VILLAGE OF MCFARLAND *NOTICE OF PUBLIC MEETING*

Public Utilities Committee

Tuesday, March 16, 2021 **6:00 PM** **McFarland Municipal Center**
Community Room

AGENDA

You are invited to this meeting through a Zoom webinar. The Public is strongly encouraged to watch and participate in these meetings remotely through either the webinar or telephone options listed below.

PLEASE CLICK THE LINK BELOW TO JOIN THE ZOOM WEBINAR:
https://us02web.zoom.us/j/82544679616

Or by Telephone: +1 (312) 626-6799
Webinar ID: 825 4467 9616

1. CALL TO ORDER, ROLL CALL.

2. PUBLIC APPEARANCES.
   a. This is an opportunity for members of the public to address the Village Board. Please remember this is a virtual meeting conducted through the Zoom online meeting platform. Zoom meeting attendees wishing to address the board may do so using the Question and Answer feature within the Zoom online meeting platform. You may state your name, address, and provide your comments to the board for their consideration. Members of the public who are present in person and wish to address the board should fill out a public comment form and turn into the meeting chairperson. Members of the public may speak during public appearances or during their selected agenda item as they designate on the public comment form. Please adhere to the 3-minute time limit. Additionally, you may send your public comments to aimee.irwin@mcfarland.wi.usto be included as part of the meeting.

3. APPROVAL OF MINUTES.
   a. Discussion and action regarding the minutes from the January 19, 2021 Public Utilities Committee meeting.
   b. Discussion and action regarding the minutes from the joint meeting of Public Utilities and Public Works Committees held on February 16, 2021.

4. BUSINESS.
   a. Discussion and action to make a recommendation to the Village Board regarding 2021 Street Paving and Stormwater Projects and authorize the projects for bidding.
   b. Discussion and action to make a recommendation to the Village Board regarding the MS4 permit and plan.
   c. Discussion and action to make a recommendation to the Village Board regarding an RFP for Locating Services.

d. Presentation of the Public Works monthly report

5. SCHEDULE NEXT MEETING DATE.
   a. Tuesday, April 13, 2021 at 6:00 p.m.--Joint meeting with Public Works

6. ADJOURNMENT.

This meeting notice constitutes an official meeting of the above referenced group and was posted in accordance with all applicable laws related to Open Meetings Law. It is possible that members of and possibly 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. Upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals. For additional information or to request this service, contact the McFarland Municipal Center at (608) 838-3153 or cassandra.suettinger@mcfarland.wi.us.

VILLAGE OF MCFARLAND

Public Utilities Committee Minutes

Tuesday January 19, 2021 – 6:00 P.M.

1. CALL TO ORDER, ROLL CALL

   The meeting was called to order by Village Trustee and Chairperson Eric Kryzenske at 6:00 p.m.

   Members present: Village Trustee Carolyn Clow, Chris Fredrick, Mary Pat Lytle, Pauline Boness, Chris Reynolds. Absent: Marc Nielsen

   Staff present: Jim Hessling (Public Works Director), Aimee Irwin (Assistant to the Director), Lee Igl (Streets & Utilities Superintendent), Brian Berquist (Town & Country Engineering)

2. PUBLIC APPEARANCES

   None.

3. APPROVAL OF MINUTES
   a. Discussion and action regarding the minutes from the Public Utilities Committee held on December 8, 2020.
      - Motion by Eric Kryzenske to approve the minutes as presented. Seconded by Mary Pat Lytle. Motion passed 6-0-0
4. BUSINESS
   a. Discussion and action to make a recommendation to the Village Board regarding the assessment report for the Eastside Sanitary Sewer Interceptor project.
      - Brian Berquist reviewed the updated assessment report for the project. This was originally presented to committee at the September 15, 2020 meeting. Further updates were reviewed and discussed by the committee on December 8, 2020. Recent changes since December's meeting involve the reduction of projected developable land owned by the Sperle family and updating the number of homes within the Rosewood Fields plat.
      - Committee member discussed the presented assessment report including when a parcel would be required to pay the special assessment fee per dwelling. Brian Berquist stated that if and when a parcel connects to the sewer they would be required to pay if the development occurs within 25 years.
      - Chris Reynolds asked if the Village could receive more than the project costs. Berquist stated that this would not be likely occur due to the cut off period of 25 years and the village would need to issue rebates if they did receive funds beyond the project costs.

- Pauline Boness asked how inflation was included in the provided assessment. Berquist stated that currently inflation is not included but the committee could establish this.
- Carolyn Clow asked how the assessment would be recorded once accepted. Berquist stated that resolution would be created, the final report prepared and then the special assessment would be recorded against the affected parcels.
- Committee members discussed the possible inflation rates that could be established along with the 25 year period for the assessment report
- Pauline Boness asked if the incremental oversizing costs could be included with the assessable project costs. Berquist stated that the assessable project costs would increase by approximately $50,000. Carolyn Clow recommended clarification with the Village Attorney occurs regarding these additional costs.
- Chris Fredrick asked if a commercial development would be assessed these fees. Berquist stated that the fee would be assessed for any development within the identified area with a slight conversion based on the water meter size of the development.
- Motion by Pauline Boness recommending to the Village Board the approval of the special assessment report for the Eastside Sanitary Sewer Interceptor Project with staff conferring with the Village Attorney in regards to charging oversized costs and the report to include a rate of inflation of no less than 2% and no more than 3.5%. Seconded by Carolyn Clow.
- Motion by Chris Fredrick to amend original motion to adjust inflation to be the village borrowing rate plus 2%. Seconded by Mary Pat Lytle. The amendment to the motion was withdrew by Chris Fredrick.
- Motion by Chris Fredrick to amend original motion to adjust inflation to be the village borrowing rate plus 1%. Seconded by Carolyn Clow. Amendment passed 6-0.
- Original motion with approved amendment passed 6-0.

b. <u>Presentation and discussion regarding asset management.</u>

- Jim Hessling presented information gathered related to asset management. Data gathered included what currently is in use, types of software out on the market, and what other surrounding communities utilize.
- Committee members discussed the information provided. Mary Pat Lytle asked if the GIS software was only used for locating. Hessling responded that GIS can also include additional data such as years or last time equipment was replaced or tested. Chris Fredrick asked if the additional data is already included within GIS. Berquist stated that this type of information is dependent on date of records. Chris Reynolds asked if GIS interfaces with census or other demographic data. Berquist stated this

could be done but not currently utilized. Carolyn Clow stated that the underground utilities and breaks are not documented in order to support what needs to be worked on in the future.
- No action was taken on this item.

c. Discussion to schedule public information meetings regarding the Exchange Street Project.
- Eric Kryzenske provided background to utilize the upcoming regularly scheduled Public Utilities meeting on February 16, 2021 for a Public Information Meeting regarding Exchange Street followed by a joint meeting with Public Works.
- Committee members agreed with this direction.
- No action was taken on this item.

d. Presentation of the Public Works Monthly Report from the Director.
- Due to time, the monthly report was not reviewed during the meeting.

5. SCHEDULE NEXT MEETING DATE
   a. Tuesday February 16, 2021 at 6:00 p.m.
6. ADJOURNMENT
   a. Motion to adjourn by Pauline Boness at 7:00 p.m. Seconded by Eric Kryzenske. Motion passed 6-0-0.

Respectfully submitted by Aimee Irwin

Joint Public Utilities/Public Works Committee
Meeting Minutes (DRAFT)
February 16, 2021

1. CALL TO ORDER, ROLL CALL. Meeting was called to order at 6:00 p.m. via Zoom by Village Trustee Justin Rupert. Roll call: Rupert, Trustee Eric Kryzenske, Trustee Carolyn Clow, Chris Fredrick, Marc Nielsen, Mary Pat Lytle, Christopher Reynolds, Pauline Boness (arrived at 7 p.m.), Jerry Adrian, Peter Robinson.

Staff present: Matt Schuenke, Village Administrator; Jim Hessling, Public Works Director; Lee Igl, Streets and Utilities Superintendent; and Phil McDade, public works staff. Also, Brian Berquist and Tim Stieve, both of Town & Country Engineering, consultants for the village.

2. **PUBLIC APPEARANCES**. None.

3. **BUSINESS.**

a. Public Information Meeting regarding Exchange Street project. The Exchange Street project involves a total reconstruction of the street from Sleepy Hollow Road to its intersection with Farwell and Bashford streets, according to Berquist. Work would include a new road, as well as new underground water, sewer, and stormwater utility lines and services. The project length is approximately 4,200 feet, or 8/10ths of a mile. The village has secured a $1.18 million grant from the Wisconsin Department of Transportation and the Federal Highway Administration to help offset the cost of the project. Total construction project cost is $4.8 million. The project would include curb and gutter replacement, bicycle lanes, sidewalk replacement on the south side of the street, and the potential of a sidewalk constructed on the north side of the street. In addition, postal service boxes are likely to be consolidated in groups of four or more, rather than replaced in their original location. Between 13 and 15 trees along Exchange Street have been initially identified as possibly needing to be cut down for the project, and that number could increase or decrease based on selected design. Local traffic, including access in and out of driveways on the street, will be maintained during the construction project. Final design plans would likely be done in May of 2023, with construction beginning in the spring of 2024.

Questions and concerns raised by residents:

- Debra Kloth, 6417 Exchange St.: Will electrical and other utility lines be buried as part of the project? Schuenke, village administrator: The village hopes to coordinate work with utilities serving the village on burying electrical and utility lines, and the village has told utility companies its preference is to have them buried as part of the project.
- Monica Belle, 6116 Exchange St.: Would the width of the road differ depending on the installation of a sidewalk on the north side of the street? Berquist: The current street is 43 feet wide; the project envisions a road width of 47 feet. The Exchange Street right-of-way – the width of the street where the village can make public improvements – is 66-feet wide, and the remaining portions of the right-of-way beyond the 47-foot-wide street would encompass bicycle lanes, street parking, grassy terrace areas, and sidewalks.
- Natalie Santini, 6112 Exchange St.: It appears my front lawn will be cut in two with the sidewalk; how do you balance private property vs. what the community wants? Do we even have a say in this? I would hate to lose trees for a sidewalk. Schuenke: The village plans to work within the current available 66-foot-wide right-of-way, and has no plans to acquire private property for the

project. Input from citizens during these hearings will be helpful in guiding the village's decision regarding sidewalks, he said.

- Dawn DeFoer, 6409 Exchange St.: Impressed with the thought that's gone into the project. I'd like to see power lines buried on the street. Appreciates the desire to keep tree loss to a minimum. Exchange Street has lots of children walking on it to and from nearby schools, and anything to slow down traffic on the street, such as bump-outs shown near crosswalks, would be appreciated. Also highlighted current storm-water drainage challenges on Exchange Street near its intersection with Jaeger Road.
- Tiffany Dahl, 6216 Exchange St.: Said her questions about trees had been answered.
- James Kaufman, 6509 Exchange St.: Will there be any additional charge to individual property owners for sidewalk additions? Shuenke: No.
- Debra Kloth, 6417 Exchange St.: Will trees be planted on the new terrace between the street and a new sidewalk on the north side of Exchange Street? Schuenke: Yes, absolutely, at appropriate distances apart for new plantings.
- Stephanie Bolle, 6116 Exchange St.: When was the last time the centerline of Exchange Street was identified? Berquist: That will be identified through a survey as the project progresses.

Questions from committee members:

- Marc Nielsen: Will residents be able to plant trees before construction begins if they know they will be losing a tree because of the construction? Berquist: Yes, just contact Town & Country Engineering to coordinate.
- Carolyn Clow: Can you explain the prolonged planning process for this, with construction not slated until 2024? Berquist: Accepting state and federal grant money to help offset the project cost requires a rigorous set of checks and balances with state and possibly federal transportation officials. Issues such as Native American and historic sites near the street corridor may need to be thoroughly investigated. Ten-foot wide vehicle lanes, as the initial project design envisions, likely needs state Department of Transportation assessment and approval, as normal lane width is 11 feet.
- Clow: Are sidewalks required on both sides of the street? Berquist: The village would have to work with Wisconsin DOT to see if not building a sidewalk on the north side of the street would impact overall funding of the project. The Exchange Street project scored high on the competitive grant rankings for street projects funded by the Department of Transportation because it lacked a sidewalk on one side, and the DOT has a strong preference for urban road improvements to include pedestrian sidewalks and bike paths on both sides of the road. A decision by the village to not include a sidewalk on one side of the street would "need to be made soon," he said.
- Nielsen: Will there be upgrades of street lights as part of the project. Schuenke. Yes, street light improvements are included.
- Chris Fredrick: Urged village staff to have discussions with the McFarland School District to make sure long-term improvements on Exchange Street align with the district's long-term designs for the area.
- Jerry Adrian: Urged that project managers put in place caution areas during the project near the two school entrances on Exchange Street. Berquist said that would be done.

b. Discussion and action to make a recommendation to the Village Board regarding the award of contract for the County Highway MN project. Stieve said the village received 10 bids for the project, which will improve County Highway MN from its intersection with Holscher Road moving east to North Peninsula Way. The bid package included work on the road itself, plus alternate bids for four related, optional projects. Town & Country Engineering recommended that the village award the contract to S & L Underground, Inc., of Lodi, for $510,401.17 for road improvements and alternate bids for pedestrian improvements (alternate bid 1) and parking areas (alternate bid 3). Boness motioned, Adrian seconded, to recommend to the village board acceptance of the road construction bid and alternate bids 1 and 3 for $510,401.17 to S & L Underground, Inc., of Lodi. Motion approved 10-0-0.

c. Discussion regarding asset management. Hessling gave an overview of what the village currently has and uses along with what other communities use. Committee members discussed asset management with Hessling, Igl, and Berquist, with an emphasis on using GIS (Geographic Information System) mapping to inventory items such as: village roads and road conditions; utility infrastructure; and trees and other park amenities. There was no action taking by the joint committee on this agenda item.

d. Presentation of the Public Works Monthly report. Hessling said all staff had moved back into the Public Works building on Terminal Drive after work done on the building this summer and fall. Solar panels are now installed, and plan to be authorized soon for use. Village staff have been working on tree-trimming, and have worked on four snowfall events in January.

4. SCHEDULE NEXT MEETING DATE.

a. Public Works Committee: Tuesday, March 9, 2021 at 6:00 p.m.
Public Utilities Committee: Tuesday. March 16, 2021 at 6:00 p.m.

5. ADJOURNMENT. Adrian moved, Boness seconded, to adjourn the meeting. Motion approved 10-0-0; meeting adjourned at 8:35 p.m.

VILLAGE OF
McFarland

SUMMARY SHEET

MEETING DATE: **Tuesday, March 16, 2021**

SECTION: **Business**

DEPARTMENT: **Public Works**

CONTACT: **Jim Hessling, Public Works Director**

AGENDA ITEM: **Discussion and action to make a recommendation to the Village Board regarding 2021 Street Paving and Stormwater Projects and authorize the projects for bidding.**

PREVIOUS ACTION:
None.

ISSUE SUMMARY:
As part of the current plan set for the 2021 Street and Storm Sewers Project, this project will encompass a handful of smaller projects into one bid package to attract more bidders and improve construction pricing. The work includes pulverizing/resurfacing Renee Court from Lewis Lane to Exchange Street, multiple large pavement patches throughout the Village, improvements to the pedestrian bridge/culvert south of Larson Beach Road, and storm sewer repairs on Lake Edge Road and in the Lani Lane/Pheasant Run area. We are requesting Committee approval to go to bid with this work.

FINANCIAL/BUDGET IMPACT:
Funds allocated in the 2021 budget for this work is broken out as listed:
Street maintenance work - $300,000
Storm sewer work - $86,750

VILLAGE PLAN REFERENCE:
None.

ORDINANCE REFERENCE:
None.

BOARD, COMMISSION OR COMMITTEE RECOMMENDATION:
Recommendation to the Village Board to authorize 2021 Street Paving and Stormwater projects for bidding.

ATTACHMENTS:
1. MC 181 CURRENT SET

2021 STREET AND STORM SEWER IMPROVEMENTS
RENEE COURT, PHEASANT RUN, LAKE EDGE ROAD, TAYLOR-FARWELL STORM SEWER
Village of McFarland, Wisconsin

MEMBER
ONE CALL SYSTEMS INTERNATIONAL

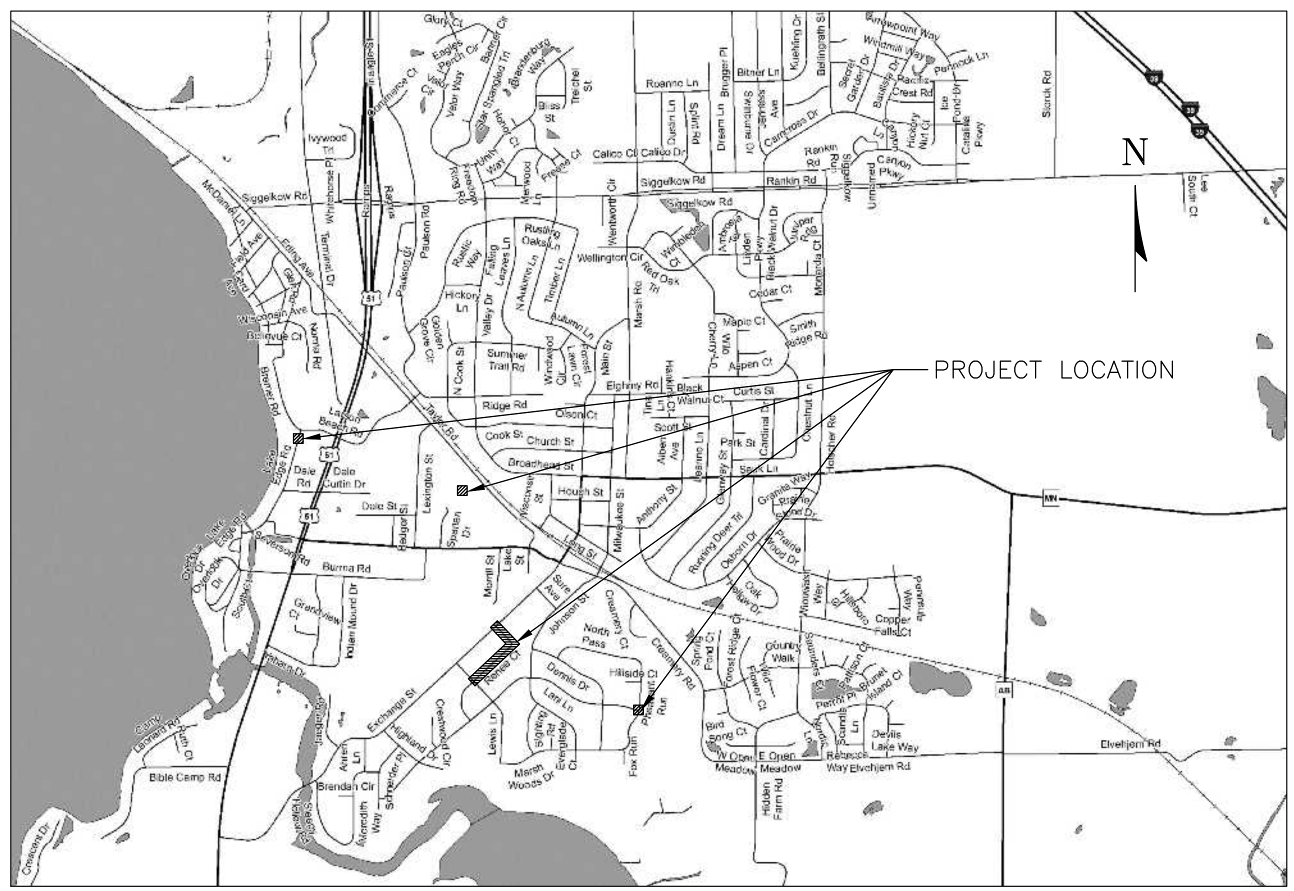
TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE

WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

SHEET INDEX

SHEET NO.	SHEET DESCRIPTION
1	EROSION CONTROL PLAN
2	EROSION CONTROL NOTES & STANDARD CONSTRUCTION DETAILS
3	PLAN & PROFILE – RENEE COURT LEWIS LANE TO STATION 16+80
4	PLAN & PROFILE – RENEE COURT STATION 16+40 TO EXCHANGE STREET
5	CROSS SECTIONS – RENEE COURT STATION 11+28 TO STATION 16+08
6	CROSS SECTIONS – RENEE COURT STATION 16+73 TO STATION 20+45
7	PLAN & PROFILE – PHEASANT RUN & LAKE EDGE RD
8	PLAN & PROFILE – TAYLOR–FARWELL STORM SEWER
9	STORM SEWER – STANDARD CONSTRUCTION DETAILS
10	STREET IMPROVEMENTS – STANDARD CONSTRUCTION DETAILS



NO SCALE

LEGEND

UNDERGROUND TELE. — UT
UNDERGROUND CATV. — UCATV
UNDERGROUND ELEC. — UE
OVERHEAD — OH
EXISTING GAS — G
PROPERTY LINE
EXISTING WATER MAIN — WM
EXISTING SANITARY SEWER — SAN
EXISTING STORM SEWER — STM
EXISTING FENCE LINE — x
SAWCUT — xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
NEW STORM SEWER
NEW WATER MAIN
NEW SANITARY SEWER

NEW ITEMS:
WATER VALVE, CURB STOP, HYDRANT, MANHOLE, CURB INLET, ENDWALL, CAUTION GAS WARNING

EXISTING ITEMS:
FLAG POLE, MAILBOX, POWER POLE, LIGHT POLE, LAMP POST, PULL BOX
WATER VALVE, CURB STOP, HYDRANT, WELL, MONITORING WELL, TRACER WIRE
SANITARY MANHOLE, SANITARY VALVE, CLEANOUT, STORM MANHOLE, CURB INLET, CIRCULAR INLET
SQUARE INLET, ENDWALL, STUMP, DECID. TREE EVERGREEN (RELATIVE SIZE SHOWN), SHRUB OR HEDGE, SIGN
CATV. PED., TELE. PED., ELEC. PED., GAS VALVE, STREET SIGN, IRON PIPE, IRON ROD

NOTES: 1.) EXISTING FEATURES AND LABELS ARE SHOWN WITH SCREENED, LIGHTER LINES.
2.) NEW CONCRETE IS SHOWN SHADED IN PLAN VIEWS
3.) CONCRETE REMOVALS ARE SHOWN BY CROSS-HATCHING

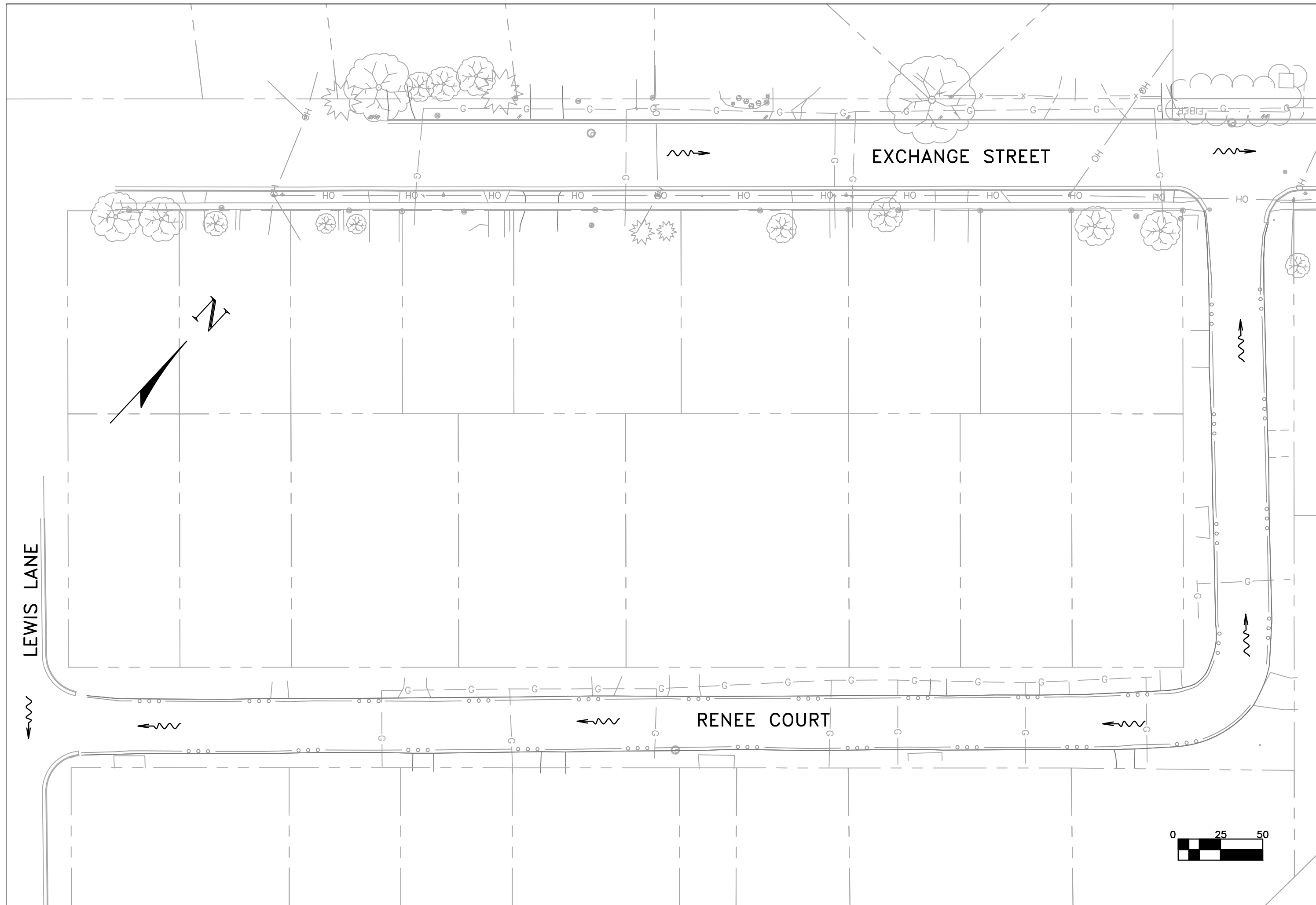
TOWN & COUNTRY ENGINEERING, INC.
2912 Marketplace Drive
Suite 103
Madison, WI 53719
(608) 273-3350
www.tcengineers.net

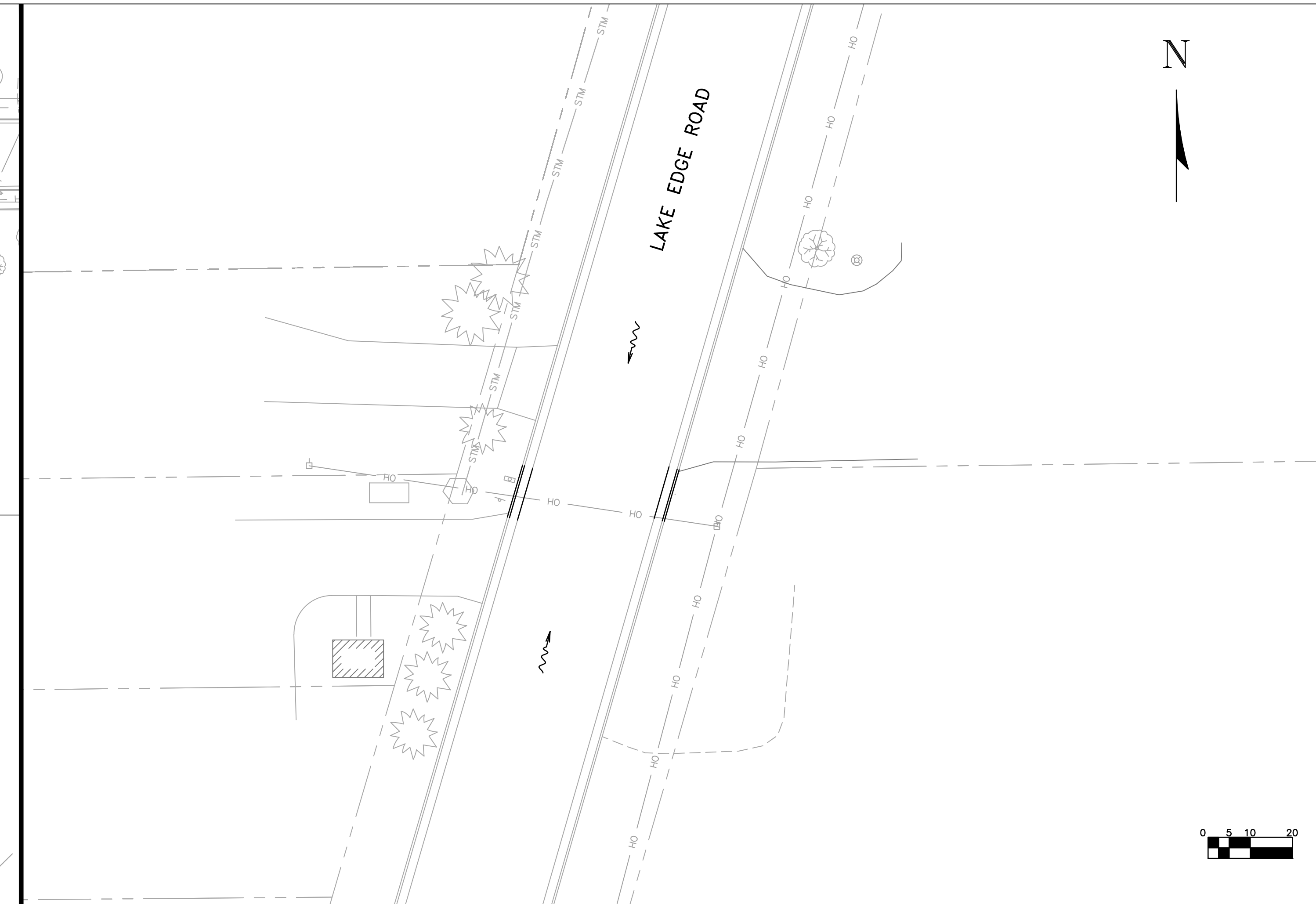
REVISIONS | BY | DATE

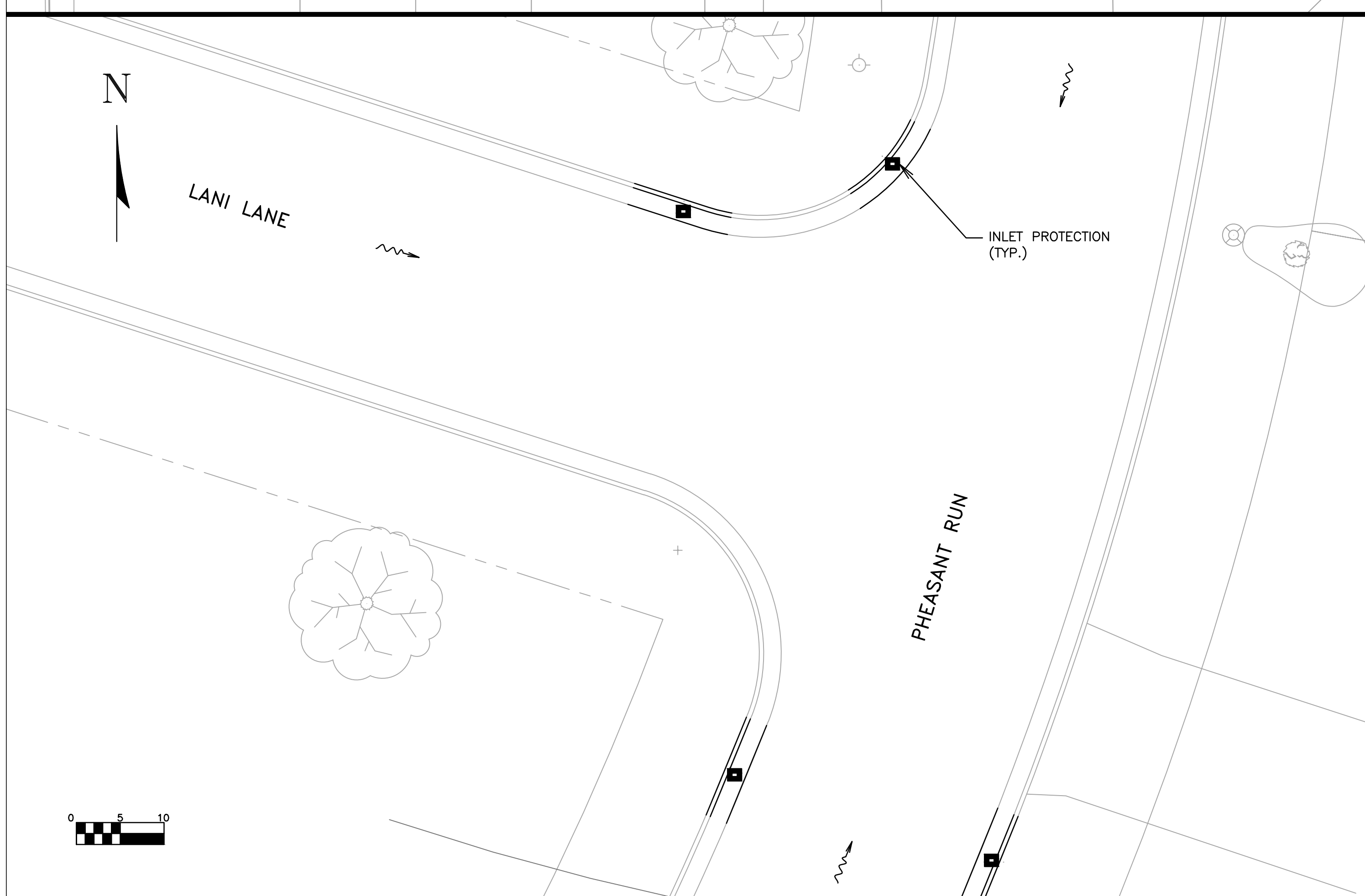
SHEET

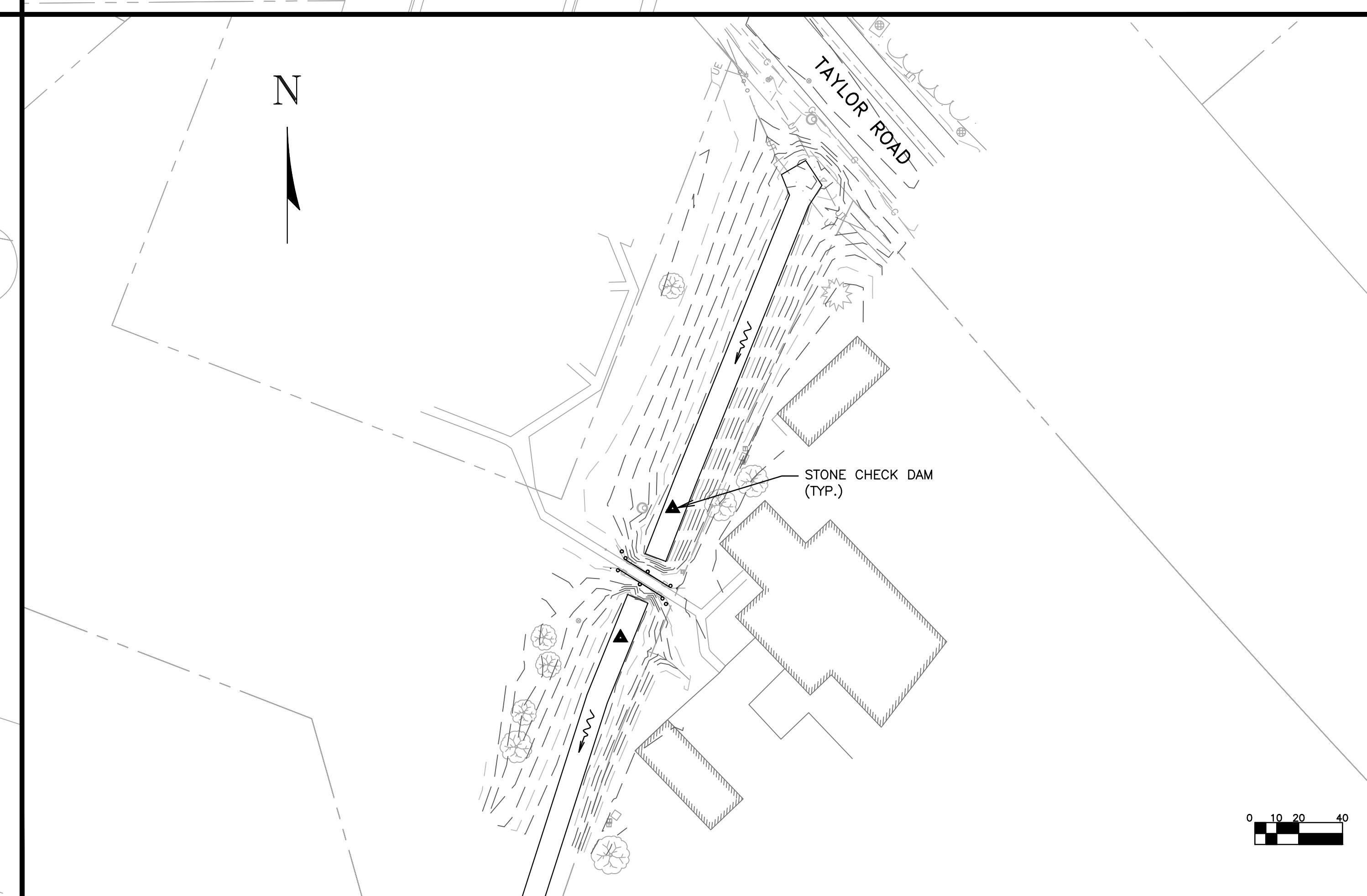
2021 STREET AND STORM SEWER IMPROVEMENTS
Renee Court, Pheasant Run, Lake Edge Road,
Taylor-Farwell Storm Sewer
Village of McFarland, Wisconsin

PROJECT NO.: MC 181
DRAWN BY: J.C.A.
DRAWING FILE: MC 181 DETAILS.DWG
CHECKED BY: T.J.S.
DATE: 2-17-21
REV. DATE:







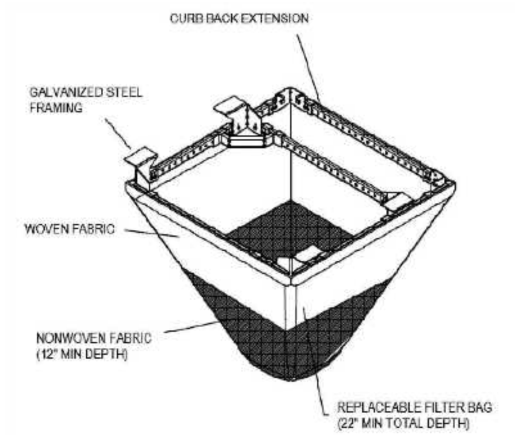


TOWN & COUNTRY ENGINEERING, INC.
2912 Marketplace Drive
Suite 103
Madison, WI 53719
(608) 273-3350
www.tcengineers.net

EROSION CONTROL PLAN

2021 STREET AND STORM SEWER IMPROVEMENTS
Renee Court, Pheasant Run, Lake Edge Road,
Taylor-Farwell Storm Sewer
Village of McFarland, Wisconsin

PROJECT NO.:	MC 181
DRAWING FILE:	MC 181 SHEETS.DWG
DRAWN BY:	J.C.A.
CHECKED BY:	T.J.S.
DATE:	2-17-21
REVISIONS:	
SCALE:	VARIES
SHEET:	1



GENERAL NOTES:

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED IN THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

FRAMED INLET PROTECTION SHALL BE COMPLIANT WITH ALL ASTM STANDARD D8057-17 REQUIREMENTS, INCLUDING:

A. BYPASS OVERFLOW THAT MEETS OR EXCEEDS INLET DESIGN FLOW
B. FRAME AND BAG STRONG ENOUGH TO HANDLE FULL SEDIMENT LOAD.

INSTALLATION NOTES:

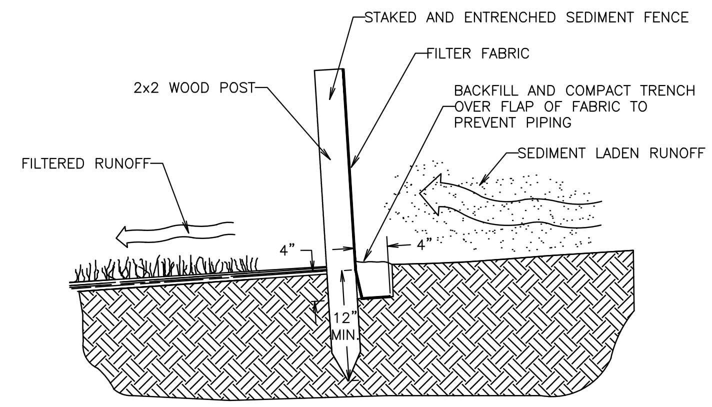
NO PART OF INLET PROTECTION SHALL BE PROJECTING ABOVE THE GRATE.

FOR COMBINATION INLETS, PROTECTION SHALL CAPTURE RUNOFF ENTERING BOTH GRATE AND CURB OPENING.

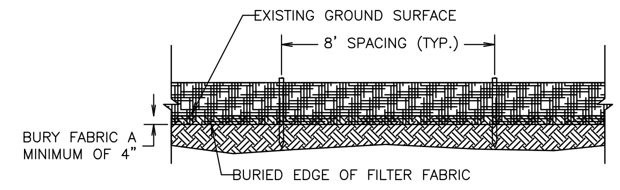
A DUAL FABRIC FILTER BAG, WITH NON-WOVEN BOTTOM AND WOVEN TOP SHALL BE USED.

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". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

DETAIL
INLET PROTECTION - FRAMED (W/ CURB BOX)

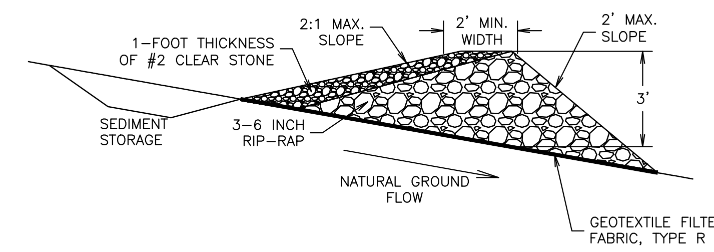


CROSS-SECTION OF A PROPERLY INSTALLED SEDIMENT FENCE

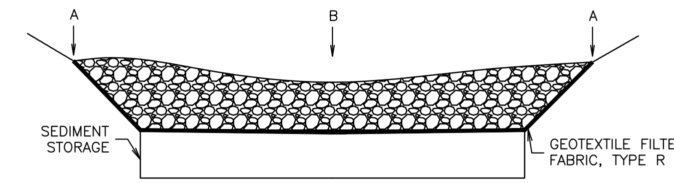


SEDIMENT FENCE DETAIL

DETAIL
SEDIMENT FENCE



SECTION VIEW



FRONT VIEW

DETAIL
STONE CHECK DAM

EROSION CONTROL NOTES:

- LOCATIONS MARKED WITH "■" TO RECEIVE INLET FILTER PROTECTION DURING CONSTRUCTION. ALL NEW STREET INLETS MUST ALSO RECEIVE INLET FILTER PROTECTION.
- CONSTRUCT A STONE CHECK DAM IN GUTTER LINE AT ALL LOCATIONS MARKED WITH "▲"
- SURFACE FLOW DIRECTION IS INDICATED WITH
- SILT FENCE INSTALLATION IS INDICATED WITH
- KEEP A COPY OF THE CURRENT EROSION CONTROL PLAN ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
- SUBMIT PLAN REVISIONS OR AMENDMENTS TO THE WDNR AT LEAST 5 DAYS PRIOR TO FIELD IMPLEMENTATION.
- THE CONTRACTOR IS RESPONSIBLE FOR ROUTINE SITE INSPECTIONS AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF 0.5 INCHES OR GREATER. KEEP INSPECTION REPORTS ON-SITE AND MAKE THEM AVAILABLE UPON REQUEST.
- INSPECT AND MAINTAIN ALL INSTALLED EROSION CONTROL PRACTICES UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
- WHEN POSSIBLE: PRESERVE EXISTING VEGETATION (ESPECIALLY ADJACENT TO SURFACE WATERS), MINIMIZE LAND-DISTURBING CONSTRUCTION ACTIVITY ON SLOPES OF 20% OR MORE, MINIMIZE SOIL COMPACTION, AND PRESERVE TOPSOIL.
- REFER TO THE WDNR STORMWATER CONSTRUCTION TECHNICAL STANDARDS AT http:dnr.wi.gov/topic/stormwater/standards/const_standards.html.
- INSTALL PERIMETER EROSION CONTROLS AND ROCK TRACKING PAD CONSTRUCTION ENTRANCE(S) PRIOR TO ANY LAND-DISTURBING ACTIVITIES, INCLUDING CLEARING AND GRUBBING. USE WDNR TECHNICAL STANDARD STONE TRACKING PAD AND TIRE WASHING #1057 FOR ROCK CONSTRUCTION ENTRANCE(S).
- INSTALL INLET PROTECTION PRIOR TO LAND-DISTURBING ACTIVITIES IN THE CONTRIBUTING DRAINAGE AREA AND/OR IMMEDIATELY UPON INLET INSTALLATION. COMPLY WITH WDNR TECHNICAL STANDARD STORM DRAIN INLET PROTECTION FOR CONSTRUCTION SITES #1060.
- STAGE CONSTRUCTION GRADING ACTIVITIES TO MINIMIZE THE CUMULATIVE EXPOSED AREA. CONDUCT TEMPORARY GRADING FOR EROSION CONTROL PER WDNR TECHNICAL STANDARD TEMPORARY GRADING PRACTICES FOR EROSION CONTROL #1067.
- NOTIFY THE OWNER IF DEWATERING IS SCHEDULED TO OCCUR IN AREAS OF SOIL AND/OR GROUNDWATER CONTAMINATION, OR IF DEWATERING WILL OCCUR FROM A HIGH CAPACITY WELL (70 GPM OR MORE). DEWATER ONLY AFTER THE APPROPRIATE WDNR DEWATERING DISCHARGE PERMIT HAS BEEN OBTAINED.
- PROVIDE ANTI-SCOUR PROTECTION AND MAINTAIN NON-EROSIVE FLOW DURING DEWATERING. LIMIT PUMPING RATES TO EITHER (A) THE SEDIMENT BASIN/TRAP DESIGN DISCHARGE RATE, OR (B) THE BASIN DESIGN RELEASE RATE WITH THE CORRECTLY-FITTED HOSE AND GEOTEXTILE FILTER BAG. PERFORM DEWATERING OF ACCUMULATED SURFACE RUNOFF IN ACCORDANCE WITH WDNR TECHNICAL STANDARD DE-WATERING #1061.
- INSTALL AND MAINTAIN SILT FENCING PER WDNR TECHNICAL STANDARD SILT FENCE #1056. REMOVE SEDIMENT FROM BEHIND SILT FENCES AND SEDIMENT BARRIERS BEFORE SEDIMENT REACHES A DEPTH THAT IS EQUAL TO ONE-HALF OF THE FENCE AND/OR BARRIER HEIGHT.
- REPAIR BREAKS AND GAPS IN SILT FENCES AND BARRIERS IMMEDIATELY. REPLACE DECOMPOSING STRAW BALES (TYPICAL BALE LIFE IS 3 MONTHS). LOCATE, INSTALL, AND MAINTAIN STRAW BALES PER WDNR TECHNICAL STANDARD DITCH CHECKS #1062.
- INSTALL AND MAINTAIN FILTER SOCKS IN ACCORDANCE WITH WDNR TECHNICAL STANDARD INTERIM MANUFACTURED PERIMETER CONTROL AND SLOPE INTERRUPTION PRODUCTS #1071.
- IMMEDIATELY STABILIZE STOCKPILES AND SURROUND STOCKPILES AS NEEDED WITH SILT FENCE OR OTHER PERIMETER CONTROL IF STOCKPILES WILL REMAIN INACTIVE FOR 7 DAYS OR LONGER.
- IMMEDIATELY STABILIZE ALL DISTURBED AREAS THAT WILL REMAIN INACTIVE FOR 14 DAYS OR LONGER. BETWEEN SEPTEMBER 15 AND OCTOBER 15: STABILIZE WITH MULCH, TACKIFIER, AND A PERENNIAL SEED MIXED WITH WINTER WHEAT, ANNUAL OATS, OR ANNUAL RYE, AS APPROPRIATE FOR REGION AND SOIL TYPE. OCTOBER 15 THROUGH COLD WEATHER: STABILIZE WITH A POLYMER AND DORMANT SEED MIX, AS APPROPRIATE FOR REGION AND SOIL TYPE.
- STABILIZE AREAS OF FINAL GRADING WITHIN 7 DAYS OF REACHING FINAL GRADE.
- SWEEP/CLEAN UP ALL SEDIMENT/TRASH THAT MOVES OFF-SITE DUE TO CONSTRUCTION ACTIVITY OR STORM EVENTS BEFORE THE END OF THE SAME WORKDAY OR AS DIRECTED BY THE OWNER. SEPARATE SWEPT MATERIALS (SOILS AND TRASH) AND DISPOSE OF APPROPRIATELY.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST PER WDNR TECHNICAL STANDARD DUST CONTROL ON CONSTRUCTION SITES #1068.
- PROPERLY DISPOSE OF ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, OR OTHER CONSTRUCTION MATERIALS) AND DO NOT ALLOW THESE MATERIALS TO BE CARRIED BY RUNOFF INTO THE RECEIVING CHANNEL.
- COORDINATE WITH THE OWNER TO UPDATE THE LAND DISTURBANCE PERMIT TO INDICATE THE ANTICIPATED OR LIKELY DISPOSAL LOCATIONS FOR ANY EXCAVATED SOILS OR CONSTRUCTION DEBRIS THAT WILL BE HAULED OFF-SITE FOR DISPOSAL. THE DEPOSITED OR STOCKPILED MATERIAL NEEDS TO INCLUDE PERIMETER SEDIMENT CONTROL MEASURES (SUCH AS SILT FENCE, HAY BALES, FILTER SOCKS, OR COMPACTED EARTHEN BERMS).
- FOR NON-CHANNELIZED FLOW ON DISTURBED OR CONSTRUCTED SLOPES, PROVIDE CLASS I, II OR III TYPE A EROSION CONTROL MATTING. SELECT EROSION MATTING FROM APPROPRIATE MATRIX IN WDOT'S WIDOT PRODUCT ACCEPTABILITY LIST (PAL); INSTALL AND MAINTAIN PER WDNR TECHNICAL STANDARD NON-CHANNEL EROSION MAT #1052.
- FOR CHANNELIZED FLOW ON DISTURBED OR CONSTRUCTED AREAS, PROVIDE CLASS I, II, OR III TYPE B EROSION CONTROL MATTING. SELECT EROSION MATTING FROM APPROPRIATE MATRIX IN WDOT'S WIDOT PRODUCT ACCEPTABILITY LIST (PAL); INSTALL AND MAINTAIN PER WDNR TECHNICAL STANDARD CHANNEL EROSION MAT #1053.
- MAKE PROVISIONS FOR WATERING DURING THE FIRST 8 WEEKS FOLLOWING SEEDING OR PLANTING OF DISTURBED AREAS WHENEVER MORE THAN 7 CONSECUTIVE DAYS OF DRY WEATHER OCCUR.
- INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES (SUCH AS TEMPORARY SEDIMENT BASINS, DITCH CHECKS, EROSION CONTROL MATTING, SILT FENCING, FILTER SOCKS, WATTLES, SWALES, ETC.), OR AS DIRECTED BY THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE WDNR REMEDIATION AND WASTE MANAGEMENT REQUIREMENTS FOR HANDLING AND DISPOSING OF CONTAMINATED MATERIALS. SITE-SPECIFIC INFORMATION FOR AREAS WITH KNOWN OR SUSPECTED SOIL AND/OR GROUNDWATER CONTAMINATION CAN BE FOUND ON WDNR'S BUREAU OF REMEDIATION AND REDEVELOPMENT TRACKING SYSTEM (BRRTS) PUBLIC DATABASE AT: http://dnr.wi.gov/botw/

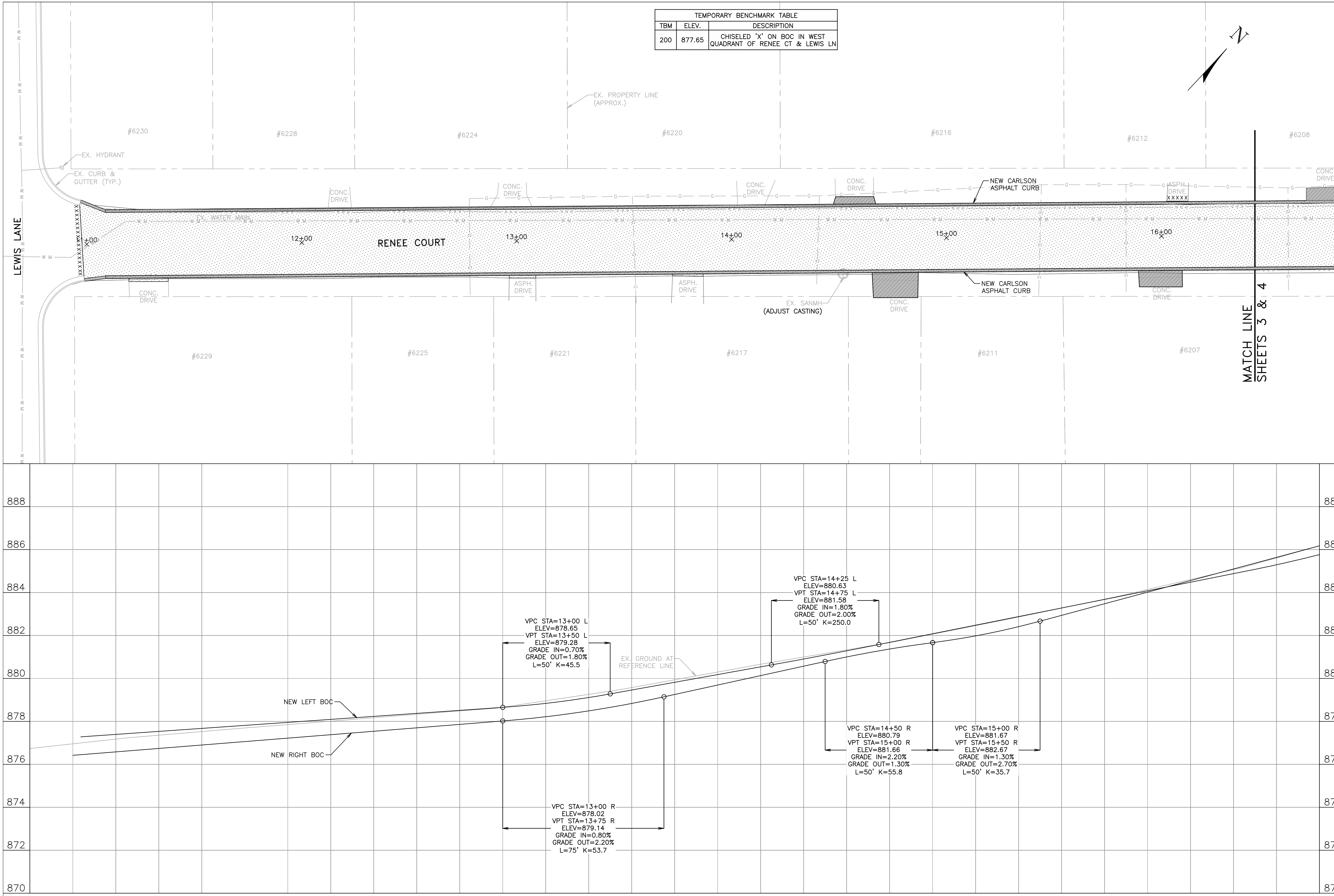
TOWN & COUNTRY ENGINEERING, INC.
2912 Marketplace Drive
Suite 103
Madison, WI 53719
(608) 273-3350
www.tcengineers.net

EROSION CONTROL NOTES & STANDARD CONSTRUCTION DETAILS

2021 STREET AND STORM SEWER IMPROVEMENTS
Renee Court, Pheasant Run, Lake Edge Road
Taylor-Farwell Storm Sewer
Village of McFarland, Wisconsin

PROJECT NO.: MC 181
DRAWING FILE: MC 181 DETAILS.DWG
DRAWN BY: J.C.A.
CHECKED BY: T.J.S.
DATE: 2-17-21
REVISIONS:
SCALE: N.T.S.
SHEET: 2

TEMPORARY BENCHMARK TABLE		
TBM	ELEV.	DESCRIPTION
200	877.65	CHISELED "X" ON BOC IN WEST QUADRANT OF RENEE CT & LEWIS LN



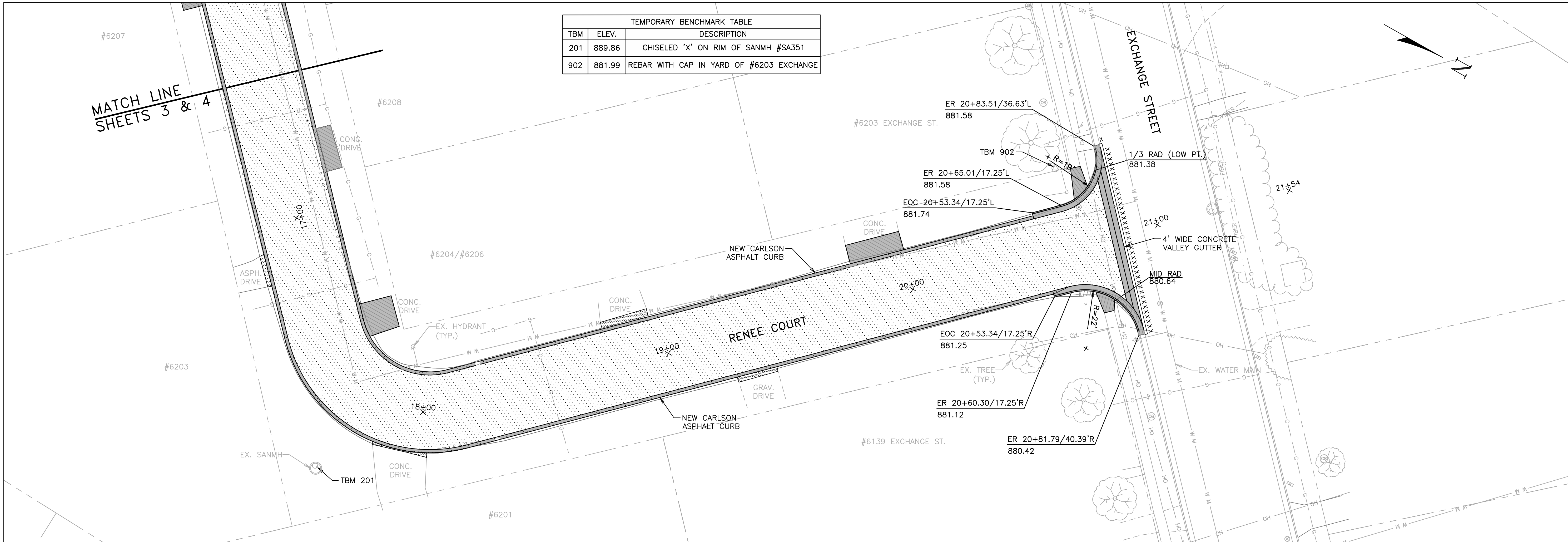
TOWN & COUNTRY ENGINEERING, INC.
2912 Marketplace Drive
Suite 103
Madison, WI 53719
(608) 273-3350
www.tcengineers.net

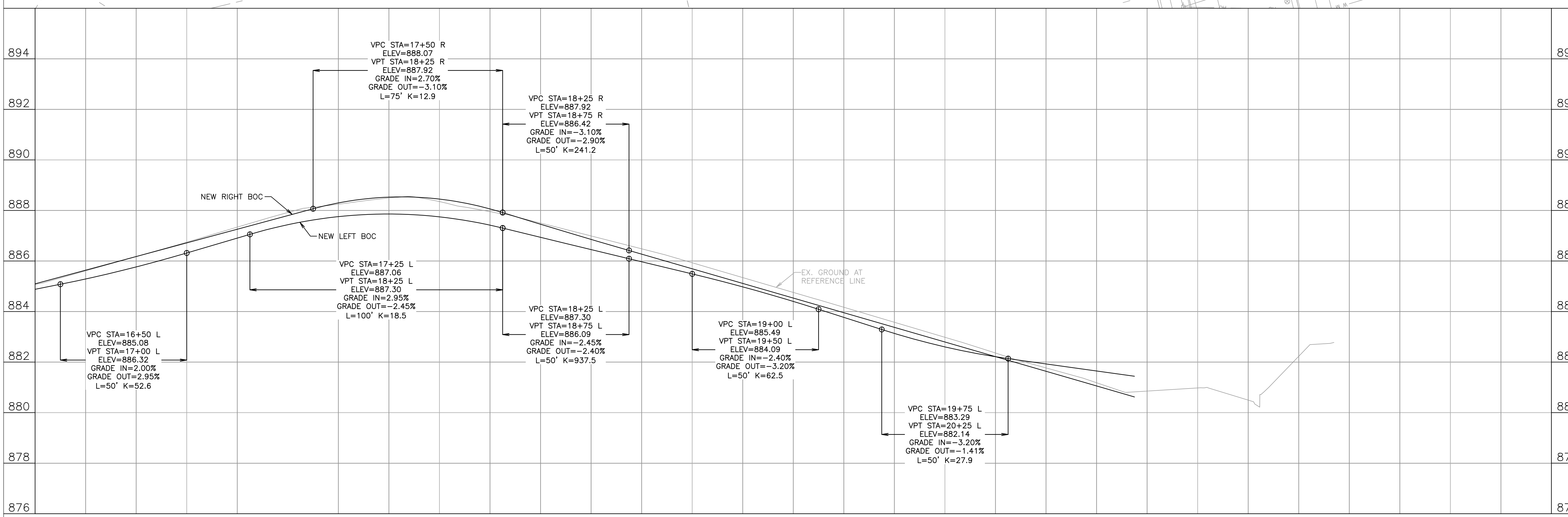
PLAN & PROFILE
RENEE COURT
Station 10+80 To Station 16+80

2021 STREET AND STORM SEWER IMPROVEMENTS
Renee Court, Pheasant Run, Lake Edge Road, Taylor-Farwell Storm Sewer
Village of McFarland, Wisconsin

PROJECT NO.: MC 181
DRAWING FILE: MC 181 SHEETS.DWG
DRAWN BY: J.C.A.
CHECKED BY: T.J.S.
DATE: 2-17-21
REVISIONS:
SCALE: HORIZONTAL 0 5 10 20
VERTICAL 1 2
SHEET: 3

TEMPORARY BENCHMARK TABLE		
TBM	ELEV.	DESCRIPTION
201	889.86	CHISELED 'X' ON RIM OF SANMH #SA351
902	881.99	REBAR WITH CAP IN YARD OF #6203 EXCHANGE





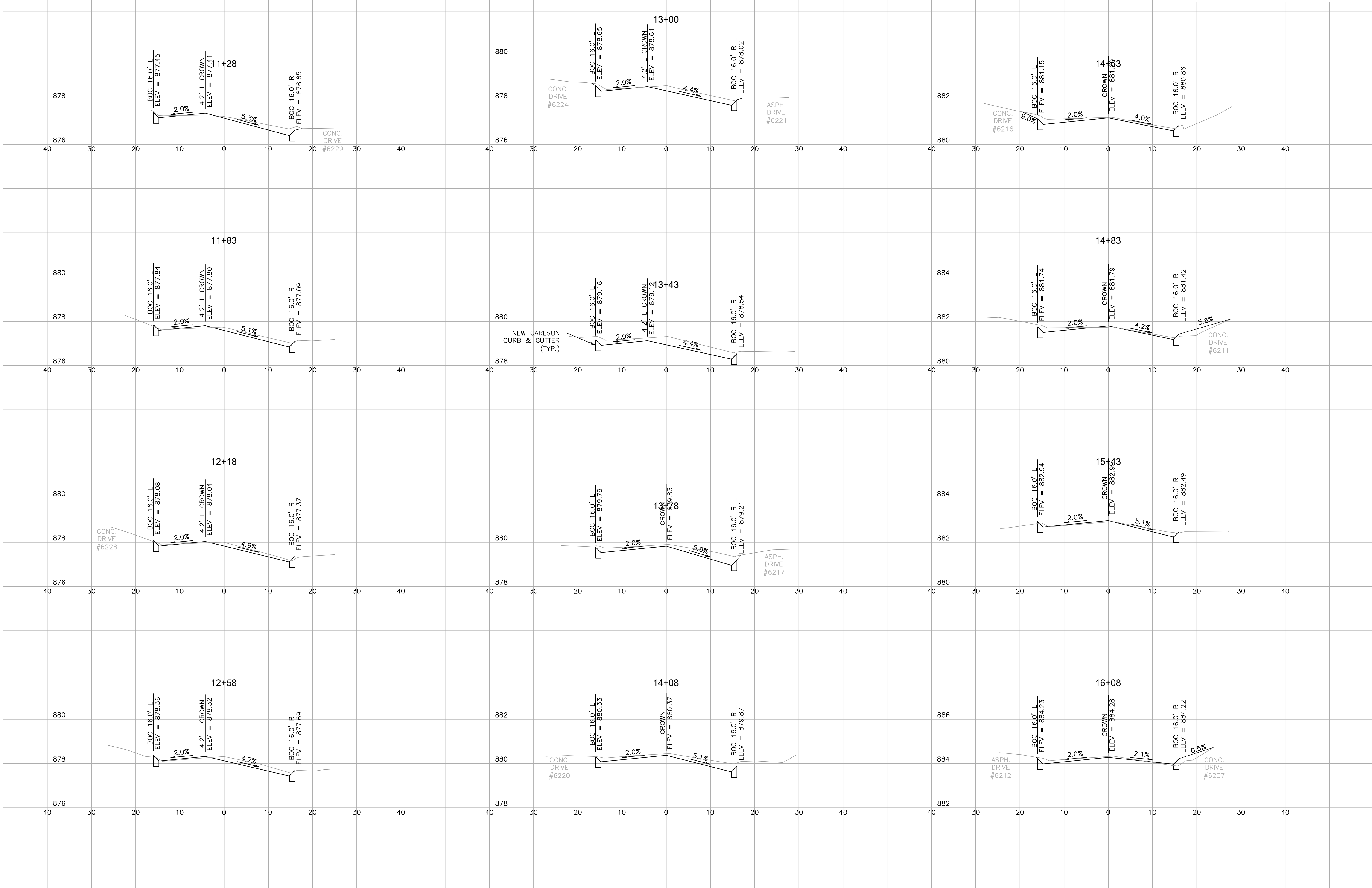
TOWN & COUNTRY ENGINEERING, INC.
2912 Marketplace Drive
Suite 103
Madison, WI 53719
(608) 273-3350
www.tcengineers.net

PLAN & PROFILE
RENEE COURT
Station 16+40 To Station 22+40

2021 STREET AND STORM SEWER IMPROVEMENTS
Renee Court, Pheasant Run, Lake Edge Road,
Taylor-Farwell Storm Sewer
Village of McFarland, Wisconsin

PROJECT NO.: MC 181
DRAWING FILE: MC 181 SHEETS.DWG
DRAWN BY: J.C.A.
CHECKED BY: T.J.S.
DATE: 2-17-21
REVISIONS:
SCALE: HORIZONTAL 0 5 10 20
VERTICAL 1 2
SHEET: 4

EXISTING CONTOURS ARE DENOTED BY LIGHTER LINES.
FINISHED CONTOURS ARE DENOTED BY DARKER LINES.
DRIVE OVER CURB ELEVATIONS ARE LABELED AT FULL CURB HEIGHT.



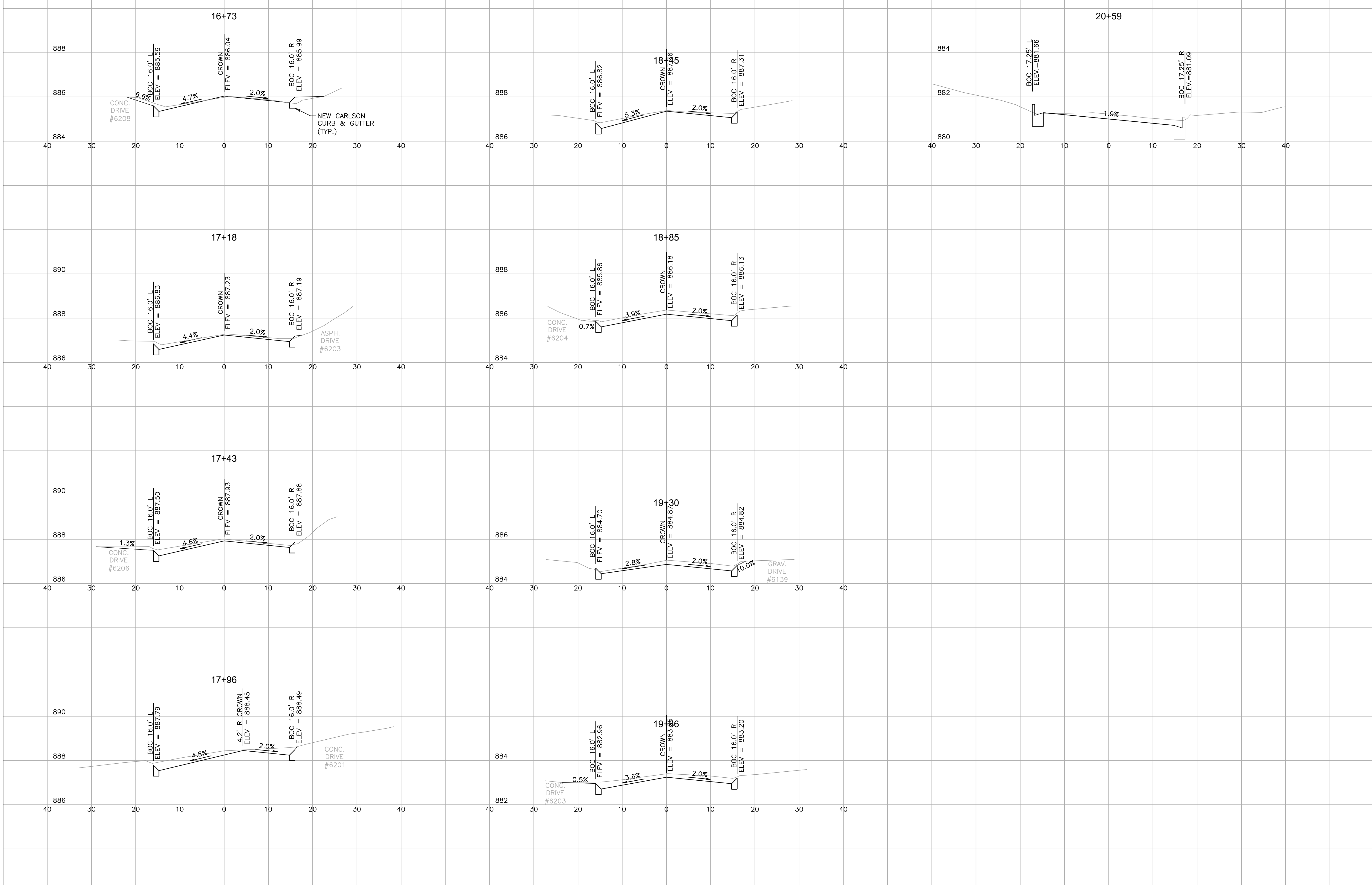
TOWN & COUNTRY ENGINEERING, INC.
2912 Marketplace Drive
Suite 103
Madison, WI 53719
(608) 273-3350
www.tcengineers.net

CROSS SECTIONS
RENEE COURT
Station 11+28 To Station 16+08

2021 STREET AND STORM SEWER IMPROVEMENTS
Renee Court, Pheasant Run, Lake Edge Road, Taylor-Farwell Storm Sewer
Village of McFarland, Wisconsin

PROJECT NO.: MC 181
DRAWING FILE: MC 181 SHEETS.DWG
DRAWN BY: J.C.A.
CHECKED BY: T.J.S.
DATE: 2-17-21
REVISIONS:
SCALE: HORIZONTAL 0 2.5 5 10
VERTICAL 1 2
SHEET:
5

EXISTING CONTOURS ARE DENOTED BY LIGHTER LINES.
FINISHED CONTOURS ARE DENOTED BY DARKER LINES.
DRIVE OVER CURB ELEVATIONS ARE LABELED AT FULL CURB HEIGHT.



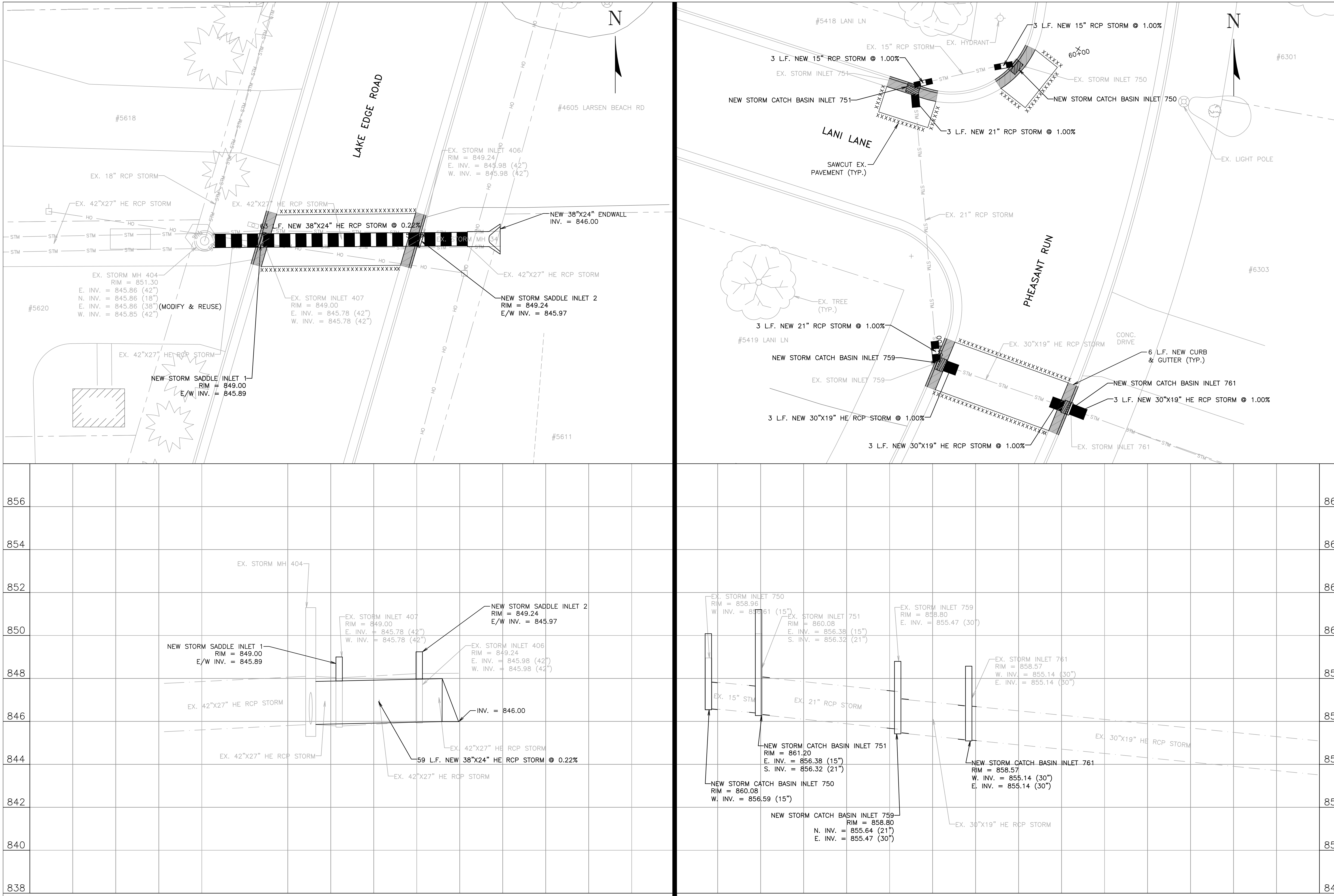
TOWN & COUNTRY ENGINEERING, INC.

2912 Marketplace Drive
Suite 103
Madison, WI 53719
(608) 273-3350
www.tcengineers.net

CROSS SECTIONS
RENEE COURT
Station 16+73 To Station 20+45

2021 STREET AND STORM SEWER IMPROVEMENTS
Renee Court, Pheasant Run, Lake Edge Road,
Taylor-Farwell Storm Sewer
Village of McFarland, Wisconsin

PROJECT NO.: MC 181
DRAWING FILE: MC 181 SHEETS.DWG
DRAWN BY: J.C.A.
CHECKED BY: T.J.S.
DATE: 2-17-21
REVISIONS:
SCALE: HORIZONTAL 0 2.5 5 10
VERTICAL 1 2
SHEET: 6

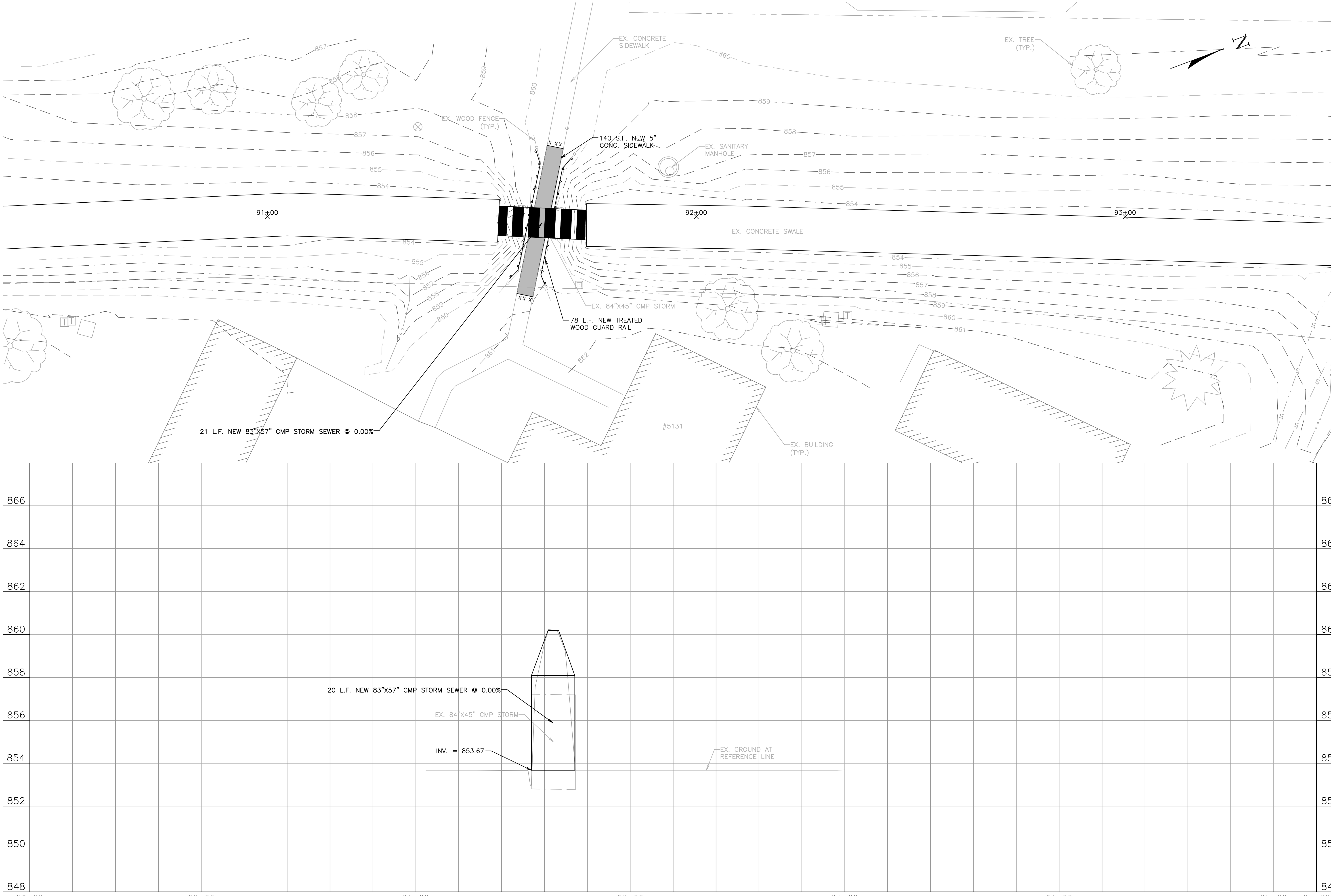


2912 Marketplace Drive
Suite 103
Madison, WI 53719
(608) 273-3350
www.tcengineers.net
TOWN & COUNTRY ENGINEERING, INC.

PLAN & PROFILE
PHEASANT RUN & LAKE EDGE ROAD

2021 STREET AND STORM SEWER IMPROVEMENTS
Renee Court, Pheasant Run, Lake Edge Road,
Taylor-Farwell Storm Sewer
Village of McFarland, Wisconsin

PROJECT NO.: MC 181
DRAWING FILE: MC 181 SHEETS.DWG
DRAWN BY: J.C.A.
CHECKED BY: T.J.S.
DATE: 2-17-21
REVISIONS:
SCALE: HORIZONTAL 0 2.5 5 10
VERTICAL 1 2
SHEET: 7



2912 Marketplace Drive
Suite 103
Madison, WI 53719
(608) 273-3350
www.tcengineers.net

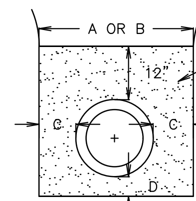
TOWN & COUNTRY ENGINEERING, INC.

PLAN & PROFILE
TAYLOR-FARWELL DRAINAGE SWALE
Station 89+00 To Station 95+00

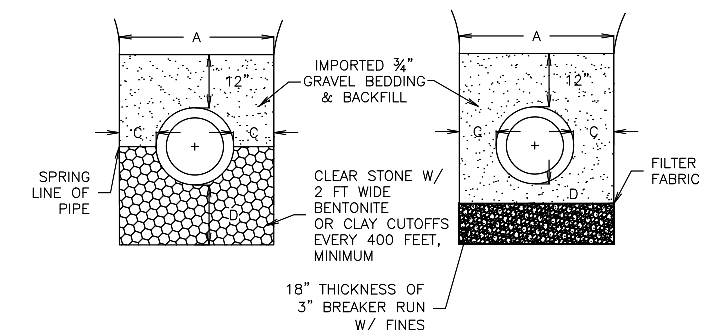
2021 STREET AND STORM SEWER IMPROVEMENTS
Renee Court, Pheasant Run, Lake Edge Road,
Taylor-Farwell Storm Sewer
Village of McFarland, Wisconsin

PROJECT NO.: MC 181
DRAWING FILE: MC 181 SHEETS.DWG
DRAWN BY: J.C.A.
CHECKED BY: T.J.S.
DATE: 2-17-21
REVISIONS:
SCALE: HORIZONTAL 0 2.5 5 10
VERTICAL 1 2
SHEET: 8

DIMENSIONS:
A: OUTSIDE DIAMETER OF PIPE PLUS 24" MAXIMUM, EXCEPT NEED NOT BE LESS THAN 36". TRENCH SHIELDS NARROWER THAN 4 FEET INSIDE WIDTH WILL NOT BE REQUIRED UNLESS SPECIFICALLY REQUIRED IN THE PROJECT SPECIFICATIONS.
B: FOR ROCK, OUTSIDE DIAMETER OF PIPE PLUS 18" MAXIMUM, EXCEPT NEED NOT BE LESS THAN 36".
C: MINIMUM – 6"
D: MINIMUM 4" BELOW BARREL AND 3" BELOW BELL.



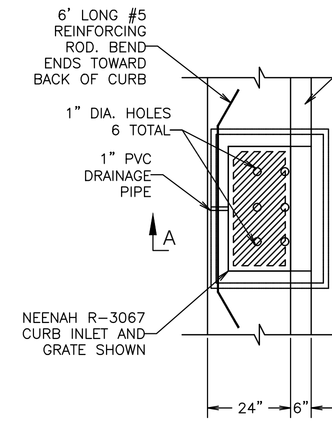
NORMAL PIPE TRENCH



WET TRENCH
WITH SUMP DEWATERING

UNSTABLE TRENCH

DETAIL
TRENCH WIDTH AND BEDDING



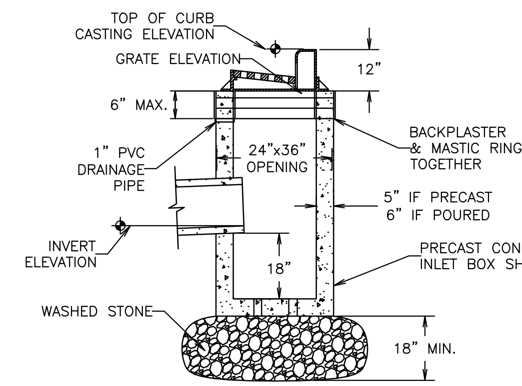
PLAN VIEW

NOTES:
– TOP OF CURB AND PIPE INVERT ELEVATIONS ARE SHOWN ON THE PLANS.

– THE GRATE ELEVATION SHALL BE DEPRESSED 0.1' FROM STRAIGHT GUTTER GRADE STARTING 5' FROM THE INLET AND EXTENDING IN BOTH DIRECTIONS.

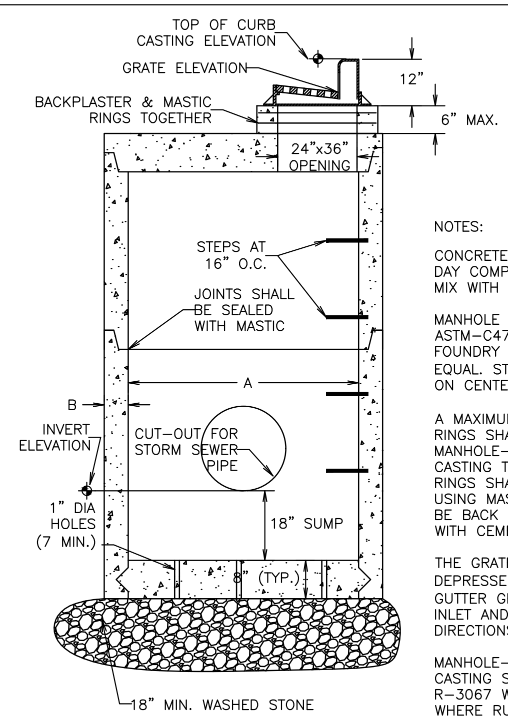
– THE CASTING SHALL BE NEENAH FOUNDRY R-3067 CURB INLET WITH REVERSIBLE GRATES WHERE RUNOFF REACHES THE INLET FROM BOTH DIRECTIONS. WHERE RUNOFF REACHES THE INLET FROM ONE DIRECTION A NEENAH R-3067-L CASTING SHALL BE USED. DIRECTIONAL SLOTS TO BE LOCATED TO DIRECT THE FLOW INTO THE STREET INLET.

– MASTIC BETWEEN RINGS AND BACKPLASTER A SMOOTH LAYER OF GROUT OVER THE ENTIRE INNER AND OUTER SURFACES OF THE RINGS.



SECTION A–A

DETAIL
RECTANGULAR CATCH BASIN



NOTES:

CONCRETE SHALL BE 4000 PSI, 28 DAY COMPRESSIVE STRENGTH, 6.5 BAG MIX WITH 1~2% AIR ENTRAINMENT.

MANHOLE STEPS SHALL CONFORM TO ASTM–C478 & SHALL BE NEENAH FOUNDRY R-1981-N OR APPROVED EQUAL. STEPS SHALL BE SPACED 16" ON CENTER.

A MAXIMUM OF 6" OF ADJUSTING RINGS SHALL BE USED TO ADJUST THE MANHOLE-TYPE CURB CATCH BASIN CASTING TO THE FINISHED GRADE. ALL RINGS SHALL BE SEALED TOGETHER USING MASTIC AND ALL JOINTS SHALL BE BACK PLASTERED INSIDE AND OUT WITH CEMENT MORTAR.

THE GRATE ELEVATION SHALL BE DEPRESSED 0.1' FROM STRAIGHT GUTTER GRADE STARTING 5' FROM THE INLET AND EXTENDING IN BOTH DIRECTIONS.

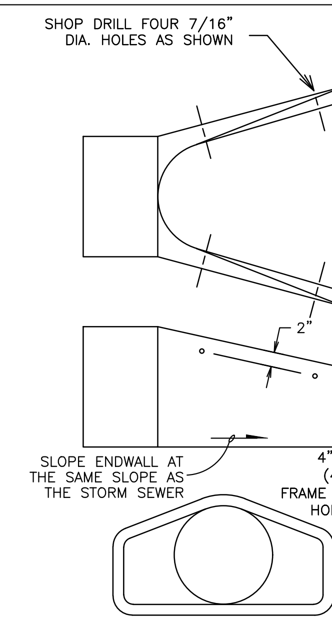
MANHOLE-TYPE CURB CATCH BASIN CASTING SHALL BE NEENAH FOUNDRY R-3067 WITH REVERSIBLE GRATES WHERE RUNOFF REACHES THE INLET FROM BOTH DIRECTIONS. WHERE RUNOFF REACHES THE INLET FROM ONE DIRECTION A NEENAH R-3067-L CASTING SHALL BE USED. DIRECTIONAL SLOTS TO BE LOCATED TO DIRECT THE FLOW INTO THE STREET INLET.

A 2x3 LID OPENING IS REQUIRED FOR MANHOLE-TYPE CURB CATCH BASINS.

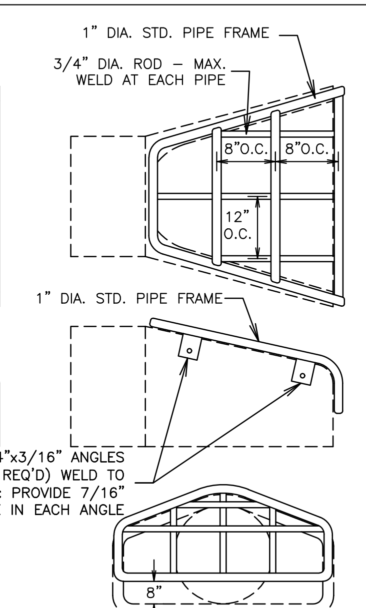
STORM MANHOLE DIMENSIONS

MANHOLE SIZE	DIMENSION A	DIMENSION B (MIN.)
48"	48"	5"
60"	60"	6"
72"	72"	7"
84"	84"	7"
96"	96"	9"

DETAIL
STORM SEWER MANHOLE CATCH BASIN



ENDWALL DETAILS



PIPE GATE DETAILS

NOTES:
– THE CONTRACTOR SHALL BOLT THE PIPE GATE TO THE CONCRETE ENDWALL WITH FOUR 3/8"x6" MACHINE BOLTS WITH NUTS ON INSIDE WALL.

PAINTING SPECIFICATIONS:
– THE PIPE GATE SHALL RECEIVER THE FOLLOWING PREPARATION & PAINTING. THE FIRST COAT SHALL BE RUS-OLEUM X-60 RED BARE METAL PRIMER OR APPROVED EQUAL. THE SECOND COAT SHALL BE RUST-OLEUM 960 ZINC CHROMATE PRIMER OR APPROVED EQUAL. THE THIRD COAT SHALL BE RUS-OLEUM 1282 HIGH GLOSS METAL FINISH OR APPROVED EQUAL.

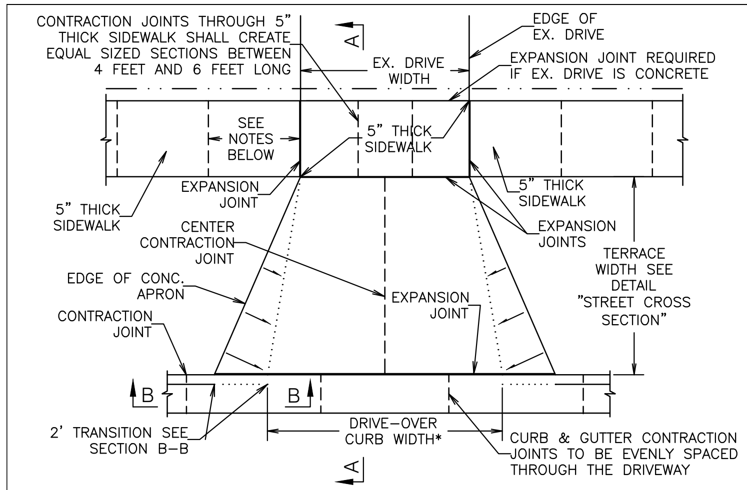
PREPARATION STEPS:
1. BARE METAL SURFACES – TREAT WITH THE THREE-COAT PAINTING SYSTEM LISTED AFTER A THOROUGH SCRAPING, WIRE BRUSHING & CLEANING.
2. EACH COAT OF PAINT SHALL BE APPLIED OVER THE ENTIRE GATE SURFACE.
3. ALLOW 24-48 HOURS DRYING TIME AT 60° OR ABOVE BETWEEN COATS.

TOWN & COUNTRY ENGINEERING, INC.
2912 Marketplace Drive
Suite 103
Madison, WI 53719
(608) 273-3350
www.tcengineers.net

STANDARD CONSTRUCTION DETAILS
STORM SEWER

2021 STREET AND STORM SEWER IMPROVEMENTS
Renee Court, Pheasant Run, Lake Edge Road
Taylor-Farwell Storm Sewer
Village of McFarland, Wisconsin

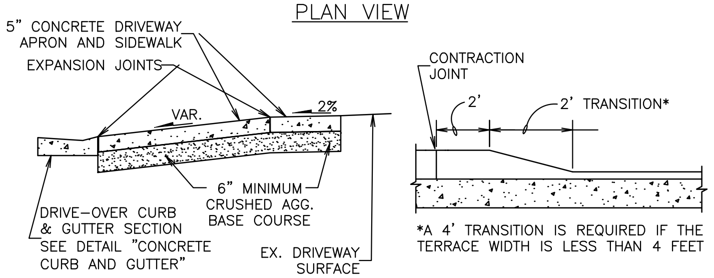
PROJECT NO.: MC 181
DRAWING FILE: MC 181 DETAILS.DWG
DRAWN BY: J.C.A.
CHECKED BY: T.J.S.
DATE: 2-17-21
REVISIONS:
SCALE: N.T.S.
SHEET: 9



NOTES: – 5" THICK WALK WIDTH SHALL BE EQUAL TO THE EX. DRIVE WIDTH OR A MINIMUM OF 12' CENTERED ON THE EX. DRIVE. THE DRIVE-OVER CURB WIDTH SHALL BE EQUAL TO THE 5" THICK WALK WIDTH PLUS 2', CENTERED ON THE EX. DRIVE.

– CONTRACTION JOINTS IN 5" THICK SIDEWALKS SHALL BE PLACED EVERY 5'. EXPANSION JOINTS SHALL BE PLACED AT INTERVALS NOT TO EXCEED 96 FEET.

PLAN VIEW



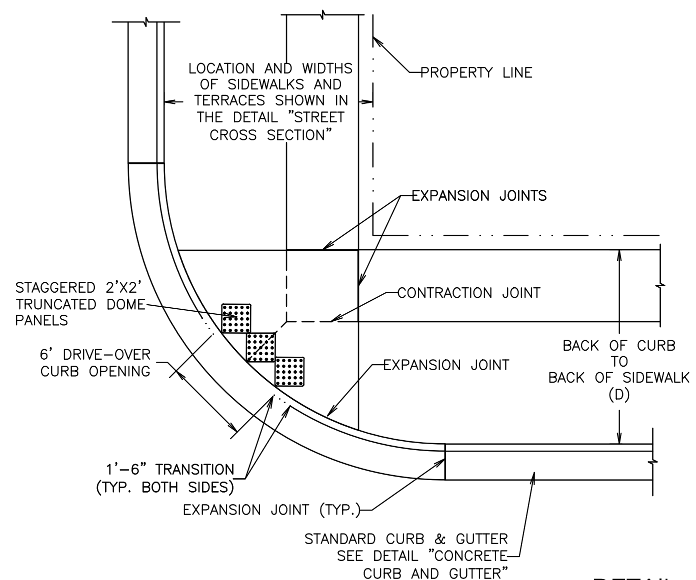
SECTION A–A   SECTION B–B

DETAIL
DRIVEWAY

NOTES:
TRUNCATED DOME PANELS MUST TOUCH ONE CORNER TO RADIUS OF BACK OF CURB. IF MORE THAN ONE IS USED THEY MUST TOUCH OR OVERLAP. DOMES SHALL BE ALIGNED WITH CROSS WALK DIRECTION.

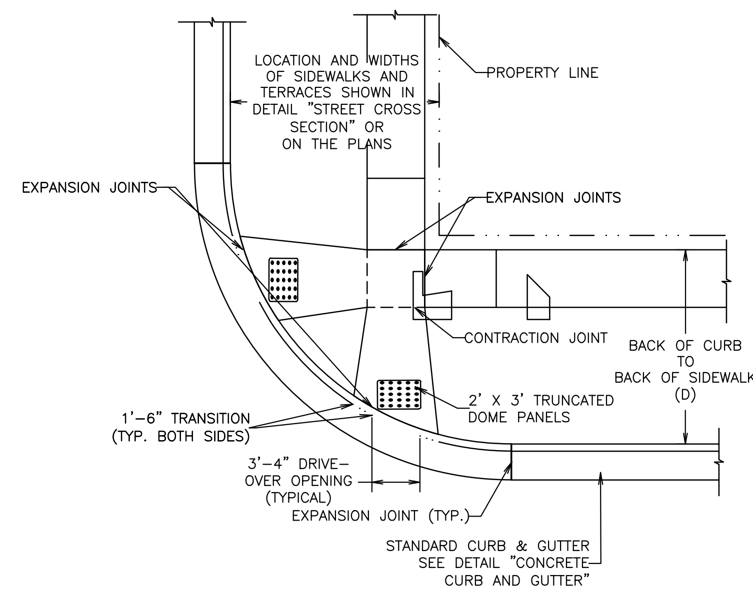
TYPE 1 CURB RAMP

– FOR USE WHEN THE DISTANCE FROM THE BACK OF THE CURB TO THE BACK OF THE SIDEWALK (D) IS LESS THAN 12 FEET.

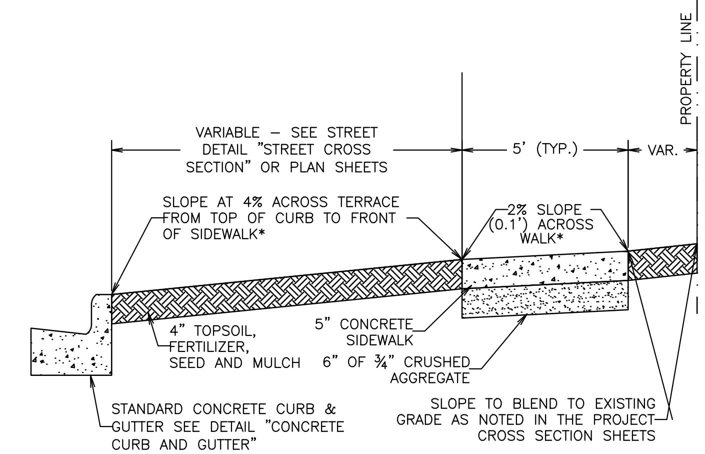


TYPE 2 CURB RAMP

– FOR USE WHEN THE DISTANCE FROM THE BACK OF THE CURB TO THE BACK OF THE SIDEWALK (D) IS GREATER THAN OR EQUAL TO 12 FEET.

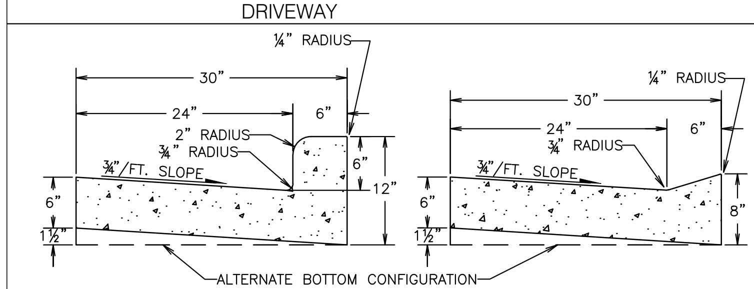


DETAIL
CURB RAMP

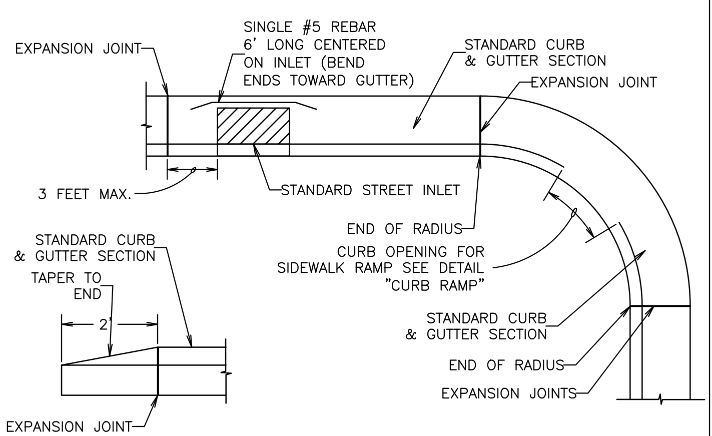


* WHERE PLAN CROSS SECTIONS CONFLICT WITH THIS DETAIL THE PLAN CROSS SECTIONS SHALL GOVERN.

DETAIL
SIDEWALK - TERRACE SECTION



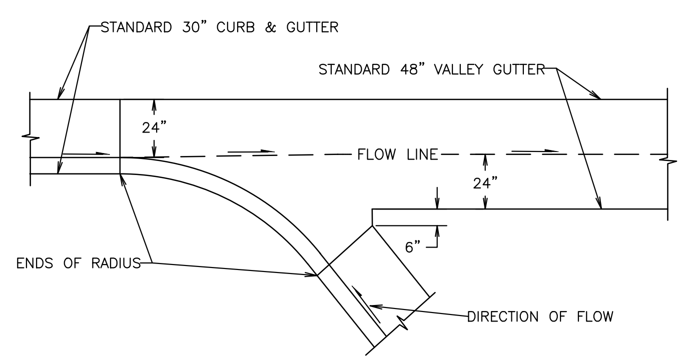
STANDARD CURB & GUTTER CROSS SECTION DIMENSIONS   DRIVE-OVER CURB & GUTTER CROSS SECTION DIMENSIONS



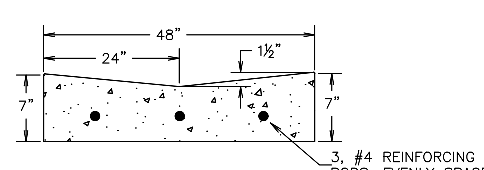
END OF CURB & GUTTER DETAIL   RADIUS & STREET INLET PLAN VIEW

NOTES:
1.) CONTRACTION JOINTS SHALL BE PLACED EVERY 6 TO 12 FEET AND AT LOCATIONS SHOWN IN THE CURB RAMP AND DRIVEWAY DETAILS.
2.) EXPANSION JOINTS SHALL BE PLACED AT EVERY END OF RADIUS, 3 FEET ON ONE SIDE OF EACH STREET INLET AND AT INTERVALS NOT TO EXCEED 300 FEET.

DETAIL
CONCRETE CURB AND GUTTER

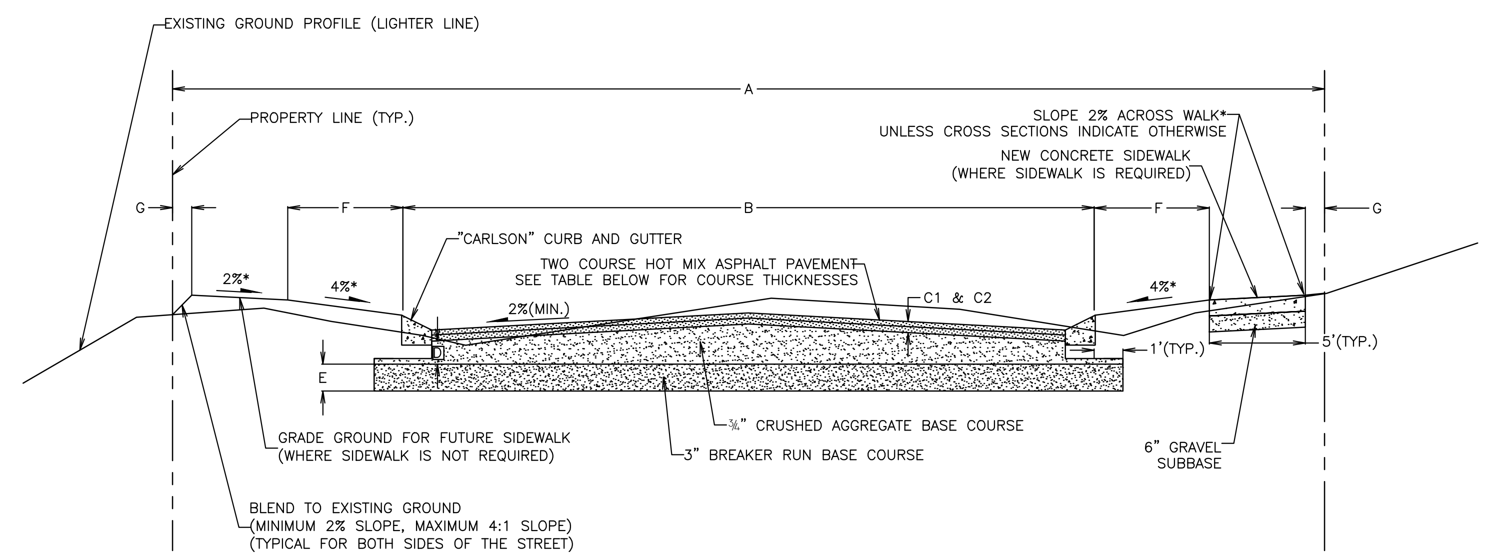


VALLEY GUTTER PLAN VIEW



STANDARD VALLEY GUTTER CROSS SECTION DIMENSIONS

DETAIL
VALLEY GUTTER



STANDARD STREET DETAIL DIMENSIONS

STREET NAME	A RIGHT OF WAY WIDTH	B CURB FACE TO CURB FACE WIDTH	C1 LOWER COURSE THICKNESS	C2 SURFACE COURSE THICKNESS	D ¾" C.A.B.C. THICKNESS*	E 3" BREAKER RUN B.C. THICKNESS	F TERRACE WIDTH	G BACK OF WALK TO PROP. LINE
RENEE COURT			1¾"	1½"				

*WHERE PLAN CROSS SECTIONS CONFLICT WITH THIS DETAIL, THE PLAN CROSS SECTION SHALL GOVERN.

NOTES:
THE CROWN OF THE ROAD SHALL BE CREATED USING THE ¾" CRUSHED AGGREGATE BASE COURSE. THE THICKNESS SHOWN IS THE MINIMUM THICKNESS REQUIRED AS MEASURED AT THE CONCRETE CURB & GUTTER SECTION.

THE 3" BREAKER RUN BASE COURSE THICKNESS MAY NEED TO BE INCREASED DEPENDING UPON SUBGRADE CONDITIONS.

DETAIL
STREET CROSS SECTION

2912 Marketplace Drive
Suite 103
Madison, WI 53719
(608) 273-3350
www.tcengineers.net
TOWN & COUNTRY ENGINEERING, INC.

STANDARD CONSTRUCTION DETAILS
STREET IMPROVEMENTS

2021 STREET AND STORM SEWER IMPROVEMENTS
Renee Court, Pheasant Run, Lake Edge Road
Taylor-Farwell Storm Sewer
Village of McFarland, Wisconsin

PROJECT NO.: MC 181
DRAWING FILE: MC 181 DETAILS.DWG
DRAWN BY: J.C.A.
CHECKED BY: T.J.S.
DATE: 2-17-21
REVISIONS:
SCALE: N.T.S.
SHEET: 10

VILLAGE OF
McFarland

SUMMARY SHEET

MEETING DATE: **Tuesday, March 16, 2021**

SECTION: **Business**

DEPARTMENT: **Public Works**

CONTACT: **Jim Hessling, Public Works Director**

AGENDA ITEM: **Discussion and action to make a recommendation to the Village Board regarding the MS4 permit and plan.**

PREVIOUS ACTION:
None.

ISSUE SUMMARY:
Attached is the 2020 DRAFT annual report for our Municipal Separate Storm Sewer System otherwise know as an MS4 Permit. This report is a DNR mandate that we have been submitting for several years now. This year the reporting requirements have increased. The permit governs storm water management practices in the Village and allows our discharge to area waterways. The Village remains compliant with these measures. The report is prepared by the village engineer, village staff and the staff of MAMSWaP and is presented for approval.

Once the report is voted on and passed by both the Public Utilities Committee and the Village Board, it will then be electronically submitted to the DNR. The report needs to be completed and submitted by March 31, 2021.

FINANCIAL/BUDGET IMPACT:
None.

VILLAGE PLAN REFERENCE:
None.

ORDINANCE REFERENCE:
None.

BOARD, COMMISSION OR COMMITTEE RECOMMENDATION:
Recommendation of approval for the MS4 permit and plan to the Village Board.

ATTACHMENTS:
1. Final Permit S058416-4 7_1_19
2. 03.05.21 MS1703-2020_MS4_Annual_Report- DRAFT
3. MS4 Program Plan 03.11.21
4. AdaptiveManagementPlanSummary
5. Storm Sewer Map

VILLAGE OF
McFarland

6. Public Works Center Drainage Map
7. McFarland SWPPP March 2021

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

**INDIVIDUAL PERMIT TO DISCHARGE UNDER THE
WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM
WPDES PERMIT NO. WI-S058416-4**

In compliance with the provisions of ch. 283.33, Wis. Stats., and chs. NR 151 and 216, Wis. Adm. Code,

THE CITIES OF FITCHBURG, MADISON, MIDDLETON, MONONA, STOUGHTON, SUN PRAIRIE, AND VERONA; THE VILLAGES OF COTTAGE GROVE, DEFOREST, MAPLE BLUFF, MCFARLAND, SHOREWOOD HILLS, WAUNAKEE AND WINDSOR; THE TOWNS OF BLOOMING GROVE, BURKE, MADISON, MIDDLETON AND WESTPORT; DANE COUNTY; AND THE UNIVERSITY OF WISCONSIN – MADISON

are permitted to discharge storm water from all portions of the

MUNICIPAL SEPARATE STORM SEWER SYSTEMS

owned or operated by the co-permittees listed above to waters of the state in accordance with the conditions set forth in this permit.

With written authorization by the Department, this permit will be used to cover a municipal separate storm sewer system initially covered under a previous version of a municipal separate storm sewer system permit. The **Start Date** of coverage under this permit is the date of the Department letter sent to the municipality authorizing coverage under this permit. The Department is required to charge an annual permit fee to owners and operators authorized to discharge under this permit in accordance with s. 283.33(9), Wis. Stats., and s. NR 216.08, Wis. Adm. Code.

State of Wisconsin Department of Natural Resources
For the Secretary

By: Eric S Rortvedt — 7/01/19

Eric S. Rortvedt
Storm Water Engineer & Permit Drafter

Date Permit Signed/Issued: 7/01/19

PERMIT EFFECTIVE DATE: July 1, 2019 **EXPIRATION DATE**: June 30, 2024

TABLE OF CONTENTS

1. APPLICABILITY CRITERIA

1.1 Permit Description and Purpose

Each municipality listed as a co-permittee under this permit submitted a reissuance application letter to the Department of Natural Resources (hereinafter referred to as "Department") pursuant to s. NR 216.09, Wis. Adm. Code, to be covered under a group WPDES municipal storm water discharge permit for storm water discharges from the group's municipal separate storm sewer systems (MS4s) to waters of the state. The co-permittees under this permit are continuing to work together, potentially along with other MS4 general permittees, under an intermunicipal agreement (Madison Municipal Storm Water Partnership) to refine and implement an extensive joint information and education plan and have agreed to cooperate as appropriate on permit requirements.

This permit regulates storm water discharges in accordance with ch. 283, Wis. Stats. and subch. I of ch. NR 216, Wis. Adm. Code, and implements the non-agricultural and transportation facility performance standards of ch. NR 151, Wis. Adm. Code. A municipality that is a co-permittee under this permit is only responsible for permit conditions relating to discharges from the MS4 under its jurisdiction for which it is the owner or operator.

1.2 Permitted Area

This permit covers all areas under the ownership, control or jurisdiction of the co-permittees that contribute to discharges from a municipal separate storm sewer system (MS4) that receives runoff from an urbanized area, adjacent developing areas and areas whose runoff is connected or will connect to a municipal separate storm sewer regulated under subch. I of ch. NR 216, Wis. Adm. Code.

1.3 Co-Permittees

There are 21 municipalities (or co-permittees) covered under this permit including: The Cities of Fitchburg, Madison, Middleton, Monona, Stoughton, Sun Prairie, and Verona; the Villages of Cottage Grove, DeForest, Maple Bluff, McFarland, Shorewood Hills, Waunakee and Windsor; the Towns of Blooming Grove, Burke, Madison, Middleton and Westport; Dane County; and the University of Wisconsin – Madison.

As a state entity, the University Wisconsin **-** Madison owns, controls and/or has jurisdiction in lands outside of their responsible MS4 permit compliance area. The lands outside of their permit compliance area shall be accounted under this WPDES permit as in the jurisdiction of the applicable co-permittee where they reside.

1.4 Dane County

Specifically, for Dane County as a co-permittee, this permit only authorizes discharges of storm water from the MS4 owned or operated by Dane County that occur within the geographical boundaries of the other co-permittees.

1.5 Authorized Discharges

1.5.1 This permit authorizes storm water point source discharges from the co-permittee's MS4 to waters of the state in the permitted area. This permit also authorizes the discharge of storm water co-mingled with flows contributed by process wastewater, non-process wastewater, and storm water associated with industrial activity, provided the discharges are regulated by other WPDES permits or are discharges which are not considered illicit discharges pursuant to section 3.3 of this permit.

1.5.2 A permanent pumped storm water discharge from an otherwise internally drained area may be authorized under this permit, provided all of the following:

a. Written confirmation must be received from the Department's storm water program that the discharge is authorized under this permit. The co-permittee shall provide the Department with a pumping management plan and other information it deems relevant to determine if the discharge should be authorized under this permit.

b. The pumped discharge shall be operated in a manner to prevent accumulated sediment from entering the pumped water intake.

c. The discharge shall be operated in a manner to prevent downgradient erosion.

1.5.3 The City of Middleton is authorized to discharge pumped water from Tiedeman Pond, which will flow over a mile before entering Lake Mendota, with additional requirements in section 4.2.

Note: The pumped discharge from Tiedeman Pond was previously authorized under WPDES permit no. WI-0049956-1. Once this permit is reissued, the Department will send a letter to the City of Middleton terminating its coverage under WPDES permit no. WI-0049956-1.

1.5.4 The City of Stoughton is authorized to discharge pumped water from Paradise Pond, which will flow over a mile before entering the Yahara River, with additional requirements in section 4.4.

Note: Authorization under this WPDES permit does not exempt the discharge from compliance with all other applicable local, state and federal regulations.

1.6 Water Quality Standards

1.6.1 This permit specifies the conditions under which storm water may be discharged to waters of the state for the purpose of achieving water quality standards contained in chs. NR 102 through 105, 140 and 207, Wis. Adm. Code. For the term of this permit, compliance with water quality standards will be addressed by adherence to the requirements in this permit.

1.6.2 This permit does not authorize discharges that the Department determines will cause or have reasonable potential to cause or contribute to an exceedance above any applicable water quality standards.

1.7 Outstanding and Exceptional Resource Waters

1.7.1 The co-permittee shall determine whether any part of its MS4 discharges to an outstanding resource water (ORW) or exceptional resource water (ERW). ORWs and ERWs are listed in ss. NR 102.10 and 102.11, Wis. Adm. Code. As of the issuance date of this permit, Black Earth Creek is an ORW and Sixmile Creek and the Sugar River are ERWs.

Note: An unofficial list of ORWs and ERWs may be found on the Department's Internet site at: http://dnr.wi.gov/topic/SurfaceWater/orwerw.html

1.7.2 The co-permittee may not establish a new MS4 discharge of pollutants to an ORW or an ERW unless the storm water management programs required under this permit are designed to ensure that any new MS4 discharge of pollutants to an ORW or ERW will not exceed background concentration levels within the ORW or ERW.

Note: 'New MS4 discharge of pollutants' is defined under section 7.16.

1.7.3 If the co-permittee has an existing MS4 discharge to an ORW, it may increase the discharge of pollutants, either at the existing point of discharge or a new location, provided all the following are met:

a. The pollutant concentration within the receiving water and under the influence of the existing discharge would not increase as compared to the level that existed prior to the co-permittee's effective date of coverage under WPDES permit nos. WI-S050075-1 or WI-S058416-3. The City of Stoughton and Village of Cottage Grove had an effective date of coverage of November 13, 2006 under WPDES permit no. WI-S050075-1 and the other 19 co-permittees had an effective date of coverage of July 1, 2009 under WPDES permit no. WI-S058416-3.

b. The increased discharge would not result in a violation of water quality standards.

1.7.4 If the co-permittee has an existing MS4 discharge to an ERW, it may increase the discharge of pollutants if the increased discharge would not result in a violation of water quality standards.

1.8 Impaired Water Bodies and Total Maximum Daily Load Requirements

1.8.1 A TMDL was approved for the Rock River Basin by the Department and USEPA, which established sediment and total phosphorus Wasteload Allocations (WLAs) for permitted MS4s. Co-permittees shall comply with the TMDL provisions in Appendix A for discharge into the Rock River Basin.

Note: The reports for Department and USEPA approved TMDLs are available from the Department's Internet site at: https://dnr.wi.gov/topic/TMDLs/tmdlreports.html

1.8.2 By March 31 of each odd-numbered year, the co-permittee shall determine whether any part of its MS4 discharges to an impaired water listed in accordance with section 303(d)(1) of the federal Clean Water Act, 33 USC §1313(d)(1)(C), and the implementing regulation of the US Environmental Protection Agency, 40 CFR §130.7(c)(1). For a co-permittee that determines that any part of its MS4 does discharge to a listed impaired water but for which there is no Department and USEPA approved Total Maximum Daily Load (TMDL) for the pollutant of concern, the co-permittee shall include a written section in its storm water management program that discusses the management practices and control measures it will implement as part of its program to reduce, with the goal of eliminating, the discharge of pollutant(s) of concern that contribute to the impairment of the water body. This section of the co-permittee's program shall specifically identify control measures and practices that will collectively be used to try to eliminate the MS4's discharge of pollutant(s) of concern that contribute to the impairment of the water body and explain why these control measures and practices were chosen as opposed to other alternatives.

Note: Every two years, the Department updates and publishes a list of water bodies considered impaired under the Clean Water Act. The list is updated in even-numbered years. A list of Wisconsin impaired water bodies may be found on the Department's Internet site at: http://dnr.wi.gov/topic/impairedwaters/

1.8.3 The co-permittee may not establish a new MS4 discharge of pollutants of concern to an impaired water or increase the discharge of a pollutant of concern to an impaired water unless the new or increased discharge does not contribute to the receiving water's impairment, or the US Environmental Protection Agency and the Department have approved a Total Maximum Daily Load (TMDL) for the impaired water.

Note: ‘New MS4 discharge of pollutants’ and ‘pollutant of concern’ are defined under sections 7.16 and 7.20.

1.9 Wetlands

The co-permittee’s MS4 discharge shall comply with the applicable wetland water quality standards provisions in ch. NR 103, Wis. Adm. Code.

1.10 Endangered and Threatened Resources

The co-permittee’s MS4 discharge shall comply with the endangered and threatened resource protection requirements of s. 29.604, Wis. Stats., and ch. NR 27, Wis. Adm. Code.

1.11 Historic Property

The co-permittee’s MS4 discharge may not affect any historic property that is listed property, or on the inventory or on the list of locally designated historic places under s. 44.45, Wis. Stats., unless the Department determines that the MS4 discharge will not have an adverse effect on historic property pursuant to s. 44.40 (3), Wis. Stats.

1.12 General Storm Water Discharge Limitations

In accordance with s. NR 102.04, Wis. Adm. Code, co-permittee shall take all reasonable actions to prevent discharges from its MS4 that have an unreasonable effect on receiving water quality, human health, or aquatic life:

1.12.1 Substances that will cause objectionable deposits on the shore or in the bed of a body of water, shall not be present in such amounts as to interfere with public rights in waters of the state.

1.12.2 Floating or submerged debris, oil, scum or other material shall not be present in such amounts as to interfere with public rights in waters of the state.

1.12.3 Materials producing color, odor, taste or unsightliness shall not be present in such amounts as to interfere with public rights in waters of the state.

1.12.4 Substances in concentrations or combinations which are toxic or harmful to humans shall not be present in amounts found to be of public health significance, nor shall substances be present in amounts which are acutely harmful to animal, plant or aquatic life.

1.13 Transfers

Coverage under this permit is not transferable to another municipality without the express written approval of the Department. If the co-permittee’s MS4 is annexed into another municipality, the co-permittee shall immediately notify the Department by letter of the change. If the co-permittee ceases to own or operate any MS4 regulated under this permit, the Department may terminate its coverage under this permit.

1.14 Exclusions

The following are excluded from coverage and are not authorized under this permit:

1.14.1 Combined Sewer and Sanitary Sewer Systems

Discharges of water from a sanitary sewer or a combined sewer system conveying both sanitary and storm water. These discharges are regulated under a separate WPDES permit issued pursuant to s. 283.31, Wis. Stats.

1.14.2 Agricultural Facilities and Practices

Discharges from agricultural facilities and agricultural practices. “Agricultural facility" means a structure associated with an agricultural practice. “Agricultural practice" means beekeeping;

commercial feedlots; dairying; egg production; floriculture; fish or fur farming; grazing; livestock raising; orchards; poultry raising; growing of grain, grass, mint and seed crops; growing of fruits, nuts and berries; sod farming; placing land in federal programs in return for payments in kind; owning land, at least 35 acres of which is enrolled in the conservation reserve program under 16 USC 3831 to 3836; and vegetable raising.

1.14.3 Other Excluded Discharges
Storm water discharges from industrial operations or land disturbing construction activity requires separate coverage under a WPDES permit pursuant to subchs. II or III of ch. NR 216, Wis. Adm. Code. For example, while storm water from industrial or construction activity may discharge from an MS4, this permit does not satisfy the need to obtain any other permits for those discharges. This exclusion does not apply to the co-permittee’s responsibility to regulate construction sites within its jurisdiction in accordance with sections 3.4 and 3.5 of this permit.

1.14.4 Non-MS4 Discharge
Storm water discharges that do not enter an MS4.

1.15 Compliance with Permit Requirements
Compliance with the requirements contained in this permit including the applicable appendices shall not be contingent upon receiving financial assistance from the Department or any other public or private grant or loan program.

2. GENERAL RESPONSIBILITIES FOR ALL CO-PERMITTEES

In addition to the requirements specified in sections 1 and 3 through 7, each co-permittee shall:

2.1 Minimize the discharge of pollutants from its MS4.

2.2 Implement the storm water management program and other pertinent requirements of this permit in all new areas added to the co-permittee’s MS4 as the result of annexation by the co-permittee.

2.3 Implement the storm water management program and other pertinent requirements of this permit in all new areas added to the co-permittee’s MS4 as the result of installation or taking jurisdiction of a new or existing MS4.

2.4 Individually or as agreed upon by the co-permittees, provide adequate financing, staff, equipment, and support capabilities to implement the requirements of this permit.

2.5 Comply with the conditions of this permit relating to discharges from the MS4 where it is the owner or operator.

2.6 Implement a storm water management program, as required by this permit, in portions of the municipality that discharge to an MS4.

2.7 Exercise and enforce its legal authority, as applicable, to control discharges to and from those portions of the MS4 that it owns or operates under its permitted area. This legal authority may be a statute, ordinance, permit, order or intermunicipal agreement, a series of contracts, or administrative rule in order to:

2.7.1 Control the contribution of pollutants to and the discharge of pollutants from the MS4.

2.7.2 Prohibit illicit discharges to the MS4.

2.7.3 Control the discharge of spills, dumping and disposal of materials other than storm water into the MS4.

2.7.4 Require compliance with conditions in ordinances, permits, contracts, orders or administrative rules.

2.7.5 Require compliance with the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.

2.7.6 Require compliance with the standards of ss. NR 151.121 to 151.128 and 151.241 to 151.249, Wis. Adm. Code, or equivalent local standards.

2.7.7 Carry out all inspections, surveillance and monitoring procedures necessary to determine compliance with permit conditions including the prohibition of illicit discharges to the MS4.

Note: As a state entity, the University of Wisconsin – Madison has limited statutory authority than that of other municipal co-permittees regulated under this permit. See section 4.6 for the University of Wisconsin – Madison's individual responsibility to meet the requirements of section 2.7.

2.8 Attend and participate in quarterly meetings of the co-permittees. Unless an alternative quarterly date or dates are agreed upon by the co-permittees, the quarterly meetings shall take place the first Tuesday of February, May, August, and November of each year. These meetings are to be used for review and approval schedules, receive work progress reports, and discuss issues pertaining to this permit or other relevant storm water management issues. Each co-permittee shall designate a representative to attend these meetings. The representative of the City of Madison shall provide the agenda, facilitate the conduct of the meetings, and provide a record of the proceedings in the form of minutes. The meetings shall be held at times and places determined by the co-permittees. Adequate notices of and agendas for the meetings shall be provided by the facilitator to the designated representatives for each co-permittee.

2.9 Cooperate with other co-permittees on sharing information and resources to facilitate storm water management activities on a regional or watershed basis and to avoid duplicative efforts.

2.10 Fulfill the commitments of an intermunicipal agreement to cooperate on storm water information and education.

2.11 Notify the affected co-permittee in the case of discovering a potential illicit discharge originating from its jurisdiction and discharging to the MS4 of the affected co-permittee.

2.12 Work cooperatively with other affected co-permittees in the case of discovering a potential illicit discharge of unknown source to determine the best actions to resolve the illicit discharge.

2.13 Submit information requested by the Department pertinent to the MS4, discharges from the system, activities related to implementation of the requirements of this permit, or other relevant information.

2.14 Meet with the Department on an as needed basis to discuss implementation of this permit or other relevant issues.

2.15 Keep contact information up-to-date and notify the Department in a timely manner when personnel changes occur for the appropriate contact person(s) knowledgeable about this permit and its implementation.

2.16 Respond to and resolve in timely manner complaints received from citizens and concerns raised by the Department relating to pollution and storm water issues within the co-permittee's jurisdiction.

2.17 Coordinate the requirements of this permit internally between the co-permittee's agencies, departments, and programs, and ensure that elected and municipal officials and appropriate staff are advised of this permit.

2.18 Implement the requirements of this permit in a manner that is consistent with the recommendations contained in priority watershed plans, the Dane County Water Quality Plan, and other storm water management plans funded by the Department and applicable to the co-permittee.

2.19 Incorporate the requirements of this permit in the development of master plans, neighborhood plans, development plans, and any other comprehensive planning activity to address water quality impacts from storm water discharges associated with implementation of these plans.

2.20 Undertake actions required by this permit in manner that is consistent and in conformance with other applicable regulatory programs.

Note: Examples of other regulatory programs that may be applicable are the U.S. Army Corps of Engineers 404 permit program and permits required under ch. 30, Wis. Stats.

3. PERMIT CONDITIONS

This permit establishes the following measurable goals, with a compliance schedule in section 5, for the co-permittee to maintain compliance with the minimum control measures for their storm water management program described under sections 3.1 through 3.6. The following permit conditions apply to the co-permittee, unless the Department issues a written determination that a condition is not appropriate under the circumstances. The co-permittee shall have a written storm water management program that describes in detail how the co-permittee intends to comply with the permit's requirements for each minimum control measure. The permit shall begin implementing any updates to its storm water management programs no later than March 31, 2021.

3.1 Public Education and Outreach

Each co-permittee shall maintain its public education and outreach program to increase the awareness of storm water pollution impacts on waters of the state and to encourage changes in public behavior to reduce such impacts. The co-permittee shall implement the following measurable goals:

3.1.1 MAMSWAP Membership. Continue to be a member of the Madison Area Municipal Storm Water Partnership (MAMSWaP) information and education program. Alternatively, if a co-permittee discontinues to be a member of the MAMSWaP information and education program then they must develop and implement a work plan on their own that otherwise meets the requirements of section 3.1 of this permit.

3.1.2 MAMSWaP Education Plan. Participate in the implementation of the most recent *Madison Area Municipal Storm Water Partnership (MAMSWaP) 5-Year Information and Education Plan*, which are prepared on behalf of the co-permittees. By December 1 of each year, the co-permittees shall collectively develop an annual work plan to guide implementation of the MAMSWaP information and education plan for the following calendar year. The information and education plan shall establish measurable goals for the topic areas listed in Table 1 below.

Note: MAMSWaP information and education plan documents are available online at**:** **http://www.ripple-effects.com/mamswap**

3.1.3 Educator Coordinator Cooperation. Cooperate with and assist the person functioning in the Storm Water Education Coordinator position created pursuant to the information and education agreement by providing pertinent information requested by the coordinator to facilitate implementation of the information and education plan. This section is not applicable if the co-permittee discontinues participation in the MAMSWaP information and education program.

3.1.4 Topics. Each co-permittee is individually responsible to have its own public education and outreach plan, which should follow the MAMSWaP information and educational plan and be adapted to its own municipality. Each co-permittee shall address all eight topics in Table 1 at least once during the permit term with a minimum of six topics being addressed each year, except, co-permittees that are a City, Village, or Town with a population less than 5,000 based on the latest U.S. Census, shall address a minimum of four topics each year. Topics may be repeated as necessary. Co-permittees shall select from the topic areas in Table 1.

Note: Universities should average its enrolled student population plus employee population over a recent ten-year period to determine which requirement it should follow for permit compliance. Universities are also expected to undertake public education efforts that reach the entire student body and staff.

Table 1: Public Education and Outreach Topic Areas and Descriptions

#	Topic Area	Description
1	Illicit Discharge Detection and Elimination	Promote detection and elimination of illicit discharges and water quality impacts associated with such discharges from municipal separate storm sewer systems.
2	Household Hazardous Waste Disposal/Pet Waste Management/Vehicle Washing	Inform and educate the public about the proper management of materials that may cause storm water pollution from sources including automobiles, pet waste, household hazardous waste and household practices.
3	Yard Waste Management/Pesticide and Fertilizer Application	Promote beneficial onsite reuse of leaves and grass clippings and proper use of lawn and garden fertilizers and pesticides.
4	Stream and Shoreline Management	Promote the management of streambanks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways.
5	Residential Infiltration	Promote infiltration of residential storm water runoff from rooftop downspouts, driveways and sidewalks.
6	Construction Sites and Post-Construction Storm Water Management	Inform and 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.
7	Pollution Prevention	Identify businesses and activities that may pose a storm water contamination concern and educate those specific audiences on methods of storm water pollution prevention.
8	Green Infrastructure/Low Impact Development	Promote environmentally sensitive land development designs by developers and designers, including green infrastructure and low impact development.

Note: Additional information on green infrastructure and low impact development may be found on the USEPA's Internet site at: https://www.epa.gov/green-infrastructure

3.1.5 Delivery mechanism. The co-permittee shall use at least four public education delivery mechanisms each year. co-permittees that are a City, Village, Town, or University with a population of 5,000 or more based on the latest U.S. census shall use at least two from the Active/Interactive Mechanisms column in Table 2 each year. Co-permittees that are a City, Village, Town or University with a population less than 5,000 based on the latest U.S. census shall use at least one from the Active/Interactive Mechanisms column in Table 2 each year. Co-permittees that are a County shall use at least one from the Active/Interactive Mechanisms column in Table 2 each year."

Note: A University should average its enrolled student population plus employee population over a recent ten-year period to determine which requirement it should follow for permit compliance. Universities are also expected to undertake public education efforts that reach the entire student body and staff.

Table 2: Public Education and Outreach Delivery Mechanisms (Active and Passive)

Active/Interactive Mechanisms	Passive Mechanisms
• Educational activities (school presentations, summer camps) • Informational booth at event • Targeted group training (contractors, consultants, etc.) • Government event (public hearing, council meeting) • Workshops • Tours • Others	• Passive print media (brochures at front desk, posters, etc.) • Distribution of print media (mailings, newsletters, etc.) via mail or email • Media offerings (radio and TV ads, press release, etc.) • Social media posts • Signage • Website • Other

3.1.6 Target audience. The co-permittee shall identify the target audience for each public education and outreach topic. Target audiences may include general public, public employees, residents, businesses, restaurants, contractors, developers, industries, and/or other appropriate audience.

3.2 Public Involvement and Participation

Each co-permittee shall maintain its public involvement and participation program, which complies with applicable state and local public notice requirements, to notify the public of activities required by this permit and to encourage input and participation from the public regarding these activities. The co-permittee shall implement the following measurable goals:

3.2.1 Permit activities. The co-permittee shall provide a minimum of one opportunity annually for the public to provide input on each of the following permit activities: annual report, storm water management program, and if applicable, adoption or amendment of storm water related ordinances.

3.2.2 Delivery mechanism. The co-permittee shall identify the public involvement and participation delivery mechanism for each permit activity mentioned in section 3.2.1. Delivery mechanisms may include, but not be limited to, public workshop, presentation of storm water information, government event (public hearing, council meeting, etc.), citizen committee meeting, or website.

3.2.3 Volunteer activity. The co-permittee must implement at a minimum one of the following volunteer public involvement and participation programs per year: group best management practice (BMP) installation/maintenance, storm drain stenciling, planting community rain garden, clean up events, stream monitoring, citizen committee meetings, public workshop, presentation of storm water information, or other hands-on events.

3.2.4 Target participants. The co-permittee shall identify the targeted participants for each permit activity and volunteer program. Participants may include general public, public employees, residents, businesses, contractors, developers, industries, and/or other appropriate audience.

3.3 Illicit Discharge Detection and Elimination

The co-permittee shall continue to implement and enforce its program to detect and remove illicit connections and discharges to the MS4. The co-permittee shall implement the following measurable goals:

3.3.1 IDDE ordinance. An ordinance or other regulatory mechanism to prevent and eliminate illicit discharges and connections to the MS4. At a minimum, the ordinance or other regulatory mechanism shall:

a. Prohibit illicit discharges and the discharge, spilling or dumping of non-storm water substances or materials into waters of the state or the MS4.

b. Identify non-storm water discharges or flows that are not considered illicit discharges. Categories of non-storm water discharges that are not considered illicit discharges include water line flushing, landscape irrigation, diverted stream flows, uncontaminated groundwater infiltration, uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, fire-fighting and discharges authorized under a WPDES permit. However, the occurrence of a discharge listed above may be considered an illicit discharge on a case-by-case basis if the co-permittee or the Department identifies it as a significant source of a pollutant to waters of the state.

c. Establish inspection and enforcement authority.

Note: Chapter NR 815, Wis. Adm. Code, regulates injection wells including storm water injection wells. Construction or use of a well to dispose of storm water directly into groundwater is prohibited under s. NR 815.11(5), Wis. Adm. Code.

3.3.2 IDDE field screening. On-going dry weather field screening shall be conducted at 100% of the total major outfalls at least once during the term of the permit. Additionally, the co-permittee shall select minor outfalls for annual on-going dry weather field screening during the term of the permit. The co-permittee shall develop a prioritization procedure to assist with selecting minor outfalls and consideration shall be given to hydrological conditions, total drainage area of the site, population density of the site, traffic density, age of the structures or buildings in the area, history of the area and land use types when selecting outfalls for annual field screening. At a minimum, field screening shall be documented and include:

a. Visual Observation - A narrative description of visual observations including color, odor, turbidity, oil sheen or surface scum, flow rate and any other relevant observations regarding the potential presence of non-storm water discharges or illicit dumping.

b. Field Analysis - If flow is observed, a field analysis shall be conducted to determine the presence of illicit non-storm water discharges or illicit dumping. The field analysis shall include sampling for pH, total chlorine, total copper, total phenol and detergents, unless the co-permittee elects instead to use detergent, ammonia, potassium and fluoride as the indicator parameters. Other alternative indicator parameters may be authorized by the Department in writing.

(1) Field screening points shall, where possible, be located downstream of any source of suspected illicit activity.

(2) Field screening points shall be located where practicable at the farthest manhole or other accessible location downstream in the system. Safety of personnel and accessibility of the location shall be considered in making this determination.

Note: The Department's MS4 Illicit Discharge Detection and Elimination guidance document includes several recommendations and criteria regarding selection of outfalls for field screening, screening frequency, indicator parameter selection, indicator parameter action levels and documentation. The Illicit Discharge Detection and Elimination guidance is available on the Department's Internet site at: https://dnr.wi.gov/topic/stormwater/municipal/overview.html

3.3.3 IDDE source investigation and elimination. Written procedures for responding to known or suspected illicit discharges. At a minimum, procedures shall be established for:

a. As soon as possible, investigating portions of the MS4 that, based on the results of field screening or other information, indicate a reasonable potential for containing illicit discharges or other sources of non-storm water discharges.

b. Responding to spills that discharge into and/or from the MS4 including tracking and locating the source of the spill if unknown.

c. Preventing and containing spills that may discharge into or are already within the MS4.

d. Promoting, publicizing, and facilitating public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s through a central contact point, including a form, website, email address and/or telephone number for complaints and spill reporting, and publicize to both internal co-permittee staff and the public.

e. Notifying the Department immediately in accordance with ch. NR 706, Wis. Adm. Code, if the co-permittee identifies a spill or release of a hazardous substance, which has resulted or may result in the discharge of pollutants into waters of the state. The Department shall be notified via the 24-hour toll free spill hotline at 1-800-943-0003. The co-permittee shall cooperate with the Department in efforts to investigate and prevent such discharges from polluting waters of the state.

f. Detecting and eliminating cross-connections and leakage from sanitary conveyance systems into the MS4.

g. Providing the Department storm water program with advanced notice of the time and location of dye testing within an MS4. Department notification prior to dye testing is required due to the likelihood that dye observed in waterways will be reported to the Department as an illicit discharge or spill.
Note: The current storm water program contact is Eric Rortvedt and he may be notified via email at: Eric.Rortvedt@wisconsin.gov

h. Documentation of the following information:

(1) Dates and locations of IDDE screenings conducted in accordance with section 3.3.2.

(2) Reports of alleged illicit discharges received, including dates of the reports, and any follow-up actions taken by the co-permittee.

(3) Dates of discovery of all illicit discharges.

(4) Identification of outfalls, or other areas, where illicit discharge have been discovered.

(5) Sources (including a description and the responsible party) of illicit discharges (if known).

(6) Actions taken by the co-permittee, including dates, to address discovered illicit discharges.

3.3.4 The co-permittee shall take appropriate action to remove known illicit discharges from its MS4 system discovered under section 3.3 as soon as possible. If it will take more than 30 days to remove an illicit connection or if the potential illicit discharge is from a facility with WPDES permit coverage, the Department shall be contacted to discuss an appropriate action and/or timeframe for removal. Notwithstanding this 30-day timeframe and notification of the Department, the permittee shall be responsible for any known illicit connections to its MS4 system that are a significant risk to human health and the environment.

3.3.5 In the case of interconnected MS4s, the co-permittee shall notify the appropriate municipality within one working day of either of the following:

a. An illicit discharge that originates from the co-permittee’s permitted area that discharges directly to a municipal separate storm sewer or property under the jurisdiction of another municipality.

b. An illicit discharge that has been tracked upstream to the interconnection point with or outfall from another municipality.

3.3.6 The name, title and phone number of the individual(s) responsible for responding to reports of illicit discharges and spills shall be included in the illicit discharge response procedure.

3.4 Construction Site Pollutant Control

Except for the University of Wisconsin-Madison as identified under section 4.6 of this permit, the co-permittee shall implement and enforce its program to reduce the discharge of sediment and construction materials from construction sites. The co-permittee shall implement the following measurable goals:

3.4.1 Construction site ordinance. An ordinance or other regulatory mechanism to require erosion and sediment control at construction sites and establish sanctions to ensure compliance. At a minimum, the ordinance or other regulatory mechanism shall establish or include:

a. Applicability and Jurisdiction, pursuant to the authority provided to the co-permittee under Wisconsin statutes, the ordinance shall apply to all construction sites with one acre or more of land disturbance, and to sites of less than one acre if they are part of a larger common plan of development or sale.

Note: The Department has guidance, dated February 2015, defining common plan of development at:
https://dnr.wi.gov/topic/stormwater/documents/GuidanceCommonPlan.pdf

b. Requirements for design and implementation of erosion and sediment control practices consistent with the criteria of those approved by the Department.

Note: Department approved erosion and sediment control practices may be found on the Department's Internet site at:
https://dnr.wi.gov/topic/stormwater/standards/const_standards.html

c. Construction site performance standards equivalent to those in ss. NR 151.11(6m), (7), and (8), and 151.23(4m), (5), and (6), Wis. Adm. Code, to achieve the following measurable goals:

(1) BMPs for construction sites that, by design, discharge no more than 5 tons per acre per year, or to the Maximum Extent Practicable (MEP), of the sediment load carried in runoff from initial grading to final stabilization.

(2) BMPs for transportation facilities that, by design, discharge no more than 5 tons per acre per year, or to the MEP, of the sediment load carried in runoff from initial grading to final stabilization.

Note: The requirements for erosion and sediment control practices, sediment performance standards, and preventive measures for non-transportation facilities can be found in s. NR 151.11(6m), Wis. Adm. Code, and for transportation facilities can be found in NR. 151.23(4m), Wis. Adm. Code.

d. Erosion and sediment control plan requirements for landowners of construction sites equivalent to those contained in s. NR 216.46, Wis. Adm. Code.

e. Inspection and enforcement authority.

f. Requirements for construction site operators to manage waste such as discarded building materials, concrete truck washout, chemicals, litter and sanitary waste at the construction site to reduce adverse impacts to waters of the state.

Note: In accordance with section 3.10, when a town demonstrates to the Department that an adequate county ordinance that meets the requirements of this permit is administered and enforced within its town, then the town may be excused from having to adopt its own ordinance. Model ordinances for construction site erosion and sediment control can be found in ch. NR 152, Wis. Adm. Code: https://docs.legis.wisconsin.gov/code/admin_code/nr/100/152

3.4.2 Erosion and sediment plan review. Written procedures for construction site plan review which incorporate consideration of potential water quality impacts. Preconstruction erosion control plan reviews shall be conducted for all construction sites with greater than one acre of land disturbance.

3.4.3Administrative procedures. Written procedures for the administration of the construction site pollutant control program including the process for obtaining local approval, managing and responding to complaints, tracking regulated construction sites, and construction site plan receipt and consideration of information submitted by the public.

3.4.4 Construction site inspections and enforcement. Written procedures for construction site inspection and enforcement of erosion and sediment control measures. By April 1, 2020, at a minimum, the procedures shall establish:

a. Municipal departments or staff responsible for construction site inspections and enforcement.

Note: Municipal construction site inspectors should obtain certification as a Soil Erosion Inspector pursuant to s. SPS 305.63, Wis. Adm. Code, for more information: https://dsps.wi.gov/Pages/Professions/SoilErosionInspector/Default.aspx

b. Construction site inspection frequency. The co-permittee shall inspect all construction sites, at a minimum, in accordance with the frequency specified in **Error! Reference source not found.** below.

Table 3: Construction Site Inspection Frequency

Site	Inspection Frequency
(1) All sites one acre or more in size	• New projects shall be inspected within the first two weeks of commencement of land disturbing construction activity • All active sites shall be inspected at least once every 45 days • All inactive sites shall be inspected at least once every 60 days
(2) Follow up inspection	• Follow up inspections are required within 7 days of any sediment discharge or inadequate control measure, unless corrections were made and observed by the inspector during initial inspection or corrections were verified via photographs submitted to the inspector
(3) Final inspection	• Confirm that all graded areas have reached final stabilization and that all temporary control measures are removed, and permanent storm water management BMPs are installed as designed

c. Construction site inspection documentation. Compliance with the inspection requirements in 3.4.4.a. and b. above, shall be determined by proper documentation and maintenance of records of an established inspection program designed to inspect all sites.

Note: The Department's Construction Site Inspection Report (Form 3400-187) may be used to document inspections. The form can be found on the Department's Internet site at: https://dnr.wi.gov/topic/Stormwater/construction/forms.html

d. Enforcement mechanisms that will be used to obtain compliance.

3.5 Post-Construction Storm Water Management

Except for the University of Wisconsin – Madison as identified under section 4.6, the co-permittee shall implement and enforce its program to require control of discharges from areas of new development, infill, and redevelopment, after construction is completed. The co-permittee shall implement the following measurable goals:

3.5.1 Post-construction storm water ordinance. An ordinance or other regulatory mechanism to regulate post-construction storm water discharges from new development and redevelopment. At a minimum, the ordinance or other regulatory mechanism shall establish or include:

a. Applicability and jurisdiction, pursuant to the authority provided to the co-permittee under Wisconsin statutes, the ordinance shall apply to construction sites with one acre or more of land disturbance, and sites of less than one acre if they are part of a larger common plan of development or sale.

b. Requirements for design and implementation of post-construction storm water management control practices consistent with the criteria of those approved by the Department.

Note: Department approved post-construction storm water management control practices may be found on the Department's Internet site at: https://dnr.wi.gov/topic/stormwater/standards/postconst_standards.html

c. For new development and infill, post-construction performance standards equivalent to those in ss. NR 151.122 through 151.126 and 151.242 through 151.246, Wis. Adm. Code, that meet the measurable goals for pollutant removal and post-construction storm water treatment. Post-construction performance standards for new development and infill may be more restrictive than those required in this section 3.5.1.c. if necessary to comply with federally approved TMDL requirements.

d. For redevelopment, post-construction performance standards equivalent to or more restrictive than those in ss. NR 151.122 through 151.126 and 151.242 through 151.246, Wis. Adm. Code, that meet the measurable goals for pollutant removal and post-construction storm water treatment.

e. Storm water plan requirements for landowners of construction sites equivalent to those contained in s. NR 216.47, Wis. Adm. Code.

f. Long-term maintenance requirements for landowners and other persons responsible for long-term maintenance of post-construction storm water control measures, including requirements for routine inspection and maintenance of privately-owned post-construction storm water control measures that discharge to the MS4 to maintain their pollutant removal operating efficiency.

g. Inspection and enforcement authority.

Note: In accordance with section 3.10, when a town demonstrates to the Department that an adequate county ordinance that meets the requirements of this permit is administered and enforced within its town, then the town may be excused from having to adopt its own ordinance. Model ordinances for post-construction storm water management can be found in ch. NR 152, Wis. Adm. Code: https://docs.legis.wisconsin.gov/code/admin_code/nr/100/152

3.5.2 Administrative procedures. Written procedures for the administration of the post-construction storm water management program including the process for obtaining local approval and responding to complaints.

3.5.3 Storm water management plan review. Written procedures for post-construction site plan review which incorporate consideration of potential water quality impacts. Post-construction site plan reviews should be conducted for all construction sites (both publicly or privately sponsored) with greater than one acre of land disturbance.

Note: The Department recommends that municipal staff reviewing plans obtain training on post-construction plan review.

3.5.4 Long-term maintenance, inspections and enforcement. Written procedures that will be used by the co-permittee through its ordinance jurisdiction, approval process, and authority to, at a minimum, track and enforce the long-term maintenance of storm water management facilities implemented to meet the applicable post-construction performance standards in section 3.5.1.c and d of this permit. The procedures shall include:

a. A mechanism for tracking regulated sites.

b. A set inspection frequency of no less than once per permit term.

c. Inspection documentation.

d. Follow up enforcement with timeframes for corrective maintenance.

3.6 Pollution Prevention

The co-permittee shall continue to implement its pollution prevention program to prevent or reduce pollutant runoff from the MS4 to waters of the state. The co-permittee shall implement the following measurable goals:

3.6.1 Storm water management facilities. Update and maintain an inventory of municipally owned or operated storm water best management BMPs such as wet detention ponds, bioretention devices, infiltration basins and trenches, permeable pavement, proprietary sedimentation devices, vegetated swales, or any similar practices or devices used to meet a water quality requirement under this permit. At a minimum, the inventory shall be maintained in a tabular format and contain the following information for each best management practice:

a. A key corresponding to the location of the BMP on the storm sewer system map required under section 3.8.

b. The name and a description of the BMP, including the type and year constructed.

c. A confirmation of whether each of the following elements exist or are not available:

(1) An operation and maintenance plan with inspection procedures and schedule.

(2) A record drawing.

Note: A record drawing is a complete clean set of drawings that accurately reflect how the final practice was built.

(3) If owned by another entity but used by the co-permittee to meet a water quality requirement in this permit, written documentation that the co-permittee has permission from the owner to use the BMP for this purpose.

3.6.2 For each BMP inventoried under section 3.6.1, the co-permittee shall develop and implement a maintenance plan with inspection procedures and schedule to maintain the pollutant removal operating efficiency of the practice in compliance with any water quality requirement under this permit. Documentation of inspections and maintenance activities shall be maintained.

Note: Chapter NR 528, Wis. Adm. Code, *Management of Accumulated Sediment from Storm Water Management Structures*, establishes a process to regulate sediment removal and use to help storm water pond owners manage storm water pond sediment. Information on NR 528 and managing accumulated sediment from storm water ponds is available through the Department's Internet site at: https://dnr.wi.gov/topic/waste/nr528.html

3.6.3 Municipally owned facilities. The Storm Water Pollution Prevention Plans (SWPPPs) for municipal garages, municipal storage areas, and other sources of storm water pollution from municipal facilities located within the permitted area shall be maintained and updated annually as needed and shall include the information in sections 3.6.3.a. When a SWPPP is updated, it shall be submitted to the Department with the annual report.

a. SWPPPs shall include the following information:

(1) The physical locations of each facility with a key corresponding to the locations on the storm sewer system map required under section 3.8.

(2) The contact information for the individual(s) with overall responsibility for each facility.

(3) A map of each facility, drawn to scale, and including the following features:

i. The locations and descriptions of major activities and storage areas.

ii. Identification of drainage patterns, potential sources of storm water contamination, and discharge points.

iii. Identification of nearby receiving waters or wetlands.

iv. Identification of connections to the co-permittee's MS4.

(4) A description of procedures, good housekeeping activities, and any BMPs installed to reduce or eliminate storm water contamination.

(5) A maintenance plan with inspection procedures and schedule for each facility to identify deficiencies, necessary improvements and/or repairs, assess effectiveness, and address new or unaddressed potential sources of storm water contamination.

(6) Spills prevention and response standard operating procedures.

b. The co-permittee is not required to comply with section 3.6.3 if the co-permittee certifies that the municipal facility qualifies for no exposure with the Department's concurrence.

(1) No exposure means that the facility shall have all materials and activities protected by a storm-resistant shelter to prevent exposure to storm water. Materials or activities include material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products or waste products. Material handling activities include the storage, loading and unloading, transportation or conveyance of any raw material, intermediate product, final product or waste product.

(2) The co-permittee shall certify for no exposure for each facility at least once each permit term. The co-permittee shall submit a letter requesting no exposure, an inspection report of the site, and photos of all materials or activities at the site. The photo locations shall be labeled on an aerial photo diagram.

3.6.4 Implement measures to reduce municipal sources of storm water contamination within source water protection areas.

Note: Wisconsin's source water assessment program information may be found on the Department's Internet site at: https://dnr.wi.gov/topic/drinkingwater/sourcewaterprotection.html

3.6.5 Collection services/Storm sewer system maintenance activities.

a. Street sweeping. If routine street sweeping is utilized to meet a water quality requirement under this permit, the co-permittee shall maintain documentation of the number and type of equipment used, standard operating procedures, an estimate of the number of lane-miles swept annually, and an estimate of the weight in tons of material collected annually.

b. Catch basins. If routine cleaning of catch basins with sumps is utilized to meet a water quality requirement under this permit, the co-permittee shall maintain documentation of the number of catch basins cleaned, standard operating procedures, and an estimate of the weight in tons of material collected annually.

c. Material handling and disposal. Material collected under a. and b. of this section shall be handled and stored in a manner that prevents contamination of storm water runoff and shall be disposed of or beneficially reused in accordance with applicable solid and hazardous waste statutes and administrative codes. Non-storm water discharges to waters of the state associated with dewatering and drying material collected under sections a. and b. of this section are not authorized by this permit.

Note: Information on managing waste and materials is available on the Department's Internet site at: https://dnr.wi.gov/topic/Waste/. Information on WPDES permits for non-storm water discharges is available on the Department's Internet site at: https://dnr.wi.gov/topic/wastewater/

d. Leaf management. Proper management of leaves and grass clippings from municipally owned properties and private property. The program may include instructions to private property owners for on-site composting, on-site beneficial reuse, or yard waste drop-off as opposed to a municipal collection program. On-site management and/or drop-off shall be communicated to private property owners in accordance with the public education and outreach program implemented under section 3.1 of this permit. If the co-permittee has a municipal collection program, collected material shall be handled and stored in a manner that prevents contamination of storm water runoff. For a municipal leaf collection program, the co-permittee shall maintain the following documentation:

(1) A description of the leaf collection program, including the type of pick-up methodology and equipment used, timing of associated street cleaning, standard operating procedures, schedule and frequency, and instructions for private property owners.

(2) An estimate of the weight in tons of material collected annually.

(3) Municipally operated leaf disposal locations with a key corresponding to the locations on the storm sewer system map required under section 3.8. If the disposal location is outside of the MS4 boundary, then the co-permittee can provide documentation if the disposal is taken elsewhere.

Note: The Department has developed "Interim Municipal Phosphorus Reduction Credit for Leaf Management Programs" guidance to assist permitted MS4s on creditable phosphorus reduction through leaf collection and management. The guidance document may be found on the Department's Internet site at: https://dnr.wi.gov/topic/stormwater/standards/ms4_modeling.html

3.6.6 Winter Road Management. If road salt or other deicers are applied by the co-permittee or a contractor on behalf of the co-permittee, no more shall be applied than necessary to maintain public safety. Documentation on deicing activities shall be performed by the co-permittee or a contractor on behalf of the co-permittee and include the following:

a. Contact information for the individual(s) with overall responsibility for winter roadway maintenance.

b. A description of the types of deicing products used.

c. The amount of deicing product used per month. Alternatively, this information may be reported on a storm by storm basis, which will be more useful to correlate with air or pavement temperature and snow depth.

d. A description of the type of equipment used.

e. An estimate of the number of lane-miles treated with deicing products for the roadways that the co-permittee is responsible for, and an estimate in acres of the total area of municipally-owned parking lots treated with deicing products by the co-permittee or contractor.

f. If applicable, snow disposal locations with a key corresponding to the locations on the storm sewer system map required under section 3.8.

Note: Snow treatment and disposal guidance for municipalities is available through the Department's Internet site at: https://dnr.wi.gov/topic/stormwater/publications.html

g. A description of anti-icing, pre-wetting and brining, equipment calibration, pavement temperature monitoring, and/or salt reduction strategies implemented or being considered, and/or alternative products.

h. Other measurable data or information that the co-permittee uses to evaluate or modify its deicing activities.

Note: The Wisconsin Department of Transportation (WisDOT) "Highway maintenance manual," Chapter 6, contains guidelines on winter maintenance including application of road salt and other deicers. Chapter 6 is available on the WisDOT's Internet site at: https://wisconsindot.gov/Pages/doing-bus/local-gov/hwy-mnt/mntc-manual/chapter06.aspx. The WisDOT highway salt storage requirements are contained in ch. Trans 277, Wis. Adm. Code.

3.6.7 Nutrient management. Application of turf and garden fertilizers on municipally controlled properties (such as parks, athletic fields, golf courses), with pervious surfaces over 5 acres each, shall be implemented in accordance with a site-specific nutrient application schedule based on appropriate soil tests.

Note: To assist co-permittees with this requirement, the Department has developed a technical standard and fact sheet for turf nutrient management. These documents may be found on the Department's Internet site at: https://dnr.wi.gov/topic/stormwater/standards/turf_nutrient.html

3.6.8 Environmentally sensitive Development. Consideration of environmentally sensitive land development designs for municipal projects, including green infrastructure and low impact development, shall be designed, installed, and maintained to comply with a water quality requirement under this permit.

Note: Additional information on green infrastructure and low impact development may be found on the following USEPA Internet sites:
https://www.epa.gov/green-infrastructure
https://www.epa.gov/nps/urban-runoff-low-impact-development

3.6.9 Internal training and education. At a minimum, the co-permittee shall hold one annual training event for appropriate municipal staff and other personnel involved in implementing each of the elements of the pollution prevention program under this section 3.6. Documentation shall be maintained of the date, the number of people attending the training, the names of each person attending and a summary of their responsibilities, and the content of the training. The co-permittee shall inform contractors performing any services to implement section 3.6 of the permit requirements and expectations. The co-permittee shall also inform their elected officials of the permit requirements and expectations.

3.7 Storm Water Quality Management (Developed Urban Area Standard)
Each co-permittee shall continue to implement its municipal storm water quality management program. This program shall maintain compliance with the developed urban area performance standards of s. NR 151.13(2)(b)1., Wis. Adm. Code, for those areas of the municipality that were not subject to the post-construction performance standards of ss. NR 151.12 or 151.24, or ss. NR 151.121 through 151.126 or ss. 151.242 through 151.246, Wis. Adm. Code. The co-permittee shall implement the following measurable goals:

3.7.1 To the maximum extent practicable, the co-permittee shall implement and maintain storm water management practices necessary to meet the more restrictive total suspended solids reduction of the following:

a. As required under s. 281.16(2)(am)3., Wis. Stats., the co-permittee shall maintain source area controls, structural storm water management facilities, and non-structural storm water BMPs that the co-permittee implemented on or before July 1, 2011 to achieve a reduction of 20% or more of total suspended solids carried by storm water runoff from existing development to waters of the state.

b. Maintain a 20% reduction in the annual average mass of total suspended solids discharging from the MS4 to surface waters of the state as compared to implementing no storm water management controls. All source area controls, structural storm water management practices, and non-structural control practices implemented to achieve the 20% reduction in total suspended solids shall be maintained.

Note: The total suspended solids reduction requirement applies to storm water runoff from areas of urban land use and is not applicable to agricultural or rural land uses and associated roads. Additional MS4 modeling guidance for modeling the total suspended solids control is available on the Department's Internet site at: http://dnr.wi.gov/topic/stormwater/standards/ms4_modeling.html. The co-permittee may elect to meet the applicable total suspended solids standard above on a watershed or regional basis by working with other co-permittee(s) to provide regional treatment that collectively meets the standard.

3.8 Storm Sewer System Map

3.8.1 Each co-permittee shall continue to maintain its own MS4 map. The storm sewer system map shall be updated annually as needed for changes occurring in the permitted area boundaries. The municipal storm sewer system map shall include:

a. Identification of waters of the state, name and identification of whether the receiving water is an ORW, ERW or listed as an impaired water under s. 303(d) of the Clean Water Act, storm water drainage basin boundaries for each MS4 outfall and municipal separate storm sewer conveyance systems.

b. Identification of all known MS4 outfalls discharging to waters of the state and other MS4s. Major outfalls shall be uniquely identified.

c. Location of any known discharge to the MS4 that has been issued WPDES permit coverage by the Department. A list of WPDES permit holders in the co-permittee's area may be obtained from the Department.

d. Location of municipally owned or operated structural storm water management facilities including detention basins, infiltration basins, and manufactured treatment devices. If the co-permittee will be taking total suspended solids credit for pollutant removal from privately-owned facilities, they must be identified.

e. Identification of publicly owned parks, recreational areas and other open lands.

f. Location of municipal garages, storage areas and other public works facilities.

g. Identification of streets. Note that other geographic features such as railroads, airports, and water features may be identified.

3.8.2 The City of Madison shall maintain the common storm sewer system map for the entire group permit area. Each co-permittee is responsible for providing annual updates to the City of

Madison for updating the common storm sewer system map for inclusion in the annual report as outlined in section 3.9. The common storm sewer system map shall contain the following components:

a. Delineation and identification of storm water drainage basins including watersheds, sub-watersheds, and sewersheds using the naming conventions developed by the City of Madison.

b. Locations of major structural controls including retention, detention, and infiltration facilities.

c. Locations of publicly owned parks, recreational areas, and other open lands such as environmental corridors and conservancies.

d. Municipal boundaries for all co-permittees.

e. Central Urban Service Area boundaries.

f. Geographic features including streets, highways, railroads, airports, and water features.

g. Township and Range System.

h. Contours at a minimum interval of ten feet.

3.8.3 Each co-permittee shall ensure that the information provided on the common storm sewer system map for the co-permittee's areas of jurisdiction is updated annually to reflect improvements to the MS4 through December 31 of each year. Each co-permittee shall be responsible for delivering hard copy changes for the storm sewer system map to the City of Madison by January 31 each year.

3.8.4 The City of Madison shall submit the annually updated common storm sewer system map to the Department with the annual report as outlined in section 3.9.

3.9 Annual Report

Each co-permittee shall submit an annual report to the Department by **March 31 of the following year**. The co-permittee shall invite the municipal governing body, interest groups and the general public to review and comment on the annual report. The annual report shall include:

3.9.1 The status of implementing the permit requirements, status of meeting measurable program goals and compliance with permit schedules.

Note: Dane County will provide the information for the assessment of the information and education plan since it has taken the lead in the implementation of that plan. However, each co-permittee will be expected to report on its respective public information and education efforts.

3.9.2 A fiscal analysis which includes the annual expenditures and budget for the reporting year, and the anticipated budget for the next year.

3.9.3 A summary of the number and nature of inspections and enforcement actions conducted to ensure compliance with the required ordinances.

3.9.4 Identification of any known water quality improvements or degradation in the receiving water to which the co-permittee's MS4 discharges. Where degradation is identified, identify why and what actions are being taken to improve the water quality of the receiving water.

3.9.5 An evaluation of program compliance, the appropriateness of identified BMPs, and progress towards achieving identified measurable goals. Any program changes made as a result of this evaluation shall be identified and described in the annual report. For any identified deficiencies towards achieving the requirements under section 3 of this permit or lack of progress towards meeting a measurable goal, the co-permittee shall initiate program changes to improve their effectiveness.

3.9.6 If applicable, notice that the co-permittee is relying on another municipality or entity to satisfy any of the permit requirements and a description of the arrangement where a permit requirement is being met in this manner.

3.9.7 A duly authorized representative of the co-permittee shall sign and certify the annual report and include a statement or resolution that the co-permittee's governing body or delegated representatives have reviewed or been apprised of the content of the annual report.

3.9.8. The annual report and other required reports, and permit compliance documents shall be submitted electronically through the Department's electronic reporting system.

Note: The Department's electronic reporting system is Internet-based and available at: https://dnr.wi.gov/permits/water/. Municipal storm water permit eReporting information and user support tools can be found at:
https://dnr.wi.gov/topic/stormwater/municipal/eReporting.html

3.10 Cooperation

The co-permittee may, by written agreement, implement this permit with another municipality or contract with another entity to perform one or more of the conditions of this permit. The co-permittee is ultimately responsible for compliance with the conditions of this permit. The co-permittee may rely on another municipality or contract with another entity to satisfy a condition of this permit if all the following are met:

3.10.1 The other municipality or entity implements the required control measure or permit requirement.

3.10.2 A particular control measure, or component thereof, is at least as stringent as the corresponding permit requirement.

3.10.3 The other municipality or entity agrees to implement a control measure or permit requirement on the co-permittee's behalf. This shall be shown by formal written agreement, signed by both parties' authorized representatives. The agreement shall be explicit as to which specific permit conditions are being covered by which municipality or other entity. Copies of current agreements shall be submitted with the annual report or to the Department upon request.

Note: If a county is implementing and enforcing an adequate storm water ordinance(s) within a town, the town would then not have to adopt its own ordinance. However, the town, as the co-permittee, is still expected to evaluate how the county is implementing and enforcing the ordinance in the town's permitted Area, to verify the county is meeting the permit condition. Another example, if another entity agrees to implement the permit condition of long-term maintenance inspections, the co-permittee must evaluate that the entity is completing inspections as agree upon. The co-permittee should not assume that another entity is implementing a permit condition as required because the co-permittee remains responsible for compliance with the conditions of this permit.

3.11 Amendments

The co-permittee shall amend a program required under this permit as soon as practicable if the co-permittee becomes aware that it does not meet a requirement of this permit. The co-permittee shall amend its program if notified by the Department that a program or procedure is insufficient or ineffective in meeting a requirement of this permit. The Department notice to the co-permittee may include a deadline for amending and implementing the amendment.

3.12 Reapplication for Permit Coverage

To retain authorization to discharge after the expiration date of this permit, the co-permittee shall apply for reissuance of this permit in accordance with the requirements of s. NR 216.09, Wis. Adm. Code, at least 180 days prior to this permit's expiration date.

4. SPECIAL RESPONSIBILITIES FOR CERTAIN CO-PERMITTEES

In addition to the requirements specified in sections 1 through 3 of this permit, certain co-permittees have additional or special requirements that apply to them as follows:

4.1 City of Madison

The City of Madison shall meet the following requirements:

4.1.1 Facilitate and prepare and provide the agenda and minutes for the quarterly meetings required under section 2.8.

4.1.2 Manage and annually update the common storm sewer system map required under section 3.8.2 of this permit. Any apportioning of the funds needed to manage and update the storm sewer system map may be negotiated between the City of Madison and the co-permittees.

4.1.3 Establish new or updated intergovernmental agency agreement(s) with the University of Wisconsin to meet the requirements identified within section 4.6.2. The status of all draft intergovernmental agency agreements shall be reported in the annual report by the City of Madison to establish new or updated intergovernmental agency agreements by the expiration of this permit. Once a new or revised intergovernmental agency agreement is made, it shall be submitted with the next annual report.

4.2 City of Middleton

The City of Middleton is required to comply with the following:

4.2.1 The pumped discharge from Tiedeman Pond shall be operated in a manner to prevent accumulated sediment from discharging from Tiedeman Pond.

4.2.2 The discharge shall be operated in a manner to prevent downgradient erosion.

4.2.3 For the term of this permit, the City of Middleton's average annual pollutant load reductions applied to the drainage area to Tiedeman Pond have been calculated to be 79.7% for total suspended solids (TSS) and 47.2% for total phosphorus (TP).

Note: The above reductions were calculated using effluent monitoring data from 2006 to 2014 as compared to the WinSLAMM predicted annual average influent load. At next permit reissuance, the future pollutant reduction can be calculated using effluent monitoring data representing annual average conditions as compared to WinSLAMM predicted annual average influent load.

4.2.4 The WLA assigned to the Tiedeman Pond discharge permit no. WI-0049956-1 shall not be included in the percent reduction analysis required under Appendix A, section A.2, A.4 or A.5 of this permit.

4.2.5 Monitor the discharge from Tiedeman Pond at a location representative of the discharge from the pond as identified in Table 4. The sampling of total phosphorus and total suspended solids is only required in calendar years 2022 and 2023. The results shall be reported to the Department as indicated in section 6.22 of this permit.

Table 3: Sampling Point 001 – Tiedeman Pond Discharge

Parameter	Units	Sample Frequency	Sample Type
Flow Rate	MGD	Daily	Calculated
Phosphorus, Total*	mg/L	2/Month	Grab
Suspended Solids, Total*	mg/L	2/Month	Grab

* Sampling for total phosphorus and total suspended solids is only required in calendar years 2022 and 2023.

4.3 Village of Shorewood Hills

Establish new or updated intergovernmental agency agreement(s) with the University of Wisconsin to meet the requirements identified within section 4.6.2. The status of all draft intergovernmental agency agreements shall be reported in the annual report by the Village of Shorewood Hills to establish new or updated intergovernmental agency agreements by the expiration of this permit. Once a new or revised intergovernmental agency agreement is made, it shall be submitted with the next annual report.

4.4 City of Stoughton

The City of Stoughton is required to comply with the following:

4.4.1 The pumped discharge from Paradise Pond shall be operated in a manner to prevent accumulated sediment from discharging from Paradise Pond.

4.4.2 The discharge shall be operated in a manner to prevent downgradient erosion.

4.4.3 For the term of this permit, the City of Stoughton's annual average pollutant load reductions applied to the drainage area to Paradise Pond have been calculated to be 82.1% for TSS and 56.0% for TP.

Note: The above reductions were based on WinSLAMM modeling of annual average conditions with a weir outlet as opposed to pumping. At next permit reissuance (or upon DNR concurrence of the treatment performance documented by analysis of the 2017 to 2021 monitoring data), the future treatment performance can be calculated using effluent monitoring data representing annual average conditions as compared to WinSLAMM predicted annual average influent load.

4.4.4 Monitor the discharge from Paradise Pond at a location representative of the discharge from the pond as identified in Table 5. The sampling of total phosphorus and total suspended solids is required through calendar year 2021. The results shall be reported to the Department as indicated in section 6.22 of this permit.

Table 5: Sampling Point 002 – Paradise Pond Discharge

Parameter	Units	Sample Frequency	Sample Type
Discharge Volume	MG	Daily	Calculated
Phosphorus, Total*	mg/L	2/Pumping Event	Grab
Suspended Solids, Total*	mg/L	2/Pumping Event	Grab

* Sampling for total phosphorus and total suspended solids is only through calendar year 2021.

4.5 Dane County
Dane County shall meet the following requirements:

4.5.1 As specified in the information and education agreement, maintain a half-time position to provide public information and education services under this permit on behalf of the co-permittees.

4.5.2 In consultation with the Department and other co-permittees, function as the lead agency in implementation of the information and education plan prepared on behalf of the co-permittees.

4.5.3 Provide updates on the status and implementation of the information and education plan at the quarterly meetings and provide information on plan implementation for the annual report required under section 3.9.

4.6 University of Wisconsin-Madison
As a state entity, the University of Wisconsin – Madison (University) has limited statutory authority to implement and enforce requirements of sections 3.4 and 3.5 of this permit. Therefore, their written storm water management program shall specify their collaboration with other government or non-government agencies, municipalities, or local or federal partners to establish the intent of sections 3.4 and 3.5.

In addition to the applicable requirements specified in sections 1 through 3 of this permit, the University of Wisconsin – Madison shall meet the following requirements:

4.6.1 In their storm water management plan, the University shall address how construction site pollutant control and post-construction storm water management is achieved by construction activity contracted and performed by the University, construction activity contracted by the University of Wisconsin System (UWS), and construction activity contracted by Department of Administration Division (DOA), Division of Facility Development and Management (DFDM), and how each of these construction administration options is consistent with the requirements of section 3.4 and 3.5.

4.6.2 Establish new or updated intergovernmental agency agreements with the Village of Shorewood Hills, the City of Madison, the United States, and any other applicable co-permittees. These intergovernmental agreements shall include, at a minimum:

a. Defining responsibilities in regard to managing, inspecting, and reporting of all above ground and underground storm water conveyance into, out of, or through the permit area of the University.

b. Means and methods of storm water and illicit discharge reporting requirements between the University and other co-permittees.

c. The implementation and management of SWPPPs from lands or operations of the University outside of its permit jurisdictional area.

The status of all draft intergovernmental agency agreements shall be reported in the annual report by the University to establish new or updated intergovernmental agency agreements by the expiration of this permit. Once a new or revised intergovernmental agency agreement is made, it shall be submitted with the next annual report.

4.6.3 Continue to implement policies and procedures to the extent of its legal authority to control illicit discharges to and from those portions of the MS4 that it owns or operates consistent with the requirements of section 3.3 of this permit.

4.6.4 To the maximum extent practicable, the University of Wisconsin – Madison is encouraged to utilize the resources available through its academic and research programs to facilitate compliance with the requirements of this permit.

5. COMPLIANCE SCHEDULE

The co-permittee shall comply with the specific permit conditions contained in sections 2 and 3 according to the schedule in this section 5 and Table 6. The co-permittee shall begin implementing any updates to its storm water management programs no later than March 31, 2021. Required reports and permit compliance documents shall be submitted electronically through the Department's electronic reporting system.

Note: The Department's electronic reporting system is Internet-based and available at: https://dnr.wi.gov/permits/water/. Municipal storm water permit eReporting information and user support tools can be found at: https://dnr.wi.gov/topic/stormwater/municipal/eReporting.html

5.1 Impaired Waterbodies and Total Maximum Daily Loads

5.1.1 The co-permittee shall determine whether any part of its MS4 discharge to an impaired water body as required under section 1.8.2 of this permit **by March 31 of each odd-numbered year**.

5.1.2 If the co-permittee is subject to TMDL requirements under section 1.8, the co-permittee shall submit to the Department materials in accordance with the schedule as required in Appendix A of this permit.

5.2 Public Outreach and Education

The co-permittee shall submit to the Department the public education and outreach program developed for the term of this permit as required under section 3.1 of this permit by **March 31, 2021**. Include with the annual report submittal via the Department's electronic reporting system.

5.3 Public Involvement and Participation

The co-permittee shall submit to the Department the public involvement and participation program developed for the term of this permit as required under section 3.2 of this permit by **March 31, 2021**. Include with the annual report submittal via the Department's electronic reporting system.

5.4 Illicit Discharge Detection and Elimination

The co-permittee shall submit to the Department the illicit discharge detection and elimination program developed for the term of this permit as required under section 3.3.2 to 3.3.6 of this permit by **March 31, 2021**. Include with the annual report submittal via the Department's electronic reporting system.

5.5 Construction Site Pollutant Control

The co-permittee shall submit to the Department the construction site pollutant control program developed for the term of this permit as required under sections 3.4.2 to 3.4.4 of this permit by **March 31, 2021**. Include with the annual report submittal via the Department's electronic reporting system.

5.6 Post-Construction Storm Water Management

The co-permittee shall submit to the Department the post-construction storm water management program developed for the term of this permit as required under sections 3.5.2 to 3.5.4 of this permit by **March 31, 2021**.

5.7 Pollution Prevention

5.7.1 The co-permittee shall submit to the Department the municipal storm water management facility inventory as required under section 3.6.1 of this permit by **March 31, 2021**. Include with the annual report submittal via the Department's electronic reporting system. When the inventory is updated, it shall be submitted by **March 31 of each year** to the Department.

5.7.2 The co-permittee shall submit to the Department the maintenance plan for municipal storm water management facilities as required under section 3.6.2 of this permit by **March 31, 2021**.

5.7.3 The co-permittee shall update SWPPPs for municipally owned properties as needed as required under section 3.6.3 of this permit. When a SWPPP is updated, it shall be submitted by **March 31 of each year** to the Department.

5.8 Storm Water Quality Management
The co-permittee shall report compliance with the developed urban area performance standards as required under section 3.7 of this permit by **March 31 of each year**.

5.9 Storm Sewer System Map
The co-permittee shall update the storm sewer system map as required under section 3.8 of this permit. When the MS4 map is updated, it shall be submitted by **March 31 of each year** to the Department.

5.10 Annual Report
The co-permittee shall submit to the Department an annual report as required under section 3.9 of this permit for each calendar year by **March 31 of the following year**. The annual report and other required reports, and permit compliance documents shall be submitted electronically through the Department's electronic reporting system.

Table 6: Compliance Schedule for Permit Requirements

PERMIT SECTION	ACTIVITY	COMPLIANCE DATE	COMMENTS
Section 1.8.1	Total Maximum Daily Load implementation	See Appendix A.	Applies to a co-permittee that discharges to the Rock River TMDL.
Section 1.8.2	Discharges to an impaired water body	By March 31 of each odd-numbered year thereafter	All co-permittees.
Section 3.1	Public Education and Outreach – Submit public education and outreach program for the permit term with annual report	March 31, 2021	All co-permittees
Section 3.2	Public Involvement and Participation – Submit public involvement and participation program for the permit term with annual report	March 31, 2021	All co-permittees
Section 3.3.2 to 3.3.6	Illicit Discharge Detection and Elimination – Submit illicit discharge detection and elimination program for the permit term with annual report	March 31, 2021	All co-permittees
Section 3.4.2 to 3.4.4	Construction Site Pollutant Control – Submit construction site pollutant control program for the permit term with annual report	March 31, 2021	All co-permittees
Section 3.5.2 to 3.5.4	Post-Construction Storm Water Management – Submit post-construction storm water management program for the permit term with annual report	March 31, 2021	All co-permittees
Section 3.6	Pollution Prevention – Section 3.6.1, submit the municipal storm water management facility inventory with annual report	March 31, 2021, and annually thereafter (if updates)	All co-permittees
	Pollution Prevention – Section 3.6.2, submit the maintenance plan for municipal storm water management facilities with annual report	March 31, 2021	All co-permittees
	Pollution Prevention – Section 3.6.3, submit SWPPPs for municipally owned properties with annual report	March 31 of each year reporting on previous calendar year (if updates)	All co-permittees
Section 3.7	Storm Water Quality Management – Report TSS percent reduction	March 31 of each year reporting on previous calendar year (if updates)	All co-permittees
Section 3.8.2	Common Storm Sewer Map	March 31, and annually thereafter (if updates)	City of Madison
Section 3.9	Submit Annual Report	March 31 of each year reporting on previous calendar year	All co-permittees

6. GENERAL CONDITIONS

The conditions in s. NR 205.07(1) and (3), Wis. Adm. Code, are incorporated by reference in this permit. The co-permittee shall be responsible for meeting these requirements, except for s. NR 205.07(1)(n), Wis. Adm. Code, which does not apply to facilities covered under general permits. Some of these requirements are outlined below. Requirements not specifically outlined below can be found in s. NR 205.07(1) and (3), Wis. Adm. Code.

6.1 Duty to Comply: The co-permittee shall comply with all conditions of the permit. Any act of noncompliance with this permit is a violation of this permit and is grounds for enforcement action.

6.2 Enforcement Action: The Department is authorized under s. 283.89 and 283.91, Wis. Stats., to utilize citations or referrals to the Wisconsin Department of Justice to enforce the conditions of this permit. Violation of a condition of this permit is subject to a fine of up to $10,000 per day of the violation.

6.3 Compliance Schedules: Reports of compliance or noncompliance with interim and final requirements contained in any compliance schedule of the permit shall be submitted in writing within 14 days after the scheduled due date, except that progress reports shall be submitted in writing on or before each schedule date for each report. Any report of noncompliance shall include the cause of noncompliance, a description of remedial actions taken, and an estimate of the effect of the noncompliance on the co-permittee’s ability to meet the remaining scheduled due dates.

6.4 Noncompliance

6.4.1 Upon becoming aware of any co-permit noncompliance that may endanger public health or the environment, the co-permittee shall report this information by a telephone call to the Department regional storm water specialist within 24 hours. A written report describing the noncompliance shall be submitted to the Department regional storm water specialist within 5 days after the co-permittee became aware of the noncompliance. The Department may waive the written report on a case-by-case basis based on the oral report received within 24 hours. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and if the noncompliance has not been corrected, the length of time it is expected to continue.

6.4.2 Reports of any other noncompliance not covered under General Conditions sections 6.3, 6.4.1, or 6.6. shall be submitted with the annual report. The reports shall contain all the information listed in General Conditions section 6.4.1.

6.5 Duty to Mitigate: The co-permittee shall take all reasonable steps to minimize or prevent any adverse impact on the waters of the state resulting from noncompliance with the permit.

6.6 Spill Reporting: The co-permittee shall immediately notify the Department, in accordance with s. 292.11(2)(a), Wis. Stats., which requires any person who possesses or controls a hazardous substance or who causes the discharge of a hazardous substance to notify the DNR immediately of any discharge not authorized by the permit. The discharge of a hazardous substance that is not authorized by this permit or that violates this permit may be a hazardous substance spill. To report a hazardous substance spill, call the DNR's 24-hour HOTLINE at 1-800-943-0003.
Note: For details on state and federal reportable quantities, visit:
https://dnr.wi.gov/topic/Spills/define.html

6.7 Proper Operation and Maintenance: The co-permittee shall at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by the municipality to achieve compliance with the conditions of the permit and the storm water management plan. Proper operation and maintenance include effective performance, adequate funding, adequate operator staffing and training and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with conditions of this permit.

6.8 Bypass: The co-permittee may temporarily bypass a storm water treatment facility if necessary for human safety or maintenance to assure efficient operation. A bypass shall comply with the general storm water discharge limitations in Section 1.12 of this permit. Notification of the Department is not required for these types of bypasses. Any other bypass is prohibited.

Note: A discharge from a storm water treatment facility that exceeds the operational design capacity of the facility is not considered a bypass.

6.9 Duty to Halt or Reduce Activity: Upon failure or impairment of storm water management practices identified in the storm water management program, the co-permittee shall, to the extent practicable and necessary to maintain permit compliance, modify or curtail operations until the storm water management practices are restored, or an alternative method of storm water pollution control is provided.

6.10 Removed Substances: Solids, sludges, filter backwash or other pollutants removed from or resulting from treatment or control of storm water shall be stored and disposed of in a manner to prevent any pollutant from the materials from entering the waters of the state, and to comply with all applicable federal, state, and local regulations.

6.11 Additional Monitoring: If a co-permittee monitors any pollutant more frequently than required by the permit, the results of that monitoring shall be reported to the Department in the annual report.

6.12 Inspection and Entry: The co-permittee shall allow authorized representatives of the Department, upon the presentation of credentials, to:

> **6.12.1** Enter upon the municipal premises where a regulated facility or activity is located or conducted, or where records are required to be maintained under the conditions of the permit;
>
> **6.12.2** Have access to and copy, at reasonable times, any records that are required under the conditions of the permit;
>
> **6.12.3** Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under the permit; and
>
> **6.12.4** Sample or monitor at reasonable times, for the purposes of assuring permit compliance, any substances or parameters at any location.

6.13 Duty to Provide Information: The co-permittee shall furnish the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, terminating, suspending revoking or reissuing the permit or to determine compliance with the permit. The co-permittee shall give advance notice to the Department of any planned changes to the storm water management program which may result in noncompliance with permit requirements. The co-permittee shall also furnish the Department, upon request, copies of records required to be kept by the co-permittee.

6.14 Property Rights: The permit does not convey any property rights of any sort, or any exclusive privilege. The permit does not authorize any injury or damage to private property or an invasion of personal rights, or any infringement of federal, state or local laws or regulations.

6.15 Other Information: Where the co-permittee becomes aware that it failed to submit any relevant facts in applying for permit coverage or submitted incorrect information in any plan or report sent to the Department, it shall promptly submit such facts or correct information to the Department.

6.16 Records Retention: The co-permittee shall retain records of all monitoring information, copies of all reports required by the permit, and records of all data used to complete the notice of intent for a period of at least 5 years from the date of the sample, measurement, report or application. The co-permittee shall retain records documenting implementation of the minimum control measures in sections 3.1 through 3.6 of this permit for a period of at least 5 years from the date the record was generated.

6.17 Permit Actions: As provided in s. 283.53, Wis. Stats., after notice and opportunity for a hearing, this permit may be modified, suspended or revoked, in whole or in part, for cause. If a co-permittee files a request for a permit modification, revocation or reissuance, or a notification of planned change or anticipated noncompliance, this action by itself does not relieve the co-permittee of any permit condition.

6.18 Signatory Requirements: All applications, reports or information submitted to the Department shall be signed by a ranking elected official, or other person authorized by those responsible for the overall operation of the MS4 and storm water management program activities regulated by the permit. The representative shall certify that the information was gathered and prepared under his or her supervision and, based on report from the people directly under supervision that, to the best of his or her knowledge, the information is true, accurate, and complete.

6.19 Attainment of Water Quality Standards after Authorization: At any time after authorization, the Department may determine that the discharge of storm water from a co-permittee's MS4 may cause, have the reasonable potential to cause, or contribute to an excursion of any applicable water quality standard. If such determination is made, the Department may require the co-permittee to do one of the following:

> **6.19.1** Develop and implement an action plan to address the identified water quality concern to the satisfaction of the Department.
>
> **6.19.2** Submit valid and verifiable data and information that are representative of ambient conditions to demonstrate to the Department that the receiving water or groundwater is attaining the water quality standard.

6.20 Continuation of the Expired General Permit: The Department's goal is to reissue this general permit prior to its expiration date. However, in accordance with s. NR 216.09, Wis. Adm. Code, a co-permittee shall reapply to the Department at least 180 days prior to the expiration date for continued coverage under this permit after its expiration. If the permit is not reissued by the time the existing permit expires, the existing permit remains in effect. To reapply for permit coverage, a co-permittee shall send a letter to the Department that includes proposed changes to the storm sewer system map, storm water management program and any other relevant change.

6.21 Need to Halt or Reduce Activity not a Defense: It is not a defense for a co-permittee in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

Sections 6.22 through 6.25 apply to effluent sampling and monitoring result associated with the pumped discharges from Tiedeman Pond by the City of Middleton and Paradise Pond by the City of Stoughton.

6.22 Monitoring Results: Monitoring results obtained during the previous month shall be summarized and reported on a Department Wastewater Discharge Monitoring Report. The report may require reporting of any or all of the information specified below under 'Recording of Results'. This report is to be returned to the Department no later than the date indicated on the form. A copy of the Wastewater Discharge Monitoring Report Form or an electronic file of the report shall be retained by the permittee.

Monitoring results shall be reported on an electronic discharge monitoring report (eDMR). The eDMR shall be certified electronically by a responsible executive or officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

If the permittee monitors any pollutant more frequently than required by this permit, the results of such monitoring shall be included on the Wastewater Discharge Monitoring Report.

The permittee shall comply with all limits for each parameter regardless of monitoring frequency. For example, monthly, weekly, and/or daily limits shall be met even with monthly monitoring. The permittee may monitor more frequently than required for any parameter.

6.23 Sampling and Testing Procedures: Sampling and laboratory testing procedures shall be performed in accordance with Chapters NR 218 and NR 219, Wis. Adm. Code and shall be performed by a laboratory certified or registered in accordance with the requirements of ch. NR 149, Wis. Adm. Code. Groundwater sample collection and analysis shall be performed in accordance with ch. NR 140, Wis. Adm. Code. The analytical methodologies used shall enable the laboratory to quantitate all substances for which monitoring is required at levels below the effluent limitation. If the required level cannot be met by any of the methods available in NR 219, Wis. Adm. Code, then the method with the lowest limit of detection shall be selected. Additional test procedures may be specified in this permit.

6.24 Recording of Results: The permittee shall maintain records which provide the following information for each effluent measurement or sample taken:

- the date, exact place, method and time of sampling or measurements;
- the individual who performed the sampling or measurements;
- the date the analysis was performed;
- the individual who performed the analysis;
- the analytical techniques or methods used; and
- the results of the analysis.

6.25 Reporting of Monitoring Results: The permittee shall use the following conventions when reporting effluent monitoring results:

- Pollutant concentrations less than the limit of detection shall be reported as < (less than) the value of the limit of detection. For example, if a substance is not detected at a detection limit of 0.1 mg/L, report the pollutant concentration as < 0.1 mg/L.

- Pollutant concentrations equal to or greater than the limit of detection, but less than the limit of quantitation, shall be reported and the limit of quantitation shall be specified.

7. DEFINITIONS USED IN THIS PERMIT

Definitions for some of the terms found in this permit are as follows:

7.1 Co-Permittee means a person who has applied for and received WPDES permit coverage for storm water discharge. For the purposes of this permit, co-permittee is the owner or operator of a municipal separate storm sewer system authorized to discharge storm water into waters of the state.

7.2 Department means the Wisconsin Department of Natural Resources.

7.3 Development means residential, commercial, industrial and institutional land uses and associated roads.

7.4 Erosion means the process by which the land’s surface is worn away by the action of wind, water, ice or gravity.

7.5 Hazardous Substance means any substance or combination of substances including any waste of a solid, semisolid, liquid or gaseous form which may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or which may pose a substantial present or potential hazard to human health or the environment because of its quantity, concentration or physical, chemical or infectious characteristics. This term includes, but is not limited to, substances which are toxic, corrosive, flammable, irritants, strong sensitizers or explosives as determined by the Department.

7.6 Illicit Connection means any man-made conveyance connecting an illicit discharge to a municipal separate storm sewer system.

7.7 Illicit Discharge means any discharge to a municipal separate storm sewer system that is not composed entirely of storm water except discharges authorized by a WPDES permit or other discharge not requiring a WPDES permit such as landscape irrigation, individual residential car washing, fire fighting, diverted stream flows, uncontaminated groundwater infiltration, uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, lawn watering, flows from riparian habitats and wetlands, and similar discharges. However, the occurrence of a discharge listed above may be considered an illicit discharge on a case-by-case basis if the co-permittee or the Department identifies it as a significant source of a pollutant to waters of the state.

7.8 Impaired Water means a water body impaired in whole or in part and listed by the Department pursuant to 33 USC § 1313(d)(1)(A) and 40 CFR 130.7, for not meeting a water quality standard, including a water quality standard for a specific substance or the water body's designated use.

7.9 Infiltration means the entry and movement of precipitation or runoff into or through soil.

7.10 Jurisdiction means the area where the co-permittee has authority to enforce its ordinance(s) or otherwise has authority to exercise control over a particular activity of concern.

7.11 Land Disturbing Construction Activity means any man-made alteration of the land surface resulting in a change in the topography or existing vegetative or non-vegetative soil cover that may result in storm water runoff and lead to increased soil erosion and movement of sediment into waters of the state. land disturbing construction activity includes clearing and grubbing, demolition, excavating, pit trench dewatering, filling and grading activities.

7.12 Maximum Extent Practicable or MEP has the meaning given it in s. NR 151.002(25), Wis. Adm. Code.

7.13 Major Outfall means a municipal separate storm sewer outfall that meets one of the following criteria:

> **7.13.1** A single pipe with an inside diameter of 36 inches or more, or from an equivalent conveyance (cross sectional area of 1,018 square inches) which is associated with a drainage area of more than 50 acres.
>
> **7.13.2** A municipal separate storm sewer system that receives storm water runoff from lands zoned for industrial activity that is associated with a drainage area of more than 2 acres or from other lands with 2 or more acres of industrial activity, but not land zoned for industrial activity that does not have any industrial activity present.

7.14 Municipality means any city, town, village, county, county utility district, town sanitary district, town utility district, school district or metropolitan sewage district or any other public entity created pursuant to law and having authority to collect, treat or dispose of sewage, industrial wastes, storm water or other wastes.

7.15 Municipal Separate Storm Sewer System or MS4 means a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, constructed channels or storm drains, which meets all the following criteria:

> **7.15.1** Owned or operated by a municipality.
>
> **7.15.2** Designed or used for collecting or conveying storm water.
>
> **7.15.3** Which is not a combined sewer conveying both sanitary and storm water.
>
> **7.15.4** Which is not part of a publicly owned wastewater treatment works that provides secondary or more stringent treatment.

7.16 New MS4 Discharge of Pollutants means an MS4 discharge that would first occur after the co-permittee's effective date of coverage under WPDES permit nos. WI-S050075-1 or WI-S058416-3 to a surface water to which the MS4 did not previously discharge storm water, and does not include an increase in an MS4's discharge to a surface water to which the MS4 discharged on or before coverage under such permit. The City of Stoughton and Village of Cottage Grove had an effective date of coverage of November 13, 2006 under WPDES permit no. WI-S050075-1 and the other 19 co-permittees had an effective date of coverage of July 1, 2009 under WPDES permit no. WI-S058416-3.

7.17 Outfall means the point at which storm water is discharged to waters of the state or to a storm sewer of another MS4.

7.18 Permitted Area means the areas of land under the jurisdiction of the co-permittee that drains into a municipal separate storm sewer system, which is regulated under a permit issued pursuant to subch. I of NR 216, Wis. Adm. Code.

7.19 Pollutant of Concern means a pollutant that is causing impairment of a water body.

7.20 Reach means a specific stream segment, lake or reservoir as identified in a TMDL.

7.21 Reachshed means the drainage area contributing runoff to a given reach.

7.22 Redevelopment means areas where development is replacing older development.

7.23 Riparian Landowners are the owners of lands bordering lakes and rivers.

7.24 Sediment means settleable solid material that is transported by runoff, suspended within runoff or deposited by runoff away from its original location.

7.25 Start Date is the initial date of permit coverage, which is specified in the Department letter authorizing coverage under this permit.

7.26 Storm Water Management Practice means structural or non-structural measures, practices, techniques or devices employed to avoid or minimize soil, sediment or pollutants carried in runoff to waters of the state.

7.27 Storm Water Pollution Prevention Plan or SWPPP refers to the development of a site-specific plan that describes the measures and controls that will be used to prevent and/or minimize pollution of storm water.

7.28 Structural Storm Water Management Facilities are engineered and constructed systems that are designed to provide storm water quality control such as wet detention ponds, constructed wetlands, infiltration basins and grassed swales.

7.29 Total Maximum Daily Load or **TMDL** means the amount of pollutants specified as a function of one or more water quality parameters, that can be discharged per day into a water quality limited segment and still ensure attainment of the applicable water quality standard.

7.30 Urbanized Area means a place and the adjacent densely settled surrounding territory that together have a minimum population of 50,000 people, as determined by the U.S. bureau of the census based on the latest decennial federal census.

7.31 Wasteload Allocation or **WLA** means the allocation resulting from the process of distributing or apportioning the total maximum load to each individual point source discharge.

7.32 Waters of the State has the meaning given it in s. 283.01(20), Wis. Stats.

7.33 WPDES Permit means a Wisconsin Pollutant Discharge Elimination System permit issued pursuant to ch. 283, Wis. Stats.

Appendix A: MS4 Co-Permittees Subject to the Rock River TMDL

A.1 Applicability and Structure of Appendix.

A.1.1 Applicability. In accordance with section 1.8.1, this Appendix A applies to co-permittees subject to "Total Maximum Daily Loads for Total Phosphorus and Total Suspended Solids in the Rock River Basin," approved by USEPA September 2011.

A.1.2 Structure of Appendix. This appendix is structured to provide co-permittees with several compliance options. Section A.2 defines full TMDL compliance while sections A.3, A.4, and A.5 provide different compliance options. Section A.3 applies to co-permittees that are participating in an approved adaptive management plan. Section A.4 details requirements for co-permittees that can comply with the TMDL during this permit term. Section A.5 applies to co-permittees who have not been able to utilize sections A.3 or A.4. Section A.5 contains two compliance tracks; co-permittees may choose between the requirements stipulated under Section A.5.2 or meet the requirements under section A.5.3. Section A.6 outlines reporting requirements.

A.2 Full TMDL Compliance.

A.2.1 USEPA is allowing the Department to evaluate MS4 compliance with TMDL Wasteload Allocations (WLAs) using a percent reduction framework consistent with Wisconsin's storm water program. For consistency with existing storm water program requirements, demonstration of TMDL compliance will use the percent reduction measured from the no runoff management controls (no-controls) condition. The percent reduction from no-controls, for each pollutant of concern and reachshed, necessary to meet the TMDL WLAs for the USEPA approved TMDLs are listed in Table A. The no-controls modeling condition means taking no (zero) credit for existing storm water control measures that reduce the discharge of pollutants. Existing practices can then be applied and counted toward meeting the TMDL reductions.

A.2.2 TMDLs may assign a target percent reduction for one or more reachsheds for each pollutant of concern (i.e., total suspended solids (TSS) and total phosphorus (TP)). Full TMDL compliance is achieved by the co-permittee provided all of the following conditions are met:

a. By October 31, 2023, the co-permittee submits the necessary data and documentation to the Department that demonstrates that the co-permittee meets the percent reductions stipulated in Table A for each reachshed that the MS4 discharges to and for each pollutant of concern.

b. The documentation summitted by the co-permittee includes the policies, procedures, and regulatory mechanisms that the co-permittee will employ to ensure that storm water controls and management measures will continue to be operated and maintained so that their pollutant removal efficiency continues to be met.

c. Based upon the data and documentation and any necessary subsequent information requested by the Department, the co-permittee receives written concurrence from the Department by April 30, 2024, that the co-permittee has achieved full TMDL compliance.

A.3 Participation in an Approved Adaptive Management Plan. In accordance with s. 283.13(7), Wis. Stats., and s. NR 217.18, Wis. Adm. Code, if by the effective date of this permit the co-permittee has chosen to participate in an adaptive management project that has been approved by the Department the co-permittee shall continue to participate in the implementation of the adaptive management project.

A.4 Compliance During the Term of This Permit. If the co-permittee determines that it can meet the requirements stipulated in section A.2.2 by October 31, 2023, the co-permittee shall meet all the following:

A.4.1 By March 31, 2020, the co-permittee shall notify the Department if compliance will be achieved by October 31, 2023.

A.4.2 Consistent with the reporting requirements contained in section A.6, the co-permittee shall submit written verification that it is has met the applicable requirements contained in section A.2.2.

A.5 Compliance Over Multiple Permit Terms. If the co-permittee cannot meet the requirements stipulated under sections A.3 or A.4, the co-permittee shall demonstrate continued progress towards compliance with the requirements contained in section A.2.2. During the term of this permit, the following are required:

A.5.1 By March 31, 2020, if the co-permittee determines that the applicable requirements contained in section A.2.2 will not be achieved by October 31, 2023, then the co-permittee shall notify the Department in writing which reachsheds and pollutants of concern are not in compliance with the requirements contained in section A.2.2.

A.5.2 By October 31, 2021, the co-permittee shall submit a written TMDL implementation plan to the Department identifying and describing the actions that the co-permittee shall undertake, including a proposed schedule and milestones, to achieve the following by the end of the term of this permit:

a. A level of reduction that achieves at least 20% of the remaining reduction needed beyond the current 20% TSS reduction required under s. NR 151.13 (2)(b)1.b., Wis. Adm. Code, to achieve full compliance in sediment or TSS.

b. A level of reduction that achieves at least 10% of the remaining reduction needed beyond 15% TP reduction to achieve full compliance in TP.

Note: The reductions stipulated under section A.5.2 are interim compliance targets set for this permit term. Future permit reduction targets may taper off or vary between municipalities based on individual plans as it is expected that municipalities will rely more on reductions obtained through Redevelopment.

The percent reductions under sections A.5.2.a and A.5.2.b are measured from the baseline assumptions for the Rock River TMDLs, which represent compliance with s. NR 151.13, Wis. Adm. Code, to the total reductions listed in Table A (see example calculation below). The baseline assumption for the Rock River TMDL is a 40% reduction from no-controls for TSS and a 27% reduction from no-controls for TP.

Note: Refer to the applicable TMDL reports for additional discussions on baseline.

Unlike full compliance as outlined in section A.2.2, compliance with the reductions stipulated under sections A.5.2.a and A.5.2.b can be achieved utilizing an averaged reduction calculated from individual reductions achieved in one or multiple reachsheds and spanning the entire MS4 area that is impacted by the TMDL.

<u>Note: Example calculation to meet section A.5.2.a for total suspended solids (TSS)</u>
"Municipality A" has modeled a no-controls TSS load of 50 tons/year for reachshed 2 and 100 tons/year for Reachshed 3.

Determine Calculated Wasteload Allocation
"Municipality A" has area in Rock River TMDL reachsheds 2 and 3. From Table A.1, the TMDL requires the following reductions from no controls which under section A.2 must ultimately achieve a mass reduction as follows:

TMDL Reachshed	Modeled TSS from No-Controls (tons/yr)	TMDL TSS Reduction from No-Controls	Ultimate Mass Reduction Required for Full TMDL Compliance (tons/yr)	Calculated Wasteload Allocation (tons/yr)
2	50	40.6%	50*0.406 = 20.3	50-20.3 = 29.7
3	100	55.6%	100*0.556 = 55.6	100-55.6 = 44.4

Determine Minimum Control Required under Section NR 151.13(2)(b)1.b., Wis. Adm. Code

TMDL Reachshed	No Controls TSS (tons/yr)	NR 151 Required Reduction (tons/yr)	NR 151 Allowable Load (tons/yr)
2	50	50*0.20 = 10	50-10 = 40
3	100	100*0.20 = 20	100-20 = 80
Total		30.0	

Calculate 20% Additional Reduction from Section NR 151.13(2)(b)1.b., Wis. Adm. Code
Under section A.5.2.a, "Municipality A" must achieve an additional 20% reduction from the current 20% TSS reduction required under s. NR 151.13 (2)(b)1.b., Wis. Adm. Code. As shown below, "Municipality A" needs to achieve a 20% reduction of the remaining 45.9 tons results in "Municipality A" needing to achieve an additional 9.18 tons/year in reduction.

Reachshed	NR 151 Allowable Load (tons/yr)	Calculated Wasteload Allocation (tons/yr)	Additional Reduction from NR 151 (tons/yr)	20% Additional Reduction from NR 151 (tons/yr)
2	40	29.7	40-29.7 = 10.3	10.3*0.2 = 2.06
3	80	44.4	80-44.4 = 35.6	35.6*0.2 = 7.12
Total			45.9	9.18

Load reduction at the end of permit term
At the end of the permit term, "Municipality A" should demonstrate a minimum reduction from no controls of 39.18 (30 tons plus 9.18 tons). "Municipality A" has the flexibility to decide how much of that reduction is provided in TMDL Reachshed 2 and/or 3 over the next permit term. "Municipality A" will still require additional reductions in each reachshed over subsequent permit terms to reach the calculated wasteload allocation of 29.7 tons in TMDL Reachshed 2 and 44.4 tons in TMDL Reachshed 3.

The calculation process is similar for total phosphorus (TP).

A.5.3 If the co-permittee determines by March 31, 2021, that it is unable to achieve the reductions stipulated under sections A.5.2.a and A.5.2.b, the co-permittee shall meet the following requirements by October 31, 2023:

Note: The co-permittee may optimize deployment of resources between the requirements listed below to maximize reductions for the least cost. In some cases, co-permittees may already be meeting these requirements.

a. Pursuant to the co-permittee's authority under s. 281.33(6)(a)2., Wis. Stats., the co-permittee shall create or revise and promulgate a municipal storm water management ordinance applicable to Redevelopment that requires compliance with post-construction storm water management performance standards that are stricter than the uniform statewide standards established by the Department. When reporting to the Department under section A.6.3, the co-permittee shall include a justification for the level of pollutant reduction in the ordinance with an assessment of the progress it achieves towards full compliance with the TMDL. The redevelopment reductions may be adjusted to account for other storm water controls measures that may exist. The co-permittee may also establish TP reduction levels for redevelopment projects.

Note: The co-permittee may enact an ordinance that is municipal wide, targets individual TMDL reachsheds, or designated areas within the permitted MS4 balancing required TMDL reductions, parcel size, and the impact of other treatment options. Increasing redevelopment reductions is one tool in moving toward TMDL compliance.

b. The co-permittee shall create or revise a municipal ordinance that requires the development and implementation of a maintenance plan for all privately-owned storm water treatment facilities for which the co-permittee takes a TSS and/or TP reduction credit. The co-permittee shall develop and implement procedures and measures to verify and track that the storm water treatment facilities are inspected on a regular schedule and maintained in the intended working condition in accordance with the plans. The co-permittee shall require that maintenance agreements be recorded with the appropriate property records that obligates the current and future owners to implement the maintenance plans.

c. The co-permittee shall revise or promulgate a municipal ordinance that requires the submittal of record drawings for storm water management facility that the co-permittee takes a TSS and/or TP credit. The co-permittee shall require submittal of the record drawings prior to close-out of the local permit or upon final approval and shall maintain appropriate records and tracking of the plans.

d. If the pollutant of concern is TP, the co-permittee shall implement, expand, or optimize a municipal leaf collection program coupled with street cleaning to serve areas where municipal leaf collection is not currently provided within the MS4 but for which a phosphorus reduction has been assigned and additional reductions could be achieved.

Note: The Department's "Interim Municipal Phosphorus Reduction Credit for Leaf Management Programs" guidance document includes recommendations on how the co-permittee's municipal leaf collection program should be designed and implemented.

The guidance is available from the Department's Internet site at:
https://dnr.wi.gov/topic/stormwater/standards/ms4_modeling.html

e. Within the MS4 permitted area, the co-permittee shall inventory the condition of the conveyance systems and outfalls. Where erosion or scour is occurring, the co-permittee shall develop a schedule to stabilize the identified areas over a 5-year period.

f. The co-permittee shall install at least one new structural BMP or enhance one or more existing structural BMPs to reduce a pollutant of concern discharged via storm water runoff to an impaired water body for which a WLA has been assigned to the co-permittee. The co-permittee shall develop and implement a maintenance plan for each new structural BMP.

g. The co-permittee shall conduct an analysis of the current municipal street cleaning program, to determine if additional pollutant loading reductions can be achieved. The co-permittee shall evaluate optimizing sweeping frequency, targeting of critical areas and time periods, and instituting parking restrictions. If a pollutant reduction can be achieved through optimizing the existing street cleaning program, the co-permittee shall adopt the optimized program the next calendar year or provide a written explanation to the Department explaining why the optimize street cleaning program is not feasible and provide alternative options to achieve similar pollutant reductions.

A.6 Reporting Requirements. For the term of this permit, the co-permittee shall meet the following reporting requirements:

A.6.1 Compliance Determination Reporting. The co-permittee shall submit the information requested in this appendix in accordance with the following schedule:

a. By March 31, 2020, for sections A.4.1 and A.5.1.

b. By October 31, 2021, for section A.5.2.

c. By October 31, 2023, for sections A.2.2.a and A.5.3.

A.6.2 Annual Reporting. For compliance options outlined under sections A.3, A.4, and A.5, the co-permittee shall include a description and the status of progress toward implementing the identified actions and activities in their MS4 annual reports due by March 31 of each year.

A.6.3 Final Documentation. Except for co-permittees complying with a Department approved adaptive management plan under section A.3.2, by October 31, 2023, the co-permittee shall submit documentation to the Department to verify that the co-permittee has completed all actions required under this appendix including the following:

a. An updated storm sewer system map that identifies:

(1) The current municipal boundary. For a co-permittee that is not a city or village, identify the permitted area.

Note: The permitted area for towns, counties and non-traditional MS4s pertains to the area within an urbanized area or the area served by its storm sewer system, such as a university campus.

(2) The TMDL reachshed boundaries within the municipal boundary, and the area of each TMDL reachshed in acres within the municipal boundary.

(3) The MS4 drainage boundary associated with each TMDL reachshed, and the area in acres of the MS4 drainage boundary associated with each TMDL reachshed.

b. The co-permittee shall submit an updated tabular summary that includes the following for each MS4 drainage boundary associated with each TMDL reachshed as identified under section A.6.3.a and for each pollutant of concern:

(1) The co-permittee's percent reduction needed to comply with its TMDL WLA from the no-controls modeling condition.

(2) The modeled MS4 annual average pollutant load without any storm water control measures.

(3) The modeled MS4 annual average pollutant load with existing storm water control measures.

(4) The percent reduction in pollutant load achieved calculated from the no-controls condition determined under section A.6.3.a(2) and the existing controls condition determined under section A.6.3.a(3).

(5) The existing storm water control measures, including the type of measure, area treated in acres, the pollutant load reduction efficiency, and confirmation of the co-permittee's authority for long-term maintenance of each practice.

c. If the updated tabular summary required under section A.6.3.b shows that the co-permittee is not achieving the requirements stipulated in section A.2, the co-permittee shall submit an updated written TMDL implementation plan to the Department that describes how the co-permittee will make progress toward achieving compliance. The TMDL implementation plan shall include the following information:

(1) A list of management options and an implementation schedule that over the next permit term achieves, to the maximum extent practicable, an additional 20% reduction in sediment or TSS and an additional 10% reduction in TP. The percent reductions shall be applied to the difference measured from loading conditions at the end of this permit to the total reductions listed in Table A. The reductions can be achieved utilizing an averaged reduction calculated from individual reductions achieved in one or multiple reachsheds and spanning the entire MS4 area impacted by a TMDL.

Note: Reductions that occur through stricter redevelopment standards or through water quality trading can be counted toward meeting the reduction requirements under this section.

Note: Unlike full compliance as outlined in section A.2.2, interim compliance under this section can be based on an average reduction measured across the MS4 area impacted by a TMDL.

(2) Recommendations and options with supporting analysis for storm water control measures that will be installed or implemented in future permit terms to achieve the requirements, to the maximum extent practicable, stipulated in section A.2.

(3) A proposed schedule for implementation of the recommendations and options identified under section A.6.3.c(1). The proposed schedule may extend into future permit terms.

(4) A cost effectiveness analysis for implementation of the recommendations and options identified under section A.6.3.c(1).

Table A: Rock River Basin TMDL Load Reductions Necessary to Meet TMDL Wasteload Allocations by TMDL Reachshed

Reachshed Number (TMDL Subbasin)	Water Body Name	TSS % Reduction from No-controls	TP % Reduction from No-controls
45	Maunesha River	44.8	36.5
62	Pheasant Branch Creek	82.0	78.1
63	Spring (Dorn) Creek	46.6	37.2
64	Yahara River, Lake Mendota, Lake Monona	73.0	61.3
65	Nine Springs Creek	67.6	62.8
66	Yahara River, Lake Waubesa, Lake Kegonsa	62.2	54.0
67	Yahara River	40.0	27.0
68	Yahara River	50.8	65.0
69	Yahara River	52.6	79.6
83	Lake Koshkonong	55.0	54.0

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:	2020 MS4 Annual Report
County:	Dane
Municipality:	McFarland Village
Permit Number:	S058416
Facility Number:	30905
Reporting Year:	2020

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 Permit and S058416-04 Madison Area Group Permit 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 Permit and S058416-04 Madison Area Group Permit 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 Permit and S058416-04 Madison Area Group Permit 2.6.2 – document due to the department by March 31, 2021.)*
  - Total Maximum Daily Load documents *(*If applicable, see permit for due dates.)*
    - TMDL Mapping*
    - TMDL Modeling*
    - TMDL Implementation Plan*
    - Fecal Coliform Screening Parameter *
    - Fecal Coliform Inventory and Map *(S050075-03 general permittees Appendix B B.5.2 – document due to the department by March 31, 2022)*
    - Fecal Coliform Source Elimination Plan *(S050075-03 general permittees Appendix B - document due to the department by October 31,2023)*

- Sign and Submit form

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 McFarland Village

Facility ID # or (FIN): 30905

Updated Information: ☑ Check to update mailing address information

Mailing Address: 5915 Milwaukee St

Mailing Address 2: P.O. Box 110

City: McFarland

State: Wisconsin

Zip Code: 53558-0110 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: Jim

Last Name: Hessling

☑ Select to ***update*** current contact information

Title: DPW

Mailing Address: 5915 Milwaukee St

Mailing Address 2: P.O. Box 110

City: McFarland

State: WI

Zip Code: 53558-0110 xxxxx or xxxxx-xxxx

Phone Number: 608-838-7287 Ext: xxx-xxx-xxxx

Email: jim.hessling@mcfarland.wi.us

Additional Contacts Information (Optional)

☐ I&E Program

Individual with responsibility for: (Check all that apply)	☐ IDDE Program ☐ 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:	
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?

○ Yes ◉ No

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

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 Delivery Mechanism that best describes how the topics were conveyed to your population. Use the Add Event to add additional entries.

Event Start Date	1/1/2020
Project/Event Name	Website
Delivery Mechanism	Website *Active

Topics Covered	Target Audience	Estimated People Reached (Optional)	Regional Effort (Optional)
☐ Illicit discharge detection and elimination ☑ Household hazardous waste disposal/pet waste management/vehicle washing ☑ Yard waste management/pesticide and fertilizer application ☐ Stream and shoreline management ☐ Residential infiltration ☐ Construction sites and post-construction storm water management ☐ Pollution prevention ☐ Green infrastructure/low impact development ☐ Other:	☑ General Public ☐ Public Employees ☑ Residents ☐ Businesses ☐ Contractors ☐ Developers ☐ Industries ☐ Other	Select...	○ Yes ○ No

Event Start Date	1/1/2020
Project/Event Name	Print
Delivery Mechanism	Distribution of print media *Active

Topics Covered	Target Audience	Estimated People Reached (Optional)	Regional Effort (Optional)
☐ Illicit discharge detection and elimination ☐ Household hazardous waste disposal/pet waste management/vehicle washing ☐ Yard waste management/pesticide and fertilizer application ☐ Stream and shoreline management ☐ Residential infiltration ☐ Construction sites and post-construction storm water management ☐ Pollution prevention ☐ Green infrastructure/low impact development ☑ Other: No print media was mailed out in 2020	☐ General Public ☐ Public Employees ☐ Residents ☐ Businesses ☐ Contractors ☐ Developers ☐ Industries ☑ Other	Select...	○ Yes ○ No

Event Start Date	1/1/2020	
Project/Event Name	Print	
Delivery Mechanism	Social media post	*Active

Topics Covered	Target Audience	Estimated People Reached (Optional)	Regional Effort (Optional)
☐ Illicit discharge detection and elimination ☐ Household hazardous waste disposal/pet waste management/vehicle washing ☑ Yard waste management/pesticide and fertilizer application ☐ Stream and shoreline management ☐ Residential infiltration ☐ Construction sites and post-construction storm water management ☐ Pollution prevention ☐ Green infrastructure/low impact development ☐ Other:	☑ General Public ☑ Public Employees ☑ Residents ☐ Businesses ☐ Contractors ☐ Developers ☐ Industries ☐ Other	Select...	◯ Yes ◯ No

Event Start Date	1/1/2020	
Project/Event Name	Tri-fold and other brochures/information	
Delivery Mechanism	Passive print media	*Active

Topics Covered	Target Audience	Estimated People Reached (Optional)	Regional Effort (Optional)
☐ Illicit discharge detection and elimination ☑ Household hazardous waste disposal/pet waste management/vehicle washing ☐ Yard waste management/pesticide and fertilizer application ☑ Stream and shoreline management ☑ Residential infiltration ☐ Construction sites and post-construction storm water management ☑ Pollution prevention ☐ Green infrastructure/low impact development ☑ Other: Info is available at the PW Center	☑ General Public ☐ Public Employees ☑ Residents ☐ Businesses ☐ Contractors ☐ Developers ☐ Industries ☐ Other	Select...	◯ Yes ◯ No

Event Start Date	1/1/2020	
Project/Event Name	Contractor Education	
Delivery Mechanism	Targeted group training*	*Active

Topics Covered	Target Audience	Estimated People Reached (Optional)	Regional Effort (Optional)
☐ Illicit discharge detection and elimination ☐ Household hazardous waste disposal/pet waste management/vehicle washing	☐ General Public ☐ Public Employees ☐ Residents	Select...	◯ Yes ◯ No

☐ Yard waste management/pesticide and fertilizer application ☐ Stream and shoreline management ☐ Residential infiltration ☐ Construction sites and post-construction storm water management ☐ Pollution prevention ☐ Green infrastructure/low impact development ☑ Other: No contractors presentations were held	☐ Businesses ☐ Contractors ☐ Developers ☐ Industries ☑ Other		

b. Brief explanation on Public Education and Outreach reporting. *Limit response to 250 characters and/or attach supplemental information on the attachments page.*

Various articles regarding above topics are included in newsletters to all Village residents and posted on website and social media. Village Engineer provides feedback to individual developers and contractors.

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 (09/20)

Minimum Control Measures - Section 2 : Complete

2. Public Involvement and Participation

a. Permit Activities. Complete the following information on Public Involvement and Participation Activities related to storm water. Select the Delivery Mechanism that best describes how the permit activities were conveyed to your population. Use the Add Event to add additional entries.

Event Start Date	3/23/2020
Project/Event Name	Public Meeting - Village Board
Delivery Mechanism	Government Event (Public Hearing, Council Meeting, etc)

Topics Covered	**Target Audience**	**Estimated People Reached (Optional)**	**Regional Effort (Optional)**
☑ MS4 Annual Report ☐ Storm Water Management Program ☐ Storm Water related ordinance ☐ Other:	☑ General Public ☐ Public Employees ☐ Residents ☐ Businesses ☐ Contractors ☐ Developers ☐ Industries ☐ Other	Select...	○ Yes ○ No

b. Volunteer Activities. Complete the following information on Public Involvement and Participation

Activities related to storm water. Select the Delivery Mechanism that best describes how volunteer activities were conveyed to your population. Use the Add Event to add additional entries.

Event Start Date	9/19/2020
Project/Event Name	McFarland's Coastal Cleanup Day
Delivery Mechanism	Clean up event

Topics Covered	Target Audience	Estimated People Reached (Optional)	Regional Effort (Optional)
Volunteer Opportunity	☑ General Public ☐ Public Employees ☑ Residents ☑ Businesses ☐ Contractors ☐ Developers ☐ Industries ☐ Other	Select...	○ Yes ○ No

c. Brief explanation on Public Involvement and Participation reporting. *Limit response to 250 characters and/or attach supplemental information on the attachments page.*

Stormwater Management Plan, Ordinances and MS4 Annual Report were presented to the public at a regular Village Board meeting. A shoreline clean up event was held.

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 (09/20)

Minimum Control Measures - Section 3 : Complete

3. Illicit Discharge Detection and Elimination

a.	How many total outfalls does the municipality have?	8	☐ Unsure
b.	How many outfalls did the municipality evaluate as part of their routine ongoing field screening program?	8	☐ Unsure
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 complaints 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 (from both routine screening and complaints)? (If the sum of 3.c. and 3.e. does not equal 3.f., please explain below.)	0	☐ Unsure

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

Additional Information:

h. Brief explanation on Illicit Discharge Detection and Elimination reporting. *If you marked Unsure for any questions above, justify the reasoning. Limit response to 250 characters and/or attach supplemental information on the attachments page.*

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 (09/20)

Minimum Control Measures - Section 4 : Complete

4. Construction Site Pollutant Control

a. How many total construction sites with one acre or more of land disturbing construction activity were active at any point in the reporting year? 4 ☐ Unsure

b. How many construction sites with one acre or more of land disturbing construction activity did the municipality issue permits for in the reporting year? 4 ☐ Unsure

c. How many erosion control inspections did the municipality complete in the reporting year? 61 ☐ Unsure

d. 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	0
☑ Written Warning (including email)	0
☑ Notice of Violation	0
☑ Civil Penalty/ Citation	0
☑ Stop Work Order	0
☑ Forfeiture of Deposit	0
☐ Other - Describe below	

e. Brief explanation on Construction Site Pollutant Control reporting. *If you marked Unsure for any questions above, justify the reasoning. Limit response to 250 characters and/or attach supplemental information on the attachments page.*

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 (09/20)

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? 0 ☐ 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. Does the municipality utilize privately owned storm water management facilities in its pollutant reduction analysis? ○ Yes ○ No ☑ Unsure

c. If Yes, How many privately owned storm water management facilities were inspected in the reporting year? ☑ Unsure

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

d. 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	0
☑ Written Warning (including email)	0
☑ Notice of Violation	0
☑ Civil Penalty/ Citation	0
☑ Forfeiture of Deposit	0
☑ Complete Maintenance	0
☑ Bill Responsible Party	0
☐ Other - Describe below	

e. Brief explanation on Post-Construction Storm Water Management reporting. *If marked 'Unsure' on any questions above, justify your reasoning. Limit your response to 250 characters and/or attach supplemental information on the attachments page.*

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 (09/20)

Minimum Control Measures - Section 6 : Has Missing Items

6. Pollution Prevention

Storm Water Management Facility Inspections ☐ Not Applicable

a. Enter the total number of municipally owned or operated structural storm water management facilities ? 16 ☐ 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? 0 ☐ Unsure

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

Sump, cracks in structures, signs of sheening, ruts and rills, overgrown vegetation & brush and sediment issues.

e. How many of these facilities required maintenance? 4 ☐ Unsure

f. Brief explanation on Storm Water Management Facility inspection reporting. *If you marked Unsure for any questions above, justify the reasoning. Limit response to 250 characters and/or attach supplemental information on the attachments page.*

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

g. How many municipal properties require a SWPPP? 1 ☐ Unsure

h. How many inspections of municipal properties have been conducted in the reporting year? 0 ☐ Unsure

i. Have amendments to the SWPPPs been made?

○ Yes ◉ No ○ Unsure

j. If yes, describe what changes have been made. Limit response to 250 characters and/or attach supplemental information on the attachment page:

k. Brief explanation on Storm Water Pollution Prevention Plan reporting. *If you marked Unsure for any questions above, justify the reasoning. Limit response to 250 characters and/or attach supplemental information on the attachments page.*

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

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

m. If known, how many tons of material was removed? ☑ Unsure

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

o. 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 - Explain frequency weekly as staffing issues allow

○ No - Explain

○ Not Applicable

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

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

q. How many catch basin sumps were cleaned in the reporting year? 0 ☐ Unsure

r. If known, how many tons of material was collected? 0 ☐ Unsure

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

t. 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- Explain frequency

○ No - Explain

○ Not Applicable

Collection Services - *Leaf Collection Program* ☐ Not Applicable

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

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

w. Where are the residents directed to store the leaves for collection?
☐ Pile on terrace ☐ Pile in street ☐ Bags on terrace ☐ Unsure
☑ Other - Describe Residents bring material to the compost site at PW

x. What is the frequency of collection?
N/A

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

z. Brief explanation on Collection Services reporting. *If you marked Unsure for any questions above, justify the reasoning. Limit response to 250 characters and/or attach* *supplemental information on the attachments page*

Winter Road Management ☐ Not Applicable

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

aa. How many lane-miles of roadway is the municipality responsible for doing snow and ice control? 108 ☐ Unsure

ab. 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	0	50	140	140	115	50

Liquids (gallons) (ex. brine)

	Oct	Nov	Dec	Jan	Feb	Mar
Brine	0	450	1260	1260	1020	450

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

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

Training Date	Training Name	# Attendance
4/28/2020	Winter Salt Cert Training for Parking Lo...	2

ae. Brief explanation on Winter Road Management reporting. *If you marked Unsure for any questions above, justify the reasoning. Limit response to 250 characters and/or attach supplemental information on the attachments page*

Internal (Staff) Education & Communication

af. 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):

When:

How many attended:

ag. 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

Newsletter and approval of MS4 Reports at Village Board and committee meetings

Municipal Officials

Newsletter and approval of MS4 Reports at Village Board and committee meetings

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

Newsletter and approval of MS4 Reports at Council Meetings

ah. Brief explanation on Internal Education reporting. *If you marked Unsure for any questions above, justify the reasoning. Limit response to 250 characters and/or attach supplemental information on the attachments page.*

Missing Information

Describe road maintenance training given,

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 (09/20)

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
- [x] Storm pipes
- [ ] Vegetated swales
- [ ] Outfalls
- [ ] Other - Describe below

b. Brief explanation on Storm Sewer System Map reporting. *If you marked Unsure for an question for any questions above, justify the reasoning. Limit response to 250 characters and/or attach supplemental information on the attachments page.*

Missing Information

Do not close your work until you SAVE.

Form 3400-224 (09/20)

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			
47,228	57,958	64,386	Storm water utility
Element: Public Involvement and Participation			
20,645	25,336	28,146	Storm water utility
Element: Illicit Discharge Detection and Elimination			
26,778	32,862	36,507	Storm water utility
Element: Construction Site Pollutant Control			
59,558	73,089	81,196	Storm water utility
Element: Post-Construction Storm Water Management			
265,605	325,944	362,097	Storm water utility
Element: Pollution Prevention			
169,750	208,313	231,419	Storm water utility
Other (describe)			
			Select...

Please provide a justification for a "0" entered in the Fiscal Analysis. *Limit response to 250 characters*.

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

Storm Water Quality Management

a. Has the municipality completed or updated modeling in the reporting year (relating to developed urban area performance standards of s. NR 151.13(2)(b)1., Wis. Adm. Code)? ○ Yes ◉ No

b. If yes, enter percent reduction in the annual average mass discharging from the entire MS4 to surface waters of the state as compared to implementing no storm water management controls:

Total suspended solids (TSS)

Total phosphorus (TP)

Status of Total Maximum Daily Loads (TMDLs) Implementation

The permittee McFarland Village is subject to the following approved TMDLs: Rock River Basin and/or and/or Beaver Dam Lake

The permittee intends to comply with the following permit requirements to show progress towards meeting the TMDL:

[A.3.2] The Permittee is participating in an approved Adaptive Management Project.
Attach a summary of adaptive management implementation actions for the reporting year, including:

- Most recent estimated pollutant of concern percent reduction levels (i.e. total phosphorus and total suspended solids/ sediment), as compared to no controls by reachshed, within the permittee's MS4 permitted area.
- Pollutant of concern percent reduction levels, as compared to no controls by reachshed, which the permittee intends to ultimately achieve within its own MS4 permitted area (not associated with AM buy-in).
- The financial dollar value contributed to an AM program for the reporting year.
- Identify any additional storm water measures that were initially implemented in the reporting year, which reduce the discharge of pollutants of concern from its MS4 permitted area (not associated with AM buy-in). If available, identify the incremental percent reduction gained by such measures relative to the MS4 permitted area.

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.*

The Village of McFarland is part of the Yahara Wins & Madison Area Municipal Storm Water Partnership.

Missing Information

Do not close your work until you SAVE.

Form 3400-224 (09/20)

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

Adaptive Management Summary

File Attachment

Attach - Other Supporting Documents

(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 Adaptive Management Map, You must attach a Storm Sewer Map file,

Draft and Share PDF Report with the permittee's governing body or delegated representatives.

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 reviewed by the governing body or delegated representative, return to the MS4 eReporting System to submit the final report to the DNR.

Draft and Share PDF Report

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:	Has Missing Items
Minimum Control Measures Section 7:	Complete
Attachments:	Has Missing Items
Final Evaluation:	Complete

Village of McFarland MS4 Program Plan

Published: March 2021

1.0 INTRODUCTION

As an operator of a municipal separate storm sewer system (MS4), the Village is required to meet certain regulatory requirements with the aim of preventing polluted storm water runoff from entering local streams, rivers, and lakes. An MS4 is a conveyance or system of storm drains, pipes, ditches, etc., designed to collect or convey stormwater. Requirements are listed in WPDES Permit No. WI-S058416-4 ("MS4 Permit"), dated July 1, 2019, which was issued to 17 central Dane County communities, Dane County and UW-Madison, including the Village of McFarland. The goal of the municipal stormwater discharge program is to reduce adverse impacts to water quality in our lakes and streams from urban sources of stormwater runoff.

1.1 Plan Purpose

The purpose of this plan is to meet the following requirement, listed in Section 3 of the Village's MS4 Permit**: "**The co-permittee shall have a written stormwater management program that describes in detail how the co-permittee intends to comply with the permit's requirements for each minimum control measure."

1.2 Plan Organization

This plan has been organized to show compliance with each minimum control measure. The following sections are included in this plan:

- Section 2.0: Introduction
- Section 3.0: Public Education and Outreach
- Section 4.0: Public Involvement and Participation
- Section 5.0: Illicit Discharge Detection and Elimination
- Section 6.0: Construction Site Pollutant Control
- Section 7.0: Post Construction Stormwater Management
- Section 8.0: Pollution Prevention

2.0 PUBLIC EDUCATION AND OUTREACH

The Village of McFarland is required to maintain a public education and outreach program to increase the awareness of storm water pollution impacts on waters of the state and to encourage changes in public behavior to reduce such impacts.

The Village of McFarland is a member of the Madison Area Municipal Storm water Partnership (MAMSWaP). The group pools resources in order to work cooperatively on storm water information, education and outreach. The materials and products that result from this joint effort are expressly developed for the Parties to partially fulfill their information and education permit obligations. As discussed in **Section 3.1.2** of the MS4 Permit, the Village is required to participate in the implementation of the most recent MAMSWaP 5-Year Information and Education Plan, and assists in the development of an annual work plan for the following calendar year. This plan is attached at the end of this section.

In addition, the Village is required to have its own individual annual public education and outreach plan, which is attached to the end of this section.

The Village shall address the eight topics listed below at least once during the permit term, with a minimum of six topics being addressed each year:

1. Illicit Discharge Detection and Elimination
2. Household Hazardous Waste Disposal/Pet Waste Management/Vehicle Washing
3. Yard Waste Management/Pesticide and Fertilizer Application
4. Stream and Shoreline Management
5. Residential Infiltration
6. Construction Sites and Post-Construction Storm Water Management
7. Pollution Prevention
8. Green Infrastructure/Low Impact Development

The Village should provide at least four public education delivery mechanisms each year, at least two of which would be considered an active/interactive mechanism (see **Section 3.1.5 of the MS4 Permit** for a list of active and inactive delivery mechanisms). The Village may take credit for active mechanisms organized by MAMSWaP as long as the Village uses its resources to advertise the event.

Table 1.1 – 2021 MAMSWaP Information and Education Programs and Activities

Program/Activity	Audience	Responsible Parties/Partners	Timing	Actions/Deliverables	Public Education and Outreach Topic(s) Addressed*
Storm Drain Mural Program	Residential Educational	SWEC, Dane Arts Mural Arts (DAMA), MAMSWaP Communities, Schools, Community Groups	1. Nov 2020 2. Dec 2020-Jan 2021 3. Feb 2021 4. Mar-Aug 2021 5. Jun-Aug 2021 6. Jun-Aug 2021	1. Update and post Storm Drain Mural Grant on Ripple Effects web site 2. Promote Storm Drain Mural Grants 3. Rank and select up to 10 applications for new or repainted murals 4. Work with municipalities, partner groups and DAMA to design and paint storm drain murals 5. Provide partner groups with articles to promote new murals locally. 6. Add new storm drain murals to Storm Drain Mural Project map	1. Illicit Discharge Detection and Elimination
Illicit Discharge Reporting Program	Residential Public Sector Private Sector	SWEC, MAMSWaP Communities	1. Nov 2020-April 2021 2. Nov 2020-Feb 2021 3. April-May 2021	1. Develop outreach campaign and guidance documents for specific audiences 2. Develop single point of contact reporting system protocol 3. Hold at least one Illicit Discharge training for public staff	1. Illicit Discharge Detection and Elimination 7. Pollution Prevention
Clean Sweep Local Collection Event	Residential	Clean Sweep, MAMSWaP Communities, Madison Metro. Sewerage District	1. May-November 2021	1. Partner with Dane County Landfill to hold a local Clean Sweep Hazardous Waste Collection Event in a MAMSWaP community.	1. Illicit Discharge Detection and Elimination 2. Household Hazardous Waste Disposal 7. Pollution Prevention
Stormwater Pollution/Prevention Education Tools (Rainfall Simulator, Enviroscape, Stormwater Curriculum , Stormwater Animation, Lawns and Water Quality video, Stormwater Pollution and Solutions video and Storm Drain Marking)	Residential Educational	SWEC, MAMSWaP Communities, Schools, Community Groups	1. Jan-Dec 2021 2. Jan-Dec 2021 3. Jan-Dec 2021	1. Promote stormwater ed. tools to partners, groups and educators. 2. Use stormwater ed. tools in at least 5 presentations, in-person or virtual. 3. Check out stormwater ed. tools to at least 5 educators/groups.	1. Illicit Discharge Detection and Elimination 2. Household Hazardous Waste Disposal/Pet Waste Management/Vehicle Washing 3. Yard Waste Management/Pesticide and Fertilizer Application 4. Stream and Shoreline Management 5. Residential Infiltration

*from Table 1 of WPDES WI-S058416-04

Program/Activity	Audience	Responsible Parties/Partners	Timing	Actions/Deliverables	Public Education and Outreach Topic(s) Addressed*
Leaf-free Streets for Clean Waters	Residential Educational Private Sector	SWEC, MAMSWaP Communities, Community Groups	1. Sept 2021 2. Oct-Nov 2021 3. Oct-Nov 2021	1. Update and distribute Leaf-free Streets for Clean Waters Toolkit to municipalities and groups 2. Promote actions and rain alert system through social media, flyers, newsletter articles, signs, presentations, newspaper and online advertising. 3. Issue email/text rain alerts.	3. Yard Waste Management/Pesticide and Fertilizer Application
Plant Dane Native Plant Program and Free Native Plants for School and Community Projects (FNPSCP) Program	Residential Educational Private Sector	SWEC, MAMSWaP Communities, Schools, Community Groups	1. Dec 2020-Jan 2021 2. Nov 2020 3. Dec 2020-Jan 2021 4. Feb 2021 5. Feb-Mar 2021 6. Feb-Mar 2021 7. Feb-Mar 2021 8. Feb-Mar 2021 9. May-June 2021	1. Work with Agrecol to update plant list and order system. 2. Update and post FNPSCP Grant Application 3. Promote FNPSCP Grants 4. Launch Plant Dane online order site 5. Solicit and collect donations for at least 10 FNPSCPs 6. Update and distribute Plant Dane Toolkit to municipalities and groups 7. Hold rain garden workshop with at least 15 participants. 8. Sell at least 10,000 native plants through Plant Dane 9. Distribute native plant orders/donations	4. Stream and Shoreline Management 5. Residential Infiltration 7. Pollution Prevention 8. Green Infrastructure/Low Impact Development
Adopt A Storm Drain Pilot	Residential	SWEC, MAMSWaP Communities, Community Groups	1. Jan-Mar 2021 2. Apr-Jul 2021 3. Apr-Jul 2021 4. Jul-Dec 2021	1. Recruit partner community(ies) 2. Collect needed maps/data 3. Work with Dane County Info Management on online program 4. Launch pilot program	1. Illicit Discharge Detection and Elimination 3. Yard Waste Management/Pesticide and Fertilizer Application 7. Pollution Prevention
NASECA Trainings	Construction Professionals Public Sector	SWEC, MAMSWaP Communities	1. Jan-Dec 2021 2. Jan-Dec 2021	1. Promote NASECA Trainings 2. Provide discounts to attend trainings for MAMSWaP communities	6. Construction Sites and Post-Construction Storm Water Management

*from Table 1 of WPDES WI-S058416-04

Program/Activity	Audience	Responsible Party/Partners	Timing	Actions/Deliverables	Public Education and Outreach Topic(s) Addressed*
WI Salt Wise Program and Salt Certification Trainings	Residential Private Sector Public Sector	SWEC, WI Salt Wise Partners, MAMSWaP Communities	1. Jan-Mar 2021, Sept-Dec 2021 2. Jan-Mar 2021, Sept-Dec 2021 3. Oct-Dec 2020 4. Aug-Nov 2021 5. Sept-Nov 2021	1. Participate on WI Salt Wise Team and attend meetings 2. Collaborate with WI Salt Wise partners to promote, develop and distribute resources to reduce winter salt use. 3. Update and distribute WI Salt Wise Toolkit to municipalities and groups. 4. Hold at least two salt certification trainings with at least 20 participants. 5. Hold at least specialized training with at least 10 participants (ex.-calibration, brine, equipment demo).	2. Household Hazardous Waste Disposal/Pet Waste Management/Vehicle Washing 7. Pollution Prevention
Stormwater and Erosion Control Plan Review and Inspections	Construction Professionals Residential	MAMSWaP Communities	1. Jan-Dec 2020 2. Jan-Dec 2020	1. Review erosion control and stormwater management plans 2. Conduct inspections of erosion control and stormwater practices.	6. Construction Sites and Post-Construction Storm Water Management

*from Table 1 of WPDES WI-S058416-04

WPDES Permit (MAMSWaP) – 2021 Annual Work Plan for The Village of McFarland

Program/Activity	Audience	Public Education and Outreach Topic(s) Addressed*	Municipal I&E Activities (check all activities that will be completed in 2021)	Additional Municipal Activities, Goals and Comments
Storm Drain Mural Program	Residential Educational	1. Illicit Discharge Detection and Elimination	☐Provide location/group to work with and assist group with storm drain mural application. ☐Select and approve storm drain mural design.	
Illicit Discharge Reporting Program	Residential Public Sector Private Sector	1. Illicit Discharge Detection and Elimination 7. Pollution Prevention	☒Promote and encourage residents and businesses to report illicit discharges using new illicit discharge campaign tools through newsletters, local newspaper, mailings, web site, meeting, social media, etc. ☒Provide Dane County with a list and addresses of local businesses of concern (concrete contractors, restaurants, carpet cleaners, painters, automotive shops, landscapers, other with outdoor waste storage containers) to share illicit discharge ordinance and BMP information with. ☒Reach out to local businesses of concern directly and share illicit discharge ordinance and BMP information.	
Clean Sweep Local Collection Event	Residential	1. Illicit Discharge Detection and Elimination 2. Household Hazardous Waste Disposal 7. Pollution Prevention	☐Partner with Dane County to hold a Clean Sweep Hazardous Waste Collection Event in local community. ***This is limited to one municipality. Contact the SWEC, if interested.***	
Stormwater Pollution/Prevention Education Tools (Rainfall Simulator, Enviroscape, Stormwater Curriculum, Stormwater Animation, Lawns and Water Quality video, Stormwater Pollution and Solutions video and Storm Drain Marking)	Residential Educational	1. Illicit Discharge Detection and Elimination 2. Household Hazardous Waste Disposal/Pet Waste Management/Vehicle Washing 3. Yard Waste Management/Pesticide and Fertilizer Application 4. Stream and Shoreline Management 5. Residential Infiltration	☒Promote stormwater ed. tools to local partners, groups and educators. ☒Post links to virtual resources on municipal web site. ☐Checkout the Enviroscape or Rainfall Simulator to use at local event(s) or presentation(s). ☐Engage one or more local groups in Storm Drain Marking efforts. ☒Provide SWEC with a local presentation opportunity along with contact information. **Limited to 10 SWEC-led presentations per year for all MAMSWaP partners***	

*from Table 1 of WPDES WI-S058416-04

WPDES Permit (MAMSWaP) – 2021 Annual Work Plan for The Village of McFarland

Program/Activity	Audience	Public Education and Outreach Topic(s) Addressed*	Municipal I&E Activities (check all activities that will be completed in 2021)	Additional Municipal Activities, Goals and Comments
Leaf-free Streets for Clean Waters	Residential Educational Private Sector	3. Yard Waste Management/Pesticide and Fertilizer Application	☒Promote Leaf-free Streets program and encourage residents to remove street leaves before the rain using campaign tools through newsletters, local newspaper, mailings, web site, meeting, social media, etc. ☒Engage local groups in heavy street tree areas and reward good practices.	
Plant Dane Native Plant Program and Free Native Plants for School and Community Projects (FNPSCP) Program	Residential Educational Private Sector	4. Stream and Shoreline Management 5. Residential Infiltration 7. Pollution Prevention 8. Green Infrastructure/Low Impact Development	☐Promote Plant Dane program and encourage residents and groups to plant native plants and build rain gardens using campaign tools through newsletters, local newspaper, mailings, web site, meeting, social media, etc. ☐Promote Rain Garden Workshop and encourage residents to sign up. ☐Partner with Dane County to host the Rain Garden Workshop in local community. ***One workshop will be held in 2021.*** ☐Promote FNPSCP program to local schools, groups, non-profits, neighborhood associations, etc. and encourage groups to apply.	
Adopt A Storm Drain Pilot	Residential	1. Illicit Discharge Detection and Elimination 3. Yard Waste Management/Pesticide and Fertilizer Application 7. Pollution Prevention	☐Participate and commit to provide needed information for pilot program. ☐Promote pilot locally. ***Pilot is limited to 3 MAMSWaP communities. Contact SWEC, if interested.***	
NASECA Trainings	Construction Professionals Public Sector	6. Construction Sites and Post-Construction Storm Water Management	☒Promote NASECA Trainings to local construction professionals and municipal staff and encourage attendance through MAMSWaP provided discounts.	

*from Table 1 of WPDES WI-S058416-04

Program/Activity	Audience	Public Education and Outreach Topic(s) Addressed*	Municipal I&E Activities (check all activities that will be completed in 2021)	Additional Municipal Activities, Goals and Comments
Stormwater and Erosion Control Plan Review and Inspections	Construction Professionals Residential	1. Construction Sites and Post-Construction Storm Water Management	☐Review erosion control and stormwater management plans within municipality or contract with Dane County to review plans. ☐Conduct inspections of erosion control and stormwater practices within municipality or contract with Dane County to conduct inspections.	
WI Salt Wise Program and Salt Certification Trainings	Residential Private Sector Public Sector	2. Household Hazardous Waste Disposal/Pet Waste Management/Vehicle Washing 7. Pollution Prevention	☐Promote Salt Wise resources and practices to businesses, residents, schools, organizations, and facility managers using WI Salt Wise campaign tools through newsletters, local newspaper, mailings, web site, meeting, social media, etc. ☐Provide SWEC with a local presentation opportunity along with contact information (school district, local company, etc). **Limited to 2 WI Salt Wise-led presentations per year for all MAMSWaP partners*** ☐Send municipal staff to Salt Certification Trainings. ☐Promote Salt Certification Trainings to local winter maintenance professionals and facilities managers. ☐Partner with Salt Wise to host a Salt Certification Training in your community and actively participate by sharing local efforts with group to reduce salt use. ***Limited to one MAMSWaP partner per year***	

*from Table 1 of WPDES WI-S058416-04

<table>
<tr><td rowspan="8">*8 Public Education and Outreach Topic Areas - Bold topic areas that will be addressed in 2021 (co-permittees with populations over 5,000 need to address at least <u>six</u> topic areas, whereas co-permittees under 5,000 need to address at least <u>four</u> topic areas):

1. Illicit Discharge Detection and Elimination
2. Household Hazardous Waste Disposal/Pet Waste Management/Vehicle Washing
3. Yard Waste Management/Pesticide and Fertilizer Application
4. Stream and Shoreline Management
5. Residential Infiltration
6. Construction Sites and Post-Construction Storm Water Management
7. Pollution Prevention
8. Green Infrastructure/Low Impact Development</td><td>Active/Interactive Delivery Mechanisms</td><td>Passive Delivery Mechanisms</td></tr>
<tr><td>Educational Activities (school presentation, summer camps, etc.)</td><td>Passive print media (brochures at front desk, posters, etc.)</td></tr>
<tr><td>Informational booth at event</td><td>Distribution of print media (mailings, newsletters, etc.) via mail or email.</td></tr>
<tr><td>Targeted group training (contractors, consultants, etc.)</td><td>Media offerings (radio and TV ads, press release, etc.)</td></tr>
<tr><td>Gov. event (public hearings, council meeting)</td><td>Social media posts</td></tr>
<tr><td>Workshops</td><td>Signage</td></tr>
<tr><td>Tours</td><td>Website</td></tr>
<tr><td>Other</td><td>Other</td></tr>
</table>

<table>
<tr><td rowspan="4">List active delivery mechanisms that will be used in 2021:
(co-permittees with populations 5,000 need to use at least <u>two</u> active mechanisms, whereas co-permittees under 5,000 need to address at least <u>one</u> active mechanism)</td><td>1. Educational Activity</td></tr>
<tr><td>2. Government Event</td></tr>
<tr><td>3.</td></tr>
<tr><td>4.</td></tr>
</table>

*from Table 1 of WPDES WI-S058416-04

3.0 PUBLIC INVOLVEMENT AND PARTICIPATION

The purpose of the public involvement and participation program is to notify the public of activities required by this permit and to encourage input and participation from the public regarding these activities.

The Village is required to provide a minimum of one opportunity annually for the public to provide input on each of the following permit activities: annual report, storm water management program, and if applicable, adoption or amendment of storm water related ordinances. The Village provides the annual report to the Public Utilities Committee and the Village Board. The annual report is also available for the public to view upon request at the Village Offices.

The Village meets the requirements of **Section 3.2.3** by providing at least one public involvement and participation program a year, which can include events such as storm drain stenciling, waterway cleanups, and public workshops.

4.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION

As discussed in **Section 3.3.1**, the Village is required to have an illicit discharge ordinance. The Village's illicit discharge ordinance can be found in Section 47-337 - Illicit Discharges. The Village's Code of Ordinance can be accessed online at the location below: https://www.mcfarland.wi.us/342/Ordinances

Section 3.3.2 requires the Village to perform illicit discharge detection and elimination (IDDE) field screening. During the permit term, the Village plans to inspect all major outfalls annually and all minor outfalls at least once during the permit term. The Villlage has a total of 2 major outfalls and 17 minor outfalls which discharge to waters of the state. If there is any suspected illicit activity, field screening will be located downstream of the suspected activity. Given the total number of outfalls the Village is responsible for screening, it is possible for the Village to screen all outfalls at least once during the permit term and more likely multiple times during the permit term. Field screening will be conducted according to the guidelines put forth in WDNR's Illicit Discharge Detection and Elimination guidance, which is attached to this document following this section.

Section 3.3.3 requires the Village to have written procedures for responding to known or suspected illicit discharges. Some response to this requirement is detailed in Village Ordinances 47-337 to 47-340. In the event that an illicit discharge or suspected illicit discharge becomes known to the Village, the Village shall investigate the event as soon as possible. The investigation efforts will include:

a. Attempting to locate the source of the spill or discharge
b. Prevention of further discharge or containment of the discharge
c. Recording details of the event including date of discovery, dates of any action taken, location, follow-up actions taken, and sources (if known)
d. Providing notification to the WDNR immediately in accordance with NR 706, Wis. Adm. Code if a spill or release of a hazardous substance is detected that has or may discharge to waters of the state. The Department shall be notified via the 24-hour toll free spill hotline at 1-800-943-0003.
e. Sampling of discharge in accordance with WNDR's Illicit Discharge Detection and Elimination guidance

Section 3.3.6 requires the Village to provide the name, title and phone number of the individual(s) responsible for responding to reports of illicit discharges and spills. The Village contact is Jim Hessling, Director of Public Works, 608-383-7287.

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
NOTICE OF FINAL GUIDANCE & CERTIFICATION

Pursuant to ch. 227, Wis. Stats., the Wisconsin Department of Natural Resources has finalized and hereby certifies the following guidance document.

DOCUMENT ID

WT-19-0027-C EGAD: 3800-2012-01

DOCUMENT TITLE

Illicit Discharge Detection and Elimination

PROGRAM/BUREAU

Storm Water Program/Watershed Management Bureau

STATUTORY AUTHORITY OR LEGAL CITATION

Section NR 216.07(3), Wisconsin Administrative Code

DATE SENT TO LEGISLATIVE REFERENCE BUREAU (FOR PUBLIC COMMENTS)

09/02/2019

DATE FINALIZED

10/07/2019

DNR CERTIFICATION

I have reviewed this guidance document or proposed guidance document and I certify that it complies with sections 227.10 and 227.11 of the Wisconsin Statutes. I further certify that the guidance document or proposed guidance document contains no standard, requirement, or threshold that is not explicitly required or explicitly permitted by a statute or a rule that has been lawfully promulgated. I further certify that the guidance document or proposed guidance document contains no standard, requirement, or threshold that is more restrictive than a standard, requirement, or threshold contained in the Wisconsin Statutes.

Michael C. [signature] 09/30/2019

Signature Date

BUREAU OF WATERSHED MANAGEMENT
PROGRAM GUIDANCE

Storm Water Management Program

Wisconsin Department of Natural Resources
101 S. Webster Street, P.O. Box 7921
Madison, WI 53707-7921

Illicit Discharge Detection and Elimination

March 2012

3800-2012-01

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: March 15, 2012

TO: SW Program Staff

FROM: Pam Biersach – Bureau Director
Bureau of Watershed Management

SUBJECT: Program Guidance #3800-2012-01

Illicit Discharge Detection and Elimination
March 2012
3800-2012-01

This document is intended solely as guidance, and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. This guidance does not establish or affect legal rights or obligations, and is not finally determinative of any of the issues addressed. This guidance does not create any rights enforceable by any party in litigation with the State of Wisconsin or the Department of Natural Resources. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

A. Statement of Problem Being Addressed

Limited information is available to assist municipalities with the development of an effective program to determine the presence of illicit discharges from storm sewer system outfalls.

B. Background

State and federal storm water discharge regulations require permitted municipal separate storm sewer systems (MS4s) to develop, implement and enforce a program to detect and remove illicit connections and discharges to the MS4. In Wisconsin, this requirement is established in s. NR 216.07(3), Wis. Adm. Code. The program must include routine dry weather field screening at storm sewer system outfalls and procedures for locating the source of known or suspected illicit discharges. If flow is observed, a combination of sensory observations and indicator parameter sampling must be used to determine the presence of illicit discharges and assist in the tracking, location and elimination of sources.

C. Discussion

Section NR 216.07(3)(i), Wis. Adm. Code, requires that field screening is conducted at all major outfalls and any additional outfalls designated by the municipality or Department. Field screening must include the following when flow is observed:

- Narrative descriptions of color, odor, turbidity, oil sheen, surface scum, flow rate and other relevant observations.
- Sampling for pH, total chlorine, total copper, total phenol and detergents unless Department

approval has been obtained for alternative parameters such as ammonia, potassium or bacteria.

The combination of sensory and indicator parameters is intended to provide insight regarding the presence and potential sources of illicit discharges. However, ch. NR 216, Wis. Adm. Code does not identify specific discharge limits, action levels or other criteria that should be used to determine if an illicit discharge is either present or absent. In addition, ch. NR 216, Wis. Adm. Code does not address the following:

- Selection of outfalls for on-going field screening after the initial major outfall field screening has been completed.
- Frequency and timing of outfall field screening activities.
- Outfalls with baseflow consisting of groundwater and other non-illicit discharges.
- Submerged,enclosed, or otherwise inaccessible outfalls.
- Outfalls from pumped storm water systems.
- Outfalls from swale conveyance systems and storm water treatment practices.
- Proper documentation and evaluation of outfall field screening activities.

The purpose of this guidance document is to provide supplemental information that can be used by MS4 owners and operators to maximize the efficiency and effectiveness of illicit discharge detection and elimination programs.

D. Guidance

Outfall Selection

Currently, MS4 permits include a requirement that field screening is initially conducted at all major outfalls[1]. However, a more targeted approach to illicit discharge detection and elimination (IDDE) is recommended. Outfalls should be prioritized based on illicit discharge potential in the contributing drainage area rather than solely on pipe or drainage area size. Outfalls selected for on-going field screening based on illicit discharge potential are considered "priority outfalls". Contributing drainage area characteristics or land uses that should be considered when selecting priority outfalls include:

- History of known or suspected illicit discharges reported within the last five years
- Sections of storm sewer and/or sanitary sewer infrastructure that have exceeded or are approaching their design/useful life.
- Contributing drainage areas with 80 or more percent imperviousness.

---

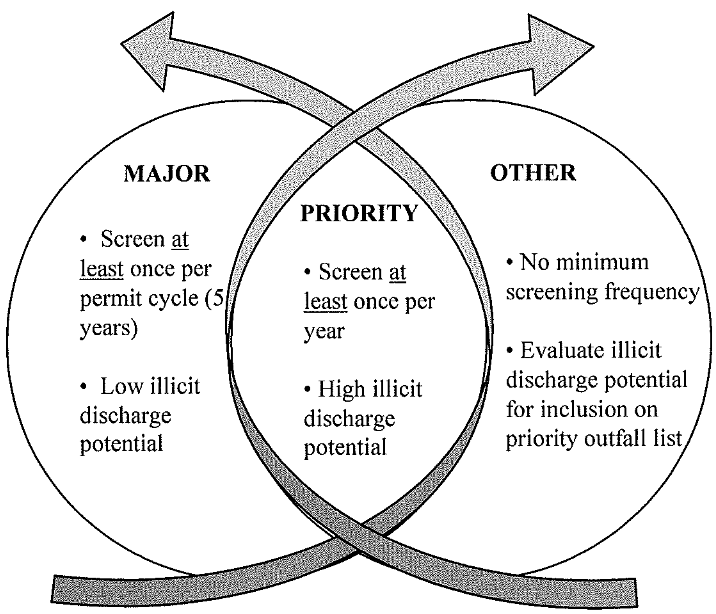
[1] "Major outfall" means a municipal separate storm sewer system outfall that meets one of the following criteria:
(a) A single pipe with an inside diameter of 36 inches or more, or from an equivalent conveyance which is associated with a drainage area of more than 50 acres.
(b) A single pipe with an inside diameter of 12 inches or more, or from an equivalent conveyance which receives storm water runoff from lands zoned for industrial activity with 2 or more acres of industrial activity.

- Business or industrial parks with frequent changes in property ownership or operations.
- Schools or other institutional facilities.
- Commercial or industrial operations that generate wastewater or wash water including food processing, metal plating or machining shops, auto and scrap recyclers, commercial car washes and chemical manufactures or users.

Frequency

The recommended approach to outfall field screening frequency is depicted in Figure 1. All priority outfalls should be screened at least once per year. In some cases, it may be appropriate to conduct more than one field screening per year at a particular priority outfall depending on initial screening results or illicit discharge potential. All other major outfalls not identified as priority outfalls should be screened at least once during each MS4 permit cycle (i.e., 5 years). The priority outfall list should be reviewed and modified if necessary during an annual program evaluation.

Figure 1 - Outfall Field Screening Frequency



Timing

Outfall field screening must be conducted during dry weather periods to minimize potential interference from non-illicit sources including runoff and groundwater. In general, field screening should not be conducted within 48 hours after a precipitation event that produces runoff. However, it may be necessary to wait longer than 48 hours after precipitation events depending on contributing drainage area characteristics, the presence of extended discharges from stormwater facilities or the size of the event. Field screening during periods of high groundwater, such as the early spring, should be avoided. However, spring or fall screening may be necessary if outfall access is significantly obstructed by vegetation.

Sensory Parameters

Obvious illicit discharges can potentially be identified by color, odor or other physical characteristics such as sheen or foam. However, proper interpretation of sensory observations can be complicated by the fact that some sources are naturally occurring (e.g., iron bacteria) or non-illicit (e.g., dye testing).

Chapter 11 of the Center for Watershed Protection's guidance manual for illicit discharge detection and elimination includes photos of common physical indicators for illicit and non-illicit sources. The entire manual can be downloaded from the USEPA website at http://www.epa.gov/npdes/pubs/idde_manualwithappendices.pdf

Indicator Parameters

Indicator parameter sampling is necessary to confirm sensory observations or distinguish illicit from non-illicit discharges. The following parameters are recommended for all observed discharges: **Ammonia, Detergents, pH and Total Chlorine**. Based on MS4 or outfall specific conditions, the following additional parameters should be considered:

- **Total Copper** in areas where industrial facilities that use or manufacture copper-based products are present.
- **Phenol** in areas where industrial facilities that utilize phenol in processes or products are present.
- **Potassium** when discharges of industrial wastewater or sanitary sewage are suspected.
- **Fluoride** when discharges with a drinking water supply component are suspected.
- **E. coli or Bacteriodes** when discharges of sanitary sewage are suspected.

The recommended parameters for all observed discharges are a deviation from the parameter lists identified in ch. NR 216, Wis. Adm Code and MS4 permits. Permitted MS4s should submit modified parameter list proposals to the Department for approval prior to implementation.

Test Methods

In order to provide relatively rapid results, indicator parameters should be analyzed using field test kits. However, field test kits should be used by staff with appropriate training and experience. Laboratory analysis is necessary for some parameters (e.g., E. coli, Bacteriodes) and recommended in cases where enforcement action may be necessary to eliminate illicit discharges or connections.

Action Levels

Recommended action levels for indicator parameters are found in Table 1. Sample results above these levels suggest the presence of an illicit discharge is likely. However, illicit discharges or connections should not be automatically ruled out in cases where parameters are detected below the recommended action levels. In some instances, illicit discharges can be masked by non-illicit sources depending on the time of the year, recent precipitation events, or other conditions, especially at outfalls with large contributing drainage areas. With this in mind, the recommended action levels should be considered as starting points for decision making. Ultimately, identifying outliers to expected or past levels may be more important when determining if further investigation should be initiated. To determine when an outlier has been detected, each MS4 should maintain a database (or equivalent record) of indicator parameter test results for individual outfalls or groups of outfalls.

TABLE 1 – Indicator Parameters Action Levels

Parameter	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 background water supply levels	Industrial wastewater, swimming pools and sanitary sewage	WPDES permitted discharges
Total Copper	0.1 mg/l	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 and 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
E. coli	10,000 MPN/100 mL	Sanitary sewage	Wildlife and pets
Human Bacteriodes	Detection or positive test	Sanitary sewage	None

Additional considerations for some of the indicator parameters are as follows:

- Field test methods for **detergents** are generally considered qualitative (i.e., positive or negative) tests. Some detergent test methods produce bubbles or a gel like substance that can be misinterpreted as a positive test for detergents. In addition, specific detergent test methods, such as the MBAS method, may not be capable of detecting all classes of detergents. Another potential issue with detergent testing is distinguishing non-illicit discharges associated with residential car washing from illicit discharges.

- **Chlorine** residuals are typically short lived in the environment. Detection of chlorine at an outfall generally indicates a source that is relatively close to the outfall. However, chlorine detected at an outfall can be from an illicit or non-illicit source if chlorinated municipal drinking water supply is a component of the discharge (see "Non-Illicit Sources").

- Leaching of **copper** from plumbing systems can be a source of copper even in areas where copper-based product use or manufacturing does not occur.

- Municipal drinking water supply systems that add **fluoride** typically maintain levels between 1 and 1.5 mg/l.

- **E. coli** is a commonly used sanitary sewage indicator. However, dry weather flow outfall monitoring in Wisconsin and other states indicates that E. coli levels are highly variable and can be produced by naturally occurring, non-illicit sources in the environment such as raccoons in storm sewers. Elevated dry weather E. coli levels in conjunction with detection of other indicator parameters (e.g., detergents, total chlorine) may be more indicative of the presence of sanitary sewage.

- The ratio of human **Bacteriodes** to total Bacteriodes may be particularly useful in determining sanitary sewage sources. However, the availability of Bacteriodes testing may be limited.

Non-Illicit Sources

Indicator parameters can be detected from non-illicit sources such as groundwater inflows, non-contact cooling water discharges or other WPDES permitted discharges from commercial and industrial facilities:

- Groundwater: Flow rates associated with groundwater inflows can vary seasonally due to fluctuations in groundwater elevations. Groundwater inflows are typically highest in the early spring and lowest in the late summer. In some areas, groundwater inflows will also include natural levels of fluoride. Baseline conditions for outfalls with groundwater inflows can be established by documenting seasonal flow rates and/or fluoride levels over time. If baseline conditions have been established for an outfall, sampling for other indicator parameters can be avoided if flow rates and/or fluoride levels are consistent with the established baseline values.

- Permitted Facilities: In some areas, WPDES permitted industrial facilities are allowed to discharge wastewater to MS4s as long as discharge limits are met. These discharges can produce continuous or nearly continuous flows at outfalls. WPDES permitted discharges are considered non-illicit but can include one or more of the indicator parameters at detectable levels. In many cases, municipal drinking water supply is a component of WPDES permitted discharges and it may be difficult to distinguish non-illicit from illicit sources in these areas. However, establishing baseline flow rates and parameter levels for outfalls with WPDES permitted discharges is recommended. If necessary, the Department can assist in the identification and characterization of WPDES permitted discharge, including discharge limits.

The Department maintains a listing of current WPDES permit holders online:

- **WPDES Wastewater Permittees**
  http://dnr.wi.gov/org/water/wm/ww/permlists.htm
- **WPDES Industrial Storm Water Permittees**
  http://dnr.wi.gov/runoff/stormwater/industrial/

Submerged & Enclosed Outfalls

It may be difficult or impossible to conduct outfall field screening activities at outfalls that are fully or partially submerged by receiving waters or located within enclosed waterways. For these cases, field screening activities should be conducted at appropriate upstream manholes. On-site illicit connection inspections should be considered for any high risk facilities that can potentially discharge to the MS4 between the outfall and field screening manholes. Another option to consider is televising the storm sewer segments located between field screening manholes and the outfall.

Physically Interconnected Systems

One MS4 that discharges directly to a second MS4 is considered physically interconnected. The point of interconnection is considered an outfall from the upstream or discharging MS4. Although field screening activities should be conducted by the upstream MS4 at the point of interconnection, it may be appropriate for interconnected MS4s to coordinate and potentially consolidate field screening activities.

Pump Stations

For pumped storm water systems, field screening activities should be conducted at appropriate manholes located upstream from the pump station or intake. If the first upstream manhole from the pump station is submerged, the pump should be operated if possible to remove accumulated water from the storm sewer system prior to conducting field screening activities.

Swales Conveyance Systems

For swale conveyance systems, it may be appropriate to conduct a visual or "windshield" survey within the swale area in conjunction with or as an alternative to field screening at the outfall. Locations where piped systems discharge to swales should be targeted during windshield surveys.

Storm Water Practices

Wet detention basins and other storm water treatment practices can potentially mask the presence of illicit discharges from the storm sewer system. Field screening activities should be conducted at inlets to storm water treatment practices rather than from the outlet. However, the size and location of practices can be considered when determining if field screening at inlets is necessary.

Documentation and Program Evaluation

Written or electronic documentation of all outfall screening activities should be kept. At minimum, the documentation should identify the following items for each outfall:

- Outfall location & description
- Inspector name
- Date of inspection
- Date & amount of last rainfall
- Weather conditions
- Narrative description of all sensory observations and flow rate estimates
- Test results for all indictor parameter sampling
- Narrative description of potential or confirmed illicit discharge sources and actions taken to track and eliminate sources.
- Additional comments or observations

As suggested in the "Action Level" section, it is important to develop and maintain a field screening database (or equivalent) to track changes and establish trends over time. Each permitted MS4 should conduct an annual evaluation of the field screening data and priority outfall list. Program modifications should be made as needed based on the annual evaluation.

APPROVED:

Mary Anne Lowndes 3/19/2012
Section Chief **Date**

APPROVED:

J R Zanotti 3/19/2012
Staff Attorney **Date**

DISCUSSED OR APPROVED:

PMT Approved on **3/15/2012**
Date

This document is intended solely as guidance and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

5.0 CONSTRUCTION SITE POLLUTANT CONTROL

As discussed in **Section 3.4.1**, the Village is required to have a construction site ordinance. The Village's construction site ordinance can be found in Part II, Chapter 8, Article XVII, Site Eorsion Control. Erosion Control requirements are at least as stringent as the requirements listed in **Section 3.4.1** of the permit. The Village's Code of Ordinance can be accessed online at the location below:

https://library.municode.com/wi/mcfarland/codes/code_of_ordinances?nodeId=PTIICOOR_CH8BUBURE_ARTXVIISIERCO

According to **Section 3.4.2**, the Village should have written procedures for construction site plan review. At the Village, construction site plans are reviewed by the Village Public Works department and the Village Community Development and/or their designee for consistency with Village requirements and best management practices.

Members of the public can submit complaints by calling the McFarland Public Works Department's main number (608-838-7287) or by e-mailing Public Works at public.works@mcfarland.wi.us

According to **Section 3.4.3** the Village should have written procedures for administration of the construction site pollutant control program. At the Village, these procedures are managed through the erosion control permit application and administration process as outlined in Village ordinances and on the Village website. The responsibility for this administration initially falls on the Village Community Development department and is then shared with the Village Public Works and/or their designee depending on the size and scope of the project.

According to **Section 3.4.4**, the Village should have written procedures for construction site inspection and enforcement. The Village department responsible for construction site inspection is the Village Public Works Department. The Village's procedures meet the inspection frequency requirements listed in **Section 3.4.4.b** of the Permit. Those frequencies are as follows:

Table 3: Construction Site Inspection Frequency

Site	Inspection Frequency
(1) All sites one acre or more in size	• New projects shall be inspected within the first two weeks of commencement of land disturbing construction activity • All active sites shall be inspected at least once every 45 days • All inactive sites shall be inspected at least once every 60 days
(2) Follow up inspection	• Follow up inspections are required within 7 days of any sediment discharge or inadequate control measure, unless corrections were made and observed by the inspector during initial inspection or corrections were verified via photographs submitted to the inspector
(3) Final inspection	• Confirm that all graded areas have reached final stabilization and that all temporary control measures are removed, and permanent storm water management BMPs are installed as designed

According to **Section 3.4.4.c**, compliance with the inspection requirements shall be determined by proper documentation and maintenance of records. Records for inspections are maintained by the Village Public Works Department. A sample construction site inspection form is attached to the end of this section.

Citations, verbal warnings, and stop work orders may be used to obtain erosion control compliance, in accordance with **Section 3.4.4.d** of the MS4 Permit.

Save... | Print... | Clear Data

State of WisconsinDepartment of Natural Resources (DNR)PO Box 7921, Madison WI 53707-7921dnr.wi.gov

CONSTRUCTION SITE INSPECTION REPORT

Form 3400-187 (R 11/16)

Notice: This form was developed in accordance with s. NR 216.48 Wis. Adm. Code for WPDES permittees' convenience; however, use of this specific form is voluntary. Multiple copies of this form may be made to compile the inspection report. Inspections of the construction site and implemented erosion and sediment control best management practices (BMPs) must be performed weekly and within 24 hours after a rainfall event 0.5 inches or greater.

Construction Site Name and Location (Project, Municipality, and County):	**Site/Facility ID No. (FIN):**
Onsite Contact/Contractor:	**Onsite Phone/Cell:**

Note: Inspection reports, along with erosion control and storm water management plans, are required to be maintained on site in accordance with s. NR 216.48 (4) and made available upon request. PLEASE PRINT LEGIBLY.

Date of inspection:	**Time of inspection:** **Start:** ________ ◯ **am** ◯ **pm** **End:** ________ ◯ **am** ◯ **pm**	**Type of inspection:** ◯ **Weekly** ◯ **Precipitation Event** ◯ **Other (specify)**

Weather/Site Conditions: **Temp.** ________ **Antecedent Soil Moisture** ◯ **Dry** ◯ **Variable** ◯ **Wet** ◯ **Frozen or snow covered** ◯ **Frozen (Thaw predicted in next week)** ◯ **Melting Snow/slush** **Last Rainfall Depth:** ________ **inches** **Last Rainfall Date:** ________	**Describe current phase of construction:** Scheduled Final Stabilization Date for Universal Soil Loss Equation (USLE) [1] : **Project on Schedule[2]?** ◯ **Yes** ◯ **No**
Name(s) of individual(s) performing inspection:	**Inspector Phone/Cell:**

I certify that the information contained on this form is an accurate assessment of site conditions at the time of inspection:

Inspector Signature ________________________ **Date:** ____________

Inspection Questions:	**Yes**	**No (Identify Actions Required):**	**Location/Comments:**	**Actions Completed by Date & Initials**
1. Is the erosion control plan accessible to operators?	☐	☐ Provide onsite copy		
2. Is the permit certificate posted where visible?	☐	☐ Post certificate		
3. Is the current phase of construction on sequence with the site-specific erosion and sediment control plan, including installation/stabilization of ponds and ditches?	☐	☐ Add sediment control ☐ Install missing ditch/pipe/pond ☐ Stabilize bare soil		
4. Are all erosion and sediment control BMPs shown on plan properly installed and in functional condition?	☐	☐ Repair ☐ Modify ☐ Install/Replace		
5. Is inlet protection properly installed and functioning in all inlets likely to receive runoff from the site?	☐	☐ Clean ☐ Replace ☐ Install		

[1] The Universal Soil Loss Equation (USLE) model and the Construction Site Soil Loss and Sediment Discharge Guidance are available at: http://dnr.wi.gov/topic/stormwater/standards/const_standards.html

[2] If the project is not on schedule then the soil loss summary for the project should be reviewed and schedule, plan or practices modified accordingly.

	Inspection Questions:	Yes	No (Identify Actions Required):	Location/Comments:	Actions Completed by Date & Initials
6.	Is the air free of fugitive dust resulting from construction activity and bare soil exposure?	☐	☐ Apply water ☐ Apply dust control product		
7.	Is the public right of way curb line free of tracked soil and accumulation?	☐	☐ Install tracking pad ☐ Widen/lengthen pad ☐ Amend stone/Add geotextile ☐ Install wheel washing station ☐ Close entrance/exit ☐ Limit traffic across disturbed areas ☐ Sweep road and curb line		
8.	Are wetlands, lakes, streams, ditches, or storm sewers downstream of the site free of sedimentation and turbid water leaving the site?[3]	☐	☐ Repair/Replace erosion control ☐ Add sediment controls ☐ Modify operations ☐ Contact DNR to verify extent of cleanup required		
9.	Is dewatering and/or vehicle and equipment washing being done in a manner that prevents erosion and sediment discharge?	☐	☐ Install treatment train ☐ Install energy dissipation ☐ Modify discharge location ☐ Modify intake to reduce sediment		
10.	Are soil stockpiles existing for more than 7 days covered and stabilized?	☐	☐ Seed ☐ Install mat/mulch/polymer ☐ Cover with tarp/plastic sheeting		
11.	Are downstream channels and other downhill areas protected from scour and erosion?	☐	☐ Install energy dissipation at outfall ☐ Install ditch checks ☐ Install slope interruption ☐ Install onsite detention		
12.	Are good housekeeping practices or treatment controls in place to prevent the discharge of chemicals, cement, trash, and other materials into wetlands, waterways, storm sewers, ditches, or drainage-ways?[4]	☐	☐ Properly dispose of trash ☐ Provide concrete washout station ☐ Contact DNR to verify extent of cleanup required		
13.	Is the plan reflective of current site operations and does it address all erosion and sediment control issues identified during the inspection?	☐	☐ Revise sequence ☐ Revise sediment control BMP ☐ Revise erosion control BMP ☐ Revise post-construction storm water BMP		
14.	Are all areas where construction has temporarily ceased (and will not resume for more than 2 weeks) temporarily stabilized?	☐	☐ Topsoil & seed ☐ Install mat/mulch/polymer ☐ Cover with tarp/plastic sheeting		
15.	Are all areas at final grade permanently vegetated or stabilized with other treatments?	☐	☐ Topsoil & seed ☐ Install mat/mulch/polymer ☐ Install stone base		

3 If sediment discharge enters a wetland or waterbody, the permittee should consult with DNR staff to determine if sediment cleanup and/or additional control measures are required.

4 The permittee shall notify the DNR immediately via the spills hotline at (800)943-0003 of any release or spill of a hazardous substance to the environment in accordance with s. 292.11, Wis. Stats., and ch. NR 706, Wis. Adm. Code.

Inspection Questions:	Yes	No (Identify Actions Required):	Location/Comments:	Actions Completed by Date & Initials
16. Have temporary sediment controls been removed in areas of the site that meet the permit definition of 'final stabilization'?	☐	☐ Water to establish vegetation ☐ Repair or reseed areas ☐ Remove temporary practices		

3 If sediment discharge enters a wetland or waterbody, the permittee should consult with DNR staff to determine if sediment cleanup and/or additional control measures are required.

[4] The permittee shall notify the DNR immediately via the spills hotline at (800)943-0003 of any release or spill of a hazardous substance to the environment in accordance with s. 292.11, Wis. Stats., and ch. NR 706, Wis. Adm. Code.

6.0 POST-CONSTRUCTION STORM WATER MANAGEMENT

According to **Section 3.5.1**, the Village is required to have an ordinance or other regulatory mechanisms to regulate post-construction storm water discharges from new and redevelopment. The Village's storm water management ordinance can be found in in Part II, Chapter 8, Article XVII, Storm water Management. Storm water management requirements are at least as stringent as the requirements listed in **Section 3.5.1**. The Village's Code of Ordinance can be accessed online at the location below:

https://library.municode.com/wi/mcfarland/codes/code_of_ordinances?nodeId=PTIICOOR_CH8BUBURE_ARTXVIIISTMA

According to **Section 3.5.2**, the Village is required to have written procedures for the administration of the post-construction storm water management program, including a process for obtaining local approval and responding to complaints. The Village manages the administration of this program through the Village's Community Development department in conjunction with the Village Public Works Department and/or their designee. Local approval for new development is obtained by verifying the construction post-construction controls meet the approved requirements, with the verification by the Community Development department, Public Works department, and/or their designee. The response to complaints is handled by the Village Public Works Department.

According to **Section 3.5.3**, the Village is required to have written procedures for post-construction site plan review. At the Village, these plans are reviewed as part of the Erosion Control and Storm water Management permitting process. This is described more fully in Section 5.0 of this plan and the plan review is handled by the Village Public Works Department, Community Development Department, and/or their designee.

According to **Section 3.5.4**, the Village is required to have written procedures to, at a minimum, track and enforce the long-term maintenance of storm water management facilities implemented to meet applicable post-construction performance standards. The ability of the Village to enforce the long-term maintenance and inspection requirements is codified in the Village's Code of Ordinances within the section linked to above. Additionally, these facilities all have maintenance agreements giving the Village authority to maintain them if the owner fails to do so. These facilities are shown on the Village storm water map and listed in the table below:

Basin Location	BMP Name	Basin Area	BMP Type	Year Constructed	O&M Plan?	Record Drawing?
A1	84 Lumber Pond 2	13	Wet Pond	2004	UNK	Yes
B1	Voges Road Pond	7.1	Wet Pond		UNK	
C1	84 Lumber Pond 1	4.5	Biofiltration	2012	UNK	Yes
F1	Storage Shop USA	3.45	Biofiltration			
M1	Kwik Trip	1.6	Biofiltration			
M1	Bisbee Dale St Pond	2.1	Wet Pond			
N1	Burma Condos	2.3	Biofiltration			
W2	Lot 17 Fieldstone	7.8	Wet Pond			
X4	Countrywood Dry Pond	43.5	Grass Swale			

The Village shall inspect all of these facilities a minimum of once per permit term. Inspection documentation shall be maintained by the Village Public Works Department. If necessary, documentation of follow-up enforcement is maintained in the same location.

7.0 POLLUTION PREVENTION

According to **Section 3.6.1**, the Village must update and maintain an inventory of municipally-owned or operated stormwater best management practices, such as wet ponds, bioretention devices, infiltration bains, etc. An inventory of Village-owned stormwater facilities can be found on the villages storm water map. And is detailed in this table:

Basin Location	BMP Name	Basin Area (acres)	BMP Type	Year Constructed	O&M Plan?	Record Drawing?
D2	Commerce Park Pond 3	6.2	Wet Pond			
D1	Commerce Park Pond 4	13.8	Wet Pond			
A2	High Track	13.5	Wet Pond			
W2	Highland Oaks	52.6	Wet Pond			
Y1	Kettle Area in Basin Y1	142	Wet Pond			
A1	Landmark Services Site Pond	9.7	Wet Pond			
Q2	Meredith Heights	6.9	Wet Pond			
X5	Parkview Estates 2	13.2	Wet Pond			
X3	Parkview Estates 1	53.1	Wet Pond			
U1, V1	Red Oak Addition	122	Wet Pond			
M1, N1, R1	Sediment Lagoon	194	Wet Pond			
M2	Woodland Commons Pond 1a	4.9	Wet Pond			
M2	Woodland Commons Pond 1b	8.7	Wet Pond			
F2	Commerce Park Pond 1	5	Wet Pond			
S2	Marsh/Siggelkow Pond	44	Wet Pond			
E1	Commerce Park Pond 2	13	Wet Pond			
L1	Valley Drive Pond	146	Wet Pond			
W1	Osborn/Leanne Pond	167	Wet Pond			

According to **Section 3.6.2**, the Village shall develop and implement a maintenance plan with inspection procedures and a schedule for the BMPs listed in the table above. The Village practice is to inspect all listed facilities a minimum of once annually and perform maintenance of the device following inspection if necessary. Records of these inspections are maintained by the Village Public Works Department.

According to **Section 3.6.3**, municipally-owned facilities (such as municipal storage yards) should have a Stormwater Pollution Prevention Plan (SWPPP). A hard copy of the SWPPP for the Public Works Maintenance Yard can be obtained at the Public Works office or requested by either calling or e-mailing the McFarland Public Works Department's main number (608-838-7287) or by e-mailing Public Works at public.works@mcfarland.wi.us

Section 3.6.5.a of the MS4 Permit contains requirements for street sweeping documentation. This documentation is submitted annually with the MS4 annual report and additional documentation is maintained by the Village Public Works Department.

Section 3.6.5.b of the MS4 permit contains requirements for catch basin cleaning documentation. The Village does not currently (2020) use catch basin cleaning to meet water quality requirements of this permit. However, the Village does maintain a documentation record of the number of catch basins cleaned and an estimate of the weight in tons of material collected annually.

According to **Section 3.6.5.c**, material collected from street sweeping and sump cleaning should be disposed of or beneficially reused in accordance with applicable solid waste and hazardous waste statuses and administrative codes. Non-storm water discharges associated with dewatering and drying material are not authorized by the permit.

According to **Section 3.6.5.d(1)**,the Village should maintain a description of the leaf collection program, including type of pick-up methodology and equipment used. Brush and yardwaste collection is contracted out in five-year increments. Currently (2020-2024), brush and yardwaste is collected by Barnes. Residents are required to bring yard waste to the compost site for disposal. Brush should meet size requirements and be stacked neatly in the bunker for dsisposal terrace. Brush and yardwaste collection instructions can be found at the website below:

https://www.mcfarland.wi.us/294/Yard-Waste-Brush

The compost/brush site is operates from approximately April 1st of year until approximately mid-November and is open from 7:00a.m. to 7:00p.m., 7 days per week.

Brush and yard waste are picked up and is assumed that the material is processed into compost. It is not possible to estimate the weight in tons of material collected annually, as there is currently no scale available at the site.

According to **Section 3.6.5.d(3)**, the Village shall maintain documentation of the municipally-operated leaf disposal location. The Village's leaf disposal location is located at the Village of McFarland's Public Works Department (5115 Terminal Drive).

According to **Section 3.6.6**, no more salt or deicers may be applied than necessary to maintain public safety. Documentation on deicing activities shall be maintained including the following:

Contact Information for the department with overall responsibility for winter roadway maintenance.	Village of McFarland Public Works Dept. public.works@mcfarland.wi.us (608) 838-7287
A description of the types of deicing products used.	Salt, brine
Amount of deicing product used per month or per storm event.	Available in the Street Supervisor's files.
A description of type of equipment used.	
An estimate of the number of lane-miles treated with deicing products, as well as an estimate of the total area of municipally-owned parking lots treated.	
A description of snow disposal locations.	Not applicable.
A description of anti-icing, pre-wetting and bringing, equipment calibration, pavement temperature monitoring, and/or salt reduction strategies implemented or being considered.	

In **Section 3.6.7**, fertilizer and/or pesticide application on municipally-controlled properties may be implemented in accordance with site-specific requirements.

According to **Section 3.6.8**, consideration of environmentally sensitive land development designs for municipal projects, including green infrastructure and low impact development, shall be designed, installed, and maintained to comply with a water quality requirement under the MS4 Permit.

According to **Section 3.6.9**, the Village hold one annual training event for appropriate municipal staff and other personnel involved in implementing each of the elements of the pollution prevention program under this section (Pollution Prevention). Documentation shall be maintained including the date, number of people attending the training, the names of each person and a summary of their responsibilities, and the content of the training. This documentation will be maintained at the public works department.

As outlined in **Section 3.7** of the MS4 Permit, the Village should implement and maintain structural and non-structural BMPs to achieve a reduction of 20% or more of total suspended solids (TSS) carried from existing development to waters of the state. An updated model of TSS removal from urban runoff within the Village is scheduled to be completed in 2021.

According to **Section 3.8**, the Village is required to maintain a map of the MS4. This information is available at public works. Information is provided to the Village of Madison annually, so they can maintain a common storm sewer system map for the entire group permit area in accordance with **Section 3.8.2**. This information should be updated annually and provided to the Village of Madison by January 31 each year.

Summary of Adaptive Management Participation to Achieve TMDL Compliance

Village of McFarland 2020 Annual Report

This summary documents the Village's progress to date towards meeting the water quality goals required by the Rock River TMDL, and the Village's plan to meet those goals through participation in the Yahara WINS Adaptive Management program. The Village's MS4 permit requires that the following information be included in the annual report:

1. Most recent estimated pollutant of concern percent reduction levels (i.e. total phosphorus and total suspended solids/ sediment), as compared to no controls by reachshed, within the permittee's MS4 permitted area.
2. Pollutant of concern percent reduction levels, as compared to no controls by reachshed, which the permittee intends to ultimately achieve within its own MS4 permitted area (not associated with Adaptive Management buy-in).
3. The financial dollar value contributed to an Adaptive Management program for the reporting year.
4. Identify any additional storm water measures that were initially implemented in the reporting year, which reduce the discharge of pollutants of concern from its MS4 permitted area (not associated with Adaptive Managment buy-in). If available, identify the incremental percent reduction gained by such measures relative to the MS4 permitted area.

1. Estimated Pollutant Reduction Levels

The Village's WinSLAMM model is used for estimating the pollutant loading and reduction. The most recent update of the Village's WinSLAMM model was performed in 2016 for the purposes of participation in the adaptive management program. The Village currently achieves a 47% reduction in TSS and a 35% reduction of TP. This meets the permit requirements of 40%/27% TSS and TP reductions respectively. A more detailed summary table of these reductions by watershed is attached in Appendix A.

2. Pollutant Reduction Level Goals

Additional pollutant level reduction goals are set by the Rock River Basin TMDL (Rock River Recovery). Within this TMDL, the Village's MS4 is in the Yahara River and Lake Kegonsa Watershed (LR06) and discharges to Reach 66 (Yahara River, Lake Waubesa, Lake Kegonsa). The Rock River TMDL sets the ultimate reduction level goals of 62%/54% TSS and TP reductions respectively.

The Village intends to continue to make improvements in TSS and TP reduction levels through a combination of efforts, including but not limited to the following:

- Maintenance of existing stormwater system and controls.
- Post-construction stormwater standards set by municipal ordinance for both TSS reduction and volume control for redevelopment sites that exceed the WDNR-set uniform state standards for redevelopment post-construction stormwater management.
- Continued improvement of the Village's leaf management program.
- Continued improvement to the Village's sweeping program where practicable.

3. Adaptive Management Financial Contribution

An invoice record of the Village's annual payment to the adaptive management program is attached in Appendix B.

4. New Storm Water Measures

No new municipally-owned storm water measures were installed in the reporting year which would be relevant to the Village's stormwater modeling.

APPENDIX A

August 31, 2016

Mr. Eric Rortvedt, P.E.
Water Resources Engineer
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg WI, 53711

Subject: Phosphorous Load Analysis for Participation in the Yahara Watershed Improvement Network (Yahara WINS) Adaptive Management Plan; Village of McFarland, WI

Dear Eric:

In order to meet the obligations the Village of McFarland has as a member of the Yahara WINS group and to reduce its adaptive management contribution for phosphorous reduction, we are submitting the following for your review on the Village's behalf:

- Letter Report summarizing our findings
- Tabular Summary of WinSLAMM analysis
- WinSLAMM files for each basin in the Village (on disc)
- Exhibit Maps

Executive Summary

1. An update to the Village's 2008 Stormwater Management Plan was completed using present day information. A few areas that have since been developed were added. Land uses and stormwater practices that have been added or changed were updated. A tabular summary of WinSLAMM results is included as an enclosure to this report. WinSLAMM files are included for your review on the enclosed disc.

2. The results of our finding show that Total Phosphorous Discharge from the Village is lower than the Annual Baseline estimate from the "Rock River TMDL".

3. We recommend that the Village of McFarland's contribution be reduced to **536 pounds** of "purchased reduction" credits rather than 736 as estimated in the Yahara WINS Agreement.

Introduction

1. In August 2008, Town & Country Engineering, Inc. partnered with AECOM to prepare a stormwater management plan for the Village of McFarland, one of the permitted MS4 communities in Dane County. This plan was reviewed and approved by WDNR and serves as a basis for the update to the WinSLAMM model for this project.

2. The 2008 report used WinSLAMM Version 9.2.4. This version did not have some of the capabilities of the current Version 10.2.1 therefore, the entire watershed was remodeled in the current WinSLAMM Version 10.2.1 using the same Basins and Land Use Areas developed from GIS data in 2008. Results were slightly different, but relatively close to the same as 2008. This gave us a level of confidence that the base data is reliable.

3. The Intergovernmental Agreement for an Adaptive Management Plan for the Yahara Watershed states that MS4 members may update stormwater modeling consistent with the DNR guidance document titled "TMDL Guidance for MS4 Permits: Planning, Implementation and Modeling Guidance" (October 20, 2014). If updated modeling is reviewed and approved by DNR, and shows a required annual phosphorous reduction that is different than what was used to develop the cost allocation in Exhibit B of the Agreement, the cost of that MS4 member in Exhibit B will be adjusted as follows:

    Exhibit B Cost x {Revised Phosphorous Reduction (lbs/yr)/Initital Phosphorous Reduction (lbs/yr)} = Revised Cost

    Using this formula and the data we have compiled, we have computed our recommended Revised Cost for the Village of McFarland to be as follows:

    $36,200 x (536/736) = $26,363

Modeling Methodology and Parameters

In order to reflect what was done in 2008 and stay consistent with modeling performed for the MS4 permit, we utilized much of the same parameters as previously modeled. Our basis for modeling is detailed as follows:

Basins

The Village of McFarland is broken up into 38 basins. These match the GIS areas developed in the 2008 report.

Basin Y1 is internally drained, therefore it does not contribute to the total phosphorous discharge from the Village and was eliminated from this analysis.

Basin areas are listed in the tabular summary as an appendix to this report.

Another internally drained area is the church property located at 4306 Main Street located in Basin S2. This area was not included in the either the 2008 report or this analysis.

7.8 acres of new development was added to Basin S2. This is represented by the Fieldstone Lot 17 area shown on an Exhibit Map in the Enclosure.

4.0 acres of new development was added to Basin X2. This is part of the Prairie Woods Subdivision shown on an Exhibit Map in the Enclosure.

14.4 acres of new development was added to Basin X3. This is part of the Prairie Woods Subdivision shown on an Exhibit Map in the Enclosure.

Land Use

Standard Land Uses were utilized throughout the Village. The previous 2008 model included a Standard Land Use file for Railroad areas. We determined this was modeled as nothing more than "Other Urban – Open Space". This is how the railroad areas were represented in our WinSLAMM models.

Areas that were excluded include the following:

1. Undeveloped land greater than 5 acres
2. DOT right-of-way with a separate MS4
3. Industrial areas permitted under NR 216
4. Lands within the urban service area zoned agriculture and under agricultural use as of October 1, 2004.
5. Lands that discharge directly to waters of the State.
6. Internally drained areas.

The total area analyzed, excluding these areas is about 1530 acres. This includes roughly 26 acres of new development since the 2008 report. A map showing the existing land use for the Village is in the Enclosure to this report.

Precipitation

The Madison Five-Year Rainfall was used in WinSLAMM models which uses rain events of 1980 through 1984 considered to be typical for Dane County.

Soils

Soils information taken from NRCS Soil Survey from the 2008 report was used. This information shows that nearly 98% of the Village is considered silt. An Exhibit map showing the soil type distribution for the Village is in the Enclosure.

Drainage Type

Roughly 90% of the Village is drained with curb and gutter. The other 10% is drained by roadside grass swales. These areas are identified on an Exhibit map showing the drainage type distribution for the Village in the Enclosure.

From the 2008 report, it was assumed that either a whole basin was curb & gutter drainage or a whole basin was swale drainage. Basin W2 was shown as swale drainage in 2008. This area was revised to curb and gutter drainage for this analysis to better reflect what is actually present today. The remainder of the areas remain unchanged.

Street Sweeping Parameters

The Village purchased a high-efficiency vacuum street sweeper as a result of the 2008 stormwater management study. This is the Village's only sweeper. The current sweeping schedule for the Village is to sweep all streets once per month, except for winter months. Parking is assumed to be light throughout the Village with no enforcement to remove cars for sweeping operations. These default parameters were used for each land use with streets with curb & gutter. Street sweeping was not used for streets with roadside ditches.

Since WinSLAMM Version 10.2.1 can now route hydrographs and particle sizes between control practices, street cleaning can be applied as a source area control practice to streets with curb & gutter while still allowing the user to add other source area control practices such as catch basins, and drainage area control practices such as grass swales and wet ponds. In WinSLAMM, under Tools-Program Options, the box was checked to 'Route Hydrographs and Particle Sizes Between Control Practices' for all models in this analysis.

Grass Swales

The following default parameters for grass swales were applied to each grass swale modeled as a drainage control practice for its specific Standard Land Use. WinSLAMM calculates the typical swale densities and average swale lengths for each Standard Land Use. These default parameters were used unless specific data was readily available to represent actual lengths of grass swales. Note that a conservative dynamic infiltration rate of 0.07 inches/hour was used.

Figure 1: Swale Parameters

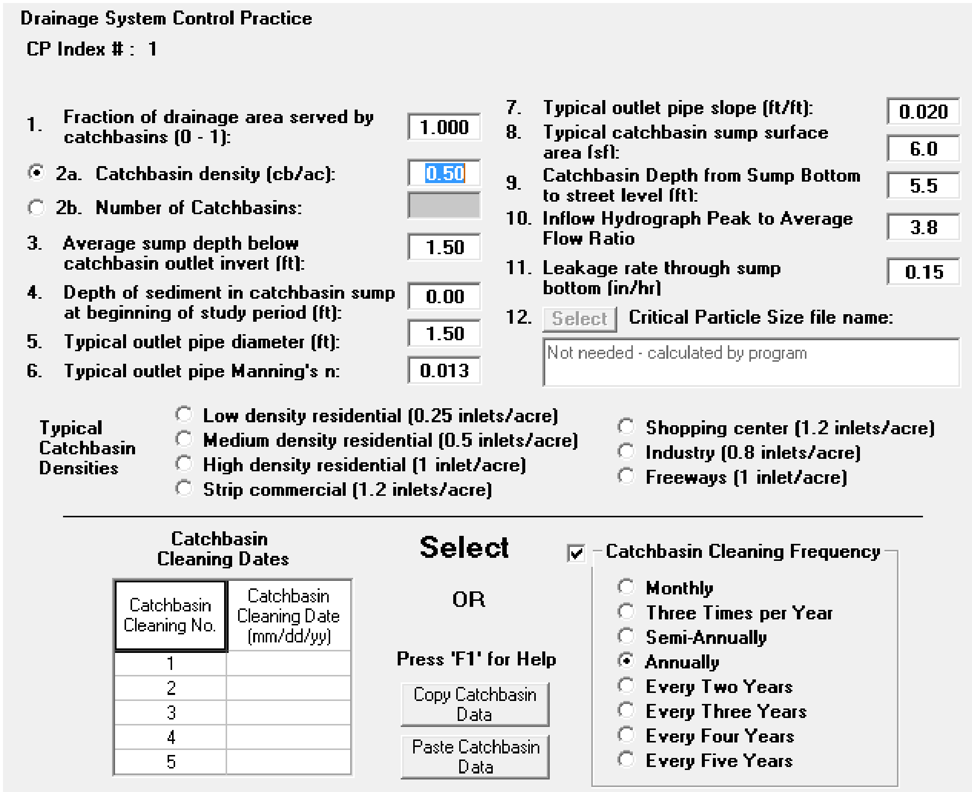
Swale Properties	Input Value
Typical Bottom Width	1
Typical Side Slopes (_ft H: 1 ft V)	3
Typical Longitudinal Slope (ft/ft)	0.005
Manning's n	0.3
Infiltration Rate for Silt (in/hr)	0.07

Catch Basins

Like grass swales, typical catch basin densities can be calculated by WinSLAMM to save counting individual catch basins. This method was employed using the default parameters for catch basins shown in the figure below.

The only variable parameter was that of the catch basin density which was selected by choosing the appropriate Standard Land Use (SLU). In the event a SLU was used that was not listed, the density for Low Density Residential was used. Catch basins were inserted into each model as a drainage control practice serving the entire SLU area.

Figure 2: Catch Basin Parameters



Wet Ponds and Other Device Control Practices

For the purposes of staying consistent with the 2008 Stormwater Management Report and not having to recreate models of wet ponds from scratch, all existing wet ponds in the Village were modeled in WinSLAMM using the 'Other Devices' Drainage Area Control Practice. This feature allows the user to set the 'pollutant concentration reduction' value equal to the designed efficiency of the control practice.

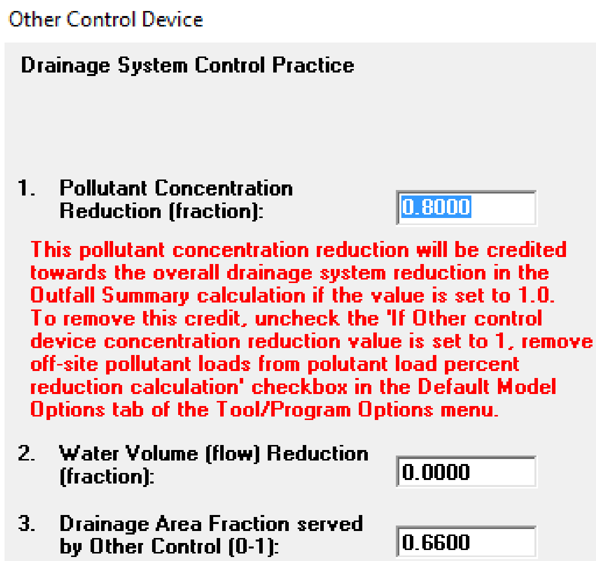
For instance, if the designed efficiency of a wet pond is for 80% Total Suspended Solids (TSS) reduction, the user would enter the 'pollutant concentration reduction' value for the control practice equal to 0.8.

Again, since routing of particle sizes is possible with this version of WinSLAMM, a wet pond can be added as an 'Other Device' Drainage Control Practice without taking double credit for particles removed by street sweeping or catch basins, etc.

We understand that this version of WinSLAMM is only able to calculate the amount of particulate phosphorous removed by the control practice. To take credit for removal of dissolved phosphorous we would have to determine how much runoff was being infiltrated and insert the 'water volume reduction' into the 'Other Control Device' parameters. To be conservative, we did not assume any infiltration.

The ‘Drainage Area Fraction Served by Other Control’ was set to the appropriate fraction based on the area of specific Standard Land Uses that drain into the control practice. See example in the figure below.

Figure 3: Other Control Device Variable Parameters



Existing Structural BMP’s for the Village of Mc Farland

The existing BMP’s from the 2008 Stormwater Report are shown below. These Best Management Practices (BMP’s) were added to our models as ‘Other Control Devices’ using the TSS removal efficiency shown in the table below.

Table 1: Existing Structural BMPs

Basin Location	BMP Name	Basin Area (acres)	BMP Type	TSS Removal Efficiency (%)
D2	Commerce Park Pond 3	6.2	Wet Pond	70
D1	Commerce Park Pond 4	13.8	Wet Pond	69
A2	High Track	13.5	Wet Pond	55
W2	Highland Oaks	52.6	Wet Pond	80
Y1	Kettle Area in Basin Y1	142	Wet Pond	100
A1	Landmark Services Site Pond	9.7	Wet Pond	80
Q2	Meredith Heights	6.9	Wet Pond	80
X5	Parkview Estates 2	13.2	Wet Pond	80
X3	Parkview Estates 1	53.1	Wet Pond	80
U1, V1	Red Oak Addition	122	Wet Pond	80
M1, N1, R1	Sediment Lagoon	194	Wet Pond	37
M2	Woodland Commons Pond 1a	4.9	Wet Pond	53
M2	Woodland Commons Pond 1b	8.7	Wet Pond	67

Note that the Kettle Area in Basin Y1 was eliminated since it was excluded from the analysis because it is internally drained and therefore does not contribute to the total Phosphorous discharge.

Also, the Landmark Services Pond was replaced by two Lumber 84 ponds (listed below), one in Basin C1, one in Basin A1.

Structural BMP's Implemented by the Village since the 2008 report

A number of alternatives to improve the Village's stormwater quality were recommended in the 2008 report. The alternatives including several wet detention ponds listed below were implemented by the Village. These ponds were modeled as 'Other Control Devices' using the designed efficiency

Table 2: Implemented 2008 Proposed BMP's

Basin Location	BMP Name	Basin Area	BMP Type	TSS Removal Efficiency
		(acres)		(%)
F2	Commerce Park Pond 1	5	Wet Pond	80
S2	Marsh/Siggelkow Pond	44	Wet Pond	70
E1	Commerce Park Pond 2	13	Wet Pond	80
L1	Valley Drive Pond	146	Wet Pond	60
W1	Osborn/Leanne Pond	167	Wet Pond	60

Structural BMP's added on private property within the Village of McFarland

In addition to these wet ponds, several private detention ponds were constructed throughout the Village. These ponds are listed below. These ponds all have maintenance agreements giving the Village authority to maintain them if the owner fails to do so. Again, these ponds were modeled as 'Other Control Devices' using the designed efficiency taken from project documentation that was readily available.

Table 3: New Added BMP's

Basin Location	BMP Name	Basin Area	BMP Type	TSS Removal Efficiency
		(acres)		(%)
A1	84 Lumber Pond 2	13	Wet Pond	80
B1	Voges Road Pond	7.1	Wet Pond	40
C1	84 Lumber Pond 1	4.5	BioFiltration	40
F1	Storage Shop USA	3.45	BioFiltration	80
M1	Kwik Trip	1.6	BioFiltration	40
M1	Bisbee Dale St Pond	2.1	Wet Pond	80
N1	Burma Condos	2.3	BioFiltration	80
W2	Lot 17 Fieldstone	7.8	Wet Pond	80
X4	Countrywood Dry Pond	43.5	Grass Swale	modeled

One exception to modeling in this fashion is a dry pond constructed in 1998 for Countrywood located in Basin X4. This dry pond is approximately 1 acre in size and was modeled as a 280-foot long by 200-foot wide grass swale at 1.33% slope with an infiltration rate of 0.07 inches per hour. This is conservative considering it detains runoff for a considerable length of time and infiltration is likely higher than this estimated rate.

Summary of Modeling Results

A tabular summary of WinSLAMM modeling results is attached as an Enclosure to this report.

The Village of McFarland annual total phosphorous (TP) discharge with controls is **1031 pounds**.

The annual baseline TP load from the Rock River TMDL Report is 1231 pounds. The annual TP wasteload allocation (WLA) for the Village is 495 pounds. The estimated amount of ‘purchased phosphorous reduction’ is 736 pounds. This amount is greater than the actual required reduction amount of **536 pounds**.

We recommend that this amount be reduced to this value to reflect the present conditions in the Village. This would ultimately reduce the Village of McFarland’s contribution for adaptive management as follows:

$36,200 x (536/736) = **<u>$26,363</u>**

More information such as maintenance agreements, pond dimensions and stormwater management plans are available should you require further documentation or information to complete your review. If you have any questions or would like more information, please do not hesitate to contact me.

Very Truly Yours,
TOWN & COUNTRY ENGINEERING, INC.

Thomas J. TeBeest, P.E.
Project Engineer

cc: Mr. Dave Taylor, Director of Special Projects, Madison Metropolitan Sewerage District *(1610 Moorland Road Street, Madison, WI 53713)*

Mr. Allan Coville, Director of Public Works, Village of McFarland *(5915 Milwaukee Street, P.O. Box 110, McFarland, WI 53558)*

TJT
J:\JOB#S\McFarland\MC-101-S1 2016 SLAMM Update\Spec & Reports\DNR Letter - Phosphorous Load Analysis for Yahara WINS Participation.docx

Enclosure

Table A-1. WinSLAMM Tabular Summary of Modeling Results

Figure A-1. Drainage Basins Map

Figure C-1. Land Use Map

Figure D-1. Soils Map

Figure E-1. Developed Areas added to Basins since 2008 report

Figure F-1. Drainage Type Distribution Map

Figure G-1. Existing BMPs Map

WinSLAMM electronic files *(on disc)*

Village of McFarland Stormwater Management Plan – Aug 2008
(incorporated by reference only)

Summary of Modeling Results														
Watershed Characteristics			Total Suspended Solids (TSS)			Total Phosphorous			Stormwater BMPs employed*					
Drainage Area (label)	Area (acres)	Primary Land Use	Discharge No Controls (pounds)	Discharge with Controls (pounds)	TSS Control (%)	Discharge no controls (pounds)	Discharge with controls (pounds)	P control (%)	Source Area Control Practice 1	Drainage Area Control Practice 1	Drainage Area Control Practice 2	Drainage Area Control Practice 3	Drainage Area Control Practice 4	Description of BMPs
A1	62.5	MI	31515.6	21345	32%	58	46.82	20%	SC	CB	OD-Pond (80% efficient)			Wetpond at 84 Lumber
A2	10.3	LI	6557	2351	64%	58.76	30.87	47%		GS	OD - Pond (55%)			High Track Pond
B1	26.9	MI, R	16044.6	12073.4	25%	29.3	23.18	21%	SC	CB	OD- Pond (40%)			Voges Road Pond
C1	74.4	MI	36760	28330	23%	70.86	56.72	20%		GS	OD - Pond (40%)			84 Lumber Pond
D1	13.8	LI	8023	1933.4	76%	14.786	6.898	53%	SC	CB	GS	OD - Pond (69%)		Commerce Park Pond 4
D2	6.1	LI	2889	657	77%	5.622	2.678	52%	SC	CB	GS	OD - Pond (70%)		Commerce Park Pond 3
E1	12.8	LI	7098.6	1199.72	83%	13.242	5.772	56%	SC	CB	OD - Pond (80%)			Commerce Park Pond 2
F1	34.5	R	11315.8	7860.2	31%	34.26	28.32	17%	SC	CB	OD - Pond (80%)			Storage Shop USA Pond
F2	5.4	LI	3175.4	547.2	83%	6.016	2.684	55%	SC	CB	OD - Pond (80%)			Commerce Park Pond 1
G1	12.7	R	2143.8	1792.8	16%	8.946	8.018	10%	SC	CB				
H1	10.9	R	3683.2	3047.4	17%	13.206	11.616	12%	SC	CB				
I1	25.9	R	7102.8	5731.2	19%	27.1	23.62	13%	SC	CB				
J1	52.2	R	17146	14524	15%	52.02	46.56	10%	SC	CB				
J2	2.9	C	1734.2	1399.4	19%	3.694	3.132	15%	SC	CB				
K1	8.5	R	2588.4	2180.6	16%	8.102	7.284	10%	SC	CB				
L1	158.4	R	37190.6	14049.4	62%	149.82	85.88	43%	SC	CB	OD - Pond (80%)			Valley Drive Pond at Church St.
M1	101.4	R, C	40478.6	20152.2	50%	111.48	68.78	38%	SC	CB	OD- Pond (40%)	OD - Pond (80%)	OD - Pond (37%)	Kwik Trip Pond, Bisbee Dale St Pond, Sediment Lagoon
M2	15.4	C	7119.6	2755.2	61%	17.496	8.868	49%	SC	CB	OD-Pond (53%)	OD-Pond (67%)		Woodland Commons Ponds 1a & 1b
M3	3.0	R	1113.2	914	18%	3.204	2.806	12%	SC	CB				
N1	24.1	R, C	8939.2	4546	49%	26.38	16.482	38%	SC	CB	OD- Pond (80%)	OD Pond (37%)		Burma Condos Pond, Sediment Lagoon
O1	13.3	R	3933.8	3238.6	18%	14.858	13.06	12%	SC	CB				
P1	58.1	R	16045.6	13433.6	16%	60.12	53.6	11%	SC	CB				
Q1	104.9	R	24001.6	20168	16%	100.46	90.22	10%	SC	CB				
Q2	6.9	R	1558.4	252.8	84%	6.274	2.586	59%	SC	CB	OD-Pond (80%)			Meredith Heights Pond
R1	75.3	R	25042.6	11612.8	54%	82.08	45.82	44%		GS	OD- Pond (37%)			Sediment Lagoon
S1	9.2	R	2874	628.4	78%	10.274	4.022	61%		GS	OD-Pond (70%)			Marsh/Siggelkow Pond
S2	32.1	R	7864.2	1972	75%	32.06	15.338	52%	SC	CB	OD-Pond (70%)			Marsh/Siggelkow Pond
T1	37.3	R, O	10356	8347.8	19%	34.12	29.5	14%	SC	CB	OD-Pond (70%)			Marsh/Siggelkow Pond
U1	48.5	R	13655	2262	83%	52.42	21.78	58%	SC	CB	OD - Pond (80%)			Red Oak Addition Pond
V1	73.0	R	23325.6	3882.8	83%	84	32.84	61%	SC	CB	OD - Pond (80%)			Red Oak Addition Pond
W1	178.1	R	50499.2	18440.6	63%	184.4	101.24	45%	SC	CB + one 6'MH	OD- Pond (60%)			Osborn Pond at Osborn/Leanne
W2	52.2	R	12866.2	3656.2	72%	50.36	24.8	51%	SC	CB	OD-Pond (80%)	OD Pond (60%)		Lot 17 Fieldstone Pond, Highland Oaks Regional Pond
X1	54.9	R	13743.4	11194.8	19%	51.82	45.58	12%	SC	CB				
X2	14.5	R, O	2615.4	2120.8	19%	11.188	9.922	11%	SC	CB				
X3	53.1	R	12066	2019.4	83%	49.14	21.26	57%	SC	CB	OD - Pond (80%)			Parkview Estates 1 Pond
X4	43.5	R	9872.6	5975.4	39%	39.76	27.34	31%	SC	CB	GS - (to model Dry Pond)			Countrywood 1998 dry pond with outlet structure
X5	12.1	R	3099.8	505.4	84%	11.762	4.784	59%	SC	CB	OD- Pond (80%)			Parkview Estates 2 Pond
Y1	~~27.2~~	Internally Drained - EXCLUDE								Internally drained basin - exclude				
TOTALS	**1529**		**486038**	**257101**	**47%**	**1588**	**1031**	**35%**						
Particle sizes routed between control practices														

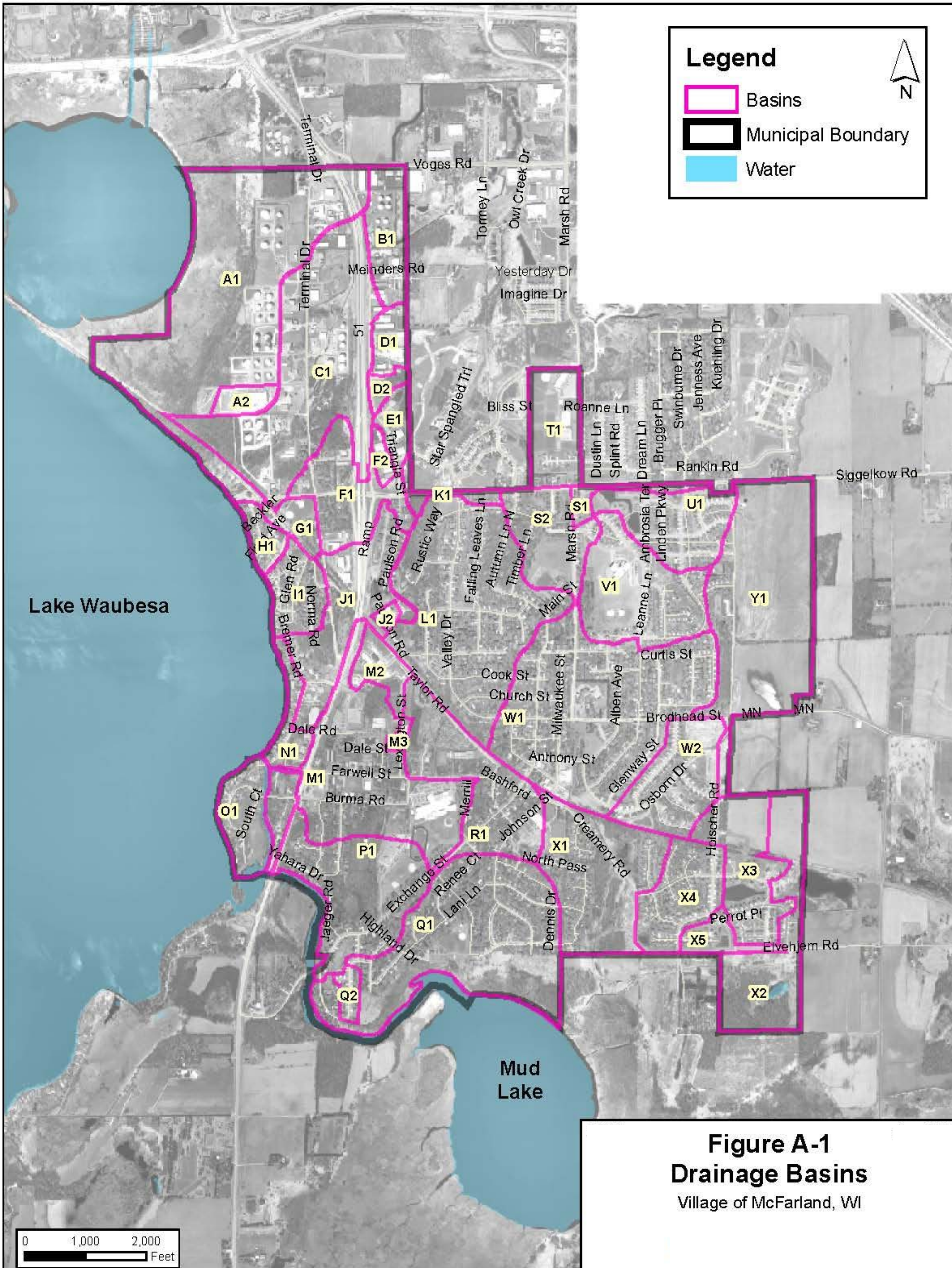


Figure A-1
Drainage Basins
Village of McFarland, WI

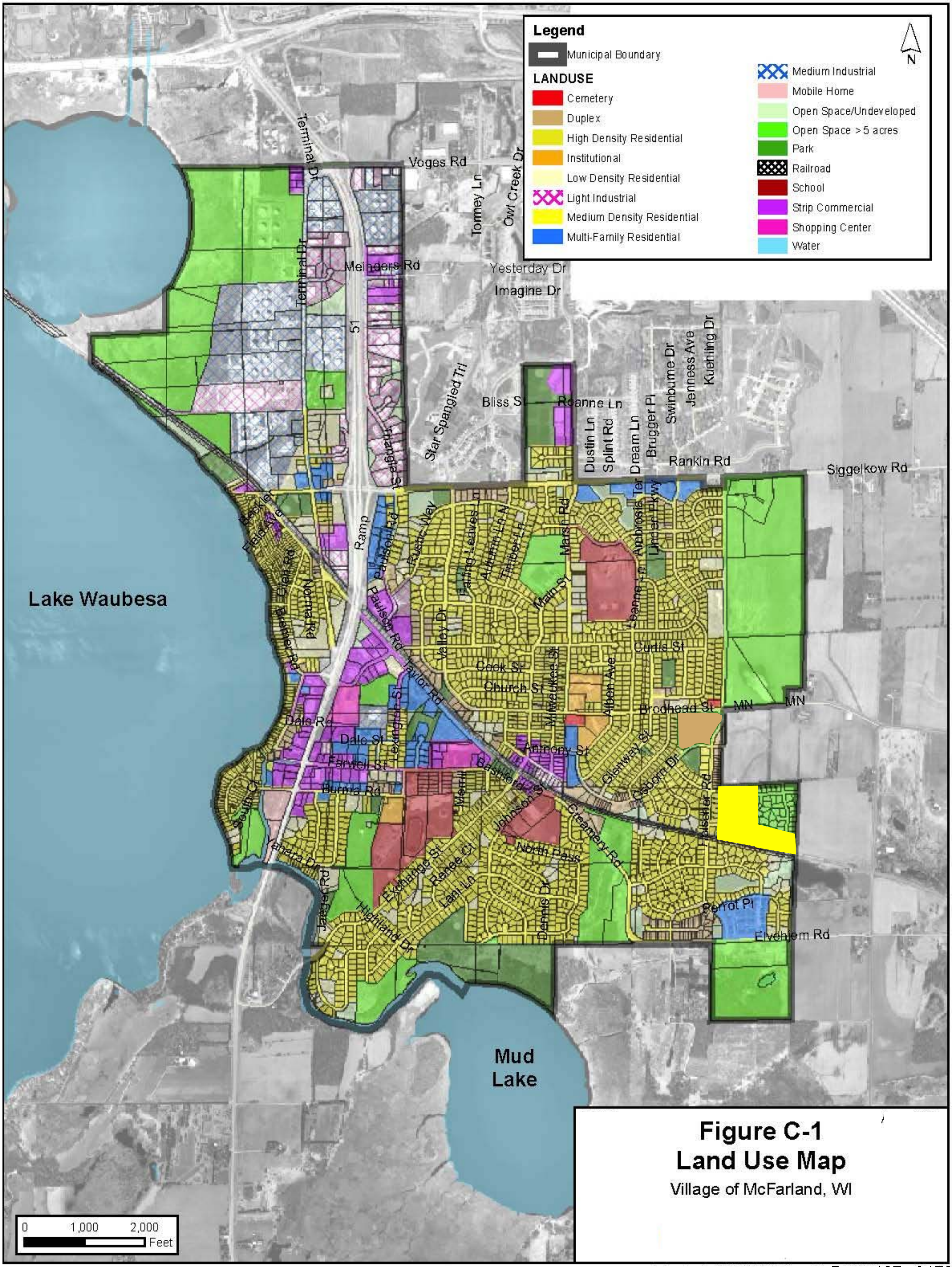


Figure C-1
Land Use Map
Village of McFarland, WI

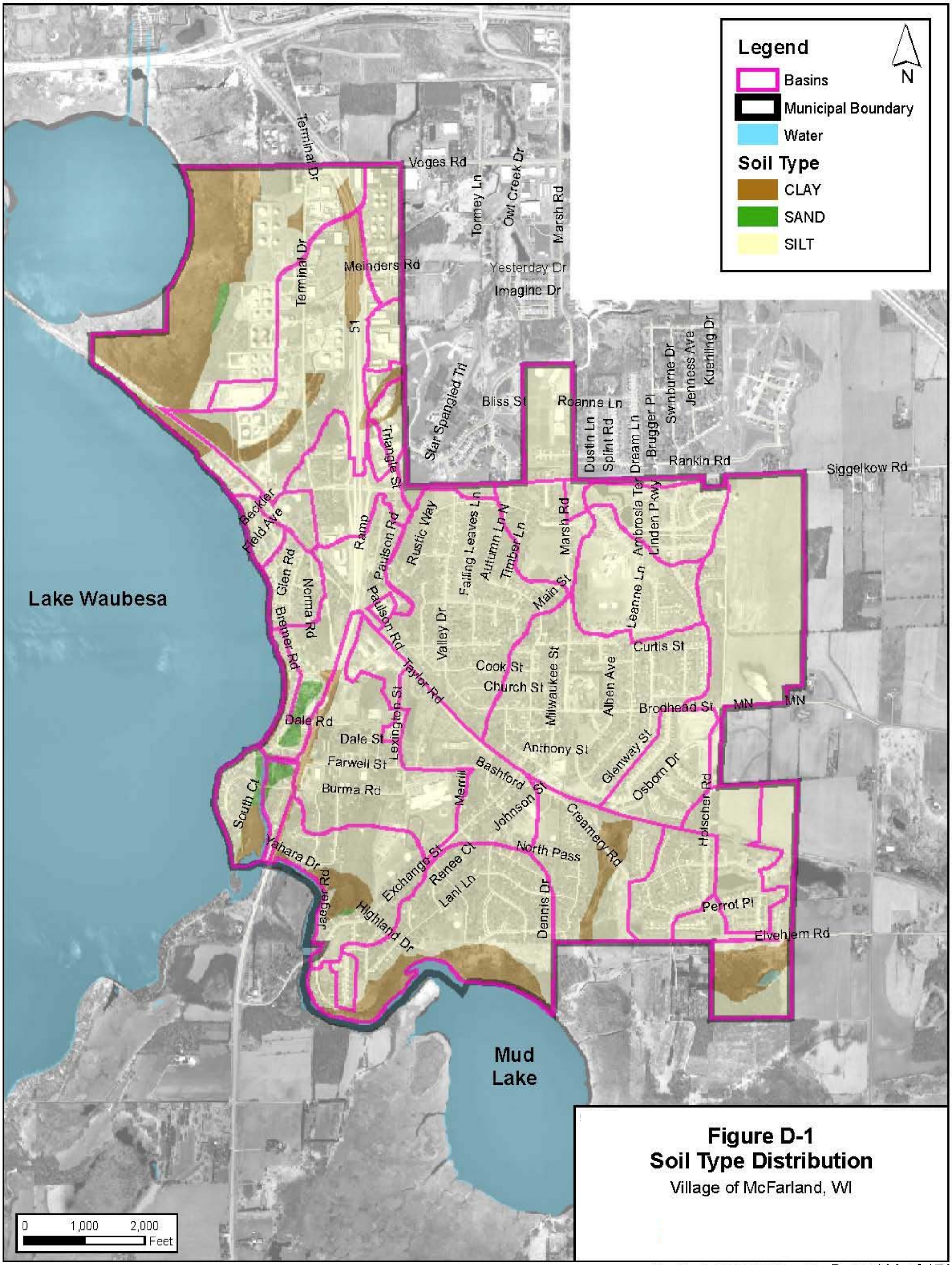


Figure D-1
Soil Type Distribution
Village of McFarland, WI

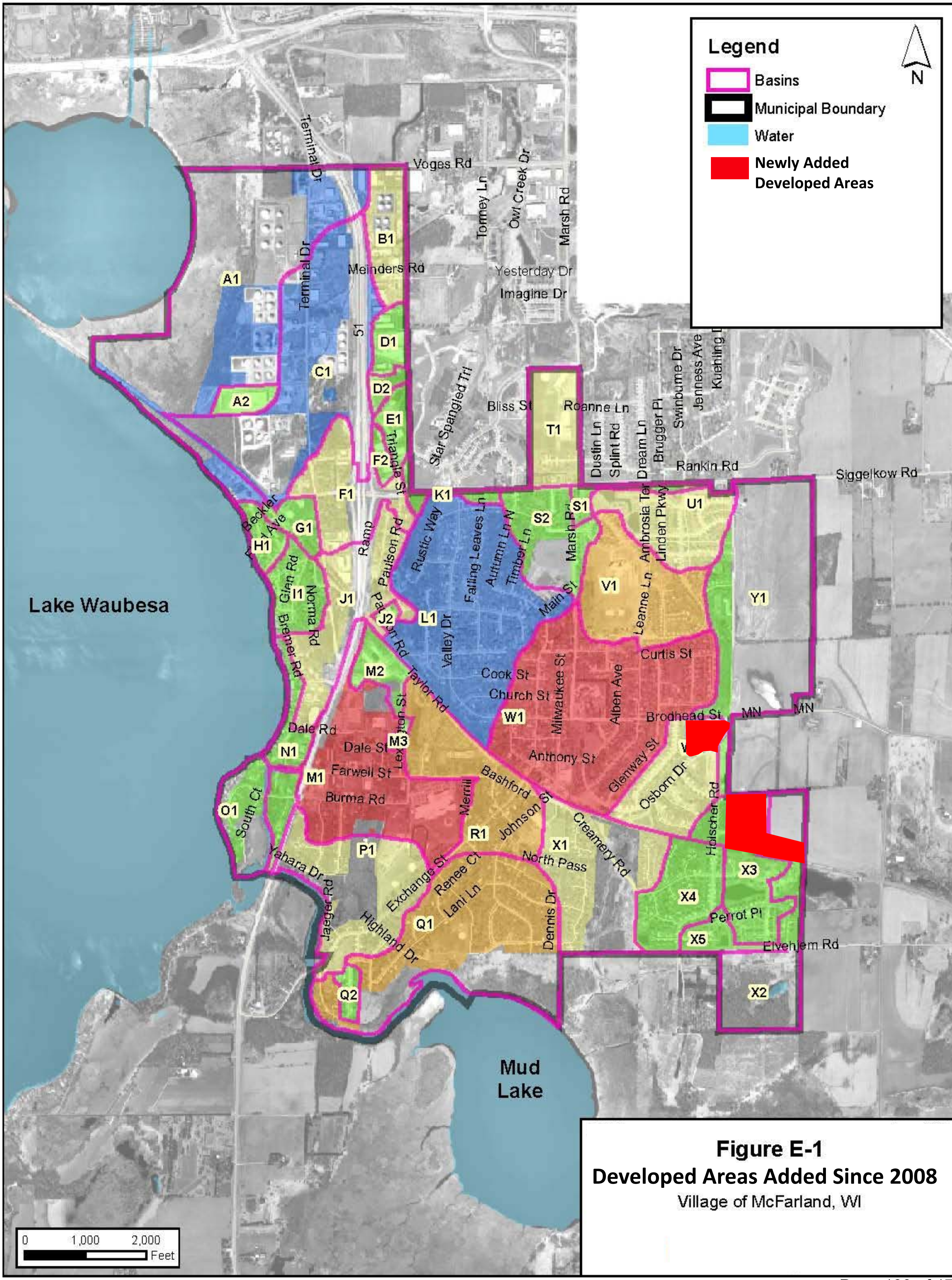


Figure E-1
Developed Areas Added Since 2008
Village of McFarland, WI

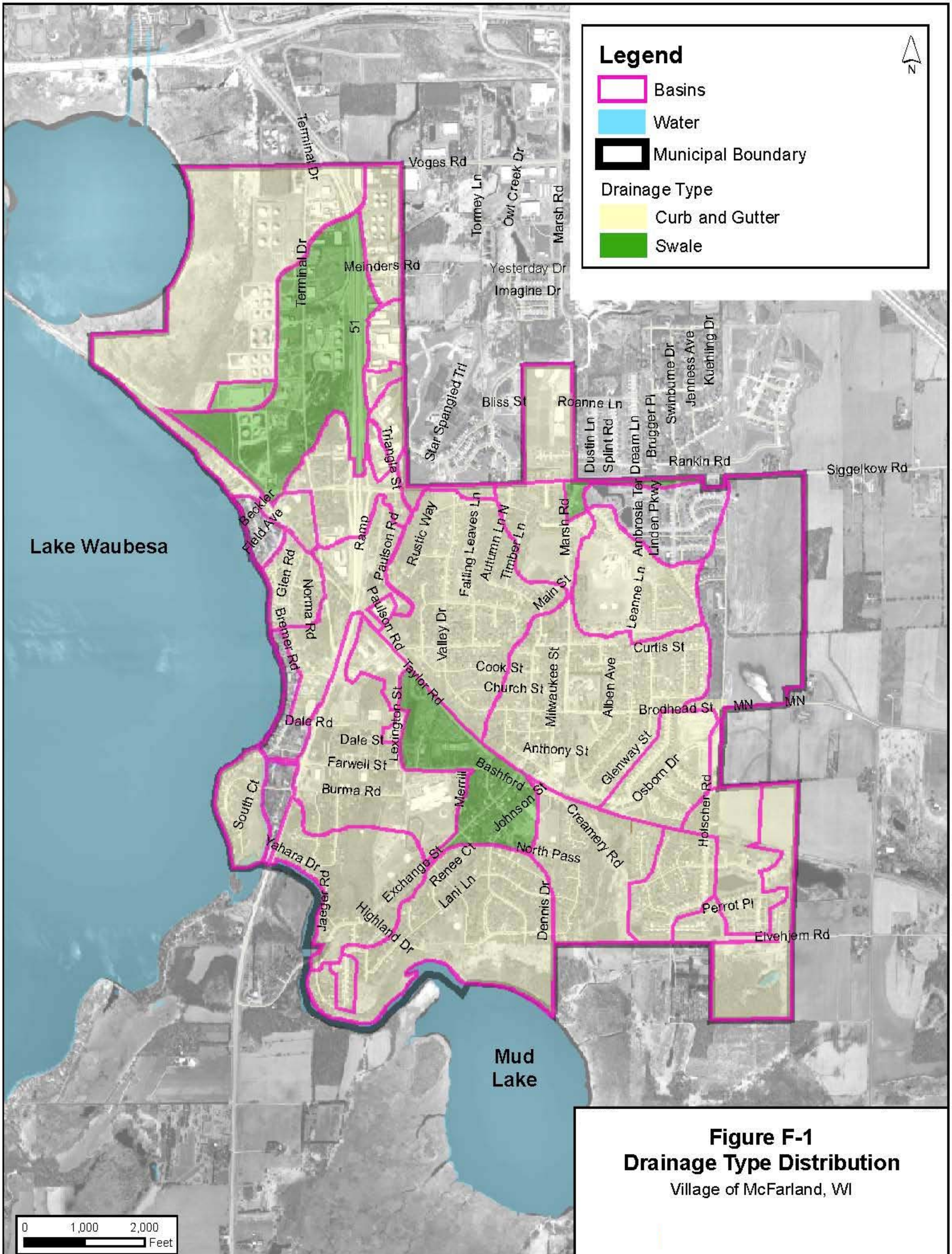


Figure F-1
Drainage Type Distribution
Village of McFarland, WI

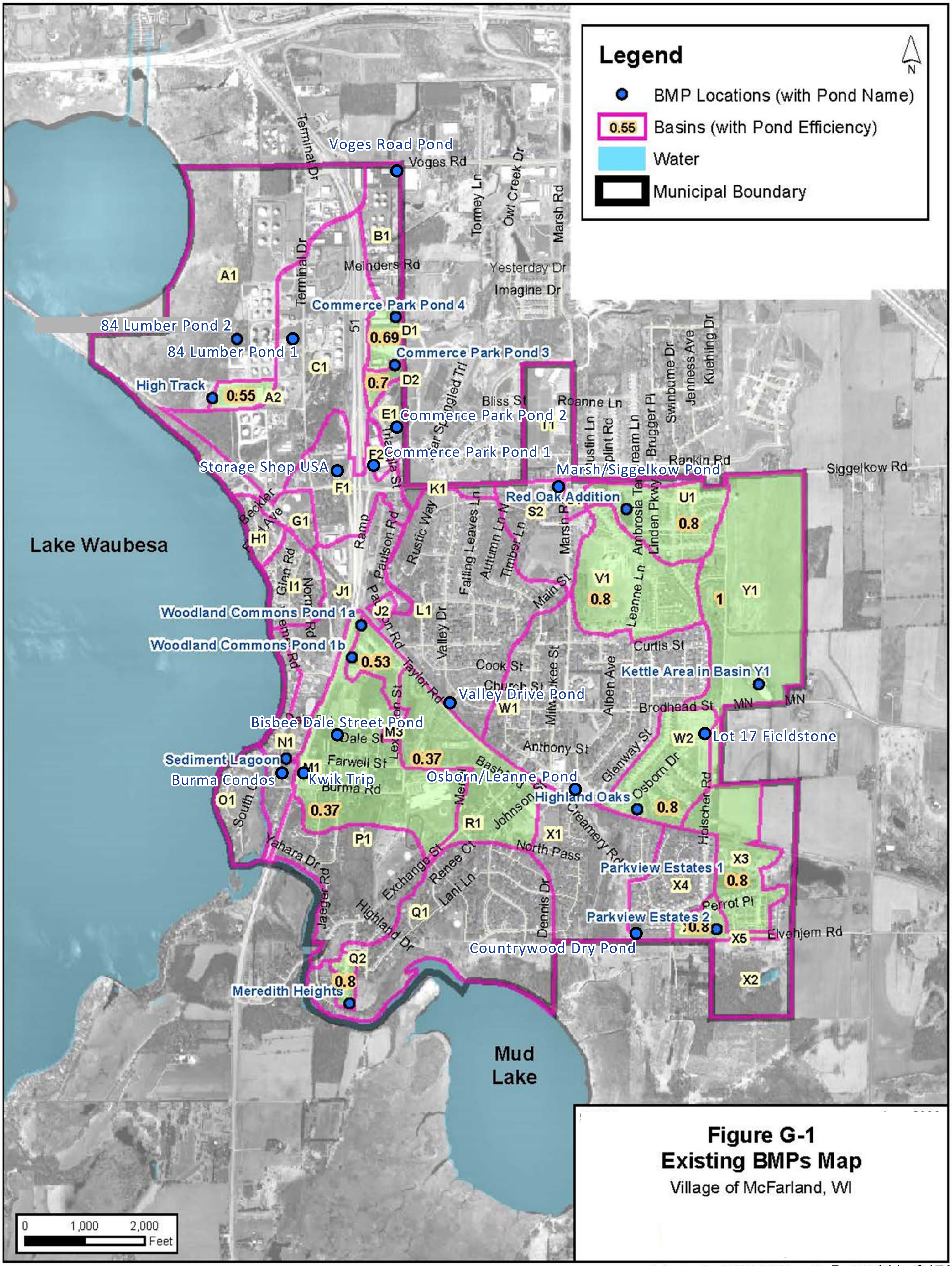


Figure G-1
Existing BMPs Map
Village of McFarland, WI

APPENDIX B

Madison Metro Sewerage Dist.
1610 Moorland Road
Madison, WI 53713-3398

Number:	RC000003096
Page:	1
Date:	12/10/2019

Sold To: VILLAGE OF MCFARLAND
ALLAN COVILLE
5915 MILWAUKEE ST
PO BOX 110
MCFARLAND, WI 53558

Reference - P.O. No.	Customer No.	Salesperson	Ship Via	Terms Code
	AMVMCFARLAND			WINS

	Description/Comments				Amount
	Yahara Watershed Adaptive Mgmt				14,770.00

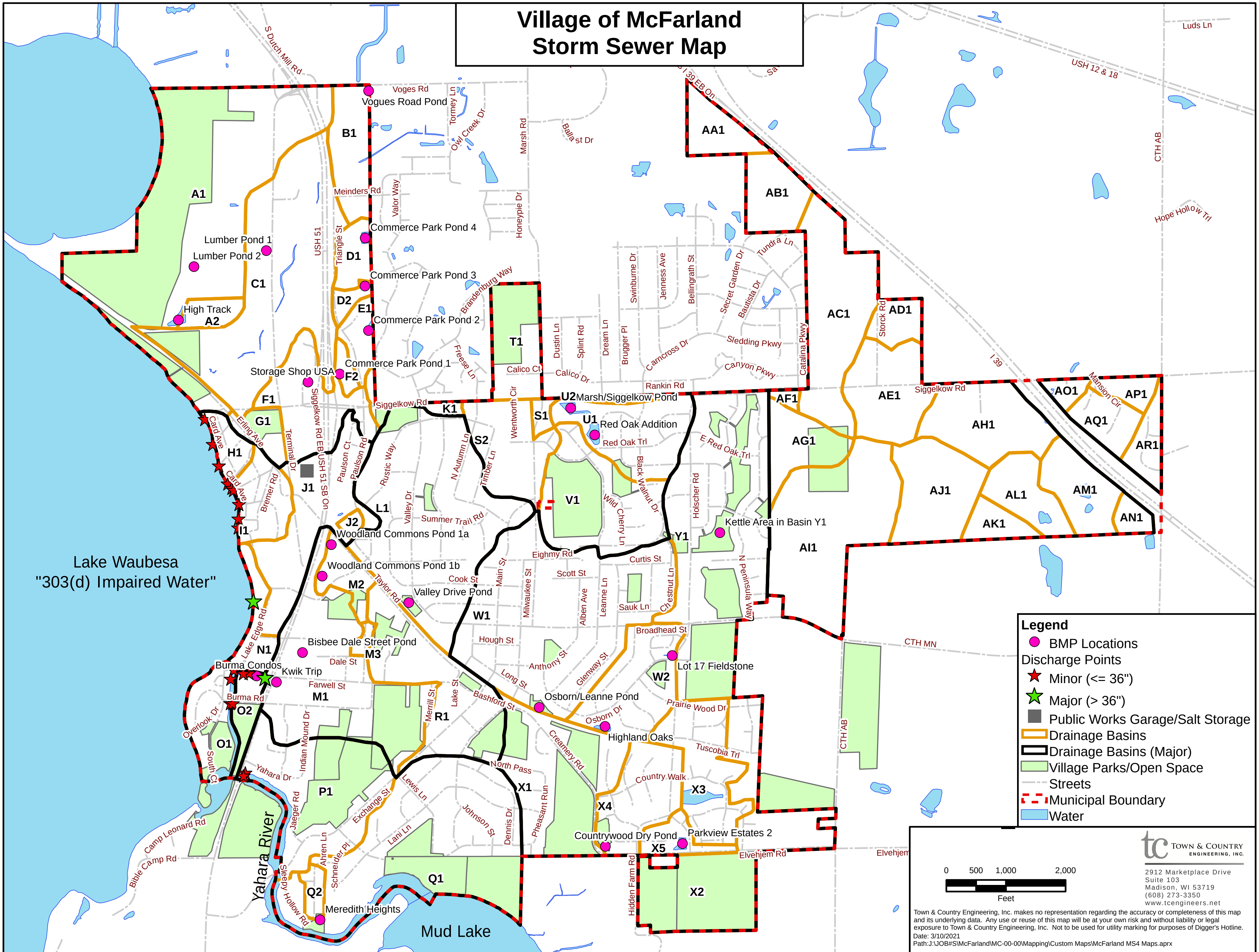
Due Date	Amount Due	Disc. Date	Disc. Amount
3/8/2020	7,385.00		0.00
7/8/2020	7,385.00		0.00

Remit To:
Madison Met. Sewerage District
1610 Moorland Road
Madison, WI 53713
USA

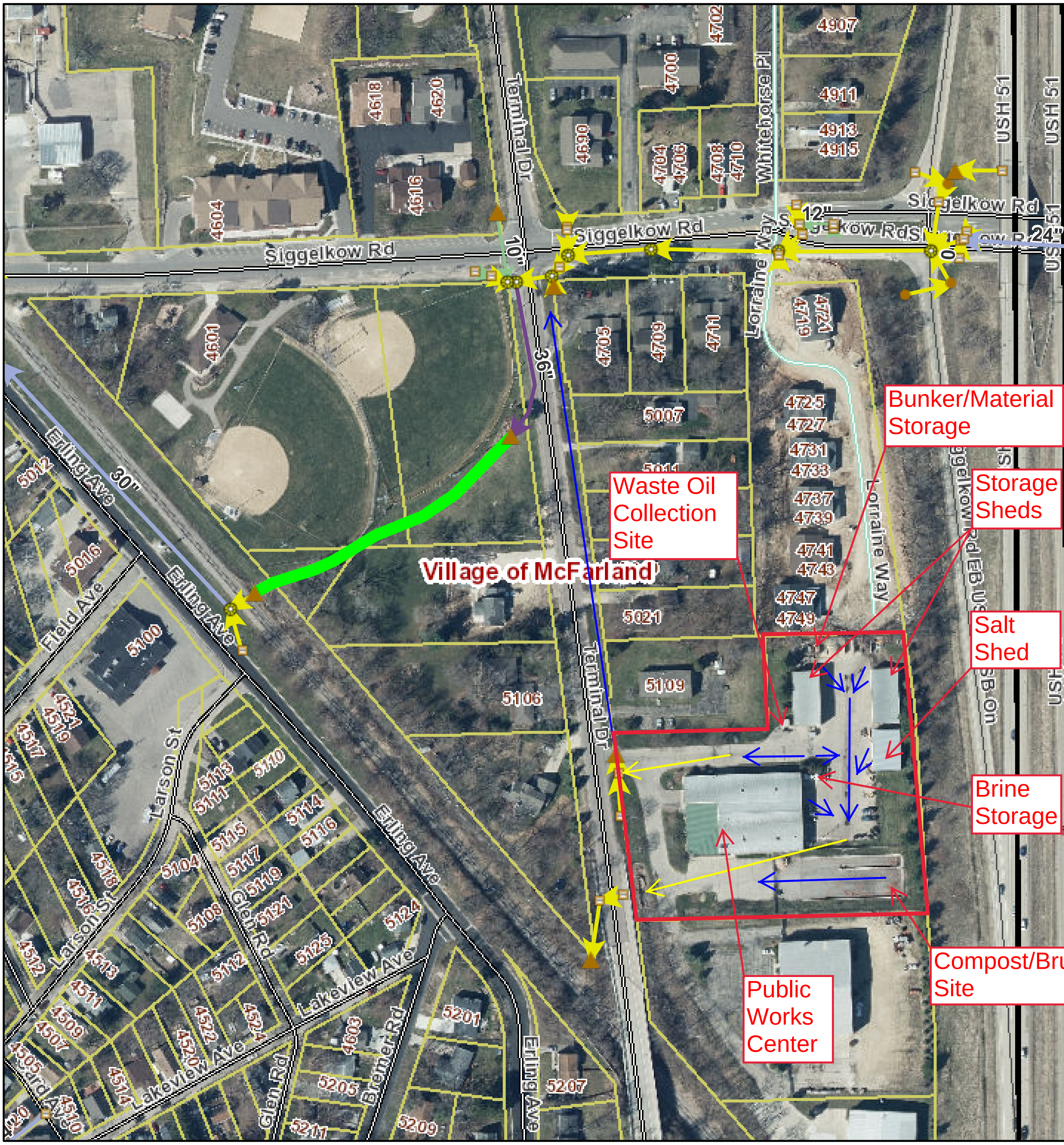
Total amount	14,770.00
Payment received	0.00
Amount due	14,770.00

1% Interest per month after 30 days

Invoice


Village of McFarland
Storm Sewer Map
Lake Waubesa
"303(d) Impaired Water"
Mud Lake
Yahara River
Vogues Road Pond
Commerce Park Pond 4
Commerce Park Pond 3
Commerce Park Pond 2
Commerce Park Pond 1
Lumber Pond 1
Lumber Pond 2
High Track
Storage Shop USA
Marsh/Siggelkow Pond
Red Oak Addition
Kettle Area in Basin Y1
Woodland Commons Pond 1a
Woodland Commons Pond 1b
Valley Drive Pond
Bisbee Dale Street Pond
Burma Condos
Kwik Trip
Lot 17 Fieldstone
Osborn/Leanne Pond
Highland Oaks
Countrywood Dry Pond
Parkview Estates 2
Meredith Heights
A1
A2
B1
C1
D1
D2
E1
F1
F2
G1
H1
I1
J1
J2
K1
L1
M1
M2
M3
N1
O1
O2
P1
Q1
Q2
R1
S1
S2
T1
U1
U2
V1
W1
W2
X1
X2
X3
X4
X5
Y1
AA1
AB1
AC1
AD1
AE1
AF1
AG1
AH1
AI1
AJ1
AK1
AL1
AM1
AN1
AO1
AP1
AQ1
AR1
Voges Rd
Meinders Rd
Siggelkow Rd
Rankin Rd
Eighmy Rd
Broadhead St
CTH MN
CTH AB
USH 51
USH 12 & 18
I 39
Elvehjem Rd
Legend
BMP Locations
Discharge Points
Minor (<= 36")
Major (> 36")
Public Works Garage/Salt Storage
Drainage Basins
Drainage Basins (Major)
Village Parks/Open Space
Streets
Municipal Boundary
Water
0 500 1,000 2,000
Feet
Town & Country Engineering, Inc.
2912 Marketplace Drive
Suite 103
Madison, WI 53719
(608) 273-3350
www.tcengineers.net
Town & Country Engineering, Inc. makes no representation regarding the accuracy or completeness of this map and its underlying data. Any use or reuse of this map will be at your own risk and without liability or legal exposure to Town & Country Engineering, Inc. Not to be used for utility marking for purposes of Digger's Hotline.
Date: 3/10/2021
Path:J:\JOB#S\McFarland\MC-00-00\Mapping\Custom Maps\McFarland MS4 Maps.aprx

Village of McFarland



3/5/2021, 1:42:44 PM

1:3,477

0 0.02 0.04 0.08 mi

0 0.03 0.07 0.13 km

Storage Appurtenances
- Manhole
- Street Inlet
- Area Inlet
- Endwall

Storm Pipe
- <18"
- <18"
- >=18"<36"
- >=18"<36"
- >=36"
- Unknown

Drainage Channels
- Natural Bottom

Municipalities
- City
- Village
- Town

Preliminary Address

Primary Address

Road Centerlines
- Interstate Highway
- US Highway
- State Highway

na

Village Staff

Public Works Center

Storm Water Pollution Prevention Plan

(SWPPP)

March 2021

Approved by the Village Board on:

TABLE OF CONTENTS

1.0 GENERAL FACILITY INFORMATION

Name of Facility: Village of McFarland

Facility Address: 5115 Terminal Drive, McFarland, WI 53558

Facility Contact:

Name: Jim Hessling

Title: Director of Public Works

Telephone: 608-838-7287

Mailing Address: 5915 Milwaukee Street

McFarland, WI 53558

Owner/Operator: Village of McFarland

Permit Information:

Facility Permit Name: Public Works Center

Permit Number: WPDES Permit No. WI-S0584416-4

Initial Date of Coverage and Expiration: July 1, 2019-June 30, 2024

Number of Storm Water Outfalls: 2

Receiving Waters: Lake Waubesa

Emergency Contact:

Name: Jim Hessling

Telephone: 608-838-7287

2.0 OVERVIEW

2.1 INTRODUCTION

This Storm Water Pollution Prevention Plan (SWPPP) covers the operations at the McFarland Public Works Center. It has been developed as required under Part III of Wisconsin’s Pollutant Discharge Elimination System (WPDES) general permit for storm water discharges and in accordance with good engineering practices. This SWPPP describes this facility and its operations, identifies potential sources of storm water pollution at the facility, recommends appropriate best management practices (BMPs) or pollution control measures to reduce the discharge of pollutants in storm water runoff, and provides for periodic review of this SWPPP.

2.2 OBJECTIVES

The primary goal of the storm water permit program is to improve the quality of surface waters by reducing the amount of pollutants potentially contained in the storm water runoff.

This SWPPP will:

1. identify sources of storm water and non-storm water contamination to the storm water drainage system;
2. identify and prescribe appropriate "source area control" type best management practices designed to prevent storm water contamination from occurring;
3. identify and prescribe "storm water treatment" type best management practices to reduce pollutants in contaminated storm water prior to discharge;
4. prescribe an implementation schedule so as to ensure that the storm water management actions prescribed in the SWPPP are carried out and evaluated on a regular basis.

3.0 STORM WATER POLLUTION PREVENTION TEAM

The storm water pollution prevention team is responsible for developing, implementing, maintaining, and revising this SWPPP. The members of the team are familiar with the management and operations of the McFarland Public Works Center.

Name & Title	Responsibility
Lee Igl Public Works Superintendent	Day to Day Operations & Planning
Aimee Irwin Assistant to the Director	Day to Day Operations & Planning
Jim Hessling Director of Public Works	Day to Day Operations & Planning

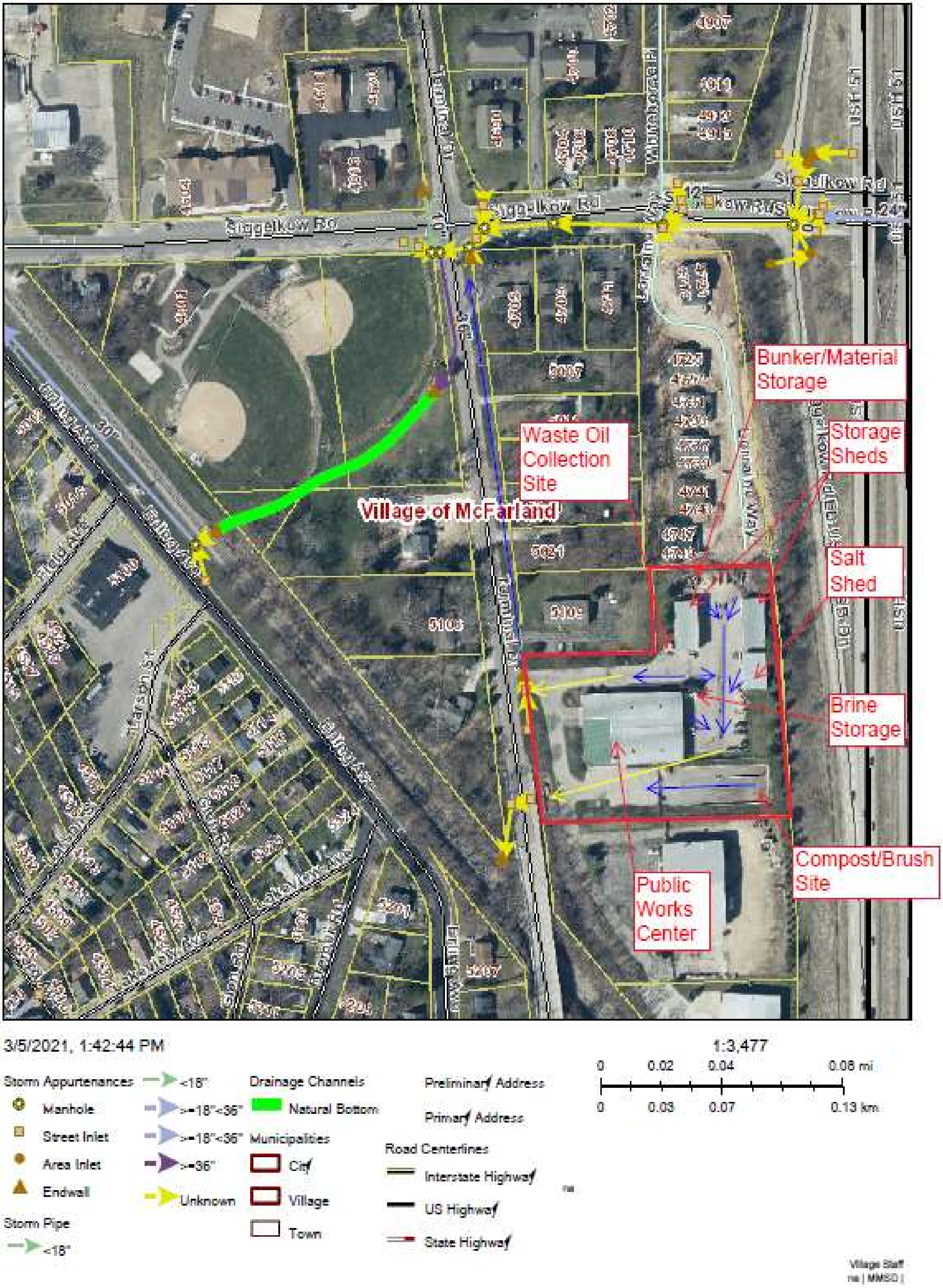
4.0 POTENTIAL SOURCES OF POLLUTANTS

4.1 SITE MAP

Figure 1 & 2 below presents a site map of the facility showing the following features as required by the permit:

- Facility property boundaries;
- Schematic of the storm drainage collection and disposal system, including all known surface and subsurface conveyances
- Any secondary or other containment structures if applicable
- Location of all outfalls
- Name and location of receiving waters or wetlands
- Location of activities and materials that have the potential to contaminate storm water

Village of McFarland



4.2 INVENTORY OF POTENTIAL SOURCES OF CONTAMINATION

The following have been identified as potential sources of storm water contamination.

- Asphalt pavement yard
- Salt storage loading area
- Brine storage area
- Compost drop off area
- Bunker storage areas
- Outdoor wash area
- Waste oil drop off area

All above mentioned areas are covered under two out falls and the receiving waters are Lake Waubesa.

The public works yard area drains to a sediment catch basin that is cleaned periodically. Water on the north side of the building is captured in a catch basin and sent to Lake Waubesa via a combination of grass ditches and downstream storm piping. Water that is captured on the east and west sides of the building drain into a sediment basin.

5.0 BEST MANAGEMENT PRACTICES

5.1 PRACTICES

Storm water management controls, or best management practices (BMPs), will be implemented to reduce the amount of pollutants in the storm water discharged from the McFarland Public Works Center. These include:

- Sweeping of the site
- Monitoring spillage
- Cleaning of the debris containment pit
- Employee training

5.2 SOURCE AREA CONTROLS

Erosion Control Measures
Areas prone to soil erosion shall be protected, and the soil kept out of the storm water discharge. All areas around the site are natural vegetation being mostly grass.

Good Housekeeping
Good housekeeping practices are designed to maintain a clean and orderly work environment. This will reduce the potential for significant materials to come in contact with storm water. The follow practices are included in our good housekeeping routine

Area/Equipment	Tasks	Frequency
Storage Yard	Sweeping of the area	Weekly when practical
Catch Basin sump	Physical removal of various sediments	Weekly when practical
Parking lot	Sweeping of the area	Weekly when practical
Waste Oil drop off site	Sweeping of the area Monitoring the containment area	Weekly when practical

Preventive Maintenance
Preventive Maintenance involves the regular inspection, testing, and cleaning of facility equipment and operational systems. These inspections will help to uncover conditions that might lead to a release of materials.

Equipment	Tasks	Frequency
Salt storage facility	Sweep up residual from loading trucks	As needed
Compost area	Sweeping of the area	Weekly when practical
Waste Oil drop off site	Sweeping of the area Monitoring the containment area	Weekly when practical
Storage yard	Sweeping of the area	Weekly when practical

5.3 STORMWATER TREATMENT BEST MANAGEMENT PRACTICES

Best Management Practices for the Village of McFarland includes the following:

- Sweeping of the lot
- Cleaning up of any salt spillage
- Monitor equipment wash ups
- Cleaning the catch basins on the site
- Removing compost as warranted
- Monitoring salt handling at the site
- Monitoring brine handling at the site
- Sweeping the impervious areas as needed
- Reminding employees the importance of storm water run off
- Install and maintain filtering elements in structures

Preventive Measures
Preventive measures are controls that are intended to prevent the exposure of storm water to contaminates.

The following preventive measures have been chosen for this facility. (Examples: signs and labels, safety posts, fences, a security system, coverings over areas of concern, etc.)

Area	Material	Control Measure
Salt Storage	Road Salt	Material is under a permanent covered structure
Brine Storage	Salt Brine	The department will be working on acquiring a containment vessel

6.0 RECORD KEEPING AND REPORTING

6.1 ANNUAL FACILITY SITE COMPLIANCE INSPECTION

Public Works management shall make an annual inspection to evaluate the effectiveness of the SWPPP. The inspection shall be adequate to verify that the site drainage conditions and potential pollution sources identified in the SWPPP remain accurate, and that the best management practices prescribed in the SWPPP are being implemented, properly operated and adequately maintained. Information reported shall include the inspection date, inspection personnel, scope of the inspection, major observations, and revisions needed in the SWPPP.

6.2 ANNUAL FACILITY SITE COMPLIANCE INSPECTION REPORT INSTRUCTIONS

- **Inspection Procedures:** The inspection report contains the procedures to be used for inspecting the facility annually. The purpose of this inspection and reporting procedure is to ensure the SWPPP is effectively preventing contamination of the stormwater. An example form for the annual facility site compliance inspection is included.
- **Responsibilities:** The Environmental Engineer will ensure that the annual inspection associated with this plan is performed.
- **Recordkeeping:** All inspection records should be maintained for at least five years
- **Inspection Frequency:** Will be performed once per year.

Annual Facility Site Compliance Inspection Form

Date: ___________ Inspector Signature: ___________________________

Instructions: Answer the questions below with a brief explanation in each box. A response of “No” indicates a further explanation and revision to the plan. Complete once per year to evaluate the effectiveness of the SWPPP.

Facility:	
1. Are the site drainage conditions accurately represented in the SWPPP? Explain:	
2. Are the potential pollution sources identified in the SWPPP accurate? Explain:	
3. Are the BMPs being implemented, operated, and maintained adequately? Explain:	
4. Other major observations related to the effectiveness of the SWPPP:	
5. What revisions to the SWPPP are required:	
6. Personnel completing report and date:	

VILLAGE OF
McFarland

SUMMARY SHEET

MEETING DATE: **Tuesday, March 16, 2021**

SECTION: **Business**

DEPARTMENT: **Administration**

CONTACT: **Jim Hessling, Public Works Director**

AGENDA ITEM: **Discussion and action to make a recommendation to the Village Board regarding an RFP for Locating Services.**

PREVIOUS ACTION:
None.

ISSUE SUMMARY:
The Public Works Department is requesting permission to send out a Request For Proposal (RFP) for the locating and mapping of the force mains throughout the village.

The village has several pressurized sewage pipes that are called force mains. A force main is pipe used to transport material from a low point to a discharge point that is usually higher. All of the force mains in the village are underground. Our sewage lift station force mains range in size from four to eight inches in diameter. We have a few privately owned force mains that were installed years ago that are located in our right-of-ways. These pipes are approximately two inches in diameter.

We have maps on the general location of these force mains but nothing actual, except for the force main that comes out of lift station 5. This pipe location was marked with GPS when it was built back in 2016.

Our goal is to have all of the force mains in the village located and mapped in order to prevent damage to these facilities. When we attempt to locate these pipes for a Digger's Hotline ticket, the process is quite challenging and usually not accurate. Our goal is to obtain more accurate data to improve locating.

FINANCIAL/BUDGET IMPACT:
Project costs are included in the Public Works Capital Improvement Plan, up to $25,000.

VILLAGE PLAN REFERENCE:

ORDINANCE REFERENCE:
None.

BOARD, COMMISSION OR COMMITTEE RECOMMENDATION:
Recommendation to the Village Board approval and issuance of the RFP for Locating Services

VILLAGE OF McFarland

ATTACHMENTS:

1. Force Main Locating RFP 03102021 FINAL

VILLAGE OF

McFarland

Request For Proposals

Sanitary Sewer Force Main Locating/Mapping Services

-

RFP Issuance Date: March 24, 2021

Proposal Due Date: April 16, 2021 by 10:00 am

Please Submit to:

Village of McFarland
Attn: Jim Hessling
5915 Milwaukee Street, PO Box 110
McFarland, WI 53558

SECTION 1 Purpose/Introduction

A. The purpose and intent of the Request for Proposals (RFP) is to solicit proposals from qualified Contractor(s) to provide personnel and equipment necessary for locating and mapping of several sanitary sewer force mains under the direction of the Village of McFarland Public Works Director. The Village desires a private contractor to perform these services which will help us to maintain our collection and transmission system. Additionally, it will assist us to properly assess the location of the sanitary sewer force main portion of our system.

SECTION 2 Background

A. The Village of McFarland is located adjacent to the southeast side of the City of Madison in Dane County. The current population of McFarland is estimated 8,952. The Village has approximately 43.50 road miles and is a little under 5 square miles in total land area. The Village is serviced by US Highway 51 serving as the main connection point between the cities of Madison and Stoughton. The Community is home to a high quality of life within the Madison metropolitan area as demonstrated by its excellent schools, variety in commercial enterprises, vast parks, and safe neighborhoods. More information about the Village is available at www.mcfarland.wi.us.

SECTION 3 Scope of Work

This Scope of Work will become an integral part of the contract between the Village and the Contractor. The Contractor hereby agrees to provide services and/or materials to the Village pursuant to the provisions set forth as follows:

A. **Description.** Surveying services for locating and mapping seven existing force mains totaling approximately 9,200 lineal feet as defined below:

   i. Erling Avenue Force Main (Lift Station #1) – Consisting of 1,443 lineal feet. Pipe material and size unknown.

ii. Pheasant Run Force Main (Lift Station #2) – Consisting of 3,077 lineal feet. Pipe material is ductile iron and pipe size is 8 inches in diameter.

iii. Meredith Way Force Main (Lift Station #3) – Consisting of 802 lineal feet. Pipe material is ductile iron and pipe size is 4 inches in diameter.

iv. Terminal Drive Force Main (Lift Station #4) – Consisting of 1,916 lineal feet. Pipe material is HDPE and pipe size is 6 inches in diameter.

v. McDaniel Park Force Main – Consisting of approximately 900 lineal feet. Pipe material is PVC and pipe size is 1.5-2.0 inches.

vi. Lewis Lane Private Force Main – Consisting of 447 lineal feet. Pipe material is PVC and pipe size is 1.5 inches in diameter.

vii. Taylor/Terminal/Erling Private Force Main – Consisting of 600 lineal feet. Pipe material and size unknown.

B. **Locating.** The Contractor will be given a list of line sections to be located. It is the intent of this contract to satisfy Village collection system requirements; namely, the Contractor will locate the sanitary sewer force mains as required as part of the Village sanitary sewer transmission system. It is estimated that the footage to be located is approximately 9,200 feet. This includes sewer mains located in the street, easements, and on private property. As a condition of the work, the Contractor will be required to identify the diameter, length, depth, and material of the sanitary sewer force main being located. The Contractor shall provide an electronic copy of the locating report upon completion.

C. **Mapping.** The Contractor will be given a list of line sections to be mapped. It is the intent of this contract to satisfy Village collection system requirements; namely, the Contractor will map the sanitary sewer force mains as required as part of the Village sanitary sewer transmission system. It is estimated that the footage to be mapped is approximately 9,200 lineal feet. This includes sewer mains located in the street, easements, and on private property. As a condition of the work, the Contractor will be required to identify the diameter, length and material of the sanitary sewer force main being mapped. The Contractor shall provide a mapping report including horizontal coordinate information of the force mains at all major bends (greater than 22 degrees), and at increments of no more than 50-100 feet between bends. Coordinates shall be on the Dane County Coordinate system.

D. **General Requirements.**

i. A copy of the sanitary sewer transmission system map will be given to the contractor at the onset of the contract, to assist in this endeavor.

ii. During the course of the Contract, additional infrastructure not presently defined under Section 3(A) may need to be located and mapped. The Contractor will provide a price per lineal foot for any additional locating and mapping needs outside of the previously defined locations.

iii. It is understood that this will take multiple weeks, or months, to locate and map the specified sections of the system. Once operations commence, updates will be required by the Village as part of their notification process to residents and businesses. It is also understood that more frequent updates should be given, if the Village or the Contractor feels there is need.

iv. All reports are required to be submitted in an electronic format compatible with GIS. The following information will be required within the reports for each force main:

- Diameter of force main.
- Length of force main.
- Material of which the force main is made of.
- Pipe depth.
- Locations of any bends or deviations in the line.
- Date and time located/mapped.

- Any noted problems in this section of pipe.

E. **Term.** The Contract term will commence on July 1, 2021 . Substantial completion (draft report on locating and mapping) shall be completed by October 1, 2021. Final completion of the contract shall be no later than December 31, 2021. Any extension, if applicable, shall be based on satisfactory performance by the Contractor during the year.

SECTION 4 RFP Submittal Requirements

A. The Proposal must include all of the information set forth in this Section and other Sections of this RFP. Additionally it should be organized and tabbed appropriately. Including but not limited to the following:

i. Company history and background.

ii. Qualifications of the Contractor.

iii. Relevant past project experience of the Contractor.

iv. Availability of resources and reliance on subcontractors.

v. No fewer than three municipal references.

vi. Completion of the Cost Proposal Form listed in Appendix A outlining the costs necessary to complete this work.

B. Responses to the RFP must be received by 10:00 am on Friday, April 16, 2021. Proposals received late, for any reason, shall not be accepted.

C. Responses to the RFP shall be provided to the Village of McFarland, Attn: Jim Hessling, 5915 Milwaukee Street, PO Box 110, McFarland, WI 53558.

D. Prospective Contractors shall provide five (5) printed copies of the proposal and one (1) electronic copy as their submittal.

SECTION 5 Proposal Evaluation Criteria and Timeline

A. The following criteria will be used to evaluate each proposal:

i. Qualifications of the Contractor.

ii. Relevant past project experience of the Contractor within Wisconsin.

iii. Resumes of all team members.

iv. Familiarity municipal sanitary sewer systems.

v. Availability and compatibility of technology.

vi. Past history with the Village as applicable.

vii. Availability of resources and reliance on subcontractors.

viii. Proposal completeness and effectiveness at addressing the needs of the Village for the project.

ix. Proposed cost.

B. The Public Works Director, Streets/Utilities Superintendent, and/or Village Engineer ("Evaluation Team") will be responsible for performing a technical evaluation of each proposal submitted and making a recommendation for selection to the Public Utilities Committee. The Public Utilities Committee will consider this recommendation and make its own recommendation to the Village Board regarding proposal acceptance. The Village Board shall hold the final decision regarding award of proposal for these services. Evaluations will focus on identifying the relative strengths, weaknesses, deficiencies, and risks associated with each submittal. Interviews with perspective Contractors will be held at the sole discretion of the Village. The Village reserves the right to obtain clarification or additional information from any firm regarding its proposal as is needed.

C. The Village reserves the sole right to select the most qualified Contractor on the basis of the best overall proposal that is most advantageous to the Village. Firms that submit proposals will be notified of the selection results. Final approval of any selected Contractor is subject to the approval of the Village Board.

D. Evaluation timeline is as follows:

i. March 24, 2021 – Open Advertisement of RFP

ii. April 16, 2021 at 10:00 am – Deadline for Submission of Proposals

iii. May 14, 2021 – Evaluation Team Finalizes Selection and Makes Recommendation

iv. May 18, 2021 – Public Utilities Committee will consider findings of Evaluation Team to make recommendation to the Village Board.

v. May 24, 2021 – Village Board considers recommendation of the Public Utilities Committee to make final decision on award of proposal.

vi. July 1, 2021 (or as available) – Project Commences

E. Any questions regarding this RFP, its contents, and the proposed project may be directed to…

Jim Hessling, Public Works Director
jim.hessling@mcfarland.wi.us
(608) 838-7287

SECTION 7 Terms and Conditions

A. Each proposal will be reviewed to determine if it meets the submittal requirements contained within this RFP. Failure to meet the requirements for the RFP can be cause for rejection. The Village may reject any proposal if it is conditional, incomplete, contains irregularities, or if in the sole discretion of the Village not considered in its best interest. The Village may waive an immaterial deviation in a proposal, but this shall in no way modify the proposal document or excuse the Contractor from compliance with the contract requirements if the Contractor is awarded a contract.

B. The Village will require the use of its standard contract template set by policy. It can be made available upon request. Modifications to this standard may be required or considered subject to review and approval by the Village Attorney under the direction of the Village Board.

C. There is no expressed or implied obligation for the Village to reimburse firms for any expenses incurred in preparing proposals in response to this request. Materials submitted by respondents are subject to public inspection under Wisconsin law. Any language purporting to render the proposal, or any part thereof, confidential or proprietary will be ineffective and will be disregarded unless consistent with the Wisconsin Public Records Law.

D. The Village reserves the right to retain all proposals submitted, and to use any idea in a proposal, regardless of whether the proposal was selected. Submission of a proposal indicates acceptance by the Contractor of the terms and conditions contained in the RFP, unless clearly and specifically noted in the proposal submitted and confirmed in the contract between the Village and the Contractor.

E. All property rights, including ownership and publication rights of all conceptual plans, designs, bidding documents, and reports produced by the selected Contractor in connection with services performed under this agreement shall be vested in the Village.

F. The Village reserves the right to reject any or all proposals submitted.

Appendix A

Cost Proposal Form

In accordance with the attached instructions, terms/conditions, and scope of services we, as the Contractor, submit the following cost proposal to the Village of McFarland.

This cost proposal shall include all necessary labor, materials, supervision, equipment, appliances, and materials to perform all operations required to provide sanitary sewer force main locating and mapping services.

Locating and Mapping Services $__ per lineal foot

Notes: ____

____

____

I certify that the contents of this proposal are known to no one outside the firm, and to the best of my knowledge all requirements have been complied with.

Authorized Signature: ______

Printed Name: ______________________

Title: ______________________

Firm Name: ______________________

Date: ______________________

VILLAGE OF
McFarland

SUMMARY SHEET

MEETING DATE: **Tuesday, March 16, 2021**

SECTION: **Business**

DEPARTMENT: **Public Works**

CONTACT: **Jim Hessling, Public Works Director**

AGENDA ITEM: **Presentation of the Public Works monthly report**

PREVIOUS ACTION:

ISSUE SUMMARY:

FINANCIAL/BUDGET IMPACT:

VILLAGE PLAN REFERENCE:

ORDINANCE REFERENCE:

BOARD, COMMISSION OR COMMITTEE RECOMMENDATION:

ATTACHMENTS:

1. February 2021 Monthly Report

PUBLIC WORKS COMMITTEE
March 9, 2021

PUBLIC UTILITIES COMMITTEE
March 16, 2021

Public Works Directors Report for February 2021

The following is information concerning events and activities of the Public Works Department along with the Water and Sewer Utilities for the previous month. This information is provided in brief to provide an overview of the highlights.

PW Complex
Waiting for the solar panels to be hooked up the utility provider Alliant Energy.

Watermain Break
The department assisted with a water lateral leak repair on February 5, along Lake Edge Drive.

Customer Freeze Up
Staff assisted in the thawing of pipes at a cluster of units at 5746 Lexington. Customer had meters in unheated area.

Snow
Staff worked snowfall events on:

February 4, received between 4-6 inches of snow
February 12/13, received about 4-6 inches of snow
February 22, received approximately 3 inches of snow

Sewer Reline
Emergency sewer main relining on Highland Drive was completed in February. There were no incidents with the install.

Eastside Interceptor Sewer
Work has commenced on the Eastside Interceptor project. Clearing and grubbing of wood and brush has been completed. The casing under the railroad tracks is in the process of being installed.

Meetings/Training/Seminars
All meetings were held by electronic means this month. Those meetings include:

- Diggers Hotline Utility Damage Prevention - Warren, Kelln, Pospyhalla, Warrenburg & Igl
- Public Service Commission Rate Increase Overview - Irwin
- MAMSWaP meeting - Hessling
- mPower Work Smarter with GIS-Based Asset & Work Management for Water and Wastewater Utilities- Irwin
- Supervisory Academy - UW Madison - Larson
- APWA Young Professionals meeting - Irwin
- APWA Webinar - The Road Ahead: Public Works and Infrastructure in the 117th Congress- Hessling
- APWA Webinar - Wastewater Recycling - Hessling
- APWA Webinar - Building for Resilience in Storm Water Drainage - Hessling
- APWA monthly board meeting - Igl & Hessling

2021 WATER SYSTEM IMPACT FEES

Collected in Month	2021 Fees	2020 Fees	2021 Impact Fee Distribution		
			Tower	Main	Well
January	-	1,950.00	-	-	-
February	5,851.00	4,550.00	3,298.86	936.16	1,615.98
March	-	4,550.00	-	-	-
1st Quarter Total	**5,851.00**	**11,050.00**	**3,298.86**	**936.16**	**1,615.98**
April	-	10,402.00	-	-	-
May	-	1,950.00	-	-	-
June	-	3,250.00	-	-	-
2nd Quarter Total	**-**	**15,602.00**	**-**	**-**	**-**
July	-	3,900.00	-	-	-
August	-	2,600.00	-	-	-
September	-	1,950.00	-	-	-
3rd Quarter Total	**-**	**8,450.00**	**-**	**-**	**-**
October	-	1,950.00	-	-	-
November	-	9,101.00	-	-	-
December	-	18,701.16	-	-	-
4th Quarter Total	**-**	**29,752.16**	**-**	**-**	**-**

HISTORICAL WATER IMPACT FEE TOTALS

2021 Total	5,851.00		3,298.86	936.16	1,615.98
2020 Total	64,854.16		38,222.36	10,020.80	16,611.00
2019 Total	57,201.00		32,250.79	9,152.16	15,798.05
2018 Total	71,501.00		40,313.34	11,440.16	19,747.50
2017 Total	60,801.20		34,281.17	9,728.00	16,792.03
2016 Total	38,026.00		23,708.24	5,252.00	9,065.76
2015 Total	5,851.00		3,298.92	936.00	1,616.08
2014 Total	7,150.00		4,031.28	1,144.00	1,974.72
2013 Total	21,125.00		11,910.59	3,380.00	5,834.41
2012 Total	13,650.00		7,696.08	2,184.00	3,769.92
2011 Total	12,350.00		6,963.12	1,976.00	3,410.88
2010 Total	5,200.00		2,931.84	832.00	1,436.16
2009 Total	7,150.00		4,031.26	1,144.00	1,974.74
2008 Total	10,400.00		5,863.62	1,664.00	2,872.38
2007 Total	34,451.00		19,423.88	5,512.16	9,514.96
2006 Total	28,927.00		16,309.33	4,628.32	7,989.35
2005 Total	52,326.00		29,501.92	8,372.16	14,451.92
2004 Total	77,679.00		43,796.20	12,428.64	21,454.16
2003 Total	59,802.00		33,716.97	9,568.32	16,516.71
2002 Total	69,625.00		39,255.27	11,140.00	19,229.73
2001 Total	55,271.50		31,162.62	8,843.44	15,265.44
2000 Total	56,701.00		31,968.59	9,072.16	15,660.25
1999 Total	55,388.00		31,228.31	8,862.08	15,297.61
1998 Total	14,581.73		8,221.33	2,333.08	4,027.32
Grand Total	**$ 815,157.43**	**$ -**	**$ 461,864.67**	**$ 129,592.68**	**$ 223,700.08**

$650=	$366.48	$104.00	$179.52	
$1300	$732.96	$208.00	$359.04	Tower= .56381, Main=.16, Well=.27619