VILLAGE OF MCFARLAND **Plan Commission** *NOTICE OF PUBLIC MEETING*

Tuesday, September 16, 2025 **7:00 PM** **McFarland Municipal Center**
5915 Milwaukee St, McFarland
Community Room

AGENDA

The public may attend in-person or remotely through the Zoom webinar or telephone options listed below. *Please Note: Virtual attendance is offered as a convenience, but technical difficulties beyond the Village's control may prevent or limit its availability at any meeting. The public is encouraged to attend the meeting in person to assure full access to the proceedings.*

PLEASE CLICK THE LINK BELOW TO JOIN THE ZOOM WEBINAR:
https://us02web.zoom.us/j/85755749643
Or by Telephone: +1 (312) 626-6799
Webinar ID: 857 5574 9643
Press *9 to raise/lower hand. Press *6 to mute/unmute.

1. CALL TO ORDER, ROLL CALL.

2. PUBLIC APPEARANCES.
   a. This is an opportunity for members of the public to address the Plan Commission for items that are not on the agenda. Please remember this is a hybrid meeting conducted in person and through the Zoom online meeting platform. Meeting attendees wishing to address the Commission about items not on the agenda may do so at this time. Zoom attendees should type their name and address in the Question and Answer feature within the Zoom online meeting platform at this time. Members of the public who are present in person and wish to address the Commission should fill out a public comment form and turn into the meeting chairperson. When you are called upon to speak, state your name, address, and provide your comments to the Commission for their consideration. Please adhere to the 3-minute time limit. Additionally, you may send your public comments to community.development@mcfarland.wi.us to be included as part of the meeting.

      Members of the public may also speak during their selected agenda item as they designate on the public comment form or in the Question and Answer feature on Zoom.

3. APPROVAL OF MINUTES.
   a. Motion to approve the minutes of the August 19, 2025 Plan Commission meeting.

4. PUBLIC HEARINGS.
   a. Public hearing on the Final Plat for Sperle Corners submitted by Lakestone Properties for a 147-unit residential subdivision located at parcel 0610-024-9691-1.

   b. Public hearing on Plan Commission Resolution 2025-01, a resolution approving a Planned Development Detailed Plan for Phase I Development on Lot 18 of the Sperle Corners Plat for purposing of constructing a 40-unit apartment building.

5. BUSINESS.
   a. Discuss and recommendation to the Village Board to approve a contract with Baker Tilly to update the Village's Park Impact Fee Study.

6. SCHEDULE NEXT MEETING DATE.
   a. Tuesday, October 21, 2025 at 6:00PM, Joint Meeting with the Community Development Authority
   b. Tuesday, October 21, 2025 at 7:00PM

7. ADJOURNMENT.

Any person who has a qualifying disability as defined by the Americans with Disabilities Act that requires the meeting or materials at the meeting to be in an accessible location or format should contact the McFarland Municipal Center at (608)838-3153, 5915 Milwaukee Street, McFarland, Wisconsin, or village.clerk@mcfarland.wi.us by 2:00 p.m. at least 5 business days prior to the meeting so that any necessary arrangements can be made to accommodate each request. If the meeting or request is less than 5 business days from the meeting, requests for accommodations may still be made and reasonable efforts will be made to accommodate each request.

Plan Commission Minutes
August 18, 2025, at 7:00 P.M.

Members Present: Stephanie Brassington, Luke Fessler, Austen Conrad, Karen Pominville, Scott Peters, Eric Johnson

Members Absent: Chris Reynolds

Staff Present: Andrew Bremer, Kong Thao, Matt Schuenke

1. CALL TO ORDER, ROLL CALL

   Chair Brassington called the meeting to order at 7:01 P.M.

2. PUBLIC APPEARANCES.

   Jackie Hammond, 6060 Perrot Pl, provided comments regarding concern about possible exclusion of aging population, underrepresentation of minority people in the community, and the Village's DEI Committee on certain planning projects.

3. APPROVAL OF MINUTES.
   a. Motion to approve the minutes of the May 20, 2025, meeting.

      Brassington motioned to approve the minutes of the May 20, 2025, Plan Commission meeting. Fessler seconded the motion. Motion passed 5-0-1, with Peters abstaining.

4. BUSINESS.
   a. Discussion and action on a Site Design Review Permit submitted by Matt Schuenke, Village Administrator, for Phase 2 improvements to the Community Park located at 3234 County Highway AB.

      Becky Kielstrup, 3055 Siggelkow Road, General Manager at Avant Gardening had concerns related to the use and easement details of the shared private driveway for access to the temporary gravel parking lot. Kielstrup expressed support for the Community Park improvements and future phases.

      Schuenke provided summary of Phase I improvements and past meetings with the Parks & Recreation Committee. Katie MacDonald (Parkitecture) and Abby Linley (Iconica), discussed Phase II improvements. MacDonald discussed the various surfaces throughout the site, building features, and temporary gravel overflow parking lot. Linley discussed the building design, construction materials and exterior building features.

The Commission discussed restroom availability, use of the temporary gravel overflow parking lot, removable bollards, future phase improvements, and estimated cost of the project. Thao commented on Staff's conditions of approval relating to the lighting plan and future improvements to the temporary gravel overflow parking lot.

Brassington motioned to approve a site design review permit requested by Matt Schuenke, Village Administrator, for Phase 2 improvements to the Community Park at 3234 County Highway AB, with the following conditions of approval:

1. All exterior park shelter lighting fixtures shall be full cutoff downcast fixtures.
2. The temporary gravel overflow parking lot is to be paved as part of the future Phase 4 construction, or at such time as the parking lot is intended to be used for purposes other than as an overflow or special event parking lot.

During discussion, Peters returned to Kielstrup's comments. Schuenke affirmed that review of the easement/driveway agreement will be needed, and the Village could make necessary repairs following a tournament event as needed. Conrad seconded the motion. Motion passed 5-1, with a nay from Johnson.

b. Discussion and action to make a recommendation to the Village Board regarding Resolution 2025-17, a resolution authorizing the Village Administrator to execute a pre-development agreement with Elvehjem Acres LLC and Bliffert Southwest Holdings LLC.

Monica Gunderson, 5810 Main Street, provided comments related to their experiences in the downtown area and support for the direction of the pre-development agreement.

Bremer provided summary on the agenda item before a presentation for further details. Kevin Urso, owner of Elvehjem Acres LLC, provided introduction on the pre-development agreement. The presentation covered the basics of a pre-development agreement and their intent, legality for such an agreement, locations of both properties, possible meeting schedule, concepts for Elvehjem Acres property that included rail spur configurations, Plan Commission and other committee involvement, Tax Increment Financing Districts, land uses, and downtown growth.

The Commission discussed the pre-development agreement timeline, schedule of Lakestone Properties' Sperle Corners, concepts presented, zoning and land uses, connection to public utilities, and the Village's role in ownership of lands. Bremer provided clarifying statements and answered Commission questions.

Motion by Brassington, seconded by Peters, to recommend to the Village Board approval of Resolution 2025-17. Motion carried 6-0.

c. Discussion regarding land division and zoning public notices.

Bremer provided summary on the agenda item showcasing the most common reasons for public notices. The summary compared state requirements, Village ordinance requirements, and Department practices on public notification. The Commission discussed Department's practice, content of the notices, and methods of finding and requesting information. The Commission was in consensus that efforts for public notices by Department were satisfactory and next steps should include codifying efforts.

5. SCHEDULE NEXT MEETING DATE.

   a. Tuesday, July 15, 2025, at 7:00PM

6. ADJOURNMENT.

   Peters motioned to adjourn. Fessler seconded the motion. Motion passed 6-0. Meeting adjourned at 8:56 PM.

VILLAGE OF
McFarland

SUMMARY SHEET

MEETING DATE: **Tuesday, September 16, 2025**

SECTION: **Business**

DEPARTMENT: **Community Development**

CONTACT: **Andrew Bremer, Comm & Eco Dev Director**

AGENDA ITEM: **Public hearing on the Final Plat for Sperle Corners submitted by Lakestone Properties for a 147-unit residential subdivision located at parcel 0610-024-9691-1.**

PREVIOUS ACTION:
May 20, 2025 - Plan Commission held public hearing on request for rezone and preliminary plat review.
June 17, 2025 - Plan Commission recommended approval of rezone and preliminary plat review of Sperle Corners.
June 24, 2025 - Village Board approves of rezone and preliminary plat review of Sperle Corners.

ISSUE SUMMARY:
Lakestone Properties is requesting approval of a Final Plat for parcel 0610-024-9691-1 at the northwest intersection of Elvehjem Road and County Hwy AB, to be named Sperle Corners, for a proposed 147-unit residential subdivision. The Preliminary Plat was approved by the Village Board at the June 24, 2025 meeting. The proposed plat will include 18 residential Lots and 2 public Outlots. The proposed plat includes a mix of 2-unit, 4-unit, multifamily buildings, dedicated stormwater (Outlot 1) and parkland (Outlot 2). Lots 3-16 each are designed for zero lot line duplex buildings (14 total units), Lots 1, 2, and 17 each include four-plex buildings (16 total units), and Lot 18 includes two 40-unit multifamily apartments and one 37-unit apartment building (117 total units). Phase 1 construction activities will include Building #1, a 40-unit apartment building on Lot 18 (western building), Devil's Lake Way street and utility construction, extension of public water main along Elvehjem Road to Devil's Lake Way, two stormwater retention systems, and mass grading on the property.

Review Procedures for Final Plat
Per Sec. 56-38(b), *The Plan Commission shall examine the Final Plat as to its conformance with the approved Preliminary Plat, any conditions of approval of the Preliminary Plat, this Chapter and all applicable ordinances, rules, regulations, comprehensive plans, and compressive plan components, which may affect it and shall recommend approval, conditional approval or rejection of the Plat to the Village Board.* Although not required under the Village's Subdivision Ordinance, it is also customary for the Public Works and Utilities Committee to make recommendations to the Village Board and Plan Commission on land development and redevelopment proposals to the extent they affect public utilities or other public facilities. The Public Works and Utilities Committee will review the Final Plat at their September 17 meeting.

Department Comments
Included in the packet is a staff report from the Village Engineer regarding recommended conditions of approval for the Final Plat, Street and Utility Plan, and Stormwater Management Plan. The packet also includes a staff report from the Village Fire Chief. Noting that it is the intent of the developer to restrict the south and west side of Devil's Lake Way for no on-street parking based on the width of the street as recommended in their Traffic Impact Analysis Report. The Village Engineer and Fire Chief are recommending the developer submit a plan sheet to illustrate the fire department access plan and on-street parking restrictions to confirm acceptable apparatus maneuver along the curve of Devil's Lake Way prior to the October 21st Plan Commission meeting.

In addition to addressing the Village Engineer and Fire Chief review comments, the prior conditions of approval for the Preliminary Plat included:

1. *Lakestone to include a note on the Final Plat noting the grading and development restrictions in the 75' wetland setback area.* This condition has been met.
2. *Lakestone shall have 24 months after the date of approval of the Preliminary Plat to file the Final Flat for review and approval by the Village Board, otherwise the Preliminary Plat will be considered void unless an extension is requested in writing and granted by the Village prior to the 24 month termination date.* The condition has been met.
3. *Concurrent with the Final Plat, review and approval of a development agreement between Lakestone and the Village.* Sec. 56-104 of the Subdivision Code also requires the subdivider to enter into a development agreement with the Village to furnish and construct the proposed improvements in accordance with the final approved plans and specifications. Included in the packet is a draft copy of the development agreement, which is similar to the agreement utilized for Rosewood Fields. The development agreement is still under review by Village staff, Village Attorney, and Lakestone. A final copy will be provided prior to approval of the final plat.

Public Comments
The Department did not receive any public comments prior to the publication of this packet.

Next Steps
Additional planned meetings are highlighted below. Village staff will work with the Developer on additional plan edits to address initial staff comments.

- October 21 Plan Commission meeting. Recommendation on Final Plat, and approval of Detailed Plan for Phase 1 of Lot 18.
- October 28 Village Board meeting. Approval of Final Plat and Development Agreement.

FINANCIAL/BUDGET IMPACT:
The developer shall be responsible for the costs for the street and utility improvements for the proposed plat in accordance with the development agreement and Village ordinances.

VILLAGE PLAN REFERENCE:
Comprehensive Plan, 2017

The Village Comprehensive Plan Future Land Use Map identifies the proposed development site for future "Neighborhood" uses and wetlands. Page 33 of Volume 2, describes that *areas planned for "Neighborhood" development include a range of housing choices compatible with the Village's current and desired character are permitted, along with parks and smaller-scale institutional uses like senior housing and churches....see the Village's separate East Side Neighborhood Plan for further conceptual guidance for future land uses in this area."* Figure 4.1 lists the Typical Implementing Zoning Districts in Neighborhood areas include R-1 Residence District, R-2 Single- and Two-Family Residence, R-3 General Residence, R-E Elderly Residence, PD, PD-I Planned Development. The Applicant's approved Planned Unit Development General Plan includes a range of housing choices and a public park.

East Side Plan, 2023

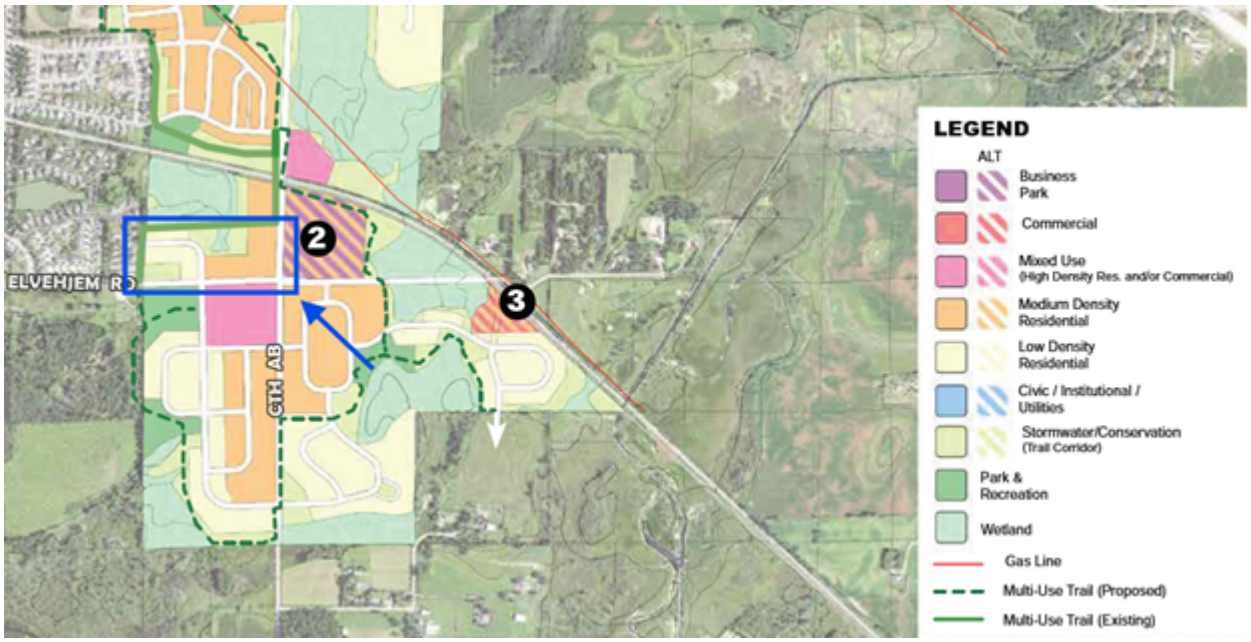
The 2023 East Side Master Plan Concept (Chapter 4) identifies multiple uses for the property (see image below). The uses include Low Density Residential, Medium Density Residential, Stormwater/Conservation, and Wetlands. The following land use category descriptions are as provided. As stated, "*these policies shall be enforceable through the generalized future land map in the Village's Comprehensive Plan (Chapter 4, Page 65)*."

- Stormwater & Conservation (SC) *"areas include conservation areas, cemeteries, stormwater management, greenways, major public trails, and land recommendations for preservation."* The location of wetlands shown in the 2023 East Side Plan was based on available WDNR aerial data. A wetland delineation was completed for the property in October 2022 that showed considerably fewer wetland areas than the WDNR aerial data. The Village requires a minimum 75-foot building setback from wetland boundaries. The Final Plat, Street and Utility Plan and Stormwater Management Plan includes additional detail on wetland and stormwater management areas.
- Low Density Residential (LDR) *primarily consists of single-unit detached homes with strategically located 2-unit attached, 3-/4-unit buildings (triple and fourplex, respectively). Typical net densities should average 2-5 units per acre* (throughout the entire neighborhood plan)*, with individual developments up to 10 units per acre. Three and 4-unit structures are most appropriate as a transition use when facing or next to more intensive institutional, residential or commercial uses.* Lots 1-17 are generally aligned with the area mapped as LDR in the 2023 East Side Plan. These lots have net densities ranging from 2.0-8.9 dwelling units per acre with a total net density of 6.1 dwelling units per acre, below the maximum 10 units per acre for individual developments. The 2023 East Side Plan does not mandate that all areas mapped LDR must include single-family dwelling units. The context of each development area should be considered as well. While the Final Plat does not include any single-family homes, it does continue the existing pattern of duplex developments to the west before transitioning to 4-unit buildings and then apartment buildings. In addition, the existing duplex residential buildings on Perrot Place are more than 150 feet from the proposed building footprints on Lots 8 and 9. Physical barriers from the existing bike and pedestrian path, existing tree line, and wetlands, create added separation between the existing residential homes and the proposed dwelling units.
- Medium Density Residential (MDR) *"includes detached single-unit homes and attached housing units such as duplexes, triplexes, townhomes, small and mid-sized multi-unit*

buildings. Developments in MDR areas should provide the greatest diversity of housing unit types, forms, and prices. Typical net densities should average 5-15 units per acre (throughout the entire neighborhood plan)*, with individual developments up to 20 dwelling units/acre...densities greater than 20 DU/AC for legally restricted affordable housing units."* The net density of Lot 18 is 15.9 DU/AC, below the maximum 20 units per acre for individual developments.

Page 62 of Chapter 4 of the East Side Plan states that *"while the general pattern of land uses and major streets shown in this concept should be reflected in actual development, it is recognized that more detailed elements within the concept, such as the locations of minor streets, location/sizing of stormwater management areas, precise boundaries of land uses, or the specific dimensions of blocks, are only concepts."* Along the west lot line, the concept includes similar scale housing types to the existing neighborhood to the west, transitioning to larger residential type buildings with higher unit counts to the east along CTH AB, consistent with the intent of the 2023 East Side Plan. In Staff's opinion, the Final Plat provides a consistent layout with the intent of the Master Plan Concept from the 2023 East Side Plan and is consistent with the prior approved Preliminary Plat.

East Side Master Plan Future Land Use Map.



ORDINANCE REFERENCE:
Chapter 56 Subdivisions

BOARD, COMMISSION OR COMMITTEE RECOMMENDATION:
This agenda item is presented for public hearing and discussion only. Action to make a recommendation to the Village Board on the Final Plat will be considered at the October 21st Plan Commission meeting.

VILLAGE OF
McFarland

ATTACHMENTS:

1. 9.16.25 - Sperle Corners - final plat - Lakestone - newspaper
2. Sperle Corners Final Plat and Street and Utility Plan_08.05.25(rev 08.28.25)
3. Development Agreement for Sperle Corners_09.09.25
4. Sperle Corners Stormwater Submittal (8-18-2025)
5. Sperle Corners PUD - Village Engineer Letter of Review_09.08.2025
6. Sperle Corners PUD Detailed Plan - Fire Chief Letter of Review_09.05.2025

Please publish in the
Leader Independent on
August 28, 2025 and September 4, 2025

VILLAGE OF MCFARLAND
NOTICE OF PUBLIC HEARING
BEFORE THE PLAN COMMISSION

NOTICE IS HEREBY GIVEN that there will be a public hearing before the Plan Commission on Tuesday, September 16, 2025 at 7:00 p.m. in the Community Room of the Municipal Center, 5915 Milwaukee St., McFarland, Wisconsin, at which time interested parties and citizens shall have an opportunity to be heard concerning the following:

> A request by Lakestone Properties and Management LLC for review and possible recommendation to the Village Board for approval of a Final Plat for Sperle Corners Subdivision, lands located at the northwest corner of Elvehjem Road and County Highway AB, Parcel #154/0610-024-9691-1, Village of McFarland, WI.

A complete copy of the applicant's application is available for review online at www.mcfarland.wi.us/pendingrequests or at the Village of McFarland Municipal Center, Community & Economic Development Department, 5915 Milwaukee Street, McFarland, WI 53558 (Monday-Friday, 8:00 a.m. to 4:30 p.m.).

Residents wishing to attend the meeting can do so in-person at the Municipal Center or via Zoom by visiting https://us02web.zoom.us/s/85755749643 or Telephone: Dial (for higher quality, dial a number based on your current location): US: +1 (312) 626-6799 Webinar ID: 857 5574 9643. Please Note: Virtual attendance is offered as a convenience, but technical difficulties beyond the Village's control may prevent or limit its availability at any meeting. The public is encouraged to attend the meeting in person to assure full access to the proceedings.

If you cannot attend the meeting, you may submit your written comments to the Plan Commission by email to community.development@mcfarland.wi.us or by mail to Community Development Department, Village of McFarland, P.O. Box 110, McFarland, WI 53558-0110. Submission must be received no later than the Wednesday prior to the meeting date to be included in the packet.

VILLAGE OF McFarland
Community & Economic Development

Plan Commission Application – 2025

~Application must be completed in full~

Applicant	Lakestone Properties and Management, LLC	Applicant's Agent	Brett Riemen
Property Owner (if different)	Diana Sperle & Mary Teppo	Name	
Address		Address	5910 Main St, McFarland WI 53558
Email		Email	brett@lakestoneproperties.com
Phone #		Phone #	608-838-1800

Parcel No(s). _____ **Type of Proposal – Please check boxes below that apply**

Requires Public Hearing (Class One)	FEES	Requires Public Hearing (Class Two)	FEES	Public Hearing Not required	FEES
☐ Preliminary Plat	$500+AF	☐ Conditional Use	$425+F	☐ Annexation	At cost
☐ Preliminary Plat (reapplication)	$500+BF	■ Rezoning (map)	$475+F	■ Dev. Agreement Including Addendums	$400+F
☐ Certified Survey Map	$300+FG	☐ Zoning Amendment (text)	$475+F	■ Final Plat	$500+CF
☐ Condominium	$300+EF	☐ USA/MMSD Annexation	At cost	☐ Final Plat (reapplication)	$400+DF
☐ Comprehensive Plan Amendment	$500+F			■ Site/Design Review	$400+F

+ = Plus publication and notification charges

A = Plus $50.00 per lot

B = Any preliminary plat which has previously been reviewed/revised within the last 36 months

C = Plus $50.00 for each lot within the final plat

D = Any final plat which has been previously reviewed/revised within the last 36 months

E = Plus $40.00 for each unit shown

F = Plus actual legal, engineering and financial consulting costs incurred by the Village

G = Plus $25.00 per lot for two or more lots.

Escrow Deposits (covers costs for outside consultants; e.g., engineers, attorneys, etc.)	
☐ R-E, R-3 & PD (up to 50 acres)	$5,000
☐ R-E, R-3 & PD (greater than 50 acres)	$10,000
☐ Site/Design Review (less than 2,000 sq. ft.)	$1,000
☐ Site/Design Review (2,000 sq. ft. or more)	$2,000
■ All Plats including condominiums	$5,000

Nature of the development proposal: Must provide address of proposed development, legal description, current zoning and description of proposal/request. (Attach additional papers if needed)

Development of Lot 18, Phase 1 Apartment building, associated drive aisles and parking lots in conformance with the approved planned development.

PLEASE READ AND SIGN AT THE BOTTOM ON THE REVERSE SIDE

Has this specific proposal been previously discussed or acted upon by the Plan Commission?

■ **YES** ❑ **NO (If "yes" state the nature and the date(s) of the previous application.)**

Planned Development approved June 6, 2025

Submittal Requirements: One (1) hard copy 8 ½ x 11, except site plan sheets which should be 11 x 17, and one (1) electronic (pdf) copy. A completed in full application can be submitted to the Community Development Department (5915 Milwaukee Street, McFarland, WI 53558, community.development@mcfarland.wi.gov), with fees included with submittal **by *NOON of the deadline day**, according to the schedule below.

Village of McFarland Plan Commission 2025 Schedule

The Village of McFarland Plan Commission normally conducts meetings on the third Tuesday of each month, unless otherwise noted below at 7:00 p.m. at the McFarland Municipal Center in the Community Room. To ensure adequate time for staff review, and publication of legal notices, potential agenda item materials are required to be submitted per the schedule listed below.

*Submittal Deadline Noon on:	For Scheduled 2025 Meeting date of:
December 10 (2024)	January 21
January 7	February 18
February 4	March 18
March 4	April 15
April 8	May 20
May 5	June 17
June 3	July 15
July 8	August 19
August 5	September 16
September 9	October 21
October 7	November 18
November 4	December 16
December 9	January 20, 2026

Applications requiring a public hearing will be scheduled for a hearing according to the schedule above. If there is written or verbal public opposition submitted as part of the public hearing the Plan Commission will postpone action on the application to a subsequent meeting so that concerns can be analyzed if concerns can't be addressed during the hearing. If there is no public opposition and no unresolved issues by Village Staff or Plan Commission members, the Plan Commission may take action on the application at the same meeting as the public hearing. Applicants are encouraged to contact the Community & Economic Development Director for a pre-application meeting to review the project and submittal requirements prior to submitting an official application.

Acknowledgements:

- I understand failure to provide required materials/information/fees by the submittal deadline can result in this application being withdrawn for consideration by the Plan Commission. Materials submitted for review after the submittal deadline date, or incomplete submittals, may be held over until the next scheduled meeting.
- I understand any fees not paid for (i.e. legal notices, mailings, consultant review costs, etc.) will require any permits to be withheld until all payments are made in full. In addition, all application fees are non-refundable.
- I understand Plan Commission applications requiring a Public Hearing may not be acted on the same night as the Public Hearing.

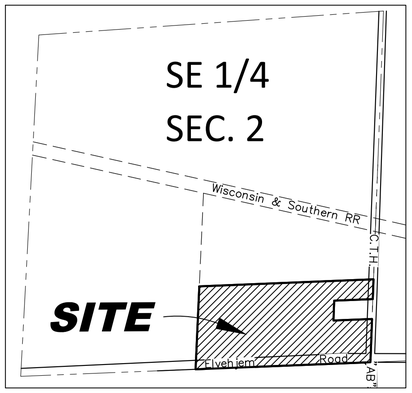
X _____ 8/5/25

Signature of Applicant/Agent Date

SPERLE CORNERS

Part of the SE 1/4 of the SE 1/4 of Section 2, Township 6 North, Range 10 East, Village of McFarland, Dane County, Wisconsin

FINAL PLAT



Vicinity Map

Not to Scale

ENGINEER/SURVEYOR:
Ryan Quam, P.E.
Matthew E. Hoglund, P.L.S.
Quam Engineering, LLC
4604 Siggelkow Road – Suite A
McFarland, WI 53558
Ph: (608) 838–7750

OWNER:
Diana Sperle & Mary Teppo
6027 Canyon Parkway
McFarland, WI 53558

SUBDIVIDER:
Lakestone Properties & Management, LLC
c/o Brian Spanos
5910 Main Street, Suite 1
McFarland, WI 53558
Ph: (608) 838–1800

There are no objections to this plat with respect to Secs. 236.15, 236.16, 236.20 and 236.21(1) and (2), Wis. Stats. as provided by s. 236.12, Wis. Stats.

Certified _____, 20____

Department of Administration

SURVEYOR'S CERTIFICATE:

I, Matthew E. Hoglund, Professional Land Surveyor, do hereby certify to the best of my knowledge and belief:

That I have surveyed, divided, and mapped Sperle Corners, being a part of the Southeast one-quarter of the Southeast one-quarter of Section 2, Township 6 North, Range 10 East, Village of McFarland, Dane County, Wisconsin, being more particularly described as follows:

BEGINNING at the Southeast Corner of said Section 2; thence, along the South line of said Southeast 1/4, South 87°41'38" West, 1321.53 feet to the Southwest corner of said Southeast 1/4 of the Southeast 1/4, said point also being the Southeast corner of the plat of Park View Estates, recorded in Volume 57 of Plats on Pages 782 through 785 as Document No. 3459436;

thence, along the East line of said plat, North 02°34'49" East, 626.90 feet to the Southwest corner of Lot 3 of Certified Survey Map (CSM) No. 15493, recorded in Volume 111 of CSMs on Pages 284 through 286 as Document No. 5637506;

thence, along the South line of said CSM and its Easterly extension, North 87°40'27" East, 1316.58 feet to the Southeast corner of said CSM, lying on the East line of aforesaid Southeast one-quarter;

thence, along said East line, South 02°07'34" East, 149.72 feet to the Northeast corner of Lot 1 of CSM No. 1455, recorded in Volume 6 of CSMs on Page 144 as Document No. 1400799;

thence, along the North line of last said CSM, South 87°41'15" West, 291.58 feet to the Northwest corner of said Lot 1;

thence, along the West line of said Lot 1, South 02°07'34" West, 150.00 feet to the Southwest corner of said Lot 1;

thence, along the South line of said Lot 1, North 87°41'15" East, 291.58 feet to the Southeast corner of said Lot 1, lying on said East line of the Southeast one-quarter;

thence, along said East line, South 02°07'34" East, 327.23 feet to the **POINT OF BEGINNING**.

The above-described parcel contains 780,586 sq. feet or 17.9198 acres, more or less, and is **SUBJECT TO** easements for Public road right-of-way purposes for Elvehjem Road and County Trunk Highway "AB" and is **ALSO SUBJECT TO** all other matters of record and/or fact.

That I have made such survey, land division, and plat by the direction of Brian Spanos of _____, LLC, owner of said land. That such plat is a correct representation of all of the exterior boundaries of the land surveyed and the subdivision thereof made; that I have fully complied with the provisions of Chapter 236 of the Wisconsin State Statutes and Chpater 56 of the Village of McFarland Subdivision Ordinance in surveying, dividing, and mapping the same.

Dated this 28th day of August, 2025.

WISCONSIN MATTHEW E. HOGLUND S-1910 EAU CLAIRE WI LAND SURVEYOR

DRAFT

_____
Quam Engineering, LLC
By: Matthew E. Hoglund
P.L.S. S-1910

VILLAGE TREASURER'S CERTIFICATE:

STATE OF WISCONSIN)
COUNTY DANE) SS

I, _____, being the duly appointed, qualified and acting Village Treasurer of the Village of McFarland, do hereby certify that in accordance with the records in my office, there are no unpaid taxes or unpaid special assessments as of _____(date) on any of the land included in the plat of SPERLE CORNERS.

Date:_____ _____
Village Treasurer

COUNTY TREASURER'S CERTIFICATE:

STATE OF WISCONSIN)
COUNTY DANE) SS

I, Adam Gallagher, being the duly elected, qualified and acting treasurer of the County of Dane, do hereby certify that the records in my office show no unredeemed tax sales and no unpaid taxes or unpaid special assessments as of _____(date) affecting the lands included in the plat of SPERLE CORNERS.

Date:_____ _____
Adam Gallagher - Treasurer

REGISTER OF DEEDS CERTIFICATE:

Received for recording this ___ day of _____, 20___, at

_____ o'clock __M. and recorded in Volume _____ of Plats on

Pages _____ as Document No. _____.

_____
Kristi Chlebowski, Dane County Register of Deeds

OWNER'S CERTIFICATE:

_____, LLC, a Limited Liability Company duly organized and existing under and by virtue of the laws of the State of Wisconsin, as owner, does hereby certify that said company caused the land described on this plat to be surveyed, divided, mapped, and dedicated as represented on this plat. _____, LLC does further certify that this plat is required by s.236.10 or s.236.12 to be submitted to the following for approval or objection:

1) Village of McFarland
2) Department of Administration

IN WITNESS WHEREOF, the said _____, LLC has caused these presents to be signed by _____, Member and _____, Member at _____, Wisconsin,

and its company seal to be hereunto affixed on this ____, day of _____, 20__.

In the presence of: _____ _____

STATE OF WISCONSIN)
COUNTY DANE) SS

Personally came before me this ___ day of _____, 20___, _____ and _____ of the above named Limited Liability Company, to me known to be the person(s) who executed the foregoing instrument, and to me known to be such _____ and _____ of said Limited Liability Company, and acknowledged that they executed the foregoing instrument as such officer as the deed of said company, by its authority.

(Notary Seal) _____ Notary Public, _____, Wisconsin

My commission expires _____.

NOTES:

1. Outlot 1 is dedicated to the Public for wetland preservation and stormwater management purposes to be owned & maintained by the the Village of McFarland.
2. Outlot 2 is dedicated to the Public for park and recreational purposes to be owned & maintained by the the Village of McFarland.
3. All streets will be dedicated to the Public to be owned & maintained by the Village of McFarland.
4. Current zoning of the property within this plat is A–1 Agricultural Transition, with portions also being in the Dane County Wetland District (inland & Shoreland) 75' buffer and Shoreland District (Secondary) 1000' buffer.
5. Proposed zoning for Lots 1–18 and Outlots 1 and 2 is PD – Planned Development.
6. Wetlands shown were digitized from the October 13, 2022 Wetland Delineation Report by Ruekert–Mielke.
7. Date of boundary field survey: February 6, 2025.
8. See Sheet 2 for Boundary Survey, Lot and easement details.
9. Utility easements set forth herein are for the use of public bodies and private quasi–public utilities having the right to serve this subdivision and for street lighting purposes. Utility easements shown are __ wide from the _____, unless otherwise noted. No utility pole, pedestal or cable shall be placed so as to disturb any survey monument or obstruct vision along any lot or street line. The unauthorized disturbance of a survey monument is a violation of s.236.32 of Wisconsin Statutes.
10. The Cluster Mailbox Easement, over a part of Lot 2 as shown on Sheet 2 hereof, is for U.S. Postal Service approved, multiple gang, multi–user joint mailboxes. A Cluster Mailbox Easement Agreement will be recorded by separate instrument that will denote the specific lots benefiting from said easement and will set forth the requirements and restrictions for the installation, maintenance, repair and replacement of the cluster mailboxes and associated improvements.

CONSENT OF CORPORATE MORTGAGEE:

_____, a corporation duly organized and existing under and by virtue of the laws of the State of Wisconsin, mortgagee of the above described land, does hereby consent to the surveying, dividing, mapping, and dedication of the land described on this plat, and does hereby consent to the above certificate of _____, LLC, owner.

IN WITNESS WHEREOF, the said _____has caused these presents to be signed by _____, its _____ and _____, its _____, at _____, Wisconsin, and its corporate seal to be hereunto affixed on this _____, day of _____, 20__.

In the presence of:

_____, _____ (Corporate Seal)

_____ , Date: _____
By: its

_____ , Date: _____
By: its

STATE OF WISCONSIN)
_____COUNTY) SS

Personally came before me this ___ day of _____, 20___, _____ and _____ of the above named corporation, to me known to be the persons who executed the foregoing instrument, and to me known to be such _____ and _____ of said corporation, and acknowledged that they executed the foregoing instrument as such officers as the deed of said corporation, by its authority.

(Notary Seal) _____ Notary Public, _____, Wisconsin

My commission expires _____.

VILLAGE OF McFARLAND APPROVAL CERTIFICATE:

Resolved that the plat of Sperle Corners, in the Village of McFarland, _____, LLC, owner, is hereby approved and dedications accepted by the Village Board.

Date:_____ Approved_____
Title:

I hereby certify that the foregoing is a copy of a Resolution adopted by the Village Board of the Village of McFarland.

Date:_____ Signed _____
Village Clerk

DRAFT

FINAL PLAT
SPERLE CORNERS
PROJECT NO. LS–03–19
QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
www.quamengineering.com
4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558
Phone (608) 838–7750; Fax (608) 838–7752

There are no objections to this plat with respect to Secs. 236.15, 236.16, 236.20 and 236.21(1) and (2), Wis. Stats. as provided by s. 236.12, Wis. Stats.

Certified _____, 20____

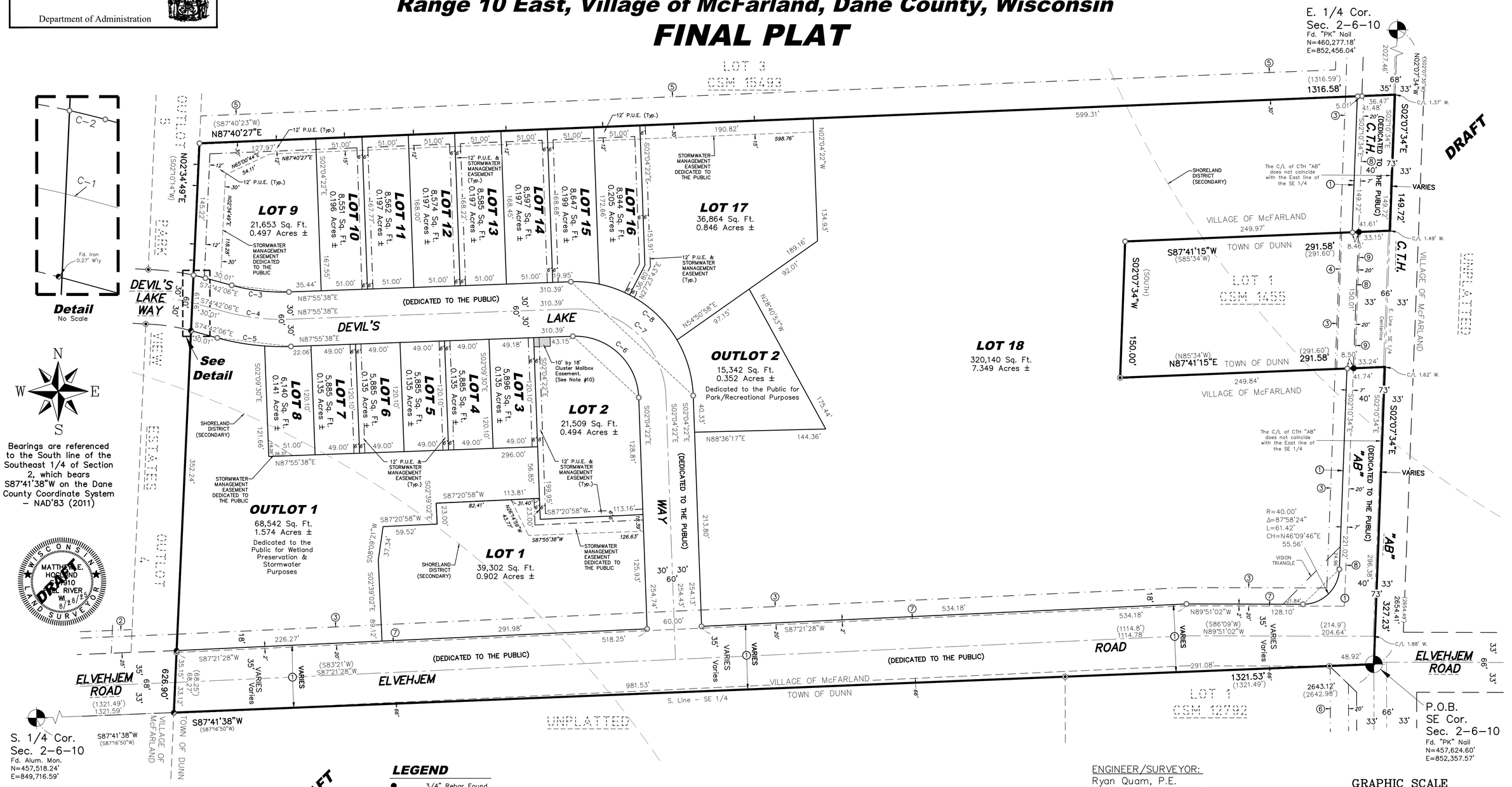
Department of Administration

SPERLE CORNERS

Part of the SE 1/4 of the SE 1/4 of Section 2, Township 6 North, Range 10 East, Village of McFarland, Dane County, Wisconsin

FINAL PLAT

Total Area
780,586 Sq. Ft.
17.9198 Acres±



LEGEND

- ● 3/4" Rebar Found
- ◕ 1–1/4" Iron Rebar Found
- ◉ 1" Iron Pipe Found (unless noted)
- ○ 1–1/4" by 18" Iron Rebar Set Weighing 4.30 lbs./ft.

All other Lot and Outlot Corners are Set 3/4" by 18" Iron Rebar Weighing 1.50 lbs./ft.

- (43.12') Record Dimensions (if different)
- Boundary Lines per this Survey
- Deed/Survey Line of Record
- Existing R/W Line
- Sectional Subdivision Line
- Existing Easement Line
- Lot or R/W Line
- Centerline
- Public Utility & Stormwater Management Easement (PUE) Dedicated Hereon (12' wide unless noted)
- Storm Sewer/Stormwater Management Easement Dedicated Hereon

CURVE DATA TABLE

CURVE	RADIUS	DELTA	LENGTH	CHORD	TANGENT BEARINGS	
C1	240.00'	01°36'50"	6.76'	S75°30'31"E - 6.76'	S76°18'56"E	(on map)
C2	270.00'	02°51'39"	13.48'	S76°07'56"E - 13.48'	S77°33'45"E	(on map)
C3	210.00'	17°22'16"	63.67'	S83°23'14"E - 63.42'	(on map)	(on map)
C4	240.00'	17°22'16"	72.76'	S83°23'14"E - 72.49'	(on map)	(on map)
C5	270.00'	17°22'16"	81.86'	S83°23'14"E - 81.55'	(on map)	(on map)
OUTLOT 1		11°13'00"	52.86'	S80°18'36"E - 52.77'	-	-
LOT 8		06°09'16"	29.00'	S88°59'44"E - 28.99'	-	-
C6	70.00'	90°00'00"	109.96'	S47°04'22"E - 99.00'	(on map)	(on map)
C7	100.00'	90°00'00"	157.08'	S47°04'22"E - 141.42'	(on map)	(on map)
C8	130.00'	90°00'00"	204.20'	S47°04'22"E - 183.85'	(on map)	(on map)
LOT 15		13°49'15"	31.36'	S85°09'45"E - 31.28'	-	-
LOT 16		15°38'50"	35.50'	S70°25'42"E - 35.39'	-	-
LOT 27		32°08'46"	72.94'	S46°31'54"E - 71.98'	-	-
OUTLOT 2		28°23'09"	64.40'	S16°15'57"E - 63.75'	-	-

EASEMENT/RIGHT-OF-WAY NOTES

1. Right–of–Way dedicated to the Public as noted hereon.
2. 25' Public Stormwater Easement per Park View Estates.
3. 20' WP&L Gas Main Easement per Vol. 378, P. 577 – Doc. No. 1052660.
4. 20' Utility Easement per CSM 1455.
5. 30' Public Sewer, Water and Bike Path Easement per CSM 15493.
6. 20' WP&L Gas Main Easement per Vol. 397, P. 330 – Doc. No. 1082351.
7. 66' Wide Conveyance of Lands for Highway Purposes to the Town of Dunn per Doc. 1008944 & Dane County Hwy. Survey Proj. No. 61–14.
8. West Line of Conveyance of Lands for Highway Purposes to the Town of Dunn per Doc. 831820 & Survey Plat Map No. 249 by Alex Ely, Dane County Surveyor, dated March 26, 1952.
9. CSM 1455 depicted W. R/W CTH "AB" 33' W. of Section Line vs. prior Doc. 831820 & Survey Plat Map No. 249 used hereon.

ENGINEER/SURVEYOR:
Ryan Quam, P.E.
Matthew E. Hoglund, P.L.S.
Quam Engineering, LLC
4604 Siggelkow Road – Suite A
McFarland, WI 53558
Ph: (608) 838–7750

OWNER:
Diana Sperle & Mary Teppo
6027 Canyon Parkway
McFarland, WI 53558

SUBDIVIDER:
Lakestone Properties & Management, LLC
c/o Brian Spanos
5910 Main Street, Suite 1
McFarland, WI 53558
Ph: (608) 838–1800

GRAPHIC SCALE
0 30 60 120
(IN FEET)

SEE SHEET 1 FOR NOTES & CERTIFICATES.
SEE SHEET 3 FOR WETLAND DETAILS.

SHEET 2 OF 3

FINAL PLAT
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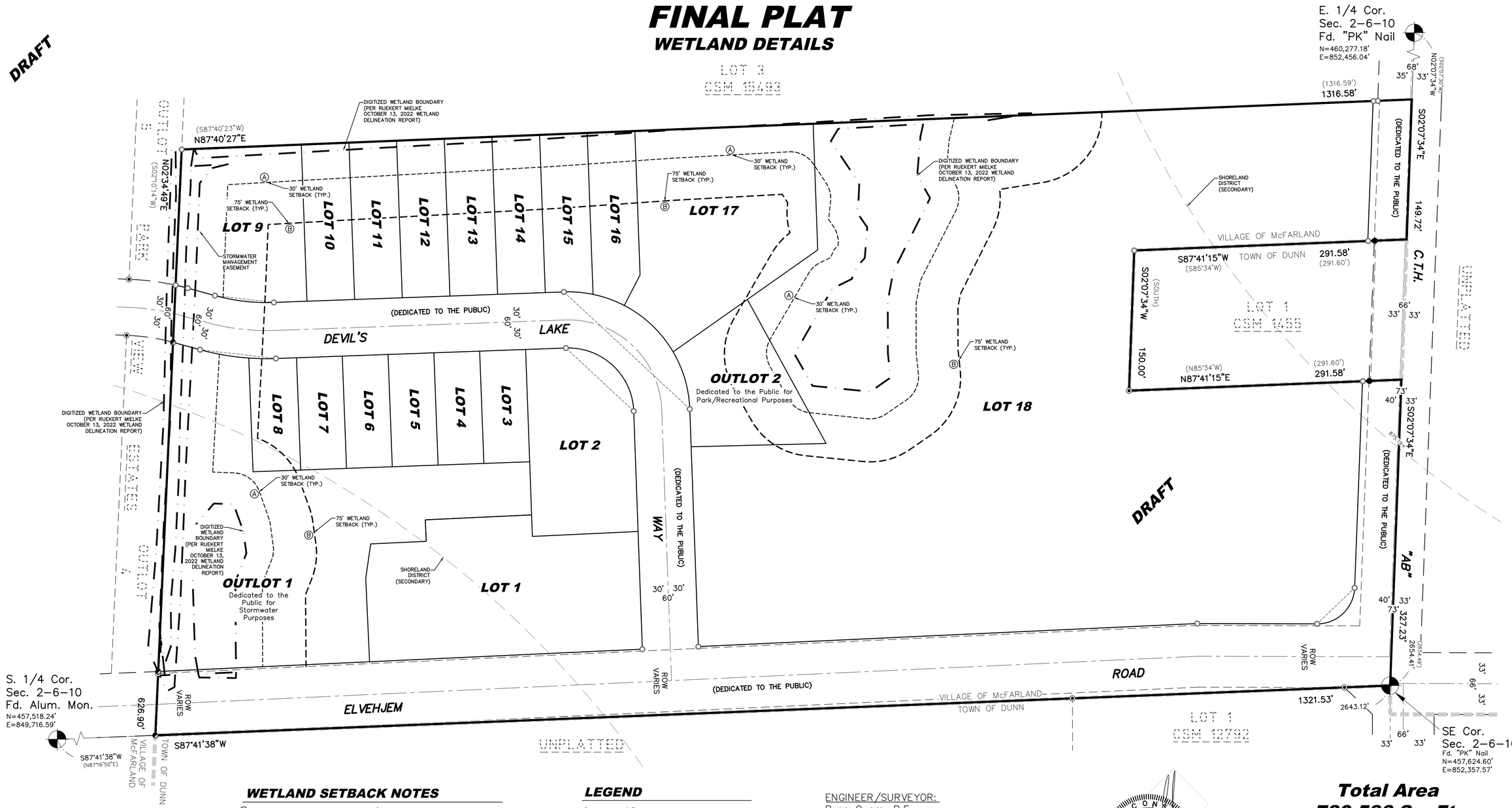
SPERLE CORNERS

Part of the SE 1/4 of the SE 1/4 of Section 2, Township 6 North, Range 10 East, Village of McFarland, Dane County, Wisconsin

FINAL PLAT

WETLAND DETAILS

DRAFT



WETLAND SETBACK NOTES

Ⓐ There shall be no grading within 30' of the delineated wetland boundaries without the written approval of the Village of McFarland in consultation with CARPC.

Ⓑ There shall be no impervious surfaces within 75' of the delineated wetland boundaries without the written approval of the Village of McFarland in consultation with CARPC.

LEGEND

- 3/4" Rebar Found
- 1-1/4" Iron Rebar Found
- 1" Iron Pipe Found (unless noted)
- 1-1/4" by 18" Iron Rebar Set Weighing 4.30 lbs./ft.

All other Lot and Outlot Corners are Set 3/4" by 18" Iron Rebar Weighing 1.50 lbs./ft.

(43.12') Record Dimensions (if different)
Boundary Lines per this Survey
Deed/Survey Line of Record
Existing R/W Line
Sectional Subdivision Line
Wetland Line
75' Wetland Buffer
Lot or R/W Line
Centerline
Municipal Boundary

N W E S

Bearings are referenced to the South line of the Southeast 1/4 of Section 2, which bears S87°41'38"W on the Dane County Coordinate System – NAD'83 (2011)

GRAPHIC SCALE
0 30 60 120
(IN FEET)

DRAFT

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Matthew E. Hoglund, P.L.S.
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WISCONSIN MATTHEW E. HOGLUND S-1910 HALL RIVER WI 8/15/20 LAND SURVEYOR

Total Area
780,586 Sq. Ft.
17.9198 Acres±

SEE SHEET 1 FOR NOTES & CERTIFICATES.
SEE SHEET 2 FOR BOUNDARY SURVEY.
LOT & EASEMENT DETAILS.

SHEET 3 OF 3

There are no objections to this plat with respect to Secs. 236.15, 236.16, 236.20 and 236.21(1) and (2), Wis. Stats. as provided by s. 236.12, Wis. Stats.

Certified _____, 20____

Department of Administration

FINAL PLAT
SPERLE CORNERS
PROJECT NO. LS-03-19
QUAM ENGINEERING, LLC
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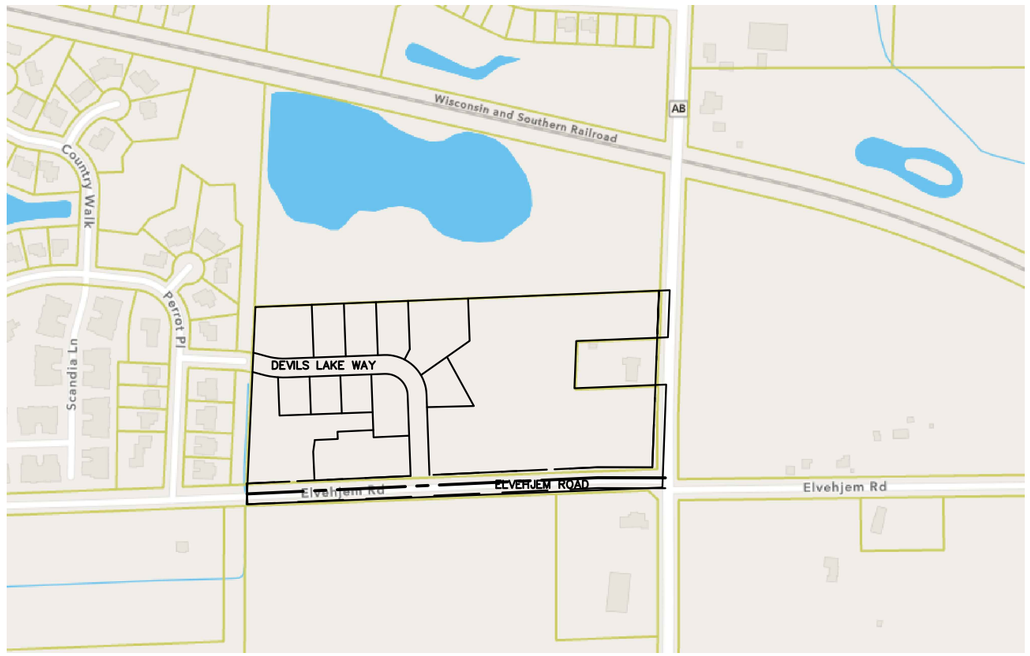
SPERLE CORNERS RESIDENTIAL SUBDIVISION

STREET AND UTILITY CONSTRUCTION

VILLAGE OF MCFARLAND
DANE COUNTY, WISCONSIN

INDEX

SHEET	STATIONS	DESCRIPTION
1		COVER PAGE
2		EXISTING SITE PLAN
3		OVERALL GRADING AND STORM WATER MANAGEMENT PLAN
4		WEST POND PLAN
5		EAST POND PLAN
6	0+00 – 6+00	DEVILS LAKE WAY – PLAN AND PROFILE
7	6+00 – 10+00	DEVILS LAKE WAY – PLAN AND PROFILE
8	20+00 – 27+50	STORM SEWER – PLAN AND PROFILE
9	29+00 – 35+00	STORM SEWER – PLAN AND PROFILE
10	50+00 – 56+00	WATER MAIN – PLAN AND PROFILE
11	56+00 – 62+00	WATER MAIN – PLAN AND PROFILE
12		SIGN & LIGHTING PLAN
13		STREET TREE PLAN
14		DETAILS #1
15		DETAILS #2
16		DETAILS #3
17		DETAILS #4



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0 50 100

EX. RCP STORM SEWER
N IE=859.63
S IE=859.49

EX. RCP STORM SEWER
N IE=858.51
S IE=858.37

WETLAND BOUNDARY
(PER RUEKERT MIELKE
OCTOBER 13, 2022 WETLAND
DELINEATION REPORT)

6" STORM CULVERT
S IE=859.21
N IE=858.90

6" STORM CULVERT
N IE=859.06
S IE=858.96

8" STORM CULVERT
S IE=858.99
N IE=858.88

EX. 12" SANITARY SEWER

EX. BIKE PATH

12" STORM CULVERT
N IE=859.28
S IE=858.92

EX. SANITARY MH (TYP)

TEST PIT #1

TEST PIT #2

TEST PIT #3

TEST PIT #4

TEST PIT #5

TEST PIT #6

TEST PIT #7

TEST PIT #8

75' SETBACK WETLAND
BOUNDARY
(PER RUEKERT MIELKE
OCTOBER 13, 2022 WETLAND
DELINEATION REPORT)

WETLAND BOUNDARY
(PER RUEKERT MIELKE
OCTOBER 13, 2022 WETLAND
DELINEATION REPORT)

75' SETBACK WETLAND
BOUNDARY
(PER RUEKERT MIELKE
OCTOBER 13, 2022 WETLAND
DELINEATION REPORT)

EX. 18" CMP STORM SEWER
S IE=871.40
N IE=870.88

DEVILS LAKE WAY

PERROT PL

CTH AB

ELVEHJEM ROAD

EX. 12" RCP STORM SEWER

EX. STORM INLET

PARKING SIGN

STOP SIGN

SPEED LIMIT SIGN

SPEED LIMIT SIGN

SPEED LIMIT SIGN

EX. 24" CMP STORM
N IE=857.20
S IE=856.98

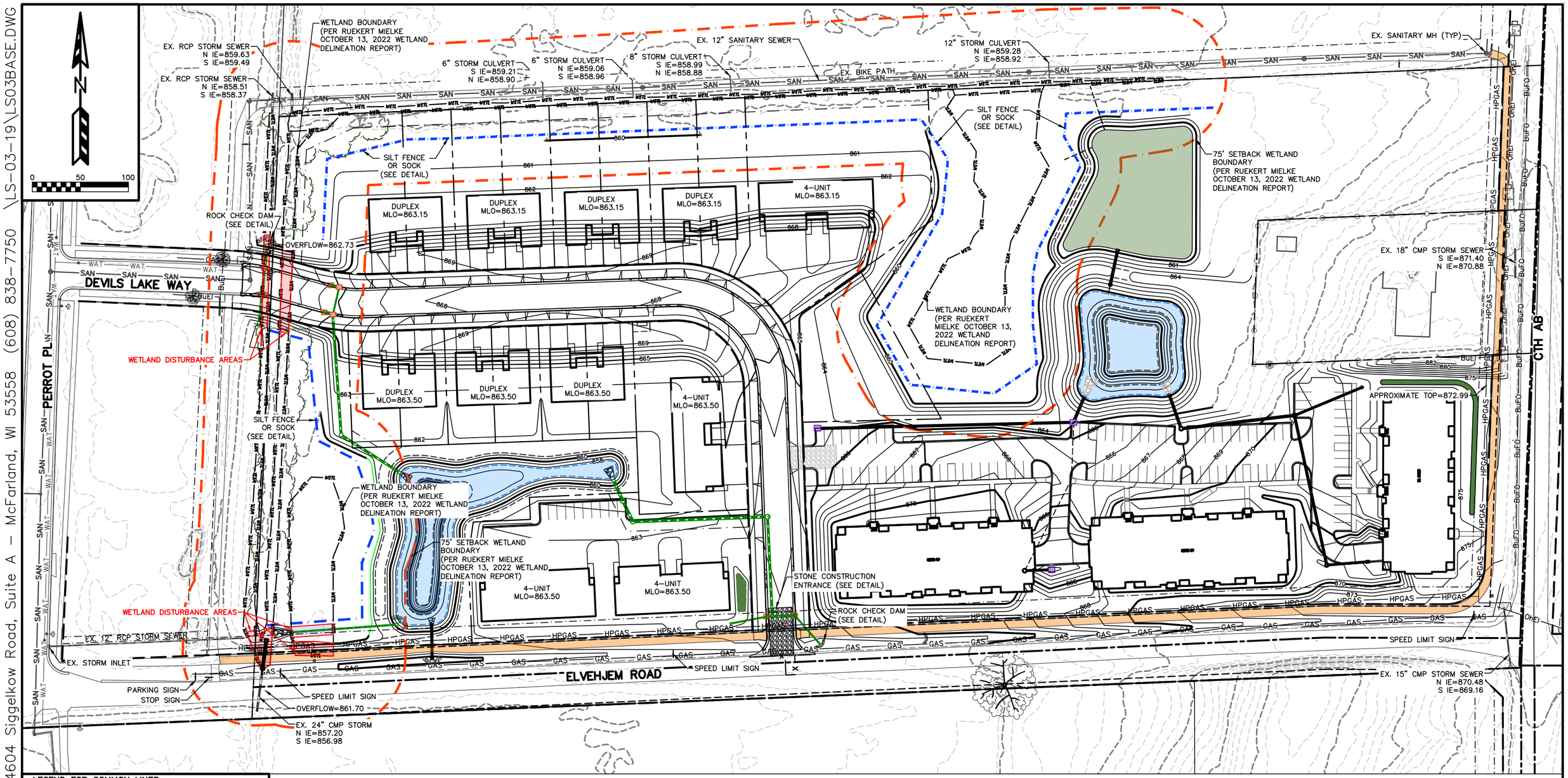
EX. 15" CMP STORM SEWER
N IE=870.48
S IE=869.16

SPERLE CORNERS – VILLAGE OF MCFARLAND

EXISTING SITE PLAN WITH TEST PITS

SHEET: C-2
DATED: AUGUST 28, 2025

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4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558
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LEGEND FOR COMMON LINES:

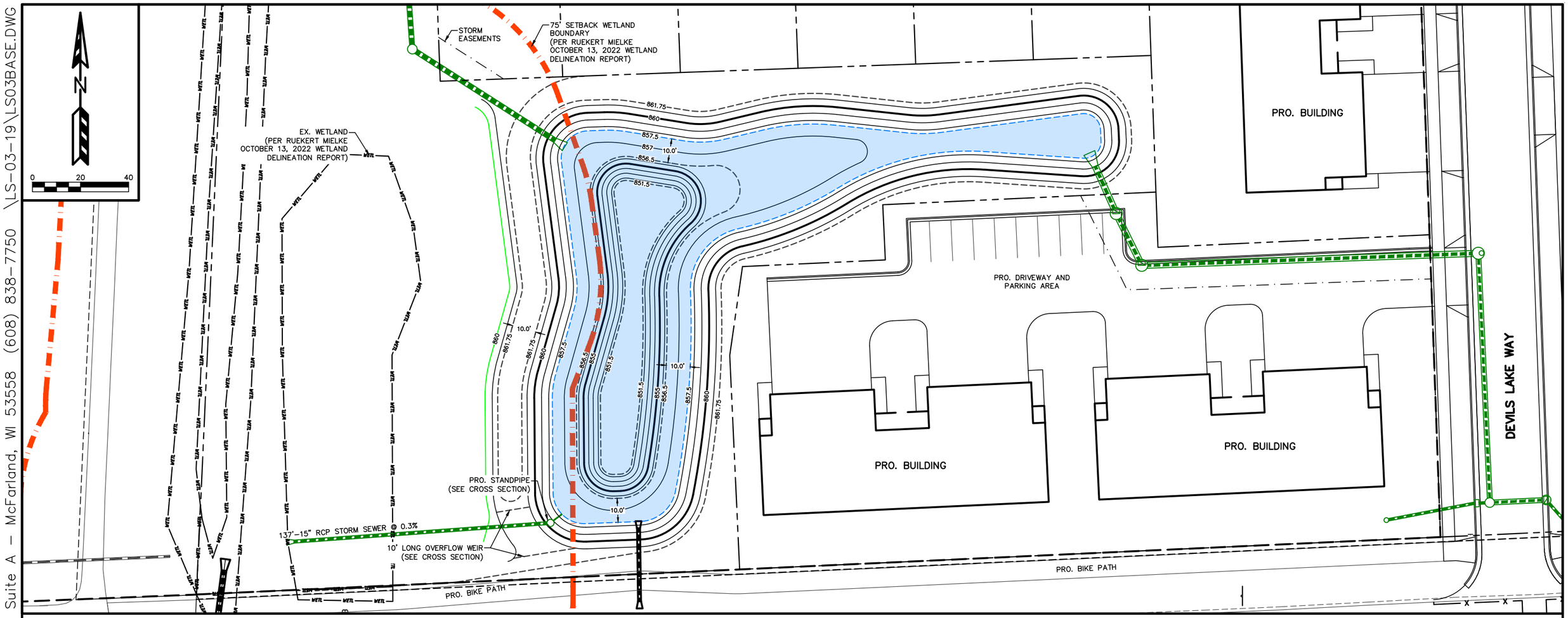
- 964 — EXISTING MINOR CONTOUR
- 965 — EXISTING MAJOR CONTOUR
- 964 — PROPOSED MINOR CONTOUR
- 965 — PROPOSED MAJOR CONTOUR
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- EASEMENT LINE
- 75 FT SHORELINE SETBACK
- EXISTING FENCE
- WAT — EXISTING BURIED WATER MAIN/SERVICE
- SAN — EXISTING BURIED SANITARY SEWER/LATERAL
- GAS — EXISTING BURIED GAS LINE
- BuCom — EXISTING BURIED COMMUNICATION LINE
- BuFO — EXISTING BURIED FIBER OPTIC LINE
- BuTel — EXISTING BURIED TELEPHONE LINE
- BuEl — EXISTING BURIED ELECTRIC LINE
- OhUtl — EXISTING OVERHEAD UTILITY LINE
- OhEl — EXISTING OVERHEAD ELECTRIC LINE
- PROPOSED SILT FENCE/SOCK (SEE DETAIL)
- PROPOSED LIMITS OF DISTURBANCE
- MLO — MINIMUM LOWEST OPENING
- FLEXSTORM INLET PROTECTION (SEE DETAIL)

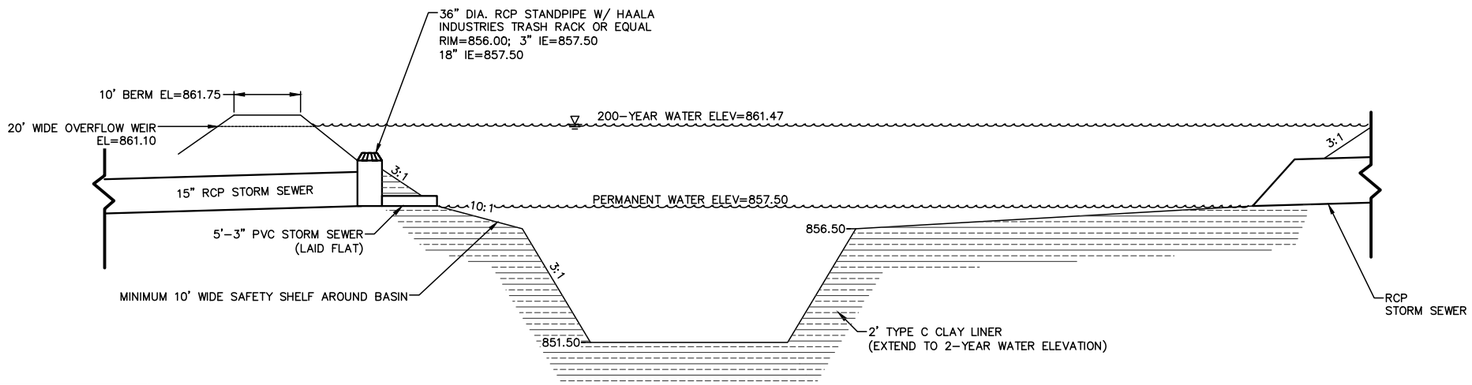
SPERLE CORNERS – VILLAGE OF MCFARLAND
OVERALL GRADING & STORM WATER MANAGEMENT PLAN
SHEET: C-3
DATED: AUGUST 28, 2025

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WEST WET POND PEAK ELEVATIONS	
STORM	ELEV
1-YR	859.42
2-YR	859.73
10-YR	860.21
100-YR	861.25
200-YR	861.47

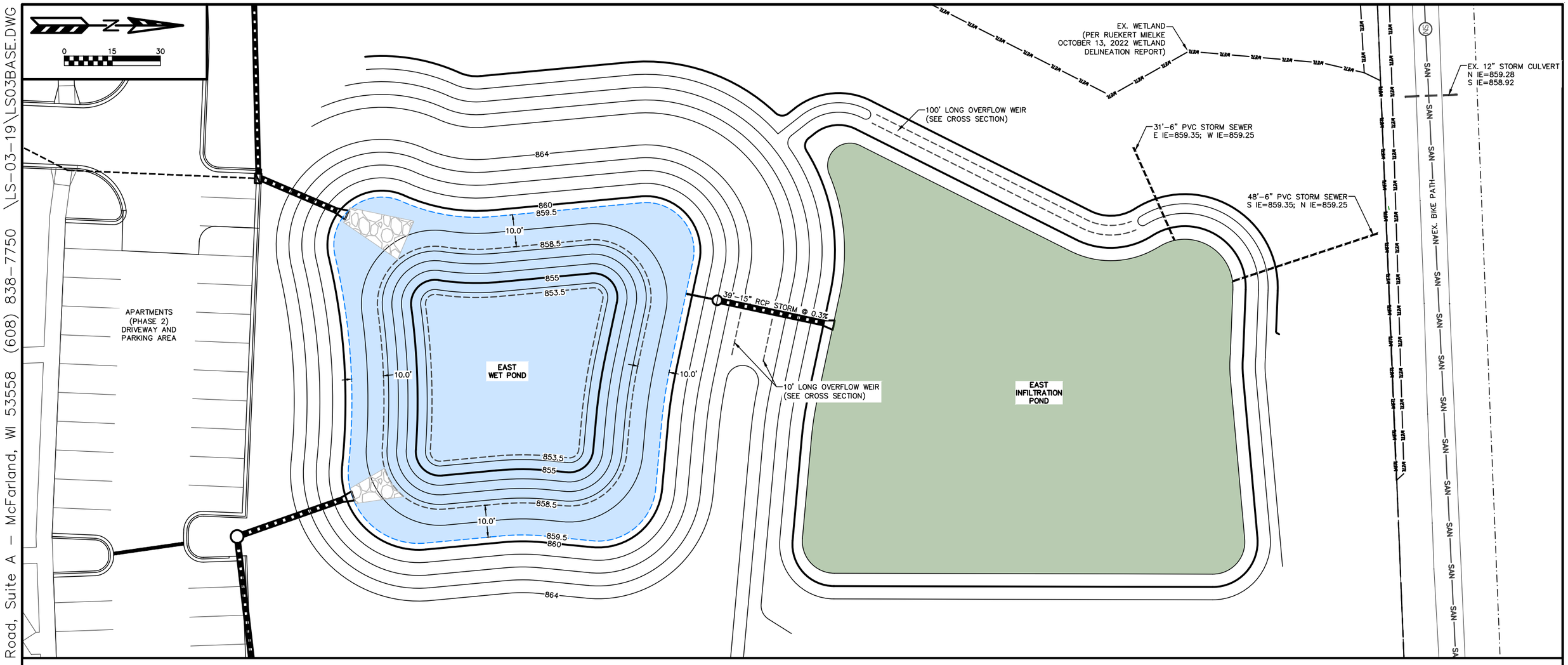
CONTRACTOR SHALL NOTIFY ENGINEER WHEN POND IS GRADED TO FINISH ELEVATIONS FOR AS-BUILT TOPOGRAPHIC COLLECTION. IF PUMPING IS REQUIRED TO ALLOW THE BOTTOM TO BE COLLECTED, CONTRACTOR SHALL ARRANGE FOR PUMPING.

WEST WET DETENTION POND CROSS SECTION

SPERLE CORNERS – VILLAGE OF MCFARLAND
WEST POND PLAN
SHEET: C-4
DATED: AUGUST 28, 2025

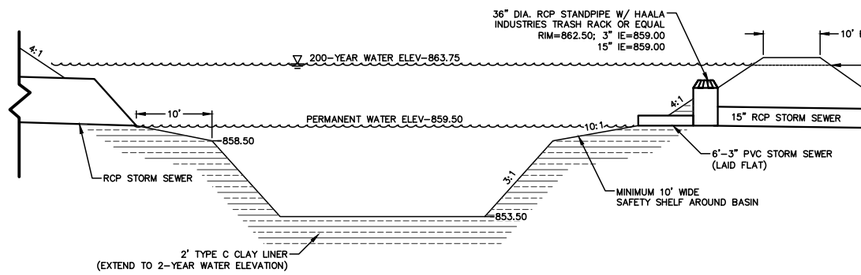
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EAST WET POND PEAK ELEVATIONS	
STORM	ELEV
1–YR	861.48
2–YR	861.80
10–YR	862.61
100–YR	863.42
200–YR	863.75

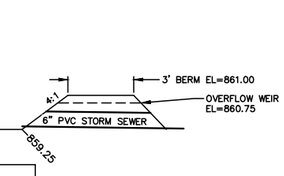
WET DETENTION POND CONSTRUCTION SHALL CONFORM TO WISCONSIN DNR TECHNICAL STANDARD #1001



EAST WET DETENTION POND CROSS SECTION

CONTRACTOR SHALL NOTIFY ENGINEER WHEN POND IS GRADED TO FINISH ELEVATIONS FOR AS-BUILT TOPOGRAPHIC COLLECTION. IF PUMPING IS REQUIRED TO ALLOW THE BOTTOM TO BE COLLECTED, CONTRACTOR SHALL ARRANGE FOR PUMPING.

INFILTRATION BASIN CONSTRUCTION SHALL CONFORM TO WISCONSIN DNR TECHNICAL STANDARD #1003



TO PREVENT COMPACTION OF SUBSOILS, CONTRACTOR SHALL PROTECT AGAINST MACHINERY ENTERING OR COMPACTING THE INFILTRATION AREA.

EAST INFILTRATION BASIN CROSS SECTION

CONTRACTOR SHALL NOTIFY ENGINEER WHEN POND IS GRADED TO FINISH ELEVATIONS FOR AS-BUILT TOPOGRAPHIC COLLECTION. IF PUMPING IS REQUIRED TO ALLOW THE BOTTOM TO BE COLLECTED, CONTRACTOR SHALL ARRANGE FOR PUMPING.

THE SEED MIXTURE FOR THE INFILTRATION BASIN BOTTOM SHALL BE RAINWATER RENEWAL SEED MIX SUPPLIED BY AGRECOL OR EQUIVALENT. MIX 80% SAND, 20% COMPOST WITH THE NATIVE LOAMY FINE SAND SOIL.

EAST INFILTRATION BASIN PEAK ELEVATIONS	
STORM	ELEV
1–YR	859.65
2–YR	859.67
10–YR	859.96
100–YR	860.96
200–YR	861.00

LAKESTONE PROPERTIES – VILLAGE OF MCFARLAND
EAST POND PLAN
SHEET: C–5
DATED: AUGUST 28, 2025

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EX. WETLAND
(PER RUEKERT MIELKE OCTOBER 13, 2022
WETLAND DELINEATION REPORT)

EX. SIDEWALK
EX. SAN SEWER
8" VALVE
EX. HYDRANT
CONNECT TO EX. WATER MAIN
EX. GAS
EX. WATER MAIN
EX. 10" PVC SAN SEWER
SAWCUT
EX. SAN MH
INFALL
24" RCP STORM
INLET #8.1
INLET #8
OUTFALL
12" RCP STORM SEWER
(SEE STORM SEWER – PLAN & PROFILES)
INLET #3.3
INLET #3.1
INLET #3.2
INLET #3
8" PVC SAN SEWER
SAN MH #1
SEE STORM SEWER PLAN & PROFILES
5' SIDEWALK
437'–8" WATER MAIN (D.I.)
8" PVC SAN SEWER
DEVILS LAKE WAY
HYDRANT
STA 5+04.55, 20.5' LT
6"X8" TEE
5.0' OFF BOC
11.5'–6" WATER MAIN
BURY LINE=868.55
BOTTOM=860.55
8" VALVE
SAN MH #2
92'–8" WATER MAIN (D.I.)
8" PVC SAN SEWER
MATCH LINE
(STA 6+00)
PROPOSED 1 ¼" COPPER
WATER SERVICE w/
CURB STOP (TYP)
MARK WITH 4"x4" POST
PROPOSED 4" PVC SANITARY
SEWER LATERAL w/ TRACER BOX (TYP)
MARK WITH 4"x4" POST
N
0 20 40

INLET #8.1 0+95.65, 15.32' LT
NEENAH R–3067 CASTING
W/ TYPE 'R' GRATE
2'X3' BOX
TC=862.35; N IE=858.35
S IE=858.25

INLET #8 0+95.18, 13.5' RT
NEENAH R–3067 CASTING
W/ TYPE 'R' GRATE
2'x3' CONC. BOX
TC=862.28;
N IE=858.16
S IE=858.10

INFALL=858.85
OUTFALL=858.00
25'–24" RCP STORM SEWER @ 2.00%
29'–24" RCP STORM SEWER @ 0.30%
32'–24" RCP STORM SEWER @ 0.30%
INLET #8 – INLET #8.1

VPI STA. = 1+15.08
VPI EL. = 862.06
g1 = –0.60%
g2 = 4.80%
CURVE LEN = 50.00
K = 9.26
VPC STA = 0+90.08
VPC EL = 862.21
VPT STA = 1+40.08
VPT EL = 863.26
GRADE BREAK STA = 0+00.00
ELEV = 862.75
–0.60%
4.80%
EX. SAN MH 0+81.64, 2.05' LT
RIM=862.23
N IE=849.45
E IE=851.07 (8" CORE & BOOT)
EX. W IE=849.35 (PER VILLAGE AS–BUILTS)
12" STORM SEWER
CROSSING; IE=860.96
24" STORM SEWER
IE=858.20
EX. CENTERLINE
PROFILE
PROPOSED
CENTERLINE
PROFILE
7.0' MINIMUM COVER
D=12.35'
EX. WATER MAIN
104'–8" SANITARY SEWER @ 1.9%
8" CORE AND BOOT
SAN MH #1, 1+85.01, 1.00' RT
NEENAH R–1550–A CASTING
48" PRECAST CONC. MH
RIM=865.40
E IE=853.10
W IE=853.05

VPI STA. = 2+34.87
VPI EL. = 867.81
g1 = 4.80%
g2 = 0.60%
CURVE LEN = 65.00
K = 15.48
VPC STA = 2+02.37
VPC EL = 866.25
VPT STA = 2+67.37
VPT EL = 868.00

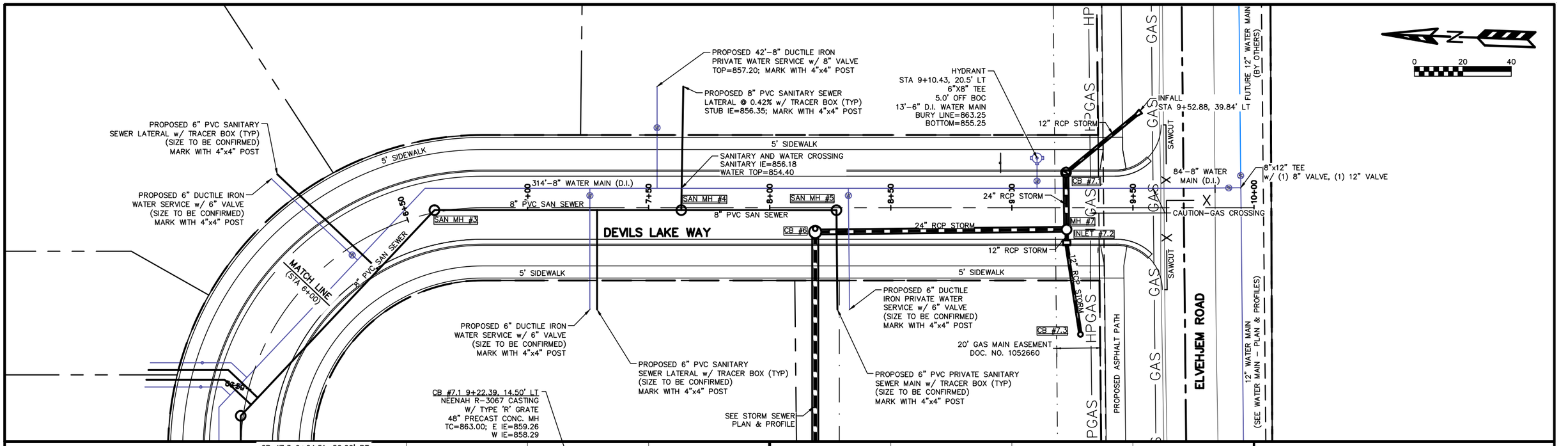
VPI STA. = 4+00.00
VPI EL. = 868.80
g1 = 0.60%
g2 = –0.60%
CURVE LEN = 25.00
K = 20.83
VPC STA = 3+87.50
VPC EL = 868.72
VPT STA = 4+12.50
VPT EL = 868.72
0.60%
–0.60%
8" WATER MAIN (D.I.)
PIPE LAID FLAT
TOP ELEVATION=861.10
354'–8" SANITARY SEWER @ 0.42%
8" SANITARY SEWER
SAN MH #2, 5+38.58, 1.00' LT
NEENAH R–1550–A CASTING
48" PRECAST CONC. MH
RIM=867.95
SE IE=854.64
W IE=854.59
PRO. HYDRANT
D=13.36'
7.0' MINIMUM COVER

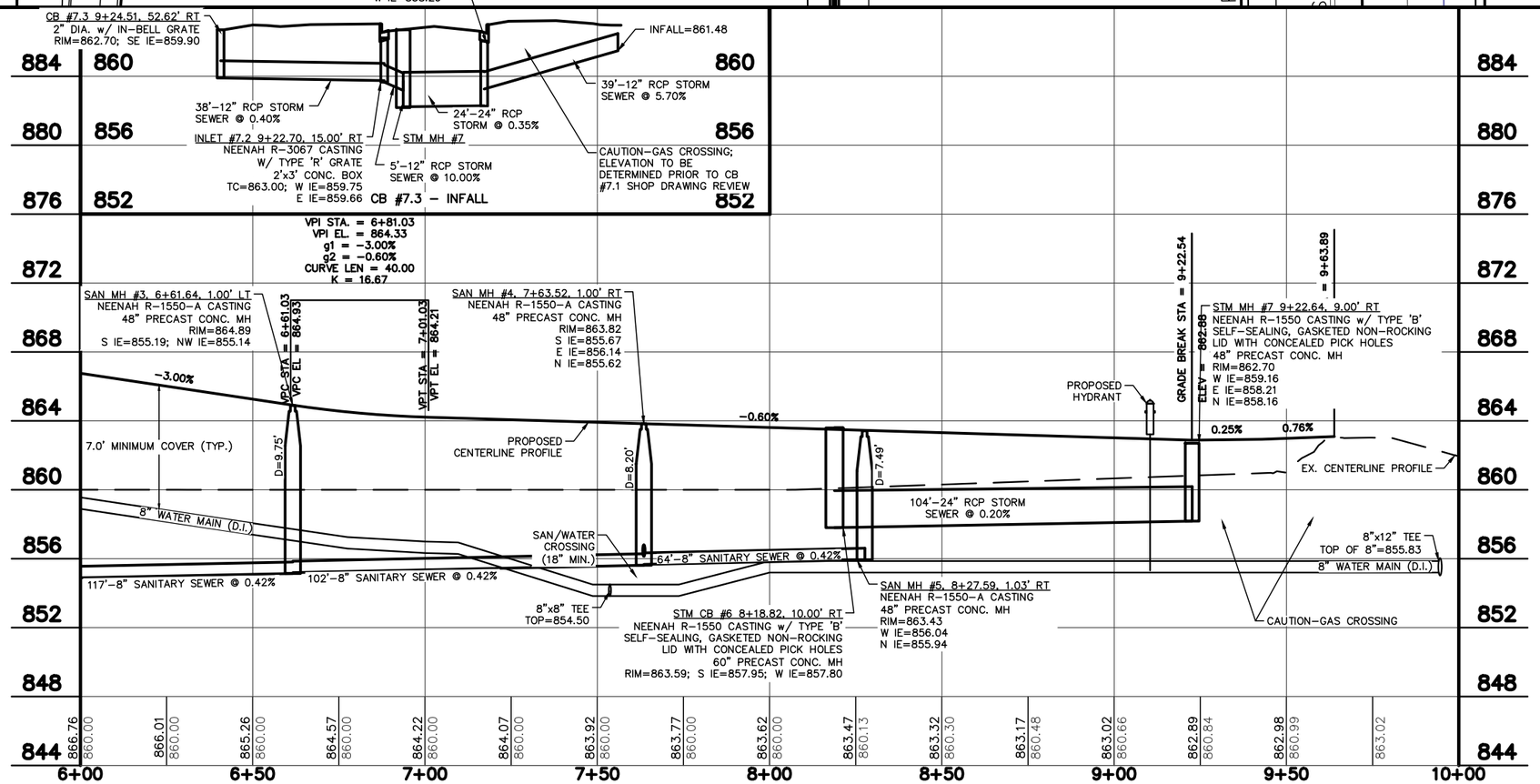
VPI STA. = 5+65.00
VPI EL. = 867.81
g1 = –0.60%
g2 = –3.00%
CURVE LEN = 55.00
K = 22.92
VPC STA = 5+37.50
VPC EL = 867.97
VPT STA = 5+92.50
VPT EL = 866.98

0+00	0+50	1+00	1+50	2+00	2+50	3+00	3+50	4+00	4+50	5+00	5+50	6+00
862.75	862.60	862.45	862.30	862.20	862.66	863.74	864.94	866.14	867.17	867.80	868.05	868.20
862.98	862.53	862.36	862.29	858.04	859.70	861.00	861.00	861.00	860.96	860.77	860.54	860.30

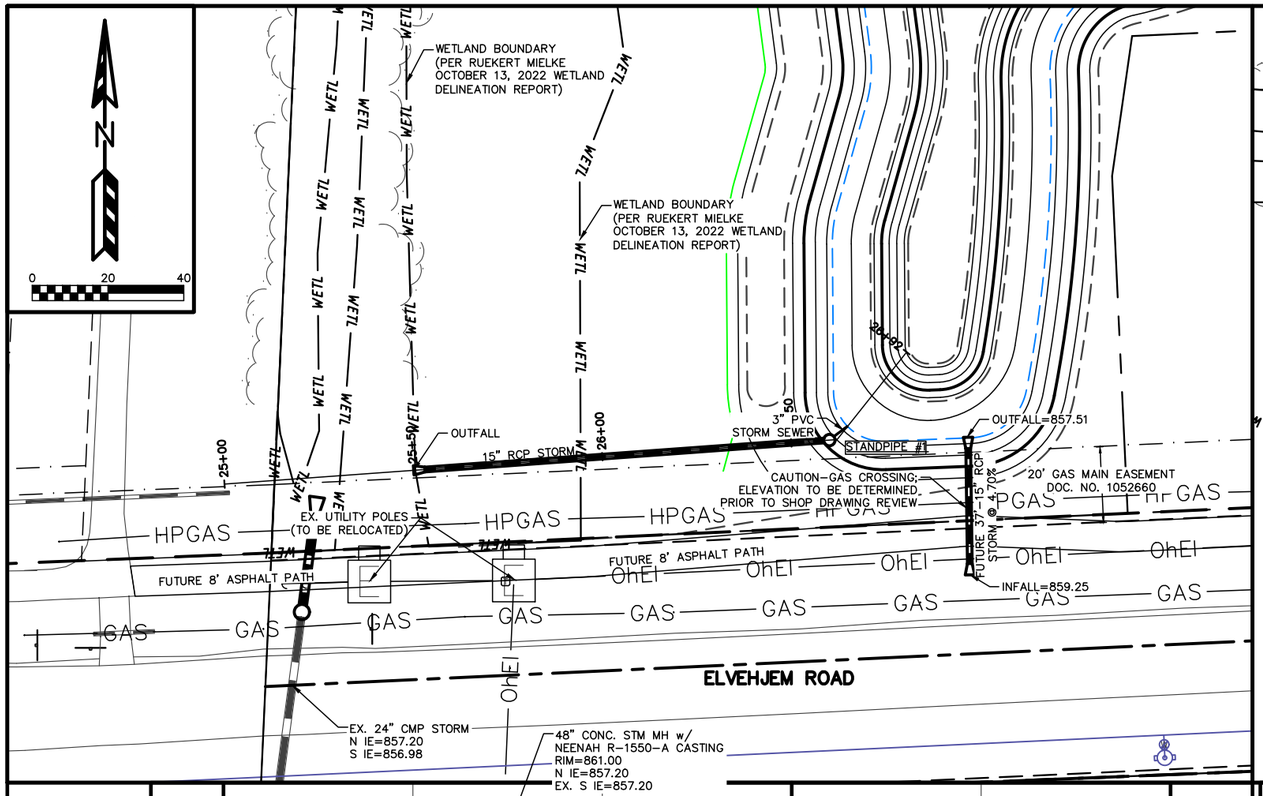
868.35	868.50	868.65	868.76	868.65	868.50	868.35	868.20	868.05	867.87	867.44	866.76
860.06	860.00	860.00	860.00	860.00	860.00	860.00	860.00	860.00	860.00	860.00	860.00

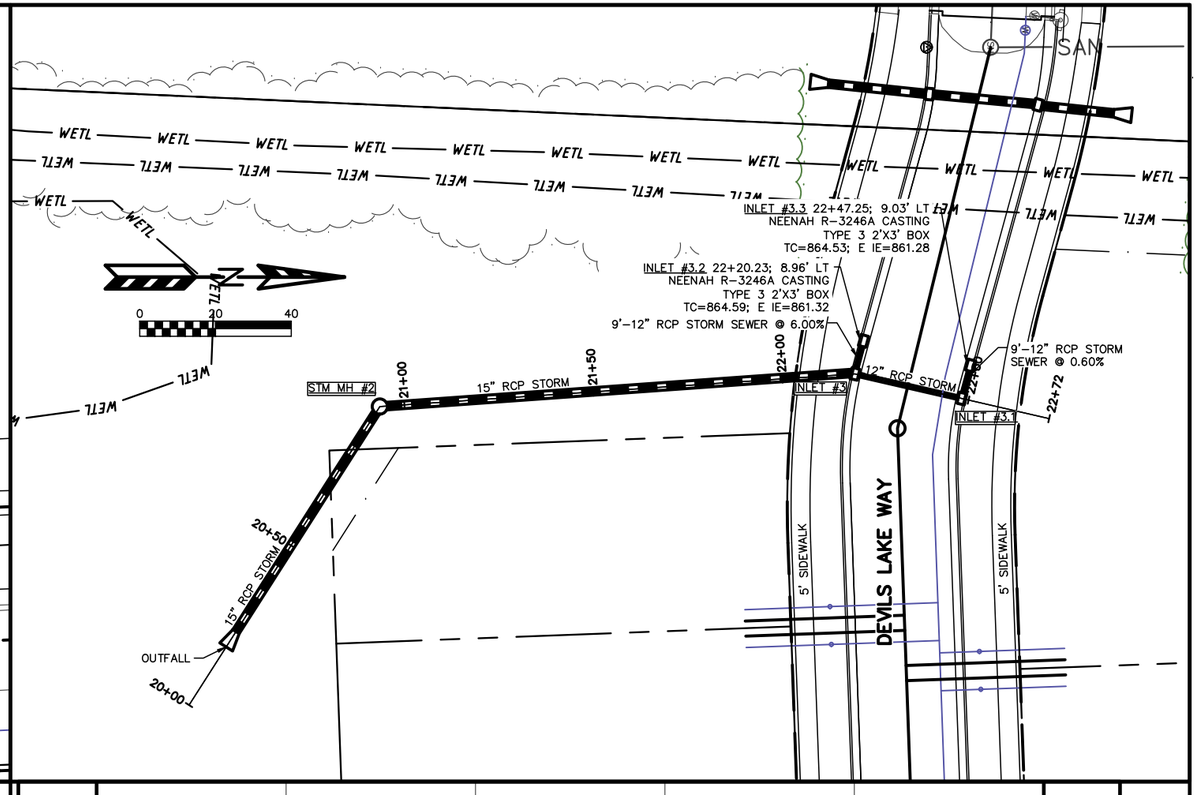
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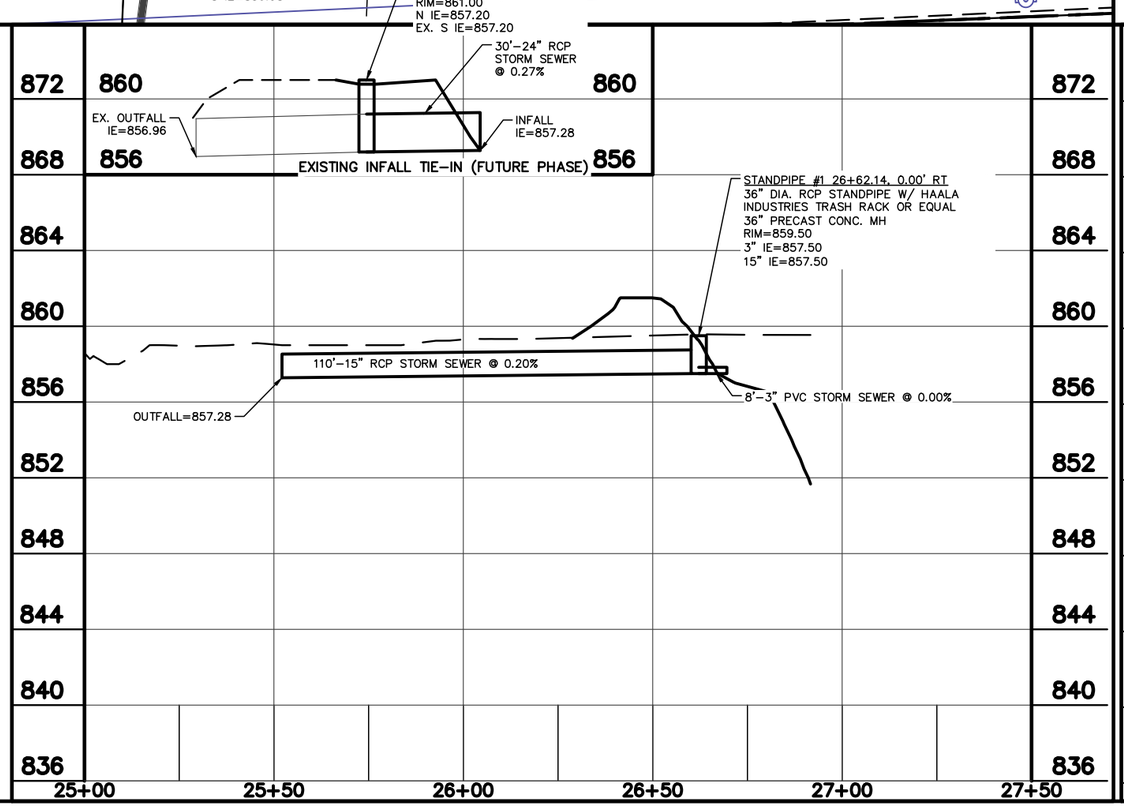


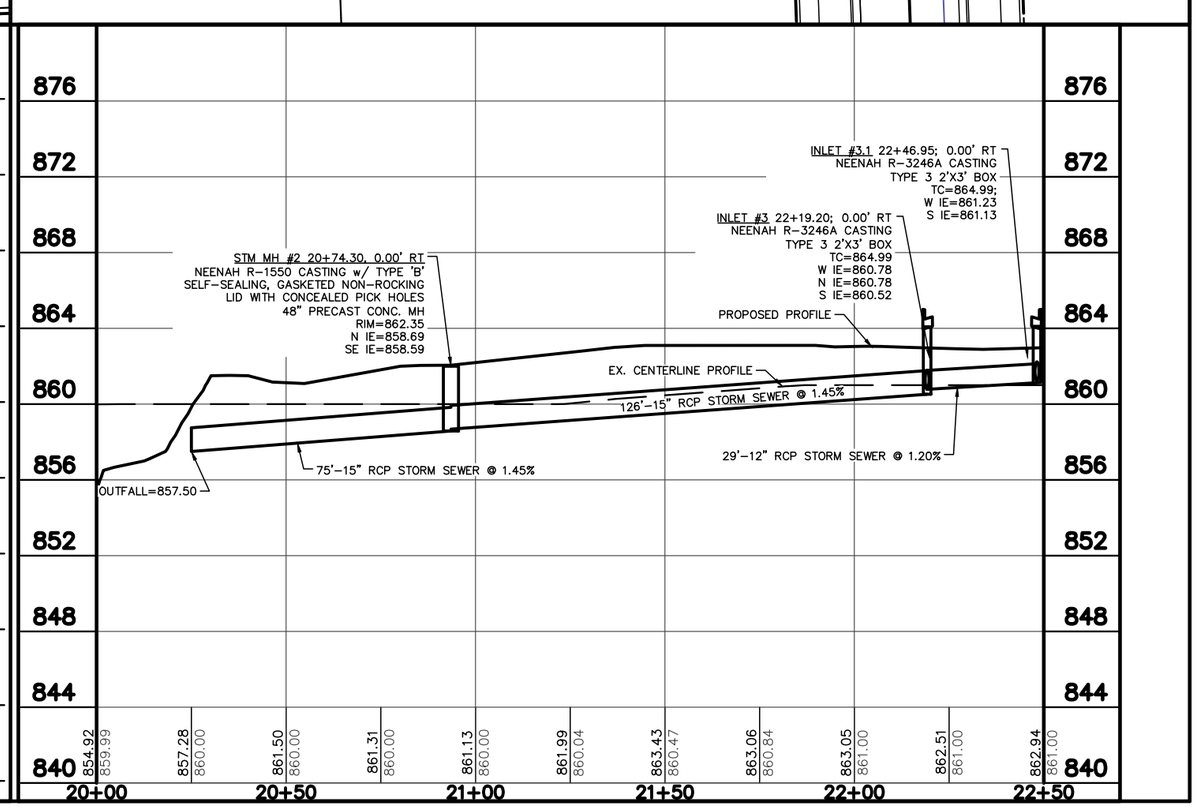


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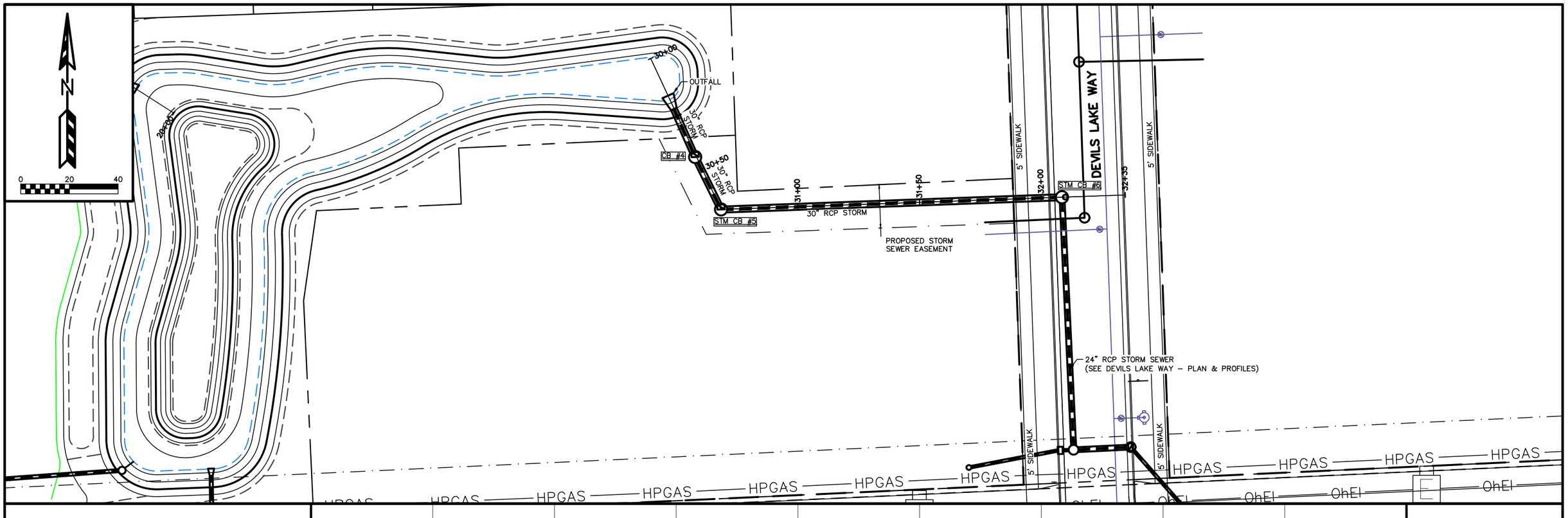


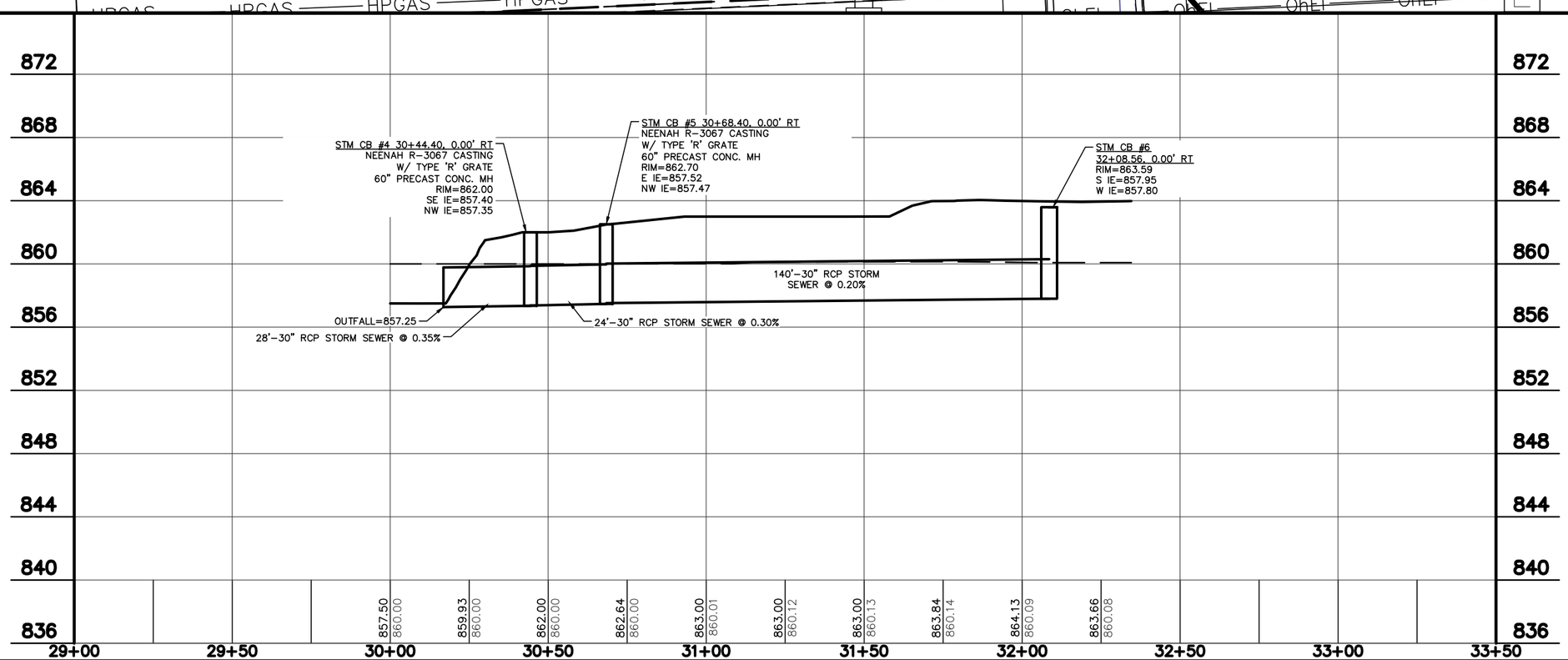




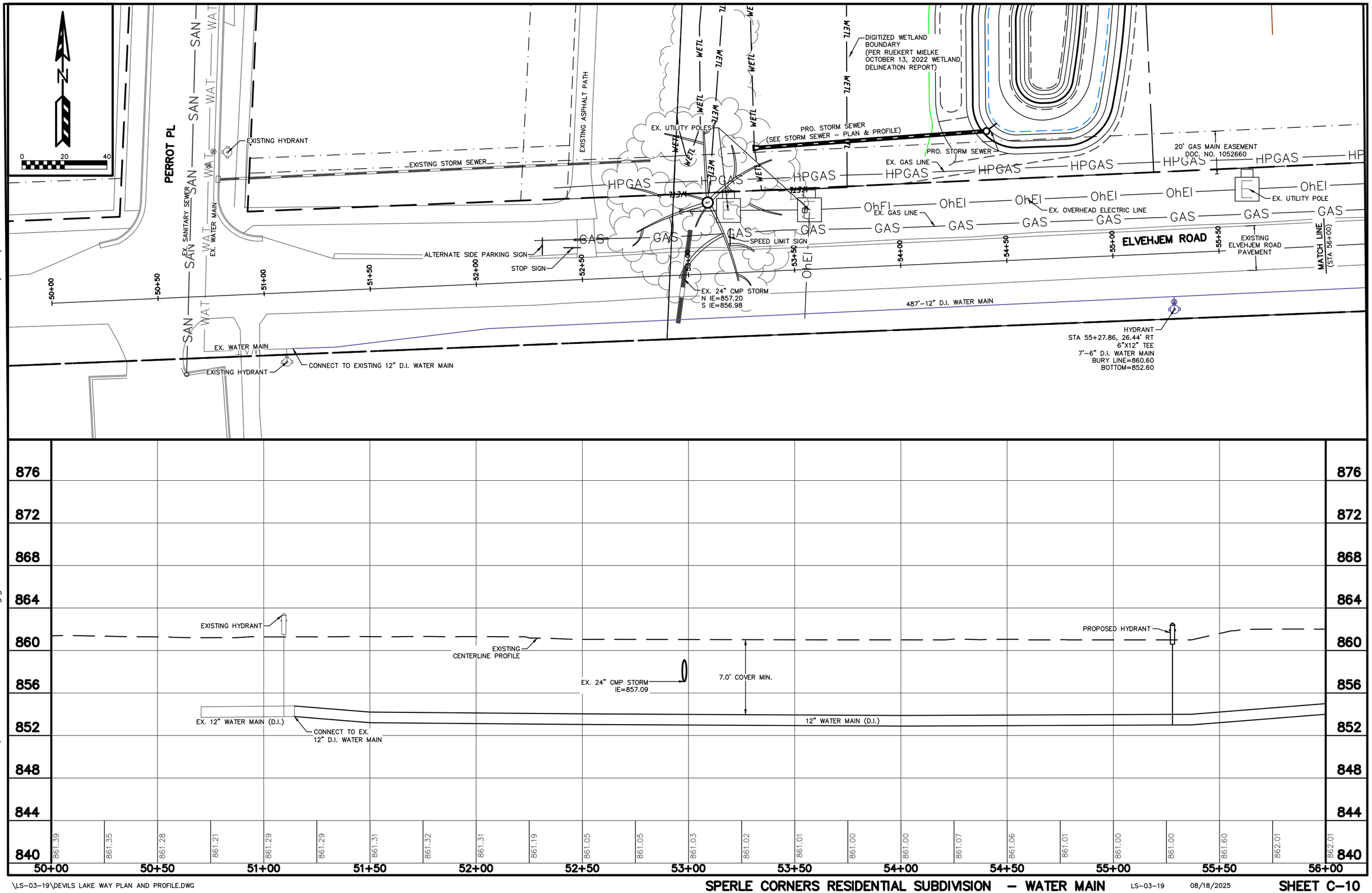


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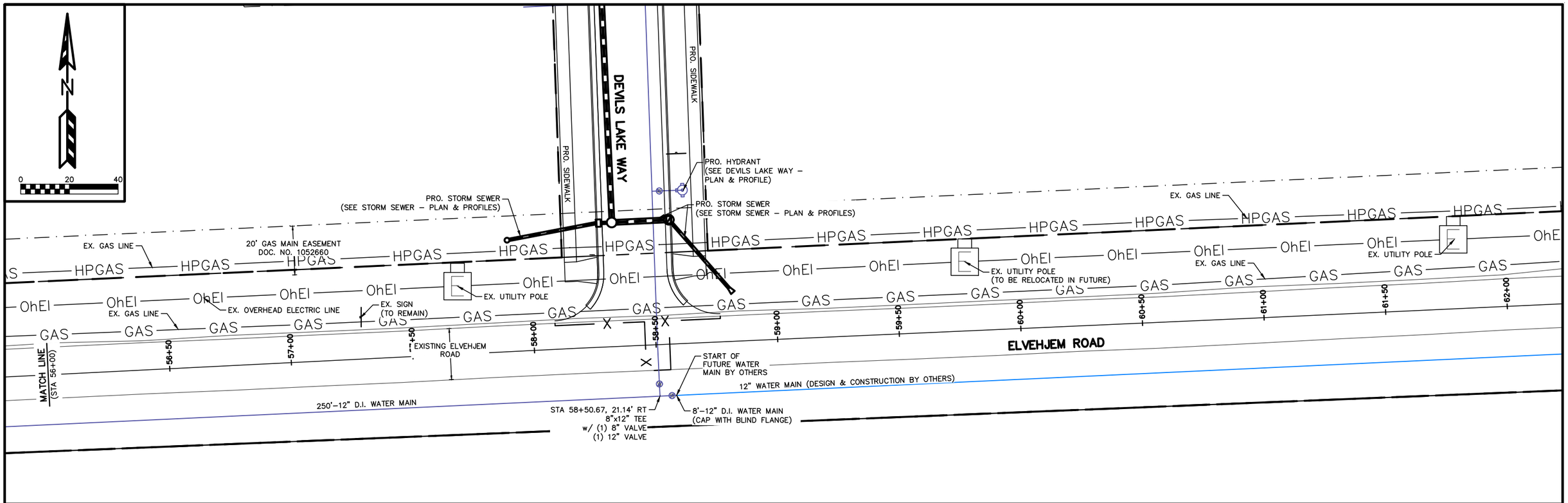


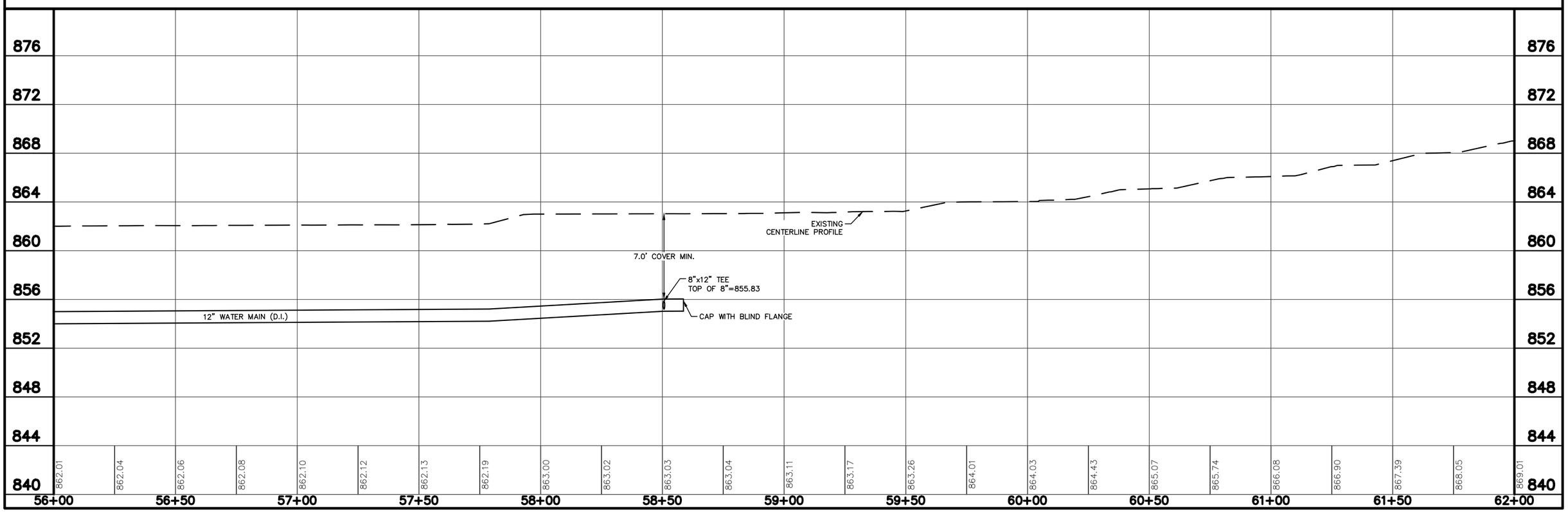


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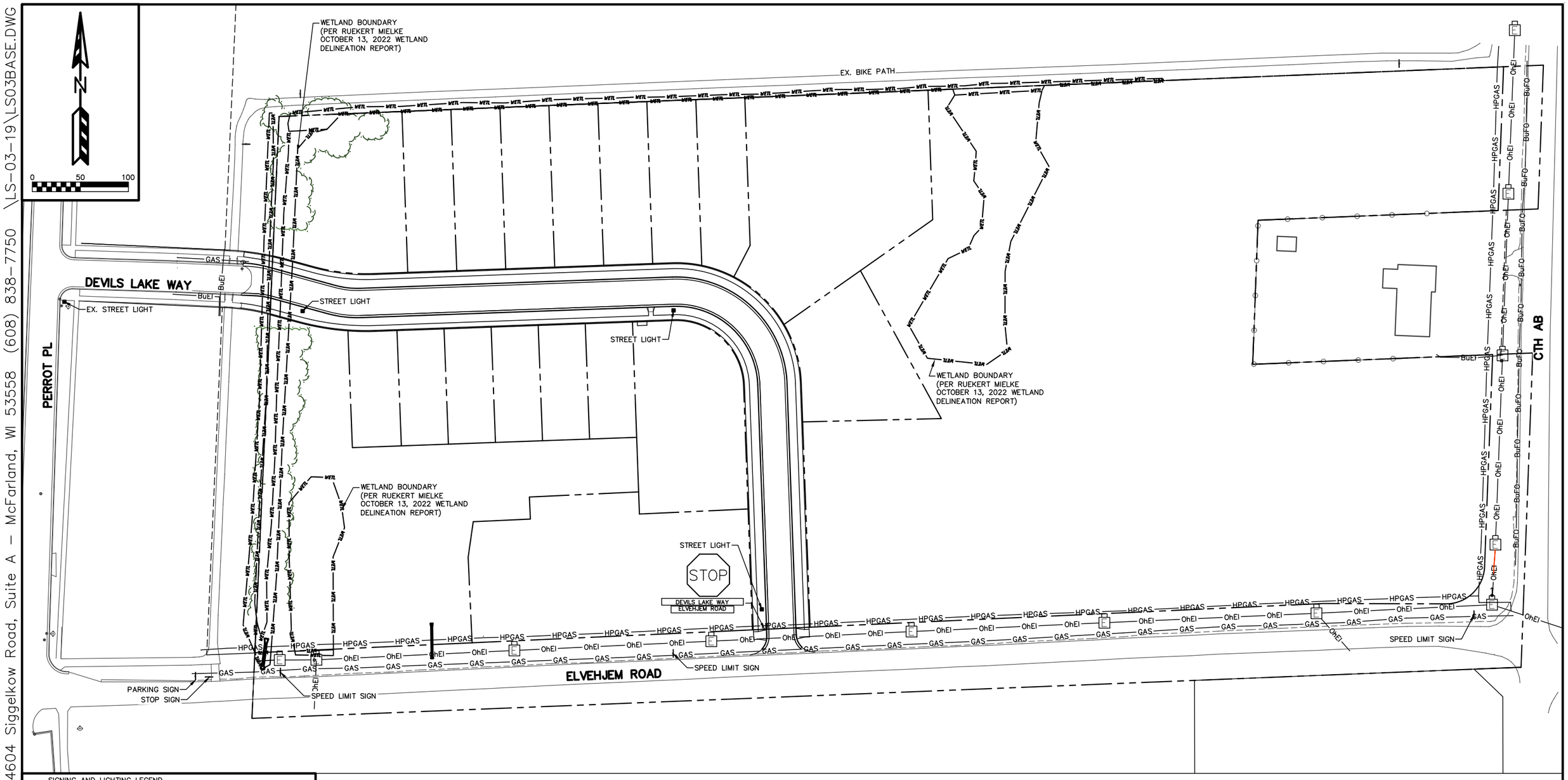


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SIGNING AND LIGHTING LEGEND

STOP	STOP SIGN – SIGN DESIGNATION R1-1
	STREET SIGNS
DEVILS LAKE WAY	STREET NAME SIGNS
	STREET LIGHT (DESIGN BY OTHERS)

SIGNAGE NOTES:

ALL SIGNS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

SIGNS SHALL BE A DISTANCE OF 7' FROM GROUND LEVEL TO THE BOTTOM OF THE SIGN MOUNTED ON THE POST AND LOCATED 3' BEHIND THE BACK OF CURB.

STREET NAME SIGNS SHALL HAVE WHITE LETTERS AND GREEN BACKGROUND.

STREET NAME SIGNS SHALL BE PLACED ABOVE STOP SIGNS AT INTERSECTIONS THAT REQUIRE STOP SIGNS.

SIGN POSTS SHALL BE 2-3/8" O.D. GALVANIZED 10 FT LONG, 13 GAUGE, AND 0.095 WALL THICKNESS. MOUNT SIGN AT TOP OF THE POST, AND INSTALL POSTS 3' DEEP AND MIX 1/2 BAG OF 80 LB SAKRETE CONCRETE POURING IS AROUND THE POST BELOW THE GROUND BEFORE COVERING WITH 8".

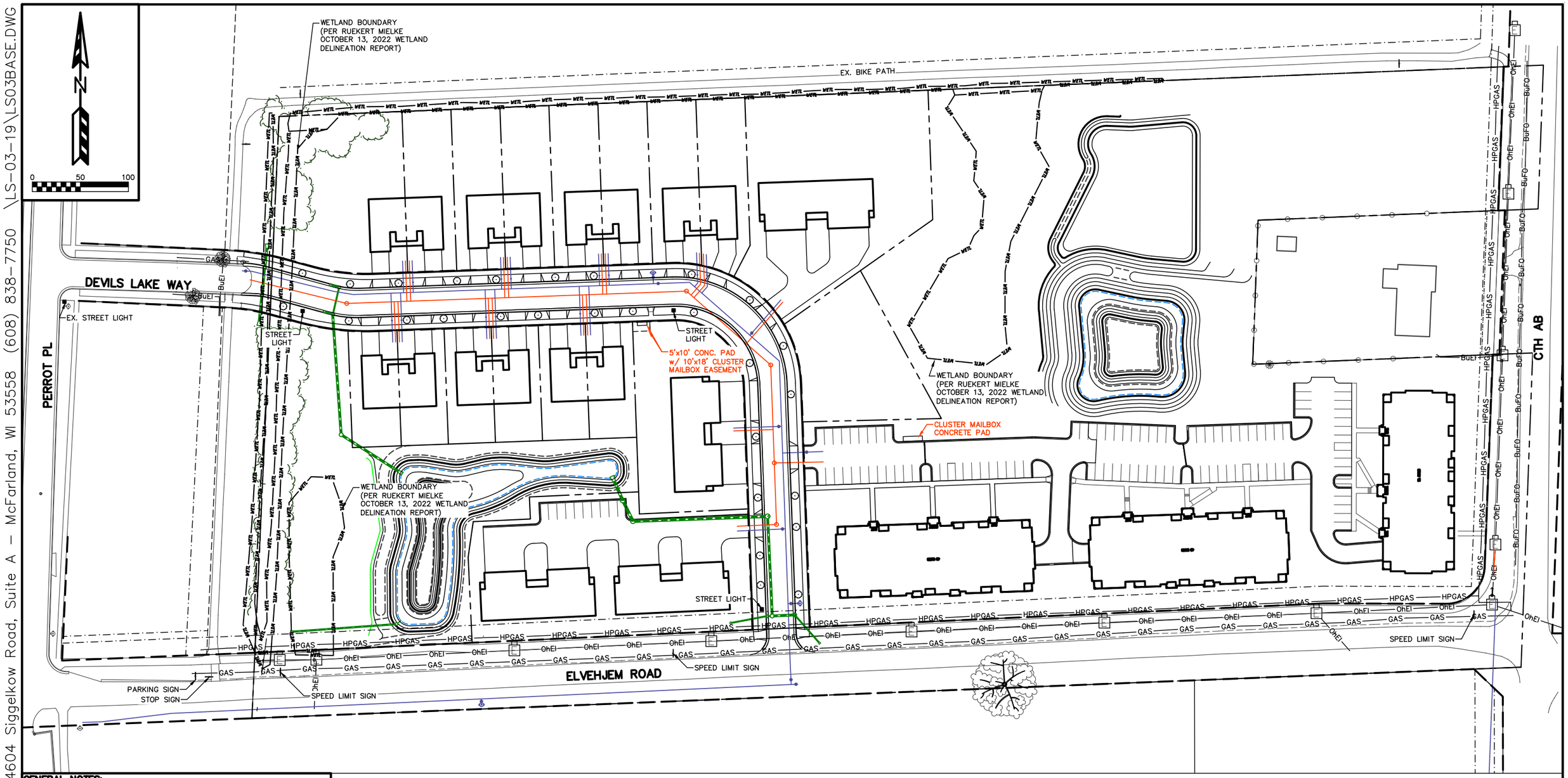
SPERLE CORNERS – VILLAGE OF MCFARLAND

SIGN AND LIGHTING PLAN

SHEET: C-12

DATED: AUGUST 28, 2025

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GENERAL NOTES:

ALL PLANTINGS SHALL CONFORM TO QUALITY REQUIREMENTS AS PER ANSI Z60.1.

ALL PLANT MATERIAL SHALL BE TRUE TO THE SPECIES, VARIETY AND SIZE SPECIFIED, NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURE PRACTICES, AND UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE OF THE PROJECT SITE.

CONTACT LANDSCAPE ARCHITECT, IN WRITING, TO REQUEST AND PLANT MATERIAL SUBSTITUTIONS DUE TO AVAILABILITY ISSUES.

ALL DISTURBED AREAS, UNLESS OTHERWISE NOTED, TO BE SEEDED WITH WISDOT SEED MIX #40 OR EQUIVALENT, PER MANUFACTUE'S SPECIFIED APPLICATION RATES. ALL SEEDED AREAS ARE TO BE WATERED DAILY TO MAINTAIN ADEQUATE SOIL MOISTURE FOR PROPER GERMINATION. AFTER VIGOROUS GROWTH IS ESTABLISHED, APPLY 1/2" WATER TWICE WEEKLY UNTIL FINAL ACCEPTANCE.

ALL PLANTS SHALL BE GUARANTEED TO BE IN HEALTHY AND FLOURISHING CONDITION DURING THE GROWING SEASON FOLLOWING INSTALLATION. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR TWO YEARS FROM THE TIME OF INSTALLATION.

TREES SHALL BE A MINIMUM 2" CALIPER.

NOTES:

MINIMUM DISTANCE FROM A STREETLIGHT TO A TREE IS 20'.

MINIMUM DISTANCE FROM THE FRONT OF A STREET SIGN IS 25' AND 10' FROM THE BACK OF THE SIGN.

MINIMUM DISTANCE FROM ANY SANITARY SEWER, WATER MAIN, AND STORM SEWER STRUCTURE OR PIPE IS 10'.

NO TREE SHALL BE PLANTED WITHIN THE VISION TRIANGLE.

SPERLE CORNERS – VILLAGE OF MCFARLAND

STREET TREE PLAN

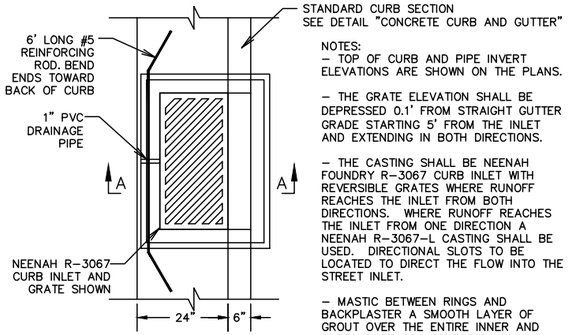
SHEET: C–13

DATED: AUGUST 28, 2025

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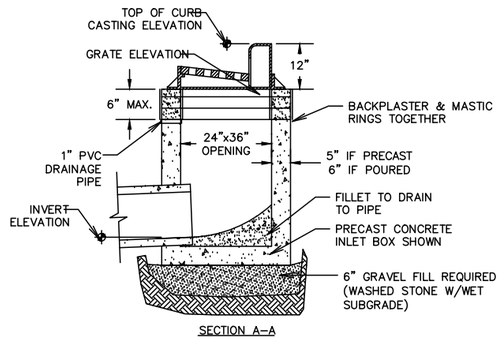


NOTES:
– TOP OF CURB AND PIPE INVERT ELEVATIONS ARE SHOWN ON THE PLANS.

– 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.



1/2 RECTANGULAR STREET INLET

NOT TO SCALE

STORM MANHOLE DIMENSIONS

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

NOTES:

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

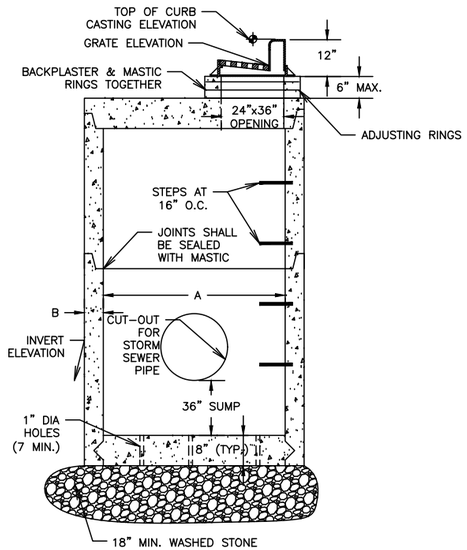
MANHOLE STEPS SHALL CONFORM TO ASTM–C478 & SHALL BE NEENAH FOUNDRY R–1981–N OR APPROVED EQUAL. STEPS SHALL BE SPACED 16" ON CENTER.

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.

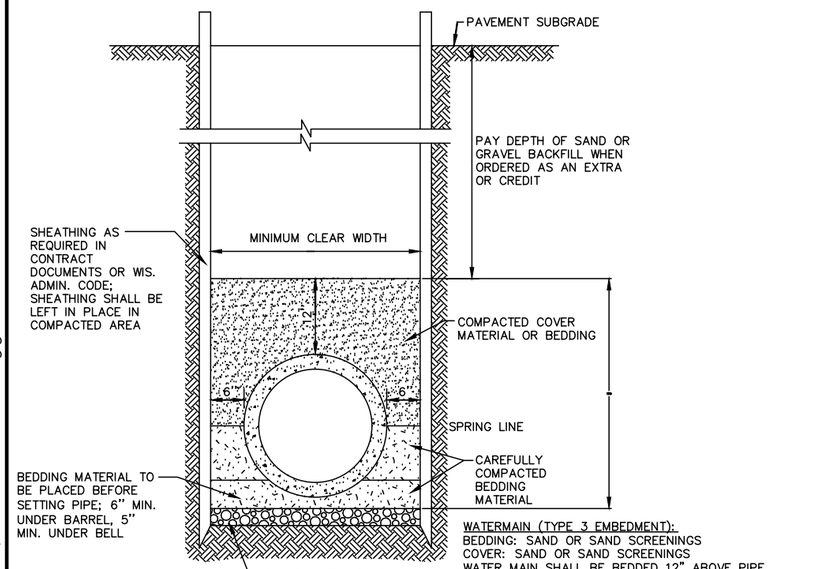
MANHOLE–TYPE CURB CATCH BASIN CASTING SHALL BE NEENAH FOUNDRY R–3067 WITH REVERSIBLE GRATES WHERE RUNOFF REACHES THE INLET FROM BOTH DIRECTIONS. WHERE RUNOFF REACHES THE INLET FROM ONE DIRECTION A NEENAH R–3067–L CASTING SHALL BE USED. DIRECTIONAL SLOTS TO BE LOCATED TO DIRECT THE FLOW INTO THE STREET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

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



1/2 STORM SEWER MANHOLE

NOT TO SCALE



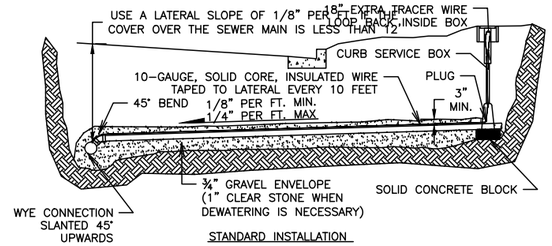
WATERMAIN (TYPE 3 EMBEDMENT):
BEDDING: SAND OR SAND SCREENINGS
COVER: SAND OR SAND SCREENINGS
WATER MAIN SHALL BE BEDDED 12" ABOVE PIPE

SANITARY SEWER (CLASS 'C' BEDDING):
BEDDING: CLASS 1: ⅜" TO 1½" CLEAR STONE
COVER: ⅜" TO 1½" CLEAR STONE
SHALL BE BE BEDDED 6"–12" ABOVE PIPE

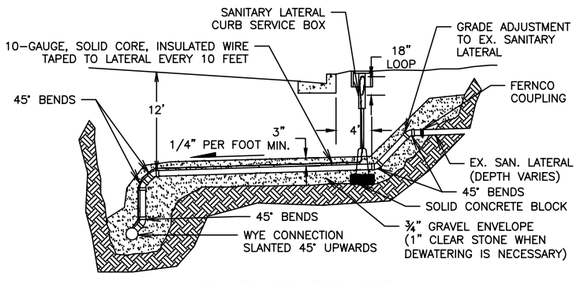
STORM SEWER (CLASS 'B' BEDDING):
BEDDING: CLASS 1: ⅜" TO 1½" CLEAR STONE
COVER: NATIVE OR GRANULAR BACKFILL AS REQ'D
RCP STORM SEWER SHALL BE BEDDED TO SPRING LINE.
HDPE STORM SEWER SHALL BE BEDDED TO TOP OF PIPE

1/2 STANDARD TRENCH SECTION

NOT TO SCALE



NOTES:
1. CONSTRUCT LATERALS IN CONFORMANCE WITH CHAPTER SPS 382 OF THE WISCONSIN ADMINISTRATIVE CODE.
2. LATERAL SLOPE SHALL BE ¼" PER FOOT WHERE SUFFICIENT COVER EXISTS.
3. CONTRACTOR SHALL VERIFY SIZE, DEPTH, AND LOCATION OF EXISTING LATERALS.
4. WHERE LATERALS ARE NOT IMMEDIATELY CONNECTED TO BUILDING SEWERS THE ENDS OF THE LATERALS SHALL BE MARKED BY POSITIONING 4"x4" BOARDS VERTICALLY FROM THE ENDS OF THE LATERALS TO AT LEAST 2' ABOVE THE GROUND SURFACE.
5. THE LOCATION OF ALL SEWER LATERALS CROSSING UNDER THE CURB & GUTTER SHALL BE MARKED BY STAMPING AN "S" IN THE TOP OF THE CURB OVER THE LOCATION OF THE SEWER LATERAL.



1/2 LATERAL WITH TRACER WIRE

NOT TO SCALE

CASTING SHALL BE ¾" BELOW FINISHED PAVEMENT OR AS ESTABLISHED BY THE ENGINEER

NOTES:
MANHOLE CASTING SHALL BE HEAVY DUTY, NEENAH FOUNDRY CO. CATALOG LISTING NO. R–1710, WITH TYPE "B" NON–ROCKING LID, GASKET SEAL AND CONCEALED PICKHOLES

ADJUST FRAME TO GRADE WITH AT LEAST TWO RINGS OF DIFFERENT THICKNESSES. RINGS SHALL BE REINFORCED WITH ONE NO. 3 STEEL BAR CENTERED WITHIN EACH RING.

MANHOLE CASTINGS AND STEPS SHALL BE LOCATED OVER THE EFFLUENT PIPE FOR PIPES BETWEEN 8" AND 18" IN DIAMETER. CASTINGS AND STEPS SHALL BE LOCATED OVER THE BENCH FOR PIPES GREATER THAN 18" IN DIAMETER.

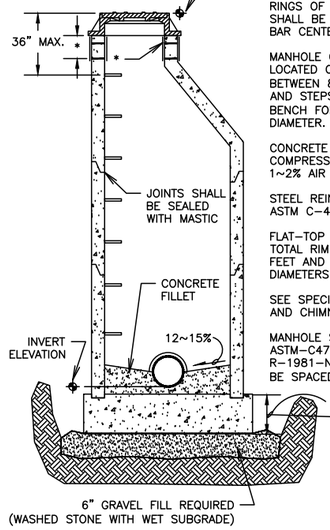
CONCRETE SHALL BE 4000 PSI, 28 DAY COMPRESSIVE STRENGTH, 6.5 BAG MIX WITH 1~2% AIR ENTRAINMENT.

STEEL REINFORCEMENT SHALL CONFORM TO ASTM C–478 STANDARDS.

FLAT–TOP COVERS SHALL BE USED WHERE THE TOTAL RIM TO INVERT DEPTH IS LESS THAN 6 FEET AND MAY BE USED FOR MANHOLE DIAMETERS GREATER THAN 5 FEET.

SEE SPECIFICATION NARRATIVE FOR PIPE SEAL AND CHIMNEY SEAL REQUIREMENTS.

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



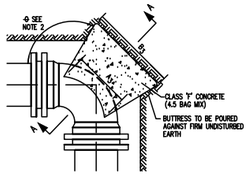
* A MINIMUM OF 3" TO A MAXIMUM O
ADJUSTING RINGS SHALL BE USED TO
MANHOLE CASTING TO THE FINISHED G
RINGS SHALL BE SEALED TOGETHER U
AND ALL JOINTS SHALL BE BACK PLA
AND OUT WITH CEMENT MORTAR.

1/2 SANITARY SEWER MANHOLE

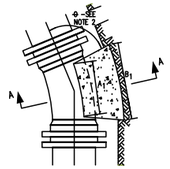
NOT TO SCALE

SPERLE CORNERS – VILLAGE OF MCFARLAND
DETAILS
SHEET: C–14
DATED: AUGUST 28, 2025

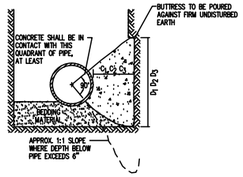
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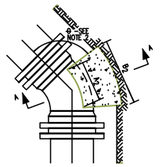
PLAN – 90° BEND



PLAN – 22 ½ BEND



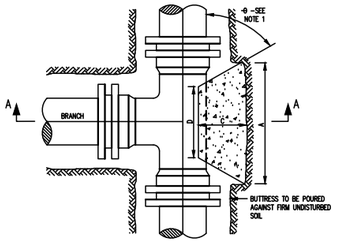
SECTION A–A



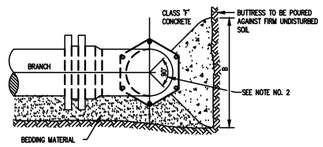
PLAN – 45° BEND

BUTTRESS DIMENSIONS						
PIPE SIZE	22½° BENDS		45° BENDS		90° BENDS	
	B_1	D_1	B_2	D_2	B_3	D_3
6"	1'–0"	1'–0"	1'–0"	1'–0"	1'–4"	1'–2"
8"	1'–0"	1'–0"	1'–4"	1'–2"	1'–10"	1'–8"
12"	1'–4"	1'–4"	1'–10"	1'–10"	2'–8"	2'–3"
16"	1'–10"	1'–8"	2'–6"	2'–4"	3'–10"	2'–10"
20"	2'–4"	2'–0"	3'–3"	2'–10"	5'–0"	3'–4"
24"	2'–10"	2'–4"	4'–0"	3'–3"	6'–4"	3'–10"
30"	3'–6"	3'–0"	5'–4"	3'–10"	8'–0"	4'–8"

NOTES
1. DIMENSIONS IN TABLE ARE BASED ON A WATER PRESSURE OF 150 psi AND ON EARTH RESISTANCE OF 2 TONS PER SQUARE FOOT.
2. DIMENSION C1 C2 C3 SHOULD BE LARGE ENOUGH TO MAKE ANGLE ø EQUAL TO OR LARGER THAN 45°
3. DIMENSION A1 A2 A3 SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERRING WITH M.J. BOLTS.
4. SHAPE OF BACK OF BUTTRESS MAY VARY AS LONG AS POUR IS AGAINST FIRM UNDISTURBED EARTH.
5. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.



PLAN

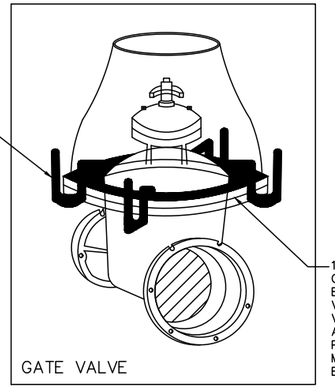


SECTION A–A

BUTTRESS DIMENSIONS				
B.D.	A	B	C	D
6"	1'–3"	1'–0"	SEE NOTE NO. 1	SEE NOTE NO. 3
8"	1'–6"	1'–4"		
12"	2'–3"	2'–0"		
16"	3'–2"	2'–6"		
20"	4'–0"	3'–0"		
24"	5'–3"	3'–4"		
30"	6'–3"	4'–3"		

B.D. = BRANCH DIAMETER

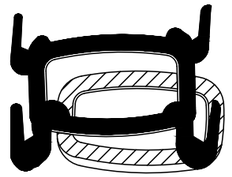
NOTES
1. DIMENSION 'C' SHOULD BE LARGE ENOUGH TO MAKE ANGLE EQUAL TO OR LARGER THAN 45°.
2. CONCRETE SHOULD BEAR ON THIS QUADRANT OF PIPE AS A MINIMUM.
3. DIMENSION 'D' SHOULD BE AS LARGE AS POSSIBLE BUT CONCRETE SHOULD NOT INTERFERE WITH MECHANICAL JOINTS.
4. BUTTRESS DIMENSIONS ARE BASED ON A SOIL RESISTANCE OF TWO TONS PER SQ. FT. AND A WATER PRESSURE OF 150 psi.
5. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.



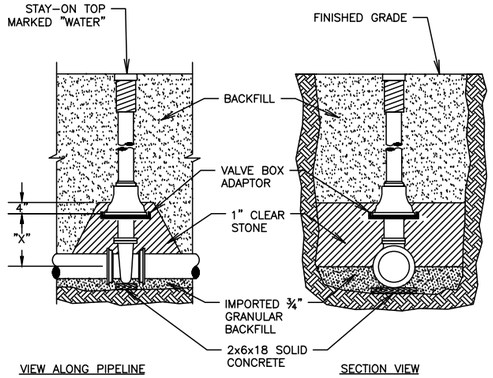
MANUFACTURED BY ADAPTOR, INC. 3642 E. AMERICAN AVE. MILWAUKEE, WI 53154

NOTE: GATE VALVE ADAPTORS ARE MANDITORY IN THE VILLAGE OF DEFOREST

GATE VALVE ADAPTOR



1/1 GATE VALVE AND GATE VALVE ADAPTOR
NOT TO SCALE

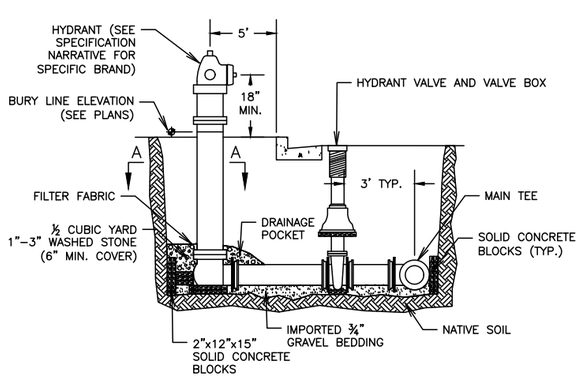


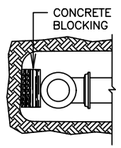
PIPE DIA., INCHES	6	8	10	12	14	16
"X" DIMENSION, INCHES	12	13	17	21	25	30

NOTES:
– VALVES SHALL BE SECURED WITH RODDING OR MEGALUGS TO THE NEAREST "TEE" FITTING OR TO THE FIRST JOINT CONNECTING A FULL SECTION OF WATER MAIN PIPE. SEE RODDING DETAIL "OFFSET AND RODDING".

DETAIL
VALVE BOX SETTING

2/2 STANDARD GATE VALVE BOX SETTING
NOT TO SCALE





SECTION A–A

NOTES:

– THE HYDRANT AND HYDRANT VALVE SHALL BE CONNECTED TO THE MAIN TEE BY MEGALUGS.

–FILTER FABRIC SHALL BE WRAPPED AROUND THE DRAIN POCKET.

–WHERE THE HYDRANT IS INSTALLED AT THE HIGH POINT OF THE WATER MAIN ON MAINS 10 INCHES IN DIAMETER AND LARGER, THE CONTRACTOR SHALL TIP THE MAIN TEE UPWARDS 45 DEGREES AND USE A 45 DEGREE FITTING TO ALLOW AIR TO ESCAPE FROM THE MAIN.

–WHERE THE LOCATION OF THE HYDRANT VALVE BOX WOULD BE IN ANY PORTION OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PLACE THE VALVE IN THE TERRACE AREA.

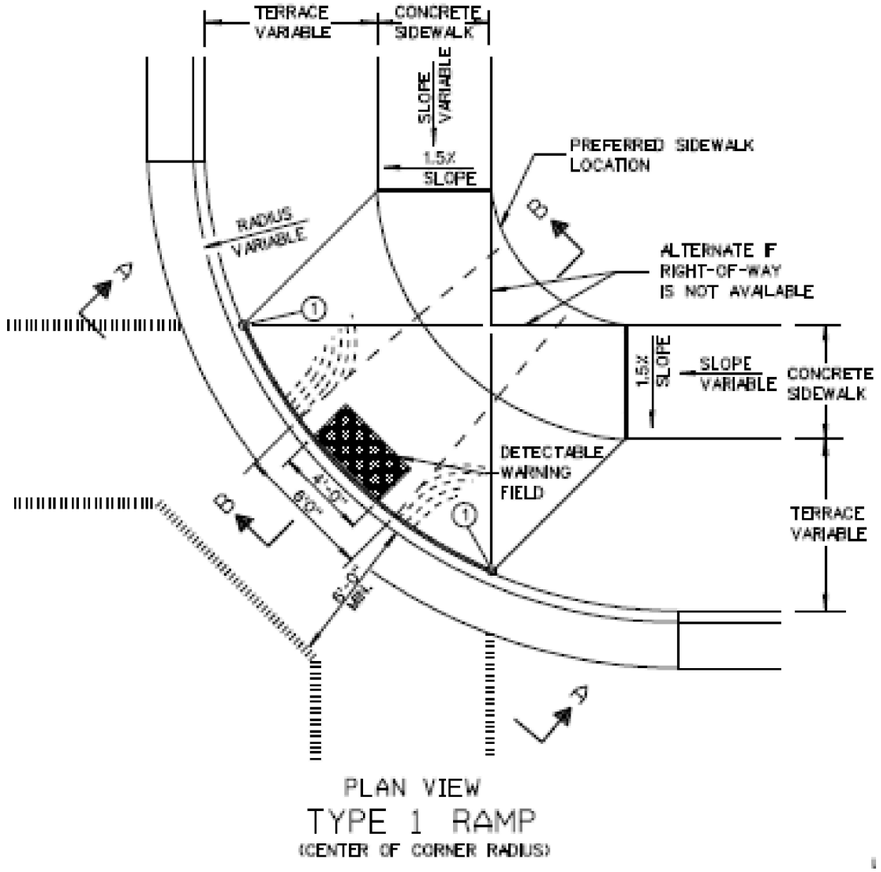
2/2 STANDARD HYDRANT SETTING
NOT TO SCALE

SPERLE CORNERS – VILLAGE OF MCFARLAND
DETAILS
SHEET: C–15
DATED: AUGUST 28, 2025

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
www.quamengineering.com
4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558
Phone (608) 838–7750; Fax (608) 838–7752

QUAM ENGINEERING, LLC 4604 Siggelkow Road, Suite A – McFarland, WI 53558 (608) 838–7750 \LS–03–19\LS03BASE.DWG

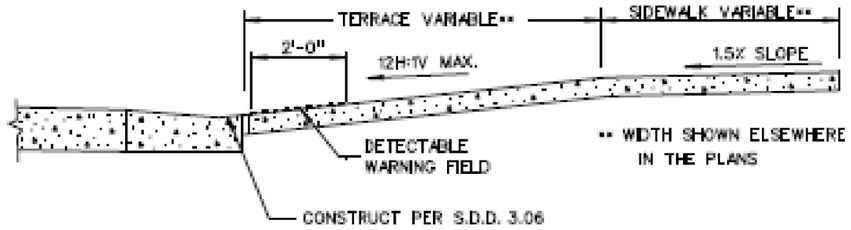
QUAM ENGINEERING, LLC 4604 Siggelkow Road, Suite A – McFarland, WI 53558 (608) 838–7750 \LS–03–19\LS03BASE.DWG



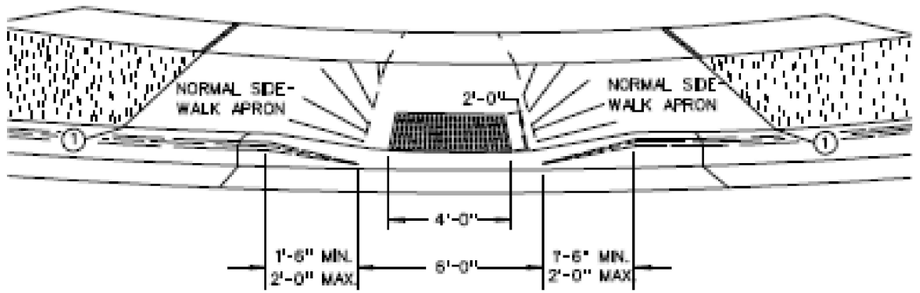
PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



SECTION B-B



SECTION A-A

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD".

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

THE DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

DETECTABLE WARNING FIELDS SHALL BE METAPANEL BY METADOME, LLC OR NEENAH 4984 PLATES.

2/2 **STANDARD CURB RAMP – TYPE 1**

NOT TO SCALE

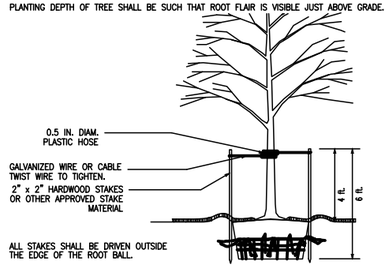
WIRE OR CABLE SIZES SHALL BE AS FOLLOWS:
4 INCH CALIPER – 11–12 GAUGE
LARGER THAN 4 INCH CALIPER – 9–10 GAUGE

TIGHTEN WIRE OR CABLE ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT. PLASTIC HOSE SHALL BE LONG ENOUGH TO ACCOMMODATE 1.5 IN. OF GROWTH AND BUFFER ALL BRANCHES FROM THE WIRE.

TUCK ANY LOOSE ENDS OF THE WIRE OR CABLE INTO THE WIRE WRAP SO THAT NO SHARP WIRE ENDS ARE EXPOSED.

ALL BURLAP AND WIRE CAGES SHALL BE REMOVED FROM ROOTS PRIOR TO PLANTING.

PLANTING DEPTH OF TREE SHALL BE SUCH THAT ROOT FLAIR IS VISIBLE JUST ABOVE GRADE.



PROVIDE 4" THICKNESS OF ORGANIC MULCH AROUND ALL TREES. MULCH SHOULD NOT REST AGAINST THE TREE TRUNK. LEAVE 3" AROUND THE TRUNK FREE OF MULCH.

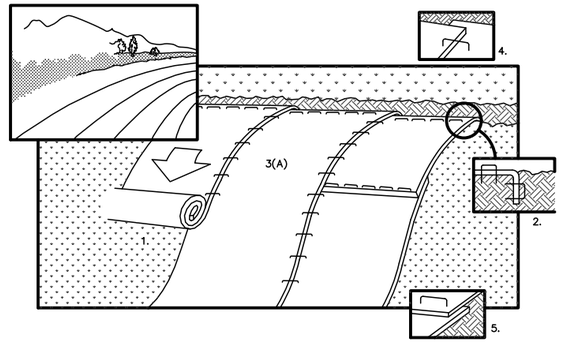
ASSURE THAT THE BEARING SURFACE OF THE PROTECTIVE COVERING OF THE WIRE OR CABLE AGAINST THE TREE TRUNK IS A MINIMUM OF 0.5 INCH.

REMOVE ALL STAKING AS SOON AS THE TREE HAS GROWN SUFFICIENT ROOTS TO OVERCOME THE PROBLEM THAT REQUIRED THE TREE TO BE STAKED. STAKES SHALL BE REMOVED NO LATER THE END OF THE FIRST GROWING SEASON AFTER PLANTING.

TREES NORMALLY DO NOT NEED TO BE STAKED AND STAKING CAN BE HARMFUL TO THE TREE. STAKING SHOULD BE DONE ONLY WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT IF IT IS EXPECTED THAT THE TREE WILL NOT BE ABLE TO SUPPORT ITSELF. THE FOLLOWING ARE REASONS WHY TREES DO NOT REMAIN STRAIGHT.

- TREES WITH POOR – QUALITY ROOT BALLS OR ROOT BALLS THAT HAVE BEEN CRACKED OR DAMAGED. REJECT RATHER THAN STAKE.
- TREES THAT HAVE GROWN TOO CLOSE TOGETHER IN THE NURSERY, RESULTING IN WEAK TRUNKS. REJECT RATHER THAN STAKE.
- PLANTING PROCEDURES THAT DO NOT ADEQUATELY TAMP SOILS AROUND THE ROOT BALL. CORRECT THE PLANTING PROCEDURE.
- ROOT BALLS PLACED ON SOFT SOIL. TAMP SOILS UNDER ROOT BALL PRIOR TO PLANTING.
- ROOT BALLS WITH VERY SANDY SOIL OR VERY WET CLAY SOIL. STAKING ADVISABLE.
- TREES LOCATED IN A PLACE OF EXTREMELY WINDY CONDITIONS. STAKING ADVISABLE.

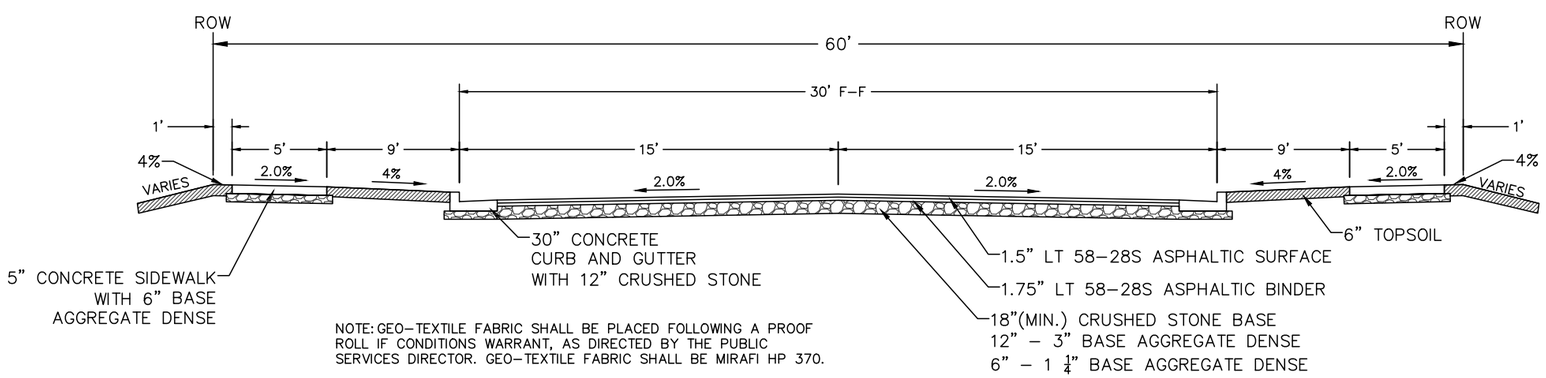
TREE PLANTING DETAIL



NOTE: REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF FERTILIZER AND SEED. NOTE: WHEN USING CELL–O–SEED DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY
6. ALL BLANKETS MUST BE SECURELY FASTENED TO THE SLOPE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS RECOMMENDED BY THE MANUFACTURER.
7. SLOPES 5:1 SHOULD BE COVERED WITH CLASS I TYPE A AT A MINIMUM.

EROSION CONTROL MAT – SLOPE INSTALLATION



NOTE: GEO–TEXTILE FABRIC SHALL BE PLACED FOLLOWING A PROOF ROLL IF CONDITIONS WARRANT, AS DIRECTED BY THE PUBLIC SERVICES DIRECTOR. GEO–TEXTILE FABRIC SHALL BE MIRAFI HP 370.

TYPICAL ROADWAY CROSS–SECTIONS

SPERLE CORNERS – VILLAGE OF MCFARLAND

DETAILS

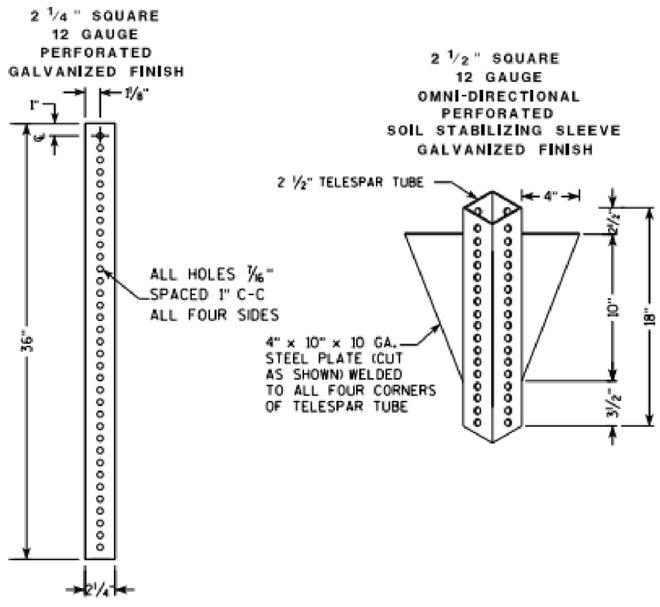
SHEET: C–16

DATED: AUGUST 28, 2025

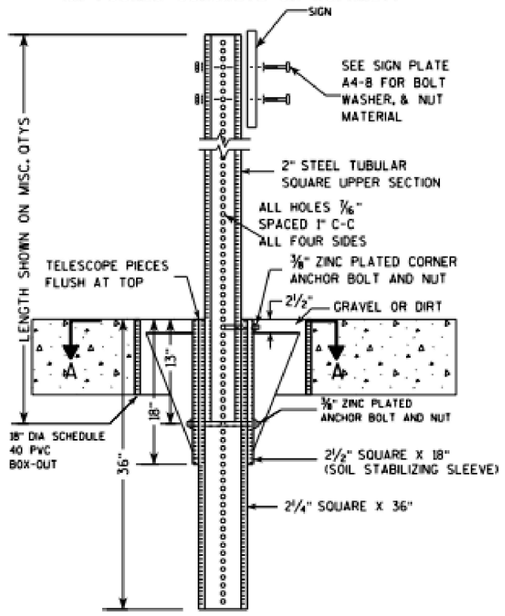
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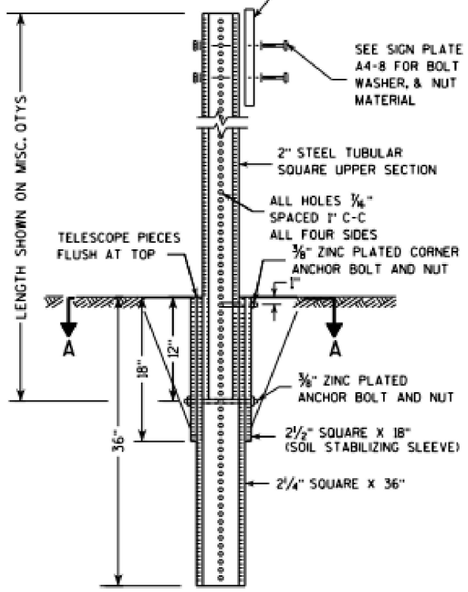
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

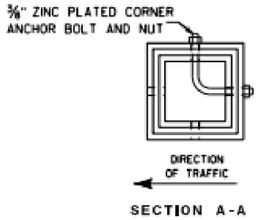


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)

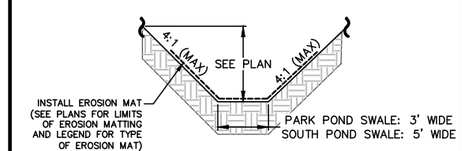




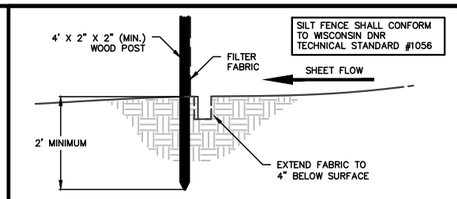
SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

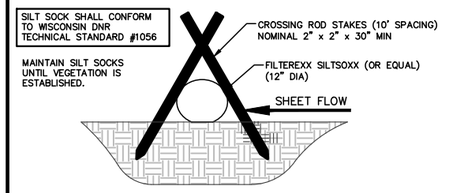
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).



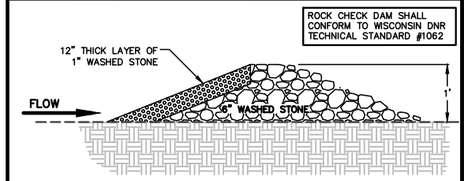
PARK POND SWALE AND SOUTH POND SWALE CROSS SECTION



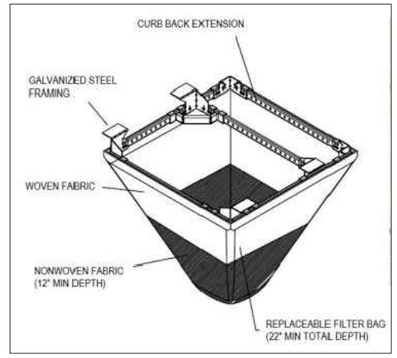
SILT FENCE CONSTRUCTION (SHEET FLOW)



SILT SOCK DETAIL

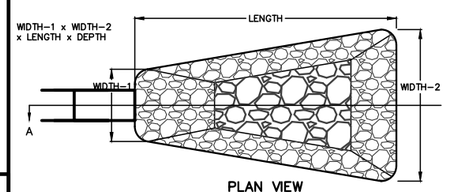


ROCK CHECK DAM DETAIL

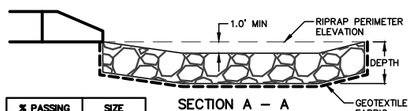


FRAMED INLET PROTECTION MUST MEET THE FOLLOWING SPECIFICATIONS:
- ALL ASTM STANDARD D8057-17 REQUIREMENTS
- NO PART OF INLET PROTECTION PROJECTING ABOVE THE GRATE
- CAPTURE RUNOFF ENTERING BOTH GRATE AND CURB OPENING
- "DUAL FABRIC" FILTER BAG, WITH NONWOVEN BOTTOM AND WOVEN TOP

FLEXSTORM INLET PROTECTION DETAIL



PLAN VIEW



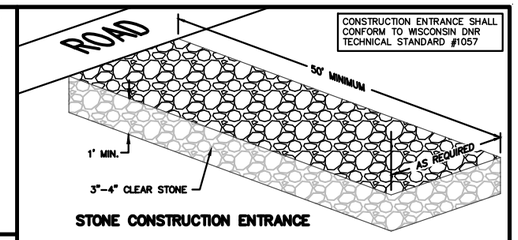
SECTION A – A

% PASSING BY WEIGHT	SIZE (INCHES)
100	20
50–85	15
20–50	10
5–20	5
0–5	2

SIZES CALCULATED IN BEST D.5.2

RIPRAP SHALL BE PLACED AS DEFINED IN SECTION 606 OF WISCONSIN D.O.T. SPECIFICATIONS. STONE PIECES SHALL BE WELL GRADED, RANGING IN DIAMETER AS DESCRIBED IN THE ADJACENT CHART.

RIPRAP DETAIL



STONE CONSTRUCTION ENTRANCE

EROSION NOTES:

THE STONE CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION. THE STONE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED BY THE CONTRACTOR IN A CONDITION, WHICH WILL PREVENT THE TRACKING OF MUD OR DRY SEDIMENT ONTO THE PUBLIC STREET. SEDIMENT REACHING PUBLIC STREET SHALL BE REMOVED BY STREET CLEANING (NOT HYDRAULIC FLUSHING) BEFORE THE END OF EACH WORKDAY.

EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO GRADING OPERATIONS AND SHALL BE PROPERLY MAINTAINED FOR MAXIMUM EFFECTIVENESS UNTIL VEGETATION IS ESTABLISHED. ALL EROSION CONTROL MEASURES AND STRUCTURES SERVING THE SITE MUST BE INSPECTED AT LEAST WEEKLY OR WITHIN 24 HOURS OF A 0.5 INCH RAIN EVENT. ALL MAINTENANCE WILL FOLLOW AN INSPECTION WITHIN 24 HOURS.

CUT AND FILL SLOPES SHALL BE NO GREATER THAN 3:1.

ALL DISTURBED AREAS MUST BE TEMPORARILY STABILIZED WITHIN 14 DAYS OF LAST ACTIVITY. ALL DISTURBED AREAS SHOULD BE STABILIZED WITHIN 7 DAYS OF FINAL GRADING.

PERIMETER CONTROL SHALL BE INSTALLED AROUND STOCKPILES, AND STOCKPILES SHALL BE STABILIZED THAT WILL REMAIN INACTIVE FOR 7 DAYS OR LONGER.

EROSION CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ACCEPTANCE OF THIS PROJECT. EROSION CONTROL MEASURES AS SHOWN SHALL BE THE MINIMUM PRECAUTIONS THAT WILL BE ALLOWED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECOGNIZING AND CORRECTING ALL EROSION CONTROL PROBLEMS THAT ARE A RESULT OF CONSTRUCTION ACTIVITIES. ADDITIONAL EROSION CONTROL MEASURES, AS REQUESTED IN WRITING BY THE STATE OR LOCAL INSPECTORS, OR THE DEVELOPER'S ENGINEER, SHALL BE INSTALLED WITHIN 24 HOURS.

TIME SCHEDULE:

SEPTEMBER 15 – OCTOBER 1, 2025	INSTALL INITIAL EROSION CONTROL DEVICES AND ROUGH GRADE SITE.
OCTOBER 1, 2025 – MAY 15, 2026	CONSTRUCT UTILITIES AND STREETS. RESTORE ALL PERVIOUS DISTURBED AREAS.

RESTORATION NOTES:

RESTORATION SHALL OCCUR AS SOON AFTER THE DISTURBANCE AS PRACTICAL.

ALL PERVIOUS DISTURBED AREAS SHALL RECEIVE A MINIMUM OF FOUR (4) INCHES OF TOPSOIL, SEED, AND MULCH. RESTORATION WILL OCCUR AS SOON AFTER THE DISTURBANCE AS PRACTICAL. SEED MIXTURE 40 SHALL BE USED ON ALL DISTURBED AREAS. ALL SEED MIXTURES SHALL BE IN ACCORDANCE WITH SECTION 630 OF W.D.O.T. SPECIFICATIONS. AN EQUAL AMOUNT OF ANNUAL RYEGRASS SHALL BE ADDED TO THE MIX.

ALL PERVIOUS DISTURBED AREAS SHALL RECEIVE FERTILIZER. FERTILIZER SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS: NITROGEN, NOT LESS THAN 16%; PHOSPHORIC ACID, NOT LESS THAN 8%; POTASH, NOT LESS THAN 8%. FERTILIZER SHALL BE APPLIED AT THE RATE OF FOUR (4) POUNDS PER 1,000 SQUARE FEET. SEED MIXTURE 40 SHALL BE APPLIED AT THE RATE OF FOUR (4) POUNDS PER 1,000 SQUARE FEET. MULCH SHALL CONSIST OF HAY OR STRAW APPLIED AT THE RATE OF TWO (2) TONS PER ACRE.

SEEDING FROM SEPTEMBER 16 THROUGH NOVEMBER 15 IS TO BE AVOIDED TO PREVENT FREEZING OF NEW GROWTH. DORMANT SEEDING, IF NECESSARY, SHALL BE COMPLETED AFTER NOVEMBER 15. DORMANT SEEDING SHALL NOT BE APPLIED ON TOP OF SNOW. DISTURBED AREAS SHALL HAVE EROSION MAT APPLIED OVER DORMANT SEEDING. IF DORMANT SEEDING DOES NOT RESULT IN AT LEAST 70% COVER BY MAY 15, ADDITIONAL SEEDING SHALL BE REQUIRED.

OWNER:

LAKESTONE PROPERTIES &
MANAGEMENT, LLC
ATTN: BRETT RIEMEN
BRIAN SPANOS
5910 MAIN STREET, SUITE 1
McFARLAND WI 53558

ENGINEER:

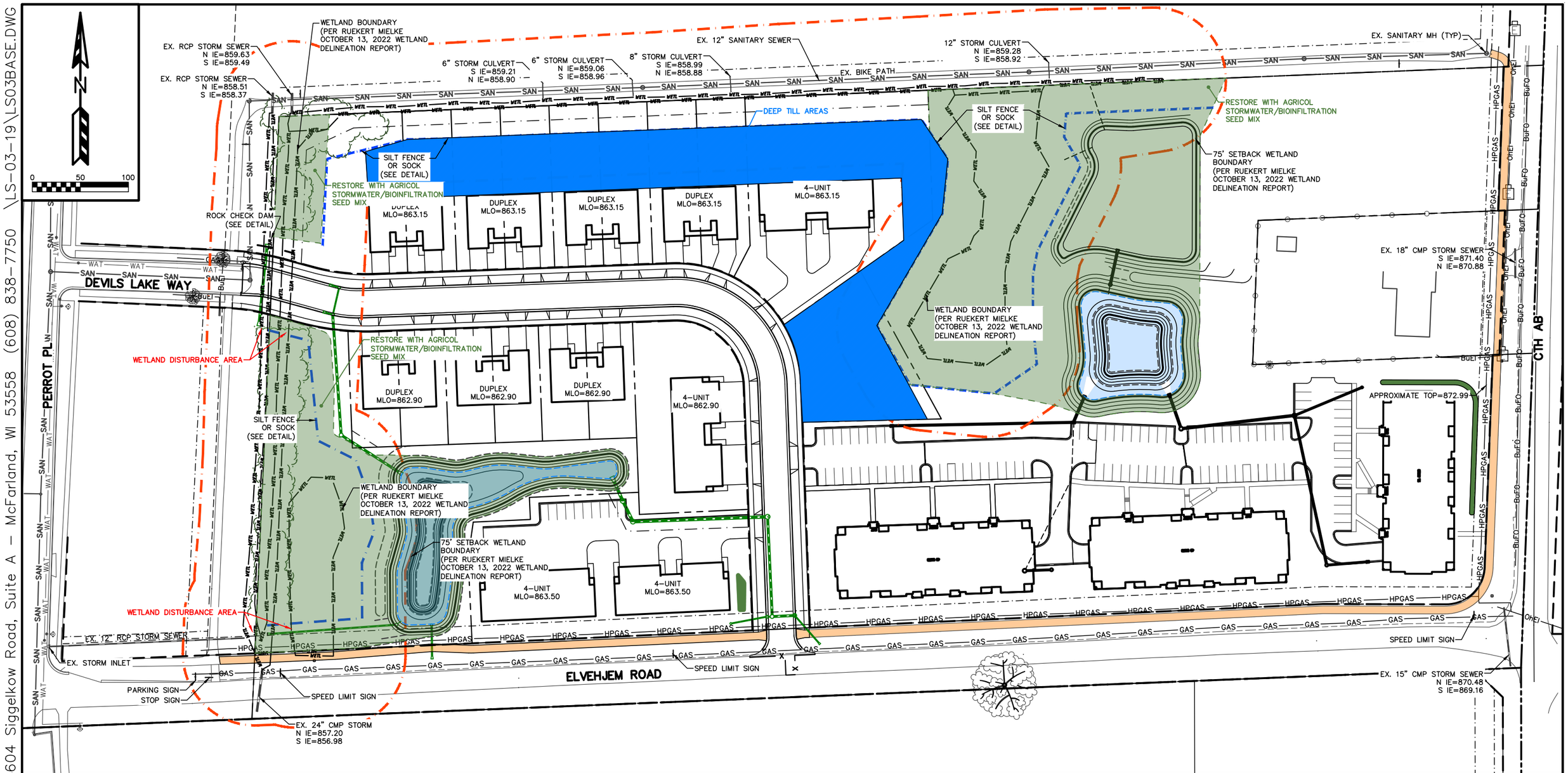
QUAM ENGINEERING, LLC
ATTN: RYAN QUAM
4604 SIGGELKOW ROAD, SUITE A
MCFARLAND, WI 53558

1. EXCAVATED MATERIAL FROM THE UTILITY TRENCH NOT SUITABLE FOR BACKFILL AS DEEMED BY THE PUBLIC SERVICES DIRECTOR SHALL BE REMOVED AND REPLACED WITH SELECT TRENCH BACKFILL.
2. ALL SILT FENCE SHALL BE PROPERLY INSTALLED, MAINTAINED, AND REMOVED UPON ESTABLISHMENT OF TURF.
3. ALL SITES SHALL BE ADEQUATELY PROTECTED TO PREVENT SEDIMENT FROM LEAVING THE SITE.
4. ACCESS TO THE CONSTRUCTION SITE SHALL BE LIMITED TO THE STONE ENTRANCE PADS SHOWN ON THE PLANS.
5. STREETS SHALL BE SWEPT CLEAN EVERY DAY.
6. EROSION MAT IS REQUIRED FOR ALL RESTORATION ON SLOPES AT OR GREATER THAN 5:1, AND IN AREAS THAT CHANNEL WATER. EROSION MAT SHALL ALSO BE PROVIDED IN ALL STREET TERRACES WITHIN THE ROW.
7. EROSION MAT AND STAPLES SHALL BE BIODEGRADABLE (CURLEX NET FREE OR APPROVED EQUAL).
8. ALL STORM WATER MANAGEMENT FACILITIES SHALL BE SEEDED WITH A NATIVE SEED MIXTURE WITHIN THE LIMITS OF THE OUTLOT OR EASEMENT. THE NATIVE SEED MIXTURE SHALL BE APPROVED BY THE DIRECTOR OF PUBLIC SERVICES.
9. ANY PROPOSED CHANGES TO THE GRADING AND EROSION CONTROL PLAN MUST BE SUBMITTED TO THE VILLAGE ENGINEER AND APPROVED.

SPERLE CORNERS – VILLAGE OF MCFARLAND

DETAILS
SHEET: C–17
DATED: AUGUST 28, 2025

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
www.quamengineering.com
4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558
Phone (608) 838-7750; Fax (608) 838-7752



QUAM ENGINEERING, LLC 4604 Siggelkow Road, Suite A – McFarland, WI 53558 (608) 838-7750 \LS-03-19\LS03BASE.DWG

SPERLE CORNERS – VILLAGE OF MCFARLAND
WETLAND AND POND RESTORATION PLAN
SHEET: C-1
DATED: AUGUST 5, 2025

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
www.quamengineering.com
4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558
Phone (608) 838-7750; Fax (608) 838-7752

DEVELOPMENT AGREEMENT FOR SPERLE CORNERS

This Development Agreement for Sperle Corners (the **"Agreement"**) is made as of the ___ day of _____, 2025, by and between the Village of McFarland, a Wisconsin Municipal Corporation (**"Village"**) and Lakestone Properties & Management, LLC, a Wisconsin limited liability company (**"Developer"**).

W I T N E S S E T H:

WHEREAS, Developer is the fee simple owner of the real property described in Exhibit "A", attached hereto and incorporated herein by reference (the **"Property"**); and

WHEREAS, Developer wishes to develop the Property as a platted subdivision, to be known as Sperle Corners (the **"Plat"**), for such purposes as may now or hereafter be permitted under the applicable zoning of the Property (the **"Development"**); and

WHEREAS, Developer agrees to construct the Development on the Property in accordance with this Agreement, and all applicable rules and regulations of any governmental authority having jurisdiction, including but not limited to applicable ordinances, rules and regulations of the Village; and

WHEREAS, it is the intention of the parties that this Agreement govern all future phases of the Development, the estimated extent of each such phase being described in Exhibit "A" (each as may be subsequently modified hereafter a **"Phase"** and collectively the **"Phases"**) with the understanding that the development of future Phases shall comply with the approved engineering plans described in Exhibit "B", attached hereto and incorporated herein by reference, and that future Phases are to be commenced only after approval and execution of an appropriate amendment to this Agreement; and

WHEREAS, Developer wishes to proceed with the installation of public improvements to serve the Development in conformance with Village requirements (the **"Improvements"**); and

WHEREAS, execution of the final Plat by the Village and the recording thereof is contingent upon the execution of this Agreement and the submittal of all documents required by this Agreement; and

WHEREAS, this Agreement contains the following exhibits provided for under this Agreement, all of which are incorporated herein as if fully set forth:

Exhibit "A": Legal description of plat and estimated phasing plan

Exhibit "B": Engineering plans

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Exhibit “C: Parkland dedication and fees in lieu of dedication

Exhibit “D”: Restriction as to future sale of lots

Exhibit “E”: Public Improvement Costs Secured by Surety

Exhibit “F”: Properties Subject to East Side Sanitary Sewer Interceptor Assessments and Developer’s Share

NOW, THEREFORE, in accordance with the above recitals, the granting of approval for the development of the Property by the Village so as to permit Developer to sell lots in the Development to third parties, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, it is agreed by and between the parties hereto as follows:

1) Covenant to Develop. Developer agrees to develop the Property in accordance with the terms, covenants and conditions of this Agreement, and all Laws and Ordinances.

2) Improvements. Developer agrees to fully comply with any and all provisions of the Village Subdivision Ordinances, whether or not specifically addressed in this Agreement, other than where the Village Board has granted variances to provisions of the Village Subdivision Ordinances and to construct or install all required Improvements in a good and workmanlike manner in accordance with plans approved by the Village. The Developer and the Village hereby specifically agree as follows:

A. Streets, Storm Sewer, Sidewalks and Paths.

1. The Developer shall install curb and gutter, storm sewer and inlets, sidewalks, paths, and pavement on all streets within the Plat, to the established standards and/or specifications of the Village as specified in the approved engineering plans, on a Phase by Phase basis.

2. Elvehjem Road and CTH AB, Future Path. The cost to design, construct, and install the 8’ path along Elvehjem Road from the intersection of Devil’s Lake Way to CTH AB, and continuing north to the northern property line of the Plat, shall be a future obligation of the Developer to be incurred as part of future Phases of the Development. The Developer acknowledges that in the event that the Village designs, constructs and installs this path prior to the commencement by the Developer of Apartment Buildings #2 and #3, the Developer shall reimburse the Village for the associated costs.

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3. The Developer shall construct and maintain suitable access to Elvehjem Road for the use by construction vehicles and contractors throughout all Phases of the construction of the Development

4. Developer shall complete construction, at its sole expense, of any improvements to CTH AB as may be required by the County of Dane for development of the Property and provide County of Dane Highway Department approval before starting work. The Developer acknowledges that in the event that the Village designs, constructs and installs improvements to the intersection of CTH AB and Elvehjem Road prior to the Developer constructing their required improvements, the Developer shall reimburse the Village for that portion of the intersection improvements required by its development.

5. The Developer shall proof roll all subgrade to provide adequate stability for road construction, prior to the placement of crushed aggregate base course and again upon completion of the base course installation. The Developer shall coordinate with the Director of Public Works to observe the proof rolling prior to the paving of the lower lift (binder).

6. The Developer shall pave the upper lift (surface) of asphalt on all streets during the construction season following the season during which the lower lift (binder) is installed. During binder installation, asphalt shall be wedged near the inlets in order to force water into the curb inlets rather than allowing water to bypass the inlets.

7. Initial construction plans for the Improvements described in subparagraph (A)(1), above, have been presented for approval by the Village.

B. Street Lights and Street Signs. The Developer shall pay for and install a street lighting system and street name signs along public streets and ways within or adjoining the Property according to plans and specifications approved by the Village. The Developer shall be responsible for the Pole and Fixture Contribution to Alliant Energy for street light installation and shall make payment thereof prior to installation. If the Developer contemplates the use of street lights other than the Village standard, then the Developer shall present the nonstandard street light design to the Village for approval. The Developer or the Development subdivision association (the **"HOA"**), as applicable, shall bear all costs for installation and long-term maintenance of nonstandard street lights should the Village agree to their use.

C. Regulatory Signs. The Developer will place the required regulatory signs as specified in the approved Plans. All signage shall be in accordance with the MUTCD and Village Ordinances.

D. Sanitary Sewer.

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a) The Developer shall provide utility easements, construct, install and furnish a complete sewerage system, including public mains to serve the Plat, in accordance with the plans and specifications submitted to and approved by the Village and the State of Wisconsin Department of Natural Resources. Laterals shall be extended five feet beyond the public right-of-way line or to the outer limits of the associated public utility easement where no right-of-way is present. Lateral ends shall be marked with a red painted 4' x 4' post extending approximately 12" above finish grade. Laterals shall be installed with an underground tracer wire according to the details on the approved Plans. Adequate easements shall be provided on the plat or by separate instruments for sanitary sewer main proposed outside of the right-of-way.

b) No sanitary sewer main installation shall be accepted by the Village until satisfactory low pressure air test and mandrel results are obtained. The Developer or its Contractor shall provide the Village with satisfactory low pressure air tests and mandrel results, and televising results, prior to requesting Village Acceptance of any sanitary sewer main installation.

c) The cost of construction of the sewer system shall be paid by the Developer.

d) The incremental cost for pipe sizes greater than eight-inch (8") diameter shall be borne by the Village, and either credited or reimbursed to the Developer. The incremental cost shall be based only on the retail price of pipe and fittings.

E. East Side Sewer Interceptor. The Village previously constructed the East Side Sewer Interceptor (the "Sewer Interceptor") located adjacent to the west and north property lines of the Property. The Village has previously adopted a Preliminary Assessment Report which includes a cost per dwelling unit of $1,389.02 for benefitted properties, including the Property. The Village and Developer hereby acknowledge that the initial construction plans for the Improvements described in subparagraph (A)(1), above, do not contemplate connections to the Sewer Interceptor and therefore at this time no special assessment is due from the Developer. The Developer hereby acknowledges that if the Improvements described in subparagraph (A)(1), above, are modified in a manner such that sanitary sewer from the Development, or any future Phases, connects to the Sewer Interceptor, the Village may specially assess the cost of the Sewer Interceptor against benefitted properties, including the Property, attached hereto as Exhibit "F".

F. Madison Metropolitan Sewerage District Charges. The Developer shall pay to the Village the area sewer assessment and treatment plant charges as determined by the Madison Metropolitan Sewerage District (**"MMSD"**) on or before the date such payment is due from the Village to MMSD. Subject to the approval of MMSD,

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and the recording of an appropriate deed restriction if required by MMSD, the assessments to be charged by MMSD will be based on the land area contained within the plans submitted to MMSD. The parties agree that such plans shall be submitted on a Phase by Phase basis. Payment for any Phase shall be made prior to commencement of that Phase's construction. If notwithstanding submission of the plans on a Phase by Phase basis, MMSD shall charge assessments based on the entire Plat, or on a basis other than the lands contained within a Phase, Developer shall pay the Village the entire assessment which MMSD shall bill to the Village.

G. Water.

a) The Developer shall provide utility easements, construct, install and furnish a complete water distribution system, including public mains to service the Property, in accordance with the plans and specifications submitted to and approved by the Village and the State of Wisconsin Department of Natural Resources. Service laterals shall be extended five feet beyond the public right-of- way line or to the outer limits of the associated public utility easement where no right-of-way is present. Curb boxes shall be Mueller Minneapolis boxes with 1.5" diameter extension. All water service fittings shall be compression fittings; no flared fittings are allowed. Lateral ends shall be marked with a blue painted 4' x 4' post extending approximately 12" above finish grade. Water main pipe shall be ductile iron, Class 52. All water main tees, valves, bends, hydrants, reducers, etc. shall be mechanically restrained, with polyethylene encasement and tracer wires in addition to joint connectivity. Valve boxes must include gate valve adaptors by Adaptors, Inc. Appropriate flushing devices shall be installed at all temporary ends of the water mains. Adequate easements shall be provided on the associated Plat or by separate instruments for water distribution lines proposed outside of the right-of-way.

b) Water main installations shall not be accepted until a bacteriologically safe sample and satisfactory pressure and leakage test results are obtained. The Developer or its Contractor shall arrange for the flushing of the main and collection of the samples required for this testing by, or under the direction and supervision of, a Village employee. Upon completion of the water mains and service laterals and Acceptance of the system by the Village, ownership and control of the system (except service laterals, which shall be privately owned and maintained) shall be turned over without reservation to the Village. When required by the Village Engineer, the water mains shall be provided in locations, sizes, and depths necessary to serve future developments and Phases.

c) The cost of construction of the water system shall be paid by the Developer. The incremental cost for pipe sizes greater than eight-inch (8") diameter shall be borne by the Village and either credited or reimbursed to the Developer. The incremental cost shall be based only on the retail price of pipe and fittings.

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d) Elvehjem Road, Future Water Extensions and Fire Hydrants. The cost to design, construct, and install the water system along Elvehjem Road from the intersection of Devil's Lake Way to CTH AB shall be a future obligation of the Developer to be incurred as part of future Phases of the Development. The incremental cost for pipe sizes greater than eight-inch (8") diameter shall be borne by the Village and either credited or reimbursed to the Developer. The incremental cost shall be based only on the retail price of pipe and fittings. The Developer acknowledges that in the event that the Village designs, constructs and installs this water main prior to the commencement by the Developer of Apartment Buildings #2 and #3, the Developer shall reimburse the Village for the associated costs, less the incremental cost for pipe sizes greater than eight-inch (8") diameter which shall be borne by the Village. The incremental cost shall be based only on the retail price of pipe and fittings.

e) CTH AB, Future Water Extensions and Fire Hydrants. In the event that future water main is required by the Developer within the right-of-way of CTH AB from the intersection Elvehjem Road to the northeast corner of the Plat, the Developer hereby agrees that the cost to design, construct, and install the water system along CTH AB from the intersection of Elvehjem Road to the northeast corner of the Plat shall be a future obligation of the Developer to be incurred as part of future Phases of the Development. The incremental cost for pipe sizes greater than eight-inch (8") diameter shall be borne by the Village and either credited or reimbursed to the Developer. The incremental cost shall be based only on the retail price of pipe and fittings.

H. Fire Hydrants. Fire hydrants (Waterous Pacer WB 67) shall be installed by the Developer according to the Plans.

I. Stormwater/Surface Water Drainage. The storm water management and conveyance system, including post-construction Best Management Practices (BMPs), inlets, manholes, pipes, swales, and appurtenances, shall be installed by the Developer as shown on the approved Plans and Village Ordinances. Adequate easements and deed restrictions shall be provided for any stormwater conveyance system components that are located outside of a publicly dedicated outlot or rights-of-way within the Development. Adequate access shall be provided to and around all detention basins for Village personnel and equipment to maintain such basins. Such access shall be within a publicly dedicated outlot or right-of-way, except where easements over adjacent private land are approved by the Village Engineer.

Stormwater facilities shall be planted with native seed mixtures and/or native plug plantings conducive to the site conditions, according to the approved Plans.

Pursuant to §236.29(4), Wis. Stats., dedication to the public of lands intended to include permanent facilities for stormwater management as shown on a plat is not accepted until 80% of the lots in the subdivision are sold and a professional engineer has certified that the facility is in proper working condition, construction

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sediment has been removed and required plantings are fully-established and reasonably free of invasive species.

Within the final month of the guarantee period associated with each stormwater basin constructed under this Agreement, as specified in Section 4 of this Agreement, the Developer shall survey and remove all sediment that may have accumulated before or during the warranty period from such stormwater basin.

J. Erosion and Sedimentation Control. The Developer shall construct, install, furnish and effectively implement adequate facilities for erosion and sedimentation control throughout the entire Property in accordance with the plans and specifications submitted to and approved by the Village. No contractors shall commence installation of Improvements prior to the installation of approved erosion control measures and receipt of an erosion control and stormwater management permit. Contractor work prior to such conditions shall be subject to Village citation per the Ordinances, which the Village may issue to the Developer. Street terrace areas shall be seeded and mulched from curb to the sidewalk. All disturbed land including topsoil stockpiles shall be seeded and stabilized for erosion control immediately following the completion of site grading.

K. Street Trees. The Developer shall submit a tree planting plan for approval by the Village Forester. All trees shall be of approved species and planted as required by Village Ordinances. Street trees shall be located such that they do not conflict with utility services and/or driveways. At Village's option Developer shall either:

a) Pay to the Village the estimated cost of the trees to be planted in each Phase of the Development at the same time as Developer submits to the Village the Development Agreement or appropriate Amendment for the Phase in question. The Village shall be responsible for planting all trees within the Phase prior to completion of the final lift of asphalt on the public streets; or

b) Plant the trees in accordance with the approved plan. In such event, the Developer shall post with the Village Clerk prior to commencing work on a Phase, Surety, as that term is defined below, in the appropriate amount for the tree planting plan approved by the Village for such Phase of the Plat prior to commencement of construction of any Improvements for such Phase.

c) Trees shall have a minimum diameter of 1.5 inches per tree as measured at six (6) inches above ground level as required by Village Ordinances. It shall be the sole responsibility of the Village and homeowners to maintain said tree plantings in accordance with the Ordinances.

L. Plat Monumentation. The Developer, through information assembled by a Professional Land Surveyor, shall provide evidence that all monuments have been set per Wis. Stat. §236.15, as amended. If approved by the Director of Public Works, only

the exterior boundary monuments need be set at the time of the plat recording, with the placement of the interior monuments deferred pursuant to Wis. Stat. §236.15(1)(h), as amended, for a reasonable period of time determined by the Director in order to allow for construction of Improvements that may otherwise interfere with monumentation. If such approval is granted, the Developer shall increase the amount of the required security to include 120% of the estimated cost for future monumenting.

M. Maintenance. The Developer shall control weeds and all growth of natural vegetation during the process of completing the Improvements in a manner that is consistent with the Ordinances. The Developer shall have this responsibility on all private lots before they are transferred to another party, and on all public rights-of-way or other dedicated lands until all Improvements that are required to be installed by the Developer are in fact installed and Accepted by the Village. The Developer shall coordinate cleaning of all streets affected by construction of the Improvements to the satisfaction of the Director of Public Works. If, in the opinion of the Director, additional street cleaning is needed to control a potential erosion or nuisance problem (including surface water runoff from a lot or outlot within the Development), the Village reserves the right to perform street cleaning and invoice the Developer at a standard rate set by the Village. Such cleaning shall not be considered as a substitute for standard erosion control measures, nor relieve the Developer of any liability under the Ordinances. This general street cleaning requirement shall only be an obligation of Developer until acceptance of all of the Improvements.

N. House Numbering. Prior to the occupancy of any housing unit, numbers shall be installed on that unit identifying the street address, which shall be clearly visible and readable from the street at all times. The Village Zoning Administrator shall assign house numbers for each lot and notify the Developer upon assignment.

O. Other Requirements. The Developer shall be responsible for ensuring proper construction of all items listed herein or as required by local or state regulations whether or not included in this Agreement. All requirements and conditions of the Director of Public Works' approval shall be adequately satisfied on the Plans and implemented during construction of the Improvements. Other requirements may be imposed as determined reasonably necessary by the Director and/or as listed in the Ordinances.

P. Pre-Construction Meetings. A pre-construction meeting shall be scheduled between the Developer, the Contractors, and the Village prior to commencement of any construction on the Improvements for each Phase. The Developer shall, prior to each such meeting, notify all utilities of the planned construction and the date and location of the pre construction meeting. As part of the preconstruction meeting for Outlot 1 the Village Forester shall field mark any existing trees along the west side of Outlot 1 that should be removed or saved by the Developer as part of improvements to Outlot 1.

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Q. Inspection and Acceptance of Work.

a) Compaction testing shall be performed by an independent testing laboratory at intervals determined by the Village on the backfill for all underground utility construction and in all fill areas within public road rights-of-way. The Village or its designee shall be present during the performance of all required acceptance tests. The Village or its designated inspector, shall conduct a final inspection of all Improvements and, if acceptable, certify such Improvements as being in compliance with the standards and specifications of the Village.

b) The Village shall provide timely notice to the Developer whenever inspection reveals that an improvement does not conform to the Village's adopted standards and specifications or is otherwise defective. The Developer shall have 30 days from the issuance of such notice to correct or substantially correct the defect, unless a longer compliance time is specified in this Agreement. The Village shall not declare a default under this Agreement during the 30 days or otherwise specified correction period on account of such defect unless the Village determines that immediate action is required in order to remedy a situation which poses a significant threat to health or public safety. The Developer shall have no obligation to correct defects in or the failure of any improvement found to exist or occurring after the one-year guarantee period expires.

c) The Developer agrees that the Improvements will not be accepted by the Village until:

1. all outstanding fees and charges to be paid by the Developer under the Ordinances or as required by this Agreement have been paid in full;

2. all conditions imposed for the final approvals of the associated subdivision plat has been satisfied;

3. the associated subdivision plat, restrictive covenants, and all required public easements have been duly recorded in the Office of the Register of Deeds for Dane County, Wisconsin;

4. affidavits and lien waivers are received by the Village indicating that all Contractors providing work, services or materials in connection with the Improvements have been paid in full for all such work, services and materials; and

5. the Village has received evidence through a satisfactory title report that no liens (such as outstanding mortgages and special

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assessments) or other encumbrances encumber the Improvements, except for those approved in writing by the Village; and

6. the Village has determined that all Improvements have been constructed and/or installed in a good and workmanlike manner, including any work necessary to adequately address the issues outstanding at the time of conditional engineering approval of the Improvements.

3) Insurance Required of Contractors. The Developer shall assure that its general contractor maintains insurance per the schedule in this Section. The Developer shall require the general contractor to provide to the Village's Director of Public Works a current certificate of insurance to evidence compliance with this Agreement. The Developer shall require each Contractor who is not covered by the general contractor's insurance policy, as determined by the general contractor's certificate of insurance, to provide to the Village's Director of Public Works a current certificate of insurance. Insurance certificates shall list the Village of McFarland and Town & Country Engineering as additional named insureds, and all policy provisions or endorsements necessary to evidence the additional insured coverage shall be provided with the certificate. Minimum required coverage limits are:

A. Workers' Compensation per applicable state and federal law, and in the amount of $500,000 for employer's liability.

B. Contractor's Liability Insurance, which shall also include completed operations and product liability coverages and shall not exclude coverage for property under the care, custody, and control of the of the Contractor, in the following amounts:

a) General Aggregate (except Products/Completed Operations): $1,000,000.
b) Products/Completed Operations: $1,000,000.
c) Personal and Advertising Injury: $1,000,000.
d) Each Occurrence (Bodily Injury and Property Damage): $1,000,000. Property damage liability insurance shall provide Explosion, Collapse, and Underground Coverages where applicable.
e) Excess Liability—General Aggregate: $1,000,000.
f) Excess Liability—Each Occurrence: $1,000,000.

C. Automobile Liability: Either:

a) Bodily Injury—Each Person: $1,000,000; Bodily Injury—Each Accident: $1,000,000; and Property Damage--$500,000, OR

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b) Combined Single Limit (Bodily Injury and Property Damage)—Each Accident: $1,000,000.

D. Umbrella policy (pay on behalf form), with limits of $2,000,000 for bodily injury, personal injury, and property damage on a combined basis.

4) Guarantee of the Work. The Developer agrees to guarantee all work performed under this Agreement against defects in workmanship or materials for a period of one (1) year from the date of Acceptance by the Village. If any damage or defect should appear during this guarantee period, the Developer agrees to make any and all required replacements or repairs of the defective work at the Developer's own expense. This expense includes total and complete restoration of any disturbed surface within the Development or on adjacent property, in a good and workmanlike manner and to the standards provided in this Agreement and the Plans. Each repair or replacement performed pursuant to this Section shall be guaranteed on the same terms and conditions (including the guarantee of all future corrections of defects) for an additional period equal to the original guarantee period from the completion thereof.

5) Park Dedication, Parkland Improvement Fees, Parkland Improvements.

a) The Developer agrees to dedicate, in partial fulfillment of the parkland dedication requirement for the Plat, that number of acres, and in addition, to pay the fee (the **"Park Dedication Fee"**) in lieu of dedication for the Plat, as shown in Exhibit "C", attached hereto and incorporated herein by reference. The Park Dedication Fee shall be paid on a per Phase basis, prior to commencement of construction on such Phase, at the rate in effect as of the date on which an amendment to this Development Agreement is entered into for the Phase in question, with the total amount of the Park Dedication Fee being divided by the number of Dwelling Units in the entire Plat, and the resulting sum multiplied by the number of Dwelling Units in the Phase in question. The number of Dwelling Units shall be determined in accordance with the following table:

Single Family Residence = 1 Dwelling Unit
Multi-Family Twin Home = 1 Dwelling Unit per Twin Unit or Condominium Unit
Multi-Family Townhouse = 1 Dwelling Unit per Townhouse Unit or Condominium Unit
Multi-Family Apartments = 1 Dwelling Unit per Apartment Unit

b) Park Improvement Impact Fees shall be paid upon the issuance of a building permit for each of the final lots of the Development at the then current rate.

c) For public parkland dedicated on the Plat the Developer shall properly grade and seed the parkland according to the approved Plans and pursuant to the Village Subdivision Ordinance, including installation of a water lateral to the property line of all dedicated parklands. In lieu of seeding the park, the Village may require

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Lakestone to provide a payment for costs related to the seeding and two years worth of maintenance expenses for the turf within Outlot 2 of the Plat.

d) Park improvements. The Village agrees to design and construct park improvements of its sole discretion within Outlot 2 of the Plat. The Village agrees to construct these improvements on or before December 31, 2027, provided the Developer has met its obligations under sub. paragraph c) above. The Village shall be responsible for the maintenance of Outlot 2 improvements, including turf and playground surfacing after the park improvements have been installed, with the exception that the Developer shall be responsible for two years worth of maintenance expenses for establishment of the turf.

e) Library Improvement Impact Fees, Public Safety Center Impact Fees, Public Water Well Impact Fees and a Public Water Tower Impact Fees, at the then current, rates charged by the Village, will be paid by Developer at the issuance of Building Permits.

6) Time of Completion. Developer shall submit to the Village an amendment to this Agreement specifying the requested Phase of construction and such other matters as are required herein or as may be requested by Developer with respect to the particular Phase in question. Developer agrees that Substantial Completion of a Phase shall occur on or before 18 months after execution of a Development Agreement or an amendment hereto for the Phase in question. The finish course of asphalt shall be constructed by Developer on or before 18 months after Substantial Completion of a Phase. If construction of Improvements in any Phase does not commence within nine (9) months of approval of the associated Plans, the Plans associated with that Phase shall be resubmitted for review and approval. The Improvements shall be subject to any applicable regulations in effect at the time of each review, including any new ordinances enacted by the Village.

7) Reimbursement of Engineering, Inspections, Administrative and Miscellaneous Costs. Pursuant to the Village Subdivision Ordinance, the Developer agrees to reimburse the Village for engineering, inspections, administrative, legal and review fees incurred by the Village prior to and after the recording of the final Plat, at the times specified by the Village.

A. The Village shall provide the Developer with a quarterly accounting of all costs incurred under this Section. Upon request, the Village will provide the Developer with monthly accounting of all costs incurred under this Section.

B. The Developer shall pay all outstanding engineering, inspection, legal and administrative fees prior to the Village signing the final Plat.

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C. The Developer shall pay all Village engineering, inspection and administrative expenses incurred after the Village signs the Plat and through the end of all construction in the Development.

8) Method of Improvement. The Developer hereby agrees to engage contractors for all work covered by this Agreement who are qualified to perform the work and who shall be listed as qualified for such work by the Village, or by one of its Commissions in the event the Village or Commission has published lists of approved contractors prior to the date of this Agreement. The Developer further agrees to use materials and make the various installations in accordance with the approved plans and specifications made a part of this Agreement by reference, and including those standard specifications as the Village or its Commission may have adopted prior to this date.

9) As-Built Plans. Prior to final acceptance, the Developer shall provide the Village with as-built plans. As-built plans shall be provided in both an electronic format and in hard copy. As-built plans in electronic format and readable by AutoCAD must be provided showing all horizontal and vertical locations of public sanitary, water, and storm water utilities i.e. manholes, hydrants, water main bends and tee's, valves, sanitary and water lateral curb boxes, inlets, endwalls, etc. All vertical information shall be on NAVD88 datum. The profile drawings must also show the diameter, length and slope of all pipes. In addition, Developer shall provide to the Village as-built-plans showing the finished surface elevations at all lot corners demonstrating positive drainage between lot corners, and also showing the finished surface elevation of all stormwater management ponds, swales and infiltration areas for the Phase in question. The horizontal location of all water and sewer services shall be located as follows:

(i) Sewer laterals shall be located by the distance to the sewer 'wye' from the downstream manhole.

(ii) The ends of stubbed sewer laterals for future connection shall be located and the elevations determined and shown.

(iii) Water laterals shall be located by the distance from the nearest hydrant or valve on the main (whichever is closest) to the corporation stop.

(iv) The distance to the curb stop from the main shall also be provided.

Any bends in the water main shall be indicated by the length from the nearest main-line valve. For mapping purposes, a single electronic point file of the entire development describing the as-built surface features of the new sanitary sewer, water system and storm sewer system, i.e. manholes, hydrants, water main bends, lateral curb boxes, valves, inlets, endwalls, etc., on the Dane County Coordinate system must be provided. This point file must include; northing, easting, elevation (NAVD88), and a point description. The Village's engineer can obtain the electronic file for the surface

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features, at the Developer's cost, when requested by either the Village or the Developer, provided that the Developer locates these features in the field. The Village Engineer will update all applicable Village maps and computer water and stormwater models. The cost of updating of Village maps and computer water and stormwater models to incorporate this development shall be borne by the Developer.

All sanitary sewer mains shall be televised in accordance with the Village's standard specifications. A colored DVD of the televising as well as a written report of the location of laterals and lengths of pipe shall be provided to the Village before final acceptance of the sewer.

10) Building Openings. Developer shall place a note on the Plat approved by the Village identifying the lots in the Plat which require certain minimum unprotected building foundation opening elevations two (2) feet above the peak water elevation during a 200-year storm event based on the approved stormwater management plan, so potential buyers are made aware of the lots as to which the foregoing is applicable. Developer shall record a restrictive covenant enforceable by the Village requiring compliance with all minimum opening elevations as shown on the plat.

11) Issuance of Building Permits. Developer shall request from the Village Board the waiver required under Village Ordinances in order to permit Developer to construct a model home. Developer shall provide access to the model home by means of a gravel driveway from a public thoroughfare sufficient to provide emergency vehicle access to the model home. No occupancy permit shall be issued for the model home until completion of all infrastructure Improvements.

12) Responsibility of Village.

A. The Village will perform no repair, maintenance, or snow plowing on any improvement until accepted by the Village. Developer shall assure that all dedicated streets shall be cleared of snow and ice after the issuance of any building permit and prior to acceptance by the Village Director of Public Works.

B. Except for the surface course of asphalt pavement, the Village shall accept the completed Improvements upon satisfactory testing and inspection of the same in accordance with the Village's standard practices, satisfactory placement of a binder course of asphalt pavement and satisfaction of all conditions of paragraph 2Q hereof.

13) Inspection. The Village shall inspect the status of the work in progress to determine if the work is progressing in a workmanlike manner pursuant to the Village Subdivision Ordinance and accepted industry standards. Notwithstanding the foregoing, the Developer has selected and appointed all Contractors, and the Village shall have no responsibility whatsoever for the Contractors or for the quality of the

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materials or workmanship provided by such Contractors. No authority granted herein to the Village in connection with the review or approval of the Improvements, shall be deemed to create any liability whatsoever on the part of the Village or its agents. No inspection of the Improvements by the Village or any agent of the Village shall alter the exclusive responsibility of the Developer for the construction and/or installation of such Improvements in a good and workmanlike manner and in accordance with the approved Plans and specifications.

14) Surety.

A. The Developer agrees to furnish to the Village, and to maintain in effect through the guaranty period provided in Section 4, at Developer's option either a letter of credit or a surety bond (in either case the **"Surety"**) for each Phase in the minimum amount of 120% of the cost of the infrastructure Improvements for that Phase, in order to secure performance of this Agreement in accordance with the Village's Subdivision Ordinance. The amount of the Surety for Phase 1 shall include surety for completion of the Park Improvements described in Section 5.c, and in total shall be $___.

B. In the event the Developer fails to complete all Improvements in compliance with this Agreement and the Village approved Plans for the associated Phase, to promptly repair or replace any Improvements as required during the guarantee period, or pay any amounts required to be paid under this Agreement, the Village may perform or have performed all necessary work, and supply or have supplied all necessary equipment, goods, materials or services, to complete, repair or replace all or any part of some or all of the required Improvements in satisfactory form and/or satisfy any payment obligation of Developer hereunder, and recover all costs it incurs from the Surety. As used in this paragraph, "promptly" shall mean that repair or replacement is undertaken without delay, and completed as soon as reasonably practicable thereafter, considering all of the circumstances including, but not limited to, the nature of the required work, the availability of labor and materials, seasonal and other weather conditions, and the remaining term of the Surety, except that Developer's financial condition or circumstances shall not excuse any delay. In the event the Village validly exercises its right to recovery against the Surety, the Developer agrees to pay to the Village all of its costs and expenses, including reasonable attorneys' fees, relating to such exercise, and such expenses shall be recoverable from the Surety. The Surety shall be payable to the Village at any time upon presentation of (i) notice to the surety of the amount which the Village is entitled to be paid pursuant to the terms of this Agreement; (ii) an affidavit executed by the Village President, the Village Administrator or any other authorized Village officer stating that the Developer is in default under this Agreement; and (iii) the original of the Surety (if required by the surety). No provision in any Surety shall grant or require any opportunity for cure beyond that afforded Developer under this Agreement prior to the payment of the Village's claim or draft.

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C. As work progresses on installation of Improvements constructed as part of this Agreement, the Village Engineer, upon written request from the Developer from time to time, shall recommend a reduction in the amount of the Surety as hereinafter provided when portions of construction (water, sanitary sewer, street, sidewalk, greenway or other Improvements) have been accepted by the Village. Upon such recommendation, the Village Community & Economic Development Director is authorized to reduce the amount of the Surety. At no time during the construction shall the Surety be reduced to less than fifteen percent (15%) of the original amount, plus any amount determined sufficient by the Village to cover all costs of any remaining construction.

D. Upon written request by the Developer and determination by the Village that the Developer has reached substantial completion of the public Improvements for the Phase in question in accordance with the terms of this Agreement, the Village shall allow the Surety to be reduced to no less than fifteen percent (15%) of the original amount, which shall be held for a period of 14 months from the date of acceptance in accordance with paragraph 2(Q) of this Agreement, and then shall be released in its entirety by the Village.

E. A similar Surety shall be provided by the Developer for each subsequent Phase of the development as required.

F. Exhibit “E”, attached hereto and incorporated herein by reference, describes the Public Improvement Costs secured by the Surety furnished by the Developer to the Village for Phase 1 of the Plat. A similar exhibit shall be provided by the Developer for each subsequent Phase of the Development as required.

15) Miscellaneous.

A. Binding Effect. The terms and conditions of the Agreement shall run with the land and be binding upon the parties, their heirs, successors and assigns.

B. No Waiver. Nothing set forth in this Agreement shall be construed as, nor is intended to be, a waiver or release of any obligations imposed upon the Developer or the Village by the Ordinances, or any statutes or regulations applicable to the Improvements. No approval by the Director of Public Works, Village Engineer, Village Attorney, or any other person acting on behalf of the Village shall be construed as a waiver of any of the requirements of the Ordinances, or any statute or regulation governing the Improvements.

C. Developer as Independent Contractor. Notwithstanding any other provisions of this Agreement to the contrary, the Developer is an independent contractor, and nothing herein shall be construed so as to make the Developer, its Contractors or consultants agents of the Village, or the Village, its employees, agents or

consultants agents of the Developer. However, this does not limit the Village regulatory control over Developer regarding the quality of the required work or any other regulatory power of the Village. Furthermore, nothing contained in this Agreement shall be construed as creating any contractual relationship whatsoever between the Developer and the Village's consultants (planning, engineering, financial, and legal) or any persons or entities other than the Village.

D. Remedies for Breach. In the event of any breach by Developer of this Agreement, whether or not subsequently cured, the Developer shall pay, in addition to any damages or other relief obtained by the Village, all of the Village's costs and expenses, including reasonable attorneys' fees, relating to such breach, all of which shall be due and payable as incurred and shall be added to any judgment obtained by the Village.

E. No Third-Party Beneficiaries. This Agreement is intended solely to regulate the obligations of the parties hereto with respect to one another. Nothing in this Agreement is intended to create, admit or imply any liability to any third-party nor to provide any benefit to any person, firm, corporation or governmental or non-governmental entity not a party to this Agreement.

F. Limitation on Damages. In no event and under no circumstances shall the Village be liable under this Agreement to Developer for consequential, incidental, indirect, special or punitive damages, and Developer waives any claim to such damages. By way of example, and not limitation, "consequential damages" include lost profits or income, the cost of replacement financing, damage to reputation, lost business opportunities and loss of property values or anticipated property value increases. This limitation shall be effective regardless of the theory of liability and regardless of any breach or claim of breach.

G. Payment Deadlines. Time is of the essence with respect to all payments required to be made by Developer under this Agreement.

H. Notices. Any notice required hereunder shall be given in writing, signed by the party giving notice, personally delivered or mailed by certified or registered mail, return receipt requested, to the following:

To the Village:

Village Administrator
Village of McFarland
5915 Milwaukee St.
McFarland, WI 53558-0110

To the Developer:

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Brett Riemen & Brian Spanos
Lakestone Properties & Management, LLC
5910 Main Street
McFarland, WI 53558

I. Severability. If one or more of the provisions contained in this Agreement shall, for any reason, be held to be invalid, illegal or unenforceable, such invalidity, illegality or unenforceability shall not affect any other provision. If any such provision is held to be invalid as applied to any property or circumstances, such determination shall not affect the applicability of such provision to any other property or circumstances.

J. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original. A facsimile or digitally transmitted signature is deemed the equivalent of an original signature.

K. Recording. Either the Developer or Village may record a copy of this Agreement or a memorandum of this Agreement with the Register of Deeds for Dane County, Wisconsin.

L. Reserved Powers. Nothing contained in this Agreement constitutes a waiver of the Village's sovereign immunity under applicable law. All rights are reserved. This Agreement constitutes the Village's permission to develop the Property in Phases. All future amendments concerning a Phase shall be substantially and materially in conformance with the terms of this Agreement and the requirements of Village ordinances except as otherwise provided in Section 15 (N), below.

M. Governmental Authority. The Developer understands and acknowledges that as a governmental entity, the Village cannot surrender its governmental authority by contract, and nothing in this Agreement shall be construed to preclude or limit the exercise by the Village of any governmental authority vested in it by law.

N. Standards and Ordinances. Whenever references are made in this Agreement to standards, codes, or Ordinances in accordance with which the Development is to be performed, the latest revision of the Village's Ordinances shall apply unless otherwise expressly stated. In case of conflict between any referenced standard or code on the one hand, and any provision of this Agreement on the other hand, the more stringent requirement shall govern. All applicable laws, ordinances, statutes, rules, regulations, or orders in effect at the time the relevant work under this Agreement is performed shall apply to the Developer and its Contractors, employees, and representatives. The Developer shall procure and pay for all permits, licenses, certifications and other applicable governing authority requirements and inspections and shall furnish any documentation, bonds, security, or deposits required to permit any work within Development.

O. Compliance with Laws. The Improvements shall be constructed in accordance with all Village, County, State, and Federal ordinances, laws and regulations. In the event of enactment or amendment of any federal or state laws after the date of this Agreement establishing new requirements or obligations related to any Improvements not yet accepted by the Village, the Developer shall take such action as may be necessary to comply with such laws.

P. Changes in Laws. In the event any future legislation is enacted by the state or federal government which preempts the Village's right to enforce any provision of this Agreement, the parties agree that such legislation shall not affect the obligations hereunder. The Developer waives any and all right it may have under such subsequent legislation to the extent it would affect its rights or obligations hereunder. In the event the rights created or altered by such subsequent legislation are not, or cannot be waived, the Village shall have the right to terminate this Agreement.

Q. Neutral Construction. The parties acknowledge that this Agreement is the product of negotiations between the parties and that, prior to the execution hereof, each party has had full and adequate opportunity to have this Agreement reviewed by, and to obtain the advice of, its own legal counsel. Nothing in this Agreement shall be construed more strictly for or against any party because that party's attorney drafted this agreement or any part hereof.

R. Agreement Interpretation. All questions concerning interpretation or clarification of this Agreement or applicable Village Ordinances, including the discovery of ambiguities, conflicts, discrepancies, errors or omissions, or the acceptable performance thereof by the Developer, shall be immediately submitted in writing to the Village for resolution. The Developer shall, at all times, proceed with the work implementing the Development in accordance with the determinations, instructions, and clarifications of the Village, but all such determinations, instructions and clarifications shall be consistent with the terms of this Agreement. The Developer shall be solely responsible for requesting instructions or interpretations and shall be solely liable for any costs and expenses arising from its failure to do so.

S. Indemnification. The Developer will defend, indemnify and hold the Village and its officials, agents and employees harmless for all losses, claims, liabilities, expenses and costs, including reasonable attorney fees, arising from damages to property or injuries to the person occurring in connection with the making of the Improvements under this contract, except to the extent such damages or injuries are caused by the willful misconduct of the Village and its officials, agents and employees.

T. Restrictive Covenant. Developer agrees to record, contemporaneously with the recording of the Sperle Corners Plat that certain Restrictive Covenant (the **"Restriction"**) restricting the sale of lots in future Phases without the prior written

Draft

approval of the Village, a copy of which Restriction is attached hereto as Exhibit “D”, and incorporated herein by reference.

[Signature page to follow]

Draft

Dated this ____ day of_____, 2025.

VILLAGE OF MCFARLAND

By: _____

Print Name: Stephanie Brassington

Print Title: Village President

Attest: _____

Print Name: Cassandra Suettinger

Print Title: Deputy Administrator/Clerk

STATE OF WISCONSIN)
)ss>
COUNTY OF DANE)

Personally came before me, _____, notary public for the above State and County, this ____ day of _____, 2025, the above named Stephanie Brassington and Cassandra Suettinger, to me known to be the person who executed the foregoing instrument and acknowledged the same in the capacity and for the purposes therein intended.

_____

Print Name: _____
Notary Public, State of Wisconsin
My Commission expires:

Draft

Lakestone Properties & Management, LLC

By: _____
Brett Riemen, Authorized Signatory

By: _____
Brain Spanos, Authorized Signatory

STATE OF WISCONSIN)
)ss>
COUNTY OF DANE)

Personally came before me, _____, notary public for the above State and County, this ____ day of _____, 2025, the above named Brett Riemen and Brian Spanos, to me known to be the person who executed the foregoing instrument and acknowledged the same in the capacity and for the purposes therein intended.

_____

Print Name: _____
Notary Public, State of Wisconsin
My Commission expires:

Draft

EXHIBIT "A"

Page 1
Legal Description of Plat

Being a part of the Southeast one-quarter of the Southeast one-quarter of Section 2, Township 6 North, Range 10 East, Village of McFarland, Dane County, Wisconsin, being more particularly described as follows:

BEGINNING at the Southeast Corner of said Section 2; thence, along the South line of said Southeast 1/4, South 87°41'38" West, 1321.53 feet to the Southwest corner of said Southeast 1/4 of the Southeast 1/4, said point also being the Southeast corner of the plat of Park View Estates, recorded in Volume 57 of Plats on Pages 782 through 785 as Document No. 3459436; thence, along the East line of said plat, North 02°34'49" East, 626.90 feet to the Southwest corner of Lot 3 of Certified Survey Map (CSM) No. 15493, recorded in Volume 111 of CSMs on Pages 284 through 286 as Document No. 5637506; thence, along the South line of said CSM and its Easterly extension, North 87°40'27" East, 1316.58 feet to the Southeast corner of said CSM, lying on the East line of aforesaid Southeast one-quarter; thence, along said East line, South 02°07'34" East, 149.72 feet to the Northeast corner of Lot 1 of CSM No. 1455, recorded in Volume 6 of CSMs on Page 144 as Document No. 1400799; thence, along the North line of last said CSM, South 87°41'15" West, 291.58 feet to the Northwest corner of said Lot 1; thence, along the West line of said Lot 1, South 02°07'34" West, 150.00 feet to the Southwest corner of said Lot 1; thence, along the South line of said Lot 1, North 87°41'15" East, 291.58 feet to the Southeast corner of said Lot 1, lying on said East line of the Southeast one-quarter; thence, along said East line, South 02°07'34" East, 327.23 feet to the **POINT OF BEGINNING**.

The above-described parcel contains 780,586 sq. feet or 17.9198 acres, more or less, and is **SUBJECT TO** easements for Public road right-of-way purposes for Elvehjem Road and County Trunk Highway "AB" and is **ALSO SUBJECT TO** all other matters of record and/or fact.

Draft

Page 2
Phasing Plan

TO BE PROVIDED BY DEVELOPER

Draft

EXHIBIT "B"

Engineering Plans

See attached.

NOTE: To be updated prior to recording Development Agreement with approved plans.

Draft

EXHIBIT "C"

Parkland Dedication and Fees in Lieu of Dedication

1. **Dedication requirement:**

147 Duplex, Townhouse and Multi-Family Dwelling Units (collectively "MFDU") @ 1,463 square feet/unit = 215,061 square feet or 4.94 acres.

2. **Dedication by plat:**

Outlot 2 =	15,342 square feet
8 feet for path Elvehjem Road and CTH AB (excluding 2921 CTH AB frontage) =	13,663 square feet
Total =	29,005 Square feet or 0.67 acres

3. **Fee in lieu of dedication:**

215,061 – 29,005 = 186,056 square feet
29,005 / 215,061 = 13.4869% (percent of required dedication provided by developer)

4. **Fee in lieu of dedication by unit (by way of example for 2025):**

MFDU fee in lieu of dedication =	$3,321.52 (as of 1/1/2025)*
MFDU: 0.134869 x $3,321.52/MFDU* =	$447.97 per MFDU*
Total =	$2,873.55 per MFDU*

*The Park Fee In Lieu of Dedication shall be paid on a per Phase basis, prior to commencement of construction on such Phase, at the rate in effect as of the date on which this Development Agreement is entered into, or as of the date on which an amendment to this Development Agreement is entered into for the Phase in question.

Draft

EXHIBIT “D”

Restriction as to Future Sale of Lots

See attached.

Draft

Document Number	**Declaration of Conditions, Covenants and Restrictions Sperle Corners, Village of McFarland, Dane County, WI** *Title of Document*

WHEREAS, Lakestone Properties & Management, LLC, a Wisconsin Limited Liability Company (**"Owner"**) owner of those lots described in Exhibit "A" attached hereto and incorporated herein by reference, (the **"Lots"**), will construct certain public work improvements in construction phases as authorized by the Village of McFarland to provide services to said Lots; and

Name and Return Address:

Allen Reuter
Reuter, Whitish & Evans, S.C.
4600 American Parkway, Suite 104
Madison, Wisconsin 53718

See Exhibit "A"
(Parcel Identification Number)

Draft

WHEREAS, authority to construct said public work improvements in construction phases is contingent upon the Owner recording a deed restriction restricting the sale of Lots included in future construction phases without prior approval of the Village of McFarland.

NOW, THEREFORE, the undersigned Owner hereby declares and provides:

1) The Village of McFarland and Owner have entered into a Development Agreement for Sperle Corners containing certain agreements of the parties with respect to construction and development of the Sperle Corners Subdivision. Record notice is hereby given of such Development Agreement. A copy of the Development Agreement is maintained at the Offices of the Village of McFarland.

2) That the Lots shall not be sold or transferred until such time as an instrument is recorded by the Village of McFarland in the Dane County Register of Deeds office, approving the sale or transfer of said Lots. The Owner shall be entitled to a release of the restrictions contained herein as to those Lots governed by a subsequent development agreement (or amendment to the existing Development Agreement) at such time as surety is provided to the Village of McFarland to ensure the performance of the contract for subdivision improvements for a future construction phase. This restriction shall not be in effect for those lots described in Exhibit "B", attached hereto and incorporated herein by reference (the **"Phase 1 Lots"**).

Dated this _____ day of _____, 20_____.

LAKESTONE PROPERTIES &
MANAGEMENT, LLC

By:_____

Print Name: _____

Print Title: _____

STATE OF WISCONSIN)
)ss>
COUNTY OF DANE)

Personally came before me, a notary public for the above State and County, this _____ day of _____, 20__, the above named _____, to me known to be the person who executed the foregoing instrument and acknowledged the same in the capacity and for the purposes therein intended.

Print Name: _____
Notary Public, State of Wisconsin
My Commission expires:

Drafted by:
Allen Reuter

Draft

Exhibit "A" to Restriction

Lots Subject to Restriction

Lots 1-17 within Sperle Corners, recorded in Volume _____ of Plats on pages _____ as Document Number _____ in the Dane County Register of Deeds Office, located in the Village of McFarland, Dane County, Wisconsin.

NOTE: To be updated prior to recording Restriction.

Draft

Exhibit "B" to Restriction

Phase 1 Lots

Lot 18 within Sperle Corners, recorded in Volume _____ of Plats on pages _____ as Document Number _____ in the Dane County Register of Deeds Office, located in the Village of McFarland, Dane County, Wisconsin.

NOTE: To be updated prior to recording Restriction.

Draft

EXHIBIT "E"

Public Improvements Costs Secured by Surety

See attached.

NOTE: To be provided by Developer prior to recording Development Agreement based on approved plans.

Draft

EXHIBIT "F"

Properties Subject to East Side Sanitary Sewer Interceptor and Developer's Share

To be determined per Phase

Draft

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants

August 18, 2025

Community & Economic Development Department
Attn: Andrew Bremer
5915 Milwaukee Street
McFarland, WI 53558

Re: Sperle Corners – Village of McFarland

Enclosed are the following documents for the above referenced project:

1. Sperle Corners – Village of McFarland Plan Set (17 Pages)
2. Universal Soil Loss Equation (USLE) worksheet
3. Existing Drainage Plan
4. Pre-Development HydroCAD Report
5. Proposed Drainage Plan
6. Post-Development HydroCAD Reports
7. Phase 1 Storm Sewer Drainage Plan
8. Phase 1 Rational Method Worksheets
9. WinSLAMM Drainage Plan
10. Sediment Control Calculations
11. Hydrologic Soil Information;
12. Soil and Site Evaluation – Storm (2024)
13. Stormwater Management Maintenance Agreement;

The proposed development includes the construction of several new duplexes and 4-unit homes, as well as the construction of larger apartment buildings in phase 2. Phase 1 of the development includes the extension of Devils Lake Way to connect with Elvehjem Road and the construction of seven duplexes and four four-unit buildings as well as a wet pond to meet rate and sediment control standards. Phase 2 includes the construction of three apartment buildings along with the adjacent parking lots. An additional wet pond and infiltration basin are proposed to meet rate, sediment, and infiltration standards.
Runoff to the existing wetlands is being maintained by routing half of the water from the infiltration basin to the central wetland. In addition, the runoff from the back of the north, phase 1 lots is being directed to the northern wetland which is adjacent to the existing bike path along the north side of the property.
The documents are being submitted to address erosion control and stormwater management requirements for the proposed combination of new development for all phases and will meet the following performance standards as defined in the Village of McFarland Ordinance as follows:

Erosion Control
The proposed construction shall include erosion control measures to prevent gully and bank erosion and limit total off-site erosion to less than 5.0 tons per acre per year.

All runoff during construction shall be directed to flow through erosion control measures as shown on the Grading and Erosion Control Plan. The USLE calculation worksheet is included and indicates that soil loss will be less than 5.0 tons per acre per year.

Sediment Control

For new development, the proposed construction shall include design practices to retain soil particles greater than five microns (80% reduction) on the entire site resulting from the one-year 24-hour storm event. For redevelopment resulting in exposed surface parking and drive areas, design practices to retain soil particles greater than twenty microns (40% reduction) resulting from a one-year 24-hour storm event shall be included.

The proposed wet ponds and infiltration basin are designed to retain soil particles greater than five microns (80% reduction) on the entire site resulting from the one-year 24-hour storm event. The sediment control calculations include treatment of the existing roadway as a substitution for portions of the proposed roadway and roof area that will not be treated by the proposed wet ponds and infiltration basin. The detailed sediment control calculations are included as Exhibit #10.

Oil and Grease Control

The first ½" runoff shall be treated using oil and grease removal technology.

Oil and grease control is not required for phase 1 of the site because the driveways and streets will contain minimal vehicle parking, and the proposed use does not include drive-through or vehicle maintenance. Therefore, the site is not a significant contributor of oil and grease.

On phase 2 of the site contains oil and grease control will be provided by the FlexStorm PCP inlet filter.

Runoff Rate Control

All stormwater facilities shall be designed, installed and maintained to effectively maintain pre-development peak runoff rates for the 1, 2, 10, 100, and 200-year, 24-hour storm event.

The proposed wet pond, infiltration basin, wetland seeding, and deep tilling will effectively maintain pre-development peak runoff rates for the 2, 10, 100, and 200 year, 24-hour storm event. The following table summarizes how the proposed stormwater management practices meet standards for peak flow rates. The 1-year rain event is being managed to the greatest extent possible while maintaining drainage to existing wetlands.

Storm Event (Year)	Total Existing Flow Rate (cfs)	Total Proposed Flow Rate Without Pond (cfs)	Total Proposed Flow Rate With Pond (cfs)
1	1.12	24.16	1.42
2	1.86	28.87	1.86
10	6.31	48.23	4.59
100	23.49	92.72	18.74
200	30.50	108.49	29.46

Outlets

Discharges from the site must have a stable outlet capable of carrying the designed flow at a non-erosive velocity.

The wet ponds, infiltration basin, riprap pads, and restored lawn area will provide a stable outlet for the site.

Infiltration

All downspouts, driveways, and other impervious areas shall be directed to pervious areas, where feasible. Additionally, for residential and non-residential developments design practices to infiltrate sufficient runoff volume so that post-development infiltration volume shall be at least 90% of the pre-development infiltration volume, based on average annual rainfall per Dane County Ordinance. If entire site has 5+ feet of clay-textured soils dedicate 2% of the site to infiltration practices that maximize infiltration and conform to applicable standards.

Due to the clayey soils throughout the site, 2% of the site has been proposed for an infiltration basin and a phase 2 infiltration swale while maintaining the design draw down depth of the infiltration basin.

If the documents are satisfactory, please approve the erosion control and storm water management permits. If you have any questions or comments, please feel free to contact me.

Sincerely,



Mark Fendry, P.E.

CC: Brian Berquist, Town and County Engineering
Brett Riemen, Lakestone Properties and Management

FN: LS-03-19

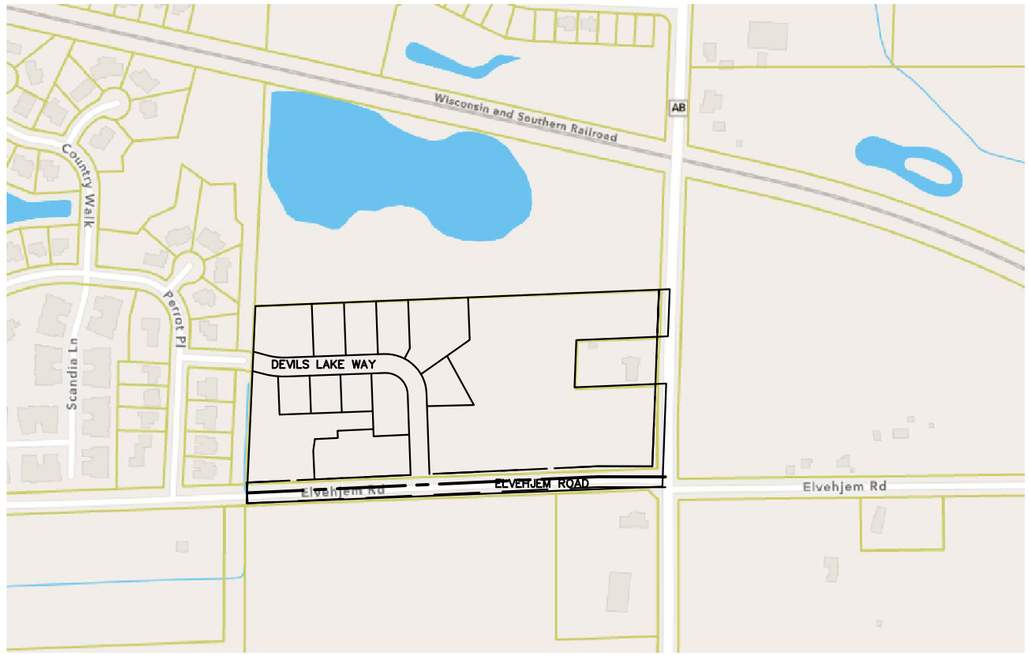
SPERLE CORNERS RESIDENTIAL SUBDIVISION

STREET AND UTILITY CONSTRUCTION

VILLAGE OF MCFARLAND
DANE COUNTY, WISCONSIN

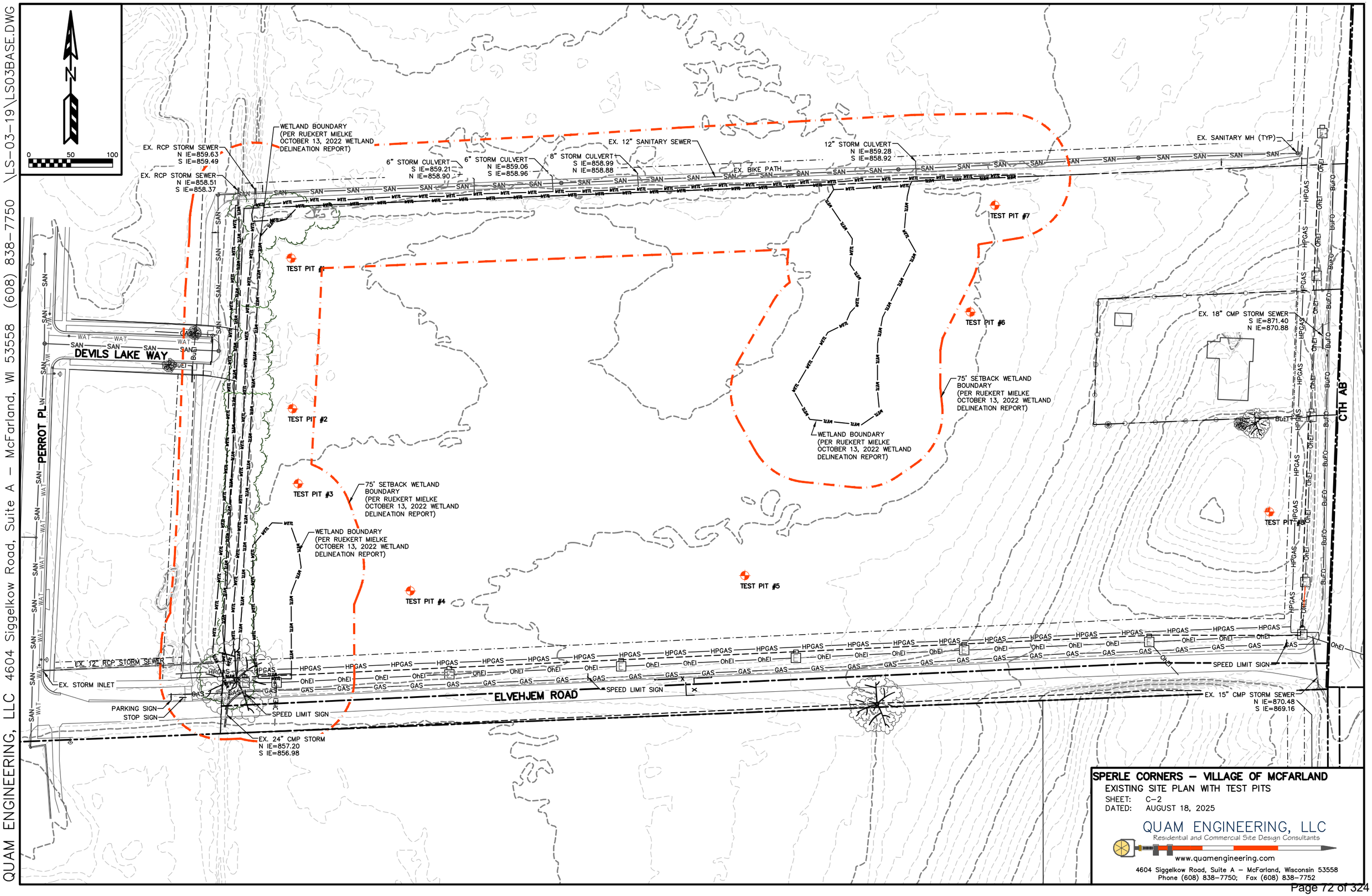
INDEX

SHEET	STATIONS	DESCRIPTION
1		COVER PAGE
2		EXISTING SITE PLAN
3		OVERALL GRADING AND STORM WATER MANAGEMENT PLAN
4		WEST POND PLAN
5		EAST POND PLAN
6	0+00 – 6+00	DEVILS LAKE WAY – PLAN AND PROFILE
7	6+00 – 10+00	DEVILS LAKE WAY – PLAN AND PROFILE
8	20+00 – 27+50	STORM SEWER – PLAN AND PROFILE
9	29+00 – 35+00	STORM SEWER – PLAN AND PROFILE
10	50+00 – 56+00	WATER MAIN – PLAN AND PROFILE
11	56+00 – 62+00	WATER MAIN – PLAN AND PROFILE
12		SIGN & LIGHTING PLAN
13		STREET TREE PLAN
14		DETAILS #1
15		DETAILS #2
16		DETAILS #3
17		DETAILS #4



QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
www.quamengineering.com
4604 Siggelkow Road, Suite A; McFarland, Wisconsin 53558
Phone (608) 838–7750; Fax (608) 838–7752

QUAM ENGINEERING, LLC 4604 Siggelkow Road, Suite A; McFarland, WI 53558 (608) 838–7750



QUAM ENGINEERING, LLC 4604 Siggelkow Road, Suite A – McFarland, WI 53558 (608) 838-7750 \LS-03-19\LS03BASE.DWG

SPERLE CORNERS – VILLAGE OF MCFARLAND

EXISTING SITE PLAN WITH TEST PITS

SHEET: C-2

DATED: AUGUST 18, 2025

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
www.quamengineering.com
4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558
Phone (608) 838-7750; Fax (608) 838-7752

QUAM ENGINEERING, LLC 4604 Siggelkow Road, Suite A – McFarland, WI 53558 (608) 838-7750 \LS-03-19\LS03BASE.DWG

0 50 100

WETLAND BOUNDARY (PER RUEKERT MIELKE OCTOBER 13, 2022 WETLAND DELINEATION REPORT)

EX. RCP STORM SEWER N IE=859.63 S IE=859.49

EX. RCP STORM SEWER N IE=858.51 S IE=858.37

6" STORM CULVERT S IE=859.21 N IE=858.90

6" STORM CULVERT N IE=859.06 S IE=858.96

8" STORM CULVERT S IE=858.99 N IE=858.88

EX. 12" SANITARY SEWER

EX. BIKE PATH

12" STORM CULVERT N IE=859.28 S IE=858.92

EX. SANITARY MH (TYP)

SILT FENCE OR SOCK (SEE DETAIL)

75' SETBACK WETLAND BOUNDARY (PER RUEKERT MIELKE OCTOBER 13, 2022 WETLAND DELINEATION REPORT)

ROCK CHECK DAM (SEE DETAIL)

OVERFLOW=862.73

DUPLEX MLO=863.15 FF=866.00 BASEMENT=860.00 6 GARAGE/ENTRY STEPS

DUPLEX MLO=863.15 FF=866.00 BASEMENT=860.00 4 GARAGE/ENTRY STEPS

DUPLEX MLO=863.15 FF=866.00 BASEMENT=860.00 3 GARAGE/ENTRY STEPS

DUPLEX MLO=863.15 FF=866.00 BASEMENT=860.00 2 GARAGE/ENTRY STEPS

4-UNIT MLO=863.15 FF=865.00 BASEMENT=860.00 0 GARAGE/ENTRY STEPS

DEVILS LAKE WAY

PERROT PL

WETLAND DISTURBANCE AREAS

DUPLEX MLO=863.50 FF=866.00 BASEMENT=860.00 6 GARAGE/ENTRY STEPS

DUPLEX MLO=863.50 FF=866.00 BASEMENT=860.00 4 GARAGE/ENTRY STEPS

DUPLEX MLO=863.50 FF=866.00 BASEMENT=860.00 3 GARAGE/ENTRY STEPS

4-UNIT MLO=863.50 FF=865.00 BASEMENT=860.00 4 GARAGE/ENTRY STEPS

SILT FENCE OR SOCK (SEE DETAIL)

WETLAND BOUNDARY (PER RUEKERT MIELKE OCTOBER 13, 2022 WETLAND DELINEATION REPORT)

75' SETBACK WETLAND BOUNDARY (PER RUEKERT MIELKE OCTOBER 13, 2022 WETLAND DELINEATION REPORT)

4-UNIT MLO=863.50 FF=865.00 BASEMENT=860.00 6 GARAGE/ENTRY STEPS

4-UNIT MLO=863.50 FF=865.00 BASEMENT=860.00 6 GARAGE/ENTRY STEPS

STONE CONSTRUCTION ENTRANCE (SEE DETAIL)

ROCK CHECK DAM (SEE DETAIL)

WETLAND BOUNDARY (PER RUEKERT MIELKE OCTOBER 13, 2022 WETLAND DELINEATION REPORT)

EX. 18" CMP STORM SEWER S IE=871.40 N IE=870.88

APPROXIMATE TOP=872.99

CTH AB

WETLAND DISTURBANCE AREAS

EX. 12" RCP STORM SEWER

EX. STORM INLET

PARKING SIGN

STOP SIGN

SPEED LIMIT SIGN

OVERFLOW=861.70

EX. 24" CMP STORM N IE=857.20 S IE=856.98

ELVEHJEM ROAD

SPEED LIMIT SIGN

SPEED LIMIT SIGN

EX. 15" CMP STORM SEWER N IE=870.48 S IE=869.16

LEGEND FOR COMMON LINES:

- 964 – EXISTING MINOR CONTOUR
- 965 – EXISTING MAJOR CONTOUR
- 964 – PROPOSED MINOR CONTOUR
- 965 – PROPOSED MAJOR CONTOUR
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- EASEMENT LINE
- 75 FT SHORELINE SETBACK
- EXISTING FENCE
- WAT – EXISTING BURIED WATER MAIN/SERVICE
- SAN – EXISTING BURIED SANITARY SEWER/LATERAL
- GAS – EXISTING BURIED GAS LINE
- BuCom – EXISTING BURIED COMMUNICATION LINE
- BuFO – EXISTING BURIED FIBER OPTIC LINE
- BuTel – EXISTING BURIED TELEPHONE LINE
- BuEl – EXISTING BURIED ELECTRIC LINE
- OhUtl – EXISTING OVERHEAD UTILITY LINE
- OhEl – EXISTING OVERHEAD ELECTRIC LINE
- PROPOSED SILT FENCE/SOCK (SEE DETAIL)
- PROPOSED LIMITS OF DISTURBANCE
- MLO – MINIMUM LOWEST OPENING
- FLEXSTORM INLET PROTECTION (SEE DETAIL)

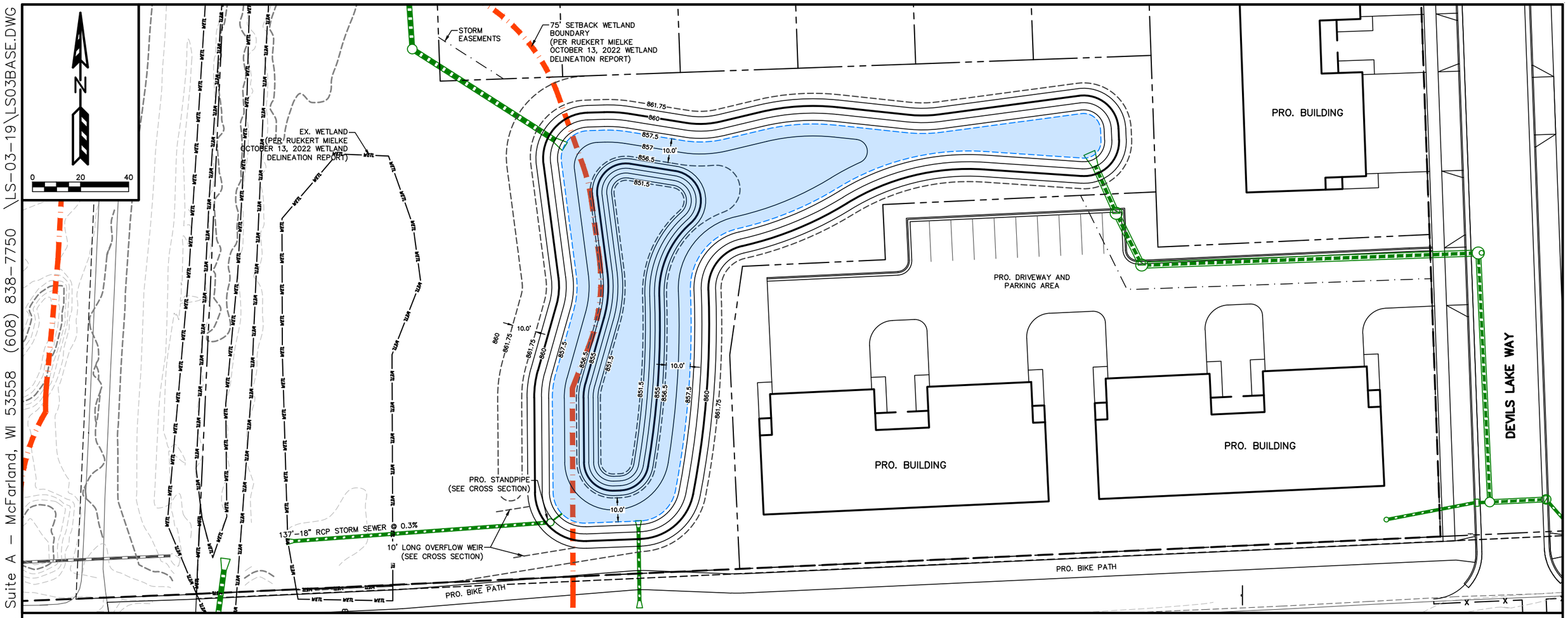
SPERLE CORNERS – VILLAGE OF MCFARLAND

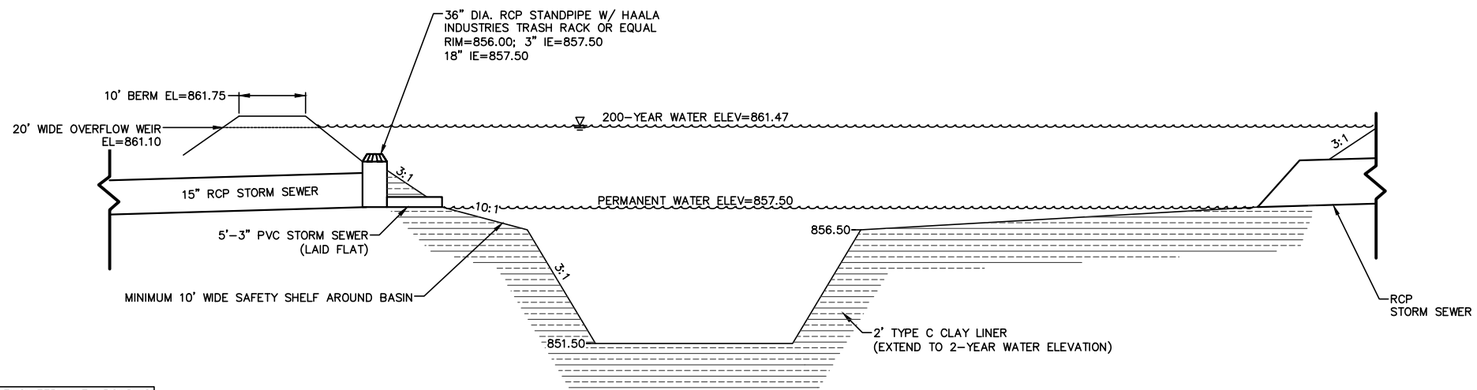
OVERALL GRADING & STORM WATER MANAGEMENT PLAN

SHEET: C-3

DATED: AUGUST 18, 2025

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
www.quamengineering.com
4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558
Phone (608) 838-7750; Fax (608) 838-7752





WEST WET POND PEAK ELEVATIONS	
STORM	ELEV
1-YR	859.42
2-YR	859.73
10-YR	860.21
100-YR	861.25
200-YR	861.47

CONTRACTOR SHALL NOTIFY ENGINEER WHEN POND IS GRADED TO FINISH ELEVATIONS FOR AS-BUILT TOPOGRAPHIC COLLECTION. IF PUMPING IS REQUIRED TO ALLOW THE BOTTOM TO BE COLLECTED, CONTRACTOR SHALL ARRANGE FOR PUMPING.

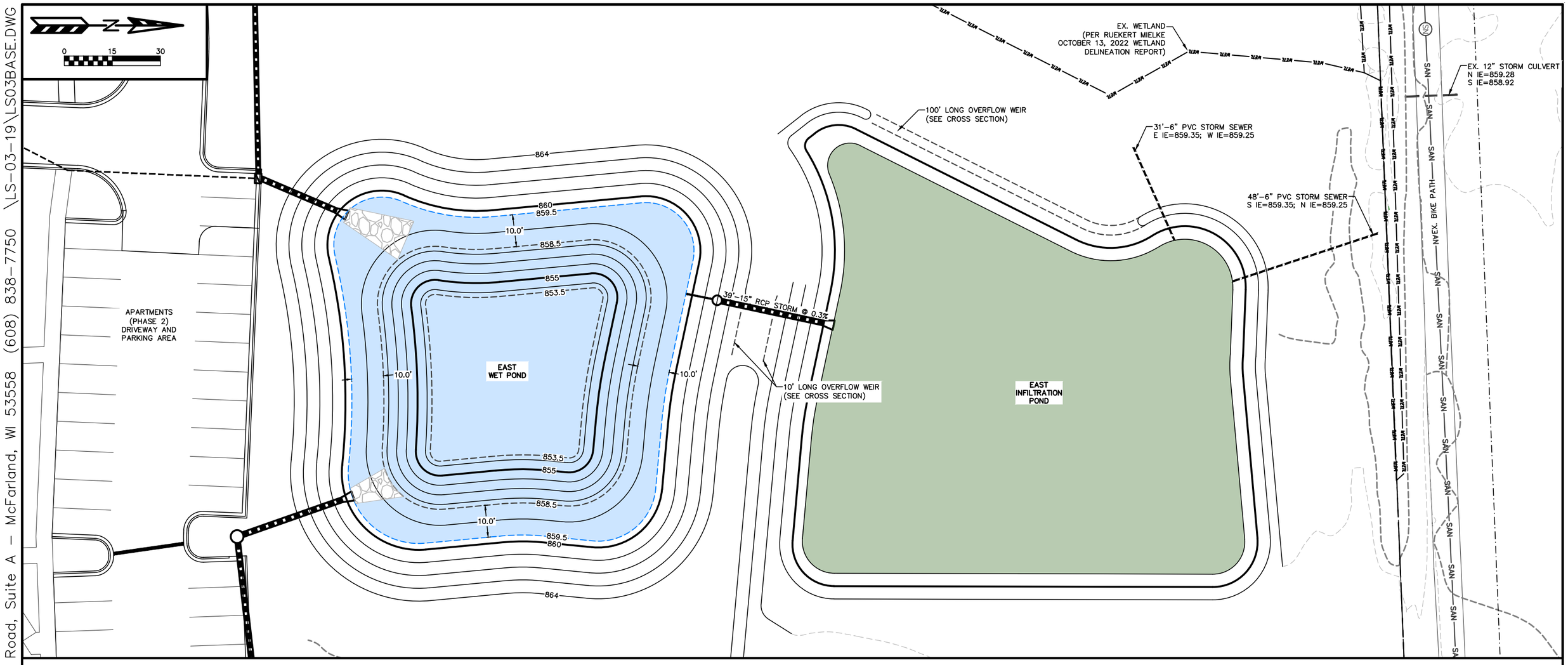
WEST WET DETENTION POND CROSS SECTION

SPERLE CORNERS - VILLAGE OF MCFARLAND
WEST POND PLAN
SHEET: C-4
DATED: AUGUST 18, 2025

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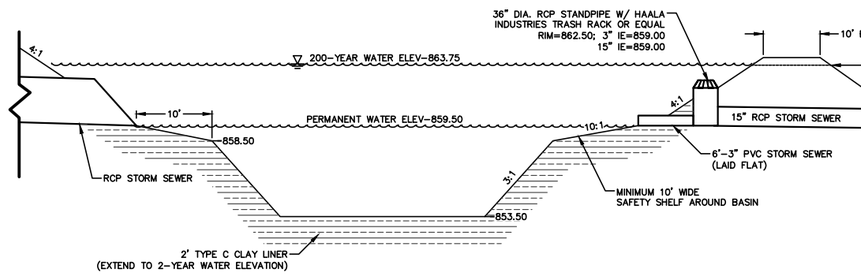
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EAST WET POND PEAK ELEVATIONS	
STORM	ELEV
1–YR	861.48
2–YR	861.80
10–YR	862.61
100–YR	863.42
200–YR	863.75

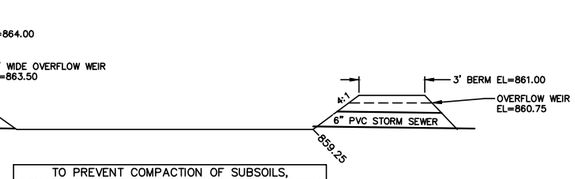
WET DETENTION POND CONSTRUCTION SHALL CONFORM TO WISCONSIN DNR TECHNICAL STANDARD #1001



EAST WET DETENTION POND CROSS SECTION

CONTRACTOR SHALL NOTIFY ENGINEER WHEN POND IS GRADED TO FINISH ELEVATIONS FOR AS-BUILT TOPOGRAPHIC COLLECTION. IF PUMPING IS REQUIRED TO ALLOW THE BOTTOM TO BE COLLECTED, CONTRACTOR SHALL ARRANGE FOR PUMPING.

INFILTRATION BASIN CONSTRUCTION SHALL CONFORM TO WISCONSIN DNR TECHNICAL STANDARD #1003



TO PREVENT COMPACTION OF SUBSOILS, CONTRACTOR SHALL PROTECT AGAINST MACHINERY ENTERING OR COMPACTING THE INFILTRATION AREA.

EAST INFILTRATION BASIN CROSS SECTION

CONTRACTOR SHALL NOTIFY ENGINEER WHEN POND IS GRADED TO FINISH ELEVATIONS FOR AS-BUILT TOPOGRAPHIC COLLECTION. IF PUMPING IS REQUIRED TO ALLOW THE BOTTOM TO BE COLLECTED, CONTRACTOR SHALL ARRANGE FOR PUMPING.

THE SEED MIXTURE FOR THE INFILTRATION BASIN BOTTOM SHALL BE RAINWATER RENEWAL SEED MIX SUPPLIED BY AGRECOL OR EQUIVALENT. MIX 80% SAND, 20% COMPOST WITH THE NATIVE LOAMY FINE SAND SOIL.

EAST INFILTRATION BASIN PEAK ELEVATIONS	
STORM	ELEV
1–YR	859.65
2–YR	859.67
10–YR	859.96
100–YR	860.96
200–YR	861.00

LAKESTONE PROPERTIES – VILLAGE OF MCFARLAND

EAST POND PLAN

SHEET: C–5

DATED: AUGUST 18, 2025

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EX. WETLAND
(PER RUEKERT MIELKE OCTOBER 13, 2022
WETLAND DELINEATION REPORT)

EX. SIDEWALK
EX. SAN SEWER
EX. HYDRANT
8" VALVE
EX. GAS
CONNECT TO EX. WATER MAIN
EX. WATER MAIN
EX. 10" PVC SAN SEWER
EX. SAN MH
INLET #8.1
INLET #8
INLET #3.3
INLET #3.1
INLET #3.2
INLET #3
SAN MH #1
OUTFALL
24" RCP STORM
15" RCP STORM
8" PVC SAN SEWER
12" RCP STORM SEWER
(SEE STORM SEWER PLAN & PROFILES)
SEE STORM SEWER PLAN & PROFILES
5' SIDEWALK
EX. SIDEWALK
WETL
0+00
0+50
1+00
1+50
2+00
2+50
3+00
3+50
4+00
4+50
5+00
5+50
6+00

DEVILS LAKE WAY

437'-8" WATER MAIN (D.I.)
8" PVC SAN SEWER
PROPOSED 1 ¼" COPPER WATER SERVICE w/ CURB STOP (TYP) MARK WITH 4"x4" POST
PROPOSED 4" PVC SANITARY SEWER LATERAL w/ TRACER BOX (TYP) MARK WITH 4"x4" POST

HYDRANT
STA 5+04.55, 20.5' LT
6"X8" TEE
5.0' OFF BOC
11.5'-6" WATER MAIN
BURY LINE=865.01
BOTTOM=857.01
8" VALVE
SAN MH #2
92'-8" WATER MAIN (D.I.)
8" PVC SAN SEWER
MATCH LINE (STA 6+00)

N
0 20 40

INLET #8.1 0+95.65, 15.32' LT
NEENAH R-3067 CASTING
W/ TYPE 'R' GRATE
2'X3' BOX
TC=862.35; N IE=858.35
S IE=858.25

INLET #8 0+95.18, 13.5' RT
NEENAH R-3067 CASTING
W/ TYPE 'R' GRATE
2'x3' CONC. BOX
TC=862.28;
N IE=858.16
S IE=858.10

INFALL=858.85
OUTFALL=858.00
25'-24" RCP STORM SEWER @ 2.00%
29'-24" RCP STORM SEWER @ 0.30%
32'-24" RCP STORM SEWER @ 0.30%
INLET #8 – INLET #8.1

VPI STA. = 0+95.38
VPI EL. = 862.18
g1 = -0.60%
g2 = 0.60%
CURVE LEN = 50.00
K = 41.88

VPC STA = 0+70.38
VPC EL = 862.33
VPT STA = 1+20.38
VPT EL = 862.33

GRADE BREAK STA = 0+00.00
ELEV = 862.75
-0.60%
0.60%
PROPOSED CENTERLINE PROFILE
EX. CENTERLINE PROFILE
7.0' MINIMUM COVER

EX. SAN MH 0+81.64, 2.05' LT
RIM=862.23
N IE=849.45
E IE=850.62 (8" CORE & BOOT)
EX. W IE=849.35 (PER VILLAGE AS-BUILTS)

24" STORM SEWER CROSSING
IE=858.20
15" STORM SEWER CROSSING
IE=859.34
D=10.42'
EX. WATER MAIN
104'-8" SANITARY SEWER @ 1.6%
8" CORE AND BOOT

SAN MH #1, 1+85.01, 1.00' RT
NEENAH R-1550-A CASTING
48" PRECAST CONC. MH
RIM=862.70
E IE=852.33
W IE=852.28

354'-8" SANITARY SEWER @ 0.42%
8" WATER MAIN (D.I.)
PIPE LAID FLAT
TOP ELEVATION=857.43
8" SANITARY SEWER

SAN MH #2, 5+38.58, 1.00' LT
NEENAH R-1550-A CASTING
48" PRECAST CONC. MH
RIM=864.82
SE IE=853.87
W IE=853.82

VPI STA. = 5+67.45
VPI EL. = 865.01
g1 = 0.60%
g2 = -0.60%
CURVE LEN = 50.00
K = 41.67

VPC STA = 5+42.45
VPC EL = 864.86
VPT STA = 5+92.45
VPT EL = 864.86
PRO. HYDRANT
D=11.00'

0+00	0+50	1+00	1+50	2+00	2+50	3+00	3+50	4+00	4+50	5+00	5+50	6+00
862.75	862.60	862.45	862.30	862.26	862.36	862.51	862.66	862.81	862.96	863.11	863.26	863.41
864.98	862.53	862.36	862.29	858.04	859.70	861.00	861.00	861.00	860.96	860.77	860.54	860.30

863.56	863.71	863.86	864.01	864.16	864.31	864.46	864.61	864.76	864.90	864.93	864.82
860.06	860.00	860.00	860.00	860.00	860.00	860.00	860.00	860.00	860.00	860.00	860.00

\LS-03-19\DEVILS LAKE WAY PLAN AND PROFILE.DWG

SPERLE CORNERS RESIDENTIAL SUBDIVISION – DEVILS LAKE WAY LS-03-19 08/18/2025 **SHEET C-6**

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PROPOSED 42'-8" DUCTILE IRON PRIVATE WATER SERVICE w/ 8" VALVE MARK WITH 4"x4" POST

PROPOSED 8" PVC SANITARY SEWER LATERAL @ 0.57% w/ TRACER BOX (TYP) (SIZE TO BE CONFIRMED) STUB IE=855.18 MARK WITH 4"x4" POST

HYDRANT STA 9+10.43, 20.5' LT 6"X8" TEE 5.0' OFF BOC 13'-6" D.I. WATER MAIN BURY LINE=863.25 BOTTOM=855.25

PROPOSED 6" PVC SANITARY SEWER LATERAL w/ TRACER BOX (TYP) (SIZE TO BE CONFIRMED) MARK WITH 4"x4" POST

PROPOSED 6" DUCTILE IRON WATER SERVICE w/ 6" VALVE (SIZE TO BE CONFIRMED) MARK WITH 4"x4" POST

5' SIDEWALK

SANITARY AND WATER CROSSING SANITARY TOP=855.61 WATER BOTTOM=856.27

314'-8" WATER MAIN (D.I.)

8" PVC SAN SEWER

SAN MH #3

SAN MH #4

SAN MH #5

8" PVC SAN SEWER

DEVILS LAKE WAY

CB #6

24" RCP STORM

12" RCP STORM

INFALL STA 9+52.88, 39.84' LT

12" RCP STORM

SAWCUT

84'-8" WATER MAIN (D.I.)

8"x12" TEE w/ (1) 8" VALVE, (1) 12" VALVE

CAUTION-GAS CROSSING

MH #7

INLET #7.2

CB #7.1

CB #7.3

MATCH LINE (STA 6+00)

PROPOSED 6" DUCTILE IRON WATER SERVICE w/ 6" VALVE (SIZE TO BE CONFIRMED) MARK WITH 4"x4" POST

PROPOSED 6" PVC SANITARY SEWER LATERAL w/ TRACER BOX (TYP) (SIZE TO BE CONFIRMED) MARK WITH 4"x4" POST

PROPOSED 6" DUCTILE IRON PRIVATE WATER SERVICE w/ 6" VALVE (SIZE TO BE CONFIRMED) MARK WITH 4"x4" POST

20' GAS MAIN EASEMENT DOC. NO. 1052660

PROPOSED 6" PVC PRIVATE SANITARY SEWER MAIN w/ TRACER BOX (TYP) (SIZE TO BE CONFIRMED) MARK WITH 4"x4" POST

SEE STORM SEWER PLAN & PROFILE

PROPOSED ASPHALT PATH

ELVEHJEM ROAD

12" WATER MAIN (BY OTHERS) FUTURE

12" WATER MAIN (SEE WATER MAIN - PLAN & PROFILES)

GAS HP PGAS

0 20 40

CB #7.1 9+22.39, 14.50' LT
NEENAH R-3067 CASTING W/ TYPE 'R' GRATE
48" PRECAST CONC. MH
TC=863.00; E IE=859.26 W IE=858.29

CB #7.3 9+24.51, 52.62' RT
2" DIA. w/ IN-BELL GRATE
RIM=862.70; SE IE=859.90

INFALL=861.48

39'-12" RCP STORM SEWER @ 5.70%

38'-12" RCP STORM SEWER @ 0.40%

INLET #7.2 9+22.70, 15.00' RT
NEENAH R-3067 CASTING W/ TYPE 'R' GRATE
2'x3' CONC. BOX
TC=863.00; W IE=859.75 E IE=859.66

STM MH #7

24'-24" RCP STORM SEWER @ 0.35%

5'-12" RCP STORM SEWER @ 10.00%

CB #7.3 - INFALL

SAN MH #3, 6+61.64, 1.00' LT
NEENAH R-1550-A CASTING
48" PRECAST CONC. MH
RIM=864.43
S IE=854.41
NW IE=854.36

SAN MH #4, 7+63.52, 1.00' RT
NEENAH R-1550-A CASTING
48" PRECAST CONC. MH
RIM=863.81
S IE=855.62
E IE=854.89
N IE=854.84

PROPOSED HYDRANT

GRADE BREAK STA = 9+22.54
ELEV = 862.88

9+63.89

STM MH #7 9+22.64, 9.00' RT
NEENAH R-1550 CASTING w/ TYPE 'B' SELF-SEALING, GASKETED NON-ROCKING LID WITH CONCEALED PICK HOLES
48" PRECAST CONC. MH
RIM=862.70
W IE=859.16
E IE=858.21
N IE=858.16

-0.60%

PROPOSED CENTERLINE PROFILE

0.25%

0.76%

EX. CENTERLINE PROFILE

7.0' MINIMUM COVER (TYP.)

D=10.07'

D=8.97'

D=7.49'

6.5' COVER OVER SANITARY LATERAL

104'-24" RCP STORM SEWER @ 0.20%

8"x12" TEE TOP OF 8"=855.83

8" WATER MAIN (D.I.)

64'-8" SANITARY SEWER @ 0.50%

117'-8" SANITARY SEWER @ 0.42%

102'-8" SANITARY SEWER @ 0.42%

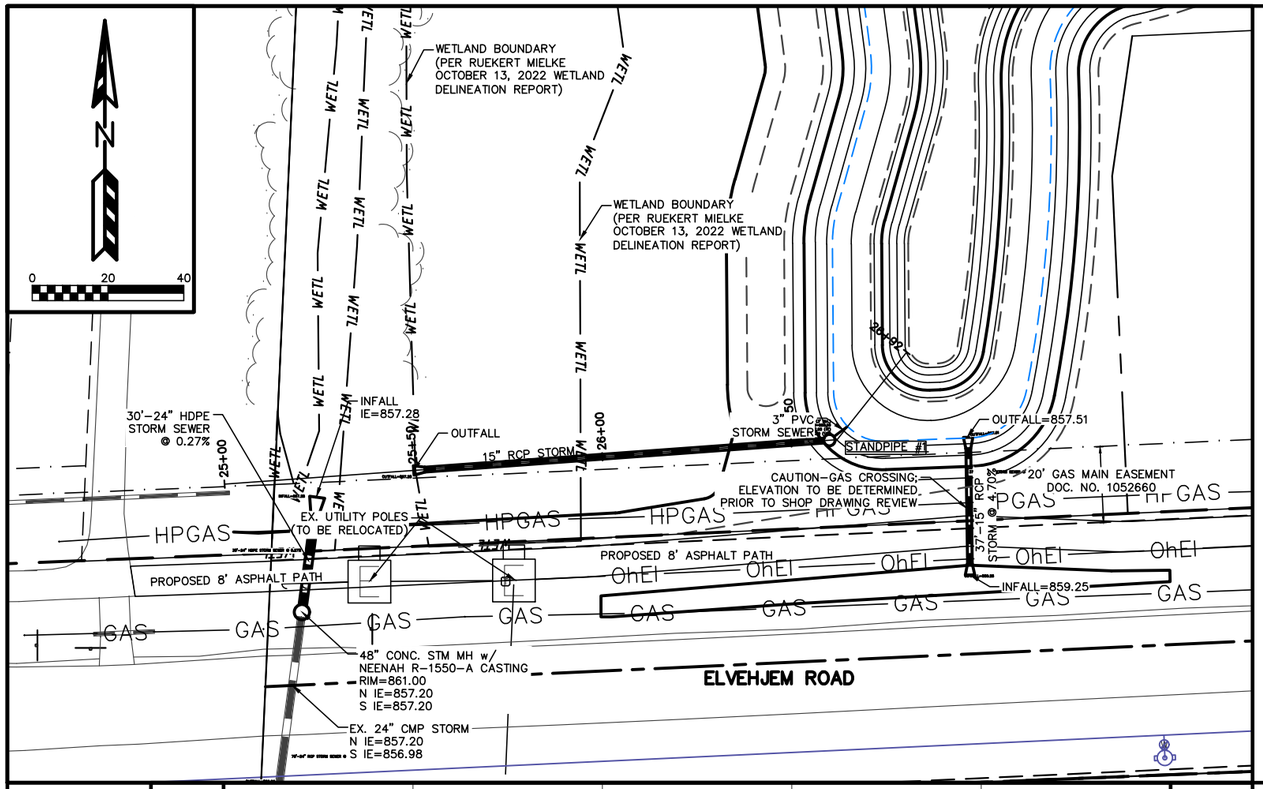
SAN MH #5, 8+27.59, 1.03' RT
NEENAH R-1550-A CASTING
48" PRECAST CONC. MH
RIM=863.43
W IE=856.04
N IE=855.94

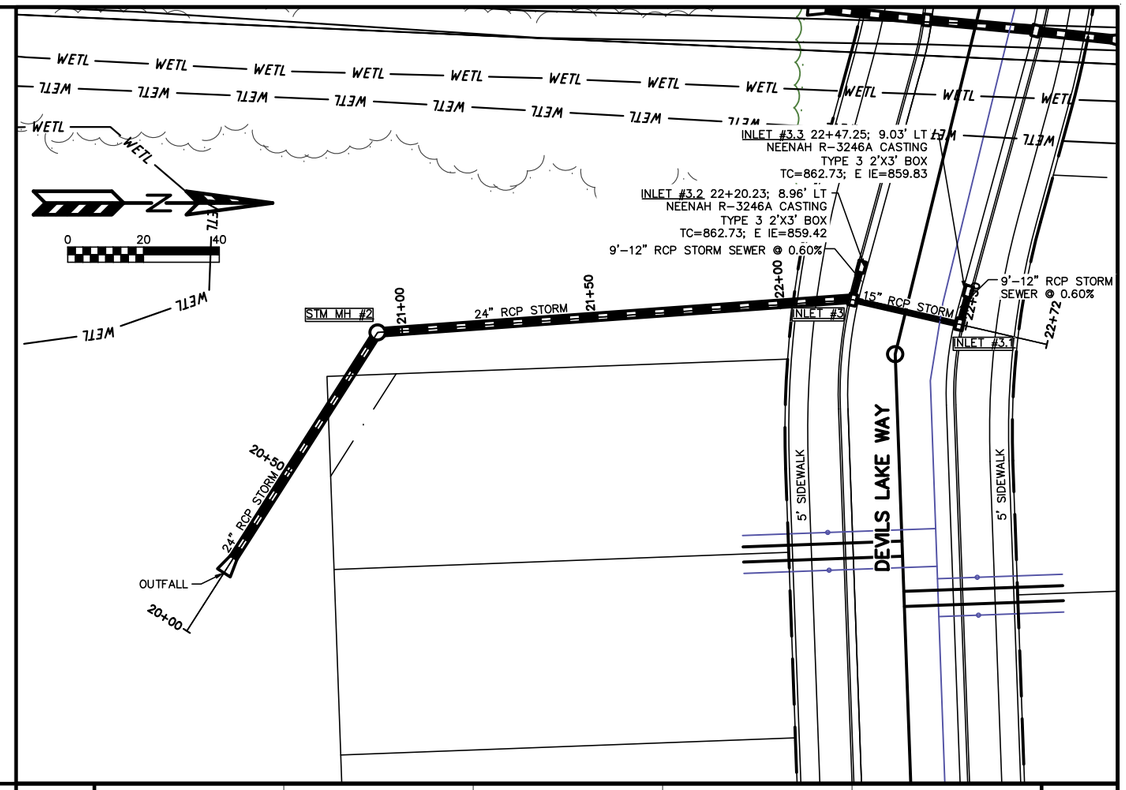
STM CB #6 8+18.82, 10.00' RT
NEENAH R-1550 CASTING w/ TYPE 'B' SELF-SEALING, GASKETED NON-ROCKING LID WITH CONCEALED PICK HOLES
60" PRECAST CONC. MH
RIM=863.59
S IE=857.95
W IE=857.80

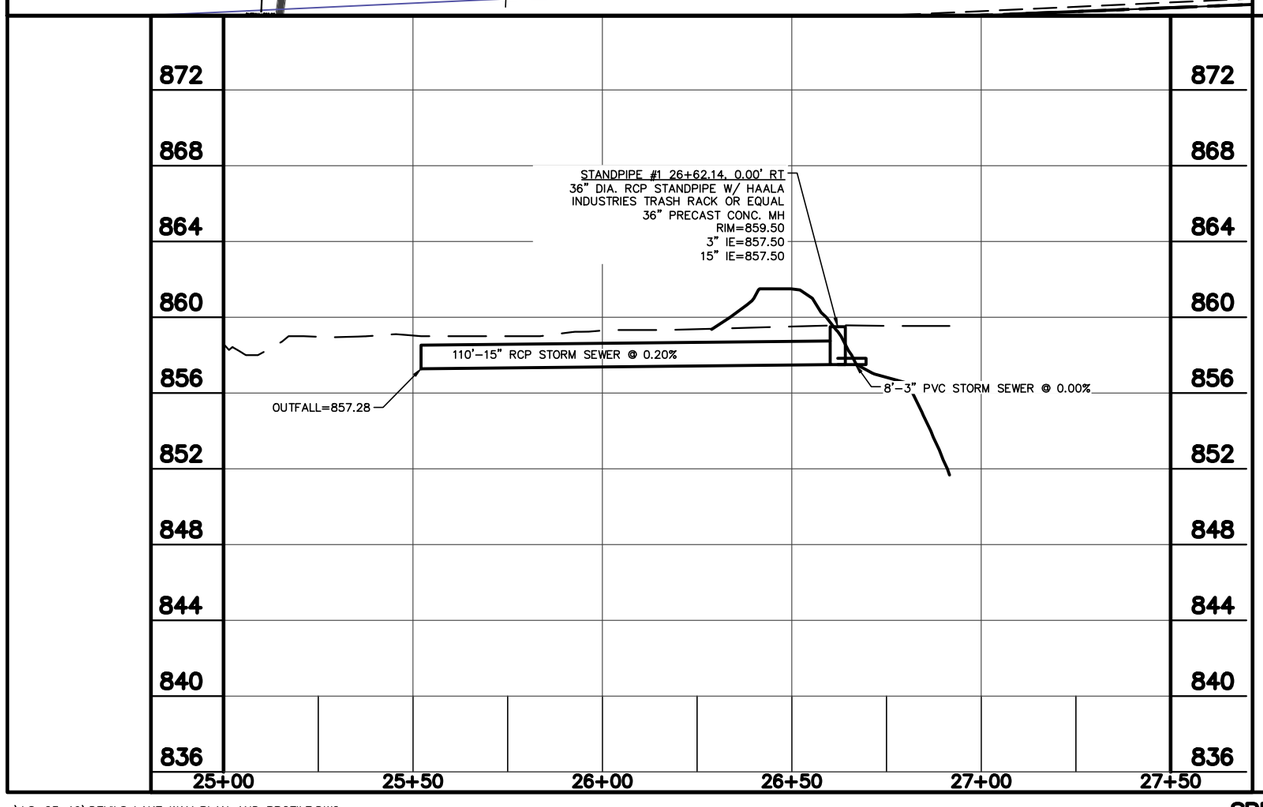
CAUTION-GAS CROSSING; ELEVATION TO BE DETERMINED PRIOR TO SHOP DRAWING REVIEW

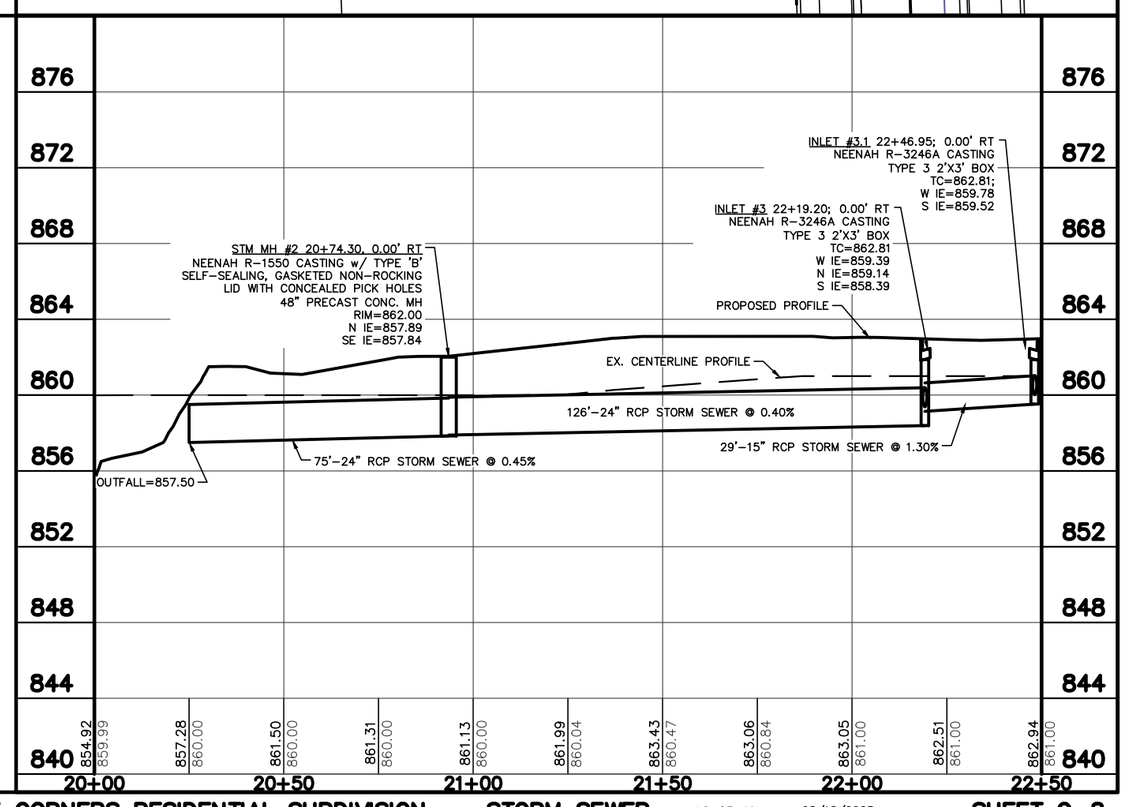
6+00	6+50	7+00	7+50	8+00	8+50	9+00	9+50	10+00
864.82	864.67	864.52	864.37	864.22	864.07	863.92	863.77	863.62	863.47	863.32	863.17	863.02	862.89	862.98	863.02
860.00	860.00	860.00	860.00	860.00	860.00	860.00	860.00	860.00	860.13	860.30	860.48	860.66	860.84	860.99	

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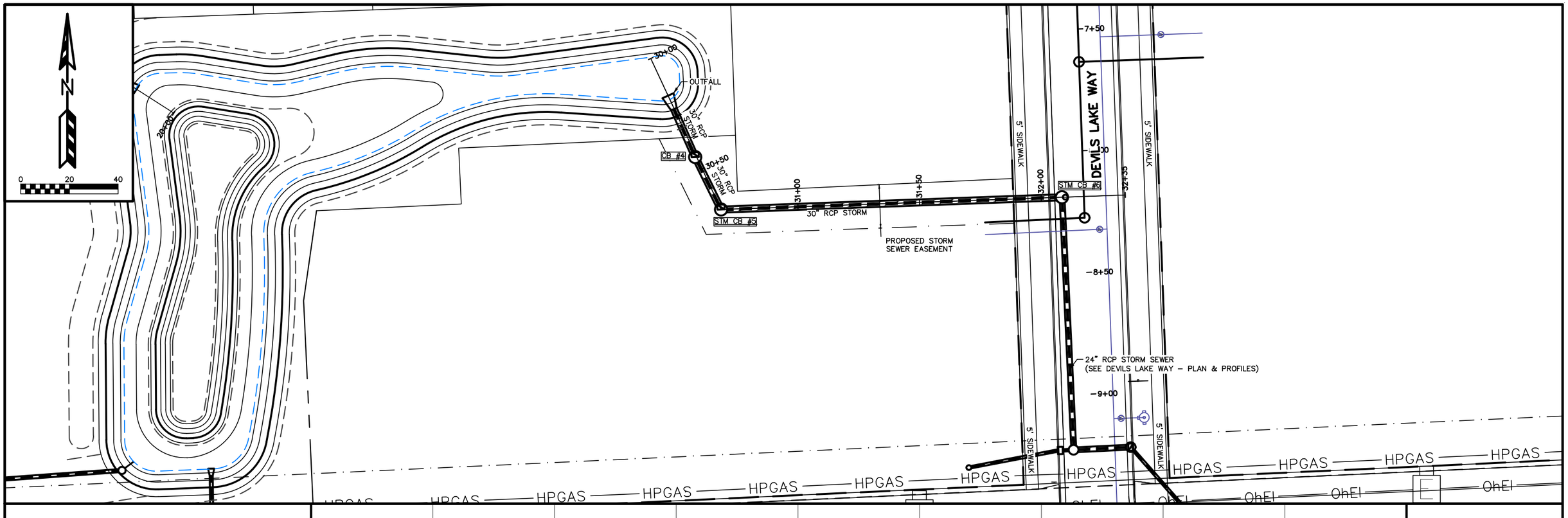


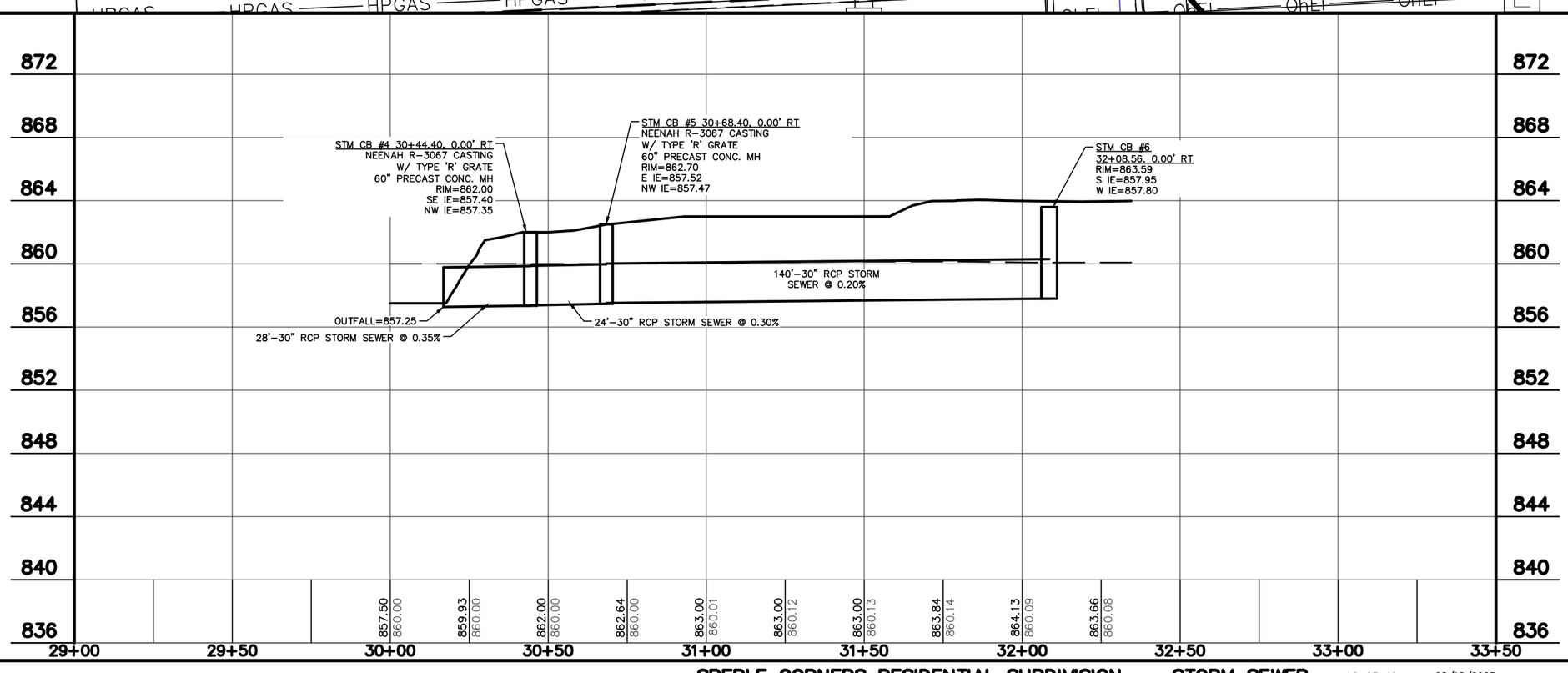




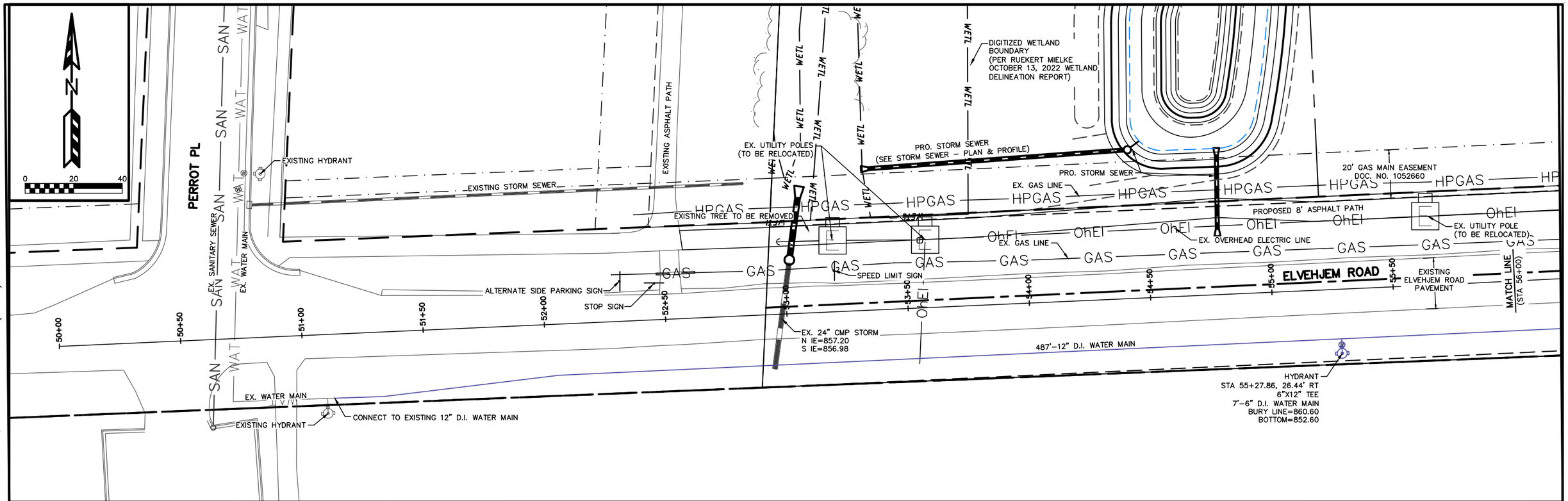


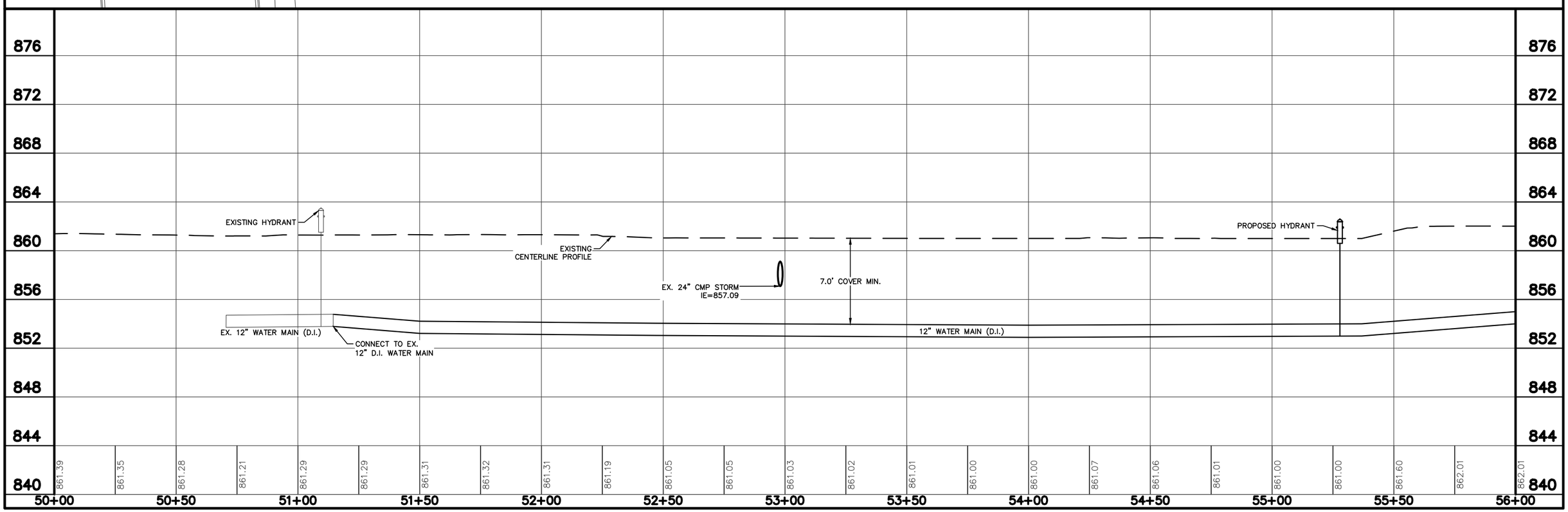
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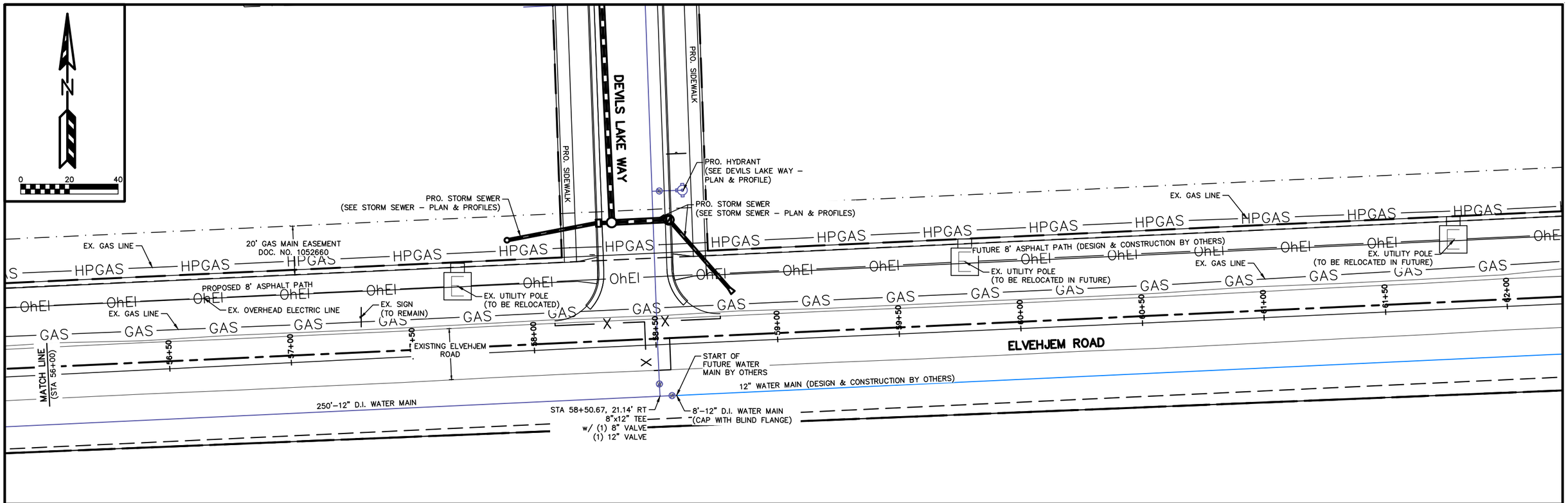


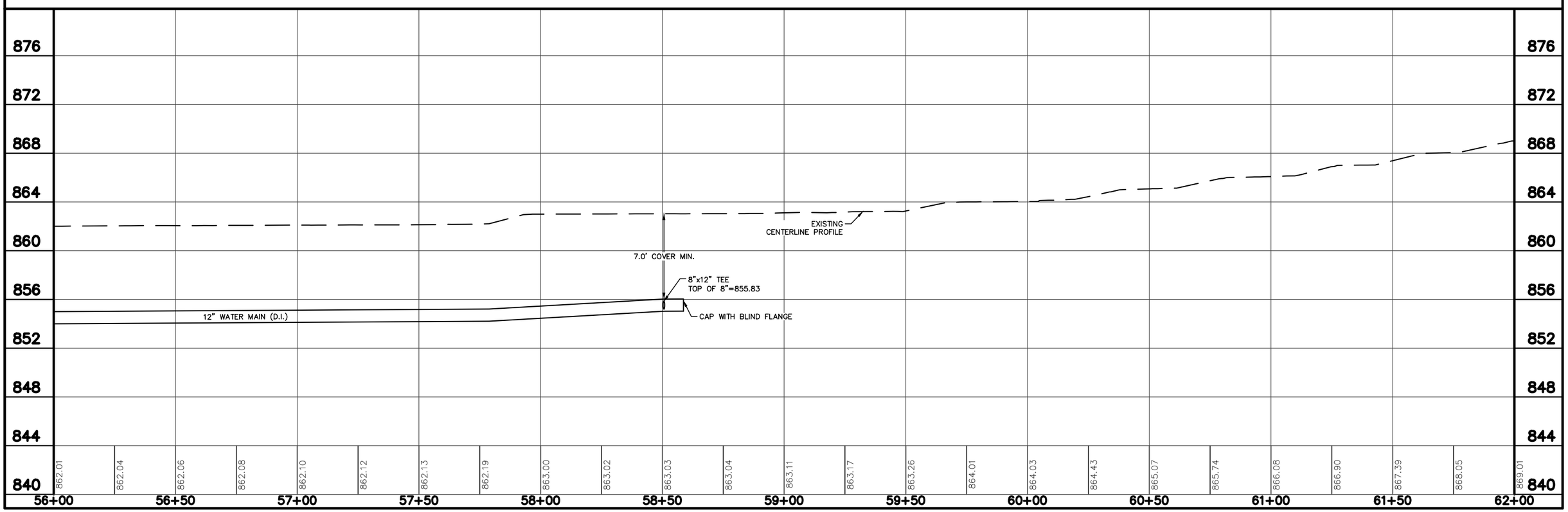
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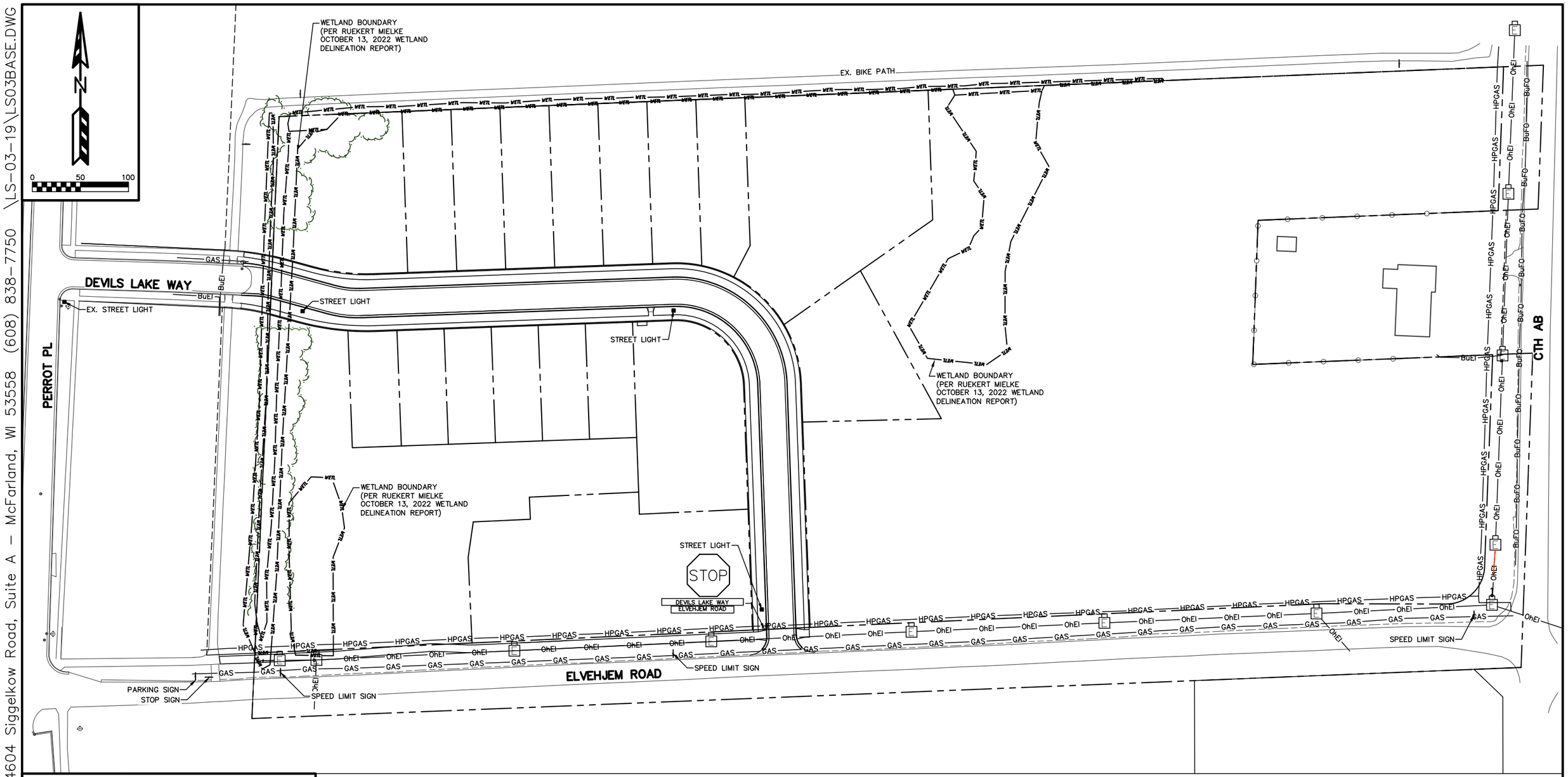


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SIGNING AND LIGHTING LEGEND

STOP	STOP SIGN – SIGN DESIGNATION R1–1
	STREET SIGNS
DEVILS LAKE WAY	STREET NAME SIGNS
	STREET LIGHT (DESIGN BY OTHERS)

SIGNAGE NOTES:

ALL SIGNS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

SIGNS SHALL BE A DISTANCE OF 7' FROM GROUND LEVEL TO THE BOTTOM OF THE SIGN MOUNTED ON THE POST AND LOCATED 3' BEHIND THE BACK OF CURB.

STREET NAME SIGNS SHALL HAVE WHITE LETTERS AND GREEN BACKGROUND.

STREET NAME SIGNS SHALL BE PLACED ABOVE STOP SIGNS AT INTERSECTIONS THAT REQUIRE STOP SIGNS.

SIGN POSTS SHALL BE 2–3/8" O.D. GALVANIZED 10 FT LONG, 13 GAUGE, AND 0.095 WALL THICKNESS. MOUNT SIGN AT TOP OF THE POST, AND INSTALL POSTS 3' DEEP AND MIX 1/2 BAG OF 80 LB SAKRETE CONCRETE POURING IS AROUND THE POST BELOW THE GROUND BEFORE COVERING WITH 8".

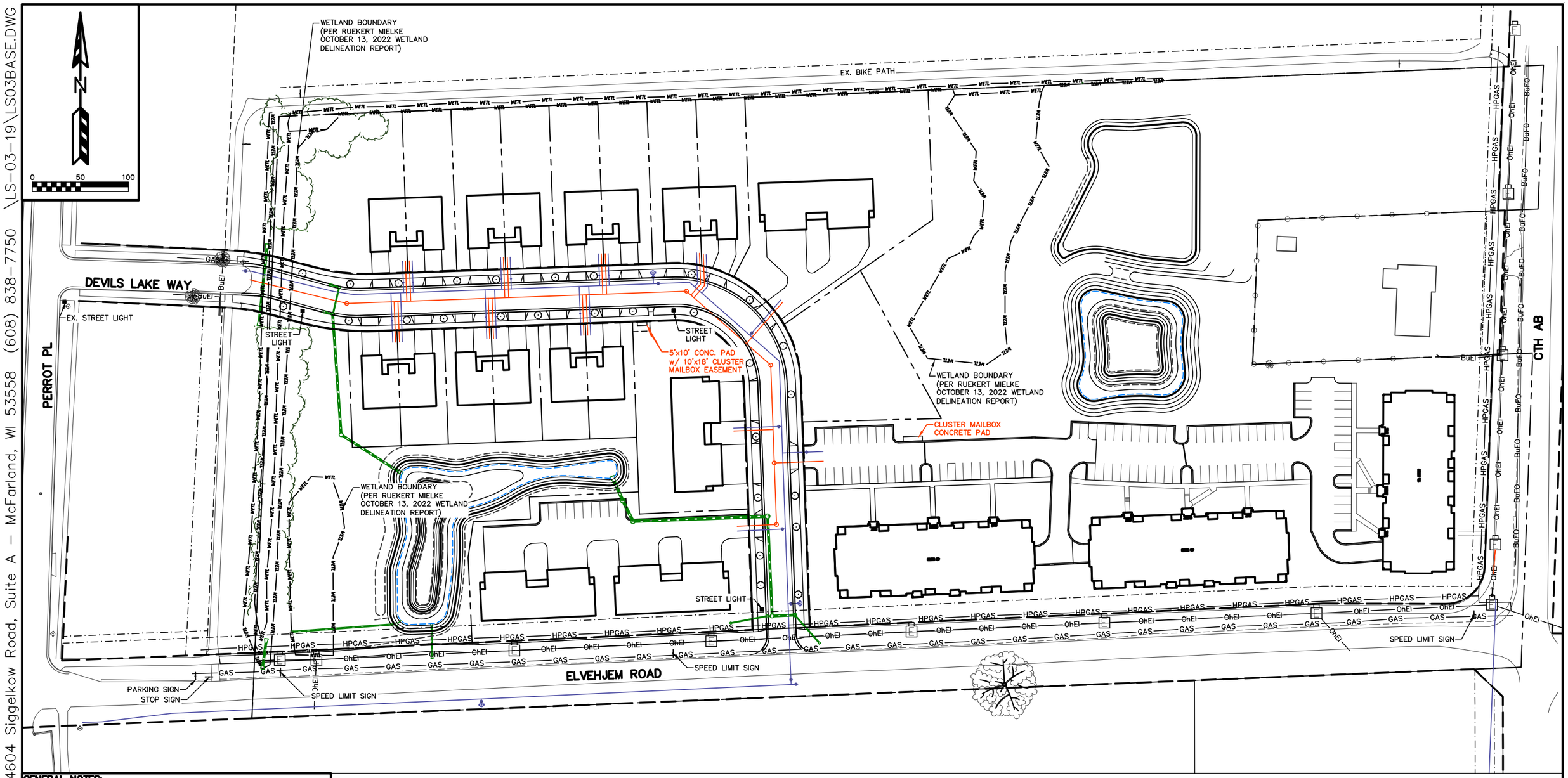
SPERLE CORNERS – VILLAGE OF MCFARLAND

SIGN AND LIGHTING PLAN

SHEET: C–12

DATED: AUGUST 18, 2025

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GENERAL NOTES:

ALL PLANTINGS SHALL CONFORM TO QUALITY REQUIREMENTS AS PER ANSI Z60.1.

ALL PLANT MATERIAL SHALL BE TRUE TO THE SPECIES, VARIETY AND SIZE SPECIFIED, NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURE PRACTICES, AND UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE OF THE PROJECT SITE.

CONTACT LANDSCAPE ARCHITECT, IN WRITING, TO REQUEST AND PLANT MATERIAL SUBSTITUTIONS DUE TO AVAILABILITY ISSUES.

ALL DISTURBED AREAS, UNLESS OTHERWISE NOTED, TO BE SEEDED WITH WISDOT SEED MIX #40 OR EQUIVALENT, PER MANUFACTUE'S SPECIFIED APPLICATION RATES. ALL SEEDED AREAS ARE TO BE WATERED DAILY TO MAINTAIN ADEQUATE SOIL MOISTURE FOR PROPER GERMINATION. AFTER VIGOROUS GROWTH IS ESTABLISHED, APPLY 1/2" WATER TWICE WEEKLY UNTIL FINAL ACCEPTANCE.

ALL PLANTS SHALL BE GUARANTEED TO BE IN HEALTHY AND FLOURISHING CONDITION DURING THE GROWING SEASON FOLLOWING INSTALLATION. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR TWO YEARS FROM THE TIME OF INSTALLATION.

TREES SHALL BE A MINIMUM 2" CALIPER.

NOTES:

MINIMUM DISTANCE FROM A STREETLIGHT TO A TREE IS 20'.

MINIMUM DISTANCE FROM THE FRONT OF A STREET SIGN IS 25' AND 10' FROM THE BACK OF THE SIGN.

MINIMUM DISTANCE FROM ANY SANITARY SEWER, WATER MAIN, AND STORM SEWER STRUCTURE OR PIPE IS 10'.

NO TREE SHALL BE PLANTED WITHIN THE VISION TRIANGLE.

SPERLE CORNERS – VILLAGE OF MCFARLAND

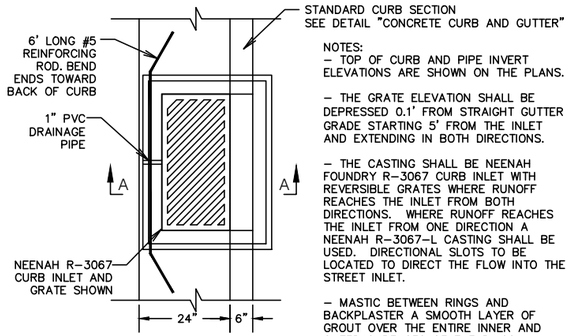
STREET TREE PLAN

SHEET: C–13

DATED: AUGUST 18, 2025

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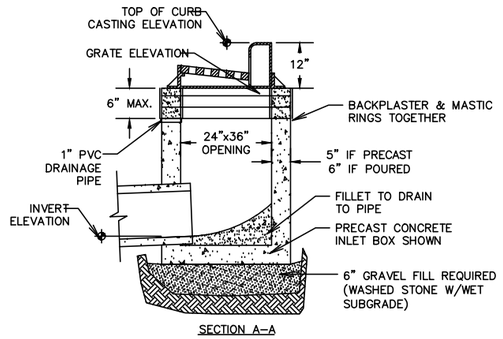


NOTES:
- TOP OF CURB AND PIPE INVERT ELEVATIONS ARE SHOWN ON THE PLANS.

- 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.



1/2 RECTANGULAR STREET INLET

NOT TO SCALE

STORM MANHOLE DIMENSIONS

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

NOTES:

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

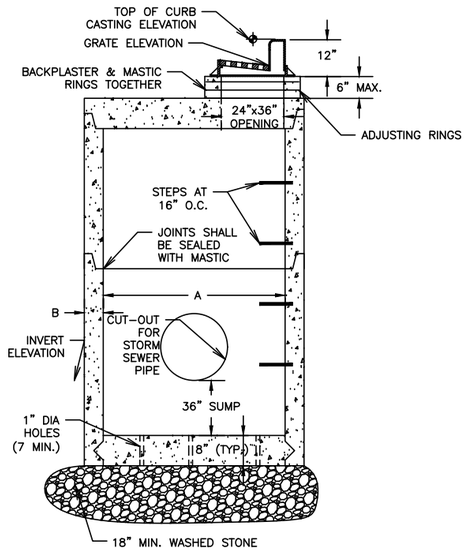
MANHOLE STEPS SHALL CONFORM TO ASTM-C478 & SHALL BE NEENAH FOUNDRY R-1981-N OR APPROVED EQUAL. STEPS SHALL BE SPACED 16" ON CENTER.

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.

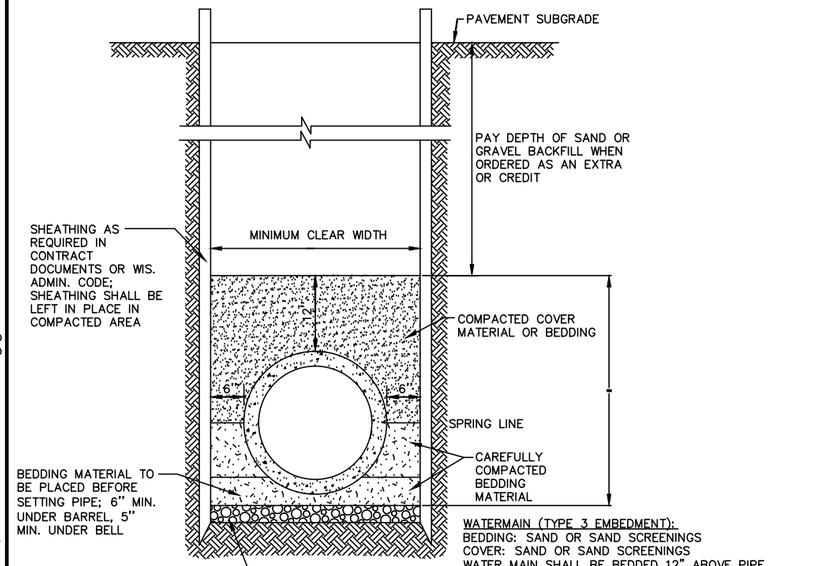
MANHOLE-TYPE CURB CATCH BASIN CASTING SHALL BE NEENAH FOUNDRY R-3067 WITH REVERSIBLE GRATES WHERE RUNOFF REACHES THE INLET FROM BOTH DIRECTIONS. WHERE RUNOFF REACHES THE INLET FROM ONE DIRECTION A NEENAH R-3067-L CASTING SHALL BE USED. DIRECTIONAL SLOTS TO BE LOCATED TO DIRECT THE FLOW INTO THE STREET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

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



1/2 STORM SEWER MANHOLE

NOT TO SCALE



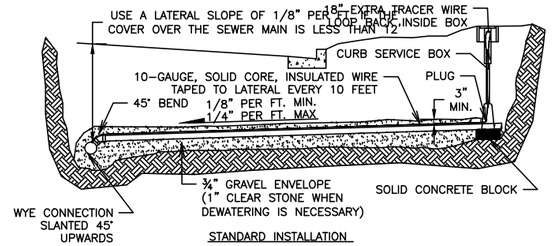
WATERMAIN (TYPE 3 EMBEDMENT):
BEDDING: SAND OR SAND SCREENINGS
COVER: SAND OR SAND SCREENINGS
WATER MAIN SHALL BE BEDDED 12" ABOVE PIPE

SANITARY SEWER (CLASS 'C' BEDDING):
BEDDING: CLASS 1: ⅜" TO 1½" CLEAR STONE
COVER: ⅜" TO 1½" CLEAR STONE
SHALL BE BE BEDDED 6"-12" ABOVE PIPE

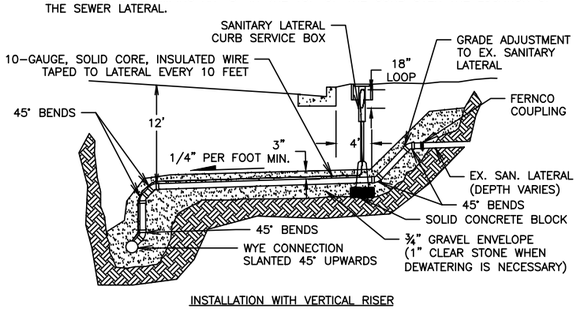
STORM SEWER (CLASS 'B' BEDDING):
BEDDING: CLASS 1: ⅜" TO 1½" CLEAR STONE
COVER: NATIVE OR GRANULAR BACKFILL AS REQ'D
RCP STORM SEWER SHALL BE BEDDED TO SPRING LINE.
HDPE STORM SEWER SHALL BE BEDDED TO TOP OF PIPE

1/2 STANDARD TRENCH SECTION

NOT TO SCALE



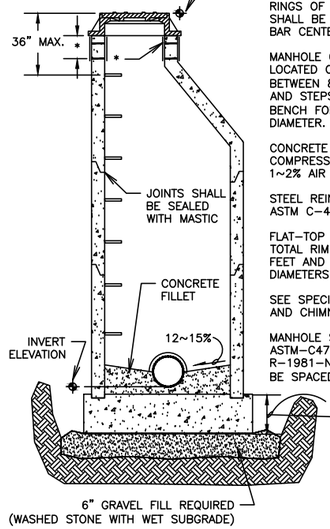
NOTES:
1. CONSTRUCT LATERALS IN CONFORMANCE WITH CHAPTER SPS 382 OF THE WISCONSIN ADMINISTRATIVE CODE.
2. LATERAL SLOPE SHALL BE ¼" PER FOOT WHERE SUFFICIENT COVER EXISTS.
3. CONTRACTOR SHALL VERIFY SIZE, DEPTH, AND LOCATION OF EXISTING LATERALS.
4. WHERE LATERALS ARE NOT IMMEDIATELY CONNECTED TO BUILDING SEWERS THE ENDS OF THE LATERALS SHALL BE MARKED BY POSITIONING 4"x4" BOARDS VERTICALLY FROM THE ENDS OF THE LATERALS TO AT LEAST 2' ABOVE THE GROUND SURFACE.
5. THE LOCATION OF ALL SEWER LATERALS CROSSING UNDER THE CURB & GUTTER SHALL BE MARKED BY STAMPING AN "S" IN THE TOP OF THE CURB OVER THE LOCATION OF THE SEWER LATERAL.



1/2 LATERAL WITH TRACER WIRE

NOT TO SCALE

CASTING SHALL BE ¾" BELOW FINISHED PAVEMENT OR AS ESTABLISHED BY THE ENGINEER



NOTES:
MANHOLE CASTING SHALL BE HEAVY DUTY, NEENAH FOUNDRY CO. CATALOG LISTING NO. R-1710, WITH TYPE "B" NON-ROCKING LID, GASKET SEAL AND CONCEALED PICKHOLES

ADJUST FRAME TO GRADE WITH AT LEAST TWO RINGS OF DIFFERENT THICKNESSES. RINGS SHALL BE REINFORCED WITH ONE NO. 3 STEEL BAR CENTERED WITHIN EACH RING.

MANHOLE CASTINGS AND STEPS SHALL BE LOCATED OVER THE EFFLUENT PIPE FOR PIPES BETWEEN 8" AND 18" IN DIAMETER. CASTINGS AND STEPS SHALL BE LOCATED OVER THE BENCH FOR PIPES GREATER THAN 18" IN DIAMETER.

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

STEEL REINFORCEMENT SHALL CONFORM TO ASTM C-478 STANDARDS.

FLAT-TOP COVERS SHALL BE USED WHERE THE TOTAL RIM TO INVERT DEPTH IS LESS THAN 6 FEET AND MAY BE USED FOR MANHOLE DIAMETERS GREATER THAN 5 FEET.

SEE SPECIFICATION NARRATIVE FOR PIPE SEAL AND CHIMNEY SEAL REQUIREMENTS.

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

* A MINIMUM OF 3" TO A MAXIMUM O ADJUSTING RINGS SHALL BE USED TO MANHOLE CASTING TO THE FINISHED G RINGS SHALL BE SEALED TOGETHER U AND ALL JOINTS SHALL BE BACK PLA AND OUT WITH CEMENT MORTAR.

1/2 SANITARY SEWER MANHOLE

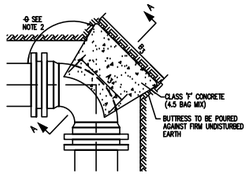
NOT TO SCALE

SPERLE CORNERS - VILLAGE OF MCFARLAND
DETAILS
SHEET: C-14
DATED: AUGUST 18, 2025

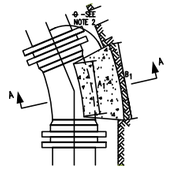
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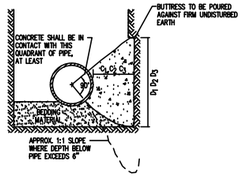
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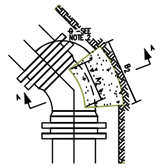
PLAN – 90° BEND



PLAN – 22 ½ BEND



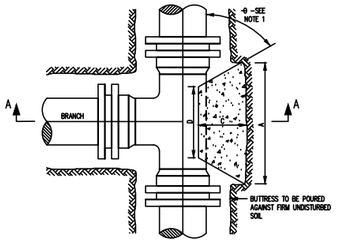
SECTION A–A



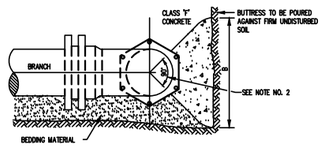
PLAN – 45° BEND

BUTTRESS DIMENSIONS						
PIPE SIZE	22½° BENDS		45° BENDS		90° BENDS	
	B_1	D_1	B_2	D_2	B_3	D_3
6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-4"	1'-2"
8"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-8"
12"	1'-4"	1'-4"	1'-10"	1'-10"	2'-8"	2'-3"
16"	1'-10"	1'-8"	2'-6"	2'-4"	3'-10"	2'-10"
20"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"
24"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"
30"	3'-6"	3'-0"	5'-4"	3'-10"	8'-0"	4'-8"

NOTES
1. DIMENSIONS IN TABLE ARE BASED ON A WATER PRESSURE OF 150 psi AND ON EARTH RESISTANCE OF 2 TONS PER SQUARE FOOT.
2. DIMENSION C1 C2 C3 SHOULD BE LARGE ENOUGH TO MAKE ANGLE ø EQUAL TO OR LARGER THAN 45°
3. DIMENSION A1 A2 A3 SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERRING WITH M.J. BOLTS.
4. SHAPE OF BACK OF BUTTRESS MAY VARY AS LONG AS POUR IS AGAINST FIRM UNDISTURBED EARTH.
5. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.



PLAN

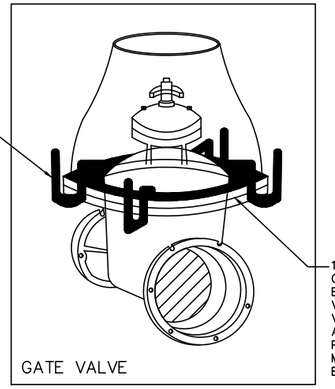


SECTION A–A

BUTTRESS DIMENSIONS				
B.D.	A	B	C	D
6"	1'-3"	1'-0"	SEE NOTE NO. 1	SEE NOTE NO. 3
8"	1'-6"	1'-4"		
12"	2'-3"	2'-0"		
16"	3'-2"	2'-6"		
20"	4'-0"	3'-0"		
24"	5'-3"	3'-4"		
30"	6'-3"	4'-3"		

B.D. = BRANCH DIAMETER

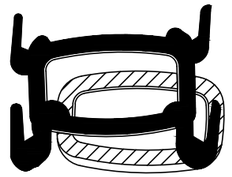
NOTES
1. DIMENSION 'C' SHOULD BE LARGE ENOUGH TO MAKE ANGLE EQUAL TO OR LARGER THAN 45°.
2. CONCRETE SHOULD BEAR ON THIS QUADRANT OF PIPE AS A MINIMUM.
3. DIMENSION 'D' SHOULD BE AS LARGE AS POSSIBLE BUT CONCRETE SHOULD NOT INTERFERE WITH MECHANICAL JOINTS.
4. BUTTRESS DIMENSIONS ARE BASED ON A SOIL RESISTANCE OF TWO TONS PER SQ. FT. AND A WATER PRESSURE OF 150 psi.
5. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.



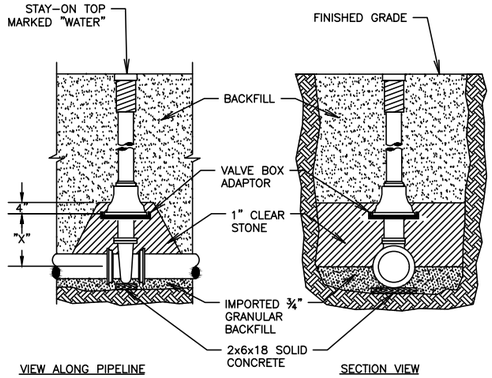
MANUFACTURED BY ADAPTOR, INC. 3642 E. AMERICAN AVE. MILWAUKEE, WI 53154

NOTE: GATE VALVE ADAPTORS ARE MANDITORY IN THE VILLAGE OF DEFOREST

GATE VALVE ADAPTOR



1/1 GATE VALVE AND GATE VALVE ADAPTOR
NOT TO SCALE

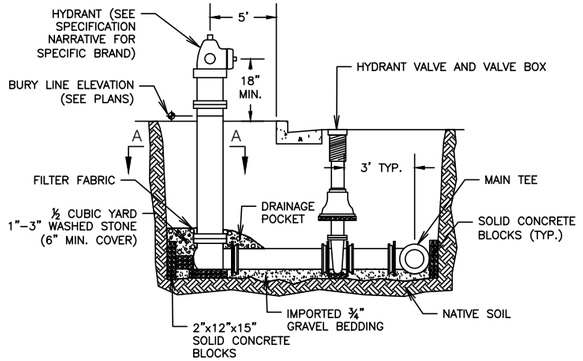


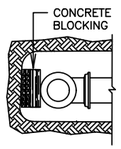
PIPE DIA., INCHES	6	8	10	12	14	16
"X" DIMENSION, INCHES	12	13	17	21	25	30

NOTES:
– VALVES SHALL BE SECURED WITH RODDING OR MEGALUGS TO THE NEAREST "TEE" FITTING OR TO THE FIRST JOINT CONNECTING A FULL SECTION OF WATER MAIN PIPE. SEE RODDING DETAIL "OFFSET AND RODDING".

DETAIL
VALVE BOX SETTING

2/2 STANDARD GATE VALVE BOX SETTING
NOT TO SCALE





SECTION A–A

NOTES:

– THE HYDRANT AND HYDRANT VALVE SHALL BE CONNECTED TO THE MAIN TEE BY MEGALUGS.

–FILTER FABRIC SHALL BE WRAPPED AROUND THE DRAIN POCKET.

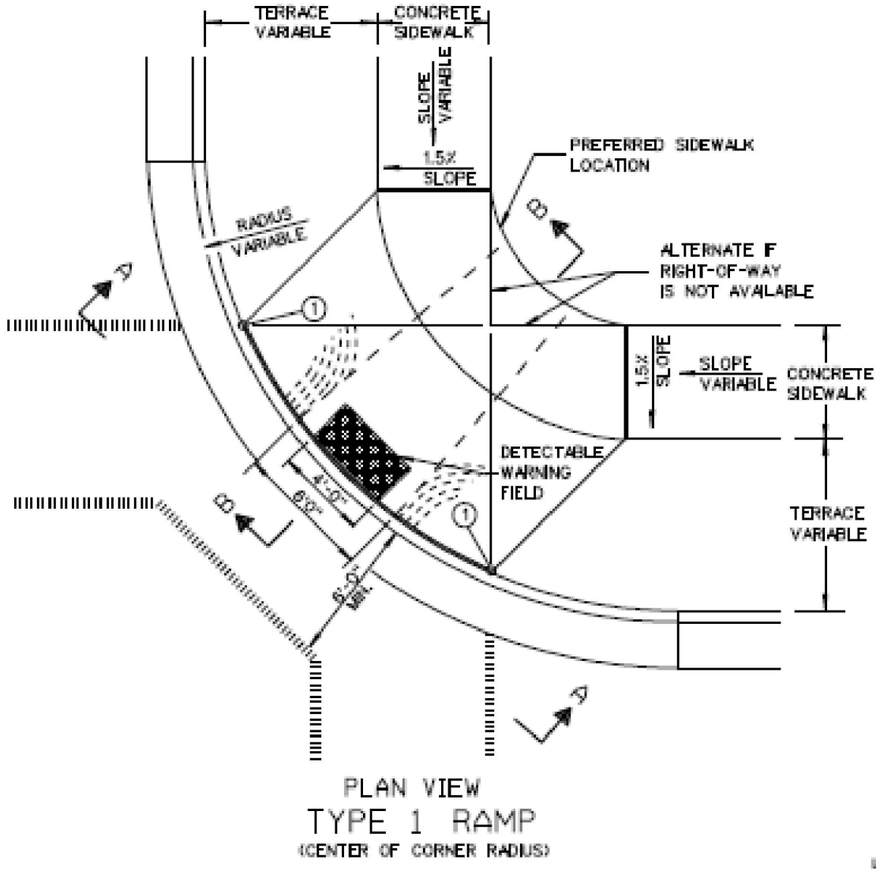
–WHERE THE HYDRANT IS INSTALLED AT THE HIGH POINT OF THE WATER MAIN ON MAINS 10 INCHES IN DIAMETER AND LARGER, THE CONTRACTOR SHALL TIP THE MAIN TEE UPWARDS 45 DEGREES AND USE A 45 DEGREE FITTING TO ALLOW AIR TO ESCAPE FROM THE MAIN.

–WHERE THE LOCATION OF THE HYDRANT VALVE BOX WOULD BE IN ANY PORTION OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PLACE THE VALVE IN THE TERRACE AREA.

2/2 STANDARD HYDRANT SETTING
NOT TO SCALE

SPERLE CORNERS – VILLAGE OF MCFARLAND
DETAILS
SHEET: C–15
DATED: AUGUST 18, 2025

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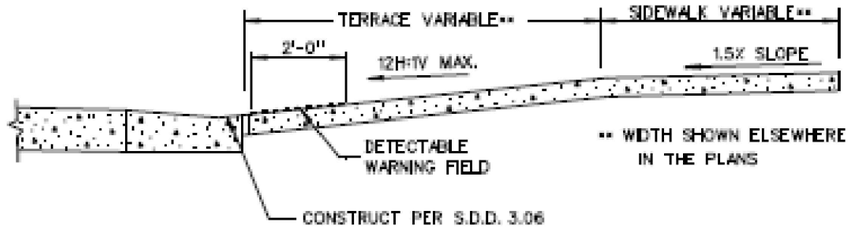
PLAN VIEW

TYPE 1 RAMP

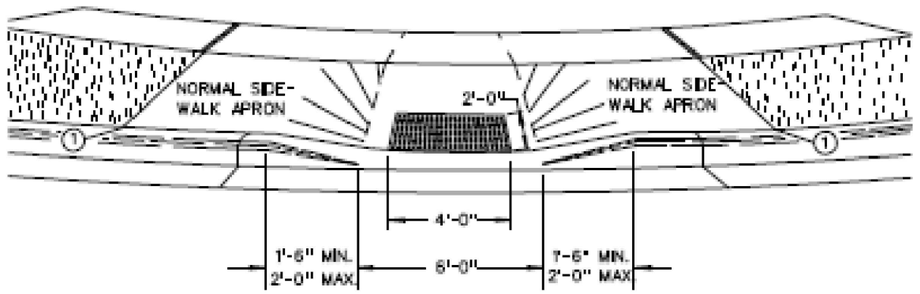
(CENTER OF CORNER RADIUS)

2 / 2 **STANDARD CURB RAMP – TYPE 1**

NOT TO SCALE



SECTION B-B



SECTION A-A

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD".

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

THE DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

DETECTABLE WARNING FIELDS SHALL BE METAPANEL BY METADOME, LLC OR NEENAH 4984 PLATES.

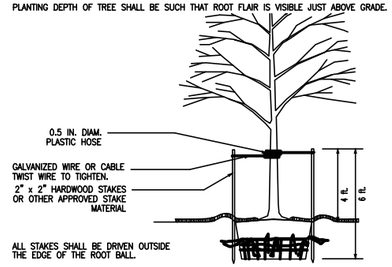
WIRE OR CABLE SIZES SHALL BE AS FOLLOWS:
4 INCH CALIPER – 11-12 GAUGE
LARGER THAN 4 INCH CALIPER – 9-10 GAUGE

TIGHTEN WIRE OR CABLE ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT. PLASTIC HOSE SHALL BE LONG ENOUGH TO ACCOMMODATE 1.5 IN. OF GROWTH AND BUFFER ALL BRANCHES FROM THE WIRE.

TUCK ANY LOOSE ENDS OF THE WIRE OR CABLE INTO THE WIRE WRAP SO THAT NO SHARP WIRE ENDS ARE EXPOSED.

ALL BURLAP AND WIRE CAGES SHALL BE REMOVED FROM ROOTS PRIOR TO PLANTING.

PLANTING DEPTH OF TREE SHALL BE SUCH THAT ROOT FLAIR IS VISIBLE JUST ABOVE GRADE.



PROVIDE 4" THICKNESS OF ORGANIC MULCH AROUND ALL TREES. MULCH SHOULD NOT REST AGAINST THE TREE TRUNK. LEAVE 3" AROUND THE TRUNK FREE OF MULCH.

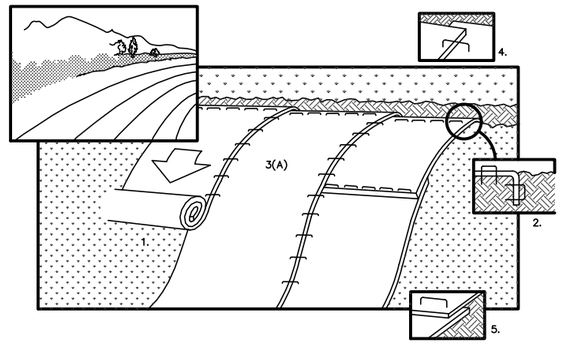
ASSURE THAT THE BEARING SURFACE OF THE PROTECTIVE COVERING OF THE WIRE OR CABLE AGAINST THE TREE TRUNK IS A MINIMUM OF 0.5 INCH.

REMOVE ALL STAKING AS SOON AS THE TREE HAS GROWN SUFFICIENT ROOTS TO OVERCOME THE PROBLEM THAT REQUIRED THE TREE TO BE STAKED. STAKES SHALL BE REMOVED NO LATER THE END OF THE FIRST GROWING SEASON AFTER PLANTING.

TREES NORMALLY DO NOT NEED TO BE STAKED AND STAKING CAN BE HARMFUL TO THE TREE. STAKING SHOULD BE DONE ONLY WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT IF IT IS EXPECTED THAT THE TREE WILL NOT BE ABLE TO SUPPORT ITSELF. THE FOLLOWING ARE REASONS WHY TREES DO NOT REMAIN STRAIGHT.

- TREES WITH POOR – QUALITY ROOT BALLS OR ROOT BALLS THAT HAVE BEEN CRACKED OR DAMAGED. REJECT RATHER THAN STAKE.
- TREES THAT HAVE GROWN TOO CLOSE TOGETHER IN THE NURSERY, RESULTING IN WEAK TRUNKS. REJECT RATHER THAN STAKE.
- PLANTING PROCEDURES THAT DO NOT ADEQUATELY TAMP SOILS AROUND THE ROOT BALL. CORRECT THE PLANTING PROCEDURE.
- ROOT BALLS PLACED ON SOFT SOIL. TAMP SOILS UNDER ROOT BALL PRIOR TO PLANTING.
- ROOT BALLS WITH VERY SANDY SOIL OR VERY WET CLAY SOIL. STAKING ADVISABLE.
- TREES LOCATED IN A PLACE OF EXTREMELY WINDY CONDITIONS. STAKING ADVISABLE.

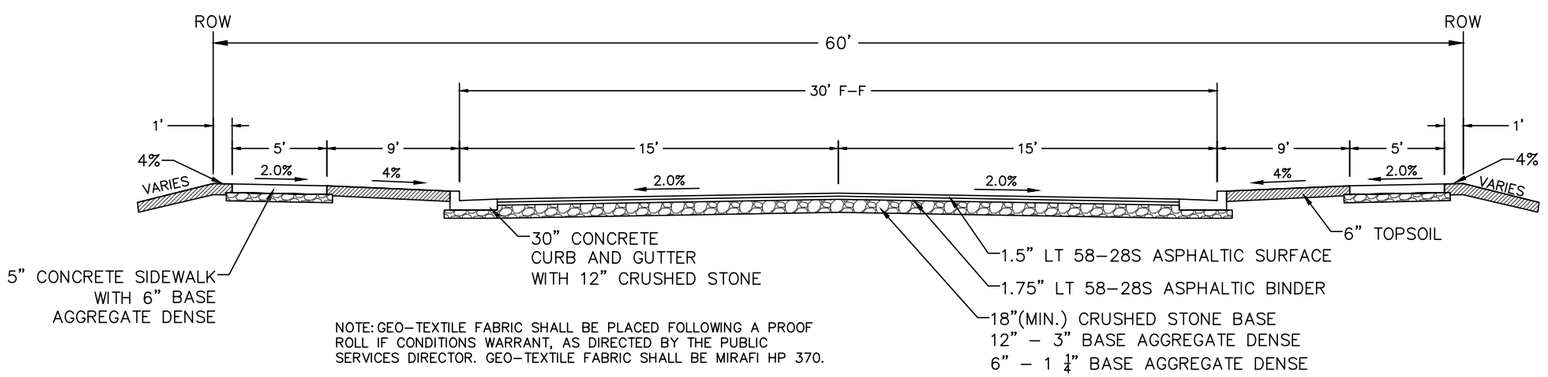
TREE PLANTING DETAIL



NOTE: REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF FERTILIZER AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY
6. ALL BLANKETS MUST BE SECURELY FASTENED TO THE SLOPE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS RECOMMENDED BY THE MANUFACTURER.
7. SLOPES 5:1 SHOULD BE COVERED WITH CLASS I TYPE A AT A MINIMUM.

EROSION CONTROL MAT – SLOPE INSTALLATION



NOTE: GEO-TEXTILE FABRIC SHALL BE PLACED FOLLOWING A PROOF ROLL IF CONDITIONS WARRANT, AS DIRECTED BY THE PUBLIC SERVICES DIRECTOR. GEO-TEXTILE FABRIC SHALL BE MIRAFI HP 370.

TYPICAL ROADWAY CROSS-SECTIONS

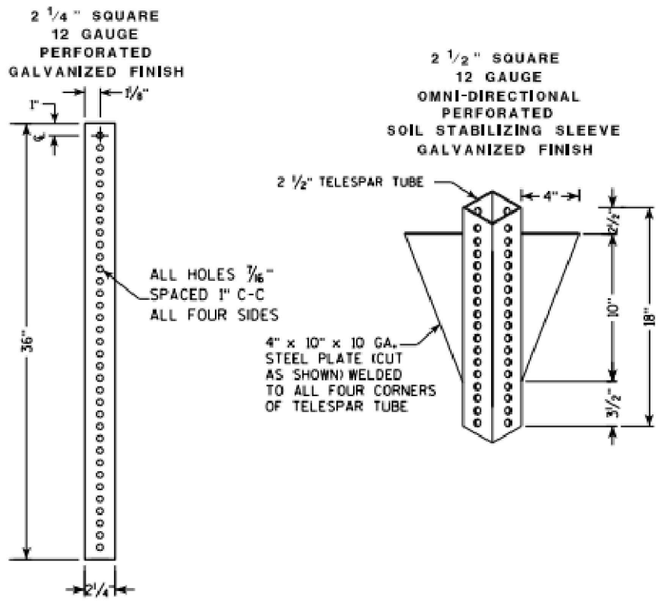
SPERLE CORNERS – VILLAGE OF MCFARLAND
DETAILS
SHEET: C-16
DATED: AUGUST 18, 2025

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
www.quamengineering.com
4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558
Phone (608) 838-7750; Fax (608) 838-7752

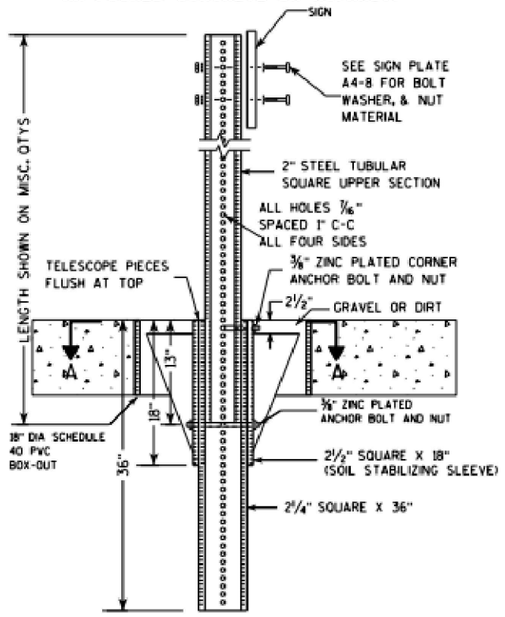
QUAM ENGINEERING, LLC 4604 Siggelkow Road, Suite A – McFarland, WI 53558 (608) 838-7750 \LS-03-19\LS03BASE.DWG

QUAM ENGINEERING, LLC 4604 Siggelkow Road, Suite A – McFarland, WI 53558 (608) 838-7750 \LS-03-19\LS03BASE.DWG

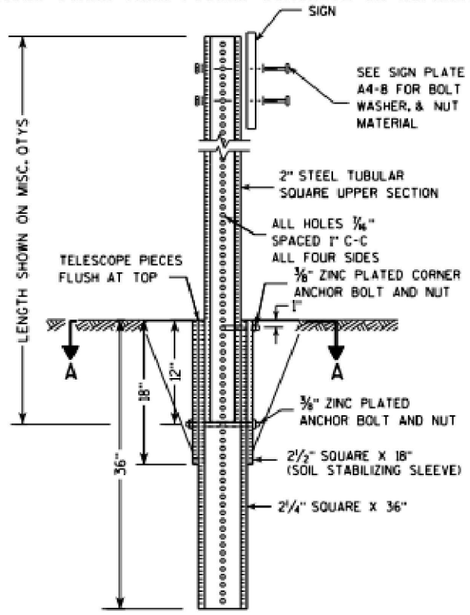
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

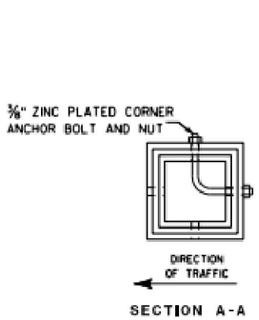


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)

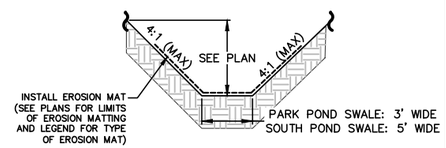




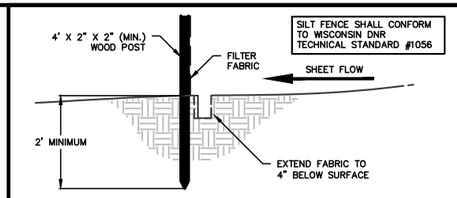
SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

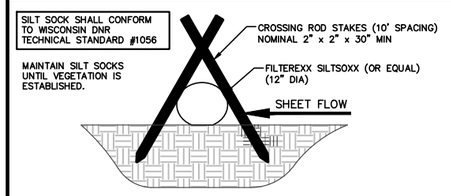
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).



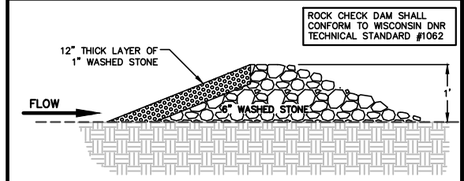
PARK POND SWALE AND SOUTH POND SWALE CROSS SECTION



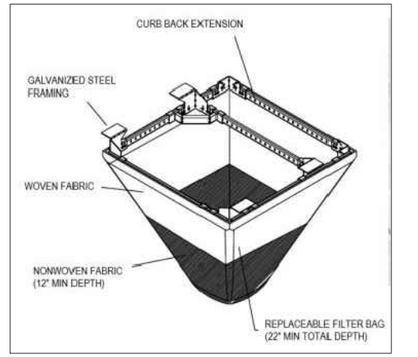
SILT FENCE CONSTRUCTION (SHEET FLOW)



SILT SOCK DETAIL

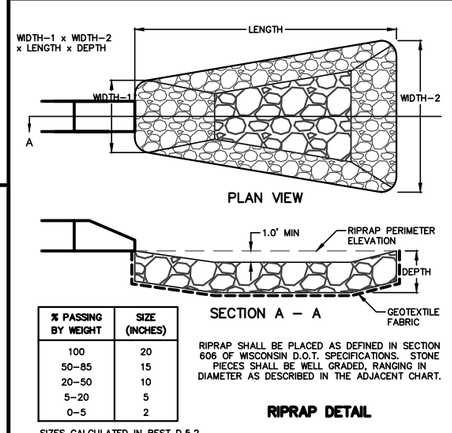


ROCK CHECK DAM DETAIL



FRAMED INLET PROTECTION MUST MEET THE FOLLOWING SPECIFICATIONS:
- ALL ASTM STANDARD D8057-17 REQUIREMENTS
- NO PART OF INLET PROTECTION PROJECTING ABOVE THE GRATE
- CAPTURE RUNOFF ENTERING BOTH GRATE AND CURB OPENING
- "DUAL FABRIC" FILTER BAG, WITH NONWOVEN BOTTOM AND WOVEN TOP

FLEXSTORM INLET PROTECTION DETAIL

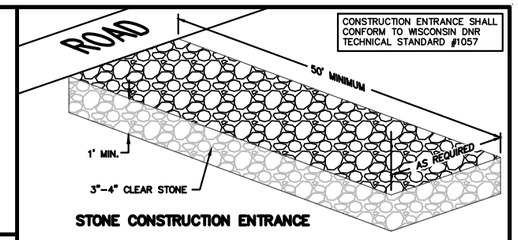


% PASSING BY WEIGHT	SIZE (INCHES)
100	20
50-85	15
20-50	10
5-20	5
0-5	2

SIZES CALCULATED IN BEST D.5.2

RIPRAP SHALL BE PLACED AS DEFINED IN SECTION 606 OF WISCONSIN D.O.T. SPECIFICATIONS. STONE PIECES SHALL BE WELL GRADED, RANGING IN DIAMETER AS DESCRIBED IN THE ADJACENT CHART.

RIPRAP DETAIL



STONE CONSTRUCTION ENTRANCE

EROSION NOTES:

THE STONE CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION. THE STONE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED BY THE CONTRACTOR IN A CONDITION, WHICH WILL PREVENT THE TRACKING OF MUD OR DRY SEDIMENT ONTO THE PUBLIC STREET. SEDIMENT REACHING PUBLIC STREET SHALL BE REMOVED BY STREET CLEANING (NOT HYDRAULIC FLUSHING) BEFORE THE END OF EACH WORKDAY.

EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO GRADING OPERATIONS AND SHALL BE PROPERLY MAINTAINED FOR MAXIMUM EFFECTIVENESS UNTIL VEGETATION IS ESTABLISHED. ALL EROSION CONTROL MEASURES AND STRUCTURES SERVING THE SITE MUST BE INSPECTED AT LEAST WEEKLY OR WITHIN 24 HOURS OF A 0.5 INCH RAIN EVENT. ALL MAINTENANCE WILL FOLLOW AN INSPECTION WITHIN 24 HOURS.

CUT AND FILL SLOPES SHALL BE NO GREATER THAN 3:1.

ALL DISTURBED AREAS MUST BE TEMPORARILY STABILIZED WITHIN 14 DAYS OF LAST ACTIVITY. ALL DISTURBED AREAS SHOULD BE STABILIZED WITHIN 7 DAYS OF FINAL GRADING.

PERIMETER CONTROL SHALL BE INSTALLED AROUND STOCKPILES, AND STOCKPILES SHALL BE STABILIZED THAT WILL REMAIN INACTIVE FOR 7 DAYS OR LONGER.

EROSION CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ACCEPTANCE OF THIS PROJECT. EROSION CONTROL MEASURES AS SHOWN SHALL BE THE MINIMUM PRECAUTIONS THAT WILL BE ALLOWED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECOGNIZING AND CORRECTING ALL EROSION CONTROL PROBLEMS THAT ARE A RESULT OF CONSTRUCTION ACTIVITIES. ADDITIONAL EROSION CONTROL MEASURES, AS REQUESTED IN WRITING BY THE STATE OR LOCAL INSPECTORS, OR THE DEVELOPER'S ENGINEER, SHALL BE INSTALLED WITHIN 24 HOURS.

TIME SCHEDULE:

SEPTEMBER 15 – OCTOBER 1, 2025	INSTALL INITIAL EROSION CONTROL DEVICES AND ROUGH GRADE SITE.
OCTOBER 1, 2025 – MAY 15, 2026	CONSTRUCT UTILITIES AND STREETS. RESTORE ALL PERVIOUS DISTURBED AREAS.

RESTORATION NOTES:

RESTORATION SHALL OCCUR AS SOON AFTER THE DISTURBANCE AS PRACTICAL.

ALL PERVIOUS DISTURBED AREAS SHALL RECEIVE A MINIMUM OF FOUR (4) INCHES OF TOPSOIL, SEED, AND MULCH. RESTORATION WILL OCCUR AS SOON AFTER THE DISTURBANCE AS PRACTICAL. SEED MIXTURE 40 SHALL BE USED ON ALL DISTURBED AREAS. ALL SEED MIXTURES SHALL BE IN ACCORDANCE WITH SECTION 630 OF W.D.O.T. SPECIFICATIONS. AN EQUAL AMOUNT OF ANNUAL RYEGRASS SHALL BE ADDED TO THE MIX.

ALL PERVIOUS DISTURBED AREAS SHALL RECEIVE FERTILIZER. FERTILIZER SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS: NITROGEN, NOT LESS THAN 16%; PHOSPHORIC ACID, NOT LESS THAN 8%; POTASH, NOT LESS THAN 8%. FERTILIZER SHALL BE APPLIED AT THE RATE OF FOUR (4) POUNDS PER 1,000 SQUARE FEET. SEED MIXTURE 40 SHALL BE APPLIED AT THE RATE OF FOUR (4) POUNDS PER 1,000 SQUARE FEET. MULCH SHALL CONSIST OF HAY OR STRAW APPLIED AT THE RATE OF TWO (2) TONS PER ACRE.

SEEDING FROM SEPTEMBER 16 THROUGH NOVEMBER 15 IS TO BE AVOIDED TO PREVENT FREEZING OF NEW GROWTH. DORMANT SEEDING, IF NECESSARY, SHALL BE COMPLETED AFTER NOVEMBER 15. DORMANT SEEDING SHALL NOT BE APPLIED ON TOP OF SNOW. DISTURBED AREAS SHALL HAVE EROSION MAT APPLIED OVER DORMANT SEEDING. IF DORMANT SEEDING DOES NOT RESULT IN AT LEAST 70% COVER BY MAY 15, ADDITIONAL SEEDING SHALL BE REQUIRED.

OWNER:

LAKESTONE PROPERTIES & MANAGEMENT, LLC
ATTN: BRETT RIEMEN
BRIAN SPANOS
5910 MAIN STREET, SUITE 1
McFARLAND WI 53558

ENGINEER:

QUAM ENGINEERING, LLC
ATTN: RYAN QUAM
4604 SIGGELKOW ROAD, SUITE A
MCFARLAND, WI 53558

1. EXCAVATED MATERIAL FROM THE UTILITY TRENCH NOT SUITABLE FOR BACKFILL AS DEEMED BY THE PUBLIC SERVICES DIRECTOR SHALL BE REMOVED AND REPLACED WITH SELECT TRENCH BACKFILL.
2. ALL SILT FENCE SHALL BE PROPERLY INSTALLED, MAINTAINED, AND REMOVED UPON ESTABLISHMENT OF TURF.
3. ALL SITES SHALL BE ADEQUATELY PROTECTED TO PREVENT SEDIMENT FROM LEAVING THE SITE.
4. ACCESS TO THE CONSTRUCTION SITE SHALL BE LIMITED TO THE STONE ENTRANCE PADS SHOWN ON THE PLANS.
5. STREETS SHALL BE SWEPT CLEAN EVERY DAY.
6. EROSION MAT IS REQUIRED FOR ALL RESTORATION ON SLOPES AT OR GREATER THAN 5:1, AND IN AREAS THAT CHANNEL WATER. EROSION MAT SHALL ALSO BE PROVIDED IN ALL STREET TERRACES WITHIN THE ROW.
7. EROSION MAT AND STAPLES SHALL BE BIODEGRADABLE (CURLEX NET FREE OR APPROVED EQUAL).
8. ALL STORM WATER MANAGEMENT FACILITIES SHALL BE SEEDED WITH A NATIVE SEED MIXTURE WITHIN THE LIMITS OF THE OUTLOT OR EASEMENT. THE NATIVE SEED MIXTURE SHALL BE APPROVED BY THE DIRECTOR OF PUBLIC SERVICES.
9. ANY PROPOSED CHANGES TO THE GRADING AND EROSION CONTROL PLAN MUST BE SUBMITTED TO THE VILLAGE ENGINEER AND APPROVED.

SPERLE CORNERS – VILLAGE OF MCFARLAND

DETAILS
SHEET: C-17
DATED: AUGUST 18, 2025

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
www.quamengineering.com
4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558
Phone (608) 838-7750; Fax (608) 838-7752

Soil Loss & Sediment Discharge Calculation Tool

for use on Construction Sites in the State of Wisconsin

WDNR Version 2.0 (06-29-2017)

YEAR 1

Developer: Lakestone Properties and Management

Project: Sperle Corners - Village of McFarland (Phase 1)

Date: 04/08/25

County: Dane

Version 1.0

Activity (1)	Begin Date (2)	End Date (3)	Period % R (4)	Annual R Factor (5)	Sub Soil Texture (6)	Soil Erodibility K Factor (7)	Slope (%) (8)	Slope Length (ft) (9)	LS Factor (10)	Land Cover C Factor (11)	Soil loss A (tons/acre) (12)	SDF (13)	Sediment Control Practice (14)	Sediment Discharge (t/ac) (15)
Bare Ground	09/15/25	10/01/25	4.0%	150	Silt Loam	0.43	0.2%	300	0.10	1.00	0.3	0.284	Silt Fence	0.0
Bare Ground	10/01/25	05/15/26	22.8%	150	Silt Loam	0.43	7.0%	30	0.45	1.00	6.7	0.750	Silt Fence	3.0
Seed with Mulch or Er	05/15/26	07/14/26	37.1%	150	Silt Loam	0.43	7.0%	30	0.45	0.10	1.1	0.750	Silt Fence	0.5
End	07/14/26	-----	-----	-----	-------	-----			-----	------	-----	0.000		0.0
		-----	-----	-----	-------	-----			-----	-----	-----	0.000		0.0
		-----	-----	-----	-------	-----			-----	-----	-----	0.000		0.0
										TOTAL	**8.0**		**TOTAL**	**3.5**
													% Reduction Required	**NONE**

Notes:

See Help Page for further descriptions of variables and items in drop-down boxes.
The last land disturbing activity on each sheet must be 'End'. This is either 12 months from the start of construction or final stabilization.
For periods of construction that exceed 12 months, please demonstrate that 5 tons/acre/year is not exceeded in any given 12 month period.

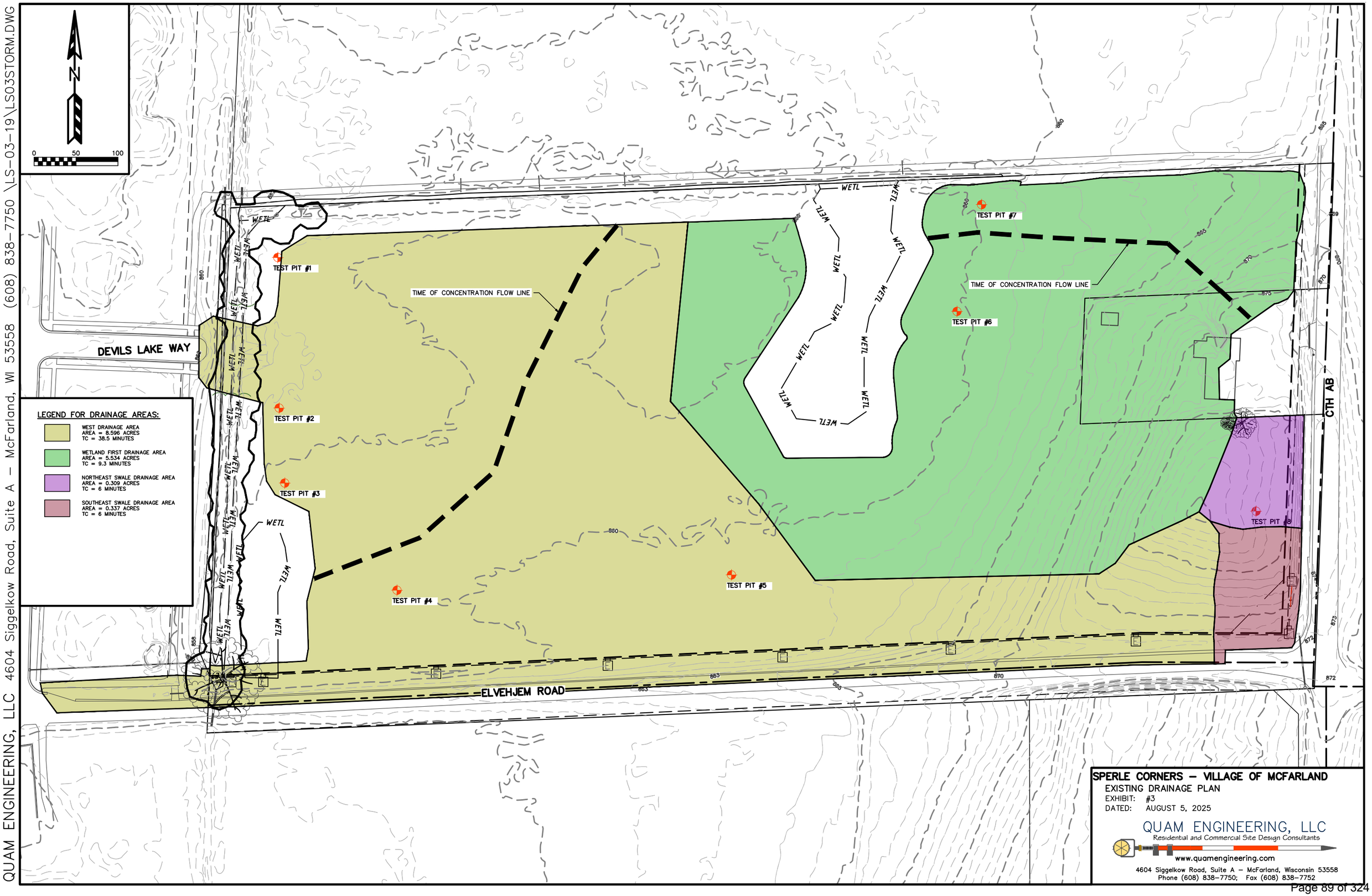
NOTE: THIS TOOL ONLY ADDRESSED SOIL EROSION DUE TO SHEET FLOW. MEASURES TO CONTROL CHANNEL EROSION MAY ALSO BE REQUIRED TO MEET SEDIMENT DISCHARGE REQUIREMENTS.

Recommended Permanent Seeding Dates:

4/1-5/15	and	8/7-8/29	Turf, introduced grasses and legumes
Thaw-6/30			Native Grasses, forbs, and legumes

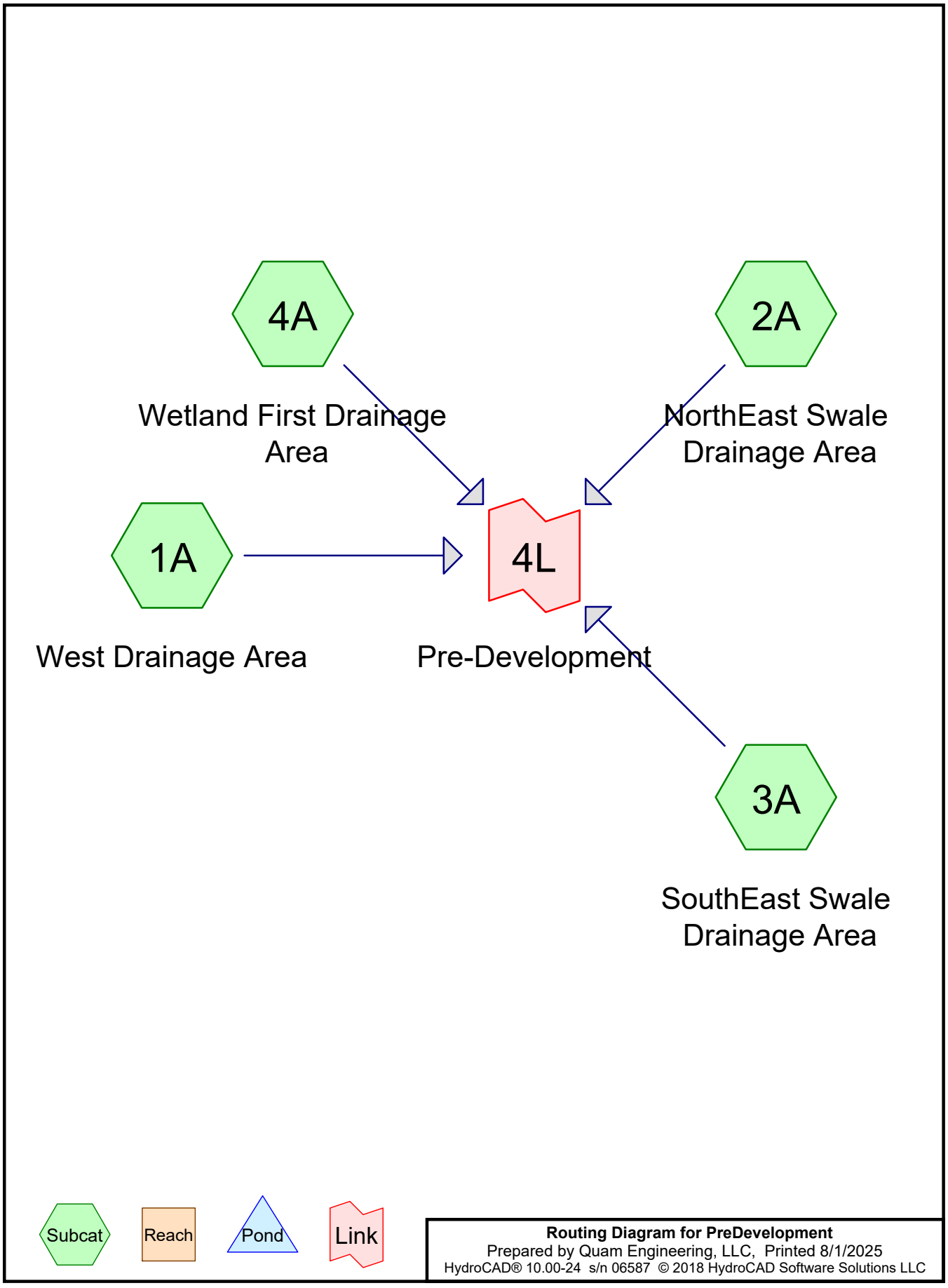
Designed By:	MAF
Date	4/8/2025

QUAM ENGINEERING, LLC 4604 Siggelkow Road, Suite A – McFarland, WI 53558 (608) 838-7750 \LS-03-19\LS03STORM.DWG



SPERLE CORNERS – VILLAGE OF MCFARLAND
EXISTING DRAINAGE PLAN
EXHIBIT: #3
DATED: AUGUST 5, 2025

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
www.quamengineering.com
4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558
Phone (608) 838-7750; Fax (608) 838-7752



Routing Diagram for PreDevelopment
Prepared by Quam Engineering, LLC, Printed 8/1/2025
HydroCAD® 10.00-24 s/n 06587 © 2018 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
12.686	58	Ag, HSG B (1A, 2A, 3A, 4A)
0.060	58	Grass, HSG B (2A, 3A)
1.424	58	Offsite Grass, HSG B (1A, 2A, 3A, 4A)
0.054	98	Offsite Roof (4A)
0.044	98	Offsite Sidewalk (1A)
0.406	98	Offsite Street (1A)
0.102	58	Woods, HSG B (4A)
14.776	**59**	**TOTAL AREA**

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1A: West Drainage Area Runoff Area=8.596 ac 5.23% Impervious Runoff Depth=0.24"
Flow Length=600' Slope=0.0020 '/' Tc=33.3 min CN=WQ Runoff=0.83 cfs 0.174 af

Subcatchment 2A: NorthEast Swale Runoff Area=0.309 ac 0.00% Impervious Runoff Depth=0.13"
Tc=6.0 min CN=WQ Runoff=0.01 cfs 0.003 af

Subcatchment 3A: SouthEast Swale Runoff Area=0.337 ac 0.00% Impervious Runoff Depth=0.13"
Tc=6.0 min CN=WQ Runoff=0.02 cfs 0.004 af

Subcatchment 4A: Wetland First Drainage Runoff Area=5.534 ac 0.98% Impervious Runoff Depth=0.15"
Flow Length=380' Tc=9.3 min CN=WQ Runoff=0.29 cfs 0.070 af

Link 4L: Pre-Development Inflow=1.12 cfs 0.251 af
Primary=1.12 cfs 0.251 af

Total Runoff Area = 14.776 ac Runoff Volume = 0.251 af Average Runoff Depth = 0.20"
96.59% Pervious = 14.272 ac 3.41% Impervious = 0.504 ac

Summary for Subcatchment 1A: West Drainage Area

Runoff = 0.83 cfs @ 12.53 hrs, Volume= 0.174 af, Depth= 0.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

	Area (ac)	CN	Description
*	7.375	58	Ag, HSG B
*	0.406	98	Offsite Street
*	0.044	98	Offsite Sidewalk
*	0.771	58	Offsite Grass, HSG B
	8.596		Weighted Average
	8.146		94.77% Pervious Area
	0.450		5.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0020	0.13		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 2.84"
20.7	500	0.0020	0.40		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
33.3	600	Total			

Summary for Subcatchment 2A: NorthEast Swale Drainage Area

Runoff = 0.01 cfs @ 12.36 hrs, Volume= 0.003 af, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

	Area (ac)	CN	Description
*	0.021	58	Grass, HSG B
*	0.232	58	Ag, HSG B
*	0.056	58	Offsite Grass, HSG B
	0.309		Weighted Average
	0.309		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 3A: SouthEast Swale Drainage Area

Runoff = 0.02 cfs @ 12.36 hrs, Volume= 0.004 af, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

	Area (ac)	CN	Description
*	0.039	58	Grass, HSG B
*	0.195	58	Ag, HSG B
*	0.103	58	Offsite Grass, HSG B
	0.337		Weighted Average
	0.337		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 4A: Wetland First Drainage Area

Runoff = 0.29 cfs @ 12.38 hrs, Volume= 0.070 af, Depth= 0.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

	Area (ac)	CN	Description
*	0.102	58	Woods, HSG B
*	4.884	58	Ag, HSG B
*	0.054	98	Offsite Roof
*	0.494	58	Offsite Grass, HSG B
	5.534		Weighted Average
	5.480		99.02% Pervious Area
	0.054		0.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	50	0.0800	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.84"
1.5	50	0.1000	0.55		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 2.84"
4.4	280	0.0140	1.06		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
9.3	380	Total			

Summary for Link 4L: Pre-Development

Inflow Area = 14.776 ac, 3.41% Impervious, Inflow Depth = 0.20" for 1-Year event
Inflow = 1.12 cfs @ 12.49 hrs, Volume= 0.251 af
Primary = 1.12 cfs @ 12.49 hrs, Volume= 0.251 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1A: West Drainage Area Runoff Area=8.596 ac 5.23% Impervious Runoff Depth=0.35"
Flow Length=600' Slope=0.0020 '/' Tc=33.3 min CN=WQ Runoff=1.32 cfs 0.250 af

Subcatchment 2A: NorthEast Swale Runoff Area=0.309 ac 0.00% Impervious Runoff Depth=0.22"
Tc=6.0 min CN=WQ Runoff=0.04 cfs 0.006 af

Subcatchment 3A: SouthEast Swale Runoff Area=0.337 ac 0.00% Impervious Runoff Depth=0.22"
Tc=6.0 min CN=WQ Runoff=0.04 cfs 0.006 af

Subcatchment 4A: Wetland First Drainage Runoff Area=5.534 ac 0.98% Impervious Runoff Depth=0.25"
Flow Length=380' Tc=9.3 min CN=WQ Runoff=0.76 cfs 0.114 af

Link 4L: Pre-Development Inflow=1.86 cfs 0.376 af
Primary=1.86 cfs 0.376 af

Total Runoff Area = 14.776 ac Runoff Volume = 0.376 af Average Runoff Depth = 0.31"
96.59% Pervious = 14.272 ac 3.41% Impervious = 0.504 ac

Summary for Subcatchment 1A: West Drainage Area

Runoff = 1.32 cfs @ 12.57 hrs, Volume= 0.250 af, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.84"

	Area (ac)	CN	Description
*	7.375	58	Ag, HSG B
*	0.406	98	Offsite Street
*	0.044	98	Offsite Sidewalk
*	0.771	58	Offsite Grass, HSG B
	8.596		Weighted Average
	8.146		94.77% Pervious Area
	0.450		5.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0020	0.13		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 2.84"
20.7	500	0.0020	0.40		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
33.3	600	Total			

Summary for Subcatchment 2A: NorthEast Swale Drainage Area

Runoff = 0.04 cfs @ 12.20 hrs, Volume= 0.006 af, Depth= 0.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.84"

	Area (ac)	CN	Description
*	0.021	58	Grass, HSG B
*	0.232	58	Ag, HSG B
*	0.056	58	Offsite Grass, HSG B
	0.309		Weighted Average
	0.309		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 3A: SouthEast Swale Drainage Area

Runoff = 0.04 cfs @ 12.20 hrs, Volume= 0.006 af, Depth= 0.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.84"

	Area (ac)	CN	Description
*	0.039	58	Grass, HSG B
*	0.195	58	Ag, HSG B
*	0.103	58	Offsite Grass, HSG B
	0.337		Weighted Average
	0.337		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 4A: Wetland First Drainage Area

Runoff = 0.76 cfs @ 12.24 hrs, Volume= 0.114 af, Depth= 0.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.84"

	Area (ac)	CN	Description
*	0.102	58	Woods, HSG B
*	4.884	58	Ag, HSG B
*	0.054	98	Offsite Roof
*	0.494	58	Offsite Grass, HSG B
	5.534		Weighted Average
	5.480		99.02% Pervious Area
	0.054		0.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	50	0.0800	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.84"
1.5	50	0.1000	0.55		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 2.84"
4.4	280	0.0140	1.06		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
9.3	380	Total			

Summary for Link 4L: Pre-Development

Inflow Area = 14.776 ac, 3.41% Impervious, Inflow Depth = 0.31" for 2-Year event
Inflow = 1.86 cfs @ 12.49 hrs, Volume= 0.376 af
Primary = 1.86 cfs @ 12.49 hrs, Volume= 0.376 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1A: West Drainage Area Runoff Area=8.596 ac 5.23% Impervious Runoff Depth=0.87"
Flow Length=600' Slope=0.0020 '/' Tc=33.3 min CN=WQ Runoff=4.45 cfs 0.624 af

Subcatchment 2A: NorthEast Swale Runoff Area=0.309 ac 0.00% Impervious Runoff Depth=0.71"
Tc=6.0 min CN=WQ Runoff=0.29 cfs 0.018 af

Subcatchment 3A: SouthEast Swale Runoff Area=0.337 ac 0.00% Impervious Runoff Depth=0.71"
Tc=6.0 min CN=WQ Runoff=0.31 cfs 0.020 af

Subcatchment 4A: Wetland First Drainage Runoff Area=5.534 ac 0.98% Impervious Runoff Depth=0.74"
Flow Length=380' Tc=9.3 min CN=WQ Runoff=4.50 cfs 0.340 af

Link 4L: Pre-Development Inflow=6.31 cfs 1.002 af
Primary=6.31 cfs 1.002 af

Total Runoff Area = 14.776 ac Runoff Volume = 1.002 af Average Runoff Depth = 0.81"
96.59% Pervious = 14.272 ac 3.41% Impervious = 0.504 ac

Summary for Subcatchment 1A: West Drainage Area

Runoff = 4.45 cfs @ 12.54 hrs, Volume= 0.624 af, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.09"

	Area (ac)	CN	Description
*	7.375	58	Ag, HSG B
*	0.406	98	Offsite Street
*	0.044	98	Offsite Sidewalk
*	0.771	58	Offsite Grass, HSG B
	8.596		Weighted Average
	8.146		94.77% Pervious Area
	0.450		5.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0020	0.13		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 2.84"
20.7	500	0.0020	0.40		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
33.3	600	Total			

Summary for Subcatchment 2A: NorthEast Swale Drainage Area

Runoff = 0.29 cfs @ 12.15 hrs, Volume= 0.018 af, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.09"

	Area (ac)	CN	Description
*	0.021	58	Grass, HSG B
*	0.232	58	Ag, HSG B
*	0.056	58	Offsite Grass, HSG B
	0.309		Weighted Average
	0.309		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 3A: SouthEast Swale Drainage Area

Runoff = 0.31 cfs @ 12.15 hrs, Volume= 0.020 af, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.09"

	Area (ac)	CN	Description
*	0.039	58	Grass, HSG B
*	0.195	58	Ag, HSG B
*	0.103	58	Offsite Grass, HSG B
	0.337		Weighted Average
	0.337		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 4A: Wetland First Drainage Area

Runoff = 4.50 cfs @ 12.19 hrs, Volume= 0.340 af, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.09"

	Area (ac)	CN	Description
*	0.102	58	Woods, HSG B
*	4.884	58	Ag, HSG B
*	0.054	98	Offsite Roof
*	0.494	58	Offsite Grass, HSG B
	5.534		Weighted Average
	5.480		99.02% Pervious Area
	0.054		0.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	50	0.0800	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.84"
1.5	50	0.1000	0.55		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 2.84"
4.4	280	0.0140	1.06		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
9.3	380	Total			

Summary for Link 4L: Pre-Development

Inflow Area = 14.776 ac, 3.41% Impervious, Inflow Depth = 0.81" for 10-Year event
Inflow = 6.31 cfs @ 12.21 hrs, Volume= 1.002 af
Primary = 6.31 cfs @ 12.21 hrs, Volume= 1.002 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1A: West Drainage Area Runoff Area=8.596 ac 5.23% Impervious Runoff Depth=2.40"
Flow Length=600' Slope=0.0020 '/' Tc=33.3 min CN=WQ Runoff=14.62 cfs 1.721 af

Subcatchment 2A: NorthEast Swale Runoff Area=0.309 ac 0.00% Impervious Runoff Depth=2.18"
Tc=6.0 min CN=WQ Runoff=1.04 cfs 0.056 af

Subcatchment 3A: SouthEast Swale Runoff Area=0.337 ac 0.00% Impervious Runoff Depth=2.18"
Tc=6.0 min CN=WQ Runoff=1.13 cfs 0.061 af

Subcatchment 4A: Wetland First Drainage Runoff Area=5.534 ac 0.98% Impervious Runoff Depth=2.22"
Flow Length=380' Tc=9.3 min CN=WQ Runoff=16.22 cfs 1.025 af

Link 4L: Pre-Development Inflow=23.49 cfs 2.864 af
Primary=23.49 cfs 2.864 af

Total Runoff Area = 14.776 ac Runoff Volume = 2.864 af Average Runoff Depth = 2.33"
96.59% Pervious = 14.272 ac 3.41% Impervious = 0.504 ac

Summary for Subcatchment 1A: West Drainage Area

Runoff = 14.62 cfs @ 12.50 hrs, Volume= 1.721 af, Depth= 2.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=6.66"

	Area (ac)	CN	Description
*	7.375	58	Ag, HSG B
*	0.406	98	Offsite Street
*	0.044	98	Offsite Sidewalk
*	0.771	58	Offsite Grass, HSG B
	8.596		Weighted Average
	8.146		94.77% Pervious Area
	0.450		5.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0020	0.13		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 2.84"
20.7	500	0.0020	0.40		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
33.3	600	Total			

Summary for Subcatchment 2A: NorthEast Swale Drainage Area

Runoff = 1.04 cfs @ 12.14 hrs, Volume= 0.056 af, Depth= 2.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=6.66"

	Area (ac)	CN	Description
*	0.021	58	Grass, HSG B
*	0.232	58	Ag, HSG B
*	0.056	58	Offsite Grass, HSG B
	0.309		Weighted Average
	0.309		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 3A: SouthEast Swale Drainage Area

Runoff = 1.13 cfs @ 12.14 hrs, Volume= 0.061 af, Depth= 2.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=6.66"

	Area (ac)	CN	Description
*	0.039	58	Grass, HSG B
*	0.195	58	Ag, HSG B
*	0.103	58	Offsite Grass, HSG B
	0.337		Weighted Average
	0.337		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 4A: Wetland First Drainage Area

Runoff = 16.22 cfs @ 12.18 hrs, Volume= 1.025 af, Depth= 2.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=6.66"

	Area (ac)	CN	Description
*	0.102	58	Woods, HSG B
*	4.884	58	Ag, HSG B
*	0.054	98	Offsite Roof
*	0.494	58	Offsite Grass, HSG B
	5.534		Weighted Average
	5.480		99.02% Pervious Area
	0.054		0.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	50	0.0800	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.84"
1.5	50	0.1000	0.55		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 2.84"
4.4	280	0.0140	1.06		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
9.3	380	Total			

Summary for Link 4L: Pre-Development

Inflow Area = 14.776 ac, 3.41% Impervious, Inflow Depth = 2.33" for 100-Year event
Inflow = 23.49 cfs @ 12.19 hrs, Volume= 2.864 af
Primary = 23.49 cfs @ 12.19 hrs, Volume= 2.864 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1A: West Drainage Area Runoff Area=8.596 ac 5.23% Impervious Runoff Depth=3.01"
Flow Length=600' Slope=0.0020 '/' Tc=33.3 min CN=WQ Runoff=18.68 cfs 2.158 af

Subcatchment 2A: NorthEast Swale Runoff Area=0.309 ac 0.00% Impervious Runoff Depth=2.78"
Tc=6.0 min CN=WQ Runoff=1.34 cfs 0.071 af

Subcatchment 3A: SouthEast Swale Runoff Area=0.337 ac 0.00% Impervious Runoff Depth=2.78"
Tc=6.0 min CN=WQ Runoff=1.46 cfs 0.078 af

Subcatchment 4A: Wetland First Drainage Runoff Area=5.534 ac 0.98% Impervious Runoff Depth=2.82"
Flow Length=380' Tc=9.3 min CN=WQ Runoff=21.04 cfs 1.301 af

Link 4L: Pre-Development Inflow=30.50 cfs 3.608 af
Primary=30.50 cfs 3.608 af

Total Runoff Area = 14.776 ac Runoff Volume = 3.608 af Average Runoff Depth = 2.93"
96.59% Pervious = 14.272 ac 3.41% Impervious = 0.504 ac

Summary for Subcatchment 1A: West Drainage Area

Runoff = 18.68 cfs @ 12.49 hrs, Volume= 2.158 af, Depth= 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-Year Rainfall=7.53"

	Area (ac)	CN	Description
*	7.375	58	Ag, HSG B
*	0.406	98	Offsite Street
*	0.044	98	Offsite Sidewalk
*	0.771	58	Offsite Grass, HSG B
	8.596		Weighted Average
	8.146		94.77% Pervious Area
	0.450		5.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0020	0.13		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 2.84"
20.7	500	0.0020	0.40		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
33.3	600	Total			

Summary for Subcatchment 2A: NorthEast Swale Drainage Area

Runoff = 1.34 cfs @ 12.14 hrs, Volume= 0.071 af, Depth= 2.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-Year Rainfall=7.53"

	Area (ac)	CN	Description
*	0.021	58	Grass, HSG B
*	0.232	58	Ag, HSG B
*	0.056	58	Offsite Grass, HSG B
	0.309		Weighted Average
	0.309		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 3A: SouthEast Swale Drainage Area

Runoff = 1.46 cfs @ 12.14 hrs, Volume= 0.078 af, Depth= 2.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-Year Rainfall=7.53"

	Area (ac)	CN	Description
*	0.039	58	Grass, HSG B
*	0.195	58	Ag, HSG B
*	0.103	58	Offsite Grass, HSG B
	0.337		Weighted Average
	0.337		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 4A: Wetland First Drainage Area

Runoff = 21.04 cfs @ 12.17 hrs, Volume= 1.301 af, Depth= 2.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-Year Rainfall=7.53"

	Area (ac)	CN	Description
*	0.102	58	Woods, HSG B
*	4.884	58	Ag, HSG B
*	0.054	98	Offsite Roof
*	0.494	58	Offsite Grass, HSG B
	5.534		Weighted Average
	5.480		99.02% Pervious Area
	0.054		0.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	50	0.0800	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.84"
1.5	50	0.1000	0.55		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 2.84"
4.4	280	0.0140	1.06		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
9.3	380	Total			

Summary for Link 4L: Pre-Development

Inflow Area = 14.776 ac, 3.41% Impervious, Inflow Depth = 2.93" for 200-Year event
Inflow = 30.50 cfs @ 12.19 hrs, Volume= 3.608 af
Primary = 30.50 cfs @ 12.19 hrs, Volume= 3.608 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

QUAM ENGINEERING, LLC 4604 Siggelkow Road, Suite A – McFarland, WI 53558 (608) 838-7750 \LS-03-19\LS03STORM.DWG

N

0 50 100

LEGEND FOR DRAINAGE AREAS:

- WEST WET POND DRAINAGE AREA
  AREA = 5.460 ACRES
  TC = 6 MINUTES
- ELVEHJEM ROAD CULVERT DRAINAGE AREA
  AREA = 0.872 ACRES
  TC = 6 MINUTES
- EAST WET POND DRAINAGE AREA
  AREA = 3.805 ACRES
  TC = 6 MINUTES
- INFILTRATION BASIN DRAINAGE AREA
  AREA = 2.236 ACRES
  TC = 7.7 MINUTES
- NORTHEAST SWALE DRAINAGE AREA
  AREA = 0.032 ACRES
  TC = 6 MINUTES
- SOUTHEAST SWALE DRAINAGE AREA
  AREA = 0.224 ACRES
  TC = 6 MINUTES
- UNCONTROLLED DRAINAGE AREA
  AREA = 1.375 ACRES
  TC = 6 MINUTES
- WETLAND FIRST DRAINAGE AREA
  AREA = 0.702 ACRES
  TC = 6 MINUTES

EX=862.81
EX=861.13
EX=860.13
EX=860.06
EX=860.44
EX=860.57
EX=860.55
EX=860.57
EX=860.75
EX=860.64
EX=860.96

WETL

TWO UNIT PLAN (76W×55D)

FOUR UNIT PLAN (118.8W×50D)

DEVILS LAKE WAY

OVERFLOW EX=862.28

INFILTRATION BASIN
200-YEAR INUNDATION ELEVATION = 860.77

TIME OF CONCENTRATION FLOW LINE

EAST WET POND
200-YEAR INUNDATION ELEVATION = 864.26

WEST WET POND
200-YEAR INUNDATION ELEVATION = 861.67

TC=863.06
FOP=862.95
EX=863.27
863.05

RUNOFF THAT IS NOT CONVEYED BY 24" STORM SEWER FROM MH#7 TO MH#6 WILL OVERFLOW TO SWALE AT 862.95 AND ENTER ELVEHJEM ROAD CULVERT

EX=862.15
EX=861.56

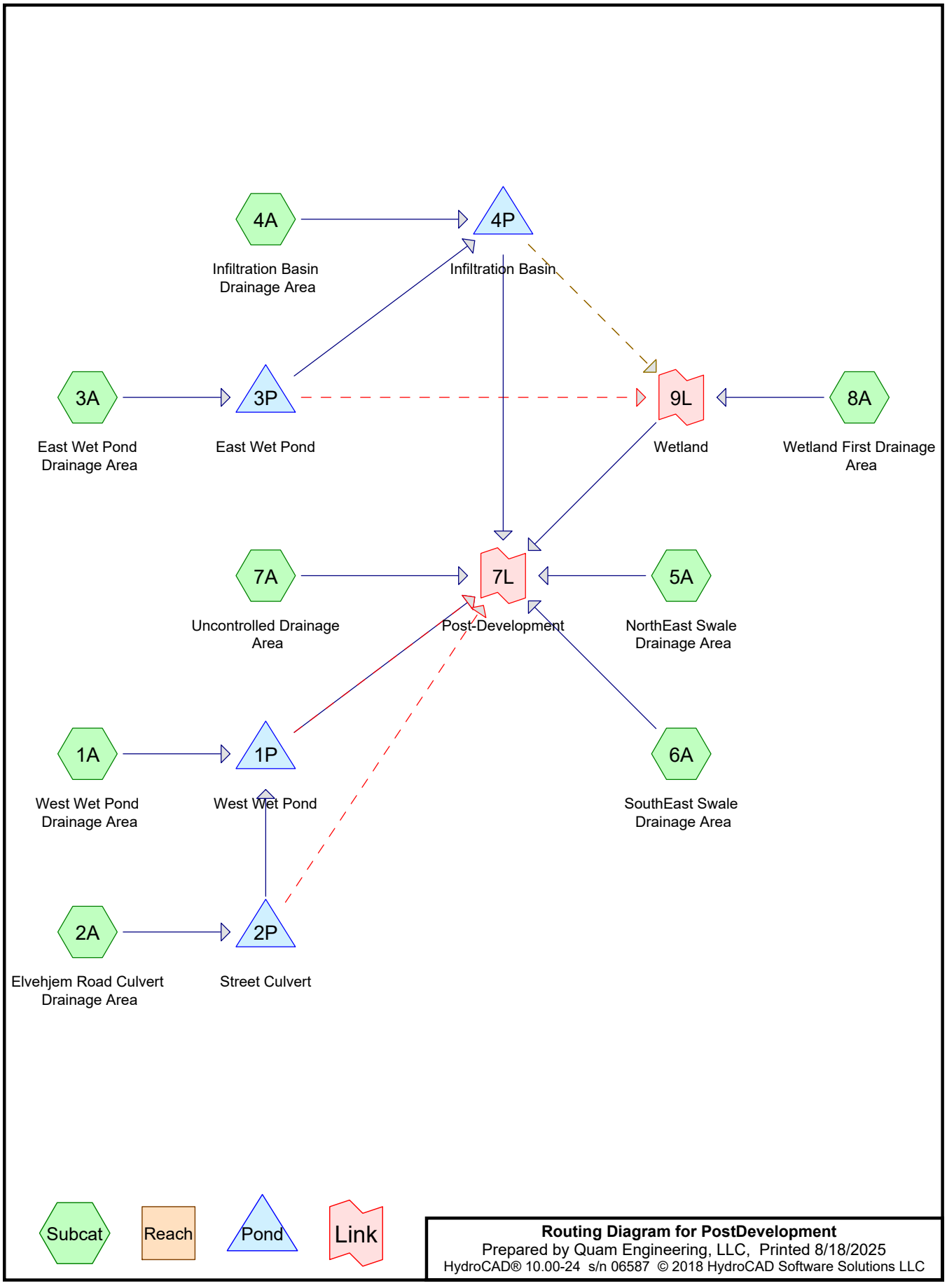
ELVEHJEM ROAD

CTH AB

INUNDATION EVENT WAS MODELED ASSUMING THAT ALL WATER REACHED THE POND AS DESIGNED BUT ONLY LEFT THE POND THROUGH THE OVERFLOW WEIR.

SPERLE CORNERS – VILLAGE OF MCFARLAND
PROPOSED DRAINAGE PLAN
EXHIBIT: #5
DATED: AUGUST 5, 2025

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
www.quamengineering.com
4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558
Phone (608) 838-7750; Fax (608) 838-7752



Routing Diagram for PostDevelopment
Prepared by Quam Engineering, LLC, Printed 8/18/2025
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.702	58	>75% Grass cover, Good, HSG B (8A)
4.312	74	>75% Grass cover, Good, HSG C (1A, 2A, 3A, 4A, 6A, 7A)
1.000	58	Deep Tilled HSG C Soils (7A)
0.633	58	Offsite Grass, HSG B (3A, 4A, 5A, 6A)
0.054	98	Offsite Roof (4A)
0.329	98	Offsite Sidewalk (1A, 2A, 5A, 6A)
0.429	98	Offsite Street (1A, 2A)
1.632	98	Proposed Pavement (1A, 3A)
2.512	98	Proposed Roof (1A, 2A, 3A, 6A, 7A)
0.277	98	Proposed Sidewalk (1A, 2A, 3A, 7A)
0.566	98	Proposed Street (1A, 7A)
1.522	58	Undisturbed Grass, HSG B (3A, 4A)
0.808	100	Water/Infiltration Area (1A, 3A, 4A)
14.776	**81**	**TOTAL AREA**

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1A: West Wet Pond Runoff Area=5.530 ac 59.82% Impervious Runoff Depth=1.61"
Tc=6.0 min CN=WQ Runoff=12.17 cfs 0.740 af

Pond 1P: West Wet Pond Peak Elev=859.42' Storage=27,058 cf Inflow=13.74 cfs 0.851 af
Primary=0.32 cfs 0.820 af Secondary=0.00 cfs 0.000 af Outflow=0.32 cfs 0.820 af

Subcatchment 2A: Elvehjem Road Culvert Runoff Area=0.872 ac 55.85% Impervious Runoff Depth=1.53"
Tc=6.0 min CN=WQ Runoff=1.84 cfs 0.111 af

Pond 2P: Street Culvert Peak Elev=859.87' Storage=270 cf Inflow=1.84 cfs 0.111 af
Primary=1.64 cfs 0.111 af Secondary=0.00 cfs 0.000 af Outflow=1.64 cfs 0.111 af

Subcatchment 3A: East Wet Pond Drainage Runoff Area=3.805 ac 55.98% Impervious Runoff Depth=1.50"
Tc=6.0 min CN=WQ Runoff=7.76 cfs 0.476 af

Pond 3P: East Wet Pond Peak Elev=861.48' Storage=13,280 cf Inflow=7.76 cfs 0.476 af
Primary=0.32 cfs 0.471 af Secondary=0.00 cfs 0.000 af Outflow=0.32 cfs 0.471 af

Subcatchment 4A: Infiltration Basin Runoff Area=2.236 ac 16.77% Impervious Runoff Depth=0.55"
Flow Length=280' Tc=7.7 min CN=WQ Runoff=1.23 cfs 0.102 af

Pond 4P: Infiltration Basin Peak Elev=859.65' Storage=5,870 cf Inflow=1.49 cfs 0.573 af
cfs 0.128 af Primary=0.14 cfs 0.205 af Secondary=0.00 cfs 0.000 af Tertiary=0.16 cfs 0.234 af Outflow=0.32 cfs 0.567 af

Subcatchment 5A: NorthEast Swale Runoff Area=0.032 ac 53.13% Impervious Runoff Depth=1.26"
Tc=6.0 min CN=WQ Runoff=0.05 cfs 0.003 af

Subcatchment 6A: SouthEast Swale Runoff Area=0.224 ac 36.16% Impervious Runoff Depth=1.06"
Tc=6.0 min CN=WQ Runoff=0.32 cfs 0.020 af

Subcatchment 7A: Uncontrolled Drainage Runoff Area=1.375 ac 15.20% Impervious Runoff Depth=0.51"
Tc=6.0 min CN=WQ Runoff=0.80 cfs 0.059 af

Link 7L: Post-Development Inflow=1.42 cfs 1.349 af
Primary=1.42 cfs 1.349 af

Subcatchment 8A: Wetland First Drainage Runoff Area=0.702 ac 0.00% Impervious Runoff Depth=0.13"
Tc=6.0 min CN=58 Runoff=0.03 cfs 0.008 af

Link 9L: Wetland Inflow=0.17 cfs 0.242 af
Primary=0.17 cfs 0.242 af

Total Runoff Area = 14.776 ac Runoff Volume = 1.519 af Average Runoff Depth = 1.23"
55.29% Pervious = 8.169 ac 44.71% Impervious = 6.607 ac

Summary for Subcatchment 1A: West Wet Pond Drainage Area

Runoff = 12.17 cfs @ 12.13 hrs, Volume= 0.740 af, Depth= 1.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

	Area (ac)	CN	Description
*	1.252	98	Proposed Roof
*	0.759	98	Proposed Pavement
*	0.143	98	Proposed Sidewalk
*	0.529	98	Proposed Street
*	1.977	74	>75% Grass cover, Good, HSG C
*	0.280	100	Water/Infiltration Area
*	0.120	98	Offsite Sidewalk
*	0.225	98	Offsite Street
	0.245	74	>75% Grass cover, Good, HSG C
	5.530		Weighted Average
	2.222		40.18% Pervious Area
	3.308		59.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 1P: West Wet Pond

Inflow Area = 6.402 ac, 59.28% Impervious, Inflow Depth = 1.60" for 1-Year event
Inflow = 13.74 cfs @ 12.13 hrs, Volume= 0.851 af
Outflow = 0.32 cfs @ 15.16 hrs, Volume= 0.820 af, Atten= 98%, Lag= 181.7 min
Primary = 0.32 cfs @ 15.16 hrs, Volume= 0.820 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 859.42' @ 15.16 hrs Surf.Area= 16,270 sf Storage= 27,058 cf

Plug-Flow detention time= 1,033.2 min calculated for 0.820 af (96% of inflow)
Center-of-Mass det. time= 1,012.7 min (1,785.4 - 772.7)

Volume	Invert	Avail.Storage	Storage Description
#1	857.50'	71,963 cf	**Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
857.50	12,000	0	0
858.00	13,000	6,250	6,250
859.00	15,300	14,150	20,400
860.00	17,600	16,450	36,850
861.00	20,000	18,800	55,650
861.75	23,500	16,313	71,963

Device	Routing	Invert	Outlet Devices
#1	Primary	857.50'	**15.0" Round Outlet Culvert** L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 857.50' / 857.23' S= 0.0020 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	857.50'	**3.0" Round Culvert** L= 5.0' Ke= 0.500 Inlet / Outlet Invert= 857.50' / 857.50' S= 0.0000 '/' Cc= 0.900 n= 0.010, Flow Area= 0.05 sf
#3	Device 1	860.00'	**36.0" Horiz. Standpipe** C= 0.600 Limited to weir flow at low heads
#4	Secondary	861.10'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.32 cfs @ 15.16 hrs HW=859.42' TW=0.00' (Dynamic Tailwater)
└**1=Outlet Culvert** (Passes 0.32 cfs of 4.42 cfs potential flow)
  ├**2=Culvert** (Inlet Controls 0.32 cfs @ 6.45 fps)
  └**3=Standpipe** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=857.50' TW=0.00' (Dynamic Tailwater)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Subcatchment 2A: Elvehjem Road Culvert Drainage Area

Runoff = 1.84 cfs @ 12.13 hrs, Volume= 0.111 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

	Area (ac)	CN	Description
*	0.124	98	Proposed Roof
*	0.014	98	Proposed Sidewalk
	0.106	74	>75% Grass cover, Good, HSG C
*	0.145	98	Offsite Sidewalk
*	0.204	98	Offsite Street
	0.279	74	>75% Grass cover, Good, HSG C
	0.872		Weighted Average
	0.385		44.15% Pervious Area
	0.487		55.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 2P: Street Culvert

Inflow Area = 0.872 ac, 55.85% Impervious, Inflow Depth = 1.53" for 1-Year event
Inflow = 1.84 cfs @ 12.13 hrs, Volume= 0.111 af
Outflow = 1.64 cfs @ 12.16 hrs, Volume= 0.111 af, Atten= 11%, Lag= 1.9 min
Primary = 1.64 cfs @ 12.16 hrs, Volume= 0.111 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 859.87' @ 12.16 hrs Surf.Area= 765 sf Storage= 270 cf

Plug-Flow detention time= 6.4 min calculated for 0.111 af (100% of inflow)
Center-of-Mass det. time= 6.4 min (782.6 - 776.1)

Volume	Invert	Avail.Storage	Storage Description
#1	859.25'	12,325 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.25	100	0	0
860.00	900	375	375
861.00	4,000	2,450	2,825
862.00	15,000	9,500	12,325

Device	Routing	Invert	Outlet Devices
#1	Primary	859.25'	**15.0" Round Culvert** L= 37.0' Ke= 0.500 Inlet / Outlet Invert= 859.25' / 857.51' S= 0.0470 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Secondary	861.50'	**100.0' long x 20.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.60 cfs @ 12.16 hrs HW=859.86' TW=858.73' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.60 cfs @ 2.67 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=859.25' TW=0.00' (Dynamic Tailwater)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Subcatchment 3A: East Wet Pond Drainage Area

Runoff = 7.76 cfs @ 12.13 hrs, Volume= 0.476 af, Depth= 1.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

	Area (ac)	CN	Description
*	0.942	98	Proposed Roof
*	0.873	98	Proposed Pavement
*	0.108	98	Proposed Sidewalk
*	0.277	58	Undisturbed Grass, HSG B
	1.342	74	>75% Grass cover, Good, HSG C
*	0.207	100	Water/Infiltration Area
*	0.056	58	Offsite Grass, HSG B
	3.805		Weighted Average
	1.675		44.02% Pervious Area
	2.130		55.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 3P: East Wet Pond

Inflow Area = 3.805 ac, 55.98% Impervious, Inflow Depth = 1.50" for 1-Year event
Inflow = 7.76 cfs @ 12.13 hrs, Volume= 0.476 af
Outflow = 0.32 cfs @ 13.64 hrs, Volume= 0.471 af, Atten= 96%, Lag= 90.4 min
Primary = 0.32 cfs @ 13.64 hrs, Volume= 0.471 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 861.48' @ 13.64 hrs Surf.Area= 7,854 sf Storage= 13,280 cf

Plug-Flow detention time= 540.8 min calculated for 0.471 af (99% of inflow)
Center-of-Mass det. time= 533.9 min (1,305.3 - 771.4)

Volume	Invert	Avail.Storage	Storage Description
#1	859.50'	37,100 cf	**Surface (Prismatic)** Listed below (Recalc) x 0.8

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.50	7,000	0	0
860.00	7,700	3,675	3,675
861.00	9,100	8,400	12,075
862.00	10,600	9,850	21,925
863.00	12,200	11,400	33,325
864.00	13,900	13,050	46,375

Device	Routing	Invert	Outlet Devices
#1	Primary	859.50'	**15.0" Round Outlet Culvert** L= 39.0' Ke= 0.500 Inlet / Outlet Invert= 859.50' / 859.38' S= 0.0031 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	859.50'	**3.0" Round Culvert** L= 6.0' Ke= 0.500 Inlet / Outlet Invert= 859.50' / 859.50' S= 0.0000 '/' Cc= 0.900 n= 0.010, Flow Area= 0.05 sf
#3	Device 1	862.50'	**36.0" Horiz. Standpipe** C= 0.600 Limited to weir flow at low heads
#4	Secondary	863.50'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.32 cfs @ 13.64 hrs HW=861.48' TW=859.57' (Dynamic Tailwater)
└─**1=Outlet Culvert** (Passes 0.32 cfs of 5.84 cfs potential flow)
  ├─**2=Culvert** (Inlet Controls 0.32 cfs @ 6.55 fps)
  └─**3=Standpipe** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=859.50' TW=0.00' (Dynamic Tailwater)
└─**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Subcatchment 4A: Infiltration Basin Drainage Area

Runoff = 1.23 cfs @ 12.15 hrs, Volume= 0.102 af, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

	Area (ac)	CN	Description
*	1.245	58	Undisturbed Grass, HSG B
	0.122	74	>75% Grass cover, Good, HSG C
*	0.321	100	Water/Infiltration Area
*	0.054	98	Offsite Roof
*	0.494	58	Offsite Grass, HSG B
	2.236		Weighted Average
	1.861		83.23% Pervious Area
	0.375		16.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	50	0.0800	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.84"
1.5	50	0.1000	0.55		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 2.84"
2.8	180	0.0140	1.06		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
7.7	280	Total			

Summary for Pond 4P: Infiltration Basin

Inflow Area = 6.041 ac, 41.47% Impervious, Inflow Depth > 1.14" for 1-Year event
Inflow = 1.49 cfs @ 12.15 hrs, Volume= 0.573 af
Outflow = 0.32 cfs @ 18.49 hrs, Volume= 0.567 af, Atten= 78%, Lag= 380.4 min
Discarded = 0.02 cfs @ 9.75 hrs, Volume= 0.128 af
Primary = 0.14 cfs @ 18.49 hrs, Volume= 0.205 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Tertiary = 0.16 cfs @ 18.49 hrs, Volume= 0.234 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 859.65' @ 18.49 hrs Surf.Area= 15,587 sf Storage= 5,870 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 404.8 min (1,616.9 - 1,212.1)

Volume	Invert	Avail.Storage	Storage Description
#1	859.25'	29,625 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.25	14,000	0	0
860.00	17,000	11,625	11,625
861.00	19,000	18,000	29,625

Device	Routing	Invert	Outlet Devices
#1	Primary	859.35'	**6.0" Round Culvert** L= 48.0' Ke= 0.500 Inlet / Outlet Invert= 859.35' / 859.25' S= 0.0021 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#2	Tertiary	859.35'	**6.0" Round Culvert** L= 31.0' Ke= 0.500 Inlet / Outlet Invert= 859.35' / 859.25' S= 0.0032 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#3	Secondary	860.75'	**30.0' long x 3.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#4	Discarded	859.25'	**0.070 in/hr Exfiltration over Surface area from 859.24' - 859.26'** Excluded Surface area = 0 sf

Discarded OutFlow Max=0.02 cfs @ 9.75 hrs HW=859.27' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=0.14 cfs @ 18.49 hrs HW=859.65' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Barrel Controls 0.14 cfs @ 1.68 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=859.25' TW=0.00' (Dynamic Tailwater)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.16 cfs @ 18.49 hrs HW=859.65' TW=0.00' (Dynamic Tailwater)
└**2=Culvert** (Barrel Controls 0.16 cfs @ 1.90 fps)

Summary for Subcatchment 5A: NorthEast Swale Drainage Area

Runoff = 0.05 cfs @ 12.13 hrs, Volume= 0.003 af, Depth= 1.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

	Area (ac)	CN	Description
*	0.017	98	Offsite Sidewalk
*	0.015	58	Offsite Grass, HSG B
	0.032		Weighted Average
	0.015		46.87% Pervious Area
	0.017		53.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 6A: SouthEast Swale Drainage Area

Runoff = 0.32 cfs @ 12.13 hrs, Volume= 0.020 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

	Area (ac)	CN	Description
*	0.034	98	Proposed Roof
	0.075	74	>75% Grass cover, Good, HSG C
*	0.047	98	Offsite Sidewalk
*	0.068	58	Offsite Grass, HSG B
	0.224		Weighted Average
	0.143		63.84% Pervious Area
	0.081		36.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 7A: Uncontrolled Drainage Area

Runoff = 0.80 cfs @ 12.13 hrs, Volume= 0.059 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

	Area (ac)	CN	Description
*	0.160	98	Proposed Roof
*	0.012	98	Proposed Sidewalk
*	0.037	98	Proposed Street
*	1.000	58	Deep Tilled HSG C Soils
	0.166	74	>75% Grass cover, Good, HSG C
	1.375		Weighted Average
	1.166		84.80% Pervious Area
	0.209		15.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Link 7L: Post-Development

Inflow Area = 14.776 ac, 44.71% Impervious, Inflow Depth > 1.10" for 1-Year event
Inflow = 1.42 cfs @ 12.14 hrs, Volume= 1.349 af
Primary = 1.42 cfs @ 12.14 hrs, Volume= 1.349 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Subcatchment 8A: Wetland First Drainage Area

Runoff = 0.03 cfs @ 12.36 hrs, Volume= 0.008 af, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

	Area (ac)	CN	Description
*	0.702	58	>75% Grass cover, Good, HSG B
	0.702		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Link 9L: Wetland

Inflow Area = 0.702 ac, 0.00% Impervious, Inflow Depth = 4.14" for 1-Year event
Inflow = 0.17 cfs @ 18.33 hrs, Volume= 0.242 af
Primary = 0.17 cfs @ 18.33 hrs, Volume= 0.242 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1A: West Wet Pond Runoff Area=5.530 ac 59.82% Impervious Runoff Depth=1.90"
Tc=6.0 min CN=WQ Runoff=14.41 cfs 0.874 af

Pond 1P: West Wet Pond Peak Elev=859.73' Storage=32,183 cf Inflow=16.27 cfs 1.006 af
Primary=0.34 cfs 0.969 af Secondary=0.00 cfs 0.000 af Outflow=0.34 cfs 0.969 af

Subcatchment 2A: Elvehjem Road Culvert Runoff Area=0.872 ac 55.85% Impervious Runoff Depth=1.81"
Tc=6.0 min CN=WQ Runoff=2.19 cfs 0.132 af

Pond 2P: Street Culvert Peak Elev=859.94' Storage=321 cf Inflow=2.19 cfs 0.132 af
Primary=1.95 cfs 0.132 af Secondary=0.00 cfs 0.000 af Outflow=1.95 cfs 0.132 af

Subcatchment 3A: East Wet Pond Drainage Runoff Area=3.805 ac 55.98% Impervious Runoff Depth=1.78"
Tc=6.0 min CN=WQ Runoff=9.21 cfs 0.564 af

Pond 3P: East Wet Pond Peak Elev=861.80' Storage=15,875 cf Inflow=9.21 cfs 0.564 af
Primary=0.35 cfs 0.558 af Secondary=0.00 cfs 0.000 af Outflow=0.35 cfs 0.558 af

Subcatchment 4A: Infiltration Basin Runoff Area=2.236 ac 16.77% Impervious Runoff Depth=0.69"
Flow Length=280' Tc=7.7 min CN=WQ Runoff=1.57 cfs 0.128 af

Pond 4P: Infiltration Basin Peak Elev=859.67' Storage=6,282 cf Inflow=1.85 cfs 0.687 af
cfs 0.129 af Primary=0.17 cfs 0.256 af Secondary=0.00 cfs 0.000 af Tertiary=0.19 cfs 0.292 af Outflow=0.37 cfs 0.677 af

Subcatchment 5A: NorthEast Swale Runoff Area=0.032 ac 53.13% Impervious Runoff Depth=1.49"
Tc=6.0 min CN=WQ Runoff=0.06 cfs 0.004 af

Subcatchment 6A: SouthEast Swale Runoff Area=0.224 ac 36.16% Impervious Runoff Depth=1.28"
Tc=6.0 min CN=WQ Runoff=0.38 cfs 0.024 af

Subcatchment 7A: Uncontrolled Drainage Runoff Area=1.375 ac 15.20% Impervious Runoff Depth=0.66"
Tc=6.0 min CN=WQ Runoff=1.04 cfs 0.075 af

Link 7L: Post-Development Inflow=1.86 cfs 1.633 af
Primary=1.86 cfs 1.633 af

Subcatchment 8A: Wetland First Drainage Runoff Area=0.702 ac 0.00% Impervious Runoff Depth=0.22"
Tc=6.0 min CN=58 Runoff=0.09 cfs 0.013 af

Link 9L: Wetland Inflow=0.20 cfs 0.305 af
Primary=0.20 cfs 0.305 af

Total Runoff Area = 14.776 ac Runoff Volume = 1.815 af Average Runoff Depth = 1.47"
55.29% Pervious = 8.169 ac 44.71% Impervious = 6.607 ac

Summary for Subcatchment 1A: West Wet Pond Drainage Area

Runoff = 14.41 cfs @ 12.13 hrs, Volume= 0.874 af, Depth= 1.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.84"

	Area (ac)	CN	Description
*	1.252	98	Proposed Roof
*	0.759	98	Proposed Pavement
*	0.143	98	Proposed Sidewalk
*	0.529	98	Proposed Street
*	1.977	74	>75% Grass cover, Good, HSG C
*	0.280	100	Water/Infiltration Area
*	0.120	98	Offsite Sidewalk
*	0.225	98	Offsite Street
	0.245	74	>75% Grass cover, Good, HSG C
	5.530		Weighted Average
	2.222		40.18% Pervious Area
	3.308		59.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 1P: West Wet Pond

Inflow Area = 6.402 ac, 59.28% Impervious, Inflow Depth = 1.89" for 2-Year event
Inflow = 16.27 cfs @ 12.13 hrs, Volume= 1.006 af
Outflow = 0.34 cfs @ 15.26 hrs, Volume= 0.969 af, Atten= 98%, Lag= 187.7 min
Primary = 0.34 cfs @ 15.26 hrs, Volume= 0.969 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 859.73' @ 15.26 hrs Surf.Area= 16,979 sf Storage= 32,183 cf

Plug-Flow detention time= 1,111.1 min calculated for 0.969 af (96% of inflow)
Center-of-Mass det. time= 1,091.4 min (1,864.4 - 773.0)

Volume	Invert	Avail.Storage	Storage Description
#1	857.50'	71,963 cf	**Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
857.50	12,000	0	0
858.00	13,000	6,250	6,250
859.00	15,300	14,150	20,400
860.00	17,600	16,450	36,850
861.00	20,000	18,800	55,650
861.75	23,500	16,313	71,963

Device	Routing	Invert	Outlet Devices
#1	Primary	857.50'	**15.0" Round Outlet Culvert** L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 857.50' / 857.23' S= 0.0020 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	857.50'	**3.0" Round Culvert** L= 5.0' Ke= 0.500 Inlet / Outlet Invert= 857.50' / 857.50' S= 0.0000 '/' Cc= 0.900 n= 0.010, Flow Area= 0.05 sf
#3	Device 1	860.00'	**36.0" Horiz. Standpipe** C= 0.600 Limited to weir flow at low heads
#4	Secondary	861.10'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.34 cfs @ 15.26 hrs HW=859.73' TW=0.00' (Dynamic Tailwater)
└**1=Outlet Culvert** (Passes 0.34 cfs of 5.09 cfs potential flow)
  ├**2=Culvert** (Inlet Controls 0.34 cfs @ 6.99 fps)
  └**3=Standpipe** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=857.50' TW=0.00' (Dynamic Tailwater)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Subcatchment 2A: Elvehjem Road Culvert Drainage Area

Runoff = 2.19 cfs @ 12.13 hrs, Volume= 0.132 af, Depth= 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.84"

	Area (ac)	CN	Description
*	0.124	98	Proposed Roof
*	0.014	98	Proposed Sidewalk
	0.106	74	>75% Grass cover, Good, HSG C
*	0.145	98	Offsite Sidewalk
*	0.204	98	Offsite Street
	0.279	74	>75% Grass cover, Good, HSG C
	0.872		Weighted Average
	0.385		44.15% Pervious Area
	0.487		55.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 2P: Street Culvert

Inflow Area = 0.872 ac, 55.85% Impervious, Inflow Depth = 1.81" for 2-Year event
Inflow = 2.19 cfs @ 12.13 hrs, Volume= 0.132 af
Outflow = 1.95 cfs @ 12.16 hrs, Volume= 0.132 af, Atten= 11%, Lag= 2.0 min
Primary = 1.95 cfs @ 12.16 hrs, Volume= 0.132 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 859.94' @ 12.16 hrs Surf.Area= 833 sf Storage= 321 cf

Plug-Flow detention time= 19.7 min calculated for 0.132 af (100% of inflow)
Center-of-Mass det. time= 18.8 min (793.4 - 774.6)

Volume	Invert	Avail.Storage	Storage Description
#1	859.25'	12,325 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.25	100	0	0
860.00	900	375	375
861.00	4,000	2,450	2,825
862.00	15,000	9,500	12,325

Device	Routing	Invert	Outlet Devices
#1	Primary	859.25'	**15.0" Round Culvert** L= 37.0' Ke= 0.500 Inlet / Outlet Invert= 859.25' / 857.51' S= 0.0470 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Secondary	861.50'	**100.0' long x 20.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.90 cfs @ 12.16 hrs HW=859.93' TW=858.93' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.90 cfs @ 2.80 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=859.25' TW=0.00' (Dynamic Tailwater)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Subcatchment 3A: East Wet Pond Drainage Area

Runoff = 9.21 cfs @ 12.13 hrs, Volume= 0.564 af, Depth= 1.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.84"

	Area (ac)	CN	Description
*	0.942	98	Proposed Roof
*	0.873	98	Proposed Pavement
*	0.108	98	Proposed Sidewalk
*	0.277	58	Undisturbed Grass, HSG B
	1.342	74	>75% Grass cover, Good, HSG C
*	0.207	100	Water/Infiltration Area
*	0.056	58	Offsite Grass, HSG B
	3.805		Weighted Average
	1.675		44.02% Pervious Area
	2.130		55.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 3P: East Wet Pond

Inflow Area = 3.805 ac, 55.98% Impervious, Inflow Depth = 1.78" for 2-Year event
Inflow = 9.21 cfs @ 12.13 hrs, Volume= 0.564 af
Outflow = 0.35 cfs @ 13.72 hrs, Volume= 0.558 af, Atten= 96%, Lag= 95.6 min
Primary = 0.35 cfs @ 13.72 hrs, Volume= 0.558 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 861.80' @ 13.72 hrs Surf.Area= 8,241 sf Storage= 15,875 cf

Plug-Flow detention time= 583.0 min calculated for 0.558 af (99% of inflow)
Center-of-Mass det. time= 578.4 min (1,348.8 - 770.4)

Volume	Invert	Avail.Storage	Storage Description
#1	859.50'	37,100 cf	**Surface (Prismatic)** Listed below (Recalc) x 0.8

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.50	7,000	0	0
860.00	7,700	3,675	3,675
861.00	9,100	8,400	12,075
862.00	10,600	9,850	21,925
863.00	12,200	11,400	33,325
864.00	13,900	13,050	46,375

Device	Routing	Invert	Outlet Devices
#1	Primary	859.50'	**15.0" Round Outlet Culvert** L= 39.0' Ke= 0.500 Inlet / Outlet Invert= 859.50' / 859.38' S= 0.0031 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	859.50'	**3.0" Round Culvert** L= 6.0' Ke= 0.500 Inlet / Outlet Invert= 859.50' / 859.50' S= 0.0000 '/' Cc= 0.900 n= 0.010, Flow Area= 0.05 sf
#3	Device 1	862.50'	**36.0" Horiz. Standpipe** C= 0.600 Limited to weir flow at low heads
#4	Secondary	863.50'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.35 cfs @ 13.72 hrs HW=861.80' TW=859.62' (Dynamic Tailwater)
1=Outlet Culvert (Passes 0.35 cfs of 6.87 cfs potential flow)
2=Culvert (Inlet Controls 0.35 cfs @ 7.10 fps)
3=Standpipe (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=859.50' TW=0.00' (Dynamic Tailwater)
4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Subcatchment 4A: Infiltration Basin Drainage Area

Runoff = 1.57 cfs @ 12.15 hrs, Volume= 0.128 af, Depth= 0.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.84"

	Area (ac)	CN	Description
*	1.245	58	Undisturbed Grass, HSG B
	0.122	74	>75% Grass cover, Good, HSG C
*	0.321	100	Water/Infiltration Area
*	0.054	98	Offsite Roof
*	0.494	58	Offsite Grass, HSG B
	2.236		Weighted Average
	1.861		83.23% Pervious Area
	0.375		16.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	50	0.0800	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.84"
1.5	50	0.1000	0.55		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 2.84"
2.8	180	0.0140	1.06		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
7.7	280	Total			

Summary for Pond 4P: Infiltration Basin

Inflow Area = 6.041 ac, 41.47% Impervious, Inflow Depth > 1.36" for 2-Year event
Inflow = 1.85 cfs @ 12.16 hrs, Volume= 0.687 af
Outflow = 0.37 cfs @ 17.64 hrs, Volume= 0.677 af, Atten= 80%, Lag= 328.7 min
Discarded = 0.02 cfs @ 9.20 hrs, Volume= 0.129 af
Primary = 0.17 cfs @ 17.64 hrs, Volume= 0.256 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Tertiary = 0.19 cfs @ 17.64 hrs, Volume= 0.292 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 859.67' @ 17.64 hrs Surf.Area= 15,693 sf Storage= 6,282 cf

Plug-Flow detention time= 387.8 min calculated for 0.676 af (98% of inflow)
Center-of-Mass det. time= 359.6 min (1,603.5 - 1,244.0)

Volume	Invert	Avail.Storage	Storage Description
#1	859.25'	29,625 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.25	14,000	0	0
860.00	17,000	11,625	11,625
861.00	19,000	18,000	29,625

Device	Routing	Invert	Outlet Devices
#1	Primary	859.35'	**6.0" Round Culvert** L= 48.0' Ke= 0.500 Inlet / Outlet Invert= 859.35' / 859.25' S= 0.0021 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#2	Tertiary	859.35'	**6.0" Round Culvert** L= 31.0' Ke= 0.500 Inlet / Outlet Invert= 859.35' / 859.25' S= 0.0032 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#3	Secondary	860.75'	**30.0' long x 3.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#4	Discarded	859.25'	**0.070 in/hr Exfiltration over Surface area from 859.24' - 859.26'** Excluded Surface area = 0 sf

Discarded OutFlow Max=0.02 cfs @ 9.20 hrs HW=859.27' (Free Discharge)
↑**4=Exfiltration** (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=0.17 cfs @ 17.64 hrs HW=859.67' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Barrel Controls 0.17 cfs @ 1.75 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=859.25' TW=0.00' (Dynamic Tailwater)
↑**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.19 cfs @ 17.64 hrs HW=859.67' TW=0.00' (Dynamic Tailwater)
↑**2=Culvert** (Barrel Controls 0.19 cfs @ 1.97 fps)

Summary for Subcatchment 5A: NorthEast Swale Drainage Area

Runoff = 0.06 cfs @ 12.13 hrs, Volume= 0.004 af, Depth= 1.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.84"

	Area (ac)	CN	Description
*	0.017	98	Offsite Sidewalk
*	0.015	58	Offsite Grass, HSG B
	0.032		Weighted Average
	0.015		46.87% Pervious Area
	0.017		53.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 6A: SouthEast Swale Drainage Area

Runoff = 0.38 cfs @ 12.13 hrs, Volume= 0.024 af, Depth= 1.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.84"

	Area (ac)	CN	Description
*	0.034	98	Proposed Roof
	0.075	74	>75% Grass cover, Good, HSG C
*	0.047	98	Offsite Sidewalk
*	0.068	58	Offsite Grass, HSG B
	0.224		Weighted Average
	0.143		63.84% Pervious Area
	0.081		36.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 7A: Uncontrolled Drainage Area

Runoff = 1.04 cfs @ 12.14 hrs, Volume= 0.075 af, Depth= 0.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.84"

	Area (ac)	CN	Description
*	0.160	98	Proposed Roof
*	0.012	98	Proposed Sidewalk
*	0.037	98	Proposed Street
*	1.000	58	Deep Tilled HSG C Soils
	0.166	74	>75% Grass cover, Good, HSG C
	1.375		Weighted Average
	1.166		84.80% Pervious Area
	0.209		15.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Link 7L: Post-Development

Inflow Area = 14.776 ac, 44.71% Impervious, Inflow Depth > 1.33" for 2-Year event
Inflow = 1.86 cfs @ 12.14 hrs, Volume= 1.633 af
Primary = 1.86 cfs @ 12.14 hrs, Volume= 1.633 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Subcatchment 8A: Wetland First Drainage Area

Runoff = 0.09 cfs @ 12.20 hrs, Volume= 0.013 af, Depth= 0.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.84"

	Area (ac)	CN	Description
*	0.702	58	>75% Grass cover, Good, HSG B
	0.702		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Link 9L: Wetland

Inflow Area = 0.702 ac, 0.00% Impervious, Inflow Depth = 5.21" for 2-Year event
Inflow = 0.20 cfs @ 17.25 hrs, Volume= 0.305 af
Primary = 0.20 cfs @ 17.25 hrs, Volume= 0.305 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1A: West Wet Pond Runoff Area=5.530 ac 59.82% Impervious Runoff Depth=2.99"
Tc=6.0 min CN=WQ Runoff=22.76 cfs 1.376 af

Pond 1P: West Wet Pond Peak Elev=860.21' Storage=40,651 cf Inflow=25.43 cfs 1.586 af
Primary=3.41 cfs 1.539 af Secondary=0.00 cfs 0.000 af Outflow=3.41 cfs 1.539 af

Subcatchment 2A: Elvehjem Road Culvert Runoff Area=0.872 ac 55.85% Impervious Runoff Depth=2.89"
Tc=6.0 min CN=WQ Runoff=3.50 cfs 0.210 af

Pond 2P: Street Culvert Peak Elev=860.23' Storage=659 cf Inflow=3.50 cfs 0.210 af
Primary=2.70 cfs 0.210 af Secondary=0.00 cfs 0.000 af Outflow=2.70 cfs 0.210 af

Subcatchment 3A: East Wet Pond Drainage Runoff Area=3.805 ac 55.98% Impervious Runoff Depth=2.82"
Tc=6.0 min CN=WQ Runoff=14.72 cfs 0.894 af

Pond 3P: East Wet Pond Peak Elev=862.61' Storage=22,930 cf Inflow=14.72 cfs 0.894 af
Primary=1.49 cfs 0.888 af Secondary=0.00 cfs 0.000 af Outflow=1.49 cfs 0.888 af

Subcatchment 4A: Infiltration Basin Runoff Area=2.236 ac 16.77% Impervious Runoff Depth=1.32"
Flow Length=280' Tc=7.7 min CN=WQ Runoff=3.60 cfs 0.246 af

Pond 4P: Infiltration Basin Peak Elev=859.96' Storage=10,995 cf Inflow=3.95 cfs 1.134 af
cfs 0.131 af Primary=0.42 cfs 0.461 af Secondary=0.00 cfs 0.000 af Tertiary=0.47 cfs 0.520 af Outflow=0.91 cfs 1.113 af

Subcatchment 5A: NorthEast Swale Runoff Area=0.032 ac 53.13% Impervious Runoff Depth=2.38"
Tc=6.0 min CN=WQ Runoff=0.10 cfs 0.006 af

Subcatchment 6A: SouthEast Swale Runoff Area=0.224 ac 36.16% Impervious Runoff Depth=2.17"
Tc=6.0 min CN=WQ Runoff=0.67 cfs 0.040 af

Subcatchment 7A: Uncontrolled Drainage Runoff Area=1.375 ac 15.20% Impervious Runoff Depth=1.30"
Tc=6.0 min CN=WQ Runoff=2.42 cfs 0.149 af

Link 7L: Post-Development Inflow=4.59 cfs 2.758 af
Primary=4.59 cfs 2.758 af

Subcatchment 8A: Wetland First Drainage Runoff Area=0.702 ac 0.00% Impervious Runoff Depth=0.71"
Tc=6.0 min CN=58 Runoff=0.65 cfs 0.041 af

Link 9L: Wetland Inflow=0.76 cfs 0.562 af
Primary=0.76 cfs 0.562 af

Total Runoff Area = 14.776 ac Runoff Volume = 2.963 af Average Runoff Depth = 2.41"
55.29% Pervious = 8.169 ac 44.71% Impervious = 6.607 ac

Summary for Subcatchment 1A: West Wet Pond Drainage Area

Runoff = 22.76 cfs @ 12.13 hrs, Volume= 1.376 af, Depth= 2.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.09"

	Area (ac)	CN	Description
*	1.252	98	Proposed Roof
*	0.759	98	Proposed Pavement
*	0.143	98	Proposed Sidewalk
*	0.529	98	Proposed Street
*	1.977	74	>75% Grass cover, Good, HSG C
*	0.280	100	Water/Infiltration Area
*	0.120	98	Offsite Sidewalk
*	0.225	98	Offsite Street
	0.245	74	>75% Grass cover, Good, HSG C
	5.530		Weighted Average
	2.222		40.18% Pervious Area
	3.308		59.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 1P: West Wet Pond

Inflow Area = 6.402 ac, 59.28% Impervious, Inflow Depth = 2.97" for 10-Year event
Inflow = 25.43 cfs @ 12.13 hrs, Volume= 1.586 af
Outflow = 3.41 cfs @ 12.59 hrs, Volume= 1.539 af, Atten= 87%, Lag= 27.8 min
Primary = 3.41 cfs @ 12.59 hrs, Volume= 1.539 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 860.21' @ 12.59 hrs Surf.Area= 18,111 sf Storage= 40,651 cf

Plug-Flow detention time= 909.5 min calculated for 1.539 af (97% of inflow)
Center-of-Mass det. time= 890.9 min (1,662.8 - 771.9)

Volume	Invert	Avail.Storage	Storage Description
#1	857.50'	71,963 cf	**Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
857.50	12,000	0	0
858.00	13,000	6,250	6,250
859.00	15,300	14,150	20,400
860.00	17,600	16,450	36,850
861.00	20,000	18,800	55,650
861.75	23,500	16,313	71,963

Device	Routing	Invert	Outlet Devices
#1	Primary	857.50'	**15.0" Round Outlet Culvert** L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 857.50' / 857.23' S= 0.0020 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	857.50'	**3.0" Round Culvert** L= 5.0' Ke= 0.500 Inlet / Outlet Invert= 857.50' / 857.50' S= 0.0000 '/' Cc= 0.900 n= 0.010, Flow Area= 0.05 sf
#3	Device 1	860.00'	**36.0" Horiz. Standpipe** C= 0.600 Limited to weir flow at low heads
#4	Secondary	861.10'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=3.40 cfs @ 12.59 hrs HW=860.21' TW=0.00' (Dynamic Tailwater)
└**1=Outlet Culvert** (Passes 3.40 cfs of 6.00 cfs potential flow)
  ├**2=Culvert** (Inlet Controls 0.38 cfs @ 7.75 fps)
  └**3=Standpipe** (Weir Controls 3.02 cfs @ 1.51 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=857.50' TW=0.00' (Dynamic Tailwater)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Subcatchment 2A: Elvehjem Road Culvert Drainage Area

Runoff = 3.50 cfs @ 12.13 hrs, Volume= 0.210 af, Depth= 2.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.09"

	Area (ac)	CN	Description
*	0.124	98	Proposed Roof
*	0.014	98	Proposed Sidewalk
	0.106	74	>75% Grass cover, Good, HSG C
*	0.145	98	Offsite Sidewalk
*	0.204	98	Offsite Street
	0.279	74	>75% Grass cover, Good, HSG C
	0.872		Weighted Average
	0.385		44.15% Pervious Area
	0.487		55.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 2P: Street Culvert

Inflow Area = 0.872 ac, 55.85% Impervious, Inflow Depth = 2.89" for 10-Year event
Inflow = 3.50 cfs @ 12.13 hrs, Volume= 0.210 af
Outflow = 2.70 cfs @ 12.14 hrs, Volume= 0.210 af, Atten= 23%, Lag= 0.9 min
Primary = 2.70 cfs @ 12.14 hrs, Volume= 0.210 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 860.23' @ 12.58 hrs Surf.Area= 1,603 sf Storage= 659 cf

Plug-Flow detention time= 39.7 min calculated for 0.210 af (100% of inflow)
Center-of-Mass det. time= 38.9 min (809.2 - 770.3)

Volume	Invert	Avail.Storage	Storage Description
#1	859.25'	12,325 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.25	100	0	0
860.00	900	375	375
861.00	4,000	2,450	2,825
862.00	15,000	9,500	12,325

Device	Routing	Invert	Outlet Devices
#1	Primary	859.25'	**15.0" Round Culvert** L= 37.0' Ke= 0.500 Inlet / Outlet Invert= 859.25' / 857.51' S= 0.0470 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Secondary	861.50'	**100.0' long x 20.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=2.68 cfs @ 12.14 hrs HW=860.14' TW=859.56' (Dynamic Tailwater)
1=Culvert (Outlet Controls 2.68 cfs @ 4.02 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=859.25' TW=0.00' (Dynamic Tailwater)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Subcatchment 3A: East Wet Pond Drainage Area

Runoff = 14.72 cfs @ 12.13 hrs, Volume= 0.894 af, Depth= 2.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.09"

	Area (ac)	CN	Description
*	0.942	98	Proposed Roof
*	0.873	98	Proposed Pavement
*	0.108	98	Proposed Sidewalk
*	0.277	58	Undisturbed Grass, HSG B
	1.342	74	>75% Grass cover, Good, HSG C
*	0.207	100	Water/Infiltration Area
*	0.056	58	Offsite Grass, HSG B
	3.805		Weighted Average
	1.675		44.02% Pervious Area
	2.130		55.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 3P: East Wet Pond

Inflow Area = 3.805 ac, 55.98% Impervious, Inflow Depth = 2.82" for 10-Year event
Inflow = 14.72 cfs @ 12.13 hrs, Volume= 0.894 af
Outflow = 1.49 cfs @ 12.76 hrs, Volume= 0.888 af, Atten= 90%, Lag= 38.0 min
Primary = 1.49 cfs @ 12.76 hrs, Volume= 0.888 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 862.61' @ 12.77 hrs Surf.Area= 9,258 sf Storage= 22,930 cf

Plug-Flow detention time= 611.3 min calculated for 0.887 af (99% of inflow)
Center-of-Mass det. time= 608.4 min (1,375.8 - 767.4)

Volume	Invert	Avail.Storage	Storage Description
#1	859.50'	37,100 cf	**Surface (Prismatic)** Listed below (Recalc) x 0.8

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.50	7,000	0	0
860.00	7,700	3,675	3,675
861.00	9,100	8,400	12,075
862.00	10,600	9,850	21,925
863.00	12,200	11,400	33,325
864.00	13,900	13,050	46,375

Device	Routing	Invert	Outlet Devices
#1	Primary	859.50'	**15.0" Round Outlet Culvert** L= 39.0' Ke= 0.500 Inlet / Outlet Invert= 859.50' / 859.38' S= 0.0031 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	859.50'	**3.0" Round Culvert** L= 6.0' Ke= 0.500 Inlet / Outlet Invert= 859.50' / 859.50' S= 0.0000 '/' Cc= 0.900 n= 0.010, Flow Area= 0.05 sf
#3	Device 1	862.50'	**36.0" Horiz. Standpipe** C= 0.600 Limited to weir flow at low heads
#4	Secondary	863.50'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.48 cfs @ 12.76 hrs HW=862.61' TW=859.81' (Dynamic Tailwater)
└─**1=Outlet Culvert** (Passes 1.48 cfs of 8.92 cfs potential flow)
  ├─**2=Culvert** (Inlet Controls 0.40 cfs @ 8.05 fps)
  └─**3=Standpipe** (Weir Controls 1.09 cfs @ 1.07 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=859.50' TW=0.00' (Dynamic Tailwater)
└─**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Subcatchment 4A: Infiltration Basin Drainage Area

Runoff = 3.60 cfs @ 12.16 hrs, Volume= 0.246 af, Depth= 1.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.09"

	Area (ac)	CN	Description
*	1.245	58	Undisturbed Grass, HSG B
	0.122	74	>75% Grass cover, Good, HSG C
*	0.321	100	Water/Infiltration Area
*	0.054	98	Offsite Roof
*	0.494	58	Offsite Grass, HSG B
	2.236		Weighted Average
	1.861		83.23% Pervious Area
	0.375		16.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	50	0.0800	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.84"
1.5	50	0.1000	0.55		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 2.84"
2.8	180	0.0140	1.06		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
7.7	280	Total			

Summary for Pond 4P: Infiltration Basin

Inflow Area = 6.041 ac, 41.47% Impervious, Inflow Depth > 2.25" for 10-Year event
Inflow = 3.95 cfs @ 12.16 hrs, Volume= 1.134 af
Outflow = 0.91 cfs @ 13.78 hrs, Volume= 1.113 af, Atten= 77%, Lag= 97.3 min
Discarded = 0.02 cfs @ 7.40 hrs, Volume= 0.131 af
Primary = 0.42 cfs @ 13.78 hrs, Volume= 0.461 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Tertiary = 0.47 cfs @ 13.78 hrs, Volume= 0.520 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 859.96' @ 13.78 hrs Surf.Area= 16,851 sf Storage= 10,995 cf

Plug-Flow detention time= 302.2 min calculated for 1.113 af (98% of inflow)
Center-of-Mass det. time= 268.1 min (1,518.7 - 1,250.6)

Volume	Invert	Avail.Storage	Storage Description
#1	859.25'	29,625 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.25	14,000	0	0
860.00	17,000	11,625	11,625
861.00	19,000	18,000	29,625

Device	Routing	Invert	Outlet Devices
#1	Primary	859.35'	**6.0" Round Culvert** L= 48.0' Ke= 0.500 Inlet / Outlet Invert= 859.35' / 859.25' S= 0.0021 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#2	Tertiary	859.35'	**6.0" Round Culvert** L= 31.0' Ke= 0.500 Inlet / Outlet Invert= 859.35' / 859.25' S= 0.0032 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#3	Secondary	860.75'	**30.0' long x 3.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#4	Discarded	859.25'	**0.070 in/hr Exfiltration over Surface area from 859.24' - 859.26'** Excluded Surface area = 0 sf

Discarded OutFlow Max=0.02 cfs @ 7.40 hrs HW=859.27' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=0.42 cfs @ 13.78 hrs HW=859.96' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Barrel Controls 0.42 cfs @ 2.22 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=859.25' TW=0.00' (Dynamic Tailwater)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.47 cfs @ 13.78 hrs HW=859.96' TW=0.00' (Dynamic Tailwater)
└**2=Culvert** (Barrel Controls 0.47 cfs @ 2.47 fps)

Summary for Subcatchment 5A: NorthEast Swale Drainage Area

Runoff = 0.10 cfs @ 12.13 hrs, Volume= 0.006 af, Depth= 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.09"

	Area (ac)	CN	Description
*	0.017	98	Offsite Sidewalk
*	0.015	58	Offsite Grass, HSG B
	0.032		Weighted Average
	0.015		46.87% Pervious Area
	0.017		53.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 6A: SouthEast Swale Drainage Area

Runoff = 0.67 cfs @ 12.13 hrs, Volume= 0.040 af, Depth= 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.09"

	Area (ac)	CN	Description
*	0.034	98	Proposed Roof
	0.075	74	>75% Grass cover, Good, HSG C
*	0.047	98	Offsite Sidewalk
*	0.068	58	Offsite Grass, HSG B
	0.224		Weighted Average
	0.143		63.84% Pervious Area
	0.081		36.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 7A: Uncontrolled Drainage Area

Runoff = 2.42 cfs @ 12.14 hrs, Volume= 0.149 af, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.09"

	Area (ac)	CN	Description
*	0.160	98	Proposed Roof
*	0.012	98	Proposed Sidewalk
*	0.037	98	Proposed Street
*	1.000	58	Deep Tilled HSG C Soils
	0.166	74	>75% Grass cover, Good, HSG C
	1.375		Weighted Average
	1.166		84.80% Pervious Area
	0.209		15.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Link 7L: Post-Development

Inflow Area = 14.776 ac, 44.71% Impervious, Inflow Depth > 2.24" for 10-Year event
Inflow = 4.59 cfs @ 12.56 hrs, Volume= 2.758 af
Primary = 4.59 cfs @ 12.56 hrs, Volume= 2.758 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Subcatchment 8A: Wetland First Drainage Area

Runoff = 0.65 cfs @ 12.15 hrs, Volume= 0.041 af, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.09"

	Area (ac)	CN	Description
*	0.702	58	>75% Grass cover, Good, HSG B
	0.702		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Link 9L: Wetland

Inflow Area = 0.702 ac, 0.00% Impervious, Inflow Depth = 9.60" for 10-Year event
Inflow = 0.76 cfs @ 12.15 hrs, Volume= 0.562 af
Primary = 0.76 cfs @ 12.15 hrs, Volume= 0.562 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1A: West Wet Pond Runoff Area=5.530 ac 59.82% Impervious Runoff Depth=5.36"
Tc=6.0 min CN=WQ Runoff=40.75 cfs 2.470 af

Pond 1P: West Wet Pond Peak Elev=861.26' Storage=60,959 cf Inflow=42.36 cfs 2.858 af
Primary=7.59 cfs 2.722 af Secondary=3.12 cfs 0.085 af Outflow=10.71 cfs 2.807 af

Subcatchment 2A: Elvehjem Road Culvert Runoff Area=0.872 ac 55.85% Impervious Runoff Depth=5.24"
Tc=6.0 min CN=WQ Runoff=6.33 cfs 0.381 af

Pond 2P: Street Culvert Peak Elev=861.29' Storage=4,470 cf Inflow=6.33 cfs 0.381 af
Primary=2.00 cfs 0.388 af Secondary=0.00 cfs 0.000 af Outflow=2.00 cfs 0.381 af

Subcatchment 3A: East Wet Pond Drainage Runoff Area=3.805 ac 55.98% Impervious Runoff Depth=5.12"
Tc=6.0 min CN=WQ Runoff=26.83 cfs 1.623 af

Pond 3P: East Wet Pond Peak Elev=863.42' Storage=30,895 cf Inflow=26.83 cfs 1.623 af
Primary=10.47 cfs 1.617 af Secondary=0.00 cfs 0.000 af Outflow=10.47 cfs 1.617 af

Subcatchment 4A: Infiltration Basin Runoff Area=2.236 ac 16.77% Impervious Runoff Depth=3.01"
Flow Length=280' Tc=7.7 min CN=WQ Runoff=9.16 cfs 0.561 af

Pond 4P: Infiltration Basin Peak Elev=860.96' Storage=28,843 cf Inflow=19.62 cfs 2.178 af
cfs 0.133 af Primary=0.90 cfs 0.801 af Secondary=7.00 cfs 0.314 af Tertiary=1.01 cfs 0.904 af Outflow=8.92 cfs 2.153 af

Subcatchment 5A: NorthEast Swale Runoff Area=0.032 ac 53.13% Impervious Runoff Depth=4.43"
Tc=6.0 min CN=WQ Runoff=0.19 cfs 0.012 af

Subcatchment 6A: SouthEast Swale Runoff Area=0.224 ac 36.16% Impervious Runoff Depth=4.24"
Tc=6.0 min CN=WQ Runoff=1.34 cfs 0.079 af

Subcatchment 7A: Uncontrolled Drainage Runoff Area=1.375 ac 15.20% Impervious Runoff Depth=3.01"
Tc=6.0 min CN=WQ Runoff=6.08 cfs 0.345 af

Link 7L: Post-Development Inflow=18.74 cfs 5.391 af
Primary=18.74 cfs 5.391 af

Subcatchment 8A: Wetland First Drainage Runoff Area=0.702 ac 0.00% Impervious Runoff Depth=2.18"
Tc=6.0 min CN=58 Runoff=2.36 cfs 0.128 af

Link 9L: Wetland Inflow=8.33 cfs 1.346 af
Primary=8.33 cfs 1.346 af

Total Runoff Area = 14.776 ac Runoff Volume = 5.599 af Average Runoff Depth = 4.55"
55.29% Pervious = 8.169 ac 44.71% Impervious = 6.607 ac

Summary for Subcatchment 1A: West Wet Pond Drainage Area

Runoff = 40.75 cfs @ 12.13 hrs, Volume= 2.470 af, Depth= 5.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=6.66"

	Area (ac)	CN	Description
*	1.252	98	Proposed Roof
*	0.759	98	Proposed Pavement
*	0.143	98	Proposed Sidewalk
*	0.529	98	Proposed Street
*	1.977	74	>75% Grass cover, Good, HSG C
*	0.280	100	Water/Infiltration Area
*	0.120	98	Offsite Sidewalk
*	0.225	98	Offsite Street
	0.245	74	>75% Grass cover, Good, HSG C
	5.530		Weighted Average
	2.222		40.18% Pervious Area
	3.308		59.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 1P: West Wet Pond

Inflow Area = 6.402 ac, 59.28% Impervious, Inflow Depth = 5.36" for 100-Year event
Inflow = 42.36 cfs @ 12.13 hrs, Volume= 2.858 af
Outflow = 10.71 cfs @ 12.38 hrs, Volume= 2.807 af, Atten= 75%, Lag= 15.4 min
Primary = 7.59 cfs @ 12.38 hrs, Volume= 2.722 af
Secondary = 3.12 cfs @ 12.38 hrs, Volume= 0.085 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 861.26' @ 12.38 hrs Surf.Area= 21,203 sf Storage= 60,959 cf

Plug-Flow detention time= 552.1 min calculated for 2.807 af (98% of inflow)
Center-of-Mass det. time= 540.4 min (1,307.1 - 766.7)

Volume	Invert	Avail.Storage	Storage Description
#1	857.50'	71,963 cf	**Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
857.50	12,000	0	0
858.00	13,000	6,250	6,250
859.00	15,300	14,150	20,400
860.00	17,600	16,450	36,850
861.00	20,000	18,800	55,650
861.75	23,500	16,313	71,963

Device	Routing	Invert	Outlet Devices
#1	Primary	857.50'	**15.0" Round Outlet Culvert** L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 857.50' / 857.23' S= 0.0020 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	857.50'	**3.0" Round Culvert** L= 5.0' Ke= 0.500 Inlet / Outlet Invert= 857.50' / 857.50' S= 0.0000 '/' Cc= 0.900 n= 0.010, Flow Area= 0.05 sf
#3	Device 1	860.00'	**36.0" Horiz. Standpipe** C= 0.600 Limited to weir flow at low heads
#4	Secondary	861.10'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=7.59 cfs @ 12.38 hrs HW=861.26' TW=0.00' (Dynamic Tailwater)
└**1=Outlet Culvert** (Barrel Controls 7.59 cfs @ 6.19 fps)
└**2=Culvert** (Passes < 0.45 cfs potential flow)
└**3=Standpipe** (Passes < 38.15 cfs potential flow)

Secondary OutFlow Max=3.09 cfs @ 12.38 hrs HW=861.26' TW=0.00' (Dynamic Tailwater)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 3.09 cfs @ 0.99 fps)

Summary for Subcatchment 2A: Elvehjem Road Culvert Drainage Area

Runoff = 6.33 cfs @ 12.13 hrs, Volume= 0.381 af, Depth= 5.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=6.66"

	Area (ac)	CN	Description
*	0.124	98	Proposed Roof
*	0.014	98	Proposed Sidewalk
	0.106	74	>75% Grass cover, Good, HSG C
*	0.145	98	Offsite Sidewalk
*	0.204	98	Offsite Street
	0.279	74	>75% Grass cover, Good, HSG C
	0.872		Weighted Average
	0.385		44.15% Pervious Area
	0.487		55.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 2P: Street Culvert

Inflow Area = 0.872 ac, 55.85% Impervious, Inflow Depth = 5.24" for 100-Year event
Inflow = 6.33 cfs @ 12.13 hrs, Volume= 0.381 af
Outflow = 2.00 cfs @ 12.07 hrs, Volume= 0.381 af, Atten= 69%, Lag= 0.0 min
Primary = 2.00 cfs @ 12.07 hrs, Volume= 0.388 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 861.29' @ 12.45 hrs Surf.Area= 7,224 sf Storage= 4,470 cf

Plug-Flow detention time= 41.9 min calculated for 0.381 af (100% of inflow)
Center-of-Mass det. time= 41.1 min (805.4 - 764.3)

Volume	Invert	Avail.Storage	Storage Description
#1	859.25'	12,325 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.25	100	0	0
860.00	900	375	375
861.00	4,000	2,450	2,825
862.00	15,000	9,500	12,325

Device	Routing	Invert	Outlet Devices
#1	Primary	859.25'	**15.0" Round Culvert** L= 37.0' Ke= 0.500 Inlet / Outlet Invert= 859.25' / 857.51' S= 0.0470 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Secondary	861.50'	**100.0' long x 20.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=2.02 cfs @ 12.07 hrs HW=860.46' TW=860.31' (Dynamic Tailwater)
1=Culvert (Outlet Controls 2.02 cfs @ 2.12 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=859.25' TW=0.00' (Dynamic Tailwater)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Subcatchment 3A: East Wet Pond Drainage Area

Runoff = 26.83 cfs @ 12.13 hrs, Volume= 1.623 af, Depth= 5.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=6.66"

	Area (ac)	CN	Description
*	0.942	98	Proposed Roof
*	0.873	98	Proposed Pavement
*	0.108	98	Proposed Sidewalk
*	0.277	58	Undisturbed Grass, HSG B
	1.342	74	>75% Grass cover, Good, HSG C
*	0.207	100	Water/Infiltration Area
*	0.056	58	Offsite Grass, HSG B
	3.805		Weighted Average
	1.675		44.02% Pervious Area
	2.130		55.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 3P: East Wet Pond

Inflow Area = 3.805 ac, 55.98% Impervious, Inflow Depth = 5.12" for 100-Year event
Inflow = 26.83 cfs @ 12.13 hrs, Volume= 1.623 af
Outflow = 10.47 cfs @ 12.21 hrs, Volume= 1.617 af, Atten= 61%, Lag= 5.1 min
Primary = 10.47 cfs @ 12.21 hrs, Volume= 1.617 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 863.42' @ 12.27 hrs Surf.Area= 10,333 sf Storage= 30,895 cf

Plug-Flow detention time= 405.7 min calculated for 1.617 af (100% of inflow)
Center-of-Mass det. time= 403.0 min (1,165.8 - 762.9)

Volume	Invert	Avail.Storage	Storage Description
#1	859.50'	37,100 cf	**Surface (Prismatic)** Listed below (Recalc) x 0.8

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.50	7,000	0	0
860.00	7,700	3,675	3,675
861.00	9,100	8,400	12,075
862.00	10,600	9,850	21,925
863.00	12,200	11,400	33,325
864.00	13,900	13,050	46,375

Device	Routing	Invert	Outlet Devices
#1	Primary	859.50'	**15.0" Round Outlet Culvert** L= 39.0' Ke= 0.500 Inlet / Outlet Invert= 859.50' / 859.38' S= 0.0031 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	859.50'	**3.0" Round Culvert** L= 6.0' Ke= 0.500 Inlet / Outlet Invert= 859.50' / 859.50' S= 0.0000 '/' Cc= 0.900 n= 0.010, Flow Area= 0.05 sf
#3	Device 1	862.50'	**36.0" Horiz. Standpipe** C= 0.600 Limited to weir flow at low heads
#4	Secondary	863.50'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=10.44 cfs @ 12.21 hrs HW=863.36' TW=860.24' (Dynamic Tailwater)
└─**1=Outlet Culvert** (Inlet Controls 10.44 cfs @ 8.51 fps)
  ├─**2=Culvert** (Passes < 0.42 cfs potential flow)
  └─**3=Standpipe** (Passes < 24.68 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=859.50' TW=0.00' (Dynamic Tailwater)
└─**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Subcatchment 4A: Infiltration Basin Drainage Area

Runoff = 9.16 cfs @ 12.15 hrs, Volume= 0.561 af, Depth= 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=6.66"

	Area (ac)	CN	Description
*	1.245	58	Undisturbed Grass, HSG B
	0.122	74	>75% Grass cover, Good, HSG C
*	0.321	100	Water/Infiltration Area
*	0.054	98	Offsite Roof
*	0.494	58	Offsite Grass, HSG B
	2.236		Weighted Average
	1.861		83.23% Pervious Area
	0.375		16.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	50	0.0800	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.84"
1.5	50	0.1000	0.55		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 2.84"
2.8	180	0.0140	1.06		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
7.7	280	Total			

Summary for Pond 4P: Infiltration Basin

Inflow Area = 6.041 ac, 41.47% Impervious, Inflow Depth > 4.33" for 100-Year event
Inflow = 19.62 cfs @ 12.17 hrs, Volume= 2.178 af
Outflow = 8.92 cfs @ 12.66 hrs, Volume= 2.153 af, Atten= 55%, Lag= 29.7 min
Discarded = 0.02 cfs @ 5.45 hrs, Volume= 0.133 af
Primary = 0.90 cfs @ 12.66 hrs, Volume= 0.801 af
Secondary = 7.00 cfs @ 12.66 hrs, Volume= 0.314 af
Tertiary = 1.01 cfs @ 12.66 hrs, Volume= 0.904 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 860.96' @ 12.66 hrs Surf.Area= 18,918 sf Storage= 28,843 cf

Plug-Flow detention time= 231.2 min calculated for 2.152 af (99% of inflow)
Center-of-Mass det. time= 208.1 min (1,279.6 - 1,071.5)

Volume	Invert	Avail.Storage	Storage Description
#1	859.25'	29,625 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.25	14,000	0	0
860.00	17,000	11,625	11,625
861.00	19,000	18,000	29,625

Device	Routing	Invert	Outlet Devices
#1	Primary	859.35'	**6.0" Round Culvert** L= 48.0' Ke= 0.500 Inlet / Outlet Invert= 859.35' / 859.25' S= 0.0021 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#2	Tertiary	859.35'	**6.0" Round Culvert** L= 31.0' Ke= 0.500 Inlet / Outlet Invert= 859.35' / 859.25' S= 0.0032 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#3	Secondary	860.75'	**30.0' long x 3.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#4	Discarded	859.25'	**0.070 in/hr Exfiltration over Surface area from 859.24' - 859.26'** Excluded Surface area = 0 sf

Discarded OutFlow Max=0.02 cfs @ 5.45 hrs HW=859.27' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=0.89 cfs @ 12.66 hrs HW=860.96' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Barrel Controls 0.89 cfs @ 4.56 fps)

Secondary OutFlow Max=6.93 cfs @ 12.66 hrs HW=860.96' TW=0.00' (Dynamic Tailwater)
└**3=Broad-Crested Rectangular Weir** (Weir Controls 6.93 cfs @ 1.11 fps)

Tertiary OutFlow Max=1.01 cfs @ 12.66 hrs HW=860.96' TW=0.00' (Dynamic Tailwater)
└**2=Culvert** (Barrel Controls 1.01 cfs @ 5.13 fps)

Summary for Subcatchment 5A: NorthEast Swale Drainage Area

Runoff = 0.19 cfs @ 12.13 hrs, Volume= 0.012 af, Depth= 4.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=6.66"

	Area (ac)	CN	Description
*	0.017	98	Offsite Sidewalk
*	0.015	58	Offsite Grass, HSG B
	0.032		Weighted Average
	0.015		46.87% Pervious Area
	0.017		53.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 6A: SouthEast Swale Drainage Area

Runoff = 1.34 cfs @ 12.13 hrs, Volume= 0.079 af, Depth= 4.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=6.66"

	Area (ac)	CN	Description
*	0.034	98	Proposed Roof
	0.075	74	>75% Grass cover, Good, HSG C
*	0.047	98	Offsite Sidewalk
*	0.068	58	Offsite Grass, HSG B
	0.224		Weighted Average
	0.143		63.84% Pervious Area
	0.081		36.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 7A: Uncontrolled Drainage Area

Runoff = 6.08 cfs @ 12.13 hrs, Volume= 0.345 af, Depth= 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=6.66"

	Area (ac)	CN	Description
*	0.160	98	Proposed Roof
*	0.012	98	Proposed Sidewalk
*	0.037	98	Proposed Street
*	1.000	58	Deep Tilled HSG C Soils
	0.166	74	>75% Grass cover, Good, HSG C
	1.375		Weighted Average
	1.166		84.80% Pervious Area
	0.209		15.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Link 7L: Post-Development

Inflow Area = 14.776 ac, 44.71% Impervious, Inflow Depth > 4.38" for 100-Year event
Inflow = 18.74 cfs @ 12.61 hrs, Volume= 5.391 af
Primary = 18.74 cfs @ 12.61 hrs, Volume= 5.391 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Subcatchment 8A: Wetland First Drainage Area

Runoff = 2.36 cfs @ 12.14 hrs, Volume= 0.128 af, Depth= 2.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=6.66"

	Area (ac)	CN	Description
*	0.702	58	>75% Grass cover, Good, HSG B
	0.702		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Link 9L: Wetland

Inflow Area = 0.702 ac, 0.00% Impervious, Inflow Depth = 23.01" for 100-Year event
Inflow = 8.33 cfs @ 12.66 hrs, Volume= 1.346 af
Primary = 8.33 cfs @ 12.66 hrs, Volume= 1.346 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1A: West Wet Pond Runoff Area=5.530 ac 59.82% Impervious Runoff Depth=6.18"
Tc=6.0 min CN=WQ Runoff=46.94 cfs 2.850 af

Pond 1P: West Wet Pond Peak Elev=861.47' Storage=65,549 cf Inflow=49.59 cfs 3.311 af
Primary=7.88 cfs 2.939 af Secondary=11.42 cfs 0.321 af Outflow=19.30 cfs 3.260 af

Subcatchment 2A: Elvehjem Road Culvert Runoff Area=0.872 ac 55.85% Impervious Runoff Depth=6.06"
Tc=6.0 min CN=WQ Runoff=7.31 cfs 0.440 af

Pond 2P: Street Culvert Peak Elev=861.47' Storage=5,965 cf Inflow=7.31 cfs 0.440 af
Primary=3.05 cfs 0.461 af Secondary=0.00 cfs 0.000 af Outflow=2.18 cfs 0.440 af

Subcatchment 3A: East Wet Pond Drainage Runoff Area=3.805 ac 55.98% Impervious Runoff Depth=5.93"
Tc=6.0 min CN=WQ Runoff=31.04 cfs 1.879 af

Pond 3P: East Wet Pond Peak Elev=863.75' Storage=34,392 cf Inflow=31.04 cfs 1.879 af
Primary=10.69 cfs 1.827 af Secondary=3.18 cfs 0.045 af Outflow=13.66 cfs 1.873 af

Subcatchment 4A: Infiltration Basin Runoff Area=2.236 ac 16.77% Impervious Runoff Depth=3.66"
Flow Length=280' Tc=7.7 min CN=WQ Runoff=11.28 cfs 0.682 af

Pond 4P: Infiltration Basin Peak Elev=861.00' Storage=29,539 cf Inflow=21.94 cfs 2.510 af
fs 0.134 af Primary=0.91 cfs 0.848 af Secondary=9.02 cfs 0.546 af Tertiary=1.02 cfs 0.957 af Outflow=10.97 cfs 2.484 af

Subcatchment 5A: NorthEast Swale Runoff Area=0.032 ac 53.13% Impervious Runoff Depth=5.17"
Tc=6.0 min CN=WQ Runoff=0.23 cfs 0.014 af

Subcatchment 6A: SouthEast Swale Runoff Area=0.224 ac 36.16% Impervious Runoff Depth=4.99"
Tc=6.0 min CN=WQ Runoff=1.59 cfs 0.093 af

Subcatchment 7A: Uncontrolled Drainage Runoff Area=1.375 ac 15.20% Impervious Runoff Depth=3.67"
Tc=6.0 min CN=WQ Runoff=7.46 cfs 0.421 af

Link 7L: Post-Development Inflow=29.46 cfs 6.346 af
Primary=29.46 cfs 6.346 af

Subcatchment 8A: Wetland First Drainage Runoff Area=0.702 ac 0.00% Impervious Runoff Depth=2.78"
Tc=6.0 min CN=58 Runoff=3.04 cfs 0.162 af

Link 9L: Wetland Inflow=10.55 cfs 1.711 af
Primary=10.55 cfs 1.711 af

Total Runoff Area = 14.776 ac Runoff Volume = 6.542 af Average Runoff Depth = 5.31"
55.29% Pervious = 8.169 ac 44.71% Impervious = 6.607 ac

Summary for Subcatchment 1A: West Wet Pond Drainage Area

Runoff = 46.94 cfs @ 12.13 hrs, Volume= 2.850 af, Depth= 6.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-Year Rainfall=7.53"

	Area (ac)	CN	Description
*	1.252	98	Proposed Roof
*	0.759	98	Proposed Pavement
*	0.143	98	Proposed Sidewalk
*	0.529	98	Proposed Street
*	1.977	74	>75% Grass cover, Good, HSG C
*	0.280	100	Water/Infiltration Area
*	0.120	98	Offsite Sidewalk
*	0.225	98	Offsite Street
	0.245	74	>75% Grass cover, Good, HSG C
	5.530		Weighted Average
	2.222		40.18% Pervious Area
	3.308		59.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 1P: West Wet Pond

Inflow Area = 6.402 ac, 59.28% Impervious, Inflow Depth = 6.21" for 200-Year event
Inflow = 49.59 cfs @ 12.13 hrs, Volume= 3.311 af
Outflow = 19.30 cfs @ 12.27 hrs, Volume= 3.260 af, Atten= 61%, Lag= 8.1 min
Primary = 7.88 cfs @ 12.27 hrs, Volume= 2.939 af
Secondary = 11.42 cfs @ 12.27 hrs, Volume= 0.321 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 861.47' @ 12.27 hrs Surf.Area= 22,190 sf Storage= 65,549 cf

Plug-Flow detention time= 486.1 min calculated for 3.260 af (98% of inflow)
Center-of-Mass det. time= 475.8 min (1,240.9 - 765.2)

Volume	Invert	Avail.Storage	Storage Description
#1	857.50'	71,963 cf	**Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
857.50	12,000	0	0
858.00	13,000	6,250	6,250
859.00	15,300	14,150	20,400
860.00	17,600	16,450	36,850
861.00	20,000	18,800	55,650
861.75	23,500	16,313	71,963

Device	Routing	Invert	Outlet Devices
#1	Primary	857.50'	**15.0" Round Outlet Culvert** L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 857.50' / 857.23' S= 0.0020 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	857.50'	**3.0" Round Culvert** L= 5.0' Ke= 0.500 Inlet / Outlet Invert= 857.50' / 857.50' S= 0.0000 '/' Cc= 0.900 n= 0.010, Flow Area= 0.05 sf
#3	Device 1	860.00'	**36.0" Horiz. Standpipe** C= 0.600 Limited to weir flow at low heads
#4	Secondary	861.10'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=7.87 cfs @ 12.27 hrs HW=861.46' TW=0.00' (Dynamic Tailwater)
└**1=Outlet Culvert** (Barrel Controls 7.87 cfs @ 6.41 fps)
└**2=Culvert** (Passes < 0.46 cfs potential flow)
└**3=Standpipe** (Passes < 41.12 cfs potential flow)

Secondary OutFlow Max=11.00 cfs @ 12.27 hrs HW=861.46' TW=0.00' (Dynamic Tailwater)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 11.00 cfs @ 1.53 fps)

Summary for Subcatchment 2A: Elvehjem Road Culvert Drainage Area

Runoff = 7.31 cfs @ 12.13 hrs, Volume= 0.440 af, Depth= 6.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-Year Rainfall=7.53"

	Area (ac)	CN	Description
*	0.124	98	Proposed Roof
*	0.014	98	Proposed Sidewalk
	0.106	74	>75% Grass cover, Good, HSG C
*	0.145	98	Offsite Sidewalk
*	0.204	98	Offsite Street
	0.279	74	>75% Grass cover, Good, HSG C
	0.872		Weighted Average
	0.385		44.15% Pervious Area
	0.487		55.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 2P: Street Culvert

Inflow Area = 0.872 ac, 55.85% Impervious, Inflow Depth = 6.06" for 200-Year event
Inflow = 7.31 cfs @ 12.13 hrs, Volume= 0.440 af
Outflow = 2.18 cfs @ 12.62 hrs, Volume= 0.440 af, Atten= 70%, Lag= 29.4 min
Primary = 3.05 cfs @ 12.16 hrs, Volume= 0.461 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 861.47' @ 12.40 hrs Surf.Area= 9,224 sf Storage= 5,965 cf

Plug-Flow detention time= 40.8 min calculated for 0.440 af (100% of inflow)
Center-of-Mass det. time= 41.2 min (803.9 - 762.7)

Volume	Invert	Avail.Storage	Storage Description
#1	859.25'	12,325 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.25	100	0	0
860.00	900	375	375
861.00	4,000	2,450	2,825
862.00	15,000	9,500	12,325

Device	Routing	Invert	Outlet Devices
#1	Primary	859.25'	**15.0" Round Culvert** L= 37.0' Ke= 0.500 Inlet / Outlet Invert= 859.25' / 857.51' S= 0.0470 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Secondary	861.50'	**100.0' long x 20.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.00 cfs @ 12.16 hrs HW=861.14' TW=861.19' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=859.25' TW=0.00' (Dynamic Tailwater)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Subcatchment 3A: East Wet Pond Drainage Area

Runoff = 31.04 cfs @ 12.13 hrs, Volume= 1.879 af, Depth= 5.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-Year Rainfall=7.53"

	Area (ac)	CN	Description
*	0.942	98	Proposed Roof
*	0.873	98	Proposed Pavement
*	0.108	98	Proposed Sidewalk
*	0.277	58	Undisturbed Grass, HSG B
	1.342	74	>75% Grass cover, Good, HSG C
*	0.207	100	Water/Infiltration Area
*	0.056	58	Offsite Grass, HSG B
	3.805		Weighted Average
	1.675		44.02% Pervious Area
	2.130		55.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 3P: East Wet Pond

Inflow Area = 3.805 ac, 55.98% Impervious, Inflow Depth = 5.93" for 200-Year event
Inflow = 31.04 cfs @ 12.13 hrs, Volume= 1.879 af
Outflow = 13.66 cfs @ 12.25 hrs, Volume= 1.873 af, Atten= 56%, Lag= 7.3 min
Primary = 10.69 cfs @ 12.18 hrs, Volume= 1.827 af
Secondary = 3.18 cfs @ 12.26 hrs, Volume= 0.045 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 863.75' @ 12.26 hrs Surf.Area= 10,784 sf Storage= 34,392 cf

Plug-Flow detention time= 363.9 min calculated for 1.873 af (100% of inflow)
Center-of-Mass det. time= 361.5 min (1,123.1 - 761.6)

Volume	Invert	Avail.Storage	Storage Description
#1	859.50'	37,100 cf	**Surface (Prismatic)** Listed below (Recalc) x 0.8

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.50	7,000	0	0
860.00	7,700	3,675	3,675
861.00	9,100	8,400	12,075
862.00	10,600	9,850	21,925
863.00	12,200	11,400	33,325
864.00	13,900	13,050	46,375

Device	Routing	Invert	Outlet Devices
#1	Primary	859.50'	**15.0" Round Outlet Culvert** L= 39.0' Ke= 0.500 Inlet / Outlet Invert= 859.50' / 859.38' S= 0.0031 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	859.50'	**3.0" Round Culvert** L= 6.0' Ke= 0.500 Inlet / Outlet Invert= 859.50' / 859.50' S= 0.0000 '/' Cc= 0.900 n= 0.010, Flow Area= 0.05 sf
#3	Device 1	862.50'	**36.0" Horiz. Standpipe** C= 0.600 Limited to weir flow at low heads
#4	Secondary	863.50'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=10.67 cfs @ 12.18 hrs HW=863.62' TW=860.36' (Dynamic Tailwater)
└**1=Outlet Culvert** (Inlet Controls 10.67 cfs @ 8.69 fps)
  ├**2=Culvert** (Passes < 0.43 cfs potential flow)
  └**3=Standpipe** (Passes < 36.07 cfs potential flow)

Secondary OutFlow Max=3.08 cfs @ 12.26 hrs HW=863.75' TW=0.00' (Dynamic Tailwater)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 3.08 cfs @ 1.25 fps)

Summary for Subcatchment 4A: Infiltration Basin Drainage Area

Runoff = 11.28 cfs @ 12.15 hrs, Volume= 0.682 af, Depth= 3.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-Year Rainfall=7.53"

	Area (ac)	CN	Description
*	1.245	58	Undisturbed Grass, HSG B
	0.122	74	>75% Grass cover, Good, HSG C
*	0.321	100	Water/Infiltration Area
*	0.054	98	Offsite Roof
*	0.494	58	Offsite Grass, HSG B
	2.236		Weighted Average
	1.861		83.23% Pervious Area
	0.375		16.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	50	0.0800	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.84"
1.5	50	0.1000	0.55		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 2.84"
2.8	180	0.0140	1.06		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
7.7	280	Total			

Summary for Pond 4P: Infiltration Basin

Inflow Area = 6.041 ac, 41.47% Impervious, Inflow Depth > 4.99" for 200-Year event
Inflow = 21.94 cfs @ 12.15 hrs, Volume= 2.510 af
Outflow = 10.97 cfs @ 12.59 hrs, Volume= 2.484 af, Atten= 50%, Lag= 26.0 min
Discarded = 0.02 cfs @ 5.05 hrs, Volume= 0.134 af
Primary = 0.91 cfs @ 12.59 hrs, Volume= 0.848 af
Secondary = 9.02 cfs @ 12.59 hrs, Volume= 0.546 af
Tertiary = 1.02 cfs @ 12.59 hrs, Volume= 0.957 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 861.00' @ 12.59 hrs Surf.Area= 18,991 sf Storage= 29,539 cf

Plug-Flow detention time= 210.7 min calculated for 2.484 af (99% of inflow)
Center-of-Mass det. time= 188.9 min (1,230.8 - 1,041.8)

Volume	Invert	Avail.Storage	Storage Description
#1	859.25'	29,625 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.25	14,000	0	0
860.00	17,000	11,625	11,625
861.00	19,000	18,000	29,625

Device	Routing	Invert	Outlet Devices
#1	Primary	859.35'	**6.0" Round Culvert** L= 48.0' Ke= 0.500 Inlet / Outlet Invert= 859.35' / 859.25' S= 0.0021 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#2	Tertiary	859.35'	**6.0" Round Culvert** L= 31.0' Ke= 0.500 Inlet / Outlet Invert= 859.35' / 859.25' S= 0.0032 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#3	Secondary	860.75'	**30.0' long x 3.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#4	Discarded	859.25'	**0.070 in/hr Exfiltration over Surface area from 859.24' - 859.26'** Excluded Surface area = 0 sf

Discarded OutFlow Max=0.02 cfs @ 5.05 hrs HW=859.27' (Free Discharge)
↑**4=Exfiltration** (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=0.91 cfs @ 12.59 hrs HW=861.00' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Barrel Controls 0.91 cfs @ 4.63 fps)

Secondary OutFlow Max=9.00 cfs @ 12.59 hrs HW=861.00' TW=0.00' (Dynamic Tailwater)
↑**3=Broad-Crested Rectangular Weir** (Weir Controls 9.00 cfs @ 1.22 fps)

Tertiary OutFlow Max=1.02 cfs @ 12.59 hrs HW=861.00' TW=0.00' (Dynamic Tailwater)
↑**2=Culvert** (Barrel Controls 1.02 cfs @ 5.21 fps)

Summary for Subcatchment 5A: NorthEast Swale Drainage Area

Runoff = 0.23 cfs @ 12.13 hrs, Volume= 0.014 af, Depth= 5.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-Year Rainfall=7.53"

	Area (ac)	CN	Description
*	0.017	98	Offsite Sidewalk
*	0.015	58	Offsite Grass, HSG B
	0.032		Weighted Average
	0.015		46.87% Pervious Area
	0.017		53.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 6A: SouthEast Swale Drainage Area

Runoff = 1.59 cfs @ 12.13 hrs, Volume= 0.093 af, Depth= 4.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-Year Rainfall=7.53"

	Area (ac)	CN	Description
*	0.034	98	Proposed Roof
	0.075	74	>75% Grass cover, Good, HSG C
*	0.047	98	Offsite Sidewalk
*	0.068	58	Offsite Grass, HSG B
	0.224		Weighted Average
	0.143		63.84% Pervious Area
	0.081		36.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 7A: Uncontrolled Drainage Area

Runoff = 7.46 cfs @ 12.13 hrs, Volume= 0.421 af, Depth= 3.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-Year Rainfall=7.53"

	Area (ac)	CN	Description
*	0.160	98	Proposed Roof
*	0.012	98	Proposed Sidewalk
*	0.037	98	Proposed Street
*	1.000	58	Deep Tilled HSG C Soils
	0.166	74	>75% Grass cover, Good, HSG C
	1.375		Weighted Average
	1.166		84.80% Pervious Area
	0.209		15.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Link 7L: Post-Development

Inflow Area = 14.776 ac, 44.71% Impervious, Inflow Depth > 5.15" for 200-Year event
Inflow = 29.46 cfs @ 12.25 hrs, Volume= 6.346 af
Primary = 29.46 cfs @ 12.25 hrs, Volume= 6.346 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Subcatchment 8A: Wetland First Drainage Area

Runoff = 3.04 cfs @ 12.14 hrs, Volume= 0.162 af, Depth= 2.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-Year Rainfall=7.53"

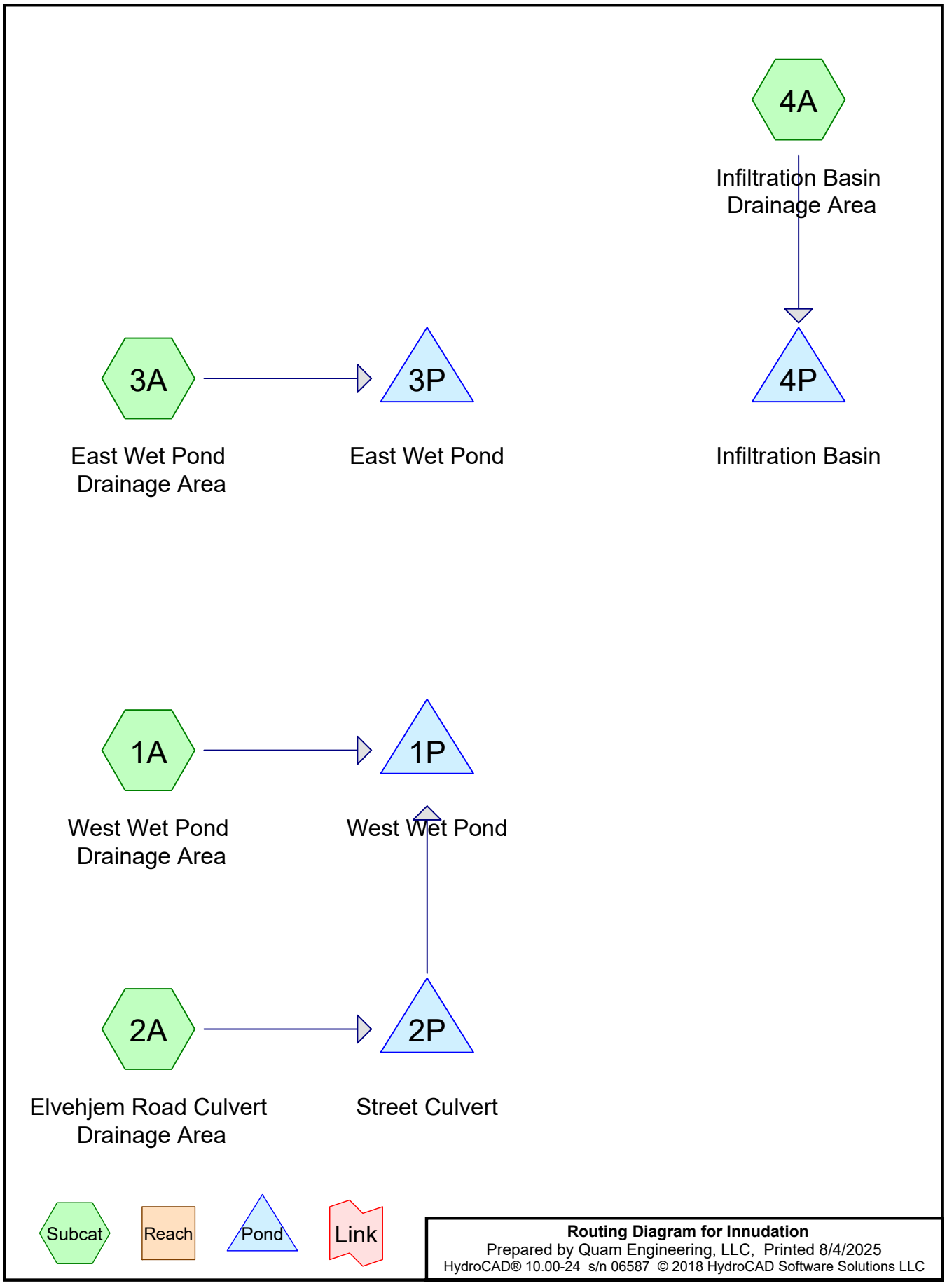
	Area (ac)	CN	Description
*	0.702	58	>75% Grass cover, Good, HSG B
	0.702		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Link 9L: Wetland

Inflow Area = 0.702 ac, 0.00% Impervious, Inflow Depth = 29.24" for 200-Year event
Inflow = 10.55 cfs @ 12.57 hrs, Volume= 1.711 af
Primary = 10.55 cfs @ 12.57 hrs, Volume= 1.711 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs


4A
Infiltration Basin
Drainage Area
3A
3P
4P
East Wet Pond
Drainage Area
East Wet Pond
Infiltration Basin
1A
1P
West Wet Pond
Drainage Area
West Wet Pond
2A
2P
Elvehjem Road Culvert
Drainage Area
Street Culvert
Subcat
Reach
Pond
Link
Routing Diagram for Innudation
Prepared by Quam Engineering, LLC, Printed 8/4/2025
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
4.071	74	>75% Grass cover, Good, HSG C (1A, 2A, 3A, 4A)
0.550	58	Offsite Grass, HSG B (3A, 4A)
0.054	98	Offsite Roof (4A)
0.265	98	Offsite Sidewalk (1A, 2A)
0.429	98	Offsite Street (1A, 2A)
1.632	98	Proposed Pavement (1A, 3A)
2.318	98	Proposed Roof (1A, 2A, 3A)
0.265	98	Proposed Sidewalk (1A, 2A, 3A)
0.529	98	Proposed Street (1A)
1.522	58	Undisturbed Grass, HSG B (3A, 4A)
0.808	100	Water/Infiltration Area (1A, 3A, 4A)
12.443	**84**	**TOTAL AREA**

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1A: West Wet Pond Runoff Area=5.530 ac 59.82% Impervious Runoff Depth=6.18"
Tc=6.0 min CN=WQ Runoff=46.94 cfs 2.850 af

Pond 1P: West Wet Pond Peak Elev=861.67' Storage=70,048 cf Inflow=49.49 cfs 3.207 af
Outflow=22.91 cfs 1.883 af

Subcatchment 2A: Elvehjem Road Culvert Runoff Area=0.872 ac 55.85% Impervious Runoff Depth=6.06"
Tc=6.0 min CN=WQ Runoff=7.31 cfs 0.440 af

Pond 2P: Street Culvert Peak Elev=861.54' Storage=6,571 cf Inflow=7.31 cfs 0.440 af
Primary=2.94 cfs 0.357 af Secondary=1.99 cfs 0.028 af Outflow=2.03 cfs 0.365 af

Subcatchment 3A: East Wet Pond Drainage Runoff Area=3.805 ac 55.98% Impervious Runoff Depth=5.93"
Tc=6.0 min CN=WQ Runoff=31.04 cfs 1.879 af

Pond 3P: East Wet Pond Peak Elev=864.26' Storage=40,129 cf Inflow=31.04 cfs 1.879 af
Outflow=17.69 cfs 1.151 af

Subcatchment 4A: Infiltration Basin Runoff Area=2.236 ac 16.77% Impervious Runoff Depth=3.66"
Flow Length=280' Tc=7.7 min CN=WQ Runoff=11.28 cfs 0.682 af

Pond 4P: Infiltration Basin Peak Elev=860.77' Storage=25,267 cf Inflow=11.28 cfs 0.682 af
Discarded=0.02 cfs 0.134 af Secondary=0.17 cfs 0.064 af Outflow=0.20 cfs 0.198 af

Total Runoff Area = 12.443 ac Runoff Volume = 5.852 af Average Runoff Depth = 5.64"
49.37% Pervious = 6.143 ac 50.63% Impervious = 6.300 ac

Summary for Subcatchment 1A: West Wet Pond Drainage Area

Runoff = 46.94 cfs @ 12.13 hrs, Volume= 2.850 af, Depth= 6.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-Year Rainfall=7.53"

	Area (ac)	CN	Description
*	1.252	98	Proposed Roof
*	0.759	98	Proposed Pavement
*	0.143	98	Proposed Sidewalk
*	0.529	98	Proposed Street
*	1.977	74	>75% Grass cover, Good, HSG C
*	0.280	100	Water/Infiltration Area
*	0.120	98	Offsite Sidewalk
*	0.225	98	Offsite Street
	0.245	74	>75% Grass cover, Good, HSG C
	5.530		Weighted Average
	2.222		40.18% Pervious Area
	3.308		59.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 1P: West Wet Pond

Inflow Area = 6.402 ac, 59.28% Impervious, Inflow Depth = 6.01" for 200-Year event
Inflow = 49.49 cfs @ 12.13 hrs, Volume= 3.207 af
Outflow = 22.91 cfs @ 12.24 hrs, Volume= 1.883 af, Atten= 54%, Lag= 7.1 min
Secondary = 22.91 cfs @ 12.24 hrs, Volume= 1.883 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 861.67' @ 12.24 hrs Surf.Area= 23,117 sf Storage= 70,048 cf

Plug-Flow detention time= 210.2 min calculated for 1.881 af (59% of inflow)
Center-of-Mass det. time= 109.6 min (873.5 - 764.0)

Volume	Invert	Avail.Storage	Storage Description
#1	857.50'	71,963 cf	**Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
857.50	12,000	0	0
858.00	13,000	6,250	6,250
859.00	15,300	14,150	20,400
860.00	17,600	16,450	36,850
861.00	20,000	18,800	55,650
861.75	23,500	16,313	71,963

Device	Routing	Invert	Outlet Devices
#1	Secondary	861.10'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Secondary OutFlow Max=22.74 cfs @ 12.24 hrs HW=861.67' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 22.74 cfs @ 2.01 fps)

Summary for Subcatchment 2A: Elvehjem Road Culvert Drainage Area

Runoff = 7.31 cfs @ 12.13 hrs, Volume= 0.440 af, Depth= 6.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-Year Rainfall=7.53"

	Area (ac)	CN	Description
*	0.124	98	Proposed Roof
*	0.014	98	Proposed Sidewalk
	0.106	74	>75% Grass cover, Good, HSG C
*	0.145	98	Offsite Sidewalk
*	0.204	98	Offsite Street
	0.279	74	>75% Grass cover, Good, HSG C
	0.872		Weighted Average
	0.385		44.15% Pervious Area
	0.487		55.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 2P: Street Culvert

Inflow Area = 0.872 ac, 55.85% Impervious, Inflow Depth = 6.06" for 200-Year event
Inflow = 7.31 cfs @ 12.13 hrs, Volume= 0.440 af
Outflow = 2.03 cfs @ 12.45 hrs, Volume= 0.365 af, Atten= 72%, Lag= 19.1 min
Primary = 2.94 cfs @ 12.11 hrs, Volume= 0.357 af
Secondary = 1.99 cfs @ 12.37 hrs, Volume= 0.028 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 861.54' @ 12.37 hrs Surf.Area= 9,920 sf Storage= 6,571 cf

Plug-Flow detention time= 101.8 min calculated for 0.365 af (83% of inflow)
Center-of-Mass det. time= 37.1 min (799.8 - 762.7)

Volume	Invert	Avail.Storage	Storage Description
#1	859.25'	12,325 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.25	100	0	0
860.00	900	375	375
861.00	4,000	2,450	2,825
862.00	15,000	9,500	12,325

Device	Routing	Invert	Outlet Devices
#1	Primary	859.25'	**15.0" Round Culvert** L= 37.0' Ke= 0.500 Inlet / Outlet Invert= 859.25' / 857.51' S= 0.0470 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Secondary	861.50'	**100.0' long x 20.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.00 cfs @ 12.11 hrs HW=861.11' TW=861.22' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)

Secondary OutFlow Max=1.88 cfs @ 12.37 hrs HW=861.54' (Free Discharge)
2=Broad-Crested Rectangular Weir (Weir Controls 1.88 cfs @ 0.51 fps)

Summary for Subcatchment 3A: East Wet Pond Drainage Area

Runoff = 31.04 cfs @ 12.13 hrs, Volume= 1.879 af, Depth= 5.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-Year Rainfall=7.53"

	Area (ac)	CN	Description
*	0.942	98	Proposed Roof
*	0.873	98	Proposed Pavement
*	0.108	98	Proposed Sidewalk
*	0.277	58	Undisturbed Grass, HSG B
	1.342	74	>75% Grass cover, Good, HSG C
*	0.207	100	Water/Infiltration Area
*	0.056	58	Offsite Grass, HSG B
	3.805		Weighted Average
	1.675		44.02% Pervious Area
	2.130		55.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 3P: East Wet Pond

Inflow Area = 3.805 ac, 55.98% Impervious, Inflow Depth = 5.93" for 200-Year event
Inflow = 31.04 cfs @ 12.13 hrs, Volume= 1.879 af
Outflow = 17.69 cfs @ 12.22 hrs, Volume= 1.151 af, Atten= 43%, Lag= 5.7 min
Secondary = 17.69 cfs @ 12.22 hrs, Volume= 1.151 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 864.26' @ 12.22 hrs Surf.Area= 12,476 sf Storage= 40,129 cf

Plug-Flow detention time= 194.0 min calculated for 1.151 af (61% of inflow)
Center-of-Mass det. time= 99.1 min (860.7 - 761.6)

Volume	Invert	Avail.Storage	Storage Description
#1	859.50'	50,860 cf	**Surface (Prismatic)**Listed below (Recalc) x 0.8

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.50	7,000	0	0
860.00	7,700	3,675	3,675
861.00	9,100	8,400	12,075
862.00	10,600	9,850	21,925
863.00	12,200	11,400	33,325
864.00	13,900	13,050	46,375
865.00	20,500	17,200	63,575

Device	Routing	Invert	Outlet Devices
#1	Secondary	863.50'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Secondary OutFlow Max=17.03 cfs @ 12.22 hrs HW=864.24' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 17.03 cfs @ 2.31 fps)

Summary for Subcatchment 4A: Infiltration Basin Drainage Area

Runoff = 11.28 cfs @ 12.15 hrs, Volume= 0.682 af, Depth= 3.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-Year Rainfall=7.53"

	Area (ac)	CN	Description
*	1.245	58	Undisturbed Grass, HSG B
	0.122	74	>75% Grass cover, Good, HSG C
*	0.321	100	Water/Infiltration Area
*	0.054	98	Offsite Roof
*	0.494	58	Offsite Grass, HSG B
	2.236		Weighted Average
	1.861		83.23% Pervious Area
	0.375		16.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	50	0.0800	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.84"
1.5	50	0.1000	0.55		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 2.84"
2.8	180	0.0140	1.06		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
7.7	280	Total			

Summary for Pond 4P: Infiltration Basin

Inflow Area = 2.236 ac, 16.77% Impervious, Inflow Depth = 3.66" for 200-Year event
Inflow = 11.28 cfs @ 12.15 hrs, Volume= 0.682 af
Outflow = 0.20 cfs @ 18.66 hrs, Volume= 0.198 af, Atten= 98%, Lag= 390.5 min
Discarded = 0.02 cfs @ 7.00 hrs, Volume= 0.134 af
Secondary = 0.17 cfs @ 18.66 hrs, Volume= 0.064 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 860.77' @ 18.66 hrs Surf.Area= 18,536 sf Storage= 25,267 cf

Plug-Flow detention time= 1,221.1 min calculated for 0.198 af (29% of inflow)
Center-of-Mass det. time= 1,074.1 min (1,872.8 - 798.7)

Volume	Invert	Avail.Storage	Storage Description
#1	859.25'	29,625 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
859.25	14,000	0	0
860.00	17,000	11,625	11,625
861.00	19,000	18,000	29,625

Device	Routing	Invert	Outlet Devices
#1	Secondary	860.75'	**30.0' long x 3.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	859.25'	**0.070 in/hr Exfiltration over Surface area from 859.24' - 859.26'** Excluded Surface area = 0 sf

Discarded OutFlow Max=0.02 cfs @ 7.00 hrs HW=859.27' (Free Discharge)
2=Exfiltration (Exfiltration Controls 0.02 cfs)

Secondary OutFlow Max=0.17 cfs @ 18.66 hrs HW=860.77' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 0.17 cfs @ 0.33 fps)

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N

0 50 100

LEGEND FOR DRAINAGE AREAS:

- DOUBLE INLET #3.1 & #3.3 AREA = 0.533 ACRES
- DOUBLE INLET #3 & 3.2 AREA = 0.537 ACRES
- INLET #8.1 AREA = 0.050 ACRES
- INLET #8 AREA = 0.050 ACRES
- INFALL AREA = 0.835 ACRES
- INLET #7.1 AREA = 0.921 ACRES
- CATCH BASIN #7.3 AREA = 0.130 ACRES
- INLET #7.2 AREA = 0.618 ACRES
- CATCH BASIN #5 AREA = 0.176 ACRES
- CATCH BASIN #4 AREA = 0.309 ACRES

TWO UNIT PLAN (76W×55D)

FOUR UNIT PLAN (118.8W×50D)

DEVILS LAKE WAY

WEST WET POND

EAST WET POND

INFILTRATION BASIN

WETL

ELVEHJEM ROAD

CTH AB

SPERLE CORNERS – VILLAGE OF MCFARLAND
PHASE 1 STORM SEWER DRAINAGE PLAN
EXHIBIT: #7
DATED: AUGUST 5, 2025

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
www.quamengineering.com
4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558
Phone (608) 838-7750; Fax (608) 838-7752

Phase 1 Rational Method Worksheet - Storm Sewer Sizing

PROJECT: Sperle Corners - Village of McFarland Computed by: MAF
DATE: 8/1/2025

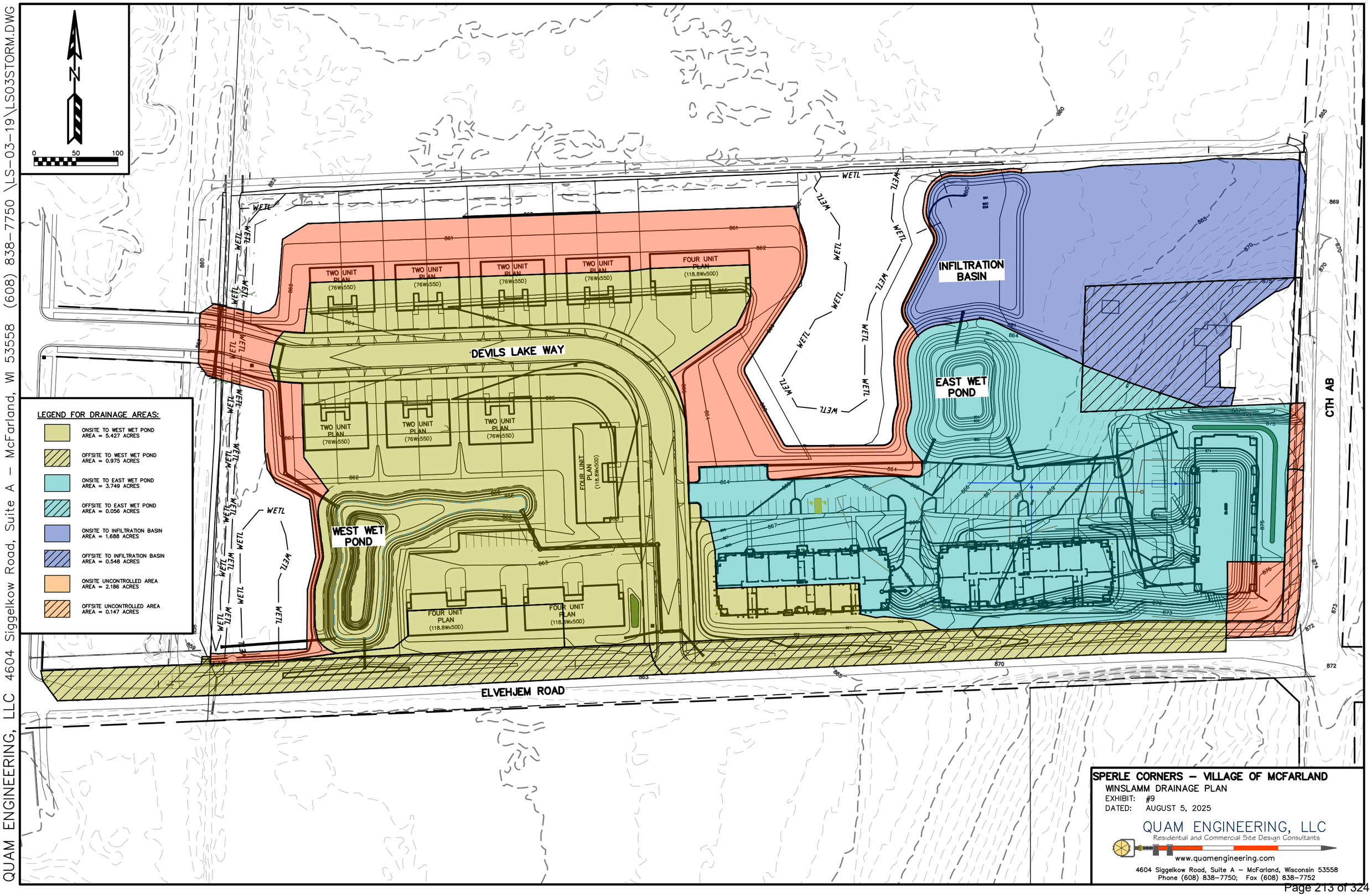
LOCATION		BASIN		RAINFALL - RUNOFF					SEWER			
Upstream Structure	**Downstream Structure**	**Runoff Coefficient** (C)	**Area** (acres)	**Design Storm** (Yr)	**Rain Intensity** (in/hr)	**Direct Runoff** (cfs)	**Other Runoff** (cfs)	**Design Runoff** (cfs)	**Sewer Size** (in)	**Min Slope of Sewer** (%)	**Manning's Number**	**Capacity Flowing Full** (cfs)
		C	A		I	Q=C*I*A					n	
Dbl Inlet #3.1/3	Dbl Inlet #3/3.2	0.66	0.533	100	10.92	3.84	----	3.84	15	1.30%	0.013	7.37
Dbl Inlet #3/3.2	MH #2	0.66	0.537	100	10.92	3.87	3.84	7.71	24	0.40%	0.013	14.31
MH #2	West Wet Pond	----	----	100	10.92	----	7.71	7.71	24	0.60%	0.013	17.52
Infall	Inlet #7.1	0.66	0.835	100	10.92	6.02	----	6.02	12	7.70%	0.013	9.89
Inlet #7.1	MH #7	0.66	0.921	100	10.92	6.64	6.02	12.66	24	0.20%	0.013	10.12
CB #7.3	Inlet #7.2	0.66	0.130	100	10.92	0.94	----	0.94	12	0.40%	0.013	2.25
Inlet #7.2	MH #7	0.66	0.618	100	10.92	4.45	0.94	5.39	12	10.00%	0.013	11.27
MH #7	MH #6	----	----	100	10.92	----	18.05	18.05	24	0.20%	0.013	10.12
MH #6	CB #5	----	----	100	10.92	----	18.05	18.05	30	0.20%	0.013	18.34
CB #5	CB #4	0.95	0.176	100	10.92	1.83	18.05	19.88	30	0.30%	0.013	22.47
CB #4	West Wet Pond	0.95	0.309	100	10.92	3.21	19.88	23.09	30	0.35%	0.013	24.27

C_{100}=0.66; High Density Residential with HSG C soils and slopes greater than 6% from FDM Procedure 13-10-5, Figure 2

C_{100}=0.95; Impervious from FDM Procedure 13-10-5, Figure 2

I_{100} = rainfall intensity in Dane County for a time of concentration of 5 minutes from FDM Procedure 13-10, Attachment 5.4

Capacity Flowing Full was determined using Manning's Equation



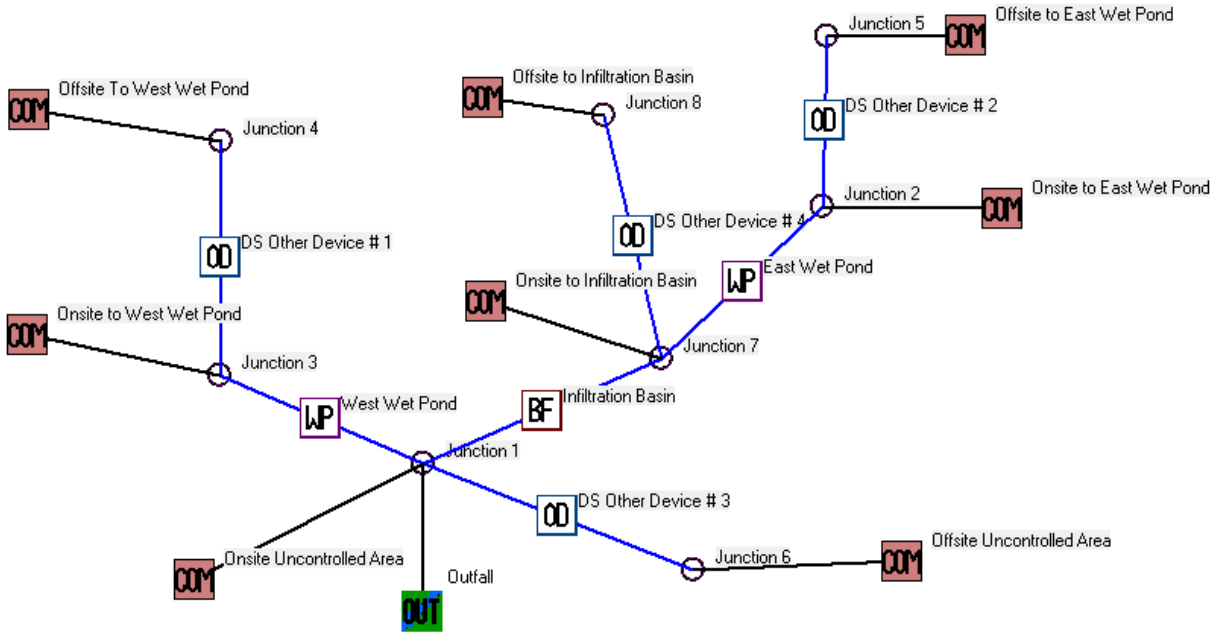
SPERLE CORNERS – VILLAGE OF MCFARLAND
WINSLAMM DRAINAGE PLAN
EXHIBIT: #9
DATED: AUGUST 5, 2025

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
www.quamengineering.com
4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558
Phone (608) 838-7750; Fax (608) 838-7752

QUAM ENGINEERING, LLC 4604 Siggelkow Road, Suite A – McFarland, WI 53558 (608) 838-7750 \LS-03-19\LS03STORM.DWG

The following calculations using the WinSLAMM output indicates that the proposed development will remove 80% of total suspended solids (TSS). 0.357 acres of the off-site street area was substituted from the off-stie area to the West Wet Pond to the Onsite Area to West Wet pond as a substitution for not treating 0.357 acres of uncontrolled roof, street and sidewalk around the northwest side of the site. This area is included as source area 38 in "Onsite to West Wet Pond."

WinSLAMM Model Summary:



Land Use:
Onsite to East Wet Pond

Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.942			
1	Roofs 1	0.942	Entered	--	--
	Parking	0.873			
13	Paved Parking 1	0.873	Entered	--	--
	Driveways/Sidewalks	0.108			
31	Sidewalks 1	0.108	Entered	--	--
	Streets	0.000			
	Landscaped Areas	1.619			
45	Large Landscaped Areas 1	0.277	Entered	--	--
46	Large Landscaped Areas 2	1.342	Entered	--	--
	Other Areas	0.207			
70	Water Body Areas	0.207	Entered	--	--

Land Use:
Onsite to West Wet Pond

Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	1.376			
1	Roofs 1	1.376	Entered	--	--
	Parking	0.759			
13	Paved Parking 1	0.759	Entered	--	--
	Driveways/Sidewalks	0.157			
31	Sidewalks 1	0.157	Entered	--	--
	Streets	0.772			
37	Streets 1	0.529	Entered	--	--
38	Street Swapped for Uncontr	0.243	Entered	--	--
	Landscaped Areas	2.083			
45	Large Landscaped Areas 1	2.083	Entered	--	--
	Other Areas	0.280			
70	Water Body Areas	0.280	Entered	--	--

Land Use:
Offsite To West Wet Pond

Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.000			
	Parking	0.000			
	Driveways/Sidewalks	0.265			
31	Sidewalks 1	0.265	Entered	--	--
	Streets	0.186			
37	Streets 1	0.186	Entered	--	--
	Landscaped Areas	0.524			
45	Large Landscaped Areas 1	0.524	Entered	--	--
	Other Areas	0.000			

Land Use:
Offsite to East Wet Pond

Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.000			
	Parking	0.000			
	Driveways/Sidewalks	0.000			
	Streets	0.000			
	Landscaped Areas	0.056			
45	Large Landscaped Areas 1	0.056	Entered	--	--
	Other Areas	0.000			

Land Use:
Onsite Uncontrolled Area

Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.000			
	Parking	0.000			
	Driveways/Sidewalks	0.000			
	Streets	0.000			
	Landscaped Areas	2.186			
45	Large Landscaped Areas 1	1.702	Entered	--	--
46	Large Landscaped Areas 2	0.241	Entered	--	--
57	Area swapped to Wet Wet P	0.243	Entered	--	--
	Other Areas	0.000			

Land Use:
Offsite Uncontrolled Area

Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.000			
	Parking	0.000			
	Driveways/Sidewalks	0.064			
31	Sidewalks 1	0.064	Entered	--	--
	Streets	0.000			
	Landscaped Areas	0.083			
45	Large Landscaped Areas 1	0.083	Entered	--	--
	Other Areas	0.000			

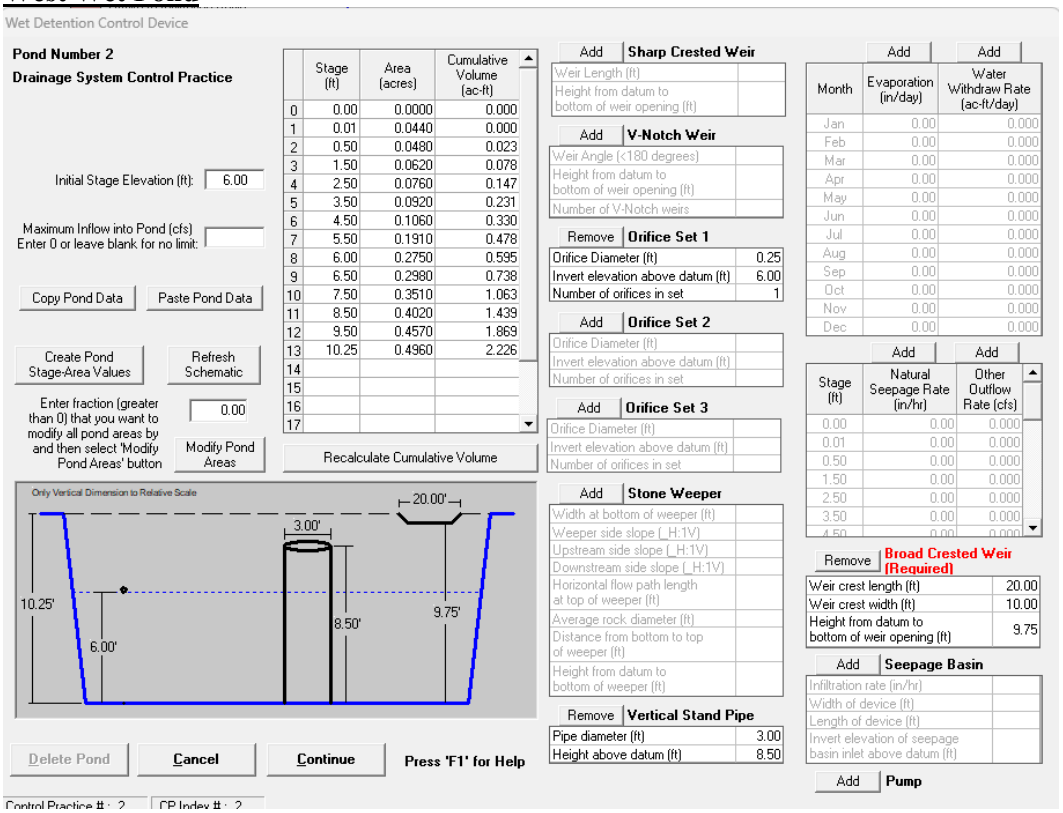
Land Use:
Onsite to Infiltration Basin

Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.000			
	Parking	0.000			
	Driveways/Sidewalks	0.000			
	Streets	0.000			
	Landscaped Areas	1.367			
45	Large Landscaped Areas 1	1.245	Entered	--	--
46	Large Landscaped Areas 2	0.122	Entered	--	--
	Other Areas	0.321			
70	Water Body Areas	0.321	Entered	--	--

Land Use:
Offsite to Infiltration Basin

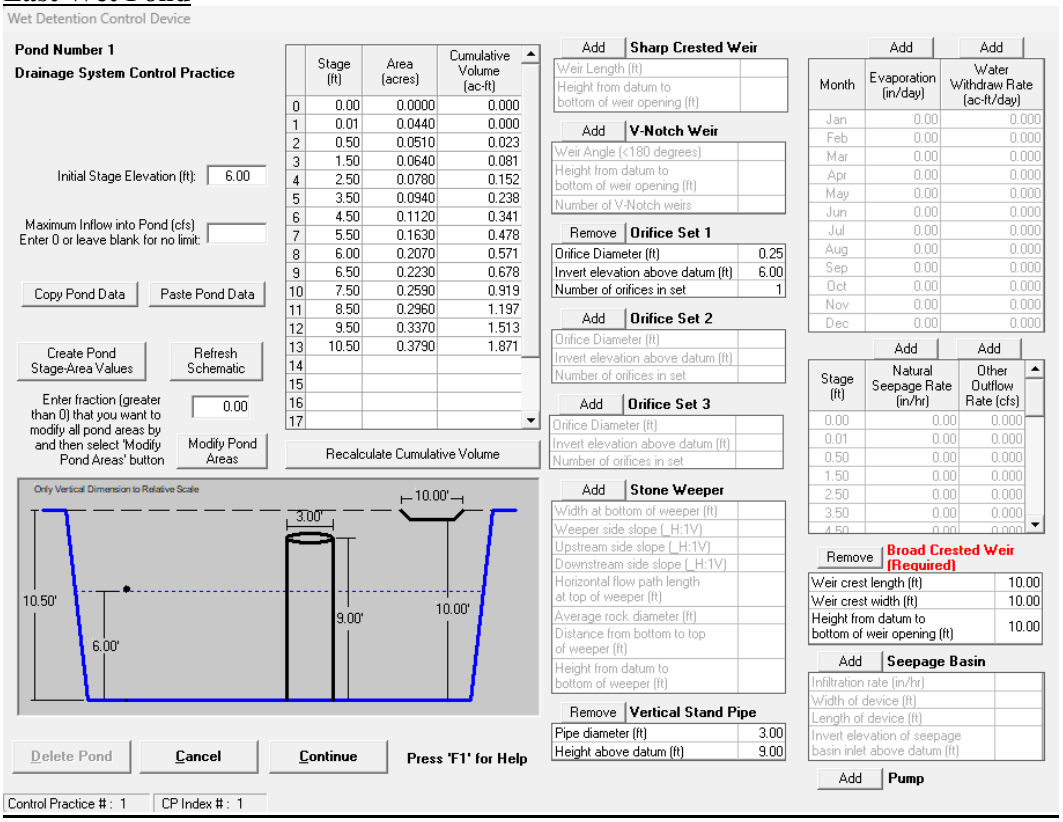
Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.054			
1	Roofs 1	0.054	Entered	--	--
	Parking	0.000			
	Driveways/Sidewalks	0.000			
	Streets	0.000			
	Landscaped Areas	0.494			
45	Large Landscaped Areas 1	0.494	Entered	--	--
	Other Areas	0.000			

West Wet Pond



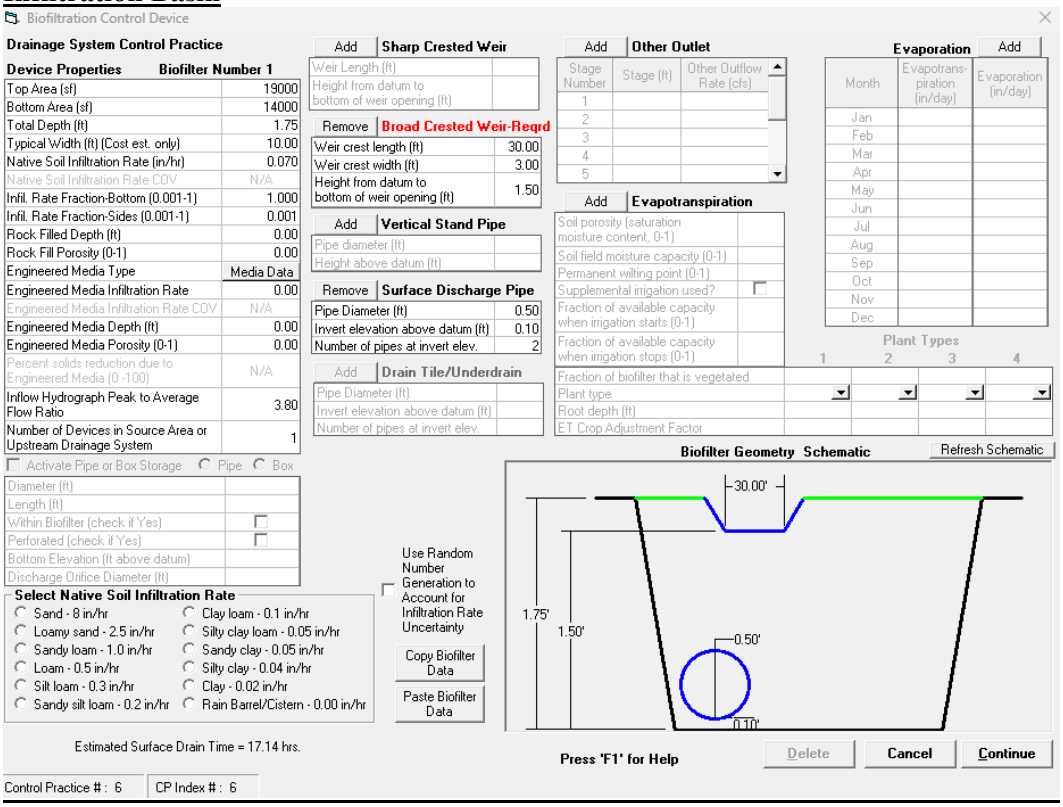
	Stage (ft)	Area (acres)	Cumulative Volume (ac-ft)
0	0.00	0.0000	0.000
1	0.01	0.0440	0.000
2	0.50	0.0480	0.023
3	1.50	0.0620	0.078
4	2.50	0.0760	0.147
5	3.50	0.0920	0.231
6	4.50	0.1060	0.330
7	5.50	0.1910	0.478
8	6.00	0.2750	0.595
9	6.50	0.2980	0.738
10	7.50	0.3510	1.063
11	8.50	0.4020	1.439
12	9.50	0.4570	1.869
13	10.25	0.4960	2.226
14			
15			
16			
17			

East Wet Pond

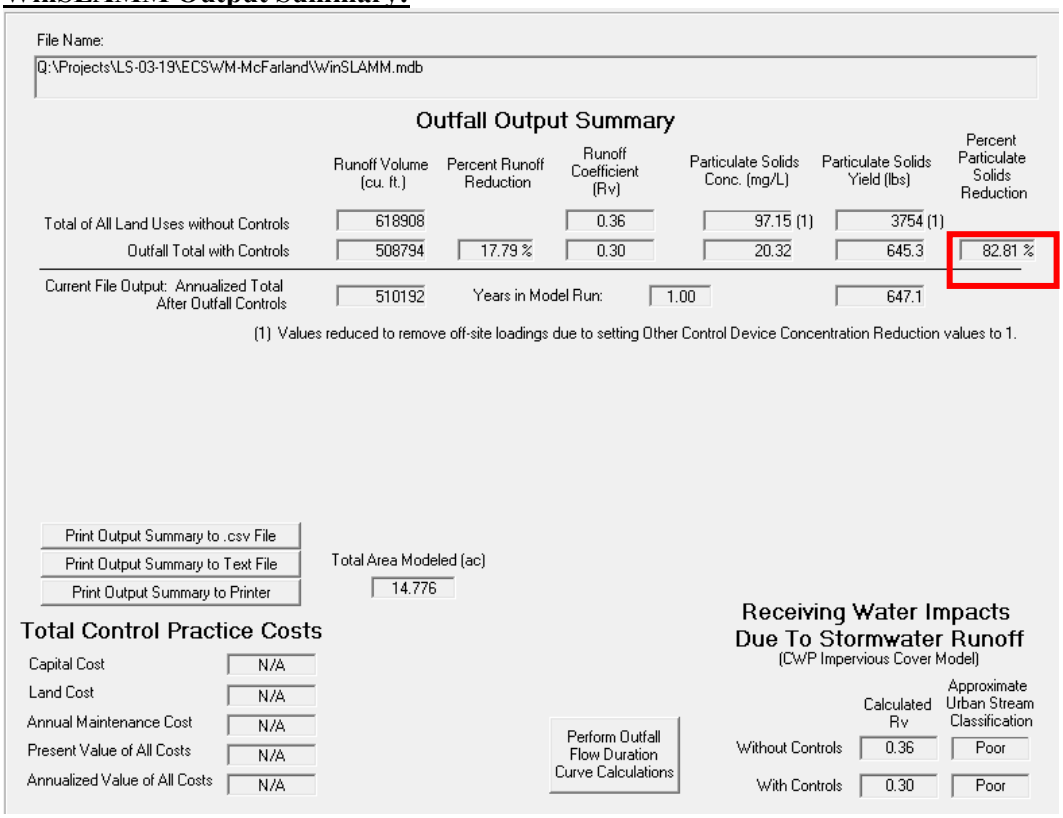


	Stage (ft)	Area (acres)	Cumulative Volume (ac-ft)
0	0.00	0.0000	0.000
1	0.01	0.0440	0.000
2	0.50	0.0510	0.023
3	1.50	0.0640	0.081
4	2.50	0.0780	0.152
5	3.50	0.0940	0.238
6	4.50	0.1120	0.341
7	5.50	0.1630	0.478
8	6.00	0.2070	0.571
9	6.50	0.2230	0.678
10	7.50	0.2590	0.919
11	8.50	0.2960	1.197
12	9.50	0.3370	1.513
13	10.50	0.3790	1.871
14			
15			
16			
17			

Infiltration Basin



WinSLAMM Output Summary:



Wet Pond Pre-Treatement

Site Description:

Col. #:	2	3	4	5	6	7	8	9
Control Practice No.	Control Practice Type	Control Practice Name or Location	Total Inflow Volume (cf)	Total Outflow Volume (cf)	Percent Volume Reduction	Total Influent Load (lbs)	Total Effluent Load (lbs)	Percent Load Reduction
1	Wet Detention Pond	East Wet Pond	199032	199578	-0.274	936.1	131.(	86.01
2	Wet Detention Pond	West Wet Pond	354614	355587	-0.274	2513	287.(	88.58

WinSLAMM Input Data:

Data file name: Q:\Projects\LS-03-19\ECSWM-McFarland\WinSLAMM.mdb
WinSLAMM Version 10.4.1
Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Madison WI 1981.RAN
Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load % Reduction calculations
Seed for random number generator: -42
Study period starting date: 01/01/81 Study period ending date: 12/31/81
Start of Winter Season: 12/02 End of Winter Season: 03/12
Date: 08-01-2025 Time: 14:28:45
Site information:

LU# 1 - Commercial: Onsite to East Wet Pond Total area (ac): 3.749
1 - Roofs 1: 0.942 ac. Pitched Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
13 - Paved Parking 1: 0.873 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
31 - Sidewalks 1: 0.108 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 0.277 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
46 - Large Landscaped Areas 2: 1.342 ac. Normal Clayey Low Density Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
70 - Water Body Areas: 0.207 ac. Source Area PSD File:

LU# 2 - Commercial: Onsite to West Wet Pond Total area (ac): 5.427
1 - Roofs 1: 1.376 ac. Pitched Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
13 - Paved Parking 1: 0.759 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
31 - Sidewalks 1: 0.157 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

37 - Streets 1: 0.529 ac. Intermediate Street Length = 0.29 curb-mi Street Width (assuming two curb-mi per street mile) = 30.09828 ft
Default St. Dirt Accum. Annual Winter Load = 2500 lbs Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
38 - Street Swapped for Uncontrolled Roof: 0.243 ac. Intermediate Street Length = 0.196 curb-mi Street Width (assuming two curb-mi per street mile) = 20.45663 ft
Default St. Dirt Accum. Annual Winter Load = 2500 lbs Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 2.083 ac. Normal Clayey Low Density Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
70 - Water Body Areas: 0.280 ac. Source Area PSD File:

LU# 3 - Commercial: Offsite To West Wet Pond Total area (ac): 0.975
31 - Sidewalks 1: 0.265 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
37 - Streets 1: 0.186 ac. Intermediate Street Length = 0.236 curb-mi Street Width (assuming two curb-mi per street mile) = 13.00424 ft
Default St. Dirt Accum. Annual Winter Load = 2500 lbs Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 0.524 ac. Normal Clayey Low Density Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 4 - Commercial: Offsite to East Wet Pond Total area (ac): 0.056
45 - Large Landscaped Areas 1: 0.056 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 5 - Commercial: Onsite Uncontrolled Area Total area (ac): 2.186
45 - Large Landscaped Areas 1: 1.702 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
46 - Large Landscaped Areas 2: 0.241 ac. Normal Clayey Low Density Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
57 - Area swapped to Wet Wet Pond: 0.243 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 6 - Commercial: Offsite Uncontrolled Area Total area (ac): 0.147
31 - Sidewalks 1: 0.064 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 0.083 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 7 - Commercial: Onsite to Infiltration Basin Total area (ac): 1.688
45 - Large Landscaped Areas 1: 1.245 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
46 - Large Landscaped Areas 2: 0.122 ac. Normal Clayey Low Density Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
70 - Water Body Areas: 0.321 ac. Source Area PSD File:

LU# 8 - Commercial: Offsite to Infiltration Basin Total area (ac): 0.548
1 - Roofs 1: 0.054 ac. Pitched Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 0.494 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

Control Practice 1: Wet Detention Pond CP# 1 (DS) - East Wet Pond
Particle Size Distribution file name: Not needed - calculated by program
Initial stage elevation (ft): 6
Peak to Average Flow Ratio: 3.8
Maximum flow allowed into pond (cfs): No maximum value entered
Outlet Characteristics:
Outlet type: Orifice 1
1. Orifice diameter (ft): 0.25
2. Number of orifices: 1
3. Invert elevation above datum (ft): 6
Outlet type: Broad Crested Weir
1. Weir crest length (ft): 10
2. Weir crest width (ft): 10
3. Height from datum to bottom of weir opening: 10
Outlet type: Vertical Stand Pipe
1. Stand pipe diameter (ft): 3
2. Stand pipe height above datum (ft): 9
Pond stage and surface area

Entry Number	Stage (ft)	Pond Area (acres)	Natural Seepage (in/hr)	Other Outflow (cfs)
0	0.00	0.0000	0.00	0.00
1	0.01	0.0440	0.00	0.00
2	0.50	0.0510	0.00	0.00
3	1.50	0.0640	0.00	0.00
4	2.50	0.0780	0.00	0.00
5	3.50	0.0940	0.00	0.00
6	4.50	0.1120	0.00	0.00
7	5.50	0.1630	0.00	0.00
8	6.00	0.2070	0.00	0.00
9	6.50	0.2230	0.00	0.00
10	7.50	0.2590	0.00	0.00
11	8.50	0.2960	0.00	0.00
12	9.50	0.3370	0.00	0.00
13	10.50	0.3790	0.00	0.00

Control Practice 2: Wet Detention Pond CP# 2 (DS) - West Wet Pond
Particle Size Distribution file name: Not needed - calculated by program
Initial stage elevation (ft): 6
Peak to Average Flow Ratio: 3.8
Maximum flow allowed into pond (cfs): No maximum value entered
Outlet Characteristics:
Outlet type: Orifice 1
1. Orifice diameter (ft): 0.25
2. Number of orifices: 1
3. Invert elevation above datum (ft): 6
Outlet type: Broad Crested Weir
1. Weir crest length (ft): 20
2. Weir crest width (ft): 10
3. Height from datum to bottom of weir opening: 9.75
Outlet type: Vertical Stand Pipe

1. Stand pipe diameter (ft): 3
2. Stand pipe height above datum (ft): 8.5

Pond stage and surface area

Entry Number	Stage (ft)	Pond Area (acres)	Natural Seepage (in/hr)	Other Outflow (cfs)
0	0.00	0.0000	0.00	0.00
1	0.01	0.0440	0.00	0.00
2	0.50	0.0480	0.00	0.00
3	1.50	0.0620	0.00	0.00
4	2.50	0.0760	0.00	0.00
5	3.50	0.0920	0.00	0.00
6	4.50	0.1060	0.00	0.00
7	5.50	0.1910	0.00	0.00
8	6.00	0.2750	0.00	0.00
9	6.50	0.2980	0.00	0.00
10	7.50	0.3510	0.00	0.00
11	8.50	0.4020	0.00	0.00
12	9.50	0.4570	0.00	0.00
13	10.25	0.4960	0.00	0.00

Control Practice 3: Other Device CP# 1 (DS) - DS Other Device # 1
Fraction of drainage area served by device (ac) = 1.00
Particulate Concentration reduction fraction = 1.00
Filterable Concentration reduction fraction = 1.00
Runoff volume reduction fraction = 0

Control Practice 4: Other Device CP# 2 (DS) - DS Other Device # 2
Fraction of drainage area served by device (ac) = 1.00
Particulate Concentration reduction fraction = 1.00
Filterable Concentration reduction fraction = 1.00
Runoff volume reduction fraction = 0

Control Practice 5: Other Device CP# 3 (DS) - DS Other Device # 3
Fraction of drainage area served by device (ac) = 1.00
Particulate Concentration reduction fraction = 1.00
Filterable Concentration reduction fraction = 1.00
Runoff volume reduction fraction = 0

Control Practice 6: Biofilter CP# 1 (DS) - Infiltration Basin
1. Top area (square feet) = 19000
2. Bottom aea (square feet) = 14000
3. Depth (ft): 1.75
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 0.07
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 0.001
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 0
12. Engineered soil depth (ft) = 0

13. Engineered soil porosity = 0
14. Percent solids reduction due to flow through engineered soil = 0
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0

Soil Data Soil Type Fraction in Eng. Soil

Biofilter Outlet/Discharge Characteristics:

Outlet type: Broad Crested Weir

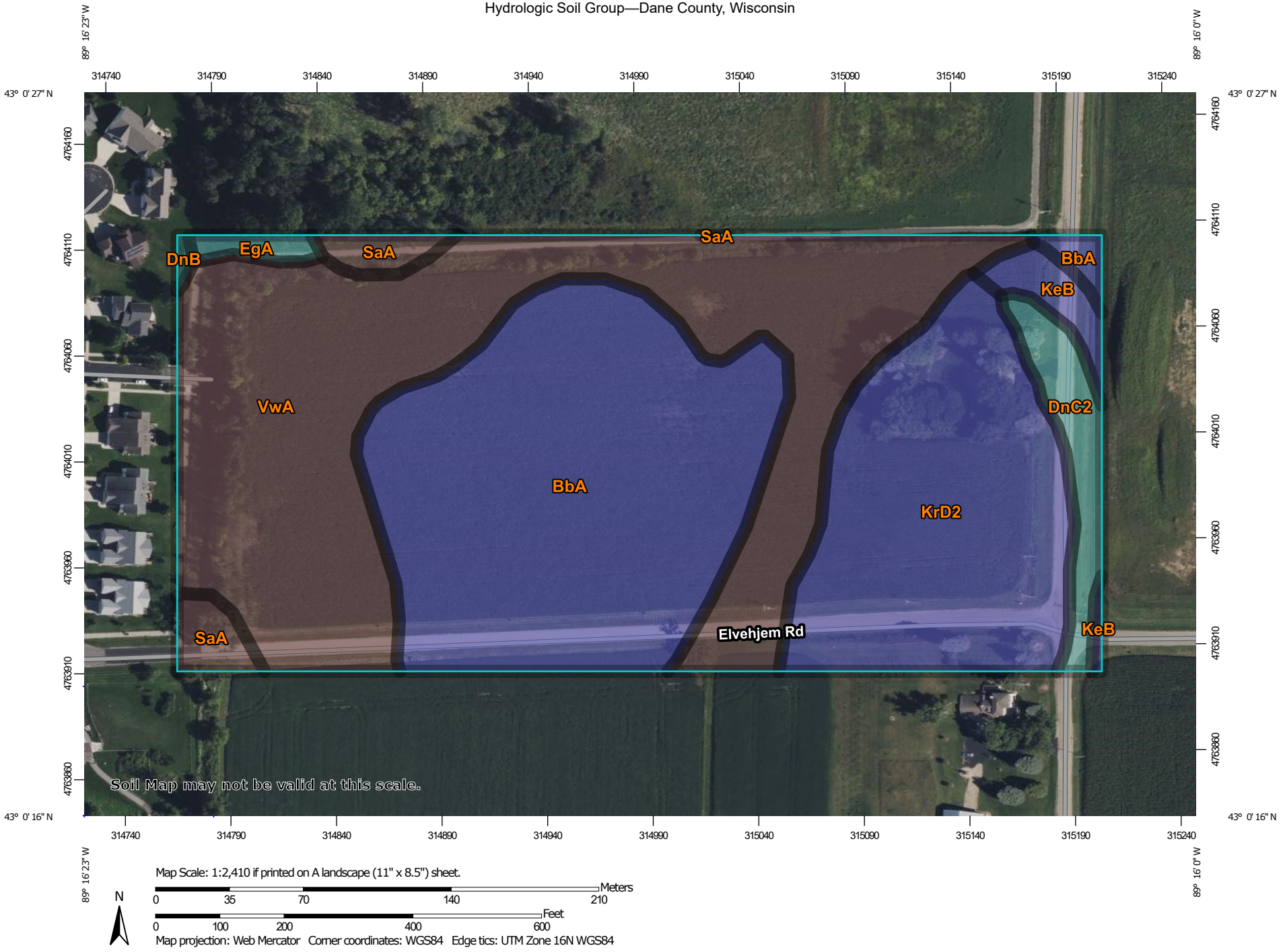
1. Weir crest length (ft): 30
2. Weir crest width (ft): 3
3. Height of datum to bottom of weir opening: 1.5

Outlet type: Surface Discharge Pipe

1. Surface discharge pipe outlet diameter (ft): 0.5
2. Pipe invert elevation above datum (ft): 0.1
3. Number of surface pipe outlets: 2

Control Practice 7: Other Device CP# 4 (DS) - DS Other Device # 4

Fraction of drainage area served by device (ac) = 1.00
Particulate Concentration reduction fraction = 1.00
Filterable Concentration reduction fraction = 1.00
Runoff volume reduction fraction = 0



Map Scale: 1:2,410 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 35 70 140 210

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dane County, Wisconsin
Survey Area Data: Version 23, Sep 3, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 4, 2022—Sep 13, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BbA	Batavia silt loam, gravelly substratum, 0 to 2 percent slopes	B	7.1	31.7%
DnB	Dodge silt loam, 2 to 6 percent slopes	C	0.0	0.2%
DnC2	Dodge silt loam, 6 to 12 percent slopes, eroded	C	0.8	3.6%
EgA	Elburn silt loam, gravelly substratum, 0 to 3 percent slopes	C	0.2	0.8%
KeB	Kegonsa silt loam, 2 to 6 percent slopes	B	0.4	1.8%
KrD2	Kidder soils, 10 to 20 percent slopes, eroded	B	4.6	20.6%
SaA	Sable silty clay loam, 0 to 2 percent slopes	B/D	0.5	2.3%
VwA	Virgil silt loam, gravelly substratum, 0 to 3 percent slopes	B/D	8.7	39.1%
Totals for Area of Interest			**22.4**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

1002-CPS-23
Division of Industry Services
P. O. Box 2658
Madison, Wisconsin 53701
Scott Walker, Governor
Laura Gutierrez, Secretary

Attachment 2:

SOIL AND SITE EVALUATION – STORM

In accordance with SPS 382.365, 385, Wis. Adm. Code, and WDNR Standard 1002

Attach a complete site plan on paper not less than 8 ½ x 11 inches in size. Plan must include, but not limited to: vertical and horizontal reference point (BM), direction and percent of slope, scale or dimensions, north arrow, and BM referenced to nearest road

Please print all information

Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04(1)(m)]

County: Dane

Parcel I.D.: 0610-024-9691-1

Reviewed by:

Date:

Property Owner: Lakestone Properties

Property Location: Govt Lot SE ¼ SE ¼ S 2 T 6 N R 10 (E) or W

Property Owner Mail Address:

Lot # | Block # | Subd. Name or CSM #

City | State | Zip Code | Phone Number

☐ City ☒ Village ☐ Town — Nearest Road: McFarland — Elvehjem Rd

Drainage area _____ ☐ sq ft ☐ acres

Test site suitable for (check all that apply): ☐ Site not suitable;

☐ Bioretention; ☐ Subsurface Dispersal System;

☐ Reuse; ☐ Irrigation; ☐ Other _____

Hydraulic Application Test Method

☒ Morphological Evaluation

☐ Double Ring Infiltrometer

☐ Other: (specify) _____

Soil Moisture
Date of soil borings: 1-29-25

USDA-NRCS WETS Value:
☐ Dry =1;
☒ Normal = 2;
☐ Wet = 3.

TP1 #OBS. ☒ Pit ☐ Boring Ground surface elevation: 860.96 ft. Elevation of limiting factor: 859.96 ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
1	0-12	10YR 3/2	—	sl	2mgr	mfr	cs	5	—	.13
2	12-60	10YR 4/2	C2d 7.5YR 5/8 10YR 7/2	sic	1fsbk	mfr	gw	5	—	.07
3	60-108	10YR 5/4	" "	s	0sg	ml	—	5	—	3.6

Comments: Water observed @ 60"

TP2 #OBS. ☒ Pit ☐ Boring Ground surface elevation: 860.99 ft. Elevation of limiting factor: 859.99 ft.

Horizon	Depth In.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
1	0-12	10YR 3/2	—	sl	2mgr	mfr	cs	5	—	.13
2	12-67	10YR 4/2	C2d 7.5YR 5/8 10YR 7/2	sic	1fsbk	mfr	gw	5	—	.07
3	67-120	10YR 5/4	" "	s	0sg	ml	—	5	—	3.6

Comments: Water observed @ 70"

Name (Please Print): Jeffrey T. Levake

Signature: Jeffrey T. Levake

Credential Number: CST #223322

Address: P.O. Box 568 Lake Mills, WI 53551

Date Evaluation Conducted: 1-29-25

Telephone Number: 920-968-7567

SBD-10793 (R01/17)

WDNR
September 2017

TP3 #OBS. ☒ Pit ☐ Boring Ground surface elevation 859.99 ft. Elevation of limiting factor 858.99 ft. Page 2 of 3

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
1	0-12	10YR 3/2	~~~	s.l	2mgr	mfr	cs	5	—	.13
2	12-60	10YR 4/2	C2d 7.5YR 5/8 10YR 7/2	sic	1fsbk	mfr	cs	5	-	.07
3	60-96	10YR 4/2	" "	scl	1fsbk	mfr	gw	5	-	.11
4	96-120	10YR 5/4	" "	s	0sg	ml	—	5	—	3.6

Comments: Water observed @ 60"

TP4 #OBS. ☒ Pit ☐ Boring Ground surface elevation 859.87 ft. Elevation of limiting factor 858.87 ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
1	0-12	10YR 3/2	~~~	s.l	2mgr	mfr	cs	5	-	.13
2	12-50	10YR 4/2	C2d 7.5YR 5/8 10YR 7/2	sic	1fsbk	mfr	gw	5	-	.07
3	50-108	10YR 5/4	" "	s	0sg	ml	—	5	-	3.6

Comments: Water observed @ 50"

TP5 #OBS. ☒ Pit ☐ Boring Ground surface elevation 860.27 ft. Elevation of limiting factor 859.27 ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
1	0-12	10YR 3/2	~~~	s.l	2mgr	mfr	cs	5	—	.13
2	12-55	10YR 4/2	C2d 7.5YR 5/8 10YR 7/2	sic	1fsbk	mfr	gw	5	-	.07
3	55-120	10YR 5/4	" "	s	0sg	ml	—	5	-	3.6

Comments: Water observed @ 55"

TP6 #OBS. ☒ Pit ☐ Boring Ground surface elevation 860 ft. Elevation of limiting factor 858.4 ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
1	0-20	10YR 3/2	~~~	s.l	2mgr	mfr	cs	5	—	.13
2	20-103	10YR 4/2	C2d 7.5YR 5/8 10YR 7/2	sic	1fsbk	mfr	gw	5	-	.07
3	103-120	10YR 5/4	" "	s	0sg	ml	—	5	-	3.6

Comments: Water observed @ 103"

SBD-10793 (R 7/17)

Overall Site Comments:

WDNR
September 2017

TP7 #OBS. ☒ Pit ☐ Boring Ground surface elevation. 860.77 ft. Elevation of limiting factor 859.47 ft. Page 3 of 3

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
1	0-16	10YR 3/2	~	sil	2mgr	mfr	cs	5	-	.13
2	10-65	10YR 4/2	C2d 7.5YR 5/8 10YR 7/2	sic	1fsbk	mfr	gw	5	-	.07
3	65-108	10YR 5/4	" "	s	0sg	ml	-	5	-	3.6

Comments: Water observed @ 65"

TP8 #OBS. ☒ Pit ☐ Boring Ground surface elevation. 881.8 ft. Elevation of limiting factor 869.8 ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
1	0-6	10YR 3/2	~	sil	2mgr	mfr	cs	5	-	.13
2	6-42	7.5YR 4/6	~	scl	1msbk	mfr	gw	5	-	.11
3	42-144	10YR 5/4	~	sl	1fpl	mfr	-	15	-	.5

Comments:

☐ #OBS. ☐ Pit ☐ Boring Ground surface elevation. _____ ft. Elevation of limiting factor _____ ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr

Comments:

☐ #OBS. ☐ Pit ☐ Boring Ground surface elevation. _____ ft. Elevation of limiting factor _____ ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr

Comments:

SBD-10793 (R 7/17)

Overall Site Comments:

WDNR
September 2017

STORM WATER MANAGEMENT SYSTEM MAINTENANCE AGREEMENT

THIS AGREEMENT ("Agreement"), entered into this _____ day of _____, 2022, by and between Ezra Properties (the "Owner"), and Village of McFarland, a Wisconsin Municipal Corporation (the "Village"), collectively, the "Parties".

RECITALS

A. The Owner is developing certain real property located in the Village of McFarland legally described in paragraph *2* herein (the "Property").

B. The Parties desire to set forth their obligations for the maintenance of certain storm water management improvements on the Property.

Recording area (Dane Co. Register of Deeds)

Send To: Village of McFarland
5915 Milwaukee Street
McFarland, WI 53558
608-838-3151

0610-024-9691-1
Parcel Identification Numbers

NOW THEREFORE, in consideration of the mutual covenants herein set forth and other good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows.

1. Sole Agreement. This agreement is the sole applicable agreement pertaining to storm water management for the described Property.

2. Site Legal Description. The Property subject to this agreement is legally described as follows: SEC 2-6-10 S 19 A SE1/4 SE1/4 EXC LOT 1 CSM 1455, Village of McFarland Dane County, WI

3. Responsible Party.

a. CONSTRUCTION PHASE MAINTENANCE. The Owner is responsible for satisfying the provisions of this agreement throughout the Property for the duration of the construction and warranty period.

b. POST-CONSTRUCTION PERPETUAL MAINTENANCE. The Owner is responsible for maintaining the storm water management system in perpetuity upon completion of all construction phases and expiration of the warranty period.

4. Permanent Components Of The Storm Water Management System.

a. The storm water management system for the property consists of the following management practices, their components, and the drainage conveyance as referenced in Section 4b:

+ Two (2) Wet Retention Pond
+ One (1) Infiltration Basin
+ One (1) Infiltration Swale
+ Three (3) Sorbent Inlet Filters

b. The drainage areas served by the storm water management practices include portions of the property referenced in Section 2 and some off-site run-on from the Elvehjem Road Right-of-Way, as shown on the Proposed Drainage Plan.

5. Inspection And Maintenance Schedule.

a. All components of the storm water management system shall be inspected by the Responsible Party:

- at least semi-annually in early Spring and early Autumn; and
- within 72 hours following any major storm or flood event of sufficient intensity or duration to pose significant risk of damage to the system.

b. The following components shall be inspected by the Responsible Party more frequently as follows:

Wet Pond

- Annually inspect all components of the wet pond, including inlets, outlets, riprap, and safety shelf, and sediment depth.
- Keep embankments clear of woody vegetation.
- Mowing in buffer areas around stormwater ponds should be minimized. If occasional mowing is necessary, mow no shorter than 6 inches.
- Application of fertilizer, herbicide, pesticide or other chemicals is discouraged.
- Remove sediment from permanent pool once average depth is 3.5 feet or less. Protect liner from damage during sediment removal, if present.
- Excavation is prohibited below the original design depth unless approved by Dane County Water Resources Engineering Department.

Infiltration Basin

- Inspect quarterly to ensure proper function and check for any potential problems. Inspect overflow spillway for indication of failure and make note of vegetation condition. If standing water is observed over 50% of the basin floor 3 days after rainfall, the basin is clogged and must be restored.
- Remove trash and other debris regularly.
- Mowing or burning shall be used to maintain the vegetation.
- Mow newly planted seed once it reaches a height of 10 to 12 inches down to a height of 5 to 6 inches. After establishment, if burning cannot be accommodated, mowing shall occur once in the spring (prior to April 15) or in the fall (after November 1) to a height of 5 to 6 inches.
- Burning may begin the second year, in the early spring (prior to May 1st) or in the late fall (after November 1st). Burning shall be done two consecutive years, then up to three years passing before the next burning. Under no circumstances shall burning occur every other year.
- Restoration includes removing the top 2 to 3 inches, chisel plowing, then adding topsoil and compost before seeding. If deep tilling is used, the basin shall be drained and the soils dried to a depth of 8 inches. If the basin was planted in turf grass and clogging again occurs after these restoration procedures have been used, the owner /operator shall replant with prairie style vegetation using the soil preparation method recommended by the native nursery in the area.
- During winter months, all draw down devices in the pond shall be opened to discourage infiltration of runoff water containing high levels of chlorides.

Sorbent Inlet Filters

- Maintain Flexstorm PCP Inlet Filter, or equal, according to the manufacturer's guidelines.
- Inspect inlet filters quarterly. Repair when the performance of a filter is compromised.

c. The Responsible Party shall make the appropriate repairs whenever the performance of a storm water management practice or component is compromised due to sediment or debris.

6. Regulations.

a. Mowing in buffer areas, pond banks and drainage ways shall be minimized to the greatest extent possible in order to maximize filtration of runoff. If occasional mowing is necessary, the mowing height shall be no shorter than six inches.

b. Applications of fertilizers, herbicides, pesticide or other chemical applications are prohibited in buffer areas, on pond banks and along drainage ways, unless specifically authorized by the Village Engineer on an individual event basis, and provided that the application is performed by professional personnel certified for that purpose.

c. Snow shall not be dumped directly onto conditioned planting beds designed for infiltration or for bioretention, or on sites designated as buffer areas.

7. Maintenance Of Inspection Records.
a. The Owner shall maintain records of the results of all site inspections and any enforcement actions, correction actions or other documented contacts and any follow-up actions taken by or at the direction of Owner or Responsible Party for seven years after such action.

b. The Village Engineer shall maintain public records of the results of all Village inspections of the site, shall inform the Owner of the inspection results, and shall indicate any specific corrective actions required to bring the storm water management practice or component into accordance with this Agreement.

8. Default by Responsible Party. In the event that the Village determines that Responsible Party has failed to comply with any of the responsibilities as set forth in this Agreement, the Village shall give written notice to Owner identifying any said default and requiring compliance within five working days of receipt of the notice or such longer period of time as specified by the Village in the notice. In the event Owner fails to complete any actions required to remedy the default within said five day period, unless extended by the Village in writing, Owner consents that Village may enter the property on which private storm water management systems and practices are located, correct the default and charge the cost of such corrective action to Owner. If Owner fails to pay for said costs of corrective action then Village shall be entitled to place the cost of the corrective action on the tax roll for the Owner's property as a special charge pursuant to Wis. Stats. § 66.0627.

9. Severability. All provisions of this Agreement are severable, and if any one or more provision is deemed unenforceable for any reason, the remaining provisions shall remain in full force and effect.

10. Binding Agreement. All provisions of this Agreement, including the benefits and burdens hereunder, run with the property and are binding upon and inure to the benefit of the parties hereto and their successors and assigns.

11. Amendment; Termination. This Agreement may be amended or terminated by a document signed by the Owner and the Village.

12. Requirement to Record. This Agreement and any subsequent amendments thereto shall be recorded at the Dane County Register of Deeds.

13. Governing Law. This Agreement at all times shall be enforced in accordance with the laws of the State of Wisconsin.

14. Assignment. A Responsible Party's obligations may not be assigned to another party without the prior written consent of Village except that such consent is not required when a Responsible Party as property owner transfers fee simple title to a buyer who will assume the maintenance responsibilities of the owner / responsible party.

15. Notices. All notices to be given under the terms of this Agreement shall be in writing and signed by the person serving the notice and shall be sent registered or certified mail, return receipt requested, postage prepaid, or hand delivered to the addresses of the parties listed below:

FOR THE VILLAGE:

Village of McFarland
5915 Milwaukee Street
McFarland, WI 53558
608-838-3151

FOR THE OWNER:

Lakestone Properties and Management, LLC
5910 Main Street, Suite 1
McFarland, WI 53558

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

FOR THE OWNER:
By:_____

Name:_____

Title:_____

Date:_____

STATE OF WISCONSIN)
) ss.
COUNTY OF_____)

Personally came before me this _____ day of _____, 20__, the above-named _____, to me known to be the person who executed the foregoing and acknowledged the same.

_____
Notary Public, State of Wisconsin
My Commission: _____

VILLAGE OF MCFARLAND

By: _____

Name:_____
Title: Village President

Date: _____

By: _____

Name:_____
Title: Village Clerk

Date:_____

TOWN & COUNTRY ENGINEERING, INC.

September 8, 2025

Mr. Andrew Bremer, AICP
Community & Economic Development Director
Village of McFarland
5915 Milwaukee Street
P.O. Box 110
McFarland, WI 53558

Subject: Sperle Corners Development – Detailed Development Plan Submittal Review

Dear Andrew:

We have received the updated Detailed Development Plan submittal dated August 18, 2025 for Sperle Corners, a proposed new residential development north of Elvehjem Road and west of CTH AB, south of an existing multi-use trail, and east of some existing residential areas on Perrot Place. The preliminary plat, plans, and stormwater management report have been reviewed from a public works perspective. Our comments are shown below, organized by the appropriate document and/or drawing sheet number.

Construction Plans

All Sheets

- Confirm water main has 7 feet of cover. Some hydrant locations appear to show closer to 8 feet cover.
- Move all shutoffs for future large water laterals (6-inch and larger) to be within 6 feet of the main.
- Call out future private sewer and water mains as “PRIVATE”

Sheet C-3

- Spot grades should be provided at all lot corners and relative high/low points in the grading plan to allow for checking the final grades against the proposed grading plan.

Sheet C-6

- The existing hydrant at the current end of Devil’s Lake Way should be removed and relocated to the proposed new dead end at the Elvehjem Road intersection.
- Add main valves on both sides of the proposed hydrant near STA 5+05.
- Add a main valve on the east end of the proposed main connection for testing purposes.

Sheet C-7

- A valve should be added to the west leg of the tee at Elvehjem Road, and the northern valve on said tee be moved just north of the nearby proposed hydrant.

Sheet C-10

- The proposed hydrant near STA 55+28 on Elvehjem Road should have valves on both sides of the hydrant tee.
- Add a ditchline profile showing existing ground above the proposed water main to confirm proper bury depth.
- Add insultation between the new water main and proposed storm sewer crossing Elvehjem Road.

Sheet 16

- Confirm that the Village fire apparatus maneuver through the layout with parking as intended.

Final Plat

We have no further comments on the plat and recommend Village approval.

Stormwater Management Plan
The stormwater management design as proposed will meet the Village, County, and State performance standards, however there are several important items that will be needed prior to recommending Village approval:

- A plan view of the site showing the extent of overland water flow during a 200-year storm (assuming all inlets are plugged) must be provided to ensure water does not enter private properties.
- The Storm Sewer Sizing exhibit shows several pipes over capacity. Explanation should be provided for this (or upsizing of piping).

Please feel free to contact us with any questions or comments regarding this review.

Very truly yours,
TOWN & COUNTRY ENGINEERING, INC.



Brian R. Berquist, P.E.
President

cc: Mr. Lee Igl, Director of Public Works, Village of McFarland *(via email)*

Mr. Matthew Schuenke, Administrator, Village of McFarland *(via email)*

Mr. Ryan Quam, Quam Engineering *(via email)*

BRB:sai
J:\JOB#S\McFarland\MC-236-M6 Teppo-Sperle Property Review\1. Admin and PM\Review Letter 3.docx

September 5, 2025

Re: Design Review of Lakestone Properties Sperle Corners Proposed Development

We completed our review of the detailed PUD plan dated August 5, 2025.

We recognize that the project is still developing, and not all items are fully designed and documented. Below is a list of items that we noted that aren't displaying compliance with applicable codes or should be considered during the design of the project.

- The fire lane plan that was submitted previously indicates that the maximum roadway width would be required to comply with turning radius. The current plan submission doesn't include where parking restrictions will be placed on Devils Lake Way. Based on our review on streeting will be permitted in front Lots 3-13. The north/south portion of Devils Lake Way will not be permitted to have street parking. It should be noted that the fire department access requires vertical clearance of 13' 6", with the design utilizing full street width the provided trees can't extend over the street unless they are taller than 13' 6".
    - The department's recommendation is not to permit the current proposed street width.

- Any curb area within 20' of fire hydrant will be required to be signed as no parking. The curb shall be painted to produce a 20-foot stripe extending ten feet to each side of the hydrant. Areas without curbs shall have a four-inch-wide yellow stripe placed on the pavement.

- The provide elevations for the apartment buildings on Lot 18 an eave height of 32' 1 ½", which would require aerial access. The current access width doesn't comply with the 26' width for aerial access.

- The traffic calming devices (speed bumps) are required to be approved by the fire code official and will be required to be submitted. Speed bumps will not be accepted, and any traffic calming must comply with the following:

    - Maintain angle of approach or departure for fire apparatus to be 8 degrees or less. (NFPA 1901 12.3.2.2)
    - Height less than 8” (NFPA 1901 12.3.2.2)

- The indicated phase 1 apartments site plan has a fire department access road that exceeds 150’ without an approved turn-around. Occupancy of phase 1 will not be able to be granted until a turn-around is provided or the access is built out to provide the turn-around.

- When considering the Lot 18 units as a multi-family development the IFC requires (2) separate access roads unless all buildings are equipped with approved automatic fire sprinkler systems. It would be preferable to add a second access road to Elvehjem between the (37) unit and (40) unit apartment buildings. If not added, any building on the lot will require approved automatic fire sprinklers including a shed or an accessory building that is constructed in the future.

- Any building with 3 units or more will require an automatic fire sprinkler system and Knox key box. It is encouraged to provide Knox key boxes on all buildings and especially any buildings that are rented. The plans have not included floor plans for buildings, and it is understood that the floorplans more than likely haven't been developed. It should be noted though that any building with a fire sprinkler will require a riser room that is accessible without entering a private dwelling.

- The buildings will need to comply with IFC section 510 for emergency responder radio coverage.

Code sections for reference:

SPS 362.0903 (5)(a) Except as provided in pars. (b) to (cm), an automatic sprinkler system installed in accordance with IBC section 903.3 shall be provided throughout all buildings with a Group R fire area.

IBC 509.1 Fire protection equipment shall be identified in an approved manner. Rooms containing controls for air-conditioning systems, sprinkler risers and valves, or other fire detection, suppression or control elements shall be identified

for the use of the fire department. Approved signs required to identify fire protection equipment and equipment location shall be constructed of durable materials, permanently installed and readily visible.

IBC 916.1 Emergency responder radio coverage shall be provided in all new buildings in accordance with Section 510 of the International Fire Code.

IFC 503.2.1 Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm).

IFC 503.2.4 The required turning radius of a fire apparatus access road shall be determined by the fire code official.

IFC 503.3 Where required by the fire code official, approved signs or other approved notices or markings that include the words NO PARKING—FIRE LANE shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. The means by which fire lanes are designated shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

IFC 503.4.1. Traffic calming devices shall be prohibited unless approved by the fire code official.

IFC 504.1 Exterior doors and openings required by this code or the International Building Code shall be maintained readily accessible for emergency access by the fire department. An approved access walkway leading from fire apparatus access roads to exterior openings shall be provided when required by the fire code official.

IFC 507.5.1 Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route

around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.
Exceptions:
1.For Group R-3 and Group U occupancies, the distance requirement shall be 600 feet (183 m).
2.For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement shall be 600 feet (183 m).

IFC D103.4 Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) shall be provided with width and turnaround provisions in accordance with Table D103.4.

IFC D105.1 Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet (9144 mm), approved aerial fire apparatus access roads shall be provided. For purposes of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater.

IFC D105.2 Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet (7925 mm), exclusive of shoulders, in the immediate vicinity of the building or portion thereof.

IFC D105.3 At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet (4572 mm) and a maximum of 30 feet (9144 mm) from the building and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the fire code official.

IFC D106.1 Multiple-family residential projects having more than 100 dwelling units shall be equipped throughout with two separate and approved fire apparatus access roads. Exception: Projects having up to 200 dwelling units may have a single approved fire apparatus access road when all buildings, including

nonresidential occupancies, are equipped throughout with approved automatic sprinkler systems installed in accordance with Section 903.3.1.1 or 903.3.1.2.

VOM 26-146 (a) Required. Newly constructed commercial buildings and residential buildings containing three or more dwelling units, or when access to or within a structure or an area is unduly difficult because of secured openings or where immediate access is necessary for lifesaving or firefighting purposes, the Fire/EMS Chief may require that a key box be installed in an accessible location. The key box shall be a type approved by the Fire and Emergency Medical Services Department and shall contain those keys found to be necessary to provide emergency access.

VOM 26-176 Where the Village water system is available, and any portion of a commercial or industrial building containing 7,000 square feet or more of gross interior area, or a residential building containing more than two dwelling units and containing 7,000 square feet or more of gross interior area, is set back more than 300 feet from the centerline of the nearest abutting public right-of-way, the owner shall install approved fire hydrants at such owner's expense. The set back distances shall be determined by measuring the travel distance from a municipal hydrant along the centerline of a municipal street or private road suitable for travel by fire apparatus.

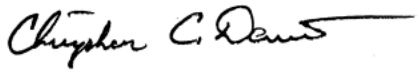
VOM 26-177 (a) One hydrant shall be located at the main entryway to such building or complex. Additional hydrants shall be provided around the perimeter of the building or complex so that no hydrant is more than 400 feet from any other approved hydrant as described in Section 26-176.

VOM 26-181 Fire hydrants shall be marked with the curb painted yellow. The curb shall be painted to produce a 20-foot stripe extending ten feet to each side of the hydrant. Areas without curbs shall have a four inch wide yellow stripe placed on the pavement.

The following items should be noted to assist in the project being completed smoothly and in a timely fashion:

- Village of McFarland is a delegated agent for the State of Wisconsin to perform fire protection and fire alarm systems reviews.
- Before the installation of any fire protection system a work permit is required to be issued by McFarland Fire & Rescue.
- Fire protection and fire alarm system reviews require the submission of architectural plans and would the owner to submit on behalf of the sprinkler and fire alarm contractors.
- Any privately owned piping including underground mains and laterals that are associated with or supply fire sprinkler systems require to be reviewed and inspected by McFarland Fire & Rescue before being concealed by building finishes or ground.
- Approval of the fire sprinkler system will require a flow test witnessed by McFarland Fire & Rescue within 1 year prior to the submission of plans for approval.
- The display of addresses for Lots 1, 10 and 11 may require additional signage at Devil's Lake Way. We would recommend reviewing with building inspection and McFarland Fire & Rescue Department before requesting occupancy inspections.

Sincerely,



Christopher C. Dennis, Chief
Fire & Rescue Department
Village of McFarland

CC:
McFarland Fire & Rescue Department Prevention
McFarland Community Development
McFarland Public Works

VILLAGE OF
McFarland

SUMMARY SHEET

MEETING DATE: **Tuesday, September 16, 2025**

SECTION: **Business**

DEPARTMENT: **Community Development**

CONTACT: **Andrew Bremer, Comm & Eco Dev Director**

AGENDA ITEM: **Public hearing on Plan Commission Resolution 2025-01, a resolution approving a Planned Development Detailed Plan for Phase I Development on Lot 18 of the Sperle Corners Plat for purposing of constructing a 40-unit apartment building.**

PREVIOUS ACTION:
January 21, 2025 - Plan Commission preapplication meeting #1
February 19, 2025 - Plan Commission preapplication meeting #2
February 26, 2025 - Lakestone Properties held their own neighborhood meeting at the Municipal Center
March 18, 2025 - Plan Commission preapplication meeting #3
May 20, 2025 - Plan Commission held public hearing on request for rezone and preliminary plat review.
June 16, 2025 - Plan Commission recommended to Village Board approval Ordinance 2025-07, an ordinance rezoning the property from A1 Agricultural Transition to PD Planned Development General Plan Approved
June 24, 2025 - Village Board adopts Ordinance 2025-07.

ISSUE SUMMARY:
Lakestone Properties is requesting approval of a Planned Development District Detailed Plan for Phase I of Sperle Corners, located at parcel #0610-024-9691. Resolution 2025-01 is a resolution for approval of Phase I construction for Building #1 only, the westernmost apartment building on Lot 18, network stormwater retention, and mass grading on the site for future phases. Building #1 is a three-story, garden-style, 40-unit apartment with a mix of efficiency/studio units, one-bedroom, and two-bedroom units. Note that Unit A-E on the site plan identifies the unit's floor plan design style and not the room number for the buildings. Building #1 includes a fitness room, lobby, elevator, and stairwells at opposite ends of the building. Phase I includes underground and surface parking, landscaping, and exterior lighting improvements for Building #1. Phase I also includes construction of the dedicated stormwater retention basin on Outlot 1 and Lot 18, which will also serve future Phases on Lot 18. Phase I also includes construction of Devils Lake Way and related public utility construction within the right-of-way.

Review Procedures for Planned Development District Rezoning and Plat
Per Sec. 62-68(c) Statement of Purpose of the Zoning Code, *"the Planned Development District is established to provide a voluntary regulatory framework designed to encourage greater variety and flexibility in land development while achieving substantial compliance with the*

Village Land Use Plan and basic intent of the zoning ordinance and land uses beneficial to the Village. Such district is also established to promote the maximum benefit from coordinated area site planning, including diversified location of structures and mixed compatible uses, and to provide for safe and efficient systems for pedestrian and vehicular traffic, attractive recreation and landscaped open spaces, and economic design and location of public and private utilities and community facilities. Within this district are allowed the diversification and variation in the bulk and relationship of uses, structures and spaces in developments planned as comprehensive and cohesive unified plans and projects."

Per Sec. 62-67 of the Zoning Code, a Planned Unit Development (PUD) consists of two parts, a General Plan and a Detailed Plan. The General Plan establishes the uses of the property, total residential units, the general location of proposed streets, stormwater basins, public parks, building dimensions and stories. A Detailed Plan establishes the specific architectural character and design of each building, the dimensioned yards between buildings or structures and lot lines, final location and dimensions of vehicular and pedestrian facilities, including dimensioned streets walkways, access driveways, off-street parking, refuse receptacle areas, utility plans (water, sewer, storm sewer, lighting), and landscaping. A General Plan was adopted by the Village Board adoption of Ordinance 2025-07, PD Planned Development - General Plan Approved. The second stage of this procedure continues the two-stage approach. The Plan Commission is required to hold a separate public hearing on the Detailed Plan and will have final approval authority for the Detailed Plan. Action on the agenda item will be scheduled for the October 21, 2025 Plan Commission meeting.

Existing Property & Neighborhood Conditions

- Property Size: 17.92 acres (780,586 square feet), including Elvehjem Road and CTH AB right-of-way.
- The property is within the Village's urban service area with public water and sanitary sewer utilities located adjacent to the west lot line.
- Current Use: Undeveloped farmland
- Current Zoning: PD Planned Development General Plan Approved
- Adjacent Uses:
    - An agricultural drainage ditch follows the west and north property line. An existing public bike and pedestrian trail borders the property's perimeter along the west and north lot lines. This trail connects the Lower Yahara River Trail to Rosewood Fields Subdivision.
    - North - Parcel #061002495301 is a 15.7-acre lot, used as farmland and open space (wetlands). The parcel is zoned A1 Agricultural Transition. Further north is the Rosewood Fields Subdivision, currently in the final phase of its construction. The subdivision is zoned PD Planned Development and includes 117 dwelling units. This subdivision includes 100 detached single-family homes and 10 zero-lot line duplex units.
    - East - The parcel wraps around 2921 County Highway AB, a ~0.9-acre lot with a single-family home located in the Town of Dunn, zoned SFR-1 under the Dane County Zoning Code. Lakestone Properties owns this home. East of CTH AB is

3418 and 3408 Elvehjem Road, located within the Village of McFarland. The property is mostly undeveloped open space. The 22.3-acre lot is zoned A1 Agricultural Transition and is proposed for a small business park under the recently approved Elvehjem Acres-Bliffert Lumber Predevelopment Agreement.

- West - Properties to the west include a variety of residential properties in the Park View Estates subdivision, separated by a 50-foot-wide Village parcel containing an existing recreational trail that connects to the Lower Yahara Trail to the Rosewood subdivision to the north. The existing residential properties are composed of single-family homes, duplexes, and townhomes. The mentioned properties include zoning within districts: R1, R-1A, R-2, R-3, and PD Planned Development (Skaalen Village).
- South - To the south are two lots, 2891 County Highway AB, a 3.4-acre lot with a single-family home zoned RR-2 (Dane County) and a 36.6-acre lot used for farmland zoned FP-35 (Dane County). Both lots to the south are located in the Town of Dunn and privately owned.

Phase I Building and Site Characteristics

The proposed Phase I construction includes Building #1, a three-story garden-style 40-unit apartment building at the southwest corner of Lot 18. Below are the characteristics of Building #1:

- Residential Units Composition: 10 efficiency/studio units, 12 one-bedroom units, and 18 two-bedroom units for a total of 40 units.
  - Unit Styles A and D are two-bedroom & two-bathroom apartments.
  - Unit Styles B and E are one-bedroom & one-bathroom apartments.
  - Unit Styles C are Studio/Efficiency apartments.
- Parking. The basement shows 37 underground parking stalls (1 ADA) and 34 surface parking stalls (2 ADAs) for a site total of 71 parking stalls. For Phase I, the ratio of parking stalls to units is 1.78.
- Landscaping. The landscaping plan is found on Sheet C-5. Staff comments on the Landscaping Plan are included in the section below, Sec. 62-67(4).
- Lighting. The lighting plan will utilize 90-degree cast down full light cutoff fixtures in the surface parking lot. There will be wall-mounted cast-down lighting fixtures around the building's exits and entrances, including underground parking.
- Other Site Amenities
  - The underground parking garage includes 12 bike racks, dumpsters and the building's mechanical room
  - Each unit will have an in-unit washer and dryer
  - A fitness room on the first floor adjacent to the lobby
  - A centrally located elevator with stairwells on both sides of the building

Conformance with Zoning Requirements

Under Sec. 62-67(i)(2) the Village Plan Commission shall determine whether the plan complies with the standards set forth in and 66-67 and is in general conformance with the approved

Planned Development General Plan. In Staff's opinion, the proposed Detailed Plan is in general conformance with the General Plan approved under Ordinance 2025-07, which identifies Building #1 within the southwest corner of Lot 18. For Lot 18, the General Plan follows similar R-3 zoning bulk dimensions with minor differences. The Detailed Plan states Building #1 will meet the standards established in the PD General Plan Approved.

Sec. 62-67(a)(3) PD Planned Development District Off-street parking and loading. Per Sec. 62-67(a)(3) there are no prescribed requirements for the number of off-street parking spaces; however, consideration should be given to the off-street parking requirements of the Zoning Code. The proposed Phase I development includes a total of 71 parking stalls, 37 underground and 34 above ground. Per Sec. 62-172(j) Required off-street parking spaces for residential properties, the required parking minimums depend on the residential unit type (1 space/dwelling unit for Efficiency, and 2 spaces/one-bedroom and two-bedroom units). From the unit mix described above, the total required parking minimum is 70 parking stalls. This standard has been met.

Sec. 62-67(a)(4) PD Planned Development District Standards
The applicant's submittal includes responses to the standards provided in the Zoning Code. Staff review of the Applicant's responses to standards 1-8 of Sec. 62-67(a)(4) are satisfactory. Below are comments for (d), (f)(1), and (j).

- (d) Review of the plant list on Sheet C-5 shows three additional points for the 13 Gold Drop Potentilla, (GDP) under the Points Supplied; however, the point total does not include three additional points and not shown on the Landscaping Plan. The Total Points Supplied is correct. The applicant's response to this standard includes meeting the Village's landscaping minimum for R-3 District for Lot 18. The following table is the calculation of the landscaping points required for Phase I. The total points required for Phase I for R-3 districts is 1,721. The total points provided for Phase I provides 1,403 total landscaping points. This is a deficit of 318 points. Staff notes that the total landscaping point does not include trees to be planted along Devils Lake Way which may add 25 or more trees, potentially 600-1,000 points depending on tree species. Additionally, future phases on Lot 18 could supplement the deficit. While PD District's do not have a minimum requirement, they often adopt a standard similar to the R-3 district for residential developments. It is the intent of the applicant to try and achieve that minimum, while not always required. In Staff's opinion, the landscaping plan is satisfactory for Phase I.

	Site Measurement	R-3 District requirement	Points Required
Building Foundation	363	50 per 100 ft	181
Gross Floor Area	47,250	20 per 1,000 sq ft	945
Street Frontage[1]	519	50 per 100 ft	260
Paved Area	33,535	100 per 10,000 sq ft	335
		Total Landscaping Points Required	**1,721**

- [1] Street frontage includes 213.8' on Devils Lake Way and ~305' along Elvehjem Road; Phase II will continue from this point along Elvehjem Road.
- (f)(1) The public park dedication is included on Outlot 2. This is a partial dedication for the entire subdivision. The balance of the required parkland dedication requirements for Sperle Corners will be paid through fees in lieu of parkland dedication at the time building permits are submitted. In addition, Lakestone will pay a park improvement impact fee per unit at the time building permits are submitted. Lakestone is deferring construction of improvements within Outlot 2 to the Village (i.e. the Village will plan, design, bid and construct improvements within the park). The final development agreement will provide a timeline for completion of these improvements, likely to coincide with completion of Phase 1.
- (j) The Phasing Map identifies areas to be developed as part of Phase I. This includes development of Lot 18 and Outlots 1 and 2. The only building to be constructed is Building #1 on Lot 18; however, massing grading within the plat will occur as part of Phase 1 to make other lot shovel ready. Other areas inside the area include the construction of Devils Lake Way, and construction of the stormwater retention network.

PD Planned Development District General Plan Approved
The description of the Detailed Plan in 1) states "*Mix of 1, 2, and 3 bedroom units with individual washers and dryers and private balconies.*" From the floor plans submitted for all three buildings, there are no 3-bedroom units shown. However, future phases for Lot 18 and Lots 1-17 may include 3-bedroom units. Information on Building #1's setbacks can be found on Sheet C-2. South along Elvehjem Road, the building is tapered slightly and setback 27' at the southeast corner, 26.2' near its center. Along Devils Lake Way, the side yard setback 28.3'. A 30' ramp with rails connects the 5' concrete sidewalk from the surface parking lot to the building, a total of 35'. On Sheet A201.1, Building #1's elevation provides measurements of the building's height. The description of the PUD-GP Standard establishes 33' eave, the proposed building has an eave of 32'-1/2". The standard for the ridge (highest point) is 51', the proposed building is 49'-7.5". The proposed Building #1 is within the PUD-GP standards established.

Department Comments
The Village Engineer/Public Works Director did not have any comments or concerns specific to Phase 1 of Lot 18. The Fire Chief staff report is included in the packet. The primary concerns related to Phase 1 is providing a 26' wide aerial access drive, turn-around, and speed hump (not speed bump).

Public Comments
The Department did not receive any written comments prior to the publication of this packet.

Next Steps
Additional planned meetings are highlighted below. Village staff will work with the Developer on additional plan edits to address initial staff comments.

- September 17 Public Works & Utilities meeting. Review and recommendation of the

street and utility plan within the Final Plat.

- October 21 Plan Commission meeting. Recommendation on Final Plat, and approval of Detailed Plan for Phase 1 of Lot 18.
- October 28 Village Board meeting. Approval of Final Plat and Development Agreement

FINANCIAL/BUDGET IMPACT:

The June 16, 2025 Plan Commission meeting packet provided the previous estimates on public improvements and buildings. "*The estimated value of Sperle Corners is as follows: $600,000 per duplex (both units of one building), $1,000,000 per 4-unit, and $4,500,000 per 40 unit building for a total estimated value of $21,700,000.*" These assessed values would translate to approximately $350,000 per year in property tax payments at full build out.

The draft final plat includes 15,342 sq ft of dedicated public parkland space along Devil's Lake Way (Outlot 2). This is a partial dedication which will be credited toward the remaining fees in lieu of parkland dedication impact fee as shown below. Per Sec. 56-173(a) Required land dedication, the standard for multifamily dwelling units, including apartments and duplexes, is 1,463 square feet per dwelling unit.

Estimated impact fees for Phase I with 40-units as of 2025 rates:

- Fees-in-Lieu of Parkland Dedication (as adjusted for partial parkland dedication and trail development) = ($2,873.55 per unit >> $114,942)
- Park Improvement Fee = ($2,182.13 per units >> $87,285.20)
- Public Safety Center Fee = ($1,673.00 per unit >> $66,920.00)
- Library Impact Fee = ($431.00 per unit >> $17,240.00)
- Public Water Well Fee = 6-inch and above, $55,850.00*
- Public Water Tower Fee = 6-inch and above, $18,650.00*

**Assuming 6" meter is used.*

Estimated Phase I Total Impact Fees due: $360,887.20. Values are subject to change based on the actual rate at the time a building permit is submitted and the terms of the final approved development agreement. The developer would be responsible for all project costs, including payment of applicable building permit, impact fees, and construction of street and utilities. As a part of the final plat approval, the Village requires a development agreement and the developer will be required to provide a surety bond for the proposed improvements.

VILLAGE PLAN REFERENCE:

Comprehensive Plan, 2017

The Village Comprehensive Plan Future Land Use Map identifies the proposed development site for future "Neighborhood" uses and wetlands. Page 33 of Volume 2, describes that *areas planned for "Neighborhood" development include a range of housing choices compatible with the Village's current and desired character are permitted, along with parks and smaller-scale institutional uses like senior housing and churches....see the Village's separate East Side Neighborhood Plan for further conceptual guidance for future land uses in this area."* Figure

4.1 lists the Typical Implementing Zoning Districts in Neighborhood areas include R-1 Residence District, R-2 Single- and Two-Family Residence, R-3 General Residence, R-E Elderly Residence, PD, PD-I Planned Development. The Applicant's approved Planned Unit Development General Plan includes a range of housing choices and a public park.

East Side Plan, 2023

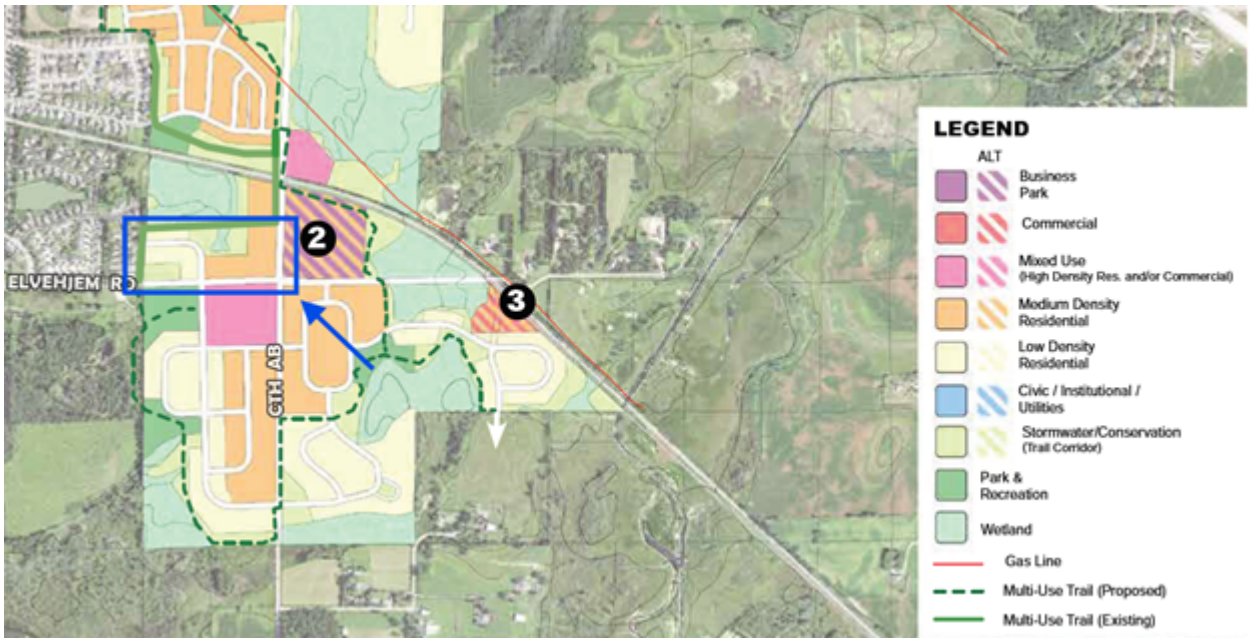
The 2023 East Side Master Plan Concept (Chapter 4) identifies multiple uses for the property (see image below). The uses include Low Density Residential, Medium Density Residential, Stormwater/Conservation, and Wetlands. The following land use category descriptions are as provided. As stated, "*these policies shall be enforceable through the generalized future land map in the Village's Comprehensive Plan (Chapter 4, Page 65)*."

- Stormwater & Conservation (SC) *"areas include conservation areas, cemeteries, stormwater management, greenways, major public trails, and land recommendations for preservation."* The location of wetlands shown in the 2023 East Side Plan was based on available WDNR aerial data. A wetland delineation was completed for the property in October 2022 that showed considerably fewer wetland areas than the WDNR aerial data. The Village requires a minimum 75-foot building setback from wetland boundaries. The Final Plat, Street and Utility Plan and Stormwater Management Plan includes additional detail on wetland and stormwater management areas.
- Low Density Residential (LDR) *primarily consists of single-unit detached homes with strategically located 2-unit attached, 3-/4-unit buildings (triple and fourplex, respectively). Typical net densities should average 2-5 units per acre* (throughout the entire neighborhood plan)*, with individual developments up to 10 units per acre. Three and 4-unit structures are most appropriate as a transition use when facing or next to more intensive institutional, residential or commercial uses.* Lots 1-17 are generally aligned with the area mapped as LDR in the 2023 East Side Plan. These lots have net densities ranging from 2.0-8.9 dwelling units per acre with a total net density of 6.1 dwelling units per acre, below the maximum 10 units per acre for individual developments. The 2023 East Side Plan does not mandate that all areas mapped LDR must include single-family dwelling units. The context of each development area should be considered as well. While the Final Plat does not include any single-family homes, it does continue the existing pattern of duplex developments to the west before transitioning to 4-unit buildings and then apartment buildings. In addition, the existing duplex residential buildings on Perrot Place are more than 150 feet from the proposed building footprints on Lots 8 and 9. Physical barriers from the existing bike and pedestrian path, existing tree line, and wetlands, create added separation between the existing residential homes and the proposed dwelling units.
- Medium Density Residential (MDR) *"includes detached single-unit homes and attached housing units such as duplexes, triplexes, townhomes, small and mid-sized multi-unit buildings. Developments in MDR areas should provide the greatest diversity of housing unit types, forms, and prices. Typical net densities should average 5-15 units per acre* (throughout the entire neighborhood plan)*, with individual developments up to 20 dwelling units/acre...densities greater than 20 DU/AC for legally restricted affordable housing units."* The net density of Lot 18 is 15.9 DU/AC, below the maximum 20 units

per acre for individual developments.

Page 62 of Chapter 4 of the East Side Plan states that *"while the general pattern of land uses and major streets shown in this concept should be reflected in actual development, it is recognized that more detailed elements within the concept, such as the locations of minor streets, location/sizing of stormwater management areas, precise boundaries of land uses, or the specific dimensions of blocks, are only concepts."* Along the west lot line, the concept includes similar scale housing types to the existing neighborhood to the west, transitioning to larger residential type buildings with higher unit counts to the east along CTH AB, consistent with the intent of the 2023 East Side Plan. In Staff's opinion, the Phase 1 Detailed Plan provides a consistent layout with the intent of the Master Plan Concept from the 2023 East Side Plan and is consistent with the prior approved General Plan.

East Side Master Plan Future Land Use Map.



Housing Needs Assessment, 2023

This plan identified a shortage of renter-occupied housing units in the Village, including market rate apartments. The approved General Plan includes 147 new units, ranging from duplex, 4-unit multifamily buildings, and three 37-40 unit garden style multifamily buildings. The Housing Needs Assessment provides low and high projections on rental housing demand by 2030 based on 2020 data. Population projections and target vacancy rate for low projections show the total rental units needed by 2030 is 117, or approximately 15 net new units constructed per year. For high projections, a total of 293 rental units is needed by 2030, or approximately 37 net new units constructed per year. For reference, no new apartment units have been built in McFarland in 2023 or 2024 since the Housing Needs Assessment was completed. The plan calculates a 0.0% vacancy rate between rental and owner-occupied units. This would indicate that there is a high demand for additional housing opportunity for both rental and owner-occupied units. Typically,

a 5-7% vacancy rate would indicate a healthy range for rental units, and 2% for owner-occuped units. The plan also identified an under supply of rental units at 80% or more of the County median income. Housing Goal #1 (page 67) states "*increase the supply of ownership and rental units*." The concepts within Housing Goal #3, create healthy neighborhoods is also applicable including "*varied housing types, size and price points, including both owner- and renter-occupied units. This enables more people to stay in the neighborhood through shifting housing needs, and it limits future instability due to changes in the housing market.*" The developer has indicated that Lots 3-16 will become zero lot-line owner-occupied duplexes.

Non-binding County and Regional Plans:

Dane County Regional Housing Strategy
From September 2022 to August 2023, an 80-person Housing Advisory Committee (HAC), including representatives from McFarland, joined together through a strategic planning process to create the Dane County Regional Housing Strategy (RHS). The RHS Action Plan identified five housing priorities to guide future efforts around housing:

1. Increase the number of housing units attainable to low-income and moderate-income households.
2. Increase the overall number of housing units.
3. Provide housing, resources and protections for the most vulnerable populations.
4. Rehabilitate and preserve affordability of existing housing.
5. Provide more pathways to homeownership.

Capital Area Regional Planning Commission, 2050 Regional Development Framework, 2022
The 2050 Regional Development Framework is a nonbinding regional advisory land use guide for the Dane County region. This plan identifies six strategies to guide regional development patterns:

1. Focus growth in centers and along corridors.
2. Prioritize growth in already developed areas.
3. Plan areas for quality business growth.
4. Plan complete neighborhoods.
5. Preserve stewardship areas.

ORDINANCE REFERENCE:
Chapter 56. Subdivisions
Sec. 62-4(d). Planned residential development, dwelling
Sec. 62-9(d). Number of residential buildings on a zoning lot
Sec. 62-67. PD Planned Development District
Sec. 62-68(c). Statement of Purpose, PD Planned Development District

BOARD, COMMISSION OR COMMITTEE RECOMMENDATION:

VILLAGE OF
McFarland

This item is for public hearing and discussion only. Action on the Detailed Plan will be considered at the October 21st Plan Commission meeting.

ATTACHMENTS:

1. 9.16.25 - Rezone - Sperle Corners - Lakestone - phase 1 detailed plan- newspaper
2. PC 2025-01 - PD Detailed Plan Phase I - Sperle Corners
3. Sperle Corners Phase 1 PUD Detailed Plan_08.05.25(rev 08.28.25)
4. Sperle Corners PUD - Village Engineer Letter of Review_09.08.2025
5. Sperle Corners PUD Detailed Plan - Fire Chief Letter of Review_09.05.2025

Please publish in the
Leader Independent on
August 28, 2025 and September 4, 2025

VILLAGE OF MCFARLAND
NOTICE OF PUBLIC HEARING
BEFORE THE PLAN COMMISSION

NOTICE IS HEREBY GIVEN that there will be a public hearing before the Plan Commission on Tuesday, September 16, 2025 at 7:00 p.m. in the Community Room of the Municipal Center, 5915 Milwaukee St., McFarland, Wisconsin, at which time interested parties and citizens shall have an opportunity to be heard concerning the following:

> Plan Commission Resolution 2025-01, a Resolution approving a Planned Development District Detailed Plan for Phase 1 of the proposed Sperle Corners Subdivision located in the Village of McFarland on parcel #154/0610-024-9691-1 lands at the northwest corner of Elvehjem Road and County Highway AB. Lakestone Properties and Management LLC is proposing to construct a forty-unit apartment building.

A complete copy of the applicant's application is available for review online at www.mcfarland.wi.us/pendingrequests or at the Village of McFarland Municipal Center, Community & Economic Development Department, 5915 Milwaukee Street, McFarland, WI 53558 (Monday-Friday, 8:00 a.m. to 4:30 p.m.).

Residents wishing to attend the meeting can do so in-person at the Municipal Center or via Zoom by visiting https://us02web.zoom.us/s/85755749643 or Telephone: Dial (for higher quality, dial a number based on your current location): US: +1 (312) 626-6799 Webinar ID: 857 5574 9643. Please Note: Virtual attendance is offered as a convenience, but technical difficulties beyond the Village's control may prevent or limit its availability at any meeting. The public is encouraged to attend the meeting in person to assure full access to the proceedings.

If you cannot attend the meeting, you may submit your written comments to the Plan Commission by email to community.development@mcfarland.wi.us or by mail to Community Development Department, Village of McFarland, P.O. Box 110, McFarland, WI 53558-0110. Submission must be received no later than the Wednesday prior to the meeting date to be included in the packet.

PLAN COMMISSION
RESOLUTION NO. 2025-01

A RESOLUTION APPROVING A PLANNED DEVELOPMENT DETAILED PLAN FOR PHASE I DEVELOPMENT ON LOT 18 OF THE SPERLE CORNERS PLAT

WHEREAS, on June 24, 2025, the McFarland Village Board approved Ordinance No. 2025-07 rezoning parcel 154/0610-024-9691-1 from A1 Agricultural Transition to the Planned Development-General Plan Approved:

WHEREAS, Lakestone Properties, the Developer, has submitted the Sperle Corners Final Plat to subdivide parcel 154/0610-024-9691-1 for purposes of developing 147 residential units in conformance with the Planned Development General Plan; and

WHEREAS, the Final Plat creates Lot 18 of Sperle Corners for the purpose of constructing three multifamily apartment buildings consisting of two 40-unit apartment buildings (Buildings #1 and #2) and one 37-unit apartment building (Building #3); and

WHEREAS, the Developer has submitted a Planned Development Detailed Plan for Lot 18 Phase 1 Development (Phase 1 Detailed Plan), attached hereto as Exhibit A, for construction of one 40-unit apartment building (Building #1) in compliance with all the requirements of Section 62-67(i)(1) of the McFarland Municipal Code sufficient for the Plan Commission to complete its review; and

WHEREAS, on September 16, 2025, the McFarland Plan Commission held a public hearing on this resolution, preceded by a Class Two Notice; and,

WHEREAS, the Plan Commission has reviewed the Phase 1 Detailed Plan as required by Section 62-67(i)(2)a of the McFarland Municipal Code, and has determined that the Detailed Plan complies with the standards set forth in Section 62-67(i)(1) and is in general conformance with the approved General Plan for the Development;

WHEREAS, the Plan Commission has determined that the Phase 1 Detailed Plan is consistent with the General Description of Land Uses Allowed within the Village of McFarland Comprehensive Plan for the Neighborhood Future Land Use Category as amended by adoption of the 2023 East Side Plan (Ordinance 2023-03);

NOW, THEREFORE, BE IT RESOLVED by the Plan Commission of the Village of McFarland as follows:

1. Section 62-62(a) of the McFarland Municipal Code and the Official Zoning Map are hereby amended so that the following described real estate is hereby rezoned from PD Planned Development General Plan Approved to Planned Development Detailed Plan Approved:

   PARCEL:

PART OF THE S ¼ OF THE SE 14 OF SECTION 2, TOWNSHIP 6 NORTH, RANGE 10 EAST, VILLAGE OF MCFARLAND, DANE COUNTY, WISCONSIN, being more particularly described as follows:

COMMENCING at the Southeast Corner of said Section 2; thence, along the South line of said Southeast one-quarter, South 87°41'38" West, 737.76 feet;
thence North 02°04'22" West, 71.41 feet to the **POINT OF BEGINNING**;
thence continuing North 02°04'22" West, 213.73 feet;
thence North 88°36'17" East, 307.44 feet;
thence South 01°23'43" East, 207.07 feet;
thence South 87°21'28" West, 304.98 feet to the **POINT OF BEGINNING**.

The above-described parcel contains 64,421 sq. feet or 1.479 acres, more or less, and is SUBJECT TO easements and agreements, if any, of record and/or fact.

2. The Village Attorney shall record in the Office of the Register of Deeds of Dane County a certified copy of this resolution as well as a copy of the approved Phase 1 Detailed Plan.

3. The Zoning Administrator is hereby directed to label these changes on the Official Zoning Map of the Village following recording of this Resolution.

The above and foregoing Resolution was duly adopted by the Plan Commission at a regular meeting held on _____, 2025

VILLAGE OF MCFARLAND PLAN COMMISSION

_____
Stephanie Brassington,
Village President/Plan Commission Chair

Attest:

_____
Cassandra Suettinger,
Village Clerk/Treasurer

VILLAGE OF McFarland
Community & Economic Development

Plan Commission Application – 2025

~Application must be completed in full~

Applicant	Lakestone Properties and Management, LLC	Applicant's Agent	Brett Riemen
Property Owner (if different)	Diana Sperle & Mary Teppo	Name	
Address		Address	5910 Main St, McFarland WI 53558
Email		Email	brett@lakestoneproperties.com
Phone #		Phone #	608-838-1800

Parcel No(s). _____ **Type of Proposal – Please check boxes below that apply**

Requires Public Hearing (Class One)	FEES	Requires Public Hearing (Class Two)	FEES	Public Hearing Not required	FEES
☐ Preliminary Plat	$500+AF	☐ Conditional Use	$425+F	☐ Annexation	At cost
☐ Preliminary Plat (reapplication)	$500+BF	■ Rezoning (map)	$475+F	■ Dev. Agreement Including Addendums	$400+F
☐ Certified Survey Map	$300+FG	☐ Zoning Amendment (text)	$475+F	■ Final Plat	$500+CF
☐ Condominium	$300+EF	☐ USA/MMSD Annexation	At cost	☐ Final Plat (reapplication)	$400+DF
☐ Comprehensive Plan Amendment	$500+F			■ Site/Design Review	$400+F

+ = Plus publication and notification charges

A = Plus $50.00 per lot

B = Any preliminary plat which has previously been reviewed/revised within the last 36 months

C = Plus $50.00 for each lot within the final plat

D = Any final plat which has been previously reviewed/revised within the last 36 months

E = Plus $40.00 for each unit shown

F = Plus actual legal, engineering and financial consulting costs incurred by the Village

G = Plus $25.00 per lot for two or more lots.

Escrow Deposits (covers costs for outside consultants; e.g., engineers, attorneys, etc.)	
☐ R-E, R-3 & PD (up to 50 acres)	$5,000
☐ R-E, R-3 & PD (greater than 50 acres)	$10,000
☐ Site/Design Review (less than 2,000 sq. ft.)	$1,000
☐ Site/Design Review (2,000 sq. ft. or more)	$2,000
■ All Plats including condominiums	$5,000

Nature of the development proposal: Must provide address of proposed development, legal description, current zoning and description of proposal/request. (Attach additional papers if needed)

Development of Lot 18, Phase 1 Apartment building, associated drive aisles and parking lots in conformance with the approved planned development.

PLEASE READ AND SIGN AT THE BOTTOM ON THE REVERSE SIDE

Has this specific proposal been previously discussed or acted upon by the Plan Commission?

■ **YES** ❑ **NO (If "yes" state the nature and the date(s) of the previous application.)**

Planned Development approved June 6, 2025

Submittal Requirements: One (1) hard copy 8 ½ x 11, except site plan sheets which should be 11 x 17, and one (1) electronic (pdf) copy. A completed in full application can be submitted to the Community Development Department (5915 Milwaukee Street, McFarland, WI 53558, community.development@mcfarland.wi.gov), with fees included with submittal **by *NOON of the deadline day**, according to the schedule below.

Village of McFarland Plan Commission 2025 Schedule

The Village of McFarland Plan Commission normally conducts meetings on the third Tuesday of each month, unless otherwise noted below at 7:00 p.m. at the McFarland Municipal Center in the Community Room. To ensure adequate time for staff review, and publication of legal notices, potential agenda item materials are required to be submitted per the schedule listed below.

*Submittal Deadline Noon on:	For Scheduled 2025 Meeting date of:
December 10 (2024)	January 21
January 7	February 18
February 4	March 18
March 4	April 15
April 8	May 20
May 5	June 17
June 3	July 15
July 8	August 19
August 5	September 16
September 9	October 21
October 7	November 18
November 4	December 16
December 9	January 20, 2026

Applications requiring a public hearing will be scheduled for a hearing according to the schedule above. If there is written or verbal public opposition submitted as part of the public hearing the Plan Commission will postpone action on the application to a subsequent meeting so that concerns can be analyzed if concerns can't be addressed during the hearing. If there is no public opposition and no unresolved issues by Village Staff or Plan Commission members, the Plan Commission may take action on the application at the same meeting as the public hearing. Applicants are encouraged to contact the Community & Economic Development Director for a pre-application meeting to review the project and submittal requirements prior to submitting an official application.

Acknowledgements:

- I understand failure to provide required materials/information/fees by the submittal deadline can result in this application being withdrawn for consideration by the Plan Commission. Materials submitted for review after the submittal deadline date, or incomplete submittals, may be held over until the next scheduled meeting.
- I understand any fees not paid for (i.e. legal notices, mailings, consultant review costs, etc.) will require any permits to be withheld until all payments are made in full. In addition, all application fees are non-refundable.
- I understand Plan Commission applications requiring a Public Hearing may not be acted on the same night as the Public Hearing.

X _____ 8/5/25

Signature of Applicant/Agent Date

Site and Design Plans

Check List

Date received: _____

Subject property address: Sperle Corners Lot 18

Landowner's name: Lakestone Properties, LLC

Landowner's address: 5910 Main St, McFarland WI 53558

Landowner's phone/fax: 608-838-1800

Landowner's email: brett@lakestoneproperties.com

Agent's name: _____

Agent's address: _____

Agent's phone/fax: _____

Agent's email: _____

x A. Title Block that indicates name and address of the current property owner.

x B. Name and signature of the designer.

x C. Date of original plan and latest date of revised plan.

x D. North arrow and graphic scale. Said scale shall not be smaller than 1 inch equals 100 ft.

x E. Existing zoning PD Proposed rezoning _____yes _____no

x F. All property lines, and existing and proposed right-of-way lines with bearings and dimensions clearly labeled.

x G. All required building setback lines.

x H. The location of all access points and connections to public streets, off-street parking, and loading areas on the subject property including a summary of the number of parking stalls, accessible parking stalls, and labels indicating the dimension of such areas.

x I. All existing and proposed building structures and paved areas, including walks, drives, decks, patios, balconies, fences, retaining walls, utility poles, exterior utility and mechanical equipment, and any accessory structures.

x J. Existing and proposed site and building signage.

x K. Color exterior façade elevations of all proposed buildings including descriptions of materials and colors.

N/A L. The location of all outdoor storage areas; including proposed screening materials and colors.

X M. The location of existing and proposed drainage facilities including stormwater and erosion control plan.

X N. The location and type of any permanently protected green space areas.

X O. The location and elevation of any wetlands or floodplains.

X P. Grading Plan including existing & proposed topography shown at a contour interval of not more than two (2) ft.

X Q. In the legend, data for the subject property:

(1) Lot area

(2) Building area

(3) Paved area

(4) Total impervious area

(5) Landscaping points provided and required for building foundations, gross floor area, street frontage, and paved area.

(5) Building height

(6) Existing zoning, proposed zoning

(7) Number of parking stalls provided and required.

X R. Landscaping Plans including proposed species, quantity and planting size. Refer to Appendix B of the Village's Zoning Code for more information.

X S. Hydrant locations and Fire Department Connection.

X T. Lighting Plans including photometrics and description of fixture types, heights and orientation.

X U. Utility plans, including the location of existing and proposed overhead or underground site utilities, including piping and meter sizes and associate appurtenances.

X V. Existing or proposed easements.

X W. A legal description of the subject property.

General Comments: _____

Note: In addition to Site and Design Permit approval, a building permit from the Village Building Inspector is required prior to the start of construction of any building, fence, or sign.

Detailed Development Plan

Statement of Owners Intent, and
Detailed Plan for Lot 18
Phase 1 Development

8-28-2025

Project:
Sperle Corners Subdivision

Owner:
Lakestone Properties and Management, LLC
Attn: Brett Riemen

Statement of Owners Intent

It is the intent of the Owner to develop the first apartment building on Lot 18 of Sperle Corners in conformance with the previously approved General Plan for Development;

Legal Description

A part of the Southeast one-quarter of the Southeast one-quarter of Section 2, Township 6 North, Range 10 East, Village of McFarland, Dane County, Wisconsin, being more particularly described as follows:

COMMENCING at the Southeast Corner of said Section 2; thence, along the South line of said Southeast one-quarter, South 87°41'38" West, 737.76 feet; thence North 02°04'22" West, 71.41 feet to the **POINT OF BEGINNING**; thence continuing North 02°04'22" West, 213.73 feet; thence North 88°36'17" East, 307.44 feet; thence South 01°23'43" East, 207.07 feet; thence South 87°21'28" West, 304.98 feet to the **POINT OF BEGINNING**.

The above-described parcel contains 64,421 sq. feet or 1.479 acres, more or less, and is **SUBJECT TO** easements and agreements, if any, of record and/or fact.

Existing Site

The Existing Site Plan is included as Sheet C-1 of the plan set and site features are as follows:

1) 15.37 total acres;
2) Currently zoned PD Planned Development.
3) Sloping with 25 feet of fall from the southeast property corner to the drainage ditch and wetlands at the west portion of the property.
4) Wetland boundary has been delineated per Ruekert Mielke October 13, 2022 report.
5) CTH AB is adjacent to the east.
6) Elvehjem Road is adjacent to the south.
7) Devils Lake Way dead ends to the west.
8) Eastern portion of land surrounds an existing residential home.
9) Public sanitary sewer and water main is available to the west at Devils Lake Way.
10) Public water main connection is available at Elvehjem Road.

Description of Detailed Plan for Lot 18 Phase 1 Development

The Detailed Plan proposes the development of Lot 18 with a multistory apartment, associated drive aisles, and parking lots as shown on the General Development Plan included as Exhibit 1. In general, the intent of the Detailed Plan is for the Lot 18 to follow the Village's R-3 Zoning Code regulations, with the exceptions noted in the table that follows. The applicable residential bulk standards for Lot 18 is described in the table under "PUD-GP Standard". The table includes the "R-3 Standard" for informational purposes only. In addition to the minimum principal building setbacks described in the following tables, a 75-foot wetland setback applies to lots as shown in the General Development Plan site plan. The 75-foot setback applies to principal and accessory structures as well as impervious surfaces as required for Environmental Corridor policies of the Capital Area Regional Planning Commission, as administered by the Village of McFarland. Unless otherwise stated within this General Plan, or future approved Detailed Plans, applicable building and zoning requirements shall be those of the Village's Building and Zoning codes, including but not limited to, permitted obstructions in required yards (e.g. flagpoles, overhanging eaves and gutters, etc.), accessory uses and structures, fences, and exterior signage. The buildings and site layout are described as follows:

1) Lot 18 Phase 1 Apartment Building (R-3)
    - One (1) Three-story, 37 unit apartment building;

- Approximately 15,750 square foot footprint, 47,250 gross floor area;
- Approximately 210 feet long;
- Approximately 75 feet deep;
- 40 underground parking stalls;
- Approximately 34 above ground parking stalls are proposed for Lot 18 Phase 1 Development to supplement the apartment building's underground parking and to meet overall parking requirements;
- Mix of 1, 2, and 3 bedroom units with individual washers and dryers and private balconies;

R-3	R-3 Standard	PUD-GP Standard
Minimum Lot Area (sq.ft.)	None	319,800
Minimum Lot Width (ft.)	80	80
Maximum Building Height (ft.)	35	33' Eave, 51' Ridge, 42' Roof mid pointe
Minimum Front and Street Yard Setback (ft.)	25 or 35 (where the garage faces a public street)	20 for Elvehjem and Devils Lake Way, 30 for CTH AB
Minimum Side Yard Setback (ft.)	8 (one story) & 10 (2-story building)	30 (to 2921 CTH AB) & 10 (to all other side lot lines)
Minimum Side Yard Setback both sides combined (ft.)	20	30 (to 2921 CTH AB) & 10 (to all other side lot lines)
Minimum Rear Yard Setback (ft.)	35	35
Minimum Building Separation between buildings on the same lot (ft.)	10	20
Minimum Usable open space per dwelling unit (sq.ft)	500	500
Minimum Lot area per dwelling unit (sq.ft)	5,445 (permitted use) 2,904 (conditional use)	2,175

Planned Development District Standards and Responses

Section 62-67(4) lists the standards shall apply in the review of all general or detailed plans proposed for the Planned Development District. The standards and this submittal responses are as follows:

a) "*The uses proposed in the planned development shall be in general conformance with the Village Comprehensive Plan*". This application includes a proposed use in conformance with future land use map of "Neighborhood", as well as with the 2023 East Side Plan Master Plan Concept of Medium and Low Density Residential.

b) "*The establishment, maintenance or operation of the uses proposed in the planned development shall not substantially impair or diminish the use value and enjoyment of other properties within the neighborhood*". The proposed Detailed Plan will not substantially impair or diminish the use value and enjoyment of the adjacent properties.

c) "*Traffic circulation into and within the development shall be designed to minimize traffic congestion and traffic hazards, provide for the accessibility of all uses and buildings and also provide for the safe and convenient movement of both vehicles and pedestrians*". The 28' to 32' wide Devil's Lake Way extension will provide safe and convenient movement of vehicles and the adjacent sidewalk as well as perimeter bike paths will provide safe movement for pedestrians.

d) "*The planned development shall incorporate environmental design considerations, including the preservation of topography, trees and ground cover, streams and natural bodies of waters, and other significant natural features and control of erosion and runoff in accord with the Village Erosion Control and Stormwater Management Ordinances*". The proposed building is located a minimum of 75' from the delineated wetlands. Stormwater runoff from the development will pass through detention ponds and infiltration ponds. The proposed development will meet Village Erosion Control and Stormwater Management Ordinances. The Landscape Plan will meet Village landscaping ordinances R-3 properties (Lots 18).

e) "*The planned development shall provide for convenient and harmonious groups of buildings, structures and uses; and buildings shall be spaced and sited to ensure adequate safety, light, ventilation and privacy*". The proposed building will be designed with similar materials and architectural style. The existing landscaping will be maintained to maximize privacy to the neighboring properties.

f) *"The following provisions shall apply:"*

1. "*In a planned development for residential use, adequate open space and recreational areas shall be provided in appropriate locations, and all public and common open spaces shall be designed and located to provide safe and convenient access to residents*". The planned development will provide a blend of park dedication and fee in lieu of dedication. An approximately 0.352 acre park area is proposed as shown the General Development Plan, Exhibit 1. The lawn and landscaped areas will provide a common open space that is safe and accessible to residents.
2. "*Planned Development Districts housing impacts on community resources in the same manner as other new development, which are characterized by division of land into lots. In particular, the additional population density places demands upon Village parks and recreation areas. Accordingly, each dwelling unit newly established shall be required to dedicate land or provide fees in lieu of land, in accordance with the procedures set forth in Section 62-64*". The proposed 147 dwelling units will provide $122,946.80 of fees-in-lieu of parkland dedication ($3,073.67 per unit accounting for Outlot 2 dedication), $87,285.20 in Park Improvement fees ($2,182.13 per unit), $66,920.00 in Public Safety Center fees ($1,673.00 per unit) and $17,240 in Library Impact fees ($431.00 per unit). The final impact fees shall be determined at the time a building permit is submitted based on the Village's approved rates.

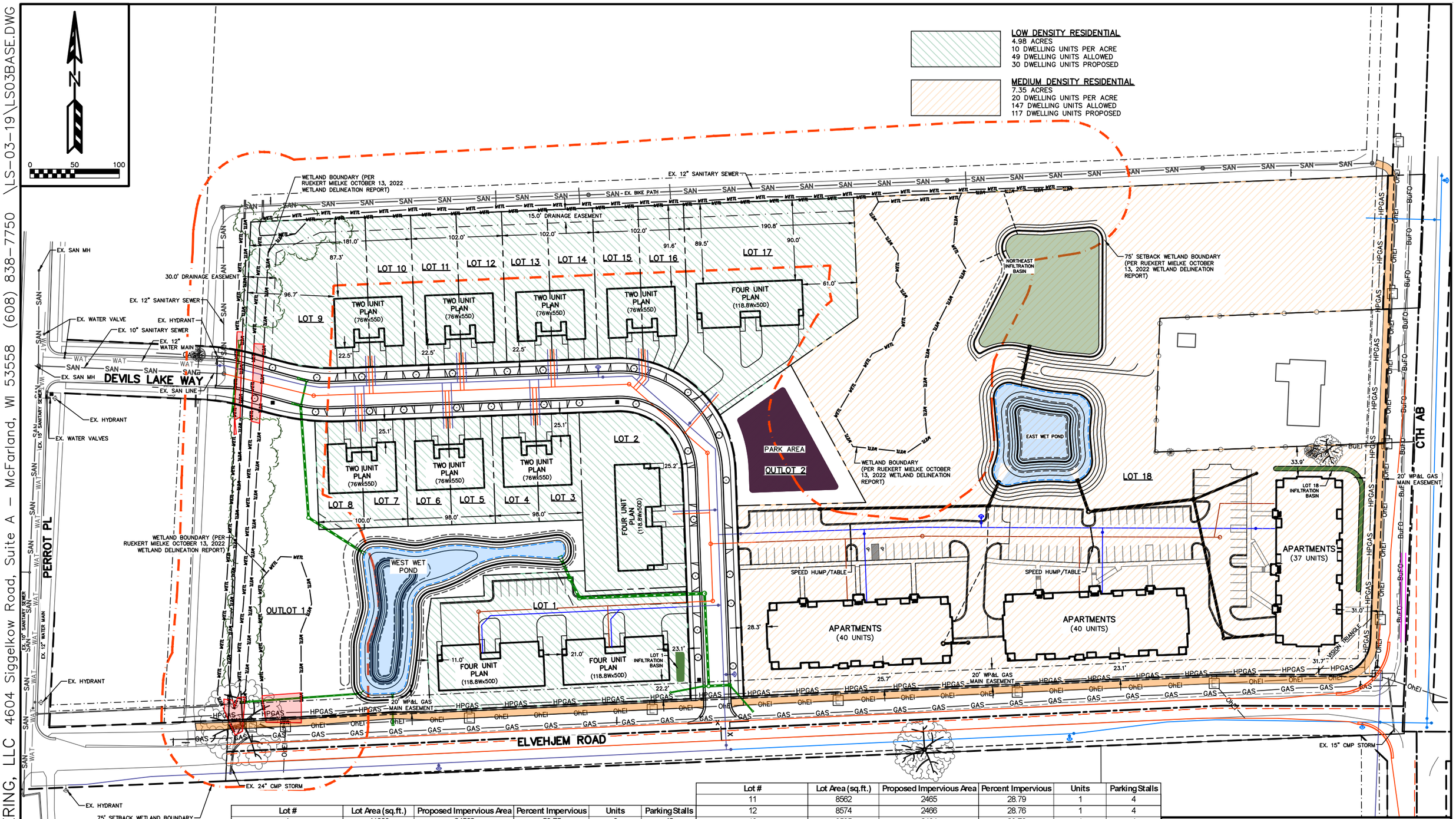
g) "*The planned development will not adversely affect the ability of public agencies to provide school or other municipal services*". The planned development will not adversely affect the ability of public agencies to provide school or other municipal services. This area is planned for future residential development in the Village's 2023 East Side Plan and there is a current declining enrollment within the McFarland School District.

h) "*The width of street rights-of-way, width of paving, width and location of street or other paving, outdoor lighting, location of sewer and water lines, provision for stormwater drainage or other similar environmental engineering considerations shall be based on a determination and the appropriate standards necessary to implement the specific function in the specific situation; provided, however, that in*

no case shall standards be less than those necessary to ensure the public safety and welfare as determined by the Village". The construction will meet Village and State requirements.

i) "*The proponents of a Planned Development District application shall provide evidence satisfactory to the Village Board of its economic feasibility of available adequate financing and that it would not adversely affect the economic prosperity of the Village or the values of surrounding properties*". The applicant feels that this proposal will be a benefit to the Village and not adversely affect surrounding properties. The estimated value of the 40 unit building is $4,500,000;

j) "*The proponents of a Planned Development District shall submit a reasonable schedule for the implementation of the development of the development to the satisfaction of the Village Board, including suitable provisions for assurance that each phase could be brought to completion in a manner that would not result in an adverse effect upon the community as a result of termination at that point*". Construction for the Lot 18 Phase 1 building is anticipated to start in Spring of 2026.



Lot #	Lot Area (sq.ft.)	Proposed Impervious Area	Percent Impervious	Units	Parking Stalls
1	41008	24502	59.75	8	42
2	21509	8047	37.41	4	16
3	5896	2525	42.83	1	4
4	5885	2515	42.74	1	4
5	5885	2514	42.72	1	4
6	5885	2515	42.74	1	4
7	5885	2514	42.72	1	4
8	6140	2517	40.99	1	4
9	21653	2465	11.38	1	4
10	8551	2464	28.82	1	4
11	8562	2465	28.79	1	4

Lot #	Lot Area (sq.ft.)	Proposed Impervious Area	Percent Impervious	Units	Parking Stalls
11	8562	2465	28.79	1	4
12	8574	2466	28.76	1	4
13	8585	2464	28.70	1	4
14	8597	2465	28.67	1	4
15	8647	2465	28.51	1	4
16	8944	2680	29.96	1	4
17	36864	10995	29.83	4	16
18	320229	87117	27.20	117	214
Outlot 1	66857	0	0.00	0	0
Outlot 2	15342	0	0.00	0	0
Street ROW	50005	38570	77.13	0	0
TOTALS	669503	204265	30.51	147	344
			Avg. # Parking Stalls per Unit		2.34

SPERLE CORNERS – VILLAGE OF MCFARLAND
GENERAL DEVELOPMENT PLAN
EXHIBIT: 1 OF 1
DATED: AUGUST 5, 2025

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
www.quamengineering.com
4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558
Phone (608) 838-7750; Fax (608) 838-7752

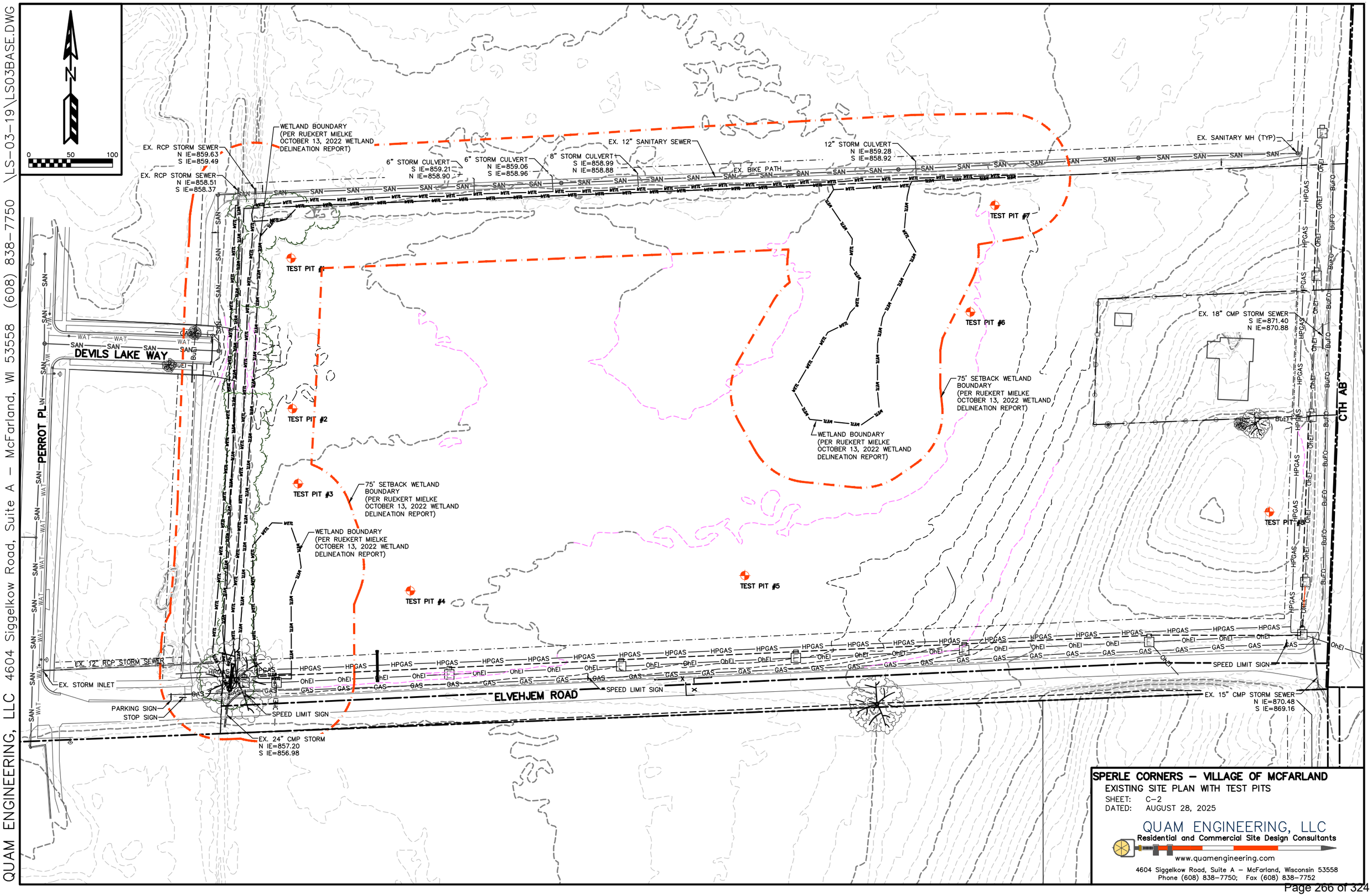
QUAM ENGINEERING, LLC 4604 Siggelkow Road, Suite A – McFarland, WI 53558 (608) 838-7750 \LS-03-19\LS03BASE.DWG



QUAM ENGINEERING, LLC 4604 Siggelkow Road, Suite A – McFarland, WI 53558 (608) 838-7750 \LS-03-19\LS03BASE.DWG

SPERLE CORNERS – VILLAGE OF MCFARLAND
PHASING PLAN
EXHIBIT: 1 OF 1
DATED: AUGUST 28, 2025

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
www.quamengineering.com
4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558
Phone (608) 838-7750; Fax (608) 838-7752



QUAM ENGINEERING, LLC 4604 Siggelkow Road, Suite A – McFarland, WI 53558 (608) 838-7750 \LS-03-19\LS03BASE.DWG

SPERLE CORNERS – VILLAGE OF MCFARLAND

EXISTING SITE PLAN WITH TEST PITS

SHEET: C-2

DATED: AUGUST 28, 2025

QUAM ENGINEERING, LLC

Residential and Commercial Site Design Consultants

www.quamengineering.com

4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558

Phone (608) 838-7750; Fax (608) 838-7752

SPERLE CORNERS, LOT 18–PHASE 1 APARTMENTS

SITE PLAN
SHEET: C–2
DATED: AUGUST 29, 2025

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N

0 20 40

PARK AREA

OUTLOT 2

WETLAND BOUNDARY
(PER RUEKERT MIELKE OCTOBER 13, 2022 WETLAND DELINEATION REPORT)

EAST WET POND

75' SETBACK WETLAND BOUNDARY
(PER RUEKERT MIELKE OCTOBER 13, 2022 WETLAND DELINEATION REPORT)

P.U.D. BOUNDARY

5.0'

18" CURB & GUTTER

CONCRETE PAD FOR CLUSTER MAILBOXES (5'x20')

SPEED BUMP

ASPHALT

R5.0'

9.0' (TYP.)

18.0'

24.0'

18" CURB & GUTTER

18" CURB & GUTTER

R15.0'

5' CONC. SIDEWALK

30' RAMP w/ RAILS

20.0'

18" CURB & GUTTER

DEVILS LAKE WAY

5' CONC. SIDEWALK

APARTMENTS
(40 UNITS)

28.3'

ASPHALT

18" CURB & GUTTER

5' CURB OPENING

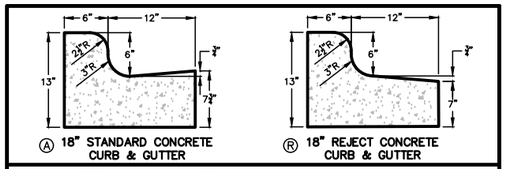
26.2'

27.0'

20' WP&L GAS MAIN EASEMENT

LOT 18

ELVEHJEM ROAD



Ⓐ 18" STANDARD CONCRETE CURB & GUTTER

Ⓡ 18" REJECT CONCRETE CURB & GUTTER

CONCRETE CURB NOTES:

- LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15' NOR LESS THAN 6' IN LENGTH. THE JOINTS SHALL BE A MINIMUM OF 3" IN DEPTH.
- EXPANSION JOINTS SHALL BE PLACED TRANSVERSLY AT RADIUS POINTS ON CURVES OF RADIUS 200' OR LESS, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER. THE EXPANSION JOINT SHALL BE A ONE PIECE OF ASPHALTIC MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 1/2" THICK.
- IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED 4" CRUSHED STONE.

SITE INFORMATION BLOCK – PHASE 3

Site Address SPERLE CORNERS LOT 18
Site acreage (total) 7.35 ACRES
Current Zoning PD, PLANNED DEVELOPMENT
Surface Coverage:

Building	15,750 SQFT
Parking Lot/Asphalt Drive	15,992 SQFT
Sidewalk & Ret. Walls	1,793 SQFT
TOTAL IMPERVIOUS	33,535 SQFT

Maximum Building Height: 33' EAVE, 51' RIDGE, 42' ROOF MID POINTE

SPERLE CORNERS, LOT 18–PHASE 1 APARTMENTS

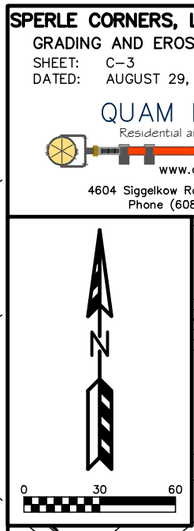
GRADING AND EROSION CONTROL PLAN

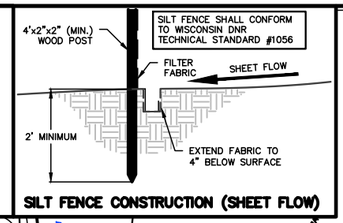
SHEET: C–3

DATED: AUGUST 29, 2025

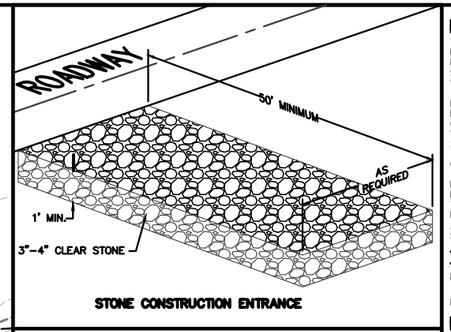
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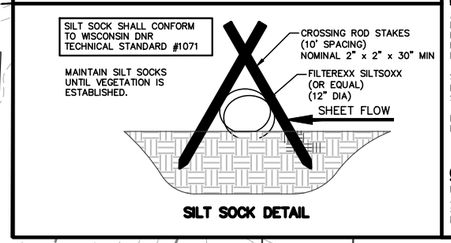




SILT FENCE CONSTRUCTION (SHEET FLOW)



STONE CONSTRUCTION ENTRANCE



SILT SOCK DETAIL

EROSION NOTES:

THE STONE CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION. THE TRACKING PAD IS TO BE MAINTAINED BY THE CONTRACTOR IN A CONDITION, WHICH WILL PREVENT THE TRACK OF MUD OR DRY SEDIMENT ONTO THE ADJACENT PUBLIC STREETS. SEDIMENT REACHING THE PUBLIC ROAD SHALL BE REMOVED BY STREET CLEANING (NOT HYDRAULIC FLUSHING) BEFORE THE END OF EACH WORKDAY.

EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO GRADING OPERATIONS AND SHALL BE PROPERLY MAINTAINED FOR MAXIMUM EFFECTIVENESS UNTIL VEGETATION IS ESTABLISHED. ALL EROSION CONTROL MEASURES AND STRUCTURES SERVING THE SITE MUST BE INSPECTED AT LEAST WEEKLY OR WITHIN 24 HOURS OF A 0.5 INCH RAIN EVENT. ALL MAINTENANCE WILL FOLLOW AN INSPECTION WITHIN 24 HOURS.

CUT AND FILL SLOPES SHALL BE NO GREATER THAN 3:1.

EROSION CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ACCEPTANCE OF THIS PROJECT. EROSION CONTROL MEASURES AS SHOWN SHALL BE THE MINIMUM PRECAUTIONS THAT WILL BE ALLOWED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECOGNIZING AND CORRECTING ALL EROSION CONTROL PROBLEMS THAT ARE A RESULT OF CONSTRUCTION ACTIVITIES. ADDITIONAL EROSION CONTROL MEASURES, AS REQUESTED IN WRITING BY THE STATE OR LOCAL INSPECTORS, OR THE DEVELOPER'S ENGINEER, SHALL BE INSTALLED WITHIN 24 HOURS.

TIME SCHEDULE:

MAY 1–30, 2026 — INSTALL INITIAL EROSION CONTROL DEVICES.

MAY 15, 2026 – APRIL 30, 2027 — CONSTRUCT BUILDING & PARKING LOT AND RESTORE PERVIOUS DISTURBED AREAS.

RESTORATION NOTES:

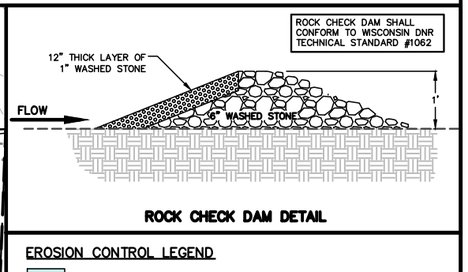
ALL PERVIOUS DISTURBED AREAS SHALL RECEIVE A MINIMUM OF FOUR (4) INCHES OF TOPSOIL, SEED AND MULCH. ALL PERVIOUS DISTURBED AREAS SHALL RECEIVE FERTILIZER EXCEPT NATIVE PLANTING AREAS. RESTORATION WILL OCCUR AS SOON AFTER THE DISTURBANCE AS PRACTICAL. SEED MIXTURE 40 SHALL BE USED ON ALL OTHER DISTURBED AREAS. MIXTURES SHALL BE IN ACCORDANCE WITH SECTION 630 OF D.O.T. SPECIFICATIONS. AN EQUAL AMOUNT OF ANNUAL RYEGRASS SHALL BE ADDED TO THE MIX.

SEED MIXTURES SHALL BE APPLIED AT THE RATE OF FOUR (4) POUNDS PER 1,000 SQUARE FEET. FERTILIZER SHALL BE APPLIED AT THE RATE OF FOUR (4) POUNDS PER 1,000 SQUARE FEET. MULCH SHALL CONSIST OF HAY OR STRAW APPLIED AT THE RATE OF 2 TONS PER ACRE.

FERTILIZER SHALL MEET THE MINIMUM REQUIREMENTS THAT FOLLOW: NITROGEN, NOT LESS THAN 16%; PHOSPHORIC ACID, NOT LESS THAN 8%; POTASH, NOT LESS THAN 8%.

OWNER:
LAKESTONE PROPERTIES & MANAGEMENT, LLC
ATTN: BRIAN SPANOS
5910 MAIN STREET, SUITE 1
MCFARLAND, WI 53558

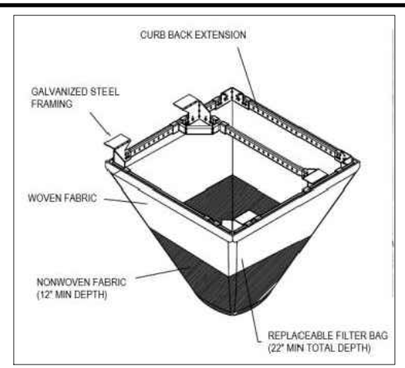
ENGINEER:
QUAM ENGINEERING, LLC
ATTN: RYAN QUAM
4604 SIGGELKOW ROAD, SUITE A
MCFARLAND, WI 53558



ROCK CHECK DAM DETAIL

EROSION CONTROL LEGEND

- INSTALL WISDOT CLASS I TYPE B EROSION MAT
- INSTALL FLEXSTORM CATCH–IT INLET PROTECTION DURING CONSTRUCTION. (SEE DETAIL)
- INSTALL FLEXSTORM CATCH–IT BAG DURING CONSTRUCTION (SEE DETAIL), REPLACE WITH FLEXSTORM PURE INLET FILTER WITH PCP BAG DURING FINAL RESTORATION FOR OIL AND GREASE CONTROL
- INSTALL TEMPORARY SILT SOCK DITCH CHECK (EVERY 2 FEET OF DROP IN SWALES)
- INSTALL ROCK CHECK DAM



FRAMED INLET PROTECTION MUST MEET THE FOLLOWING SPECIFICATIONS:
- ALL ASTM STANDARD D8057–17 REQUIREMENTS
- NO PART OF INLET PROTECTION PROJECTING ABOVE THE GRATE
- CAPTURE RUNOFF ENTERING BOTH GRATE AND CURB OPENING
- "DUAL FABRIC" FILTER BAG, WITH NONWOVEN BOTTOM AND WOVEN TOP

FLEXSTORM INLET PROTECTION DETAIL

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

CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE
TDD(FOR THE HEARING IMPAIRED)(800)542-2289

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

SPERLE CORNERS, LOT 18–PHASE 1 APARTMENTS

UTILITY PLAN

SHEET: C–4

DATED: AUGUST 29, 2025

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UTILITY NOTES:

CONTACT VILLAGE PRIOR TO CONNECTING PROPOSED UTILITIES INTO EXISTING UTILITIES. ALL CONNECTIONS SHALL BE PHOTOGRAPHED AND NEW STORM PIPES SHALL NOT EXTRUDE INTO EXISTING STORM PIPES.

ALL SANITARY SEWER, STORM SEWER AND WATER MAIN CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE MOST CURRENT EDITION OF VILLAGE OF MCFARLAND STANDARD SPECIFICATIONS FOR PUBLIC WORKS IMPROVEMENTS AND WISCONSIN DSPS STANDARDS.

THE LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM THE PLAN. LENGTHS SHALL BE VERIFIED IN THE FIELD DURING CONSTRUCTION.

MAINTAIN AN 8 FOOT MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN PUBLIC SANITARY SEWER, WATER MAIN AND STORM SEWER. PROVIDE 18" MINIMUM VERTICAL SEPARATION WHERE SEWER CROSSES OVER WATER MAIN AND PROVIDE 12" MINIMUM VERTICAL SEPARATION WHERE WATER MAIN CROSSES OVER SEWER.

ANY UTILITIES WHICH ARE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.

ALL UNDERGROUND EXTERIOR NON–METALLIC SEWERS/MAINS AND WATER SERVICES/MAINS MUST BE PROVIDED WITH TRACER WIRE OR OTHER METHODS IN ORDER TO BE LOCATED IN ACCORDANCE WITH 182.0715(2r) OF STATE STATUTES.

THE CONTRACTOR SHALL VERIFY EXISTING SANITARY SEWER LATERAL INVERT PRIOR TO BUILDING CONSTRUCTION AND SHALL REPORT DISCREPANCIES PRIOR TO COMMENCING WORK TO THE ENGINEER OR BUILDING CONTRACTOR. THE CONTRACTOR SHALL CONTACT THE VILLAGE OF MCFARLAND PRIOR TO CONNECTING TO THE WATER SERVICE.

BUILDING LATERALS SHALL BE CONSTRUCTED IN ACCORDANCE WITH LOCAL AND STATE PLUMBING CODES. SITE UTILITY CONTRACTOR SHALL STUB LATERAL TO 5 FEET OUTSIDE BUILDING. SEE INTERIOR PLUMBING PLANS FOR CONTINUATION OF PIPING INTO BUILDING BY BUILDING PLUMBING CONTRACTOR IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION WISCONSIN, LATEST EDITION.

GENERAL CONTRACTOR SHALL COORDINATE WITH LOCAL GAS, TELEPHONE, AND ELECTRICAL UTILITIES FOR EXACT LOCATION SIZE AND DEPTH OF NEW SERVICE.

SANITARY SEWER SHALL BE PVC ASTM D3034, SDR 35 UNLESS INDICATED OTHERWISE. WATER SERVICE SHALL BE DUCTILE IRON UNLESS INDICATED OTHERWISE. STORM SEWER SHALL BE HDPE N–12 AND PVC SCHEDULE 40 UNLESS NOTED OTHERWISE.

N

0 20 40

PARK AREA
OUTLOT 2

DIGITIZED WETLAND BOUNDARY
(PER RUEKERT MIELKE OCTOBER 13, 2022
WETLAND DELINEATION REPORT)

EAST WET POND

END APRON
OUTFALL IE=859.47

30'–18" HDPE STORM
SEWER @ 0.60%

INLET #1 (APTS)
TC=864.85
W IE=859.80
N IE=859.65

END APRON
OUTFALL IE=859.47

38'–18" HDPE STORM
SEWER @ 5.0%

CB #3 (APTS) 4' DIA.
w/ NEENAH R–2502
RIM=866.35
E IE=861.50 (APTS PH2)
N IE=861.40

INLET #2 (APTS)
TC=864.10
E IE=860.60

267'–15" HDPE STORM
SEWER @ 0.30%

8" WATER VALVE
(STREET PLAN)

8" WATER SERVICE
(STREET PLAN)
TOP=857.20

TOP=859.15

HYDRANT
14'–6" D.I. WATER w/ 6" VALVE
BURY=865.75; BOTTOM=858.25

6"x8" TEE
TOP=860.70

253'–8" D.I. WATER SERVICE

60'–8" D.I. WATER SERVICE

PLUG & MARK
w/ 4x4 POST
TOP=858.90

6"x8" TEE
8" TOP=858.70

8" PVC SANITARY SEWER

SAN MH #4
RIM=863.81
S IE=855.62
E IE=854.89
N IE=854.84

345'–8" PVC SANITARY SEWER @ 0.42%

6"x8" WYE
8" IE=857.76

SAN MH #1 (APTS)
RIM=867.17
E IE=859.70
W IE=857.80

20'–6" SANITARY
LATERAL @ 1.00%
IE=858.13

8" SANITARY STUB
(STREET PLAN)
IE=856.35

6"x8" WYE
8" IE=856.77

CONC. SIDEWALK

CONC. SIDEWALK

LOT 18

SAN MH #5

DEVILS LAKE WAY

67'–6" SANITARY
LATERAL @ 1.00%
IE=857.56

80'–6" WATER SERVICE
TOP=863.25

APARTMENTS
(40 UNITS)

SUMP CROCK w/ FORCE MAIN
(DESIGN BY PLUMBER)

CB #5 (APTS) 2' DIA.
w/ IN–BELL GRATE
RIM=860.90
W IE=857.90

12" STORM @ 2.0%
(MATERIAL DESIGN BY PLUMBER)

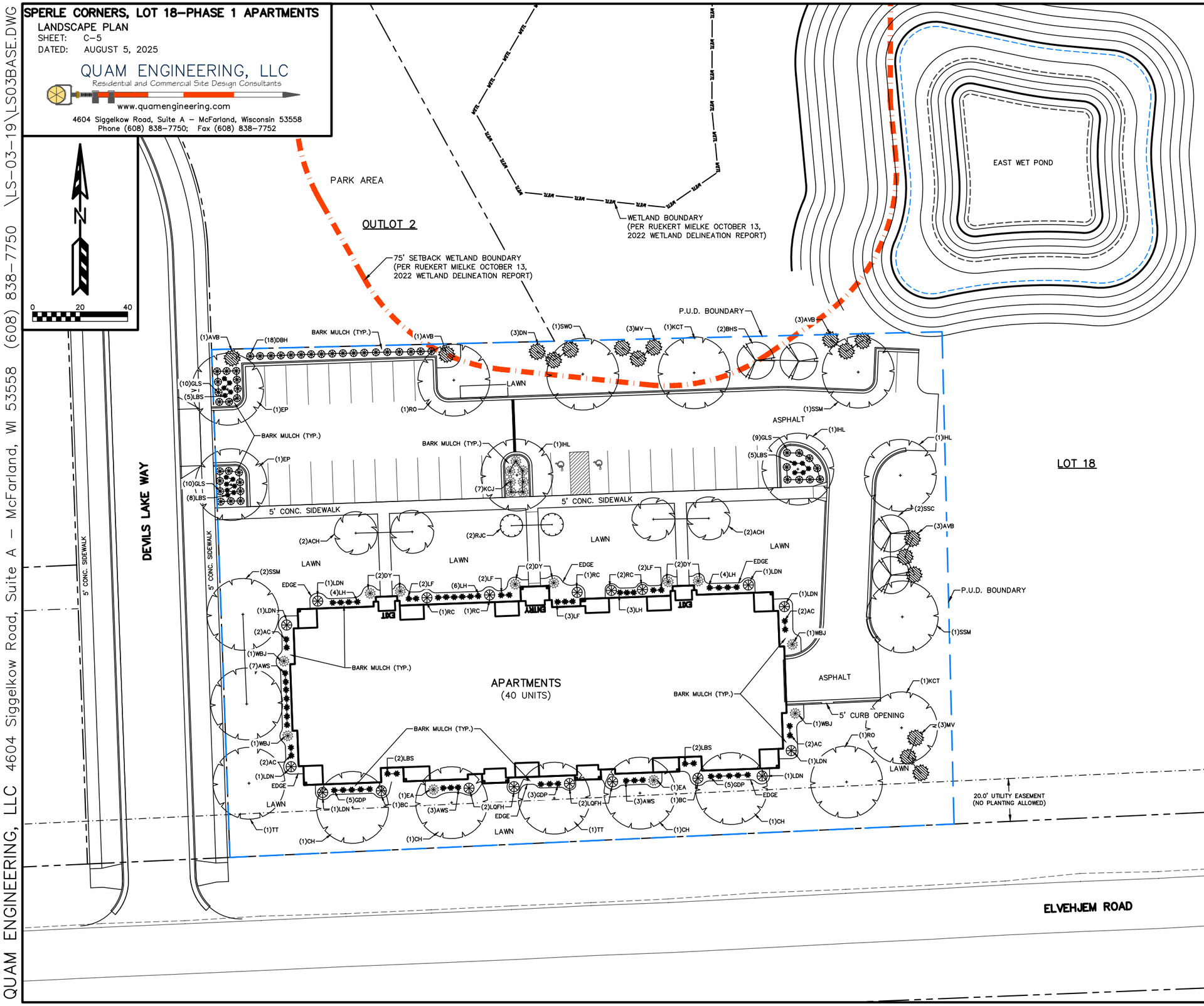
ELVEHJEM ROAD

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SPERLE CORNERS, LOT 18–PHASE 1 APARTMENTS

LANDSCAPE PLAN
SHEET: C–5
DATED: AUGUST 5, 2025

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PLANT LIST

KEY	QUAN	SIZE	COMMON NAME	Botanical Name	ROOT	POINTS SUPPLIED
	(20)		Large Deciduous Trees (40 points each)			800
CH	4	2"	Common Hackberry	Celtis Occidentalis	BB	160
EP	2	2"	Exclamation Planetree	Platanus Acerifolia	BB	80
IHL	3	2"	Imperial Honeylocust	Gleditsia Tricanthos 'Imperial'	BB	120
KCT	2	2"	Kentucky Coffeetree	Gymnocladus Dioicus	BB	80
RO	2	2"	Red Oak	Quercus Rubra	BB	80
SSM	4	2"	State Street Maple	Acer Miyabei	BB	160
SWO	1	2"	Swamp White Oak	Quercus Bicolor	BB	40
TT	2	2"	Tulip Tree	Liriodendron Tulipifera	BB	80
	(4)		Medium Deciduous Trees (25 points each)			100
ACH	4	1 ½"	Amur Chokecherry	Prunus Americana	BB	100
	(4)		Low Deciduous Trees (15 points each)			60
RJC	2	1 ½"	Red Jade Crab	Malus 'Red Jade'	BB	30
SSC	2	1 ½"	Spring Snow Crab	Malus 'Spring Snow'	BB	30
	(2)		Tall Evergreen Trees (30 points each)			60
BHS	2	5'	Black Hills Spruce	Picea Pungens 'Densata'	BB	60
	(6)		Low Evergreen Trees (12 points each)			72
EA	2	3'	Emerald Arborvitae	Thuja Occidentalis	BB	24
WBJ	4	3'	Wichita Blue Juniper	Juniperus Scopulorum	BB	48
	(17)		Tall Deciduous Shrubs (5 points each)			85
AVB	8	36"	Arrowood Viburnum	Viburnum Dentata	Pot	40
DN	3	36"	Diablo Ninebark	Physocarpus Opulifolius 'Diablo'	Pot	15
MV	6	36"	Mohican Viburnum	Viburnum Lantana 'Mohican'	Pot	30
	(37)		Medium Deciduous Shrubs (3 points each)			111
BC	2	24"	Black Chokeberry	Aronia Melanocarpa	Pot	6
DBH	18	24"	Dwarf Bush Honeysuckle	Diervilla Lonicera	Pot	54
LDN	8	24"	Little Devil Ninebark	Physocarpus O 'Donna May'	Pot	24
LQFH	4	24"	Little Quick Fire H	Hydrangea Paniculata	Pot	12
RC	5	24"	Red Chokeberry	Aronia arbutifolia	Pot	15
	(63)		Low Deciduous Shrubs (1 point each)			63
AC	8	18"	Alpine Currant	Ribes Alpinum	Pot	8
AWS	13	18"	AW Spirea	Spirea Bumald 'Anthony Waterer'	Pot	13
GDP	13	18:	Gold Drop Potentilla	Potentilla Fruticosa	Pot	16
GLS	29	18"	Gro Low Sumac	Rhus Aromatica	Pot	29
	(6)		Medium Evergreen Shrubs (5 points each)			30
DY	6	18"	Densiform Yew	Taxus Densiformis	BB	30
	(7)		Low Evergreen Shrubs (3 points each)			21
KJC	7	12"	Kalley Compact Juniper	Juniperus M Kalley's Compact	Pot	21
	(48)		Perennials (Non-Contributing)			0
LBS	22	1 G	Little Bluestem Grass	Schizachyrium Scoparium	Con	0
LH	17	1 G	Loyalist Hosta	Hosta 'Loyalist'	Con	0
LF	9	1 G	Lady Fern	Athyrium Filix-femina	Con	0
			Total Points Supplied:			**1,402**

NOTES:

1) All lawn areas to receive a minimum of 6" of topsoil, no mow seed mix, starter fertilizer, and straw mulch.
2) Lawn in swales and on slopes in excess of 3:1 shall be mulched with urban type B EC mat.
3) All planting beds shall receive a minimum of 6" of topsoil.
4) Designated planting beds to be mulched with shredded hardwood bark mulch spread to a depth of 3".
5) Individual trees and shrub groupings in lawn areas to receive shredded hardwood bark mulch plant rings (4' diameter) spread to a depth of 3".
6) Designated planting beds and stone maintenance strips to be separated from turf areas with 5" crisp shovel cut edge.

Landscape Worksheet

Lakestone Properties

Village of McFarland
Landscape Point Calculations
Minimum Points Required for PUD (R3) Zoning District

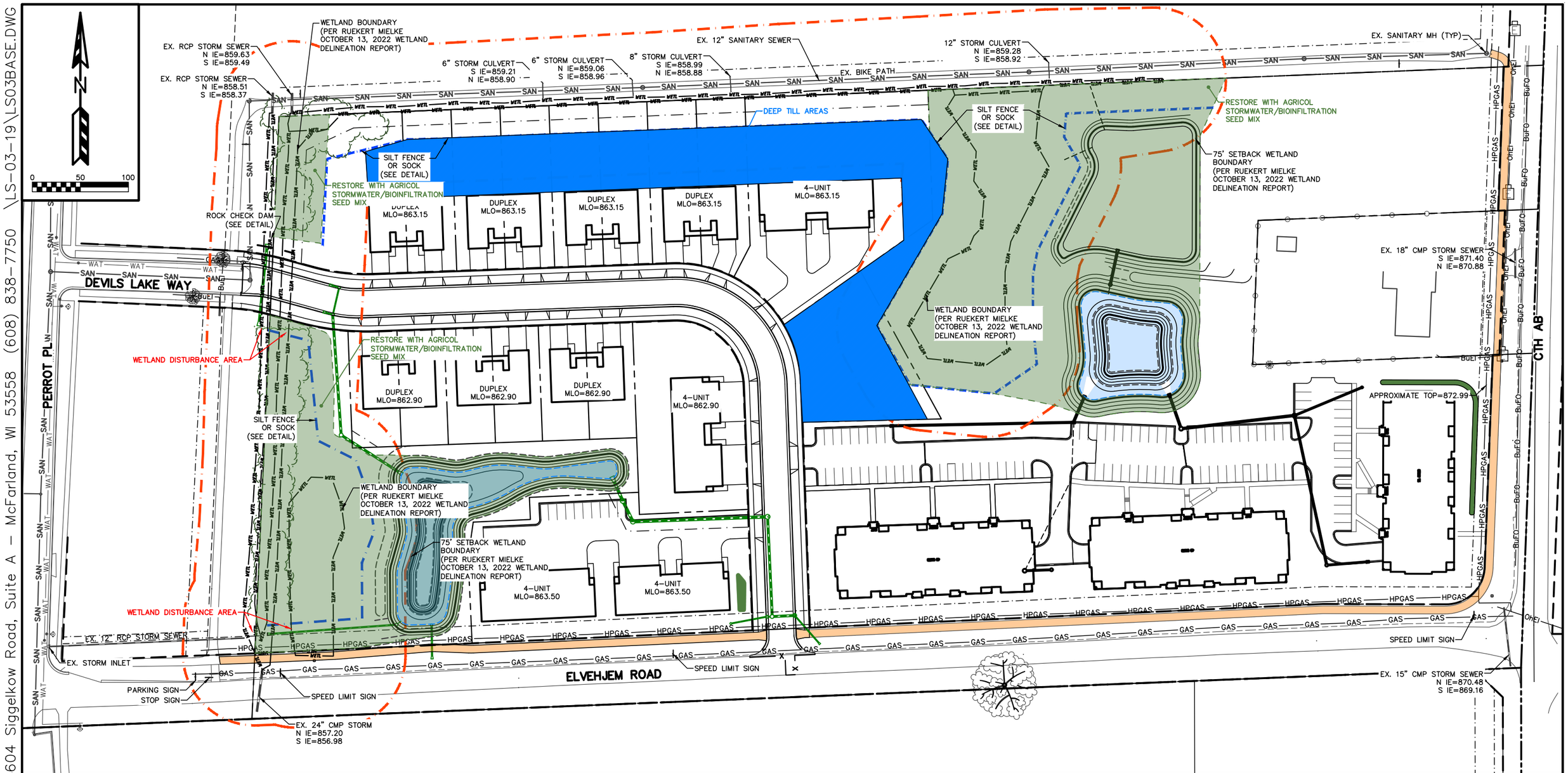
	Site Measurement	Points Calculation	Points Required
Building Foundation	564	50 Per 100 ft.	282
G.F.A.	14,412	20 Per 1,000 ft.	288
Street Frontage	516	50 Per 100 ft.	258
Paved Area	18,165	100 Per 10,000 sq. ft.	182

1,010 Total Points Required

(Ord. No. 2011-06, § 1, 5-23-2011)

Total Landscape Points Supplied: 1,402

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SPERLE CORNERS – VILLAGE OF MCFARLAND

WETLAND AND POND RESTORATION PLAN

SHEET: C-1

DATED: AUGUST 5, 2025

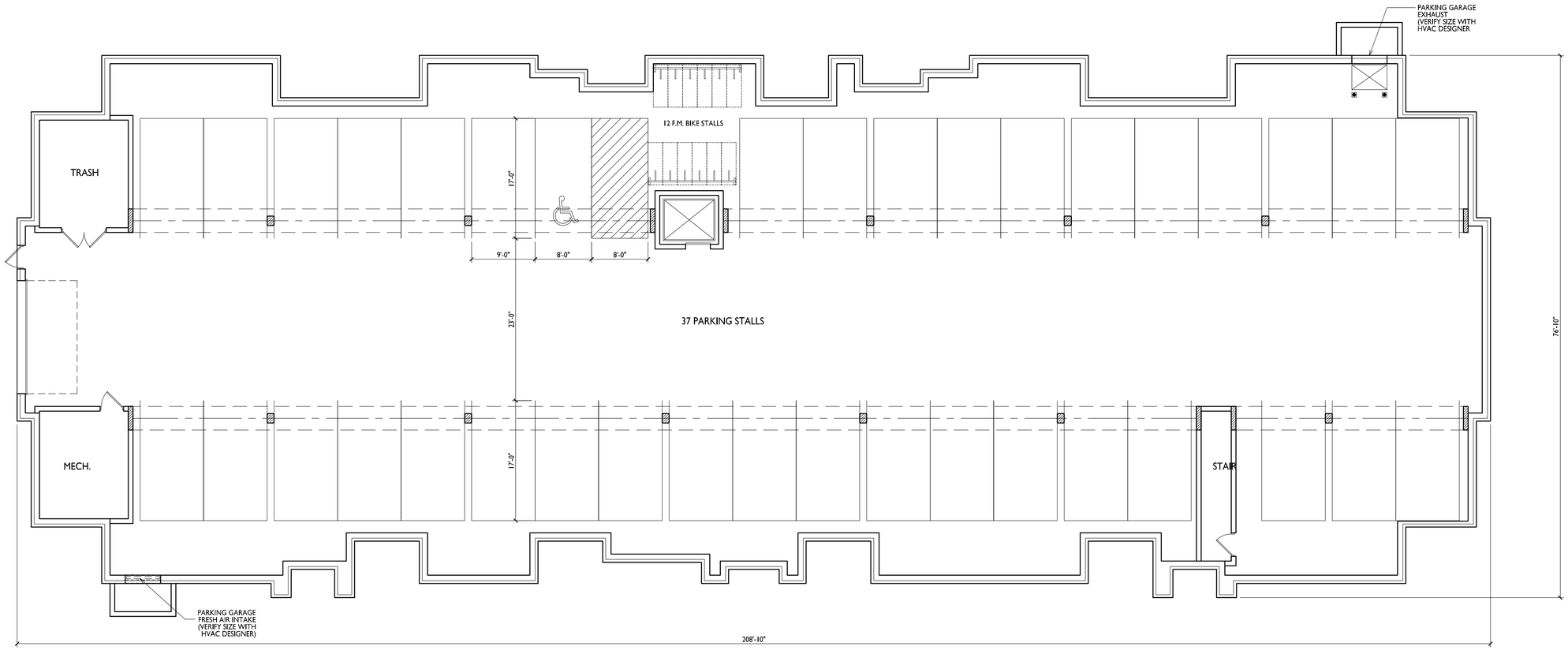
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1 A100.1

BUILDING #1 - 40 UNIT (#2 MIRRORED) BASEMENT PLAN

1/8" = 1'-0"

knothe bruce ARCHITECTS
Phone: 608.836.3690
8401 Greenway Blvd., Suite 900
Middleton, WI 53562

ISSUED
SIP Submittal - August 05, 2025

PROJECT TITLE
Lakestone Properties McFarland Development

Hwy AB & Elvehjem Rd
McFarland, Wisconsin

SHEET TITLE
Building #1
40 Unit
Basement Plan
(#2 MIRRORED)

SHEET NUMBER
A100.1

PROJECT NO. 2508

© Knothe & Bruce Architects, LLC



UNIT MIX:

STUDIO	10
ONE BEDROOM	12
TWO BEDROOM	18
TOTAL	40

1 / A101.1 BUILDING #1 - 40 UNIT (#2 MIRRORED) FIRST FLOOR PLAN

1/8" = 1'-0"

kba
knothe · bruce
ARCHITECTS
Phone: 608.836.3690
8401 Greenway Blvd., Suite 900
Middleton, WI 53562

ISSUED

SIP Submittal - August 05, 2025

PROJECT TITLE

Lakestone Properties McFarland Development

Hwy AB & Elvehjem Rd
McFarland, Wisconsin

SHEET TITLE

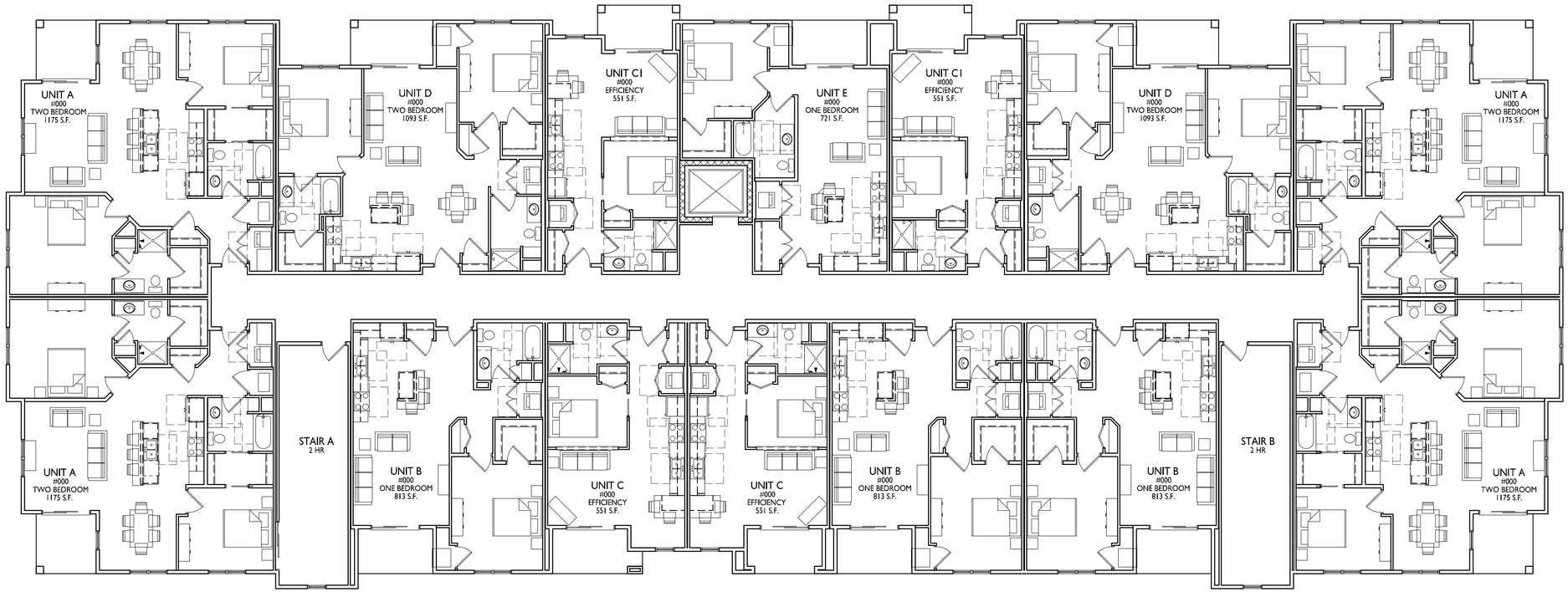
Building #1
40 Unit
First Floor Plan
(#2 MIRRORED)

SHEET NUMBER

A101.1

PROJECT NO. 2508

© Knothe & Bruce Architects, LLC



BUILDING #1 - 40 UNIT (#2 MIRRORED) SECOND FLOOR PLAN

1 / A102.1

1/8" = 1'-0"

knothe bruce ARCHITECTS
Phone: 608.836.3690
8401 Greenway Blvd., Suite 900
Middleton, WI 53562

ISSUED
SIP Submittal - August 05, 2025

PROJECT TITLE
Lakestone Properties McFarland Development

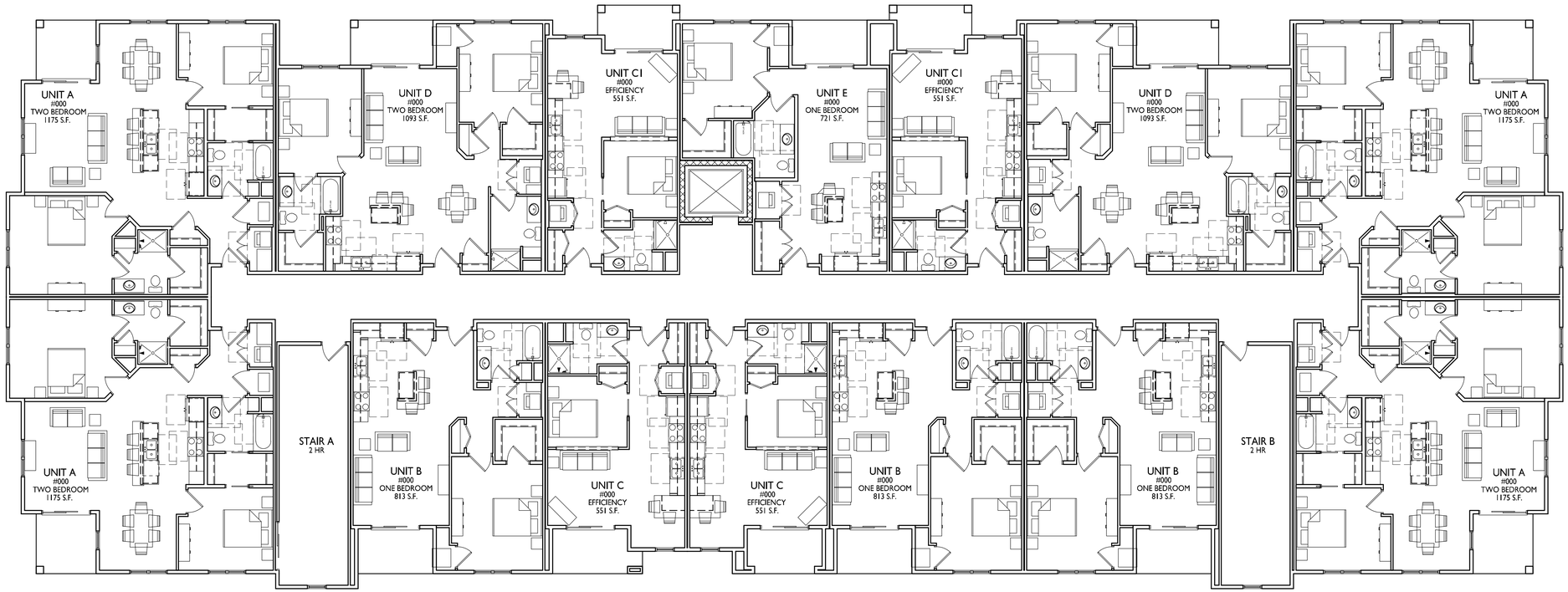
Hwy AB & Elvehjem Rd
McFarland, Wisconsin

SHEET TITLE
Building #1
40 Unit
Second Floor Plan
(#2 MIRRORED)

SHEET NUMBER
A102.1

PROJECT NO. 2508

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BUILDING #1 - 40 UNIT (#2 MIRRORED) THIRD FLOOR PLAN

1 / A103.1

1/8" = 1'-0"

knothe bruce ARCHITECTS
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8401 Greenway Blvd., Suite 900
Middleton, WI 53562

ISSUED

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PROJECT TITLE

Lakestone Properties McFarland Development

Hwy AB & Elvehjem Rd
McFarland, Wisconsin

SHEET TITLE

Building #1
40 Unit
Third Floor Plan
(#2 MIRRORED)

SHEET NUMBER

A103.1

PROJECT NO. 2508

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1 A201.1

BUILDING #1 - 40 UNIT (#2 MIRRORED) NORTH ELEVATION

1/8" = 1'-0"



2 A201.1

BUILDING #1 - 40 UNIT (#2 MIRRORED) EAST ELEVATION

1/8" = 1'-0"

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8401 Greenway Blvd., Suite 900
Middleton, WI 53562

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PROJECT TITLE
Lakestone Properties McFarland Development

Hwy AB & Elvehjem Rd
McFarland, Wisconsin

SHEET TITLE
Building #1
40 Unit
Exterior Elevations
(#2 MIRRORED)

SHEET NUMBER
A201.1

PROJECT NO. 2508

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1 A202.1

BUILDING #1 - 40 UNIT (#2 MIRRORED)
SOUTH ELEVATION

1/8" = 1'-0"



2 A202.1

BUILDING #1 - 40 UNIT (#2 MIRRORED)
WEST ELEVATION

1/8" = 1'-0"

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ARCHITECTS
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Middleton, WI 53562

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PROJECT TITLE
Lakestone
Properties
McFarland
Development

Hwy AB & Elvehjem Rd
McFarland, Wisconsin

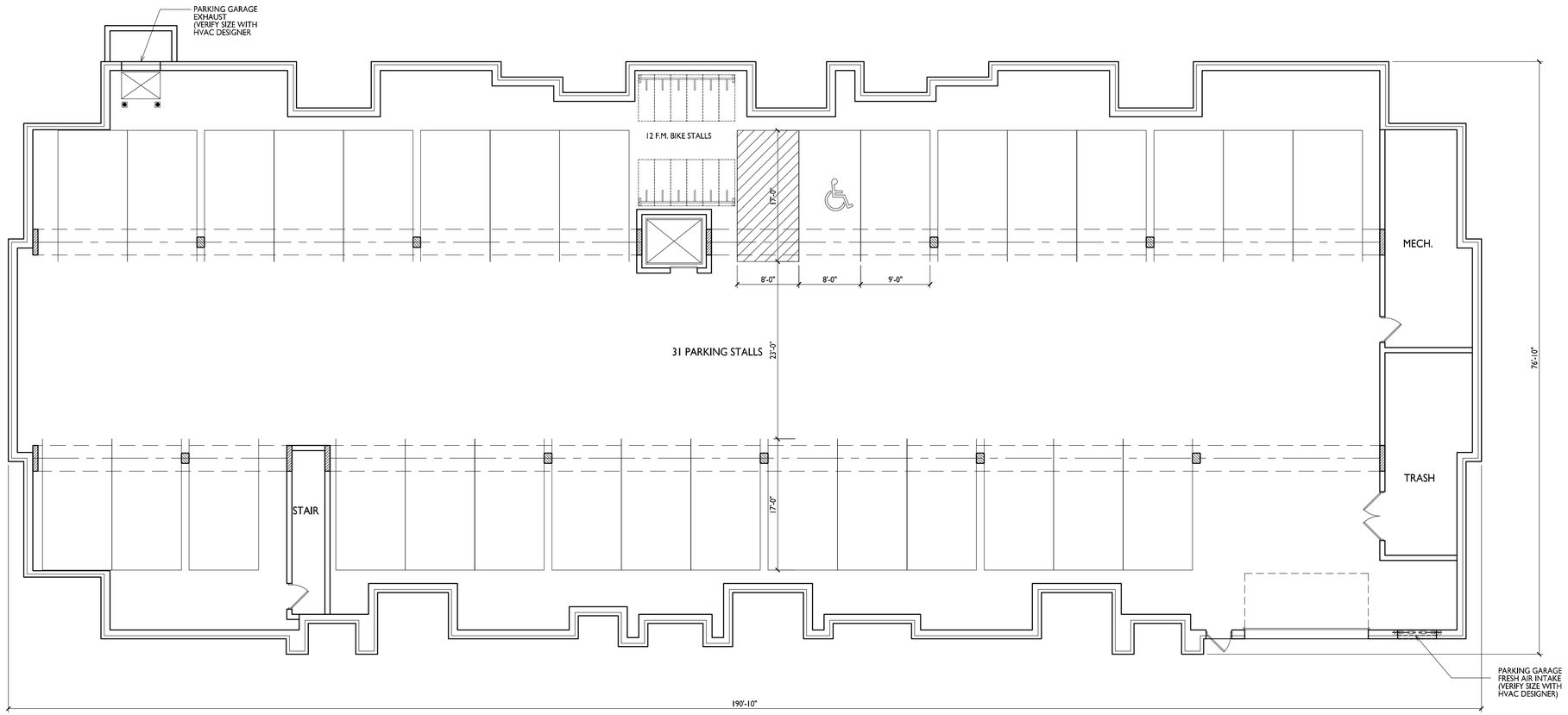
SHEET TITLE
Bldg #1
40 Unit
Exterior Elevations
(#2 MIRRORED)

SHEET NUMBER
A202.1

PROJECT NO. 2508

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and not for approval with Phase 1.



1 A100.3

BUILDING #3 - 37 UNIT BASEMENT PLAN

1/8" = 1'-0"

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ARCHITECTS
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PROJECT TITLE
Lakestone
Properties
McFarland
Development

Hwy AB & Elvehjem Rd
McFarland, Wisconsin

SHEET TITLE
Building #3
37 Unit
Basement Plan

SHEET NUMBER
A100.3

PROJECT NO. 2508

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UNIT MIX:

STUDIO	7
ONE BEDROOM	18
TWO BEDROOM	12
TOTAL	37

BUILDING #3 - 37 UNIT
FIRST FLOOR PLAN

1 / A101.3

1/8" = 1'-0"

knothe bruce
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PROJECT TITLE
Lakestone
Properties
McFarland
Development

Hwy AB & Elvehjem Rd
McFarland, Wisconsin

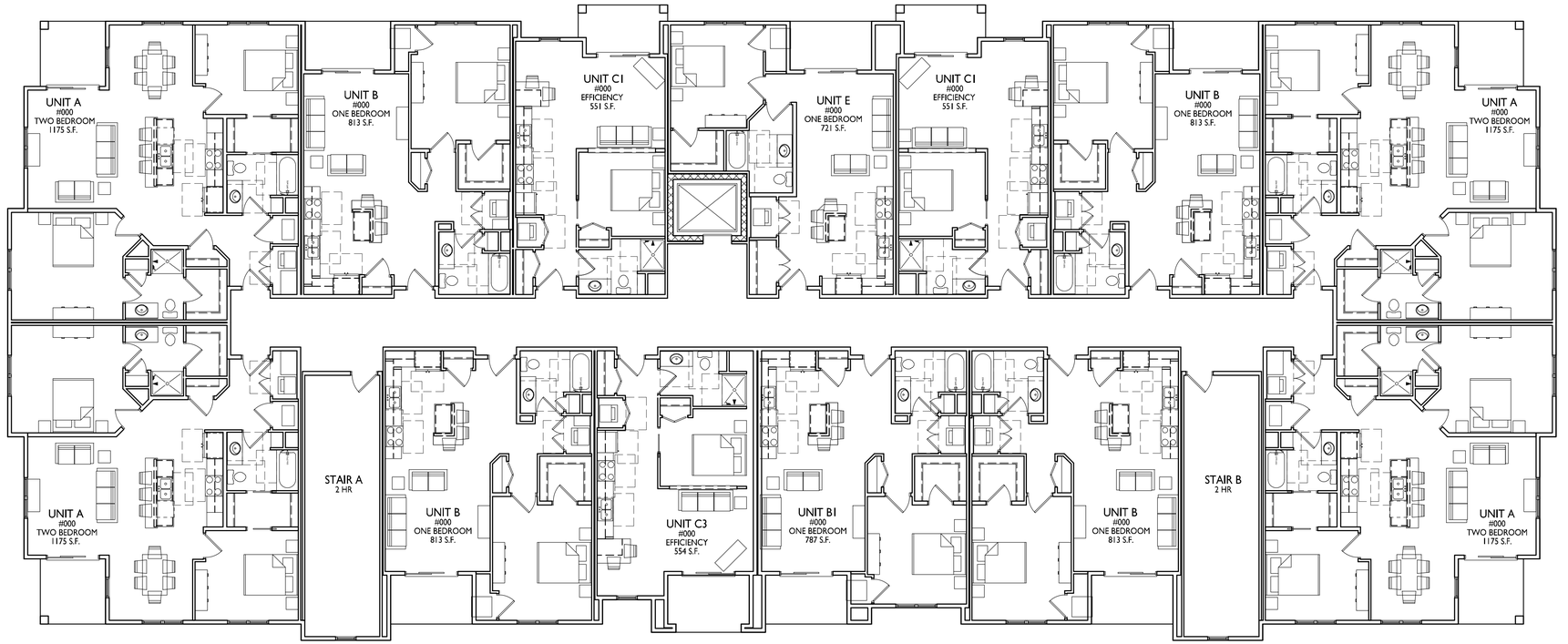
SHEET TITLE
Building #3
37 Unit
First Floor Plan

SHEET NUMBER
A101.3

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1 A102.3

BUILDING #3 - 37 UNIT
SECOND FLOOR PLAN

1/8" = 1'-0"

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PROJECT TITLE
Lakestone
Properties
McFarland
Development

Hwy AB & Elvehjem Rd
McFarland, Wisconsin

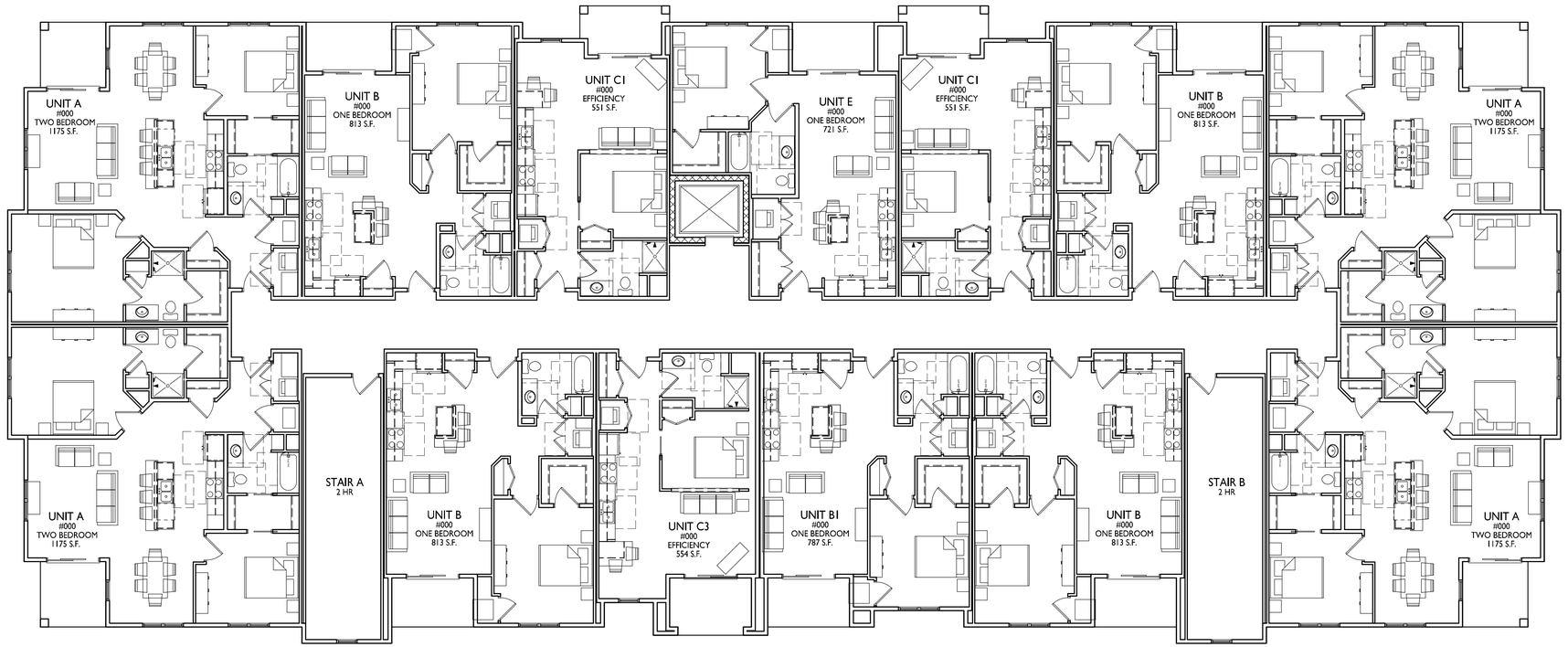
SHEET TITLE
Building #3
37 Unit
Second Floor Plan

SHEET NUMBER
A102.3

PROJECT NO. 2508

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1 A103.3

BUILDING #3 - 37 UNIT
THIRD FLOOR PLAN

1/8" = 1'-0"

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PROJECT TITLE
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Properties
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Development

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SHEET TITLE
Building #3
37 Unit
Third Floor Plan

SHEET NUMBER
A103.3

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1 A201.3

BUILDING #3 - 37 UNIT
WEST ELEVATION

1/8" = 1'-0"



2 A201.3

BUILDING #3 - 37 UNIT
NORTH & SOUTH ELEVATION

1/8" = 1'-0"

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PROJECT TITLE
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McFarland, Wisconsin

SHEET TITLE
Building #3
37 Unit
Exterior Elevations

SHEET NUMBER
A201.3

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1 A202.3

BUILDING #3 - 37 UNIT
EAST ELEVATION

1/8" = 1'-0"

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PROJECT TITLE
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McFarland, Wisconsin

SHEET TITLE
Building #3
37 Unit
Exterior Elevations

SHEET NUMBER
A202.3

PROJECT NO. 2508

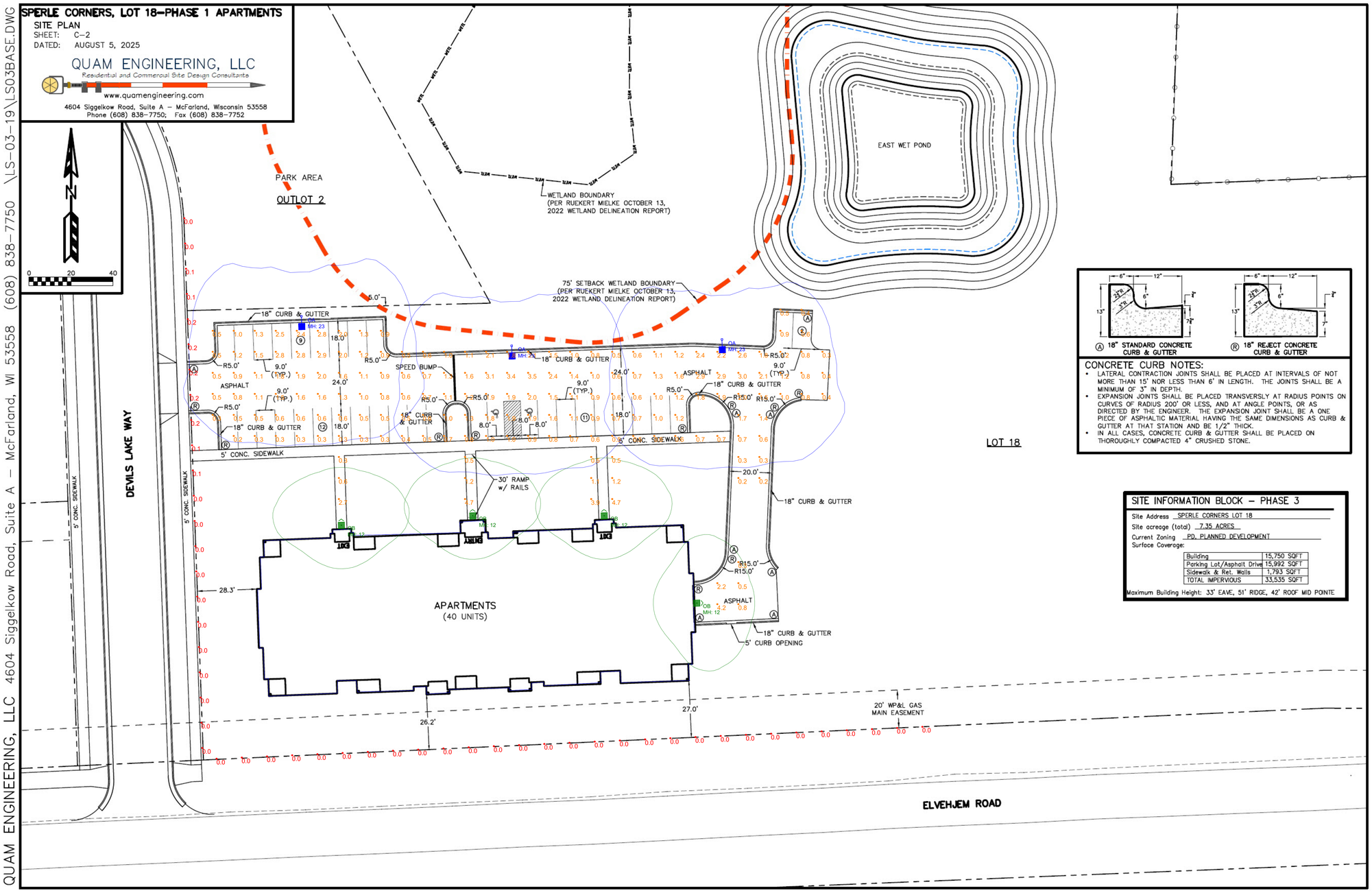
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SPERLE CORNERS, LOT 18–PHASE 1 APARTMENTS

SITE PLAN
SHEET: C–2
DATED: AUGUST 5, 2025

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
www.quamengineering.com
4604 Siggelkow Road, Suite A – McFarland, Wisconsin 53558
Phone (608) 838–7750; Fax (608) 838–7752

QUAM ENGINEERING, LLC 4604 Siggelkow Road, Suite A – McFarland, WI 53558 (608) 838–7750 \LS-03-19\LS03BASE.DWG



CONCRETE CURB NOTES:
- LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15' NOR LESS THAN 6' IN LENGTH. THE JOINTS SHALL BE A MINIMUM OF 3" IN DEPTH.
- EXPANSION JOINTS SHALL BE PLACED TRANSVERSLY AT RADIUS POINTS ON CURVES OF RADIUS 200' OR LESS, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER. THE EXPANSION JOINT SHALL BE A ONE PIECE OF ASPHALTIC MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 1/2" THICK.
- IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED 4" CRUSHED STONE.

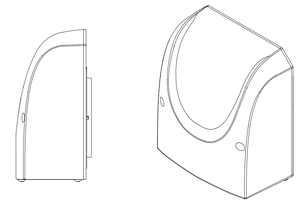
SITE INFORMATION BLOCK – PHASE 3

Site Address SPERLE CORNERS LOT 18
Site acreage (total) 7.35 ACRES
Current Zoning PD, PLANNED DEVELOPMENT
Surface Coverage:

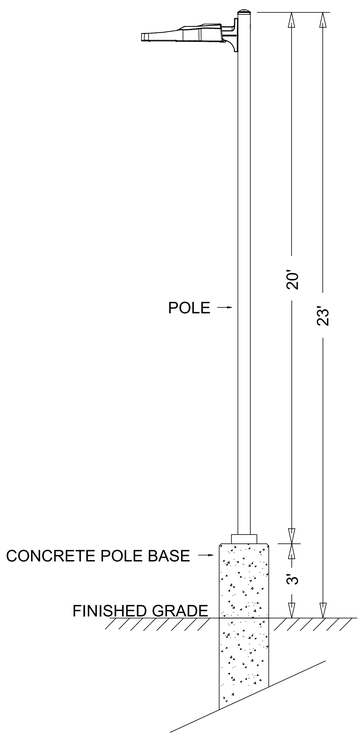
Building	15,750 SQFT
Parking Lot/Asphalt Drive	15,992 SQFT
Sidewalk & Ret. Walls	1,793 SQFT
TOTAL IMPERVIOUS	33,535 SQFT

Maximum Building Height: 33' EAVE, 51' RIDGE, 42' ROOF MID POINTE

CURRENT GLI
EWL SERIES



CURRENT GLI
EACL SERIES



Luminaire Schedule

Symbol	Label	Qty	Manufacturer	Description	Luminaire Watts	Luminaire Lumens	LLF
	OA	3	CURRENT GLI	EACL010D4AF740X1D1DKBZ + SSSE20-40A-1-E2-DKBZ-UL	73	10000	0.890
	OB	4	CURRENT GLI	EWLS02040AF740N1FMDKBZ	27	4000	0.890

MAINTAINED FOOTCANDLES SHOWN AT GRADE.

Calculation Summary

Label	Units	Avg	Max	Min	Avg/Min	Max/Min
Paved Areas	Fc	1.22	4.7	0.2	6.10	23.50
Porperty Lines	Fc	0.03	0.2	0.0	N.A.	N.A.

ERi ENGINEERED REPRESENTATION INC.
www.engineeredrepinc.com
262.542.6285 Wauwatosa
920.751.3922 Neenah
apps@eriwi.com

Date:8/20/2025 | Scale: 1"=20' (0 10 20) | Layout By: Andy
Project: SPERLE CORNERS - LOT 18
Filename: 250820QU1AKC.AGI

LIGHT LEVELS SHOWN ARE STRICTLY FOR PURPOSES OF ESTIMATING BILL OF MATERIALS AND THE RESULTS ARE BASED ON PROJECT DETAILS GIVEN TO ENGINEERED REPRESENTATION INC. / WALLOCK DAVIES & COMPANY LLC. BEFORE OCCUPANCY OF SPACE, ALL PROJECT DETAILS AND LIGHT LEVELS SHOULD BE VERIFIED TO COMPLY WITH SAFETY AND MUNICIPAL CODES.

Evolve®

SSSE Series Poles

Square | Straight | Steel



CUSTOMER NAME _____

PROJECT NAME _____

DATE _____ TYPE _____

CATALOG NUMBER _____

APPLICATIONS

Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location.

CONSTRUCTION

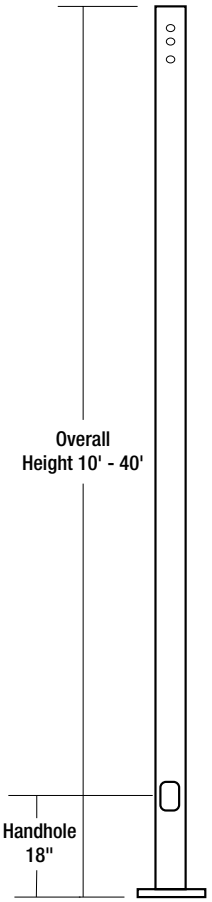
Shaft:	One-piece straight steel with square cross section, flat sides and minimum 0.23" radius on all corners; Minimum yield of 46,000 psi (ASTM-A500, Grade B); Longitudinal weld seam to appear flush with shaft side wall; Steel base plate with axial bolt circle slots welded to pole shaft having minimum yield of 36,000 psi (ASTM A36)
Base Cover:	Two-piece square aluminum base cover included standard
Pole Cap:	Pole shaft supplied with removable cover when applicable; Tenon and post-top configurations also available
Hand Hole:	Rectangular 3x5 steel hand hole frame (2.38" x 4.38" opening); Mounting provisions for grounding lug located behind gasketed cover
Anchor Bolts:	Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling
Anchor Bolt Part Numbers:	• 3/4 x 30 x 3 — TAB-30-M38 • 1 x 36 x 4 — TAB-36-M38

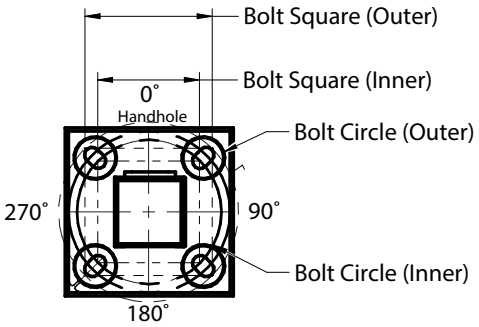
FINISH

- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Powder paint prime applied over "white metal" steel substrate cleaned via mechanical shot blast method
- Decorative finish coat available in multiple standard colors; Custom colors available; RAL number preferable

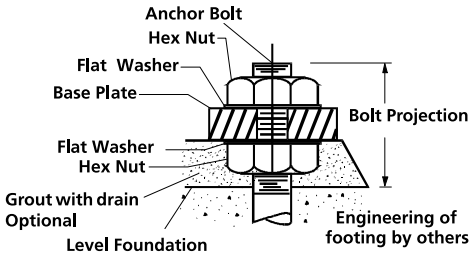
10 DAY - EVOLVE EXPRESS SHIP PROGRAM

- Ships in 10 days
- Limit of 15 poles

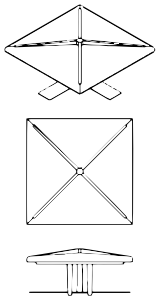




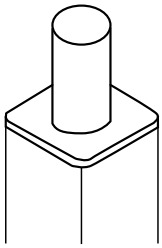
BASE DETAIL



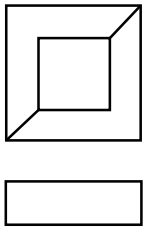
POLE CAP



TENON



BASE COVER



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Evolve®
SSSE Series Poles
Square | Straight | Steel
Ordering Information

CUSTOMER NAME _____

PROJECT NAME _____

DATE _____ TYPE _____

CATALOG NUMBER _____

Example: SSSE25-40A-2-E2-DKBZ-UL

SSSE ---- -- -- - -- **E2** -- ---- ---

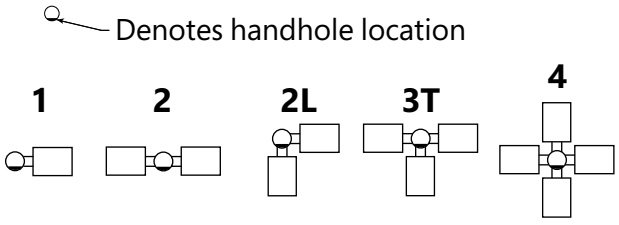
SERIES	HEIGHT	SHAFT	THICKNESS
SSSE = Evolve Square Straight Steel Pole EXS	**10**=10 ft.	**40**=4" Square	**A**=0.125"
	12=12 ft.	**40**=4" Square	**A**=0.125"
	14=14 ft.	**40**=4" Square	**A**=0.125"
			B=.188"
	16=16 ft.	**40**=4" Square	**A**=0.125" EXS
			B=.188"
		50=5" Square	**B**=.188"
	18=18 ft.	**40**=4" Square	**A**=0.125" EXS
			B=.188"
		50=5" Square	**B**=.188"
		60=6" Square	**B**=.188"
			C=.25"
	20=20 ft.	**40**=4" Square	**A**=0.125" EXS
			B=.188"
		50=5" Square	**B**=.188"
		60=6" Square	**B**=.188"
	25=25 ft.	**40**=4" Square	**A**=0.125" EXS
			B=.188"
		50=5" Square	**B**=.188"
			C=.25"
		60=6" Square	**B**=.188"
	30=30 ft.	**40**=4" Square	**B**=.188" EXS
		50=5" Square	**B**=.188" EXS
			C=.25"
		60=6" Square	**B**=.188"
	35=35 ft.	**60**=6" Square	**B**=.188"
	40=40 ft.	**60**=6" Square	**B**=.188"

MOUNTING	POLE DRILLING	FINISH	OPTIONS
1 = Single arm mount EXS	**E2** = Evolve Square Pole EXS	**DKBZ** = Dark Bronze EXS	**GFI**[2] = 20 Amp GFCI Receptacle and Cover
2 = Two fixtures at 180° EXS	**UDP01**[5] = 3/8in HDW range 1.69 - 2.24	**BLCK** = Black	**EHH**[2] = Extra Handhole
2L = Two fixtures at 90° EXS	**UDP02**[5] = 1/2in HDW range 1.69 - 2.24	**GRAY** = Gray	**C05**[2] = 0.5" Coupling
3T = Three fixtures at 90° EXS	**UDP03**[5] = 3/8in HDW range 2.25 - 2.99	** Contact factory for custom color options*	**C07**[2] = 0.75" Coupling
4 = Four fixtures at 90° EXS	**UDP04**[5] = 1/2in HDW range 2.25 - 2.99		**C20**[2] = 2" Coupling
TA[3] = Tenon (2.38" OD x 4" Tall) EXS	**UDP05**[5] = 3/8in HDW range 3.00 - 3.75		**MPB**[2] = Mid-pole Luminaire Bracket
TB[3] = Tenon (2.88" OD x 4" Tall) EXS	**UDP06**[5] = 9/16in HDW range 3.00 - 3.75		**VM1** = 1st mode vibration damper EXS
TC[3] = Tenon (3.5" OD x 6" Tall)	**UDP07**[5] = 3/8in HDW range 3.76 - 4.49		**VM2**[6] = 2nd mode vibration damper EXS
TR[1] = Removable Tenon (2.38" x 4") EXS	**UDP08**[5] = 9/16in HDW range 3.76 - 4.49		**LAB** = Less Anchor Bolts EXS
OT = Open Top (includes pole cap) EXS	**UDP09**[5] = 3/8in HDW range 4.50 - 5.49		**UL** = UL Certified
	UDP10[5] = 9/16in HDW range 4.50 - 5.49		
	UDP11[5] = 3/8in HDW range 5.50 - 6.00		
	UDP12[5] = 9/16in HDW range 5.50 - 6.00		

NOTES:
1. Removable tenon used in conjunction with side arm mounting. First specify desired arm.
2. Specify option location using MOUNTING ORIENTATION logic shown on this page.
3. Not available with VM1 - Mode Vibration Damper.
4. VM1 recommended on poles 20' and taller with EPA of less than 1. Field installed.
5. UDP allow mounting of most popular fixtures on the market
6. Factory Installed.

EXS Indicates availability in the **EXS 10 Day Evolve Express Ship Program**

MOUNTING ORIENTATION



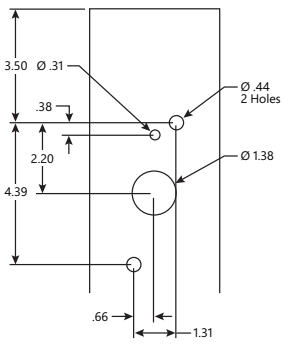
ACCESSORIES- ORDER SEPARATELY

CATALOG NUMBER	DESCRIPTION
VM1[3]	1st mode vibration damper
VM2SXX*	2nd mode vibration damper

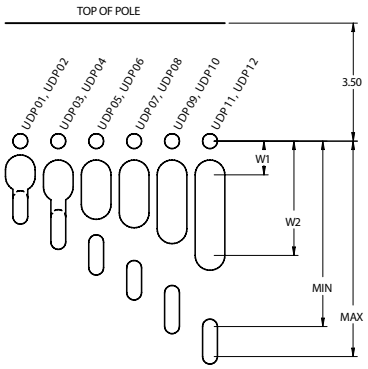
*** XX** = 08 for 8', 12 for 12', 15 for 16', 20 for 20', and 24' for 24'.
Note: Field Installed through handhole

DRILL PATTERNS

E2



UNIVERSAL DRILL PATTERN (UDP)



TWO BOLT MOUNTING WITH CENTER WIREWAY						
MOUNTING HARDWARE	Universal Mounting Patterns					
3/8" OR LESS	UDP01	UDP03	UDP05	UDP07	UDP09	UDP11
7/16" TO 1/2"	UDP02	UDP04	UDP06	UDP08	UDP10	UDP12
"MIN" ATTACHMENT DIMENSION	1.69	2.25	3.00	3.76	4.50	5.50
"MAX" ATTACHMENT DIMENSION	2.24	2.99	3.75	4.49	5.49	6.00
W1 (Wireway min)	0.85	1.00	1.00	1.00	1.00	1.00
W2 (Wireway max)	1.05	1.36	1.88	2.13	2.60	3.00

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Evolve®
SSSE Series Poles
Square | Straight | Steel
Ordering Information

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PROJECT NAME _____

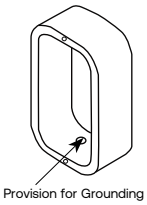
DATE _____ TYPE _____

CATALOG NUMBER _____

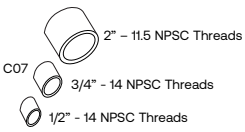
CATALOG NUMBER	HEIGHT		NOMINAL SHAFT DIMENSIONS	WALL THICKNESS	BOLT CIRCLE (SUGGESTED)	BOLT CIRCLE (RANGE)	BOLT SQUARE (RANGE)	BASE PLATE SQUARE	ANCHOR BOLT SIZE	BOLT PROJECTION	POLE WEIGHT
	FEET	METERS									
SSSE10-40A	10	3.0	4" square	0.125"	9"	8"–10"	5.66"–7.07"	9"	3/4"x30"x3"	3.5	77
SSSE12-40A	12	3.7	4" square	0.125"	9"	8"–10"	5.66"–7.07"	9"	3/4"x30"x3"	3.5	90
SSSE14-40A	14	4.3	4" square	0.125"	9"	8"–10"	5.66"–7.07"	9"	3/4"x30"x3"	3.5	103
SSSE16-40A EXS	16	4.9	4" square	0.125"	9"	8"–10"	5.66"–7.07"	9"	3/4"x30"x3"	3.5	116
SSSE18-40A EXS	18	5.5	4" square	0.125"	9"	8"–10"	5.66"–7.07"	9"	3/4"x30"x3"	3.5	129
SSSE20-40A EXS	20	6.1	4" square	0.125"	9"	8"–10"	5.66"–7.07"	9"	3/4"x30"x3"	3.5	142
SSSE25-40A EXS	25	7.6	4" square	0.125"	9"	8"–10"	5.66"–7.07"	9"	3/4"x30"x3"	3.5	175
SSSE14-40B	14	4.3	4" square	.188"	11"	10"–12"	7.07"–8.48"	10.50"	3/4"x30"x3"	3.5	152
SSSE16-40B	16	4.9	4" square	.188"	11"	10"–12"	7.07"–8.48"	10.50"	3/4"x30"x3"	3.5	171
SSSE18-40B	18	5.5	4" square	.188"	11"	10"–12"	7.07"–8.48"	10.50"	3/4"x30"x3"	3.5	190
SSSE20-40B	20	6.1	4" square	.188"	11"	10"–12"	7.07"–8.48"	10.50"	3/4"x30"x3"	3.5	209
SSSE25-40B	25	7.6	4" square	.188"	11"	10"–12"	7.07"–8.48"	10.50"	3/4"x30"x3"	3.5	257
SSSE30-40B EXS	30	9.1	4" square	.188"	11"	10"–12"	7.07"–8.48"	10.50"	3/4"x30"x3"	3.5	304
SSSE16-50B	16	4.9	5" square	.188"	11"	10.25"–13.25"	7.25"–9.37"	11.50"	1"x36"x4"	4.5	219
SSSE18-50B	18	5.5	5" square	.188"	11"	10.25"–13.25"	7.25"–9.37"	11.50"	1"x36"x4"	4.5	243
SSSE20-50B	20	6.1	5" square	.188"	11"	10.25"–13.25"	7.25"–9.37"	11.50"	1"x36"x4"	4.5	267
SSSE25-50B	25	7.6	5" square	.188"	11"	10.25"–13.25"	7.25"–9.37"	11.50"	1"x36"x4"	4.5	327
SSSE30-50B EXS	30	9.1	5" square	.188"	11"	10.25"–13.25"	7.25"–9.37"	11.50"	1"x36"x4"	4.5	387
SSSE25-50C	25	7.6	5" square	.25"	11"	10.25"–13.25"	7.25"–9.37"	11.50"	1"x36"x4"	4.5	427
SSSE30-50C	30	9.1	5" square	.25"	11"	10.25"–13.25"	7.25"–9.37"	11.50"	1"x36"x4"	4.5	507
SSSE20-60B	20	6.1	6" square	.188"	12"	11.00"–13.25"	7.81"–9.37"	12.25"	1"x36"x4"	5.0	329
SSSE25-60B	25	7.6	6" square	.188"	12"	11.00"–13.25"	7.81"–9.37"	12.25"	1"x36"x4"	5.0	404
SSSE30-60B	30	9.1	6" square	.188"	12"	11.00"–13.25"	7.81"–9.37"	12.25"	1"x36"x4"	5.0	479
SSSE35-60B	35	10.7	6" square	.188"	12"	11.00"–13.25"	7.81"–9.37"	12.25"	1"x36"x4"	5.0	554
SSSE40-60B	40	12.2	6" square	.188"	12"	11.00"–13.25"	7.81"–9.37"	12.25"	1"x36"x4"	5.0	629

NOTES:
1. Factory supplied template must be used when setting anchor bolts. Current will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template and anchor bolts.

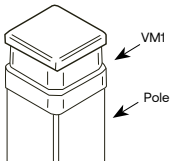
EHH EXTRA HANDHOLE



C05 - C07 - C20 - COUPLING

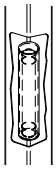


VM1 - VIBRATION DAMPER 1ST MODE



Field Installed Pole Top damper designed to reduce pole top deflection or sway. VM1 is recommended for pole systems 20' and taller with a total EPA of 1.0 or

VM2 - VIBRATION DAMPER 2ND MODE



Factory installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

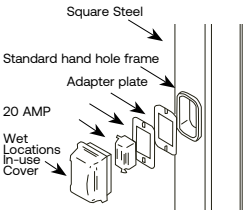
VM2SXX - VIBRATION DAMPER 2ND MODE



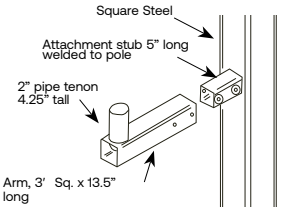
VM2S08 – 8'
VM2S12 – 12'
VM2S16 – 16'
VM2S20 – 20'
VM2S24 – 24'

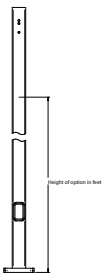
Field installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

GFI – 20 AMP GFCI RECEPTACLE & COVER

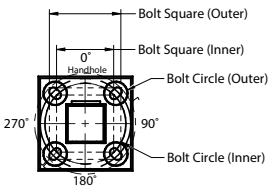


MPB - MID POLE BRACKET





OPTION ORIENTATION



Follow the logic below when ordering location specific options. For each option, include its orientation (in degrees) and its height (in feet).
Example:
Option C07 should be ordered as: SSE20-40A-TA-E2-DBT-CO7-0-15 (.5' coupling on the handhole/arm side of pole, 15 feet up from the pole base) 1' spacing required between option. Consult factory for other configurations.

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Evolve®

SSSE Series Poles

Square | Straight | Steel

EPA Load Rating - Wind Maps

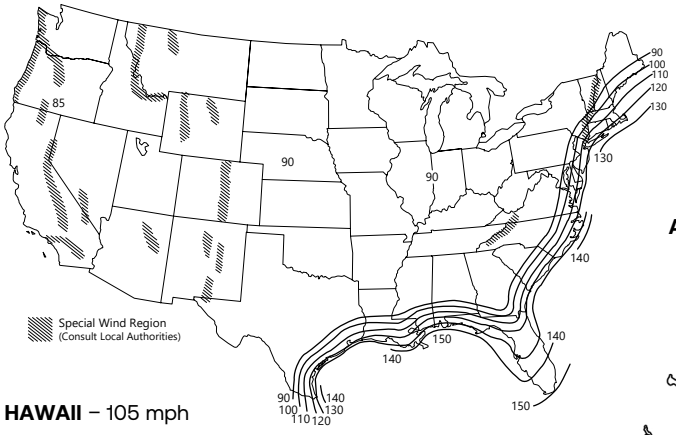
CUSTOMER NAME _____

PROJECT NAME _____

DATE _____ TYPE _____

CATALOG NUMBER _____

ASCE7-05 WIND MAP

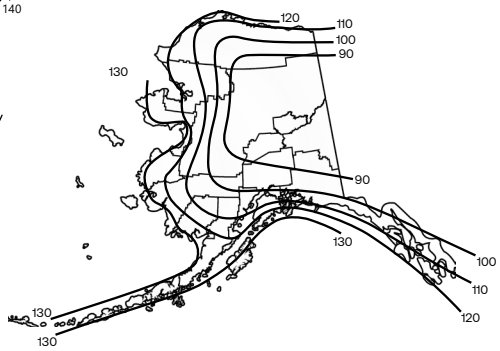


HAWAII – 105 mph

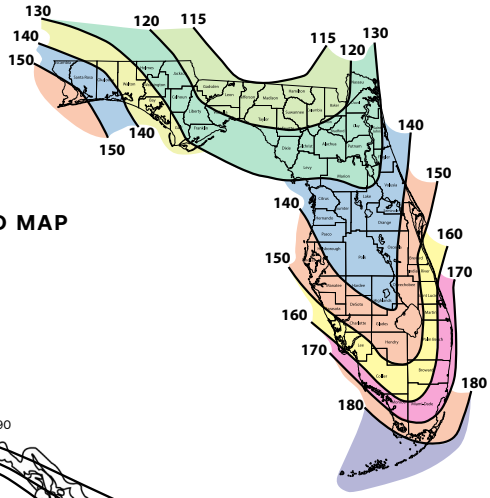
PUERTO RICO – 145 mph

*Printed with permission from ASCE

ALASKA REGION WIND MAP



FLORIDA REGION WIND MAP



Florida region wind map above is based upon 3-second gust winds and the 2017 Florida Building Code

ASCE 7-05 wind map EPA Load Rating - 3 second gust wind speeds (Use for all locations except Florida)										
Catalog Number	**85**	**90**	**100**	**105**	**110**	**120**	**130**	**140**	**145**	**150**
SSSE10-40A	25.0	25.0	25.0	22.8	20.6	17.0	14.2	11.9	11.0	10.1
SSSE12-40A	25.0	25.0	20.0	18.0	16.1	13.2	10.8	8.9	8.1	7.4
SSSE14-40A	23.1	20.4	16.1	14.3	12.8	10.2	8.2	6.6	5.9	5.3
SSSE16-40A	19.0	16.7	13.0	11.5	10.1	7.9	6.2	4.7	4.1	3.6
SSSE18-40A	15.6	13.6	10.0	9.0	7.8	5.9	4.4	3.1	2.6	2.1
SSSE20-40A	12.7	10.9	7.9	6.9	5.9	4.2	2.8	1.7	1.3	0.9
SSSE25-40A	7.3	5.9	3.8	2.9	2.1	0.8	NR	NR	NR	NR
SSSE14-40B	25.0	25.0	23.3	20.8	18.6	15.1	12.3	10.2	9.2	8.4
SSSE16-40B	25.0	24.9	19.4	17.3	15.4	12.3	9.9	8.0	7.2	6.4
SSSE18-40B	24.0	20.8	16.1	14.2	12.5	9.8	7.7	6.1	5.3	4.7
SSSE20-40B	20.2	17.5	13.2	11.6	10.1	7.7	5.9	4.4	3.8	3.2
SSSE25-40B	12.8	11.0	7.9	6.7	5.5	3.7	2.3	1.2	0.7	NR
SSSE30-40B	8.0	6.6	4.1	3.1	2.2	0.8	NR	NR	NR	NR
SSSE16-50B	25.0	25.0	25.0	25.0	24.8	20.1	16.5	13.6	12.3	11.2
SSSE18-50B	25.0	25.0	25.0	22.9	20.4	16.4	13.2	10.7	9.6	8.6
SSSE20-50B	25.0	25.0	21.3	18.9	16.7	13.2	10.4	8.1	7.2	6.3
SSSE25-50B	20.7	17.8	13.3	11.5	9.8	7.2	5.0	3.3	2.6	1.9
SSSE30-50B	13.5	11.3	7.7	6.2	4.9	2.8	1.1	NR	NR	NR
SSSE25-50C	25.0	25.0	19.4	17.1	15.1	11.7	9.0	6.9	6.0	5.1
SSSE30-50C	20.1	17.3	12.7	10.9	9.3	6.6	4.5	2.8	2.1	1.4
SSSE20-60B	25.0	25.0	25.0	25.0	25.0	20.2	16.1	12.9	11.5	10.3
SSSE25-60B	25.0	25.0	20.6	18.0	15.6	11.8	8.7	6.2	5.2	4.2
SSSE30-60B	21.4	18.1	12.9	10.7	8.8	5.7	3.3	1.3	NR	NR
SSSE35-60B	14.0	11.3	6.9	5.2	3.6	1.0	NR	NR	NR	NR
SSSE40-60B	8.1	5.8	2.2	NR	NR	NR	NR	NR	NR	NR

Florida Building Code 2017 EPA Load Rating - 3 second gust wind speeds (Use for Florida only)								
Catalog Number	**115**	**120**	**130**	**140**	**150**	**160**	**170**	**180**
SSSE10-40A	25.0	25.0	25.0	25.0	21.4	18.4	15.9	13.9
SSSE12-40A	25.0	25.0	23.6	19.8	16.7	14.2	12.1	10.4
SSSE14-40A	25.0	23.1	19.0	15.7	13.1	10.9	9.1	7.6
SSSE16-40A	20.8	18.7	15.2	12.3	10.1	8.2	6.7	5.4
SSSE18-40A	16.8	15.0	11.9	9.4	7.5	5.9	4.5	3.4
SSSE20-40A	13.6	11.9	9.2	7.1	5.3	3.9	2.7	1.7
SSSE25-40A	7.4	6.2	4.1	2.5	1.1	NR	NR	NR
SSSE14-40B	25.0	23.6	19.4	16.1	13.4	11.2	9.4	7.8
SSSE16-40B	21.4	19.2	15.6	12.7	10.4	8.5	6.9	5.6
SSSE18-40B	17.2	15.4	12.2	9.7	7.7	6.1	4.7	3.6
SSSE20-40B	13.9	12.3	9.5	7.3	5.5	4.1	2.9	1.9
SSSE25-40B	7.7	6.4	4.3	2.6	1.3	NR	NR	NR
SSSE30-40B	3.2	2.1	NR	NR	NR	NR	NR	NR
SSSE16-50B	25.0	25.0	25.0	25.0	25.0	21.4	18.2	15.5
SSSE18-50B	25.0	25.0	25.0	24.4	20.4	17.0	14.2	11.9
SSSE20-50B	25.0	25.0	24.4	19.9	1 6.3	13.4	11.0	8.9
SSSE25-50B	21.8	19.3	15.0	11.5	8.8	6.5	4.7	3.1
SSSE30-50B	13.7	11.7	8.2	5.5	3.3	1.5	NR	NR
SSSE25-50C	21.8	19.3	15.0	11.5	8.8	6.5	4.7	3.1
SSSE30-50C	13.7	11.7	8.2	5.5	3.3	1.5	NR	NR
SSSE20-60B	25.0	25.0	25.0	21.9	17.8	14.5	11.7	9.4
SSSE25-60B	23.8	20.9	16.1	12.3	9.2	6.6	4.5	2.8
SS-E30-60B	14.6	12.3	8.4	5.3	2.8	0.8	NR	NR
SSSE35-60B	7.5	5.6	2.4	NR	NR	NR	NR	NR
SSSE40-60B	1.8	NR	NR	NR	NR	NR	NR	NR

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CUSTOMER NAME _____
PROJECT NAME _____
DATE _____ TYPE _____
CATALOG NUMBER _____

NOTES

1. Allowable EPA, to determine max pole loading weight, multiply allowable EPA by 30 lbs.
2. The tables for allowable pole EPA are based on the ASCE 7-05 Wind Map or the Florida Region Wind Map for the 2010 Florida Building Code. The Wind Maps are intended only as a general guide and cannot be used in conjunction with other maps. Always consult local authorities to determine maximum wind velocities, gusting and unique wind conditions for each specific application
3. Allowable pole EPA for jobsite wind conditions must be equal to or greater than the total EPA for fixtures, arms, and accessories to be assembled to the pole. Responsibility lies with the specifier for correct pole selection. Installation of poles without luminaires or attachment of any unauthorized accessories to poles is discouraged and shall void the manufacturer's warranty
4. Wind speeds and listed EPAs are for ground mounted installations. Poles mounted on structures (such as bridges and buildings) must consider vibration and coefficient of height factors beyond this general guide; Consult local and federal standards
5. Wind Induced Vibration brought on by steady, unidirectional winds and other unpredictable aerodynamic forces are not included in wind velocity ratings. Consult Current's Pole Vibration Application Guide for environmental risk factors and design considerations: http://images.salsify.com/image/upload/s--Uk0Lfj10--/bf7prkg0aey64uqoipso
6. Extreme Wind Events like, Hurricanes, Typhoons, Cyclones, or Tornadoes may expose poles to flying debris, wind shear or other detrimental effects not included in wind velocity ratings

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

Unwrap poles immediately upon receipt to avoid condensation build up and possible corrosion.

Note: There will be a weld witness mark on the side of the pole with the Factory installed VM2.

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Evolve®



CUSTOMER NAME _____

PROJECT NAME _____

DATE _____ TYPE _____

CATALOG NUMBER _____

EACL® Series

LED Area Light/Compact Low Wattage

Current's EAL Series of Area Light Luminaires offer a wide range of optical patterns, color temperatures, lumen packages, and mounting configurations to optimize area light applications, as well as provide versatility in lighting design within the same form factor.

Construction

Housing:	Die-cast aluminum housing with integral heat sink for maximum heat transfer
Paint:	Corrosion resistant polyester powder paint, minimum 2.0 mil thickness Standard = Black, Dark Bronze Gray, White (RAL & custom colors available) Optional coastal finish available.
Weight:	18 lbs (8.16 kg) Max depending on configuration

Optical System

Lumens:	2,900 - 20,400
Distribution:	Asymmetric Forward Type IV Asymmetric Wide Type III Asymmetric Narrow/Auto Type II
Efficacy:	123 - 143 LPW
CCT:	3000K, 4000K, 5000K
CRI:	≥70

Electrical

Input Voltage:	120-277V & 347-480V
Input Frequency:	50/60Hz
Power Factor:	> 90% at rated watts
Total Harmonic Distortion:	< 20% at rated watts

Surge Protection*

TYPCIAL (120 STRIKES)	ENHANCED (40 STRIKES)	
☐ 6kV/3kA*	☐ 10kV/5kA*	

*Per ANSI C136.2-2015

Warranty

☐ 5 Year (Standard)

Lumen Maintenance

Projected Lxx per IES TM-21-11 at 25°C

LUMEN CODES	LXX(10K) @ HOURS		
	25,000 HR	50,000 HR	60,000 HR
A2, A3, A4, B2, B3, B4, C2, C3, C4D2, D3, D4, E2, E3, E4, F2, F3, F4	L94	L90	L88
H2,H3, H4	L97	L96	L96

Note: Projected Lxx based on LM80 (≥ 10,000 hour testing). Accepted Industry tolerances apply to initial luminous flux and lumen maintenance measurements.

Luminaire Ambient Temperature Factor

AMBIENT TEMP (°C)	INITIAL FLUX FACTOR	AMBIENT TEMP (°C)	INITIAL FLUX FACTOR
10	1.02	30	0.99
20	1.01	40	0.98
25	1.00	50	0.97

Ratings

Operating Temperature:	-40°C to 50°C
Vibration:	3G vibration per ANSI C136.31-2018
LM-79:	Testing in accordance with IESNA Standards

Controls

Dimming:	Standard - 0-10V ☐ Optional - DALI (Option U) ☐
Sensors:	Photo Electric Sensors (PE) available LightGrid+™ and Daintree Compatible

IP66 Optical Only

IK08

Not all product variations listed on this page are DLC qualified.
Visit www.designlights.org/search to confirm qualifications.

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Evolve®

EACL® Series
LED Area Light/Compact Low Wattage

CUSTOMER NAME _____

PROJECT NAME _____

DATE _____ TYPE _____

CATALOG NUMBER _____

Ordering Information

EACL 01 7

- - - -

CUSTOMER NAME _____

PROJECT NAME _____

DATE _____ TYPE _____

CATALOG NUMBER _____

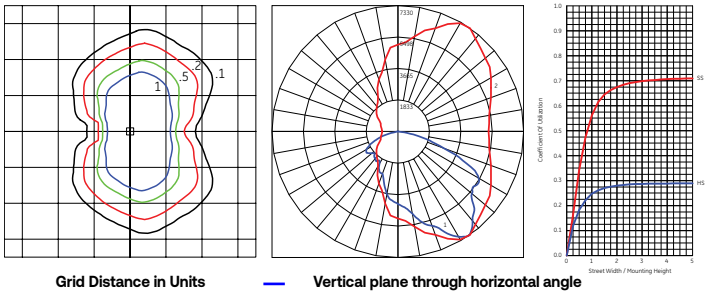
OPTICAL CODE	DIST CODE	CLASSIFICATION	TYPICAL LUMENS		TYPICAL SYSTEM WATTAGE		BUG RATING	
			3000K	4000K &5000K	120-277V	347-480V	3000K	4000K &5000K
A4	AF	TYPE IV	2900	2900	21	23	B1-UO-G1	B1-UO-G1
B4			4900	4900	36	38	B1-UO-G1	B1-UO-G1
C4			7300	7300	55		B1-UO-G2	B1-UO-G2
D4			9800	9800	73		B2-UO-G2	B2-UO-G2
E4			12200	12200	95		B2-UO-G2	B2-UO-G2
F4			14700	14700	122		B2-UO-G2	B2-UO-G2
H4			19000	19000	153		B3-UO-G3	B3-UO-G3
A3	AW	TYPE III	2900	3000	21	23	B1-UO-G1	B1-UO-G1
B3			4900	5100	36	38	B1-UO-G1	B1-UO-G1
C3			7400	7600	55		B1-UO-G2	B1-UO-G2
D3			9900	10200	73		B2-UO-G2	B2-UO-G2
E3			12400	12700	95		B2-UO-G2	B2-UO-G2
F3			14900	15300	122		B2-UO-G2	B2-UO-G2
H3			19300	20400	153		B3-UO-G2	B3-UO-G2
A2	AN	TYPE II	2900	3000	21	23	B1-UO-G1	B1-UO-G1
B2			4900	5000	36	38	B1-UO-G1	B1-UO-G1
C2			7300	7500	55		B2-UO-G1	B2-UO-G2
D2			9800	10100	73		B2-UO-G2	B2-UO-G2
E2			12300	12600	95		B2-UO-G2	B2-UO-G2
F2			14700	15100	122		B3-UO-G2	B3-UO-G3
H2			19100	20200	153		B3-UO-G3	B3-UO-G3

For additional information on Non-Shielded and Shielded EACL IES files, please refer to LED.com

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EACL - Type II - Very Short

15,100 lumens
EACL01_F2AN750___.IES



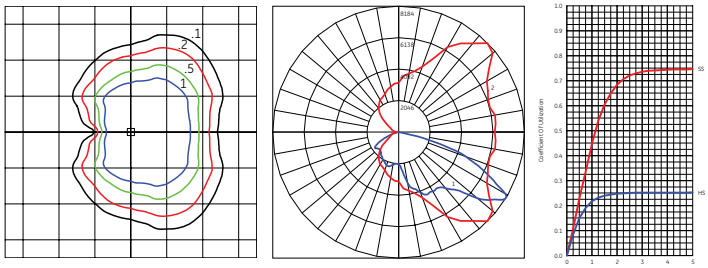
Grid Distance in Units of Mounting Height at 20' Initial Footcandle Values at Grade

Vertical plane through horizontal angle of maximum candlepower at XX°

Vertical plane through horizontal angle of XX°

EACL - Type III - Short

15,300 lumens
EACL01_F3AW750___.IES



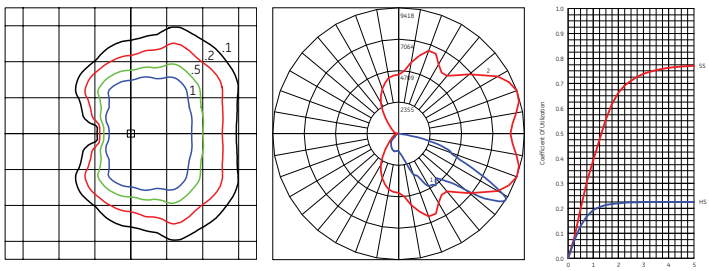
Grid Distance in Units of Mounting Height at 20' Initial Footcandle Values at Grade

Vertical plane through horizontal angle of maximum candlepower at XX°

Vertical plane through horizontal angle of XX°

EACL - Type III - Very Short

15,000 lumens
EACL01_F4AF750___.IES



Grid Distance in Units of Mounting Height at 20' Initial Footcandle Values at Grade

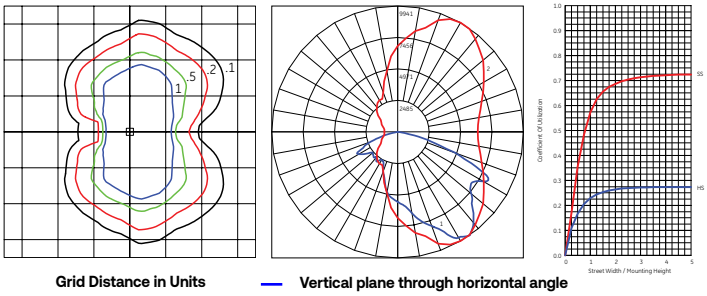
Vertical plane through horizontal angle of maximum candlepower at XX°

Vertical plane through horizontal angle of XX°

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EACL - Type II- Very Short

20,200 lumens
EACL01_H2AN750___.IES



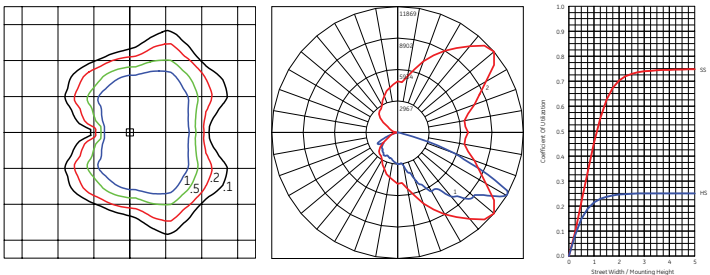
Grid Distance in Units of Mounting Height at 20' Initial Footcandle Values at Grade

Vertical plane through horizontal angle of maximum candlepower at XX°

Vertical plane through horizontal angle of XX°

EACL - Type III - Short

20,400 lumens
EACL01_H3AW750___.IES



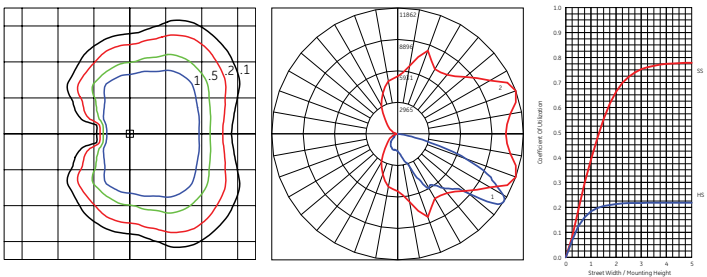
Grid Distance in Units of Mounting Height at 20' Initial Footcandle Values at Grade

Vertical plane through horizontal angle of maximum candlepower at XX°

Vertical plane through horizontal angle of XX°

EACL - Type IV - Very Short

20,000 lumens
EACL01_H4AF750___.IES



Grid Distance in Units of Mounting Height at 20' Initial Footcandle Values at Grade

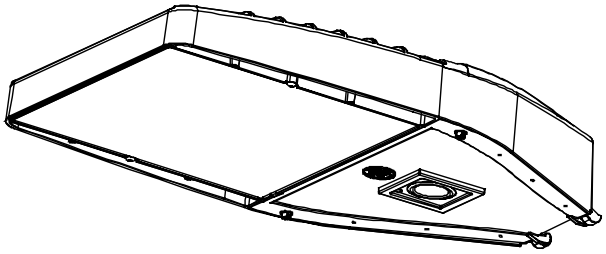
Vertical plane through horizontal angle of maximum candlepower at XX°

Vertical plane through horizontal angle of XX°

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H-Motion Sensing Option

- Recommended Mounting Height: 15-30’ (4.6-9.1m
- For mounting heights exceeding 30 ft., pole mounted sensors are recommended
- Coverage Radius: 15-20’ (4.6-6.1 m).
- Provides 270 degree of coverage (approx 90 is blocked by the pole)
- Default Settings:
  – Output: Occupied - 100%/Unoccupied - 50%
  – Integral PE Sensor.
  – 5 minute post-occupancy time delay, 5 minute dimming ramp-down.
- Fixture power increase of 1W expected with sensor use.

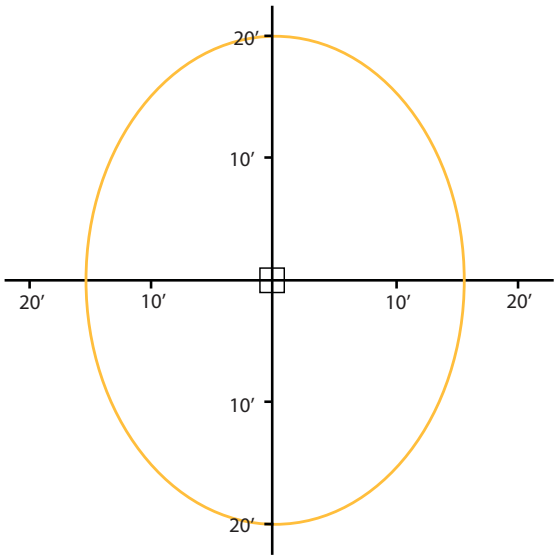


H1/4 - Motion Sensing Option (WattStopper)

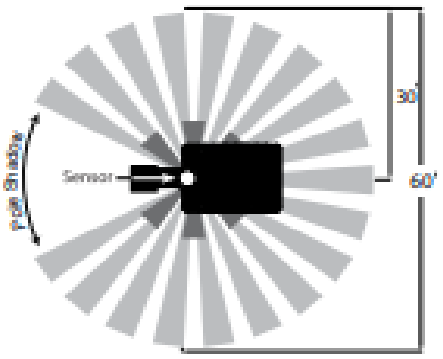
- Recommended Mounting Height: 15-30’ (4.6-9.1m
- For mounting heights exceeding 30 ft., pole mounted sensors are recommended
- Coverage Radius: 15-20’ (4.6-6.1 m).
- Provides 270 degree of coverage (approx 90 is blocked by the pole)
- Default Settings:
  – Output: Occupied - 100%/Unoccupied - 10%
  – PE Sensor: Disabled
  – Ramp/Fade: Disabled
- Adds < 1W to fixture power rating
- Field programmable using FSIR-100 hand held programmer

H2 - Motion Sensing Option (Daintree)

- Recommended Mounting Height: 15-30' (4.6-9.1m
- For mounting heights exceeding 30 ft., pole mounted sensors are recommended
- Provides a coverage area radius for walking motion of 15-20 ft. (4.57-6.10m)
- Provides 270 degree of coverage (approx 90 is blocked by the pole)
- Default Settings:
  – Output: Occupied - 100%/Unoccupied - 50%
  – PE Sensor: None
  – Ramp/Fade: 5 Minutes/5 Minutes
- Adds < 1W to fixture power rating
- Requires Daintree Enterprise and wide area control (WAC)

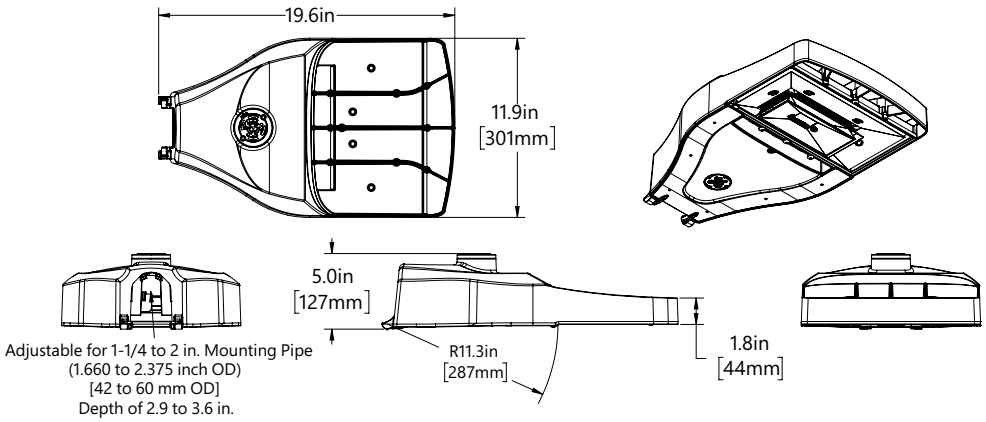


Sensing Pattern Area Fixture
Up to 30 ft. Mounting Height

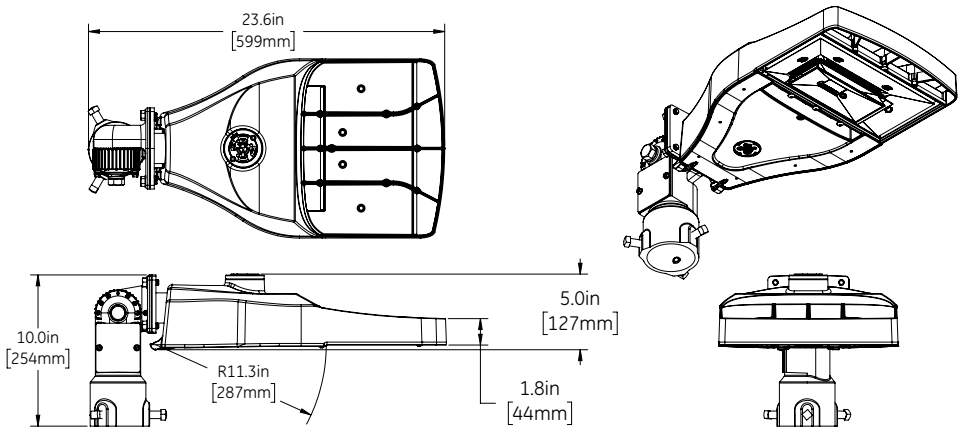


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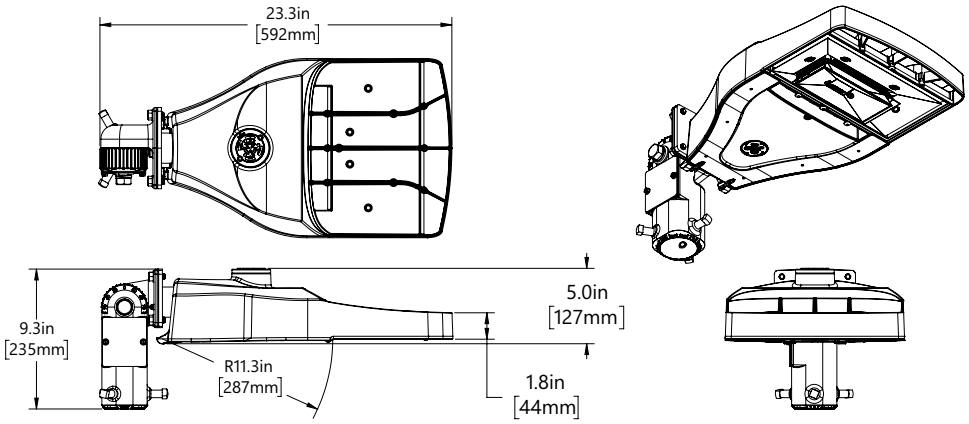
Integral Slipfitter: C1



Knuckle Slipfitter: S1

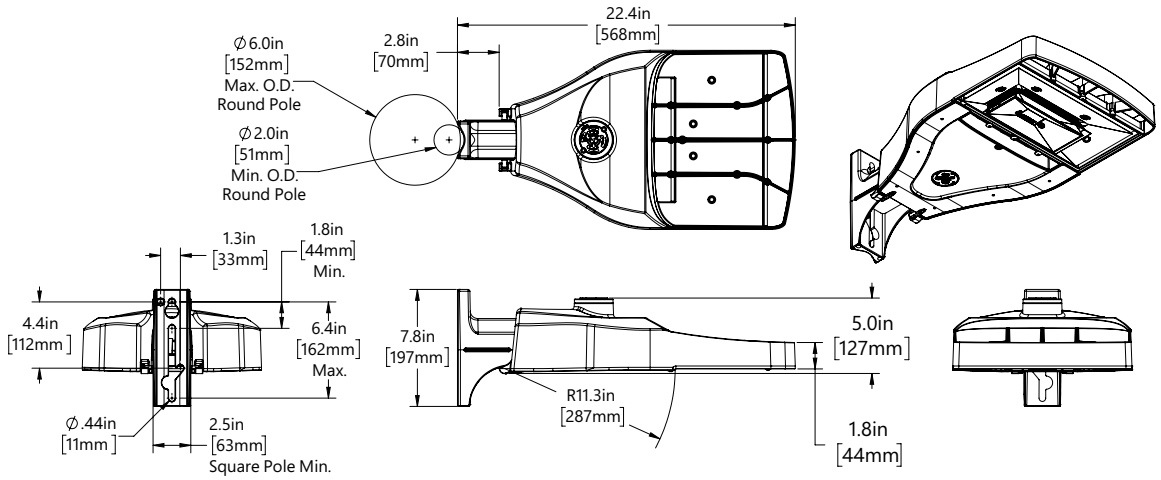


Knuckle Slipfitter: K1

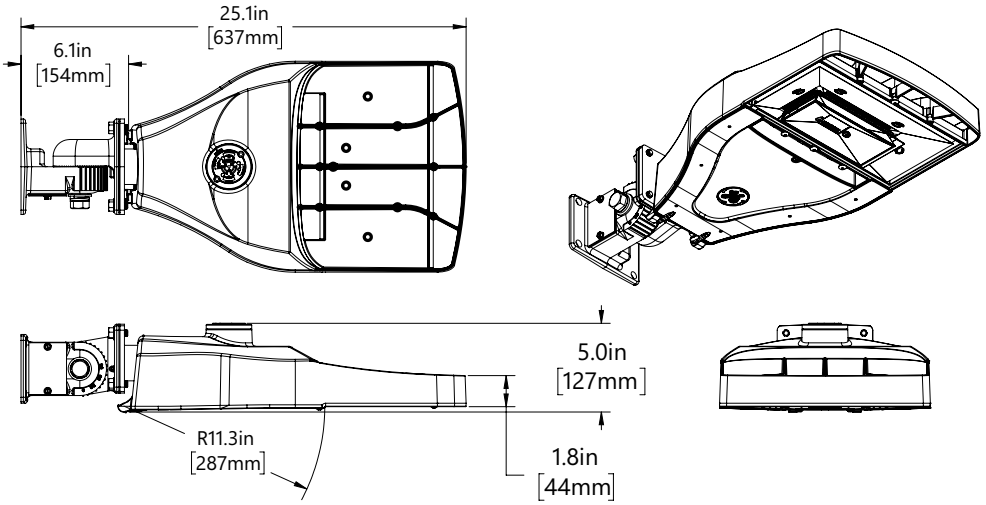


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Universal Mounting Arm: D1



Knuckle Wall Mount: V1



Weight

- 18 lbs (8.16 kg) Max depending on configuration

Effective Projected Area

- Integral Slipfitter C1, EPA = 0.31 Min/0.37 Max
- Universal Arm Mount D1, EPA = 0.31 Min / 0.52 Max
- Knuckle Slipfitter S1, K1 downward aim, EPA = 0.46 Min / 0.56 Ma
- Knuckle Slipfitter S1, K1 45° aim, EPA = 0.56 Min / 1.03 Max

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Evolve®

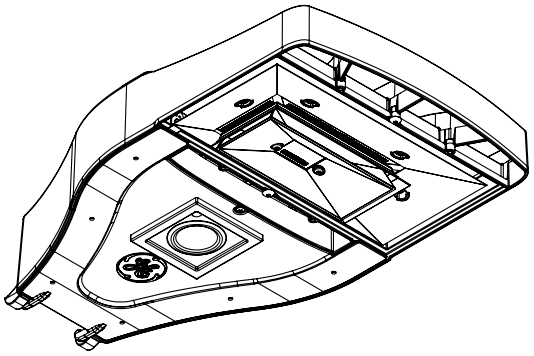
EACL® Series
LED Area Light/Compact Low Wattage

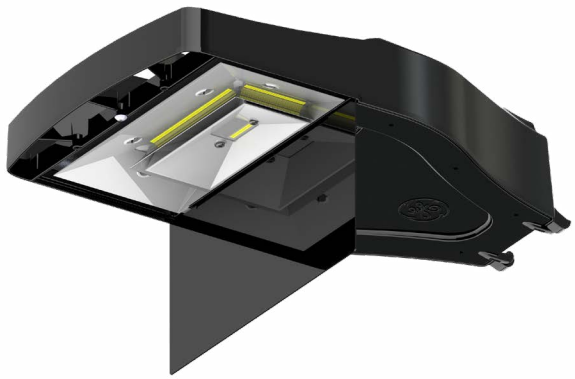
CUSTOMER NAME _____

PROJECT NAME _____

DATE _____ TYPE _____

CATALOG NUMBER _____





PE Accessories (To Be Order Separately)

SAP NUMBER	PART NUMBER	DESCRIPTION
93123552	WANSI - 277	ANSI 136.41 Dimming PE Danitree Enable, 105-305V
93123553	WANSI - 480	ANSI 136.41 Dimming PE Danitree Enable, 312-530V
93029237	PED-MV-LED-7	ANSI C136.41 Dimming PE, 120-277V
93029238	PED-347-LED-7	ANSI C136.41 Dimming PE, 347V
93029239	PED-480-LED-7	ANSI C136.41 Dimming PE, 480V

SAP NUMBER	PART NUMBER	DESCRIPTION
28299	PEC0TL	STANDARD 120-277V
28294	PEC5TL	STANDARD 480V
80436	PECDTL	STANDARD 347V
73251	SCCL-PECTL	Shorting cap

Back Light Shied

SHIELD ORIENTATIONS	CUTOFF DISTANCE	SHIELD ORDER LOGIC
Back	Long	ELS-EACL-RBL-BLCK

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Evolve®



CUSTOMER NAME _____

PROJECT NAME _____

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CATALOG NUMBER _____

EWLS L Series

LED Wall Pack

The Evolve® LED L Series Wall Pack (EWLS), The Evolve LED L-Series Wall Pack, EWLS, is a designed replacement for 50W to 250W HID, while offering significant energy savings in a long-life LED wall pack. Two-screw housing design enables a fast and simplified installation. The low-watt Egress package is designed to meet recommended illuminance requirements for egress applications such as side and rear exit doors in commercial buildings. Available with Emergency Battery Backup option.

Construction

Housing:	Aluminum die cast enclosure. Integral heat sink for maximum heat transfer
Lens:	Impact resistant tempered glass
Paint:	Corrosion resistant polyester powder paint, minimum 2.0 mil thickness Color: Black, Dark Bronze, Gray & White (RAL & custom colors available) Optional = Coastal Finish
Weight:	8.5lbs (4 kg)

Optical System

Lumens:	1,700 to 7,000
Distribution:	Asymmetric Forward
Efficacy:	117- 148 LPW
CCT:	2700, 3000K, 4000K, 5000K
CRI:	≥70

Electrical

Input Voltage:	120-277V & 347V
Input Frequency:	50/60Hz
Power Factor:	> 90% at rated watts
Total Harmonic Distortion:	≤ 20% at rated watts

Surge Protection

Surge Protection	10kV/5kA (Standard) 3kV/1.5kA (EMBB)

***Per ANSI C136.2-2015**

Lumen Maintenance

Projected Lxx per IES TM-21-11 at 25°C

LUMEN CODES	DISTRIBUTION	LXX(10K) @ HOURS		
		25,000 HR	50,000 HR	60,000 HR
17, 25 & 40	AF	L99	L99	L99
70	AF	L94	L87	L85

Note: Projected Lxx based on LM80 (≥ 10,000 hour testing). Accepted Industry tolerances apply to initial luminous flux and lumen maintenance measurements.

Luminaire Ambient Temperature Factor

AMBIENT TEMP (°C)	INITIAL FLUX FACTOR	AMBIENT TEMP (°C)	INITIAL FLUX FACTOR
10	1.02	30	0.99
20	1.01	40	0.98
25	1.00	50	0.97

Ratings

Operating Temperature:	-40°C to 50°C
Vibration:	3G per ANSI C136.31-2010
LM-79:	Testing in accordance with IESNA Standards

Controls

Dimming:	Standard - 0-10V
Sensors:	Photo Electric Sensors (PE) available Motion Sensor

Warranty

☐ 5 Year (Standard)

Emergency Battery Backup

Provides reliable emergency operations when there is a loss to normal power, supported by Independent Secondary Battery.

- Hold-Up Time: 90 minutes @ 1,400 lumens.
- Meet egress light level and uniformity requirements
- Not available in 347V
- Operating Temperature (for EMBB models) 0° to 40°C
- 3kV/1.5kA surge protection for EMBB models.

Not all product variations listed on this page are DLC qualified. Visit www.designlights.org/searchto confirm qualifications.

IP66 Optical

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Evolve®

EWLS L Series
LED Wall Pack

CUSTOMER NAME _____
PROJECT NAME _____
DATE _____ TYPE _____
CATALOG NUMBER _____

Ordering Information

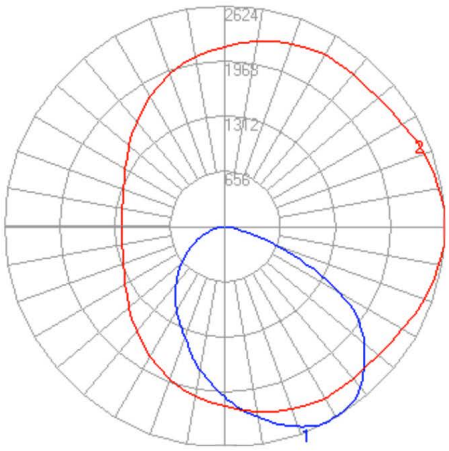
E W L S 02 AF 70

_ _ _ _

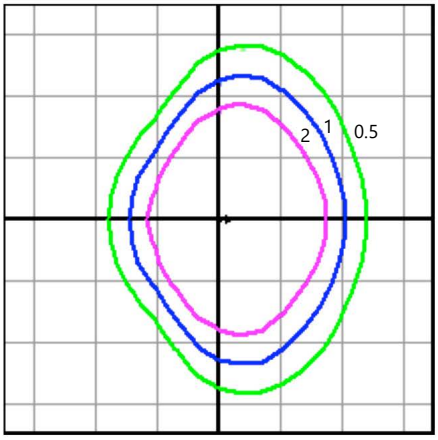
CUSTOMER NAME _____
PROJECT NAME _____
DATE _____ TYPE _____
CATALOG NUMBER _____

70AF
ASYMMETRIC FORWARD

7000 LUMEN
EWLS02_70AF750___-120-277V.ies



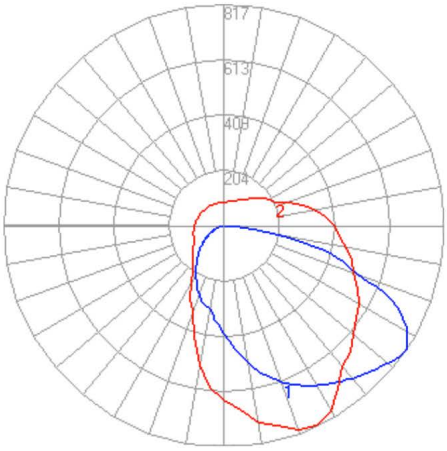
— Vertical plane through horizontal angle of Max. Cd at 0°
— Horizontal cone through vertical angle of Max. Cd at 27°



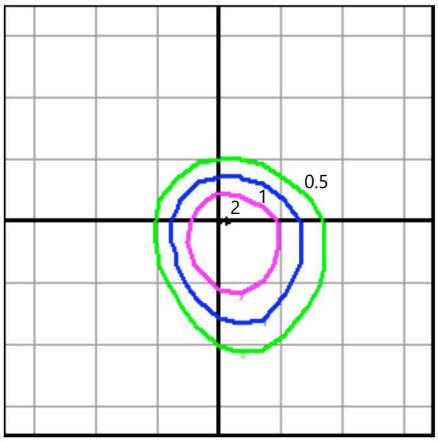
- Mounting Height at 10'
- Initial Footcandle at Grade
- Light Level: 0.5fc, 1fc, 2fc

EMBB Mode
ASYMMETRIC FORWARD

1400 LUMEN
EWLS02_EMBB___.ies



— Vertical plane through horizontal angle of Max. Cd at 295°
— Horizontal cone through vertical angle of Max. Cd at 55°



- Mounting Height at 10'
- Initial Footcandle at Grade
- Light Level: 0.5fc, 1fc, 2fc

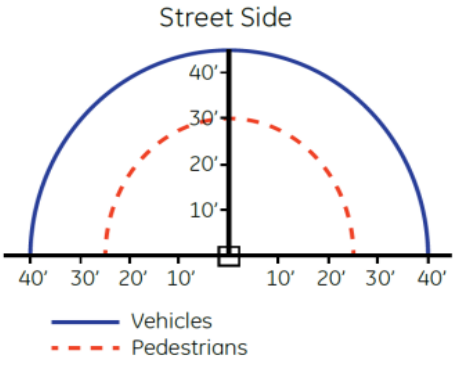
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PROJECT NAME _____
DATE _____ TYPE _____
CATALOG NUMBER _____

H Motion Sensing Option

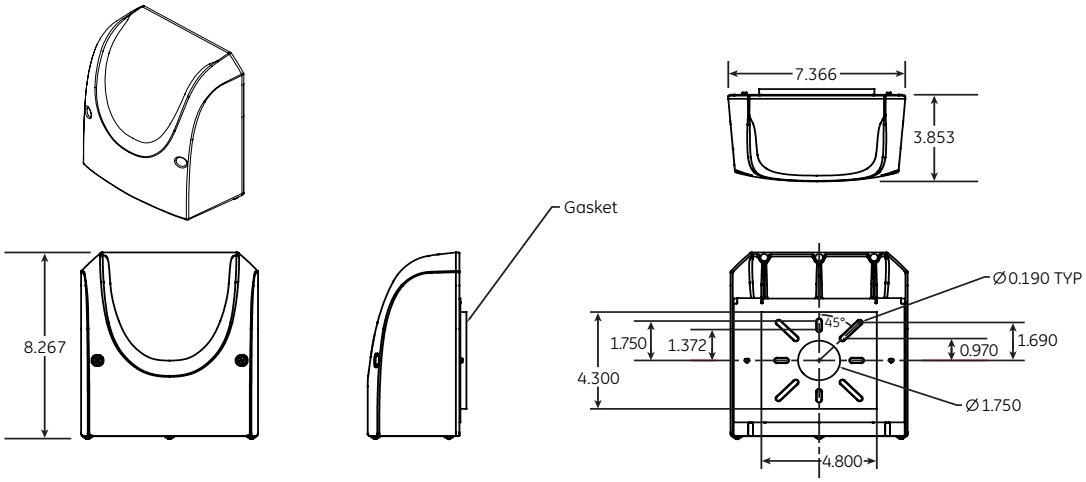
Intended for 8-25ft mounting heights
Provides coverage area radius for walking motion of 25-30 ft
Provides 180° degree coverage (180° degree blocked by wall)
Integrated Photoelectric control
Default Settings:
Output: Occupied - 100%/Unoccupied - 50%
10% dimming after 5 minutes with no occupancy
Adds < 1W to fixture power rating
Field programmable using FSIR-100 hand held programmer **SKU # 197634 (WS FSIR-100)**

Sensing Pattern:

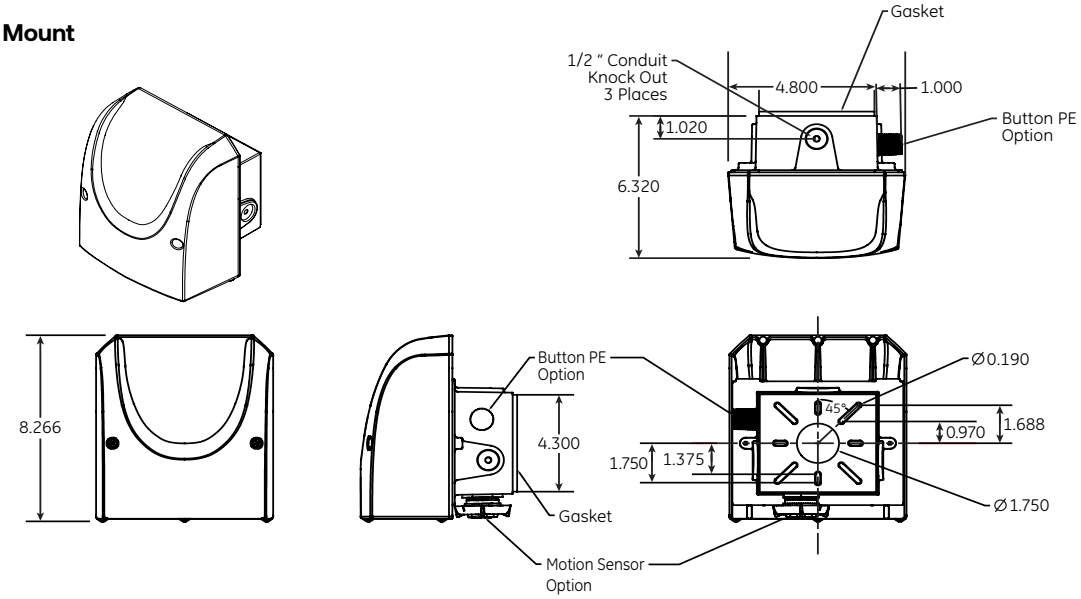


Sensing Pattern Wall Pack Fixture: 8-25 ft.

Flush Mount



Conduit Box Mount



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Mounting

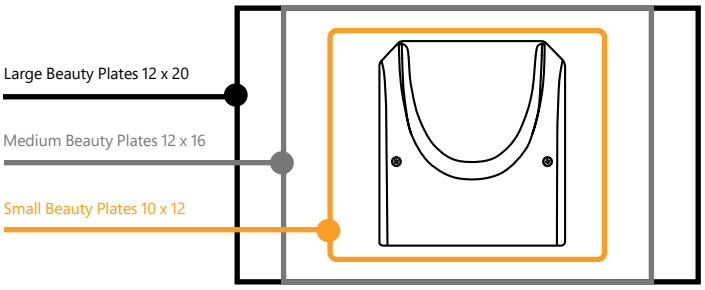
- Mounts to standard 3-1/2" to 4" round and octagonal, 4" square, single gang and masonry junction boxes.
- Flush Mount: Mounts directly to customer supplied junction box
- Conduit Box Mount: Mounts to walls via separate mounting box with conduit knockouts.

Accessories

SAP NUMBER	SKU DESCRIPTION	DESCRIPTION	FINISH
93098508	EWLSAE1BLCK	10" x 12" Beauty Plate	BLACK
93098507	EWLSAE1DKBZ	10" x 12" Beauty Plate	DARK BRONZE
93098509	EWLSAE2BLCK	12" x 16" Beauty Plate	BLACK
93078134	EWLSAE2DKBZ	12" x 16" Beauty Plate	DARK BRONZE
93098506	EWLSAE2GRAY	12" x 16" Beauty Plate	GRAY
93082336	EWLSAE2WHTE	12" x 16" Beauty Plate	WHITE
93117503	EWLSAE3BLCK	12" x 20" Beauty Plate	BLACK
93082337	EWLSAE3WHTE	12" x 20" Beauty Plate	WHITE
93060351	EWLSAD	Diffuser	

Accessories: Escutcheon Plates

Cover the unsightly debris marks on your building facade with color matched wall pack beauty plates. Mounting hole patterns and dimensions are compatible with typical building surface fastening methods.



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CUSTOMER NAME _____

PROJECT NAME _____

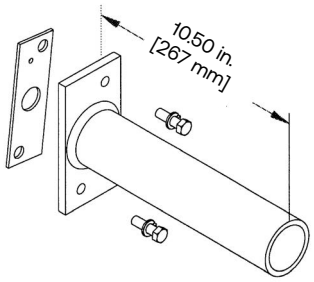
DATE _____ TYPE _____

CATALOG NUMBER _____

Mounting Arms for Slipfitter Order separately with Mounting Option C1 (Slipfitter)

Square pole mounting arm

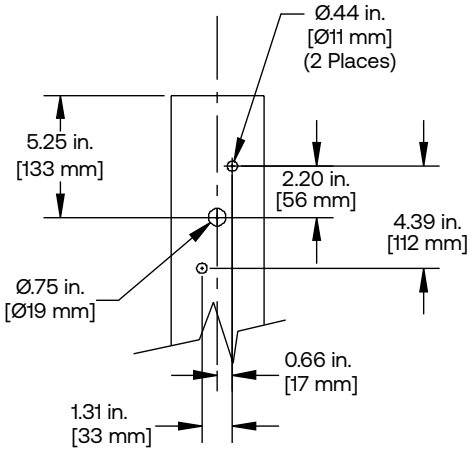
• 3.5 to 4.5-inch (89 to 114mm) square (will allow 4 fixtures per pole @ 90 degrees.)



Order separately from fixture as catalog number

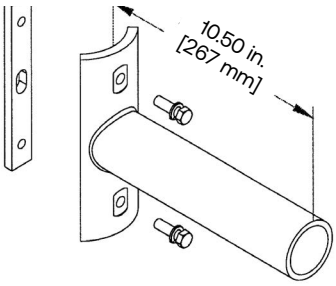
- SPA-EAMT10BLCK "Black"
- SPA-EAMT10DKBZ "Dark Bronze"
- SPA-EAMT10WHTE "White"
- SPA-EAMT10GRAY "Gray"

Square pole mounting drilling template



Round Pole Mounting Arm

• 3.5 to 4.5-inch (89 to 114mm) od (will allow 4 fixtures per pole @ 90 degrees.)

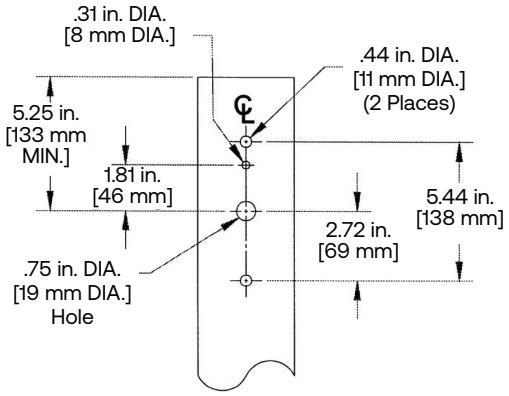


Order separately from fixture as catalog number

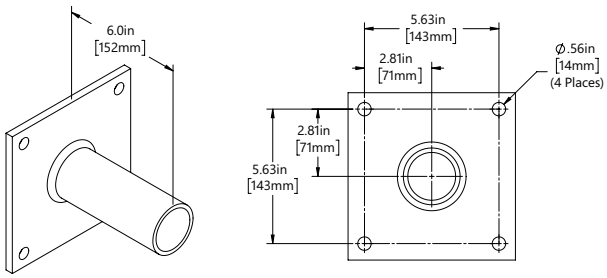
- RPA-EAMT10BLCK “Black”
- RPA-EAMT10DKBZ “Dark Bronze”
- RPA-EAMT10WHTE “White”
- RPA-EAMT10GRAY “Gray”

Round Pole Mounting Drilling Template

• 3.5 TO 4.5-inch (89 to 114mm) OD round pole mounting arm



Wall MOUNTING Bracket Hole Pattern



Wall Mounting Bracket Adapter Plate

Order seperately from fixture as catalog number WMB-EAMT06

***NOTE: For Wall Mounting, order luminaire with mounting arm: C1 = Slipfitter 2” Pipe (2.378 in. OD) supplied with leads.**

Other mounting patterns are available for retrofit installations. Contact manufacturing for other available mounting patterns.

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TOWN & COUNTRY ENGINEERING, INC.

September 8, 2025

Mr. Andrew Bremer, AICP
Community & Economic Development Director
Village of McFarland
5915 Milwaukee Street
P.O. Box 110
McFarland, WI 53558

Subject: Sperle Corners Development – Detailed Development Plan Submittal Review

Dear Andrew:

We have received the updated Detailed Development Plan submittal dated August 18, 2025 for Sperle Corners, a proposed new residential development north of Elvehjem Road and west of CTH AB, south of an existing multi-use trail, and east of some existing residential areas on Perrot Place. The preliminary plat, plans, and stormwater management report have been reviewed from a public works perspective. Our comments are shown below, organized by the appropriate document and/or drawing sheet number.

Construction Plans

All Sheets

- Confirm water main has 7 feet of cover. Some hydrant locations appear to show closer to 8 feet cover.
- Move all shutoffs for future large water laterals (6-inch and larger) to be within 6 feet of the main.
- Call out future private sewer and water mains as “PRIVATE”

Sheet C-3

- Spot grades should be provided at all lot corners and relative high/low points in the grading plan to allow for checking the final grades against the proposed grading plan.

Sheet C-6

- The existing hydrant at the current end of Devil’s Lake Way should be removed and relocated to the proposed new dead end at the Elvehjem Road intersection.
- Add main valves on both sides of the proposed hydrant near STA 5+05.
- Add a main valve on the east end of the proposed main connection for testing purposes.

Sheet C-7

- A valve should be added to the west leg of the tee at Elvehjem Road, and the northern valve on said tee be moved just north of the nearby proposed hydrant.

Sheet C-10

- The proposed hydrant near STA 55+28 on Elvehjem Road should have valves on both sides of the hydrant tee.
- Add a ditchline profile showing existing ground above the proposed water main to confirm proper bury depth.
- Add insultation between the new water main and proposed storm sewer crossing Elvehjem Road.

Sheet 16

- Confirm that the Village fire apparatus maneuver through the layout with parking as intended.

Final Plat

We have no further comments on the plat and recommend Village approval.

Stormwater Management Plan
The stormwater management design as proposed will meet the Village, County, and State performance standards, however there are several important items that will be needed prior to recommending Village approval:

- A plan view of the site showing the extent of overland water flow during a 200-year storm (assuming all inlets are plugged) must be provided to ensure water does not enter private properties.
- The Storm Sewer Sizing exhibit shows several pipes over capacity. Explanation should be provided for this (or upsizing of piping).

Please feel free to contact us with any questions or comments regarding this review.

Very truly yours,
TOWN & COUNTRY ENGINEERING, INC.



Brian R. Berquist, P.E.
President

cc: Mr. Lee Igl, Director of Public Works, Village of McFarland *(via email)*

Mr. Matthew Schuenke, Administrator, Village of McFarland *(via email)*

Mr. Ryan Quam, Quam Engineering *(via email)*

BRB:sai
J:\JOB#S\McFarland\MC-236-M6 Teppo-Sperle Property Review\1. Admin and PM\Review Letter 3.docx

September 5, 2025

Re: Design Review of Lakestone Properties Sperle Corners Proposed Development

We completed our review of the detailed PUD plan dated August 5, 2025.

We recognize that the project is still developing, and not all items are fully designed and documented. Below is a list of items that we noted that aren't displaying compliance with applicable codes or should be considered during the design of the project.

- The fire lane plan that was submitted previously indicates that the maximum roadway width would be required to comply with turning radius. The current plan submission doesn't include where parking restrictions will be placed on Devils Lake Way. Based on our review on streeting will be permitted in front Lots 3-13. The north/south portion of Devils Lake Way will not be permitted to have street parking. It should be noted that the fire department access requires vertical clearance of 13' 6", with the design utilizing full street width the provided trees can't extend over the street unless they are taller than 13' 6".
    - The department's recommendation is not to permit the current proposed street width.

- Any curb area within 20' of fire hydrant will be required to be signed as no parking. The curb shall be painted to produce a 20-foot stripe extending ten feet to each side of the hydrant. Areas without curbs shall have a four-inch-wide yellow stripe placed on the pavement.

- The provide elevations for the apartment buildings on Lot 18 an eave height of 32' 1 ½", which would require aerial access. The current access width doesn't comply with the 26' width for aerial access.

- The traffic calming devices (speed bumps) are required to be approved by the fire code official and will be required to be submitted. Speed bumps will not be accepted, and any traffic calming must comply with the following:

    - Maintain angle of approach or departure for fire apparatus to be 8 degrees or less. (NFPA 1901 12.3.2.2)
    - Height less than 8” (NFPA 1901 12.3.2.2)

- The indicated phase 1 apartments site plan has a fire department access road that exceeds 150’ without an approved turn-around. Occupancy of phase 1 will not be able to be granted until a turn-around is provided or the access is built out to provide the turn-around.

- When considering the Lot 18 units as a multi-family development the IFC requires (2) separate access roads unless all buildings are equipped with approved automatic fire sprinkler systems. It would be preferable to add a second access road to Elvehjem between the (37) unit and (40) unit apartment buildings. If not added, any building on the lot will require approved automatic fire sprinklers including a shed or an accessory building that is constructed in the future.

- Any building with 3 units or more will require an automatic fire sprinkler system and Knox key box. It is encouraged to provide Knox key boxes on all buildings and especially any buildings that are rented. The plans have not included floor plans for buildings, and it is understood that the floorplans more than likely haven't been developed. It should be noted though that any building with a fire sprinkler will require a riser room that is accessible without entering a private dwelling.

- The buildings will need to comply with IFC section 510 for emergency responder radio coverage.

Code sections for reference:

SPS 362.0903 (5)(a) Except as provided in pars. (b) to (cm), an automatic sprinkler system installed in accordance with IBC section 903.3 shall be provided throughout all buildings with a Group R fire area.

IBC 509.1 Fire protection equipment shall be identified in an approved manner. Rooms containing controls for air-conditioning systems, sprinkler risers and valves, or other fire detection, suppression or control elements shall be identified

for the use of the fire department. Approved signs required to identify fire protection equipment and equipment location shall be constructed of durable materials, permanently installed and readily visible.

IBC 916.1 Emergency responder radio coverage shall be provided in all new buildings in accordance with Section 510 of the International Fire Code.

IFC 503.2.1 Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm).

IFC 503.2.4 The required turning radius of a fire apparatus access road shall be determined by the fire code official.

IFC 503.3 Where required by the fire code official, approved signs or other approved notices or markings that include the words NO PARKING—FIRE LANE shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. The means by which fire lanes are designated shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

IFC 503.4.1. Traffic calming devices shall be prohibited unless approved by the fire code official.

IFC 504.1 Exterior doors and openings required by this code or the International Building Code shall be maintained readily accessible for emergency access by the fire department. An approved access walkway leading from fire apparatus access roads to exterior openings shall be provided when required by the fire code official.

IFC 507.5.1 Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route

around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.
Exceptions:
1.For Group R-3 and Group U occupancies, the distance requirement shall be 600 feet (183 m).
2.For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement shall be 600 feet (183 m).

IFC D103.4 Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) shall be provided with width and turnaround provisions in accordance with Table D103.4.

IFC D105.1 Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet (9144 mm), approved aerial fire apparatus access roads shall be provided. For purposes of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater.

IFC D105.2 Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet (7925 mm), exclusive of shoulders, in the immediate vicinity of the building or portion thereof.

IFC D105.3 At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet (4572 mm) and a maximum of 30 feet (9144 mm) from the building and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the fire code official.

IFC D106.1 Multiple-family residential projects having more than 100 dwelling units shall be equipped throughout with two separate and approved fire apparatus access roads. Exception: Projects having up to 200 dwelling units may have a single approved fire apparatus access road when all buildings, including

nonresidential occupancies, are equipped throughout with approved automatic sprinkler systems installed in accordance with Section 903.3.1.1 or 903.3.1.2.

VOM 26-146 (a) Required. Newly constructed commercial buildings and residential buildings containing three or more dwelling units, or when access to or within a structure or an area is unduly difficult because of secured openings or where immediate access is necessary for lifesaving or firefighting purposes, the Fire/EMS Chief may require that a key box be installed in an accessible location. The key box shall be a type approved by the Fire and Emergency Medical Services Department and shall contain those keys found to be necessary to provide emergency access.

VOM 26-176 Where the Village water system is available, and any portion of a commercial or industrial building containing 7,000 square feet or more of gross interior area, or a residential building containing more than two dwelling units and containing 7,000 square feet or more of gross interior area, is set back more than 300 feet from the centerline of the nearest abutting public right-of-way, the owner shall install approved fire hydrants at such owner's expense. The set back distances shall be determined by measuring the travel distance from a municipal hydrant along the centerline of a municipal street or private road suitable for travel by fire apparatus.

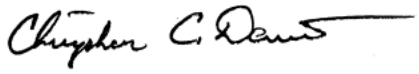
VOM 26-177 (a) One hydrant shall be located at the main entryway to such building or complex. Additional hydrants shall be provided around the perimeter of the building or complex so that no hydrant is more than 400 feet from any other approved hydrant as described in Section 26-176.

VOM 26-181 Fire hydrants shall be marked with the curb painted yellow. The curb shall be painted to produce a 20-foot stripe extending ten feet to each side of the hydrant. Areas without curbs shall have a four inch wide yellow stripe placed on the pavement.

The following items should be noted to assist in the project being completed smoothly and in a timely fashion:

- Village of McFarland is a delegated agent for the State of Wisconsin to perform fire protection and fire alarm systems reviews.
- Before the installation of any fire protection system a work permit is required to be issued by McFarland Fire & Rescue.
- Fire protection and fire alarm system reviews require the submission of architectural plans and would the owner to submit on behalf of the sprinkler and fire alarm contractors.
- Any privately owned piping including underground mains and laterals that are associated with or supply fire sprinkler systems require to be reviewed and inspected by McFarland Fire & Rescue before being concealed by building finishes or ground.
- Approval of the fire sprinkler system will require a flow test witnessed by McFarland Fire & Rescue within 1 year prior to the submission of plans for approval.
- The display of addresses for Lots 1, 10 and 11 may require additional signage at Devil's Lake Way. We would recommend reviewing with building inspection and McFarland Fire & Rescue Department before requesting occupancy inspections.

Sincerely,



Christopher C. Dennis, Chief
Fire & Rescue Department
Village of McFarland

CC:
McFarland Fire & Rescue Department Prevention
McFarland Community Development
McFarland Public Works

VILLAGE OF
McFarland

SUMMARY SHEET

MEETING DATE: **Tuesday, September 16, 2025**

SECTION: **Business**

DEPARTMENT: **Community Development**

CONTACT: **Andrew Bremer, Comm & Eco Dev Director**

AGENDA ITEM: **Discuss and recommendation to the Village Board to approve a contract with Baker Tilly to update the Village's Park Impact Fee Study.**

PREVIOUS ACTION:

ISSUE SUMMARY:
In 2020, the Village adopted a new Park Impact Fee Public Facility Needs Assessment following the adoption of the 2019-2023 Outdoor Recreation and Open Space Plan. Public Facility Needs Assessments (i.e. impact fee studies) are required under Wis. Stat. 66.0617 prior to enacting an ordinance that imposes impact fees, or amending an existing ordinance that imposes impact fees. Park impact fees are collected by the Village for new housing units to provide revenues for acquisition of future parkland or installation of park and trail improvements needed to serve the growth of the community. The Village collects two types of park impact fees, parkland impact fees (i.e. fees in lieu of parkland dedication) and park improvement impact fees. Parkland impact fees are collected when a developer elects not to dedicate parkland as part new housing developments, or when they elect to provide a partial parkland dedication with the remaining dedication collected through parkland impact fees. The Village maintains the discretion whether to accept parkland impact fees in lieu of dedication.

Prior to the 2020 Park Impact Fee Study, the Village had last adopted a park impact fee study in 2004. Over that 16-year period, the Village's park impact fees minimally changed. Given the 16-year gap between the two park impact fee studies, the 2020 study concluded that a significant increase in park improvement impact fees was recommended and that the fee be updated each year thereafter to account for inflation. The Village Board opted to increase the park improvement impact fee by 20% per year, plus inflation, from 2020 through 2024 to gradually increase the recommended park improvement impact fee. In 2025, the park improvement impact fee was adjust only for inflation.

The 2020 impact fee study recommended a decrease to the parkland impact fee based on an approved decrease in the Village's parkland dedication requirement under Sec. 56-173 of the Municipal Code. The Village Board approved the decrease to the parkland dedication requirement based on Village's 2019 Outdoor Recreation and Open Space Plan goals for the amount of parkland per 1,000 residents. While the parkland impact fee was initially lowered in 2020, it has been adjusted annually by the Village Board for inflation similar to the park improvement impact fee.

Earlier this year, the Village Board approved a new 2025-2029 Comprehensive Outdoor Recreation Plan. One of the action items from that plan is to complete an update of the 2020 park impact fee study to ensure those fees remain consistent with the Village's needs and State Statute requirements for impact fees. Baker Tilly previously competed the Village's 2020 park impact fee study. Included in the packet is a contract to hire Baker Tilly to assist with an update to the 2020 study. The project is anticipated to take approximately six months to complete. Baker Tilly's fees are time and materials, not to exceed $15,000. Based on the results of the study, the Village Board can then consider enactment of an ordinance to amend the park impact fees accordingly.

FINANCIAL/BUDGET IMPACT:
The 2025 Village Capital Improvement Plan Budget includes $15,000 for completion of this project.

VILLAGE PLAN REFERENCE:
2025-2029 Capital Improvement Plan. Updating the Parks Public Facilities Needs Assessment is identified as a project within the Village's 2025 Capital Improvement Plan.

2025-2029 Comprehensive Outdoor Recreation Plan. Goal 2, Action 7 states: *"Update the Village's Park Impact Fee, Fee in Lieu of Land Dedication, and Public Facility NeedsAssessment every five years following completion of updates to the CORP. Annually adjust park impact fees based on the Consumer Price Index-All Urban Consumers-Midwest Region prepared by the United States Department of Labor."*

2020 Parks Public Facilities Needs Assessment Study.

ORDINANCE REFERENCE:
8-464 Park Impact Fee
Article 56-VI Park and Public Land Dedications

BOARD, COMMISSION OR COMMITTEE RECOMMENDATION:
Recommended motion:

Motion, second, to recommend to the Village Board approval of a contract with Baker Tilly to update the Village's Park Impact Fee Study.

ATTACHMENTS:
1. Contract for Park Impact Fee Study

VILLAGE OF MCFARLAND CONTRACT WITH BAKER TILLY FOR PARK IMPACT FEE STUDY

Expiration Date: February 1, 2026

Maximum Cost: $15,000

Registered Agent: Corporate Service Company

Street Address: 33 East Main Street, Suite 610

City, State, Zip: Madison, WI 53703

THIS CONTRACT, made and entered into, by and between the Village of McFarland (hereinafter referred to as "VILLAGE") and Baker Tilly (Bakery Tilly US, LLP and Baker Tilly Advisory Group LP) (hereinafter referred to as "PROVIDER"),

WHEREAS VILLAGE, whose address is 5915 Milwaukee St., P.O. Box 110, McFarland, WI 53558, desires to purchase services from PROVIDER for the purpose of completing an economic and land use plan for the VILLAGE's east side neighborhood; and

WHEREAS PROVIDER, whose registered agent's address is set forth above and whose principal office is located at 205 N. Michigan Avenue, Chicago, Illinois, 60601, is able and willing to provide such services;

NOW, THEREFORE, in consideration of the above premises and the mutual covenants of the parties hereinafter set forth, the receipt and sufficiency of which are acknowledged by each party, VILLAGE and PROVIDER agree as follows:

I. TERM. The term of this Contract shall commence as of the date on which all parties have executed this Contract and shall end as of the EXPIRATION DATE set forth on page 1 hereof, unless sooner agreed to in writing by the parties or as provided in Section IV. VILLAGE may, in its sole discretion, extend the completion date of PROVIDER's services, under the same terms and conditions. PROVIDER shall complete its obligations under this Contract not later than the EXPIRATION DATE, and by the date set by the VILLAGE if this Contract is extended.

II. SERVICES.

A. PROVIDER agrees to provide the services detailed in the attached Schedule A.

B. PROVIDER shall commence, carry on and complete its obligations under this Contract with all deliberate speed and in a sound, economical and efficient manner, in accordance with this Contract and all applicable laws. In providing services under this Contract, PROVIDER agrees to cooperate with the various departments, agencies, employees and officers of VILLAGE.

C. PROVIDER agrees to secure at PROVIDER's own expense all personnel necessary to carry out PROVIDER's obligations under this Contract. Such personnel shall not be deemed to be employees of VILLAGE nor shall they or any of them have or be deemed to have any direct contractual relationship with VILLAGE.

D. All services by PROVIDER shall be performed in a good and workmanlike manner and consistent with all standards of performance customary in the State of Wisconsin as well as any standards of quality advertised by PROVIDER.

III. ASSIGNMENT/TRANSFER. PROVIDER shall neither assign nor transfer any interest or obligation in this Contract, without the prior written consent of VILLAGE unless otherwise provided herein, provided that claims for money due or to become due to PROVIDER from VILLAGE under this Contract may be assigned to a bank, trust company or other financial institution without such approval if and only if the instrument of assignment contains a provision substantially to the effect that the right of the assignee in and to any moneys due or to become due to PROVIDER shall be subject to prior claims of all persons, firms and corporations for services rendered or materials supplied for the performance of the work called for in this Contract. PROVIDER shall promptly provide notice of any such assignment or transfer to VILLAGE.

IV. TERMINATION.

A. VILLAGE may terminate this Contract for any reason upon thirty (30) day written notice to PROVIDER.

B. The following shall constitute grounds for immediate termination:

1. violation by PROVIDER of any State, Federal or local law, or failure by PROVIDER to comply with any applicable States and Federal service standards, as expressed by applicable statutes, rules and regulations.

2. failure by PROVIDER to carry applicable licenses or certifications as required by law in order to complete the services to be provided under this Contract.

3. failure of PROVIDER to comply with reporting requirements contained herein.

4. inability of PROVIDER to perform the work provided for herein.

C. Failure of the Village Board or the State or Federal Governments to appropriate sufficient funds to carry out VILLAGE's obligations hereunder, shall result in automatic termination of this Contract as of the date funds are no longer available, without notice.

D. Upon the expiration or any termination of this Contract, all finished and unfinished documents, services, papers, data, products, and the like prepared, produced or made by PROVIDER under this Contract shall at the option of VILLAGE become the property of VILLAGE, and PROVIDER shall be entitled to receive just and equitable compensation, for any satisfactory work completed on such documents, services, papers, data, products. Notwithstanding the above, PROVIDER shall not be relieved of liability to VILLAGE for damages sustained by VILLAGE by virtue of any breach of this Contract by PROVIDER, and VILLAGE may withhold any payments to PROVIDER for the purpose of offset.

V. PAYMENT. VILLAGE agrees to make such payments for services rendered under this Contract as and in the manner specified herein and in the attached Schedule B, which is fully incorporated herein by reference. Notwithstanding any language to the contrary in this Contract or its attachments, VILLAGE shall never be required to pay more than the sum set forth on page 1 of this Contract under the heading MAXIMUM COST, for all services rendered by PROVIDER under this

Contract, unless authorized by the VILLAGE pursuant to a change order and amendment to this Contract.

VI. REPORTS. PROVIDER agrees to provide status reports when requested by VILLAGE. With respect to such reports it is expressly understood that time is of the essence.

VII. DELIVERY OF NOTICE. Notices, bills, invoices and reports required by this Contract shall be deemed delivered as of the date of postmark if deposited in a United States mailbox, first class postage attached, addressed to a party's address as set forth above. Either party may change the address to which notices should be sent by written notice to the other party.

VIII. INSURANCE.

A. PROVIDER shall indemnify and hold harmless VILLAGE, its boards, committees, agencies, officers, employees and representatives against any and all liability, loss (including, but not limited to, property damage, bodily injury and loss of life), damages, costs or expenses, including but not limited to reasonable attorney fees, which VILLAGE, its officers, employees, agencies, boards, commissions and representatives may sustain, incur or be required to pay by reason of PROVIDER's negligent acts or omissions in the course of furnishing the services or goods required to be provided under this Contract, provided, however, that the provisions of this paragraph shall not apply to liabilities, losses, charges, costs, or expenses to the extent caused by or resulting from the negligent acts or omissions of VILLAGE, its agencies, boards, commissions, officers, employees or representatives. The obligations of PROVIDER under this paragraph shall survive the expiration or termination of this Contract.

B. In order to protect itself and VILLAGE, its officers, boards, committees, agencies, agents, volunteers, employees and representatives under the indemnity provisions of the subparagraph above, PROVIDER shall, at PROVIDER's own expense, obtain and at all times during the term of this Contract keep in full force and effect the insurance coverages, limits, and endorsements listed below. When obtaining required insurance under this Contract and otherwise, PROVIDER agrees to preserve VILLAGE's subrogation rights in all such matters that may arise that are covered by PROVIDER's insurance. Neither these requirements nor the VILLAGE's review or acceptance of PROVIDER's certificates of insurance is intended to limit or qualify the liabilities or obligations assumed by the PROVIDER under this Contract.

Commercial General Liability.
PROVIDER agrees to maintain Commercial General Liability insurance at a limit of not less than $1,000,000 per occurrence. Coverage shall include, but not be limited to, Bodily Injury and Property Damage to Third Parties, Contractual Liability, Personal Injury and Advertising Injury Liability, Premises-Operations, Independent Providers and Subcontractors, and Fire Legal Liability. The policy shall list VILLAGE as an Additional Insured.

Professional Liability.
PROVIDER agrees to maintain Professional Liability insurance at a limit of not less than $1,000,000 per occurrence. The policy shall list VILLAGE as an Additional Insured.

Commercial/Business Automobile Liability.
PROVIDER agrees to maintain Commercial/Business Automobile Liability insurance at a limit of not less than $1,000,000 Each Occurrence. PROVIDER further agrees coverage shall include liability for Owned, Non-Owned & Hired automobiles. In the event PROVIDER does not own automobiles, PROVIDER agrees to maintain coverage for Hired & Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Workers' Compensation.
PROVIDER agrees to maintain Workers Compensation insurance to the extent required by law.

Umbrella or Excess Liability.
PROVIDER may satisfy the minimum liability limits required above for Commercial General Liability and Business Auto Liability through an Umbrella or Excess Liability policy provided that the Annual Aggregate limit shall not be less than the highest "Each Occurrence" limit for the Commercial General Liability and Business Auto Liability. PROVIDER agrees to list VILLAGE as an "Additional Insured" on its Umbrella or Excess Liability policy.

C. Upon execution of this Contract, PROVIDER shall furnish VILLAGE with a Certificate of Insurance listing VILLAGE as an additional insured and, upon request, certified copies of the required insurance policies. If PROVIDER's insurance is underwritten on a Claims-Made basis, the Retroactive Date shall be prior to or coincide with the date of this Contract. The Certificate of Insurance shall state that professional malpractice or errors and omissions coverage, if the services being provided are professional services is Claims-Made and indicate the Retroactive Date, and PROVIDER shall maintain coverage for the duration of this Contract and for six (6) years following the completion of this Contract. PROVIDER shall furnish VILLAGE, annually on the policy renewal date, a Certificate of Insurance as evidence of coverage. It is further agreed that PROVIDER shall furnish the VILLAGE with a thirty (30) day notice of aggregate erosion, in advance of the Retroactive Date, cancellation, or renewal. It is also agreed that on Claims-Made policies, either PROVIDER or VILLAGE may invoke the tail option on behalf of the other party and that the Extended Reporting Period premium shall be paid by PROVIDER. In the event any action, suit or other proceeding is brought against VILLAGE upon any matter herein indemnified against, VILLAGE shall give reasonable notice thereof to PROVIDER and shall cooperate with PROVIDER's attorneys in the defense of the action, suit or other proceeding. PROVIDER shall furnish evidence of adequate Worker's Compensation Insurance, if required. In case of any sublet of work under this Contract, PROVIDER shall furnish evidence that each and every subcontractor has in force and effect insurance policies providing coverage identical to that required of PROVIDER.

D. VILLAGE, acting at its sole option and through its Village Board, may waive any and all requirements contained in this Contract, such waiver to be in writing only. Such waiver may include or be limited to a reduction in the amount of coverage required above. The extent of waiver shall be determined solely by Village Board taking into account the nature of the work and other factors relevant to VILLAGE's exposure, if any, under this Contract.

IX. NO WAIVER BY PAYMENT OR ACCEPTANCE. In no event shall the making of any payment or acceptance of any service or product required by this Contract constitute or be construed as a waiver by VILLAGE of any breach of the covenants of this Contract or a waiver of any default of PROVIDER and the making of any such payment or acceptance of any such service or product by VILLAGE while any such default or breach shall exist shall in no way impair or prejudice the right of VILLAGE with respect to recovery of damages or other remedy as a result of such breach or default.

X. NON-DISCRIMINATION. During the term of this Contract, PROVIDER agrees not to discriminate on the basis of age, race, ethnicity, religion, color, gender, disability, marital status, sexual orientation, national origin, cultural differences, ancestry, physical appearance, arrest record or conviction record, military participation or membership in the national guard, state defense force or any other reserve component of the military forces of the United States, or political beliefs against any person, whether a recipient of services (actual or potential) or an employee or applicant for employment, except to the extent that such factors are substantially related to the qualifications of

such person to perform the work or receive the services. Such equal opportunity shall include but not be limited to the following: employment, upgrading, demotion, transfer, recruitment, advertising, layoff, termination, training, rates of pay, and any other form of compensation or level of service(s). PROVIDER agrees to post in conspicuous places, available to all employees, service recipients and applicants for employment and services, notices setting forth the provisions of this paragraph.

XI. PUBLIC RECORDS. PROVIDER acknowledges and understands that VILLAGE is a governmental entity. As such, all communications and other documents prepared or received by PROVIDER in connection with the services provided by PROVIDER under this Contract may be governed by the Wisconsin Public Records Law and that, in the event of a request for such documents, VILLAGE may be legally obligated to produce them. PROVIDER agrees that it will provide all such documents to VILLAGE if determined by VILLAGE to be necessary to comply with a proper Public Records Law request by either (1) retaining all such documents for a period of not less than seven (7) years after completion of the Work and providing copies to VILLAGE promptly upon request in exchange for the reasonable cost of copying or (2) providing a copy of each such document to VILLAGE upon the expiration of the Contract. In the event PROVIDER fails to make such documents available to VILLAGE as provided herein, PROVIDER shall indemnify VILLAGE for any penalties, costs, expenses (including reasonable attorney fees) incurred due to its inability to comply with the Public Records Law with respect to such documents. The obligations under this paragraph to produce and retain records, including the provisions for indemnity, shall survive the expiration or termination of this Contract.

XII. MISCELLANEOUS.

A. Registered Agent. PROVIDER warrants that it has complied with all necessary requirements to do business in the State of Wisconsin, that the persons executing this Contract on its behalf are authorized to do so, and, if a corporation, that the name and address of PROVIDER's registered agent is as set forth opposite the heading REGISTERED AGENT on page 1 of this Contract. PROVIDER shall notify VILLAGE immediately, in writing, of any change in its registered agent, his or her address, and PROVIDER's legal status. For a partnership, the term 'registered agent' shall mean a general partner. The person(s) executing this Contract on behalf of PROVIDER individually warrant(s) and represent(s) that he, she or they are duly authorized to enter into this Contract and bind PROVIDER hereto, and that no signatures other than those shown in the signature blocks below are necessary to make this Contract binding on PROVIDER.

B. Controlling Law and Venue. It is expressly agreed that in the event of any disagreement or controversy between the parties, Wisconsin law shall be controlling. Venue for any legal proceedings shall lie solely in the Dane County Circuit Court.

C. Limitation of Contract. This Contract is intended to be an agreement solely between the parties hereto and for their benefit only. No part of this Contract shall be construed to add to, supplement, amend, abridge or repeal existing duties, rights, benefits or privileges of any third party or parties, including but not limited to employees of either of the parties.

D. Entire Contract. The entire agreement of the parties is contained herein and this Contract supersedes any and all oral agreements and negotiations between the parties relating to the subject matter hereof. The parties expressly agree that this Contract shall not be amended in any fashion except in writing, executed by both parties.

E. Counterparts. The parties may evidence their agreement to this contract upon one or several counterparts of this instrument, which together shall constitute a single instrument.

F. Severability. In the event any provision, term or clause contained in this Contract shall be determined unlawful or unenforceable, such determination shall not affect the remaining

provisions of this Contract which shall remain in full force and effect. In the event any such provision, term or clause shall be determined unlawful or unenforceable as to any particular person or circumstances, such determination shall not affect the applicability of such provision to any other person or under any other circumstances.

IN WITNESS WHEREOF, VILLAGE and PROVIDER, by their respective authorized agents, have caused this Contract and its Schedules to be executed, effective as of the date by which all parties hereto have affixed their respective signatures, as indicated below.

FOR PROVIDER:

Date Signed: _____ _____

FOR VILLAGE:

Date Signed: _____ _____
Stephanie Brassington, Village President

Date Signed: _____ _____
Cassandra Suettinger, Deputy Administrator/Clerk

VILLAGE OF MCFARLAND CONTRACT

Schedule A – Scope of Services

Pursuant to Section II(A) of this Contract, PROVIDER shall complete recommendations with respect to updating the Village's impact fees for Park improvements.

The project will consist of the following:

TASK 1 – PROJECT LAUNCH
The project will begin with a kickoff meeting to review the scope, approach and objectives of the project. PROVIDER will introduce the members of its project team and review its proposed approach to completing the study and its understanding of the final deliverables desired by the Village. The planned approach and deliverables may be revised based on initial feedback from the Village's team.

PROVIDER will also arrange logistical details for the project, including contact information, the form and frequency of regular status updates, specific deadlines for project milestones and final deliverables, and any outstanding contractual matters.

Finally, PROVIDER will provide a detailed data request listing the key information, data and documents needed by PROVIDER to get started on the project.

TASK 2 – REVIEW BACKGROUND INFORMATION
PROVIDER will review background information and assumptions related to the development of a Needs Assessment study. These background materials include the following:

- Existing ordinances and documentation related to park impact fees
- Previous studies and analyses related to park impact fees and fees in lieu of land dedication
- Most recent Outdoor Recreation and Open Space Plan
- Inventory of current park facilities and trails
- Outlays and current balance of funds previously collected
- Current demographic information
- Population, households and property values
- Projected growth or decline in future population and households

TASK 3 – DEVELOP FACILITY NEEDS ASSESSMENT

- Review and update the inventory of existing park facilities
- Using the Village's current level of service standards, develop a needs assessment for the parks impact fee:
- Determine the proportion of facilities attributable to serving existing development and the proportion needed for future development
- Analyze and estimate the costs of future park facilities
- Review the needs assessment with Village management and make adjustments as appropriate

TASK 4 – DEVELOP RECOMMENDED IMPACT FEES

- Calculate appropriate fees for park facilities, trails and parkland dedication to be collected from future development
- Develop a schedule of recommended impact fees for residential, non-residential and group quarters
- Illustrate impacts on housing affordability

TASK 5 – LEGAL REVIEW
PROVIDER will share its methodology and findings with the Village Attorney for review and comment. Based on this legal review, PROVIDER will modify its methodology and calculations as needed to address the concerns and recommendations of the Village Attorney.

TASK 6 – PREPARE AND PRESENT RECOMMENDATIONS
PROVIDER will prepare a Final Report detailing the project background, methodology, findings and recommendations. The team will also prepare and present a summary of recommended charges to the Village in a workshop session, if desired.

Finally, PROVIDER will provide a copy of its cost allocation model to the Village, along with documentation and training materials which will allow Village staff to update calculations as conditions change in future years.

TASK 7 – ATTEND PUBLIC HEARING
If desired by the Village, PROVIDER will attend the required public hearing.

VILLAGE personnel shall cooperate with the PROVIDER and its agents in the performance of the PROVIDER's obligations hereunder.

VILLAGE OF MCFARLAND CONTRACT

Schedule B – Payment for Services

For and in consideration of the services provided under this Contract, VILLAGE will pay PROVIDER a sum not to exceed Fifteen Thousand Dollars ($15,000). Said sum includes all labor, materials, supervision, equipment, appliances, and materials to perform all operations and services, and are inclusive of all fees and expenses.

PROVIDER will furnish all labor and materials, and other services necessary to complete the work. PROVIDER hereby agrees to perform the work as specified by VILLAGE detailed in Schedule A of this Contract.

PROVIDER shall invoice VILLAGE monthly based on the work completed as of the invoice date. VILLAGE shall pay PROVIDER within thirty (30) days of the receipt of each invoice from PROVIDER.

VILLAGE OF MCFARLAND CONTRACT

Schedule C – Project Schedule

The Project will be completed by February 1, 2026.

The term of the agreement shall be in effect within the dates stated unless otherwise provided according to the terms of this contract. The Project Schedule may be amended at any time by mutual agreement between VILLAGE and PROVIDER.