

**Town of Verona
Regular Town Board Meeting
Town Hall Community Room/Hybrid
7669 County Highway PD, Verona WI 53593
Tuesday September 7, 2021 6:30 PM**



PUBLIC SPEAKING INSTRUCTIONS

Due to the COVID-19 pandemic, the Verona Town Board will hold its regular town board meeting as an in-person/hybrid meeting. The Town Board will meet at Town Hall, 7669 County Highway PD. Members of the Town Board and Staff may either join the meeting in person or by using Zoom Webinar, as described immediately below.

Members of the public can join the meeting in person or by using Zoom Webinar via a computer, tablet, or smartphone, or by calling into the meeting.

Join the meeting via computer, tablet, or smart phone:

<https://us06web.zoom.us/j/81043151635?pwd=ZE5ZUTBLR3JPMmQxTHZybjRncHFmZz09>

Meeting ID: 810 4315 1635

Passcode: 521212

Join the meeting via phone by dialing the number below and use the same meeting ID and password information

(312) 626-6799

Anyone with questions prior to the meeting may contact the Town at (608) 845-7187 or email Teresa Withee at

twithee@town.verona.wi.us

WRITTEN COMMENTS: You can send comments to the Town Board on any matter, either on or not on the agenda, by emailing mgeller@town.verona.wi.us or twithee@town.verona.wi.us or in writing to Town Board Chair, 7669 County Highway PD, Verona, WI, 53593.

- 1) Call to Order/Approval of the agenda
- 2) Pledge of Allegiance
- 3) Public Comment – Comments on matters not listed on this agenda could be placed on a future meeting agenda. If the Chair or staff has received written comments for items not on the agenda, these will be read.
- 4) Approval of minutes from July 5th, 2021
- 5) Staff Reports
 - A. Administrator/Planner Report
 - B. Public Works Project Manager Report
 - C. Clerk/Treasurer Report
- 6) Committee Reports
 - a) Plan Commission
 - i) Discussion and Possible Action: Site Plan Approval for Final Phase of Construction for the Madison-Verona Self Storage facility located at 4201 Maple Grove Road, submitted by Jamie and Cameron Lindau

- ii) Discussion and Possible Action: Land Use Application 2021-11 submitted by Sugar River Investors, LLC for a rezone from AT-35 to RM-16 for 38.4-acre parcel 062/0608-301-8001-1 located at 2325 Sugar River Road, Verona WI
 - iii) Discussion and Possible Action: Land Use Application 2021-06 submitted by Noa Prieve on behalf of Stilwell Trust, 6411 Sunset Drive, for a 4-unit Condo Plat Concept Approval and Rezone (parcel number 062/060-364-8990-2 (20.3-acres)).
 - iv) Discussion and Possible Action: Land Use Application 2021-12 submitted by D'Onofrio Kottke on behalf of Mishpacha LLC (Harvey Temkin) 2313 Sugar River Road for a CSM and Rezone
 - v) Discussion and Possible Action: Land Use Application 2021-06 submitted by Twin Rock LLC for Preliminary Plat and Neighborhood Association Declaration Approval for property near 2528 Spring Rose Road (062/0608-183-8681-0 and 0-608-183-31809)
- b) Public Works
 - i) Discussion and Possible Action: Town Road Speed Limit Recommendation for Paulson Road and Woods Road to be changed from 55 miles per hour to 45 mile per hour
 - ii) Discussion and Possible Action: Resolution 2021-07 to Rename a Portion of Stony Ridge Circle and Name a New Roadway Constructed as a Result of the County Trunk Highway M Project
 - c) Ordinance Committee
 - d) Financial Sustainability Committee
 - e) Natural and Recreational Areas Committee
 - i) Discussion and Possible Action: Finalization of Committee Goals
 - f) EMS Commission
 - g) Senior Services Committee
 - h) Town Chair's Business
 - i) Supervisor Announcements
- 7) Old Business
 - 8) New Business
 - A. Discussion and Possible Action: Town of Verona Financial Support Contribution to the 2022 MPO Budget
 - B. Discussion and Possible Action: Dane County Ordinance Amendment 2021-OA-002 to revise the text of various sign regulation provisions in Chapter 10 of the Dane County Code of Ordinances
 - C. Discussion and Possible Action: Payment of the Bills

9) Adjournment

Regular board agendas are published in the Town's official newspaper, The Verona Press. Per Resolution 2016-2 agendas are posted at the Town Hall and online at www.town.verona.wi.us. Use the 'subscribe' feature on the Town's website to receive agendas and other announcements via email. Notice is also given that a possible quorum of the Plan Commission and/or Public Works, Ordinance, Natural and Recreational Areas, and Financial Sustainability Committees and could occur at this meeting for the purposes of information gathering only.

If anyone having a qualifying disability as defined by the American with Disabilities Act needs an interpreter, materials in alternate formats, or other accommodations to access these meetings, please contact the Town of Verona @ 608-845-7187 or twithee@town.verona.wi.us. Please do so at least 48 hours prior to the meeting so that proper arrangements can be made.

Mark Geller, Town Chair, Town of Verona
 Sent to VP: 8/30/2021
 Posted: 8/30/2021

Town of Verona
Town Board Meeting
Tuesday, July 6, 2021 6:30 p.m.

Town Board Members Present: Geller, Mathies, Lonsdorf, Wiederhoeft and Maxwell

Staff Present: Administrator/Planner Gaskell, Public Works Director Barnes and Clerk/Treasurer Withee

Others Present: Rosemary Bodolay, Susan Pigorsch, Kirk Feller, Mike Duerst, John Sensemann

- 1) Call to Order/Approval of the Agenda – Chair Geller called the meeting to order at 6:30 pm. Motion by Wiederhoeft to approve the agenda, second by Lonsdorf. Motion carried by voice vote.
- 2) Pledge of Allegiance
- 3) Public Comment – Kirk Feller asked about the ad hoc committee report. Geller stated that the agenda item will be regarding only the next steps in the review process.
- 4) Approval of minutes from June 1, 2021 Town Board Meeting; Geller stated that Jo Tucker’s comments will be included. Mathies noted under pg 3 new business, alcohol renewal of license that the 15 day public comment was not discussed during the motions – strike wording regarding the 15 days for public comment. Motion by Mathies to approve minutes from June 1, 2021, second by Lonsdorf. Discussion by board. Motion carried by voice vote.
- 5) Staff Reports
 - a. Administrator/Planner Report – Gaskell report was included in packet.
 - b. Public Works Director Report – Barnes report was included in packet.
 - c. Clerk/Treasurer Report – Withee report was included in packet.
- 6) Committee Reports
 - A. Plan Commission:
 - a. Discussion: Procedure for Amendment of the Comprehensive Plan. Gaskell reviewed information regarding draft procedure. Lonsdorf asked if this is regarding only changing the land use sections. Gaskell stated this would be for landowners to request a change and the deadline will be September 30th every two years. Mathies stated that board supervisors can request changes to the comprehensive plan. Wiederhoeft asked if this is a new procedure. Gaskell stated that this is a new procedure. Geller stated that the previous comp plan was adopted in 2019 and is reviewed every two years.
 - b. Discussion: Procedure for Approval of Conditional Use Permit. Gaskell reviewed CUP procedure and application process. Wiederhoeft asked about the provision to notify residents within 500 feet. This is listed on page 3 under notifications.
 - c. Discussion and Possible Action: Fee for a Comprehensive Plan Amendment Application. Gaskell reviewed current process and fees. Mathies asked if there is an estimate on staff time required. Gaskell reviewed what is required for staff time. Motion by Geller to change fee to \$1,000 for a Comprehensive Plan Amendment

Application, second by Wiederhoeft. Lonsdorf amends motion to \$750, second by Maxwell. Motion carried by voice vote.

- B. Public Works: Wiederhoeft stated that time was spent on speed limit inventory and there will be changes. Traffic study of Fitchrona Road and will present everything at once. PW Committee will generate a list of Marty Farm Proposal concerns for Geller. Brush and yard waste disposal was also discussed.
 - C. Ordinance Committee: no meeting.
 - D. Financial Sustainability Committee: Mathies stated they worked on refining budget categories and splitting them out to be more descriptive. Geller stated that he would like to see committee work on ARPA guidance.
 - E. Natural and Recreational Areas Committee: Lonsdorf reported discussion on solar panels, finding new members and setting priorities. Duane Hoffman resigned, and he would like to see at least 5 members and they will be recruiting for new members. There is an application for new members.
 - F. EMS Commission: Lonsdorf stated Town of Verona assessment will go up by 18.55% - a \$14,000 increase. Reserve fund for EMS has declined below acceptable level due to three negative budget years in a row. EMS underestimated no transport runs by 10% so they will increase the budgets for the next 3 years to compensate for this error. Maxwell asked if the reserve was discussed. Lonsdorf stated town pays 5% of total EMS budget.
 - G. Senior Services Committee: Geller and Wiederhoeft serve on the Board. The board of directors voted to terminate Amanda Mead as director and effective July 2nd, 2021. The board will be working on hiring a nutrition manager and revising job description for executive director.
 - H. Town Chair's Business: Geller stated he met with Fitchburg mayor. They will begin to meet quarterly. Has met with several town residents regarding concerns. Working on response to Marty farm proposal. Geller stated for the minutes he would like to thank the people responsible for the pollinator garden, Sherry Combs and would like to publicly thank Supervisor Lonsdorf for his Ice Age Trail reward. The town has received the new plow truck and supports having an open house.
 - I. Supervisor Announcements: Lonsdorf stated he would like to go on record he is not in favor of the Marty Farm proposal. Mathies stated Dane County Towns Association Board met, discussed yard waste, and influence on Dane county budget. Concerns regarding watershed areas and asking DC treasurer to reduce number of abandoned parcels.
- 7) Old Business
- A. Discussion and Possible Action: Ordinance 2021-05 Alternative Claims Procedure. Mathies reviewed the ordinance. Motion by Mathies to adopt Ordinance 2021-05 Alternative Claims Procedure, second by Maxwell. Motion approved by voice vote.

- B. Discussion: Increased Citizen Participation Goal. Wiederhoeft presented proposal and expects that this will be reviewed until process is decided. Would like the board to review her proposal and make suggestions. Geller recommends emailing Gaskell comments for revisions / suggestion. Mathies stated that goal was citizen input not participation. Suggestions include more listening sessions and a newsletter. Reforming committee system was not one of the goals he would like to stay with the goals. Wiederhoeft stated that she suggested that goal and did state participation was part of her suggestion.

8) New Business

- A. Discussion and Possible Action: Intergovernmental Agreement between the Town of Verona, the City of Verona and the City of Fitchburg for Fitch-Rona EMS. Gaskell reviewed agreement. Motion by Geller to approve Intergovernmental Agreement between the Town of Verona, the City of Verona, and the City of Fitchburg for Fitch-Rona EMS, second by Wiederhoeft. Discussion by board. Mathies stated he sent several other typos to be corrected before signing and sending back. He would prefer a corrected copy before signing. Motion approved by voice vote. Mathies and Wiederhoeft opposed
- B. Discussion and Possible Action: Intergovernmental Agreement between the Town of Verona and the City of Verona for Senior Services. Gaskell stated that over the past 3 years the town's portion of their budget has increased significantly. The contract is a Five-year agreement with a 2.5% increase and contains a termination clause. The town will not have a have an advisory member on the committee. Motion by Wiederhoeft to approve Intergovernmental Agreement between the Town of Verona and the City of Verona for Senior Services, second by Lonsdorf. Discussion by board. Mathies stated that he would like to review the actual cost of services and would like to see more research prior to approval. Geller stated that Belleville used an age demographic to determine cost. Maxwell asked if this is a time sensitive issue and needs to be decided tonight. Lonsdorf agrees with location of City of Verona but cost was decided based only on what we were paying Belleville, would like to negotiate with the city regarding price and services offered. Geller said we do not have many options. Gaskell stated that seniors will get transport services, Belleville Center is a nonprofit, the Verona center is a city department that reports to a city committee and the budget is reviewed by the city, with monthly reports. Mathies asked how Dane County funding will be affected. Mathies moved to table the previous motion, failed for lack of second. Motion approved by voice vote. Mathies opposed.
- C. Discussion and Possible Action: Ad Hoc Committee to Study the Impact of Growth in the Town of Verona Final Report Review Process. Motion by Geller to have the Ad Hoc Committee Study the Impact of Growth in the Town of Verona Final Report Review Process, second by Maxwell. Geller thanked ad hoc committee for all of work on report. Mathies would like to know the process going forward. Geller stated that the Plan Commission will consider the ad hoc committee report and any revisions. Wiederhoeft asked how this will fit in that the recommendations are to go to the town board, feels this should not be delegated to the plan commission and the board should decide. Geller stated that if anyone would like to see the report, they can request it from town hall. Maxwell stated that the recommendations are regarding land use and this is something that Plan Commission is best prepared to review those recommendations. Geller stated the agenda item is only next steps of the report. Roll call vote Mathies – yes, Lonsdorf – yes, Wiederhoeft – no, maxwell – yes, Geller - yes. Lonsdorf motion to make ad hoc committee be available to the public and

announced on the Friday email ad community news from administrator, second by Wiederhoeft. Maxwell amends motion that misconceptions in the report be corrected before the report is made public and corrected by staff, second by Mathies. Substitute motion by Lonsdorf that the town chair call a special town board meeting, date to be determined, to have a board discussion regarding the ad hoc committee report and to have clarifications made to the report before it is made public, second by Mathies. Motion approved by voice vote.

D. Discussion and Possible Action: Resolution 2021-05 Establishing an American Rescue Plan Act Grant Fund. Motion by Geller to approve Resolution 2021-05 Establishing an American Rescue Plan Act Grant Fund, second by Lonsdorf. Motion approved by voice vote. Mathies opposed.

E. Motion to go into Closed Session per Wis. Stats. §19.85 (1) (c) Considering Employment, Promotion, Compensation or Performance Evaluation Data of any Public Employee over which the Governmental Body has Jurisdiction or Exercises Responsibility; the purpose of the Closed Session is to Consider Reappointment of Town Clerk/Treasurer Terms and Employee Performance Evaluation.

9:46 pm Motion by Wiederhoeft to enter closed session, second by Maxwell. Roll call: + 5 ayes, 0 nays.

F. 9:55 pm Motion by Mathies to return to open session, second by Lonsdorf. Motion approved by voice vote.

G. Action on Issues Discussed in Closed Session Including Resolution 2021-06 Appointment of Town Clerk/Treasurer. Motion by Mathies to approve Resolution 2021-06 Appointment of Town Clerk/Treasurer with an end date change to July 19, 2024 and the annual salary of 60,030 which is 3.5% and will be reviewed annually, second by Wiederhoeft. Motion approved by voice vote.

H. Discussion and Possible Action: Payment of the Bills. Motion by Geller to approve payment of June bills, second by Mathies. May bills Motion approved by voice vote.

9) Motion by Lonsdorf to adjourn, second by Wiederhoeft, meeting adjourned with no objections at 9:58 pm.

Prepared by Teresa Withee, Town Clerk

Approved:

TOWN OF VERONA

TO: Town Board of Supervisors

FROM: Sarah Gaskell, Planner/Administrator

SUBJECT: Administrator Report for August 2021

Upcoming Meetings

- Financial Sustainability August 26th, 2:30pm Town Hall
- Plan Commission August 19th, 6:30pm Zoom
- NRAC - no meeting this month
- Public Works - no meeting this month

General

- Staff vacation: Judd: August 2-10; Withee: August 16 – 20; 27th
- Remote hours continue for the following staff:
 - Teresa Withee - Wednesdays
 - Sarah Gaskell – Thursdays
- Website
 - Updates in process – change to weekly update/listserve
 - Staff works on the website as time permits
- Senior Services Contract approved by the COV Common Council; TOV Senior Services will begin at the COV Verona Senior Center January 1, 2022
- Plan for Sept/Oct Town Hall Open House to follow STB meeting - Saturday; plow truck; ice cream social; shredding event etc.
- First allocation of Recovery Act Funds received – \$100,691 set aside until federal guidance is finalized and Board decisions have been made
- Town Hall mask guidance - everyone inside Town Hall is strongly encouraged to wear a mask

Work Plan

- Finalize Subdivision Ordinance
- Blanket Rezone process for Cross Country Circle Neighborhood
- Comprehensive Plan Amendments, if applicable
- Electronic file organization
- Communications Plan
- Emergency Plan
- Impact Fee Analysis

TOWN OF VERONA

TO: Town Board of Supervisors

FROM: Sarah Gaskell, Planner/Administrator

SUBJECT: Administrator Report for September 2021

Upcoming Meetings

- Financial Sustainability September 26th, 2:30pm location TBD
- Plan Commission September 9th and 16th
- NRAC – September 28th, 6:30pm location TBD
- Public Works - September 28th 7:00am Town Hall

General

- Remote hours continue for the following staff:
 - Teresa Withee - Wednesdays
 - Sarah Gaskell – Thursdays
- Website
 - Staff works on the website as time permits
- Senior Services begin at the COV Verona Senior Center January 1, 2022; Seniors receiving case management services to be individually notified about the change
- Open House scheduled for September 25th from 11-1pm; postcard invite to be sent to all town residents
- First allocation of Recovery Act Funds received –\$100,691 set aside until Board decisions have been made
- Town Hall mask guidance – masks required indoors via Public Health Order (expires September 16th 2021)

Work Plan

- Finalize Subdivision Ordinance
- Blanket Rezone process for Cross Country Circle Neighborhood
- Comprehensive Plan Amendments, if applicable
- Electronic file organization
- Communications Plan
- Emergency Plan
- Impact Fee Analysis

TOWN OF VERONA

TO: Town Board of Supervisors
Public Works Committee

DATE: July 30, 2021

FROM: W. Christopher Barnes, Public Works Director

SUBJECT: Monthly Report - July 2021

The monthly Public Works Department Activity report is submitted for the information and review of the Board and the Committee. July has been a busy month with the cleanup of the July 29th storm, sign maintenance, tree and brush trimming and seasonal road repairs. Numerous citizen and resident concerns and action requests were received and addressed on a daily basis. If you should have any questions, please let me know.

Road Maintenance Activities

- Replaced/repared six road signs.
- Added gravel shouldering on Tonto Trail, Grandview Road and Sunset Drive.
- Cut brush on various roads for sign visibility (Sunset, Range Trail, Demarco Trail, Sugar River)
- Continued pothole repairs with cold patching material.
- Storm Damage Clean up (see below)

Equipment and Facility Activities

- Mowed town prairie trails and pond area.
- Prepared for several town community room rentals.
- Sent traffic counter in for battery replacement

Sanitary Sewer Utility Activities

- Submitted the 2020 Compliance Maintenance Annual Report to the State of Wisconsin.

Engineering Activities

- Survey work was completed for the Valley Road Bridge. Soil boring will also take place this summer.
- Completed inspection for substantial completion for the Twin Rock Subdivision
- Prepared for the final paving and shouldering of prairie Circle Subdivision during the first week of August.
- Prepared name change request for a portion of Stony Ridge Circle which was cut off from Pleasant View Road in 2018. The resolution to rename a portion of Stony Ridge Circle to Stony Ridge Court will be presented to the board after review by Dane County.

July 29th Storm Maintenance

- Most damage was concentrated in the Cross Country Circle area with isolated trees down around the town. Other areas of tree removal were Shady Bend, Dairy Ridge, Range Trail, Woods Road, and Country View Road. Approximately 20 trees or portions thereof were cut and removed from the right of way. In some instances, storm damaged trees outside the right of way were left for clean up by the property owner. Wolfe Tree Service performed some emergency aerial limb removal for hanging limbs over the road. (See attached photos) the town crew worked from 2:30 am to 3:00 pm on the 29th and follow up on the 30th during regular hours.

cc: Sarah Gaskell, Town Planner/Administrator
Mark Judd, Road Patrolman



Cross Country Circle entrance



Cross Country Circle Loop



Range Trail

TOWN OF VERONA

TO: Town Board of Supervisors
Public Works Committee

DATE: August 31, 2021

FROM: W. Christopher Barnes, Public Works Director

SUBJECT: Monthly Report - August 2021

The monthly Public Works Department Activity report is submitted for the information and review of the Board and the Committee. August has been a busy month with the cleanup of numerous trees from storm events, sign maintenance, tree and brush trimming and seasonal road repairs. Numerous citizen and resident concerns and action requests were received and addressed on a daily basis. If you should have any questions, please let me know.

Road Maintenance Activities

- Replaced/repaired five road signs.
- Added gravel shouldering on Tonto Trail, Grandview Road and Sunset Drive.
- Cut brush on various roads for sign visibility (Midtown Road, Timber Lane, Paulson Road White Crossing)
- Continued pothole repairs with cold patching material.

Equipment and Facility Activities

- Mowed town prairie trails and pond area.
- Received traffic counter in for battery replacement
- Replaced Fire alarm back up batteries and reset after power outage.
- Received building paint maintenance quotes
- Received John Deere 544E wheel and tire replacement quote

Sanitary Sewer Utility Activities

- Began placing all sewer service ap location on the GIS map.
- Responded to 5 Digger Hotline utility relocate requests

Engineering Activities

- Scheduled Valley Road Bridge kick off meeting for September 23.
- Initiated the 2023 Dane County Hazard Mitigation Plan with the Public Works Committee. The plan is a summary of issues the town sees as natural hazards. floods, snow storms, tornados, and makes the town eligible for FEMA disaster relief funds.
- Completed the final paving of Prairie Circle Subdivision
- Received the 2021 State of Wisconsin road certification and pavement rating package for completion by December 2021.
- Placed traffic counter for Fitchrona Road speed study

cc: Sarah Gaskell, Town Planner/Administrator
Mark Judd, Road Patrolman

TOWN OF VERONA

TO: Town Board of Supervisors

FROM: Teresa Withee, Clerk/Treasurer

SUBJECT: June 2021 Clerk/Treasurer Report

Clerk

- Attended Town Board meeting and recorded minutes
- Attended Local Redistricting Webinar
- Open records request for liquor license information
- Completed election postcard information in WisVote

Treasurer

- Reviewed invoices, printed checks, prepared unpaid invoice reports and check detail reports
- Monthly bank reconciliations
- Prepared information for Financial Sustainability Committee meeting
- Completed a request for tax payment information
- Set up online bill pay and consolidated three invoices for the town credit cards
- Attended WI Municipal Treasurer Association Virtual Training and Meeting

TOWN OF VERONA

TO: Town Board of Supervisors

FROM: Teresa Withee, Clerk/Treasurer

SUBJECT: August 2021 Clerk/Treasurer Report

Clerk

- Dog license report was reconciled and forwarded to Dane County
- Open records request was received and processed
- CSM signed and notarized for a resident

Treasurer

- Reviewed invoices, printed checks, prepared unpaid invoice reports and check detail reports
- Monthly bank reconciliations
- Began preliminary budget preparations
- State form SL-311 Video Service Provider report was completed and submitted to the state

TOWN OF VERONA

TO: Town Board of Supervisors

FROM: Sarah Gaskell, Planner/Administrator

DATE: September 7th, 2021

RE: Administrator's Memo – September Town Board Meeting

Plan Commission

1. Discussion and Possible Action: Site Plan Approval for Final Phase of Construction for the Madison-Verona Self Storage facility located at 4201 Maple Grove Road, submitted by Jamie and Cameron Lindau. The applicant is seeking approval for a final buildout of the property. The Plan Commission discussed the item at its July meeting and voted to recommend approval (5-0) with the condition that an updated landscape plan be provided.
2. Discussion and Possible Action: Land Use Application 2021-11 submitted by Sugar River Investors, LLC for a rezone from AT-35 to RM-16 for parcel 062/0608-301-8001-1 located at 2325 Sugar River Road, Verona WI
 - a. Discussion included RM-16 allowable uses, future lot splits, consistency with surrounding land uses. There was a motion to recommend approval of Land Use application 2021-11 subject to the following condition:
 - i. The conditional uses of this parcel be limited to those of the RR-16 zoning categoryMotion carried by voice vote.
3. Discussion and Possible Action: Land Use Application 2021-06 submitted by Noa Prieve on behalf of Stilwell Trust, 6411 Sunset Drive, for a 4-unit Condo Plat Concept Approval and Rezone (parcel number 062/060-364-8990-2 from RM-16 to MFR-08.
 - a. The Plan Commission discussed the item at its August meeting. Discussion included preservation of rural viewshed, creation of private driveway access agreements between neighbors and HOA, definition of limited common elements, changing the placement of building envelope on Lot 3, providing field access for the property to the south, removal of public road dedication from the plat, Ice Age Trail dedication, and addition of utility easements to the plat; applicant is asked to consider changes for the preliminary plat. A Motion was made to recommend approval subject to
 - i. Final Plat approval
 - ii. deed restriction for single family homes.

Motion carried 5-0.

4. Discussion and Possible Action: Land Use Application 2021-12 submitted by D'Onofrio Kottke on behalf of Mishpacha LLC (Harvey Temkin) 2325 Sugar River Road for a CSM and Rezone creating a 7-acre lot to be rezoned to RR-4.

The Plan Commission discussed the item at its August meeting. Discussion items included upgrading existing driveway to meet code for fire truck access, dedication of Road ROW on Sugar River Road, future land use of the driveway, maximum number of users of shared driveway easement. A motion was made to recommend approval of the CSM with the following conditions

- a. Removal of the work "preliminary" (met)
- b. Addition of dedication of road ROW (met)
- c. Removal of City of Verona as an approving authority (met)
- d. Removal of note #4 (met)
- e. Town accept the ROW dedication

Motion carried 5-0.

5. Discussion and Possible Action: Land Use Application 2021-06 submitted by Twin Rock LLC for Preliminary Plat Approval for property near 2528 Spring Rose Road (062/0608-183-8681-0 and 0-608-183-31809)

- a. Discussion included previously requested changes from last iteration; mailbox placement, trail surface, shared access for lots 1 and 2 on Spring Rose Road and recommended changes to the draft covenant. A motion was made to approve recommendation of the Preliminary Plat subject to the following conditions:

- i. Approval of Developer's Agreement
- ii. Shared driveway access between Lots 1 and 2

Motion carried 4-0-1.

Public Works

1. Discussion and Possible Action: Town Road Speed Limit Recommendation for Paulson Road and Woods Road to be changed from 55 miles per hour to 45 mile per hour
2. Discussion and Possible Action: Resolution 2021-07 to Rename a Portion of Stony Ridge Circle and Name a New Roadway Constructed as a Result of the County Trunk Highway M Project

Natural and Recreational Areas Committee

1. Proposed Priorities for 2021-2022
 - a. Improved trail connections
 - b. PDR/TDR development
 - c. Map significant natural features
 - d. Watershed management

- e. Town Prairie management plan

New Business

1. Discussion and Possible Action: Town of Verona Financial Support Contribution to the 2022 MPO Budget

The MPO is requesting a contribution of \$494 towards the local share financing of their annual budget. This amount is based on the TOV's proportionate share of the population within the Planning Area.

2. Discussion and Possible Action: Dane County Ordinance Amendment 2021-OA-002 to revise the text of various sign regulation provisions in Chapter 10 of the Dane County Code of Ordinances

Lauber reported on the August 12th Zoom meeting with several towns and Dane County staff. All issues, except for the temporary sign issue in the DCTA 7/26/2021 memo, were discussed in detail and resolved.

County staff proposed the shortened time period for temporary signs (proposed reduction from 60 to 30 days) to address problems with mini market banners. DCTA is concerned this would put farm stands out of compliance. County staff did not see this causing an issue because they don't start counting the days for a temporary sign until they get a complaint. The Executive Board discussed how reducing the number of days permitted could create one standard for conscientious businesses and another for businesses that are aware of the County enforcement policy. It would also give a good amount of power to people that file complaints.

The definition of temporary signs was also discussed. County staff will be proposing new language.

County staff will make amendments to the proposal based on the input referenced above and an ordinance amendment will be introduced. Towns will then have a chance to review and comment on the proposed changes.

REVISION	by
5/10/21	MGU
6/22/21	KM
7/27/21	JSB

PHASE #1

UNIT MIX

LABEL	UNIT SIZE	# UNITS	%	SQ. FEET	INSULATED	
AC	5 x 5	6	2.4	150	Y	
B	5 x 10	18	7.3	900	N	
BC	5 x 10	4	1.6	200	Y	
CC	5 x 15	2	0.8	150	Y	
PC	7 x 7	1	0.4	49	N	
IC	10 x 5	6	2.4	300	Y	
D	10 x 10	28	11.3	2800	N	
DC	10 x 10	24	9.7	2400	Y	
F	10 x 15	28	11.3	4200	N	
EC	10 x 15	32	12.9	4800	Y	
F	10 x 20	20	8.1	4000	N	
FC	10 x 20	32	12.9	6400	Y	
GC	10 x 25	2	0.8	500	Y	
H	10 x 30	4	1.6	1200	N	
HC	10 x 30	12	4.8	3600	Y	
OC	10 x 7	5	2.0	350	N	
W	12 x 15	2	0.8	360	N	
Y	12 x 25	2	0.8	600	N	
L	12 x 30	10	4.0	3600	N	
LC	12 x 30	5	2.0	1800	Y	
P	12 x 40	5	2.0	2400	N	
SQ.FT. NON-INSULATED				20459		
SQ.FT. INSULATED				20300		
TOTAL				248	100	40759

PHASE #2

UNIT MIX

LABEL	UNIT SIZE	# UNITS	%	SQ. FEET	INSULATED	
AC	5 x 5	2	1.0	50	Y	
B	5 x 10	12	6.3	600	N	
BC	5 x 10	3	1.6	150	Y	
IC	10 x 5	2	1.0	100	Y	
D	10 x 10	31	16.2	3100	N	
DC	10 x 10	10	5.2	1000	Y	
E	10 x 15	40	20.9	6000	N	
EC	10 x 15	12	6.3	1800	Y	
F	10 x 20	32	16.8	6400	N	
FC	10 x 20	22	11.5	4400	Y	
GC	10 x 25	3	1.6	750	Y	
HC	10 x 30	1	0.5	300	Y	
L	12 x 30	10	5.2	3600	N	
P	12 x 40	10	5.2	4800	N	
PC	14 x 50	1	0.5	700	Y	
SQ.FT. NON-INSULATED				24500		
SQ.FT. INSULATED				9250		
TOTAL				191	100	33750

PHASE #3

UNIT MIX

LABEL	UNIT SIZE	# UNITS	%	SQ. FEET		
B	5 x 10	68	26.2	3400		
D	10 x 10	23	8.8	2300		
E	10 x 15	68	26.2	10200		
F	10 x 20	82	31.5	16400		
K	10 x 40	1	0.4	400		
V	12 x 10	4	1.5	480		
Q	12 x 20	5	1.9	1200		
L	12 x 30	4	1.5	1440		
P	12 x 40	5	1.9	2400		
TOTAL				260	100	38220

PARKING - UNIT MIX

LABEL	UNIT SIZE	# UNITS	SQ. FEET
P-1	12 x 30.0	6	2160.0
P-2	12 x 40.0	37	17760.0
TOTAL		43	19,920.0

☼ LIGHTS ALL ON MOTION SENSORS

* NO ADDITIONAL SIGNAGE ON PHASE #2 & PHASE #3

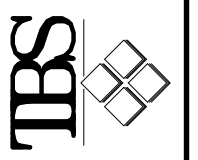
TOTAL SITE

UNIT MIX

LABEL	UNIT SIZE	# UNITS	%	SQ. FEET	INSULATED	
AC	5 x 5	8	1.1	200	Y	
B	5 x 10	98	14.0	4900	N	
BC	5 x 10	7	1.0	350	Y	
CC	5 x 15	2	0.3	150	Y	
IC	10 x 5	8	1.1	400	Y	
D	10 x 10	82	11.7	8200	N	
DC	10 x 10	34	4.9	3400	Y	
E	10 x 15	136	19.5	20400	N	
EC	10 x 15	44	6.3	6600	Y	
F	10 x 20	134	19.2	26800	N	
FC	10 x 20	54	7.7	10800	Y	
GC	10 x 25	5	0.7	1250	Y	
H	10 x 30	4	0.6	1200	N	
HC	10 x 30	13	1.9	3900	Y	
K	10 x 40	1	0.1	400	N	
OC	10 x 7	5	0.7	350	N	
V	12 x 10	4	0.6	480	N	
W	12 x 15	2	0.3	360	N	
Q	12 x 20	5	0.7	1200	N	
Y	12 x 25	2	0.3	600	N	
L	12 x 30	24	3.4	8640	N	
LC	12 x 30	5	0.7	1800	Y	
P	12 x 40	20	2.9	9600	N	
PC	14 x 50	2	0.3	1400	Y	
SQ.FT. NON-INSULATED				83130		
SQ.FT. INSULATED				30250		
TOTAL				699	100	113380



TRACHTE BUILDING SYSTEMS, Inc.
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PROPOSED MINI-STORAGE SYSTEM for:
 CAMERON LINDAU
 TOWN OF VERONA, WI

Date 10/23/19
 Drawn by KM
 Checked by
 Scale 1" = 60'-0"
 Plan No. P-52104
 Sheet No.

SITE PLAN

Town of Verona
Regular Town Board Meeting Minutes
Tuesday, March 3, 2020 6:30 PM
Town Hall/Community Center
7669 County Highway PD, Verona, WI 53593-1035

Present: Geller, Mathies, Maxwell, Duerst, Enburg
Staff Present: Barnes, Judd
Also Present: see sign in sheet

1. **Call to Order/Approval of the Agenda**-Geller called the meeting to order at 6:30 PM. Maxwell moved to approve the agenda, 2nd Enburg. Motion carried by voice vote
2. **Pledge of Allegiance**
3. **Public Comment**-No public comment
4. **Approval of Minutes from February 4, 2020 Regular Meeting, and February 17, 2020 Special Meeting**-Duerst moved to accept the minutes of February 4, 2020 Regular Board Meeting with removal of "Ray" from the Wagner reference. 2nd by Maxwell. Motion carried by voice vote. Duerst moved to accept the minutes of February 17, 2020 Special Meeting; 2nd by Mathies. Motion carried by voice vote.
5. **Review and Possibly Approve an Amendment to the Town of Verona Building Code by Ordinance 2020-02 per the Recommendations from the Department of Safety and Professional Services**-Geller introduced the ordinance to strike the requirement of Master Electrical Certification for the issuance of a Town of Verona electrical permit. Enburg moved to approve the resolution; 2nd by Maxwell.
Discussion and Action- Maxwell questioned why the electrical qualifications were struck out; Mathies replied that changes were made to make the Town's ordinance to be consistent with Wisconsin's Electrical Code. Ordinance amendment approved by voice vote.
6. **Discussion and Possible Action to Adopt a Policy to Allow Exceptions to the Dane County Public Road Frontage Requirements for Lots by Resolution 2020-02**-Mathies explained that the Dane County Code, chapter 75 requires that all lots must have road frontage, unless a Town adopts an ordinance, which may allow exceptions to the road frontage requirement. Mathies stated that it is common for Towns in Dane County to adopt such an ordinance. Mathies referenced the recent Town Board approval of the Temkin lot for their house. Enburg stated that he believed that it was acceptable for Dane County to approve no more than six lots on a single access. Motion by Maxwell to adopt resolution 2020-02; 2nd by Enburg. Motion carried by voice vote.
7. **Reports and Recommendations**
 - **Plan Commission**
 - i. **Discussion and action on Final Plat – Land use application 2019-3 submitted by Tim and Linda Sweeney and Dave DiMaggio for review of a Final Plat and associated documents for Prairie Circle (parcel numbers 0608-074-8533-0 and 0608-074-8093-0) for Fourteen residential lots and one outlot**-Geller introduced the Prairie Circle development and Maxwell explained the process of the development from concept plan to final plat approval stage. Maxwell state that the Town Plan Commission unanimously approved the presented Plat on February 3, 2020. The next step in the approval process will be the approval by Dane County Zoning and Land Regulation Committee. Geller introduced the property owners, Tim and Linda Sweeny and David DiMaggio and asked if the Board members had any questions of the owner, of if the owners had any questions of the board. The property owners had no comments. Mathies state that he believed that no action could be taken on the final plat since the plat drawing did not show the existing Prairie Circle cul-de-sac right of way configuration (which includes the cul-de-sac bulb right of way). The current drawing sheet 2 of 6 dated February 3, 2020 shows the bulb of the cul-de-sac to be partially vacated to represent a consistent 66-foot right of way width. Duerst stated that the cul-de-sac vacation omission was not a problem for him since it is in the works and is next on the board agenda for action. Mathies stated that he would be OK with the conditional approval of the final plat as presented once the cul-de-sac vacation is completed. Tim Sweeney stated that the surveyor (Noa Prieve) did not include the existing cul-de-sac bulb right of way per direction form the Dane County planning staff. Maxwell made a motion to accept the Prairie Circle Final Plat dated February 3, 2020 as prepared by Williamson Surveying & Associates (Noa Prieve) with the condition that the vacation of the excess right of way at the cul-de-sac be finalized by the Board; 2nd by Mathies. Motion carried by voice vote.
 - ii. **Discussion and action for the partial vacation of the Prairie Circle right-of-way by Resolution 2020-03, schedule Public Hearing, and authorize filing the lis pendens with the Dane County Register of Deeds**-Maxwell introduced the vacation documents relative to the vacation of right of way at the bulb of the existing Prairie Circle cul-de-sac. Staff (Wright and Barnes) have been working on the documents necessary for the vacation of excess right of way at the existing Prairie Circle cul-de-sac. If approved then the process could move forward with a public hearing on possible action on April 14, 2020 Board Meeting. Barnes explained that when the extension Prairie circle was completed, that the road at the cul-de-sac would be reconstructed to a typical 22 foot wide roadway and that the existing cul-de-sac pavement would be removed and the earthwork regraded to match the Prairie Circle typical section.

Once complete, the excess right of way as shown on the Exhibit "A" of the Lis Pendens would be discontinued. Barnes stated that the "vacated Prairie Circle "B" was shown in the documents since the records indicate that the area was "dedicated to the Public" per the Town of Verona Resolution 01-08 7 Aug 2001 as shown on Certified Survey Map 9599. Barnes stated that the area in question was apparently reserved for a future eastern road extension and that Town records indicate that on July 17, 2007, the Town executed a quit claim deed of the area to David DiMaggio, Beverly DiMaggio and Salvatore DiMaggio. Barnes stated that discussions with the Dane County planning staff implied that the County recognizes that document and the parcel has been reincorporated into Lot 1 of the Prairie Circle Final plat. Maxwell stated that there would be no harm in delaying the vacation in order to coordinate with the Dane County process. No action was taken on Resolution 2020-3.

- iii. **Discussion – neighborhood covenants and developer’s agreement-** Maxwell introduced the draft covenants for the Prairie Circle development. Maxwell is working with the Town Attorney on the final version of the development agreement. Geller asked why the design review committee only consisted of the developer/owners and not the homeowners association. Tim Sweeney stated that they planned to sell lots and they wished to hold the design review until all of the lots were sold. Duerst asked about what species of trees would be allowed? Linda Sweeney replied that there was not a list of acceptable trees species, but rather each house built would be required to have a landscape plan, which would be submitted to the design review committee. Duerst added that it might be a good idea to select specific tree species. Maxwell pointed out that section 4.16 of the covenants stated no tents and asked if this applies to kids camping out in the back yard or wedding tents? Maxwell also noted that section 9.03 required that the mailbox area be shoveled. Duerst asked Mark Judd if he had any problems with mailboxes being cleared or shovel. Judd stated no. Maxwell introduced the Prairie Circle Storm Water management Plan, and stated that it would go to the Dane County for review and approval.
- iv. **Discussion and action - Land use application 2019-11 submitted by Cameron and Jamie Lindau on behalf of Swan You See LCC for a rezoning from RM-8 (Rural Residential) to HC (Heavy Commercial) and a site plan review for a self-storage facility proposed for parcel number 0608-132-8790-0 on Maple Grove Drive-** Maxwell introduced the land use application and site plan for the proposed Madison/Verona Self Storage facility on Maple Grove Drive. The site is located north of the existing Dane County maintenance facility. Maxwell explained that the current zoning is RM8 (rural mixed use) and the request from the applicant is to rezone to HC (heavy commercial). Maxwell summarized the Town Staff Report and introduced Mr. Jamie Landau who offered a power point presentation of the project. Mr. Lindau stated that Cameron and Meg Lindau would be the owner of the self-storage facility and Trachte Building Systems (TBS) of Sun Prairie, Wisconsin would be manufacturer. Jamie Lindau has worked for TBS for many years and owns the self-storage unit off Park Street and one in Sun Prairie and De Forest. Lindau stated that he had a market analysis performed by Chiswell Associates to determine the demand for additional storage units in the area. This unit would supply about 1/5th of the estimated demand. Duerst asked "are you buying the land" Lindau replied –yes. Lindau discussed the existing wetlands and the design to accommodate the existing wetlands areas and required setbacks. Lindau stated that he had applied to the U.S. Army Corp of Engineers (USACE) for a "Letter of Map Revision" to eliminate five small wetland areas shown on the current floodplain mapping. Lindau explained that since the USACE process takes so long, that he intends to begin construction on the initial phase, which does not impact the wetland areas. Duerst asked why the wetlands were present if the site was filled several years ago? Lindau replied that the wetlands naturally developed into fill area if there is a wet area. Lindau reviewed the site plan with details of the build style and design. Lindau explained the security and lighting systems to be used and how the project would meet the Dark Sky Ordinance by the use of motion sensitive lighting and fixtures. Mathies had questions about the landscaping and if the trees were to be planted in a pattern. Duerst asked if the trees were all conifers. Lindau responded that he was open to a scattered style of tree planting and that the tree species were a variety of conifer and deciduous trees. Lindau explained that the build would have a septic and well for the office area. Maxwell asked Barnes for a brief report on the traffic impacts. Barnes stated that the impact of the facility would be minimal and would not affect peak hour traffic patterns. Barnes stated that the gate offset was important for vehicle stacking and Lindau replied that the gate was situated approximately 70 feet from the edge of Maple Grove Drive and would provide adequate vehicle stacking. Lindau explained that the site had room for eight more buildings and an outdoor storage area. Mathies questions how the outside storage area would be screened, Lindau replied it would be screened by the proposed trees, but that since Maple Grove Drive to the south of the site is 30 feet higher than the subject property, that there would be some visibility from Maple Grove Drive. Maxwell commented that Roger Lane of Dane County had reviewed the materials and found them satisfactory. Lane also sent Maxwell a list of proposed conditions that should be placed on the zoning change request.

Maxwell made a motion: to approve land use application 2019-11 for a change from RM8 to HC zoning for parcel number 0608-132-8790-0 with the following conditions:

1. The land uses shall be limited exclusively to a personal storage facility; outdoor storage of vehicles and recreational vehicles; and offices in conjunction with the personal storage facility. Auctions associated with contents of storage spaces are permitted on an intermittent basis.

2. The physical development of the property shall be constructed per the concept plan P-52104 dated 3/2/2020 (attached). All phases of the project shall obtain site plan approval by the Town of Verona prior to construction.
3. The property has identified wetland areas. Development is prohibited in these areas unless the landowner obtains approval from the US Army Corp of Engineers and the area is rezoned out of the wetland classification by Dane County.
4. Landscaping shall be installed in accordance with the approved landscaping plan. The landscaping shall be installed within 1 year after a building permit is issued for the construction of the personal storage facility. All landscaping shall be maintained. Any landscaping that becomes diseased or dies shall be replaced within 30 days of notification. Landscaping plans shall be approved by the Town Board for subsequent phases of the project prior to construction.
5. Illumination of the property shall be installed in accordance with the approved lighting plan. The lighting shall be installed in a manner to not cause glare from viewed by US 151. Lighting plans shall be approved by the Town Board for subsequent phases of the project prior to construction.
6. The landowner shall obtain all necessary permits for erosion control and stormwater management. The stormwater management features shall be installed and maintained in accordance with permit approvals.
7. Signs on the property shall be limited to the signs identified as part of the approval. The internally illuminated signs shall be prohibited.
8. The installation of billboard signs (off-premise advertising) shall be prohibited.

2nd by Durest. Motion carried by voice vote

Maxwell made a motion to: approve the concept plan dated 3/2/2020 for a self-storage facility for parcel number 0608-132-8790-0. 2nd by Duerst. Motion carried by voice vote.

v. Discussion – Parade of Homes at Twin Rock Development-Geller introduced Haley Saalsaa, 7891 Riverside Drive, and she stated that she was one of the owners/developers of the Twin Rocks subdivision located on Spring Rose Road. Saalsaa explained that the owners/developers are interested in pursuing the development for the 2021 Madison Area Homebuilders Association Parade of Home (PoH). The PoH proposal will be submitted to the Madison Area Homebuilders association in May of 2020 for the 2021 show. Saalsaa provided a summary sheet, which shared the details of the program. The PoH would run for 10 to 12 days and averages 3000 to 8000 total attendees. Traffic is estimates at 5 to 50 vehicles/day. Saalsaa stated that parking would be provided either on the road or on a vacant lot. Maxwell asked if the homes built would need to comply with the subdivisions covenants. Saalsaa replied –yes. Geller stated that the Town had not had a PoH and he was in favor. Duerst state that he was also in favor and asked if future PoH events could be held in the Town and that the PoH was a good opportunity to promote the Town. No action was taken.

•
• **Public Works**

- i. **Review of 2020 maintenance program**-Enburg asked Barnes to present the 2020 road Maintenance program. Barnes referenced the memo in the agenda and summarized the road projects slated to be bid: Locust Drive, Timber lane, Cross Country Road, and Mid Town Road. Barnes stated that at the February 24th Public Works Committee meeting, there was much discussion regarding the selected roads and that some other roads should be included as alternates. Barnes stated that he and Judd surveyed three additional roads: Black Cherry Court, Paulson Road and Cross Country Circle. The three roads were added to the 2020 bidding documents prepared by MSA Professional Services. Enburg stated that while he understood the condition of the roads, he had been moving the Town towards doing more roads used by town residents and delaying work on roads, such as Locust Drive, that served mostly pass through traffic. Enburg explained that future development along Locust Drive, included a possible school, would likely result in portions of Locust Drive being annexed into the City of Verona. Enburg stated that similarly, other such “shared use” roads, as Whalen Road, Grandview Road, and Fitchrona Road should have a shared cost with the respective to the Cities of Verona or Fitchburg. Enburg encouraged the other board members to look at the prepared Capital improvement Plan and decide what roads were priorities. Duerst stated that he had traveled Locust Drive and that in his opinion it needed to be repaired. Duerst noted that there are only eight home on Black Cherry Court and 28 on Cross Country Circle. Maxwell asked when Black Cherry Court was built; Duerst replied that he thought in the mid 1980’s.
- ii. Brian Miller, 1815 Locust Drive, spoke from the audience and mentioned that the Wisconsin Department of Transportation was planning to relocate about 500 feet of Locust Drive in front of his property in the future, and the Town did not need to repair that section. Miller stated that due to the relocation, he would be left with a “spite strip” in front of his property and he wanted some assistance in resolving this matter with the State. Barnes offered to assistance Mr. Miller in this regard. Enburg stated that it was issues like these that make Locust Drive less desirable to repair. Geller asked when were the addition streets in the capital improvement plan to be repaired? Barnes replied that they were generally 2 to 3 years out. Enburg stated that the town should engage the adjacent Cities to help with the cost. Geller replied that these are Town roads and we have to keep them up. We all use city streets too and all parties need to be responsible for their own roads.

TOWN OF VERONA
APPLICATION FOR LAND USE CHANGE

Please review the Town of Verona Comprehensive Land Use Plan and Subdivision and Development Ordinance 05-04 (found on the Town website: www.town.verona.wi.us) and Dane County Ordinances Chapter 10 – Zoning, Chapter 11 – Shoreland, Shoreland-Wetland and Inland-Wetland Regulations and Chapter 75 – Land Division and Subdivision Regulations prior to application.

Proposed land use change for:

Property address/legal description 2325 Sugar River Road

Please check all that apply:

- comprehensive plan amendment – please see specific submittal requirement
- rezone petition
 - current zoning category AT.35 CRR.2 (spot zone within AT.35)
 - new zoning category requested RM.16
- conditional use permit
 - conditional use requested
- certified survey map
- preliminary plat
- final certified survey map
- concept plan
- site plan
- request for Town road access

Property Owner: Sugar River Investors, LLC (c/o David Kruger) Phone#: 608.658.1514
Address: 2325 Sugar River Rd. E-Mail: dkruger@fioreco.com
Applicant, if different from the property owner: n/a
Applicant's Phone#: n/a E-Mail: n/a

If the applicant is different from property owner, please sign below to allow the agent to act on behalf of property owner.
I hereby authorize _____
to act as my agent in the application process for the above indicated land use change.
Signature _____ Date _____

Description of Land Use Change requested: (please be specific and use reverse side if additional space is needed)
The current parcel is 39.48 acres zoned AT.35, with a 2.03 acre spot zone, zoned RR.2, contained within it. The parcel is currently row-cropped. We request a rezone of both the AT.35 & RR.2 areas to RM.16. We also request formal acknowledgement that a zoning change to RM.16 would...

I certify that all information is true and correct. I understand that failure to provide all required information will be grounds for denial of my request
Applicant Signature: [Signature] Date: 11 AUG 2021
Print Name: DAVID KRUGER

RETURN COMPLETED APPLICATION OF MAP/PLAN AND ANY OTHER INFORMATION VIA EMAIL TO:
Sarah Gaskell, Planner/Administrator, Town of Verona
7669 County Highway PD, Verona, WI 53593-1035
sgaskell@town.verona.wi.us
A pre-application meeting or initial review may be scheduled with Town Staff and/or Plan Commission Chair if you have questions or concerns. Please call 608-845-7187 with questions.

Description of Land Use Change requested continued:

...preserve the future development opportunity on the site, per the current comprehensive plan.

This rezone will allow my daughter's family to build near our home and preserve as much agricultural use on the rest of the parcel as possible.

Planning Report

Town of Verona

July 22nd, 2021

2325 Sugar River Road

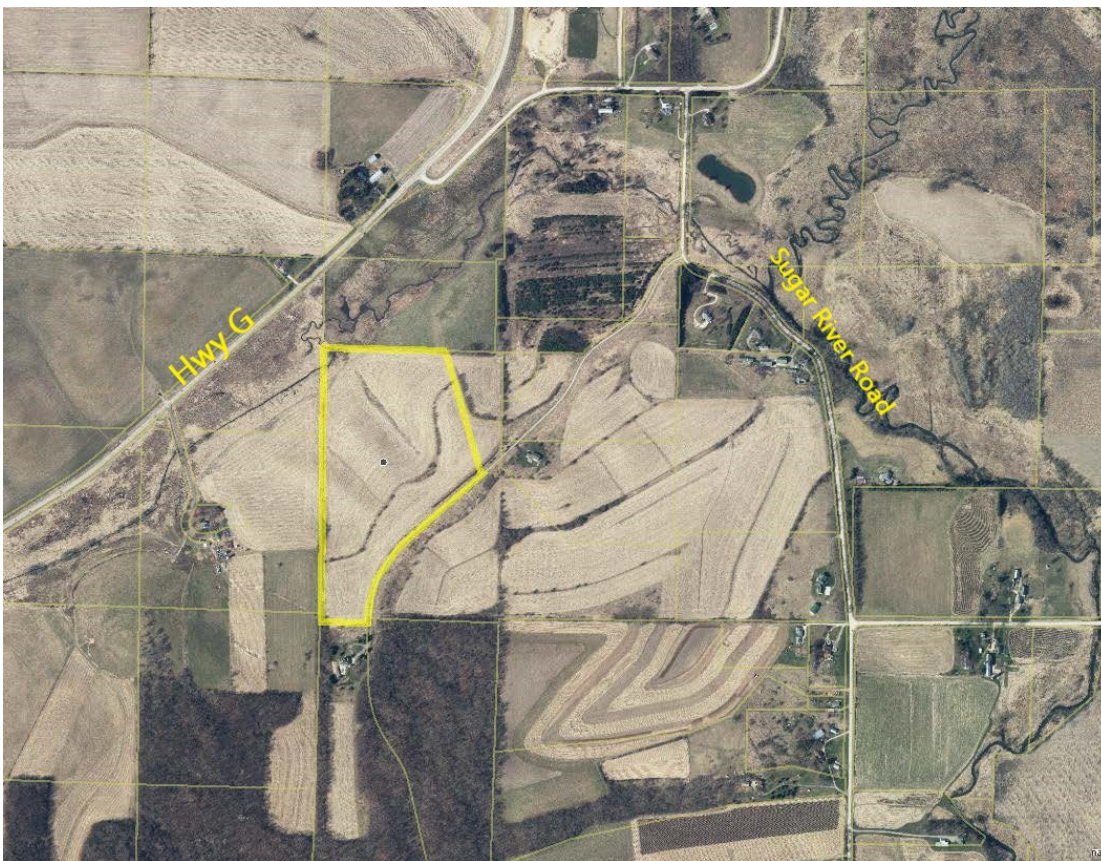
Summary: The applicant seeks a rezone from RR 2 (2.03-acre spot zone) and AT-35 to RM-16 for parcel number 062/0608-301-8001-1.

Property Owner: Sugar River Investors LLC, David Krueger

Property Addresses: 2325 Sugar River Road, Verona WI 53593

Applicant: same

Location Map



Comprehensive Plan Guidance:

The density of this area is Residential RR 2-4 acres, so 1 house per 2-4 acres. The parcels are currently zoned RR 2 and AT-35 so a rezone would be consistent for this parcel.

Current and Proposed Zoning: The current zoning for the parcels are RR 2 and AT-35 (36.32 AT acres and 2.03 for the spot zone). The new zoning would be RR 16 for the entire parcel. The spot zone would be removed.

Extra-territorial Review/Boundary Agreement Authority: This parcel is in Area C of the boundary agreement with the City of Verona so no further approvals are required.

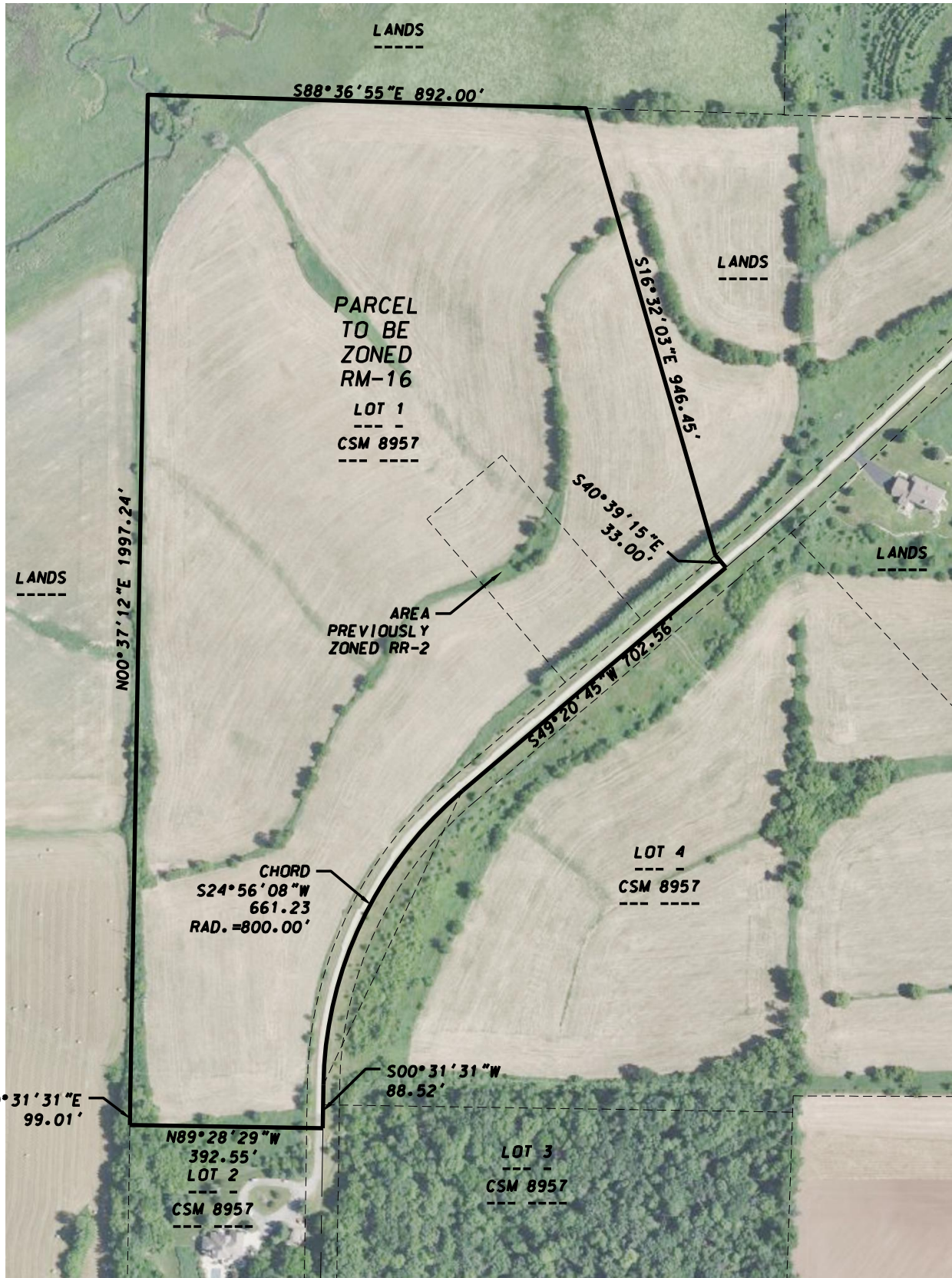
Surrounding Land Use and Zoning: The surrounding land uses include AT-35 and an RR-2 spot zone.

Site Features: The site features agricultural land.

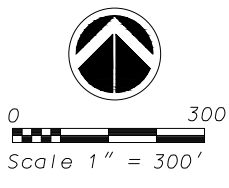
Driveway Access: The property utilizes access via an existing driveway from Sugar River Road.

Other: Removal of the spot zone and a rezone to RM-16 would allow for the construction of one single family home on the parcel as well as accessory buildings if desired. This is not anticipated to affect the eventual development of the larger parcels at some time in the future.

ZONING EXHIBIT



D'ONOFRIO KOTTKE AND ASSOCIATES, INC.
 7530 Westward Way, Madison, WI 53717
 Phone: 608.833.7530 • Fax: 608.833.1089
 YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT



ZONING EXHIBIT



HOUSE
AREA
SOUTH OF
THIS LINE

D'ONOFRIO KOTTKE AND ASSOCIATES, INC.

7530 Westward Way, Madison, WI 53717
 Phone: 608.833.7530 • Fax: 608.833.1089
YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT



0 300
 Scale 1" = 300'

SHEET 1 OF 1

DATE: 08-11-21
 F.N.: 21-07-108

AREA TO BE REZONED RM-16

Lot 1, Certified Survey Map No. 8957, located in the SE1/4 of the SE1/4 and the NE1/4 of the SE1/4 of Section 19 and in the NE1/4 of the NE1/4 of Section 30, T6N, R8E, Town of Verona, Dane County, Wisconsin, described as follows: Commencing at the most easterly corner of said Lot 1; thence S49°20'45"W, 702.56 feet to a point of curve; thence Southwesterly along a curve to the left which has a radius of 800.00 feet and a chord which bears S24°56'08"W, 661.23 feet; thence S00°31'31"W, 88.52 feet; thence N89°28'29"W, 392.55 feet; thence N00°31'31"E, 99.01 feet; thence N00°37'12"E, 1997.24 feet; thence S88°36'55"E, 892.00 feet; thence S16°32'03"E, 946.45 feet; thence S40°39'15"E, 33.00 feet to the point of beginning. Containing 39.476 acres.

TOWN OF VERONA
APPLICATION FOR LAND USE CHANGE

Please review the Town of Verona Comprehensive Land Use Plan and Subdivision and Development Ordinance 05-04 (found on the Town website: www.town.verona.wi.us) and Dane County Ordinances Chapter 10 – Zoning, Chapter 11 – Shoreland, Shoreland-Wetland and Inland-Wetland Regulations and Chapter 75 – Land Division and Subdivision Regulations prior to application.

APPLICATION IS MADE to the Town of Verona Board for a land use change for:

Property address/legal description 1730 BEACH Rd AND 6411 SUNSET DR, VERONA WISCONSIN Lot 4
of CSM #5396 located in the NW 1/4 and SW 1/4 of the SE 1/4 of SECTION 26,

Please check all that apply:

- comprehensive plan amendment
- rezone petition
 - current zoning category RM-16
 - new zoning category requested MFR-08
- conditional use permit
 - conditional use requested _____
- certified survey map
- preliminary plat
- final certified survey map
- concept plan
- site plan
- request for Town road access

Property Owner: STILWELL LIVING TRUST, LEE + BEAUTY STILWELL Phone# 608-576-0231

Address: 1730 BEACH RD, VERONA, WI 53593 E-Mail landbstilwell@tds.net

Applicant, if different from the property owner: WILLIAM ^{SR} SURVEYOR - MOA PRIEVE

Applicant's Phone# 608-255-5705 E-Mail _____

If the applicant is different from property owner, please sign below to allow the agent to act on behalf of property owner.

I hereby authorize MOA PRIEVE
to act as my agent in the application process for the above indicated land use change.

Signature [Signature] Date 5.17.21

Description of Land Use Change requested: (use reverse side if additional space is needed)
THE OWNERS WOULD LIKE TO CREATE A CONDO PLAT DIVIDING THE EXISTING PROPERTY
INTO FOUR CONDO UNITS.

I certify that all information is true and correct. I understand that failure to provide all required information will be grounds for denial of my request

Applicant Signature [Signature] Date 5.17.21

Print Name LEE STILWELL

RETURN COMPLETED APPLICATION OF MAP/PLAN AND ANY OTHER INFORMATION VIA EMAIL TO:

Sarah Gaskell, Planner/Administrator, Town of Verona
7669 County Highway PD, Verona, WI 53593-1035
sgaskell@town.verona.wi.us

A pre-application meeting or initial review may be scheduled with Town Staff and/or Plan Commission Chair if you have questions or concerns. Please call 608-845-7187 with questions.

Planning Report

Town of Verona

May 14th, 2021

1730 Beach Road/6411 Sunset Drive

Summary: The applicant is seeking approval for a Condo Plat for parcel number 062/0608-364-8790-2. The plat would create four units of approximately 5.27, 5.73, 4.31 and 4.31 acres in size.

Property Owner: Stilwell Trust

Property Addresses: 1730 Beach Road, 6411 Sunset Drive

Applicant: Noa Prieve
Williamson Surveying

Location Map



Comprehensive Plan Guidance:

The density of this area is Residential RR 4-8 acres, so 1 house per 4-8 acres. The parcel is currently zoned RM 16 so a rezone would be appropriate for this parcel.

Current and Proposed Zoning: The current zoning is RM 16. The new zoning would be MFR-08 for each unit because the parcel is a proposed condominium. Currently 20.26 acres, the parcel would consist of 4 units of various sized acreages.

Extra-territorial Review/Boundary Agreement Authority: This parcel is in Area C of the boundary agreement with the City of Verona and is in the ETJ area of the City of Fitchburg. No further action is required with the City of Verona. The City of Fitchburg has indicated they will not approve any subdivisions for land in the ETJ area for parcels less than 35 acres and have no interest in rezone applications.

Surrounding Land Use and Zoning: The surrounding land uses are RR 1, 2 and 4. The parcel directly south is zoned RM 16.

Site Features: The site features pasturelands, agricultural fields, a residence and numerous sheds and farm buildings. The topography is varied, and the applicants keep llamas on the property. There is a driveway that provides private access from Beach Road to Sunset Road. Additionally, the private drive extending south from Beach Road is utilized by two adjacent landowners.

Driveway Access: It is anticipated that driveway access for Unit 4 will remain unchanged. Units 1, 2 and 4 will share a driveway easement with the neighbors to the west. Currently, there are three residences utilizing the shared access. This proposal would add an additional 2 driveways to this access. Access for Unit 3 will be via Sunset Drive using the existing driveway.

Other: There are existing driveway easement agreements with Lot 3 CSM 5396 and Lot 1 CSM 6372 owners on Beach Road. The owners of these lots were in support of the proposal when it was proposed as a land subdivision via CSM. The applicant is working with the Ice Age Trail Alliance to dedicate the existing path that traverses the perimeter of the property on the Eastern and southern sides to the IAT. The easement is depicted on the condominium plat.

Due to the proposed size of the units, the County has responded that stormwater concerns can be handled individually on each unit instead of via an outlot/common element. The driveway access for Lots 1,2 and 4 will be achieved via the designation of a Limited common element, as outlined in the draft Declarations.

An informal neighborhood meeting regarding the proposed plat was held on June 13th, 2021.

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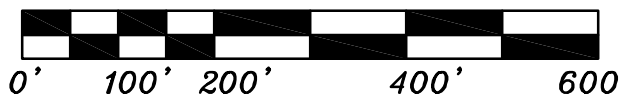


LEGEND

- = SET 3/4"x24" REBAR
WT 1.5 LB PER LIN FT
 - △ = SET SURVEY SPIKE
 - ▲ = FOUND PKNAIL
 - = FOUND 3/4" REBAR
 - ⊙ = FOUND 1" IRON PIPE
(UNLESS NOTED)
 - ⊕ = FOUND ALUMINUM
MONUMENT (UNLESS NOTED)
 - (##) = RECORDED AS
 - ⊕ = SEPTIC VENT
 - ⊗ = SEPTIC TANK
 - ⊙ = WELL
- L.C.E. = LIMITED COMMON ELEMENT

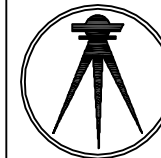
PREPARED FOR:
STILWELL LIVING TRUST
1730 BEACH ROAD
VERONA, WI 53593

SCALE 1" = 200'



(WCCS - DANE ZONE)

BEARINGS ARE REFERENCED TO THE EAST
LINE OF THE SE 1/4 OF SECTION 36-6-8
LINE TO BEAR S 00°57'06" W



WILLIAMSON SURVEYING & ASSOCIATES, LLC

104 A WEST MAIN STREET, WAUNAKEE, WISCONSIN, 53597.

NOA T. PRIEVE & CHRIS W. ADAMS

PROFESSIONAL LAND SURVEYORS

PHONE: 608-255-5705 FAX: 608-849-9760 WEB: WILLIAMSONSURVEYING.COM

**SUNSET LLAMAS
CONDOMINIUM PLAT
DANE COUNTY, WISCONSIN
WILLIAMSON SURVEYING & ASSOCIATES, LLC**

SURVEYOR'S CERTIFICATE:

I, Noa T. Prieve, Professional Land Surveyor, hereby certify that this plat is a correct representation of the condominium described and identification and location of the units and the common and limited common elements can be determined from the plat.

Williamson Surveying and Associates, LLC
by Noa T. Prieve & Chris W. Adams

DATE: _____

Noa T Prieve S-2499
Professional Land Surveyor

DESCRIPTION:

Part of Lot 4, Certified Survey Map No. 5396, recorded in the Dane County Register of Deeds Office in Volume 24 of Certified Survey Maps, Pages 307 through 309, as Document No. 2054106. Located in part of the Northwest and Southwest 1/4's of the Southeast 1/4 of Section 36, T6N, R8E, Town of Verona, Dane County, Wisconsin, more particularly described as follows: Commencing at the East 1/4 Corner of said Section 36; thence S 00°57'06" W along the east line of the Southeast 1/4, 1,517.04 feet; thence N 89°50'54" W, 1,303.60 feet to the southeast corner of said Lot 4 and to the point of beginning.

Thence continue along said Lot 4 N 89°50'54" W, 899.03 feet; thence N 00°49'16" E, 797.37 feet to the right-of-way of Beach Road; thence along said right-of-way along an arc of a curve concaved northwesterly having a radius of 60.00 feet and a long chord bearing and distance of N 17°31'20" E, 114.83 feet to the northwest corner of said Lot 4; thence continue along said Lot 4 for the next 5 courses S 89°11'55" E, 370.31 feet; thence N 56°08'41" E, 287.60 feet; thence N 63°01'19" E, 171.16 feet to the centerline of Sunset Drive; thence along said centerline S 41°16'58" E, 157.37 feet; thence S 00°41'45" W, 1,023.68 feet to the point of beginning. This parcel contains 874,481 sq. ft. or 20.07 acres and is subject to a road right of way in the Northeast part thereof.

NOTES:

- 1.) THIS SURVEY WAS PREPARED WITHOUT BENEFIT OF A TITLE REPORT FOR THE SUBJECT TRACT OR ADJOINERS AND IS THEREFORE SUBJECT TO ANY EASEMENTS, AGREEMENTS, RESTRICTIONS AND STATEMENT OF FACTS REVEALED BY EXAMINATION OF SUCH DOCUMENTS.
- 2.) WETLANDS AND FLOOD PLAIN, IF PRESENT, HAVE NOT BEEN DELINEATED OR SHOWN.
- 3.) SECTION CORNER TIES FOR THE EAST 1/4 CORNER AND SOUTHEAST CORNER OF SECTION 36, T6N, R8E HAVE BEEN CHECKED AND VERIFIED PER THE LATEST TIE SHEET ON RECORD.
- 4.) ALL ICE AGE TRAIL EASEMENTS SHOWN ON THE CONDOMINIUM ARE COMMON ELEMENTS FOR UNITS 1, 2, 3, AND 4.
- 5.) ALL AREAS DEPICTED ON THE CONDOMINIUM PLAT AS LIMITED COMMON ELEMENTS SHALL BE GOVERNED BY THE TERMS AND CONDITIONS OF THE DECLARATION.
- 6.) DRIVEWAY CONNECTION IN THE AREA HATCHED ON THE CONDOMINIUM PLAT SHALL BE REMOVED UPON ANY SALE OR TRANSFER OF UNIT NUMBER 3 OF THIS PLAT.
- 7.) THE PORTION OF UNIT 3 LOCATED IN SUNSET DRIVE RIGHT OF WAY IS PUBLIC RIGHT OF WAY.

There are no objections to this condominium with respect to Sec. 703 Wis. Stats. and is hereby approved for recording.

Dated this ____ day of _____, 20__

Dane County Planning and Development

SURVEYORS SEAL

REV. 8-26-21

DRAWN BY NEIL BORTZ

DRAWING NO. 20W-349

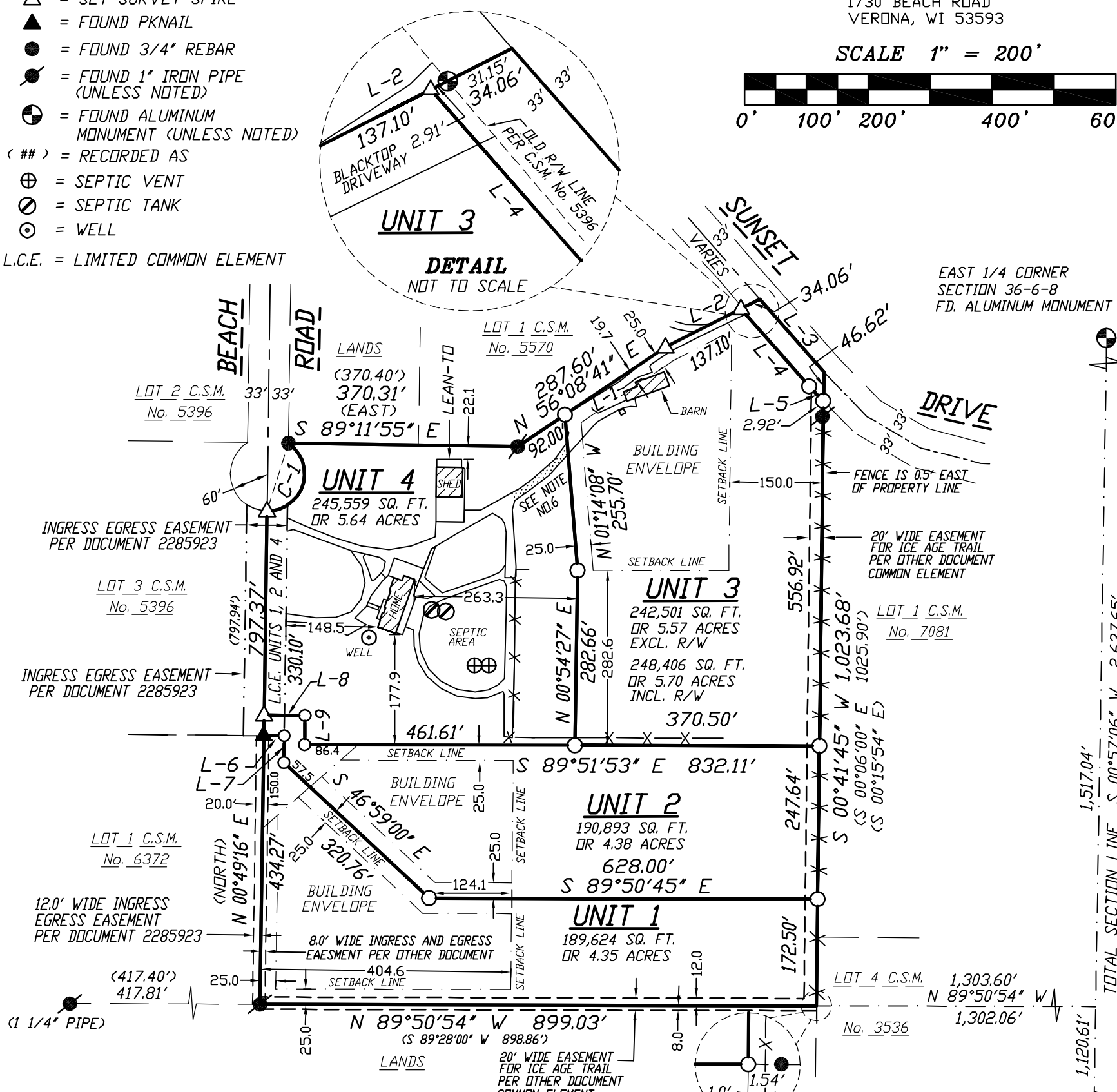
SHEET 1 OF 2

LINE TABLE:

L-#	BEARING	DIST.
L-1	(N 55°15'57" E) (N 55°14'00" E) N 56°08'41" E	195.60'
L-2	(S 62°06'15" E) (174.01') (N 62°14' E) (173.9') S 63°01'19" E	171.16'
L-3	(S 42°15'51" E) (S 41°01'00" E) (157.70') S 41°16'58" E	157.37'
L-4	S 41°16'58" E	166.73'
L-5	S 44°22'08" E	33.76'

CURVE TABLE:

C-#	RADIUS	CHORD BEARING AND DIST.	ARC	DELTA
C-1	60.00'	N 17°31'20" E 114.83'	153.15'	146°14'37"



SOUTHEAST CORNER
SECTION 36-6-8
F.D. BRASS MONUMENT

TOTAL SECTION LINE S 00°57'06" W 2,637.65'

1,120.61'



1,517.04'



1,302.06'



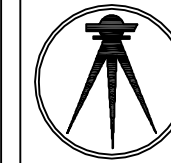
1,303.60'



899.03'



797.37'



WILLIAMSON SURVEYING & ASSOCIATES, LLC

104 A WEST MAIN STREET, WAUNAKEE, WISCONSIN, 53597.

NOA T. PRIEVE & CHRIS W. ADAMS

PROFESSIONAL LAND SURVEYORS

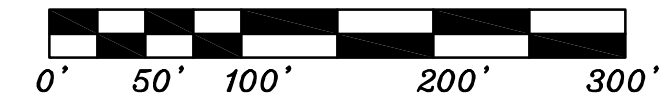
PHONE: 608-255-5705 FAX: 608-849-9760 WEB: WILLIAMSONSURVEYING.COM

SUNSET LLAMAS CONDOMINIUM PLAT DANE COUNTY, WISCONSIN WILLIAMSON SURVEYING & ASSOCIATES, LLC



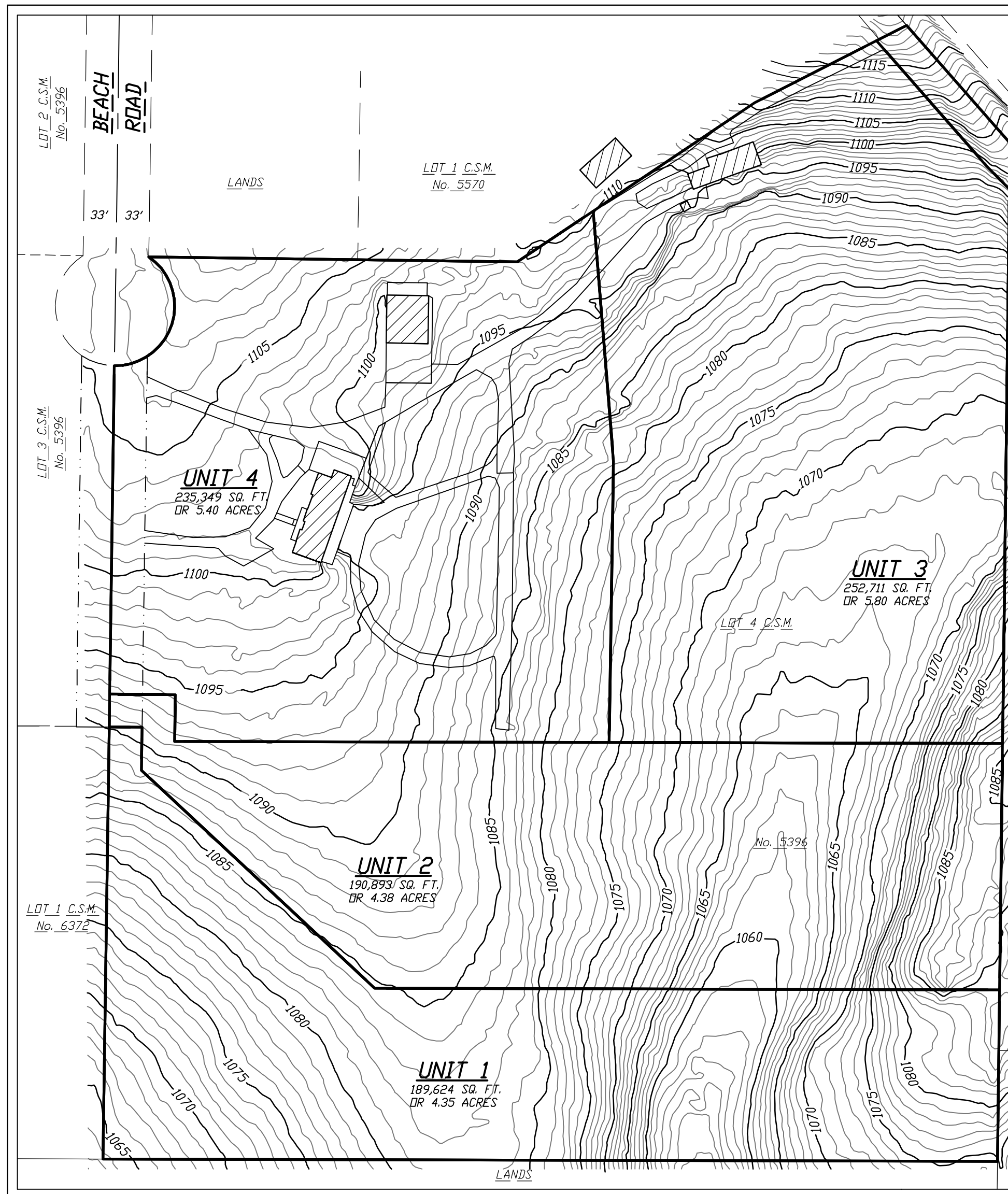
BEARINGS ARE REFERENCED TO THE EAST
LINE OF THE SE 1/4 OF SECTION 36-6-8
LINE TO BEAR S 00°57'06" W

SCALE 1" = 100'



NOTE:

ELEVATIONS ARE FROM DANE COUNTY GIS LIDAR INFORMATION.



SURVEYORS SEAL	
DRAWN BY	NEIL BORTZ
DRAWING NO.	20W-349
SHEET	2 OF 2

Land Use Application
2021-12

TOWN OF VERONA
APPLICATION FOR LAND USE CHANGE

Please review the Town of Verona Comprehensive Land Use Plan and Subdivision and Development Ordinance 05-04 (found on the Town website: www.town.verona.wi.us) and Dane County Ordinances Chapter 10 – Zoning, Chapter 11 – Shoreland, Shoreland-Wetland and Inland-Wetland Regulations and Chapter 75 – Land Division and Subdivision Regulations prior to application.

Proposed land use change for:

Property address/legal description 2313 SUGAR RIVER

Please check all that apply:

- comprehensive plan amendment – please see specific submittal requirement
- rezone petition
 - current zoning category RR-1 & AT-35
 - new zoning category requested RR-4
- conditional use permit
 - conditional use requested _____
- certified survey map
- preliminary plat
- final certified survey map
- concept plan
- site plan
- request for Town road access

Property Owner: MISHPACHA LLC Phone# (608) 206-5947

Address: _____ E-Mail HTEMKIN1152@GMAIL.COM

Applicant, if different from the property owner: _____

Applicant's Phone# _____ E-Mail _____

If the applicant is different from property owner, please sign below to allow the agent to act on behalf of property owner.

I hereby authorize _____
to act as my agent in the application process for the above indicated land use change.

Signature _____ Date _____

Description of Land Use Change requested: (please be specific and use reverse side if additional space is needed)

RECONFIGURE THE EXISTING RR-1 ZONING PARCEL AND ADD A "FLAG POLE" TO THE 1 LOT CSM 30 THAT THE NEW LOT WILL HAVE FRONTAGE ON SUGAR RIVER RD.

I certify that all information is true and correct. I understand that failure to provide all required information will be grounds for denial of my request.

Applicant Signature Mishpacha, LLC by [Signature] Date 8/12/21

Print Name HARVEY L. TEMKIN, member

RETURN COMPLETED APPLICATION OF MAP/PLAN AND ANY OTHER INFORMATION VIA EMAIL TO:

Sarah Gaskell, Planner/Administrator, Town of Verona
7669 County Highway PD, Verona, WI 53593-1035
sgaskell@town.verona.wi.us

A pre-application meeting or initial review may be scheduled with Town Staff and/or Plan Commission Chair if you have questions or concerns. Please call 608-845-7187 with questions.

Planning Report

Town of Verona

August 19th, 2021

2313 Sugar River Road

Summary: The applicant seeks a rezone from RR 2 to RR 1 for the 2.03-acre spot zone located in parcel number 062/0608-203-9002-7 as well as a relocation of said spot zone.

Property Owner: Mishpacha LLC, Harvey Tempkin

Property Addresses: 2313 Sugar River Road, Verona WI 53593

Applicant: same

Location Map



Comprehensive Plan Guidance:

The density of this area is Residential RR 2-4 acres, so 1 house per 2-4 acres. The parcel is currently zoned RR 1 (spot zone) and AT-35 so a rezone would be consistent for this parcel.

Current and Proposed Zoning: The current zoning for the parcels are RR 1 (1.85 acres) and AT-35 (43.42). The new zoning would be RR 4 (7.11 acres combined from the AT-35 parcel and from the RR-1 parcel). A portion of the RR-1 parcel would be rezoned back to AT-35 as well. The CSM creates a flag lot providing 66' of frontage on Sugar River Road. Approximately 3 acres of the proposed CSM is related to access to the frontage.

Extra-territorial Review/Boundary Agreement Authority: This parcel is in Area C of the boundary agreement with the City of Verona so no further approvals are required.

Surrounding Land Use and Zoning: The surrounding land uses include AT-35 and an RR-2 spot zone. There is one other residence that currently uses the existing driveway via a shared easement agreement.

Site Features: The site features rolling hills and agricultural land.

Driveway Access: It will remain unchanged.

CERTIFIED SURVEY MAP

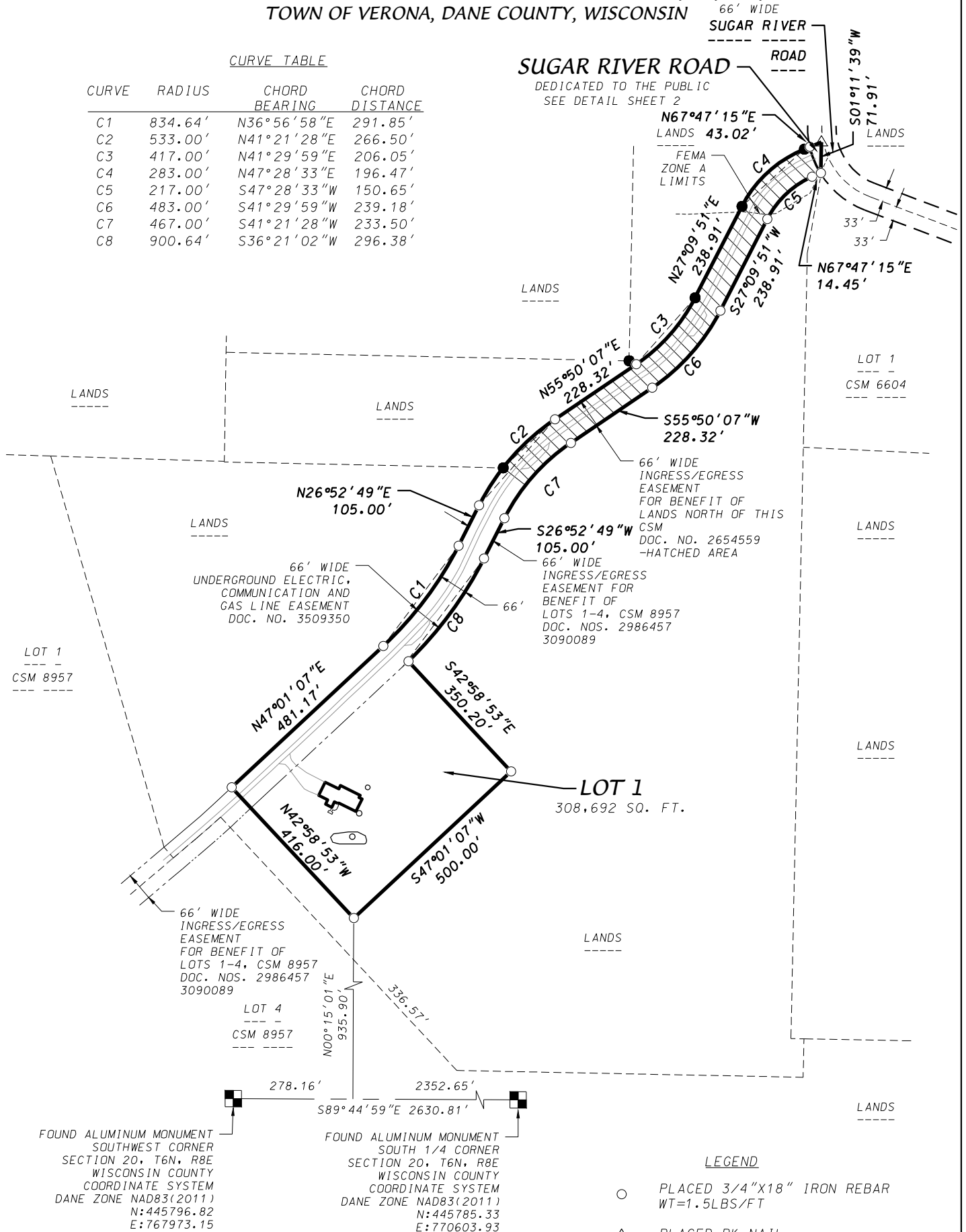
LOCATED IN THE SE1/4 OF THE SE1/4 OF SECTION 19 AND IN THE SW1/4 OF NW1/4, THE NW1/4 OF THE SW1/4 AND THE SW1/4 OF THE SW1/4 OF SECTION 20, 6N, R8E, TOWN OF VERONA, DANE COUNTY, WISCONSIN

CURVE TABLE

CURVE	RADIUS	CHORD BEARING	CHORD DISTANCE
C1	834.64'	N36°56'58"E	291.85'
C2	533.00'	N41°21'28"E	266.50'
C3	417.00'	N41°29'59"E	206.05'
C4	283.00'	N47°28'33"E	196.47'
C5	217.00'	S47°28'33"W	150.65'
C6	483.00'	S41°29'59"W	239.18'
C7	467.00'	S41°21'28"W	233.50'
C8	900.64'	S36°21'02"W	296.38'

SUGAR RIVER ROAD

DEDICATED TO THE PUBLIC
SEE DETAIL SHEET 2



D'ONOFRIO KOTTKE AND ASSOCIATES, INC.

7530 Westward Way, Madison, WI 53717
Phone: 608.833.7530 • Fax: 608.833.1089
YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT

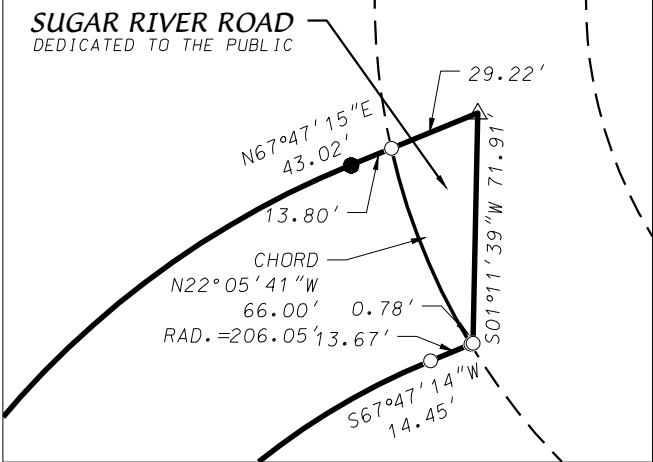
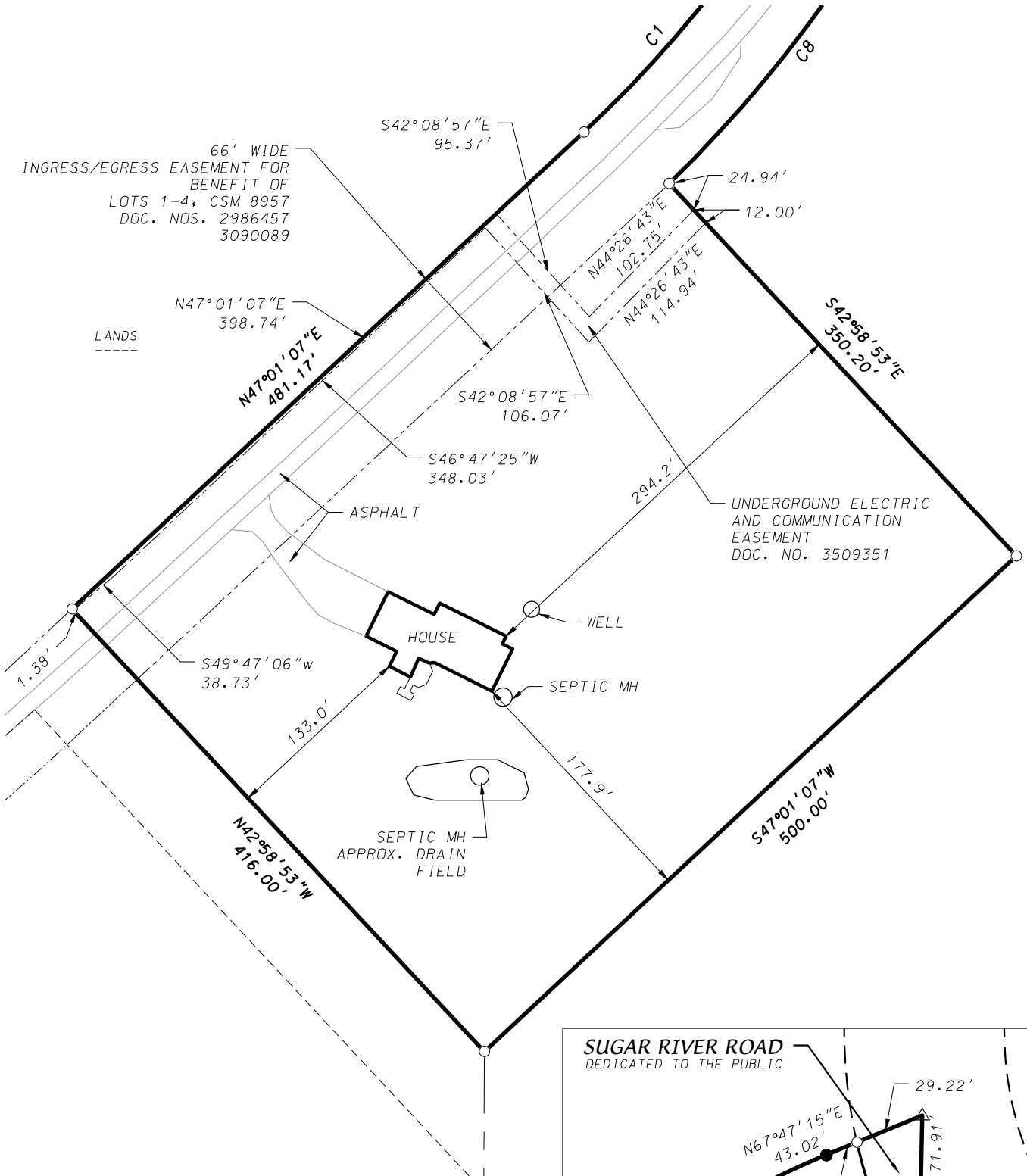
GRID NORTH
WISCONSIN COUNTY
COORDINATE SYSTEM
(DANE ZONE)

0 300
Scale 1" = 300'

DATE: September 3, 2021
F.N.: 17-07-110
C.S.M. NO. _____
DOC. NO. _____
VOL. _____ SHEET _____

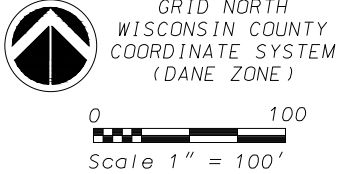
CERTIFIED SURVEY MAP

LOCATED IN THE SE1/4 OF THE SE1/4 OF SECTION 19 AND IN THE SW1/4 OF NW1/4, THE NW1/4 OF THE SW1/4 AND THE SW1/4 OF THE SW1/4 OF SECTION 20, 6N, R8E, TOWN OF VERONA, DANE COUNTY, WISCONSIN



SUGAR RIVER ROAD DEDICATION 1"=60'

D'ONOFRIO KOTTKE AND ASSOCIATES, INC.
 7530 Westward Way, Madison, WI 53717
 Phone: 608.833.7530 • Fax: 608.833.1089
 YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT



DATE: September 3, 2021
 F.N.: 17-07-110
 C.S.M. NO. _____
 DOC. NO. _____
 VOL. _____ SHEET _____

CERTIFIED SURVEY MAP

LOCATED IN THE SE1/4 OF THE SE1/4 OF SECTION 19 AND IN THE SW1/4 OF NW1/4, THE NW1/4 OF THE SW1/4 AND THE SW1/4 OF THE SW1/4 OF SECTION 20, 6N, R8E, TOWN OF VERONA, DANE COUNTY, WISCONSIN

SURVEYOR'S CERTIFICATE

I, Brett T. Stoffregan, Professional Land Surveyor, S-2742, do hereby certify that this survey is in full compliance with Chapter 236.34 of the Wisconsin Statutes and the Subdivision Regulations of the Town of Verona and Dane County, Wisconsin and under the direction of the Owners listed below, I have surveyed, divided and mapped the land described herein and that said map is a correct representation of the exterior boundaries of the land surveyed and the division thereof. Said land is described as follows:

A parcel of land located in the SE1/4 of the SE1/4 of Section 19 and in the SW1/4 of the NW1/4, the NW1/4 of the SW1/4 and the SW1/4 of the SW1/4 of Section 20, T6N, R8E, Town of Verona, Dane County, Wisconsin to-wit:

Commencing at the Southwest corner of said Section 20; thence S89°44'59"E, 278.16 feet along the South line of said SW1/4; thence N00°15'01"E, 935.90 feet to the point of beginning; thence N42°58'43"W, 416.00 feet; thence N47°01'07"E, 481.17 feet to a point of curve; thence Northeasterly along a curve to the left which has a radius of 834.64 feet and a chord which bears N36°56'58"E, 291.85 feet; thence N26°52'49"E, 105.00 feet to a point of curve; thence Northeasterly along a curve to the right which has a radius of 533.00 feet and a chord which bears N41°21'28"E, 266.50 feet; thence N55°50'07"E, 228.32 feet to a point of curve; thence Northeasterly along a curve to the left which has a radius of 417.00 feet and a chord which bears N41°29'59"E, 206.50 feet; thence N27°09'51"E, 238.91 feet to a point of curve; thence Northeasterly along a curve to the right which has a radius of 283.00 feet and a chord which bears N47°28'33"E, 196.47 feet; thence N67°47'15"E, 43.02 feet; thence S01°11'39"W, 71.91 feet; thence S67°47'15"W, 14.45 feet to a point of curve; thence Southwesterly along a curve to the left which has a radius of 217.00 feet and a chord which bears S47°28'33"W, 150.65 feet; thence S27°09'51"W, 238.91 feet to a point of curve; thence Southwesterly along a curve to the right which has a radius of 483.00 feet and a chord which bears S41°29'59"W, 239.18 feet; thence S55°50'07"W, 228.32 feet to a point of curve; thence Southwesterly along a curve to the left which has a radius of 467.00 feet and a chord which bears S41°21'28"W, 233.50 feet; thence S26°52'49"W, 105.00 feet to a point of curve; thence Southwesterly along a curve to the right which has a radius of 900.64 feet and a chord which bears S36°21'02"W, 296.38 feet; thence S42°58'53"E, 350.20 feet; thence S47°01'07"W, 500.00 feet to the point of beginning. Containing 309,799 square feet including road right-of-way and 308,692 square feet excluding road right-of-way.

Dated this _____ day of _____, 2021.

Brett T. Stoffregan, Professional Land Surveyor S-2742

NOTES

1. A portion of Lot 1 is with FEMA Zone A described as areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.
2. Refer to building site information contained in the Dane County Soil Survey.
3. Monuments and ties for the South 1/4 corner and the Southwest corner of Section 20, T6N, R8E were found intact.



D'ONOFRIO KOTTKE AND ASSOCIATES, INC.

7530 Westward Way, Madison, WI 53717
Phone: 608.833.7530 • Fax: 608.833.1089

YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT

DATE: September 3, 2021

F.N.: 17-07-110

C.S.M. NO. _____

DOC. NO. _____

VOL. _____ SHEET _____

CERTIFIED SURVEY MAP

LOCATED IN THE SE1/4 OF THE SE1/4 OF SECTION 19 AND IN THE SW1/4 OF NW1/4, THE NW1/4 OF THE SW1/4 AND THE SW1/4 OF THE SW1/4 OF SECTION 20, 6N, R8E, TOWN OF VERONA, DANE COUNTY, WISCONSIN

OWNER'S CERTIFICATE

MISHPACHA, LLC, a Wisconsin 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 limited liability company caused the land described on this map to be surveyed, divided, mapped, and dedicated as represented on this map.

MISHPACHA, LLC, does further certify that this map is required by s.236.34 to be submitted to the Town of Verona, Dane County and City of Verona for approval.

IN WITNESS WHEREOF, the said MISHPACHA, LLC, has caused these presents to be signed this _____ day of _____, 2021.

MISHPACHA, LLC

STATE OF WISCONSIN)
COUNTY OF DANE)S.S.

Personally came before me this _____ day of _____, 2021, the above named person(s) to me known to be the person(s) who executed the foregoing instrument and acknowledged the same.

Notary Public, Dane County, Wisconsin
My commission expires: _____



D'ONOFRIO KOTTKE AND ASSOCIATES, INC.

7530 Westward Way, Madison, WI 53717
Phone: 608.833.7530 • Fax: 608.833.1089

YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT

DATE: September 3, 2021

F.N.: 17-07-110

C.S.M. NO. _____

DOC. NO. _____

VOL. _____ SHEET _____

CERTIFIED SURVEY MAP

LOCATED IN THE SE1/4 OF THE SE1/4 OF SECTION 19 AND IN THE SW1/4 OF NW1/4, THE NW1/4 OF THE SW1/4 AND THE SW1/4 OF THE SW1/4 OF SECTION 20, 6N, R8E, TOWN OF VERONA, DANE COUNTY, WISCONSIN

TOWN OF VERONA CERTIFICATE

This Certified Survey Map is hereby acknowledged and accepted by the Town of Verona, Dane County, Wisconsin on _____, 2021.

Teresa Withee, Clerk, Town of Verona

DANE COUNTY APPROVAL CERTIFICATE

Approved for recording per Dane County Zoning and Land Regulation Committee action of _____, 2021.

Daniel Everson, Authorized Representative

REGISTER OF DEEDS CERTIFICATE

Received for recording this _____ day of _____, 2021, at o'clock ____ .M. and recorded in Volume _____ of Certified Survey Maps on Pages _____ as Document Number _____.

Kristi Chlebowski, Dane County Register of Deeds



D'ONOFRIO KOTTKE AND ASSOCIATES, INC.

7530 Westward Way, Madison, WI 53717
Phone: 608.833.7530 • Fax: 608.833.1089

YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT

DATE: September 3, 2021

F.N.: 17-07-110

C.S.M. NO. _____

DOC. NO. _____

VOL. _____ SHEET _____

ZONING DESCRIPTIONS

AT-35 and RR-1 to RR-4

A parcel of land located in the NE1/4 of the SE1/4 and the SE1/4 of the SE1/4 of Section 19 and in the SW1/4 of the NW1/4, the NW1/4 of the SW1/4 and the SW1/4 of the SW1/4 of Section 20, T6N, R8E, Town of Verona, Dane County, Wisconsin to-wit:

Commencing at the Southwest corner of said Section 20; thence S89°44'59"E, 278.16 feet along the South line of said SW1/4; thence N00°15'01"E, 935.90 feet to the point of beginning; thence N42°58'43"W, 416.00 feet; thence N47°01'07"E, 481.17 feet to a point of curve; thence Northeasterly along a curve to the left which has a radius of 834.64 feet and a chord which bears N36°56'58"E, 291.85 feet; thence N26°52'49"E, 105.00 feet to a point of curve; thence Northeasterly along a curve to the right which has a radius of 533.00 feet and a chord which bears N41°21'28"E, 266.50 feet; thence N55°50'07"E, 228.32 feet to a point of curve; thence Northeasterly along a curve to the left which has a radius of 417.00 feet and a chord which bears N41°29'59"E, 206.50 feet; thence N27°09'51"E, 238.91 feet to a point of curve; thence Northeasterly along a curve to the right which has a radius of 283.00 feet and a chord which bears N47°28'33"E, 196.47 feet; thence N67°47'15"E, 43.02 feet; thence S01°11'39"W, 71.91 feet; thence S67°47'15"W, 14.45 feet to a point of curve; thence Southwesterly along a curve to the left which has a radius of 217.00 feet and a chord which bears S47°28'33"W, 150.65 feet; thence S27°09'51"W, 238.91 feet to a point of curve; thence Southwesterly along a curve to the right which has a radius of 483.00 feet and a chord which bears S41°29'59"W, 239.18 feet; thence S55°50'07"W, 228.32 feet to a point of curve; thence Southwesterly along a curve to the left which has a radius of 467.00 feet and a chord which bears S41°21'28"W, 233.50 feet; thence S26°52'49"W, 105.00 feet to a point of curve; thence Southwesterly along a curve to the right which has a radius of 900.64 feet and a chord which bears S36°21'02"W, 296.38 feet; thence S42°58'53"E, 350.20 feet; thence S47°01'07"W, 500.00 feet to the point of beginning. Containing 7.112 acres.

RR-1 to AT-35

A parcel of land located in the SW1/4 of the SW1/4 of Section 20, T6N, R8E, Town of Verona, Dane County, Wisconsin to-wit: Commencing at the Southwest corner of said Section 20; thence S89°44'59"E, 278.16 feet along the South line of said SW1/4; thence N00°15'01"E, 935.90 feet; thence N47°01'07"E, 70.42 feet to the point of beginning; thence N47°01'07"E, 200.00 feet; thence S42°58'53"E, 85.60 feet; thence S47°01'07"W, 200.00 feet; thence N42°58'53"W, 85.60 feet to the point of beginning. Containing 0.393 acres.

EASEMENT AGREEMENT

3090089

03-10-1999 2:00 PM

In re:

Trans. Fee

The Lands as described on Exhibit C hereto and Lots 1, 2, 3, and 4, of Certified Survey Map No. 8957, as recorded in Volume 57 of Certified Survey Maps, at Page 72, as Document No. 2986457, in the Office of the Dane County Register of Deeds, all in the Town of Verona, Dane County, Wisconsin.

Rec. Fee 24.00
Pages 8

000488

Return To:
Harvey L. Temkin, Esq.
Foley & Lardner
P.O. Box 1497
Madison, WI 53701-1497

Parcel I.D. Nos.:
31-0608-194-8191-3
31-0608-194-9500-6
31-0608-194-9550-6
31-0608-301-8000-2
31-0608-301-9500-5

AGREEMENT made as of the 5th day of March, 1999, by Mishpacha, L.L.C., a Wisconsin limited liability company ("Grantor").

RECITALS:

1. Grantor is the owner in fee simple of the Lands as described on Exhibit C hereto, hereinafter referred to as the "Unplatted Lands", and Lots 1, 2, 3, and 4, of Certified Survey Map No. 8957, as recorded in Volume 57 of Certified Survey Maps, at page 72, as Document No. 2986457, in the Office of the Dane County Register of Deeds, Wisconsin, a copy of such certified survey map being attached hereto as Exhibit A, the Unplatted Lands and said Lots 1, 2, 3, and 4 hereinafter referred to as the "Subject Property".
2. Grantor desires to create an easement for ingress and egress on that portion of the Subject Property which is indicated by the words "sixty-six (66) foot wide (private) ingress egress easement to provide access for Lots 1, 2, 3 and 4 to Sugar River Road" and as more fully described on Exhibit B (the "Easement Property") and as shown on Exhibit A across Lots 1, 2, 3 and 4 and extending across the Unplatted Lands, said easement hereinafter referred to as the Easement Property

8/24

3. Grantor desires to specify the terms and conditions upon which the Easement Property will be maintained and used.

NOW, THEREFORE, in consideration of the mutual provisions herein contained affecting the Subject Property:

1. Creation of Easements. Grantor hereby dedicates for use of the owners of the Subject Property and their respective heirs, successors and assigns, together with their respective tenants, employees, and invitees, a perpetual, non-exclusive easement for ingress and egress purposes only over the Easement Property, hereinafter the "Easement", which Easement shall run with the land and be appurtenant to the Subject Property.

2. Maintenance and Improvement.

(a) Until such time as construction is commenced on Lot 1, 2, 3 or 4, the owner of the Unplatted Lands shall be responsible for maintaining the Easement Property from Sugar River Road up to the point at which the Easement Property intersects with the driveway leading to the home marked "existing house" on Exhibit A, unless the maintenance is required due to an act or omission of an owner of Lot 1, 2, 3 or 4 or said owner's agents, employees or invitees, in which case said owner shall be responsible for promptly undertaking and completing such work at said owner's sole cost and expense.

(b) The owner of the Unplatted Lands may, at any time and at its sole cost and expense, cause any portion of the Easement Property located on the Unplatted Lands to be moved, provided that such moving shall not interfere with the right of ingress and egress to and from Sugar River Road. Such portion, as so moved, shall then be subject to this Easement Agreement and all owners of the Subject Property shall then execute and place of record an Amended Easement Agreement which shall change the legal description of the Easement Property.

(c) Upon commencement of construction on Lot 1, 2, 3 or 4, the owner of the Unplatted Land and the owner of those lots of Lot 1, 2, 3, or 4 which have construction commenced or completed thereon shall become responsible for cost of upkeep and repair of the Easement Property, including removal of snow, ice and other obstructions therefrom, and the filling of potholes and ruts, in proportion to the number of houses using the Easement Property, except, however, that if any owner or such owner's agents, employees or invitees, should cause damage to the Easement Property due to excessive use (such as, by way of example only, damage that may be caused by construction vehicles), the said owner shall be solely responsible for promptly undertaking and completing such repair at said owner's sole cost and expense. By way of example, if the owner of Lot 1 constructs or has constructed a house on Lot 1 and if current house on the Unplatted Lands as shown on Exhibit A and the new house on Lot 1 are the sole two houses then existing, then the owners of the Lot 1 house and the owner of said current house shall equally share the cost of upkeep and

repair of the Easement Property. Unless otherwise agreed to by and between the owners of the Subject Land, the owner of the Unplatted Lands shall be responsible for contracting for such work and shall bill the other owners of the Subject Lands in the proportionate amount owed by each of them. Any amount not paid within ten (10) days of when billed shall accrue interest of fifteen percent (15%) per annum. The non paying/non performing owner shall also be obligated to pay all costs, expenses and disbursements, including attorneys' fees, which may be incurred in enforcing the payment obligation or any other obligation contained in this Agreement.

(c) The Easement Property is currently developed with a road which is completed from Sugar River Road to the most easterly point of Lot 1, as shown on the attached certified survey map, Exhibit A hereto. If the owner of Lot 1, 2, 3 or 4, desires to extend the road along the remainder of the Easement Property, or some portion thereof, then the owner so requesting such extension shall notify the other owners of Lots 1, 2, 3 and 4, hereinafter the "other owners" and provide plans and specifications therefor, which the other owners shall have the right to approve, which approval shall not be unreasonably withheld or delayed. The requesting owner shall further provide three (3) bids for such work, and the other owners shall within fifteen (15) days after the requesting owner has forwarded the bids to the other owners, agree on which bid to accept. Absent such agreement, the lowest bid shall be used. The requesting owner may then have the road constructed with the owners of Lots 1, 2, 3 and 4 equally sharing the cost therefor (25% of such cost to be paid by the owner of each of Lot 1, 2, 3, and 4). Such amounts shall be owing to the requesting owner within thirty (30) days after receipt by the other owners of the billing therefor (together with any requested backup and waiver of lien rights). Failure to timely make payment shall result in the same rights and remedies as apply in the event of failure to timely pay for repair and maintenance, as provided above. The road shall be built to present town standards, except that the width of the road asphalt surface does not need to comply with such standards.

(d) Upon the request of any owner of any of the Subject Lands, all the owners of the Subject Lands shall join in a petition to the Town of Verona to make the road a town road, and the owners of each of the Unplatted Lands and Lots 1, 2, 3, and 4 shall each be responsible for twenty percent (20%) of the cost of bringing the driveway within the Easement up to the required town road standards. The requesting owner and the other owners shall proceed with the necessary construction work and payment thereof in the same manner as set forth in section (c) immediately above.

3. Taxes. Each owner of the Subject Lands shall be responsible for timely payment of all real estate taxes, both general and special, levied against the portion of the Easement Property located on said owner's respective property.

4. Insurance. Each owner of the Subject Lands shall obtain reasonable and customary public liability insurance on that portion of the Easement Property lying on said owner's respective property.

5. Warranty of Title. Grantor hereby warrants that it has good and indefeasible fee simple title to the Easement Property, subject to easements, building and use restrictions and municipal and zoning ordinances and that it has full power and authority to convey the rights granted herein. Each owner of the Subject Property retains the right to encumber that portion of the Easement Property located on said owner's respective property, but any such encumbrance shall be subject to this Easement.

6. No Interference With Rights. No owner of the Subject Land hereto shall at any time interfere, or permit said owner's tenants, employees or invitees to interfere, with the ingress and egress rights of use of the Easement by any other owner or said owner's tenants, employees or invitees. No parking or other blockage, whether partial or total, shall be allowed in the easement roadway.

7. Attorneys' Fees. Any owner of the Subject Lands may enforce this instrument by appropriate action, and should said owner prevail in such litigation, the owner shall recover as part of said owner's costs reasonable attorneys' fees.

8. Additional Lands. This Easement shall also be appurtenant to any land which may come into common ownership with the Subject Property.

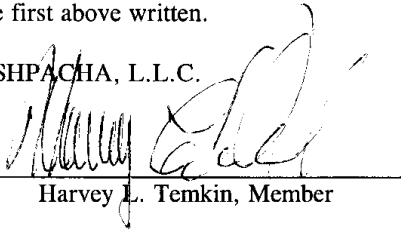
9. Amendment or Termination. This Agreement may be amended or terminated by a document executed by all of the owners of the Subject Lands, and the consent of no other party shall be required. Any such document shall be recorded with the Dane County Register of Deeds Office.

10. Notice. Notice hereunder shall be sufficient if in writing and personally served or mailed, postage-prepaid and properly addressed, to the other owner at aid owner's last known address by registered or certified mail, return receipt requested.

11. Binding Effect. All provisions of this instrument, including the benefits and burdens, run with the land and are binding upon and inure to the benefit of the Grantor and the Grantor's heirs, personal representatives, successors and assigns.

IN WITNESS WHEREOF, this instrument executed under seal as of the date first above written.

MISHPACHA, L.L.C.

By: 
Harvey L. Temkin, Member

STATE OF WISCONSIN)
) ss.
COUNTY OF DANE)

000487

Personally came before me this 5th day of March, 1999, the above-named Harvey L. Temkin, to me known to be a member of Mishpacha, L.L.C., a Wisconsin limited liability company and the person who executed the foregoing instrument and acknowledged the same on behalf of said limited liability company.

Donna J Lindauer

Name: RONNA J LINDAUER
Notary Public, State of WI
My commission: exp 11-18-2001.

This document was drafted by:
Attorney Harvey L. Temkin
Foley & Lardner
P. O. Box 1497
Madison, WI 53701-1497

NOTE: PLEASE BE ADVISED THAT THE DOCUMENT GRANTOR(S) HEREBY DIRECT VIEWERS TO IGNORE THE PRINTED TEXT MATERIAL ON THIS MAP. ONLY THE SPATIAL RELATIONSHIPS OF THE ILLUSTRATIONS ON THE MAP ARE BEING PRESENTED FOR YOUR INFORMATION.

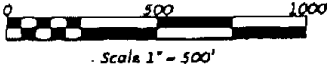
Signed by grantor(s) or grantor(s) agent: Joseph Wallace Date (use black ink) 03/04/1999

Name of grantor(s) or grantor(s) agent printed: (use black ink) Joseph Wallace et al
EXHIBIT A

CERTIFIED SURVEY MAP

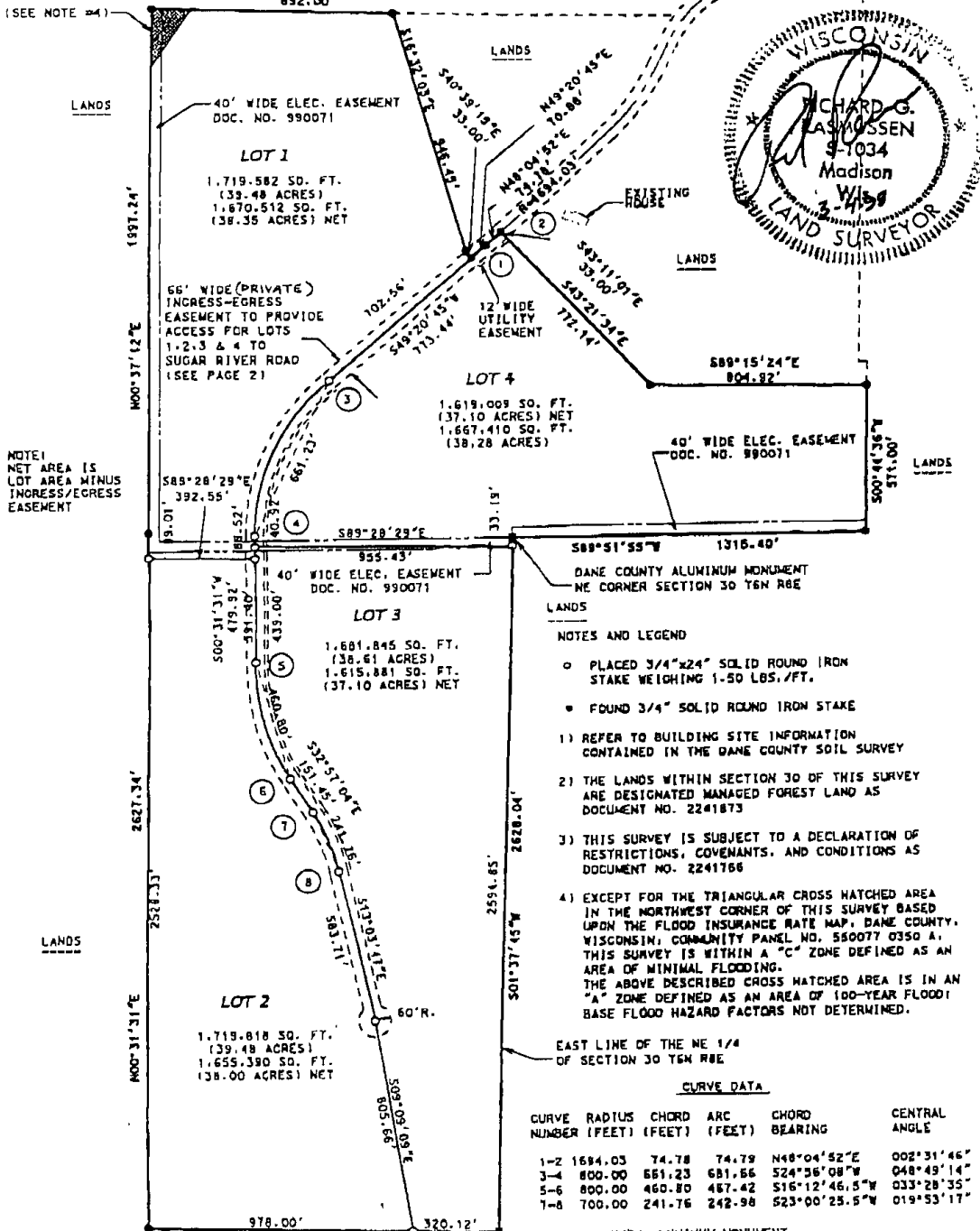
LOCATED IN THE NE 1/4 AND SE 1/4 OF THE SE 1/4 OF SECTION 19, THE NW 1/4 AND SW 1/4 OF THE SW 1/4 OF SECTION 20, AND IN THE NE 1/4 AND SE 1/4 OF THE NE 1/4 OF SECTION 30, T6N, R8E, TOWN OF VERONA, DANE COUNTY, WISCONSIN

000488



SURVEYED FOR:
HARVEY TEMKIN
FOLEY & LARDNER
160 E. GILMAN STREET
MADISON WI 53701-1407

(SEE NOTE #4)



NOTE: NET AREA IS LOT AREA MINUS INGRESS/EGRESS EASEMENT

NOTES AND LEGEND

- PLACED 3/4"x24" SOLID ROUND IRON STAKE WEIGHING 1.50 LBS./FT.
- FOUND 3/4" SOLID ROUND IRON STAKE
- 1) REFER TO BUILDING SITE INFORMATION CONTAINED IN THE DANE COUNTY SOIL SURVEY
- 2) THE LANDS WITHIN SECTION 30 OF THIS SURVEY ARE DESIGNATED MANAGED FOREST LAND AS DOCUMENT NO. 2241873
- 3) THIS SURVEY IS SUBJECT TO A DECLARATION OF RESTRICTIONS, COVENANTS, AND CONDITIONS AS DOCUMENT NO. 2241766
- 4) EXCEPT FOR THE TRIANGULAR CROSS HATCHED AREA IN THE NORTHWEST CORNER OF THIS SURVEY BASED UPON THE FLOOD INSURANCE RATE MAP, DANE COUNTY, WISCONSIN, COMMUNITY PANEL NO. 550077 0350 A, THIS SURVEY IS WITHIN A "C" ZONE DEFINED AS AN AREA OF MINIMAL FLOODING. THE ABOVE DESCRIBED CROSS HATCHED AREA IS IN AN "A" ZONE DEFINED AS AN AREA OF 100-YEAR FLOOD; BASE FLOOD HAZARD FACTORS NOT DETERMINED.

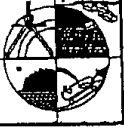
EAST LINE OF THE NE 1/4 OF SECTION 30 T6N R8E

CURVE DATA

CURVE NUMBER	RADIUS (FEET)	CHORD (FEET)	ARC (FEET)	CHORD BEARING	CENTRAL ANGLE
1-2	1684.03	74.78	74.79	N48°04'52"E	002°31'46"
3-4	800.00	661.23	681.66	S24°26'08"W	048°49'14"
5-6	800.00	460.80	487.42	S16°12'46.5"W	033°28'35"
7-8	700.00	241.76	242.98	S23°00'23.5"W	019°53'17"

DANE COUNTY ALUMINUM MONUMENT
E 1/4 CORNER SECTION 30 T6N R8E

10A 36, P. 205-306
188°39'39"W
1298.12'
CERTIFIED SURVEY
MAP NO. 7171
CERTIFIED SURVEY
MAP NO. 5767



D'ONOFRIO, KOTKE AND ASSOCIATES, INC.
7630 WESTWARD WAY
MADISON, WISCONSIN 53717
TEL: 608-833-7630
FAX: 608-833-1089

DATE: 3-4-99 REV: 6-23-98
F.N.: 98-07-100
CSM NO.: 8957
DOC. NO.: 2986457
VOL: 57 PAGE: 72

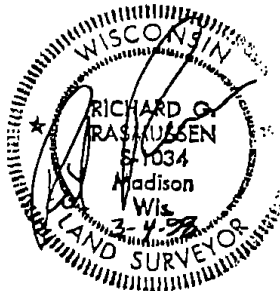
EXHIBIT B

CERTIFIED SURVEY MAP

(PRIVATE)
**INGRESS/EGRESS EASEMENT TO PROVIDE ACCESS
 FOR LOTS 1, 2, 3 AND 4
 FROM SUGAR RIVER ROAD**

000489

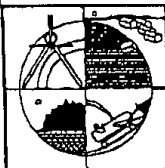
A parcel of land located in the NE 1/4 and SE 1/4 of the SE 1/4 of Section 19, the NW 1/4 and SW 1/4 of the SW 1/4 and SW 1/4 of the NW 1/4 of Section 20, and in the east 1/2 of the NE 1/4 of Section 30, T6N, R8E, Town of Verona, Dane County, Wisconsin, To-wit: Commencing at the southwest corner of said Section 20; thence N89°51'55"E, 1315.40 feet; thence N00°44'36"E, 660.08 feet; thence S89°51'55"W, 30.04 feet; thence N00°49'13"E, 1826.67 feet; thence N09°28'01"E, 181.84 feet; thence N00°49'12"E, 5.85 feet to the point of beginning; thence northwesterly on a curve to the right which has a radius of 206.05 feet and a chord which bears N31°44'26"W, 0.90 feet; thence S67°24'34"W, 14.12 feet to a point of curve; thence southwesterly on a curve to the left which has a radius of 217.00 feet and a chord which bears S47°05'52"W, 150.65 feet; thence S26°47'11"W, 238.91 feet to a point of curve; thence southwesterly on a curve to the right which has a radius of 483.00 feet and a chord which bears S41°07'18"W, 239.18 feet; thence S55°27'26"W, 228.32 feet to a point of curve; thence southwesterly on a curve to the left which has a radius of 467.00 feet and a chord which bears S40°58'47"W, 233.50 feet; thence S26°30'08"W, 105.00 feet to a point of curve; thence southwesterly on a curve to the right which has a radius of 900.64 feet and a chord which bears S36°34'17"W, 314.93 feet; thence S46°38'26"W, 541.72 feet to a point of curve; thence southwesterly on a curve to the right which has a radius of 1727.03 feet and a chord which bears S47°59'35"W, 81.54 feet; thence S49°20'45"W, 773.44 feet to a point of curve; thence southwesterly on a curve to the left which has a radius of 767.00 feet and a chord which bears S24°56'08"W, 633.95 feet; thence S00°31'31"W, 479.92 feet to a point of curve; thence southeasterly on a curve to the left which has a radius of 767.00 feet and a chord which bears S16°12'46"E, 441.79 feet; thence S32°57'04"E, 151.45 feet; thence southeasterly on a curve to the right which has a radius of 733.00 feet and a chord which bears S23°00'26"E, 253.16 feet; thence S13°03'47"E, 533.60 feet to a point of curve; thence southwesterly on a curve to the right which has a radius of 60.00 feet and a chord which bears S76°56'13"W, 66.00 feet; thence N13°03'47"W, 533.60 feet to a point of curve; thence northwesterly on a curve to the left which has a radius of 667.00 feet and a chord which bears N23°00'26"W, 230.36 feet; thence N32°57'04"W, 151.45 feet to a point of curve; thence northwesterly on a curve to the right which has a radius of 833.00 feet and a chord which bears N16°12'46"W, 479.81 feet; thence N00°31'31"E, 479.92 feet to a point of curve; thence northeasterly on a curve to the right which has a radius of 833.00 feet and a chord which bears N24°56'08"E, 688.50 feet; thence N49°20'45"E, 773.44 feet to a point of curve; thence northeasterly on a curve to the left which has a radius of 1661.03 feet and a chord which bears N47°59'35"E, 78.42 feet; thence N46°38'26"E, 541.72 feet to a point of curve; thence northeasterly on a curve to the left which has a radius of 834.64 feet and a chord which bears N36°34'17"E, 291.85 feet; thence N26°30'08"E, 105.00 feet to a point of curve; thence northeasterly on a curve to the right which has a radius of 533.00 feet and a chord which bears N40°58'47"E, 266.50 feet; thence N55°27'26"E, 228.32 feet; thence northeasterly on a curve to the left which has a radius of 417.00 feet and a chord which bears N41°07'18"E, 206.50 feet; thence N26°47'11"E, 238.91 feet to a point of curve; thence northeasterly on a curve to the right which has a radius of 283.00 feet and a chord which bears N47°05'52"E, 196.47 feet; thence N67°24'34"E, 43.22 feet; thence S00°49'12"W, 72.89 feet to the point of beginning. Containing 8.603 acres.



**D'ONOFRIO, KOTKE
 AND ASSOCIATES, INC.**

7630 WESTWARD WAY
 MADISON, WISCONSIN 53717
 TEL: 608-833-7530
 FAX: 608-833-1089

REV: 6-23-98
 DATE 3-4-98
 F.N. 98-07-100
 CSM NO. 6252
 DDC. NO. 2986457
 VOL 57 PAGE 73



A parcel of land located in the SE 1/4 of Section 19 and the SW 1/4 of Section 20, T6N, R8E, Town of Verona, Dane County, Wisconsin, To-wit: Commencing at the southwest corner of said Section 20; thence N89°51'55"E, along the south line of the SW 1/4, of said Section 20, 1315.40 feet; thence N00°44'36"E, 571.00 feet to the point of beginning; thence N89°15'24"W, 804.92 feet; thence N43°21'34"W, 772.14 feet; thence N43°11'01"W, 33.00 feet to a point on a curve; thence southwesterly on a curve to the right which has a radius of 1694.03 feet and a chord which bears S48°04'52"W, 74.78 feet; thence S49°20'45"W, 70.88 feet; thence N40°39'15"W, 33.00 feet; thence N16°32'03"W, 946.45 feet; thence S88°36'55"E, 403.47 feet; thence S00°30'41"W, 1.31 feet; thence S89°10'48"E, 647.94 feet to a point on a curve; thence northeasterly on a curve to the right which has a radius of 533.00 feet and a chord which bears N46°34'27"E, 164.61 feet; thence N55°27'26"E, 228.32 feet to a point of curve; thence northeasterly on a curve to the left which has a radius of 417.00 feet and a chord which bears N41°07'18"E, 206.50 feet; thence N26°47'11"E, 238.91 feet to a point of curve; thence northeasterly on a curve to the right which has a radius of 283.00 feet and a chord which bears N47°05'52"E, 196.47 feet; thence N67°24'34"E, 43.22 feet to the westerly edge of Certified Survey No. 6604; thence S00°49'12"W, along said westerly edge 78.74 feet; thence S09°28'01"W, continuing along said westerly edge, 181.84 feet; thence S00°49'13"W, 1826.67 feet; thence N89°51'55"E, 30.04 feet; thence S00°44'36"W, 89.08 feet to the point of beginning. Continuing 2,205,736 square feet (50.64 acres).

TOWN OF VERONA
APPLICATION FOR LAND USE CHANGE

Please review the Town of Verona Comprehensive Land Use Plan and Subdivision and Development Ordinance 05-04 (found on the Town website: www.town.verona.wi.us) and Dane County Ordinances Chapter 10 – Zoning, Chapter 11 – Shoreland, Shoreland-Wetland and Inland-Wetland Regulations and Chapter 75 – Land Division and Subdivision Regulations prior to application.

APPLICATION IS MADE to the Town of Verona Board for a land use change for:

Property address/legal description A parcel of land located in part of the NW 1/4 of the SW 1/4 of Section 18, Town of Verona,
Dane County, Wisconsin

Please check all that apply:

- comprehensive plan amendment**
- rezone petition**
 - current zoning category AT-35
 - new zoning category requested See Exhibits (Lots 1-4: SFR-1) (Lots 5-13: SFR-2) (Outlot 1: NR-C)
- conditional use permit**
 - conditional use requested _____
- certified survey map**
- preliminary plat**
- final certified survey map**
- concept plan**
- site plan**
- request for Town road access**

Property Owner: TWIN ROCK LLC (BRET SAALSAA) Phone# 608-576-6136

Address: 7935 ALMOR DR, VERONA E-Mail BRETSAALSAA@AOL.COM

Applicant, if different from the property owner: _____

Applicant's Phone# _____ E-Mail _____

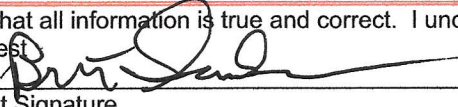
If the applicant is different from property owner, please sign below to allow the agent to act on behalf of property owner.

I hereby authorize _____
to act as my agent in the application process for the above indicated land use change.

Signature _____ Date _____

Description of Land Use Change requested: (use reverse side if additional space is needed)
WE ARE REQUESTING A REZONE AND 1 LOT CSM TO SEPARATE AND SELL OFF THE EXITING HOUSE AND FARM BUILDINGS.

I certify that all information is true and correct. I understand that failure to provide all required information will be grounds for denial of my request.

Applicant Signature  Date 10-18-20

Print Name Bret Saalsaa

RETURN COMPLETED APPLICATION OF MAP/PLAN AND ANY OTHER INFORMATION VIA EMAIL TO:

Sarah Gaskell, Planner/Administrator, Town of Verona
7669 County Highway PD, Verona, WI 53593-1035
sgaskell@town.verona.wi.us

A pre-application meeting or initial review may be scheduled with Town Staff and/or Plan Commission Chair if you have questions or concerns. Please call 608-845-7187 with questions.

Dairy Ridge Heights Proposal

parcel numbers 0608-183-8681-0, 060818381809

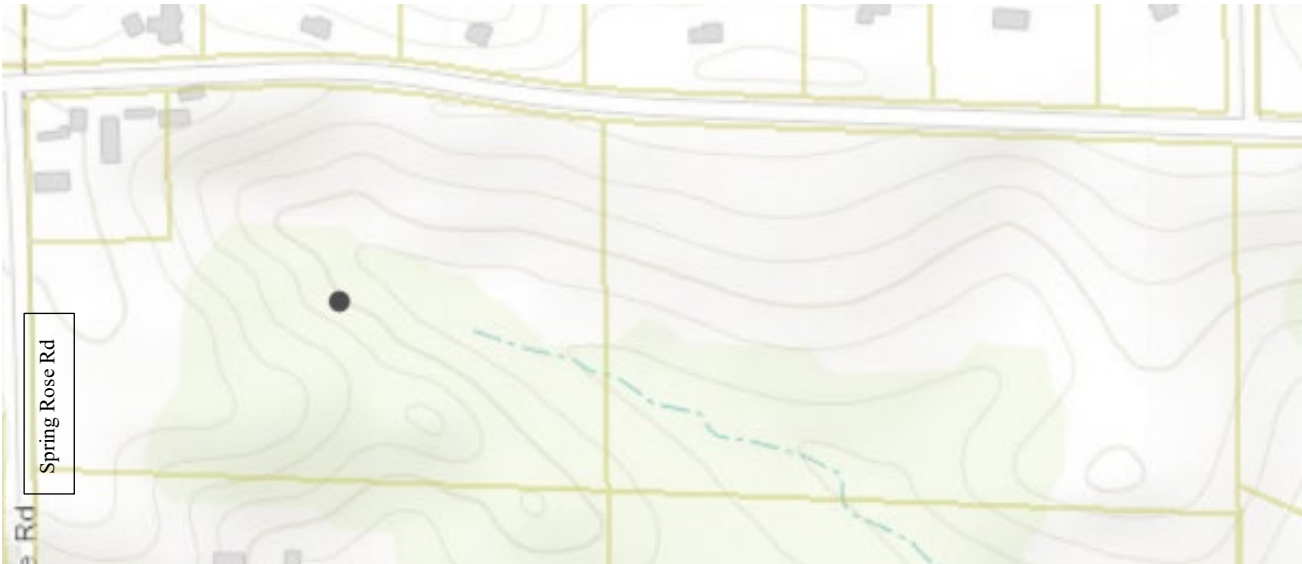
Summary: The purpose of the application is approval of the preliminary plat for 13 lots and for approval of the Neighborhood Association Declaration. The concept plan and zoning were approved by the Town Board on 1 Dec. 2020.

Property Owner: Twin Rock LLC, Manager, Bret Saalsaa
Verona, WI 53593

Applicant: Adam Carrico
Carrico Engineering



Location Map
Spring Rose Road and Dairy Ridge Road



Comprehensive Plan Guidance:

The future land use plan calls for the properties in this area to have a density of one house per two to four acres.

Current and Proposed Zoning:

The zoning change to SFR-01, SFR-02, and NR-C was approved by the Town Board on December 1st, 2020.

Extra-territorial Review /Boundary Agreement Authority:

The parcel is located in Area C of the Town of Verona/City of Verona boundary agreement, so no further action is required from the City of Verona.

Surrounding Land Use and Zoning:

The properties to the north are all residential parcels between 3-5 acres. To the East the land is Springdale Township and currently in agricultural use. The land to the west and south is being used for agriculture.

Site Features:

The site currently has some steep slopes to the south and east. There are mature oak trees along part of Dairy Ridge Road. On the south side of the western edge of the parcel, there is a wooded area. Most of the trees are either pin cherry or boxelder.

Road Access:

No road will be constructed, and driveways would access either Spring Rose Road or Dairy Ridge Road

Concept plan review:

The **TOV Plan Commission** on November 22nd, 2020 recommended approval of the Dairy Ridge Heights concept plan and zoning changes, with the following conditions:

- a) The stormwater management easement be located between lots 8 and 9.
- b) Single-story residences be limited to a height from ground level to roof peak.
- c) Front setbacks be varied between 100, 125 and 150 feet for lots 4 through 13.
- d) The front setback be greater for two-stories homes than for single-story homes. Lots would have two different front setbacks shown on the concept plan for lots 4 to 13.
- e) The front of the lots be planted with trees to provide for screening and landscaping include trees planted in the back of the lots.
- f) Trail be included in the outlet
- g) Lot 3 be limited to the construction of a single-story home.
- i) Lots 4 through 13 shared access to Dairy Ridge Rd for a total of 5 access points.

Town Board approval on December 1st, 2020 the Land Use application 2020-12 for concept plan and rezone from AT-35 to SFR-01, SFR-02, and NR-C with following conditions:

- a. Trail in the outlet
- b. Lots 4-13 have staggered front yard setbacks
- c. Screening approved by the Plan Commission
- d. Height for all single-story homes
- e. Elevation renderings be provided by the applicant

- f. Maintenance agreement created as part of the developer's agreement

Plan Commission meeting on March 18, 2021:

Discussion and Action: Land Use Application 2021-06 submitted by submitted by Twin Rock LLC for Preliminary Plat Approval and for approval of Neighborhood Association Declaration for property near 2528 Spring Rose Road (062/0608-183-8681-0 and 0608-183-31809)

a. Discussion items included the following:

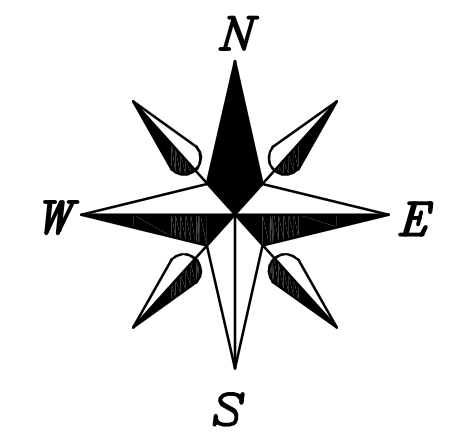
- Preliminary Plat – utility easement locations; outlot access; shared driveway locations; stormwater facility location and size; placement of the trail in the outlot;
- Site Rendering – setback placement, width and height of model homes used in rendering; lots on Spring Rose not included; back view should show three stories; roof pitch;
- Stormwater Facility: size of pond; capacity of pond; pond construction; depth of pond; fish stocking; off-site flows; desire to see what final stormwater facility will look like
- Driveway access – shared access preferred between lots and not across lots; mailbox placement.
- Landscape – screening in front and back of lots; points evaluation; mix of evergreens and deciduous trees.
- Declaration of Covenants – height restrictions; signage restrictions; landscape; declarant control; definition of noxious weeds; maintenance; architectural committee submissions; Lot 3 height restriction; fencing abutting ag uses; pet restrictions; brush and leaf piles; leasing/renting building restrictions; maintenance of existing trees on site; taxation of outlots; Item tabled in order to allow for incorporation of comments

Materials submitted for Plan Commission Review August 19th 2021:

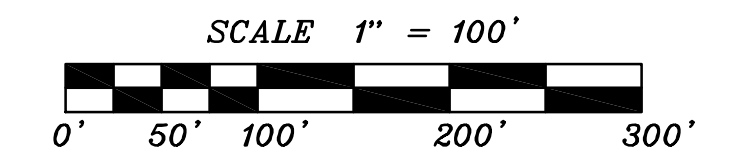
- 1) Transmittal Letter
- 2) Preliminary Plat – No. 1
- 3) 3-D Renderings of homes – no. 2
- 4) Improvement Plans – driveways- no. 3
- 5) Easement and Trail Exhibit– no. 4
- 6) Stormwater draft – no. 5
- 7) Draft Declaration of Covenants – no. 6 (dated 2021 – 08-12)
- 8) Preferred Tree List – no. 7

PRELIMINARY PLAT OF DAIRY RIDGE HEIGHTS

A parcel of land located in part of the Northeast 1/4 and the Northwest 1/4 of the Southwest 1/4 of Section 18, Township 6 North, Range 8 East, Town of Verona, Dane County, Wisconsin.



WCCS - DANE COUNTY ZONE
BEARINGS ARE REFERENCED TO THE EAST LINE OF THE SW 1/4 OF SECTION 18, T6N, R8E WHICH BEARS S 00°25'07" E



PREPARED FOR:
BRET SAALSA
7935 ALMOR DRIVE
VERONA, WI 53593
PHONE No. 1-608-576-6136

- LEGEND**
- = FOUND 3/4" REBAR
 - = FOUND 1 1/4" REBAR
 - = SECTION CORNER (AS NOTED)
 - (##) = RECORDED AS
 - X- = FENCE
 - DHU- = OVER HEAD UTILITIES
 - = PUBLIC UTILITY EASEMENT (P.U.E.) (UNLESS NOTED)
 - ▨ = DEDICATED TO THE PUBLIC

- NOTES:**
- 1) THIS SURVEY WAS PREPARED WITHOUT BENEFIT OF A TITLE REPORT FOR THE SUBJECT TRACT OR ADJACERS AND IS THEREFORE SUBJECT TO ANY EASEMENTS, AGREEMENTS, RESTRICTIONS AND STATEMENT OF FACTS REVEALED BY EXAMINATION OF SUCH DOCUMENTS.
 - 2) WETLANDS, IF PRESENT, HAVE NOT BEEN DELINEATED OR SHOWN.
 - 3) FLOOD PLAIN, IF PRESENT, HAVE NOT BEEN SHOWN.
 - 4) ALL ELEVATIONS ARE REFERENCED TO THE NAVD 88 (2012) DATUM. THE SITE BENCHMARK IS THE ALUMINUM MONUMENT LOCATED AT THE WEST 1/4 CORNER OF SECTION 18. TOP OF ALUMINUM MONUMENT = 995.84' NAVD 88 (2012 DATUM).
 - 5) TOTAL AREA: 1,975,184 SQ. FT. OR 45.34 ACRES

LINE	BEARING	DISTANCE
L-1	S 82°16'07" E	(151.80')
L-2	S 80°30'31" E	152.52'
L-2	S 80°30'31" E	152.46'

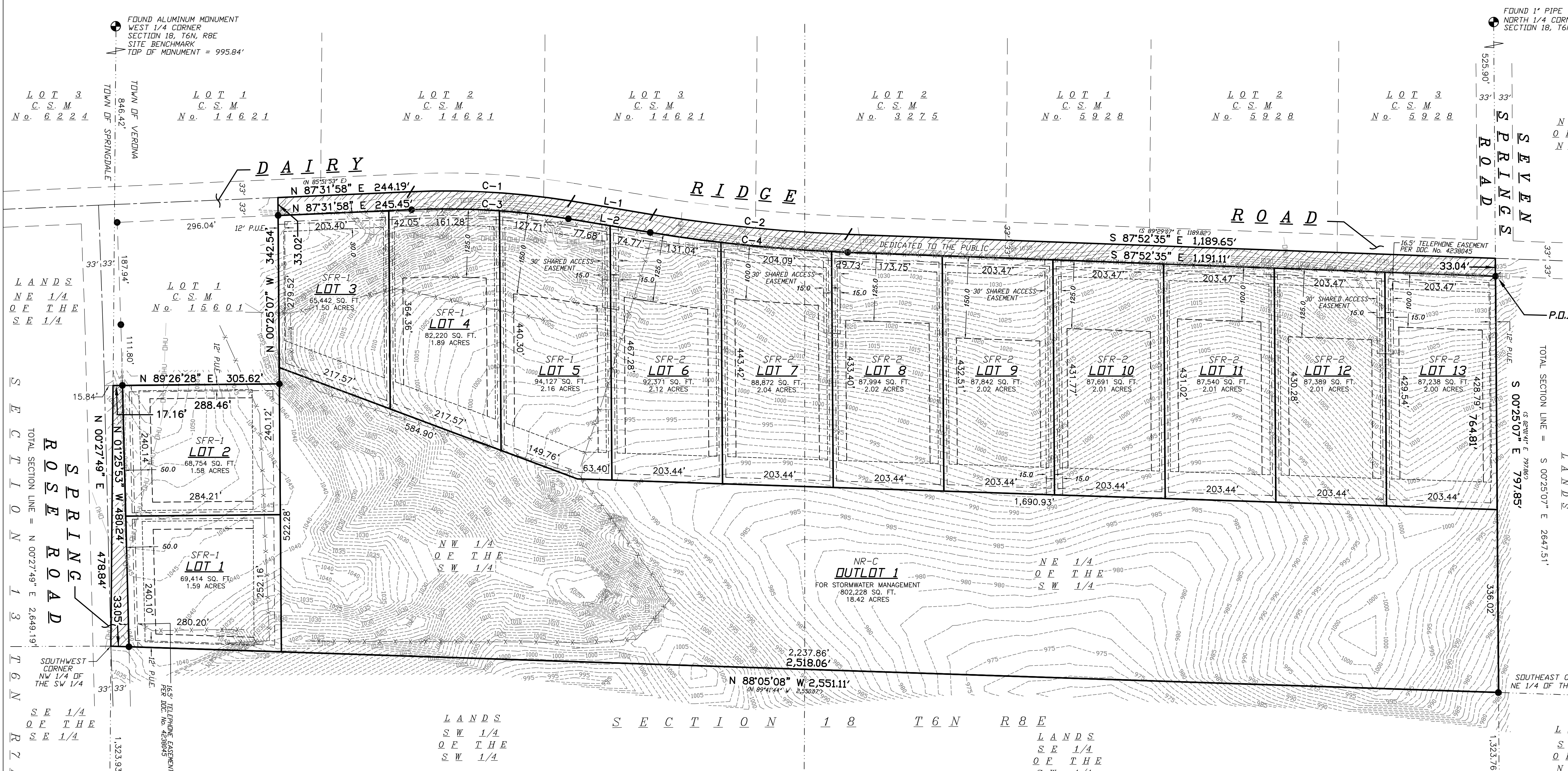
CURVE	RADIUS	CHORD BEARING	CHORD	ARC	DELTA
C-1	1432.72'	S 88°12'07" E	(296.20')	295.42'	11°50'06"
C-2	2863.91'	S 86°41'34" E	(360.53')	360.76'	7°13'03"
C-3	2863.91'	S 84°16'28" E	(360.53')	360.76'	7°13'03"
C-4	2896.91'	S 86°41'34" E	(288.61')	288.12'	11°50'06"
C-4	2896.91'	S 84°16'23" E	(364.68')	364.92'	7°13'03"

DESCRIPTION:

Part of the Northeast 1/4 and the Northwest 1/4 of the Southwest 1/4 of Section 18, Township 6 North, Range 8 East, Town of Verona, Dane County, Wisconsin, being more particularly described as follows:

Commencing at the North 1/4 Corner of said Section 18; thence S 00°25'07" E along the east line of the Southwest 1/4, 525.90 feet to the point of beginning.

Thence continue S 0°25'07" E, 797.85 feet to the Southeast Corner of the said Northeast 1/4 of Southwest 1/4; thence N 88°05'08" W along the south line of the said Northeast 1/4 and Northwest 1/4 of the Southwest 1/4, 2,551.11 feet to the Southwest Corner of the said Northwest 1/4 of the Southwest 1/4; thence N 00°27'49" E along the west line of the said Northwest 1/4 of the Southwest 1/4, 478.84 to the south line of Lot 1 Certified Survey Map No. 15601; thence along said Lot 1 for the next 2 courses N 89°26'28" E, 305.62 feet; thence N 00°25'07" W, 342.54 feet to the centerline of Dairy Ridge Road; thence along said centerline for the next 5 courses N 87°31'58" E, 244.19 feet; thence along an arc of a curve concave southerly having a radius of 1,432.72 feet and a long chord bearing and distance of S 86°41'34" E, 295.42 feet; thence S 80°30'31" E, 152.52 feet; thence along an arc of a curve concave northeasterly having a radius of 2,863.91 feet and a long chord bearing and distance of S 84°16'28" E, 360.53 feet; thence S 87°52'35" E, 1,189.65 feet to the point of beginning. This parcel contains 1,975,184 sq. ft. or 45.34 acres.



FOUND ALUMINUM MONUMENT WEST 1/4 CORNER SECTION 18, T6N, R8E
SITE BENCHMARK
TOP OF MONUMENT = 995.84'

FOUND 1" PIPE NORTH 1/4 CORNER SECTION 18, T6N, R8E

LANDS NE 1/4 OF THE SE 1/4
LANDS NW 1/4 OF THE SW 1/4
LANDS SW 1/4 OF THE SE 1/4
LANDS SW 1/4 OF THE SW 1/4

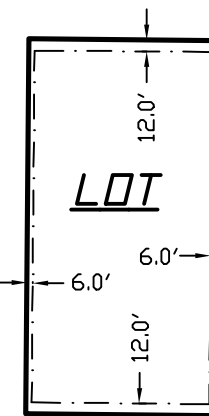
LANDS NE 1/4 OF THE SE 1/4
LANDS NW 1/4 OF THE SW 1/4
LANDS SW 1/4 OF THE SE 1/4
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LANDS NE 1/4 OF THE SE 1/4
LANDS NW 1/4 OF THE SW 1/4
LANDS SW 1/4 OF THE SE 1/4
LANDS SW 1/4 OF THE SW 1/4

TYPICAL PUBLIC UTILITY EASEMENT
(UNLESS NOTED)
STREET



ZONING
CURRENT ZONING IS AT-35

PROPOSED ZONING:
SFR-1 = LOTS 1 THROUGH 4
SFR-1 = LOTS 5 THROUGH 13
NR-C = OUTLOTS 1

PROPOSED BUILDING SETBACKS FOR SFR-1 AND SFR-2

ROAD = 30 FEET
SIDE = 10 FEET MINIMUM EACH SIDE
REAR = 50 FEET WITH 38 FEET FOR UNCOVERED DECKS / PORCHES.
ACCESSORY STRUCTURES IN REAR YARD = 4 FEET SIDE 4 FEET REAR

PROPOSED PRIMARY BUILDING ENVELOPE

ROAD = VARIES (SEE MAP)
SIDE = 25 FEET MINIMUM EACH SIDE
REAR = 50 FEET MINIMUM
NOTE
LOT 3 HAS STANDARD SFR-1 SETBACKS.
ROAD = 30 FEET, SIDE = 10 FEET, REAR = 50 FEET

OBJECTING AUTHORITIES
WISCONSIN DEPARTMENT OF ADMINISTRATION

APPROVING AUTHORITIES
TOWN OF VERONA

FOUND ALUMINUM MONUMENT CENTER CORNER SECTION 18, T6N, R8E

WILLIAMSON SURVEYING & ASSOCIATES, LLC
104 A WEST MAIN STREET, WAUNAKEE, WISCONSIN, 53597.
NDA T. PRIEVE & CHRIS W. ADAMS
PROFESSIONAL LAND SURVEYORS
PHONE: 608-255-5705 FAX: 608-849-9760 WEB: WILLIAMSONSURVEYING.COM

PRELIMINARY PLAT OF DAIRY RIDGE HEIGHTS

A parcel of land located in part of the Northeast 1/4 and the Northwest 1/4 of the Southwest 1/4 of Section 18, Township 6 North, Range 8 East, Town of Verona, Dane County, Wisconsin.

DATE	FEBRUARY 15TH, 2021	DATE	AUGUST 11TH, 2021	CHECK BY	N.T.P.
SCALE:	1" = 100'			DRAWING NO.	20V-369
DRAWN BY	NEIL BORTZ			SHEET	1 OF 1



RENDERINGS BY:



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Project No: 200018

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RENDERINGS BY:



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Scale: **NONE**

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Date: 3/10/2021

Drawn By:

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RENDERINGS BY:



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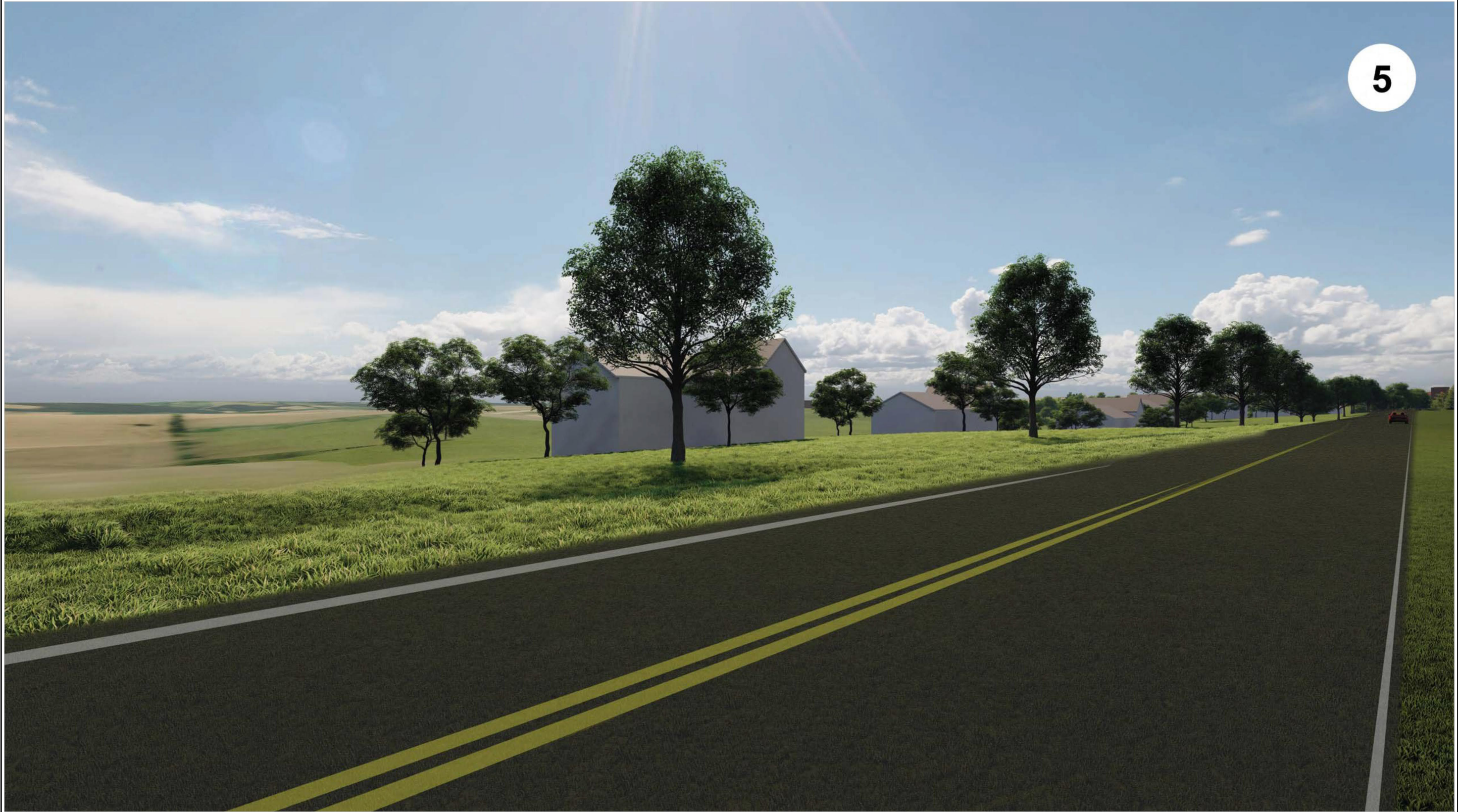
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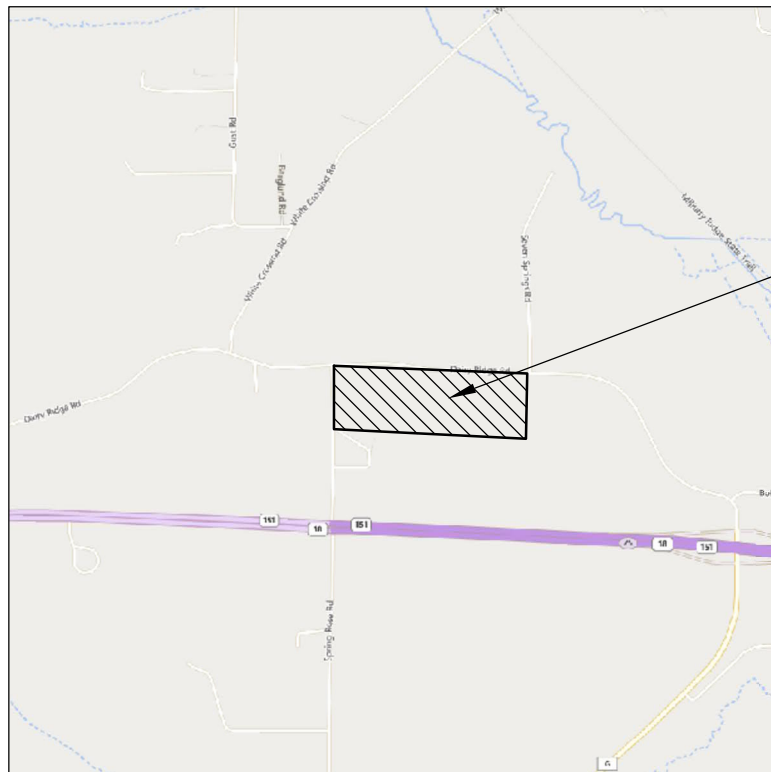


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DAIRY RIDGE HEIGHTS IMPROVEMENT PLANS

TOWN OF VERONA DANE COUNTY, WISCONSIN



PROJECT LOCATION

INDEX

SHEET NO.	STATIONS	DESCRIPTION
1		TITLE SHEET
2		GENERAL NOTE AND LEGENDS
3		EXISTING CONDITIONS PLAN
4		SITE PLAN
5		GRADING AND EROSION CONTROL PLAN
6		CONSTRUCTION DETAILS
7		CONSTRUCTION DETAILS
8		CONSTRUCTION DETAILS



DIAL 811 OR (800) 242-8511
www.DiggersHotline.com

THE LOCATION OF ANY AND ALL EXISTING UTILITIES, INCLUDING UNDERGROUND AND OVERHEAD, SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ANY UTILITIES, WHETHER DEPICTED ON THE PLANS OR NOT, BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES THAT ARISE BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PROTECT ANY AND ALL UTILITIES.

Revisions		Revisions	
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Scale: AS SHOWN

Date: 8/11/2021

Drawn By: ALC

Project No: 200018

Sheet No: 1 of 8

PROJECT INFORMATION

AGENCIES:

TOWN OF VERONA
7669 COUNTY HIGHWAY PD
VERONA, WI 53593
(608)-845-7187

DANE COUNTY LAND & WATER
RESOURCES
5201 FEN OAK DR
MADISON, WI 53718
(608)-224-3730

EMERGENCY - FIRE, RESCUE,
AMBULANCE, POLICE
DIAL 911

VERONA FIRE DEPARTMENT
101 LINCOLN ST
VERONA WI 53593
(608)-845-9401

DANE COUNTY SHERIFF
115 W DOTY ST
MADISON, WI 53703
(608)-266-4948

UTILITIES:

ELECTRIC COMPANY
ALLIANT ENERGY
KRYSTAL WOODEN
(608)-842-1741

NATURAL GAS
MADISON GAS & ELECTRIC
STEVE BEVERSDORF
(608)-252-1552

TELEPHONE/INTERNET
TDS TELECOM
JERRY MYERS

OWNER:

TWIN ROCK, LLC
VERONA, WI

ENGINEER:

CARRICO ENGINEERING AND
CONSULTING, INC.
1926 N KOLLATH RD
VERONA, WI 53593
(608)-832-6352

SURVEYOR:

WILLIAMSON SURVEYING &
ASSOCIATES, LLC.
104A WEST MAIN ST
WAUNAKEE, WI 53597
(608)-255-5705

GENERAL NOTES

1. TOPOGRAPHIC SURVEY AND UTILITIES SHOWN ARE FROM SURVEY PREVIOUSLY COMPLETED BY OTHERS COMBINED WITH GIS LIDAR DATA.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER PRIOR TO STARTING WORK.
3. CONTRACTOR SHALL KEEP ADJACENT ROADS AND PRIVATE PROPERTY FREE AND CLEAR OF CONSTRUCTION RELATED EQUIPMENT, DIRT, DUST AND DEBRIS.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE RELOCATION OR GRADING AROUND ANY EXISTING UTILITY LINES AND UTILITY PEDESTALS WITH UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
5. ALL SAWCUTTING SHALL BE FULL DEPTH TO PROVIDE A CLEAN EDGE TO MATCH NEW PAVEMENT ROAD ENDS AND DRIVEWAYS.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY NECESSARY TRAFFIC CONTROL AND SAFETY MEASURES DURING CONSTRUCTION.
7. ALL TREES REQUIRED TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY AND STUMPS SHALL BE GROUND TO PROPOSED SUBGRADE OR AT LEAST 4" BELOW FINISHED GRADE WHERE NOT IN ROAD BED AREA. CONTRACTOR TO COORDINATE WITH LANDOWNER PRIOR TO ANY REMOVALS.
8. CONTRACTOR SHALL PROVIDE TREE PROTECTION FENCING PRIOR TO CONSTRUCTION FOR ANY TREES REMAINING THAT ARE NEAR DISTURBANCE LIMITS. MAINTAIN FENCING THROUGHOUT CONSTRUCTION. TREE PROTECTION FENCING SHALL BE EITHER CHAIN LINK FENCE SECTIONS THAT ARE INSTALLED ON GRADE WITH "FEET" OR WOOD OR PLASTIC SNOW FENCE.
9. TREE PROTECTION SHALL BE REQUIRED WHENEVER THERE WILL BE CONSTRUCTION ACTIVITY THAT COULD RESULT IN DISTURBANCE WITHIN THE CRITICAL ROOT RADIUS OF A TREE THAT IS TO BE SAVED OR WHENEVER THERE IS THE POTENTIAL FOR DAMAGE TO BRANCHES OF PLATS THAT ARE TO BE SAVED DURING CONSTRUCTION.
10. ALL PROPOSED STORM SEWER LENGTHS ON PLANS INCLUDE ENDWALL IN LENGTH WHERE ENDWALL IS CALLED OUT.

LEGENDS

TOPOGRAPHIC SYMBOL & LINEWORK LEGEND

	BENCHMARK
	FOUND 1" Ø IRON PIPE
	SET P.K. NAIL / CONTROL POINT
	EXISTING POST
	EXISTING SIGN
	EXISTING ELECTRICAL TRANSFORMER
	EXISTING TELEPHONE PEDESTAL
	EXISTING CONIFEROUS TREE
	EXISTING DECIDUOUS TREE
	EXISTING BORING LOCATION
	EXISTING BURIED TELEPHONE LINE
	EXISTING GENERAL FENCE
	EXISTING GAS LINE
	EXISTING STORM PIPE
	EXISTING EDGE OF TREES
	EXISTING WETLAND BOUNDARY
	EXISTING 100-YR ZONE A FLOODPLAIN BOUNDARY
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EXISTING ASPHALT PAVEMENT

SITE PLAN LEGEND

	PROPERTY BOUNDARY
	PROPOSED PROPERTY LINE
	PROPOSED RIGHT-OF-WAY LINE
	PROPOSED ASPHALT PAVEMENT
	PROPOSED GRAVEL SHOULDER
	PROPOSED SIGN
	POSSIBLE FUTURE RIGHT-OF-WAY LINE
	POSSIBLE FUTURE ROADWAY
	BUILDING ENVELOPE

DEMOLITION LEGEND

	SAWCUT
	UTILITY REMOVAL
	TREE REMOVAL
	ASPHALT REMOVAL

UTILITY LEGEND

	PROPOSED STORM PIPE
	PROPOSED STORM END WALL
	PROPOSED STORM STRUCTURE
	PROPOSED STORM CLEAN OUT

GRADING & EROSION CONTROL LEGEND

	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	SILT FENCE
	DISTURBED LIMITS
	PROPOSED SLOPE ARROW & PERCENT
	PROPOSED SPOT ELEVATION
	EXISTING SPOT ELEVATION
	PROPOSED STONE WEEPER
	PROPOSED EMAT, CLASS I, TYPE A - SLOPES
	PROPOSED EMAT, CLASS I, TYPE B - CHANNELS
	PROPOSED EMAT, CLASS II, TYPE C - CHANNELS
	PROPOSED STONE TRACKING PAD
	PROPOSED RIP RAP

ABBREVIATIONS

EP	= EDGE OF PAVEMENT
EG	= EDGE OF GRAVEL
EW	= END WALL
FI	= FIELD INLET
R/W	= RIGHT-OF-WAY

General Notes and Legends
Dairy Ridge Heights
Town of Verona
Dane County, Wisconsin

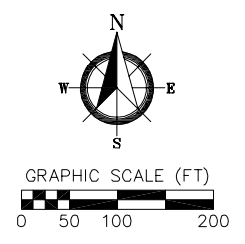
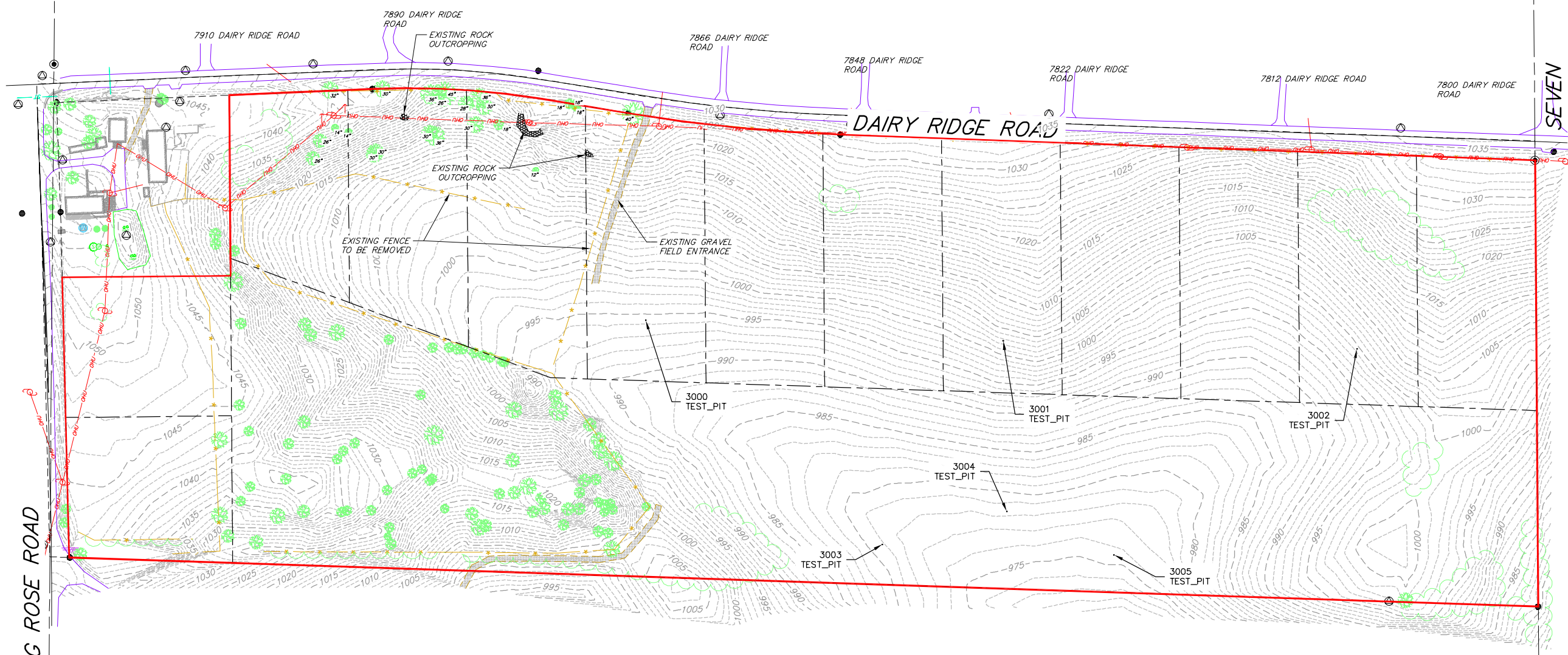


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Project No:	200018
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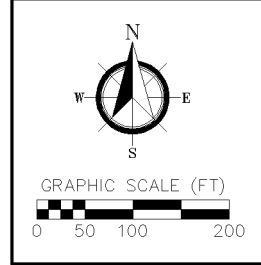
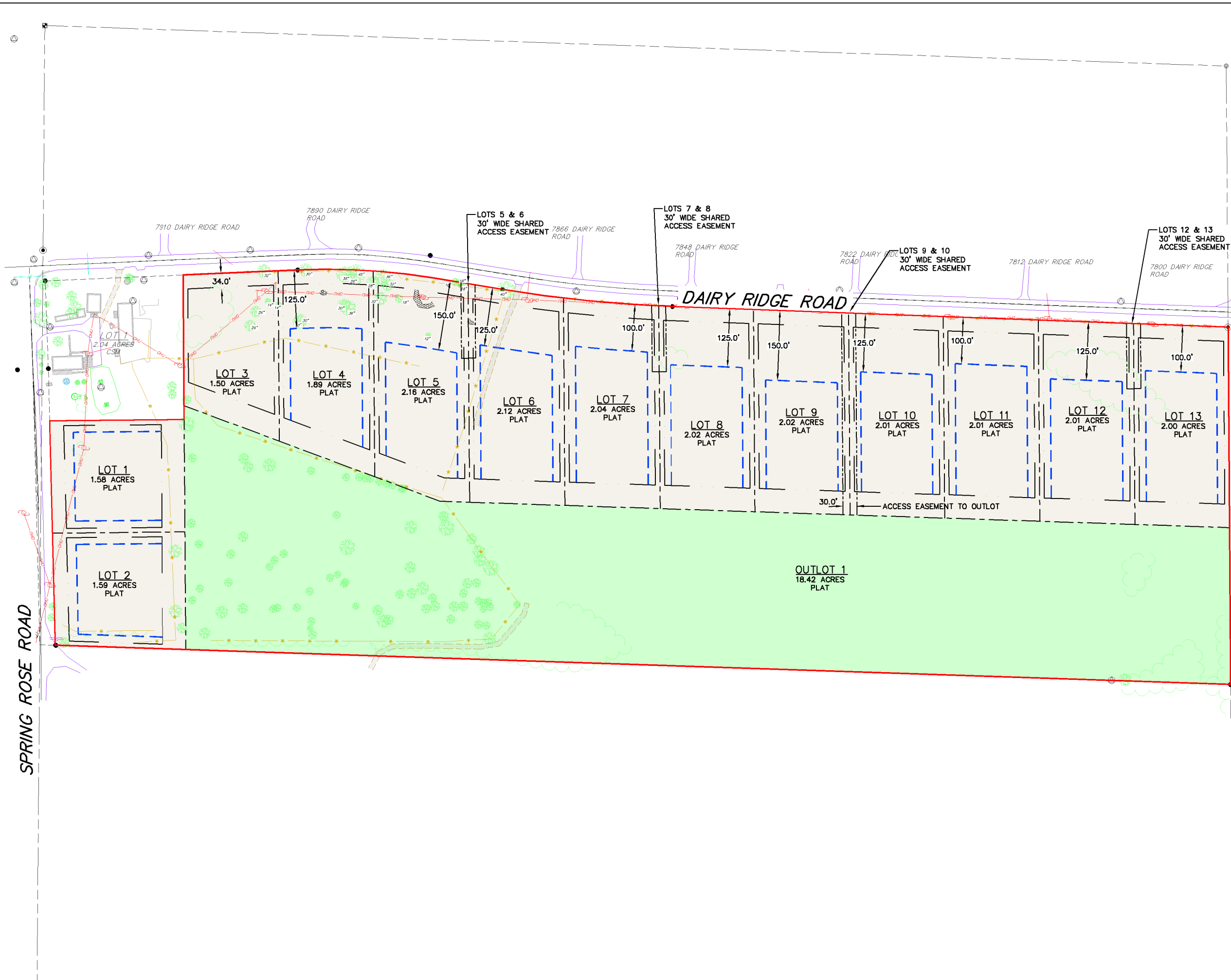
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Existing Conditions Plan
 Dairy Ridge Heights
 Town of Verona
 Dane County, Wisconsin

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Site Plan
 Dairy Ridge Heights
 Town of Verona
 Dane County, Wisconsin

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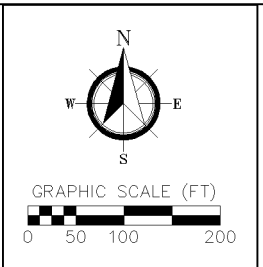
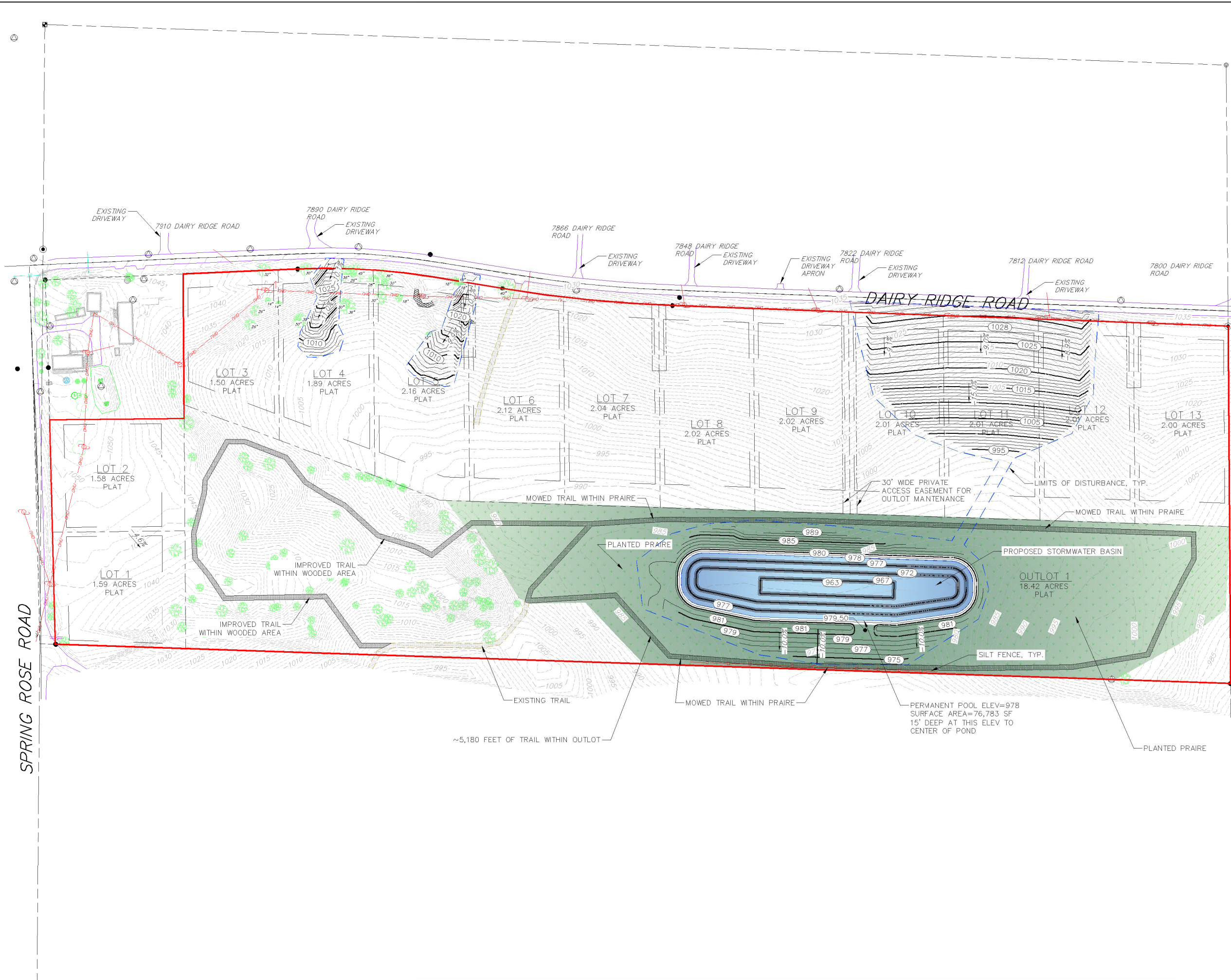
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Project No: **200018**

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Grading and Erosion Control Plan
Dairy Ridge Heights
Town of Verona
Dane County, Wisconsin

Revisions No.	Date	Description

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EROSION CONTROL MEASURES

1. EROSION CONTROL SHALL BE IN ACCORDANCE WITH THE TOWN OF VERONA EROSION CONTROL ORDINANCE, CHAPTER 11 AND 14 OF THE DANE COUNTY ORDINANCES AND CHAPTER NR 216 OF THE WISCONSIN ADMINISTRATIVE CODE.
2. CONSTRUCT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH WISCONSIN DNR TECHNICAL STANDARDS (<http://dnr.wi.gov/runoff/stormwater/techstds.htm>) AND WISCONSIN CONSTRUCTION SITE BEST MANAGEMENT PRACTICE HANDBOOK.
3. INSTALL SEDIMENT CONTROL PRACTICES (TRACKING PAD, PERIMETER SILT FENCE, SEDIMENT BASINS, ETC.) PRIOR TO INITIATING OTHER LAND DISTURBING CONSTRUCTION ACTIVITIES.
4. THE CONTRACTOR IS REQUIRED TO MAKE EROSION CONTROL INSPECTIONS AT THE END OF EACH WEEK AND WHEN 0.5 INCHES OF RAIN FALLS WITHIN 24 HOURS. INSPECTION REPORTS SHALL BE PREPARED AND FILED AS REQUIRED BY THE DNR AND/OR THE TOWN OF VERONA. ALL MAINTENANCE WILL FOLLOW AN INSPECTION WITHIN 24 HOURS.
5. 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. 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.
6. A 3" CLEAR STONE TRACKING PAD SHALL BE INSTALLED AT THE END OF ROAD CONSTRUCTION LIMITS TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE ADJACENT PAVED PUBLIC ROADWAY. SEDIMENT TRACKING PAD SHALL CONFORM TO WISDNR TECHNICAL STANDARD 1057. SEDIMENT REACHING THE PUBLIC ROAD SHALL BE REMOVED BY STREET CLEANING (NOT HYDRAULIC FLUSHING) BEFORE THE END OF EACH WORK DAY.
7. CHANNELIZED RUNOFF: FROM ADJACENT AREAS PASSING THROUGH THE SITE SHALL BE DIVERTED AROUND DISTURBED AREAS IF POSSIBLE.
8. STABILIZED DISTURBED GROUND: ANY SOIL OR DIRT PILES WHICH WILL REMAIN IN EXISTENCE FOR MORE THAN 7--CONSECUTIVE DAYS, WHETHER TO BE WORKED DURING THAT PERIOD OR NOT, SHALL NOT BE LOCATED WITHIN 25--FEET OF ANY ROADWAY, PARKING LOT, PAVED AREA, OR DRAINAGE STRUCTURE OR CHANNEL (UNLESS INTENDED TO BE USED AS PART OF THE EROSION CONTROL MEASURES). TEMPORARY STABILIZATION AND CONTROL MEASURES (SEEDING, MULCHING, TARPING, EROSION MATTING, BARRIER FENCING, ETC.) ARE REQUIRED FOR THE PROTECTION OF DISTURBED AREAS AND SOIL PILES, WHICH WILL REMAIN UN--WORKED FOR A PERIOD OF MORE THAN 14--CONSECUTIVE CALENDAR DAYS. THESE MEASURES SHALL REMAIN IN PLACE UNTIL SITE HAS STABILIZED.
9. IMMEDIATELY STABILIZE STOCKPILES AND SURROUND STOCKPILES AS NEEDED WITH SILT FENCE OR OTHER PERIMETER CONTROL IF STOCKPILES WILL REMAIN INACTIVE FOR 7 DAYS OR LONGER.
10. SITE DE--WATERING: WATER PUMPED FROM THE SITE SHALL BE TREATED BY TEMPORARY SEDIMENTATION BASINS OR OTHER APPROPRIATE CONTROL MEASURES. SEDIMENTATION BASINS SHALL HAVE A DEPTH OF AT LEAST 3 FEET, BE SURROUNDED BY SNOWFENCE OR EQUIVALENT BARRIER AND HAVE SUFFICIENT SURFACE AREA TO PROVIDE A SURFACE SETTLING RATE OF NO MORE THAN 750 GALLONS PER SQUARE FOOT PER DAY AT THE HIGHEST DEWATERING PUMPING RATE. WATER MAY NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION OF THE SITE, A NEIGHBORING SITE, OR THE BED OR BANKS OF THE RECEIVING WATER. POLYMERS MAY BE USED AS DIRECTED BY DNR TECHNICAL STANDARD 1061 (DE--WATERING).
11. WASHED STONE WEEPERS OR TEMPORARY EARTH BERMS SHALL BE BUILT PER PLAN BY CONTRACTOR TO TRAP SEDIMENT OR SLOW THE VELOCITY OF STORM WATER.
12. SEE DETAIL SHEETS AND GRADING AND EROSION CONTROL PLAN FOR RIP--RAP SIZING. IN NO CASE WILL RIP--RAP BE SMALLER THAN 3" TO 6".
13. USE DETENTION BASINS AS SEDIMENT BASINS DURING CONSTRUCTION (DO NOT USE INFILTRATION AREAS). AT THE END OF CONSTRUCTION, REMOVE SEDIMENT AND RESTORE PER PLAN.
14. RESTORATION (SEED, FERTILIZE AND MULCH) SHALL BE PER SPECIFICATIONS ON THIS SHEET UNLESS SPECIAL RESTORATION IS CALLED FOR ON THE DETENTION BASIN DETAIL SHEET.
15. AFTER DETENTION BASIN GRADING IS COMPLETE, THE BOTTOM OF DRY BASINS SHALL RECEIVE 6" TOPSOIL AND SHALL BE CHISEL--PLOWED TO A MINIMUM DEPTH OF 12" PRIOR TO RESTORATION.
16. SEED, FERTILIZER AND MULCH SHALL BE APPLIED WITHIN 7 DAYS AFTER FINAL GRADE HAS BEEN ESTABLISHED. IF DISTURBED AREAS WILL NOT BE RESTORED IMMEDIATELY AFTER ROUGH GRADING, TEMPORARY SEED SHALL BE PLACED.
17. FOR THE FIRST SIX WEEKS AFTER RESTORATION (E.G. SEED & MULCH, EROSION MAT) OF A DISTURBED AREA, INCLUDE SUMMER WATERING PROVISIONS OF ALL NEWLY SEEDED AND MULCHED AREAS WHENEVER 7 DAYS ELAPSE WITHOUT A RAIN EVENT.
18. EROSION MAT: SEE GRADING AND EROSION CONTROL PLAN FOR EROSION MAT TYPE. GENERALLY, CLASS I, TYPE B URBAN PER WISCONSIN D.O.T. P.A.L. SHALL BE INSTALLED ON ALL SLOPES 3:1 OR GREATER BUT LESS THAN 1:1 AND TYPE VARIES FOR CHANNELS/DITCHES/SWALES WHICH SHALL BE INSTALLED ON THE BOTTOM (INVERT) OF ROADSIDE DITCHES/SWALES (SEE GRADING AND EROSION CONTROL PLAN AND SHEET 36 & 41 FOR CHANNEL MAT TYPE AND CLASS).
19. SEDIMENT SHALL BE CLEANED FROM DITCHES IF ACCUMULATED AFTER EACH RAINFALL AND PRIOR TO PROJECT ACCEPTANCE.
20. ACCUMULATED CONSTRUCTION SEDIMENT SHALL BE REMOVED FROM ALL PERMANENT BASINS TO THE ELEVATION SHOWN ON THE GRADING PLAN FOLLOWING THE STABILIZATION OF DRAINAGE AREAS.
21. ALL CONSTRUCTION ENTRANCES SHALL HAVE TEMPORARY ROAD CLOSED SIGNS THAT WILL BE IN PLACE WHEN THE ENTRANCE IS NOT IN USE AND AT THE END OF EACH DAY.
22. ANY PROPOSED CHANGES TO THE EROSION CONTROL PLAN MUST BE SUBMITTED AND APPROVED BY DANE COUNTY WATER RESOURCES ENGINEERING OR PERMITTING MUNICIPALITY.
23. THE TOWN OF VERONA, DANE COUNTY, OWNER AND/OR ENGINEER MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES AT ANY TIME DURING CONSTRUCTION.
24. NO GRADING SHALL BE ALLOWED WITHIN 5 FEET OF A PROPERTY LINE UNLESS AUTHORIZED BY PERMITTING AUTHORITY.

CONSTRUCTION SEQUENCE:

1. INSTALL SILT FENCE AND TRACKING PAD
2. STRIP TOPSOIL
3. ROUGH GRADING
4. SEED & MAT BASIN PER PLAN
5. REMOVE TRACKING PAD & SILT FENCE AFTER DISTURBED AREAS ARE STABILIZED/VEGETATED

CONSTRUCTION SCHEDULE:

1. INSTALL SILT FENCE AND TRACKING PAD - 5/5/2022
2. STRIP TOPSOIL - 5/5/2022
3. ROUGH GRADING - 5/5/2022
4. SEED & MAT BASIN PER PLAN - 6/25/2022
5. REMOVE TRACKING PAD & SILT FENCE AFTER DISTURBED AREAS ARE STABILIZED/VEGETATED

SEEDING RATES:

TEMPORARY:

1. USE ANNUAL OATS AT 3.0 LB./1,000 S.F. FOR SPRING AND SUMMER PLANTINGS.
2. USE WINTER WHEAT OR RYE AT 3.0 LB./1,000 SF FOR FALL PLANTINGS STARTED AFTER SEPTEMBER 15.
3. SEE DRY DETENTION BASIN DETAIL FOR SEEDING OF DRY DETENTION BASINS.

PERMANENT:

1. USE WISCONSIN D.O.T. SEED MIX #40 AT 2 LB./1,000 S.F.

FERTILIZING RATES:

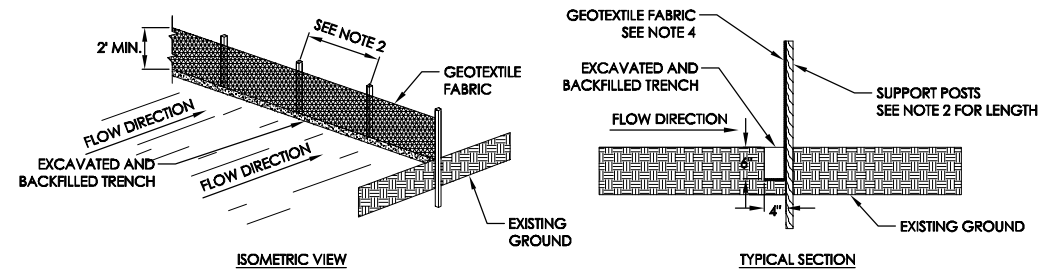
TEMPORARY AND PERMANENT:

1. USE WISCONSIN D.O.T. TYPE A OR B AT 7 LB./1,000 S.F.

MULCHING RATES:

TEMPORARY AND PERMANENT:

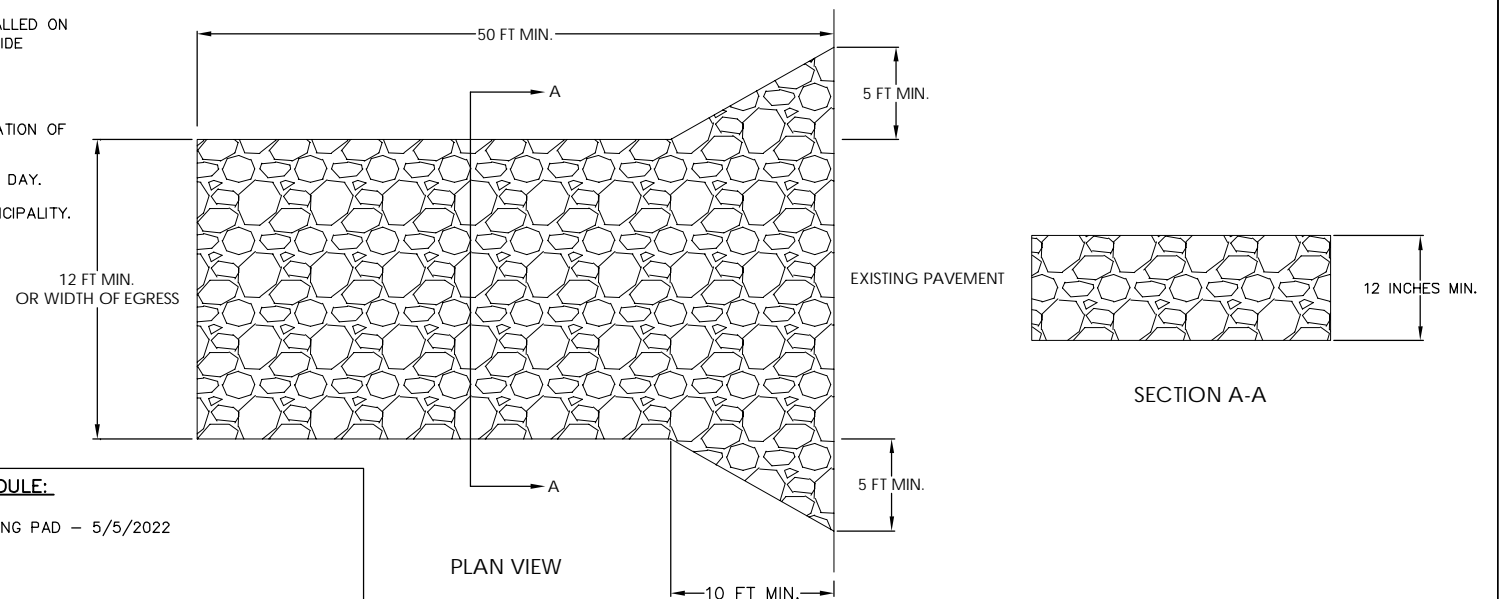
USE 1/2" TO 1-1/2" STRAW OR HAY MULCH, CRIMPED PER SECTION 607.3.2.3, OR OTHER RATE AND METHOD PER SECTION 627, WISCONSIN D.O.T. STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION



NOTES:

1. THE GEOTEXTILE FABRIC SHALL BE PLACED IN THE EXCAVATED TRENCH, BACKFILLED AND COMPACTED TO THE EXISTING GROUND SURFACE.
2. TRENCH SHALL BE A MINIMUM OF 4" WIDE AND 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM OF 1-1/8" x 1-1/8" OAK OR HICKORY AND 4 FEET LONG.
4. WOOD POST SPACING SHALL BE A MAXIMUM OF 3' FOR NON-WOVEN GEOTEXTILE FABRIC IS USED AND A MAXIMUM OF 8' IF WOVEN GEOTEXTILE FABRIC IS USED.
5. THE GEOTEXTILE FABRIC SHALL BE ATTACHED DIRECTLY TO THE UPSLOPE SIDE OF WOODEN POSTS WITH 0.5 INCH STAPLES IN AT LEAST 3 PLACES.
6. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY, USE ONE OF THE FOLLOWING TWO METHODS:
 - 6.A. TWIST METHOD: OVERLAP THE END POSTS AND TWIST OR ROTATE AT LEAST 180 DEGREES.
 - 6.B. HOOK METHOD: HOOK THE END OF EACH SILT FENCE LENGTH.

1
6 **SILT FENCE DETAIL**
NOT TO SCALE



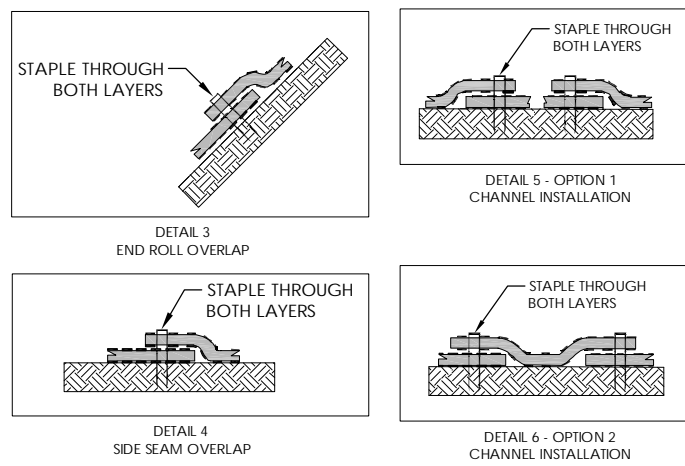
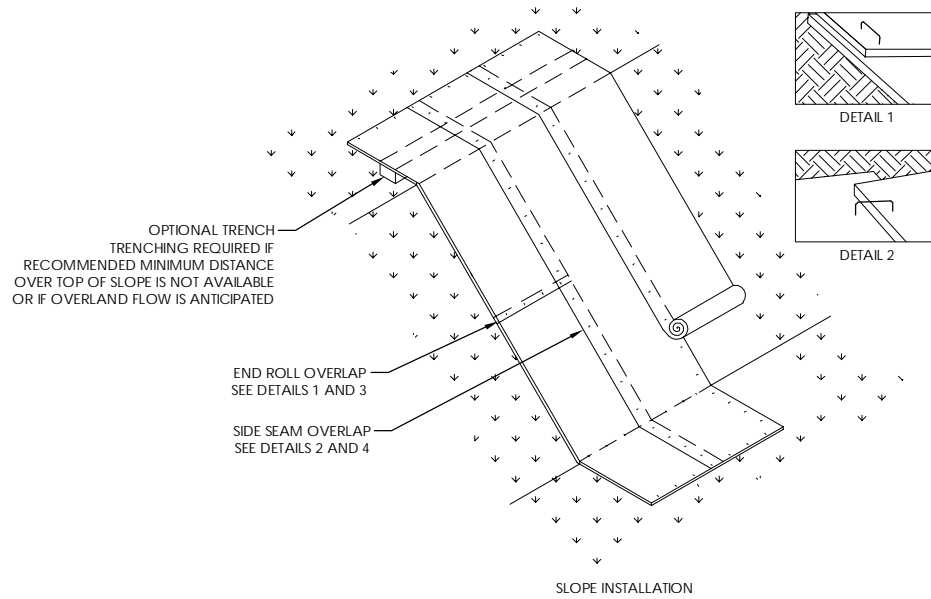
NOTES:

1. THE TRACKING PAD SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION TRAFFIC LEAVING THE SITE.
2. STONE TRACKING PAD SHALL BE INSTALLED PER WISCONSIN DNR TECHNICAL STANDARD 1057.
3. TRACKING PAD SHALL BE A MINIMUM LENGTH OF 50 FEET. TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT OR A MINIMUM OF 12 FEET IN WIDTH. TRACKING PAD SHALL BE A MINIMUM DEPTH OF 12 INCHES OF 3 INCH TO 6 INCH CLEAR OR WASHED STONE.
4. TRACKING PAD SHALL BE FLARED PER PLAN
5. ON SITES WITH A HIGH WATER TABLE, OR WHERE SATURATED CONDITIONS ARE EXPECTED DURING THE LIFE OF THE PRACTICE, STONE TRACKING PADS SHALL BE UNDERLAIN WITH A WISCONSIN DOT TYPE R GEOTEXTILE FABRIC TO PREVENT MIGRATION OF UNDERLYING SOIL INTO THE STONE.
6. SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY FROM TRACKING PADS OR CONVEYED UNDER AND AROUND THEM BY USING A VARIETY OF PRACTICES, SUCH AS CULVERTS, WATER BARS OR OTHER SIMILAR PRACTICES.

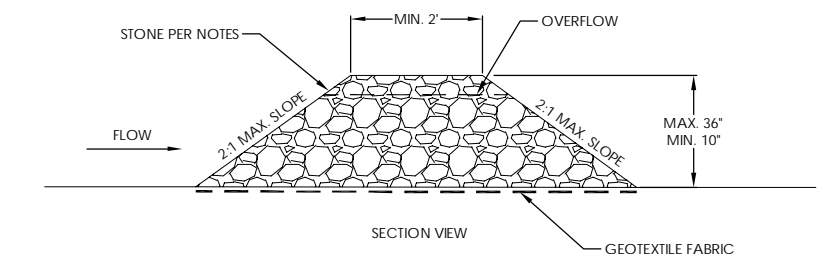
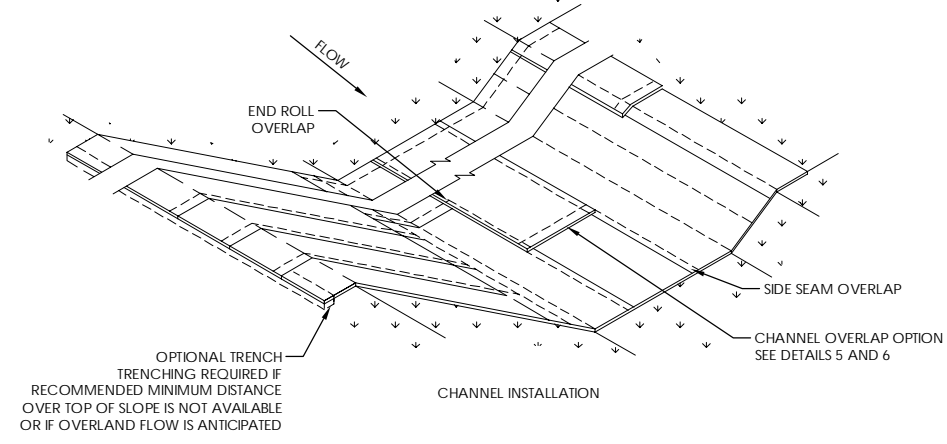
2
6 **STONE TRACKING PAD DETAIL**
NOT TO SCALE

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Project No:	200018
Sheet No:	6 of 8

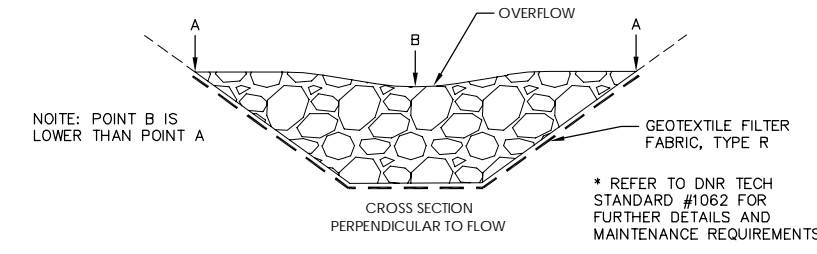


- NOTES:**
1. STAPLE PATTERNS ARE DEPENDENT UPON SLOPE CONDITIONS AND MANUFACTURER'S RECOMMENDATIONS.
 2. STAPLES OF 11 GAUGE OR HEAVIER SHALL BE USED TO HOLD MATS AND NETS IN PLACE.
 3. STAPLES SHALL BE U-SHAPED WITH A 1-INCH TO 2-INCH CROWN.
 4. STAPLE LENGTHS ARE DETERMINED BASED ON SOIL CONDITION, BUT SHALL NOT BE LESS THAN 6 INCHES LONG. SEE WDNR TECHNICAL STANDARD 1052 FOR FURTHER LENGTH REQUIREMENTS.
 5. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR BOTH END AND EDGE OVERLAP LENGTH.
 6. CONSIDER THE USE OF BIODEGRADABLE STAPLES IN LOCATIONS WHERE WIRE STAPLES ARE DETERMINED TO BE A RISK.

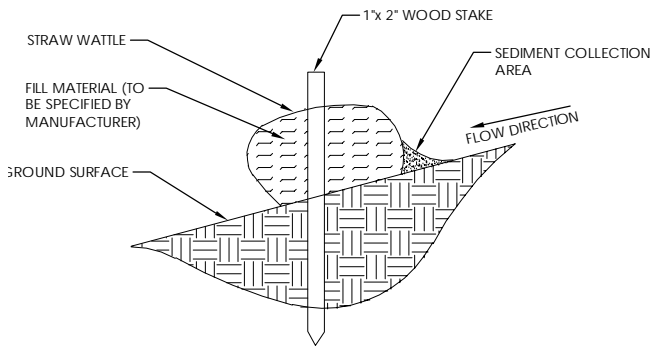


1 EROSION MATTING DETAIL
NOT TO SCALE

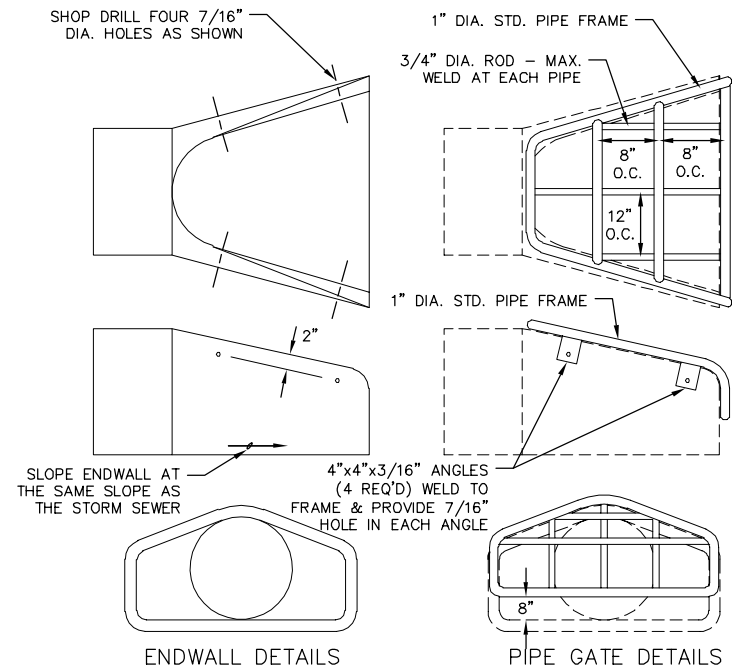
- NOTES:**
1. STONE DITCH CHECKS TO SHALL BE INSTALLED ACCORDING TO WISCONSIN DNR TECHNICAL STANDARD 1062
 2. IT IS ACCEPTABLE TO USE ANY OF THE FOLLOWING STONE SPECIFICATIONS:
 - 2.1. WELL-GRADED ANGULAR STONE WITH A D50 OF 3 INCHES OR GREATER WITH NO MORE THAN 5% PASSING THE #4 SIEVE.
 - 2.2. 1-FOOT LAYER OF 1-INCH (#2) WASHED STONE OVER 3 TO 6-INCH CLEAR STONE.
 - 2.3. ANGULAR STONE MEETING THE GRADATION FOR WISCONSIN DOT SPECIFICATION 312 SELECT CRUSH OR LOCAL EQUIVALENT.



2 STONE WEEPER DETAIL
NOT TO SCALE

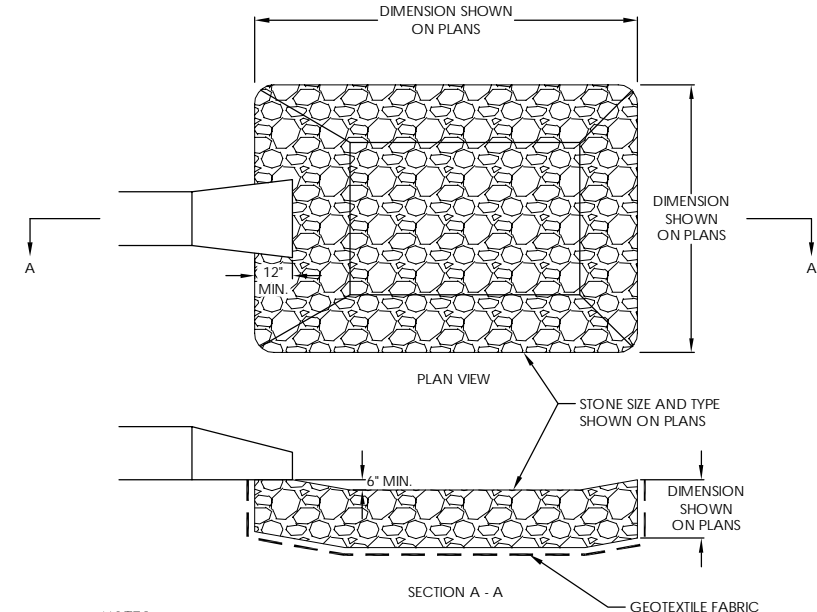


3 STRAW WATTLE DETAIL
NOT TO SCALE



- NOTES:**
- THE CONTRACTOR SHALL BOLT THE PIPE GATE TO THE CONCRETE ENDWALL WITH FOUR 3/8"x6" MACHINE BOLTS WITH NUTS ON INSIDE WALL.
- PAINTING SPECIFICATIONS:**
- THE PIPE GATE SHALL RECEIVE THE FOLLOWING PREPARATION & PAINTING. THE FIRST COAT SHALL BE RUS-OLEUM X-60 RED BARE METAL PRIMER OR APPROVED EQUAL. THE SECOND COAT SHALL BE RUS-OLEUM 960 ZINC CHROMATE PRIMER OR APPROVED EQUAL. THE THIRD COAT SHALL BE RUS-OLEUM 1282 HIGH GLOSS METAL FINISH OR APPROVED EQUAL.
- PREPARATION STEPS:**
1. BARE METAL SURFACES - TREAT WITH THE THREE-COAT PAINTING SYSTEM LISTED AFTER A THOROUGH SCRAPING, WIRE BRUSHING & CLEANING.
 2. EACH COAT OF PAINT SHALL BE APPLIED OVER THE ENTIRE GATE SURFACE.
 3. ALLOW 24-48 HOURS DRYING TIME AT 60° OR ABOVE BETWEEN COATS.

4 ENDWALL DETAIL
NOT TO SCALE

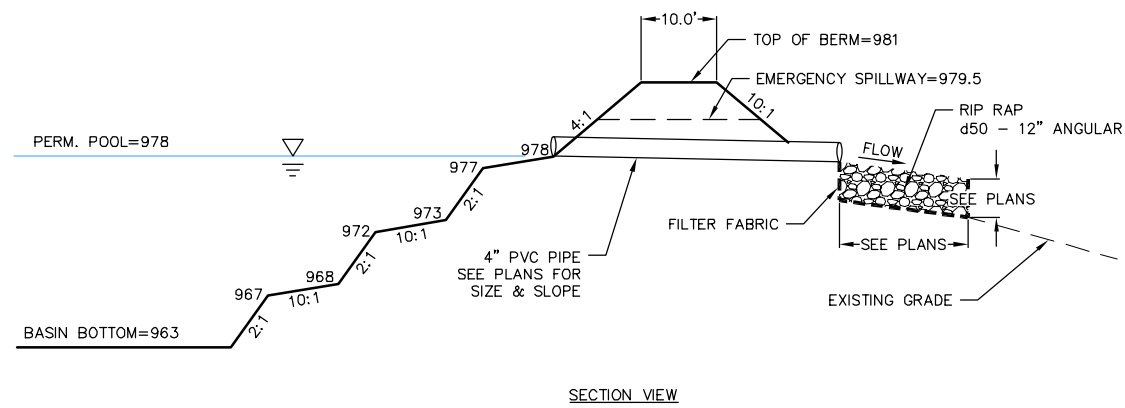
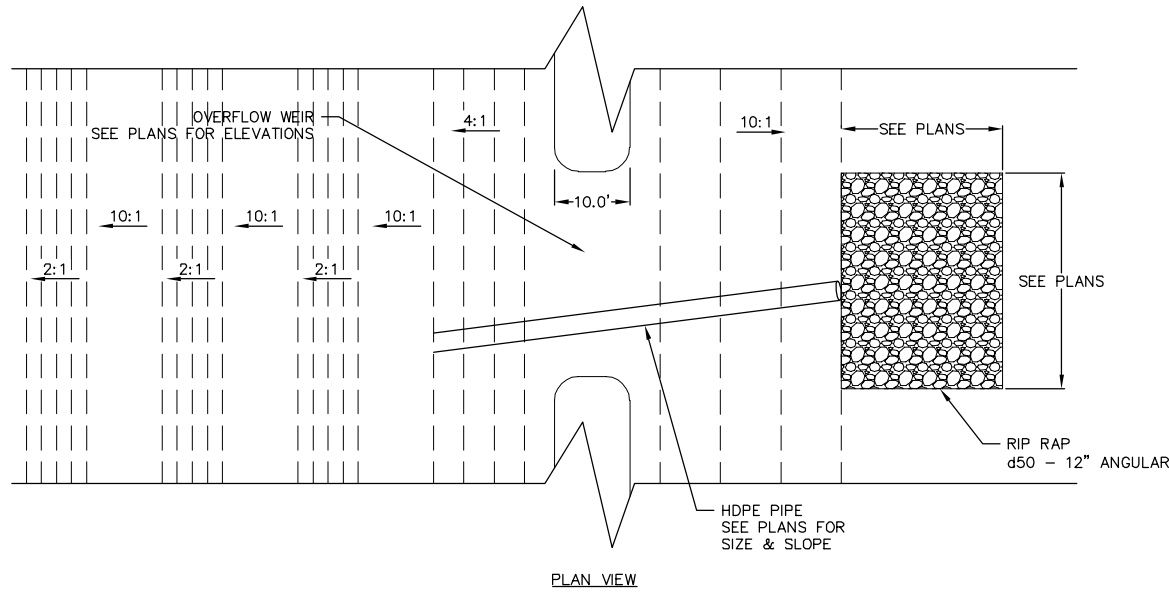


- NOTES:**
- RIPRAP DETAIL FOR DRY BASIN OUTLET PIPES AND EMERGENCY SPILLWAYS AND BIOTENTION BASIN OUTLET PIPE AND EMERGENCY SPILLWAY.
 - SEE GRADING AND EROSION CONTROL PLAN FOR DIMENSIONS, STONE SIZE AND DEPTH
 - GEOTEXTILE FABRIC SHALL BE MIRAFI 140 N OR APPROVED EQUAL

5 RIPRAP DETAIL
NOT TO SCALE

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No.	Date	No.	Date

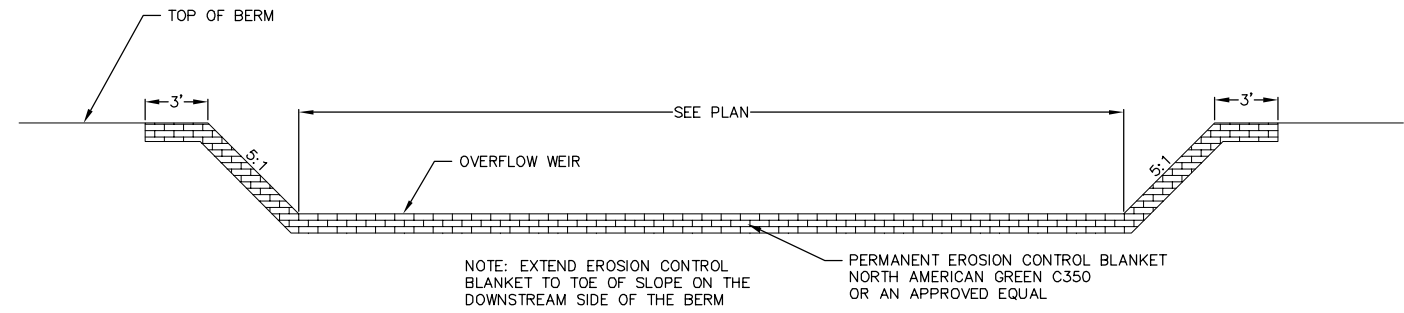
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Drawn By:	ALC
Project No:	200018
Sheet No:	7 of 8



NOTES:

- SEE BASIN PLAN & PROFILE SHEETS FOR ALL TOP OF BERM ELEVATIONS, OVERFLOW WEIR LENGTH & ELEVATIONS, INVERT ELEVATIONS AND RIP RAP SIZING.

1
8 WET BASIN DETAIL
NOT TO SCALE



2
8 OVERFLOW WEIR DETAIL
NOT TO SCALE

Revisions		Revisions	
No.	Description	No.	Description

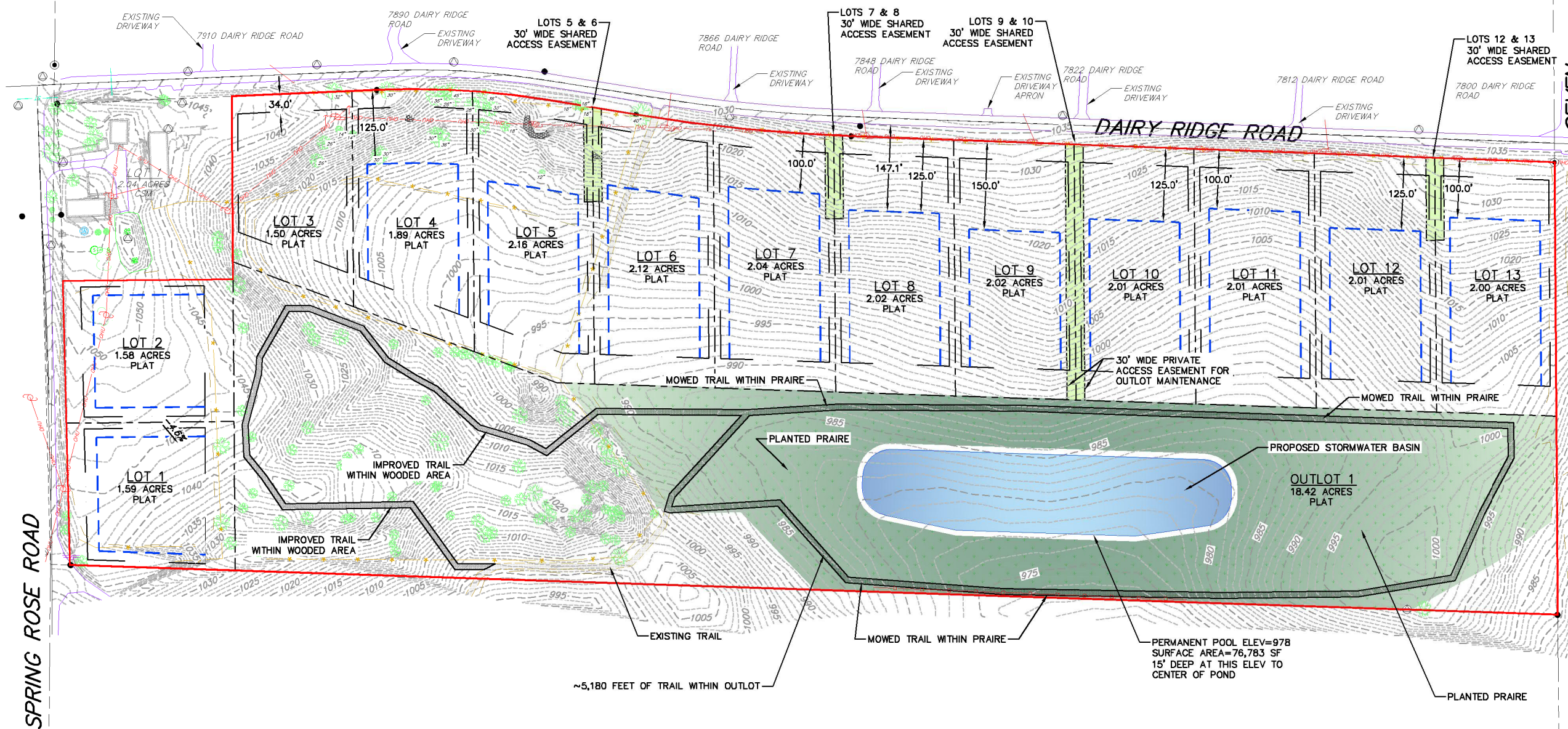
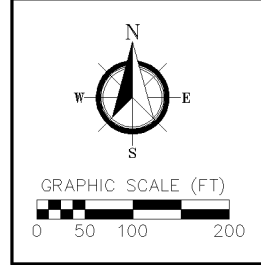
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Project No: 200018

Sheet No: 8 of 8



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Date:	8/11/2021
Drawn By:	ALC
Project No:	200018
Sheet No:	1 of 1

STORMWATER REPORT

DAIRY RIDGE HEIGHTS

Town of Verona, Wisconsin

Prepared For:

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Prepared By:

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Prepared On:
August 11, 2021

Revised On:

Project # 200018



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Section 1 – Narrative

1.1 Introduction

Dairy Ridge Heights is located in the Town of Verona southeast of the intersection of Dairy Ridge Road and Springrose Road. The development is comprised of an existing parcel of undeveloped land of approximately 43.37 acres in total area (excluding right-of-way) with a mix of row crops and wooded area. For stormwater management design purposes, the project area is 33.894 acres. This area is defined by the entire area of each lot (Lots 1-13) to account for an assumed amount of new impervious surfaces and the area of the outlot that is being disturbed with the proposed stormwater basin including the un-disturbed conveyance area from the single-family lots to the basin through the outlot.

The lot containing the farmhouse and accessory buildings (known as Lot 1 of CSM 15601) is not part of the plat. However, a portion of the lot drains through the plat. Additionally, the south half of Dairy Ridge Road and right-of-way adjacent to the plat also flows overland through the plat. Finally, a small tract of wooded area within the outlot flows overland through the plat to the basin. All of these areas were included for sizing the basin, but loading was removed and not included as part of the overall project area of 33.894 acres as the area is not being disturbed or not part of the plat area.

Currently, about 25 acres of the entire parcel are being farmed with row crops. The remainder of the area is either made up of wooded area or open space with scattered mixed species of trees.

The proposed development would divide the parcel into 13 single-family residential homesites ranging in size from 1.5-acres to 2.2-acres, dedicating the area of Springrose Road and Dairy Ridge Road to the public for right-of-way and one large privately owned outlot for stormwater management purposes, walking trails and prairie.

The development property shows a small unnamed intermittent river or stream on the WDNR surface water data view map along with Dane County Access Dane Maps. Additionally, the maps indicate a converging intermittent river or stream to the west of the subject property. Furthermore, the maps indicate several USDA NRCS wetland wet spots based on GIS hydric soil mapping. A navigability and wetland determination was conducted by Hans Hilbert, the Dane County Assistant Zoning Administrator and Shoreland Specialist on both the intermittent streams and wetland wet spots on July 2, 2020. Mr. Hilbert determined that the entirety of both waterways lack any evidence of a defined bed or bank and any water flow through the entire course would be described as sheet flow and no presence of water. Therefore, the parcel is not subject to any shoreland zoning or further permitting and disturbance within these areas is permissible. In addition, it was determined that there is no evidence of wetland characteristics of any kind on the property and therefore a wetland delineation is not required.

Mr. Hilbert included an official letter describing the review and site visit and his determination which is included as Exhibit 9.1 in this document.

A 30-foot-wide private access easement is planned between Lots 9 and 10 for future maintenance of the stormwater basin. The outlet will not be open to the public; rather only utilized for stormwater management purposes and hiking trails for the owners within the subdivision.

General Stormwater Management Design

Stormwater modeling is based on the pre-developed site and post-developed site as shown in the exhibits located in Section 9 of this report. There is a small gravel field access road that is included as part of the existing site. All proposed features are based on assumptions made for a per lot new impervious surface area as defined in the recorded neighborhood covenants. No new public roads are planned for this development as all lots currently front existing town roads. Impervious surface totals for each lot are assumed and indicated in the recorded neighborhood covenants as maximums without additional contact with Dane County Land and Water Resources Department.

Assumptions for new impervious surfaces per lot are as follows: 6,000 sq. ft. for single-family roof area, 600 sq. ft. for accessory building roof area, 3,000 sq. ft. for sidewalk/patio/deck area and 3,500 sq. ft. for driveway area. Total assumed impervious area per lot for design purposes is 13,100 sq. ft. The remainder of each residential lot area has been modeled as grassland. Roof areas have been modeled as “disconnected” or “draining to a pervious area” rather than “directly connected” due to the depth of the lots and the fact that the roof runoff will sheet flow overland through pervious areas for a distance of 100 to 200+ feet before channelized conveyance to the proposed stormwater basin occurs. Furthermore, the roof areas were modeled as clayey soil type with moderate compaction.

The following table is a breakdown of impervious and pervious surface totals for the entire project area. A breakdown of surface types by individual drainage areas is available in the Peak Storm Control Calculations – Post-developed Conditions w/controls part of the report in Section 4.

Table 1: Surface Totals for Project Area

	Square Feet	Acres
House Roof	78,000	1.791
Shed Roof	7,800	0.179
Driveway	45,500	1.045
Sidewalk/Patio	39,000	0.895
Water Surface	76,783	1.763
Grass Cover	1,164,317	26.729
Woodland	65,004	1.492
Totals:	1,476,404	33.894

The site meets the definition of new development as defined in Chapter 14 of the Dane County Ordinances. The site is required to meet performance standards for: erosion control, total suspended solids removal, infiltration, peak flow discharge and thermal control.

Due to the project being in the Sugar River Watershed, the area is designated as being in a thermally sensitive area. The site is long distance from any navigable waterway or

mapped wetland; therefore, a wet basin is proposed for the site. However, practices will be in place to meet thermal control for discharge with riprap outlet structures and the fact that the runoff from the wet basin will travel a significant distance within pervious areas the watershed prior to reaching any environmentally sensitive area.

The goals for total suspended solids removal and peak discharge will be met with the construction of the wet basin. Infiltration requirements will be met through overall density, with the majority of the site being restored to grass or natural prairie area from straight row crops. Thermal control will be met with the addition of riprap at the basin outlet.

1.2 Soils Description

Subsurface soils are predominantly made up of silt loam. The highest percentage soils are Basco silt loam, Port Byron silt loam and Troxel silt loam which makes up approximately 63% of the soils of the parcel. There is a mix of hydrological soil rating between B, C and D. Thirty-nine percent (39%) of the site has a hydrologic soil rating of B, fourteen percent (14%) of the site has a hydrologic soil rating of C and forty-eight percent of the site has a hydrologic soil rating of D. For purposes of this project, type C soils were used for modeling as the weighted average of hydrologic soil type is a C. Additionally, with hydrological soil group rating of C, clayey soil types were chosen within the WinSLAMM program. For peak rate control, areas were not lowered by a permeability class as deep tilling is proposed for the disturbed areas. Additionally, drainage areas that are conveyed to pervious areas were modeled as clayey with a low building density and normal compaction rather than moderately compacted. With no road construction taking place and larger lots, there will be minimal or normal compaction of the existing soils during construction of a home.

A total of 6 soil test pits were conducted on December 17, 2020 by a certified soil tester. The soil evaluation report is located in Section 3.2 of this report.

1.3 Design Criteria

For the purpose of this report, pre-developed conditions refer to the site conditions before the proposed development. The Stormwater goals the site will be required to meet are summarized below:

Table 2 – Stormwater Management Requirements

Stormwater Management Requirements	
Requirement	Goal
Peak Runoff Rate Control	Pre-Developed to Post-Developed 1, 2, 10, and 100-year, 24-hour events
Sediment Control: TSS	80% TSS Removal
Infiltration	Infiltrate 90% of Pre-Developed Infiltration Volume
Thermal	Reduce temperature of runoff using Best Management Practices

Table 3 – Design Inputs

Design Inputs	
	Peak Runoff Rate Control (Town of Verona) (Dane County)
Rainfall (24-hour design storm) MSE4 Distribution	1-year = 2.49 inches 2-year = 2.84 inches 10-year = 4.09 inches 100-year = 6.66 inches
Pre-developed Runoff Curve Number (HSG C)	Woodland = 70 Grassland = 71 Cropland = 78

1.4 Summary of Results

Peak Rate Control (See Section 4 for design calculations)

The Town and the County require new development sites to design Stormwater management practices to maintain post-development peak runoff discharge rates for the 1, 2, 10, and 100-year, 24-hour design storms, so as not to exceed those rates for each respective design storm under pre-developed conditions. Peak runoff control will be handled onsite with construction of the proposed wet basin. Table 4 illustrates the overall pre-developed, post-developed without controls, post-developed with controls and post-developed with controls and offsite drainage peak rates for the project. The offsite areas/non-project areas were modeled for sizing. The calculations were performed with HydroCAD and are located in Section 4 of this report.

Table 4 - Peak Runoff Control

Storm Event (year)	Pre-Developed (cfs)	Post-Developed w/o controls (cfs)	Post-Developed w/ controls (cfs)	Post-Developed w/ controls & Offsite (cfs)
1	16.83	20.87	3.55	3.56
2	23.01	27.85	4.76	4.78
10	47.89	55.47	9.60	10.64
100	105.80	118.13	47.83	68.66

Table 5 summarizes the routing through the wet basin. The offsite areas that drain through the site were included for these calculations to indicate the basin is capable of handling the stormwater runoff through the 100-yr, 24-hr storm event. Runoff does not overtop the spillway until at least the 10-yr, 24-hr storm event. The spillway elevation is 979.50. The top of berm elevation is 981.0. The outlet pipe invert elevation is 978.0.

Table 5 – Wet Basin Routing

Storm Frequency (Year)	Post- Developed Inflow (CFS)	Routed Through Basin			
		Discharge Primary Outlet Pipe (CFS)	Discharge Secondary Overflow (CFS)	Elevation (Feet)	Volume (CF)
1	21.82	0.32	0.00	979.10	88,173
2	29.25	0.37	0.00	979.44	116,591
10	58.95	0.43	9.16	979.82	148,904
100	126.84	0.52	63.40	980.67	226,854

Sediment Control

The site is required to reduce by 80%, the total suspended solids load based on the average annual rainfall record. The wet basin was modeled with WinSLAMM 10.4.1. The wet basin efficiency is 88.56% sediment reduction. Table 6 illustrates the efficiency of sediment reduction for the basin. See Section 5 for total suspended solids removal calculations and exhibits for the wet basin.

Table 6 – Total Suspended Solids Reduction Summary – Wet Basin

BMP	No Controls	After Stormwater Controls	% Reduction
Wet Basin	5,981 lbs.	684.1 lbs.	88.56%

Infiltration

The site is required to infiltrate 90% of the pre-developed infiltration volume based on the average annual rainfall. The site infiltrates the post-developed runoff volume at a rate equivalent to 92.30% of the pre-developed infiltration volume. The calculations were completed with WinSLAMM 10.4.1 and are located in Section 6 of this report. Infiltration performance is achieved by density of development within the project area by returning straight, row crop fields to grassed area or native greenspace. Table 6 illustrates the WinSLAMM output for infiltration.

Table 6 – Infiltration Volume

Annual Pre-developed Total Loss (in/Yr)	Post-Developed Total Loss(in/Yr)	% Annual Total Loss
26.25	24.23	92.30

Erosion Control (See Section 7)

The site meets the County's erosion control requirements with use of a stone tracking pad, perimeter silt fencing and slope and channel erosion applications per the plan. Site work is anticipated to begin in the spring of 2022 and be restored by summer of 2022. The USLE worksheets can be found in Section 7 of this report.

Thermal Control

The site is located within a thermally sensitive area, based being in the Sugar River watershed. The outlet structure including overflow weir and outlet pipe of the wet basin will be stabilized with large 6" diameter angular rip rap to ensure that runoff leaving the basin will pass over the stones to cool. Additionally, the basin is located a significant distance from any environmentally sensitive area where runoff will be conveyed through pervious areas and likely infiltrated prior to reaching any environmentally sensitive areas.

1.5 Conclusions

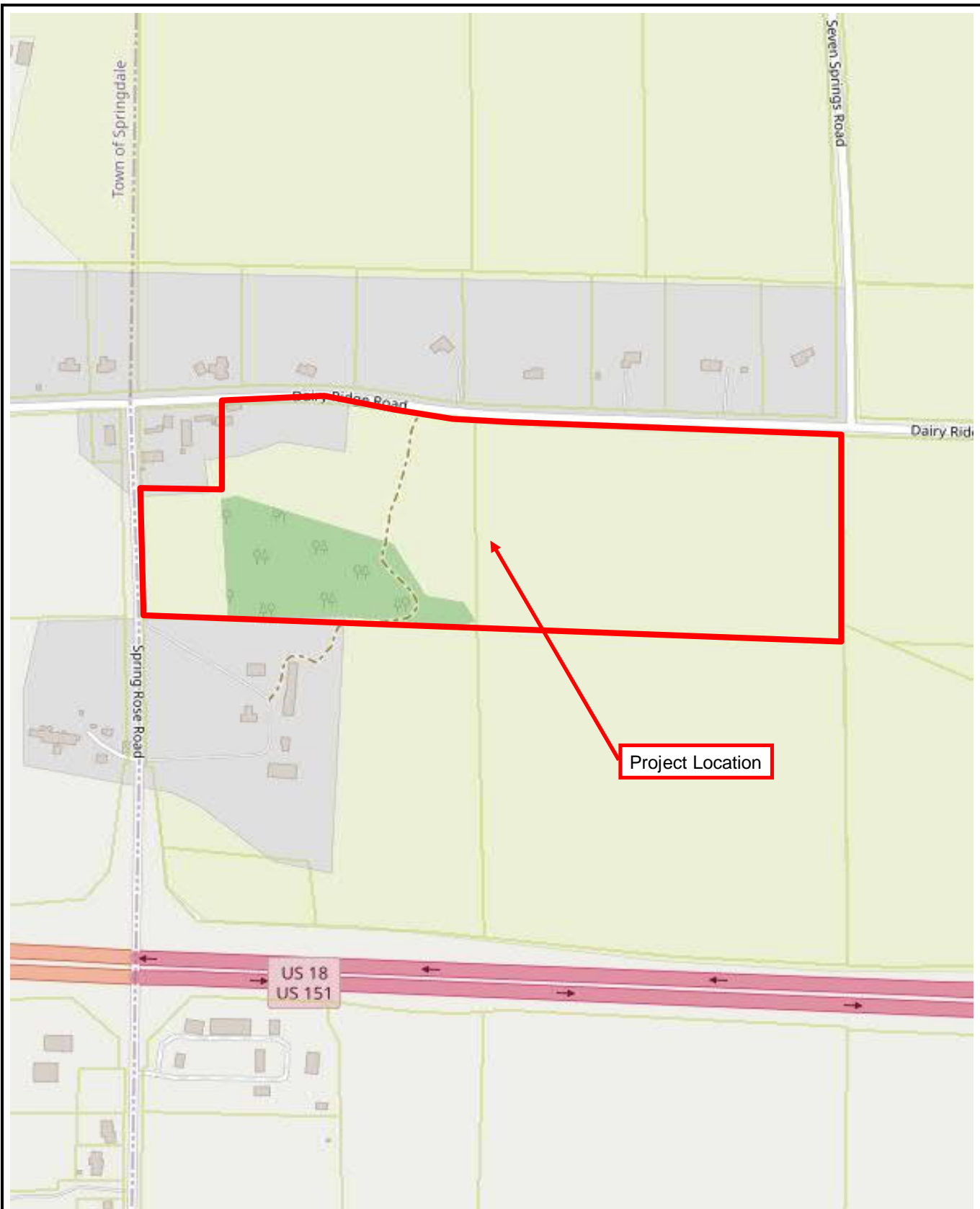
This Dairy Ridge Heights Stormwater Management Plan will meet the Town and the County's new development performance standard requirements for erosion control, peak runoff rate control, total suspended solids reduction, infiltration and thermal control with the construction of the wet basin.

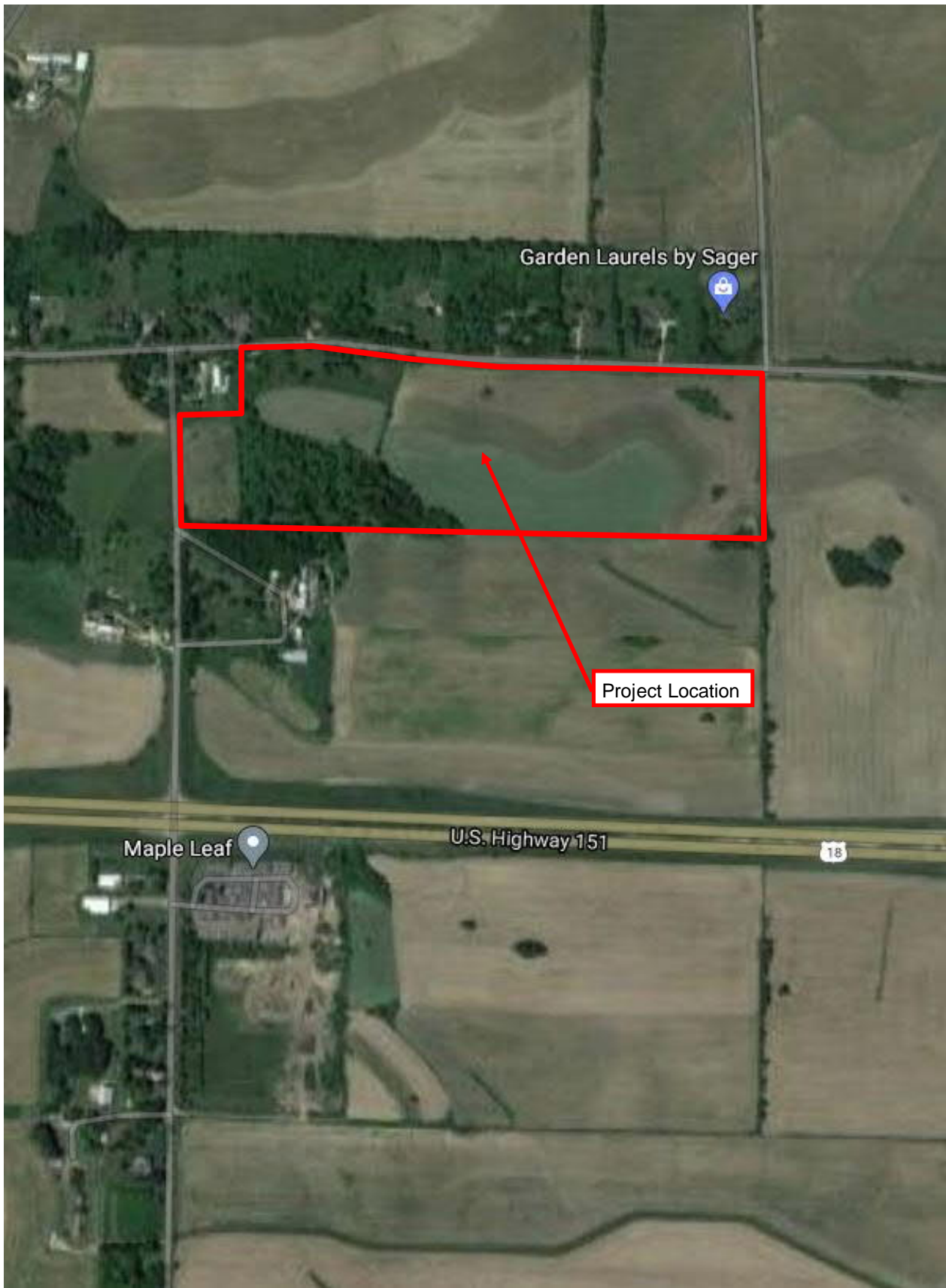
1.6 Permits

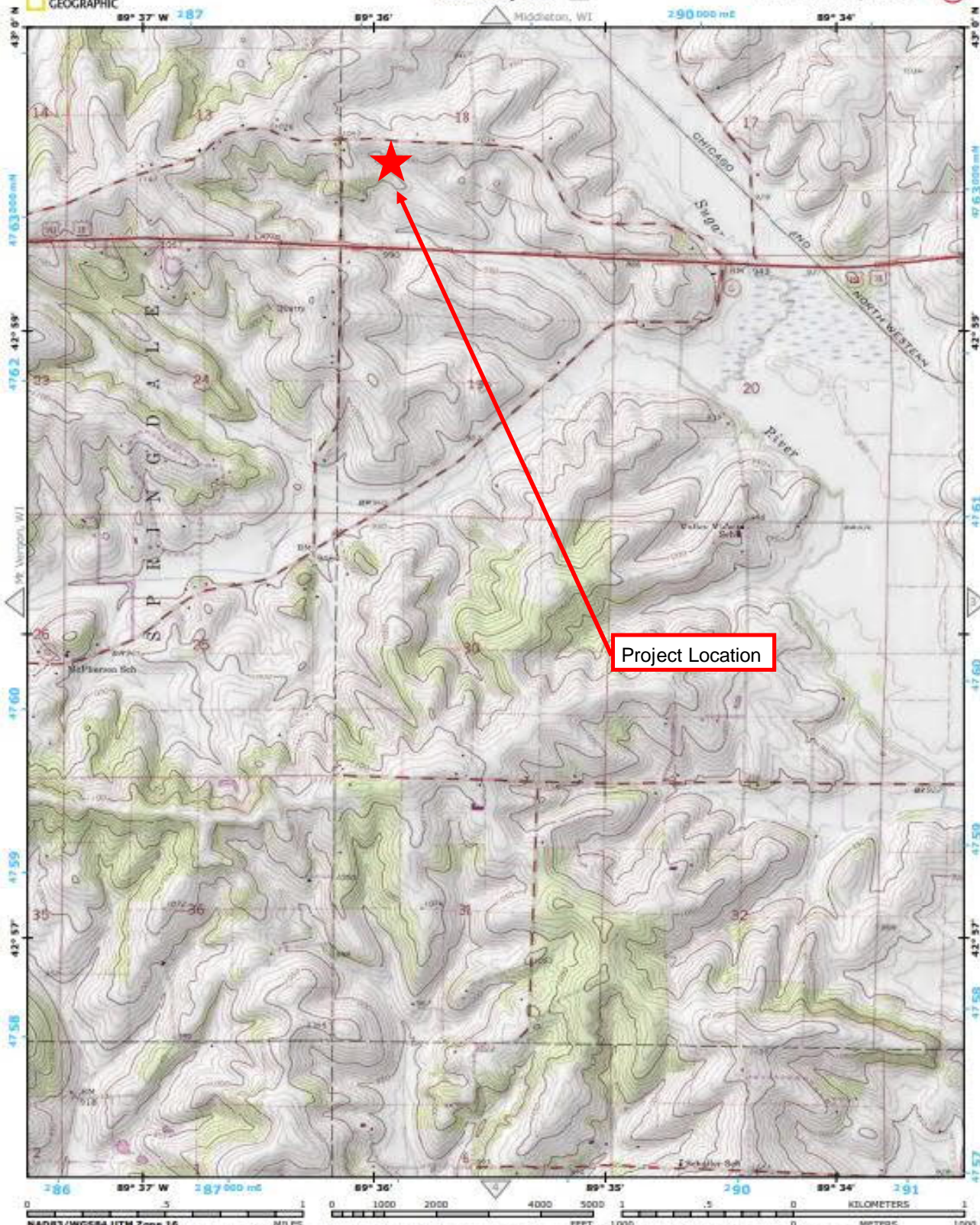
The following is a list of the anticipated development permits anticipated:

- ✓ Dane County - Erosion Control/Land Disturbing Permit Application
- ✓ Dane County - Storm Water Runoff Control Permit Application
- ✓ Wisconsin Department of Natural Resources Notice of Intent

Section 2: Maps

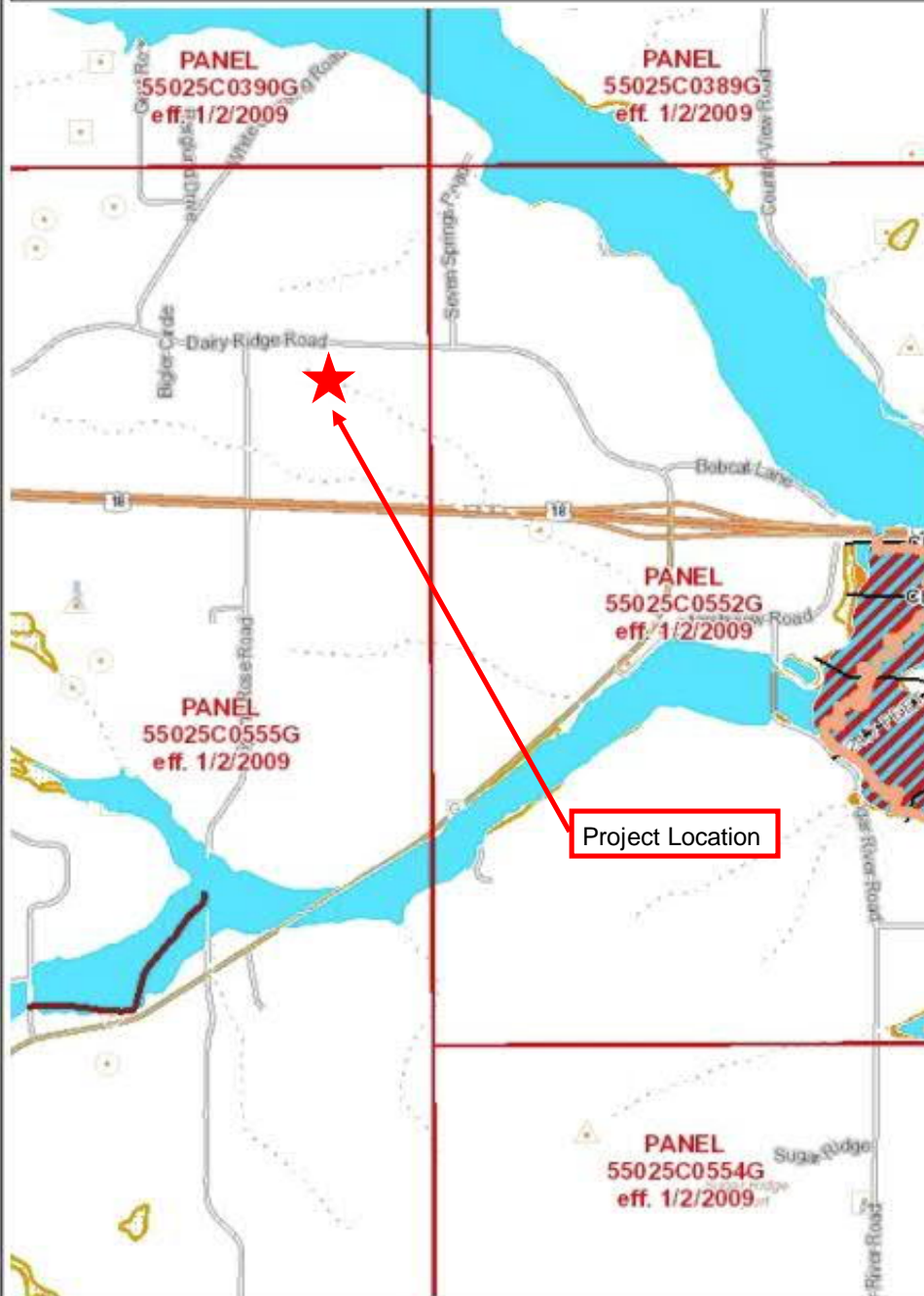








Surface Water Data Viewer Map



Legend

- Dams**
 - Dams with FERC License
 - Dams
- Record Flood Levels**
- Analysis Lines**
 - Other
 - Flood Insurance Study
 - Letter of Map Revision
 - Case By Case Analysis
 - Bridge
- Analysis Points**
 - Other
 - Flood Insurance Study
 - Letter of Map Revision
 - Case By Case Analysis
 - Bridge
- Analysis Catchments**
- Floodplain Storage**
- FERC Project Area Boundaries**
- Cross Sections**
- Floodplains**
 - Flood Fringe
 - Floodway
- Statewide Paper FIRM Index**
- FIRM Panels**
- Cross-Sections**
- Flood Hazard Boundaries**
 - Other Boundaries
 - Limit Lines
 - SFHA / Flood Zone Boundary
- Flood Hazard Zones**
 - 1% Annual Chance Flood Hazard
 - Regulatory Floodway
 - Special Floodway
 - Area of Undetermined Flood Hazard
 - 0.2% Annual Chance Flood Hazard

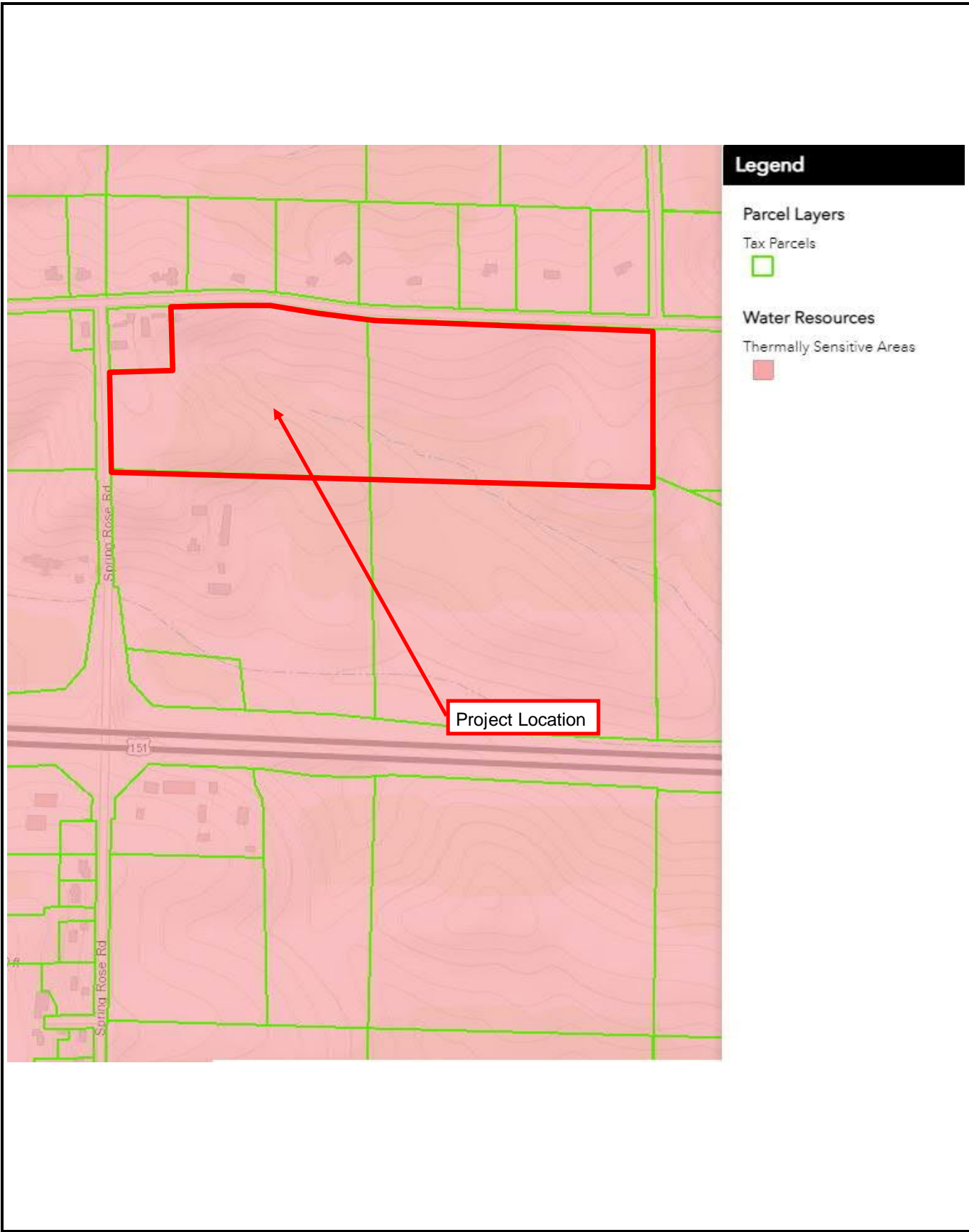
0.8 0 0.38 0.8 Miles

1: 23,760

NAD_1983_HARN_Wisconsin_TM

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal/>

Notes



Legend

Parcel Layers

Tax Parcels



Water Resources

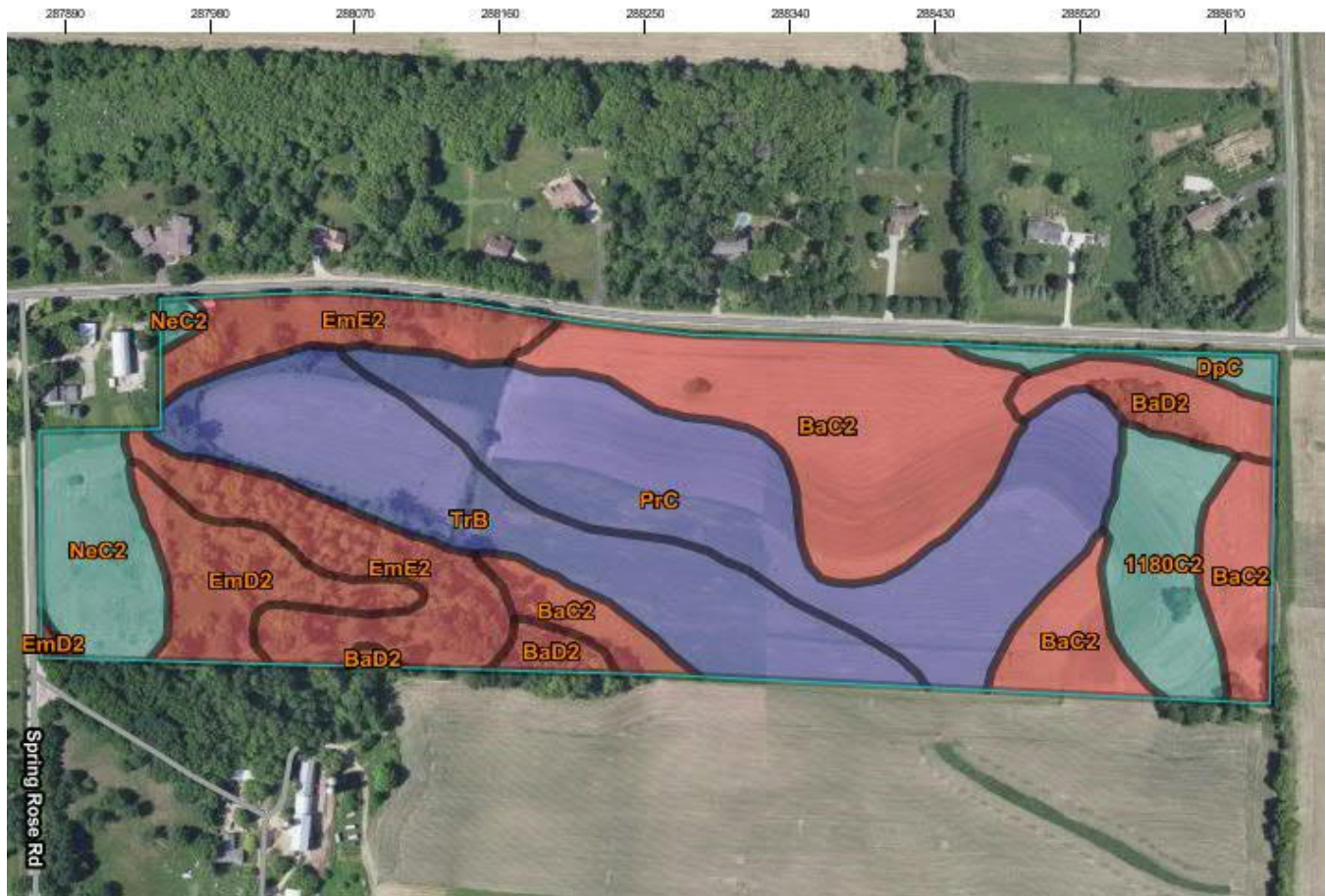
Thermally Sensitive Areas



Project Location

Section 3: Soils Information

Hydrologic Soil Group—Dane County, Wisconsin



Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
1180C2	Newglarus-Dunbarton silt loams, 6 to 12 percent slopes, moderately eroded	C	2.5	6.1%
BaC2	Basco silt loam, 6 to 12 percent slopes, eroded	D	10.0	24.1%
BaD2	Basco silt loam, 12 to 20 percent slopes, eroded	D	1.9	4.6%
DpC	Dodgeville silt loam, 8 to 12 percent slopes	C	0.6	1.5%
EmD2	Elk mound sandy loam, 12 to 20 percent slopes, eroded	D	2.3	5.6%
EmE2	Elk mound sandy loam, 20 to 30 percent slopes, eroded	D	5.6	13.4%
NeC2	Newglarus silt loam, moderately deep, 6 to 12 percent slopes, moderately eroded	C	2.6	6.2%
PrC	Port Byron silt loam, 6 to 12 percent slopes	B	9.1	21.7%
TrB	Troxel silt loam, 0 to 3 percent slopes	B	7.0	16.9%
Totals for Area of Interest			41.7	100.0%

Attach complete site plan on paper not less than 8 1/2 x 11 inches in size. Plan must include, but not limited to: vertical and horizontal reference point (BM), direction and percent 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.	0608-183-8680-4
Reviewed by	Date

Property Owner Twin Rock LLC	Property Location Govt. Lot NW 1/4 SW 1/4 S 18 T 6 N R 8 E (part)
Property Owner's Mailing Address 7935 Almor Drive	Lot # Block # Subd. Name or CSM# Dairy Ridge Heights
City State Zip Code Phone Number Verona, WI 53593 ()	<input type="checkbox"/> City <input type="checkbox"/> Village <input checked="" type="checkbox"/> Town Nearest Road Verona Dairy Ridge Road


Drainage area _____ <input type="checkbox"/> sq. ft. <input type="checkbox"/> acres Optional: Test Site Suitable for (check all that apply) <input type="checkbox"/> Irrigation <input type="checkbox"/> Bioretention trench <input type="checkbox"/> Trench(es) <input type="checkbox"/> Rain garden <input type="checkbox"/> Grassed swale <input type="checkbox"/> Reuse <input type="checkbox"/> Infiltration trench <input type="checkbox"/> SDS (> 15' wide) <input type="checkbox"/> Other _____	Hydraulic Application Test Method: <input checked="" type="checkbox"/> Morphological Evaluation <input type="checkbox"/> Double-Ring Infiltrometer <input type="checkbox"/> Other (specify) _____
--	--

TP-3000 Obs. # Boring Pit Ground surface elev. **994.15** ft. Depth to limiting factor **45** in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	0-10	10YR3/2	None	sil	2fsbk	mvfr	cs	0	0.13
B1	10-45	10YR4/4	None	sicl	2msbk	mfr	gs	0	0.04
B2	45-68	10YR4/4	c2d10YR5/8,6/2	sicl	1cpr	mfi	cs	0	0.04
R	68+	Sandstone	Bedrock						

TP-3000 Obs. # Boring Pit Ground surface elev. **1002.66** ft. Depth to limiting factor **11** in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	0-11	10YR3/2	None	sil	2fsbk	mfr	as	0	0.13
R	11+	Sandstone	Bedrock						

CST/PSS Name (Please Print) Paul A. Hardy	Signature 	CST/PSS Number 225394
Address 7226 Timberwood Drive, Madison, WI 53719	Date Evaluation Conducted 12/17/2020	Telephone Number 608-848-4869

TP-3002 Obs. # Boring Pit Ground surface elev. **999.38** ft. Depth to limiting factor **62** in.

Horizon	Depth In.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate
									Inches/Hr
A	0-11	10YR3/2	None	sil	2fsbk	mvfr	cs	0	0.13
B1	11-45	10YR4/4	None	sicl	2msbk	mfr	gs	0	0.04
IIB2	45-62	10YR4/6	None	scl	1csbk	mfi	cs	2	0.11
R	62+	Sandstone	Bedrock						

TP-3003 Obs. # Boring Pit Ground surface elev. **979.1** ft. Depth to limiting factor **45** in.

Horizon	Depth In.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate
									Inches/Hr
A	0-17	10YR2/2	None	sil	2msbk	mvfr	gs	0	0.13
B1	17-45	10YR4/4	None	sicl	2msbk	mfr	gs	0	0.04
B2	45-63	10YR4/3	m3p10YR5/8,6/2	sicl	0m	mfi	gs	0	0.04
IIB3	63-110	10YR4/3	m3p10YR5/8,6/2	scl	0m	mfi		2	0.11

TP-3004 Obs. # Boring Pit Ground surface elev. **978.16** ft. Depth to limiting factor **44** in.

Horizon	Depth In.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate
									Inches/Hr
A	0-12	10YR3/2	None	sil	2fsbk	mvfr	cs	0	0.13
B	12-44	10YR4/4	None	sicl	2msbk	mfr	as	0	0.04
R	44+	Sandstone	Bedrock						

Test Results and/or Summary Comments

TP-3005 Obs. # Boring
 Pit Ground surface elev. **975.6** ft. Depth to limiting factor **50** in.

Horizon	Depth In.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate
									Inches/Hr
A	0-27	10YR2/2	None	sil	2fsbk	mvfr	gs	0	0.13
B1	27-50	10YR4/4	None	sicl	2msbk	mfr	gs	0	0.04
B2	50-112	10YR4/3	m2p10YR5/8,6/2	sicl	0m	mfi		0	0.04

Obs. # Boring
 Pit Ground surface elev. _____ ft. Depth to limiting factor _____ in.

Horizon	Depth In.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate
									Inches/Hr

Obs. # Boring
 Pit Ground surface elev. _____ ft. Depth to limiting factor _____ in.

Horizon	Depth In.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate
									Inches/Hr

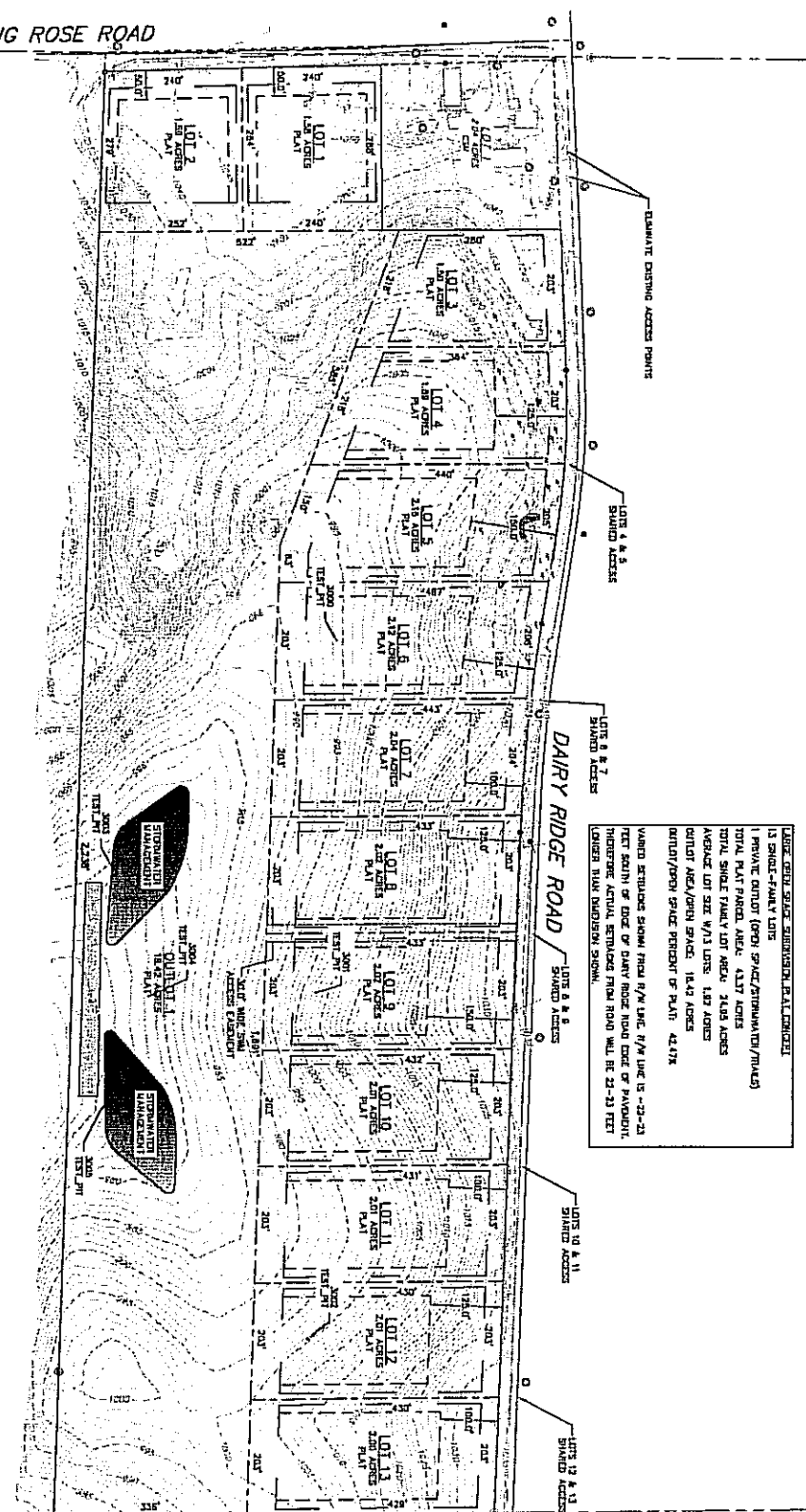
Test Results and/or Summary Comments

SPRING ROSE ROAD

- TOPOGRAPHIC LINES/WORK LEGEND**
- PROPERTY BOUNDARY
 - SECTION LINE
 - EXISTING HIGHWAY LINE
 - EXISTING RIGHT-OF-WAY
 - EXISTING EDGE OF ASPHALT
 - EXISTING CURB AND GUTTER
 - EXISTING RETAINING WALL
 - EXISTING CONCRETE FENCE
 - EXISTING CITY LINE
 - EXISTING OVERHEAD GENERAL UTILITIES
 - EXISTING STORM SEWER LINE (SEE NOTES)
 - EXISTING DRAIN BY STREET
 - EXISTING MAJOR CANTON
 - EXISTING GRAVEL/DIRT ROAD/PATH
 - EXISTING CONCRETE
 - EXISTING BUILDING

- TOPOGRAPHIC SYMBOL LEGEND**
- BENCHMARK
 - FROM 1/4" & 1/8" ROD
 - FROM 3/4" & 1/2" ROD
 - SET NAIL
 - EXISTING SURVEY CEMENT
 - EXISTING SEPTIC TANK
 - EXISTING SEPTIC VENT
 - EXISTING WELL
 - EXISTING DOWN CULY
 - EXISTING UTILITY PILE
 - EXISTING SIGN
 - EXISTING DOWNSTREAM TREE
 - EXISTING DECIDUOUS TREE

- SITE PLAN LEGEND**
- PROPERTY BOUNDARY
 - PROPOSED ZONING SETBACK LINE
 - PROPOSED HEIGHTS RESTRICTION FROM 1 & 2nd SETBACK LINE
 - OPEN SPACE



LONG GROUND SURVEYOR DATA SHEET

13 SINGLE-FAMILY LOTS

1 PRIVATE DRIVE (PROV SPACE/STORMWATER/WALLS)

TOTAL PLAT PARCEL AREA: 43.77 ACRES

TOTAL SINGLE FAMILY LOT AREA: 31.04 ACRES

AVERAGE LOT SIZE: 2.39 ACRES

LOT 1 AREA: 1.44 ACRES

LOT 2 AREA: 1.44 ACRES

LOT 3 AREA: 1.44 ACRES

LOT 4 AREA: 1.44 ACRES

LOT 5 AREA: 1.44 ACRES

LOT 6 AREA: 1.44 ACRES

LOT 7 AREA: 1.44 ACRES

LOT 8 AREA: 1.44 ACRES

LOT 9 AREA: 1.44 ACRES

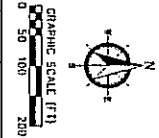
LOT 10 AREA: 1.44 ACRES

LOT 11 AREA: 1.44 ACRES

LOT 12 AREA: 1.44 ACRES

LOT 13 AREA: 1.44 ACRES

NOTES: SETBACKS SHOWN FROM R/W LINE. R/W LINE IS -2'-2'-23' FROM SOUTH OF END OF DAIRY RIDGE ROAD. DIST. OF PAVEMENT, THEREFORE ACTUAL SETBACKS FROM ROAD WILL BE 2'-2'-23' FEET UNLESS SHOWN OTHERWISE.

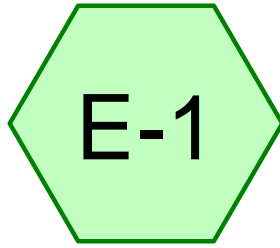


NO.	REVISION	#2-001		#2-002	
		DATE	DESCRIPTION	DATE	DESCRIPTION
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2	REVISED	11/1/2018			
3	REVISED	11/1/2018			
4	REVISED	11/1/2018			
5	REVISED	11/1/2018			
6	REVISED	11/1/2018			
7	REVISED	11/1/2018			
8	REVISED	11/1/2018			
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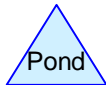
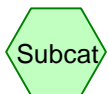
Concept Plan
 Dairy Ridge Heights
 Town of Verona
 Dane County, Wisconsin

Section 4: Peak Storm Control Calculations

4.1 Peak Flow Pre-Developed Calculations



Pre-Developed



2021-08-11 Pre-Dev DRH

Prepared by Carrico Engineering

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.070	98	Driveway, HSG C (E-1)
9.514	71	Pasture/grassland/range, Good, HSG C (E-1)
22.504	78	Row crops, straight row, Good, HSG C (E-1)
1.806	70	Woods, Good, HSG C (E-1)
33.894	76	TOTAL AREA

2021-08-11 Pre-Dev DRH

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DairyRidgeHeights_Pre-Dev
MSE 24-hr 4 1-Year Rainfall=2.49"

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Page 3

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment E-1: E-1

Runoff Area=33.894 ac 0.21% Impervious Runoff Depth=0.69"
Flow Length=1,172' Tc=30.9 min CN=76 Runoff=16.83 cfs 1.945 af

Reach Pre-Dev: Pre-Developed

Inflow=16.83 cfs 1.945 af
Outflow=16.83 cfs 1.945 af

Total Runoff Area 33.894 ac Runoff Volume 1.945 af Average Runoff Depth 0.69
99.79 Pervious 33.824 ac 0.21 Impervious 0.070 ac

2021-08-11 Pre-Dev DRH

Prepared by Carrico Engineering

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DairyRidgeHeights_Pre-Dev
MSE 24-hr 4 1-Year Rainfall=2.49"

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Summary for Subcatchment E-1: E-1

Runoff = 16.83 cfs @ 12.47 hrs, Volume= 1.945 af, Depth= 0.69"
 Routed to Reach Pre-Dev : Pre-Developed

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 MSE 24-hr 4 1-Year Rainfall=2.49"

Area (ac)	CN	Description
* 0.070	98	Driveway, HSG C
* 22.504	78	Row crops, straight row, Good, HSG C
1.806	70	Woods, Good, HSG C
* 9.514	71	Pasture/grassland/range, Good, HSG C
33.894	76	Weighted Average
33.824		99.79% Pervious Area
0.070		0.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.4	250	0.1469	0.19		Sheet Flow, Through Undeveloped Wooded Area
					Woods: Light underbrush n= 0.400 P2= 2.84"
9.5	922	0.0322	1.61		Shallow Concentrated Flow, Through Cropland
					Cultivated Straight Rows Kv= 9.0 fps
30.9	1,172	Total			

Summary for Reach Pre-Dev: Pre-Developed

Inflow Area = 33.894 ac, 0.21% Impervious, Inflow Depth = 0.69" for 1-Year event
 Inflow = 16.83 cfs @ 12.47 hrs, Volume= 1.945 af
 Outflow = 16.83 cfs @ 12.47 hrs, Volume= 1.945 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

2021-08-11 Pre-Dev DRH

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DairyRidgeHeights_Pre-Dev
MSE 24-hr 4 2-Year Rainfall=2.84"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment E-1: E-1

Runoff Area=33.894 ac 0.21% Impervious Runoff Depth=0.91"
Flow Length=1,172' Tc=30.9 min CN=76 Runoff=23.01 cfs 2.567 af

Reach Pre-Dev: Pre-Developed

Inflow=23.01 cfs 2.567 af
Outflow=23.01 cfs 2.567 af

Total Runoff Area 33.894 ac Runoff Volume 2.567 af Average Runoff Depth 0.91
99.79 Pervious 33.824 ac 0.21 Impervious 0.070 ac

2021-08-11 Pre-Dev DRH

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DairyRidgeHeights_Pre-Dev
MSE 24-hr 4 10-Year Rainfall=4.09"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment E-1: E-1

Runoff Area=33.894 ac 0.21% Impervious Runoff Depth=1.81"
Flow Length=1,172' Tc=30.9 min CN=76 Runoff=47.89 cfs 5.106 af

Reach Pre-Dev: Pre-Developed

Inflow=47.89 cfs 5.106 af
Outflow=47.89 cfs 5.106 af

Total Runoff Area 33.894 ac Runoff Volume 5.106 af Average Runoff Depth 1.81
99.79 Pervious 33.824 ac 0.21 Impervious 0.070 ac

2021-08-11 Pre-Dev DRH

Prepared by Carrico Engineering

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DairyRidgeHeights_Pre-Dev

MSE 24-hr 4 100-Year Rainfall=6.66"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment E-1: E-1

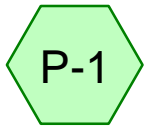
Runoff Area=33.894 ac 0.21% Impervious Runoff Depth=3.96"
Flow Length=1,172' Tc=30.9 min CN=76 Runoff=105.80 cfs 11.174 af

Reach Pre-Dev: Pre-Developed

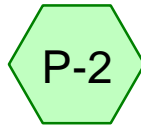
Inflow=105.80 cfs 11.174 af
Outflow=105.80 cfs 11.174 af

Total Runoff Area 33.894 ac Runoff Volume 11.174 af Average Runoff Depth 3.96
99.79 Pervious 33.824 ac 0.21 Impervious 0.070 ac

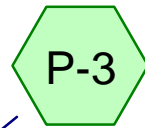
4.2 Peak Flow Post-Developed w/o Controls Calculations



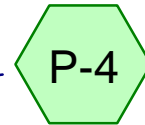
P-1



P-2



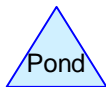
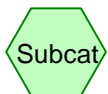
P-3



P-4



Post-Developed No Controls



Routing Diagram for 2021-08-11 Post-Dev DRH - No Controls
Prepared by Carrico Engineering, Printed 8/11/2021
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2021-08-11 Post-Dev DRH - No Controls

Prepared by Carrico Engineering

Printed 8/11/2021

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
26.730	74	>75% Grass cover, Good, HSG C (P-1, P-2, P-3, P-4)
1.043	98	Driveways, HSG C (P-1, P-2, P-3)
1.970	98	Roofs, HSG C (P-1, P-2, P-3)
0.895	98	Sidewalks, HSG C (P-1, P-2, P-3)
1.763	98	Water Surface, HSG C (P-1)
1.493	70	Woods, Good, HSG C (P-1, P-2)
33.894	78	TOTAL AREA

2021-08-11 Post-Dev DRH - No Controls

Prepared by Carrico Engineering

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DairyRidgeHeights_Post-Dev - No Controls

MSE 24-hr 4 1-Year Rainfall=2.49"

Printed 8/11/2021

Page 3

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment P-1: P-1

Runoff Area=29.135 ac 17.03% Impervious Runoff Depth=0.78"
Flow Length=1,172' Tc=26.7 min CN=78 Runoff=18.35 cfs 1.897 af

Subcatchment P-2: P-2

Runoff Area=2.272 ac 19.76% Impervious Runoff Depth=0.78"
Flow Length=300' Slope=0.0460 '/ Tc=17.9 min CN=78 Runoff=1.77 cfs 0.148 af

Subcatchment P-3: P-3

Runoff Area=1.558 ac 16.75% Impervious Runoff Depth=0.78"
Flow Length=300' Slope=0.1050 '/ Tc=12.9 min CN=78 Runoff=1.43 cfs 0.101 af

Subcatchment P-4: P-4

Runoff Area=0.929 ac 0.00% Impervious Runoff Depth=0.60"
Tc=6.0 min CN=74 Runoff=0.85 cfs 0.047 af

Reach Post-Dev: Post-Developed No Controls

Inflow=20.87 cfs 2.193 af
Outflow=20.87 cfs 2.193 af

Total Runoff Area 33.894 ac Runoff Volume 2.193 af Average Runoff Depth 0.78
83.27 Pervious 28.223 ac 16.73 Impervious 5.671 ac

2021-08-11 Post-Dev DRH - No Controls

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DairyRidgeHeights_Post-Dev - No Controls

MSE 24-hr 4 1-Year Rainfall=2.49"

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Summary for Subcatchment P-1: P-1

Runoff = 18.35 cfs @ 12.41 hrs, Volume= 1.897 af, Depth= 0.78"
Routed to Reach Post-Dev : Post-Developed No Controls

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

Area (ac)	CN	Description
1.591	98	Roofs, HSG C
* 0.884	98	Driveways, HSG C
* 0.723	98	Sidewalks, HSG C
1.763	98	Water Surface, HSG C
23.034	74	>75% Grass cover, Good, HSG C
1.140	70	Woods, Good, HSG C
29.135	78	Weighted Average
24.174		82.97% Pervious Area
4.961		17.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.4	250	0.1469	0.19		Sheet Flow, Through Undeveloped Wooded Area
					Woods: Light underbrush n= 0.400 P2= 2.84"
5.3	922	0.0322	2.89		Shallow Concentrated Flow, Through Developed Yards
					Unpaved Kv= 16.1 fps
26.7	1,172	Total			

Summary for Subcatchment P-2: P-2

Runoff = 1.77 cfs @ 12.28 hrs, Volume= 0.148 af, Depth= 0.78"
Routed to Reach Post-Dev : Post-Developed No Controls

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

Area (ac)	CN	Description
0.227	98	Roofs, HSG C
* 0.119	98	Driveways, HSG C
* 0.103	98	Sidewalks, HSG C
1.470	74	>75% Grass cover, Good, HSG C
0.353	70	Woods, Good, HSG C
2.272	78	Weighted Average
1.823		80.24% Pervious Area
0.449		19.76% Impervious Area

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.9	300	0.0460	0.28		Sheet Flow, Through Yard Grass: Short n= 0.150 P2= 2.84"

Summary for Subcatchment P-3: P-3

Runoff = 1.43 cfs @ 12.22 hrs, Volume= 0.101 af, Depth= 0.78"
Routed to Reach Post-Dev : Post-Developed No Controls

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

Area (ac)	CN	Description
0.152	98	Roofs, HSG C
* 0.040	98	Driveways, HSG C
* 0.069	98	Sidewalks, HSG C
1.297	74	>75% Grass cover, Good, HSG C
1.558	78	Weighted Average
1.297		83.25% Pervious Area
0.261		16.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9	300	0.1050	0.39		Sheet Flow, Through Yard Grass: Short n= 0.150 P2= 2.84"

Summary for Subcatchment P-4: P-4

Runoff = 0.85 cfs @ 12.14 hrs, Volume= 0.047 af, Depth= 0.60"
Routed to Reach Post-Dev : Post-Developed No Controls

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

Area (ac)	CN	Description
0.929	74	>75% Grass cover, Good, HSG C
0.929		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Prairie Grass Mix of Basin Area

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MSE 24-hr 4 1-Year Rainfall=2.49"

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Summary for Reach Post-Dev: Post-Developed No Controls

Inflow Area = 33.894 ac, 16.73% Impervious, Inflow Depth = 0.78" for 1-Year event
Inflow = 20.87 cfs @ 12.38 hrs, Volume= 2.193 af
Outflow = 20.87 cfs @ 12.38 hrs, Volume= 2.193 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

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DairyRidgeHeights_Post-Dev - No Controls

MSE 24-hr 4 2-Year Rainfall=2.84"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment P-1: P-1

Runoff Area=29.135 ac 17.03% Impervious Runoff Depth=1.02"
Flow Length=1,172' Tc=26.7 min CN=78 Runoff=24.46 cfs 2.468 af

Subcatchment P-2: P-2

Runoff Area=2.272 ac 19.76% Impervious Runoff Depth=1.02"
Flow Length=300' Slope=0.0460 '/ Tc=17.9 min CN=78 Runoff=2.36 cfs 0.192 af

Subcatchment P-3: P-3

Runoff Area=1.558 ac 16.75% Impervious Runoff Depth=1.02"
Flow Length=300' Slope=0.1050 '/ Tc=12.9 min CN=78 Runoff=1.90 cfs 0.132 af

Subcatchment P-4: P-4

Runoff Area=0.929 ac 0.00% Impervious Runoff Depth=0.81"
Tc=6.0 min CN=74 Runoff=1.18 cfs 0.063 af

Reach Post-Dev: Post-Developed No Controls

Inflow=27.85 cfs 2.855 af
Outflow=27.85 cfs 2.855 af

Total Runoff Area 33.894 ac Runoff Volume 2.855 af Average Runoff Depth 1.01
83.27 Pervious 28.223 ac 16.73 Impervious 5.671 ac

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MSE 24-hr 4 10-Year Rainfall=4.09"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment P-1: P-1

Runoff Area=29.135 ac 17.03% Impervious Runoff Depth=1.96"
Flow Length=1,172' Tc=26.7 min CN=78 Runoff=48.72 cfs 4.756 af

Subcatchment P-2: P-2

Runoff Area=2.272 ac 19.76% Impervious Runoff Depth=1.96"
Flow Length=300' Slope=0.0460 '/ Tc=17.9 min CN=78 Runoff=4.68 cfs 0.371 af

Subcatchment P-3: P-3

Runoff Area=1.558 ac 16.75% Impervious Runoff Depth=1.96"
Flow Length=300' Slope=0.1050 '/ Tc=12.9 min CN=78 Runoff=3.75 cfs 0.254 af

Subcatchment P-4: P-4

Runoff Area=0.929 ac 0.00% Impervious Runoff Depth=1.66"
Tc=6.0 min CN=74 Runoff=2.51 cfs 0.129 af

Reach Post-Dev: Post-Developed No Controls

Inflow=55.47 cfs 5.510 af
Outflow=55.47 cfs 5.510 af

Total Runoff Area 33.894 ac Runoff Volume 5.510 af Average Runoff Depth 1.95
83.27 Pervious 28.223 ac 16.73 Impervious 5.671 ac

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MSE 24-hr 4 100-Year Rainfall=6.66"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment P-1: P-1

Runoff Area=29.135 ac 17.03% Impervious Runoff Depth=4.17"
Flow Length=1,172' Tc=26.7 min CN=78 Runoff=104.18 cfs 10.119 af

Subcatchment P-2: P-2

Runoff Area=2.272 ac 19.76% Impervious Runoff Depth=4.17"
Flow Length=300' Slope=0.0460 '/ Tc=17.9 min CN=78 Runoff=9.94 cfs 0.789 af

Subcatchment P-3: P-3

Runoff Area=1.558 ac 16.75% Impervious Runoff Depth=4.17"
Flow Length=300' Slope=0.1050 '/ Tc=12.9 min CN=78 Runoff=7.94 cfs 0.541 af

Subcatchment P-4: P-4

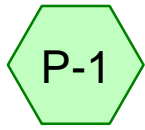
Runoff Area=0.929 ac 0.00% Impervious Runoff Depth=3.75"
Tc=6.0 min CN=74 Runoff=5.62 cfs 0.290 af

Reach Post-Dev: Post-Developed No Controls

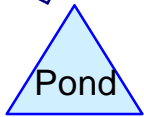
Inflow=118.13 cfs 11.739 af
Outflow=118.13 cfs 11.739 af

Total Runoff Area 33.894 ac Runoff Volume 11.739 af Average Runoff Depth 4.16
83.27 Pervious 28.223 ac 16.73 Impervious 5.671 ac

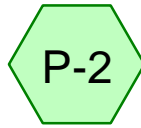
4.3 Peak Flow Post-Developed with Controls Calculations



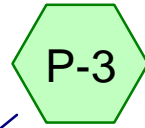
P-1



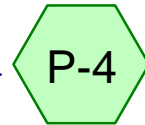
Detention Pond



P-2



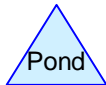
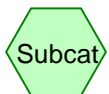
P-3



P-4



Post-Developed
W/Controls



Routing Diagram for 2021-08-11 Post-Dev DRH
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
26.730	74	>75% Grass cover, Good, HSG C (P-1, P-2, P-3, P-4)
1.043	98	Driveways, HSG C (P-1, P-2, P-3)
1.970	98	Roofs, HSG C (P-1, P-2, P-3)
0.895	98	Sidewalks, HSG C (P-1, P-2, P-3)
1.763	98	Water Surface, HSG C (P-1)
1.493	70	Woods, Good, HSG C (P-1, P-2)
33.894	78	TOTAL AREA

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MSE 24-hr 4 1-Year Rainfall=2.49"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment P-1: P-1

Runoff Area=29.135 ac 17.03% Impervious Runoff Depth=0.78"
Flow Length=1,172' Tc=26.7 min CN=78 Runoff=18.35 cfs 1.897 af

Subcatchment P-2: P-2

Runoff Area=2.272 ac 19.76% Impervious Runoff Depth=0.78"
Flow Length=300' Slope=0.0460 '/ Tc=17.9 min CN=78 Runoff=1.77 cfs 0.148 af

Subcatchment P-3: P-3

Runoff Area=1.558 ac 16.75% Impervious Runoff Depth=0.78"
Flow Length=300' Slope=0.1050 '/ Tc=12.9 min CN=78 Runoff=1.43 cfs 0.101 af

Subcatchment P-4: P-4

Runoff Area=0.929 ac 0.00% Impervious Runoff Depth=0.60"
Tc=6.0 min CN=74 Runoff=0.85 cfs 0.047 af

Reach Post-Dev: Post-Developed W/Controls

Inflow=3.55 cfs 0.685 af
Outflow=3.55 cfs 0.685 af

Pond Pond: Detention Pond

Peak Elev=978.90' Storage=71,466 cf Inflow=18.35 cfs 1.897 af
Primary=0.28 cfs 0.389 af Secondary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.389 af

Total Runoff Area 33.894 ac Runoff Volume 2.193 af Average Runoff Depth 0.78
83.27 Pervious 28.223 ac 16.73 Impervious 5.671 ac

2021-08-11 Post-Dev DRH

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MSE 24-hr 4 1-Year Rainfall=2.49"

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Summary for Subcatchment P-1: P-1

Runoff = 18.35 cfs @ 12.41 hrs, Volume= 1.897 af, Depth= 0.78"
 Routed to Pond Pond : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 MSE 24-hr 4 1-Year Rainfall=2.49"

Area (ac)	CN	Description
1.591	98	Roofs, HSG C
* 0.884	98	Driveways, HSG C
* 0.723	98	Sidewalks, HSG C
1.763	98	Water Surface, HSG C
23.034	74	>75% Grass cover, Good, HSG C
1.140	70	Woods, Good, HSG C
29.135	78	Weighted Average
24.174		82.97% Pervious Area
4.961		17.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.4	250	0.1469	0.19		Sheet Flow, Through Undeveloped Wooded Area
					Woods: Light underbrush n= 0.400 P2= 2.84"
5.3	922	0.0322	2.89		Shallow Concentrated Flow, Through Developed Yards
					Unpaved Kv= 16.1 fps
26.7	1,172	Total			

Summary for Subcatchment P-2: P-2

Runoff = 1.77 cfs @ 12.28 hrs, Volume= 0.148 af, Depth= 0.78"
 Routed to Reach Post-Dev : Post-Developed W/Controls

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 MSE 24-hr 4 1-Year Rainfall=2.49"

Area (ac)	CN	Description
0.227	98	Roofs, HSG C
* 0.119	98	Driveways, HSG C
* 0.103	98	Sidewalks, HSG C
1.470	74	>75% Grass cover, Good, HSG C
0.353	70	Woods, Good, HSG C
2.272	78	Weighted Average
1.823		80.24% Pervious Area
0.449		19.76% Impervious Area

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MSE 24-hr 4 1-Year Rainfall=2.49"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.9	300	0.0460	0.28		Sheet Flow, Through Yard Grass: Short n= 0.150 P2= 2.84"

Summary for Subcatchment P-3: P-3

Runoff = 1.43 cfs @ 12.22 hrs, Volume= 0.101 af, Depth= 0.78"
Routed to Reach Post-Dev : Post-Developed W/Controls

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

Area (ac)	CN	Description
0.152	98	Roofs, HSG C
* 0.040	98	Driveways, HSG C
* 0.069	98	Sidewalks, HSG C
1.297	74	>75% Grass cover, Good, HSG C
1.558	78	Weighted Average
1.297		83.25% Pervious Area
0.261		16.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9	300	0.1050	0.39		Sheet Flow, Through Yard Grass: Short n= 0.150 P2= 2.84"

Summary for Subcatchment P-4: P-4

Runoff = 0.85 cfs @ 12.14 hrs, Volume= 0.047 af, Depth= 0.60"
Routed to Reach Post-Dev : Post-Developed W/Controls

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

Area (ac)	CN	Description
0.929	74	>75% Grass cover, Good, HSG C
0.929		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Prairie Grass Mix of Basin Area

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MSE 24-hr 4 1-Year Rainfall=2.49"

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Summary for Reach Post-Dev: Post-Developed W/Controls

Inflow Area = 33.894 ac, 16.73% Impervious, Inflow Depth > 0.24" for 1-Year event
 Inflow = 3.55 cfs @ 12.23 hrs, Volume= 0.685 af
 Outflow = 3.55 cfs @ 12.23 hrs, Volume= 0.685 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Summary for Pond Pond: Detention Pond

Inflow Area = 29.135 ac, 17.03% Impervious, Inflow Depth = 0.78" for 1-Year event
 Inflow = 18.35 cfs @ 12.41 hrs, Volume= 1.897 af
 Outflow = 0.28 cfs @ 23.39 hrs, Volume= 0.389 af, Atten= 98%, Lag= 659.0 min
 Primary = 0.28 cfs @ 23.39 hrs, Volume= 0.389 af
 Routed to Reach Post-Dev : Post-Developed W/Controls
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach Post-Dev : Post-Developed W/Controls

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 978.90' @ 23.39 hrs Surf.Area= 81,856 sf Storage= 71,466 cf

Plug-Flow detention time= 555.9 min calculated for 0.389 af (20% of inflow)
 Center-of-Mass det. time= 426.5 min (1,290.4 - 863.9)

Volume	Invert	Avail.Storage	Storage Description
#1	978.00'	2,287,709 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
978.00	76,783	0	0
979.00	82,413	79,598	79,598
980.00	88,143	85,278	164,876
981.00	101,403	94,773	259,649
1,001.00	101,403	2,028,060	2,287,709

Device	Routing	Invert	Outlet Devices
#1	Primary	978.00'	4.0 Round 4 PVC Culvert L= 36.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 978.00' / 977.50' S= 0.0139 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.09 sf
#2	Secondary	979.50'	19.0 long x 22.0 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=0.28 cfs @ 23.39 hrs HW=978.90' TW=0.00' (Dynamic Tailwater)
 ↑1 **4 PVC Culvert** (Inlet Controls 0.28 cfs @ 3.26 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=978.00' TW=0.00' (Dynamic Tailwater)
 ↑2 **Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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MSE 24-hr 4 2-Year Rainfall=2.84"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment P-1: P-1 Runoff Area=29.135 ac 17.03% Impervious Runoff Depth=1.02"
Flow Length=1,172' Tc=26.7 min CN=78 Runoff=24.46 cfs 2.468 af

Subcatchment P-2: P-2 Runoff Area=2.272 ac 19.76% Impervious Runoff Depth=1.02"
Flow Length=300' Slope=0.0460 '/ Tc=17.9 min CN=78 Runoff=2.36 cfs 0.192 af

Subcatchment P-3: P-3 Runoff Area=1.558 ac 16.75% Impervious Runoff Depth=1.02"
Flow Length=300' Slope=0.1050 '/ Tc=12.9 min CN=78 Runoff=1.90 cfs 0.132 af

Subcatchment P-4: P-4 Runoff Area=0.929 ac 0.00% Impervious Runoff Depth=0.81"
Tc=6.0 min CN=74 Runoff=1.18 cfs 0.063 af

Reach Post-Dev: Post-Developed W/Controls Inflow=4.76 cfs 0.847 af
Outflow=4.76 cfs 0.847 af

Pond Pond: Detention Pond Peak Elev=979.18' Storage=94,195 cf Inflow=24.46 cfs 2.468 af
Primary=0.33 cfs 0.460 af Secondary=0.00 cfs 0.000 af Outflow=0.33 cfs 0.460 af

Total Runoff Area 33.894 ac Runoff Volume 2.855 af Average Runoff Depth 1.01
83.27 Pervious 28.223 ac 16.73 Impervious 5.671 ac

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MSE 24-hr 4 10-Year Rainfall=4.09"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment P-1: P-1

Runoff Area=29.135 ac 17.03% Impervious Runoff Depth=1.96"
Flow Length=1,172' Tc=26.7 min CN=78 Runoff=48.72 cfs 4.756 af

Subcatchment P-2: P-2

Runoff Area=2.272 ac 19.76% Impervious Runoff Depth=1.96"
Flow Length=300' Slope=0.0460 '/ Tc=17.9 min CN=78 Runoff=4.68 cfs 0.371 af

Subcatchment P-3: P-3

Runoff Area=1.558 ac 16.75% Impervious Runoff Depth=1.96"
Flow Length=300' Slope=0.1050 '/ Tc=12.9 min CN=78 Runoff=3.75 cfs 0.254 af

Subcatchment P-4: P-4

Runoff Area=0.929 ac 0.00% Impervious Runoff Depth=1.66"
Tc=6.0 min CN=74 Runoff=2.51 cfs 0.129 af

Reach Post-Dev: Post-Developed W/Controls

Inflow=9.60 cfs 2.847 af
Outflow=9.60 cfs 2.847 af

Pond Pond: Detention Pond

Peak Elev=979.68' Storage=137,137 cf Inflow=48.72 cfs 4.756 af
Primary=0.41 cfs 0.571 af Secondary=3.95 cfs 1.522 af Outflow=4.36 cfs 2.093 af

Total Runoff Area 33.894 ac Runoff Volume 5.510 af Average Runoff Depth 1.95
83.27 Pervious 28.223 ac 16.73 Impervious 5.671 ac

2021-08-11 Post-Dev DRH

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DairyRidgeHeights_Post-Dev

MSE 24-hr 4 100-Year Rainfall=6.66"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment P-1: P-1

Runoff Area=29.135 ac 17.03% Impervious Runoff Depth=4.17"
Flow Length=1,172' Tc=26.7 min CN=78 Runoff=104.18 cfs 10.119 af

Subcatchment P-2: P-2

Runoff Area=2.272 ac 19.76% Impervious Runoff Depth=4.17"
Flow Length=300' Slope=0.0460 '/ Tc=17.9 min CN=78 Runoff=9.94 cfs 0.789 af

Subcatchment P-3: P-3

Runoff Area=1.558 ac 16.75% Impervious Runoff Depth=4.17"
Flow Length=300' Slope=0.1050 '/ Tc=12.9 min CN=78 Runoff=7.94 cfs 0.541 af

Subcatchment P-4: P-4

Runoff Area=0.929 ac 0.00% Impervious Runoff Depth=3.75"
Tc=6.0 min CN=74 Runoff=5.62 cfs 0.290 af

Reach Post-Dev: Post-Developed W/Controls

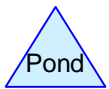
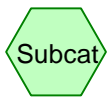
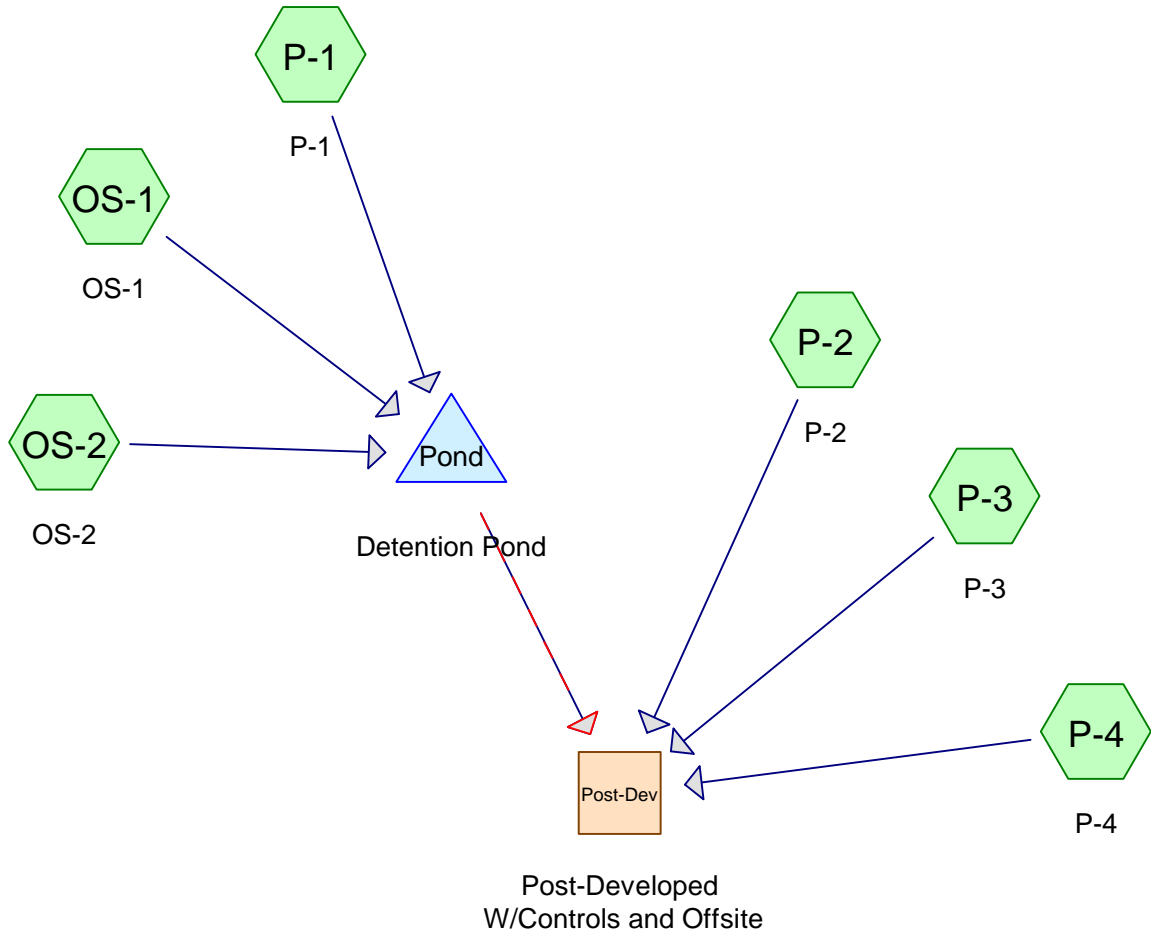
Inflow=47.83 cfs 9.053 af
Outflow=47.83 cfs 9.053 af

Pond Pond: Detention Pond

Peak Elev=980.41' Storage=201,886 cf Inflow=104.18 cfs 10.119 af
Primary=0.50 cfs 0.610 af Secondary=43.27 cfs 6.822 af Outflow=43.77 cfs 7.432 af

Total Runoff Area 33.894 ac Runoff Volume 11.739 af Average Runoff Depth 4.16
83.27 Pervious 28.223 ac 16.73 Impervious 5.671 ac

4.4 Peak Flow Post-Developed with Controls Calculations (Offsite Drainage Included)



Routing Diagram for 2021-08-11 Post-Dev DRH - With Offsite
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
30.240	74	>75% Grass cover, Good, HSG C (OS-1, OS-2, P-1, P-2, P-3, P-4)
1.152	98	Driveways, HSG C (OS-1, P-1, P-2, P-3)
0.663	92	Paved roads w/open ditches, 50% imp, HSG C (OS-1)
2.134	98	Roofs, HSG C (OS-1, P-1, P-2, P-3)
0.915	98	Sidewalks, HSG C (OS-1, P-1, P-2, P-3)
1.763	98	Water Surface, HSG C (P-1)
4.620	70	Woods, Good, HSG C (OS-2, P-1, P-2)
41.487	77	TOTAL AREA

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DairyRidgeHeights_Post-Dev W/Offsite

MSE 24-hr 4 1-Year Rainfall=2.49"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment OS-1: OS-1 Runoff Area=3.875 ac 16.12% Impervious Runoff Depth=0.83"
Flow Length=1,222' Tc=17.7 min CN=79 Runoff=3.27 cfs 0.268 af

Subcatchment OS-2: OS-2 Runoff Area=3.718 ac 0.00% Impervious Runoff Depth=0.49"
Flow Length=1,179' Tc=34.5 min CN=71 Runoff=1.09 cfs 0.151 af

Subcatchment P-1: P-1 Runoff Area=29.135 ac 17.03% Impervious Runoff Depth=0.78"
Flow Length=1,172' Tc=26.7 min CN=78 Runoff=18.35 cfs 1.897 af

Subcatchment P-2: P-2 Runoff Area=2.272 ac 19.76% Impervious Runoff Depth=0.78"
Flow Length=300' Slope=0.0460 1' Tc=17.9 min CN=78 Runoff=1.77 cfs 0.148 af

Subcatchment P-3: P-3 Runoff Area=1.558 ac 16.75% Impervious Runoff Depth=0.78"
Flow Length=300' Slope=0.1050 1' Tc=12.9 min CN=78 Runoff=1.43 cfs 0.101 af

Subcatchment P-4: P-4 Runoff Area=0.929 ac 0.00% Impervious Runoff Depth=0.60"
Tc=6.0 min CN=74 Runoff=0.85 cfs 0.047 af

Reach Post-Dev: Post-Developed W/Controls and Offsite Inflow=3.56 cfs 0.736 af
Outflow=3.56 cfs 0.736 af

Pond Pond: Detention Pond Peak Elev=979.10' Storage=88,173 cf Inflow=21.82 cfs 2.316 af
Primary=0.32 cfs 0.440 af Secondary=0.00 cfs 0.000 af Outflow=0.32 cfs 0.440 af

Total Runoff Area 41.487 ac Runoff Volume 2.612 af Average Runoff Depth 0.76
84.83 Pervious 35.191 ac 15.17 Impervious 6.295 ac

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Summary for Subcatchment OS-1: OS-1

Runoff = 3.27 cfs @ 12.29 hrs, Volume= 0.268 af, Depth= 0.83"
 Routed to Pond Pond : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 MSE 24-hr 4 1-Year Rainfall=2.49"

Area (ac)	CN	Description
0.164	98	Roofs, HSG C
* 0.109	98	Driveways, HSG C
* 0.020	98	Sidewalks, HSG C
0.663	92	Paved roads w/open ditches, 50% imp, HSG C
2.919	74	>75% Grass cover, Good, HSG C
3.875	79	Weighted Average
3.250		83.88% Pervious Area
0.625		16.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	300	0.1167	0.40		Sheet Flow, Through Undeveloped Wooded Area Grass: Short n= 0.150 P2= 2.84"
5.3	922	0.0322	2.89		Shallow Concentrated Flow, Through Developed Yards Unpaved Kv= 16.1 fps
17.7	1,222	Total			

Summary for Subcatchment OS-2: OS-2

Runoff = 1.09 cfs @ 12.57 hrs, Volume= 0.151 af, Depth= 0.49"
 Routed to Pond Pond : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 MSE 24-hr 4 1-Year Rainfall=2.49"

Area (ac)	CN	Description
3.127	70	Woods, Good, HSG C
0.591	74	>75% Grass cover, Good, HSG C
3.718	71	Weighted Average
3.718		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	258	0.1292	0.19		Sheet Flow, Through Undeveloped Wooded Area Woods: Light underbrush n= 0.400 P2= 2.84"
11.4	921	0.0369	1.34		Shallow Concentrated Flow, Through Prairie Short Grass Pasture Kv= 7.0 fps
34.5	1,179	Total			

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DairyRidgeHeights_Post-Dev W/Offsite

MSE 24-hr 4 1-Year Rainfall=2.49"

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Summary for Subcatchment P-1: P-1

Runoff = 18.35 cfs @ 12.41 hrs, Volume= 1.897 af, Depth= 0.78"
 Routed to Pond Pond : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 MSE 24-hr 4 1-Year Rainfall=2.49"

Area (ac)	CN	Description
1.591	98	Roofs, HSG C
* 0.884	98	Driveways, HSG C
* 0.723	98	Sidewalks, HSG C
1.763	98	Water Surface, HSG C
23.034	74	>75% Grass cover, Good, HSG C
1.140	70	Woods, Good, HSG C
29.135	78	Weighted Average
24.174		82.97% Pervious Area
4.961		17.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.4	250	0.1469	0.19		Sheet Flow, Through Undeveloped Wooded Area
					Woods: Light underbrush n= 0.400 P2= 2.84"
5.3	922	0.0322	2.89		Shallow Concentrated Flow, Through Developed Yards
					Unpaved Kv= 16.1 fps
26.7	1,172	Total			

Summary for Subcatchment P-2: P-2

Runoff = 1.77 cfs @ 12.28 hrs, Volume= 0.148 af, Depth= 0.78"
 Routed to Reach Post-Dev : Post-Developed W/Controls and Offsite

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 MSE 24-hr 4 1-Year Rainfall=2.49"

Area (ac)	CN	Description
0.227	98	Roofs, HSG C
* 0.119	98	Driveways, HSG C
* 0.103	98	Sidewalks, HSG C
1.470	74	>75% Grass cover, Good, HSG C
0.353	70	Woods, Good, HSG C
2.272	78	Weighted Average
1.823		80.24% Pervious Area
0.449		19.76% Impervious Area

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.9	300	0.0460	0.28		Sheet Flow, Through Yard Grass: Short n= 0.150 P2= 2.84"

Summary for Subcatchment P-3: P-3

Runoff = 1.43 cfs @ 12.22 hrs, Volume= 0.101 af, Depth= 0.78"
Routed to Reach Post-Dev : Post-Developed W/Controls and Offsite

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

Area (ac)	CN	Description
0.152	98	Roofs, HSG C
* 0.040	98	Driveways, HSG C
* 0.069	98	Sidewalks, HSG C
1.297	74	>75% Grass cover, Good, HSG C
1.558	78	Weighted Average
1.297		83.25% Pervious Area
0.261		16.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9	300	0.1050	0.39		Sheet Flow, Through Yard Grass: Short n= 0.150 P2= 2.84"

Summary for Subcatchment P-4: P-4

Runoff = 0.85 cfs @ 12.14 hrs, Volume= 0.047 af, Depth= 0.60"
Routed to Reach Post-Dev : Post-Developed W/Controls and Offsite

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 1-Year Rainfall=2.49"

Area (ac)	CN	Description
0.929	74	>75% Grass cover, Good, HSG C
0.929		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Prairie Grass Mix of Basin Area

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DairyRidgeHeights_Post-Dev W/Offsite
MSE 24-hr 4 1-Year Rainfall=2.49"
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Summary for Reach Post-Dev: Post-Developed W/Controls and Offsite

Inflow Area = 41.487 ac, 15.17% Impervious, Inflow Depth > 0.21" for 1-Year event
Inflow = 3.56 cfs @ 12.23 hrs, Volume= 0.736 af
Outflow = 3.56 cfs @ 12.23 hrs, Volume= 0.736 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Summary for Pond Pond: Detention Pond

Inflow Area = 36.728 ac, 15.21% Impervious, Inflow Depth = 0.76" for 1-Year event
Inflow = 21.82 cfs @ 12.39 hrs, Volume= 2.316 af
Outflow = 0.32 cfs @ 23.63 hrs, Volume= 0.440 af, Atten= 99%, Lag= 674.3 min
Primary = 0.32 cfs @ 23.63 hrs, Volume= 0.440 af
Routed to Reach Post-Dev : Post-Developed W/Controls and Offsite
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach Post-Dev : Post-Developed W/Controls and Offsite

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 979.10' @ 23.63 hrs Surf.Area= 83,007 sf Storage= 88,173 cf

Plug-Flow detention time= 557.2 min calculated for 0.440 af (19% of inflow)
Center-of-Mass det. time= 425.5 min (1,290.1 - 864.7)

Volume	Invert	Avail.Storage	Storage Description
#1	978.00'	2,287,709 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
978.00	76,783	0	0
979.00	82,413	79,598	79,598
980.00	88,143	85,278	164,876
981.00	101,403	94,773	259,649
1,001.00	101,403	2,028,060	2,287,709

Device	Routing	Invert	Outlet Devices
#1	Primary	978.00'	4.0 Round 4 PVC Culvert L= 36.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 978.00' / 977.50' S= 0.0139 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.09 sf
#2	Secondary	979.50'	19.0 long x 22.0 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=0.32 cfs @ 23.63 hrs HW=979.10' TW=0.00' (Dynamic Tailwater)
↑-1 **4 PVC Culvert** (Inlet Controls 0.32 cfs @ 3.68 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=978.00' TW=0.00' (Dynamic Tailwater)
↑-2 **Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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MSE 24-hr 4 2-Year Rainfall=2.84"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment OS-1: OS-1 Runoff Area=3.875 ac 16.12% Impervious Runoff Depth=1.07"
Flow Length=1,222' Tc=17.7 min CN=79 Runoff=4.30 cfs 0.346 af

Subcatchment OS-2: OS-2 Runoff Area=3.718 ac 0.00% Impervious Runoff Depth=0.67"
Flow Length=1,179' Tc=34.5 min CN=71 Runoff=1.61 cfs 0.208 af

Subcatchment P-1: P-1 Runoff Area=29.135 ac 17.03% Impervious Runoff Depth=1.02"
Flow Length=1,172' Tc=26.7 min CN=78 Runoff=24.46 cfs 2.468 af

Subcatchment P-2: P-2 Runoff Area=2.272 ac 19.76% Impervious Runoff Depth=1.02"
Flow Length=300' Slope=0.0460 '/ Tc=17.9 min CN=78 Runoff=2.36 cfs 0.192 af

Subcatchment P-3: P-3 Runoff Area=1.558 ac 16.75% Impervious Runoff Depth=1.02"
Flow Length=300' Slope=0.1050 '/ Tc=12.9 min CN=78 Runoff=1.90 cfs 0.132 af

Subcatchment P-4: P-4 Runoff Area=0.929 ac 0.00% Impervious Runoff Depth=0.81"
Tc=6.0 min CN=74 Runoff=1.18 cfs 0.063 af

Reach Post-Dev: Post-Developed W/Controls and Offsite Inflow=4.78 cfs 0.905 af
Outflow=4.78 cfs 0.905 af

Pond Pond: Detention Pond Peak Elev=979.44' Storage=116,591 cf Inflow=29.25 cfs 3.022 af
Primary=0.37 cfs 0.518 af Secondary=0.00 cfs 0.000 af Outflow=0.37 cfs 0.518 af

Total Runoff Area 41.487 ac Runoff Volume 3.409 af Average Runoff Depth 0.99
84.83 Pervious 35.191 ac 15.17 Impervious 6.295 ac

2021-08-11 Post-Dev DRH - With Offsite

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DairyRidgeHeights_Post-Dev W/Offsite

MSE 24-hr 4 10-Year Rainfall=4.09"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment OS-1: OS-1 Runoff Area=3.875 ac 16.12% Impervious Runoff Depth=2.04"
Flow Length=1,222' Tc=17.7 min CN=79 Runoff=8.35 cfs 0.658 af

Subcatchment OS-2: OS-2 Runoff Area=3.718 ac 0.00% Impervious Runoff Depth=1.46"
Flow Length=1,179' Tc=34.5 min CN=71 Runoff=3.86 cfs 0.451 af

Subcatchment P-1: P-1 Runoff Area=29.135 ac 17.03% Impervious Runoff Depth=1.96"
Flow Length=1,172' Tc=26.7 min CN=78 Runoff=48.72 cfs 4.756 af

Subcatchment P-2: P-2 Runoff Area=2.272 ac 19.76% Impervious Runoff Depth=1.96"
Flow Length=300' Slope=0.0460 1' Tc=17.9 min CN=78 Runoff=4.68 cfs 0.371 af

Subcatchment P-3: P-3 Runoff Area=1.558 ac 16.75% Impervious Runoff Depth=1.96"
Flow Length=300' Slope=0.1050 1' Tc=12.9 min CN=78 Runoff=3.75 cfs 0.254 af

Subcatchment P-4: P-4 Runoff Area=0.929 ac 0.00% Impervious Runoff Depth=1.66"
Tc=6.0 min CN=74 Runoff=2.51 cfs 0.129 af

Reach Post-Dev: Post-Developed W/Controls and Offsite Inflow=10.64 cfs 3.947 af
Outflow=10.64 cfs 3.947 af

Pond Pond: Detention Pond Peak Elev=979.82' Storage=148,904 cf Inflow=58.95 cfs 5.865 af
Primary=0.43 cfs 0.580 af Secondary=9.16 cfs 2.613 af Outflow=9.59 cfs 3.193 af

Total Runoff Area 41.487 ac Runoff Volume 6.619 af Average Runoff Depth 1.91
84.83 Pervious 35.191 ac 15.17 Impervious 6.295 ac

2021-08-11 Post-Dev DRH - With Offsite

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MSE 24-hr 4 100-Year Rainfall=6.66"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment OS-1: OS-1 Runoff Area=3.875 ac 16.12% Impervious Runoff Depth=4.27"
Flow Length=1,222' Tc=17.7 min CN=79 Runoff=17.43 cfs 1.380 af

Subcatchment OS-2: OS-2 Runoff Area=3.718 ac 0.00% Impervious Runoff Depth=3.44"
Flow Length=1,179' Tc=34.5 min CN=71 Runoff=9.47 cfs 1.066 af

Subcatchment P-1: P-1 Runoff Area=29.135 ac 17.03% Impervious Runoff Depth=4.17"
Flow Length=1,172' Tc=26.7 min CN=78 Runoff=104.18 cfs 10.119 af

Subcatchment P-2: P-2 Runoff Area=2.272 ac 19.76% Impervious Runoff Depth=4.17"
Flow Length=300' Slope=0.0460 '/ Tc=17.9 min CN=78 Runoff=9.94 cfs 0.789 af

Subcatchment P-3: P-3 Runoff Area=1.558 ac 16.75% Impervious Runoff Depth=4.17"
Flow Length=300' Slope=0.1050 '/ Tc=12.9 min CN=78 Runoff=7.94 cfs 0.541 af

Subcatchment P-4: P-4 Runoff Area=0.929 ac 0.00% Impervious Runoff Depth=3.75"
Tc=6.0 min CN=74 Runoff=5.62 cfs 0.290 af

Reach Post-Dev: Post-Developed W/Controls and Offsite Inflow=68.66 cfs 11.491 af
Outflow=68.66 cfs 11.491 af

Pond Pond: Detention Pond Peak Elev=980.67' Storage=226,854 cf Inflow=126.84 cfs 12.564 af
Primary=0.52 cfs 0.621 af Secondary=63.40 cfs 9.250 af Outflow=63.92 cfs 9.871 af

Total Runoff Area 41.487 ac Runoff Volume 14.185 af Average Runoff Depth 4.10
84.83 Pervious 35.191 ac 15.17 Impervious 6.295 ac

Section 5: Sediment Reduction Calculations

SLAMM for Windows Version 10.4.1

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Data file name: K:\Carrico Engineering\Projects\2020\200018 Dairy Ridge Heights - Saalaa - Twin Rock\Design Development\Stormwater and Erosion Control\Modeling\Infiltration Modeling\2021-08-11_Post-Dev_DRH.mdb

Data file description:

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_SLO6 Dec06.rsvx

Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GE003.ppdx

Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std

Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std

Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std

Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False

Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv

Cost Data file name:

Seed for random number generator: -42

Start of Winter Season: 12/02 End of Winter Season: 03/12

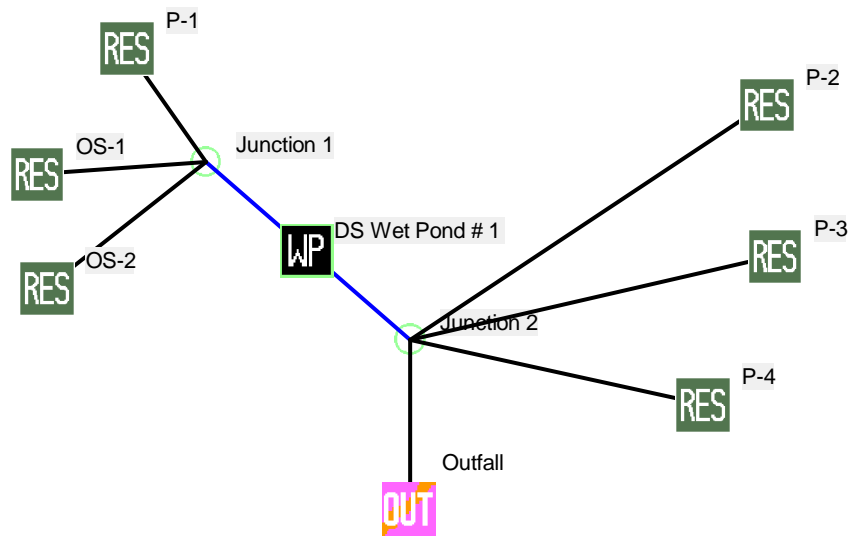
Model Run Start Date: 01/01/81 Model Run End Date: 12/31/81

Date of run: 08-11-2021 Time of run: 11:40:31

Total Area Modeled (acres): 41.487

Years in Model Run: 1.00

	Runoff Volume (cu ft)	Percent Runoff Volume Reduction	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of all Land Uses without Controls:	689349	-	139.0	5981	-
Outfall Total with Controls:	692262	-0.42%	15.83	684.1	88.56%
Annualized Total After Outfall Controls:	694164			686.0	



Data file name: K:\Carrico Engineering\Projects\2020\200018 Dairy Ridge Heights - Saalsaa - Twin Rock\Design Development\Stormwater and Erosion Control\Modeling\Infiltration\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.ppx

Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv

Cost Data file name:

Seed for random number generator: -42

Study period starting date: 01/01/81

Study period ending date: 12/31/81

Start of Winter Season: 12/02

End of Winter Season: 03/12

Date: 08-11-2021

Time: 11:38:57

Site information:

LU# 1 - Residential: P-1 Total area (ac): 29.135

1 - Roofs 1: 1.591 ac. Pitched Disconnected Normal Clayey Low Density PSD File: C:\WinSLAMM Files\NURP.cpz

25 - Driveways 1: 0.884 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

31 - Sidewalks 1: 0.723 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 23.034 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

57 - Undeveloped Areas 1: 1.140 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

70 - Water Body Areas: 1.763 ac. PSD File:

LU# 2 - Residential: P-2 Total area (ac): 2.272

1 - Roofs 1: 0.227 ac. Pitched Disconnected Normal Clayey Low Density PSD File: C:\WinSLAMM Files\NURP.cpz

25 - Driveways 1: 0.119 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

31 - Sidewalks 1: 0.103 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 1.470 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

57 - Undeveloped Areas 1: 0.353 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 3 - Residential: P-3 Total area (ac): 1.558

1 - Roofs 1: 0.152 ac. Pitched Disconnected Normal Clayey Low Density PSD File: C:\WinSLAMM Files\NURP.cpz

25 - Driveways 1: 0.040 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

31 - Sidewalks 1: 0.069 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 1.297 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 4 - Residential: P-4 Total area (ac): 0.929

45 - Large Landscaped Areas 1: 0.929 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 5 - Residential: OS-1 Total area (ac): 3.875

1 - Roofs 1: 0.164 ac. Pitched Disconnected Normal Clayey Low Density PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#2

25 - Driveways 1: 0.109 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#3

31 - Sidewalks 1: 0.020 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#4

37 - Streets 1: 0.663 ac. Smooth Street Length = 0.781 curb-mi Street Width (assuming two curbs-mi per street mile) = 14.00704 ft

Default St. Dirt Accum. Annual Winter Load = 2500 lbs PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#5

45 - Large Landscaped Areas 1: 2.919 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#6

LU# 6 - Residential: OS-2 Total area (ac): 3.718

57 - Undeveloped Areas 1: 3.718 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#7

Control Practice 1: Wet Detention Pond CP# 1 (DS) - DS Wet Pond # 1
 Particle Size Distribution file name: Not needed - calculated by program
 Initial stage elevation (ft): 15
 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): 0.33
2. Number of orifices: 1
3. Invert elevation above datum (ft): 15

Outlet type: Broad Crested Weir

1. Weir crest length (ft): 19
2. Weir crest width (ft): 22
3. Height from datum to bottom of weir opening: 16.5

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	0.10	0.1617	0.00	0.00
2	1.00	0.1871	0.00	0.00
3	2.00	0.2160	0.00	0.00
4	3.00	0.2456	0.00	0.00
5	4.00	0.2759	0.00	0.00
6	5.00	0.7034	0.00	0.00
7	6.00	0.7574	0.00	0.00
8	7.00	0.8119	0.00	0.00
9	8.00	0.8670	0.00	0.00
10	9.00	0.9227	0.00	0.00
11	10.00	1.2097	0.00	0.00
12	11.00	1.2688	0.00	0.00
13	12.00	1.3286	0.00	0.00
14	13.00	1.3888	0.00	0.00
15	14.00	1.4497	0.00	0.00
16	15.00	1.7627	0.00	0.00
17	16.00	1.8919	0.00	0.00
18	17.00	2.0235	0.00	0.00
19	18.00	2.3279	0.00	0.00

Control Practice 2: Other Device CP# 1 (SA) - SA Device, LU# 5 ,SA# 1
 Fraction of drainage area served by device (ac) = 1.00
 Particulate Concentration reduction fraction = 1.00
 Filterable Concentration reduction fraction = 0.00
 Runoff volume reduction fraction = 0

Control Practice 3: Other Device CP# 2 (SA) - SA Device, LU# 5 ,SA# 25
 Fraction of drainage area served by device (ac) = 1.00
 Particulate Concentration reduction fraction = 1.00
 Filterable Concentration reduction fraction = 0.00
 Runoff volume reduction fraction = 0

Control Practice 4: Other Device CP# 3 (SA) - SA Device, LU# 5 ,SA# 31
 Fraction of drainage area served by device (ac) = 1.00
 Particulate Concentration reduction fraction = 1.00
 Filterable Concentration reduction fraction = 0.00
 Runoff volume reduction fraction = 0

Control Practice 5: Other Device CP# 4 (SA) - SA Device, LU# 5 ,SA# 37
 Fraction of drainage area served by device (ac) = 1.00
 Particulate Concentration reduction fraction = 1.00
 Filterable Concentration reduction fraction = 0.00
 Runoff volume reduction fraction = 0

Control Practice 6: Other Device CP# 5 (SA) - SA Device, LU# 5 ,SA# 45
 Fraction of drainage area served by device (ac) = 1.00
 Particulate Concentration reduction fraction = 1.00
 Filterable Concentration reduction fraction = 0.00
 Runoff volume reduction fraction = 0

Control Practice 7: Other Device CP# 6 (SA) - SA Device, LU# 6 ,SA# 57
 Fraction of drainage area served by device (ac) = 1.00
 Particulate Concentration reduction fraction = 1.00
 Filterable Concentration reduction fraction = 0.00
 Runoff volume reduction fraction = 0

Section 6: Infiltration Calculations

Infiltration Calculations

Pre-Developed Conditions

Stay On: 26.25 inches

Required to Infiltrate 90% of 26.25 inches or 23.625 inches

Element Name:

Land Use #	Land Use Type	Land Use Label	Land Use Area (acres)
1	Residential	Dairy Ridge Heights Pre-Developed	33.894
2	Residential	OS-1	3.875
3	Residential	OS-2	3.718

CP #	Control Practice Type	Control Practice Name or Location
1	Other Device	SA Device, LU# 2, SA# 1
2	Other Device	SA Device, LU# 2, SA# 25
3	Other Device	SA Device, LU# 2, SA# 31
4	Other Device	SA Device, LU# 2, SA# 37
5	Other Device	SA Device, LU# 2, SA# 45
6	Other Device	SA Device, LU# 3, SA# 57

Runoff Volume (cf)		Part. Solids Yield (lbs)	
Rain Number	Start Date	Rain Total (in)	Outfall Total (cf)
73	08/28/81	0.04	49.73
74	08/31/81	0.03	5.780
75	08/31/81	1.52	29828
76	09/07/81	0.89	10797
77	09/11/81	0.08	118.9
78	09/16/81	0.03	5.780
79	09/21/81	0.45	2879
80	09/24/81	0.90	10994
81	09/26/81	0.12	227.7
82	09/28/81	0.10	170.0
83	09/29/81	0.16	313.5
84	09/30/81	0.36	1813
85	10/01/81	0.01	0.6422
86	10/04/81	0.15	291.6
87	10/05/81	0.04	49.73
88	10/05/81	0.02	2.569
89	10/09/81	0.14	270.0
90	10/13/81	1.20	17184
91	10/15/81	0.02	2.569
92	10/17/81	0.95	12003
93	10/18/81	0.06	81.72
94	10/21/81	0.06	81.72
95	10/21/81	0.01	0.6422
96	10/24/81	0.01	0.6422
97	10/31/81	0.01	0.6422
98	11/05/81	0.04	49.73
99	11/15/81	0.07	99.49
100	11/18/81	0.05	65.13
101	11/19/81	0.26	828.2
102	11/23/81	0.18	358.3
103	11/25/81	0.89	10797
104	11/30/81	0.37	1932
105	12/03/81	-	-
106	12/14/81	-	-
107	12/20/81	-	-
108	12/26/81	-	-
109	12/31/81	-	-
Minimum:		0.00	0
Maximum:		2.59	83935
Average:		0.26	3593
Total:		28.81	391688

Rv	Total Losses (in.)	Calculated CN*	Event Peak Flow (cfs)
0.008	0.04	98.4	0.022
0.001	0.03	98.6	0.005
0.130	1.32	76.1	2.018
0.081	0.82	81.6	1.899
0.010	0.08	96.9	0.105
0.001	0.03	98.6	0.001
0.042	0.43	87.8	0.317
0.081	0.83	81.5	0.403
0.013	0.12	95.6	0.040
0.011	0.10	96.2	0.050
0.013	0.16	94.2	0.138
0.033	0.35	89.5	1.595
0.000	0.01	99.5	0.001
0.013	0.15	94.5	0.064
0.008	0.04	98.4	0.022
0.001	0.02	99.1	0.001
0.013	0.14	94.9	0.047
0.095	1.09	77.8	1.163
0.001	0.02	99.1	0.002
0.084	0.87	80.8	1.320
0.009	0.06	97.6	0.012
0.009	0.06	97.6	0.014
0.000	0.01	99.5	0.001
0.000	0.01	99.5	0.001
0.000	0.01	99.5	0.001
0.008	0.04	98.4	0.015
0.009	0.07	97.3	0.013
0.009	0.05	98.0	0.029
0.021	0.25	91.5	0.026
0.013	0.18	93.5	0.039
0.081	0.82	81.6	0.452
0.035	0.36	89.3	0.074
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
Minimum:	0.01	71.5	0.001
Maximum:	2.03	99.5	9.468
Average:	0.24	78.0	3.839
Total:	26.25		

* Note: NRCS does not recommend using CN method for rains < 0.5 in.
See 'PreDevelopment Areas and CN' Help for more info.

Current File Data Entered | Total Area = 41.487 acres | Upstream Drainage Area = 0.000 acres | Icon Number | Index Number = | Icons Left = | Start Date: 01/01/81 | End Date: 12/31/81 | X = 13620

Post-Developed Conditions

Stay On: 24.23 inches

Required to Infiltrate 90% of 26.25 inches or 23.625 inches

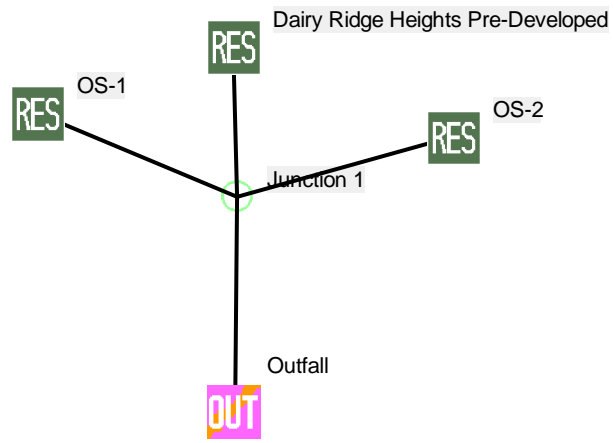
Achieving 24.23 inches → Performance Standard Met

Element Name:				Land Uses		Junctions	
				Runoff Volume (cf)		Part. Solids Yield (lbs)	
Data File: K:\Carico Engineering\Projects\2020\200018 Dairy Ridge Heights - Saalsaa - Twin Rock\Design Development\Stormwater a Rain File: WisReg - Madison W1 1981.RAN Date: 08-11-21 Time: 11:39:48 AM Site Description:							
Runoff Volume Total (cf) at the Outfall							
Rain Number	Start Date	Rain Total (in)	Outfall Total (cf)	Rv	Total Losses (in.)	Calculated CN*	Event Peak Flow (cfs)
73	08/28/81	0.04	26411	4.384	-0.14	100.3	0.199
74	08/31/81	0.03	2714	0.601	0.01	99.9	0.077
75	08/31/81	1.52	47926	0.209	1.20	80.8	0.446
76	09/07/81	0.89	20291	0.151	0.76	85.5	0.406
77	09/11/81	0.08	942.6	0.078	0.07	98.0	0.060
78	09/16/81	0.03	303.2	0.067	0.03	99.2	0.007
79	09/21/81	0.45	7599	0.112	0.40	90.9	0.121
80	09/24/81	0.90	12614	0.093	0.82	82.3	0.155
81	09/26/81	0.12	9354	0.518	0.06	99.3	0.105
82	09/28/81	0.10	1072	0.071	0.09	97.4	0.039
83	09/29/81	0.16	1830	0.076	0.15	96.0	0.080
84	09/30/81	0.36	2051	0.038	0.35	89.8	0.401
85	10/01/81	0.01	3899	2.589	-0.02	100.1	0.065
86	10/04/81	0.15	1767	0.078	0.14	96.3	0.052
87	10/05/81	0.04	262.7	0.044	0.04	98.8	0.017
88	10/05/81	0.02	348.4	0.116	0.02	99.6	0.009
89	10/09/81	0.14	1679	0.080	0.13	96.6	0.044
90	10/13/81	1.20	15657	0.087	1.10	77.2	0.300
91	10/15/81	0.02	14321	4.755	-0.08	100.2	0.129
92	10/17/81	0.95	7686	0.054	0.90	78.5	0.315
93	10/18/81	0.06	15521	1.718	-0.04	100.2	0.128
94	10/21/81	0.06	435.8	0.048	0.06	98.2	0.018
95	10/21/81	0.01	304.9	0.202	0.01	99.8	0.010
96	10/24/81	0.01	160.7	0.107	0.01	99.8	0.003
97	10/31/81	0.01	129.0	0.086	0.01	99.8	0.003
98	11/05/81	0.04	533.8	0.089	0.04	99.0	0.013
99	11/15/81	0.07	763.3	0.072	0.06	98.2	0.019
100	11/18/81	0.05	405.1	0.054	0.05	98.6	0.021
101	11/19/81	0.26	3619	0.092	0.24	94.1	0.042
102	11/23/81	0.18	2177	0.080	0.17	95.6	0.045
103	11/25/81	0.89	20287	0.151	0.76	85.5	0.164
104	11/30/81	0.37	5775	0.104	0.33	92.2	0.063
105	12/03/81	-	-	-	-	-	-
106	12/14/81	-	-	-	-	-	-
107	12/20/81	-	-	-	-	-	-
108	12/26/81	-	-	-	-	-	-
109	12/31/81	-	-	-	-	-	-
Minimum:		0.00	0	0.033	-0.14	73.9	0.003
Maximum:		2.59	105568	4.755	1.89	100.3	1.658
Average:		0.26	6351	0.234	0.22	85.6	0.545
Total:		28.81	692262		24.23		

CP #	Control Practice Type	Control Practice Name or Location
1	Wet Detention Pond	DS Wet Pond # 1
2	Other Device	SA Device, LU# 5 ,SA# 1
3	Other Device	SA Device, LU# 5 ,SA# 25
4	Other Device	SA Device, LU# 5 ,SA# 31
5	Other Device	SA Device, LU# 5 ,SA# 37
6	Other Device	SA Device, LU# 5 ,SA# 45
7	Other Device	SA Device, LU# 6 ,SA# 57

* Note: NRCS does not recommend using CN method for rains < 0.5 in.
See 'PreDevelopment Areas and CN' Help for more info.

Current File Data Entered | Total Area = 41.487 acres | Upstream Drainage Area = 0.000 acres | Icon Number | Index Number = | Icons Left = | Start Date: 01/01/81 | End Date: 12/31/81 | X = 4980



Data file name: K:\Carrico Engineering\Projects\2020\200018 Dairy Ridge Heights - Saalsaa - Twin Rock\Design Development\Stormwater and Erosion Control\Modeling\Infiltration\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.ppx

Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv

Cost Data file name:

Seed for random number generator: -42

Study period starting date: 01/01/81

Study period ending date: 12/31/81

Start of Winter Season: 12/02

End of Winter Season: 03/12

Date: 08-11-2021

Time: 11:36:28

Site information:

LU# 1 - Residential: Dairy Ridge Heights Pre-Developed Total area (ac): 33.894

25 - Driveways 1: 0.070 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

57 - Undeveloped Areas 1: 33.824 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 2 - Residential: OS-1 Total area (ac): 3.875

1 - Roofs 1: 0.164 ac. Pitched Disconnected Normal Clayey Low Density PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#1

25 - Driveways 1: 0.109 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#2

31 - Sidewalks 1: 0.020 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#3

37 - Streets 1: 0.663 ac. Smooth Street Length = 0.781 curb-mi Street Width (assuming two curb-mi per street mile) = 14.00704 ft

Default St. Dirt Accum. Annual Winter Load = 2500 lbs PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#4

45 - Large Landscaped Areas 1: 2.919 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#5

LU# 3 - Residential: OS-2 Total area (ac): 3.718

57 - Undeveloped Areas 1: 3.718 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#6

Control Practice 1: Other Device CP# 1 (SA) - SA Device, LU# 2 ,SA# 1

Fraction of drainage area served by device (ac) = 1.00

Particulate Concentration reduction fraction = 1.00

Filterable Concentration reduction fraction = 0.00

Runoff volume reduction fraction = 0

Control Practice 2: Other Device CP# 2 (SA) - SA Device, LU# 2 ,SA# 25

Fraction of drainage area served by device (ac) = 1.00

Particulate Concentration reduction fraction = 1.00

Filterable Concentration reduction fraction = 0.00

Runoff volume reduction fraction = 0

Control Practice 3: Other Device CP# 3 (SA) - SA Device, LU# 2 ,SA# 31

Fraction of drainage area served by device (ac) = 1.00

Particulate Concentration reduction fraction = 1.00

Filterable Concentration reduction fraction = 0.00

Runoff volume reduction fraction = 0

Control Practice 4: Other Device CP# 4 (SA) - SA Device, LU# 2 ,SA# 37

Fraction of drainage area served by device (ac) = 1.00

Particulate Concentration reduction fraction = 1.00

Filterable Concentration reduction fraction = 0.00

Runoff volume reduction fraction = 0

Control Practice 5: Other Device CP# 5 (SA) - SA Device, LU# 2 ,SA# 45

Fraction of drainage area served by device (ac) = 1.00

Particulate Concentration reduction fraction = 1.00

Filterable Concentration reduction fraction = 0.00

Runoff volume reduction fraction = 0

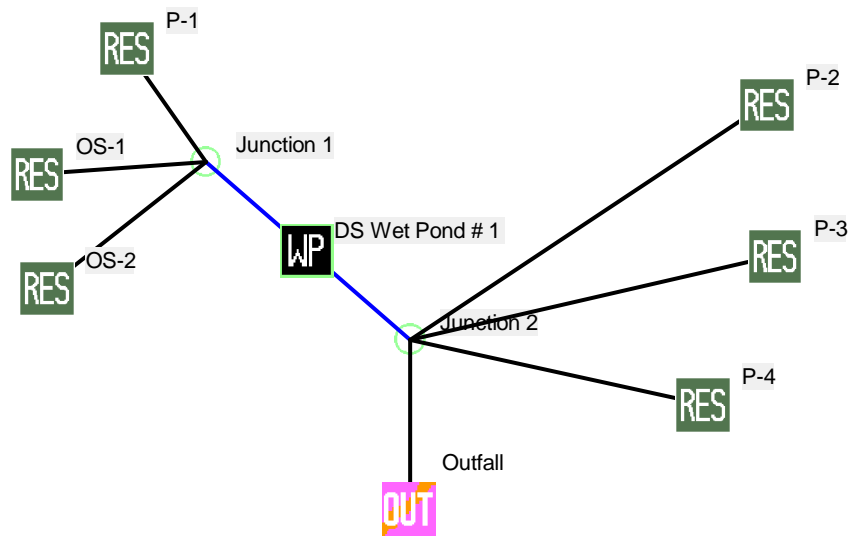
Control Practice 6: Other Device CP# 6 (SA) - SA Device, LU# 3 ,SA# 57

Fraction of drainage area served by device (ac) = 1.00

Particulate Concentration reduction fraction = 1.00

Filterable Concentration reduction fraction = 0.00

Runoff volume reduction fraction = 0



Data file name: K:\Carrico Engineering\Projects\2020\200018 Dairy Ridge Heights - Saalsaa - Twin Rock\Design Development\Stormwater and Erosion Control\Modeling\Infiltration\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.ppx

Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv

Cost Data file name:

Seed for random number generator: -42

Study period starting date: 01/01/81

Study period ending date: 12/31/81

Start of Winter Season: 12/02

End of Winter Season: 03/12

Date: 08-11-2021

Time: 11:38:57

Site information:

LU# 1 - Residential: P-1 Total area (ac): 29.135

1 - Roofs 1: 1.591 ac. Pitched Disconnected Normal Clayey Low Density PSD File: C:\WinSLAMM Files\NURP.cpz

25 - Driveways 1: 0.884 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

31 - Sidewalks 1: 0.723 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 23.034 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

57 - Undeveloped Areas 1: 1.140 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

70 - Water Body Areas: 1.763 ac. PSD File:

LU# 2 - Residential: P-2 Total area (ac): 2.272

1 - Roofs 1: 0.227 ac. Pitched Disconnected Normal Clayey Low Density PSD File: C:\WinSLAMM Files\NURP.cpz

25 - Driveways 1: 0.119 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

31 - Sidewalks 1: 0.103 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 1.470 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

57 - Undeveloped Areas 1: 0.353 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 3 - Residential: P-3 Total area (ac): 1.558

1 - Roofs 1: 0.152 ac. Pitched Disconnected Normal Clayey Low Density PSD File: C:\WinSLAMM Files\NURP.cpz

25 - Driveways 1: 0.040 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

31 - Sidewalks 1: 0.069 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 1.297 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 4 - Residential: P-4 Total area (ac): 0.929

45 - Large Landscaped Areas 1: 0.929 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 5 - Residential: OS-1 Total area (ac): 3.875

1 - Roofs 1: 0.164 ac. Pitched Disconnected Normal Clayey Low Density PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#2

25 - Driveways 1: 0.109 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#3

31 - Sidewalks 1: 0.020 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#4

37 - Streets 1: 0.663 ac. Smooth Street Length = 0.781 curb-mi Street Width (assuming two curbs-mi per street mile) = 14.00704 ft

Default St. Dirt Accum. Annual Winter Load = 2500 lbs PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#5

45 - Large Landscaped Areas 1: 2.919 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#6

LU# 6 - Residential: OS-2 Total area (ac): 3.718

57 - Undeveloped Areas 1: 3.718 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#7

Control Practice 1: Wet Detention Pond CP# 1 (DS) - DS Wet Pond # 1
 Particle Size Distribution file name: Not needed - calculated by program
 Initial stage elevation (ft): 15
 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): 0.33
 2. Number of orifices: 1
 3. Invert elevation above datum (ft): 15

- Outlet type: Broad Crested Weir
 1. Weir crest length (ft): 19
 2. Weir crest width (ft): 22
 3. Height from datum to bottom of weir opening: 16.5

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	0.10	0.1617	0.00	0.00
2	1.00	0.1871	0.00	0.00
3	2.00	0.2160	0.00	0.00
4	3.00	0.2456	0.00	0.00
5	4.00	0.2759	0.00	0.00
6	5.00	0.7034	0.00	0.00
7	6.00	0.7574	0.00	0.00
8	7.00	0.8119	0.00	0.00
9	8.00	0.8670	0.00	0.00
10	9.00	0.9227	0.00	0.00
11	10.00	1.2097	0.00	0.00
12	11.00	1.2688	0.00	0.00
13	12.00	1.3286	0.00	0.00
14	13.00	1.3888	0.00	0.00
15	14.00	1.4497	0.00	0.00
16	15.00	1.7627	0.00	0.00
17	16.00	1.8919	0.00	0.00
18	17.00	2.0235	0.00	0.00
19	18.00	2.3279	0.00	0.00

Control Practice 2: Other Device CP# 1 (SA) - SA Device, LU# 5 ,SA# 1
 Fraction of drainage area served by device (ac) = 1.00
 Particulate Concentration reduction fraction = 1.00
 Filterable Concentration reduction fraction = 0.00
 Runoff volume reduction fraction = 0

Control Practice 3: Other Device CP# 2 (SA) - SA Device, LU# 5 ,SA# 25
 Fraction of drainage area served by device (ac) = 1.00
 Particulate Concentration reduction fraction = 1.00
 Filterable Concentration reduction fraction = 0.00
 Runoff volume reduction fraction = 0

Control Practice 4: Other Device CP# 3 (SA) - SA Device, LU# 5 ,SA# 31
 Fraction of drainage area served by device (ac) = 1.00
 Particulate Concentration reduction fraction = 1.00
 Filterable Concentration reduction fraction = 0.00
 Runoff volume reduction fraction = 0

Control Practice 5: Other Device CP# 4 (SA) - SA Device, LU# 5 ,SA# 37
 Fraction of drainage area served by device (ac) = 1.00
 Particulate Concentration reduction fraction = 1.00
 Filterable Concentration reduction fraction = 0.00
 Runoff volume reduction fraction = 0

Control Practice 6: Other Device CP# 5 (SA) - SA Device, LU# 5 ,SA# 45
 Fraction of drainage area served by device (ac) = 1.00
 Particulate Concentration reduction fraction = 1.00
 Filterable Concentration reduction fraction = 0.00
 Runoff volume reduction fraction = 0

Control Practice 7: Other Device CP# 6 (SA) - SA Device, LU# 6 ,SA# 57
 Fraction of drainage area served by device (ac) = 1.00
 Particulate Concentration reduction fraction = 1.00
 Filterable Concentration reduction fraction = 0.00
 Runoff volume reduction fraction = 0

Section 7: Erosion Control Calculations



Universal Soil Loss Equation for Construction Sites

Dane County Land Conservation Division



Developer: Twin Rock, LLC
 Project: Dairy Ridge Heights
 Date: 8/11/2021

Version 2.2

Land Disturbing Activity	Begin Date	End Date	Period R	Annual R Factor	Soil Map Unit	Soil Erodibility K Factor	Slope ()	Slope Length (feet)	LS Factor	Land Cover C Factor	Soil loss A R _x R _x K _x LS _x C (tons/acre)	Percent Reduction Required
												(7.5 tons/acre)
disturb ground	5/5/2022	6/25/2022	24.5%	150	TrB	0.28	5.5%	290	1.03	1.00	10.5	
seed and mulch	6/25/2022	-----	41.4%	150	TrB	0.28	10.0%	75	1.19	0.12	2.5	
		-----	-----	-----		-----			-----	-----	-----	
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		-----	-----	-----		-----			-----	-----	-----	
TOTAL											13.0	42

Land Disturbing Activities:	input	definition
	disturb ground	activity which leaves the ground devoid of vegetation
	apply mulch	application of straw mulch at 1.5 tons/acre
	seed and mulch	seeding and application of straw mulch at 1.5 tons/acre
	seeding	temporary or permanent seeding without the use of mulching materials
	sod	installation of sod
	paving	providing 100% cover to disturbed ground with paving materials or stone

Notes:

Designed By:	Adam Carrico, PE
Date	8/11/2021
Checked By:	
Date	

Section 8: Riprap Sizing

RIP RAP SHEAR STRESS CALCULATIONS

Dairy Ridge Heights Town of Verona Dane County, Wisconsin

Prepared For:
Twin Rock, LLC
Bret Saalsaa

Prepared By:
Carrico Engineering
and Consulting, Inc.
1926 N Kollath Road
Verona, WI 53593

Prepared On:
August 11, 2021

Revised On:

Project ID:
200018

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and Consulting, Inc.



Carrico Engineering
and Consulting, Inc
(608) 832-6352 | carricoengineering.com

August 11, 2021

Dairy Ridge Heights – Town of Verona, Dane County, Wisconsin

Overflow Weir/Spillway Shear Stress Calculations

The 100-yr Storm Elevation was determined from the following HydroCAD model: 2021-08-11_Post-Dev_DRH – With Offsite

The following equation was used to determine shear stress for the emergency spillway:

$$\tau = \gamma \times D \times S$$

τ = Shear Stress (lb/ft²)

γ = Density of Water (lb/ft³) = 62.4 lb/ft³

D = Water Depth (ft)

S = Slope of Bank from Emergency Spillway to Toe of Slope (ft/ft)

Wet Basin

$$\tau = 62.4 \text{ lb/ft}^3 \times 1.17 \text{ ft} \times 0.10 \text{ ft/ft} = \underline{7.30 \text{ lb/ft}^2}$$

	¹ Emergency Spillway Length Overall (ft)	Emergency Spillway Breadth (ft)	Top of Bank Elevation (ft)	Emergency Spillway Elevation (ft)	100-yr Storm Elevation (ft)	Bank Slope (ft/ft)	Calculated Shear Stress (lb/ft ²)	Riprap Permissible Shear Stress (lb/ft ²)	Meets Riprap Shear?
Wet Basin	19	22	981.00	979.50	980.67	0.10	7.3	15.4	YES

August 11, 2021

Verification of Riprap stable outlet for Forebays

The following equation was used to determine the permissible shear stress for the riprap linings which was taken from the U.S. Department of Transportation Federal Highway Administration – Design of Roadside Channels with Flexible Linings:

$$\tau_p = F^*(\gamma_s - \gamma) \times D_{50}$$

τ_p = Permissible Shear Stress (lb/ft²)

γ_s = Specific weight of the stone = 165 lb/ft³

γ = Specific of Water (lb/ft³) = 62.4 lb/ft³

F^* = Shield's parameter, dimensionless (calculated below)

D_{50} = mean riprap size (ft)

To determine the Shield's parameter, first the Reynolds number needs to be established:

$$Re = (V_o \times D_{50}) / \nu$$

Re = particle Reynolds number, dimensionless

V_o = shear velocity, (ft/s)

ν = kinematic viscosity = 1.217x10⁻⁵ ft²/s at 60 deg F

Where shear velocity is defined as:

$$V_o = \sqrt{gdS}$$

g = gravitational acceleration = 32.2 ft/s²

d = maximum channel depth, ft

S = channel slope, (ft/ft) (0.10 slope is proposed)

Wet Basin

Stability for riprap for the overflow for the Wet Basin has been calculated for the 100-yr storm only to ensure stability. The overflow width is 22 feet and the entire width of overflow is proposed to be lined with riprap. The maximum channel depth for the Wet Basin is 1 foot per plan which is at the top of the overflow.

$$Re = (\sqrt{gdS} \times D_{50}) / \nu = (\sqrt{32.2 * 1.0 * 0.10} \times 12''/12) / 1.217 \times 10^{-5} \text{ ft}^2/\text{s} = 1.47 \times 10^5$$

$$F^* = 0.15$$

$$SF = 1.5$$

$$\tau_p = F^*(\gamma_s - \gamma) \times D_{50} = 0.15 \times (165 - 62.4) \times 12''/12 = 15.4 \text{ lb/ft}^2 = \text{permissible shear stress}$$

From the table, the calculated shear stress for the 100-yr storm for the Wet Basin generates a shear stress of 7.3 lb/ft² which is less than the permissible shear stress of 15.4 lb/ft² with 12" riprap.

The calculations for the overflow spillway for Forebay 4 yield a D_{50} = 12-inch. The plans indicate 12" angular riprap at a depth of 24 inches.

Section 9: Exhibits

9.1 Navigability/Wetland Determination Letter



Joe Parisi
Dane County Executive

Dane County Planning & Development

Division of Zoning

July 3, 2020

Twin Rock, LLC
Bret Saalsaa
7935 Almor Dr
Verona WI 53593

RE: Navigability Determination – 2528 Spring Rose Rd, Section 18, Town of Verona

The Dane County Zoning Division has processed your request for a navigability and wetland determination for two intermittent streams and NRCS low spots that are located east of Spring Rose Road, south of Dairy Ridge Road, and north of US Highway 151 in the Town of Verona.

Before conducting the site inspection, the County G.I.S., aerial photography, and the Wisconsin Surface Water Data Viewer were used to determine the categorization of these intermittent streams. The map shows a waterway flowing southeast through parcels 060818386804, 060818381809, 060818395018, and 060818491100, and converging with a waterway flowing east through parcels 060818390013 and 060818395018. An intermittent stream is one that has a periodic or recurrent flow.

A site inspection was conducted on July 2, 2020. The entirety of both waterways was inspected within the area of interest. It was observed that through the entire course of both waterways any water flow can be described as sheet flow over land due to topography with no defined bed or bank, and no presence of water.

In addition there was no evidence of wetland characteristics at any of the NRCS defined low spots and soil mapping do not suggest the presence of wetlands. There were isolated upland areas containing puddles of standing water but these appeared to be the result of human manipulation and soil compaction.

After further review of the waterways, it has been determined that these intermittent streams are NOT navigable to a point downstream at least to the south side of the US Highway 151 right-of-way, and the area of interest does not contain wetlands.

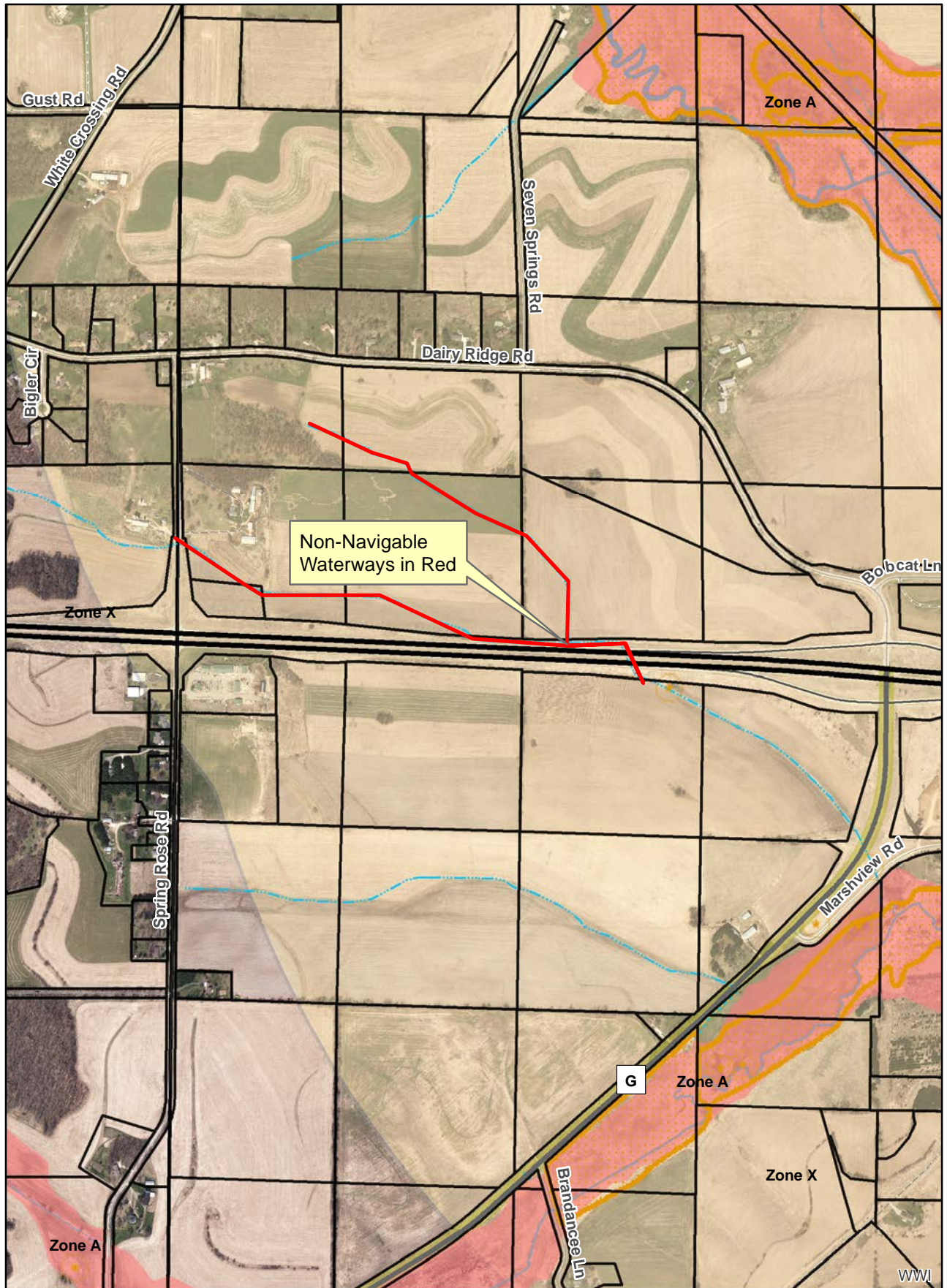
This letter serves as notice that the future development that will occur on the above-described lots is NOT within the Shoreland Zoning District as defined under Chapter 11, Dane County Code of Ordinances.

I hope you find this information helpful. If you have any questions regarding this matter, or if I may be of further assistance, please feel free to contact me directly.

Sincerely,

Hans Hilbert
Assistant Zoning Administrator

Cc:
Land & Water Resources
Adam Carrico



9.2 Stormwater Maintenance Agreement

AGREEMENT FOR MAINTENANCE OF STORMWATER MANAGEMENT MEASURES

RECITALS:

- A. Twin Rock, LLC is the owner of property in the Town of Verona, County of Dane, State of Wisconsin, more particularly described on Exhibit A attached hereto (“Property”).
- B. The County requires Owner to record this Agreement regarding maintenance of stormwater management measures to be located on the Property. Owner agrees to maintain the stormwater management measures and to grant to the County the rights set forth below.

NOW, THEREFORE, in consideration of the agreement herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the owner agrees as follows:

- 1. Maintenance. Owner and its successors and assigns shall be responsible to repair and maintain the stormwater management measures located on the Property in good condition and in working order and such that the measures comply with approved plans on file with Dane County. Said maintenance shall be at the Owner’s sole cost and expense. Owner will conduct such maintenance or repair work in accordance with all applicable laws, codes, regulations, and similar requirements. Specific maintenance tasks are more particularly described on Exhibit A.
- 2. Easement to County. If Owner fails to maintain the stormwater management measures as required in Section 1, then County shall have the right, after providing Owner with written notice of the maintenance issue (“Maintenance Notice”) and thirty (30) days to comply with the County’s maintenance request, to enter the Property in order to conduct the maintenance specified in the Maintenance Notice. County will conduct such maintenance work in accordance with all applicable laws, codes, regulations, and similar requirements and will not unreasonably interfere with Owner’s use of the Property. All costs and expenses incurred by the County in conducting such maintenance may be charged to the owner of the Property by placing the amount on the tax roll for the Property as a special assessment in accordance with Section 66.0703, Wis. Stats. and applicable portions of the Dane County Ordinances.
- 3. Term/Termination. The term of this Agreement shall commence on the date that this Agreement is recorded with the Register of Deeds Office for Dane County, Wisconsin, and except as otherwise herein specifically provided, shall continue in perpetuity. Notwithstanding the foregoing, this Agreement may be terminated by recording with the Register of Deeds Office for Dane County, Wisconsin, a written instrument of termination signed by the County and all of the then-owners of the Property.
- 4. Miscellaneous.
 - (a) Notices. Any notice, request or demand required or permitted under this Agreement shall be in writing and shall be deemed given when personally served or three (3) days after the same has been deposited with the United States Post Office, registered or certified mail, return receipt requested, postage prepaid and addressed as follows:

If to Owner: Twin Rock, LLC
Bret Saalsaa
7935 Almor Drive
Verona, WI 53593

If to County: Dane County Land & Water Resources Department
Water Resource Engineering Division
5201 Fen Oak Drive, Room 208
Madison, WI 53718

Any party may change its address for the receipt of notice by written notice to the other.

- (b) Governing Law. This Agreement shall be governed and construed in accordance with the laws of the State of Wisconsin.

This space is reserved for recording data

Return to:

Dane County Land & Water Resources
5201 Fen Oak Dr., Rm. 208
Madison, Wisconsin 53718

Parcel Number(s):

0608-183-8681-0, 0608-183-8180-9

- (c) Amendments or Further Agreements to be in Writing. This Agreement may not be modified in whole or in part unless such agreement is in writing and signed by all parties bound hereby.
- (d) Covenants Running with the Land. All of the easements, restrictions, covenants and agreements set forth in this Agreement are intended to be and shall be construed as covenants running with the land, binding upon, inuring to the benefit of, and enforceable by the parties hereto and their respective successors and assigns.
- (e) Partial Invalidity. If any provisions, or portions thereof, of this Agreement or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Agreement, or the application of such provision, or portion thereof, to any other persons or circumstances shall not be affected thereby and each provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

X _____
 Water Resource Engineering Division Staff Signature

 Print or type name

State of WI, County of _____; Subscribed and sworn
 before me on _____ by
 the above named person(s).

 Notary Public

Print or type name: _____

My Commission Expires: _____

X _____
 Owner Signature

 Print or type name

State of WI, County of _____; Subscribed and sworn
 before me on _____ by
 the above named person(s).

 Notary Public

Print or type name: _____

My Commission Expires: _____

DRAFTED BY: Adam Carrico, PE
 Carrico Engineering and Consulting, Inc.
 1926 N Kollath Rd
 Verona, WI 53593
 (608) 832-6352

EXHIBIT A

LEGAL DESCRIPTION

Part of the Northeast 1/4 and the Northwest 1/4 of the Southwest 1/4 of Section 18, Township 6 North, Range 8 East, Town of Verona, Dane County, Wisconsin, being more particularly described as follows:

Commencing at the North 1/4 Corner of said Section 18; thence S 00°25'07" E along the east line of the Southwest 1/4, 525.90 feet to the point of beginning.

Thence continue S 0°25'07" E, 797.85 feet to the Southeast Corner of the said Northeast 1/4 of Southwest 1/4; thence N 88°05'08" W along the south line of the said Northeast 1/4 and Northwest 1/4 of the Southwest 1/4, 2,551.11 feet to the Southwest Corner of the said Northwest 1/4 of the Southwest 1/4; thence N 00°27'49" E along the west line of the said Northwest 1/4 of the Southwest 1/4, 478.84 to the south line of Lot 1 Certified Survey Map No. 15601; thence along said Lot 1 for the next 2 courses N 89°26'28" E, 305.62 feet; thence N 00°25'07" W, 342.54 feet to the centerline of Dairy Ridge Road; thence along said centerline for the next 5 courses N 87°31'58" E, 244.19 feet; thence along an arc of a curve concaved southerly having a radius of 1,432.72 feet and a long chord bearing and distance of S 86°41'34" E, 295.42 feet; thence S 80°30'31" E, 152.52 feet; thence along an arc of a curve concaved northeasterly having a radius of 2,863.91 feet and a long chord bearing and distance of S 84°16'28" E, 360.53 feet; thence S 87°52'35" E, 1,189.65 feet to the point of beginning. This parcel contains 1,975,184 sq. ft. or 45.34 acres.

PERMANENT COMPONENTS OF THE STORMWATER SYSTEM

The stormwater system consists of the following components:

- Wet Detention Basin

INSPECTION AND MAINTENANCE

All components of the stormwater system shall be inspected at least semi-annually in early Spring and early Autumn. Repairs will be made whenever the performance of a stormwater control structure is compromised as described below. Stone will be added to the emergency overflow weirs/emergency spillways as needed. Responsible party shall maintain records of all inspections and maintenance activities.

WET DETENTION BASIN:

- Visually inspect the pond outlet structure(s) and perimeter semi-annually. All undesirable vegetation and volunteer tree growth shall be removed, including any in close proximity to the outlet structure.
- Check the outlet structure for deterioration or damage, obstructions, sediment, and general operation.
- Check the condition at the receiving area/channels at the outlet and downstream from the release structures for stability and signs of erosion damage or sparse vegetation.
- Inspect the sediment depth once every five years.
- A topographic survey of the pond bottom and sediment depth shall be conducted when the average depth of the permanent pool is 3.5 feet or at the request of Dane County Land and Water Resources Department. The survey shall be of sufficient detail so as to evaluate volume of accumulated sediment. Survey data shall be sealed by a registered land surveyor or engineer.
- Accumulated sediment in the permanent pool area, as identified by the topographic survey, shall be dredged and disposed offsite as required by Wisconsin Department of Natural Resources Technical Standard 1001 – Wet Detention Pond.
- Access to the pond must be maintained to perform inspection and maintenance activities.
- No plantings or structures of any kind are permitted within the retention pond area, without prior written approval of Dane County Land & Water Resources Department.

CHANGES TO STORMWATER FACILITIES

All components of the stormwater system shall remain as constructed. Any changes to the stormwater facilities shall be approved by the Dane County Land & Water Resources Department and requires update to stormwater management plan.

ACCESS TO STORMWATER FACILITIES

Access to stormwater facilities within Outlot 1 shall be accessed from Dairy Ridge Heights between Lots 9 and 10 within the 30-foot-wide access easement.

9.3 Pre-Developed Drainage Map

9.4 Post-Developed Drainage Map

9.5 Construction Plans

TOWN OF VERONA

TO: Town Board of Supervisors

DATE: July 30, 2021

FROM: W. Christopher Barnes, Public Works Director

SUBJECT: Paulson Road and Woods Road Speed Limit Revision

The Town of Verona adopts speed limits for town roads in accordance with Wisconsin Statute 346.57 which establishes limits and restrictions for specific road conditions. Chapter 5 of the town ordinances contains specific speed zones for a number of town roads. Currently, Chapter 5 is silent to the adopted speed on both Paulson Road and Woods Road. Currently, Woods Road is posted as 45 miles per hour speed limit as is the City of Madison section of Woods Road north of the town boundary. Adopting a 45 mile per hour speed limit on Woods Road will be in conformance with the existing signage. On Paulson Road, the Town of Springdale does not have a posted speed limit on their section of Paulson Road. Based on the existing road conditions, vertical curve, and number of driveways, a 45 mile per hour speed limit is reasonable and prudent for Paulson Road. Specifically, the chapter 5 ordinance change would be:

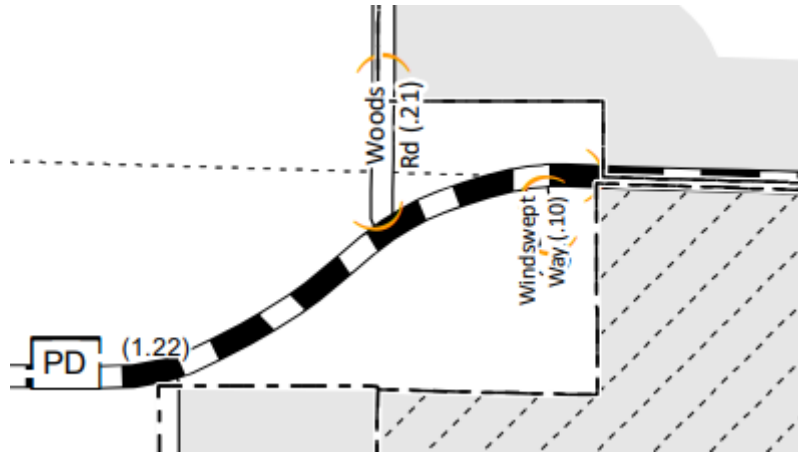
To 45 Miles per Hour: Woods Road from its intersection of County Trunk Highway PD to the southerly corporate limits of the City of Madison.

To 45 Miles per Hour: Paulson Road from the easterly corporate limits of the Town of Springdale to its intersection with Timber Lane.

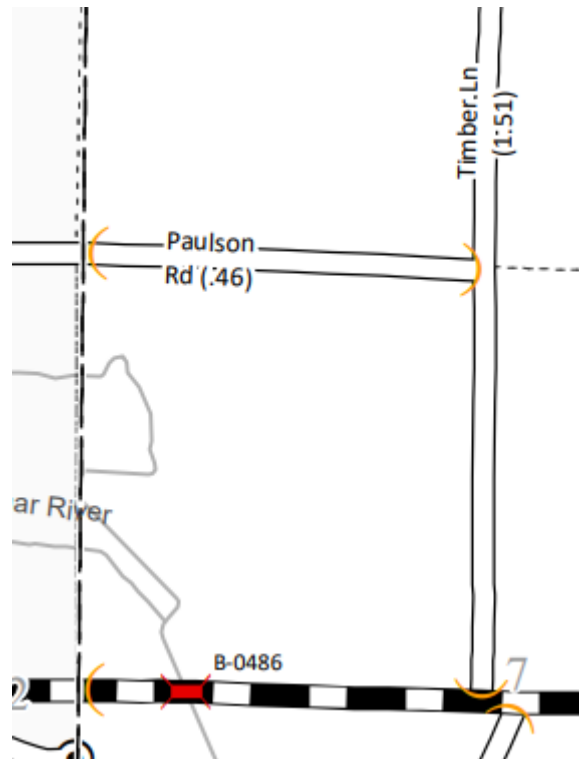
Wisconsin Statutes allow for towns to adopt speed limits and to lower speed limits from 55 miles per hour to 45 miles per hour based upon engineering judgement.

On June 27, 2021 the Public Works Committee reviewed this proposed change and passed a motion to recommend the speed limit change to the Board. It is recommended that the Town of Verona adopt a fixed and adopted speed limit on Paulson Road and on Woods Road as 45 mile per hour Wisconsin Statute provisions. Should you have any questions regarding this matter, please let me know.

Speed Limit Adoption Locations



Woods Road



Paulson Road

TOWN OF VERONA

TO: Town Board of Supervisors

DATE: September 2, 2021

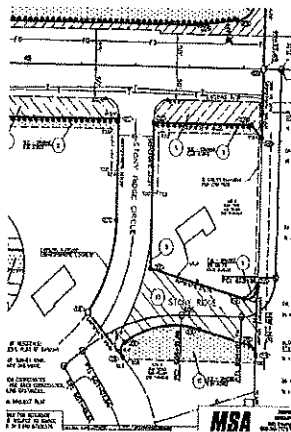
FROM: W. Christopher Barnes, Public Works Director

SUBJECT: Stony Ridge Circle Name Revisions

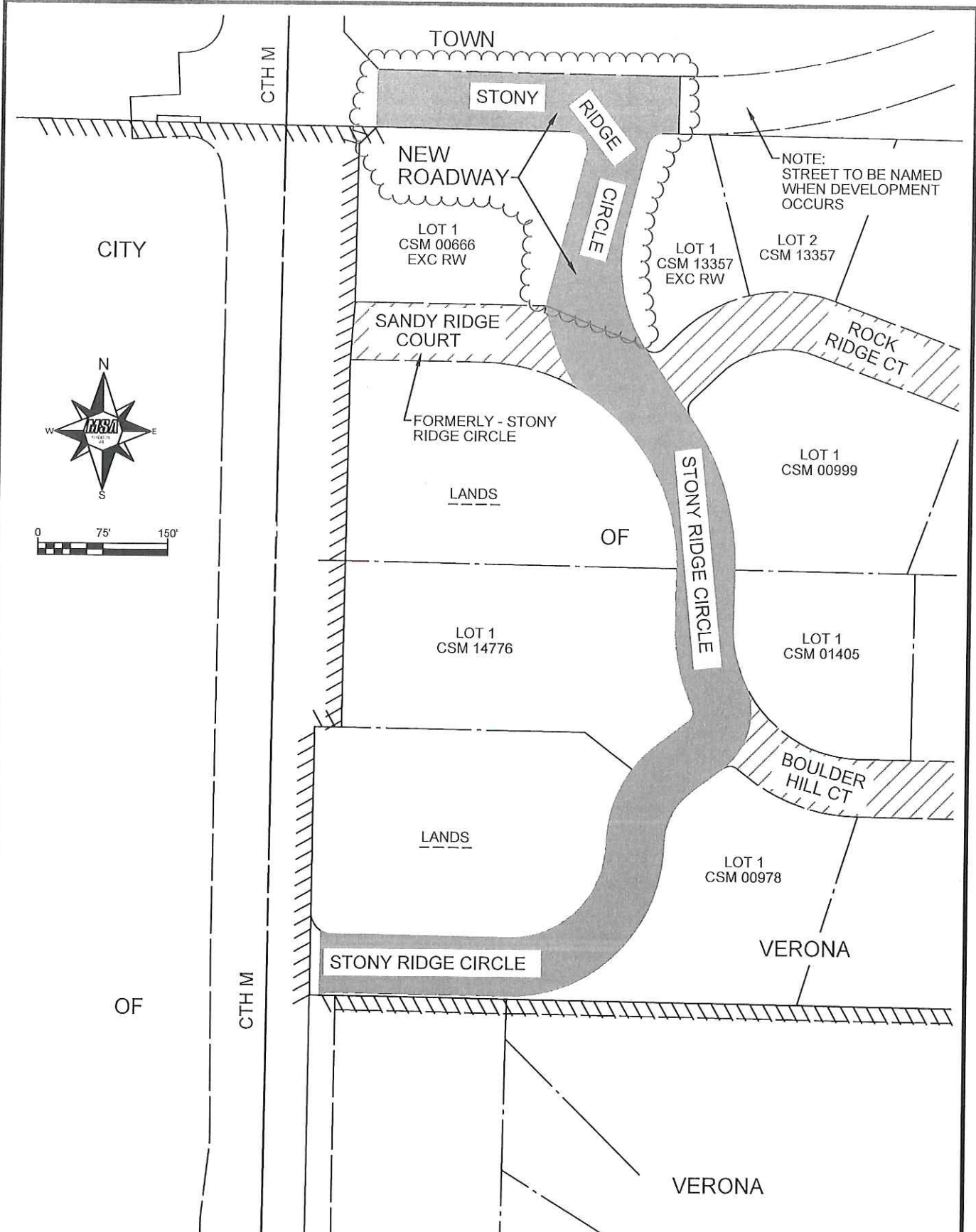
As part of the County Highway M (South Pleasant View Road) reconstruction process in 2018, the access for the northern end of Stony Ridge Circle was modified. This modification was predicated on the realignment of the Pleasant View Road/Stony Ridge Circle intersection such that a future traffic signal could be installed if warranted. The construction of this new road was assumed at the time to be named "Stony Ridge Circle" and was shown as such on the construction drawings (below). The existing northern end of Stony Ridge Circle was cut off from Pleasant View Road and thereby creating a dead-end street. A drawing of the area is attached.

In order to prevent confusion for emergency response services, Dane County requires that the new dead end of Stony Ridge Circle be re-named and the new northerly extension be officially named as Stony Ridge Circle. Based on the available road names through Dane County, the name of Sandy Ridge Court is available for this new name. Dane County staff have concurred with this new name. The name change will only impact one property and the new owners of the property have been notified of the impending change.

A resolution to make the appropriate name change is attached for consideration of the Board. If adopted, town staff will install new street name signs and make the appropriate changes to the Dane County mapping and land records. It is recommended that the Town of Verona adopt resolution 2021-07 to rename the created dead end portion of Stony Ridge Circle as Sandy Ridge Court and the newly constructed road as Stony Ridge Circle. Should you have any questions regarding this matter, please let me know.



Project Map of Stony Ridge Circle Area



FILED DATE: 08/02/2011 11:44 AM, G:\10000170203\1000170203\000001\Public\Chambers\02102011\Verona_2011_Plan_Civil_CDR1011.dwg



STONY RIDGE CIRCLE
 TOWN OF VERONA
 VERONA, WI

Roadway Name Exhibit

PROJECT NO.
 00376036
 SHEET
 1 OF 1

Resolution 2021-7

A RESOLUTION TO RE-NAME A PORTION OF STONY RIDGE CIRCLE AND NAME A NEW ROADWAY CONSTRUCTED AS A RESULT OF THE COUNTY TRUNK HIGHWAY "M" PROJECT

WHEREAS, the construction of County Trunk Highway "M" also known as Pleasant View Road, changed the access points for Stony Ridge Circle and that the Town Board finds that it is necessary and in the public interest to alter the name of a portion of Stony Ridge Circle.

WHEREAS, a new roadway was built to access County Trunk Highway "M" approximately 250 feet north of the pre-existing Stony Ridge Circle to provide reasonable access for properties of Stony Ridge Circle and lands north of Stony Ridge Circle currently vacant.

WHEREAS, Dane County requires that the newly created dead end stub of pre-existing Stony Ridge Circle and the new road be named by the Town Board in order to avoid conflicting address assignments for parcels located adjacent to the roadways.

WHEREAS, the Town Board desires to rename the created dead end portion of pre-existing Stony Ridge Circle, which has a length of 240 feet, more or less, as Sandy Ridge Court and authorize Dane County and Town staff to make changes to the existing mapping, documents and road signage as may be necessary.

WHEREAS, the Town Board desires to name the newly constructed road, which has a length of 575 feet, more or less, as an extension of Stony Ridge Circle and authorize Dane County and Town staff to make changes to the existing mapping, documents, and road signage as may be necessary.

WHEREAS, the naming of the extension of Stony Ridge Circle located within the City of Verona shall be named by said City at such time is appropriate.

NOW, THEREFORE, BE IT RESOLVED, the created dead end portion of pre-existing Stony Ridge Circle shall be re-named as Sandy Ridge Court and the newly constructed road shall be named Stony Ridge Circle

BE IT FURTHER RESOLVED that these changes to the Town road network shall be submitted to the Wisconsin Department of Transportation for acceptance and inclusion into the road mileage certification program.

BE IT FINALLY RESOLVED that this resolution shall be effective upon adoption.

ADOPTED by the Town of Verona Board on the __ day of ____, 2021.

Mark Geller, Town Chair

This is to certify that the foregoing resolution was adopted by the Town of Verona Board on _____, 2021.

Teresa Withee, Clerk/Treasurer

_____, 2021

Natural and Recreational Areas Committee Proposed Priorities for 2021-22

Town of Verona Board report - 7/29/21

- 1) Improve connections on Town recreational trails, including bike trails, hiking trails (especially Ice Age National Scenic Trail), and water trails along the Sugar River and Badger Mill Creek.
- 2) Develop a Town program to help larger landowners preserve their lands from development to include Purchase or Transfer of Development Rights (PDR/TDR) and Conservation Easements, and others. This will aid in helping the Town to preserve its “rural character”.
- 3) Identify significant natural features and public lands on maps and website to help with landowner recognition and protection, and to help promote and guide recreational activities.
- 4) Watershed management – identify and support activities of the Upper Sugar River Watershed Association, and Badger Mill Creek restoration efforts particularly in the Goose Lake Area.
- 5) Develop an annual Town Prairie management plan and recruit Town citizens to help with it.

Justification for this proposal

Two Town documents used in guiding the development of this list:

- Town of Verona Comprehensive Plan 2018-2038
- Town of Verona Natural and Recreational Areas Plan 2018-2023

NRA Plan page 5, Chapter 3 lists 6 broad goals to “guide the direction of NRAC in carrying out its mission”.

1. Provide sufficient open space, park land, and recreational opportunities to meet the growing demand of Verona Area residents without adversely affecting existing natural areas.
2. Preserve for posterity the characteristics and diversity of the cultural, historical resources and natural areas of the Town of Verona.
3. Protect lakes, rivers and streams, including shorelines, wetlands, high infiltration areas and associated vegetative buffers to maintain high water quality, manage water quantity, and sustain water-related recreation throughout the Township.
4. Leverage the efforts of other entities to maximize the benefits for Town residents, Including Dane County, the City of Verona, and other neighboring communities, and private or non-profit organizations.

5. Recognize and respect the landowners who have been stewards of the land, in many cases for generations.
6. Identify shared concerns and work toward mutual goals.

NRA Plan, page 6, Chapter 4.1 Priorities:

1. Establish a Verona-wide bicycle-pedestrian trail system that connects neighboring communities and subdivisions with other public parks and regional trail systems. This supports a Dane County priority on off-road regional bicycle-pedestrian trail projects, especially trails close to major population centers or through areas targeted for development that are adjacent to urban areas, which can serve both commuter and recreation needs.
2. Complete the Ice Age National Scenic Trail through Verona in collaboration with Dane County Parks, the City of Verona, the National Park Service, the WDNR, and the Ice Age Trail Alliance.
3. Consider expansion of public land and public-access conservation easements to meet growing demands for trails and recreation.

NRA Plan, pages 7-14 Chapters 4.2 and 4.3 – numerous priorities and policies to deal with existing Natural and Recreational resources and Concerns about protecting them.

NRA Plan, page 15, Chapter 5 CONCLUSION

Nine items are listed as ways for the town to work with partner organizations to maintain and develop various Natural and Recreational areas. These include:

- Expand Prairie Moraine County Park and Madison School Forest
- Promote bicycle and pedestrian trails throughout the Town
- Promote the Ice Age Trail and work to complete it
- Help organize a “Friends of Scheidegger Forest” volunteer group
- Enroll property owners to protect and manage the Town’s private forests and woodlands
- Raise awareness of the importance of Badger Mill Creek and the Upper Sugar River as critical natural resources

Town of Verona Comprehensive Plan, pgs 48-50, chapter 7 Natural and Cultural Resources:

- Goal 1: Encourage the maintenance of the natural and cultural resources of the Town
- Goal 2: Provide for sufficient outdoor recreation areas to meet the needs of the Town
- Goal 3: Complete the Gaps in the Ice Age National Scenic Trail

July 14, 2021

Mark Geller, Town Chair
Town of Verona
7669 County Highway PD
Verona, WI 53593

Dear Mr. Geller:

I am writing to respectfully request the town of Verona's participation in financially supporting the work of the Greater Madison MPO in 2022.

The agreement designating the current MPO as the regional transportation planning agency for the Madison metro area – approved in 2007 by municipalities making up over 75% of the population within the MPO planning area – maintains the same structure for staffing and funding the MPO as that outlined in the original 1999 redesignation agreement, which separated the MPO from the Regional Planning Commission. The MPO agreement calls for the City of Madison to be responsible for staffing the MPO and also for providing the local match funding generating the Federal and state funding the MPO receives, which covers around 84% of its budget. However, while the City of Madison is ultimately made responsible for the local share funding, the agreement states that “other local units of government are strongly encouraged to make proportionate contributions [based on their population] to cover a share of the local costs in support of the MPO.”

Over the years, three communities (Fitchburg, McFarland, Monona) have consistently contributed to support the MPO, and that support is greatly appreciated. The City of Sun Prairie has made a partial contribution the past three years, and the City of Middleton has contributed in the past, but does not do so currently. The MPO has not sent out a request for support for quite some time, but is renewing this request again. Your municipality's requested contribution is based on population. For example, a community with 10,000 population is asked to contribute around \$3,800 per year.

Please consider the positive impact the MPO has on the region and the services the MPO does and can provide as you weigh whether to make a contribution in support of the MPO:

- The work of the MPO benefits all communities within the MPO planning area. The MPO leads the collaborative planning and funding of the regional transportation system, providing an important forum for decision making on regional transportation issues. Maintaining an MPO to lead regional transportation planning and programming of projects is a condition of receiving federal transportation funding. This includes the direct allocation to the MPO of \$7 million per year in STBG-Urban funding and \$600,000 in Transportation Alternatives Program funding for local projects within the Madison area. In 2021, a total of \$60 million in federal funding is programmed for transportation projects in the MPO Planning Area. These transportation projects foster economic development and improve the quality of life for all of the region's residents. MPO staff are also available to provide data and planning assistance to local communities, such as providing traffic forecasts for roadway projects and neighborhood development plans and assisting with planning for potential transit service. See this [link](#) to presentation on the MPO and the data and services the MPO can provide. The slides on the MPO start on page 41.



ph: 608.266.4336
madisonareampo.org

GREATER MADISON
METROPOLITAN
PLANNING ORGANIZATION

100 State St #400
Madison, WI 53703


- The 2007 MPO redesignation agreement modified the composition of the MPO Policy Board to increase the representation of smaller cities and villages to reflect the expansion of the MPO planning area following the 2000 Census. Excluding the county, WisDOT, and transit agency appointments, communities within the MPO planning area are represented on the policy board in proportion to population. The board includes five (5) city of Madison representatives, three (3) from other cities and villages, and one representative from towns. Almost all of the cities and villages also have staff representatives on the MPO's Technical Coordinating Committee (TCC), and staff from all communities are welcome to attend and participate in TCC meetings.

As part of preparation of the 2022 budget, **the MPO Policy Board respectfully requests each local unit of government within the metropolitan planning area to contribute a portion of the local share financing based on the community's proportionate share of the population within the Planning Area.** The proportionate share is based on the estimated 2020 population, but will be updated following the release of the 2020 Census population numbers. The estimated local share of the 2022 MPO budget is \$179,665, not counting \$5,000 the MPO receives from the county each year to support specialization transportation coordination activities. This is a high level estimate based on the MPO's anticipated 2022 federal Planning funding. The MPO may not utilize all of the available funding. Attached is a table, which shows the population of each unit of government within the planning area and the proportionate share of the local match funding which would be attributed to the municipality. It also shows the anticipated contribution being made this year.

The MPO Policy Board would very much appreciate your including funding in your 2022 operating budget to support the MPO. **Even if not the full proportionate share, any partial funding would be helpful as it will leverage additional federal funding.** Just as important as the funding is the commitment that it signifies to working collaboratively with the MPO, other communities, and WisDOT in addressing regional transportation challenges. Thank you in advance for your consideration of this request. **It would be helpful to know by August 16 if you will support its inclusion in your budget so that the MPO can indicate by that time its intent to WisDOT with regards to accepting all of its allocated funding.** For those municipalities that indicate their support for making a contribution an invoice will be submitted next summer.

If you have any questions, please contact Bill Schaefer, the MPO's Director/Planning Manager (PH: 266-9115; Email: wschaefer@cityofmadison.com).

Sincerely,



Mark Opitz, Chair
Greater Madison MPO

Enclosure

Cc: Teresa Withee, Town Clerk

**Estimated Share of Estimated 2022 MPO Budget Based On
Est. 2020 Population¹ of Municipalities in the Greater Madison MPO Planning Area**

Municipality	Est. 2020 Population Within MPO Planning Area	% of 2020 Pop. Within MPO Planning Area	Est. 2022 Budget ² Estimated Share Local Participation	Anticipated Amount to be Contributed in 2021
C. Madison	257,197	53.0%	\$95,186	\$152,360
C. Fitchburg	30,391	6.3%	\$11,247	\$8,156
C. Middleton	21,050	4.3%	\$7,790	\$0
C. Monona	7,920	1.6%	\$2,931	\$2,545
C. Stoughton	12,954	2.7%	\$4,794	\$0
C. Sun Prairie	35,895	7.4%	\$13,284	\$3,000
C. Verona	12,737	2.6%	\$4,714	\$0
Small Cities Total	120,947	24.9%	\$44,761	\$13,701
V. Cottage Grove	6,716	1.4%	\$2,486	\$0
V. Cross Plains	4,010	0.8%	\$1,484	\$0
V. DeForest	10,624	2.2%	\$3,932	\$0
V. Maple Bluff	1,285	0.3%	\$476	\$0
V. McFarland	8,952	1.8%	\$3,313	\$2,544
V. Oregon	10,270	2.1%	\$3,801	\$0
V. Shorewood Hills	2,363	0.5%	\$875	\$0
V. Waunakee	12,097	2.5%	\$4,477	\$0
V. Windsor (part) (76.5%)	6,304	1.3%	\$2,333	\$0
Villages Total	62,621	12.9%	\$23,175	\$2,544
T. Berry (part) (24.9%)	290	0.1%	\$107	\$0
T. Blooming Grove	1,616	0.3%	\$598	\$0
T. Bristol (part) (72.4%)	3,147	0.6%	\$1,165	\$0
T. Burke	3,303	0.7%	\$1,222	\$0
T. Cottage Grove (part) (81.9%)	3,185	0.7%	\$1,179	\$0
T. Cross Plains (part) (30.9%)	1,239	0.3%	\$459	\$0
T. Dunkirk (part) (65.1%)	1,243	0.3%	\$460	\$0
T. Dunn (part) (89.8%)	4,357	0.9%	\$1,612	\$0
T. Madison	6,228	1.3%	\$2,305	\$0
T. Middleton	6,614	1.4%	\$2,448	\$0
T. Oregon (part) (45.2%)	1,464	0.3%	\$542	\$0
T. Pleasant Springs (part) (65.1%)	2,085	0.4%	\$772	\$0
T. Rutland (part) (36.2%)	728	0.1%	\$269	\$0
T. Springfield (part) (50.5%)	1,482	0.3%	\$548	\$0
T. Sun Prairie (part) (66.9%)	1,594	0.3%	\$590	\$0
T. Verona (part) (80.8%)	1,334	0.3%	\$494	\$0
T. Vienna (part) (67.7%)	1,042	0.2%	\$386	\$0
T. Westport	4,038	0.8%	\$1,494	\$0
Towns Total	44,699	9.2%	\$16,543	\$0
Total for MPO Planning Area	485,464		\$179,665	\$168,605

¹ January 1, 2020 Estimate by WisDOA, Demographic Services Center

² Estimated based on anticipated federal funding and required local matching funding. Represents max. amount. Assumes Dane County continues to provide \$5,000 per annual agreement with city to support specialized transportation coordination services.



DANE COUNTY PLANNING & DEVELOPMENT

Room 116, City-County Building, Madison, Wisconsin 53703
Fax (608) 267-1540

Planning
(608)266-4251, Rm. 116

Records & Support
(608)266-4251, Rm. 116

Zoning
(608)266-4266, Rm. 116

MEMORANDUM

TO: Dane County Board of Supervisors
Town Supervisors and Planning Commissioners
County Executive Joe Parisi
Town Boards and Planning Commissions

FROM: Pamela Andros, AICP, Senior Planner

SUBJECT: 2021-OA-002 Amending Chapter 10 of the Dane County Code of Ordinances, Revising Various Sign Regulation Provisions.

DATE: May 13, 2021

CC: Todd Violante, Director of Planning and Development
Roger Lane, Zoning Administrator
Karin Thurlow-Peterson, County Board Office

I. Summary

2021-OA-002 would make a number of corrections and revisions to signs portion of the Dane County Zoning Ordinance (Chapter 10, Dane County Code), which was comprehensively revised in January of 2019. Amendments include corrections and changes recommended by Planning and Development staff after some experience working with the new zoning code.

II. Background

A. Ordinance Amended

If adopted, 2021-OA-002 would amend the text of the Dane County Zoning Ordinance (Chapter 10, Dane County Code).

B. Action Required

Under s. 59.69(5) of the Wisconsin Statutes, town boards in towns that have adopted the county zoning ordinance will have 30 days from the ZLR public hearing to vote on 2021-OA-002. By the 7/27/2021 public hearing, 26 towns are expected to have adopted the county zoning ordinance. If, by 8/28/2021, fourteen (14) town boards vote to disapprove, the county board cannot adopt the ordinance amendment, and must either deny or adopt with modifications. If the county board adopts with modifications, town boards will have an additional 45 days for final approval.

The Zoning & Land Regulation Committee Public Hearing on OA #002 will be July 27, 2021. Town action on OA #002 is due to the zoning office by August 28, 2021.

III. Discussion

2021-OA-002 would make the following changes to Chapter 10.

A. Policy changes.

- ARTICLE 4. Change the display period allowed for temporary signs from 60 days to 30 days.
- ARTICLE 5. Make a number of changes to the dimension and location standards for wall signs. Changes made within the rural mixed-use and transitional rural mixed-use zoning districts were changed to be more consistent with one another, and the maximum area allowed in the residential and hamlet districts were reduced to a much more reasonable size. Clarify design standards for wall signs.

B. Changes to restore standards that existed in previous versions of Chapter 10.

- ARTICLE 2. Adding definitions for home occupation signs, limited family business signs, mobile signs, subdivision signs; and removing outdated references to a road classification system.

C. Clarifications, corrections and technical amendments with minimal policy impact.

- ARTICLES 2 & 3. Renumbering definitions as needed, improve definition of “vision clearance triangle”, and adding a reference to illustrations.
- ARTICLE 5. Move design standards for projecting signs to Article 6, and add reference to Appendix.
- ARTICLE 6. Add design standards for projecting signs that were moved from Article 5.
- ARTICLE 7. Add requirement that all existing and proposed signs need to be shown on the site plan submitted as part of the materials required in an application for a sign permit.

2021 OA-002

AMENDING CHAPTER 10 THE DANE COUNTY CODE OF ORDINANCES,
REVISING VARIOUS SIGN REGULATION PROVISIONS

The County Board of Supervisors of the County of Dane does ordain as follows:

ARTICLE 1. Unless otherwise expressly stated herein, all references to section and chapter numbers are to those of the Dane County Code of Ordinances.

ARTICLE 2. Section 10.801 is amended and renumbered to read as follows:

10.801 DEFINITIONS.

As used in this section, the following words shall have the definitions indicated:

(16m) Home occupation sign. A sign which advertises a permitted home occupation.

(17m) Limited family business sign. A sign which advertises a permitted limited family business.

(20) Mobile sign. Signs attached to or painted on vehicles/trailers and parked in a position and location with the primary purpose of displaying the sign.

~~(28) Road classification. The system of classifying roads, according to the following:~~

~~(a) Class A — All federal and state highways and designated county highways.~~

~~(b) Class B — All county highways except those designated as class A.~~

~~(c) Class C — All town roads.~~

(32) Subdivision sign. A permanently installed sign located on the subdivision property which identifies the subdivision name.

(332) Temporary signs. Signs which are installed for a limited time period for any purpose. A permanently mounted sign shall not be considered as temporary even though the message displayed is subject to periodic changes.

(343) Trim. A separate border or framing around the copy area of a sign.

(354) V-shaped frame. A sign support structure which will accommodate two signs in a back-to-back position with one end of each sign mounted on a common support with the other sign. The other ends of the signs are mounted on separate, individual supports.

(365) Vehicle sign. Vehicles with signs mounted or painted on them parked off-premise for the purpose of advertising rather than transportation.

(376) Vision clearance triangle. An unoccupied triangular space at an intersection. The triangle is formed by connecting the point where each right-of-way line intersects and two points located at a distance equal to the building right-of-way setback distance along each right-of-way line. See Sign Illustrations in Appendix.

(387) Wall sign. A sign mounted on and parallel to a building wall or other vertical building surface. Signs on the sides of a service station pump island roof structure shall be considered wall signs.

ARTICLE 3. Sections 10.802(4) – (6) are renumbered to read as follows:

(3)(4) Location standards for all signs.

- 47 **(a)** View blockage. No sign shall be placed in a way that blocks any part of a
48 driver's or pedestrian's vision of the road, road intersection, crosswalk, vision
49 clearance triangle, authorized traffic sign or device, or any other public
50 transportation mechanism.
- 51 **(b)** Driveway blockage. No sign may block or interfere with the visibility for
52 ingress or egress of a driveway. All signs, except auxiliary signs, if within 20 feet
53 of driveway ingress or egress, shall provide a minimum of 6 feet of clearance
54 between ground level and the bottom edge of the sign.
- 55 **(c)** Vision triangle. No sign shall be located within a vision clearance triangle.
- 56 **(d)** Road right-of-way setback requirements.
- 57 **1.** No sign shall be located within a road right-of-way.
- 58 **2.** All signs shall be setback not less than 5 feet from the right-of-way line, the
59 property line, or permanent highway easement, whichever is greater.
- 60 **(e)** Side and rear yard setback requirements. All signs shall be setback not less
61 than 5 feet from any side or rear yard, the right-of-way line, property line, or
62 permanent highway easement, whichever is greater.
- 63 **(f)** Billboards may not be located within 300 feet of an existing on-premise sign
64 or within 1,000 feet of other billboard signs.
- 65 **(g)** Off-premise sign may not be installed within the limits of a curve.
- 66 **(h)** Projecting signs may not be located directly over a public or private street,
67 drive or parking area.
- 68 **(i)** Off-Premise signs may not be located within 300 feet of on-premise
69 advertising signs.
- 70 **(j)** On-Premise Advertising Wall Signs shall be mounted flush against the
71 dwelling or building in which the business is located.
- 72 **(k)** Buildings which contain multiple businesses shall share the maximum wall
73 sign allowance by dividing the maximum area by the number of proposed
74 businesses. All business may be afforded a maximum wall sign of 20 square feet,
75 if greater than the maximum wall sign limit for the building.
- 76 **(l)** No sign shall be installed on a roof.
- 77 **(m)** No sign may be located within a permanently protected green space area or
78 mapped wetland area.
- 79 **~~(4)(5)~~** Design standards.
- 80 **(a)** No sign shall use any word, phrase, symbol, shape, form or character in such
81 manner as to interfere with moving traffic, including signs which incorporate typical
82 street-type or traffic control-type sign designs and colors. No sign may be installed
83 at any location where by reason of its position, wording, illumination, size, shape
84 or color it may obstruct, impair, obscure, interfere with the view of, or be confused
85 with, any official traffic control sign, signal or device.
- 86 **(b)** Signs, as permitted, shall be professionally designed, constructed and
87 installed.
- 88 **(c)** Graphics. The lettering on a sign shall be clearly legible and in scale with the
89 sign surface upon which it is placed.
- 90 **(d)** Materials. Signs shall be constructed of materials which are of appropriate
91 quality and durability.

92 (e) Smooth sign face. No nails, tacks or wires shall be permitted to protrude from
93 the front of the sign.

94 (f) Illumination. All externally illuminated signs shall comply with the following
95 standards.

96 1. Light, number and direction. Signs that are illuminated from an external
97 source shall have ~~a maximum of 4~~ external lights directed at only the copy area
98 from a downward angle attached to the top of the sign or sign structure. No
99 externally illuminated sign shall be up-lit or utilize light directed from the ground
100 towards the copy area.

101 2. Glare. Light sources shall be effectively shielded to prevent beams or rays
102 of light from being directed at any portion of a road or right-of-way that are of such
103 intensity or brilliance as to cause glare or impair the vision of the driver of a motor
104 vehicle, or that otherwise interfere with any driver's operation of a motor vehicle.

105 3. All light sources to illuminate signs, internal or external, shall be shielded
106 from all adjacent buildings and rights-of-way. Light sources shall not be of such
107 brightness so as to cause glare hazardous to the motoring public or adjacent
108 buildings.

109 4. No sign shall use flashing, moving, reflecting, or changing light sources.
110 Illuminated signs or lighting devices shall employ only a light of constant intensity.

111 (g) Electronic message sign design. Changing copy and electronic message
112 signs must meet the following requirements.

113 1. On-premises ground and pylon signs shall be the only type of sign that may
114 incorporate electronic message components to the sign's copy area.

115 2. Electronic message boards are prohibited on the exterior walls of buildings.

116 3. The electronic message shall not be changed more than once every 6
117 seconds.

118 4. Malfunction. In the event of a malfunction in any portion of the electronic
119 message sign, the sign shall be turned off upon malfunction until the malfunction
120 is corrected.

121 5. Nits. Electronic message sign copy areas shall not exceed a maximum
122 illumination of 5000 nits during daylight hours and 500 nits between dusk to dawn
123 as measured from the sign's face at maximum brightness.

124 6. Dimming. All electronic message signs shall be equipped with and shall use
125 photosensitive mechanisms to automatically adjust sign brightness and contrast
126 based on ambient light conditions.

127 ~~(5)(6)~~ Maintenance.

128 (a) All signs within the jurisdiction of this ordinance shall remain in a state of
129 proper maintenance. Proper maintenance shall be the absence of loose materials
130 including peeling paint, paper or other material, prevention of excessive rust, the
131 prevention of excessive vibration or shaking and the maintenance of the original
132 structural integrity of the sign, frame and other supports, its mounting and all
133 components thereof.

134 (b) Signs found to be in violation of the provisions of this section shall be
135 repaired or removed.

136

137

138 ARTICLE 4. Section 10.803(3)(f) is amended to read as follows:

139 **10.803 SIGNS ALLOWED WITHOUT A PERMIT.**

140 (3) Temporary signs.

141 (f) Display period. Signs are limited to a period of ~~6~~30 days two times per year.

142 The ~~6~~30-day periods shall not run concurrently.

143

144 ARTICLE 5. Section 10.804(6) is amended to read as follows:

145 **10.804 SIGNS ALLOWED WITH A PERMIT.** The following signs may be
 146 permitted in certain zoning districts as shown in the following Table 1 subject to
 147 the approval of a zoning permit and the sign design limitations applicable to each
 148 type of sign.

149 (6) On-premise wall signs. Wall signs are subject to the design standards of
 150 the following Table 4.

151 (a) Table 4: Dimension and Location Standards for Wall Signs.

152

153

TABLE 4

Use	Zoning District	Maximum Area (sq. ft.)		Maximum Height (sq. ft.)		Number of Signs Permitted per Building		
						Number of road frontages on zoning lot		
		0-45 mph	46+ mph	0-45 mph	46+ mph*	1	2**	3**
Recreational	RE	100	300	20	50	2	3	4
Farmland Preservation	FP-B	100	300	20	50	2	3	4
Rural Mixed Use & Transitional	AT-35	100	300	20	50	2	3	4
	AT-5	100	3 <u>100</u>	20	5 <u>20</u>	2	3 <u>2</u>	4 <u>2</u>
	AT-B	100	300	20	50	2	3	4
	RM-8	100	100	20	20	2	3 <u>2</u>	4 <u>2</u>
Rural Mixed Use & Transitional	RM-16	100	3 <u>100</u>	20	5 <u>20</u>	2	3 <u>2</u>	4 <u>2</u>
	RR-1	3 <u>2</u> 100	3 <u>2</u> 100	20	20	1 <u>2</u>	3 <u>2</u>	4 <u>2</u>
Rural Residential	RR-2	3 <u>2</u> 100	3 <u>2</u> 100	20	20	1 <u>2</u>	3 <u>2</u>	4 <u>2</u>
	RR-4	3 <u>2</u> 100	3 <u>2</u> 100	20	20	1 <u>2</u>	3 <u>2</u>	4 <u>2</u>
	RR-8	3 <u>2</u> 100	3 <u>2</u> 100	20	20	1 <u>2</u>	3 <u>2</u>	4 <u>2</u>
	Residential	SFR-08	3 <u>2</u> 100	3 <u>2</u> 100	20	20	1 <u>2</u>	3 <u>2</u>
Residential	SFR-1	3 <u>2</u> 100	3 <u>2</u> 100	20	20	1 <u>2</u>	3 <u>2</u>	4 <u>2</u>
	TFR-08	3 <u>2</u> 100	3 <u>2</u> 100	20	20	2	3	4
	MFR-08	3 <u>2</u> 100	3 <u>2</u> 100	20	20	2	3	4
	Hamlet	HAM-R	3 <u>2</u> 100	3 <u>2</u> 300	20	5 <u>20</u>	2	3
HAM-M		100	3 <u>100</u>	20	5 <u>20</u>	2	3	4

Commercial	LC, GC, HC	100	300	20	50	2	3	4
Processing, Manufacturing & Industrial	RI, MI	100	300	20	50	2	3	4
Special Use	PUD	Determined as part of site plan review by Z.A.						
	*	For buildings 6 stories or more in height, a wall sign may also be located within 20 feet of the top of the building.						
	**	The maximum size and height of signs on zoning lots with 2 or more road frontages shall be determined by reference to the nearest adjacent road.						
In no event shall there be more than two walls signs on any one side of the building. Wall signs shall be located only on the building containing the business advertised on the sign.								

154

155

(b) Design standards.

156

1. Wall Signs. Wall signs shall not project more than 1 foot from the building wall to which it is attached ~~and shall be set back from the end of the building, or party wall line for a distance of at least 3 feet~~ and shall not project above the building wall. Wall signs may be internally or externally illuminated only in the GC, HC and MI zoning districts.

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2. ~~Projecting signs shall have a maximum size of 21 square feet and be installed to a height not to exceed 15 feet. Such signs shall be located on the building containing the business advertised on the sign. Projecting signs shall not extend more than 3 feet from the face of a building and the lowest portion of such signs shall not be less than 8 feet above the finished grade of a sidewalk or other pedestrian way.~~

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3. Sign Regulations.

168

See Appendix – Table 4.

169

170

ARTICLE 6. Sections 10.804(9) – (12) are created to read as follows:

171

(9) Subdivision signs.

172

(a) Shall comply with the location standards of this ordinance.

173

(b) Shall have a maximum size of 32 square feet and be erected to a height not to exceed 6 feet.

174

175

(c) Shall be limited to one subdivision sign per subdivision.

176

(10) Projecting signs shall have a maximum size of 21 square feet and be installed to a height not to exceed 15 feet. Such signs shall be located on the building containing the business advertised on the sign. Projecting signs shall not extend more than 3 feet from the face of a building and the lowest portion of such signs shall not be less than 8 feet above the finished grade of a sidewalk or other pedestrian way.

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(11) Home occupation signs shall have a maximum size of 2 square feet and shall be located on the premises of the business advertised on the sign.

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184

(12) Limited family signs. A maximum of two on-premise signs are permitted.

185 (a) One wall sign shall be limited to a maximum size of 12 square feet erected to
186 a height not to exceed 8 feet. Such sign shall be located on the building in which
187 the business advertised on the sign is located.

188 (b) One ground sign shall be a driveway entrance sign limited to a maximum size
189 of 16 square feet and a maximum height of 8 feet.

190

191 ARTICLE 7. Section 10.806(2)(a)2. is amended to read as follows:

192 **10.806 ADMINISTRATION.**

193 **(2)** Applications and Permits.

194 **(a)** Required materials to be submitted for sign permit applications:

195 **1.** Completed application form.

196 **2.** Site Plan. The location of all buildings on the lot shall be provided. The
197 locations of all existing and proposed signs shall be provided. Distance of the
198 proposed sign to property lines shall be provided. Dimensions of the property
199 lines shall be provided. Site plan shall be drawn to scale using an architect's
200 scale (i.e. 1/8" = 1'0") or engineers scale (i.e. 1" = 10').

201

202 *[EXPLANATION: On January 17, 2019 Dane County adopted a Comprehensive*
203 *Revision of its Zoning Code. This amendment adopts multiple revisions to the*
204 *Sign Regulations subchapter of the Zoning Code.]*

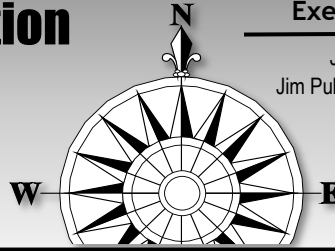
205

Dane County Towns Association

Advocate for Town Government

Established 1972

danecotowns.net



Executive Board

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Jim Pulvermacher, Vice President

Steve Anders
Martha Gibson
Tom Mathies
Ted Olson
Tom Wilson

To: Pam Andros, Senior Planner, Dane County
From: Dane County Towns Association (DCTA) Executive Board
Date: 7/26/2021
Re: Comments Regarding 2021-OA-002 Amending Chapter 10 of the Dane County Code of Ordinances, Revising Sign Regulation Provisions

The DCTA Executive Board has reviewed the proposed changes to the Sign Ordinance and has the following comments/questions:

- 1) Can you share the rationale behind the addition of content-based definitions for subdivision, home occupation, and limited family signs? In an April 4, 2018 review of this Sign Ordinance that was shared with Dane County staff, DCTA Attorney Eric Larson recommended against content-based definitions because of issues related to compliance with current law. It appeared that these and other content-based definitions were removed from the proposed ordinance at that time.
- 2) The new definition of a mobile sign is very similar to the existing definition of vehicle sign. Can you explain the need for both definitions?
- 3) Table 4 (line 153 of the OA) shows what some may consider significant reductions in maximum sign areas.

AT-5 and RM-16 are reduced from **300 to 100 sq ft** and height is reduced from 50 ft to 20 ft and the number of signs allowed per building are reduced.

All Rural Residential and Residential (RR-1, RR-2, RR-4, RR-8, SFR-08, SFR-1, TFR-08, MFR-08) are reduced from **100 sq feet to 32 sq ft** and the number of signs allowed per building are reduced.

The May 13, 2021 memo from Pamela Andros, Senior Planner explaining the proposed changes states "the maximum area allowed in the residential and hamlet districts were reduced to a much more reasonable size." Can you explain the determination of "more reasonable size" and the reason for this reduction? Were complaints or issues reported to Dane County?

- 4) Can you describe the process for existing signs that will be considered nonconforming if the proposed reductions are approved? Specifically, what will be the process for a nonconforming sign that needs to be replaced or repaired?
- 5) Proposed changes include a reduction in the time allowed for temporary signs from 60 days to 30 days. Why is this change needed? How will this impact signs for temporary farm stands that

sell produce for the entire summer (more than the 30 days two times per year proposed restriction)?

Additionally, line 141 of the proposed OA states that “periods shall not run concurrently”. Please review the intent of this restriction and the definition of “concurrent”. “Consecutively” may be a more appropriate term.

- 6) It is not clear which zoning districts will allow subdivision signs. Table 1 allows residential zoning districts to have only signs associated with a conditional use – probably not applicable to a subdivision. Subdivisions may have outlots zoned as NR-C but Table 1 does not allow signs in the NR-C district.
- 7) Chapter 10 Appendix: the SFR-2 and RR-16 districts probably should be added to these tables for signs: Table 1, Table 2, and Table 4.