Village of Mukwonago

Notice of Meeting and Amended Agenda

REGULAR VILLAGE BOARD MEETING
Wednesday, March 18, 2020

Time: **6:30 pm**
Place: **Mukwonago Municipal Building/ Board Room, 440 River Crest Court**

1. Call to Order

2. Roll Call

3. Pledge of Allegiance

4. Comments from the Public

The purpose of this section is to allow the non-elected general public the opportunity to address the Board on any subject of concern that is not the topic of a current or previous Public Hearing before the Village Board. If you wish to be heard, the Village Board asks that you begin by stating your name and address, speak for no more than three minutes and attempt to avoid duplication. Each person speaking must sign the Comments from the Public Appearance sign-in sheet before speaking. The sign-in sheet is available on the table located at the back of the room. The Board will only receive comments during Public Comment. The Public Comment portion of the meeting is scheduled for a total of 15 minutes in length but will end sooner if the Village President has determined that there is no one else present who still wishes to speak.

5. Public Hearings

All persons interested in making comments about any of the public hearing items will be heard. Formal petitions and written comments regarding any of the public hearing items may be submitted tonight.During the public hearing(s), if you wish to be heard, the Village Board asks that you begin by stating your name and address, speak for no more than three minutes and attempt to avoid duplication. Each person speaking at the public hearing must sign the Public Comment Appearance sign in sheet before speaking, in the back of the room.

5.1 Public Hearing on the consideration of an amendment to Section 100-30 of the Mukwonago Municipal Code of Ordinances regarding public comment inclusion at Plan Commission meetings.

5.2 Public Hearing on the consideration of creating Sections 79-68, 79-69, 79-70, and 79-71, to amend Chapter 74, and Section 100-452 of the Mukwonago Municipal Code regarding the regulation of Wireless Telecommunication Mobile Service and Right-of-Way Permits.

5.3 Public Hearing on the consideration of an ordinance amendment to Section 100-14 of the Mukwonago Village Code of Ordinances, proposing inclusions to add language providing for forms for building permits to be prepared electronically by accessing them from the Village website.

5.4 Public Hearing to consider exceeding an alcohol license quota pursuant to Section 6-36 of the Municipal Code of the Village of Mukwonago for a combination Original Class B Fermented Malt Beverage and Class C Wine License application of Brew 52, LLC d/b/a Caffeinated Cafe, 1146 N. Rochester Ave., Mukwonago, WI 53149, Glenn Dieball Agent.

6. Presentations

6.1 Stormwater MS4 permit presentation

Village of Mukwonago - MS4 Permit Activities 2019-2024

Village of Mukwonago MS4 Permit Activities Table 2019-2024

MS4 Permit Documents

6.2 Downtown Report for 2019 presented by Makenzee Loft

Downtown Report 2019

Downtown Report Presentation 2019

7. Consent Agenda

All items listed are considered routine and/or have been unanimously recommended by the Committee of the Whole and will be enacted by one motion. There will be no separate discussion of these items unless a Board member so requests, in which event the item will be removed from the Consent agenda and be considered on the regular agenda.

7.1 Approval of Village Board Meeting minutes of February 19, 2020 and Special Village Board Meeting minutes of February 5, 2020 and March 4, 2020.

2020-02-05 Draft Special VB Minutes

2020-02-19 Draft VB Minutes

2020-03-04 Draft Special VB Minutes

7.2 Motion to approve Vouchers in the amount of $2,382,879.31.

2020-03-04 COW AP Packet

7.3 Motion to approve **Resolution 2020-11** to authorize payment and charge back for an Assessor Error in the amount of $5,795.68 for Tax Key VM 00008

Resolution 2020-11

7.4 Motion to approve **Resolution 2020-010** to authorize payment and charge back for an Assessor Error in the amount of $1,718.73 for Tax Key MUKV2091-011-002

Resolution 2020-10

7.5 Motion to approve **Resolution 2020-09** to authorize payment and charge back for an Assessor Error in the amount of $13,848.37 for Tax Key MUKV1962-996-009

Resolution 2020-09

7.6 Motion to approve **Resolution 2020-08** to authorize payment and charge back for an Assessor Error in the amount of $11,169.18 for Tax Key MUKV1962-996-008

Resolution 2020-08

7.7 Motion to approve **Task Order No. 2020-02** from Ruekert Mielke, Inc. for construction related services of DeBack Drive Infrastructure.

2020-02 DeBack Drive Infrastructure Construction Related Services

7.8 Motion to approve a Storm Water Maintenance Agreement with Castle Senior Living, At 210 McDivitt Lane for building addition and other work, contingent upon Attorney and Engineer approval.

210 McDivitt Lane Recommendation

Storm Water Maintenance Agreement

7.9 Motion to approve a Purchase Requisition for a valve exerciser and install with Northern Sewer Equipment in the amount of $31,380.

Purchase Req - Valve Exerciser

7.10 Motion to approve TID #5 Public Improvements Close-out Change Order and Final Payment.

Closeout Letter

7.11 Motion to approve WWTF Chemical Storage Building Bid Award to J.H. Hassinger, Inc. for the sum of $614,766.00.

Recommendation of Award WWTF Chemical Building

WWTF Chemical Building Award

7.12 Motion to award Wolf Paving, Inc. the River Park Estates Rehabilitation Phase 2 contract, and to award the 8-foot wide mandatory alternate for the additional paving of Miniwaukan Park Multi-Use Trail.

Recommendation of Award-AC

Recommendation of Award-BC

River Park Estates Rehabilitation Cost Comparison of Bidders

7.13 Motion to approve **Ordinance 973** an Ordinance to amend Section #34-46, 34-47 (a) and 34-49 (b) & (c) of the Village of Mukwonago Municipal Code regarding abandon or junked motor vehicles.

ORDINANCE 973

7.14 Motion to approve a contract for electronic recycling with Refrigeration Depot, LLC pending Village Attorney approval.

Refrigerant Depot Contract

8. Other Items for Approval

Other items removed from Consent Agenda which were not unanimously approved from the Committee of the Whole.

8.1 Motion to approve **Resolution 2020-06** establishing a policy regarding the use of messaging on the Village's electronic reader board signs.

Resolution 2020-06 As Amended at COW

9. Downtown Development Committee, Trustee Walsh

Discussion and possible action on the following items

9.1 Discussion and possible action to support the Downtown Strategic Plan Recommendation to reroute State Highway 83.

9.2 Downtown Development Committee Summary: 10 Months including;

- March 14th Streetscaping & Wayfinding Open House at Mukwonago Community Library.
- Budget Allocation Request
- Connect Communities/WEDC
- Remaining Deliverables and Revised Timeline.

10. Finance Committee, Trustee Vermeulen

Discussion and possible action on the following items

10.1 Motion to approve **Resolution 2020-14** a resolution to adopt sewer rates for Septic Tank Waste and Holding Tank Waste.

AIRF Waste Hauler Rates

RESOLUTION 2020-14

10.2 Motion to approve Vouchers in the amount of $437,165.46

2020-03-18 VB AP Packet.pdf

11. Judicial Committee, Trustee Walsh

Discussion and possible action on the following items

11.1 Motion to approve a petition to exceed the Class "C" Wine License quota pursuant to Sec. 6-36 of the Village of Mukwonago Municipal Code filed by Brew 52, LLC, 1146 N Rochester Street, Mukwonago, WI 53149.

Petition to Exceed Quota & License Application - Brew 52

11.2 Motion to approve an Original combination Class "B" Fermented Malt Beverage and Class "C" Wine License application from Brew 52, LLC, 1146 Rochester St., Mukwonago, WI 53149, Glen Dieball, Agent.

Original Alcohol App - Brew 52

11.3 Motion to approve **Ordinance 974** an Ordinance to create Section 100-30 of the Village of Mukwonago Municipal Code regarding the meetings of the Plan Commission

ORDINANCE 974

11.4 Motion to approve **Ordinance 975** an Ordinance to amend Section 2-31 of the Village of Mukwonago Municipal Code to create subsection (10) *Public Comment*.

ORDINANCE 975

11.5 Motion to approve **Ordinance 977** an Ordinance amending Section 100-14 regarding accepting of electronic applications in lieu of paper applications.

ORDINANCE 977

11.6 Motion to approve **Ordinance 976** an Ordinance to amend Chapter 74 and Section 100-452 of the Village of Mukwonago Municipal Code regarding the regulation of wireless telecommunication mobile service and right-of-way permits.

ORDINANCE 976

12. Planning Commission Recommendations

Discussion and possible action on the following Plan Commission Recommendations

12.1 Motion to approve **Resolution 2020-03** of a Planned Unit Development (PUD) Request and associated Site Plan and Architectural Review as a Conditional Use for a proposed 20 unit Residential Care Assisted Living Facility at 210 McDivitt Ln (Birchrock Properties LLC, Owner/Applicant); Parcel MUKV 2012-215-002. *(Updated Architectural Plans were to be reviewed by Plan Commission, per Direction from Village Board.)*

RESOLUTION 2020-03 Birchrock Properties 210 McDivitt - SPAR

Exhibit A

Staff Report

Arch Plans Elev 20200220

(2020-02-06) Civil

2020-02-06 Applicant SWMP submittal approved by Village ENGR

12.2 Motion to approve **Resolution 2020-13** on Certified Survey Map for creation of two roadways, two commercial lots and one lot for multi-family residential development as part of approved Planned Unit Development project known as Maple Centre. (Family Ventures of Mukwonago, LLC, Owner/Applicant); Parcel MUKV 2013-999-008.

RESOLUTION 2020-13 VOM E Wolf Run CSM Resolution

Staff Summary CSM Maple Centre PUD EX C Roadways

EX C CSM FINAL 2-22-2020

Aerial Map CSM Roadways

Zoning Map CSM Roadways.pdf

12.3 Motion to approve **Resolution 2020-12** on Certified Survey Map for creation of one lot to be utilized as stormwater management detention basin for benefit multi-family residential development and given to adjacent property as part of approved Planned Unit Development project known as Maple Centre. (Village of Mukwonago, Owner/Applicant); Parcel MUKV 2013-995-002.

RESOLUTION 2020-12

Staff Summary CSM Maple Centre PUD EX D Village Land swap

CSM EXHIBIT D 20200304

Village CSM one lot EX D Aerial

Village CSM one lot EX D Zoning

13. Public Works Committee, Trustee Wamser

Discussion and possible action on the following items

13.1 Discussion and possible action on a Resolution to approve sharing the cost of keeping the Fox River bridge open during construction.

13.2 Discussion, update, and possible recommendation to the Village Board to approve Well #3 repairs

14. Protective Services, Trustee Brill

Discussion and possible action on the following items

14.1 Police Department February Report *(for information purposes only - No action required)*

Monthly Report February 2020

15. Village President

15.1 Village of Mukwonago emergency preparedness of the 2019 Coronavirus (COVID-19).

A.) Declaration of Emergency for the Village of Mukwonago.

B.) Discussion and possible action on virtual meetings.

C.) Consideration of issuing emergency orders as may be necessary for the health, safety, welfare and good order of the Village pursuant to Section 2-53 (b) of the Village of Mukwonago Code of Ordinances.

15.2 Acknowledgement of Correspondence from We Energies reaffirming the policy they do not permit hunting, use of any motorized vehicles such as snowmobiles, ATV's and and motorcycles, or access by non-We Energies or American Transmission Company vehicles on their rights of way and other company property in the Village.

We Energies Letter

16. Closed Session

Closed session pursuant to Wis. Stats § 19.85 (1) (e) (Deliberating or negotiating the purchasing of public properties, the investing of public funds, or conducting other specified public business, whenever competitive or bargaining reasons require a closed session) for property located at 803 East Veteran's Way.

17. Reconvene into Open Session

Motion to reconvene into open session pursuant to Wis. Stats. §19.85(2) for possible discussion and/or action concerning any matter discussed in closed session

18. Adjournment

It is possible that a quorum of, members of other governmental bodies of the municipality may be in attendance at the above stated meeting to gather information. No action will be taken by any governmental body at the above stated meeting other than the governmental body specifically referred to above in this notice. Please note, upon reasonable notice, efforts will be made to accommodate the needs of individuals with disabilities through appropriate aids and services. For additional information or to request this service, contact the Municipal Clerk's Office, (262) 363-6420.

Village of Mukwonago MS4 Permit Activities
2019-2024

WDNR reissued the WPDES Municipal Separate Storm Sewer System (MS4) Permit No. WI-S050075-3 on May 1, 2019. This MS4 Permit covers the Village of Mukwonago until April 30, 2024, when another 5-year MS4 permit will be reissued to continue permit coverage.

This new MS4 permit includes more detailed documentation, tracking, and reporting requirements than the previous permits. This MS4 permit also requires new and revised written program descriptions and adherence to detailed procedures in the different areas covered under the MS4 permit.

The impacts of this new MS4 Permit on Village staff workloads and responsibilities can be broken down into **MS4 Permit Program Development and Revisions**, **On-going Implementation and Operation of MS4 Permit Programs**, and **Recurring/Occasional MS4 Permit Program Reporting Submittals.**

MS4 Permit Program Development and Revisions
The MS4 Permit requires the development and revision of the following new and existing program description documents, to be submitted to WDNR by March 31, 2021:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction Site Pollutant Control
- Post-Construction Storm Water Management
- Pollution Prevention

Recurring MS4 Permit Program Reporting Submittals.
- Annual Report (due March 31st)
- Updated MS4 Map

Anticipated MS4 Permit Program Audit:
WDNR staff have stated in meetings, conference presentations and conversations that they plan on auditing each MS4 permitted municipality once during the 5-year permit term. This typically involves:
- Compiling and preparing requested information for DNR a couple weeks prior to the audit
- 2-days of meetings at Village with DNR staff
    - Internal meetings
    - In-field inspections
- Response to audit summary, recommendations & requirements
- Updated permit programs & activities, per a prescribed schedule

Future MS4 Permit Expectations:
Once WDNR completes the Total Maximum Daily Load (TMDL) study for the (IL) Fox River Basin (currently under development), additional MS4 permit requirements are anticipated. These would most likely be incorporated into the next 5-year permit (to be reissued in 2024).

DRAFT

Village of Mukwonago MS4 Permit Activities
2019-2024

Permit Section #	MS4 Permit Program	MS4 Permit Program Development and Revisions	On-going Implementation and Operation of MS4 Permit Programs	Recurring/Occasional MS4 Permit Program Reporting Submittals
2.1	Public Education and Outreach	Written Program due 3/31/2021	Participate in regional storm water education program; provide information in passive and active methods throughout the year	Provide event details, # of attendees, outreach delivery mechanism, in Annual Report
2.2	Public Involvement and Participation	Written Program due 3/31/2021		Provide citizen comments, volunteer event details, website information, delivery mechanism and target participants/# of participants in Annual Report
2.2.1	Village Website		Update as needed though the year	
2.2.2	Public Meetings		Prepare presentations, agenda items	
2.2.3	Volunteer Events		Coordinate with regional and local partners; advertise, participate in/host events	
2.2.4	Target Audiences/Participants		ID & advertise to certain groups	
2.3	Illicit Discharge Detection and Elimination	Written Program due 3/31/2021		
2.3.2	In-field MS4 Outfall Screenings		16 Priority Outfalls to be inspected annually	Provide summary of outfall inspections in Annual Report
2.3.2	Sampling		Take water samples at outfalls with flow during dry weather inspections.	Report # of samples collected and provide lab results in Annual Report
2.3.3	Source Investigation and Elimination		Follow-up on outfalls with water samples to trace and determine source of Illicit Discharge; conduct notification and enforcement activities per Village ordinance	Report # of Illicit Discharge sources resolved/unresolved and provide details for each situation in Annual Report.

2.4	Construction Site Pollutant Control	Written Program due 3/31/2021		
2.4.2	Plan Reviews		Track and review erosion control plans for new and redevelopment sites to meet Village ordinance.	Report # of erosion control plans submitted and/or approved in Annual Report.
2.4.4	Erosion Control Inspections		Conduct erosion control inspections on all active construction sites at least once per 45 days, and weekly if violations exist on site.	Report # of erosion control inspections completed in the Annual Report.
2.4.4.d.	Erosion Control Enforcement		Conduct enforcement activties (letters, meetings, follow-up inspections, fines, etc.) for any non-compliant construction sites	Report # of enforcement actions completed in the Annual Report
2.5	Post-Construction Storm Water Management	Written Program due 3/31/2021		
2.5.2	Permitting, Complaint Response		Record, track and follow-up on complaint received from the public.	Report the # of complaints and resulting follow-up activties in the Annual Report.
2.5.3	Plan Reviews		Complete storm water management plan reviews to meet Village ordinance and consider impacts to local water quality.	Report the # of new and redevelopment plan submittals that were reviewed and/or approved during the previous year in the Annual Report.
2.5.4	Long-Term Maintenance		Review long-term maintenance agreements for proposed storm water BMPs	Report # of long-term maintenance plans that were approved during the previous year in the Annual Report
2.6	Pollution Prevention	Written Program due 3/31/2021		
2.6.1	Storm Water BMP Inspection and Maintenance Program	Written Program including inventory of storm water BMPs due 3/31/2021	Implement 38 private storm water BMP inspection reporting program to ensure inspections and maintenance occur on private strom water BMPs	Report # of inspections or report received, details on facilities maintained in Annual Report

2.6.2	BMP Inspections	Written Program due 3/31/2021	Inspect 2 public storm water BMPs every 5 years (and after large rain events)	Report on public SW BMP inspections in Annual Report
2.6.3	Storm Water Pollution Prevention Plans (SWPPP) for Municipal Properties:	Written Program due 3/31/2021	Conduct 1 full DPW site inspection annually	Report on DPW site changes, inspection in Annual Report
2.6.5.a.	Street Sweeping	Written Program due 3/31/2021	Perform street sweeping throughout the Village as described in the storm water management plan to capture pollutants	Report amount of street sweeping material collected annually in Annual Report.
2.6.5.b.	Catch Basin Cleaning	Written Program due 3/31/2021	Routine catch basin inspections and cleaning	Report # of catch basins inspected and amount of material removed in Annual Report
2.6.5.c.	Material Handling and Disposal	Written Program due 3/31/2021	Maintain good housekeeping practices for handling and storage of material removed via street sweeping, catch basin cleaning, and leaf collection activities.	Report on amount of material collected, storage sites, in Annual Report
2.6.5.d.	Leaf Collection	Written Program due 3/31/2021; optional program updates later	Collect leaves at curbside daily between October 1st and December 1st (weather permitting);	Report tons of leaves collected in Annual Report; Optional program upgrades to quantify phosphorus reductions under MS4 permit
2.6.6	Winter Road Management	Written Program due 3/31/2021	Implement Winter Road Management Program using no more than the amount of road salt needed to maintain safe roads; calibrate equipment annually, plow and salt roads as needed.	Report monthly totals of road salt and other products applied, types of products applied, any changes to equipment or program, in Annual Report
2.6.7	Nutrient Management for Municipal Properties	Written Program due 3/31/2021	Apply fertilizers to municipal properties over 5 acres following nutrient management plan.	Report amount of fertilizer applied to municipal properties over 5 acres in Annual Report.
2.6.9	Staff Training re: MS4 Permit and Water Quality	Written Program due 3/31/2021	Train staff and contractors on impacts of road salt to water quality and proper application methods	Report on staff, contractors attending training events, event topics, in Annual Report.

Submittal of Annual Reports and other Compliance Documents for Municipal Separate Storm Sewer System (MS4) Permits

NOTE: Missing or incomplete fields are highlighted at the bottom of each page. You may save, close and return to your draft permit as often as necessary to complete your application. After 120 days your draft is **deleted.**

Reporting Information

Will you be completing the Annual Report or other submittal type? ◉ **Annual Report** ○ **Other**

Project Name:	MS4 Annual Report
County:	Waukesha
Municipality:	Mukwonago, Village
Permit Number:	S050075
Facility Number:	35717
Reporting Year:	2019

Is this submittal also satisfying an Urban Nonpoint Source Grant funded deliverable? ○ **Yes** ◉ **No**

Required Attachments and Supplemental Information

Please complete the contents of each tab to submit your MS4 permit compliance document. The information included in this checklist is necessary for a complete submittal. A complete and detailed submittal will help us review about your MS4 permit document. To help us make a decision in the shortest amount of time possible, the following information must be submitted:

Annual Report

- Review related web site and instructions for Municipal storm water permit eReporting [Exit Form]
- Complete all required fields on the annual report form and upload required attachments
- Attach the following other supporting documents as appropriate using the attachments tab above
  - Public Education and Outreach Annual Report Summary
  - Public Involvement and Participation Annual Report Summary
  - Illicit Discharge Detection and Elimination Annual Report Summary
  - Construction Site Pollution Control Annual Report Summary
  - Post-Construction Storm Water Management Annual Report Summary
  - Pollution Prevention Annual Report Summary
    - Leaf and Yard Waste Management
    - Municipal Facility (BMP) Inspection Report
    - Municipal Property SWPPP
    - Municipally Property Inspection Report
    - Winter Road Maintenance
  - Storm Sewer Map Annual Report Attachment
  - Storm Water Quality Management Annual Report Attachment
  - TMDL Attachment
  - Storm Water Consortium/Group Report

- Municipal Cooperation Attachment
- Other Annual Report Attachment

- Attach the following permit compliance documents as appropriate using the attachments tab above

  - Storm Water Management Program *(S050075-03 general permittees shall have a written storm water management program that describes in detail how the permittee intends to comply with the permit requirements for each minimum control measure. Updated programs are due to the department by March 31, 2021.)*
    - Public Education and Outreach Program
    - Public Involvement and Participation Program
    - Illicit Discharge Detection and Elimination Program
    - Construction Site Pollutant Control Program
    - Post-Construction Storm Water Management Program
    - Pollution Prevention Program
      - Municipal Storm Water Management Facility (BMP) Inventory *(S050075-03 general permittees 2.6.1 - inventory due to the department by March 31, 2021.)*
      - Municipal Storm Water Management Facility (BMP) Inspection and Maintenance Plan *(S050075-03 general permittees 2.6.2 – document due to the department by March 31, 2021.)*

- Sign and Submit form

Do not close your work until you SAVE.

Form 3400-224 (08/19)

Municipal Contact Information- Complete .

Notice: Pursuant to s. NR 216.07(8), Wis. Adm. Code, an owner or operator of a Municipal Separate Storm Sewer System (MS4) is required to submit an annual report to the Department of Natural Resources (Department) by March 31 of each year to report on activities for the previous calendar year ("reporting year"). This form is being provided by the Department for the user's convenience for reporting on activities undertaken in each reporting year of the permit term. Personal information collected will be used for administrative purposes and may be provided to the extent required by Wisconsin's Open Records Law [ss. 19.31-19.39, Wis. Stats.].
Note: Compliance items must be submitted using the Attachments tab.

Municipality Information

Name of Municipality	Mukwonago, Village
Facility ID # or (FIN):	35717
Updated Information:	☐ Check to update mailing address information
Mailing Address:	440 River Crest Court
Mailing Address 2:	
City:	Mukwonago
State:	Wisconsin
Zip Code:	53149 xxxxx or xxxxx-xxxx

Primary Municipal Contact Person (Authorized Representative for MS4 Permit)

The "Authorized Representative" or "Authorized Municipal Contact" includes the municipal official that was charged with compliance and oversight of the permit conditions, and has signature authority for submitting permit documents to the Department (i.e., Mayor, Municipal Administrator, Director of Public Works, City Engineer).

☐ Select to ***create new*** primary contact

First Name:	Ron
Last Name:	Bittner

☐ Select to ***update*** current contact information

Title:	PW Director
Mailing Address:	440 River Crest Court
Mailing Address 2:	
City:	Mukwonago
State:	WI
Zip Code:	53149 xxxxx or xxxxx-xxxx
Phone Number:	262-363-6447 Ext: xxx-xxx-xxxx
Email:	rbittner@villageofmukwonago.com

Additional Contacts Information (Optional)

☐ I&E Program
☐ IDDE Program

Individual with responsibility for: (Check all that apply)	☐ IDDE Response Procedure Manual ☐ Municipal-wide Water Quality Plan ☐ Ordinances ☐ Pollution Prevention Program ☐ Post-Construction Program ☐ Winter roadway maintenance

First Name:	
Last Name:	
Title:	
Mailing Address:	
Mailing Address 2:	
City:	
State:	WI
Zip Code:	xxxxx or xxxxx-xxxx
Phone Number:	Ext: xxx-xxx-xxxx
Email:	

1. Does the municipality rely on another entity to satisfy some of the permit requirements? If yes, enter entity name (government, consultant, group/organization).

◉ Yes ○ No

☑ Public Education and Outreach: Waukesha County

☑ Public Involvement and Participation: Waukesha County

☐ Illicit Discharge Detection and Elimination:

☑ Construction Site Pollutant Control: Ruekert- Mielke

☐ Post-Construction Storm Water Management:

☐ Pollution Prevention

2. Has there been any changes to the municipality's participation in group efforts towards permit compliances (i.e., the municipality has added or dropped consortium membership)?

○ Yes ◉ No

Missing Information

Do not close your work until you **SAVE.**

Note: For the minimum control measures, you must fill out all questions in sections 1 through 7.

Form 3400-224 (08/19)

Minimum Control Measures- Section 1 : Complete

1. Public Education and Outreach

a. Complete the following information on Public Education and Outreach Activities related to storm water. Select the Mechanism that best describes how the topic message was conveyed to your population. Use the **Add Activity** to add multiple Mechanisms. For Quantity, choose the range for the number of Mechanisms chosen (i.e., number of workshops, events).

Topic: Detection and elimination of illicit discharges

Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
Informational booth at event	1 - 9	100 +	◉ Yes ○ No

Select all applicable audiences targeted for this topic.

☐ Contractors ☑ General Public ☐ Public Employees ☐ Residential ☐ School Groups
☐ Business ☐ Developers ☐ Industries ☐ Other:

Topic: Management of materials that may cause storm water pollution from automobiles, pet waste, household hazardous waste and household practices

Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
Educational activities (School presentations, summer camps, etc)	50 - 99	100 +	◉ Yes ○ No
Social media posts	1 - 9	100 +	◉ Yes ○ No
Active distribution of print media (mailings, newsletters, etc)	1 - 9	50 - 99	◉ Yes ○ No
Website	1 - 9	100 +	◉ Yes ○ No
Government event (public hearing, council meeting, etc.)	10 - 19	1 - 9	○ Yes ◉ No
Direct one-on-one communication	1 - 9	1 - 9	○ Yes ◉ No
Passive print media (brochures at front desk, posters, etc.)	1 - 9	Select...	◉ Yes ○ No

Select all applicable audiences targeted for this topic.

☐ Contractors ☑ General Public ☐ Public Employees ☑ Residential ☑ School Groups
☑ Business ☐ Developers ☐ Industries ☐ Other:

Topic: Beneficial onsite reuse of leaves and grass clippings/proper use of lawn and

garden fertilizers and pesticides			
Mechanism	**Quantity** (optional)	**Est. People Reached** (optional)	**Regional Effort?** (optional)
Educational activities (School presentations, summer camps, etc)	50 - 99	100 +	◉ Yes ○ No
Active distribution of print media (mailings, newsletters, etc)	1 - 9	100 +	◉ Yes ○ No
Informational booth at event	20 - 49	100 +	◉ Yes ○ No
Website	1 - 9	Select...	◉ Yes ○ No
Social media posts	1 - 9	100 +	◉ Yes ○ No

Select all applicable audiences targeted for this topic.

☐ Contractors ☑ General Public ☐ Public Employees ☑ Residential ☑ School Groups
☐ Business ☐ Developers ☐ Industries ☐ Other:

Topic: Management of stream banks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways			
Mechanism	**Quantity** (optional)	**Est. People Reached** (optional)	**Regional Effort?** (optional)
Informational booth at event	1 - 9	100 +	◉ Yes ○ No
Educational activities (School presentations, summer camps, etc)	1 - 9	100 +	◉ Yes ○ No

Select all applicable audiences targeted for this topic.

☐ Contractors ☑ General Public ☐ Public Employees ☑ Residential ☑ School Groups
☐ Business ☐ Developers ☐ Industries ☐ Other:

Topic: Infiltration of residential storm water runoff from rooftop downspouts, driveways and sidewalks			
Mechanism	**Quantity** (optional)	**Est. People Reached** (optional)	**Regional Effort?** (optional)
Educational activities (School presentations, summer camps, etc)	50 - 99	100 +	◉ Yes ○ No
Website	1 - 9	100 +	◉ Yes ○ No
Social media posts	1 - 9	100 +	◉ Yes ○ No
Active distribution of print media (mailings, newsletters)	1 - 9	100 +	◉ Yes ○ No
Passive print media (brochures at front desk, posters, etc.)	1 - 9	Select...	◉ Yes ○ No

Select all applicable audiences targeted for this topic.

☐ Contractors ☑ General Public ☐ Public Employees ☑ Residential ☑ School Groups
☐ Business ☐ Developers ☐ Industries ☐ Other:

Topic: Inform and where appropriate educate those responsible for the design, installation, and maintenance of construction site erosion control practices and storm water management facilities on how to design, install and maintain the practices

Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
Targeted group training (contractors, consultants, etc.)	1 - 9	100 +	◉ Yes ○ No
Educational activities (School presentations, summer camps, etc)	1 - 9	20 - 49	◉ Yes ○ No

Select all applicable audiences targeted for this topic.
☑ Contractors ☐ General Public ☑ Public Employees ☑ Residential ☑ School Groups
☐ Business ☑ Developers ☐ Industries ☐ Other:

Topic: Identify businesses and activities that may pose a storm water contamination concern, and where appropriate, educate specific audiences on methods of storm water pollution prevention

Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
Targeted group training (contractors, consultants, etc.)	1 - 9	1 - 9	◉ Yes ○ No

Select all applicable audiences targeted for this topic.
☐ Contractors ☐ General Public ☐ Public Employees ☐ Residential ☐ School Groups
☑ Business ☐ Developers ☐ Industries ☐ Other:

Topic: Promote environmentally sensitive land development designs by developers and designers, including green infrastructure and low impact development

Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
Targeted group training (contractors, consultants, etc.)	1 - 9	100 +	◉ Yes ○ No
Educational activities (School presentations, summer camps, etc)	1 - 9	20 - 49	◉ Yes ○ No

Select all applicable audiences targeted for this topic.
☑ Contractors ☐ General Public ☑ Public Employees ☐ Residential ☑ School Groups
☐ Business ☑ Developers ☐ Industries ☐ Other:

Select all applicable audiences targeted for this topic.
☐ Contractors ☐ General Public ☐ Public Employees ☐ Residential ☐ School Groups
☐ Business ☐ Developers ☐ Industries ☐ Other:

b. Brief Public Education and Outreach program information for inclusion in the Annual Report. If your response exceeds the 250 character limit, attach supplemental information on the attachments page.

See attached document.

Missing Information

Do not close your work until you **SAVE.**

Note: For the minimum control measures, you must fill out all questions in sections 1 through 7

Form 3400-224 (08/19)

Minimum Control Measures - Section 2 : Complete

2. Public Involvement and Participation

a. Complete the following information on Public Education and Outreach Activities related to storm water. Select the mechanism that best describes how the topic message was conveyed to your population. Use the Add Activity to add multiple mechanisms. For Quantity, choose the range for number Mechanisms chosen (i.e., number of workshops, events).

Topic: Storm Water Management Plan and/or updates

Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
Government Event (Public Hearing, Council Meeting, etc)	1 - 9	10 - 19	○ Yes ◉ No

Select all applicable participants targeted for this topic.
☐ Contractors ☑ General Public ☑ Public Employees ☑ Residential ☐ School Groups
☐ Business ☐ Developers ☐ Industries ☐ Other:

Topic: Storm water related ordinance and/or updates

Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)

Select all applicable participants targeted for this topic.
☐ Contractors ☐ General Public ☐ Public Employees ☐ Residential ☐ School Groups
☐ Business ☐ Developers ☐ Industries ☐ Other:

Topic: MS4 Annual Report

Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
Government Event (Public Hearing, Council Meeting, etc)	1 - 9	10 - 19	○ Yes ◉ No
Website	1 - 9	100 +	○ Yes ◉ No

Select all applicable participants targeted for this topic.

☑ Contractors ☑ General Public ☑ Public Employees ☑ Residential ☐ School Groups
☑ Business ☑ Developers ☐ Industries ☐ Other:

Topic: Volunteer Opportunities

Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
Stream monitoring	1 - 9	50 - 99	◉ Yes ○ No
Public Workshop	10 - 19	100 +	◉ Yes ○ No

Select all applicable participants targeted for this topic.

☐ Contractors ☑ General Public ☐ Public Employees ☑ Residential ☑ School Groups
☐ Business ☐ Developers ☐ Industries ☐ Other:

Select all applicable participants targeted for this topic .

☐ Contractors ☐ General Public ☐ Public Employees ☐ Residential ☐ School Groups
☐ Business ☐ Developers ☐ Industries ☐ Other:

b. Brief Public Involvement and Participation program information for inclusion in the Annual Report. If your response exceeds the 250 character limit, attach supplemental information on the attachments page.

See attached document.

Missing Information

Do not close your work until you **SAVE.**

Note: For the minimum control measures, you must fill out all questions in sections 1 through 7

Form 3400-224 (09/19)

Minimum Control Measures - Section 3 : Complete

3. Illicit Discharge Detection and Elimination

a. How many total outfalls does the municipality have? 130 ☐ Unsure

b. How many outfalls did the municipality evaluate as part 19 ☐ Unsure

of their routine ongoing field screening program?

c. From the municipality's routine screening, how many were confirmed illicit discharges? 0 ☐ Unsure

d. How many illicit discharge complaints did the municipality receive? 0 ☐ Unsure

e. From the complaint received, how many were confirmed illicit discharges? 0 ☐ Unsure

f. How many of the identified illicit discharges did the municipality eliminate in the reporting year? 0 ☐ Unsure

(If the sum of 3.c. and 3.e. does not equal 3.f., please explain below.)

g. How many of the following enforcement mechanisms did the municipality use to enforce its illicit discharge ordinance? Check all that apply and enter the number of each used in the reporting year. ☐ Unsure

- ☑ Verbal Warning 0
- ☐ Written Warning (including email)
- ☐ Notice of Violation
- ☐ Civil Penalty/ Citation

Additional Information:

h. Brief Illicit Discharge Detection and Elimination program information for inclusion in the Annual Report. If your response exceeds the 250 character limit, attach supplemental information on the attachments page.

See attached revised program

Missing Information

Do not close your work until you **SAVE.**

Note: For the minimum control measures, you must fill out all questions in sections 1 through 7

Form 3400-224 (08/19)

Minimum Control Measures - Section 4 : Complete

4. Construction Site Pollutant Control

a. How many total construction sites were active at any point in the reporting year? 24 ☐ Unsure

b. How many construction sites did the municipality issue permits for in the reporting year? 10 ☐ Unsure

c. Do the above numbers include sites <1 acre? ◉ Yes ○ No ○ Unsure

d. How many erosion control inspections did the municipality complete in the reporting year? 375 ☐ Unsure

e. What types of enforcement actions does the municipality have available to compel compliance with the regulatory mechanism? Check all that apply and enter the number of each used in the reporting year. ☐ Unsure

☐ No Authority	
☐ Verbal Warning	
☑ Written Warning (including email)	170
☑ Notice of Violation	170
☐ Civil Penalty/ Citation	
☑ Stop Work Order	3
☐ Forfeiture of Deposit	
☐ Other - Describe below	

f. Brief Construction Site Pollutant Control program information for inclusion in the Annual Report. If your response exceeds the 250 character limit, attach supplemental information on the attachments page.

See attached document

Missing Information

Do not close your work until you **SAVE.**

Note: For the minimum control measures, you must fill out all questions in sections 1 through 7

Form 3400-224 (08/19)

Minimum Control Measures - Section 5 : Complete

5. Post-Construction Storm Water Management

a. How many sites with new structural storm water management facilities* have received local approval ? 3 ☐ Unsure

*Engineered and constructed systems that are designed to provide storm water quality control such as wet detention ponds, constructed wetlands, infiltration basins, grassed swales, permeable pavement, catch basin sumps, etc.

b. How many privately owned storm water management facilities were inspected in the reporting year ? 16 ☐ Unsure

Inspections completed by private land owners should be included in the reported number.

c. What types of enforcement actions does the municipality have available to compel compliance with the regulatory mechanism? Check all that apply and enter the number of each used in the reporting year. ☐ Unsure

☐ No Authority	
☑ Verbal Warning	2
☑ Written Warning (including email)	0
☑ Notice of Violation	0
☐ Civil Penalty/ Citation	

☑ Forfeiture of Deposit	0
☑ Complete Maintenance	0
☑ Bill Responsible Party	0
☐ Other - Describe below	

d. Brief Post-Construction Storm Water Management program information for inclusion in the Annual Report. If your response exceeds the 250 character limit, attach supplemental information on the attachments page.

See attached document.

Missing Information

Do not close your work until you **SAVE.**

Note: For the minimum control measures, you must fill out all questions in sections 1 through 7

Form 3400-224 (08/19)

Minimum Control Measures - Section 6 : Complete

6. Pollution Prevention

Storm Water Management Facility Inspections (ponds, biofilters, etc.) ☐ Not Applicable

a. Enter the total number of municipally owned or operated structural storm water management facilities? 14 ☐ Unsure

b. How many new municipally owned storm water management facilities were installed in the reporting year? 0 ☐ Unsure

c. How many municipally owned storm water management facilities were inspected in the reporting year? 13 ☐ Unsure

d. What elements are looked at during inspections (250 character limit)?

Ponds are inspected for animal borrows, erosion, invasive and woody vegetation, structure function and or damage, debris and contaminates.

e. How many of these facilities required maintenance? 0 ☐ Unsure

Public Works Yards & Other Municipally Owned Properties (SWPPP Plan Review) ☐ Not Applicable

f. How many inspections of municipal properties have been conducted in the reporting year? 4 ☐ Unsure

g. Have amendments to the SWPPPs been made? ○ Yes ◉ No ○ Unsure

h. If yes, describe what changes have been made (200 character limit):

Collection Services - *Street Sweeping / Cleaning Program* ☐ Not Applicable

i. Did the municipality conduct street sweeping/cleaning during the reporting year?
◉ Yes ○ No ○ Unsure

j. If known, how many tons of material was removed? 67 ☐ Unsure

k. Does the municipality have a low hazard exemption for this material? ○ Yes ◉ No

l. If street cleaning is identified as a storm water best management practice in the pollutant loading analysis, was street cleaning completed at the assumed frequency?
◉ Yes
○ No - Explain _____
○ Not Applicable

Collection Services - *Catch Basin Sump Cleaning Program* ☐ Not Applicable

m. Did the municipality conduct catch basin sump cleaning during the reporting year?
◉ Yes ○ No ○ Unsure

n. How many catch basin sumps were cleaned in the reporting year? 186 ☐ Unsure

o. If known, how many tons of material was collected? 10 ☐ Unsure

p. Does the municipality have a low hazard exemption for this material? ○ Yes ◉ No

q. If catch basin sump cleaning is identified as a storm water best management practice in the pollutant loading analysis, was cleaning completed at the assumed frequency?
◉ Yes
○ No - Explain _____
○ Not Applicable

Collection Services - *Leaf Collection Program* ☐ Not Applicable

r. Does the municipality conduct curbside leaf collection? ◉ Yes ○ No ○ Unsure

s. Does the municipality notify homeowners about pickup? ◉ Yes ○ No ○ Unsure

t. Where are the residents directed to store the leaves for collection?
☐ Pile on terrace ☐ Pile in street ☑ Bags on terrace ☐ Unsure
☐ Other - Describe _____

u. What is the frequency of collection?
Two fall yard waste events are conducted targeting leaf collection.

v. Is collection followed by street sweeping/cleaning? ◉ Yes ○ No ○ Unsure

Winter Road Management ☐ Not Applicable

*Note: We are requesting information that goes beyond the reporting year, answer the best you can.

w. How many lane-miles of roadway is the municipality 91 ☐ Unsure

responsible for doing snow and ice control?

x. Provide amount of de-icing products used by month last winter season?

Solids (tons) (ex. sand, or salt-sand)

Product	Oct	Nov	Dec	Jan	Feb	Mar
Salt	26	109	63	269	127	0

Liquids (gallons) (ex. brine)

	Oct	Nov	Dec	Jan	Feb	Mar
Pre-wetting compound	245	930	1723	2905	1009	0
Brine	0	875	0	5541	6212	0

y. Was salt applying machinery calibrated in the reporting year? ◉ Yes ○ No ○ Unsure

z. Have municipal personnel attended salt reduction strategy training in the reporting year? ◉ Yes ○ No ○ Unsure

If yes, describe what training was provided (250 character limit):

APWA Winter Maintenance Supervisor Certificate Workshop (Green Bay)

When: 9/14/19 How many attended: 1

Internal (Staff) Education & Communication

aa. Has training or education been held for municipal or other personnel involved in implementing each of the pollution prevention program elements? ◉ Yes ○ No ○ Unsure

If yes, describe what training was provided (250 character limit):

Staff participates in the SWPP inspections as training. Street cleaning and the fundamentals of equipment operation are provided for new staff.

When: Throughout the year as o... How many attended: 6

ab. Describe how the municipality has kept the following local officials and municipal staff aware of the municipal storm water discharge permit programs and its requirements.

Elected Officials

Plan Commissiom and Board meetings

Municipal Officials

Staff and development meetings

Appropriate Staff (such as operators, Department heads, and those that interact with public)

Staff and development meeting, workshops, in-house training and presentations.

ac. Brief Pollution Prevention program information for inclusion in the Annual Report. If your response exceeds the 250 character limit, attach supplemental information on the attachments page.

See attached document.

Missing Information

Do not close your work until you **SAVE.**

Note: For the minimum control measures, you must fill out all questions in sections 1 through 7

Form 3400-224 (08/19)

Minimum Control Measures - Section 7 : Complete

7. Storm Sewer System Map

a. Did the municipality update their storm sewer map this year? ◉ Yes ○ No ○ Unsure

If yes, check the areas the map items that got updated or changed:

- ☑ Storm water treatment facilities
- ☑ Storm pipes
- ☐ Vegetated swales
- ☑ Outfalls
- ☐ Other - Describe below

b. Brief Storm Sewer System Map information for inclusion in the Annual Report. If your response exceeds the 250 character limit, attach supplemental information on the attachments page.

Newly installed BMPs, storm pipe and IDDE inspection points were identified and added to the map.

Missing Information

Do not close your work until you SAVE.

Form 3400-224 (08/19)

Final Evaluation - Complete

Fiscal Analysis

Complete the fiscal analysis table provided below. For municipalities that do not break out funding into permit program elements, please enter the monetary amount to your best estimate of what funding may be going towards these programs.

Annual Expenditure Reporting Year	Budget Reporting Year	Budget Upcoming Year	Source of Funds
Element: Public Education and Outreach			
2547	2893	3294	General revenue fund
233	375	297	Storm water utility
Element: Public Involvement and Participation			
2547	2893	3294	General revenue fund
233	375	297	Storm water utility
Element: Illicit Discharge Detection and Elimination			
7637	8980	9732	General revenue fund
700	823	893	Storm water utility
Element: Construction Site Pollutant Control			
2780	3268	3541	General revenue fund
5000	5000	5000	Permit fee and/or deposit/escrow
Element: Post-Construction Storm Water Management			
14654	17958	19463	General revenue fund
1344	1647	1785	Storm water utility
Element: Pollution Prevention			
15893	17958	19463	General revenue fund
1457	1647	1785	Storm water utility

Element: Storm Water Quality Management

3563	4191	4543	General revenue fund
327	384	417	Storm water utility

Element: Storm Sewer System Map

1527	1795	1946	General revenue fund
140	165	179	Storm water utility

Other (describe)

			Select...

Please provide a justification for a "0" entered in the Fiscal Analysis

Water Quality

a: Were there any known water quality improvements in the receiving waters to which the municipality's storm sewer system directly discharges to?

○ Yes ◉ No ○ Unsure If Yes, explain below:

b : Were there any known water quality degradation in the receiving waters to which the municipality's storm sewer system directly discharges to?

○ Yes ◉ No ○ Unsure If Yes, explain below:

c: Have any of the receiving waters that the municipality discharges to been added to the impaired waters list during the reporting year?

○ Yes ◉ No ○ Unsure

d: Has the municipality evaluated their storm water practices to reduce the pollutants of concern?

○ Yes ◉ No ○ Unsure

Additional Information

Based on the municipality's storm water program evaluation, describe any proposed changes to the municipality's storm water program. If your response exceeds the 250 character limit, attach supplemental information on the attachments page.

Provide written programs per current MS4 permit by 3/31/2021.

Missing Information

Do not close your work until you SAVE.

Form 3400-224 (08/19)

Requests for Assistance on Understanding Permit Programs

Would the municipality like the Department to contact them about providing more information on understanding any of the Municipal Separate Storm Sewer Permit programs?

Please select all that apply:

☐ Public Education and Outreach

☐ Public Involvement and Participation

☐ Illicit Discharge Detection and Elimination

☐ Construction Site Pollutant Control

☐ Post-Construction Storm Water Management

☐ Pollution Prevention

☐ Storm Water Quality Management

☐ Storm Sewer System Map

☐ Water Quality Concerns

☐ Compliance Schedule Items Due

☐ MS4 Program Evaluation

Do not close your work until you **SAVE.**

Required Attachments and Supplemental Information

Any other MS4 program information for inclusion in the Annual Report may be attached on here. Use the Add Additional Attachments to add multiple documents.

Upload Required Attachments (15 MB per file limit) - Help reduce file size and trouble shoot file uploads
*Required Item

Note: To replace an existing file, use the 'Click here to attach file ' link or press the to delete an item.

Storm Sewer System Map

File Attachment

Attach - Other Supporting Documents

AR_EO

File Attachment

PublicInvolvmentandParticiption.docx

AR_CSPC

File Attachment

ConstuctionSitePollutionControlProgram.docx

AR_IDDE

File Attachment

IDDEProgramRevisedNovember2019.pdf

AR_PP

File Attachment

PollutionPrevention.docx

AR_MuniFacInsp

File Attachment

2019SWPPInspections.pdf

(To remove items, use your cursor to hover over the attachment section. When the drop down arrow appears, select remove item)

Attach - Permit Compliance Documents

(To remove items, use your cursor to hover over the attachment section. When the drop down arrow appears, select remove item)

Missing Information

You must attach a Storm Sewer Map file,

Draft and Share PDF Report with Municipality's Governing Body.

Press the button below to create a PDF. The PDF will be sent to the email address associated with the WAMS ID that is signed in. After the annual report has been approved by the governing body, you will have to come back to the MS4 eReporting system to submit the report to the DNR.

Draft and Share PDF Report with Municipality's Governing Body

Complete and Submit Your Application

You have not completed all areas of the application. Please return to the application and complete all missing items.

Contact Information:	Complete
Minimum Control Measures Section 1:	Complete
Minimum Control Measures Section 2:	Complete
Minimum Control Measures Section 3:	Complete
Minimum Control Measures Section 4:	Complete
Minimum Control Measures Section 5:	Complete
Minimum Control Measures Section 6:	Complete
Minimum Control Measures Section 7:	Complete
Attachments:	Has Missing Items
Final Evaluation:	Complete

Village of Mukwonago **Office of the Village Public Works Dept.**

440 River crest Ct. Mukwonago, Wisconsin 53149 www.villageofmukwonago.com
(262) 363-6447 Fax: (262)363-7197

2019 Storm Water Activity Report

Public Involvement and Participation:

The Village partners with Waukesha County for public education and outreach.

- The public is involved in stream monitoring and a variety of workshops on composting, rain barrels, green cleaning and more. Engaging the public is the most effective strategy to achieve behavior changes and these workshops are very popular. Our volunteer stream monitors logged 591 hours of volunteer time visiting their sites, collecting information and loading data
- Village staff continue to meet with residents and H.O.A.s on stormwater and pond maintenance.
- Local Mukwonago businesses and community groups continue with annual cleanup events.
- Hosted Waukesha County at NNO where an interactive booth was displayed.
- Host site for Wakesha County electronic recycling.
- Host site for Wakesha County hazardous waste.
- Promote green infrastructure during pre-development meetings.
- Staff presented at the December Waukesha County Partner meeting (Outreach partnerships at the local level).
- The Village Shared MS4 Data with surrounding communities.
- Annual MS4 report was made available to the Village Board at a meeting.

Village of Mukwonago **Office of the Village Public Works Dept.**

440 River crest Ct. Mukwonago, Wisconsin 53149 www.villageofmukwonago.com (262) 363-6447 Fax: (262)363-7197

2019 Storm Water Activity Report

Public Education and Outreach:

The Village partners with Waukesha County for public education and outreach.

- The Waukesha County Stormwater public education and outreach collaborative provides subject matter experts in a variety of programs that the municipalities help to advertise and make available to their residents. The programs are very holistic in their approach. For example, composting programs do not only cover how to compost your yard waste materials, but how spreading compost on your yard can increase the infiltration and water holding capacity of your soils and decrease runoff as well. Programs always include the background education so residents understand how and why the action helps the environment. The most commonly provided activities are workshops, school programs and information booths. There are very few passive distributions. See the attached list of all activities and programs for 2019.
- Information regarding events and programs are linked on the Village's website.

Target Audience	Topic #	Program Title	Activity	Date	Location	# people	Description
Teachers and Students	2	I live in a / Soils	presentation	1-3-19	Oconomowoc	27	Soil and water programs for 3 classes at Oconomowoc High School
Teachers and Students	2	I live in a / Soils	presentation	1-3-19	Oconomowoc	27	Soil and water programs for 3 classes at Oconomowoc High School
Teachers and Students	2	I live in a / Soils	presentation	1-3-19	Oconomowoc	27	Soil and water programs for 3 classes at Oconomowoc High School
Teachers and Students	2	I live in a	Presentation	1-9-19	Retzer	14	Kettle Moraine school program
Teachers and Students	2	I Live in a	Presentation	1-9-19	Retzer	9	Pewaukee HS
General Public	2		news releases/articles	1-10-19		1	Press release including JanBoree activities at Retzer–outreach
General Public	8	HHE	Hazardous waste	1-14-19	Lisbon	16	3rd grade brownies from Richmond School
Contractors, Dev. & Consul	2		news releases/articles	1-21-19		66	stormwater workshop announcement to partner communities
General Public	4		Displays and handouts	1-25-19	New Berlin	50	staffed display at school district wellness event
Internal			Workshop	1-25-19		15	internal training for PLU dept staff dealing with soils, permits, etc
General Public	4		Displays and handouts	1-27-19	Retzer	474	staffed outreach at JanBoree
General Public	2		news releases/articles	1-30-19		1	spring workshop series announcement
Contractors, Dev. & Consul	2		news releases/articles	2-1-19		990	stormwater workshop announcement
General Public	2		news releases/articles	2-5-19		1	wild winter night press release
Contractors, Dev. & Consul	2		news releases/articles	2-11-19		105	Quartely updates released
Teachers and Students	2		Presentation	2-11-19	WCTC	12	program for sustainable building class
Teachers and Students	2		Presentation	2-12-19	WCTC	11	program for sustainable building class
Teachers and Students	2	career	Presentation	2-8-19	New Berlin	127	Elmwood Elementary Career Day
General Public	6		Businesses	2-14-19		7	invitations to preschools to participate in native plant purchase
General Public	4		Displays and handouts	2-16-19	Retzer	130	staffed outreach at Wild Winter Night
General Public	10		Stream Monitoring	3-2-19	Retzer	39	volunteer appreciation event
General Public	2		news releases/articles	3-5-19		1	press release on home composting and workshop

Teachers and Students	2		Presentation	3-6-19	Sussex	33	monitoring activity and info for environmental club
General Public	4		Displays and handouts	3-6-19	Sussex	75	provided "Clean and Conserve" water activity guide for Hamilton hs
Teachers and Students	2	I live in a	Presentation	3-6-19	Waukesha	20	Program for Banting elementary
Teachers and Students	2	I live in a	Presentation	3-6-19	Waukesha	17	Program for Banting elementary
Teachers and Students	2	I live in a	Presentation	3-6-19	Waukesha	21	Program for Banting elementary
Teachers and Students	2	career	Presentation	3-8-19	New Berlin	23	career day for Poplar Creek Elementary
General Public	9		Yard Waste Composting	3-9-19	Retzer	60	home composting workshop
General Public	7		rain garden and rain barrels	3-9-19	Retzer	60	rain garden/rain barrel workshop
General Public	7		rain garden and rain barrels	3-9-19	Retzer	12	rain barrel sale
General Public	8	HHE	Hazardous waste	3-12-19	Waukesha	20	St. Mary's Waukesha
Teachers and Students	2	Career	Presentation	3-15-19	New Berlin	56	Ronald Reagan Elementary career day
General Public	4		Displays and handouts	3-16-19	New Berlin	500	booth at Discover New Berlin Community Fair
Contractors, Dev. & Consul	1		Workshop	3-20-19	Pewaukee	110	annual stormwater workshop
General Public	12		social media	3-22-19		9948	World water day post
General Public	9		Yard Waste Composting	3-27-19	New Berlin	21	Home composting workshop at New Berlin Library
Teachers and Students	4		Field Experience	4-3-19	Prairie Springs	110	Butler Middle School in collaborative EE program
Teachers and Students	3		Green Schools			1	2 rain barrels and diverters for Prairie Waldorf School
General Public	8	HHE	Hazardous waste	4-11-19	Retzer	43	Pilot program for Scout days includes HHE
General Public	3		Presentation	4-17-19	Muskego	8	wetland monitoring
Teachers and Students	4		Field Experience	4-18-19	UW-Waukesha Field	14	Field sampling with KM GLoBal students
General Public	3		presentation	4-18-19	Palmyra	4	Soil Health field day
General Public	3		Presentation	4-20-19	Muskego	2	wetland monitoring
General Public	12		social media	4-22-19		9948	rain garden promotion
General Public	7		rain garden and rain barrels	4-23-19	North Lake	8	rain garden program at North lake library
General Public	12		social media	4-24-19		9948	home composting awareness
General Public	2		news releases/articles	4-24-19		1	National Compost Week press release
General Public	12		social media	4-26-19		9948	rain barrel promition
Teachers and Students	2	career	Presentation	4-26-19	Mukwonago	28	career day for Parkview Middle School

General Public	3		Presentation	4-27-19	Retzer	27	water hike/program at Earth Day Celebration
General Public	4		Displays and handouts	4-27-19	Retzer	125	staffed outreach at Earth Day celebration
Contractors, Dev. & Consul	2		news releases/articles	5-1-19		136	quarterly updates
General Public	12		social media	5-1-19		9948	soil health and composting--zombie campaign
General Public	8	HHE	Hazardous waste	5-1-19	Brookfield	23	household elf program at Dixon elementary for Brownies
General Public	10		Stream Monitoring	5-1-19	Retzer	10	training for nutrient monitoring
Teachers and Students	4		Field Experience	5-1-19	Retzer	18	tale of Two Waterbodies program with LaCasa Esperanza
General Public	4		Displays and handouts	5-2-19	Brookfield	70	pet waste handout to HOA for distribution to all members
Teachers and Students	2		Presentation	5-3-19	Genesee Depot	44	presentation with model and macros for Magee 3rd grade
General Public	10		Stream Monitoring	5-4-19	Prairie Springs	14	annual stream monitor training
Teachers and Students	2	healthy soils	Presentation	5-6-19	Waukesha	33	pilot for new healthy soils through composting at Saratoga STEM MS
General Public	3	I live in a	Presentation	5-7-19	Muskego	13	program for brownies at Mill Vally Elementary
General Public	2		news releases/articles	5-7-19	TV	1	Morning Blend TV show spot on composting
General Public	12		social media	5-8-19		9948	dead zone--runoff pollution control - zombie campaign
General Public	4		Displays and handouts	5-8-19	Muskego	12	staffed display about rain barrels and compost bins at In-Pro event
Teachers and Students	4		Field Experience	5-8-19	Retzer	105	kindergarten program at Retzer
General Public	9		Yard Waste Composting	5-9-19	Retzer	18	home composting class for composting awareness week
Teachers and Students	3		Presentation	5-10-19	Sussex	23	water testing in class with Sussex Hamilton AP students
General Public	6		Businesses	5-13-19	Oconomowoc	1	plants for Hearts and Hands Pre-school
General Public	6		Businesses	5-13-19	Waukesha	1	plants for Christ the Life Pre-school
General Public	6		Businesses	5-13-19	Mukwonago	1	plants for Nature's Classroom Institute
General Public	7		rain garden and rain barrels	5-13-19	North Lake	7	rain garden/rain barrel program for North Lake Library

Teachers and Students	3		Green Schools	5-14-19	Menomonee Falls	1	Plants for St. Mary's
General Public	10		Stream Monitoring	5-15-19	Waukesha	2	benchmark for Pewaukee River at the junction with Fox
General Public	10		Stream Monitoring	5-15-19	Muskego	2	benchmark for stream into Lake Denoon
General Public	10		Stream Monitoring	5-16-19	Pewaukee	6	benchmark for Pewaukee Women's group sites
General Public	10		Stream Monitoring	5-16-19	Merton	1	benchmark for Mason Creek at Peterson Rd
General Public	10		Stream Monitoring	5-18-19	Hartland	2	benchmark for Bark River at Nixon park monitoring site
General Public	10		Stream Monitoring	5-18-19	Lisbon	8	benchmark for Bark River at North Rd
Teachers and Students	2	water resources	Presentation	5-20-19	Pewaukee	246	water resources program for entire 5th grade
General Public	12		social media	5-22-19		9948	dead zone - runoff pollution control - zombie campaign
Teachers and Students	2	I live in/soils	Presentation	5-22-19	Oconomowoc	35	combined soils and water program for Oconomowoc High School
Teachers and Students	4		Field Experience	5-23-19	Merton	185	Pewaukee 5th grade program at Camp whitcomb
Teachers and Students	4		Field Experience	5-24-19	Merton	116	Pewaukee 5th grade program at Camp whitcomb
General Public	10		Stream Monitoring	5-24-19	Dousman	3	benchmark for Scuppernong Cree at UW-Field Station
General Public	10		Stream Monitoring	5-27-19	Mukwonago	3	benchmark for Mukwonago River at Rainbow Springs
General Public	10		Stream Monitoring	5-28-19	Merton	1	benchmark for Oconomowoc River at Westshore Drive
Teachers and Students	4		Field Experience	5-30-19	Mukwonago	76	Eagleville Elementary monitoring on Jericho Creek
General Public	2		news releases/articles	6-3-19		1	press release on cooperative education program
Teachers and Students	4		Green Schools	6-5-19	Delafield	1	provided boots for classroom testing for St. John's Military Academy
General Public	2		news releases/articles	6-5-19		1	press release on Discover Your Parks programs

General Public	2		news releases/articles	6-6-19	TV	1	Morning Blend TV show spot on rain gardens
General Public	4		Displays and handouts	6-7-19	Merton	170	staffed display on shoreland restoration at Healthy Lakes Conference
General Public	10		Stream Monitoring	6-10-19	Oconomowoc	1	benchmark on Ashippun River
Teachers and Students	4		Field Experience	6-11-19	Mukwonago	132	Eagleville Elementary monitoring on Jericho Creek
General Public	3		presentation	6-12-19	Waukesha	3	one-on-one counseling with scout for Sustainability Merit Badge
General Public	3		Presentation	6-18--19	Retzer	15	Scout Merit badge classes- environmental science
General Public	8	Green Cleaning	Hazardous waste	6-19-19	Waukesha	15	Green cleaning program for Waukesha--County, City and School Dist.
General Public	3		Presentation	6-18-19	Retzer	9	Scout Merit badge classes - Sustainability
General Public	4		Displays and handouts	6-22-19	Pewaukee	400	staffed outreach at Clean Water Festival
General Public	4		Displays and handouts	6-26-19	Waukesha	200	tabletop display for County wellness event
Teachers and Students	1		training	7-10-19	Retzer	15	annual summer teacher tour
General Public	10		Stream Monitoring	7-12-19	Mukwonago	4	mussel training for volunteers
General Public	3		presentation	7-15-19	Menomonee Falls	49	watershed model for swim lessons at Menomonee Park
General Public	10		Stream Monitoring	7-16-19	Mukwonago	3	mussel training for volunteers
General Public	4		Displays and handouts	7-18-19	Waukesha	20	activity table at County Fair--water bugs
Teachers and Students	4		Field Experience	7-23-19	Muskego	45	monitoring with summer school at Lake Denoon Middle School
General Public	3		presentation	7-25-19	Brookfield	90	watershed model for swim lessons at Fox Brook Park
General Public	4		Displays and handouts	7-31-19	Hartland	700	staffed outreach at Hartland kids day
Contractors, Dev. & Consul	1		news releases/articles	8-1-19		127	quarterly updates
General Public	3		Presentation	8-1-19	Pewaukee	82	watershed model for VBS program at St. Anthony's on the Lake
General Public	4		Displays and handouts	8-6-19	Mukwonago	350	booth at National Night Out-stormwater boxes
General Public	4		Displays and handouts	8-6-19	Merton	600	display at Merton national night out

General Public	4		Displays and handouts	8-7-19	Sussex	250	booth at National Night Out-stormwater boxes
General Public	3		Presentation	8-7-19	Retzer	8	Discover your parks program
General Public	4		Displays and handouts	8-9-19	Oconomowoc	300	display at library
General Public	4		Displays and handouts	8-13-19	Oconomowoc	500	booth at Kids Fest
General Public	10		Stream Monitoring	8-20-19	Sussex	2	met at Sussex Creek to set new benchmark for flow
General Public	4		Displays and handouts	8-20-19	Oconomowoc	250	booth at National Night Out
Teachers and Students	1		training	8-21-19	Lapham Peak	10	training for 4th and 5th grade cooperative teachers
General Public	3		Presentation	8-22-19	Oconomowoc	12	Soil Health field day
General Public	4		Displays and handouts	8-24-19	Retzer	500	booth at Sustainability Fair at Retzer
General Public	3		Presentation	8-26-19	Muskego	34	Watershed presentation at Lake Denoon annual meeting
Teachers and Students	2	water resources	Presentation	9-9-19	Waukesha	48	Water resources for Prairie Elementary 5th grade
Teachers and Students	2	healthy soils	Presentation	9-11-19	Waukesha	45	healthy soils through composting program for Rose Glen Elementary
Teachers and Students	2	water resources	Presentation	9-11-19	Elm Grove	22	water program for 6th grade at St. Mary's
Teachers and Students	4		Field Experience	9-12-19	Elm Grove	23	Field experience for 6th grade of St. Mary's
Teachers and Students	2	healthy soils	Presentation	9-12-19	Waukesha	48	2 classes at Hadfield Elementary
General Public	3		Presentation	9-12-19	Waukesha	6	Homeowners Association Workshop
General Public	4		Displays and handouts	9-13/15-1	North Prairie	3250	Display at annual Harvest Festival
Teachers and Students	2	healthy soils	Presentation	9-18-19	Waukesha	32	2 classes at Banting Elementary
Teachers and Students	2	healthy soils	Presentation	9-18-19	Waukesha	56	2 classes at Randall STEM Academy
Teachers and Students	2	healthy soils	Presentation	9-19-19	Waukesha	56	2 classes at Randall STEM Academy
Teachers and Students	2	healthy soils	Presentation	9-19-19	Waukesha	47	program for Meadowbrook Elementary
General Public	3		Presentation	9-19-19	Oconomowoc	29	program on stream monitoring for Clean Water Association
Teachers and Students	2	healthy soils	Presentation	9-20-19	Waukesha	56	2 classes at Randall STEM Academy
General Public	4		Displays and handouts	9-21-19	Retzer	3250	outreach at Apple Harvest Fest
Teachers and Students	4		Field Experience	9-23-19	Eagleville	21	water testing on Jericho Creek with Eagleville elementary

Teachers and Students	2	healthy soils	Presentation	9-24-19	Waukesha	48	Healthy Soils through Composting for Prairie Elementary
Teachers and Students	2	healthy soils	Presentation	9-26-19	Waukesha	42	Healthy Soils through Composting for Whittier Elementary
Teachers and Students	2	healthy soils	Presentation	9-26-19	Waukesha	50	Healthy Soils through Composting for Lowell Elementary
Teachers and Students	2	I live in a	Presentation	10-02-19	Waukesha	22	program for Saratoga STEM class
General Public	3	home composting	Presentation	10-7-19	Waukesha	15	Waukesha WCTC
Teachers and Students	2	water resources	presentation	10-7-19	Waukesha	17	Water Resources for Hadfield Elementary
Teachers and Students	2	water resources	presentation	10-8-19	Waukesha	17	Water Resources for Hadfield Elementary
Teachers and Students	2	career	Presentation	10-8-19	Waukesha	72	County wide career day at Expo
General Public	10		Stream Monitoring	10-9-19	Waukesha	2	macroinvertebrates and phosphorus with monitors at Pewaukee River
General Public	3		Presentation	10-10-19	Retzer	12	Wonders of Water at Girl scout night
General Public	10		Stream Monitoring	10-10-19	Pewaukee	7	macroinvertebrate id and phosphorus with Pewaukee Ladies group
Teachers and Students	2	healthy soils	presentation	10-16-19	Delafield	56	healthy soils program for Cushing Elementary
Teachers and Students	2	career	presentation	10-17-19	Pewaukee	41	career day at Pewaukee HS
General Public	3		Presentation	10-17-19	Delafield	26	program for Ice Age Trail Alliance at Lapham Peak
General Public	1		news releases/articles	10-21-19		1	Press release for science fest
Teachers and Students	2	healthy soils	Presentation	10-23-19	Retzer	23	Soils program for homeschool group
General Public	10		Stream Monitoring	10-23-19	Genesee	1	finish monitoring Genesee Creek and Spring Brook
Teachers and Students	4		Field Experience	10-30-19	Retzer	12	water testing with Menomonee Falls AP class
General Public	4		Displays and handouts	11-2-19	Retzer	190	activity table at Science Fest
General Public	3	I live in a	presentation	11-2-19	Retzer	7	watershed model presentation at Science Fest
General Public	3		presentation	11-2-19	Retzer	31	hike to creek to learn about water bugs as a stream health indicator
Contractors, Dev. & Consul	1		news releases/articles	11-4-19		145	quarterly updates

Teachers and Students	2	career	presentation	11-7-19	New Berlin	20	career day at New Berlin Eisenhower High School
Teachers and Students	2	career	Presentation	11-12-19	Wales	60	career day at Kettle Moraine High school
General Public	8	HHE	presentation	11-13-19	Retzer	28	combined troops from Wales and Dousman
Teachers and Students	2	I live in a	Presentation	11-18-19	Pewaukee	12	program for middle school
General Public	8	HHE	Presentation	11-19-19	Retzer	35	Muskego Mill Valley Brownies
General Public	4		Displays and handouts	11-20-19	Waukesha	68	mini golf hole for United Way with pet waste, fertilizer and auto info
Teachers and Students	2	I live in a	Presentation	11-20-19	Waukesha	67	Program at Banting Elementary
Teachers and Students	2		Presentation	11-21-19	Sussex	53	in class water testing with AP students
General Public	4		Displays and handouts	12-3-19	Merton	250	display at annual tree lighting event and visit from Santa
Teachers and Students	2		Presentation	12-12-19	Sussex	25	in class water testing with Environmental students
Teachers and Students	2		Presentation	12-12-19	Sussex	19	in class water testing with Environmental students
General Public	4		Displays and handouts	12-19		100000	annual tax insert with green makeover program info
Teachers and Students	2	I live in a	Presentation	12-18-19	Retzer	18	program for homeschool group
General Public	4		Displays and handouts	12-19-19	Pewaukee	300	Display at city hall for end of year taxes

Village of Mukwonago **Office of the Village Public Works Dept.**

440 River Crest Ct. Mukwonago, Wisconsin 53149 www.villageofmukwonago.com
(262) 363-6447 Fax: (262)363-7197

2019 Storm Water Activity Report

Post-Construction Storm Water Runoff Control Program:

The Village of Mukwonago's post construction stormwater runoff program seeks to protect local streams, lakes and wetlands from the long-term impacts of pollution resulting from rain and snow melt washing accumulated pollutants off of developed lands. Pollutants such as total suspended solids (TSS), phosphorus, oil and grease, bacteria and more are commonly found on the roads, parking lots, manicured lawns and rooftops. The impacts of these pollutants on local waterways can lead to degradation of local in stream water quality and habitat conditions. The Village's program includes requirements to design and install post-construction best management practices such a stormwater ponds, infiltration basins, porous pavement systems, bio filtration systems, underground storage and other storm water treatment systems to minimize the accumulation and impacts of these pollutants to local waterways. Plan submittal/ reviews, permit issuance, long-term maintenance agreements and maintenance plans and inspect inspection frequencies to ensure performance of these facilities into the future.

- There are 69 BMPs in the Village, 14 are municipally owned.
- 13 of the Municipally owned were inspected and maintained during the reporting year. An infiltration basin remains under warranty and was monitored by the installer.
- Ponds are inspected for erosion, invasive/woody vegetation, animal damage, debris, contaminates and function.
- Three new facilities were approved in 2019.
- 16 private facilities were inspected with documentation.
- Four rounds of street sweeping were conducted with 67 tons of debris collected.
- 186 catch basin sumps were cleaned with 10 tons of debris removed.

STORMWATER POND INSPECTION

Pond Information			
Pond ID:	0005	Pond Type:	Wet Pond
Location:	East Veterans Way, West of Hawks Ridge Condos		
Subdivision:	Village Owned	Watershed:	Fox
Capacity:		Acres:	
Overflow Elev:		100 Year Elev:	
Year Constructed:		Date Input:	
Water Quality:		Private:	

Inspection Details					
Inspector Name(s):	Ron Bittner,Kevin Van Aacken				
Inspection Date:	10/4/2019	Start Time:	1:00	End Time:	1:43 PM
Weather Condition:	Cloudy 55F			Last Rainfall Date:	10/2/2019

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Dry Pond							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Low flow channels unobstructed?			✓			✓	
4. Other?			✓			✓	
Wet Pond							
1. Removal of floating debris required?	✓				✓		
2. Visible oil/chemical presence?	✓				✓		
3. Evidence of wave action?	✓				✓		
4. Safety shelf erosion or failure?	✓				✓		
5. Other?			✓		✓		
Infiltration Basin							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Under drain functioning?			✓			✓	
4. Other?			✓			✓	

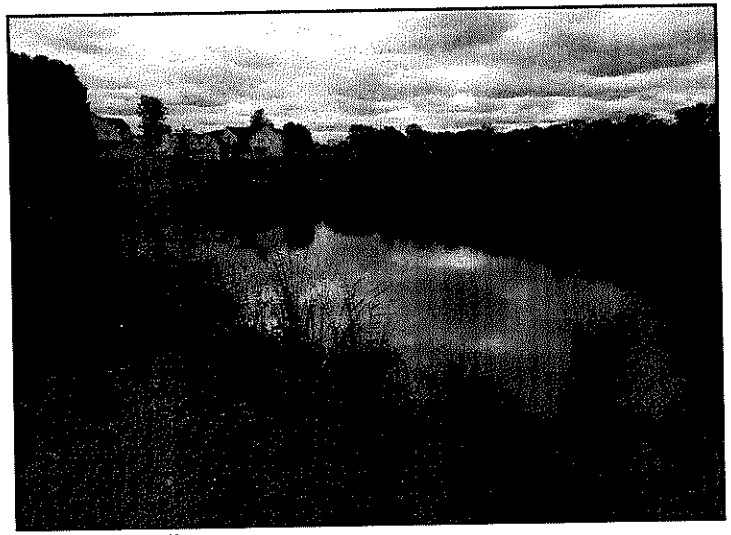
STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Vegetation							
1. Adequate vegetation cover?	✓				✓		
2. Appropriate vegetation?	✓			✓			
3. Presence of invasive or undesirable vegetation/woody growth?	✓			✓			Mowing required Woody vegetation
4. Excessive nuisance aquatic vegetation present?	✓				✓		
5. Other?			✓			✓	
Sediment Forebays							
1. Is sediment accumulation >50%? If yes, then maintenance is needed immediately.			✓			✓	
2. Evidence of excessive velocity/ scour?	✓				✓		
3. Maintenance access clear of obstructions?	✓				✓		
4. Other?			✓			✓	
Embankment & Emergency Spillway							
1. Is the spillway level?	✓			✓			
2. Adequate Freeboard? (min 1' from top of bank to highest outlet)	✓				✓		
3. Embankment erosion evident?	✓				✓		
4. Cracking, bulging or sliding of embankment?	✓				✓		
5. Evidence of animal burrows?	✓				✓		
6. Seepage evident on exterior face of embankment?	✓				✓		
7. Vertical & horizontal alignment of top of dam as per plans?			✓			✓	
8. Emergency spillway clear of obstructions & debris?	✓			✓			Remove Woody vegetations
9. Maintenance access clear of obstruction?	✓				✓		
10. Other?			✓			✓	

STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Riser & Outfall Spillway							
1. Low flow orifice obstructed?	☐	☐	✓	☐	☐	✓	
2. Low flow trash rack debris/ corrosion?	☐	☐	✓	☐	☐	✓	
3. Weir trash rack debris/corrosion?	☐	☐	✓	☐	☐	✓	
4. Excessive sediment accumulation inside the riser?	☐	☐	✓	☐	☐	✓	
5. Sediment accumulation in outlet pipe?	✓	☐	☐	☐	✓	☐	
6. Outfall channels functioning?	✓	☐	☐	☐	✓	☐	
7. Under drain functioning?	☐	☐	✓	☐	☐	✓	
8. Slope protection or rip-rap failures?	✓	☐	☐	☐	✓	☐	
9. Other?	☐	☐	✓	☐	☐	✓	
Other							
1. Encroachments on pond or ease-ment area?	✓	☐	☐	☐	✓	☐	
2. Complaints from residents?	✓	☐	☐	☐	✓	☐	
3. Odor?	✓	☐	☐	☐	✓	☐	
4. Mowing required?	✓	☐	☐	✓	☐	☐	
5. Graffiti removal needed?	✓	☐	☐	☐	✓	☐	
6. Insects in excess?	✓	☐	☐	☐	✓	☐	
7. Public hazards?	✓	☐	☐	☐	✓	☐	
8. Other?	☐	☐	✓	☐	☐	✓	

Summary:	
Inspector Remarks:	



N/A - View File

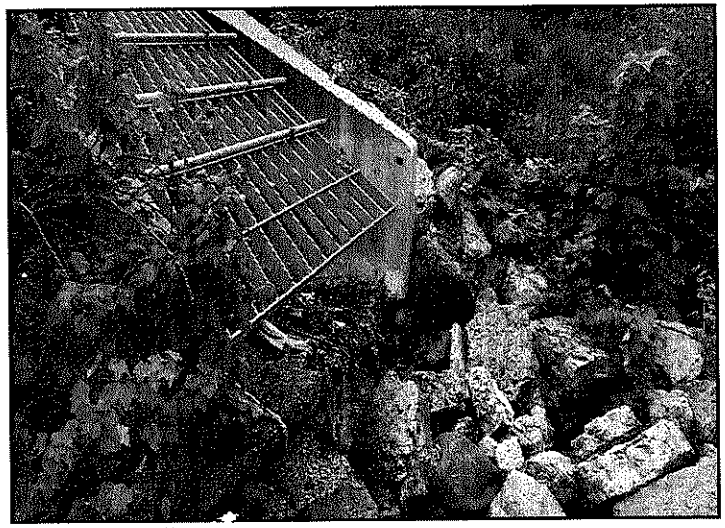
N/A - View File

N/A - View File

N/A - View File

N/A - View File

N/A - View File



N/A - View File

STORMWATER POND INSPECTION

Pond Information			
Pond ID:	MV 0050	Pond Type:	Wet Pond
Location:	Holz Pkwy. N of Mukwonago River		
Subdivision:		Watershed:	Mukwonago
Capacity:		Acres:	
Overflow Elev:		100 Year Elev:	
Year Constructed:		Date Input:	
Water Quality:		Private:	

Inspection Details					
Inspector Name(s):	Kevin Van Aacken				
Inspection Date:	10/10/2019	Start Time:	10:50AM	End Time:	11:12AM
Weather Condition:	Cloudy			Last Rainfall Date:	10/6/2019

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Dry Pond							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Low flow channels unobstructed?			✓			✓	
4. Other?			✓			✓	
Wet Pond							
1. Removal of floating debris required?	✓				✓		
2. Visible oil/chemical presence?	✓				✓		
3. Evidence of wave action?	✓				✓		
4. Safety shelf erosion or failure?	✓				✓		
5. Other?			✓			✓	
Infiltration Basin							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Under drain functioning?			✓			✓	
4. Other?			✓			✓	

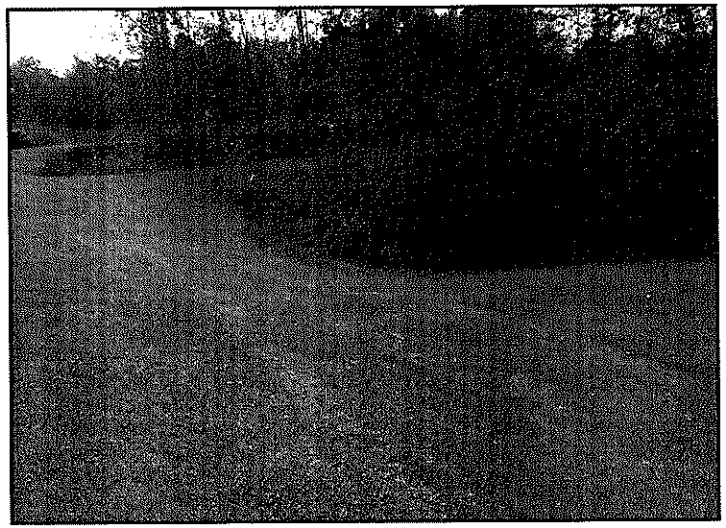
STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Vegetation							
1. Adequate vegetation cover?	✓				✓		
2. Appropriate vegetation?	✓				✓		
3. Presence of invasive or undesirable vegetation/woody growth?	✓				✓		
4. Excessive nuisance aquatic vegetation present?	✓				✓		
5. Other?			✓			✓	
Sediment Forebays							
1. Is sediment accumulation >50%? If yes, then maintenance is needed immediately.			✓			✓	
2. Evidence of excessive velocity/ scour?			✓			✓	
3. Maintenance access clear of obstructions?			✓			✓	
4. Other?			✓			✓	
Embankment & Emergency Spillway							
1. Is the spillway level?	✓				✓		
2. Adequate Freeboard? (min 1' from top of bank to highest outlet)			✓			✓	
3. Embankment erosion evident?	✓				✓		R
4. Cracking, bulging or sliding of embankment?	✓				✓		
5. Evidence of animal burrows?	✓				✓		
6. Seepage evident on exterior face of embankment?	✓				✓		
7. Vertical & horizontal alignment of top of dam as per plans?	✓				✓		
8. Emergency spillway clear of obstructions & debris?	✓				✓		
9. Maintenance access clear of obstruction?	✓				✓		
10. Other?			✓			✓	

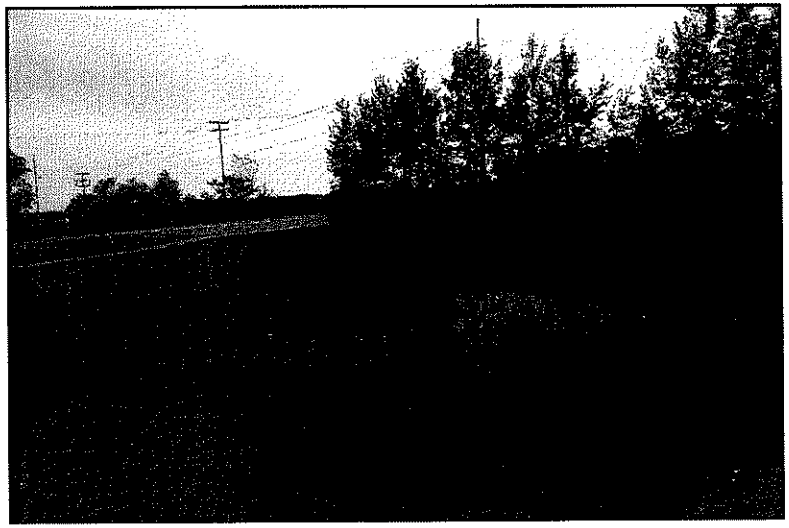
STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Riser & Outfall Spillway							
1. Low flow orifice obstructed?	✓				✓		
2. Low flow trash rack debris/ corrosion?	✓				✓		
3. Weir trash rack debris/corrosion?	✓				✓		
4. Excessive sediment accumulation inside the riser?	✓				✓		
5. Sediment accumulation in outlet pipe?	✓				✓		
6. Outfall channels functioning?	✓				✓		
7. Under drain functioning?	✓				✓		
8. Slope protection or rip-rap failures?	✓				✓		
9. Other?			✓			✓	
Other							
1. Encroachments on pond or ease-ment area?	✓				✓		
2. Complaints from residents?			✓			✓	
3. Odor?	✓				✓		
4. Mowing required?	✓				✓		
5. Graffiti removal needed?			✓			✓	
6. Insects in excess?			✓			✓	
7. Public hazards?			✓			✓	
8. Other?			✓			✓	

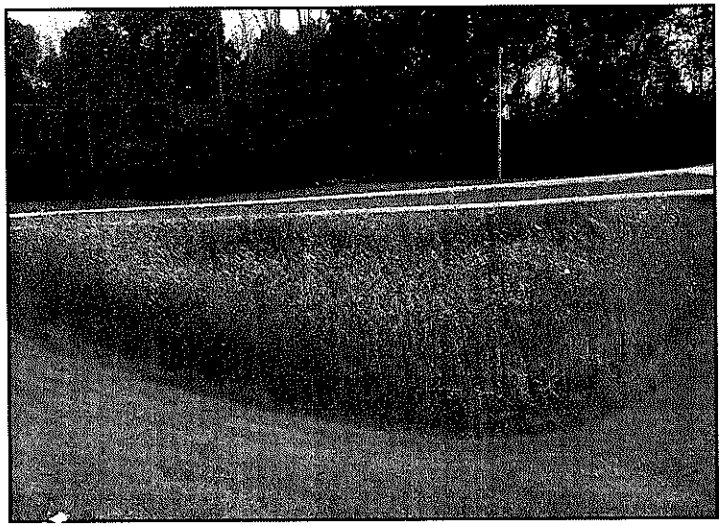
Summary:	
Inspector Remarks:	



N/A - View File



N/A - View File



N/A - View File

STORMWATER POND INSPECTION

Pond Information			
Pond ID:	MV 0051	Pond Type:	Wet Pond
Location:	Holz Pkwy. N. of Mukwonago River		
Subdivision:		Watershed:	Mukwonago
Capacity:		Acres:	
Overflow Elev:		100 Year Elev:	
Year Constructed:		Date Input:	
Water Quality:		Private:	

Inspection Details					
Inspector Name(s):	Kevin Van Aacken				
Inspection Date:	10/10/2019	Start Time:	11:15AM	End Time:	11:35AM
Weather Condition:	Cloudy			Last Rainfall Date:	10/6/2019

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Dry Pond							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Low flow channels unobstructed?			✓			✓	
4. Other?			✓			✓	
Wet Pond							
1. Removal of floating debris required?	✓				✓		
2. Visible oil/chemical presence?	✓				✓		
3. Evidence of wave action?			✓			✓	
4. Safety shelf erosion or failure?			✓			✓	
5. Other?			✓			✓	
Infiltration Basin							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Under drain functioning?			✓			✓	
4. Other?			✓			✓	

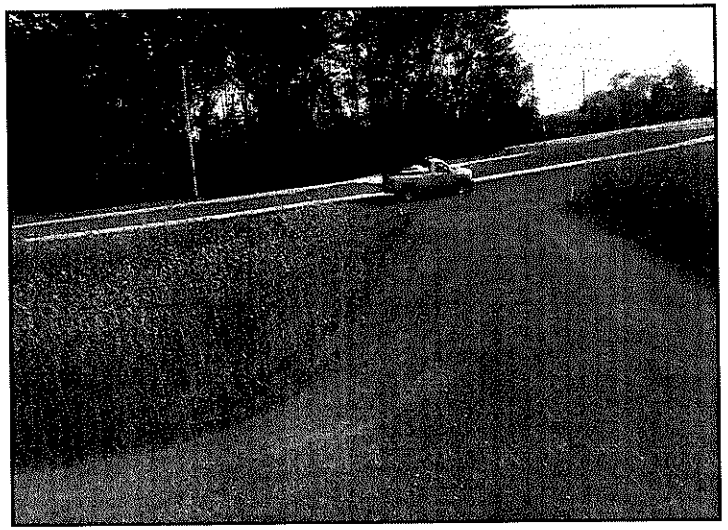
STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Vegetation							
1. Adequate vegetation cover?	✓				✓		
2. Appropriate vegetation?	✓				✓		
3. Presence of invasive or undesirable vegetation/woody growth?	✓				✓		
4. Excessive nuisance aquatic vegetation present?	✓				✓		
5. Other?			✓			✓	
Sediment Forebays							
1. Is sediment accumulation >50%? If yes, then maintenance is needed immediately.			✓			✓	
2. Evidence of excessive velocity/ scour?			✓			✓	
3. Maintenance access clear of obstructions?			✓			✓	
4. Other?			✓			✓	
Embankment & Emergency Spillway							
1. Is the spillway level?	✓				✓		
2. Adequate Freeboard? (min 1' from top of bank to highest outlet)	✓				✓		
3. Embankment erosion evident?	✓				✓		
4. Cracking, bulging or sliding of embankment?	✓				✓		
5. Evidence of animal burrows?	✓				✓		
6. Seepage evident on exterior face of embankment?	✓				✓		
7. Vertical & horizontal alignment of top of dam as per plans?	✓				✓		
8. Emergency spillway clear of obstructions & debris?	✓				✓		
9. Maintenance access clear of obstruction?	✓				✓		
10. Other?			✓			✓	

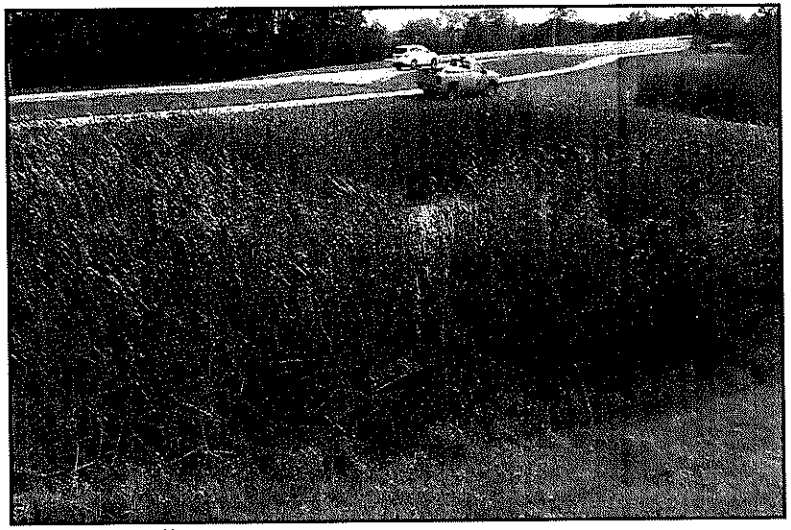
STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Riser & Outfall Spillway							
1. Low flow orifice obstructed?	☐	☐	✓	☐	☐	✓	
2. Low flow trash rack debris/ corrosion?	☐	☐	✓	☐	☐	✓	
3. Weir trash rack debris/corrosion?	☐	☐	✓	☐	☐	✓	
4. Excessive sediment accumulation inside the riser?	☐	☐	✓	☐	☐	✓	
5. Sediment accumulation in outlet pipe?	☐	☐	✓	☐	☐	✓	
6. Outfall channels functioning?	☐	☐	✓	☐	☐	✓	
7. Under drain functioning?	☐	☐	✓	☐	☐	✓	
8. Slope protection or rip-rap failures?	☐	☐	✓	☐	☐	✓	
9. Other?	☐	☐	✓	☐	☐	✓	
Other							
1. Encroachments on pond or ease-ment area?	✓	☐	☐	☐	✓	☐	
2. Complaints from residents?	☐	☐	✓	☐	☐	✓	
3. Odor?	✓	☐	☐	☐	✓	☐	
4. Mowing required?	✓	☐	☐	☐	✓	☐	
5. Graffiti removal needed?	☐	☐	✓	☐	☐	✓	
6. Insects in excess?	☐	☐	✓	☐	☐	✓	
7. Public hazards?	☐	☐	✓	☐	☐	✓	
8. Other?	☐	☐	✓	☐	☐	✓	

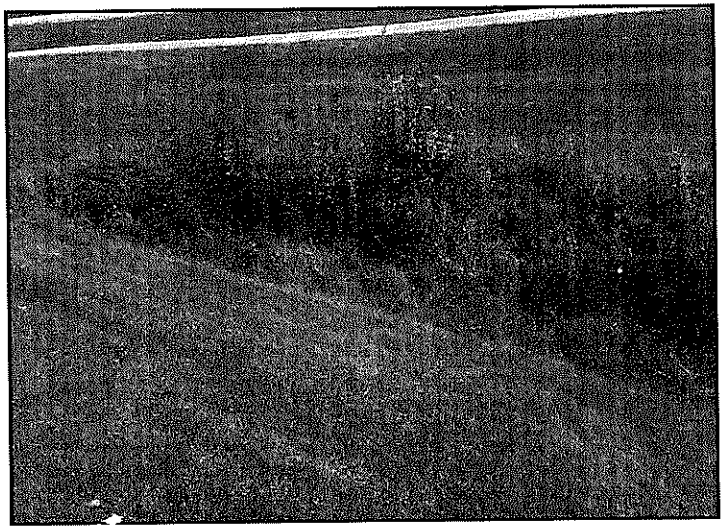
Summary:	
Inspector Remarks:	



N/A - View File



N/A - View File



N/A - View File

STORMWATER POND INSPECTION

Pond Information			
Pond ID:	MV 0049	Pond Type:	Wet Pond
Location:	Holz Pkwy. South of Mukwonago River		
Subdivision:		Watershed:	Mukwonago
Capacity:		Acres:	
Overflow Elev:		100 Year Elev:	
Year Constructed:		Date Input:	
Water Quality:	✔	Private:	

Inspection Details					
Inspector Name(s):	Kevin Van Aacken				
Inspection Date:	10/10/2019	Start Time:	10:30AM	End Time:	10:44AM
Weather Condition:	Cloudy			Last Rainfall Date:	10/6/2019

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Dry Pond							
1. Standing water or wet spots?			✔			✔	
2. Sediment or trash accumulation?			✔			✔	
3. Low flow channels unobstructed?			✔			✔	
4. Other?			✔			✔	
Wet Pond							
1. Removal of floating debris required?	✔				✔		
2. Visible oil/chemical presence?	✔				✔		
3. Evidence of wave action?	✔				✔		
4. Safety shelf erosion or failure?			✔			✔	
5. Other?			✔			✔	
Infiltration Basin							
1. Standing water or wet spots?			✔			✔	
2. Sediment or trash accumulation?			✔			✔	
3. Under drain functioning?			✔			✔	
4. Other?			✔			✔	

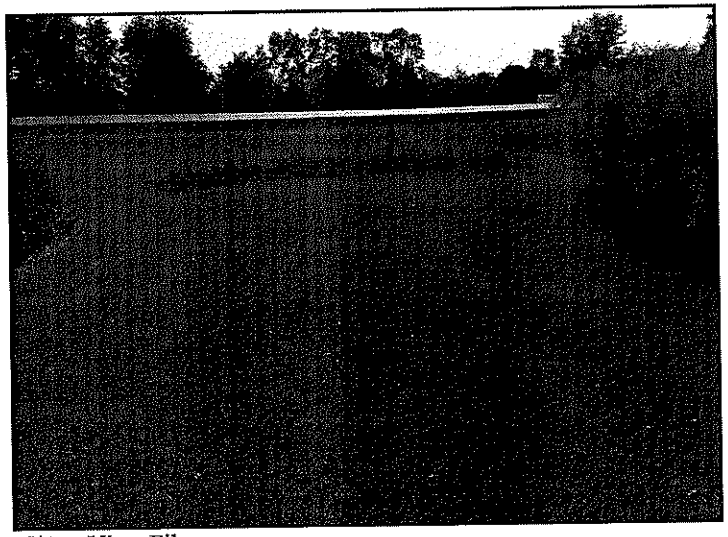
STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Vegetation							
1. Adequate vegetation cover?	✓				✓		
2. Appropriate vegetation?	✓				✓		
3. Presence of invasive or undesirable vegetation/woody growth?	✓				✓		
4. Excessive nuisance aquatic vegetation present?	✓				✓		
5. Other?			✓			✓	
Sediment Forebays							
1. Is sediment accumulation >50%? If yes, then maintenance is needed immediately.			✓			✓	
2. Evidence of excessive velocity/ scour?			✓			✓	
3. Maintenance access clear of obstructions?			✓			✓	
4. Other?			✓			✓	
Embankment & Emergency Spillway							
1. Is the spillway level?	✓				✓		
2. Adequate Freeboard? (min 1' from top of bank to highest outlet)	✓				✓		
3. Embankment erosion evident?	✓				✓		
4. Cracking, bulging or sliding of embankment?	✓				✓		
5. Evidence of animal burrows?	✓				✓		
6. Seepage evident on exterior face of embankment?	✓				✓		
7. Vertical & horizontal alignment of top of dam as per plans?	✓				✓		
8. Emergency spillway clear of obstructions & debris?	✓				✓		
9. Maintenance access clear of obstruction?	✓				✓		
10. Other?			✓			✓	

STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Riser & Outfall Spillway							
1. Low flow orifice obstructed?	☐	☐	✓	☐	☐	✓	
2. Low flow trash rack debris/ corrosion?	☐	☐	✓	☐	☐	✓	
3. Weir trash rack debris/corrosion?	☐	☐	✓	☐	☐	✓	
4. Excessive sediment accumulation inside the riser?	☐	☐	✓	☐	☐	✓	
5. Sediment accumulation in outlet pipe?	☐	☐	✓	☐	☐	✓	
6. Outfall channels functioning?	☐	☐	✓	☐	☐	✓	
7. Under drain functioning?	☐	☐	✓	☐	☐	✓	
8. Slope protection or rip-rap failures?	☐	☐	✓	☐	☐	✓	
9. Other?	☐	☐	✓	☐	☐	✓	
Other							
1. Encroachments on pond or ease-ment area?	✓	☐	☐	☐	✓	☐	
2. Complaints from residents?	☐	☐	✓	☐	☐	✓	
3. Odor?	✓	☐	☐	☐	✓	☐	
4. Mowing required?	✓	☐	☐	☐	✓	☐	
5. Graffiti removal needed?	☐	☐	✓	☐	☐	✓	
6. Insects in excess?	☐	☐	✓	☐	☐	✓	
7. Public hazards?	✓	☐	☐	☐	✓	☐	
8. Other?	☐	☐	✓	☐	☐	✓	

Summary:	
Inspector Remarks:	



N/A - View File

N/A - View File

STORMWATER POND INSPECTION

Pond Information			
Pond ID:	VM 0040	Pond Type:	Wet Pond
Location:	East Termini of E. Wolf Run		
Subdivision:		Watershed:	Mukwonago
Capacity:		Acres:	
Overflow Elev:		100 Year Elev:	
Year Constructed:		Date Input:	
Water Quality:		Private:	

Inspection Details					
Inspector Name(s):	Kevin Van Aacken				
Inspection Date:	10/10/2019	Start Time:	08:45AM	End Time:	09:10 AM
Weather Condition:	Cloudy			Last Rainfall Date:	10/6/2019

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Dry Pond							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Low flow channels unobstructed?			✓			✓	
4. Other?			✓			✓	
Wet Pond							
1. Removal of floating debris required?	✓				✓		
2. Visible oil/chemical presence?	✓				✓		
3. Evidence of wave action?	✓				✓		
4. Safety shelf erosion or failure?	✓				✓		
5. Other?			✓			✓	
Infiltration Basin							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Under drain functioning?			✓			✓	
4. Other?			✓			✓	

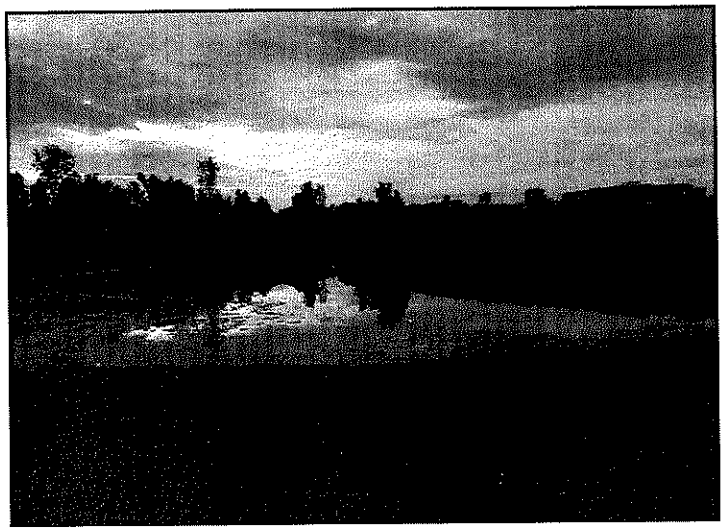
STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Vegetation							
1. Adequate vegetation cover?	✓				✓		
2. Appropriate vegetation?	✓				✓		
3. Presence of invasive or undesirable vegetation/woody growth?	✓				✓		
4. Excessive nuisance aquatic vegetation present?	✓				✓		
5. Other?			✓	✓			
Sediment Forebays							
1. Is sediment accumulation >50%? If yes, then maintenance is needed immediately.			✓			✓	
2. Evidence of excessive velocity/ scour?	✓				✓		
3. Maintenance access clear of obstructions?	✓				✓		
4. Other?			✓			✓	
Embankment & Emergency Spillway							
1. Is the spillway level?	✓				✓		
2. Adequate Freeboard? (min 1' from top of bank to highest outlet)	✓				✓		
3. Embankment erosion evident?	✓				✓		
4. Cracking, bulging or sliding of embankment?	✓				✓		
5. Evidence of animal burrows?	✓				✓		
6. Seepage evident on exterior face of embankment?	✓				✓		
7. Vertical & horizontal alignment of top of dam as per plans?	✓				✓		
8. Emergency spillway clear of obstructions & debris?	✓				✓		
9. Maintenance access clear of obstruction?	✓				✓		
10. Other?			✓			✓	

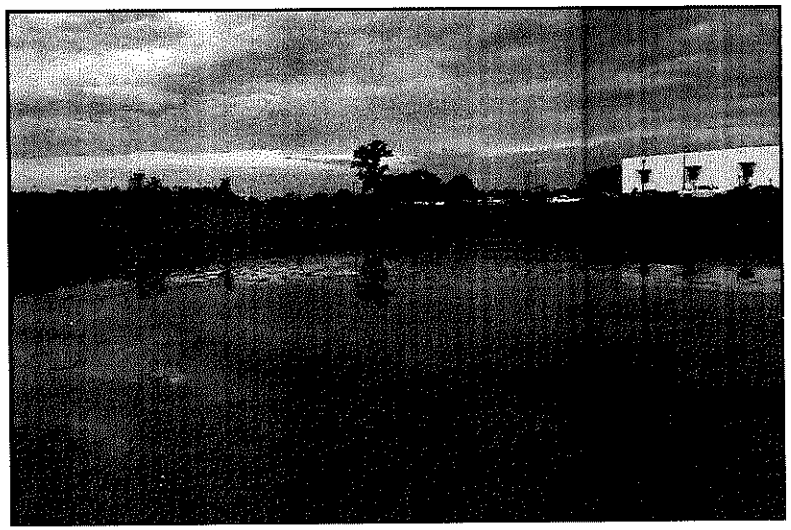
STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Riser & Outfall Spillway							
1. Low flow orifice obstructed?	✓				✓		
2. Low flow trash rack debris/ corrosion?	✓				✓		
3. Weir trash rack debris/corrosion?	✓				✓		
4. Excessive sediment accumulation inside the riser?	✓				✓		
5. Sediment accumulation in outlet pipe?	✓				✓		
6. Outfall channels functioning?	✓				✓		
7. Under drain functioning?			✓			✓	
8. Slope protection or rip-rap failures?			✓			✓	
9. Other?			✓			✓	
Other							
1. Encroachments on pond or ease-ment area?			✓			✓	
2. Complaints from residents?			✓			✓	
3. Odor?			✓			✓	
4. Mowing required?			✓			✓	
5. Graffiti removal needed?			✓			✓	
6. Insects in excess?			✓			✓	
7. Public hazards?			✓			✓	
8. Other?			✓			✓	

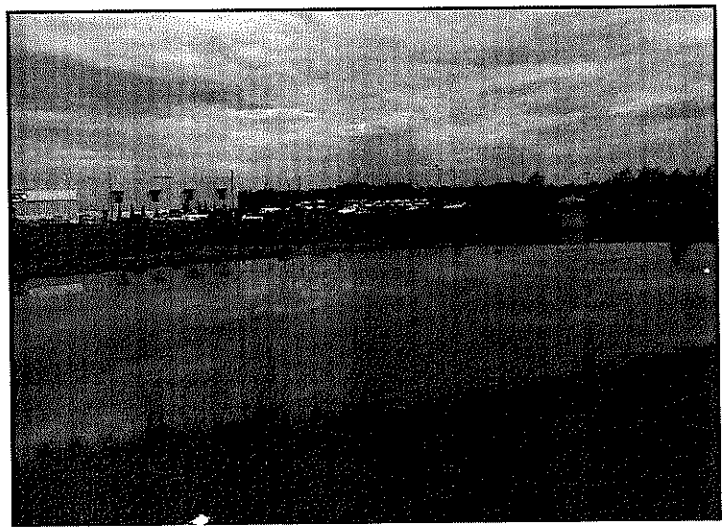
Summary:	
Inspector Remarks:	



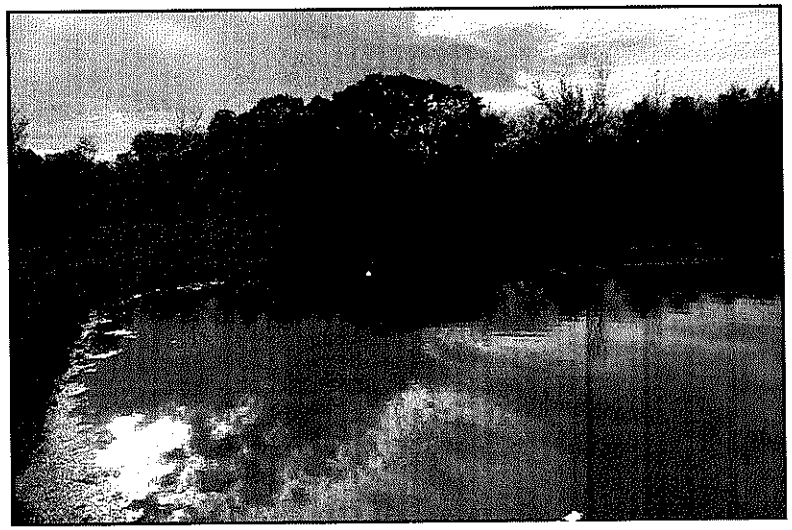
N/A - View File



N/A - View File



N/A - View File



N/A - View File

STORMWATER POND INSPECTION

Pond Information			
Pond ID:	VM 0034	Pond Type:	Wet Pond
Location:	Dewey Drive		
Subdivision:	Dewy Dr. Industrial Park	Watershed:	Mukwonago
Capacity:		Acres:	
Overflow Elev:		100 Year Elev:	
Year Constructed:		Date Input:	
Water Quality:		Private:	

Inspection Details					
Inspector Name(s):	Kevin van Aacken/Ron Bittner				
Inspection Date:	10/9/2019	Start Time:	01:45PM	End Time:	02:10PM
Weather Condition:	Clear			Last Rainfall Date:	10/6/2019

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Dry Pond							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Low flow channels unobstructed?			✓			✓	
4. Other?			✓			✓	
Wet Pond							
1. Removal of floating debris required?	✓				✓		
2. Visible oil/chemical presence?	✓				✓		
3. Evidence of wave action?	✓				✓		
4. Safety shelf erosion or failure?	✓				✓		
5. Other?			✓			✓	
Infiltration Basin							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Under drain functioning?			✓			✓	
4. Other?			✓			✓	

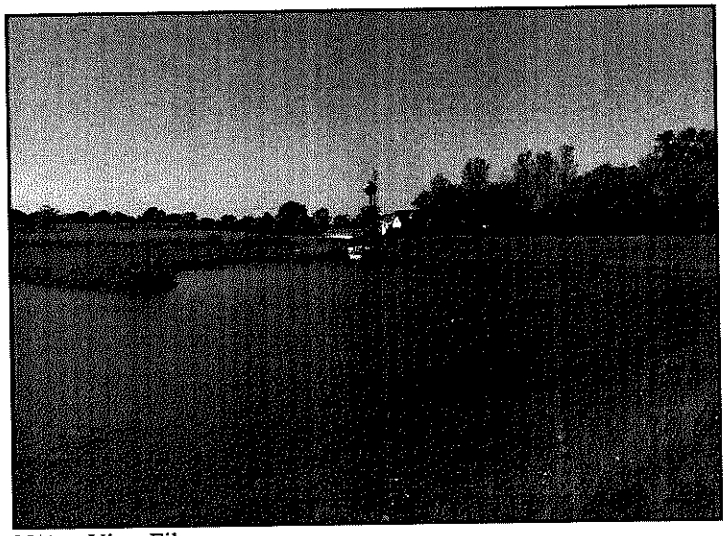
STORMWATER POND INSPECTION

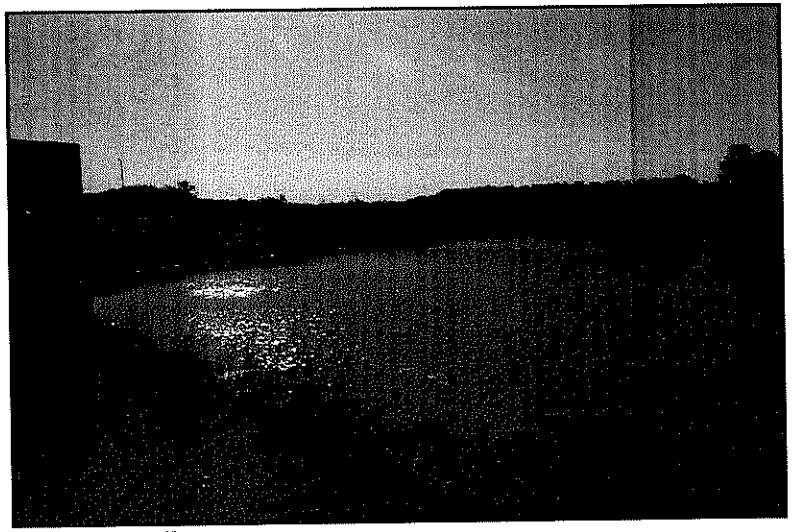
Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Vegetation							
1. Adequate vegetation cover?	✓				✓		
2. Appropriate vegetation?	✓				✓		
3. Presence of invasive or undesirable vegetation/woody growth?	✓				✓		
4. Excessive nuisance aquatic vegetation present?	✓				✓		
5. Other?			✓			✓	
Sediment Forebays							
1. Is sediment accumulation >50%? If yes, then maintenance is needed immediately.	✓				✓		
2. Evidence of excessive velocity/ scour?	✓				✓		
3. Maintenance access clear of obstructions?	✓				✓		
4. Other?			✓			✓	
Embankment & Emergency Spillway							
1. Is the spillway level?			✓			✓	
2. Adequate Freeboard? (min 1' from top of bank to highest outlet)			✓			✓	
3. Embankment erosion evident?			✓			✓	
4. Cracking, bulging or sliding of embankment?			✓			✓	
5. Evidence of animal burrows?			✓			✓	
6. Seepage evident on exterior face of embankment?			✓			✓	
7. Vertical & horizontal alignment of top of dam as per plans?			✓			✓	
8. Emergency spillway clear of obstructions & debris?			✓			✓	
9. Maintenance access clear of obstruction?			✓			✓	
10. Other?			✓			✓	

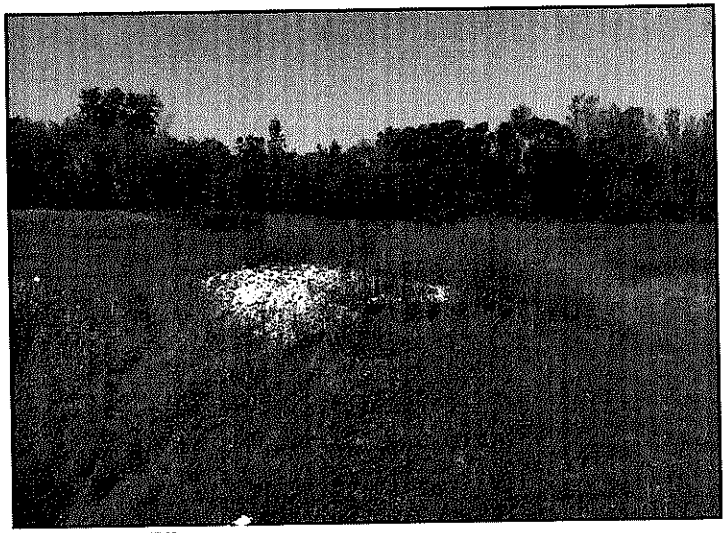
STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Riser & Outfall Spillway							
1. Low flow orifice obstructed?	✓				✓		
2. Low flow trash rack debris/ corrosion?	✓				✓		
3. Weir trash rack debris/corrosion?	✓				✓		
4. Excessive sediment accumulation inside the riser?	✓				✓		
5. Sediment accumulation in outlet pipe?	✓				✓		
6. Outfall channels functioning?	✓				✓		
7. Under drain functioning?	✓			✓			
8. Slope protection or rip-rap failures?	✓				✓		
9. Other?			✓			✓	
Other							
1. Encroachments on pond or ease-ment area?	✓				✓		
2. Complaints from residents?	✓				✓		
3. Odor?	✓				✓		
4. Mowing required?	✓				✓		
5. Graffiti removal needed?	✓				✓		
6. Insects in excess?	✓				✓		
7. Public hazards?	✓				✓		
8. Other?			✓			✓	

Summary:	
Inspector Remarks:	


N/A - View File


N/A - View File


N/A - View File

STORMWATER POND INSPECTION

Pond Information			
Pond ID:	0083	Pond Type:	Wet Pond
Location:	TID#5 Pond 1		
Subdivision:		Watershed:	
Capacity:		Acres:	
Overflow Elev:		100 Year Elev:	
Year Constructed:		Date Input:	
Water Quality:		Private:	

Inspection Details					
Inspector Name(s):	Kevin Van Aacken				
Inspection Date:	10/10/2019	Start Time:	10:09AM	End Time:	10:30AM
Weather Condition:	Cloudy			Last Rainfall Date:	10/6/2019

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Dry Pond							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Low flow channels unobstructed?			✓			✓	
4. Other?			✓			✓	
Wet Pond							
1. Removal of floating debris required?	✓				✓		
2. Visible oil/chemical presence?	✓				✓		
3. Evidence of wave action?	✓				✓		
4. Safety shelf erosion or failure?	✓				✓		
5. Other?			✓			✓	
Infiltration Basin							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Under drain functioning?			✓			✓	
4. Other?			✓			✓	

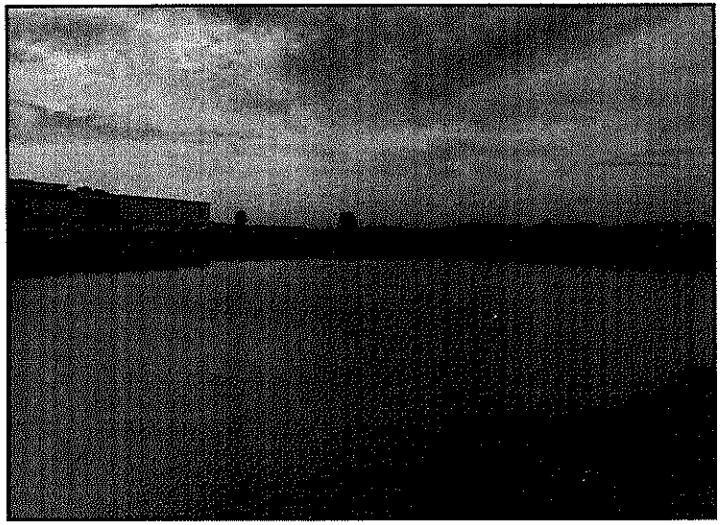
STORMWATER POND INSPECTION

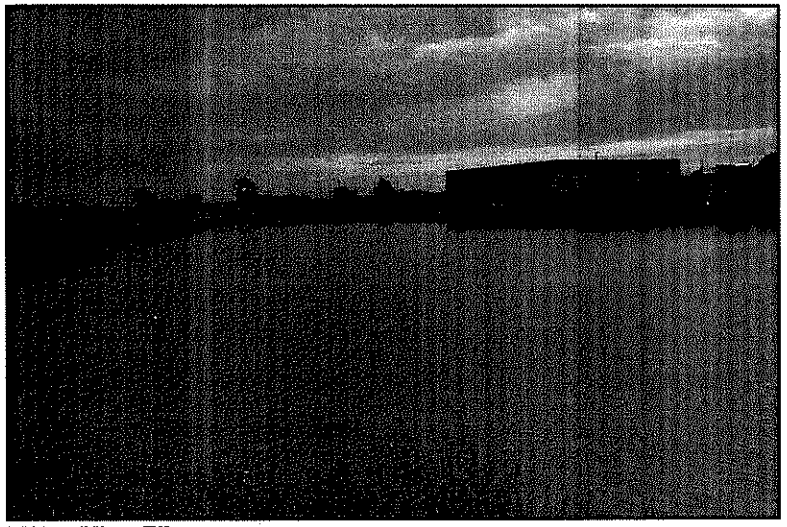
Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Vegetation							
1. Adequate vegetation cover?	✓				✓		
2. Appropriate vegetation?	✓				✓		
3. Presence of invasive or undesirable vegetation/woody growth?	✓				✓		
4. Excessive nuisance aquatic vegetation present?	✓				✓		
5. Other?			✓			✓	
Sediment Forebays							
1. Is sediment accumulation >50%? If yes, then maintenance is needed immediately.			✓			✓	
2. Evidence of excessive velocity/ scour?	✓				✓		
3. Maintenance access clear of obstructions?	✓				✓		
4. Other?			✓			✓	
Embankment & Emergency Spillway							
1. Is the spillway level?	✓				✓		
2. Adequate Freeboard? (min 1' from top of bank to highest outlet)	✓				✓		
3. Embankment erosion evident?	✓				✓		
4. Cracking, bulging or sliding of embankment?	✓				✓		
5. Evidence of animal burrows?	✓				✓		
6. Seepage evident on exterior face of embankment?	✓				✓		
7. Vertical & horizontal alignment of top of dam as per plans?	✓				✓		
8. Emergency spillway clear of obstructions & debris?	✓				✓		
9. Maintenance access clear of obstruction?	✓				✓		
10. Other?			✓			✓	

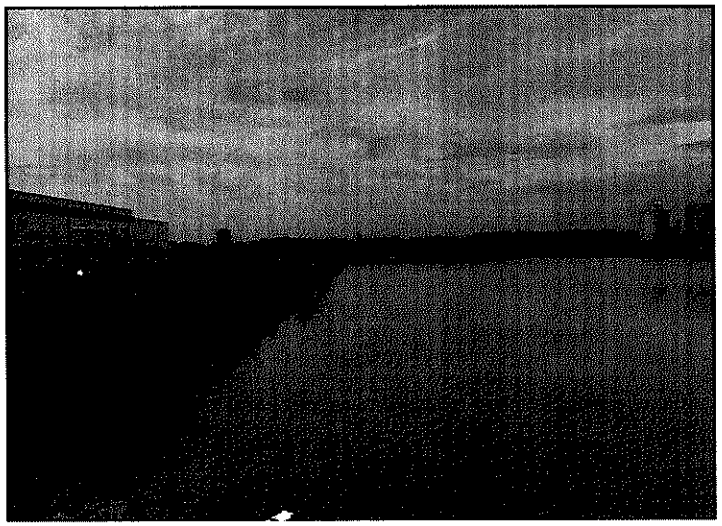
STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Riser & Outfall Spillway							
1. Low flow orifice obstructed?	✓				✓		
2. Low flow trash rack debris/ corrosion?	✓				✓		
3. Weir trash rack debris/corrosion?	✓				✓		
4. Excessive sediment accumulation inside the riser?	✓				✓		
5. Sediment accumulation in outlet pipe?	✓				✓		
6. Outfall channels functioning?			✓			✓	
7. Under drain functioning?			✓			✓	
8. Slope protection or rip-rap failures?			✓			✓	
9. Other?			✓			✓	
Other							
1. Encroachments on pond or ease-ment area?	✓				✓		
2. Complaints from residents?	✓				✓		
3. Odor?	✓				✓		
4. Mowing required?	✓				✓		
5. Graffiti removal needed?	✓				✓		
6. Insects in excess?	✓				✓		
7. Public hazards?	✓				✓		
8. Other?			✓			✓	

Summary:	
Inspector Remarks:	


N/A - View File


N/A - View File


N/A - View File

STORMWATER POND INSPECTION

Pond Information			
Pond ID:	0084	Pond Type:	Wet Pond
Location:	TID #5 Pond 2		
Subdivision:		Watershed:	
Capacity:		Acres:	
Overflow Elev:		100 Year Elev:	
Year Constructed:		Date Input:	
Water Quality:		Private:	

Inspection Details					
Inspector Name(s):	Kevin Van Aacken				
Inspection Date:	10/10/2019	Start Time:	09:45AM	End Time:	10:00AM
Weather Condition:	Cloudy			Last Rainfall Date:	10/6/2019

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Dry Pond							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Low flow channels unobstructed?			✓			✓	
4. Other?			✓			✓	
Wet Pond							
1. Removal of floating debris required?	✓				✓		
2. Visible oil/chemical presence?	✓				✓		
3. Evidence of wave action?	✓				✓		
4. Safety shelf erosion or failure?	✓				✓		
5. Other?			✓			✓	
Infiltration Basin							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Under drain functioning?			✓			✓	
4. Other?			✓			✓	

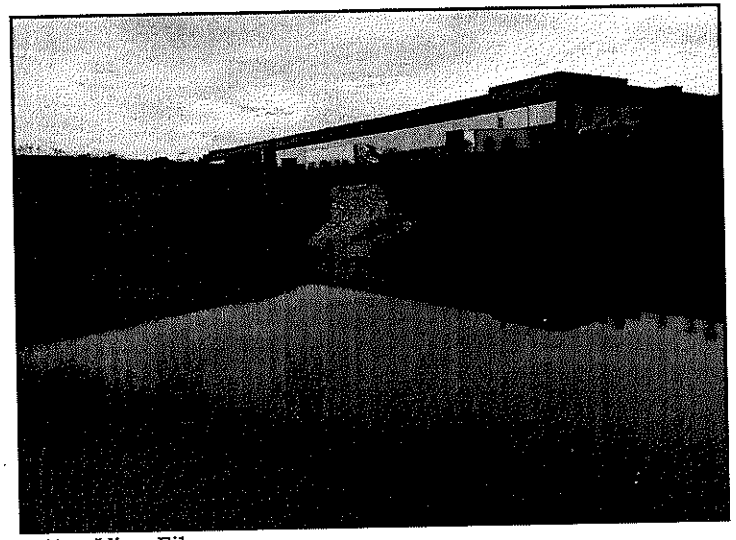
STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Vegetation							
1. Adequate vegetation cover?	✓				✓		
2. Appropriate vegetation?	✓				✓		
3. Presence of invasive or undesirable vegetation/woody growth?	✓				✓		
4. Excessive nuisance aquatic vegetation present?	✓				✓		
5. Other?			✓			✓	
Sediment Forebays							
1. Is sediment accumulation >50%? If yes, then maintenance is needed immediately.			✓			✓	
2. Evidence of excessive velocity/ scour?	✓				✓		
3. Maintenance access clear of obstructions?	✓				✓		
4. Other?			✓			✓	
Embankment & Emergency Spillway							
1. Is the spillway level?	✓				✓		
2. Adequate Freeboard? (min 1' from top of bank to highest outlet)	✓				✓		
3. Embankment erosion evident?	✓				✓		
4. Cracking, bulging or sliding of embankment?	✓				✓		
5. Evidence of animal burrows?	✓				✓		
6. Seepage evident on exterior face of embankment?	✓				✓		
7. Vertical & horizontal alignment of top of dam as per plans?			✓			✓	
8. Emergency spillway clear of obstructions & debris?			✓			✓	
9. Maintenance access clear of obstruction?			✓			✓	
10. Other?			✓			✓	

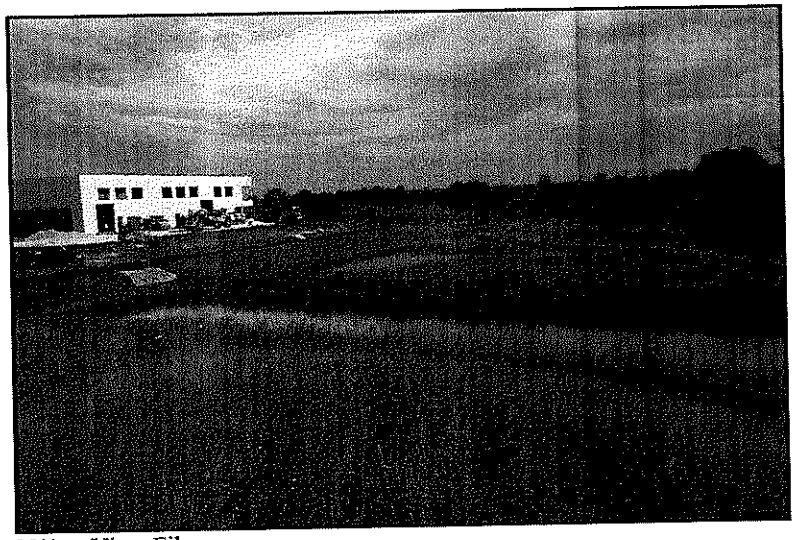
STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Riser & Outfall Spillway							
1. Low flow orifice obstructed?	✓				✓		
2. Low flow trash rack debris/ corrosion?	✓				✓		
3. Weir trash rack debris/corrosion?	✓				✓		
4. Excessive sediment accumulation inside the riser?	✓				✓		
5. Sediment accumulation in outlet pipe?	✓				✓		
6. Outfall channels functioning?	✓				✓		
7. Under drain functioning?			✓			✓	
8. Slope protection or rip-rap failures?			✓			✓	
9. Other?			✓			✓	
Other							
1. Encroachments on pond or ease-ment area?	✓				✓		
2. Complaints from residents?	✓				✓		
3. Odor?	✓				✓		
4. Mowing required?	✓				✓		
5. Graffiti removal needed?	✓				✓		
6. Insects in excess?	✓				✓		
7. Public hazards?	✓				✓		
8. Other?			✓			✓	

Summary:	
Inspector Remarks:	



N/A - View File



N/A - View File

STORMWATER POND INSPECTION

Pond Information			
Pond ID:	MV 0053	Pond Type:	Wet Pond
Location:	Miniwaukan Park Middle		
Subdivision:		Watershed:	Mukwonago
Capacity:		Acres:	
Overflow Elev:		100 Year Elev:	
Year Constructed:		Date Input:	
Water Quality:		Private:	

Inspection Details					
Inspector Name(s):	Kevin Van Aacken				
Inspection Date:	10/10/2019	Start Time:	12:45PM	End Time:	01:00PM
Weather Condition:	Cloudy			Last Rainfall Date:	10/6/2019

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Dry Pond							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Low flow channels unobstructed?			✓			✓	
4. Other?			✓			✓	
Wet Pond							
1. Removal of floating debris required?	✓				✓		
2. Visible oil/chemical presence?	✓				✓		
3. Evidence of wave action?			✓			✓	
4. Safety shelf erosion or failure?			✓			✓	
5. Other?			✓			✓	
Infiltration Basin							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Under drain functioning?			✓			✓	
4. Other?			✓			✓	

Ruekert·Mielke

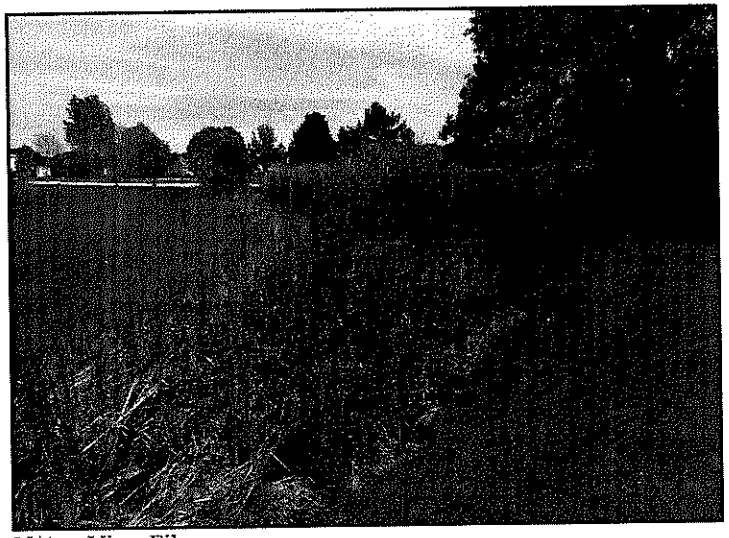
STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Vegetation							
1. Adequate vegetation cover?	✓				✓		
2. Appropriate vegetation?	✓				✓		
3. Presence of invasive or undesirable vegetation/woody growth?	✓			✓			Vegetation
4. Excessive nuisance aquatic vegetation present?	✓			✓			
5. Other?			✓			✓	
Sediment Forebays							
1. Is sediment accumulation >50%? If yes, then maintenance is needed immediately.			✓			✓	
2. Evidence of excessive velocity/ scour?			✓			✓	
3. Maintenance access clear of obstructions?			✓			✓	
4. Other?			✓			✓	
Embankment & Emergency Spillway							
1. Is the spillway level?			✓			✓	
2. Adequate Freeboard? (min 1' from top of bank to highest outlet)			✓			✓	
3. Embankment erosion evident?			✓			✓	
4. Cracking, bulging or sliding of embankment?			✓			✓	
5. Evidence of animal burrows?			✓			✓	
6. Seepage evident on exterior face of embankment?			✓			✓	
7. Vertical & horizontal alignment of top of dam as per plans?			✓			✓	
8. Emergency spillway clear of obstructions & debris?			✓			✓	
9. Maintenance access clear of obstruction?			✓			✓	
10. Other?			✓			✓	

STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Riser & Outfall Spillway							
1. Low flow orifice obstructed?	☐	☐	✓	☐	☐	✓	
2. Low flow trash rack debris/ corrosion?	☐	☐	✓	☐	☐	✓	
3. Weir trash rack debris/corrosion?	☐	☐	✓	☐	☐	✓	
4. Excessive sediment accumulation inside the riser?	☐	☐	✓	☐	☐	✓	
5. Sediment accumulation in outlet pipe?	☐	☐	✓	☐	☐	✓	
6. Outfall channels functioning?	☐	☐	✓	☐	☐	✓	
7. Under drain functioning?	☐	☐	✓	☐	☐	✓	
8. Slope protection or rip-rap failures?	☐	☐	✓	☐	☐	✓	
9. Other?	☐	☐	✓	☐	☐	✓	
Other							
1. Encroachments on pond or ease-ment area?	☐	☐	✓	☐	☐	✓	
2. Complaints from residents?	☐	☐	✓	☐	☐	✓	
3. Odor?	☐	☐	✓	☐	☐	✓	
4. Mowing required?	☐	☐	✓	☐	☐	✓	
5. Graffiti removal needed?	☐	☐	✓	☐	☐	✓	
6. Insects in excess?	☐	☐	✓	☐	☐	✓	
7. Public hazards?	☐	☐	✓	☐	☐	✓	
8. Other?	☐	☐	✓	☐	☐	✓	

Summary:	
Inspector Remarks:	



N/A - View File

STORMWATER POND INSPECTION

Pond Information			
Pond ID:	MV 0052	Pond Type:	Wet Pond
Location:	Miniwauken Park East		
Subdivision:		Watershed:	Mukwonago
Capacity:		Acres:	
Overflow Elev:		100 Year Elev:	
Year Constructed:		Date Input:	
Water Quality:		Private:	

Inspection Details					
Inspector Name(s):	Kevin Van Aacken				
Inspection Date:	10/10/2019	Start Time:	01:00PM	End Time:	1:10PM
Weather Condition:	Cloudy 67F			Last Rainfall Date:	10/6/2019

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Dry Pond							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Low flow channels unobstructed?			✓			✓	
4. Other?			✓			✓	
Wet Pond							
1. Removal of floating debris required?	✓				✓		
2. Visible oil/chemical presence?	✓				✓		
3. Evidence of wave action?	✓				✓		
4. Safety shelf erosion or failure?			✓			✓	
5. Other?			✓			✓	
Infiltration Basin							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Under drain functioning?			✓			✓	
4. Other?			✓			✓	

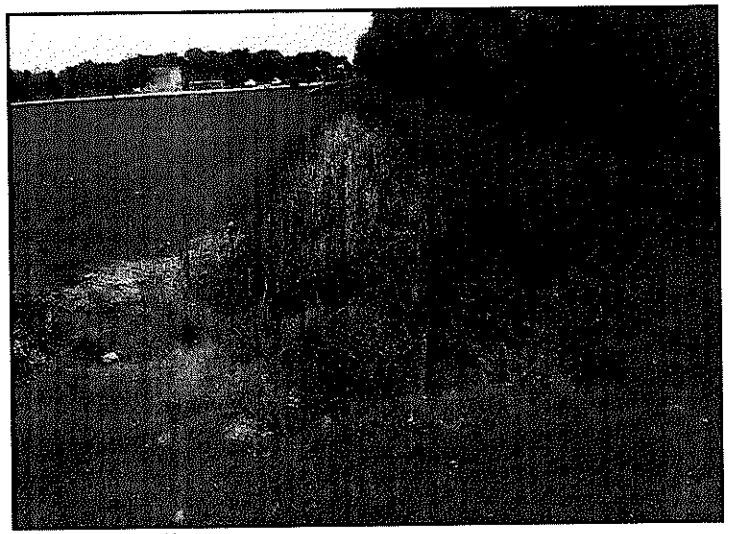
STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Vegetation							
1. Adequate vegetation cover?	✓				✓		
2. Appropriate vegetation?	✓				✓		
3. Presence of invasive or undesirable vegetation/woody growth?	✓				✓		
4. Excessive nuisance aquatic vegetation present?	✓			✓			
5. Other?			✓			✓	
Sediment Forebays							
1. Is sediment accumulation >50%? If yes, then maintenance is needed immediately.			✓			✓	
2. Evidence of excessive velocity/ scour?			✓			✓	
3. Maintenance access clear of obstructions?			✓			✓	
4. Other?			✓			✓	
Embankment & Emergency Spillway							
1. Is the spillway level?			✓			✓	
2. Adequate Freeboard? (min 1' from top of bank to highest outlet)			✓			✓	
3. Embankment erosion evident?			✓			✓	
4. Cracking, bulging or sliding of embankment?			✓			✓	
5. Evidence of animal burrows?			✓			✓	
6. Seepage evident on exterior face of embankment?			✓			✓	
7. Vertical & horizontal alignment of top of dam as per plans?			✓			✓	
8. Emergency spillway clear of obstructions & debris?			✓			✓	
9. Maintenance access clear of obstruction?			✓			✓	
10. Other?			✓			✓	

STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Riser & Outfall Spillway							
1. Low flow orifice obstructed?	☐	☐	✓	☐	☐	✓	
2. Low flow trash rack debris/ corrosion?	☐	☐	✓	☐	☐	✓	
3. Weir trash rack debris/corrosion?	☐	☐	✓	☐	☐	✓	
4. Excessive sediment accumulation inside the riser?	☐	☐	✓	☐	☐	✓	
5. Sediment accumulation in outlet pipe?	☐	☐	✓	☐	☐	✓	
6. Outfall channels functioning?	☐	☐	✓	☐	☐	✓	
7. Under drain functioning?	☐	☐	✓	☐	☐	✓	
8. Slope protection or rip-rap failures?	☐	☐	✓	☐	☐	✓	
9. Other?	☐	☐	✓	☐	☐	✓	
Other							
1. Encroachments on pond or ease-ment area?	✓	☐	☐	☐	✓	☐	
2. Complaints from residents?	☐	☐	✓	☐	☐	✓	
3. Odor?	✓	☐	☐	☐	✓	☐	
4. Mowing required?	✓	☐	☐	☐	✓	☐	
5. Graffiti removal needed?	☐	☐	✓	☐	☐	✓	
6. Insects in excess?	☐	☐	✓	☐	☐	✓	
7. Public hazards?	☐	☐	✓	☐	☐	✓	
8. Other?	☐	☐	✓	☐	☐	✓	

Summary:	
Inspector Remarks:	



N/A - View File

STORMWATER POND INSPECTION

Pond Information			
Pond ID:	MV 0054	Pond Type:	Wet Pond
Location:	Miniwaukan Park West		
Subdivision:		Watershed:	Mukwonago
Capacity:		Acres:	
Overflow Elev:		100 Year Elev:	
Year Constructed:		Date Input:	
Water Quality:		Private:	

Inspection Details					
Inspector Name(s):	Kevin Van Aacken				
Inspection Date:	10/10/2019	Start Time:	12:30PM	End Time:	12:45PM
Weather Condition:	Cloudy 67 F			Last Rainfall Date:	

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Dry Pond							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Low flow channels unobstructed?			✓			✓	
4. Other?			✓			✓	
Wet Pond							
1. Removal of floating debris required?	✓				✓		
2. Visible oil/chemical presence?	✓				✓		
3. Evidence of wave action?	✓				✓		
4. Safety shelf erosion or failure?			✓			✓	
5. Other?			✓			✓	
Infiltration Basin							
1. Standing water or wet spots?			✓			✓	
2. Sediment or trash accumulation?			✓			✓	
3. Under drain functioning?			✓			✓	
4. Other?			✓			✓	

STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Vegetation							
1. Adequate vegetation cover?	✓				✓		
2. Appropriate vegetation?	✓				✓		
3. Presence of invasive or undesirable vegetation/woody growth?	✓				✓		
4. Excessive nuisance aquatic vegetation present?	✓				✓		
5. Other?			✓			✓	
Sediment Forebays							
1. Is sediment accumulation >50%? If yes, then maintenance is needed immediately.			✓			✓	
2. Evidence of excessive velocity/ scour?			✓			✓	
3. Maintenance access clear of obstructions?			✓			✓	
4. Other?			✓			✓	
Embankment & Emergency Spillway							
1. Is the spillway level?			✓			✓	
2. Adequate Freeboard? (min 1' from top of bank to highest outlet)			✓			✓	
3. Embankment erosion evident?			✓			✓	
4. Cracking, bulging or sliding of embankment?			✓			✓	
5. Evidence of animal burrows?			✓			✓	
6. Seepage evident on exterior face of embankment?			✓			✓	
7. Vertical & horizontal alignment of top of dam as per plans?			✓			✓	
8. Emergency spillway clear of obstructions & debris?			✓			✓	
9. Maintenance access clear of obstruction?			✓			✓	
10. Other?			✓			✓	

STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Riser & Outfall Spillway							
1. Low flow orifice obstructed?	☐	☐	✓	☐	☐	✓	
2. Low flow trash rack debris/ corrosion?	☐	☐	✓	☐	☐	✓	
3. Weir trash rack debris/corrosion?	☐	☐	✓	☐	☐	✓	
4. Excessive sediment accumulation inside the riser?	☐	☐	✓	☐	☐	✓	
5. Sediment accumulation in outlet pipe?	☐	☐	✓	☐	☐	✓	
6. Outfall channels functioning?	☐	☐	✓	☐	☐	✓	
7. Under drain functioning?	☐	☐	✓	☐	☐	✓	
8. Slope protection or rip-rap failures?	☐	☐	✓	☐	☐	✓	
9. Other?	☐	☐	✓	☐	☐	✓	
Other							
1. Encroachments on pond or ease-ment area?	✓	☐	☐	☐	✓	☐	
2. Complaints from residents?	☐	✓	☐	☐	✓	☐	
3. Odor?	✓	☐	☐	☐	✓	☐	
4. Mowing required?	✓	☐	☐	☐	✓	☐	
5. Graffiti removal needed?	☐	☐	✓	☐	☐	✓	
6. Insects in excess?	☐	☐	✓	☐	☐	✓	
7. Public hazards?	☐	☐	✓	☐	☐	✓	
8. Other?	☐	☐	✓	☐	☐	✓	

Summary:	
Inspector Remarks:	

BROOKLIFE
CHURCH

857 S. Rochester St., Suite 300
Mukwonago, WI 53149

262.378.4470
BROOKLIFE.ORG

February 6, 2020

Village of Mukwonago
Department of Public works
c/o Ron Bittner
440 River Crest Ct.
Mukwonago, WI 53149

Dear Ron,

Below is a summary of our stormwater pond maintenance for the pond located on our property. Let me know if you have any questions.

Sitework (cutting the grass and keeping the banks clear of debris – worked performed by Newbys):

- 5/23/19
- 7/3/19
- 7/10/19
- 9/25/19

Visual inspections (making sure inlets and outlets are clear and free from debris – performed by Josh Peterson):

- 5/6/19; 6/3/19; 7/29/19; 9/30/19

Sincerely,

Josh Peterson
Associate Pastor
262-378-4470
jpeterson@brooklife.org

BIORETENTION BASIN JANUARY 2019

During routine maintenance of our bioretention basin, located at 1002 Main Street in the village of Mukwonago, we cleaned refuse from grate and shoveled snow and ice from grate. Retention area was free of standing water and no other problems were noticed during this inspection.

Village Automotive & Tire
262.363.9450
Nicholas Bruss

BIORETENTION BASIN APRIL 2019

During routine maintenance of our bioretention basin, located on 1002 Main Street in the Village of Mukwonago, the drain remains cleaned and checked to be free from garbage and plant debris. The grate remains clear with no issues found. In the spring lawn is cleaned of miscellaneous debris from drain areas and no concerns during this inspection period.

Village Automotive & Tire

262.363.9450

Nicholas Bruss

BIORETENTION BASIN SEPTEMBER 2019

During routine maintenance of our bioretention basin, located on 1002 Main Street in the Village of Mukwonago, the drain remains cleaned and checked to be free from garbage and plant debris. The grate remains clear with no issues found. In the fall lawn is cleaned of miscellaneous debris from drain areas and no concerns during this inspection period.

Village Automotive & Tire
262.363.9450
Nicholas Bruss

St. John's Evangelical
Lutheran Church and School
www.stjohnslutheran-muk.org

410 HWY NN West
Mukwonago, WI 53149

262.363.4999

Pastor John Bortulin pastor@stjohnslutheran-muk.org
Pastor Micah Martin pastor.martin@stjohnslutheran-muk.org
Vicar Nick Mount vicar@stjohnslutheran-muk.org
Mr. James Schneck, Principal jschneck@stjohnslutheran-muk.org

September 3, 2019

Mr. Ron Bittner
Public Works Director
Village of Mukwonago
P.O. Box 206
440 River Crest Ct.
Mukwonago, Wisconsin 53149

Subject: Annual Storm Water Management Facility Inspection
St. John's Evangelical Lutheran Church and School
Mukwonago, Wisconsin

Dear Mr. Bittner,

Please find attached the Annual Storm Water Management Inspection Form for the recently completed observations at the above referenced site. In accordance with our original building plans, pavement and roof storm water is directed into a natural kettle in the west-central portion of the property. A copy of the applicable portion of the Site/Erosion Control Plan showing the approximate area of the kettle is also attached. If you have any questions or need additional information, please do not hesitate to contact us. Thank you.

Sincerely yours,

Jim Becco
Member – St. John's Evangelical Lutheran Church

STORMWATER MANAGEMENT INSPECTION FORM

Facility Name/Owner: St. John's Evangelical Lutheran Church and School

Street Address: 410 County Highway NN

City/State: Mukwonago, Wisconsin 53149

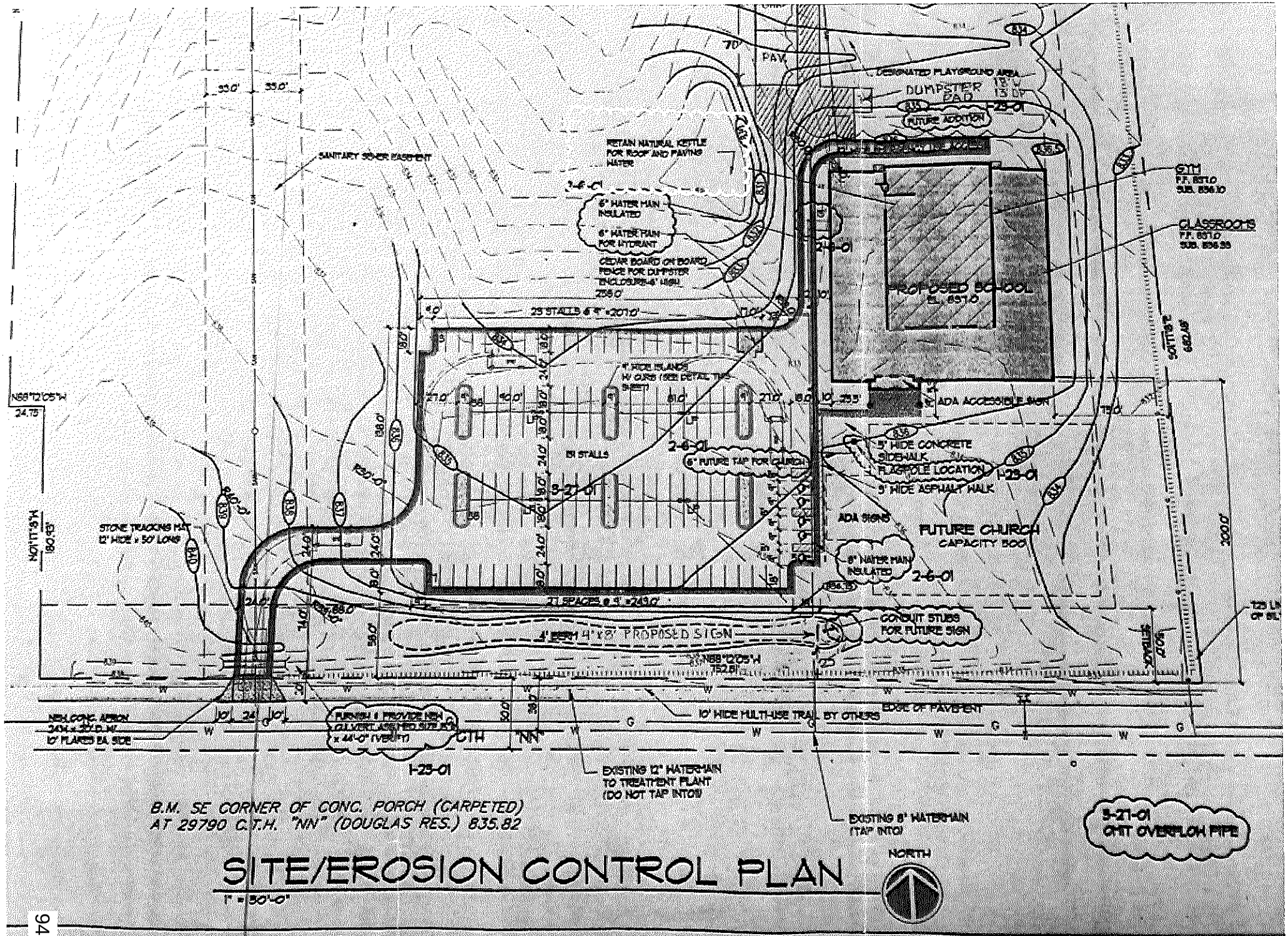
Contact Number: 262-363-4999

Performed By: Jim Becco

Inspection Date: 9/3/2019

Feature Description: Natural, vegetated kettle

ITEM	CHECKED Y/N	MAINTENANCE REQ'D Y/N	COMMENTS
Vegetation	Y	N	
Erosion	Y	N	
Slopes	Y	N	
Flooding	Y	N	
Yard Waste/Trash/Sediment	Y	N	
Standing Water	Y	N	
Inlets	Y	N	
Outlets			NA



SITE/EROSION CONTROL PLAN

1" = 50'-0"

EXHIBIT C-2

Bio-Infiltration Operation, Inspection, and Maintenance Report Form

Project: Mukwonago School Dist.

Location: MHS District Office

Date: 10-9-19

Time: 9:30 A.m

Weather: Sunny

Inspector: John S.

Maintenance Item	Satisfactory / Unsatisfactory	Comments
1. Embankment (Annual, After Major Storms)		
1. Vegetation and ground cover adequate	S	
2. Embankment erosion	S	
3. Animal burrows	S	
4. Unauthorized planting	S	
5. Cracking, bulging, or sliding of dam		
a. Upstream face	S	
b. Downstream face	S	
c. At or beyond toe		
Downstream	S	
Upstream	S	
6. Basin outlets clear and functioning	S	
7. Seeps/leaks on downstream face	S	
8. Slope protection or riprap failure	S	
9. Vertical/horizontal alignment of top of dam "As-Built"	S	
10. Other (specify)		
2. Outlet pipe and principal spillway (Annual)		
Type: Reinforced concrete X Corrugated pipe ___ Masonry ___		
1. Excessive sediment accumulation inside outlet pipe	S	
2. Concrete/masonry condition of outlet pipe	S	
a. cracks or displacement	S	
b. Minor spalling (<1")	S	
c. Major spalling (rebars exposed)	S	

Maintenance Item	Satisfactory / Unsatisfactory	Comments
d. Joint failures	S	
e. Water tightness	S	
3. Outfall channels functioning	S	
4. Other (specify)		
3. Bottom of basin (monthly)		
1. Undesirable vegetative growth	S	
2. Debris removal required	S	
3. Visible pollution	S	
4. Accumulated sediment	S	
5. Other (specify)		
4. Condition of Outfalls into Ponds (Annual , After Major Storms)		
1. Riprap failures	S	
2. Slope erosion	S	
3. Storm drain pipes	S	
4.Endwalls / Headwalls	S	
5. Other (specify)		
5. Other (Monthly)		
1. Encroachment on pond or easement area	S	
2. Complaints from residents	/	
3. Aesthetics		
a. Vegetation growth required	S	
b. Vegetation removal required, such as large, woody plants (i.e. trees)	S	
c. Debris and litter removal	S	
d. Other (specify)		
4. Any public hazards (specify)		

Comments:

Actions to be Taken: No Action needs to be taken at this time.

EXHIBIT C-2

Bio-Infiltration Operation, Inspection, and Maintenance Report Form

Project: Mukwonago School Dist
Location: MHS East Pond
Date: 10-9-19
Time: 11:00 AM
Weather: Sunny
Inspector: John S.

Maintenance Item	Satisfactory / Unsatisfactory	Comments
1. Embankment (Annual, After Major Storms)		
1. Vegetation and ground cover adequate	S	
2. Embankment erosion	S	
3. Animal burrows	S	
4. Unauthorized planting	S	
5. Cracking, bulging, or sliding of dam		
a. Upstream face	S	
b. Downstream face	S	
c. At or beyond toe	[redacted]	
Downstream	S	
Upstream	S	
6. Basin outlets clear and functioning	S	
7. Seeps/leaks on downstream face	S	
8. Slope protection or riprap failure	S	
9. Vertical/horizontal alignment of top of dam "As-Built"	S	
10. Other (specify)		
2. Outlet pipe and principal spillway (Annual)		
Type: Reinforced concrete X Corrugated pipe [redacted] Masonry	S	
1. Excessive sediment accumulation inside outlet pipe	S	
2. Concrete/masonry condition of outlet pipe	S	
a. cracks or displacement	S	
b. Minor spalling (<1")	S	
c. Major spalling (rebars exposed)	S	

Maintenance Item	Satisfactory / Unsatisfactory	Comments
d. Joint failures	S	
e. Water tightness	S	
3. Outfall channels functioning	S	
4. Other (specify)		
3. Bottom of basin (monthly)		
1. Undesirable vegetative growth	S	
2. Debris removal required	S	
3. Visible pollution	S	
4. Accumulated sediment	S	
5. Other (specify)		
4. Condition of Outfalls into Ponds (Annual , After Major Storms)		
1. Riprap failures	S	
2. Slope erosion	S	
3. Storm drain pipes	S	
4.Endwalls / Headwalls	S	
5. Other (specify)		
5. Other (Monthly)		
1. Encroachment on pond or easement area	S	
2. Complaints from residents	S	
3. Aesthetics	S	
a. Vegetation growth required	S	
b. Vegetation removal required, such as large, woody plants (i.e. trees)	S	
c. Debris and litter removal	S	
d. Other (specify)		
4. Any public hazards (specify)		

Comments:

Actions to be Taken:

EXHIBIT C-2

Bio-Infiltration Operation, Inspection, and Maintenance Report Form

Project: Mukwonago School Dist

Location: MHS West Pond

Date: 10-9-19

Time: 1:00 P.M.

Weather: Sunny

Inspector: John S.

Maintenance Item	Satisfactory / Unsatisfactory	Comments
1. Embankment (Annual, After Major Storms)		
1. Vegetation and ground cover adequate	S	
2. Embankment erosion	S	
3. Animal burrows	S	
4. Unauthorized planting	S	
5. Cracking, bulging, or sliding of dam	S	
a. Upstream face	S	
b. Downstream face	S	
c. At or beyond toe	S	
Downstream	S	
Upstream	S	
6. Basin outlets clear and functioning	S	
7. Seeps/leaks on downstream face	S	
8. Slope protection or riprap failure	S	
9. Vertical/horizontal alignment of top of dam "As-Built"	S	
10. Other (specify)		
2. Outlet pipe and principal spillway (Annual)		
Type: Reinforced concrete X Corrugated pipe ____ Masonry ____		
1. Excessive sediment accumulation inside outlet pipe	S	
2. Concrete/masonry condition of outlet pipe	S	
a. cracks or displacement	S	
b. Minor spalling (<1")	S	
c. Major spalling (rebars exposed)	S	

Maintenance Item	Satisfactory / Unsatisfactory	Comments
d. Joint failures	S	
e. Water tightness	S	
3. Outfall channels functioning	S	
4. Other (specify)		
3. Bottom of basin (monthly)		
1. Undesirable vegetative growth	S	
2. Debris removal required	S	
3. Visible pollution	S	
4. Accumulated sediment	S	
5. Other (specify)		
4. Condition of Outfalls into Ponds (Annual , After Major Storms)		
1. Riprap failures	S	
2. Slope erosion	S	
3. Storm drain pipes	S	
4.Endwalls / Headwalls	S	
5. Other (specify)		
5. Other (Monthly)		
1. Encroachment on pond or easement area	S	
2. Complaints from residents	S	
3. Aesthetics	S	
a. Vegetation growth required	S	
b. Vegetation removal required, such as large, woody plants (i.e. trees)	S	
c. Debris and litter removal	S	
d. Other (specify)		
4. Any public hazards (specify)		

Comments:

Actions to be Taken: NO ACTION NEEDS TO BE TAKEN AT THIS TIME

Attachment A: Wet Detention Basin BMP Inspection Report
Waukesha County, Wisconsin

Project Name: Fox River View HOA

Inspection Date: 12-5-19

BMP Description: Pond inspection

BMP ID Number: ____

Code Key:

N/A = Not Applicable	M = Monitor (potential for future problem)	NP = Not a Problem	WN = Work Needed

INFLOW POINTS

Assessment	Code	Comments
Obstruction: vegetation/debris/sediment	NP	Cut and cleaned Q2 2019
Erosion/undercutting	NP	
Displacement of fabric/rip rap	NP	
Pipe Condition	NP	
Other (describe)	N/A	

FOREBAY

Assessment	Code	Comments
Sediment depth (ft.below principal outlet)	NP	
Side slope erosion	NP	
Invasive vegetation	NP	
Safety shelf	NP	
Other (describe)	NP	

MAIN POOL

Assessment	Code	Comments
Visible pollution/water quality	NP	
Sediment depth (ft.below principal outlet)	NP	
Vegetation height/type	NP	
Bare soil/erosion	NP	
Invasive vegetation (estimate a %)	NP	
Weeds/algae cover (estimate a %)	NP	- No Algae noted / cold out
Permanent pool elevation	NP	
Pond liner	NP	
Safety shelf	NP	
Other (describe)	N/A	

EMBANKMENT

Assessment	Code	Comments
Erosion and/or loss of dam material	NP	
Shrubs/trees present	NP	
Animal burrows	NP	
Soft spots or settlement	NP	
Emergency spillway	NP	
Other (describe)	NP	

OUTLET DEVICE

Assessment	Code	Comments
Obstruction: vegetation/debris/sediment	NP	
Erosion/undercutting	NP	
Joint failure/loss of joint material	NP	
Leaking device	NP	
Outfall riprap/scour prevention	NP	
Other (describe)		

MISCELLANEOUS

Assessment	Code	Comments
Trash/debris	N	TRASH on wind, bags
Access	NP	
Vandalism	NP	
Fence condition (if applicable)	NA	
Fish/wildlife observations	NA	
Signage (if applicable)	NA	
Water balance	NA	
Aerator/fountain	NA	
Sediment disposal site (available?)	NA	
Other (describe)		

PHOTOGRAPHS

Attach color digital photographs of the site and structural BMPs including a caption describing each photo.

ADDITIONAL COMMENTS

FAIRWINDS HOMEOWNERS' ASSOCIATION, INC.
1830 Meadow Lane, Suite A
Pewaukee, Wisconsin 53072
(262) 547-6181

February 3, 2020

Ron Bittner
Public Works Director
Village of Mukwonago
440 River Crest Court
Mukwonago, Wisconsin 53149

Re: *Fairwinds Stormwater Ponds*

Dear Ron:

Pursuant to your request regarding documentation of inspections and work performed on the stormwater ponds at Fairwinds, please see below and the enclosed.

Enclosed you will find the treatment details from Wisconsin Lake & Pond who provided the pond maintenance in 2019. The HOA also hired goose management contractors for 2019 and will continue to do so until the geese are no longer an issue.

After multiple inspections, the HOA noticed that the tree growth around the east pond was excessive and contracted with BK Property Management to remove the growth. Enclosed is the proposal from November, 2019. Note that this work was done during January, 2020.

As you are aware, Bielinski Development, Inc. finished the reconstruction of the west pond and encloses herewith all of the inspection reports performed by R&M for Fairwinds V which included this pond work.

The HOA is not aware of any other structural or operational issues with the ponds at Fairwinds and will continue to monitor same.

Let us know if there are any further questions.

Sincerely,

Meg Galaska
President

Enclosures

Tim Voeller

From: Wisconsin Lake & Pond Resource, LLC <kathy@wisconsinlpr.com>
Sent: Thursday, May 23, 2019 11:13 AM
To: Tim Voeller
Subject: Treatment Report

Wisconsin Lake & Pond Resource, LLC
N7828 Town Hall Rd., Eldorado, WI 54932
Phone: 920-872-2032

CLIENT INFORMATION

Bielinski Homes
1830 Meadow Lane, Suite A
Pewaukee , WI 53072

Contact Info:
Tim Voeller
tvoeller@bielinski.com
262-893-4716

PROJECT INFORMATION

Pond Info:
Fairwinds HOA - Pond A
617 Stoecker Farm Avenue
Mukwonago, WI 53149

Size (acres): 1.003214
Max Depth:
Mean Depth: 5
Permit No: SE-2019-68-1910
Google Earth URL of Pond:

Service Technician	Pesticide Applicator License
Berg, Joey	092501
Marlow, Thayne	104941

TREATMENT DETAIL

Treatment Date: 2019-05-22
Treatment Start Time: 10:20am

Treatment End Time: 11:05am
Services Performed: Basic Pond Management
Species Treated: Filamentous Algae, Eurasian/hybrid Milfoil
Acres Treated: 1.0
Volume Treated (ac-ft): 5.01607
Restrictions:
- 1 Day Drinking
- 5 Days Irrigation

Notes: WLPR was on site for our first pond management visit and site inspection of the season. While on site, the initial concentration of dye was applied to both ponds to aid in aesthetics and management of the ponds. Both ponds contained minor Filamentous algae and Eurasian Water Milfoil (invasive species). We will continue to treat Eurasian Water Milfoil when present. Enzymes were added to aid in the treatments and for the breakdown of organic matter. The invasive Phragmites and also willows are present in high densities around the perimeter- We recommend treating later this summer. .

Applicator shall provide a free copy of each pesticide label used (if requested).

PRODUCT DETAIL

Product Name	EPA Number	Amt. Used	Rate/Concentration
Captain XTR	67690-9	2.25 gal.	0.15
Tribune	100-1390	1.25 gal.	1.25 gal/acre
Aquathol K	70506-176	1.25 gal.	0.4
Water Quality Enzymes		1.5 gal.	
WLPR Colorant - Black		2 qt.	
WLPR Colorant - Blue		2.5 qt.	
Aquashade	33068-1	0.5 gal.	

Copyright ©2019 All rights reserved. Wisconsin Lake & Pond Resource, LLC

Tim Voeller

From: Wisconsin Lake & Pond Resource, LLC <kathy@wisconsinlpr.com>
Sent: Friday, July 19, 2019 3:47 PM
To: Tim Voeller
Subject: Treatment Report

Wisconsin Lake & Pond Resource, LLC
N7828 Town Hall Rd., Eldorado, WI 54932
Phone: 920-872-2032

CLIENT INFORMATION

Bielinski Homes
1830 Meadow Lane, Suite A
Pewaukee , WI 53072

Contact Info:
Tim Voeller
tvoeller@bielinski.com
262-893-4716

PROJECT INFORMATION

Pond Info:
Fairwinds HOA - Pond A
617 Stoecker Farm Avenue
Mukwonago, WI 53149

Size (acres):1.003214
Max Depth:
Mean Depth: 5
Permit No: SE-2019-68-1910
Google Earth URL of Pond:

Service Technician	Pesticide Applicator License
Lorge, Nicholas	105360
Zickert, Nathan	103092

TREATMENT DETAIL

Treatment Date: 2019-07-19
Treatment Start Time: 10:30am

Treatment End Time: 11:20am
Services Performed: Basic Pond Management
Species Present: Cattail
Acres Treated: 1.0
Volume Treated (ac-ft): 5.01607
Restrictions:
- None

Notes: Pond looked good overall with no filamentous algae or nuisance vegetation present while on site. Bacteria and enzymes were applied throughout the pond to improve overall water quality and clarity. Aquashade was applied to limit sunlight to growing aquatic plants and algae, which will help to limit total nuisance growth in the pond. Pond colorant was added for aesthetic purposes.

Applicator shall provide a free copy of each pesticide label used (if requested).

PRODUCT DETAIL

Product Name	EPA Number	Amt. Used	Rate/Concentration
Aquashade	33068-1	1 gal.	1 GAL/4 ACRE-FT
Water Quality Bacteria - Bulk		10 lbs.	
Water Quality Enzymes		1 gal.	
WLPR Colorant - Black		1.5 qt.	
WLPR Colorant - Blue		1.5 qt.	

Copyright ©2019 All rights reserved. Wisconsin Lake & Pond Resource, LLC

Tim Voeller

From: Wisconsin Lake & Pond Resource, LLC <kathy@wisconsinlpr.com>
Sent: Thursday, May 23, 2019 11:16 AM
To: Tim Voeller
Subject: Treatment Report

Wisconsin Lake & Pond Resource, LLC
N7828 Town Hall Rd., Eldorado, WI 54932
Phone: 920-872-2032

CLIENT INFORMATION

Bielinski Homes
1830 Meadow Lane, Suite A
Pewaukee , WI 53072

Contact Info:
Tim Voeller
tvoeller@bielinski.com
262-893-4716

PROJECT INFORMATION

Pond Info:
Fairwinds HOA - Pond B
617 Stoecker Farm Avenue
Mukwonago, WI 53149

Size (acres):.3489
Max Depth:
Mean Depth: 4
Permit No: SE-2019-68-1910
Google Earth URL of Pond:

Service Technician	Pesticide Applicator License
Berg, Joey	092501
Marlow, Thayne	104941

TREATMENT DETAIL

Treatment Date: 2019-05-22
Treatment Start Time: 10:20am

Treatment End Time: 11:05am
Services Performed: Basic Pond Management
Species Treated: Filamentous Algae, Eurasian/hybrid Milfoil
Acres Treated: 0.34
Volume Treated (ac-ft): 1.3956
Restrictions:
- 1 Day Drinking
- 5 Days Irrigation

Notes: WLPR was on site for our first pond management visit and site inspection of the season. While on site, the initial concentration of dye was applied to both ponds to aid in aesthetics and management of the ponds. Both ponds contained minor Filamentous algae and Eurasian Water Milfoil (invasive species). We will continue to treat Eurasian Water Milfoil when present. Enzymes were added to aid in the treatments and for the breakdown of organic matter. The invasive Phragmites and also willows are present in high densities around the perimeter- We recommend treating later this summer. .

Applicator shall provide a free copy of each pesticide label used (if requested).

PRODUCT DETAIL

Product Name	EPA Number	Amt. Used	Rate/Concentration
Captain XTR	67690-9	1.25 gal.	0.3
Tribune	100-1390	0.5 gal.	1.4 gal/acre
Aquathol K	70506-176	0.5 gal.	0.56
Water Quality Enzymes		1 gal.	
WLPR Colorant - Black		1 qt.	
WLPR Colorant - Blue		0.5 qt.	
Aquashade	33068-1	0.5 gal.	

Copyright ©2019 All rights reserved. Wisconsin Lake & Pond Resource, LLC

Tim Voeller

From: Wisconsin Lake & Pond Resource, LLC <kathy@wisconsinlpr.com>
Sent: Friday, July 19, 2019 3:47 PM
To: Tim Voeller
Subject: Treatment Report

Wisconsin Lake & Pond Resource, LLC
N7828 Town Hall Rd., Eldorado, WI 54932
Phone: 920-872-2032

CLIENT INFORMATION

Bielinski Homes
1830 Meadow Lane, Suite A
Pewaukee , WI 53072

Contact Info:
Tim Voeller
tvoeller@bielinski.com
262-893-4716

PROJECT INFORMATION

Pond Info:
Fairwinds HOA - Pond B
617 Stoecker Farm Avenue
Mukwonago, WI 53149

Size (acres):.3489
Max Depth:
Mean Depth: 4
Permit No: SE-2019-68-1910
Google Earth URL of Pond:

Service Technician	Pesticide Applicator License
Lorge, Nicholas	105360
Zickert, Nathan	103092

TREATMENT DETAIL

Treatment Date: 2019-07-19
Treatment Start Time: 10:30am

Treatment End Time: 11:20am
Services Performed: Basic Pond Management
Species Present: Cattail
Species Treated: Filamentous Algae
Acres Treated: .3489
Volume Treated (ac-ft): 1.3956
Restrictions:
- 1 Day Drinking
- 5 Days Irrigation

Notes: Pond had low amounts of nuisance filamentous algae present which was treated while on site. Bacteria and enzymes were applied following the treatment to aid in the decomposition of decaying algae, and also to improve overall water quality and clarity. Aquashade was applied to limit sunlight to growing plants and algae. Pond colorant was applied for aesthetic purposes.

Applicator shall provide a free copy of each pesticide label used (if requested).

PRODUCT DETAIL

Product Name	EPA Number	Amt. Used	Rate/Concentration
Captain XTR	67690-9	.5 gal.	.123ppm
Tribune	100-1390	.1 gal.	.29 gal/acre
Aquashade	33068-1	.5 gal.	1 gal/4 acre-ft
Water Quality Bacteria - Bulk		5 lbs.	
Water Quality Enzymes		1 gal.	
WLPR Colorant - Black		.5 qt.	
WLPR Colorant - Blue		.5 qt.	

Copyright ©2019 All rights reserved. Wisconsin Lake & Pond Resource, LLC

Tim Voeller

From: Wisconsin Lake & Pond Resource, LLC <kathy@wisconsinlpr.com>
Sent: Tuesday, October 1, 2019 9:39 AM
To: Tim Voeller
Subject: Treatment Report

Wisconsin Lake & Pond Resource, LLC
N7828 Town Hall Rd., Eldorado, WI 54932
Phone: 920-872-2032

CLIENT INFORMATION

Bielinski Homes
1830 Meadow Lane, Suite A
Pewaukee , WI 53072

Contact Info:
Tim Voeller
tvoeller@bielinski.com
262-893-4716

PROJECT INFORMATION

Pond Info:
Fairwinds HOA - Pond A
617 Stoecker Farm Avenue
Mukwonago, WI 53149

Size (acres):1.003214
Max Depth:
Mean Depth: 5
Permit No: SE-2019-68-1910
Google Earth URL of Pond:

Service Technician	Pesticide Applicator License
Lorge, Nicholas	105360

TREATMENT DETAIL

Treatment Date: 2019-09-30
Treatment Start Time: 1:00pm
Treatment End Time: 1:50pm

Services Performed: Basic Pond Management
Species Present: Cattail
Species Treated: Filamentous Algae
Acres Treated: 1.003214
Volume Treated (ac-ft): 5.01607
Restrictions:
- 1 Day Drinking
- 5 Days Irrigation
- 1 Day Pet/Livestock Consumption

Notes: Pond A: The pond looked great while on site with no nuisance algae or vegetation present. Bacteria and enzymes were applied throughout the pond to improve overall water quality and clarity. Pond colorant was also added to improve aesthetics..

Applicator shall provide a free copy of each pesticide label used (if requested).

PRODUCT DETAIL

Product Name	EPA Number	Amt. Used	Rate/Concentration
Water Quality Bacteria - Bulk		15 lbs.	
Water Quality Enzymes		2 gal.	
WLPR Colorant - Black		2 qt.	
WLPR Colorant - Blue		2 qt.	

Copyright ©2019 All rights reserved. Wisconsin Lake & Pond Resource, LLC

Tim Voeller

From: Wisconsin Lake & Pond Resource, LLC <kathy@wisconsinlpr.com>
Sent: Tuesday, October 1, 2019 9:42 AM
To: Tim Voeller
Subject: Treatment Report

Wisconsin Lake & Pond Resource, LLC
N7828 Town Hall Rd., Eldorado, WI 54932
Phone: 920-872-2032

CLIENT INFORMATION

Bielinski Homes
1830 Meadow Lane, Suite A
Pewaukee , WI 53072

Contact Info:
Tim Voeller
tvoeller@bielinski.com
262-893-4716

PROJECT INFORMATION

Pond Info:
Fairwinds HOA - Pond B
617 Stoecker Farm Avenue
Mukwonago, WI 53149

Size (acres):.3489
Max Depth:
Mean Depth: 4
Permit No: SE-2019-68-1910
Google Earth URL of Pond:

Service Technician	Pesticide Applicator License
Lorge, Nicholas	105360

TREATMENT DETAIL

Treatment Date: 2019-09-30
Treatment Start Time: 1:00pm
Treatment End Time: 1:50pm

Services Performed: Basic Pond Management
Species Present: Cattail
Species Treated: Filamentous Algae
Acres Treated: .3489
Volume Treated (ac-ft): 1.3956
Restrictions:
- 1 Day Drinking
- 5 Days Irrigation

Notes: Pond B: Moderate amounts of filamentous algae were present and treated while on site. Bacteria and enzymes were also applied following the treatment to aid in the decomposition of decaying algae and plant matter, and to improve overall water quality and clarity. Lastly, pond colorant was added for aesthetic purposes..

Applicator shall provide a free copy of each pesticide label used (if requested).

PRODUCT DETAIL

Product Name	EPA Number	Amt. Used	Rate/Concentration
Captain XTR	67690-9	1.5 gal.	0.370 ppm
Tribune	100-1390	0.25 gal.	0.71 gal/acre
Water Quality Bacteria - Bulk		10 lbs.	
Water Quality Enzymes		1 gal.	
WLPR Colorant - Black		1 qt.	
WLPR Colorant - Blue		1 qt.	

Copyright ©2019 All rights reserved. Wisconsin Lake & Pond Resource, LLC

BK Property Management, LLC
N6734 Wisconsin Pkwy
Delavan, WI 53115
262.215.8545

PROPOSAL

Bielinski Development
Attn: Tim Voeller

November 5, 2019

Re: Fairwinds HOA

Clean tree growth around east pond	**$2,250.00 + tax**

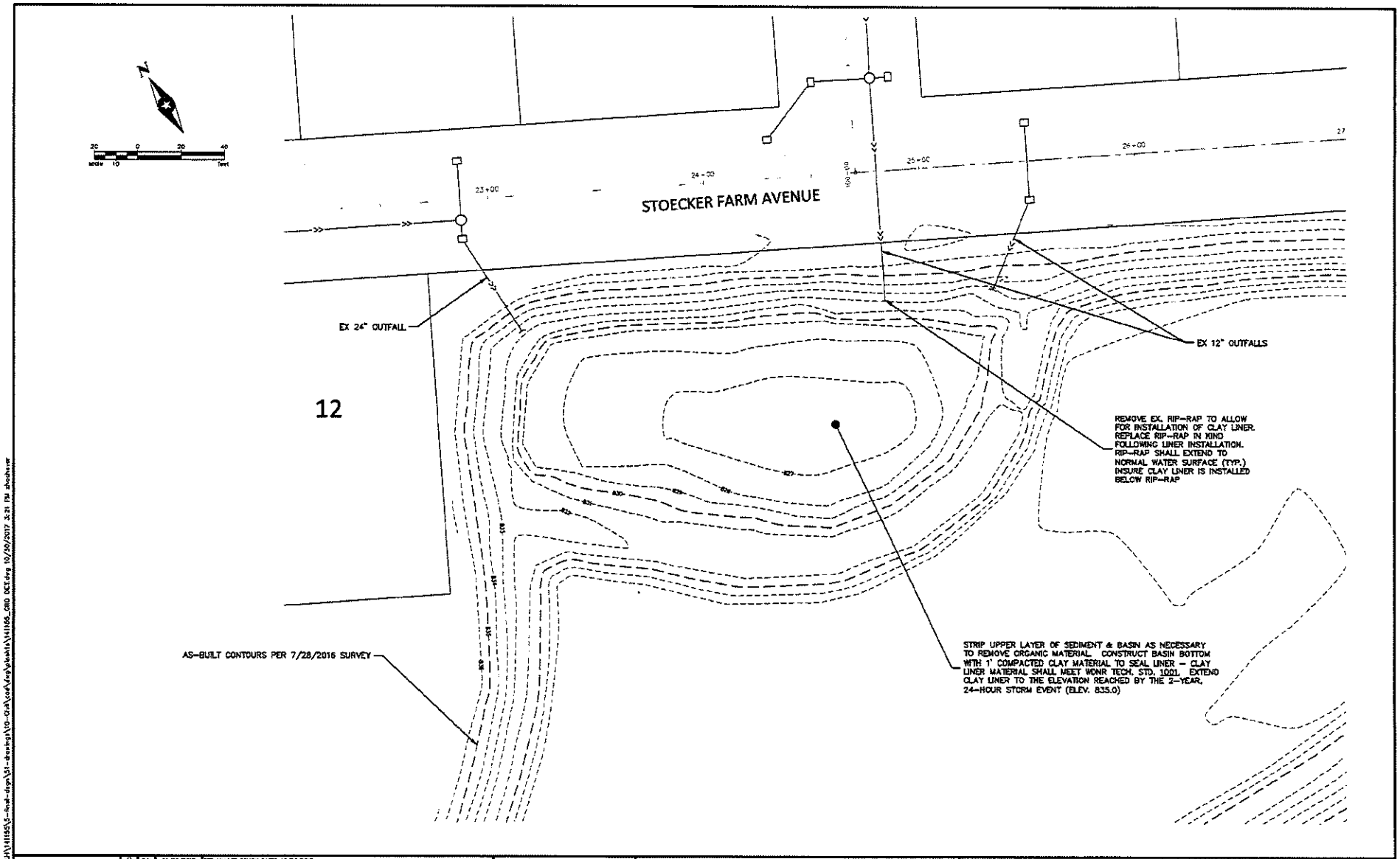
Payment due 10 days after monthly invoice billing date. This proposal may be withdrawn by us if not accepted within 30 days.

As required by the Wisconsin construction lien law, landscaper hereby notifies owner that persons or companies furnishing labor or materials for the construction on owner's land may have lien rights on owner's land and buildings if not paid. Those entitled to lien rights, in addition to the undersigned landscaper, are those who contract directly with the owner or those who give the owner notice within 60 days after they first furnish labor or materials for the construction. Accordingly, owner probably will receive notices from those who furnish labor or materials for the landscaper, and should give a copy of each notice received to the mortgage lender, if any. Landscaper agrees to cooperate with the owner and the owner's lender, if any, to see that all potential lien claimants are duly paid.

All permits required are the responsibility of the owner. Fines or fees resulting from this requirement are to be paid by owner.

All work to be completed in a workmanlike manner according to standard practices. Any alterations or deviations from above specifications involving extra costs will become an extra charge over and above the proposal. All agreements contingent upon strikes, accidents, or delays beyond our control. Owner to carry fire, tornado, and other necessary insurance. Our workers are fully covered by Workers Compensation Insurance.

Customer Signature:_____ Date:_____



DRAWN BY: EAB
DESIGNER:
CHECKED BY: MAM
DESIGN TEAM

NO.	BY	DATE	REVISIONS
1	ZJH	10/30/2017	PER VILLAGE REVIEW DATED 10/03/2017

SEH
PHONE: 414.949.6992
301 MAPLE AVENUE
DELAFIELD, WI 53018-4351
www.sehinc.com

FAIRWINDS - PHASE 5
VILLAGE OF MUKWONAGO, WI

EXISTING BASIN DETAIL

FILE NO. 141155
DATE 6/19/2017

C 2.60
OF 23

OTHER LOCATIONS TO SERVE YOU . . .

WAUWATOSA
10121 W. North Avenue

MEQUON
10280 N. Port Washington Road

MENMOMONEE FALLS
Menomonee Avenue & Town Hall Road

SUSSEX
W250 N6505 Highway 164

OCONOMOWOC
121 S. Cross Street

Schmidt & Bartelt

A.A. SCHMIDT & SONS • GUARDALABENE & AMATO • VAN VALIN
HEIDEN & LANGE • NOTBOHN-KREUTZMANN

930 Main St. • Mukwonago, WI 53149

Funeral Service
1-262-363-7126
Fax 1-262-363-7127

Feb 4, 2020

Hi Ron,

Here is a copy of the work that was done on our Stormwater Pond at the Funeral Home.

Thanks You,

Mike Patterson

KNOWN FOR SERVICE SINCE 1887

July 30, 2019

I hired Eagle Exteriors Excavator, LLC., to cut and remove all of the vegetation that was growing up and around our storm water pond. There was approximately 8 feet of vegetation growth from the water level going up the banks of the pond. All of the yard waste was removed and transported out by the landscaper.

I also called Lake and Pond Solutions (262) 742-2600 to come over and look at the pond to determine how to kill and remove the overabundance growth of cattails in the pond.

Mike Patterson

Manager Schmidt & Bartelt Funeral Home

State of Wisconsin
Department of Natural Resources
dnr.wi.gov

Aquatic Plant Management Herbicide Treatment Record

Form 3200-111 (R 11/16)

Notice: Completion of this form is a condition of the permit and provides records required by WDNR (NR 107) and DATCP (ATCP 29.21 and 29.22). The Department may not issue you future permits unless you complete and submit this form. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law [ss. 19.31-19.39, Wis. Stats.].

Submit this form: **(1) immediately if any unusual circumstances occurred during treatment**
(2) as soon after treatment as possible, no later than 30 days
(3) by October 1 if no treatment occurred

Completion of this form along with the permit satisfies the requirements of WDNR (NR 107) and DATCP (ATCP 29.21 and 29.22).

General Permit Information

Permit Number	Waterbody Name (including ponds, e.g., Smith Pond)		
SE-2019-68-5428	Schmidt & Bartelt Funeral & Cremation Services Private Pond		
County	Permit Holder Name (Customer Name)		
Waukesha	Schmidt & Bartelt Funeral & Cremation Services		
Permit Holder Address	City	State	ZIP Code
930 Main St.	Mukwonago	WI	53149

Treatment Information

Treatment Date (mm/dd/yyyy)	Starting Time (24 hr)	Ending Time (24 hr)	Water Temp	Ambient Air Temp
08/14/2019	12:30	12:00	○ C ◉ F	75 ○ C ◉ F

Wind Speed (mph)	Wind Direction	Expected Duration of Chemical Residuals
5-10	E	2 day

Adverse Conditions Noted (i.e., dead fish, spawning fish, algae bloom, etc.)
No outflow or adverse conditions

If adverse conditions noted, indicate corrective actions taken

Comments
Aquaneat: <70ppb drinking water restriction from assay
Habitat: 2 day drinking water restriction and 120day or <1ppb irrigation restriction

Onsite Supervision Present?	If Yes, Supervisor Name
○ Yes ◉ No	

Mixing and Loading Site Location (if other than business site or from prepackaged retail container or applied with equipment with a total capacity of not more than 5 gallons liquid or 50 pounds dry)
on permitted property

☒ Herbicide Treatment and Water Use Restrictions Signs Posted In Accordance With NR 107?

Applicator shall provide each customer with a free copy of each pesticide label used (if requested)

Applicator Information

Individual or Business Name			Telephone (xxx) 123-1234
Lake and Pond Solutions Co			(262) 742-2600
Street Address	City	State	ZIP Code
W4950 County Rd. A	Elkhorn	WI	53121

Individuals Making Pesticide Application:	Last Name	First	Certification #
	Lyon	Garrett	87910
	Last Name	First	Certification #
	Vanderlip	Kevin	CA95577993
	Last Name	First	Certification #
	Last Name	First	Certification #

SE-2019-68-5428 Schmidt & Bartelt Funeral & Cremation Services

Aquatic Plant Management Herbicide Treatment Record

Form 3200-111 (R 11/16)

Name of Person Completing Form	Signature	Date Signed	DNR Use Only
Garrett Lyon		08/14/2019	Date Received

Treatment Site and Chemical Information - 1

Site No.	Property Name	Address / Fire No.	Treated Acreage	Permitted Acreage	Sensitive Area?	Latitude	Longitude
1	Schmidt & Bartelt Entrance Pond	Same as above	0.16	0.16	☐ Y		

Herbicide Name	EPA Reg. No.	Amount Applied	Units	Application Concentration Rate (mg/l = ppm)
Aquaneat	228-365	19	ounces	n/a Emergent treatment
Habitat	241-426-67690	13	ounces	n/a Emergent treatment
	Total Amount Applied	32		

Treatment Site and Chemical Information - 2

Site No.	Property Name	Address / Fire No.	Treated Acreage	Permitted Acreage	Sensitive Area?	Latitude	Longitude
					☐ Y		

Herbicide Name	EPA Reg. No.	Amount Applied	Units	Application Concentration Rate (mg/l = ppm)
	Total Amount Applied			

Treatment Site and Chemical Information - 3

Site No.	Property Name	Address / Fire No.	Treated Acreage	Permitted Acreage	Sensitive Area?	Latitude	Longitude
					☐ Y		

Herbicide Name	EPA Reg. No.	Amount Applied	Units	Application Concentration Rate (mg/l = ppm)
	Total Amount Applied			

Add a Treatment Site >>

If treating >5% of the lake surface area, what is the whole lake concentration (mg/l = ppm) per herbicide applied?

Herbicide Name Herbicide Name	EPA Reg. No.	Total Amount	Units	Whole Lake Concentration Rate (mg/l = ppm)
	Total Amount Applied For All Sites	32		

Aquatics at Treatment Site: TS = Target Species SP = Species Present

TS	SP		Site(s)	TS	SP		Site(s)	TS	SP		Site(s)
◉	○	Cattail	1	○	○	Flat-Stem Pondweed		○	○	Richardson Pondweed	
○	○	Chara		○	○	Floating-Leaf Pondweed		○	○	Robbins Pondweed	
○	○	Coontail		○	○	Illinois Pondweed		○	○	Sago Pondweed	
○	○	Curly-Leaf Pondweed		○	○	Large-Leaf Pondweed		○	○	Starry Stonewort	
○	○	Duckweed		○	○	Northern Milfoil		○	○	Watershield	
○	○	Elodea		◉	○	Phragmites	1	○	○	White Water Lily	
○	○	Eurasian/hybrid Milfoil		○	○	Planktonic Algae		○	○	White-Stem Pondweed	
○	○	Filamentous Algae		○	○	Purple Loosestrife		○	○	Wild Celery	
◉	○	Willows	1	○	○	[Enter species name]		○	○	[Enter species name]	

Village of Mukwonago **Office of the Village Public Works Dept.**

440 River Crest Court, Mukwonago, Wisconsin 53149 www.villageofmukwonago.com
(262) 363-6447 Fax: (262)363-7197

2019 Storm Water Activity Summary Report

Winter Road Maintenance:

- 91 lane miles are maintained for snow and ice control by anti-icing, plowing and salting operations.
- 556 tons of salt and 5746 gallons of pre-wet salt brine was applied during 22 snow/ice control operations.
- 14,500 gallons of salt brine was applied to 375 lane miles over 10 anti-icing operations.
- Salt is only applied in enough quantities to provide safe driving conditions while considering the environmental effects of chloride.
- Salt, pre-wet and anti-icing brine application equipment is calibrated annually.
- Anti- icing operations are conducted when weather conditions are appropriate.
- Route drivers are updated on weather conditions as events unfold to ensure proper product applications.
- Snow removal operations are conducted in the downtown when pedestrian safety is an issue.
- Removed snow is stored at a lot near River Crest Court and Main St.
- The Mukwonago Area School District and Towns of Vernon and East Troy purchases salt brine from the village for the pre-wet and anti-icing program.

2019/20 Snow Event/Salt Usage

Date	10/31	11/6	11/11	11/14	12/16	12/30	1/11	1/12	1/13	1/18	1/19	1/20	1/23	1/24/AM	1/24/PM	
Snow (Inches)	4	1	4	Trace	0.5	4	0	3	0.5	5	2	0	1	1	1	
Temp (F)	30	30	22	27	18	28	34	28	28	32	28	6	33	34	30	
Wind Speed (MPH)	15	20	22	5	Calm	20-Jan	15	25	5	15	15	25		Calm		
Wind Direction	NE	SE	SE	SE		SW	SE	SE	SE	W	W	N/NW				
Ice	No	No	No	No	No	No	Yes	No	No	Yes	No	No	No	No	No	
Salt Used (Tons)	26.4	28.8	54.4	25.4	22.8	39.9	38.8	35.5	26	40.4	13.7	2.9	30.5	19.8	23.4	428.7
Salt Brine Used (Gallons)	245	300	369	261	225	432	409	485	216	474	102	32	341	230	246	4367
Salt Interctions/No Plowing																
Salt Intercections & Main/No Plowing																
Salt all Roads/No Plowing					X		X		X		X				X	
Salt Interctions W/Plowing																
Salt Intercections & Main W/Plowing																
Salt all Roads W/ Plowing	X	X		X				X					X	X		
Plow & Salt As Needed												X				
Multiple Salt Application & Plowning		.	X			X				X						
Other																
Date	1/25	2/9	2/13	2/17												
Snow (Inches)	3	8	3	1												
Temp (F)	32	33	18	33												
Wind Speed (MPH)		10	10	Calm												
Wind Direction		SE	N													
Ice	No	No	No	No												
Salt Used (Tons)	37.8	32.7	36.6	19.8							126.9	428.7	555.6	TONS SALT		
Salt Brine Used (Gallons)	370	509	301	199							1379	4367	5746	GAL BRINE		
Salt Interctions/No Plowing																
Salt Intercections & Main/No Plowing																
Salt all Roads/No Plowing																
Salt Interctions W/Plowing																
Salt Intercections & Main W/Plowing																
Salt all Roads W/ Plowing	X	X	X													
Plow & Salt As Needed																
Multiple Salt Application & Plowning																
Other																

2019/20 Anti Icing/ Pre Treatment

Date	Road Temp	Air Temp	Zone A Mains	Zone B Primary	Zone C Secondary	Bridge Decks	Salt Brine	Salt Brine/ Beet 55	Salt Br. /Beet 55/ Calcium	Mix Ratio	Gal/Lane Mile	Lane Miles	Gallons Applied
11/5/2019		38	X			X	23.30%				40	21.9	875
1/10/2020		42	X	X	X	X	23.30%				40	56.8	2270
1/16/2020		16			X	X	23.30%				40	15.2	600
1/19/2020		28	X	X		X	23.30%				40	43.5	1800
1/22/2020		25	X			X	23.30%				40	21.8	871
2/5/2020		26	X	X	X	X	23.30%				45	58.6	1617
2/7/2020		36	X	X	X	X	23.30%				45	34.3	1144
2/12/2020		36	X	X	X	X	23.30%				45	41.7	1199
2/17/2020		34	X	X		X	23.30%				45	49.1	1159
2/24/2020		41	X	X	X	X	23.30%				40	31.7	1093
												374.6	12628

Village of Mukwonago **Office of the Village Public Works Dept.**

440 River Crest Court, Mukwonago, Wisconsin 53149 www.villageofmukwonago.com
(262) 363-6447 Fax: (262)363-7197

2019 Storm Water Activity Summary Report

Construction Site Pollution Control:

The Village of Mukwonago's construction Site Pollution Control Program aims to minimize the amounts of Total Suspended Solids and other associated pollutants that can enter local lakes, streams and wetlands as a result of disturbance and exposure to rain and snow melt construction activities. Processes include, permit and plan reviews, construction site erosion control inspections and best management practices following technical standards.

- There was a total of 24 active sites during the reporting year.
- Ten new permits were issued.375 inspections completed by Ruekert & Mielke, Inc. the village's contracted engineering firm.
- 170 inspection reports identified erosion control violations.
- Three stop work orders were issued for non-compliance.
- Ruekett & Mielke, Inc staff inspect the Village's projects best management practices within 24 hours after each rain event of 0.5 inch or more, and at least once each week.
- Private development sites best management practices shall be inspected within 24 hours after each rain event of 0.5 inch or more that results in runoff, and at least once each week by a qualified inspector.
- Development sites are inspected monthly by R & M staff unless reported violations require weekly site visits.
- Construction review technicians (CRT) are updated on site erosion control issues and provide another source for issues and corrective actions.

Village of Mukwonago **Office of the Village Public Works Dept.**

440 River Crest Court, Mukwonago, Wisconsin 53149 www.villageofmukwonago.com
(262) 363-6447 Fax: (262)363-7197

2019 Storm Water Activity Summary Report

Leaf and Yard Waste:

The Village contracts for residential yard waste collections with Johns Disposal Inc...

- Six curbside collection events were held and two drop-off event were held in 2019.
- Two collections are scheduled in November targeting leaf collection.
- 89.7 tons of yard waste was collected.
- 28.8 tons were collected during the fourth quarter of 2019 compared to 99.4 tons collected during the same time frame in 2018.
- Leaves that accumulate in the streets are removed by village staff with a vacuum sweeper. The sweeper is run at a lower RPM during leaf collection operations to prevent contamination from normal street debris.
- Park leaves are mulched and left on site.

THE VILLAGE OF MUKWONAGO

Fourth Quarter 2019 Recycling Report

Single Stream, Tons	Year Total	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Mixed Paper	365.4	89.5	91.8	88.6	95.4
Cardboard	138.6	34.0	34.8	33.6	36.2
Glass	168.2	41.2	42.3	40.8	43.9
#1 Plastic	30.4	7.5	7.6	7.4	7.9
#2 Natural HDPE	9.0	2.2	2.3	2.2	2.4
#2 Colored HDPE	10.1	2.5	2.5	2.4	2.6
#3-7 Plastic	8.3	2.0	2.1	2.0	2.2
Rigid Plastic	3.6	0.9	0.9	0.9	0.9
Tin Cans	19.8	4.8	5.0	4.8	5.2
Al Cans	6.4	1.6	1.6	1.5	1.7
Single Stream Total	**760**	**186**	**191**	**184**	**198**

Recycled Bulk, Tons	Year Total	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Antifreeze	0.09	0.00	0.02	0.03	0.04
Appliances	3.83	0.79	1.70	1.10	0.24
Batteries	0.79	0.00	0.17	0.12	0.49
Cardboard	4.12	1.04	0.97	1.34	0.77
Metal	5.69	1.48	1.87	1.57	0.76
Oil	2.38	0.15	0.55	0.91	0.77
Tires	9.44	1.04	2.12	3.49	2.78
Recycled Bulk Total	**26.32**	**4.51**	**7.40**	**8.56**	**5.85**

Total Recyclables	**786**	191	198	193	204
Total Garbage**	**2551**	513	655	700	682

**Total garbage weight includes weekly garbage and residual garbage removed from recyclables.

Population 8057

Year to date pounds per capita recycled. WI DNR requires 107 pounds per year. **188.6**

Yard Waste	Year Total	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
	89.7	0.0	39.4	21.6	28.8

Recycling Compliance	Year Total	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Warning Tags	0	0	0	0	0
Written Warnings	0	0	0	0	0

Report completed by:
Johns Disposal Service, Inc.
PO Box 329
Whitewater, WI 53190
(262) 473-4700

JOHNS DISPOSAL SERVICE INC.
Whitewater & Franksville, WI

1/14/2020

Village of Mukwonago **Office of the Village Public Works Dept.**

440 River Crest Court, Mukwonago, Wisconsin 53149 www.villageofmukwonago.com
(262) 363-6447 Fax: (262)363-7197

2019 Storm Water Activity Summary Report

Municipal Facility Inspections.

- Municipal yard inspections are conducted quarterly by department supervision. Staff members participate in inspections as training.
- Good housekeeping practices are maintained.
- Street sweeping debris is tarped until it's removed by Johns Disposal to Mallard Ridge Landfill.
- Asphalt lot areas are swept as part of the street sweeping operation. Stock piles are stored in concrete block bins and tarped depending on product.
- Salt storage facility is monitored during snow and ice control operations and inspected annually as required by the state.
- Salt loading area is maintained, and spilled material is swept back into the shed.
- Salt brine manufacturing and storage are located indoors.
- The fueling station contains two double walled 500-gallon tanks, diesel and unleaded.
- Spill kits are located at the fueling station and inside the shop.
- Waste oil is stored in a steel tank with spill containment indoors.
- No equipment washing takes place outdoors.
- Equipment maintenance and repairs are conducted indoors.
- Shop floor drains have oil separators and are monitored during the quarterly inspection. Cleaned as needed or annually at a minimum.

Village of Mukwonago **Office of the Village Public Works Dept.**

440 River Crest Court, Mukwonago, Wisconsin 53149 www.villageofmukwonago.com
(262) 363-6447 Fax: (262)363-7197

2019 Storm Water Activity Summary Report

Village of Mukwonago Storm Water Pollution Prevention Plan for Municipal Property

Site: **Village of Mukwonago Public Works Department Site**
630 Veterans Way East Mukwonago, WI 53149

Contact info.: **Ron Bittner, Director of Public Works**
262-363-6447
rbittner@villageofmukwonago.com

Site Description

The Public Works Department property located at 630 CTH NN E. is the central location for the department's activities and storage. Facilities include the repair shop and parking garage, salt shed, sand shed, cold storage building, outdoor storage, police impound and a fueling station. The fueling center is utilized by the Inspections, Utilities, DPW, Police and Fire Departments.

The Public Works yard is a six-acre parcel; the department utilizes approximately five of these acres. The remaining acreage is zoned environmental corridor. A municipal well and water tower are located on the south west corner of the property. The property is bordered on the south by CTH NN E., the Canadian National Rail Road on the west and farm fields owned by the St. James Parish on the east. The eastern and western property lines intersect on the north.

The Public Works yard was established in 1972. The main building was remodeled along with a 9,000 SFT addition in 2000. A 1,000-ton salt shed was added to the compound in 2011.

Runoff Prevention Practices and Maintenance Activities

The Village of Mukwonago has been covered under the WPDES Municipal Storm Separate Sewer System (MS4) Discharge Permit WI-S050075-2 since 2009. Staff submitted a Storm Water Pollution Prevention Plan (SWPPP) map for the Public Works yard, which helped identify efficiencies and pollution prevention practices that could be installed to protect the nearby water resources. Staff is in the process of removing discarded materials that have been stored in the yard and consolidating other items into smaller, more manageable areas, thus removing potential sources of pollution. Removing obsolete equipment and consolidating materials on site also means fewer runoff prevention practices are necessary, and less time installing, maintaining, and inspecting these practices associated with this task.

Runoff from the Village's Public Works yard flows to the west towards a swale adjacent the Canadian National RR tracks. The pavement changes to gravel before entering the swale on the west side of the

440 River Crest Court, Mukwonago, Wisconsin 53149 www.villageofmukwonago.com
(262) 363-6447 Fax: (262)363-7197

property. Runoff from the pavement area partially infiltrates in to a gravel area prior to entering the swale. The Village of Mukwonago continues to evaluate potential runoff pollution resulting from the Public Works yard activities and has implemented measures to reduce pollution.

The following actions and improvements have been implemented at the Village of Mukwonago DPW yard:

- Installing bays around stockpiled material
- Using wattles around stock pile not contained within a bin.
- Tarping street sweepings and stock piles.
- Modern salt shed.
- Replacement of obsolete equipment with multi use units. This process allows the department to free up inside equipment storage.
- Installation of a new electronic fueling station with maximum fill control per specific vehicle.
- Vehicle washing and rinsing be done indoors.
- Vehicle maintenance completed in repair shop.

Maintenance and inspections are critical for ensuring prevention activities function properly. Without inspections or maintenance, debris, and pollutants such as sediment, metals, nutrients, etc., that are captured can become a source of pollution if excess amounts are carried out with rain and snow melt. Any inspections and maintenance of storm water pollution practices should be documented and recorded for comparison and evaluation of their performance.

Building of stockpile containment bins was started several years ago, cold patch material and street sweepings are currently binned and tarped. Any material that spills or is tracked away from the immediate storage area is swept up and deposited back onto the piles. Loose salt that spills or is tracked away from the shed entrance during delivery is swept up and placed in the shed. Any excess salt that spills during loading of trucks during a snow/ice event is also swept up and placed back in the salt shed. The salt shed itself is designed to meet the requirements of Trans 207, Wisconsin Administrative Code.

The lawn is mowed as needed, depending on the weather.

Temporary storage of items such as posts for snow fence, garbage & recycling barrels, etc., occupy space around the perimeter of the sheds in winter until crews deliver these items to Village parks in the spring.

Most of the Village Departments utilized the fueling center. Employee training includes review of the spills procedures and location of the spills kit.

The floor drains in the main garage are connected to the sanitary sewer system, rather than the storm sewer system. Any fluids from vehicle maintenance or other activities inside the garage are directed through

440 River Crest Court, Mukwonago, Wisconsin 53149 www.villageofmukwonago.com
(262) 363-6447 Fax: (262)363-7197

this system to the Wastewater Treatment Plant. Floor drains are cleared of debris on an as-needed basis. An oil/grease separator allows recurring clean-out and maintenance of the system.

Recommendations to Enhance Runoff Protection

Village staff have previously taken steps to implement runoff control practices and to minimize the materials that could be sources of runoff pollution at the Public Works yard. Current recommendations include:

1. Sweep up any spilled salt and return into inventory.

2. Relocate the 3-sided bay around the street sweepings to prevent runoff from carrying the collected particles off-site; a tarp or cover over the street sweepings pile would further reduce the potential for runoff from this material.
3.

Spills Plan

Dry materials that spill is swept up and either disposed of or replaced in the bins for future use, if possible. (Example: dry salt spilled on the ground can be swept up and put back in the salt pile for use in the future.)

Liquids that spill on the ground are absorbed, with the absorption materials disposed of properly depending on the liquid. The Fire Department would be notified for major spills and handled in accordance to the Village and Town of Mukwonago Emergency Management Plan.

Staff are trained on which authorities to contact depending on the situation, such as the Fire Department, Police Department, or the Wisconsin Department of Natural Resources.

New staff are educated on the spills plan when they start, and any policy changes are communicated to appropriate staff at the time of the changes. As part of the Storm Water Pollution Prevention Plan, the spills plan will be evaluated yearly and any changes will be summarized in the Village's MS4 annual report.

Employee Training

Public Works Department training is an on-going activity for staff. Changes in procedure are communicated with appropriate staff, and new staff receive training on safety procedures and overall operations of the department. Any portions of the SWPPP, including the spills plan, that affect staff in other departments are shared with those departments.

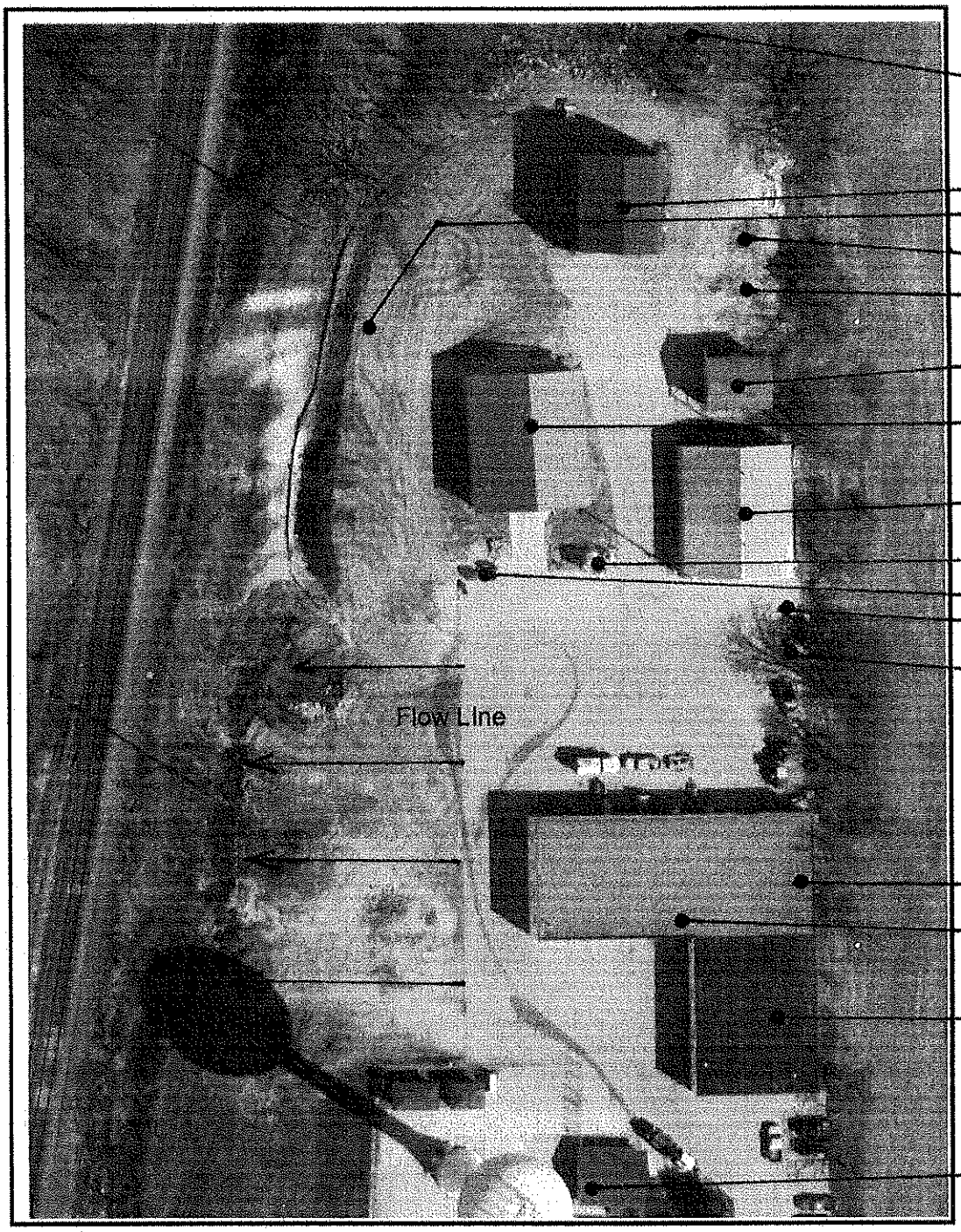
Inspections

440 River Crest Court, Mukwonago, Wisconsin 53149 www.villageofmukwonago.com
(262) 363-6447 Fax: (262)363-7197

Inspections are conducted quarterly and documented on a SWPPP inspection form. Items noted on the inspection reports are corrected as soon as possible. The yard is evaluated on a recurring basis to improve operations.

LAND INFORMATION SYSTEMS DIVISION

Waukesha County GIS Map



Legend

- Compost Pile
- Salt Shed
- Seeded Topsoil Pile
- Road Gravel Pile
- #1 Stone Pile
- Sand /Salt Shed
- DPW Cold Storage
- PD Cold Storage
- Fueling Station/ Two 1000 Gal Tanks
- Dumpsters
- Tarped Cold Patch
- Bin for Street Sweepings
- Waste Oil Tank Located in Garage
- 1500 Gal Salt Brine Tank
- DPW Maintenance Shop
- Municipal Well and Water Tower

Notes:

0 83.33 Feet

The information and depictions herein are for informational purposes and Waukesha County specifically disclaims accuracy in this reproduction and specifically admonishes and advises that if specific and precise accuracy is required, the same should be determined by procurement of certified maps, surveys, plats, Flood Insurance Studies, or other official means. Waukesha County will not be responsible for any damages which result from third party use of the information and depictions herein, or for use which ignores this warning.

Printed: 1/17/2017

Ruekert • Mielke

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) INSPECTION FORM FOR MUNICIPAL FACILITIES

Site:	Village of Mukwonago DPW Shop and Yard
Location:	630 East Veterans Way Mukwonago, WI 53149
Inspector/Title:	Lee Wegner / DPW Crew Supervisor
Date:	3-12-2019
Last Inspection (Date):	12-27-2018

Storm Water Pollution Prevention Plan

Has a storm water pollution prevention plan been developed for this site? Yes☒ No☐

Title of Plan: Village of Mukwonago SWPPP for Municipal Facilities

Date of Plan: April 2016

Does the SWPP include a site map, list of pollutant sources, pollutant control practices to be inspected, and maintenance procedures? Yes☒ No☐
(Indicate any items that are *not* included):

Vehicle Maintenance, Washing and Fueling

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Vehicle maintenance area drains to sanitary sewer system	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Vehicle maintenance area has oil-grease separator in floor drains	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Floor drains are clean	Yes☒ No☐ N/A☐	Yes☒ No☐	
4	Vehicle washing completed inside building	Yes☒ No☐ N/A☐	Yes☒ No☐	
5	Vehicle washing drains to sanitary system	Yes☒ No☐ N/A☐	Yes☒ No☐	
6	Vehicle fueling center has canopy/cover	Yes☐ No☒ N/A☐	Yes☐ No☐	
7	Vehicle fueling center has clearly labeled spill kit nearby	Yes☒ No☐N/A☐	Yes☒ No☐	
8	Vehicle fueling center has oil-grease separators in nearby storm drains	Yes☐ No☐ N/A☒	Yes☐ No☐	

Ruekert • Mielke

Hazardous Waste Management

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Hazardous materials and containers are stored indoors	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Containers of hazardous materials are in good condition	Yes☒ No☐ N/A☐	Yes☒ No☐	

Waste Management

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Dumpsters are covered	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Full dumpsters are hauled out on a regular basis	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Piles of miscellaneous debris are sorted and disposed of on a regular basis	Yes☒ No☐ N/A☐	Yes☒ No☐	
4	Street sweepings are covered	Yes☒ No☐ N/A☐	Yes☒ No☐	
5	Street sweepings are stored in containers or have barriers or perimeter controls to minimize runoff impacts	Yes☒ No☐ N/A☐	Yes☒ No☐	

Material Storage

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Runoff from bulk storage is contained on low side by barriers, bays or other perimeter controls	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Bulk storage piles are stabilized/vegetated	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Materials stored under cover/inside buildings	Yes☒ No☐ N/A☐	Yes☒ No☐	
4	Area near salt shed is clear of excess/spilled/tracked salt	Yes☒ No☐ N/A☐	Yes☒ No☐	

5	Excess/spilled/tracked salt is swept up and added to bulk salt pile	Yes☒ No☐ N/A☐	Yes☒ No☐	
6	Underground runoff containment is emptied on a regular basis	Yes☒ No☐ N/A☐	Yes☐ No☐	Old salt/sand shed cleaned as needed

Runoff Controls

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Grass filter strips have at least 70% uniform vegetation growth	Yes☐ No☐ N/A☒	Yes☐ No☐	
2	Grass filter strips typically have 6 inches or more of vegetation	Yes☐ No☐ N/A☒	Yes☐ No☐	
3	Storm water pond inlets/outlets are stable	Yes☐ No☐ N/A☒	Yes☐ No☐	
4	Storm water berms are vegetated	Yes☐ No☐ N/A☒	Yes☐ No☐	
5	Storm water pond berms are stable (no erosion, tree roots or animal boroughs)	Yes☐ No☐ N/A☒	Yes☐ No☐	
6	Infiltration basins/rain gardens have at least 70% plant growth	Yes☐ No☐ N/A☒	Yes☐ No☐	
7	Infiltration basins/rain gardens are maintained regularly, and in the spring and fall	Yes☐ No☐ N/A☒	Yes☐ No☐	
8	Infiltration basins/rain gardens drain down within 24 hours (*based on post-rain event observations)*	Yes☐ No☐ N/A☒	Yes☐ No☐	

Spills Program

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Written program is available for employees	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Employees know where written program is located	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Written program is evaluated annually	Yes☒ No☐ N/A☐	Yes☒ No☐	

Employee Training

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes

1	New employees are trained on SWPPP	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Annual or more frequent training provided to employees on SWPPP	Yes☒ No☐ N/A☐	Yes☒ No☐	

	Recommendations/Correction	Completed On (Date)	Initials
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Ruekert • Mielke

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) INSPECTION FORM FOR MUNICIPAL FACILITIES

Site:	Village of Mukwonago DPW Shop and Yard
Location:	630 East Veterans Way Mukwonago, WI 53149
Inspector/Title:	Lee Wegner / Crew Supervisor DPW
Date:	6-5-2019
Last Inspection (Date):	3-12-2019

Storm Water Pollution Prevention Plan

Has a storm water pollution prevention plan been developed for this site? Yes☒ No☐

Title of Plan: Village of Mukwonago SWPPP for Municipal Facilities

Date of Plan: April 2016

Does the SWPP include a site map, list of pollutant sources, pollutant control practices to be inspected, and maintenance procedures? Yes☒ No☐
(Indicate any items that are *not* included):

Vehicle Maintenance, Washing and Fueling

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Vehicle maintenance area drains to sanitary sewer system	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Vehicle maintenance area has oil-grease separator in floor drains	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Floor drains are clean	Yes☒ No☐ N/A☐	Yes☒ No☐	
4	Vehicle washing completed inside building	Yes☒ No☐ N/A☐	Yes☒ No☐	
5	Vehicle washing drains to sanitary system	Yes☒ No☐ N/A☐	Yes☒ No☐	
6	Vehicle fueling center has canopy/cover	Yes☐ No☒ N/A☐	Yes☐ No☐	
7	Vehicle fueling center has clearly labeled spill kit nearby	Yes☒ No☐N/A☐	Yes☒ No☐	
8	Vehicle fueling center has oil-grease separators in nearby storm drains	Yes☐ No☐ N/A☒	Yes☐ No☐	

Hazardous Waste Management

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Hazardous materials and containers are stored indoors	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Containers of hazardous materials are in good condition	Yes☒ No☐ N/A☐	Yes☒ No☐	

Waste Management

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Dumpsters are covered	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Full dumpsters are hauled out on a regular basis	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Piles of miscellaneous debris are sorted and disposed of on a regular basis	Yes☒ No☐ N/A☐	Yes☒ No☐	
4	Street sweepings are covered	Yes☒ No☐ N/A☐	Yes☒ No☐	
5	Street sweepings are stored in containers or have barriers or perimeter controls to minimize runoff impacts	Yes☒ No☐ N/A☐	Yes☒ No☐	

Material Storage

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Runoff from bulk storage is contained on low side by barriers, bays or other perimeter controls	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Bulk storage piles are stabilized/vegetated	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Materials stored under cover/inside buildings	Yes☒ No☐ N/A☐	Yes☒ No☐	
4	Area near salt shed is clear of excess/spilled/tracked salt	Yes☒ No☐ N/A☐	Yes☒ No☐	

5	Excess/spilled/tracked salt is swept up and added to bulk salt pile	Yes☒ No☐ N/A☐	Yes☒ No☐	
6	Underground runoff containment is emptied on a regular basis	Yes☒ No☐ N/A☐	Yes☐ No☐	Old salt/sand shed cleaned as needed

Runoff Controls

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Grass filter strips have at least 70% uniform vegetation growth	Yes☐ No☐ N/A☒	Yes☐ No☐	
2	Grass filter strips typically have 6 inches or more of vegetation	Yes☐ No☐ N/A☒	Yes☐ No☐	
3	Storm water pond inlets/outlets are stable	Yes☐ No☐ N/A☒	Yes☐ No☐	
4	Storm water berms are vegetated	Yes☐ No☐ N/A☒	Yes☐ No☐	
5	Storm water pond berms are stable (no erosion, tree roots or animal boroughs)	Yes☐ No☐ N/A☒	Yes☐ No☐	
6	Infiltration basins/rain gardens have at least 70% plant growth	Yes☐ No☐ N/A☒	Yes☐ No☐	
7	Infiltration basins/rain gardens are maintained regularly, and in the spring and fall	Yes☐ No☐ N/A☒	Yes☐ No☐	
8	Infiltration basins/rain gardens drain down within 24 hours (*based on post-rain event observations)*	Yes☐ No☐ N/A☒	Yes☐ No☐	

Spills Program

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Written program is available for employees	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Employees know where written program is located	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Written program is evaluated annually	Yes☒ No☐ N/A☐	Yes☒ No☐	

Employee Training

Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes

Ruekert • Mielke

1	New employees are trained on SWPPP	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Annual or more frequent training provided to employees on SWPPP	Yes☒ No☐ N/A☐	Yes☒ No☐	

	Recommendations/Correction	Completed On (Date)	Initials
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Ruekert • Mielke

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) INSPECTION FORM FOR MUNICIPAL FACILITIES

Site:	Village of Mukwonago DPW Shop and Yard
Location:	630 East Veterans Way Mukwonago, WI 53149
Inspector/Title:	Lee Wegner/Crew Supervisor DPW
Date:	9-16-2019
Last Inspection (Date):	6-5-2019

Storm Water Pollution Prevention Plan

Has a storm water pollution prevention plan been developed for this site? Yes☒ No☐

Title of Plan: Village of Mukwonago SWPPP for Municipal Facilities

Date of Plan: April 2016

Does the SWPP include a site map, list of pollutant sources, pollutant control practices to be inspected, and maintenance procedures? Yes☒ No☐
(Indicate any items that are *not* included):

Vehicle Maintenance, Washing and Fueling

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Vehicle maintenance area drains to sanitary sewer system	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Vehicle maintenance area has oil-grease separator in floor drains	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Floor drains are clean	Yes☒ No☐ N/A☐	Yes☒ No☐	
4	Vehicle washing completed inside building	Yes☒ No☐ N/A☐	Yes☒ No☐	
5	Vehicle washing drains to sanitary system	Yes☒ No☐ N/A☐	Yes☒ No☐	
6	Vehicle fueling center has canopy/cover	Yes☐ No☒ N/A☐	Yes☐ No☐	
7	Vehicle fueling center has clearly labeled spill kit nearby	Yes☒ No☐N/A☐	Yes☒ No☐	
8	Vehicle fueling center has oil-grease separators in nearby storm drains	Yes☐ No☒ N/A☐	Yes☐ No☐	

Hazardous Waste Management

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Hazardous materials and containers are stored indoors	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Containers of hazardous materials are in good condition	Yes☒ No☐ N/A☐	Yes☒ No☐	

Waste Management

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Dumpsters are covered	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Full dumpsters are hauled out on a regular basis	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Piles of miscellaneous debris are sorted and disposed of on a regular basis	Yes☒ No☐ N/A☐	Yes☒ No☐	
4	Street sweepings are covered	Yes☒ No☐ N/A☐	Yes☒ No☐	
5	Street sweepings are stored in containers or have barriers or perimeter controls to minimize runoff impacts	Yes☒ No☐ N/A☐	Yes☒ No☐	

Material Storage

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Runoff from bulk storage is contained on low side by barriers, bays or other perimeter controls	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Bulk storage piles are stabilized/vegetated	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Materials stored under cover/inside buildings	Yes☒ No☐ N/A☐	Yes☒ No☐	
4	Area near salt shed is clear of excess/spilled/tracked salt	Yes☒ No☐ N/A☐	Yes☒ No☐	

5	Excess/spilled/tracked salt is swept up and added to bulk salt pile	Yes☒ No☐ N/A☐	Yes☒ No☐	
6	Underground runoff containment is emptied on a regular basis	Yes☒ No☐ N/A☐	Yes☒ No☐	Old salt/sand shed cleaned as needed

Runoff Controls

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Grass filter strips have at least 70% uniform vegetation growth	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Grass filter strips typically have 6 inches or more of vegetation	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Storm water pond inlets/outlets are stable	Yes☐ No☐ N/A☒	Yes☐ No☐	
4	Storm water berms are vegetated	Yes☐ No☐ N/A☒	Yes☐ No☐	
5	Storm water pond berms are stable (no erosion, tree roots or animal boroughs)	Yes☐ No☐ N/A☒	Yes☐ No☐	
6	Infiltration basins/rain gardens have at least 70% plant growth	Yes☐ No☐ N/A☒	Yes☐ No☐	
7	Infiltration basins/rain gardens are maintained regularly, and in the spring and fall	Yes☐ No☐ N/A☒	Yes☐ No☐	
8	Infiltration basins/rain gardens drain down within 24 hours (*based on post-rain event observations)*	Yes☐ No☐ N/A☒	Yes☐ No☐	

Spills Program

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Written program is available for employees	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Employees know where written program is located	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Written program is evaluated annually	Yes☒ No☐ N/A☐	Yes☒ No☐	

Employee Training

Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes

1	New employees are trained on SWPPP	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Annual or more frequent training provided to employees on SWPPP	Yes☒ No☐ N/A☐	Yes☒ No☐	

	Recommendations/Correction	Completed On (Date)	Initials
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Ruekert • Mielke

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) INSPECTION FORM FOR MUNICIPAL FACILITIES

Site:	Village of Mukwonago DPW Shop and Yard
Location:	630 East Veterans Way Mukwonago, WI 53149
Inspector/Title:	Lee Wegner/ Crew Supervisor DPW
Date:	12-23-2019
Last Inspection (Date):	9-15-2019

Storm Water Pollution Prevention Plan

Has a storm water pollution prevention plan been developed for this site? Yes☒ No☐

Title of Plan: Village of Mukwonago SWPPP for Municipal Facilities

Date of Plan: April 2016

Does the SWPP include a site map, list of pollutant sources, pollutant control practices to be inspected, and maintenance procedures? Yes☒ No☐
(Indicate any items that are *not* included):

Vehicle Maintenance, Washing and Fueling

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Vehicle maintenance area drains to sanitary sewer system	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Vehicle maintenance area has oil-grease separator in floor drains	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Floor drains are clean	Yes☒ No☐ N/A☐	Yes☒ No☐	
4	Vehicle washing completed inside building	Yes☒ No☐ N/A☐	Yes☒ No☐	
5	Vehicle washing drains to sanitary system	Yes☒ No☐ N/A☐	Yes☒ No☐	
6	Vehicle fueling center has canopy/cover	Yes☐ No☒ N/A☐	Yes☐ No☐	
7	Vehicle fueling center has clearly labeled spill kit nearby	Yes☒ No☐N/A☐	Yes☒ No☐	
8	Vehicle fueling center has oil-grease separators in nearby storm drains	Yes☐ No☒ N/A☐	Yes☐ No☐	

Ruekert • Mielke

Hazardous Waste Management

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Hazardous materials and containers are stored indoors	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Containers of hazardous materials are in good condition	Yes☒ No☐ N/A☐	Yes☒ No☐	

Waste Management

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Dumpsters are covered	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Full dumpsters are hauled out on a regular basis	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Piles of miscellaneous debris are sorted and disposed of on a regular basis	Yes☒ No☐ N/A☐	Yes☒ No☐	
4	Street sweepings are covered	Yes☐ No☐ N/A☒	Yes☐ No☐	
5	Street sweepings are stored in containers or have barriers or perimeter controls to minimize runoff impacts	Yes☒ No☐ N/A☐	Yes☒ No☐	

Material Storage

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Runoff from bulk storage is contained on low side by barriers, bays or other perimeter controls	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Bulk storage piles are stabilized/vegetated	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Materials stored under cover/inside buildings	Yes☒ No☐ N/A☐	Yes☒ No☐	
4	Area near salt shed is clear of excess/spilled/tracked salt	Yes☒ No☐ N/A☐	Yes☒ No☐	

5	Excess/spilled/tracked salt is swept up and added to bulk salt pile	Yes☒ No☐ N/A☐	Yes☒ No☐	
6	Underground runoff containment is emptied on a regular basis	Yes☒ No☐ N/A☐	Yes☐ No☐	Old salt/sand shed cleaned as needed

Runoff Controls

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Grass filter strips have at least 70% uniform vegetation growth	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Grass filter strips typically have 6 inches or more of vegetation	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Storm water pond inlets/outlets are stable	Yes☐ No☐ N/A☒	Yes☐ No☐	
4	Storm water berms are vegetated	Yes☐ No☐ N/A☒	Yes☐ No☐	
5	Storm water pond berms are stable (no erosion, tree roots or animal boroughs)	Yes☐ No☐ N/A☒	Yes☐ No☐	
6	Infiltration basins/rain gardens have at least 70% plant growth	Yes☐ No☐ N/A☒	Yes☐ No☐	
7	Infiltration basins/rain gardens are maintained regularly, and in the spring and fall	Yes☐ No☐ N/A☒	Yes☐ No☐	
8	Infiltration basins/rain gardens drain down within 24 hours (*based on post-rain event observations)*	Yes☐ No☐ N/A☒	Yes☐ No☐	

Spills Program

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Written program is available for employees	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Employees know where written program is located	Yes☒ No☐ N/A☐	Yes☒ No☐	
3	Written program is evaluated annually	Yes☒ No☐ N/A☐	Yes☒ No☐	

Employee Training

Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes

1	New employees are trained on SWPPP	Yes☒ No☐ N/A☐	Yes☒ No☐	
2	Annual or more frequent training provided to employees on SWPPP	Yes☒ No☐ N/A☐	Yes☒ No☐	

	Recommendations/Correction	Completed On (Date)	Initials
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Village of Mukwonago **Office of the Village Public Works Dept.**

440 River Crest Court, Mukwonago, Wisconsin 53149 www.villageofmukwonago.com
(262) 363-6447 Fax: (262)363-7197

2019 Storm Water Activity Summary Report

IDDE:

- There are 130 outfalls in the village. 19 of the outfalls are identified as priority.
- The village is divided into five zones for outfall inspections. Village wide priority outfalls and outfalls within the designated zone are inspected annually.
- The 14 priority (9 major and 5 minor) and three additional out falls from zone 3 were inspected.
- Eight inspections exhibited minor flows and were within allowable limits. Screening sheets are included in the summary.
- Revised IDDE program included in this summary.

- All spills/illicit discharges, regardless of size, should be reported as soon as possible to the public works director and the emergency government director / fire chief (if the spill / discharge is suspected of having reached the local streams, lakes or wetlands). The public works director / emergency government director/fire chief will coordinate clean up with the appropriate trained emergency response personnel.
- All spills shall be reported to the Wisconsin Department of Natural Resources within 24 hours after being made aware of the spill. The emergency government director / fire chief shall coordinate this notification immediately to the Department of Natural Resources if the spill/discharge is suspected of having reached local streams, lakes or wetlands. The 24-hour toll free hot line to report spills to the Department of Natural Resources is **1-800-943-0003**.
- If the spill/illicit discharge reaches a waterway and has the potential to contaminate downstream resources, the emergency government director/fire chief shall immediately notify the officials of the downstream communities that may be impacted by the spill, following the procedure in the emergency government procedure.
- Any dye testing within the Village shall be reported to the Wisconsin Department of Natural Resources in advance of the time and location.
- If an illicit discharge has been tracked upstream to an interconnection point or outfall from another municipality or originates from the Village but discharges directly to a MS4 or property under the jurisdiction of another municipality, the Village shall notify the appropriate municipality within one working day.

Field Screenings

- The Village completed the initial field screening at all major outfalls during dry weather periods. Major outfalls were identified on the official storm sewer map from the Village's Storm Water Management Plan.
- The Village has evaluated the outfalls to be inspected each year through a "priority" designation process based on land use and known storm water outfall concerns
- The ongoing Illicit Discharge Detection and Elimination Program has been determined based upon the results of the initial field screening and subsequent outfall screenings.
- Any citizen complaint will be investigated with an inspection of the discharge location in question.
- These inspections/field screenings shall be recorded on the Village of Mukwonago Illicit Discharge Field Screening Sheet.

Action Levels for Sample Parameters

- Any samples with results above the minimum threshold for the parameters below shall be traced back to the source to stop the discharge.

Parameters	Action Level	Illicit Sources	Non-Illicit Sources
Ammonia	0.1 mg/l	Sanitary sewage and industrial wastewater	Pets, wildlife and potentially WPDES permitted discharges
Detergents	0.5 mg/l	Industrial cleansers, commercial wash water and sanitary sewage	Residential car washing
pH	Less than 6 or greater than 9	Industrial wastewater and concrete truck wash-out	Groundwater and WPDES permitted discharges
Total Chlorine	Detection or positive test unless associated with a WPDES permitted discharge at	Industrial wastewater, swimming pools and sanitary sewage	WPDES permitted discharges

Parameters	Action Level	Illicit Sources	Non-Illicit Sources
	background water supply levels		
Total Copper	0.1 mg/1	Copper-based product use and manufacturing	WPDES permitted discharges
Phenol	Detection or positive test	Chemical, textile, paint, resin, tire, plastic, electronics, and pharmaceutical manufacturing	None
Fluoride	Detection above background groundwater or water supply levels	Commercial or industrial wastewaters with a water supply component	Groundwater and WPDES permitted discharges
Potassium	10 mg/l	Sanitary sewage and industrial wastewater	Groundwater and WPDES permitted discharges

Violations

- Whenever Village staff find a violation of the Illicit Discharge ordinance, the Village may order compliance by written notice of violation to the responsible party.
- Such written notice of violation may require the following without limitation:
  - The elimination of illicit connections or discharges.
  - That violating discharges, practices, or operations shall cease and desist.
  - The abatement or remediation of storm water pollution or contaminated hazards and the restoration of any affected property.
  - Any responsible party that fails to comply with a notice of violation under this section shall be subject to further enforcement action under the enforcement provisions of the Storm Water Management and Erosion Control Enforcement Procedures.

Enforcement Measures

See Chapter 34-114 of the Village Code of Ordinances.

- Forfeiture
- Stop Work Order
- Permit Revocation
- Injunction
- Declared Nuisances
- Emergency Action
- Citation

Priority Outfalls

The Village of Mukwonago has revised the original Illicit Discharge Detection and Elimination (IDDE) program to focus on areas where problems are more likely to be detected. Department of Natural Resources' (WDNR) Program Guidance document no. 3800-2012-01 on Illicit Discharge Detection and Elimination programs has been used to develop the current IDDE program.

The Village's revised IDDE program breaks down the MS4 outfalls into 3 inspection categories:

1. Priority Outfalls to be inspected annually
2. Non-Priority Major Outfalls to be inspected once per 5-year permit term

7	ST243002	Major		N of CTH NN, between CTH ES & River Park Circle W
8	ST251006	Major		E of Eastern Trail, between 450 & 446 Eastern Trail
9	ST254001	Major	48"x36"	E of the East Wolf Run turnaround.
10	ST254002	Major	36"	SE of East Wolf Run, NW corner of the pond.
11	ST262001	Major		In the woods toward the SE corner of baseball diamonds on CTH LO
12	ST263001	Major	48"	S side of Wahl Ave., just before the circle turn around
13	ST263005	Major	24"	N outfall, W of Atkinson St. & Shore Dr. Intersection
14	ST272001	Major	24"	S side of the pond, behind 622 Augusta Dr.
15	ST272002	Major	42"	N side of the pond, behind 734 Pinehurst Dr.
16	ST272006	Major	42"	SW corner of 517 Valhalla Dr. property
17	ST352001	Major		W of Bay View Ct.
18	ST353009	Major		W side of Main St., at the Honeywell Rd. & Main St. intersection
19	ST354005	Major		W Mukwonago Dr. Apollo Ct. intersect. W of Mukwonago Dr.
20	ST361002	Major	56"	SE of East Wolf Run, SW corner of the pond.
21	ST363002	Major	66"	S outfall, E side of STH 83, 415' S of E. Wolf Run & 83 Intersection
22	ST363003	Major	66"	N outfall, E side of STH 83, 415' S of E. Wolf Run & 83 Intersection
23	ST363008	Major	36"	S side of the pond, S of Wolf Run

Criteria used to designate an outfall as a "Priority" included: land-use (industrial / business parks, institutional, retail/commercial, transportation), amount of imperviousness in a drainage area, age and density of residential areas, and approximate age of infrastructure. The Village of Mukwonago has experienced new development and redevelopment growth in the past 2 decades, with new or replaced infrastructure which minimizes the potential for illicit discharges due to older or failing infrastructure. Major outfalls in these new or redeveloped areas were not included in the priority outfall category.

Village staff previously found one discharge that required follow-up under the previous IDDE program since 2010. The discharge was sampled at outfall GSOF002 ("H"). Outfall GSOF002 ("H") has been included as a priority outfall and will be inspected annually by Village staff.

The remainder of the MS4 outfalls in the Village of Mukwonago are categorized as "minor": pipe sizes of less than 36 inches in diameter associated with a drainage area of less than 50 acres or an industrial land use of less than 2 acres. These outfalls will not fall into the annual or once every 5 years' inspection rotation, but may be inspected if a complaint is received or if circumstances change and Village staff determine it would be beneficial to inspect any of these locations.

There are a few areas with swales within the Village limits. Swale systems can be inspected by visual observations for dead vegetation due to excessive standing water or pollutants in discharges that would kill the vegetation; staining on pipes and structures that drain to the swales, staining or water marks on culverts in swales, etc. Visual observations of the swale systems should be done on a complaint basis or as staff determine necessary.

localized flooding or high groundwater tables may result in deteriorating sewer infrastructure discharges into the vegetated swale systems. Site observations and follow-up of complaints of visual and odor evidence of these discharges may result in the identification of sources of sewer-storm water system cross connections.

A curb and gutter system with storm pipe underground will allow storm water to flow into inlets along the curbs, then into a network of underground storm pipe consisting of many different sizes, ages, and conditions. As part of a municipal separate storm sewer system, storm water discharges from these storm pipes to local streams, lakes and wetlands, often without flowing through a treatment system first. Privately owned storm sewer under parking lots and private roads also drain into the Village's storm sewer system. Older, deteriorating storm pipe may have cracks or damage, or may have gaps where sections of pipe have moved apart from each other over time. Non-storm water flows can enter storm pipe in these damaged areas, resulting in pollutants mixing with storm water flows and impacting local waterways.

Identification and Evaluation of Potential Cross Connection Areas

A desktop analysis of the sewer systems that could potentially leak into the nearby municipal storm water conveyance system can identify sites in the Village of Mukwonago to be evaluated further for potential infiltration of sanitary sewer discharges into the Village's storm sewer system. Information including locations and depths of sanitary sewer and storm sewer systems, local topography, drainage areas and outfall locations of the storm sewer systems and known shallow groundwater elevations can be interpreted to identify potential areas of cross connections or underground discharges to the storm sewer system.

Routine sanitary sewer inspections may include dye testing, smoke testing, flow monitoring televising, and/or the use of other sensors and technology to get identify and locate potential pipe defects in the sewer system. Results of sanitary sewer system inspections, particularly deteriorating or damaged pipe segments, should be shared between wastewater facility staff and public works staff to evaluate the potential for infiltration into the nearby storm water conveyance system. New information on damaged sewer segments and potential sewer repair improvements may lead to discovery of infiltration into storm systems via desktop review, as discussed above.

Areas identified in a desktop review as potential cross connection areas should be observed for potential sewer-to-storm water system connections after larger rain events and during seasonal high groundwater levels, typically during spring and early summer through IDDE outfall inspections and results of sanitary sewer and/or storm sewer inspections. Inspections of existing storm pipe segments for staining, flows and odors that could be associated with improper sewer connections and leaky underground septic systems should be completed in association with the Village's Illicit Discharge Detection and Elimination (IDDE) screening program. Further investigation may include dye testing in the sanitary sewer during periods of wet weather/high ground water to determine if/where dye water shows up in surface waters and televising storm sewer in areas in proximity to potential sewer leaks. Solutions to discovered cross connections and infiltration into the storm system may include sewer lining projects, disconnections or repairs of privately owned sewer laterals and sumps, and other sewer system and/or storm system repairs, depending on the site and the situation.

Proposed Response Procedures for Potential Sewer-Storm Water Cross Connections

Inclusion of activities to address sewer system discharges into storm water systems and ultimately local lakes, streams and wetlands can be incorporated into the Village's existing IDDE program. The IDDE program response procedures include sampling of flows observed at storm water outfalls as a result of periodic inspections or complaints. Results of the sampling and an analysis of the contributing drainage area help to identify the potential source of the pollutants. The Village of Mukwonago's existing Illicit Discharge Detection and Elimination ordinance provides structure and enforcement authority for the Village to require resolution to observed discharges to the municipal separate storm sewer system,

ILLICIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Subwatershed: Mukwonago		Outfall ID: GSOF002
Today's date: 10/17/2019		Time (Military): 08:56
Investigators: Ron Bittner		Form completed by: Ron Bittner
Temperature (°F): 41	Rainfall (in.): Last 24 hours: 0.0	Last 48 hours: 0.0
Nearest Intersection / Location: Holz Pkwy. & Perkins Dr.		
Photo #s:		Land use in drainage area: Institutional, Industrial
Notes (e.g., origin of outfall, if known): Mukwonago Industrial Park		

SECTION 2: OUTFALL DESCRIPTION

Location	Material	Shape	Dimensions (in.)	Submerged
☐ Closed Pipe ☑ Open Drainage				No
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*			
Flow Description	☑ Trickle ☐ Moderate ☐ Substantial			

SECTION 3: QUANTITATIVE CHARACTERIZATION

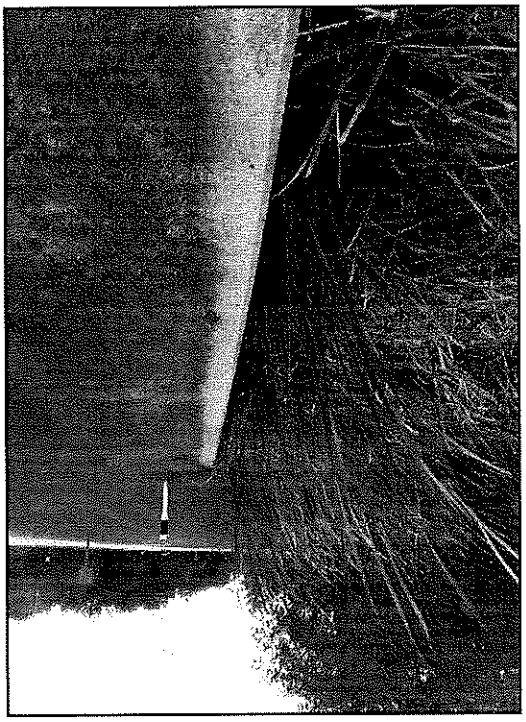
Flow Depth (ft)	Flow Width (ft)	Measured Length (ft)	Time of Travel (sec)	Volume (cu ft)	Time To Fill (sec)	Temperature (F)	pH	Ammonia (PPM)
						51	7.5	

SECTION 4: PHYSICAL INDICATORS FOR FLOWING OUTFALLS ONLY Is Any Physical Indicator Present in the flow? ☐Yes ☑ No		SECTION 5: PHYSICAL INDICATORS FOR BOTH FLOWING AND NON-FLOWING OUTFALL Are Any Physical Indicators that are not related to flow present? ☐Yes ☑ No	
INDICATOR	**DESCRIPTION**	**INDICATOR**	**DESCRIPTION**
☐ Odor	☐ Sewage ☐ Rancid/Sour ☐ Petroleum/Gas ☐ Sulfide ☐ Other : _____	☐ Outfall Damage	☐ Spalling, Cracking or Chipping ☐ Corrosion ☐ Peeling Paint
☐ Color	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other: _____	☐ Deposits/Stains	☐ Oily ☐ Flow Line ☐ Paint ☐ Other: _____
☐ Turbidity	☐ 1 - Slight Cloudiness ☐ 2 - Cloudy ☐ 3 - Opaque	☑ Abnormal Vegetation	☑ Excessive ☐ Inhibited
☐ Floatables	☐ Sewage (Toilet Paper, Etc.) ☐ Suds ☐ Petroleum (Oil Sheen) ☐ Other : _____	☐ Poor Pool Quality	☐ Odors ☐ Suds ☐ Floatables ☐ Yellow ☐ Oil Sheen ☐ Excessive Algae ☐ Other: _____

SECTION 6: DATA COLLECTION

1. Sample for the lab?		☐ Yes	☑ No	
2. If yes, collected from:		☐ Flow	☐ Pool	
3. Samples Taken:	☐ Copper (mg/l)	☐ Phenols	☐ Surfactants	☐ Detergents (mg/l)
☐ Potassium (mg/l)	☐ Ecoli	☑ Chlorine 0.0	☐ Coliform	

SECTION 7: COMMENTS OR OTHER CONCERNS (e.g., trash or needed infrastructure repairs)?



ILLICIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Subwatershed: Mukwonago		Outfall ID: GSOF004
Today's date: 10/17/2019		Time (Military): 09:15
Investigators: Ron Bittner		Form completed by: Ron Bittner
Temperature (°F): 41	Rainfall (in.): Last 24 hours: 0.0	Last 48 hours: 0.0
Nearest Intersection / Location: Holz Pkwy. & Swan Dr.		
Photo #s:		Land use in drainage area: Institutional, Industrial, Commercial
Notes (e.g., origin of outfall, if known): Mukwonago Industrial Park		

SECTION 2: OUTFALL DESCRIPTION

Location	Material	Shape	Dimensions (in.)	Submerged
☐ Closed Pipe ☑ Open Drainage				No
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*			
Flow Description	☐ Trickle ☑ Moderate ☐ Substantial			

SECTION 3: QUANTITATIVE CHARACTERIZATION

Flow Depth (ft)	Flow Width (ft)	Measured Length (ft)	Time of Travel (sec)	Volume (cu ft)	Time To Fill (sec)	Temperature (F)	pH	Ammonia (PPM)
						50	7.5	0.0

SECTION 4: PHYSICAL INDICATORS FOR FLOWING OUTFALLS ONLY

Is Any Physical Indicator Present in the flow? ☐ Yes ☑ No

INDICATOR	DESCRIPTION
☐ Odor	☐ Sewage ☐ Rancid/Sour ☐ Petroleum/Gas ☐ Sulfide ☐ Other : _____
☐ Color	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other: _____
☐ Turbidity	☐ 1 - Slight Cloudiness ☐ 2 - Cloudy ☐ 3 - Opaque
☐ Floatables	☐ Sewage (Toilet Paper, Etc.) ☐ Suds ☐ Petroleum (Oil Sheen) ☐ Other : _____

SECTION 5: PHYSICAL INDICATORS FOR BOTH FLOWING AND NON-FLOWING OUTFALL

Are Any Physical Indicators that are not related to flow present? ☐ **Yes** ☑ **No**

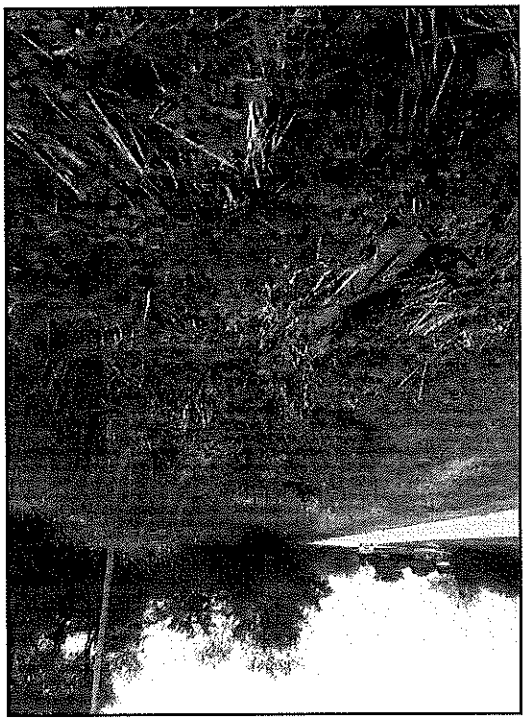
INDICATOR	DESCRIPTION
☐ Outfall Damage	☐ Spalling, Cracking or Chipping ☐ Corrosion ☐ Peeling Paint
☐ Deposits/Stains	☐ Oily ☐ Flow Line ☐ Paint ☐ Other: _____
☐ Abnormal Vegetation	☐ Excessive ☐ Inhibited
☐ Poor Pool Quality	☐ Odors ☐ Suds ☐ Floatables ☐ Yellow ☐ Oil Sheen ☐ Excessive Algae ☐ Other: _____

SECTION 6: DATA COLLECTION

1. Sample for the lab?		☐ Yes	☑ No	
2. If yes, collected from:		☐ Flow	☐ Pool	
3. Samples Taken:	☐ Copper (mg/l)	☐ Phenols	☐ Surfactants	☐ Detergents (mg/l)
☐ Potassium (mg/l)	☐ Ecoli	☑ Chlorine 0.0	☐ Coliform	

SECTION 7: COMMENTS OR OTHER CONCERNS (e.g., trash or needed infrastructure repairs)?

Wetlands on the west side of Holz Parkway drain down this ditch.



ILLICIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Subwatershed: Mukwonago		Outfall ID: ST252001
Today's date: 10/16/2019		Time (Military): 13:11
Investigators: Ron Bittner		Form completed by: Ron Bittner
Temperature (°F): 47	Rainfall (in.): Last 24 hours: 0.0	Last 48 hours: 0.0
Nearest Intersection / Location: McKenzie Dr. & Plank Rd.		
Photo #s:		Land use in drainage area: Institutional, Industrial
Notes (e.g., origin of outfall, if known): Businesses Park		

SECTION 2: OUTFALL DESCRIPTION

Location	Material	Shape	Dimensions (in.)	Submerged
☑ Closed Pipe ☐ Open Drainage	Concrete		48	No
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*			
Flow Description	☑ Trickle ☐ Moderate ☐ Substantial			

SECTION 3: QUANTITATIVE CHARACTERIZATION

Flow Depth (ft)	Flow Width (ft)	Measured Length (ft)	Time of Travel (sec)	Volume (cu ft)	Time To Fill (sec)	Temperature (F)	pH	Ammonia (PPM)
						55	7.5	0.1

SECTION 4:
PHYSICAL INDICATORS FOR FLOWING OUTFALLS ONLY

Is Any Physical Indicator Present in the flow? ☐ Yes ☑ No

INDICATOR	DESCRIPTION
☐ Odor	☐ Sewage ☐ Rancid/Sour ☐ Petroleum/Gas ☐ Sulfide ☐ Other : _____
☐ Color	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other: _____
☐ Turbidity	☐ 1 - Slight Cloudiness ☐ 2 - Cloudy ☐ 3 - Opaque
☐ Floatables	☐ Sewage (Toilet Paper, Etc.) ☐ Suds ☐ Petroleum (Oil Sheen) ☐ Other : _____

SECTION 5:
PHYSICAL INDICATORS FOR BOTH FLOWING AND NON-FLOWING OUTFALL

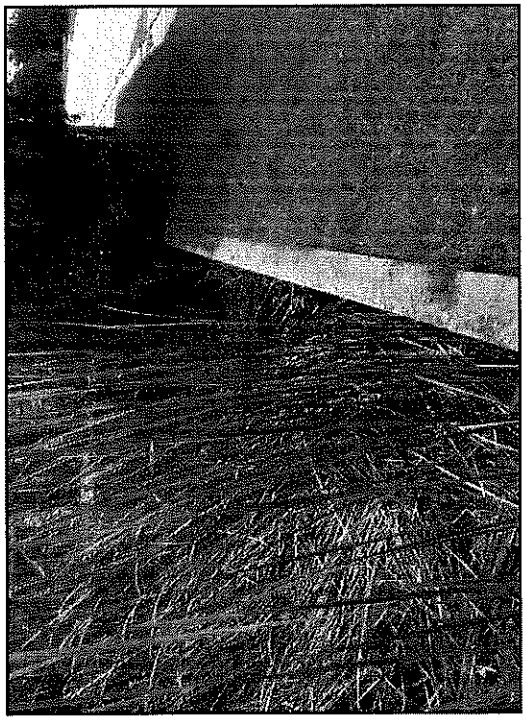
Are Any Physical Indicators that are not related to flow present? ☑ **Yes** ☐ **No**

INDICATOR	DESCRIPTION
☐ Outfall Damage	☐ Spalling, Cracking or Chipping ☐ Corrosion ☐ Peeling Paint
☐ Deposits/Stains	☐ Oily ☐ Flow Line ☐ Paint ☐ Other: _____
☑ Abnormal Vegetation	☑ Excessive ☐ Inhibited
☐ Poor Pool Quality	☐ Odors ☐ Suds ☐ Floatables ☐ Yellow ☐ Oil Sheen ☐ Excessive Algae ☐ Other: _____

SECTION 6: DATA COLLECTION

1. Sample for the lab?		☑ Yes	☐ No	
2. If yes, collected from:		☑ Flow	☐ Pool	
3. Samples Taken:	☑ Copper (mg/l) 0.0	☑ Phenols Chemical	☐ Surfactants	☑ Detergents (mg/l) 0.0
☐ Potassium (mg/l)	☐ Ecoli	☑ Chlorine 0.0	☐ Coliform	

SECTION 7: COMMENTS OR OTHER CONCERNS (e.g., trash or needed infrastructure repairs)?



ILLICIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Subwatershed: Mukwonago		Outfall ID: ST351002
Today's date: 11/5/2019		Time (Military): 13:15
Investigators: Ron Bittner		Form completed by: Ron Bittner
Temperature (°F): 42	Rainfall (in.): Last 24 hours: 0.0	Last 48 hours: 0.0
Nearest Intersection / Location: South Rochester Street & Front Street		
Photo #s:		Land use in drainage area: Residential, institutional, Commercial, green spa
Notes (e.g., origin of outfall, if known):		

SECTION 2: OUTFALL DESCRIPTION

Location	Material	Shape	Dimensions (in.)	Submerged
☑ Closed Pipe ☐ Open Drainage	Concrete	Round	36	No
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*			
Flow Description	☑ Trickle ☐ Moderate ☐ Substantial			

SECTION 3: QUANTITATIVE CHARACTERIZATION

Flow Depth (ft)	Flow Width (ft)	Measured Length (ft)	Time of Travel (sec)	Volume (cu ft)	Time To Fill (sec)	Temperature (F)	pH	Ammonia (PPM)
						45	7.5	0.0

SECTION 4: PHYSICAL INDICATORS FOR FLOWING OUTFALLS ONLY

Is Any Physical Indicator Present in the flow? ☐ Yes ☑ No

INDICATOR	DESCRIPTION
☐ Odor	☐ Sewage ☐ Rancid/Sour ☐ Petroleum/Gas ☐ Sulfide ☐ Other : _____
☐ Color	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other: _____
☐ Turbidity	☐ 1 - Slight Cloudiness ☐ 2 - Cloudy ☐ 3 - Opaque
☐ Floatables	☐ Sewage (Toilet Paper, Etc.) ☐ Suds ☐ Petroleum (Oil Sheen) ☐ Other : _____

SECTION 5: PHYSICAL INDICATORS FOR BOTH FLOWING AND NON-FLOWING OUTFALL

Are Any Physical Indicators that are not related to flow present? ☐ **Yes** ☑ **No**

INDICATOR	DESCRIPTION
☐ Outfall Damage	☐ Spalling, Cracking or Chipping ☐ Corrosion ☐ Peeling Paint
☐ Deposits/Stains	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:_____
☐ Abnormal Vegetation	☐ Excessive ☐ Inhibited
☐ Poor Pool Quality	☐ Odors ☐ Suds ☐ Floatables ☐ Yellow ☐ Oil Sheen ☐ Excessive Algae ☐ Other: _____

SECTION 6: DATA COLLECTION

1. Sample for the lab?		☑ Yes	☐ No	
2. If yes, collected from:		☑ Flow	☐ Pool	
3. Samples Taken:	☑ Copper (mg/l) 0.0	☑ Phenols Chemical	☐ Surfactants	☑ Detergents (mg/l) 0.0
☐ Potassium (mg/l)	☐ Ecoli	☑ Chlorine 0.0	☐ Coliform	

SECTION 7: COMMENTS OR OTHER CONCERNS (e.g., trash or needed infrastructure repairs)?

ILLICIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Subwatershed: Mukwonago		Outfall ID: ST361002
Today's date: 11/5/2019		Time (Military): 14:15
Investigators: Ron Bittner		Form completed by: Ron Bittner
Temperature (°F): 42	Rainfall (in.): Last 24 hours: 0.0	Last 48 hours: 0.0
Nearest Intersection / Location: East Termini of East Wolf Run		
Photo #s:		Land use in drainage area: Commercial Open Space
Notes (e.g., origin of outfall, if known):		

SECTION 2: OUTFALL DESCRIPTION

Location	Material	Shape	Dimensions (in.)	Submerged
☑ Closed Pipe ☐ Open Drainage			54	No
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*			
Flow Description	☑ Trickle ☐ Moderate ☐ Substantial			

SECTION 3: QUANTITATIVE CHARACTERIZATION

Flow Depth (ft)	Flow Width (ft)	Measured Length (ft)	Time of Travel (sec)	Volume (cu ft)	Time To Fill (sec)	Temperature (F)	pH	Ammonia (PPM)
						51	7.5	0.0

SECTION 4: PHYSICAL INDICATORS FOR FLOWING OUTFALLS ONLY

Is Any Physical Indicator Present in the flow? ☐ Yes ☑ No

INDICATOR	DESCRIPTION
☐ Odor	☐ Sewage ☐ Rancid/Sour ☐ Petroleum/Gas ☐ Sulfide ☐ Other : _____
☐ Color	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other: _____
☐ Turbidity	☐ 1 - Slight Cloudiness ☐ 2 - Cloudy ☐ 3 - Opaque
☐ Floatables	☐ Sewage (Toilet Paper, Etc.) ☐ Suds ☐ Petroleum (Oil Sheen) ☐ Other : _____

SECTION 5: PHYSICAL INDICATORS FOR BOTH FLOWING AND NON-FLOWING OUTFALL

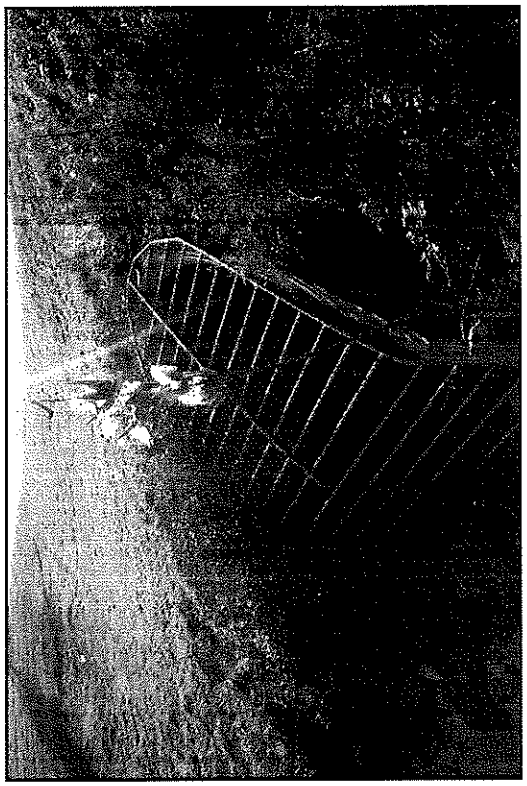
Are Any Physical Indicators that are not related to flow present? ☐ **Yes** ☑ **No**

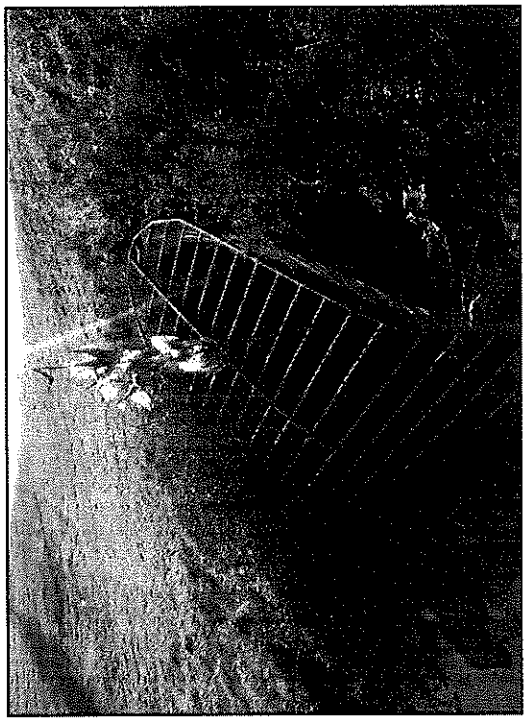
INDICATOR	DESCRIPTION
☐ Outfall Damage	☐ Spalling, Cracking or Chipping ☐ Corrosion ☐ Peeling Paint
☐ Deposits/Stains	☐ Oily ☐ Flow Line ☐ Paint ☐ Other: _____
☐ Abnormal Vegetation	☐ Excessive ☐ Inhibited
☐ Poor Pool Quality	☐ Odors ☐ Suds ☐ Floatables ☐ Yellow ☐ Oil Sheen ☐ Excessive Algae ☐ Other: _____

SECTION 6: DATA COLLECTION

1. Sample for the lab?		☑ Yes	☐ No	
2. If yes, collected from:		☑ Flow	☐ Pool	
3. Samples Taken:	☑ Copper (mg/l) 0.0	☑ Phenols Chemical	☐ Surfactants	☑ Detergents (mg/l) 0.0
☐ Potassium (mg/l)	☐ Ecoli	☑ Chlorine 0.0	☐ Coliform	

SECTION 7: COMMENTS OR OTHER CONCERNS (e.g., trash or needed infrastructure repairs)?





ILLICIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Subwatershed: Mukwonago		Outfall ID: ST363008
Today's date: 11/5/2019		Time (Military): 13:37
Investigators: Ron Bittner		Form completed by: Ron Bittner
Temperature (°F): 42	Rainfall (in.): Last 24 hours: 0.0	Last 48 hours: 0.0
Nearest Intersection / Location: West Termini Dewey Dr.		
Photo #s:		Land use in drainage area: Industrial, open space
Notes (e.g., origin of outfall, if known):		

SECTION 2: OUTFALL DESCRIPTION

Location	Material	Shape	Dimensions (in.)	Submerged
☑ Closed Pipe ☐ Open Drainage	Concrete	Round	48	Yes
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*			
Flow Description	☐ Trickle ☑ Moderate ☐ Substantial			

SECTION 3: QUANTITATIVE CHARACTERIZATION

Flow Depth (ft)	Flow Width (ft)	Measured Length (ft)	Time of Travel (sec)	Volume (cu ft)	Time To Fill (sec)	Temperature (F)	pH	Ammonia (PPM)
						50	7.5	0.0

SECTION 4:
PHYSICAL INDICATORS FOR FLOWING OUTFALLS ONLY

Is Any Physical Indicator Present in the flow? ☐ Yes ☑ No

INDICATOR	DESCRIPTION
☐ Odor	☐ Sewage ☐ Rancid/Sour ☐ Petroleum/Gas ☐ Sulfide ☐ Other : _____
☐ Color	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other: _____
☐ Turbidity	☐ 1 - Slight Cloudiness ☐ 2 - Cloudy ☐ 3 - Opaque
☐ Floatables	☐ Sewage (Toilet Paper, Etc.) ☐ Suds ☐ Petroleum (Oil Sheen) ☐ Other : _____

SECTION 5:
PHYSICAL INDICATORS FOR BOTH FLOWING AND NON-FLOWING OUTFALL

Are Any Physical Indicators that are not related to flow present? ☑ **Yes** ☐ **No**

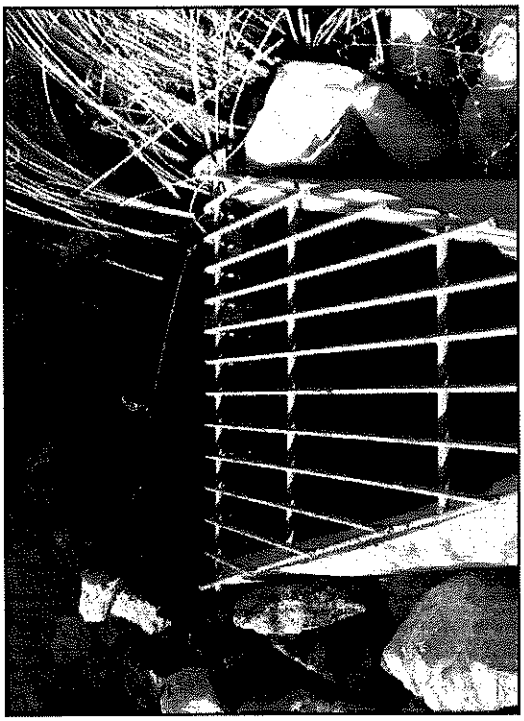
INDICATOR	DESCRIPTION
☐ Outfall Damage	☐ Spalling, Cracking or Chipping ☐ Corrosion ☐ Peeling Paint
☐ Deposits/Stains	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:_____
☐ Abnormal Vegetation	☐ Excessive ☐ Inhibited
☐ Poor Pool Quality	☐ Odors ☐ Suds ☐ Floatables ☐ Yellow ☐ Oil Sheen ☐ Excessive Algae ☐ Other: _____

SECTION 6: DATA COLLECTION

1. Sample for the lab?		☑ Yes	☐ No	
2. If yes, collected from:		☑ Flow	☐ Pool	
3. Samples Taken:	☑ Copper (mg/l) 0.0	☑ Phenols Chemical	☐ Surfactants	☑ Detergents (mg/l) 0.0
☐ Potassium (mg/l)	☐ Ecoli	☑ Chlorine 0.0	☐ Coliform	

SECTION 7: COMMENTS OR OTHER CONCERNS (e.g., trash or needed infrastructure repairs)?

Drain tile installed during construction collects ground water from under the street and drains into this storm system.



ILLICIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Subwatershed: Mukwonago		Outfall ID: ST252002
Today's date: 10/16/2019		Time (Military): 12:41
Investigators: Ron Bittner		Form completed by: Ron Bittner
Temperature (°F): 48	Rainfall (in.): Last 24 hours: 0.0	Last 48 hours: 0.0
Nearest Intersection / Location: Fox Street & McKenzie Dr.		
Photo #s:		Land use in drainage area: Commercial, institutional
Notes (e.g., origin of outfall, if known): Green Ridge shopping center		

SECTION 2: OUTFALL DESCRIPTION

Location	Material	Shape	Dimensions (in.)	Submerged
☑ Closed Pipe ☐ Open Drainage	Concrete	Round	36	No
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*			
Flow Description	☑ Trickle ☐ Moderate ☐ Substantial			

SECTION 3: QUANTITATIVE CHARACTERIZATION

Flow Depth (ft)	Flow Width (ft)	Measured Length (ft)	Time of Travel (sec)	Volume (cu ft)	Time To Fill (sec)	Temperature (F)	pH	Ammonia (PPM)
						60	7.5	0.1

SECTION 4:
PHYSICAL INDICATORS FOR FLOWING OUTFALLS ONLY

Is Any Physical Indicator Present in the flow? ☐ Yes ☑ No

INDICATOR	DESCRIPTION
☐ Odor	☐ Sewage ☐ Rancid/Sour ☐ Petroleum/Gas ☐ Sulfide ☐ Other : _____
☐ Color	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other: _____
☐ Turbidity	☐ 1 - Slight Cloudiness ☐ 2 - Cloudy ☐ 3 - Opaque
☐ Floatables	☐ Sewage (Toilet Paper, Etc.) ☐ Suds ☐ Petroleum (Oil Sheen) ☐ Other : _____

SECTION 5:
PHYSICAL INDICATORS FOR BOTH FLOWING AND NON-FLOWING OUTFALL

Are Any Physical Indicators that are not related to flow present? ☑ **Yes** ☐ **No**

INDICATOR	DESCRIPTION
☐ Outfall Damage	☐ Spalling, Cracking or Chipping ☐ Corrosion ☐ Peeling Paint
☐ Deposits/Stains	☐ Oily ☐ Flow Line ☐ Paint ☐ Other: _____
☐ Abnormal Vegetation	☐ Excessive ☐ Inhibited
☐ Poor Pool Quality	☐ Odors ☐ Suds ☐ Floatables ☐ Yellow ☐ Oil Sheen ☐ Excessive Algae ☐ Other: _____

SECTION 6: DATA COLLECTION

1. Sample for the lab?		☑ Yes	☐ No	
2. If yes, collected from:		☑ Flow	☐ Pool	
3. Samples Taken:	☑ Copper (mg/l) 0.0	☑ Phenols Chemical	☐ Surfactants	☑ Detergents (mg/l) 0.0
☐ Potassium (mg/l)	☐ Ecoli	☑ Chlorine 0.0	☐ Coliform	

SECTION 7: COMMENTS OR OTHER CONCERNS (e.g., trash or needed infrastructure repairs)?

ILLICIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Subwatershed: Mukwonago		Outfall ID: ST264001
Today's date: 11/5/2019		Time (Military): 13:00
Investigators: Ron Bittner		Form completed by: Ron Bittner
Temperature (°F): 42	Rainfall (in.): Last 24 hours: 0.0	Last 48 hours: 0.0
Nearest Intersection / Location: Henry St. east termini.		
Photo #s:		Land use in drainage area: Residential, Transport repair
Notes (e.g., origin of outfall, if known):		

SECTION 2: OUTFALL DESCRIPTION

Location	Material	Shape	Dimensions (in.)	Submerged
☑ Closed Pipe ☐ Open Drainage	Concrete		24	No
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*			
Flow Description	☑ Trickle ☐ Moderate ☐ Substantial			

SECTION 3: QUANTITATIVE CHARACTERIZATION

Flow Depth (ft)	Flow Width (ft)	Measured Length (ft)	Time of Travel (sec)	Volume (cu ft)	Time To Fill (sec)	Temperature (F)	pH	Ammonia (PPM)
						54	7.5	0.0

SECTION 4:
PHYSICAL INDICATORS FOR FLOWING OUTFALLS ONLY

Is Any Physical Indicator Present in the flow? ☐ Yes ☑ No

INDICATOR	DESCRIPTION
☐ Odor	☐ Sewage ☐ Rancid/Sour ☐ Petroleum/Gas ☐ Sulfide ☐ Other : _____
☐ Color	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other: _____
☐ Turbidity	☐ 1 - Slight Cloudiness ☐ 2 - Cloudy ☐ 3 - Opaque
☐ Floatables	☐ Sewage (Toilet Paper, Etc.) ☐ Suds ☐ Petroleum (Oil Sheen) ☐ Other : _____

SECTION 5:
PHYSICAL INDICATORS FOR BOTH FLOWING AND NON-FLOWING OUTFALL

Are Any Physical Indicators that are not related to flow present? ☐ **Yes** ☑ **No**

INDICATOR	DESCRIPTION
☐ Outfall Damage	☐ Spalling, Cracking or Chipping ☐ Corrosion ☐ Peeling Paint
☐ Deposits/Stains	☐ Oily ☐ Flow Line ☐ Paint ☐ Other: _____
☐ Abnormal Vegetation	☐ Excessive ☐ Inhibited
☐ Poor Pool Quality	☐ Odors ☐ Suds ☐ Floatables ☐ Yellow ☐ Oil Sheen ☐ Excessive Algae ☐ Other: _____

SECTION 6: DATA COLLECTION

1. Sample for the lab?		☑ Yes	☐ No	
2. If yes, collected from:		☑ Flow	☐ Pool	
3. Samples Taken:	☑ Copper (mg/l) 0.0	☑ Phenols Chemical	☐ Surfactants	☑ Detergents (mg/l) 0.0
☐ Potassium (mg/l)	☐ Ecoli	☑ Chlorine 0.0	☐ Coliform	

SECTION 7: COMMENTS OR OTHER CONCERNS (e.g., trash or needed infrastructure repairs)?

Village of Mukwonago Downtown Report

2019

December 11, 2019

Village of Mukwonago

Introduction

During the second half of 2019, Village staff acquired feedback from businesses in the downtown on their specific business needs as well as their desires for downtown Mukwonago. We created a survey to be sent out via email or hand delivered to all businesses in Downtown Mukwonago, as identified by the Village Center Overlay Zoning District in Appendix B. Of those respondents, 10 of them sat down with all or a combination of the Village Administrator, John Weidl, Village Planner, Ben Kohout, Village President, Fred Winchowky, and the Economic Development Intern, Makenzee Loft, to discuss their views on Mukwonago as a place to do business, and where they would like to see change. The results of the survey and meetings have been summarized in this Downtown Report. The Downtown Report contains information from individual business owners as well as best practices from surrounding communities.

Executive Summary

The Village of Mukwonago Downtown Report was created to provide the Village Board with feedback from businesses located in the downtown. Of the 81 businesses, 15 surveys were returned, and 10 businesses were interviewed. Common responses of the major issues were lack of parking, lack of walkability, vehicle traffic congestion and poor façade appearance. Common survey responses of benefits to locating their businesses in downtown were quality of life, access to customers, cost of doing business and access to highways. Business owners would like to see additional parking, public art, green space, pedestrian connections and more community events in downtown.

Methods

Initial research was conducted of best practices and success stories from other communities revitalizing their downtown. After this initial research, we created a survey to be given to all the businesses located in the area designated as downtown (Appendix B). The survey was 19 questions long and estimated to take roughly 5 to 10

minutes of their time (Appendix A). The questions were taken from a combination of research from other community surveys and our Business Retention & Expansion survey. The survey addressed current obstacles, benefits and burdens of location, and what future projects the respondents would like to see in downtown.

After emailing and hand delivering the survey, we asked if certain businesses would like to meet. We targeted new businesses as well as the most popular businesses for meetings. The responses to the survey and the dialogue at the meetings were recorded. A report was created from these findings.

Discussion

Most buildings in Mukwonago's downtown were built before 1960 (Table 1). Because the building ages are older, many need to be updated. Older buildings were built using old materials that have a limited lifespan or are no longer compliant with today's health and safety standards (e.g. asbestos, fire protection, ADA compliance). Maintaining the integrity of a building and its future viability begins with its materials and façade. Older properties might also have old infrastructure and utilities throughout the building itself that should be removed.

There are examples throughout the Village downtown where infrastructure may need to be removed and/or updated. Badger Burger has abandoned fuel tanks under its current building footprint, which remains a future consideration when thinking about downtown development or the reuse of that building. Another example of underground issues is the Citgo gas station in downtown.

Development and redevelopment are often contingent on public investment in environmental remediation or considerations that otherwise constrain and complicate successful repurposing and redevelopment. There are many additional issues that need to be taken into consideration for signage, facades, lighting, and pedestrian travel, given that most buildings in the downtown are older.

Façade and exterior improvements are one way to combat the aging of buildings in downtown. Updating old buildings is important because it can accommodate aesthetic trends, bring cohesion to disparate architecture, increase energy efficiency, and make

the buildings healthier and more financially attractive places for occupants (Martinez et al. 2015).

Mukwonago's downtown has a total of 6 vacancies that constitutes a vacancy rate of 6.9%. In comparison to other communities, there are some areas with a few percentage points lower and some with higher vacancy rates (Table 2). Mukwonago's downtown does not seem to stand out as having a noticeably higher vacancy rate.

Table 1. General information on the buildings and businesses located in downtown Mukwonago.

Number of Businesses	Number of buildings	vacancies	# storefronts	vacancy rate
81	53	6	22	6.9%
Building Stock Age (estimated)				
Pre 1860	**1860-1899**	**1900-1939**	**1940-1960**	**post 1960**
3	4	11	12	21
5.88%	7.84%	21.57%	23.53%	41.18%

Table 2. Wisconsin municipalities downtown vacancy rates and downtown retail vacancy rates.

Wisconsin Municipalities	Downtown Vacancy Rate/Downtown Retail Vacancy Rate
Village of Mukwonago	**6.9%**
Village of Elm Grove	3%
City of Milwaukee	5.6%
City of De Pere	7.4%
Town of Lincoln	12%

We received 15 survey responses. The businesses that responded were Americana Flower Shop, Animal House, Bare It All Fitness, Bartle Jewelers, BBG Development LLC,

Black Box Studio, Citizens Bank, Country Porch, Dragonfly Embroidery, E and S Sweets, Fork in the Road, Mall of Mukwonago, Millennium Dream Homes, and Music Café.

The businesses that agreed to meet were Americana Flower Shop, Bare It All Fitness, BBG Development LLC, Black Box Studios, Citizen's Bank, The Country Porch, E and S Sweets, Mall of Mukwonago, Green Rabbit Clay Studio, and Pazzo's Chicago Restaurant.

When asked what the top reasons are for locating in Mukwonago, businesses claimed access to customers and quality of life as the top two answers (Figure 1). While many businesses expressed the need for more foot traffic and parking, they still listed access to customers as a reason for locating in Mukwonago.

Figure 1. Bar graph of the top reasons why respondents located their business in Mukwonago

When asked what changes could enhance the image of downtown Mukwonago as a destination for both visitors and residents, Façade improvements was listed most often (Figure 2). Because the majority building stock in downtown is pre-1960s, many of the buildings need updates or repairs.

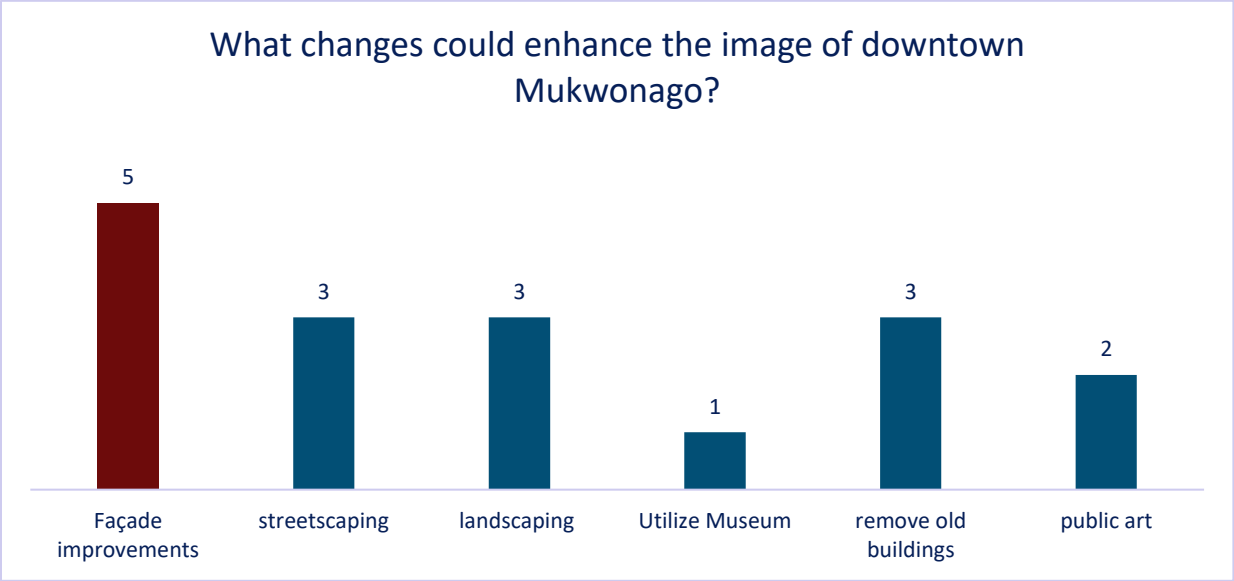


Figure 1. Bar graph displaying which changes to downtown would enhance the downtown image.

When asked what projects businesses would like to see in downtown, the most popular answers were additional parking and public art (Figure 3). Businesses want to give people another reason to visit the downtown and make it easier for people to travel by car.

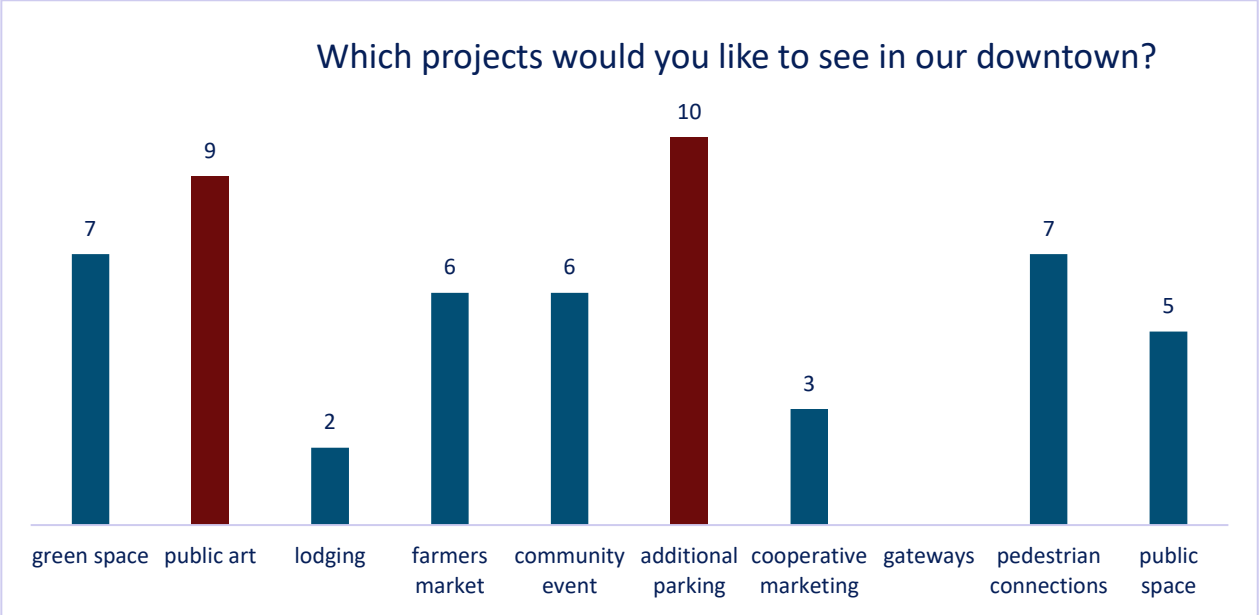


Figure 2. Bar graph of which projects the survey respondents would like to see in downtown.

Mukwonago downtown businesses benefit from the access to customers as well as quality of life (Figure 1). Businesses claim that façade improvements, public art, and additional parking are needed to promote the downtown as an inviting place for customers.

Conclusion

After reviewing the feedback from local business owners, there are several clear commonalities among the responses. Some common suggestions included the creation of additional parking, having a Façade Improvement Program to spur investment in exterior remodeling and signage, and establishment of a redevelopment Tax Increment District (TID)/Community Development Authority (CDA) to deal with problem areas and to spur investment in downtown development.

To create additional parking in a central downtown location, one vision could be the Citgo gas station in downtown. This specific property could be reimagined as a parking lot. For this scenario, the Village has created a draft estimation construction cost totaling $173,824.80 to convert the Citgo to a usable parking lot with 62 stalls. See appendix D.1 for more information on how this could happen using WEDC Brownfield Assessment Grant and Appendix E for drafted estimated construction costs. The grant provides up to $150,000 to local governments seeking to redevelop sites with economic or community development potential that are, or may be, adversely impacted by environmental contamination.

In conjunction with an additional parking lot in the Village downtown, bringing the Farmer's Market downtown would increase foot traffic for businesses in the downtown. The Village has drafted an estimated construction cost to create an open-air marketplace structure in the improved Citgo site, with parking designed to be situated underneath the structure. This project would create 34 parking stalls and cost an estimated total of $335,247.60. This open-air structure could be used as a space for Farmer's Market vendors during the warm months, bringing with it the foot traffic that downtown businesses are asking for. When the open-air structure is not in use, people may park underneath it.

A Façade improvement program is an incentive-based matching grant program to encourage businesses to update the exterior of their building. This program can lead to the enhancement of the appearance and economic possibilities of the downtown.

More information on how this program can be realized at the Village can be found in appendix D.2 under Façade Improvement Program.

A redevelopment TID could also be a viable option. This type of program is an economic development tool used by municipalities to promote economic development and redevelopment initiatives within an area defined by the municipality. For example, the Village could acquire residential property in the downtown and clear the land to then sell to a developer for higher density apartments and commercial on the ground level. A mixed-use development would promote foot traffic in the downtown. We would have to amend the zoning code to allow for this type of development to happen. For instance, increasing building height regulations from maximum three-story to four-story. More information on TID and examples can be found in Appendix D.3.

A Community Development Authority (CDA) is a separate political body that carries out community projects and programs. For example, the village board could vote to adopt an ordinance or resolution creating a CDA. This CDA may oversee the Façade Improvement Program, as well as the redevelopment TID. More information on CDAs can be found in Appendix D.4.

Some other suggestions from the survey results would be to create a low interest loan program, install public art, encourage more community events, and bring the farmer's market to downtown. These suggestions have been researched and preliminary plans are included in appendices D and E below.

We would like to thank the Village Board for their thoughtful consideration of the feedback provided directly from the downtown area property owners as well as staff's research regarding best practices and potential programs to consider for downtown development. Village Officials and staff have spent many hours meeting with our local businesses, and we would be remiss if we did not thank them for the time and effort put forth to provide feedback to the Village Board. The business owners have provided valuable input on what is important to them and their

continued success in our community and have expressed excitement over the potential changes that will impact and shape the future of Mukwonago's downtown.

Appendices

Appendix A: Downtown Business Survey/Responses
Appendix B: Map of downtown overlay districts
Appendix C: Table of all businesses located in downtown Mukwonago
Appendix D: Recommendations from survey/research with examples
Appendix E: Concept 1 & 2 Citgo Site Improvements
Appendix F: Other recommendations to revitalizing downtown based on research

Appendix A: Downtown Business Survey/Responses

Downtown Business Survey

The Village of Mukwonago is asking for your voluntary participation in a Downtown Business survey.

The purpose of this survey is to find out how the Village can get involved for positive change in the Downtown. The results of this survey will be used in a report for recommendation of action to the Village Board. This report will explain what various stakeholders want to see done to existing buildings and where potential new properties are located.

This survey will be given to all businesses in the area designated as Downtown Mukwonago. By completing this survey, you will be able to share your unique perspective on revitalizing the Downtown. This data will provide information on what the Village can fund as well as the necessary information for applying to grants.

Please complete this survey in its entirety as accurately and honestly as possible (roughly 5 – 10 minutes). Your answers will not be confidential, but your personal information will not be shared.

2019 Mukwonago Downtown Businesses Survey

Date: _____

1. Business Name: _____
2. Name of participants and contact info:
3. What category of business are you? (circle all that apply)
   a. Retail b. Restaurant
   c. Service d. Finance/Insurance
   e. Real estate f. Other_____
4. How many people are employed at your Mukwonago store? _____
5. Where do your employees typically live?
6. What are the top reasons for locating or keeping your business in Mukwonago? (circle all that apply)
   a. Proximity to I-43 and other highways b. Access to Waukesha Co. Airport/Mitchell International
   c. Access to well-trained employees d. Proximity to College and Universities
   e. Access to customers f. Access to business support services
   g. Access to Suppliers h. Access to metropolitan amenities

i. Quality housing
j. Quality of Life (recreation, schools)
k. Cost of doing business
l. Access to local services (Fire, Police, and Utilities)
m. Other_____

7. What types of marketing do you find to be the most effective (local newspapers, social media, website flyers, etc.)?
8. Are there any issues with the service of utilities to your business (gas, electric, telephone/internet, water, sewer)?
9. What major obstacles or issues do you experience or believe the downtown as a whole is experiencing (availability/cost of utilities, availability/quality of employees, cashflow/working capital, city/county/state codes or regulations, competition, technical issues, cost of rent/property, current economic conditions, customer traffic, general operation costs etc.)?
10. Please describe your immediate business needs that could be addressed by the Village or other entities?
11. Where do you envision your business growth in the next 1 to 2 years?
12. What investment or improvement have you completed in the past 2 years (new/additional employees, promotion activities, remodeling, technology etc.)?
13. Are there any constraints to expansion/improvements (financing, need financing incentives, insufficient building space, insufficient land area, parking, building and zoning regulations, etc.)?
14. Which special events in downtown increase foot traffic in your business sales volume?
15. What changes to the Downtown could enhance the image of Downtown Mukwonago as a destination for both visitors and residents (façade improvements, landscaping, public art, etc.)?
16. Which projects would you like to see in our downtown? (circle all that apply)
    a. Green Space
    b. Additional Parking
    c. Public Art
    d. Cooperative Marketing
    e. Lodging
    f. Gateways
    g. Farmer's Market
    h. Pedestrian Connections (bike lanes/sidewalk)
    i. Community Events
    j. Public Space
    n. Other_____
17. What is your overall opinion of Mukwonago as a place to do business?
18. Can we follow-up with you if any further questions arise? YES NO
19. Any other comments or thoughts you may have regarding how the Village or any other organization can assist growth in your business/the downtown?

Downtown Business Survey Responses

Downtown Survey Responses		
1	**What category of business are you?**	Answer
	retail	10
	service	3
	real estate	2
	restaurant	1
	finance/insurance	1
	other	wood working, health wellness/fitness, go to farmer's market on weekends
2	**How many people are employed?**	
	Citizens Bank	70
	Bartle Jewelers	1

	Black Box Studio	1
	Americana Flower Shop	
	Country Porch	2
	Dragonfly Embroidery	2
	Bare It All Fitness	1 (looking to hire 2-4)
	E and S Sweets	5
	Green Rabbit Clay Studio	2
	Millennium Dream Homes LLC	0
	Mall of Mukwonago	1
	Fork in the Road	55-60 full and part time
	Animal House	1
	BBG Development LLC Real Estate owning Entity Jay Campbell	n/a
	Music Cafe	2
3	**Where do employees typically live?**	
	Citizens Bank	Village/Town of Mukwonago, Town of Vernon, Big Bend, Genesee, East Troy
	Bartle Jewelers	N/A
	Black Box Studio	N/A
	Americana Flower Shop	
	Country Porch	Brookfield, Kansasville
	Dragonfly Embroidery	East Troy, Eagle
	Bare It All Fitness	Waterford, Mukwonago, East Troy
	E and S Sweets	Mukwonago
	Green Rabbit Clay Studio	Mukwonago, Waterford
	Millennium Dream Homes LLC	n/a
	Mall of Mukwonago	
	Animal House	Mukwonago
	Fork in the Road	Mukwonago, East Troy, Waterford, Big Bend, Palmyra/Eagle, Waukesha
	BBG Development LLC Real Estate owning Entity Jay Campbell	n/a
	Music Cafe	Mukwonago
4	**what are the tops reasons for locating or keeping business in Mukwonago?**	
	Proximity to I-43 and other highways	8
	Access to well-trained employees	1
	Access to customers	9

	Access to suppliers	1
	Quality Housing	4
	Cost of doing business	8
	Access to Waukesha Airport	2
	Proximity to College and Universities	1
	Access to business support services	2
	Access to metropolitan amenities	2
	Quality of Life	11
	Access to local services	2
	Other	Small business popularity, quality businesses with growth opportunities to attract people and low cost of living, potential customers from surround areas using hwy 83, close to some developments,
5	**what types of marketing do you find to be most effective?**	
	social media	11
	website	6
	flyers	2
	local events	5
	text marketing	1
	Word of mouth	5
	local newspapers	3
6	**Are there any issues with the service of utilities to your business?**	
	Citizens Bank	periodic power outages; bury powerlines
	Bartle Jewelers	no, would be nice if they removed big snow piles at intersection like they used to
	Black Box Studio	n/a
	Americana Flower Shop	
	Country Porch	no
	Dragonfly Embroidery	no
	Bare It All Fitness	not sure yet
	Green Rabbit Clay Studio	everything works great
	Millennium Dream Homes LLC	no
	E and S Sweets	no
	Mall of Mukwonago	

	Fork in the Road	leased property is not connected to Village sewer system, causes issues with parking lot flooding and water seeping into basement during moderate to heavy rain or snow/ice.
	BBG Development LLC Real Estate owning Entity Jay Campbell	n/a
	Animal House	Telephone/internet options
	Music Cafe	occasional telephone/internet issues
7	**what major obstacles do you experience or believe the downtown as a whole is experiencing?**	
	Citizens Bank	Traffic congestion on Rochester, Customers complain and don't want to come downtown, scarce parking, public uses our lots.
	Bartle Jewelers	you cannot park in front of the stores. It doesn't matter how many lots you have; people won't go in if they cannot park in front.
	Black Box Studio	Ability to help improve the overall look and feel of the downtown area, working capital
	Americana Flower Shop	traffic is discouraging at the heart of downtown, vacancies, more restaurants
	Country Porch	Cashflow capital, lack of customer traffic, loss of foot traffic
	Dragonfly Embroidery	traffic on hwy 83 does not go the speed limit, rent is high
	Bare It All Fitness	customer traffic, bringing people to the area is critical, congestion of cars people try to avoid downtown
	E and S Sweets	Hwy 83 traffic, it is difficult to enter/exit businesses in downtown
	Green Rabbit Clay Studio	Cashflow/working capital, customer traffic, general operation costs high, there is not enough to keep people in town longer affording small businesses to be stayed open later, signage restrictions on own property.
	Millennium Dream Homes LLC	n/a
	BBG Development LLC Real Estate owning Entity Jay Campbell	availability of properties, customer traffic, parking and more draw for downtown.
	Mall of Mukwonago	Lack of foot traffic

	Fork in the Road	traffic through downtown very heavy making access to and from business difficult and risky, pedestrians cannot safely walk across the street, limited parking.
	Animal House	Snow removal, cost of internet, parking for small business
	Music Cafe	Parking can be an issue, many requests for donations from parties that do not frequent the business, some entities do not act in the best interest of the community as a whole.
8	**Please describe your immediate business needs that can be addressed by the Village or other entities.**	
	Citizens Bank	N/A
	Bartle Jewelers	N/A
	Black Box Studio	Help with façade improvements
	Americana Flower Shop	grant monies for signage
	Country Porch	need to draw customers to downtown, more museum hours
	Dragonfly Embroidery	n/a
	Bare It All Fitness	marketing
	E and S Sweets	provide a different flow of traffic for locals, side road to 83?
	Green Rabbit Clay Studio	nearly impossible to make rent or get paid, small signage or advertising grant or financial advisor/accountant mentor would be helpful.
	Millennium Dream Homes LLC	n/a
	BBG Development LLC Real Estate owning Entity Jay Campbell	n/a
	Mall of Mukwonago	need to make this a tourism destination, work with chamber of commerce
	Fork in the Road	connecting property to municipal sewer system to mitigate flooding in parking lot
	Animal House	better snow removal
	Music Cafe	Communication could improve but great support from Village and Chamber.
9	**Where do you envision your business growth in the next 1 to 2 years?**	
	Citizens Bank	site development approved by the village, hoping the bank grow 5% annually

	Bartle Jewelers	Retiring at end of 2019. 52 years in business. There is a new owner.
	Black Box Studio	adding more opportunities for area residents to come have fun, relax, enjoy
	Americana Flower Shop	possible expansion
	Country Porch	growth is based on consumer base with growth rate of 10% per year
	Dragonfly Embroidery	still here in Mukwonago
	Bare It All Fitness	
	E and S Sweets	be open and vibrant
	Green Rabbit Clay Studio	sales good but expenses high. Continue growing and double sales in two years. Want to add workshops but need space and help.
	Millennium Dream Homes LLC	hopefully the new office will be available to occupy.
	BBG Development LLC Real Estate owning Entity Jay Campbell	continued growth
	Mall of Mukwonago	add artist co-op, artist studio space, ex. Maker space in library
	Fork in the Road	business will grow as quality companies move into area offering good jobs and wages, which increases the general population in Mukwonago and surrounding communities, needs to be more reasons to visit downtown.
	Animal House	n/a
	Music Cafe	Looking for retail sales growth, consistently improving service.
10	**What investment or improvement have you completed in the past 2 years?**	
	Citizens Bank	Relocated two branches to new buildings: Genesee and south end of Mukwonago. Remodeled Vernon office.
	Bartle Jewelers	new mansards roof, improved lighting, painted building
	Black Box Studio	general upkeep and maintenance, improvements in look, feel, and purpose
	Americana Flower Shop	
	Country Porch	repurposing and remodeling interior and exterior
	Dragonfly Embroidery	moved to larger location off of hwy 83
	Bare It All Fitness	more classes/workshops, hiring more employees, partnering with local businesses

	E and S Sweets	worked with landlord to remodel and upgrade exterior and interior of building
	Green Rabbit Clay Studio	opened new storefront, $25k personal investment (rent), add 1 full-time employee, advertising locally $3k/yr. and $1k/yr. online, new equipment.
	Millennium Dream Homes LLC	remodeling
	BBG Development LLC Real Estate owning Entity Jay Campbell	new/additional employees, promotion activities, remodeling, technology
	Mall of Mukwonago	took over more of the buildings, added lighting in parking lot, 5% of what expected
	Fork in the Road	added rock formation waterfall in patio area and landscaping, added seated retaining wall near patio, new window treatments and painting in dining room and bar with various new restaurant equipment, adding new hires.
	Animal House	better promotional activities, reach outside of the immediate area
	Music Cafe	cultivate community/school district relationships through outreach, support service, attract highly qualified teachers. Utilize social media platforms FB, Instagram, LinkedIn to connect with businesses and professionals.
11	**Are there any constraints to expansion/improvements?**	
	Citizens Bank	parking is an issue; businesses say they want to come to village but cannot find suitable land to build.
	Bartle Jewelers	N/A
	Black Box Studio	working capital for improvements/expansions, another location/building in the area that could meet the needs
	Americana Flower Shop	
	Country Porch	financing incentives to help fix façade of building
	Dragonfly Embroidery	n/a
	Bare It All Fitness	renovating the front and cleaning the back of the building
	E and S Sweets	parking and hwy 83 traffic
	Green Rabbit Clay Studio	need financing for additional employees, signage, parking (non-street), drive to building for deliveries and equipment.
	Millennium Dream Homes LLC	n/a

	BBG Development LLC Real Estate owning Entity Jay Campbell	parking
	Mall of Mukwonago	want to get rid of fence with a grant
	Fork in the Road	unable to change building footprint due to municipal codes, limits ability to expand/grow business, parking space is insufficient, limited public parking in reasonable distance.
	Animal House	parking and utilization of vacant areas
	Music Cafe	parking is an issue, especially for events such as Fall Fest and Midnight Magic.
12	**Which events in downtown increase foot traffic in your business sales volume?**	
	Midnight Magic	9
	Homecoming	1
	Maxwell Street Days	2
	Balloon's Over Mukwonago	1
	Fall Fest	5
13	**What changes to the Downtown could enhance the image of Downtown Mukwonago?**	
	Façade improvements	5
	streetscaping	3
	landscaping	3
	Utilize Museum	1
	remove old buildings	3
	public art	2
	other	better control of traffic for pedestrians, non-chain restaurants, eliminate vacant buildings, more community events, art walks, look to Cedarburg or lake Geneva for examples of walkability, have seen improvement with a forward thinking board, cohesive look, banner across the main streets with events, ugly Sentry area, remove trees, refresh historic downtown block, Take down the eyesore now called "Mukwonago mall" / utilize vacant space versus more destruction of wooded areas.
14	**which projects would you like to see in our downtown?**	
	green space	7
	public art	9
	lodging	2

188

	farmers market	6
	community event	6
	additional parking	10
	cooperative marketing	3
	gateways	
	pedestrian connections	7
	public space	5
	other	update or tear down old buildings, not enough open space to do anything with, bring back the summer band, emphasize the Eat Troy Rail and river nearby, events that happen at open space/green space, events at field park do not draw people downtown, main street project with artists,
15	**What is your overall opinion of Mukwonago as a place to do business?**	
	Citizens Bank	wonderful community to live and work
	Bartle Jewelers	always been good
	Black Box Studio	has potential, needs A LOT of work
	Americana Flower Shop	
	Country Porch	business has been good for 6 years but last 1 year been slowing down because the businesses that leave are not being filled in with new
	Dragonfly Embroidery	good
	Bare It All Fitness	good, create a beautiful, historic, small-town feel, accessible by car, bike, foot, where people can congregate, let their kids play (playground/splashpad) with communal gatherings (community garden), simple, clean, traditional. Appleton rent art example, downtown Racine, painted benches, Madison sculptures.
	E and S Sweets	rough start, no clear direction from village staff, village staff should be cross trained or aware of starting the business process to better direct questions to appropriate department
	Green Rabbit Clay Studio	good but could be great, reach out to businesses to connect them, grants, open dialogue.
	Millennium Dream Homes LLC	good desirable location, add larger stores and restaurants.
	BBG Development LLC Real Estate owning Entity Jay Campbell	great place to live and work.

Mall of Mukwonago	
Fork in the Road	Mukwonago is great place to do business, there is good development happening on N and S ends, small town appeal and atmosphere in downtown, low cost of living, strong school district, Phantom Lake has strong appeal
Animal House	Great place to do business, would love to see it keep small businesses, take down mall of Mukwonago and gas station next to it.
Music Cafe	Mukwonago is a great community that is growing in its appreciation of the arts.

Appendix B: Map of downtown overlay districts

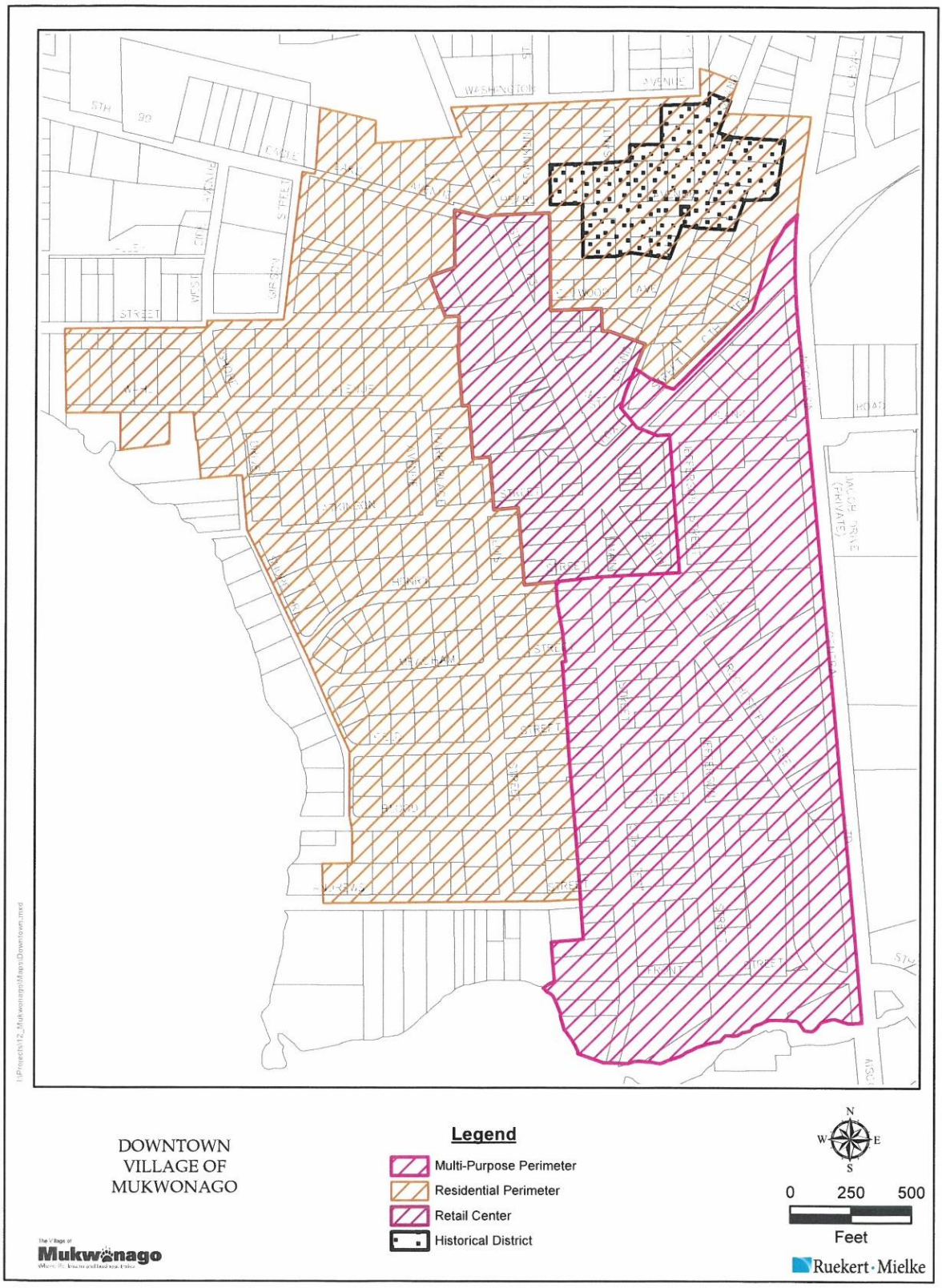


Figure 4. Map of downtown overlay districts: multi-purpose (pink), residential (tan), retail center (purple), historical district (black).

Appendix C: Table of all businesses located in downtown Mukwonago

Village of Mukwonago Downtown Businesses			
Allstate Insurance	Cousins Subs	Jays lanes Bowling alley	Roger Walsh Office
Americana Flower Shop	Crazy Bears Pizza LLC	Kays Academy of Dance, Inc.	Rustic Orchid
Animal House	Crazy Quilt	Kmiec Law Offices	Sandy's Miller Time
Apogee Pay Systems	Crivello Carlson	Lacquered Up Nail Salon	Schreiber Investment Advisory Services
A-team Computers	David Gilland CPA	Laflin St. James	Sol De Mexico Family Restaurant
Automatic Car Wash	Dolls Etc.	Life's Connection	State Farm Insurance
Badger Burger	Dousman Transport Co, Inc.	Little Lambs Childcare Center	Subway
Bare It All Fitness	Dr. Trulen Chiropractor	Main Street Liquor	The Green Rabbit Clay Studio
Bartle Jewelers	Dragonfly Embroidery	Mall of Mukwonago	The House of Insurance
Best Photography	Duns Barbershop	Merk and Associates LLC	The Music Café
Chamber of Commerce	Dynamic Awards & Apparel, LLC	Millennium Dream Houses	The Rock shop
Child Family Therapeutic Systems	E and S Sweets	Mount Olive Church	vacant (Ace)
Christal Clean LLC	Espresso Love Coffee, LLC	Mukwonago Express Mart	vacant (brown building)
Citgo	Feather and Fringe Boutique	Pazzo's Chicago	vacant (Dragonfly Embroidery)
Citizen Bank Insurance	Fork in the Road	Police Station	vacant (flower shop)
Citizens Bank	Forward Dental	Potato Office Space	vacant (Massage by Michelle)
Clark	Freedom Physical Therapy Services, S.C.	Pretty Nail and Spa	vacant (Tattoo Creations)
Country Financial	Jodee Hair of the Dog	Quality Clips	Village Pumper (Mobile)
Country Porch	Hannah Home Healthcare, Inc.	Realty Executives Southeast	Village Wine and Liquor
Country Porch Annex	Inspire Hair Design	Red Brick Museum	Walgreens
Won-a-go Biking			

Appendix D: Recommendations from survey/research with examples

D.1| WEDC Brownfield Assessment Grant

The WEDC Brownfield Assessment grant can help the Village hire an environmental firm to conduct environmental assessments at the gas station site (Citgo) in downtown. The grant provides up to $150,000 to local governments seeking to redevelop sites with economic or community development potential that are, or may be, adversely impacted by environmental contamination. Grant funds are to be utilized to define the degree and extent of groundwater and soil contamination, along with identifying and assessing vapor intrusion issues.

The community provides a match of up to 50% of the awarded grant. For example, for a $100,000 project, the grant amount would be about $66,000 and the match required would be about $33,000.

Grant Conditions: The primary purpose of the Brownfield Site Assessment Grant is to identify and quantify the degree and extent of soil, vapor and groundwater contamination. Actual award amounts are dependent on documented eligible and matching costs. Projects seeking funding for demolition activities should demonstrate that clearing the site will facilitate and provide greater access for environmental site investigation.
SAG applications may be awarded for projects meeting the following criteria:

- The property or properties being redeveloped must be one or more contiguous industrial or commercial facilities or sites that are abandoned, idle or underused.
- Potential expansion or redevelopment of the property is adversely impacted by actual or perceived contamination.
- The local governmental unit cannot have caused the environmental contamination that is the basis for the grant request.
- The person that caused the contamination must be unknown, cannot be located or is financially unable to pay the cost of the eligible activities.
- The community has provided documentation it has access to the project site to conduct SAG activities.
- A financial commitment has been provided to cover the eligible matching project investment.

WEDC may award grants to local governmental units to cover the costs of the following activities

- The investigation of environmental contamination on an eligible site or facility for the purposes of reducing or eliminating environmental contamination, such as Phase I and ll Environmental Assessments.
- The demolition of any structures, buildings or other improvements located on an eligible site or facility.
- The removal of abandoned containers, as defined in $ 292.41(1), from an eligible site or facility.

The full program guidelines can be found at:
https://wedc.org/wpcontent/uploads/2019/08/BCD_SAG_FY20.pdf

D.2| Façade Improvement Grant Program

Summary

Working towards the Downtown Strategic Plan goals, a façade improvement program will be a milestone working towards those goals. "Pedestrian Friendly Environment" will benefit from this program because it will enhance the Downtown Environment. A Façade improvement program is an incentive program to encourage businesses to update the exterior of their building. This program can lead to the enhancement of the appearance and economic possibilities of the downtown. Updating the façade of buildings in the downtown will increase marketability of the area. This program will provide funds to update the exterior of buildings in the downtown.

A façade improvement grant program will support and encourage small business to reinvest in downtown and neighboring business districts. The funds for the program could be a match to what the business owner invests or could be a set amount that comes from the Village or the DDC funding.

Options:

1. Matching grant or loan
2. Redevelopment TID
3. Design assistance
    a. Ensure the building is updated in a way that is consistent with the code

Application fees and interest generated by façade improvement loans can be used to keep funding available for the target area.

Applicant Eligibility Requirements

Property owners of service or commercial/mixed-use structures and building tenants, with leases of more than one year in length, located within the target area, are eligible for funding. Governmental entities and public and quasi-public authorities are ineligible for funding (City of Madison).

Property Eligibility Requirements

Properties that are used in whole or part for service or commercial activities are eligible for funding. The program is intended to assist projects that promote retail activities, create an attractive environment, encourage neighborhood character and architectural design, use quality materials, and incorporate good design concepts. Projects meeting these objectives are eligible for a grant for up to one half the cost of facade improvements (City of Madison).

Target Areas

Mukwonago downtown with an emphasis on the retail center (purple outline).

Grant Amount

Grants will be provided in an amount up to 50% of the total project cost, to a maximum of $10,000 per street facing facade. Maximum amounts would range to $10,000 for a single facade, $20,000 for a building with two facades, and $25,000 for "flatiron" buildings. The owner/tenant must use private, noncity funds to match the City's Grant (City of Madison).

The funding for the grant will come from the Downtown Development Committee.

Grant Requirements

In order to qualify, applicants cannot start on their project until after receiving the necessary approvals. If work begins before application or approval, the Village cannot fund the project with Façade Improvement Grants (City of Madison).

Examples

- Matching Grant or Loan

https://www.cityofmadison.com/dpced/economicdevelopment/documents/Facade%20Imp_%20Grant%20Program%20Summary%2012-02-19.pdf
http://www.evart.org/DDA%20Docs/Evart%20DDA%20Facade%20Improvement.pdf

- Design Assistance Program

http://www.cityofallegan.org/document_center/Explore%20Allegan/Downtown/facadeprogramguidelines2015a.pdf

- Tax Credit Programs

https://www.cityoffrederick.com/1178/City-Incentives

- Community Development Block Grant: Assist property owners and tenants in making improvements to the appearance of their building frontages.

https://www.mesaaz.gov/about-us/city-projects/downtown-transformation/downtown-facade-improvement-program

Benefits

- Stimulate surrounding buildings to improve their façade
- Strengthen local businesses
  - Increase sales
  - Attract customers
  - Attract new local businesses
- Recipients are more motivated to make additional improvements

Goal

The goal of this program will be to enhance the appeal of downtown to attract new and local people to the downtown area. Updating the exteriors of buildings will attract local business and more people to the downtown.

Sources

- http://plannersweb.com/2013/10/how-facade-improvement-programs/
- https://www.cityofmadison.com/dpced/economicdevelopment/documents/Facade%20Imp_%20Grant%20Program%20Summary%2012-02-19.pdf
- http://www.evart.org/DDA%20Docs/Evart%20DDA%20Facade%20Improvement.pdf

- http://www.cityofallegan.org/document_center/Explore%20Allegan/Downtown/facadeprogramguidelines2015a.pdf
- https://www.cityoffrederick.com/1178/City-Incentives
- https://www.mesaaz.gov/about-us/city-projects/downtown-transformation/downtown-facade-improvement-program

D.3| Redevelopment TIDs

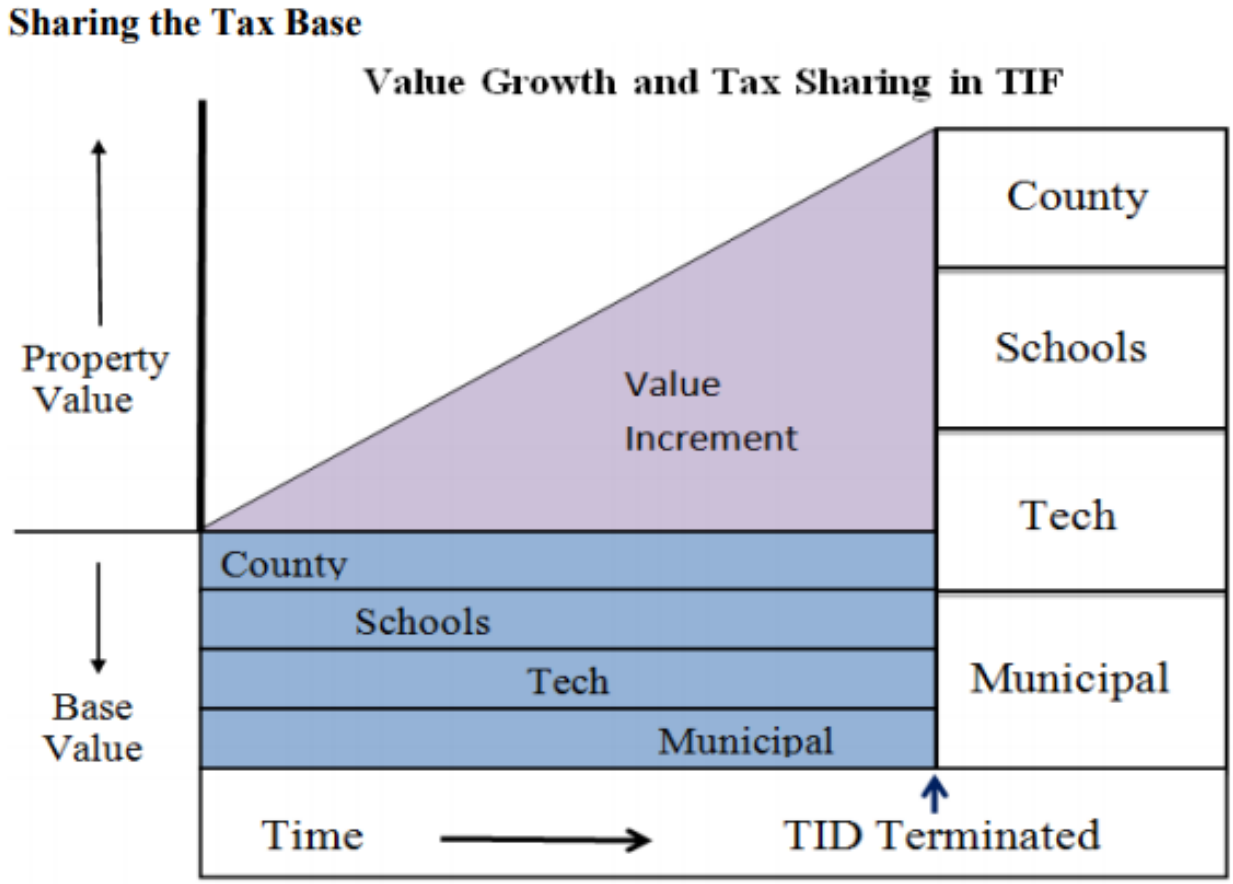


Figure 5. https://www.revenue.wi.gov/DOR%20Publications/1-2.pdf

Wisconsin state statue 66.1105 Tax increment law explains how TIDs work in the state. Tax Incremental Finance (TIF) generates tax revenue that can only be used to fund infrastructure investment and other eligible projects that will facilitate private development. When a Tax Incremental District (TID) is created, the current value of all the taxable property within the defined boundaries is established. This value is the "base value" of the TID (the base value in the graph is made up of the four blue stripes along the bottom). The taxes collected on this portion of the property value are shared by the overlying taxing jurisdictions, and once the TID is created this portion of the tax collections is allocated as it always has been. In this example the county, school, technical college and municipality split revenues on the base value.

Examples:

1. Green Bay WI
2. Mosinee WI

D.4| Community Development Authority (CDA)

A CDA may be created by a two-thirds vote of the members of the Village Board present at a Village Board Meeting. They will have to adopt an ordinance or resolution creating the CDA. A certified copy of the ordinance or resolution shall be transmitted to the Village President. The ordinance shall (a) provide that any redevelopment authority created under s. 66.1333 operating in the city and any housing authority created under s. 66.1201 operating in the city, shall terminate its operation as provided in sub. (5). (b) Wis. Stat. § 66.1335(1) – Declare in substance that a need for blight elimination, slum clearance, urban renewal and community development programs and projects and housing projects exists in the city. The CDA will be made up of seven members who are residents with two members who are also trustees.

East Troy Administrator, Eileen Suhm, says that the benefits to having a CDA are that the members are appointed and typically have some background expertise and collectively the CDA gets to focus on a specific mission. When creating their CDA the Village Board required that projects larger than $10,000 dollars and the purchasing of property be approved by Village Board, to retain some oversight of the CDA. East Troy CDA is working on Façade Improvement Program, re-establishing a Revolving Loan Fund, and Main Street Development. Currently, the CDA is working with residents and brokers to list properties in the main street that can be redeveloped.

Examples:

1. Village of Windsor, WI
   - GOALS:
     - Create new and retain employment opportunities
     - Sustain and increase Village's tax base
     - Diversify the Village's economic base
     - Increase economic development resources available to businesses, and
     - Facilitate new business development in the Village of Windsor
     - Assist property owners with enhancing the value of their property
2. Village of East Troy, WI
   - GOALS:
     - Engage our local businesses through immediate and ongoing interactions to promote ETCDA and the Village of East Troy;
     - Develop a cohesive brand for the East Troy area to be used by ETCDA to promote the village for development opportunities;
     - Develop a matrix of business climate issues to be reported on an annual basis;
     - Identify issues impacting businesses that can be addressed by ETCDA, and work with community stakeholders to resolve them.

D.5| Support redevelopment with grants or loans

Establish a pre-development grant or low-interest loan program. Some examples of loans and programs are listed below.

- SBA Small Business Loans

The U.S. Small Business Administration (SBA) provides several financial assistance programs designed to meet the needs of small businesses. SBA does not make direct loans to small businesses. Rather, SBA sets the guidelines for loans, and the loans are then made by its partners (lenders, community development organizations and microlending institutions). The SBA guarantees that these loans will be repaid, thus eliminating some of the risk to the lending partners.

- Entrepreneurship Support Program

WEDC will provide grants generally between $10,000 and $100,000 to eligible Wisconsin nonprofit organizations or communities for projects with eligible activities including the promotion of entrepreneurship; entrepreneurial education, mentoring or training programs; and facilitation of business development or financial services.

D.6| Public Art

Public art installations are another way to add interest, create a focal area, and give people a reason to visit an area such as a downtown. Partnering with a local arts organization or hold a competition to solicit pieces would add interest to downtown.

- *Kenneth Kurt from Country Porch mentioned having him and his fellow wood carvers demo wood carving in the Museum yard. This would attract people to downtown and the pieces can remain in the lot for people to visit. He has presented this idea to the Museum Board and they are having conversations about making this happen.*
- *Ashlee from Bare It All Fitness suggested painted benches in front of each storefront in downtown. She referenced downtown Racine, Appleton, and Madison.*

Examples:

- Appleton, WI – Outdoor sculpture exhibition, an art on loan program with potential for purchase.
    - https://sculpturedigest.com/outdoor-sculpture-exhibition-appleton-wi/
- Madison, WI – Downtown Doors project showcases 25 local artists at more than 25 locations across downtown Madison to spotlight the city's art community.
    - https://www.channel3000.com/madison-magazine/arts-and-culture/new-downtown-madison-public-art-project-creates-outdoor-art-gallery/1076339638
    - https://www.cityofmadison.com/dpced/planning/documents/Downtown_Doors_Artist_Packet2.pdf
- Racine, WI - The theme to 2019's Public Art Project is benches featuring Racine's past, present and future. The benches are located throughout the Downtown area and will remain there through the summer.
    - https://journaltimes.com/news/local/gallery-check-out-the-benches-that-celebrate-racine-s-history/collection_2892f81b-9637-5488-b5a1-dc5892c65326.html#3

Appendix E: Concept 1 & 2 Citgo Site Improvements

DRAFT ESTIMATED CONSTRUCTION COST

Project Name: Citgo Site Improvements CONCEPT 1 NO OPEN AIR STRUCTURE

Client Name: Village of Mukwonago

Project #:

Date Modified: 11/6/2019

Item No.	Description	Unit	Quantity	Unit Price	Total
Citgo Site					
1	7-Inch Thick Concrete Sidewalk	S.F.	830	$ 9.00	$ 7,470.00
2	Crushed Aggregate Base Course	TON	16	$ 50.00	$ 800.00
3	2-Inch Asphaltic Concrete Binder Course	TON	368	$ 80.00	$ 29,440.00
4	1.5-Inch Asphaltic Concrete Surface Course	TON	288	$ 85.00	$ 24,480.00
5	12-Inch Storm Sewer w/ Granular Backfill	L.F.	200	$ 95.00	$ 19,000.00
6	Pavement Removal and Site Grading	L.S.	1	$ 30,000.00	$ 30,000.00
7	Pavement Marking, Paint, 4-Inch, Yellow	L.F.	1,116	$ 4.00	$ 4,464.00
8	Pavement Marking, Paint, Symbols, Yellow	L.F.	240	$ 5.00	$ 1,200.00
9	Canopy Demolition	LS	1	$ 3,000.00	$ 3,000.00
10	Existing Fuel Tank Removal and Disposal	LS	1	$ 25,000.00	$ 25,000.00
			Subtotal of All Bid Prices =		$144,854.00
			Contingency (20%) =		$28,970.80
			Total of All Bid Prices =		**$173,824.80**

Figure 6. Concept 1 Citgo Site Improvements with No Open-Air Structure.

DRAFT ESTIMATED CONSTRUCTION COST

Project Name: Citgo Site Improvements CONCEPT 2 OPEN AIR MARKETPLACE STRUCTURE

Client Name: Village of Mukwonago

Project #:

Date Modified: 11/6/2019

Item No.	Description	Unit	Quantity	Unit Price	Total
Citgo Site					
1	Paver Walkway	S.F.	1,296	$ 12.50	$ 16,200.00
2	7-Inch Thick Concrete Sidewalk	S.F.	830	$ 9.00	$ 7,470.00
3	Crushed Aggregate Base Course	TON	640	$ 19.00	$ 12,160.00
4	2-Inch Asphaltic Concrete Binder Course	TON	331	$ 80.00	$ 26,480.00
5	1.5-Inch Asphaltic Concrete Surface Course	TON	259	$ 85.00	$ 22,015.00
6	12-Inch Storm Sewer w/ Granular Backfill	L.F.	200	$ 95.00	$ 19,000.00
7	Pavement Removal and Site Grading	L.S.	1	$ 20,000.00	$ 20,000.00
8	Pavement Marking, Paint, 4-Inch, Yellow	L.F.	612	$ 4.00	$ 2,448.00
9	Pavement Marking, Paint, Symbols, Yellow	L.F.	120	$ 5.00	$ 600.00
10	Canopy Demolition	LS	1	$ 3,000.00	$ 3,000.00
11	Open Air Marketplace Structure (24'x54')	LS	1	$ 125,000.00	$ 125,000.00
12	Existing Fuel Tank Removal and Disposal	LS	1	$ 25,000.00	$ 25,000.00
			Subtotal of All Bid Prices =		$279,373.00
			Contingency (20%) =		$55,874.60
			Total of All Bid Prices =		**$335,247.60**

Figure 7. Concept 2 Citgo Site Improvements with Open-Air Structure.

Appendix F: other recommendations to revitalizing downtown based on research

F.1| Develop downtown arts district

Organize related programming like art gallery openings or "First Fridays", art markets, or performance festivals. Arts districts often are organized in the form of a non-profit with a paid staff that works to create programming and events on a regular basis throughout the district. Tax incentives can be targeted towards arts industries to attract artists to the districts.

- *Most of the businesses we met with emphasized the need for more community events to promote foot traffic.*

F.2| Create "pop-up" shops

A great way to fill empty storefronts is to invite local existing businesses, manufacturers, crafters, makers, artisans, or other entrepreneurs to open a temporary pop-up shop. These flexible spaces allow business owners to experiment in a new location without the high up-front costs of building out a new retail space. Do everything you can to make securing the space and permitting its use easy and affordable.

- *Ace Hardware Vacancy.*

Examples:

- https://www.strongtowns.org/journal/2018/2/19/low-cost-pop-up-shops-create-big-value-in-muskegon-michigan
- https://www.strongtowns.org/journal/2018/9/19/its-the-little-things-13

F.3| Bring in food trucks

Mobile cart and food truck eateries can bring a critical mass of people to places they might not have been before and showing the potential for revitalized economic activity in an area.

- *Could go along with the moving of a Farmers Market.*

F.4| Eliminate regulatory barriers to redevelopment

First and foremost, make sure city regulations are not inhibiting growth downtown. Modernize outdated zoning and building regulations, and make sure new regulations support your community's revitalization plans. Specifically, make sure codes allow for and encourage: reuse of existing structures; strategic infill construction; mixed uses; higher density development.

- *Fork in the Road is unable to change building footprint due to municipal codes which limits their ability to expand/grow business, parking space is insufficient, and the limited public parking is not at a reasonable distance from restaurant.*

F.5| Waive local development fees

Consider waiving fees associated with building construction or redevelopment in your neighborhood of focus.

F.6| Offer discounted rents to independent and minority-owned businesses

As new retail spaces are created, consider partnering with developers to provide discounted leases for independent and/or minority-owned businesses.

- *Bare it All Fitness owner Ashlee provided feedback that her property owner Jay Campbell is waiving her first 2 months' rent as well as giving her a $300 discount on rent. For those financial reasons and the location, she chose to locate her business in Mukwonago downtown instead of other downtowns she was looking at.*

Sources

Martinez, Andrea, Mic Patterson, Anders Carlson, and Douglas Noble. "Fundamentals in façade retrofit practice." *Procedia engineering* 118 (2015): 934-941.

DOWNTOWN REPORT 2019

Makenzee Loft
mloft@villageofmukwonago.com
(262) 363 6420 ext. 2113

INTRODUCTION

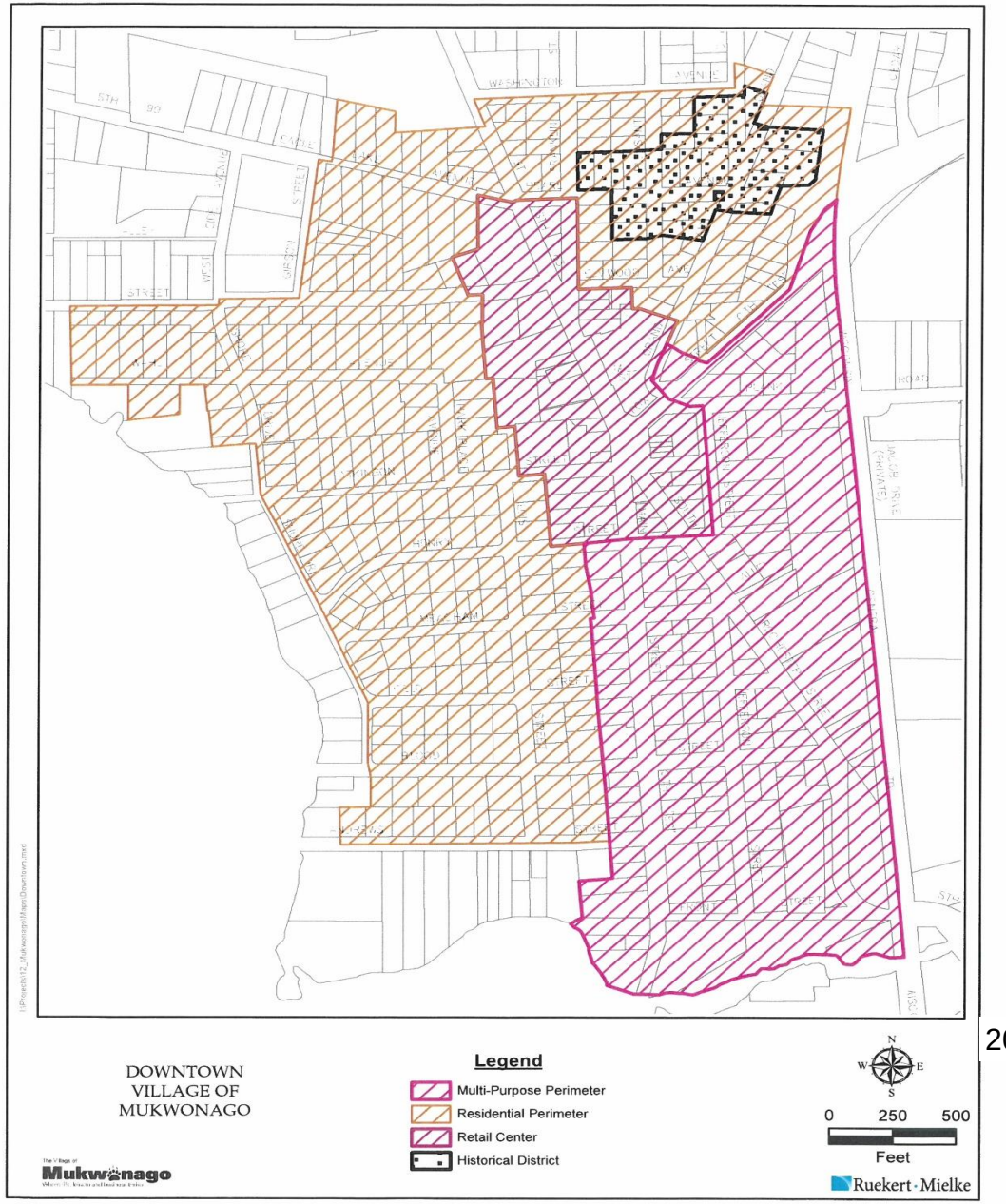
- During the second half of 2019, Village staff acquired feedback from businesses in the downtown
- A survey sent out via email or hand delivered to all businesses
- Meetings were held with 10 businesses
  - Americana Flower Shop, Bare It All Fitness, BBG Development LLC, Black Box Studios, Citizen's Bank, The Country Porch, E and S Sweets, Mall of Mukwonago, Green Rabbit Clay Studio, and Pazzo's Chicago Restaurant
- Survey responses from 15 businesses
  - Americana Flower Shop, Animal House, Bare It All Fitness, Bartle Jewelers, BBG Development LLC, Black Box Studio, Citizens Bank, Country Porch, Dragonfly Embroidery, E and S Sweets, Fork in the Road, Mall of Mukwonago, Millennium Dream Homes, and Music Café

The results of these surveys and meetings have been summarized in this Downtown Report

METHODS

- Literature review of best practices for revitalizing downtowns
- Created a survey to be given to all the businesses
  - 19 questions long and estimated to take roughly 5-10 mins
  - Questions from other community surveys and our Business Retention & Expansion survey
  - Addressed current obstacles, benefits and burdens of location, and what future projects the respondents would like to see in downtown

We targeted new businesses as well as the most popular businesses for meetings



Building Stock Age (estimated)				
Pre 1860	**1860-1899**	**1900-1939**	**1940-1960**	**post 1960**
3	4	11	12	21
6%	8%	22%	24%	41%

BACKGROUND

- Maintaining the integrity of a building and its future viability begins with its materials and façade
- Older properties might also have old infrastructure and utilities throughout the building that should be removed
  - Badger Burger has abandoned fuel tanks under its current building footprint
  - Underground issues is the Citgo gas station in downtown
- Façade and exterior improvements are one way to combat the aging of buildings in downtown

BACKGROUND

- Mukwonago does not stand out as having a noticeably concerning downtown vacancy rate

Wisconsin Municipalities	Downtown Vacancy Rate/Downtown Retail Vacancy Rate
Village of Mukwonago	7%
Village of Elm Grove	3%
City of Milwaukee	6%
City of De Pere	7%
Town of Lincoln	12%

SUMMARY OF SURVEY/MEETING RESULTS

- **Total of 81 businesses, 15 surveys returned, and 10 businesses were interviewed**

BENEFITS:

- quality of life
- access to customers
- cost of doing business
- access to highways

ISSUES:

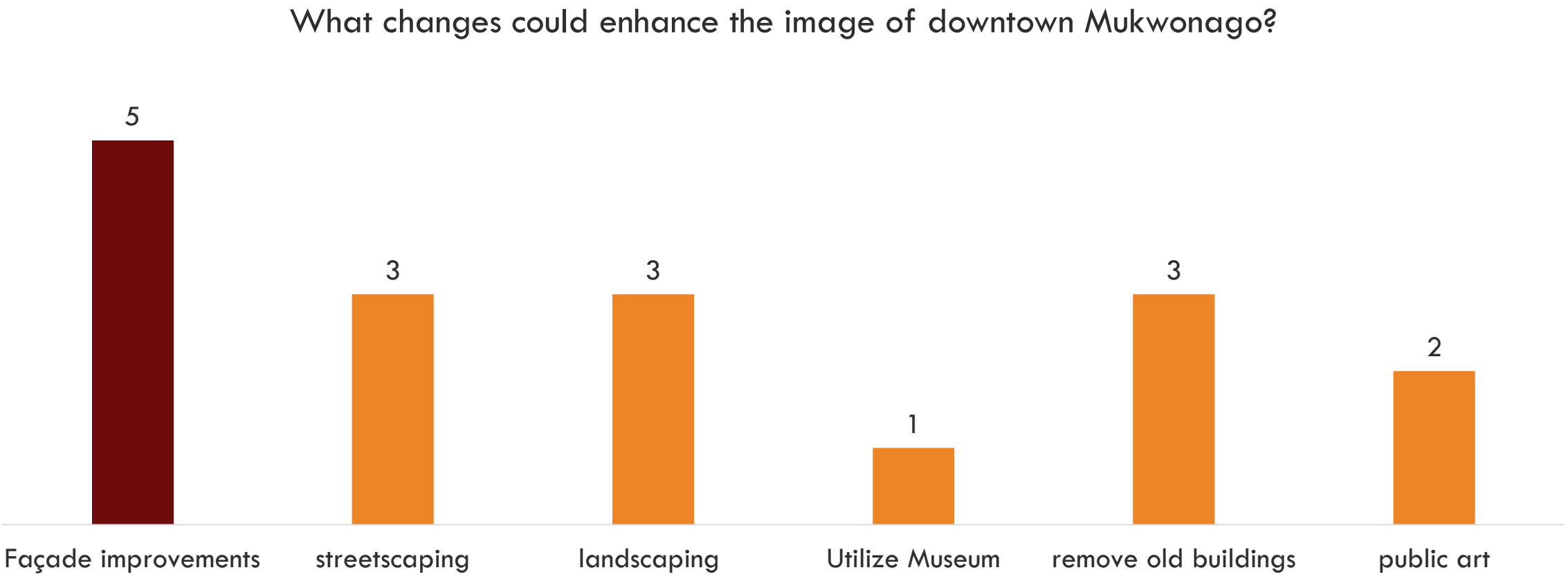
- lack of parking
- lack of walkability
- vehicle traffic congestion
- poor façade appearance

PROJECTS:

- additional parking
- public art
- green space
- pedestrian connections
- more community events in downtown

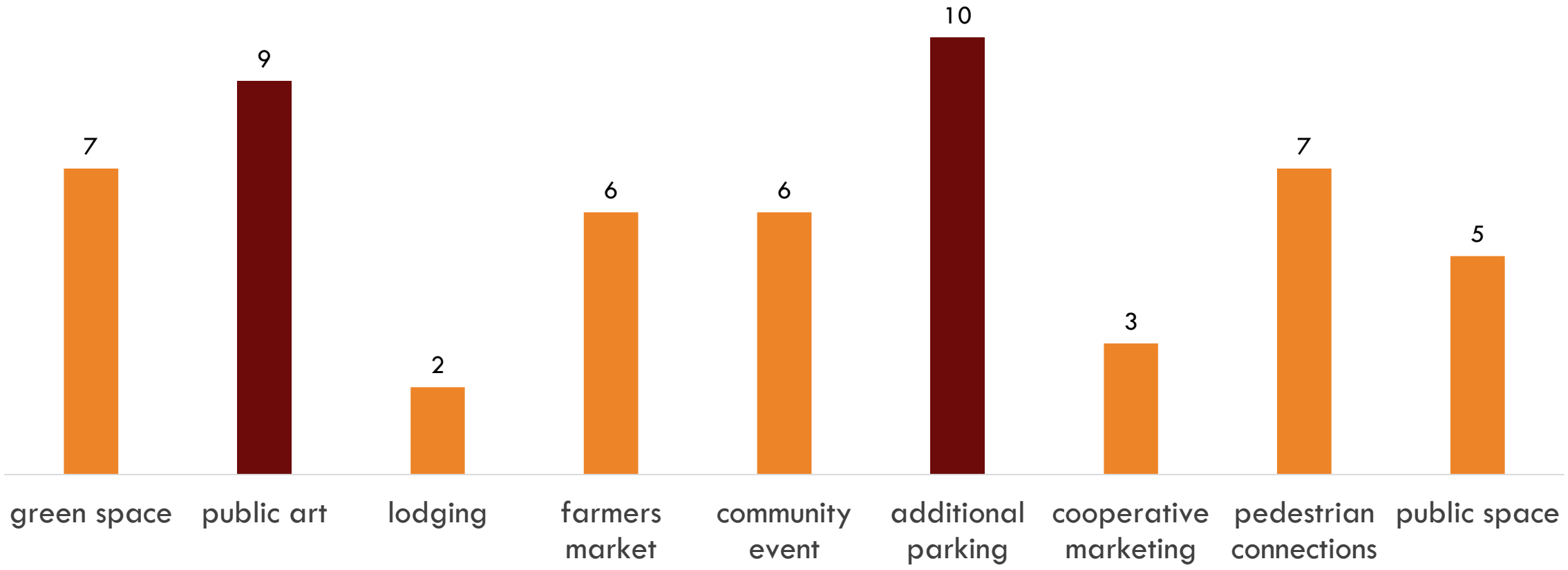
TOP REASONS: Quality of Life and Access to Customers

TOP CHANGES: Façade Improvements



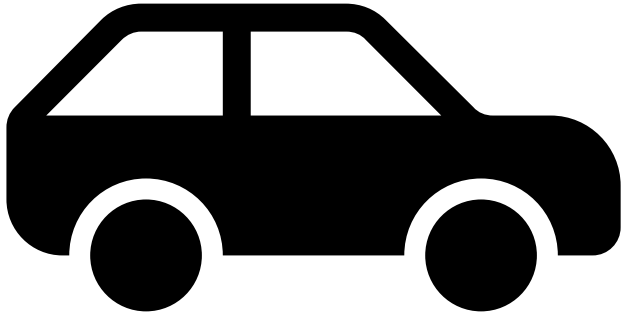
TOP PROJECTS: Additional Parking and Public Art

Which projects would you like to see in our downtown?



CONCLUSION: ADDITIONAL PARKING

- **To create additional parking in downtown**
  - Citgo gas station reimagined as a parking lot
  - Draft estimation construction cost totaling $173,824.80 to convert the Citgo to a usable parking lot with 62 stalls
  - WEDC Brownfield Assessment Grant provides up to $150,000 to local governments seeking to redevelop sites with environmental contamination
- **Bring the Farmer's Market downtown to increase foot traffic for businesses in the downtown**
  - Draft estimation construction cost totaling $335,247.60 to create an open-air marketplace structure in the improved Citgo site with 34 parking stalls



CONCLUSION: FAÇADE IMPROVEMENT PROGRAM

- Incentive-based matching grant program to encourage businesses to update the exterior of their building
- Leads to the enhancement of the appearance and economic possibilities of the downtown
  - Several examples have been researched in the appendices of this report

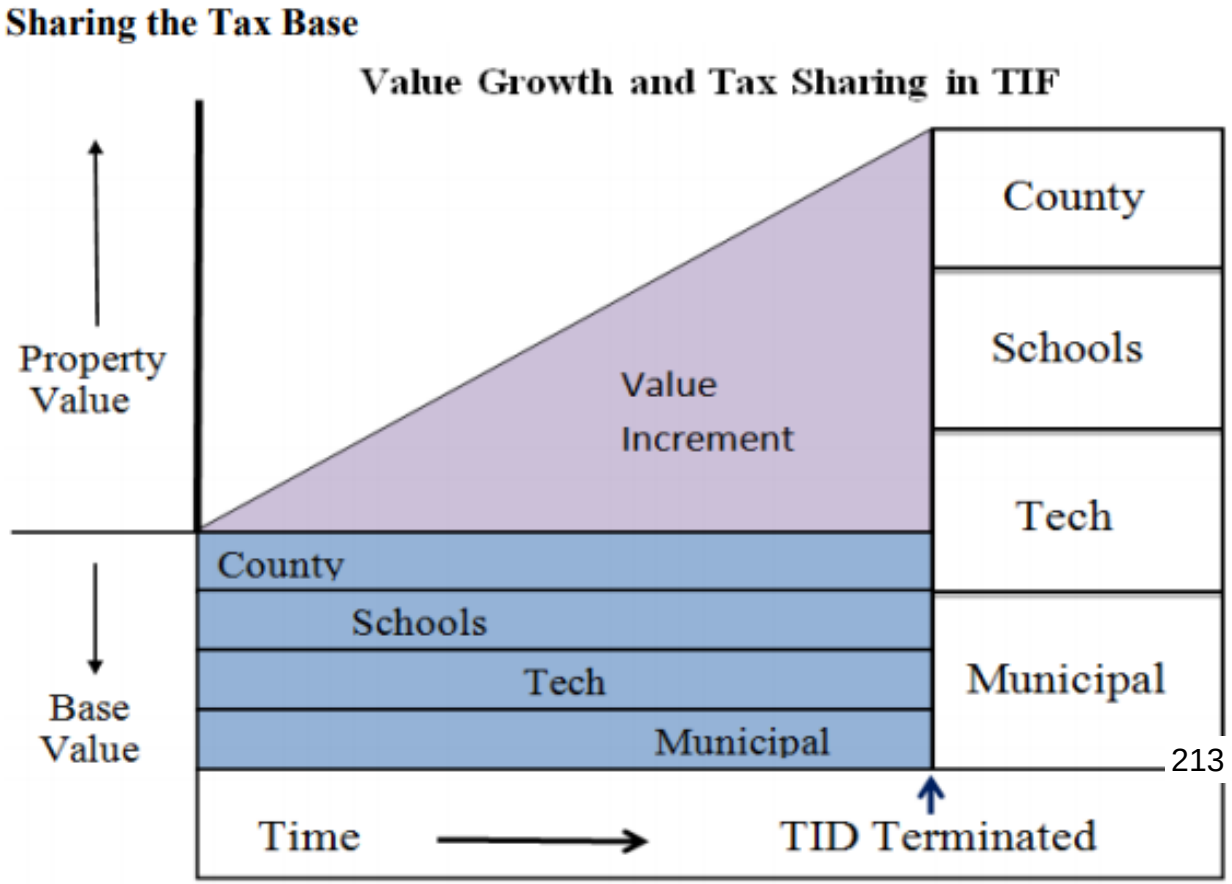
Mesa AZ

https://www.mesaaz.gov/about-us/city-projects/downtown-transformation/downtown-facade-improvement-program

CONCLUSION: REDEVELOPMENT TID

Generates tax revenue to use towards economic development and redevelopment initiatives within an area defined by the municipality

1. Village could acquire residential property in the downtown
2. Mixed-use development
3. Amend zoning code



CONCLUSION: COMMUNITY DEVELOPMENT AUTHORITY (CDA)

- **A Community Development Authority (CDA) is a separate political body that carries out community projects and programs**
  - Village Board vote to adopt an ordinance or resolution creating a CDA
  - 7 residents total with 2 residents also trustees
  - This CDA may oversee the Façade Improvement Program, as well as the redevelopment TID
- **East Troy Administrator, Eileen Suhm, says that the benefits to having a CDA are that the members are appointed and typically have some background expertise and collectively the CDA gets to focus on a specific mission**
  - Village Board required that certain project need approval by Village Board
  - Façade Improvement Program, re-establishing a Revolving Loan Fund, and Main Street Development
  - Currently, the CDA is working with residents and brokers to list properties in the main street that can be redeveloped

THANK YOU

We would like to thank the Village Board for their thoughtful consideration of the feedback provided directly from the downtown area property owners as well as staff's research regarding best practices and potential programs to consider for downtown development.

And thank you to the Village officials and staff who spent many hours meeting with our local businesses.

The business owners have provided valuable input on what is important to them and their continued success in our community and have expressed excitement over the potential changes that will impact and shape the future of Mukwonago's downtown.

QUESTIONS?

MINUTES OF SPECIAL VILLAGE BOARD MEETING
Wednesday, February 5, 2020

Time: **6:00 pm (Or Immediately following the Committee of the Whole of 5:30pm)**
Place: **Mukwonago Municipal Building/ Board Room, 440 River Crest Court**

Call To Order
Meeting was called to order by President Winchowky at 7:50pm.

Roll Call
Trustees Present
Eric Brill
James Decker
Darlene Johnson
Jason Vermeulen
Roger Walsh
Jason Wamser
Fred Winchowky

Also Present:
John Weidl, Village Administrator
Ron Bittner, Public Works Director
Mark Blum, Village Attorney
Dave Brown, Utilities Director
Diana Dykstra, Clerk-Treasurer
Kevin Schmidt, Police Chief
Jerad Wegner, Village Engineer
Diana Doherty, Finance Director

Closed Session
Decker/Johnson Motion to go into closed session pursuant to **Wis. Stats § 19.85 (1) (e)** *(Deliberating or negotiating the purchase of public properties, the investing of public funds, or conducting other specified public business, whenever competitive or bargaining reasons require a closed session)* for negotiation on property located at 301 Main Street, and an MOU with Waukesha County, Walworth County, Village of East Troy, Town of East Troy, and East Troy Electric Railroad regarding a multi-use trail.
Roll Call: "Yes" Trustee Brill, Decker, Johnson, Vermeulen, Walsh, Wamser, and Winchowky. Unanimously carried.

Reconvene in Open Session
Decker/Johnson Motion to reconvene into open session pursuant to Wis. Stats. §19.85(2) for possible discussion and/or action concerning any matter discussed in closed session at 8:21pm. Roll Call: "Yes" Trustee Brill, Decker, Johnson, Vermeulen, Walsh, Wamser, and Winchowky. Unanimously carried.

Decker/Vermeulen motion to approve a counter offer for 301 Main Street and authorize the Village President to sign. Unanimously carried.

Decker/Vermeulen motion to approve an MOU for Multi-Use Recreational Trail between the Village of East Troy and Village of Mukwonago, through the Town of East Troy in Waukesha and Walworth County, Wisconsin, contingent upon MultiModal Grant Application approval. Unanimously carried.

Adjournment
Meeting was adjourned at 8:23pm.

Respectfully Submitted,

/s/ Diana Dykstra, CMC
Village Clerk-Treasurer

DRAFT

REGULAR VILLAGE BOARD MEETING MINUTES
Wednesday, February 19, 2020

Call to Order
The Village President Winchowky called the meeting to order at 6:30p.m. located in the Board Room of the Mukwonago Municipal Building, 440 River Crest Ct.

Roll Call

Board Members present:	Eric Brill Jim Decker Darlene Johnson Roger Walsh Jason Wamser Fred Winchowky, Village President
Also present:	John Weidl, Village Administrator Ron Bittner, Public Works Director Mark Blum, Village Attorney Dave Brown, Utilities Director Diana Dykstra, Clerk-Treasurer Kevin Schmidt, Police Chief Jerad Wegner, Village Engineer Ben Kohout, Village Planner Jeff Stein, Fire Chief Diana Doherty, Finance Director (arriving approximately 7:15pm)
Excused	Jay Vermeulen

Pledge of Allegiance

Comments from the Public
Colleen Farmer & Tasha Ventimiglia,1327 Orchard Lane, as residents in Walworth County they are asking that any decisions made on issues that affect them to please consider discussing it with them. They noted the recent creation of TID #5 hurt them financially due to the TID only being applied across Walworth County residents. She suggested they possible consider annexation or transfer into Waukesha county, build more homes in the Walworth portion, or seek advice of the Dept. of Revenue. She additionally expressed concerns for property being given away to Banker Wire.

David Amyx, 1410 Applewood Cir., noted he is a Walworth resident as well and feels the Village should work to reduce the tax or burden on their property for this TID. Consider annexing him to Waukesha County.

Walsh/Wamser motion to move item 13.1 forward on the agenda. Unanimously carried.
Update on legislation surrounding the Tax Increment District financing as it relates to multi-county municipalities.
Administrator Weidl noted they have contracted with Ehlers and Associates and they plan to utilize the League as well as local Legislators to help correct this issue. They hopefully will be able to craft legislation for 2021 legislative session. No adjustments are able to be made at this point.

Attorney Blum noted annexation can't apply in this situation because they would need detachment support from the County level.
Further information is coming on the subject.

Presentations

Presentation from Karl James & Company LLC on Brand Positioning for the Village of Mukwonago.

Karl Robe was present to provide a presentation on the brand positioning for the Village. He noted what was being presented is what has been developed at this moment. Several Trustees felt the Bear was very important to incorporate into the logo to maintain historical integrity. They would like to see it in other colors, remove the highway or river, and insertion of the Bear. Since this was a draft, they asked for Trustees to send Karl and John their comments before they mock up any additional variations.

Consent Agenda

6.1 Motion to approve minutes of the Village Board meeting of January 15, 2020.
6.2 Motion to approve Vouchers in the amount of $5,410,518.67
6.3 Motion to approve purchase requisition for a 2020 Chevrolet 2500HD Service Truck for the Utilities Department.
6.4 Motion to approve the Purchase Order for park equipment from Keeper Goals in the amount of $11,760.
6.5 Motion to approve of 2019 Paving Rehabilitation Close-out Change Order and Final Payment.
6.6 Motion to approve the Purchase requisition for one new squad 2020 Dodge Durango in the amount of $32,019 from Lynch Chrysler Dodge Jeep.
6.7 Motion to approve TID #5 Phase 2 Public Improvements Close-out Change Order and Final Payment.
6.8 Motion to approve 2019 Street Rehabilitation Close-out Change Order and Final Payment.
6.9 Motion to approve purchase requisition for pedestrian crossing lights at STH 83 & Lincoln Avenue.
6.10 Motion to approve special event application for Summerfeste 2020 sponsored by the Mukwonago Lions Foundation, held at Field Park June 18, 19, 20, 21, 2020.
6.11 Motion to approve special event application for the Annual Easter Egg Hunt sponsored by the Mukwonago Lions Foundation, located at Field Park April 4, 2020 (rain date April 11, 2020).
6.12 Motion to approve special event request for ProHealth Park Walk for Cancer at Field Park on May 1 (preparation for event) and May 2 (event).
6.13 Motion to approve the Temporary Class "B" / "Class B" Retailers License for Mukwonago Lions Foundation for Summerfeste 2020, June 17, 18, 19, 20, 21.
6.14 Motion to approve Letter of Credit Reduction No. 1 for Box Self Storage Development to $191,089.50.

Decker/Johnson motion to approve the Consent Agenda. Unanimously carried.

Report from Library Director, Angela Zimmermann

Library Director Angela Zimmermann provided an update on the 3D renderings of the Library addition, along with the most recent statistics.

Downtown Development Committee, Trustee Walsh

Summary of conversation with DOT regarding Downtown Hwy 83 and Feb 27th Open House Announcement.

Trustee Walsh noted he spoke with the DOT regarding the reroute of 83 which he found was not on their radar. They did agree to open communication with them for the Wayfind Signage and Streetscape program. He presented the flyer for the Open House on February 27, 2020 from 6pm to 8pm where residents can come look at plans.

Finance Committee, Trustee Vermeulen

Motion to approve Vouchers in the amount of $393,155.45.

Johnson/Decker motion to approve. Unanimously carried.

Deback Drive Mandatory Alternate Proposal Analysis

Finance Director Doherty reviewed her analysis based on the assumptions provided. The additional alternative best case would include a recovery period of 18 years. The worst case would be 78 years to recover those costs. Administrator Weidl explained the TID is under performing, however there is 13 acres for Teronomy to Develop and they have (5) years to perform or the Village has the option to purchase. They could also consider extending the TID by (3) years. Another option would be for TID#5 which has about 1.2 Million set aside for Hwy 83 construction costs. They could move soils later and TID can pay for it and build commercial lot across the street. No action was necessary, as this item is set for action later on the agenda

Planning Commission Recommendations

RESOLUTION 2020-04 to approve a Site Plan Amendment for Pro Health Care Hospital and new Propane Tank Located on East side of facility at 240 Maple Ave. (Waukesha Memorial Hospital Inc, Owner/Applicant); Parcel MUKV 2016-993-002.

Trustee Brill recused himself from the room at 8:01pm.

Decker/Johnson motion to approve a Site Plan Amendment for Pro Health Care Hospital and new Propane Tank Located on East side of facility at 240 Maple Ave. (Waukesha Memorial Hospital Inc, Owner/Applicant); Parcel MUKV 2016-993-002
Motion carried, Trustee Brill abstained.
Trustee Brill returned to his seat at 8:02pm.

Resolution 2020-03 to approve a Planned Unit Development (PUD) Request and associated Site Plan and Architectural Review as a Conditional Use for a proposed 20 unit Residential Care Assisted Living Facility at 210 McDivitt Ln (Birchrock Properties LLC, Owner/Applicant); Parcel MUKV 2012-215-002.

Decker/Walsh motion to approve a Planned Unit Development (PUD) Request and associated Site Plan and Architectural Review as a Conditional Use for a proposed 20 unit Residential Care Assisted Living Facility at 210 McDivitt Ln (Birchrock Properties LLC, Owner/Applicant); Parcel MUKV 2012-215-002.
Trustee Wamser questioned the entryway matching brick, and asked about the late arriving plans wondering if the Plan Commission should be reviewing this again. He noted that there are multiple changes and they it wouldn't be appropriate to just rely on staff to approve. It doesn't put the Board in a good position.
Trustee Walsh removed his second. Motion failed for lack of second.

Decker motion to table. Motion failed for lack of second.
Wamser/Johnson motion to refer to Plan Commission for review and recommendation back to the Board.
Roll Call: "Yes" Trustee Brill, Johnson, Walsh, Wamser, Winchowky. "No" Trustee Decker.
Motion carried 5-1.

Public Works Committee, Trustee Wamser

Update on the Well #3 well pump improvements and repairs.
Director Brown noted they were able to drill down past the tool. The DNR explained the took has to be pressed. Water Well is concerned if they block off, that section of the well is best producing portion for water production. They are continuing to work with DNR and are asking for another 85 hours to the next Board meeting.
Wamser/Johnson motion to extend proposal by $30,000. Unanimously carried.

Motion to approve waste hauler refunds due to rate increase, as presented contingent upon offsetting any outstanding liabilities owed to the Village.
Director Brown noted the Village Attorney calculated refunds and there will be a new ordinance to handle the charges moving forward.
Wamswer/Brill motion to approve waste hauler refunds due to rate increase, as presented contingent upon offsetting any outstanding liabilities owed to the Village
Unanimously carried.

Protective Services, Trustee Brill

Discussion and action on the 2019 Fire Department Settlement and authorization for the Finance Director to create a 2019 Budget Amendment.
Trustee Brill reviewed they were advised of an $18,000 over budget, so they had a meeting to review. Doherty stated each town and village together has an account to set aside money which is retained in their operating budget. The Fire Dept is holding these funds which will be reduced by the overage.
Brill/Johnson motion to approve the reduction of that account by the Village portion of $9,407.37 and subject to Town approval. Unanimously carried.

Fire Department Study Update
Chief Stein noted the project team should have a final draft next week, and they will schedule a joint presentation.

Discussion and action to approve the sale of used equipment and apparatus including a Utility Vehicle 3481, Engine 3461, Mako Air Compressor, SCOTT SCBA Harnesses, and LUCAS 2.
Brill/Johnson motion to approve the sale. Doherty noted they will transfer funds to capital and use against purchase of new capital.
Unanimously Carried.

Discussion and action on the purchase of Ballistic Gear
It was noted this is split with the Township, and it has already been approved and budgeted for. No action was required. It was for information only.

Discussion and action on the purchase of a 2020 Chevrolet Silverado 3500HD
Decker/Johnson motion to approve the purchase of a 2020 Chevrolet Silverado 3500HD
It was noted it is required to be ordered by March 1 and it is budgeted item.
Unanimously carried.

Intercept Agreement with Elkhorn FD
Chief stein noted this is a new agreement. They only have about 3-6 calls a year, the Village Attorney has a few provisions to include from his review.
Brill/Decker motion to approve the Intercept Agreement with Elkhorn Fire Department and allow the Village President to sign upon Attorney review and approval, subject to Town approval. Unanimously carried.

Damage to 3488 $3,200
Trustee Brill noted this was an accident to the Intercept Vehicle Tahoe during the snow storm on E/EE. All other damage was repaired and it was under their $5,000 deductible.

New MSA G1 packs in service 02-01-2020
Chief Stein noted these are the new breathing packs and suggested everyone stop by to see what's going on.

Fire & Ambulance Reports for 2020 *(for information only, no action required)*
Reports are on file.

Monthly Police Department Report *(for information purposes only)*
The January Police Department Report was placed on file.

<u>Village Administrator</u>

Review of comments on proposed Cooperative Boundary Agreement between the Town of Vernon and the Town of Waukesha.
Trustee Johnson recused herself at 8:41pm.
Attorney Blum introduced the proposed comment letter and consensus was to submit. No action was required.
Trustee Johnson returned to her seat at 8:42pm.

Discussion and possible action on a Memorandum of Understanding between the Village of Mukwonago and the Wisconsin Department of Transportation for access to WIS 83 between the Village of Mukwonago and the Wisconsin Department of Transportation for the Mukwonago TID #5 (Banker Wire) development site located on lands on the northeast side of WIS 83 opposite of Boxhorn Drive.
Johnson/Decker motion to approve. It was noted changes were reviewed and approved by the Attorney. Unanimously carried.

Discussion and possible action on Economic Development Cooperation Contract between Waukesha County Center for Growth, Inc. and the Village of Mukwonago in the amount of $6,108.56.
Administrator Weidl noted this is the same contract as last year and is for (1) year which can be canceled at any time.
Decker/Brill motion to allow the Village President to sign and approve the Economic Development Cooperation Contract between Waukesha County Center for Growth, Inc. and the Village of Mukwonago in the amount of $6,108.56.
Unanimously carried.

Village President
Acknowledgement of letter from Dr. Chris Hibner, Superintendent of the East Troy Community School District regarding the April 7, 2020 Referendum.

Appointments to Historic Preservation Committee:

Ben Kohout, Village Planner, for a term expiring 2021
Jeff Vanevenhoven, Historian, for a term expiring 2023
Ray Gooden, Real Estate Broker, for a term expiring 2023
Jim Decker, Village Trustee, for a term expiring 2021
Mary Patz, Citizen Member, for a term expiring 2022
Jeane Coley, Citizen Member, for a term expiring 2023
Scott Reeves, Citizen Member, for a term expiring 2022

Johnson/Decker motion to approve appointments listed to the Historic Preservation Committee. It was noted they will meet the 1st Thursday of the Month if necessary at 6pm. Trustee Walsh noted he would prefer to see a residential realtor appointment rather than a commercial realtor appointed. Unanimously carried.

Appointment of Mark Penzkover to the Plan Commission for a term expiring in 2020.
Decker/Johnson motion to approve. Unanimously carried.

Appointment of Joseph McAdams to the Police Commission for a term expiring in 2021.
Decker/Brill motion to approve. Unanimously carried.

Appointment of Shane Herbig to the Joint Fire Commission to a term expiring in 2020.
Johnson/Decker motion to approve. Unanimously carried.

Closed Session
Decker/Johnson motion to go into Closed session pursuant to **Wis. Stats.§ 19.85(1)(e)** *(Deliberating or negotiating the purchasing of public properties, the investing of public funds, or conducting other specified public business, whenever competitive or bargaining reasons require a closed session)* for negotiation with 301 Main Stre et, 830 E Veteran's Way, Ground Lease with US Cellular, and contract with Musson Brothers regarding the DeBack Drive infrastructure contract; and pursuant to **Wis. Stats.§ 19.85(1)(c)** *(Compensation and Evaluation. Considering employment, promotion, compensation or performance evaluation data of any public employee subject to the jurisdiction or authority of governing body.)* concerning Police Chief, and the evaluation of the Village Administrator at 8:54pm.
Roll Call "Yes" Trustee Brill, Decker, Johnson, Walsh, Wamser, Winchowky. Unanimously carried.

Reconvene into Open Session

Johnson/Decker motion to reconvene into open session pursuant to Wis. Stats. §19.85(2) for possible discussion and/or action concerning any matter discussed in closed session at 10:35pm.
Roll Call "Yes" Trustee Brill, Decker, Johnson, Walsh, Wamser, Winchowky. Unanimously carried.

Award of Contract to Musson Brothers, Inc. the DeBack Drive Infrastructure with the mandatory alternate, subject to approval of form by the Village Attorney.

Decker/Wamser motion to approve the Base Bid with no alternate to Musson Brothers, Inc. the DeBack Drive Infrastructure. Motion carried 4-2, President Winchowky, and Trustee Johnson voted no.

Discussion and possible action on Counter Offer for 301 Main Street

Wamser/Decker motion to approve counter offer for 301 Main Street. Unanimously carried.

Discussion and possible action on possible land purchase at 830 E. Veteran's Way.

It was suggested the Village call and discuss being able to provide 30 days.

Discussion and possible action on a Ground Lease Agreement between The Village of Mukwonago and United States US Cellular Operating Company LLC.

Wamser/Brill motion to approve a Ground Lease Agreement between The Village of Mukwonago and United States US Cellular Operating Company LLC. Unanimously carried.

Adjournment

Meeting adjourned at 10:38pm.

Respectfully Submitted,

/s/ Diana A. Dykstra, CMC
Clerk-Treasurer

DRAFT

SPECIAL VILLAGE BOARD MEETING MINUTES
Wednesday, March 4, 2020

Call to Order
The Village President Winchowky called the meeting to order at 7:05p.m. located in the Board Room of the Mukwonago Municipal Building, 440 River Crest Ct.

Roll Call

Board Members present:	Eric Brill Jim Decker Roger Walsh Jason Wamser Fred Winchowky, Village President
Also present:	John Weidl, Village Administrator Mark Blum, Village Attorney Diana Dykstra, Clerk-Treasurer Diana Doherty, Finance Director
Excused	Darlene Johnson Jay Vermeulen

New Business
Motion to approve Resolution 2020-05 Amending the 2019 Adopted Budgets for Wisconsin Development, TID 3, TID 4, TID 5, Debt Service, Village Designated, Capital Equipment, Library, Capital Improvement, Impact Fees, Water Utility, Sewer Utility, and Parkland Site Funds
Decker/Wamser motion to approve. Unanimously carried.

Closed Session
Decker/Wamser motion to go into closed session pursuant to **Wis. Stats § 19.85 (1) (g)** *(Conferring with legal counsel who either orally or in writing will advise governmental body on strategy to be adopted with respect to current or likely litigation)* concerning Walmart litigation; and pursuant to **Wis. Stats § 19.85 (1) (c)** *(Compensation and Evaluation. Considering employment, promotion, compensation or performance evaluation data of any public employee subject to the jurisdiction or authority of governing body.)* concerning the Police Chief at 7:08pm.
Roll Call: "Yes" Trustee Brill, Decker, Walsh, Wamser, and Winchowky. Unanimously carried.

Open Session
Decker/Wamser motion to return to open session pursuant to Wis. Stats § 19.85 (2) at 7:23pm.
Roll Call: "Yes" Trustee Brill, Decker, Walsh, Wamser, and Winchowky. Unanimously carried.

Decker/Brill motion to accept the merit increase and length of service award of 5.36% to Police Chief Kevin Schmidt. Unanimously carried.

Adjournment
Meeting adjourned at 7:24pm.

Respectfully Submitted,

/s/ Diana A. Dykstra, CMC
Clerk-Treasurer

DRAFT

Accounts Payable Cover Sheet

Report:	Period or corresponding report date		
Village Accounts Payable	03-05-2020 check run	$	78,534.19
Library AP-batch 1Cultural Showcase		$	5,070.00
Library AP-batch 2		$	46,379.19
Spectrum (ach withdrawal)		$	2,959.44
WE Energies (ach withdrawal)		$	47,877.70
US Bank (ach withdrawal)		$	22,397.57
Septic Overcharge Refunds		$	9,676.34
Tax Settlements-County		$	2,018,789.23
Manual Checks or E-checks issued	February 2020	$	149,460.16
Manual Checks or E-checks issued	February 2020	$	574.70
Manual Checks or E-checks issued	February 2020	$	1,160.79
Manual Checks or E-checks issued		$	-
	Total for Approval:	**$**	**2,382,879.31**

The preceding list of bills payable was approved for payment

Date: _____

Approved by: _____

_____

_____

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: 5 ALARM FIRE & SAFETY					
193978-1	MSA SCBA MASK EXCHANGE	430-5700-571300	(580.00)	(580.00)	FIRE
193978-2	SCBA CAPITAL	430-5700-571300	580.00	580.00	FIRE
TOTAL VENDOR 5 ALARM FIRE & SAFETY				0.00	
VENDOR NAME: AIR ONE					
150928	FIRE EQUIPMENT	150-5222-531100	308.74	308.74	FIRE
153290	TURNOUT GEAR	150-5222-531100	237.83	237.83	FIRE
TOTAL VENDOR AIR ONE				546.57	
VENDOR NAME: AIRGAS USA LLC					
9098139508	EMS SUPPLIES	150-5231-531100	547.25	547.25	FIRE
TOTAL VENDOR AIRGAS USA LLC				547.25	
VENDOR NAME: ALSCO					
IMIL1540492	VILLAGE HALL WALK OFF MATS	100-5160-521900	40.21	40.21	DPW
IMIL153076	FEBRUARY 13 MAT CLEANING SERVICE	100-5211-539400	43.89	43.89	POLICE
TOTAL VENDOR ALSCO				84.10	
VENDOR NAME: AM TOWING					
W 26119	3463 REPAIR	150-5222-539500	270.69	270.69	FIRE
TOTAL VENDOR AM TOWING				270.69	
VENDOR NAME: AMATO AUTOMOTIVE GROUP					
CM0119	AMATO REFUND	150-5222-539500	(28.58)	(28.58)	FIRE
96934	CAR 1 LIGHT REPAIR	150-5222-539500	339.66	339.66	FIRE
TOTAL VENDOR AMATO AUTOMOTIVE GROUP				311.08	
VENDOR NAME: APCO INTERNATIONAL INC					
00047632	COORDINATION FOR NEW FREQUENCY ON WNVX57	100-5212-521900	210.00	210.00	POLICE
678531	FEE FOR SWITCHING DISPATCHERS FOR EMD TR	100-5215-533500	50.00	50.00	POLICE
TOTAL VENDOR APCO INTERNATIONAL INC				260.00	
VENDOR NAME: AT & T MOBILITY					
287291370101X02152(	FEBRUARY CELLULAR/AIRCARD BILLING	100-5211-522500	580.41	580.41	POLICE
TOTAL VENDOR AT & T MOBILITY				580.41	
VENDOR NAME: BATTERIES PLUS					
P24166664	BATTERIES FOR SCADA	620-8010-827000	11.10	11.10	UTILITIES
TOTAL VENDOR BATTERIES PLUS				11.10	
VENDOR NAME: BEAR GRAPHICS					
0841458	MILITARY ABSENTEE ENVELOPES	100-5144-531100	78.16	78.16	CLERK
TOTAL VENDOR BEAR GRAPHICS				78.16	
VENDOR NAME: BEDROCK SEWER & WATER					
2009	WATERMAIN BREAK	610-6451-665100	7,426.54	7,426.54	UTILITIES
TOTAL VENDOR BEDROCK SEWER & WATER				7,426.54	
VENDOR NAME: BIASEW					
2020 DUES HARLEY	2020 MEMBERSHIP DUES-HARLEY	100-5241-532400	50.00	50.00	BUILDING

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: BIASEW					
2020 DUES RUTENBECI	2020 MEMBERSHIP DUES-RUTENBECK	100-5241-532400	50.00	50.00	BUILDING
TOTAL VENDOR BIASEW				100.00	
VENDOR NAME: BRAKE & EQUIPMENT					
548516	TOOL BOXES FOR KENS SERVICE TRUCK	610-6920-693300	2,567.00	2,567.00	UTILITIES
TOTAL VENDOR BRAKE & EQUIPMENT				2,567.00	
VENDOR NAME: BURKE TRUCK & EQUIMENT INC					
26496	SNOW PLOW SHOES	100-5324-539500	372.42	372.42	DPW
TOTAL VENDOR BURKE TRUCK & EQUIMENT INC				372.42	
VENDOR NAME: C & M AUTO PARTS INC					
6079-312712	LOADER HYDRAULIC OIL	100-5324-535100	83.94	83.94	DPW
6079-312690	LOADER HYDAULIC OIL	100-5324-535100	41.97	41.97	DPW
6079-312680	LOADER HYDRAULIC OIL	100-5324-535100	83.94	83.94	DPW
6079-312682	LOADER HYDRAULIC OIL	100-5324-535100	13.99	13.99	DPW
6079-312676	LOADER HYDRAULIC OIL	100-5324-535100	41.97	41.97	DPW
6079-312580 PD	OIL FILTERS FOR SQUADS	100-5212-535100	21.54	21.54	POLICE
6079-312580 FD	OIL FILTERS	150-5222-539500	21.54	21.54	FIRE
6079-312600	SHOP TOOLS	100-5323-531100	28.49	28.49	DPW
6079-312527	REPLACEMENT MIRROR	100-5324-539500	23.69	23.69	DPW
6079-312526	OIL FILTER FOR SQUAD 33	100-5212-535100	7.18	7.18	POLICE
6079-312331	GASKET SEALER	100-5324-539500	39.89	39.89	DPW
6079-312330	3471- BATTERIES	150-5222-539500	731.94	731.94	FIRE
TOTAL VENDOR C & M AUTO PARTS INC				1,140.08	
VENDOR NAME: CASTLE WAYNE					
2020 FEB CONFERENCI	WASTEWATER TRAINIG CONFERENCE	620-8400-854100	90.00	90.00	UTILITIES
TOTAL VENDOR CASTLE WAYNE				90.00	
VENDOR NAME: CENTRALOFFICE SYSTEMS					
IN217246	COPIER	150-5221-531100	100.10	100.10	FIRE
TOTAL VENDOR CENTRALOFFICE SYSTEMS				100.10	
VENDOR NAME: CHIC0S LLC					
14713	WWTF SNOWPLOW REPAIR PARTS	620-8030-828000	417.00	417.00	UTILITIES
TOTAL VENDOR CHIC0S LLC				417.00	
VENDOR NAME: CINTAS					
4042730323	UNIFORM SERVICE	610-6920-693000	73.00	73.00	UTILITIES
4042730290	STAFF UNIFORMS	100-5323-531100	98.18	98.18	DPW
4043359552	UNIFORM SERVICE	620-8010-827000	73.00	73.00	UTILITIES
4043359543	STAFF UNIFORMS	100-5323-531100	103.18	103.18	DPW
TOTAL VENDOR CINTAS				347.36	
VENDOR NAME: CITY OF MUSKEGO					
2020 JAN BOTS	2020 JAN BOTS ALCOHOL ENFORCEMENT/SAFETY	100-4300-435500	512.84	512.84	POLICE
TOTAL VENDOR CITY OF MUSKEGO				512.84	
VENDOR NAME: CITY OF NEW BERLIN					
2020 JAN BOTS	2020 JAN BOTS ALCOHOL ENFORCEMENT/SAFETY	100-4300-435500	544.48	544.48	POLICE

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: CITY OF NEW BERLIN					
TOTAL VENDOR CITY OF NEW BERLIN				544.48	
VENDOR NAME: COLUMBIA SOUTHERN UNIVERSITY					
BCJ 3450 2020 KUBI	OFF KUBIAK'S TUITION FOR INTRO TO COURT	100-5212-516300	690.00	690.00	POLICE
TOTAL VENDOR COLUMBIA SOUTHERN UNIVERSITY				690.00	
VENDOR NAME: COMPASS MINERALS AMERICA					
593888	ICE CONTROL SODIUM CHLORIDE	100-5347-531100	12,778.56	12,778.56	DPW
593109	ICE CONTROL SODIUM CHLORIDE	100-5347-531100	9,646.14	9,646.14	DPW
TOTAL VENDOR COMPASS MINERALS AMERICA				22,424.70	
VENDOR NAME: CONLEY MEDIA, LLC					
6362410220	PUBLICATION NOTICES	100-5142-531200	60.27	174.16	CLERK
		100-5142-531200	74.13		
		100-5144-531200	11.99		
		100-5144-531200	27.77		
6362410220 DPW	RIVER PARK ESTATES PAVING NEWSPAPER BID	480-5700-586100	126.78	126.78	DPW
TOTAL VENDOR CONLEY MEDIA, LLC				300.94	
VENDOR NAME: CORE & MAIN LP					
L883650	WATERMAIN REPAIR PARTS FOR INVENTORY	610-6451-665100	969.33	969.33	UTILITIES
TOTAL VENDOR CORE & MAIN LP				969.33	
VENDOR NAME: COUNTY WIDE EXTINGUISHER, INC					
18499	SHOP EXTINQUISHER SERVICE	100-5323-531100	56.00	56.00	DPW
TOTAL VENDOR COUNTY WIDE EXTINGUISHER, INC				56.00	
VENDOR NAME: DEBRA AMANN					
MFD 13285	EBIX PATIENT REFUND	150-4620-473000	110.44	110.44	FINANCE
TOTAL VENDOR DEBRA AMANN				110.44	
VENDOR NAME: DEPARTMENT OF ADMINISTRATION					
505-0000045682	SPAM FILTER ON EMAILS	100-5241-522500	18.81	771.12	MULTIPLE
		100-5211-521900	163.03		
		100-5142-522500	12.54		
		100-5323-522500	37.61		
		100-5141-522500	50.15		
		100-5632-522500	6.27		
		150-5221-522500	388.68		
		100-5111-539900	43.88		
		100-5120-539900	6.27		
		610-6920-693000	43.88		
TOTAL VENDOR DEPARTMENT OF ADMINISTRATION				771.12	
VENDOR NAME: DEPARTMENT OF NATURAL RESOURCES					
2020 REG UT6538CY	ATV REGISTRATION	150-5222-531100	30.00	30.00	FIRE
TOTAL VENDOR DEPARTMENT OF NATURAL RESOURCES				30.00	

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: DIGGERS HOTLINE INC					
2001313301	STORM SEWR UTILITY LOCATES JANUARY	100-5344-521900	53.73	53.73	DPW
TOTAL VENDOR DIGGERS HOTLINE INC				53.73	
VENDOR NAME: DONALD MILES					
MFD12685	EBIX PATIENT REFUND	150-4620-473000	105.76	105.76	FINANCE
TOTAL VENDOR DONALD MILES				105.76	
VENDOR NAME: EMERGENCY MEDICAL PRODUCTS					
2135647	EMS SUPPLIES	150-5231-531100	488.75	488.75	FIRE
TOTAL VENDOR EMERGENCY MEDICAL PRODUCTS				488.75	
VENDOR NAME: EXCEL BUILDING SERVICES LLC					
3468	FEBRUARY CLEANING SERVICE	100-5211-539400	975.00	975.00	POLICE
TOTAL VENDOR EXCEL BUILDING SERVICES LLC				975.00	
VENDOR NAME: FASTENAL COMPANY					
WIMUK81179	SNOW PLOW BOLTS	100-5324-539500	16.41	16.41	DPW
TOTAL VENDOR FASTENAL COMPANY				16.41	
VENDOR NAME: FLEURYS BODY REPAIR INC					
14576	DEDUCTIBLE PORTION OF INSURANCE TO REPAI	100-5212-539500	2,500.00	2,500.00	POLICE
TOTAL VENDOR FLEURYS BODY REPAIR INC				2,500.00	
VENDOR NAME: GENESEE AGGREGATE CORP					
9553	BEDDING STONE FOR MAIN BREAKS	610-6451-665100	353.02	353.02	UTILITIES
T9553	BEDDING STONE DELIVERY FOR MAIN BREAKS	610-6451-665100	190.45	190.45	UTILITIES
TOTAL VENDOR GENESEE AGGREGATE CORP				543.47	
VENDOR NAME: HARLEY BOB					
2020 CLOTHING REIMI	2020 CLOTHING REIMBURSEMENT HARLEY	100-5241-539900	84.38	84.38	BUILDING
TOTAL VENDOR HARLEY BOB				84.38	
VENDOR NAME: HAWKINS WATER TREATMENT					
4665336	CHEMICALS FOR WATER TREATMENTS	610-6300-663100	948.90	948.90	UTILITIES
TOTAL VENDOR HAWKINS WATER TREATMENT				948.90	
VENDOR NAME: HIPPENMEYER, REILLY, BLUM,					
49151	MISC MATTERS	100-5130-521900	3,507.50	3,507.50	FINANCE
49149	UTILITIES - WELL ABANDONMENT	610-6920-692300	17.50	17.50	FINANCE
49150	FIRE DEPT	150-5221-521900	140.00	140.00	FINANCE
49152	ORDINANCES/RESOLUTIONS	100-5130-521900	315.00	315.00	FINANCE
49155	PROSECUTION	100-5130-521900	772.50	772.50	FINANCE
49153	BOX SELF STORAGE	100-0000-211425	70.00	70.00	FINANCE
49154	PHANTOM LAKE PRESERVE	100-0000-211425	130.00	130.00	FINANCE
TOTAL VENDOR HIPPENMEYER, REILLY, BLUM,				4,952.50	
VENDOR NAME: HORN FEEDS					
30449	SOTENER SALT	100-5160-531100	13.50	13.50	DPW
30908	SOFTENER SALT	100-5160-531100	67.50	67.50	DPW

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: HORN FEEDS					
	TOTAL VENDOR HORN FEEDS			81.00	
VENDOR NAME: IMPRINTS LABEL & DECAL					
22147	100 BIKE PERMIT LABELS	100-5211-531200	115.00	115.00	POLICE
	TOTAL VENDOR IMPRINTS LABEL & DECAL			115.00	
VENDOR NAME: JOHNSON CONTROLS SECURITY					
33844803	VILLAGE HALL SECURITY SERVICES	100-5160-521900	616.56	616.56	DPW
	TOTAL VENDOR JOHNSON CONTROLS SECURITY			616.56	
VENDOR NAME: MCCUEN, BRENNEN					
2020 FEB TRAVEL	FORESTRY CONFRENCE	100-5323-533500	413.38	413.38	DPW
	TOTAL VENDOR MCCUEN, BRENNEN			413.38	
VENDOR NAME: MESSAGEUS.COM					
200310134	PHONE SERVICE	620-8400-851000	14.24	14.24	UTILITIES
	TOTAL VENDOR MESSAGEUS.COM			14.24	
VENDOR NAME: MILLER KEN					
40371	CDL DRIVERS TEST	620-8400-854100	150.00	150.00	UTILITIES
	TOTAL VENDOR MILLER KEN			150.00	
VENDOR NAME: MUKWONAGO AREA CHAMBER OF COMM					
2019 NOV	ROOM TAX BAYMONT - DUE TO CHAMBER	100-0000-244000	1,999.17	1,999.17	CLERK
2019 DEC	ROOM TAX BAYMONT- DUE TO CHAMBER	100-0000-244000	1,384.22	1,384.22	CLERK
	TOTAL VENDOR MUKWONAGO AREA CHAMBER OF COMM			3,383.39	
VENDOR NAME: MUKWONAGO AUTO PARTS - FIRE					
095272	REPAIR	150-5222-539500	35.48	35.48	FIRE
	TOTAL VENDOR MUKWONAGO AUTO PARTS - FIRE			35.48	
VENDOR NAME: MUKWONAGO AUTO PARTS - GENERAL					
094832	LOADER HYDRALIC HOSES AND FITTINGS	100-5324-539500	131.14	131.14	DPW
095005	REPLACEMENT MIRROR	100-5324-539500	23.99	23.99	DPW
095073	BELTS FOR BLOWERS	620-8010-833000	209.96	209.96	UTILITIES
095165	BATTERIES FOR WELL 6 GENERATOR	610-6200-662500	128.74	128.74	UTILITIES
	TOTAL VENDOR MUKWONAGO AUTO PARTS - GENERAL			493.83	
VENDOR NAME: MUKWONAGO POLICE DEPT					
2020 FEB PETTY CASH	PETTY CASH REIMBURSEMENT	100-5211-531500	25.16	40.16	POLICE
		100-5212-521900	15.00		
	TOTAL VENDOR MUKWONAGO POLICE DEPT			40.16	
VENDOR NAME: NEXTEL WIRELESS SOLUTIONS					
1046	TRCUCK RADIOS AND ATENNAS	100-5324-539500	456.17	456.17	DPW
	TOTAL VENDOR NEXTEL WIRELESS SOLUTIONS			456.17	
VENDOR NAME: NUSSER HENCH					
2020 CLOTHING	2020 CLOTHING REIMBURSEMENT FOR ITALIA H	100-5211-534600	17.24	17.24	POLICE

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: NUSSER HENCH					
TOTAL VENDOR NUSSER HENCH				17.24	
VENDOR NAME: NYAH KOHLER					
MFD 12949	EBIX PATIENT REFUND	150-4620-473000	623.42	623.42	FINANCE
TOTAL VENDOR NYAH KOHLER				623.42	
VENDOR NAME: OFFICE PRO					
0378338-001	PAST DUE STAMP	100-5142-531100	12.17	12.17	CLERK
0377627-001	OFFICE SUPPLIES-NOTEBOOKS	100-5241-531100	13.36	13.36	BUILDING
TOTAL VENDOR OFFICE PRO				25.53	
VENDOR NAME: OLSEN SAFETY EQUIPMENT					
0373651-IN	WATER/SEWER SAFETY TRAILER EQUIPMENT	610-6450-665000	16.75	33.50	UTILITIES
		620-8030-831000	16.75		
TOTAL VENDOR OLSEN SAFETY EQUIPMENT				33.50	
VENDOR NAME: PAL STEEL COMPANY					
72792	FLOOR GRATING FOR WWTF GARAGE	620-8010-827000	1,390.00	1,390.00	UTILITIES
TOTAL VENDOR PAL STEEL COMPANY				1,390.00	
VENDOR NAME: PERFECTION AUTO BODY					
24257	3488 REPAIR	150-5231-539500	3,102.34	3,102.34	FIRE
TOTAL VENDOR PERFECTION AUTO BODY				3,102.34	
VENDOR NAME: PORT-A-JOHN, INC					
0434833-IN	PORTABLE RESTROOMS PARKS	100-5521-531100	88.00	88.00	DPW
TOTAL VENDOR PORT-A-JOHN, INC				88.00	
VENDOR NAME: QUILL LLC					
4752006	STATION SUPPLIES	150-5221-531100	213.98	213.98	FIRE
4752005	STATION SUPPLIES	150-5221-531100	25.99	25.99	FIRE
TOTAL VENDOR QUILL LLC				239.97	
VENDOR NAME: RICOH USA, INC					
33102949	COPIER LEASE PAYMENT	100-5142-531200	23.88	170.61	FINANCE
		150-5221-531100	22.18		
		220-5140-531200	1.71		
		410-5363-531200	3.41		
		440-5511-531200	8.53		
		500-5344-531200	1.71		
		610-6920-693000	56.30		
		620-8400-856000	52.89		
TOTAL VENDOR RICOH USA, INC				170.61	
VENDOR NAME: RIVER CREST TIRE & AUTO					

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: RIVER CREST TIRE & AUTO					
276754	NEW TIRES FOR KENS SERVICE TRUCK	610-6920-693300	500.00	1,079.95	UTILITIES
		620-8010-828000	579.95		
TOTAL VENDOR RIVER CREST TIRE & AUTO				1,079.95	
VENDOR NAME: SABEL MECHANICAL LLC					
3488	REBUILD WWTF EFF PUMP	620-8010-834000	11,190.99	11,190.99	UTILITIES
TOTAL VENDOR SABEL MECHANICAL LLC				11,190.99	
VENDOR NAME: SHRED-IT USA					
8129218309	SHREDDING SERVICES	100-5142-521900	63.52	63.52	CLERK
TOTAL VENDOR SHRED-IT USA				63.52	
VENDOR NAME: SMITH JAMES					
2020 BOOT REIMBURSI	2020 BOOT REIMBURSEMENT - SMITH	620-8010-827000	100.00	100.00	UTILITIES
TOTAL VENDOR SMITH JAMES				100.00	
VENDOR NAME: TRI COUNTY WATERWORKS ASSOC					
2020 DUES 2 PPL	WATER CONFERENCE CLASS	610-6920-693000	40.00	40.00	UTILITIES
TOTAL VENDOR TRI COUNTY WATERWORKS ASSOC				40.00	
VENDOR NAME: UNIFI EQUIPMENT FINANCE, INC.					
557730	FEBRUARY COPY MACHINE LEASE	100-5211-521900	159.60	159.60	POLICE
TOTAL VENDOR UNIFI EQUIPMENT FINANCE, INC.				159.60	
VENDOR NAME: VERIZON WIRELESS					
9847628187	VERIZON BILL	150-5221-522500	100.20	100.20	FIRE
9816443701	MONTHLY BILL	150-5221-522500	173.13	295.25	MULTIPLE
		100-5323-522500	19.24		
		610-6920-692100	51.44		
		620-8400-851000	51.44		
9848311915	VERIZON BILL	150-5221-522500	358.38	358.38	FIRE
9848311914	MONTHLY BILL	150-5221-522500	20.66	275.32	MULTIPLE
		100-5323-522500	20.66		
		610-6920-692100	117.00		
		620-8400-851000	117.00		
9848311913	MONTHLY BILL	100-5141-522500	137.37	669.92	MULTIPLE
		100-5241-522500	93.45		
		150-5221-522500	2.91		
		100-5211-522500	1.97		
		100-5323-522500	135.10		
		610-6920-692100	149.56		
		620-8400-851000	149.56		
TOTAL VENDOR VERIZON WIRELESS				1,699.07	

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: WAUKESHA CTY TREASURER					
2020-00000009	WAUKESHA COUNTY JANUARY PRISONER BILLING	100-5212-521900	34.90	34.90	POLICE
TOTAL VENDOR WAUKESHA CTY TREASURER				34.90	
VENDOR NAME: WILHARMS MICHAEL					
2020 BOOT REIMBURSI	2020 BOOT ALLOWANCE WILHARMS	100-5323-534800	100.00	100.00	DPW
TOTAL VENDOR WILHARMS MICHAEL				100.00	
VENDOR NAME: WILLIAM SCHUTZ					
MFD 13313	EBIX PATIENT REFUND	150-4620-473000	108.78	108.78	FINANCE
TOTAL VENDOR WILLIAM SCHUTZ				108.78	
VENDOR NAME: WILMA COX					
MFD 13335	EBIX PATIENT REFUND	150-4620-473000	103.95	103.95	FINANCE
TOTAL VENDOR WILMA COX				103.95	
VENDOR NAME: WISCONSIN IMAGING SOLUTIONS LLC					
AR41882	COPIER	620-8400-851000	35.00	35.00	UTILITIES
TOTAL VENDOR WISCONSIN IMAGING SOLUTIONS LLC				35.00	
GRAND TOTAL:				78,534.19	

INVOICE REGISTER REPORT FOR MUKWONAGO
EXP CHECK RUN DATES 02/10/2020 - 02/10/2020
JOURNALIZED PAID
BANK CODE: GEN - CHECK TYPE: PAPER CHECK

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
	AZ0120						
39168	SOUTHEASTERN ONEIDA TRIBAL	01/30/2020	02/14/2020	150.00	0.00	Paid	Y
	CULTURAL SHOWCASE		CKIM				01/30/2020
	440-5890-580600 DONATED FUND EXPENDITURES			150.00			
	202001						
38990	DANCE ACADEMY OF MEXICO	12/05/2019	02/14/2020	250.00	0.00	Paid	Y
	FEB 15, CULTURAL SHOWCASE		CKIM				01/22/2020
	440-5890-580600 DONATED FUND EXPENDITURES			250.00			
	AZ0420						
39169	MILWAUKEE ACADEMY CHINESE LANG	01/30/2020	02/14/2020	200.00	0.00	Paid	Y
	CULTURAL SHOWCASE		CKIM				01/30/2020
	440-5890-580600 DONATED FUND EXPENDITURES			200.00			
	AZ0320						
39163	HMONG AMERICAN FRIENDSHIP ACAD	01/30/2020	02/14/2020	150.00	0.00	Paid	Y
	CULTURAL SHOWCASE DANCERS		CKIM				01/30/2020
	440-5890-580600 DONATED FUND EXPENDITURES			150.00			
	AZ0220						
39165	HANKES DIANA	01/30/2020	02/14/2020	200.00	0.00	Paid	Y
	CULTURAL SHOWCASE SCOTTISH DANCERS		CKIM				01/30/2020
	440-5890-580600 DONATED FUND EXPENDITURES			200.00			
	AZ0820						
39167	EISA ANAGUMA	01/30/2020	02/14/2020	750.00	0.00	Paid	Y
	CULTURAL SHOWCASE JAPANESE DRUMMER		CKIM				01/30/2020
	440-5890-580600 DONATED FUND EXPENDITURES			750.00			
	AZ0720						
39161	AARABHI INDIAN DANCE SCHOOL	01/30/2020	02/14/2020	250.00	0.00	Paid	Y
	INDIAN DANCERS/ CULTURAL SHOWCASE		CKIM				01/30/2020
	440-5890-580600 DONATED FUND EXPENDITURES			250.00			
	AZ0520						
39164	MILWAUKEE IRISH DANCERS	01/30/2020	02/14/2020	150.00	0.00	Paid	Y
	CULTURAL SHOWCASE DANCERS		CKIM				01/30/2020
	440-5890-580600 DONATED FUND EXPENDITURES			150.00			
	2152020						
39162	DNIPRO UKRANIAN DANCE ENSEMBLE	01/30/2020	02/14/2020	500.00	0.00	Paid	Y
	CULTURAL SHOWCASE DANCERS		CKIM				01/30/2020
	440-5890-580600 DONATED FUND EXPENDITURES			500.00			
	AZ0620						
39166	WISCONSIN BLACK HISTORICAL SOCIETY	01/30/2020	02/14/2020	870.00	0.00	Paid	Y
	CULTURAL SHOWCASE AFRICAN DANCERS		CKIM				01/30/2020
	440-5890-580600 DONATED FUND EXPENDITURES			870.00			

INVOICE REGISTER REPORT FOR MUKWONAGO
EXP CHECK RUN DATES 02/10/2020 - 02/10/2020
JOURNALIZED PAID
BANK CODE: GEN - CHECK TYPE: PAPER CHECK

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
AZ1420							
39190	GERMAN-AMERICAN CULTURAL FOUNDATION	01/31/2020	02/14/2020	250.00	0.00	Paid	Y
	UNITED DONAUSCHWABEN DANCERS		CKIM				02/04/2020
	440-5890-580600 DONATED FUND EXPENDITURES			250.00			
AZ1320							
39191	DAN PERCHINSKY	01/31/2020	02/14/2020	800.00	0.00	Paid	Y
	CROATIAN BAND		CKIM				02/04/2020
	440-5890-580600 DONATED FUND EXPENDITURES			800.00			
AZ1520							
39185	NA HALE CULTURAL ARTS CENTER INC	02/14/2020	02/14/2020	400.00	0.00	Paid	Y
	POLYNESIAN DANCERS		CKIM				02/04/2020
	440-5890-580600 DONATED FUND EXPENDITURES			400.00			
AZ2120							
39242	LYKKERINGEN DANCERS	02/07/2020	02/14/2020	150.00	0.00	Paid	Y
	CULTURAL SHOWCASE NORWEGIAN		CKIM				02/10/2020
	440-5890-580600 DONATED FUND EXPENDITURES			150.00			

# of Invoices:	14	# Due: 0	Totals:	5,070.00	0.00
# of Credit Memos:	0	# Due: 0	Totals:	0.00	0.00
Net of Invoices and Credit Memos:				5,070.00	0.00

--- TOTALS BY GL DISTRIBUTION ---

440-5890-580600	DONATED FUND EXPENDITURES	5,070.00	

--- TOTALS BY FUND ---

440 - LIBRARY FUND	5,070.00	0.00

--- TOTALS BY DEPT/ACTIVITY ---

5890 - USE OF DESIGNATED FUNDS	5,070.00	0.00

INVOICE REGISTER REPORT FOR MUKWONAGO
EXP CHECK RUN DATES 02/14/2020 - 02/14/2020
JOURNALIZED PAID
BANK CODE: GEN - CHECK TYPE: PAPER CHECK

Inv Num / Inv Ref#	Vendor / Description / GL Distribution		Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
2035034707								
38970	BAKER & TAYLOR INC.		01/07/2020	02/14/2020	15.10	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			15.10			
2035034708								
38971	BAKER & TAYLOR INC.		01/07/2020	02/14/2020	892.85	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			892.85			
2035043508								
38972	BAKER & TAYLOR INC.		01/11/2020	02/14/2020	149.82	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			149.82			
2035043509								
38973	BAKER & TAYLOR INC.		01/11/2020	02/14/2020	113.23	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			113.23			
2035052689								
38974	BAKER & TAYLOR INC.		01/15/2020	02/14/2020	4.40	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			4.40			
2035052690								
38975	BAKER & TAYLOR INC.		01/15/2020	02/14/2020	430.16	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			430.16			
2035052691								
38976	BAKER & TAYLOR INC.		01/15/2020	02/14/2020	22.34	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			22.34			
2035052692								
38977	BAKER & TAYLOR INC.		01/15/2020	02/14/2020	93.46	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			93.46			
2035052693								
38978	BAKER & TAYLOR INC.		01/15/2020	02/14/2020	15.65	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			15.65			
2035055002								
38979	BAKER & TAYLOR INC.		01/16/2020	02/14/2020	11.39	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			11.39			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution		Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
2035055003								
38980	BAKER & TAYLOR INC.		01/16/2020	02/14/2020	384.11	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			384.11			
2035055004								
38981	BAKER & TAYLOR INC.		01/16/2020	02/14/2020	31.34	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			31.34			
2035057387								
38982	BAKER & TAYLOR INC.		01/17/2020	02/14/2020	77.61	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			77.61			
2035057388								
38983	BAKER & TAYLOR INC.		01/17/2020	02/14/2020	9.51	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			9.51			
2035057389								
38984	BAKER & TAYLOR INC.		01/17/2020	02/14/2020	486.33	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			486.33			
2035057390								
38985	BAKER & TAYLOR INC.		01/17/2020	02/14/2020	22.40	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			22.40			
2035070999								
39138	BAKER & TAYLOR INC.		01/24/2020	02/14/2020	418.07	0.00	Paid	Y
	BOOKS			CKIM				01/28/2020
	440-5700-532800	BOOKS			418.07			
2035068800								
39139	BAKER & TAYLOR INC.		01/23/2020	02/14/2020	27.11	0.00	Paid	Y
	BOOKS			CKIM				01/28/2020
	440-5700-532800	BOOKS			27.11			
2035068801								
39140	BAKER & TAYLOR INC.		01/23/2020	02/14/2020	9.51	0.00	Paid	Y
	BOOKS			CKIM				01/28/2020
	440-5700-532800	BOOKS			9.51			
2035068802								
39141	BAKER & TAYLOR INC.		01/23/2020	02/14/2020	118.32	0.00	Paid	Y
	BOOKS			CKIM				01/28/2020
	440-5700-532800	BOOKS			118.32			

Inv Num / Inv Ref#	Vendor	Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
2035068803								
39142	BAKER & TAYLOR INC.	BOOKS	01/23/2020	02/14/2020 CKIM	6.28	0.00	Paid	Y 01/28/2020
	440-5700-532800	BOOKS			6.28			
2035068804								
39143	BAKER & TAYLOR INC.	BOOKS	01/23/2020	02/14/2020 CKIM	37.01	0.00	Paid	Y 01/28/2020
	440-5700-532800	BOOKS			37.01			
2035085126								
39186	BAKER & TAYLOR INC.	BOOKS	01/31/2020	02/14/2020 CKIM	516.41	0.00	Paid	Y 02/04/2020
	440-5700-532800	BOOKS			516.41			
2035085127								
39187	BAKER & TAYLOR INC.	BOOKS	01/31/2020	02/14/2020 CKIM	3.14	0.00	Paid	Y 02/04/2020
	440-5700-532800	BOOKS			3.14			
2035085128								
39188	BAKER & TAYLOR INC.	BOOKS	01/31/2020	02/14/2020 CKIM	24.34	0.00	Paid	Y 02/04/2020
	440-5700-532800	BOOKS			24.34			
2035080718								
39192	BAKER & TAYLOR INC.	BOOKS	01/29/2020	02/14/2020 CKIM	21.59	0.00	Paid	Y 02/04/2020
	440-5700-532800	BOOKS			21.59			
2035080719								
39193	BAKER & TAYLOR INC.	BOOKS	01/29/2020	02/14/2020 CKIM	15.10	0.00	Paid	Y 02/04/2020
	440-5700-532800	BOOKS			15.10			
2035080720								
39194	BAKER & TAYLOR INC.	BOOKS	01/29/2020	02/14/2020 CKIM	74.65	0.00	Paid	Y 02/04/2020
	440-5700-532800	BOOKS			74.65			
2035080721								
39195	BAKER & TAYLOR INC.	BOOKS	01/29/2020	02/14/2020 CKIM	27.42	0.00	Paid	Y 02/04/2020
	440-5700-532800	BOOKS			27.42			
2035080722								
39196	BAKER & TAYLOR INC.	BOOKS	01/29/2020	02/14/2020 CKIM	16.35	0.00	Paid	Y 02/04/2020
	440-5700-532800	BOOKS			16.35			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution		Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
2035087654								
39210	BAKER & TAYLOR INC.		02/01/2020	02/14/2020	98.37	0.00	Paid	Y
	BOOKS			CKIM				02/05/2020
	440-5700-532800	BOOKS			98.37			
2035087655								
39211	BAKER & TAYLOR INC.		02/01/2020	02/14/2020	9.51	0.00	Paid	Y
	BOOKS			CKIM				02/05/2020
	440-5700-532800	BOOKS			9.51			
2035087656								
39212	BAKER & TAYLOR INC.		02/01/2020	02/14/2020	9.51	0.00	Paid	Y
	BOOKS			CKIM				02/05/2020
	440-5700-532800	BOOKS			9.51			
2035087657								
39213	BAKER & TAYLOR INC.		02/01/2020	02/14/2020	531.97	0.00	Paid	Y
	BOOKS			CKIM				02/05/2020
	440-5700-532800	BOOKS			531.97			
2035101559								
39321	BAKER & TAYLOR INC.		02/10/2020	02/14/2020	185.19	0.00	Paid	Y
	BOOKS			CKIM				02/14/2020
	440-5700-532800	BOOKS			185.19			
2035101560								
39322	BAKER & TAYLOR INC.		02/10/2020	02/14/2020	15.99	0.00	Paid	Y
	BOOKS			CKIM				02/14/2020
	440-5700-532800	BOOKS			15.99			
2035101561								
39323	BAKER & TAYLOR INC.		02/10/2020	02/14/2020	13.99	0.00	Paid	Y
	BOOKS			CKIM				02/14/2020
	440-5700-532800	BOOKS			13.99			
2035101562								
39324	BAKER & TAYLOR INC.		02/10/2020	02/14/2020	29.63	0.00	Paid	Y
	BOOKS			CKIM				02/14/2020
	440-5700-532800	BOOKS			29.63			
2035101563								
39325	BAKER & TAYLOR INC.		02/10/2020	02/14/2020	34.62	0.00	Paid	Y
	BOOKS			CKIM				02/14/2020
	440-5700-532800	BOOKS			34.62			
6761018								
39215	DEMCO		01/29/2020	02/14/2020	3,184.05	0.00	Paid	Y
	TECH SERVICES SUPPLIES			CKIM				02/05/2020
	440-5511-531100	SUPPLIES			3,184.05			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution		Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
69136445								
38986	CENGAGE LEARNING		01/06/2020	02/14/2020	98.36	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			98.36			
69170305								
38987	CENGAGE LEARNING		01/08/2020	02/14/2020	90.37	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			90.37			
69453304								
39217	CENGAGE LEARNING		01/22/2020	02/14/2020	25.59	0.00	Paid	Y
	BOOKS			CKIM				02/05/2020
	440-5700-532800	BOOKS			25.59			
69787930								
39287	CENGAGE LEARNING		02/05/2020	02/14/2020	55.98	0.00	Paid	Y
	BOOKS			CKIM				02/11/2020
	440-5700-532800	BOOKS			55.98			
69788869								
39289	CENGAGE LEARNING		02/05/2020	02/14/2020	109.56	0.00	Paid	Y
	BOOKS			CKIM				02/11/2020
	440-5700-532800	BOOKS			109.56			
3702376								
38992	QUILL LLC		01/03/2020	02/14/2020	38.16	0.00	Paid	Y
	OFFICE SUPPLIES			CKIM				01/22/2020
	440-5511-531100	SUPPLIES			38.16			
4043739								
38993	QUILL LLC		01/15/2020	02/14/2020	65.98	0.00	Paid	Y
	COPY PAPER			CKIM				01/22/2020
	440-5511-531100	SUPPLIES			65.98			
591482								
39243	UNIQUE MANAGEMENT		02/01/2020	02/14/2020	62.65	0.00	Paid	Y
	PLACEMENTS			CKIM				02/10/2020
	440-5511-531000	OUTSIDE SERVICES			62.65			
1746832								
39220	CENTER POINT LARGE PRINT		11/20/2019	02/14/2020	27.71	0.00	Paid	Y
	BOOK REPLACEMENT			CKIM				02/06/2020
	440-5700-532800	BOOKS			27.71			
JANUARY								
39172	CATHRYN KIM		02/14/2020	02/14/2020	11.50	0.00	Paid	Y
	SUPPLIES PURCHASES			CKIM				01/31/2020
	440-5511-533200	MILEAGE			11.50			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution		Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
1 2020								
39148	MUKWONAGO ROTARY CLUB		01/01/2020	02/14/2020	138.50	0.00	Paid	Y
	BREAKFAST & DUES			CKIM				01/28/2020
	440-5511-533300	OUTREACH			138.50			
MCGIVERN								
39216	MUKWONAGO ROTARY CLUB		01/16/2020	02/14/2020	100.00	0.00	Paid	Y
	MCGIVERN SPONSORSHIP			CKIM				02/05/2020
	440-5511-533300	OUTREACH			100.00			
AR104422								
38996	OFFICE COPYING EQUIPMENT		01/13/2020	02/14/2020	238.78	0.00	Paid	Y
	12/12/19-1/11/20 COPIES			CKIM				01/22/2020
	440-5511-531000	OUTSIDE SERVICES			238.78			
AR105045								
39144	OFFICE COPYING EQUIPMENT		01/23/2020	02/14/2020	11.63	0.00	Paid	Y
	TONER			CKIM				01/28/2020
	440-5511-531100	SUPPLIES			11.63			
B5848112								
38988	BRODART		01/14/2020	02/14/2020	367.60	0.00	Paid	Y
	BOOKS			CKIM				01/22/2020
	440-5700-532800	BOOKS			367.60			
B5856507								
39189	BRODART		01/28/2020	02/14/2020	460.21	0.00	Paid	Y
	BOOKS			CKIM				02/04/2020
	440-5700-532800	BOOKS			460.21			
B5858651								
39214	BRODART		01/30/2020	02/14/2020	400.13	0.00	Paid	Y
	BOOKS			CKIM				02/05/2020
	440-5700-532800	BOOKS			400.13			
B5862578								
39290	BRODART		02/05/2020	02/14/2020	506.05	0.00	Paid	Y
	BOOKS			CKIM				02/11/2020
	440-5700-532800	BOOKS			506.05			
20174								
39219	TAYLOR COMPUTER SERVICES,INC		02/13/2020	02/14/2020	375.92	0.00	Paid	Y
	FIREWALL			CKIM				02/06/2020
	440-5511-581100	EQUIPMENT (NON-CAPITALIZED)			375.92			
AZ1120								
39159	GREENE HELEENE		01/30/2020	02/14/2020	50.00	0.00	Paid	Y
	FRANCE PROGRAM FOOD			CKIM				01/30/2020
	440-5511-533100	PROGRAMMING			50.00			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
AZ1020							
39160	GREENE HELEENE	01/30/2020	02/14/2020	175.00	0.00	Paid	Y
	FRANCE PRESENTATION		CKIM				01/30/2020
	440-5511-533100 PROGRAMMING			175.00			
JANUARY							
39171	THE APPOINTED HOUSEWIFE	01/31/2020	02/14/2020	675.00	0.00	Paid	Y
	RESTROOM CLEANING		CKIM				01/31/2020
	440-5511-531000 OUTSIDE SERVICES			675.00			
4399							
39244	GRISHAM CRAIG	02/08/2020	02/14/2020	53.98	0.00	Paid	Y
	PLEXIGLASS/ USED OWN CREDIT CARD		CKIM				02/10/2020
	440-5511-531400 META SPACE EQUIPMENT & SUPPLIE			53.98			
33714360							
38995	JOHNSON CONTROLS SECURITY	01/11/2020	02/14/2020	989.26	0.00	Paid	Y
	2/1/20-4/30/20 SERVICE CONTRACT		CKIM				01/22/2020
	440-5511-522000 CONTRACTUAL SERVICES			989.26			
AZ0920							
39158	ZAHN DOUG	01/30/2020	02/14/2020	150.00	0.00	Paid	Y
	MAPLE SYRUP CLASS		CKIM				01/30/2020
	440-5511-533100 PROGRAMMING			150.00			
1920							
38991	MUREN SHAWNA	01/09/2020	02/14/2020	200.00	0.00	Paid	Y
	CHAIR YOGA 1/10 1/24 2/7 2/21		CKIM				01/22/2020
	440-5511-533100 PROGRAMMING			200.00			
2292020							
38989	STORYBOOK ENCHANTMENTS LLC	01/22/2020	02/14/2020	200.00	0.00	Paid	Y
	ANNA & ELSA MEET & GREET		CKIM				01/22/2020
	440-5511-533100 PROGRAMMING			200.00			
429							
39221	PONASIK JEFF	02/14/2020	02/14/2020	60.00	0.00	Paid	Y
	TAI CHI CLASS		CKIM				02/06/2020
	440-5511-533100 PROGRAMMING			60.00			
1237							
39170	SUNSET PLAYHOUSE	02/14/2020	02/14/2020	200.00	0.00	Paid	Y
	BUG IN A RUG THEATER		CKIM				01/31/2020
	440-5511-533100 PROGRAMMING			200.00			
25911							
39000	AMERICA AQUARIA	01/17/2020	02/14/2020	85.00	0.00	Paid	Y
	FISH TANK MAINTENANCE JANUARY		CKIM				01/22/2020
	440-5511-531000 OUTSIDE SERVICES			85.00			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution		Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
JANUARY								
39157	MICHELLE MICHALIK		01/31/2020	02/14/2020	23.70	0.00	Paid	Y
	OUTREACH MILEAGE			CKIM				01/30/2020
	440-5511-533200	MILEAGE			23.70			
2020-00000173								
39002	BRIDGES LIBRARY SYSTEM		01/20/2020	02/14/2020	21,099.00	0.00	Paid	Y
	CAFE ANNUAL SUPPORT			CKIM				01/22/2020
	440-5511-534100	CAF+¬			21,099.00			
2020-00000149								
39003	BRIDGES LIBRARY SYSTEM		01/20/2020	02/14/2020	2,439.00	0.00	Paid	Y
	GALE COURSES			CKIM				01/22/2020
	440-5511-534400	SHARED COUNTY DATABASES			2,439.00			
2020-00000101								
39004	BRIDGES LIBRARY SYSTEM		01/20/2020	02/14/2020	1,670.00	0.00	Paid	Y
	FLIPSTER MAGAZINE			CKIM				01/22/2020
	440-5511-534400	SHARED COUNTY DATABASES			1,670.00			
2020-00000125								
39005	BRIDGES LIBRARY SYSTEM		01/20/2020	02/14/2020	2,991.00	0.00	Paid	Y
	ADVANTAGE PROGRAM			CKIM				01/22/2020
	440-5511-534400	SHARED COUNTY DATABASES			2,991.00			
2020-00000053								
39006	BRIDGES LIBRARY SYSTEM		01/20/2020	02/14/2020	434.00	0.00	Paid	Y
	MOVIE LICENSING			CKIM				01/22/2020
	440-5511-534400	SHARED COUNTY DATABASES			434.00			
2020-00000077								
39007	BRIDGES LIBRARY SYSTEM		01/20/2020	02/14/2020	1,093.00	0.00	Paid	Y
	SHARE OF DATABASE COST			CKIM				01/22/2020
	440-5511-534400	SHARED COUNTY DATABASES			1,093.00			
2020-00000027								
39008	BRIDGES LIBRARY SYSTEM		01/20/2020	02/14/2020	331.80	0.00	Paid	Y
	CAFE CARDS			CKIM				01/22/2020
	440-5511-531100	SUPPLIES			331.80			
2020-00000005								
39146	BRIDGES LIBRARY SYSTEM		01/14/2020	02/14/2020	324.00	0.00	Paid	Y
	BOOKPAGE			CKIM				01/28/2020
	440-5511-532700	NEWSPAPERS			324.00			
22020								
39145	MUELLER AMY		02/14/2020	02/14/2020	100.00	0.00	Paid	Y
	SHAKE RATTLE & ROLL FEBRUARY			CKIM				01/28/2020
	440-5511-533100	PROGRAMMING			100.00			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution		Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
63424								
39001	BAYSCAN TECHNOLOGIES		01/16/2020	02/14/2020	185.00	0.00	Paid	Y
	LABELS			CKIM				01/22/2020
	440-5511-531100	SUPPLIES			185.00			
171								
38994	AMERICANA FLOWER STATION		01/13/2020	02/14/2020	165.00	0.00	Paid	Y
	OUTSIDE PLANTER DECOR			CKIM				01/22/2020
	440-5890-580600	DONATED FUND EXPENDITURES			165.00			
IMIL1525788								
38999	ALSCO		01/09/2020	02/14/2020	86.09	0.00	Paid	Y
	MATS & DUSTERS			CKIM				02/14/2020
	440-5511-531100	SUPPLIES			86.09			
IMIL1535582								
39218	ALSCO		02/06/2020	02/14/2020	63.49	0.00	Paid	Y
	MATS & DUSTERS			CKIM				02/06/2020
	440-5511-531100	SUPPLIES			63.49			
504258497								
39147	MOTION PICTURE LICENSING CORP		01/01/2020	02/14/2020	213.36	0.00	Paid	Y
	MOVIE LICENSE			CKIM				01/28/2020
	440-5511-533100	PROGRAMMING			213.36			
227								
39156	JEFF POCKAT		01/23/2020	02/14/2020	250.00	0.00	Paid	Y
	GAELIC HARPER PROGRAM			CKIM				01/30/2020
	440-5511-533100	PROGRAMMING			250.00			
2020								
39222	MILWAUKEE ART MUSEUM		02/14/2020	02/14/2020	600.00	0.00	Paid	Y
	ART MUSEUM MEMBERSHIP			CKIM				02/07/2020
	440-5890-580600	DONATED FUND EXPENDITURES			600.00			
AZ2420								
39344	PERUVIAN ASSOCIATION OF MILWAUKEE		02/13/2020	02/14/2020	100.00	0.00	Paid	Y
	CULTURAL SHOWCASE DANCERS			CKIM				02/14/2020
	440-5890-580600	DONATED FUND EXPENDITURES			100.00			

INVOICE REGISTER REPORT FOR MUKWONAGO
EXP CHECK RUN DATES 02/14/2020 - 02/14/2020
JOURNALIZED PAID
BANK CODE: GEN - CHECK TYPE: PAPER CHECK

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date / Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnlized / Post Date
# of Invoices:	88	# Due: 0	Totals:	46,379.19	0.00		
# of Credit Memos:	0	# Due: 0	Totals:	0.00	0.00		
Net of Invoices and Credit Memos:				46,379.19	0.00		

--- TOTALS BY GL DISTRIBUTION ---

440-5511-522000	CONTRACTUAL SERVICES	989.26
440-5511-531000	OUTSIDE SERVICES	1,061.43
440-5511-531100	SUPPLIES	3,966.20
440-5511-531400	META SPACE EQUIPMENT & SUPPLIE	53.98
440-5511-532700	NEWSPAPERS	324.00
440-5511-533100	PROGRAMMING	1,598.36
440-5511-533200	MILEAGE	35.20
440-5511-533300	OUTREACH	238.50
440-5511-534100	CAF+¬	21,099.00
440-5511-534400	SHARED COUNTY DATABASES	8,627.00
440-5511-581100	EQUIPMENT (NON-CAPITALIZED)	375.92
440-5700-532800	BOOKS	7,145.34
440-5890-580600	DONATED FUND EXPENDITURES	865.00

--- TOTALS BY FUND ---

440 - LIBRARY FUND	46,379.19	0.00

--- TOTALS BY DEPT/ACTIVITY ---

5511 - LIBRARY SERVICES	38,368.85	0.00
5700 - CAPITAL OUTLAY EXPENDITURES	7,145.34	0.00
5890 - USE OF DESIGNATED FUNDS	865.00	0.00

INVOICE REGISTER REPORT FOR MUKWONAGO
INVOICE DUE DATES 02/14/2020 - 02/14/2020
JOURNALIZED PAID
BANK CODE: GEN - CHECK TYPE: EFT

Inv Num / Inv Ref#	Vendor / Description / GL Distribution		Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
JAN-FEB								
39587	TIME WARNER CABLE		01/28/2020	02/14/2020	2,959.44	0.00	Paid	Y
	MONTHLY BILL 1/27/2020 - 2/27/2020			rgallo				01/30/2020
	100-5120-522500	TELEPHONE			79.08			
	100-5141-522500	TELEPHONE			87.00			
	100-5142-522500	TELEPHONE			157.00			
	100-5144-521900	PROFESSIONAL SERVICES			26.48			
	100-5211-522500	TELEPHONE			838.63			
	100-5241-522500	TELEPHONE			44.28			
	100-5323-522500	TELEPHONE			79.79			
	100-5512-522500	TELEPHONE			166.96			
	150-5221-522500	TELEPHONE			797.39			
	220-5140-522500	TELEPHONE-TID			2.53			
	410-5363-522500	Telephone			5.06			
	440-5511-522500	TELEPHONE			586.60			
	500-5344-522500	Telephone			2.53			
	610-6920-692100	OFFICE SUPPLIES & EXPENSES			43.05			
	620-8400-851000	OFFICE SUPPLIES & EXPENSES			43.06			

# of Invoices:	1	# Due: 0	Totals:	2,959.44	0.00
# of Credit Memos:	0	# Due: 0	Totals:	0.00	0.00
Net of Invoices and Credit Memos:				2,959.44	0.00

--- TOTALS BY GL DISTRIBUTION ---

100-5120-522500	TELEPHONE	79.08
100-5141-522500	TELEPHONE	87.00
100-5142-522500	TELEPHONE	157.00
100-5144-521900	PROFESSIONAL SERVICES	26.48
100-5211-522500	TELEPHONE	838.63
100-5241-522500	TELEPHONE	44.28
100-5323-522500	TELEPHONE	79.79
100-5512-522500	TELEPHONE	166.96
150-5221-522500	TELEPHONE	797.39
220-5140-522500	TELEPHONE-TID	2.53
410-5363-522500	Telephone	5.06
440-5511-522500	TELEPHONE	586.60
500-5344-522500	Telephone	2.53
610-6920-692100	OFFICE SUPPLIES & EXPENSES	43.05
620-8400-851000	OFFICE SUPPLIES & EXPENSES	43.06

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
	--- TOTALS BY FUND ---						
	100 - GENERAL FUND			1,479.22	0.00		
	150 - FIRE/AMBULANCE FUND			797.39	0.00		
	220 - TID#3 - GENERAL			2.53	0.00		
	410 - RECYCLING FUND			5.06	0.00		
	440 - LIBRARY FUND			586.60	0.00		
	500 - STORM WATER UTILITY			2.53	0.00		
	610 - WATER UTILITY FUND			43.05	0.00		
	620 - SEWER UTILITY FUND			43.06	0.00		
	--- TOTALS BY DEPT/ACTIVITY ---						
	5120 - MUNICIPAL COURT			79.08	0.00		
	5140 - ADMINISTRATIVE & GENERAL			2.53	0.00		
	5141 - VILLAGE ADMINISTRATION/FINA			87.00	0.00		
	5142 - CLERK-TREASURER			157.00	0.00		
	5144 - ELECTIONS			26.48	0.00		
	5211 - POLICE ADMINISTRATION			838.63	0.00		
	5221 - FIRE ADMINISTRATION			797.39	0.00		
	5241 - BUILDING INSPECTOR			44.28	0.00		
	5323 - GARAGE			79.79	0.00		
	5344 - STORM SEWER			2.53	0.00		
	5363 - RECYCLING			5.06	0.00		
	5511 - LIBRARY SERVICES			586.60	0.00		
	5512 - MUSEUM			166.96	0.00		
	6920 - ADMINISTRATIVE & GENERAL EX			43.05	0.00		
	8400 - ADMINISTRATIVE & GENERAL			43.06	0.00		

INVOICE REGISTER REPORT FOR MUKWONAGO
EXP CHECK RUN DATES 02/28/2020 - 02/28/2020
BOTH JOURNALIZED AND UNJOURNALIZED PAID
BANK CODE: GEN - CHECK TYPE: EFT

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
20200202							
39609	WE ENERGIES	02/02/2020	03/05/2020	1,177.56	0.00	Paid	Y
	6819-119-729 Hall		rgallo				02/28/2020
	100-5160-522200 6819-119-729 Hall			1,177.56			
20200202							
39610	WE ENERGIES	02/02/2020	03/05/2020	374.48	0.00	Paid	Y
	6819-119-729 Hall Gas		rgallo				02/28/2020
	100-5160-522400 6819-119-729 Hall Gas			374.48			
20200202							
39611	WE ENERGIES	02/02/2020	03/05/2020	9.64	0.00	Paid	Y
	0437-358-622 Flashers		rgallo				02/28/2020
	100-5211-522200 0437-358-622 Flashers			9.64			
20200202							
39612	WE ENERGIES	02/02/2020	03/05/2020	44.36	0.00	Paid	Y
	5000-725-767 PD Tower meter #05662		rgallo				02/28/2020
	100-5211-522200 5000-725-767 PD Tower meter #05662			44.36			
20200202							
39613	WE ENERGIES	02/02/2020	03/05/2020	19.10	0.00	Paid	Y
	8818-483-919 Tower Radio Bldg		rgallo				02/28/2020
	100-5211-522200 8818-483-919 Tower Radio Bldg			19.10			
20200202							
39614	WE ENERGIES	02/02/2020	03/05/2020	1,847.78	0.00	Paid	Y
	7410-051-890 Police		rgallo				02/28/2020
	100-5211-522200 7410-051-890 Police			1,847.78			
20200202							
39615	WE ENERGIES	02/02/2020	03/05/2020	118.90	0.00	Paid	Y
	8011-380-768 Police Garage		rgallo				02/28/2020
	100-5211-522200 8011-380-768 Police Garage			118.90			
20200202							
39616	WE ENERGIES	02/02/2020	03/05/2020	27.09	0.00	Paid	Y
	7879-450-073 Mukw Dam		rgallo				02/28/2020
	100-5254-522200 7879-450-073 Mukw Dam			27.09			
20200202							
39617	WE ENERGIES	02/02/2020	03/05/2020	442.17	0.00	Paid	Y
	3893-949-966 DPW Elec		rgallo				02/28/2020
	100-5323-522200 3893-949-966 DPW Elec			442.17			
20200202							
39618	WE ENERGIES	02/02/2020	03/05/2020	690.32	0.00	Paid	Y
	3608-115-165 DPW Gas		rgallo				02/28/2020
	100-5323-522400 3608-115-165 DPW Gas			690.32			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
20200202							
39619	WE ENERGIES	02/02/2020	03/05/2020	10,882.82	0.00	Paid	Y
	5001-021-384 Street Lights		rgallo				02/28/2020
	100-5342-522200 5001-021-384 Street Lights			10,882.82			
20200202							
39620	WE ENERGIES	02/02/2020	03/05/2020	2,467.76	0.00	Paid	Y
	8808-380-714 Street Lights		rgallo				02/28/2020
	100-5342-522200 8808-380-714 Street Lights			2,467.76			
20200202							
39621	WE ENERGIES	02/02/2020	03/05/2020	79.31	0.00	Paid	Y
	1438-746-449 Street Lights		rgallo				02/28/2020
	100-5342-522200 1438-746-449 Street Lights			79.31			
20200202							
39622	WE ENERGIES	02/02/2020	03/05/2020	17.06	0.00	Paid	Y
	0647-211-550 School Crossing Lights		rgallo				02/28/2020
	100-5342-522200 0647-211-550 School Crossing Lights			17.06			
20200202							
39623	WE ENERGIES	02/02/2020	03/05/2020	293.04	0.00	Paid	Y
	0659-874-941 Museum		rgallo				02/28/2020
	100-5512-522200 0659-874-941 Museum			293.04			
20200202							
39624	WE ENERGIES	02/02/2020	03/05/2020	102.94	0.00	Paid	Y
	2405-680-633 Andrews St.		rgallo				02/28/2020
	100-5521-522200 2405-680-633 Andrews St.			102.94			
20200202							
39625	WE ENERGIES	02/02/2020	03/05/2020	118.51	0.00	Paid	Y
	8046-699-403 Field Park		rgallo				02/28/2020
	100-5521-522200 8046-699-403 Field Park			118.51			
20200202							
39626	WE ENERGIES	02/02/2020	03/05/2020	21.02	0.00	Paid	Y
	8658-233-953 Fld Prk Baseball Lights		rgallo				02/28/2020
	100-5521-522200 8658-233-953 Fld Prk Baseball Lights			21.02			
20200202							
39627	WE ENERGIES	02/02/2020	03/05/2020	30.15	0.00	Paid	Y
	6837-391-587 Parks		rgallo				02/28/2020
	100-5521-522200 6837-391-587 Parks			30.15			
20200202							
39628	WE ENERGIES	02/02/2020	03/05/2020	68.37	0.00	Paid	Y
	5864-823-491 Concession Building		rgallo				02/28/2020
	100-5521-522200 5864-823-491 Concession Building			68.37			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
20200202							
39629	WE ENERGIES	02/02/2020	03/05/2020	0.00	0.00	Paid	Y
	2054-702-968 Parks		rgallo				02/28/2020
	100-5521-522200 2054-702-968 Parks			0.00			
20200202							
39630	WE ENERGIES	02/02/2020	03/05/2020	19.83	0.00	Paid	Y
	3277-621-318 F. Park Sump Pump		rgallo				02/28/2020
	100-5521-522200 3277-621-318 F. Park Sump Pump			19.83			
20200202							
39631	WE ENERGIES	02/02/2020	03/05/2020	34.28	0.00	Paid	Y
	1610-585-380 Parks		rgallo				02/28/2020
	100-5521-522200 1610-585-380 Parks			34.28			
20200202							
39632	WE ENERGIES	02/02/2020	03/05/2020	26.00	0.00	Paid	Y
	3051-426-864 Miniwaukan Pavilion		rgallo				02/28/2020
	100-5521-522200 3051-426-864 Miniwaukan Pavilion			26.00			
20200202							
39633	WE ENERGIES	02/02/2020	03/05/2020	23.33	0.00	Paid	Y
	6881-040-700 Miniwauken Park		rgallo				02/28/2020
	100-5521-522200 6881-040-700 Miniwauken Park			23.33			
20200202							
39634	WE ENERGIES	02/02/2020	03/05/2020	2,213.19	0.00	Paid	Y
	7698-426-664 Fire		rgallo				02/28/2020
	150-5221-522200 7698-426-664 Fire			2,213.19			
20200202							
39635	WE ENERGIES	02/02/2020	03/05/2020	2,671.91	0.00	Paid	Y
	9248-740-506 Library Elec		rgallo				02/28/2020
	440-5511-522200 9248-740-506 Library Elec			2,671.91			
20200202							
39636	WE ENERGIES	02/02/2020	03/05/2020	1,383.49	0.00	Paid	Y
	4843-559-306 Library Gas		rgallo				02/28/2020
	440-5511-522400 4843-559-306 Library Gas			1,383.49			
20200202							
39637	WE ENERGIES	02/02/2020	03/05/2020	618.34	0.00	Paid	Y
	9069-575-087 Well #3 Elec		rgallo				02/28/2020
	610-6200-662200 9069-575-087 Well #3 Elec			618.34			
20200202							
39638	WE ENERGIES	02/02/2020	03/05/2020	36.55	0.00	Paid	Y
	4400-457-029 Well #3 Gas		rgallo				02/28/2020
	610-6200-662200 4400-457-029 Well #3 Gas			36.55			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
20200202							
39639	WE ENERGIES	02/02/2020	03/05/2020	925.82	0.00	Paid	Y
	2409-366-321 Well #4 Elec		rgallo				02/28/2020
	610-6200-662200	2409-366-321 Well #4 Elec		925.82			
20200202							
39640	WE ENERGIES	02/02/2020	03/05/2020	185.04	0.00	Paid	Y
	0465-443-270 Well #4 Gas		rgallo				02/28/2020
	610-6200-662200	0465-443-270 Well #4 Gas		185.04			
20200202							
39641	WE ENERGIES	02/02/2020	03/05/2020	2,934.47	0.00	Paid	Y
	0801-988-732 Well #5		rgallo				02/28/2020
	610-6200-662200	0801-988-732 Well #5		2,934.47			
20200202							
39642	WE ENERGIES	02/02/2020	03/05/2020	1,351.28	0.00	Paid	Y
	4607-813-092 Well #6		rgallo				02/28/2020
	610-6200-662200	4607-813-092 Well #6		1,351.28			
20200202							
39643	WE ENERGIES	02/02/2020	03/05/2020	1,637.46	0.00	Paid	Y
	3234-559-591 Well #7		rgallo				02/28/2020
	610-6200-662200	3234-559-591 Well #7		1,637.46			
20200202							
39644	WE ENERGIES	02/02/2020	03/05/2020	342.25	0.00	Paid	Y
	9291-834-028 Greenwald		rgallo				02/28/2020
	610-6200-662200	9291-834-028 Greenwald		342.25			
20200202							
39645	WE ENERGIES	02/02/2020	03/05/2020	843.94	0.00	Paid	Y
	8016-691-668 Booster Station		rgallo				02/28/2020
	610-6200-662200	8016-691-668 Booster Station		843.94			
20200202							
39646	WE ENERGIES	02/02/2020	03/05/2020	32.04	0.00	Paid	Y
	3068-463-180 Tower		rgallo				02/28/2020
	610-6200-662200	3068-463-180 Tower		32.04			
20200202							
39647	WE ENERGIES	02/02/2020	03/05/2020	627.52	0.00	Paid	Y
	7843-678-578 Atkinson Pump		rgallo				02/28/2020
	620-8020-821000	7843-678-578 Atkinson Pump		627.52			
20200202							
39648	WE ENERGIES	02/02/2020	03/05/2020	193.72	0.00	Paid	Y
	8238-765-652 Fox River View		rgallo				02/28/2020
	620-8020-821000	8238-765-652 Fox River View		193.72			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
20200202							
39649	WE ENERGIES	02/02/2020	03/05/2020	123.43	0.00	Paid	Y
	6478-966-911 1224 Riverton		rgallo				02/28/2020
	620-8020-821000	6478-966-911 1224 Riverton		123.43			
20200202							
39650	WE ENERGIES	02/02/2020	03/05/2020	162.00	0.00	Paid	Y
	8051-462-203 1240 N. Rochester		rgallo				02/28/2020
	620-8020-821000	8051-462-203 1240 N. Rochester		162.00			
20200202							
39651	WE ENERGIES	02/02/2020	03/05/2020	10,288.54	0.00	Paid	Y
	7282-806-809 Holz Elec		rgallo				02/28/2020
	620-8010-821100	7282-806-809 Holz Elec		10,288.54			
20200202							
39652	WE ENERGIES	02/02/2020	03/05/2020	216.81	0.00	Paid	Y
	2404-776-809 Holz Gas		rgallo				02/28/2020
	620-8010-821200	2404-776-809 Holz Gas		216.81			
20200202							
39653	WE ENERGIES	02/02/2020	03/05/2020	2,050.74	0.00	Paid	Y
	9276-498-259 Digester Gas		rgallo				02/28/2020
	620-8010-821200	9276-498-259 Digester Gas		2,050.74			
20200202							
39654	WE ENERGIES	02/02/2020	03/05/2020	38.12	0.00	Paid	Y
	2008-500-143 Parks-200 S Rochester		rgallo				02/28/2020
	100-5342-522200	2008-500-143 Parks-200 S Rochester		38.12			
20200202							
39655	WE ENERGIES	02/02/2020	03/05/2020	65.22	0.00	Paid	Y
	6482-485-554 police-CTH E N of		rgallo				02/28/2020
	100-5211-522200	6482-485-554 police-CTH E N of Sugden		65.22			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date / Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnlized / Post Date

# of Invoices:	47	# Due:	0	Totals:	47,877.70	0.00
# of Credit Memos:	0	# Due:	0	Totals:	0.00	0.00
Net of Invoices and Credit Memos:					47,877.70	0.00

--- TOTALS BY GL DISTRIBUTION ---

100-5160-522200	6819-119-729	Hall	1,177.56
100-5160-522400	6819-119-729	Hall Gas	374.48
100-5211-522200	0437-358-622	Flashers	2,105.00
100-5254-522200	7879-450-073	Mukw Dam	27.09
100-5323-522200	3893-949-966	DPW Elec	442.17
100-5323-522400	3608-115-165	DPW Gas	690.32
100-5342-522200	5001-021-384	Street Lights	13,485.07
100-5512-522200	0659-874-941	Museum	293.04
100-5521-522200	2405-680-633	Andrews St.	444.43
150-5221-522200	7698-426-664	Fire	2,213.19
440-5511-522200	9248-740-506	Library Elec	2,671.91
440-5511-522400	4843-559-306	Library Gas	1,383.49
610-6200-662200	9069-575-087	Well #3 Elec	8,907.19
620-8010-821100	7282-806-809	Holz Elec	10,288.54
620-8010-821200	2404-776-809	Holz Gas	2,267.55
620-8020-821000	7843-678-578	Atkinson Pump	1,106.67

--- TOTALS BY FUND ---

100 - GENERAL FUND	19,039.16	0.00
150 - FIRE/AMBULANCE FUND	2,213.19	0.00
440 - LIBRARY FUND	4,055.40	0.00
610 - WATER UTILITY FUND	8,907.19	0.00
620 - SEWER UTILITY FUND	13,662.76	0.00

--- TOTALS BY DEPT/ACTIVITY ---

5160 - VILLAGE HALL	1,552.04	0.00
5211 - POLICE ADMINISTRATION	2,105.00	0.00
5221 - FIRE ADMINISTRATION	2,213.19	0.00
5254 - DAMS	27.09	0.00
5323 - GARAGE	1,132.49	0.00
5342 - STREET LIGHTING	13,485.07	0.00
5511 - LIBRARY SERVICES	4,055.40	0.00
5512 - MUSEUM	293.04	0.00
5521 - PARKS	444.43	0.00
6200 - PUMPING OPERATIONS	8,907.19	0.00
8010 - WWTP-TREATMENT/DISPOSAL/GP	12,556.09	0.00
8020 - LIFT STATIONS/PUMPING EQUIP	1,106.67	0.00

INVOICE REGISTER REPORT FOR MUKWONAGO
EXP CHECK RUN DATES 02/26/2020 - 02/26/2020
JOURNALIZED PAID
BANK CODE: GEN - CHECK TYPE: EFT

Inv Num / Inv Ref#	Vendor / Description / GL Distribution		Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
BITTNER RONALD								
39371	CHENS KITCHEN		01/23/2020	02/26/2020	99.23	0.00	Paid	Y
	PW AND UTIL LUNCH			rgallo				02/18/2020
	100-5141-539800	EMPLOYEE RECOGNITION			99.23			
BITTNER RONALD								
39372	HEIN ELECTRIC SUPPLY CO		01/24/2020	02/26/2020	712.90	0.00	Paid	Y
	VH LED LIGHTING			rgallo				02/18/2020
	100-5160-582100	IMPROVEMENTS			712.90			
BITTNER RONALD								
39373	HEIN ELECTRIC SUPPLY CO		01/24/2020	02/26/2020	71.65	0.00	Paid	Y
	LED FLOOD LIGHT			rgallo				02/18/2020
	100-5521-531100	SUPPLIES			71.65			
BITTNER RONALD								
39374	HEIN ELECTRIC SUPPLY CO		01/27/2020	02/26/2020	392.50	0.00	Paid	Y
	VILLAGE HALL LED T8 LIGHTS			rgallo				02/18/2020
	100-5160-582100	IMPROVEMENTS			392.50			
BITTNER RONALD								
39375	WAUK CO PARK AND LAND USE		01/29/2020	02/26/2020	240.00	0.00	Paid	Y
	BEN AND RON STORMWATER WORKSHOP			rgallo				02/18/2020
	100-5660-535200	STORMWATER COMPLIANCE EXPENSE			240.00			
BITTNER RONALD								
39376	MENARDS JOHNSON CREEK WI		01/31/2020	02/26/2020	31.16	0.00	Paid	Y
	SHOP AIR HOSE REEL			rgallo				02/18/2020
	100-5323-531100	SUPPLIES			31.16			
BITTNER RONALD								
39377	AMZN MKTP US*DZ5ZW8K63		01/31/2020	02/26/2020	186.72	0.00	Paid	Y
	TRUCK LIGHTS			rgallo				02/18/2020
	100-5324-539500	REPAIRS & MAINTENANCE			186.72			
BITTNER RONALD								
39378	HEIN ELECTRIC SUPPLY CO		02/05/2020	02/26/2020	43.00	0.00	Paid	Y
	VILLAGE NORTH ENTRY LIGHT			rgallo				02/18/2020
	100-5160-531100	SUPPLIES			43.00			
BITTNER RONALD								
39379	HEIN ELECTRIC SUPPLY CO		02/05/2020	02/26/2020	214.67	0.00	Paid	Y
	VH FLAT PANEL LED			rgallo				02/18/2020
	100-5160-582100	IMPROVEMENTS			214.67			
DELIKAT CODY								
39380	OFFICEMAX/DEPOT 6869		01/15/2020	02/26/2020	899.91	0.00	Paid	Y
	WATER / SEWER OFFICE CHAIRS			rgallo				02/18/2020
	610-6920-692100	OFFICE SUPPLIES & EXPENSES			449.91			
	620-8400-851000	OFFICE SUPPLIES & EXPENSES			450.00			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
	DELIKAT CODY						
39381	THE HOME DEPOT #4921	01/15/2020	02/26/2020	13.91	0.00	Paid	Y
	WWTF TOOLS		rgallo				02/18/2020
	620-8010-827000	OPERATION SUPPLY/EXPENSE		13.91			
	DELIKAT CODY						
39382	AMZN MKTP US*H30RI74B3	01/31/2020	02/26/2020	50.97	0.00	Paid	Y
	WATER TESTING		rgallo				02/18/2020
	610-6300-663200	OPERATION SUPPLY/EXP-TREATMENT		50.97			
	DELIKAT CODY						
39383	AMZN MKTP US	02/03/2020	02/26/2020	(50.97)	0.00	Paid	Y
	WATER TESTING REFUNDS		rgallo				02/18/2020
	610-6300-663200	OPERATION SUPPLY/EXP-TREATMENT		(50.97)			
	DELIKAT CODY						
39384	AMZN MKTP US*V897A02L3	02/03/2020	02/26/2020	50.97	0.00	Paid	Y
	WATER TESTING		rgallo				02/18/2020
	610-6300-663200	OPERATION SUPPLY/EXP-TREATMENT		50.97			
	DOHERTY DIANA						
39385	GOVERNMENT FINANCE OFFIC	01/17/2020	02/26/2020	275.00	0.00	Paid	Y
	GFOA BOOK & 3 WEBINAR TRAININGS		rgallo				02/18/2020
	100-5141-533500	TRAINING & TRAVEL		275.00			
	DOHERTY DIANA						
39386	MUNICIPAL TREASURERS A	02/08/2020	02/26/2020	55.00	0.00	Paid	Y
	MTAW 2020 DUES		rgallo				02/18/2020
	100-5141-532400	MEMBERSHIP DUES		55.00			
	DOHERTY DIANA						
39387	LOCAL GOVERNMENT EDUCATIO	02/08/2020	02/26/2020	25.00	0.00	Paid	Y
	WGFOA 2020 DUES		rgallo				02/18/2020
	100-5141-532400	MEMBERSHIP DUES		25.00			
	DYKSTRA DIANA						
39388	WAL-MART #1571	01/15/2020	02/26/2020	24.25	0.00	Paid	Y
	EMPLOYEE BANQUET		rgallo				02/18/2020
	100-5141-539800	EMPLOYEE RECOGNITION		24.25			
	DYKSTRA DIANA						
39389	INTERNATIONAL INSTITUTE O	01/22/2020	02/26/2020	195.00	0.00	Paid	Y
	IIMC MEMBERSHIP		rgallo				02/18/2020
	100-5142-532400	IIMC MEMBERSHIP		195.00			
	DYKSTRA DIANA						
39390	AMZN MKTP US*0S2TI43H3	01/23/2020	02/26/2020	61.96	0.00	Paid	Y
	ELECTION SUPPLIES VARIOUS		rgallo				02/18/2020
	100-5144-531100	ELECTION SUPPLIES VARIOUS		61.96			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
DYKSTRA DIANA							
39391	MOY'S RESTAURANT	01/24/2020	02/26/2020	23.10	0.00	Paid	Y
	WAL CO CLERK MTG - LUNCH 2		rgallo				02/18/2020
	100-5144-533500 WAL CO CLERK MTG - LUNCH 2			23.10			
DYKSTRA DIANA							
39392	AMZN MKTP US*BU3BR3R73	02/02/2020	02/26/2020	141.11	0.00	Paid	Y
	DYMO LABELER DEPUTY - ELECTIONS		rgallo				02/18/2020
	100-5144-531100 DYMO LABELER DEPUTY - ELECTIONS			141.11			
DYKSTRA DIANA							
39393	AMAZON.COM*J87XC0YU3 AMZN	02/10/2020	02/26/2020	36.58	0.00	Paid	Y
	MICROPHONE COVERS BOARD ROOM		rgallo				02/18/2020
	100-5111-539900 MICROPHONE COVERS BOARD ROOM			36.58			
FRISCH LAURA L							
39394	AMZN MKTP US*1G6H850O3	01/15/2020	02/26/2020	354.77	0.00	Paid	Y
	PROGRAM SUPPLIES		rgallo				02/18/2020
	440-5511-533100 PROGRAMMING			354.77			
FRISCH LAURA L							
39395	HOBBY LOBBY #560	01/15/2020	02/26/2020	45.82	0.00	Paid	Y
	PROGRAM SUPPLIES		rgallo				02/18/2020
	440-5511-533100 PROGRAMMING			45.82			
FRISCH LAURA L							
39396	AMZN MKTP US*3Q3V95YH3	01/16/2020	02/26/2020	39.09	0.00	Paid	Y
	PROGRAM SUPPLIES		rgallo				02/18/2020
	440-5511-533100 PROGRAMMING			39.09			
FRISCH LAURA L							
39397	STAPLS0180806186000001	01/17/2020	02/26/2020	152.75	0.00	Paid	Y
	OFFICE SUPPLIES		rgallo				02/18/2020
	440-5511-531100 SUPPLIES			152.75			
FRISCH LAURA L							
39398	FACEBK *TSW4RPEY82	01/19/2020	02/26/2020	145.68	0.00	Paid	Y
	SPECIAL EVENT AD		rgallo				02/18/2020
	440-5890-580600 DONATED FUND EXPENDITURES			145.68			
FRISCH LAURA L							
39399	AMZN MKTP US*I63LT6NM3	01/20/2020	02/26/2020	35.99	0.00	Paid	Y
	GAMES FOR PROGRAM		rgallo				02/18/2020
	440-5511-533100 PROGRAMMING			35.99			
FRISCH LAURA L							
39400	AMZN MKTP US*DA8TV0DT3	01/20/2020	02/26/2020	68.29	0.00	Paid	Y
	PROGRAM SUPPLIES		rgallo				02/18/2020
	440-5511-533100 PROGRAMMING			68.29			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
	FRISCH LAURA L						
39401	WAL-MART #1571	01/22/2020	02/26/2020	39.33	0.00	Paid	Y
	PROGRAM SUPPLIES		rgallo				02/18/2020
	440-5511-533100 PROGRAMMING			39.33			
	FRISCH LAURA L						
39402	FUN EXPRESS	01/22/2020	02/26/2020	24.37	0.00	Paid	Y
	PROGRAM SUPPLIES		rgallo				02/18/2020
	440-5511-533100 PROGRAMMING			24.37			
	FRISCH LAURA L						
39403	NASSCO INC	01/24/2020	02/26/2020	154.88	0.00	Paid	Y
	VACUUM CLEANER PARTS		rgallo				02/18/2020
	440-5511-531100 SUPPLIES			154.88			
	FRISCH LAURA L						
39404	WAL-MART #1571	01/27/2020	02/26/2020	38.69	0.00	Paid	Y
	PROGRAM SUPPLIES		rgallo				02/18/2020
	440-5511-531400 META SPACE EQUIPMENT & SUPPLIE			38.69			
	FRISCH LAURA L						
39405	STAPLS0181125697000001	01/30/2020	02/26/2020	66.73	0.00	Paid	Y
	INK		rgallo				02/18/2020
	440-5511-531100 SUPPLIES			66.73			
	FRISCH LAURA L						
39406	WAL-MART #1571	01/31/2020	02/26/2020	57.96	0.00	Paid	Y
	SUPPLIES		rgallo				02/18/2020
	440-5511-531100 SUPPLIES			57.96			
	FRISCH LAURA L						
39407	FACEBK *HWP75RSX82	02/01/2020	02/26/2020	250.00	0.00	Paid	Y
	AD FOR SPECIAL EVENT		rgallo				02/18/2020
	440-5890-580600 DONATED FUND EXPENDITURES			250.00			
	FRISCH LAURA L						
39408	MAILCHIMP *MONTHLY	02/08/2020	02/26/2020	59.99	0.00	Paid	Y
	NEWSLETTER		rgallo				02/18/2020
	440-5511-534000 DIGITAL MATERIALS			59.99			
	FRISCH LAURA L						
39409	USPS PO 5657100149	02/10/2020	02/26/2020	110.00	0.00	Paid	Y
	STAMPS		rgallo				02/18/2020
	440-5511-531500 POSTAGE			110.00			
	FRISCH LAURA L						
39410	WAL-MART #1571	02/10/2020	02/26/2020	12.96	0.00	Paid	Y
	PROGRAM SUPPLIES		rgallo				02/18/2020
	440-5511-533100 PROGRAMMING			12.96			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution		Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
	FRISCH LAURA L							
39411	AMAZON.COM*UN8EH5H13 AMZN		02/12/2020	02/26/2020	174.57	0.00	Paid	Y
	SHELVING UNITS			rgallo				02/18/2020
	440-5511-531100	SUPPLIES			174.57			
	FRISCH LAURA L							
39412	AMZN MKTP US*L524Z4693		02/13/2020	02/26/2020	25.99	0.00	Paid	Y
	TAPE			rgallo				02/18/2020
	440-5511-531100	SUPPLIES			25.99			
	FRISCH LAURA L							
39413	STAPLS0181536165000001		02/13/2020	02/26/2020	98.29	0.00	Paid	Y
	PAPER SUPPLIES			rgallo				02/18/2020
	440-5511-531100	SUPPLIES			98.29			
	FRISCH LAURA L							
39414	PICK N SAVE #384		02/13/2020	02/26/2020	91.32	0.00	Paid	Y
	APL MEETING			rgallo				02/18/2020
	440-5890-580600	DONATED FUND EXPENDITURES			91.32			
	FRISCH LAURA L							
39415	AMZN MKTP US*RA65Q46C3		02/13/2020	02/26/2020	138.94	0.00	Paid	Y
	PROGRAMMING SUPPLIES			rgallo				02/18/2020
	440-5511-533100	PROGRAMMING			138.94			
	FRISCH LAURA L							
39416	STAPLS0181556080000001		02/14/2020	02/26/2020	14.83	0.00	Paid	Y
	OFFICE SUPPLIES			rgallo				02/18/2020
	440-5511-531100	SUPPLIES			14.83			
	FRISCH LAURA L							
39417	WM SUPERCENTER #1571		02/14/2020	02/26/2020	46.78	0.00	Paid	Y
	PROGRAM SUPPLIES			rgallo				02/18/2020
	440-5890-580600	DONATED FUND EXPENDITURES			46.78			
	FRISCH LAURA L							
39418	PIZZA HUT 035644		02/15/2020	02/26/2020	87.62	0.00	Paid	Y
	TLC MEETING			rgallo				02/18/2020
	440-5890-580600	DONATED FUND EXPENDITURES			87.62			
	GOURDOUX LINDA							
39419	WISCONSIN MUNICIPAL CLER		02/05/2020	02/26/2020	65.00	0.00	Paid	Y
	DEPUTY CLERK MEMBERSHIP			rgallo				02/18/2020
	100-5142-532400	DEPUTY CLERK MEMBERSHIP			65.00			
	HARLEY ROBERT J							
39420	MOBILEDEMAND		02/07/2020	02/26/2020	871.18	0.00	Paid	Y
	TABLET CAR MOUNT FOR 2 INSPECTOR			rgallo				02/18/2020
	100-5241-521900	PROFESSIONAL SERVICES			871.18			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
HARLEY ROBERT J							
39421	IAEI	02/11/2020	02/26/2020	105.00	0.00	Paid	Y
	ELECTRICAL MEMBERSHIP DUES		rgallo				02/18/2020
	100-5241-532400 MEMBERSHIP DUES			105.00			
HARLEY ROBERT J							
39422	LAKELAWN RESORT ROOMS	02/14/2020	02/26/2020	82.00	0.00	Paid	Y
	CONTINUING ED APRIL 2020 CLASS		rgallo				02/18/2020
	100-5241-533500 TRAINING & TRAVEL			82.00			
HARLEY ROBERT J							
39423	LAKELAWN RESORT ROOMS	02/14/2020	02/26/2020	82.00	0.00	Paid	Y
	CONTINUING ED CLASS APRIL 2020		rgallo				02/18/2020
	100-5241-533500 TRAINING & TRAVEL			82.00			
ISELY MARY JO							
39424	AMAZON.COM	01/19/2020	02/26/2020	(0.14)	0.00	Paid	Y
	DVD REFUND		rgallo				02/18/2020
	440-5700-532900 AV MATERIAL			(0.14)			
ISELY MARY JO							
39425	AMAZON.COM*M98OT1NB0	01/19/2020	02/26/2020	188.09	0.00	Paid	Y
	DVD		rgallo				02/18/2020
	440-5700-532900 AV MATERIAL			188.09			
ISELY MARY JO							
39426	AMAZON.COM*HG5SJ2Q63	01/20/2020	02/26/2020	136.75	0.00	Paid	Y
	DVD		rgallo				02/18/2020
	440-5700-532900 AV MATERIAL			136.75			
ISELY MARY JO							
39427	AMAZON.COM*X03YZ2873	01/27/2020	02/26/2020	9.99	0.00	Paid	Y
	DVD		rgallo				02/18/2020
	440-5700-532900 AV MATERIAL			9.99			
ISELY MARY JO							
39428	AMAZON.COM*GM7JE9133	01/28/2020	02/26/2020	203.34	0.00	Paid	Y
	DVD		rgallo				02/18/2020
	440-5700-532900 AV MATERIAL			203.34			
ISELY MARY JO							
39429	AMAZON.COM	01/29/2020	02/26/2020	(0.62)	0.00	Paid	Y
	DVD REFUND		rgallo				02/18/2020
	440-5700-532900 AV MATERIAL			(0.62)			
ISELY MARY JO							
39430	AMAZON.COM*OD8KG1NE3	01/29/2020	02/26/2020	9.96	0.00	Paid	Y
	DVD		rgallo				02/18/2020
	440-5700-532900 AV MATERIAL			9.96			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
ISELY MARY JO							
39431	NETFLIX.COM	02/01/2020	02/26/2020	15.99	0.00	Paid	Y
	STREAMING SERVICE		rgallo				02/18/2020
	440-5511-534000 DIGITAL MATERIALS			15.99			
ISELY MARY JO							
39432	AMAZON.COM*GH5XC9UN3 AMZN	02/02/2020	02/26/2020	12.99	0.00	Paid	Y
	DVD		rgallo				02/18/2020
	440-5700-532900 AV MATERIAL			12.99			
ISELY MARY JO							
39433	AMZN MKTP US*GV1R080M3	02/03/2020	02/26/2020	8.45	0.00	Paid	Y
	CHARGER		rgallo				02/18/2020
	440-5511-533000 THINGERY PURCHASES			8.45			
ISELY MARY JO							
39434	AMZN MKTP US*954O53RF3	02/04/2020	02/26/2020	151.08	0.00	Paid	Y
	CASES		rgallo				02/18/2020
	440-5511-533000 THINGERY PURCHASES			151.08			
ISELY MARY JO							
39435	ACORN TV MONTHLY	02/08/2020	02/26/2020	6.29	0.00	Paid	Y
	MONTHLY CHARGE		rgallo				02/18/2020
	440-5511-534000 DIGITAL MATERIALS			6.29			
ISELY MARY JO							
39436	AMZN MKTP US*T91JQ4NP3	02/09/2020	02/26/2020	67.51	0.00	Paid	Y
	BOOKS		rgallo				02/18/2020
	440-5700-532800 BOOKS			67.51			
ISELY MARY JO							
39437	AMAZON.COM*CF2NM2HL3	02/11/2020	02/26/2020	267.87	0.00	Paid	Y
	DVD		rgallo				02/18/2020
	440-5700-532900 AV MATERIAL			267.87			
ISELY MARY JO							
39438	AMAZON.COM*PM28A5873	02/12/2020	02/26/2020	27.99	0.00	Paid	Y
	DVD		rgallo				02/18/2020
	440-5700-532900 AV MATERIAL			27.99			
ISELY MARY JO							
39439	AMAZON.COM*VD75256V3	02/13/2020	02/26/2020	35.98	0.00	Paid	Y
	DVD		rgallo				02/18/2020
	440-5700-532900 AV MATERIAL			35.98			
KINDER MATTHEW							
39440	THE HOME DEPOT #4921	01/14/2020	02/26/2020	78.84	0.00	Paid	Y
	WWTF CLEANING		rgallo				02/18/2020
	620-8010-827000 OPERATION SUPPLY/EXPENSE			78.84			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution		Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
KINDER MATTHEW								
39441	THE HOME DEPOT #4921		01/22/2020	02/26/2020	21.98	0.00	Paid	Y
	WWTF TOILET REPAIR PARTS			rgallo				02/18/2020
	620-8010-827000	OPERATION SUPPLY/EXPENSE			21.98			
KINDER MATTHEW								
39442	SKILLPATH / NATIONAL		01/28/2020	02/26/2020	199.00	0.00	Paid	Y
	MATT KINDER EDUCATION			rgallo				02/18/2020
	610-6920-693000	MISC GENERAL EXPENSES			100.00			
	620-8400-854100	EDUCATIONAL/TRAINING EXPENSES			99.00			
KINDER MATTHEW								
39443	WENDY'S #0032		02/07/2020	02/26/2020	10.33	0.00	Paid	Y
	MATT KINDER EDUCATION			rgallo				02/18/2020
	620-8400-854100	EDUCATIONAL/TRAINING EXPENSES			10.33			
KINDER MATTHEW								
39444	USPS PO 5657100149		02/12/2020	02/26/2020	3.80	0.00	Paid	Y
	WATER SAMPLE POSTAGE			rgallo				02/18/2020
	610-6300-663200	OPERATION SUPPLY/EXP-TREATMENT			3.80			
KOHOUT BENJAMIN								
39445	PICK N SAVE #384		01/17/2020	02/26/2020	76.39	0.00	Paid	Y
	OPEN HOUSE/DESIGN MEETING			rgallo				02/18/2020
	100-5670-521500	DSPSC EXPENSES			76.39			
KOHOUT BENJAMIN								
39446	WM SUPERCENTER #1571		01/17/2020	02/26/2020	174.16	0.00	Paid	Y
	OPEN HOUSE/DESIGN MEETING			rgallo				02/18/2020
	100-5670-521500	DSPSC EXPENSES			174.16			
KOHOUT BENJAMIN								
39447	KWIK TRIP 28200002824		01/23/2020	02/26/2020	11.94	0.00	Paid	Y
	OPEN HOUSE/DESIGN MEETING			rgallo				02/18/2020
	100-5670-521500	DSPSC EXPENSES			11.94			
MILLER KENNETH								
39448	DMV ELKHORN EK01		02/06/2020	02/26/2020	46.92	0.00	Paid	Y
	KEN MILLER CDL EXAM			rgallo				02/18/2020
	620-8400-854100	EDUCATIONAL/TRAINING EXPENSES			46.92			
PETERSON RANDY								
39449	MILL SUPPLY INC		01/24/2020	02/26/2020	593.70	0.00	Paid	Y
	TRUCK VIBRATOR KIT			rgallo				02/18/2020
	100-5324-539500	REPAIRS & MAINTENANCE			593.70			
PETERSON RANDY								
39450	SKID STEER MIRRORS LLC		01/31/2020	02/26/2020	146.99	0.00	Paid	Y
	SKID STEER MIRRORS			rgallo				02/18/2020
	100-5324-539500	REPAIRS & MAINTENANCE			146.99			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
PETERSON RANDY							
39451	NOR*NORTHERN TOOL	01/31/2020	02/26/2020	569.98	0.00	Paid	Y
	TRUCK TOOL BOXES		rgallo				02/18/2020
	100-5324-539500 REPAIRS & MAINTENANCE			569.98			
SCHMIDT KEVIN B							
39452	CITY SUPPLY	01/15/2020	02/26/2020	18.45	0.00	Paid	Y
	CASE OF URINAL SCREENS		rgallo				02/18/2020
	100-5211-539400 BLDG REPAIRS & MAINTENANCE			18.45			
SCHMIDT KEVIN B							
39453	KALAHARI RESORT - WI ECOM	01/22/2020	02/26/2020	129.00	0.00	Paid	Y
	K SCHMIDT HOTEL ROOM FOR CHIEF'S		rgallo				02/18/2020
	100-5211-533500 TRAINING & TRAVEL			129.00			
SCHMIDT KEVIN B							
39454	PAYPAL *WIPSCOM	01/23/2020	02/26/2020	250.00	0.00	Paid	Y
	WIPSCOM/NENA CONFERENCE FEE IN MAY		rgallo				02/18/2020
	100-5211-533500 TRAINING & TRAVEL			250.00			
SCHMIDT KEVIN B							
39455	STAPLS0181071673000001	01/29/2020	02/26/2020	70.25	0.00	Paid	Y
	OFFICER MEMO PAD BOOKS(25 @ $2.81)		rgallo				02/18/2020
	100-5212-531100 SUPPLIES			70.25			
SCHMIDT KEVIN B							
39456	OPPORTUNITIES INC	01/29/2020	02/26/2020	35.88	0.00	Paid	Y
	2 - 12 PACKS OF D CELL BATTERIES		rgallo				02/18/2020
	100-5211-539400 BLDG REPAIRS & MAINTENANCE			35.88			
SCHMIDT KEVIN B							
39457	KWIK TRIP 67300006734	02/09/2020	02/26/2020	24.00	0.00	Paid	Y
	GAS FOR CHIEF SCHMIDT'S VEHICLE		rgallo				02/18/2020
	100-5211-533500 TRAINING & TRAVEL			24.00			
SCHMIDT KEVIN B							
39458	KALAHARI RESORT - WI	02/09/2020	02/26/2020	218.00	0.00	Paid	Y
	CHIEF SCHMIDT'S HOTEL ROOM WHILE		rgallo				02/18/2020
	100-5211-533500 TRAINING & TRAVEL			218.00			
SCHMIDT KEVIN B							
39459	AFP&CC/NACOP	02/13/2020	02/26/2020	45.00	0.00	Paid	Y
	DISTINGUISHED SERVICE PLACQUE & PINS		rgallo				02/18/2020
	100-5212-539900 OTHER			45.00			
STIEN JEFFREY R							
39460	TRACTOR SUPPLY #339	01/14/2020	02/26/2020	26.94	0.00	Paid	Y
	SOFTNER SALT		rgallo				02/18/2020
	150-5221-531100 SUPPLIES			26.94			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution		Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
STIEN JEFFREY R								
39461	WM SUPERCENTER #1571		01/16/2020	02/26/2020	73.75	0.00	Paid	Y
	OPEN HOUSE SUPPLIES			rgallo				02/18/2020
	150-5222-531100	SUPPLIES			73.75			
STIEN JEFFREY R								
39462	AMZN MKTP US*5T2VE4GK3		01/16/2020	02/26/2020	10.50	0.00	Paid	Y
	3488 CAMERA REPAIR			rgallo				02/18/2020
	150-5231-539500	REPAIRS & MAINTENANCE			10.50			
STIEN JEFFREY R								
39463	ACE HARDWARE CORPORATION		01/18/2020	02/26/2020	(30.60)	0.00	Paid	Y
	REFUND SALES TAX ON TOWER LIGHT			rgallo				02/18/2020
	150-5222-531100	SUPPLIES-SALES TAX REFUND			(30.60)			
STIEN JEFFREY R								
39464	PK SAFETY SUPPLY		01/21/2020	02/26/2020	650.00	0.00	Paid	Y
	CO DETECTORS			rgallo				02/18/2020
	150-5222-531100	SUPPLIES			260.00			
	150-5231-531100	SUPPLIES			390.00			
STIEN JEFFREY R								
39465	AMZN MKTP US*GZ6G21PW3		02/04/2020	02/26/2020	125.06	0.00	Paid	Y
	STIEN CLOTHING			rgallo				02/18/2020
	150-5221-534600	CLOTHING ALLOWANCE			125.06			
STIEN JEFFREY R								
39466	WM SUPERCENTER #1571		02/04/2020	02/26/2020	28.98	0.00	Paid	Y
	VACUUM STORAGE BAGS			rgallo				02/18/2020
	150-5231-531100	SUPPLIES			28.98			
STREIT DANIEL								
39467	AMZN MKTP US		01/16/2020	02/26/2020	(6.99)	0.00	Paid	Y
	CREDIT FOR RETURNING ITEM #2 ON			rgallo				02/18/2020
	100-5212-539500	REPAIRS & MAINTENANCE			(6.99)			
STREIT DANIEL								
39468	AMZN MKTP US*YI8YI3143		01/17/2020	02/26/2020	117.00	0.00	Paid	Y
	LIFEPAK 500 DEFIB BATTERY			rgallo				02/18/2020
	100-5212-539500	REPAIRS & MAINTENANCE			117.00			
STREIT DANIEL								
39469	AMAZON.COM*UG8MI6M33		01/20/2020	02/26/2020	339.00	0.00	Paid	Y
	OPTOMA X343 XGA DLP PROJECTOR FOR			rgallo				02/18/2020
	430-5700-571100	POLICE DEPT CAPITAL EQUIP			339.00			
STREIT DANIEL								
39470	AMAZON.COM*S244K05S3		02/09/2020	02/26/2020	124.99	0.00	Paid	Y
	CART FOR POWER POINT EQUIPMENT FOR			rgallo				02/18/2020
	100-5215-531100	SUPPLIES			124.99			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution		Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
STREIT DANIEL								
39471	KALAHARI RESORT - WI		02/09/2020	02/26/2020	182.00	0.00	Paid	Y
	2 NIGHT HOTEL STAY AT WI POLICE			rgallo				02/18/2020
	100-5211-533500	TRAINING & TRAVEL			182.00			
STREIT DANIEL								
39472	BP#9264771ALL STOP INC		02/12/2020	02/26/2020	34.00	0.00	Paid	Y
	FUEL FOR LT STREIT'S VEHICLE WHILE			rgallo				02/18/2020
	100-5211-533500	TRAINING & TRAVEL			34.00			
SURA MATTHEW J								
39473	SMARTSIGN		01/16/2020	02/26/2020	780.61	0.00	Paid	Y
	SCBA TAGS			rgallo				02/18/2020
	430-5700-571300	FIRE DEPT CAPITAL EQUIP			780.61			
SURA MATTHEW J								
39474	ALABAMA OUTDOORS - WEBSTO		01/17/2020	02/26/2020	61.59	0.00	Paid	Y
	EMS SUPPLIES			rgallo				02/18/2020
	150-5231-531100	SUPPLIES			61.59			
SURA MATTHEW J								
39475	THE HOME DEPOT #4921		01/19/2020	02/26/2020	43.28	0.00	Paid	Y
	SHOWER REPLACEMENT			rgallo				02/18/2020
	150-5221-539500	REPAIRS & MAINTENANCE			43.28			
SURA MATTHEW J								
39476	PAYPAL *HUDSONSUPPL		01/21/2020	02/26/2020	24.50	0.00	Paid	Y
	EMS SUPPLIES			rgallo				02/18/2020
	150-5231-531100	SUPPLIES			24.50			
SURA MATTHEW J								
39477	IDENTIFIRE		01/24/2020	02/26/2020	35.57	0.00	Paid	Y
	SCBA MASK PLATES			rgallo				02/18/2020
	150-5222-531100	SUPPLIES			35.57			
SURA MATTHEW J								
39478	TARGETSOLUTIONS		02/01/2020	02/26/2020	59.95	0.00	Paid	Y
	SURA CRITICAL CARE RECERT			rgallo				02/18/2020
	150-5221-533500	TRAINING & TRAVEL			59.95			
SURA MATTHEW J								
39479	GALLS		02/04/2020	02/26/2020	187.06	0.00	Paid	Y
	SURA CLOTHING PANT AND BOOTS			rgallo				02/18/2020
	150-5221-534600	CLOTHING ALLOWANCE			187.06			
WEGNER ANDREW P								
39480	CONWAY SHIELD		01/28/2020	02/26/2020	71.47	0.00	Paid	Y
	HELMET FRONTS			rgallo				02/18/2020
	150-5222-531100	SUPPLIES			71.47			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
	WEGNER LEE						
39481	UWEX REGISTRATION	01/22/2020	02/26/2020	150.00	0.00	Paid	Y
	LEE UWM		rgallo				02/18/2020
	100-5323-533500 TRAINING & TRAVEL			150.00			
	WEGNER LEE						
39482	UWEX REGISTRATION	01/30/2020	02/26/2020	150.00	0.00	Paid	Y
	LEE UWM		rgallo				02/18/2020
	100-5323-533500 TRAINING & TRAVEL			150.00			
	WEGNER LEE						
39483	UWEX REGISTRATION	01/30/2020	02/26/2020	150.00	0.00	Paid	Y
	LEE UWM		rgallo				02/18/2020
	100-5323-533500 TRAINING & TRAVEL			150.00			
	WEGNER LEE						
39484	UWEX REGISTRATION	01/30/2020	02/26/2020	150.00	0.00	Paid	Y
	LEE UWM		rgallo				02/18/2020
	100-5323-533500 TRAINING & TRAVEL			150.00			
	WEGNER LEE						
39485	UWEX REGISTRATION	01/30/2020	02/26/2020	335.00	0.00	Paid	Y
	LEE UWM		rgallo				02/18/2020
	100-5323-533500 TRAINING & TRAVEL			335.00			
	WEGNER LEE						
39486	UWEX REGISTRATION	01/30/2020	02/26/2020	225.00	0.00	Paid	Y
	LEE UWM		rgallo				02/18/2020
	100-5323-533500 TRAINING & TRAVEL			225.00			
	WEGNER LEE						
39487	UWEX REGISTRATION	01/30/2020	02/26/2020	995.00	0.00	Paid	Y
	LEE UWM		rgallo				02/18/2020
	100-5323-533500 TRAINING & TRAVEL			995.00			
	WEGNER LEE						
39488	UWEX REGISTRATION	01/30/2020	02/26/2020	150.00	0.00	Paid	Y
	LEE UWM		rgallo				02/18/2020
	100-5323-533500 TRAINING & TRAVEL			150.00			
	WEGNER LEE						
39489	UWEX REGISTRATION	01/30/2020	02/26/2020	150.00	0.00	Paid	Y
	LEE UWM		rgallo				02/18/2020
	100-5323-533500 TRAINING & TRAVEL			150.00			
	WEGNER LEE						
39490	UWEX REGISTRATION	01/30/2020	02/26/2020	(660.00)	0.00	Paid	Y
	LEE UWM		rgallo				02/18/2020
	100-5323-533500 TRAINING & TRAVEL			(660.00)			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
WEIDL JOHN S							
39491	E AND S SWEETS	01/15/2020	02/26/2020	57.79	0.00	Paid	Y
	PD/MELLO GIFT BASKET		rgallo				02/18/2020
	100-5141-539800 EMPLOYEE RECOGNITION			57.79			
WEIDL JOHN S							
39492	THE BONEYARD PUB AND GRIL	01/15/2020	02/26/2020	85.10	0.00	Paid	Y
	PW/UTIL/ENGINEER/PLANNER MEETING		rgallo				02/18/2020
	100-5670-533500 TRAINING & TRAVEL			85.10			
WEIDL JOHN S							
39493	DAVID ALAN ALAN S SMOKEHO	01/17/2020	02/26/2020	59.33	0.00	Paid	Y
	SIEWERT DEVELOPMENT/CITIZEN BANK		rgallo				02/18/2020
	100-5670-533500 TRAINING & TRAVEL			59.33			
WEIDL JOHN S							
39494	E AND S SWEETS	01/21/2020	02/26/2020	336.41	0.00	Paid	Y
	FD BANQUET GIFT BASKET/EMPLOYEE		rgallo				02/18/2020
	100-5141-539800 EMPLOYEE RECOGNITION			336.41			
WEIDL JOHN S							
39495	WAL-MART #1571	01/21/2020	02/26/2020	66.06	0.00	Paid	Y
	VH/BOARDROOM SNACKS		rgallo				02/18/2020
	100-5141-531100 SUPPLIES			66.06			
WEIDL JOHN S							
39496	AMZN MKTP US*1W4424XK3	01/21/2020	02/26/2020	21.73	0.00	Paid	Y
	DRAFTING PENCILS		rgallo				02/18/2020
	100-5670-531100 SUPPLIES			21.73			
WEIDL JOHN S							
39497	FLEET FARM 5400	01/23/2020	02/26/2020	49.95	0.00	Paid	Y
	SNACKS FOR EMPLOYEE BANQUET		rgallo				02/18/2020
	100-5141-539800 EMPLOYEE RECOGNITION			49.95			
WEIDL JOHN S							
39498	SQ *SALLY'S SWEET S	01/25/2020	02/26/2020	300.00	0.00	Paid	Y
	DESSERT FOR EMPLOYEE BANQUET		rgallo				02/18/2020
	100-5141-539800 EMPLOYEE RECOGNITION			300.00			
WEIDL JOHN S							
39499	HICKORY STICKS RESTAURANT	01/25/2020	02/26/2020	91.50	0.00	Paid	Y
	SODA & N/A DRINKS EMPLOYEE BANQUET		rgallo				02/18/2020
	100-5141-539800 EMPLOYEE RECOGNITION			91.50			
WEIDL JOHN S							
39500	HICKORY STICKS RESTAURANT	01/25/2020	02/26/2020	2,826.13	0.00	Paid	Y
	EMPLOYEE BANQUET		rgallo				02/18/2020
	100-5141-539800 EMPLOYEE RECOGNITION			2,826.13			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
	WEIDL JOHN S						
39501	FORK IN THE ROAD	02/06/2020	02/26/2020	50.00	0.00	Paid	Y
	INTERN LUNCH & DEVELOPMER MEETING		rgallo				02/18/2020
	100-5670-533500 TRAINING & TRAVEL			50.00			
	WEIDL JOHN S						
39502	WAL-MART #1571	02/11/2020	02/26/2020	47.32	0.00	Paid	Y
	WATER/VALENTINES CANDY		rgallo				02/18/2020
	100-5141-531100 SUPPLIES			47.32			
	WEIDL JOHN S						
39503	SQ *ESPRESSO LOVE COFFEE	02/12/2020	02/26/2020	5.50	0.00	Paid	Y
	MCGIVERN MTG		rgallo				02/18/2020
	100-5141-533500 TRAINING & TRAVEL			5.50			
	WEIDL JOHN S						
39504	DAVID ALAN ALAN S SMOKEHO	02/13/2020	02/26/2020	58.70	0.00	Paid	Y
	MTG WITH CANDIDATE FOR TRUSTEE		rgallo				02/18/2020
	100-5141-533500 TRAINING & TRAVEL			58.70			
	ZIMMERMANN ANGE						
39505	AMZN MKTP US*SM0S50543	01/15/2020	02/26/2020	56.97	0.00	Paid	Y
	WIRE CUTTERS		rgallo				02/18/2020
	440-5511-531400 META SPACE EQUIPMENT & SUPPLIE			56.97			
	ZIMMERMANN ANGE						
39506	AMZN MKTP US*158HP5Y13	01/15/2020	02/26/2020	7.98	0.00	Paid	Y
	DIY KIT		rgallo				02/18/2020
	440-5511-531400 META SPACE EQUIPMENT & SUPPLIE			7.98			
	ZIMMERMANN ANGE						
39507	AMZN MKTP US*DL4PZ7N63	01/15/2020	02/26/2020	34.98	0.00	Paid	Y
	CULTURAL SHOWCASE SUPPLIES		rgallo				02/18/2020
	440-5890-580600 DONATED FUND EXPENDITURES			34.98			
	ZIMMERMANN ANGE						
39508	AMZN MKTP US*818NE43X3	01/19/2020	02/26/2020	35.91	0.00	Paid	Y
	SOLDERING KITS		rgallo				02/18/2020
	440-5511-531400 META SPACE EQUIPMENT & SUPPLIE			35.91			
	ZIMMERMANN ANGE						
39509	COST PLUS WLD #275	01/19/2020	02/26/2020	335.98	0.00	Paid	Y
	CULTURAL SHOWCASE PRIZE		rgallo				02/18/2020
	440-5890-580600 DONATED FUND EXPENDITURES			335.98			
	ZIMMERMANN ANGE						
39510	WAL-MART #1571	01/20/2020	02/26/2020	66.54	0.00	Paid	Y
	PROGRAM SUPPLIES		rgallo				02/18/2020
	440-5511-533100 PROGRAMMING			66.54			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
ZIMMERMANN ANGE							
39511	AMZN MKTP US*SN9VO5BA3 AM	01/21/2020	02/26/2020	381.98	0.00	Paid	Y
	CULTURAL SHOWCASE SUPPLIES		rgallo				02/18/2020
	440-5890-580600 DONATED FUND EXPENDITURES			381.98			
ZIMMERMANN ANGE							
39512	AMZN MKTP US*A50CK68L3	01/22/2020	02/26/2020	13.27	0.00	Paid	Y
	SOLDERING WIRE		rgallo				02/18/2020
	440-5511-531400 META SPACE EQUIPMENT & SUPPLIE			13.27			
ZIMMERMANN ANGE							
39513	AMZN MKTP US*Q29AV6S53	01/26/2020	02/26/2020	11.94	0.00	Paid	Y
	CULTURAL SHOWCASE SUPPLIES		rgallo				02/18/2020
	440-5890-580600 DONATED FUND EXPENDITURES			11.94			
ZIMMERMANN ANGE							
39514	UWEX REGISTRATION	01/28/2020	02/26/2020	346.10	0.00	Paid	Y
	CONFERENCE		rgallo				02/18/2020
	440-5511-533500 TRAINING & TRAVEL			346.10			
ZIMMERMANN ANGE							
39515	SOUTHWES 5262166784548	01/30/2020	02/26/2020	189.96	0.00	Paid	Y
	FLIGHT TO CONFERENCE		rgallo				02/18/2020
	440-5511-533500 TRAINING & TRAVEL			189.96			
ZIMMERMANN ANGE							
39516	AMAZON.COM*QW2CW0JO3	01/31/2020	02/26/2020	69.98	0.00	Paid	Y
	ROCKETS		rgallo				02/18/2020
	440-5511-531400 META SPACE EQUIPMENT & SUPPLIE			69.98			
ZIMMERMANN ANGE							
39517	AMZN MKTP US*3D2A106C3	02/02/2020	02/26/2020	11.94	0.00	Paid	Y
	FLAG		rgallo				02/18/2020
	440-5890-580600 DONATED FUND EXPENDITURES			11.94			
ZIMMERMANN ANGE							
39518	MILWAUKEE PUBLIC MUSEUM	02/05/2020	02/26/2020	43.00	0.00	Paid	Y
	PROGRAM/ USED LIBRARY CREDIT CARD		rgallo				02/18/2020
	440-5890-580600 DONATED FUND EXPENDITURES			43.00			
ZIMMERMANN ANGE							
39519	PRINT PACK AND SHIP CENTE	02/07/2020	02/26/2020	23.60	0.00	Paid	Y
	SHIP PACKAGE		rgallo				02/18/2020
	440-5511-533300 OUTREACH			23.60			
ZIMMERMANN ANGE							
39520	AMZ*SCHOOL OUTFITTER	02/07/2020	02/26/2020	225.36	0.00	Paid	Y
	CHAIR CUBES		rgallo				02/18/2020
	440-5890-580600 DONATED FUND EXPENDITURES			225.36			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution		Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
	ZIMMERMANN ANGE							
39521	AMAZON.COM*TQ9DX0SQ3 AMZN		02/08/2020	02/26/2020	19.27	0.00	Paid	Y
	BOOK			rgallo				02/18/2020
	440-5700-532800	BOOKS			19.27			
	ZIMMERMANN ANGE							
39522	AMZN MKTP US*PO5KD91D3		02/08/2020	02/26/2020	25.97	0.00	Paid	Y
	BACKDROP FOR PROGRAM			rgallo				02/18/2020
	440-5511-533100	PROGRAMMING			25.97			
	ZIMMERMANN ANGE							
39523	ADOBE IL CREATIVE CLD		02/09/2020	02/26/2020	22.06	0.00	Paid	Y
	ILLUSTRATOR			rgallo				02/18/2020
	440-5511-534000	DIGITAL MATERIALS			22.06			
	ZIMMERMANN ANGE							
39524	TARGET 00008649		02/11/2020	02/26/2020	23.10	0.00	Paid	Y
	PROGRAM SUPPLIES			rgallo				02/18/2020
	440-5511-533100	PROGRAMMING			23.10			
	ZIMMERMANN ANGE							
39525	ADOBE CREATIVE CLOUD		02/11/2020	02/26/2020	84.07	0.00	Paid	Y
	CREATIVE CLOUD			rgallo				02/18/2020
	440-5511-534000	DIGITAL MATERIALS			84.07			
	ZIMMERMANN ANGE							
39526	AMAZON.COM*LV6FG0FM3		02/12/2020	02/26/2020	377.86	0.00	Paid	Y
	PORTABLE SPEAKER			rgallo				02/18/2020
	440-5890-580600	DONATED FUND EXPENDITURES			377.86			

# of Invoices:	150	# Due: 0	Totals:	23,146.89	0.00
# of Credit Memos:	6	# Due: 0	Totals:	(749.32)	0.00
Net of Invoices and Credit Memos:				22,397.57	0.00

--- TOTALS BY GL DISTRIBUTION ---

100-5111-539900	MICROPHONE COVERS BOARD ROOM	36.58
100-5141-531100	SUPPLIES	113.38
100-5141-532400	MEMBERSHIP DUES	80.00
100-5141-533500	TRAINING & TRAVEL	339.20
100-5141-539800	EMPLOYEE RECOGNITION	3,785.26
100-5142-532400	IIMC MEMBERSHIP	260.00
100-5144-531100	ELECTION SUPPLIES VARIOUS	203.07
100-5144-533500	WAL CO CLERK MTG - LUNCH 2	23.10
100-5160-531100	SUPPLIES	43.00
100-5160-582100	IMPROVEMENTS	1,320.07
100-5211-533500	TRAINING & TRAVEL	837.00
100-5211-539400	BLDG REPAIRS & MAINTENANCE	54.33
100-5212-531100	SUPPLIES	70.25

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date / Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnlized / Post Date
	100-5212-539500	REPAIRS & MAINTENANCE		110.01			
	100-5212-539900	OTHER		45.00			
	100-5215-531100	SUPPLIES		124.99			
	100-5241-521900	PROFESSIONAL SERVICES		871.18			
	100-5241-532400	MEMBERSHIP DUES		105.00			
	100-5241-533500	TRAINING & TRAVEL		164.00			
	100-5323-531100	SUPPLIES		31.16			
	100-5323-533500	TRAINING & TRAVEL		1,795.00			
	100-5324-539500	REPAIRS & MAINTENANCE		1,497.39			
	100-5521-531100	SUPPLIES		71.65			
	100-5660-535200	STORMWATER COMPLIANCE EXPENSE		240.00			
	100-5670-521500	DSPSC EXPENSES		262.49			
	100-5670-531100	SUPPLIES		21.73			
	100-5670-533500	TRAINING & TRAVEL		194.43			
	150-5221-531100	SUPPLIES		26.94			
	150-5221-533500	TRAINING & TRAVEL		59.95			
	150-5221-534600	CLOTHING ALLOWANCE		312.12			
	150-5221-539500	REPAIRS & MAINTENANCE		43.28			
	150-5222-531100	SUPPLIES		410.19			
	150-5231-531100	SUPPLIES		505.07			
	150-5231-539500	REPAIRS & MAINTENANCE		10.50			
	430-5700-571100	POLICE DEPT CAPITAL EQUIP		339.00			
	430-5700-571300	FIRE DEPT CAPITAL EQUIP		780.61			
	440-5511-531100	SUPPLIES		746.00			
	440-5511-531400	META SPACE EQUIPMENT & SUPPLIE		222.80			
	440-5511-531500	POSTAGE		110.00			
	440-5511-533000	THINGERY PURCHASES		159.53			
	440-5511-533100	PROGRAMMING		875.17			
	440-5511-533300	OUTREACH		23.60			
	440-5511-533500	TRAINING & TRAVEL		536.06			
	440-5511-534000	DIGITAL MATERIALS		188.40			
	440-5700-532800	BOOKS		86.78			
	440-5700-532900	AV MATERIAL		892.20			
	440-5890-580600	DONATED FUND EXPENDITURES		2,044.44			
	610-6300-663200	OPERATION SUPPLY/EXP-TREATMENT		54.77			
	610-6920-692100	OFFICE SUPPLIES & EXPENSES		449.91			
	610-6920-693000	MISC GENERAL EXPENSES		100.00			
	620-8010-827000	OPERATION SUPPLY/EXPENSE		114.73			
	620-8400-851000	OFFICE SUPPLIES & EXPENSES		450.00			
	620-8400-854100	EDUCATIONAL/TRAINING EXPENSES		156.25			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date / Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnlized / Post Date
	--- TOTALS BY FUND ---						
	100 - GENERAL FUND			12,699.27	0.00		
	150 - FIRE/AMBULANCE FUND			1,368.05	0.00		
	430 - CAPITAL EQUIPMENT FUND			1,119.61	0.00		
	440 - LIBRARY FUND			5,884.98	0.00		
	610 - WATER UTILITY FUND			604.68	0.00		
	620 - SEWER UTILITY FUND			720.98	0.00		
	--- TOTALS BY DEPT/ACTIVITY ---						
	5111 - VILLAGE BOARD			36.58	0.00		
	5141 - VILLAGE ADMINISTRATION/FINA			4,317.84	0.00		
	5142 - CLERK-TREASURER			260.00	0.00		
	5144 - ELECTIONS			226.17	0.00		
	5160 - VILLAGE HALL			1,363.07	0.00		
	5211 - POLICE ADMINISTRATION			891.33	0.00		
	5212 - POLICE PATROL			225.26	0.00		
	5215 - POLICE TRAINING			124.99	0.00		
	5221 - FIRE ADMINISTRATION			442.29	0.00		
	5222 - FIRE SUPPRESSION			410.19	0.00		
	5231 - AMBULANCE			515.57	0.00		
	5241 - BUILDING INSPECTOR			1,140.18	0.00		
	5323 - GARAGE			1,826.16	0.00		
	5324 - MACHINERY & EQUIPMENT			1,497.39	0.00		
	5511 - LIBRARY SERVICES			2,861.56	0.00		
	5521 - PARKS			71.65	0.00		
	5660 - STORMWATER MASTER PLAN			240.00	0.00		
	5670 - ECONOMIC DEVELOPMENT			478.65	0.00		
	5700 - CAPITAL OUTLAY EXPENDITURES			2,098.59	0.00		
	5890 - USE OF DESIGNATED FUNDS			2,044.44	0.00		
	6300 - WATER TREATMENT OPERATIONS			54.77	0.00		
	6920 - ADMINISTRATIVE & GENERAL EX			549.91	0.00		
	8010 - WWTP-TREATMENT/DISPOSAL/GP			114.73	0.00		
	8400 - ADMINISTRATIVE & GENERAL			606.25	0.00		
	--- TOTALS BY PAYMENT CARD ACCOUNT ---						
	0366			355.00			
	0960			2,407.82			
	1051			313.95			
	2365			1,141.52			
	2380			4,055.52			
	2544			482.00			
	3167			71.47			
	4325			1,795.00			

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date	Due Date / Entered By	Inv Amt	Amt Due	Status	Jrnlized / Post Date
	--- TOTALS BY PAYMENT CARD ACCOUNT ---						
	4366			964.79			
	4746			1,192.56			
	4952			1,140.18			
	5538			790.00			
	6347			65.00			
	6370			884.63			
	7940			2,335.64			
	8371			262.49			
	8378			790.58			
	8389			46.92			
	9625			1,310.67			
	9708			1,991.83			

Post Date	Journal	Description	GL Number	DR Amount	CR Amount
02/27/2020	AP	ASSOCIATES SEPTIC SERVICES Invoice: 2019 SEPTIC REFUND Ref#: 39691(2019 HOLDING TANK/SEPTAGE WASTE			
AP Trx #: 63317					
		OVERBILLING REFUND	620-4020-468000	853.39	
		INTEREST REFUND	620-8400-856000	12.83	
		Vnd: MISC Invoice: 2019 SEPTIC REFUND	620-0000-211000		866.22
		Expected Check Run: 02/27/2020			
				866.22	866.22
02/27/2020	AP	FREDS SANITARY SERVICE Invoice: 2019 SEPTI C REFUND Ref#: 39692(2019 HOLDING TANK/SEPTAGE WASTE			
AP Trx #: 63318					
		BILLING OVERAGE REFUND	620-4020-468000	1,616.24	
		INTEREST REFUND	620-8400-856000	24.26	
		Vnd: MISC Invoice: 2019 SEPTI C REFUND	620-0000-211000		1,640.50
		Expected Check Run: 02/27/2020			
				1,640.50	1,640.50
02/27/2020	AP	SENFT SEPTIC PUMPING SERVICE Invoice: 2019 SEPTIC REFUNDS Ref#: 39693(2019 HOLDING TANK/SEPTAGE WASTE			
AP Trx #: 63319					
		BILLING OVERAGE REFUND	620-4020-468000	202.04	
		INTEREST REFUND	620-8400-856000	3.05	
		Vnd: MISC Invoice: 2019 SEPTIC REFUNDS	620-0000-211000		205.09
		Expected Check Run: 02/27/2020			
				205.09	205.09
02/27/2020	AP	STANLEY WALTER SEPTIC Invoice: 2019 SEPTIC REFUND Ref#: 39694(2019 HOLDING TANK/SEPTAGE WASTE			
AP Trx #: 63320					
		BILIING OVERAGE REFUND	620-4020-468000	5,768.62	
		INTEREST REFUND	620-8400-856000	86.55	
		Vnd: 0651 Invoice: 2019 SEPTIC REFUND	620-0000-211000		5,855.17
		Expected Check Run: 02/27/2020			
				5,855.17	5,855.17
02/27/2020	AP	SUNSET SEPTIC Invoice: 2019 SEPTIC REFUND Ref#: 39695(2019 HOLDING TANK/SEPTAGE WASTE			
AP Trx #: 63321					
		BILLING OVERAGE REFUND	620-4020-468000	284.33	
		INTEREST REFUND	620-8400-856000	4.28	
		Vnd: MISC Invoice: 2019 SEPTIC REFUND	620-0000-211000		288.61
		Expected Check Run: 02/27/2020			
				288.61	288.61
02/27/2020	AP	TROY SANITARY SERVICE Invoice: 2019 SEPTIC REFUNDS Ref#: 39696(2019 HOLDING TANK/SEPTAGE WASTE			
AP Trx #: 63322					
		BILLING OVERAGE REFUND	620-4020-468000	808.60	
		INTEREST REFUND	620-8400-856000	12.15	
		Vnd: 2987 Invoice: 2019 SEPTIC REFUNDS	620-0000-211000		820.75
		Expected Check Run: 02/27/2020			
				820.75	820.75

Post Date	Journal	Description	GL Number	DR Amount	CR Amount
				9,676.34	9,676.34
Cash/Payable Account Totals:					
		VOUCHERS PAYABLE	620-0000-211000		9,676.34
			TOTAL INCREASE IN PAYABL		9,676.34

INVOICE REGISTER REPORT FOR MUKWONAGO
INVOICE ENTRY DATES 02/17/2020 - 02/17/2020
JOURNALIZED PAID
BANK CODE: GEN - CHECK TYPE: PAPER CHECK

Inv Num / Inv Ref#	Vendor / Description / GL Distribution		Inv Date / Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnlized / Post Date
2/14/2020								
39356	EAST TROY SCHOOL DISTRICT		02/14/2020	02/20/2020	66,364.88	0.00	Paid	Y
	FEBRUARY SETTLEMENT		rgallo					02/17/2020
	720-0000-246200	EAST TROY SCHOOL TAX-FEBRUARY SETTLEMENT			66,364.88			
2/14/2020								
39359	MUKWONAGO AREA SCHOOLS		02/14/2020	02/20/2020	1,488,383.77	0.00	Paid	Y
	FEBRUARY SETTLEMENT		rgallo					02/17/2020
	720-0000-246000	MUKWONAGO SCHOOL TAX-WAUKESHA COUNTY			1,485,538.38			
	100-0000-211400	DNR-PILT			1,458.75			
	720-0000-246000	WALWORTH COUNTY TAX			1,386.64			
2/14/2020								
39361	PHANTOM LAKES MGMT DISTRICT		02/14/2020	02/20/2020	9,951.06	0.00	Paid	Y
	FEBRUARY SETTLEMENT		rgallo					02/17/2020
	720-0000-245000	PHANTOM LAKES MGT DISTRICT TAX-FEBRUARY			9,951.06			
2/14/2020								
39358	W C T C		02/14/2020	02/20/2020	69,439.19	0.00	Paid	Y
	FEBRUARY SETTLEMENT		rgallo					02/17/2020
	720-0000-246100	WAUKESHA TECH COLLEGE TAX-FEBRUARY			69,371.06			
	100-0000-211400	DNR-PILT			68.13			
2/14/2020								
39354	WALWORTH CTY TREASURER		02/14/2020	02/20/2020	27,886.38	0.00	Paid	Y
	FEBRUARY SETTLEMENT		rgallo					02/17/2020
	720-0000-243110	WALWORTH COUNTY TAX-FEBRUARY			27,886.38			
2/14/2020								
39357	WAUKESHA CTY TREASURER		02/14/2020	02/20/2020	350,850.75	0.00	Paid	Y
	FEBRUARY SETTLEMENT		rgallo					02/17/2020
	720-0000-243100	WAUKESHA COUNTY TAX-SETTLEMENT			350,506.57			
	100-0000-211400	DNR-PILT			344.18			
2/14/2020								
39355	GATEWAY TECHNICAL COLLEGE		02/14/2020	02/20/2020	5,913.20	0.00	Paid	Y
	FEBRUARY SETTLEMENT		rgallo					02/17/2020
	720-0000-246300	GATEWAY COLLEGE TAX-FEBRUARY SETTLEMENT			5,913.20			

INVOICE REGISTER REPORT FOR MUKWONAGO
INVOICE ENTRY DATES 02/17/2020 - 02/17/2020
JOURNALIZED PAID
BANK CODE: GEN - CHECK TYPE: PAPER CHECK

Inv Num / Inv Ref#	Vendor / Description / GL Distribution	Inv Date / Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnlized / Post Date
# of Invoices:	7	# Due: 0	Totals:	2,018,789.23	0.00		
# of Credit Memos:	0	# Due: 0	Totals:	0.00	0.00		
Net of Invoices and Credit Memos:				2,018,789.23	0.00		

--- TOTALS BY GL DISTRIBUTION ---

100-0000-211400	DNR-PILT	1,871.06
720-0000-243100	WAUKESHA COUNTY TAX-SETTLEMENT	350,506.57
720-0000-243110	WALWORTH COUNTY TAX-FEBRUARY	27,886.38
720-0000-245000	PHANTOM LAKES MGT DISTRICT TAX-FEBRUARY	9,951.06
720-0000-246000	MUKWONAGO SCHOOL TAX-WAUKESHA COUNTY	1,486,925.02
720-0000-246100	WAUKESHA TECH COLLEGE TAX-FEBRUARY	69,371.06
720-0000-246200	EAST TROY SCHOOL TAX-FEBRUARY SETTLEMENT	66,364.88
720-0000-246300	GATEWAY COLLEGE TAX-FEBRUARY SETTLEMENT	5,913.20

--- TOTALS BY FUND ---

100 - GENERAL FUND	1,871.06	0.00
720 - TAX ESCROW AGENCY FUND	2,016,918.17	0.00

--- TOTALS BY DEPT/ACTIVITY ---

0000 - BALANCE SHEET ACCOUNT	2,018,789.23	0.00

Check Date	Bank	Check #	Payee	Description	GL #	Amount
02/06/2020	GEN	115(E)	INVOICE CLOUD	INVOICE CLOUD CC FEES - TAXES	100-5142-539900	8.31
		115(E)		INVOICE CLOUD CC FEES - BUILDING	100-5241-539900	5.20
		115(E)		INVOICE CLOUD CC FEES - UTILITIES	410-5363-539900	61.08
		115(E)		INVOICE CLOUD CC FEES - UTILITIES	610-6920-692100	61.08
		115(E)		INVOICE CLOUD CC FEES - UTILITIES	620-8300-840000	61.08
						196.75
02/06/2020	GEN	116(E)	PAYROLLDATA.COM	PAYROLL DATA FEES 02/07/20	100-5111-539900	31.71
		116(E)		PAYROLL DATA FEES 02/07/20	100-5120-539900	9.06
		116(E)		PAYROLL DATA FEES 02/07/20	100-5141-539900	25.93
		116(E)		PAYROLL DATA FEES 02/07/20	100-5142-539900	9.06
		116(E)		PAYROLL DATA FEES 02/07/20	100-5144-521900	32.50
		116(E)		PAYROLL DATA FEES 02/07/20	100-5211-539900	45.30
		116(E)		PAYROLL DATA FEES 02/07/20	100-5212-539900	64.36
		116(E)		PAYROLL DATA FEES 02/07/20	100-5213-521900	9.06
		116(E)		PAYROLL DATA FEES 02/07/20	100-5241-539900	9.06
		116(E)		PAYROLL DATA FEES 02/07/20	100-5300-539900	42.02
		116(E)		PAYROLL DATA FEES 02/07/20	100-5632-539900	4.53
		116(E)		PAYROLL DATA FEES 02/07/20	100-5670-521900	4.53
		116(E)		PAYROLL DATA FEES 02/07/20	150-5221-539900	195.77
		116(E)		PAYROLL DATA FEES 02/07/20	440-5511-539900	98.41
		116(E)		PAYROLL DATA FEES 02/07/20	610-6920-693000	16.87
		116(E)		PAYROLL DATA FEES 02/07/20	620-8400-856000	16.87
						615.04
02/06/2020	GEN	117(E)	GREAT WEST RETIREMENT SERVICES	DEFERRED COMPENSATION PR 020720	100-0000-215250	500.00
		117(E)		DEFERRED COMPENSATION PR 020720	150-0000-215250	74.00
		117(E)		DEFERRED COMPENSATION PR 020720	610-0000-215250	100.00
		117(E)		DEFERRED COMPENSATION PR 020720	620-0000-215250	100.00
						774.00
02/06/2020	GEN	29184	WE ENERGIES	HOLIDAY LIGHTING ACCT# 0407-838-	100-5522-522200	1,663.08
02/06/2020	GEN	29185	VANTAGEPOINT TRANSFER AGENTS	DEFERRED COMPENSATION PR 020720	100-0000-215250	3,098.54
		29185		DEFERRED COMPENSATION PR 020720	150-0000-215250	5.[illegible]
		29185		DEFERRED COMPENSATION PR 020720	440-0000-215250	465.[illegible]
		29185		DEFERRED COMPENSATION PR 020720	610-0000-215250	200.27
		29185		DEFERRED COMPENSATION PR 020720	620-0000-215250	223.67

Check Date	Bank	Check #	Payee	Description	GL #	Amount
						3,993.92
02/07/2020	GEN	29186	VILLAGE OF MUKWONAGO	TAX PD BY VILLAGE MUKV2016995 299 MAPLE	100-5191-560100	1.61
02/11/2020	GEN	29201	TREASURER STATE OF WI	COURT FEES DUE TO STATE-JAN 2020	100-0000-242400	3,686.38
02/11/2020	GEN	29202	TREASURER WAUKESHA COUNTY	WAUKESHA COUNTY COURT FEES-JANUARY 2020	100-0000-243240	1,418.00
02/11/2020	GEN	29203	WALWORTH COUNTY	WALWORTH COUNTY COURT FEES-JANUARY	100-0000-243250	20.00
02/14/2020	GEN	29235	MINNESOTA LIFE INSURANCE	LIFE INSURANCE PAYABLE MARCH PREMS	100-0000-215301	1,278.46
		29235		LIFE INSURANCE PAYABLE MARCH PREMS	150-0000-215301	119.23
		29235		LIFE INSURANCE PAYABLE MARCH PREMS	440-0000-215301	181.52
		29235		LIFE INSURANCE PAYABLE MARCH PREMS	610-0000-215301	77.90
		29235		LIFE INSURANCE PAYABLE MARCH PREMS	620-0000-215301	62.40
						1,719.51
02/19/2020	GEN	29247	MICHAEL JOBIN	CITATION #DD804FB00S LEAH GRODE	100-0000-233000	200.00
02/20/2020	GEN	29332	VANTAGEPOINT TRANSFER AGENTS	DEFERRED COMPENSATION PR 02/21/20	100-0000-215250	3,055.62
		29332		DEFERRED COMPENSATION PR 02/21/20	150-0000-215250	7.31
		29332		DEFERRED COMPENSATION PR 02/21/20	440-0000-215250	465.59
		29332		DEFERRED COMPENSATION PR 02/21/20	610-0000-215250	220.24
		29332		DEFERRED COMPENSATION PR 02/21/20	620-0000-215250	206.82
						3,955.58
02/20/2020	GEN	29333	AFLAC	SUPPLEMENTAL INSURANCE PAYABLE	100-0000-215302	301.44
		29333		SUPPLEMENTAL INSURANCE PAYABLE	150-0000-215302	260.61
		29333		SUPPLEMENTAL INSURANCE PAYABLE	610-0000-215302	50.76
		29333		SUPPLEMENTAL INSURANCE PAYABLE	620-0000-215302	50.74
						663.55
02/20/2020	GEN	29334	MUKWONAGO PROFESSIONAL POLICE	UNION DUES PAYABLE	100-0000-215500	925.00
02/20/2020	GEN	29335	MUKWONAGO PROFESSIONAL	UNION DUES PAYABLE	150-0000-215500	270.00

Check Date	Bank	Check #	Payee	Description	GL #	Amount
02/20/2020	GEN	29336	VILLAGE OF MUKWONAGO MRA	FLEXIBLE SPENDING CONTRIBUTION	100-0000-215350	2,134.60
		29336		FLEXIBLE SPENDING CONTRIBUTION	150-0000-215350	425.38
		29336		FLEXIBLE SPENDING CONTRIBUTION	440-0000-215350	23.84
						2,583.82
02/21/2020	GEN	118(E)	GREAT WEST RETIREMENT SERVICES	DEFERRED COMPENSATION PR 02/21/20	100-0000-215250	500.00
		118(E)		DEFERRED COMPENSATION PR 02/21/20	150-0000-215250	74.00
		118(E)		DEFERRED COMPENSATION PR 02/21/20	610-0000-215250	100.00
		118(E)		DEFERRED COMPENSATION PR 02/21/20	620-0000-215250	100.00
						774.00
02/21/2020	GEN	119(E)	EMPLOYEE TRUST FUNDS	HEALTH INSURANCE PAYABLE MARCH PREM	100-0000-215300	52,371.36
		119(E)		HEALTH INSURANCE PAYABLE MARCH PREM	150-0000-215300	9,307.28
		119(E)		HEALTH INSURANCE PAYABLE MARCH PREM	440-0000-215300	7,379.26
		119(E)		HEALTH INSURANCE PAYABLE MARCH PREM	610-0000-215300	3,451.97
		119(E)		HEALTH INSURANCE PAYABLE MARCH PREM	620-0000-215300	3,822.39
						76,332.26
02/21/2020	GEN	121(E)	PAYROLLDATA.COM	OTHER PAYROLL FEES PR 02/21/20	100-5111-539900	23.45
		121(E)		OTHER PAYROLL FEES PR 02/21/20	100-5120-539900	6.70
		121(E)		OTHER PAYROLL FEES PR 02/21/20	100-5141-539900	16.75
		121(E)		OTHER PAYROLL FEES PR 02/21/20	100-5142-539900	6.70
		121(E)		OTHER PAYROLL FEES PR 02/21/20	100-5211-539900	33.50
		121(E)		OTHER PAYROLL FEES PR 02/21/20	100-5212-539900	40.20
		121(E)		PROFESSIONAL SVC PAYROLL FEE PR	100-5213-521900	6.70
		121(E)		OTHER PAYROLL FEES PR 02/21/20	100-5241-539900	6.70
		121(E)		OTHER PAYROLL FEES PR 02/21/20	100-5300-539900	33.50
		121(E)		OTHER PAYROLL FEES PR 02/21/20	100-5632-539900	3.35
		121(E)		PROFESSIONAL SVC PAYROLL FEE PR	100-5670-521900	3.35
		121(E)		OTHER PAYROLL FEES PR 02/21/20	150-5221-539900	130.46
		121(E)		OTHER PAYROLL FEES PR 02/21/20	440-5511-539900	67.00
		121(E)		MISC GENERAL EXP PAYROLL FEE PR	610-6920-693000	13.40
		121(E)		MISC GENERAL EXP PAYROLL FEE PR	620-8400-856000	13.40
						405.
02/25/2020	GEN	29338	KNIGHT BARRY TITLE INC	LAND PURCHASE- 301 W MAIN ST, V OF MUKW	200-0000-160100	1,000.00

Check Date	Bank	Check #	Payee	Description	GL #	Amount
02/26/2020	GEN	126(E)	WI RETIREMENT SYSTEM	RETIREMENT	100-0000-215200	31,189.55
		126(E)		RETIREMENT	150-0000-215200	7,819.17
		126(E)		RETIREMENT	440-0000-215200	5,082.43
		126(E)		RETIREMENT	610-0000-215200	1,832.23
		126(E)		RETIREMENT	620-0000-215200	2,015.02
						47,938.40
02/28/2020	GEN	120(E)	DELTA DENTAL OF WISCONSIN	DENTAL - SUPPLEMENTAL INS MARCH PREM	100-0000-215304	324.10
			TOTAL - ALL FUNDS	TOTAL OF 22 CHECKS		149,460.16

CHECK DISBURSEMENT REPORT FOR MUKWONAGO
CHECK DATE FROM 02/25/2020 - 02/25/2020

Check Date	Bank	Check #	Payee	Description	GL #	Amount
02/25/2020	GEN	122(E)	VILLAGE OF MUKWONAGO	PROHEALTH CARE PROPANE	100-0000-211425	518.70
02/25/2020	GEN	29337	VILLAGE OF MUKWONAGO	MEADOWLANDS - R&M INV CORRECTION	100-0000-211425	56.00
			TOTAL - ALL FUNDS	TOTAL OF 2 CHECKS		574.70

CHECK DISBURSEMENT REPORT FOR MUKWONAGO
CHECK DATE FROM 02/06/2020 - 02/06/2020

Check Date	Bank	Check #	Payee	Description	GL #	Amount
02/06/2020	GEN	114(E)	VILLAGE OF MUKWONAGO	POINTE APTS (915 MAIN) DECEMBER PLANNER	100-0000-211425	1,160.79
			TOTAL - ALL FUNDS	TOTAL OF 1 CHECKS		1,160.79

RESOLUTION 2020-11

A RESOLUTION ACKNOWLEDGING A PALPABLE ERROR IN THE 2018 ASSESSMENT ROLL AND REQUESTING A CHARGE-BACK OF TAXES FOR THE REAL ESTATE PROPERTY KNOWN AS VM 00008

WHEREAS, the 2018 Real Estate Property Tax Bill for that property known as Tax Key No. VM 00008 (Snugden Property) reflected a total assessed value of $312,200, and;

WHEREAS, the Village Assessor made a palpable error in setting the assessed value of this property, and;

WHEREAS, the property should have been tax exempt since it was owned by the Village; and

WHEREAS, the Village Assessor has indicated the total assessed value of the property for 2018 should have been $0, and;

WHEREAS, the property was estimated to be taxed excessively by $5,795.68, on the 2018 tax roll, and

NOW THEREFORE, the Village Board acknowledges that a palpable error in the assessment roll, as described under Wisconsin Statutes Section 74.33(1) and 74.41, occurred:

BE IT FURTHER RESOLVED that the Village Clerk-Treasurer has paid the appropriate amount toward the 2018 tax bill to the County Treasurer for the property known as VM 00008 and has already been approved for a "Request for Charge Back of Rescinded or Refunded Taxes" to the Department of Revenue which was filed on October 1, 2019.

Dated and approved this 18th day of March 2020.

_____
Fred Winchowky, Village President

Attest: _____
Diana Dykstra, CMC, Clerk-Treasurer

I hereby certify that this is a true and correct copy of the Resolution adopted by the Village Board on the 18th day of March 2020.

_____
Diana Dykstra, CMC, Village Clerk-Treasurer

VILLAGE OF MUKWONAGO TREASURER
440 RIVER CREST CT
MUKWONAGO, WI 53149

WALWORTH COUNTY - STATE OF WISCONSIN
PROPERTY TAX BILL FOR 2018
REAL ESTATE

VILLAGE OF MUKWONAGO

Snugden Property
116.6 Acres

Parcel Number: 153 #VM 00008
Bill Number: 397840

Important: Be sure this description covers your property. Note that this description is for tax bill only and may not be a full legal description. See reverse side for important information.

397840/153 #VM 00008
VILLAGE OF MUKWONAGO
440 RIVER CREST CT
MUKWONAGO WI 53149

Location of Property/Legal Description
1515 S ROCHESTER ST

PT NE 1/4 SEC 1 T4N R18E DESC AS: COM N 1/4 COR SEC 1, S 2838', E 1221', N 709.5', N74D E 601.26', N20D15'W 382.14', N13D30'E 762.96', N71D25'E 839.52', N 513.48', W TO POB. 116.64 A VILLAGE OF MUKWONAGO ANNEXED TO VILLAGE UNDER DOC. #446046 OMITS P ET 1-2
116.640 ACRES

Please inform treasurer of address changes.

ASSESSED VALUE LAND	ASSESSED VALUE IMPROVEMENTS	TOTAL ASSESSED VALUE	AVERAGE ASSMT. RATIO	NET ASSESSED VALUE RATE
123,200	189,000	312,200	1.018617660	0.01874235 (Does NOT reflect credits)
ESTIMATED FAIR MARKET VALUE LAND	ESTIMATED FAIR MARKET VALUE IMPROVEMENTS	TOTAL ESTIMATED FAIR MARKET VALUE	☐ A star in this box means unpaid prior year taxes.	School taxes also reduced by school levy tax credit 481.02
See Reverse, Use Value Assessment				

NET PROPERTY TAX 5795.68

TAXING JURISDICTION	2017 EST. STATE AIDS ALLOCATED TAX DIST.	2018 EST. STATE AIDS ALLOCATED TAX DIST.	2017 NET TAX	2018 NET TAX	% TAX CHANGE
STATE OF WISCONSIN	0	0	0.00	0.00	
WALWORTH COUNTY	3,834	3,777	1,221.25	1,074.76	-12.0%
Village of Mukwonago	20,110	18,108	2,241.41	2,064.75	-7.9%
Mukwonago School District	4,059	4,583	2,184.99	2,464.02	12.8%
Gateway Technical	18,643	20,149	264.28	247.83	-6.2%
TOTAL	**46,646**	**46,617**	**5,911.93**	**5,851.36**	**-1.0%**
FIRST DOLLAR CREDIT			**-56.55**	**-55.68**	**-1.5%**
LOTTERY AND GAMING CREDIT			**0.00**	**0.00**	**0.0%**
NET PROPERTY TAX			**5,855.38**	**5,795.68**	**-1.0%**

TOTAL DUE: $5,795.68
FOR FULL PAYMENT, PAY TO LOCAL TREASURER BY:
JANUARY 31, 2019

Warning: If not paid by due dates, installment option is lost and total tax is delinquent subject to interest and, if applicable, penalty.
Failure to pay on time. See reverse.

FOR INFORMATION PURPOSES ONLY • Voter Approved Temporary Tax Increases

Taxing Jurisdiction	Total Additional Taxes	Total Additional Taxes Applied to Property	Year Increase Ends
Mukwonago School District	23,170	12,975.15	2036
Mukwonago School District	2,266	1,269.17	2036

Taxing Jurisdiction	Total Additional Taxes	Total Additional Taxes Applied to Property	Year Increase Ends

PAY 3RD INSTALLMENT OF: $1,931.89
BY JULY 31, 2019
AMOUNT ENCLOSED _____
MAKE CHECK PAYABLE AND MAIL TO:
VILLAGE OF MUKWONAGO TREASURER
440 RIVER CREST CT
MUKWONAGO, WI 53149
PIN# 153 #VM 00008
VILLAGE OF MUKWONAGO
BILL NUMBER: 397840
INCLUDE THIS STUB WITH YOUR PAYMENT

PAY 2ND INSTALLMENT OF: $1,931.90
BY APRIL 30, 2019
AMOUNT ENCLOSED _____
MAKE CHECK PAYABLE AND MAIL TO:
VILLAGE OF MUKWONAGO TREASURER
440 RIVER CREST CT
MUKWONAGO, WI 53149
PIN# 153 #VM 00008
VILLAGE OF MUKWONAGO
BILL NUMBER: 397840
INCLUDE THIS STUB WITH YOUR PAYMENT

PAY FULL AMOUNT OF: $5,795.68
or 1ST INSTALLMENT OF: $1,931.89
BY JANUARY 31, 2019
AMOUNT ENCLOSED _____
MAKE CHECK PAYABLE AND MAIL TO:
VILLAGE OF MUKWONAGO TREASURER
440 RIVER CREST CT
MUKWONAGO, WI 53149
PIN# 153 #VM 00008
VILLAGE OF MUKWONAGO
BILL NUMBER: 397840
INCLUDE THIS STUB WITH YOUR PAYMENT

State of Wisconsin • DEPARTMENT OF REVENUE

DIVISION OF STATE AND LOCAL FINANACE • BUREAU OF LOCAL GOVERNMENT SERVICES • 2135 RIMROCK MADISON, WI 53173

Mailing Address:
PO Box 8971 #6-97
Madison WI 53708-8971
Fax: (608) 264-6887
lgs@wisconsin.gov

November 13, 2019

DIANA DYKSTRA
VILLAGE OF MUKWONAGO
440 RIVER CREST CT
MUKWONAGO WI 53149

Notice of Determination – 2019 Approved Chargeback Requests

Notice Information

The Wisconsin Department of Revenue (DOR) reviewed the chargeback requests submitted by your municipality during the 2019 filing year. DOR **approved** the chargeback requests listed below and notified the applicable taxing jurisdictions per state law (sec. 74.41(5)(a), Wis. Stats.).

District	VILLAGE OF MUKWONAGO	**County**	WALWORTH	**Co-muni code**	64153

Chargeback Summary

Review the summary below. Your municipality will receive the total amount listed by February 15, 2020. Each taxing jurisdiction will pay its portion directly to your municipality. To view all your approved requests, review the back of this notice.

2019 Approved Chargeback Summary

District	Net Tax	Manufacturing Interest (80%)	Total Tax
STATE OF WISCONSIN	$0	$0	$0
WALWORTH COUNTY	$1,078.22	$0	$1,078.22
VILLAGE OF MUKWONAGO	$1,852.62	$0	$1,852.62
SCH D OF MUKWONAGO	$2,642.48	$0	$2,642.48
GATEWAY TECHNICAL COLLEGE KENO	$222.37	$0	$222.37
Total for 2019 Filing Year	$5,795.69	$0	$5,795.69

Contact Information

If you have questions, contact us at (608) 266-2569 or (608) 264-6892 or lgs@wisconsin.gov.

Chargeback Requests

Review this list of submitted chargeback requests approved by DOR. For detailed information and further explanation, review each request on our website: ww2.revenue.wi.gov/VaultPublic/publish/chbk/report.html

2019 Approved Chargeback Requests				
2018 Assessment Year				
Case No.	Parcel/Account No.	Net Tax	Manufacturing Interest (80%)	Total Tax
201901163	VM00008	$5,795.69	$0	$5,795.69
Total 2019 Approved Chargebacks This is the total amount on the front of		$5,795.69	$0	$5,795.69

Manufacturing Interest (20 percent)

Under state law, your municipality may request a refund from the Wisconsin Department of Administration for 20 percent of the interest it paid to a manufacturing property assessed under state law (secs. 70.995, and 70.511(2)(b), Wis. Stats.). For more information, review publication PA-600 on our website: revenue.wi.gov.

RESOLUTION 2020-10

A RESOLUTION ACKNOWLEDGING A PALPABLE ERROR IN THE 2019 ASSESSMENT ROLL AND REQUESTING A CHARGE-BACK OF TAXES FOR THE REAL ESTATE PROPERTY KNOWN AS MUKV-2091-011-002

WHEREAS, the 2019 Real Estate Property Tax Bill for that property known as Tax Key No. MUKV-2091-011-002 reflected a total assessed value of $170,500, and;

WHEREAS, the Village Assessor made a palpable error in setting the assessed value of this property, and;

WHEREAS, the property assessor included improvements that did not exist on January 1, 2019; and

WHEREAS, the Village Assessor has indicated the total assessed value of the property for 2019 should have been $72,000, and;

WHEREAS, the property was estimated to be taxed excessively by $1,718.73, on the 2019 tax roll, and

NOW THEREFORE, the Village Board acknowledges that a palpable error in the assessment roll, as described under Wisconsin Statutes Section 74.33(1) and 74.41, occurred:

BE IT FURTHER RESOLVED that the Village Clerk-Treasurer shall pay or credit the appropriate amount of toward the 2019 tax bill for the property known as MUKV-2091-011-002 and submit a "Request for Charge Back of Rescinded or Refunded Taxes" to the Department of Revenue prior to October 1, 2020.

Dated and approved this 18th day of March 2020.

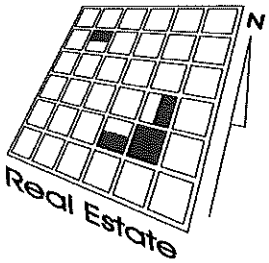
_____
Fred Winchowky, Village President

Attest: _____
Diana Dykstra, CMC, Clerk-Treasurer

I hereby certify that this is a true and correct copy of the Resolution adopted by the Village Board on the 18th day of March 2020.

_____
Diana Dykstra, CMC, Village Clerk-Treasurer

Associated Appraisal Consultants, Inc.
Appleton ■ Hurley ■ Lake Geneva



December 16, 2019

Diana Dykstra, Clerk-Treasurer
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Dear Ms. Dykstra,

After the 2019 tax bills were issued, an error was discovered in the assessment of the property located on Fox River Run (tax parcel MUKV-2091-011-002) owned by Heaven City Development Company. The assessed value inadvertently included improvements that did not exist on January 1, 2019. The result was that the assessment of the property was excessive by $98,500 of assessed value.

2019 Assessment		2019 Corrected Value	
Land	$72,000	Land	$72,000
Improvements	$98,500	Improvements	$0
Total	$170,500	Total	$72,000

Under normal circumstances, all assessment disputes must be contested at the Board of Review and resolved prior to the issuance of tax bills. However, certain types of errors, such as assessment of property that did not exist, are subject to correction after taxes are billed and any excess taxes may then be refunded or rescinded.

In my opinion this error qualifies as a "palpable error" under Wisconsin Statutes 74.33. My recommendation is that the Village should make the error correction and rescind the excess 2019 property taxes in the amount of $1,718.73. The Village can subsequently request a "charge back" of the rescinded taxes from the Department of Revenue. I am willing to assist the Clerk in filing this request. If approved, the rescinded taxes would be refunded to the Village in February of 2021.

The procedure for rescinding property tax is described in Wisconsin statutes, chapters 70.43 and 74.41. Essentially, the Village must pay the difference in taxes due. Then the Village can apply to have the tax money refunded by way of a "charge back" through the Department of Revenue in February of 2021.

I apologize for any inconvenience it may cause. I offer my assistance in any way necessary to move forward with this matter. Please contact me at 920-224-8812 with any questions you may have.

Respectfully,

Nick Laird
Project Manager

1314 W. College Ave. ■ P.O. Box 2111 ■ Appleton, WI 54912-2111 ■ (920) 749-1995 ■ Fax: (920) 731-4158

RESOLUTION 2020-09

A RESOLUTION ACKNOWLEDGING A PALPABLE ERROR IN THE 2019 ASSESSMENT ROLL AND REQUESTING A CHARGE-BACK OF TAXES FOR THE REAL ESTATE PROPERTY KNOWN AS MUKV-1962-996-009

WHEREAS, the 2019 Real Estate Property Tax Bill for that property known as Tax Key No. MUKV-1962-996-009 reflected a total assessed value of $865,000, and;

WHEREAS, the Village Assessor made a palpable error in setting the assessed value of this property, and;

WHEREAS, the property was in transition from agriculture to commercial use and based on a field inspection the assessment classification was changed to commercial; and

WHEREAS, the property owners have produced necessary information showing the land had been planted in soybeans which qualifies the property for agricultural use-value assessment; and

WHEREAS, the Village Assessor has indicated the total assessed value of the property for 2019 should have been $1,800, and;

WHEREAS, the property was estimated to be taxed excessively by $13,848.37, on the 2019 tax roll, and

NOW THEREFORE, the Village Board acknowledges that a palpable error in the assessment roll, as described under Wisconsin Statutes Section 74.33(1) and 74.41, occurred:

BE IT FURTHER RESOLVED that the Village Clerk-Treasurer shall pay or credit the appropriate amount of toward the 2019 tax bill for the property known as MUKV-1962-996-009 and submit a "Request for Charge Back of Rescinded or Refunded Taxes" to the Department of Revenue prior to October 1, 2020.

Dated and approved this 18th day of March 2020.

_____
Fred Winchowky, Village President

Attest: _____
Diana Dykstra, CMC, Clerk-Treasurer

I hereby certify that this is a true and correct copy of the Resolution adopted by the Village Board on the 18th day of March 2020.

_____
Diana Dykstra, CMC, Village Clerk-Treasurer

Associated Appraisal Consultants, Inc.

Appleton ■ Hurley ■ Lake Geneva

Real Estate

January 28, 2019

Village of Mukwonago
Diana Dykstra, Clerk-Treasurer
440 River Crest Court
Mukwonago, WI 53149

Dear Ms. Dykstra,

After the 2019 tax bills were issued, a "palpable error" in accordance with Wisconsin Statute 74.33 was discovered in the assessment of the property located on Fox River Run (tax parcel MUKV-1962-996-009) owned by Michael A Chapman Descendants' Tr C-U Roger & Fern Chapter Trust.

The property is in transition from agricultural use to commercial use. A field inspection was completed during 2018 that showed indications the land was no longer being used as agricultural and therefore the assessment classification was changed to commercial. The property owners have since produced necessary information showing the land had been planted in soybeans which qualifies the property for agricultural use-value assessment.

The 2019 tax bill for this property showed an amount due of $13,877.24 based on a total assessed value of $865,000. However, the tax bill should have been based on an assessed value of $1,800 due to it qualifying as agricultural use-value. The difference is $13,848.37 in excess taxes. The breakdown of the corrected assessment value is as follows:

2019 Original Assessment		Corrected Assessment	
Land	$865,000	Land	$1,800
Improvements	$0	Improvements	$0
Total	$865,000	Total	$1,800

My recommendation is that the Village should rescind the excess 2019 property taxes in the amount of $13,848.37. The procedure for rescinding property tax is described in Wisconsin Statutes 74.33 and 74.41. Essentially, the property owner pays only a portion of their tax bill, based on the corrected assessed value as indicated above, and the Village pays the remainder of the tax bill. Then the Village can apply to have the tax money refunded by way of a "charge back" through the Department of Revenue. I am willing to assist the Clerk in filing this request form by the October 1, 2020 deadline. If approved, the rescinded taxes would be refunded to the Village in February of 2021.

Please accept my apologies for this error and any inconvenience it may cause. I offer my assistance in any way necessary to move forward with this matter. Please contact me at 920-749-1995 ext. 8812 with any questions you may have.

Respectfully,

Nick Laird
Project Manager

W6237 Neubert Rd ■ P.O. Box 440 ■ Greenville, WI 54942-0440 ■ (920) 749-1995 ■ Fax: (920) 731-4158

RESOLUTION 2020-08

A RESOLUTION ACKNOWLEDGING A PALPABLE ERROR IN THE 2019 ASSESSMENT ROLL AND REQUESTING A CHARGE-BACK OF TAXES FOR THE REAL ESTATE PROPERTY KNOWN AS MUKV-1962-996-008

WHEREAS, the 2019 Real Estate Property Tax Bill for that property known as Tax Key No. MUKV-1962-996-008 reflected a total assessed value of $697,500, and;

WHEREAS, the Village Assessor made a palpable error in setting the assessed value of this property, and;

WHEREAS, the property was in transition from agriculture to commercial use and based on a field inspection the assessment classification was changed to commercial; and

WHEREAS, the property owners have produced necessary information showing the land had been planted in soybeans which qualifies the property for agricultural use-value assessment; and

WHEREAS, the Village Assessor has indicated the total assessed value of the property for 2019 should have been $1,300, and;

WHEREAS, the property was estimated to be over taxed by $11,169.18 on the 2019 tax roll, and

NOW THEREFORE, the Village Board acknowledges that a palpable error in the assessment roll, as described under Wisconsin Statutes Section 74.33(1) and 74.41, occurred:

BE IT FURTHER RESOLVED that the Village Clerk-Treasurer shall pay or credit the appropriate amount of toward the 2019 tax bill for the property known as MUKV-1962-996-008 and submit a "Request for Charge Back of Rescinded or Refunded Taxes" to the Department of Revenue prior to October 1, 2020.

Dated and approved this 18th day of March 2020.

_____
Fred Winchowky, Village President

Attest: _____
Diana Dykstra, CMC, Clerk-Treasurer

I hereby certify that this is a true and correct copy of the Resolution adopted by the Village Board on the 18th day of March 2020.

_____
Diana Dykstra, CMC, Village Clerk-Treasurer

Associated Appraisal Consultants, Inc.
Appleton ■ Hurley ■ Lake Geneva

Real Estate

January 28, 2019

Village of Mukwonago
Diana Dykstra, Clerk-Treasurer
440 River Crest Court
Mukwonago, WI 53149

Dear Ms. Dykstra,

After the 2019 tax bills were issued, a "palpable error" in accordance with Wisconsin Statute 74.33 was discovered in the assessment of the property located on Fox River Run (tax parcel MUKV-1962-996-008) owned by Michael A Chapman Descendants' Tr C-U Roger & Fern Chapter Trust.

The property is in transition from agricultural use to commercial use. A field inspection was completed during 2018 that showed indications the land was no longer being used as agricultural and therefore the assessment classification was changed to commercial. The property owners have since produced necessary information showing the land had been planted in soybeans which qualifies the property for agricultural use-value assessment.

The 2019 tax bill for this property showed an amount due of $11,190.03 based on a total assessed value of $697,500. However, the tax bill should have been based on an assessed value of $1,300 due to it qualifying as agricultural use-value. The difference is $11,169.18 in excess taxes. The breakdown of the corrected assessment value is as follows:

2019 Original Assessment		Corrected Assessment	
Land	$697,500	Land	$1,300
Improvements	$0	Improvements	$0
Total	$697,500	Total	$1,300

My recommendation is that the Village should rescind the excess 2019 property taxes in the amount of $11,169.18. The procedure for rescinding property tax is described in Wisconsin Statutes 74.33 and 74.41. Essentially, the property owner pays only a portion of their tax bill, based on the corrected assessed value as indicated above, and the Village pays the remainder of the tax bill. Then the Village can apply to have the tax money refunded by way of a "charge back" through the Department of Revenue. I am willing to assist the Clerk in filing this request form by the October 1, 2020 deadline. If approved, the rescinded taxes would be refunded to the Village in February of 2021.

Please accept my apologies for this error and any inconvenience it may cause. I offer my assistance in any way necessary to move forward with this matter. Please contact me at 920-749-1995 ext. 8812 with any questions you may have.

Respectfully,

Nick Laird
Project Manager

W6237 Neubert Rd ■ P.O. Box 440 ■ Greenville, WI 54942-0440 ■ (920) 749-1995 ■ Fax: (920) 731-4158

The Village of
Mukwonago
Where life, leisure and business thrive.

AGENDA ITEM REQUEST FORM

Committee/Board:	Village Board
Topic:	Motion to approve **Task Order No. 2020-02** from Ruekert Mielke, Inc. for construction related services of DeBack Drive Infrastructure.
From:	Diana Dykstra
Department:	Public Works
Presenter:	Jerad Wegner
Date of Committee Action (if required)	March 4, 2020
Date of Village Board Action (if required)	March 18, 2020

Information

Subject:

Motion to approve **Task Order No. 2020-02** from Ruekert Mielke, Inc. for construction related services of DeBack Drive Infrastructure.

Background Information/Rationale:
The task order is to provide construction related services for the construction of the DeBack Drive Infrastructure project.

Key Issues for Consideration:
Provide construction related services for the off-site utility extensions and the on-site infrastructure improvements of DeBack Drive.

Fiscal Impact (if any):
Construction Review and Contract Administration Services: $226,885.00
Record Drawings & GIS Data Updates: $11,750.00

Requested Action by Committee/Board:

Attachments

2020-02 DeBack Drive Infrastructure Construction Related Services

TASK ORDER

This is Task Order No. 2020-02, consisting of 3 pages
Village of Mukwonago
DeBack Drive Infrastructure Construction Related Services

Task Order

In accordance with the Agreement Amendment between Village of Mukwonago (Owner) and Ruekert-Mielke, Inc. (Engineer) dated December 21, 2017, Owner and Engineer agree as follows:

1. Specific Project Data

A. Title: DeBack Drive Infrastructure Construction Related Services.

B. Description: Provide construction related services for the off-site utility extensions and the on-site infrastructure improvements of DeBack Drive.

2. Services of Engineer

Phase 301 - Construction Review and Administration Services

- Provide full time construction review services for sewer, water and storm water construction, and roadway construction.
- Provide construction review services for erosion control.
- Provide part time construction review services for grading, and incidental construction.
  - Full time construction review and testing of grading compaction efforts will be provided by the Contractor.
- Stakeout underground utilities including sanitary sewer, storm sewer and water main.
- Stakeout roadway, curb and gutter, sidewalk and curb ramps.
- Stakeout on grading, right-of-way limits, silt fence and erosion control measures.
- Administer the construction contract between the Owner and the Contractor. Duties to be performed are itemized in the Construction Contract between the Owner and the Contractor.
- Respond to Owner staff requests for information.
- Quantity measurements and quantity coordination with Contractor.
- Coordinate pay request with Owner Staff.
- Coordinate and attend pre-construction meeting.
- Coordinate and attend weekly site meetings.
- Respond to citizen questions during construction.
- Complete as-built survey.
- Final project closeout.

Phase 310 – Record Drawings & GIS Data Updates

- Prepare record drawings to the Owner's standards for storm sewer, water and sanitary.
- Incorporate the utility data into the Owner's GIS.

3. Owner's Responsibilities

Respond to design questions and material selections during the construction process.

4. Times for Rendering Services

Phase	Completion Date
300- Construction Review and Administration Services	November 2, 2020
302–Record Drawings & GIS Data Updates	December 31, 2020

5. Payments to Engineer

A. Owner shall pay Engineer for services rendered as follows:

Category of Services	Compensation Method	Lump Sum, or Estimate of Compensation for Services
Construction Review and Contract Administration Services	Hourly	$226,885*
Record Drawings & GIS Data Updates	Lump Sum	$11,750

* Services and cost are directly related to the amount of time the selected Contractor takes to complete the project.

B. The terms of payment are set forth in the Standard Terms and Conditions.

6. Consultants

None.

7. Other Modifications to Standard Terms and Conditions

None.

8. Attachments

Level of Effort Spreadsheet.

9. Documents Incorporated by Reference

Ruekert & Mielke, Inc. / Village of Mukwonago Master Agreement

TASK ORDER

Terms and Conditions: Execution of this Task Order by Owner and Engineer shall make it subject to terms and conditions, (as modified above) set forth in the Master Engineering Agreement Amendment between Owner and Engineer, dated December 21, 2017, which are incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is _____, _____.

OWNER:	ENGINEER:
Village of Mukwonago	Ruekert & Mielke, Inc.
By: _____	By: _____
Name: _____	Name: Steven C. Wurster, P.E.
Title: _____	Title: Senior Vice President/COO
Date: _____	Date: February 25, 2020

DESIGNATED REPRESENTATIVE FOR TASK ORDER

Name: _____	Name: Michael E. Michalski
Title: _____	Title: Project Engineer
Address: _____	Address: W233 N2080 Ridgeview Parkway
_____	Waukesha, WI 53188-1020
Email: _____	Email: mmichalski@ruekert-mielke.com
Phone: _____	Phone: 262-953-3004
Fax: _____	Fax: 262-542-5631

DeBack Drive Infrastructure

Construction Related Services **February 25, 2020**

	Michael Michalski	Steven Zaleski	Steven Zaleski	Erosion CRT	PLS	Survey Crew	Sue Shird			
Initials	MEM	SJZ	SJZ	MAB	CRJ		SJS			
Employee Class	E3	SET (Str Time)	SET (OT)	(Str Time)	PLS	Survey Crew	AA		Task Total	Task Total
Hourly Rates	$ 128	$ 106	$ 127	$ 106	$ 139	$ 218	$ 78	**w/o Expenses**	Expenses	Dollars
Construction Phase										
Prepare Contracts for Execution by Contractor and Owner	4						8	$ 1,136	$ 50	$ 1,186
Preconstruction Conference (Agenda / Attend / Minutes)	16						16	$ 3,296	$ 66	$ 3,362
Attend 23 Progress Meetings (Agendas / Attend / Minutes)	92						23	$ 13,570	$ 442	$ 14,012
Review Submittals	10						4	$ 1,592	$ 100	$ 1,692
Construction Staking					12	112		$ 26,084		$ 26,084
General Project Administration / Phone Calls	170						6	$ 22,228	$ 100	$ 22,328
Construction Review		920	230	90				$ 136,316	$ 1,500	$ 137,816
Process 6 Pay Requests	48						12	$ 7,080	$ 100	$ 7,180
Process 4 Routine Work Change Directives / Change Orders	32						12	$ 5,032	$ 100	$ 5,132
Process Closeout Change Order	16						4	$ 2,360	$ -	$ 2,360
Substantial Completion Inspection/Punchlist							4	$ 312	$ 66	$ 378
Followup Punchlist Inspections/Revised Punchlist							2	$ 156	$ 66	$ 222
Prepare Final Quantities	16						4	$ 2,360	$ 50	$ 2,410
Project Closeout Documents	16						8	$ 2,672	$ 50	$ 2,722
Construction Phase Subtotal (Hours) =	420	920	230	90	12	112	103			
Construction Phase Subtotal (Dollars) =	**$ 53,760**	**$ 97,520**	**$ 29,256**	**$ 9,540**	**$ 1,668**	**$ 24,416**	**$ 8,034**	**$ 224,194**	**$ 2,691**	**$226,885**

The Village of
Mukwonago
Where life, leisure and business thrive.

AGENDA ITEM REQUEST FORM

Committee/Board:	Village Board
Topic:	Motion to approve a Storm Water Maintenance Agreement with Castle Senior Living, At 210 McDivitt Lane for building addition and other work, contingent upon Attorney and Engineer approval.
From:	Ben Kohout
Department:	Planning & Zoning
Presenter:	Ben Kohout
Date of Committee Action (if required)	
Date of Village Board Action (if required)	February 19, 2020

Information

Subject:
Motion to approve a Storm Water Maintenance Agreement with Castle Senior Living, At 210 McDivitt Lane for building addition and other work, contingent upon Attorney and Engineer approval.

Background Information/Rationale:
As part of a Development Project that includes a storm water management plan, a storm water maintenance agreement is required to be established which governs the general maintenance and upkeep. The document specifies whom is responsible and for which aspects. This Stormwater Maintenance Agreement (SWMA) has been reviewed and recommded approval by the Village Engineer.

For this proposal, the building addition, and parking lot work and associated grading will drain the development into a storm water pond which shall be maintained by the owner of the property. The agreement specifies the owner, at their cost, is to maintain and inspect the storm water facilities and grants permissions for the Village to inspect to ensure compliance with all applicable rules and regulations.

Key Issues for Consideration:
n/a

Fiscal Impact (if any):

n/a

Requested Action by Committee/Board:

Attachments

210 McDivitt Lane Recommendation
Storm Water Maintenance Agreement

Ruekert·Mielke W233 N2080 Ridgeview Parkway, Waukesha, WI 53188-1020 262-542-5733

February 12, 2020

Mr. Fred Winchowky
Village President
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Re: 210 McDivitt Lane – Birchrock Castle Addition
Recommendation of Approval of Development Documents

Dear President Winchowky:

We have reviewed the Storm Water Management Plan, Storm Water Maintenance Agreement, Storm Water Exemption Request and Construction Drawings for the addition to the Castle Senior Living Development at 210 McDivitt Lane, in the Village. The Storm Water Management Plan, and Civil Plan Set are dated February 6, 2020 and were received in our office, along with the other documents, on February 7, 2020. We believe the current submittal generally meets the intent of the Village Storm Water Ordinance, is in accordance with the Village of Mukwonago's Standard Specifications, and follows standard engineering practice.

We have reviewed the storm water exemption request that was included with the latest submittal documents. The request is for an exemption to Village Ordinance Section 34-110(d)(1) "Peak Discharge Requirements". Existing site conditions inhibit the ability for the applicant to easily direct flows from the north side of the proposed building, to the proposed on-site biofilter. In order to do this, the applicant would need to install a mechanical system including a series of pipes and a pump and crock. This poses a burden on the development and would require complex long-term maintenance efforts in order to maintain the system. As is true with any mechanical system, there is the possibility of mechanical failure and, in our environment, failure due to freezing. The north side of the new building is proposed to drain, undetained to the adjacent wetland complex through a filter strip. The improvements to the site are directing the vast majority of the storm water runoff to the proposed biofilter – including a large area of parking lot that previously drained, undetained and untreated to the wetland complex. As part of the improvements, the applicant is significantly improving the storm water drainage on the site and the treatment of the storm water runoff, prior to it reaching the wetlands. Peak flows are being reduced from existing conditions which will aid in reducing the concern of flooding downstream. Water quality treatment is being improved immensely and the adjacent wetlands will be receiving much cleaner storm water runoff. The storm water exemption request is attached to this letter for reference.

We, therefore, recommend the following actions of the documents to you and the Village Board:

1. Approval of the Storm Water Exemption Request dated February 6, 2020, in accordance with Village Ordinance Section 34-110(e)(1)(c).

2. Approval of the Storm Water Management Plan dated February 6, 2020.

3. Approval and execution of the Storm Water Maintenance Agreement.

    a. The Storm Water Maintenance Agreement is attached to the email in which this letter is being transmitted such that, if it is approved, it can receive the appropriate signatures and be transferred to a form suitable for recording.

We recommend the above actions also be made subject to the following conditions:

1. A breakdown of the construction costs for all storm water management devices should be provided to Ruekert & Mielke once the applicant receives construction bids. Ruekert & Mielke will review the breakdown and provide a recommendation to the Village Board for a surety amount. A surety should then be established in the form of a Letter of Credit prior to the start of construction.

2. All necessary storm water and erosion control permits be obtained, and copies of the approvals be sent to the Village of Mukwonago and Ruekert & Mielke.

3. Prior to any land disturbing activity, hold a preconstruction conference with representatives of the design team, the construction team, Village and Utility Staff and Ruekert & Mielke to ensure all members of the design and construction team understand the installation of utilities and the storm water management and erosion control plan requirements.

4. During construction, the following conditions shall be followed:

    b. Contractor shall have extreme care when conducting grading or any land disturbing activities in near proximity to the adjacent wetlands. This includes ensuring that any work does not remove or destroy any erosion and sediment control measures without additional measures being first placed downstream of the affected devices.

    c. All dewatering shall be done in accordance with the approved plans. At no time, shall dewatering practices be located outside of any approved locations without being adequately protected downstream.

    d. Owner shall maintain approved plans on-site and readily available to the Village Erosion Control Inspector.

    e. On-site approved plans must reflect current construction conditions and compliance with the Village ordinance.

    f. On-site plans must reflect the current sequence of construction and all erosion and sediment control measures shall meet the Wisconsin Department of Natural Resources Technical Standards.

    g. Village ordinance requires inspection of the erosion control measures once every 7 days and within 24 hours of a rainfall of 0.5 inches or greater. Given the proximity of this development to sensitive natural resources, it is recommended that erosion and sediment control measures be inspected at the end of each working day to ensure compliance. All inspection reports must be available on-site and available to the Village at any time. Reports must contain the information required by the WDNR.

    h. Any construction within the public right-of-way, will conform to the Village Standard Specifications and Village standard details.

    i. Owner will provide erosion control measures and restore any private utility company land disturbance resulting from providing utilities to this site regardless of location.

Our review did not include a detailed check of all engineering and survey data indicated on the drawings. The accuracy of this data is the responsibility of JSD Professional Services, Inc.

If you or any staff or board member should have any questions regarding this, please feel free to contact me at (262) 542-5733.

Respectfully,

RUEKERT & MIELKE, INC.

Peter W. Gesch
Project Engineer
pgesch@ruekertmielke.com

PWG:pwg

Enclosure(s)

cc: Diana Dykstra, Village of Mukwonago
John Weidl, Village of Mukwonago
Bob Harley, Village of Mukwonago
Mark G. Blum, Village of Mukwonago
Dave Brown, Village of Mukwonago
Ron Bittner, Village of Mukwonago
Ben Kohout, Village of Mukwonago
Dave Roberts, P.E., JSD Professional Services, Inc.
Kris Kiefer, RN, Castle Senior Living
Jerad J. Wegner, P.E., Ruekert & Mielke, Inc.

JSD Professional Services, Inc.
• Engineers • Surveyors • Planners

Milwaukee Regional Office
W238 N1610 Busse Road, Suite 100
Waukesha, WI 53188
262.513.0666

February 6, 2020

Mr. Ben Kohout
Village Planner
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Re: Birchrock Castle Addition
210 McDivitt Lane

Dear Mr. Kohout:

On behalf of our client, Castle Senior Living, we are respectfully requesting an exemption to the Sec. 34-110 Stormwater Management Plan Requirements per subsection (e) to allow the northerly side of the proposed addition to drain to splash blocks then overland into the existing wetland complex to the north and thus not meet Sec. 34-110(d)(1) Peak discharge requirements. In order to capture this area and route it through the proposed biofiltration basin located in the southwest corner of the site, a mechanical system, a series of pipes and a pump and crock, will need to be employed since the existing grade, which was purposely maintained to protect the existing wetland complex, will not allow for the north side of the roof system to tie into the proposed drainage system via gravity. Some concerns with this type of system are the level of maintenance effort required to ensure the system is functioning as designed, the possibility of failure if not maintained, the potential for the system to freeze and lead to failure and of course cost not only in installation but in long term maintenance. In order to offset this the site has been designed to correct and improve other features currently lacking onsite. As you know, the current parking lot drains unimpeded into the existing wetland complex to the north and no stormwater management practices are utilized on-site. As part of our proposed site plan all parking lot water will be captured and treated in accordance with Sec 34-110 of the Village code in the proposed biofiltration basin. In addition, we have improved the site by proposing a Village compliant erosion control plan and stormwater management plan which further protects the existing wetland complex and reduces the existing stormwater flows offsite.

If you have any questions or need additional information please feel free to contact me.

Sincerely,
JSD Professional Services, Inc.

David S. Roberts, P.E.
Senior Project Engineer

Idaho Illinois Wisconsin
www.jsdinc.com

Birchrock Castle Addition
Storm Water Maintenance Agreement
Village of Mukwonago, County of Waukesha, WI

_____, as "Owner" of the property described in Exhibit A, in accordance with Chapter 34 of the Village of Mukwonago Municipal Code, agrees to install and maintain storm water *management practices* on the subject property in accordance with approved plans and Storm Water Permit conditions. The Owner further agrees to the terms stated in this document to ensure that the storm water management practices continue serving the intended functions in perpetuity. This Agreement includes the following exhibits:

Exhibit A: Legal Description of the real estate for which this Agreement applies ("Property").
Exhibit B: Location Map - shows an accurate location of each storm water management practice affected by this Agreement.
Exhibit C: Maintenance Plan - prescribes those activities that must be carried out to maintain compliance with this Agreement.
Exhibit D: Design Summary - contains a summary of key Engineering calculations and other data used to design the storm water management practices.
Exhibit E: As-built survey (to be recorded as an addendum) - shows a detailed "as-built" cross section and plan view of the storm water management practices.
Exhibit F: Engineering/Construction Verification (to be recorded as an addendum) - provides verification from a Professional Engineer that the design and construction of the storm water management practices complies with all applicable technical standards and the Village's requirements.

NOTE: After construction verification has been accepted by the Village of Mukwonago, for all planned storm water management practices, an addendum(s) to this agreement shall be recorded by the Village showing construction details and construction verification. The addendum(s) may contain several additional exhibits, as described below.

Through this Agreement, the Owner hereby subjects the Property to the following covenants, conditions and restrictions:

1. Upon execution of this Agreement, the Village shall record the Agreement at the Waukesha County or Walworth County Register of Deeds, as applicable. The recording of this Agreement shall be a condition for the issuance of a Storm Water Permit. An addendum to this Agreement shall be recorded upon project completion which shall include submittal of Exhibit E and Exhibit F in an acceptable form to the Village. The recording of Amendment #1 including Exhibit E and Exhibit F shall be a condition for the issuance of an occupancy permit.

2. The Owner shall construct, maintain and if necessary reconstruct the storm water management practices so as to maintain their compliance with applicable governmental, statutes, ordinances or rules. The Owner shall be responsible for the routine and extraordinary maintenance and repair of the storm water management practices identified in Exhibit B in accordance with the maintenance plan contained in Exhibit C.

3. The Owner shall, at their own cost inspect the storm water best management practices on an annual basis and maintain records of annual inspections and maintenance performed. Records

shall be made available to the Village upon request within 30 days of written notice. Annual inspections shall be performed as detailed in Exhibit C Maintenance Plan of the storm water maintenance agreement and shall be performed to determine if the facility is functioning within the design parameters. Commencing in 2020 - and every five years thereafter the Owner shall, at their own cost, have a certification inspection of the storm water management practices conducted by a professional engineer, who shall then file a report with the Village of Mukwonago no later than December 31st of the same year. Upon written notification by Village of Mukwonago or its designee the Owner shall, at their own cost and within a reasonable time period determined by the Village of Mukwonago, have an inspection of the storm water management practices conducted by a professional engineer, who shall then file a report with the Village of Mukwonago. The Owner shall thereafter timely complete any maintenance or repair work recommended in any of the above reports. The Owner shall be liable for the failure to undertake any maintenance or repairs.

4. In addition, and independent of the requirements under paragraph 2 above, the Village of Mukwonago, or its designee, is authorized but not required to access the property as necessary to conduct inspections of the storm water management BMP's to ascertain compliance with the terms and intent of this Agreement and the activities prescribed in Exhibit C. The Village of Mukwonago may require work to be done which differs from the report(s) described in paragraph 3 above, if the Village of Mukwonago reasonably concludes that such work is necessary and consistent with the intent of this agreement and /or with Chapter 34 of the Village Code of Ordinances. Upon notification by the Village of Mukwonago of required maintenance or repairs, the Owner shall complete the specified maintenance or repairs within a reasonable time frame, as determined by the Village of Mukwonago.

5. If the Owner does not complete an inspection under 3 above or complete the required maintenance or repairs under 2 above within the specified time period, the Village of Mukwonago is authorized, but not required, to perform the specified inspections, maintenance or repairs. In the case of an emergency situation, as determined by the Village of Mukwonago, no notice shall be required prior to the Village of Mukwonago performing emergency maintenance or repairs.

   The cost of inspections or measures undertaken by the Village pursuant to this agreement shall be first paid from the proceeds of any surety maintained to secure the performance by the Owner/Developer of its obligations under this agreement and the conditions of the use, site and architectural approval. In the event that the costs of said measures shall exceed the value of the surety or the surety has expired or been terminated, then in that event the cost of said measures shall be assessed as a special charge for current services pursuant to Wis Stat Sec. 66.0627. Any such assessment which is not paid within 60 days after billing shall be deemed a delinquent special charge and shall become a lien upon the parcel against which such charge has been assessed. Such delinquent charges shall be extended upon the current or next tax roll as a delinquent tax against the parcels for which payment has not been received by the Village and all proceedings in relation to the collection, return and sale of property for delinquent real estate taxes shall apply to such special charges. The Developer hereby consents to the levy of such charge and waives notice and the right to hearing.

6. This Agreement shall run with the property and be binding upon all heirs, successors and assigns. After the Village records this document, the Village of Mukwonago shall have the sole authority to modify this agreement contingent upon the Village of Mukwonago providing a 30 day written notice to the current Owner. Any modifications shall conform to the minimum requirements of Chapter 34 (or its successor) and be written so as to ensure the long-term maintenance of the storm water BMP's.

7. The Owner/Developer agrees to pledge a surety in a form acceptable to the Village of Mukwonago to secure performance of the obligations arising from the construction and maintenance of the storm water BMPs provided for under this Agreement in the amount of 120% of the actual cost of the storm water BMPs. Said surety shall remain in effect for a period of three

(3) years from the date of the execution of this Agreement or until drawn upon in full by the Village or one year (1) from the date of the certification of the storm water improvements whichever occurs first. Release of the surety prior to the deadlines stated herein shall be governed by Mukwonago Village code section 34-108(c) as amended

8. This Agreement shall be governed and construed in accordance with the laws of the State of Wisconsin.

Dated this ____ day of _____, 202____

Owner:

_____
Authorized Representative of

_____
(Printed Name of Authorized Representative)

State of Wisconsin:
County of Waukesha

Personally came before me this ____ day of _____, 202____, the above named _____ _____, as the authorized Representative of _____ _____for the purpose of signing this document, to me known to be the person who executed the foregoing instrument and acknowledged the same.

_____
[Name]

Notary Public, Waukesha County, WI
My commission expires: _____

Accepted by the Village of Mukwonago this ____ day of _____, 202__.

_____
Fred Winchowky, Village President

_____
Diana Dykstra, Village Clerk

This document was drafted by:
David Roberts, P.E.
JSD Professional Services, Inc.
Milwaukee Regional Office
W238 N1610 Busse Road, Suite 100
Waukesha, WI 53188
Telephone: 262-513-0666
Email: david.roberts@jsdinc.com

Exhibit A – Legal Description

The following description and reduced copy map identifies the land parcel(s) affected by this Agreement. For a larger scale view of the referenced document, contact the Waukesha County Register of Deeds office.

Project Identifier: Mukwonago CBRF building

Date of Recording: 11/6/95

Map Produced By: Gary Schaefer

Legal Description: Lot 2 of Certified Survey Map No. 7901, recorded on December 22. 1995 in Volume 68 of Certified Survey Maps on Pages 140 to 146, as Document No. 2089198, being a redivision of Outlet 1, Mukwonago Estates East, being a resubdivision of Lots 43 and 44, 56 to 61 inclusive, 78 to 82 inclusive, 103 and 104, 157 to 200 inclusive, Outlet 1, Part of outlot 2, and all of Outlots 3, 4, 7 and 8 in "Mukwonago Estates", being a subdivision of part of the Northwest l /4 of the Southeast I1/4 of Section 35, Township 5 North, Range l8 East, in the Village of Mukwonago, County of Waukesha, State of Wisconsin.

Exhibit B - Location Map
Storm Water Management Practices Covered by this Agreement

The storm water management practices covered by this Agreement are depicted in the reduced copy of the construction plans, as shown below. The practices include the **Biofiltration Basin, filter strip, catch basins and storm sewer system.**

All of the noted storm water management practices are located in Lot 2 of CSM 7901, as noted in Exhibit A.

Subdivision Name: **N/A**

Storm water Practices: **Biofiltration Basin, Filter Strip, Catch Basin and Storm Sewer System**

Location of Practices: **The Biofiltration Basin is located in the SW corner of site, the catch basin and storm sewer are located within the parking lot and landscape areas in front of the building and the filter strip is between the back of the building and the wetland.**

Owners: **Castle Senior Living**

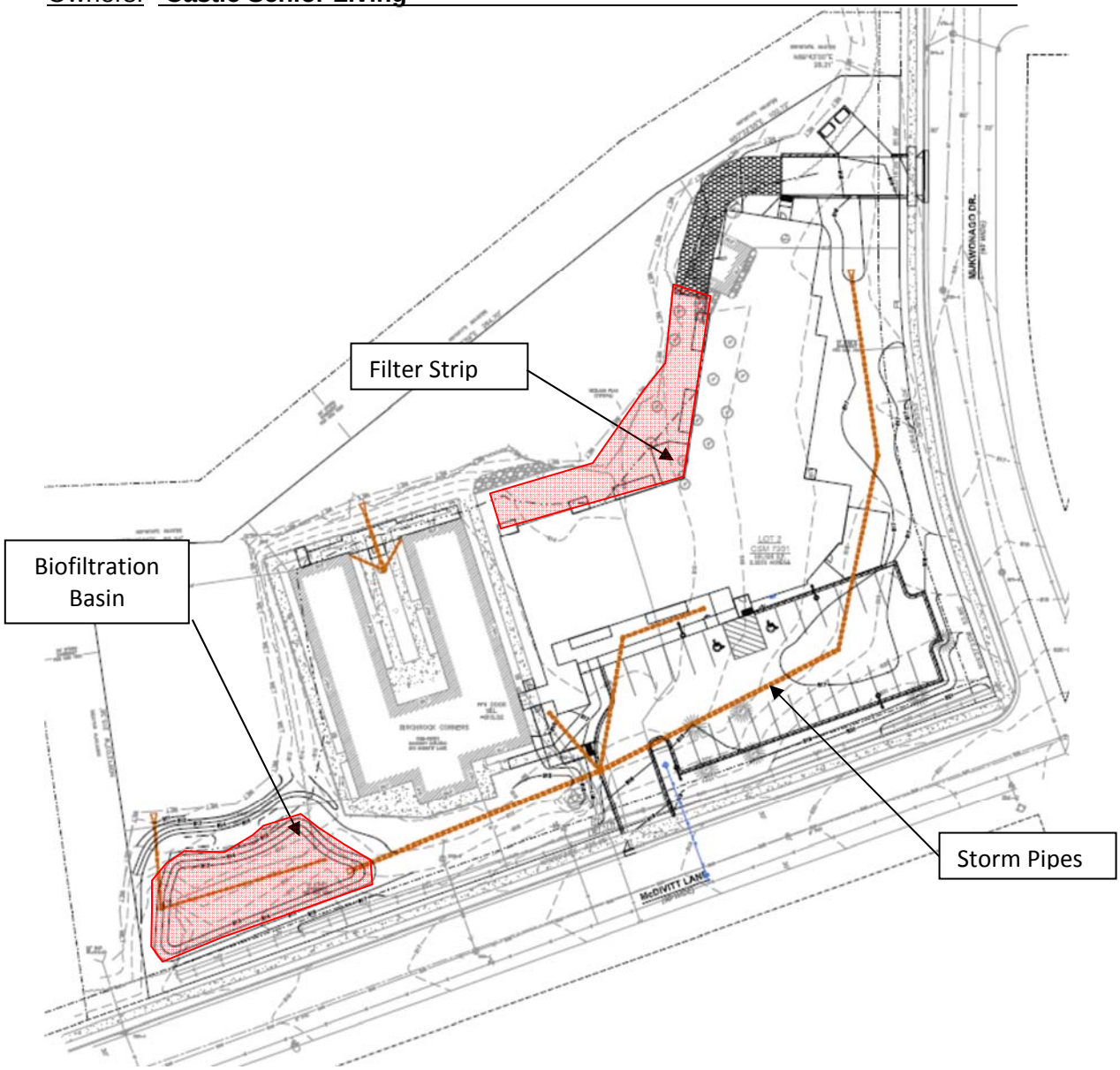


Exhibit C
Maintenance Plan

This exhibit explains the basic function of each of the storm water practices listed in Exhibit B and prescribes the maintenance requirements to remain compliant with this Agreement. The maintenance activities listed below are aimed to ensure these practices continue serving their intended functions in perpetuity. The list of activities is not all inclusive, but rather indicates the minimum type of maintenance that can be expected for this particular site. Access to the storm water practices for maintenance vehicles is shown in Exhibit B. Any failure of a storm water practice that is caused by a lack of maintenance will subject the Responsible Party to enforcement of the provisions of this Agreement by the Village of Mukwonago.

BIOFILTRATION BASIN
OPERATIONS AND MAINTENANCE

I. ROUTINE MAINTENANCE

A. Inspection

1. Performance of the bioretention should be inspected monthly and after every major storm event, following the initial construction to evaluate if the basin is draining within the design time limits.
   a. Water plants should be watered as necessary the first year to establish plants.
2. If performance does not meet the design goals, complete repairs to the facility to meet the design requirements.
3. Following the initial year of monthly inspections, quarterly inspections of the facility should be made. Inspect the facility for:
   a. Differential settlement
   b. Cracking
   c. Erosion
   d. Leakage
   e. Tree and woody plant growth on the embankments and plant health
   f. Condition of the inlets and outlets and level spreaders
   g. Sediment accumulation
   h. Vigor and density of vegetation on the floor of the basin and buffer strips
   i. pH testing of the soil
   j. Observation wells and/or under drains

B. Mowing – Native Vegetation

1. During establishment of vegetation, the first mowing shall occur once it reaches a height of 10 to 12 inches.
2. Control woody plant invasion by mowing once a year. The vegetation height shall be 5 to 6 inches after mowing.
3. Mow once per year in the fall after November 1st.
4. Remove trash and debris at the time of mowing.

C. Erosion Control

1. Inspect quarterly for erosion. Inspection after major storm events for erosion problems is also recommended if practical
2. Repair all eroded areas immediately. Temporary erosion controls may be necessary to facilitate repairs.

D. Tilling
   1. If the basin is located on marginally permeable soils, annual or semi- annual tilling may be needed to maintain infiltration capacity.
   2. Tilled areas should be immediately re-vegetated to prevent erosion.

E. Pre-Treatment Systems
   1. Maintenance of the pre-treatment system should include sediment removal, oil and grease skimming, and grass filter strip maintenance.
   2. Inspect the structural elements of the pre-treatment system and repair if needed.

F. Mulch
   1. Re-mulch void areas as needed.
   2. Add additional mulch once per year.

II. NON-ROUTINE MAINTENANCE

A. Structural Maintenance
   1. Inspect pipe systems quarterly.
   2. Remove and replace pipe systems that have eroded or rusted.
   3. Earthen structures should be inspected annually. Erosion should be repaired immediately upon discovery.

B. Restoration of Infiltration Capacity
   1. Over time the original infiltration capacity of the basin will be diminished.
   2. Deep tilling can be done to restore the infiltration capacity of the basin. The basin will be drained and the soils dried to a depth of 8 inches.
   3. The top 2 to 3 inches of topsoil, chisel plowing, and adding topsoil and compost can be done.
   4. The basin must be restored with native plantings.

C. Watering
   1. Water plants need to be watered as necessary during the first growing season.
   2. After the first growing season, water as necessary during dry periods.

STORM SEWER SYSTEM
OPERATIONS AND MAINTENANCE

I. INSPECTION

A. Frequency
   a. Inspect catch basins, inlets and manholes at least once per year.
   b. Inspect storm sewer end sections at least twice per year and after major rainfall events.

B. Inspection
   a. Catch Basins, Inlets and Manholes
      i. Inspect for sediment deposition in the bottom of structures.
      ii. Check frames and lids for cracks and wear such as rocking lids

or lids moved by traffic and for shifted frames.

iii. Check chimneys for cracked mortar, cracked lift rings and spalling.

iv. Check for leaks at joints.

v. Check surrounding areas for pollutants such as leaks from dumpsters, minor spills and oil dumping.

b. Storm Sewer End sections

i. Observe for obstructions, accumulation of sediment and trash, undermining and joint separation.

ii. Inspect end treatment for settlement, scour and displaced armoring.

II. STANDARD MAINTENANCE

A. Catch Basins, Inlets and Manholes

a. Repair any deterioration threatening structural integrity immediately.

b. Replace worn or cracked frames and lids. Frames that have shifted should be re-centered and re-set on the structure.

c. Repair any spalled or cracked mortar. Cracked rings should be repaired or replaced.

d. Repair leaking joints.

e. Clean manhole and storm inlet inverts of deposited material. Catch basins should be cleaned before the sump is 40 percent full or every 2-years, whichever comes first.

f. Remove potential sources of contamination away from catch basins, inlets and manholes.

B. Storm Sewer End sections

a. End sections should be free flowing; trash, debris and obstructions should be removed to prevent backups.

b. End sections which have separated from the storm sewer pipe shall be reset on firm bedding and reconnected to the existing storm sewer pipe. Restrain joints if necessary.

c. Scour areas shall be repaired immediately. Replace missing soil with clean fill and replace/install end treatment. Missing armoring will require additional stone, typically one class larger.

d. Excessive material deposited at the storm sewer outfall is indicative of: a disturbed area upstream draining to the system or a potential failure of a system component. Disturbed areas draining to the system should be stabilized immediately or diverted to drain to a BMP. Potential system failures require non-standard maintenance.

III. NON-STANDARD MAINTENANCE

A. Non-standard maintenance includes inspection, repair or replacement of buried structures.

a. Televising of buried structures (pipes) should occur when excessive material is found within the system or at an outfall with no apparent source area visible at the surface, or the system experiences frequent backups.

b. Follow the recommendations for the repair and/or replacement of system components televised by a firm specializing in this work.

FILTER STRIP
OPERATIONS AND MAINTENANCE

I. ROUTINE MAINTENANCE

A. Inspection

1. Vegetative buffers shall at a minimum be inspected weekly and

within 24 hours after every precipitation event that produces 0.5 inches of rain or more during a 24-hour period.

2. Vegetative buffers shall be inspected for proper distribution of flows, sediment accumulation and signs of rill formation.

B. Mowing

1. A stand of dense vegetation shall be maintained to a height of 3 – 12 inches.

C. Erosion Control

1. If the vegetative buffer becomes silt covered, contains rills, or is otherwise rendered ineffective, other perimeter sediment control measures shall be installed. Eroded areas shall be repaired and stabilized.
2. Repairs shall be completed as soon as possible with consideration to site conditions.

Exhibit D – Design Summary

The proposed development is 15,7770 sq.ft building expansion with a new parking lot. The proposed development has been designed to capture the storm water drainage from the parking lot and for the south half of the roof and routed to a bio-retention basin. Below is a summary of the release rates and water quality.

Site Release Rate Summary

The Table below summarizes the storm water release rates associated with the development.

	Existing Release Rate (cfs)	Proposed Release Rate (cfs)
1-year	0.63	0.61
2-year	0.96	0.77
10-year	2.46	1.42
100-year	6.44	3.57

* Note: Total peak runoff rates are based on the addition of the peak discharge rates from the associated hydrographs at the peak time for the site; due to varying peak times, the total discharge rates are not a direct summation of the peak rates for each. Refer to the attached watershed summary for additional information.

Water Quality Summary

The Table below summarizes the water quality associated with the development.

	Pollutant Yield Without Controls (lbs)	Pollutant Yield After Controls (lbs)	Percent Reduction
Particulate Solids	296.3	70.75	**76.12%**
Particulate Phosphorus	0.7862	0.1933	**75.41%**

Exhibit D
Watershed Summary

Project Name: Birchrock Castle Addition
Watershed (ultimate discharge): Upper Fox River - Illinois
REVISION: 02-04-2020

Project Size: 1.30 acres
Watershed Area (including off-site runoff traveling through project area): 1.3 acres

Summary Data Elements	Pre-developed	Post-development							
	Subwatershed A to extisting SW local depression	**Subwatershed 1S** to Bio-Basin	**Subwatershed 2S** Undetained NE	**Subwatershed 3S** Undetained S	**Subwatershed 4S** Undetained NW	**Subwatershed (1S) w/o BMPs**	***Total Site Subwatershed (1+2+3+4) w/o BMPs***	**Subwatershed (1S) with BMPs**	***Total Site Subwatershed (1+2+3+4) with BMPs***
Watershed Areas	1.300 acres	1.065 acres	0.183 acres	0.036 acres	0.016 acres	1.065 acres	*1.300 acres*	1.065 acres	*1.300 acres*
Average Watershed Slopes	7 – 19%	1 – 2%	1 – 3%	0.8 – 2.3%	1-2%	0.5 – 33%	*0.5 – 33%*	0.5 – 33%	*0.5 – 33%*
Land Uses (% of each)	0.235 acres – Impervious (18%)	0.362 acres – Building (34%)			0.011 acres – Building (69%)	0.362 acres – Building (16%)	*0.34 acres – Building (10%)*	0.34 acres – Building (16%)	*0.34 acres – Building (10%)*
	0.010 acres – Gravel (1%)	0.305 acres – Impervious (29%)	0.016 acres – Impervious (9%)	0.012 acres – Impervious (33%)	0.003 acres – Impervious (19%)	1.04 acres – Pavement (47%)	*1.29 acres – Pavement (37%)*	1.04 acres – Pavement (47%)	*1.29 acres – Pavement (37%)*
	1.055 acres – Grass (81%)	0.398 acres – Grass (37%)	0.168 acres – Grass (91%)	0.024 acres – Grass (67%)	0.002 acres – Grass (12%)	0.80 acres – Grass (37%)	*1.89 acres – Grass (53%)*	0.80 acres – Grass (37%)	*1.89 acres – Grass (53%)*
Runoff Curve Numbers	Impervious = 98	Building = 98			Building = 98	Building = 98	Building = 98	Building = 98	Building = 98
	Gravel=96	Impervious = 98	Pavement = 98	Pavement = 98	Pavement = 98	Pavement = 98	*Pavement = 98*	Pavement = 98	*Pavement = 98*
	Grass = 61	Grass = 61	Grass = 61	Grass = 61	Grass = 61	Grass = 61	*Grass = 61*	Grass = 61	*Grass = 61*
	Composite = 68	**Composite = 84**	**Composite = 64**	**Composite = 73**	**Composite = 93**	**Composite = 84**	***Composite = 81***	**Composite = 84**	***Composite = 81***
Conveyance Systems Types	Overland flow	Overland flow, storm sewer	Overland low	Overland low	Overland low	Overland flow, infiltration, storm sewer	*Overland flow, infiltration, storm sewer*	Overland flow, infiltration, storm sewer	*Overland flow, infiltration, storm sewer*
Summary of Average Conveyance System Data	Slope = 2 – 13%	Slope = 1.0 – 2%	Slope = 1.0 – 3% 4" PVC @ slope = 10.8%	Slope = 0.8 – 2.3% 8" PVC @ slope = 2.08%	Slope = 1.0 – 2%	Slope = 1.0 – 2%	*Slope = 1.0 – 3%; 4" PVC @ 10.8%*	Slope = 0.8 – 2.3%; 8" PVC @ 2.08%	*Slope = 5 – 25%*
Time of Concentration (Tc)	6 minutes	6 minutes	6 minutes	6 minutes	6 minutes	6 minutes	6 minutes	6 minutes	6 minutes
Peak Flow: 1-yr.	0.63 cfs	1.51 cfs	0.47 cfs	0.03 cfs	0.05 cfs	1.51cfs	*2.05 cfs*	0.11 cfs	*0.61 cfs*
Peak Flow: 2-yr	0.96 cfs	1.87 cfs	0.60 cfs	0.04 cfs	0.06 fs	1.87 cfs	*2.57 cfs*	0.13 cfs	*0.77 cfs*
Peak Flow: 10-yr.	2.46 cfs	3.32 cfs	1.11 cfs	0.09 cfs	0.08cfs	3.32 cfs	*4.59 cfs*	0.60 cfs	*1.42 cfs*
Peak Flow: 100-yr.	6.44 cfs	6.58 cfs	2.28 cfs	0.21 cfs	0.14 cfs	6.58 cfs	*9.21 cfs*	1.52 cfs	*3.57 cfs*

Exhibit D

Data Summary Sheet for Bio-Basin

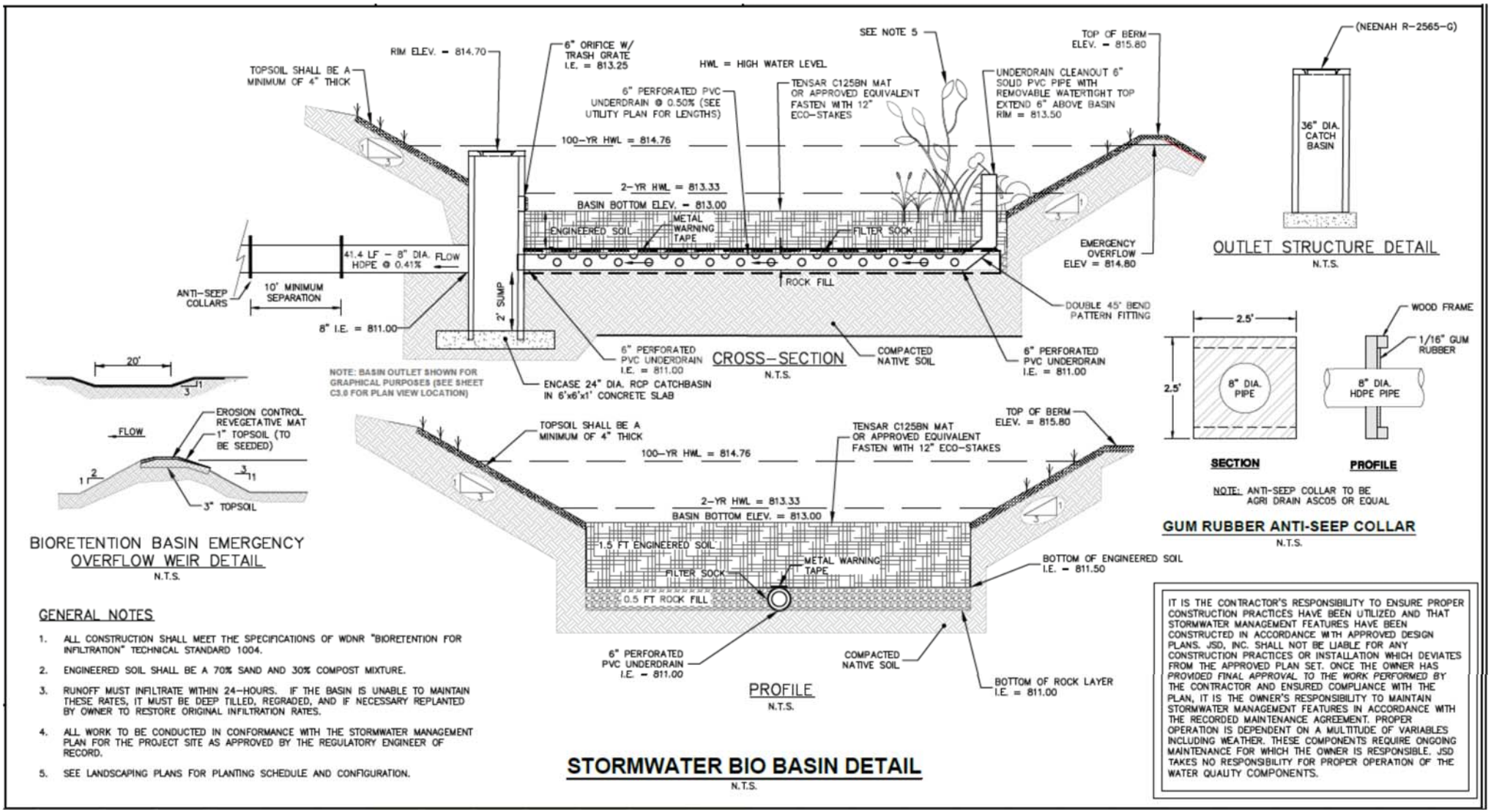
Design Element	Design Data
Site assessment data: (see attached maps)	
Contributing drainage area to basin (Subcatchment 1S)	1.065 acres
Distance to nearest private well (including off-site wells)	>100 feet
Distance to municipal well (including off-site wells)	>1200 feet
Wellhead protection area involved?	No
Ground slope at site of proposed basin	Approx. = 9.0-11.0%
Any buried or overhead utilities in the area?	No
Proposed outfall conveyance system/discharge (w/distances)	41' – 8" HDPE to Wetland
Any downstream roads or other structures? (describe)	No
Floodplain, shoreland or wetlands?	Existing wetland complex to the North
Soil investigation data (see attached map & soil logs):	
Number of soil investigations completed	0
Do elevations of test holes extend 3 ft. below proposed bottom?	N/A
Average soil texture at basin bottom elevation (USDA)	Compacted native soil
Design infiltration rate at basin bottom and method of analysis	0.15 – Based on infiltration rate for Soil type
Measured infiltration rate following construction	-
Distance from basin bottom to bedrock	10+ feet
Distance from basin bottom to seasonal water table	-
General basin design data (see attached detailed drawings):	
Basin bottom surface area	0.053 acre
Effective infiltration area	0.053 acre
2% of development area (1.3 acres)	0.026 acre
Basin bottom elevation	813.00
Top of berm elevation (after settling) and width	815.80 / 6 ft. minimum
Basin storage below outlet	0
10% of 2-yr 24-hr post development runoff volume	0.0066 ac-ft
Time to completely infiltrate stored water through engineered fill.	26 hours (100 yr storm event)
Sediment forebay size & depth	N/A – no forebay for bio basin
Sediment storage depth & design maintenance	N/A – no permanent pool depth

Design Basin Inflow, Outflow & Storage Data (see attached hydrographs and detail drawings)				
Inflow Peak	**Maximum Outflow Rate**	**Max. Water Elevation**	**Storage Volume at Max. Elev.**	**Outflow Control Structures***
1.51 cfs (Post 1-yr./24 hr. peak)	0.11 cfs	813.13	1,619 c.f.	#3 and #5
1.87 cfs (Post 2-yr./24 hr. peak)	0.13 cfs	813.33	2,089 c.f.	#3 and #5
3.32 cfs (Post 10-yr./24 hr. peak)	0.60 cfs	813.75	3,230 c.f.	#3 and #5
6.58 cfs (Post 100-yr./24 hr. peak)	1.52 cfs	814.76	6,462 c.f.	#3, #5 and #6

*** The controlling elements are summarized below (See attached detail drawing of Biofiltration Basin):**

#3 = Underdrain
#5 = 6" Orifice @ elev. 813.25
#6 = 24" Grate @ elev. 814.70

Biofiltration Detail



VILLAGE OF MUKWONAGO PURCHASE REQUISITION

PLEASE TYPE OR PRINT IN INK CLEARLY ON THIS FORM

DATE:	2-25-2020	**NUMBER:**	

VENDOR NAME & ADDRESS:	**SHIP TO:**
Northern Sewer Equipment	1200 Holz Parkway Mukwonago WI, 53149

DEPT NAME:	**SUGGESTED VENDOR**	**AUTHORIZED SIGNATURE**
Water Utility	Northern Sewer Equipment	Wayne Castle

BUDGETED ITEM?	Yes	**BUDGETED SOURCE:**	Capital Budget

ITEM	QTY	DESCRIPTION	UNIT PRICE	AMOUNT	ACCT #
1	1	Valve Exerciser, associated accessories, and labor to install	$31,380.00	$31,380.00	610-0000-139200
			TOTAL	**$31,380.00**	

Comments: This is the budgeted valve exerciser for the new 2020 Water Exercising truck which was approved in February.

FINANCE COMMITTEE USE ONLY	
APPROVED (COMMITTEE INITIALS):	
DATE:	
SPECIAL INSTRUCTIONS	

Date: 2/24/2020

Quoted By Northern Sewer Equipment
4035 Roberts Road, Island Lake, IL 60042
Phone: (888)301-2409
Fax: (815) 801-4405
www.northernsewerequipment.com
Salesperson: Mark Grabowski (262) 510-5107

Agency: Village of Mukwonago
Address: 1200 Holz Pkwy
City-State-Zip: Mukwonago, WI 53149
Contact: Wayne Castle
Phone: 262-441-1366
Email: w.castle@villageofmukwonago.com

Estimated Delivery: 6 Weeks ARO
Reference: Mukwonago

	Item Number	Description	Qty	U/M	Unit Price (USD)	Line Total (USD)
1	79-000-07	Wachs ERV-750 High Stack (without Datalogger) Automated Valve Operator, Exercisor and Rehabilitator. Featuring Wach Patented Automation. Extendable arm produces a full 750 Ft lbs (1020 Nm) of torque.The system utilizes a dual pivot point to locate over any valve box/Hydrant. Locking disc brake holds the full torque of the machine while operating, 3" (76.2 mm) square steel tube construction and mechanical lock system for travel. Installation Note: Failure to use an ASE Certified E1-E3 technician or Factory Authorized Servicer (FAS) will void warranty. Includes: - Dataloggers / Controllers - Telescopic Valve Keys w/ Extensions - Tee Handle Adapters - Custom Mount & Labor	1	EA		

Total $31,380.00

TERMS & CONDITIONS:
*Quote is valid for 90 days
* Quote is NET of any/all Sales Tax
* Delivery: To be advised

CUSTOMER APPROVAL: **Required Down-payment: PO Only**

Company Name

Delivery Address: City / State / Zip

Name Title Date

Please sign and return by email to:
meagan@jetvacenvironmental.com
or fax to (815) 801-4405

The Village of
Mukwonago
Where life, leisure and business thrive.

AGENDA ITEM REQUEST FORM

Committee/Board:	Village Board
Topic:	Motion to approve TID #5 Public Improvements Close-out Change Order and Final Payment.
From:	Jerad Wegner
Department:	Public Works
Presenter:	Michael Michalski
Date of Committee Action (if required)	March 4, 2020
Date of Village Board Action (if required)	March 18, 2020

Information

Subject:
Motion to approve TID #5 Public Improvements Close-out Change Order and Final Payment.

Background Information/Rationale:
Willkomm Excavating Inc., has completed the TID #5 Public Improvements project and has submitted a final Application for Payment and furnished the enclosed Contract-required items: Maintenance and operating instructions, Consent of Surety to Final Payment, list of Subcontractors, Suppliers, and service providers performing, furnishing, or procuring labor, services and materials on the Project, releases or waivers of lien from first tier Subcontractors and Suppliers, and certificate or other evidence of completed operations insurance.

Key Issues for Consideration:
In accordance with paragraph 15.08 of the General Conditions, the Contractor is required to promptly repair or correct defective Work for a period of one year from the date of Substantial Completion, which was February 1, 2019, except for the Booster Station which has a correction period of two years from the date of Substantial Completion.

Fiscal Impact (if any):
The original Contract Price was $4,677,654.00 and the final amount earned for the TID #5 Public Improvements project is $4,891,477.94. With the final Change Order No. 10, TID #5 Public Improvements project is at 4.57% for contingencies.

Requested Action by Committee/Board:

Attachments

Ruekert·Mielke
W233 N2080 Ridgeview Parkway, Waukesha, WI 53188-1020 262-542-5733

February 24, 2020

Mr. Fred Winchowky
Village President
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Re: TID #5 Public Improvements
Final Payment

Dear Mr. Winchowky:

Enclosed with this letter please find Change Order No. 10. This Change Order serves to adjust the final Contract Price to reflect the actual completed Work. Please have Change Order No. 10 signed and dated by the appropriate individual, and return an executed copy to our office for further distribution.

In accordance with the Contract Documents, the Contractor for this Project, Willkomm Excavating & Grading, Inc., has submitted a final Application for Payment and has furnished the enclosed Contract-required items:

1. Maintenance and operating instructions.
2. Consent of Surety to Final Payment.
3. List of Subcontractors, Suppliers, and service providers performing, furnishing, or procuring labor, services and materials on the Project.
4. Releases or waivers of lien from first tier Subcontractors and Suppliers.
5. Certificate or other evidence of completed operations insurance.

You may want to have your legal counsel and insurance advisor review the respective lien waivers, bonding, and insurance documents to verify legal effectiveness. If all are satisfactory, we recommend final payment, and give notice (enclosed), that the completed Work is acceptable subject to the provisions of General Conditions paragraph 15.07.

In accordance with paragraph 15.08 of the General Conditions, the Contractor is required to promptly repair or correct defective Work for a period of one year from the date of Substantial Completion, which was February 1, 2019, except for the Booster Station which has a correction period of two years from the date of Substantial Completion. You may wish to review the Project a month or so before the anniversary date to check for any warranty items. If we can be of assistance to you in this regard, please contact us.

Respectfully,

RUEKERT & MIELKE, INC.

Michael E. Michalski
Project Engineer
mmichalski@ruekert-mielke.com

MEM:sjs
Enclosure(s)
cc: John Weidl, Village of Mukwonago
Mark G. Blum, Village of Mukwonago
Kurt Eby, Willkomm Excavating & Grading, Inc., w/Notice of Acceptability
Jerad J. Wegner, P.E., Ruekert & Mielke, Inc.

NOTICE OF ACCEPTABILITY OF WORK

PROJECT: **TID #5 Public Improvements**

OWNER: Village of Mukwonago

CONTRACTOR: Willkomm Excavating & Grading, Inc.

EFFECTIVE DATE OF THE CONSTRUCTION CONTRACT: May 9, 2018

ENGINEER: Ruekert & Mielke, Inc.

NOTICE DATE: **February 24, 2020**

To: Village of Mukwonago
Owner

And To: Willkomm Excavating & Grading, Inc.
Contractor

From: Ruekert & Mielke, Inc.
Engineer

The Engineer hereby gives notice to the above Owner and Contractor that the completed Work furnished and performed by Contractor under the above Contract is acceptable expressly subject to the provisions of the related Contract Documents, the Agreement between Owner and Engineer for Professional Services and the terms and conditions set forth as follows:

CONDITIONS OF NOTICE OF ACCEPTABILITY OF WORK

The Notice of Acceptability of Work ("Notice") is expressly made subject to the following terms and conditions to which all those who receive said Notice and rely thereon agree:

1. This Notice is given with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.
2. This Notice reflects and is an expression of the professional judgment of Engineer.
3. This Notice is given as to the best of Engineer's knowledge, information, and belief as of the Notice Date.
4. This Notice is based entirely on and expressly limited by the scope of services Engineer has been employed by Owner to perform or furnish during construction of the Project (including observation of the Contractor's work) under Engineer's Agreement with Owner and under the Construction Contract referred to in this Notice, and applies only to facts that are within Engineer's knowledge or could reasonably have been ascertained by Engineer as a result of carrying out the responsibilities specifically assigned to Engineer under such Agreement and Construction Contract.
5. This Notice is not a guarantee or warranty of Contractor's performance under the Construction Contract referred to in this Notice, nor an assumption of responsibility for any failure of Contractor to furnish and perform the Work thereunder in accordance with the Contract Documents.

By: Michael E. Michalski

Title: Project Engineer

Dated: February 24, 2020

Change Order No. Ten (10)

Date of Issuance:	January 20, 2020	Effective Date:	January 20, 2020
Contract:	TID #5 Public Improvements	Owner:	Village of Mukwonago
Contractor:	Willkomm Excavating & Grading, Inc.	Engineer:	Ruekert & Mielke, Inc.
Address:	17108 County Line Road Union Grove, WI 53182	Engineer's Project No.:	12-10068.300
		Effective Date of Contract:	May 9, 2018

The Contract is modified as follows upon execution of this Change Order:

Description:
Closeout Change Order

Reason for Change Order:
Change Contract price to match amount earned and withhold $35,000 in liquidated damages agreed between the Owner and Contractor

Attachments:
Closeout Change Order Analysis and Final Pay Application No. 12

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES
Original Contract Price $ 4,677,654.00	Original Contract Times: Substantial Completion: November 30, 2018 Ready for Final Payment: June 1, 2019 days or dates
Increase from previously approved Change Orders No. 1 to No. 9: $ 205,173.63	Changes from previously approved Change Orders: Substantial Completion: N/A Ready for Final Payment: N/A days
Contract Price prior to this Change Order: $ 4,882,827.63	Contract Times prior to this Change Order: Substantial Completion: November 30, 2018 Ready for Final Payment: June 1, 2019 days or dates
Increase of this Change Order: $ 8,650.31	Changes from this Change Order: Substantial Completion: 0 Ready for Final Payment: 0 days or dates
Contract Price incorporating this Change Order: $ 4,891,477.94	Contract Times with all approved Change Orders: Substantial Completion: November 30, 2018 Ready for Final Payment: June 1, 2019 days or dates

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By: Michael E. Michalski	By:	By: Nicholas A. Miller
Engineer (Authorized Signature)	Owner (Authorized Signature)	Contractor (Authorized Signature)
Michael E. Michalski	Village of Mukwonago	Willkomm Excavating & Grading, Inc.
Date: January 20, 2020	Date:	Date: 2-3-2020

Ruekert·Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

ANALYSIS OF CLOSE-OUT CHANGE ORDER

OWNER: Village of Mukwonago
PROJECT: TID #5 Public Improvements
DATE PREPARED: 20-Jan-20

ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT $	ORIGINAL CONTRACT AMOUNT	ACTUAL QUANTITY INSTALLED	FINAL CONTRACT AMOUNT
1	Mobilization (limited to maximum of 5% of Total Bid)	L.S.	1.00	$125,000.00	$ 125,000.00	1.00	$ 125,000.00
2	Traffic control	L.S.	1.00	$7,800.00	$ 7,800.00	1.00	$ 7,800.00
3	Temporary construction access deceleration/ acceleration lane	L.S.	1.00	$28,700.00	$ 28,700.00	1.00	$ 28,700.00
4	Temporary construction access drive	L.S.	1.00	$19,400.00	$ 19,400.00	0.00	$ -
5	Temporary construction access advance warning signage	L.S.	1.00	$3,535.00	$ 3,535.00	1.00	$ 3,535.00
6	Tracking pad	S.F.	7,200.00	$1.66	$ 11,952.00	7,500.00	$ 12,450.00
7	Project identification signs	L.S.	1.00	$3,000.00	$ 3,000.00	1.00	$ 3,000.00
8	Barrier fence	L.F.	2,110.00	$3.15	$ 6,646.50	990.00	$ 3,118.50
9	Silt fence	L.F.	12,150.00	$1.88	$ 22,842.00	13,764.00	$ 25,876.32
10	Manufactured ditch check	EA.	16.00	$375.00	$ 6,000.00	71.00	$ 26,625.00
11	Inlet sediment guards, Type C	EA.	12.00	$53.00	$ 636.00	13.00	$ 689.00
12	Inlet sediment guards, Type D	EA.	2.00	$120.00	$ 240.00	2.00	$ 240.00
13	Excavation of contaminated material	C.Y.	20.00	$25.00	$ 500.00	11.00	$ 275.00
14	Clearing, grubbing and tree removal	L.S.	1.00	$4,000.00	$ 4,000.00	1.00	$ 4,000.00
15	Demolition, Parcel # VM00008	L.S.	1.00	$75,000.00	$ 75,000.00	1.00	$ 75,000.00
16	Underground septic tank removal	EA.	1.00	$3,000.00	$ 3,000.00	1.00	$ 3,000.00
17	Exploratory trench	L.F.	2,920.00	$12.42	$ 36,266.40	2,892.00	$ 35,918.64
18	Abandoning drain tiles	EA.	5.00	$400.00	$ 2,000.00	2.00	$ 800.00
19	Temporary seed and mulch	S.Y.	35,000.00	$0.26	$ 9,100.00	45,980.00	$ 11,954.80
20	Grading	L.S.	1.00	$485,000.00	$ 485,000.00	1.00	$ 485,000.00
21	Topsoil stripping and stockpile	S.Y.	170,000.00	$0.62	$ 105,400.00	184,218.00	$ 114,215.16
22	Placement and compacting OTHER excavated material	C.Y.	13,250.00	$2.50	$ 33,125.00	17,644.00	$ 44,110.00
23	Ditching	L.F.	570.00	$3.00	$ 1,710.00	567.50	$ 1,702.50
24	Storm water detention facility No. 1	L.S.	1.00	$74,625.00	$ 74,625.00	1.00	$ 74,625.00
25	Storm water facility No. 1 dewatering	L.S.	1.00	$28,000.00	$ 28,000.00	1.00	$ 28,000.00
26	Storm water facility No. 1 chain link fence	L.F.	1,670.00	$13.70	$ 22,879.00	1,670.00	$ 22,879.00
27	Storm water detention facility No. 2	L.S.	1.00	$72,636.00	$ 72,636.00	1.00	$ 72,636.00
28	Rip Rap	TON	135.00	$55.00	$ 7,425.00	392.32	$ 21,577.60
29	Temporary stone weeper	EA.	2.00	$1,500.00	$ 3,000.00	2.00	$ 3,000.00
30	Dust control using calcium chloride	100 LBS.	10.00	$200.00	$ 2,000.00	0.00	$ -
31	Dust control using water	1,000 GAL.	10.00	$62.00	$ 620.00	0.00	$ -
32	Full depth saw cutting	L.F.	395.00	$3.10	$ 1,224.50	2,205.00	$ 6,835.50
33	Rock removal - If Required	C.Y.	200.00	$25.00	$ 5,000.00	0.00	$ -
34	Sanitary sewer, 12-inch, w/granular backfill	L.F.	2,142.00	$140.00	$ 299,880.00	2,023.00	$ 283,220.00
35	Sanitary sewer, 12-inch, w/spoil backfill	L.F.	2,646.00	$83.00	$ 219,618.00	2,664.10	$ 221,120.30
36	Sanitary sewer, 12-inch, w/24-inch steel casing pipe	L.F.	120.00	$575.00	$ 69,000.00	120.00	$ 69,000.00

© 2015 Copyright Ruekert & Mielke, Inc.

Ruekert·Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

ANALYSIS OF CLOSE-OUT CHANGE ORDER

OWNER: Village of Mukwonago
PROJECT: TID #5 Public Improvements
DATE PREPARED: 20-Jan-20

ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT $	ORIGINAL CONTRACT AMOUNT	ACTUAL QUANTITY INSTALLED	FINAL CONTRACT AMOUNT
37	Sanitary sewer manholes	V.F.	287.00	$428.00	$ 122,836.00	280.74	$ 120,156.72
38	Sanitary sewer lateral, 6-inch with cleanout	L.F.	202.00	$134.00	$ 27,068.00	250.00	$ 33,500.00
39	Internal/external sanitary manhole chimney seal	EA.	17.00	$446.00	$ 7,582.00	17.00	$ 7,582.00
40	Water main, 8-inch, w/granular backfill	L.F.	202.00	$82.00	$ 16,564.00	237.00	$ 19,434.00
41	Water main, 12-inch, w/granular backfill	L.F.	55.00	$189.00	$ 10,395.00	55.00	$ 10,395.00
42	Water main, 12-inch, w/spoil backfill	L.F.	55.00	$64.00	$ 3,520.00	55.00	$ 3,520.00
43	Water main, 16-inch, w/granular backfill	L.F.	2,101.00	$129.00	$ 271,029.00	2,073.00	$ 267,417.00
44	Water main, 16-inch, w/spoil backfill	L.F.	2,663.00	$94.00	$ 250,322.00	2,719.00	$ 255,586.00
45	Water main, 16-inch, w/30-inch steel casing pipe	L.F.	120.00	$638.00	$ 76,560.00	120.00	$ 76,560.00
46	Hydrant lead, 6-inch	L.F.	166.00	$102.00	$ 16,932.00	161.50	$ 16,473.00
47	Hydrant assembly w/6-inch valve	EA.	15.00	$5,382.00	$ 80,730.00	15.00	$ 80,730.00
48	Temporary hydrant assembly	EA.	1.00	$6,371.00	$ 6,371.00	1.00	$ 6,371.00
49	Water main valves, 8-inch gate valve	EA.	4.00	$1,868.00	$ 7,472.00	5.00	$ 9,340.00
50	Water main valves, 12-inch gate valve	EA.	4.00	$3,038.00	$ 12,152.00	4.00	$ 12,152.00
51	Water main valves, 16-inch butterfly valve	EA.	23.00	$3,269.00	$ 75,187.00	23.00	$ 75,187.00
52	Furnish Metal Building System and Equipment as specified in Section 13 34	L.S.	1.00	$557,000.00	$ 557,000.00	1.00	$ 557,000.00
53	Provide all other Work within site limits shown on Drawing BS-01 and detailed	L.S.	1.00	$124,607.00	$ 124,607.00	1.00	$ 124,607.00
54	Storm sewer main, 12-inch RCP, w/granular backfill	L.F.	222.00	$65.00	$ 14,430.00	349.00	$ 22,685.00
55	Storm sewer main, 15-inch RCP, w/granular backfill	L.F.	38.00	$124.00	$ 4,712.00	36.00	$ 4,464.00
56	Storm sewer main, 18-inch RCP, w/granular backfill	L.F.	56.00	$116.00	$ 6,496.00	56.00	$ 6,496.00
57	Storm sewer main, 24-inch RCP, w/granular backfill	L.F.	1,462.00	$92.00	$ 134,504.00	1,462.00	$ 134,504.00
58	Storm sewer main, 36-inch RCP, w/granular backfill	L.F.	70.00	$156.00	$ 10,920.00	51.00	$ 7,956.00
59	Storm sewer main, 36-inch RCP, w/spoil backfill	L.F.	1,040.00	$108.00	$ 112,320.00	1,042.40	$ 112,579.20
60	Concrete storm sewer end sections, 36-inch, w/end grate	EA.	1.00	$2,053.00	$ 2,053.00	1.00	$ 2,053.00
61	Concrete storm sewer plug, 15-inch	EA.	1.00	$419.00	$ 419.00	1.00	$ 419.00
62	Concrete storm sewer plug, 24-inch	EA.	1.00	$459.00	$ 459.00	1.00	$ 459.00
63	Storm sewer manholes, 48-inch w/frame and cover	EA.	6.00	$2,203.00	$ 13,218.00	6.00	$ 13,218.00
64	Storm sewer manholes, 60-inch w/frame and cover	EA.	5.00	$2,915.00	$ 14,575.00	5.00	$ 14,575.00
65	Storm sewer manholes, 72-inch w/frame and cover	EA.	2.00	$4,901.00	$ 9,802.00	2.00	$ 9,802.00
66	Catch basin, w/frame and grate	EA.	12.00	$3,173.00	$ 38,076.00	12.00	$ 38,076.00
67	Field inlet, w/frame and grate	EA.	2.00	$2,303.00	$ 4,606.00	2.00	$ 4,606.00
68	Temporary CMP culvert, 24-inch w/end sections	L.F.	40.00	$97.00	$ 3,880.00	40.00	$ 3,880.00
69	Construct roadway to subgrade	L.S.	1.00	$8,800.00	$ 8,800.00	1.00	$ 8,800.00
70	Excavation below subgrade	C.Y.	850.00	$7.22	$ 6,137.00	632.62	$ 4,567.52
71	Geotextile subgrade stabilization	S.Y.	2,550.00	$1.75	$ 4,462.50	1,477.00	$ 2,584.75
72	Excavation below subgrade (EBS) backfill	TON	1,700.00	$17.00	$ 28,900.00	1,505.26	$ 25,589.42
73	Crushed aggregate for road base	TON	6,600.00	$15.26	$ 100,716.00	6,913.00	$ 105,492.38

© 2015 Copyright Ruekert & Mielke, Inc.

Ruekert·Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

ANALYSIS OF CLOSE-OUT CHANGE ORDER

OWNER: Village of Mukwonago
PROJECT: TID #5 Public Improvements
DATE PREPARED: 20-Jan-20

ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT $	ORIGINAL CONTRACT AMOUNT	ACTUAL QUANTITY INSTALLED	FINAL CONTRACT AMOUNT
74	30-inch concrete curb and gutter	L.F.	2,712.00	$11.30	$ 30,645.60	2,700.00	$ 30,510.00
75	36-inch concrete curb and gutter	L.F.	155.00	$18.60	$ 2,883.00	90.00	$ 1,674.00
76	Concrete flume	EA.	2.00	$230.00	$ 460.00	2.00	$ 460.00
77	Asphaltic concrete binder course	TON	2,135.00	$56.00	$ 119,560.00	2,276.61	$ 127,490.16
78	Asphaltic concrete surface course	TON	1,035.00	$61.00	$ 63,135.00	1,198.62	$ 73,115.82
79	Crushed aggregate shoulder	L.F.	540.00	$4.00	$ 2,160.00	540.00	$ 2,160.00
80	Concrete sidewalk and curb ramp	S.F.	85.00	$13.50	$ 1,147.50	85.00	$ 1,147.50
81	Detectable Warning Field	S.F.	16.00	$30.00	$ 480.00	16.00	$ 480.00
82	3-inch asphaltic concrete multi-use path	S.F.	11,000.00	$1.90	$ 20,900.00	11,533.00	$ 21,912.70
83	Pavement marking, epoxy, 18-inch, stop bar	L.F.	40.00	$11.00	$ 440.00	41.00	$ 451.00
84	Pavement marking, epoxy, 4-inch yelow	L.F.	380.00	$3.65	$ 1,387.00	1,014.00	$ 3,701.10
85	Pavement marking, epoxy, 4-inch white	L.F.	150.00	$3.65	$ 547.50	210.00	$ 766.50
86	Pavement marking, arrows Type 2	EA.	2.00	$260.00	$ 520.00	2.00	$ 520.00
87	Pavement marking, words	EA.	1.00	$315.00	$ 315.00	1.00	$ 315.00
88	Topsoil, turf grass seed, fertilizer and hydro-mulch	S.Y.	6,200.00	$1.80	$ 11,160.00	5,034.00	$ 9,061.20
89	Topsoil, no-mow seed and hydro-mulch	S.Y.	325,000.00	$0.42	$ 136,500.00	99,741.00	$ 41,891.22
90	Topsoil, native seeding and erosion mat	S.Y.	25,000.00	$2.00	$ 50,000.00	28,900.00	$ 57,800.00
91	Erosion mat	S.Y.	510.00	$2.00	$ 1,020.00	2,325.00	$ 4,650.00
92	Traffic signs	EA.	1.00	$235.00	$ 235.00	4.00	$ 940.00
93	Traffic sign posts	EA.	1.00	$160.00	$ 160.00	7.00	$ 1,120.00
94	Class III barricades	EA.	3.00	$470.00	$ 1,410.00	0.00	$ -
95	Engineer's field office	L.S.	1.00	$10,500.00	$ 10,500.00	1.00	$ 10,500.00
96	Traffic Control	L.S.	1.00	$9,000.00	$ 9,000.00	1.00	$ 9,000.00
97	Construct roadway to subgrade	L.S.	1.00	$39,500.00	$ 39,500.00	1.00	$ 39,500.00
98	Excavation below subgrade	C.Y.	275.00	$7.22	$ 1,985.50	885.34	$ 6,392.15
99	Geotextile subgrade stabilization	S.Y.	825.00	$1.68	$ 1,386.00	1,960.00	$ 3,292.80
100	Excavation below subgrade (EBS) backfill	TON	550.00	$17.00	$ 9,350.00	1,770.65	$ 30,101.05
101	Crushed aggregate for road base	TON	3,200.00	$17.38	$ 55,616.00	2,305.66	$ 40,072.37
102	36-inch concrete curb and gutter	L.F.	226.00	$18.00	$ 4,068.00	130.00	$ 2,340.00
103	Asphaltic concrete binder course	TON	990.00	$60.00	$ 59,400.00	701.29	$ 42,077.40
104	Asphaltic concrete surface course	TON	380.00	$65.00	$ 24,700.00	370.92	$ 24,109.80
105	Crushed aggregate shoulder	L.F.	1,360.00	$5.30	$ 7,208.00	1,933.50	$ 10,247.55
106	Ditching	L.F.	455.00	$3.10	$ 1,410.50	854.00	$ 2,647.40
107	Manufactured ditch check	EA.	7.00	$375.00	$ 2,625.00	7.00	$ 2,625.00
108	Storm sewer main, 18-inch RCP, w/granular backfill	L.F.	172.00	$55.00	$ 9,460.00	220.00	$ 12,100.00
109	Concrete storm sewer end sections, 18-inch	EA.	2.00	$841.00	$ 1,682.00	2.00	$ 1,682.00
110	Pavement marking, epoxy, 8-inch, white	L.F.	700.00	$1.75	$ 1,225.00	734.00	$ 1,284.50
111	Pavement marking, epoxy, 4-inch white	L.F.	1,964.00	$1.00	$ 1,964.00	1,944.00	$ 1,944.00

© 2015 Copyright Ruekert & Mielke, Inc.

Ruekert·Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

ANALYSIS OF CLOSE-OUT CHANGE ORDER

OWNER: Village of Mukwonago
PROJECT: TID #5 Public Improvements
DATE PREPARED: 20-Jan-20

ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT $	ORIGINAL CONTRACT AMOUNT	ACTUAL QUANTITY INSTALLED	FINAL CONTRACT AMOUNT
112	Pavement marking, epoxy, 4-inch white, (3' dash with 9' space)	L.F.	280.00	$1.00	$ 280.00	192.00	$ 192.00
113	Pavement marking, epoxy, 8-inch white, (3' dash with 9' space)	L.F.	194.00	$1.75	$ 339.50	132.00	$ 231.00
114	Topsoil, turf grass seed, fertilizer and hydro-mulch	S.Y.	3,610.00	$1.80	$ 6,498.00	0.00	$ -
115	Erosion mat	S.Y.	450.00	$1.60	$ 720.00	1,100.00	$ 1,760.00
116	Traffic signs	EA.	2.00	$235.00	$ 470.00	4.00	$ 940.00
117	Traffic sign posts	EA.	4.00	$157.00	$ 628.00	2.00	$ 314.00
	SUBTOTAL OF ORIGINAL CONTRACT ITEMS				***$ 4,677,654.00***		***$ 4,638,239.53***
		ADDITIONAL ITEMS					
118	CO-03 24" to 30"	L.F.		$63.00	$ -	120.00	$ 7,560.00
119	CO-01 GPK 12"x6" Saddle	EA.		$1,016.00	$ -	1.00	$ 1,016.00
120	CO-01 Steel Bolts	L.S.		$18,273.60	$ -	1.00	$ 18,273.60
121	CO -01 Provide Banker Wire a Temp Gravel Accress Drive	L.S.		$35,142.00	$ -	1.00	$ 35,142.00
122	CO-02 4" Perforated Underdrain	L.S.		$8,000.00	$ -	1.00	$ 8,000.00
123	CO-05 15" CMP Culvert	L.F.		$132.20	$ -	20.00	$ 2,644.00
124	CO-04 Concrete storm sewer end sections, 15-inch	EA		$849.00	$ -	2.00	$ 1,698.00
125	CO-04 Remove & replace catch basin w/frame and grate	EA		$5,865.00	$ -	5.00	$ 29,325.00
126	CO-04 Remove & replace inlet w/frame and grate	EA		$5,287.00	$ -	2.00	$ 10,574.00
127	CO-04 Remove existing 12" storm lead	LF		$83.00	$ -	40.00	$ 3,320.00
128	CO-04 Remove existing 15" storm lead	LF		$69.00	$ -	38.00	$ 2,622.00
129	CO-04 Pavement marking, curb epoxy, yellow	LF		$5.78	$ -	40.00	$ 231.20
130	CO-04 Pavement marking, epoxy, 12-inch diagonal, white	LF		$8.40	$ -	264.00	$ 2,217.60
131	CO-04 Remove and relocate hydrant	EA		$2,547.00	$ -	1.00	$ 2,547.00
132	CO-04 Construct added roadway to subgrade and backfill island	LS		$27,170.00	$ -	1.00	$ 27,170.00
133	CO-04 Additional mobilization Zenith Tech	EA		$4,725.00	$ -	1.00	$ 4,725.00
134	CO-04 Radial warning fields	SF		$299.00	$ -	0.00	$ -
135	CO-04 island curb with hand form	LF		$13.49	$ -	660.00	$ 8,903.40
136	CO-06 Dog house catch basin	EA		$6,880.00	$ -	1.00	$ 6,880.00
137	CO-06 Temporary pavement marking 4-inch removable tape	LS		$35,595.00	$ -	1.00	$ 35,595.00
138	CO-07 Additonal Work for booster station water main connection	LS		$3,170.00	$ -	1.00	$ 3,170.00
139	CO-08 TRM - Erosion mat Class 3 Type C/D in pond spillways incl.	SY		$26.20	$ -	400.00	$ 10,480.00
140	CO-08 Prep, seed, fertilizer and E-mat Class 1/A (in place of hydro)	SY		$1.56	$ -	25,180.45	$ 39,281.50
141	50 L.F. of 4" perforated draintile	L.S.		$1,209.00	$ -	1.00	$ 1,209.00
142	Storm Manhole No. 1 cut down	L.S.		$2,029.00	$ -	1.00	$ 2,029.00
143	Storm Manhole No. 10 cut down	L.S.		$2,029.00	$ -	1.00	$ 2,029.00
144	CO-9 Asphaltic Concrete Surface Couse Price Increase	Ton		$13.92	$ -	992.77	$ 13,819.36
145	CO-9 Paving Mobilization	L.S.		$5,076.75	$ -	1.00	$ 5,076.75
146	CO-9 Traffic Control	L.S.		$1,350.00	$ -	2.00	$ 2,700.00

© 2015 Copyright Ruekert & Mielke, Inc.

Ruekert·Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

ANALYSIS OF CLOSE-OUT CHANGE ORDER

OWNER: Village of Mukwonago
PROJECT: TID #5 Public Improvements
DATE PREPARED: 20-Jan-20

ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT $	ORIGINAL CONTRACT AMOUNT	ACTUAL QUANTITY INSTALLED	FINAL CONTRACT AMOUNT
147	CO-10 Liquidated Damages	L.S.		($35,000.00)	$ -	1.00	$ (35,000.00)
				TOTAL ADDITD TOTALS:	***$ -***		***$ 253,238.41***
				GRAND TOTALS:	***$ 4,677,654.00***		***$ 4,891,477.94***

ORIGINAL CONTRACT AMOUNT	$4,677,654.00
EXECUTED CHANGE ORDER(S)	$205,173.63
CONTRACT PRICE PRIOR TO THIS CLOSE-OUT CHANGE ORDER	$4,882,827.63
AMOUNT EARNED ON ORIGINAL CONTRACT ITEMS	$4,638,239.53
AMOUNT EARNED ON OTHER ITEMS	$ 253,238.41
TOTAL AMOUNT EARNED	$4,891,477.94
TOTAL AMOUNT EARNED	$4,891,477.94
LESS CONTRACT PRICE PRIOR TO THIS CLOSE-OUT CHANGE ORDER	($4,882,827.63)
CLOSE OUT CHANGE ORDER AMOUNT	$8,650.31

© 2015 Copyright Ruekert & Mielke, Inc.

Contractor's Application for Payment No. 12 (FINAL)

	Application Date: 1/20/2020	**Application Period:** 6/22/2019 - 01/20/2020
To (Owner): Village of Mukwonago	**From** (Contractor): Willkomm Excavating & Grading, Inc.	**Via** (Engineer): **Ruekert & Mielke, Inc.**
Contact: Judy Dykstra cc: Diana Doherty	**Contact:** Nick Willkomm	**Contact:** Michael E. Michalski, P.E.
Project: TID #5 Public Improvements	**Address:** 17108 County Line Road Union Grove, WI 53182	**Address:** W233 N2080 Ridgeview Parkway Waukesha, WI 53188
Owner's Contract No.:	**Contractor's Project No.:**	**Engineer's Project No.:** 12-10068,300

Change Order Summary

Approved Change Orders		
Number	Additions	Deductions (Enter as Positive Number)
1	$65,199.60	
2	$8,000.00	
3	$7,560.00	
4	$95,754.08	
5	$2,644.00	
6	$42,475.00	
7	$3,170.00	
8		$40,463.00
9	$20,833.95	
10	$8,650.31	
TOTALS	$254,286.94	$40,463.00
NET CHANGE BY CHANGE ORDERS	**$213,823.94**	

1. ORIGINAL CONTRACT PRICE	$	4,677,654.00
2. Net change by Change Orders	$	213,823.94
3. CURRENT CONTRACT PRICE (Line 1 + Line 2)	$	4,891,477.94
4. TOTAL COMPLETED TO DATE (Column L Total on Progress Estimates)	$	4,891,477.94
5. RETAINAGE: a. 5% X $2,423,913.82 Work Completed	$	122,286.95
6. RETAINAGE REDUCTION TO DATE (Enter as Positive Number)	$	122,286.95
7. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5a. + Line 6)	$	4,891,477.94
8. LESS PREVIOUS PAYMENTS (Line 7 from Prior Application)	$	4,741,628.35
9. AMOUNT DUE THIS APPLICATION	$	149,849.59

Payment of: $ **$149,849.59**
(Line 9 or other - attach explanation of the other amount)

Recommended by: Michael E. Michalski 1/20/2020
(Engineer) Michael E. Michalski (Date)

Payment of: $
(Line 9 or other - attach explanation of the other amount)

Approved by: (Owner) (Date)

Contractor's Certification

The undersigned Contractor certifies that to the best of its knowledge:

(1) all previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment;

(2) title to all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner per Article 15 of the General Conditions; and

(3) all Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

By: Nicholas D. Willkomm **Date:** 2-3-2020

d from EJCDC C-620 Contractor's Application for Payment
National Society of Professional Engineers for EJCDC. All rights reserved.

Progress Estimate - Unit Price Work

Contractor's Application for Payment No. 12 (FINAL)

For (Project): TID #5 Public Improvements

Application Date: 1/20/2020

Application Period: 6/22/2019 - 01/20/2020

Engineer's Project No.: 12-10068.300

A	B	C	D	E	F	G	H	I	J	K	L
						Work Completed Previously		Work Completed This Period		Total Work Completed to Date	
Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Item Value ($)	Estimated Quantity Installed	Value of Work Installed ($)	Estimated Quantity Installed	Value of Work Installed ($)	Estimated Quantity Installed	Value of Work Installed ($)
GENERAL IMPROVEMENTS											
1	Mobilization (limited to maximum of 5% of Total Bid)	L.S.	1.00	$125,000.00	$ 125,000.00	0.90	$ 112,500.00	0.10	$ 12,500.00	1.00	$ 125,000.00
2	Traffic control	L.S.	1.00	$7,800.00	$ 7,800.00	1.00	$ 7,800.00		$ -	1.00	$ 7,800.00
3	Temporary construction access deceleration/ acceleration lane	L.S.	1.00	$28,700.00	$ 28,700.00	1.00	$ 28,700.00		$ -	1.00	$ 28,700.00
4	Temporary construction access drive	L.S.	1.00	$19,400.00	$ 19,400.00		$ -		$ -		$ -
5	Temporary construction access advance warning signage	L.S.	1.00	$3,535.00	$ 3,535.00	1.00	$ 3,535.00		$ -	1.00	$ 3,535.00
6	Tracking pad	S.F.	7,200.00	$1.66	$ 11,952.00	7,500.00	$ 12,450.00		$ -	7,500.00	$ 12,450.00
7	Project identification signs	L.S.	1.00	$3,000.00	$ 3,000.00	1.00	$ 3,000.00		$ -	1.00	$ 3,000.00
8	Barrier fence	L.F.	2,110.00	$3.15	$ 6,646.50	990.00	$ 3,118.50		$ -	990.00	$ 3,118.50
9	Silt fence	L.F.	12,150.00	$1.88	$ 22,842.00	13,764.00	$ 25,876.32		$ -	13,764.00	$ 25,876.32
10	Manufactured ditch check	EA.	16.00	$375.00	$ 6,000.00	71.00	$ 26,625.00		$ -	71.00	$ 26,625.00
11	Inlet sediment guards, Type C	EA.	12.00	$53.00	$ 636.00	13.00	$ 689.00		$ -	13.00	$ 689.00
12	Inlet sediment guards, Type D	EA.	2.00	$120.00	$ 240.00	2.00	$ 240.00		$ -	2.00	$ 240.00
13	Excavation of contaminated material	C.Y.	20.00	$25.00	$ 500.00	11.00	$ 275.00		$ -	11.00	$ 275.00
14	Clearing, grubbing and tree removal	L.S.	1.00	$4,000.00	$ 4,000.00	1.00	$ 4,000.00		$ -	1.00	$ 4,000.00
15	Demolition, Parcel # VM00008	L.S.	1.00	$75,000.00	$ 75,000.00	1.00	$ 75,000.00		$ -	1.00	$ 75,000.00
16	Underground septic tank removal	EA.	1.00	$3,000.00	$ 3,000.00	1.00	$ 3,000.00		$ -	1.00	$ 3,000.00
17	Exploratory trench	L.F.	2,920.00	$12.42	$ 36,266.40	2,892.00	$ 35,918.64		$ -	2,892.00	$ 35,918.64
18	Abandoning drain tiles	EA.	5.00	$400.00	$ 2,000.00	2.00	$ 800.00		$ -	2.00	$ 800.00
19	Temporary seed and mulch	S.Y.	35,000.00	$0.26	$ 9,100.00	38,380.00	$ 9,978.80	7,600.00	$ 1,976.00	45,980.00	$ 11,954.80
20	Grading	L.S.	1.00	$485,000.00	$ 485,000.00	1.00	$ 485,000.00		$ -	1.00	$ 485,000.00
21	Topsoil stripping and stockpile	S.Y.	170,000.00	$0.62	$ 105,400.00	184,218.00	$ 114,215.16		$ -	184,218.00	$ 114,215.16
22	Placement and compacting OTHER excavated material	C.Y.	13,250.00	$2.50	$ 33,125.00	17,644.00	$ 44,110.00		$ -	17,644.00	$ 44,110.00
23	Ditching	L.F.	570.00	$3.00	$ 1,710.00	567.50	$ 1,702.50		$ -	567.50	$ 1,702.50
24	Storm water detention facility No. 1	L.S.	1.00	$74,625.00	$ 74,625.00	1.00	$ 74,625.00		$ -	1.00	$ 74,625.00
25	Storm water facility No. 1 dewatering	L.S.	1.00	$28,000.00	$ 28,000.00	1.00	$ 28,000.00		$ -	1.00	$ 28,000.00
26	Storm water facility No. 1 chain link fence	L.F.	1,670.00	$13.70	$ 22,879.00	1,670.00	$ 22,879.00		$ -	1,670.00	$ 22,879.00
27	Storm water detention facility No. 2	L.S.	1.00	$72,636.00	$ 72,636.00	1.00	$ 72,636.00		$ -	1.00	$ 72,636.00
28	Rip Rap	TON	135.00	$55.00	$ 7,425.00	146.24	$ 8,043.20	246.08	$ 13,534.40	392.32	$ 21,577.60
29	Temporary stone weeper	EA.	2.00	$1,500.00	$ 3,000.00	2.00	$ 3,000.00		$ -	2.00	$ 3,000.00
30	Dust control using calcium chloride	100 LBS.	10.00	$200.00	$ 2,000.00		$ -		$ -		$ -
31	Dust control using water	1,000 GAL.	10.00	$62.00	$ 620.00		$ -		$ -		$ -
32	Full depth saw cutting	L.F.	395.00	$3.10	$ 1,224.50	2,205.00	$ 6,835.50		$ -	2,205.00	$ 6,835.50
33	Rock removal - If Required	C.Y.	200.00	$25.00	$ 5,000.00		$ -		$ -		$ -
34	Sanitary sewer, 12-inch, w/granular backfill	L.F.	2,142.00	$140.00	$ 299,880.00	2,023.00	$ 283,220.00		$ -	2,023.00	$ 283,220.00
35	Sanitary sewer, 12-inch, w/spoil backfill	L.F.	2,646.00	$83.00	$ 219,618.00	2,664.10	$ 221,120.30		$ -	2,664.10	$ 221,120.30
36	Sanitary sewer, 12-inch, w/24-inch steel casing pipe	L.F.	120.00	$575.00	$ 69,000.00	120.00	$ 69,000.00		$ -	120.00	$ 69,000.00
37	Sanitary sewer manholes	V.F.	287.00	$428.00	$ 122,836.00	280.74	$ 120,156.72		$ -	280.74	$ 120,156.72
38	Sanitary sewer lateral, 6-inch with cleanout	L.F.	202.00	$134.00	$ 27,068.00	250.00	$ 33,500.00		$ -	250.00	$ 33,500.00
39	Internal/external sanitary manhole chimney seal	EA.	17.00	$446.00	$ 7,582.00	17.00	$ 7,582.00		$ -	17.00	$ 7,582.00
40	Water main, 8-inch, w/granular backfill	L.F.	202.00	$82.00	$ 16,564.00	237.00	$ 19,434.00		$ -	237.00	$ 19,434.00

d from EJCDC C-620 Contractor's Application for Payment
© National Society of Professional Engineers for EJCDC. All rights reserved.

Progress Estimate - Unit Price Work

Contractor's Application for Payment No. 12 (FINAL)

For (Project): TID #5 Public Improvements

Application Date: 1/20/2020

Application Period: 6/22/2019 - 01/20/2020

Engineer's Project No.: 12-10068.300

A	B	C	D	E	F	G	H	I	J	K	L
						Work Completed Previously		Work Completed This Period		Total Work Completed to Date	
Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Item Value ($)	Estimated Quantity Installed	Value of Work Installed ($)	Estimated Quantity Installed	Value of Work Installed ($)	Estimated Quantity Installed	Value of Work Installed ($)
41	Water main, 12-inch, w/granular backfill	L.F.	55.00	$189.00	$ 10,395.00	55.00	$ 10,395.00		$ -	55.00	$ 10,395.00
42	Water main, 12-inch, w/spoil backfill	L.F.	55.00	$64.00	$ 3,520.00	55.00	$ 3,520.00		$ -	55.00	$ 3,520.00
43	Water main, 16-inch, w/granular backfill	L.F.	2,101.00	$129.00	$ 271,029.00	2,073.00	$ 267,417.00		$ -	2,073.00	$ 267,417.00
44	Water main, 16-inch, w/spoil backfill	L.F.	2,663.00	$94.00	$ 250,322.00	2,719.00	$ 255,586.00		$ -	2,719.00	$ 255,586.00
45	Water main, 16-inch, w/30-inch steel casing pipe	L.F.	120.00	$638.00	$ 76,560.00	120.00	$ 76,560.00		$ -	120.00	$ 76,560.00
46	Hydrant lead, 6-inch	L.F.	166.00	$102.00	$ 16,932.00	161.50	$ 16,473.00		$ -	161.50	$ 16,473.00
47	Hydrant assembly w/6-inch valve	EA.	15.00	$5,382.00	$ 80,730.00	15.00	$ 80,730.00		$ -	15.00	$ 80,730.00
48	Temporary hydrant assembly	EA.	1.00	$6,371.00	$ 6,371.00	1.00	$ 6,371.00		$ -	1.00	$ 6,371.00
49	Water main valves, 8-inch gate valve	EA.	4.00	$1,868.00	$ 7,472.00	5.00	$ 9,340.00		$ -	5.00	$ 9,340.00
50	Water main valves, 12-inch gate valve	EA.	4.00	$3,038.00	$ 12,152.00	4.00	$ 12,152.00		$ -	4.00	$ 12,152.00
51	Water main valves, 16-inch butterfly valve	EA.	23.00	$3,269.00	$ 75,187.00	23.00	$ 75,187.00		$ -	23.00	$ 75,187.00
52	Furnish Metal Building System and Equipment as specified in Section 13 34 19	L.S.	1.00	$557,000.00	$ 557,000.00	1.00	$ 557,000.00		$ -	1.00	$ 557,000.00
53	Provide all other Work within site limits shown on Drawing BS-01 and detailed on Drawings BS-01 through BS-10	L.S.	1.00	$124,607.00	$ 124,607.00	0.95	$ 118,376.65	0.05	$ 6,230.35	1.00	$ 124,607.00
54	Storm sewer main, 12-inch RCP, w/granular backfill	L.F.	222.00	$65.00	$ 14,430.00	349.00	$ 22,685.00		$ -	349.00	$ 22,685.00
55	Storm sewer main, 15-inch RCP, w/granular backfill	L.F.	38.00	$124.00	$ 4,712.00	36.00	$ 4,464.00		$ -	36.00	$ 4,464.00
56	Storm sewer main, 18-inch RCP, w/granular backfill	L.F.	56.00	$116.00	$ 6,496.00	56.00	$ 6,496.00		$ -	56.00	$ 6,496.00
57	Storm sewer main, 24-inch RCP, w/granular backfill	L.F.	1,462.00	$92.00	$ 134,504.00	1,462.00	$ 134,504.00		$ -	1,462.00	$ 134,504.00
58	Storm sewer main, 36-inch RCP, w/granular backfill	L.F.	70.00	$156.00	$ 10,920.00	51.00	$ 7,956.00		$ -	51.00	$ 7,956.00
59	Storm sewer main, 36-inch RCP, w/spoil backfill	L.F.	1,040.00	$108.00	$ 112,320.00	1,042.40	$ 112,579.20		$ -	1,042.40	$ 112,579.20
60	Concrete storm sewer end sections, 36-inch, w/end grate	EA.	1.00	$2,053.00	$ 2,053.00	1.00	$ 2,053.00		$ -	1.00	$ 2,053.00
61	Concrete storm sewer plug, 15-inch	EA.	1.00	$419.00	$ 419.00	1.00	$ 419.00		$ -	1.00	$ 419.00
62	Concrete storm sewer plug, 24-inch	EA.	1.00	$459.00	$ 459.00	1.00	$ 459.00		$ -	1.00	$ 459.00
63	Storm sewer manholes, 48-inch w/frame and cover	EA.	6.00	$2,203.00	$ 13,218.00	6.00	$ 13,218.00		$ -	6.00	$ 13,218.00
64	Storm sewer manholes, 60-inch w/frame and cover	EA.	5.00	$2,915.00	$ 14,575.00	5.00	$ 14,575.00		$ -	5.00	$ 14,575.00
65	Storm sewer manholes, 72-inch w/frame and cover	EA.	2.00	$4,901.00	$ 9,802.00	2.00	$ 9,802.00		$ -	2.00	$ 9,802.00
66	Catch basin, w/frame and grate	EA.	12.00	$3,173.00	$ 38,076.00	12.00	$ 38,076.00		$ -	12.00	$ 38,076.00
67	Field inlet, w/frame and grate	EA.	2.00	$2,303.00	$ 4,606.00	2.00	$ 4,606.00		$ -	2.00	$ 4,606.00
68	Temporary CMP culvert, 24-inch w/end sections	L.F.	40.00	$97.00	$ 3,880.00	40.00	$ 3,880.00		$ -	40.00	$ 3,880.00
69	Construct roadway to subgrade	L.S.	1.00	$8,800.00	$ 8,800.00	1.00	$ 8,800.00		$ -	1.00	$ 8,800.00
70	Excavation below subgrade	C.Y.	850.00	$7.22	$ 6,137.00	632.62	$ 4,567.52		$ -	632.62	$ 4,567.52
71	Geotextile subgrade stabilization	S.Y.	2,550.00	$1.75	$ 4,462.50	1,477.00	$ 2,584.75		$ -	1,477.00	$ 2,584.75
72	Excavation below subgrade (EBS) backfill	TON	1,700.00	$17.00	$ 28,900.00	1,505.26	$ 25,589.42		$ -	1,505.26	$ 25,589.42
73	Crushed aggregate for road base	TON	6,600.00	$15.26	$ 100,716.00	6,913.00	$ 105,492.38		$ -	6,913.00	$ 105,492.38
74	30-inch concrete curb and gutter	L.F.	2,712.00	$11.30	$ 30,645.60	2,700.00	$ 30,510.00		$ -	2,700.00	$ 30,510.00
75	36-inch concrete curb and gutter	L.F.	155.00	$18.60	$ 2,883.00	90.00	$ 1,674.00		$ -	90.00	$ 1,674.00
76	Concrete flume	EA.	2.00	$230.00	$ 460.00	2.00	$ 460.00		$ -	2.00	$ 460.00
77	Asphaltic concrete binder course	TON	2,135.00	$56.00	$ 119,560.00	2,276.61	$ 127,490.16		$ -	2,276.61	$ 127,490.16
78	Asphaltic concrete surface course	TON	1,035.00	$61.00	$ 63,135.00	1,198.62	$ 73,115.82		$ -	1,198.62	$ 73,115.82
79	Crushed aggregate shoulder	L.F.	540.00	$4.00	$ 2,160.00	540.00	$ 2,160.00		$ -	540.00	$ 2,160.00
80	Concrete sidewalk and curb ramp	S.F.	85.00	$13.50	$ 1,147.50	85.00	$ 1,147.50		$ -	85.00	$ 1,147.50

d from EJCDC C-620 Contractor's Application for Payment
National Society of Professional Engineers for EJCDC. All rights reserved.

Progress Estimate - Unit Price Work

Contractor's Application for Payment No. 12 (FINAL)

For (Project): TID #5 Public Improvements

Application Date: 1/20/2020

Application Period: 6/22/2019 - 01/20/2020

Engineer's Project No.: 12-10068.300

A	B	C	D	E	F	G	H	I	J	K	L
						Work Completed Previously		Work Completed This Period		Total Work Completed to Date	
Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Item Value ($)	Estimated Quantity Installed	Value of Work Installed ($)	Estimated Quantity Installed	Value of Work Installed ($)	Estimated Quantity Installed	Value of Work Installed ($)
81	Detectable Warning Field	S.F.	16.00	$30.00	$ 480.00	16.00	$ 480.00		$ -	16.00	$ 480.00
82	3-inch asphaltic concrete multi-use path	S.F.	11,000.00	$1.90	$ 20,900.00	10,900.00	$ 20,710.00	633.00	$ 1,202.70	11,533.00	$ 21,912.70
83	Pavement marking, epoxy, 18-inch, stop bar	L.F.	40.00	$11.00	$ 440.00	41.00	$ 451.00		$ -	41.00	$ 451.00
84	Pavement marking, epoxy, 4-inch yelow	L.F.	380.00	$3.65	$ 1,387.00	1,014.00	$ 3,701.10		$ -	1,014.00	$ 3,701.10
85	Pavement marking, epoxy, 4-inch white	L.F.	150.00	$3.65	$ 547.50	210.00	$ 766.50		$ -	210.00	$ 766.50
86	Pavement marking, arrows Type 2	EA.	2.00	$260.00	$ 520.00	2.00	$ 520.00		$ -	2.00	$ 520.00
87	Pavement marking, words	EA.	1.00	$315.00	$ 315.00	1.00	$ 315.00		$ -	1.00	$ 315.00
88	Topsoil, turf grass seed, fertilizer and hydro-mulch	S.Y.	6,200.00	$1.80	$ 11,160.00	1,540.00	$ 2,772.00	3,494.00	$ 6,289.20	5,034.00	$ 9,061.20
89	Topsoil, no-mow seed and hydro-mulch	S.Y.	325,000.00	$0.42	$ 136,500.00	99,741.00	$ 41,891.22		$ -	99,741.00	$ 41,891.22
90	Topsoil, native seeding and erosion mat	S.Y.	25,000.00	$2.00	$ 50,000.00	26,600.00	$ 53,200.00	2,300.00	$ 4,600.00	28,900.00	$ 57,800.00
91	Erosion mat	S.Y.	510.00	$2.00	$ 1,020.00	2,325.00	$ 4,650.00		$ -	2,325.00	$ 4,650.00
92	Traffic signs	EA.	1.00	$235.00	$ 235.00	3.00	$ 705.00	1.00	$ 235.00	4.00	$ 940.00
93	Traffic sign posts	EA.	1.00	$160.00	$ 160.00	3.00	$ 480.00	4.00	$ 640.00	7.00	$ 1,120.00
94	Class III barricades	EA.	3.00	$470.00	$ 1,410.00		$ -		$ -		$ -
95	Engineer's field office	L.S.	1.00	$10,500.00	$ 10,500.00	1.00	$ 10,500.00		$ -	1.00	$ 10,500.00
TOTAL OF ALL ESTIMATED PRICES GENERAL IMPROVEMENTS (ITEMS 1 - 95)					**$ 4,438,138.50**		**$ 4,358,178.86**		**$ 47,207.65**		**$ 4,405,386.51**
STH 83 INTERSECTION IMPROVEMENTS											
96	Traffic Control	L.S.	1.00	$9,000.00	$ 9,000.00	1.00	$ 9,000.00		$ -	1.00	$ 9,000.00
97	Construct roadway to subgrade	L.S.	1.00	$39,500.00	$ 39,500.00	1.00	$ 39,500.00		$ -	1.00	$ 39,500.00
98	Excavation below subgrade	C.Y.	275.00	$7.22	$ 1,985.50	885.34	$ 6,392.15		$ -	885.34	$ 6,392.15
99	Geotextile subgrade stabilization	S.Y.	825.00	$1.68	$ 1,386.00	1,960.00	$ 3,292.80		$ -	1,960.00	$ 3,292.80
100	Excavation below subgrade (EBS) backfill	TON	550.00	$17.00	$ 9,350.00	1,770.65	$ 30,101.05		$ -	1,770.65	$ 30,101.05
101	Crushed aggregate for road base	TON	3,200.00	$17.38	$ 55,616.00	2,305.66	$ 40,072.37		$ -	2,305.66	$ 40,072.37
102	36-inch concrete curb and gutter	L.F.	226.00	$18.00	$ 4,068.00	130.00	$ 2,340.00		$ -	130.00	$ 2,340.00
103	Asphaltic concrete binder course	TON	990.00	$60.00	$ 59,400.00	701.29	$ 42,077.40		$ -	701.29	$ 42,077.40
104	Asphaltic concrete surface course	TON	380.00	$65.00	$ 24,700.00	370.92	$ 24,109.80		$ -	370.92	$ 24,109.80
105	Crushed aggregate shoulder	L.F.	1,360.00	$5.30	$ 7,208.00	1,586.00	$ 8,405.80	347.50	$ 1,841.75	1,933.50	$ 10,247.55
106	Ditching	L.F.	455.00	$3.10	$ 1,410.50	854.00	$ 2,647.40		$ -	854.00	$ 2,647.40
107	Manufactured ditch check	EA.	7.00	$375.00	$ 2,625.00	7.00	$ 2,625.00		$ -	7.00	$ 2,625.00
108	Storm sewer main, 18-inch RCP, w/granular backfill	L.F.	172.00	$55.00	$ 9,460.00	220.00	$ 12,100.00		$ -	220.00	$ 12,100.00
109	Concrete storm sewer end sections, 18-inch	EA.	2.00	$841.00	$ 1,682.00	2.00	$ 1,682.00		$ -	2.00	$ 1,682.00
110	Pavement marking, epoxy, 8-inch, white	L.F.	700.00	$1.75	$ 1,225.00	734.00	$ 1,284.50		$ -	734.00	$ 1,284.50
111	Pavement marking, epoxy, 4-inch white	L.F.	1,964.00	$1.00	$ 1,964.00	1,944.00	$ 1,944.00		$ -	1,944.00	$ 1,944.00
112	Pavement marking, epoxy, 4-inch white, (3' dash with 9' space)	L.F.	280.00	$1.00	$ 280.00	192.00	$ 192.00		$ -	192.00	$ 192.00
113	Pavement marking, epoxy, 8-inch white, (3' dash with 9' space)	L.F.	194.00	$1.75	$ 339.50	132.00	$ 231.00		$ -	132.00	$ 231.00
114	Topsoil, turf grass seed, fertilizer and hydro-mulch	S.Y.	3,610.00	$1.80	$ 6,498.00		$ -		$ -		$ -
115	Erosion mat	S.Y.	450.00	$1.60	$ 720.00	1,100.00	$ 1,760.00		$ -	1,100.00	$ 1,760.00
116	Traffic signs	EA.	2.00	$235.00	$ 470.00	4.00	$ 940.00		$ -	4.00	$ 940.00
117	Traffic sign posts	EA.	4.00	$157.00	$ 628.00	2.00	$ 314.00		$ -	2.00	$ 314.00
TOTAL STH 83 INTERSECTION IMPROVEMENTS BID ITEMS 96-117					**$ 239,515.50**		**$ 231,011.27**		**$ 1,841.75**		**$ 232,853.02**
TOTAL ALL BASE BID ITEMS 1-117					**$ 4,677,654.00**		**$ 4,589,190.13**		**$ 49,049.40**		**$ 4,638,239.53**

A d from EJCDC C-620 Contractor's Application for Payment
© National Society of Professional Engineers for EJCDC. All rights reserved.

Progress Estimate - Unit Price Work

Contractor's Application for Payment No. 12 (FINAL)

For (Project): TID #5 Public Improvements

Application Date: 1/20/2020

Application Period: 6/22/2019 - 01/20/2020

Engineer's Project No.: 12-10068.300

A	B	C	D	E	F	G	H	I	J	K	L
						Work Completed Previously		Work Completed This Period		Total Work Completed to Date	
Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Item Value ($)	Estimated Quantity Installed	Value of Work Installed ($)	Estimated Quantity Installed	Value of Work Installed ($)	Estimated Quantity Installed	Value of Work Installed ($)
ADDITIONAL ITEMS											
118	CO-03 24" to 30"	L.F.	120.00	$ 63.00	$ 7,560.00	**120.00**	$ 7,560.00		$ -	**120.00**	$ 7,560.00
119	CO-01 GPK 12"x6" Saddle	EA.	1.00	$ 1,016.00	$ 1,016.00	**1.00**	$ 1,016.00		$ -	**1.00**	$ 1,016.00
120	CO-01 Steel Bolts	L.S.	1.00	$ 18,273.60	$ 18,273.60	**1.00**	$ 18,273.60		$ -	**1.00**	$ 18,273.60
121	CO -01 Provide Banker Wire a Temp Gravel Accress Drive	L.S.	1.00	$ 35,142.00	$ 35,142.00	**1.00**	$ 35,142.00		$ -	**1.00**	$ 35,142.00
122	CO-02 4" Perforated Underdrain	L.S.	1.00	$ 8,000.00	$ 8,000.00	**1.00**	$ 8,000.00		$ -	**1.00**	$ 8,000.00
123	CO-05 15" CMP Culvert	L.F.	20.00	$ 132.20	$ 2,644.00	**20.00**	$ 2,644.00		$ -	**20.00**	$ 2,644.00
124	CO-04 Concrete storm sewer end sections, 15-inch	EA	2.00	$ 849.00	$ 1,698.00	**2.00**	$ 1,698.00		$ -	**2.00**	$ 1,698.00
125	CO-04 Remove & replace catch basin w/frame and grate	EA	5.00	$ 5,865.00	$ 29,325.00	**5.00**	$ 29,325.00		$ -	**5.00**	$ 29,325.00
126	CO-04 Remove & replace inlet w/frame and grate	EA	2.00	$ 5,287.00	$ 10,574.00	**2.00**	$ 10,574.00		$ -	**2.00**	$ 10,574.00
127	CO-04 Remove existing 12" storm lead	LF	40.00	$ 83.00	$ 3,320.00	**40.00**	$ 3,320.00		$ -	**40.00**	$ 3,320.00
128	CO-04 Remove existing 15" storm lead	LF	38.00	$ 69.00	$ 2,622.00	**38.00**	$ 2,622.00		$ -	**38.00**	$ 2,622.00
129	CO-04 Pavement marking, curb epoxy, yellow	LF	56.00	$ 5.78	$ 323.68	**40.00**	$ 231.20		$ -	**40.00**	$ 231.20
130	CO-04 Pavement marking, epoxy, 12-inch diagonal, white	LF	590.00	$ 8.40	$ 4,956.00	**264.00**	$ 2,217.60		$ -	**264.00**	$ 2,217.60
131	CO-04 Remove and relocate hydrant	EA	1.00	$ 2,547.00	$ 2,547.00	**1.00**	$ 2,547.00		$ -	**1.00**	$ 2,547.00
132	CO-04 Construct added roadway to subgrade and backfill island	LS	1.00	$ 27,170.00	$ 27,170.00	**1.00**	$ 27,170.00		$ -	**1.00**	$ 27,170.00
133	CO-04 Additional mobilization Zenith Tech	EA	1.00	$ 4,725.00	$ 4,725.00	**1.00**	$ 4,725.00		$ -	**1.00**	$ 4,725.00
134	CO-04 Radial warning fields	SF	26.00	$ 299.00	$ 7,774.00		$ -		$ -		$ -
135	CO-04 island curb with hand form	LF	660.00	$ 13.49	$ 8,903.40	**660.00**	$ 8,903.40		$ -	**660.00**	$ 8,903.40
136	CO-06 Dog house catch basin	EA	1.00	$ 6,880.00	$ 6,880.00	**1.00**	$ 6,880.00		$ -	**1.00**	$ 6,880.00
137	CO-06 Temporary pavement marking 4-inch removable tape	LS	1.00	$ 35,595.00	$ 35,595.00	**1.00**	$ 35,595.00		$ -	**1.00**	$ 35,595.00
138	CO-07 Additonal Work for booster station water main connection	LS	1.00	$ 3,170.00	$ 3,170.00	**1.00**	$ 3,170.00		$ -	**1.00**	$ 3,170.00
139	CO-08 TRM - Erosion mat Class 3 Type C/D in pond spillways incl.	SY	350.00	$ 26.20	$ 9,170.00	**350.00**	$ 9,170.00	**50.00**	$ 1,310.00	**400.00**	$ 10,480.00
140	CO-08 Prep, seed, fertilizer and E-mat Class 1/A (in place of hydro)	SY	20,000.00	$ 1.56	$ 31,200.00	**18,950.00**	$ 29,562.00	**6,230.45**	$ 9,719.50	**25,180.45**	$ 39,281.50
141	50 L.F. of 4" perforated draintile	L.S.	1.00	$ 1,209.00	$ 1,209.00	**1.00**	$ 1,209.00		$ -	**1.00**	$ 1,209.00
142	Storm Manhole No. 1 cut down	L.S.	1.00	$ 2,029.00	$ 2,029.00	**1.00**	$ 2,029.00		$ -	**1.00**	$ 2,029.00
143	Storm Manhole No. 10 cut down	L.S.	1.00	$ 2,029.00	$ 2,029.00	**1.00**	$ 2,029.00		$ -	**1.00**	$ 2,029.00
144	CO-9 Asphaltic Concrete Surface Couse Price Increase	Ton	1,035.00	$ 13.92	$ 14,407.20	**992.77**	$ 13,819.36		$ -	**992.77**	$ 13,819.36
145	CO-9 Paving Mobilization	L.S.	1.00	$ 5,076.75	$ 5,076.75	**1.00**	$ 5,076.75		$ -	**1.00**	$ 5,076.75
146	CO-9 Traffic Control	L.S.	1.00	$ 1,350.00	$ 1,350.00	**2.00**	$ 2,700.00		$ -	**2.00**	$ 2,700.00
147	CO-10 Liquidated Damages	L.S.	1.00	$ (35,000.00)	$ (35,000.00)		$ -	**1.00**	$ (35,000.00)	**1.00**	$ (35,000.00)
TOTAL ADDITIONAL ITEMS					**$ 253,689.63**		**$ 277,208.91**		**$ (23,970.50)**		**$ 253,238.41**
TOTAL ALL ITEMS					**$ 4,931,343.63**		**$ 4,866,399.04**		**$ 25,078.90**		**$ 4,891,477.94**

A d from EJCDC C-620 Contractor's Application for Payment
© National Society of Professional Engineers for EJCDC. All rights reserved.

CONSENT OF SURETY TO FINAL PAYMENT

G707

OWNER ___
ARCHITECT ___
CONTRACTOR ___
SURETY ___
OTHER ___

AIA DOCUMENT

(Instructions on reverse side)

Bond No. HSA-MW-2915

TO (OWNER)
(Name and address)

Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

ARCHITECT'S PROJECT NO:

Contract Date: 5/9/2018

PROJECT:
(Name and address) **TID #5 Public Improvements**

CONTRACT AMOUNT: **$4,891,477.94**

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the
(here insert name and address of Surety)

Hudson Insurance Company
100 William Street, 5th Floor
New York, NY 10038

SURETY,

on bond of
(here insert name and address of Contractor)

Willkomm Excavating & Grading, Inc.
17108 County Line Road
Union Grove, WI 53182

CONTRACTOR,

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety Company of any of its obligations to
(here insert name and address of Owner)

Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

OWNER,

as set forth in the said Surety Company's bond.

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand this **3rd** day of **February**, **2020** *(Insert in writing the month following by the numeric date and year)*

Attest: Kimberly S Larsen
Seal

Hudson Insurance Company
Surety Company

Signature of Authorized Representative
Title
Todd Schaap, Attorney-in-Fact

© THE AMERICAN INSTITUTE OF ARCHITECTS, 1735 NEW YORK AVE., NW

INSTRUCTION SHEET

FOR AIA DOCUMENT G707, CONSENT OF SURETY TO FINAL PAYMENT

A. GENERAL INFORMATION

1. Purpose

This document is intended for use as a companion to AIA Document G706, Contractor's Affidavit of Payment to Debts and Claims, on construction projects where the Contractor is required to furnish a bond by obtaining the Surety's approval of final payment to the Contractor and its agreement that final payment will not relieve the Surety of any of its obligations, the Owner may preserve its rights under the bond.

2. Related Documents

This document may be used with most of the AIA's Owner-Contractor agreements and general conditions, such as A201 and its related family of documents. As noted above, this is a companion document to AIA Document G706.

3. Use of Current Documents

Prior to using any AIA document, the user should consult the AIA, an AIA component chapter or a current AIA Documents List to determine the current edition of each document.

4. Limited License for Reproduction

AIA Document G707 is a copyrighted work and may not be reproduced or excerpted from in substantial part without the express written permission of the AIA. The G707 document is intended to be used as a consumable-that is, the original document purchased by the user is intended to be consumed in the course of being used. There is no implied permission to reproduce this document, nor does membership in The American Institute of Architects confer any further rights to reproduce G707.

A cautionary notice is printed in red on the original of this document. This notice distinguishes an original AIA document from copies or counterfeits. To ensure accuracy and uniformity of language, purchasers should use only an original AIA document or one that has been reproduced from an original under a special limited license from the AIA.

A limited license is hereby granted to retail purchasers to reproduce a maximum of ten copies of a completed or executed G707, but only for use in connection with a particular project. Further reproductions are prohibited without the express permission of the AIA.

B. CHANGES FROM THE PREVIOUS EDITION

Changes in the location of various items of information were made, without revision to the substance of the document.

C. COMPLETING G707 FORM

GENERAL : The bond form is the usual source of required information such as the contract date and the names and addresses of the Surety, Owner, Contractor, and Project.

ARCHITECT'S PROJECT NO.: This information is typically supplied by the Architect and entered on the form by the Contractor.

CONTRACT FOR: This refers to the scope of the contract, such as "General Contractor" or "Mechanical Work".

D. EXECUTION OF THE DOCUMENT

The G707 for requires both the Surety's seal and the signature of the Surety's authorized representative.

HUDSON INSURANCE GROUP

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That HUDSON INSURANCE COMPANY, a corporation of the State of Delaware, with offices at 100 William Street, New York, New York, 10038, has made, constituted and appointed, and by these presents, does make, constitute and appoint

Thomas O. Chambers and Todd Schaap of the state of Wisconsin

Todd Kramer of the state of Iowa

its true and lawful Attorney(s)-in-Fact, at New York, New York, each of them alone to have full power to act without the other or others, to make, execute and deliver on its behalf, as Surety, bonds and undertakings given for any and all purposes, also to execute and deliver on its behalf as aforesaid renewals, extensions, agreements, waivers, consents or stipulations relating to such bonds or undertakings provided, however, that no single bond or undertaking shall obligate said Company for any portion of the penal sum thereof in excess of the sum of **Ten Million Dollars ($10,000,000.00).**

Such bonds and undertakings when duly executed by said Attorney(s)-in-Fact, shall be binding upon said Company as fully and to the same extent as if signed by the President of said Company under its corporate seal attested by its Secretary.

In Witness Whereof, HUDSON INSURANCE COMPANY has caused these presents to be of its Senior Vice President thereunto duly authorized, on this 9th day of July, 20 19 at New York, New York.

(Corporate Seal)

HUDSON INSURANCE COMPANY

Attest.....
Dina Daskalakis
Corporate Secretary

By.....
Michael P. Cifone
Senior Vice President

STATE OF NEW YORK
COUNTY OF NEW YORK SS.

On the 9th day of July, 20 19 before me personally came Michael P. Cifone to me known, who being by me duly sworn did depose and say that he is a Senior Vice President of **HUDSON INSURANCE COMPANY**, the corporation described herein and which executed the above instrument, that he knows the seal of said Corporation, that the seal affixed to said instrument is such corporate seal, that it was so affixed by order of the Board of Directors of said Corporation, and that he signed his name thereto by like order.

(Notarial Seal)

.....
CAMERON GOURLAY
Notary Public, State of New York
No. 01GO6372305
Qualified in New York County
Commission Expires June 4, 2022

CAMERON GOURLAY NOTARY PUBLIC STATE OF NEW YORK

CERTIFICATION

STATE OF NEW YORK
COUNTY OF NEW YORK

The undersigned **Dina Daskalakis** hereby certifies:

That the original resolution, of which the following is a true and correct copy, was duly adopted by unanimous written consent of the Board of Directors of Hudson Insurance Company dated July 27th, 2007, and has not since been revoked, amended or modified:

"RESOLVED, that the President, the Executive Vice Presidents, the Senior Vice Presidents and the Vice Presidents shall have the authority and discretion, to appoint such agent or agents, or attorney or attorneys-in-fact, for the purpose of carrying on this Company's surety business, and to empower such agent or agents, or attorney or attorneys-in-fact, to execute and deliver, under this Company's seal or otherwise, bonds obligations, and recognizances, whether made by this Company as surety thereon or otherwise, indemnity contracts, contracts and certificates, and any and all other contracts and undertakings made in the course of this Company's surety business, and renewals, extensions, agreements, waivers, consents or stipulations regarding undertakings so made; and

FURTHER RESOVLED, that the signature of any such Officer of the Company and the Company's seal may be affixed by facsimile to any power of attorney or certification given for the execution of any bond, undertaking, recognizance, contract of indemnity or other written obligation in the nature thereof or related thereto, such signature and seal when so used whether heretofore or hereafter, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed."

THAT the above and foregoing is a full, true and correct copy of Power of Attorney issued by said Company, and of the whole of the original and that the said Power of Attorney is still in full force and effect and has not been revoked, and furthermore that the Resolution of the Board of Directors, set forth in the said Power of Attorney is now in force.

Witness the hand of the undersigned and the seal of said Corporation this 3rd day of February, 2020.

(Corporate Seal)

By.....
Dina Daskalakis, Corporate Secretary

STATE OF WISCONSIN)

COUNTY OF **Racine**)

ON THIS **3rd** day of **February**, **2020**, before me, a notary public, within and for said County and State, personally appeared **Todd Schaap** to me personally known, who being duly sworn, upon oath did say that he is the Attorney-in-Fact of and for the **Hudson Insurance Company**, a corporation of **Delaware**, created, organized and existing under and by virtue of the laws of the State of **Delaware**; that the corporate seal affixed to the foregoing within instrument is the seal of the said Company; that the seal was affixed and the said instrument was executed by authority of its Board of Directors; and the said **Todd Schaap** did acknowledge that he/she executed the said instrument as the free act and deed of said Company.

Jackie Sheldon

Jackie Sheldon
Notary Public, **Racine** County, Wisconsin
My Commission Expires **2/13/2023**

NOTARY PUBLIC
JACKIE SHELDON
STATE OF WISCONSIN

Listing of Subcontractors & Suppliers

Contractor's Application for Payment No.

For (Project): TID #5 Public Improvements		Application Date:
Application Period: 06/14/2019-10/31/2019		
A	B	C
Name of Subcontractor / Supplier (Maintain Listing Throughout Project)	**Address**	**Work Performed or Material Supplied**
Concrete Specialties Co Inc.	8011 Greenbay Road, Kenosha, WI 53142	Pipe & Structures
Environmental Control, Inc.	7320 Noraire Drive, Franksville, WI 53146	Landscape
Geo-Synthetics, LLC	2401 Pewaukee Road, Waukesha, WI 53188	Fabric
Johnson Sand & Gravel, Inc.	20685 W National Avenue, New Berlin, WI 53146	Stone
Lannon Stone Products, Inc.	N52 W23096 Lisbon Road, Sussex, WI 53089	Stone
T & T Tree Service, LLC	3603 Maple Road, Burlington, WI 53105	Clearing & Grubbing
Western Culvert & Supply	W324 Delafield Road, Oconomow, WI 53066	Culvert Pipe
Bull's Eye Boring, Inc.	3220 21st Street, Zion, IL 60099	Borning
Barricade Flasher Services, Inc.	6610 S 13th Street, Oak Creek, WI 53154	Barricades
Hard Rock Sawing & Drilling	PO Box 718, Keshena, WI 54135	Saw Cutting
Hogen Electric, Inc.	1131 Limerick Lane, Hartford, WI 53027	Electrical
Stark Pavement	12845 W Burleigh Road, Brookfield, WI 53005	Asphalt Paving
Core & Main	1830 Craig Park Court, St Louis MO 63146	Pipe
Century Fence	1300 Hickory Street, Pewaukee WI 53072	Pavement Marking
The Expediters, Inc.	400 N Summit Moors Drive, Oconomowoc, WI 53066	Televising
Ideal Crane Rental, Inc	4349 Acker Road, Madison WI 53704	Crane Rental
Neenah Foundry	PO Box 729, Neenah WI 54957	Casting
USEMCO	PO Box 550, Tomah WI 54660	Building
Zenith Tech	PO Box 1028, Waukesha WI 53188	Concrete

© 2015 Copyright Ruekert & Mielke, Inc.

Conditional Final Waiver and Release of Lien upon Final Payment

To the Agreement between the Willkomm Excavating and Stark Pavement Corporation for the Mukwonago TID #5 Project.

State of Wisconsin
County of Kenosha

Project Owner: Village of Mukwonago
General Contractor: Stark Pavement Corporation

The undersigned lienor, in consideration of the final payment in the amount of $ 381,950.99, hereby waives and releases its lien and right to claim a lien for labor, services or materials furnished to Campbell Locations, LLC on the job of Brown-Campbell, to the described property:

Job Name: Village of Mukwonago
TID #5 Public Improvements

Street Address: Various

This release is contingent upon receipt of the undersigned of the consideration specified above and upon full collection by the undersigned of any and all checks, drafts and instruments given in payment for labor, services or material on the job.

Given under my (our) hand(s) this 4th day of February ,20 20

Stark Pavement Corporation

By: _____

Title: VP of Finance

Sworn to and subscribed before me on this
4th Day of February A. D., 2020

KIMBERLY SCHMITT NOTARY PUBLIC STATE OF WISCONSIN

_____
(Notary Public)

My CommissionExpires 1/17/2022

FINAL WAIVER OF LIEN

For value received, Barricade Flasher Service, Inc hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for _____ in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

Barricade Flasher Service, Inc

Name – Title

8/13/19
Date

AUG 13 2019

Final OK. 511-18 18-63

28010

FINAL WAIVER OF LIEN

For value received, Century Fence Company hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for _____ in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

Century Fence Company

February 4, 2020

Name – Title Date

Timothy McChesney, Vice President of Operations

28010

FINAL WAIVER OF LIEN

For value received, Concrete Specialties Co Inc hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for Concrete structures in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

Concrete Specialties Co Inc

Name – Title

12-1-18
Date

28010

FINAL WAIVER OF LIEN

For value received, Core & Main hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for _____ in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

Core & Main

Tammy S. Kriens 6/14/19

Name + Title Date

Senior Credit Associate

FINAL WAIVER OF LIEN

For value received, The Expediters, Inc. hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for _____ in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

The Expediters, Inc.

Catherine Mulka Pres 9-4-19

Name – Title Date

FINAL WAIVER OF LIEN

For value received, Environmental Control Inc. hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for Erosion control and landscape restoration in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

Environmental Control Inc.

Saul Pett 02/10/2020

Name – Title Saul Pett, Office Manager Date

FINAL WAIVER OF LIEN

For value received, Hard Rock Sawing & Drilling hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for Saw cutting in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

Hard Rock Sawing & Drilling

Mary E Dunatka president — 11-27-19

Name – Title — Date

28010

FINAL WAIVER OF LIEN

For value received, Johnson Sand & Gravel Inc hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for _____ in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

Johnson Sand & Gravel Inc

Elizabeth Wendybloom — February 5, 2019
Name – Title — Date
Accounts Receivable

FINAL WAIVER OF LIEN

For value received, Ideal Crane Rental, Inc. hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for _____ in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

Ideal Crane Rental, Inc.

Paul Kelley — 1/15/19

Name – Title — Date

FINAL WAIVER OF LIEN

For value received, Lannon Stone Products, Inc. hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for aggregates in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

Lannon Stone Products, Inc.

Name – Title: Accounting Manager

Date: 5-7-19

28010

FINAL WAIVER OF LIEN

For value received, Neenah Foundry Co. hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for _____ in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

Neenah Foundry Co.

11-26-18

Name – Title 294824
Leonard Sykes, Credit Manager

Date

28010

FINAL WAIVER OF LIEN

For value received, T & T Tree Services LL hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for _____ in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

T & T Tree Services LL

Chuck Buentrall — 6-29-19

Name – Title: Member

Date

FINAL WAIVER OF LIEN

For value received, USEMCO Inc. hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for _____ in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

USEMCO Inc.

Name – Title

12/31/19
Date

FINAL WAIVER OF LIEN

For value received, Zenith Tech., Inc. hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for _____ in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

Zenith Tech., Inc.

	2-11-2020
Name – Title	Date

28010

FINAL WAIVER OF LIEN

For value received, Bull's Eye Boring, Inc. hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for _____ in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

Bull's Eye Boring, Inc.

Name – Title

Date 2/11/20

Manuel Ballestero
Vice President

FINAL WAIVER OF LIEN

For value received, Geo-Synthetics Systems, LLC hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for Geo-Synthetics Systems LLC in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

Geo-Synthetics Systems, LLC

R. V. Commission — 2-11-20

Name – Title — Date

FINAL WAIVER OF LIEN

For value received, Western Culvert & Supply hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for Cmp. bands + Flared Ends in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

Western Culvert & Supply

Name – Title

Scott Leubner
President

February 11, 2020
Date

FINAL WAIVER OF LIEN

For value received, Hogen Electric, Inc. hereby unconditionally waive **ALL** rights and claims for lien on land and on building about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

For Village of Mukwonago owner, by Willkomm Excavating & Grading, Inc. contractor, for _____ in same being situated in Waukesha County, State of Wisconsin, described as TID #5 Public Improvements.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, except, **NONE**.

Hogen Electric, Inc.

Todd Hogen / Pres. 2/21/20

Name – Title Date

WILLKOM

OP ID: KW

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 02/25/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Trottier Insurance Group BR C
5320 Green Bay Rd
Kenosha, WI 53144
Jay H. Brown
262-652-7963

CONTACT NAME: Jay H. Brown
PHONE (A/C, No, Ext): 262-652-7963 FAX (A/C, No): 262-652-9146
E-MAIL ADDRESS: jayb@trottieragency.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Secura Insurance Companies	22543
INSURER B : CNA	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Willkomm Excavating & Grading Inc.
17108 - County Line Rd.
Union Grove, WI 53182

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE X OCCUR	X	X	CP3174257	02/23/2020	02/23/2021	DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
							MED EXP (Any one person)	$ 10,000
B	X Pollution Liabili			C6049631397	02/23/2020	02/23/2021	PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	POLICY X PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:						Pollution	$ 2,000,000
A	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO			A3174258	02/23/2020	02/23/2021	BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
A	X UMBRELLA LIAB X OCCUR						EACH OCCURRENCE	$ 5,000,000
	EXCESS LIAB CLAIMS-MADE			CU3174260	02/23/2020	02/23/2021	AGGREGATE	$ 5,000,000
	DED X RETENTION $ 10,000							$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						X PER STATUTE / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N: N	N / A		WC3174259	02/23/2020	02/23/2021	E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
A	Leased Equip			CP3174257	02/23/2020	02/23/2021	Leased Eq	500,000
B	Contractors E&O			C6049631397	02/23/2020	02/23/2021	Contr E&O	2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Re: TID #5 Public Improvements, Village of Mukwonago

Ruekert-Mielke is named additional insured for ongoing and completed operations, with a waiver of subrogation, per the attached form.

CERTIFICATE HOLDER

RUEKERT

Ruekert/Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Kathleen J Wheeler

362

© 1988-2015 ACORD CORPORATION. All rights reserved.

The ACORD name and logo are registered marks of ACORD

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY

ADDITIONAL INSURED WRAP

This Endorsement modifies insurance provided under the following:
COMMERCIAL GENERAL LIABILITY COVERAGE PART

With respect to coverage provided by this Endorsement, the provisions of the Coverage Part apply unless modified by this Endorsement.

A. Additional Insured When Required By Written Agreement

1. Operations Performed For An Additional Insured

WHO IS AN INSURED is amended to include as an additional insured any person or organization for whom you are performing operations when you and such person or organization have agreed in a written agreement prior to a loss, that such person or organization be added as an additional insured on your policy. Such person or organization is an additional insured only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

a. Your acts or omissions; or

b. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured.

A person's or organization's status as an additional insured under this provision ends at the earlier of when your operations for that additional insured are completed; or the end of the policy period.

2. Limitations

The Operations Performed For An Additional Insured coverage is limited as follows:

a. This insurance does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:

(1) The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or

(2) Supervisory, inspection, architectural or engineering activities.

b. This insurance does not apply to "bodily injury" or "property damage" occurring after:

(1) All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or

(2) That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

c. The Limits of Insurance applicable to the additional insured are those specified in the written agreement or in the Declarations for this policy, whichever is less. These Limits of Insurance are inclusive and not in addition to the Limits of Insurance shown in the Declarations. If other insurance available to you and written by us is applicable to this additional insured, the maximum recovery under all coverage forms or policies combined may equal but not exceed the highest applicable limit under any one coverage form or policy providing coverage on either a primary or excess basis.

d. This insurance does not apply if the person or organization required to be added as an additional insured is specifically named as an additional insured under any other provision of, or endorsement added to this policy.

Includes copyrighted material of Insurance Services Office, with its permission
© 2013 SECURA Insurance Companies

B. Additional Insured When Required By Written Agreement – Completed Operations

1. Additional Insured – Completed Operations

WHO IS AN INSURED is amended to include as an additional insured any person or organization, when you and such person or organization have agreed in a written agreement prior to a loss, that such person or organization be added as an additional insured on your policy, but only with respect to "bodily injury" or "property damage" caused, in whole or in part, by "your work" performed for that additional insured and included in the "products-completed operations hazard".

2. Limitations

The Additional Insured - Completed Operations coverage is limited as follows:

a. This insurance does not apply to "bodily injury" or "property damage" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:

(1) The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or

(2) Supervisory, inspection, architectural or engineering activities.

b. A person or organization's status as an insured under Additional Insured - Completed Operations continues only until the earlier of the end of the policy period; or the period of time required by the written agreement. If no time period is required by the written agreement, a person or organization's status as an additional insured under this endorsement will not apply beyond the lesser of the end of the policy period; or five years from the completion of "your work" on the project which is the subject of the written agreement.

c. The insurance as provided to the additional insured does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of "your work" for which a consolidated (wrap-up) insurance program has been provided by the prime contractor-project manager or owner of the construction project in which you are involved.

d. The Limits of Insurance applicable to the additional insured are those specified in the written agreement or in the Declarations for this policy, whichever is less. These Limits of Insurance are inclusive and not in addition to the Limits of Insurance shown in the Declarations. If other insurance available to you and written by us is applicable to this additional insured, the maximum recovery under all coverage forms or policies combined may equal but not exceed the highest applicable limit under any one coverage form or policy providing coverage on either a primary or excess basis.

e. The coverage provided to the additional insured by this endorsement and by paragraph f. of the definition of "insured contract" under DEFINITIONS do not apply to "bodily injury" or "property damage" arising out of the "products-completed operations hazard" unless required by the written agreement.

f. This insurance does not apply if the person or organization required to be added as an additional insured is specifically named as an additional insured under any other provision of, or endorsement added to this policy.

C. Primary And Noncontributory

As respects the coverage provided under this endorsement, the Other Insurance Condition is amended as follows:

The paragraph regarding Excess Insurance is deleted and replaced with the following:

Excess Insurance

This insurance is excess over any other insurance available to the additional insured whether primary, excess, contingent or on any other basis unless the written agreement described in A. and B. above specifically requires that this insurance be either primary or primary and noncontributory. Then this insurance is primary and not contributing with any insurance available to the additional insured which covers that person or organization as a named insured.

Includes copyrighted material of Insurance Services Office, with its permission
© 2013 SECURA Insurance Companies

D. Waiver Of Transfer Of Rights Of Recovery Against Others To Us

As respects the coverage provided under this endorsement, the Transfer Of Rights Of Recovery Against Others To Us Condition is amended by adding the following:

> We waive any right to recover all or part of any payment we have made under this Coverage Part arising out of your ongoing operations or "your work" done under a written agreement requiring such waiver with that person or organization. However, our rights may only be waived prior to the "occurrence" for which we make payment under this Coverage Part. The insured must do nothing after a loss to impair our rights. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce them.

E. Amendment – Aggregate Limits Of Insurance (Per Project)

Under LIMITS OF INSURANCE shown on the Declarations, the General Aggregate Limit applies separately to each of your projects away from the premises owned by you or rented to you. This extension does not apply to the "products-completed operations hazard".

F. Additional Condition

The following condition is added:

> **Additional Insured Duty To Notify**
>
> The additional insured described in A. or B. above must give written notice of loss, including a demand for defense and indemnity, to any other insurer having coverage for the loss under its policies. Such notice must demand full coverage available and the additional insured shall not waive or limit such other available coverage.
>
> This additional condition does not apply to the insurance available to the additional insured which covers that person or organization as a named insured.

All other terms and conditions of this policy not in conflict with the terms and conditions of this Endorsement shall continue to apply.

Includes copyrighted material of Insurance Services Office, with its permission
© 2013 SECURA Insurance Companies

Ruekert·Mielke W233 N2080 Ridgeview Parkway, Waukesha, WI 53188-1020 262-542-5733

February 21, 2020

Ms. Diana Dykstra, CMC
Clerk-Treasurer
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

RE: REBID WWTF Chemical Storage Building

Dear Ms. Dykstra:

Bids for the above project were opened on January 28, 2020, at 10:00 a.m. at Mukwonago Village Hall and were as follows:

	BIDDER	BASE BID
1.	J. H. Hassinger, Inc.	$614,766.00
2.	Staab Construction Corporation	$617,000.00
3.	August Winter & Sons, Inc.	$660,000.00

We reviewed the documentation submitted by the apparent low bidder and found that:

1. The Bid Form has been appropriately completed.

2. We have no objections to the low bidder.

3. Low bidder has successfully completed similar projects over the last several years. R/M has experience working with J. H. Hassinger, Inc. and can attest to their proficiency in building construction.

On these bases, we recommend that J. H. Hassinger, Inc. be awarded the REBID WWTF Chemical Storage Building contract, in the amount of $614,766.00. On all construction projects unpredictable factors may increase the final contract amount. For this reason we recommend that the Village include a 5 percent contingency when preparing the financial plan for this work.

Village Staff has come to an agreement with J. H. Hassinger, Inc. to reduce the scope of work for this project, and thus the contract price. A Change Order will be issued once the contract is in place resulting in a credit of $28,047.00, changing the contract price to $586,719.00. With the recommended 5% contingency, the adjusted total project cost will be $616,054.95.

Our review did not include an evaluation of bidder's current financial condition nor of their permanent safety program.

Should you decide to accept our recommendation, we have prepared the enclosed Notice of Award for your use. After Village approval has been received, please have the appropriate official sign where indicated and forward all three signed copies of the Notice of Award to our office. We will then fill in the date at the top of page one and forward it, with contracts for execution, to the Contractor. One fully completed Notice of Award will be returned to you for your records.

Bids remain subject to acceptance until March 28, 2020, unless Bidder agrees to an extension. Please advise us of your award decision, or call if there are any questions.

Respectfully,

RUEKERT & MIELKE, INC.

Mark B. Van Weelden, P.E.
Project Engineer
mvanweelden@ruekert-mielke.com

MBV:sjs
Enclosure(s)
cc: Dave Brown, Village of Mukwonago
Jerad J. Wegner, P.E., Ruekert & Mielke, Inc.
David W. Arnott, P.E., Ruekert & Mielke, Inc.

NOTICE OF AWARD

Date of Issuance: _____

Contract:	REBID WWTF Chemical Storage	Owner:	Village of Mukwonago
Bidder:	J. H. Hassinger, Inc.	Engineer:	Ruekert & Mielke, Inc.
Address:	N60 W16289 Kohler Lane Menomonee Falls, WI 53051	Engineer's Project No.:	12-10105.200

TO BIDDER:

You are notified that your Bid dated January 28, 2020, for the above Contract has been accepted by Owner and you are the Successful Bidder and are awarded a Contract for:

REBID WWTF Chemical Storage Building

The Contract Price of your Contract is: $ 614,766.00

Two (2) copies of the proposed Contract Documents (except Drawings) accompany this Notice of Award, or have been transmitted or made available to Bidder electronically.

Four (4) sets of the Drawings will be delivered separately, or otherwise made available to Bidder electronically.

Bidder must comply with the following conditions precedent within 15 days of the date of issuance of this Notice of Award:

1. Deliver to Engineer one (1) fully executed counterparts of the Contract Documents.

2. Deliver with the executed Agreement the Bid security as specified in the Instructions to Bidders (Article 21), General Conditions (Paragraph 6.01), and Supplementary Conditions (Paragraph SC-6.01).

3. Deliver with the executed Agreement certificates and other evidence of insurance as specified in the General Conditions (Article 6) and the Supplementary Conditions modifying Article 6 of the General Conditions.

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within 10 days after you comply with the above conditions, Engineer will return to you one fully executed counterpart of the Agreement.

Owner: VILLAGE OF MUKWONAGO

By: _____
Authorized Signature

Title: _____

Date: _____

Copy: Engineer

Village of Mukwonago

AGENDA ITEM REQUEST FORM

Committee/Board:	Public Works
Topic:	WWTF Chemical Building Bid Award
From:	Dave Brown
Department:	Wastewater Utility
Presenter:	Dave Arnott
Date of Committee Action (if required):	3/4/20
Date of Village Board Action (if required):	3/18/20

Information

Subject:
Awarding of bid for WWTF Chemical Building.

Background Information/Rationale:
This will eliminate the failing underground chemical tank which has reached its 20 year life expectancy and is showing visible cracks in the outer containment layer of the tank.

Key Issues for Consideration:
The project was bid out and it came in over budget at $575,000 plus contingencies. We went back to the drawing board and worked with the bidding contractors and rebid in hopes of reducing the project cost. The bids surprisingly came in higher due to the contractor's subs raising their prices. The existing tank has to be replaced before it completely fails and unfortunately even with good effort and good intentions it did not come out as planned.

Fiscal Impact (If any):
Will be for using WWTF connection fee monies. Bid award will be $614,766.00 a change order for $28,047.00 will be issued after the bid is awarded which will reduce project cost to $586,719.00 not including a 5% contingency. With a 5% contingency added the project cost will be $616,054.95. $15,000 for SCADA which was removed from the bid, will be done through the operating budget instead of through the contractor bid.

Requested Action by Committee/Board:
It is requested that the Committee make a recommendation to the Village Board to award the WWTF Chemical Storage Building to J.H Hassinger Inc. for the sum of $614,766.00

Attachments

Bid recommendation and Notice of Award.

The Village of
Mukwonago
Where life, leisure and business thrive.

AGENDA ITEM REQUEST FORM

Committee/Board:	Village Board
Topic:	Motion to award Wolf Paving, Inc. the River Park Estates Rehabilitation Phase 2 contract, and to award the 8-foot wide mandatory alternate for the additional paving of Miniwaukan Park Multi-Use Trail.
From:	Jerad Wegner
Department:	Public Works
Presenter:	Michael Michalski
Date of Committee Action (if required)	March 4, 2020
Date of Village Board Action (if required)	March 18, 2020

Information

Subject:
Motion to award Wolf Paving, Inc. the River Park Estates Rehabilitation Phase 2 contract, and to award the 8-foot wide mandatory alternate for the additional paving of Miniwaukan Park Multi-Use Trail.

Background Information/Rationale:
Wolf Paving, Inc. was the low bidder for the Base Bid and Mandatory Alternates. There were a total of 4 Bids submitted. The Mandatory Alternate Bid Items are for the additional paving of Miniwaukan Park Multi-Use Trail from McKenzie Drive to Holz Parkway and a path to the Pavilion.

Key Issues for Consideration:
The low bidder has successfully completed similar projects over the last few years according to references we have contacted.

Fiscal Impact (if any):
The first Recommendation of Award is for the Base Bid with Mandatory Alternates A and C, in the amount of $1,407,824.60. The Mandatory Alternate Bid Items are for the additional paving of Miniwaukan Park 10-foot wide Multi-Use Trail and 8-foot wide Pavilion Path. The second option is for the Base Bid with Mandatory Alternates B and C contract, in the amount of $1,402,046.43. The Mandatory Alternate Bid Items are for the additional paving of Miniwaukan Park 8-foot wide Multi-Use Trail and Pavilion Path.

Requested Action by Committee/Board:

Attachments

Recommendation of Award-AC
Recommendation of Award-BC
River Park Estates Rehabilitation Cost Comparison of Bidders

Ruekert·Mielke W233 N2080 Ridgeview Parkway, Waukesha, WI 53188-1020 262-542-5733

February 20, 2020

Ms. Diana Dykstra, CMC
Clerk-Treasurer
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

RE: River Park Estates Rehabilitation Phase 2

Dear Ms. Dykstra:

Bids for the above project were opened on February 19, 2020, at 10:00 a.m., at the Village Hall and were as follows:

	BIDDER	BASE BID	Mandatory Alt. A (10 foot wide option)	Mandatory Alt. C (Park Pavilion Asphalt Path)
1.	Wolf Paving, Inc.	$1,341,541.65	$56,373.70	$9,909.25
2.	Payne & Dolan, Inc.	$1,369,289.70	$43,501.07	$7,658.79
3.	Stark Pavement Corp	$1,448,844.50	$47,320.00	$8,414.50
4.	Asphalt Contractors, Inc.	$1,474,845.00	$80,620.00	$14,982.00

We reviewed the documentation submitted by the apparent low bidder and found that:

1. The Bid Form has been appropriately completed.

2. We have no objections to the low bidder, nor to the proposed major subcontractors and suppliers.

3. Low bidder has successfully completed similar projects.

On these bases, we recommend that Wolf Paving, Inc. be awarded the River Park Estates Rehabilitation Phase 2 Base Bid with Mandatory Alternates A and C contract, contingent on approvals for Mandatory Alternate A project in the amount of $1,407,824.60. The Mandatory Alternate Bid Items are for the additional paving of Miniwaukan Park 10-foot wide Multi-Use Trail and 8-foot wide Pavilion Path. This amount is based on the bid unit prices and estimated quantities. Actual quantities, and therefore the final contract price, may vary. On all construction projects, and especially complex ones like this, unpredictable factors may increase the final contract amount. For this reason we recommend that the Village include a 10 percent contingency when preparing the financial plan for this work.

Our review did not include an evaluation of bidder's current financial condition nor of their permanent safety program.

Should you decide to accept our recommendation, we have prepared the enclosed Notice of Award for your use. After Board approval has been received, please have the appropriate official sign where indicated and forward all three signed copies of the Notice of Award to our office. We will then fill in the date at the top of page one and forward it, with contracts for execution, to the Contractor. One fully completed Notice of Award will be returned to you for your records.

Bids remain subject to acceptance until April 19, 2020, unless Bidder agrees to an extension. Please advise us of your award decision, or call if there are any questions.

Respectfully,

RUEKERT & MIELKE, INC.

Michael E. Michalski
Project Engineer
mmichalski@ruekert-mielke.com

MEM:sjs

Encl: Notice of Award
Bid Tabulation

cc: Ron Bittner, Village of Mukwonago
Jerad J. Wegner, P.E., Ruekert & Mielke, Inc.

NOTICE OF AWARD

Date of Issuance: _____

Contract:	River Park Estates Rehabilitation Phase 2	Owner:	Village of Mukwonago
Bidder:	Wolf Paving, Inc.	Engineer:	Ruekert & Mielke, Inc.
Address:	612 N. Sawyer Road	Engineer's Project No.:	12-10128.200
	Oconomowoc, WI 53066		

TO BIDDER:

You are notified that your Bid dated February 19, 2020 for the above Contract has been accepted by Owner and you are the Successful Bidder and are awarded a Contract for:

River Park Estates Rehabilitation Phase 2 Base Bid with Mandatory Alternate A and C

The Contract Price of your Contract is: $1,407,824.60

Two (2) copies of the proposed Contract Documents (except Drawings) accompany this Notice of Award, or have been transmitted or made available to Bidder electronically.

Two (2) sets of the Drawings will be delivered separately, or otherwise made available to Bidder electronically.

Bidder must comply with the following conditions precedent within 15 days of the date of issuance of this Notice of Award:

1. Deliver to Engineer one (1) fully executed counterparts of the Contract Documents.

2. Deliver with the executed Agreement the Bid security as specified in the Instructions to Bidders (Article 21), General Conditions (Paragraph 6.01), and Supplementary Conditions (Paragraph SC-6.01).

3. Deliver with the executed Agreement certificates and other evidence of insurance as specified in the General Conditions (Article 6) and the Supplementary Conditions modifying Article 6 of the General Conditions.

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within 10 days after you comply with the above conditions, Engineer will return to you one fully executed counterpart of the Agreement.

Owner: VILLAGE OF MUKWONAGO

By: _____
Authorized Signature

Title: _____

Date: _____

Copy: Engineer

Ruekert·Mielke W233 N2080 Ridgeview Parkway, Waukesha, WI 53188-1020 262-542-5733

February 20, 2020

Ms. Diana Dykstra, CMC
Clerk-Treasurer
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

RE: River Park Estates Rehabilitation Phase 2

Dear Ms. Dykstra:

Bids for the above project were opened on February 19, 2020, at 10:00 a.m., at the Village Hall and were as follows:

	BIDDER	BASE BID	Mandatory Alt. B (8 foot wide option)	Mandatory Alt. C (Park Pavilion Asphalt Path)
1.	Wolf Paving, Inc.	$1,341,541.65	$50,595.53	$9,909.25
2.	Payne & Dolan, Inc.	$1,369,289.70	$39,428.91	$7,658.79
3.	Stark Pavement Corp	$1,448,844.50	$40,180.00	$8,414.50
4.	Asphalt Contractors, Inc.	$1,474,845.00	$74,346.00	$14,982.00

We reviewed the documentation submitted by the apparent low bidder and found that:

1. The Bid Form has been appropriately completed.

2. We have no objections to the low bidder, nor to the proposed major subcontractors and suppliers.

3. Low bidder has successfully completed similar projects.

On these bases, we recommend that Wolf Paving, Inc. be awarded the River Park Estates Rehabilitation Phase 2 Base Bid with Mandatory Alternates B and C contract, contingent on approvals for Mandatory Alternate B project in the amount of $1,402,046.43. The Mandatory Alternate Bid Items are for the additional paving of Miniwaukan Park 8-foot wide Multi-Use Trail and Pavilion Path. This amount is based on the bid unit prices and estimated quantities. Actual quantities, and therefore the final contract price, may vary. On all construction projects, and especially complex ones like this, unpredictable factors may increase the final contract amount. For this reason we recommend that the Village include a 10 percent contingency when preparing the financial plan for this work.

Our review did not include an evaluation of bidder's current financial condition nor of their permanent safety program.

Should you decide to accept our recommendation, we have prepared the enclosed Notice of Award for your use. After Board approval has been received, please have the appropriate official sign where indicated and forward all three signed copies of the Notice of Award to our office. We will then fill in the date at the top of page one and forward it, with contracts for execution, to the Contractor. One fully completed Notice of Award will be returned to you for your records.

Bids remain subject to acceptance until April 19, 2020, unless Bidder agrees to an extension. Please advise us of your award decision, or call if there are any questions.

Respectfully,

RUEKERT & MIELKE, INC.

Michael E. Michalski
Project Engineer
mmichalski@ruekert-mielke.com

MEM:sjs

Encl: Notice of Award
Bid Tabulation

cc: Ron Bittner, Village of Mukwonago
Jerad J. Wegner, P.E., Ruekert & Mielke, Inc.

NOTICE OF AWARD

Date of Issuance: _____

Contract:	River Park Estates Rehabilitation Phase 2	Owner:	Village of Mukwonago
Bidder:	Wolf Paving, Inc.	Engineer:	Ruekert & Mielke, Inc.
Address:	612 N. Sawyer Road	Engineer's Project No.:	12-10128.200
	Oconomowoc, WI 53066		

TO BIDDER:

You are notified that your Bid dated February 19, 2020 for the above Contract has been accepted by Owner and you are the Successful Bidder and are awarded a Contract for:

River Park Estates Rehabilitation Phase 2 Base Bid with Mandatory Alternates B and C

The Contract Price of your Contract is: $ 1,402,046.43

Two (2) copies of the proposed Contract Documents (except Drawings) accompany this Notice of Award, or have been transmitted or made available to Bidder electronically.

Two (2) sets of the Drawings will be delivered separately, or otherwise made available to Bidder electronically.

Bidder must comply with the following conditions precedent within 15 days of the date of issuance of this Notice of Award:

1. Deliver to Engineer one (1) fully executed counterparts of the Contract Documents.

2. Deliver with the executed Agreement the Bid security as specified in the Instructions to Bidders (Article 21), General Conditions (Paragraph 6.01), and Supplementary Conditions (Paragraph SC-6.01).

3. Deliver with the executed Agreement certificates and other evidence of insurance as specified in the General Conditions (Article 6) and the Supplementary Conditions modifying Article 6 of the General Conditions.

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within 10 days after you comply with the above conditions, Engineer will return to you one fully executed counterpart of the Agreement.

Owner: VILLAGE OF MUKWONAGO

By: _____
Authorized Signature

Title: _____

Date: _____

Copy: Engineer

Ruekert · Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

COST COMPARISON OF BIDDERS

OWNER: Village of Mukwonago
PROJECT: River Park Estates Rehabilitation Phase 2
BID OPENING DATE: February 19, 2020

BASE BID				WOLF PAVING, INC.		PAYNE & DOLAN, INC.		STARK PAVEMENT CORP.		ASPHALT CONTRACTORS	
ITEM #	ITEM DESCRIPTION	UNIT	QTY.	UNIT $	TOTAL	UNIT $	TOTAL	UNIT $	TOTAL	UNIT $	TOTAL
1	Mobilization	L.S.	1	$1,650.00	$1,650.00	$3,500.00	$3,500.00	$53,435.00	$53,435.00	$30,000.00	$30,000.00
2	Traffic control	L.S.	1	$2,000.00	$2,000.00	$2,300.00	$2,300.00	$3,000.00	$3,000.00	$10,000.00	$10,000.00
3	Inlet sediment guards	EA	56	$65.00	$3,640.00	$45.00	$2,520.00	$35.00	$1,960.00	$160.00	$8,960.00
4	Full depth saw cutting	L.F.	1,165	$2.25	$2,621.25	$1.52	$1,770.80	$2.25	$2,621.25	$2.40	$2,796.00
5	Replace sanitary manhole chimney	EA	25	$1,180.00	$29,500.00	$1,500.00	$37,500.00	$1,500.00	$37,500.00	$1,400.00	$35,000.00
6	Tuckpoint/remortar sanitary manhole chimney	EA	7	$795.00	$5,565.00	$750.00	$5,250.00	$750.00	$5,250.00	$400.00	$2,800.00
7	Sanitary manhole internal/external seal replacement	EA	25	$510.00	$12,750.00	$750.00	$18,750.00	$750.00	$18,750.00	$600.00	$15,000.00
8	Valve box adjustments	EA	65	$295.00	$19,175.00	$263.03	$17,096.95	$550.00	$35,750.00	$300.00	$19,500.00
9	Replace catch basin No. 1	EA	1	$4,855.00	$4,855.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$3,400.00	$3,400.00
10	Replace catch basin No. 2	EA	1	$4,955.00	$4,955.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$3,400.00	$3,400.00
11	Replace catch basin No. 3	EA	1	$4,755.00	$4,755.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$3,400.00	$3,400.00
12	Replace catch basin No. 4	EA	1	$4,325.00	$4,325.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
13	Replace catch basin No. 5	EA	1	$3,785.00	$3,785.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
14	Replace catch basin No. 6	EA	1	$2,455.00	$2,455.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
15	Replace catch basin No. 7	EA	1	$3,435.00	$3,435.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
16	Replace catch basin No. 8	EA	1	$2,275.00	$2,275.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
17	Replace catch basin No. 9	EA	1	$4,675.00	$4,675.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
18	Replace catch basin No. 10	EA	1	$4,505.00	$4,505.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
19	Replace catch basin No. 11	EA	1	$3,255.00	$3,255.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
20	Replace catch basin No. 12	EA	1	$3,700.00	$3,700.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
21	Replace catch basin No. 13	EA	1	$3,080.00	$3,080.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
22	Replace catch basin No. 14	EA	1	$3,700.00	$3,700.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
23	Replace catch basin No. 15	EA	1	$4,410.00	$4,410.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
24	Replace catch basin No. 16	EA	1	$4,060.00	$4,060.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
25	Replace catch basin No. 17	EA	1	$5,330.00	$5,330.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$3,400.00	$3,400.00
26	Replace catch basin No. 18	EA	1	$3,965.00	$3,965.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
27	Replace catch basin No. 19	EA	1	$4,145.00	$4,145.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
28	Replace catch basin No. 20	EA	1	$4,060.00	$4,060.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
29	Replace catch basin No. 21	EA	1	$3,345.00	$3,345.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
30	Replace catch basin No. 22	EA	1	$2,900.00	$2,900.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
31	Replace catch basin No. 23	EA	1	$3,890.00	$3,890.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
32	Replace catch basin No. 24	EA	1	$3,700.00	$3,700.00	$6,500.00	$6,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
33	Replace catch basin No. 25	EA	1	$9,960.00	$9,960.00	$4,000.00	$4,000.00	$6,500.00	$6,500.00	$3,400.00	$3,400.00
34	Replace catch basin No. 26	EA	1	$4,410.00	$4,410.00	$3,500.00	$3,500.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
35	Replace catch basin No. 27	EA	1	$1,565.00	$1,565.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
36	Replace catch basin No. 28	EA	1	$2,010.00	$2,010.00	$5,000.00	$5,000.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
37	Replace catch basin No. 29	EA	1	$5,660.00	$5,660.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$3,400.00	$3,400.00
38	Replace catch basin No. 30	EA	1	$5,660.00	$5,660.00	$4,000.00	$4,000.00	$5,000.00	$5,000.00	$3,400.00	$3,400.00
39	Replace catch basin No. 31	EA	1	$4,410.00	$4,410.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
40	Replace catch basin No. 32	EA	1	$4,770.00	$4,770.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
41	Replace catch basin No. 33	EA	1	$4,410.00	$4,410.00	$6,500.00	$6,500.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00

© 2020 Copyright Ruekert & Mielke, Inc.
Cost Comparison of Bidders.xlsx (COMPARISON OF BIDDERS)

Ruekert · Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

COST COMPARISON OF BIDDERS

OWNER: Village of Mukwonago
PROJECT: River Park Estates Rehabilitation Phase 2
BID OPENING DATE: February 19, 2020

BASE BID				WOLF PAVING, INC.		PAYNE & DOLAN, INC.		STARK PAVEMENT CORP.		ASPHALT CONTRACTORS	
ITEM #	ITEM DESCRIPTION	UNIT	QTY.	UNIT $	TOTAL	UNIT $	TOTAL	UNIT $	TOTAL	UNIT $	TOTAL
42	Replace catch basin No. 34	EA	1	$9,070.00	$9,070.00	$5,000.00	$5,000.00	$6,500.00	$6,500.00	$3,400.00	$3,400.00
43	Replace catch basin No. 35	EA	1	$6,105.00	$6,105.00	$4,000.00	$4,000.00	$5,000.00	$5,000.00	$3,400.00	$3,400.00
44	Replace catch basin No. 36	EA	1	$4,950.00	$4,950.00	$5,000.00	$5,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
45	Replace catch basin No. 37	EA	1	$6,105.00	$6,105.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$3,400.00	$3,400.00
46	Replace catch basin No. 38	EA	1	$6,195.00	$6,195.00	$4,000.00	$4,000.00	$5,000.00	$5,000.00	$3,400.00	$3,400.00
47	Replace catch basin No. 39	EA	1	$5,215.00	$5,215.00	$3,500.00	$3,500.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
48	Replace catch basin No. 40	EA	1	$3,520.00	$3,520.00	$4,000.00	$4,000.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
49	Replace catch basin No. 41	EA	1	$4,505.00	$4,505.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
50	Replace catch basin No. 42	EA	1	$3,880.00	$3,880.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
51	Replace catch basin No. 43	EA	1	$3,965.00	$3,965.00	$3,500.00	$3,500.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
52	Replace catch basin No. 44	EA	1	$3,615.00	$3,615.00	$5,000.00	$5,000.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
53	Replace catch basin No. 45	EA	1	$6,195.00	$6,195.00	$3,500.00	$3,500.00	$5,000.00	$5,000.00	$3,400.00	$3,400.00
54	Replace catch basin No. 46	EA	1	$3,345.00	$3,345.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
55	Replace catch basin No. 47	EA	1	$2,630.00	$2,630.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
56	Replace catch basin No. 48	EA	1	$2,010.00	$2,010.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
57	Replace catch basin No. 49	EA	1	$2,630.00	$2,630.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
58	Replace catch basin No. 50	EA	1	$3,165.00	$3,165.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
59	Replace catch basin No. 51	EA	1	$3,345.00	$3,345.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
60	Replace catch basin No. 52	EA	1	$3,080.00	$3,080.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
61	Replace catch basin No. 53	EA	1	$1,920.00	$1,920.00	$4,000.00	$4,000.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
62	Replace catch basin No. 54	EA	1	$4,325.00	$4,325.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
63	Replace catch basin No. 55	EA	1	$3,960.00	$3,960.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
64	Replace catch basin No. 56	EA	1	$4,325.00	$4,325.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
65	Replace catch basin No. 57	EA	1	$4,325.00	$4,325.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
66	Replace catch basin No. 58	EA	1	$4,060.00	$4,060.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
67	Replace catch basin No. 59	EA	1	$3,520.00	$3,520.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
68	Replace catch basin No. 60	EA	1	$3,165.00	$3,165.00	$4,000.00	$4,000.00	$3,500.00	$3,500.00	$3,400.00	$3,400.00
69	Replace catch basin No. 61	EA	1	$4,590.00	$4,590.00	$6,000.00	$6,000.00	$4,000.00	$4,000.00	$3,400.00	$3,400.00
70	Replace catch basin No. 62	EA	1	$9,405.00	$9,405.00	$6,000.00	$6,000.00	$6,000.00	$6,000.00	$3,400.00	$3,400.00
71	Replace catch basin No. 63	EA	1	$9,585.00	$9,585.00	$6,000.00	$6,000.00	$6,000.00	$6,000.00	$3,400.00	$3,400.00
72	Replace storm manhole	EA	1	$4,995.00	$4,995.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$3,400.00	$3,400.00
73	Replace storm manhole chimney	EA	3	$975.00	$2,925.00	$1,500.00	$4,500.00	$1,500.00	$4,500.00	$1,800.00	$5,400.00
74	Replace catch basin frame and grate, if required	EA	1	$1,480.00	$1,480.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$1,200.00	$1,200.00
75	Pulverizing, removals, shaping, and compacting necessary to bring street to grade	S.Y.	45,765	$3.17	$145,075.05	$2.50	$114,412.50	$2.85	$130,430.25	$3.30	$151,024.50
76	Excavation below subgrade, if required	C.Y.	735	$19.80	$14,553.00	$18.00	$13,230.00	$17.50	$12,862.50	$45.00	$33,075.00
77	Geotextile subgrade stabilization, if required	S.Y.	2,200	$2.95	$6,490.00	$1.23	$2,706.00	$2.50	$5,500.00	$2.50	$5,500.00
78	Excavation below subgrade (EBS) backfill, if required	TON	1,470	$22.80	$33,516.00	$21.00	$30,870.00	$25.50	$37,485.00	$24.00	$35,280.00
79	Concrete curb and gutter replacement	L.F.	1,020	$47.00	$47,940.00	$56.26	$57,385.20	$38.00	$38,760.00	$70.00	$71,400.00
80	2 1/2-inch Asphaltic Concrete Binder Course	TON	6,920	$56.50	$390,980.00	$62.15	$430,078.00	$66.65	$461,218.00	$67.30	$465,716.00
81	1 1/2-inch Asphaltic Concrete Surface Course	TON	4,155	$59.75	$248,261.25	$70.00	$290,850.00	$68.00	$282,540.00	$69.70	$289,603.50
82	3-inch Asphalt driveway replacement	S.F.	115	$240.74	$27,685.10 *	$18.57	$2,135.55	$3.50	$402.50	$12.00	$1,380.00

© 2020 Copyright Ruekert & Mielke, Inc.
Cost Comparison of Bidders.xlsx (COMPARISON OF BIDDERS)

Ruekert · Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

COST COMPARISON OF BIDDERS

OWNER: Village of Mukwonago
PROJECT: River Park Estates Rehabilitation Phase 2
BID OPENING DATE: February 19, 2020

BASE BID				WOLF PAVING, INC.		PAYNE & DOLAN, INC.		STARK PAVEMENT CORP.		ASPHALT CONTRACTORS	
ITEM #	ITEM DESCRIPTION	UNIT	QTY.	UNIT $	TOTAL	UNIT $	TOTAL	UNIT $	TOTAL	UNIT $	TOTAL
83	6-inch Concrete driveway replacement	S.F.	440	$10.00	$4,400.00	$13.38	$5,887.20	$8.00	$3,520.00	$11.00	$4,840.00
84	Concrete sidewalk, curb ramp, and carriage walk replacement	S.F.	5,000	$9.50	$47,500.00	$9.69	$48,450.00	$8.00	$40,000.00	$11.00	$55,000.00
85	Detectable warning field	S.F.	136	$60.00	$8,160.00	$60.00	$8,160.00	$35.00	$4,760.00	$45.00	$6,120.00
86	Topsoil, turf grass seed, fertilizer and erosion matting	S.Y.	450	$16.80	$7,560.00	$8.75	$3,937.50	$8.00	$3,600.00	$17.00	$7,650.00
TOTAL OF ALL ESTIMATED PRICES (ITEMS 1 - 86)					**$1,341,541.65**		**$1,369,289.70**		**$1,448,844.50**		**$1,474,845.00**
MANDATORY ALTERNATE A - MINIWAUKAN PARK MULTI-USE TRAIL PAVING (10-foot wide option)											
MA-A1	Full depth saw cutting	L.F.	10	$2.25	$22.50	$1.52	$15.20	$5.00	$50.00	$5.00	$50.00
MA-A2	Excavation below subgrade, if required	C.Y.	30	$40.00	$1,200.00	$28.81	$864.30	$30.00	$900.00	$50.00	$1,500.00
MA-A3	Geotextile subgrade stabilization, if required	S.Y.	90	$5.00	$450.00	$4.05	$364.50	$5.00	$450.00	$3.00	$270.00
MA-A4	Excavation below subgrade (EBS) backfill, if required	TON	60	$35.00	$2,100.00	$23.15	$1,389.00	$30.00	$1,800.00	$60.00	$3,600.00
MA-A5	Grade and compact multi-use trail base	L.S.	1	$16,959.60	$16,959.60	$7,360.27	$7,360.27	$8,500.00	$8,500.00	$12,000.00	$12,000.00
MA-A6	3 inch Asphaltic concrete surface course	TON	340	$70.24	$23,881.60	$67.67	$23,007.80	$82.00	$27,880.00	$80.00	$27,200.00
MA-A7	Topsoil, turf grass seed, fertilizer and erosion matting	S.Y.	1,200	$9.80	$11,760.00	$8.75	$10,500.00	$6.45	$7,740.00	$30.00	$36,000.00
TOTAL OF ALL MANDATORY ALTERNATE A ESTIMATED PRICES					**$56,373.70**		**$43,501.07**		**$47,320.00**		**$80,620.00**
MANDATORY ALTERNATE B - MINIWAUKAN PARK MULTI-USE TRAIL PAVING (8-foot wide option)											
MA-B1	Full depth saw cutting	L.F.	10	$2.25	$22.50	$1.52	$15.20	$5.00	$50.00	$5.00	$50.00
MA-B2	Excavation below subgrade, if required	C.Y.	24	$40.00	$960.00	$28.81	$691.44	$30.00	$720.00	$50.00	$1,200.00
MA-B3	Geotextile subgrade stabilization, if required	S.Y.	72	$5.00	$360.00	$4.05	$291.60	$2.50	$180.00	$3.00	$216.00
MA-B4	Excavation below subgrade (EBS) backfill, if required	TON	48	$35.00	$1,680.00	$23.15	$1,111.20	$30.00	$1,440.00	$60.00	$2,880.00
MA-B5	Grade and compact multi-use trail base	L.S.	1	$16,332.03	$16,332.03	$6,419.97	$6,419.97	$7,500.00	$7,500.00	$12,000.00	$12,000.00
MA-B6	3 inch Asphaltic concrete surface course	TON	275	$70.84	$19,481.00	$74.18	$20,399.50	$82.00	$22,550.00	$80.00	$22,000.00
MA-B7	Topsoil, turf grass seed, fertilizer and erosion matting	S.Y.	1,200	$9.80	$11,760.00	$8.75	$10,500.00	$6.45	$7,740.00	$30.00	$36,000.00
TOTAL OF ALL MANDATORY ALTERNATE B ESTIMATED PRICES					**$50,595.53**		**$39,428.91**		**$40,180.00**		**$74,346.00**
MANDATORY ALTERNATE C - MINIWAUKAN PARK PAVILION ASPHALTIC PATH											
MA-C1	Erosion rolls	L.F.	120	$6.00	$720.00	$4.00	$480.00	$5.00	$600.00	$6.00	$720.00
MA-C2	Construct path to subgrade	L.S.	1	$2,980.00	$2,980.00	$2,397.54	$2,397.54	$3,500.00	$3,500.00	$3,500.00	$3,500.00
MA-C3	Excavation below subgrade, if required	C.Y.	6	$40.00	$240.00	$28.81	$172.86	$30.00	$180.00	$60.00	$360.00
MA-C4	Geotextile subgrade stabilization, if required	S.Y.	18	$5.00	$90.00	$4.06	$73.08	$5.00	$90.00	$4.00	$72.00
MA-C5	Excavation below subgrade (EBS) backfill, if required	TON	12	$35.00	$420.00	$23.15	$277.80	$30.00	$360.00	$60.00	$720.00
MA-C6	Grade and compact path base	L.S.	1	$2,718.91	$2,718.91	$1,453.71	$1,453.71	$1,300.00	$1,300.00	$1,800.00	$1,800.00
MA-C7	3 inch Asphaltic concrete surface course	TON	22	$84.47	$1,858.34	$91.65	$2,016.30	$82.00	$1,804.00	$130.00	$2,860.00
MA-C8	Topsoil, turf grass seed, fertilizer and erosion matting	TON	90	$9.80	$882.00	$8.75	$787.50	$6.45	$580.50	$55.00	$4,950.00
TOTAL OF ALL MANDATORY ALTERNATE C ESTIMATED PRICES					**$9,909.25**		**$7,658.79**		**$8,414.50**		**$14,982.00**

© 2020 Copyright Ruekert & Mielke, Inc.
Cost Comparison of Bidders.xlsx (COMPARISON OF BIDDERS)

The Village of
Mukwonago
Where life, leisure and business thrive.

AGENDA ITEM REQUEST FORM

Committee/Board:	Village Board
Topic:	Motion to approve **Ordinance 973** an Ordinance to amend Section #34-46, 34-47 (a) and 34-49 (b) & (c) of the Village of Mukwonago Municipal Code regarding abandon or junked motor vehicles.
From:	Kevin Schmidt
Department:	Police
Presenter:	Police Chief Kevin Schmidt
Date of Committee Action (if required)	March 4, 2020
Date of Village Board Action (if required)	March 18, 2020

Information

Subject:

Motion to approve **Ordinance 973** an Ordinance to amend Section #34-46, 34-47 (a) and 34-49 (b) & (c) of the Village of Mukwonago Municipal Code regarding abandon or junked motor vehicles.

Background Information/Rationale:
The junk vehicle/abandoned vehicle ordinance, Section #34-46 and 34-47, somehow was changed to a previous version of the ordinance. We believe in one of the times the ordinance were codified, an older version of the ordinance was inadvertently put in. The ordinance the Police Department has enforced for the past 20 or so years, allowed that vehicles had to be currently licensed or covered. Also, the vehicle had to be on private property for at least 10 days.

In researching this ordinance, we found that section 34-49 (b) & (c), which deals with the enforcement of the ordinance, needs to be updated as to the appeal process. This changes the procedure of the appeal to reflect the current Committee of the Whole structure the Village now uses.

Key Issues for Consideration:
The change to Section #34-46 is to the definition of *Abandoned Motor Vehicle.* We have removed the requirement that the vehicle had to remain on the property for more than 10 days and added the language "is maintained on private property outside of a structure and without screening, is unregistered or does not have affixed current motor vehicle license plates, and is not road ready",

In Section #34-47 (a), we have added that any abandoned or junked motor vehicle or motor vehicle accessories and/or unlicensed motor vehicle(s), machinery or trailer that requires licensing shall not be stored or permitted to remain in the open and unscreened on any private property within the Village. We have also added language defining "unscreened". "For purposes of this Ordinance, the term “unscreened” shall be defined to be a vehicle, accessory, machinery or trailer requiring licensing that is visible, and not completely enclosed by a weatherproof all season covering, in whole or in part, at any time of the year, from a public place or public right of way."

In Section 34-49 (b), we have removed the language that the item must be on the property for a minimum of ten (10) days,

In Section 34-49 (c), we have changed the appeal process to follow the current Village of Mukwonago Committee of the Whole schedule.

Fiscal Impact (if any):
None

Requested Action by Committee/Board:

Attachments

ORDINANCE 973

VILLAGE OF MUKWONAGO
WAUKESHA AND WALWORTH COUNTIES

ORDINANCE NO. 973

ORDINANCE TO AMEND SECTIONS 34-46, 34-47 (a) and 34-49 (b) & (c) OF THE VILLAGE OF MUKWONAGO MUNICIPAL CODE REGARDING ABANDONED OR JUNKED MOTOR VEHICLES

SECTION I

Section 34-46 of the Municipal Code of the Village of Mukwonago is hereby repealed and recreated to read as follows:

Abandoned motor vehicle means a motor vehicle which, through disuse and failure to be used, is maintained on private property outside of a structure and without screening, is unregistered or does not have affixed current motor vehicle license plates, and is not road ready: or a motor vehicle which has been reported as stolen to any police department.

Section 34-47(a) of the Municipal Code of the Village of Mukwonago is hereby repealed and recreated to read as follows:

Sec 34-47 – Storage

(a) No person owning or having custody of any abandoned or junked motor vehicle or motor vehicle accessories and/or unlicensed motor vehicle(s), machinery or trailer that requires licensing shall store or permit any such vehicle or accessories to remain in the open and unscreened on any private property within the Village. No person owning any private property in the Village, as determined from the tax assessment records of the Village, shall store or permit to remain any such vehicles or accessories on said property unless it is in connection with an automotive sales and repair business located in a properly zoned area. Such storage is hereby declared to be a public nuisance and may be abated or removed, and forfeitures may be imposed, as provided in this Code. No such person shall be deemed to have violated this subsection until the expiration of the 72 hours provided for in section 34-49(d). For purposes of this Ordinance, the term "unscreened" shall be defined to be a vehicle, accessory, machinery or trailer requiring licensing that is visible and not completely enclosed by a weatherproof all season covering, in whole or in part, at any time of the year, from a public place or public right of way.

Section 34-49 (b) of the Municipal Code of the Village of Mukwonago is hereby repealed and recreated to read as follows:

Sec. 34-49 – Enforcement

(b) *Initial notice of removal.* Whenever the chief of police or any member of his

department shall find or be notified that any abandoned or junked motor vehicle or

motor vehicle accessories have been stored or permitted to remain on any private property within the village, the police department shall send by certified mail, or by personal service thereof, a notice to the owner of record of such motor vehicle or accessories, if such owner can be ascertained by the exercise of reasonable diligence, and also to the owner of the private property as shown on the tax assessment records of the village, on which the same is located to remove the junked motor vehicle or motor vehicle accessories within ten days. Such notice shall also contain the following additional information:

(1) Nature of complaint.

(2) Description and location of the motor vehicle and/or motor vehicle accessories.

(3) Statement that the motor vehicle or motor vehicle accessories shall be removed

from the premises no later than ten days from date of notification.

(4) Statement that the owner of the motor vehicle and/or motor vehicle accessories, or

the owner of the private property on which the same is located may show cause

for not removing such motor vehicle or motor vehicle accessories by stating the

reasons in a letter of appeal to the chief of police within ten days from date of

notification.

(5) Statement that removal from the location specified in the notification to another

location upon which such storage is not permitted is prohibited and shall subject

the person to additional penalties.

(6) Statement that if removal is made within the time limits specified, notification

shall be given in writing to the police department.

(7) Statement of the penalties provided for noncompliance with such notice.

(c) *Appeals.* Receipt of a letter of appeal as set forth in subsection (b)(4) of this section

shall defer action on removal of the motor vehicle or motor vehicle accessories until such appeal has been considered by an appeal board composed of the Village of Mukwonago Judicial Committee Of The Whole. Upon receipt of such written appeal, the police code enforcement officer shall notify the chairperson of the judicial committee of the appeal. The chairperson of the judicial committee shall place the appeal hearing on the agenda for the next scheduled judicial committee of the whole meeting unless circumstances merit a timelier meeting. The police code enforcement officer shall then send via

certified mail, or personal service thereof, notice of the date and time of such judicial committee meeting to the appellant. The appeal board shall consider the facts of the appeal and shall render a decision within ten days of the judicial committee hearing. The appeal board may, if it finds that public health, safety and morals and decency will not be adversely affected, waive the requirement for removal or extend the time for removal. If the appeals board finds it is in the best interest of the village and in order to protect public health, safety or morals and decency, it may order the motor vehicle or motor vehicle accessories to be removed within a period not to exceed 20 days from the date of the decision. A copy of such decision shall be sent via certified mail, to the person making the appeal.

(d) *Final notice of removal.* After the expiration of the ten-day time period specified in

subsection (b)(3) of this section or the time period specified by the board of review in subsection (c) of this section, the police department shall place a notice in a conspicuous place on the motor vehicle or motor vehicle accessories setting forth briefly the applicable provisions of this section, date of notice, and specifying that unless the vehicle is removed to a lawful place of storage within 72 hours, it will be removed under the authority of this section. If the police department is prevented from or is otherwise unable to place such notice in a conspicuous place on the motor vehicle or motor vehicle accessories, the police department shall send such notice by certified mail to or personally serve the owner of the vehicle or accessories and/or the owner of the property and/or any and all recorded lienholders.

SECTION II

All Ordinances or parts of Ordinances contravening the terms and conditions of this Ordinance are hereby to that extent repealed.

SECTION III

The several sections of this Ordinance shall be considered severable. If any section shall be considered by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the other portions of the Ordinance.

SECTION IV

This Ordinance shall take effect upon passage and publication as approved by law, and the Village Clerk shall so amend the Code of Ordinances of the Village of Mukwonago, and shall indicate the date and number of this amending ordinance therein.

PASSED AND ADOPTED by the Village Board this _____ day of _____, 2020.

APPROVED:

_____
Fred Winchowky, Village President

Countersigned:

_____
Diana Dykstra, Village Clerk/Treasurer

The Village of
Mukwonago
Where life, leisure and business thrive.

AGENDA ITEM REQUEST FORM

Committee/Board:	Village Board
Topic:	Motion to approve a contract for electronic recycling with Refrigeration Depot, LLC pending Village Attorney approval.
From:	Ron Bittner
Department:	Public Works
Presenter:	Ron Bittner
Date of Committee Action (if required)	Discussion only
Date of Village Board Action (if required)	

Information

Subject:
Motion to approve a contract for electronic recycling with Refrigeration Depot, LLC pending Village Attorney approval.

Background Information/Rationale:
The village participated in the Waukesha County's electronic and refrigerant collection as a host site for the last two years. The county has since eliminated the program and all future dates have been cancelled. The village was scheduled for Saturday, June 13th 2020 and now has the opportunity to continue the program independently. Refrigeration Depot has entered the electronic recycling and would enter into a service agreement with the village for both services.

Key Issues for Consideration:
Village interest in providing electronic (fee based) and refrigerant recycling for residents.

Fiscal Impact (if any):
Approximately three hours of overtime for a public works staff member. Recycling fees are paid by residents to the contractor based on items being dropped off.

Requested Action by Committee/Board:

Attachments

REFRIGERANT DEPOT LLC

E-CYCLE LLC

5311 South 9th Street Milwaukee, WI 53221
PHONE: (414) 627-1152
WEBSITE: www.appliancerecycling.net **EMAIL:** info@appliancerecycling.net

APPLIANCE & ELECTRONIC RECYCLING EVENT AGREEMENT

Refrigerant Depot, LLC & RD E-cycle LLC agrees to take part in a Recycling Event "hosted" by the **Village of Mukwonago** on **Saturday June 13, 2020** to local residents at **Mukwonago Department of Public Works 630 Veterans Way East Mukwonago WI 53149** from **9:00 am – 12:00 noon**.

This type of event allows residents the opportunity to properly dispose of their unwanted items responsibly.

Refrigerant Depot, LLC & RD E-cycle, LLC will provide the following support for an effective Recycling Event:

APPLIANCE/LAWN & GARDEN AND EXERCISE EQUIPMENT RECYCLING

- Refrigerant Depot, LLC will accept items such as: *Air Conditioners, Car Batteries, Commercial A/C Units, Dehumidifiers, Dishwashers, Dryers, Exercise Equipment, Freezers, Grills (No Propane tanks accepted), *Lawn mowers, Microwaves, Range Tops, Refrigerators, *Snow Blowers, Stoves, Vending Machines, Wall Ovens, Washers, Water Coolers, Water Heaters (NO Water Softeners) and Small household appliances at **NO CHARGE**.*

ALL GAS AND OIL MUST BE REMOVED

****

ELECTRONIC RECYCLING (Household items)

- *RD E-cycle, LLC will accept electronics such as: Computers – PCs, Laptops, Servers, iPads, DVD Players, Video Equipment, Computer Accessories, Wiring/cords, Printers, Copiers, Storage Devices, Netbook/Notebooks, Keyboards, Cell Phones, VCRs, Tablets, Digital Converters, Fax Machines, DVRs, Uninterruptable Power Supply -UPSs, iPods, Blu-Ray Players, Mice, MP3s, Receivers, Routers/Modems at **NO COST**.*

- *RD E-cycle, LLC does **NOT** accept items such as: Ink/Toner Cartridges, Smoke/Carbon Monoxide Detectors, Fire Extinguishers, Medical Equipment, Water Softeners, Household Batteries, Light Bulb, De-manufactured units (TVs or Monitors - broken or in pieces) or CD's/Cassette Tapes/DVD's.*

- *RD E-cycle LLC reserves the right to refuse any items not listed.*

- *ALL TV's (CRT, LCD, LED, CONSOLE, PROJECTION) cost for disposal = **$35.00 each***

- *All Monitors (LCD and CRT) cost for disposal = **$10.00 each***

ALL FESS PAID BY RESIDENTS UNLESS OTHER ARRANGEMENTS HAVE BEEN AGREED UPON BY HOST.

REFRIGERANT DEPOT, LLC & RD E-cycle LLC OBLIGATIONS:

- Refrigerant Depot, LLC & RD E-cycle LLC expressly and unequivocally agrees that it will dispose of any and all appliances or components thereof in an environmentally acceptable manner consistent with any and all federal, state and local laws and regulations in existence now or at the time of disposal or destruction.

- Refrigerant Depot, llc & RD E-cycle, llc will remove all items collected from the event within 7 business days of the event.

- Refrigerant Depot, LLC & RD E-cycle, LLC assumes responsibility, ownership and liability for all used and unwanted items collected the day of the event.

- Refrigerant Depot, LLC & RD E-cycle LLC agrees to supply within 30 days following each event, a breakdown of the number and types of items collected.

- Refrigerant Depot, LLC & RD E-cycle LLC agrees to indemnify, hold harmless and defend the Village of Mukwonago, its officers, agents and employees against any and all actions, damages, judgments, costs, or fees of any kind whatsoever arising out of any act, error, or omission of Refrigerant Depot LLC & RD E-cycle LLC, its agents, or employees under this Agreement.

- The HOST and Refrigerant Depot, LLC/RD E-cycle LLC recognizes that the appliances and electronic components thereof may have value by virtue of reuse, sale of components or salvage value and any value derived from reuse, sale or salvage shall accrue to and may be retained by Refrigerant Depot, LLC.

- The "**HOST**" will be responsible for ALL marketing cost and efforts in promotion of the event(s).

Refrigerant Depot, LLC is licensed by the Department of Natural Resource (DNR) #341244970, Environmental Protection Agency (EPA) and Safe Transport & DOT Certified.

RD E-cycle, LLC is a Registered Electronic Collector with the WI Department of Natural Resources (DNR).

This Service Agreement is made effective **March 5, 2020**.

Authorized Personnel Signature – *Host*

X	X
Print Name	**Signature**
Date	**Contact number**

Authorized Personnel Signature – *Refrigerant Depot LLC/RD E-cycle LLC*

X	X
Print Name	**Signature**
Date	**Contact number**

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 03/09/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER

BWO Insurance Group, LLC
7472 S. 6th St.
Oak Creek, WI 53154

CONTACT NAME: Dominique M Mustafa
PHONE (A/C, No, Ext): 414-768-8100 FAX (A/C, No): 414-768-8110
E-MAIL ADDRESS: bwo@bwoinsurance.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Society Insurance	15261
INSURER B: WEST BEND MUTUAL	15350
INSURER C:	
INSURER D:	
INSURER E:	
INSURER F:	

INSURED

REFRIGERANT DEPOT LLC
5311 S 9th St
Milwaukee, WI 53221-3630

COVERAGES CERTIFICATE NUMBER: 00028217-0 REVISION NUMBER: 6

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			CBP 552645	06/01/2019	06/01/2020	EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$ 5,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	X POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
A	AUTOMOBILE LIABILITY			CAP 552646	06/01/2019	06/01/2020	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB / OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB / CLAIMS-MADE						AGGREGATE	$
	DED / RETENTION $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			A105853	01/01/2020	01/01/2021	X PER STATUTE / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N	N/A					E.L. EACH ACCIDENT	$ 100,000
	(Mandatory In NH) If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 100,000
							E.L. DISEASE - POLICY LIMIT	$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

Village of Mukwonago
630 Veterans Way East
Mukwonago, WI 53149

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

David O Matta (DMM)

© 1988-2015 ACORD CORPORATION. All rights reserved.

ACORD 25 (2016/03) The ACORD name and logo are registered marks of ACORD

Printed by DMM on March 09, 2020 at 10:48AM

LAW OFFICES OF

**HIPPENMEYER, REILLY, BLUM
SCHMITZER, FABIAN & ENGLISH, S.C.**

MARK G. BLUM
THOMAS G. SCHMITZER
LORI J. FABIAN
RONALD E. ENGLISH III

720 CLINTON STREET
P. O. BOX 766
WAUKESHA, WISCONSIN 53187-0766
TELEPHONE: (262) 549-8181
FACSIMILE: (262) 549-8191
www.hrblawfirm.com

RICHARD S. HIPPENMEYER
(1911-1979)

WILLIAM F. REILLY
(1932-2007)

EMAIL: MGBLUM@HRBLAWFIRM.COM

March 16, 2020

Via Email (ddykstra@villageofmukwonago.com)
Ms. Diana Dykstra
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Re: Resolution Regarding Electronic Reader Board Signs

Dear Diana:

Following up on the March 4, 2020 Village Board meeting, I am enclosing a revised Resolution regarding the policy for the use of messaging on the Village's electronic reader board signs. I believe the Board directed that this policy be applicable to all electronic reader board signs, not just the one at Field Park. As a result, I would ask this revised Resolution be included with the Village Board packet.

Thank you for your attention to this matter.

Sincerely,

HIPPENMEYER, REILLY, BLUM,
SCHMITZER, FABIAN & ENGLISH, S.C.

Mark G. Blum
Village Attorney

MGB/jb
Enc.

VILLAGE OF MUKWONAGO
WAUKESHA/WALWORTH COUNTIES

RESOLUTION NO. 2020-_____

RESOLUTION OF THE VILLAGE BOARD OF THE VILLAGE OF MUKWONAGO ESTABLISHING POLICY REGARDING THE USE OF MESSAGING ON THE VILLAGE'S ELECTRONIC READER BOARD SIGNS

WHEREAS, the Village of Mukwonago is installing electronic reader board signs at various locations in the Village; and

WHEREAS, the Village is desirous of establishing a policy concerning the permitted messaging on said signage.

NOW, THEREFORE, BE IT RESOLVED by the Village Board of the Village of Mukwonago, the following Policy regarding the permitted messaging on the Village's electronic reader board signs shall be the following:

> The sign may be utilized for official Village of Mukwonago communications to the public, except as expressly provided for hereunder. In that regard, the Village will allow individuals or groups who have an approved Special Event Use Application for the use of Village facilities to note the date and time of that use on Village signage. In addition, the Village will permit other groups for which the Village has provided some sponsorship to also include the title, date and time of the event on the Village signage.

BE IT FURTHER RESOLVED that the Village President and Village Clerk are hereby authorized to execute this Resolution.

BE IT FURTHER RESOLVED that Village Staff is hereby directed to take such steps are necessary to effectuate the intention of this Resolution.

Adopted this _____ day of _____, 2020.

APPROVED:

Attestation:

_____
Fred Winchowky, Village President

_____
Diana Dykstra, Village Clerk

The Village of
Mukwonago
Where life, leisure and business thrive.

AGENDA ITEM REQUEST FORM

Committee/Board:	Village Board
Topic:	Discussion and possible action to support the Downtown Strategic Plan Recommendation to reroute State Highway 83.
From:	Diana Dykstra
Department:	Administration
Presenter:	Roger Walsh
Date of Committee Action (if required)	
Date of Village Board Action (if required)	3/18/20

Information

Subject:
Discussion and possible action to support the Downtown Strategic Plan Recommendation to reroute State Highway 83.

Background Information/Rationale:

Based on unanimous recommendation by the Stakeholder's Advisory Committee the Village Board approved ending discussions with WisDOT to widen Hwy 83 between County Road LO and Henry Street.

It was determined this was in the best interests of Village residents and the economic viability of a Downtown Destination Village Center the Village. As a result of this Action, WisDot agreed to consider an alternate route or reroute of Hwy 83 in collaboration with Waukesha County and the Village of Mukwonago. Initial Jurisdictional Transfer negotiations stalled and were set aside in approximately 2015 in part for lack of funding.

Prior to formation of the SAC, WisDot applied a 2" asphalt lift with an estimated 5 year lifespan pending future roadwork.

The Village is aware of the age and condition of Downtown Underground utilities. The Village's goal is to replace and or repair aging underground Downtown utilities in an orderly and prudent manner. Approximately 8 years later, there is no known State current budget item for WisDot to make previously budgeted repairs.

The 2018 Downtown Strategic Plan recommended reroute of Hwy 83 around Downtown. (Pg 23). The Downtown Development Committee, (DDC) was created by Village Ordinance to make implementation recommendations to the Village Board.

The Village Board approved funding for a Streetscaping & Wayfinding Design Plan with a current option and future option that included a future Hwy 83 reroute.

At the March 6th 2020 Special Meeting DDC members unanimously voted to ask the Village Board to support the Downtown Strategic Plan Recommendation to Reroute State Highway 83.

1. Motion that the Village of Mukwonago request that WisDOT reinstate and include a budget item for future Downtown Mukwonago Hwy 83 roadwork.
2. Motion that the Village of Mukwonago requests renewed discussion for alternate route designation and future reroute of Hwy 83 in collaboration with Waukesha County.

Key Issues for Consideration:

Fiscal Impact (if any):
No Immediate Fiscal Impact

Requested Action by Committee/Board:

Attachments

Village of Mukwonago

AGENDA ITEM REQUEST FORM

Committee/Board:	Finance
Topic:	Hauled Waste Rate Increase
From:	Dave Brown
Department:	Wastewater Utility
Presenter:	Dave Brown
Date of Committee Action (if required):	
Date of Village Board Action (if required):	3/18/2020

Information

Subject:
Hauled Waste Rate Increase

Background Information/Rationale:
Rates we preliminarily set just based off of the nearest local facilities fees as a starting point. We have now had Trilogy do an actual study to calculate our rates off of our operating costs to get actually rates which should be charged to be equitable.

Key Issues for Consideration:
Hauled waste rates will be in line with the current users.

Fiscal Impact (If any):
Equitable revenue

Requested Action by Committee/Board:
Make the motion to approve Resolution 2020 - 14 raising hauled waste rates to go into effect April 1, 2020.

Attachments

Resolution 2020 - 14

RESOLUTION 2020-14

A RESOLUTION AMENDING ADOPTING SEWER RATES FOR SEPTIC TANK WASTE AND HOLDING TANK WASTE FOR THE VILLAGE OF MUKWONAGO

WHEREAS, the cost for providing services increases from time to time; and

WHEREAS, the Utility Director has recommended amendments to the all fees annually; and

WHEREAS, the Public Works Committee has reviewed the fee revision and recommends adoption; and

WHEREAS the Public Works Committee is recommending the following sewer rates for septic tank waste and holding tank waste:

Holding Tank Waste $12.05 per thousand gallons
Septic Tank Waste $47.38 per thousand gallons

NOW, THEREFORE, BE IT RESOLVED THAT the Village Board of the Village of Mukwonago does hereby approve the new rate shown herein, and authorize the Village Clerk and Village President to execute this resolution upon passage.

Adopted this 18th day of March 2020.

_____
Fred H. Winchowky, Village President

Attest: _____
Diana Dykstra, Clerk-Treasurer

Accounts Payable Cover Sheet

Report:	Period or corresponding report date		
Village Accounts Payable	3/19/2020	$	437,165.46
	Total for Approval:	**$**	**437,165.46**

The preceding list of bills payable was approved for payment

Date: _____

Approved by: _____

_____

_____

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: 10-33 VEHICLE SERVICES, LLC					
1537	STRIP EQUIPMENT OUT OF SQUAD #34 (TAKIN	430-5700-571100	330.00	330.00	POLICE
TOTAL VENDOR 10-33 VEHICLE SERVICES, LLC				330.00	
VENDOR NAME: ACCESS ENDODONTICS LLC					
TAX REFUND	TAX REFUND MUKV A096	720-0000-121100	76.87	76.87	FINANCE
TOTAL VENDOR ACCESS ENDODONTICS LLC				76.87	
VENDOR NAME: A-CUT ABOVE PAINTING					
2020-007	VILLAGE HALL INTERIOR PAINTING	100-5220-539400	1,860.00	1,860.00	DPW
TOTAL VENDOR A-CUT ABOVE PAINTING				1,860.00	
VENDOR NAME: AIRGAS USA LLC					
9969300726	EMS SUPPLIES	150-5231-531100	113.38	113.38	FIRE
9968831811	EMS SUPPLIES	150-5231-531100	324.82	324.82	FIRE
TOTAL VENDOR AIRGAS USA LLC				438.20	
VENDOR NAME: ALSCO					
IMIL2959	FEBRUARY 27TH MAT CLEANING SERVICE	100-5211-539400	43.89	43.89	POLICE
IMIL1545391	VILLAGE HALL WALK OFF MATS	100-5160-521900	40.21	40.21	DPW
TOTAL VENDOR ALSCO				84.10	
VENDOR NAME: AM TOWING					
W 26298	PAROL TRUCK EMISSION SERVICES	100-5324-539500	240.75	240.75	DPW
TOTAL VENDOR AM TOWING				240.75	
VENDOR NAME: ASSOCIATED APPRAISAL CONSULTANT INC					
147142	ASSESSOR CONTRACT - MARCH 2020	100-5153-521900	1,414.24	1,414.24	CLERK
TOTAL VENDOR ASSOCIATED APPRAISAL CONSULTANT INC				1,414.24	
VENDOR NAME: BROOKS TRACTOR					
279535	BACK HOE MECHANICAL SERVICES	100-5324-539500	163.90	163.90	DPW
TOTAL VENDOR BROOKS TRACTOR				163.90	
VENDOR NAME: BUELOW, VETTER, BUIKEMA, OLSON					
2488-00017 20200305	POLICE CONTRACT NEGOTIATION	100-5211-521900	10,574.50	10,574.50	FINANCE
2488-00019	POLICE DEPT REORG	100-5211-521900	2,901.50	2,901.50	FINANCE
2488-00099 20200305	GENERAL VILLAGE MATTERS	100-5111-521900	4,875.50	5,254.50	FINANCE
		100-5211-521900	379.00		
TOTAL VENDOR BUELOW, VETTER, BUIKEMA, OLSON				18,730.50	
VENDOR NAME: C & M AUTO PARTS INC					
6079-313062	SQD 34 - SPARK PLUGS AND WIRES	100-5212-539500	73.77	73.77	POLICE
6079-313165	SQD 34 - BRAKE PADS	100-5212-539500	47.05	47.05	POLICE
6079-313529	SHOP ELECTRICAL STOCK	100-5323-531100	4.30	4.30	DPW
6079-313648	MRO PAINT	100-5521-531100	38.28	38.28	DPW
TOTAL VENDOR C & M AUTO PARTS INC				163.40	
VENDOR NAME: CENTRAL OFFICE SYSTEMS					

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: CENTRAL OFFICE SYSTEMS					
66957299	COPIER INVOICE	150-5221-531100	92.00	92.00	FIRE
66957306	03/01/20 - 03/31/20 COPIER LEASE PAYMEN	100-5142-531200	23.10	165.00	ALLOCATE
		150-5221-531100	21.45		
		220-5140-531200	1.65		
		410-5363-531200	3.30		
		440-5511-531200	8.25		
		500-5344-531200	1.65		
		610-6920-693000	54.45		
		620-8400-856000	51.15		
TOTAL VENDOR CENTRAL OFFICE SYSTEMS				257.00	
VENDOR NAME: CENTURY SPRINGS BOTTLING					
5431938	WWTF LAB WATER	620-8010-826000	133.00	133.00	UTILITIES
5452642	VILLAGE HALL SPRING WATER	100-5160-531100	23.00	23.00	DPW
TOTAL VENDOR CENTURY SPRINGS BOTTLING				156.00	
VENDOR NAME: CENTURYLINK					
2020 FEBRUARY		100-5142-522500	73.81	577.37	MULTIPLE
		100-5211-522500	54.14		
		100-5323-522500	93.48		
		100-5512-522500	113.88		
		440-5511-522500	112.25		
		610-6920-692100	31.93		
		620-8400-851000	97.88		
TOTAL VENDOR CENTURYLINK				577.37	
VENDOR NAME: CHIC0S LLC					
14837	WWTF SNOWPLOW BLADE PARTS	620-8030-828000	51.48	51.48	UTILITIES
TOTAL VENDOR CHIC0S LLC				51.48	
VENDOR NAME: CINTAS					
4043990348	UNIFORM SERVICE	620-8010-827000	87.00	87.00	UTILITIES
4043990351	STAFF UNIFORMS	100-5323-531100	103.18	103.18	DPW
4044634746	UNIFORM SERVICE	610-6920-693000	73.00	73.00	UTILITIES
4044634872	STAFF UNIFORMS	100-5323-531100	109.95	109.95	DPW
TOTAL VENDOR CINTAS				373.13	
VENDOR NAME: CIT					
35055140	LONG DISTANCE PHONE SERVICE	610-6920-692100	88.64	88.64	UTILITIES
TOTAL VENDOR CIT				88.64	
VENDOR NAME: CORE & MAIN LP					
M000488	DIGESTER 6" VALVE REPLACEMENT	620-8010-826000	44.76	44.76	UTILITIES
TOTAL VENDOR CORE & MAIN LP				44.76	
VENDOR NAME: COREY OIL, LTD					
163339 DPW	ENGINE OIL	100-5324-535100	423.14	423.14	DPW

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: COREY OIL, LTD					
163339 FIRE	OIL AND SMALL ENGINE FUEL	150-5222-539500	91.63	183.25	FIRE
		150-5231-539500	91.62		
163339 PD	OIL FOR SQUADS	100-5212-535100	183.25	183.25	POLICE
TOTAL VENDOR COREY OIL, LTD				789.64	
VENDOR NAME: DODGE CONCRETE					
342059	BIN BLOCKS	100-5611-531100	216.00	216.00	DPW
TOTAL VENDOR DODGE CONCRETE				216.00	
VENDOR NAME: E. & B. SCALE SERVICES, INC					
6831	WWTF LAB SCALE CALIBRATION	620-8010-826000	110.00	110.00	UTILITIES
TOTAL VENDOR E. & B. SCALE SERVICES, INC				110.00	
VENDOR NAME: EBIX					
10148	EBIX INVOICE	150-5231-521900	5,874.86	5,874.86	FIRE
TOTAL VENDOR EBIX				5,874.86	
VENDOR NAME: ELITE POWER SOLUTIONS LLC					
D-102025	GENERATOR REPAIR 3462	150-5222-539500	318.05	318.05	FIRE
TOTAL VENDOR ELITE POWER SOLUTIONS LLC				318.05	
VENDOR NAME: EMERGENCY MEDICAL PRODUCTS					
2138167	EMS SUPPLIES	150-5231-531100	40.60	40.60	FIRE
2138211	EMS SUPPLIES	150-5231-531100	91.40	91.40	FIRE
2137840	EMS SUPPLIES	150-5231-531100	394.99	394.99	FIRE
2140005	EMS SUPPLIES	150-5231-531100	708.68	708.68	FIRE
TOTAL VENDOR EMERGENCY MEDICAL PRODUCTS				1,235.67	
VENDOR NAME: EMS TECHNOLOGY SOLUTIONS INC					
30307	DRUG TRACKING ANNUAL SOFTWARE	150-5231-531100	3,600.00	3,600.00	FIRE
TOTAL VENDOR EMS TECHNOLOGY SOLUTIONS INC				3,600.00	
VENDOR NAME: ENVIRONMENT CONTROL					
13264-613	VILLAGE HALL CLEANING	100-5160-521900	597.00	597.00	DPW
TOTAL VENDOR ENVIRONMENT CONTROL				597.00	
VENDOR NAME: EXCEL BUILDING SERVICES LLC					
3484	MARCH CLEANING SERVICE	100-5211-539400	975.00	975.00	POLICE
TOTAL VENDOR EXCEL BUILDING SERVICES LLC				975.00	
VENDOR NAME: FASTENAL COMPANY					
WIMUK81221	WWTF HAND TOOLS	620-8010-827000	129.31	129.31	UTILITIES
TOTAL VENDOR FASTENAL COMPANY				129.31	
VENDOR NAME: GALLS LLC					
015115680	2020 CLOTHING ALLOWANCE - DEMOTTO	100-5211-534600	79.33	79.33	POLICE
14992664	OFFICER KREISER'S UNIFORM ALLOWANCE - 2	100-5212-534600	298.92	298.92	POLICE
015024710	PBT TUBES, 250 FOR ALCO SENSOR III MODEL	100-5212-531100	155.97	155.97	POLICE

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: GALLS LLC					
	TOTAL VENDOR GALLS LLC			534.22	
VENDOR NAME: HAAS BADGE & EMBLEMS					
5239	100 POLICE & 100 RESERVE SHOULDER PATCHE	100-5212-531100	450.00	450.00	POLICE
	TOTAL VENDOR HAAS BADGE & EMBLEMS			450.00	
VENDOR NAME: HACH COMPANY					
11861412	WWTF SOFTWARE SUPPORT	620-8400-852000	879.44	879.44	UTILITIES
	TOTAL VENDOR HACH COMPANY			879.44	
VENDOR NAME: HAHN ACE HARDEWARE					
2020 FEB UTILITIES	WWTF MISC SUPPLIES	620-8010-827000	94.32	94.32	UTILITIES
2020 FEB PD	PHOTO EYE CONTROL FOR LIGHT POST ON OUTS	100-5211-539400	11.69	11.69	POLICE
2020 FEB DPW	SHOP SUPPLIES	100-5323-531100	46.74	46.74	DPW
2020 FEB FIRE	HAHN INVOICE-FIRE	150-5222-539500	26.90	83.59	FIRE
		150-5231-531100	56.69		
	TOTAL VENDOR HAHN ACE HARDEWARE			236.34	
VENDOR NAME: HARLEY BOB					
2020 FEB MILEAGE	2020 FEB MILEAGE REIMBURSEMENT - ROBERT	100-5241-533500	36.23	36.23	BUILDING
	TOTAL VENDOR HARLEY BOB			36.23	
VENDOR NAME: HAWKINS WATER TREATMENT					
4671169	CHEMICALS FOR WATER TREATMENT	610-6300-663100	1,261.40	1,261.40	UTILITIES
4661642	CHEMICALS FOR WATER TREATMENT	610-6300-663100	2,143.15	2,143.15	UTILITIES
	TOTAL VENDOR HAWKINS WATER TREATMENT			3,404.55	
VENDOR NAME: HIPPENMEYER, REILLY, BLUM,					
49211	MISC MATTERS	100-5130-521900	3,717.50	3,717.50	FINANCE
49212	UTILITIES	610-6920-692300	113.75	236.25	FINANCE
		620-8400-852000	122.50		
49203	PROSECUTION	100-5130-521900	975.00	975.00	FINANCE
49214	TOUCH PAD LOC RELEASE	100-0000-211425	70.00	70.00	FINANCE
49213	ACG DEVELOPMENT / CHAPMAN	100-0000-211400	35.00	35.00	FINANCE
	TOTAL VENDOR HIPPENMEYER, REILLY, BLUM,			5,033.75	
VENDOR NAME: HOME DEPOT					
2020 FEB PD	REPLOACE DOOR STOPS IN PD & SUPPLIES FOR	100-5211-539400	16.76	179.72	POLICE
		430-5700-571100	162.96		
2020 FEB CLERK	BADGER BOOK TOTES	100-5144-531100	95.16	95.16	CLERK
2020 FEB DPW	VARIOUS SUPLIES VVH, PARKS AND SHOP	100-5160-531100	32.95	66.75	DPW
		100-5323-531100	11.91		
		100-5521-531100	21.89		

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: HOME DEPOT					
TOTAL VENDOR HOME DEPOT				341.63	
VENDOR NAME: HORN OIL					
2020 FEBRUARY FUEL	MONTHLY FUEL - FEB 2020	100-5212-535100	1,782.74	8,224.11	ALLOCATE
		100-5241-535100	89.04		
		100-5324-535100	2,678.76		
		150-5222-535100	461.29		
		150-5231-535100	1,291.00		
		610-6920-693300	266.91		
		620-8010-828000	252.07		
		620-8010-821300	1,402.30		
TOTAL VENDOR HORN OIL				8,224.11	
VENDOR NAME: HYDROCORP					
0056353-IN	IND./ COMMERCIAL CROSS CONNECTIONS INSPE	610-6920-692300	833.00	833.00	UTILITIES
TOTAL VENDOR HYDROCORP				833.00	
VENDOR NAME: JCH WATER METER TESTING					
22019	LARGE METER TESTING	610-6453-665300	1,800.00	1,800.00	UTILITIES
TOTAL VENDOR JCH WATER METER TESTING				1,800.00	
VENDOR NAME: JEFFERSON FIRE & SAFETY					
IN115868	BAUER UNICUS 4I COMPRESSOR	430-5700-571300	66,308.00	66,308.00	FIRE
IN110316	STRAIGHT BORE NOZZLES	150-5700-571300	1,332.00	1,332.00	FIRE
TOTAL VENDOR JEFFERSON FIRE & SAFETY				67,640.00	
VENDOR NAME: JOHNS DISPOSAL SVC. INC.					
403463	FEBRUARY GARBAGE AND RECYCLING	410-5362-531000	23,933.52	41,806.95	DPW
		410-5363-522000	17,873.43		
TOTAL VENDOR JOHNS DISPOSAL SVC. INC.				41,806.95	
VENDOR NAME: KAESTNER AUTO ELECTRIC					
337129	3462 REPAIR	150-5222-539500	35.36	35.36	FIRE
TOTAL VENDOR KAESTNER AUTO ELECTRIC				35.36	
VENDOR NAME: KIESLERS POLICE SUPPLY					
IN128733	AMMUNITION FOR DEPARTMENT, 4 CASES OF 9M	100-5215-531100	724.00	724.00	POLICE
TOTAL VENDOR KIESLERS POLICE SUPPLY				724.00	
VENDOR NAME: KINDER MATTHEW					
2020 TEST FEES	DNR OPERATOR CERTIFICATION - ADVANCED WA	620-8400-854100	50.00	50.00	UTILITIES
TOTAL VENDOR KINDER MATTHEW				50.00	
VENDOR NAME: LIGHTHOUSE LUBE REAL ESTATE LLC					
41687	REFUND LICENSE OVERPAYMENT	100-0000-211400	125.00	125.00	CLERK
TOTAL VENDOR LIGHTHOUSE LUBE REAL ESTATE LLC				125.00	

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: MARSHALL-BOND PUMPS					
39517.0	WWTF SLUDGE PUMP CHECK VALVE REPAIR PART	620-8010-833000	3,363.48	3,363.48	UTILITIES
TOTAL VENDOR MARSHALL-BOND PUMPS				3,363.48	
VENDOR NAME: MEDLINE INDUSTRIES, INC					
1903128571	EMS SUPPLIES	150-5231-531100	407.20	407.20	FIRE
TOTAL VENDOR MEDLINE INDUSTRIES, INC				407.20	
VENDOR NAME: MID-AMERICAN RESEARCH					
0688959-IN	SALT NEUTRALIZER	100-5323-531100	212.41	212.41	DPW
TOTAL VENDOR MID-AMERICAN RESEARCH				212.41	
VENDOR NAME: MILWAUKEE AREA TECHNICAL COLLEGE					
59998	RESERVE OFFICER BUCHHOLZ PURSUIT RECERTI	100-5215-533500	19.78	19.78	POLICE
TOTAL VENDOR MILWAUKEE AREA TECHNICAL COLLEGE				19.78	
VENDOR NAME: MOTOROLA SOLUTIONS, INC.					
16089049	APX 6500 DUAL HEAD MOBILE	150-5700-571400	4,529.85	4,529.85	FIRE
TOTAL VENDOR MOTOROLA SOLUTIONS, INC.				4,529.85	
VENDOR NAME: MUKWONAGO AREA CHAMBER OF COMM					
2020 JAN RM TX	AIR BNB ROOM TAX JAN 2020	100-0000-244000	261.91	261.91	CLERK
TOTAL VENDOR MUKWONAGO AREA CHAMBER OF COMM				261.91	
VENDOR NAME: MUKWONAGO AUTO PARTS - GENERAL					
095642	FLOOR SOAP FOR WWTF	620-8010-827000	76.99	76.99	UTILITIES
095654	STUMP GRIDER HYDRAYLIC HOSES	100-5324-539500	345.85	345.85	DPW
095733	EQUIPMENT HYDAYLIC HOSE	100-5324-539500	149.03	149.03	DPW
095815	BACK HOE HYDRAYLIC FITTINGS	100-5324-539500	15.68	15.68	DPW
TOTAL VENDOR MUKWONAGO AUTO PARTS - GENERAL				587.55	
VENDOR NAME: MUN ENVIRON GRP WASTEWATER DIV					
2020 MEMBERSHIP DUI	WWTF MEMBERSHIP FEES	620-8400-852000	809.05	809.05	UTILITIES
TOTAL VENDOR MUN ENVIRON GRP WASTEWATER DIV				809.05	
VENDOR NAME: MUNICIPAL ENVIRONMENTAL					
2020 MEMBERSHIP DUI	MEMBERSHIP FEES	610-6920-692300	787.80	787.80	UTILITIES
TOTAL VENDOR MUNICIPAL ENVIRONMENTAL				787.80	
VENDOR NAME: NEXTEL WIRELESS SOLUTIONS					
1034	LIBRARY NETWORK FOR BS&A	430-5700-571500	898.00	898.00	FINANCE
TOTAL VENDOR NEXTEL WIRELESS SOLUTIONS				898.00	
VENDOR NAME: NORTH CENTRAL LABORATORIES					
435107	LAB SUPPLIES WWTF	620-8010-826000	567.36	567.36	UTILITIES
TOTAL VENDOR NORTH CENTRAL LABORATORIES				567.36	
VENDOR NAME: NORTH SHORE BANK FSB					
2020 ROBERT MELO P/	MELO SICK LEAVE PAYOUT	100-5211-515800	37,048.82	37,048.82	FINANCE
TOTAL VENDOR NORTH SHORE BANK FSB				37,048.82	

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: OFFICE PRO					
0378979-001	PERSONNEL FILE FOLDERS	100-5141-531100	42.50	42.50	FINANCE
0379844-001	ELECTION SANITIZER PRODUCTS	100-5144-531100	112.82	112.82	CLERK
TOTAL VENDOR OFFICE PRO				155.32	
VENDOR NAME: PIERCE AMANDA					
114-4492531-792454	2020 BOOT REIMBURSEMENT - FIRE	150-5222-534600	100.00	100.00	FIRE
TOTAL VENDOR PIERCE AMANDA				100.00	
VENDOR NAME: PIRTEK MENOMONEE FALLS					
MF-T00000780	BACK HOE HYDAYLIC FITTINGS	100-5324-539500	211.08	211.08	DPW
TOTAL VENDOR PIRTEK MENOMONEE FALLS				211.08	
VENDOR NAME: PORT-A-JOHN, INC					
1310467-IN	PORTABLE RESTROOMS	100-5521-531100	88.00	88.00	DPW
1310466-IN	PORTABLE RESTROOMS	100-5521-531100	88.00	88.00	DPW
0434910-IN	PORTABLE RESTROOMS	100-5521-531100	88.00	88.00	DPW
TOTAL VENDOR PORT-A-JOHN, INC				264.00	
VENDOR NAME: PRAXAIR DISTRIBUTION INC					
95053952	OXYGEN/ACETYLENE TANK LEASE	620-8010-827000	31.05	31.05	UTILITIES
TOTAL VENDOR PRAXAIR DISTRIBUTION INC				31.05	
VENDOR NAME: PRINT PACK & SHIP CENTER					
475934220341	TIM R BLDG EXAM MAILING	100-5241-531500	24.84	24.84	BUILDING
TOTAL VENDOR PRINT PACK & SHIP CENTER				24.84	
VENDOR NAME: PROFESSIONAL SERVICE INDUSTRIES INC					
00690965	PROJECT INVOICE WITH DEBACK DRIVE AND AD	200-5335-521900	810.00	810.00	ADMIN
TOTAL VENDOR PROFESSIONAL SERVICE INDUSTRIES INC				810.00	
VENDOR NAME: PROHEALTH CARE MEDICAL ASSOC INC					
302829	RESERVE OFFICER PEREZ PHYSICAL AND DRUG	100-5212-521900	95.00	95.00	POLICE
302820	DUSTIN EMLOYMENT SCREENING	100-5300-521900	260.00	260.00	DPW
302823 DPW	DOT CDL DRUG SCREENING	100-5300-521900	56.00	56.00	DPW
302823 UTILITIES	CDL DRUG SCREENING	620-8400-852000	56.00	56.00	UTILITIES
302890	ENTRY PHYSICALS	150-5221-521900	722.00	722.00	FIRE
TOTAL VENDOR PROHEALTH CARE MEDICAL ASSOC INC				1,189.00	
VENDOR NAME: QUILL LLC					
4923976 PAPER	PAPER	100-5142-531100	7.00	49.98	ALLOCATE
		150-5221-531100	6.50		
		220-5140-531100	0.50		
		410-5363-531100	1.00		
		440-5511-531100	2.50		
		500-5344-531100	0.50		
		610-6920-692100	16.49		
		620-8300-840000	15.49		

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: QUILL LLC					
4923976	PARK AND SHOP SUPPLIES	100-5323-531100	92.97	263.95	DPW
		100-5323-531100	170.98		
TOTAL VENDOR QUILL LLC				313.93	
VENDOR NAME: R & R INSURANCE SERVICES					
2222112	2ND QTR VEHICLE INSURANCE	100-5154-551400	274.91	25,420.00	FINANCE
		100-5154-551400	6,468.92		
		100-5154-551400	2,153.44		
		150-5221-522600	14,301.30		
		610-6920-692400	1,795.07		
		620-8400-853000	426.36		
2222113	2ND QTR WORKER COMP	100-5154-551100	15,148.95	26,791.00	FINANCE
		100-5254-522600	87.50		
		150-5221-522600	6,834.66		
		410-5363-522600	87.50		
		440-5511-522600	242.98		
		500-5344-522600	87.50		
		610-6920-692400	1,811.71		
		620-8400-853000	2,490.20		
TOTAL VENDOR R & R INSURANCE SERVICES				52,211.00	
VENDOR NAME: SCAN GROUP					
201018	WINDOW ENVELOPES	100-5142-531100	115.92	828.00	ALLOCATE
		150-5221-531100	107.64		
		220-5140-531100	8.28		
		410-5363-531100	16.56		
		440-5511-531100	41.40		
		500-5344-531100	8.28		
		610-6920-692100	273.24		
		620-8400-851000	256.68		
TOTAL VENDOR SCAN GROUP				828.00	
VENDOR NAME: SHERWIN-WILLIAMS					
14626	WWTF PIPING PAINT	620-8010-833000	75.22	75.22	UTILITIES
TOTAL VENDOR SHERWIN-WILLIAMS				75.22	
VENDOR NAME: SHRED-IT USA					
8129271089	MONTHLY SHREDDING SERVICE	100-5211-539500	65.25	65.25	POLICE
TOTAL VENDOR SHRED-IT USA				65.25	
VENDOR NAME: SOMAR ENTERPRISES					
101865	2020 UNIFORM ALLOWANCE - KUBIAK	100-5212-534600	25.00	25.00	POLICE
TOTAL VENDOR SOMAR ENTERPRISES				25.00	

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: STAR CRANE & HOIST SERVICE					
1441-W	WWTF OVERHED CRANE REPAIR	620-8010-833000	352.01	352.01	UTILITIES
TOTAL VENDOR STAR CRANE & HOIST SERVICE				352.01	
VENDOR NAME: STRYKER SALES CORP					
2950797	EMS SUPPLIES	150-5231-531100	69.70	69.70	FIRE
TOTAL VENDOR STRYKER SALES CORP				69.70	
VENDOR NAME: SUBURBAN LABORATORIES INC					
173866	WATER BACTERIA TESTING	610-6300-663200	168.00	168.00	UTILITIES
TOTAL VENDOR SUBURBAN LABORATORIES INC				168.00	
VENDOR NAME: TOWN OF VERNON					
6610	ELECTION NOTICE TYPE A	100-5144-531200	22.99	22.99	CLERK
TOTAL VENDOR TOWN OF VERNON				22.99	
VENDOR NAME: TRACTOR SUPPLY CREDIT PLAN					
2020 FEB UTILITES	WWTF SNOW PLOW PARTS	620-8010-827000	11.98	11.98	UTILITIES
2020 FEB DPW	TRUCK TOOL BOXES	100-5324-539500	319.97	319.97	DPW
TOTAL VENDOR TRACTOR SUPPLY CREDIT PLAN				331.95	
VENDOR NAME: TRILOGY CONSULTING LLC					
996	PARK IMPACT FEE STUDY SERVICES	100-5521-531100	357.50	357.50	DPW
997	WORK DONE ON RATES AND SEWER ORD.	620-8400-852000	467.50	467.50	UTILITIES
TOTAL VENDOR TRILOGY CONSULTING LLC				825.00	
VENDOR NAME: TRIPLE CROWN PRODUCTS					
213131	SAFETY SHIRTS	100-5323-534800	163.83	163.83	DPW
TOTAL VENDOR TRIPLE CROWN PRODUCTS				163.83	
VENDOR NAME: VANGUARD COMPUTERS INC					
49653	COMPUTER DOCKING STAION WAYNE	610-6920-692100	205.00	205.00	UTILITIES
49654	SHOP COMPUTER	100-5323-531100	568.87	568.87	DPW
TOTAL VENDOR VANGUARD COMPUTERS INC				773.87	
VENDOR NAME: VENTURE BALLISTIC COMPOSITES INC					
4938092	3 - LEVEL 3 BALLISTIC SHIELDS FOR SQUADS	430-5700-571100	4,500.00	4,500.00	POLICE
TOTAL VENDOR VENTURE BALLISTIC COMPOSITES INC				4,500.00	
VENDOR NAME: W C T C					
SO711332	OFF CIESYNSKI & KUBIAK INSTRUCT DEVELOP;	100-5215-533500	427.20	427.20	POLICE
SO711331	EMT REFRESHER CLASSES	150-5232-533500	307.61	307.61	FIRE
TOTAL VENDOR W C T C				734.81	
VENDOR NAME: WALWORTH CTY TREASURER					
200302	OFFICER KREISER TRAINING 2 DAY DEATH INV	100-5215-533500	30.00	30.00	POLICE
TOTAL VENDOR WALWORTH CTY TREASURER				30.00	
VENDOR NAME: WAUKESHA COUNTY FIRE CHIEFS					
457	WCFCA SCBA FIT TEST	150-5222-531100	3.41	3.41	FIRE

INVOICE NUMBER	DESCRIPTION	DISTRIBUTIONS\AMOUNTS		AMOUNT	APPROVAL DEPARTMENT
VENDOR NAME: WAUKESHA COUNTY FIRE CHIEFS					
	TOTAL VENDOR WAUKESHA COUNTY FIRE CHIEFS			3.41	
VENDOR NAME: WE ENERGIES DELAFIELD					
4493050	VH GENERATOR GAS SERVICE	480-5700-539900	216.00	216.00	DPW
	TOTAL VENDOR WE ENERGIES DELAFIELD			216.00	
VENDOR NAME: WEDIGE RADIATOR & AC INC					
180496	PATROL TRUCK EMISSION SERVICES	100-5324-539500	448.35	448.35	DPW
	TOTAL VENDOR WEDIGE RADIATOR & AC INC			448.35	
VENDOR NAME: WELDER SUPPLY CO.					
10124759	WELDING TANK RENTAL	100-5323-531100	220.00	220.00	DPW
10129065	NEW OXYGEN AND ACETYLENE TANK PURCHASE	620-8010-827000	726.28	726.28	UTILITIES
10129185	WWTF WELDER PARTS	620-8010-827000	43.16	43.16	UTILITIES
	TOTAL VENDOR WELDER SUPPLY CO.			989.44	
VENDOR NAME: WI DEPT OF JUSTICE CIB					
202002 L6812T	WI DOJ - BACKGROUND CHECKS	100-0000-242205	28.00	28.00	CLERK
202002 G3385	BACKGROUND CHECKS	150-5221-521900	40.00	40.00	FIRE
	TOTAL VENDOR WI DEPT OF JUSTICE CIB			68.00	
VENDOR NAME: WI STATE LAB OF HYGIENE					
628020	WATER FLUORIDE TESTING	610-6300-663200	26.00	26.00	UTILITIES
	TOTAL VENDOR WI STATE LAB OF HYGIENE			26.00	
VENDOR NAME: WILLKOMM EXCAVATING & GRADING INC					
12-10068.300 PMNT 1	TID #5 PHASE 1 CLOSEOUT	250-0000-211150	149,849.59	149,849.59	FINANCE
	TOTAL VENDOR WILLKOMM EXCAVATING & GRADING INC			149,849.59	
VENDOR NAME: WISCONSIN IMAGING SOLUTIONS LLC					
AR42008	MONTHLY COPY MACHINE USAGE (4673 B&W, 35	100-5211-521900	73.85	73.85	POLICE
	TOTAL VENDOR WISCONSIN IMAGING SOLUTIONS LLC			73.85	
VENDOR NAME: WOLF CONSTRUCTION					
8097	ASPHALT COLD PATCH	100-5341-539500	671.31	671.31	DPW
	TOTAL VENDOR WOLF CONSTRUCTION			671.31	
GRAND TOTAL:				437,165.46	

Village of Mukwonago

AGENDA ITEM REQUEST FORM

Committee/Board:	Judicial Committee
Topic:	Petition to Exceed Quota
From:	Diana Dykstra
Department:	Village Clerk-Treasurer
Presenter:	
Date of Committee Action (if required):	
Date of Village Board Action (if required):	3/18/20

Information

Subject:
Petition to Exceed Quota

Background Information/Rationale:
Village Ordinance **Sec. 6-36 (a)** describes self-imposed quotas on the various types of alcohol licenses the Village can issue. These are not State of Wisconsin imposed quotas.

The Village has an application for a Combination Class "B" Fermented Malt Beverage License and Class "C" Wine License filed.
The local quota we have imposed on Class "B" Fermented Malt Beverage establishments is 13.
The local quota we have imposed on a Class "C" Wine License is 1.
The Village is required to approve exceeding the Class "C" Wine quota if they wish to issue this license.

The Village currently has granted prior petitions for two Class B/C combination licenses which are owned by Mario's Natural Roman Pizza and Mukwonago Family Restaurant.

Key Issues for Consideration:
The Class B/C Combination License has the ability to serve on premise for consumption any Fermented Malt Beverages and Wine. This does NOT allow for the service of liquor.
This type of license is ideal for a restaurant or establishment where 50% of their receipts are born by the sale of food.

Fiscal Impact (If any): The Village will collect the additional fees associate with this annual license, along with already collecting additional fees for the public hearing for exceeding quota.

Requested Action by Committee/Board: Approve the petition to exceed the Quota for a Class C Wine License.

Attachments

Petition to Exceed Quota and License Approval.

Sec. 6-36. - License quota.

(a) *Number of licenses.*

(1) The number of persons and places granted a retail "Class B" intoxicating liquor license under this section is limited as provided in W.S.A., § 125.51(4).

(2) The number of persons and places granted a retail "Class A" intoxicating liquor license under this section shall be five.

(3) The number of persons and places granted a retail Class "B" fermented malt beverage license under this section shall be 13. X

(4) The number of persons and places granted a six-month Class "B" fermented malt beverage license under this section shall be two.

(5) The number of persons and places granted a retail Class "A" fermented malt beverage license under this section shall be 13.

(6) The number of persons and places granted a retail Class "C" wine license under this section shall be one. X

(b) *Exceeding quota.*

(1) *Approval by village board.* Notwithstanding the provisions of this chapter, the village board may, by two-thirds vote of all of the members of the village board, grant a new "Class A" intoxicating liquor, Class "A" fermented malt beverage, reserve "Class B" intoxicating liquor, Class "B" fermented malt beverage, six-month Class "B" fermented malt beverage or a Class "C" wine license in excess of the quota set forth in subsection (a).

(2) *Guidelines for exceeding quota.* It having been found by the village board in imposing the quotas in this section that the proliferation of taverns and liquor stores can be a detriment to the village of Mukwonago and the community by reducing property values, deteriorating the quiet enjoyment of neighborhoods and costs considerable tax dollars to police said business, it is determined that quota may be exceeded if the establishment meets the provisions set forth in this chapter and the following criteria be met:

a. The applicant shall submit to the village clerk's office a petition for exceeding quota. The petition shall include the requested license class, a plan of operation and the relevant experience, background and signatures of the individual, partners or directors, officers and agent of a corporation or limited liability company, as well as the signature of the owner or owners of the building or land; and

b. The applicant shall supply proof of ownership or lease or options to purchase or lease of land or a building that is properly zoned for the proposed venture; and

c. The applicant shall show that the proposed establishment will have a greater economic impact upon the community than simply the addition of another tavern, liquor store, convenience store or restaurant; and

d. The applicant shall show that the proposed establishment will benefit the community by substantially improving the tax base (i.e. the establishment will extensively rehabilitate a blighted or deteriorated building, will construct a new building on vacant land, will benefit the community by conferring some other tangible and substantial improvement for the area).

(3) *Public hearing.* Prior to a vote, the village board shall hold a public hearing, pursuant to section 100-901, upon each petition.

(4) *Fee.* The applicant shall pay a fee specified in the most current village board resolution to cover the costs associated with the public hearing.

(Code 1966, § 14.01(5)(e); Ord. No. 571, § I, 1-16-96; Ord. No. 746, § I, 10-28-04; Ord. No. 794, § II, 7-18-06; Ord. No. 820, § I, 3-17-09)

PETITION TO EXCEED THE ALCOHOL LICENSE QUOTA

TO: Village of Mukwonago Clerk

Pursuant to Sec. 6-36 (b) of the Municipal Code of the Village of Mukwonago, the undersigned, being all the owners or representatives of the following business:

Brew52 LLC.

Name of Corporation/LC/Sole Proprietor/Partnership

Brew52

Establishment Name

hereby petition the Village of Mukwonago to exceed the retail alcohol license quota of the Village of Mukwonago for the following liquor license class:

- Class B
- Class C

Pursuant to Sec. 6-36 (b)(2), the following required information is attached.

1. Operation Plan
2. Proof of Lease
3. Economic Impact
4. Community Benefit

Dated this 11 day of February , 2020

X GLENN DIEBALL

Applicant Print

X

Applicant Sign

Operation Plan

The current plan for Brew52, is to operate as Caffeinated Café for no more than 2 months while transitioning the old owner to the new. This will facilitate the time needed to procure the proper employees for the identity that Brew52 intends to take on with the addition of the beverage licenses.

Brew52 intends to be a dual purpose location to serve the community. The "Brew" in Brew52 not only stands for brewed coffees, but also brewed alcoholic beverages. The "52" in Brew52 stands for having something new to try every week of the year.

Proof of Lease

The lease for Brew52 was signed and notarized on 2/7/2020. This was signed with Mike Palmisano of Lighthouse Lubes. The lease, in short, and attached hereafter, is a 5 year lease with options to extend by 5 years 3 times (total 20 years if all options are taken). This was also notarized as well

Economic Impact

Caffeinated Café has become a place that is well known and liked in the community. Unfortunately, it has come to a point where ownership had to sell the business because it could not generate enough revenue through traditional coffee shop means. Inevitably, the shop would have been left empty, which is then a strain on the property owner and ultimately affecting tax revenue for the village.

Under new ownership, Brew52 can rehabilitate and generate tax revenue immediately instead of the village experiencing a lapse. Lighthouse Lubes would not be taking on unnecessary mortgage payments which keeps them profitable and efficient, and ultimately all businesses on that property are able to contribute comfortably to the community.

Community Benefit

One of the main business goals of Brew52 is to give the community a family friendly place to socialize or work on that side of town. There are a lot of businesses in the nearby industrial park that would potentially use Brew52 as a lunch location, after work gathering, or place to entertain business partners. On top of that, Brew52 could serve in the capacity where we deliver breakfast materials and coffee as well.

Another main business goal is to give employment to the community but not just "minimum wage" employment. One of Brew52's guiding principles is that we want to invest in our people. This means being able to pay a living wage and offer benefits. In fact, Brew52 does not have plans to have "grand profits". The plan is to eventually share the profit stream with the employees.

Finally, on that side of town there are new housing developments that have just come in and more to come. There is far less incentive for those residents to patronize Mukwonago businesses, as for many, it would be just as simple to run to Eagle or Genessee Depot.

Closing

Brew52 has a strong vision of being well respected contributors to Mukwonago. We do not want to be "the late night corner pub" or "dive bar". The vision is to be able to offer more products other than coffee or breakfast/lunch fare to families, on late afternoons and early evenings. The vision is to be a reputable place, to enjoy all day, in an appropriate and controlled fashion. It is intended to be a place where people can enjoy "a round or two" with family or friends, but then end their time in a safe and controlled environment. We would pride ourselves in finding unique, little known, local products as often as possible, 52 weeks a year. With the approval of this license, perhaps some of those products would be a beer or wine.

415

Original Alcohol Beverage Retail License Application

(Submit to municipal clerk.)

For the license period beginning: 03/01/2020 (mm dd yyyy) ending: 03/01/2021 (mm dd yyyy)

To the Governing Body of the: ☐ Town of ☑ Village of ☐ City of } MUKWONAGO

County of WAUKESHA

Aldermanic Dist. No._____ (if required by ordinance)

Check one: ☐ Individual ☑ Limited Liability Company ☐ Partnership ☐ Corporation/Nonprofit Organization

Applicant's Wisconsin Seller's Permit Number 4 04

FEIN Number 8 68

TYPE OF LICENSE REQUESTED	FEE
☐ Class A beer	$
☑ Class B beer	$
☑ Class C wine	$
☐ Class A liquor	$
☐ Class A liquor (cider only)	$ N/A
☐ Class B liquor	$
☐ Reserve Class B liquor	$
☐ Class B (wine only) winery	$
Publication fee	$
TOTAL FEE	$

Name (individual / partners give last name, first, middle; corporations / limited liability companies give registered name)

DIEBALL, GLENN, MICHEAL/ BREW52 LLC

An "Auxiliary Questionnaire," Form AT-103, must be completed and attached to this application by each individual applicant, by each member of a partnership, and by each officer, director and agent of a corporation or nonprofit organization, and by each member/manager and agent of a limited liability company. List the full name and place of residence of each person.

President / Member Last Name	(First)	(Middle Name)	Home Address (Street, City or Post Office, & Zip Code)
DIEBALL	GLENN	M	W IUKWONAGO, WI 53149
Vice President / Member Last Name	(First)	(Middle Name)	Home Address (Street, City or Post Office, & Zip Code)
Secretary / Member Last Name	(First)	(Middle Name)	Home Address (Street, City or Post Office, & Zip Code)
Treasurer / Member Last Name	(First)	(Middle Name)	Home Address (Street, City or Post Office, & Zip Code)
Agent Last Name	(First)	(Middle Name)	Home Address (Street, City or Post Office, & Zip Code)
Directors / Managers Last Name	(First)	(Middle Name)	Home Address (Street, City or Post Office, & Zip Code)

1. Trade Name BREW52 Business Phone Number 4
2. Address of Premises 1146 N ROCHESTER AVE Post Office & Zip Code 53149
3. Premises description: Describe building or buildings where alcohol beverages are to be sold and stored. The applicant must include all rooms including living quarters, if used, for the sales, service, consumption, and/or storage of alcohol beverages and records. (Alcohol beverages may be sold and stored only on the premises described.)

   ALCOHOL IS TO BE CONSUMED IN THREE PLACES, IN THIS ORDER OF PREFERENCE:

   1) IN THE MAIN CUSTOMER AREA OF THE CAFE

   2) ON THE FRONT PATIO

   3) ON THE BACK PATIO

4. Legal description (omit if street address is given above): STREET ADDRESS ABOVE
5. (a) Was this premises licensed for the sale of liquor or beer during the past license year? ..... ☐ Yes ☑ No

   (b) If yes, under what name was license issued?

6. Is individual, partners or agent of corporation/limited liability company subject to completion of the responsible beverage server training course for this license period? **If yes, explain** ..... ☑ Yes ☐ No

I WAS NOT PREVIOUSLY LICENSED TO OPERATE, BUT I DID COMPLETE THE RESPONSIBLE BEVERAGE COURSE VERY RECENTLY.

7. Is the applicant an employe or agent of, or acting on behalf of anyone except the named applicant? ..... ☐ Yes ☑ No
If yes, explain.

8. Does any other alcohol beverage retail licensee or wholesale permittee have any interest in or control of this business? **If yes, explain** ..... ☐ Yes ☑ No

9. (a) **Corporate/limited liability company applicants only:** Insert state WISCONSIN and date 02/04/20 of registration.

(b) Is applicant corporation/limited liability company a subsidiary of any other corporation or limited liability company? **If yes, explain** ..... ☐ Yes ☑ No

(c) Does the corporation, or any officer, director, stockholder or agent or limited liability company, or any member/manager or agent hold any interest in any other alcohol beverage license or permit in Wisconsin? ☐ Yes ☑ No
If yes, explain.

10. Does the applicant understand they must register as a Retail Beverage Alcohol Dealer with the federal government, Alcohol and Tobacco Tax and Trade Bureau (TTB) by filing (TTB form 5630.5d) before beginning business? [phone 1-877-882-3277] ..... ☑ Yes ☐ No

11. Does the applicant understand they must hold a Wisconsin Seller's Permit? [phone (608) 266-2776] ..... ☑ Yes ☐ No

12. Does the applicant understand that they must purchase alcohol beverages only from Wisconsin wholesalers, breweries and brewpubs? ..... ☑ Yes ☐ No

READ CAREFULLY BEFORE SIGNING: Under penalty provided by law, the applicant states that each of the above questions has been truthfully answered to the best of the knowledge of the signer. Any person who knowingly provides materially false information on this application may be required to forfeit not more than $1,000. Signer agrees to operate this business according to law and that the rights and responsibilities conferred by the license(s), if granted, will not be assigned to another. (Individual applicants, or one member of a partnership applicant must sign; one corporate officer, one member/manager of Limited Liability Companies must sign.) Any lack of access to any portion of a licensed premises during inspection will be deemed a refusal to permit inspection. Such refusal is a misdemeanor and grounds for revocation of this license.

Contact Person's Name (Last, First, M.I.)	Title/Member	Date
Dieball, Glenn, M	Officer	02/11/20
Signature	Phone Number	Email Address
	41	m

TO BE COMPLETED BY CLERK

Date received and filed with municipal clerk	Date reported to council / board	Date provisional license issued	Signature of Clerk / Deputy Clerk
Date license granted	Date license issued	License number issued	

Schedule for Appointment of Agent by Corporation / Nonprofit Organization or Limited Liability Company

Submit to municipal clerk.

All corporations/organizations or limited liability companies applying for a license to sell fermented malt beverages and/or intoxicating liquor must appoint an agent. The following questions must be answered by the agent. The appointment must be signed by an officer of the corporation/organization or one member/manager of a limited liability company and the recommendation made by the proper local official.

To the governing body of: ☐ Town ☑ Village ☐ City of MUKWONAGO County of WAUKESHA

The undersigned duly authorized officer/member/manager of BREW52 LLC
(Registered Name of Corporation / Organization or Limited Liability Company)

a corporation/organization or limited liability company making application for an alcohol beverage license for a premises known as BREW52
(Trade Name)

located at 1146 N ROCHESTER ST

appoints GLENN DIEBALL
(Name of Appointed Agent)

[illegible] MUKWONAGO, WI 53149
(Home Address of Appointed Agent)

to act for the corporation/organization/limited liability company with full authority and control of the premises and of all business relative to alcohol beverages conducted therein. Is applicant agent presently acting in that capacity or requesting approval for any corporation/organization/limited liability company having or applying for a beer and/or liquor license for any other location in Wisconsin?

☑ Yes ☐ No If so, indicate the corporate name(s)/limited liability company(ies) and municipality(ies).

Is applicant agent subject to completion of the responsible beverage server training course? ☑ Yes ☐ No

How long immediately prior to making this application has the applicant agent resided continuously in Wisconsin? 42 YEARS

Place of residence last year [illegible], MUKWONAGO, WI 53149

For: BREW52
(Name of Corporation / Organization / Limited Liability Company)

By: [signature]
(Signature of Officer / Member / Manager)

Any person who knowingly provides materially false information in an application for a license may be required to forfeit not more than $1,000.

ACCEPTANCE BY AGENT

I, GLENN DIEBALL, hereby accept this appointment as agent for the
(Print / Type Agent's Name)

corporation/organization/limited liability company and assume full responsibility for the conduct of all business relative to alcohol beverages conducted on the premises for the corporation/organization/limited liability company.

(Signature of Agent) *(Date)* Agent's age [illegible]

W[illegible] MUKWONAGO, WI 53149 Date of birth 0[illegible]
(Home Address of Agent)

APPROVAL OF AGENT BY MUNICIPAL AUTHORITY
(Clerk cannot sign on behalf of Municipal Official)

I hereby certify that I have checked municipal and state criminal records. To the best of my knowledge, with the available information, the character, record and reputation are satisfactory and I have no objection to the agent appointed.

Approved on _____ *(Date)* by _____ *(Signature of Proper Local Official)* Title _____ *(Town Chair, Village President, Police Chief)*

Original Alcohol Beverage Retail License Application

(Submit to municipal clerk.)

For the license period beginning: 03/01/2020 *(mm dd yyyy)* ending: 6/30/20 *(mm dd yyyy)*

To the Governing Body of the: ☐ Town of ☑ Village of ☐ City of } MUKWONAGO

County of WAUKESHA

Aldermanic Dist. No._____ (if required by ordinance)

Check one: ☐ Individual ☐ Partnership ☑ Limited Liability Company ☐ Corporation/Nonprofit Organization

Applicant's Wisconsin Seller's Permit Number	
4 04	
FEIN Number	
8 68	
TYPE OF LICENSE REQUESTED	**FEE**
☐ Class A beer	$
☑ Class B beer	$
☑ Class C wine	$
☐ Class A liquor	$
☐ Class A liquor (cider only)	$ N/A
☐ Class B liquor	$
☐ Reserve Class B liquor	$
☐ Class B (wine only) winery	$
Publication fee	$
TOTAL FEE	$

Name (individual / partners give last name, first, middle; corporations / limited liability companies give registered name)

DIEBALL, GLENN, MICHEAL/ BREW52 LLC

An "Auxiliary Questionnaire," Form AT-103, must be completed and attached to this application by each individual applicant, by each member of a partnership, and by each officer, director and agent of a corporation or nonprofit organization, and by each member/manager and agent of a limited liability company. List the full name and place of residence of each person.

President / Member Last Name	(First)	(Middle Name)	Home Address (Street, City or Post Office, & Zip Code)
DIEBALL	GLENN	M	W IUKWONAGO, WI 53149
Vice President / Member Last Name	(First)	(Middle Name)	Home Address (Street, City or Post Office, & Zip Code)
Secretary / Member Last Name	(First)	(Middle Name)	Home Address (Street, City or Post Office, & Zip Code)
Treasurer / Member Last Name	(First)	(Middle Name)	Home Address (Street, City or Post Office, & Zip Code)
Agent Last Name	(First)	(Middle Name)	Home Address (Street, City or Post Office, & Zip Code)
Directors / Managers Last Name	(First)	(Middle Name)	Home Address (Street, City or Post Office, & Zip Code)

1. Trade Name BREW52 Business Phone Number 4
2. Address of Premises 1146 N ROCHESTER AVE Post Office & Zip Code 53149
3. Premises description: Describe building or buildings where alcohol beverages are to be sold and stored. The applicant must include all rooms including living quarters, if used, for the sales, service, consumption, and/or storage of alcohol beverages and records. (Alcohol beverages may be sold and stored only on the premises described.)

   ALCOHOL IS TO BE CONSUMED IN THREE PLACES, IN THIS ORDER OF PREFERENCE:

   1) IN THE MAIN CUSTOMER AREA OF THE CAFE

   2) ON THE FRONT PATIO

   3) ON THE BACK PATIO

4. Legal description (omit if street address is given above): STREET ADDRESS ABOVE
5. (a) Was this premises licensed for the sale of liquor or beer during the past license year? ..... ☐ Yes ☑ No

   (b) If yes, under what name was license issued?

6. Is individual, partners or agent of corporation/limited liability company subject to completion of the responsible beverage server training course for this license period? **If yes, explain** ..... ☑ Yes ☐ No

I WAS NOT PREVIOUSLY LICENSED TO OPERATE, BUT I DID COMPLETE THE RESPONSIBLE BEVERAGE COURSE VERY RECENTLY.

7. Is the applicant an employe or agent of, or acting on behalf of anyone except the named applicant? ..... ☐ Yes ☑ No
If yes, explain.

8. Does any other alcohol beverage retail licensee or wholesale permittee have any interest in or control of this business? **If yes, explain** ..... ☐ Yes ☑ No

9. (a) **Corporate/limited liability company applicants only:** Insert state WISCONSIN and date 02/04/20 of registration.

(b) Is applicant corporation/limited liability company a subsidiary of any other corporation or limited liability company? **If yes, explain** ..... ☐ Yes ☑ No

(c) Does the corporation, or any officer, director, stockholder or agent or limited liability company, or any member/manager or agent hold any interest in any other alcohol beverage license or permit in Wisconsin? ☐ Yes ☑ No
If yes, explain.

10. Does the applicant understand they must register as a Retail Beverage Alcohol Dealer with the federal government, Alcohol and Tobacco Tax and Trade Bureau (TTB) by filing (TTB form 5630.5d) before beginning business? [phone 1-877-882-3277] ..... ☑ Yes ☐ No

11. Does the applicant understand they must hold a Wisconsin Seller's Permit? [phone (608) 266-2776] ..... ☑ Yes ☐ No

12. Does the applicant understand that they must purchase alcohol beverages only from Wisconsin wholesalers, breweries and brewpubs? ..... ☑ Yes ☐ No

READ CAREFULLY BEFORE SIGNING: Under penalty provided by law, the applicant states that each of the above questions has been truthfully answered to the best of the knowledge of the signer. Any person who knowingly provides materially false information on this application may be required to forfeit not more than $1,000. Signer agrees to operate this business according to law and that the rights and responsibilities conferred by the license(s), if granted, will not be assigned to another. (Individual applicants, or one member of a partnership applicant must sign; one corporate officer, one member/manager of Limited Liability Companies must sign.) Any lack of access to any portion of a licensed premises during inspection will be deemed a refusal to permit inspection. Such refusal is a misdemeanor and grounds for revocation of this license.

Contact Person's Name (Last, First, M.I.)	Title/Member	Date
Dieball, Glenn, M	Officer	02/11/20
Signature	Phone Number	Email Address
	41	m

TO BE COMPLETED BY CLERK

Date received and filed with municipal clerk	Date reported to council / board	Date provisional license issued	Signature of Clerk / Deputy Clerk
2/11/20	3/18/20		
Date license granted	Date license issued	License number issued	

AT-106 (R. 3-19)

VILLAGE OF MUKWONAGO
WAUKESHA AND WALWORTH COUNTIES

ORDINANCE NO. 974

ORDINANCE TO CREATE SECTION 100-30
OF THE VILLAGE OF MUKWONAGO MUNICIPAL CODE
REGARDING THE MEETINGS OF THE PLAN COMMISSION

The Village Board of the Village of Mukwonago do ordain as follows:

SECTION I

Section 100-30 of the Municipal Code of the Village of Mukwonago is hereby created to read as follows:

Sec 100-30 – Plan Commission

(a) Establishment. The Plan Commission of the Village of Mukwonago, Wisconsin, shall be governed by Wisconsin Statute §61.35, §61.351, §61.354, §62.23, §87.30, §144.26 and §144.266; Chapter 236 of the Wisconsin Statutes; and Chapters 64 and 100 of the Municipal Code of the Village of Mukwonago.

(b) Membership. The membership of the Plan Commission shall be as set forth in Section 62-1 of the Municipal Code of the Village of Mukwonago.

(c) Meetings.

(1) Scheduling of Meetings. Meetings of the Plan Commission shall be held monthly on the second Tuesday of each month, or at the call of the Chairman or upon a call of the majority of the full Commission subject to proper meeting and notification in accordance with the Wisconsin Open Meetings Law.

(2) Quorum. A quorum for matters of business of the Plan Commission shall consist of four (4) members. Action by the Commission shall be taken by a majority vote of those present.

(3) Open Meetings. All meetings of the Plan Commission shall be open to the general public as governed and required in Wisconsin Statute §19.81.

(4) Closed Session. The Plan Commission may go into Closed Session for the purposes enumerated in Section 19.85(1).

(d) Public Comment. Please be advised, per Wisconsin Statute Sec. 19.84(2), information and comment will be received from the public by the Plan Commission. The Public Comment Session is granted to the public at the start of each Plan Commission meeting. The Public Comment Session shall last no longer than fifteen (15) minutes and individual presentations are limited to three (3) minutes per speaker. However, these time limits may be extended in the discretion of the Chief Presiding Officer. The Plan Commission may not respond to or have any discussion on information received during the public comment session unless it is placed upon the Agenda for a subsequent meeting.

Public comments should be addressed to the Plan Commission as a body. Presentations shall not deal in personalities or personal attacks on members of the Plan Commission,

the applicant or Village Employees. Comments shall not be used to engage others in a debate in this forum. All comments, questions and concerns should be presented in a respectful, professional manner. Any questions to an individual member of the Commission or Staff will be deemed out of order by the Presiding Officer.

(e) Minutes. Minutes of the proceedings and record of all actions of the Plan Commission shall be kept by the Village Clerk and said Minutes shall reflect the vote on each member upon each question; the reason for the Commission's determination in its finding. The records of such Minutes shall be maintained in the office of the Village Clerk and shall be considered a public record.

(f) Rules of Order. The conduct of the meetings of the Plan Commission shall be governed by Robert's Rules of Order, Newly Revised Edition.

(g) Powers and Duties. The Plan Commission shall have all the powers and duties granted or assigned by the Village Board, or by Village Ordinances, and those powers and duties granted or assigned by Wisconsin Statute §61.35, §61.351, §61.354, §62.23, §87.30, §144.26, 144.266, Chapter 236 of the Wisconsin Statutes and Chapters 64 and 100 of the Municipal Code of the Village of Mukwonago.

SECTION II

All Ordinances or parts of Ordinances contravening the terms and conditions of this Ordinance are hereby to that extent repealed.

SECTION III

The several sections of this Ordinance shall be considered severable. If any section shall be considered by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the other portions of the Ordinance.

SECTION IV

This Ordinance shall take effect upon passage and publication as approved by law, and the Village Clerk shall so amend the Code of Ordinances of the Village of Mukwonago, and shall indicate the date and number of this amending ordinance therein.

PASSED AND ADOPTED by the Village Board this _____ day of _____, 2019.

APPROVED:

_____
Fred Winchowky, Village President

Countersigned:

_____
Diana Dykstra, Village Clerk/Treasurer

VILLAGE OF MUKWONAGO
WAUKESHA AND WALWORTH COUNTIES

ORDINANCE NO. 975

ORDINANCE TO AMEND SECTION 2-31 OF THE VILLAGE OF MUKWONAGO MUNICIPAL CODE TO CREATE SUBSECTION 10 OF THAT ORDINANCE

The Village Board of the Village of Mukwonago do ordain as follows:

SECTION I

Section 2-31(10) of the Municipal Code of the Village of Mukwonago is hereby created to read as follows:

(10) *Public Comment*. Pursuant to Wis. Stats. Sec. 19.84(2), information and comment may be received from the public by the Village Board. The Public Comment Session is granted to the public at the start of each Village Board meeting. The Public Comment Session shall last no longer than fifteen (15) minutes and individual presentations are limited to three (3) minutes per speaker. These time limits may be extended in the discretion of the Chief Presiding Officer. The Village Board may have limited discussion on the information received, however, no action will be taken on issues raised during the Public Comment Session unless they are otherwise on the Agenda for that meeting. Public comments should be addressed to the Village Board as a body. Presentation shall not deal in personalities personal attacks on members of the Village Board, the applicant for any project or Village employees. Comments, questions and concerns should be presented in a respectful professional manner. Any questions to an individual member of the Commission or Staff will be deemed out of order by the Presiding Officer.

SECTION II

All Ordinances or parts of Ordinances contravening the terms and conditions of this Ordinance are hereby to that extent repealed.

SECTION III

The several sections of this Ordinance shall be considered severable. If any section shall be considered by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the other portions of the Ordinance.

SECTION IV

This Ordinance shall take effect upon passage and publication as approved by law, and the Village Clerk shall so amend the Code of Ordinances of the Village of Mukwonago, and shall indicate the date and number of this amending ordinance therein.

PASSED AND ADOPTED by the Village Board this _____ day of _____, 2020.

APPROVED:

_____
Fred Winchowky, Village President

Countersigned:

_____
Diana Dykstra, Village Clerk/Treasurer

VILLAGE OF MUKWONAGO
WAUKESHA AND WALWORTH COUNTIES

ORDINANCE NO. 977

ORDINANCE TO AMEND SECTION 100-14
OF THE VILLAGE OF MUKWONAGO MUNICIPAL CODE
REGARDING SUBMISSION OF BUILDING PERMIT REQUESTS

The Village Board of the Village of Mukwonago do ordain as follows:

SECTION I

The introductory paragraph to Section 100-14 of the Municipal Code of the Village of Mukwonago is hereby repealed and recreated to read as follows:

> No structure or development shall hereafter be located, erected, moved, reconstructed, extended, enlarged or structurally altered until after the owner or his/her agent has secured a building permit from the building inspector, unless otherwise exempted pursuant to section 100-16 of this chapter. Applications for a building permit shall be made in electronic form, which form may be accessed and filed on the Village's website. Individuals with disabilities who are not able to submit the application in digital form may be reasonably accommodated by contacting the Village Clerk or the Village Building Inspector. The Application shall include the following information to the extent applicable:

SECTION II

All Ordinances or parts of Ordinances contravening the terms and conditions of this Ordinance are hereby to that extent repealed.

SECTION III

The several sections of this Ordinance shall be considered severable. If any section shall be considered by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the other portions of the Ordinance.

SECTION IV

This Ordinance shall take effect upon passage and publication as approved by law, and the Village Clerk shall so amend the Code of Ordinances of the Village of Mukwonago, and shall indicate the date and number of this amending ordinance therein.

PASSED AND ADOPTED by the Village Board this _____ day of _____, 2019.

APPROVED:

_____
Fred Winchowky, Village President

Countersigned:

_____
Diana Dykstra, Village Clerk/Treasurer

State of Wisconsin

2019 Assembly Bill 117

Date of enactment: **November 21, 2019**
Date of publication*: **November 22, 2019**

2019 WISCONSIN ACT 38

AN ACT *to renumber and amend* 101.65 (3); and *to create* 101.65 (3) (a) and (b) of the statutes; **relating to:** submission of building permit applications for one-family and two-family dwellings.

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

SECTION 1. 101.65 (3) of the statutes is renumbered 101.65 (3) (intro.) and amended to read:

101.65 **(3)** (intro.) ~~Shall~~ Except as provided in par. (a), shall use the standard building permit form prescribed and furnished by the department~~.~~ or, if approved by the department under s. 101.63 (7m), a different building permit form. A city, village, town, or county may require an applicant to submit the form in paper or electronic form, but may not require that an applicant submit the form in both paper and electronic forms. If a city, village, town, or county requires submission of the form in paper form, both of the following apply:

SECTION 2. 101.65 (3) (a) and (b) of the statutes are created to read:

101.65 **(3)** (a) The applicant may submit any of the following:

1. A printed copy of the form that the city, village, town, or county makes available electronically.

2. A printed copy of the form that the department makes available electronically.

3. The form that the department makes available to the public in paper form.

(b) The city, village, town, or county shall submit electronically to the department the information on the form submitted by the applicant under par. (a).

---

* Section 991.11, WISCONSIN STATUTES: Effective date of acts. "Every act and every portion of an act enacted by the legislature over the governor's partial veto which does not expressly prescribe the time when it takes effect shall take effect on the day after its date of publication."

Village of Mukwonago

AGENDA ITEM REQUEST FORM

Committee/Board:	
Topic:	Wireless Telecommunication Mobile Service Facilities – 5G Network
From:	Village Attorney Mark G. Blum
Copy To:	John Weidl Ben Kohout
Date of Committee Action (if required):	February 11, 2020
Date of Village Board Action (if required):	

Information

Subject: Wireless Telecommunication Mobile Service Facilities

Rationale:

The Federal Communications Commission, as well as the State Legislature of the State of Wisconsin have enacted a series of laws limiting the ability of local governments to regulate wireless telecommunication mobile service facilities. Basically, these regulations are for purposes of facilitating 5G service by mobile telecommunication services. The FCC preempted the ability of local governments to regulate, in a number of ways, in this area to facilitate the roll out of this service by the cellular service companies. One of the rules the Village, as all municipalities do, will need to allow for 5G service to be installed within the public rights-of-way and specifically, on public streetlight posts or structures of a similar nature. Cable will be run underground within the right-of-way to connect to these towers and there will be a transmission unit and antenna on the top of the tower. These would be significantly different than the normal cell tower, specifically, 50 feet or less in height; but because of the limited range of these kinds of facilities, there will be a need for many more of them to provide adequate 5G coverage in the future. The Wisconsin Legislature placed limits on the amounts of fees that local governments may charge for the permitting process to evaluate these applications. They have also established limited timelines for the Village to consider them. Unfortunately, this is another example of a situation where federal and state authorities have placed substantial limitations on local control.

In any event, the League of Wisconsin Municipalities, upon becoming aware of the action taken by the FCC, developed a Model Ordinance in this regard. We have used this Ordinance for purposes of creating the document which you now have before you. As you review it, please keep in mind that the regulations we are including represent the limits of what the FCC and the State will allow us to regulate and therefore, it may not go so far as you would like it to. However, we believe it is permissible within the constraints that we have been given. One significant area that I am sure will be of concern relates to the location of these facilities. While the Village can request that the cell companies utilize towers in industrial or non-commercial or non-residential areas, the reality is that there will be a need for these kinds of transmitters within residential and commercial areas, such as our downtown and the law will require that we do accommodate that.

We are bringing these regulations before you for consideration and action. Please keep in mind that the Village will have no ability to regulate an application in this regard unless it were to establish an Ordinance such as the one which we are presenting. Since this does involve some regulation involving the Village's Zoning Code, this matter will necessitate a Public Hearing, as well as recommendation from the Plan Commission and ultimate adoption by the Village Board.

Fiscal Impact (If any):

None.

Requested Action by Committee/Board:

Consideration and possible action on proposed ordinances to establish regulations for wireless telecommunication mobile service facilities in the Village of Mukwonago, as well as modifications to the Villages Right-of-Way Permit process.

VILLAGE OF MUKWONAGO
WAUKESHA AND WALWORTH COUNTIES

ORDINANCE NO. 976

ORDINANCE TO CREATE SECTIONS 79-68, 79-69, 79-70, AND 79-71 AND TO AMEND CHAPTER 74 AND SECTION 100-452 OF THE VILLAGE OF MUKWONAGO MUNICIPAL CODE REGARDING THE REGULATION OF WIRELESS TELECOMMUNICATION MOBILE SERVICE AND RIGHT-OF-WAY PERMITS

SECTION I

Section 79-68 of the Municipal Code of the Village of Mukwonago is hereby created to read as follows:

ARTICLE III. - WIRELESS TELECOMMUNICATION MOBILE SERVICE FACILITIES

Sec. 79-68. - Wireless telecommunication mobile service facilities - generally.

(a) Purpose. This section is intended to regulate wireless mobile service facilities to the full extent allowed by Wis. Stats. § 66.0404 and other applicable laws. Nothing herein is intended to regulate or authorize the regulation of mobile service facilities in a manner that is preempted or prohibited by Wis. Stats. § 66.0404 or other applicable laws.

(b) Definitions. All terms used herein shall have the meaning described in Wis. Stats. § 66.0404(1) - see below:

Antenna means communications equipment that transmits and receives electromagnetic radio signals and is used in the provision of mobile services.
Application means an application for a permit under this section to engage in either:
a. The siting and construction of a new mobile service support structure and facilities.
b. With regard to a class 1 collocation, the substantial modification of an existing support structure and mobile service facilities or a class 2 collocation.
Building permit means a permit issued by Village of Mukwonago that authorizes an applicant to conduct construction activity that is consistent with Village of Mukwonago building code.
Class 1 collocation means the placement of a new mobile service facility on an existing support structure such that the owner of the facility does not need to construct a free standing support structure for the facility but does need to engage in substantial modification.
Class 2 collocation means the placement of a new mobile service facility on an existing support structure such that the owner of the facility does not need to construct a free standing support structure for the facility or engage in substantial modification.
Collocation means class 1 or class 2 collocation or both.
Distributed antenna system means a network of spatially separated antenna nodes that is connected to a common source via a transport medium and that provides mobile service within a geographic area or structure.
Equipment compound means an area surrounding or adjacent to the base of an existing support structure within which is located mobile service facilities.

Existing structure means a support structure that exists at the time a request for permission to place mobile service facilities on a support structure is filed with Village of Mukwonago.
Fall zone means the area over which a mobile support structure is designed to collapse.
Mobile service has the meaning given in 47 USC 153 (33)—see below:
a. Mobile service. The term "mobile service" means a radio communication service carried on between mobile stations or receivers and land stations, and by mobile stations communicating among themselves, and includes:
i. Both one-way and two-way radio communication services,
ii. A mobile service which provides a regularly interacting group of base, mobile, portable, and associated control and relay stations (whether licensed on an individual, cooperative, or multiple basis) for private one-way or two-way land mobile radio communications by eligible users over designated areas of operation, and
iii. Any service for which a license is required in a personal communications service established pursuant to the proceeding entitled "Amendment to the Commission's Rules to Establish New Personal Communications Services" (GEN Docket No. 90-314; ET Docket No. 92-100), or any successor proceeding.
Mobile service facility means the set of equipment and network components, including antennas, transmitters, receivers, base stations, power supplies, cabling, and associated equipment, that is necessary to provide mobile service to a discrete geographic area, but does not include the underlying support structure.
Mobile service provider means a person who provides mobile service.
Mobile service support structure means a freestanding structure that is designed to support a mobile service facility.
Permit means a permit, other than a building permit, or approval issued by a political subdivision which authorizes any of the following activities by an applicant:
a. A class 1 collocation.
b. A class 2 collocation.
c. The construction of a mobile service support structure.
Political subdivision means a city, village, town, or county.
Public utility has the meaning given in Wisconsin Statutes.
Search ring means a shape drawn on a map to indicate the general area within which a mobile service support structure should be located to meet radio frequency engineering requirements, taking into account other factors including topography and the demographics of the service area.
Small Wireless Facility, consistent with 47 C.F.R. § 1.6002(l), means a facility that meets each of the following conditions:
The structure on which antenna facilities are mounted:

- is 50 feet or less in height, or
- is no more than 10 percent taller than other adjacent structures, or
- is not extended to a height of more than 50 **feet,** or by more than 10 percent above its preexisting height, whichever is greater, as a result of the collocation of new antenna facilities;
- Each antenna (excluding associated antenna equipment) is no more than three cubic feet in volume;
- All other wireless equipment associated with the structure, including the wireless equipment associated with the antenna and any pre-existing associated equipment on the structure, is cumulatively no more than 28 cubic feet in volume;
- The facility does not require antenna structure registration;
- The facility is not located on Tribal lands; and
- The facility does not result in human exposure to radiofrequency radiation in excess of the applicable safety standards specified by federal law.

Substantial modification means the modification of a mobile service support structure, including the

mounting of an antenna on such a structure, that does any of the following:
a. For structures with an overall height of 200 feet or less, increases the overall height of the structure by more than 20 feet.
b. For structures with an overall height of more than 200 feet, increases the overall height of the structure by ten percent or more.
c. Measured at the level of the appurtenance added to the structure as a result of the modification, increases the width of the support structure by 20 feet or more, unless a larger area is necessary for collocation.
d. Increases the square footage of an existing equipment compound to a total area of more than 2,500 square feet.
Support structure means an existing or new structure that supports or can support a mobile service facility, including a mobile service support structure, utility pole, water tower, building, or other structure.
Utility pole means a structure owned or operated by an alternative telecommunications utility, as defined in Wisconsin Statutes; public utility, as defined in Wisconsin Statutes; telecommunications utility, as defined in Wisconsin Statutes; political subdivision; or cooperative association organized under Wisconsin Statutes; and that is designed specifically for and used to carry lines, cables, or wires for telecommunications service, as defined in Wisconsin Statutes; for video service, as defined in Wisconsin Statutes; for electricity; or to provide light.

(c) New towers and facilities. The siting and construction of a new mobile service support structure and facilities shall be subject to the following requirements:

(1)*Application process.* The applicant shall submit an application on forms or by electronic means as provided by the Village, which shall include all of the following information minimally as well as any other information as may be specifically requested within the application form itself.
a. The name and business address of, and the contact individual for, the applicant.
b. The location of the proposed tower.
c. The location of the mobile service facility.
d. A construction plan which describes the tower, equipment, network components, antennas, transmitters, receivers, base stations, power supplies, cabling, and related equipment to be placed on or around the new tower.
e. An explanation as to why the applicant chose the proposed location, and why the applicant did not choose collocation, including a sworn statement from the responsible party attesting that collocation within the applicant's service area would not result in the same mobile service functionality, coverage, and capacity; is technically infeasible; or is economically burdensome.
(2) *Determination of completeness - application.* The Village Zoning Administrator will determine, within the prescribed **"application(s) completeness review deadlines"** (ref Section **Sec. 79-71 – Shot Clocks.)** whether the application is complete. If the application includes all of the required information, the application shall be found to be complete. The Village Zoning Administrator must notify the applicant in writing within the prescribed **"application(s) completeness review deadlines"** if an application is found not to be complete, specifying in detail the required information that was incomplete. The applicant may resubmit as often as necessary until it is complete.

(3) *Conditional use review procedure.* The wireless telecommunications mobile service facility shall be a conditional use, however it is not subject to Chapter 100 of this Code, but instead shall be reviewed pursuant to the following procedures:

a. Public hearing. Within a reasonable time after an application and all required information has been filed, a public hearing shall be held by the plan commission pursuant to this chapter.

Within 40 days after the public hearing and all investigation, the plan commission shall make a recommendation to the village board unless the time is extended by the petitioner.

b. Fee. Any petition shall be accompanied by a fee as set from time-to-time by the village board to defray the cost of notification and holding of public hearing. Costs incurred by the village in obtaining legal, planning, engineering and other technical and professional advice in connection with the review and implementation of the conditional use shall be charged to the petitioner. Such fee shall not exceed the limits established by Wis. Stats. § 66.0404(4)(d).

c. Requirements.

1. Any new or substantially modified mobile service support structure (not including structures proposed to be placed in the right-of-way) that is proposed to be constructed on or adjacent to a parcel of land that permits single-family residential use shall be subject to an offset and setback requirement equal to the height of the support structure. The Village Zoning Administrator may permit a reduction in this offset/setback requirement but only to the extent it is determined that such reduction will not compromise the public safety and only when the applicant demonstrates a unique or extenuating circumstance specific to the proposed structure location which prevents full compliance with this offset/setback requirement. 2. All facilities shall comply fully with all applicable state and federal codes.

(d) Determination. The Village Board shall make a decision on the application within a reasonable time after receipt of the Plan Commission recommendation, provided further that the final action shall be taken within the required period of time (ref Section **Sec. 79-71. – Shot Clocks.)** unless the time for final action by the Village is extended by mutual agreement of the Petitioner and the Village. Said decision shall be stated in writing and a copy made a permanent part of the Village records. If conditional use status is not granted, the reasons therefor will be included in such record. A grant of conditional use status, subsequent changes or additions thereto and terminations thereof shall be recorded as follows:

(1) An official record of such conditional grant shall be prepared by the Village Zoning Administrator on a form prescribed therefore which shall include the description of the use for which the grant is given and all conditions attached thereto as well as a copy of the resolution of the village board approving the grant. A copy of the completed form shall be recorded at the Waukesha County Register of Deeds as a covenant on the title for the premises for which the conditional use was granted.

(2) Changes or additions. Subsequent changes or additions to the approved plans or use shall first be submitted for approval to the plan commission and, if, in the opinion of the Village Zoning Administrator in his review of the revisions requested, such change or addition constitutes a substantial alteration, a public hearing before the plan commission shall be required and notice thereof be given pursuant to this chapter.

(3) Conditions. Conditions such as landscaping, architectural design, type of construction, floodproofing, anchoring of structures, construction commencement and completion dates, sureties, lighting, fencing, planting screens, operational control, hours of operation, improved traffic circulation, deed restrictions, highway access restrictions, increased yard, or parking requirements, among other issues as deemed appropriate may be required by the Plan Commission upon its finding that these are necessary to fulfill the purpose and intent of this Chapter; subject to the limitations of subsection (4), Limitations upon authority, below.

(4) Limitations upon authority. The village review and action in the matter shall be subject to the limitations imposed by Wis. Stats. § 66.0404(4). In the event the applicant believes the village has erred in

it's determination, the applicant may, within 30 days of the Village Board decision on the matter, submit a written statement to that effect, including a detailed description of the specific points on which the applicant believes the Village has erred. The village board reserves the right to reconsider the matter, to ensure that all applicable laws are followed.

(e) Modifications. The construction of modifications to an existing mobile service support structure or mobile service facility shall be subject to the following requirements:

(1) ***Substantial modification.***

a. Application and review process. The application and review process for a substantial modification is identical to the application and review process for a new tower, as described in subsection (c), New towers and facilities, above, except that the required plans should describe the proposed modifications, rather than describe the new structure.

(2) ***Not substantial modifications.***

a. Application information and review process. The applicant shall submit an application that describes the applicant's basis for concluding that the modification is not substantial, and all of the following information:

i. The name and business address of, and the contact individual for, the applicant.
ii. The location of the affected support structure.
iii. The location of the proposed facility.

b. Completeness determination. The Village Zoning Administrator will determine, within the prescribed **"application(s) completeness review deadlines"** (ref Section **Sec. 79-71. – Shot Clocks)** whether the application is complete. If the application includes all of the required information, the application shall be found to be complete. The Village Zoning Administrator must notify the applicant in writing within the prescribed **"application(s) completeness review deadlines"** if an application is found not to be complete, specifying in detail the required information that was incomplete. The applicant may resubmit as often as necessary until it is complete.

c. Fee. Any petition shall be accompanied by a fee as set from time-to-time by the Village Board to defray the cost of review. Costs incurred by the Village in obtaining legal, planning, engineering and other technical and professional advice in connection with the review and implementation of the modifications shall be charged to the Petitioner. Such fee shall not exceed the limits established by Wis. Stats. § 66.0404(4)(d).

d. Determination. The Village Zoning Administrator shall make a decision on the nonsubstantial modification application within the prescribed **period of time** (ref Section **Sec. 79-71. – Shot Clocks)** unless the time is extended by mutual agreement between the Village and the Petitioner. Said decision shall be stated in writing and a copy made a permanent part of the Village records. If modifications as requested are not approved by the Village Zoning Administrator, the reasons therefor will be provided to the applicant in writing.

e. Limitations upon authority. The village review and action in the matter shall be subject to the limitations imposed by Wis. Stats. § 66.0404(4), and such other laws as may apply which may include 47 USCA Section 1455. In the event the applicant believes the village has exceeded its authority in this regard, the applicant shall notify the village board in writing within 30 days of the action/decision, and the village board reserves the right to reconsider the matter.

SECTION II

Section 79-69 of the Municipal Code of the Village of Mukwonago is hereby repealed and recreated to read as follows:

Sec. 79-69 - Wireless telecommunication facilities in the Right-of-way – specifically.

(a) Definitions

For the purposes of this Section, the terms below shall have the following meanings:

"Administrator" means the Village Zoning Administrator or his/her designee.
"Application" means a formal request, including all required and requested documentation and information, submitted by an Applicant to the Village for a wireless permit.

"Applicant" means a person filing an application for placement or modification of a wireless telecommunications facility in the right-of-way.

"Base Station" means the same as in 47 C.F.R. § 1.6100(b)(1), which defines the term to mean a structure or wireless telecommunications equipment at a fixed location that enables FCC-licensed or authorized wireless communications between user equipment and a communications network. This definition does not include towers.

"Eligible Facilities Request" means the same as in 47 C.F.R. § 1.6100(b)(3), which defines the term to mean any request for modification of an existing tower or base station that does not substantially change the physical dimensions of such tower or base station, involving: (i) collocation of new transmission equipment; (ii) removal of transmission equipment; or (iii) replacement of transmission equipment.

"FCC" means the Federal Communications Commission.

"Right-of-way" means the surface of, and the space above and below the entire width of an improved or unimproved public roadway, highway, street, bicycle lane, landscape terrace, shoulder, side slope, and public sidewalk over which the Village exercises any rights of management and control or in which the Village has an interest.

"Small Wireless Facility," consistent with 47 C.F.R. § 1.6002(l), means a facility that meets each of the following conditions:

(1) The structure on which antenna facilities are mounted:

i. is 50 feet or less in height, or

ii. is no more than 10 percent taller than other adjacent structures, or

iii. is not extended to a height of more than 50 feet or by more than 10 percent above its preexisting height, whichever is greater, as a result of the collocation of new antenna facilities;

(2) Each antenna (excluding associated antenna equipment) is no more than three cubic feet in volume;

(3) All other wireless equipment associated with the structure, including the wireless equipment associated with the antenna and any pre-existing associated equipment on the structure, is cumulatively no more than 28 cubic feet in volume;

(4) The facility does not require antenna structure registration;

(5) The facility does not result in human exposure to radiofrequency radiation in excess of the applicable safety standards specified by federal law.

"Support Structure" means any structure capable of supporting wireless telecommunications equipment.

"Tower" means the same as in 47 C.F.R. § 1.6100(b)(9), which defines the term as any structure built for the sole or primary purpose of supporting any Federal Communication Commission (FCC) licensed or authorized antennas and their associated facilities, including structures that are constructed for wireless communications services including, but not limited to, private, broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul, and the associated site.
This definition does not include utility poles.

"Underground areas" means those areas where there are no electrical facilities or facilities of the incumbent local exchange carrier in the right of way; or where the wires associated with the same are or are required to be located underground; or where the same are scheduled to be converted from overhead to underground. Electrical facilities are distribution facilities owned by an electric utility and do not include transmission facilities used or intended to be used to transmit electricity at nominal voltages more than 35,000 volts.

"Utility Pole" means a structure in the right-of-way designed to support electric, telephone, and similar utility distribution lines and associated equipment. A tower is not a utility pole.

"Wireless Infrastructure Provider" means a person that owns, controls, operates, or manages a wireless telecommunications facility or portion thereof within the right-of-way.

"Wireless Permit" or "Permit" means a permit issued pursuant to this Section and authorizing the placement or modification of a wireless telecommunications facility of a design specified in the permit at a particular location within the right-of-way, and the modification of any existing support structure to which the wireless telecommunications facility is proposed to be attached.

"Wireless Regulations" means those regulations adopted pursuant to Section (e)(2) a. to implement the provisions of this Section .

"Wireless Service Provider" means an entity that provides wireless services to end users.

"Wireless Telecommunications Equipment" means equipment at a fixed location that enables FCC-licensed or authorized wireless communications between user equipment and a communications network.

"Wireless Telecommunications Facility" or "Facility" means a facility at a fixed location in the right-of-way consisting of a base station, antennas and other accessory equipment, and a tower

and underground wiring, if any, associated with the base station.

Definitions in this Section may contain quotations or citations to 47 C.F.R. §§ 1.6100 and 1.6002. In the event that any referenced section is amended, creating a conflict between the definition as set forth in this Section and the amended language of the referenced section, the definition in the referenced section, as amended, shall control.

(b) Purpose

In the exercise of its police powers, the Village has priority over all other uses of the right-of-way. The purpose of this Section is to provide the Village with a process for managing, and uniform standards for acting upon, requests for the placement of wireless telecommunications facilities within the right-of-way consistent with the Village's obligation to promote the public health, safety, and welfare; to manage the right-of-way; and to ensure that the public's use is not obstructed or incommoded by the use of the right-of-way for the placement of wireless telecommunications facilities. The Village recognizes the importance of wireless telecommunications facilities to provide high-quality communications and internet access services to residents and businesses within the Village. The Village also recognizes its obligation to comply with applicable Federal and State laws regarding the placement of wireless telecommunications facilities in the right-of-way including, without limitation, the Telecommunications Act of 1996 (47 U.S.C. § 151 et seq), Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012, Wis. Stat. § 182.017, and Wis. Stat. § 196.58, and this Section shall be interpreted consistent with those provisions.

(c) Scope

(1) Applicability. Unless exempted by Section (c)(2), below, every person who wishes to place a wireless telecommunications facility in the right-of-way or modify an existing wireless telecommunications facility in the right-of-way must obtain a wireless permit under this Section.

(2) Exempt Facilities. The provisions of this Section (other than Sections 79-69 (j)-(n)) shall not be applied to applications for the following:

a. Installation of a small wireless facility on the strand between two utility poles, provided that the cumulative volume of all wireless facilities on the strand shall not exceed 1 cubic foot, and provided further that the installation does not require replacement of the strand, or excavation, modification, or replacement of either of the utility poles.

b. Installation of a mobile cell facility (commonly referred to as "cell on wheels" or "cell on truck") for a temporary period in connection with an emergency or event, but no longer than required for the emergency or event, provided that installation does not involve excavation, movement, or removal of existing facilities.

c. Placement or modification of a wireless telecommunications facility on structures owned by or under the control of the Village. See subsection (m) of this Section.

d. Placement or modification of a wireless telecommunications facility by Village staff or any person performing work under contract with the Village.

e. Modification of an existing wireless telecommunications facility that makes no material change to the footprint of a facility or to the surface or subsurface of a public street if the activity does not disrupt or impede traffic in the traveled portion of a street, and if the work does not change the visual or audible characteristics of the wireless telecommunications facility.

(d) Nondiscrimination

In establishing the rights, obligations, and conditions set forth in this Section, it is the intent of the Village to treat each applicant and right-of-way user in a competitively neutral and nondiscriminatory manner, to the extent required by law, while taking into account the unique technologies, situation, and legal status of each applicant or request for use of the right-of-way.

(e) Administration

(1) **Administrator**. The Administrator is responsible for administering this Section.

(2) **Powers**. As part of the administration of this Section, the Administrator may:

a. Adopt wireless regulations governing the placement and modification of wireless telecommunications facilities in addition to but consistent with the requirements of this Section including regulations governing collocation, the resolution of conflicting applications for placement of wireless telecommunications facilities, and aesthetic standards.

b. Interpret the provisions of the Section and the wireless regulations.

c. Develop forms and procedures for submission of applications for wireless permits consistent with this Section .

d. Collect any fee required by this Section .

e. Establish deadlines for submission of information related to an application, and extend or shorten deadlines where appropriate and consistent with federal laws and regulations.

f. Issue notices of incompleteness or requests for information in connection with any wireless permit application.

g. Select and retain an independent consultant or attorney with expertise in telecommunications to review any issue that involves specialized or expert knowledge in connection with any permit application.

h. Coordinate and consult with other Village staff, committees, and governing bodies to ensure timely action on all other required permits under subsection (f)(2) g. of this Section .

i. Subject to appeal as provided in subsection (h)(4) of this Section , determine whether to grant, grant subject to conditions, or deny an application.

j. Take such other steps as may be required to timely act upon wireless permit applications, including issuing written decisions and entering into agreements to

mutually extend the time for action on an application.

(f) Application

(1) **Format.** Unless the wireless regulations provide otherwise, the applicant must submit both a paper copy and an electronic copy (in a searchable format) of any application, as well as any amendments or supplements to the application or responses to requests for information regarding an application, to the Administrator. An application is not complete until both the paper and electronic copies are received by the Administrator.

(2) **Content.** In order to be considered complete, a fully executed application must be submitted using forms provided by the Village and with all required supporting materials and information included or attached thereto, and also, in addition to all other information requested, the following shall be provided:

a. All information required pursuant to the wireless regulations.

b. A completed application cover sheet signed by an authorized representative of the applicant, listing all standard permit conditions.

c. The name of the applicant (including any corporate or trade name), and the name, address, email address, and telephone number of a local representative. If the applicant is a wireless infrastructure provider, the name and contact information for the wireless service provider(s) that will be using the wireless telecommunications facility must also be provided.

d. A statement of which shot clock or shot clocks apply to the application and the reasons the chosen shot clocks apply.

e. A separate and complete description of each proposed wireless telecommunications facility and the work that will be required to install or modify it, including but not limited to detail regarding proposed excavations, if any; detailed site plans showing the location of the facility and technical specifications for each element of the facility, clearly describing the site and all structures and facilities at the site before and after installation or modification and identifying the owners of such preexisting structures and facilities; and describing the distance to the nearest residential dwelling unit. Before and after 360-degree photo simulations must be provided for each facility.

f. A copy of the FCC license for the facility or a sworn written statement from the applicant attesting that the facility will comply with current FCC regulations.

g. To the extent that filing of the wireless permit application establishes a deadline for action on any other permit that may be required in connection with the wireless telecommunications facility, the wireless permit application must include complete copies of such other permit applications (including for instance but not necessarily limited to electrical permits, building permits, construction permits, traffic control permits, right-of-way permits, excavation permits and erosion control permits), with all engineering completed and with evidence of payment for all fees associated with each permit.

h. A certification by a registered and qualified engineer that the installation can be supported by and does not exceed the tolerances of the structure on which it will be mounted and that all elements of the wireless telecommunications facility comply with applicable safety standards.

i. Payment of all required fees. The fee for application shall be as established and periodically updated by the Village Board from time to time but in no case less than $500 for a single upfront application that may include up to 5 wireless facilities plus an additional $100 for each facility beyond 5. For applications which include placement of a new pole, the application fee shall be not less than $1000. Full payment of application fees must be rendered at the time an application is submitted.

j. If an applicant contends that denial of the application would prohibit or effectively prohibit the provision of service in violation of federal law, or otherwise violate applicable law, the application must provide all evidence on which the applicant relies in support of that claim. Applicants are not permitted to supplement this evidence if doing so would prevent the Village from complying with any deadline for action on an application.

k. If the application is an eligible facilities request, the application must contain information sufficient to show that the application qualifies as an eligible facilities request under 47 C.F.R. § 1.6100(b)(3), including evidence that the application relates to an existing tower or base station that has been approved by the Village. Before and after 360-degree photo simulations must be provided with detailed specifications demonstrating that the modification does not substantially change the physical dimensions of the existing approved tower or base station.

(3) **Waivers**. Requests for waivers from any requirement of this subsection (f) regarding the application requirements shall be made in writing to the Village Zoning Administrator. The Administrator may grant a request for waiver if it is demonstrated that, notwithstanding the issuance of the waiver, the Village will be provided with all information necessary to fully understand the nature of the construction or other activity proposed to be conducted pursuant to the wireless permit sought.

(4) **Fees**. Applicant must pay an application fee concurrent with submittal of the application, the level of such fees to be set by the Village of Mukwonago Village Board from time to time. The applicant shall also be required to pay all costs reasonably incurred in reviewing the application, including costs incurred by the Village in retaining outside consultants to assist in the review.

(5) **Public Records**. Applications are public records that may be made publicly available pursuant to state and federal public records law. Notwithstanding the foregoing, the applicant may designate portions of the application materials that it reasonably believes

contain proprietary or confidential information by clearly marking each portion of such materials accordingly, and the Village shall endeavor to treat the information as proprietary and confidential, subject to applicable state and federal public records law and the Administrator's determination (with guidance of the Village Attorney) that the applicant's request for confidential or proprietary treatment of the application materials is reasonable. The Village shall not be

required to incur any costs to protect the application from disclosure.

(g) General Standards

(1) **Generally**. Wireless telecommunications facilities shall meet the minimum requirements set forth in this Section and the wireless regulations, in addition to the requirements of any other applicable law or regulation.

(2) **Regulations**. The wireless regulations and decisions on wireless permits shall, at a minimum, ensure that the requirements of this Section are satisfied, unless it is determined that the applicant has established that denial of an application would, within the meaning of federal law, prohibit or effectively prohibit the provision of a telecommunications or personal wireless services, or otherwise violate applicable laws or regulations. If that determination is made, the requirements of this Section and the wireless regulations may be waived, but only to the extent required to avoid the prohibition.

(3) **Design Standards.**

a. **Preferred Locations.** The following locations, in the order listed from most to least preferred, are the preferred locations for installations of wireless facilities in public rights-of- way: ***(i.e. M-2 Zoning District location options must be ruled out as a prospective location for the facilities and equipment proposed by the applicant before considering prospective locations in the B-3, B-4, B-5, or P-1 Districts, and etc...)***

1) M-2 and M-4 Zoning Districts;

2) B-3, B-4, B-5, and - P-1 Zoning Districts; and

3) Other Zoning Districts.

b. **Non-Preferred Locations.** The applicant should avoid locating facilities or equipment within residential neighborhoods, designated open spaces, parks, and conservation areas. A facility may be permitted in a location other than a preferred location if the applicant provides evidence showing that:

1) Adequate coverage can be maintained, existing services can be improved, or new services can be added only if facilities are placed in a non-preferred location; or

2) The proposed facility will meet all applicable requirements for the non- preferred location and will complement the character of the surrounding area.

c. **Avoid Significant Buildings and View Sheds.** Wireless communication facilities shall not be located on historically or architecturally significant structures unless visually and architecturally integrated with the structure and shall not interfere with prominent vistas or significant public view corridors.

d. **Collocation Generally.** Subject to the provisions of this section, collocation of facilities is generally preferred over new support structures if it can be accomplished in a way that better compliments the character of the surrounding area.

e. **Collocation with non-municipal facilities.** Collocation on facilities or support structures owned by parties other than the Village is subject to the following:

1) Where an existing facility or support structure can potentially accommodate collocation of a new wireless facility, collocation will be required unless:

a. The applicant submits substantial evidence supporting the unsuitability of the collocation;

b. The owner of the existing facility or support structure is unwilling to accommodate the applicant's equipment and cannot be required to cooperate; or

c. The Village Zoning Administrator determines that installing a new support structure or collocation with a Village facility is preferable to collocation with another facility or support structure.

2) Authorization for collocation on a facility or support structure owned by a party other than the Village will be voided if the facility or support structure is destroyed, removed, relocated, or replaced, unless:

a. The owner of the collocated facility obtains a new right-of-way use permit; or

b. The facility or support structure accommodating the collocation is replaced with a facility or support structure comparable in size, mass, appearance, and placement, as determined by the Village Zoning Administrator.

f. **General Location Restrictions.**

1) Obstruction of Traffic.

a. Facilities and support structures, towers, and utility poles must be situated at least 1 foot back from the curb or nearest traffic lane to reduce the risk of being struck by a motor vehicle or bicycle.

b. Facilities and support structures, towers, and utility poles may not obstruct, impede, or hinder vehicular, pedestrian, or bicycle travel or public safety within the right-of-way, except during an authorized/Village approved temporary lane or sidewalk closure.

c. Within the Village's established vision clearance triangles (ref Section 100-406 of the Code), facilities and support structures, towers, and utility poles must be located in such a manner as will minimize visual obstruction for pedestrians and motorists. Any proposed installation within a vision clearance triangle that is determined by the Village to pose a safety

hazard may not be approved.

d. To the extent possible, a facility, support structure, tower, or utility pole should be located and designed so as to avoid interference with right-of-way maintenance activities, such as:

1) Grass mowing, brush collection, tree trimming, snow removal and landscaping maintenance;
2) Trash collection;
3) Maintenance of streets, pavement, sidewalks, and bicycle lanes; and
4) Maintenance of other facilities in the rights-of-way.

2) **ADA.** Facilities and support structures, towers, and utility poles at all times must comply with the requirements of the Americans with Disabilities Act of 1990.

3) Facilities and support structures, towers, and utility poles must generally be located in alignment with existing trees, facilities, support structures, towers, utility poles, and streetlights.

4) **Spacing.**

a. A support structure, tower, or utility pole for a wireless facility must **be located** at **least 25 feet**, from centerline to centerline, of any other support structure, tower or utility pole in a public right-of-**way unless specifically waived or modified by the Village Zoning Administrator due to unique and limiting circumstances of the specific proposed location.**

b. Facilities and support structures, towers, and utility poles must be located equal distance between trees whenever possible, and no closer than 20 feet, from centerline to centerline, to a tree in order to avoid damaging a tree's critical root zone. This distance may be increased if the Village Zoning Administrator determines that the critical root zone of a nearby tree is greater than 20 feet.

5) **Frontage.**

a. Facilities and support structures, towers, and utility poles should not be located along the frontage of any building deemed to be of historic significance on a federal, state, or local level.

b. New facilities and support structures, towers, and utility poles should not be located directly in front of any existing residential, commercial, or industrial structure but rather every effort shall be made to locate these at lot corners.

c. To the extent possible, new facilities and support structures, towers, and utility poles must be located in line with existing lot lines, but in areas where multiple structures abut each other or where no side lot setback requirement exists, structures should not be located directly in front of an

entrance or window of any existing structure.

6) Use of Lighting Elements.

a. A combination support structure and streetlight pole should only be located where an existing pole can be removed and replaced, or at a new location where the Village has identified that a streetlight is necessary. The lighting fixtures shall be of like kind to those which the Village is using within the immediately surrounding area. Installation, maintenance, repair and replacement of such light fixtures shall be the responsibility of the permit holder.

b. In no case shall the location/placement of a wireless facility be permitted where its location/placement adversely impacts the functionality/intended purpose of the light fixture(s) also located on that pole.

7) Height Restrictions and Requirements.

a. **Maximum Height of a Wireless Facility**. The height of a wireless facility in the right-of-way may not exceed the greater of 50 feet above ground level at the base of the structure or ten feet above the tallest existing support structure, tower, or utility pole that is in place on the effective date of this ordinance and that is located within 500 feet of the proposed facility.

b. **Minimum Height of Wireless Facility and** Equipment mounted to support structures must not interfere with or create a hazard to pedestrian or vehicular traffic and must be a minimum of 10 feet above any pedestrian or bicycle thoroughfare and a minimum of 16 feet above any traffic lane.

8) Undergrounding

a. **Undergrounded Equipment.** To conceal non-antenna equipment, applicants shall install all non-antenna equipment underground where utilities or other equipment in the right-of-way is also required to be located underground. In all other areas, applicants shall underground its non-antenna equipment to the extent feasible. Additional expense to install and maintain an underground equipment enclosure does not exempt an applicant from this requirement, except where the applicant demonstrates by clear and convincing evidence that this requirement will effectively prohibit the provision of personal wireless services. Nothing in this subsection is intended to require the applicant to install any electric meter required by the applicant's electrical service provider underground.

b. **Ground-Mounted Equipment**. To the extent that the equipment cannot be placed underground if required, applicants shall install ground-mounted equipment in the location so that it does not obstruct pedestrian or vehicular traffic. The Village may require landscaping or other concealment as a condition of approval to conceal ground-mounted equipment. Ground-mounted equipment shall not be permitted in connection with a street light, traffic signal, utility pole or other similar infrastructure in the public right-of-way of the Downtown Area. In the event that the Village approves ground-mounted equipment, the applicant shall conform to the following requirements:

1) **Self-Contained Cabinet or Shroud**. The equipment shroud or cabinet shall contain all the equipment associated with the facility other than the antenna. All cables and conduits associated with the equipment shall be concealed from view.

2) **Concealment**. The Village may require the applicant to incorporate concealment elements into the proposed design, including but not limited to public art displayed on the cabinet, strategic placement in less obtrusive locations and placement within existing or replacement street furniture.

9) General Aesthetic Standards.

a. Concealment. Permits for wireless telecommunications facilities shall incorporate specific concealment elements to minimize visual impacts, and design requirements ensuring compliance with all standards for noise emissions. Unless it is determined that another design is less intrusive, or placement is required under applicable law:

(1) Antennas located at the top of support structures shall, to the maximum extent possible, be incorporated into the structure, or placed within shrouds of a size such that the antenna appears to be part of the support structure;

(2) Antennas placed elsewhere on a support structure shall, to the maximum extent possible, be integrated into the structure, or be designed and placed to minimize visual impacts.

(3) Radio units or equipment cabinets holding radio units and mounted on a utility pole shall be placed as high as possible on a support structure, located to avoid interfering with, or creating any hazard to, any other use of the public rights ofway, and located on one side of the utility pole. Unless the radio units or **equipment cabinets can be otherwise more appropriately concealed, radio units or equipment cabinets mounted below the communications space on support poles or**

structures shall be designed so that the largest dimension is vertical, and the width is such that the radio units or equipment cabinets are minimally visible from the opposite side of the pole or support structure on which they are placed.

(4) Wiring and cabling shall be neat and concealed within the structure or, if within the structure is not possible, then flush to the support structure in a manner that, to the greatest extent possible blends into the color/materials/design of the structure as will ensure maximum concealment of these components.

(5) No support structures, towers, or utility poles shall be permitted in the public rights-of-way, and no wireless telecommunications facilities shall be permitted above-ground, in underground areas; provided that the Village may permit placements where all elements of the wireless telecommunications facility are concealed and the facility does not appear to a casual observer to be a wireless telecommunications facility.

10) Noise. Facilities must be constructed and operated in a manner that prevents or minimizes audible noise.

11) Facilities must not be illuminated, except in accordance with state or federal regulations or if incorporated as part of a street light pole.

12) Signage Prohibited.

a. Signage is not permitted except to comply with FCC or Wisconsin regulations to provide safety warnings.

b. Every facility shall at all times display a small placard that accurately identifies the facility owner and provides the facility owner's unique site number, and also provides a local or toll-free telephone number to contact the facility owner's operations center. This placard shall be as small as is practicable.

c. The design, materials, colors, and location of the placards shall be subject to review and approval by the Village prior to placement. If at any time a new owner or operator provider takes over operation of an existing personal wireless service facility, the new personal wireless service provider shall notify the Village of the change in operation within 30 days and the required and approved placard shall be updated within 30 days to reflect the name and phone number of the new wireless service provider. The colors, materials and design of the updated placard shall match those of the previously approved placard.

13) Trees.

a. Tree "topping" or the improper pruning of trees is prohibited. Any

proposed pruning of trees, shrubs, or other landscaping already existing in the right-of-way must be specifically called out in the application and approved by the Village in writing prior to the start of any pruning or cutting.

(4) **Other Standards.**

a. Wireless telecommunications facilities shall be installed and modified in a manner that:

(i) Minimizes risks to public safety;

(ii) Ensures that placement of facilities on existing structures is within the tolerance of those structures;

(iii) Avoids placement of aboveground facilities in underground areas, installation of new support structures or equipment cabinets in the public right-of-way, or placement in residential areas when alternative and suitable commercial, light industrial and/or institutional areas are reasonably available;

(iv) Maintains the integrity and character of the neighborhoods and corridors in which the facilities are located;

(v) Ensures that installations are subject to periodic review to minimize the intrusion on the right-of-way;

(vi) Ensures that the Village bears no risk or liability as a result of the installations; and

(vii) Ensures that applicant's use does not inconvenience the public, interfere with the primary uses of the right-of-way, or hinder the ability of the Village or other government entities to improve, modify, relocate, abandon, or vacate the right-of-way or any portion thereof, or to cause the improvement, modification, relocation, vacation, or abandonment of facilities in the right-of-way.

b. No wireless permit shall be issued unless (i) the wireless service provider applicant has immediate plans to use the proposed facility or (ii) the wireless infrastructure applicant has a contract with a wireless service provider that has immediate plans to use the proposed facility.

c. In no event may ground-mounted equipment interfere with pedestrian or vehicular traffic and at all times must comply with the requirements of the Americans with Disabilities Act of 1990.

(5) **Standard Permit Conditions**. All wireless permits under this Section are issued subject to the following minimum conditions:

a. **Locates.** All permit holders shall be required to have/maintain current and active membership status in the Wisconsin Diggers Hotline/Call811 underground utility locating service for the duration of the time that the permit holder has underground facilities of any sort located in the public rights-of-way throughout the Village of Mukwonago.

b. **Compliance**. The permit holder shall at all times maintain compliance with all applicable Federal, State, and local laws, regulations, and other rules.

c. **Term**. A wireless permit issued pursuant to an eligible facilities request shall expire at the same time the permit for the underlying existing wireless telecommunications facility expires. All other wireless permits shall be valid for a period of five years from the date of issuance unless revoked pursuant to subsection (i)(2) of this Section.

d. **Contact Information**. The permit holder shall at all times maintain with the Village accurate contact information for the permit holder and all wireless service providers making use of the facility, which shall include a phone number, mailing address, and email address for at least one natural person.

e. **Emergencies**. The Village shall have the right to support, repair, disable, or remove any elements of the facilities in emergencies or when the facility threatens imminent harm to persons or property.

f. **Indemnities**. The permit holder, by accepting a permit under this Section, agrees to indemnify, defend, and hold harmless the Village, its elected and appointed officials, officers, employees, agents, representatives, and volunteers (collectively, the "Indemnified Parties") from and against any and all suits, actions, legal or administrative proceedings, claims, demands, damages, liabilities, interest, attorneys' fees, costs, and expenses of whatsoever kind or nature in any manner caused in whole or in part, or claimed to be caused in whole or in part, by reason of any act, omission, fault, or negligence, whether active or passive, of the permit holder or anyone acting under its direction or control or on its behalf, even if liability is also sought to be imposed on one or more of the Indemnified Parties. The obligation to indemnify, defend, and hold harmless the Indemnified Parties shall be applicable even if the liability results from an act or failure to act on the part of one or more of the Indemnified Parties. However, the obligation does not apply if the liability results from the willful misconduct of an Indemnified Party.

g. **Adverse Impacts on Adjacent Properties**. The permit holder shall undertake all reasonable efforts to avoid undue adverse impacts to adjacent properties and/or uses that may arise from the construction, operation, maintenance, modification, or removal of the facility.

h. **General maintenance**. The wireless communications facility and any associated structures shall be maintained in a neat and clean manner and in accordance with all approved plans and conditions of approval.

i. **Graffiti Removal**. All graffiti on facilities shall be removed at the sole expense of the permit holder within 48 hours after notification from the Village.

j. **Relocation**. At the request of the Village pursuant to subsection (j) of this Section, the permit holder shall promptly and at its own expense permanently remove and relocate any wireless telecommunications facility in the right-of-way.

k. **Abandonment**. The permit holder shall promptly notify the Village whenever a facility has not been in use for a continuous period of 60 days or longer and must comply with subsection (k) of this Section.

l. **Restoration**. A permit holder who removes or relocates a facility from the right-of-way must restore the right-of-way in accordance with subsection (l) of this Section.

m. **Record Retention**. The permit holder shall retain full and complete copies of all permits and other regulatory approvals issued in connection with the facility, which includes without limitation all conditions of approval, approved plans, resolutions, and other documentation associated with the permit or regulatory approval. In the event the Village cannot locate any such full and complete permits or other regulatory approvals in its official records, and the permit holder fails to retain full and complete records in the permit holder's files, any ambiguities or uncertainties that would be resolved through an examination of the missing documents will be conclusively resolved against the permit holder.

n. **Radio Frequency Emissions**. Every wireless facility shall at all times comply with applicable FCC regulations governing radio frequency emissions, and failure to comply with such regulations shall be treated as a material violation of the terms of the permit.

(g) Certificate of Insurance. A certificate of insurance sufficient to demonstrate to the satisfaction of the Administrator (with guidance of the Village Attorney) that the applicant has the capability to cover any liability that might arise out of the presence of the facility in the right-of-way. The Applicant shall provide evidence of liability insurance with limits of not less than $1,000,000.00 per occurrence and $2,000,000.00 in the aggregate. Applicant shall provide evidence through a Policy Endorsement that the Village shall be considered an Additional Insured under the General Liability Policy on a primary and non-contributory basis. An Endorsement shall also be required that provides that the Village shall receive notification of the termination or material modification of the Policy with not less than 30 days' notice except in the event of a termination due to non-payment of premium, in which case the notice shall be provided not less than 10 days prior to the termination of the Policy. Evidence of such coverage shall be maintained throughout the duration of the permit and the Applicant's use of Village right-of-way.

(h) Application Processing and Appeal

(1) **Rejection for Incompleteness**. Notices of incompleteness shall be provided in conformity with state, local, and federal law, including 47 C.F.R. § 1.6003(d), as amended.

(2) **Processing Timeline**. Wireless permit applications (including applications for other permits as provided for under Section (f)(2) g. necessary to place or modify the facility) and appeals will be processed in conformity with the shot clocks set forth in state, local, and federal law, as amended and as specifically identified by the applicant in their application/submittal.

(3) **Written Decision**. In the event that an application is denied (or approved with conditions beyond the standard permit conditions set forth in Section (g)(5)), the Administrator shall issue a written decision with the reasons therefor, supported by

substantial evidence contained in a written record.

(4) **Appeal to Village Board**. Any person adversely affected by the decision of the Administrator may appeal that decision to the Village Board which may decide the issues *de novo*, and whose written decision will be the final decision of the Village. An appeal by a wireless infrastructure provider must be taken jointly with the wireless service provider that intends to use the wireless telecommunications facility.

(5) **Deadline to Appeal**.

a. Appeals that involve eligible facilities requests must be filed within three business days of the date of the written decision of the Administrator.

b. All other appeals not governed by Section (g)(5) a. above, must be filed within ten business days of the date of the written decision of the Administrator, unless the Administrator extends the time therefor. An extension may not be granted where extension would result in approval of the application by operation of law.

(6) **Decision Deadline**. All appeals shall be conducted so that a timely written decision may be issued in accordance with the applicable shot clock.

(i) Expiration and Revocation

(1) **Expiration**. A wireless permit issued pursuant to an eligible facilities request shall expire at the same time the permit for the underlying existing wireless telecommunications facility expires. All other wireless permits shall be valid for a period of five years from the date of issuance. Upon expiration of the wireless permit, the permit holder must either:

a. Remove the wireless telecommunications facility; or,

b. Submit an application to renew the permit at least 90 days prior to its expiration. The facility must remain in place until the renewal application is acted on by the Village and any appeals from the Village's decision are exhausted.

(2) **Revocation for Breach**. A wireless permit may be revoked for failure to comply with the conditions of the permit or applicable federal, state, or local laws, rules, or regulations. Upon revocation, the wireless telecommunications facility must be removed within 30 days of receipt of written notice from the Village. All costs incurred by the Village in connection with the revocation, removal, and right-of-way restoration shall be paid by the permit holder.

(3) **Failure to Obtain Permit**. Unless exempted from permitting by subsection (c)(2) of this Section, a wireless telecommunications facility installed without a wireless permit must be removed within 30 days of receipt of written notice from the Village All costs incurred by the Village in connection with the notice, removal, and right-of-way restoration shall be paid by entities who own or control any part of the wireless telecommunications facility.

(j) Relocation

Except as otherwise prohibited by state or federal law, a permit holder must promptly and at its own expense, with due regard for seasonal working conditions, permanently remove and relocate

any of its wireless telecommunications facilities in the right-of-way whenever the VILLAGE requests such removal and relocation. The Village may make such a request to prevent the facility from interfering with a present or future Village use of the right-of-way; a public improvement undertaken by the Village an economic development project in which the Village has an interest or investment; when the public health, safety, or welfare require it; or when necessary to prevent interference with the safety and convenience of ordinary travel over the right-of-way. Notwithstanding the foregoing, a permit holder shall not be required to remove or relocate its facilities from any right-of-way that has been vacated in favor of a non-governmental entity unless and until that entity pays the reasonable costs of removal or relocation to the permit holder.

(k) Abandonment

(1) **Cessation of Use**. In the event that a permitted facility within the right-of-way is not in use for a continuous period of 60 days or longer, the permit holder must promptly notify the Village and do one of the following:

a. Provide information satisfactory to the Administrator that the permit holder's obligations for its facilities under this Section have been lawfully assumed by another permit holder.

b. Submit to the Administrator a proposal and instruments for dedication of the facilities to the Village. If a permit holder proceeds under this subsection (k)(1) b., the Village may, at its option:

(A) Accept the dedication for all or a portion of the facilities;

(B) Require the permit holder, at its own expense, to remove the facilities and perform the required restoration under subsection (l); or

(C) Require the permit holder to post a bond or provide payment sufficient to reimburse the Village for reasonably anticipated costs to be incurred in removing the facilities and undertaking restoration under subsection (l).

c. Remove its facilities from the right-of-way within one year of the date the facility went out of use and perform the required restoration under subsection (l), unless the Administrator waives this requirement or provides a later deadline.

(2) **Abandoned Facilities**. Facilities of a permit holder who fails to comply with subsection (k)(1) above and which, for one year, remain unused shall be deemed to be abandoned. Abandoned facilities are deemed to be a nuisance. In addition to any remedies or rights it has at law or in equity, the Village may, at its option:

a. abate the nuisance and recover the cost from the permit holder or the permit holder's successor in interest;

b. take possession of the facilities; and/or

c. require removal of the facilities by the permit holder or the permit holder's successor in interest.

(l) Restoration

In the event that a permit holder removes or is required to remove a wireless telecommunications facility from the right-of-way under this Section (or relocate it pursuant to subsection (j), the permit holder must~~,~~ ***leave the site in a safe and accessible condition immediately upon such removal and, within 30 days, permanently*** restore the right-of-way to its prior condition in accordance with Village specifications. However, a support structure owned by another entity authorized to maintain that support structure in the right-of-way need not be removed but must instead be restored to its prior condition. If the permit holder fails to make the ***immediate and/or permanent***

restorations required by this subsection (l) ***(see above)***, the Village at its option may do such work. In that event, the permit holder shall reimburse the Village, within 30 days of billing therefor, the cost of restoring the right-of-way. In the event circumstances beyond the permit holders control may prevent timely, permanent restoration of the right-of-way, the Village Zoning Administrator may, upon written request of the permit holder within 20 days of the facility removal, grant an extension to the deadline for permanent restoration.

(m) Placement on Village Owned or -Controlled Structures

The Village may negotiate agreements for placement of wireless telecommunications facilities on Village-owned or -controlled structures in the right-of-way. The agreement shall specify, among any other terms the Village may require to be negotiated or specified, the compensation to the Village for use of the structures. The person or entity seeking the agreement shall reimburse the Village for all costs the Village incurred in connection with its review of and action upon the request for an agreement. The Village requires that, upon approval to locate any facilities or equipment upon any Village owned structure in the right-of-way, it shall become that permit holder's responsibility to maintain, repair, replace, remove, reinstall such structure permanently thereafter as needed and at the permit holders sole expense.

(n) Severability

If any section, subsection, clause, phrase, or portion of this Section is for any reason held to be illegal or otherwise invalid by any court or administrative agency of competent jurisdiction, such illegal or invalid portion shall be severable and shall not affect or impair any remaining portion of this Section, which shall remain in full force and effect. Any permit(s) issued based on any rules or orders that are later held to be unlawful, may be terminated at the sole discretion of the Village of Pewaukee Village Board.

SECTION III

Section 79-70 of the Municipal Code of the Village of Mukwonago is hereby created to read as follows:

Sec. 79-70 – Small wireless telecommunication facilities on private property. - specifically.

(a) Small wireless facility shall have the meaning as set forth in Section 79-69 above.
(b) Small wireless facilities proposed to be located on private property in the Village of Mukwonago shall be subject to all of the same requirements as set forth in Section 79-69 above except to the extent any such requirement is determined by the Village Zoning Administrator to be uniquely applicable to the location of the facility in the public right-of-way.
(c) All new small wireless facilities poles or posts and related equipment shall be fabricated using all metal materials and shall be powder coated in a bronze, brown, silver or black matte paint finish. Alternate colors and/or materials, proposed in order to better coordinate with the surrounding views, buildings or environment may be considered/approved by review/action of the Village Zoning Administrator. To the extent there may be existing, approved poles/equipment on the private property, such as for lighting and utility services, the new wireless facilities poles,

posts and related equipment may, at the discretion of the Village Zoning Administrator, be required to match the existing not only as to color and finish but also as to style/design.

(d) Height. The height of small wireless facilities on private property shall be regulated as follows:

- Shall not exceed 50 feet in height, or
- Shall not be more than 10 percent taller than other adjacent structures, or
- Shall not be extended to a height of more than 50 feet, or by more than 10 percent above its preexisting height, whichever is greater, as a result of the collocation of new antenna facilities.

SECTION IV

Section 79-71 of the Municipal Code of the Village of Mukwonago is hereby created to read as follows:

Section 79-71 – Application Shot Clocks

Deadline in Calendar Days	Type of Application	Federal or State Statutory or Regulatory Authority
60 days	Application to collocate a Small Wireless Facility on an existing structure (including non-telecommunications structures)	47 CFR § 1.6003(c)(1)(i)
90 days	Application for Small Wireless Facility involving construction of new structure	47 CFR § 1.6003(c)(1)(iii)
90 days	Application to collocate non-Small Wireless Facility on an existing structure	47 CFR § 1.6003(c)(1)(ii)
150 days	Application for a non-Small Wireless Facility involving construction of a new structure	47 CFR § 1.6003(c)(1)(iv)
60 days	Eligible Facilities Request to add, remove, or replace equipment on an existing tower or base station that does not substantially change the physical dimensions of the tower or base station	47 CFR § 1.6100(c)(2)
60 days	Applications to place a wireless telecommunications facility	Wis. Stat. § 182.017(9)

SECTION V

Chapter 74 of the Municipal Code of the Village of Mukwonago is hereby amended to read as follows:

Any reference to "public works supervisor" or "public works supervision" shall be changed to read "director of public works or designee."

SECTION VI

Section 74-7 of the Municipal Code of the Village of Mukwonago is hereby repealed and recreated to read as follows:

Section. 74-7. - Obstructions and encroachments.

(a) *Prohibited.* No person shall encroach upon or in any way obstruct or encumber any street, alley, sidewalk, public grounds or land dedicated to public use, or any part thereof, or permit such encroachment or encumbrance to be placed or remain on any public right-of-way adjoining the premises of which he is the owner or occupant, except as provided in subsection (b) of this section.

(b) *Exceptions.* The prohibitions of subsection (a) of this section shall not apply to the following:

(1) Awnings which do not extend below any point seven feet above the sidewalk, street or alley.

(2) Public utility encroachments duly authorized by state law or the village board.

(3) Goods, wares, merchandise or fixtures being loaded or unloaded which do not extend more than three feet on the sidewalk, provided such goods, wares, etc., do not remain thereon for a period of more than two hours.

(4) Temporary encroachments or obstructions authorized by permit under subsection (c) of this section.

(5) Excavations and openings permitted under section 74-6.

(6) Encroachments permitted under section 74-7(e).

(c) *Right-of-way permit.* A right-of-way permit may be issued according to the following conditions:

(d) *Required.* Permits for the use of the streets, alleys, sidewalks or other public right-of-ways or places of the village may be granted to applicants by director of public works or designee for the purpose of moving any building or structure or of encumbering the street, alley, sidewalk or way with materials necessary in and about the construction or demolition of any building or structure, provided such applicant has complied with the other requirements of this subsection and has obtained a building permit if required by chapter 18.

(e) *Poles not to be erected without permission.*

(1) Before any person shall erect any telephone, wireless facilities and/or equipment, utility, electric, or railway poles or posts upon any street or alley, a permit

application-shall be submitted to the director of public works or designee with the route/location of his proposed lines/poles or any extension showing, as far as practicable, the location of each pole or post and the number and location of any related wires. No such pole or post shall be erected until written permission shall be obtained from the director of public works or designee.

(2) Whenever in the judgement of the director of public works or designee the use of any alley for the purpose of erecting the poles or posts mentioned in subsection (1) of this subsection is practicable, such poles or posts shall be placed upon and along the alley instead of upon and along a public street. When such poles or posts are set in any alley, they shall be located as near as practicable to the side lines, and in such manner as not unreasonably to incommode the public or the adjoining property owner. Whenever such poles or posts are erected in a street, they shall be placed, unless otherwise directed by the director of public works or designee, on the outer edge of the sidewalk just inside of the curb and on the line dividing the lots one from another, but shall not be so placed as to unreasonably incommode the public or the adjoining property owner, or to disturb the drainage of the street, or interfere with or damage the trees or other public or private property on the line of such street or alley unless the written consent of the director of public works or designee shall have been obtained.

(3) Whenever any street on which any of such poles or posts have been set shall be graded or paved, all poles or posts shall be reset immediately so as to conform to the street as reconstructed, and the owner shall immediately put in order all those parts of the streets, alleys, sidewalks, or public grounds so used. Any expense related to the resetting poles shall be the sole responsibility of the pole owner.

(4) All new telephone, small wireless facilities and/or equipment, utility, electric or railway poles or posts and related equipment shall be fabricated using all metal materials and shall be power coated in bronze, brown, silver or black matte paint finish. Alternate colors and/or materials, proposed in order to better coordinate with the surrounding views, buildings, or environmental may be considered and/or approved by review and/or action of the Village Administrator.

(5) The maximum height of any telephone, small wireless facilities and/or equipment, utility, electric, or railway poles or posts in the right-of-way shall be 50 feet above ground level at the base of the structure or 10 feet above the tallest existing (existing as of the effective date of this ordinance) telephone, small wireless facilities and/or equipment, utility, electric or railway poles or posts, structures located in the same right-of-way and within 500 feet of the proposed new facility, whichever is greater.

(6) All poles placed in the public right-of-way must be at least 25 feet from centerline to centerline of any other support structure, tower, pole or post in the public right-of-way unless specifically waived or modified by the Village Administrator due to unique and limiting circumstances of the specific proposed location.

(7) In order to conceal the non-antenna equipment and to preserve the limited space available for vehicle and pedestrian traffic, applicants proposing any new installation in/upon the public way shall install all non pole, post, lighting, and antenna equipment underground to the maximum extent feasible. Additional expense to install and maintain an underground equipment enclosure does not exempt an applicant from this requirement, except where the applicant demonstrates by clear and convincing evidence that this requirement will effectively prohibit the provision of personal wireless services. Nothing in this subsection is intended to require the applicant to install any electric meter required by the applicant's electrical service provider underground.

(8) To the extent that any equipment cannot be placed underground as required above, the applicants shall install ground-mounted equipment in a location that does not obstruct pedestrian or vehicular traffic. The Village may require landscaping or other concealment as a condition of approval to conceal ground-mounted equipment. Ground-mounted equipment shall not be permitted in connection with a street light, traffic signal, utility pole or other similar infrastructure in the public right-of-way. In the event that the Village approves ground-mounted equipment, the applicant shall conform to the following requirements:

a. Self-Contained Cabinet or Shroud. The equipment shroud or cabinet shall contain all the equipment associated with the facility other than the antenna. All cables and conduits associated with the equipment shall be concealed from view.

b. Concealment. The Village may require the applicant to incorporate concealment elements into the proposed design, including but not limited to public art displayed on the cabinet, strategic placement in less obtrusive location and placement within existing or replacement street furniture.

c. No ground-mounted equipment shall be permitted closer than five (5) feet from the edge of the public right-of-way.

(f) *Bond.* No right-of-way permit shall be issued until the applicant shall execute and file with the village clerk a bond in an amount determined by director of public works or designee, conditioned that the applicant will indemnify and save harmless the village from all liability for accidents or damage caused by reason of operations under such permit, will remove such encumbrance upon termination of the operations, will leave the vacated premises in a clean and sanitary condition, and repair any and all damage to the streets, alleys, sidewalks or public property of the village resulting from such building or moving operations.

(g) *Fee.* The fee for a right-of-way permit shall be as set forth the most current village board resolution approving the annual fee schedule.

(h) *Conditions of occupancy.* The permission to occupy or obstruct the streets, alleys, sidewalks or public grounds is intended only for use in connection with the actual erection, alteration, repair, removal of buildings or structures and, with the exception of encroachments permitted under section 74-7(e), shall be given upon the following terms and conditions and subject to revocation without notice by director of public works or designee for violation thereof:

(1) Such temporary obstruction shall cover not more than one-third of any street or alley.

(2) Obstructions shall be sufficiently lighted at night so as to be in full view of the public from all directions.

(3) Sidewalk traffic shall not be interrupted, but temporary sidewalks of not less than four feet in width guarded by a closed fence at least four feet high on both sides may be maintained during the period of occupancy.

(4) The process of moving any building or structure shall be as continuous as practicable until completed, and if ordered by director of public works or designee, shall continue during all hours of the day and night.

(5) No building or structure shall be allowed to remain overnight on any street crossing or intersection or so near thereto as to prevent easy access to any fire hydrant.

(6) Buildings shall be moved only in accordance with the route prescribed jointly by director of public works or designee and the appropriate representative of the village police department.

(7) Upon termination of the work necessitating such obstruction, all parts of the streets, alleys, sidewalks or public grounds occupied under the permit shall be vacated, cleaned of all rubbish and obstructions and placed in a safe condition for public travel at the expense of the permittee.

(i) *Termination.* All right-of-way permits shall automatically terminate at the end of three months from the date of issuance unless an earlier termination date is specified thereon at the direction of the supervisor of inspections or director of public works or designee.

(j) *Removal by village.* In addition to any other penalty imposed, if the owner or occupant of the premises adjoining an unlawfully obstructed sidewalk shall refuse or neglect to remove such obstruction within 24 hours after notice from director of public works or designee to do so, it shall be the duty of director of public works or designee to cause/order the removal of such obstruction and make return of the cost and expense thereof to the village clerk who shall enter such cost on the next annual tax roll as a special charge against the property abutting each obstructed sidewalk, and such sum shall be levied and collected as other special taxes against real estate.

SECTION VII

Section 100-452(7) of the Municipal Code of the Village of Mukwonago is hereby created to read as follows:

(7) The height of wireless telecommunications facilities and equipment shall be regulated as to height ***only*** by the regulations set forth in Chapter 79 of this Code.

SECTION VIII

All Ordinances or parts of Ordinances contravening the terms and conditions of this Ordinance are hereby to that extent repealed.

SECTION IX

The several sections of this Ordinance shall be considered severable. If any section shall be considered by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the other portions of the Ordinance.

SECTION X

This Ordinance shall take effect upon passage and publication as approved by law, and the Village Clerk shall so amend the Code of Ordinances of the Village of Mukwonago, and shall indicate the date and number of this amending ordinance therein.

PASSED AND ADOPTED by the Village Board this _____ day of _____, 2020.

APPROVED:

_____
Fred Winchowky, Village President

Countersigned:

_____
Diana Dykstra, Village Clerk/Treasurer

RESOLUTION 2020-03

CONDITIONAL USE PERMIT
TO APPROVE A SITE PLAN AND ARCHITECTURAL REVIEW AS A CONDITIONAL USE FOR PLANNED UNIT OVERLAY DISTRICT (PUD) FOR BIRCHROCK PROPERTIES, LLC; 210 MCDIVITT LN; PARCEL MUKV 2012-215-002; BIRCHROCK PROPERTIES, LLC; APPLICANT

WHEREAS, pursuant to Section 100-53 of the Zoning Code, an application for a Conditional Use Permit has been filed to approve a site plan and architectural review as a conditional use for planned unit overlay district (PUD) for property located at 210 McDivitt Ln; Parcel MUKV 2012-215-002; Birchrock Properties, LLC; Applicant, and

WHEREAS, the existing parking surface area being removed, and a new parking lot being situated along the southern portion of the property. The new single story structure is being positioned to the East of the existing structure and being connected with a walkway. There is also a proposed new walkway at the terminus and north end of the existing structure, to connect the hallways with a corridor; and

WHEREAS, applicant submitted application and plans to take existing parking surface area being removed, and a new parking lot being situated along the southern portion of the property. The new single story structure is being positioned to the East of the existing structure and being connected with a walkway. There is also a proposed new walkway at the terminus and north end of the existing structure, to connect the hallways with a corridor; and

WHEREAS, Section 100-53 allows modifications to certain standards of the Zoning Code and other Municipal Code requirements as a Planned Unit Development Overlay approved as a Conditional Use; and

WHEREAS, Section 100-53 requires with submittal of a request for modifications as a Planned Unit Development that a General Development Plan be approved prior to submittal of final and detailed development construction plans; and

WHEREAS, after proper notice pursuant to the Village of Mukwonago Zoning Code, a public hearing was noticed in the official newspaper as a Class II notice, and with notice being mailed at least ten (10) days prior to the date of such public hearing to the owners of record of the properties situated within 250 feet of the boundaries of the properties affected, a public hearing was conducted by the Village Plan Commission on December 10, 2019; and

WHEREAS, the Board of Building and Zoning Appeals, on January 30, 2020, approved the following:

a. Variance of 18.2 feet to allow a proposed pervious concrete drive to be 1.8 feet from the mapped wetland.
b. Variance of 17.5 feet to allow a proposed concrete pad to house a dumpster enclosure to be 2.5 feet from the mapped wetland.
c. Variance of 6.7 feet to allow a proposed building addition to be 13.3 feet from the mapped wetland, instead of the required 20-foot setback from a mapped an delineated wetland, pursuant to Section 100-283(f)(1)a. of the Village of Mukwonago Municipal Code.

WHEREAS, the request for site plan and architectural review as a conditional use for planned unit overlay district (PUD) or property located at 210 McDivitt Ln; Parcel MUKV 2012-215-002; Birchrock Properties, LLC as submitted has been reviewed and recommended by the Village Plan Commission on March 10, 2020.

NOW, THEREFORE, BE IT RESOLVED by the Village Board of the Village of Mukwonago, Wisconsin hereby approves the Conditional Use Permit to approve a site plan and architectural review as a conditional use for planned unit overlay district (PUD) or property located at 210 McDivitt Ln; Parcel MUKV 2012-215-002; Birchrock Properties, LLC; Applicant, subject to the following conditions:

1. Entry gable ends will be accented with brick or brick veneer matching the existing building. With the additional use of brick in Exhibit A or same square footage of brick with staff approval.
2. For the R-10 Zoning standards, the rear yard building setback shall be permitted to be amended from the required 40 feet to the shown 24.4 feet, on the provided pan set from the applicant and on file with the Zoning Administrator at Village Hall
3. For the Parking Lot standards, the setback of the edge of parking surface area shall be permitted to be amended from the required 20 feet to the shown 15 feet with landscaping between the surface and the roadway, as shown on the provided plan set from the applicant and on file with the Zoning Administrator at Village Hall.
4. For the impervious coverage standards, the total amount of impervious coverage shall be permitted to be amended from the required 40% to the proposed percentage of 52%, as calculated and shown on the plans submitted by the applicants dated December 12, 2019 to accommodate the desire for parking on the site.
5. Site Plan and Architectural Review approval for the new single story 20 unit RCAC structure and associated parking lot, building additions, storm water pond, shall be subject to all plans and information submitted for the application by the applicant, Castle Senior Living, and dated February 6, 2020, with all plans and information on file in the office of the Zoning Administrator. The plans may be further modified to conform to other conditions of approval; the building and floor plans may be modified with the approval of the Zoning Administrator and Supervisor of Inspections to conform to the Building and Fire Safety Codes and all plans may be further modified to conform to Village design standards. However, the basic layout and design of the site shall remain unchanged.
6. Approval shall be valid for one (1) year from date of approval by the Village Board and will be unique to the applicant and this proposal only.
7. Prior to the start of any site construction or issuance of a building permit, whichever occurs first, the following shall occur:
   a. All final site development plans shall be consistent with the plans noted in Condition No 5 and all calculations verified or as modified.
   b. Approval of the site construction and building plans by the Fire Chief, which may include, but are not limited to, Knox box and notification requirements, internal fire suppression, external fire department connection location and hydrant locations.
   c. Approval of building plans by the Building Inspector after receipt of approval of building plans by the State of Wisconsin.
   d. The Village Engineer, the Utilities Director and the Public Works Director shall approve all updated revised site engineering and utility plans and documents, including a complete Erosion Control Plan, and Stormwater Management Plan. Items specified in the letter from the Village Engineer dated January 6, 2020 shall be satisfied with the consent of the Village Engineer prior to permit issuance.
   e. The issuance of this permit is contingent upon the approval of a storm water management plan and storm water maintenance agreement by the Village Board.

f. Approval of building plans shall include appropriate locations of the external mechanical equipment (if applicable) to be placed hidden from view from neighboring properties, as approved by the Zoning Administrator.
g. Approval of dumpster construction plan specification showing block construction and shielded metal gates to ensure the Zoning standards are met, as approved by the Zoning Administrator.
h. A pre-construction meeting shall occur with Village Staff to ensure all applicable items mentioned above have been remedied.

8. Prior to temporary occupancy issuance, and if needed prior to final occupancy permit, the following shall occur:
   a. Completion of all site grading in accordance with submitted and approved plans.
   b. Completion of the storm water management basin for the overall development.
   c. Completion of the building and additions in accordance with approved plans and all applicable codes.
   d. Completion of paving of driveways and parking lots, including parking signage, space pavement markings and all other pavement markings.
9. Prior to final occupancy permit, which shall be issued no later than 120 days after any temporary occupancy permit, the following shall occur:
   a. Completion of all items required in Condition No 7.
   b. Installation of all Zoning Administrator approved site landscaping as shown on approved plans.

NOW, THEREFORE, BE IT RESOLVED subject to the following:

1. This permit shall become effective upon the execution and recording by the owners and operators of the Premises of an acceptance hereof in such form as to constitute an effective covenant that shall run with the land subject to the provisions contained herein. Said permit shall be recorded with the Register of Deeds.
2. This permit shall be void unless, pursuant to the building and Zoning Codes of the Village, the approved use is commenced or the building permit is obtained within twelve (12) months of the date of Planning Commission approval noted above.
3. This grant is subject to amendment and termination in accordance with the provisions of the Zoning Code of the Village
4. Construction and operation of the use granted shall be in strict conformity to the approved site, building, and operations plans filed in connection with the Petition for this permit, and exhibited hereto.
5. Any of the conditions of this permit which would normally be the responsibility of tenants of the premises shall be made a part of their lease by the Owner, which lease shall contain provisions for posting of the pertinent conditions to notify employees thereof.
6. This grant shall automatically be null and void if this use is discontinued for a period of twelve (12) months.
7. Failure to allow reasonable and routine inspections of the property constitutes grounds for revocation of the Conditional Use permit.
8. Upon recording of this grant, any/all other use approvals related to this property including for instance but not necessarily limited to, conditional uses. Uses by right, concept plans, and similar, shall immediately and permanently become null and void.

Passed and dated this 18th day of March 2020.

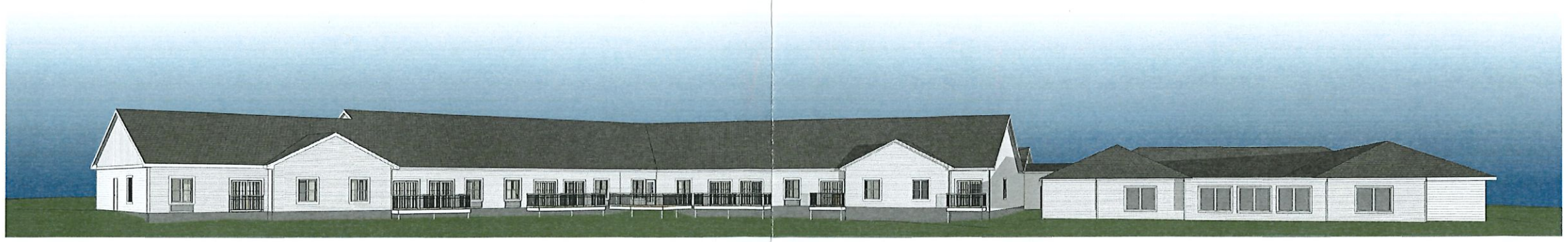
VILLAGE OF MUKWONAGO

By: _____
Fred Winchowky, Village President

Attest: _____
Diana A Dykstra, Village Clerk

1 EAST VIEW LOOKING WEST

2 SOUTH VIEW LOOKING NORTH



3 NORTH VIEW LOOKING SOUTH EAST

DIMENSIONAL ASPHALT SHINGLES
LANDMARK PRO - MAX DEF PEWTER

LP SMARTSIDE - BOARD & BATTEN- WHITE

LP SMARTSIDE - TRIM
DIAMOND KOTE - WHITE

ALUMINUM LAP SIDING
WHITE

CHAMPION BRICK
GENERAL SHALE-CORTEZ
MATCH EXISTING

prd PLUNKETT RAYSICH ARCHITECTS, LLP
intelligent designs. inspired results. | www.prarch.com
milwaukee, wisconsin 53204 | 414.319.0900
madison, wisconsin 53726 | 608.240.9900
lawrence, kansas 66046 | 785.843.8042

CASTLE SENIOR LIVING
BIRCHROCK COMMUNITY - CBRF ADDITION
210 McDIVITT LANE, MUKWONAGO, WI 53149

REVISIONS:

EXTERIOR PERSPECTIVES

BID PACKAGE 1

DATE: 02-20-20

JOB NO: 190161-01

SHEET NO: A-401

NOT FOR CONSTRUCTION

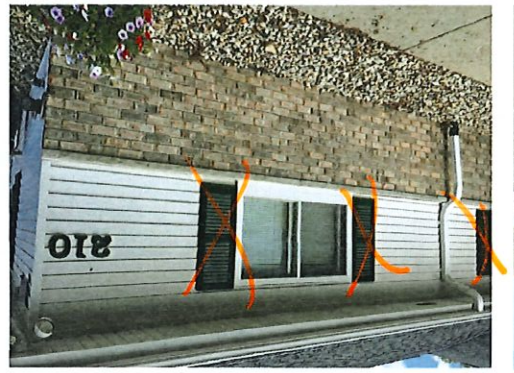
© 2020 PLUNKETT RAYSICH ARCHITECTS, LLP

DRAWN BY: JLS 2/20/2020 9:56:30 AM

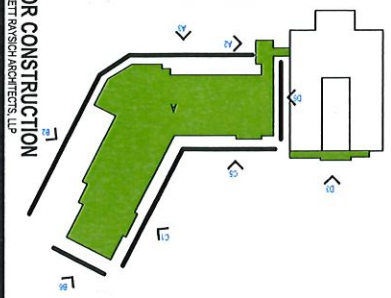
Ex. A
3/10/20

DRAWN BY: AS 2/20/2020 9:53:37 AM

EXISTING BUILDING



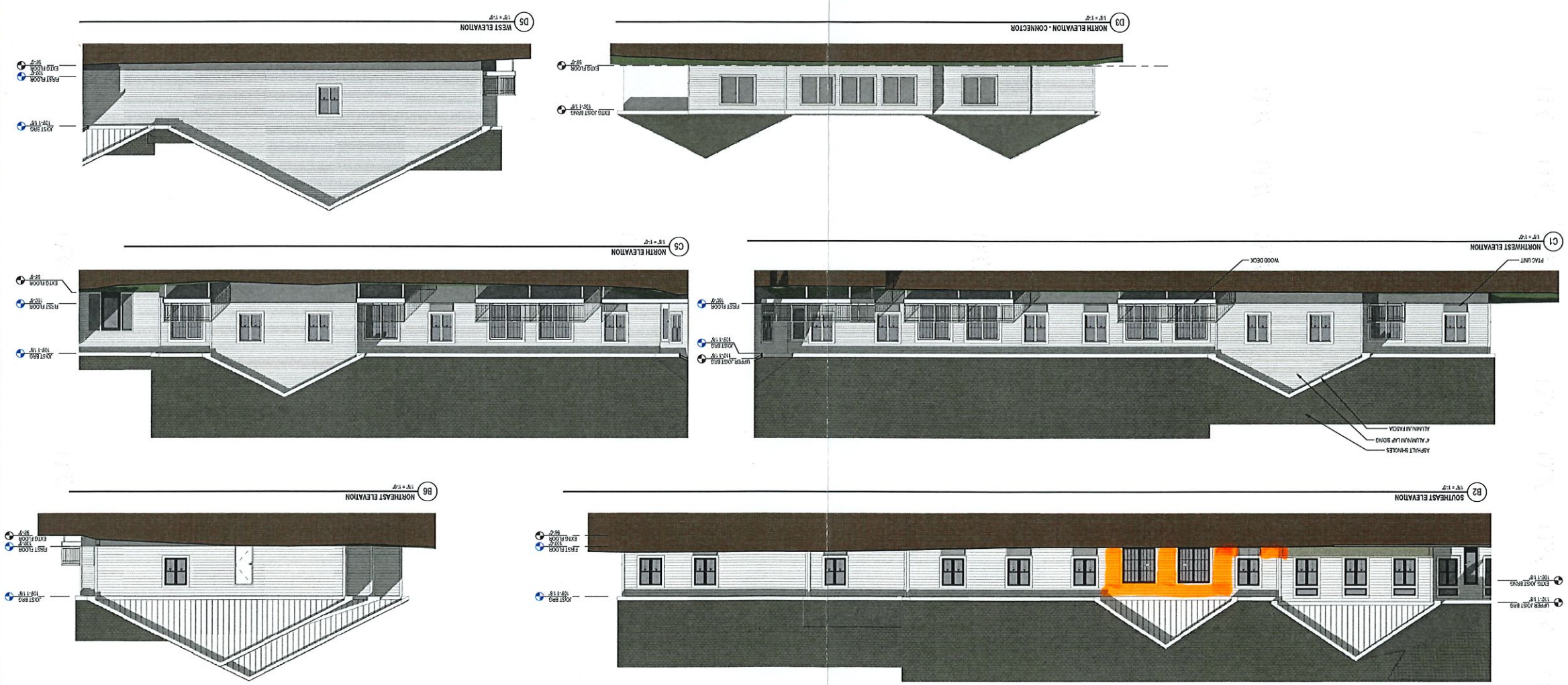
KEY PLAN



NOT FOR CONSTRUCTION
PLUNKETT RAYSCH ARCHITECTS, LLP

A-400
SHEET NO.
190181-01
JOB NO.
02-20-20
DATE
EXTERIOR ELEVATIONS
ED PAYNE II
REVISIONS

CASTLE SENIOR LIVING
BIRCHROCK COMMUNITY - CBRF ADDITION
210 McDIVITT LANE, MUKWONAGO, WI 53149



pra
PLUNKETT RAYSCH ARCHITECTS, LLP
intelligent designs. inspired results. | www.pranch.com
2001 south stoughton road 2710 crossroads drive madison, wisconsin 53716 (608) 241-9000
1000 main street suite 300 sarasota, florida 34236 (941) 955 8845
milwaukee, wisconsin 53204 (414) 935-5000

3/10/20
Ex A

Village of Mukwonago
Office of the Village Planner

440 River Crest Court, Mukwonago, Wisconsin 53149 -Tel. (262) 363-6420x2111-Fax (262) 363-6425 -planner@villageofmukwonago.com

March 3, 2020

Fred Winchowky, Plan Commission Chair,
Plan Commission

Re: Birchrock Retirement Home Planned Unit Development Amendment as Conditional Use and associated Site Plan and Architectural Review and final consideration of architectural elevation
210 McDivitt Lane; MUKV2012215002

This item remanded back to the March 10, 2020 Plan Commission meeting following being tabled by the Village Board on February 19, so as to see an elevation rendering showing the brick style and placement. The applicant is submitting for review and recommendation a brick placement that is similar to the existing condition and is a tan/beige color and be placed on the gable ends of the structure and on small bands on the lower extremities in other select locations as shown on the plans. The white smart siding look and white aluminum siding will also be proposed to mimic the existing structure so the addition will match.

This item was before the Plan Commission at the December 17, 2020, Plan Commission meeting and the Plan Commission decided to continue the public hearing to the February 11, 2020 Plan Commission meeting so the issue of the proposed structure addition, dumpster enclosure and parking surface area proposed to be within 20 feet of the wetland setback could be heard by the Board of Zoning Appeals (BZA) at the January 30, 2020 meeting. During the January 30, 2020 meeting, the BZA approved the setback requests to the distances shown on the December 12, 2019 Plan Set. A subsequent revised plan set was delivered on February 7 in electronic form to Village Hall and shared and reviewed by Village Staff. This plan set reflects changes requested by Staff on the December 12 plans. The review and comments below are based on the plan set delivered on February 7 to Village Staff for review, and was not submitted in time for formal review by the Plan Commission on February 11.

The exact layout of the structure, the footprint, setbacks, and parking lot surface area and lighting will not change. What may change are the below ground details through Public Services, regarding water/sewer connections and anything else that may come up during final review of plan set dated February 6, 2020. The Plan Commission reviewed the plan set dated December 12, 2019 and recommended approval with the conditions included in the resolution of approval. These conditions have been modified to reflect the February 6, 2020 plan set. On February 13, the Village Attorney has suggested language included and reflected in the proposed resolution of approval, in the form of conditions.

Kristofer Kiefer, of Castle Senior Living, has applied for a Planned Unit Development (PUD) Amendment as a Conditional Use and associated Site Plan and Architectural Review to place a single story 20 unit Community Based Residence Facility (CBRF) addition onto the existing 20 unit residential care facility designed to house those which require an assisted living environment. The proposed location is to the East of the existing structure and existing parking lot. The structure is designed to be connected via a walkway to the existing structure, which would meet Fire Department and Building Code standards.

The property is 2.3 acres in size. The site is zoned R-10, Multiple Family Residence District, with current Planned Unit Development (PUD) Overlay. This district allows applicants to propose some minor modifications with

respect to the bulk requirements of zoning standards, including, but not limited to yard setbacks, lot coverage, etc. through a PUD amendment process and application. However, the PUD standards do not permit for deviation from Wetland setback standards.

Proposal

This item was considered at the September 10 Plan Commission meeting as a Concept Review process and the item was recommended to be approved.

The site plan, being presented by the applicant, shows the existing parking surface area being removed, and a new parking lot being situated along the southern portion of the property. The new single story structure is being positioned to the East of the existing structure and being connected with a walkway. There is also a proposed new walkway at the terminus and north end of the existing structure, to connect the hallways with a corridor. The property is to be serviced via available water main and sanitary sewer service from the South, in McDivitt Lane. There is also a proposed pervious driveway to provide for fire truck pulling in and capability to be serviced from the East, along with a dumpster enclosure proposed immediately adjacent to said driveway.

Architectural Review

The Zoning standards for R-10 call for brick or other hardy construction materials. Following discussion at the Plan Commission meeting on February 11, the applicant was directed to match in the addition proposed, the placement, color and materials of the existing structure. This is reflected in the conditions of approval in the proposed resolution.

Zoning Review

Zoning review considered Sections 100-110, R-10 standards; 100-601, Site Plan; 100-402, Parking Lot Requirements; 100-53, Planned Unit Development Requirements; and other applicable Code sections.

Wetland Setback: Staff reviewed the proposed connector on the existing structure, on the West side of the development. This proposed new corridor encroaches within the Village required 20 foot setback requirement of a delineated wetland, as well as the proposed pervious paving surface and dumpster enclosure along the northeast side of the property. Per Village Ordinance, all new structures and/or additions within this area are to be considered by the Village Board of Zoning Appeals. The BZA heard the case during the January 30, 2020 meeting and approved the requests for setback variances. Therefore, the matter is considered completed and staff is recommending approval of setbacks with relation to the wetlands.

Trees: Per Section 34, a tree removal policy must be observed for site clearing and the Village calls out a need to retain up to 60 percent of all trees identified as at least 8 inches in diameter. Staff has reviewed the February 6, 2020 plans and have determined all trees required to meet this criteria have been met.

Impervious Coverage: The amount of area covered by this request, inclusive of additional proposed paving and additional roof area brings the impervious area to the proposed 41,790 s.f., as stated on the plans, which is 41% of the site. However, this number includes the wetlands area and Staff has requested the applicant demonstrate that this number takes into account the Village required inclusion of wetland areas of a rate of 50%. The applicant is requesting the impervious coverage be allowed to be increased to the proposed 51% of the coverage, to provide for the necessary parking lot and building footprints for the facility. The Code permits the request may be called out as a PUD amendment and the applicant is seeking from the Plan Commission an allowance up to 51% of the

site to be impervious, to accommodate the parking requirements and proposed building footprint. This is reflected in item number four (4.) below.

Stormwater Management: The proposed stormwater management plan is satisfactory, pending final comments documents requested by the Village Engineer in a letter dated January 6, 2020 and resubmitted for final review and approval. These comments are minor and as of the writing of this staff summary, should be easily corrected by the applicant's engineer prior to any Village permit issuance and possibly prior to the February 11, 2020 Plan Commission meeting. The site is able to meet the Village's Ordinance, and Should the Planning Commission and Village Board choose to approve the documents, staff recommends that approvals be made subject to addressing items from the Village Engineer comment letter Dated January 6, 2020. Staff understands the applicants were waiting on the final decision of the Board of Appeals determination on January 30, prior to making any corrections.

Lighting: Applicant has supplied light fixture proposal which are capable of meeting all requirements pertaining to shielding from adjacent property owners and onto the Village streets. Staff finds the fixtures acceptable.

Landscaping: The resulting 27 parking stalls requires 15 s.f. per stall, or 405 s.f. of landscaping to be proposed within the parking surface area. There is 180 s.f. plus an additional 550 s.f. of landscaping proposed between the structure and the parking surface area. Pursuant to the guidelines in section 100-402(f)6., the proposed landscaping is acceptable.

Parking Lot: Staff finds the proposed parking is compliant with standards requiring one space for every three beds plus one space for each employee. There are 40 beds and 27 spaces provided. This equates to 14 spaces required for the occupants and 11 spaces for employees. Staff finds the stalls provided meet the code requirements. Staff also has confirmed the applicant has provided for a cross hatch area by the front entrance that would permit for a three point turn for a typical Village ambulance response call. There is a pervious paving along the northern edge of the property, in the form of an additional curb cut, which shall provide for a fire truck to pull in to provide for full response to the sides of the structures. This area is recommended by staff to be snow plowed in the winter months and manicured to the point of being usable year round.

The proposed new dumpster enclosure will need to meet Zoning design standards, which shall include utilizing block walls as this would match the proposed building façade (Village Code requirement). The current plans show a dumpster fenced in area, but lacks any detail. Staff will require this to be submitted and approved prior to building permit issuance.

There is a need to supply more detailed utility and stormwater and erosion control plans, to be reviewed and approved by the Village Engineer and Utilities offices prior to start of construction.

Recommendation for PUD Amendment as Conditional Use and Associated Site Plan and Architectural Review

Staff is recommending approval with the conditions listed below. The site plan conforms to R-10 setbacks and parking requirements with the following specified modifications to the R-10 zoning district and parking lot setback standards:

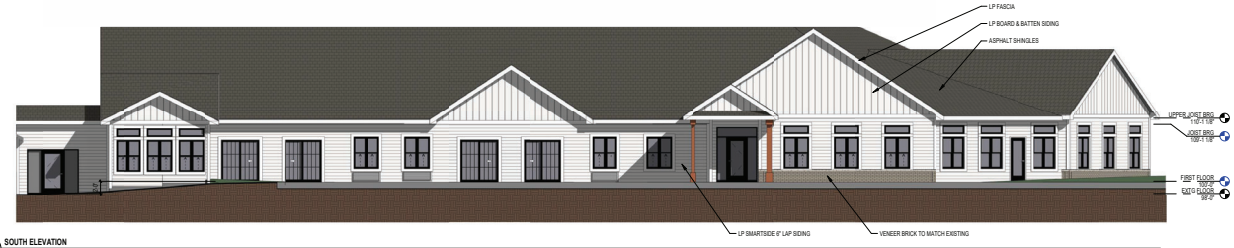
1. Entry gable ends will be accented with brick or brick veneer matching the existing building.
2. For the R-10 Zoning standards, the rear yard building setback shall be permitted to be amended from the required 40 feet to the shown 24.4 feet, on the provided plan set from the applicant and on file with the Zoning Administrator at Village Hall.

3. For the Parking Lot standards, the setback of the edge of parking surface area shall be permitted to be amended from the required 20 feet to the shown 15 feet with landscaping between the surface and the roadway, as shown on the provided plan set from the applicant and on file with the Zoning Administrator at Village Hall.
4. For the impervious coverage standards, the total amount of impervious coverage shall be permitted to be amended from the required 40% to the proposed percentage of 51%, as calculated and shown on the plans submitted by the applicants dated February 6, 2020 to accommodate the desire for parking on the site.
5. Site Plan and Architectural Review approval for the new single story 20 unit CBRF structure and associated parking lot, building additions, storm water pond, shall be subject to all plans and information submitted for the application by the applicant, Castle Senior Living, and dated February 6, 2020, with all plans and information on file in the office of the Zoning Administrator. The plans may be further modified to conform to other conditions of approval; the building and floor plans may be modified with the approval of the Zoning Administrator and Supervisor of Inspections to conform to Building and Fire Safety Codes and all plans may be further modified to conform to Village design standards. However, the basic layout and design of the site shall remain unchanged.
6. Approval shall be valid for one (1) year from date of approval by the Village Board and will be unique to the applicant and this proposal only.
7. Prior to the start of any site construction or issuance of a building permit, whichever occurs first, the following shall occur:
    a. All final site development plans shall be consistent with the plans noted in Condition No. 5 and all calculations verified or as modified.
    b. Approval of the site construction and building plans by the Fire Chief, which may include, but are not limited to, Knox box and notification requirements, internal fire suppression, external fire department connection location and hydrant locations.
    c. Approval of building plans by the Building Inspector after receipt of approval of building plans by the State of Wisconsin.
    d. The Village Engineer, the Utilities Director and the Public Works Director have reviewed and approved plans relating to stormwater management plan and associated infrastructure on plan set dated February 6, 2020. Items specified in the letter from the Village Engineer dated February 12, 2020 shall be satisfied with the consent of the Village Engineer prior to permit issuance.
    e. The Village Board shall approve a Stormwater Maintenance Agreement.
    f. Approval of building plans shall include appropriate locations of the external mechanical equipment (if applicable) to be placed hidden from view from neighboring properties, as approved by the Zoning Administrator.
    g. Approval of dumpster construction plan specifications showing block construction and shielded metal gates to ensure the Zoning standards are met, as approved by the Zoning Administrator.
    h. A pre-construction meeting shall occur with Village Staff to ensure all applicable items mentioned above have been remedied.
8. Prior to temporary occupancy issuance, and if needed prior to final occupancy permit, the following shall occur:
    a. Completion of all site grading in accordance with submitted and approved plans.
    b. Completion of the storm water management basin for the overall development.
    c. Completion of the building and additions in accordance with approved plans and all applicable codes.

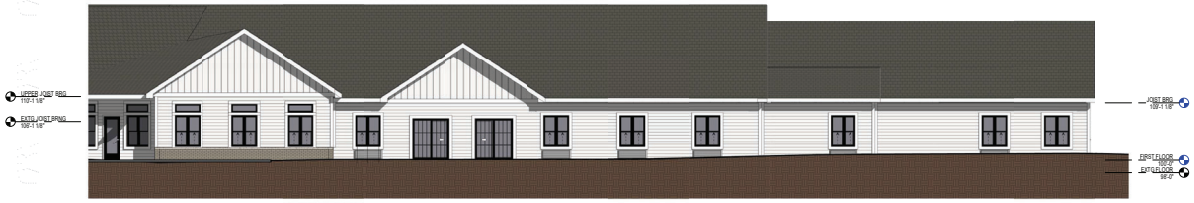
d. Completion of paving of driveways and parking lots, including parking signage, space pavement markings and all other pavement markings.

9. Prior to final occupancy permit, which shall be issued no later than 120 days after any temporary occupancy permit, the following shall occur:
   a. Completion of all items required in Condition No. 8.
   b. Installation of all Zoning Administrator approved site landscaping as shown on approved plans.

A2 EAST ENTRANCE ELEVATION
1/8" = 1'-0"

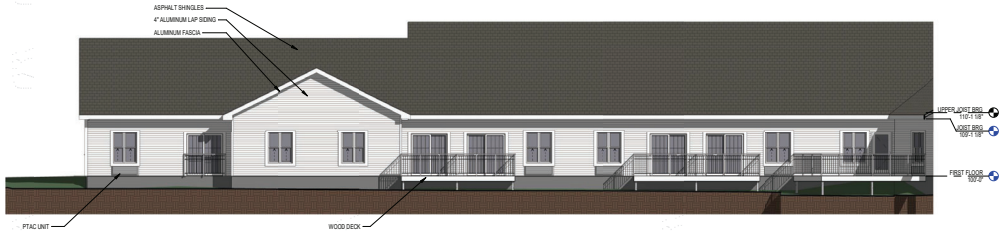


A3 SOUTH ELEVATION
1/8" = 1'-0"

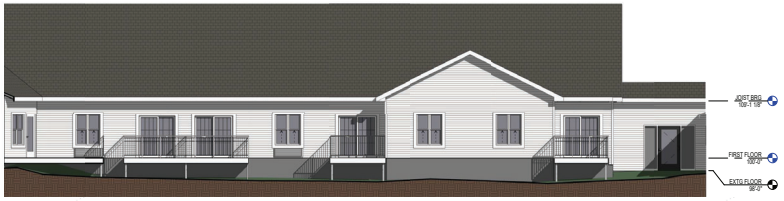


B2 SOUTHEAST ELEVATION
1/8" = 1'-0"

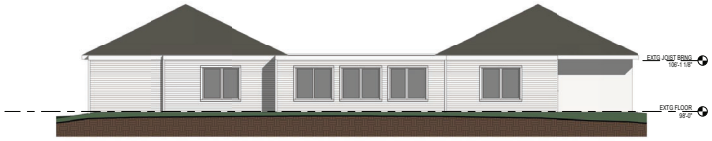
B6 NORTHEAST ELEVATION
1/8" = 1'-0"



C1 NORTHWEST ELEVATION
1/8" = 1'-0"



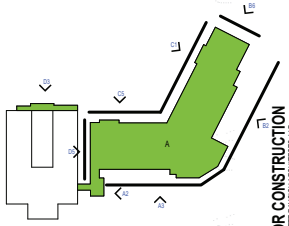
C5 NORTH ELEVATION
1/8" = 1'-0"



D3 NORTH ELEVATION - CONNECTOR
1/8" = 1'-0"

D5 WEST ELEVATION
1/8" = 1'-0"

EXISTING BUILDING



KEY PLAN

NOT FOR CONSTRUCTION

© 2020 PLUNKETT RAYSCH ARCHITECTS, LLP

PLUNKETT RAYSCH ARCHITECTS, LLP
209 south meader street, suite 200, milwaukee, wisconsin 53204 | 1 414 339 3900
1900 main street, suite 399, sarasota, florida 34236 | 1 941 444 6845
Intelligent designs. Inspired results. | www.prarch.com

CASTLE SENIOR LIVING
BIRCHROCK COMMUNITY - CBRF ADDITION
210 McDIVITT LANE, MUKWONAGO, WI 53149

REVISIONS:

BID PACKAGE 1

EXTERIOR ELEVATIONS

DATE: 02-20-20
JOB NO: 190161-01
SHEET NO: A-400

DRAWN BY: JLS 2/20/2020 9:53:37 AM

1 EAST VIEW LOOKING WEST

2 SOUTH VIEW LOOKING NORTH

3 NORTH VIEW LOOKING SOUTH EAST

DIMENSIONAL ASPHALT SHINGLES
LANDMARK PRO - MAX DEF PEWTER

LP SMARTSIDE - BOARD & BATTEN- WHITE

LP SMARTSIDE - TRIM
DIAMOND KOTE - WHITE

ALUMINUM LAP SIDING
WHITE

CHAMPION BRICK
GENERAL SHALE-CORTEZ
MATCH EXISTING

PLUNKETT RAYSICH ARCHITECTS, LLP
209 south meadow street madison, wisconsin 53704 1 414 539 3900
2120 university avenue suite 200 madison, wisconsin 53705 1 608 238 8000
1900 main street suite 399 sarasota, florida 34236 1 941 444 8845
Intelligent designs. Inspired results. | www.prarch.com

CASTLE SENIOR LIVING
BIRCHROCK COMMUNITY - CBRF ADDITION
210 McDIVITT LANE, MUKWONAGO, WI 53149

REVISIONS:

EXTERIOR PERSPECTIVES

BID PACKAGE 1

DATE: 02-20-20
JOB NO: 190161-01
SHEET NO: A-401

NOT FOR CONSTRUCTION

© 2020 PLUNKETT RAYSICH ARCHITECTS, LLP

DRAWN BY: JLS 2/20/2020 9:56:30 AM

BIRCHROCK CASTLE ADDITION

VILLAGE OF MUKWONAGO, WISCONSIN

NW 1/4, SE 1/4, SECTION 35, TOWNSHIP 05 NORTH, RANGE 18 EAST

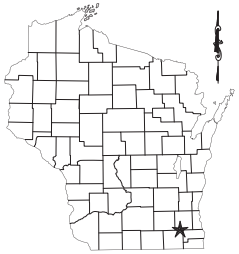
DRAWING INDEX

C0.0	TITLE SHEET
C1.0	EXISTING CONDITIONS
C2.0	DEMOLITION PLAN
C3.0	SITE PLAN
C4.0	EROSION CONTROL PLAN
C5.0	GRADING AND UTILITY PLAN
C6.0	DETAILS
C6.1	DETAILS
C6.2	DETAILS
L1.0	LANDSCAPE PLAN
L2.0	LANDSCAPE DETAILS & NOTES

PROJECT AREA

NOT TO SCALE

north



PROJECT LOCATION:

VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WI

PROJECT INFORMATION

OWNER
CONTACT: Kristopher Kiefer
Castle Senior Living
13050 West Cleveland Avenue
New Berlin, WI 53151
P: 414-427-1655

ARCHITECT / INTERIOR DESIGN
CONTACT: Gregg Golden
Plunkett Raysich Architects, LLP
209 South Water Street
Milwaukee, WI 53204
P: 414-410-2931

CIVIL CONSULTANT
CONTACT: David S. Roberts, P.E.
JSD Professional Services, Inc
W238 N1610 Busse Road, Suite 100
Waukesha, WI 53188
P: 262-513-0666
C: 413-519-9301
david.roberts@jsdinc.com

MUNICIPAL CONTACTS

VILLAGE OF MUKWONAGO DEPARTMENT OF UTILITIES
CONTACT:Dave Brown
Utility Director
1200 Holz Parkway
Mukwonago, WI 53149
P: 414-550-2509
dbrown@villageofmukwonago.com

VILLAGE OF MUKWONAGO PUBLIC WORKS
CONTACT:Ron Bittner
Public Works Director
630 East Veterans Way
Mukwonago, WI 53149
P: 262-790-4609
rbittner@villageofmukwonago.com

WISCONSIN DAVID S. ROBERTS E-43294 Madison, WI

02/07/20

JSD Professional Services, Inc.
Engineers • Surveyors • Planners

CREATE THE VISION TELL THE STORY

MADISON | MILWAUKEE | WAUSAU
APPLETON | KENOSHA | CHICAGO
COEUR D'ALENE

MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P: 262.513.0666

CLIENT:

Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Design/Drawn:	CAP
Approved:	DSR
Date:	11/06/2019

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
C0.0

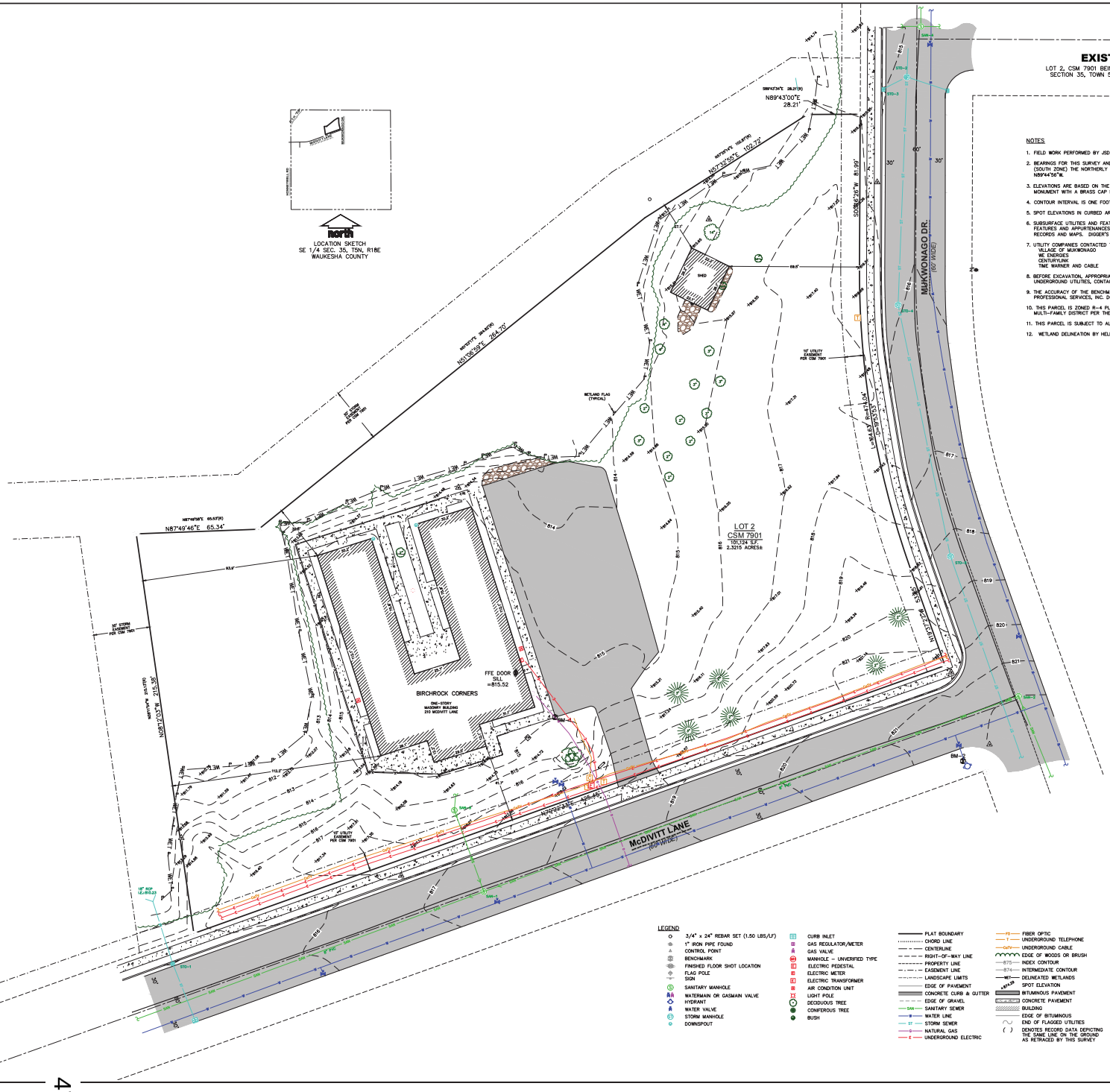
JSD PROJECT NO: 19-4231

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF JSD PROFESSIONAL SERVICES, INC.

File: R:\2019\19-4231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Civil Sheets\19-4231 C0 - Cover.dwg Layout: C0.0 Date: User: cpetersen Plotted: Feb 07, 2020 - 11:45am Xrefs:

EXISTING CONDITIONS SURVEY

LOT 2, CSM 7901 BEING A PART OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 35, TOWN 5 NORTH, RANGE 18 EAST, VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN.



NOTES

1. FIELD WORK PERFORMED BY JSD PROFESSIONAL SERVICES, INC. ON JUNE 24, 25 & 27, 2019.
2. BEARINGS FOR THIS SURVEY AND MAP ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM 1927, (SOUTH ZONE) THE NORTHERLY LINE OF THE SOUTHEAST QUARTER SECTION 35, T5N, R18E, RECORDED AS N89°44'56"W.
3. ELEVATIONS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM (NGVD29). BENCHMARK IS CONCRETE MONUMENT WITH A BRASS CAP MARKING THE EAST 1/4 CORNER OF SECTION 35, T5N, R18E, ELEVATION = 826.61'
4. CONTOUR INTERVAL IS ONE FOOT.
5. SPOT ELEVATIONS IN CURBED AREAS REFERENCE THE PAVEMENT EDGE ELEVATIONS.
6. SUBSURFACE UTILITIES AND FEATURES SHOWN ON THIS MAP HAVE BEEN APPROXIMATED BY LOCATING SURFICIAL FEATURES AND APPURTENANCES, LOCATING DIGGERS HOTLINE FIELD MARKINGS AND BY REFERENCE TO UTILITY RECORDS AND MAPS. DIGGER'S HOTLINE TICKET NO. 20192518651, WITH A CLEAR DATE OF 06/25/2019.
7. UTILITY COMPANIES CONTACTED THRU DIGGERS HOTLINE:
   VILLAGE OF MUKWONAGO
   WE ENERGIES
   CENTURYLINK
   TIME WARNER AND CABLE
8. BEFORE EXCAVATION, APPROPRIATE UTILITY COMPANIES SHOULD BE CONTACTED. FOR EXACT LOCATION OF UNDERGROUND UTILITIES, CONTACT DIGGERS HOTLINE, AT 1.800.242.8511.
9. THE ACCURACY OF THE BENCHMARKS SHOWN ON THIS MAP SHALL BE VERIFIED BEFORE BEING UTILIZED. JSD PROFESSIONAL SERVICES, INC. DOES NOT WARRANT THE ACCURACY OF THESE BENCHMARKS.
10. THIS PARCEL IS ZONED R-4 PLANNED RESIDENTIAL DEVELOPMENT DISTRICT R-10 MULTI-FAMILY DISTRICT R-10 MULTI-FAMILY DISTRICT PER THE VILLAGE OF MUKWONAGO GIS ZONING MAP.
11. THIS PARCEL IS SUBJECT TO ALL EASEMENTS AND AGREEMENTS, BOTH RECORDED AND UNRECORDED.
12. WETLAND DELINEATION BY HELIANTHUS ON JUNE 25, 2019 AND LOCATED BY JSD JNC ON JUNE 25, 2019.

SANITARY SEWER MANHOLES

STRUCT. ID	RIM ELEVATION	INVERT	ELEVATION	PIPE SIZE	PIPE TYPE
SAN-1	817.61	N	807.10	6"	PVC
		W	806.72	8"	PVC
		E	807.11	8"	PVC
SAN-2	822.04	W	811.65	8"	PVC
		S	811.74	8"	PVC
SAN-3	815.64	NE & S	807.44	6"	PVC
SAN-4	815.18	E&W	799.41	8"	PVC
		N	801.41	8"	PVC

STORM SEWER STRUCTURES

INLET ID	RIM ELEVATION	INVERT	ELEVATION	PIPE SIZE	PIPE TYPE
STO-1	814.92	S	810.0	18"	--
		N	809.8	18"	RCP
STO-2	815.16	NOT ACCESSIBLE		--	--
STO-3	815.16	E&W	808.4	--	--
STO-4	815.94	N&S	809.5	--	--
STO-5	818.27	N&S	812.1	--	--

BENCHMARKS

BENCH MARK	ELEVATION	DESCRIPTION
BM-1	815.17	CHISELED SQUARE IN CORNER OF CONCRETE SIDEWALK
BM-2	823.58	SW BOLT ON HYDRANT AT SW CORNER OF INTERSECTION

*JSD DOES NOT GUARANTEE THE BENCHMARK ELEVATIONS LISTED ON THIS MAP ARE ACCURATE AND SHOULD BE VERIFIED PRIOR TO CONSTRUCTION ACTIVITIES.

LEGEND

- 3/4" x 24" REBAR SET (1.50 LBS/LF)
- 1" IRON PIPE FOUND
- CONTROL POINT
- BENCHMARK
- FINISHED FLOOR SHOT LOCATION
- FLAG POLE
- SIGN
- SANITARY MANHOLE
- WATERMAIN OR GASMAIN VALVE
- HYDRANT
- WATER VALVE
- STORM MANHOLE
- DOWNSPOUT
- CURB INLET
- GAS REGULATOR/METER
- GAS VALVE
- MANHOLE – UNVERIFIED TYPE
- ELECTRIC PEDESTAL
- ELECTRIC METER
- ELECTRIC TRANSFORMER
- AIR CONDITION UNIT
- LIGHT POLE
- DECIDUOUS TREE
- CONIFEROUS TREE
- BUSH
- PLAT BOUNDARY
- CHORD LINE
- CENTERLINE
- RIGHT-OF-WAY LINE
- PROPERTY LINE
- EASEMENT LINE
- LANDSCAPE LIMITS
- EDGE OF PAVEMENT
- CONCRETE CURB & GUTTER
- EDGE OF GRAVEL
- SANITARY SEWER
- WATER LINE
- STORM SEWER
- NATURAL GAS
- UNDERGROUND ELECTRIC
- FIBER OPTIC
- UNDERGROUND TELEPHONE
- UNDERGROUND CABLE
- EDGE OF WOODS OR BRUSH
- 875 INDEX CONTOUR
- 874 INTERMEDIATE CONTOUR
- DELINEATED WETLANDS
- 787.28 SPOT ELEVATION
- BITUMINOUS PAVEMENT
- CONCRETE PAVEMENT
- BUILDING
- EDGE OF BITUMINOUS
- END OF FLAGGED UTILITIES
- DENOTES RECORD DATA DEPICTING THE SAME LINE ON THE GROUND AS RETRACED BY THIS SURVEY

LEGAL DESCRIPTION

LOT 2, CERTIFIED SURVEY MAP NO. 7901, RECORDED IN VOLUME 68 OF WAUKESHA COUNTY CERTIFIED SURVEY MAPS ON PAGES 140-146 AS DOCUMENT NUMBER 2089198, VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN.

TAX KEY NO: MUKV2012215002

DIGGERS HOTLINE
Toll Free (800) 242-8511

JSD Professional Services, Inc.

CREATE THE VISION TELL THE STORY

MADISON | MILWAUKEE | WAUSAU
APPLETON | KENOSHA | CHICAGO
COEUR D'ALENE

MILWAUKEE REGIONAL OFFICE
W239 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1	12/12/2019	Revised per City Comments
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019
SHEET TITLE:
EXISTING CONDITIONS SURVEY

SHEET NUMBER:
C1.0

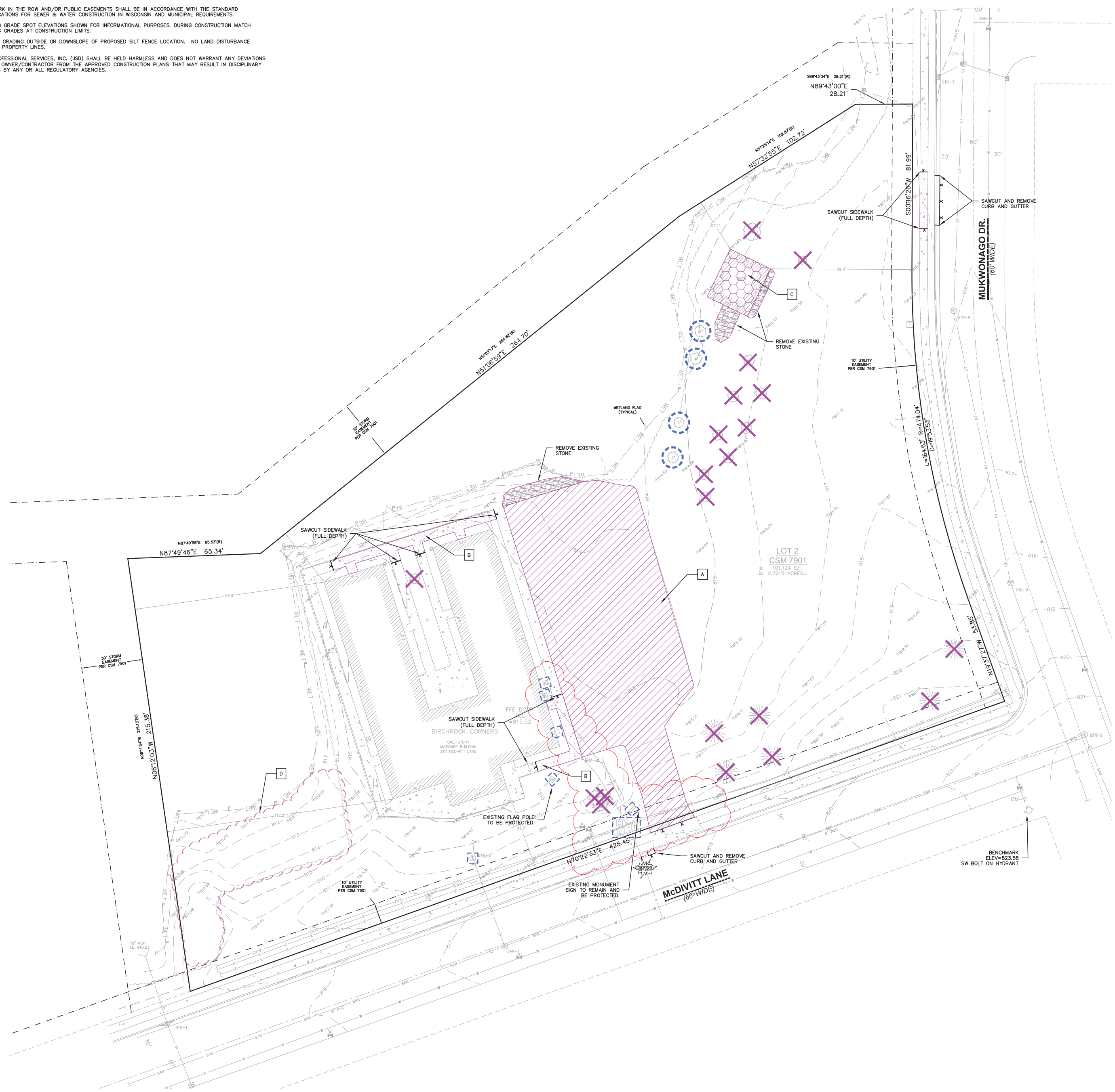
JSD PROJECT NO. 19-0231

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF JSD PROFESSIONAL SERVICES, INC.

File: R:\2019\19-0231 Mukwonago BCAC (Mukwonago, WI)\DWG\Civil\Cad Files\19-0231 C1 - Existing Conditions Plan.dwg Layout: C1.0 Existing Conditions User: inosmer Plotted: Jun 25, 2020 - 2:05pm Scale:

GENERAL NOTES

1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGENDS.
2. ALL WORK IN THE ROW AND/OR PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN AND MUNICIPAL REQUIREMENTS.
3. EXISTING GRADE SPOT ELEVATIONS SHOWN FOR INFORMATIONAL PURPOSES. DURING CONSTRUCTION MATCH EXISTING GRADES AT CONSTRUCTION LIMITS.
4. NO SITE GRADING OUTSIDE OR DOWNSLOPE OF PROPOSED SILT FENCE LOCATION. NO LAND DISTURBANCE BEYOND PROPERTY LINES.
5. JSD PROFESSIONAL SERVICES, INC. (JSD) SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.



DEMOLITION NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES) OF ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., IN A LAWFUL MANNER, SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
2. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING FOR ALL FEES AND CHARGES. COORDINATION REQUIRED PRIOR TO CONSTRUCTION.
3. THIS PLAN INDICATES ITEMS ON THE PROPERTY INTENDED FOR DEMOLITION BASED ON THE CURRENT SITE DESIGN THAT HAVE BEEN IDENTIFIED BY A REASONABLE OBSERVATION OF THE EXISTING CONDITIONS THROUGH FIELD SURVEY RECONNAISSANCE, "DIGGER'S HOTLINE" LOCATION, AND GENERAL "STANDARD OF CARE". THERE MAY BE ADDITIONAL ITEMS THAT CAN NOT BE IDENTIFIED BY A REASONABLE ABOVE GROUND OBSERVATION, OF WHICH THE ENGINEER WOULD HAVE NO KNOWLEDGE OR MAY BE A PART OF ANOTHER DESIGN DISCIPLINE. IT IS THE CONTRACTOR'S/BIDDER'S RESPONSIBILITY TO REVIEW THE PLANS, INSPECT THE SITE AND PROVIDE THEIR OWN DUE DILIGENCE TO INCLUDE IN THEIR BID WHAT ADDITIONAL ITEMS, IN THEIR OPINION, MAY BE NECESSARY FOR DEMOLITION. ANY ADDITIONAL ITEMS IDENTIFIED BY THE CONTRACTOR/BIDDER SHALL BE IDENTIFIED IN THE BID AND REPORTED TO THE ENGINEER OF RECORD. JSD PROFESSIONAL SERVICES, INC. (JSD) TAKES NO RESPONSIBILITY FOR ITEMS ON THE PROPERTY THAT COULD NOT BE LOCATED BY A REASONABLE OBSERVATION OF THE PROPERTY OR OF WHICH THEY WOULD HAVE NO KNOWLEDGE.
4. ALL PERIMETER EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF DEMOLITION ACTIVITIES. CONTRACTOR SHALL KEEP ALL STREETS, PRIVATE DRIVES AND PAVEMENT FREE AND CLEAR OF ALL CONSTRUCTION RELATED DIRT, DUST AND DEBRIS.
5. CONTRACTOR TO MAINTAIN CONTINUOUS ACCESS TO SURROUNDING PROPERTIES AND REMAINING PARTS OF THE EXISTING BUILDING AT ALL TIMES DURING THE DEMOLITION PHASE OF THE PROJECT.
6. ALL TREES WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNLESS SPECIFICALLY CALLED OUT FOR PROTECTION. ALL TREES TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY AND STUMPS SHALL BE GROUND TO PROPOSED SUBGRADE.
7. PERFORM TREE PRUNING IN ALL LOCATIONS WHERE PROPOSED PAVEMENT AND/OR UTILITY INSTALLATION ENCROACH WITHIN THE EXISTING DRIP LINE OF THE TREES TO REMAIN. ALL TRENCHING WITHIN THE EXISTING DRIP LINE OF THE TREES TO REMAIN SHALL BE DONE RADIALLY AWAY FROM THE TRUNK IF ROOTS IN EXCESS OF 1" DIAMETER ARE EXPOSED. ROOTS MUST BE CUT BY REPUTABLE TREE PRUNING SERVICE PRIOR TO ANY TRANSVERSE TRENCHING.
8. ABANDONED/REMOVED ITEMS SHALL BE DISPOSED OF OFF SITE UNLESS OTHERWISE NOTED.
9. CONTRACTOR TO REPLACE ALL SIDEWALK AND CURB AND GUTTER ABUTTING THE PROPERTIES, WHICH IS DAMAGED BY THE CONSTRUCTION, OR ANY SIDEWALK AND CURB AND GUTTER THAT THE VILLAGE ENGINEER DETERMINES NEEDS TO BE REPLACED BECAUSE IT IS NOT AT A DESIRABLE GRADE REGARDLESS OF WHETHER THE CONDITION EXISTED PRIOR TO BEGINNING CONSTRUCTION.
10. VOIDS LEFT BY ANY ITEM REMOVED UNDER ANY PROPOSED PAVEMENT, WALK, ETC. OR WITHIN 24" THEREOF SHALL BE FILLED AND BACKFILLED WITH GRANULAR MATERIALS AND COMPACTED PER SPECIFICATIONS.
11. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR:
    - 11.1. EXAMINE ALL SITE CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY TO THE DESIGN ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
    - 11.2. VERIFYING UTILITY ELEVATIONS AND NOTIFYING THE DESIGN ENGINEER OF ANY DISCREPANCIES. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCIES ARE RESOLVED.
    - 11.3. NOTIFYING ALL UTILITIES PRIOR TO THE REMOVAL OF ANY UNDERGROUND UTILITIES.
    - 11.4. NOTIFYING THE DESIGN ENGINEER AND LOCAL CONTROLLING MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION INSPECTION.
    - 11.5. PERFORMING UTILITY LOCATE OBSERVATIONS (ULO) ON ALL UTILITY CROSSINGS. CONTRACTOR TO REPORT ANY PLAN DISCREPANCIES OR CONFLICTS PRIOR TO THE START OF UTILITY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE APPROPRIATE UTILITY COMPANIES TO CONDUCT ULO'S.
12. ALL EXISTING UTILITIES TO BE FIELD LOCATED AND FLAGGED BY CONTRACTOR.
13. ANY SANITARY SEWER, SANITARY SEWER SERVICES, WATER MAIN, WATER SERVICES, STORM SEWER, OR OTHER UTILITIES, WHICH ARE TO REMAIN, THAT ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
14. CONTRACTOR SHALL NOTIFY JSD OF ANY ROOF LEADERS AND/OR STORM DRAIN LINES ENCOUNTERED DURING DEMOLITION WHICH ARE NOT SHOWN ON THE PLANS PRIOR TO ABANDONMENT OR REMOVAL.
15. CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONSTRUCTION OF THESE IMPROVEMENTS.
16. ALL DEMOLITION SHALL BE IN ACCORDANCE WITH THE APPROVED MUNICIPALITY RECYCLING PLAN.
17. ANY CONTAMINATED SOILS SHALL BE REMOVED IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS TO AN APPROVED LANDFILL.
18. EXISTING FIBER OPTIC LINE(S) TO BE CLEARLY MARKED PRIOR TO ANY EXCAVATION. CONTRACTOR TO NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF ANY DISCREPANCIES OCCUR IN THE LOCATION SHOWN OR PROPOSED IMPROVEMENTS IMPACTING EXISTING FIBER OPTIC LINE(S) LOCATION(S).
19. BUILDING REMOVALS SHALL BE BY A QUALIFIED CONTRACTOR. CONTRACTOR TO FOLLOW ALL DEMOLITION REGULATIONS, DISCONNECT ALL UTILITIES, OBTAIN ALL APPLICABLE PERMITS AND DISPOSE OF ALL BUILDING MATERIALS IN APPROPRIATE LANDFILLS. DEMOLISHED MATERIALS SHALL NOT BE BURIED ON SITE. IF ENCOUNTERED, ANY CONTAMINATED BUILDING MATERIAL AND/OR SOILS SHALL BE REMOVED AND DISPOSED OF OFF-SITE BY THE CONTRACTOR IN ACCORDANCE WITH APPROPRIATE STATE AND FEDERAL REGULATIONS.
20. CONTRACTOR TO REMOVE EXISTING UTILITY PIPE/CONDUITS WITHIN BUILDING FOOTPRINT AND BACKFILL WITH MATERIALS PER GEOTECHNICAL REPORT.
21. CONTRACTOR MAY LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE CONSTRUCTION PLANS BUT IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, CURB, SIDEWALK, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IT'S REMOVAL AND REPAIR. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
22. RESTORATION OF THE EXISTING ROADWAY RIGHT-OF-WAYS ARE CONSIDERED INCIDENTAL AND SHOULD BE PART OF THE COST OF THE UNDERGROUND IMPROVEMENTS, DEMOLITION AND REMOVAL. THIS INCLUDES CURB & GUTTER, SIDEWALK, TOPSOIL, SEEDING AND MULCHING.

DEMOLITION LEGEND/KEY

- A — EXISTING ASPHALT PAVEMENT AND BASE TO BE REMOVED
- B — EXISTING CONCRETE AND BASE TO BE REMOVED
- C — EXISTING BUILDING TO BE REMOVED
- D — TREES AND VEGETATION TO BE REMOVED
- PROTECT UTILITY STRUCTURE
- PROTECT EXISTING TREES
- REMOVE TREE
- SAWCUT PAVEMENT FULL DEPTH
- CAUTION EXISTING UNDERGROUND UTILITIES (GAS, ELECTRIC, CABLE, TELEPHONE, ETC)

LEGEND

GOVERNMENT CORNER
1" IRON PIPE FOUND
2" IRON PIPE FOUND
IRON PIPE FOUND (SIZE NOTED)
PK/MAG NAIL FOUND
1¼" REBAR FOUND
¾" REBAR FOUND
CONTROL POINT
BENCHMARK
FINISHED FLOOR SHOT LOCATION
SIGN
EXISTING SANITARY MANHOLE
EXISTING WATERMAIN OR GASMAIN VALVE
EXISTING WATER MANHOLE
EXISTING HYDRANT
CURB STOP/SERVICE VALVE
EXISTING STORM MANHOLE
EXISTING CURB INLET
GAS REGULATOR/METER
GAS VALVE
MANHOLE - UNVERIFIED TYPE
ELECTRIC TRANSFORMER
EXISTING LIGHT POLE
POWER POLE W/GUY
YARD LIGHT
TELEPHONE MANHOLE
TELEPHONE PEDESTAL
CABLE MANHOLE
CABLE PEDESTAL

PLAT BOUNDARY
SECTION LINE
EASEMENT LINE
EDGE OF PAVEMENT
EXISTING CONCRETE CURB & GUTTER
EDGE OF GRAVEL
EXISTING SANITARY SEWER
EXISTING WATER LINE
EXISTING STORM SEWER
NATURAL GAS
OVERHEAD LINE
UNDERGROUND ELECTRIC
FIBER OPTIC
UNDERGROUND TELEPHONE
EDGE OF WOODS OR BRUSH
BUILDING
INDEX CONTOUR
INTERMEDIATE CONTOUR
DELINEATED WETLANDS
EXISTING BITUMINOUS PAVEMENT
EXISTING ROCK/ GRAVEL AREAS
CONCRETE PAVEMENT/ SIDEWALKS
END OF FLAGGED UTILITIES

north

SCALE IN FEET
20' 0 20'

DIGGERS HOTLINE
Toll Free (800) 242-8511

JSD Professional Services, Inc.
Engineers • Surveyors • Planners

CREATE THE VISION TELL THE STORY

MADISON | MILWAUKEE | WAUSAU
APPLETON | KENOSHA | CHICAGO
COEUR D'ALENE

MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1	12/12/2019	Revised Per Village Comments
2	02/06/2020	Rev. per Vill. & WDNR Comments
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

SHEET TITLE:
DEMOLITION PLAN

SHEET NUMBER:
C2.0

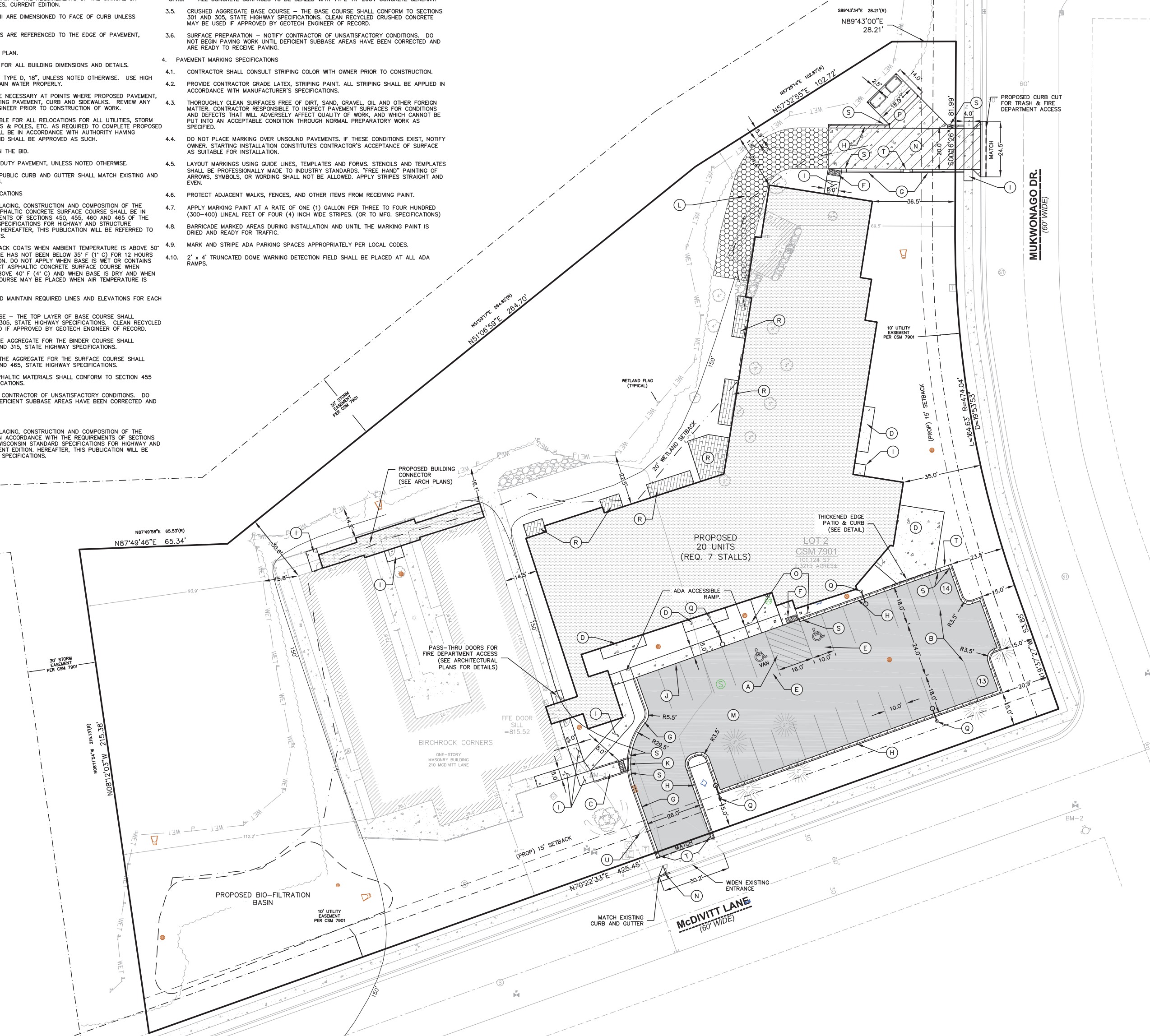
JSD PROJECT NO: 19-9231

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF JSD PROFESSIONAL SERVICES, INC.

File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Civil Sheets\19-9231 C2-Demo Plan.dwg Layout: C2.0 Demo Plan User: cpeterson Plotted: Feb 06, 2020 - 9:45am Xref's:

PAVING NOTES

1. GENERAL
   - 1.1. ALL PAVING SHALL CONFORM TO "STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY & STRUCTURE CONSTRUCTION, LATEST EDITION, APPLICABLE VILLAGE OF MUKWONAGO ORDINANCES AND THE GEOTECH REPORT.
   - 1.2. FINAL PAVEMENT DESIGN TO BE DETERMINED BY OWNER BASED ON GEOTECHNICAL ENGINEER OF RECORD RECOMMENDATIONS. ALL PAVING SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER OF RECORD RECOMMENDATIONS AS SPECIFIED IN THE SAID GEOTECHNICAL REPORT.
   - 1.3. THE VILLAGE OF MUKWONAGO AND JSD PROFESSIONAL SERVICES (JSD) SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF PERFORMING ANY CONSTRUCTION.
   - 1.4. SIGN CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
   - 1.5. ALL PAVING DIMENSIONS AND RADII ARE DIMENSIONED TO FACE OF CURB UNLESS SPECIFIED OTHERWISE.
   - 1.6. ALL COORDINATES AND DIMENSIONS ARE REFERENCED TO THE EDGE OF PAVEMENT, UNLESS NOTED OTHERWISE.
   - 1.7. FOR LANDSCAPING SEE SEPARATE PLAN.
   - 1.8. REFER TO ARCHITECTURAL PLANS FOR ALL BUILDING DIMENSIONS AND DETAILS.
   - 1.9. ALL CURB AND GUTTER IS WISDOT TYPE D, 18", UNLESS NOTED OTHERWISE. USE HIGH SIDE CURB AS NECESSARY TO DRAIN WATER PROPERLY.
   - 1.10. SOME FIELD ADJUSTMENTS MAY BE NECESSARY AT POINTS WHERE PROPOSED PAVEMENT, CURB AND SIDEWALKS MEET EXISTING PAVEMENT, CURB AND SIDEWALKS. REVIEW ANY REQUIRED CHANGES WITH THE ENGINEER PRIOR TO CONSTRUCTION OF WORK.
   - 1.11. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS FOR ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED TO COMPLETE PROPOSED ITEMS IN PLACE. ALL WORK SHALL BE IN ACCORDANCE WITH AUTHORITY HAVING JURISDICTION'S SPECIFICATIONS AND SHALL BE APPROVED AS SUCH.
   - 1.12. ALL COSTS SHALL BE INCLUDED IN THE BID.
   - 1.13. ALL PAVEMENT TO BE STANDARD DUTY PAVEMENT, UNLESS NOTED OTHERWISE.
   - 1.14. ANY REQUIRED REPLACEMENT OF PUBLIC CURB AND GUTTER SHALL MATCH EXISTING AND MEET MUNICIPALITY REQUIREMENTS.
2. ASPHALTIC CONCRETE PAVING SPECIFICATIONS
   - 2.1. CODES AND STANDARDS – THE PLACING, CONSTRUCTION AND COMPOSITION OF THE ASPHALTIC BASE COURSE AND ASPHALTIC CONCRETE SURFACE COURSE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460 AND 465 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, EDITION OF 2019. HEREAFTER, THIS PUBLICATION WILL BE REFERRED TO AS STATE HIGHWAY SPECIFICATIONS.
   - 2.2. WEATHER LIMITATIONS – APPLY TACK COATS WHEN AMBIENT TEMPERATURE IS ABOVE 50° F (10° C) AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35° F (1° C) FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION. DO NOT APPLY WHEN BASE IS WET OR CONTAINS EXCESS OF MOISTURE. CONSTRUCT ASPHALTIC CONCRETE SURFACE COURSE WHEN ATMOSPHERIC TEMPERATURE IS ABOVE 40° F (4° C) AND WHEN BASE IS DRY AND WHEN WEATHER IS NOT RAINY. BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30° F (-1° C).
   - 2.3. GRADE CONTROL – ESTABLISH AND MAINTAIN REQUIRED LINES AND ELEVATIONS FOR EACH COURSE DURING CONSTRUCTION.
   - 2.4. CRUSHED AGGREGATE BASE COURSE – THE TOP LAYER OF BASE COURSE SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS. CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.
   - 2.5. BINDER COURSE AGGREGATE – THE AGGREGATE FOR THE BINDER COURSE SHALL CONFORM TO SECTIONS 460.2.7 AND 315, STATE HIGHWAY SPECIFICATIONS.
   - 2.6. SURFACE COURSE AGGREGATE – THE AGGREGATE FOR THE SURFACE COURSE SHALL CONFORM TO SECTIONS 460.2.7 AND 465, STATE HIGHWAY SPECIFICATIONS.
   - 2.7. ASPHALTIC MATERIALS – THE ASPHALTIC MATERIALS SHALL CONFORM TO SECTION 455 AND 460, STATE HIGHWAY SPECIFICATIONS.
   - 2.8. SURFACE PREPARATION – NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.
3. CONCRETE PAVING SPECIFICATIONS
   - 3.1. CODES AND STANDARDS – THE PLACING, CONSTRUCTION AND COMPOSITION OF THE CONCRETE PAVEMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 415 AND 416 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, CURRENT EDITION. HEREAFTER, THIS PUBLICATION WILL BE REFERRED TO AS STATE HIGHWAY SPECIFICATIONS.
   - 3.2. REINFORCEMENT – CONCRETE PAVEMENT SHALL BE REINFORCED WITH NOVOMESH 950 (OR EQUAL) FIBER REINFORCEMENT AT A RATE OF 5 LBS/CUBIC YARD.
   - 3.3. CURING COMPOUNDS – CURING COMPOUNDS SHALL CONFORM TO SECTION 415 OF THE STATE HIGHWAY SPECIFICATIONS.
   - 3.4. FINISHING –
     - 3.4.1. CONTRACTOR SHALL PROVIDE CONTROL JOINTS AND CONSTRUCTION JOINTS OF ONE-QUARTER CONCRETE THICKNESS AT AN EQUAL RATIO OF LENGTH TO WIDTH WHEREVER POSSIBLE WITH A MAXIMUM LENGTH BETWEEN JOINTS OF 8' ON CENTER.
     - 3.4.2. EXTERIOR CONCRETE SURFACES SHALL BE BROOM FINISHED.
     - 3.4.3. ALL CONCRETE SURFACES TO BE SEALED WITH TYPE TK-26UV CONCRETE SEALANT.
   - 3.5. CRUSHED AGGREGATE BASE COURSE – THE BASE COURSE SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS. CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.
   - 3.6. SURFACE PREPARATION – NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.
4. PAVEMENT MARKING SPECIFICATIONS
   - 4.1. CONTRACTOR SHALL CONSULT STRIPING COLOR WITH OWNER PRIOR TO CONSTRUCTION.
   - 4.2. PROVIDE CONTRACTOR GRADE LATEX, STRIPING PAINT. ALL STRIPING SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
   - 4.3. THOROUGHLY CLEAN SURFACES FREE OF DIRT, SAND, GRAVEL, OIL AND OTHER FOREIGN MATTER. CONTRACTOR RESPONSIBLE TO INSPECT PAVEMENT SURFACES FOR CONDITIONS AND DEFECTS THAT WILL ADVERSELY AFFECT QUALITY OF WORK, AND WHICH CANNOT BE PUT INTO AN ACCEPTABLE CONDITION THROUGH NORMAL PREPARATORY WORK AS SPECIFIED.
   - 4.4. DO NOT PLACE MARKING OVER UNSOUND PAVEMENTS. IF THESE CONDITIONS EXIST, NOTIFY OWNER. STARTING INSTALLATION CONSTITUTES CONTRACTOR'S ACCEPTANCE OF SURFACE AS SUITABLE FOR INSTALLATION.
   - 4.5. LAYOUT MARKINGS USING GUIDE LINES, TEMPLATES AND FORMS. STENCILS AND TEMPLATES SHALL BE PROFESSIONALLY MADE TO INDUSTRY STANDARDS. "FREE HAND" PAINTING OF ARROWS, SYMBOLS, OR WORDING SHALL NOT BE ALLOWED. APPLY STRIPES STRAIGHT AND EVEN.
   - 4.6. PROTECT ADJACENT WALKS, FENCES, AND OTHER ITEMS FROM RECEIVING PAINT.
   - 4.7. APPLY MARKING PAINT AT A RATE OF ONE (1) GALLON PER THREE TO FOUR HUNDRED (300-400) LINEAL FEET OF FOUR (4) INCH WIDE STRIPES. (OR TO MFG. SPECIFICATIONS)
   - 4.8. BARRICADE MARKED AREAS DURING INSTALLATION AND UNTIL THE MARKING PAINT IS DRIED AND READY FOR TRAFFIC.
   - 4.9. MARK AND STRIPE ADA PARKING SPACES APPROPRIATELY PER LOCAL CODES.
   - 4.10. 2' x 4' TRUNCATED DOME WARNING DETECTION FIELD SHALL BE PLACED AT ALL ADA RAMPS.



SITE LEGEND

- (A) DIAGONAL HATCH – SWSL/4" AT 45° @ 2'-0" O.C.
- (B) PARKING STALLS – 18'-0" SWSL/4" @ 10'-0" O.C.
- (C) 5' CONCRETE SIDEWALK WITH RAILING (SEE DETAIL)
- (D) CONCRETE PATIOS, REFER TO ARCHITECTURAL PLANS FOR DETAILS
- (E) ACCESSIBLE PARKING SPACE. SEE DETAILS FOR ACCESSIBLE PARKING SPACE SIZE, SIGN AND SYMBOL ("VAN" – INDICATES VAN ACCESSIBLE SPACE)
- (F) SIDEWALK RAMP W/ DETECTABLE WARNING FIELD (SEE DETAIL)
- (G) 18" STANDARD CURB AND GUTTER (SEE DETAIL)
- (H) 18" REJECT CURB AND GUTTER (SEE DETAIL)
- (I) CONCRETE SIDEWALK (SEE DETAIL)
- (J) THICKENED EDGE SIDEWALK (SEE DETAIL)
- (K) 18" VALLEY CURB AND GUTTER (SEE DETAIL)
- (L) GRASSPAVE 2 (SEE DETAIL)
- (M) STANDARD DUTY HMA PAVEMENT (SEE DETAILS)
- (N) HEAVY DUTY CONCRETE PAVEMENT (SEE DETAILS)
- (O) ADA PARKING SIGN (SEE DETAIL)
- (P) TRASH ENCLOSURE, REFER TO ARCHITECTURAL PLANS FOR DETAILS
- (Q) LIGHTPOLE
- (R) RAISED WOODEN DECK, REFER TO ARCH PLANS FOR DETAILS
- (S) 2' CURB TAPER (SEE DETAIL)
- (T) CURB WEIR (SEE DETAIL)
- (U) EXISTING MONUMENT SIGN TO BE RELOCATED

SITE INFORMATION BLOCK

SITE ADDRESS	210 McDIVITT LN MUKWONAGO, WI 53149
PROPERTY ACREAGE	2.34 ACRES
NUMBER OF BUILDING STORIES	1
BUILDING SQUARE FOOTAGE	
EXISTING	8,055
PROPOSED	16,260
TOTAL	24,315
NUMBER OF PARKING STALLS	
STANDARD	25
ACCESSIBLE	2
TOTAL	27
REQUIRED PARKING STALLS	
40 BED – (1 PARKING PER 3 BEDS)	14
EMPLOYEE PARKING	11
TOTAL	25
EXISTING VS. PROPOSED SITE COVERAGE *	
EXISTING IMPERVIOUS SURFACE AREA	32,291 SF (31.7%)
EXISTING PERVIOUS SURFACE AREA	69,612 SF (68.3%)
EXISTING IMPERVIOUS SURFACE AREA RATIO	0.32
PROPOSED IMPERVIOUS SURFACE AREA	52,435 SF (51.4%)
PROPOSED PERVIOUS SURFACE AREA	49,488 SF (48.6%)
PROPOSED IMPERVIOUS SURFACE AREA RATIO	0.51

R-10 ZONING REQUIREMENTS	REQUIRED	PROVIDED
BUILDING SETBACK (STREET)	35 FEET	35 FEET
BUILDING SETBACK (SIDE)	15 FEET	93.9 FEET
BUILDING SETBACK (REAR)	40 FEET	24.4 FEET
PARKING LOT SETBACK	20 FEET	15 FEET
MINIMUM GREEN SPACE	40%	59%
MAX BUILDING COVERAGE	40%	24%

* THE WETLAND AREAS ARE SPLIT SO THAT 50% OF THE AREA IS IMPERVIOUS AND 50% IS PERVIOUS FOR EXISTING AND PROPOSED AREA CALCULATIONS.

LEGEND

- PROPERTY LINE
- EASEMENT LINE
- WETLAND BOUNDARY
- BUILDING OUTLINE
- PAVEMENT SETBACK LINE
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- STANDARD DUTY ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- CONCRETE
- LIGHT POLE
- ADA PARKING SIGN
- PROPOSED STORM CATCH BASIN
- PROPOSED FLARED END SECTION
- PROPOSED STORM MANHOLE
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY CLEANOUT
- PROPOSED WATER VALVE
- PROPOSED FIRE HYDRANT

GENERAL NOTES

1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGENDS.
2. ALL WORK IN THE ROW AND/OR PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN AND MUNICIPAL REQUIREMENTS.
3. JSD PROFESSIONAL SERVICES, INC. (JSD) SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.

north
SCALE IN FEET
20' 0 20'

DIGGERS HOTLINE
Toll Free (800) 242-8511

JSD Professional Services, Inc.
Engineers • Surveyors • Planners
CREATE THE VISION TELL THE STORY
MADISON | MILWAUKEE | WAUSAU
APPLETON | KENOSHA | CHICAGO
COEUR D'ALENE
MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1	12/12/2019	Revised per Village Comments
2	01/24/2020	Rev. Building Connector
3	02/06/2020	Rev. per Vill. & WDNR Comments
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
C3.0

JSD PROJECT NO: 19-9231

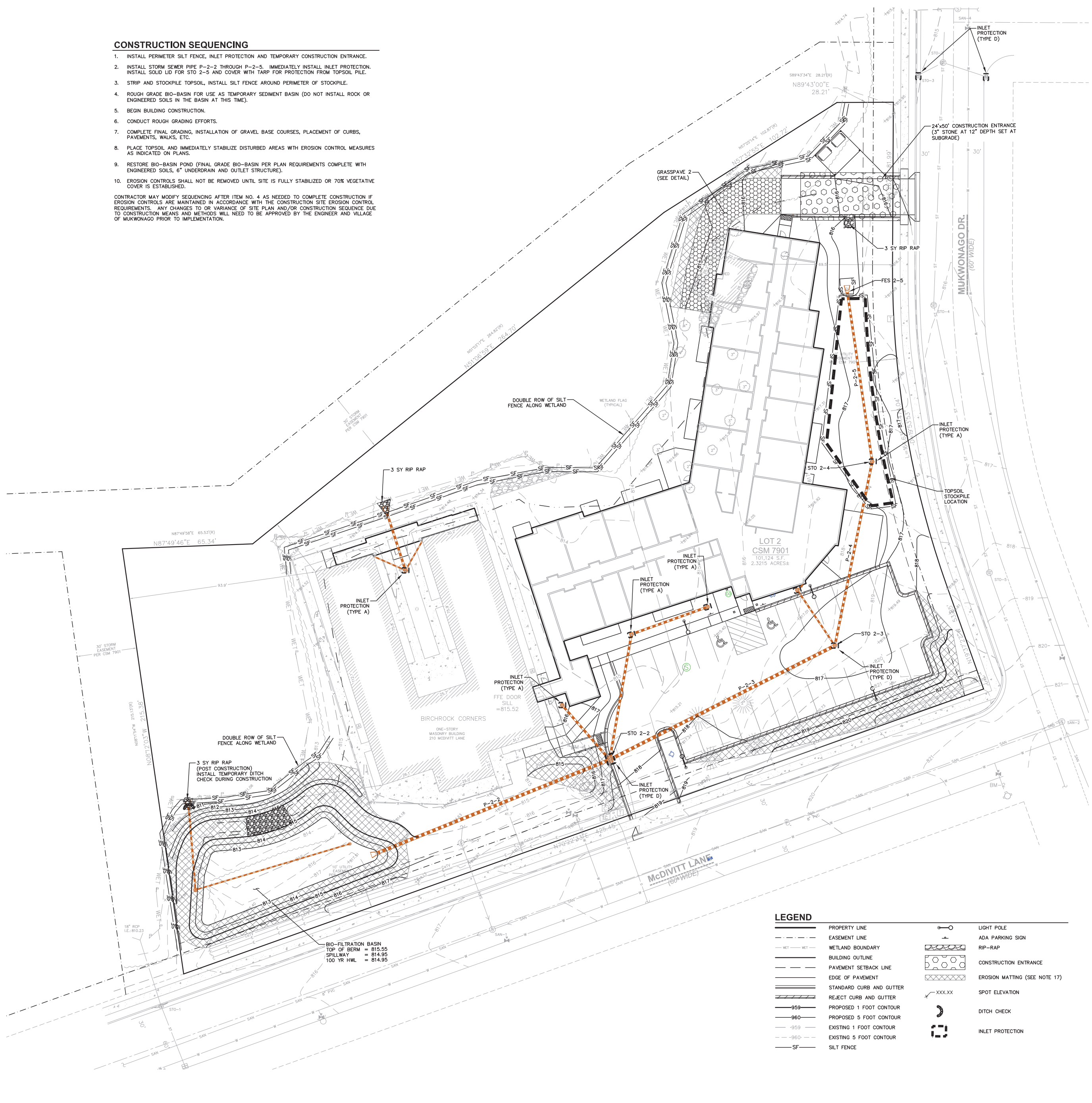
THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF JSD PROFESSIONAL SERVICES, INC.

File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Civil Sheets\19-9231 C3 - Site Plan.dwg Layout: C3.0 Site Plan User: cpeterson Plotted: Feb 07, 2020 - 1:10pm Xref's:

CONSTRUCTION SEQUENCING

1. INSTALL PERIMETER SILT FENCE, INLET PROTECTION AND TEMPORARY CONSTRUCTION ENTRANCE.
2. INSTALL STORM SEWER PIPE P-2-2 THROUGH P-2-5. IMMEDIATELY INSTALL INLET PROTECTION. INSTALL SOLID LID FOR STO 2-5 AND COVER WITH TARP FOR PROTECTION FROM TOPSOIL PILE.
3. STRIP AND STOCKPILE TOPSOIL, INSTALL SILT FENCE AROUND PERIMETER OF STOCKPILE.
4. ROUGH GRADE BIO-BASIN FOR USE AS TEMPORARY SEDIMENT BASIN (DO NOT INSTALL ROCK OR ENGINEERED SOILS IN THE BASIN AT THIS TIME).
5. BEGIN BUILDING CONSTRUCTION.
6. CONDUCT ROUGH GRADING EFFORTS.
7. COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
8. PLACE TOPSOIL AND IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROL MEASURES AS INDICATED ON PLANS.
9. RESTORE BIO-BASIN POND (FINAL GRADE BIO-BASIN PER PLAN REQUIREMENTS COMPLETE WITH ENGINEERED SOILS, 6" UNDERDRAIN AND OUTLET STRUCTURE).
10. EROSION CONTROLS SHALL NOT BE REMOVED UNTIL SITE IS FULLY STABILIZED OR 70% VEGETATIVE COVER IS ESTABLISHED.

CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM NO. 4 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS. ANY CHANGES TO OR VARIANCE OF SITE PLAN AND/OR CONSTRUCTION SEQUENCE DUE TO CONSTRUCTION MEANS AND METHODS WILL NEED TO BE APPROVED BY THE ENGINEER AND VILLAGE OF MUKWONAGO PRIOR TO IMPLEMENTATION.



LEGEND

	PROPERTY LINE		LIGHT POLE
	EASEMENT LINE		ADA PARKING SIGN
	WETLAND BOUNDARY		RIP-RAP
	BUILDING OUTLINE		CONSTRUCTION ENTRANCE
	PAVEMENT SETBACK LINE		EROSION MATTING (SEE NOTE 17)
	EDGE OF PAVEMENT	XXX.XX	SPOT ELEVATION
	STANDARD CURB AND GUTTER		DITCH CHECK
	REJECT CURB AND GUTTER		INLET PROTECTION
959	PROPOSED 1 FOOT CONTOUR		
960	PROPOSED 5 FOOT CONTOUR		
959	EXISTING 1 FOOT CONTOUR		
960	EXISTING 5 FOOT CONTOUR		
SF	SILT FENCE		

north
SCALE IN FEET
20' 0 20'

EROSION CONTROL NOTES

1. ALL CONSTRUCTION SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN WISCONSIN'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT FOR CONSTRUCTION SITE LAND DISTURBANCE ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) TECHNICAL STANDARDS AND VILLAGE OF MUKWONAGO ORDINANCES. IT IS THE RESPONSIBILITY OF ALL CONTRACTORS ASSOCIATED WITH THE PROJECT TO OBTAIN A COPY OF, AND UNDERSTAND, THESE STANDARDS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
2. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL CONTROL MEASURES AS DIRECTED BY JSD PROFESSIONAL SERVICES, INC. (JSD) OR AUTHORITY HAVING JURISDICTION SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
3. MODIFICATIONS TO THE APPROVED EROSION CONTROL PLAN IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS ARE ALLOWED IF MODIFICATIONS CONFORM TO WDNR TECHNICAL STANDARDS. CONTRACTOR IS RESPONSIBLE TO NOTIFY JSD AND AUTHORITY HAVING JURISDICTION OF ANY CHANGES TO THE EROSION CONTROL AND STORMWATER MANAGEMENT PLANS. ALL MODIFICATIONS MUST BE APPROVED BY JSD/AUTHORITY HAVING JURISDICTION PRIOR TO DEVIATION FROM THE APPROVED PLAN.
4. INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCE(S), SILT FENCE AND EXISTING INLET PROTECTION) PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN IN ORDER TO PROTECT ADJACENT PROPERTIES/STORM SEWER SYSTEMS FROM SEDIMENT TRANSPORT.
5. CONSTRUCTION ENTRANCE(S) SHALL BE INSTALLED AT THE LOCATION OF VEHICLE INGRESS/EGRESS POINT(S) AS SHOWN ON THE PLAN. CONTRACTOR IS RESPONSIBLE TO COORDINATE LOCATION(S) WITH THE PROPER AUTHORITY HAVING JURISDICTION, PROVIDE NECESSARY FEES AND OBTAIN ALL REQUIRED APPROVALS OR PERMITS. ADDITIONAL CONSTRUCTION ENTRANCES OTHER THAN AS SHOWN ON THE PLANS MUST BE PRIOR APPROVED BY THE APPLICABLE AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. CONSTRUCTION ENTRANCES SHALL BE MAINTAINED BY THE CONTRACTOR IN A CONDITION WHICH WILL PREVENT THE TRACKING OF MUD OR DRY SEDIMENT ONTO ADJACENT PUBLIC STREETS AFTER EACH WORKING DAY OR MORE FREQUENTLY AS REQUIRED.
6. PAVED SURFACES ADJACENT TO CONSTRUCTION ENTRANCES SHALL BE SWEPT AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST AFTER THE END OF EACH WORK DAY AND AS REQUESTED BY THE AUTHORITY HAVING JURISDICTION.
7. THE ADJACENT INLETS THAT WILL COLLECT RUNOFF FROM DISTURBED AREAS SHALL BE PROTECTED TO PREVENT SEDIMENT DEPOSITION. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER. ALL INLETS, STRUCTURES, PIPES, AND SWALES SHALL BE KEPT CLEAN AND FREE OF SEDIMENTATION AND DEBRIS.
8. AT A MINIMUM, SEDIMENT TRAPS AND NECESSARY TEMPORARY DRAINAGE PROVISIONS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE BEGINNING OF SIGNIFICANT MASS GRADING OPERATIONS TO PREVENT OFFSITE DISCHARGE OF UNTREATED RUNOFF.
9. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE OWNER WILL BE RESPONSIBLE IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT.
10. DITCH CHECKS AND APPLICABLE EROSION NETTING/MATTING SHALL BE INSTALLED IMMEDIATELY AFTER COMPLETION OF GRADING EFFORTS WITHIN DITCHES/SWALES TO PREVENT SOIL TRANSPORTATION.
11. EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, SANITARY SEWER, WATER MAIN, ETC.) OUTSIDE OF THE PERIMETER CONTROLS SHALL INCORPORATE THE FOLLOWING:
    - PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
    - BACKFILL, COMPACT, AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
    - DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH THE DEWATERING TECHNICAL STANDARD NO. 1061 PRIOR TO RELEASE INTO THE STORM SEWER, RECEIVING STREAM, OR DRAINAGE DITCH.
12. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER AND DITCH CHECKS SHALL BE IMMEDIATELY FITTED AT ALL INSTALLED CULVERT INLETS TO PREVENT SEDIMENT DEPOSITION WITHIN STORM SEWER SYSTEMS.
13. TOPSOIL STOCKPILE SHALL BE LOCATED GENERALLY AS SHOWN. CONTRACTOR MAY SUBMIT AN ALTERNATE PLAN FOR LOCATION OF TEMPORARY TOPSOIL STOCKPILE TO ENGINEER FOR APPROVAL. INSTALL EROSION CONTROLS ON THE DOWNSTREAM SIDE OF STOCKPILES. IF STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS IS REQUIRED. IF DISTURBANCE OCCURS BETWEEN NOVEMBER 15TH AND MAY 15TH, THE MULCHING SHALL BE PERFORMED BY HYDRO-MULCHING WITH A "TACKIFIER."
14. EROSION CONTROL MEASURES TEMPORARILY REMOVED FOR UNAVOIDABLE CONSTRUCTION ACTIVITIES SHALL BE IN WORKING ORDER PRIOR TO THE COMPLETION OF EACH WORK DAY.
15. PUMPS MAY BE USED AS BYPASS DEVICES. IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS.
16. GRADING EFFORTS SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. EROSION AND SEDIMENT CONTROL MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY OR PERMANENT MEASURES. ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR A PERIOD OF FOURTEEN (14) DAYS REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS.
17. ALL DISTURBED SLOPES EXCEEDING 4:1 YET LESS THAN 3:1, SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S75BN EROSION MATTING (OR APPROVED EQUAL) AND DISTURBED SLOPES EXCEEDING 3:1 YET LESS THAN 2:1 SHALL BE STABILIZED WITH NORTH AMERICAN GREEN C125BN (OR APPROVED EQUAL) OR APPLICATION OF AN APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED WITHIN 7 DAYS OF REACHING FINAL GRADE AND/OR AS SOON AS CONDITIONS ALLOW. DRAINAGE SWALES SHALL BE STABILIZED WITH CLASS II, TYPE B EROSION MATTING. EROSION MATTING AND/OR NETTING USED ONSITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND WDNR TECHNICAL STANDARDS 1052 AND 1053.
18. <u>STABILIZATION PRACTICES:</u>
    - 18.1. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. NO MORE THAN SEVEN (7) DAYS SHALL PASS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS CEASED UNLESS:
    - 18.2. THE INITIATION STABILIZATION MEASURES BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS CEASED IS PRECLUDED BY SNOW COVER. IN THAT EVENT, STABILIZATION SHALL BE INITIATED AS SOON AS PRACTICABLE.
    - 18.3. CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN FOURTEEN (14) DAYS FROM WHEN ACTIVITY CEASED, (I.E. THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN FOURTEEN (14) DAYS. IN THAT EVENT, STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED.
    - 18.4. STABILIZATION MEASURES SHALL BE DETERMINED BASED ON SITE CONDITIONS AT THE TIME OF CONSTRUCTION ACTIVITY HAS CEASED, INCLUDING BUT NOT LIMITED TO WEATHER CONDITIONS AND LENGTH OF TIME MEASURE MUST BE EFFECTIVE. THE FOLLOWING ARE ACCEPTABLE STABILIZATION MEASURES:
        - PERMANENT SEEDING; IN ACCORDANCE WITH APPROVED CONSTRUCTION SPECIFICATION
        - TEMPORARY SEEDING; MAY CONSIST OF SPRING OATS(100LBS/ACRE) AND/OR WHEAT OR CEREAL RYE (150LB/ACRE)
        - HYDRO-MULCHING WITH A TACKIFIER
        - GEOTEXTILE EROSION MATTING
        - SODDING
19. DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL KEEP A WATER TRUCK ON SITE FOR THE PURPOSE OF WATERING DOWN SOILS WHICH MAY OTHERWISE BECOME AIRBORNE. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING WIND EROSION (DUST) DURING CONSTRUCTION AT THEIR EXPENSE. REFER TO WDNR TECHNICAL STANDARD 1068.
20. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE VISUALLY INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM ON A DAILY BASIS.
21. MAINTAIN SOIL EROSION CONTROL DEVICES THROUGH THE DURATION OF THIS PROJECT. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL LAND DISTURBING CONSTRUCTION ACTIVITY AT THE SITE HAS BEEN COMPLETED AND THAT A UNIFORM PERENNIAL VEGETATIVE COVER HAS BEEN ESTABLISHED WITH A DENSITY OF AT LEAST 70% FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES OR THAT EMPLOY EQUIVALENT PERMANENT STABILIZATION MEASURES. DISTURBANCE ASSOCIATED WITH EROSION CONTROL REMOVAL SHALL BE IMMEDIATELY STABILIZED.
22. QUALIFIED PERSONNEL (PROVIDED BY THE GENERAL/PRIME CONTRACTOR) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AND EROSION AND SEDIMENT CONTROLS WITHIN 24 HOURS OF ALL 0.5-INCH, OR MORE, PRECIPITATION EVENTS WITH A MINIMUM INSPECTION INTERVAL OF ONCE EVERY SEVEN (7) CALENDAR DAYS IN THE ABSENCE OF A QUALIFYING RAIN OR SNOWFALL EVENT. REPORTING SHALL BE IN ACCORDANCE WITH PART IV D.4. (a-f). OF THE NPDES GENERAL PERMIT. CONTRACTOR SHALL IMMEDIATELY ARRANGE TO HAVE ANY DEFICIENT ITEMS REVEALED DURING INSPECTIONS REPAIRED/REPLACED.
23. THE FOLLOWING MAINTENANCE PRACTICES SHALL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES, AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN. UPON IDENTIFICATION, DEFICIENCIES IN STORMWATER CONTROLS SHALL BE ADDRESSED IMMEDIATELY. THE MAINTENANCE PROCEDURES FOR THIS DEVELOPMENT SHALL INCLUDE, BUT NOT BE LIMITED TO THOSE LISTED BELOW:
    - <u>SILT FENCE</u> – REPAIR OR REPLACE ANY DAMAGED FILTER FABRIC AND/OR STAKES. REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE-HALF THE ABOVE GROUND HEIGHT OF THE FENCE.
    - <u>CONSTRUCTION ENTRANCE</u> – AS NEEDED, ADD STONE TO MAINTAIN CONSTRUCTION ENTRANCE DIMENSIONS AND EFFECTIVENESS.
    - <u>EROSION CONTROL MATTING</u> – REPAIR MATTING IMMEDIATELY IF INSPECTION REVEALS BREACHED OR FAILED CONDITIONS. REPAIR AND RE-GRADE SOIL WHERE CHANNELIZATION HAS OCCURRED.
    - <u>DIVERSION BERM/SWALE</u> – REPLACE OR RE-COMPACT THE CONSTRUCTION MATERIALS AS NECESSARY.
    - <u>INLET PROTECTION</u> – CLEAN, REPAIR OR REPLACE FILTER FABRIC AND/OR STONE WHEN CONTROL MEASURE IS CLOGGED. INLET FILTER BAGS SHALL BE REPLACED ONCE BAG BECOMES ONE-HALF FULL OF SEDIMENT.

ADDITIONAL POLLUTANT CONTROL MEASURES TO BE IMPLEMENTED DURING CONSTRUCTION ACTIVITIES SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

- <u>CONSTRUCTION WASTE</u> SHALL BE PROPERLY DISPOSED OF. THIS INCLUDES ALL CONSTRUCTION SITE WASTE MATERIAL, SANITARY WASTE, AND WASTE FROM VEHICLE TRACKING OF SEDIMENTS. THE CONTRACTOR SHALL ENSURE THAT NO MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, BURNED, OR DISCHARGED TO THE WATERS OF THE STATE. VEHICLES HAULING MATERIAL AWAY FROM THE SITE SHALL BE COVERED WITH A TARPAULIN TO PREVENT BLOWING DEBRIS.
- <u>DUST CONTROL</u> SHALL BE ACCOMPLISHED BY ONE OR MORE OF THE FOLLOWING METHODS:
- COVERING 30% OR MORE OF THE SOIL SURFACE WITH A NON-ERODIBLE MATERIAL.
- ROUGHENING THE SOIL TO PRODUCE RIDGES PERPENDICULAR TO THE PREVAILING WIND. RIDGES SHALL BE AT LEAST SIX (6) INCHES IN HEIGHT.
- FREQUENT WATERING OF EXCAVATION AND FILL AREAS.
- PROVIDING GRAVEL OR PAVING AT ENTRANCE/EXIT DRIVES, PARKING AREAS AND TRANSIT PATHS.
- <u>STREET SWEEPING</u> SHALL BE PERFORMED TO IMMEDIATELY REMOVE ANY SEDIMENT TRACKED ON PAVEMENTS.

24. CONTRACTOR/OWNER SHALL FILE A NOTICE OF TERMINATION UPON COMPLETION OF THE PROJECT IN ACCORDANCE WITH WDNR REQUIREMENTS AND/OR PROPERTY SALE IN ACCORDANCE WITH WDNR REQUIREMENTS.

DIGGERS HOTLINE
Toll Free (800) 242-8511

JSD Professional Services, Inc.
Engineers • Surveyors • Planners
CREATE THE VISION TELL THE STORY
MADISON | MILWAUKEE | WAUSAU
APPLETON | KENOSHA | CHICAGO
COEUR D'ALENE
MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1	12/12/2019	Revised per City Comments
2	01/29/2020	PER WDNR COMMENTS
3	02/06/2020	Rev. per VIL & WDNR Comments
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

SHEET TITLE:
EROSION CONTROL PLAN

SHEET NUMBER:
C4.0

JSD PROJECT NO: 19-9231

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF JSD PROFESSIONAL SERVICES, INC.

File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Civil Sheets\19-9231 C4 - Erosion Control Plan.dwg Layout: 4.0 Erosion Control Plan User: cpeterson Plotted: Feb 06, 2020 - 10:04am Xrefs:

UTILITY NOTES

1. ALL EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATIONS OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR/OWNER SHALL CALL "DIGGER'S HOTLINE" PRIOR TO ANY CONSTRUCTION.
2. PRIOR TO CONSTRUCTION, THE PRIME CONTRACTOR IS RESPONSIBLE FOR:
   * EXAMINING ALL SITE CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
   * OBTAINING ALL PERMITS INCLUDING PERMIT COSTS, TAP FEES, METER DEPOSITS, BONDS, AND ALL OTHER FEES REQUIRED FOR PROPOSED WORK TO OBTAIN OCCUPANCY.
   * VERIFYING ALL ELEVATIONS, LOCATIONS AND SIZES OF SANITARY, WATER AND STORM LATERALS AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS. NOTIFY ENGINEER OF ANY DISCREPANCY. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS RESOLVED.
   * NOTIFYING ALL UTILITIES PRIOR TO INSTALLATION OF ANY UNDERGROUND IMPROVEMENTS.
   * NOTIFYING THE DESIGN ENGINEER AND MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION OBSERVATION.
   * COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
3. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN HEREIN REFERRED TO AS THE "STANDARD SPECIFICATIONS" AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.
4. SPECIFICATIONS SHALL COMPLY WITH THE VILLAGE OF MUKWONAGO SPECIFICATIONS AND WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES DSPS 382.
5. TRACER WIRES SHALL BE INSTALLED AS NECESSARY IN ACCORD WITH 182.0715(2R) OF THE STATE STATUTES AND THE VILLAGE OF MUKWONAGO REQUIREMENTS.
6. LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS ARE SHOWN FOR CONTRACTOR CONVENIENCE ONLY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPUTATIONS OF MATERIALS REQUIRED TO COMPLETE WORK. LENGTHS SHALL BE FIELD VERIFIED DURING CONSTRUCTION.
7. CONTRACTOR SHALL FIELD VERIFY LOCATIONS, ELEVATIONS, AND SIZES OF PROPOSED UTILITIES AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS PRIOR TO ATTEMPTING CONNECTIONS AND BEGINNING UTILITY CONSTRUCTION.
8. CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONSTRUCTION OF IMPROVEMENTS.
9. CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT ALL UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH THE FINISHED GRADES OF THE AREAS EFFECTED BY THE CONSTRUCTION.
10. THE PRIME CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
11. ANY SANITARY SEWER, SANITARY SEWER SERVICES, WATER MAIN, WATER SERVICES, STORM SEWER, OR OTHER UTILITIES, WHICH ARE TO REMAIN, THAT ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
12. WATER SERVICE FOR THE PROPOSED ADDITION TO BE INTERNALLY FED FROM EXISTING BUILDING. SEE ARCHITECTURAL PLANS FOR DETAILS.
13. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING UTILITY AS-BUILT PLANS. DRAWINGS PREPARED TO MUNICIPALITY STANDARDS ARE REQUIRED PRIOR TO OCCUPANCY PERMIT ISSUANCE. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING AND REPORTING ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS TO THE ENGINEER AS WORK PROGRESSES.
14. SEE TABLE FOR STORM SEWER STRUCTURE INFORMATION.
15. STORM SEWER SPECIFICATIONS –

    PIPE – ALL STORM SEWER USED ON THIS PROJECT SHALL BE HIGH DENSITY POLYETHYLENE UNLESS OTHERWISE NOTED.

    HIGH DENSITY POLYETHYLENE SMOOTH-WALLED INTERIOR CORRUGATED PIPE SHALL BE AS MANUFACTURED BY ADS OR EQUAL, WITH WATER TIGHT JOINTS, MANNING "N" VALUE OF 0.010 AND SHALL MEET THE REQUIREMENTS OF AASHTO DESIGNATION M-294 TYPE S. MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D3350, D2412, AND D2321 WITH ELASTOMERIC GASKETS CONFORMING TO ASTM F477.

    INLETS AND FRAMES

    INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES SPS 382.36(9)b.3.

    FRAMES AND GRATES SHALL BE GRAY IRON MATERIAL (PER ASTM A-48) OF STYLES / NEENAH CATALOG NUMBERS AS INDICATED ON THESE CONSTRUCTION DRAWINGS.

    MANHOLES AND FRAMES

    MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF SPS 382.35(8)a.b.

    FRAMES AND LIDS SHALL BE GRAY IRON MATERIAL (PER ASTM A-48) OF STYLES/NEENAH CATALOG NUMBERS AS INDICATED ON THESE CONSTRUCTION DRAWINGS. INTERNAL CHIMNEY SEALS SHALL BE CRETEX SPECIALTY PRODUCTS, OR EQUAL.

    CLEANOUTS – CLEANOUTS SHALL BE EQUIPPED WITH FROST SLEEVES IN ACCORDANCE WITH SPS 382.35(5)(A)2. (REFER TO DETAIL)

    BACKFILL AND BEDDING – STORM SEWER SHALL BE CONSTRUCTED WITH GRAVEL BACKFILL AND CLASS "B" BEDDING IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".

    ROOF LEADER/STORM DRAIN LINES – ALL EXISTING ROOF LEADERS/STORM DRAIN LINES ENCOUNTERED WHICH ARE NOT SHOWN ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF JSD PRIOR TO ABANDONMENT, REMOVAL, OR CONNECTION TO THE PROPOSED STORM SEWER SYSTEM. PROPOSED ROOF LEADERS FOR NORTHERLY SIDE OF ADDITION TO DRAIN TO SPLASH BLOCKS AND THEN OVERLAND TO THE NORTH. THE REMAINDER OF THE PROPOSED ROOF LEADERS TO EITHER DRAIN TO SPLASH BLOCKS THEN OVERLAND INTO PROPOSED STORM SEWER SYSTEM OR BE DIRECTLY TIED INTO PROPOSED STORM SEWER SYSTEM.
16. WATER MAIN SPECIFICATIONS –

    PIPE – ALL WATERMAIN PIPE USED ON THIS PROJECT SHALL BE POLYVINYL CHLORIDE UNLESS OTHERWISE NOTED.

    POLYVINYL CHLORIDE (PVC) PIPE SHALL MEET THE REQUIREMENTS OF AWWA STANDARD C-900, CLASS 150, DR-18, WITH CAST IRON O.D. AND INTEGRAL ELASTOMERIC BELL AND SPIGOT JOINTS. NON-METALLIC WATER MAINS SHALL BE INSTALLED WITH BLUE INSULATION TRACER WIRE AND CONFORM WITH SPS 382.30(11)(h).

    VALVES AND VALVE BOXES – GATE VALVES SHALL BE AWWA GATE VALVES MEETING THE REQUIREMENTS OF AWWA C-500 AND CHAPTER 8.27.0 OF THE "STANDARD SPECIFICATIONS". GATE VALVES AND VALVE BOXES SHALL CONFORM TO LOCAL PLUMBING ORDINANCES.

    HYDRANTS – HYDRANTS SHALL CONFORM TO THE SPECIFICATIONS OF THE VILLAGE OF MUKWONAGO. THE DISTANCE FROM THE GROUND LINE TO THE CENTERLINE OF THE LOWEST NOZZLE AND THE LOWEST CONNECTION OF THE FIRE DEPARTMENT SHALL BE NO LESS THAN 18-INCHES AND NO GREATER THAN 23-INCHES (SEE DETAIL).

    10-GAUGE TRACER WIRE SHALL BE INSTALLED ALONG THE ENTIRE LENGTH OF ALL PRIVATE WATER MAINS, HYDRANT LEADS, FIRE DEPARTMENT CONNECTION LEADS AND LATERALS. THE TRACER WIRE SHALL BE EXTENDED TO THE SURFACE AT THE BUILDING WALL AND ALL OTHER SYSTEM LIMITS AND ENCLOSED IN RISER BOX WITH "WATER" ON THE COVER.

    BEDDING AND COVER MATERIAL – PIPE BEDDING AND COVER MATERIAL SHALL BE SAND, CRUSHED STONE CHIPS OR CRUSHED STONE SCREENINGS CONFORMING TO CHAPTER 8.43.2 OF THE "STANDARD SPECIFICATIONS".

    THRUST BLOCKS SHOULD BE USED WHEREVER NECESSARY TO PREVENT SEPARATION OF JOINTS AND PIPE MOVEMENT. JOINT RESTRAINTS MAY ALSO BE USED AS APPLICABLE.

    BACKFILL – BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS". GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".
17. WATERMAIN SHALL BE INSULATED WHEREVER THE DEPTH OF COVER IS LESS THAN 6 FEET. INSULATION AND INSTALLATION OF INSULATION SHALL BE CONFORMING WITH CHAPTER 4.17.0 "INSULATION" OF THE "STANDARD SPECIFICATIONS".
18. ALL NEW ON-SITE STORM AND WATER UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER.
19. THE CONTRACTOR SHALL CONTACT THE VILLAGE OF MUKWONAGO 48-HOURS IN ADVANCE TO COORDINATE CONNECTION TO THE MUNICIPAL SYSTEM.
20. SANITARY SEWER SPECIFICATIONS –

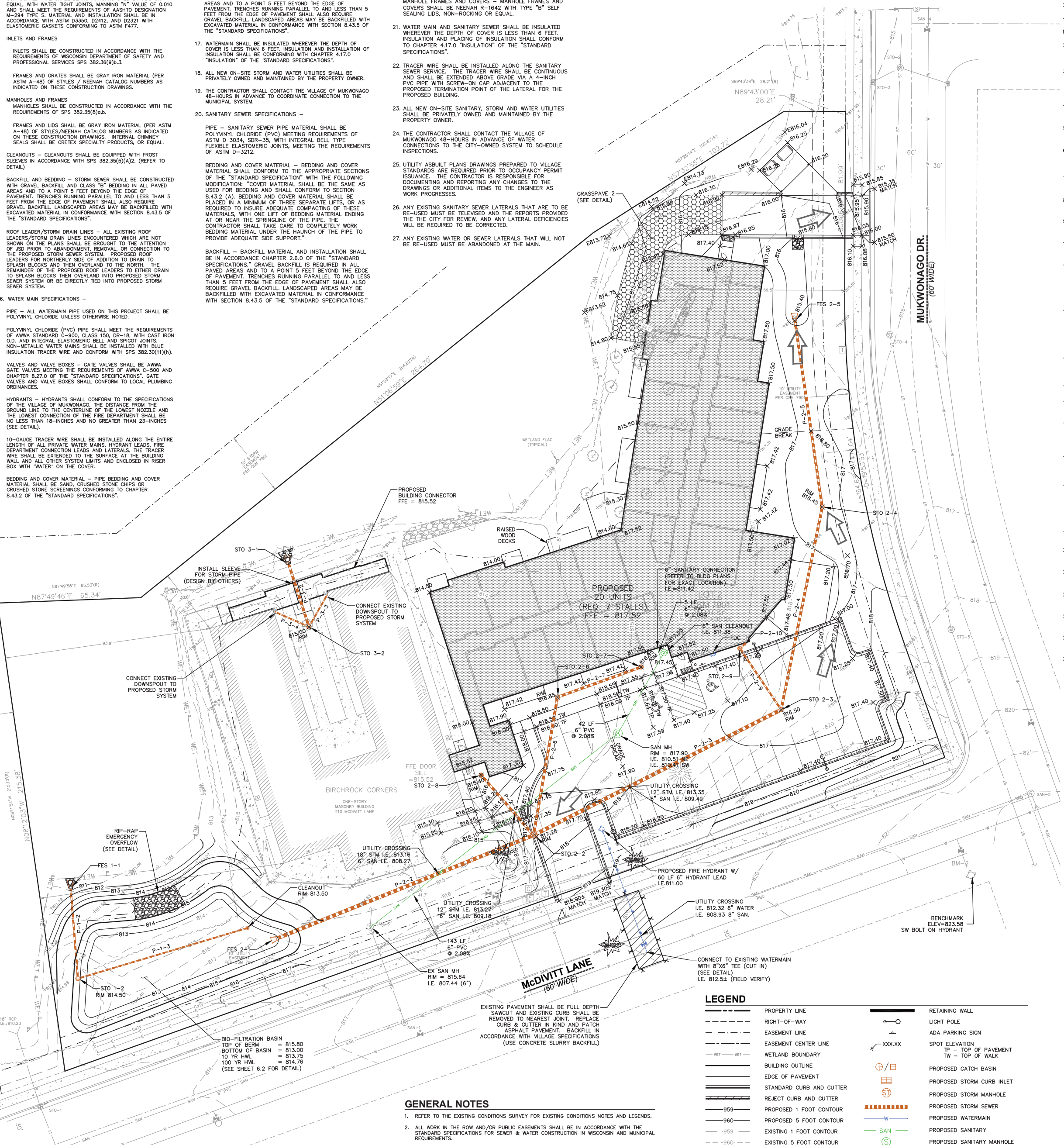
    PIPE – SANITARY SEWER PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) MEETING REQUIREMENTS OF ASTM D 3034, SDR-35, WITH INTEGRAL BELL TYPE FLEXIBLE ELASTOMERIC JOINTS, MEETING THE REQUIREMENTS OF ASTM D-3212.

    BEDDING AND COVER MATERIAL – BEDDING AND COVER MATERIAL SHALL CONFORM TO THE APPROPRIATE SECTIONS OF THE "STANDARD SPECIFICATION" WITH THE FOLLOWING MODIFICATION: "COVER MATERIAL SHALL BE THE SAME AS USED FOR BEDDING AND SHALL CONFORM TO SECTION 8.43.2 (A). BEDDING AND COVER MATERIAL SHALL BE PLACED IN A MINIMUM OF THREE SEPARATE LIFTS, OR AS REQUIRED TO INSURE ADEQUATE COMPACTING OF THESE MATERIALS, WITH ONE LIFT OF BEDDING MATERIAL ENDING AT OR NEAR THE SPRINGLINE OF THE PIPE. THE CONTRACTOR SHALL TAKE CARE TO COMPLETELY WORK BEDDING MATERIAL UNDER THE HAUNCH OF THE PIPE TO PROVIDE ADEQUATE SIDE SUPPORT."

    BACKFILL – BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS." GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS."

    MANHOLES – MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NOS. 12, 13 AND 15 OF THE "STANDARD SPECIFICATIONS" AND ALL SPECIAL PROVISIONS OF THE VILLAGE OF MUKWONAGO.

    MANHOLE FRAMES AND COVERS – MANHOLE FRAMES AND COVERS SHALL BE NEENAH R-1642 WITH TYPE "B" SELF SEALING LIDS, NON-ROCKING OR EQUAL.
21. WATER MAIN AND SANITARY SEWER SHALL BE INSULATED WHEREVER THE DEPTH OF COVER IS LESS THAN 6 FEET. INSULATION AND PLACING OF INSULATION SHALL CONFORM TO CHAPTER 4.17.0 "INSULATION" OF THE "STANDARD SPECIFICATIONS".
22. TRACER WIRE SHALL BE INSTALLED ALONG THE SANITARY SEWER SERVICE. THE TRACER WIRE SHALL BE CONTINUOUS AND SHALL BE EXTENDED ABOVE GRADE VIA A 4-INCH PVC PIPE WITH SCREW-ON CAP ADJACENT TO THE PROPOSED TERMINATION POINT OF THE LATERAL FOR THE PROPOSED BUILDING.
23. ALL NEW ON-SITE SANITARY, STORM AND WATER UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER.
24. THE CONTRACTOR SHALL CONTACT THE VILLAGE OF MUKWONAGO 48-HOURS IN ADVANCE OF WATER CONNECTIONS TO THE CITY-OWNED SYSTEM TO SCHEDULE INSPECTIONS.
25. UTILITY ASBUILT PLANS DRAWINGS PREPARED TO VILLAGE STANDARDS ARE REQUIRED PRIOR TO OCCUPANCY PERMIT ISSUANCE. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING AND REPORTING ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS TO THE ENGINEER AS WORK PROGRESSES.
26. ANY EXISTING SANITARY SEWER LATERALS THAT ARE TO BE RE-USED MUST BE TELEVISED AND THE REPORTS PROVIDED THE THE CITY FOR REVIEW, AND ANY LATERAL DEFICIENCIES WILL BE REQUIRED TO BE CORRECTED.
27. ANY EXISTING WATER OR SEWER LATERALS THAT WILL NOT BE RE-USED MUST BE ABANDONED AT THE MAIN.



GRADING AND SEEDING NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY THE FOLLOWING:
   A. ELEVATIONS OF THE BENCHMARKS PRIOR TO COMMENCING WORK.
   B. LOCATION AND ELEVATION OF:
      1. EXISTING PIPE INVERTS
2. FLOOR ELEVATIONS
   3. CURB OR PAVEMENT WHERE MATCHING INTO EXISTING WORK
4. HORIZONTAL CONTROL BY REFERENCING SHOWN COORDINATES TO KNOWN PROPERTY LINES.

NOTIFY ENGINEER OF DISCREPANCIES IN EITHER VERTICAL OR HORIZONTAL CONTROL PRIOR TO PROCEEDING WITH WORK.

2. ALL PROPOSED GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR SHALL VERIFY ALL GRADES, MAKE SURE ALL AREAS DRAIN PROPERLY AND SHALL REPORT ANY DISCREPANCIES TO THE JSD PROFESSIONAL SERVICES, INC. (JSD) PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
3. CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR COMPUTATIONS OF ALL GRADING QUANTITIES. WHILE JSD ATTEMPTS TO PROVIDE A COST- EFFECTIVE APPROACH TO BALANCE EARTHWORK, GRADING DESIGN IS BASED ON MANY FACTORS, INCLUDING SAFETY, AESTHETICS, AND COMMON ENGINEERING STANDARDS OF CARE. THEREFORE, NO GUARANTEE CAN BE MADE FOR A BALANCED SITE.
4. THE CONTRACTOR MAY SOLICIT APPROVAL FROM JSD/OWNER TO ADJUST FINAL GRADES FROM DESIGN GRADES TO PROVIDE AN OVERALL SITE BALANCE AS A RESULT OF FIELD CONDITIONS.
5. ALL UNSURFACED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL AND BE SEEDED, MULCHED AND WATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
6. THIS GRADING PLAN IS BASED ON A TOPOGRAPHIC SURVEY. SOME FIELD ADJUSTMENTS MAY BE NECESSARY AT POINTS WHERE PROPOSED GRADES MEET EXISTING. REVIEW ANY REQUIRED CHANGES WITH JSD PRIOR TO CONSTRUCTION OF WORK.
7. PROPERTY CORNER MARKERS SHALL BE CAREFULLY PROTECTED. MONUMENTS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
8. PROPOSED CONTOURS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. ALL CONSTRUCTION SHALL BE BASED UPON PROPOSED SPOT ELEVATIONS WHERE PROVIDED.
9. PARKING LOT AND DRIVEWAY ELEVATIONS ARE PAVEMENT GRADES LOCATED ALONG THE FLANGE LINE, NOT TOP OF CURB GRADES, UNLESS OTHERWISE NOTED.
10. ALL EXCAVATIONS AND MATERIAL PLACEMENT SHALL BE COMPLETED TO DESIGN ELEVATIONS AS DEPICTED IN THE PLANS.
11. GRADING ACTIVITIES SHALL BE IN A MANNER TO ALLOW POSITIVE DRAINAGE ACROSS DISTURBED SOILS, WHICH MAY INCLUDE EXCAVATION OF TEMPORARY DITCHES TO PREVENT PONDING, AND IF NECESSARY, PUMPING TO ALLEVIATE PONDING. CONTRACTOR SHALL PREVENT SURFACE WATER FROM ENTERING INTO EXCAVATIONS. IN NO WAY SHALL OWNER BE RESPONSIBLE FOR REMEDIATION OF UNSUITABLE SOILS CREATED/ORIGINATED AS A RESULT OF IMPROPER SITE GRADING OR SEQUENCING. CONTRACTOR SHALL SEQUENCE GRADING ACTIVITIES TO LIMIT EXPOSURE OF DISTURBED SOILS DUE TO WEATHER.
12. THE CONTRACTOR IS RESPONSIBLE FOR MEETING MINIMUM COMPACTION STANDARDS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL ENGINEERING REPORT FOR SITE COMPACTION REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY ENGINEER/OWNER IF PROPER COMPACTION CANNOT BE OBTAINED. THE PROJECT'S GEOTECHNICAL CONSULTANT SHALL DETERMINE WHICH IN-SITU SOILS ARE TO BE CONSIDERED UNSUITABLE SOILS. THE ENGINEER/OWNER AND GEOTECHNICAL TESTING CONSULTANT WILL DETERMINE IF REMEDIAL MEASURES WILL BE NECESSARY.
13. IN THE EVENT THAT ANY MOISTURE-DENSITY TEST(S) FAIL TO MEET SPECIFICATION REQUIREMENTS, THE CONTRACTOR SHALL PERFORM CORRECTIVE WORK AS NECESSARY TO BRING THE MATERIAL INTO COMPLIANCE AND RETEST THE FAILED AREA AT NO COST TO THE OWNER.
14. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY JSD/OWNER IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION.
15. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ADEQUATE AND SAFE TEMPORARY SHORING, BRACING, RETENTION STRUCTURES, AND EXCAVATIONS.
16. THE SITE SHALL BE COMPLETED TO WITHIN 0.10-FT (+/-) OF THE PROPOSED GRADES AS INDICATED WITHIN THE PLANS PRIOR TO PLACEMENT OF TOPSOIL OR STONE. CONTRACTOR IS ENCOURAGED TO SEQUENCE CONSTRUCTION SUCH THAT THE SITE IS DIVIDED INTO SMALLER AREAS TO ALLOW STABILIZATION OF DISTURBED SOILS IMMEDIATELY UPON COMPLETION OF INDIVIDUAL SMALLER AREAS.
17. CONTRACTOR SHALL CONTACT "DIGGER'S HOTLINE" FOR LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR PROTECTING SAID UTILITIES FROM ANY DAMAGE DURING CONSTRUCTION.
18. WORK WITHIN ANY ROADWAY RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE AUTHORITY HAVING JURISDICTION PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FEES. GRADING WITHIN RIGHT-OF-WAY IS SUBJECT TO APPROVAL BY SAID AUTHORITY. RESTORATION OF RIGHT-OF-WAY IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF GRADING. RESTORATION SHALL INCLUDE ALL ITEMS NECESSARY TO RESTORE RIGHT-OF-WAY IN-KIND INCLUDING LANDSCAPING.
19. CONTRACTOR SHALL COMPLY WITH ALL CITY AND/OR STATE CONSTRUCTION STANDARDS/ORDINANCES.
20. CONTRACTOR SHALL PROVIDE NOTICE TO THE MUNICIPALITY IN ADVANCE OF ANY SOIL DISTURBING ACTIVITIES, IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS.
21. ALL DISTURBED AREAS SHALL BE SODDED AND/OR SEEDED AND MULCHED IMMEDIATELY FOLLOWING GRADING ACTIVITIES. SOD/SEED MIX TO BE IN ACCORDANCE WITH LANDSCAPE PLAN.
22. CONTRACTOR SHALL WATER ALL NEWLY SODDED/SEEDED AREAS DURING THE SUMMER MONTHS WHENEVER THERE IS A 7 DAY LAPSE WITH NO SIGNIFICANT RAINFALL.
23. CONTRACTOR TO DEEP TILL ALL COMPACTED PERVIOUS SURFACES PRIOR TO SODDING AND/OR SEEDING AND MULCHING.
24. ALL SLOPES 20% OR GREATER SHALL BE TEMPORARY SEEDED, MULCHED, OR OTHER MEANS OF COVER PLACED ON THEM WITHIN 2 WEEKS OF DISTURBANCE.
25. ALL EXPOSED SOIL AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 30 DAYS AND REQUIRE VEGETATIVE COVER FOR LESS THAN 1 YEAR, REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1059 AND VILLAGE OF MUKWONAGO ORDINANCES.

PROPOSED STRUCTURES TABLE

LABEL	RIM EL. (FT)	INVERT EL. (FT)	DEPTH (FT)	STRUCTURE DESC.	FRAME & GRATE
FES 1-1		S INV: 810.83 (8")		8 IN HDPE FES	
FES 2-1		E INV: 813.00 (18")		18 IN HDPE FES	
FES 2-5		S INV: 815.40 (12")		12 IN HDPE FES	
STO 1-2	814.50	N INV: 811.00 (8") E INV: 811.00 (6")	3.0	36 IN CB (FLAT)	R-2565-G
STO 2-2	817.25	W INV: 813.25 (18") NE INV: 813.25 (18") NW INV: 813.25 (12") N INV: 813.25 (12")	4.0	72 IN MH (FLAT)	R-3067 TYPE R
STO 2-3	816.50	SW INV: 813.50 (18") N INV: 813.50 (12") NW INV: 813.50 (8")	3.0	60 IN MH (FLAT)	R-2501 TYPE D
STO 2-4	816.45	S INV: 813.88 (12") N INV: 813.88 (12")	2.6	12 IN DB	12 IN DOME GRATE
STO 2-6	816.85	S INV: 813.60 (12") E INV: 813.60 (12")	3.2	24 IN DB	24 IN DOME GRATE
STO 2-7	816.85	W INV: 813.85 (12")	3.0	12 IN DB	12 IN DOME GRATE
STO 2-8	815.40	SE INV: 813.32 (12")	2.1	24 IN DB	24 IN DOME GRATE
STO 2-9	817.35	SE INV: 813.85 (8") NE INV: 813.85 (8")	3.5	12 IN DB	12 IN DOME GRATE
STO 3-1		S INV: 812.50 (12")		12 IN HDPE FES	
STO 3-2	815.00	N INV: 812.65 (12") NE INV: 812.65 (6") NW INV: 812.65 (6")	2.4	24 IN DB	24 IN DOME GRATE

PROPOSED PIPES TABLE

LABEL	FROM	TO	LENGTH	INVERT EL. (FT)	DISCHARGE EL. (FT)	SLOPE	SIZE & MATERIAL
P-1-2	STO 1-2	FES 1-1	41'	811.00	810.83	0.41%	8 IN HDPE
P-1-3		STO 1-2	81'	811.40	811.00	0.50%	6 IN HDPE
P-2-2	STO 2-2	FES 2-1	125'	813.25	813.00	0.20%	18 IN HDPE
P-2-3	STO 2-3	STO 2-2	126'	813.50	813.25	0.20%	18 IN HDPE
P-2-4	STO 2-4	STO 2-3	94'	813.88	813.50	0.40%	12 IN HDPE
P-2-5	FES 2-5	STO 2-4	86'	815.40	813.88	1.77%	12 IN HDPE
P-2-6	STO 2-6	STO 2-2	64'	813.60	813.25	0.55%	12 IN HDPE
P-2-7	STO 2-7	STO 2-6	41'	813.85	813.60	0.62%	12 IN HDPE
P-2-8	STO 2-8	STO 2-2	36'	813.32	813.25	0.20%	12 IN HDPE
P-2-9	STO 2-9	STO 2-3	34'	813.85	813.50	1.04%	8 IN HDPE
P-2-10	Downspout	STO 2-9	4'	813.90	813.85	1.25%	8 IN HDPE
P-3-2	STO 3-2	STO 3-1	30'	812.65	812.50	0.50%	12 IN HDPE
P-3-3	Downspout	STO 3-2	17'	812.83	812.65	1.08%	6 IN HDPE
P-3-4	Downspout	STO 3-2	17'	812.83	812.65	1.07%	6 IN HDPE

north
SCALE IN FEET
20' 0 20'

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY
- EASEMENT LINE
- EASEMENT CENTER LINE
- WETLAND BOUNDARY
- BUILDING OUTLINE
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- 959 PROPOSED 1 FOOT CONTOUR
- 960 PROPOSED 5 FOOT CONTOUR
- 959 EXISTING 1 FOOT CONTOUR
- 960 EXISTING 5 FOOT CONTOUR
- PROPOSED BREAKLINE
- OVERFLOW ROUTE
- RIP-RAP
- RETAINING WALL
- LIGHT POLE
- ADA PARKING SIGN
- XXX.XX SPOT ELEVATION
  TP – TOP OF PAVEMENT
  TW – TOP OF WALK
- PROPOSED CATCH BASIN
- PROPOSED STORM CURB INLET
- PROPOSED STORM MANHOLE
- PROPOSED STORM SEWER
- W PROPOSED WATERMAIN
- SAN PROPOSED SANITARY
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY CLEANOUT
- PROPOSED WATER VALVE
- PROPOSED FIRE HYDRANT

GENERAL NOTES

1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGENDS.
2. ALL WORK IN THE ROW AND/OR PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN AND MUNICIPAL REQUIREMENTS.
3. EXISTING GRADE SPOT ELEVATIONS SHOWN FOR INFORMATIONAL PURPOSES. DURING CONSTRUCTION MATCH EXISTING GRADES AT CONSTRUCTION LIMITS.
4. NO SITE GRADING OUTSIDE OR DOWNSLOPE OF PROPOSED SILT FENCE LOCATION. NO LAND DISTURBANCE BEYOND PROPERTY LINES.
5. JSD PROFESSIONAL SERVICES, INC. (JSD) SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.

DIGGERS HOTLINE
Toll Free (800) 242-8511

JSD Professional Services, Inc.
Engineers • Surveyors • Planners
CREATE THE VISION TELL THE STORY
MADISON | MILWAUKEE | WAUSAU
APPLETON | KENOSHA | CHICAGO
COEUR D'ALENE
MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1	12/12/2019	Revised per Village Comments
2	02/06/2020	Rev. per Vil. & WDNR Comments
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

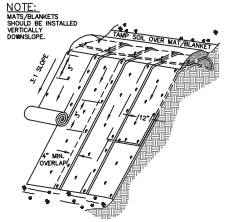
SHEET TITLE:
GRADING AND UTILITY PLAN

SHEET NUMBER:
C5.0

JSD PROJECT NO: 19-9231

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF JSD PROFESSIONAL SERVICES, INC.

File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Civil Sheets\19-9231 C5 - Grading and Utility Plan.dwg Layout: 5.0 Grading Plan User: cpeterson Plotted: Feb 06, 2020 - 4:35pm Xref's:

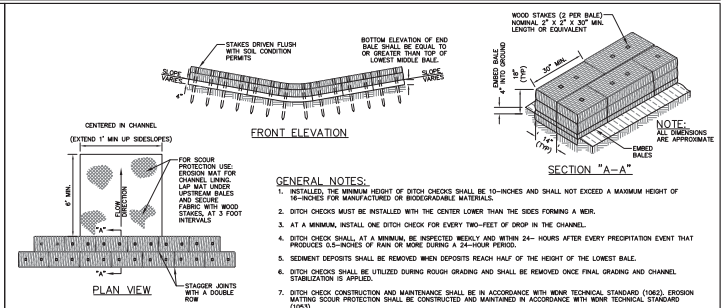


GENERAL NOTES:

1. EROSION MAT CONSTRUCTION SHALL BE IN ACCORDANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1052 "NON-CHANNEL EROSION MAT".
2. ONLY WisDOT EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) APPROVED MATS SHALL BE ALLOWED. REFER TO EROSION CONTROL PLAN FOR EXACT MAT CLASSIFICATION.
3. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
4. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
5. ONLY WisDOT EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) APPROVED MATS SHALL BE ALLOWED. REFER TO EROSION CONTROL PLAN FOR EXACT MAT CLASSIFICATION.

EROSION MATTING

REV. 11-18-2019

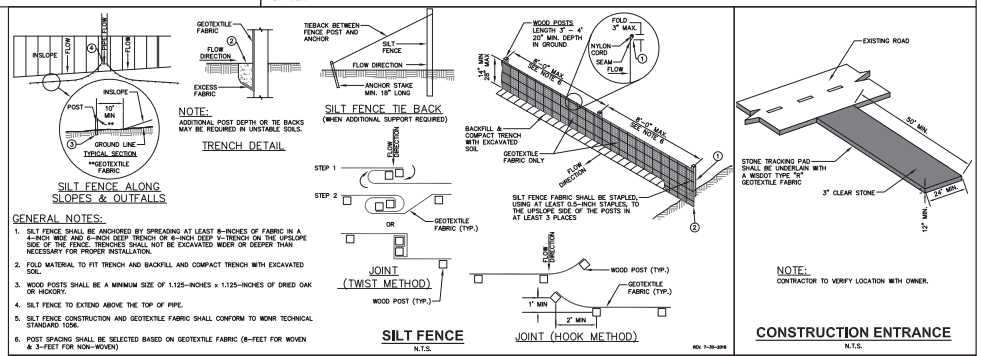


GENERAL NOTES:

1. INSTALLED, THE MINIMUM HEIGHT OF DITCH CHECKS SHALL BE 10-INCHES AND SHALL NOT EXCEED A MAXIMUM HEIGHT OF 16-INCHES FOR MANUFACTURED OR BIODEGRADABLE MATERIALS.
2. DITCH CHECKS MUST BE INSTALLED WITH THE CENTER LOWER THAN THE SIDES FORMING A WEIR.
3. AT A MINIMUM, INSTALL ONE DITCH CHECK FOR EVERY TWO-FEET OF DROP IN THE CHANNEL.
4. DITCH CHECK SHALL, AT A MINIMUM, BE INSPECTED WEEKLY AND WITHIN 24- HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5-INCHES OF RAIN OR MORE DURING A 24-HOUR PERIOD.
5. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN DEPOSITS REACH HALF OF THE HEIGHT OF THE LOWEST BALE.
6. DITCH CHECKS SHALL BE UTILIZED DURING ROUGH GRADING AND SHALL BE REMOVED ONCE FINAL GRADING AND CHANNEL STABILIZATION IS APPLIED.
7. DITCH CHECK CONSTRUCTION AND MAINTENANCE SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARD (1062). EROSION MATTING SCOUR PROTECTION SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD (1053).

DITCH CHECK (STRAW BALES)

N.T.S.



GENERAL NOTES:

1. SILT FENCE SHALL BE ANCHORED BY SPREADING AT LEAST 8-INCHES OF FABRIC IN A 4-INCH WIDE AND 6-INCH DEEP TRENCH OR 6-INCH DEEP V-TRENCH ON THE UPSLOPE SIDE OF THE FENCE. TRENCHES SHALL NOT BE EXCAVATED WIDER OR DEEPER THAN NECESSARY FOR PROPER INSTALLATION.
2. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1.125-INCHES x 1.125-INCHES OF DRIED OAK OR HICKORY.
4. SILT FENCE TO EXTEND ABOVE THE TOP OF PIPE.
5. SILT FENCE CONSTRUCTION AND GEOTEXTILE FABRIC SHALL CONFORM TO WDNR TECHNICAL STANDARD 1056.
6. POST SPACING SHALL BE SELECTED BASED ON GEOTEXTILE FABRIC (8-FEET FOR WOVEN & 3-FEET FOR NON-WOVEN)

SILT FENCE

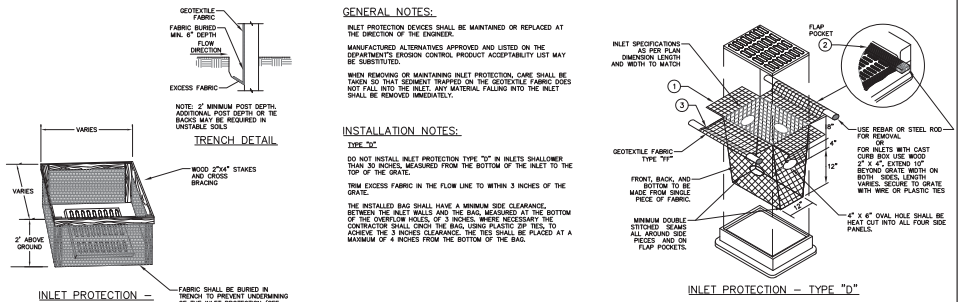
N.T.S.

REV. 7-30-2019

NOTE:
CONTRACTOR TO VERIFY LOCATION WITH OWNER.

CONSTRUCTION ENTRANCE

N.T.S.



GENERAL NOTES:

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

INSTALLATION NOTES:

TYPE "A"

DO NOT INSTALL INLET PROTECTION TYPE "D" IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3 INCHES. WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCHES CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4 INCHES FROM THE BOTTOM OF THE BAG.

INLET PROTECTION

N.T.S.

Table 1 – Prescriptive Compliance Area Soil Stabilization

Prescriptive Compliance Areas	Bare Soil	Slope & Channel Management	Periods of Inactivity	Final Grade
Soil stockpiles that will exist for more than 7 days **Utility trench backfills** **Temporary ditches/swales that will exist for more than 7 days** **Permanent ditches/swales** **Small areas – Less than 1 acre and less than 1% of site** **Discrete areas – Less than 1 acre** **Storm water practice side slopes** **Slopes steeper than 20%**	Areas that Do Not Drain to Sediment Basins or Traps Limit the duration of soil exposure to no more than 30 days. Areas that Drain to Sediment Basins or Traps Limit the duration of soil exposure to no more than 90 days. However, use the duration from the soil loss and sediment discharge calculations for the other areas of the site if less than 90 days.	General Design and implement approved soil stabilization practices per DNR technical standards. Refer to WisDOT Slope & Channel Matrices for appropriate slope and slope length conditions. Slopes Steeper than 20% Provide stable diversion of off-site runoff around the slope. Provide slope interruption devices in accordance with Manufactured Perimeter Control & Slope Interruption Products Technical Standard 1071 or equivalent methods to reduce uninterrupted slope length.	Planned Inactivity Stabilize immediately if area will be left inactive for more than 14 days. Unplanned Inactivity Stabilize area immediately if period of inactivity reaches 14 days.	Permanent Features Stabilize area immediately after reaching final grade. Temporary Features Stabilize area immediately after establishment of temporary feature or reaching specified temporary grade.

5

JSD Professional Services, Inc.
Engineers • Surveyors • Planners

CREATE THE VISION | TELL THE STORY

MADISON | MILWAUKEE | WAUSAU
APPLETON | KENOSHA | CHICAGO
COEUR D'ALENE

MILWAUKEE REGIONAL OFFICE
N226 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1	12/12/2019	Revised per City Comments
2	01/28/2020	PER WDNR COMMENTS
3	02/06/2020	Rev. per VIL & WDNR Comments
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

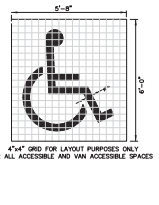
SHEET TITLE:
DETAILS

SHEET NUMBER:
C6.0

JSD PROJECT NO: 19-8231

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF JSD PROFESSIONAL SERVICES, INC.

File: R:\2019\19-8231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Civil Sheets\19-8231 C6 - Details.dwg - Layout: C6.0 Details - User: cpatterson - Plotted: Feb 06, 2020 - 5:27pm - XrefS:

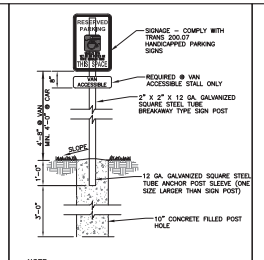


NOTE:
SYMBOL DETAILS ARE SHOWN FOR INTENT ONLY. CONTRACTOR SHALL VERIFY EXACT REQUIREMENTS PRIOR TO CONSTRUCTION.

PAINTED SYMBOL

N.T.S.

REV. 11-20-2018

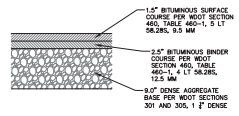


NOTE:
OPTION: DRIVEN POST MAY BE UTILIZED IN LIEU OF CONCRETE BASE. PROVIDE MIN. 3'-0" LONG ANCHOR POST SLEEVE.

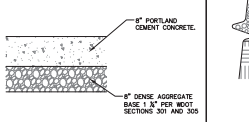
ADA SIGN

N.T.S.
N.T.S.

REV. 11-20-2018



STANDARD ASPHALT PAVEMENT SECTION



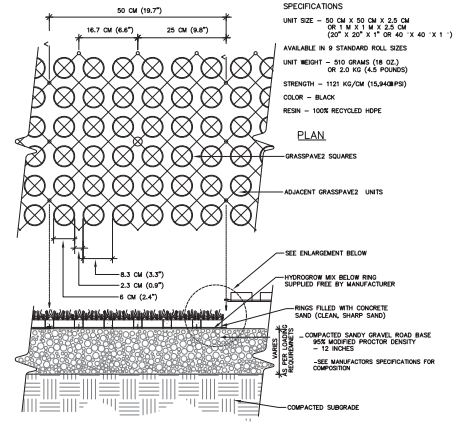
CONCRETE PAVEMENT SECTION

GENERAL NOTES:

1. REFER TO PAVEMENT RECOMMENDATIONS IN THE GEOTECHNICAL INVESTIGATION REPORT. IF THERE ARE ANY DISCREPANCIES BETWEEN THIS DETAIL AND THE PAVEMENT RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL INVESTIGATION REPORT, THE GEOTECHNICAL REPORT SHALL GOVERN.
2. WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, INCLUDING SUPPLEMENTAL SPECIFICATIONS, COMPACTION REQUIREMENTS:
   - BITUMINOUS CONCRETE: REFER TO SECTION 460-3.
   - BASE COURSE: REFER TO SECTION 301.3.4.2, STANDARD COMPACTION.
3. CONCRETE EQUIPMENT PADS SHALL HAVE A MINIMUM 6" THICK PORTLAND CEMENTER CONCRETE OVER COMPACTED 6" THICK DENSE GRADED BASE WITH REINFORCEMENT FOR CRACK CONTROL.

PAVEMENT SECTIONS

N.T.S.



SPECIFICATIONS

UNIT SIZE – 50 CM X 50 CM X 2.5 CM
OR 1 M X 1 M X 2.5 CM
(20" X 20" X 1" OR 40 `X 40 `X 1 `)

AVAILABLE IN 9 STANDARD ROLL SIZES

UNIT WEIGHT – 510 GRAMS (18 OZ.)
OR 2.0 KG (4.5 POUNDS)

STRENGTH – 1121 KG/CM (15,940PSI)

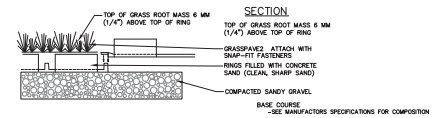
COLOR – BLACK

RESIN – 100% RECYCLED HDPE

PLAN

GRASSPAVE2 SQUARES

ADJACENT GRASSPAVE2 UNITS



SECTION

NOTE: GRASS/PLANT TYPES SHALL BE SPECIFIED BY A LANDSCAPE ARCHITECT OR LANDSCAPE DESIGNER.

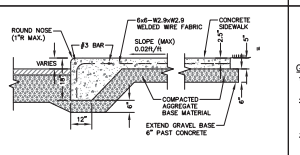
16265 E. 33RD DR., SUITE 20
AURORA, COLORADO 80011
800-233-1510 OR 303-233-8383
FAX: 800-233-1522 OR
303-233-8262
www.invisiblestructures.com
rev. 1/18

GRASSPAVE2

N.T.S.

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE CONTRACTION JOINTS IN SIDEWALKS AT 5' ON CENTER.
2. CONTRACTOR SHALL PROVIDE 1/4" EXPANSION JOINTS IN SIDEWALKS AT A MAXIMUM 35' ON CENTER. EXTEND JOINT FILLER FULL DEPTH OF SIDEWALK.
3. CONTRACTOR SHALL PROVIDE 1/2" EXPANSION JOINT BETWEEN SIDEWALK AND ALL FIXED OBJECTS.

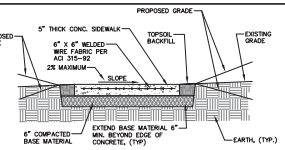


THICKENED EDGE SIDEWALK

N.T.S.

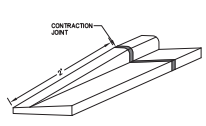
GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE CONTRACTION JOINTS IN SIDEWALKS AT 5' ON CENTER.
2. CONTRACTOR SHALL PROVIDE 1/4" EXPANSION JOINTS IN SIDEWALKS AT A MAXIMUM 35' ON CENTER. EXTEND JOINT FILLER FULL DEPTH OF SIDEWALK.
3. CONTRACTOR SHALL PROVIDE 1/2" EXPANSION JOINT BETWEEN SIDEWALK AND ALL FIXED OBJECTS.



CONCRETE SIDEWALK

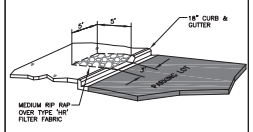
N.T.S.



TAPER CURB HEAD

N.T.S.

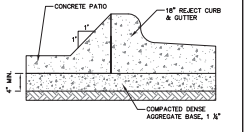
REV. 5-19-2017



CURB WEIR

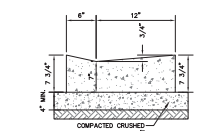
N.T.S.

REV. 5-19-2017



THICKENED EDGE PATIO & CURB

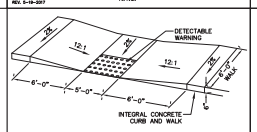
N.T.S.



18" VALLEY CURB & GUTTER

N.T.S.

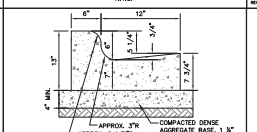
REV. 11-19-2018



ADA ACCESSIBLE RAMP

N.T.S.

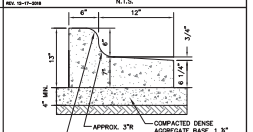
REV. 11-20-2018



18" STANDARD CURB & GUTTER

N.T.S.

REV. 12-17-2018

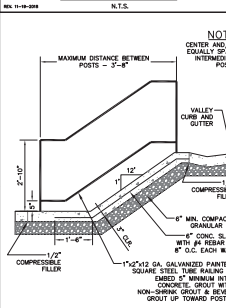


18" REJECT CURB & GUTTER

N.T.S.

REV. 12-17-2018

NOTE:
CENTER AND/OR EQUALLY SPACE INTERMEDIATE POSTS.



5' CONCRETE SIDEWALK W/ HANDRAIL

N.T.S.

JSD Professional Services, Inc.
Engineers • Surveyors • Planners

CREATE THE VISION — TELL THE STORY

MADISON | MILWAUKEE | WAUSAU
APPLETON | KENOSHA | CHICAGO
COEUR D'ALENE

MILWAUKEE REGIONAL OFFICE
W239 N1901 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1	12/12/2019	Revised per City Comments
2	12/26/2019	Rev. per WIL & WDNR Comments
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

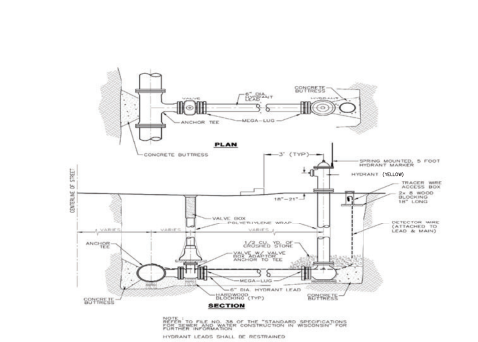
SHEET TITLE:
DETAILS

SHEET NUMBER:
C6.1

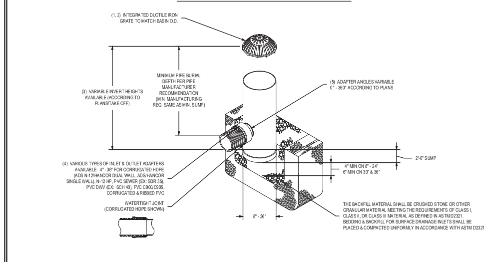
JSD PROJECT NO: 19-0231

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF JSD PROFESSIONAL SERVICES, INC.

File: R:\2019\19-0231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Civil Sheets\19-0231 CV - Details.dwg Layout: C6.1 Date/Time: Fri, Jan 10, 2020 - 3:28pm User: cpetersen



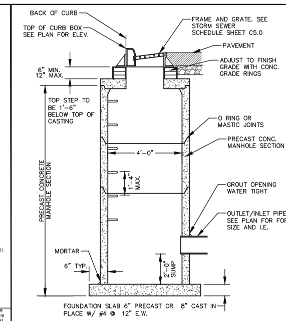
NYLOPLAST DRAIN BASIN WITH DOME GRATE

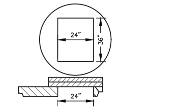


1 - 8" - 30" DOME GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 8" & 10" DOME GRATES FIT ONTO THE DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 36").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 8" - 30" DOME GRATES HAVE NO LOAD RATING.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

DRAWN BY	EBC	MATERIAL	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE	03-25-10			
REVISED BY	NMH	PROJECT NO./NAME	TITLE	DRAIN BASIN WITH DOME GRATE QUICK SPEC INSTALLATION DETAIL
DATE	06-12-18			
DWG SIZE A	SCALE 1:40	SHEET 1 OF 1	DWG NO. 7001-110-397	REV E





FLAT TOP SLAB

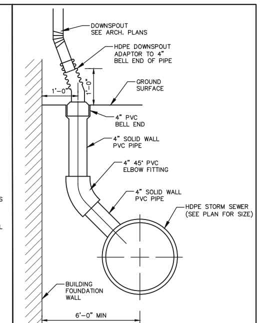
GENERAL NOTES:

1. MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
2. PROVIDE FLAT TOP SLAB FOR MANHOLES 5' OR LESS IN DEPTH. FLAT TOP SLABS TO BE IN-BELL TYPE.
3. JOINTS SHALL BE WATERTIGHT. USE BUTYL RUBBER GASKET.
4. USE MORTAR FOR PIPE CONNECTIONS.

REV. 12-7-2018

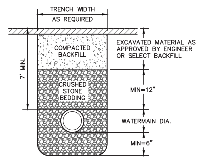
4' CATCH BASIN (CURB INLET)

N.T.S.



DOWNSPOUT

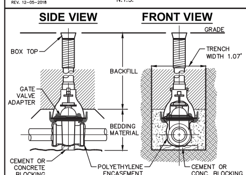
N.T.S.



REV. 12-05-2018

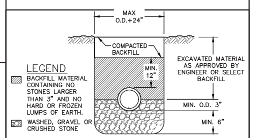
WATERMAIN BEDDING

N.T.S.



GATE VALVE BOX SETTING

N.T.S.

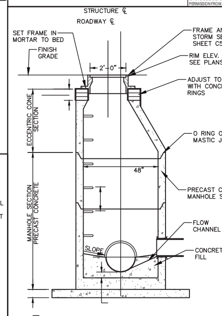


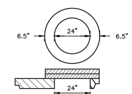
LEGEND

- BACKFILL MATERIAL CONTAINING NO STONES LARGER THAN 3" AND NO HARD OR FROZEN LUMPS OF EARTH.
- WASHED, GRAVEL OR CRUSHED STONE

STORM & SANITARY SEWER BEDDING

N.T.S.





FLAT TOP SLAB

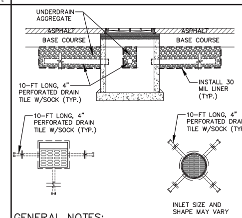
GENERAL NOTES:

1. MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
2. PROVIDE FLAT TOP SLAB FOR MANHOLES 5' OR LESS IN DEPTH. FLAT TOP SLABS TO BE IN-BELL TYPE.
3. JOINTS SHALL BE WATERTIGHT. USE BUTYL RUBBER GASKET.
4. USE MORTAR FOR PIPE CONNECTIONS.
5. ECCENTRIC CONE SECTION OF MANHOLE TO BE SET OUTSIDE OF VEHICULAR WHEEL PATH NEAR ℄ ROADWAY.

REV. 12-07-2018

STORM MANHOLE

N.T.S.



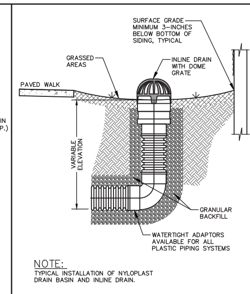
GENERAL NOTES:

1. UNDERDRAINS SHALL BE INSTALLED ON ALL INLET/CATCH BASINS LOCATED WITHIN IMPERVIOUS PAVEMENTS.
2. UNDERDRAIN CONNECTIONS SHALL BE CORED ONSITE.
3. UNDERDRAIN VERTICAL LOCATION MAY VARY DEPENDING ON STORM SEWER PIPE LOCATION.
4. ALTERNATIVE DESIGN MAY BE SUBSTITUTED IF SHOP DRAWINGS ARE SUBMITTED AND APPROVED BY THE CITY OF NEW BERLIN.

REV. 12-7-2018

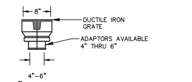
CATCH BASIN/INLET UNDERDRAIN

N.T.S.



NOTE:
TYPICAL INSTALLATION OF NYLOPLAST DRAIN BASIN AND INLINE DRAIN.

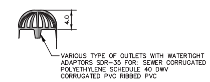
SIDE VIEW



8" INLINE DRAIN

GENERAL NOTES:

1. CASTINGS ARE RATED FOR LIGHT WHEEL LOAD TRAFFIC CONFORM TO ASTM A48 - CLASS 30B.
2. CASTING WILL BE FURNISHED WITH A BLACK PAINT.

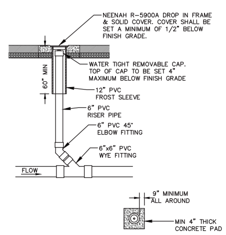


8" DUCTILE IRON DOME GRATE

REV. 12-07-2018

FIELD DRAIN

N.T.S.



NOTE:
CLEANOUT PIPING AND FITTINGS SHALL MATCH SANITARY SEWER LATERAL MATERIAL

Comm Table 82.35

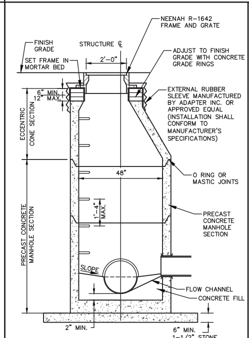
Dia of Lateral	Min Dia of Cleanout Riser	Min Dia of Riser Cap
1.5	1.5	1.5
2	1.5	1.5
3	3	2.5
4	4	3.5
5	5	4
6	6	5
8+	6	6

Neenah Grates
R-5900A 12-inch Pipe

REV. 12-6-2018

SANITARY SEWER CLEANOUT

N.T.S.



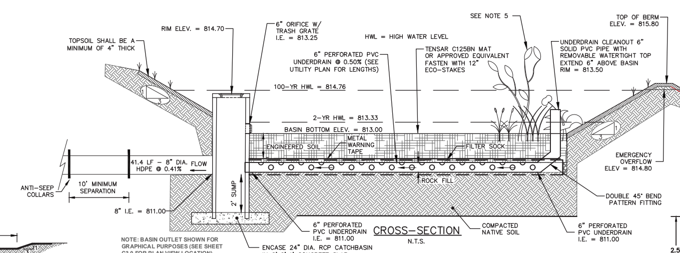
GENERAL NOTES:

1. MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
2. JOINTS SHALL BE WATERTIGHT. USE BUTYL RUBBER GASKET.
3. USE MORTAR FOR PIPE CONNECTIONS.
4. ALL MANHOLES SHALL HAVE RUBBER CHIMNEY BOOT SEALS.

REV. 12-6-2018

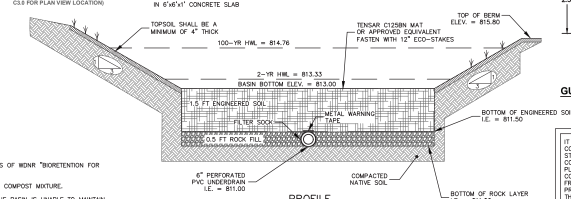
SANITARY SEWER MANHOLE

N.T.S.



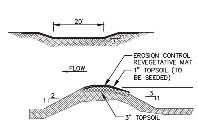
CROSS-SECTION

N.T.S.



PROFILE

N.T.S.



BIORETENTION BASIN EMERGENCY OVERFLOW WEIR DETAIL

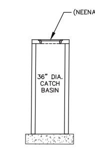
N.T.S.

GENERAL NOTES

1. ALL CONSTRUCTION SHALL MEET THE SPECIFICATIONS OF WDNR "BIORETENTION FOR INFILTRATION" TECHNICAL STANDARD 1004.
2. ENGINEERED SOIL SHALL BE A 70% SAND AND 30% COMPOST MIXTURE.
3. RUNOFF MUST INFILTRATE WITHIN 24-HOURS. IF THE BASIN IS UNABLE TO MAINTAIN THESE RATES, IT MUST BE DEEP TILLED, REGRADED, AND IF NECESSARY REPLANTED BY OWNER TO RESTORE ORIGINAL INFILTRATION RATES.
4. ALL WORK TO BE CONDUCTED IN CONFORMANCE WITH THE STORMWATER MANAGEMENT PLAN FOR THE PROJECT SITE AS APPROVED BY THE REGULATORY ENGINEER OF RECORD.
5. SEE LANDSCAPING PLANS FOR PLANTING SCHEDULE AND CONFIGURATION.

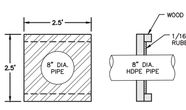
STORMWATER BIO BASIN DETAIL

N.T.S.



OUTLET STRUCTURE DETAIL

N.T.S.



SECTION

PROFILE

NOTE: ANTI-SEEP COLLAR TO BE AGRI DRAIN ASCO5 OR EQUAL

GUM RUBBER ANTI-SEEP COLLAR

N.T.S.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER CONSTRUCTION PRACTICES HAVE BEEN UTILIZED AND THAT STORMWATER MANAGEMENT FEATURES HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH APPROVED DESIGN PLANS. JSD, INC. SHALL NOT BE LIABLE FOR ANY CONSTRUCTION PRACTICES OR INSTALLATION WHICH DEVIATES FROM THE APPROVED PLAN SET. ONCE THE OWNER HAS PROVIDED FINAL APPROVAL TO THE WORK PERFORMED BY THE CONTRACTOR AND ENSURED COMPLIANCE WITH THE PLAN, IT IS THE OWNER'S RESPONSIBILITY TO MAINTAIN STORMWATER MANAGEMENT FEATURES IN ACCORDANCE WITH THE RECORDED MAINTENANCE AGREEMENT. PROPER OPERATION IS DEPENDENT ON A MULTITUDE OF VARIABLES INCLUDING WEATHER. THESE COMPONENTS REQUIRE ONGOING MAINTENANCE FOR WHICH THE OWNER IS RESPONSIBLE. JSD TAKES NO RESPONSIBILITY FOR PROPER OPERATION OF THE WATER QUALITY COMPONENTS.

RATIONAL METHOD STORM SEWER CALCULATIONS

Project Name: BIRCHROCK CASTLE ADDITION
Project Location: Mukwonago, WI
JSD Project Number: 19-9231
Performed by: IRN
Date: 2/5/2020

MILWAUKEE REGIONAL OFFICE
W238 N1610 Busse Road, Suite 100
Waukesha, Wisconsin 53188
Ph: (262) 513-0666 Fax: (262) 513-1232

JSD Professional Services, Inc. • Engineers • Surveyors • Planners

Structure abbreviations are as follows: ES - End Section, MH - Manhole, FI - Field Inlet, TD - Trench Drain, BC - Building Connection, RD - Roof Drain, STB - Stub

PIPE LOCATION		STRUCTURE CONTRIBUTING AREA					PIPE FLOW					PIPE DATA				PIPE CAPACITY INFORMATION							DROP	ELEVATIONS			COVER
UP STRUCT	DOWN STRUCT	ROOF C = 0.95 (SQ FT)	PAVED C = 0.95 (SQ FT)	GRASS C = 0.2 (SQ FT)	INDIVID AREA (ACRES)	INDIV COM C VALUE UNITLESS	STORM EVENT 2,5,10,25,50,100	INTENSITY I (IN/HR)	INDIV RUNOFF (CFS)	TOTAL FLOW (CFS)	TOTAL FLOW (GPM)	LENGTH (FT)	DIA. (IN)	SLOPE %	Manning's n RCP=0.013 HDPE=0.012 PVC=0.011	REQD DROP	ACTUAL DROP	ACTUAL FLOW PARTS FULL	VEL (FPS)	FULL FLOW (CFS)	TIME TO STRUCT. (MIN)	TIME IN SEWER (MIN)	DROP THRU STRUCT (FT)	RIM/(F/L) UP	INVERT UP	INVERT DOWN	COVER TO CROWN (FT)
FES 2-5	STO 2-4	1290	0	2910	0.10	0.43	100	7.29	0.30	0.30	136	85.84	12.00	1.77%	0.012	0.01	1.52	0.18	4.47	5.13	10.00	10.32	0.00	N/A	815.40	813.88	0.00
STO 2-4	STO 2-3	1910	665	1370	0.09	0.69	100	7.21	0.45	0.75	338	94.16	12.00	0.40%	0.012	0.04	0.38	0.37	2.80	2.44	10.32	10.88	0.00	816.45	813.88	813.50	1.47
STO 2-3	STO 2-2	0	7495	2815	0.24	0.75	100	7.08	1.25	2.49	1117	126.46	18.00	0.20%	0.012	0.06	0.25	0.54	2.96	5.09	10.88	11.59	0.00	816.50	813.50	813.25	1.35
STO 2-2	FES 2-1	0	3045	545	0.08	0.84	100	6.92	0.48	3.54	1591	125.26	18.00	0.20%	0.012	0.12	0.25	0.72	3.20	5.09	11.59	12.24	0.00	817.25	813.25	813.00	2.35
STO 2-7	STO 2-6	3120	100	290	0.08	0.89	100	7.29	0.52	0.52	234	41.00	12.00	0.62%	0.012	0.01	0.25	0.86	4.41	3.04	10.00	10.15	0.00	816.85	813.86	813.60	1.89
STO 2-6	STO 2-2	0	100	490	0.01	0.33	100	7.25	0.03	0.55	249	64.00	12.00	0.55%	0.012	0.01	0.35	0.32	3.12	2.86	10.15	10.50	0.00	816.85	813.60	813.25	2.15
STO 2-8	STO 2-2	0	100	260	0.01	0.41	100	7.29	0.02	0.02	11	36.30	12.00	0.20%	0.012	0.00	0.07	0.10	1.18	1.73	10.00	10.51	0.00	815.40	813.32	813.25	0.98
STO 2-9	STO 2-3	2910	100	260	0.08	0.89	100	7.29	0.49	0.49	219	34.00	8.00	1.04%	0.012	0.05	0.35	0.55	3.95	1.33	10.00	10.14	0.00	817.35	813.86	813.50	2.76

JSD Professional Services, Inc. • Engineers • Surveyors • Planners

CREATE THE VISION TELL THE STORY

MADISON | MILWAUKEE | WAUSAU
APPLETON | KENOSHA | CHICAGO
COEUR D'ALENE

MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1	02/06/2020	Rev. per Vill. & WDNR Comments
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

SHEET TITLE:
DETAILS

SHEET NUMBER:
C6.2

JSD PROJECT NO: 19-9231

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF JSD PROFESSIONAL SERVICES, INC.

File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Civil Sheets\19-9231 C6 - Details.dwg Layout: C6.2 Details User: cpeterson Plotted: Feb 06, 2020 - 4:42pm Xrefs:

Ruekert·Mielke W233 N2080 Ridgeview Parkway, Waukesha, WI 53188-1020 262-542-5733

February 12, 2020

Mr. Fred Winchowky
Village President
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Re: 210 McDivitt Lane – Birchrock Castle Addition
Recommendation of Approval of Development Documents

Dear President Winchowky:

We have reviewed the Storm Water Management Plan, Storm Water Maintenance Agreement, Storm Water Exemption Request and Construction Drawings for the addition to the Castle Senior Living Development at 210 McDivitt Lane, in the Village. The Storm Water Management Plan, and Civil Plan Set are dated February 6, 2020 and were received in our office, along with the other documents, on February 7, 2020. We believe the current submittal generally meets the intent of the Village Storm Water Ordinance, is in accordance with the Village of Mukwonago's Standard Specifications, and follows standard engineering practice.

We have reviewed the storm water exemption request that was included with the latest submittal documents. The request is for an exemption to Village Ordinance Section 34-110(d)(1) "Peak Discharge Requirements". Existing site conditions inhibit the ability for the applicant to easily direct flows from the north side of the proposed building, to the proposed on-site biofilter. In order to do this, the applicant would need to install a mechanical system including a series of pipes and a pump and crock. This poses a burden on the development and would require complex long-term maintenance efforts in order to maintain the system. As is true with any mechanical system, there is the possibility of mechanical failure and, in our environment, failure due to freezing. The north side of the new building is proposed to drain, undetained to the adjacent wetland complex through a filter strip. The improvements to the site are directing the vast majority of the storm water runoff to the proposed biofilter – including a large area of parking lot that previously drained, undetained and untreated to the wetland complex. As part of the improvements, the applicant is significantly improving the storm water drainage on the site and the treatment of the storm water runoff, prior to it reaching the wetlands. Peak flows are being reduced from existing conditions which will aid in reducing the concern of flooding downstream. Water quality treatment is being improved immensely and the adjacent wetlands will be receiving much cleaner storm water runoff. The storm water exemption request is attached to this letter for reference.

We, therefore, recommend the following actions of the documents to you and the Village Board:

1. Approval of the Storm Water Exemption Request dated February 6, 2020, in accordance with Village Ordinance Section 34-110(e)(1)(c).

2. Approval of the Storm Water Management Plan dated February 6, 2020.

3. Approval and execution of the Storm Water Maintenance Agreement.

    a. The Storm Water Maintenance Agreement is attached to the email in which this letter is being transmitted such that, if it is approved, it can receive the appropriate signatures and be transferred to a form suitable for recording.

We recommend the above actions also be made subject to the following conditions:

1. A breakdown of the construction costs for all storm water management devices should be provided to Ruekert & Mielke once the applicant receives construction bids. Ruekert & Mielke will review the breakdown and provide a recommendation to the Village Board for a surety amount. A surety should then be established in the form of a Letter of Credit prior to the start of construction.

2. All necessary storm water and erosion control permits be obtained, and copies of the approvals be sent to the Village of Mukwonago and Ruekert & Mielke.

3. Prior to any land disturbing activity, hold a preconstruction conference with representatives of the design team, the construction team, Village and Utility Staff and Ruekert & Mielke to ensure all members of the design and construction team understand the installation of utilities and the storm water management and erosion control plan requirements.

4. During construction, the following conditions shall be followed:

    b. Contractor shall have extreme care when conducting grading or any land disturbing activities in near proximity to the adjacent wetlands. This includes ensuring that any work does not remove or destroy any erosion and sediment control measures without additional measures being first placed downstream of the affected devices.

    c. All dewatering shall be done in accordance with the approved plans. At no time, shall dewatering practices be located outside of any approved locations without being adequately protected downstream.

    d. Owner shall maintain approved plans on-site and readily available to the Village Erosion Control Inspector.

    e. On-site approved plans must reflect current construction conditions and compliance with the Village ordinance.

    f. On-site plans must reflect the current sequence of construction and all erosion and sediment control measures shall meet the Wisconsin Department of Natural Resources Technical Standards.

    g. Village ordinance requires inspection of the erosion control measures once every 7 days and within 24 hours of a rainfall of 0.5 inches or greater. Given the proximity of this development to sensitive natural resources, it is recommended that erosion and sediment control measures be inspected at the end of each working day to ensure compliance. All inspection reports must be available on-site and available to the Village at any time. Reports must contain the information required by the WDNR.

    h. Any construction within the public right-of-way, will conform to the Village Standard Specifications and Village standard details.

    i. Owner will provide erosion control measures and restore any private utility company land disturbance resulting from providing utilities to this site regardless of location.

Our review did not include a detailed check of all engineering and survey data indicated on the drawings. The accuracy of this data is the responsibility of JSD Professional Services, Inc.

If you or any staff or board member should have any questions regarding this, please feel free to contact me at (262) 542-5733.

Respectfully,

RUEKERT & MIELKE, INC.

Peter W. Gesch
Project Engineer
pgesch@ruekertmielke.com

PWG:pwg

Enclosure(s)

cc: Diana Dykstra, Village of Mukwonago
John Weidl, Village of Mukwonago
Bob Harley, Village of Mukwonago
Mark G. Blum, Village of Mukwonago
Dave Brown, Village of Mukwonago
Ron Bittner, Village of Mukwonago
Ben Kohout, Village of Mukwonago
Dave Roberts, P.E., JSD Professional Services, Inc.
Kris Kiefer, RN, Castle Senior Living
Jerad J. Wegner, P.E., Ruekert & Mielke, Inc.

JSD Professional Services, Inc.
• Engineers • Surveyors • Planners

Milwaukee Regional Office
W238 N1610 Busse Road, Suite 100
Waukesha, WI 53188
262.513.0666

February 6, 2020

Mr. Ben Kohout
Village Planner
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Re: Birchrock Castle Addition
210 McDivitt Lane

Dear Mr. Kohout:

On behalf of our client, Castle Senior Living, we are respectfully requesting an exemption to the Sec. 34-110 Stormwater Management Plan Requirements per subsection (e) to allow the northerly side of the proposed addition to drain to splash blocks then overland into the existing wetland complex to the north and thus not meet Sec. 34-110(d)(1) Peak discharge requirements. In order to capture this area and route it through the proposed biofiltration basin located in the southwest corner of the site, a mechanical system, a series of pipes and a pump and crock, will need to be employed since the existing grade, which was purposely maintained to protect the existing wetland complex, will not allow for the north side of the roof system to tie into the proposed drainage system via gravity. Some concerns with this type of system are the level of maintenance effort required to ensure the system is functioning as designed, the possibility of failure if not maintained, the potential for the system to freeze and lead to failure and of course cost not only in installation but in long term maintenance. In order to offset this the site has been designed to correct and improve other features currently lacking onsite. As you know, the current parking lot drains unimpeded into the existing wetland complex to the north and no stormwater management practices are utilized on-site. As part of our proposed site plan all parking lot water will be captured and treated in accordance with Sec 34-110 of the Village code in the proposed biofiltration basin. In addition, we have improved the site by proposing a Village compliant erosion control plan and stormwater management plan which further protects the existing wetland complex and reduces the existing stormwater flows offsite.

If you have any questions or need additional information please feel free to contact me.

Sincerely,
JSD Professional Services, Inc.

David S. Roberts, P.E.
Senior Project Engineer

Idaho Illinois Wisconsin
www.jsdinc.com

JSD Professional Services, Inc.
• Engineers • Surveyors • Planners

Milwaukee Regional Office
W238 N1610 Busse Road, Suite 100
Waukesha, WI 53188
262.513.0666

Memorandum

To:	Peter W. Gesch, P.E.
From:	David S. Roberts, P.E.
Re:	210 McDivitt Lane CBRF Addition
JSD Project #:	19-9231
Date:	02/06/2020
cc:	Mr. Ben Kohout, Village Planner John Weidl, Village of Mukwonago Diana Dkystra, Village of Mukwonago Bob Harley, Village of Mukwonago Mark G. Blum, Village of Mukwonago Dave Brown, Village of Mukwonago Ron Bittner, Village of Mukwonago Chief Jeff Stien, Village of Mukwonago Chief Kevin Schmidt, Village of Mukwonago Jerad J. Wegner, P.E., Ruekert & Mielke, Inc. Kris Kiefer, RN, Castle Senior Living

---

We have reviewed your comments dated January 6, 2020, our subsequent conversations and have revised the attached Improvement Plans and Storm Water Management Report for 210 McDivitt Lane Birchrock Addition within the Village of Mukwonago. The original text of the memo is shown in regular text and our responses are shown in blue:

General Comments

1. In Section 6.0 “Conclusion” of the SWMP, please correct the second to last sentence to be “Village of Mukwonago” and not “City of Pewaukee”.
   Section 6.0 has been revised as requested.

2. Please submit a SWMP that is sealed and signed by a Professional Engineer licensed to practice in the State of Wisconsin. This will be needed prior to the SWMP going before the Village Board for approval.
   A copy of the SWMP signed and sealed by a Professional Engineer licensed to practice in the State of Wisconsin has been included with this submittal.

3. Please extract the Storm Water Maintenance Agreement (SWMA) from Appendix 7 of the SWMP. The document can remain in the SWMP, but a separate file will be needed to go before the Village Board for approval.
   As requested, the Storm Water Maintenance Agreement (SWMA) has been extracted as a separate file and included as part of this submittal.

4. Please fill in the blank in paragraph 3 of the SWMA.
   The SWMA has been revised to follow the Village’s standard format

5. On the signature page of the SWMA, the “This document was drafted by:” section should be updated. While Attorney Blum drafted the template, he did not draft the SWMA for this development.
   The document drafted by section of the SWMA has been updated with my contact information.

Idaho Illinois Wisconsin
www.jsdinc.com

6. Please correct the paragraph in Exhibit D of the SWMA to read, “Village of Mukwonago” instead of “City of Mukwonago”. The paragraph also seems to reference the wrong Exhibit. Please review and revisit this paragraph for revisions.
   The paragraph in Exhibit D has been revised as requested.

7. The design summary is lacking pertinent design details. Attached to this letter is an example of a typical design summary section that is acceptable to the Village. The design summary should include things like drainage basin characteristics, pond data, rainfall intensities and design storms, storm sewer sizing, and other pertinent data/results that went into designing the storm water features on-site. The design summary also needs to include a water quality summary that includes both TSS and Phosphorus reduction results.
   The design summary section of the SWMA has been revised as requested.

JSD Professional Services, Inc.
• Engineers • Surveyors • Planners

Milwaukee Regional Office
W238 N1610 Busse Road, Suite 100
Waukesha, WI 53188
262.513.0666

February 6, 2020

Mr. Ben Kohout
Village Planner
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Re: Birchrock Castle Addition
210 McDivitt Lane

Dear Mr. Kohout:

On behalf of our client, Castle Senior Living, we are respectfully requesting an exemption to the Sec. 34-110 Stormwater Management Plan Requirements per subsection (e) to allow the northerly side of the proposed addition to drain to splash blocks then overland into the existing wetland complex to the north and thus not meet Sec. 34-110(d)(1) Peak discharge requirements. In order to capture this area and route it through the proposed biofiltration basin located in the southwest corner of the site, a mechanical system, a series of pipes and a pump and crock, will need to be employed since the existing grade, which was purposely maintained to protect the existing wetland complex, will not allow for the north side of the roof system to tie into the proposed drainage system via gravity. Some concerns with this type of system are the level of maintenance effort required to ensure the system is functioning as designed, the possibility of failure if not maintained, the potential for the system to freeze and lead to failure and of course cost not only in installation but in long term maintenance. In order to offset this the site has been designed to correct and improve other features currently lacking onsite. As you know, the current parking lot drains unimpeded into the existing wetland complex to the north and no stormwater management practices are utilized on-site. As part of our proposed site plan all parking lot water will be captured and treated in accordance with Sec 34-110 of the Village code in the proposed biofiltration basin. In addition, we have improved the site by proposing a Village compliant erosion control plan and stormwater management plan which further protects the existing wetland complex and reduces the existing stormwater flows offsite.

If you have any questions or need additional information please feel free to contact me.

Sincerely,
JSD Professional Services, Inc.

David S. Roberts, P.E.
Senior Project Engineer

Idaho Illinois Wisconsin
www.jsdinc.com

STORM WATER MANAGEMENT PLAN

Project:

Castle Senior Living
Birchrock Castle Addition

Village of Mukwonago, Wisconsin
JSD Project No: 19-9231

www.JSDinc.com

Planning & Development
Site/Civil Engineering
Transportation Engineering
Water Resources
Landscape Architecture
Surveying & Mapping
Construction Management

NOVEMBER 6, 2019
REVISED December 12, 2019
REVISED February 6, 2020

Prepared for:

Castle Senior Living

JSD Professional Services, Inc.
• Engineers • Surveyors • Planners

Building relationships with a commitment to client satisfaction through trust, quality and experience.

TABLE OF CONTENTS

1.0 INTRODUCTION **1**

2.0 EXISTING CONDITIONS **1**

3.0 DESIGN CRITERIA **2**

3.1 Village of Mukwonao *2*

3.2 Wisconsin Department of Natural Resources *2*

4.0 ANALYSIS **2**

5.0 DESIGN **3**

5.1 Runoff Rate and Volume Control *4*

5.2 Water Quality – Total Suspended Solids Treatment *4*

5.3 Infiltration *5*

5.4 Storm Sewer *5*

6.0 CONCLUSION **5**

Questions and comments may be directed to:

Isaac Newman, E.I.T.
Staff Engineer
isaac.newman@jsdinc.com

David Roberts, P.E.
Senior Project Engineer
Davic.Roberts@jsdinc.com

Phone: 262.513.0666
Fax: 262.513.1232

JSD Professional Services, Inc.
• Engineers • Surveyors • Planners

Milwaukee Regional Office
W238 N1610 Busse Rd, Suite 100
Waukesha, WI 53188
www.jsdinc.com

APPENDICES

APPENDIX 1 - LOCATION MAP

APPENDIX 2 - SOIL DATA

- USDA SOIL MAP
- WDNR SURFACE WATER DATA VIEWER MAP
- GEOTECHNICAL ENGINEERING EXPLORATION AND ANALYSIS

APPENDIX 3 - EXISTING SITE HYDROLOGY

- EXISTING CONDITIONS HYDROLOGY EXHIBIT
- EXISTING HYDROCAD OUTPUT

APPENDIX 4 - PROPOSED SITE HYDROLOGY

- PROPOSED CONDITIONS HYDROLOGY EXHIBIT
- PROPOSED HYDROCAD OUTPUT

APPENDIX 5 - WATER QUALITY CALCULATIONS

- POST-DEVELOPMENT INPUT SUMMARY
- POST-DEVELOPMENT OUTPUT SUMMARY

APPENDIX 6 - DESIGN DETAILS

- PROPOSED EROSION CONTROL PLAN
- PROPOSED GRADING & UTILITY PLAN
- PROPOSED BIORETENTION BASIN DETAILS
- STORM SEWER SIZING CALCULATIONS
- ANTI-SEEP COLLAR DESIGN

APPENDIX 7 - OPERATION AND MAINENANCE PLAN

1.0 INTRODUCTION

The proposed CBRF addition will be located along the north side of McDivitt Lane and the west side of Mukwonago Drive in the Village of Mukwonago, Waukesha County, Wisconsin. The site is positioned in the Northwest 1/4 of the Southeast 1/4 of Section 35, Township 5 North, Range 18 East. The site is generally bounded by wetlands to the north and west and roads to the south and east. A location map illustrating the project site has been included in **Appendix 1**.

This Stormwater Management Plan has been created to address runoff rate control, water quality treatment, and infiltration requirements for the proposed CBRF Property.

This stormwater management system has been designed in accordance with Village of Mukwonago Code (Section 34-110 and Section 34-111). The stormwater for the project was designed as a "new development" site with an increase of 19,400 square feet of impervious area. A bio-retention basin will be built in the southwest corner of the site with the outlet being discharged into the wetlands. 430 linear feet of storm sewer will be installed to route the stormwater into the bio-basin

The proposed expansion consists of demolishing the existing parking lot east of the existing building. A 15,770 sq.ft. building addition will be constructed with new surface lots and driveways.

The proposed storm water management system has been designed to maintain or reduce the peak 1-yr, 2-yr, 10-year and 100-year runoff rates discharging from the existing stormwater pond at the southeast corner of the site. Please refer to **Section 3.0** and **Section 5.0** for design criteria and additional details of the stormwater facilities.

2.0 EXISTING CONDITIONS

The site consists of the existing Castle Senior Living building, associated parking lot and sidewalk, a shed, and mowed and maintained open land. The existing topography flows from the south to the north of the site into the existing wetland. See **Appendix 3** for an Existing Conditions Hydrology Exhibit.

In addition, multiple soil types have been identified on-site using soils data obtained from the United States Department of Agriculture – Natural Resources Conservation Service Web Soil Survey. A soil location map illustrating the various soils has been included in **Appendix 2**. A listing of the soil map units and descriptions is shown in Table 1 below.

Table 1 – Soil Types

Map Symbol	Map Unit Name	Hydrologic Soil Group
Sm	Sebewa silt loam, 1-2% slopes	B/D
Ph	Pella silt loam, 0-2% slopes	B/D

3.0 DESIGN CRITERIA

3.1 Village of Mukwonago

Village of Mukwonago Municipal Code Divison 4 – Stormwater Management and Erosion Control (Sec. 34-110 and Sec. 34-111)

3.2 Wisconsin Department of Natural Resources

WDNR – Technical Standards (NR151 and NR216)

Water Quantity: Village of Mukwonago ordinance requires that the Stormwater management practices reduce the peak post-development 100-year discharge rate to the peak pre-development 10-year discharge rate and also the peak post-development 10-year discharge rate to the peak pre-development 2-year discharge rate. As part of this project we are seeking an exemption to allow the northerly side of the proposed addition to drain to splash blocks then overland into the existing wetland complex to the north. Refer to **Section 5.1** for a description of the on-site water quantity measures.

Water Quality: Village of Mukwonago and the WDNR requires for a redevelopment, storm water discharges shall be treated to remove a minimum of 40% of the total suspended solids load, based on an average annual rainfall for a redevelopment and 80% for new developments. Please refer to **Section 5.2** for a description of the on-site water quality measures.

Infiltration: Village of Mukwonago states according to Sec. 34-110(d)(3)(f)2, sites are exempt "The village determines that it would impracticable to modify existing soil conditions based on soil profile evaluations extending five feet below the proposed bottom of the infiltration system. Note: USDA soil textures of sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay or clay are generally considerable unsuitable for infiltration and would require replacement or modification. "

NR 151.124(4)(c)2: Infiltration practices located in the following areas may be credited toward meeting the requirement under the following conditions, but the decision to infiltrate under these conditions is optional:

> Where the least permeable soil horizon to 5 feet below the proposed bottom of the infiltration system using the U.S. department of agriculture method of soils analysis is one of the following: sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.

Please refer to **Section 5.3** for a description of the on-site infiltration measures.

4.0 ANALYSIS

HydroCAD® Stormwater Modeling System (Version 10.00) software has been used to analyze stormwater characteristics for the CBRF project. HydroCAD® uses the accepted TR-55 methodology for determining peak runoff rates and runoff discharge volumes. Curve numbers

for proposed ground cover have been selected using the standard values specified in TR-55 for a type "B" soil. Rainfall depths utilized in the HydroCAD® model were based on the rainfall depths specified in NOAA Atlas 14 with the MSE 3 rainfall intensity curve. Results of the modeling have been included in **Appendix 3** and **Appendix 4**. The corresponding rainfall depths are shown below in Table 2.

Table 2 – Rainfall Depths

Storm Event	Rainfall Depth
1-year	2.40"
2-year	2.70"
10-year	3.81"
100-year	6.18"

The sediment reduction and infiltration volume characteristics of the proposed stormwater management facilities have been analyzed using WinSLAMM® (Version 10.3.3) Source Loading and Management Model. Peak release rates from the proposed stormwater devices were based on the results of the HydroCAD® modeling. WinSLAMM® input and output data have been included in **Appendix 5**.

5.0 DESIGN

The proposed building expansion will encompass approximately 1.3 acres. The proposed expansion will be located within the 50 foot protective area of the wetland as defined by Village Ordinance Section 34-110(d)(4)a.4. The development will include installation of private utilities, construction of the building expansion with associated parking, and construction of a bio-filtration basin. The storm water runoff from the new impervious areas will be conveyed to the bio-filtration basin via proposed storm sewers. The bio-filtration basin has been designed to reduce the peak discharge and to also meet the standard for TSS removal. Therefore the site meets the protective area exemption defined in Village Ordinance Section 34-110(d)(4)c.3

Drainage Area 1S represents 0.91acres encompassing the building roof, parking lot, and landscape areas that will drain to the bio-filtration basin (1P).

Bio-filtration basin 1P will control peak runoff release and total suspended solids, and outlet to the existing wetlands on site. In the event the outlet structure becomes clogged or otherwise inoperable, storm water will discharge by an overflow weir into the wetlands.

The remaining sub-catchments, Drainage Areas 2S, 3S & 4S, represents 0.39 acres. Runoff from these areas will discharge from the site undetained but has still been included in the total runoff calculations.

A Proposed Conditions Hydrology Exhibit illustrating the drainage areas has been included in **Appendix 4.** Please refer to **Appendix 6** for additional details of the storm water wet pond and outlet structures.

5.1 Runoff Rate and Volume Control

The proposed stormwater biofiltration basin has been designed to meet the peak runoff release rates in accordance with the Village of Mukwonago ordinance for the 1-year 2-year, 10-year, and 100-year storm events to the maximum extent practicable.

Village of Mukwonago ordinance requires that the Stormwater management practices reduce the peak post-development 100-year discharge rate to the peak pre-development 10-year discharge rate and also the peak post-development 10-year discharge rate to the peak pre-development 2-year discharge rate. As part of this project, we are seeking an exemption to allow the northerly side of the proposed addition to drain to splash blocks then overland into the existing wetland complex to the north undetained. In order to capture this area and route it through the proposed biofiltration basin located in the southwest corner of the site, a mechanical system, a series of pipes and a pump and crock, would need to be employed since the existing grade, which was purposely maintained to protect the existing wetland complex, will not allow for the north side of the roof system to tie into the proposed drainage system via gravity. Table 3 summarizes the existing release rates for the developed compared to the proposed peak release rates determined using HydroCAD®. Please refer to **Appendix 3** and **Appendix 4** for additional details of the existing and proposed peak runoff rate calculations.

Table 3 – Peak Release Rates

	Existing Release Rate (cfs)	Proposed Release Rate (cfs)
1-year	0.63	0.61
2-year	0.96	0.77
10-year	2.46	1.42
100-year	6.44	3.57

Table 5 and Table 6 present the proposed drainage area and storm water management facility characteristics, respectively.

Table 5 – Proposed Drainage Area Hydrologic Characteristics

Drainage Area (HydroCAD® Node)	Area (Acres)	Curve Number	Peak Runoff Rate (cfs)			
			1-year	2-year	10-year	100-year
1S	0.91	82	1.51	1.87	3.32	6.58
2S	0.33	79	0.47	0.60	1.11	2.28
3S	0.04	73	0.03	0.04	0.09	0.21
4S	0.02	93	0.05	0.06	0.08	0.14

Table 6 – Proposed Storm Water Management Facility Characteristics

Stormwater Management Facility		1-year	2-year	10-year	100-year
1P	Peak Inflow (cfs)	1.51	1.87	3.32	6.58
	Peak Outflow (cfs)	0.11	0.13	0.60	1.52
	Peak Water Surface Elevation	813.13	813.33	813.75	814.76
	Spillway Elevation	814.80			
	Top of Berm Elevation	815.80			

5.2 Water Quality – Total Suspended Solids Treatment

Water quality for the Mukwonago CBRF Expansion will be achieved through the settling of suspended solids in the proposed bio-filtration basin. The bio-filtration basin has been designed in accordance with the parameters set forth in WDNR Technical Standard 1004. Because the site has both redevelopment and new development areas a composite reduction rate of 72.8% was determined by weighing the reduction rates by area.

Type of Area	Area (sqft)	Removal rate
Redevelopment	10,203	40%
New development	46,417	80%
Total	56,620	72.8%

Calculation of overall TSS reduction for the site has been determined based on the difference between the total mass of solids generated under the "without controls" and "after controls" conditions using WinSLAMM® software. Table 7 summarizes the TSS reduction as calculated using WinSLAMM®. Refer to **Appendix 5** for input and output data used in the water quality and infiltration models.

Table 7 – Total Suspended Solids Loading

Without Controls (lbs)	After Controls (lbs)	Percent Reduction
296.3	70.75	**76.12%**

5.3 Infiltration

As shown in the test boring logs in the Geotechnical Engineering Exploration and Analysis in **Appendix 2**, the presence of silty clay or clay in all of the soil borings makes the site exempt from infiltration requirements.

5.4 Storm Sewer

Storm sewer will be constructed within the proposed site to convey storm water to the basin. The storm sewers have been sized to collect runoff from building roofs and pavement. All private storm sewers have been designed in accordance with the rational method and have been sized to accommodate runoff from the 100-year storm event. Complete storm sewer design computations have been included in **Appendix 6**.

6.0 CONCLUSION

The stormwater management facilities for the Mukwonago CBRF Expansion have been designed to meet or exceed Village of Mukwonago ordinance and WDNR Technical Standards NR151 and NR216. The post-development stormwater peak runoff release rates have been reduced below the Village of Mukwonago's allowable peak release rates to the maximum extent practicable. The stormwater facilities will provide an overall TSS reduction of 76.12%.

(Appendices Follow)

APPENDIX 1

Location Map

SITE LOCATION

APPENDIX 2

Soil Data

- USDA Soil Map
- WDRN Surface Water Data Viewer Map
- Geotechnical Engineering Exploration and Analysis

88° 20' 1" W
88° 19' 48" W
42° 50' 58" N
42° 50' 52" N
391040
391070
391100
391130
391160
391190
391220
391250
391280
391310
4744980
4744950
4744920
4744890
4744860
4744830
4744800
Apollo Ct
Mukwonago Dr
Ph
MgA
Sm
Soil Map may not be valid at this scale.
Map Scale: 1:1,350 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0
20
40
80
120
Feet
0
50
100
200
300
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 14, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

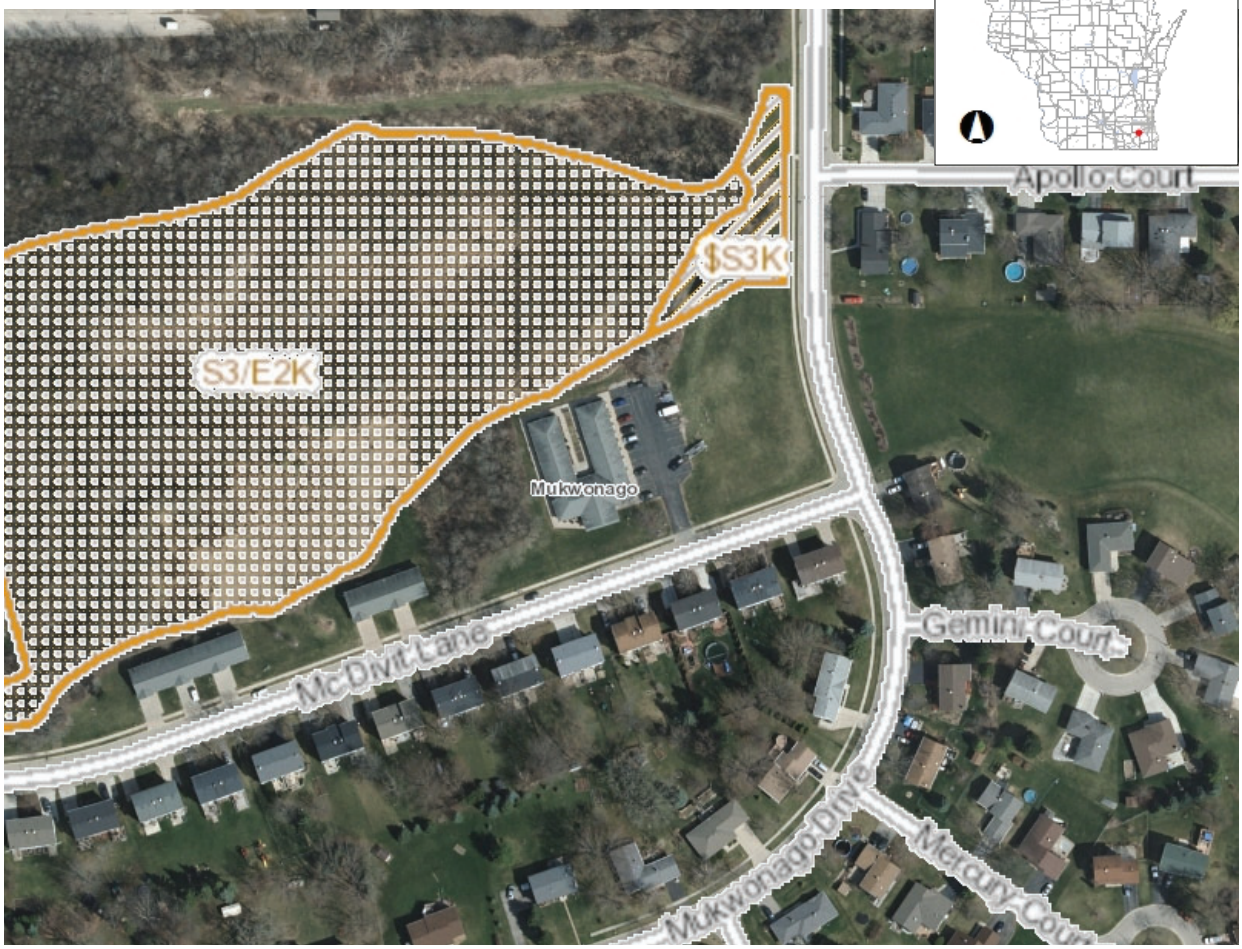
Date(s) aerial images were photographed: Apr 29, 2011—Mar 28, 2012

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
MgA	Martinton silt loam, 1 to 3 percent slopes	0.0	0.0%
Ph	Pella silt loam, 0 to 2 percent slopes	3.3	95.4%
Sm	Sebewa silt loam, 0 to 2 percent slopes	0.2	4.6%
Totals for Area of Interest		**3.4**	**100.0%**

Surface Water Data Viewer Map



Legend

- Wetland Identifications and Confirmations
- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled excavated pond
  - Filled/drained wetland
  - Wetland too small to delineate
- Filled Points
- Wetland Class Areas
  - Wetland
  - Upland
- Filled Areas
- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled excavated pond
  - Filled/drained wetland
  - Wetland too small to delineate
- Filled Points
- Wetland Class Areas
  - Wetland
  - Upland
- Filled Areas
- Intermittent Streams
- 24K Hydrography Streams and Rivers
- 24K Hydrography Lakes and Open Water
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway

0.1 0 0.03 0.1 Miles

NAD_1983_HARN_Wisconsin_TM

1: 1,980

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: http://dnr.wi.gov/legal/

Notes

Geotechnical Engineering Exploration and Analysis

Proposed CBRF Addition
210 McDivitt Lane
Mukwonago, Wisconsin

Prepared for:

Castle Senior Living
New Berlin, Wisconsin

December 3, 2019
Project No. 1G-1911002

504

GILES
ENGINEERING ASSOCIATES, INC.

GILES
ENGINEERING ASSOCIATES, INC.
GEOTECHNICAL, ENVIRONMENTAL & CONSTRUCTION MATERIALS CONSULTANTS

• Atlanta, GA
• Dallas, TX
• Los Angeles, CA
• Manassas, VA
• Milwaukee, WI

December 3, 2019

Castle Senior Living
13050 W. Cleveland Avenue
New Berlin, WI 53151

Attention: Mr. Kristopher Kiefer, RN
Owner/ Vice President

Subject: Geotechnical Engineering Exploration and Analysis
Proposed CBRF Addition
210 McDivitt Lane
Mukwonago, Wisconsin
Project No. 1G-1911002

Dear Mr. Kiefer:

As requested, Giles Engineering Associates, Inc. conducted a *Geotechnical Engineering Exploration and Analysis* for the proposed project. The accompanying report describes the services that were performed, and it provides geotechnical-related findings, conclusions, and recommendations that were derived from those services.

We sincerely appreciate the opportunity to provide geotechnical consulting services for the proposed project. Please contact the undersigned if there are questions concerning the report, or if we may be of further service.

Very truly yours,

GILES ENGINEERING ASSOCIATES, INC.

Andrew J. Globig, E.I.T.
Staff Professional I

David M. Cornale, P.E.
Sr. Geotechnical Consultant

WISCONSIN
DAVID M. CORNALE
E-43336
GREENFIELD
WI
PROFESSIONAL ENGINEER

Distribution: Castle Senior Living
Attn: Mr. Kristopher Kiefer (2 via USPS, 1 via email: kris@castlewi.com)

N8 W22350 Johnson Drive • Suite A1 • Waukesha, WI 53186
262/544-0118 • Fax 262/549-5868 • E-Mail milwaukee@gilesengr.com

TABLE OF CONTENTS

GEOTECHNICAL ENGINEERING EXPLORATION AND ANALYSIS

PROPOSED CBRF ADDITION
210 MCDIVITT LANE
MUKWONAGO, WISCONSIN
GILES PROJECT NO. 1G-1911002

Section No.	Description	Page No.
1.0	SCOPE OF SERVICES	1
2.0	SITE DESCRIPTION	1
3.0	PROJECT DESCRIPTION	1
4.0	GEOTECHNICAL SUBSURFACE EXPLORATION PROGRAM	2
5.0	GEOTECHNICAL LABORATORY SERVICES	3
6.0	MATERIAL CONDITIONS	3
6.1.	Surface Material	3
6.2.	Fill and Possible Fill Material	4
6.3.	Native Soil	4
7.0	GROUNDWATER CONDITIONS	4
8.0	CONCLUSIONS AND RECOMMENDATIONS	5
8.1.	Seismic Design Considerations	5
8.2.	Building Foundation Recommendations	5
8.3.	At-Grade Floor Slab Recommendations	9
8.4.	Pavement Recommendations	10
8.5.	Site Preparation Recommendations	12
8.6.	Generalized Construction Considerations	13
8.7.	Recommended Construction Materials Testing Services	15
9.0	BASIS OF REPORT	15

APPENDICES
Appendix A - Figure (1); Test Boring Logs (8)
Appendix B - Field Procedures
Appendix C - Laboratory Testing and Classification
Appendix D - General Information and Important Information About Your Geotechnical Report

© Giles Engineering Associates, Inc. 2019

GEOTECHNICAL ENGINEERING EXPLORATION AND ANALYSIS

PROPOSED CBRF ADDITION
210 MCDIVITT LANE
MUKWONAGO, WISCONSIN
GILES PROJECT NO. 1G-1911002

1.0 SCOPE OF SERVICES

This report provides the results of the *Geotechnical Engineering Exploration and Analysis* that Giles Engineering Associates, Inc. ("Giles") conducted for the proposed addition. The *Geotechnical Engineering Exploration and Analysis* included a Geotechnical Subsurface Exploration Program, Geotechnical Laboratory Services, and Geotechnical Engineering Services. The scope of each service area was narrow and limited, as directed by our client, and based on our understanding and assumptions about the proposed project. Service areas are briefly described later.

Geotechnical-related recommendations are provided in this report for design and construction of the foundations and ground-bearing floors of the proposed addition. Recommendations are also provided for the proposed pavement areas. Site preparation recommendations are given, but are only preliminary, as the means and methods of site preparation will depend on factors that were unknown when this report was prepared. Those factors include, but are not limited to, the weather before and during construction, subsurface conditions that are exposed during construction, and final details of the proposed project. Environmental-related consulting services were beyond Giles' scope for this project.

2.0 SITE DESCRIPTION

The subject site located on the northwest corner of Mukwonago Drive and McDivitt Lane in Mukwonago, Wisconsin. The site location is shown on the *Test Boring Location* Plan, enclosed as Figure 1 in Appendix A. When the recent *Geotechnical Subsurface Exploration Program* (discussed later) was performed, the site consisted of an asphalt parking lot in the west portion and landscaped grass areas on the remaining portions of the site. A shed was also located in the northern area of the site. The addition will abut to the existing building west of the site. It is understood that the previous building does not contain basements or other below-grade areas. Topographically, the site generally sloped downward to the north and west of the site. Elevations were between approximately El. 814 and El. 821; those elevations are referenced to the topographic contours on the *Work – 01- Arch Site Plan* (Sheet A075), Dated September 25, 2019, prepared by Plunkett Raysich Architects, LLP.

3.0 PROJECT DESCRIPTION

<u>Proposed Addition</u>

A single-story addition is planned to be constructed at the site, as shown on the *Test Boring Location Plan*. Pavement areas and parking lots are planned to be south of the addition building. It is understood that the building is planned to be a wood-framed structure that will be

supported by interior columns and perimeter bearing walls. Maximum foundation loads were not provided, but are assumed to be 3,000 pounds per lineal foot (plf) from bearing walls and 60,000 pounds from columns. The at-grade floors are planned to be ground-bearing concrete slabs. The maximum floor load was not provided, but is assumed to be 100 pounds per square foot for each building.

Based on the floor elevations on the *Work – 01- Arch Site Plan*, it is understood that the first floor of the proposed addition will be at El. 817.52 and will match the existing finish floor elevation of the door sill at the adjoining building. Proposed ground grades at the perimeter of the building are near the first-floor elevation. Based on the existing and proposed topography, the building areas will need to be raised (filled) a maximum of about 3½ feet, exclusive of any additional cutting necessary for proper site preparation.

Proposed Pavement Area

Pavement areas will be south of the addition, as shown on the *Test Boring Location Plan*. It is assumed that the pavement areas will be paved with asphalt-concrete, except that Portland cement pavement will be in high stress areas. Since Giles was not provided with traffic information, the pavement recommendations provided later are based on arbitrarily assumed traffic conditions. The *Work – 01- Arch Site Plan* shows that pavement (surface) grades within the pavement areas will be between about El. 815 and El. 821. Based on the existing topography and the proposed pavement elevations, it is expected that the pavement areas will be raised a maximum of 3 feet and cut a maximum of 3½ feet.

4.0 GEOTECHNICAL SUBSURFACE EXPLORATION PROGRAM

The purpose of the *Geotechnical Subsurface Exploration Program* was to explore subsurface conditions by conducting eight geotechnical test borings at the site. Test Boring 1 through 6 were performed within the approximate footprint of the addition area and were drilled to the planned ±16-foot exploration depth. Test Boring 7 and 8 were performed in the proposed parking lot and were drilled to the planned ±6-foot exploration depth. Auger Refusal was encountered at Test Boring 2 at 2-feet below grade due to concrete rubble. Test Boring 2A was drilled 3-feet south of Test Boring 2 to continue subsurface exploration within the area. Test boring locations were positioned on-site from the apparent property lines and other site features, and by estimating right angles. Approximate locations of the test borings are shown on the *Test Boring Location Plan.*

Samples were collected from each test boring, at certain depths, using the Standard Penetration Test (SPT), conducted with the drill rig. A brief description of the SPT is given in Appendix B, along with descriptions of other field procedures. Immediately after sampling, select portions of the SPT samples were placed in containers that were labeled at the site for identification. Retained samples were transported to Giles' geotechnical laboratory. A Standard Penetration

Resistance value (N-value) was determined from each SPT. N-values are reported on the *Test Boring Logs* (in Appendix A), which are records of the test borings.

Ground elevations at the test boring locations were estimated using topographic contours on the *Work – 01- Arch Site Plan*. Test boring elevations are considered accurate within approximately one contour interval (about 1 foot).

The boreholes were backfilled upon completion; however, settlement and/or expansion of backfill material will likely occur, possibly creating a hazard that can lead to a threat of injury to people and animals. Borehole areas should, therefore, be carefully and routinely monitored by the property owner or others; settlement and/or expansion of backfill materials should be repaired immediately. Giles will not monitor or repair boreholes.

5.0 GEOTECHNICAL LABORATORY SERVICES

The retained samples were classified using the descriptive terms and particle-size criteria shown on the *General Notes* in Appendix D, and by using the Unified Soil Classification System (ASTM D 2488) as a general guide. The classifications are shown on the *Test Boring Logs*, along with horizontal lines that show estimated depths of material change. Field-related information pertaining to the test borings is also shown on the *Test Boring Logs*. For simplicity and abbreviation, terms and symbols are used on the *Test Boring Logs;* the terms and symbols are defined on the *General Notes*.

Unconfined compression (without controlled strain), calibrated penetrometer resistance and moisture content tests were performed on select cohesive soil samples to evaluate their general engineering properties. Because SPT samples were used, results of the unconfined compression and calibrated penetrometer tests are considered to be approximate and were used as supplemental information. A Loss-on-Ignition (LOI) test was performed on a sample of cohesive (clayey) soil from Test Boring 2 to evaluate its organic content. Test results are on the *Test Boring Logs*. Laboratory procedures are briefly described in Appendix C.

6.0 MATERIAL CONDITIONS

Because material sampling at the test borings was discontinuous, it was necessary for Giles to estimate conditions between sample intervals. Estimated conditions at the test borings are briefly discussed in this section and are described in more detail on the *Test Boring Logs*. The conclusions and recommendations in this report are based on the estimated conditions.

6.1. Surface Material

Topsoil, classified as fill, was at the ground surface of the test borings, except at Test Borings 1 and 5, where asphalt-concrete pavement with an aggregate base-course was present. The topsoil generally consisted of silty clay with estimated trace to little amounts organic matter,

between ±12 and ±15 inches thick. Asphalt-concrete pavement was about 4 inches thick, and the aggregate base-course material beneath the asphalt pavement was about 7 inches thick at Test Borings 1 and 5.

6.2. Fill and Possible Fill Material

Material classified as fill was below the surface material at the test borings, and was identified to about 4 to 6½ feet below-grade. Possible fill was below the fill material at Test Borings 2, 5, 6, and 8 to approximately 6½ to 9 feet below grade, except Test Boring 8 was terminated within the possible fill material at 6 feet. The fill and possible fill materials generally consisted lean clay, clayey sand, and silty sand. Concrete rubble was below the surface material at Test Boring 2 and extended to about 4½ feet below grade. Additionally, gravel with cobbles, boulders and/or concrete rubble was encountered between ±2 and ±4 feet at Test Boring 5. The fill materials strength characteristics ranged between low to moderate. Lean clay that was between about 6½ and 9½ feet below-ground at the test borings included an estimated trace amount of organic matter, based on LOI testing and visual-manual classification.

6.3. Native Soil

Native soil was below the materials described above. In general, native soil consisted of lean clay with an estimated little amount of sand. The native soil typically exhibited a very stiff to hard comparative consistency, based on laboratory testing.

7.0 GROUNDWATER CONDITIONS

Water was encountered at about 9½ feet at Test Boring 2 during drilling. Water was not encountered at the other test borings during drilling. Additionally, mottled soil colorations were typically observed within the soils encountered in the test borings at depths ranging between ±6½ and ±9 feet.

Based on the colorations and moisture conditions of the retained soil samples and the water encountered at Test Boring 2, it is estimated that, at the time of our field services, the groundwater table within the test borings were at about 6½ to 9½ feet below ground surface. Furthermore, the site appears to be subject to shallower perched-groundwater conditions, where groundwater perches above the water table. Groundwater conditions will likely fluctuate and could be shallower at certain times.

Giles' estimate of the groundwater conditions at the site is only an approximation based on the free water encountered within the test borings, and the colors and moisture conditions of the retained soil samples. Groundwater conditions could differ from the conditions described above and the water table could be higher or lower than estimated. A more precise estimate of the groundwater conditions could be determined by installing (and monitoring) observation wells at

the site. Giles could install and monitor observation wells after receiving authorization to conduct those additional services.

8.0 CONCLUSIONS AND RECOMMENDATIONS

8.1. Seismic Design Considerations

A soil Site Class C is recommended for seismic design. By definition, Site Class is based on the average properties of subsurface materials to 100 feet below-ground. Since 100-foot test borings were not requested or authorized, it was necessary to estimate the Site Class based on the test borings, presumed area geology, and the International Building Code.

8.2. Building Foundation Recommendations

A spread-footing foundation is recommended for the proposed addition; however, existing fill is unsuitable for direct or indirect support of foundations. All footings must be directly supported by suitable-bearing native soil, and/or by new engineered fill or lean-concrete backfill (both discussed below) placed on suitable-bearing native soil. The foundations are recommended to be designed using a 4,000 pound per square foot (psf) maximum, net, allowable soil bearing capacity. For geotechnical considerations, strip footing pads are recommended to be at least 16 inches wide and isolated column pads are recommended to be at least 24 inches wide, regardless of the calculated foundation-bearing stress. Also, from a geotechnical perspective, foundation walls could be built of cast-in-place concrete or concrete masonry units. It is recommended and assumed that a structural engineer will provide specific foundation details, including footing dimensions, reinforcing, etc.

It is understood that the local building code requires a minimum 48-inch foundation depth for frost protection. Footings for perimeter walls are, therefore, recommended to be at least 48 inches below the adjacent exterior grade, or to a depth required by the governing building code. From a geotechnical perspective, interior footings could be directly below the ground-bearing floor slabs, since it is assumed that the apartment buildings will be heated, and soil beneath the buildings will not freeze. Estimated foundation-bearing elevations for perimeter and interior footings are assumed to be at ±El. 813 and ±El. 815.5, respectively.

The following table shows the estimated depths of suitable bearing native soil at the test borings within the addition area. The actual depth/elevation of suitable native soil must be determined by a geotechnical engineer at the time of construction through careful monitoring and on-site testing at both the foundation bearing grade and an adequate depth below. Between the test borings, suitable native soil might be at variable and deeper depths/elevations than shown on the following table.

TABLE 1
ESTIMATED DEPTH/ELEVATION OF SUITABLE NATIVE SOIL (a)

Test Boring	Depth Below Current Surface (b)	Elevation (c)
1	±6½ feet	±El. 807.5
2	±9½ feet	±El. 805.8
3	±6½ feet	±El. 809.8
4	±9 feet	±El.808.3
5	±6½ to ±9 feet	±El.805.8 to ±El. 808.3
6	±6½ feet	±El. 810.3

(a) For direct foundation support and/or for placement of engineered fill or lean-concrete backfill; based on a 4,000 psf maximum, net, allowable soil bearing capacity.
(b) Referenced to the existing site grades during drilling.
(c) Referenced to topographic contours on the *Work – 01- Arch Site Plan.*

Based on the estimated foundation-bearing elevations, and the estimated depths/elevations of suitable native soil shown on the table above, over-excavation of unsuitable soil should be expected to develop suitable foundation support, especially for interior footings. Because of the expected over-excavation, evaluation and approval of foundation support soil by a geotechnical engineer on a full-time basis during construction is critical. If foundation support soil is not approved by a geotechnical engineer during construction, unsuitable materials (beneath foundation areas) might not be identified and the buildings could settle excessively, possibly resulting in structural damage.

Foundation excavations are recommended to be excavated with a smooth-edge backhoe bucket to develop a relatively undisturbed bearing grade. A toothed bucket will likely disturb foundation-bearing soil more than a smooth-edge bucket, thereby making soil at the excavation base more susceptible to saturation and instability, especially during adverse weather. It is critical that contractors protect foundation support soil and foundation construction materials (concrete, reinforcing, etc.). In addition, engineered fill is recommended to be placed and compacted in benched excavations along foundation walls immediately after the foundation walls are capable of supporting lateral pressures from backfill, compaction, and compaction equipment.

Foundation Support Soil Requirements

As described above, existing fill is unsuitable for direct or indirect support of foundations. All footings must be directly supported by suitable-bearing native soil, and/or by new engineered fill or lean-concrete backfill (both discussed below) placed on suitable-bearing native soil. For the recommended 4,000 psf bearing capacity, the unconfined compressive strength of native cohesive (clayey) foundation support-soil is recommended to be at least 2.0 tons per square foot (tsf). For native non-cohesive (granular) soil, a minimum N-value (determined by the SPT and correlated from other tests) of 14 is recommended. It is further recommended that the strength characteristics of native soil within the foundation influence zones (determined by a

geotechnical engineer during construction) meet or exceed the recommended values, unless Giles approves lesser values. Engineered fill within foundation influence zones is recommended to be placed and compacted in accordance with this report, including the enclosed *Guide Specifications.*

Due to the existing fill, evaluation of foundation-support soil by a geotechnical engineer during construction is critical. The purpose of the recommended evaluation is: (1) to confirm that the foundations will be properly supported by suitable native soil, (2) to determine over-excavation depths and locations, and (3) to confirm that the subsurface conditions are similar to those described on the *Test Boring Logs*. If another firm performs the recommended support-soil evaluation, Giles must be notified if the composition or strength characteristics of support soil differs from those shown on the *Test Boring Logs*, thereby allowing us the opportunity to revise this report, if needed. Without evaluation and approval of foundation-support soil by a geotechnical engineer, the proposed building could be improperly supported.

Unsuitable materials beneath foundation areas could be replaced with engineered fill consisting of properly compacted well-graded aggregate. Aggregate fill is recommended to consist of dense-graded crushed stone that meets the gradation requirements of *dense-graded base* (1¼-inch) in Section 305 of the Wisconsin Department of Transportation Standard Specifications (2019). Aggregate with other gradation characteristics could possibly be used, but should be approved by a geotechnical engineer before the material is placed. If engineered fill is used as backfill, lateral over-excavation of unsuitable materials will also be required, in addition to the required vertical over-excavation. The overall width of lateral over-excavation will depend on the vertical over-excavation depth. For estimating purposes, the minimum lateral over-excavation could be determined by extending an imaginary line outward and downward at a ratio of 1(horizontal):2(vertical) from the bottom edges of a footing pad, but the actual lateral extents of over-excavation are recommended to be approved by a geotechnical engineer during construction.

Lean Portland cement concrete (minimum 28-day compressive strength of 500 psi) could also be used to replace unsuitable materials beneath foundation areas. Where lean concrete is used as backfill, footing construction must not begin until the lean concrete has gained sufficient strength. Also, over-excavations that are filled with lean concrete are recommended to be at least as wide (on all sides) as the footing pad that will be supported by the concrete, and excavation sidewalls are recommended to be plumb and parallel. To help control sloughing and caving, lean-concrete backfill is recommended to be placed immediately after excavation. This trench-and-pour method requires close communication and scheduling between the general contractor, foundation contractor, concrete supply company, and geotechnical engineer. With a trench-and-pour method, a geotechnical engineer must observe excavations as they are made. Full-time observation by a geotechnical engineer is, therefore, recommended.

Existing Building Considerations

Precautions must be taken to protect the existing building during construction and to ensure that excavations do not undermine or otherwise compromise the existing building, or other existing site improvements. If a void develops below existing footings or floor slabs, a geotechnical engineer should immediately observe the conditions and provide repair recommendations. In general, voids should be immediately filled with a concrete dry-pack, or a non-shrink, expansive sand-and-cement slurry should be injected into the void, under appropriate pressure, to redevelop contact between the foundation and supporting soils.

Near the existing building, it is recommended that foundations for the addition bear at the same elevation as the adjacent (existing) foundations, assuming that the required 48-inch embedment depth will be met, where required. If the new and existing footings will bear at different elevations, a structural engineer should evaluate the stresses to be imposed on the lower foundation, and confirm that the structural integrity of the existing building and addition will be maintained. Control joints should separate the existing building and the addition, since some differential movement is expected to occur at these junctures. Excavations must not be performed within the zone of influence (determined by a geotechnical engineer) of an existing footing; otherwise, existing footings could be undermined, possibly causing significant (and catastrophic) damage.

Where new foundations are perpendicular to the existing foundation, it may be necessary to cantilever new foundations a certain distance away from the outside face of the existing building to help reduce potential settlement of the existing building due to overlapping stress from the new construction. When the existing and proposed foundation systems and depths can be confirmed, Giles should be contacted to evaluate whether our recommendations need to be updated. Care must be taken to protect the existing building during construction of the addition. The existing building should be underpinned and braced, where needed. Extra care should be exercised not to undermine existing footings during removal of unsuitable materials and during construction of the new footings.

It is assumed that the proposed addition will be a self-supporting structure, and that no structural load will be imposed on the existing building due to the addition. If load is added to the existing building, it will likely undergo some settlement. The amount and location of settlement will partly depend on the magnitude and location of the load increase. Differential settlement should be expected between the existing building and the addition, even if additional load is not imposed on the existing building.

Estimated Foundation Settlement

The post-construction total and differential settlements of a spread-footing foundation designed and constructed based on this report are estimated to be less than about 1 inch and ½ inch, respectively. The post-construction angular distortion is estimated to be less than about 0.002

inch per inch across a distance of 20 feet or more. Estimated settlements assume that the site will be prepared in accordance with this report and that foundation support materials will be thoroughly tested and approved by a qualified geotechnical engineer during construction.

8.3. At-Grade Floor Slab Recommendations

With proper subgrade preparation, existing soil (including existing fill) is expected to be suitable to support at-grade floor slabs for the building addition; new engineered fill that is placed on suitable-bearing existing soil is also expected to be suitable. However, subgrade improvement (such as over-excavation and/or mechanical modification) might be necessary to develop proper slab support in some areas, considering the existing fill. Additionally, removal of nested rubble may also be necessary for proper floor slab subgrade preparation. Consequently, all at-grade floor areas are recommended to be thoroughly evaluated (and approved) by a geotechnical engineer immediately before fill placement (if any) and before floor construction. Without a thorough evaluation of floor slab support materials, at-grade floor slabs might be improperly supported, which could lead to excessive settlement.

From a geotechnical perspective, at-grade floor slabs area recommended to be at least 4 inches thick; that thickness assumes that the 28-day compressive strength of concrete will be at least 3,500 pounds per square inch (psi). Assuming proper site preparation, at-grade floor slabs may be designed using a *Modulus of Subgrade Reaction* (K_{v1}) value of 90 pounds per square inch per inch (psi/in). It is recommended and assumed that a structural engineer will design/specify the floor slab thicknesses, reinforcing, joint details, and other parameters.

A minimum 4-inch-thick base course is recommended to be below the at-grade floor slabs to serve as a capillary break and for support considerations. It is recommended that the base course consist of free-draining aggregate that has been tested and approved by a geotechnical engineer. Depending on aggregate gradation, geotextile might need to be below the base course to serve as a separator. The need for geotextile should be determined during construction with the assistance of a geotechnical engineer.

A minimum 10-mil vapor retarder is recommended to be directly above or below the base course throughout all at-grade floor areas. The location (above or below the base course) of the vapor retarder should be specified by the project structural engineer or architect. Abutting vapor retarder sheets are recommended to be overlapped and taped, and must extend to all foundation walls. Vapor retarders are recommended to be in accordance with ASTM E 1745, entitled *Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs*, or other relevant documents. If the base course has sharp, angular aggregate, protecting the retarder with geotextile (or by other means) is recommended.

Due to the frost-susceptible site soil, areas of the at-grade floor slabs (such as near exterior doors and entrance/exit vestibules) will be susceptible to freeze-thaw related movement. Installation of insulation (or other protective measures against freeze-thaw movement) should

be considered for these areas. Ground grades are recommended to be sloped away from the hotel building and sidewalks to reduce water infiltration and potential freeze-thaw problems.

Estimated Floor Slab Settlement

The post-construction total and differential settlements of an isolated floor slab constructed in accordance with this report are estimated to be less than about ½ inch and ⅓ inch, respectively, over a distance of about 20 feet. Settlement estimates are based on the assumption that floor slab support materials will be evaluated and approved by a geotechnical engineer during and immediately before floor slab construction.

8.4. Pavement Recommendations

Giles was not given traffic information for pavement design; therefore, recommendations for light-duty pavement are provided below and are based on an arbitrarily assumed traffic condition consisting of five 18-kip Equivalent Single Axle Loads (ESALs) per day. The recommended pavement sections are only intended for use in light-duty areas subject to passenger vehicles with infrequent traffic from heavier vehicles due to occasional deliveries and due to weekly removal of refuse and recyclables. The recommended pavement sections assume no increase in traffic volume and no changes in vehicle type or traffic pattern. Also, it is assumed that the ESALs noted above will be in one direction for each lane.

It is critical that the project owner, developer, civil engineer, and other design professionals involved with the project confirm that the ESALs noted above are appropriate for the expected traffic conditions, vehicle types, and axle loadings. If requested, Giles can provide supplemental pavement recommendations based upon other traffic conditions, vehicle types, and axle loads. The recommended pavement sections could underperform or fail prematurely if the design ESALs are exceeded.

It is expected that pavement support materials will consist of various materials including existing fill, native soil, and newly placed engineered fill (used to raise grades). Generally, site soil at the expected pavement subgrade consists of sand and gravel with silty clay, clayey sand and gravel, sandy gravel, and lean clay. Because lean clay has lower support characteristics (when compared with the other soil), the recommended pavement sections were developed based on a lean clay subgrade with an assumed field CBR value of 4 and a *subgrade modulus (K)* value of 90 psi/in. Engineered fill that is placed in proposed pavement areas is recommended to have a field CBR value and a *subgrade modulus* (K) value at least equivalent to the design values. Fill is recommended to be placed and compacted per this report.

Asphalt-Concrete Pavement

The following table shows the recommended thicknesses for asphalt-concrete pavement with an aggregate base-course. State specifications are also included in the table. The recommended pavement section is based on the traffic condition described above.

TABLE 3 RECOMMENDED HMA PAVEMENT SECTION		
Materials	**Pavement Thickness**	**Wisconsin DOT Standard Specifications**
Hot-Mix Asphalt Surface Course	1.5 inches	Section 460
Hot-Mix Asphalt Binder Course	2.5 inches	Section 460
Dense-Graded Aggregate Base Course	9.0 inches	Section 305, 1¼-inch Crushed Stone

Portland Cement Concrete

Portland cement concrete pavement is recommended in high-stress areas, such as the lot entrance/exit aprons, at the refuse/recyclables enclosure, and in areas where trucks will turn or will be parked. Concrete pavement is recommended to be at least 6 inches thick, and is recommended to be underlain by a minimum 4-inch-thick aggregate base-course. It is recommended that concrete pavement have load-transfer reinforcement, where appropriate. Control-joint spacing should be determined in accordance with the current ACI code. Expansion joints should be provided where pavement abuts fixed objects, such as the buildings and light poles. It is recommended and assumed that a civil engineer will provide specific recommendations for concrete pavement, including reinforcing details and control-joint spacing. The 28-day compressive strength of concrete is recommended to be at least 4,000 psi and the concrete should be properly air-entrained. Materials and construction procedures for concrete pavement and the aggregate base are recommended to be in accordance with Wisconsin DOT specifications.

General Pavement Considerations

The pavement recommendations assume that the pavement subgrade will be prepared according to this report, the base course will be properly drained, and a geotechnical engineer will observe and test pavement construction. Pavement was designed based on AASHTO design parameters for a twenty-year design period, but the actual service life may be much less, especially considering that the pavement subgrade is expected to consist of silty clay and lean clay, which are relatively poor subgrade materials. Also, because of the existing fill, additional pavement maintenance should be expected. Local codes may require specific testing to determine soil support characteristics and/or minimum pavement section thickness might be required.

8.5. Site Preparation Recommendations

This section deals with site preparation, including preparation including preparation of the floor slab, pavement, and engineered fill areas. The means and methods of site preparation will greatly depend on the weather conditions before and during construction, the subsurface conditions that are exposed during earthwork operations, and the final details of the proposed development. Therefore, only generalized site preparation recommendations are given.

In addition to being general, the following site preparation recommendations are abbreviated; the *Guide Specifications* in Appendix D gives further recommendations. The *Guide Specifications* should be read along with this section. Also, the *Guide Specifications* are recommended to be used as an aid to develop the project specifications.

Clearing and Removal

Existing pavement, surface vegetation, trees and bushes (including root-balls), topsoil with adverse organic content, and otherwise unsuitable bearing materials are recommended to be removed from the proposed building areas, pavement areas, and other structural areas. Clearing, grubbing and stripping should extend at least several feet beyond proposed development areas, where feasible.

As described earlier, concrete rubble was within Test Boring 2 and 2A, in the planned building addition area. Cobbles, boulders and/or concrete rubble were also between ±2 and ±4 feet at Test Boring 5. Due to the rubble encountered in the test borings, which could be nested, removal of rubble may be necessary. Any nested rubble from former filling is recommended to be removed to at least several feet beyond the proposed building areas.

Proof-Rolling and Fill Placement

After the recommended clearing and removal, and once the site is cut (lowered) as needed, the exposed subgrade is recommended to be proof-rolled with a fully-loaded, tandem-axle dump truck (or other suitable construction equipment) to locate unstable soil based on subgrade deflection caused by the wheel loads of the proof-roll equipment. All development areas are recommended to be proof-rolled. And, where feasible, proof-rolling should extend at least several feet beyond the development areas. It is recommended that a geotechnical engineer observe proof-roll operations and evaluate subgrade stability based on those observations. Areas that are not accessible to proof-roll equipment are recommended to be evaluated (and approved) by a geotechnical engineer using appropriate means and methods.

Soil that yields excessively or ruts during proof-rolling, or shows other signs of instability, is recommended to be replaced with engineered fill. As an option to replacement, unsuitable soil could be scarified to a sufficient depth (likely 6 to 12 inches, or more), moisture-conditioned (uniformly moistened or dried), and compacted to the required in-place density. Unsuitable soil

could also be mechanically modified with coarse aggregate and/or geosynthetics (geogrids, geotextiles, etc.). It is recommended that soil improvement recommendations be provided by a geotechnical engineer based on the conditions during construction. Due to the existing fill, subgrade improvements are expected to be necessary.

The site is recommended to be raised, where necessary, to the planned finished grade with engineered fill immediately after the subgrade is confirmed to be stable and suitable to support the proposed site improvements. Engineered fill is recommended to be placed in uniform, relatively thin layers (lifts). And each layer of engineered fill is recommended to be compacted to at least 95 percent of the fill material's maximum dry density determined from the Standard Proctor compaction test (ASTM D698). As an exception, the in-place dry density of engineered fill within one foot of the pavement subgrade is recommended to be compacted to at least 100 percent of the fill's maximum dry density. The water content of fill material is recommended to be uniform and within a narrow range of the optimum moisture content, also determined by the Standard Proctor compaction test. Item Nos. 4 and 5 of the *Guide Specifications* give move information pertaining to selection and compaction of engineered fill.

Engineered fill that does not meet the density and water content requirements is recommended to be scarified to a sufficient depth (likely 8 to 12 inches, or more), moisture-conditioned, and compacted to the required density. A subsequent lift of fill should only be placed after a geotechnical engineer confirms that the previous lift was properly placed and compacted. Subgrade soil might need to be recompacted immediately before construction, since equipment traffic and adverse weather may reduce soil stability.

Use of Site Soil as Engineered Fill

Site soil that does not contain adverse organic content or other deleterious materials, as noted in the *Guide Specifications,* could be used as engineered fill. However, site soil that is used as engineered fill will likely need to be moisture conditioned (uniformly moistened or dried). If construction is during adverse weather (discussed in the following section), drying site soil will likely not be feasible. In that case, aggregate fill (or other fill material with a low water-sensitivity) will likely need to be imported to the site. Additional recommendations regarding fill selection, placement, and compaction are given in the *Guide Specifications*.

8.6. Generalized Construction Considerations

Adverse Weather

Site soil is moisture sensitive and will become unstable when exposed to adverse weather such as rain, snow, and freezing temperatures. It might be necessary to remove or stabilize the upper 6 to 12 inches (or more) of soil that becomes unstable due to adverse weather, which commonly occurs during late fall, winter, and early spring. At least some over-excavation and/or stabilization of unstable soil should be expected if construction is during or after adverse weather. Because site preparation depends on weather, bids for site preparation, and other earthwork activities, should consider the time of year that construction will be conducted.

In an effort to protect soil from adverse weather, the site surface is recommended to be smoothly graded and contoured during construction to divert surface water away from construction areas. Contoured subgrades are recommended to be rolled with a smooth-drum compactor, before precipitation, to "seal" the surface. Furthermore, construction traffic should be restricted to certain aggregate-covered areas in an effort to reduce traffic-related soil disturbance. Foundation, floor slab, and pavement construction should begin immediately after suitable support is confirmed.

Construction Dewatering

Excavations are expected to be at or above the water table; however, some dewatering might be necessary due to perched groundwater or precipitation. Water that accumulates in construction areas is recommended to be removed along with unstable soil as soon as possible. Filtered sump pumps, drawing water from sump pits excavated in the bottom of construction trenches, will likely be adequate to remove water that collects in shallow excavations. Excavated sump pits should be fully-lined with geotextile and filled with open-graded, free-draining aggregate.

Excavation Stability

Excavations are recommended to be made in accordance with current OSHA excavation and trench safety standards, and other applicable requirements. Sides of excavations might need to be sloped, benched, and/or braced to develop and maintain a safe work environment. Temporary shoring must be designed according to applicable regulatory requirements. Contractors are responsible for excavation safety.

Existing Utilities

All existing utilities should be identified and located, and any planned to be reused should be relocated outside the building areas. Utilities that are not reused should be capped-off and removed in accordance with pertinent regulations. Excavations for utilities that are also in the influence zone of new construction are recommended to be backfilled with engineered fill placed under engineering controlled conditions. Underground utilities that are to be reused or abandoned in-place should be evaluated by a qualified plumbing contractor and utility backfill should be evaluated by a qualified geotechnical engineer. Grading operations must be done carefully so that existing utilities are not damaged or disturbed. Utility invert elevations, depths and sizes should be checked relative to the proposed construction.

Questionable Materials

Questionable materials, where encountered, are recommended to be evaluated by a geotechnical engineer to determine if removal and replacement with engineered fill is necessary. Disposal of materials should be in accordance with local, state and federal

regulations for the material type. This report might need to be revised if subsurface conditions differ from those shown on the *Test Boring Logs*.

8.7. Recommended Construction Materials Testing Services

This report was prepared assuming that a geotechnical engineer will perform Construction Materials Testing ("CMT") services during construction of the proposed development. It might be necessary for Giles to provide supplemental geotechnical recommendations based on the results of CMT services and specific details of the project not known at this time.

9.0 BASIS OF REPORT

This report is strictly based on the project description given earlier in this report. Giles must be notified if any parts of the project description or our assumptions about the proposed project are not accurate so that this report can be amended, if needed. This report is based on the assumption that the facility will be designed and constructed according to the codes that govern construction at the site.

The conclusions and recommendations in this report are based on estimated subsurface conditions as shown on the *Test Boring Logs* and the *Records of Subsurface Exploration*. Giles must be notified if the subsurface conditions that are encountered during construction of the proposed development differ from those shown on the *Test Boring Logs* and *Records of Subsurface Exploration* because this report will likely need to be revised. General comments and limitations of this report are given in the appendix.

The conclusions and recommendations presented in this report have been promulgated in accordance with generally accepted professional engineering practices in the field of geotechnical engineering. No other warranty is either expressed or implied.

© Giles Engineering Associates, Inc. 2019

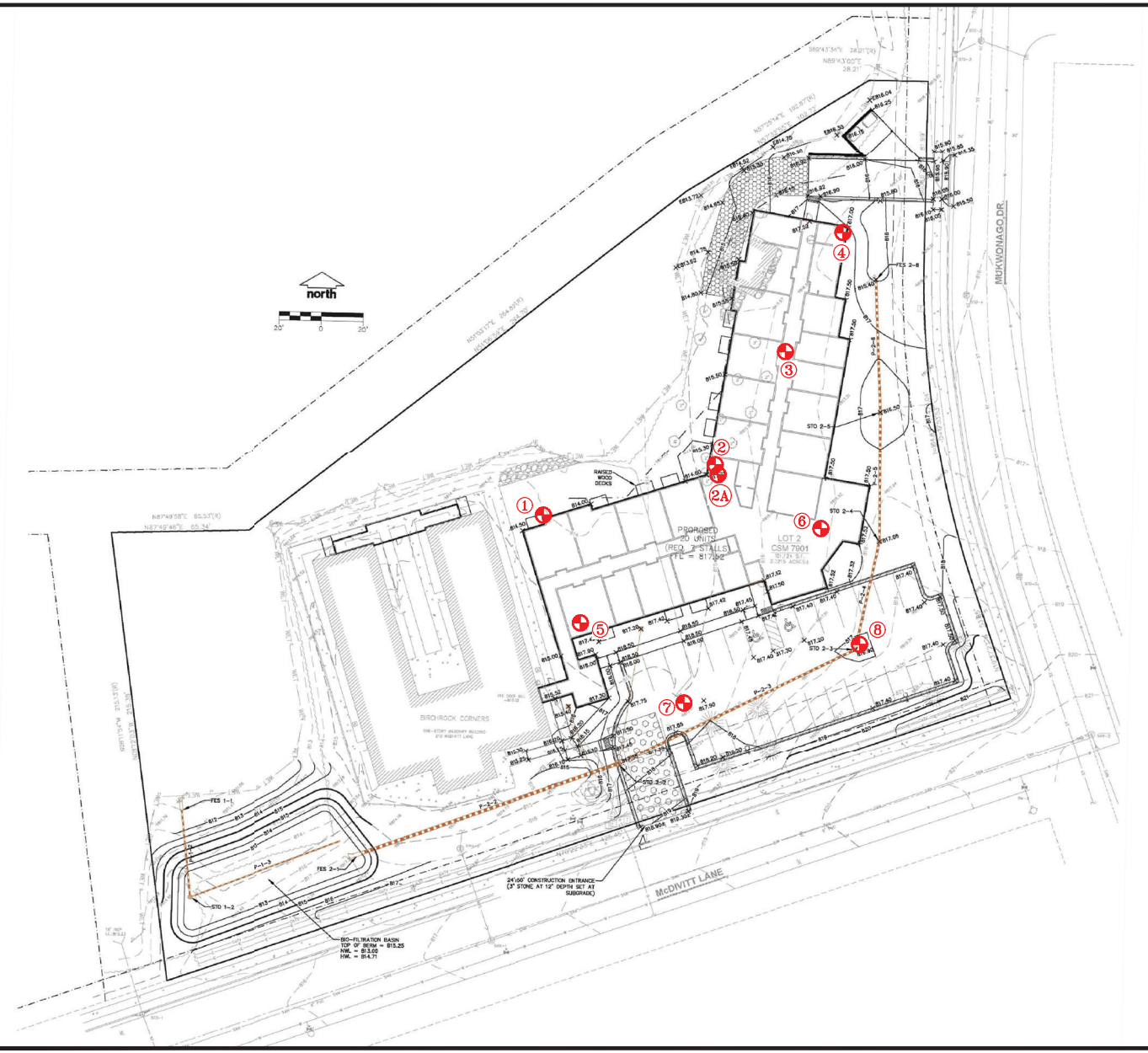
1G-1911002/19Proj04/Geo/ajg

APPENDIX A

FIGURES AND TEST BORING LOGS

The Test Boring Location Plan contained herein was prepared based upon information supplied by *Giles'* client, or others, along with *Giles'* field measurements and observations. The diagram is presented for conceptual purposes only and is intended to assist the reader in report interpretation.

The Test Boring Logs and related information enclosed herein depict the subsurface (soil and water) conditions encountered at the specific boring locations on the date that the exploration was performed. Subsurface conditions may differ between boring locations and within areas of the site that were not explored with test borings. The subsurface conditions may also change at the boring locations over the passage of time.



NOTES:

1.) TEST BORING LOCATIONS ARE APPROXIMATE.

2.) PROPOSED FEATURES ARE APPROXIMATE BASED ON THE "WORK - 01- ARCH SITE PLAN" (SHEET A075), DATED 9-25-19, PREPARED BY PLUNKETT RAYSICH ARCHITECTS, LLP.

LEGEND:

① GEOTECHNICAL TEST BORING

GILES ENGINEERING ASSOCIATES, INC.
N8 W22350 JOHNSON DRIVE, SUITE A1
WAUKESHA, WI 53186 (262)544-0118
www.gilesengr.com

FIGURE 1
TEST BORING LOCATION PLAN
PROPOSED CBRF ADDITION
CASTLE SENIOR LIVING
210 McDIVITT LANE
MUKWONAGO, WISCONSIN

DESIGNED	DRAWN	SCALE	DATE	REVISED
PDR/AJG	Jdid	approx. 1"=50'	12-02-19	--
PROJECT NO.: 1G-1911002			CAD No. 1g1911002-blp	

BORING NO. & LOCATION: 1	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 814 feet	CBRF ADDITION	
COMPLETION DATE: 11/06/19	210 MCDIVITT LANE MUKWONAGO, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1911002	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
±4" Asphalt Concrete										
±7" Base Course			1-SS	5						
Fill: Dark Gray lean Clay, little Sand, trace Gravel-Moist			2-SS	5		1.7		15		
		810								
	5		3-SS	6	1.3	1.4		27		
Brown and Gray mottled lean Clay, little Sand-Moist			4-SS	13	2.9	2.6		17		
		805								
	10		5-SS	13	3.4	2.9		18		
Brown lean Clay, little Sand-Moist										
		800								
	15		6-SS	29	4.1	3.5		15		

Boring Terminated at about 16 feet (EL. 798')

Water Observation Data	Remarks:
Water Encountered During Drilling:	
Water Level At End of Drilling:	
Cave Depth At End of Drilling: 14 ft.	
Water Level After Drilling:	
Cave Depth After Drilling:	

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 2/2A	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 815.3 feet	CBRF ADDITION	
COMPLETION DATE: 11/06/19	210 MCDIVITT LANE MUKWONAGO, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1911002	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
±12" Topsoil Fill: Dark Brown Silty Clay, little Sand and Organic Matter-Moist		815								
Fill: Gray Gravel (Includes Concrete Rubble)-Damp			1-SS	6	2.9	3.0		22		
			2-SS	50/2"				15		(a)
Fill: Brown lean Clay, little Sand, trace Gravel-Moist	5	810	3-SS	5						
Possible Fill: Very Dark Gray and Gray lean Clay, little Sand, trace Organic Matter-Moist			4-SS	5	1.7	1.9		31		LOI=5.3%
Brown and Gray mottled lean Clay, little Sand-Wet	10	805	5-SS	11	1.9	2.1		19		
Brown lean Clay, little Sand-Moist	15	800	6-SS	11	2.4	2.3		18		

Boring Terminated at about 16 feet (EL. 799.3')

Water Observation Data	Remarks:
Water Encountered During Drilling: 9.5 ft. Water Level At End of Drilling: 10 ft. Cave Depth At End of Drilling: 13.5 ft. Water Level After Drilling: Cave Depth After Drilling:	(a) Poor Recovery, Due to Concrete Rubble Auger Refusal Occured at Test Boring 2 at 4 feet Test Boring 2A relocated approximately 3 feet south of Test Boring 2, advanced to 4½ feet without sampling and continued with sampling to 16 feet

GILES LOG REPORT 1G1911002.GPJ GILES.GDT 12/3/19

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 3	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 816.3 feet	CBRF ADDITION	
COMPLETION DATE: 11/06/19	210 MCDIVITT LANE MUKWONAGO, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1911002	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
±15" Topsoil Fill: Very Dark Gray and Brown Silty Clay, little Sand, trace Organic Matter-Moist			1-SS	8		3.5		20		
Fill: Dark Brown and Brown lean Clay, little Sand, trace Gravel-Very Moist		815	2-SS	5		0.8		20		
	5		3-SS	3				24		(a)
Gray and light Brown lean Clay, little Sand-Moist		810	4-SS	11	2.1	2.0		17		
Brown lean Clay, little Sand-Moist	10		5-SS	13	3.1	3.4		17		
		805								
	15		6-SS	19		3.5		15		

Boring Terminated at about 16 feet (EL. 800.3')

Water Observation Data	Remarks:
Water Encountered During Drilling:	(a) No recovery - Auger Sample Obtained at 3-SS
Water Level At End of Drilling:	
Cave Depth At End of Drilling:	
Water Level After Drilling:	
Cave Depth After Drilling:	

GILES LOG REPORT 1G1911002.GPJ GILES.GDT 12/3/19

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 4	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 817.2 feet	CBRF ADDITION	
COMPLETION DATE: 11/06/19	210 MCDIVITT LANE MUKWONAGO, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1911002	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
±12" Topsoil Fill: Dark Brown Silty Clay, fine to medium Sand and Gravel-Moist			1-SS	6				13		
Fill: Light Brown Silty fine to medium Sand, trace Gravel-Moist to Very Moist		815	2-SS	5				10		
	5		3-SS	6				20		
Possible Fill: Gray Silty fine to medium sand, trace Gravel and Clay-Moist		810	4-SS	7				11		
Dark Gray and Gray Silty fine to medium Sand, trace Gravel-Moist	10		5-SS	13				15		
Brown lean Clay, little Sand-Moist		805								
	15		6-SS	12	2.9	2.6		17		

Boring Terminated at about 16 feet (EL. 801.2')

Water Observation Data	Remarks:
Water Encountered During Drilling:	
Water Level At End of Drilling:	
Cave Depth At End of Drilling: 14 ft.	
Water Level After Drilling:	
Cave Depth After Drilling:	

GILES LOG REPORT 1G1911002.GPJ GILES.GDT 12/3/19

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 5	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 814.8 feet	CBRF ADDITION	
COMPLETION DATE: 11/06/19	210 MCDIVITT LANE MUKWONAGO, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1911002	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
±4" Asphalt Concrete										
±7" Base Course			1-SS	9						
Fill: Dark Brown and Brown Silty Clay, trace Sand and Gravel-Moist										
Fill: Gray Gravel (Possibly includes Cobbles, Boulders and/or Concrete Rubble)-Damp			2-SS	24						(a)
Fill: Very Dark Gray lean Clay, little Sand-Moist	5	810	3-SS	12		2.4		31		LOI=9%
Possbile Fill: Brown lean Clay, little Sand-Moist			4-SS	12						(a)
Brown and Gray mottled lean Clay, little Sand-Moist	10	805	5-SS	16	4.5	4.3		21		
	15	800	6-SS	29		4.5+		15		

Boring Terminated at about 16 feet (EL. 798.8')

Water Observation Data	Remarks:
Water Encountered During Drilling:	(a) Poor Recovery - Auger Samples at 2-SS and 4-SS
Water Level At End of Drilling:	
Cave Depth At End of Drilling: 13 ft.	
Water Level After Drilling:	
Cave Depth After Drilling:	

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 6	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 816.8 feet	CBRF ADDITION	
COMPLETION DATE: 11/06/19	210 MCDIVITT LANE MUKWONAGO, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1911002	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
±14" Topsoil Fill: Very Dark Gray and Brown Silty Clay, little Sand, trace Gravel and Organic Matter-Moist			1-SS	12						
Fill: Brown Silty fine to medium Sand, trace Gravel-Moist		815								
Fill: Brown Clayey Sand, trace Silt-Moist			2-SS	4				15		
Possible Fill: Very Dark Gray lean Clay, little Sand-Moist	5		3-SS	5		1.5		26		
Brown and Gray mottled lean Clay, little Sand-Moist		810	4-SS	11		2.3		17		
	10		5-SS	9	3.0	3.2		18		
		805								
	15		6-SS	20	6.0	4.5+		15		

Boring Terminated at about 16 feet (EL. 800.8')

Water Observation Data	Remarks:
Water Encountered During Drilling:	
Water Level At End of Drilling:	
Cave Depth At End of Drilling: 13 ft.	
Water Level After Drilling:	
Cave Depth After Drilling:	

GILES LOG REPORT 1G1911002.GPJ GILES.GDT 12/3/19

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 7	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 815.2 feet	CBRF ADDITION	
COMPLETION DATE: 11/06/19	210 MCDIVITT LANE MUKWONAGO, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1911002	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
±14" Topsoil Fill: Dark Brown Silty Clay, little Sand, trace Gravel-Moist		815	1-SS	6						
Fill: Very Dark Gray lean Clay, little Sand-Moist			2-SS	6		3.1		32		
Brown and Gray lean Clay, little Sand	5	810	3-SS	13		2.4		24		

Boring Terminated at about 6 feet (EL. 809.2')

Water Observation Data	Remarks:
Water Encountered During Drilling:	
Water Level At End of Drilling:	
Cave Depth At End of Drilling:	
Water Level After Drilling:	
Cave Depth After Drilling:	

GILES LOG REPORT 1G1911002.GPJ GILES.GDT 12/3/19

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 8	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 818.5 feet	CBRF ADDITION	
COMPLETION DATE: 11/06/19	210 MCDIVITT LANE MUKWONAGO, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1911002	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
±13" Topsoil Fill: Dark Brown and Brown Silty Clay, little Sand, trace Gravel-Moist			1-SS	6						
Fill: Dark Brown and Brown lean Clay, little Sand, trace Gravel-Moist			2-SS	4		1.0		28		
		815								
Possible Fill: Very Dark Gray lean Clay, little Sand-Moist	5		3-SS	5		1.5		37		

Boring Terminated at about 6 feet (EL. 812.5')

Water Observation Data	Remarks:
Water Encountered During Drilling:	
Water Level At End of Drilling:	
Cave Depth At End of Drilling: 4 ft.	
Water Level After Drilling:	
Cave Depth After Drilling:	

GILES LOG REPORT 1G1911002.GPJ GILES.GDT 12/3/19

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

APPENDIX B

FIELD PROCEDURES

The field operations were conducted in general accordance with the procedures recommended by the American Society for Testing and Materials (ASTM) designation D

420 entitled “Standard Guide for Sampling Rock and Rock” and/or other relevant specifications. Soil samples were preserved and transported to *Giles’* laboratory in general accordance with the procedures recommended by ASTM designation D 4220 entitled “Standard Practice for Preserving and Transporting Soil Samples.” Brief descriptions of the sampling, testing and field procedures commonly performed by *Giles* are provided herein.

GENERAL FIELD PROCEDURES

Test Boring Elevations

The ground surface elevations reported on the Test Boring Logs are referenced to the assumed benchmark shown on the Boring Location Plan (Figure 1). Unless otherwise noted, the elevations were determined with a conventional hand-level and are accurate to within about 1 foot.

Test Boring Locations

The test borings were located on-site based on the existing site features and/or apparent property lines. Dimensions illustrating the approximate boring locations are reported on the Boring Location Plan (Figure 1).

Water Level Measurement

The water levels reported on the Test Boring Logs represent the depth of “free” water encountered during drilling and/or after the drilling tools were removed from the borehole. Water levels measured within a granular (sand and gravel) soil profile are typically indicative of the water table elevation. It is usually not possible to accurately identify the water table elevation with cohesive (clayey) soils, since the rate of seepage is slow. The water table elevation within cohesive soils must therefore be determined over a period of time with groundwater observation wells.

It must be recognized that the water table may fluctuate seasonally and during periods of heavy precipitation. Depending on the subsurface conditions, water may also become perched above the water table, especially during wet periods.

Borehole Backfilling Procedures

Each borehole was backfilled upon completion of the field operations. If potential contamination was encountered, and/or if required by state or local regulations, boreholes were backfilled with an “impervious” material (such as bentonite slurry). Borings that penetrated pavements, sidewalks, etc. were “capped” with Portland Cement concrete, asphaltic concrete, or a similar surface material. It must, however, be recognized that the backfill material may settle, and the surface cap may subside, over a period of time. Further backfilling and/or re-surfacing by *Giles’* client or the property owner may be required.

FIELD SAMPLING AND TESTING PROCEDURES

Auger Sampling (AU)

Soil samples are removed from the auger flights as an auger is withdrawn above the ground surface. Such samples are used to determine general soil types and identify approximate soil stratifications. Auger samples are highly disturbed and are therefore not typically used for geotechnical strength testing.

Split-Barrel Sampling (SS) – (ASTM D-1586)

A split-barrel sampler with a 2-inch outside diameter is driven into the subsoil with a 140-pound hammer free-falling a vertical distance of 30 inches. The summation of hammer-blows required to drive the sampler the final 12-inches of an 18-inch sample interval is defined as the "Standard Penetration Resistance" or N-value is an index of the relative density of granular soils and the comparative consistency of cohesive soils. A soil sample is collected from each SPT interval.

Shelby Tube Sampling (ST) – (ASTM D-1587)

A relatively undisturbed soil sample is collected by hydraulically advancing a thin-walled Shelby Tube sampler into a soil mass. Shelby Tubes have a sharp cutting edge and are commonly 2 to 5 inches in diameter.

Bulk Sample (BS)

A relatively large volume of soils is collected with a shovel or other manually-operated tool. The sample is typically transported to *Giles'* materials laboratory in a sealed bag or bucket.

Dynamic Cone Penetration Test (DC) – (ASTM STP 399)

This test is conducted by driving a 1.5-inch-diameter cone into the subsoil using a 15-pound steel ring (hammer), free-falling a vertical distance of 20 inches. The number of hammer-blows required to drive the cone 1¾ inches is an indication of the soil strength and density, and is defined as "N". The Dynamic Cone Penetration test is commonly conducted in hand auger borings, test pits and within excavated trenches.

- Continued -

Ring-Lined Barrel Sampling – (ASTM D 3550)

In this procedure, a ring-lined barrel sampler is used to collect soil samples for classification and laboratory testing. This method provides samples that fit directly into laboratory test instruments without additional handling/disturbance.

Sampling and Testing Procedures

The field testing and sampling operations were conducted in general accordance with the procedures recommended by the American Society for Testing and Materials (ASTM) and/or other relevant specifications. Results of the field testing (i.e. N-values) are reported on the Test Boring Logs. Explanations of the terms and symbols shown on the logs are provided on the appendix enclosure entitled “General Notes”.

APPENDIX C

LABORATORY TESTING AND CLASSIFICATION

The laboratory testing was conducted under the supervision of a geotechnical engineer in accordance with the procedures recommended by the American Society for Testing and Materials (ASTM) and/or other relevant specifications. Brief descriptions of laboratory tests commonly performed by *Giles* are provided herein.

LABORATORY TESTING AND CLASSIFICATION

Photoionization Detector (PID)

In this procedure, soil samples are "scanned" in *Giles'* analytical laboratory using a Photoionization Detector (PID). The instrument is equipped with an 11.7 eV lamp calibrated to a Benzene Standard and is capable of detecting a minute concentration of **certain** Volatile Organic Compound (VOC) vapors, such as those commonly associated with petroleum products and some solvents. Results of the PID analysis are expressed in HNu (manufacturer's) units rather than actual concentration.

Moisture Content (w) (ASTM D 2216)

Moisture content is defined as the ratio of the weight of water contained within a soil sample to the weight of the dry solids within the sample. Moisture content is expressed as a percentage.

Unconfined Compressive Strength (qu) (ASTM D 2166)

An axial load is applied at a uniform rate to a cylindrical soil sample. The unconfined compressive strength is the maximum stress obtained or the stress when 15% axial strain is reached, whichever occurs first.

Calibrated Penetrometer Resistance (qp)

The small, cylindrical tip of a hand-held penetrometer is pressed into a soil sample to a prescribed depth to measure the soils capacity to resist penetration. This test is used to evaluate unconfined compressive strength.

Vane-Shear Strength (qs)

The blades of a vane are inserted into the flat surface of a soil sample and the vane is rotated until failure occurs. The maximum shear resistance measured immediately prior to failure is taken as the vane-shear strength.

Loss-on-Ignition (ASTM D 2974; Method C)

The Loss-on-Ignition (L.O.I.) test is used to determine the organic content of a soil sample. The procedure is conducted by heating a dry soil sample to 440°C in order to burn-off or "ash" organic matter present within the sample. The L.O.I. value is the ratio of the weight loss due to ignition compared to the initial weight of the dry sample. L.O.I. is expressed as a percentage.

Particle Size Distribution (ASTB D 421, D 422, and D 1140)

This test is performed to determine the distribution of specific particle sizes (diameters) within a soil sample. The distribution of coarse-grained soil particles (sand and gravel) is determined from a “sieve analysis,” which is conducted by passing the sample through a series of nested sieves. The distribution of fine-grained soil particles (silt and clay) is determined from a “hydrometer analysis” which is based on the sedimentation of particles suspended in water.

Consolidation Test (ASTM D 2435)

In this procedure, a series of cumulative vertical loads are applied to a small, laterally confined soil sample. During each load increment, vertical compression (consolidation) of the sample is measured over a period of time. Results of this test are used to estimate settlement and time rate of settlement.

Classification of Samples

Each soil sample was visually-manually classified, based on texture and plasticity, in general accordance with the Unified Soil Classification System (ASTM D-2488-75). The classifications are reported on the Test Boring Logs.

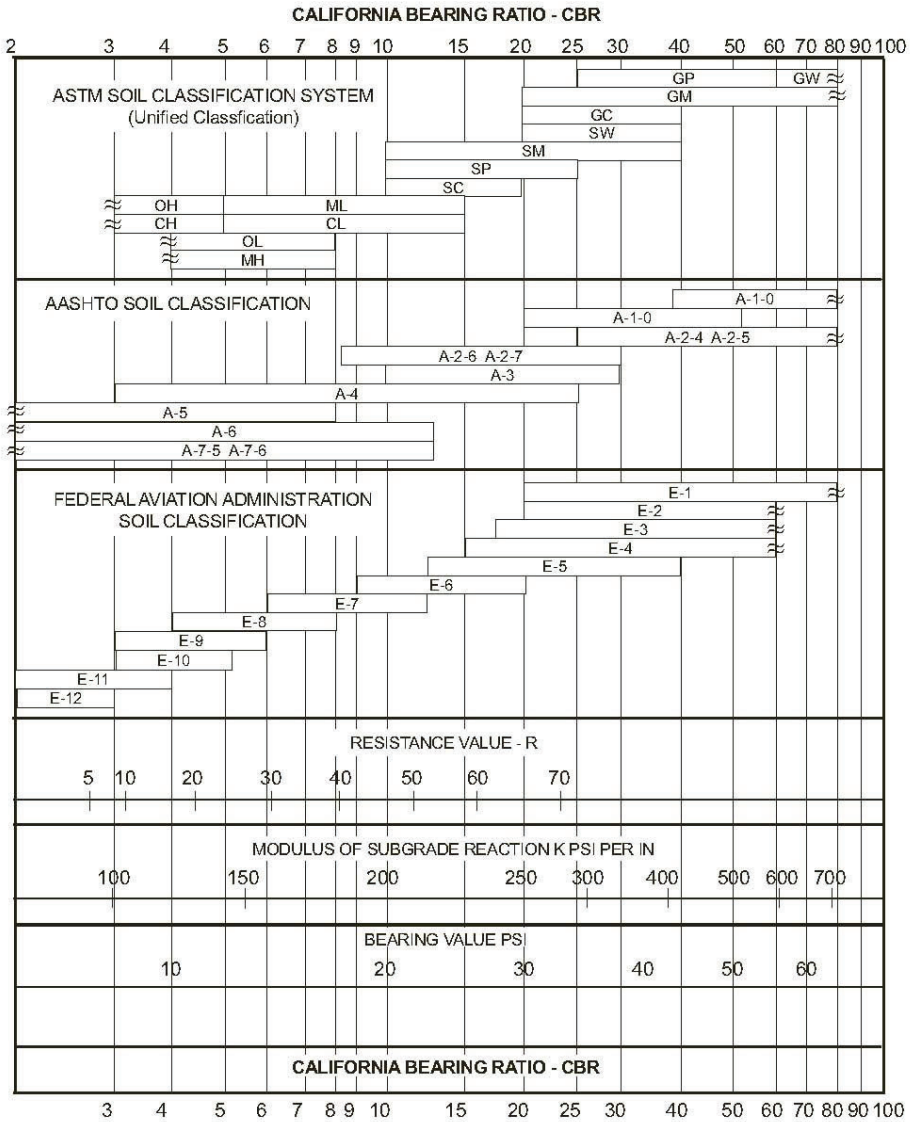
Laboratory Testing

The laboratory testing operations were conducted in general accordance with the procedures recommended by the American Society for Testing and Materials (ASTM) and/or other relevant specifications. Results of the laboratory tests are provided on the Test Boring Logs or other appendix enclosures. Explanation of the terms and symbols used on the logs is provided on the appendix enclosure entitled “General Notes.”

California Bearing Ratio (CBR) Test ASTM D-1833

The CBR test is used for evaluation of a soil subgrade for pavement design. The test consists of measuring the force required for a 3-square-inch cylindrical piston to penetrate 0.1 or 0.2 inch into a compacted soil sample. The result is expressed as a percent of force required to penetrate a standard compacted crushed stone.

Unless a CBR test has been specifically requested by the client, the CBR is estimated from published charts, based on soil classification and strength characteristics. A typical correlation chart is below.



APPENDIX D

GENERAL INFORMATION

AND
IMPORTANT INFORMATION ABOUT
YOUR GEOTECHNICAL REPORT

GENERAL COMMENTS

The soil samples obtained during the subsurface exploration will be retained for a period of thirty days. If no instructions are received, they will be disposed of at that time.

This report has been prepared exclusively for the client in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. Copies of this report may be provided to contractor(s), with contract documents, to disclose information relative to this project. The report, however, has not been prepared to serve as the plans and specifications for actual construction without the appropriate interpretation by the project architect, structural engineer, and/or civil engineer. Reproduction and distribution of this report must be authorized by the client and *Giles*.

This report has been based on assumed conditions/characteristics of the proposed development where specific information was not available. It is recommended that the architect, civil engineer and structural engineer along with any other design professionals involved in this project carefully review these assumptions to ensure they are consistent with the actual planned development. When discrepancies exist, they should be brought to our attention to ensure they do not affect the conclusions and recommendations provided herein. The project plans and specifications may also be submitted to *Giles* for review to ensure that the geotechnical related conclusions and recommendations provided herein have been correctly interpreted.

The analysis of this site was based on a subsoil profile interpolated from a limited subsurface exploration. If the actual conditions encountered during construction vary from those indicated by the borings, *Giles* must be contacted immediately to determine if the conditions alter the recommendations contained herein.

The conclusions and recommendations presented in this report have been promulgated in accordance with generally accepted professional engineering practices in the field of geotechnical engineering. No other warranty is either expressed or implied.

GUIDE SPECIFICATIONS FOR SUBGRADE AND GRADE PREPARATION FOR FILL, FOUNDATION, FLOOR SLAB AND PAVEMENT SUPPORT; AND SELECTION, PLACEMENT AND COMPACTION OF FILL SOILS USING STANDARD PROCTOR PROCEDURES

1. Construction monitoring and testing of subgrades and grades for fill, foundation, floor slab and pavement; and fill selection, placement and compaction shall be performed by an experienced soils engineer and/or his representatives.

2. All compaction fill, subgrades and grades shall be (a) underlain by suitable bearing material; (b) free of all organic, frozen, or other deleterious material, and (c) observed, tested and approved by qualified engineering personnel representing an experienced soils engineer. Preparation of subgrades after stripping vegetation, organic or other unsuitable materials shall consist of (a) proof-rolling to detect soil, wet yielding soils or other unstable materials that must be undercut, (b) scarifying top 6 to 8 inches, (c) moisture conditioning the soils as required, and (d) recompaction to same minimum in-situ density required for similar materials indicated under Item 5. Note: compaction requirements for pavement subgrade are higher than other areas. Weather and construction equipment may damage compacted fill surface and reworking and retesting may be necessary to assure proper performance.

3. In overexcavation and fill areas, the compacted fill must extend (a) a minimum 1 foot lateral distance beyond the exterior edge of the foundation at bearing grade or pavement subgrade and down to compacted fill subgrade on a maximum 0.5(H):1(V) slope, (b) 1 foot above footing grade outside the building, and (c) to floor subgrade inside the building. Fill shall be placed and compacted on a 5(H):1(V) slope or must be stepped or benched as required to flatten if not specifically approved by qualified personnel under the direction of an experienced soil engineer.

4. The compacted fill materials shall be free of deleterious, organic, or frozen matter, shall contain no chemicals that may result in the material being classified as "contaminated", and shall be low-expansive with a maximum Liquid Limit (ASTM D-423) and Plasticity Index (ASTM D-424) of 30 and 15, respectively, unless specifically tested and found to have low expansive properties and approved by an experienced soils engineer. The top 12 inches of compacted fill should have a maximum 3-inch-particle diameter and all underlying compacted fill a maximum 6-inch-diameter unless specifically approved by an experienced soils engineer. All fill materials must be tested and approved under the direction of an experienced soils engineer prior to placement. If the fill is to provide non-frost susceptible characteristics, it must be classified as a clean GW, GP, SW or SP per the Unified Soil Classification System (ASTM D-2487).

5. For structural fill depths less than 20 feet, the density of the structural compacted fill and scarified subgrade and grades shall not be less than 95 percent of the maximum dry density as determined by Standard Proctor (ASTM-698) with the exception of the top 12 inches of pavement subgrade which shall have a minimum in-situ density of 100 percent of maximum dry density, or 5 percent higher than underlying fill materials. Where the structural fill depth is greater than 20 feet, the portions below 20 feet should have a minimum in-place density of 100 percent of its maximum dry density of 5 percent greater than the top 20 feet. The moisture content of cohesive soil shall not vary by more than -1 to +3 percent and granular soil ±3 percent of the optimum when placed and compacted or recompacted, unless specifically recommended/approved by the soils engineer monitoring the placement and compaction. Cohesive soils with moderate to high expansion potentials (PI>15) should, however, be placed, compacted and maintained prior to construction at a moisture content 3±1 percent above optimum moisture content to limit further heave. The fill shall be placed in layers with a maximum loose thickness of 8 inches for foundations and 10 inches for floor slabs and pavement, unless specifically approved by the soils engineer taking into consideration the type of materials and compaction equipment being used. The compaction equipment should consist of suitable mechanical equipment specifically designed for soil compaction. Bulldozers or similar tracked vehicles are typically not suitable for compaction.

6. Excavation, filling, subgrade and grade preparation shall be performed in a manner and sequence that will provide drainage at all times and proper control of erosion. Precipitation, springs and seepage water encountered shall be pumped or drained to provide a suitable working platform. Springs or water seepage encountered during grading/foundation construction must be called to the soil engineer's attention immediately for possible construction procedure revision or inclusion of an underdrain system.

7. Non-structural fill adjacent to structural fill should typically be placed in unison to provide lateral support. Backfill along walls must be placed and compacted with care to ensure excessive unbalanced lateral pressures do not develop. The type of fill material placed adjacent to below-grade walls (i.e. basement walls and retaining walls) must be properly tested and approved by an experienced soils engineer with consideration for the lateral pressure used in the wall design.

8. Whenever, in the opinion of the soils engineer or the Owner's Representatives, an unstable condition is being created either by cutting or filling, the work shall not proceed into that area until an appropriate geotechnical exploration and analysis has been performed and the grading plan revised, if found necessary.

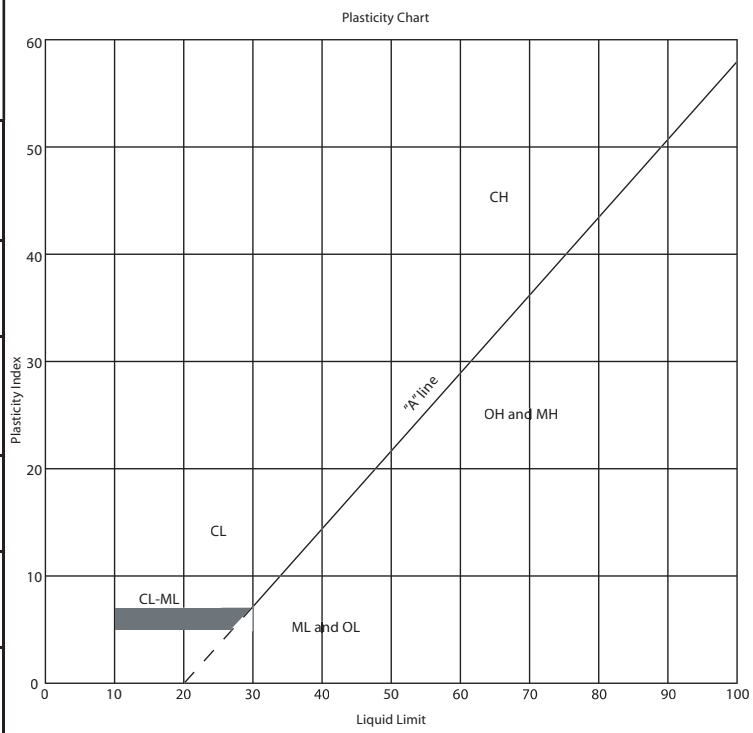
CHARACTERISTICS AND RATINGS OF UNIFIED SOIL SYSTEM CLASSES FOR SOIL CONSTRUCTION *									
Class	Compaction Characteristics	Max. Dry Density Standard Proctor (pcf)	Compressibility and Expansion	Drainage and Permeability	Value as an Embankment Material	Value as Subgrade When Not Subject to Frost	Value as Base Course	Value as Temporary Pavement	
								With Dust Palliative	With Bituminous Treatment
GW	Good: tractor, rubber-tired, steel wheel or vibratory roller	125-135	Almost none	Good drainage, pervious	Very stable	Excellent	Good	Fair to poor	Excellent
GP	Good: tractor, rubber-tired, steel wheel or vibratory roller	115-125	Almost none	Good drainage, pervious	Reasonably stable	Excellent to good	Poor to fair	Poor	
GM	Good: rubber-tired or light sheepsfoot roller	120-135	Slight	Poor drainage, semipervious	Reasonably stable	Excellent to good	Fair to poor	Poor	Poor to fair
GC	Good to fair: rubber-tired or sheepsfoot roller	115-130	Slight	Poor drainage, impervious	Reasonably stable	Good	Good to fair **	Excellent	Excellent
SW	Good: tractor, rubber-tired or vibratory roller	110-130	Almost none	Good drainage, pervious	Very stable	Good	Fair to poor	Fair to poor	Good
SP	Good: tractor, rubber-tired or vibratory roller	100-120	Almost none	Good drainage, pervious	Reasonably stable when dense	Good to fair	Poor	Poor	Poor to fair
SM	Good: rubber-tired or sheepsfoot roller	110-125	Slight	Poor drainage, impervious	Reasonably stable when dense	Good to fair	Poor	Poor	Poor to fair
SC	Good to fair: rubber-tired or sheepsfoot roller	105-125	Slight to medium	Poor drainage, impervious	Reasonably stable	Good to fair	Fair to poor	Excellent	Excellent
ML	Good to poor: rubber-tired or sheepsfoot roller	95-120	Slight to medium	Poor drainage, impervious	Poor stability, high density required	Fair to poor	Not suitable	Poor	Poor
CL	Good to fair: sheepsfoot or rubber-tired roller	95-120	Medium	No drainage, impervious	Good stability	Fair to poor	Not suitable	Poor	Poor
OL	Fair to poor: sheepsfoot or rubber-tired roller	80-100	Medium to high	Poor drainage, impervious	Unstable, should not be used	Poor	Not suitable	Not suitable	Not suitable
MH	Fair to poor: sheepsfoot or rubber-tired roller	70-95	High	Poor drainage, impervious	Poor stability, should not be used	Poor	Not suitable	Very poor	Not suitable
CH	Fair to poor: sheepsfoot roller	80-105	Very high	No drainage, impervious	Fair stability, may soften on expansion	Poor to very poor	Not suitable	Very poor	Not suitable
OH	Fair to poor: sheepsfoot roller	65-100	High	No drainage, impervious	Unstable, should not be used	Very poor	Not suitable	Not suitable	Not suitable
Pt	Not suitable		Very high	Fair to poor drainage	Should not be used	Not suitable	Not suitable	Not suitable	Not suitable

* "The Unified Classification: Appendix A - Characteristics of Soil, Groups Pertaining to Roads and Airfields, and Appendix B - Characteristics of Soil Groups Pertaining to Embankments and Foundations," Technical Memorandum 357, U.S. Waterways Experiment Station, Vicksburg, 1953.

** Not suitable if subject to frost.

UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D-2487)

Major Divisions			Group Symbols	Typical Names	Laboratory Classification Criteria		
Coarse-grained soils (more than half of material is larger than No. 200 sieve size)	Gravels (More than half of coarse fraction is larger than No. 4 sieve size)	Clean gravels (little or no fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines	Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows: Less than 5 percent: GW, GP, SW, SP; More than 12 percent: GM, GC, SM, SC; 5 to 12 percent: *Borderline* cases requiring dual symbols[b]	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3	
			GP	Poorly graded gravels, gravel-sand mixtrues, little or no fines		Not meeting all gradation requirements for GW	
		Gravels with fines (appreciable amount of fines)	GM[a] d	Silty gravels, gravel-sand-silt mixtures		Atterberg limits below "A" line or P.I. less than 4	Limits plotting within shaded area, above "A" line with P.I. between 4 and 7 are *borderline* cases requiring use of dual symbols
			GM[a] u				
			GC	Clayey gravels, gravel-sand-clay mixtures		Atterberg limits above "A" line or P.I. greater than 7	
	Sands (More than half of coarse fraction is smaller than No. 4 sieve size)	Clean sands (Little or no fines)	SW	Well-graded sands, gravelly sands, little or no fines		$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3	
			SP	Poorly graded sands, gravelly sands, little or no fines		Not meeting all gradation requirements for SW	
		Sands with fines (Appreciable amount of fines)	SM[a] d	Silty sands, sand-silt mixtures		Atterberg limits below "A" line or P.I. less than 4	Limits plotting within shaded area, above "A" line with P.I. between 4 and 7 are *borderline* cases requiring use of dual symbols
			SM[a] u				
			SC	Clayey sands, sand-clay mixtures		Atterberg limits above "A" line or P.I. greater than 7	
Fine-grained soils (More than half material is smaller than No. 200 sieve size)	Silts and clays (Liquid limit less than 50)		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts with slight plasticity			
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays			
			OL	Organic silts and organic silty clays of low plasticity			
	Silts and clays (Liquid limit greater than 50)		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts			
			CH	Inorganic clays of high plasticity, fat clays			
			OH	Organic clays of medium to high plasticity, organic silts			
	Highly organic soils		Pt	Peat and other highly organic soils			



[a] Division of GM and SM groups into subdivisions of d and u are for roads and airfields only. Subdivision is based on Atterberg limits, suffix d used when L.L. is 28 or less and the P.I. is 6 or less; the suffix u is used when L.L. is greater than 28.

[b] Borderline classifications, used for soils possessing characteristics of two groups, are designated by combinations of group sympols. For example GW-GC, well-graded gravel-sand mixture with clay binder.

GENERAL NOTES

SAMPLE IDENTIFICATION

All samples are visually classified in general accordance with the Unified Soil Classification System (ASTM D-2487-75 or D-2488-75)

DESCRIPTIVE TERM (% BY DRY WEIGHT)

Trace:	1-10%
Little:	11-20%
Some:	21-35%
And/Adjective	36-50%

PARTICLE SIZE (DIAMETER)

Boulders:	8 inch and larger
Cobbles:	3 inch to 8 inch
Gravel:	coarse - ¾ to 3 inch
	fine – No. 4 (4.76 mm) to ¾ inch
Sand:	coarse – No. 4 (4.76 mm) to No. 10 (2.0 mm)
	medium – No. 10 (2.0 mm) to No. 40 (0.42 mm)
	fine – No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt:	No. 200 (0.074 mm) and smaller (non-plastic)
Clay:	No 200 (0.074 mm) and smaller (plastic)

SOIL PROPERTY SYMBOLS

Dd:	Dry Density (pcf)
LL:	Liquid Limit, percent
PL:	Plastic Limit, percent
PI:	Plasticity Index (LL-PL)
LOI:	Loss on Ignition, percent
Gs:	Specific Gravity
K:	Coefficient of Permeability
w:	Moisture content, percent
qp:	Calibrated Penetrometer Resistance, tsf
qs:	Vane-Shear Strength, tsf
qu:	Unconfined Compressive Strength, tsf
qc:	Static Cone Penetrometer Resistance (correlated to Unconfined Compressive Strength, tsf)
PID:	Results of vapor analysis conducted on representative samples utilizing a Photoionization Detector calibrated to a benzene standard. Results expressed in HNU-Units. (BDL=Below Detection Limit)

DRILLING AND SAMPLING SYMBOLS

SS:	Split-Spoon
ST:	Shelby Tube – 3 inch O.D. (except where noted)
CS:	3 inch O.D. California Ring Sampler
DC:	Dynamic Cone Penetrometer per ASTM Special Technical Publication No. 399
AU:	Auger Sample
DB:	Diamond Bit
CB:	Carbide Bit
WS:	Wash Sample
RB:	Rock-Roller Bit
BS:	Bulk Sample
Note:	Depth intervals for sampling shown on Record of Subsurface Exploration are not indicative of sample recovery, but position where sampling initiated

N: Penetration Resistance per 12 inch interval, or fraction thereof, for a standard 2 inch O.D. (1⅜ inch I.D.) split spoon sampler driven with a 140 pound weight free-falling 30 inches. Performed in general accordance with Standard Penetration Test Specifications (ASTM D-1586). N in blows per foot equals sum of N-Values where plus sign (+) is shown.

Nc: Penetration Resistance per 1¾ inches of Dynamic Cone Penetrometer. Approximately equivalent to Standard Penetration Test N-Value in blows per foot.

Nr: Penetration Resistance per 12 inch interval, or fraction thereof, for California Ring Sampler driven with a 140 pound weight free-falling 30 inches per ASTM D-3550. Not equivalent to Standard Penetration Test N-Value.

SOIL STRENGTH CHARACTERISTICS

COHESIVE (CLAYEY) SOILS

COMPARATIVE CONSISTENCY	BLOWS PER FOOT (N)	UNCONFINED COMPRESSIVE STRENGTH (TSF)
Very Soft	0 - 2	0 - 0.25
Soft	3 - 4	0.25 - 0.50
Medium Stiff	5 – 8	0.50 - 1.00
Stiff	9 – 15	1.00 - 2.00
Very Stiff	16 – 30	2.00 - 4.00
Hard	31+	4.00+

NON-COHESIVE (GRANULAR) SOILS

RELATIVE DENSITY	BLOWS PER FOOT (N)
Very Loose	0 - 4
Loose	5 - 10
Firm	11 - 30
Dense	31 - 50
Very Dense	51+

DEGREE OF PLASTICITY	PI
None to Slight	0 - 4
Slight	5 - 10
Medium	11 - 30
High to Very High	31+

DEGREE OF EXPANSIVE POTENTIAL	PI
Low	0 - 15
Medium	15 - 25
High	25+

Important Information About Your

Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you* — should apply the report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final,* because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

Rely, on Your ASFE-Member Geotechncial Engineer for Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with you ASFE-member geotechnical engineer for more information.

ASFE
The Best People on Earth

8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: info@asfe.org www.asfe.org

Copyright 2004 by ASFE, Inc. Duplication, reproduction, or copying of this document, in whole or in part, by any means whatsoever, is strictly prohibited, except with ASFE's specific written permission. Excerpting, quoting, or otherwise extracting wording from this document is permitted only with the express written permission of ASFE, and only for purposes of scholarly research or book review. Only members of ASFE may use this document as a complement to or as an element of a geotechnical engineering report. Any other firm, individual, or other entity that so uses this document without being an ASFE member could be committing negligent or intentional (fraudulent) misrepresentation.

IIGER06045.0M

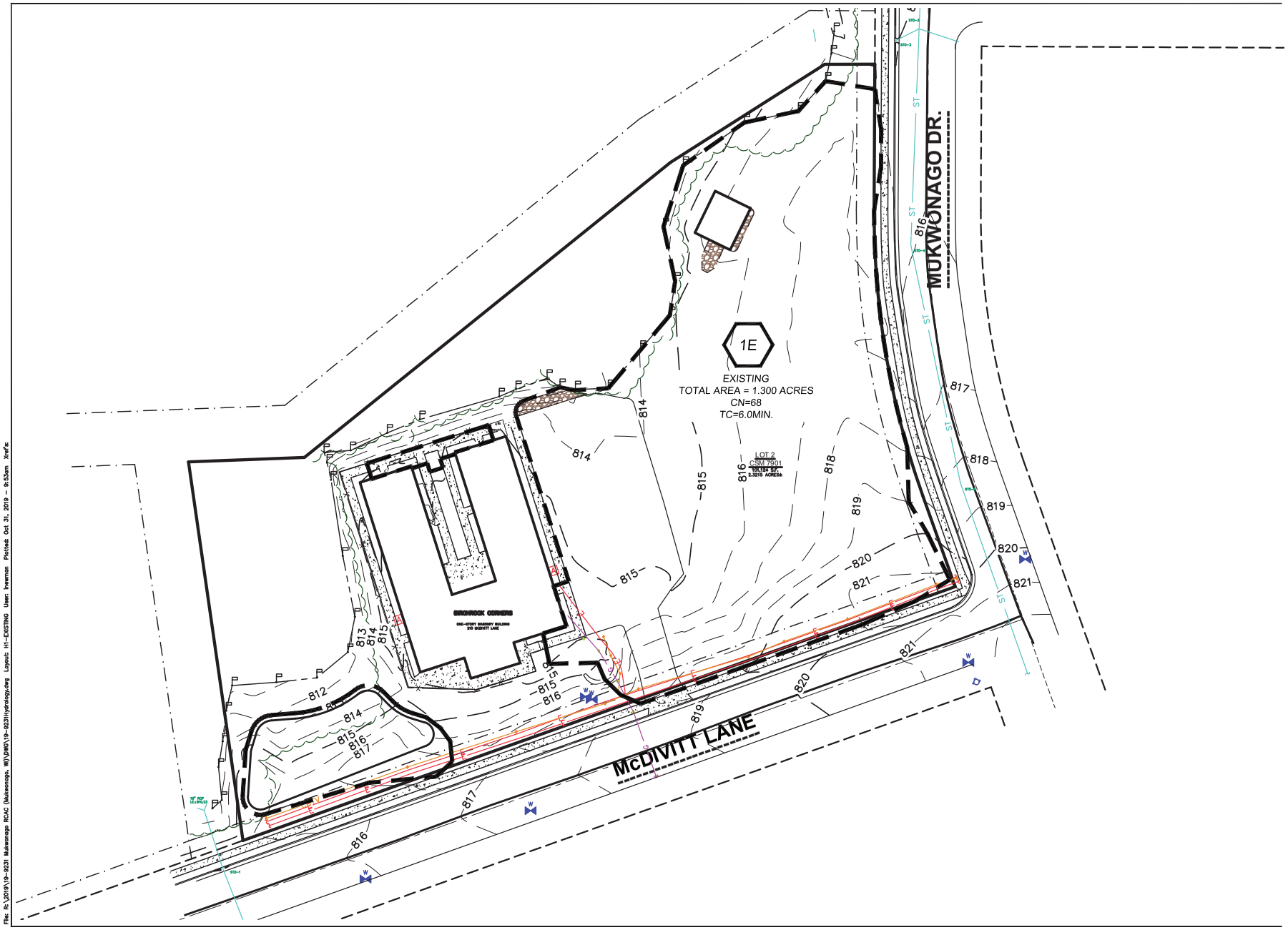
GILES
ENGINEERING ASSOCIATES, INC.

www.gilesengr.com

APPENDIX 3

EXISTING SITE HYDROLOGY

- Existing Conditions Hydrology Exhibit
- Existing Conditions HydroCAD Output



JSD Professional Services, Inc.
Engineers • Surveyors • Planners

CREATE THE VISION TELL THE STORY

MADISON | MILWAUKEE
KENOSHA | APPLETON | WAUSAU

MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
13050 WEST CLEVELAND AVE.
NEW BERLIN, WI 53151

PROJECT:
MUKWONAGO
CBRF BUILDING

PROJECT LOCATION:
CITY OF MUKWONAGO
WAUKESHA COUNTY, WI

PLAN MODIFICATIONS:

#	Date:	Description:

Design/Drawn: IRN
Approved: DSR

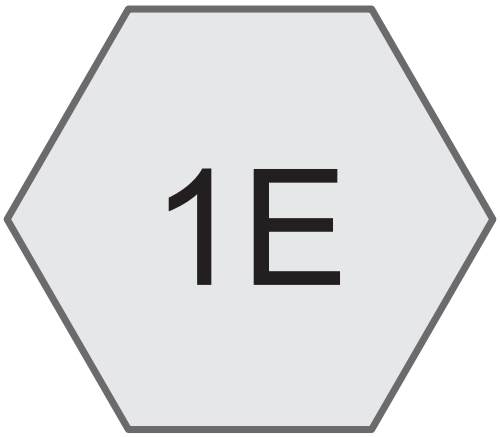
SHEET TITLE:
EXISTING HYDROLOGY

SHEET NUMBER:
H1.0

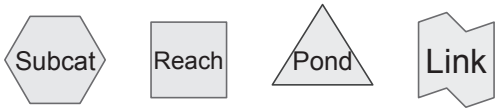
JSD PROJECT NO: 19-9231

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF JSD PROFESSIONAL SERVICES, INC.

File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\19-9231Hydrology.dwg Layout: H1-EXISTING User: Ivenman Plotted: Oct 31, 2019 - 9:53am Xref's:



EXISTING



Routing Diagram for 19-9231 Mukwonago RCAC revised
Prepared by Microsoft, Printed 10/31/2019
HydroCAD® 10.00-21 s/n 02918 © 2018 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.055	61	>75% Grass cover, Good, HSG B (1E)
0.010	96	Gravel surface, HSG B (1E)
0.235	98	IMPERVIOUS (1E)

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1E: EXISTING Runoff Area=56,620 sf 18.09% Impervious Runoff Depth=0.34"
Tc=6.0 min CN=68 Runoff=0.63 cfs 0.037 af

Summary for Subcatchment 1E: EXISTING

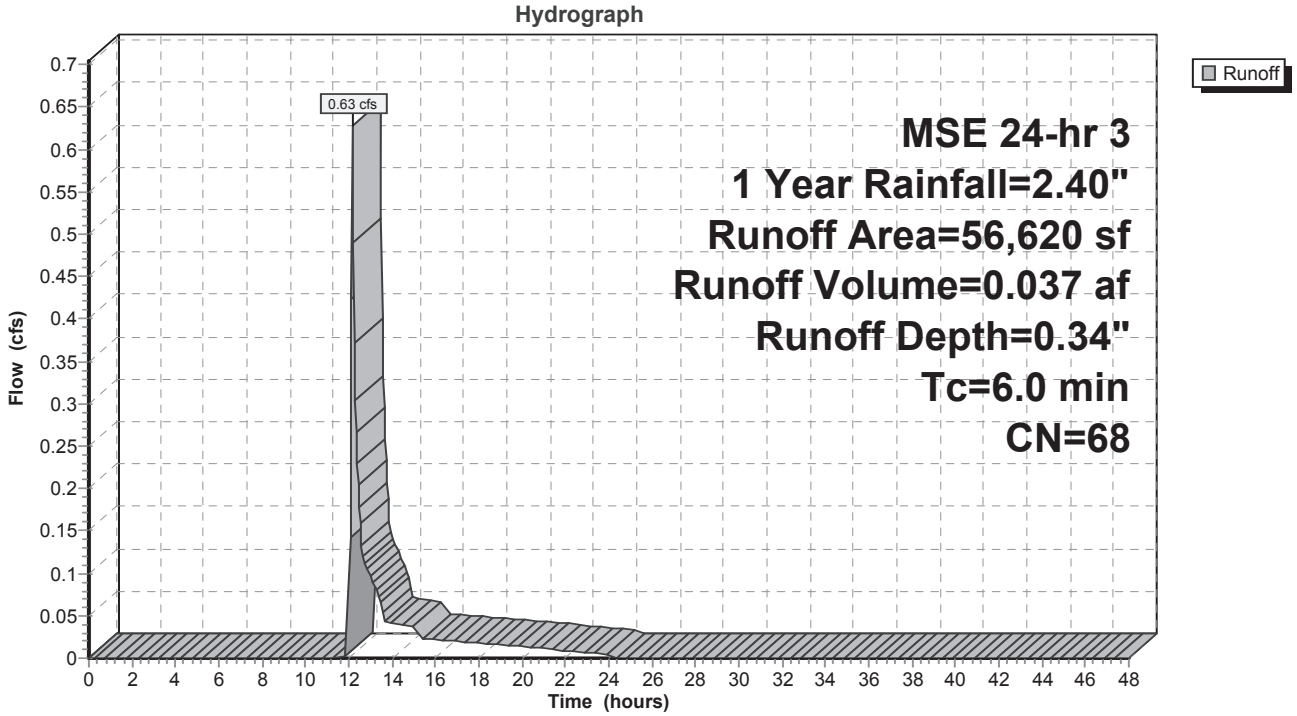
Runoff = 0.63 cfs @ 12.15 hrs, Volume= 0.037 af, Depth= 0.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1 Year Rainfall=2.40"

	Area (sf)	CN	Description
	45,945	61	>75% Grass cover, Good, HSG B
*	10,240	98	IMPERVIOUS
	435	96	Gravel surface, HSG B
	56,620	68	Weighted Average
	46,380		81.91% Pervious Area
	10,240		18.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1E: EXISTING



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1E: EXISTING Runoff Area=56,620 sf 18.09% Impervious Runoff Depth=0.48"
Tc=6.0 min CN=68 Runoff=0.96 cfs 0.052 af

Summary for Subcatchment 1E: EXISTING

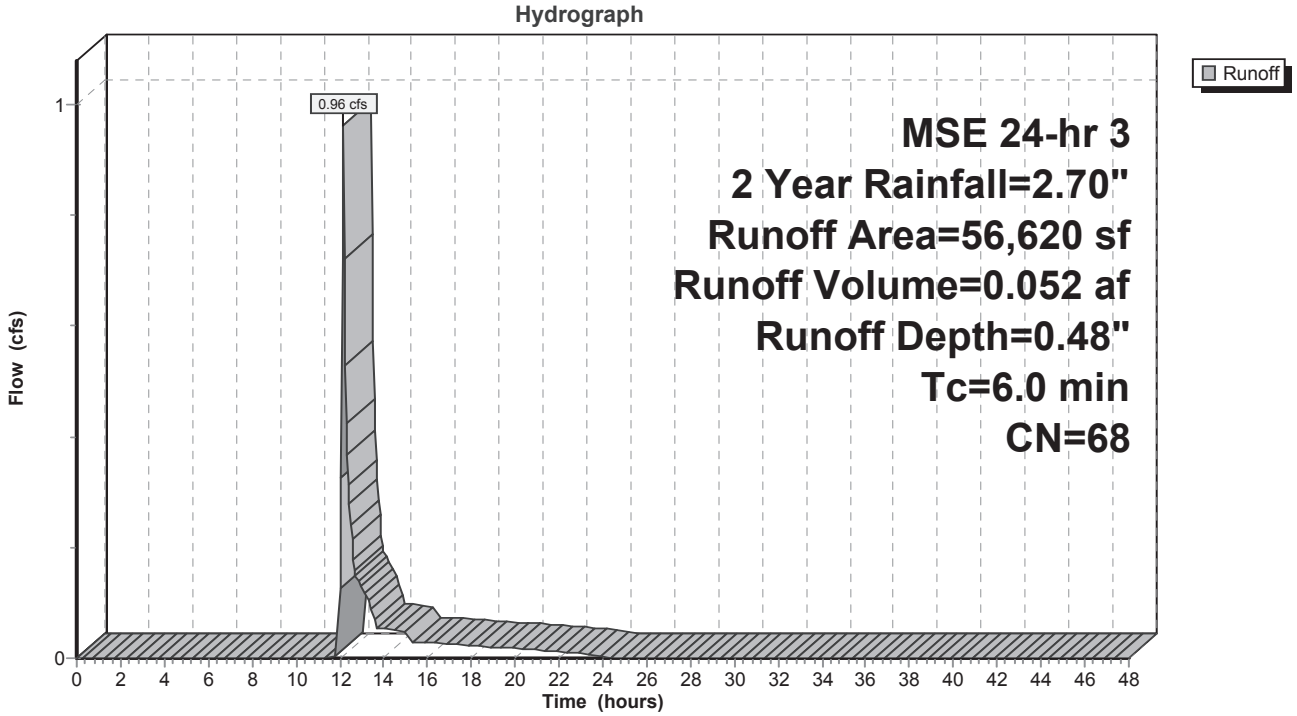
Runoff = 0.96 cfs @ 12.15 hrs, Volume= 0.052 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2 Year Rainfall=2.70"

	Area (sf)	CN	Description
	45,945	61	>75% Grass cover, Good, HSG B
*	10,240	98	IMPERVIOUS
	435	96	Gravel surface, HSG B
	56,620	68	Weighted Average
	46,380		81.91% Pervious Area
	10,240		18.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1E: EXISTING



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1E: EXISTING Runoff Area=56,620 sf 18.09% Impervious Runoff Depth=1.08"
Tc=6.0 min CN=68 Runoff=2.46 cfs 0.117 af

Summary for Subcatchment 1E: EXISTING

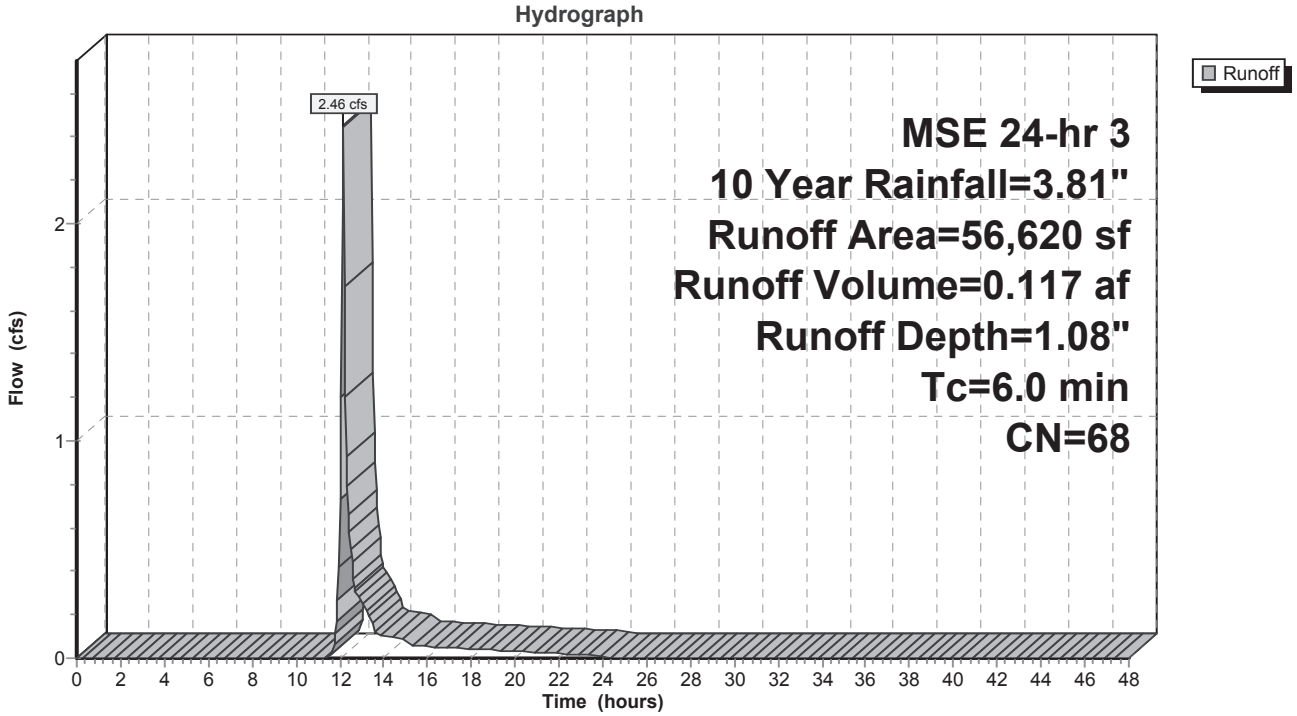
Runoff = 2.46 cfs @ 12.14 hrs, Volume= 0.117 af, Depth= 1.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10 Year Rainfall=3.81"

	Area (sf)	CN	Description
	45,945	61	>75% Grass cover, Good, HSG B
*	10,240	98	IMPERVIOUS
	435	96	Gravel surface, HSG B
	56,620	68	Weighted Average
	46,380		81.91% Pervious Area
	10,240		18.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1E: EXISTING



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1E: EXISTING Runoff Area=56,620 sf 18.09% Impervious Runoff Depth=2.76"
Tc=6.0 min CN=68 Runoff=6.44 cfs 0.299 af

Summary for Subcatchment 1E: EXISTING

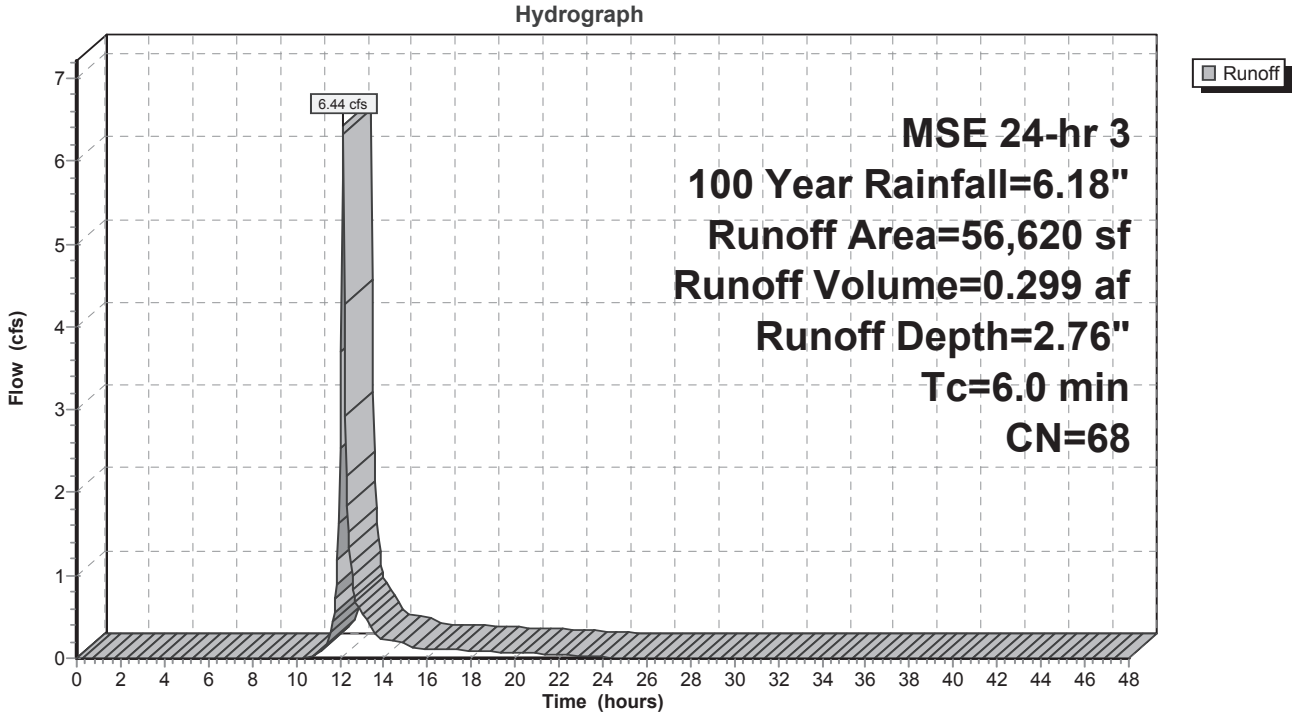
Runoff = 6.44 cfs @ 12.14 hrs, Volume= 0.299 af, Depth= 2.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 Year Rainfall=6.18"

	Area (sf)	CN	Description
	45,945	61	>75% Grass cover, Good, HSG B
*	10,240	98	IMPERVIOUS
	435	96	Gravel surface, HSG B
	56,620	68	Weighted Average
	46,380		81.91% Pervious Area
	10,240		18.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

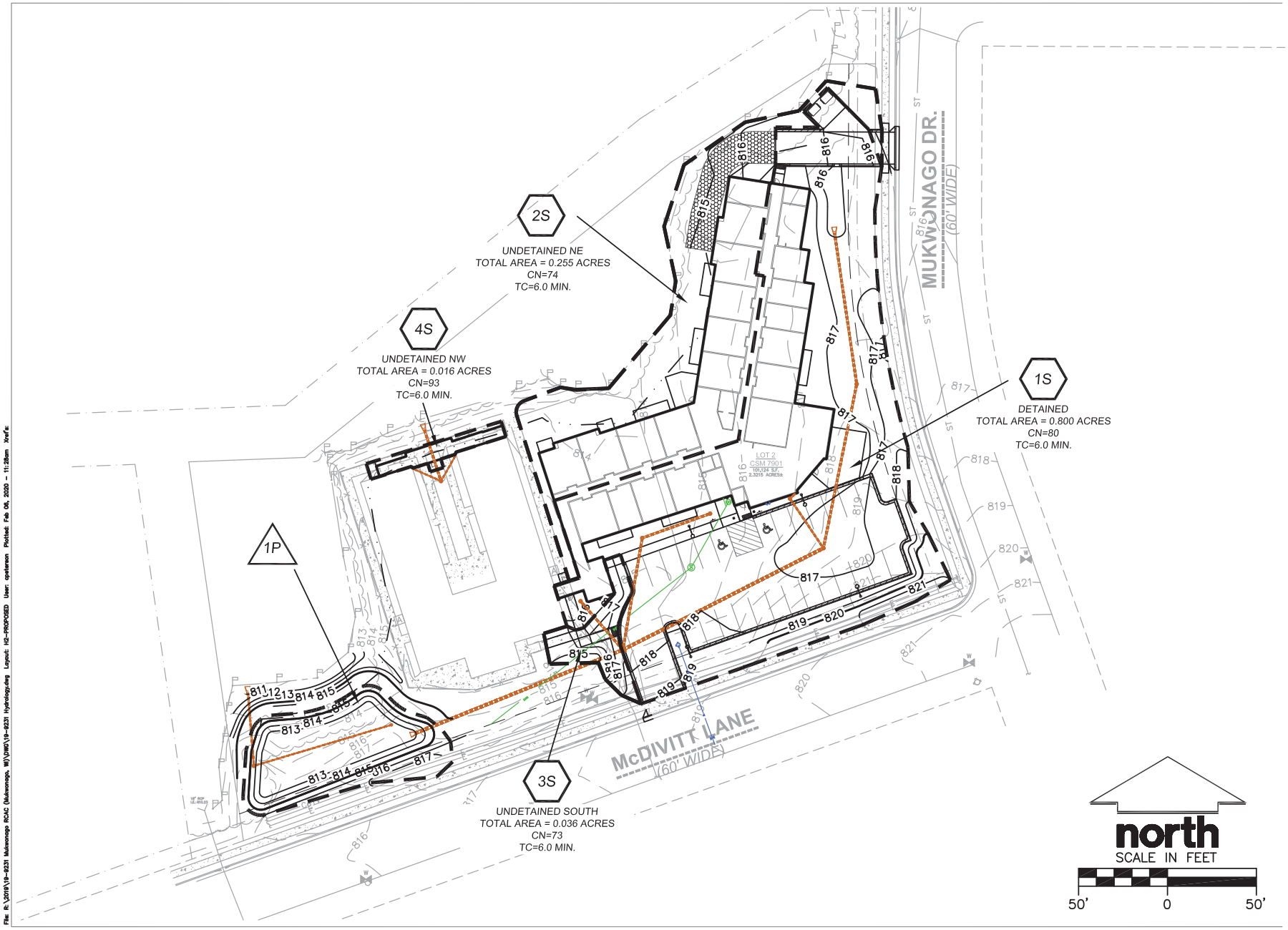
Subcatchment 1E: EXISTING



APPENDIX 4

PROPOSED SITE HYDROLOGY

- Proposed Conditions Hydrology Exhibit
- Proposed Conditions HydroCAD Output



File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\19-9231 Hydrology.dwg Layout: H2-PROPOSED User: cpeterson Plotted: Feb 06, 2020 - 11:28am Xref's:

JSD Professional Services, Inc.
Engineers • Surveyors • Planners

CREATE THE VISION TELL THE STORY

MADISON | MILWAUKEE
KENOSHA | APPLETON | WAUSAU

MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LN
MUKWONAGO, WI 53149

PROJECT:
MUKWONAGO
CBRF BUILDING

PROJECT LOCATION:
CITY OF MUKWONAGO
WAUKESHA COUNTY, WI

PLAN MODIFICATIONS:

#	Date:	Description:
1	02/06/2020	Rev. per Village Comments

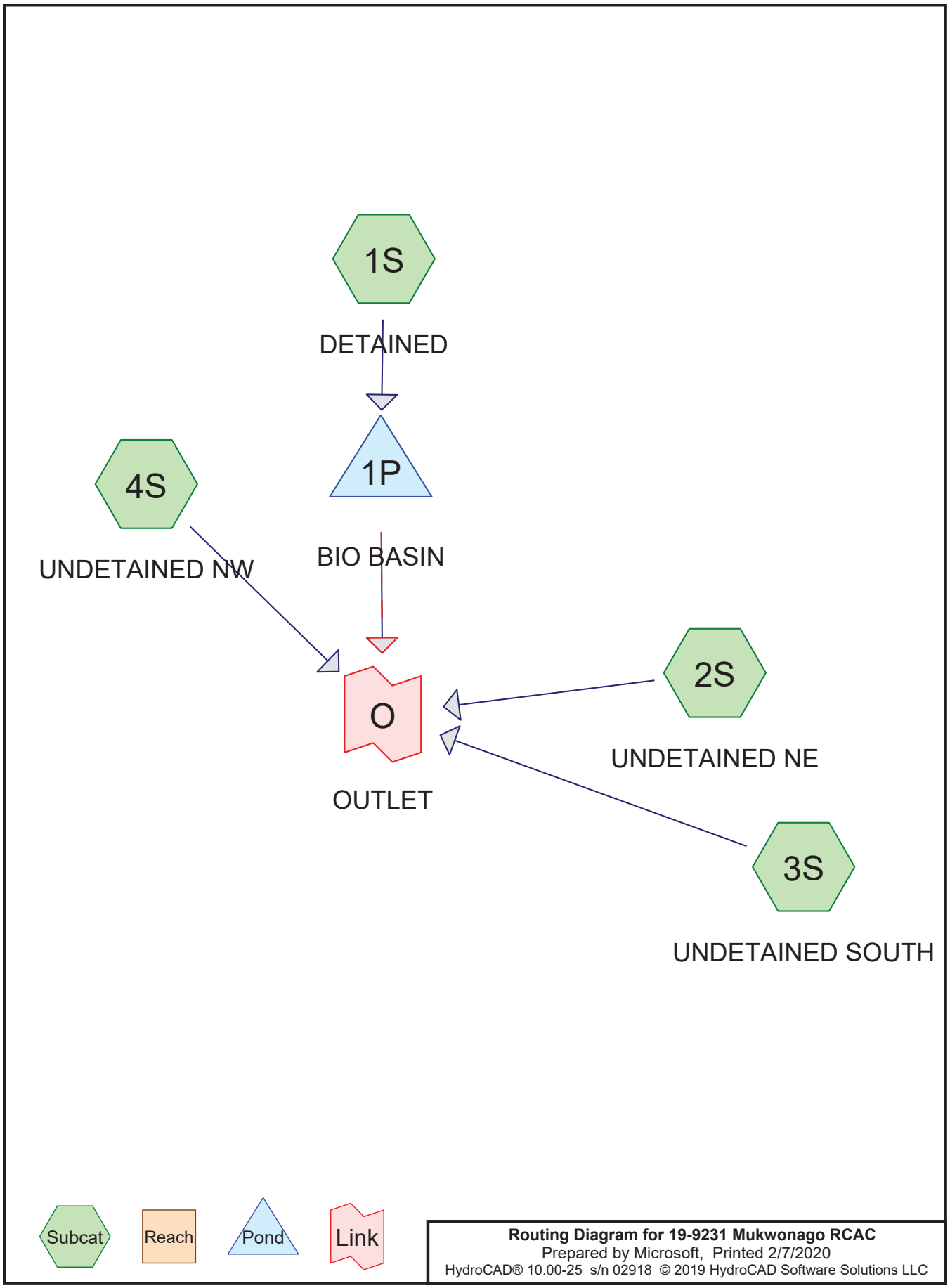
Design/Drawn: IRN
Approved: DSR

SHEET TITLE:
PROPOSED HYDROLOGY

SHEET NUMBER:
H2.0

JSD PROJECT NO: 19-9231

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF JSD PROFESSIONAL SERVICES, INC.



Routing Diagram for 19-9231 Mukwonago RCAC
Prepared by Microsoft, Printed 2/7/2020
HydroCAD® 10.00-25 s/n 02918 © 2019 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.592	61	>75% Grass cover, Good, HSG B (1S, 2S, 3S, 4S)
0.041	98	DRIVEWAY (1S, 2S)
0.260	98	PARKING (1S)
0.011	98	ROOF (4S)
0.151	98	Roof (2S)
0.034	98	SIDEWALK (1S, 2S, 3S, 4S)
0.211	98	Unconnected roofs, HSG C (1S)
1.300	**81**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.592	HSG B	1S, 2S, 3S, 4S
0.211	HSG C	1S
0.000	HSG D	
0.497	Other	1S, 2S, 3S, 4S
1.300		**TOTAL AREA**

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.592	0.000	0.000	0.000	0.592	>75% Grass cover, Good	1S, 2S, 3S, 4S
0.000	0.000	0.000	0.000	0.041	0.041	DRIVEWAY	1S, 2S
0.000	0.000	0.000	0.000	0.260	0.260	PARKING	1S
0.000	0.000	0.000	0.000	0.011	0.011	ROOF	4S
0.000	0.000	0.000	0.000	0.151	0.151	Roof	2S
0.000	0.000	0.000	0.000	0.034	0.034	SIDEWALK	1S, 2S, 3S, 4S
0.000	0.000	0.211	0.000	0.000	0.211	Unconnected roofs	1S
0.000	**0.592**	**0.211**	**0.000**	**0.497**	**1.300**	**TOTAL AREA**	

Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1P	811.00	810.83	41.4	0.0041	0.010	8.0	0.0	0.0
2	1P	811.43	811.00	86.0	0.0050	0.100	6.0	0.0	0.0

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: DETAINED Runoff Area=39,775 sf 56.49% Impervious Runoff Depth=0.92"
Tc=6.0 min CN=82 Runoff=1.51 cfs 0.070 af

Subcatchment 2S: UNDETAINED NE Runoff Area=14,560 sf 49.79% Impervious Runoff Depth=0.79"
Tc=6.0 min CN=79 Runoff=0.47 cfs 0.022 af

Subcatchment 3S: UNDETAINED SOUTH Runoff Area=1,570 sf 32.17% Impervious Runoff Depth=0.51"
Tc=6.0 min CN=73 Runoff=0.03 cfs 0.002 af

Subcatchment 4S: UNDETAINED NW Runoff Area=715 sf 86.71% Impervious Runoff Depth=1.69"
Tc=6.0 min CN=93 Runoff=0.05 cfs 0.002 af

Pond 1P: BIO BASIN Peak Elev=813.13' Storage=1,619 cf Inflow=1.51 cfs 0.070 af
Discarded=0.01 cfs 0.017 af Primary=0.10 cfs 0.053 af Secondary=0.00 cfs 0.000 af Outflow=0.11 cfs 0.070 af

Link O: OUTLET Inflow=0.61 cfs 0.079 af
Primary=0.61 cfs 0.079 af

Total Runoff Area = 1.300 ac Runoff Volume = 0.096 af Average Runoff Depth = 0.89"
45.52% Pervious = 0.592 ac 54.48% Impervious = 0.708 ac

Summary for Subcatchment 1S: DETAINED

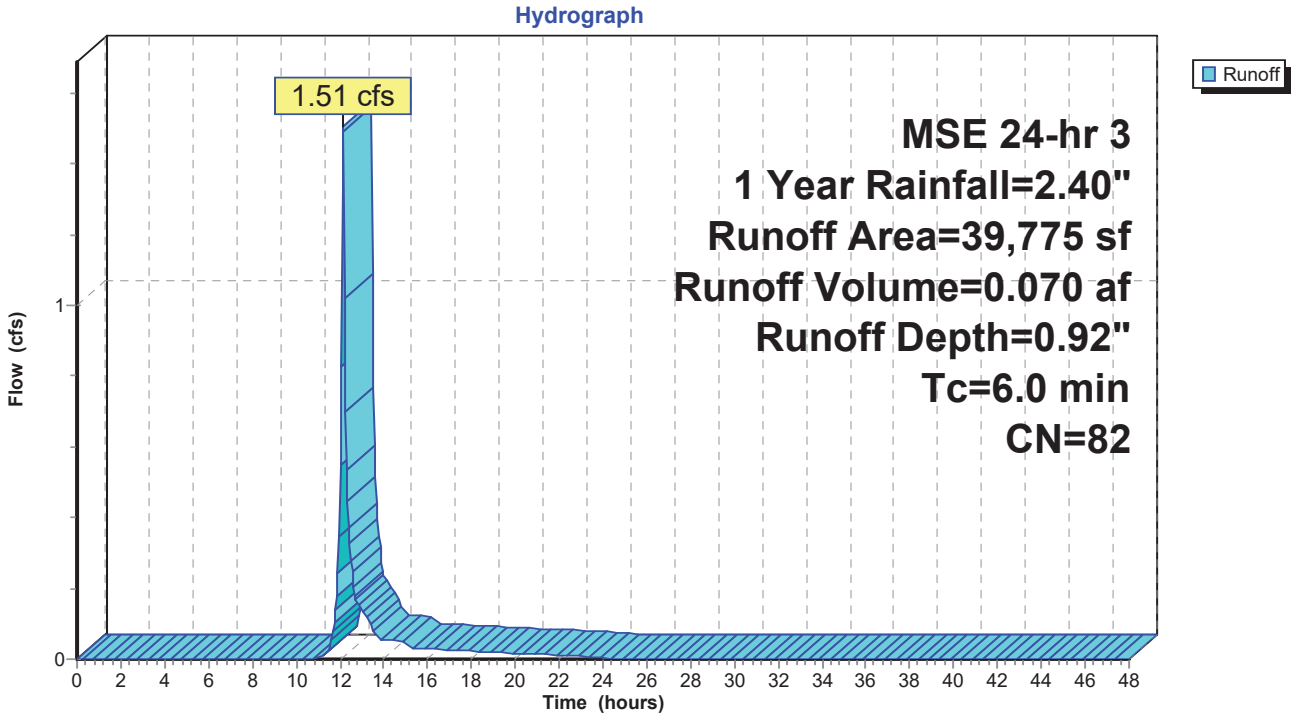
Runoff = 1.51 cfs @ 12.14 hrs, Volume= 0.070 af, Depth= 0.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1 Year Rainfall=2.40"

	Area (sf)	CN	Description
*	1,710	98	DRIVEWAY
	14,750	61	>75% Grass cover, Good, HSG B
	9,210	98	Unconnected roofs, HSG C
*	11,310	98	PARKING
*	240	98	SIDEWALK
	2,555	61	>75% Grass cover, Good, HSG B
	39,775	82	Weighted Average
	17,305		43.51% Pervious Area
	22,470		56.49% Impervious Area
	9,210		40.99% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1S: DETAINED



Summary for Subcatchment 2S: UNDETAINED NE

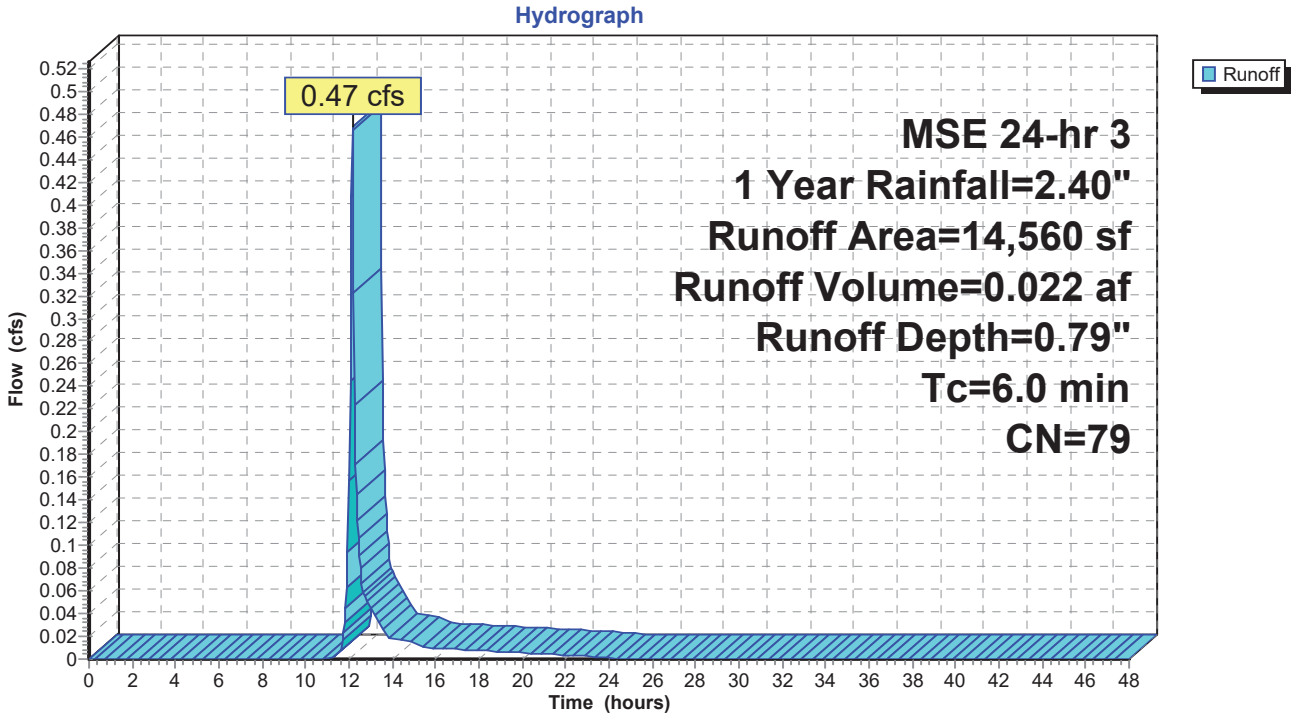
Runoff = 0.47 cfs @ 12.14 hrs, Volume= 0.022 af, Depth= 0.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1 Year Rainfall=2.40"

	Area (sf)	CN	Description
	5,975	61	>75% Grass cover, Good, HSG B
*	80	98	DRIVEWAY
*	610	98	SIDEWALK
	1,335	61	>75% Grass cover, Good, HSG B
*	6,560	98	Roof
	14,560	79	Weighted Average
	7,310		50.21% Pervious Area
	7,250		49.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 2S: UNDETAINED NE



Summary for Subcatchment 3S: UNDETAINED SOUTH

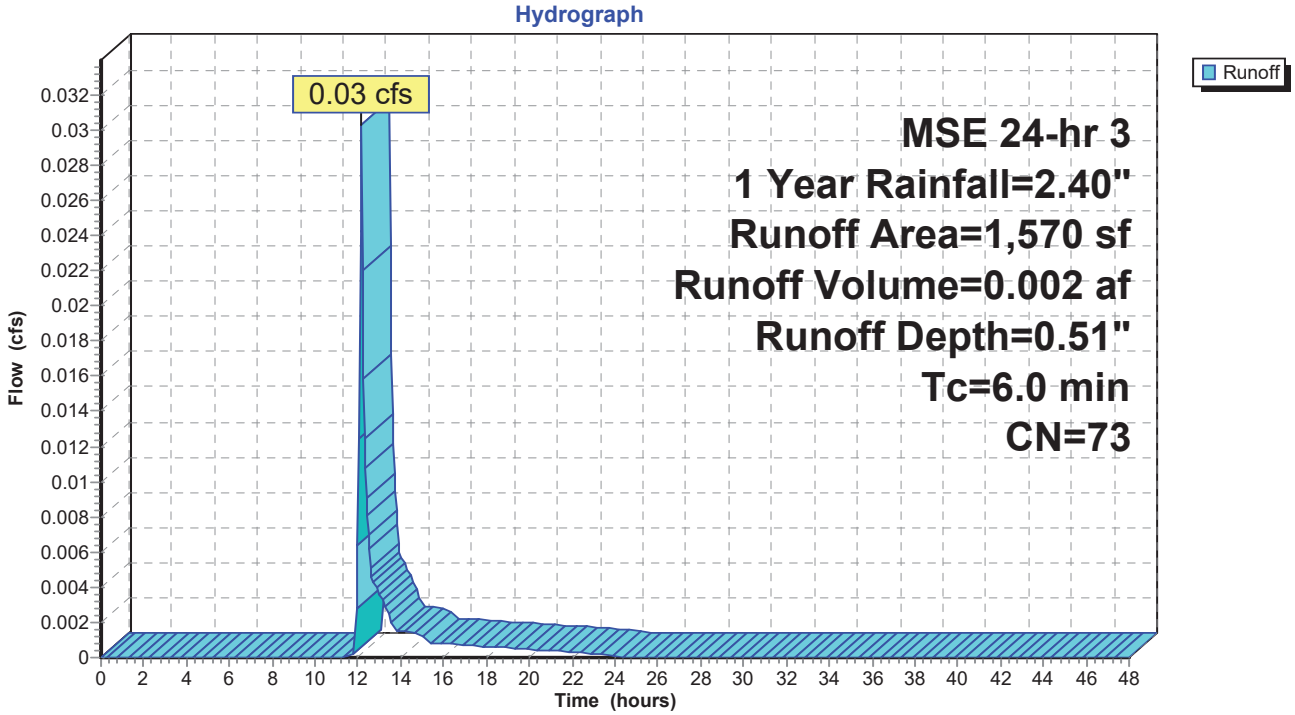
Runoff = 0.03 cfs @ 12.15 hrs, Volume= 0.002 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1 Year Rainfall=2.40"

	Area (sf)	CN	Description
	1,065	61	>75% Grass cover, Good, HSG B
*	505	98	SIDEWALK
	1,570	73	Weighted Average
	1,065		67.83% Pervious Area
	505		32.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 3S: UNDETAINED SOUTH



Summary for Subcatchment 4S: UNDETAINED NW

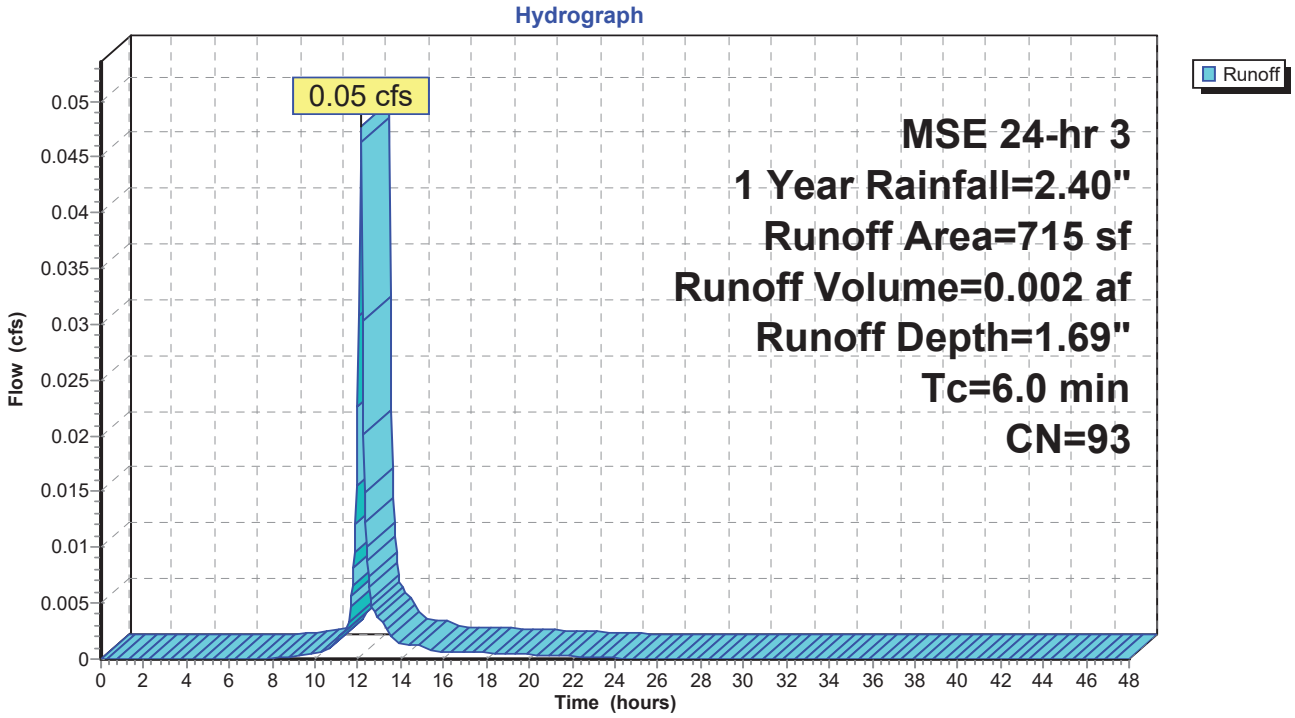
Runoff = 0.05 cfs @ 12.13 hrs, Volume= 0.002 af, Depth= 1.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1 Year Rainfall=2.40"

	Area (sf)	CN	Description
	95	61	>75% Grass cover, Good, HSG B
*	490	98	ROOF
*	130	98	SIDEWALK
	715	93	Weighted Average
	95		13.29% Pervious Area
	620		86.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 4S: UNDETAINED NW



Summary for Pond 1P: BIO BASIN

Inflow Area = 0.913 ac, 56.49% Impervious, Inflow Depth = 0.92" for 1 Year event
Inflow = 1.51 cfs @ 12.14 hrs, Volume= 0.070 af
Outflow = 0.11 cfs @ 13.31 hrs, Volume= 0.070 af, Atten= 93%, Lag= 70.3 min
Discarded = 0.01 cfs @ 13.31 hrs, Volume= 0.017 af
Primary = 0.10 cfs @ 13.31 hrs, Volume= 0.053 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 813.13' @ 13.31 hrs Surf.Area= 2,381 sf Storage= 1,619 cf

Plug-Flow detention time= 257.7 min calculated for 0.070 af (100% of inflow)
Center-of-Mass det. time= 257.6 min (1,078.2 - 820.7)

Volume	Invert	Avail.Storage	Storage Description
#1	811.00'	9,377 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
811.00	2,289	225.0	0.0	0	0	2,289
811.50	2,289	225.0	33.0	378	378	2,402
812.00	2,289	225.0	27.0	309	687	2,514
813.00	2,289	225.0	27.0	618	1,305	2,739
814.00	3,017	248.0	100.0	2,645	3,949	3,636
815.00	3,824	272.0	100.0	3,413	7,362	4,663
815.50	4,239	281.0	100.0	2,015	9,377	5,083

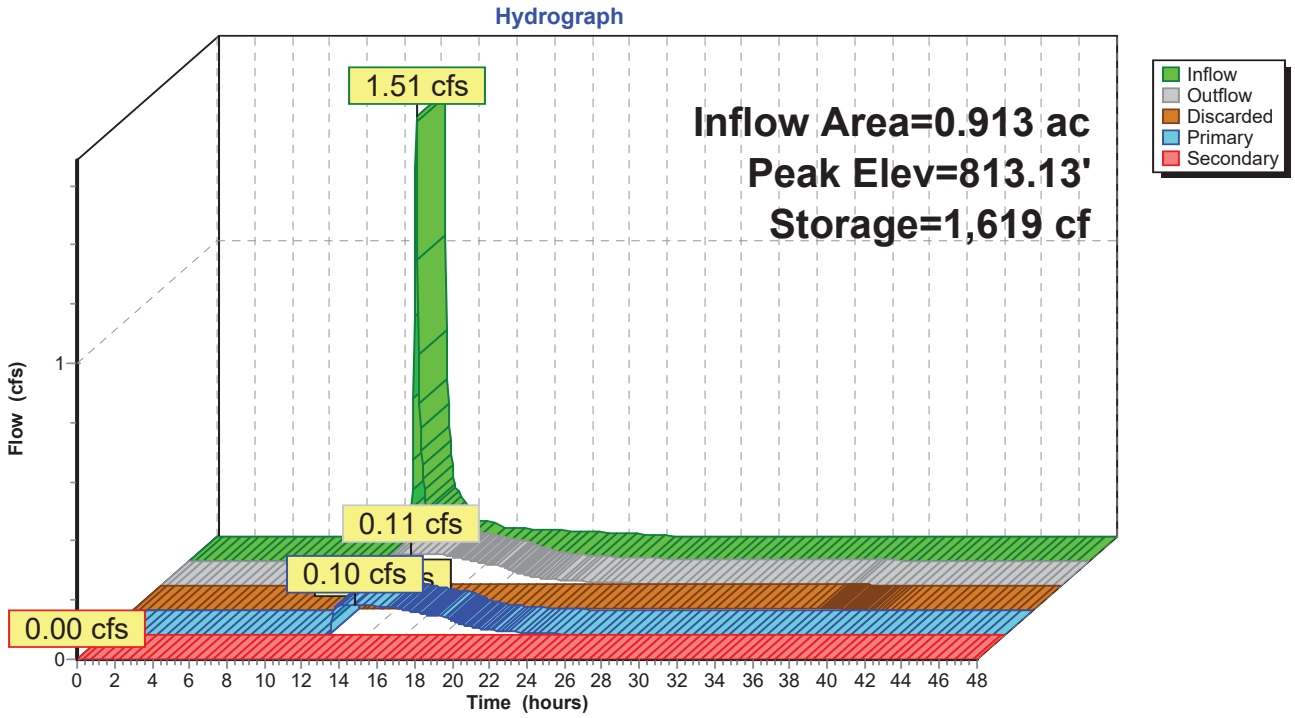
Device	Routing	Invert	Outlet Devices
#1	Discarded	811.00'	**0.150 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 20.00'
#2	Primary	811.00'	**8.0" Round Culvert** L= 41.4' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 811.00' / 810.83' S= 0.0041 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#3	Device 2	811.43'	**6.0" Round Culvert** L= 86.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 811.43' / 811.00' S= 0.0050 '/' Cc= 0.900 n= 0.100, Flow Area= 0.20 sf
#4	Device 3	811.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 800.00'
#5	Device 2	813.25'	**6.0" Vert. Orifice/Grate** C= 0.600
#6	Device 2	814.70'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#7	Secondary	814.80'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Discarded OutFlow Max=0.01 cfs @ 13.31 hrs HW=813.13' (Free Discharge)
└─**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.10 cfs @ 13.31 hrs HW=813.13' (Free Discharge)
└─**2=Culvert** (Passes 0.10 cfs of 1.78 cfs potential flow)
  ├─**3=Culvert** (Barrel Controls 0.10 cfs @ 0.51 fps)
  │ └─**4=Exfiltration** (Passes 0.10 cfs of 0.24 cfs potential flow)
  ├─**5=Orifice/Grate** (Controls 0.00 cfs)
  └─**6=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=811.00' (Free Discharge)
└─**7=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: BIO BASIN

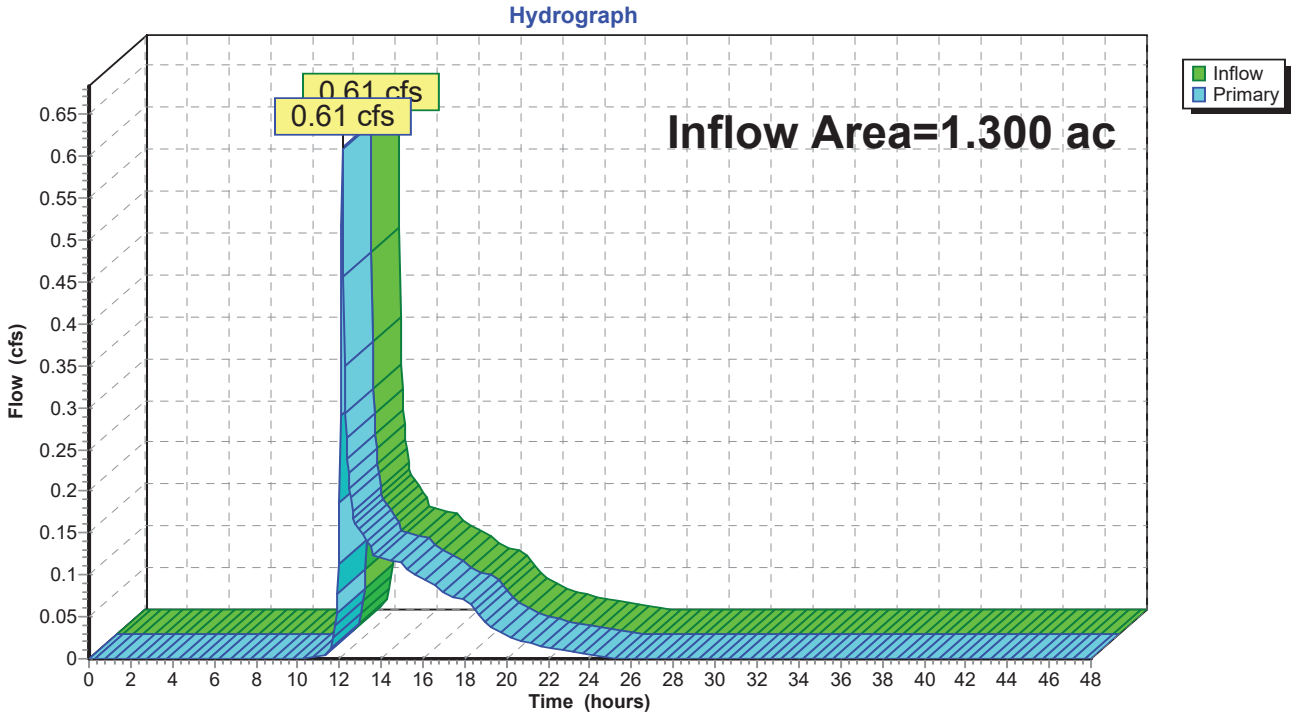


Summary for Link O: OUTLET

Inflow Area = 1.300 ac, 54.48% Impervious, Inflow Depth = 0.72" for 1 Year event
Inflow = 0.61 cfs @ 12.14 hrs, Volume= 0.079 af
Primary = 0.61 cfs @ 12.14 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link O: OUTLET



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: DETAINED Runoff Area=39,775 sf 56.49% Impervious Runoff Depth=1.14"
Tc=6.0 min CN=82 Runoff=1.87 cfs 0.087 af

Subcatchment 2S: UNDETAINED NE Runoff Area=14,560 sf 49.79% Impervious Runoff Depth=1.00"
Tc=6.0 min CN=79 Runoff=0.60 cfs 0.028 af

Subcatchment 3S: UNDETAINED SOUTH Runoff Area=1,570 sf 32.17% Impervious Runoff Depth=0.67"
Tc=6.0 min CN=73 Runoff=0.04 cfs 0.002 af

Subcatchment 4S: UNDETAINED NW Runoff Area=715 sf 86.71% Impervious Runoff Depth=1.98"
Tc=6.0 min CN=93 Runoff=0.06 cfs 0.003 af

Pond 1P: BIO BASIN Peak Elev=813.33' Storage=2,089 cf Inflow=1.87 cfs 0.087 af
Discarded=0.01 cfs 0.018 af Primary=0.13 cfs 0.069 af Secondary=0.00 cfs 0.000 af Outflow=0.13 cfs 0.087 af

Link O: OUTLET Inflow=0.77 cfs 0.101 af
Primary=0.77 cfs 0.101 af

Total Runoff Area = 1.300 ac Runoff Volume = 0.119 af Average Runoff Depth = 1.10"
45.52% Pervious = 0.592 ac 54.48% Impervious = 0.708 ac

Summary for Subcatchment 1S: DETAINED

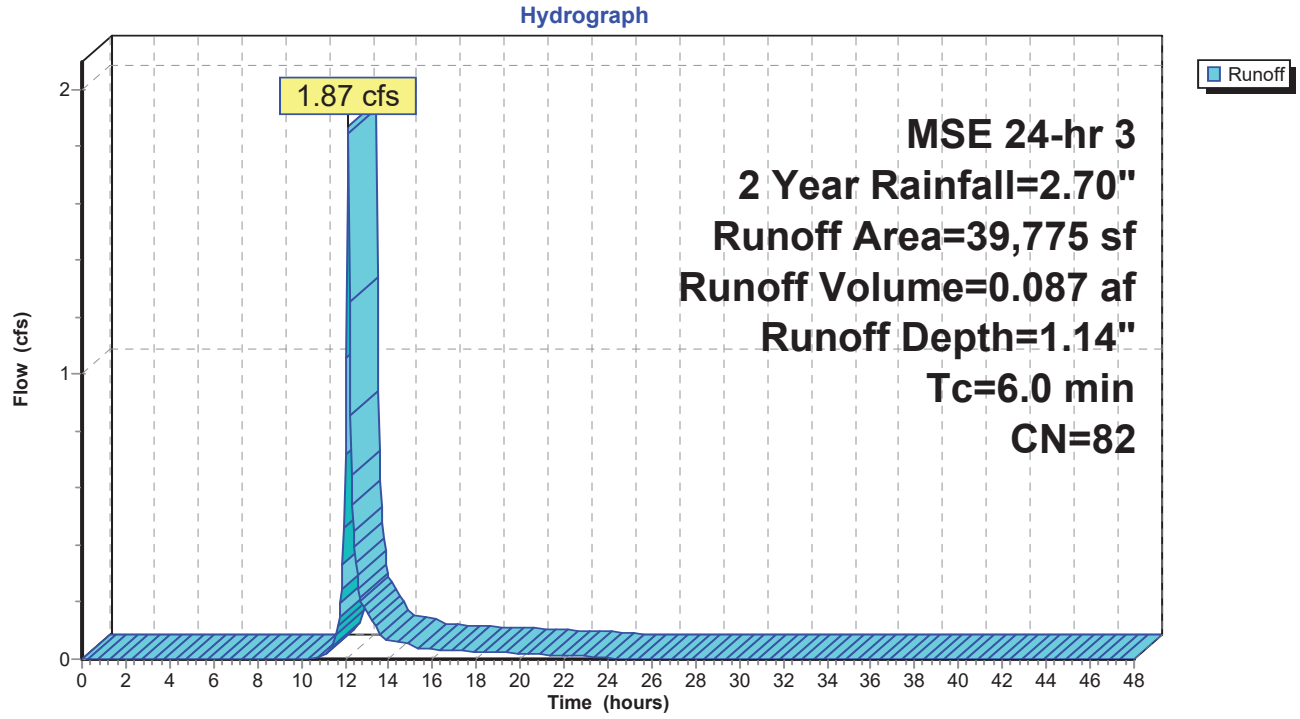
Runoff = 1.87 cfs @ 12.14 hrs, Volume= 0.087 af, Depth= 1.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2 Year Rainfall=2.70"

	Area (sf)	CN	Description
*	1,710	98	DRIVEWAY
	14,750	61	>75% Grass cover, Good, HSG B
	9,210	98	Unconnected roofs, HSG C
*	11,310	98	PARKING
*	240	98	SIDEWALK
	2,555	61	>75% Grass cover, Good, HSG B
	39,775	82	Weighted Average
	17,305		43.51% Pervious Area
	22,470		56.49% Impervious Area
	9,210		40.99% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1S: DETAINED



Summary for Subcatchment 2S: UNDETAINED NE

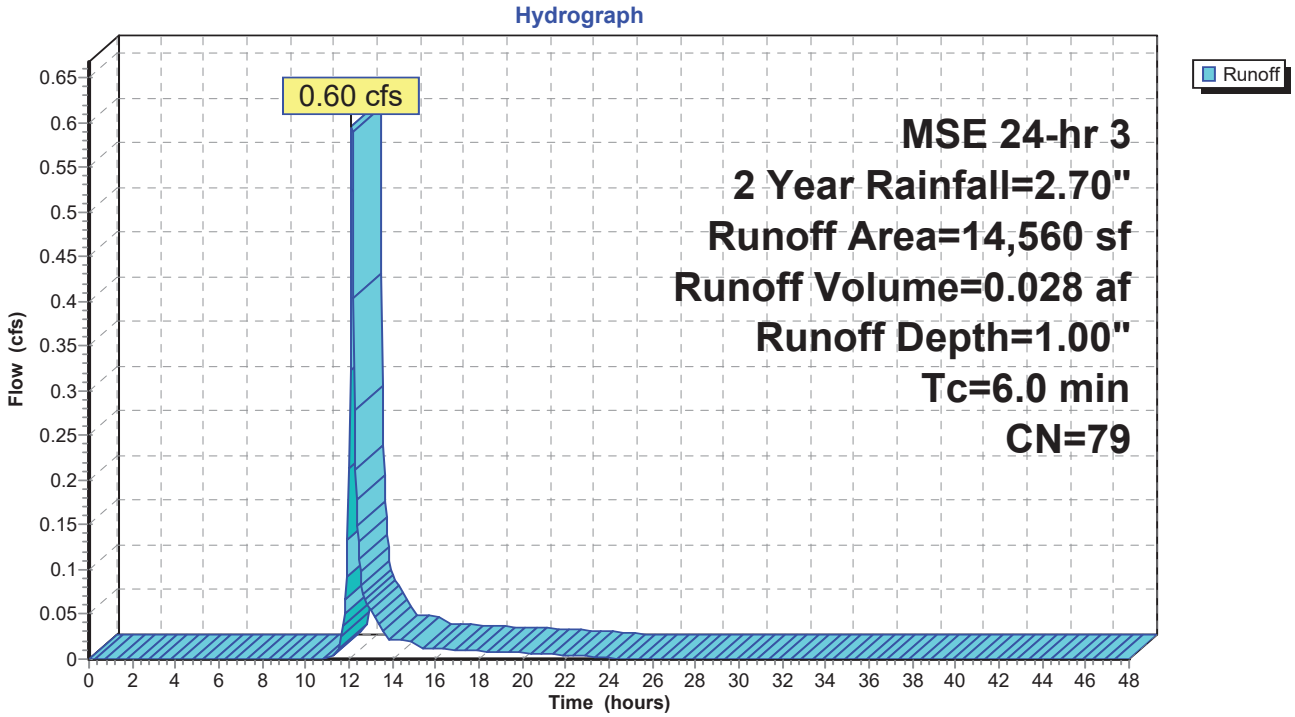
Runoff = 0.60 cfs @ 12.14 hrs, Volume= 0.028 af, Depth= 1.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2 Year Rainfall=2.70"

	Area (sf)	CN	Description
	5,975	61	>75% Grass cover, Good, HSG B
*	80	98	DRIVEWAY
*	610	98	SIDEWALK
	1,335	61	>75% Grass cover, Good, HSG B
*	6,560	98	Roof
	14,560	79	Weighted Average
	7,310		50.21% Pervious Area
	7,250		49.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 2S: UNDETAINED NE



Summary for Subcatchment 3S: UNDETAINED SOUTH

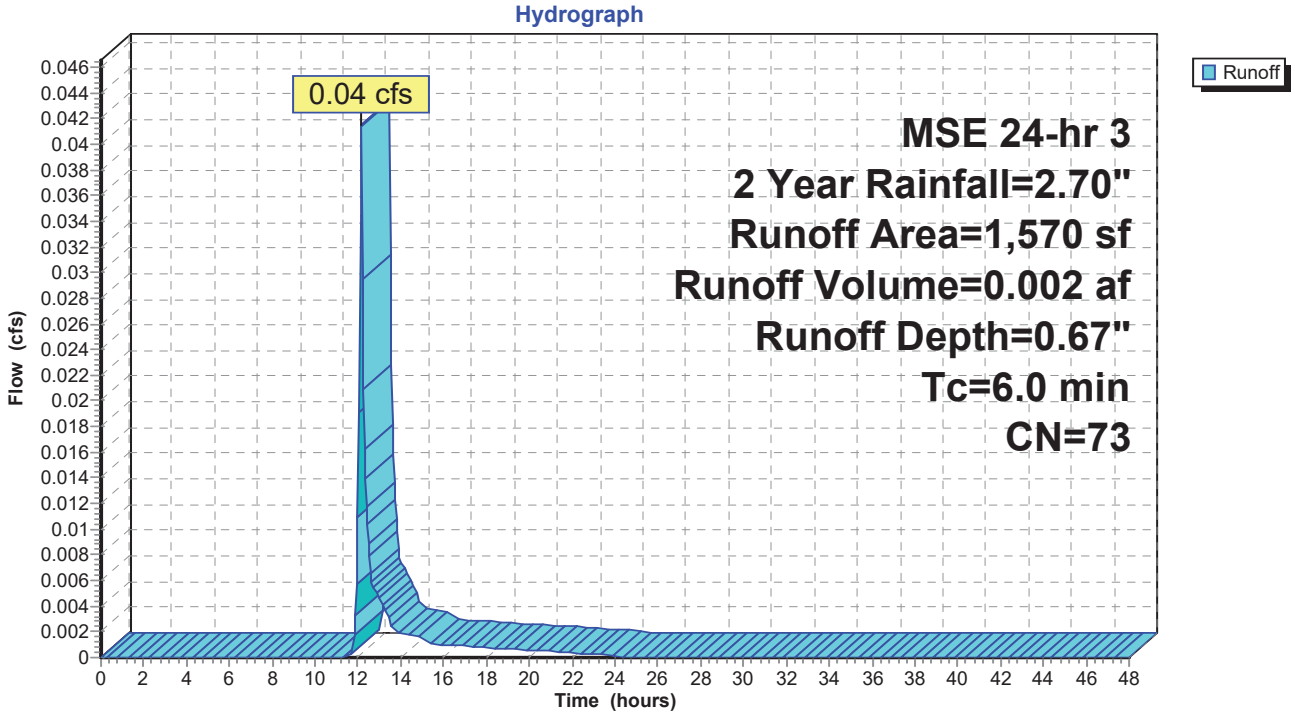
Runoff = 0.04 cfs @ 12.14 hrs, Volume= 0.002 af, Depth= 0.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2 Year Rainfall=2.70"

	Area (sf)	CN	Description
	1,065	61	>75% Grass cover, Good, HSG B
*	505	98	SIDEWALK
	1,570	73	Weighted Average
	1,065		67.83% Pervious Area
	505		32.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 3S: UNDETAINED SOUTH



Summary for Subcatchment 4S: UNDETAINED NW

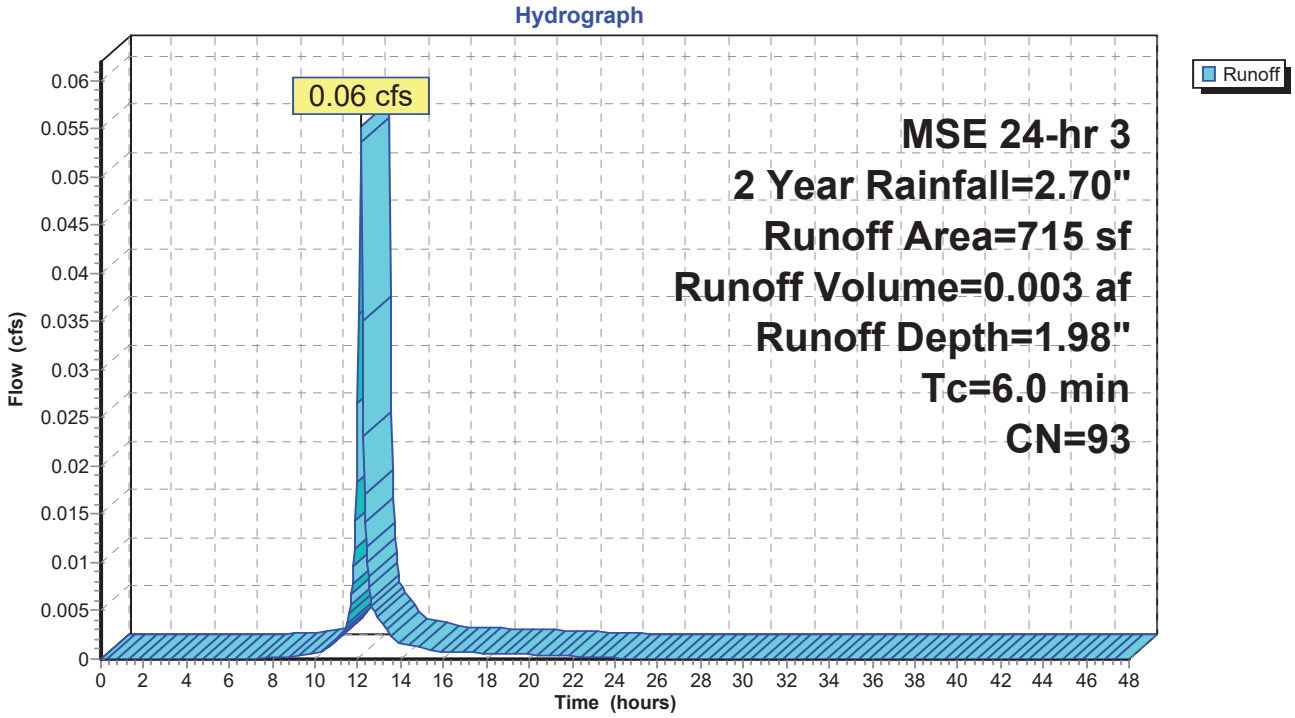
Runoff = 0.06 cfs @ 12.13 hrs, Volume= 0.003 af, Depth= 1.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2 Year Rainfall=2.70"

	Area (sf)	CN	Description
	95	61	>75% Grass cover, Good, HSG B
*	490	98	ROOF
*	130	98	SIDEWALK
	715	93	Weighted Average
	95		13.29% Pervious Area
	620		86.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 4S: UNDETAINED NW



Summary for Pond 1P: BIO BASIN

Inflow Area =	0.913 ac, 56.49% Impervious, Inflow Depth = 1.14" for 2 Year event				
Inflow =	1.87 cfs @	12.14 hrs,	Volume=	0.087 af	
Outflow =	0.13 cfs @	13.28 hrs,	Volume=	0.087 af,	Atten= 93%, Lag= 68.5 min
Discarded =	0.01 cfs @	13.28 hrs,	Volume=	0.018 af	
Primary =	0.13 cfs @	13.28 hrs,	Volume=	0.069 af	
Secondary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 813.33' @ 13.28 hrs Surf.Area= 2,516 sf Storage= 2,089 cf

Plug-Flow detention time= 263.2 min calculated for 0.087 af (100% of inflow)
Center-of-Mass det. time= 263.0 min (1,079.0 - 816.0)

Volume	Invert	Avail.Storage	Storage Description
#1	811.00'	9,377 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
811.00	2,289	225.0	0.0	0	0	2,289
811.50	2,289	225.0	33.0	378	378	2,402
812.00	2,289	225.0	27.0	309	687	2,514
813.00	2,289	225.0	27.0	618	1,305	2,739
814.00	3,017	248.0	100.0	2,645	3,949	3,636
815.00	3,824	272.0	100.0	3,413	7,362	4,663
815.50	4,239	281.0	100.0	2,015	9,377	5,083

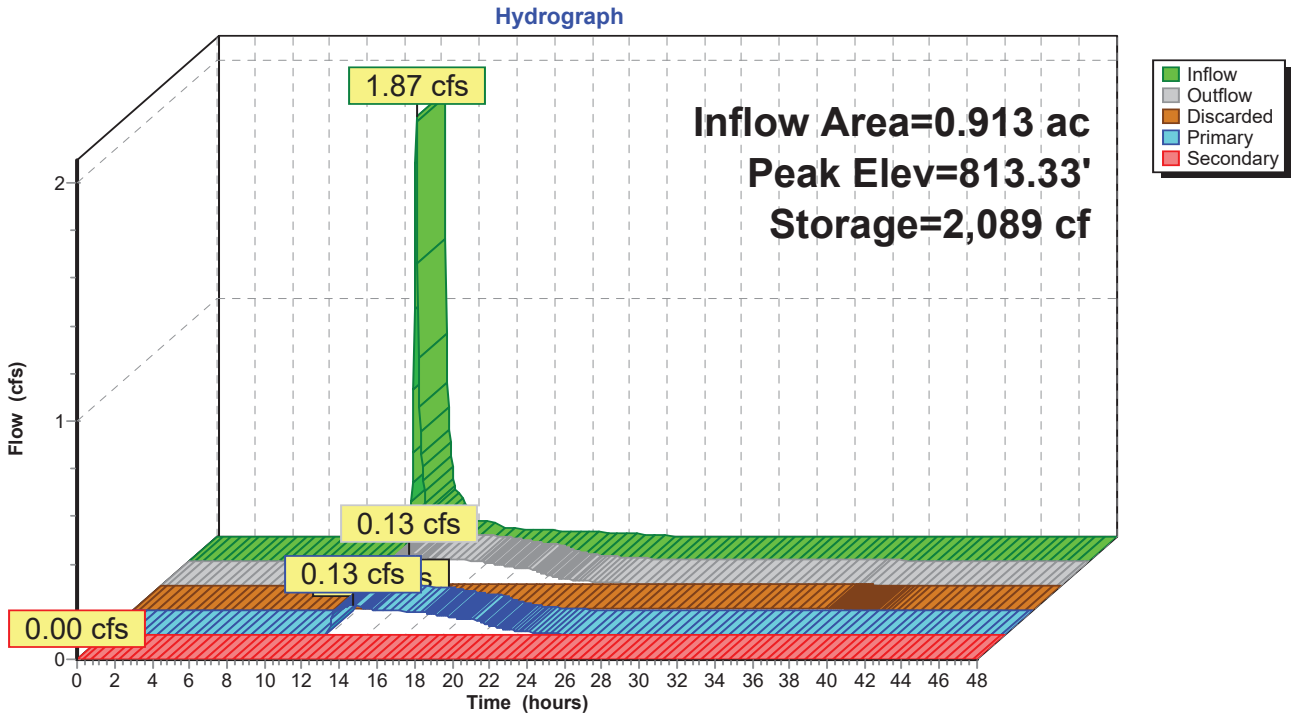
Device	Routing	Invert	Outlet Devices
#1	Discarded	811.00'	**0.150 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 20.00'
#2	Primary	811.00'	**8.0" Round Culvert** L= 41.4' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 811.00' / 810.83' S= 0.0041 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#3	Device 2	811.43'	**6.0" Round Culvert** L= 86.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 811.43' / 811.00' S= 0.0050 '/' Cc= 0.900 n= 0.100, Flow Area= 0.20 sf
#4	Device 3	811.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 800.00'
#5	Device 2	813.25'	**6.0" Vert. Orifice/Grate** C= 0.600
#6	Device 2	814.70'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#7	Secondary	814.80'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Discarded OutFlow Max=0.01 cfs @ 13.28 hrs HW=813.33' (Free Discharge)
└─**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.12 cfs @ 13.28 hrs HW=813.33' (Free Discharge)
└─**2=Culvert** (Passes 0.12 cfs of 1.87 cfs potential flow)
  ├─**3=Culvert** (Barrel Controls 0.11 cfs @ 0.54 fps)
  │ └─**4=Exfiltration** (Passes 0.11 cfs of 0.25 cfs potential flow)
  ├─**5=Orifice/Grate** (Orifice Controls 0.02 cfs @ 0.94 fps)
  └─**6=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=811.00' (Free Discharge)
└─**7=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: BIO BASIN

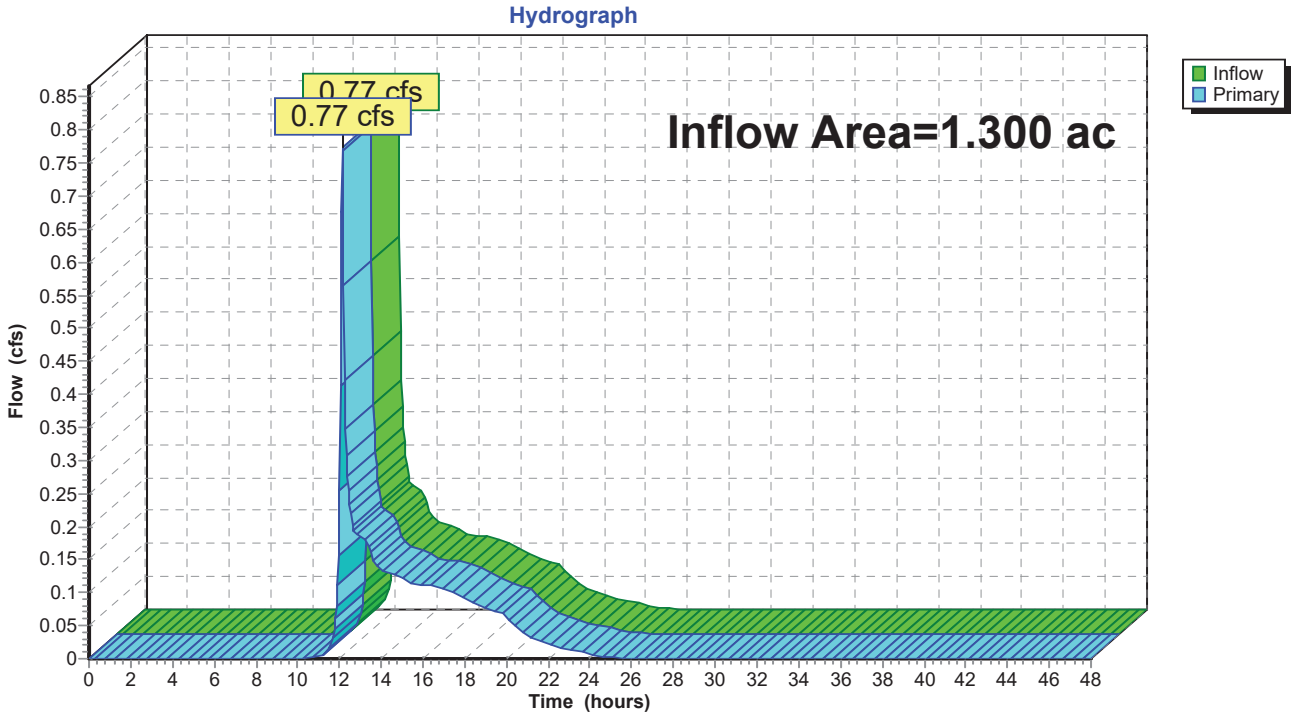


Summary for Link O: OUTLET

Inflow Area = 1.300 ac, 54.48% Impervious, Inflow Depth = 0.94" for 2 Year event
Inflow = 0.77 cfs @ 12.14 hrs, Volume= 0.101 af
Primary = 0.77 cfs @ 12.14 hrs, Volume= 0.101 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link O: OUTLET



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: DETAINED Runoff Area=39,775 sf 56.49% Impervious Runoff Depth=2.03"
Tc=6.0 min CN=82 Runoff=3.32 cfs 0.155 af

Subcatchment 2S: UNDETAINED NE Runoff Area=14,560 sf 49.79% Impervious Runoff Depth=1.84"
Tc=6.0 min CN=79 Runoff=1.11 cfs 0.051 af

Subcatchment 3S: UNDETAINED SOUTH Runoff Area=1,570 sf 32.17% Impervious Runoff Depth=1.39"
Tc=6.0 min CN=73 Runoff=0.09 cfs 0.004 af

Subcatchment 4S: UNDETAINED NW Runoff Area=715 sf 86.71% Impervious Runoff Depth=3.04"
Tc=6.0 min CN=93 Runoff=0.08 cfs 0.004 af

Pond 1P: BIO BASIN Peak Elev=813.75' Storage=3,230 cf Inflow=3.32 cfs 0.155 af
Discarded=0.01 cfs 0.019 af Primary=0.59 cfs 0.135 af Secondary=0.00 cfs 0.000 af Outflow=0.60 cfs 0.155 af

Link O: OUTLET Inflow=1.42 cfs 0.195 af
Primary=1.42 cfs 0.195 af

Total Runoff Area = 1.300 ac Runoff Volume = 0.214 af Average Runoff Depth = 1.98"
45.52% Pervious = 0.592 ac 54.48% Impervious = 0.708 ac

Summary for Subcatchment 1S: DETAINED

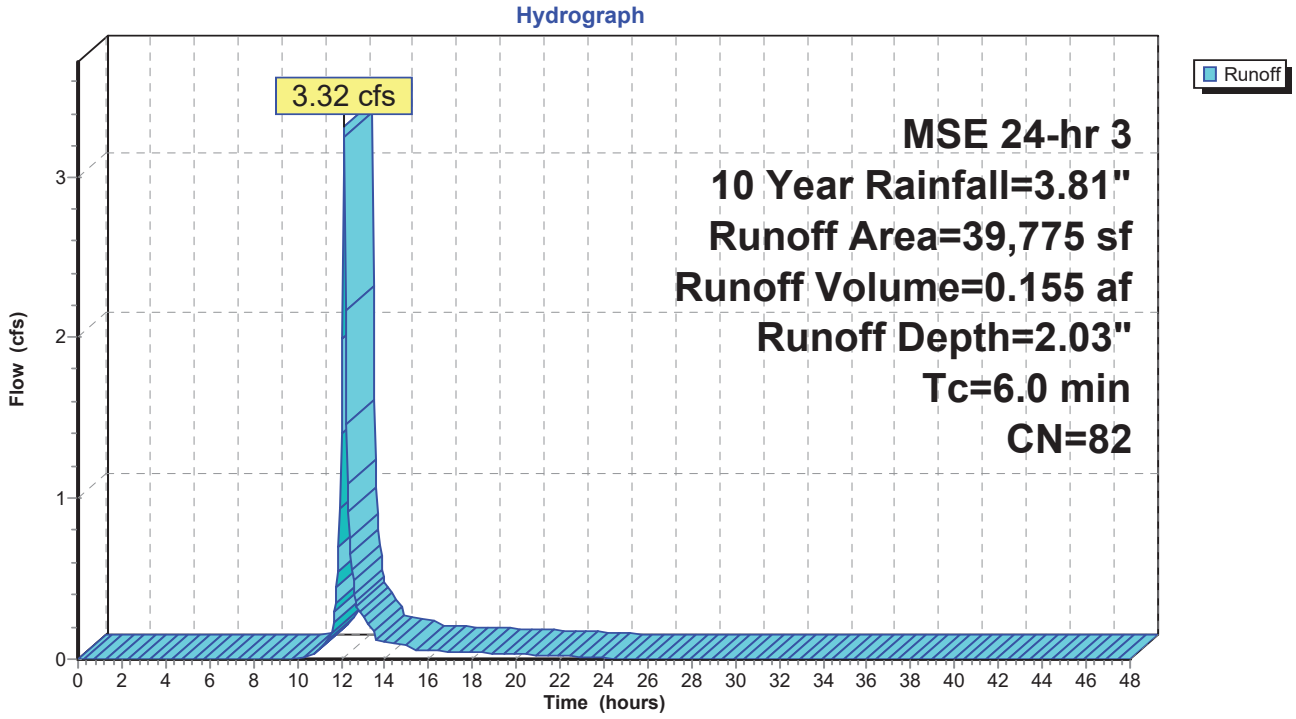
Runoff = 3.32 cfs @ 12.13 hrs, Volume= 0.155 af, Depth= 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10 Year Rainfall=3.81"

	Area (sf)	CN	Description
*	1,710	98	DRIVEWAY
	14,750	61	>75% Grass cover, Good, HSG B
	9,210	98	Unconnected roofs, HSG C
*	11,310	98	PARKING
*	240	98	SIDEWALK
	2,555	61	>75% Grass cover, Good, HSG B
	39,775	82	Weighted Average
	17,305		43.51% Pervious Area
	22,470		56.49% Impervious Area
	9,210		40.99% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1S: DETAINED



Summary for Subcatchment 2S: UNDETAINED NE

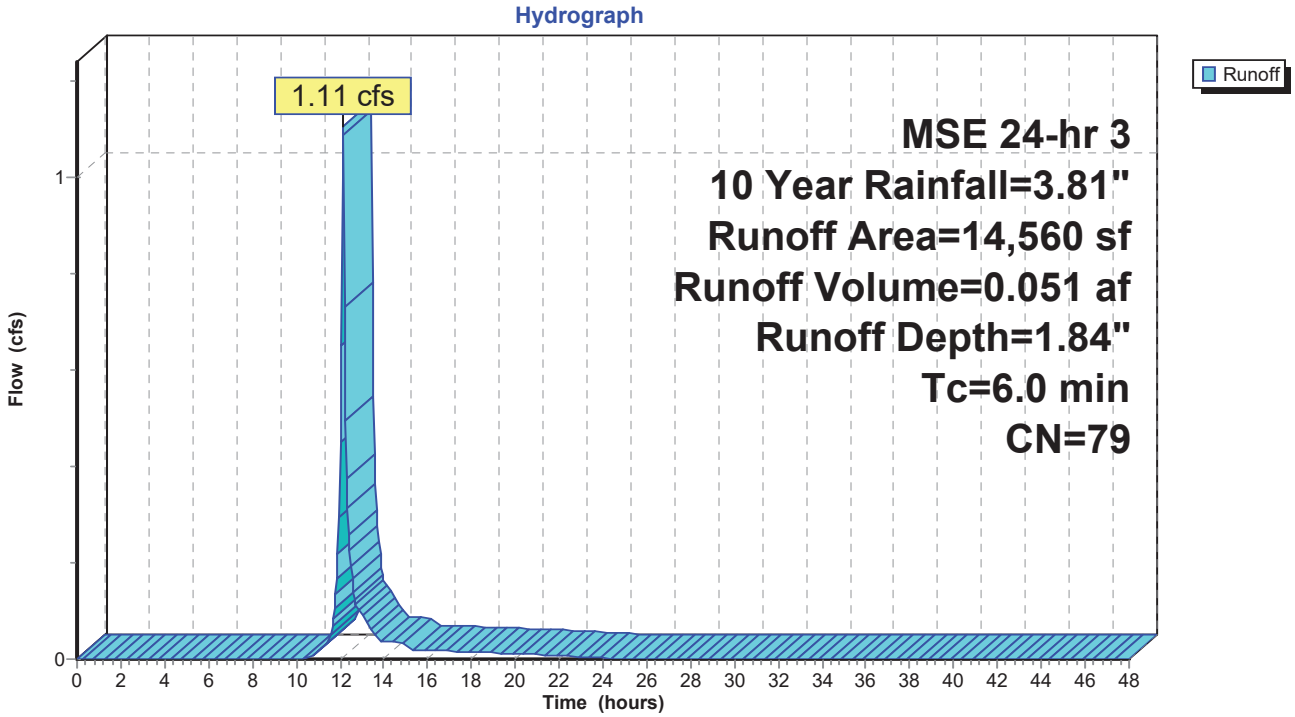
Runoff = 1.11 cfs @ 12.13 hrs, Volume= 0.051 af, Depth= 1.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10 Year Rainfall=3.81"

	Area (sf)	CN	Description
	5,975	61	>75% Grass cover, Good, HSG B
*	80	98	DRIVEWAY
*	610	98	SIDEWALK
	1,335	61	>75% Grass cover, Good, HSG B
*	6,560	98	Roof
	14,560	79	Weighted Average
	7,310		50.21% Pervious Area
	7,250		49.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 2S: UNDETAINED NE



Summary for Subcatchment 3S: UNDETAINED SOUTH

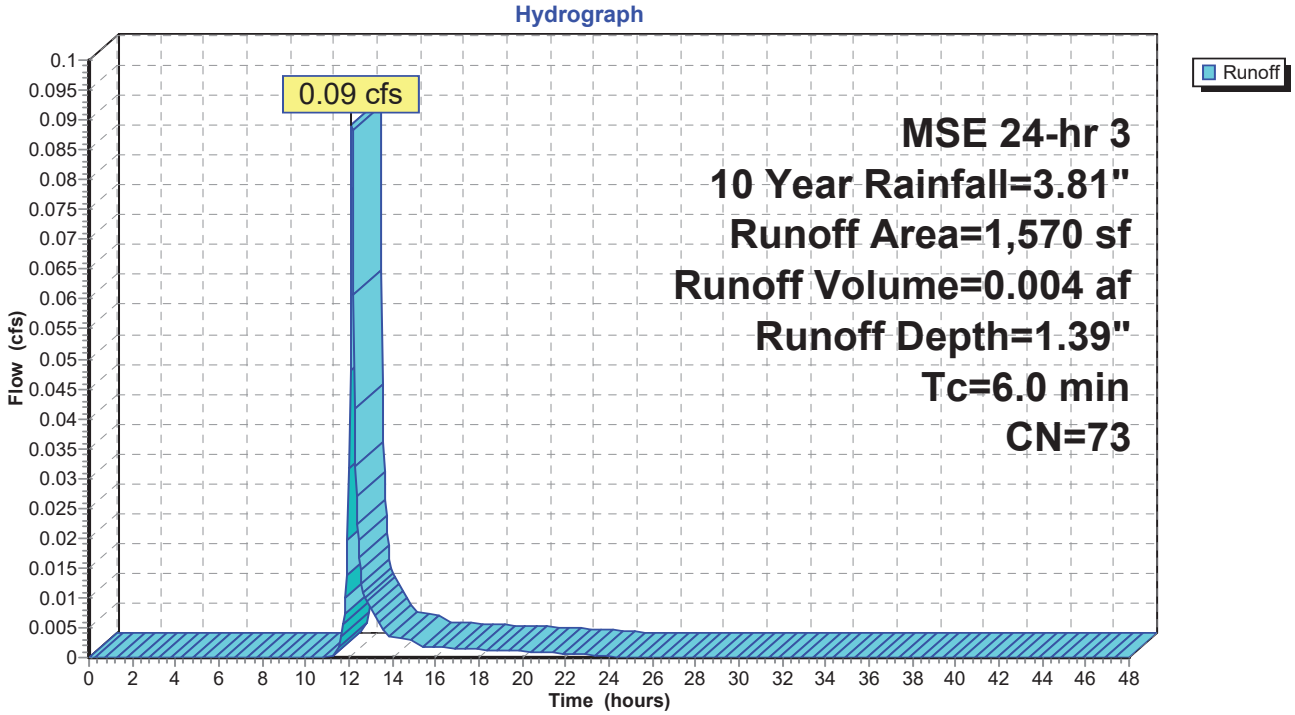
Runoff = 0.09 cfs @ 12.14 hrs, Volume= 0.004 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10 Year Rainfall=3.81"

	Area (sf)	CN	Description
	1,065	61	>75% Grass cover, Good, HSG B
*	505	98	SIDEWALK
	1,570	73	Weighted Average
	1,065		67.83% Pervious Area
	505		32.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 3S: UNDETAINED SOUTH



Summary for Subcatchment 4S: UNDETAINED NW

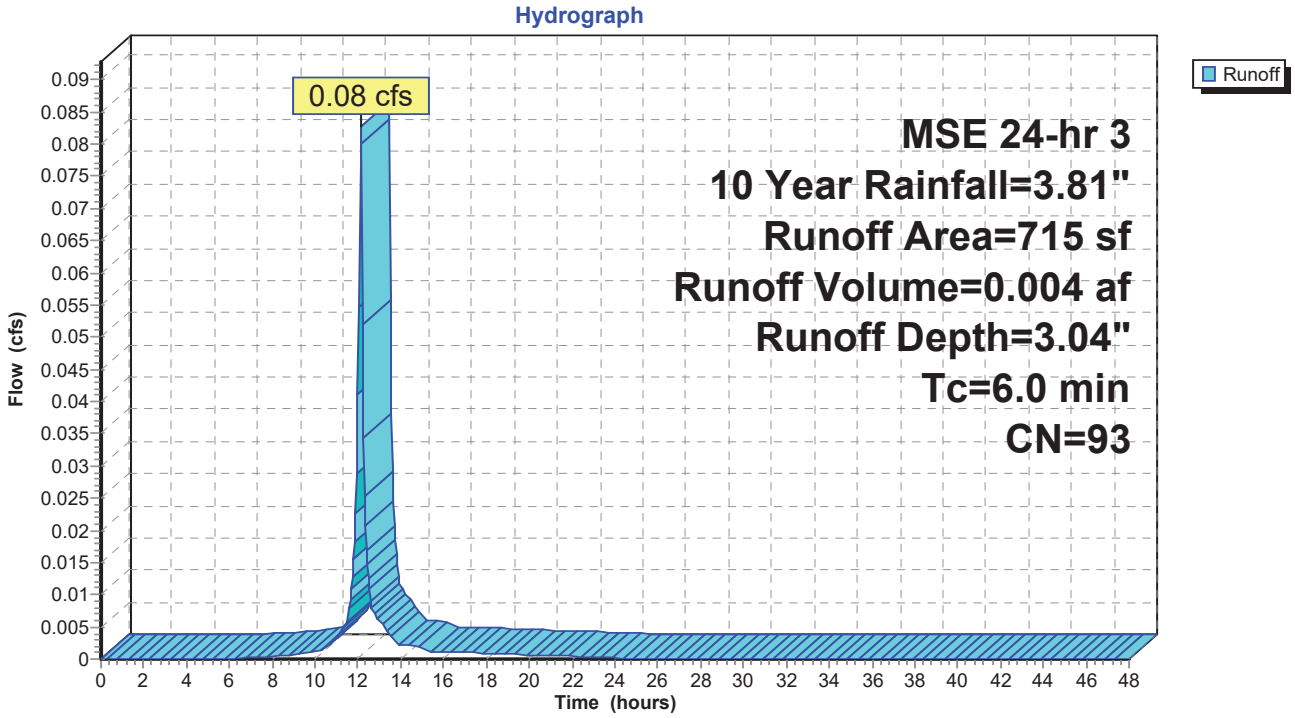
Runoff = 0.08 cfs @ 12.13 hrs, Volume= 0.004 af, Depth= 3.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10 Year Rainfall=3.81"

	Area (sf)	CN	Description
	95	61	>75% Grass cover, Good, HSG B
*	490	98	ROOF
*	130	98	SIDEWALK
	715	93	Weighted Average
	95		13.29% Pervious Area
	620		86.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 4S: UNDETAINED NW



Summary for Pond 1P: BIO BASIN

Inflow Area = 0.913 ac, 56.49% Impervious, Inflow Depth = 2.03" for 10 Year event
Inflow = 3.32 cfs @ 12.13 hrs, Volume= 0.155 af
Outflow = 0.60 cfs @ 12.48 hrs, Volume= 0.155 af, Atten= 82%, Lag= 20.6 min
Discarded = 0.01 cfs @ 12.48 hrs, Volume= 0.019 af
Primary = 0.59 cfs @ 12.48 hrs, Volume= 0.135 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 813.75' @ 12.48 hrs Surf.Area= 2,828 sf Storage= 3,230 cf

Plug-Flow detention time= 194.4 min calculated for 0.155 af (100% of inflow)
Center-of-Mass det. time= 194.2 min (998.3 - 804.1)

Volume	Invert	Avail.Storage	Storage Description
#1	811.00'	9,377 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
811.00	2,289	225.0	0.0	0	0	2,289
811.50	2,289	225.0	33.0	378	378	2,402
812.00	2,289	225.0	27.0	309	687	2,514
813.00	2,289	225.0	27.0	618	1,305	2,739
814.00	3,017	248.0	100.0	2,645	3,949	3,636
815.00	3,824	272.0	100.0	3,413	7,362	4,663
815.50	4,239	281.0	100.0	2,015	9,377	5,083

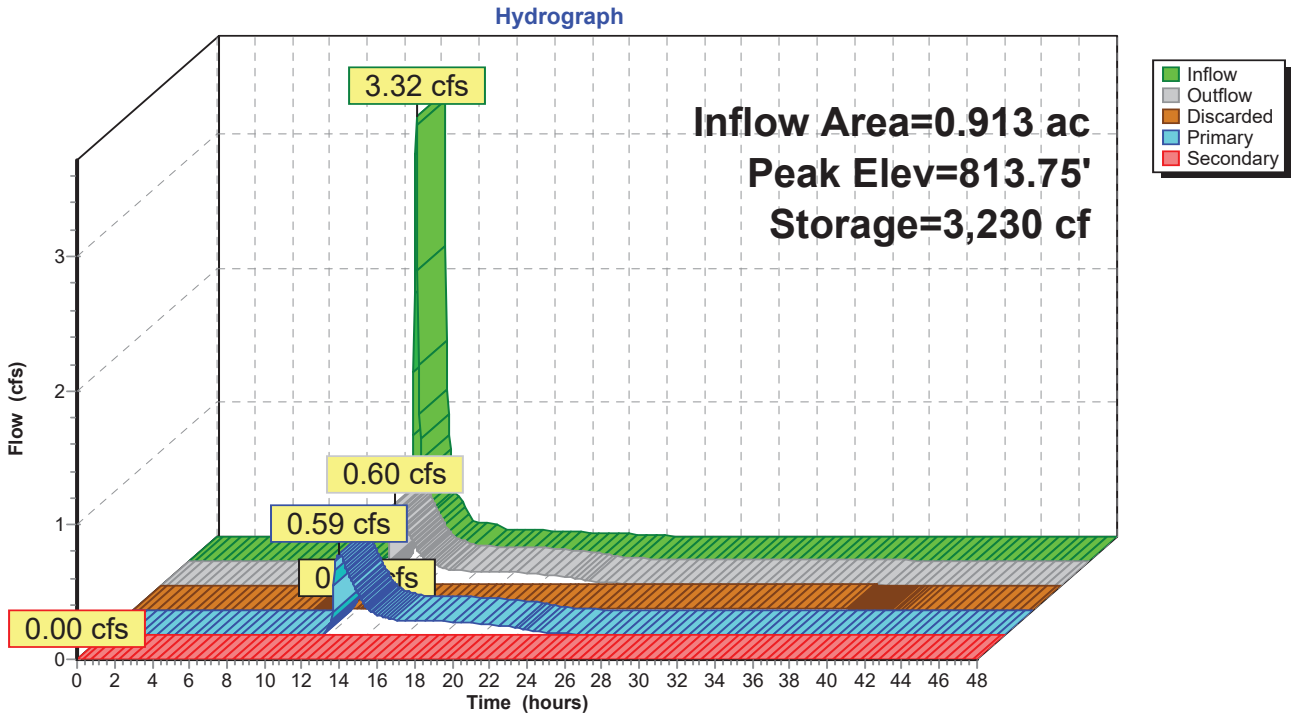
Device	Routing	Invert	Outlet Devices
#1	Discarded	811.00'	**0.150 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 20.00'
#2	Primary	811.00'	**8.0" Round Culvert** L= 41.4' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 811.00' / 810.83' S= 0.0041 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#3	Device 2	811.43'	**6.0" Round Culvert** L= 86.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 811.43' / 811.00' S= 0.0050 '/' Cc= 0.900 n= 0.100, Flow Area= 0.20 sf
#4	Device 3	811.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 800.00'
#5	Device 2	813.25'	**6.0" Vert. Orifice/Grate** C= 0.600
#6	Device 2	814.70'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#7	Secondary	814.80'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Discarded OutFlow Max=0.01 cfs @ 12.48 hrs HW=813.75' (Free Discharge)
└─**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.59 cfs @ 12.48 hrs HW=813.75' (Free Discharge)
└─**2=Culvert** (Passes 0.59 cfs of 2.06 cfs potential flow)
  ├─**3=Culvert** (Barrel Controls 0.12 cfs @ 0.60 fps)
  │ └─**4=Exfiltration** (Passes 0.12 cfs of 0.28 cfs potential flow)
  ├─**5=Orifice/Grate** (Orifice Controls 0.48 cfs @ 2.42 fps)
  └─**6=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=811.00' (Free Discharge)
└─**7=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: BIO BASIN

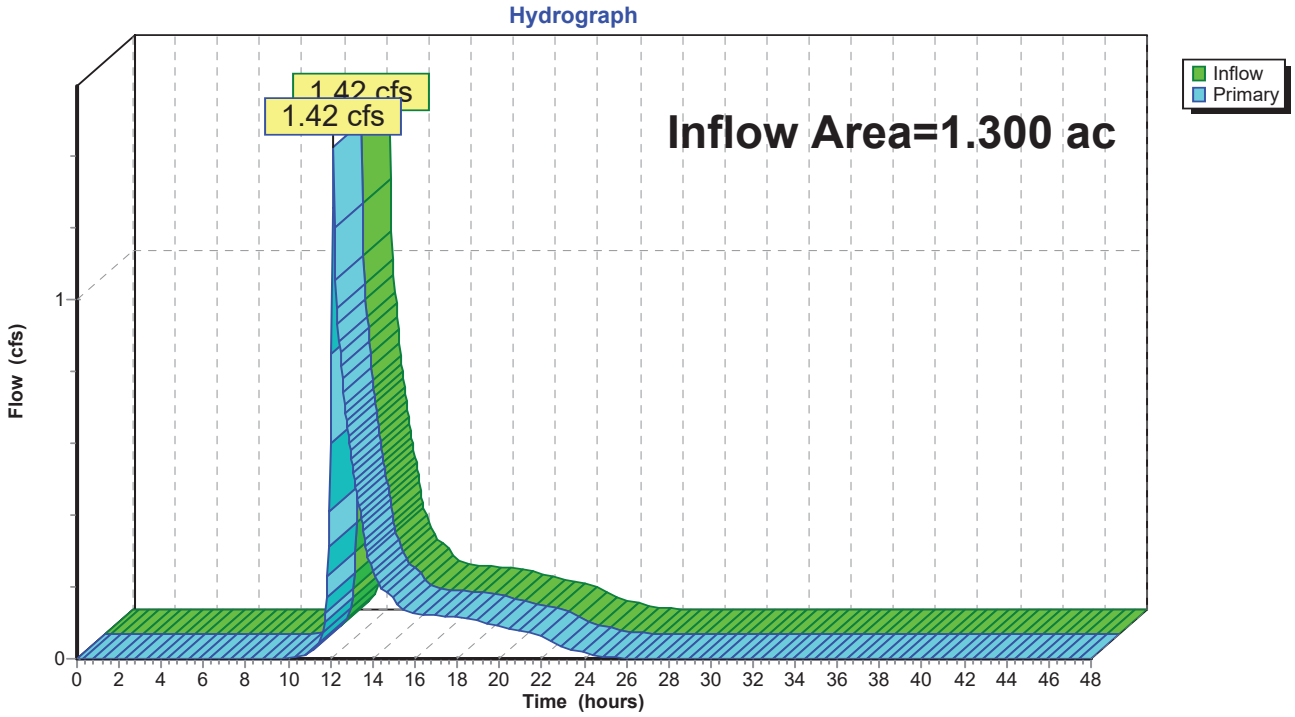


Summary for Link O: OUTLET

Inflow Area = 1.300 ac, 54.48% Impervious, Inflow Depth = 1.80" for 10 Year event
Inflow = 1.42 cfs @ 12.15 hrs, Volume= 0.195 af
Primary = 1.42 cfs @ 12.15 hrs, Volume= 0.195 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link O: OUTLET



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: DETAINED Runoff Area=39,775 sf 56.49% Impervious Runoff Depth=4.14"
Tc=6.0 min CN=82 Runoff=6.58 cfs 0.315 af

Subcatchment 2S: UNDETAINED NE Runoff Area=14,560 sf 49.79% Impervious Runoff Depth=3.88"
Tc=6.0 min CN=79 Runoff=2.28 cfs 0.108 af

Subcatchment 3S: UNDETAINED SOUTH Runoff Area=1,570 sf 32.17% Impervious Runoff Depth=3.23"
Tc=6.0 min CN=73 Runoff=0.21 cfs 0.010 af

Subcatchment 4S: UNDETAINED NW Runoff Area=715 sf 86.71% Impervious Runoff Depth=5.37"
Tc=6.0 min CN=93 Runoff=0.14 cfs 0.007 af

Pond 1P: BIO BASIN Peak Elev=814.76' Storage=6,462 cf Inflow=6.58 cfs 0.315 af
Discarded=0.01 cfs 0.022 af Primary=1.51 cfs 0.293 af Secondary=0.00 cfs 0.000 af Outflow=1.52 cfs 0.315 af

Link O: OUTLET Inflow=3.57 cfs 0.418 af
Primary=3.57 cfs 0.418 af

Total Runoff Area = 1.300 ac Runoff Volume = 0.440 af Average Runoff Depth = 4.07"
45.52% Pervious = 0.592 ac 54.48% Impervious = 0.708 ac

Summary for Subcatchment 1S: DETAINED

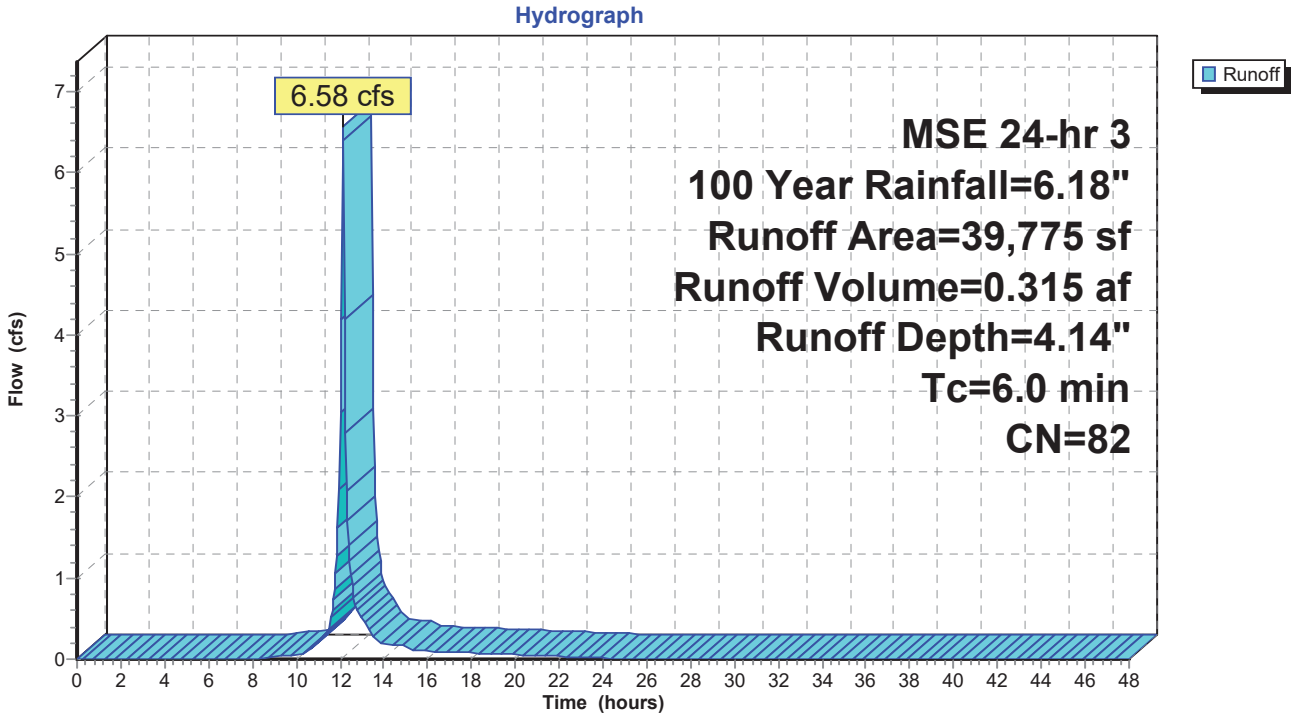
Runoff = 6.58 cfs @ 12.13 hrs, Volume= 0.315 af, Depth= 4.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 Year Rainfall=6.18"

	Area (sf)	CN	Description
*	1,710	98	DRIVEWAY
	14,750	61	>75% Grass cover, Good, HSG B
	9,210	98	Unconnected roofs, HSG C
*	11,310	98	PARKING
*	240	98	SIDEWALK
	2,555	61	>75% Grass cover, Good, HSG B
	39,775	82	Weighted Average
	17,305		43.51% Pervious Area
	22,470		56.49% Impervious Area
	9,210		40.99% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1S: DETAINED



Summary for Subcatchment 2S: UNDETAINED NE

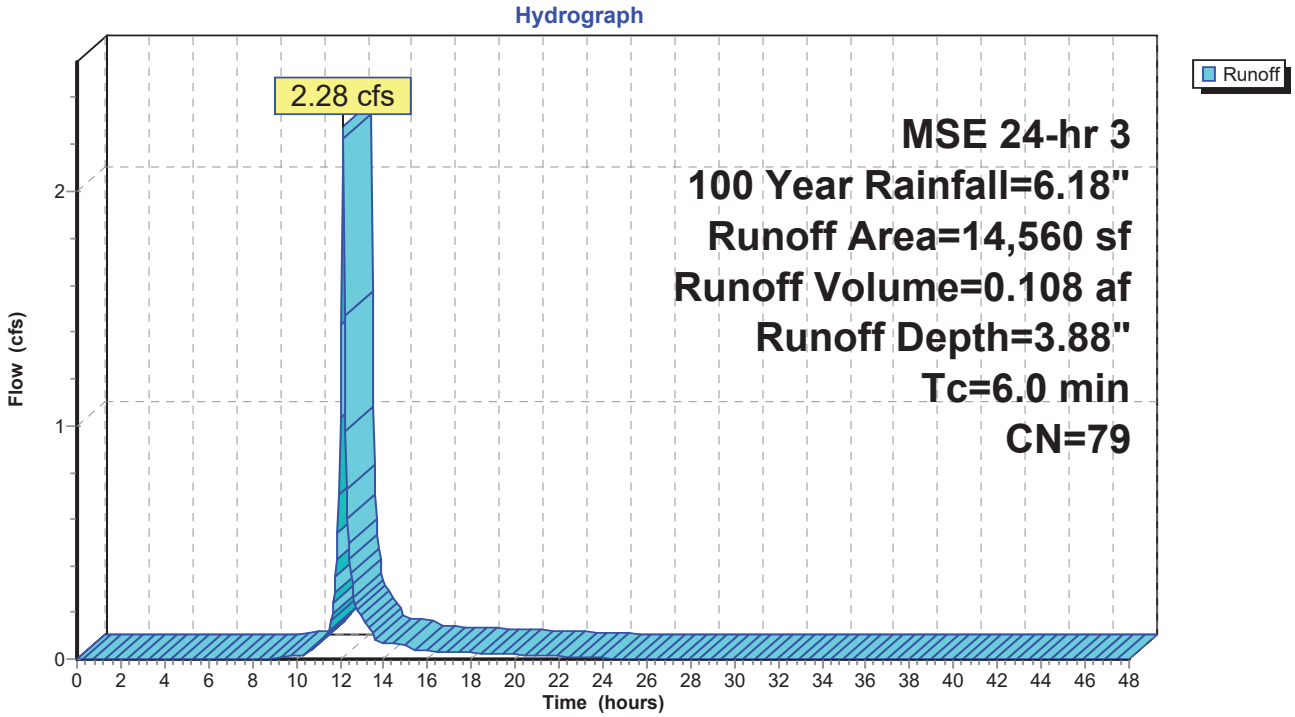
Runoff = 2.28 cfs @ 12.13 hrs, Volume= 0.108 af, Depth= 3.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 Year Rainfall=6.18"

	Area (sf)	CN	Description
	5,975	61	>75% Grass cover, Good, HSG B
*	80	98	DRIVEWAY
*	610	98	SIDEWALK
	1,335	61	>75% Grass cover, Good, HSG B
*	6,560	98	Roof
	14,560	79	Weighted Average
	7,310		50.21% Pervious Area
	7,250		49.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 2S: UNDETAINED NE



Summary for Subcatchment 3S: UNDETAINED SOUTH

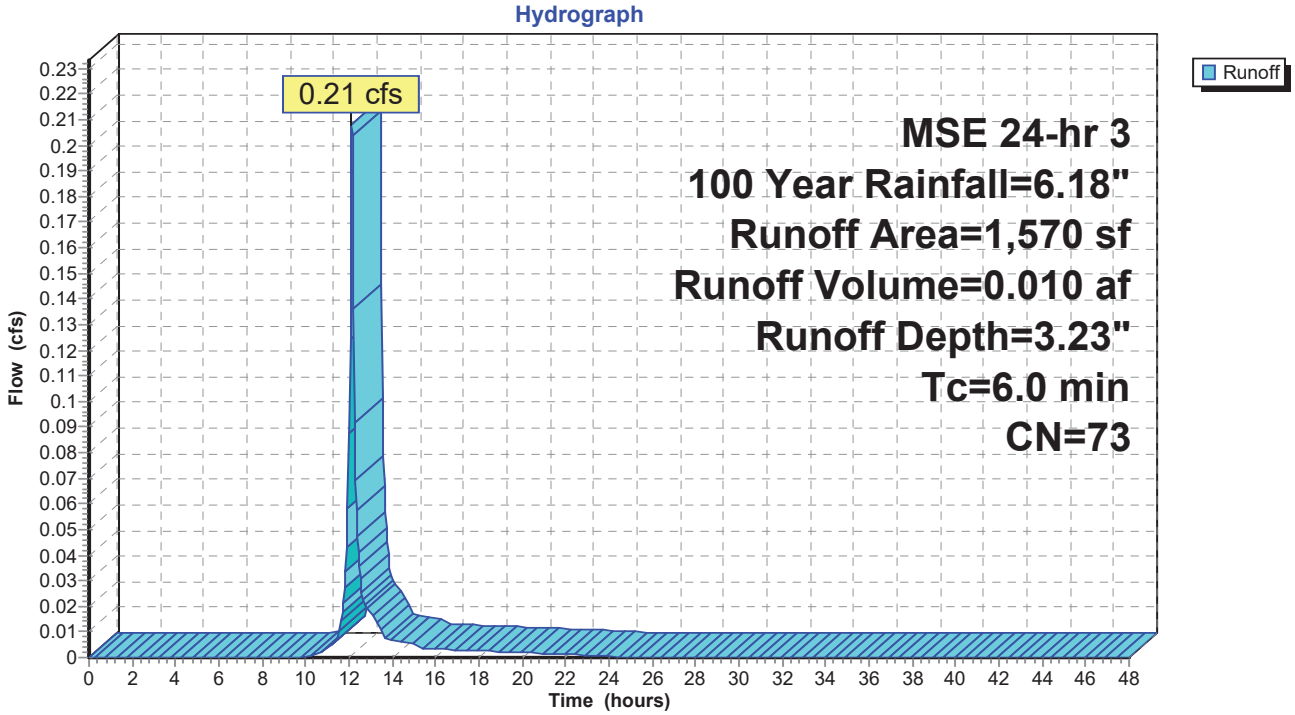
Runoff = 0.21 cfs @ 12.13 hrs, Volume= 0.010 af, Depth= 3.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 Year Rainfall=6.18"

	Area (sf)	CN	Description
	1,065	61	>75% Grass cover, Good, HSG B
*	505	98	SIDEWALK
	1,570	73	Weighted Average
	1,065		67.83% Pervious Area
	505		32.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 3S: UNDETAINED SOUTH



Summary for Subcatchment 4S: UNDETAINED NW

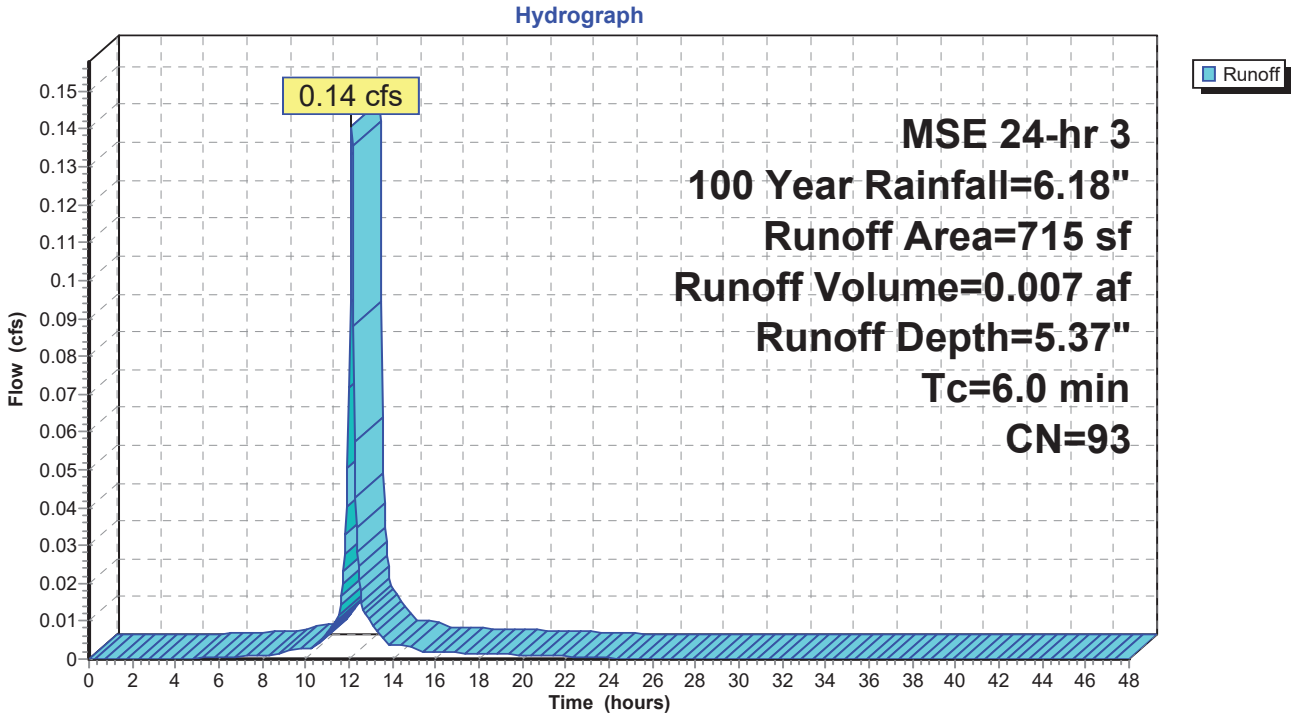
Runoff = 0.14 cfs @ 12.13 hrs, Volume= 0.007 af, Depth= 5.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 Year Rainfall=6.18"

	Area (sf)	CN	Description
	95	61	>75% Grass cover, Good, HSG B
*	490	98	ROOF
*	130	98	SIDEWALK
	715	93	Weighted Average
	95		13.29% Pervious Area
	620		86.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 4S: UNDETAINED NW



Summary for Pond 1P: BIO BASIN

Inflow Area = 0.913 ac, 56.49% Impervious, Inflow Depth = 4.14" for 100 Year event
Inflow = 6.58 cfs @ 12.13 hrs, Volume= 0.315 af
Outflow = 1.52 cfs @ 12.39 hrs, Volume= 0.315 af, Atten= 77%, Lag= 15.4 min
Discarded = 0.01 cfs @ 12.39 hrs, Volume= 0.022 af
Primary = 1.51 cfs @ 12.39 hrs, Volume= 0.293 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 814.76' @ 12.39 hrs Surf.Area= 3,620 sf Storage= 6,462 cf

Plug-Flow detention time= 143.5 min calculated for 0.315 af (100% of inflow)
Center-of-Mass det. time= 144.5 min (934.3 - 789.9)

Volume	Invert	Avail.Storage	Storage Description
#1	811.00'	9,377 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
811.00	2,289	225.0	0.0	0	0	2,289
811.50	2,289	225.0	33.0	378	378	2,402
812.00	2,289	225.0	27.0	309	687	2,514
813.00	2,289	225.0	27.0	618	1,305	2,739
814.00	3,017	248.0	100.0	2,645	3,949	3,636
815.00	3,824	272.0	100.0	3,413	7,362	4,663
815.50	4,239	281.0	100.0	2,015	9,377	5,083

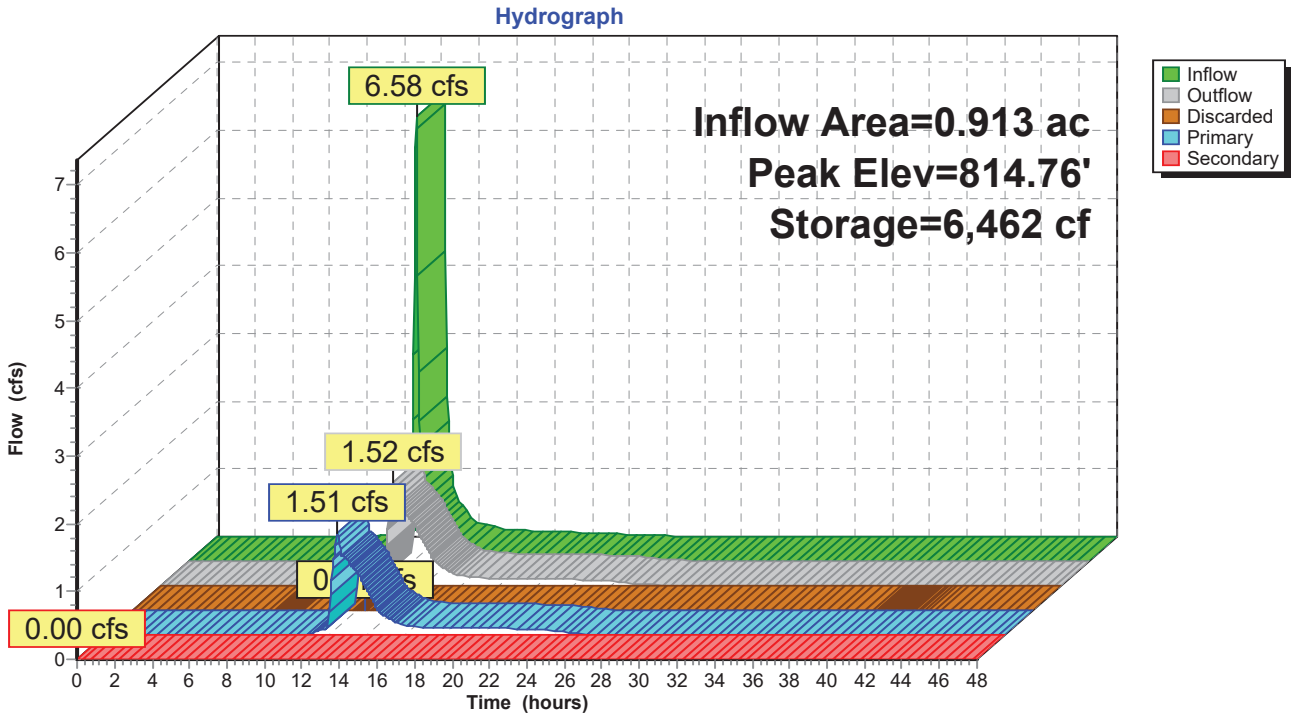
Device	Routing	Invert	Outlet Devices
#1	Discarded	811.00'	**0.150 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 20.00'
#2	Primary	811.00'	**8.0" Round Culvert** L= 41.4' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 811.00' / 810.83' S= 0.0041 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#3	Device 2	811.43'	**6.0" Round Culvert** L= 86.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 811.43' / 811.00' S= 0.0050 '/' Cc= 0.900 n= 0.100, Flow Area= 0.20 sf
#4	Device 3	811.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 800.00'
#5	Device 2	813.25'	**6.0" Vert. Orifice/Grate** C= 0.600
#6	Device 2	814.70'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#7	Secondary	814.80'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Discarded OutFlow Max=0.01 cfs @ 12.39 hrs HW=814.76' (Free Discharge)
└─**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=1.48 cfs @ 12.39 hrs HW=814.76' (Free Discharge)
└─**2=Culvert** (Passes 1.48 cfs of 2.46 cfs potential flow)
  ├─**3=Culvert** (Barrel Controls 0.14 cfs @ 0.72 fps)
  │ └─**4=Exfiltration** (Passes 0.14 cfs of 0.37 cfs potential flow)
  ├─**5=Orifice/Grate** (Orifice Controls 1.06 cfs @ 5.40 fps)
  └─**6=Orifice/Grate** (Weir Controls 0.28 cfs @ 0.78 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=811.00' (Free Discharge)
└─**7=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: BIO BASIN

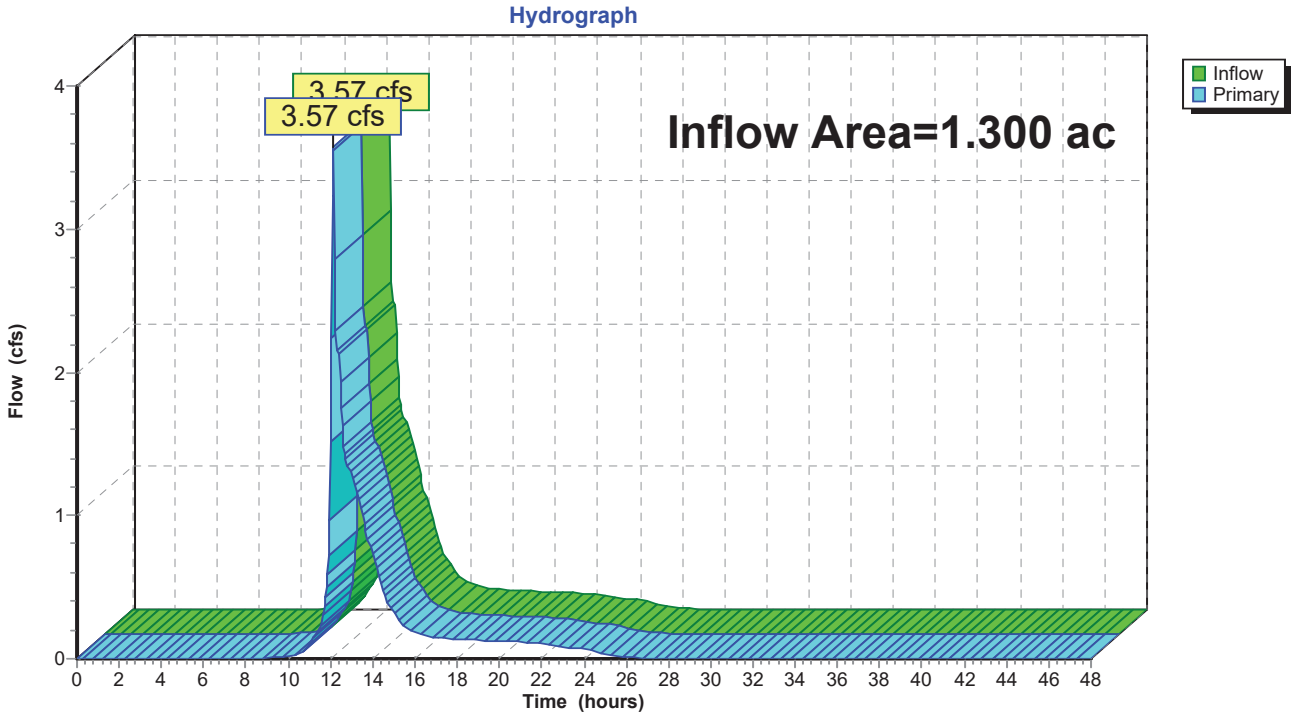


Summary for Link O: OUTLET

Inflow Area = 1.300 ac, 54.48% Impervious, Inflow Depth = 3.86" for 100 Year event
Inflow = 3.57 cfs @ 12.14 hrs, Volume= 0.418 af
Primary = 3.57 cfs @ 12.14 hrs, Volume= 0.418 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link O: OUTLET

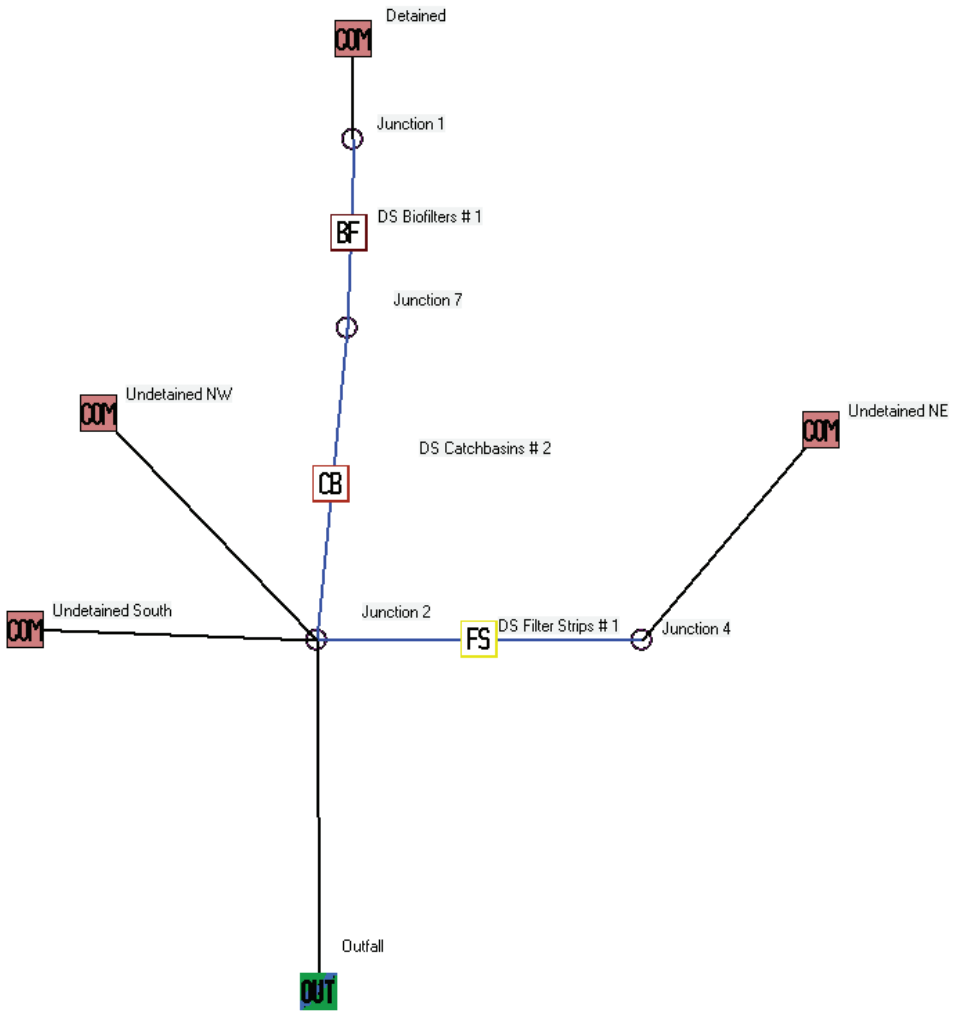


APPENDIX 5

Water Quality Calculations

- Post-Development Input Summary
- Post-Development Output Summary

SLAMM MODELING



Data file name: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\04 Civil\SWMP\Modeling\Winslamm\19-9231Castle Senior Living.mdb
WinSLAMM Version 10.4.1
Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
Seed for random number generator: -42
Study period starting date: 03/28/69 Study period ending date: 12/06/69
Date: 02-06-2020 Time: 13:59:21
Site information:

LU# 1 - Commercial: Detained Total area (ac): 0.913
1 - Roofs 1: 0.211 ac. Pitched Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
13 - Paved Parking 1: 0.260 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
25 - Driveways 1: 0.039 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
31 - Sidewalks 1: 0.006 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
51 - Small Landscaped Areas 1: 0.397 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 2 - Commercial: Undetained South Total area (ac): 0.036
25 - Driveways 1: 0.012 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
51 - Small Landscaped Areas 1: 0.024 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 3 - Commercial: Undetained NE Total area (ac): 0.335
1 - Roofs 1: 0.151 ac. Pitched Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
25 - Driveways 1: 0.002 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
31 - Sidewalks 1: 0.014 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
52 - Small Landscaped Areas 2: 0.168 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 4 - Commercial: Undetained NW Total area (ac): 0.016
1 - Roofs 1: 0.011 ac. Flat Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
31 - Sidewalks 1: 0.003 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
51 - Small Landscaped Areas 1: 0.002 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

Control Practice 1: Biofilter CP# 1 (DS) - DS Biofilters # 1
1. Top area (square feet) = 4239
2. Bottom aea (square feet) = 2399
3. Depth (ft): 4.8
4. Biofilter width (ft) - for Cost Purposes Only: 23
5. Infiltration rate (in/hr) = 0.02
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 1
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0.5
10. Porosity of rock filled volume = 0.33
11. Engineered soil infiltration rate: 3.6
12. Engineered soil depth (ft) = 1.5
13. Engineered soil porosity = 0.27
14. Percent solids reduction due to flow through engineered soil = 80
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0
Soil Data Soil Type Fraction in Eng. Soil
User-Defined Soil Type 1.000
Biofilter Outlet/Discharge Characteristics:

Outlet type: Broad Crested Weir
1. Weir crest length (ft): 20
2. Weir crest width (ft): 10
3. Height of datum to bottom of weir opening: 3.8

Outlet type: Vertical Stand Pipe
1. Stand pipe diameter (ft): 2
2. Stand pipe height above datum (ft): 3.7

Outlet type: Surface Discharge Pipe
1. Surface discharge pipe outlet diameter (ft): 0.5
2. Pipe invert elevation above datum (ft): 2.25
3. Number of surface pipe outlets: 1

Outlet type: Drain Tile/Underdrain
1. Underdrain outlet diameter (ft): 0.5
2. Invert elevation above datum (ft): 0
3. Number of underdrain outlets: 1

Control Practice 2: Filter Strip CP# 1 (DS) - DS Filter Strips # 1
Total drainage area (acres)= 0.335
Fraction of drainage area served by filter strips (ac) = 1.00
Total filter strip width (ft) = 150.0
Effective flow length (ft) = 15
Infiltration rate (in/hr)= 0.020
Typical longitudinal slope (ft.H/ft.V) = 0.015
Typical grass height (in) = 6.0
Swale retardance factor = C
Use stochastic analysis to determine infiltration rate: False
Infiltration rate coeficient of variation (COV) = 0.00
Particle size distribution file name: Not needed - calculated by program
Surface Clogging Load (lbs/sf) = 3.50

Control Practice 3: Catchbasin Cleaning CP# 1 (DS) - DS Catchbasins # 2
1. Fraction of area served by catchbasins = 1.00
2. Number of catchbasins = 1
3. Average sump depth below catchbasin outlet invert (feet) = 2
4. Depth of sediment in catchbasin sump at beginning of study period (ft) = 0
5. Typical outlet pipe diameter (ft) = 0.67
6. Typical outlet pipe Mannings n = 0.01
7. Typical outlet pipe slope (ft/ft) = 0.016
8. Typical catchbasin sump surface area (square feet) = 7.1
9. Total catchbasin depth (feet) = 5
10. Inflow hydrograph peak to average flow ratio = 3.8
11. Leakage rate through sump bottom (in/hr) = 0
12. Catchbasin Critical Particle Size File Name:
13. Catchbasin cleaning frequency: Once every two years

SLAMM for Windows Version 10.4.1

(c) Copyright Robert Pitt and John Voorhees 2019 All Rights Reserved

Data file name: R:\2019\19-9231 Mukwonago RCAC (Mukwonago WI)\04 Civil\SWMP\Modeling\Winslamm\19-9231Castle Senior Living.mdb
Data file description:
Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx
Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
Seed for random number generator: -42
Model Run Start Date: 03/28/69 Model Run End Date: 12/06/69
Date of run: 02-06-2020 Time of run: 13:50:22
Total Area Modeled (acres): 1.300
Years in Model Run: 0.67

	Runoff Volume (cu ft)	Percent Runoff Volume Reduction	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of all Land Uses without Controls:	49989	-	94.95	296.3	-
Outfall Total with Controls:	46173	7.63%	24.54	70.75	76.12%
Annualized Total After Outfall Controls:	69355			106.3	

Pollutant	Concentration No Controls	Concentration With Controls	Conc. Units	Pollutant Yield No Controls	Pollutant Yield With Controls	Pollutant Yield Units	Percent Reduction
Particulate Solids	94.95	24.54	mg/L	296.3	70.75	lbs	76.12%
Particulate Phosphorus	0.2519	0.06706	mg/L	0.7862	0.1933	lbs	75.41%

APPENDIX 6

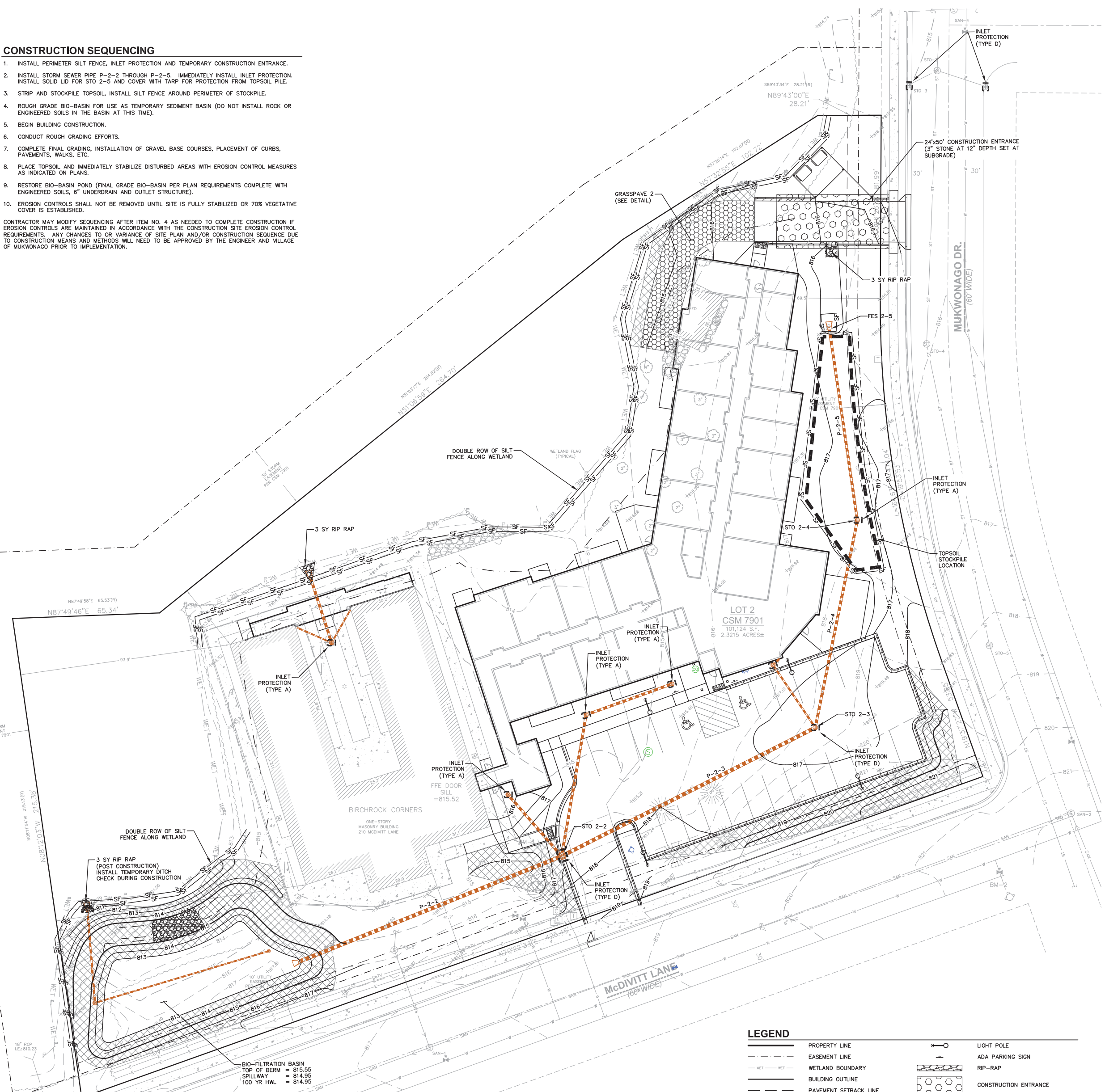
Design Details

- Proposed Erosion Control Plan
- Proposed Grading & Utility Plan
- Proposed Bioretention Basin Detail
- Storm Sewer Sizing Calculations
- Anti-Seep Collar Design

CONSTRUCTION SEQUENCING

1. INSTALL PERIMETER SILT FENCE, INLET PROTECTION AND TEMPORARY CONSTRUCTION ENTRANCE.
2. INSTALL STORM SEWER PIPE P-2-2 THROUGH P-2-5. IMMEDIATELY INSTALL INLET PROTECTION. INSTALL SOLID LID FOR STO 2-5 AND COVER WITH TARP FOR PROTECTION FROM TOPSOIL PILE.
3. STRIP AND STOCKPILE TOPSOIL, INSTALL SILT FENCE AROUND PERIMETER OF STOCKPILE.
4. ROUGH GRADE BIO-BASIN FOR USE AS TEMPORARY SEDIMENT BASIN (DO NOT INSTALL ROCK OR ENGINEERED SOILS IN THE BASIN AT THIS TIME).
5. BEGIN BUILDING CONSTRUCTION.
6. CONDUCT ROUGH GRADING EFFORTS.
7. COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
8. PLACE TOPSOIL AND IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROL MEASURES AS INDICATED ON PLANS.
9. RESTORE BIO-BASIN POND (FINAL GRADE BIO-BASIN PER PLAN REQUIREMENTS COMPLETE WITH ENGINEERED SOILS, 6" UNDERDRAIN AND OUTLET STRUCTURE).
10. EROSION CONTROLS SHALL NOT BE REMOVED UNTIL SITE IS FULLY STABILIZED OR 70% VEGETATIVE COVER IS ESTABLISHED.

CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM NO. 4 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS. ANY CHANGES TO OR VARIANCE OF SITE PLAN AND/OR CONSTRUCTION SEQUENCE DUE TO CONSTRUCTION MEANS AND METHODS WILL NEED TO BE APPROVED BY THE ENGINEER AND VILLAGE OF MUKWONAGO PRIOR TO IMPLEMENTATION.



LEGEND

PROPERTY LINE	LIGHT POLE
EASEMENT LINE	ADA PARKING SIGN
WETLAND BOUNDARY	RIP-RAP
BUILDING OUTLINE	CONSTRUCTION ENTRANCE
PAVEMENT SETBACK LINE	EROSION MATTING (SEE NOTE 17)
EDGE OF PAVEMENT	SPOT ELEVATION
STANDARD CURB AND GUTTER	DITCH CHECK
REJECT CURB AND GUTTER	INLET PROTECTION
PROPOSED 1 FOOT CONTOUR	
PROPOSED 5 FOOT CONTOUR	
EXISTING 1 FOOT CONTOUR	
EXISTING 5 FOOT CONTOUR	
SILT FENCE	

EROSION CONTROL NOTES

1. ALL CONSTRUCTION SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN WISCONSIN'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT FOR CONSTRUCTION SITE LAND DISTURBANCE ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) TECHNICAL STANDARDS AND VILLAGE OF MUKWONAGO ORDINANCES. IT IS THE RESPONSIBILITY OF ALL CONTRACTORS ASSOCIATED WITH THE PROJECT TO OBTAIN A COPY OF, AND UNDERSTAND, THESE STANDARDS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
2. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL CONTROL MEASURES AS DIRECTED BY JSD PROFESSIONAL SERVICES, INC. (JSD) OR AUTHORITY HAVING JURISDICTION SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
3. MODIFICATIONS TO THE APPROVED EROSION CONTROL PLAN IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS ARE ALLOWED IF MODIFICATIONS CONFORM TO WDNR TECHNICAL STANDARDS. CONTRACTOR IS RESPONSIBLE TO NOTIFY JSD AND AUTHORITY HAVING JURISDICTION OF ANY CHANGES TO THE EROSION CONTROL AND STORMWATER MANAGEMENT PLANS. ALL MODIFICATIONS MUST BE APPROVED BY JSD/AUTHORITY HAVING JURISDICTION PRIOR TO DEVIATION FROM THE APPROVED PLAN.
4. INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCE(S), SILT FENCE AND EXISTING INLET PROTECTION) PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN IN ORDER TO PROTECT ADJACENT PROPERTIES/STORM SEWER SYSTEMS FROM SEDIMENT TRANSPORT.
5. CONSTRUCTION ENTRANCE(S) SHALL BE INSTALLED AT THE LOCATION OF VEHICLE INGRESS/EGRESS POINT(S) AS SHOWN ON THE PLAN. CONTRACTOR IS RESPONSIBLE TO COORDINATE LOCATION(S) WITH THE PROPER AUTHORITY HAVING JURISDICTION, PROVIDE NECESSARY FEES AND OBTAIN ALL REQUIRED APPROVALS OR PERMITS. ADDITIONAL CONSTRUCTION ENTRANCES OTHER THAN AS SHOWN ON THE PLANS MUST BE PRIOR APPROVED BY THE APPLICABLE AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. CONSTRUCTION ENTRANCES SHALL BE MAINTAINED BY THE CONTRACTOR IN A CONDITION WHICH WILL PREVENT THE TRACKING OF MUD OR DRY SEDIMENT ONTO ADJACENT PUBLIC STREETS AFTER EACH WORKING DAY OR MORE FREQUENTLY AS REQUIRED.
6. PAVED SURFACES ADJACENT TO CONSTRUCTION ENTRANCES SHALL BE SWEPT AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST AFTER THE END OF EACH WORK DAY AND AS REQUESTED BY THE AUTHORITY HAVING JURISDICTION.
7. THE ADJACENT INLETS THAT WILL COLLECT RUNOFF FROM DISTURBED AREAS SHALL BE PROTECTED TO PREVENT SEDIMENT DEPOSITION. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER. ALL INLETS, STRUCTURES, PIPES, AND SWALES SHALL BE KEPT CLEAN AND FREE OF SEDIMENTATION AND DEBRIS.
8. AT A MINIMUM, SEDIMENT TRAPS AND NECESSARY TEMPORARY DRAINAGE PROVISIONS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE BEGINNING OF SIGNIFICANT MASS GRADING OPERATIONS TO PREVENT OFFSITE DISCHARGE OF UNTREATED RUNOFF.
9. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE OWNER WILL BE RESPONSIBLE IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT.
10. DITCH CHECKS AND APPLICABLE EROSION NETTING/MATTING SHALL BE INSTALLED IMMEDIATELY AFTER COMPLETION OF GRADING EFFORTS WITHIN DITCHES/SWALES TO PREVENT SOIL TRANSPORTATION.
11. EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, SANITARY SEWER, WATER MAIN, ETC.) OUTSIDE OF THE PERIMETER CONTROLS SHALL INCORPORATE THE FOLLOWING:
    - PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
    - BACKFILL, COMPACT, AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
    - DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH THE DEWATERING TECHNICAL STANDARD NO. 1061 PRIOR TO RELEASE INTO THE STORM SEWER, RECEIVING STREAM, OR DRAINAGE DITCH.
12. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER AND DITCH CHECKS SHALL BE IMMEDIATELY FITTED AT ALL INSTALLED CULVERT INLETS TO PREVENT SEDIMENT DEPOSITION WITHIN STORM SEWER SYSTEMS.
13. TOPSOIL STOCKPILE SHALL BE LOCATED GENERALLY AS SHOWN. CONTRACTOR MAY SUBMIT AN ALTERNATE PLAN FOR LOCATION OF TEMPORARY TOPSOIL STOCKPILE TO ENGINEER FOR APPROVAL. INSTALL EROSION CONTROLS ON THE DOWNSTREAM SIDE OF STOCKPILES. IF STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS IS REQUIRED. IF DISTURBANCE OCCURS BETWEEN NOVEMBER 15TH AND MAY 15TH, THE MULCHING SHALL BE PERFORMED BY HYDRO-MULCHING WITH A "TACKIFIER."
14. EROSION CONTROL MEASURES TEMPORARILY REMOVED FOR UNAVOIDABLE CONSTRUCTION ACTIVITIES SHALL BE IN WORKING ORDER PRIOR TO THE COMPLETION OF EACH WORK DAY.
15. PUMPS MAY BE USED AS BYPASS DEVICES. IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS.
16. GRADING EFFORTS SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. EROSION AND SEDIMENT CONTROL MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY OR PERMANENT MEASURES. ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR A PERIOD OF FOURTEEN (14) DAYS REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS.
17. ALL DISTURBED SLOPES EXCEEDING 4:1 YET LESS THAN 3:1, SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S75BN EROSION MATTING (OR APPROVED EQUAL) AND DISTURBED SLOPES EXCEEDING 3:1 YET LESS THAN 2:1 SHALL BE STABILIZED WITH NORTH AMERICAN GREEN C125BN (OR APPROVED EQUAL) OR APPLICATION OF AN APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED WITHIN 7 DAYS OF REACHING FINAL GRADE AND/OR AS SOON AS CONDITIONS ALLOW. DRAINAGE SWALES SHALL BE STABILIZED WITH CLASS II, TYPE B EROSION MATTING. EROSION MATTING AND/OR NETTING USED ONSITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND WDNR TECHNICAL STANDARDS 1052 AND 1053.
18. STABILIZATION PRACTICES:
    - 18.1. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. NO MORE THAN SEVEN (7) DAYS SHALL PASS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS CEASED UNLESS:
    - 18.2. THE INITIATION STABILIZATION MEASURES BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS CEASED IS PRECLUDED BY SNOW COVER. IN THAT EVENT, STABILIZATION SHALL BE INITIATED AS SOON AS PRACTICABLE.
    - 18.3. CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN FOURTEEN (14) DAYS FROM WHEN ACTIVITY CEASED, (I.E. THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN FOURTEEN (14) DAYS. IN THAT EVENT, STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED.
    - 18.4. STABILIZATION MEASURES SHALL BE DETERMINED BASED ON SITE CONDITIONS AT THE TIME OF CONSTRUCTION ACTIVITY HAS CEASED, INCLUDING BUT NOT LIMITED TO WEATHER CONDITIONS AND LENGTH OF TIME MEASURE MUST BE EFFECTIVE. THE FOLLOWING ARE ACCEPTABLE STABILIZATION MEASURES:
        - PERMANENT SEEDING; IN ACCORDANCE WITH APPROVED CONSTRUCTION SPECIFICATION
        - TEMPORARY SEEDING; MAY CONSIST OF SPRING OATS(100LBS/ACRE) AND/OR WHEAT OR CEREAL RYE (150LB/ACRE)
        - HYDRO-MULCHING WITH A TACKIFIER
        - GEOTEXTILE EROSION MATTING
        - SODDING
19. DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL KEEP A WATER TRUCK ON SITE FOR THE PURPOSE OF WATERING DOWN SOILS WHICH MAY OTHERWISE BECOME AIRBORNE. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING WIND EROSION (DUST) DURING CONSTRUCTION AT THEIR EXPENSE. REFER TO WDNR TECHNICAL STANDARD 1068.
20. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE VISUALLY INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM ON A DAILY BASIS.
21. MAINTAIN SOIL EROSION CONTROL DEVICES THROUGH THE DURATION OF THIS PROJECT. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL LAND DISTURBING CONSTRUCTION ACTIVITY AT THE SITE HAS BEEN COMPLETED AND THAT A UNIFORM PERENNIAL VEGETATIVE COVER HAS BEEN ESTABLISHED WITH A DENSITY OF AT LEAST 70% FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES OR THAT EMPLOY EQUIVALENT PERMANENT STABILIZATION MEASURES. DISTURBANCE ASSOCIATED WITH EROSION CONTROL REMOVAL SHALL BE IMMEDIATELY STABILIZED.
22. QUALIFIED PERSONNEL (PROVIDED BY THE GENERAL/PRIME CONTRACTOR) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AND EROSION AND SEDIMENT CONTROLS WITHIN 24 HOURS OF ALL 0.5-INCH, OR MORE, PRECIPITATION EVENTS WITH A MINIMUM INSPECTION INTERVAL OF ONCE EVERY SEVEN (7) CALENDAR DAYS IN THE ABSENCE OF A QUALIFYING RAIN OR SNOWFALL EVENT. REPORTING SHALL BE IN ACCORDANCE WITH PART IV D.4. (a-f). OF THE NPDES GENERAL PERMIT. CONTRACTOR SHALL IMMEDIATELY ARRANGE TO HAVE ANY DEFICIENT ITEMS REVEALED DURING INSPECTIONS REPAIRED/REPLACED.
23. THE FOLLOWING MAINTENANCE PRACTICES SHALL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES, AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN. UPON IDENTIFICATION, DEFICIENCIES IN STORMWATER CONTROLS SHALL BE ADDRESSED IMMEDIATELY. THE MAINTENANCE PROCEDURES FOR THIS DEVELOPMENT SHALL INCLUDE, BUT NOT BE LIMITED TO THOSE LISTED BELOW:
    - SILT FENCE – REPAIR OR REPLACE ANY DAMAGED FILTER FABRIC AND/OR STAKES. REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE-HALF THE ABOVE GROUND HEIGHT OF THE FENCE.
    - CONSTRUCTION ENTRANCE – AS NEEDED, ADD STONE TO MAINTAIN CONSTRUCTION ENTRANCE DIMENSIONS AND EFFECTIVENESS.
    - EROSION CONTROL MATTING – REPAIR MATTING IMMEDIATELY IF INSPECTION REVEALS BREACHED OR FAILED CONDITIONS. REPAIR AND RE-GRADE SOIL WHERE CHANNELIZATION HAS OCCURRED.
    - DIVERSION BERM/SWALE – REPLACE OR RE-COMPACT THE CONSTRUCTION MATERIALS AS NECESSARY.
    - INLET PROTECTION – CLEAN, REPAIR OR REPLACE FILTER FABRIC AND/OR STONE WHEN CONTROL MEASURE IS CLOGGED. INLET FILTER BAGS SHALL BE REPLACED ONCE BAG BECOMES ONE-HALF FULL OF SEDIMENT.

ADDITIONAL POLLUTANT CONTROL MEASURES TO BE IMPLEMENTED DURING CONSTRUCTION ACTIVITIES SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

- CONSTRUCTION WASTE SHALL BE PROPERLY DISPOSED OF. THIS INCLUDES ALL CONSTRUCTION SITE WASTE MATERIAL, SANITARY WASTE, AND WASTE FROM VEHICLE TRACKING OF SEDIMENTS. THE CONTRACTOR SHALL ENSURE THAT NO MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, BURNED, OR DISCHARGED TO THE WATERS OF THE STATE. VEHICLES HAULING MATERIAL AWAY FROM THE SITE SHALL BE COVERED WITH A TARPAULIN TO PREVENT BLOWING DEBRIS.
- DUST CONTROL SHALL BE ACCOMPLISHED BY ONE OR MORE OF THE FOLLOWING METHODS:
- COVERING 30% OR MORE OF THE SOIL SURFACE WITH A NON-ERODIBLE MATERIAL.
- ROUGHENING THE SOIL TO PRODUCE RIDGES PERPENDICULAR TO THE PREVAILING WIND. RIDGES SHALL BE AT LEAST SIX (6) INCHES IN HEIGHT.
- FREQUENT WATERING OF EXCAVATION AND FILL AREAS.
- PROVIDING GRAVEL OR PAVING AT ENTRANCE/EXIT DRIVES, PARKING AREAS AND TRANSIT PATHS.
- STREET SWEEPING SHALL BE PERFORMED TO IMMEDIATELY REMOVE ANY SEDIMENT TRACKED ON PAVEMENTS.

24. CONTRACTOR/OWNER SHALL FILE A NOTICE OF TERMINATION UPON COMPLETION OF THE PROJECT IN ACCORDANCE WITH WDNR REQUIREMENTS AND/OR PROPERTY SALE IN ACCORDANCE WITH WDNR REQUIREMENTS.

north
SCALE IN FEET
20' 0 20'

DIGGERS HOTLINE
Toll Free (800) 242-8511

JSD Professional Services, Inc.
Engineers • Surveyors • Planners

CREATE THE VISION TELL THE STORY

MADISON | MILWAUKEE | WAUSAU
APPLETON | KENOSHA | CHICAGO
COEUR D'ALENE

MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1	12/12/2019	Revised per City Comments
2	01/29/2020	PER WDNR COMMENTS
3	02/06/2020	Rev. per Vill. & WDNR Comments
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

SHEET TITLE:
EROSION CONTROL PLAN

SHEET NUMBER:
C4.0

JSD PROJECT NO: 19-9231

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF JSD PROFESSIONAL SERVICES, INC.

File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Civil Sheets\19-9231 C4 - Erosion Control Plan.dwg Layout: 4.0 Erosion Control Plan User: cpeterson Plotted: Feb 06, 2020 - 10:04am Xref's:

UTILITY NOTES

1. ALL EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATIONS OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR/OWNER SHALL CALL "DIGGER'S HOTLINE" PRIOR TO ANY CONSTRUCTION.
2. PRIOR TO CONSTRUCTION, THE PRIME CONTRACTOR IS RESPONSIBLE FOR:
   - EXAMINING ALL SITE CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
   - OBTAINING ALL PERMITS INCLUDING PERMIT COSTS, TAP FEES, METER DEPOSITS, BONDS, AND ALL OTHER FEES REQUIRED FOR PROPOSED WORK TO OBTAIN OCCUPANCY.
   - VERIFYING ALL ELEVATONS, LOCATIONS AND SIZES OF SANITARY, WATER AND STORM LATERALS AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS. NOTIFY ENGINEER OF ANY DISCREPANCY. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS RESOLVED.
   - NOTIFYING ALL UTILITIES PRIOR TO INSTALLATION OF ANY UNDERGROUND IMPROVEMENTS.
   - NOTIFYING THE DESIGN ENGINEER AND MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION OBSERVATION.
   - COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
3. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN HEREIN REFERRED TO AS THE "STANDARD SPECIFICATIONS" AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.
4. SPECIFICATIONS SHALL COMPLY WITH THE VILLAGE OF MUKWONAGO SPECIFICATIONS AND WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES DSPS 382.
5. TRACER WIRES SHALL BE INSTALLED AS NECESSARY IN ACCORD WITH 182.0715(2R) OF THE STATE STATUTES AND THE VILLAGE OF MUKWONAGO REQUIREMENTS.
6. LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS ARE SHOWN FOR CONTRACTOR CONVENIENCE ONLY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPUTATIONS OF MATERIALS REQUIRED TO COMPLETE WORK. LENGTHS SHALL BE FIELD VERIFIED DURING CONSTRUCTION.
7. CONTRACTOR SHALL FIELD VERIFY LOCATIONS, ELEVATIONS, AND SIZES OF PROPOSED UTILITIES AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS PRIOR TO ATTEMPTING CONNECTIONS AND BEGINNING UTILITY CONSTRUCTION.
8. CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONSTRUCTION OF IMPROVEMENTS.
9. CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT ALL UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH THE FINISHED GRADES OF THE AREAS EFFECTED BY THE CONSTRUCTION.
10. THE PRIME CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
11. ANY SANITARY SEWER, SANITARY SEWER SERVICES, WATER MAIN, WATER SERVICES, STORM SEWER, OR OTHER UTILITIES, WHICH ARE TO REMAIN, THAT ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
12. WATER SERVICE FOR THE PROPOSED ADDITION TO BE INTERNALLY FED FROM EXISTING BUILDING. SEE ARCHITECTURAL PLANS FOR DETAILS.
13. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING UTILITY AS-BUILT PLANS. DRAWINGS PREPARED TO MUNICIPALITY STANDARDS ARE REQUIRED PRIOR TO OCCUPANCY PERMIT ISSUANCE. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING AND REPORTING ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS TO THE ENGINEER AS WORK PROGRESSES.
14. SEE TABLE FOR STORM SEWER STRUCTURE INFORMATION.
15. STORM SEWER SPECIFICATIONS –

    PIPE – ALL STORM SEWER USED ON THIS PROJECT SHALL BE HIGH DENSITY POLYETHYLENE UNLESS OTHERWISE NOTED.

    HIGH DENSITY POLYETHYLENE SMOOTH-WALLED INTERIOR CORRUGATED PIPE SHALL BE AS MANUFACTURED BY ADS OR EQUAL, WITH WATER TIGHT JOINTS, MANNING "N" VALUE OF 0.010 AND SHALL MEET THE REQUIREMENTS OF AASHTO DESIGNATION M-294 TYPE S. MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D3350, D2412, AND D2321 WITH ELASTOMERIC GASKETS CONFORMING TO ASTM F477.

    INLETS AND FRAMES

    INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES SPS 382.36(9)b.3.

    FRAMES AND GRATES SHALL BE GRAY IRON MATERIAL (PER ASTM A-48) OF STYLES / NEENAH CATALOG NUMBERS AS INDICATED ON THESE CONSTRUCTION DRAWINGS.

    MANHOLES AND FRAMES
    MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF SPS 382.35(8)a,b.

    FRAMES AND LIDS SHALL BE GRAY IRON MATERIAL (PER ASTM A-48) OF STYLES/NEENAH CATALOG NUMBERS AS INDICATED ON THESE CONSTRUCTION DRAWINGS. INTERNAL CHIMNEY SEALS SHALL BE CRETEX SPECIALTY PRODUCTS, OR EQUAL.

    CLEANOUTS – CLEANOUTS SHALL BE EQUIPPED WITH FROST SLEEVES IN ACCORDANCE WITH SPS 382.35(5)(A)2. (REFER TO DETAIL)

    BACKFILL AND BEDDING – STORM SEWER SHALL BE CONSTRUCTED WITH GRAVEL BACKFILL AND CLASS "B" BEDDING IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".

    ROOF LEADER/STORM DRAIN LINES – ALL EXISTING ROOF LEADERS/STORM DRAIN LINES ENCOUNTERED WHICH ARE NOT SHOWN ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF JSD PRIOR TO ABANDONMENT, REMOVAL, OR CONNECTION TO THE PROPOSED STORM SEWER SYSTEM. PROPOSED ROOF LEADERS FOR NORTHERLY SIDE OF ADDITION TO DRAIN TO SPLASH BLOCKS AND THEN OVERLAND TO THE NORTH. THE REMAINDER OF THE PROPOSED ROOF LEADERS TO EITHER DRAIN TO SPLASH BLOCKS THEN OVERLAND INTO PROPOSED STORM SEWER SYSTEM OR BE DIRECTLY TIED INTO PROPOSED STORM SEWER SYSTEM.
16. WATER MAIN SPECIFICATIONS –

    PIPE – ALL WATERMAIN PIPE USED ON THIS PROJECT SHALL BE POLYVINYL CHLORIDE UNLESS OTHERWISE NOTED.

    POLYVINYL CHLORIDE (PVC) PIPE SHALL MEET THE REQUIREMENTS OF AWWA STANDARD C-900, CLASS 150, DR-18, WITH CAST IRON O.D. AND INTEGRAL ELASTOMERIC BELL AND SPIGOT JOINTS. NON-METALLIC WATER MAINS SHALL BE INSTALLED WITH BLUE INSULATION TRACER WIRE AND CONFORM WITH SPS 382.30(11)(h).

    VALVES AND VALVE BOXES – GATE VALVES SHALL BE AWWA GATE VALVES MEETING THE REQUIREMENTS OF AWWA C-500 AND CHAPTER 8.27.0 OF THE "STANDARD SPECIFICATIONS". GATE VALVES AND VALVE BOXES SHALL CONFORM TO LOCAL PLUMBING ORDINANCES.

    HYDRANTS – HYDRANTS SHALL CONFORM TO THE SPECIFICATIONS OF THE VILLAGE OF MUKWONAGO. THE DISTANCE FROM THE GROUND LINE TO THE CENTERLINE OF THE LOWEST NOZZLE AND THE LOWEST CONNECTION OF THE FIRE DEPARTMENT SHALL BE NO LESS THAN 18-INCHES AND NO GREATER THAN 23-INCHES (SEE DETAIL).

    10-GAUGE TRACER WIRE SHALL BE INSTALLED ALONG THE ENTIRE LENGTH OF ALL PRIVATE WATER MAINS, HYDRANT LEADS, FIRE DEPARTMENT CONNECTION LEADS AND LATERALS. THE TRACER WIRE SHALL BE EXTENDED TO THE SURFACE AT THE BUILDING WALL AND ALL OTHER SYSTEM LIMITS AND ENCLOSED IN RISER BOX WITH "WATER" ON THE COVER.

    BEDDING AND COVER MATERIAL – PIPE BEDDING AND COVER MATERIAL SHALL BE SAND, CRUSHED STONE CHIPS OR CRUSHED STONE SCREENINGS CONFORMING TO CHAPTER 8.43.2 OF THE "STANDARD SPECIFICATIONS".

    THRUST BLOCKS SHOULD BE USED WHEREVER NECESSARY TO PREVENT SEPARATION OF JOINTS AND PIPE MOVEMENT. JOINT RESTRAINTS MAY ALSO BE USED AS APPLICABLE.

    BACKFILL – BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS". GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".
17. WATERMAIN SHALL BE INSULATED WHEREVER THE DEPTH OF COVER IS LESS THAN 6 FEET. INSULATION AND INSTALLATION OF INSULATION SHALL BE CONFORMING WITH CHAPTER 4.17.0 "INSULATION" OF THE "STANDARD SPECIFICATIONS".
18. ALL NEW ON-SITE STORM AND WATER UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER.
19. THE CONTRACTOR SHALL CONTACT THE VILLAGE OF MUKWONAGO 48-HOURS IN ADVANCE TO COORDINATE CONNECTION TO THE MUNICIPAL SYSTEM.
20. SANITARY SEWER SPECIFICATIONS –

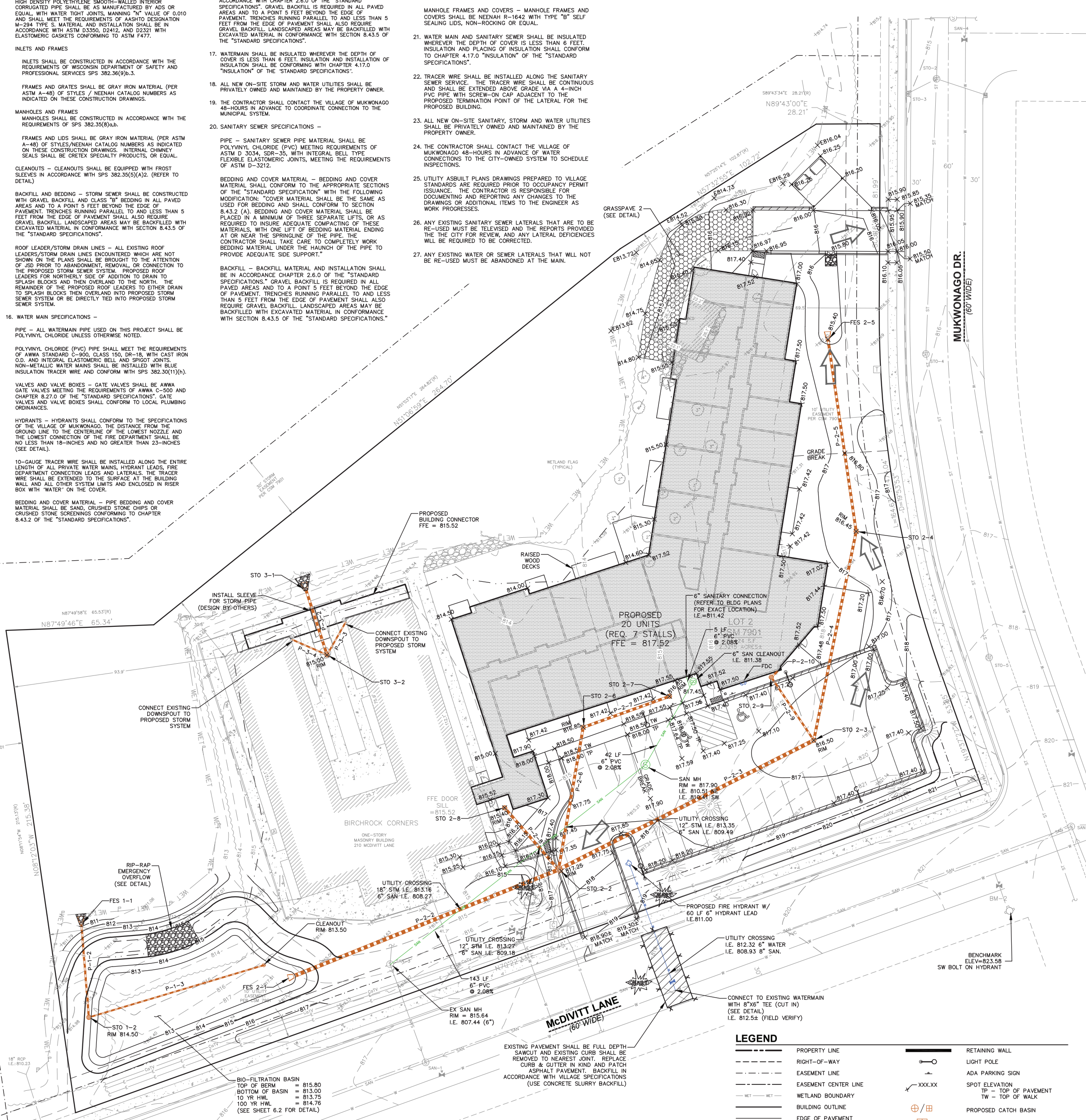
    PIPE – SANITARY SEWER PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) MEETING REQUIREMENTS OF ASTM D 3034, SDR-35, WITH INTEGRAL BELL TYPE FLEXIBLE ELASTOMERIC JOINTS, MEETING THE REQUIREMENTS OF ASTM D-3212.

    BEDDING AND COVER MATERIAL – BEDDING AND COVER MATERIAL SHALL CONFORM TO THE APPROPRIATE SECTIONS OF THE "STANDARD SPECIFICATION" WITH THE FOLLOWING MODIFICATION: "COVER MATERIAL SHALL BE THE SAME AS USED FOR BEDDING AND SHALL CONFORM TO SECTION 8.43.2 (A). BEDDING AND COVER MATERIAL SHALL BE PLACED IN A MINIMUM OF THREE SEPARATE LIFTS, OR AS REQUIRED TO INSURE ADEQUATE COMPACTING OF THESE MATERIALS, WITH ONE LIFT OF BEDDING MATERIAL ENDING AT OR NEAR THE SPRINGLINE OF THE PIPE. THE CONTRACTOR SHALL TAKE CARE TO COMPLETELY WORK BEDDING MATERIAL UNDER THE HAUNCH OF THE PIPE TO PROVIDE ADEQUATE SIDE SUPPORT."

    BACKFILL – BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS." GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS."

    MANHOLES – MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NOS. 12, 13 AND 15 OF THE "STANDARD SPECIFICATIONS" AND ALL SPECIAL PROVISIONS OF THE VILLAGE OF MUKWONAGO.

    MANHOLE FRAMES AND COVERS – MANHOLE FRAMES AND COVERS SHALL BE NEENAH R-1642 WITH TYPE "B" SELF SEALING LIDS, NON-ROCKING OR EQUAL.
21. WATER MAIN AND SANITARY SEWER SHALL BE INSULATED WHEREVER THE DEPTH OF COVER IS LESS THAN 6 FEET. INSULATION AND PLACING OF INSULATION SHALL CONFORM TO CHAPTER 4.17.0 "INSULATION" OF THE "STANDARD SPECIFICATIONS".
22. TRACER WIRE SHALL BE INSTALLED ALONG THE SANITARY SEWER SERVICE. THE TRACER WIRE SHALL BE CONTINUOUS AND SHALL BE EXTENDED ABOVE GRADE VIA A 4-INCH PVC PIPE WITH SCREW-ON CAP ADJACENT TO THE PROPOSED TERMINATION POINT OF THE LATERAL FOR THE PROPOSED BUILDING.
23. ALL NEW ON-SITE SANITARY, STORM AND WATER UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER.
24. THE CONTRACTOR SHALL CONTACT THE VILLAGE OF MUKWONAGO 48-HOURS IN ADVANCE OF WATER CONNECTIONS TO THE CITY-OWNED SYSTEM TO SCHEDULE INSPECTIONS.
25. UTILITY ASBUILT PLANS DRAWINGS PREPARED TO VILLAGE STANDARDS ARE REQUIRED PRIOR TO OCCUPANCY PERMIT ISSUANCE. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING AND REPORTING ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS TO THE ENGINEER AS WORK PROGRESSES.
26. ANY EXISTING SANITARY SEWER LATERALS THAT ARE TO BE RE-USED MUST BE TELEVISED AND THE REPORTS PROVIDED THE THE CITY FOR REVIEW, AND ANY LATERAL DEFICIENCIES WILL BE REQUIRED TO BE CORRECTED.
27. ANY EXISTING WATER OR SEWER LATERALS THAT WILL NOT BE RE-USED MUST BE ABANDONED AT THE MAIN.



GENERAL NOTES

1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGENDS.
2. ALL WORK IN THE ROW AND/OR PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN AND MUNICIPAL REQUIREMENTS.
3. EXISTING GRADE SPOT ELEVATIONS SHOWN FOR INFORMATIONAL PURPOSES. DURING CONSTRUCTION MATCH EXISTING GRADES AT CONSTRUCTION LIMITS.
4. NO SITE GRADING OUTSIDE OR DOWNSLOPE OF PROPOSED SILT FENCE LOCATION. NO LAND DISTURBANCE BEYOND PROPERTY LINES.
5. JSD PROFESSIONAL SERVICES, INC. (JSD) SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.

LEGEND

PROPERTY LINE	RETAINING WALL
RIGHT-OF-WAY	LIGHT POLE
EASEMENT LINE	ADA PARKING SIGN
EASEMENT CENTER LINE	SPOT ELEVATION TP – TOP OF PAVEMENT TW – TOP OF WALK
WETLAND BOUNDARY	PROPOSED CATCH BASIN
BUILDING OUTLINE	PROPOSED STORM CURB INLET
EDGE OF PAVEMENT	PROPOSED STORM MANHOLE
STANDARD CURB AND GUTTER	PROPOSED STORM SEWER
REJECT CURB AND GUTTER	PROPOSED WATERMAIN
PROPOSED 1 FOOT CONTOUR	PROPOSED SANITARY
PROPOSED 5 FOOT CONTOUR	PROPOSED SANITARY MANHOLE
EXISTING 1 FOOT CONTOUR	PROPOSED SANITARY CLEANOUT
EXISTING 5 FOOT CONTOUR	PROPOSED WATER VALVE
PROPOSED BREAKLINE	PROPOSED FIRE HYDRANT
OVERFLOW ROUTE	
RIP-RAP	

GRADING AND SEEDING NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY THE FOLLOWING:
   - A. ELEVATIONS OF THE BENCHMARKS PRIOR TO COMMENCING WORK.
   - B. LOCATION AND ELEVATION OF:
     1. EXISTING PIPE INVERTS
2. FLOOR ELEVATIONS
   3. CURB OR PAVEMENT WHERE MATCHING INTO EXISTING WORK
4. HORIZONTAL CONTROL BY REFERENCING SHOWN COORDINATES TO KNOWN PROPERTY LINES.

NOTIFY ENGINEER OF DISCREPANCIES IN EITHER VERTICAL OR HORIZONTAL CONTROL PRIOR TO PROCEEDING WITH WORK.

2. ALL PROPOSED GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR SHALL VERIFY ALL GRADES, MAKE SURE ALL AREAS DRAIN PROPERLY AND SHALL REPORT ANY DISCREPANCIES TO THE JSD PROFESSIONAL SERVICES, INC. (JSD) PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
3. CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR COMPUTATIONS OF ALL GRADING QUANTITIES. WHILE JSD ATTEMPTS TO PROVIDE A COST- EFFECTIVE APPROACH TO BALANCE EARTHWORK, GRADING DESIGN IS BASED ON MANY FACTORS, INCLUDING SAFETY, AESTHETICS, AND COMMON ENGINEERING STANDARDS OF CARE. THEREFORE, NO GUARANTEE CAN BE MADE FOR A BALANCED SITE.
4. THE CONTRACTOR MAY SOLICIT APPROVAL FROM JSD/OWNER TO ADJUST FINAL GRADES FROM DESIGN GRADES TO PROVIDE AN OVERALL SITE BALANCE AS A RESULT OF FIELD CONDITIONS.
5. ALL UNSURFACED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL AND BE SEEDED, MULCHED AND WATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
6. THIS GRADING PLAN IS BASED ON A TOPOGRAPHIC SURVEY. SOME FIELD ADJUSTMENTS MAY BE NECESSARY AT POINTS WHERE PROPOSED GRADES MEET EXISTING. REVIEW ANY REQUIRED CHANGES WITH JSD PRIOR TO CONSTRUCTION OF WORK.
7. PROPERTY CORNER MARKERS SHALL BE CAREFULLY PROTECTED. MONUMENTS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
8. PROPOSED CONTOURS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. ALL CONSTRUCTION SHALL BE BASED UPON PROPOSED SPOT ELEVATIONS WHERE PROVIDED.
9. PARKING LOT AND DRIVEWAY ELEVATIONS ARE PAVEMENT GRADES LOCATED ALONG THE FLANGE LINE, NOT TOP OF CURB GRADES, UNLESS OTHERWISE NOTED.
10. ALL EXCAVATIONS AND MATERIAL PLACEMENT SHALL BE COMPLETED TO DESIGN ELEVATIONS AS DEPICTED IN THE PLANS.
11. GRADING ACTIVITIES SHALL BE IN A MANNER TO ALLOW POSITIVE DRAINAGE ACROSS DISTURBED SOILS, WHICH MAY INCLUDE EXCAVATION OF TEMPORARY DITCHES TO PREVENT PONDING, AND IF NECESSARY, PUMPING TO ALLEVIATE PONDING. CONTRACTOR SHALL PREVENT SURFACE WATER FROM ENTERING INTO EXCAVATIONS. IN NO WAY SHALL OWNER BE RESPONSIBLE FOR REMEDIATION OF UNSUITABLE SOILS CREATED/ORIGINATED AS A RESULT OF IMPROPER SITE GRADING OR SEQUENCING. CONTRACTOR SHALL SEQUENCE GRADING ACTIVITIES TO LIMIT EXPOSURE OF DISTURBED SOILS DUE TO WEATHER.
12. THE CONTRACTOR IS RESPONSIBLE FOR MEETING MINIMUM COMPACTION STANDARDS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL ENGINEERING REPORT FOR SITE COMPACTION REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY ENGINEER/OWNER IF PROPER COMPACTION CANNOT BE OBTAINED. THE PROJECT'S GEOTECHNICAL CONSULTANT SHALL DETERMINE WHICH IN-SITU SOILS ARE TO BE CONSIDERED UNSUITABLE SOILS. THE ENGINEER/OWNER AND GEOTECHNICAL TESTING CONSULTANT WILL DETERMINE IF REMEDIAL MEASURES WILL BE NECESSARY.
13. IN THE EVENT THAT ANY MOISTURE-DENSITY TEST(S) FAIL TO MEET SPECIFICATION REQUIREMENTS, THE CONTRACTOR SHALL PERFORM CORRECTIVE WORK AS NECESSARY TO BRING THE MATERIAL INTO COMPLIANCE AND RETEST THE FAILED AREA AT NO COST TO THE OWNER.
14. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY JSD/OWNER IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION.
15. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ADEQUATE AND SAFE TEMPORARY SHORING, BRACING, RETENTION STRUCTURES, AND EXCAVATIONS.
16. THE SITE SHALL BE COMPLETED TO WITHIN 0.10-FT (+/-) OF THE PROPOSED GRADES AS INDICATED WITHIN THE PLANS PRIOR TO PLACEMENT OF TOPSOIL OR STONE. CONTRACTOR IS ENCOURAGED TO SEQUENCE CONSTRUCTION SUCH THAT THE SITE IS DIVIDED INTO SMALLER AREAS TO ALLOW STABILIZATION OF DISTURBED SOILS IMMEDIATELY UPON COMPLETION OF INDIVIDUAL SMALLER AREAS.
17. CONTRACTOR SHALL CONTACT "DIGGER'S HOTLINE" FOR LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR PROTECTING SAID UTILITIES FROM ANY DAMAGE DURING CONSTRUCTION.
18. WORK WITHIN ANY ROADWAY RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE AUTHORITY HAVING JURISDICTION PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FEES. GRADING WITHIN RIGHT-OF-WAY IS SUBJECT TO APPROVAL BY SAID AUTHORITY. RESTORATION OF RIGHT-OF-WAY IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF GRADING. RESTORATION SHALL INCLUDE ALL ITEMS NECESSARY TO RESTORE RIGHT-OF-WAY IN-KIND INCLUDING LANDSCAPING.
19. CONTRACTOR SHALL COMPLY WITH ALL CITY AND/OR STATE CONSTRUCTION STANDARDS/ORDINANCES.
20. CONTRACTOR SHALL PROVIDE NOTICE TO THE MUNICIPALITY IN ADVANCE OF ANY SOIL DISTURBING ACTIVITIES, IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS.
21. ALL DISTURBED AREAS SHALL BE SODDED AND/OR SEEDED AND MULCHED IMMEDIATELY FOLLOWING GRADING ACTIVITIES. SOD/SEED MIX TO BE IN ACCORDANCE WITH LANDSCAPE PLAN.
22. CONTRACTOR SHALL WATER ALL NEWLY SODDED/SEEDED AREAS DURING THE SUMMER MONTHS WHENEVER THERE IS A 7 DAY LAPSE WITH NO SIGNIFICANT RAINFALL.
23. CONTRACTOR TO DEEP TILL ALL COMPACTED PERVIOUS SURFACES PRIOR TO SODDING AND/OR SEEDING AND MULCHING.
24. ALL SLOPES 20% OR GREATER SHALL BE TEMPORARY SEEDED, MULCHED, OR OTHER MEANS OF COVER PLACED ON THEM WITHIN 2 WEEKS OF DISTURBANCE.
25. ALL EXPOSED SOIL AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 30 DAYS AND REQUIRE VEGETATIVE COVER FOR LESS THAN 1 YEAR, REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1059 AND VILLAGE OF MUKWONAGO ORDINANCES.

PROPOSED STRUCTURES TABLE

LABEL	RIM EL. (FT)	INVERT EL. (FT)	DEPTH (FT)	STRUCTURE DESC.	FRAME & GRATE
FES 1-1		S INV: 810.83 (8")		8 IN HDPE FES	
FES 2-1		E INV: 813.00 (18")		18 IN HDPE FES	
FES 2-5		S INV: 815.40 (12")		12 IN HDPE FES	
STO 1-2	814.50	N INV: 811.00 (8") E INV: 811.00 (6")	3.0	36 IN CB (FLAT)	R-2565-G
STO 2-2	817.25	W INV: 813.25 (18") NE INV: 813.25 (18") NW INV: 813.25 (12") N INV: 813.25 (12")	4.0	72 IN MH (FLAT)	R-3067 TYPE R
STO 2-3	816.50	SW INV: 813.50 (18") N INV: 813.50 (12") NW INV: 813.50 (8")	3.0	60 IN MH (FLAT)	R-2501 TYPE D
STO 2-4	816.45	S INV: 813.88 (12") N INV: 813.88 (12")	2.6	12 IN DB	12 IN DOME GRATE
STO 2-6	816.85	S INV: 813.60 (12") E INV: 813.60 (12")	3.2	24 IN DB	24 IN DOME GRATE
STO 2-7	816.85	W INV: 813.85 (12")	3.0	12 IN DB	12 IN DOME GRATE
STO 2-8	815.40	SE INV: 813.32 (12")	2.1	24 IN DB	24 IN DOME GRATE
STO 2-9	817.35	SE INV: 813.85 (8") NE INV: 813.85 (8")	3.5	12 IN DB	12 IN DOME GRATE
STO 3-1		S INV: 812.50 (12")		12 IN HDPE FES	
STO 3-2	815.00	N INV: 812.65 (12") NE INV: 812.65 (6") NW INV: 812.65 (6")	2.4	24 IN DB	24 IN DOME GRATE

PROPOSED PIPES TABLE

LABEL	FROM	TO	LENGTH	INVERT EL. (FT)	DISCHARGE EL. (FT)	SLOPE	SIZE & MATERIAL
P-1-2	STO 1-2	FES 1-1	41'	811.00	810.83	0.41%	8 IN HDPE
P-1-3		STO 1-2	81'	811.40	811.00	0.50%	6 IN HDPE
P-2-2	STO 2-2	FES 2-1	125'	813.25	813.00	0.20%	18 IN HDPE
P-2-3	STO 2-3	STO 2-2	126'	813.50	813.25	0.20%	18 IN HDPE
P-2-4	STO 2-4	STO 2-3	94'	813.88	813.50	0.40%	12 IN HDPE
P-2-5	FES 2-5	STO 2-4	86'	815.40	813.88	1.77%	12 IN HDPE
P-2-6	STO 2-6	STO 2-2	64'	813.60	813.25	0.55%	12 IN HDPE
P-2-7	STO 2-7	STO 2-6	41'	813.85	813.60	0.62%	12 IN HDPE
P-2-8	STO 2-8	STO 2-2	36'	813.32	813.25	0.20%	12 IN HDPE
P-2-9	STO 2-9	STO 2-3	34'	813.85	813.50	1.04%	8 IN HDPE
P-2-10	Downspout	STO 2-9	4'	813.90	813.85	1.25%	8 IN HDPE
P-3-2	STO 3-2	STO 3-1	30'	812.65	812.50	0.50%	12 IN HDPE
P-3-3	Downspout	STO 3-2	17'	812.83	812.65	1.08%	6 IN HDPE
P-3-4	Downspout	STO 3-2	17'	812.83	812.65	1.07%	6 IN HDPE

north
SCALE IN FEET
20' 0 20'

DIGGERS HOTLINE
Toll Free (800) 242-8511

JSD Professional Services, Inc.
Engineers • Surveyors • Planners

CREATE THE VISION TELL THE STORY

MADISON | MILWAUKEE | WAUSAU
APPLETON | KENOSHA | CHICAGO
COEUR D'ALENE

MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1	12/12/2019	Revised per Village Comments
2	02/06/2020	Rev. per Vill. & WDNR Comments
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

SHEET TITLE:
GRADING AND UTILITY PLAN

SHEET NUMBER:
C5.0

JSD PROJECT NO: 19-9231

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF JSD PROFESSIONAL SERVICES, INC.

File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Civil Sheets\19-9231 C5 - Grading and Utility Plan.dwg Layout: 5.0 Grading Plan User: cpeterson Plotted: Feb 06, 2020 - 4:35pm Xref's:

JSD Professional Services, Inc.
Engineers • Surveyors • Planners
CREATE THE VISION TELL THE STORY
MADISON | MILWAUKEE | WAUSAU
APPLETON | KENOSHA | CHICAGO
COEUR D'ALENE
MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT: Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

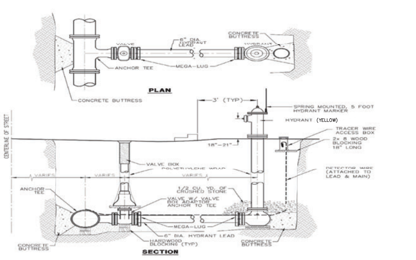
#	Date:	Description:
1	02/06/2020	Rev. per Vill. & WDNR Comments
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

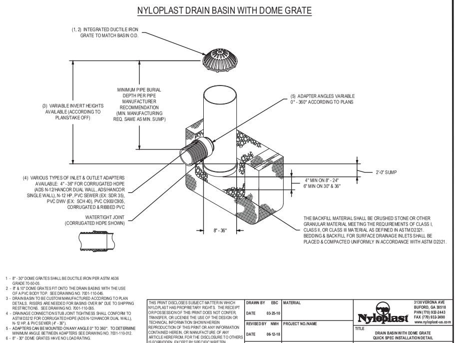
SHEET TITLE:
DETAILS

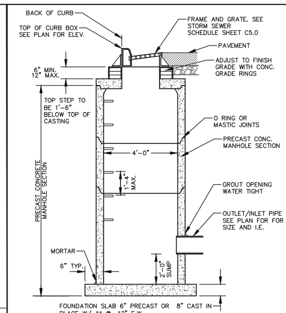
SHEET NUMBER:
C6.2

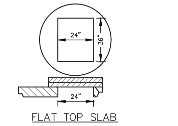
JSD PROJECT NO: 19-9231



NYLOPLAST DRAIN BASIN WITH DOME GRATE



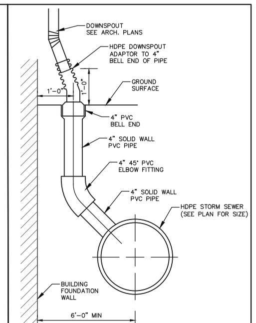




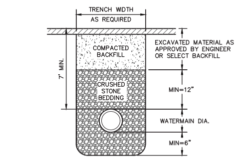
GENERAL NOTES:

1. MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
2. PROVIDE FLAT TOP SLAB FOR MANHOLES 5' OR LESS IN DEPTH. FLAT TOP SLABS TO BE IN-BELL TYPE.
3. JOINTS SHALL BE WATERTIGHT. USE BUTYL RUBBER GASKET.
4. USE MORTAR FOR PIPE CONNECTIONS.

4' CATCH BASIN (CURB INLET)
N.T.S.

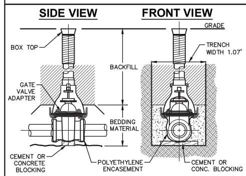


DOWNSPOUT
N.T.S.

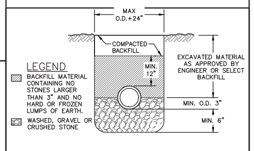


WATERMAIN BEDDING
N.T.S.

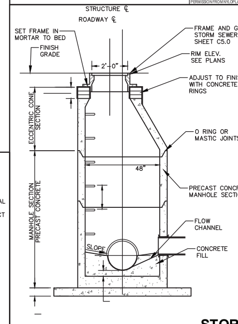
REV. 12-05-2018

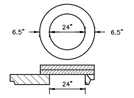


GATE VALVE BOX SETTING
N.T.S.



STORM & SANITARY SEWER BEDDING
N.T.S.

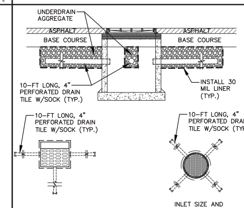




GENERAL NOTES:

1. MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
2. PROVIDE FLAT TOP SLAB FOR MANHOLES 5' OR LESS IN DEPTH. FLAT TOP SLABS TO BE IN-BELL TYPE.
3. JOINTS SHALL BE WATERTIGHT. USE BUTYL RUBBER GASKET.
4. USE MORTAR FOR PIPE CONNECTIONS.
5. ECCENTRIC CONE SECTION OF MANHOLE TO BE SET OUTSIDE OF VEHICULAR WHEEL PATH NEAR ℄ ROADWAY.

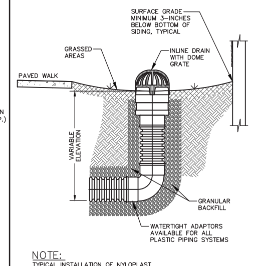
STORM MANHOLE
N.T.S.



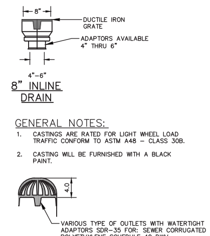
GENERAL NOTES:

1. UNDERDRAINS SHALL BE INSTALLED ON ALL INLET/CATCH BASINS LOCATED WITHIN IMPERVIOUS PAVEMENTS.
2. UNDERDRAIN CONNECTIONS SHALL BE CORED ONSITE.
3. UNDERDRAIN VERTICAL LOCATION MAY VARY DEPENDING ON STORM SEWER PIPE LOCATION.
4. ALTERNATIVE DESIGN MAY BE SUBSTITUTED IF SHOP DRAWINGS ARE SUBMITTED AND APPROVED BY THE CITY OF NEW BERLIN.

CATCH BASIN/INLET UNDERDRAIN
N.T.S.



NOTE:
TYPICAL INSTALLATION OF NYLOPLAST DRAIN BASIN AND INLINE DRAIN.

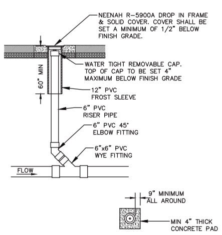


GENERAL NOTES:

1. CASTINGS ARE RATED FOR LIGHT WHEEL LOAD TRAFFIC CONFORM TO ASTM A48 - CLASS 30B.
2. CASTING WILL BE FURNISHED WITH A BLACK PAINT.

FIELD DRAIN
N.T.S.

REV. 12-07-2018



NOTE:
CLEANOUT PIPING AND FITTINGS SHALL MATCH SANITARY SEWER LATERAL MATERIAL

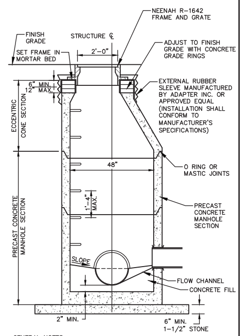
Comm Table 82.35

Dia of Lateral	Min Dia of Cleanout Riser	Min Dia of Riser Cap
1.5	1.5	1.5
2	1.5	1.5
3	3	2.5
4	4	3.5
5	5	4
6	6	5
8+	6	6

Neenah Grates
R-5900A 12-inch Pipe

SANITARY SEWER CLEANOUT
N.T.S.

REV. 12-6-2018

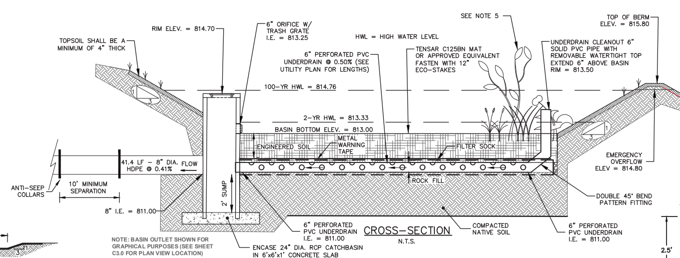


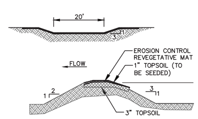
GENERAL NOTES:

1. MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
2. JOINTS SHALL BE WATERTIGHT. USE BUTYL RUBBER GASKET.
3. USE MORTAR FOR PIPE CONNECTIONS.
4. ALL MANHOLES SHALL HAVE RUBBER CHIMNEY BOOT SEALS.

SANITARY SEWER MANHOLE
N.T.S.

REV. 12-6-2018

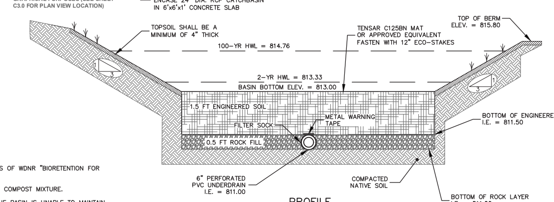




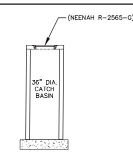
BIORETENTION BASIN EMERGENCY OVERFLOW WEIR DETAIL
N.T.S.

GENERAL NOTES

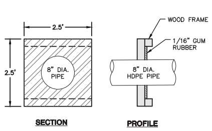
1. ALL CONSTRUCTION SHALL MEET THE SPECIFICATIONS OF WDNR "BIORETENTION FOR INFILTRATION" TECHNICAL STANDARD 1004.
2. ENGINEERED SOIL SHALL BE A 70% SAND AND 30% COMPOST MIXTURE.
3. RUNOFF MUST INFILTRATE WITHIN 24-HOURS. IF THE BASIN IS UNABLE TO MAINTAIN THESE RATES, IT MUST BE DEEP TILLED, REGRADED, AND IF NECESSARY REPLANTED BY OWNER TO RESTORE ORIGINAL INFILTRATION RATES.
4. ALL WORK TO BE CONDUCTED IN CONFORMANCE WITH THE STORMWATER MANAGEMENT PLAN FOR THE PROJECT SITE AS APPROVED BY THE REGULATORY ENGINEER OF RECORD.
5. SEE LANDSCAPING PLANS FOR PLANTING SCHEDULE AND CONFIGURATION.



STORMWATER BIO BASIN DETAIL
N.T.S.



OUTLET STRUCTURE DETAIL
N.T.S.



NOTE: ANTI-SEEP COLLAR TO BE AGRI DRAIN ASC05 OR EQUAL

GUM RUBBER ANTI-SEEP COLLAR
N.T.S.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER CONSTRUCTION PRACTICES HAVE BEEN UTILIZED AND THAT STORMWATER MANAGEMENT FEATURES HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH APPROVED DESIGN PLANS. JSD, INC. SHALL NOT BE LIABLE FOR ANY CONSTRUCTION PRACTICES OR INSTALLATION WHICH DEVIATES FROM THE APPROVED PLAN SET. ONCE THE OWNER HAS PROVIDED FINAL APPROVAL TO THE WORK PERFORMED BY THE CONTRACTOR AND ENSURED COMPLIANCE WITH THE PLAN, IT IS THE OWNER'S RESPONSIBILITY TO MAINTAIN STORMWATER MANAGEMENT FEATURES IN ACCORDANCE WITH THE RECORDED MAINTENANCE AGREEMENT. PROPER OPERATION IS DEPENDENT ON A MULTITUDE OF VARIABLES INCLUDING WEATHER. THESE COMPONENTS REQUIRE ONGOING MAINTENANCE FOR WHICH THE OWNER IS RESPONSIBLE. JSD TAKES NO RESPONSIBILITY FOR PROPER OPERATION OF THE WATER QUALITY COMPONENTS.

RATIONAL METHOD STORM SEWER CALCULATIONS

Project Name: BIRCHROCK CASTLE ADDITION
Project Location: Mukwonago, WI
JSD Project Number: 19-9231
Performed by: IRN
Date: 2/5/2020

MILWAUKEE REGIONAL OFFICE
W238 N1610 Busse Road, Suite 100
Waukesha, Wisconsin 53188
Ph: (262) 513-0666 Fax: (262) 513-1232

Structure abbreviations are as follows: ES - End Section, MH - Manhole, FI - Field Inlet, TD - Trench Drain, BC - Building Connection, RD - Roof Drain, STB - Stub

PIPE LOCATION		STRUCTURE CONTRIBUTING AREA					PIPE FLOW					PIPE DATA				PIPE CAPACITY INFORMATION							DROP	ELEVATIONS			COVER
UP STRUCT	DOWN STRUCT	ROOF C = 0.95 (SQ FT)	PAVED C = 0.95 (SQ FT)	GRASS C = 0.2 (SQ FT)	INDIVID AREA (ACRES)	INDIV COMP C VALUE UNITLESS	STORM EVENT 2,5,10,25,50,100	INTENSITY I (IN/HR)	INDIV RUNOFF (CFS)	TOTAL FLOW (CFS)	TOTAL FLOW (GPM)	LENGTH (FT)	DIA. (IN)	SLOPE %	Manning's n RCP=0.013 HDPE=0.012 PVC=0.011	REQD DROP	ACTUAL DROP	ACTUAL FLOW PARTS FULL	VEL (FPS)	FULL FLOW (CFS)	TIME TO STRUCT. (MIN)	TIME IN SEWER (MIN)	THRU STRUCT (FT)	RIM/(F/L) UP	INVERT UP	INVERT DOWN	TO CROWN (FT)
FES 2-5	STO 2-4	1290	0	2910	0.10	0.43	100	7.29	0.30	0.30	136	85.84	12.00	1.77%	0.012	0.01	1.52	0.18	4.47	5.13	10.00	10.32	0.00	N/A	815.40	813.88	0.00
STO 2-4	STO 2-3	1910	665	1370	0.09	0.69	100	7.21	0.45	0.75	338	94.16	12.00	0.40%	0.012	0.04	0.38	0.37	2.80	2.44	10.32	10.88	0.00	816.45	813.88	813.50	1.47
STO 2-3	STO 2-2	0	7495	2815	0.24	0.75	100	7.08	1.25	2.49	1117	126.46	18.00	0.20%	0.012	0.06	0.25	0.54	2.96	5.09	10.88	11.59	0.00	816.50	813.50	813.25	1.35
STO 2-2	FES 2-1	0	3045	545	0.08	0.84	100	6.92	0.48	3.54	1591	125.26	18.00	0.20%	0.012	0.12	0.25	0.72	3.20	5.09	11.59	12.24	0.00	817.25	813.25	813.00	2.35
STO 2-7	STO 2-6	3120	100	290	0.08	0.89	100	7.29	0.52	0.52	234	41.00	12.00	0.62%	0.012	0.01	0.25	0.86	4.41	3.04	10.00	10.15	0.00	816.85	813.86	813.60	1.89
STO 2-6	STO 2-2	0	100	490	0.01	0.33	100	7.25	0.03	0.55	249	64.00	12.00	0.55%	0.012	0.01	0.35	0.32	3.12	2.86	10.15	10.50	0.00	816.85	813.60	813.25	2.15
STO 2-8	STO 2-2	0	100	260	0.01	0.41	100	7.29	0.02	0.02	11	36.30	12.00	0.20%	0.012	0.00	0.07	0.10	1.18	1.73	10.00	10.51	0.00	815.40	813.32	813.25	0.98
STO 2-9	STO 2-3	2910	100	260	0.08	0.89	100	7.29	0.49	0.49	219	34.00	8.00	1.04%	0.012	0.05	0.35	0.55	3.95	1.33	10.00	10.14	0.00	817.35	813.86	813.50	2.76

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF JSD PROFESSIONAL SERVICES, INC.

Anti-Seep Collar Design

Project: **MUKWONAGO CBRF**
Project Location: MUKWONAGO, WI
JSD Project # : 19-9231

Performed By: IRN Date: 10/24/2019

MADISON REGIONAL OFFICE
161 Horizon Drive, Suite 101
Verona, Wisconsin 53593
Ph: (608) 848-5060 Fax: (608) 848-2255

MILWAUKEE REGIONAL OFFICE
W238 N1610 Busse Rd., Ste 100
Waukesha, Wisconsin 53188
Ph: (262) 513-0666 Fax: (262) 513-1232

JSD Professional Services, Inc.
• Engineers • Surveyors • Planners

SOUTH BIORETENTION

Notes:

Discharge Pipe Diameter =	0.67	ft
Discharge Pipe Slope =	0.0041	ft/ft
100yr Pond Water Surface Elev. =	814.95	
Pond Discharge Pipe Elev. =	811.00	
Embankment Side Slope (H:1) =	3.00	

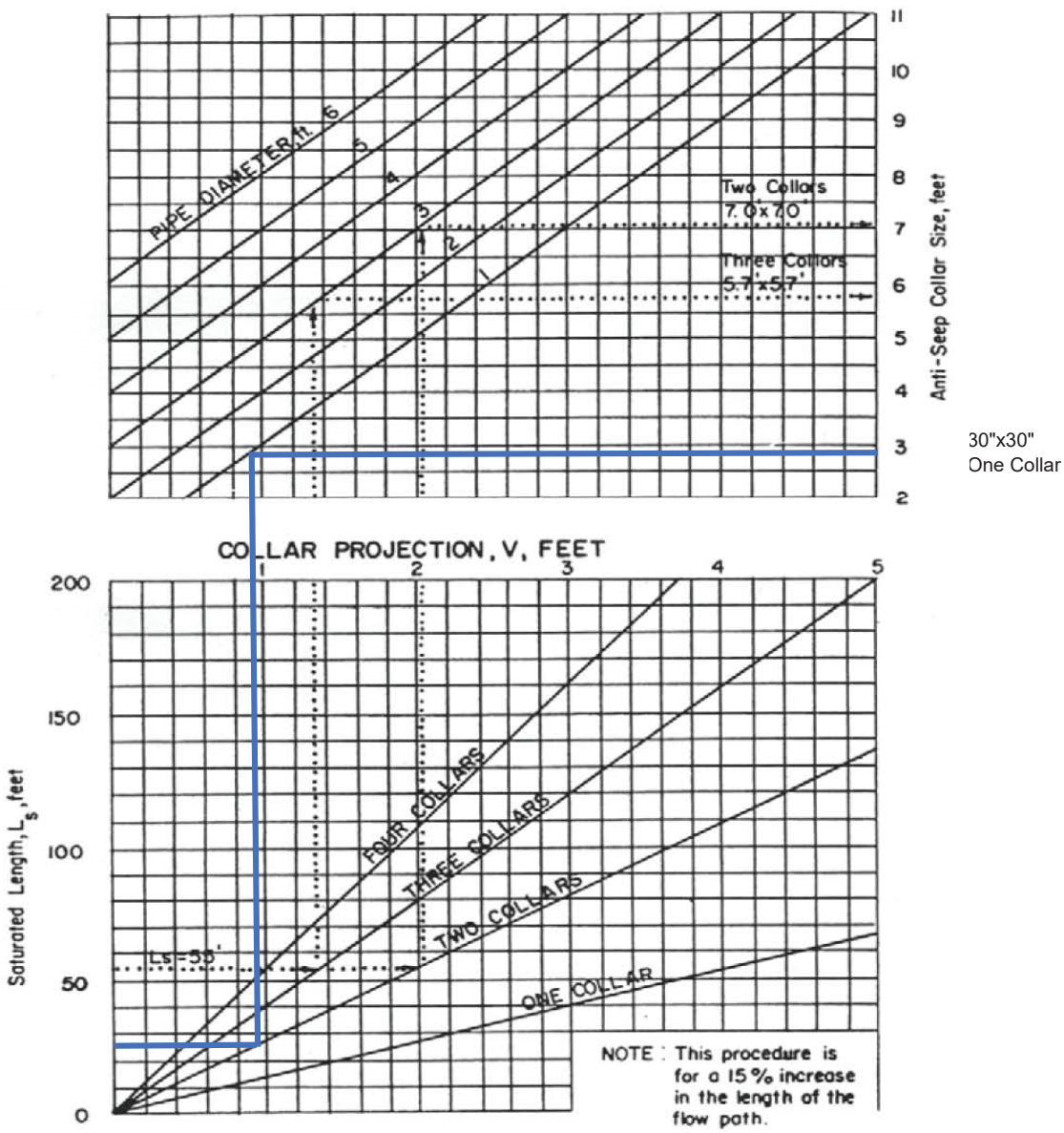
Ls - Length of Discharge Pipe in Saturated Zone
y - Headwater Acting on Discharge Pipe
z - Embankment Side Slope

$$Ls = y(z+4)\left[1+\frac{PipeSlope}{0.25-PipeSlope}\right]$$

$$Ls = (814.95 - 811.00)\ (3.00 + 4)\left|1 + \frac{0.0041}{(0.25 - 0.0410)}\right|$$

Ls = **28.11 ft**

Figure 5A.31(2)
Anti-Seep Collar Design Charts (USDA - NRCS)



APPENDIX 7

Operation and Maintenance Plan

Birchrock Castle Addition
Storm Water Maintenance Agreement
Village of Mukwonago, County of Waukesha, WI

_____, as "Owner" of the property described in Exhibit A, in accordance with Chapter 34 of the Village of Mukwonago Municipal Code, agrees to install and maintain storm water *management practices* on the subject property in accordance with approved plans and Storm Water Permit conditions. The Owner further agrees to the terms stated in this document to ensure that the storm water management practices continue serving the intended functions in perpetuity. This Agreement includes the following exhibits:

Exhibit A: Legal Description of the real estate for which this Agreement applies ("Property").
Exhibit B: Location Map - shows an accurate location of each storm water management practice affected by this Agreement.
Exhibit C: Maintenance Plan - prescribes those activities that must be carried out to maintain compliance with this Agreement.
Exhibit D: Design Summary - contains a summary of key Engineering calculations and other data used to design the storm water management practices.
Exhibit E: As-built survey (to be recorded as an addendum) - shows a detailed "as-built" cross section and plan view of the storm water management practices.
Exhibit F: Engineering/Construction Verification (to be recorded as an addendum) - provides verification from a Professional Engineer that the design and construction of the storm water management practices complies with all applicable technical standards and the Village's requirements.

NOTE: After construction verification has been accepted by the Village of Mukwonago, for all planned storm water management practices, an addendum(s) to this agreement shall be recorded by the Village showing construction details and construction verification. The addendum(s) may contain several additional exhibits, as described below.

Through this Agreement, the Owner hereby subjects the Property to the following covenants, conditions and restrictions:

1. Upon execution of this Agreement, the Village shall record the Agreement at the Waukesha County or Walworth County Register of Deeds, as applicable. The recording of this Agreement shall be a condition for the issuance of a Storm Water Permit. An addendum to this Agreement shall be recorded upon project completion which shall include submittal of Exhibit E and Exhibit F in an acceptable form to the Village. The recording of Amendment #1 including Exhibit E and Exhibit F shall be a condition for the issuance of an occupancy permit.

2. The Owner shall construct, maintain and if necessary reconstruct the storm water management practices so as to maintain their compliance with applicable governmental, statutes, ordinances or rules. The Owner shall be responsible for the routine and extraordinary maintenance and repair of the storm water management practices identified in Exhibit B in accordance with the maintenance plan contained in Exhibit C.

3. The Owner shall, at their own cost inspect the storm water best management practices on an annual basis and maintain records of annual inspections and maintenance performed. Records

shall be made available to the Village upon request within 30 days of written notice. Annual inspections shall be performed as detailed in Exhibit C Maintenance Plan of the storm water maintenance agreement and shall be performed to determine if the facility is functioning within the design parameters. Commencing in 2020 - and every five years thereafter the Owner shall, at their own cost, have a certification inspection of the storm water management practices conducted by a professional engineer, who shall then file a report with the Village of Mukwonago no later than December 31st of the same year. Upon written notification by Village of Mukwonago or its designee the Owner shall, at their own cost and within a reasonable time period determined by the Village of Mukwonago, have an inspection of the storm water management practices conducted by a professional engineer, who shall then file a report with the Village of Mukwonago. The Owner shall thereafter timely complete any maintenance or repair work recommended in any of the above reports. The Owner shall be liable for the failure to undertake any maintenance or repairs.

4. In addition, and independent of the requirements under paragraph 2 above, the Village of Mukwonago, or its designee, is authorized but not required to access the property as necessary to conduct inspections of the storm water management BMP's to ascertain compliance with the terms and intent of this Agreement and the activities prescribed in Exhibit C. The Village of Mukwonago may require work to be done which differs from the report(s) described in paragraph 3 above, if the Village of Mukwonago reasonably concludes that such work is necessary and consistent with the intent of this agreement and /or with Chapter 34 of the Village Code of Ordinances. Upon notification by the Village of Mukwonago of required maintenance or repairs, the Owner shall complete the specified maintenance or repairs within a reasonable time frame, as determined by the Village of Mukwonago.

5. If the Owner does not complete an inspection under 3 above or complete the required maintenance or repairs under 2 above within the specified time period, the Village of Mukwonago is authorized, but not required, to perform the specified inspections, maintenance or repairs. In the case of an emergency situation, as determined by the Village of Mukwonago, no notice shall be required prior to the Village of Mukwonago performing emergency maintenance or repairs.

   The cost of inspections or measures undertaken by the Village pursuant to this agreement shall be first paid from the proceeds of any surety maintained to secure the performance by the Owner/Developer of its obligations under this agreement and the conditions of the use, site and architectural approval. In the event that the costs of said measures shall exceed the value of the surety or the surety has expired or been terminated, then in that event the cost of said measures shall be assessed as a special charge for current services pursuant to Wis Stat Sec. 66.0627. Any such assessment which is not paid within 60 days after billing shall be deemed a delinquent special charge and shall become a lien upon the parcel against which such charge has been assessed. Such delinquent charges shall be extended upon the current or next tax roll as a delinquent tax against the parcels for which payment has not been received by the Village and all proceedings in relation to the collection, return and sale of property for delinquent real estate taxes shall apply to such special charges. The Developer hereby consents to the levy of such charge and waives notice and the right to hearing.

6. This Agreement shall run with the property and be binding upon all heirs, successors and assigns. After the Village records this document, the Village of Mukwonago shall have the sole authority to modify this agreement contingent upon the Village of Mukwonago providing a 30 day written notice to the current Owner. Any modifications shall conform to the minimum requirements of Chapter 34 (or its successor) and be written so as to ensure the long-term maintenance of the storm water BMP's.

7. The Owner/Developer agrees to pledge a surety in a form acceptable to the Village of Mukwonago to secure performance of the obligations arising from the construction and maintenance of the storm water BMPs provided for under this Agreement in the amount of 120% of the actual cost of the storm water BMPs. Said surety shall remain in effect for a period of three

(3) years from the date of the execution of this Agreement or until drawn upon in full by the Village or one year (1) from the date of the certification of the storm water improvements whichever occurs first. Release of the surety prior to the deadlines stated herein shall be governed by Mukwonago Village code section 34-108(c) as amended

8. This Agreement shall be governed and construed in accordance with the laws of the State of Wisconsin.

Dated this ____ day of _____, 202____

Owner:

_____
Authorized Representative of

_____
(Printed Name of Authorized Representative)

State of Wisconsin:
County of Waukesha

Personally came before me this ____ day of _____, 202____, the above named _____ _____, as the authorized Representative of _____ _____for the purpose of signing this document, to me known to be the person who executed the foregoing instrument and acknowledged the same.

_____
[Name]

Notary Public, Waukesha County, WI
My commission expires: _____

Accepted by the Village of Mukwonago this ____ day of _____, 202__.

_____
Fred Winchowky, Village President

_____
Diana Dykstra, Village Clerk

This document was drafted by:
David Roberts, P.E.
JSD Professional Services, Inc.
Milwaukee Regional Office
W238 N1610 Busse Road, Suite 100
Waukesha, WI 53188
Telephone: 262-513-0666
Email: david.roberts@jsdinc.com

Exhibit A – Legal Description

The following description and reduced copy map identifies the land parcel(s) affected by this Agreement. For a larger scale view of the referenced document, contact the Waukesha County Register of Deeds office.

Project Identifier: Mukwonago CBRF building

Date of Recording: 11/6/95

Map Produced By: Gary Schaefer

Legal Description: Lot 2 of Certified Survey Map No. 7901, recorded on December 22. 1995 in Volume 68 of Certified Survey Maps on Pages 140 to 146, as Document No. 2089198, being a redivision of Outlet 1, Mukwonago Estates East, being a resubdivision of Lots 43 and 44, 56 to 61 inclusive, 78 to 82 inclusive, 103 and 104, 157 to 200 inclusive, Outlet 1, Part of outlot 2, and all of Outlots 3, 4, 7 and 8 in "Mukwonago Estates", being a subdivision of part of the Northwest I /4 of the Southeast I1/4 of Section 35, Township 5 North, Range I8 East, in the Village of Mukwonago, County of Waukesha, State of Wisconsin.

Exhibit B - Location Map
Storm Water Management Practices Covered by this Agreement

The storm water management practices covered by this Agreement are depicted in the reduced copy of the construction plans, as shown below. The practices include the **Biofiltration Basin, filter strip, catch basins and storm sewer system.**

All of the noted storm water management practices are located in Lot 2 of CSM 7901, as noted in Exhibit A.

Subdivision Name: **N/A**

Storm water Practices: **Biofiltration Basin, Filter Strip, Catch Basin and Storm Sewer System**

Location of Practices: **The Biofiltration Basin is located in the SW corner of site, the catch basin and storm sewer are located within the parking lot and landscape areas in front of the building and the filter strip is between the back of the building and the wetland.**

Owners: **Castle Senior Living**

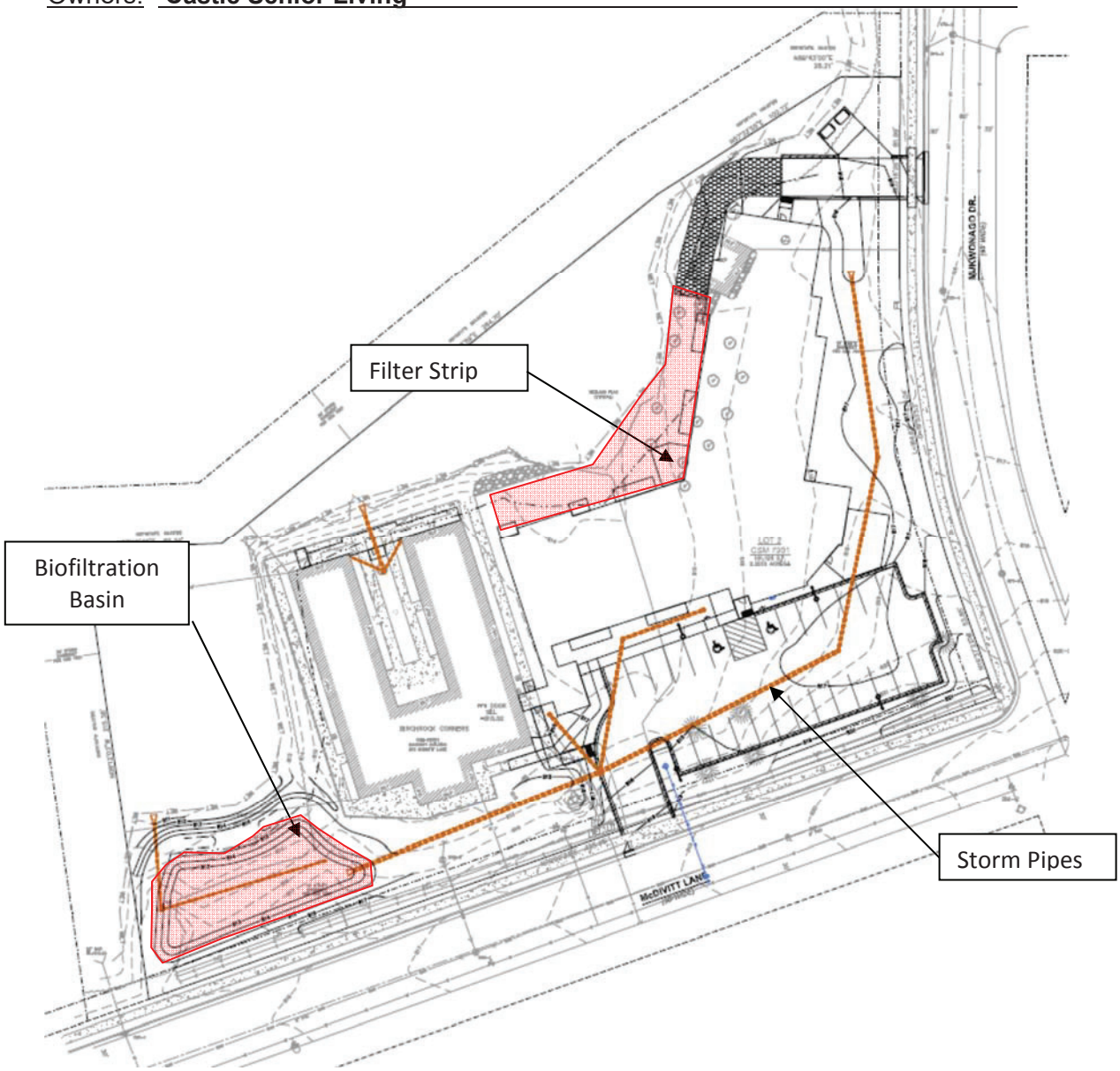


Exhibit C
Maintenance Plan

This exhibit explains the basic function of each of the storm water practices listed in Exhibit B and prescribes the maintenance requirements to remain compliant with this Agreement. The maintenance activities listed below are aimed to ensure these practices continue serving their intended functions in perpetuity. The list of activities is not all inclusive, but rather indicates the minimum type of maintenance that can be expected for this particular site. Access to the storm water practices for maintenance vehicles is shown in Exhibit B. Any failure of a storm water practice that is caused by a lack of maintenance will subject the Responsible Party to enforcement of the provisions of this Agreement by the Village of Mukwonago.

BIOFILTRATION BASIN
OPERATIONS AND MAINTENANCE

I. ROUTINE MAINTENANCE

A. Inspection

1. Performance of the bioretention should be inspected monthly and after every major storm event, following the initial construction to evaluate if the basin is draining within the design time limits.
   a. Water plants should be watered as necessary the first year to establish plants.
2. If performance does not meet the design goals, complete repairs to the facility to meet the design requirements.
3. Following the initial year of monthly inspections, quarterly inspections of the facility should be made. Inspect the facility for:
   a. Differential settlement
   b. Cracking
   c. Erosion
   d. Leakage
   e. Tree and woody plant growth on the embankments and plant health
   f. Condition of the inlets and outlets and level spreaders
   g. Sediment accumulation
   h. Vigor and density of vegetation on the floor of the basin and buffer strips
   i. pH testing of the soil
   j. Observation wells and/or under drains

B. Mowing – Native Vegetation

1. During establishment of vegetation, the first mowing shall occur once it reaches a height of 10 to 12 inches.
2. Control woody plant invasion by mowing once a year. The vegetation height shall be 5 to 6 inches after mowing.
3. Mow once per year in the fall after November 1st.
4. Remove trash and debris at the time of mowing.

C. Erosion Control

1. Inspect quarterly for erosion. Inspection after major storm events for erosion problems is also recommended if practical
2. Repair all eroded areas immediately. Temporary erosion controls may be necessary to facilitate repairs.

D. Tilling
1. If the basin is located on marginally permeable soils, annual or semi- annual tilling may be needed to maintain infiltration capacity.
2. Tilled areas should be immediately re-vegetated to prevent erosion.

E. Pre-Treatment Systems
1. Maintenance of the pre-treatment system should include sediment removal, oil and grease skimming, and grass filter strip maintenance.
2. Inspect the structural elements of the pre-treatment system and repair if needed.

F. Mulch
1. Re-mulch void areas as needed.
2. Add additional mulch once per year.

II. NON-ROUTINE MAINTENANCE

A. Structural Maintenance
1. Inspect pipe systems quarterly.
2. Remove and replace pipe systems that have eroded or rusted.
3. Earthen structures should be inspected annually. Erosion should be repaired immediately upon discovery.

B. Restoration of Infiltration Capacity
1. Over time the original infiltration capacity of the basin will be diminished.
2. Deep tilling can be done to restore the infiltration capacity of the basin. The basin will be drained and the soils dried to a depth of 8 inches.
3. The top 2 to 3 inches of topsoil, chisel plowing, and adding topsoil and compost can be done.
4. The basin must be restored with native plantings.

C. Watering
1. Water plants need to be watered as necessary during the first growing season.
2. After the first growing season, water as necessary during dry periods.

STORM SEWER SYSTEM
OPERATIONS AND MAINTENANCE

I. INSPECTION

A. Frequency
a. Inspect catch basins, inlets and manholes at least once per year.
b. Inspect storm sewer end sections at least twice per year and after major rainfall events.

B. Inspection
a. Catch Basins, Inlets and Manholes
i. Inspect for sediment deposition in the bottom of structures.
ii. Check frames and lids for cracks and wear such as rocking lids

or lids moved by traffic and for shifted frames.

iii. Check chimneys for cracked mortar, cracked lift rings and spalling.

iv. Check for leaks at joints.

v. Check surrounding areas for pollutants such as leaks from dumpsters, minor spills and oil dumping.

b. Storm Sewer End sections

i. Observe for obstructions, accumulation of sediment and trash, undermining and joint separation.

ii. Inspect end treatment for settlement, scour and displaced armoring.

II. STANDARD MAINTENANCE

A. Catch Basins, Inlets and Manholes

a. Repair any deterioration threatening structural integrity immediately.

b. Replace worn or cracked frames and lids. Frames that have shifted should be re-centered and re-set on the structure.

c. Repair any spalled or cracked mortar. Cracked rings should be repaired or replaced.

d. Repair leaking joints.

e. Clean manhole and storm inlet inverts of deposited material. Catch basins should be cleaned before the sump is 40 percent full or every 2-years, whichever comes first.

f. Remove potential sources of contamination away from catch basins, inlets and manholes.

B. Storm Sewer End sections

a. End sections should be free flowing; trash, debris and obstructions should be removed to prevent backups.

b. End sections which have separated from the storm sewer pipe shall be reset on firm bedding and reconnected to the existing storm sewer pipe. Restrain joints if necessary.

c. Scour areas shall be repaired immediately. Replace missing soil with clean fill and replace/install end treatment. Missing armoring will require additional stone, typically one class larger.

d. Excessive material deposited at the storm sewer outfall is indicative of: a disturbed area upstream draining to the system or a potential failure of a system component. Disturbed areas draining to the system should be stabilized immediately or diverted to drain to a BMP. Potential system failures require non-standard maintenance.

III. NON-STANDARD MAINTENANCE

A. Non-standard maintenance includes inspection, repair or replacement of buried structures.

a. Televising of buried structures (pipes) should occur when excessive material is found within the system or at an outfall with no apparent source area visible at the surface, or the system experiences frequent backups.

b. Follow the recommendations for the repair and/or replacement of system components televised by a firm specializing in this work.

FILTER STRIP
OPERATIONS AND MAINTENANCE

I. ROUTINE MAINTENANCE

A. Inspection

1. Vegetative buffers shall at a minimum be inspected weekly and

within 24 hours after every precipitation event that produces 0.5 inches of rain or more during a 24-hour period.

2. Vegetative buffers shall be inspected for proper distribution of flows, sediment accumulation and signs of rill formation.

B. Mowing

1. A stand of dense vegetation shall be maintained to a height of 3 – 12 inches.

C. Erosion Control

1. If the vegetative buffer becomes silt covered, contains rills, or is otherwise rendered ineffective, other perimeter sediment control measures shall be installed. Eroded areas shall be repaired and stabilized.
2. Repairs shall be completed as soon as possible with consideration to site conditions.

Exhibit D – Design Summary

The proposed development is 15,7770 sq.ft building expansion with a new parking lot. The proposed development has been designed to capture the storm water drainage from the parking lot and for the south half of the roof and routed to a bio-retention basin. Below is a summary of the release rates and water quality.

Site Release Rate Summary

The Table below summarizes the storm water release rates associated with the development.

	Existing Release Rate (cfs)	Proposed Release Rate (cfs)
1-year	0.63	0.61
2-year	0.96	0.77
10-year	2.46	1.42
100-year	6.44	3.57

* Note: Total peak runoff rates are based on the addition of the peak discharge rates from the associated hydrographs at the peak time for the site; due to varying peak times, the total discharge rates are not a direct summation of the peak rates for each. Refer to the attached watershed summary for additional information.

Water Quality Summary

The Table below summarizes the water quality associated with the development.

	Pollutant Yield Without Controls (lbs)	Pollutant Yield After Controls (lbs)	Percent Reduction
Particulate Solids	296.3	70.75	**76.12%**
Particulate Phosphorus	0.7862	0.1933	**75.41%**

Exhibit D
Watershed Summary

Project Name: Birchrock Castle Addition
Watershed (ultimate discharge): Upper Fox River - Illinois
REVISION: 02-04-2020

Project Size: 1.30 acres
Watershed Area (including off-site runoff traveling through project area): 1.3 acres

Summary Data Elements	Pre-developed	Post-development							
	Subwatershed A to extisting SW local depression	**Subwatershed 1S** to Bio-Basin	**Subwatershed 2S** Undetained NE	**Subwatershed 3S** Undetained S	**Subwatershed 4S** Undetained NW	**Subwatershed (1S) w/o BMPs**	***Total Site Subwatershed (1+2+3+4) w/o BMPs***	**Subwatershed (1S) with BMPs**	***Total Site Subwatershed (1+2+3+4) with BMPs***
Watershed Areas	1.300 acres	1.065 acres	0.183 acres	0.036 acres	0.016 acres	1.065 acres	*1.300 acres*	1.065 acres	*1.300 acres*
Average Watershed Slopes	7 – 19%	1 – 2%	1 – 3%	0.8 – 2.3%	1-2%	0.5 – 33%	*0.5 – 33%*	0.5 – 33%	*0.5 – 33%*
Land Uses (% of each)	0.235 acres – Impervious (18%)	0.362 acres – Building (34%)			0.011 acres – Building (69%)	0.362 acres – Building (16%)	*0.34 acres – Building (10%)*	0.34 acres – Building (16%)	*0.34 acres – Building (10%)*
	0.010 acres – Gravel (1%)	0.305 acres – Impervious (29%)	0.016 acres – Impervious (9%)	0.012 acres – Impervious (33%)	0.003 acres – Impervious (19%)	1.04 acres – Pavement (47%)	*1.29 acres – Pavement (37%)*	1.04 acres – Pavement (47%)	*1.29 acres – Pavement (37%)*
	1.055 acres – Grass (81%)	0.398 acres – Grass (37%)	0.168 acres – Grass (91%)	0.024 acres – Grass (67%)	0.002 acres – Grass (12%)	0.80 acres – Grass (37%)	*1.89 acres – Grass (53%)*	0.80 acres – Grass (37%)	*1.89 acres – Grass (53%)*
Runoff Curve Numbers	Impervious = 98	Building = 98			Building = 98	Building = 98	Building = 98	Building = 98	Building = 98
	Gravel=96	Impervious = 98	Pavement = 98	Pavement = 98	Pavement = 98	Pavement = 98	*Pavement = 98*	Pavement = 98	*Pavement = 98*
	Grass = 61	Grass = 61	Grass = 61	Grass = 61	Grass = 61	Grass = 61	*Grass = 61*	Grass = 61	*Grass = 61*
	Composite = 68	**Composite = 84**	**Composite = 64**	**Composite = 73**	**Composite = 93**	**Composite = 84**	***Composite = 81***	**Composite = 84**	***Composite = 81***
Conveyance Systems Types	Overland flow	Overland flow, storm sewer	Overland low	Overland low	Overland low	Overland flow, infiltration, storm sewer	*Overland flow, infiltration, storm sewer*	Overland flow, infiltration, storm sewer	*Overland flow, infiltration, storm sewer*
Summary of Average Conveyance System Data	Slope = 2 – 13%	Slope = 1.0 – 2%	Slope = 1.0 – 3% 4" PVC @ slope = 10.8%	Slope = 0.8 – 2.3% 8" PVC @ slope = 2.08%	Slope = 1.0 – 2%	Slope = 1.0 – 2%	*Slope = 1.0 – 3%; 4" PVC @ 10.8%*	Slope = 0.8 – 2.3%; 8" PVC @ 2.08%	*Slope = 5 – 25%*
Time of Concentration (Tc)	6 minutes	6 minutes	6 minutes	6 minutes	6 minutes	6 minutes	6 minutes	6 minutes	6 minutes
Peak Flow: 1-yr.	0.63 cfs	1.51 cfs	0.47 cfs	0.03 cfs	0.05 cfs	1.51cfs	*2.05 cfs*	0.11 cfs	*0.61 cfs*
Peak Flow: 2-yr	0.96 cfs	1.87 cfs	0.60 cfs	0.04 cfs	0.06 fs	1.87 cfs	*2.57 cfs*	0.13 cfs	*0.77 cfs*
Peak Flow: 10-yr.	2.46 cfs	3.32 cfs	1.11 cfs	0.09 cfs	0.08cfs	3.32 cfs	*4.59 cfs*	0.60 cfs	*1.42 cfs*
Peak Flow: 100-yr.	6.44 cfs	6.58 cfs	2.28 cfs	0.21 cfs	0.14 cfs	6.58 cfs	*9.21 cfs*	1.52 cfs	*3.57 cfs*

Exhibit D

Data Summary Sheet for Bio-Basin

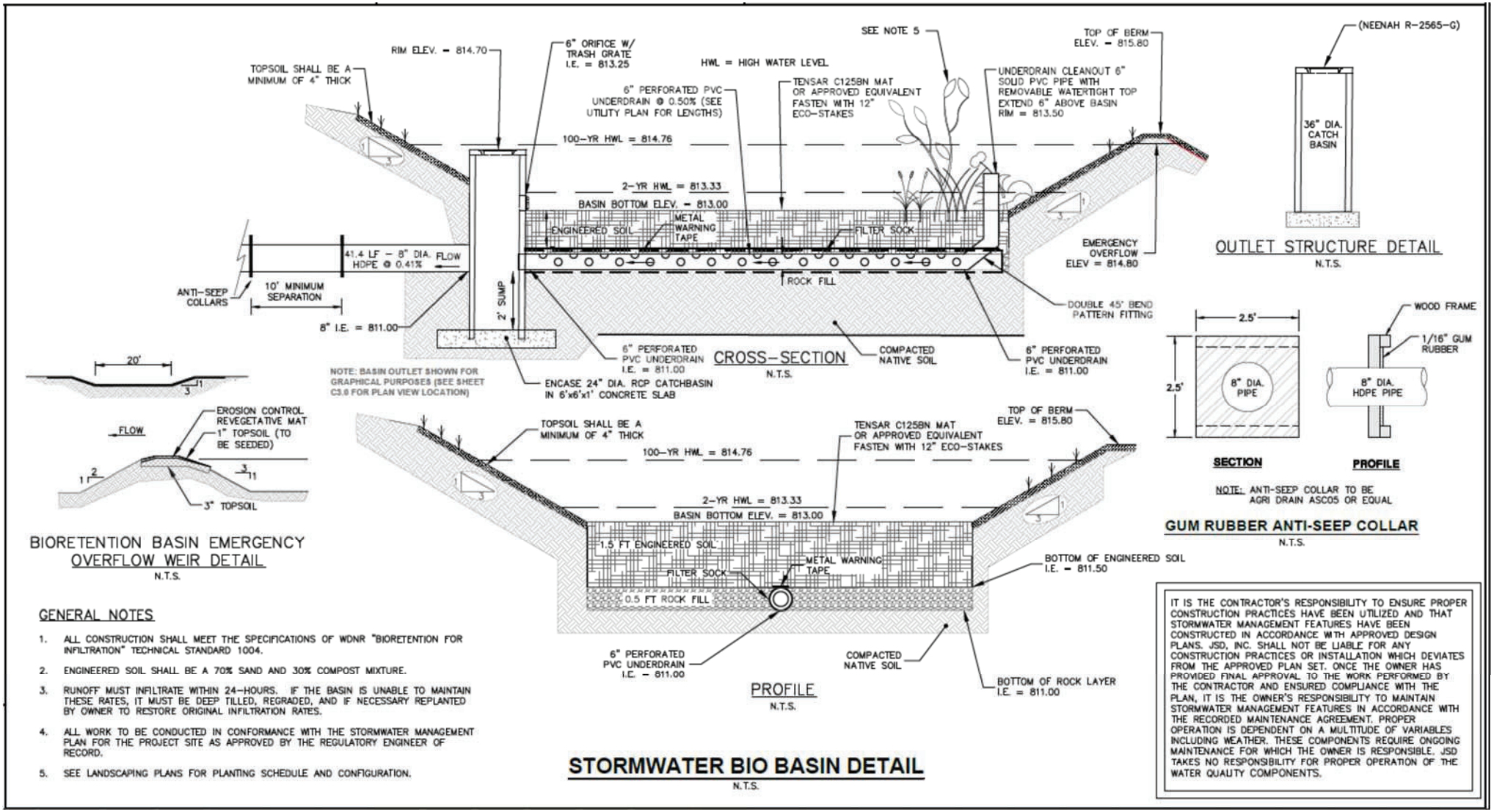
Design Element	Design Data
Site assessment data: (see attached maps)	
Contributing drainage area to basin (Subcatchment 1S)	1.065 acres
Distance to nearest private well (including off-site wells)	>100 feet
Distance to municipal well (including off-site wells)	>1200 feet
Wellhead protection area involved?	No
Ground slope at site of proposed basin	Approx. = 9.0-11.0%
Any buried or overhead utilities in the area?	No
Proposed outfall conveyance system/discharge (w/distances)	41' – 8" HDPE to Wetland
Any downstream roads or other structures? (describe)	No
Floodplain, shoreland or wetlands?	Existing wetland complex to the North
Soil investigation data (see attached map & soil logs):	
Number of soil investigations completed	0
Do elevations of test holes extend 3 ft. below proposed bottom?	N/A
Average soil texture at basin bottom elevation (USDA)	Compacted native soil
Design infiltration rate at basin bottom and method of analysis	0.15 – Based on infiltration rate for Soil type
Measured infiltration rate following construction	-
Distance from basin bottom to bedrock	10+ feet
Distance from basin bottom to seasonal water table	-
General basin design data (see attached detailed drawings):	
Basin bottom surface area	0.053 acre
Effective infiltration area	0.053 acre
2% of development area (1.3 acres)	0.026 acre
Basin bottom elevation	813.00
Top of berm elevation (after settling) and width	815.80 / 6 ft. minimum
Basin storage below outlet	0
10% of 2-yr 24-hr post development runoff volume	0.0066 ac-ft
Time to completely infiltrate stored water through engineered fill.	26 hours (100 yr storm event)
Sediment forebay size & depth	N/A – no forebay for bio basin
Sediment storage depth & design maintenance	N/A – no permanent pool depth

Design Basin Inflow, Outflow & Storage Data (see attached hydrographs and detail drawings)				
Inflow Peak	**Maximum Outflow Rate**	**Max. Water Elevation**	**Storage Volume at Max. Elev.**	**Outflow Control Structures***
1.51 cfs (Post 1-yr./24 hr. peak)	0.11 cfs	813.13	1,619 c.f.	#3 and #5
1.87 cfs (Post 2-yr./24 hr. peak)	0.13 cfs	813.33	2,089 c.f.	#3 and #5
3.32 cfs (Post 10-yr./24 hr. peak)	0.60 cfs	813.75	3,230 c.f.	#3 and #5
6.58 cfs (Post 100-yr./24 hr. peak)	1.52 cfs	814.76	6,462 c.f.	#3, #5 and #6

*** The controlling elements are summarized below (See attached detail drawing of Biofiltration Basin):**

#3 = Underdrain
#5 = 6" Orifice @ elev. 813.25
#6 = 24" Grate @ elev. 814.70

Biofiltration Detail



RESOLUTION 2020-13

RESOLUTION APPROVING A CERTIFIED SURVEY MAP
VILLAGE OF MUKWONAGO, APPLICANT

WHEREAS, pursuant to Article IV of the Land Division Ordinance, an application for a 3-Lot Certified Survey Map for the vacant property located along the East side of E Wolf Run, approximately 600 feet east of E Wolf Run, and approximately 2,400 feet (1/2 mile) north of Maple Avenue, in the Village of Mukwonago, was filed in the office of the Village Clerk, Village of Mukwonago, Wisconsin, and

WHEREAS, the application was submitted by the Village of Mukwonago, will create three lots, with Lots 1 and 2 to be future Commercial usage, and Lot 3 to be future apartments and other associated amenities, and

WHEREAS, the Certified Survey Map has been reviewed and recommended by the Village Plan Commission.

NOW, THEREFORE, BE IT RESOLVED by the Village Board of the Village of Mukwonago, Wisconsin hereby approves the 2-Lot Certified Survey Map dated March 18, 2020 prepared by Chris Ruetten, Public Land Surveyor.

NOW, THEREFORE, BE IT FURTHER RESOLVED the applicant, upon the approval of this Certified Survey Map, shall agree to accept the same in writing.

Passed and dated this 18th day of March 2020.

VILLAGE OF MUKWONAGO

By: _____
Fred Winchowky, Village President

Attest: _____
Diana Dykstra, Village Clerk

Village of Mukwonago
Office of the Village Planner

440 River Crest Court, Mukwonago, Wisconsin 53149 Tel.(262) 363-6420x2111 –Fax (262) 363-6425 –planner@villageofmukwonago.com

Date: March 3, 2020

To: Village of Mukwonago Plan Commission

From: Ben Kohout, AICP; Village Planner

Subject: Family Ventures of Mukwonago, LLC (Maple Centre PUD) Three Lot CSM for 80 foot wide public road extension and 100 foot wide public road extension on Parcel No. MUKV2013999008

Meeting: March 10, 2020 Plan Commission meeting

Property location: East side of E. Wolf Run, approximately 600 feet east of E. Wolf Run, and approximately 2,400 feet (1/2 mile) north of Maple Avenue.

Current zoning: B-5, Business District with Business Mixed Use (BMX) Overlay District

General description: The proposed CSM is part of the requirements and obligations of the Village to provide for access to the site, as well as provisions for utilities, from E. Wolf Run and northerly to adjoining property. The resulting roadway and utility access is part of the agreed upon terms of development and will be an exhibit (Exhibit C) in the Developer's agreement as part of this development (approved in 2019 as part of Maple Centre PUD approval).

The resulting CSM will create three lots, with Lots 1 and 2 to be future Commercial usage, and Lot 3 to be future apartments and other associated amenities, as approved with the Planned Unit Development from 2019.

Staff has reviewed this CSM and has no concerns with this request.

Recommendation

Approval.

CERTIFIED SURVEY MAP NO._____

Lot 2 of CSM#11558 being part of the NE ¼ of the NE ¼ of Section 36 , Town 5 North, Range 18 East and part of the NW ¼ of the NW ¼ of Section 31,Town 5 North, Range 19 East, Village of Mukwonago, Waukesha County, Wisconsin

SURVEYOR/ENGINEER:
Paul H. Van Henkelum, PLS
201 Broad Street, Suite B
Lake Geneva, WI. 53147
PHONE: (414) 406-3248

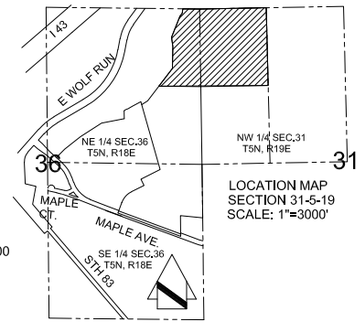
OWNER/SUBDIVIDER:
Family Ventures of
Mukwonago, LLC
N7152 Bowers Rd.
Elkhorn, WI 53121

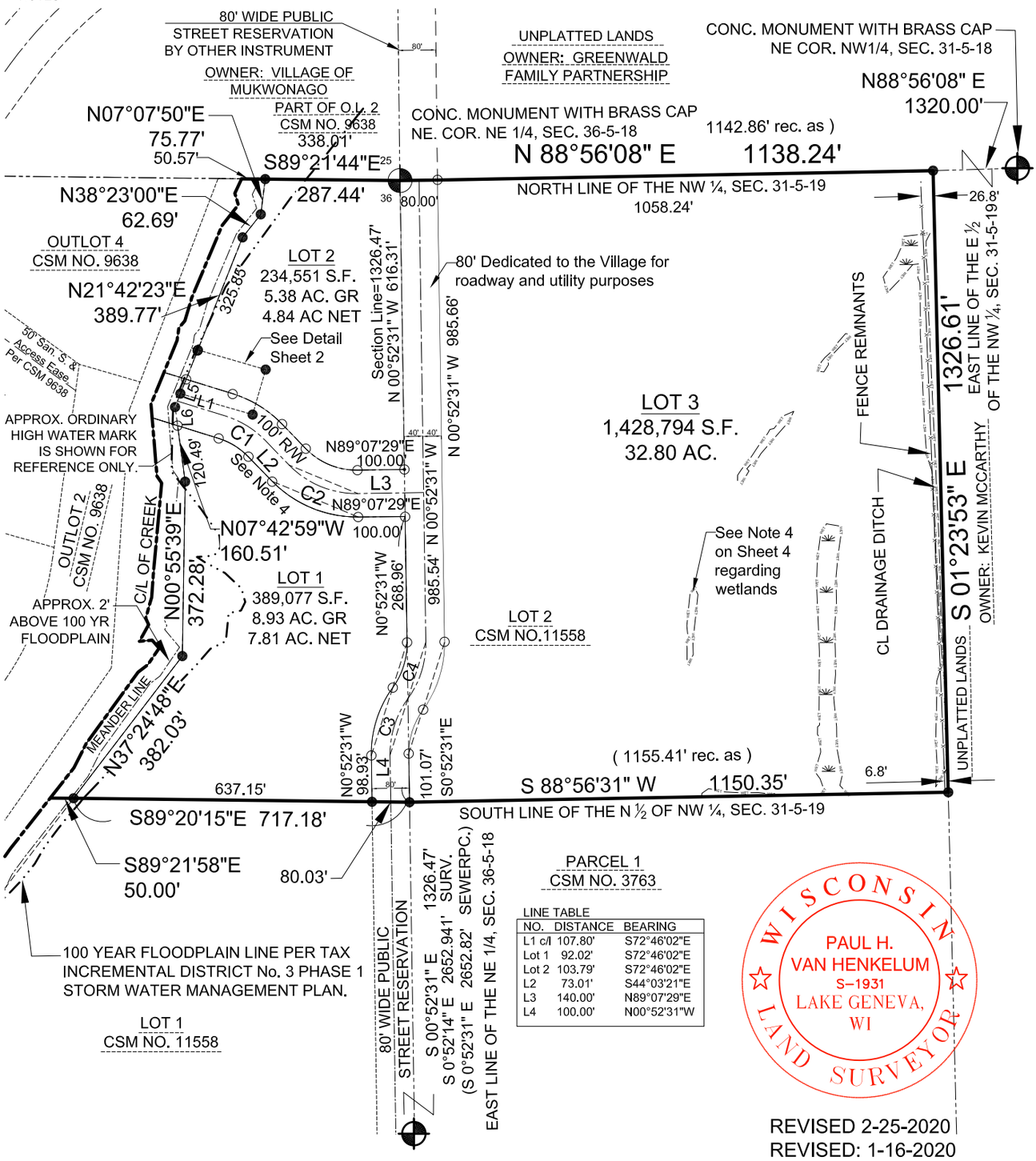
NOTES:
1. SEE SHEET 2 FOR SOIL INFORMATION.
2. SEE SHEET 3 FOR TOPOGRAPHY AND CURVE INFORMATION.
3. SEE SHEET 4 FOR GENERAL NOTES.

REFERENCE BEARING: THE NORTH LINE OF THE NW 1/4, SEC. 31-5-19 WAS USED AS THE REFERENCE BEARING AND HAS A BEARING OF S88°56'08"W (SOUTH ZONE)

LEGEND:
- -IRON PIPE 2" DIA. (FOUND)
- -IRON PIPE/ROD 18" x 1" DIA. SET 1.13+ LBS. PER LIN. FT.
- -CONCRETE MONUMENT WITH BRASS CAP
- -WETLANDS
- (xx.xx) -PREVIOUSLY RECORDED AS

0 300
SCALE: 1" = 300'





LINE TABLE

NO.	DISTANCE	BEARING
L1 c/l	107.80'	S72°46'02"E
Lot 1	92.02'	S72°46'02"E
Lot 2	103.79'	S72°46'02"E
L2	73.01'	S44°03'21"E
L3	140.00'	N89°07'29"E
L4	100.00'	N00°52'31"W

WISCONSIN
PAUL H. VAN HENKELUM
S-1931
LAKE GENEVA, WI
LAND SURVEYOR

REVISED 2-25-2020
REVISED: 1-16-2020
REVISED: 3-15-2019
DATE : MAR. 06, 2019
SHEET 1 OF 5

INSTRUMENT DRAFTED BY PAUL H. VAN HENKELUM
DWG: 1701331 CSM

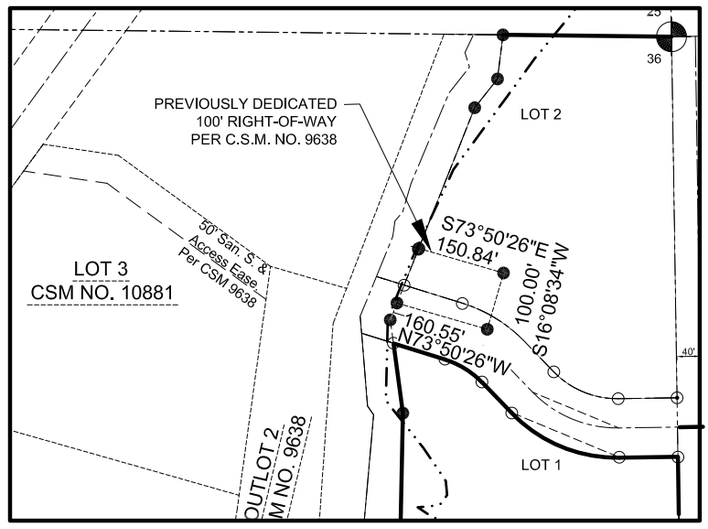
CERTIFIED SURVEY MAP NO._____

Lot 2 of CSM#11558 being part of the NE ¼ of the NE ¼ of Section 36 , Town 5 North, Range 18 East and part of the NW ¼ of the NW ¼ of Section 31,Town 5 North, Range 19 East, Village of Mukwonago, Waukesha County, Wisconsin

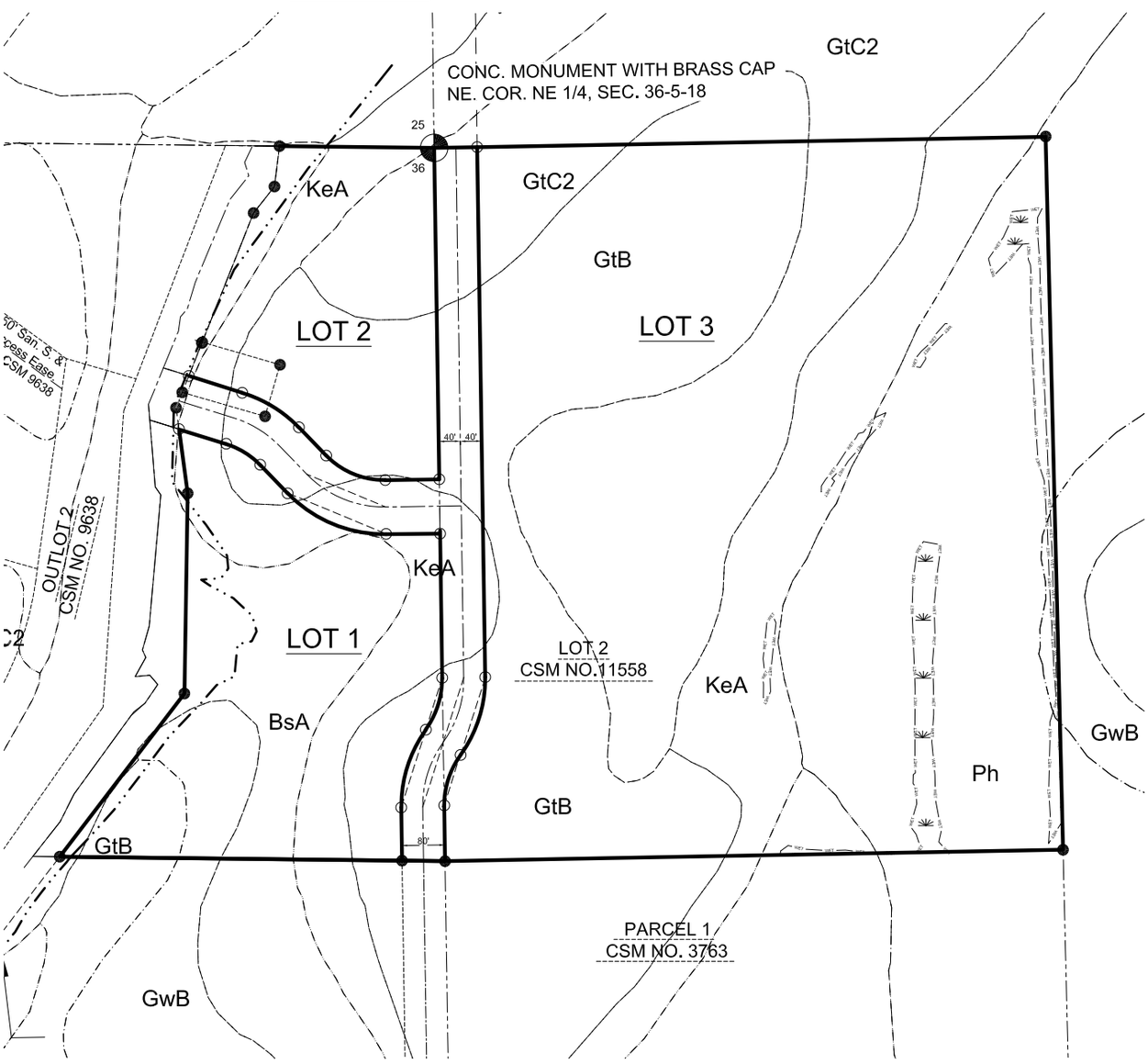
WISCONSIN
PAUL H.
VAN HENKELUM
S-1931
LAKE GENEVA,
WI
LAND SURVEYOR

0 300
SCALE: 1" = 300'

DETAIL OF PREVIOUSLY DEDICATED 100' R/W



SOIL DATA



REVISED 2-25-2020
REVISED: 1-16-2020
REVISED: 3-15-2019
DATE : MAR. 06, 2019
SHEET 2 OF 5

627

INSTRUMENT DRAFTED BY PAUL H. VAN HENKELUM
DWG: 1701331 CSM

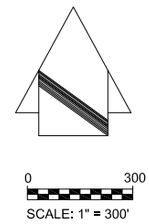
CERTIFIED SURVEY MAP NO._____

Lot 2 of CSM#11558 being part of the NE ¼ of the NE ¼ of Section 36 , Town 5 North, Range 18 East and part of the NW ¼ of the NW ¼ of Section 31,Town 5 North, Range 19 East, Village of Mukwonago, Waukesha County, Wisconsin

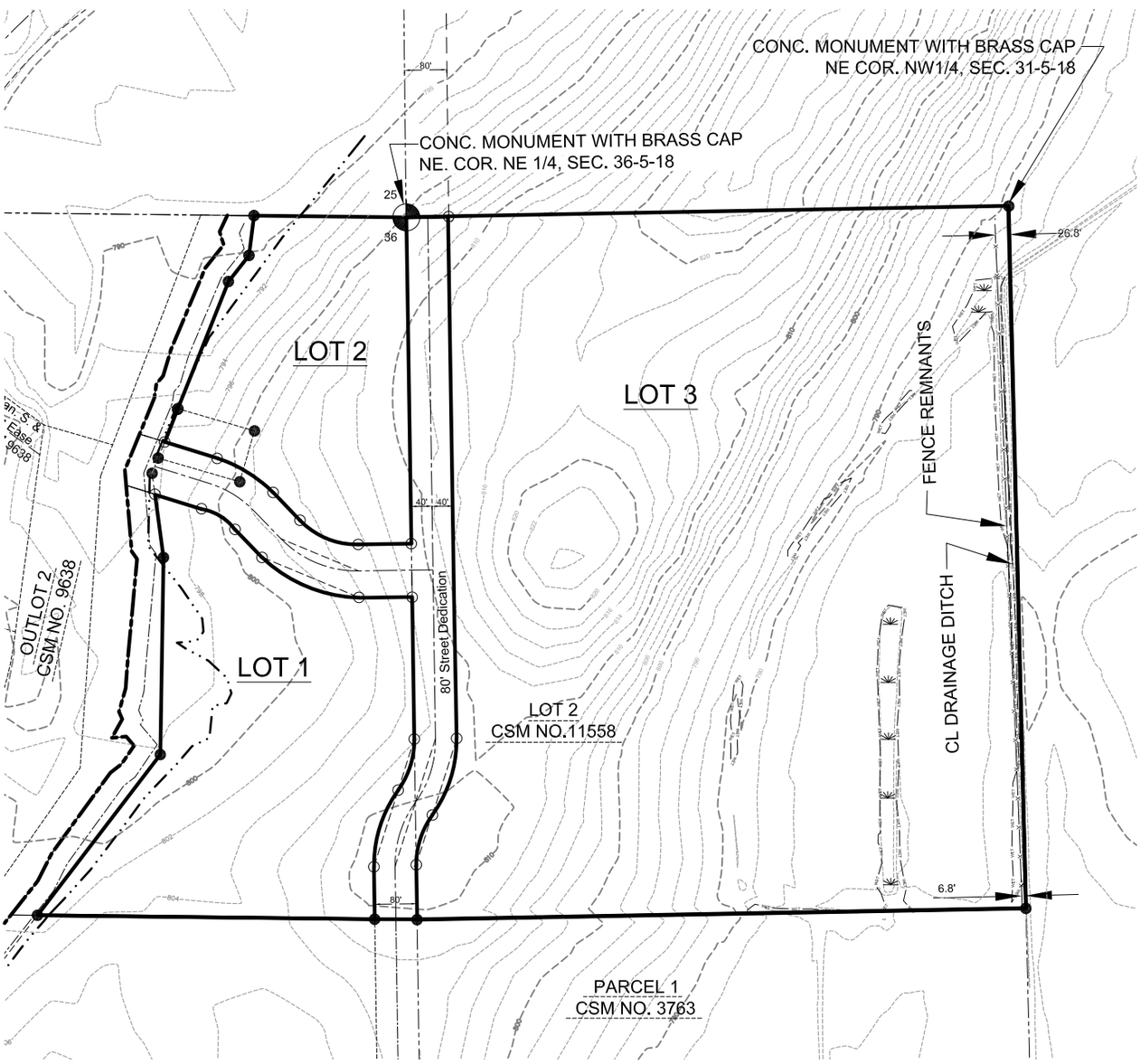
WISCONSIN
PAUL H.
VAN HENKELUM
S-1931
LAKE GENEVA,
WI
LAND SURVEYOR

CURVE TABLE

NO.	ARC	RADIUS	CHORD	BEARING	CEN. ANGLE	TAN. IN	TAN. OUT
C1 c/l	100.22'	200.00'	99.18'	S58°24'41"E	28°42'41"	S72°46'02"E	S44°03'21"E
Lot 1	75.17'	150.00	74.38'	S58°24'41"E	28°42'41"	S72°46"02"E	S44°03'21"E
Lot 2	125.28'	250.00	123.97'	S58°24'41"E	28°42'41"	S72°46'02"E	S44°03'21"E
C2 c/l	163.43'	200.00'	158.92'	S67°27'56"E	46°49'10"	S44°03'21"E	N89°07'29"E
Lot 1	204.29'	250.00'	198.65'	S67°27'56"E	46°49'10"	S44°03'21"E	N89°07'29"E
Lot 2	122.57'	150.00'	119.19'	S67°27'56"E	46°49'10"	S44°03'21"E	N89°07'29"E
C3 c/l	128.70'	200.00'	126.49'	N17°33'35"E	36°52'12"	N00°52'31"E	N34°44'45"E
Lot 1	154.44'	240.00'	151.79'	N17°33'35"E	36°52'12"	N00°52'31"E	N34°44'45"E
Lot 3	102.96'	160.00'	101.19'	S17°33'35"W	36°52'12"	S34°44'45"W	S00°52'31"E
C4 c/l	128.70'	200.00'	126.49'	N17°33'35"E	36°52'12"	N34°44'45"E	N00°52'31"E
Lot 1	102.96'	160.00'	101.19'	N17°33'35"E	36°52'12"	N34°44'45"E	N00°52'31"E
Lot 3	154.44'	240.00'	151.79'	S17°33'35"W	36°52'12"	S00°52'31"W	S34°44'45"W



TOPOGRAPHIC DATA



INSTRUMENT DRAFTED BY PAUL H. VAN HENKELUM
DWG: 1701331 CSM

REVISED 3-25-2020
REVISED: 1-16-2020
REVISED: 3-15-2019
DATE : MAR. 06, 2019
SHEET 3 OF 5

CERTIFIED SURVEY MAP NO._____

Lot 2 of CSM#11558 being part of the NE ¼ of the NE ¼ of Section 36 , Town 5 North, Range 18 East and part of the NW ¼ of the NW ¼ of Section 31,Town 5 North, Range 19 East, Village of Mukwonago, Waukesha County, Wisconsin

SURVEYOR'S CERTIFICATE:

I, PAUL H. VAN HENKELUM PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT I HAVE SURVEYED, DIVIDED, DEDICATED AND MAPPED THE FOLLOWING LAND HEREIN DESCRIBED:

LOT 2 OF CERTIFIED SURVEY MAP NO. 11558, RECORDED AS DOCUMENT NO. 3843057 IN THE OFFICE OF THE REGISTER OF DEEDS, WAUKESHA COUNTY, BEING PART OF THE NE 1/4 OF THE NE 1/4 OF SECTION 36 , TOWN 5 NORTH, RANGE 18 EAST AND PART THE NW 1/4 OF THE NW 1/4 OF SECTION 31, TOWN 5 NORTH, RANGE 19 EAST, VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN. SAID LANDS CONTAIN 48.81 ACRES MORE OR LESS TO THE MEANDER LINE OF PLATTED CREEK. ALSO INCLUDING LANDS BETWEEN THE MEANDER LINE AND THE CENTERLINE OF PLATTED CREEK (CONTAINING 50.95 ACRES.)

I FURTHER CERTIFY THAT I HAVE MADE SAID MAP BY THE DIRECTION OF FAMILY VENTURES OF MUKWONAGO, LLC, OWNER(S) OF SAID LAND. THAT SUCH LAND DIVISION IS A CORRECT REPRESENTATION OF ALL THE EXTERIOR BOUNDARIES OF THE LANDS SURVEYED AND THE COMBINATION THEREOF.

THAT I HAVE FULLY COMPLIED WITH THE PROVISIONS OF CHAPTER 236 OF THE WISCONSIN STATUTES AND THE LAND DIVISION ORDINANCES OF THE VILLAGE OF MUKWONAGO IN SURVEYING, DIVIDING, DEDICATING AND MAPPING THE SAME.

DATED THIS _____ DAY OF _____, 2020.

_____
PAUL H. VAN HENKELUM,
PROFESSIONAL LAND SURVEYOR

GENERAL NOTES:

1. ANY LAND BELOW THE ORDINARY HIGH WATER MARK OF A LAKE OR A NAVIGABLE STREAM IS SUBJECT TO THE PUBLIC TRUST IN NAVIGABLE WATERS THAT IS ESTABLISHED UNDER ARTICLE IX, SECTION 1 OF THE STATE CONSTITUTION.

2. SOIL TYPES, DELINEATION AND EXISTING TOPOGRAPHY TAKEN FROM WAUKESHA COUNTY G.I.S. WEBSITE, JULY, 2017.

3. WETLANDS LOCATED ON LOT 3 WERE DELINEATED BY WETLAND AND WATERWAY CONSULTING, LLC ON 10-18-17 AND SURVEYED BY V2G SURVEYING, LLC ON JAN. 30, 2018.

4. PROPOSED RIGHT-OF-WAY TO BE DEDICATED TO THE VILLAGE OF MUKWONAGO FOR PUBLIC ROAD AND UTILITIES. SAID PROPOSED RIGHT-OF-WAY CONTAINS 3.8+/- ACRES TO C/L OF CREEK.

5. THIS PROPERTY IS NOT IN A FLOOD HAZARD AREA PER FIRM PANEL 55133C0431G, REVISED NOV. 5, 2014.

BASEMENT RESTRICTION - GROUNDWATER:

ALTHOUGH THE LOTS IN THIS CERTIFIED SURVEY MAP HAVE BEEN REVIEWED AND APPROVED FOR DEVELOPMENT WITH SINGLE-FAMILY RESIDENTIAL USE IN ACCORDANCE WITH SECTION 236 WISCONSIN STATUTES, THE LANDS THAT ARE PART OF THIS CERTIFIED SURVEY MAP ARE LOCATED IN AN AREA WITH MAPPED SOILS THAT MY CONTAIN SEASONAL HIGH GROUNDWATER. THE WAUKESHA COUNTY SHORELAND AND FLOODLAND PROTECTION ORDINANCE CURRENTLY REQUIRES THAT THE LOWEST LEVEL OF ANY RESIDENCE MUST BE AT AN ELEVATION THAT IS AT LEAST ONE (1) FOOT HIGHER THAN THE HIGHEST SEASONAL GROUNDWATER LEVEL, UNLESS A VARIANCE FROM THAT REQUIREMENTS IS OBTAINED FROM THE WAUKESHA COUNTY BOARD OF ADJUSTMENT. THEREFORE, ADDITIONAL SOIL TESTING IN THE VICINITY OF ANY PROPOSED RESIDENCE WILL BE REQUIRED TO ENSURE COMPLIANCE WITH THIS REQUIREMENT . IF THE REQUIREMENT REGARDING VERTICAL SEPARATION DISTANCE FROM THE HIGHEST SEASONAL GROUND WATER LEVEL IS MODIFIED BY A FUTURE AMENDMENT OF THE WAUKESHA COUNTY SHORELAND AND FLOODLAND PROTECTION ORDINANCE, THE REQUIREMENT AT THE TIME OF CONSTRUCTION SHALL APPLY. ALL GROUNDWATER SEPARATION REQUIREMENTS SET FORTH BY THE VILLAGE OF MUKWONAGO MUST ALSO BE COMPLIED WITH.

INSTRUMENT DRAFTED BY PAUL H. VAN HENKELUM
DWG: 1701331 CSM

REVISED 3-24-2020
REVISED: 1-16-2020
REVISED: 3-15-2019
DATE : MAR. 06, 2019
SHEET 4 OF 5

CERTIFIED SURVEY MAP NO._____

Lot 2 of CSM#11558 being part of the NE ¼ of the NE ¼ of Section 36 , Town 5 North, Range 18 East and part of the NW ¼ of the NW ¼ of Section 31,Town 5 North, Range 19 East, Village of Mukwonago, Waukesha County, Wisconsin

OWNER'S CERTIFICATE

AS OWNERS, FAMILY VENTURES OF MUKWONAGO, LLC, A WISCONSIN LIMITED LIABILITY COMPANY, HEREBY CERTIFY THAT IT HAS CAUSED THE LAND DESCRIBED ON THIS CERTIFIED SURVEY MAP TO BE SURVEYED, DIVIDED, MAPPED AND DEDICATED AS REPRESENTED HEREON.

AS OWNERS, WE FURTHER CERTIFY THAT THIS MAP IS REQUIRED BY S.236.10 OR S.236.12 TO BE SUBMITTED TO THE FOLLOWING FOR APPROVAL OR OBJECTION:

1.) THE VILLAGE OF MUKWONAGO

DATED THIS _____ DAY OF _____ , 2020.

_____

THOMAS LARSON, MANAGING MEMBER

STATE OF _____) ss
COUNTY OF_____)

PERSONALLY CAME BEFORE ME THIS _____ DAY OF _____ , 2020
THE ABOVE NAMED THOMAS LARSON, MANAGING MEMBER OF FAMILY VENTURES OF MUKWONAGO, LLC, TO ME KNOWN TO BE THE PERSON WHO EXECUTED THE FOREGOING INSTRUMENT AND ACKNOWLEDGED THE SAME.

_____

NOTARY PUBLIC

MY COMMISSION EXPIRES:_____

CONSENT OF CORPORATE MORTGAGEE

_____, A CORPORATION DULY ORGANIZED AND EXISTING UNDER AND BY VIRTUE OF THE LAWS OF THE STATE OF _____, MORTGAGEE OF THE ABOVE DESCRIBED LAND, DOES HEREBY CONSENT TO THE SURVEYING, DIVIDING, DEDICATING, AND MAPPING OF THE LAND DESCRIBED ON THIS MAP, AND DOES HEREBY CONSENT TO THE ABOVE CERTIFICATE OF _____, MANAGING MEMBER OF FAMILY VENTURES OF MUKWONAGO, LLC, OWNERS.

IN WITNESS WHEREOF, THE SAID _____ HAS CAUSED THESE PRESENTS TO BE SIGNED AND IT'S CORPORATE SEAL TO BE HEREUNTO AFFIXED

THIS _____ DAY OF _____ , 2020.

NAME: _____ NAME: _____
TITLE: _____ TITLE: _____

STATE OF _____) ss
COUNTY OF _____)

PERSONALLY CAME BEFORE ME THIS _____ DAY OF _____ , 2020

THE ABOVE NAMED _____, TO ME KNOWN TO BE THE PERSONS WHO EXECUTED THE FOREGOING INSTRUMENT AND ACKNOWLEDGED THE SAME.

_____

NOTARY PUBLIC

MY COMMISSION EXPIRES:_____

WISCONSIN
PAUL H.
VAN HENKELUM
S-1931
LAKE GENEVA,
WI
LAND SURVEYOR

CERTIFICATE OF PLAN COMMISSION APPROVAL:

APPROVED BY THE PLAN COMMISSION OF THE VILLAGE OF MUKWONAGO
ON THIS _____ DAY OF _____ , 2020.

_____ _____
FRED WINCHOWKY, DIANA DYKSTRA,
CHAIRPERSON VILLAGE CLERK

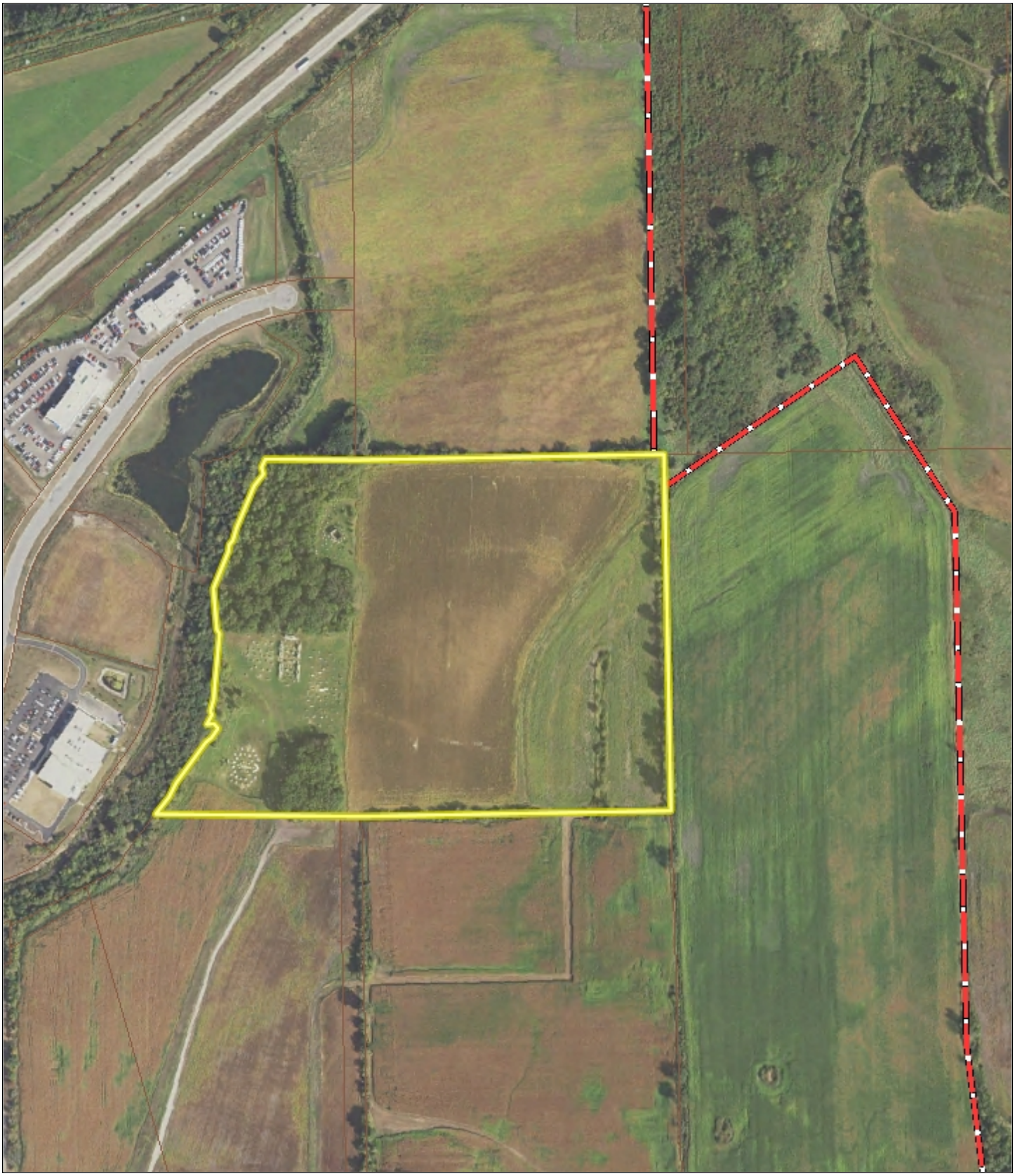
CERTIFICATE OF VILLAGE BOARD APPROVAL:

APPROVED BY THE VILLAGE BOARD OF THE VILLAGE OF MUKWONAGO
ON THIS _____ DAY OF _____ , 2020.

_____ _____
FRED WINCHOWKY DIANA DYKSTRA,
PRESIDENT VILLAGE CLERK

INSTRUMENT DRAFTED BY PAUL H. VAN HENKELUM
DWG: 1701331 CSM

REVISED 3-25-2020
REVISED: 1-16-2020
REVISED: 3-15-2019
DATE : MAR. 06, 2019
SHEET 5 OF 5



Village of Mukwonago GIS

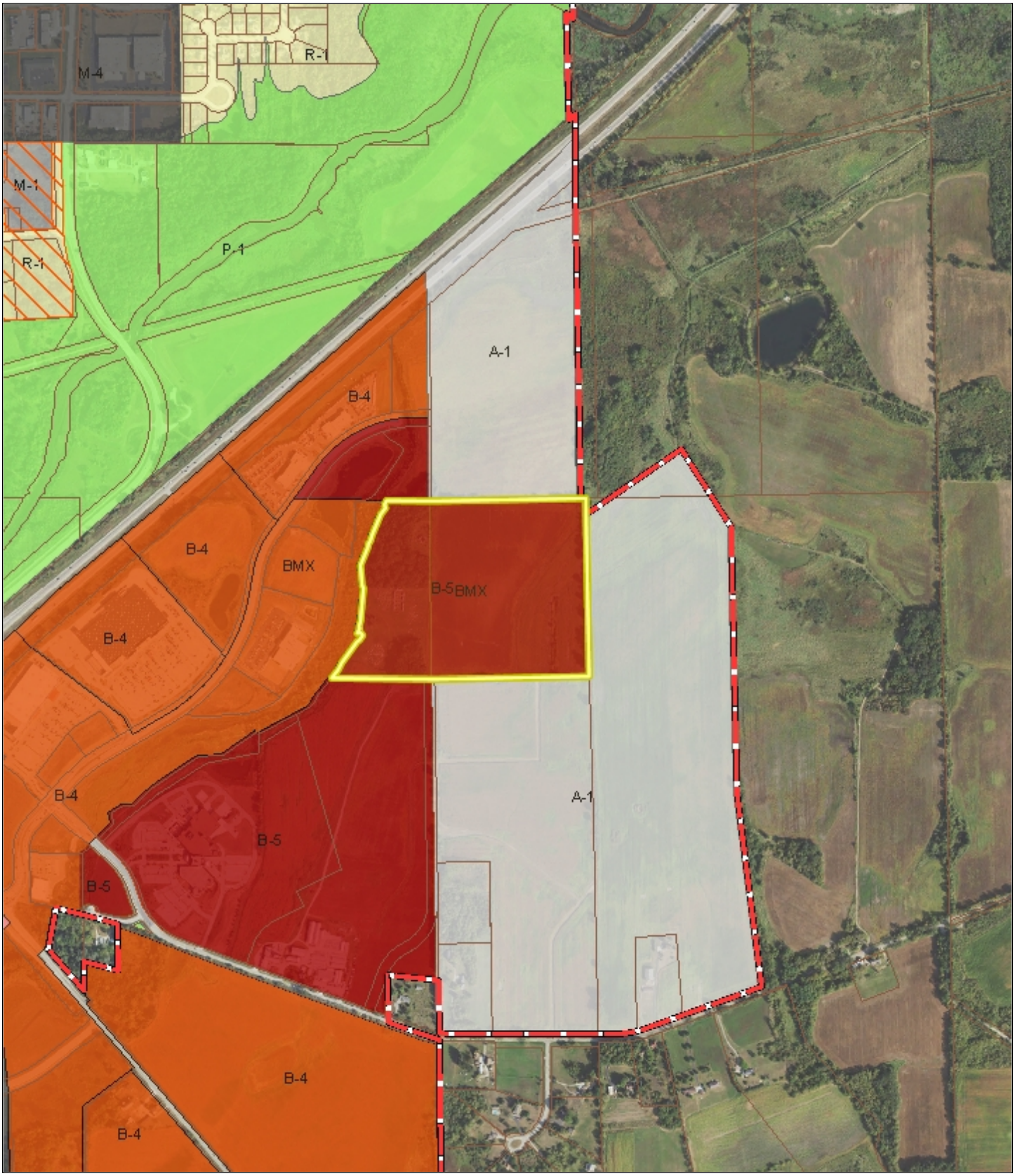
Maple Centre CSM Roadways

DISCLAIMER: The Village of Mukwonago does not guarantee the accuracy of the material contained here in and is not responsible for any misuse or misrepresentation of this information or its derivatives.

SCALE: 1" = 500 '

VILLAGE OF MUKWONAGO
440 River Crest Court
PO Box 206
Mukwonago, WI 53149
262-363-6420

Print Date: 3/3/2020



Village of Mukwonago GIS

Maple Centre CSM Roadways

DISCLAIMER: The Village of Mukwonago does not guarantee the accuracy of the material contained here in and is not responsible for any misuse or misrepresentation of this information or its derivatives.

SCALE: 1" = 1000 '

VILLAGE OF MUKWONAGO
440 River Crest Court
PO Box 206
Mukwonago, WI 53149
262-363-6420

Print Date: 3/3/2020

RESOLUTION 2020-12

RESOLUTION APPROVING A CERTIFIED SURVEY MAP
VILLAGE OF MUKWONAGO, APPLICANT

WHEREAS, pursuant to Article IV of the Land Division Ordinance, an application for a 2-Lot Certified Survey Map for the vacant property located along the East side of E Wolf Run, at terminus of existing E Wolf Run (SE side), in the Village of Mukwonago, was filed in the office of the Village Clerk, Village of Mukwonago, Wisconsin, and

WHEREAS, the application was submitted by the Village of Mukwonago, with the proposed "Lot 1" to be given to the adjoining land owner to the east. The remaining southern balance of land will be retained by the Village of Mukwonago, and

WHEREAS, the Certified Survey Map has been reviewed and recommended by the Village Plan Commission.

NOW, THEREFORE, BE IT RESOLVED by the Village Board of the Village of Mukwonago, Wisconsin hereby approves the 2-Lot Certified Survey Map dated March 18, 2020 prepared by Chris Ruetten, Public Land Surveyor.

NOW, THEREFORE, BE IT FURTHER RESOLVED the applicant, upon the approval of this Certified Survey Map, shall agree to accept the same in writing.

Passed and dated this 18th day of March 2020.

VILLAGE OF MUKWONAGO

By: _____
Fred Winchowky, Village President

Attest: _____
Diana Dykstra, Village Clerk

Village of Mukwonago
Office of the Village Planner

440 River Crest Court, Mukwonago, Wisconsin 53149 Tel.(262) 363-6420x2111 –Fax (262) 363-6425 –planner@villageofmukwonago.com

Date: March 3, 2020

To: Village of Mukwonago Plan Commission

From: Ben Kohout, AICP; Village Planner

Subject: Village of Mukwonago Property One lot CSM

Meeting: March 10, 2020 Plan Commission meeting

Property location: East side of E. Wolf Run, at terminus of existing E. Wolf run (SE side).

Current zoning: B-5, Business District

General description: The proposed CSM is part of the requirements and obligations of the Village to provide for water main and sanitary sewer main extensions and property for stormwater detention area to adjoining property to the East and to provide this property to the adjoining property owner. This property transaction was a part of agreed upon terms of development and will be an exhibit (Exhibit D) in the Developer's agreement as part of this development (approved in 2019 as part of Maple Centre PUD approval).

The resulting CSM will create two lots, with the proposed "Lot 1" to be given to the adjoining land owner to the east. The remaining southern balance of land will be retained by the Village of Mukwonago.

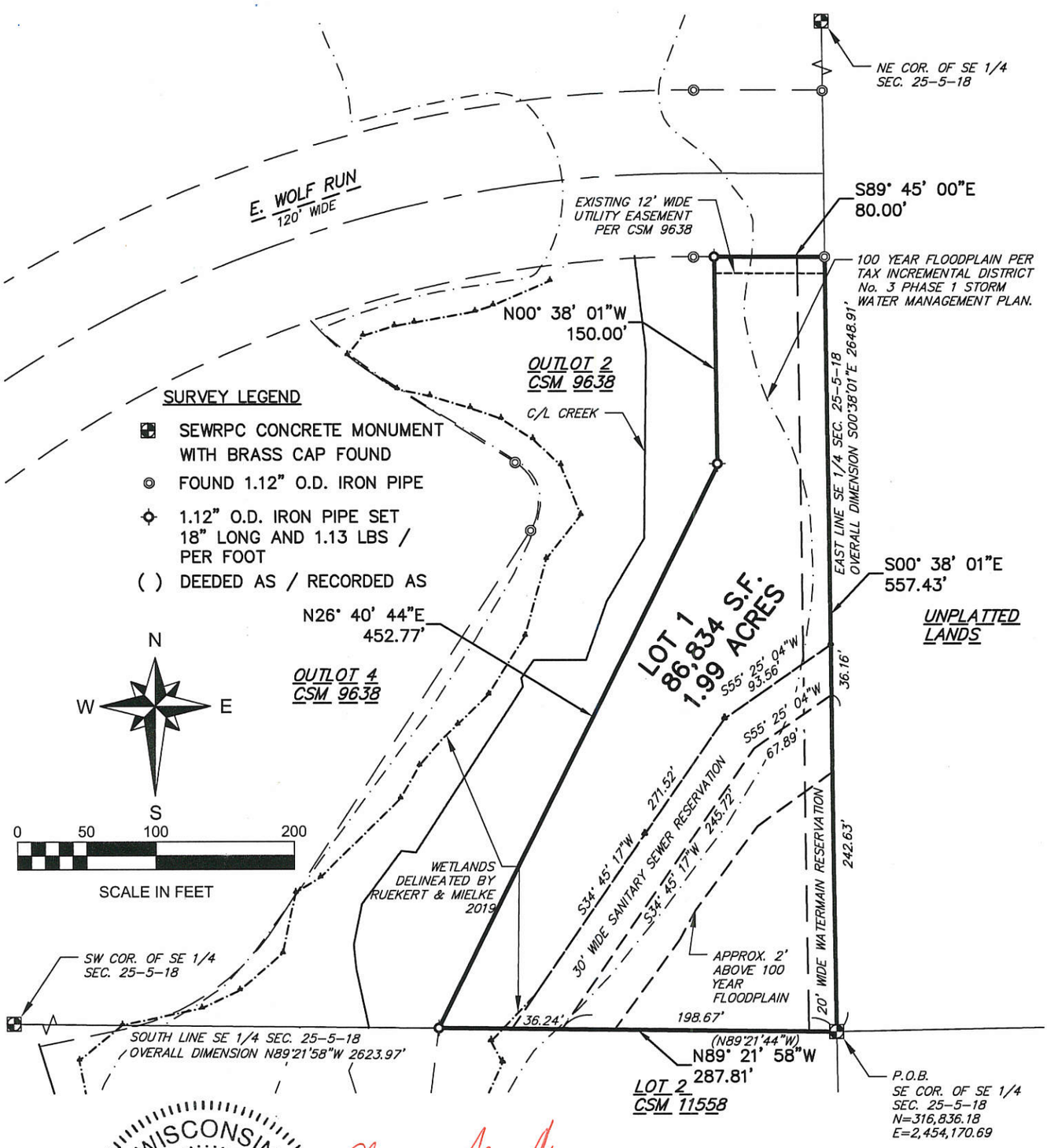
Staff has reviewed this CSM and has no concerns with this request.

Recommendation

Approval.

CERTIFIED SURVEY MAP - _____

Being part of Outlot 2 C.S.M. 9638, located in the SE 1/4 of the SE 1/4 of Section 25, Township 5 North, Range 18 East, Village of Mukwonago, Waukesha County, Wisconsin.



WISCONSIN
CHRIS RUETTEN
S-2942
WATERTOWN WI
LAND SURVEYOR

_____
Chris Ruetten, P.L.S. 2942

Dated this 3rd day of March, 2020

OWNER/SUBDIVIDER:
Village of Mukwonago
440 River Crest Ct.
Mukwonago, WI 53149

PREPARED BY:
Ruekert & Mielke, Inc.
W233 N2080 Ridgeview Pkwy.
Waukesha, WI 53188

Ruekert•Mielke
www.ruekertmielke.com

THIS INSTRUMENT WAS DRAFTED BY CHRIS RUETTEN, P.L.S.
CHECKED BY: JOHN SCHULZ (3/2/20)

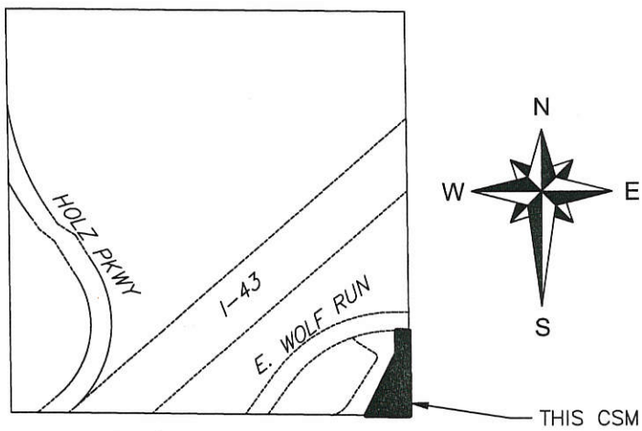
SHEET 1 OF 4

G:\C3D_2018\12_Village of Mukwonago\10096\dwg\CSM\CSM.dwg

CERTIFIED SURVEY MAP - _____

Being part of Outlot 2 C.S.M. 9638, located in the SE 1/4 of the SE 1/4 of Section 25, Township 5 North, Range 18 East, Village of Mukwonago, Waukesha County, Wisconsin.

LOCATION MAP



SE 1/4 SEC
25-5-18
NOT TO SCALE

NOTES:

1. NO BUILDINGS EXIST WITHIN THIS PROPOSED CERTIFIED SURVEY MAP.
2. LOT 1 WILL BE SERVED BY PUBLIC SANITARY SEWER AND PUBLIC WATER.
3. UPON THE SALE AND DEVELOPMENT OF LOT 1, THE 30' WIDE SANITARY RESERVATION, AND 20' WIDE WATERMAIN RESERVATION AS DEPICTED ON SHEET 1 OF 4, OF THIS CERTIFIED SURVEY MAP, SHALL BE GRANTED AS AN EASEMENT TO THE VILLAGE OF MUKWONAGO BY SEPARATE DOCUMENT AND RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS FOR WAUKESHA COUNTY.

WISCONSIN
CHRIS
RUETTEN
S-2942
WATERTOWN
WI
LAND SURVEYOR

_____

Chris Ruetten, P.L.S. 2942

Dated this 3rd day of March, 2020

OWNER/SUBDIVIDER:
Village of Mukwonago
440 River Crest Ct.
Mukwonago, WI 53149

PREPARED BY:
Ruekert & Mielke, Inc.
W233 N2080 Ridgeview Pkwy.
Waukesha, WI 53188

Ruekert•Mielke
www.ruekertmielke.com

THIS INSTRUMENT WAS DRAFTED BY CHRIS RUETTEN, P.L.S.
CHECKED BY: JOHN SCHULZ (3/2/20)

G:\C3D_2018\12_Village of Mukwonago\10096\dwg\CSM\CSM.dwg

CERTIFIED SURVEY MAP - _____

Being part of Outlot 2 C.S.M. 9638, located in the SE 1/4 of the SE 1/4 of Section 25, Township 5 North, Range 18 East, Village of Mukwonago, Waukesha County, Wisconsin.

SURVEYOR'S CERTIFICATE

STATE OF WISCONSIN }
COUNTY OF WAUKESHA } SS

I Chris Ruetten, Professional Land Surveyor, do hereby certify that at the direction of the Village of Mukwonago, that I have surveyed, divided and mapped part of Outlot 2 of Certified Survey Map No. 9638, being a part of the Southeast 1/4, of the Southeast 1/4, of Section 25, Township 5 North, Range 18 East, Village of Mukwonago, Waukesha County, Wisconsin, more particularly described as follows:

Beginning at the Southeast Corner of the Southeast 1/4 of Section 25, Township 5 North, Range 18 East; thence bearing N89°21'58"W, along the South line of said Southeast 1/4, a distance of 287.81 feet; thence bearing N26°40'44"E, a distance of 452.77 feet; thence bearing N00°38'01"W, a distance of 150.00 feet to the South line of E. Wolf Run; thence bearing S89°45'00"E, along said South line, a distance of 80.00 feet to the East line of said Southeast 1/4; thence bearing S00°38'01"E, along said East line, a distance of 557.43 feet to the POINT OF BEGINNING. Said lands contain 86,834 S.F. more-or-less. Subject to covenants, conditions, restrictions and easements of record.

That I have made this survey, land division and map by the direction of the Village of Mukwonago, Owner(s) of said land.

That such map is a correct representation of all the exterior boundaries of the land surveyed and the division thereof made.

That I have fully complied with the provisions of Section 236.34 of the Wisconsin Statutes and the Village of Mukwonago ordinances in surveying, dividing and mapping of same.

WISCONSIN
CHRIS
RUETTEN
S-2942
WATERTOWN
WI
LAND SURVEYOR

_____

Chris Ruetten, P.L.S. 2942

Dated this 3rd day of March, 2020

OWNER/SUBDIVIDER:
Village of Mukwonago
440 River Crest Ct.
Mukwonago, WI 53149

PREPARED BY:
Ruekert & Mielke, Inc.
W233 N2080 Ridgeview Pkwy.
Waukesha, WI 53188

Ruekert•Mielke
www.ruekertmielke.com

THIS INSTRUMENT WAS DRAFTED BY CHRIS RUETTEN, P.L.S.
CHECKED BY: JOHN SCHULZ (3/2/20)

G:\C3D_2018\12_Village of Mukwonago\10096\dwg\CSM\CSM.dwg

CERTIFIED SURVEY MAP - _____

Being part of Outlot 2 C.S.M. 9638, located in the SE 1/4 of the SE 1/4 of Section 25, Township 5 North, Range 18 East, Village of Mukwonago, Waukesha County, Wisconsin.

CORPORATE OWNER'S CERTIFICATE

The Village of Mukwonago, a Municipal Corporation duly organized and existing under, and by virtue of, the laws of the State of WI, and as owner(s), do hereby certify that said Municipal Corporation, caused the land described on this map to be surveyed, divided, mapped, and dedicated as represented on this map.

The Village of Mukwonago, does further certify that this Certified Survey Map is to be submitted to the following for approval or objection:
(Village of Mukwonago)

WITNESS the hand and seal of said owner(s) this _____ day of _____ , 2020.

In the presence of:

Signed: _____
Fred Winchowky, Village President

Countersigned: _____
Diana Dykstra, Village Clerk

STATE OF WISCONSIN }
COUNTY OF _____ } SS

Personally came before me this _____ day of _____, 2020, Fred Winchowky, Village President, and Diana Dykstra, Deputy Village Clerk of the above named Municipal Corporation, to me known to be the persons who executed the foregoing instrument, and to me known to be such Village President and Village Clerk of said Municipal Corporation, and acknowledged that they executed the foregoing instrument as such officer(s) as the deed of said Municipal Corporation, by its authority.

_____

Notary Public, _____ County, Wisconsin

My Commission Expires _____

VILLAGE BOARD CERTIFICATE

Resolved, that this Certified Survey Map, in the Village of Mukwonago, is hereby approved by the Village Board.

Dated this _____ day of _____ , 2020.

_____
Fred Winchowky, Village President

I hereby certify that the foregoing is a copy of a resolution adopted by the Village of Mukwonago Board.

_____
Diana Dykstra, Village Clerk

VILLAGE PLANNING COMMISSION CERTIFICATE

Resolved, that this Certified Survey Map, in the Village of Mukwonago, is hereby approved by the Village Planning Commission.

_____
Fred Winchowky, Village President

I hereby certify that the foregoing is a copy of a resolution adopted by the Planning Commission of the Village of Mukwonago.

_____ _____
Diana Dykstra, Village Clerk

WISCONSIN CHRIS RUETTEN S-2942 WATERTOWN LAND SURVEYOR

_____
Chris Ruetten, P.L.S. 2942

Dated this 3rd day of March, 2020

Ruekert•Mielke
www.ruekertmielke.com

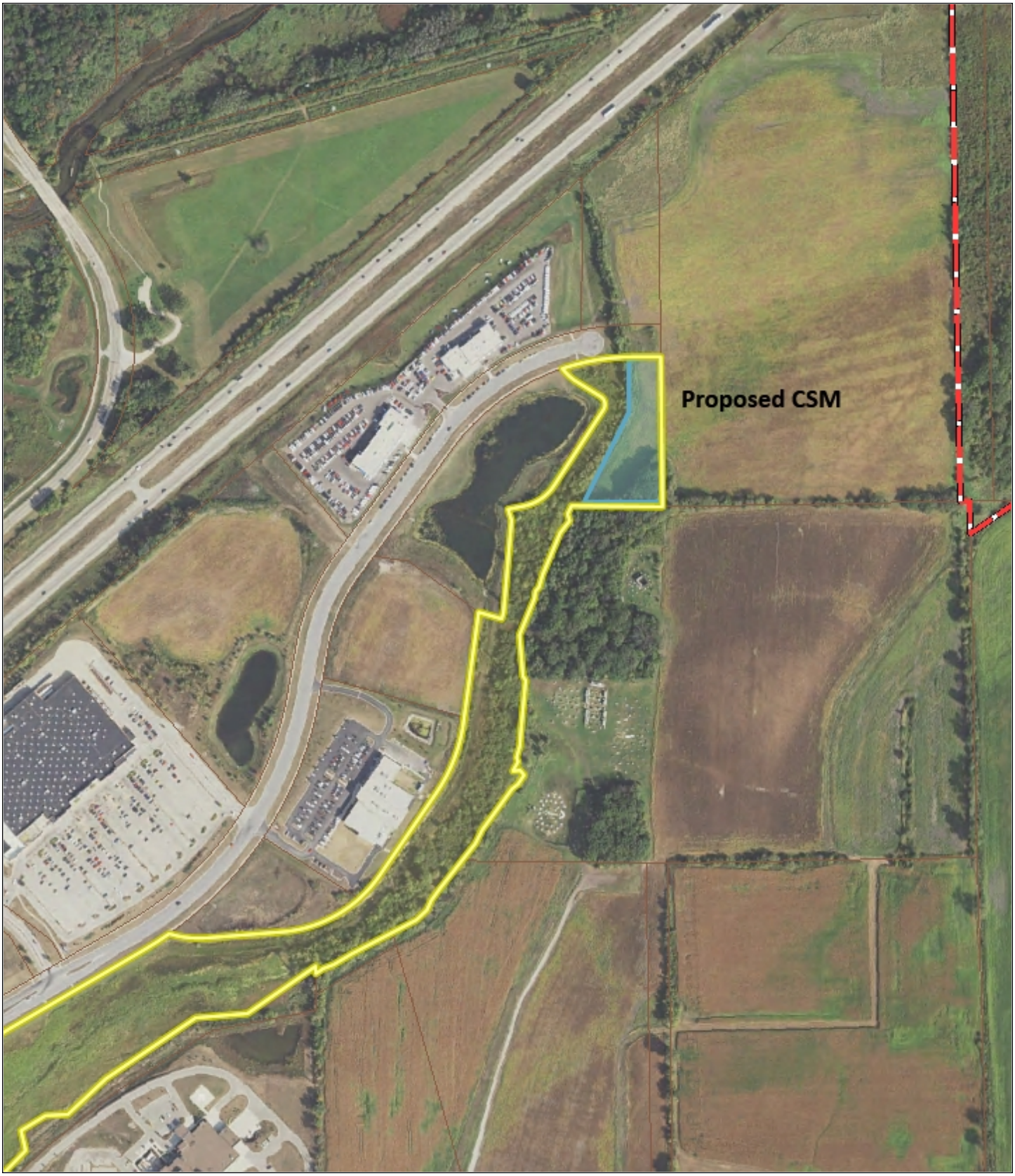
OWNER/SUBDIVIDER:
Village of Mukwonago
440 River Crest Ct.
Mukwonago, WI 53149

PREPARED BY:
Ruekert & Mielke, Inc.
W233 N2080 Ridgeview Pkwy.
Waukesha, WI 53188

THIS INSTRUMENT WAS DRAFTED BY CHRIS RUETTEN, P.L.S.

CHECKED BY: JOHN SCHULZ (3/2/20)

G:\C3D_2018\12_Village of Mukwonago\10096\dwg\CSM\CSM.dwg



Village of Mukwonago GIS

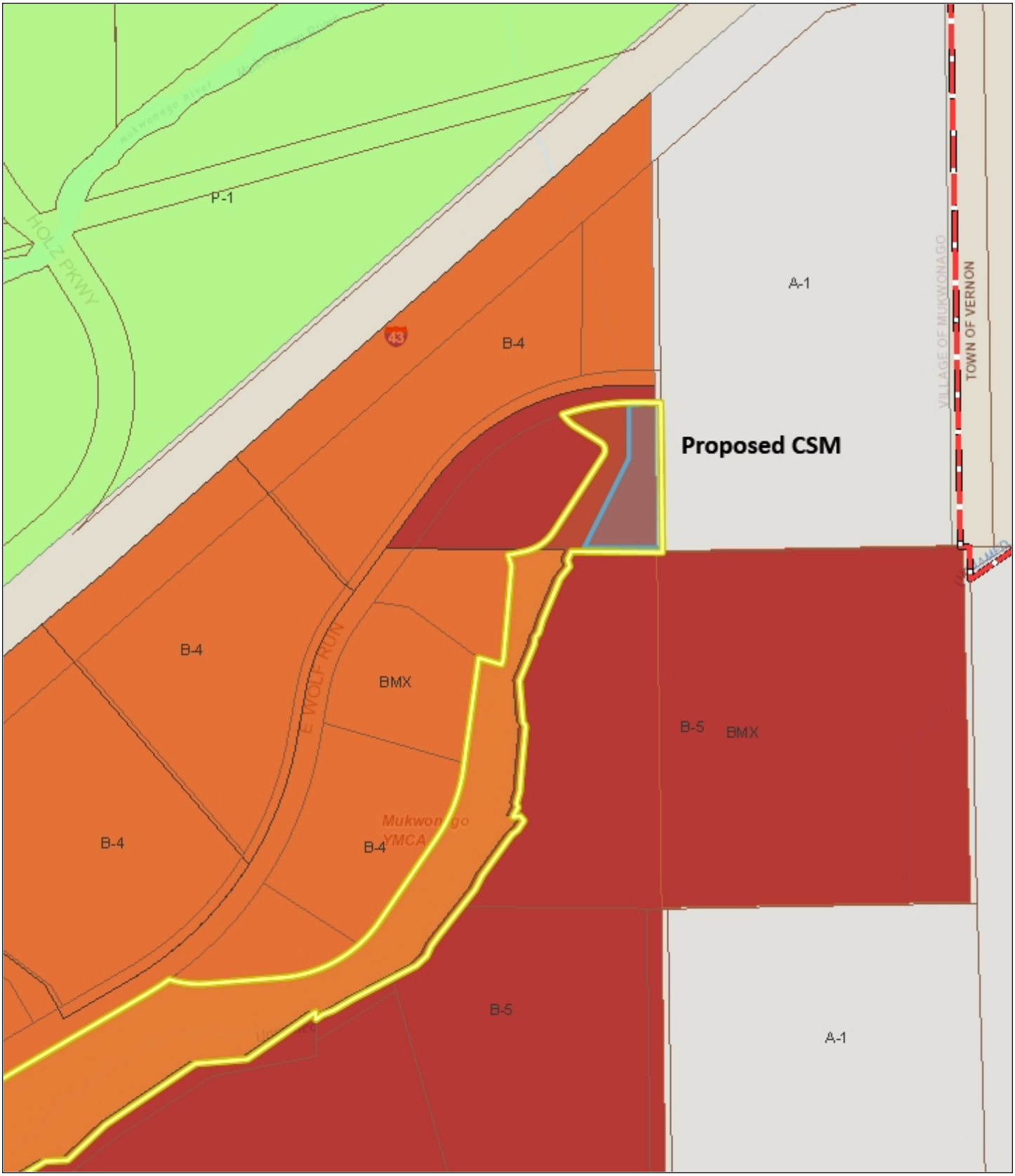
Maple Centre CSM Village Lot EX D

DISCLAIMER: The Village of Mukwonago does not guarantee the accuracy of the material contained here in and is not responsible for any misuse or misrepresentation of this information or its derivatives.

SCALE: 1" = 500 '

VILLAGE OF MUKWONAGO
440 River Crest Court
PO Box 206
Mukwonago, WI 53149
262-363-6420

Print Date: 3/3/2020



Village of Mukwonago GIS

Zoning Maple Centre CSM Village Lot EX D

DISCLAIMER: The Village of Mukwonago does not guarantee the accuracy of the material contained here in and is not responsible for any misuse or misrepresentation of this information or its derivatives.

SCALE: 1" = 500 '

VILLAGE OF MUKWONAGO
440 River Crest Court
PO Box 206
Mukwonago, WI 53149
262-363-6420

Print Date: 3/3/2020

VILLAGE OF MUKWONAGO
POLICE DEPARTMENT

MONTHLY REPORT

February 2020

Citation Totals by Offense

Mukwonago Police Department

Violation Date: 02/01/2020 through 02/29/2020

Court	Agency	Offense Code	Offense Description	Total
MKPD				
Adult				
		346.14(1m)	Automobile Following Too Closely	1
		947.01(1)	Disorderly Conduct	2
		341.61(2)	Display Unauth. Veh. Registration Plate	1
		346.57(3)	Driving Too Fast For Conditions	1
		341.15(1m)(a)	Fail/Attach Rear Regis. Decal/Tag	2
		341.15(1)	Fail/Display Vehicle License Plates	8
		343.22(1)	Fail/Notify Address/Name Change	1
		346.46(1)	Fail/Stop At Stop Sign	17
		346.18(2)	Fail/Yield While Making Left Turn	2
		346.18(1)	Fail/Yield/Uncontrolled Intersection	1
		346.57(2)	Failure To Keep Vehicle Under Control	1
		346.48(1)	Failure To Stop For School Bus	1
		346.24(1)	Fyr To Pedestrian, Bicyclist, Or Epamd	1
		341.15(3)(c)	Improper Display/Plates (Illegible)	3
		346.31(3)(a)	Improper Left Turn/Approach	1
		346.89(1)	Inattentive Driving	2
		944.20(1)(b)	Lewd and Lascivious - Indecent Exposure	1
		54-26	Loitering/Prowling	1
		347.13(1)	No Tail Lamp/Defective Tail Lamp-Night	3
		341.04(1)	Non-Registration Of Auto, Etc	22
		341.03(1)	Operate After Rev/Susp Of Registration	5
		344.62(1)	Operate Motor Vehicle W/O Insurance	34
		347.14(1)	Operate Vehicle W/O Stopping Lights	5
		343.18(1)	Operate W/O Carrying License	1
		343.05(3)(a)	Operate W/O Valid License	2
		343.44(1)(a)	Operating After Suspension	9
		346.63(1)(a)	Operating While Intox.	1
		343.44(1)(b)	Operating While Revoked	1
		82-71	Parking Lot Traffic Violation	1
		346.23(1)	Pedestrian, Bicyclist, Or Epamd Fyr	4
		346.935(2)	Possess Open Intoxicants In Mv	1
		961.41(3g)(b)	Possession of Controlled Substance	4
		343.085(2m)(a)2	Prob Licensee Oper Class D Veh - 12am And 5am	1
		946.41(1)	Resist Or Obstruct An Officer	1
		943.50(1m)(b)	Retail Theft-Intentionally Take(<=$2500)	2
		347.15(1)	Sale/Operate Veh. W/O Directional Lights	1
		346.57(4)(gm)2	Speeding on Freeway	16
		346.57(5)	Speeding Zone And Posted Limits	40
		943.20(1)(a)	Theft-Movable Property<=$2500	1
		346.14(2)(a)	Truck Following Too Closely	1
		347.06(3)	Unclean/Defective Lights Or Reflectors	24
		346.33(1)(a)	Unlawful U/Y Turn-Control.Intersection	1
		347.48(2m)(b)	Vehicle Operator Fail/Wear Seat Belt	3
		346.37(1)(a)1	Violate Green Traffic Signal	1
		346.37(1)(c)1	Violate Red Traffic Signal	5
			Adult Grand Total	**237**

Citation Totals by Offense

Mukwonago Police Department

Violation Date: 02/01/2020 through 02/29/2020

Court	Agency	Offense Code	Offense Description	Total
MKPD				
Juvenile				
		947.01(1)	Disorderly Conduct	3
		54-102(a)	Loitering /Curfew Violation	2
		54-103	Possession of Cigarette by Minor	4
		961.41(3g)(b)	Possession of Controlled Substance	1
		125.07(4)(b)	Underage Drinking-Possess	1
			Juvenile Grand Total	**11**

Mukwonago Police Department

Tickets Totals (by Violation)

Department: Mukwonago Police Department

Issue Date: 02/01/2020 through 02/29/2020

Violation Description	Violation Code	Area		Total
Handicapped Parking Violation	82-180			3
			By Violation:	**3**
Mhs - Park W/O Permit	82-212			32
			By Violation:	**32**
Park Left Wheel To Curb	82-1(A)			2
			By Violation:	**2**
Park Less Than 15' - Crosswalk	82-1(D)			1
			By Violation:	**1**
Park No Parking Anytime	82-192			5
			By Violation:	**5**
Park On Wrong Side - Winter	82-227			28
			By Violation:	**28**
Park W/O Permit - Winter	82-226			78
			By Violation:	**78**
			Total Tickets:	**149**

Monthly Case Overview Report

Printed On: 03/02/20 08:55

Reporting Period: 02/04/2020 - 02/29/2020

Village of Mukwonago Police - 1122

	Total
Total	**45**
Administrative/Informational	**7**
Ambulance Request	**1**
Amphetamine - Sell	**1**
Battery Complaint	**1**
Burglary Complaint	**1**
Criminal Damage-Private	**1**
Dangerous Drugs - Use	**1**
Disorderly Conduct	**1**
Disorderly Conduct:Fighting	**1**
DOA - Sudden Death, Etc.	**1**
Domestic Disturbance	**1**
Emergency Detention	**1**
Found/Recovered-Property	**1**
Fraud Complaint	**1**
Fraud-Imperson	**1**
Harrassment Complaint/Threat	**2**
Hit and Run	**1**
Indecent Exposure	**1**
Liquor - Underage Possession	**1**
Lost/Missing Person-Juvenile	**1**
Marijuana-Possession	**3**
Miscellaneous Information	**1**
Operating After Revocation Vio	**1**
Ordinance Violation Sprinkler/	**1**
OWI/DWI-Liquor	**1**
Passing Counterfeit	**1**
Public Order Crimes	**1**
Retail Theft $50-$200	**2**
Retail Theft <$50	**1**
Retail Theft >$200	**1**
Theft - All Others <$50	**1**
Theft - All Others >$200	**1**
Traffic Complaint	**1**
Traffic Offense/Traffic Other	**1**
Warrant Service	**1**

** Confidential - Unauthorized Use Prohibited **

Arrests by Statute Report

Printed On: 03/02/20 09:01

Reporting Period: 02/04/20 - 02/28/20

This report contains all arrest charges.	Total	Felony	Misdemeanor	Non-Criminal
346.63(1)(a) - Operating While Intoxicated - 1st Offense	**1**			1
54-1(1) - Retail Theft (Shoplifting)	**2**			2
54-1(27) - Lewd & Lascivious - Indecent Exposure	**1**			1
54-1(B) - Underage Consumption of Alcohol (17-20 YOA)	**1**			1
54-1(G) - Disorderly Conduct	**10**		3	7
54-1(V) - Possession of a Controlled Substance	**5**			5
54-102(a) - Loitering or Curfew Violatiion	**2**			2
54-103 - Possession of Cigarettes/Tobacco by a Minor	**3**			3
54-26 - Loitering or Prowling	**1**			1
943.01(1) - Criminal Damage to Property (Felony)	**3**		3	
943.38(2) - Forgery-Uttering	**1**	1		
943.50(1m)(b) - Retail Theft - Intentionally Take - (<=$500)(UCR >=$200)	**1**		1	
946.41(1) - Resisting or Obstructing an Officer	**1**		1	
946.49(1)(b) - Bail Jumping-Felony	**1**	1		
961.41(1)(a) - Manuf/Deliver Schedule I, II Narcotics	**1**	1		
961.41(3g)(am) - Possession of Narcotic Drugs	**1**	1		
FUGL - Fugitive Warrant - Local (Mukwonago Muni Crt)	**1**			1
FUGM - Fugitive Warrant Other Municipal	**1**			1
Total	**37**	**4**	**8**	**25**

** Confidential - Unauthorized Use Prohibited **

Traffic Crash List

Printed On: 03/02/20 09:17

Village of Mukwonago Police

Date Time	Case#	Crash#	Officer	Total Units	Total Injured	Total Killed	Crash Type	EMS#
02/26/2020 09:10		20-000033	Kreiser, Robert S-rkre39	2	0	0	C	
02/20/2020 16:14		20-000032	Melo, Robert C-rmel44	2	0	0	C	
02/13/2020 15:16		20-000031	Wilson, Chet F-cwil47	2	0	0	C	
02/20/2020 08:53		20-000030	Schubel, John-jsch48	2	0	0	C	
02/12/2020 06:40		20-000029	Rogers, Richard J-rrog49	2	0	0	C	
02/13/2020 07:05		20-000028	Rogers, Richard J-rrog49	2	2	0	C	
02/12/2020 13:37	20-008987	20-000027	Steinbrenner, Jason J-jste35	2	0	0	C	
02/12/2020 06:00		20-000026	Rogers, Richard J-rrog49	2	0	0	C	
02/12/2020 21:31		20-000025	Pinkowski, Shaun-spin42	2	0	0	C	
02/11/2020 20:11		20-000024	Melo, Robert C-rmel44	3	0	0	C	
02/10/2020 16:37		20-000023	Cieszynski, Brian-bcie45	1	0	0	C	
02/10/2020 16:42		20-000022	Melo, Robert C-rmel44	2	0	0	C	
02/06/2020 18:40		20-000020	Rogers, Richard J-rrog49	2	0	0	C	
02/05/2020 18:38		20-000019	Melo, Robert C-rmel44	3	0	0	C	
02/01/2020 12:18		20-000018	Wilson, Chet F-cwil47	2	0	0	C	
			Village of Mukwonago Police	**31**	**2**	**0**		

15

Police Contacts - Village

First Shift	2089
Second Shift	1481
Third Shift	530
911 Calls	112
TOTAL CALLS	**4212**

Eagle Lake Patrol

Stops/All Calls	0

Police Contacts - Town

First Shift	406
Second Shift	809
Third Shift	824
911 Calls	35
TOTAL CALLS	**2074**

Phantom Lake Patrol

Stops/All Calls	0

Mukwonago Fire Department

All Calls for Service	227

TOTAL CONTACTS	**6513**

FLEET MILES AND GAS USAGE

	24 18 Ford	26 10 Ford	28 16 Ford	30 19 Ford	32 18 Ford	33 19 Chev	34 17 Ford	36 16 Ford	38 19 Ford
Speed End	47115	80293	21665	18831	73110	3774	11364	78283	29986
Speed Beg	46315	79959	21370	14917	73110	3774	11364	76690	26657
Total Miles	800	334	295	3914	0	0	0	1593	3329
Total Gas	70	38	34	289	8	14	10	129	251

Respectfully Submitted,

Chief Kevin Schmidt
Village of Mukwongo Police Department

We Energies
231 W. Michigan St.
Milwaukee, WI 53203
www.we-energies.com

RECEIVED
MAR 10 2020
BY:.....

January 30, 2020

PRESIDENT & VILLAGE BOARD
VILLAGE OF MUKWONAGO
625 SOUTH ROCHESTER STREET
PO BOX 96
MUKWONAGO, WI 53149

Re: We Energies Property

This letter is sent annually to reaffirm that the policies of We Energies do not permit hunting, use of any motorized recreational vehicles such as snowmobiles, ATV's and motorcycles, or access by non-We Energies or American Transmission Company vehicles on our rights of way and other company property in your community. There are no exceptions to our policy regarding hunting and motorized vehicles other than for law enforcement. We do permit hiking, bicycle riding, cross country skiing and, at specific locations, horseback riding on certain marked trails on our rights of way where we have entered into specific license agreements with the communities involved. We occasionally issue permits for use of our lands for special events.

An ongoing concern to us is increased vandalism, whether actual damage or spray painting of buildings and equipment. Utilization of our properties for illegal dumping of yard and household material, contractors and demolition waste plus regulated materials such as asbestos and lead paint debris continues to be a problem. As restrictions limiting materials suitable for routine disposal in landfills are enacted or the cost of disposal increases, our properties become convenient targets for this type of activity. Illegal dumping and vandalism increases not only our costs, and ultimately our customers' costs, but it also tarnishes the visual image of the community.

We would appreciate your assistance in keeping all types of trespassers and non-permitted uses off our rights of way and other company property in your community. We install **"NO ENTRY"** signs on many of our properties and ask that you notify us of any areas where you notice our **"NO ENTRY"** signs have been removed or destroyed or if new signs would assist in your enforcement in specific areas. We will extend full cooperation to you in helping to eliminate the trespassing, illegal dumping problems and vandalism of our property, including aiding in the prosecution of trespassers and others if necessary.

If you should have any questions relating to this matter, please contact me at (414) 221-2731.

Very truly yours,

Tonya M. Peters

Tonya M. Peters
Manager of Property Management