THE CITY OF WATERTOWN

PLAN COMMISSION MEETING AGENDA

MONDAY, DECEMBER 09, 2024 AT 4:30 PM

COUNCIL CHAMBERS, SECOND FLOOR, MUNICIPAL BUILDING, 106 JONES STREET, WATERTOWN, WI 53094

Virtual Meeting
Info: https://us06web.zoom.us/j/2371460557?pwd=UXjvqLXKCdw12jl4jl1b7GlUPaClat.1&omn=86266217058 or call -646-931-3860 and use Meeting ID: 237 146 0557 Passcode: 144391

All public participants' devices will be muted during the meeting except during the public comment period.

1. **CALL TO ORDER**
2. **APPROVAL OF MINUTES**
   - A. Site Plan minutes from November 25, 2024
   - B. Plan Commission minutes from November 25, 2024
3. **BUSINESS**
   - A. Public hearing: 700 Hoffman Drive – request for a Conditional Use Permit (CUP) for a Group Development under Sections §550-68A(1) and §550-68A(2)
   - B. Review and take action: 700 Hoffman Drive – request for a Conditional Use Permit (CUP) for a Group Development under Sections §550-68A(1) and §550-68A(2)
   - C. Review and make recommendation to Common Council: Edge Field Preliminary Plat
   - D. Initial Review and Schedule Public Hearing at Common Council: Hunter Oaks Planned Development Amendment
   - E. Review and make recommendation to Common Council: Hunter Oaks Enclave Preliminary Plat
   - F. Review Public Hearing Comments and make recommendation to Common Council: Overlay Zoning Amendments and Map Update
4. **ADJOURNMENT**

Persons requiring other reasonable accommodations for any of the above meetings, may contact the office of the City Clerk at mdunneisen@watertownwi.gov, phone 920-262-4006

A quorum of any City of Watertown Council, Committee, Board, Commission, or other body, may be present at this meeting for observing and gathering of information only

The Site Plan Review Committee met on the above date at 1:30 P.M. in the Council Chambers on the second floor of City Hall. The following members were present: Brian Zirbes, Mike Jacek, Mason Becker, Mike Zitelman Tanya Reynen, Laura Bohlman, Andrew Beyer, Doug Zwieg, Maureen McBroom, and Stacy Winkelman. Mayor Emily McFarland joined virtually.

Also in attendance were Nikki Zimmerman, John Donovan of Bielinski Development, Jason Daye of Excel Engineering, and Scott Kwiecinski of Horizon.

1. **Call to Order**
   The meeting was called to order by Chairperson Brian Zirbes.

2. **Approval of Minutes**
   A. **Review and take action: Site Plan Review Minutes Dated September 9, 2024**
   Motion was made by Doug Zwieg and seconded by Tanya Reynen to approve the minutes as submitted. Unanimously approved.

3. **Business**
   A. **Review and take action: Hunter Oaks Planned Development Amendment**
   John Donovan of Bielinski Development was present to explain the proposal. This entails changes to Area Cb on the General Development Plan approved in June 2024. There are some wetlands in this area, so the site plan and lot layouts had to be revised. Belmont Drive will connect to Steeplechase Drive, 4 lots and a cul de sac have been removed. Items included will be naming of the subdivision to The Enclave, the minimum lot street width will be 45'. Minimum lot width and setbacks have been changed.

   The following was presented by staff:

Building:	No comments.
Fire:	Hydrants shall be no more than 300' apart and no closer than 40' to any building. There needs to be a hydrant at the end of each cul-de-sac. Multifamily area plans will need to be reviewed for standpipes and systems.
Water/Wastewater:	No comments.
Police:	No comments.
Stormwater:	There will be a permit application required for Phase 2. Details will be discussed at that point.
Engineering:	No comments.
Streets and Solid Waste:	No comments.
Zoning:	The plat will be forthcoming at a future date.

Motion made by Doug Zwieg to recommend to Plan Commission with the requirements as set forth by the Fire Department of: Hydrants shall be no more than 300' apart and no closer than 40' to any building; a hydrant at the end of each cul-de-sac; and multifamily area plans will need to be reviewed for standpipes and systems. Seconded by Tanya Reynen. Unanimously approved.

   B. **Review and take action: Site Plan for Lumin Terrace Apartments**
   This is for a proposed apartment complex by The Collective. Scott Kwiecinski from Horizon and Jason Day of Excel Engineering were present to explain the proposed project. This is for a 92-unit multi-family housing project which is part of the Rock River Ridge Development on a 9.3 acre site. There will be 4 different structures three 24-unit buildings and one 120-unit building. There will be a combination of 1, 2, and 3 bedroom units. Parking meets city codes, there will be two trash enclosures and a dog run area as well as a pavilion.

Building:	State plans will be required. Asked about storage. The units are adequately sized. There are no garages or basements. Bike storage and bike racks will be outside.
Fire:	Fire sprinkler systems will require a hydro flush test with gallon per minute, above ceiling and final inspections. The Fire Department will reach out to the applicant with the information on specific items. On page C1.1 of the plans there needs to be 3' of clearance. Knox Boxes will be required, and signs for the system.
Water/Wastewater:	No comments.
Police:	No comments on this build. With the city growth, there may be some additional needed staff at some point.

Stormwater:	No comments. Plans are being reviewed at this time.
Engineering:	Private sewer and water system comments were forwarded by the Water Systems Manager. Verified that this is being resolved. There will be no public dedication to this project. Sidewalk extension timeline will be discussed between Engineering and the applicants.
Streets and Solid Waste:	Private company will be required to pick up the trash and recycling.
Parks:	No comments.
Zoning:	No comments.

Motion made by Maureen McBroom and seconded by Doug to approve with the contingency of items being completed with the Fire Department, as discussed, and state plans being submitted to the Building, Safety and Zoning Department with the building permit application. Unanimously approved.

C. Review and take action: 1911 Gateway Drive Site Plan
This will be postponed to a future meeting, per the applicant's request.

D. Adjournment
Motion was made by Andrew Beyer and seconded by Mike Jacek to adjourn. Unanimously approved.

Respectfully submitted,
Nikki Zimmerman
Recording Secretary

NOTE: These minutes are uncorrected, and any corrections made thereto will be noted in the proceedings at which these minutes are approved.

PLAN COMMISSION
MINUTES
November 25, 2024

The Plan Commission met on the above date in the Council Chambers.

The following members were present: Mayor McFarland, Alderman Blanke, Beyer, Krueger, Lampe, Zirbes

Also in attendance: Deb Reinbold, Joshua Neudorfer, Zoe Neudorfer, Sonja Kruesel of Vandewalle, and Mason Becker

1. **Call to order (4:33pm)**
2. **Approval of Minutes**
   - **A. Plan Commission minutes November 12, 2024**
     Motion to approve Plan Commission minutes from October 28th was made by Krueger and seconded by Lampe, passed on unanimous voice vote.
3. **Business**
   - **A. Presentation and discussion:** Vandewalle Zoning Code Evaluation Memo
     Sonja Kruesel of Vandewalle was in attendance to present the Zoning Code Evaluation Memo to the Plan Commission.
   - **B. Discussion:** City-owned property on HWY A/Milford Street
     Deb Reinbold of Thrive Economic Development and Josh Neudorfer of Sigma were in attendance to present the request for discussion and direction on the city owned property on Milford Street.
     After discussion the commission agreed that the preference is not residential, but that the commission is still open to that possibility. Residential development would require the city to put a large investment in infrastructure for a lesser return.
     The city currently has a lack of industrial space available for development, after further discussion, the commission agreed that this would be a prime candidate for additional industrial development in the city.

All materials discussed at this meeting can be found at:

https://cms4files.revize.com/watertownwi/November%2025,%202024%20Plan%20Commission%20Meeting%20Packet.pdf

4. **Adjournment**
   Motion to adjourn was made by Lampe and seconded by Krueger and passed on a unanimous voice vote. (5:36pm)

Respectfully Submitted,

Alderman Brad Blanke

NOTICE OF PUBLIC HEARING

Pursuant of Section § 62.23(7) of the Wisconsin State Statutes and Section § 550-141 of the City of Watertown Municipal Code, a notice is hereby given by the Common Council of the City of Watertown, Wisconsin, that a public hearing will be held on the 9th day of December, 2024 in the Council Chambers of the Municipal Building, 106 Jones Street, Watertown, Wisconsin at 4:30 P.M., or shortly thereafter, to consider the request of Horizon Development Group, Inc. (applicant) and Greater Watertown Community Health Foundation (owner), for a Conditional Use Permit for a Group Development under Sections §550-68A(1) and §550-68A(2). The applicant is proposing to create a 93-unit multifamily housing development in four 2-story buildings. 700 Hoffmann Drive is further described as follows:

> LOT 1, CSM 4146-20-181, DOC 1064067. EX CSM 6088-35-276, DOC 1428518.
> (Parcel Number 291-0815-0814-001).

All persons wishing to be heard are invited to be present. Written comments may be submitted to the Building, Safety, & Zoning Department at nzimmerman@watertownwi.gov.

CITY OF WATERTOWN
Brian Zirbes
Zoning & Floodplain Administrator

BZ/nmz

PUBLISH:

November 25, 2024
and
December 2, 2024

(BLOCK AD)

Main Office
920-262-4060

Brian Zirbes
920-262-4041

Mark Hady
920-342-0986

Nikki Zimmerman
920-262-4045

Dell Zwieg
920-262-4042

Doug Zwieg
920-262-4062

Dennis Quest
920-262-4061

TO: Plan Commission
DATE: December 9th, 2024
SUBJECT: 700 Hoffman Dr, Conditional Use Permit - CUP

A request by Horizon Development Group Inc. for a Conditional Use Permit (CUP) for a 'Group Development'.
Parcel PIN(s): 291-0815-0811-042

SITE DETAILS:
Acres: 9.3
Current Zoning: Multifamily Residential - 10 (MR-10)
Existing Land Use: Vacant
Future Land Use Designation: Riverside Mixed Use

BACKGROUND AND APPLICATION DESCRIPTION:
The applicant is seeking approval of a Conditional Use Permit (CUP) for a 'Group Development'. This development proposal meets the definition of a 'Group Development' due to it including two or more structures containing principal land uses on the same lot and having at least one structure that contains five or more dwelling units.

STAFF EVALAUATION:

Site Plan Review Committee:
See Minutes of November 25th, 2024

Land Use and Zoning:

1. Group Development Any development proposal that meets the definition of a 'Group Development' per Section § 550-68 shall be subject to the 'Use Regulations' under § 550-69.

2. Under section § 550-68A(1) '*Two or more structures containing principal land uses on the same lot' and* under section § 550-68A(2) '*Any single structure on a single lot which contains five or more dwelling units or two or more nonresidential uses*' are defined as a 'Group Development'. Common examples of group developments include six-unit apartment buildings, apartment complexes, condominium complexes, strip centers, shopping centers, and office centers *[per § 550-68B].*

3. Under section § 550-69 there are no permitted by right uses and all uses shall be conditional uses. All land uses permitted under the applicable zoning district are allowed within the 'Group Development'.

   Section § 550-69:

   A. Permitted by right: not applicable.

   B. Conditional use regulations. Any land use that is permitted as a permitted by right land use or as a conditional land use within the applicable zoning district(s) is permitted to locate within a group development. The detailed land use regulations of this section that pertain to individual land uses shall

also apply to individual land uses within a group development, as will all other applicable provisions of this chapter. Therefore, land uses permitted by right in the zoning district shall be permitted by right within an approved group development (unless otherwise restricted by the conditions of approval imposed during the conditional use approval for the group development as a whole), and land uses permitted as a conditional use in the zoning district shall be permitted within the group development only with conditional use approval for the specific use. In all cases, the following conditional use conditions shall be applied to the group development as a whole and to individual uses within the group development:

(1) All required off-street parking spaces and access drives shall be located entirely within the boundaries of the group development. **Meets Standard.**

(2) The development shall contain a sufficient number of waste bins to accommodate all trash and waste generated by the land uses in a convenient manner. **Meets Standard.**

(3) No group development shall take access to a local residential street. **Needs to be waived.**

(4) All development located within a group development shall be located so as to comply with the intent of this chapter regarding setbacks of structures and buildings from lot lines. As such, individual principal and accessory structures and buildings located within group developments shall be situated within building envelopes that serve to demonstrate complete compliance with said intent. Said building envelopes shall be depicted on the site plan required for review of group developments. The use of this approach to designing group developments will also ensure the facilitation of subdividing group developments in the future (if such action is so desired). **Meets Standard.**

(5) The following standards shall apply to all group developments:

(a) Building exterior materials shall be of high quality on all sides of the structure, including glass, brick, decorative concrete block or stucco. Decorative architectural metal with concealed fasteners may be approved with special permission from the City. **Meets Standard.**

(b) Building exterior design shall be unified in design and materials throughout the structure and shall be complementary to other structures in the vicinity. However, the development shall employ varying building setbacks, height, roof, treatments, door and window openings, and other structural and decorative elements to reduce the apparent size and scale of the structure. A minimum of 20% of the combined facades of the structure shall employ actual facade protrusions or recesses. A minimum of 20% of the combined linear roof eave or parapet lines of the structure shall employ differences in height of eight feet or more. Roofs with particular slopes may be required by the City to complement existing buildings or otherwise establish a particular aesthetic objective. **Meets Standard.**

(c) Mechanical equipment, refuse containers and any permitted outdoor storage shall be fully concealed from on-site and off-site ground-level views with materials identical to those used on the building exterior. **Meets Standard.**

(d) Standard corporate trademark building designs, materials, architectural elements and colors all shall be acceptable, as determined by the City, only as subtly integrated into the more generic design of the building as a whole. Color schemes of all architectural elements shall be muted, neutral, nonreflective, and nonuse or non-tenant specific. **N/A**

(e) Public entryways shall be prominently indicated from the building's exterior design and shall be emphasized by on-site traffic flow patterns. All sides of the building that directly face or abut a public street shall have public entrances. **Meets Standard.**

(f) Loading areas shall be completely screened from surrounding roads and residential, office and commercial properties. Said screening may be through internal loading areas, screening wall that will match the building exterior in materials and design, fully opaque landscaping at time of planting, or combinations of the above. Gates and fencing may be used for security purposes but not for screening and shall be of high aesthetic quality. **N/A.**

(g) Vehicle access from public streets shall be designed to accommodate peak traffic volumes without disrupting traffic on public streets from inadequate throat length, access drive width or design or inadequate driveway location. The impact of traffic generated by the proposed development shall be demonstrated by a traffic impact analysis performed by the applicant's traffic engineer so as to not adversely impact off-site public roads, intersections and interchanges during the traffic peak associated with a full parking lot. Where the project shall adversely impact off-site traffic, the City may deny the application, may require a size reduction in the proposed development, or may require off-site improvements. **Meets Standard.**

(h) Parking lot design shall employ interior landscaped islands with a minimum of 400 square feet at all parking islands, and in addition shall provide a minimum of one landscaped island of a minimum of 400 square feet in each parking aisle for every 20 cars in that aisle. Aisle-end islands shall count toward meeting this requirement. Landscaped medians shall be used to break large parking areas into distinct pods, with a maximum of 100 spaces in any one pod. **N/A**

(i) A minimum of one cart-return area of 200 square feet shall be provided for every parking area pod. There shall be no exterior cart-return or cart-storage areas located within 25 feet of the building in areas located between the building and a public street. **N/A.**

(j) The applicant shall demonstrate full compliance with City standards for stormwater, utilities, erosion control and public safety. **Meets Standard.**

(k) On-site landscaping shall be provided per the landscaping requirements of this chapter, except that building foundation landscaping and paved area landscaping shall be provided at 1.5 times the required landscape points for development in the zoning district. **Needs to be waived.**

(l) A conceptual plan for exterior signage shall be provided at time of detailed site plan or GDP that provides for coordinated and complementary exterior sign location, configurations and colors throughout the planned development. All freestanding signage within the development shall complement the on-building signage. Freestanding sign materials and design shall complement the building exterior and may not exceed the maximum height requirement of this chapter and the Building Code. **Meets Standard.**

(m) The entire development shall provide for full and safe pedestrian and bicycle access within the development and shall provide appropriate connections to the existing and planned pedestrian and bicycle facilities in the community and in surrounding neighborhoods, including sidewalk connections to all building entrances from all public streets. The development shall provide secure bicycle parking and pedestrian furniture in appropriate quantities and location. A central pedestrian gathering area shall be provided. **Meets Standard.**

(n) Where such developments are proposed to provide a new location for a business already located within the community, a required condition of approval for the new development shall be a prohibition on conditions of sale, lease or use of the previously occupied building or site which provide limits beyond the range of applicable local, state or federal regulations. If such limits are required, the applicant may seek City approval to demolish the previously occupied structure and prepare the site for some future development. **N/A.**

(o) The applicant shall provide adequate evidence that the proposed development and uses cannot be adequately sited within or on existing developed properties or buildings within the community. **N/A**

(p) The Plan Commission may waive any of the above standards by a three-fourths' vote of members in attendance, but only if supplemental design elements or improvements are incorporated into the project that compensate for the waiver of the particular standard. **Two standards will need to be waived to approve this proposal.**

Vehicle Access and Circulation:
The proposed site plan meets ordinance requirements for vehicle access and traffic circulation. *[per § 550-107]*

Lighting:
The proposed exterior lighting plan meets ordinance requirements. *[per § 550-110]*

WISCONSIN STATUES:
All Conditional Use Permits are subject to the requirements of Wisconsin Act 67.

Under 2017 Wisconsin Act 67: Section 16. 62.23 (7) (de) Conditional Use Permits.

1. 62.23 (7) (de)(1) In this paragraph:

a. "Conditional use" means a use allowed under a conditional use permit, special exception, or other special zoning permission issued by a city, but does not include a variance.

b. "Substantial evidence" means facts and information, other than merely personal preferences or speculation, directly pertaining to the requirements and conditions an applicant must meet to obtain a conditional use permit and that reasonable persons would accept in support of a conclusion.

2. 62.23 (7) (de)(2)

a. If an applicant for a conditional use permit meets or agrees to meet all of the requirements and conditions specified in the city ordinance or those imposed by the city zoning board, the city shall grant the conditional use permit. Any condition imposed must be related to the purpose of the ordinance and be based on substantial evidence.

b. The requirements and conditions described under subd. 2. a. must be reasonable and, to the extent practicable, measurable and may include conditions such as the permit's duration, transfer, or renewal. The applicant must demonstrate that the application and all requirements and conditions established by the city relating to the conditional use are or shall be satisfied, both of which must be supported by substantial evidence. The city's decision to approve or deny the permit must be supported by substantial evidence.

3. 62.23 (7) (de)(3)

Upon receipt of a conditional use permit application and following publication in the city of a class 2 notice under ch. 985, the city shall hold a public hearing on the application.

4. 62.23 (7) (de)(4)

Once granted, a conditional use permit shall remain in effect as long as the conditions upon which the permit was issued are followed, but the city may impose conditions such as the permit's duration, transfer, or renewal, in addition to any other conditions specified in the zoning ordinance or by the city zoning board.

62.23 (7) (de)(5)

If a city denies a person's conditional use permit application, the person may appeal the decision to the circuit court under the procedures contained in par. (e) 10.

PLAN COMMISSION DECISION:

Group Development Criteria	Applicant Provided Substantial Evidence		Opponent Provided Substantial Evidence		PC Finds Standards Met	
Review § 550-69B	**Yes**	No	Yes	**No**	**Yes**	No

If Plan Commission answers "no" to any of the questions, above, the CUP must be denied. Otherwise, proceed to the conditions of approval.

PLAN COMMISSION OPTIONS:
The following are possible options for the Plan Commission:

1. Deny the Conditional Use Permit, based on failure to provide substantial evidence to meet one or more of the regulatory standards.
2. Approve the Conditional Use Permit without conditions, based on successfully providing substantial evidence of regulatory compliance.
3. Approve the Conditional Use Permit with conditions as identified by the Plan Commission:
    a. Waive Sections § 550-69B(3) & § 550-69B(5)(k)

ATTACHMENTS:

- Application materials

November 22, 2024

Project Narrative

Project: Lumin Terrace
Johnson Street
Watertown, WI 53094

Horizon Development Group, Inc. is requesting conditional use permit and site plan review and approval for a new multi-family development, Lumin Terrace, located on the east side of Johnson Street (between Johnson Steet and Hoffman Road) on the northern portion of parcel 291-0815-0814-001, in the City of Watertown. The property is zoned MR-10 and a conditional use permit is required for the proposed development. City Land Use Plan map designation for the property is Riverside Mixed Use and the proposed use is compatible. The existing property is currently wooded with some asphalt paths. The trees and existing asphalt paths will be removed for the proposed development.

The property area is 9.33 acres, and the area of site disturbance is proposed at 8.90 acres. The development will consist of four (4) buildings: 3 buildings will be 12,996 SF and 1 building will be 10,560 SF. All buildings will be 2-stories. Exterior building materials consist of a variety of styles of vinyl siding, composite stone veneer, vinyl windows, asphalt shingles, and aluminum fascia, soffit, gutters, and downspouts. A 20’ x 20’ outdoor pavilion area with grill and picnic tables is proposed towards the northeastern part of the site. A fenced in dog park area (42’ x 60’) is also proposed in this area. Two waste enclosures are proposed: one on the northern end and one on the southern end of the development. The waste enclosures will contain a sufficient number of waste bins to conveniently accommodate all trash and waste generated by the proposed use. All improvements located within the development comply with all building setback requirements.

The proposed number of dwelling units is 93, with 92 apartment units for lease and 1 unit utilized as a model unit/leasing office that could be leased as an apartment in the future. The overall development will include 36 one-bedroom units, 32 two-bedroom units, 24 three-bedroom units, and a one-bedroom model unit/leasing office. The leasing office will be staffed by the property manager, Horizon Management Services, Inc., with regular office hours. There will be 92 non-age-restricted households living at Lumin Terrace, with the number of residents being dependent on family household size. Commercial traffic to the property will include mail/parcel deliveries, refuse pickup, and maintenance/vendor services, all with varying frequency. Hours of operation will be consistent with residential uses throughout the City. The development will be comprised of the ratios below. The floor area ratio is 0.24.

Building Floor Area	1.14 AC	49,548 SF	12.2%
Pavement	3.04 AC	132,373 SF	32.6%
Total Impervious	4.18 AC	181,921 SF	44.8%
Landscape Open Space	5.16 AC	224,606 SF	55.2%
Project Site	9.33 AC	406,527 SF	100%

Access to development will be via (2) driveways from the newly constructed Johnson Street, constructed as part of the Rock River Ridge Project. Parking is provided primarily to the east and west of the buildings with a total of 196 parking spaces, including 8 ADA spaces. All required off-street parking and access drives are designed entirely within the boundaries of the group development. Internal sidewalks are provided around each building for pedestrian access and a bike rack is also provided at each building.

Two 8" water service connections are proposed to connect to the newly constructed water main in Johnson Street, constructed as part of the Rock River Ridge Phase 1 Project. A private 8" water loop is proposed to service each of the buildings and proposed site hydrants. Sanitary services from each of the buildings are proposed to connect into an 8" private sanitary interceptor line to connect into the existing sanitary manhole in the Hoffman Road ROW.

Post-construction stormwater management is provided with a wet pond in the southeast portion of the site which will discharge to an infiltration basin on the northeast portion of the site. The infiltration basin will discharge via an 8" pipe which will connect to an existing catch basin beehive structure on the east central portion of the site.

The proposed development shall comply with all requirements of Article XI Performance Standards. The development will not create any potential nuisances related to access, visibility, off-street parking, off-street loading, exterior storage, exterior lighting, vibration, noise, air pollution, odors, electromagnetic radiation, glare and heat, fire and explosion, toxic and noxious materials, waste materials, drainage, exterior construction materials, and hazardous materials.

The proposed development will fit well with the general character of this area. The vacant property will be transformed into a development that is aesthetically pleasing and complementary to other area structures. Building exterior will feature high-quality materials along with coordinated landscaping with resilient plantings enhancing property and neighborhood appeal. Site lighting will be provided in a fashion that provides appropriate foot candles for safety with cut-off fixtures for minimal light trespass and directed inward toward the development. The building and grounds will be well maintained. No hazards or nuisances to nearby neighbors are anticipated as a result of this project.

Information on how the proposed Lumin Terrace multi-family development addresses the City Group Developments conditions can be found below.

(1) All required off-street parking spaces and access drives shall be located entirely within the boundaries of the group development.

- **All required off-street parking spaces and access drives are located entirely within the boundaries of the development.**

(2) The development shall contain a sufficient number of waste bins to accommodate all trash and waste generated by the land uses in a convenient manner.

- **Two waste enclosures are proposed: one on the northern end and one on the southern end of the development. The waste enclosures will contain a sufficient number of waste bins to conveniently accommodate all trash and waste generated by the proposed use.**

(3) No group development shall take access to a local residential street.

- **The development does not take access from a local residential street.**

(4) All development located within a group development shall be located so as to comply with the intent of this chapter regarding setbacks of structures and buildings from lot lines. As such, individual principal and accessory structures and buildings located within group developments shall be situated within building envelopes that serve to demonstrate complete compliance with said intent. Said building envelopes shall be depicted on the site plan required for review of group developments.

- **The development complies with all required setbacks.**

(5) (a) Building exterior materials shall be of high quality on all sides of the structure, including glass, brick, decorative concrete block or stucco. Decorative architectural metal with concealed fasteners may be approved with special permission from the City.

- **High quality building exterior materials are on all sides of the structures and include a variety of styles of vinyl siding, composite stone veneer, vinyl windows, asphalt shingles, and aluminum fascia, soffit, gutters, and downspouts.**

(5) (b) Building exterior design shall be unified in design and materials throughout the structure and shall be complementary to other structures in the vicinity. However, the development shall employ varying building setbacks, height, roof, treatments, door and window openings, and other structural and decorative elements to reduce the apparent size and scale of the structure. A minimum of 20% of the combined facades of the structure shall employ actual facade protrusions or recesses. A minimum of 20% of the combined linear roof eave or parapet lines of the structure shall employ differences in height of eight feet or more. Roofs with particular slopes may be required by the City to complement existing buildings or otherwise establish a particular aesthetic objective.

- **Exterior building design employs protrusions greater than 20% of the façade. Roof and eave elevations are varied and these two story low rise buildings are designed to be scaled appropriately and complement nearby development.**

(5) (c) Mechanical equipment, refuse containers and any permitted outdoor storage shall be fully concealed from on-site and off-site ground-level views with materials identical to those used on the building exterior.

- **Refuse containers shall be located within an enclosure of decorative split face concrete masonry units.**

(5) (d) Standard corporate trademark building designs, materials, architectural elements and colors all shall be acceptable, as determined by the City, only as subtly integrated into the more generic design of the building as a whole. Color schemes of all architectural elements shall be muted, neutral, nonreflective and nonuse- or nontenant-specific.

- **Building exterior materials are of high quality on all sides of the structures and include a variety of styles of vinyl siding, composite stone veneer. The color scheme is still to be determined, but it will be neutral.**

(5) (e) Public entryways shall be prominently indicated from the building's exterior design and shall be emphasized by on-site traffic flow patterns. All sides of the building that directly face or abut a public street shall have public entrances.

- **Public entryways are prominently indicated within the exterior design. Buildings are oriented in a north/south direction to face both Johnson Street and Hoffman Road with building entrances on both the east and west sides of the buildings.**

(5) (f) Loading areas shall be completely screened from surrounding roads and residential, office and commercial properties. Said screening may be through internal loading areas, screening wall that will match the building exterior in materials and design, fully opaque landscaping at time of planting, or combinations of the above. Gates and fencing may be used for security purposes but not for screening and shall be of high aesthetic quality.

- **The development does not include any designated loading areas. Commercial traffic to the property will include mail/parcel deliveries, refuse pickup, and maintenance/vendor services, all with varying frequency.**

(5) (g) Vehicle access from public streets shall be designed to accommodate peak traffic volumes without disrupting traffic on public streets from inadequate throat length, access drive width or design or inadequate driveway location. The impact of traffic generated by the proposed development shall be demonstrated by a traffic impact analysis performed by the applicant's traffic engineer so as to not adversely impact off-site public roads, intersections and interchanges during the traffic peak associated with a full parking lot. Where the project shall adversely impact off-site traffic, the City may deny the application, may require a size reduction in the proposed development, or may require off-site improvements.

- **Vehicle access has been designed to accommodate peak traffic volumes and no traffic disruption to public streets is anticipated. Brian Zirbes recommended speaking with Andrew Beyer. Andrew Beyer did not respond to a voicemail to discuss TIA requirements and if a TIA was completed for the overall plat.**

(5) (h) Parking lot design shall employ interior landscaped islands with a minimum of 400 square feet at all parking islands, and in addition shall provide a minimum of one landscaped island of a minimum of 400 square feet in each parking aisle for every 20 cars in that aisle. Aisle-end islands shall count toward meeting this requirement. Landscaped medians shall be used to break large parking areas into distinct pods, with a maximum of 100 spaces in any one pod.

- **Landscape islands are provided on each aisle end of each row of parking.**

(5) (i) A minimum of one cart-return area of 200 square feet shall be provided for every parking area pod. There shall be no exterior cart-return or cart-storage areas located within 25 feet of\ the building in areas located between the building and a public street.

- **Cart return is not applicable to this development.**

(5) (j) The applicant shall demonstrate full compliance with City standards for stormwater, utilities, erosion control and public safety.

- **The development has been designed to meet City standards for stormwater, utilities, erosion control and public safety. See included stormwater report, which details how stormwater requirements for infiltration, peak discharge, and water quality have been met. See sheets C1.2A,C1.2B, C1.2C, and C2.0 for proposed erosion control measures. See sheets C1.3A,1.3B, and 1.3C for proposed utilities.**

(5) (k) On-site landscaping shall be provided per the landscaping requirements of this chapter, except that building foundation landscaping and paved area landscaping shall be provided at 1.5 times the required landscape points for development in the zoning district.

- **Landscaping has been designed to meet City standards for the MR-10 district. See sheet C1.4 for landscape plan, which includes a landscaping calculations table which breaks down the required plants and provided plants for each of the specific areas such as: paved area, developed lots, street, and building foundation.**

(5) (l) A conceptual plan for exterior signage shall be provided at time of detailed site plan or GDP that provides for coordinated and complementary exterior sign location, configurations and colors throughout the planned development. All freestanding signage within the development shall complement the on-building signage. Freestanding sign materials and design shall complement the building exterior and may not exceed the maximum height requirement of this chapter and the Building Code.

- **A monument sign is proposed at the entrance to the development and will be designed to meet zoning requirements. Monument sign will be appropriately scaled and materials shall match primary buildings.**

(5) (m) The entire development shall provide for full and safe pedestrian and bicycle access within the development and shall provide appropriate connections to the existing and planned pedestrian and bicycle facilities in the community and in surrounding neighborhoods, including sidewalk connections to all building entrances from all public streets. The development shall provide secure bicycle parking and pedestrian furniture in appropriate quantities and location. A central pedestrian gathering area shall be provided.

- **The development includes internal sidewalks that are provided around each building for pedestrian access and a bike rack is also provided at each building. Additionally, an outdoor pavilion, picnic table, park grill, and dog park is provided to serve as the central pedestrian gathering area. A pedestrian trail along Hoffman Road was previously approved and will be provided as part of the Rock River Ridge Phase 1 Plans and construction. Finally, a public access grass pathway will be provided to provide public access from Johnson Street to the proposed park south of this development.**

(5) (n) Where such developments are proposed to provide a new location for a business already located within the community, a required condition of approval for the new development shall be a prohibition on conditions of sale, lease or use of the previously occupied building or site which provide limits beyond the range of applicable local, state or federal regulations. If such limits are required, the applicant may seek City approval to demolish the previously occupied structure and prepare the site for some future development.

- **This development is not a new location for a business already located within the community.**

(5) (o) The applicant shall provide adequate evidence that the proposed development and uses cannot be adequately sited within or on existing developed properties or buildings within the community.

- **All adequate sites were fully vetted with this site being the most beneficial for the new multi-family development.**

(5) (p) The Plan Commission may waive any of the above standards by a three-fourths' vote of members in attendance, but only if supplemental design elements or improvements are incorporated into the project that compensate for the waiver of the particular standard.

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
WATERTOWN, WISCONSIN

PROJECT INFORMATION

SITE INFORMATION:

PROPERTY AREA: 406,529 S.F. (9.33 ACRES).

EXISTING ZONING: MR-10

PROPOSED ZONING: MR-10

PROPOSED USE: MULTI-FAMILY APARTMENTS

AREA OF SITE DESTURBANCE: 387,800 S.F. (8.90 ACRES)

SETBACKS:
BUILDING: FRONT (WEST) = 25'
SIDE (NORTH/SOUTH) = 10% LOT WIDTH, OR MIN OF 8', MAX OF 14'
STREET (EAST) = 10% LOT WIDTH, OR MIN OF 8', MAX OF 14'
PAVEMENT: FRONT (WEST) = 10'
SIDE (NORTH/SOUTH) = 3'
STREET (EAST) = 3'

PROPOSED BUILDING HEIGHT: 34' (MAX. HEIGHT ALLOWED: 35')

PARKING REQUIRED: 2.5 SPACES PER 3-BED, 2 SPACES PER 2-BED, 1-BED, OR EFFICIENCY (196)

PARKING PROVIDED: 196 SPACES (8 H.C. ACCESSIBLE)

HANDICAP STALLS REQUIRED: 5, HANDICAP STALLS PROVIDED: 8

LANDSCAPE REQUIREMENTS: MIN. LANDSCAPE SURFACE RATIO: 50%
MAXIMUM LOT COVERAGE - BUILDING ONLY: 40%

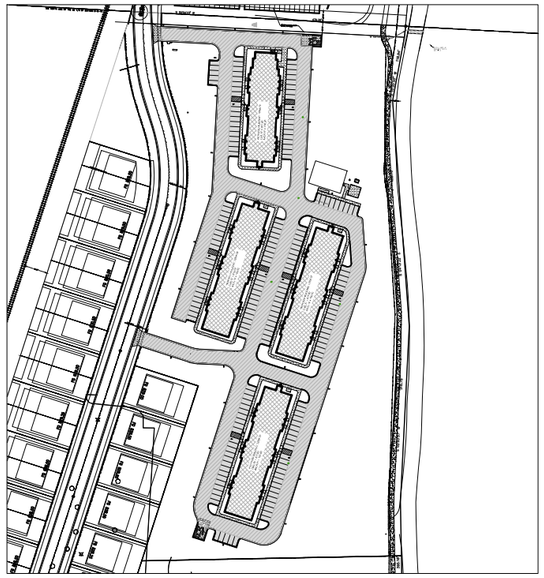
EXISTING SITE DATA

	AREA (AC)	AREA (SF)	RATIO
BUILDING FLOOR AREA	0.00	0	0.0%
PAVEMENT (ASP. & CONC.)	0.86	37,255	9.2%
TOTAL IMPERVIOUS	0.86	37,255	9.2%
LANDSCAPE/ OPEN SPACE	8.48	369,272	90.8%
PROJECT SITE	9.33	406,527	100.0%

PROPOSED SITE DATA

	AREA (AC)	AREA (SF)	RATIO
BUILDING FLOOR AREA	1.14	49,548	12.2%
PAVEMENT (ASP. & CONC.)	3.04	132,373	32.6%
TOTAL IMPERVIOUS	4.18	181,921	44.8%
LANDSCAPE/ OPEN SPACE	5.16	224,606	55.2%
PROJECT SITE	9.33	406,527	100.0%

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN
CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE TELEFAX (414) 259-0947
TDD (FOR THE HEARING IMPAIRED)
1-800 542-2289
WISCONSIN STATUTE 182.0175 (1974)
REQUIRES MINIMUM OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE



SITE PLAN OVERVIEW
SCALE: 1"= 100'
100' 0 100' 200'
NORTH

PROJECT CONTACTS

OWNER INFORMATION:
HORIZON DEVELOPMENT GROUP, INC.
SCOTT KWIECINSKI
5201 EAST TERRACE DRIVE, SUITE 300
MADISON, WI 53718
Phone: (608) 354-0820
Email: S.Kwiecinski@thorizondbm.com

CIVIL ENGINEER:
REID JAHNS
Phone: (920)926-3109
e-mail: ReidJ@excelengineer.com

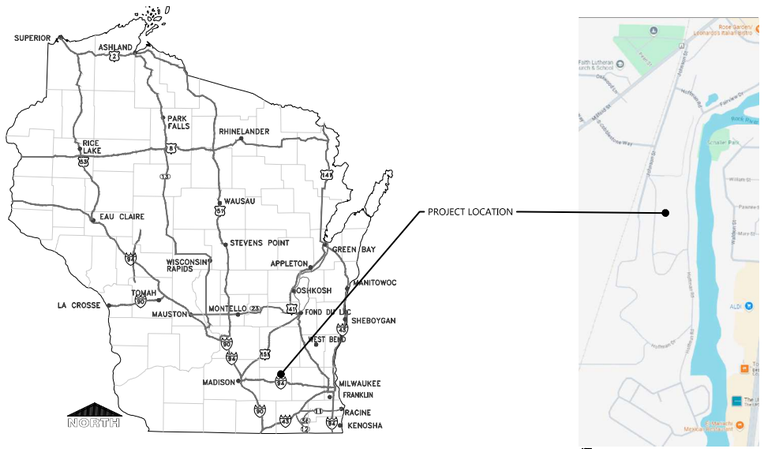
CITY ZONING ADMINISTRATOR:
BRIAN ZIRBES
Phone: (920) 262-4041
e-mail: BZirbes@watertownwi.gov

CITY ENGINEER/PUBLIC WORKS DIRECTOR:
ANDREW BEYER
Phone: (920)262-4050
e-mail: abeyer@watertownwi.gov

CITY FIRE CHIEF:
TANYA REYHEN
Phone: (920)206-4243
e-mail: treynen@watertownwi.gov

CITY BUILDING INSPECTOR:
DOUG ZWIEG
Phone: (920)262-4062
e-mail: DZwieg@watertownwi.gov

LOCATION MAP



PROJECT NOTES

GENERAL PROJECT NOTES

1. ALL DRIVEWAYS AND CURB CUTS TO BE CONSTRUCTED ACCORDING TO LOCAL ORDINANCES. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL WORK IN ROW PERMITS.
3. CONTRACTOR TO CONTACT EXCEL ENGINEERING TO COMPLETE AS-BUILT SURVEY OF STORMWATER POND FOLLOWING COMPLETION OF THE POND.
4. CONTRACTOR TO REFERENCE ROCK RIVER RIDGE PHASE 1 PLANS FOR SCOPE OF WORK COVERED BY ROCK RIVER RIDGE PHASE 1 CONTRACTOR. CONTRACTOR TO FIELD VERIFY ROCK RIVER PHASE 1 REMOVALS AND IMPROVEMENTS HAVE BEEN COMPLETED AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

CONSTRUCTION STAKING SERVICES

CONSTRUCTION STAKING SHALL BE COMPLETED BY EXCEL ENGINEERING AS REQUESTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO CONTACT RYAN WILGREEN AT 920-926-9800 OR RYAN.W@EXCELENGINEER.COM TO GET STAKING PRICE TO INCLUDE IN BID TO OWNER. PAYMENT OF STAKING COSTS ABOVE AND BEYOND THE BASE PRICE DUE TO RESTAKING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, NOT THE OWNER. CAD DRAWING FILES AND SURVEY CONTROL WILL NOT BE PROVIDED FOR STAKING PURPOSES.

STORMWATER POND ASBUILT NOTE

CONTRACTOR TO CONTACT EXCEL ENGINEERING TO COMPLETE AN AS-BUILT SURVEY FOLLOWING COMPLETION OF THE CONSTRUCTION OF THE STORMWATER POND. THE SURVEY SHALL BE COMPLETED PRIOR TO THE POND FILLING WITH WATER. CONTRACTOR SHALL GIVE EXCEL ENGINEERING A MINIMUM OF A 5 DAY NOTICE. PLEASE NOTE THAT THE HORIZONTAL TOLERANCE FOR POND CONSTRUCTION IS 0.50' AND THE VERTICAL TOLERANCE FOR POND, OUTLET, AND SPILLWAY CONSTRUCTION IS 0.10'. ANY ADDITIONAL WORK REQUIRED TO SURVEY A POND FULL OF WATER OR FOR SURVEYING FOLLOWING REWORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

LEGEND

NOTE: ALL SYMBOLS SHOWN MAY NOT APPEAR ON DRAWINGS.

SYM.	IDENTIFICATION	SYM.	IDENTIFICATION
SPOT ELEVATIONS			
000.00	PROPOSED SPOT ELEVATIONS (FLOW LINE OF CURB UNLESS OTHERWISE SPECIFIED)	000.00TC / 000.00FL	PROPOSED SPOT ELEVATIONS (TOP OF CURB, FLOWLINE OF CURB)
000.00FG	EXISTING GRADE SPOT ELEVATIONS		
000.00RG / 000.00FG	PROPOSED SPOT ELEVATIONS (REFERENCE R=WALL DETAIL) RG=FINISHED SURFACE GRADE AT BACK OF WALL FG=FINISHED SURFACE GRADE AT FRONT OF WALL	000.00TW / 000.00BW	PROPOSED SPOT ELEVATIONS (TOP OF WALK, BOTTOM OF WALK @ FLOWLINE)
EXISTING SITE SYMBOLS			
	EXISTING SIGN		EXISTING UTILITY POLE
	EXISTING HANDICAP PARKING STALL		EXISTING UTILITY POLE WITH GUY WIRE
	EXISTING WATER VALVE IN BOX		EXISTING STREET LIGHT
	EXISTING WATER VALVE IN MANHOLE		EXISTING TELEPHONE PEDESTAL
	EXISTING WATER SERVICE VALVE		EXISTING ELECTRIC PEDESTAL
	EXISTING WELL		EXISTING ELECTRIC BOX
	EXISTING STORM CATCH BASIN		EXISTING FLOOD LIGHT
	EXISTING STORM CURB INLET		EXISTING TELEPHONE MANHOLE
	EXISTING SQUARE CATCH BASIN		EXISTING CABLE TV PEDESTAL
	EXISTING LIGHT POLE		EXISTING GAS VALVE
	1-1/4" REBAR SET WEIGHING 4.30 LB/FT.		EXISTING HEDGE
	3/4" REBAR SET WEIGHING 1.50 LB/FT.		EXISTING WOODED AREA
	1-1/4" REBAR FOUND		EXISTING MARSH AREA
	3/4" REBAR FOUND		EXISTING DECIDUOUS TREE WITH TRUNK DIAMETER
	2" IRON PIPE FOUND		EXISTING CONIFEROUS TREE
	1" IRON PIPE FOUND		EXISTING SHRUB
	SECTION CORNER		EXISTING STUMP
PROPOSED SITE SYMBOLS			
	PROPOSED SIGN		PROPOSED STORM FIELD INLET = ST FI
	PROPOSED HANDICAP PARKING STALL		PROPOSED LIGHT POLE
	PROPOSED WATER VALVE IN BOX		PROPOSED DRAINAGE FLOW
	PROPOSED WATER VALVE IN MANHOLE		PROPOSED APRON END SECTION
	PROPOSED WATER SERVICE VALVE		SOIL BORING
	PROPOSED WELL		CENTER LINE
	PROPOSED STORM CATCH BASIN = ST CB	CO	PROPOSED CLEANOUT
	PROPOSED STORM CURB INLET = ST CI	DSG	PROPOSED DOWNSPOUT TO GRADE
		DSR	PROPOSED DOWNSPOUT TO RISER
EXISTING LINETYPES			
	EXISTING CHAINLINK FENCE	POL	EXISTING POLISH SEWER AND MANHOLE
	EXISTING WOOD FENCE	P	EXISTING PROCESS SEWER AND MANHOLE
	EXISTING BARBED WIRE FENCE	CLW	EXISTING CLEAR WATER LINE
	EXISTING CURB AND GUTTER	FO	EXISTING UNDERGROUND FIBER OPTIC LINE
	EXISTING GUARD RAIL	E	EXISTING UNDERGROUND ELECTRIC CABLE
880	EXISTING GROUND CONTOUR	T	EXISTING UNDERGROUND TELEPHONE CABLE
ST	EXISTING STORM SEWER AND MANHOLE	G	EXISTING UNDERGROUND GAS LINE
SA	EXISTING SANITARY SEWER AND MANHOLE	OU	EXISTING OVERHEAD UTILITY LINE
	EXISTING WATER LINE AND HYDRANT		RAILROAD TRACKS
	INTERIOR PROPERTY LINE		RIGHT-OF-WAY LINE
PROPOSED LINETYPES			
	PROPOSED CHAINLINK FENCE	POL	PROPOSED POLISH SEWER AND MANHOLE
	PROPOSED WOOD FENCE	P	PROPOSED PROCESS SEWER AND MANHOLE
	PROPOSED BARBED WIRE FENCE	CLW	PROPOSED CLEAR WATER LINE
	PROPOSED CURB AND GUTTER	FO	PROPOSED UNDERGROUND FIBER OPTIC LINE
	PROPOSED GUARD RAIL	E	PROPOSED UNDERGROUND ELECTRIC CABLE
880	PROPOSED GROUND CONTOUR	T	PROPOSED UNDERGROUND TELEPHONE CABLE
ST	PROPOSED STORM SEWER AND MANHOLE = ST MH	G	PROPOSED UNDERGROUND GAS LINE
SA	PROPOSED SANITARY SEWER AND MANHOLE = SAN MH	OU	PROPOSED OVERHEAD UTILITY LINE
	PROPOSED WATER LINE AND HYDRANT		MATCHLINE
	PROPOSED PROPERTY LINE		GRADING/SEEDING LIMITS

SHEET INDEX

SHEETS BELOW INTENDED TO BE PRINTED IN: COLOR. REFER TO DIGITAL FORMAT DRAWINGS IF PRINTED GRAYSCALE TO ENSURE SCOPE CLARITY.

Excel
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL
WISCONSIN JASON DAVIS E-37777-005 ENGINEER

PRELIMINARY DATES
OCT. 23, 2024
OCT. 25, 2024
OCT. 30, 2024
NOV. 8, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C0.1

CIVIL SPECIFICATIONS

DIVISION 31 EARTH WORK

31 10 00 SITE CLEARING (DEMOLITION)

A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING SITE DEMOLITION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
B. DEMOLITION PLAN IS AN OVERVIEW OF DEMOLITION TO TAKE PLACE ON SITE. CONTRACTOR TO FIELD VERIFY EXISTING SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE, REPLACE, OR DEMOLISH ALL ITEMS AS NEEDED DURING CONSTRUCTION.
C. CONTRACTOR TO PROTECT EXISTING IMPROVEMENTS THAT ARE SCHEDULED TO REMAIN. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPLACED AT CONTRACTORS EXPENSE.
D. ALL CONCRETE NOTED TO BE REMOVED SHALL BE REMOVED TO THE NEAREST CONTROL JOINT.

31 20 00 EARTH MOVING

A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING EXCAVATION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
B. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT FOR ALL EXCAVATION, GRADING, FILL AND BACKFILL WORK AS REQUIRED TO COMPLETE THE GENERAL CONSTRUCTION WORK. ALL EXCAVATION AND BACKFILL FOR ELECTRICALS AND MECHANICALS ARE THE RESPONSIBILITY OF THE RESPECTIVE CONTRACTOR UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS.
C. ALL ORGANIC TOPSOIL INSIDE THE BUILDING AREA, UNDER PAVED AREAS, AND AT SITE FILL AREAS SHALL BE REMOVED. PROOF ROLL SUBGRADES BEFORE PLACING FILL WITH HEAVY PNEUMATIC-TIRED EQUIPMENT, SUCH AS A FULLY-LOADED TANDEM AXLE DUMP TRUCK, TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. CONTRACTOR SHALL VERIFY TOPSOIL DEPTHS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REVIEW AND FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND ACCOUNT FOR EXISTING CONDITIONS PRIOR TO SUBMITTING BID FOR THE PROJECT. EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE DIRECTED IN THE PLANS OR BY LOCAL ZONING REQUIREMENTS.
D. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL LAYER BEFORE COMPACTION AS RECOMMENDED TO ACHIEVE SPECIFIED DRY DENSITY. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT IS TOO WET TO COMPACT TO SPECIFIED DRY DENSITY.
E. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
F. COMPACT THE SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY ACCORDING TO ASTM D 698, STANDARD PROCTOR TEST. FILL MAY NOT BE PLACED ON FROZEN GROUND AND NO FROZEN MATERIALS MAY BE USED FOR BACK FILL. APPLY THE MORE STRINGENT REQUIREMENTS WHEN COMPARING BETWEEN THE FOLLOWING AND THE GEOTECHNICAL REPORT.
   1. UNDER FOUNDATIONS - SUBGRADE, AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 98 PERCENT.
   2. UNDER INTERIOR SLAB-ON-GRADE WHERE GROUNDWATER IS MORE THAN 3 FEET BELOW THE SLAB - PLACE A DRAINAGE COURSE LAYER OF 3/4" CRUSHED STONE, WITH 5% TO 12% FINES, PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT.
   3. UNDER INTERIOR SLAB-ON-GRADE WHERE GROUNDWATER IS WITHIN 3 FEET OF THE SLAB SURFACE- PLACE A DRAINAGE COURSE LAYER OF CLEAN 3/4" CRUSHED STONE, WITH NO MORE THAN 5% FINES, PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT.
   4. UNDER EXTERIOR CONCRETE AND ASPHALT PAVEMENTS - COMPACT THE SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT.
   5. UNDER WALKWAYS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT.
   6. UNDER LAWN OR UNPAVED AREAS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 85 PERCENT.
G. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS. CONTRACTOR SHALL PROVIDE DOCUMENTATION OF PASSING DENSITY TESTING AND PROOF-ROLLING TO ENGINEER UPON COMPLETION. IT IS SUGGESTED THAT THE GEOTECHNICAL FIRM USED TO PERFORM THE SUBSURFACE SOIL INVESTIGATION BE ENGAGED FOR THE FIELD QUALITY CONTROL TESTS. THE GEOTECHNICAL REPORT WAS PERFORMED BY GESTRA ENGINEERING, INC.
H. ALLOW THE TESTING AGENCY TO TEST AND INSPECT SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTHWORK ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS. PROVIDE ONE TEST FOR EVERY 2000 SQUARE FEET OF PAVED AREA OR BUILDING SLAB, ONE TEST FOR EACH SPREAD FOOTING, AND ONE TEST FOR EVERY 50 LINEAR FEET OF WALL STRIP FOOTING.
I. WHEN THE TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.
J. THE BUILDING SITE SHALL BE GRADED TO PROVIDE DRAINAGE AWAY FROM THE BUILDING AS INDICATED ON THE PLANS. SITE EARTHWORK SHALL BE GRADED TO WITHIN 0.10' OF REQUIRED EARTHWORK ELEVATIONS ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE GRADING PLAN.

31 30 00 EROSION CONTROL/STORMWATER MANAGEMENT

A. THE EXCEL ENGINEERING DESIGN ENGINEER SHALL PREPARE A SITE SPECIFIC EROSION CONTROL AND A STORMWATER MANAGEMENT PLAN PURSUANT TO NR 216.46 AND NR 216.47. THE DESIGN ENGINEER SHALL ALSO FILE A CONSTRUCTION NOTICE OF INTENT WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES PURSUANT TO NR 216.43 OR TO AN AUTHORIZED LOCAL PROGRAM PURSUANT TO NR 216.415 TO OBTAIN COVERAGE UNDER THE GENERAL WPDES STORM WATER PERMIT.
B. THE CONTRACTOR SHALL KEEP THE NOTICE OF INTENT PERMIT, APPROVED EROSION CONTROL AND STORMWATER MANAGEMENT PLANS, AND PLAN AMENDMENTS ON THE CONSTRUCTION SITE AT ALL TIMES PURSUANT TO NR 216.455 UNTIL PERMIT COVERAGE IS TERMINATED.
C. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL EROSION CONTROL PERMITS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE MONITORING, MAINTENANCE, AND REPORTING REQUIREMENTS OF NR 216.48. INSPECTIONS OF IMPLEMENTED EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES MUST AT A MINIMUM BE INSPECTED EVERY 7 CALENDAR DAYS OR EVERY 14 DAYS AND WITHIN 24 HOURS OF THE END OF A RAIN EVENT OF 0.5" OR MORE. A RAIN EVENT MAY BE CONSIDERED TO BE THE TOTAL AMOUNT OF PRECIPITATION RECORDED IN ANY CONTINUOUS 24-HOUR PERIOD. THE CONTRACTOR SHALL REPAIR OR REPLACE EROSION AND SEDIMENT CONTROL AS NECESSARY WITHIN 24 HOURS OF AN INSPECTION OR AFTER A DEPARTMENT NOTIFICATION WHERE REPAIR OR REPLACEMENT IS REQUESTED.
E. THE CONTRACTOR SHALL MAINTAIN, AT THE CONSTRUCTION SITE OR AVAILABLE VIA AN INTERNET WEBSITE, WEEKLY WRITTEN REPORTS OF ALL INSPECTIONS CONDUCTED. WISCONSIN DNR CONSTRUCTION SITE INSPECTION REPORT FORM 3400-187 SHALL BE USED. WEEKLY INSPECTION REPORTS SHALL INCLUDE ALL OF THE FOLLOWING:
   1. THE DATE, TIME, AND LOCATION OF THE CONSTRUCTION SITE INSPECTION.
   2. THE NAME OF THE INDIVIDUAL WHO PERFORMED THE INSPECTION.
   3. AN ASSESSMENT OF THE CONDITION OF THE EROSION AND SEDIMENT CONTROLS.
   4. A DESCRIPTION OF ANY EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE IMPLEMENTATION AND MAINTENANCE PERFORMED.
   5. A DESCRIPTION OF THE PRESENT PHASE OF LAND DISTURBING CONSTRUCTION ACTIVITY AT THE CONSTRUCTION SITE.
F. EROSION AND SEDIMENT CONTROL IMPLEMENTED DURING CONSTRUCTION SHALL STRICTLY COMPLY WITH THE GUIDELINES AND REQUIREMENTS SET FORTH IN WISCONSIN ADMINISTRATIVE CODE (W.A.C.) NR 151, THE STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES RUNOFF MANAGEMENT PERFORMANCE STANDARDS. TECHNICAL STANDARDS PUBLISHED BY THE WISCONSIN DNR SHALL ALSO BE UTILIZED TO IMPLEMENT THE REQUIRED PERFORMANCE STANDARDS. THE METHODS AND TYPES OF EROSION CONTROL WILL BE DEPENDENT ON THE LOCATION AND TYPE OF WORK INVOLVED. ALL SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION, AND INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. BELOW IS A LIST OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES TO ACHIEVE THE PERFORMANCE STANDARDS REQUIRED.
   1. SILT FENCE SHALL BE PLACED ON SITE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. SILT FENCE SHALL ALSO BE PROVIDED AROUND THE PERIMETER OF ALL SOIL STOCKPILES THAT WILL EXIST FOR MORE THAN 7 DAYS. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1056 (CURRENT EDITION).
   2. DITCH CHECKS SHALL BE PROVIDED TO REDUCE THE VELOCITY OF WATER FLOWING IN DITCH BOTTOMS. PLACE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1062 (CURRENT EDITION).
   3. STONE TRACKING PADS AND TRACKOUT CONTROL PRACTICES SHALL BE PLACED AT ALL CONSTRUCTION SITE ENTRANCES AND SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE CONSTRUCTION SITE. SEE THE EROSION CONTROL PLAN FOR LOCATIONS. THE AGGREGATE USED FOR THE STONE TRACKING PAD SHALL BE 3/8" TO 3 INCH CLEAR OR WASHED STONE AND SHALL BE PLACED IN A LAYER AT LEAST 12 INCHES THICK. THE STONE SHALL BE UNDERLAIN WITH A WISDOT TYPE R GEOTEXTILE FABRIC AS NEEDED. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT (12' MIN WIDTH) AND SHALL BE A MINIMUM OF 50 FEET LONG. SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. OTHER TRACKOUT CONTROL PRACTICES INCLUDING STABILIZED WORK SURFACES, MANUFACTURED TRACKOUT CONTROL DEVICES, TIRE WASHING, AND STREET/PAVEMENT CLEANING SHALL BE IMPLEMENTED AS NECESSARY TO MITIGATE THE TRACKOUT OF SEDIMENT OFFSITE. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1057 (CURRENT EDITION).
   4. STORM DRAIN INLET PROTECTION SHALL BE PROVIDED FOR ALL NEW AND DOWNSTREAM STORM CATCH BASINS AND CURB INLETS. TYPE D OR DM PROTECTION SHOULD BE PROVIDED AND SHALL BE IN CONFORMANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1060 (CURRENT EDITION).
   5. DUST CONTROL MEASURES SHALL BE PROVIDED TO REDUCE OR PREVENT THE SURFACE AND AIR TRANSPORT OF DUST DURING CONSTRUCTION. CONTROL MEASURES INCLUDE APPLYING MULCH AND ESTABLISHING VEGETATION, WATER SPRAYING, SURFACE ROUGHENING, APPLYING POLYMERS, SPRAY-ON TACKIFIERS, CHLORIDES, AND BARRIERS. SOME SITES MAY REQUIRE AN APPROACH THAT UTILIZES A COMBINATION OF MEASURES FOR DUST CONTROL. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1068 (CURRENT EDITION).
   6. THE USE, STORAGE, AND DISPOSAL OF CHEMICALS, CEMENT, AND OTHER COMPOUNDS AND MATERIALS USED ON SITE SHALL BE MANAGED DURING THE CONSTRUCTION PERIOD TO PREVENT THEIR TRANSPORT BY RUNOFF INTO WATERS OF THE STATE.
   7. CONTRACTOR SHALL PROVIDE AN OPEN AGGREGATE CONCRETE TRUCK WASHOUT AREA ON SITE. CONTRACTOR TO ENSURE THAT CONCRETE WASHOUT SHALL BE CONTAINED TO THIS DESIGNATED AREA AND NOT BE ALLOWED TO RUN INTO STORM INLETS OR INTO THE OVERLAND STORMWATER DRAINAGE SYSTEM. WASHOUT AREA SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION.
   8. TEMPORARY SITE RESTORATION SHALL TAKE PLACE IN DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 14 DAYS AND REQUIRES VEGETATIVE COVER FOR LESS THAN ONE YEAR. THIS TEMPORARY SITE RESTORATION REQUIREMENT ALSO APPLIES TO SOIL STOCKPILES THAT EXIST FOR MORE THAN 7 DAYS. PERMANENT RESTORATION APPLIES TO AREAS WHERE PERENNIAL VEGETATIVE COVER IS NEEDED TO PERMANENTLY STABILIZE AREAS OF EXPOSED SOIL. PERMANENT STABILIZATION SHALL OCCUR WITHIN 3 WORKING DAYS OF FINAL GRADING. TOPSOIL, SEED, AND MULCH SHALL BE IN GENERAL CONFORMANCE WITH TECHNICAL STANDARDS 1058 AND 1059 AND SHALL MEET THE SPECIFICATIONS FOUND IN THE LANDSCAPING AND SITE STABILIZATION SECTION OF THIS CONSTRUCTION DOCUMENT. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR FINAL STABILIZATION MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
   9. IF SITE DEWATERING IS REQUIRED FOR PROPOSED CONSTRUCTION ACTIVITIES, ALL SEDIMENT LADEN WATER GENERATED DURING THE DEWATERING PROCESS SHALL BE TREATED TO REMOVE SEDIMENT PRIOR TO DISCHARGING OFF-SITE OR TO WATERS OF THE STATE. FOLLOW ALL PROCEDURES FOUND IN TECHNICAL STANDARD 1061.
   10. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR A STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH WORKING DAY. DUST CONTROL REQUIREMENTS SHALL BE FOLLOWED PER WI DNR TECHNICAL STANDARD 1068 (CURRENT EDITION). FLUSHING SHALL NOT BE ALLOWED.
G. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL THE AREA(S) SERVED HAVE ESTABLISHED VEGETATIVE COVER.
H. ONCE THE CONSTRUCTION SITE HAS BEEN FULLY STABILIZED AND TEMPORARY EROSION CONTROL BEST MANAGEMENT PRACTICES HAVE BEEN REMOVED, THE CONTRACTOR SHALL FILE A CONSTRUCTION NOTICE OF TERMINATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES IN ACCORDANCE WITH NR 216.55.
I. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL GIVE THE OWNER COPIES OF THE EROSION CONTROL AND STORM WATER MANAGEMENT PLANS, AMENDMENTS TO PLANS, SUPPORTING PLAN DATA, AND CONSTRUCTION SITE EROSION CONTROL INSPECTION REPORTS. THE OWNER SHALL RETAIN THESE FOR A PERIOD OF 3 YEARS FROM THE DATE OF TERMINATING COVERAGE UNDER WPDES GENERAL PERMIT.
J. ALL POST CONSTRUCTION STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES SHALL BE CONSTRUCTED BEFORE THE SITE HAS UNDERGONE FINAL STABILIZATION.

DIVISION 32 EXTERIOR IMPROVEMENTS

32 10 00 AGGREGATE BASE & ASPHALT PAVEMENT

A. CONTRACTOR TO PROVIDE COMPACTED AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT WHERE INDICATED ON THE PLANS. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. PROVIDE HOT MIX ASPHALT MIXTURE TYPES PER SECTION 460 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. CONTRACTOR SHALL OBTAIN AND REVIEW SOILS REPORT FOR RECOMMENDATIONS FOR GEO-GRID / GEOTEXTILE BELOW CRUSHED AGGREGATE (IF APPLICABLE). CONTRACTOR TO PROVIDE AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT TYPES AND DEPTHS AS INDICATED BELOW:

STANDARD ASPHALT PAVING SECTION	HEAVY ASPHALT PAVING SECTION
1-1/2" SURFACE COURSE (5 LT 58-28S)	2" SURFACE COURSE (5 LT 58-28S)
(WISDOT 455.2.5 TACK COAT (STAGED PAVING)	WISDOT 455.2.5 TACK COAT (STAGED PAVING)
2-1/12" BINDER COURSE (4 LT 58-28S)	2-1/2" BINDER COURSE (4 LT 58-28S)
9" OF 1-1/4" CRUSHED AGGREGATE	12" OF 1-1/4" CRUSHED AGGREGATE

B. CONTRACTOR TO COMPACT THE AGGREGATE BASE, ASPHALT BINDER COURSE, AND ASPHALT SURFACE COURSE TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL ASPHALT PAVEMENT AREAS SHALL BE PAVED TO WITHIN 0.05' OF DESIGN SURFACE GRADES WITH POSITIVE DRAINAGE BEING MAINTAINED IN ACCORDANCE WITH DESIGN PLANS. A MINIMUM OF 1.0% SLOPE SHALL BE MAINTAINED IN ALL ASPHALT PAVEMENT AREA.
C. HOT MIX ASPHALT CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF GEOTECHNICAL REPORT OR CONSTRUCTION DOCUMENTS.
D. CONTRACTOR TO PROVIDE 4" WIDE WHITE PAINTED STRIPING FOR PARKING STALLS, TRAFFIC LANES, AND NO PARKING AREAS. WHITE PAINT MARKINGS SHALL ALSO BE PROVIDED FOR H.C. ACCESSIBLE SYMBOLS, TRAFFIC ARROWS, AND TRAFFIC MESSAGES.

32 20 00 CONCRETE AND AGGREGATE BASE

A. CONTRACTOR TO PROVIDE CRUSHED AGGREGATE BASE AND CONCRETE WHERE INDICATED ON THE PLANS.
B. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL AGGREGATE PLACED MUST BE COMPACTED TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
C. DESIGN AND CONSTRUCTION OF ALL CAST-IN-PLACE EXTERIOR CONCRETE FLAT WORK SHALL CONFORM TO ACI 330R-08 & ACI 318-08.
D. EXTERIOR CONCRETE FLAT WORK CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF THE GEOTECHNICAL REPORT OR THIS SPECIFICATION. CONCRETE FLAT WORK CONSTRUCTION IS AS FOLLOWS:
   1. SIDEWALK/BIKE RACK/PICNIC TABLE/MAILBOX CONCRETE - 4" OF CONCRETE OVER 4" OF 3/4" CRUSHED AGGREGATE BASE. CONTRACTION JOINTS SHALL CONSIST OF 1/8" WIDE BY 1" DEEP TOOLED JOINT WHERE INDICATED ON THE PLANS.
   2. DUMPSTER PAD/APRON CONCRETE - 8" OF CONCRETE OVER 6" OF AGGREGATE BASE.
      a. CONCRETE SHALL BE STEEL REINFORCED WITH THE FOLLOWING AND PLACED IN THE UPPER 1/3 TO ½ OF THE SLAB:
         1) TIE BARS AT ALL CONTRACTION JOINTS OF THE CONCRETE. TIE BARS SHALL BE #4 REBAR 30" LONG PLACED AT 30" O.C.
      b. DUMPSTER PAD CONCRETE JOINTING SHALL BE AS FOLLOWS:
         1) CONTRACTION SAWCUT JOINT - CONTRACTOR SHALL PROVIDE A SAWCUT JOINT AT MAXIMUM SPACING OF 15' ON CENTER. SAWCUT SHALL BE 2" IN DEPTH.
         2) TYPICAL POUR CONTROL JOINT - POUR CONTROL JOINT SHALL BE PROVIDED WITH 1-1/4" DIAMETER BY 20" LONG SMOOTH DOWEL PLACED AT 12" O.C. ONE HALF OF THE DOWEL SHALL BE GREASED. GREENSTREAK 9" SPEED DOWEL TUBES SHALL BE USED.
   3. HEAVY DUTY CONCRETE - 6" OF CONCRETE OVER 6" OF 3/4" CRUSHED AGGREGATE. CONCRETE SHALL BE REINFORCED WITH #3 REBARS ON CHAIRS AT 3' O.C. REBAR SHALL BE PLACED PLACED IN THE UPPER 1/3 TO ½ OF THE SLAB. CONTRACTION JOINTS SHALL BE SAWCUT 1.5" IN DEPTH AND BE SPACED A MAXIMUM OF 15' ON CENTER.

E. DESIGN MIXES SHALL BE IN ACCORDANCE WITH ASTM C94
   1. STRENGTH TO BE MINIMUM OF 4,500 PSI AT 28 DAYS FOR EXTERIOR CONCRETE.
   2. MAXIMUM WATER/CEMENT RATIO SHALL BE 0.45.
   3. SLUMP SHALL NOT EXCEED 4" FOR EXTERIOR CONCRETE FLAT WORK
   4. SLUMP SHALL BE 2.5" OR LESS FOR SLIP-FORMED CURB AND GUTTER
   5. SLUMP SHALL BE BETWEEN 1.5" TO 3" FOR NON SLIP-FORMED CURB AND GUTTER.
   6. ALL EXTERIOR CONCRETE SHALL BE AIR ENTRAINED WITH 4% TO 7% AIR CONTENT. NO OTHER ADMIXTURES SHALL BE USED WITHOUT APPROVAL OF EXCEL ENGINEERING, INC. CALCIUM CHLORIDE SHALL NOT BE USED.
   7. MAXIMUM AGGREGATE SIZE FOR ALL EXTERIOR CONCRETE SHALL BE 0.75 INCHES.
F. VERIFY EQUIPMENT CONCRETE PAD SIZES WITH CONTRACTOR REQUIRING PAD. PADS SHALL HAVE FIBERMESH 300 FIBERS AT A RATE OF 1.5 LBS/CU. YD. OR 6 X 6-W1.4 X W1.4 WELDED WIRE MESH WITH MINIMUM 1 INCH COVER. EQUIPMENT PADS SHALL BE 5.5 INCHES THICK WITH 1 INCH CHAMFER UNLESS SPECIFIED OTHERWISE. COORDINATE ADDITIONAL PAD REQUIREMENTS WITH RESPECTIVE CONTRACTOR.
G. ALL CONCRETE FLAT WORK SURFACES AND CONCRETE CURB FLOWLINES SHALL BE CONSTRUCTED TO WITHIN 0.05' OF DESIGN SURFACE AND FLOWLINE GRADES ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE DESIGN PLANS.
H. CONCRETE FLAT WORK SHALL HAVE CONSTRUCTION JOINTS OR SAW CUT JOINTS PLACED AS INDICATED ON THE PLANS OR PER THIS SPECIFICATION. SAWCUTS SHALL BE DONE AS SOON AS POSSIBLE, BUT NO LATER THAN 24 HOURS AFTER CONCRETE IS PLACED. CONCRETE CURB AND GUTTER JOINTING SHALL BE PLACED EVERY 10' OR CLOSER (6' MIN.). IF CONCRETE PAVEMENT IS ADJACENT TO CONCRETE CURB, JOINTING IN THE PAVEMENT AND CURB SHALL ALIGN. ALL EXTERIOR CONCRETE SHALL HAVE A BROOM FINISH UNLESS NOTED OTHERWISE. A UNIFORM COAT OF A HIGH SOLIDS CURING COMPOUND MEETING ASTM C309 SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES. ALL CONCRETE IS TO BE CURED FOR 7 DAYS. EXTERIOR CONCRETE SHALL BE SEPARATED FROM BUILDINGS WITH CONTINUOUS 0.5 INCH FIBER EXPANSION JOINT AND/OR 0.25 INCH FIBER EXPANSION JOINT AT DECORATIVE MASONRY UNITS.
I. ALL REINFORCING BARS SHALL BE ASTM A615 GRADE 60. THICKNESS OF CONCRETE COVER OVER REINFORCEMENT SHALL BE NOT LESS THAN 3" WHERE CONCRETE IS DEPOSITED AGAINST THE GROUND WITHOUT THE USE OF FORMS AND NOT LESS THAN 1.5" FOR UP TO #5 BARS AND 2" FOR #6 TO #10 BARS IN ALL OTHER LOCATIONS. ALL REINFORCING SHALL BE LAPPED 48 DIAMETERS FOR UP TO #6 BARS, 62 DIAMETERS FOR #7 TO #9 BARS, 68 DIAMETERS FOR #10 BARS OR AS NOTED ON THE DRAWINGS AND EXTENDED AROUND CORNERS WITH CORNER BARS. PLACING AND DETAILING OF STEEL REINFORCING AND REINFORCING SUPPORTS SHALL BE IN ACCORDANCE WITH CRSI AND ACI MANUAL AND STANDARD PRACTICES. THE REINFORCEMENT SHALL NOT BE PAINTED AND MUST BE FREE OF GREASE/OIL, DIRT OR DEEP RUST WHEN PLACED IN THE WORK. ALL WELDED WIRE FABRIC SHALL MEET THE REQUIREMENTS OF ASTM A 1064. WELDED WIRE FABRIC SHALL BE PLACED 2" FROM TOP OF SLAB, UNLESS INDICATED OTHERWISE.
J. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO SAMPLE MATERIALS, PERFORM TESTS, AND SUBMIT TEST REPORTS DURING CONCRETE PLACEMENT. TESTS WILL BE PERFORMED ACCORDING TO ACI 301. CAST AND LABORATORY CURE ONE SET OF FOUR STANDARD CYLINDERS FOR EACH COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIX EXCEEDING 5 CU. YD., BUT LESS THAN 25 CU. YD., PLUS ONE SET FOR EACH ADDITIONAL 50 CU. YD. OR FRACTION THEREOF. PERFORM COMPRESSIVE-STRENGTH TESTS ACCORDING TO ASTM C 39. TEST TWO SPECIMENS AT 7 DAYS AND TWO SPECIMENS AT 28 DAYS. PERFORM SLUMP TESTING ACCORDING TO ASTM C 143. PROVIDE ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
K. PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. IN HOT, DRY, AND WINDY WEATHER, APPLY AN EVAPORATION-CONTROL COMPOUND ACCORDING TO MANUFACTURER'S INSTRUCTIONS AFTER SCREEDING AND BULL FLOATING, BUT BEFORE POWER FLOATING AND TROWELLING.
L. LIMIT MAXIMUM WATER-CEMENTITIOUS RATIO OF CONCRETE EXPOSED TO FREEZING, THAWING AND DEICING SALTS TO 0.45.
M. TEST RESULTS WILL BE REPORTED IN WRITING TO THE DESIGN ENGINEER, READY-MIX PRODUCER, AND CONTRACTOR WITHIN 24 HOURS AFTER TESTS. REPORTS OF COMPRESSIVE STRENGTH TESTS SHALL CONTAIN THE PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING SERVICE, CONCRETE TYPE AND CLASS, LOCATION OF CONCRETE BATCH ON SITE, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIX PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7-DAY TESTS AND 28-DAY TESTS.

32 30 00 LANDSCAPING AND SITE STABILIZATION

A. TOPSOIL: CONTRACTOR TO PROVIDE A MINIMUM OF 6" OF TOPSOIL FOR ALL DISTURBED OPEN AREAS, OTHER THAN LANDSCAPE ISLANDS SHALL BE PROVIDED WITH A MINIMUM OF 10" OF TOPSOIL. REUSE SURFACE SOIL STOCKPILED ON SITE AND SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN QUANTITIES ARE INSUFFICIENT. EXCAVATOR SHALL BE RESPONSIBLE FOR ROUGH PLACEMENT OF TOPSOIL TO WITHIN 1" OF FINAL GRADE PRIOR TO LANDSCAPER FINAL GRADING. LANDSCAPER TO PROVIDE PULVERIZING AND FINAL GRADING OF TOPSOIL. PROVIDE SOIL ANALYSIS BY A QUALIFIED SOIL TESTING LABORATORY AS REQUIRED TO VERIFY THE SUITABILITY OF SOIL TO BE USED AS TOPSOIL AND TO DETERMINE THE NECESSARY SOIL AMENDMENTS. TEST SOIL FOR PRESENCE OF ATRAZINE AND INFORM EXCEL ENGINEERING, INC. IF PRESENT PRIOR TO BIDDING PROJECT. TOPSOIL SHALL HAVE A PH RANGE OF 5.5 TO 8, CONTAIN A MINIMUM OF 5 PERCENT ORGANIC MATERIAL CONTENT, AND SHALL BE FREE OF STONES 1 INCH OR LARGER IN DIAMETER. ALL MATERIALS HARMFUL TO PLANT GROWTH SHALL ALSO BE REMOVED.
   TOPSOIL INSTALLATION: LOOSEN SUBGRADE TO A MINIMUM DEPTH OF 6 INCHES AND REMOVE STONES LARGER THAN 1" IN DIAMETER. ALSO REMOVE ANY STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER AND DISPOSE OF THEM OFF THE PROPERTY. SPREAD TOPSOIL TO A DEPTH OF 6" BUT NOT LESS THAN WHAT IS REQUIRED TO MEET FINISHED GRADES AFTER LIGHT ROLLING AND NATURAL SETTLEMENT. DO NOT SPREAD TOPSOIL IF SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET. GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN 0.05 FEET OF FINISHED GRADE ELEVATION.
B. SEEDED LAWNS:
   1. CONTRACTOR TO SUBMIT NO MOW SEED MIX TO ENGINEER FOR APPROVAL FOR SEEDING ALL GRASS SLOPES.
   2. PERMANENT LAWN AREAS OUTSIDE OF SLOPED NO MOW SEEDED AREA SHALL BE SEEDED WITH THE FOLLOWING MIXTURE: 65% KENTUCKY BLUEGRASS BLEND (2.0-2.6 LBS./1,000 S.F.), 20% PERENNIAL RYEGRASS (0.6-0.8 LBS./1,000 S.F.), 15% FINE FESCUE (0.4-0.6 LBS/1,000 S.F.). STRAW AND MULCH SHALL BE LAID AT 100LBS/1,000 S.F. FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS/1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. ALL SITE DISTURBED AREAS NOT DESIGNATED FOR OTHER LANDSCAPING AND SITE STABILIZATION METHODS SHALL BE SEEDED AS PERMANENT LAWN. NO BARE TOPSOIL SHALL BE LEFT ONSITE. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
   3. ALL PERMANENT AND TEMPORARY STORM WATER CONVEYANCE SWALE BOTTOMS AND SIDE SLOPES OUTSIDE OF NO MOW SEEDED AREAS SHALL BE SEEDED WITH THE FOLLOWING MIXTURE: 45% KENTUCKY BLUEGRASS (0.60 LBS./1000 S.F.), 40% CREEPING RED FESCUE (0.50 LBS./1,000 S.F.), AND 15% PERENNIAL RYEGRASS (0.20 LBS./1,000 S.F.). FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS./1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
   4. ALL TEMPORARY SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE: 100% RYEGRASS AT 1.9 LBS./1,000 S.F. STRAW AND MULCH SHALL BE LAID AT 100 LBS./1,000 S.F. FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS./1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
C. SEEDED LAWN MAINTENANCE: CONTRACTOR TO PROVIDE MAINTENANCE OF ALL LANDSCAPING FOR A PERIOD OF 90 DAYS FROM THE DATE OF INSTALLATION. AT THE END OF THE MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND OF GRASS SHOULD BE ESTABLISHED FREE OF WEEDS AND SURFACE IRREGULARITIES. LAWN COVERAGE SHOULD EXCEED 90% AND BARE SPOTS SHOULD NOT EXCEED 5"X5". CONTRACTOR SHOULD REESTABLISH LAWNS THAT DO NOT COMPLY WITH THESE REQUIREMENTS AND CONTINUE MAINTENANCE UNTIL LAWNS ARE SATISFACTORY.
D. EROSION MATTING:
   1. CONTRACTOR TO PROVIDE EROSION CONTROL MATTING (NORTH AMERICAN GREEN S150) OR EQUIVALENT ON ALL SLOPES THAT ARE 4:1 AND GREATER. LAWN SEED SHALL BE PLACED BELOW MATTING IN ACCORDANCE WITH SEEDING REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.
   2. CONTRACTOR TO PROVIDE EROSION MATTING (NORTH AMERICAN GREEN C125) OR EQUIVALENT IN ALL SWALE BOTTOMS AND SIDE SLOPES AS REQUIRED. LAWN SEED SHALL BE PLACED BELOW MATTING IN ACCORDANCE WITH SEEDING REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.
E. TREES AND SHRUBS: FURNISH NURSERY-GROWN TREES AND SHRUBS WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL-SHAPED, FULLY BRANCHED, AND HEALTHY LOOKING STOCK. STOCK SHOULD ALSO BE FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. SEE THE LANDSCAPE PLAN FOR SPECIFIC SPECIE TYPE, SIZE, AND LOCATION.
F. TREE AND SHRUB INSTALLATION: EXCAVATE CIRCULAR PITS WITH SIDES SLOPED INWARD. TRIM BASE LEAVING CENTER AREA RAISED SLIGHTLY TO SUPPORT ROOT BALL. EXCAVATE PIT APPROXIMATELY THREE TIMES AS WIDE AS THE ROOT BALL DIAMETER. SET TREES AND SHRUBS PLUMB AND IN CENTER OF PIT WITH TOP OF BALL 1" ABOVE ADJACENT FINISHED GRADES. PLACE PLANTING SOIL MIX AROUND ROOT BALL IN LAYERS AND TAMP TO SETTLE MIX. WATER ALL PLANTS THOROUGHLY. PROVIDE TEMPORARY STAKING FOR TREES AS REQUIRED.
G. TREE AND SHRUB MAINTENANCE/WARRANTY: CONTRACTOR TO PROVIDE MAINTENANCE OF ALL LANDSCAPING FOR A PERIOD OF 90 DAYS FROM THE DATE OF INSTALLATION. MAINTENANCE TO INCLUDE REGULAR WATERING AS REQUIRED FOR SUCCESSFUL PLANT ESTABLISHMENT. CONTRACTOR TO PROVIDE 1 YEAR WARRANTY ON ALL TREES, SHRUBS, AND PERENNIALS.
H. ORGANIC MULCH: PROVIDE 3" MINIMUM THICK BLANKET OF SHREDDED HARDWOOD MULCH AT ALL PLANTING AREAS INDICATED ON THE LANDSCAPE PLAN. INSTALL OVER NON-WOVEN WEED BARRIER FABRIC. COLOR BY OWNER.
I. MINERAL MULCH: PROVIDE 3" MINIMUM THICK BLANKET OF 1.5" MINIMUM TO 2.5" MAXIMUM CRUSHED DECORATIVE STONE AT ALL PLANTING AREAS INDICATED ON THE LANDSCAPE PLAN. INSTALL OVER NON-WOVEN WEED BARRIER FABRIC. COLOR BY OWNER.
J. PLASTIC EDGING: INSTALL VALLEY VIEW INDUSTRIES BLACK DIAMOND LAWN EDGING TO SEPARATE ALL PLANTING BEDS FROM LAWN AREAS. EDGING TO BE 5.5" TALL WITH METAL STAKES INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

DIVISION 33 UTILITIES

33 10 00 SITE UTILITIES

A. CONTRACTOR TO FIELD VERIFY ALL EXISTING UNDERGROUND UTILITIES ON SITE. CONTRACTOR TO VERIFY PIPE LOCATIONS, SIZES, AND DEPTHS AT POINT OF PROPOSED CONNECTIONS AND VERIFY PROPOSED UTILITY ROUTES ARE CLEAR (PER CODE) OF ALL EXISTING UTILITIES AND OTHER OBSTRUCTIONS PRIOR TO CONSTRUCTION. COSTS INCURRED FOR FAILURE TO DO SO SHALL BE THE CONTRACTORS RESPONSIBILITY.
B. ALL SANITARY PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. ALL SANITARY PIPE BELOW PROPOSED & FUTURE BUILDINGS SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL. INSULATION SHALL BE PROVIDED PER STATE PLUMBING CODES AS NECESSARY BASED ON PROPOSED DEPTH PER PLANS.
C. SANITARY MANHOLES SHALL BE 48" PRECAST AND CONFORM TO THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN-CURRENT EDITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SANITARY MANHOLE FRAME AND GRATE TO BE NEENAH R-1550-A OR EQUAL. RIM ELEVATION TO BE SET AT FINISHED GRADE IN DEVELOPED AREAS AND 12" ABOVE FINISHED GRADE IN UNDEVELOPED AREAS EXCEPT AS OTHERWISE DIRECTED BY THE ENGINEER.
D. CLEANOUTS SHALL BE PROVIDED FOR THE SANITARY & STORM SERVICES AT LOCATIONS INDICATED ON THE UTILITY PLAN. THE CLEANOUT SHALL CONSIST OF A COMBINATION WYE FITTING IN LINE WITH THE SANITARY/STORM SERVICE WITH THE CLEANOUT LEG OF THE COMBINATION WYE FACING STRAIGHT UP. THE CLEANOUT SHALL CONSIST OF A 6" VERTICAL PVC PIPE WITH A WATER TIGHT REMOVABLE CLEANOUT PLUG. AN 8" PVC FROST SLEEVE SHALL BE PROVIDED. THE BOTTOM OF THE FROST SLEEVE SHALL TERMINATE 12" ABOVE THE TOP OF THE SANITARY LATERAL OR AT LEAST 6" BELOW THE PREDICTED FROST DEPTH, WHICHEVER IS SHALLOWER. THE CLEANOUT SHALL EXTEND JUST ABOVE THE SURFACE GRADE IN LAWN OR LANDSCAPE AREAS WITH THE FROST SLEEVE TERMINATING AT THE GRADE SURFACE. THE CLEANOUT SHALL EXTEND TO 4 INCHES BELOW SURFACE GRADE IN PAVED SURFACES WITH A ZURN (Z-1474-N) HEAVY DUTY CLEANOUT HOUSING PLACED OVER THE TOP OF THE CLEANOUT FLUSH WITH THE SURFACE GRADE. IN PAVED SURFACES, THE FROST SLEEVE SHALL TERMINATE IN A CONCRETE PAD AT LEAST 6" THICK AND EXTENDING AT LEAST 9" FROM THE SLEEVE ON ALL SIDES, SLOPING AWAY FROM THE SLEEVE. THE CLEANOUT HOUSING SHALL BE CONSTRUCTED PER MANUFACTURERS REQUIREMENTS.
E. ALL PROPOSED WATER PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. 6' MINIMUM COVER SHALL BE PROVIDED OVER ALL WATER PIPING UNLESS OTHERWISE SPECIFIED.
F. ALL PROPOSED STORM PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. ALL PROPOSED STORM PIPE BELOW BUILDINGS SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. SEE UTILITY PLANS FOR ALL STORM PIPE MATERIAL TYPES TO BE USED. PIPE SHALL BE PLACED MIN. 8' HORIZONTALLY FROM FOUNDATION WALLS.
G. SANITARY, STORM, AND WATER UTILITY PIPE INVERTS SHALL BE CONSTRUCTED WITHIN 0.10' OF DESIGN INVERT ELEVATIONS ASSUMING PIPE SLOPE AND SEPARATION IS MAINTAINED PER THE UTILITY DESIGN PLANS AND STATE REQUIREMENTS.
H. SITE UTILITY CONTRACTOR SHALL RUN SANITARY SERVICE TO A POINT WHICH IS A MAXIMUM OF 5' FROM THE EXTERIOR WALL OF THE FOUNDATION. SITE UTILITY CONTRACTOR SHALL RUN STORM SEWER FOR INTERNALLY DRAINED BUILDINGS TO A POINT WHICH IS A MAXIMUM OF 5' FROM THE EXTERIOR WALL OF THE FOUNDATION. SITE UTILITY CONTRACTOR SHALL RUN DOWNSPOUT LEADS TO BUILDING FOUNDATION AND UP 6" ABOVE SURFACE GRADE FOR CONNECTION TO DOWNSPOUT FOR ALL DOWNSPOUT TO RISER (DSR) CONNECTIONS. DOWNSPOUTS TO GRADE (DSG) SHALL BE PROVIDED WITH SPLASH BLOCKS AT THE DISCHARGE LOCATION. ALL DOWNSPOUT LOCATIONS SHOULD BE VERIFIED WITH ARCHITECTURAL PLANS AND DOWNSPOUT CONTRACTOR/GC PRIOR TO INSTALLATION OF DOWNSPOUT LEADS. DOWNSPOUT LEADS SHALL NOT UNDERMINE BUILDING FOUNDATIONS. SITE UTILITY CONTRACTOR SHALL RUN WATER SERVICE TO A POINT WITHIN THE FOUNDATION SPECIFIED BY THE PLUMBING PLANS. CONTRACTOR TO CUT AND CAP WATER SERVICE 12" ABOVE FINISHED FLOOR ELEVATION.
I. ALL UTILITIES SHALL BE INSTALLED WITH PLASTIC COATED TRACER WIRE (10 TO 14 GAUGE SOLID COPPER, OR COPPER COATED STEEL WIRE). PLASTIC WIRE MAY BE TAPED TO PLASTIC WATER OR SEWER PIPE. IF ATTACHED, THE TRACER WIRE SHALL BE SECURED EVERY 6 TO 20 FEET AND AT ALL BENDS. TRACER WIRE SHALL HAVE ACCESS POINTS AT LEAST EVERY 300 FEET. TRACER WIRE SHALL TERMINATE IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AT GRADE OR IN TERMINATION BOX PER LOCAL/STATE REQUIREMENTS.
J. ALL UTILITIES SHALL BE INSTALLED PER STATE, LOCAL, AND INDUSTRY STANDARDS. WATER, SANITARY, AND STORM SEWER SHALL BE INSTALLED PER "STANDARD SPECIFICATION FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN". THE EXCEL ENGINEERING DESIGN ENGINEER SHALL BE RESPONSIBLE FOR OBTAINING STATE PLUMBING REVIEW APPROVAL (IF REQUIRED). THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL OTHER PERMITS REQUIRED TO INSTALL WATER, SANITARY AND STORM SEWER.
K. SEE PLANS FOR ALL OTHER UTILITY SPECIFICATIONS AND DETAILS.

SHOP DRAWING SUBMITTALS

MATERIAL / INFORMATION

2. 31.20.00 - FILL
   - PRODUCT DATA
   - SOURCE MATERIAL
3. 32.10.00 (A) - AGGREGATE BASE & ASPHALT PAVEMENT
   - HOT MIX ASPHALT SPECIFICATIONS
   - AGGREGATE BASE
   - PAVEMENT MARKINGS
4. 32.20.00-CONCRETE AND AGGREGATE BASE
   - DESIGN MIX
   - AGGREGATE BASE
   - COMPRESSION TEST RESULTS
   - PAVEMENT MARKINGS
   - DETECTABLE WARNING PLATES
5. 32.30.00 LANDSCAPING
   - AMENDED SOIL MIX
   - SEEDING PRODUCT DATA
   - PLANTING SUBSTITUTION SCHEDULE
   - MULCH PRODUCT DATA
   - EROSION MATTING
6. 33.10.00 - SITE UTILITIES
   - SANITARY & STORM MANHOLES
   - SANITARY PIPING MATERIALS
   - WATER PIPING MATERIALS
   - WATER FITTINGS & APPURTENANCES
   - STORM PIPING MATERIALS
7. MISCELLANEOUS ITEMS
   - SITE LIGHTING
   - EXTERIOR SIGNAGE
   - BOLLARDS

TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE

Utility	Material	Pipe Code	Fitting Code	Joint Code
Combined Domestic/Fire Service	C900 PVC	AWWA C900, ASTM D1785, ASTM D2241	AWWA C110, AWWA C153, ASTM D2464, ASTM D2466, ASTM D2467, ASTM D3311, ASTM F409, ASTM F1336, ASTM F1866	Joint: ASTM D3139 Integral Bell & Spigot Elastomeric Seal: ASTM F477
Sanitary Sewer	SDR 35 PVC	ASTM D1785, ASTM D2665, ASTM D3034, ASTM F891	ASTM F1336	Push On: ASTM D3212 for Tightness Elastomeric Gasket: ASTM F477
Storm Sewer	HDPE	ASTM F2648, ASTM F2306, AASHTO M252, TYPE S (4 IN - 10 IN), AASHTO M294, TYPE S (12 IN - 60 IN)	ASTM F2648, ASTM F2306, AASHTO M252, or AASHTO M294	Joint: ASTM F2648, ASTM F2306, AASHTO M252, or AASHTO M294 Elastomeric Seal: ASTM F477
Storm Sewer	RRCP-Class IV	ASTM C14, ASTM C76, AASHTO M170		ASTM C443 Rubber Gasket

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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

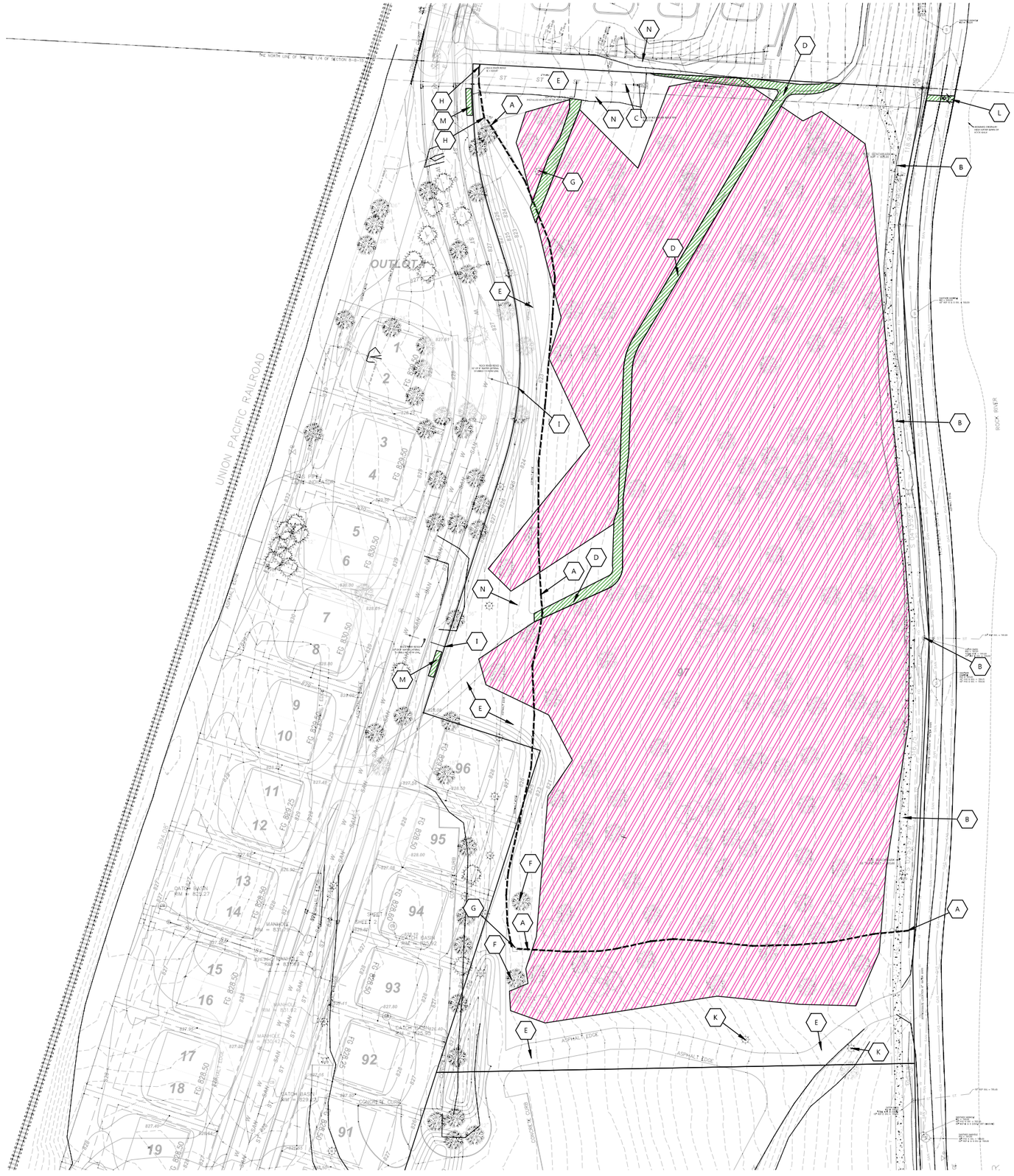
PRELIMINARY DATES
OCT. 23, 2024
OCT. 25, 2024
OCT. 30, 2024
NOV. 8, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C0.2

CIVIL SPECIFICATION SHEET



GENERAL NOTES:

CONTRACTOR TO REFERENCE ROCK RIVER RIDGE PHASE 1 PLANS FOR SCOPE OF REMOVALS COVERED BY ROCK RIVER RIDGE PHASE 1 CONTRACTOR. CONTRACTOR TO FIELD VERIFY ROCK RIVER PHASE 1 REMOVALS AND IMPROVEMENTS HAVE BEEN COMPLETED AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

LEGEND:

- REMOVE PAVEMENT & BASE
- CLEAR AND GRUB TREES WITHIN HATCHED AREA

KEYNOTES

A	ROCK RIVER RIDGE PHASE 1 PLANS DENOTE EXISTING TELECOM TO BE ABANDONED. OWNER/CONTRACTOR TO COORDINATE WITH ADJACENT DEVELOPER.
B	PROTECT CONCRETE TRAIL INSTALLED AS PART OF ROCK RIVER RIDGE PHASE 1 PLANS. FIELD VERIFY SANITARY AND STORM CONNECTIONS HAVE BEEN MADE PRIOR TO CONCRETE TRAIL INSTALLATION. IF NOT, CONTRACTOR TO SAWCUT AND REMOVE AND REPLACE CONCRETE AS NECESSARY FOR PROPOSED UTILITY CONNECTIONS.
C	PROTECT STORM PIPE INSTALLED AS PART OF ROCK RIVER RIDGE PHASE 1 PLANS.
D	SAWCUT (AS NECESSARY) AND REMOVE ASPHALT AND REMOVE BASE. VERIFY WITH NORTH NEIGHBOR THAT TRAIL WILL BE DISCONNECTED AS NEEDED.
E	FIELD VERIFY ASPHALT REMOVED AS PART OF ROCK RIVER RIDGE PHASE 1 PLANS.
F	FIELD VERIFY TREE REMOVED AS PART OF ROCK RIVER RIDGE PHASE 1 PLANS.
G	FIELD VERIFY LIGHT POLE REMOVED AS PART OF ROCK RIVER RIDGE PHASE 1 PLANS.
H	CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER FOR TELECOM UNIT TO BE ABANDONED AND REMOVED AS NECESSARY FOR PROPOSED GRADING AND IMPROVEMENTS. REMOVE PEDESTAL.
I	FIELD VERIFY 8" WATER PIPE STUBBED TO PROPERTY LINES AS PART OF ROCK RIVER RIDGE PHASE 1 PLANS.
K	REMOVE LIGHT POLE, WIRING & CONDUIT
L	SAWCUT (AS NECESSARY) AND REMOVE ASPHALT FOR INSTALLATION OF STORM SEWER.
M	CONTRACTOR TO SAWCUT AND REMOVE SIDEWALK IF INSTALLED THROUGH PROPOSED ENTRANCE TO DEVELOPMENT.
N	CONTRACTOR TO DETERMINE IF STORM SEWER EXISTS OR WAS REMOVED AS PART OF NEIGHBORING DEVELOPMENT. NOTIFY ENGINEER WITH FINDINGS.

EXISTING CONDITIONS NOTE:

EXISTING CONDITIONS SURVEY WAS COMPLETED BY CAPITOL SURVEY ENTERPRISES.

CONTACT:
MICHAEL BERRY
MIKEB@CAPITOLSURVEY.COM
2015 LA CHANDELLE CT
BROOKFIELD, WI 53045
PHONE: 262-786-6600
CAPITOLSURVEY.COM

ROCK RIVER RIDGE PHASE 1 CONTACT:
BRAD SEUBERT
BRAD.SEUBERT@HECL.COM
255 NORTH 21ST STREET
MILWAUKEE, WISCONSIN 53233
PHONE: 414-475-5554

SCALE: 1" = 40'
40' 0 40' 80'
NORTH

CIVIL EXISTING SITE AND DEMOLITION PLAN

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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

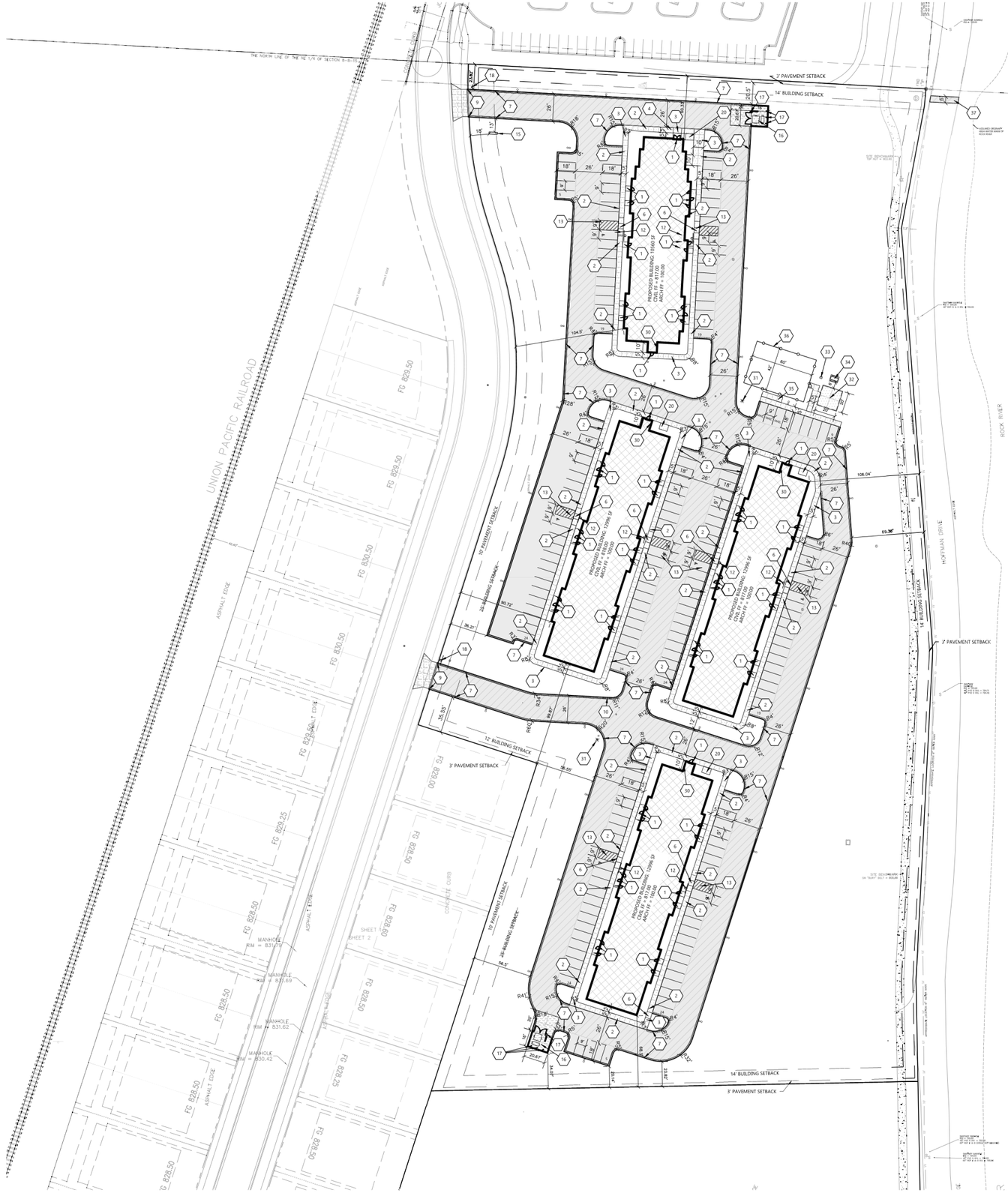
PROFESSIONAL SEAL

PRELIMINARY DATES
OCT. 23, 2024
OCT. 25, 2024
OCT. 30, 2024
NOV. 8, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C1.0



KEYNOTES		
1		CONCRETE STOOP (SEE STRUCTURAL PLANS FOR DETAILS)
2		RAISED WALK (SEE DETAIL)
3		FLUSH WALK (SEE DETAIL)
4		TAPER ASPHALT IN 12" TO CREATE RAISED WALK
6		ADA CURB RAMP (SEE DETAIL)
7		18" CURB & GUTTER (SEE DETAIL)
9		CURB TAPER (SEE DETAIL)
10		CURB CUT (SEE DETAIL)
11		CONCRETE TRANSFORMER PAD BY UTILITY SUPPLIER (CONTRACTOR TO VERIFY FINAL LOCATION & DESIGN PRIOR TO CONSTRUCTION)
12		HANDICAP SIGN PER STATE CODE (SEE DETAIL)
13		HANDICAP STALL & STRIPING PER STATE CODES
15		MONUMENT SIGN (DETAILS, FINAL LOCATION, & APPROVAL BY SIGN VENDOR)
16		DUMPSTER ENCLOSURE (SEE ARCH PLANS FOR DETAILS)
17		6" CONCRETE BOLLARDS (TYP.) (SEE ARCH PLANS FOR DETAILS)
18		STOP SIGN PER MUTCD.
20		BIKE RACK (TYP.) (TYPE & COLOR BY OWNER)
22		TRAFFIC FLOW ARROWS (TYP). COLOR TO MATCH PARKING STALL STRIPING
30		FDC LOCATION. FDC SHALL HAVE AN ANGLED 5 INCH STORZ CONNECTION AND SHALL BE MARKED WITH A STROBE OR REFLECTIVE SIGN.
31		FIRE HYDRANT LOCATION. FIRE HYDRANTS SHALL NOT BE PLACED CLOSER THAN 40 FEET TO ANY BUILDING AND SHALL BE NO MORE THAN 100 FEET FROM THE FDC.
32		PAVILION ON CONCRETE PAD. SEE ARCH PLANS.
33		PARK GRILL. TYPE BY OWNER.
34		PICNIC TABLE ON CONCRETE PAD. TABLE BY OWNER.
35		MAILBOX AND PARCEL CLUSTERS ON CONCRETE PAD. SEE ARCH PLANS.
36		PROPOSED DOG PARK WITH 4' BLACK VINYL CHAINLINK FENCE.
37		ASPHALT/BASE SECTION TO MATCH EXISTING ROAD SECTION PER CITY OF WATERTOWN SPECIFICATIONS.

LEGEND:

HATCH	PAVEMENT SECTION	HATCH	PAVEMENT SECTION
	STANDARD ASPHALT		HEAVY DUTY CONCRETE
	HEAVY DUTY ASPHALT		
	SIDEWALK CONCRETE		DUMPSTER PAD / APRON CONCRETE
	INVERTED CURB & GUTTER		SHEDDING CURB & GUTTER

SCALE: 1" = 40'

NORTH

CIVIL SITE PLAN

Excel
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100 Camelot Drive
Fond du Lac, WI 54935
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excelengineer.com

PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT

LUMIN TERRACE

JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES

OCT. 3, 2024
OCT. 11, 2024
OCT.14, 2024
OCT. 18, 2024
OCT. 23, 2024
OCT. 25, 2024
OCT. 30, 2024
NOV. 8, 2024

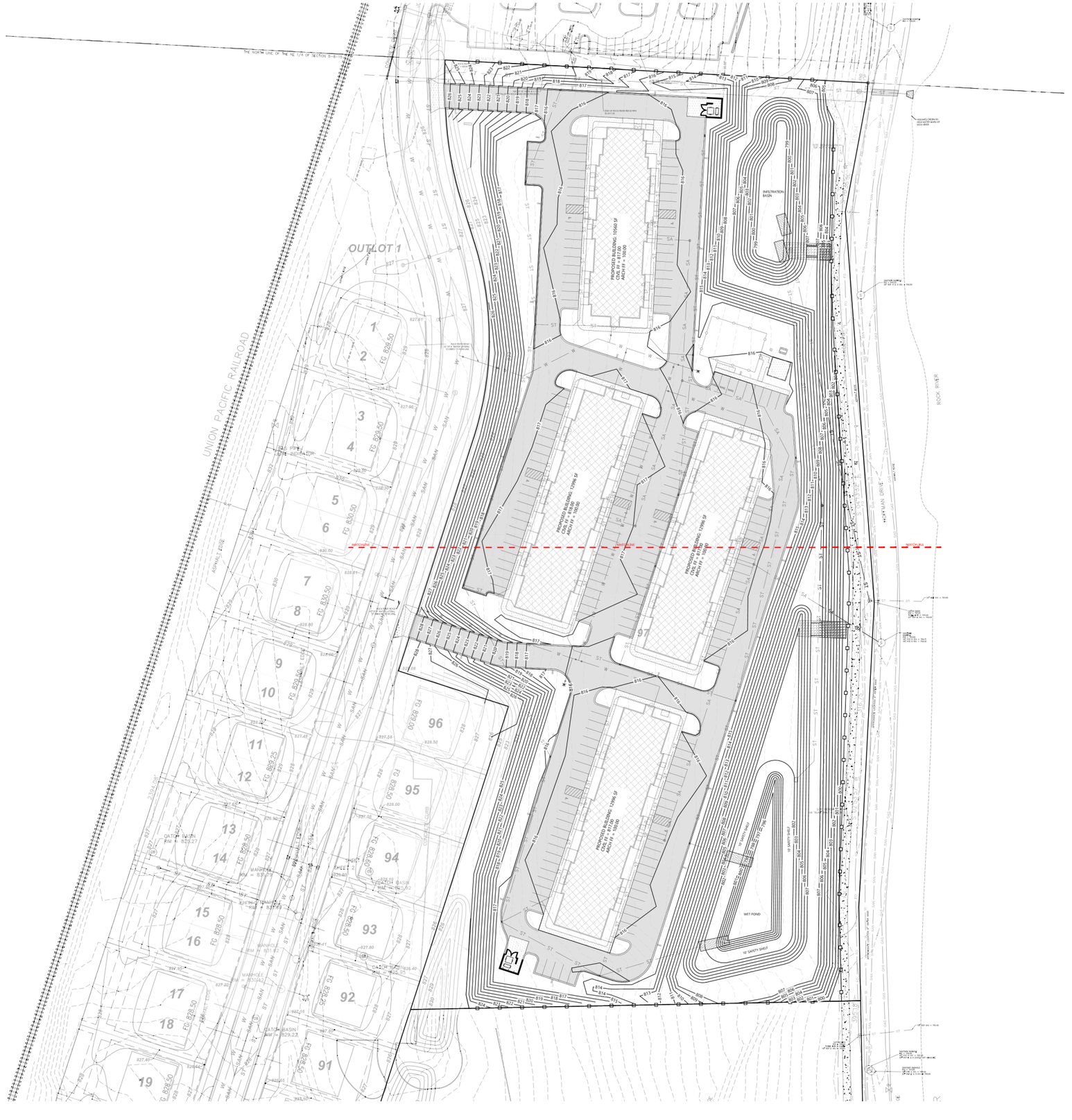
NOT FOR CONSTRUCTION

JOB NUMBER

240136200

SHEET NUMBER

C1.1



GENERAL NOTES:

- HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
- ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.
- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS, & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

KEYNOTES

EC 1	SILT FENCE
EC 3	STABILIZED CONSTRUCTION ENTRANCE
EC 4	INLET PROTECTION

SCALE: 1" = 40'

NORTH

CIVIL GRADING AND EROSION CONTROL PLAN - OVERALL

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excelengineer.com

PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT

LUMIN TERRACE

JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES
OCT. 11, 2024
OCT. 18, 2024
OCT. 23, 2024
OCT. 25, 2024
OCT. 30, 2024
NOV. 8, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C1.2A

GENERAL NOTES:

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- ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.
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KEYNOTES

EC 1	SILT FENCE
EC 3	STABILIZED CONSTRUCTION ENTRANCE
EC 4	INLET PROTECTION

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920-926-9800
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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT

LUMIN TERRACE

JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES
NOV. 8, 2024

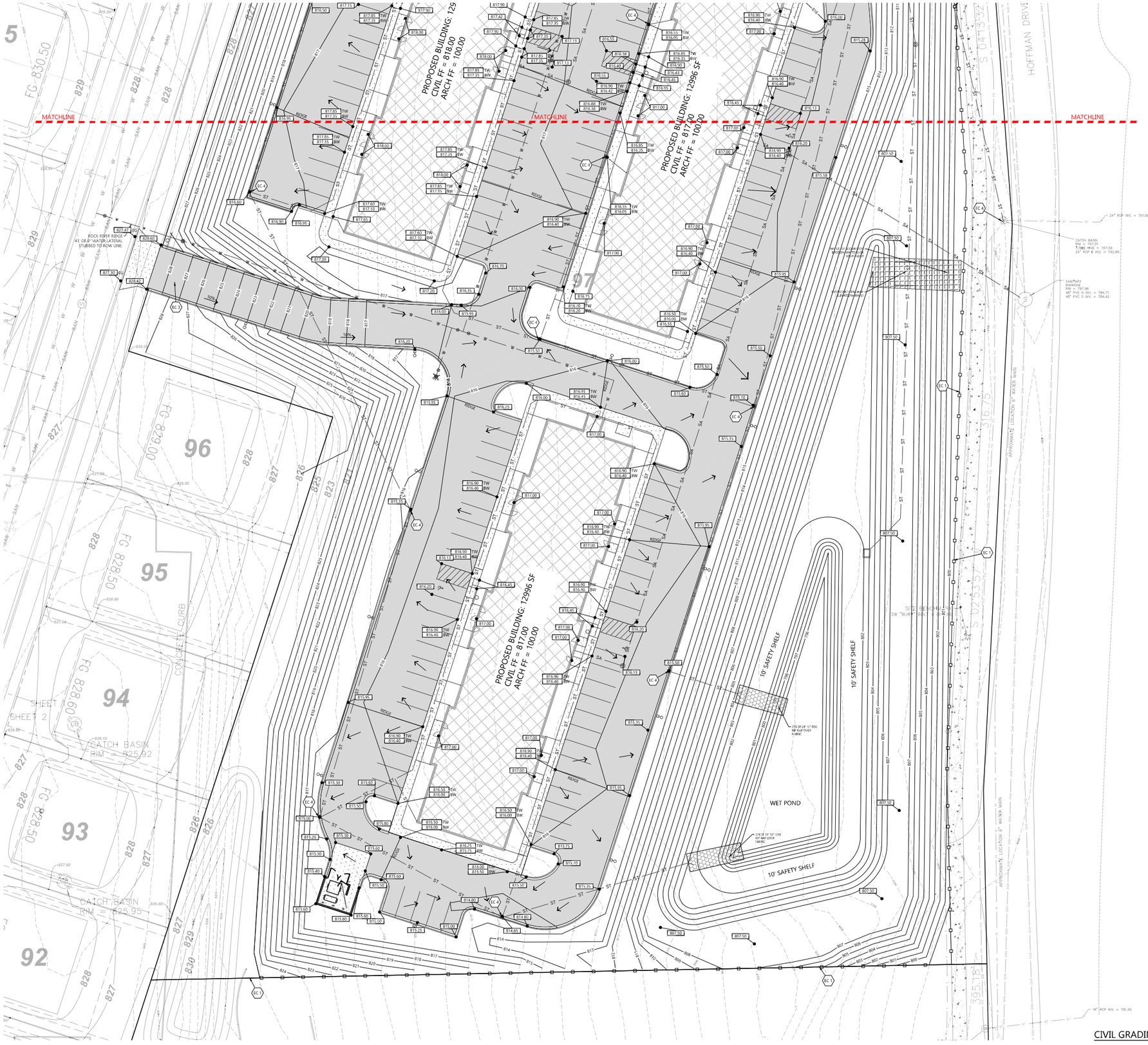
NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C1.2B

SCALE: 1" = 20'

CIVIL GRADING AND EROSION CONTROL PLAN - NORTH



GENERAL NOTES:

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- ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.
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- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

KEYNOTES

EC 1	SILT FENCE
EC 3	STABILIZED CONSTRUCTION ENTRANCE
EC 4	INLET PROTECTION

EXCEL
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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT

LUMIN TERRACE

JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES
NOV. 8, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

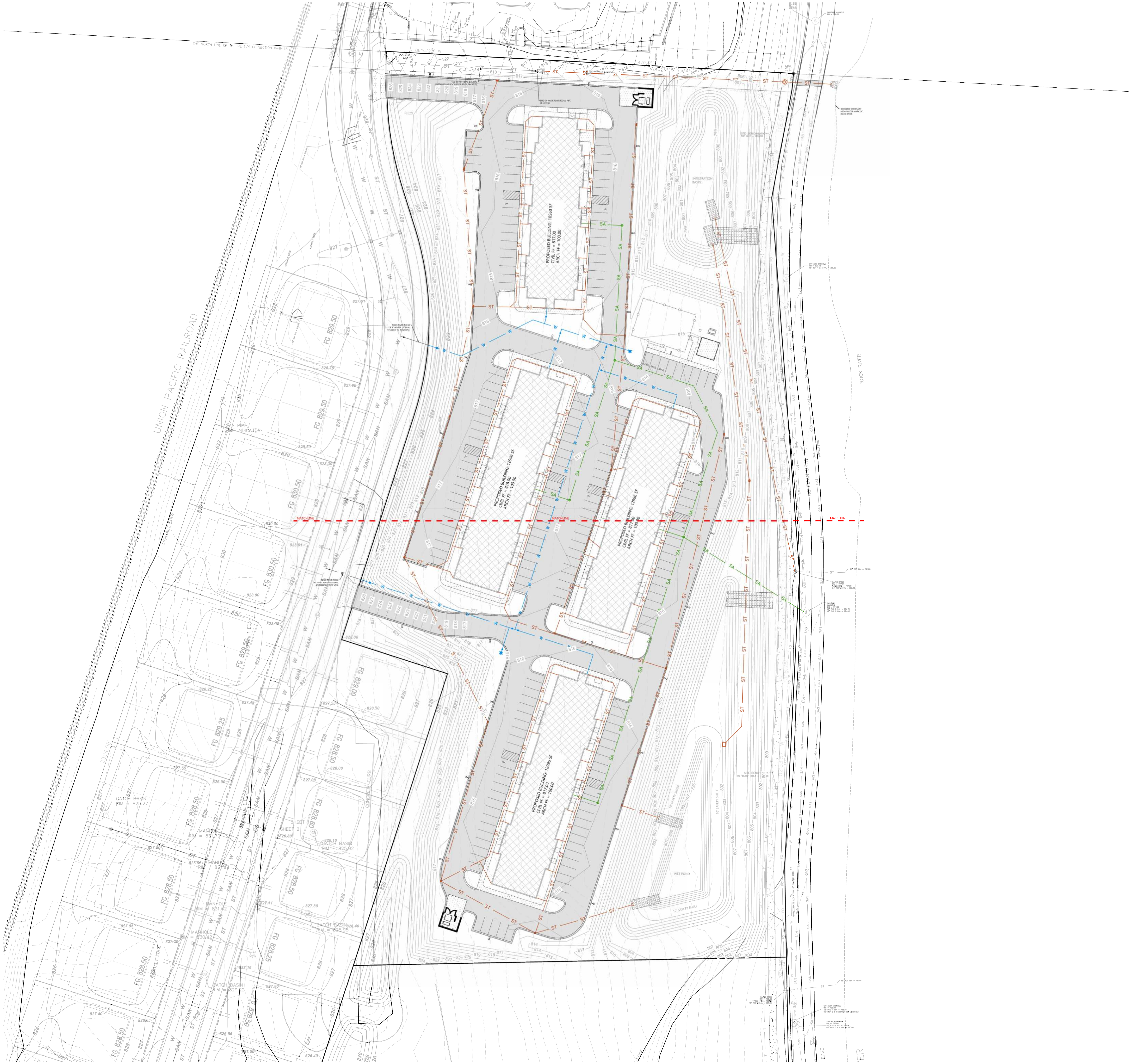
SHEET NUMBER
C1.2C

SCALE: 1" = 20'
20' 0 20' 40'

CIVIL GRADING AND EROSION CONTROL PLAN - SOUTH

GENERAL NOTES:

- ALL DOWNSPOUT LEADERS WITH DS TAG SHALL BE 6" HDPE PIPES WITH LENGTH OF LEADER NOTED AFTER DS PREFIX.
- CONTRACTOR TO VERIFY WATER AND SANITARY PIPE SIZING WITH INTERIOR PLUMBER PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IF INTERIOR PLUMBER REQUIRES DIFFERENT PIPE SIZES.



CIVIL UTILITY PLAN - OVERALL

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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES

OCT. 17, 2024
OCT. 18, 2024
OCT. 23, 2024
OCT. 25, 2024
OCT. 30, 2024
NOV. 7, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C1.3A

GENERAL NOTES:

- ALL DOWNSPOUT LEADERS WITH DS TAG SHALL BE 6" HDPE PIPES WITH LENGTH OF LEADER NOTED AFTER DS PREFIX.
- CONTRACTOR TO VERIFY WATER AND SANITARY PIPE SIZING WITH INTERIOR PLUMBER PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IF INTERIOR PLUMBER REQUIRES DIFFERENT PIPE SIZES.

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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT

LUMIN TERRACE

JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES
NOV. 8, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C1.3B

SCALE: 1" = 20'

NORTH

CIVIL UTILITY PLAN - NORTH

GENERAL NOTES:

- ALL DOWNSPOUT LEADERS WITH DS TAG SHALL BE 6" HDPE PIPES WITH LENGTH OF LEADER NOTED AFTER DS PREFIX.
- CONTRACTOR TO VERIFY WATER AND SANITARY PIPE SIZING WITH INTERIOR PLUMBER PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IF INTERIOR PLUMBER REQUIRES DIFFERENT PIPE SIZES.

MATCHLINE

MATCHLINE

MATCHLINE

PROPOSED BUILDING: 12996 SF
CIVIL FF = 818.00
ARCH FF = 100.00

PROPOSED BUILDING: 12996 SF
CIVIL FF = 817.00
ARCH FF = 100.00

PROPOSED BUILDING: 12996 SF
CIVIL FF = 817.00
ARCH FF = 100.00

STORM PIPE L
159' OF 24" HDPE @ 1%
(100 YR = 5,542 GPM)

LIGHT POLE (TYP)
SEE C3.1.

STORM PIPE I
149' OF 18" HDPE @ 8.46%
(100 YR = 2,374 GPM)

STORM CI 5 [4']
RIM = 816.60
IE NE=809.03
IE 24" SE = 809.03
IE 8"SE =812.19

CONNECT TO END OF WATER LATERAL INSTALLED AS PART OF ROCK RIVER RIDGE DEVELOPMENT

HYDC VALVE IN MANHOLE

ROCK RIVER RIDGE
41' OF 8" WATER LATERAL STUBBED TO ROW LINE.

WATER PIPE 9
175' OF 8" C900 PVC

LIGHT POLE (TYP)
SEE C3.1.

WATER PIPE 8
28' OF 6" C900 PVC HYDRANT LEAD WITH VALVE

VALVE

STORM PIPE M
200' OF 24" HDPE @ 1%
(100 YR = 6,745 GPM)

STORM CI 6 [4']
RIM = 815.35
IE SW = 807.03

STORM PIPE N
178' OF 24" HDPE @ 1%
(100 YR = 9,371 GPM)

LIGHT POLE (TYP)
SEE C3.1.

DOWNSPOUT LEAD COLLECTOR 4
315' OF 6" HDPE @ 1.25%
(100 YR = 597 GPM)

STORM PIPE C
78' OF 18" HDPE @ 1%
(100 YR = 4,035 GPM)

IE= 807.60

SANITARY MH D [4']
RIM = 817.00
IE NE= 807.10
IE NW= 807.20

SANITARY PIPE 6
59' OF 8" SDR 35 PVC @ 1%

STORM CI 12 [4']
RIM = 816.05
IE NE = 806.83
IE SW = 806.83
IE SE = 812.00

STORM PIPE D
108' OF 18" HDPE @ 1%
(100 YR = 4,757 GPM)

WATER PIPE 6
324' OF 8" C900 PVC

DOWNSPOUT LEAD COLLECTOR 5
259' OF 8" HDPE @ 1.25%
(100 YR = 597 GPM)

STORM CI 13 [5']
RIM = 815.50
IE NW=809.00
IE NE = 805.75
IE SE = 805.75

WATER PIPE 7
110' OF 6" C900 PVC WITH VALVE

STORM CI 14 [5']
RIM = 815.05
IE NW=806.61
IE SW = 802.61
IE 6" NE=812.00

STORM PIPE K
260' OF 10" HDPE @ 2%
(100 YR = 1198 GPM)

STORM MH I [4']
RIM = 808.00
IE N = 800.83
IE S = 800.93

IE=804.16

SANITARY PIPE 7
28' OF 8" SDR 35 PVC @ 5%

SANITARY MH A [4']
RIM = 816.20
IE NE = 802.76
IE NW = 802.76
IE SW = 805.80 PROVIDE EXTERNAL DROP TO 802.76
IE SW = 802.76
IE E = 802.66

STORM PIPE Q
289' OF 10" HDPE @ 0.32%

SANITARY PIPE 1
153' OF 8" SDR 35 PVC @ 2%

PROTECT EXISTING FIBER OPTIC LINES.

CONNECT PROPOSED 8" STORM PIPE TO EXISTING CATCH BASIN AT IE=794.00. CONTRACTOR TO FIELD VERIFY STRUCTURAL INTEGRITY OF EXISTING CATCH BASIN AND REPLACE AS NECESSARY.

24" RCP INV. = 791.66

CATCH BASIN
RIM = 797.01
* 24" RCP W INV. = 797.59
24" RCP E INV. = 792.80

PROTECT EXISTING FIBER OPTIC AND WATER LINES. MAINTAIN ADEQUATE SEPARATION PER DSPS.

SANITARY MANHOLE
RIM = 797.96
48" PVC N INV. = 784.71
48" PVC S INV. = 784.71
IE W 8" = 799.60 PROVIDE EXTERNAL DROP TO 786.38
IE W 8" = 786.38

LIGHT POLE (TYP)
SEE C3.1.

IE STORM=804.75
IE SAN=807.21

STORM PIPE E
125' OF 24" HDPE @ 1%
(100 YR = 8,813 GPM)

STORM CI 15 [5']
RIM = 815.10
IE SW = 804.46
IE NE = 805.80
IE NW= 804.46

STORM PIPE G
153' OF 24" HDPE @ 1%
(100 YR = 10,165 GPM)

OUTLET STRUCTURE
RIM= 805.00
IE 205' V-NOTCH= 802.00
IE 10' = 802.00

SANITARY PIPE 8
301' OF 6" SDR 35 PVC @ 1%

IE=809.20

STORM CI 16 [5']
RIM = 815.50
IE SE = 802.91
IE NE = 807.91

SANITARY MH E [4']
RIM = 816.20
IE NE = 808.81
IE NW= 808.91

SANITARY PIPE 9
28' OF 6" SDR 35 PVC @ 1%

STORM PIPE H
41' OF 24" HDPE @ 1%
(100 YR = 10,874 GPM)

ENDSECTION 5
IE = 802.59

LIGHT POLE (TYP)
SEE C3.1.

STORM CI 7 [5']
RIM = 815.00
IE SE = 805.25
IE NE= 805.25
IE 8" NE= 808.00

STORM PIPE O
116' OF 30" HDPE @ 1%
(100 YR = 11,426 GPM)

DOWNSPOUT LEAD COLLECTOR 7
271' OF 8" HDPE @ 1.25%
(100 YR = 597 GPM)

STORM PIPE P
108' OF 30" HDPE @ 1%
(100 YR = 12,840 GPM)

ENDSECTION 4
IE = 803.00

STORM CI 8 [5']
RIM = 814.65
IE NW = 804.08
IE 8" NW=809.00
IE NE =804.08

SITE BENCHMARK
SW "BURY" BOLT = 815.66

10' SAFETY SHELF

10' SAFETY SHELF

10' SAFETY SHELF

WET POND

APPROXIMATE LOCATION 8" WATER MAIN

CATCH BASIN
RIM = 825.92

CATCH BASIN
RIM = 825.95

SHEET 1
SHEET 2

CONCRETE CURB

CATCH BASIN
RIM = 791.22

18" RCP INV. = 791.45

SCALE: 1" = 20'
20' 0 20' 40'
NORTH

CIVIL UTILITY PLAN - SOUTH

Exc
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROFESSIONAL SEAL

PRELIMINARY DATES
NOV. 8, 2024

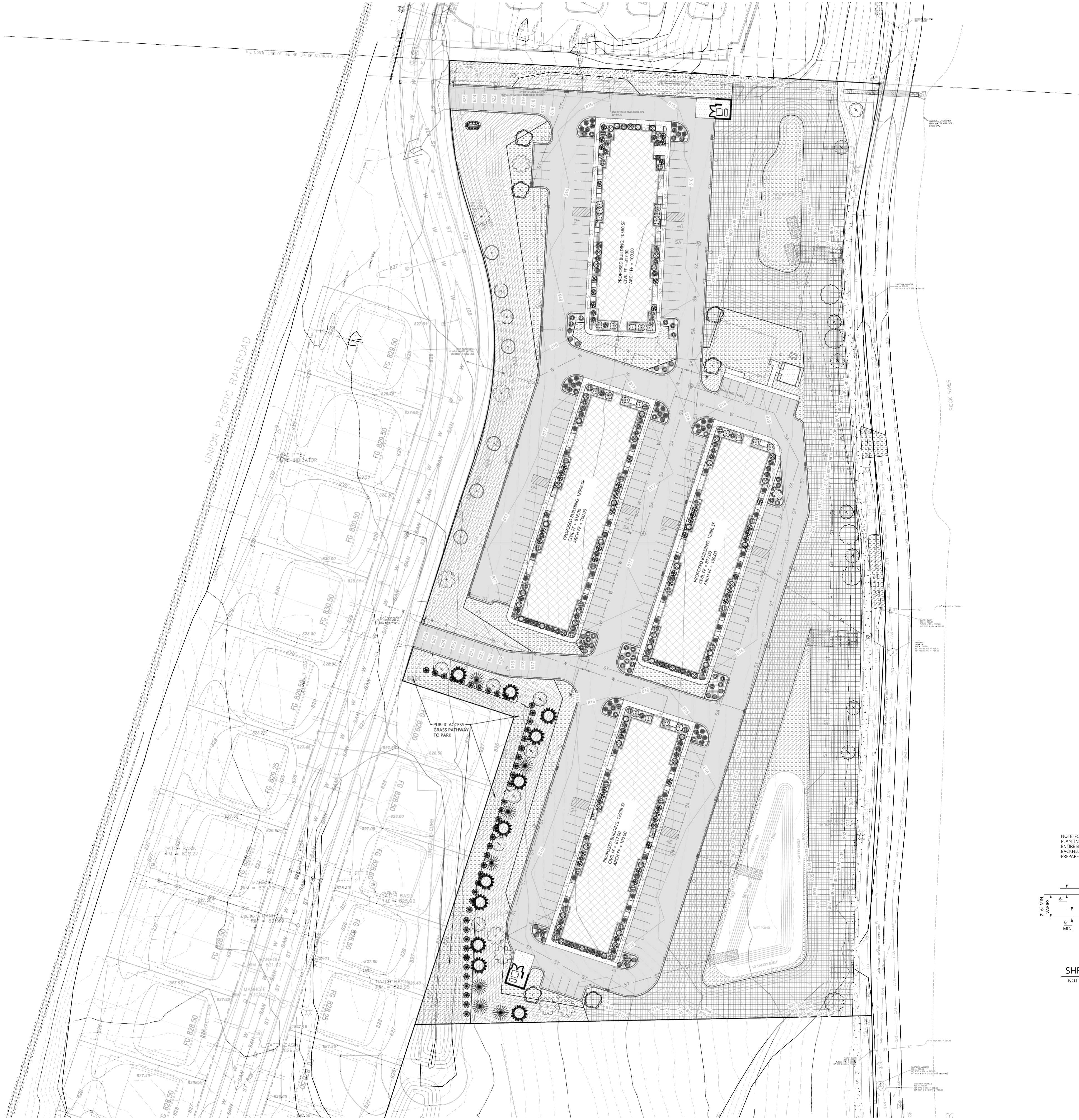
NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C1.3C

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

Section 3, Item B.



HATCH KEY:

HATCH	LANDSCAPE MATERIAL
	ORGANIC MULCH
	SEEDED LAWN
	EROSION MATTING (NAG S150) OVER NO MOW SEEDED LAWN . CONTRACTOR TO SUBMIT NO MOW SEED MIX TO ENGINEER FOR APPROVAL. (> OR = 4:1 SLOPES OUTSIDE OF SWM)
	EROSION MATTING (NAG C125) OVER NO MOW SEEDED LAWN.CONTRACTOR TO SUBMIT NO MOW SEED MIX TO ENGINEER FOR APPROVAL. (SWALE BOTTOMS & SWM)

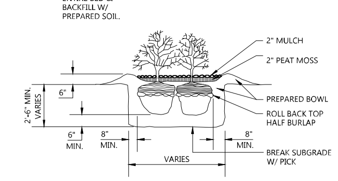
LANDSCAPING CALCULATIONS

ZONE	REQ. PLANTS	PLANTS PROVIDED
PAVED AREAS	GREATER OF: 100 POINTS PER 20 PARKING STALLS OR 10,000 SQUARE FEET OF PARKING AREA A MINIMUM OF 30% OF POINTS DEVOTED TO CLIMAX/TALL TREES AND 40% TO SHRUBS $\frac{196}{20}$*100=980 $\frac{132373}{10000}$*100=1324 POINTS TOTAL REQUIRED 1324*.3=398 POINTS MINIMUM TALL TREES 1324*.4=530 POINTS MINIMUM SHRUBS	66 (5-POINT) DECIDUOUS SHRUBS 40 (5-POINT) EVERGREEN SHRUBS 530 TOTAL SHRUB POINTS PROVIDED 11 (75 POINT) CLIMAX TREE 825 TOTAL TREE POINTS 1355 POINTS TOTAL PROVIDED
DEVELOPED LOTS	20 POINTS PER 1,000 SQUARE FEET OF BUILDING FOOTPRINT $\frac{49548}{1000}$*20=991 POINTS REQD	48 (3 POINT) DECIDUOUS SHRUBS=144 7 (20 POINT) MEDIUM TREES =140 18(40 POINT) TALL EVERGREEN TREES=760
STREET	50 POINTS PER 100 LINEAR FEET OF STREET FRONTAGE SHRUBS NOT ALLOWED; A MINIMUM OF 50% OF POINTS DEVOTED TO CLIMAX/TALL TRESS AND 30% TO MEDIUM TREES HOFFMAN ROAD=$\frac{957}{100}$*50=479 MINIMUM 240 TALL/CLIMAX MINIMUM 144 MEDIUM JOHNSON STREET=$\frac{654}{100}$*50=327 MINIMUM 164 TALL/CLIMAX MINIMUM 99 MEDIUM	HOFFMAN ROAD 5 (75 POINT) CLIMAX=375 8 (20 POINT)MEDIUM=160 535 TOTAL JOHNSON STREET 3 (75 POINT) CLIMAX=225 7 (15 POINT)MEDIUM=105 330 TOTAL
BUILDING FOUNDATION	50 POINTS PER 100 FEET OF BUILDING FOUNDATION CLIMAX TREES AND TALL TREES SHALL NOT BE USED TO MEET THIS REQUIREMENT. (637+637+637+556)/100*50=1,234 POINTS REQD	131 (5-POINT) DECIDUOUS SHRUBS 9 (3-POINT) DECIDUOUS SHRUBS 81 (5-POINT) EVERGREEN SHRUBS 55 (3-POINT) EVERGREEN SHRUBS TOTAL 1,234 POINTS PROVIDED

LANDSCAPING PLANTING SCHEDULE

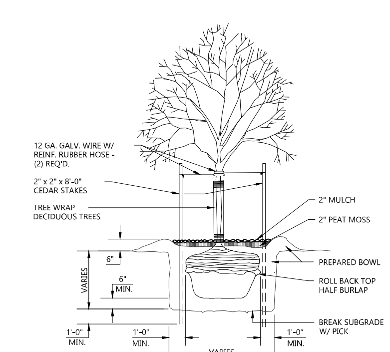
SYMBOL	COMMON NAME	BOTANICAL NAME	PLANTED SIZE	QUANTITY	POINTS
	DECIDUOUS TREES				
	Sugar Maple	Acer saccharum	2"	6	75
	Red Oak	Quercus rubra	2"	8	75
	Ginkgo	Ginkgo bilboa	2"	5	75
	River Birch	Betula nigra	2"	7	15
	EVERGREEN TREES				
	American Arborvitae	Thuja occidentalis	2'	15	4'-10'
	Austrian Pine	Pinus nigra	4'	7	40
	Black Hills Spruce	Picea glauca	4'	11	40
	DECIDUOUS SHRUBS				
	Common Lilac	Syringa vulgaris	24"	81	5
	Weigela Carnaval	Weigela Florida 'courtalor'	24"	3	3
	Smooth Sumac	Rhus glabra	24"	21	5
	Tamarisk	Tamarix ramosissima	24"	23	5
	Gray Dogwood	Cornus racemosa	24"	24	5
	Eastern Ninebark	Physocarpus opulifolius	24"	51	5
	Hedge Cotoneaster	Cotoneaster lucida	24"	48	3
	EVERGREEN SHRUBS				
	Pfitzer Juniper	Juniperus chinensis 'Pfitzeriana'	12"-15"	48	5
	Arcadia Juniper	Juniperus sabina 'arcadia'	24"	55	3
	Ware American Arborvitae	Thuja occidentalis "Robusta"	36"	19	5
	Hunnewell Yew	Taxus cuspidata "Expansa"	24"	21	5
	Mugo Pine	Pinus mugo	12"	33	5
	PERENNIALS				
*	Hostas	Hostas 'Royal Standard'	1 gal pot	11	

NOTE: FOR MASS PLANTINGS EXCAVATE ENTIRE BED & BACKFILL W/ PREPARED SOIL.



SHRUB PLANTING DETAIL

NOT TO SCALE



TREE PLANTING DETAIL

NOT TO SCALE

SCALE: 1"= 40'

NORTH

CIVIL LANDSCAPE AND RESTORATION PLAN

Always a Better Plan

100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

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OCT. 25, 2024
OCT. 30, 2024
NOV. 8, 2024

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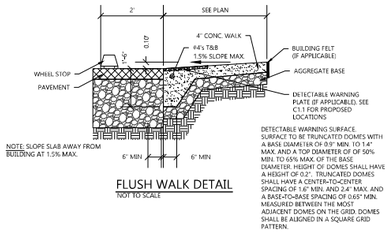
JOB NUMBER
240136200

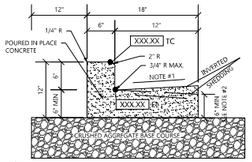
SHEET NUMBER
C1.4



NOTE: SLOPE SLAB AWAY FROM BUILDING AT 1.5% MAX.

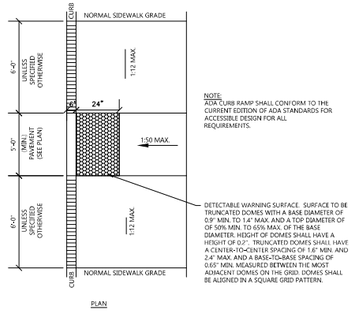
DETECTABLE WARNING SURFACE. SURFACE TO BE TRUNCATED DOMES WITH A BASE DIAMETER OF 0.9" MIN. TO 1.4" MAX. AND A TOP DIAMETER OF OF 50% MIN. TO 65% MAX. OF THE BASE DIAMETER. HEIGHT OF DOMES SHALL HAVE A HEIGHT OF 0.2". TRUNCATED DOMES SHALL HAVE A CENTER-TO-CENTER SPACING OF 1.6" MIN. AND 2.4" MAX. AND A BASE-TO-BASE SPACING OF 0.65" MIN. MEASURED BETWEEN THE MOST ADJACENT DOMES ON THE GRID. DOMES SHALL BE ALIGNED IN A SQUARE GRID PATTERN.

FLUSH WALK DETAIL
NOT TO SCALE



NOTE:
1. USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
2. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MIN. GUTTER THICKNESS IS MAINTAINED.
3. SEE SITE PLAN & GRADING PLAN FOR INVERTED & SHEDDING CURB LOCATIONS

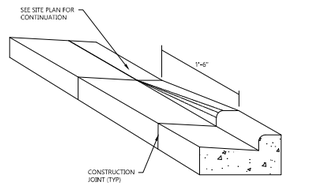
18" CONCRETE CURB & GUTTER DETAIL
NOT TO SCALE



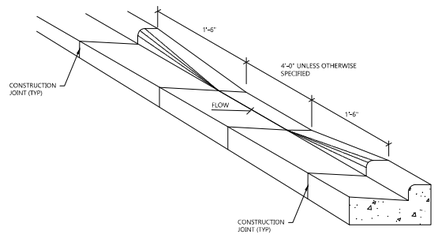
NOTE:
ADA CURB RAMP SHALL CONFORM TO THE CURRENT EDITION OF ADA STANDARDS FOR ACCESSIBLE DESIGN FOR ALL REQUIREMENTS.

DETECTABLE WARNING SURFACE. SURFACE TO BE TRUNCATED DOMES WITH A BASE DIAMETER OF 0.9" MIN. TO 1.4" MAX. AND A TOP DIAMETER OF OF 50% MIN. TO 65% MAX. OF THE BASE DIAMETER. HEIGHT OF DOMES SHALL HAVE A HEIGHT OF 0.2". TRUNCATED DOMES SHALL HAVE A CENTER-TO-CENTER SPACING OF 1.6" MIN. AND 2.4" MAX. AND A BASE-TO-BASE SPACING OF 0.65" MIN. MEASURED BETWEEN THE MOST ADJACENT DOMES ON THE GRID. DOMES SHALL BE ALIGNED IN A SQUARE GRID PATTERN.

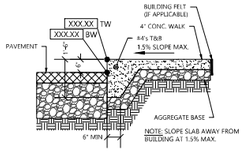
ADA SIDEWALK RAMP DETAIL
NOT TO SCALE



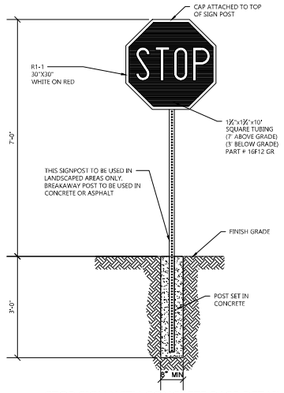
CURB TAPER DETAIL
NOT TO SCALE



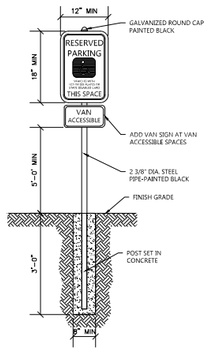
CURB CUT DETAIL
NOT TO SCALE



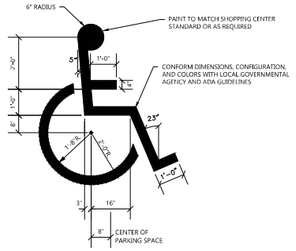
RAISED WALK DETAIL
NOT TO SCALE



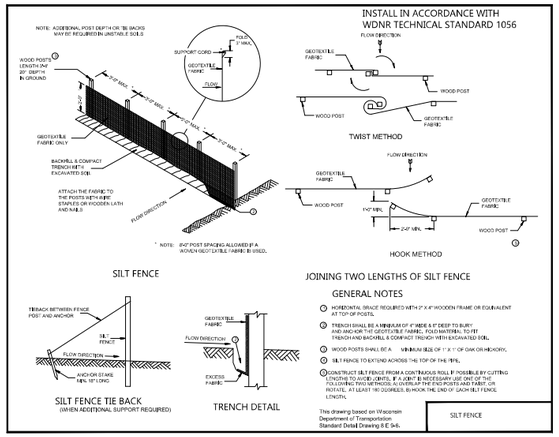
STOP SIGN WITH CONCRETE BASE DETAIL
NOT TO SCALE



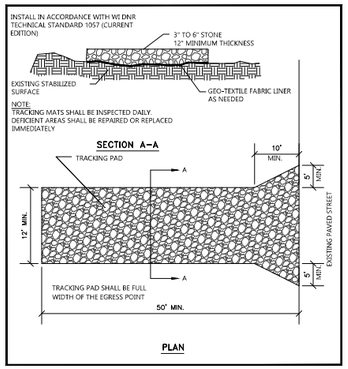
HANDICAP SIGNAGE WITH CONCRETE BASE DETAIL
NOT TO SCALE



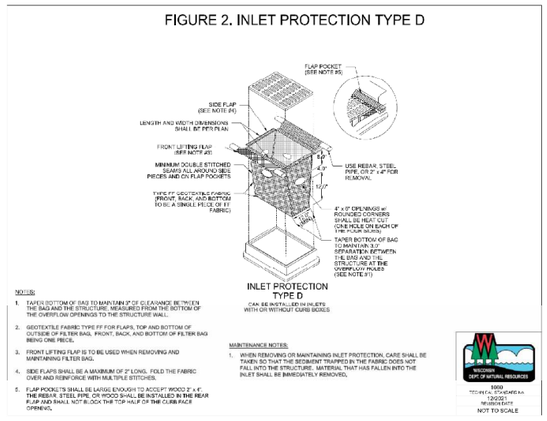
HANDICAP STALL SYMBOL
NOT TO SCALE



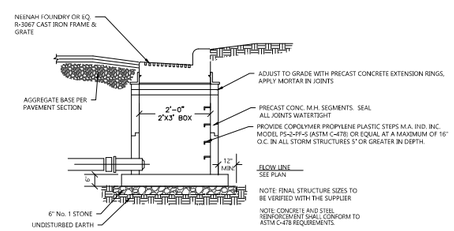
SILT FENCE - INSTALLATION DETAIL
NOT TO SCALE



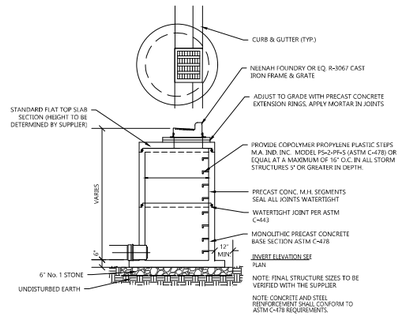
TRACKPAD DETAILS
NOT TO SCALE



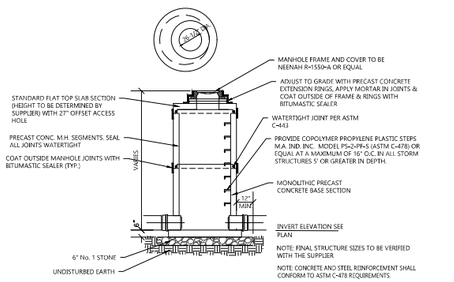
INLET PROTECTION DETAIL
NOT TO SCALE



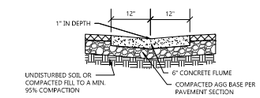
STORM CURB INLET DETAIL
NOT TO SCALE



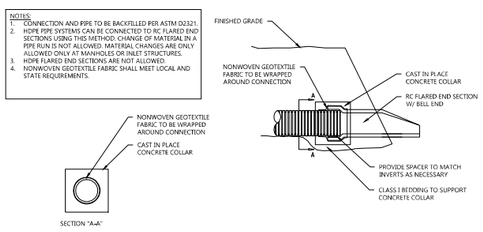
STORM CURB INLET W/ ROUND STRUCTURE DETAIL
NOT TO SCALE



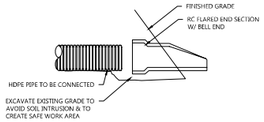
SANITARY MANHOLE DETAIL
NOT TO SCALE



CONCRETE FLUME DETAIL (PAVEMENT)
NOT TO SCALE



CONNECTION DETAIL FOR HDPE PIPE TO RC FLARED END SECTION BELL END
NOT TO SCALE



Excel Engineering
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES
OCT. 23, 2024
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NOV. 8, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C2.0

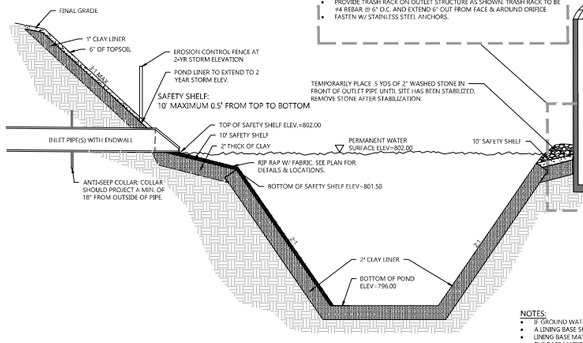
POND LINER CRITERIA FOR SAFETY SHELF AND BELOW (CLAY):

- 50% TIMES (200 SIEVE) OR MORE.
- AN IN-PLACE HYDRAULIC CONDUCTIVITY OF 1x10^{-6} CM./SEC. OR LESS.
- AVERAGE LIQUID LIMIT VALUE OF 16 OR GREATER, WITH NO VALUE LESS THAN 14.
- AVERAGE PI OF 7 OR MORE WITH NO VALUES LESS THAN 5.
- CLAY COMPACTION AND DOCUMENTATION AS SPECIFIED IN NRCS WISCONSIN CONSTRUCTION SPECIFICATION 204, EARTHWORK FOR WASTE STORAGE FACILITIES.
- MINIMUM THICKNESS OF TWO FEET.
- SPECIFY METHOD FOR KEEPING POOL FULL OR USE OF COMPOSITE SOILS BELOW LINER.

POND LINER ALTERNATE:

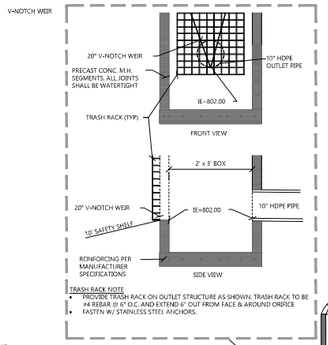
- CONTRACTOR TO PROVIDE 40 MIL/HDPE POND LINER IN LIEU OF CLAY LINER TO LINE ENTIRE POND AREA UP TO THE 2 YEAR, 24-HOUR WATER PONDING ELEVATION (SEE ELEVATION ON DETAIL).
- DESIGN ACCORDING TO THE CRITERIA IN TABLE 3 OF THE NRCS 313, WASTE STORAGE FACILITY TECHNICAL STANDARD
- INSTALL ACCORDING TO NRCS WISCONSIN CONSTRUCTION SPECIFICATION 202, POLYETHYLENE GEOMEMBRANE LINING.

4-6" ROUND STONE OVER FILTER FABRIC SHALL BE PROVIDED TO COVER THE ENTIRE LINER. TOP OF STONE SHALL MATCH PROPOSED POND ELEVATIONS.



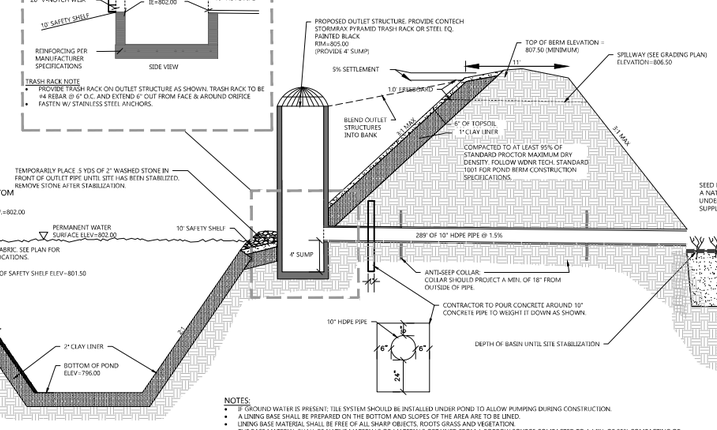
WET RETENTION POND

NOT TO SCALE



TRASH RACK NOTE

- PROVIDE TRASH RACK ON OUTLET STRUCTURE AS SHOWN. TRASH RACK TO BE #4 REBAR @ 6" O.C. AND EXTEND 6" OUT FROM FACE & AROUND ORIFICE
- FASTEN W/ STAINLESS STEEL ANCHORS.

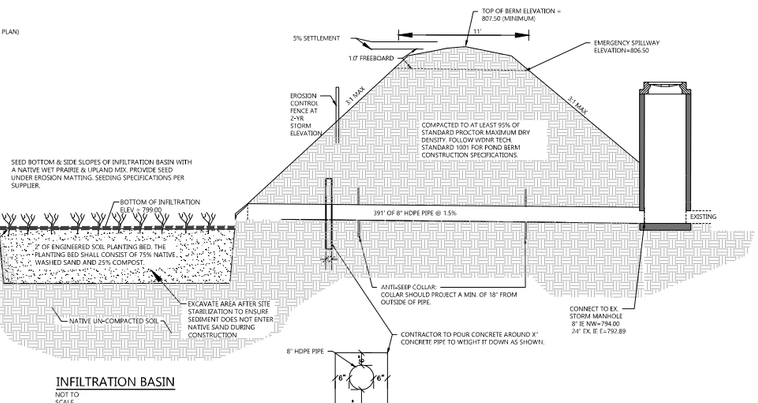


NOTES:

- IF GROUND WATER IS PRESENT, TILE SYSTEM SHOULD BE INSTALLED UNDER POND TO ALLOW PUMPING DURING CONSTRUCTION.
- A LINING BASE SHALL BE PREPARED ON THE BOTTOM AND SLOPES OF THE AREA ARE TO BE LINED.
- LINING BASE MATERIAL SHALL BE FREE OF ALL SHARP OBJECTS, ROOTS GRASS AND VEGETATION.
- THE BASE MATERIAL SHALL BE NATIVE MATERIALS OR MATERIALS OBTAINED FROM A BORROW SOURCE COMPACTED TO A MIN. OF 95% COMPACTING OR AN APPROVED CONSTRUCTION FABRIC.
- THE SUBGRADE SHALL BE PREPARED IMMEDIATELY PRIOR TO THE PLACING OF THE LINER. THE SURFACE ON WHICH THE LINER IS TO BE PLACED IS TO BE FIRM, CLEAN, DRY AND SMOOTH.
- AT END OF SITE CONSTRUCTION, POND DEPTH SHALL BE CHECKED FOR SEDIMENTATION AND DREDGED, IF NECESSARY, TO THE DESIGN DEPTH ORIGINALLY PROPOSED.
- CONTRACTOR SHALL PROVIDE EROSION MATTING AS REQUIRED PER SPECIFICATIONS NOTED ON C0.2.
- CONTRACTOR TO CONTACT EXCEL ENGINEERING TO COMPLETE AN AS-BUILT SURVEY FOLLOWING COMPLETION OF THE CONSTRUCTION OF THE STORMWATER POND. THE SURVEY SHALL BE COMPLETED PRIOR TO THE POND FILLING WITH WATER. CONTRACTOR SHALL GIVE EXCEL ENGINEERING A MINIMUM OF A 3 DAY NOTICE. PLEASE NOTE THAT THE HORIZONTAL TOLERANCE FOR POND CONSTRUCTION IS 0.50' AND THE VERTICAL TOLERANCE FOR POND, OUTLET, AND SPILLWAY CONSTRUCTION IS 0.10'. ANY ADDITIONAL WORK REQUIRED TO SURVEY A POND FULL OF WATER OR FOR SURVEYING FOLLOWING REWORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

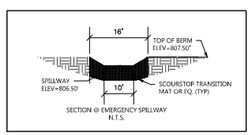
OVERALL STORMWATER FACILITY DETAIL

NOT TO SCALE



INFILTRATION BASIN

NOT TO SCALE



EMERGENCY SPILLWAY DETAIL

NOT TO SCALE

Excel
Always a Better Plan
100 Camelot Drive
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excelengineer.com

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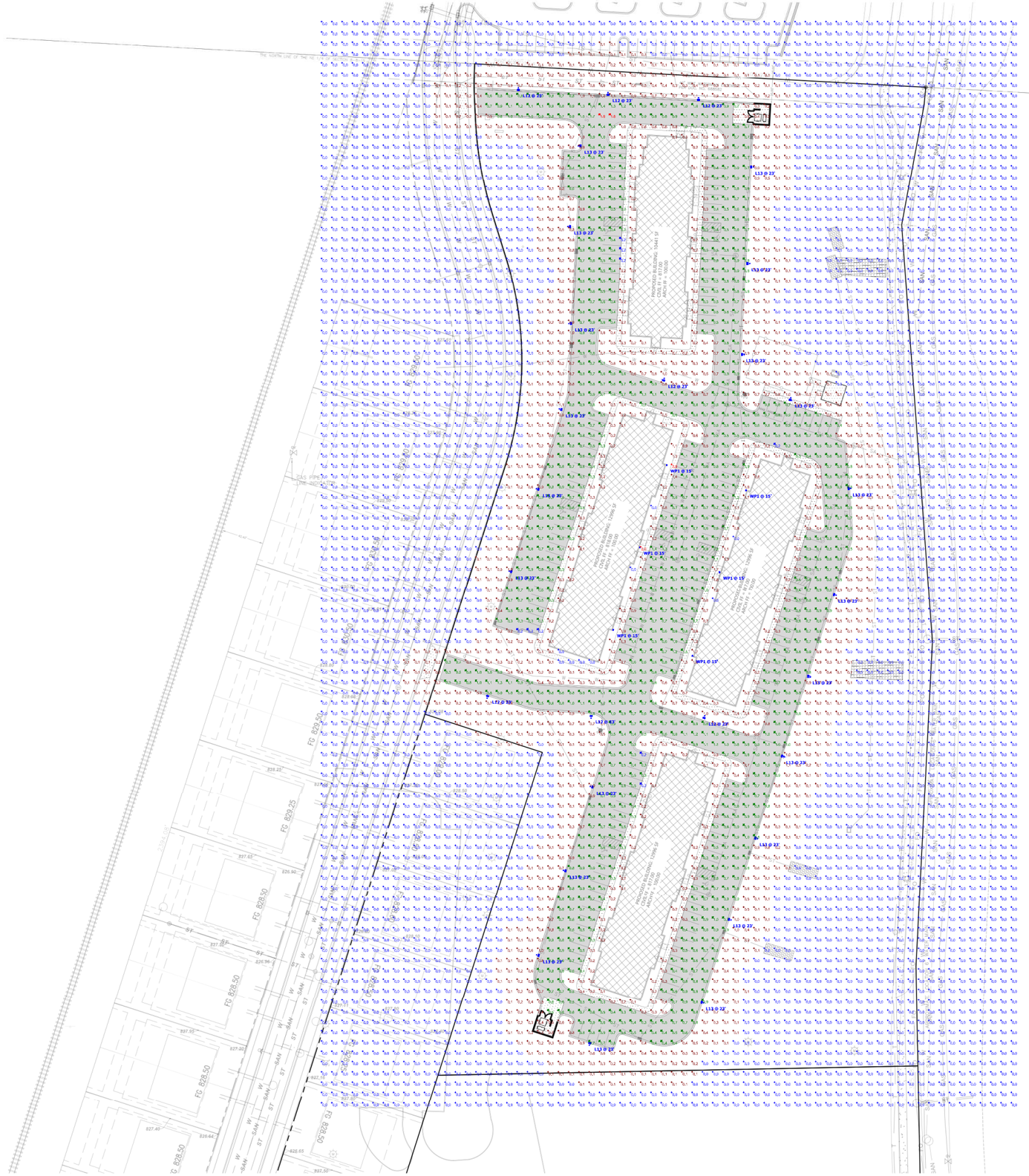
C2.1

CIVIL DETAILS



Project		Catalog #		Type	
Prepared by		Notes		Date	

Lumark

Prevail Discrete LED

Area / Site Luminaire

Product Features

Interactive Menu

- Ordering Information page 2
- Mounting Details page 3, 4
- Optical Configurations page 5
- Product Specifications page 6
- Energy and Performance Data page 6
- Control Options page 8

Product Certifications

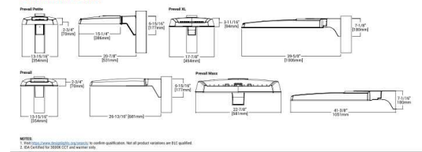
Quick Facts

- Direct-mounted discrete light engine for improved optical uniformity and visual comfort
- Lumen packages range from 4,300 - 68,000 nominal lumens (30W - 550W)
- Replaces 70W up to 1,000W HID equivalents
- Efficacies up to 157 lumens per watt
- Standard universal quick mount arm with universal drill pattern

Connected Systems

- WaveLinx PRO Wireless
- WaveLinx LITE Wireless

Dimensional Details



NOTES:
1. Visit https://www.designlights.org/qpl to confirm qualification. Not all product variations are DLC qualified.
2. IDA Certified for 3000K CCT and warmer only.

COOPER Lighting Solutions

P3500000EN page 1
June 6, 2022 9:52 PM

Schedule

Symbol	Label	Quantity	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Manufacturer	Light Loss Factor	Wattage	Wattage
	L13	21	PRV-P-P-A1A-730-U-T3	PREVAIL AREA AND WALL LUMINAIRE (1) 70 CRI, 3000K, 375mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS	24	169	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	1	30.7	
	L12	7	PRV-P-P-A1A-730-U-T2U	PREVAIL AREA AND WALL LUMINAIRE (1) 70 CRI, 3000K, 375mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS	24	171	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	1	30.7	
	WP1	6	PRV-P-P-A1A-730-U-T4W	PREVAIL AREA AND WALL LUMINAIRE (1) 70 CRI, 3000K, 375mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS	24	165	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	1	30.7	

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
PARKING LOT	X	0.7 fc	3.8 fc	0.2 fc	9.0:1	3.5:1
Calc Zone #1	+	0.2 fc	2.0 fc	0.0 fc	N/A	N/A

SCALE: 1" = 40'

40' 0 40' 80'

NORTH

CIVIL SITE PHOTOMETRIC PLAN & DETAILS

EXC
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES
OCT. 25, 2024
NOV. 8, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C3.1

FRONT ELEVATION
SCALE: 1/8" = 1'-0"

REAR ELEVATION
SCALE: 1/8" = 1'-0"

SIDE ELEVATION
SCALE: 1/8" = 1'-0"

SIDE ELEVATION
SCALE: 1/8" = 1'-0"

EXCEL
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES
OCT. 14, 2024
NOV. 7, 2024

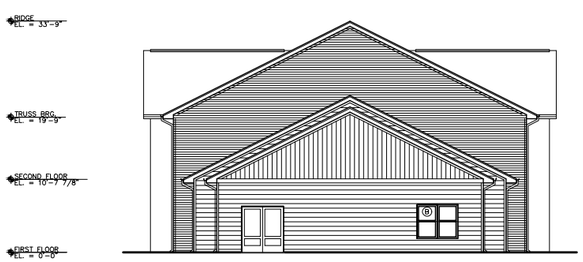
NOT FOR CONSTRUCTION

JOB NUMBER
240136200

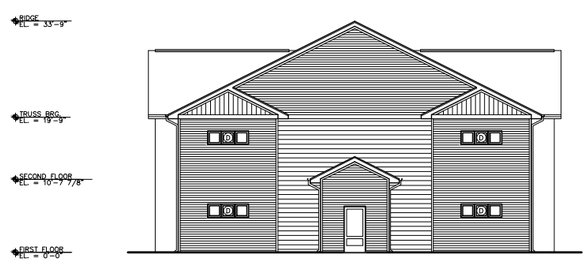
SHEET NUMBER
A2.0

FRONT ELEVATION
SCALE: 1/8" = 1'-0"

REAR ELEVATION
SCALE: 1/8" = 1'-0"



SIDE ELEVATION
SCALE: 1/8" = 1'-0"



SIDE ELEVATION
SCALE: 1/8" = 1'-0"

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100 Camelot Drive
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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES
NOV. 7, 2024
NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
A2.1

PROPOSED MULTI-FAMILY DEVELOPMENT

LUMIN TERRACE

WATERTOWN, WISCONSIN

PROJECT INFORMATION

SITE INFORMATION:

PROPERTY AREA: 406,529 S.F. (9.33 ACRES).

EXISTING ZONING: MR-10

PROPOSED ZONING: MR-10

PROPOSED USE: MULTI-FAMILY APARTMENTS

AREA OF SITE DISTURBANCE: 387,800 S.F. (8.90 ACRES)

SETBACKS:
BUILDING: FRONT (WEST) = 25'
SIDE (NORTH/SOUTH) = 10% LOT WIDTH, OR MIN OF 8', MAX OF 14'
STREET (EAST) = 10% LOT WIDTH, OR MIN OF 8', MAX OF 14'

PAVEMENT: FRONT (WEST) = 10'
SIDE (NORTH/SOUTH) = 3'
STREET (EAST) = 3'

PROPOSED BUILDING HEIGHT: 34' (MAX. HEIGHT ALLOWED: 35')

PARKING REQUIRED: 2.5 SPACES PER 3-BED, 2 SPACES PER 2-BED, 1-BED, OR EFFICIENCY (196)

PARKING PROVIDED: 196 SPACES (8 H.C. ACCESSIBLE)

HANDICAP STALLS REQUIRED: 5, HANDICAP STALLS PROVIDED: 8

LANDSCAPE REQUIREMENTS: MIN. LANDSCAPE SURFACE RATIO: 50%
MAXIMUM LOT COVERAGE - BUILDING ONLY: 40%

EXISTING SITE DATA

	AREA (AC)	AREA (SF)	RATIO
BUILDING FLOOR AREA	0.00	0	0.0%
PAVEMENT (ASP. & CONC.)	0.86	37,255	9.2%
TOTAL IMPERVIOUS	0.86	37,255	9.2%
LANDSCAPE/ OPEN SPACE	8.48	369,272	90.8%
PROJECT SITE	9.33	406,527	100.0%

PROPOSED SITE DATA

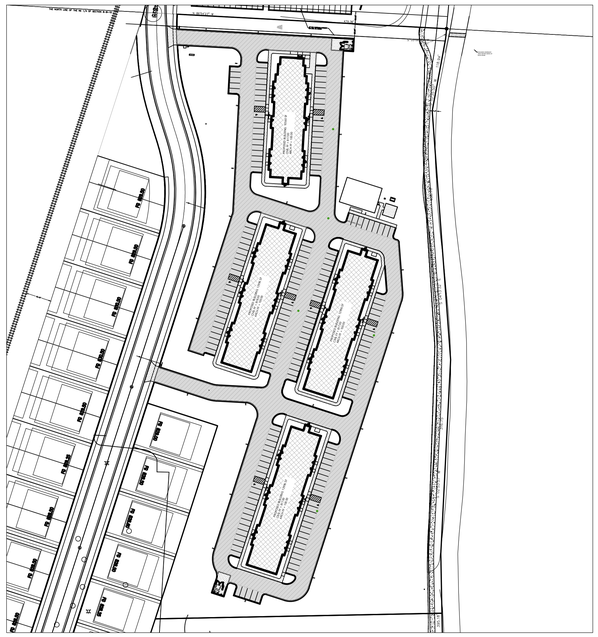
	AREA (AC)	AREA (SF)	RATIO
BUILDING FLOOR AREA	1.14	49,548	12.2%
PAVEMENT (ASP. & CONC.)	3.04	132,373	32.6%
TOTAL IMPERVIOUS	4.18	181,921	44.8%
LANDSCAPE/ OPEN SPACE	5.16	224,606	55.2%
PROJECT SITE	9.33	406,527	100.0%

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

CALL DIGGERS HOTLINE
1-800-242-8511

TOLL FREE TELEFAX (414) 259-0947
TDD (FOR THE HEARING IMPAIRED)
1-800 542-2289

WISCONSIN STATUTE 182.0175 (1974)
REQUIRES MINIMUM OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE



NORTH

SITE PLAN OVERVIEW
SCALE: 1"= 100'
100' 0 100' 200'

LEGEND

NOTE: ALL SYMBOLS SHOWN MAY NOT APPEAR ON DRAWINGS.

SYM.	IDENTIFICATION	SYM.	IDENTIFICATION
SPOT ELEVATIONS			
000.00	PROPOSED SPOT ELEVATIONS (FLOW LINE OF CURB UNLESS OTHERWISE SPECIFIED)	000.00 TC 000.00 FL	PROPOSED SPOT ELEVATIONS (TOP OF CURB, FLOWLINE OF CURB)
000.00 EG	EXISTING GRADE SPOT ELEVATIONS		
000.00 BG 000.00 FG	PROPOSED SPOT ELEVATIONS (REFERENCE R-WALL DETAIL) BG-FINISHED SURFACE GRADE AT BACK OF WALL FG-FINISHED SURFACE GRADE AT FRONT OF WALL	000.00 TW 000.00 BW	PROPOSED SPOT ELEVATIONS (TOP OF WALK, BOTTOM OF WALK @ FLOWLINE)
EXISTING SITE SYMBOLS			
	EXISTING SIGN		EXISTING UTILITY POLE
	EXISTING HANDICAP PARKING STALL		EXISTING UTILITY POLE WITH GUY WIRE
	EXISTING WATER VALVE IN BOX		EXISTING STREET LIGHT
	EXISTING WATER VALVE IN MANHOLE		EXISTING TELEPHONE PEDESTAL
	EXISTING WATER SERVICE VALVE		EXISTING ELECTRIC PEDESTAL
	EXISTING WELL		EXISTING ELECTRIC BOX
	EXISTING STORM CATCH BASIN		EXISTING FLOOD LIGHT
	EXISTING STORM CURB INLET		EXISTING TELEPHONE MANHOLE
	EXISTING SQUARE CATCH BASIN		EXISTING CABLE TV PEDESTAL
	EXISTING LIGHT POLE		EXISTING GAS VALVE
	1-1/4" REBAR SET WEIGHING 4.30 LB/FT.		EXISTING HEDGE
	3/4" REBAR SET WEIGHING 1.50 LB/FT.		EXISTING WOODED AREA
	1-1/4" REBAR FOUND		EXISTING MARSH AREA
	3/4" REBAR FOUND		EXISTING DECIDUOUS TREE WITH TRUNK DIAMETER
	2" IRON PIPE FOUND		EXISTING CONIFEROUS TREE
	1" IRON PIPE FOUND		EXISTING SHRUB
	SECTION CORNER		EXISTING STUMP
PROPOSED SITE SYMBOLS			
	PROPOSED SIGN		PROPOSED STORM FIELD INLET - ST FI
	PROPOSED HANDICAP PARKING STALL		PROPOSED LIGHT POLE
	PROPOSED WATER VALVE IN BOX		PROPOSED DRAINAGE FLOW
	PROPOSED WATER VALVE IN MANHOLE		PROPOSED APRON END SECTION
	PROPOSED WATER SERVICE VALVE		SOIL BORING
	PROPOSED WELL		CENTER LINE
	PROPOSED STORM CATCH BASIN - ST CB	CO	PROPOSED CLEANOUT
	PROPOSED STORM CURB INLET - ST CI	DSG	PROPOSED DOWNSPOUT TO GRADE
		DSR	PROPOSED DOWNSPOUT TO RISER
EXISTING LINETYPES			
	EXISTING CHAINLINK FENCE	POL	EXISTING POLISH SEWER AND MANHOLE
	EXISTING WOOD FENCE	P	EXISTING PROCESS SEWER AND MANHOLE
	EXISTING BARBED WIRE FENCE	CLW	EXISTING CLEAR WATER LINE
	EXISTING CURB AND GUTTER	FO	EXISTING UNDERGROUND FIBER OPTIC LINE
	EXISTING GUARD RAIL	E	EXISTING UNDERGROUND ELECTRIC CABLE
800	EXISTING GROUND CONTOUR	T	EXISTING UNDERGROUND TELEPHONE CABLE
ST	EXISTING STORM SEWER AND MANHOLE	G	EXISTING UNDERGROUND GAS LINE
SA	EXISTING SANITARY SEWER AND MANHOLE	OU	EXISTING OVERHEAD UTILITY LINE
	EXISTING WATER LINE AND HYDRANT		RAILROAD TRACKS
	INTERIOR PROPERTY LINE		RIGHT-OF-WAY LINE
PROPOSED LINETYPES			
	PROPOSED CHAINLINK FENCE	POL	PROPOSED POLISH SEWER AND MANHOLE
	PROPOSED WOOD FENCE	P	PROPOSED PROCESS SEWER AND MANHOLE
	PROPOSED BARBED WIRE FENCE	CLW	PROPOSED CLEAR WATER LINE
	PROPOSED CURB AND GUTTER	FO	PROPOSED UNDERGROUND FIBER OPTIC LINE
	PROPOSED GUARD RAIL	E	PROPOSED UNDERGROUND ELECTRIC CABLE
800	PROPOSED GROUND CONTOUR	T	PROPOSED UNDERGROUND TELEPHONE CABLE
ST	PROPOSED STORM SEWER AND MANHOLE - ST MH	G	PROPOSED UNDERGROUND GAS LINE
SA	PROPOSED SANITARY SEWER AND MANHOLE - SAN MH	OU	PROPOSED OVERHEAD UTILITY LINE
	PROPOSED WATER LINE AND HYDRANT		MATCHLINE
	PROPOSED PROPERTY LINE		GRADING/SEEDING LIMITS

PROJECT CONTACTS

OWNER INFORMATION:
HORIZON DEVELOPMENT GROUP, INC.
SCOTT KWIECINSKI
5201 EAST TERRACE DRIVE, SUITE 300
MADISON, WI 53718
Phone: (608) 354-0820
Email: S.Kwiecinski@horizondbm.com

CIVIL ENGINEER:
REID JAHNS
Phone: (920)926-3109
E-mail: ReidJ@excelengineer.com

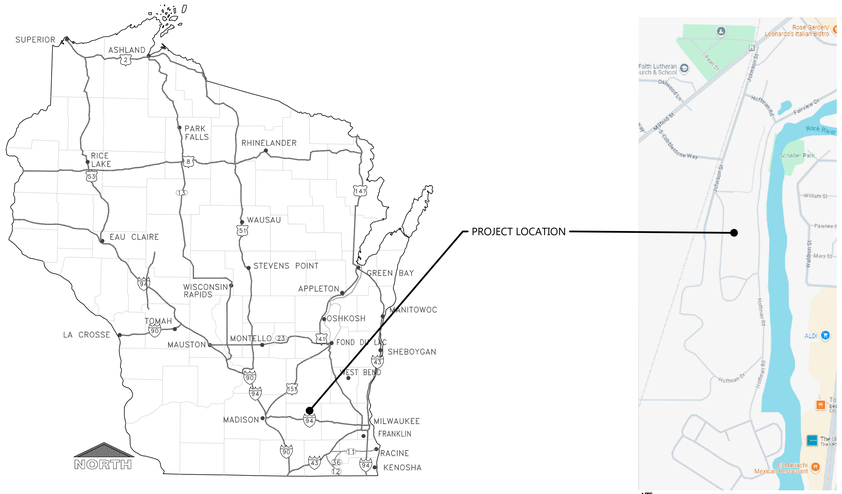
CITY ZONING ADMINISTRATOR:
BRIAN ZIRBES
Phone: (920) 262-4041
E-mail: BZirbes@watertownwi.gov

CITY ENGINEER/PUBLIC WORKS DIRECTOR:
ANDREW BEYER
Phone: (920)262-4050
E-mail: abeyer@watertownwi.gov

CITY FIRE CHIEF:
TANYA REYNEN
Phone: (920)206-4243
E-mail: treynen@watertownwi.gov

CITY BUILDING INSPECTOR:
DOUG ZWIEG
Phone: (920)262-4062
E-mail: DZwieg@watertownwi.gov

LOCATION MAP



NTS

PROJECT NOTES

GENERAL PROJECT NOTES

1. ALL DRIVEWAYS AND CURB CUTS TO BE CONSTRUCTED ACCORDING TO LOCAL ORDINANCES. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL WORK IN ROW PERMITS.
3. CONTRACTOR TO CONTACT EXCEL ENGINEERING TO COMPLETE AS-BUILT SURVEY OF STORMWATER POND FOLLOWING COMPLETION OF THE POND.
4. CONTRACTOR TO REFERENCE ROCK RIVER RIDGE PHASE 1 PLANS FOR SCOPE OF WORK COVERED BY ROCK RIVER RIDGE PHASE 1 CONTRACTOR. CONTRACTOR TO FILED VERIFY ROCK RIVER PHASE 1 REMOVALS AND IMPROVEMENTS HAVE BEEN COMPLETED AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

CONSTRUCTION STAKING SERVICES

CONSTRUCTION STAKING SHALL BE COMPLETED BY EXCEL ENGINEERING AS REQUESTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO CONTACT RYAN WILGREEN AT 920-926-9800 OR RYAN.W@EXCELENGINEER.COM TO GET STAKING PRICE TO INCLUDE IN BID TO OWNER. PAYMENT OF STAKING COSTS ABOVE AND BEYOND THE BASE PRICE DUE TO RESTAKING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, NOT THE OWNER. CAD DRAWING FILES AND SURVEY CONTROL WILL NOT BE PROVIDED FOR STAKING PURPOSES.

STORMWATER POND ASBUILT NOTE

CONTRACTOR TO CONTACT EXCEL ENGINEERING TO COMPLETE AN AS-BUILT SURVEY FOLLOWING COMPLETION OF THE CONSTRUCTION OF THE STORMWATER POND. THE SURVEY SHALL BE COMPLETED PRIOR TO THE POND FILLING WITH WATER. CONTRACTOR SHALL GIVE EXCEL ENGINEERING A MINIMUM OF A 3 DAY NOTICE. PLEASE NOTE THAT THE HORIZONTAL TOLERANCE FOR POND CONSTRUCTION IS 0.50' AND THE VERTICAL TOLERANCE FOR POND, OUTLET, AND SPILLWAY CONSTRUCTION IS 0.10'. ANY ADDITIONAL WORK REQUIRED TO SURVEY A POND FULL OF WATER OR FOR SURVEYING FOLLOWING REWORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

SHEET INDEX

SHEETS BELOW INTENDED TO BE PRINTED IN: COLOR. REFER TO DIGITAL FORMAT DRAWINGS IF PRINTED GRAYSCALE TO ENSURE SCOPE CLARITY.

EXCEL
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL
WISCONSIN JASON DAVE 38777-006 FOND DU LAC WISCONSIN PROFESSIONAL ENGINEER

PRELIMINARY DATES
OCT. 23, 2024
OCT. 25, 2024
OCT. 30, 2024
NOV. 8, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C0.1

CIVIL COVER SHEET

CIVIL SPECIFICATIONS

DIVISION 31 EARTH WORK

31 10 00 SITE CLEARING (DEMOLITION)

A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING SITE DEMOLITION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
B. DEMOLITION PLAN IS AN OVERVIEW OF DEMOLITION TO TAKE PLACE ON SITE. CONTRACTOR TO FIELD VERIFY EXISTING SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE, REPLACE, OR DEMOLISH ALL ITEMS AS NEEDED DURING CONSTRUCTION.
C. CONTRACTOR TO PROTECT EXISTING IMPROVEMENTS THAT ARE SCHEDULED TO REMAIN. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPLACED AT CONTRACTORS EXPENSE.
D. ALL CONCRETE NOTED TO BE REMOVED SHALL BE REMOVED TO THE NEAREST CONTROL JOINT.

31 20 00 EARTH MOVING

A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING EXCAVATION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
B. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT FOR ALL EXCAVATION, GRADING, FILL AND BACKFILL WORK AS REQUIRED TO COMPLETE THE GENERAL CONSTRUCTION WORK. ALL EXCAVATION AND BACKFILL FOR ELECTRICALS AND MECHANICALS ARE THE RESPONSIBILITY OF THE RESPECTIVE CONTRACTOR UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS.
C. ALL ORGANIC TOPSOIL INSIDE THE BUILDING AREA, UNDER PAVED AREAS, AND AT SITE FILL AREAS SHALL BE REMOVED. PROOF ROLL SUBGRADES BEFORE PLACING FILL WITH HEAVY PNEUMATIC-TIRED EQUIPMENT, SUCH AS A FULLY-LOADED TANDEM AXLE DUMP TRUCK, TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. CONTRACTOR SHALL VERIFY TOPSOIL DEPTHS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REVIEW AND FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND ACCOUNT FOR EXISTING CONDITIONS PRIOR TO SUBMITTING BID FOR THE PROJECT. EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE DIRECTED IN THE PLANS OR BY LOCAL ZONING REQUIREMENTS.
D. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL LAYER BEFORE COMPACTION AS RECOMMENDED TO ACHIEVE SPECIFIED DRY DENSITY. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT IS TOO WET TO COMPACT TO SPECIFIED DRY DENSITY.
E. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
F. COMPACT THE SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY ACCORDING TO ASTM D 698, STANDARD PROCTOR TEST. FILL MAY NOT BE PLACED ON FROZEN GROUND AND NO FROZEN MATERIALS MAY BE USED FOR BACK FILL. APPLY THE MORE STRINGENT REQUIREMENTS WHEN COMPARING BETWEEN THE FOLLOWING AND THE GEOTECHNICAL REPORT.
   1. UNDER FOUNDATIONS - SUBGRADE, AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 98 PERCENT.
   2. UNDER INTERIOR SLAB-ON-GRADE WHERE GROUNDWATER IS MORE THAN 3 FEET BELOW THE SLAB - PLACE A DRAINAGE COURSE LAYER OF 3/4" CRUSHED STONE, WITH 5% TO 12% FINES, PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT.
   3. UNDER INTERIOR SLAB-ON-GRADE WHERE GROUNDWATER IS WITHIN 3 FEET OF THE SLAB SURFACE- PLACE A DRAINAGE COURSE LAYER OF CLEAN 3/4" CRUSHED STONE, WITH NO MORE THAN 5% FINES, PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT.
   4. UNDER EXTERIOR CONCRETE AND ASPHALT PAVEMENTS - COMPACT THE SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT.
   5. UNDER WALKWAYS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT.
   6. UNDER LAWN OR UNPAVED AREAS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 85 PERCENT.
G. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS. CONTRACTOR SHALL PROVIDE DOCUMENTATION OF PASSING DENSITY TESTING AND PROOF-ROLLING TO ENGINEER UPON COMPLETION. IT IS SUGGESTED THAT THE GEOTECHNICAL FIRM USED TO PERFORM THE SUBSURFACE SOIL INVESTIGATION BE ENGAGED FOR THE FIELD QUALITY CONTROL TESTS. THE GEOTECHNICAL REPORT WAS PERFORMED BY GESTRA ENGINEERING, INC.
H. ALLOW THE TESTING AGENCY TO TEST AND INSPECT SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTHWORK ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS. PROVIDE ONE TEST FOR EVERY 2000 SQUARE FEET OF PAVED AREA OR BUILDING SLAB, ONE TEST FOR EACH SPREAD FOOTING, AND ONE TEST FOR EVERY 50 LINEAR FEET OF WALL STRIP FOOTING.
I. WHEN THE TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.
J. THE BUILDING SITE SHALL BE GRADED TO PROVIDE DRAINAGE AWAY FROM THE BUILDING AS INDICATED ON THE PLANS. SITE EARTHWORK SHALL BE GRADED TO WITHIN 0.10' OF REQUIRED EARTHWORK ELEVATIONS ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE GRADING PLAN.

31 30 00 EROSION CONTROL/STORMWATER MANAGEMENT

A. THE EXCEL ENGINEERING DESIGN ENGINEER SHALL PREPARE A SITE SPECIFIC EROSION CONTROL AND A STORMWATER MANAGEMENT PLAN PURSUANT TO NR 216.46 AND NR 216.47. THE DESIGN ENGINEER SHALL ALSO FILE A CONSTRUCTION NOTICE OF INTENT WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES PURSUANT TO NR 216.43 OR TO AN AUTHORIZED LOCAL PROGRAM PURSUANT TO NR 216.415 TO OBTAIN COVERAGE UNDER THE GENERAL WPDES STORM WATER PERMIT.
B. THE CONTRACTOR SHALL KEEP THE NOTICE OF INTENT PERMIT, APPROVED EROSION CONTROL AND STORMWATER MANAGEMENT PLANS, AND PLAN AMENDMENTS ON THE CONSTRUCTION SITE AT ALL TIMES PURSUANT TO NR 216.455 UNTIL PERMIT COVERAGE IS TERMINATED.
C. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL EROSION CONTROL PERMITS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE MONITORING, MAINTENANCE, AND REPORTING REQUIREMENTS OF NR 216.48. INSPECTIONS OF IMPLEMENTED EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES MUST AT A MINIMUM BE INSPECTED EVERY 7 CALENDAR DAYS OR EVERY 14 DAYS AND WITHIN 24 HOURS OF THE END OF A RAIN EVENT OF 0.5" OR MORE. A RAIN EVENT MAY BE CONSIDERED TO BE THE TOTAL AMOUNT OF PRECIPITATION RECORDED IN ANY CONTINUOUS 24-HOUR PERIOD. THE CONTRACTOR SHALL REPAIR OR REPLACE EROSION AND SEDIMENT CONTROL AS NECESSARY WITHIN 24 HOURS OF AN INSPECTION OR AFTER A DEPARTMENT NOTIFICATION WHERE REPAIR OR REPLACEMENT IS REQUESTED.
E. THE CONTRACTOR SHALL MAINTAIN, AT THE CONSTRUCTION SITE OR AVAILABLE VIA AN INTERNET WEBSITE, WEEKLY WRITTEN REPORTS OF ALL INSPECTIONS CONDUCTED. WISCONSIN DNR CONSTRUCTION SITE INSPECTION REPORT FORM 3400-187 SHALL BE USED. WEEKLY INSPECTION REPORTS SHALL INCLUDE ALL OF THE FOLLOWING:
   1. THE DATE, TIME, AND LOCATION OF THE CONSTRUCTION SITE INSPECTION.
   2. THE NAME OF THE INDIVIDUAL WHO PERFORMED THE INSPECTION.
   3. AN ASSESSMENT OF THE CONDITION OF THE EROSION AND SEDIMENT CONTROLS.
   4. A DESCRIPTION OF ANY EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE IMPLEMENTATION AND MAINTENANCE PERFORMED.
   5. A DESCRIPTION OF THE PRESENT PHASE OF LAND DISTURBING CONSTRUCTION ACTIVITY AT THE CONSTRUCTION SITE.
F. EROSION AND SEDIMENT CONTROL IMPLEMENTED DURING CONSTRUCTION SHALL STRICTLY COMPLY WITH THE GUIDELINES AND REQUIREMENTS SET FORTH IN WISCONSIN ADMINISTRATIVE CODE (W.A.C.) NR 151, THE STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES RUNOFF MANAGEMENT PERFORMANCE STANDARDS. TECHNICAL STANDARDS PUBLISHED BY THE WISCONSIN DNR SHALL ALSO BE UTILIZED TO IMPLEMENT THE REQUIRED PERFORMANCE STANDARDS. THE METHODS AND TYPES OF EROSION CONTROL WILL BE DEPENDENT ON THE LOCATION AND TYPE OF WORK INVOLVED. ALL SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION, AND INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. BELOW IS A LIST OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES TO ACHIEVE THE PERFORMANCE STANDARDS REQUIRED.
   1. SILT FENCE SHALL BE PLACED ON SITE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. SILT FENCE SHALL ALSO BE PROVIDED AROUND THE PERIMETER OF ALL SOIL STOCKPILES THAT WILL EXIST FOR MORE THAN 7 DAYS. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1056 (CURRENT EDITION).
   2. DITCH CHECKS SHALL BE PROVIDED TO REDUCE THE VELOCITY OF WATER FLOWING IN DITCH BOTTOMS. PLACE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1062 (CURRENT EDITION).
   3. STONE TRACKING PADS AND TRACKOUT CONTROL PRACTICES SHALL BE PLACED AT ALL CONSTRUCTION SITE ENTRANCES AND SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE CONSTRUCTION SITE. SEE THE EROSION CONTROL PLAN FOR LOCATIONS. THE AGGREGATE USED FOR THE STONE TRACKING PAD SHALL BE 3/8" TO 3 INCH CLEAR OR WASHED STONE AND SHALL BE PLACED IN A LAYER AT LEAST 12 INCHES THICK. THE STONE SHALL BE UNDERLAIN WITH A WISDOT TYPE R GEOTEXTILE FABRIC AS NEEDED. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT (12' MIN WIDTH) AND SHALL BE A MINIMUM OF 50 FEET LONG. SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. OTHER TRACKOUT CONTROL PRACTICES INCLUDING STABILIZED WORK SURFACES, MANUFACTURED TRACKOUT CONTROL DEVICES, TIRE WASHING, AND STREET/PAVEMENT CLEANING SHALL BE IMPLEMENTED AS NECESSARY TO MITIGATE THE TRACKOUT OF SEDIMENT OFFSITE. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1057 (CURRENT EDITION).
   4. STORM DRAIN INLET PROTECTION SHALL BE PROVIDED FOR ALL NEW AND DOWNSTREAM STORM CATCH BASINS AND CURB INLETS. TYPE D OR DM PROTECTION SHOULD BE PROVIDED AND SHALL BE IN CONFORMANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1060 (CURRENT EDITION).
   5. DUST CONTROL MEASURES SHALL BE PROVIDED TO REDUCE OR PREVENT THE SURFACE AND AIR TRANSPORT OF DUST DURING CONSTRUCTION. CONTROL MEASURES INCLUDE APPLYING MULCH AND ESTABLISHING VEGETATION, WATER SPRAYING, SURFACE ROUGHENING, APPLYING POLYMERS, SPRAY-ON TACKIFIERS, CHLORIDES, AND BARRIERS. SOME SITES MAY REQUIRE AN APPROACH THAT UTILIZES A COMBINATION OF MEASURES FOR DUST CONTROL. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1068 (CURRENT EDITION).
   6. THE USE, STORAGE, AND DISPOSAL OF CHEMICALS, CEMENT, AND OTHER COMPOUNDS AND MATERIALS USED ON SITE SHALL BE MANAGED DURING THE CONSTRUCTION PERIOD TO PREVENT THEIR TRANSPORT BY RUNOFF INTO WATERS OF THE STATE.
   7. CONTRACTOR SHALL PROVIDE AN OPEN AGGREGATE CONCRETE TRUCK WASHOUT AREA ON SITE. CONTRACTOR TO ENSURE THAT CONCRETE WASHOUT SHALL BE CONTAINED TO THIS DESIGNATED AREA AND NOT BE ALLOWED TO RUN INTO STORM INLETS OR INTO THE OVERLAND STORMWATER DRAINAGE SYSTEM. WASHOUT AREA SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION.
   8. TEMPORARY SITE RESTORATION SHALL TAKE PLACE IN DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 14 DAYS AND REQUIRES VEGETATIVE COVER FOR LESS THAN ONE YEAR. THIS TEMPORARY SITE RESTORATION REQUIREMENT ALSO APPLIES TO SOIL STOCKPILES THAT EXIST FOR MORE THAN 7 DAYS. PERMANENT RESTORATION APPLIES TO AREAS WHERE PERENNIAL VEGETATIVE COVER IS NEEDED TO PERMANENTLY STABILIZE AREAS OF EXPOSED SOIL. PERMANENT STABILIZATION SHALL OCCUR WITHIN 3 WORKING DAYS OF FINAL GRADING. TOPSOIL, SEED, AND MULCH SHALL BE IN GENERAL CONFORMANCE WITH TECHNICAL STANDARDS 1058 AND 1059 AND SHALL MEET THE SPECIFICATIONS FOUND IN THE LANDSCAPING AND SITE STABILIZATION SECTION OF THIS CONSTRUCTION DOCUMENT. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR FINAL STABILIZATION MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
   9. IF SITE DEWATERING IS REQUIRED FOR PROPOSED CONSTRUCTION ACTIVITIES, ALL SEDIMENT LADEN WATER GENERATED DURING THE DEWATERING PROCESS SHALL BE TREATED TO REMOVE SEDIMENT PRIOR TO DISCHARGING OFF-SITE OR TO WATERS OF THE STATE. FOLLOW ALL PROCEDURES FOUND IN TECHNICAL STANDARD 1061.
   10. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR A STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH WORKING DAY. DUST CONTROL REQUIREMENTS SHALL BE FOLLOWED PER WI DNR TECHNICAL STANDARD 1068 (CURRENT EDITION). FLUSHING SHALL NOT BE ALLOWED.
G. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL THE AREA(S) SERVED HAVE ESTABLISHED VEGETATIVE COVER.
H. ONCE THE CONSTRUCTION SITE HAS BEEN FULLY STABILIZED AND TEMPORARY EROSION CONTROL BEST MANAGEMENT PRACTICES HAVE BEEN REMOVED, THE CONTRACTOR SHALL FILE A CONSTRUCTION NOTICE OF TERMINATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES IN ACCORDANCE WITH NR 216.55.
I. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL GIVE THE OWNER COPIES OF THE EROSION CONTROL AND STORM WATER MANAGEMENT PLANS, AMENDMENTS TO PLANS, SUPPORTING PLAN DATA, AND CONSTRUCTION SITE EROSION CONTROL INSPECTION REPORTS. THE OWNER SHALL RETAIN THESE FOR A PERIOD OF 3 YEARS FROM THE DATE OF TERMINATING COVERAGE UNDER WPDES GENERAL PERMIT.
J. ALL POST CONSTRUCTION STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES SHALL BE CONSTRUCTED BEFORE THE SITE HAS UNDERGONE FINAL STABILIZATION.

DIVISION 32 EXTERIOR IMPROVEMENTS

32 10 00 AGGREGATE BASE & ASPHALT PAVEMENT

A. CONTRACTOR TO PROVIDE COMPACTED AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT WHERE INDICATED ON THE PLANS. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. PROVIDE HOT MIX ASPHALT MIXTURE TYPES PER SECTION 460 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. CONTRACTOR SHALL OBTAIN AND REVIEW SOILS REPORT FOR RECOMMENDATIONS FOR GEO-GRID / GEOTEXTILE BELOW CRUSHED AGGREGATE (IF APPLICABLE). CONTRACTOR TO PROVIDE AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT TYPES AND DEPTHS AS INDICATED BELOW:

STANDARD ASPHALT PAVING SECTION	HEAVY ASPHALT PAVING SECTION
1-1/2" SURFACE COURSE (5 LT 58-28S)	2" SURFACE COURSE (5 LT 58-28S)
(WISDOT 455.2.5 TACK COAT (STAGED PAVING)	WISDOT 455.2.5 TACK COAT (STAGED PAVING)
2-1/12" BINDER COURSE (4 LT 58-28S)	2-1/2" BINDER COURSE (4 LT 58-28S)
9" OF 1-1/4" CRUSHED AGGREGATE	12" OF 1-1/4" CRUSHED AGGREGATE

B. CONTRACTOR TO COMPACT THE AGGREGATE BASE, ASPHALT BINDER COURSE, AND ASPHALT SURFACE COURSE TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL ASPHALT PAVEMENT AREAS SHALL BE PAVED TO WITHIN 0.05' OF DESIGN SURFACE GRADES WITH POSITIVE DRAINAGE BEING MAINTAINED IN ACCORDANCE WITH DESIGN PLANS. A MINIMUM OF 1.0% SLOPE SHALL BE MAINTAINED IN ALL ASPHALT PAVEMENT AREA.
C. HOT MIX ASPHALT CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF GEOTECHNICAL REPORT OR CONSTRUCTION DOCUMENTS.
D. CONTRACTOR TO PROVIDE 4" WIDE WHITE PAINTED STRIPING FOR PARKING STALLS, TRAFFIC LANES, AND NO PARKING AREAS. WHITE PAINT MARKINGS SHALL ALSO BE PROVIDED FOR H.C. ACCESSIBLE SYMBOLS, TRAFFIC ARROWS, AND TRAFFIC MESSAGES.

32 20 00 CONCRETE AND AGGREGATE BASE

A. CONTRACTOR TO PROVIDE CRUSHED AGGREGATE BASE AND CONCRETE WHERE INDICATED ON THE PLANS.
B. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL AGGREGATE PLACED MUST BE COMPACTED TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
C. DESIGN AND CONSTRUCTION OF ALL CAST-IN-PLACE EXTERIOR CONCRETE FLAT WORK SHALL CONFORM TO ACI 330R-08 & ACI 318-08.
D. EXTERIOR CONCRETE FLAT WORK CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF THE GEOTECHNICAL REPORT OR THIS SPECIFICATION. CONCRETE FLAT WORK CONSTRUCTION IS AS FOLLOWS:
   1. SIDEWALK/BIKE RACK/PICNIC TABLE/MAILBOX CONCRETE - 4" OF CONCRETE OVER 4" OF 3/4" CRUSHED AGGREGATE BASE. CONTRACTION JOINTS SHALL CONSIST OF 1/8" WIDE BY 1" DEEP TOOLED JOINT WHERE INDICATED ON THE PLANS.
   2. DUMPSTER PAD/APRON CONCRETE - 8" OF CONCRETE OVER 6" OF AGGREGATE BASE.
      a. CONCRETE SHALL BE STEEL REINFORCED WITH THE FOLLOWING AND PLACED IN THE UPPER 1/3 TO ½ OF THE SLAB:
         1) TIE BARS AT ALL CONTRACTION JOINTS OF THE CONCRETE. TIE BARS SHALL BE #4 REBAR 30" LONG PLACED AT 30" O.C.
      b. DUMPSTER PAD CONCRETE JOINTING SHALL BE AS FOLLOWS:
         1) CONTRACTION SAWCUT JOINT - CONTRACTOR SHALL PROVIDE A SAWCUT JOINT AT MAXIMUM SPACING OF 15' ON CENTER. SAWCUT SHALL BE 2" IN DEPTH.
         2) TYPICAL POUR CONTROL JOINT - POUR CONTROL JOINT SHALL BE PROVIDED WITH 1-1/4" DIAMETER BY 20" LONG SMOOTH DOWEL PLACED AT 12" O.C. ONE HALF OF THE DOWEL SHALL BE GREASED. GREENSTREAK 9" SPEED DOWEL TUBES SHALL BE USED.
   3. HEAVY DUTY CONCRETE - 6" OF CONCRETE OVER 6" OF 3/4" CRUSHED AGGREGATE. CONCRETE SHALL BE REINFORCED WITH #3 REBARS ON CHAIRS AT 3' O.C. REBAR SHALL BE PLACED PLACED IN THE UPPER 1/3 TO ½ OF THE SLAB. CONTRACTION JOINTS SHALL BE SAWCUT 1.5" IN DEPTH AND BE SPACED A MAXIMUM OF 15' ON CENTER.
E. DESIGN MIXES SHALL BE IN ACCORDANCE WITH ASTM C94
   1. STRENGTH TO BE MINIMUM OF 4,500 PSI AT 28 DAYS FOR EXTERIOR CONCRETE.
   2. MAXIMUM WATER/CEMENT RATIO SHALL BE 0.45.
   3. SLUMP SHALL NOT EXCEED 4" FOR EXTERIOR CONCRETE FLAT WORK
   4. SLUMP SHALL BE 2.5" OR LESS FOR SLIP-FORMED CURB AND GUTTER
   5. SLUMP SHALL BE BETWEEN 1.5" TO 3" FOR NON SLIP-FORMED CURB AND GUTTER.
   6. ALL EXTERIOR CONCRETE SHALL BE AIR ENTRAINED WITH 4% TO 7% AIR CONTENT. NO OTHER ADMIXTURES SHALL BE USED WITHOUT APPROVAL OF EXCEL ENGINEERING, INC. CALCIUM CHLORIDE SHALL NOT BE USED.
   7. MAXIMUM AGGREGATE SIZE FOR ALL EXTERIOR CONCRETE SHALL BE 0.75 INCHES.
F. VERIFY EQUIPMENT CONCRETE PAD SIZES WITH CONTRACTOR REQUIRING PAD. PADS SHALL HAVE FIBERMESH 300 FIBERS AT A RATE OF 1.5 LBS/CU. YD. OR 6 X 6-W1.4 X W1.4 WELDED WIRE MESH WITH MINIMUM 1 INCH COVER. EQUIPMENT PADS SHALL BE 5.5 INCHES THICK WITH 1 INCH CHAMFER UNLESS SPECIFIED OTHERWISE. COORDINATE ADDITIONAL PAD REQUIREMENTS WITH RESPECTIVE CONTRACTOR.
G. ALL CONCRETE FLAT WORK SURFACES AND CONCRETE CURB FLOWLINES SHALL BE CONSTRUCTED TO WITHIN 0.05' OF DESIGN SURFACE AND FLOWLINE GRADES ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE DESIGN PLANS.
H. CONCRETE FLAT WORK SHALL HAVE CONSTRUCTION JOINTS OR SAW CUT JOINTS PLACED AS INDICATED ON THE PLANS OR PER THIS SPECIFICATION. SAWCUTS SHALL BE DONE AS SOON AS POSSIBLE, BUT NO LATER THAN 24 HOURS AFTER CONCRETE IS PLACED. CONCRETE CURB AND GUTTER JOINTING SHALL BE PLACED EVERY 10' OR CLOSER (6' MIN.). IF CONCRETE PAVEMENT IS ADJACENT TO CONCRETE CURB, JOINTING IN THE PAVEMENT AND CURB SHALL ALIGN. ALL EXTERIOR CONCRETE SHALL HAVE A BROOM FINISH UNLESS NOTED OTHERWISE. A UNIFORM COAT OF A HIGH SOLIDS CURING COMPOUND MEETING ASTM C309 SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES. ALL CONCRETE IS TO BE CURED FOR 7 DAYS. EXTERIOR CONCRETE SHALL BE SEPARATED FROM BUILDINGS WITH CONTINUOUS 0.5 INCH FIBER EXPANSION JOINT AND/OR 0.25 INCH FIBER EXPANSION JOINT AT DECORATIVE MASONRY UNITS.
I. ALL REINFORCING BARS SHALL BE ASTM A615 GRADE 60. THICKNESS OF CONCRETE COVER OVER REINFORCEMENT SHALL BE NOT LESS THAN 3" WHERE CONCRETE IS DEPOSITED AGAINST THE GROUND WITHOUT THE USE OF FORMS AND NOT LESS THAN 1.5" FOR UP TO #5 BARS AND 2" FOR #6 TO #10 BARS IN ALL OTHER LOCATIONS. ALL REINFORCING SHALL BE LAPPED 48 DIAMETERS FOR UP TO #6 BARS, 62 DIAMETERS FOR #7 TO #9 BARS, 68 DIAMETERS FOR #10 BARS OR AS NOTED ON THE DRAWINGS AND EXTENDED AROUND CORNERS WITH CORNER BARS. PLACING AND DETAILING OF STEEL REINFORCING AND REINFORCING SUPPORTS SHALL BE IN ACCORDANCE WITH CRSI AND ACI MANUAL AND STANDARD PRACTICES. THE REINFORCEMENT SHALL NOT BE PAINTED AND MUST BE FREE OF GREASE/OIL, DIRT OR DEEP RUST WHEN PLACED IN THE WORK. ALL WELDED WIRE FABRIC SHALL MEET THE REQUIREMENTS OF ASTM A 1064. WELDED WIRE FABRIC SHALL BE PLACED 2" FROM TOP OF SLAB, UNLESS INDICATED OTHERWISE.
J. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO SAMPLE MATERIALS, PERFORM TESTS, AND SUBMIT TEST REPORTS DURING CONCRETE PLACEMENT. TESTS WILL BE PERFORMED ACCORDING TO ACI 301. CAST AND LABORATORY CURE ONE SET OF FOUR STANDARD CYLINDERS FOR EACH COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIX EXCEEDING 5 CU. YD., BUT LESS THAN 25 CU. YD., PLUS ONE SET FOR EACH ADDITIONAL 50 CU. YD. OR FRACTION THEREOF. PERFORM COMPRESSIVE-STRENGTH TESTS ACCORDING TO ASTM C 39. TEST TWO SPECIMENS AT 7 DAYS AND TWO SPECIMENS AT 28 DAYS. PERFORM SLUMP TESTING ACCORDING TO ASTM C 143. PROVIDE ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
K. PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. IN HOT, DRY, AND WINDY WEATHER, APPLY AN EVAPORATION-CONTROL COMPOUND ACCORDING TO MANUFACTURER'S INSTRUCTIONS AFTER SCREEDING AND BULL FLOATING, BUT BEFORE POWER FLOATING AND TROWELLING.
L. LIMIT MAXIMUM WATER-CEMENTITIOUS RATIO OF CONCRETE EXPOSED TO FREEZING, THAWING AND DEICING SALTS TO 0.45.
M. TEST RESULTS WILL BE REPORTED IN WRITING TO THE DESIGN ENGINEER, READY-MIX PRODUCER, AND CONTRACTOR WITHIN 24 HOURS AFTER TESTS. REPORTS OF COMPRESSIVE STRENGTH TESTS SHALL CONTAIN THE PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING SERVICE, CONCRETE TYPE AND CLASS, LOCATION OF CONCRETE BATCH ON SITE, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIX PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7-DAY TESTS AND 28-DAY TESTS.

32 30 00 LANDSCAPING AND SITE STABILIZATION

A. TOPSOIL: CONTRACTOR TO PROVIDE A MINIMUM OF 6" OF TOPSOIL FOR ALL DISTURBED OPEN AREAS, OTHER THAN LANDSCAPE ISLANDS SHALL BE PROVIDED WITH A MINIMUM OF 10" OF TOPSOIL. REUSE SURFACE SOIL STOCKPILED ON SITE AND SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN QUANTITIES ARE INSUFFICIENT. EXCAVATOR SHALL BE RESPONSIBLE FOR ROUGH PLACEMENT OF TOPSOIL TO WITHIN 1" OF FINAL GRADE PRIOR TO LANDSCAPER FINAL GRADING. LANDSCAPER TO PROVIDE PULVERIZING AND FINAL GRADING OF TOPSOIL. PROVIDE SOIL ANALYSIS BY A QUALIFIED SOIL TESTING LABORATORY AS REQUIRED TO VERIFY THE SUITABILITY OF SOIL TO BE USED AS TOPSOIL AND TO DETERMINE THE NECESSARY SOIL AMENDMENTS. TEST SOIL FOR PRESENCE OF ATRAZINE AND INFORM EXCEL ENGINEERING, INC. IF PRESENT PRIOR TO BIDDING PROJECT. TOPSOIL SHALL HAVE A PH RANGE OF 5.5 TO 8, CONTAIN A MINIMUM OF 5 PERCENT ORGANIC MATERIAL CONTENT, AND SHALL BE FREE OF STONES 1 INCH OR LARGER IN DIAMETER. ALL MATERIALS HARMFUL TO PLANT GROWTH SHALL ALSO BE REMOVED.
   TOPSOIL INSTALLATION: LOOSEN SUBGRADE TO A MINIMUM DEPTH OF 6 INCHES AND REMOVE STONES LARGER THAN 1" IN DIAMETER. ALSO REMOVE ANY STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER AND DISPOSE OF THEM OFF THE PROPERTY. SPREAD TOPSOIL TO A DEPTH OF 6" BUT NOT LESS THAN WHAT IS REQUIRED TO MEET FINISHED GRADES AFTER LIGHT ROLLING AND NATURAL SETTLEMENT. DO NOT SPREAD TOPSOIL IF SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET. GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN 0.05 FEET OF FINISHED GRADE ELEVATION.
B. SEEDED LAWNS:
   1. CONTRACTOR TO SUBMIT NO MOW SEED MIX TO ENGINEER FOR APPROVAL FOR SEEDING ALL GRASS SLOPES.
   2. PERMANENT LAWN AREAS OUTSIDE OF SLOPED NO MOW SEEDED AREA SHALL BE SEEDED WITH THE FOLLOWING MIXTURE: 65% KENTUCKY BLUEGRASS BLEND (2.0-2.6 LBS./1,000 S.F.), 20% PERENNIAL RYEGRASS (0.6-0.8 LBS./1,000 S.F.), 15% FINE FESCUE (0.4-0.6 LBS/1,000 S.F.). STRAW AND MULCH SHALL BE LAID AT 100LBS/1,000 S.F. FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS/1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. ALL SITE DISTURBED AREAS NOT DESIGNATED FOR OTHER LANDSCAPING AND SITE STABILIZATION METHODS SHALL BE SEEDED AS PERMANENT LAWN. NO BARE TOPSOIL SHALL BE LEFT ONSITE. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
   3. ALL PERMANENT AND TEMPORARY STORM WATER CONVEYANCE SWALE BOTTOMS AND SIDE SLOPES OUTSIDE OF NO MOW SEEDED AREAS SHALL BE SEEDED WITH THE FOLLOWING MIXTURE: 45% KENTUCKY BLUEGRASS (0.60 LBS./1000 S.F.), 40% CREEPING RED FESCUE (0.50 LBS./1,000 S.F.), AND 15% PERENNIAL RYEGRASS (0.20 LBS./1,000 S.F.). FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS./1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
   4. ALL TEMPORARY SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE: 100% RYEGRASS AT 1.9 LBS./1,000 S.F. STRAW AND MULCH SHALL BE LAID AT 100 LBS./1,000 S.F. FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS./1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
C. SEEDED LAWN MAINTENANCE: CONTRACTOR TO PROVIDE MAINTENANCE OF ALL LANDSCAPING FOR A PERIOD OF 90 DAYS FROM THE DATE OF INSTALLATION. AT THE END OF THE MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND OF GRASS SHOULD BE ESTABLISHED FREE OF WEEDS AND SURFACE IRREGULARITIES. LAWN COVERAGE SHOULD EXCEED 90% AND BARE SPOTS SHOULD NOT EXCEED 5"X5". CONTRACTOR SHOULD REESTABLISH LAWNS THAT DO NOT COMPLY WITH THESE REQUIREMENTS AND CONTINUE MAINTENANCE UNTIL LAWNS ARE SATISFACTORY.
D. EROSION MATTING:
   1. CONTRACTOR TO PROVIDE EROSION CONTROL MATTING (NORTH AMERICAN GREEN S150) OR EQUIVALENT ON ALL SLOPES THAT ARE 4:1 AND GREATER. LAWN SEED SHALL BE PLACED BELOW MATTING IN ACCORDANCE WITH SEEDING REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.
   2. CONTRACTOR TO PROVIDE EROSION MATTING (NORTH AMERICAN GREEN C125) OR EQUIVALENT IN ALL SWALE BOTTOMS AND SIDE SLOPES AS REQUIRED. LAWN SEED SHALL BE PLACED BELOW MATTING IN ACCORDANCE WITH SEEDING REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.
E. TREES AND SHRUBS: FURNISH NURSERY-GROWN TREES AND SHRUBS WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL-SHAPED, FULLY BRANCHED, AND HEALTHY LOOKING STOCK. STOCK SHOULD ALSO BE FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. SEE THE LANDSCAPE PLAN FOR SPECIFIC SPECIE TYPE, SIZE, AND LOCATION.
F. TREE AND SHRUB INSTALLATION: EXCAVATE CIRCULAR PITS WITH SIDES SLOPED INWARD. TRIM BASE LEAVING CENTER AREA RAISED SLIGHTLY TO SUPPORT ROOT BALL. EXCAVATE PIT APPROXIMATELY THREE TIMES AS WIDE AS THE ROOT BALL DIAMETER. SET TREES AND SHRUBS PLUMB AND IN CENTER OF PIT WITH TOP OF BALL 1" ABOVE ADJACENT FINISHED GRADES. PLACE PLANTING SOIL MIX AROUND ROOT BALL IN LAYERS AND TAMP TO SETTLE MIX. WATER ALL PLANTS THOROUGHLY. PROVIDE TEMPORARY STAKING FOR TREES AS REQUIRED.
G. TREE AND SHRUB MAINTENANCE/WARRANTY: CONTRACTOR TO PROVIDE MAINTENANCE OF ALL LANDSCAPING FOR A PERIOD OF 90 DAYS FROM THE DATE OF INSTALLATION. MAINTENANCE TO INCLUDE REGULAR WATERING AS REQUIRED FOR SUCCESSFUL PLANT ESTABLISHMENT. CONTRACTOR TO PROVIDE 1 YEAR WARRANTY ON ALL TREES, SHRUBS, AND PERENNIALS.
H. ORGANIC MULCH: PROVIDE 3" MINIMUM THICK BLANKET OF SHREDDED HARDWOOD MULCH AT ALL PLANTING AREAS INDICATED ON THE LANDSCAPE PLAN. INSTALL OVER NON-WOVEN WEED BARRIER FABRIC. COLOR BY OWNER.
I. MINERAL MULCH: PROVIDE 3" MINIMUM THICK BLANKET OF 1.5" MINIMUM TO 2.5" MAXIMUM CRUSHED DECORATIVE STONE AT ALL PLANTING AREAS INDICATED ON THE LANDSCAPE PLAN. INSTALL OVER NON-WOVEN WEED BARRIER FABRIC. COLOR BY OWNER.
J. PLASTIC EDGING: INSTALL VALLEY VIEW INDUSTRIES BLACK DIAMOND LAWN EDGING TO SEPARATE ALL PLANTING BEDS FROM LAWN AREAS. EDGING TO BE 5.5" TALL WITH METAL STAKES INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

DIVISION 33 UTILITIES

33 10 00 SITE UTILITIES

A. CONTRACTOR TO FIELD VERIFY ALL EXISTING UNDERGROUND UTILITIES ON SITE. CONTRACTOR TO VERIFY PIPE LOCATIONS, SIZES, AND DEPTHS AT POINT OF PROPOSED CONNECTIONS AND VERIFY PROPOSED UTILITY ROUTES ARE CLEAR (PER CODE) OF ALL EXISTING UTILITIES AND OTHER OBSTRUCTIONS PRIOR TO CONSTRUCTION. COSTS INCURRED FOR FAILURE TO DO SO SHALL BE THE CONTRACTORS RESPONSIBILITY.
B. ALL SANITARY PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. ALL SANITARY PIPE BELOW PROPOSED & FUTURE BUILDINGS SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL. INSULATION SHALL BE PROVIDED PER STATE PLUMBING CODES AS NECESSARY BASED ON PROPOSED DEPTH PER PLANS.
C. SANITARY MANHOLES SHALL BE 48" PRECAST AND CONFORM TO THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN-CURRENT EDITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SANITARY MANHOLE FRAME AND GRATE TO BE NEENAH R-1550-A OR EQUAL. RIM ELEVATION TO BE SET AT FINISHED GRADE IN DEVELOPED AREAS AND 12" ABOVE FINISHED GRADE IN UNDEVELOPED AREAS EXCEPT AS OTHERWISE DIRECTED BY THE ENGINEER.
D. CLEANOUTS SHALL BE PROVIDED FOR THE SANITARY & STORM SERVICES AT LOCATIONS INDICATED ON THE UTILITY PLAN. THE CLEANOUT SHALL CONSIST OF A COMBINATION WYE FITTING IN LINE WITH THE SANITARY/STORM SERVICE WITH THE CLEANOUT LEG OF THE COMBINATION WYE FACING STRAIGHT UP. THE CLEANOUT SHALL CONSIST OF A 6" VERTICAL PVC PIPE WITH A WATER TIGHT REMOVABLE CLEANOUT PLUG. AN 8" PVC FROST SLEEVE SHALL BE PROVIDED. THE BOTTOM OF THE FROST SLEEVE SHALL TERMINATE 12" ABOVE THE TOP OF THE SANITARY LATERAL OR AT LEAST 6" BELOW THE PREDICTED FROST DEPTH, WHICHEVER IS SHALLOWER. THE CLEANOUT SHALL EXTEND JUST ABOVE THE SURFACE GRADE IN LAWN OR LANDSCAPE AREAS WITH THE FROST SLEEVE TERMINATING AT THE GRADE SURFACE. THE CLEANOUT SHALL EXTEND TO 4 INCHES BELOW SURFACE GRADE IN PAVED SURFACES WITH A ZURN (Z-1474-N) HEAVY DUTY CLEANOUT HOUSING PLACED OVER THE TOP OF THE CLEANOUT FLUSH WITH THE SURFACE GRADE. IN PAVED SURFACES, THE FROST SLEEVE SHALL TERMINATE IN A CONCRETE PAD AT LEAST 6" THICK AND EXTENDING AT LEAST 9" FROM THE SLEEVE ON ALL SIDES, SLOPING AWAY FROM THE SLEEVE. THE CLEANOUT HOUSING SHALL BE CONSTRUCTED PER MANUFACTURERS REQUIREMENTS.
E. ALL PROPOSED WATER PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. 6' MINIMUM COVER SHALL BE PROVIDED OVER ALL WATER PIPING UNLESS OTHERWISE SPECIFIED.
F. ALL PROPOSED STORM PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. ALL PROPOSED STORM PIPE BELOW BUILDINGS SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. SEE UTILITY PLANS FOR ALL STORM PIPE MATERIAL TYPES TO BE USED. PIPE SHALL BE PLACED MIN. 8' HORIZONTALLY FROM FOUNDATION WALLS.
G. SANITARY, STORM, AND WATER UTILITY PIPE INVERTS SHALL BE CONSTRUCTED WITHIN 0.10' OF DESIGN INVERT ELEVATIONS ASSUMING PIPE SLOPE AND SEPARATION IS MAINTAINED PER THE UTILITY DESIGN PLANS AND STATE REQUIREMENTS.
H. SITE UTILITY CONTRACTOR SHALL RUN SANITARY SERVICE TO A POINT WHICH IS A MAXIMUM OF 5' FROM THE EXTERIOR WALL OF THE FOUNDATION. SITE UTILITY CONTRACTOR SHALL RUN STORM SEWER FOR INTERNALLY DRAINED BUILDINGS TO A POINT WHICH IS A MAXIMUM OF 5' FROM THE EXTERIOR WALL OF THE FOUNDATION. SITE UTILITY CONTRACTOR SHALL RUN DOWNSPOUT LEADS TO BUILDING FOUNDATION AND UP 6" ABOVE SURFACE GRADE FOR CONNECTION TO DOWNSPOUT FOR ALL DOWNSPOUT TO RISER (DSR) CONNECTIONS. DOWNSPOUTS TO GRADE (DSG) SHALL BE PROVIDED WITH SPLASH BLOCKS AT THE DISCHARGE LOCATION. ALL DOWNSPOUT LOCATIONS SHOULD BE VERIFIED WITH ARCHITECTURAL PLANS AND DOWNSPOUT CONTRACTOR/GC PRIOR TO INSTALLATION OF DOWNSPOUT LEADS. DOWNSPOUT LEADS SHALL NOT UNDERMINE BUILDING FOUNDATIONS. SITE UTILITY CONTRACTOR SHALL RUN WATER SERVICE TO A POINT WITHIN THE FOUNDATION SPECIFIED BY THE PLUMBING PLANS. CONTRACTOR TO CUT AND CAP WATER SERVICE 12" ABOVE FINISHED FLOOR ELEVATION.
I. ALL UTILITIES SHALL BE INSTALLED WITH PLASTIC COATED TRACER WIRE (10 TO 14 GAUGE SOLID COPPER, OR COPPER COATED STEEL WIRE). PLASTIC WIRE MAY BE TAPED TO PLASTIC WATER OR SEWER PIPE. IF ATTACHED, THE TRACER WIRE SHALL BE SECURED EVERY 6 TO 20 FEET AND AT ALL BENDS. TRACER WIRE SHALL HAVE ACCESS POINTS AT LEAST EVERY 300 FEET. TRACER WIRE SHALL TERMINATE IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AT GRADE OR IN TERMINATION BOX PER LOCAL/STATE REQUIREMENTS.
J. ALL UTILITIES SHALL BE INSTALLED PER STATE, LOCAL, AND INDUSTRY STANDARDS. WATER, SANITARY, AND STORM SEWER SHALL BE INSTALLED PER "STANDARD SPECIFICATION FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN". THE EXCEL ENGINEERING DESIGN ENGINEER SHALL BE RESPONSIBLE FOR OBTAINING STATE PLUMBING REVIEW APPROVAL (IF REQUIRED). THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL OTHER PERMITS REQUIRED TO INSTALL WATER, SANITARY AND STORM SEWER.
K. SEE PLANS FOR ALL OTHER UTILITY SPECIFICATIONS AND DETAILS.

SHOP DRAWING SUBMITTALS

MATERIAL / INFORMATION

2. 31.20.00 - FILL
   - PRODUCT DATA
   - SOURCE MATERIAL
3. 32.10.00 (A) - AGGREGATE BASE & ASPHALT PAVEMENT
   - HOT MIX ASPHALT SPECIFICATIONS
   - AGGREGATE BASE
   - PAVEMENT MARKINGS
4. 32.20.00-CONCRETE AND AGGREGATE BASE
   - DESIGN MIX
   - AGGREGATE BASE
   - COMPRESSION TEST RESULTS
   - PAVEMENT MARKINGS
   - DETECTABLE WARNING PLATES
5. 32.30.00 LANDSCAPING
   - AMENDED SOIL MIX
   - SEEDING PRODUCT DATA
   - PLANTING SUBSTITUTION SCHEDULE
   - MULCH PRODUCT DATA
   - EROSION MATTING
6. 33.10.00 - SITE UTILITIES
   - SANITARY & STORM MANHOLES
   - SANITARY PIPING MATERIALS
   - WATER PIPING MATERIALS
   - WATER FITTINGS & APPURTENANCES
   - STORM PIPING MATERIALS
7. MISCELLANEOUS ITEMS
   - SITE LIGHTING
   - EXTERIOR SIGNAGE
   - BOLLARDS

TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE

Utility	Material	Pipe Code	Fitting Code	Joint Code
Combined Domestic/Fire Service	C900 PVC	AWWA C900, ASTM D1785, ASTM D2241	AWWA C110, AWWA C153, ASTM D2464, ASTM D2466, ASTM D2467, ASTM D3311, ASTM F409, ASTM F1336, ASTM F1866	Joint: ASTM D3139 Integral Bell & Spigot Elastomeric Seal: ASTM F477
Sanitary Sewer	SDR 35 PVC	ASTM D1785, ASTM D2665, ASTM D3034, ASTM F891	ASTM F1336	Push On: ASTM D3212 for Tightness Elastomeric Gasket: ASTM F477
Storm Sewer	HDPE	ASTM F2648, ASTM F2306, AASHTO M252, TYPE S (4 IN - 10 IN), AASHTO M294, TYPE S (12 IN - 60 IN)	ASTM F2648, ASTM F2306, AASHTO M252, or AASHTO M294	Joint: ASTM F2648, ASTM F2306, AASHTO M252, or AASHTO M294 Elastomeric Seal: ASTM F477
Storm Sewer	RRCP-Class IV	ASTM C14, ASTM C76, AASHTO M170		ASTM C443 Rubber Gasket

Section 3, Item B.

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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

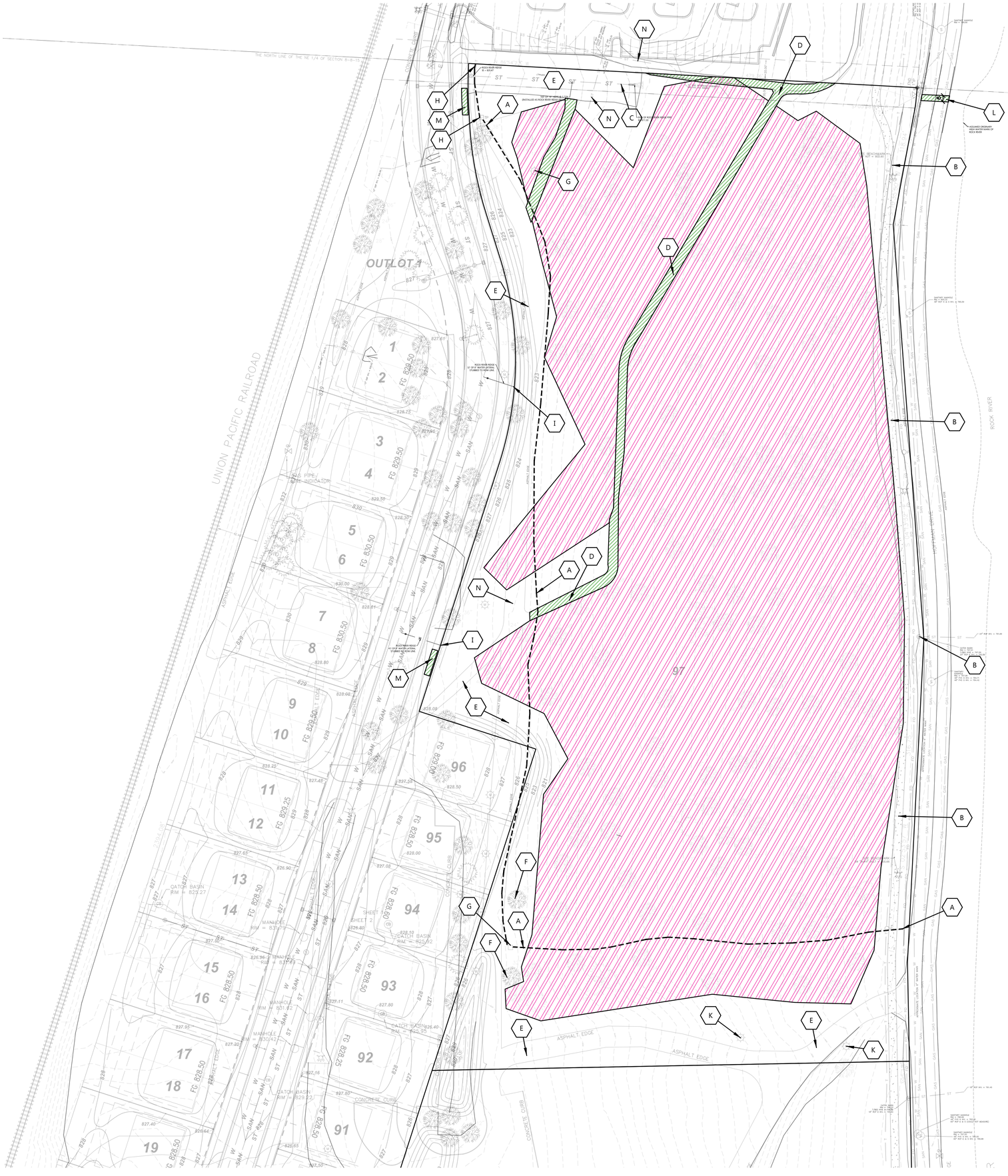
PRELIMINARY DATES
OCT. 23, 2024
OCT. 25, 2024
OCT. 30, 2024
NOV. 8, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C0.2

CIVIL SPECIFICATION SHEET



GENERAL NOTES:

CONTRACTOR TO REFERENCE ROCK RIVER RIDGE PHASE 1 PLANS FOR SCOPE OF REMOVALS. COVERED BY ROCK RIVER RIDGE PHASE 1 CONTRACTOR. CONTRACTOR TO FILED VERIFY ROCK RIVER PHASE 1 REMOVALS AND IMPROVEMENTS HAVE BEEN COMPLETED AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

LEGEND:

- REMOVE PAVEMENT & BASE
- CLEAR AND GRUB TREES WITHIN HATCHED AREA

KEYNOTES

A	ROCK RIVER RIDGE PHASE 1 PLANS DENOTE EXISTING TELECOM TO BE ABANDONED. OWNER/CONTRACTOR TO COORDINATE WITH ADJACENT DEVELOPER.
B	PROTECT CONCRETE TRAIL INSTALLED AS PART OF ROCK RIVER RIDGE PHASE 1 PLANS. FIELD VERIFY SANITARY AND STORM CONNECTIONS HAVE BEEN MADE PRIOR TO CONCRETE TRAIL INSTALLATION. IF NOT, CONTRACTOR TO SAWCUT AND REMOVE AND REPLACE CONCRETE AS NECESSARY FOR PROPOSED UTILITY CONNECTIONS.
C	PROTECT STORM PIPE INSTALLED AS PART OF ROCK RIVER RIDGE PHASE 1 PLANS.
D	SAWCUT (AS NECESSARY) AND REMOVE ASPHALT AND REMOVE BASE. VERIFY WITH NORTH NEIGHBOR THAT TRAIL WILL BE DISCONNECTED AS NEEDED.
E	FIELD VERIFY ASPHALT REMOVED AS PART OF ROCK RIVER RIDGE PHASE 1 PLANS.
F	FIELD VERIFY TREE REMOVED AS PART OF ROCK RIVER RIDGE PHASE 1 PLANS.
G	FIELD VERIFY LIGHT POLE REMOVED AS PART OF ROCK RIVER RIDGE PHASE 1 PLANS.
H	CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER FOR TELECOM LINE TO BE ABANDONED AND REMOVED AS NECESSARY FOR PROPOSED GRADING AND IMPROVEMENTS. REMOVE PEDESTAL.
I	FIELD VERIFY 8" WATER PIPE STUBBED TO PROPERTY LINES AS PART OF ROCK RIVER RIDGE PHASE 1 PLANS.
K	REMOVE LIGHT POLE, WIRING & CONDUIT
L	SAWCUT (AS NECESSARY) AND REMOVE ASPHALT FOR INSTALLATION OF STORM SEWER.
M	CONTRACTOR TO SAWCUT AND REMOVE SIDEWALK IF INSTALLED THROUGH PROPOSED ENTRANCE TO DEVELOPMENT.
N	CONTRACTOR TO DETERMINE IF STORM SEWER EXISTS OR WAS REMOVED AS PART OF NEIGHBORING DEVELOPMENT. NOTIFY ENGINEER WITH FINDINGS.

EXISTING CONDITIONS NOTE:

EXISTING CONDITIONS SURVEY WAS COMPLETED BY CAPITOL SURVEY ENTERPRISES.

CONTACT:
MICHAEL BERRY
MIKEB@CAPITOLSURVEY.COM
2015 LA CHANDELLE CT
BROOKFIELD, WI 53045
PHONE: 262-786-6600
CAPITOLSURVEY.COM

ROCK RIVER RIDGE PHASE 1 CONTACT:
BRAD SEUBERT
BRAD.SEUBERT@HECL.COM
255 NORTH 21ST STREET
MILWAUKEE, WISCONSIN 53233
PHONE: 414-475-5554

SCALE: 1" = 40'
40' 0 40' 80'
NORTH

CIVIL EXISTING SITE AND DEMOLITION PLAN

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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

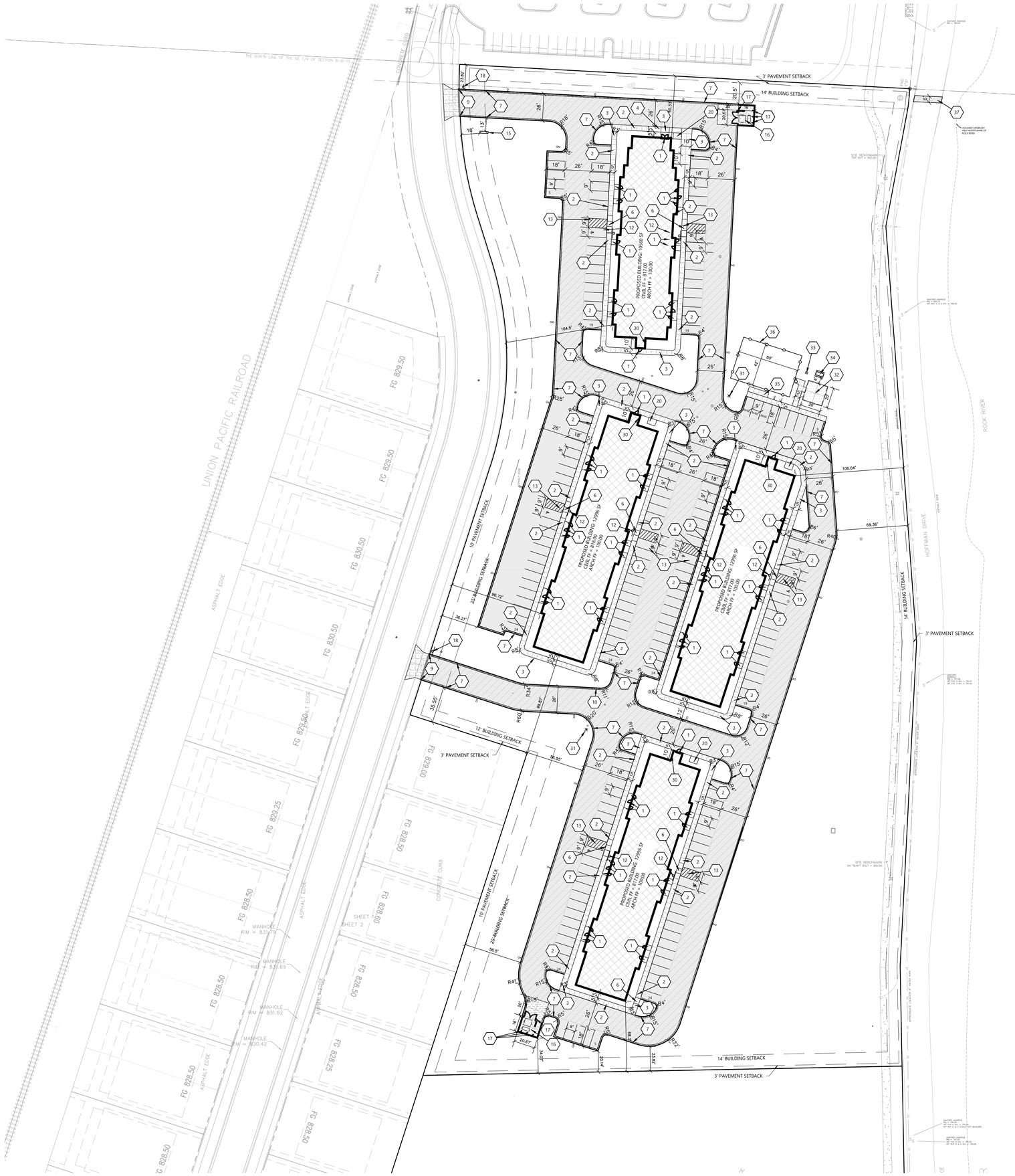
PROFESSIONAL SEAL

PRELIMINARY DATES
OCT. 23, 2024
OCT. 25, 2024
OCT. 30, 2024
NOV. 8, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C1.0



KEYNOTES

1	CONCRETE STOOP (SEE STRUCTURAL PLANS FOR DETAILS)
2	RAISED WALK (SEE DETAIL)
3	FLUSH WALK (SEE DETAIL)
4	TAPER ASPHALT IN 12' TO CREATE RAISED WALK
6	ADA CURB RAMP (SEE DETAIL)
7	18" CURB & GUTTER (SEE DETAIL)
9	CURB TAPER (SEE DETAIL)
10	CURB CUT (SEE DETAIL)
11	CONCRETE TRANSFORMER PAD BY UTILITY SUPPLIER (CONTRACTOR TO VERIFY FINAL LOCATION & DESIGN PRIOR TO CONSTRUCTION)
12	HANDICAP SIGN PER STATE CODE (SEE DETAIL)
13	HANDICAP STALL & STRIPING PER STATE CODES
15	MONUMENT SIGN (DETAILS, FINAL LOCATION, & APPROVAL BY SIGN VENDOR)
16	DUMPSTER ENCLOSURE (SEE ARCH PLANS FOR DETAILS)
17	6" CONCRETE BOLLARDS (TYP.) (SEE ARCH PLANS FOR DETAILS)
18	STOP SIGN PER MUTCD.
20	BIKE RACK (TYP.) (TYPE & COLOR BY OWNER)
22	TRAFFIC FLOW ARROWS (TYP). COLOR TO MATCH PARKING STALL STRIPING
30	FDC LOCATION. FDC SHALL HAVE AN ANGLED 5 INCH STORZ CONNECTION AND SHALL BE MARKED WITH A STROBE OR REFLECTIVE SIGN.
31	FIRE HYDRANT LOCATION. FIRE HYDRANTS SHALL NOT BE PLACED CLOSER THAN 40 FEET TO ANY BUILDING AND SHALL BE NO MORE THAN 100 FEET FROM THE FDC.
32	PAVILION ON CONCRETE PAD. SEE ARCH PLANS.
33	PARK GRILL. TYPE BY OWNER.
34	PICNIC TABLE ON CONCRETE PAD. TABLEBY OWNER.
35	MAILBOX AND PARCEL CLUSTERS ON CONCRETE PAD. SEE ARCH PLANS.
36	PROPOSED DOG PARK WITH 4' BLACK VINYL CHAINLINK FENCE.
37	ASPHALT/BASE SECTION TO MATCH EXISTING ROAD SECTION PER CITY OF WATERTOWN SPECIFICATIONS.

LEGEND:

HATCH	PAVEMENT SECTION	HATCH	PAVEMENT SECTION
	STANDARD ASPHALT		HEAVY DUTY CONCRETE
	HEAVY DUTY ASPHALT		
	SIDEWALK CONCRETE		DUMPSTER PAD / APRON CONCRETE
	INVERTED CURB & GUTTER		SHEDDING CURB & GUTTER

SCALE: 1" = 40'

NORTH

40' 0 40' 80'

CIVIL SITE PLAN

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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT

LUMIN TERRACE

JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES

OCT. 3, 2024
OCT. 11, 2024
OCT.14, 2024
OCT. 18, 2024
OCT. 23, 2024
OCT. 25, 2024
OCT. 30, 2024
NOV. 8, 2024

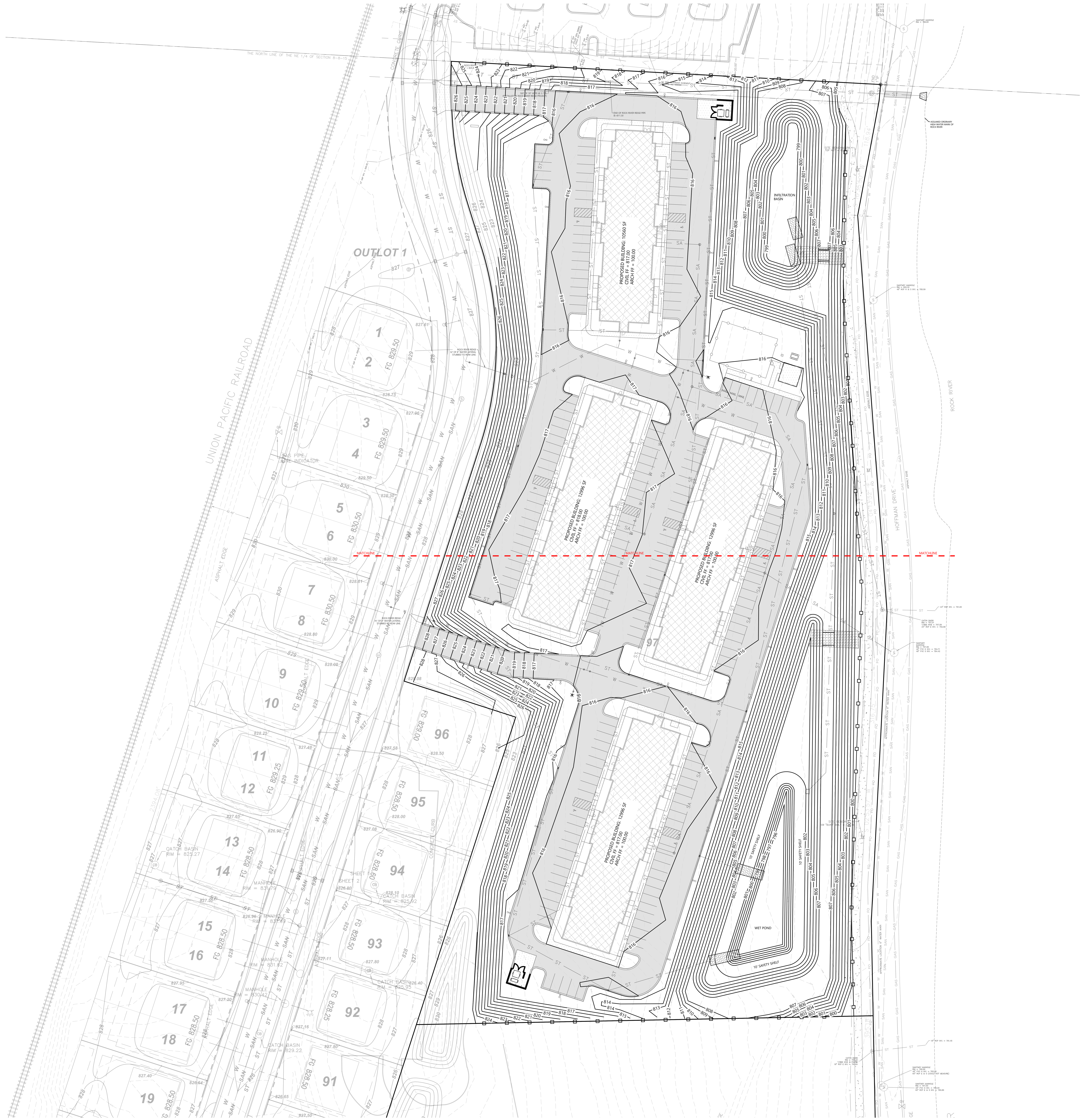
NOT FOR CONSTRUCTION

JOB NUMBER

240136200

SHEET NUMBER

C1.1



GENERAL NOTES:

- HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
- ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.
- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

KEYNOTES

EC 1	SILT FENCE
EC 3	STABILIZED CONSTRUCTION ENTRANCE
EC 4	INLET PROTECTION

SCALE: 1"= 40'

NORTH

CIVIL GRADING AND EROSION CONTROL PLAN - OVERALL

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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES

OCT. 11, 2024
OCT. 18, 2024
OCT. 23, 2024
OCT. 25, 2024
OCT. 30, 2024
NOV. 8, 2024

NOT FOR CONSTRUCTION

JOB NUMBER

240136200

SHEET NUMBER

C1.2A

GENERAL NOTES:

- HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
- ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.
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- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

KEYNOTES

EC 1	SILT FENCE
EC 3	STABILIZED CONSTRUCTION ENTRANCE
EC 4	INLET PROTECTION

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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES
NOV. 8, 2024

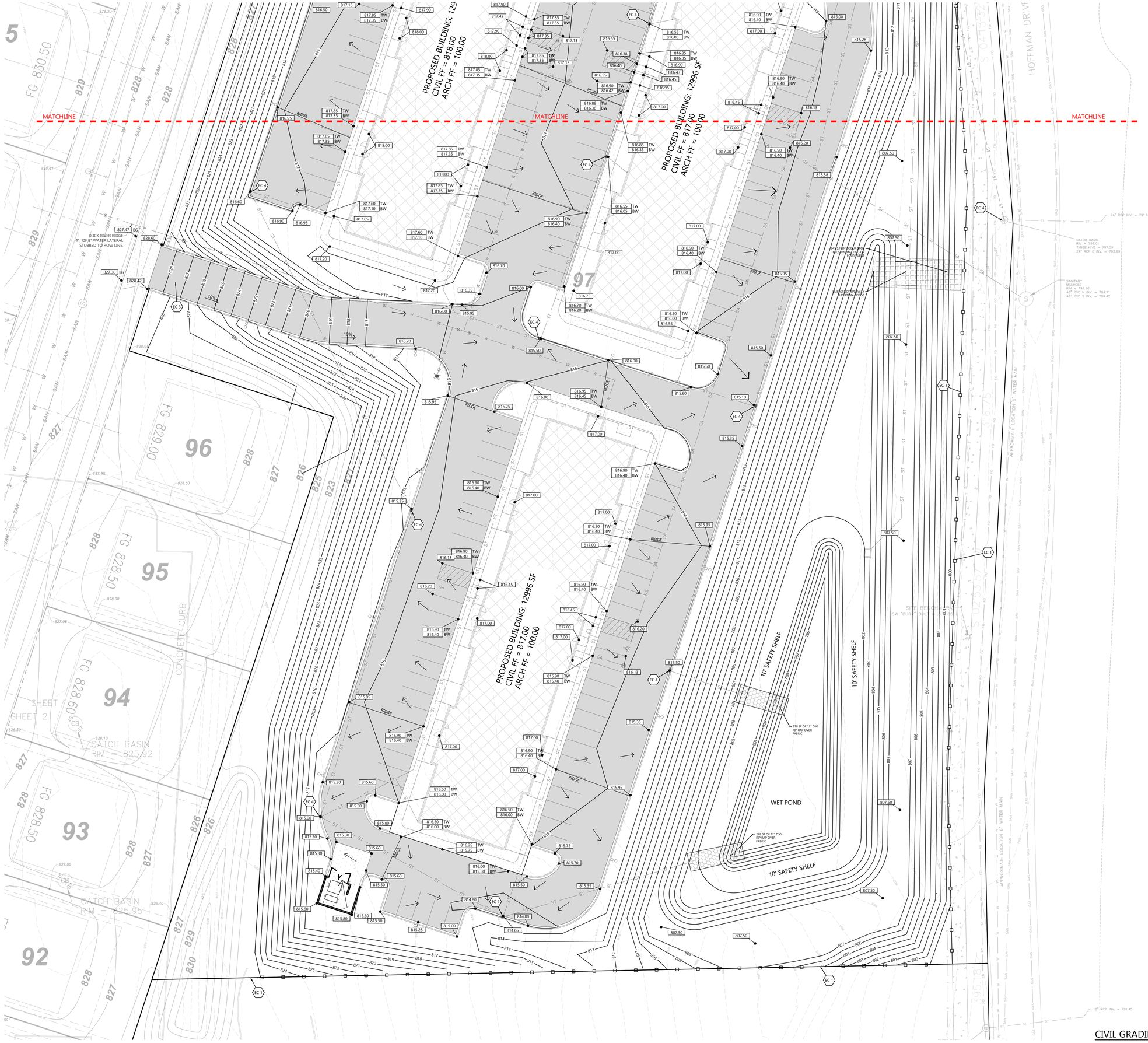
NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C1.2B

SCALE: 1" = 20'
20' 0 20' 40'
NORTH

CIVIL GRADING AND EROSION CONTROL PLAN - NORTH



GENERAL NOTES:

- HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
- ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.
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- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

KEYNOTES

EC 1	SILT FENCE
EC 3	STABILIZED CONSTRUCTION ENTRANCE
EC 4	INLET PROTECTION

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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

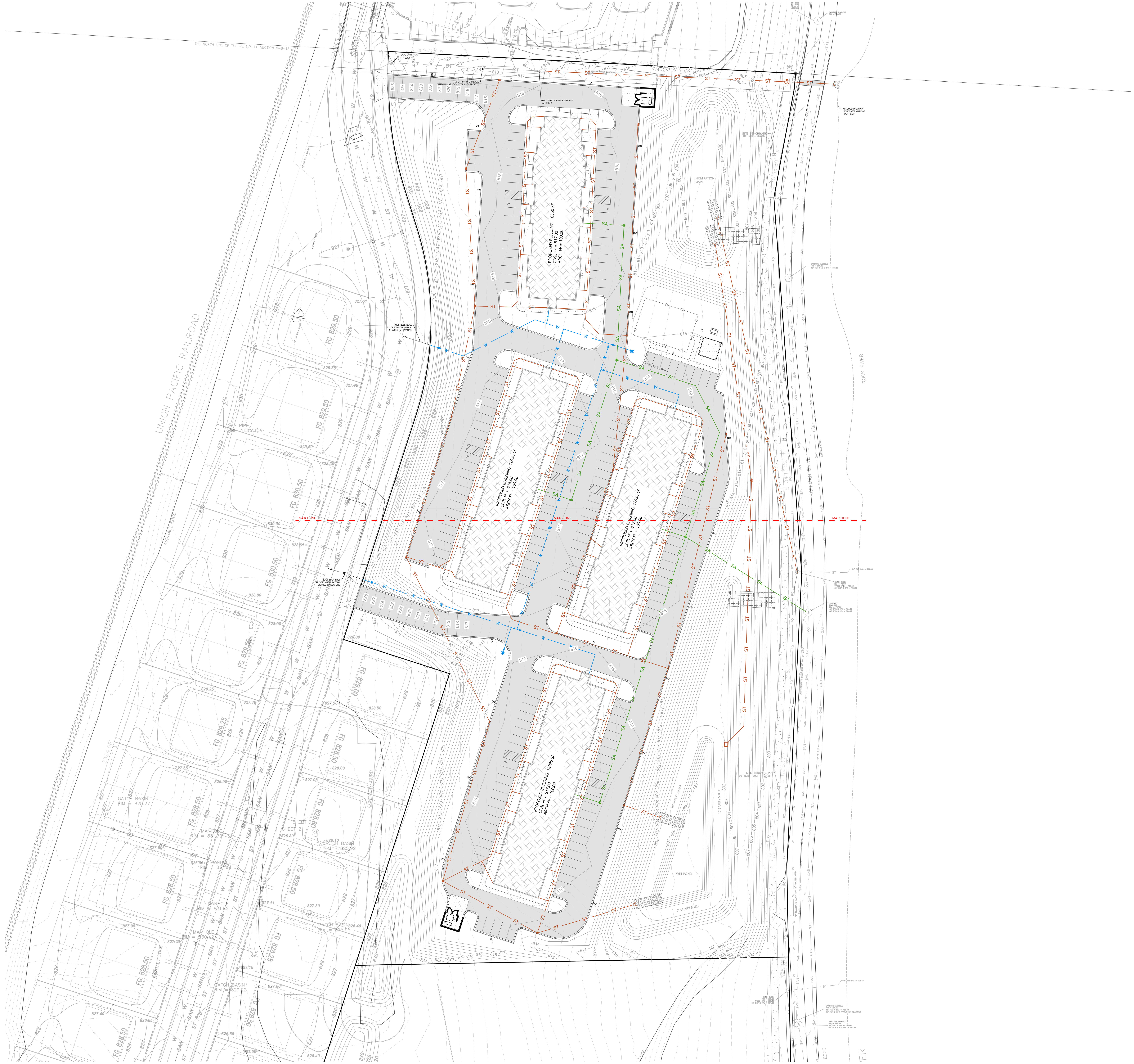
PRELIMINARY DATES
NOV. 8, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C1.2C

CIVIL GRADING AND EROSION CONTROL PLAN - SOUTH



GENERAL NOTES:

- ALL DOWNSPOUT LEADERS WITH DS TAG SHALL BE 6" HDPE PIPES WITH LENGTH OF LEADER NOTED AFTER DS PREFIX.
- CONTRACTOR TO VERIFY WATER AND SANITARY PIPE SIZING WITH INTERIOR PLUMBER PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IF INTERIOR PLUMBER REQUIRES DIFFERENT PIPE SIZES.

SCALE: 1"= 40'

40' 0 40' 80'

NORTH

CIVIL UTILITY PLAN - OVERALL

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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT

LUMIN TERRACE

JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES

OCT. 17, 2024
OCT. 18, 2024
OCT. 23, 2024
OCT. 25, 2024
OCT. 30, 2024
NOV. 7, 2024

NOT FOR CONSTRUCTION

JOB NUMBER

240136200

SHEET NUMBER

C1.3A

GENERAL NOTES:

- ALL DOWNSPOUT LEADERS WITH DS TAG SHALL BE 6" HDPE PIPES WITH LENGTH OF LEADER NOTED AFTER DS PREFIX.
- CONTRACTOR TO VERIFY WATER AND SANITARY PIPE SIZING WITH INTERIOR PLUMBER PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IF INTERIOR PLUMBER REQUIRES DIFFERENT PIPE SIZES.

ROCK RIVER RIDGE
IE = 820.47

160' OF 18" HDPE @ 5.73%
(INSTALLED AS ROCK RIVER RIDGE PROJECT)

STORM CI 1 [2' X 3']
RIM = 815.50
IE SW = 811.99

CONNECT TO END OF STORM PIPE INSTALLED AS PART OF ROCK RIVER RIDGE DEVELOPMENT

END OF ROCK RIVER RIDGE PIPE
IE=811.30

267' OF 18" HDPE @ 5.73%

40' WDE WATERMAIN EASEMENT

STORM MH
RIM=800.50
IE E 18"=796.00
IE W 18"=796.00

50' OF 18" RCP @ 1%

ENDSECTION
IE = 795.50

PROTECT EXISTING FIBER OPTIC, WATER LINE & GAS LINE. MAINTAIN ADEQUATE SEPARATION PER DSPS.

ASSUMED ORDINARY HIGH WATER MARK OF ROCK RIVER

LIGHT POLE (TYP)
SEE C3.1.

STORM PIPE I
101' OF 12" HDPE @ 0.3%
(100 YR =893 GPM)

STORM CI 9 [2' X 3']
RIM = 815.10
IE S = 811.33

SITE BENCHMARK
TOP NUT = 803.90

DOWNSPOUT LEAD COLLECTOR 1
235' OF 8" HDPE @ 1%
(100 YR = 485 GPM)

STORM CI 2 [4']
RIM = 815.40
IE NE=811.68
IE SE = 811.68

DOWNSPOUT LEAD COLLECTOR 2
256' OF 8" HDPE @ 1%
(100 YR = 485 GPM)

STORM PIPE A
227' OF 12" HDPE @ 1%
(100 YR = 1,131 GPM)

INFILTRATION BASIN

ENDSECTION 3
IE = 800.00

ENDSECTION 2
IE = 800.00

STORM PIPE J
149' OF 18" HDPE @ 0.3%
(100 YR =2,374 GPM)

PROPOSED BUILDING: 10560 SF
CIVIL FF = 817.00
ARCH FF = 100.00

IE=807.55

SANITARY PIPE 4
44' OF 6" SDR 35
PVC @ 1%

SANITARY MH C [4']
RIM = 815.20
IE W= 807.10
IE S = 807.00

LIGHT POLE (TYP)
SEE C3.1.

SANITARY PIPE 3
146' OF 6" SDR 35 PVC @ 1%

SANITARY MANHOLE
RIM = 800.32
48" RCP N & S INV. = 785.59

STORM PIPE 5
391' OF 8" HDPE @ 1.5%

STORM CI 3 [4']
RIM = 815.50
IE N= 811.23
IE SW = 811.23
IE E = 811.23

WATER PIPE 2
17' OF 6" C900 PVC WITH VALVE

LIGHT POLE (TYP)
SEE C3.1.

WATER PIPE 4
23' OF 6" C900 PVC
HYDRANT LEAD WITH VALVE

STORM CI 10 [2' X 3']
RIM = 814.80
IE N = 809.06
IE S = 809.06
IE W = 809.06

IE STORM=808.78
IE SAN=805.37

ROCK RIVER RIDGE
32' OF 8" WATER LATERAL STUBBED TO ROW LINE.

CONNECT TO END OF WATER LATERAL INSTALLED AS PART OF ROCK RIVER RIDGE DEVELOPMENT

WATER PIPE 1
209' OF 8" C900 PVC

CHECK VALVE IN MANHOLE

WATER PIPE 3
44' OF 6" C900 PVC WITH VALVE

VALVE

SANITARY MH B [4']
RIM = 815.20
IE N = 805.50
IE SW= 805.50
IE SE= 805.40

STORM PIPE R
257' OF 10" HDPE @ 0.37%

STORM PIPE K
122' OF 24" HDPE @ 0.5%
(100YR = 4,192 GPM)

SANITARY PIPE 5
158' OF 6" SDR 35 PVC @ 1%

WATER PIPE 5
104' OF 6" C900 PVC
WITH VALVE

45° BEND

SANITARY PIPE 2
264' OF 6" SDR 35 PVC @ 1%

DOWNSPOUT LEAD COLLECTOR 3
270' OF 8" HDPE @ 1.25%
(100 YR = 597 GPM)

STORM CI 14 [2' X 3']
RIM = 815.00
IE S = 811.00

45° BEND

LIGHT POLE (TYP)
SEE C3.1.

STORM CI 4 [4']
RIM = 816.15
IE N=810.62
IE SW = 810.62

STORM PIPE B
145' OF 18" HDPE @ 1%
(100 YR = 3,110 GPM)

STORM CI 11 [4']
RIM = 816.05
IE NE =807.61
IE SW = 807.61
IE E NE=812.00

PROPOSED BUILDING: 12996 SF
CIVIL FF = 818.00
ARCH FF = 100.00

STORM PIPE C
78' OF 18" HDPE @ 1%
(100 YR = 4,035 GPM)

IE=807.60

STORM MH 1 [4']
RIM = 808.00
IE N = 800.93
IE S = 800.93

STORM PIPE F
266' OF 10" HDPE @ 2%
(100 YR = 1,198 GPM)

STORM PIPE L
159' OF 24" HDPE @ 1%
(100 YR = 5,547 GPM)

LIGHT POLE (TYP)
SEE C3.1.

SANITARY MH D [4']
RIM = 817.00
IE NE= 807.10
IE NW= 807.20

SANITARY PIPE 6
39' OF 6" SDR 35 PVC @ 1%

MATCHLINE

MATCHLINE

MATCHLINE

STORM PIPE J
149' OF 18" HDPE @ 0.3%
(100 YR =2,374 GPM)

DOWNSPOUT LEAD COLLECTOR 4
315' OF 8" HDPE @ 1.25%
(100 YR = 597 GPM)

STORM CI 12 [4']
RIM = 816.05
IE NE =806.83
IE SW = 806.83
IE SE=812.00

PROPOSED BUILDING: 12996 SF
CIVIL FF = 817.00
ARCH FF = 100.00

IE=804.16

SANITARY PIPE 7
28' OF 6" SDR 35 PVC @ 5%

SANITARY MH A [4']
RIM = 816.20
IE NE = 802.76
IE NW = 802.76
IE SW = 805.80 PROVIDE EXTERNAL DROP TO 802.76
IE SW = 802.76
IE E = 802.66

STORM PIPE Q
289' OF 10" HDPE @ 0.37%

PROTECT EXISTING FIBER OPTIC LINES.

STORM CI 5 [4']
RIM = 816.60
IE NE=809.03
IE 24" SE = 809.03

ROCK RIVER

HOFFMAN DRIVE

SCALE: 1"= 20'
20' 0 20' 40'

NORTH

CIVIL UTILITY PLAN - NORTH

EXCEL
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES
NOV. 8, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C1.3B

GENERAL NOTES:

- ALL DOWNSPOUT LEADERS WITH DS TAG SHALL BE 6" HDPE PIPES WITH LENGTH OF LEADER NOTED AFTER DS PREFIX.
- CONTRACTOR TO VERIFY WATER AND SANITARY PIPE SIZING WITH INTERIOR PLUMBER PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IF INTERIOR PLUMBER REQUIRES DIFFERENT PIPE SIZES.

MATCHLINE

MATCHLINE

MATCHLINE

ROCK RIVER RIDGE
41' OF 8" WATER LATERAL STUBBED TO ROW LINE.

CONNECT TO END OF WATER LATERAL INSTALLED AS PART OF ROCK RIVER RIDGE DEVELOPMENT

CHECK VALVE IN MANHOLE

WATER PIPE 9
175' OF 8" C900 PVC

LIGHT POLE (TYP)
SEE C3.1.

STORM PIPE L
159' OF 24" HDPE @ 1%
(100 YR = 5,547 GPM)

LIGHT POLE (TYP)
SEE C3.1.

STORM PIPE J
149' OF 18" HDPE @ 0.8%
(100 YR =2,374 GPM)

STORM CI 5 [4']
RIM = 816.60
IE NE=809.03
IE 24" SE = 809.03
IE 8"SE = 812.19

STORM PIPE M
200' OF 24" HDPE @ 1%
(100 YR = 6,745 GPM)

STORM CI 6 [4']
RIM = 815.35
IE SW = 807.03

STORM PIPE N
178' OF 24" HDPE @ 1%
(100 YR = 9,371 GPM)

LIGHT POLE (TYP)
SEE C3.1.

STORM CI 7 [5']
RIM = 815.00
IE SE = 805.25
IE NE= 805.25
IE 8" NE=809.00

WATER PIPE 8
28' OF 6" C900 PVC
HYDRANT LEAD WITH VALVE

VALVE

STORM CI 13 [5']
RIM = 815.50
IE NW=809.00
IE NE = 805.75
IE SE = 805.75

WATER PIPE 7
110' OF 6" C900 PVC WITH VALVE

DOWNSPOUT LEAD COLLECTOR 4
315' OF 8" HDPE @ 1.25%
(100 YR = 597 GPM)

WATER PIPE 6
324' OF 8" C900 PVC

STORM CI 12 [4']
RIM = 816.05
IE NE =806.83
IE SW = 806.83
IE SE=812.00

STORM PIPE D
108' OF 18" HDPE @ 1%
(100 YR = 4,757 GPM)

DOWNSPOUT LEAD COLLECTOR 5
259' OF 8" HDPE @ 1.25%
(100 YR = 597 GPM)

STORM CI 14 [4']
RIM = 816.05
IE NE =807.61
IE SW = 807.61
IE 6" NE=812.00

STORM PIPE C
78' OF 18" HDPE @ 1%
(100 YR = 4,035 GPM)

IE=807.60

SANITARY MH D [4']
RIM = 817.00
IE NE= 807.10
IE NW= 807.20

SANITARY PIPE 6
39' OF 6" SDR 35 PVC @ 1%

PROPOSED BUILDING: 12996 SF
CIVIL FF = 818.00
ARCH FF = 100.00

PROPOSED BUILDING: 12996 SF
CIVIL FF = 817.00
ARCH FF = 100.00

IE=804.16

SANITARY PIPE 7
28' OF 6" SDR 35 PVC @ 5%

SANITARY MH A [4']
RIM = 816.20
IE NE = 802.76
IE NW = 802.76
IE SW = 805.80 PROVIDE EXTERNAL DROP TO 802.76
IE SW = 802.76
IE E = 802.66

STORM MH 1 [4']
RIM = 808.00
IE N = 800.93
IE S = 800.93

STORM PIPE F
260' OF 10" HDPE @ 2%
(100 YR = 1,198 GPM)

STORM PIPE Q
289' OF 10" HDPE @ 0.37%

PROTECT EXISTING FIBER OPTIC LINES.

SANITARY PIPE 1
153' OF 8" SDR 35 PVC @ 2%

CONNECT PROPOSED 8" STORM PIPE TO EXISTING CATCH BASIN AT IE=794.00. CONTRACTOR TO FIELD VERIFY STRUCTURAL INTEGRITY OF EXISTING CATCH BASIN AND REPLACE AS NECESSARY.

24" RCP INV. = 791.66

CATCH BASIN
RIM = 797.01
T/BEE HYE = 797.59
24" RCP E INV. = 792.89

PROTECT EXISTING FIBER OPTIC AND WATER LINES. MAINTAIN ADEQUATE SEPARATION PER DSPS.

SANITARY MANHOLE
RIM = 797.96
48" PVC N INV. = 784.71
48" PVC S INV. = 784.42
IE W 8" = 799.60 PROVIDE EXTERNAL DROP TO 786.38
IE W 8" = 786.38

LIGHT POLE (TYP)
SEE C3.1.

IE STORM=804.75
IE SAN=807.21

STORM PIPE E
125' OF 24" HDPE @ 1%
(100 YR = 8,011 GPM)

STORM CI 15 [5']
RIM = 815.10
IE SW = 804.46
IE NE = 805.80
IE NW= 804.46

STORM PIPE G
155' OF 24" HDPE @ 1%
(100 YR = 10,165 GPM)

OUTLET STRUCTURE
RIM= 805.00
IE 20" V-NOTCH= 802.00
IE 10"= 802.00

SANITARY PIPE 8
301' OF 6" SDR 35 PVC @ 1%

IE=809.20

STORM CI 16 [5']
RIM = 815.50
IE SE = 802.91
IE NE =802.91

SANITARY MH E [4']
RIM = 816.20
IE NE = 808.81
IE NW= 808.91

SANITARY PIPE 9
28' OF 6" SDR 35 PVC @ 1%

STORM PIPE H
41' OF 24" HDPE @ 1%
(100 YR = 10,874 GPM)

ENDSECTION 3
IE = 802.50

LIGHT POLE (TYP)
SEE C3.1.

DOWNSPOUT LEAD COLLECTOR 7
271' OF 8" HDPE @ 1.25%
(100 YR = 597 GPM)

STORM PIPE O
116' OF 30" HDPE @ 1%
(100 YR = 11,426 GPM)

STORM PIPE P
108' OF 30" HDPE @ 1%
(100 YR = 12,840 GPM)

STORM CI 8 [5']
RIM = 814.65
IE NW = 804.08
IE 8" NW=809.00
IE NE=804.08

ENDSECTION 4
IE = 803.00

WET POND

10' SAFETY SHELF

10' SAFETY SHELF

10' SAFETY SHELF

APPROXIMATE LOCATION 6" WATER MAIN

SITE BENCHMARK
SW "BURY" BOLT = 801.66

CONCRETE CURB

CATCH BASIN
RIM = 825.92

CATCH BASIN
RIM = 825.95

SHEET 1
SHEET 2

18" RCP INV. = 791.45

CATCH BASIN
RIM =794.22

SCALE: 1"= 20'
20' 0 20' 40'
NORTH

CIVIL UTILITY PLAN - SOUTH

EXCEL
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

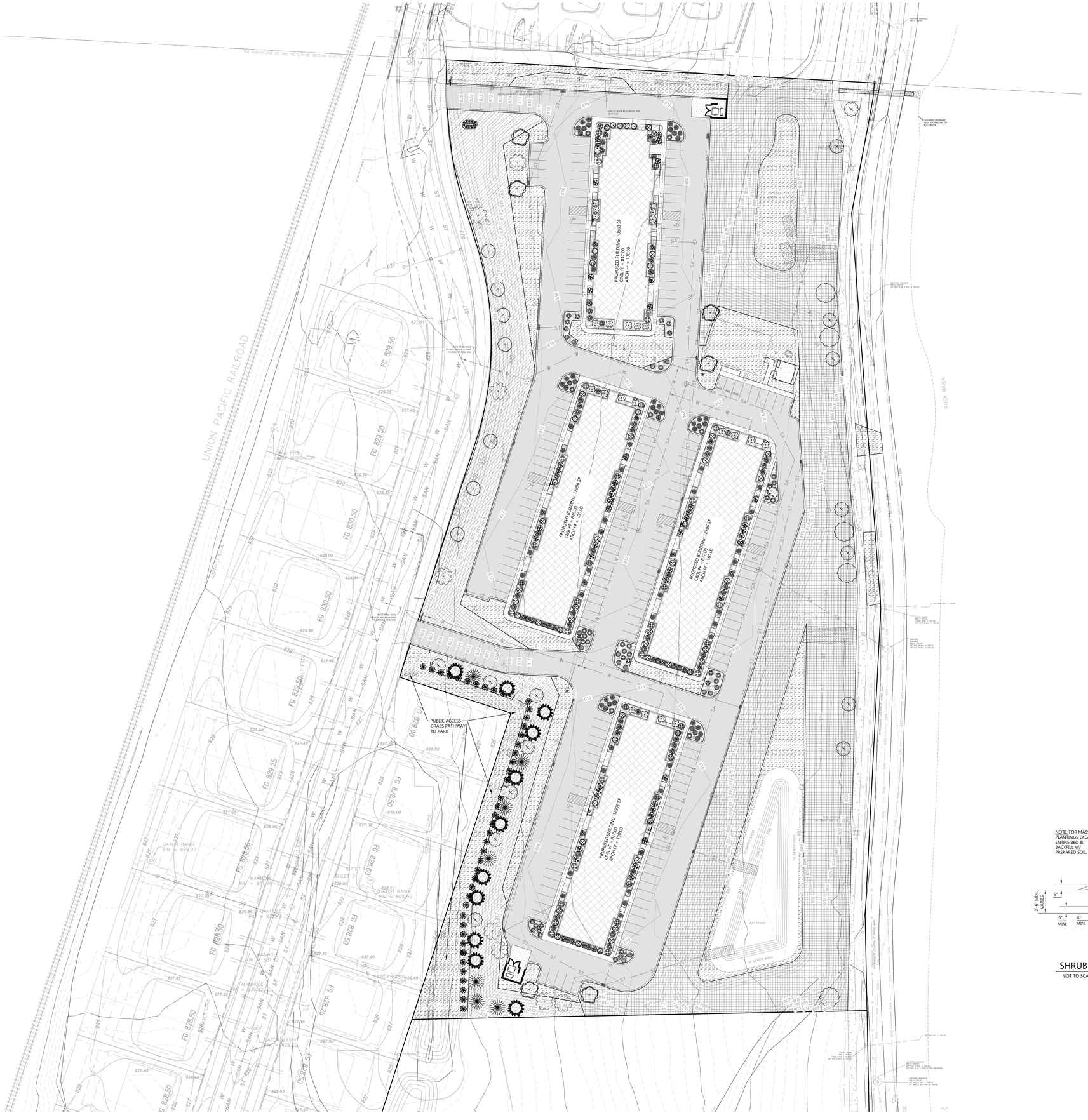
PROFESSIONAL SEAL

PRELIMINARY DATES
NOV. 8, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C1.3C



HATCH KEY:

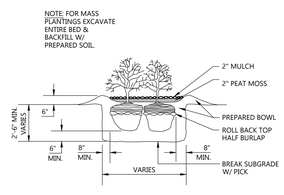
HATCH	LANDSCAPE MATERIAL
	ORGANIC MULCH
	SEEDED LAWN
	EROSION MATTING (NAG S150) OVER NO MOW SEEDED LAWN. CONTRACTOR TO SUBMIT NO MOW SEED MIX TO ENGINEER FOR APPROVAL. (> OR = 4:1 SLOPES OUTSIDE OF SWM)
	EROSION MATTING (NAG C125) OVER NO MOW SEEDED LAWN.CONTRACTOR TO SUBMIT NO MOW SEED MIX TO ENGINEER FOR APPROVAL. (SWALE BOTTOMS & SWM)

LANDSCAPING CALCULATIONS

ZONE	REQ. PLANTS	PLANTS PROVIDED
PAVED AREAS	GREATER OF: 100 POINTS PER 20 PARKING STALLS OR 10,000 SQUARE FEET OF PARKING AREA A MINIMUM OF 30% OF POINTS DEVOTED TO CLIMAX/TALL TREES AND 40% TO SHRUBS $\frac{38}{20}$*100=980 $\frac{10560}{10000}$*100=1324 POINTS TOTAL REQUIRED 1324*.3=398 POINTS MINIMUM TALL TREES 1324*.4=530 POINTS MINIMUM SHRUBS	66 (5-POINT) DECIDUOUS SHRUBS 40 (5-POINT) EVERGREEN SHRUBS 530 TOTAL SHRUB POINTS PROVIDED 11 (75 POINT) CLIMAX TREE 825 TOTAL TREE POINTS 1355 POINTS TOTAL PROVIDED
DEVELOPED LOTS	20 POINTS PER 1,000 SQUARE FEET OF BUILDING FOOTPRINT $\frac{10560}{1000}$*20=991 POINTS REQD	48 (3 POINT) DECIDUOUS SHRUBS=144 7 (20 POINT) MEDIUM TREES =140 18(40 POINT) TALL EVERGREEN TREES=760
STREET	50 POINTS PER 100 LINEAR FEET OF STREET FRONTAGE SHRUBS NOT ALLOWED; A MINIMUM OF 50% OF POINTS DEVOTED TO CLIMAX/TALL TRESS AND 30% TO MEDIUM TREES HOFFMAN ROAD=$\frac{958}{200}$*50=479 MINIMUM 240 TALL/CLIMAX MINIMUM 144 MEDIUM JOHNSON STREET=$\frac{658}{200}$*50=327 MINIMUM 164 TALL/CLIMAX MINIMUM 99 MEDIUM	HOFFMAN ROAD 5 (75 POINT) CLIMAX=375 8 (20 POINT)MEDIUM=160 535 TOTAL JOHNSON STREET 3 (75 POINT) CLIMAX=225 7 (15 POINT)MEDIUM=105 330 TOTAL
BUILDING FOUNDATION	50 POINTS PER 100 FEET OF BUILDING FOUNDATION CLIMAX TREES AND TALL TREES SHALL NOT BE USED TO MEET THIS REQUIREMENT. (637+637+637+550)/100*50=1,234 POINTS REQD	131 (5-POINT) DECIDUOUS SHRUBS 9 (3-POINT) DECIDUOUS SHRUBS 81 (5-POINT) EVERGREEN SHRUBS 55 (3-POINT) EVERGREEN SHRUBS TOTAL 1,234 POINTS PROVIDED

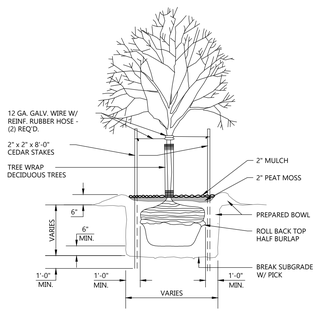
LANDSCAPING PLANTING SCHEDULE

SYMBOL	COMMON NAME	BOTANICAL NAME	PLANTED SIZE	QUANTITY	POINTS
	DECIDUOUS TREES				
	Sugar Maple	Acer saccharum	2"	6	75
	Red Oak	Quercus rubra	2"	8	75
	Ginkgo	Ginkgo bilboa	2"	5	75
	River Birch	Betula nigra	2"	7	15
	EVERGREEN TREES				
	American Arborvitae	Thuja occidentalis	2'	15	4'-10'
	Austrian Pine	Pinus nigra	4'	7	40
	Black Hills Spruce	Picea glauca	4'	11	40
	DECIDUOUS SHRUBS				
	Common Lilac	Syringa vulgaris	24"	81	5
	Weigela Carnaval	Weigela Florida 'courtalor'	24"	3	3
	Rhus glabra	Rhus glabra	24"	21	5
	Tamarisk	Tamarix ramosissima	24"	23	5
	Gray Dogwood	Cornus racemosa	24"	24	5
	Eastern Ninebark	Physocarpus opulifolius	24"	51	5
	Hedge Cotoneaster	Cotoneaster lucida	24"	48	3
	EVERGREEN SHRUBS				
	Pfitzer Juniper	Juniperus chinensis 'Pfitzeriana'	12"-15"	48	5
	Arcadia Juniper	Juniperus sabina 'arcadia'	24"	55	3
	Ware American Arborvitae	Thuja occidentalis "Robusta"	36"	19	5
	Hunnewell Yew	Taxus cuspidata "Expansa"	24"	21	5
	Mugo Pine	Pinus mugo	12"	33	5
	PERENNIALS				
	Hostas	Hostas 'Royal Standard'	1 gal pot	11	



SHRUB PLANTING DETAIL

NOT TO SCALE



TREE PLANTING DETAIL

NOT TO SCALE

SCALE: 1" = 40'

40' 0 40' 80'

NORTH

CIVIL LANDSCAPE AND RESTORATION PLAN

EXCEL

Always a Better Plan

100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT

LUMIN TERRACE

JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES

OCT. 23, 2024
OCT. 25, 2024
OCT. 30, 2024
NOV. 8, 2024

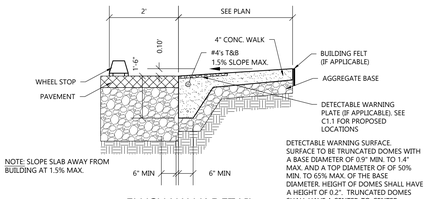
NOT FOR CONSTRUCTION

JOB NUMBER

240136200

SHEET NUMBER

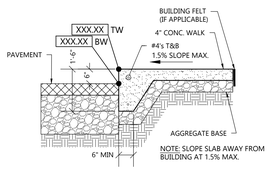
C1.4



NOTE: SLOPE SLAB AWAY FROM BUILDING AT 1.5% MAX.

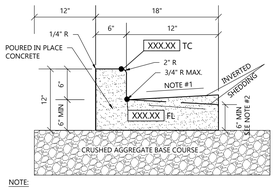
DETECTABLE WARNING SURFACE. SURFACE TO BE TRUNCATED DOMES WITH A BASE DIAMETER OF 0.9" MIN. TO 1.4" MAX. AND A TOP DIAMETER OF OF 50% MIN. TO 65% MAX. OF THE BASE DIAMETER. HEIGHT OF DOMES SHALL HAVE A HEIGHT OF 0.2". TRUNCATED DOMES SHALL HAVE A CENTER-TO-CENTER SPACING OF 1.6" MIN. AND 2.4" MAX. AND A BASE-TO-BASE SPACING OF 0.65" MIN. MEASURED BETWEEN THE MOST ADJACENT DOMES ON THE GRID. DOMES SHALL BE ALIGNED IN A SQUARE GRID PATTERN.

FLUSH WALK DETAIL
NOT TO SCALE



NOTE: SLOPE SLAB AWAY FROM BUILDING AT 1.5% MAX.

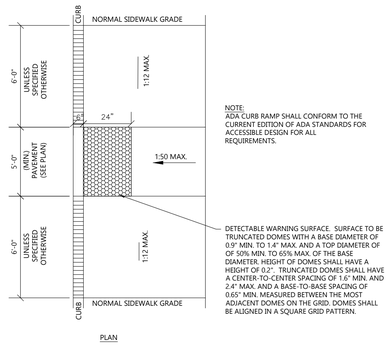
RAISED WALK DETAIL
NOT TO SCALE



NOTE:

1. USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
2. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MIN. GUTTER THICKNESS IS MAINTAINED.
3. SEE SITE PLAN & GRADING PLAN FOR INVERTED & SHEDDING CURB LOCATIONS

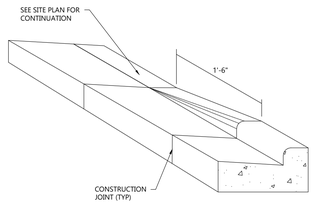
18" CONCRETE CURB & GUTTER DETAIL
NOT TO SCALE



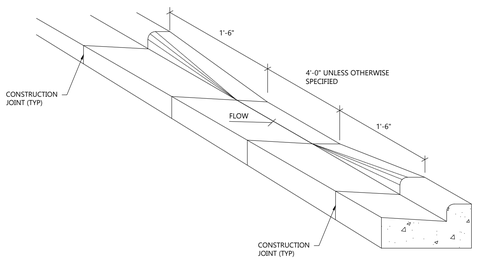
NOTE:
ADA CURB RAMP SHALL CONFORM TO THE CURRENT EDITION OF ADA STANDARDS FOR ACCESSIBLE DESIGN FOR ALL REQUIREMENTS.

DETECTABLE WARNING SURFACE. SURFACE TO BE TRUNCATED DOMES WITH A BASE DIAMETER OF 0.9" MIN. TO 1.4" MAX. AND A TOP DIAMETER OF 50% MIN. TO 65% MAX. OF THE BASE DIAMETER. HEIGHT OF DOMES SHALL HAVE A HEIGHT OF 0.2". TRUNCATED DOMES SHALL HAVE A CENTER-TO-CENTER SPACING OF 1.6" MIN. AND 2.4" MAX. AND A BASE-TO-BASE SPACING OF 0.65" MIN. MEASURED BETWEEN THE MOST ADJACENT DOMES ON THE GRID. DOMES SHALL BE ALIGNED IN A SQUARE GRID PATTERN.

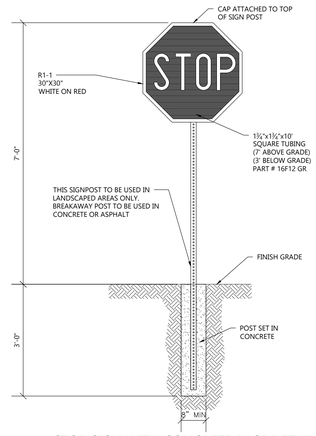
ADA SIDEWALK RAMP DETAIL
NOT TO SCALE



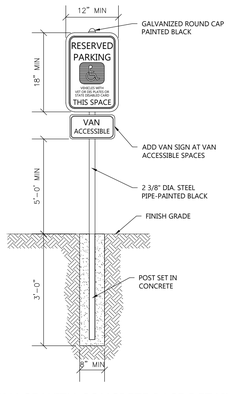
CURB TAPER DETAIL
NOT TO SCALE



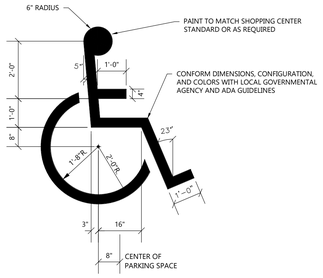
CURB CUT DETAIL
NOT TO SCALE



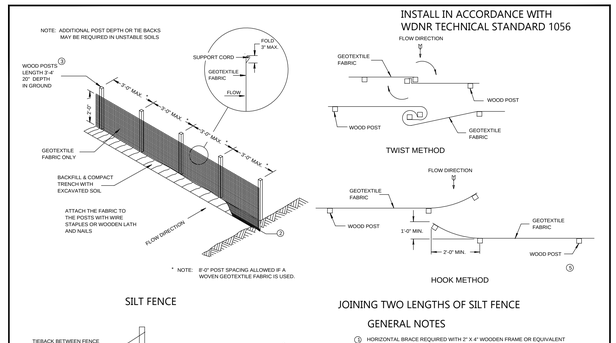
STOP SIGN WITH CONCRETE BASE DETAIL
NOT TO SCALE



HANDICAP SIGNAGE WITH CONCRETE BASE DETAIL
NOT TO SCALE



HANDICAP STALL SYMBOL
NOT TO SCALE



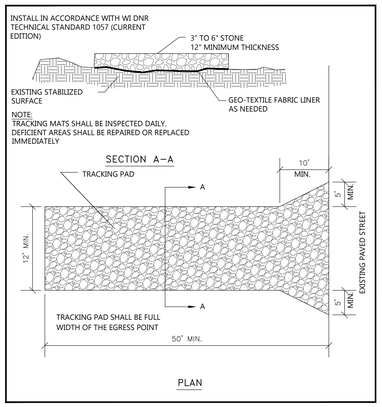
GENERAL NOTES

3. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1" X 2" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. 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: A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES. B) HOOK THE END OF EACH SILT FENCE LENGTH.

This drawing based on Wisconsin Department of Transportation Standard Detail Drawing 8 E 9-6.

SILT FENCE

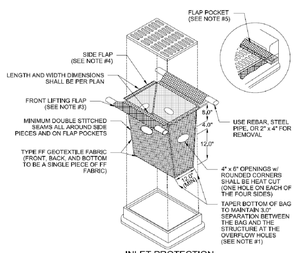
SILT FENCE - INSTALLATION DETAIL
NOT TO SCALE



NOTE:
TRACKING MATS SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY

TRACKPAD DETAILS
NOT TO SCALE

FIGURE 2. INLET PROTECTION TYPE D



INLET PROTECTION
TYPE D
CAN BE INSTALLED IN INLETS
WITH OR WITHOUT CURB BOXES

NOTES:

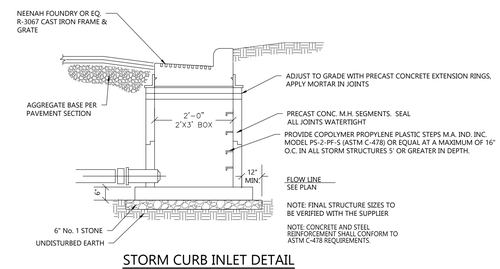
1. TAPER BOTTOM OF BAG TO MAINTAIN 3" OF CLEARANCE BETWEEN THE BAG AND THE STRUCTURE, MEASURED FROM THE BOTTOM OF THE OVERFLOW OPENINGS TO THE STRUCTURE WALL.
2. GEOTEXTILE FABRIC TYPE FF FOR FLAPS, TOP AND BOTTOM OF OUTSIDE OF FILTER BAG. FRONT, BACK, AND BOTTOM OF FILTER BAG BEING ONE PIECE.
3. FRONT LIFTING FLAP IS TO BE USED WHEN REMOVING AND MAINTAINING FILTER BAG.
4. SIDE FLAPS SHALL BE A MAXIMUM OF 2" LONG. FOLD THE FABRIC OVER AND REINFORCE WITH MULTIPLE STITCHES.
5. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2" x 4". THE REBAR, STEEL PIPE, OR WOOD SHALL BE INSTALLED IN THE REAR FLAP AND SHALL NOT BLOCK THE TOP HALF OF THE CURB FACE OPENING.

MAINTENANCE NOTES:

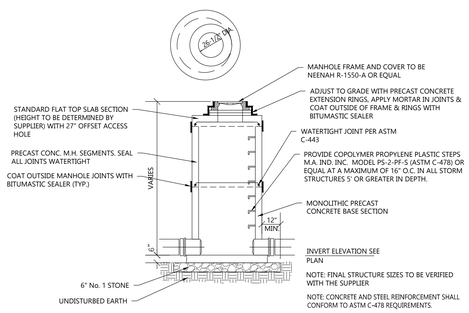
1. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED IN THE FABRIC DOES NOT FALL INTO THE STRUCTURE. MATERIAL THAT HAS FALLEN INTO THE INLET SHALL BE IMMEDIATELY REMOVED.

WISCONSIN DEPT OF NATURAL RESOURCES
1060
TECHNICAL STANDARD No.
12/2021
REVISION DATE
NOT TO SCALE

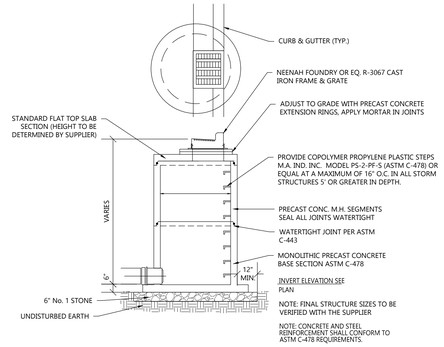
INLET PROTECTION DETAIL
NOT TO SCALE



STORM CURB INLET DETAIL
NOT TO SCALE



SANITARY MANHOLE DETAIL
NOT TO SCALE

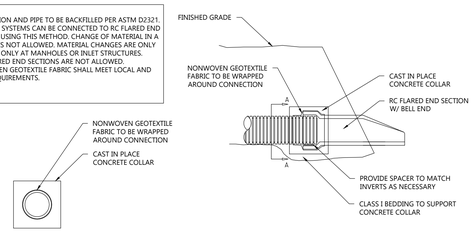


STORM CURB INLET W/ ROUND STRUCTURE DETAIL
NOT TO SCALE

CONCRETE FLUME DETAIL (PAVEMENT)
NOT TO SCALE

NOTES:

1. CONNECTION AND PIPE TO BE BACKFILLED PER ASTM D2321.
2. HDPE PIPE SYSTEMS CAN BE CONNECTED TO RC FLARED END SECTIONS USING THIS METHOD. CHANGE OF MATERIAL IN A PIPE RUN IS NOT ALLOWED. MATERIAL CHANGES ARE ONLY ALLOWED ONLY AT MANHOLES OR INLET STRUCTURES.
3. HDPE FLARED END SECTIONS ARE NOT ALLOWED.
4. NONWOVEN GEOTEXTILE FABRIC SHALL MEET LOCAL AND STATE REQUIREMENTS.



CONNECTION DETAIL FOR HDPE PIPE TO RC FLARED END SECTION BELL END
NOT TO SCALE

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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES
OCT. 23, 2024
OCT. 25, 2024
OCT. 30, 2024
NOV. 8, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
C2.0

CIVIL DETAILS

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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
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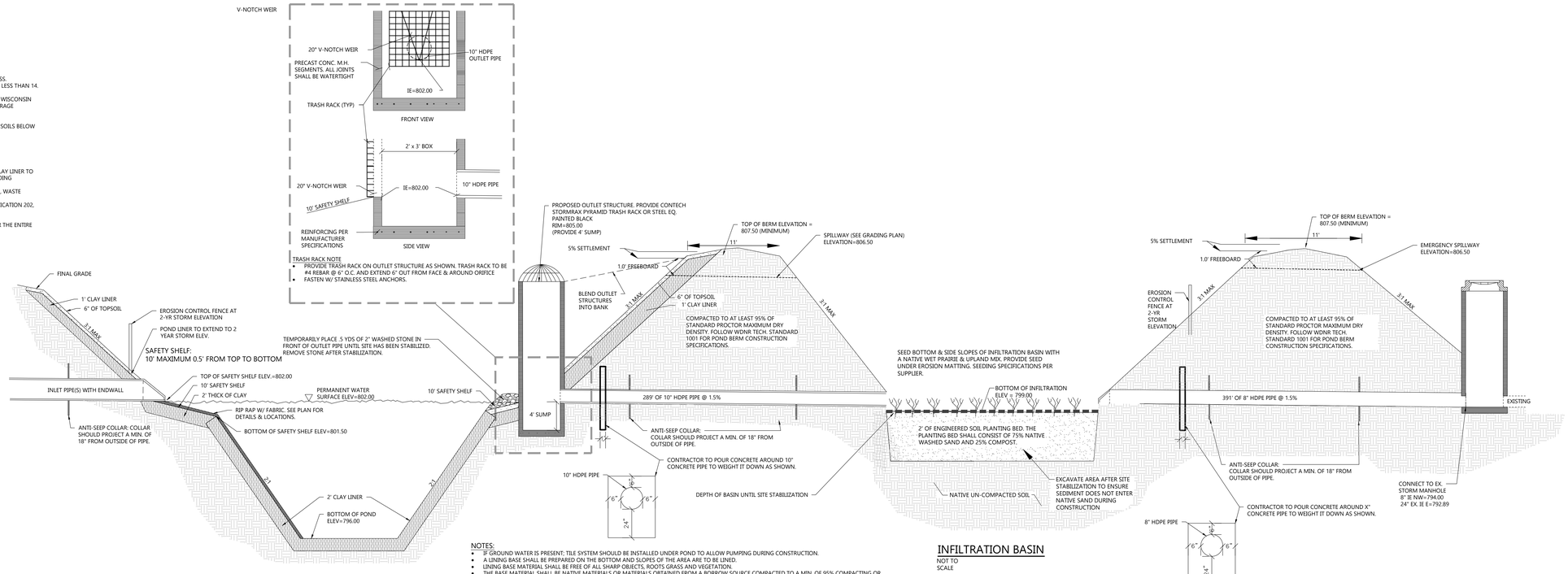
JOHNSON STREET • WATERTOWN, WI

POND LINER CRITERIA FOR SAFETY SHELF AND BELOW (CLAY):
- 50% FINES (200 SIEVE) OR MORE.
- AN IN-PLACE HYDRAULIC CONDUCTIVITY OF $1x10^{-6}$ CM./SEC. OR LESS.
- AVERAGE LIQUID LIMIT VALUE OF 16 OR GREATER, WITH NO VALUE LESS THAN 14.
- AVERAGE PI OF 7 OR MORE WITH NO VALUES LESS THAN 5.
- CLAY COMPACTION AND DOCUMENTATION AS SPECIFIED IN NRCS WISCONSIN CONSTRUCTION SPECIFICATION 204, EARTHWORK FOR WASTE STORAGE FACILITIES.
- MINIMUM THICKNESS OF TWO FEET.
- SPECIFY METHOD FOR KEEPING POOL FULL OR USE OF COMPOSITE SOILS BELOW LINER.

POND LINER ALTERNATE:
- CONTRACTOR TO PROVIDE 40 MIL/HDPE POND LINER IN LIEU OF CLAY LINER TO LINE ENTIRE POND AREA UP TO THE 2 YEAR, 24-HOUR WATER PONDING ELEVATION (SEE ELEVATION ON DETAIL)
- DESIGN ACCORDING TO THE CRITERIA IN TABLE 3 OF THE NRCS 313, WASTE STORAGE FACILITY TECHNICAL STANDARD
- INSTALL ACCORDING TO NRCS WISCONSIN CONSTRUCTION SPECIFICATION 202, POLYETHYLENE GEOMEMBRANE LINING.

4-6" ROUND STONE OVER FILTER FABRIC SHALL BE PROVIDED TO COVER THE ENTIRE LINER. TOP OF STONE SHALL MATCH PROPOSED POND ELEVATIONS.

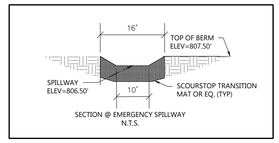


WET RETENTION POND
NOT TO SCALE

INFILTRATION BASIN
NOT TO SCALE

NOTES:
- IF GROUND WATER IS PRESENT; TILE SYSTEM SHOULD BE INSTALLED UNDER POND TO ALLOW PUMPING DURING CONSTRUCTION.
- A LINING BASE SHALL BE PREPARED ON THE BOTTOM AND SLOPES OF THE AREA ARE TO BE LINED.
- LINING BASE MATERIAL SHALL BE FREE OF ALL SHARP OBJECTS, ROOTS GRASS AND VEGETATION.
- THE BASE MATERIAL SHALL BE NATIVE MATERIALS OR MATERIALS OBTAINED FROM A BORROW SOURCE COMPACTED TO A MIN. OF 95% COMPACTING OR AN APPROVED CONSTRUCTION FABRIC.
- THE SUBGRADE SHALL BE PREPARED IMMEDIATELY PRIOR TO THE PLACING OF THE LINER. THE SURFACE ON WHICH THE LINER IS TO BE PLACED IS TO BE FIRM, CLEAN, DRY AND SMOOTH.
- AT END OF SITE CONSTRUCTION, POND DEPTH SHALL BE CHECKED FOR SEDIMENTATION AND DREDGED, IF NECESSARY, TO THE DESIGN DEPTH ORIGINALLY PROPOSED.
- CONTRACTOR SHALL PROVIDE EROSION MATTING AS REQUIRED PER SPECIFICATIONS NOTED ON C0.2.
- CONTRACTOR TO CONTACT EXCEL ENGINEERING TO COMPLETE AN AS-BUILT SURVEY FOLLOWING COMPLETION OF THE CONSTRUCTION OF THE STORMWATER POND. THE SURVEY SHALL BE COMPLETED PRIOR TO THE POND FILLING WITH WATER. CONTRACTOR SHALL GIVE EXCEL ENGINEERING A MINIMUM OF A 3 DAY NOTICE. PLEASE NOTE THAT THE HORIZONTAL TOLERANCE FOR POND CONSTRUCTION IS 0.50' AND THE VERTICAL TOLERANCE FOR POND, OUTLET, AND SPILLWAY CONSTRUCTION IS 0.10'. ANY ADDITIONAL WORK REQUIRED TO SURVEY A POND FULL OF WATER OR FOR SURVEYING FOLLOWING REWORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

OVERALL STORMWATER FACILITY DETAIL
NOT TO SCALE



EMERGENCY SPILLWAY DETAIL
NOT TO SCALE

PROFESSIONAL SEAL

PRELIMINARY DATES
OCT. 23, 2024
OCT. 25, 2024
OCT. 30, 2024
NOV. 8, 2024

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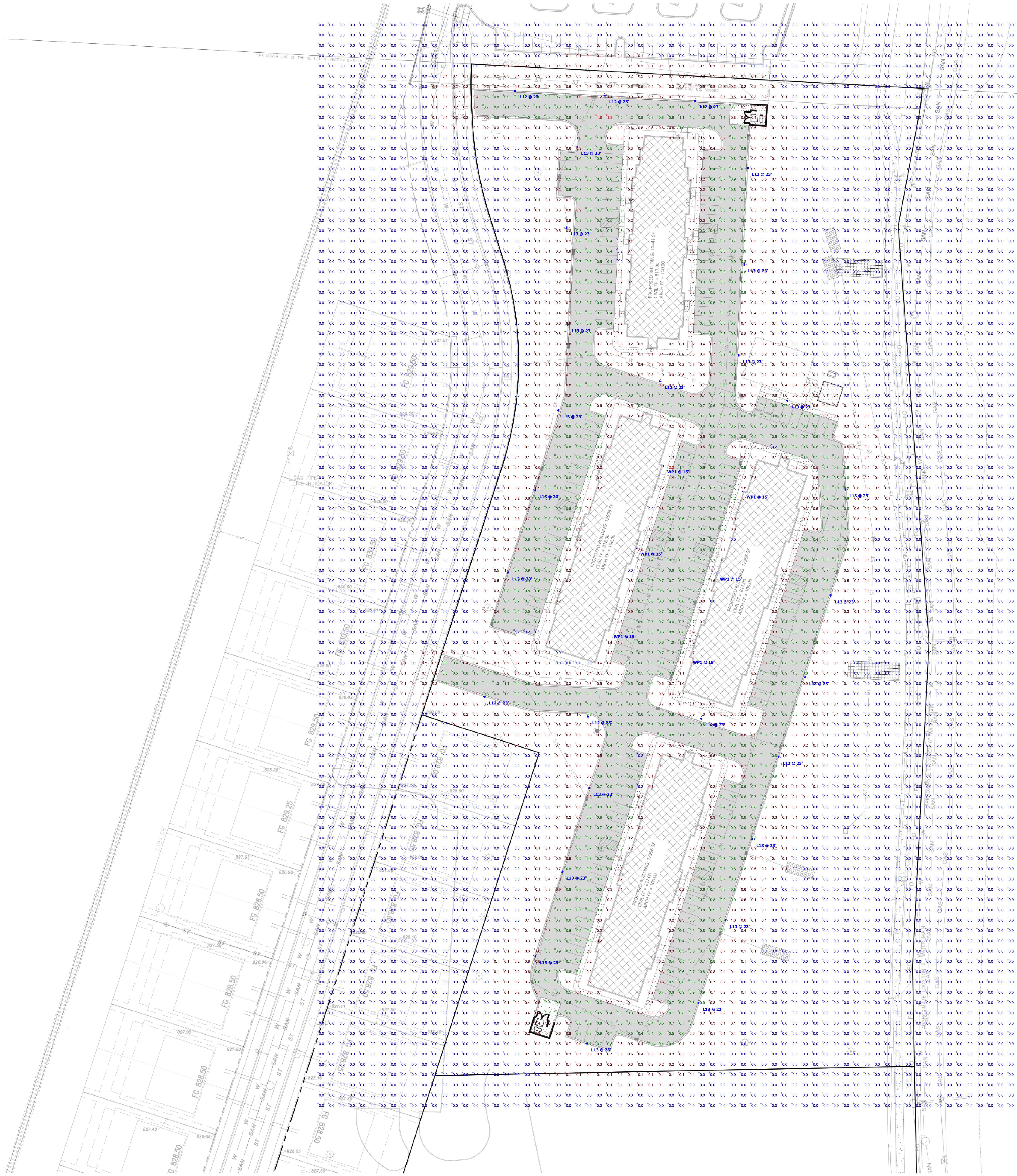
JOB NUMBER
240136200

SHEET NUMBER
C2.1

CIVIL DETAILS



Project		Catalog #		Type	
Prepared by		Notes		Date	

Lumark
Prevail Discrete LED

Area / Site Luminaire

Product Features

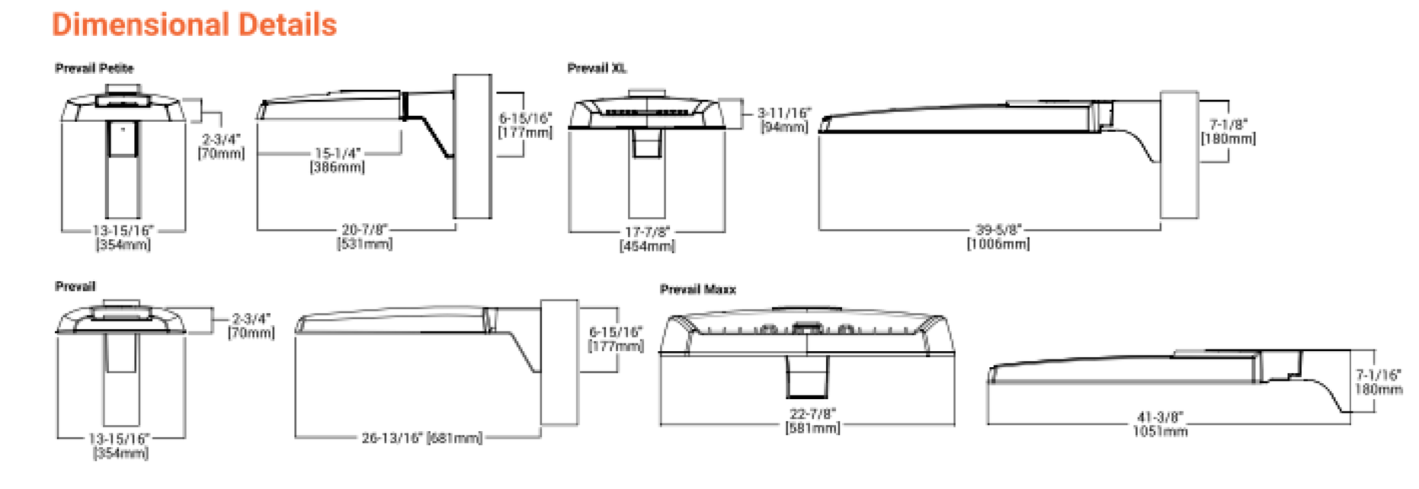
Product Certifications

Interactive Menu
- Ordering Information page 2
- Mounting Details page 3, 4
- Optical Configurations page 5
- Product Specifications page 5
- Energy and Performance Data page 6
- Control Options page 8

Connected Systems
- WaveLinx PRO Wireless
- WaveLinx LITE Wireless

Quick Facts
- Direct-mounted discrete light engine for improved optical uniformity and visual comfort
- Lumen packages range from 4,300 - 68,000 nominal lumens (30W - 550W)
- Replaces 70W up to 1,000W HID equivalents
- Efficacies up to 157 lumens per watt
- Standard universal quick mount arm with universal drill pattern

Dimensional Details



NOTES:
1. Visit https://www.designlights.org/search/ to confirm qualification. Not all product variations are DLC qualified.
2. IDA Certified for 3000K CCT and warmer only.

COOPER Lighting Solutions

PS500005EN page 1
June 6, 2024 6:54 PM

Schedule

Symbol	Label	Quantity	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Manufacturer	Light Loss Factor	Wattage	Wattage
	L13	21	PRV-P-PA1A-730-U-T3	PREVAIL AREA AND WALL LUMINAIRE (1) 70 CRI, 3000K, 375mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS	24	169	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	1	30.7	
	L12	7	PRV-P-PA1A-730-U-T2U	PREVAIL AREA AND WALL LUMINAIRE (1) 70 CRI, 3000K, 375mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS	24	171	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	1	30.7	
	WP1	6	PRV-P-PA1A-730-U-T4W	PREVAIL AREA AND WALL LUMINAIRE (1) 70 CRI, 3000K, 375mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS	24	165	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	1	30.7	

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
PARKING LOT	✳	0.7 fc	1.8 fc	0.2 fc	9.0:1	3.5:1
Calc Zone #1	+	0.2 fc	2.0 fc	0.0 fc	N/A	N/A

SCALE: 1"= 40'
40' 0 40' 80'
NORTH

CIVIL SITE PHOTOMETRIC PLAN & DETAILS

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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES
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NOT FOR CONSTRUCTION

JOB NUMBER
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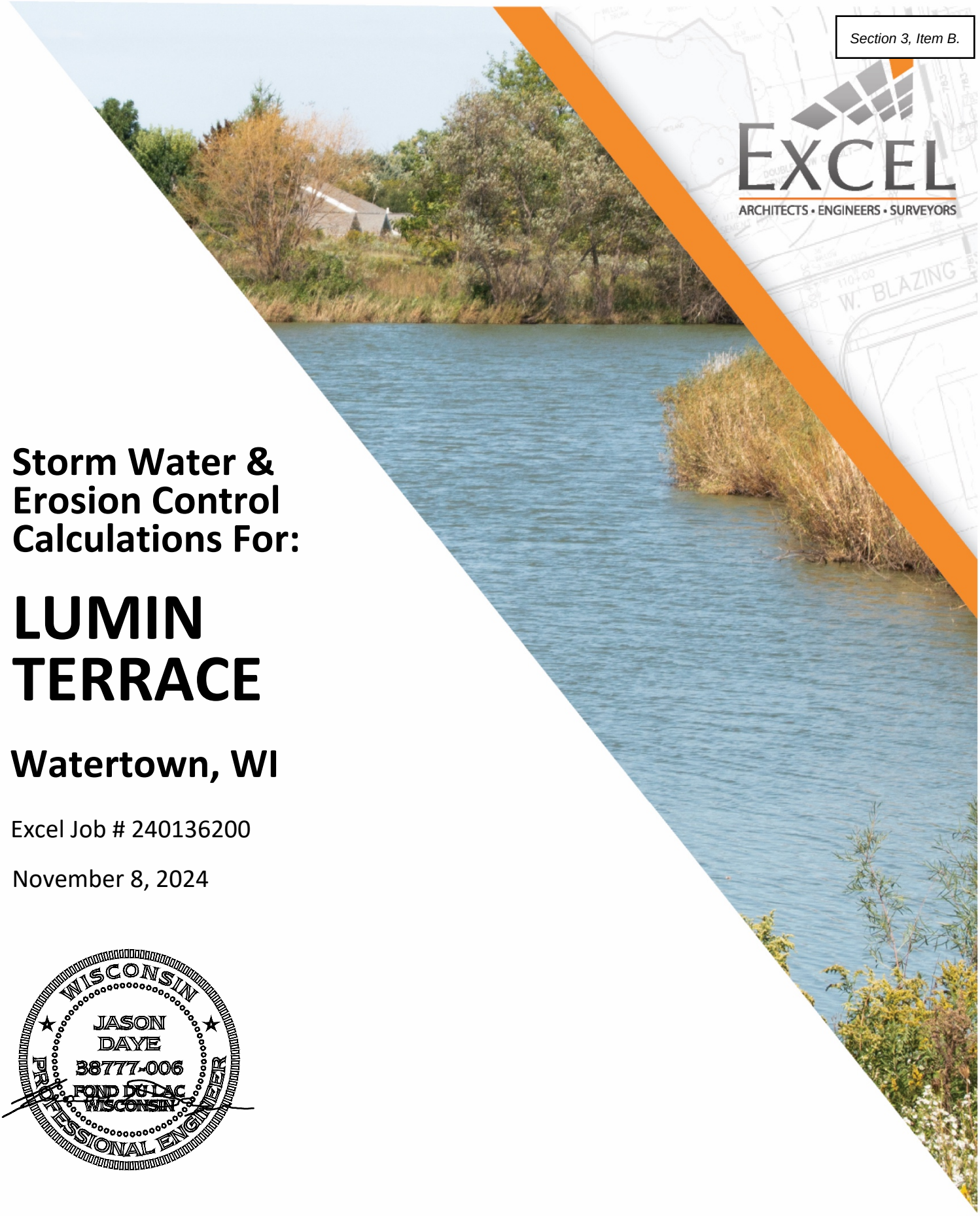
SHEET NUMBER
C3.1



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ARCHITECTS • ENGINEERS • SURVEYORS

Storm Water & Erosion Control Calculations For:

LUMIN TERRACE

Watertown, WI

Excel Job # 240136200

November 8, 2024

WISCONSIN
JASON DAYE
38777-006
FOND DU LAC WISCONSIN
PROFESSIONAL ENGINEER

Prepared by Excel Engineering
100 Camelot Drive • Fond du Lac, WI 54935
920-926-9800 • www.excelengineer.com

Table of Contents

Appendices

0.0 Introduction

0.1 Existing Conditions

The proposed development is located on the east side of Johnson Street in the city of Watertown, Wisconsin. The project site is bound by Johson Street to the west, Hoffman Road to the east, proposed development to the north, and vacant land to the south. The existing site currently contains trees. The site currently drains to the east to Hoffman Road. The existing site can be seen in Appendix A.

- Property Area: 9.33 acres

0.2 Proposed Project Overview

The proposed project will include four proposed buildings with parking located primarily east and west of the proposed buildings. The proposed development will drain to inlets that will drain stormwater east to a proposed wet pond and infiltration basin. The stormwater management pond and infiltration basin will reduce peak flows and treat stormwater to meet local and state requirements. The wet pond will drain into an infiltration basin to meet local and state infiltration requirements. The proposed site can be seen in Appendix B.

- Disturbed Area: 8.90 acres

1.0 Design Criteria

1.1 Soils

Soil characteristics were determined using the web soil survey. See Table 1 for a summary of the soils and hydrologic ratings indicated by the web soil survey and Appendix D for web soil survey map.

Table 1: Web Soil Survey

MAP SYMBOL	SOIL TYPE	HYDROLOGIC RATING
Gtb	Grellton fine sandy loam	B
RtB	Rotamer loam	B
SoB	Sisson fine sandy loam	B

Soil borings were completed for the project site. The boring logs can be seen in Appendix E.

1.2 Rainfall Data

NOAA Atlas 14, city of Watertown rainfall depths with a MSE 3 distribution was used for stormwater calculations.

Table 2: NOAA Atlas 14 24-hour Rainfall Depth

DESIGN STORM	RAINFALL DEPTH (INCHES)
1-YEAR	2.42
2-YEAR	2.73
100-YEAR	6.19

2.0 Stormwater Management Requirements

2.1 Peak Discharge

City of Watertown- Maintain or reduce the 1-yr and 100-yr, 24 hour post development peak runoff discharge rates to the 1-yr, and 2-yr, 24 hour pre development peak runoff discharge rates respectively.

Wisconsin DNR- Maintain or reduce the 1-yr and 2-yr, 24 hour post development peak runoff discharge rates to the 1-yr and 2-yr, 24 hour predevelopment peak runoff discharge rates respectively.

A wet pond will be used to reduce peak flows to predevelopment flows.

Table 3: Runoff Summary

	PREDEVELOPMENT	POST DEVELOPMENT			
DESIGN STORM	**Peak Discharge (cfs)**	**To Pond (cfs)**	**Offsite (cfs)**	**Infiltration Basin discharge (cfs)**	Peak Discharge (To Pond + Offsite) (cfs)
1YR-24 HR	**2.99**	16.89	0.60	0.87	0.89
2YR-24 HR	**4.16**	20.36	0.68	1.04	1.08
100YR-24HR	**21.64**	60.47	1.56	1.25	2.57

Table 4: Wet Pond Summary

DESIGN STORM	POND RELEASE RATE (CFS)	STORAGE VOLUME (C.F.)	MAXIMUM ELEVATION (FT)
1YR-24 HR	0.98	21,311	803.34
2YR-24 HR	1.40	25,146	803.54
100YR-24HR	2.12	90,528	806.42

Table 5: 100yr-24hr storm pond summary

POND	EMERGENCY SPILLWAY ELEVATION (FT)	CALCULATED POND ELEVATION (FT)	POND DISCHARGE IN (CFS)	DISCHARGE EXIT POINT
WET	806.50	806.42	2.12	INFILTRATION BASIN
INFIL	806.50	804.90	1.25	STORM SEWER

Table 6: Peak Discharge Release Summary

DESIGN STORM	PREDEVELOPMENT (CFS)	POST DEVELOPMENT (CFS)
1 YR- 24 HR	**2.99**	0.89
2 YR- 24 HR	**4.16**	1.08
100 YR- 24 HR	**21.64**	2.57

Table 6 shows that post development release rates will be less than predevelopment release rates for all design storms. See sheet C1.3 and C2.0 of the construction plans for pond design and Appendix C for peak discharge calculations.

Therefore, peak discharge requirements are met.

2.2 Stormwater Quality

Wisconsin DNR and city of Watertown- The site is considered a new development project and will be required to remove 80% of total suspended solids (TSS) from site runoff.

The site will treat stormwater using a wet pond and infiltration basin. SLAMM analysis was used to determine the quantity of suspended solids that will be removed by the proposed wet pond and infiltration basin. The proposed site will create 2,423 lbs of TSS and the proposed wet pond and infiltration basin will reduce TSS to 252 lbs, which results in a 89.60% reduction in TSS release.

The proposed wet pond removes 89.60% of suspended solids which is greater than the required 80%.

Therefore, stormwater quality requirements have been met.

2.3 Infiltration

City of Watertown and Wisconsin DNR- Infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 75% of the pre-development infiltration

volume, based on an average annual rainfall. However, no more than 2% of the post-construction site is required as an effective infiltration area.

The proposed development will be 387,800 sf, which means that a maximum 7,756 sf of area will be required for infiltration onsite. The proposed soils are classified as silt and have an estimated infiltration rate of 0.50 in/hr respectively per the Wisconsin DNR evaluation for infiltration standard (1002). Since the basin must empty within 24 hrs after the storm the basin be 12" deep (0.5 in/hr * 24 hr= 12 in).

There is one infiltration basin proposed onsite. The infiltration basin will be downstream of the proposed wet pond. The basin will be 15,000 sf and 12" deep.

Therefore, Infiltration requirements are met.

3.0 Storm Sewer Design

All storm sewer has been designed to convey the 100-year 24-hour post development storm.

See Appendix F, Appendix G, and Appendix H for pipe drainage areas and pipe sizing calculations.

3.1 Emergency Overflow Route

The emergency overflow route is to the east, over the curb and gutter. Maximum ponding onsite will be 9" in drive aisles and 6" in parking stalls.

4.0 Erosion Control

The erosion control specifications, construction sequence, site stabilization notes, seeding notes, dewatering notes, and post construction and maintenance plan will be included on sheet C0.2 of the construction plan set.

Appendix A: Pre-Development Basin Area(s)

Section 3, Item B.

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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET ● WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
PRE

PRE BASIN	TOTAL (SF)	TOTAL (AC)	BLDG (SF)	BLDG (AC)	PAVEMENT (SF)	PAVEMENT (AC)	OPEN (SF)	OPEN (AC)
A	373,688	8.58	0	0.00	37,397	0.86	336,531	7.72

SCALE 1"= 40'
40 0 40 80
NORTH

PREDEVELOPMENT BASIN AREA

Appendix B: Post Development Basin Area(s)

POST BASIN	TOTAL (SF)	TOTAL (AC)	BLDG (SF)	BLDG (AC)	PAVEMENT (SF)	PAVEMENT (AC)	OPEN (SF)	OPEN (AC)
A	312,698	7.18	49,429	1.13	124,161	2.85	139,108	3.19
B	20,550	0.47	8,643	0.20	0	0.00	11,907	0.27
C	32,761	0.75	0	0.00	583	0.01	32,178	0.74
D	7,629	0.18	0	0.00	7,629	0.18	0	0.00

POST DEVELOPMENT BASIN AREAS

SCALE: 1" = 40'
40' 0 40' 80'
NORTH

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PRELIMINARY DATES

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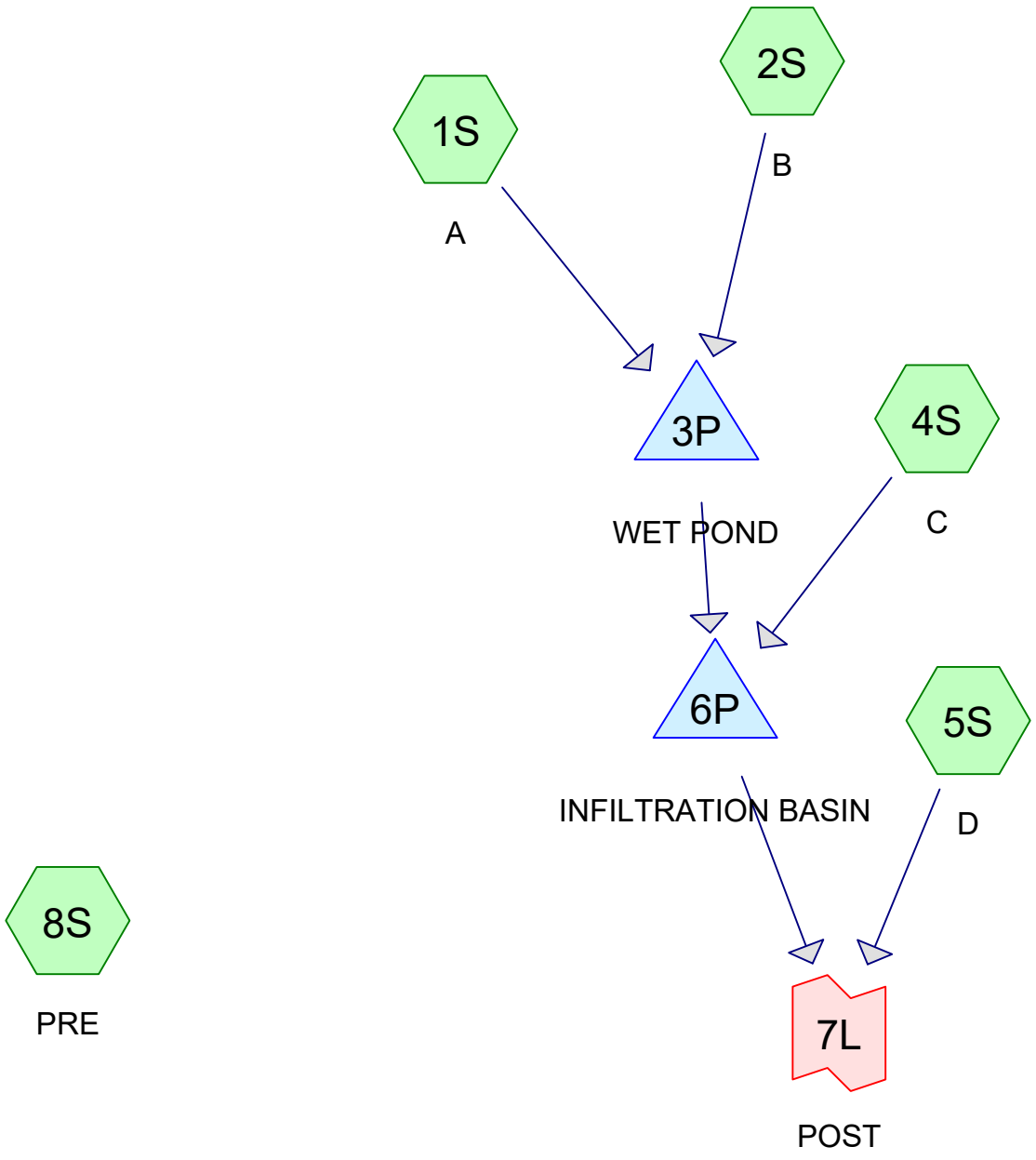
SHEET NUMBER
C1.2

Appendix C: Peak Discharge Calculations



Subcat Reach Pond Link

Routing Diagram for hydrocad240136200
Prepared by Excel Engineering, Printed 10/29/2024
HydroCAD® 10.20-4a s/n 01178 © 2023 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
5.228	98	(1S, 2S, 4S, 5S, 8S)
0.273	74	(2S)
7.721	70	(8S)
4.002	74	>75% Grass cover, Good, HSG C (1S, 4S)

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
4.002	HSG C	1S, 4S
0.000	HSG D	
13.223	Other	1S, 2S, 4S, 5S, 8S

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.000	13.223	13.223		1S, 2S, 4S, 5S, 8S
0.000	0.000	4.002	0.000	0.000	4.002	>75% Grass cover, Good	1S, 4S

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: A Runoff Area=312,698 sf 55.51% Impervious Runoff Depth>1.19"
Tc=6.0 min CN=87 Runoff=15.99 cfs 0.712 af

Subcatchment2S: B Runoff Area=20,550 sf 42.06% Impervious Runoff Depth>1.00"
Tc=6.0 min CN=84 Runoff=0.89 cfs 0.040 af

Subcatchment4S: C Runoff Area=35,816 sf 1.63% Impervious Runoff Depth>0.53"
Tc=0.0 min CN=74 Runoff=0.92 cfs 0.036 af

Subcatchment5S: D Runoff Area=7,629 sf 100.00% Impervious Runoff Depth>2.12"
Tc=6.0 min CN=98 Runoff=0.60 cfs 0.031 af

Subcatchment8S: PRE Runoff Area=373,638 sf 9.98% Impervious Runoff Depth>0.48"
Flow Length=433' Slope=0.0600 '/' Tc=37.9 min CN=73 Runoff=2.99 cfs 0.346 af

Pond 3P: WET POND Peak Elev=803.34' Storage=21,311 cf Inflow=16.89 cfs 0.752 af
Outflow=0.98 cfs 0.436 af

Pond 6P: INFILTRATIONBASIN Peak Elev=800.66' Storage=2,864 cf Inflow=1.05 cfs 0.472 af
Discarded=0.05 cfs 0.035 af Primary=0.87 cfs 0.400 af Outflow=0.93 cfs 0.435 af

Link 7L: POST Inflow=0.89 cfs 0.431 af
Primary=0.89 cfs 0.431 af

Summary for Subcatchment 1S: A

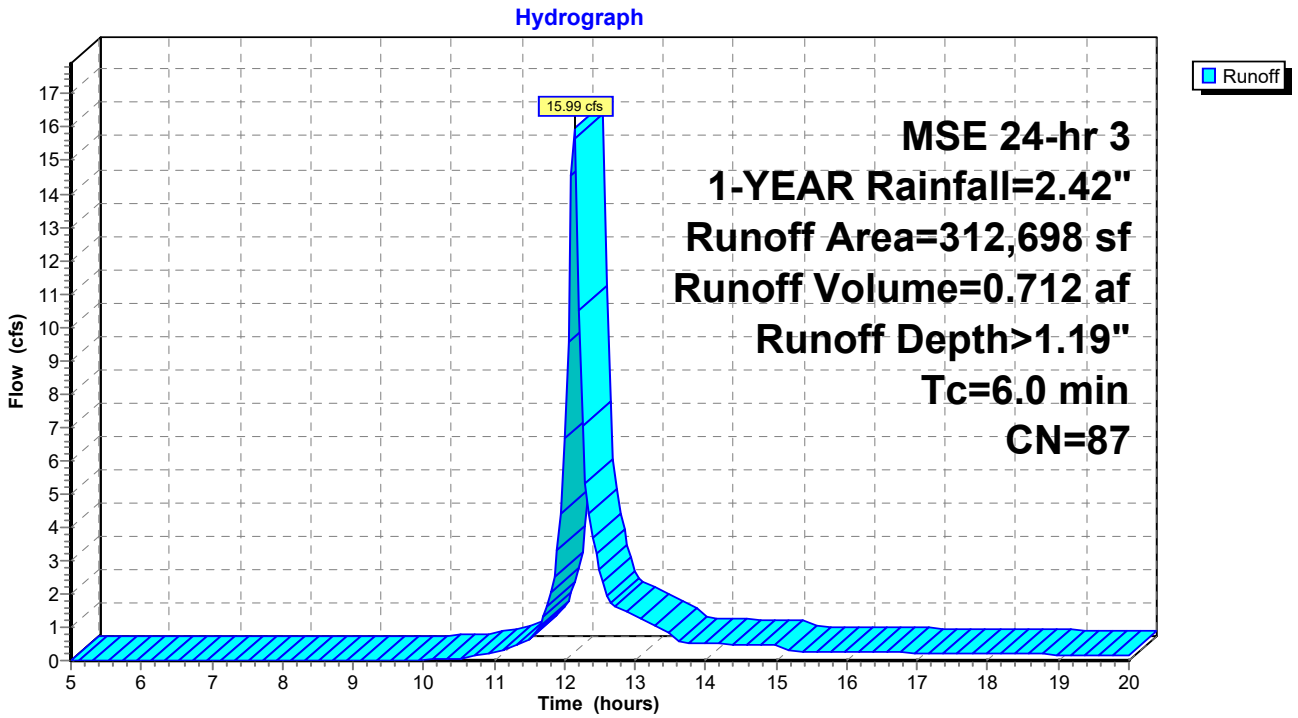
Runoff = 15.99 cfs @ 12.13 hrs, Volume= 0.712 af, Depth> 1.19"
Routed to Pond 3P : WET POND

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-YEAR Rainfall=2.42"

	Area (sf)	CN	Description
*	49,429	98	
*	124,161	98	
	139,108	74	>75% Grass cover, Good, HSG C
	312,698	87	Weighted Average
	139,108		44.49% Pervious Area
	173,590		55.51% Impervious Area

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

Subcatchment 1S: A



Summary for Subcatchment 2S: B

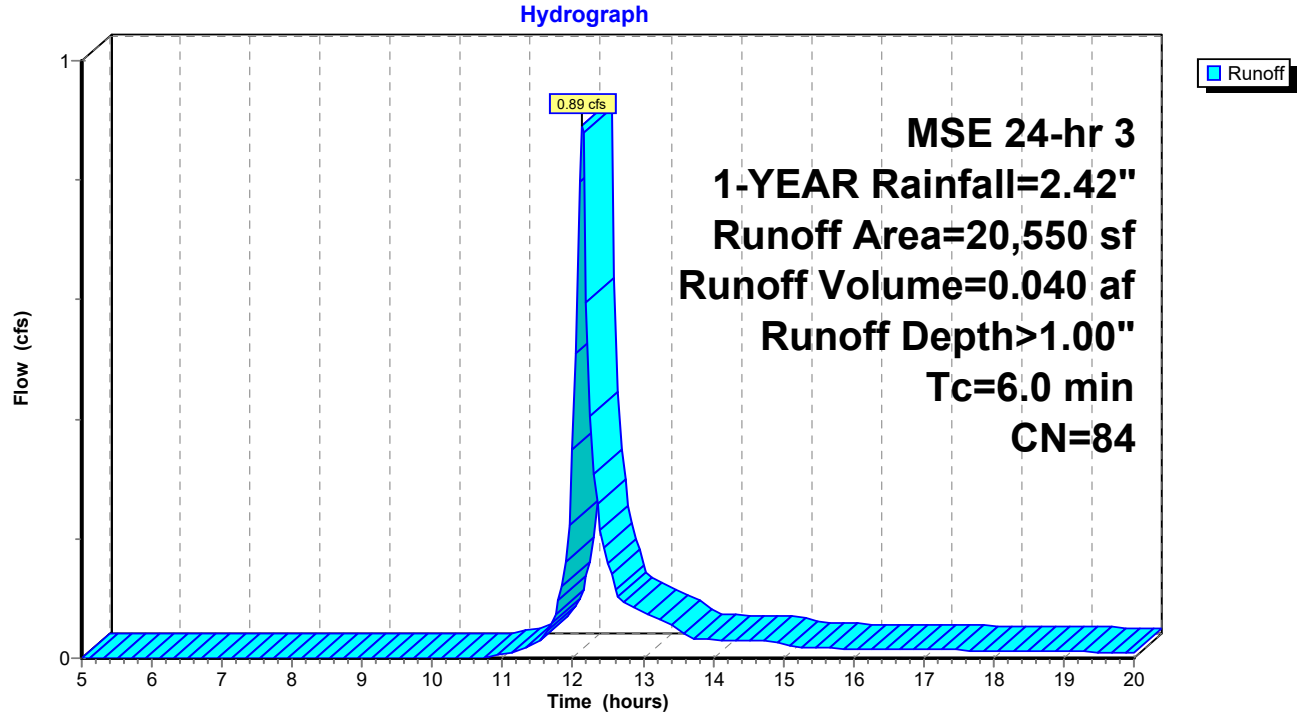
Runoff = 0.89 cfs @ 12.14 hrs, Volume= 0.040 af, Depth> 1.00"
Routed to Pond 3P : WET POND

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-YEAR Rainfall=2.42"

	Area (sf)	CN	Description
*	8,643	98	
*	11,907	74	
	20,550	84	Weighted Average
	11,907		57.94% Pervious Area
	8,643		42.06% Impervious Area

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

Subcatchment 2S: B



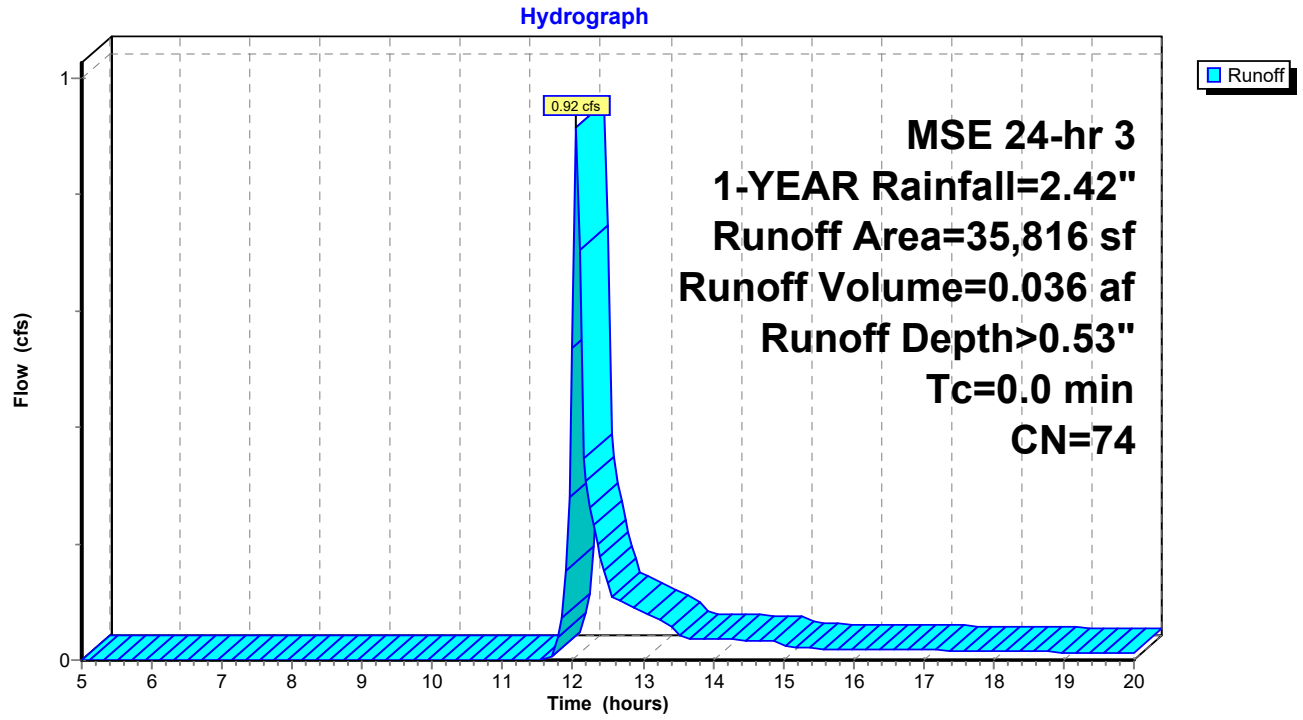
Summary for Subcatchment 4S: C

Runoff = 0.92 cfs @ 12.06 hrs, Volume= 0.036 af, Depth> 0.53"
Routed to Pond 6P : INFILTRATION BASIN

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-YEAR Rainfall=2.42"

	Area (sf)	CN	Description
*	583	98	
	35,233	74	>75% Grass cover, Good, HSG C
	35,816	74	Weighted Average
	35,233		98.37% Pervious Area
	583		1.63% Impervious Area

Subcatchment 4S: C



Summary for Subcatchment 5S: D

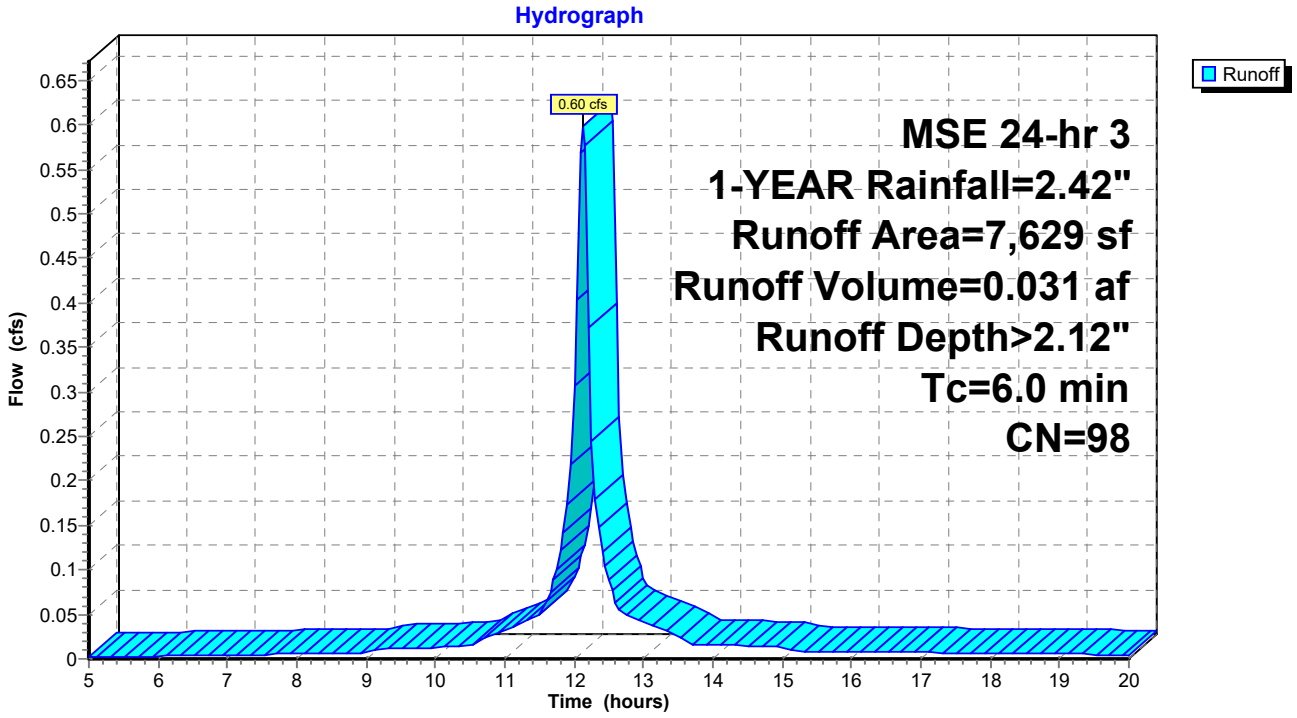
Runoff = 0.60 cfs @ 12.13 hrs, Volume= 0.031 af, Depth> 2.12"
Routed to Link 7L : POST

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-YEAR Rainfall=2.42"

	Area (sf)	CN	Description
*	7,629	98	
	7,629		100.00% Impervious Area

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

Subcatchment 5S: D



Summary for Subcatchment 8S: PRE

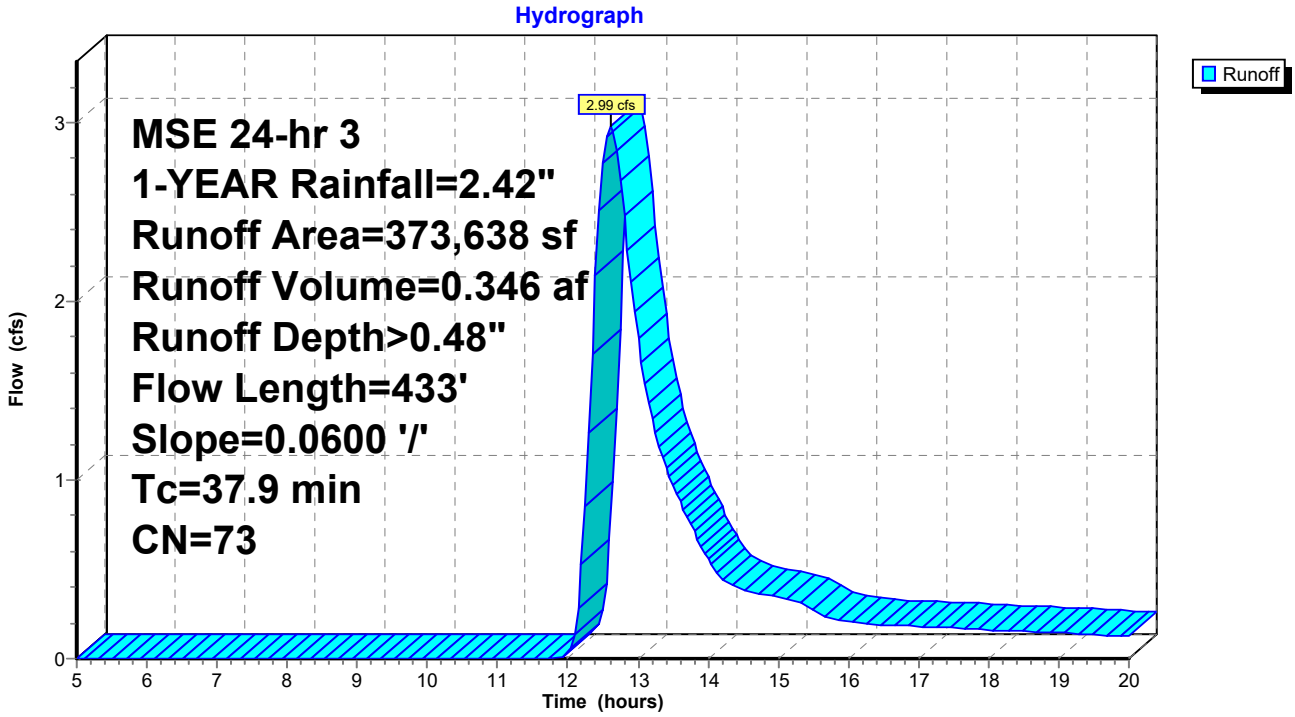
Runoff = 2.99 cfs @ 12.61 hrs, Volume= 0.346 af, Depth> 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-YEAR Rainfall=2.42"

	Area (sf)	CN	Description
*	336,331	70	
*	37,307	98	
	373,638	73	Weighted Average
	336,331		90.02% Pervious Area
	37,307		9.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.1	300	0.0600	0.14		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.73"
1.8	133	0.0600	1.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
37.9	433	Total			

Subcatchment 8S: PRE



Summary for Pond 3P: WET POND

Inflow Area = 7.650 ac, 54.68% Impervious, Inflow Depth > 1.18" for 1-YEAR event
Inflow = 16.89 cfs @ 12.13 hrs, Volume= 0.752 af
Outflow = 0.98 cfs @ 13.41 hrs, Volume= 0.436 af, Atten= 94%, Lag= 76.6 min
Primary = 0.98 cfs @ 13.41 hrs, Volume= 0.436 af
Routed to Pond 6P : INFILTRATION BASIN

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 803.34' @ 13.41 hrs Surf.Area= 18,345 sf Storage= 21,311 cf

Plug-Flow detention time= 207.2 min calculated for 0.436 af (58% of inflow)
Center-of-Mass det. time= 145.1 min (929.4 - 784.3)

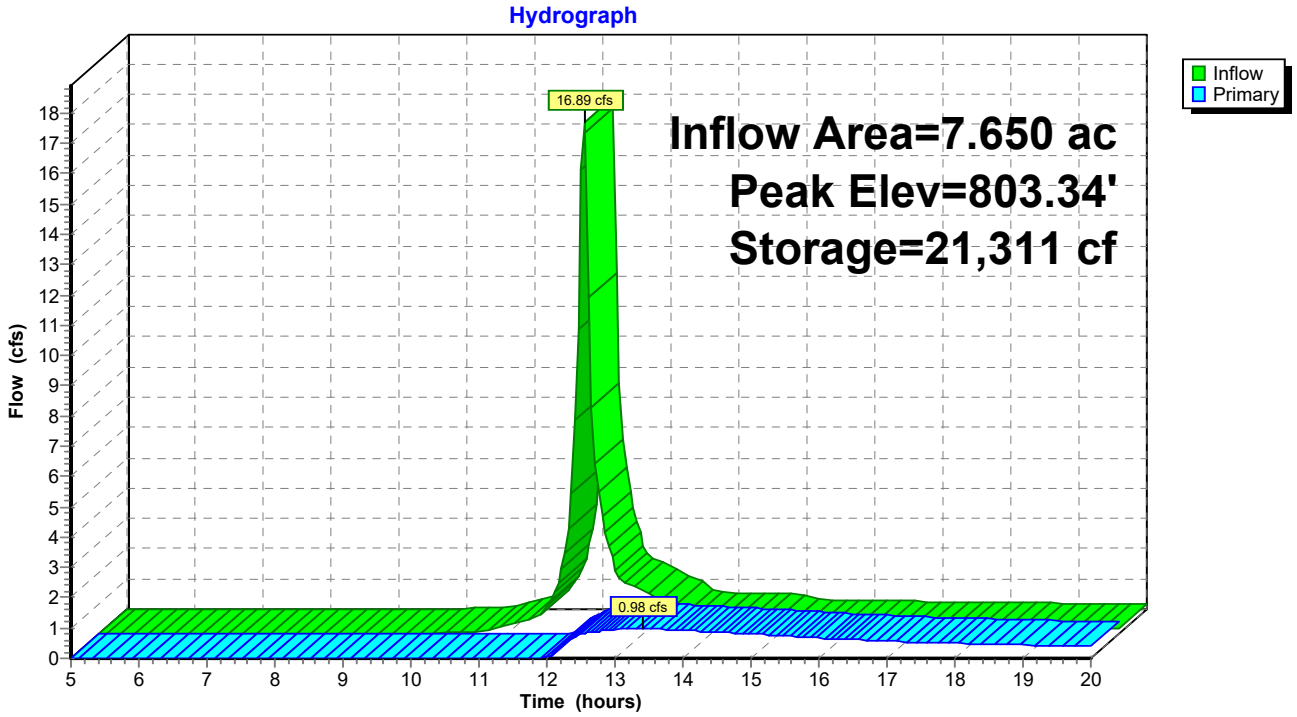
Volume	Invert	Avail.Storage	Storage Description
#1	802.00'	120,650 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
802.00	13,000	0	0
803.00	17,500	15,250	15,250
804.00	20,000	18,750	34,000
805.00	22,900	21,450	55,450
806.00	25,500	24,200	79,650
807.00	28,000	26,750	106,400
807.50	29,000	14,250	120,650

Device	Routing	Invert	Outlet Devices
#1	Primary	802.00'	**10.0" Round Culvert** L= 546.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 802.00' / 800.00' S= 0.0037 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.55 sf
#2	Device 1	802.00'	**20.0 deg Sharp-Crested Vee/Trap Weir** Cv= 2.69 (C= 3.36)
#3	Primary	806.50'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#4	Device 1	805.00'	**24.0" x 36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.98 cfs @ 13.41 hrs HW=803.34' (Free Discharge)
- **1=Culvert** (Passes 0.98 cfs of 1.42 cfs potential flow)
  - **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.98 cfs @ 3.11 fps)
  - **4=Orifice/Grate** (Controls 0.00 cfs)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 3P: WET POND



Summary for Pond 6P: INFILTRATION BASIN

Inflow Area = 8.473 ac, 49.54% Impervious, Inflow Depth > 0.67" for 1-YEAR event
Inflow = 1.05 cfs @ 13.25 hrs, Volume= 0.472 af
Outflow = 0.93 cfs @ 14.24 hrs, Volume= 0.435 af, Atten= 12%, Lag= 59.9 min
Discarded = 0.05 cfs @ 14.24 hrs, Volume= 0.035 af
Primary = 0.87 cfs @ 14.24 hrs, Volume= 0.400 af
Routed to Link 7L : POST

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 800.66' @ 14.24 hrs Surf.Area= 4,661 sf Storage= 2,864 cf

Plug-Flow detention time= 52.2 min calculated for 0.433 af (92% of inflow)
Center-of-Mass det. time= 31.0 min (951.1 - 920.1)

Volume	Invert	Avail.Storage	Storage Description
#1	800.00'	62,850 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

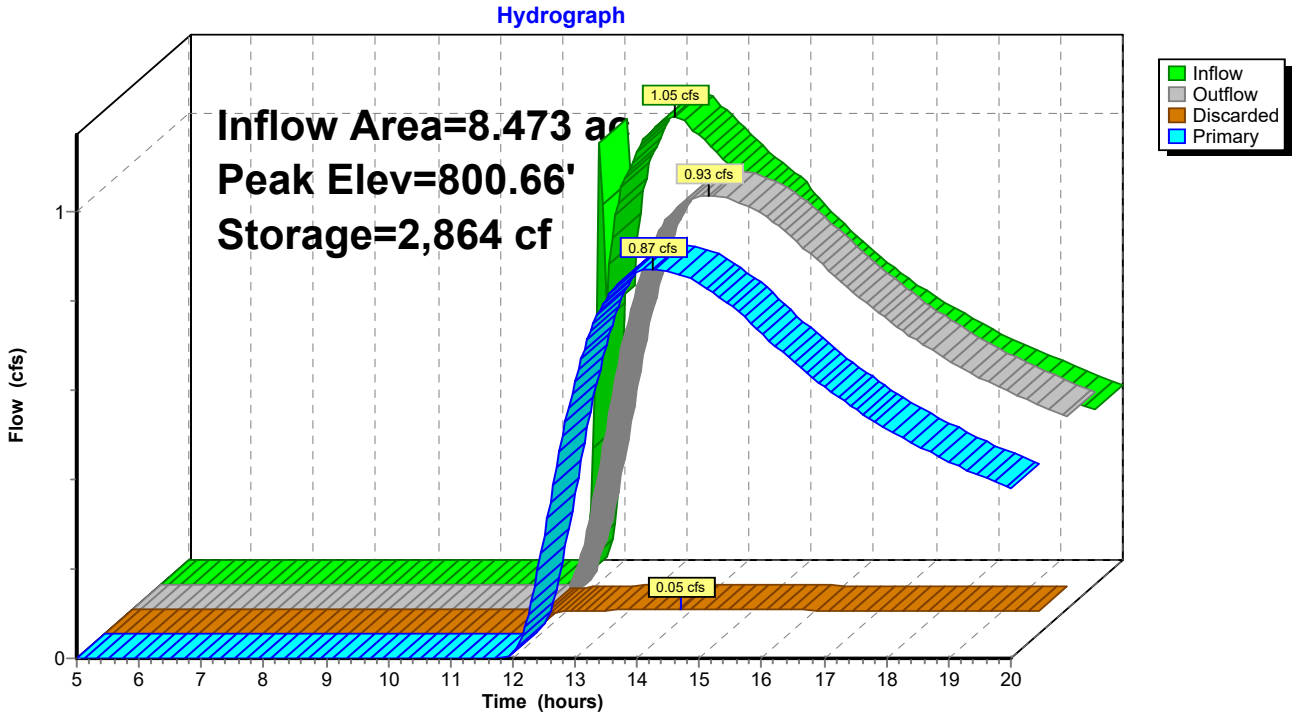
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
800.00	4,000	0	0
801.00	5,000	4,500	4,500
802.00	6,100	5,550	10,050
803.00	7,500	6,800	16,850
804.00	8,500	8,000	24,850
805.00	10,000	9,250	34,100
806.00	11,000	10,500	44,600
807.00	12,500	11,750	56,350
807.50	13,500	6,500	62,850

Device	Routing	Invert	Outlet Devices
#1	Primary	800.00'	**8.0" Round Culvert** L= 391.0' CMP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 800.00' / 794.00' S= 0.0153 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.35 sf
#2	Primary	806.50'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#3	Discarded	800.00'	**0.500 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 700.00'

Discarded OutFlow Max=0.05 cfs @ 14.24 hrs HW=800.66' (Free Discharge)
└**3=Exfiltration** (Controls 0.05 cfs)

Primary OutFlow Max=0.87 cfs @ 14.24 hrs HW=800.66' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.87 cfs @ 3.13 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6P: INFILTRATION BASIN

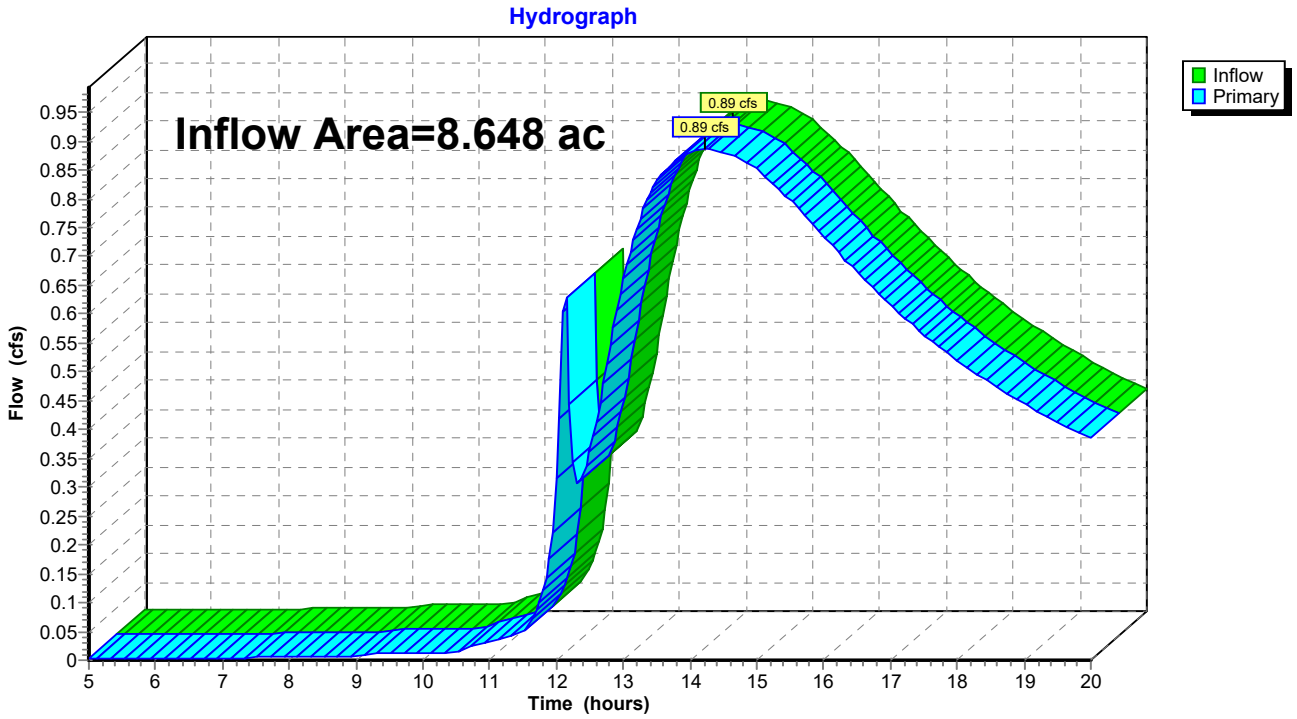


Summary for Link 7L: POST

Inflow Area = 8.648 ac, 50.56% Impervious, Inflow Depth > 0.60" for 1-YEAR event
Inflow = 0.89 cfs @ 14.23 hrs, Volume= 0.431 af
Primary = 0.89 cfs @ 14.23 hrs, Volume= 0.431 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link 7L: POST



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: A Runoff Area=312,698 sf 55.51% Impervious Runoff Depth>1.44"
Tc=6.0 min CN=87 Runoff=19.27 cfs 0.863 af

Subcatchment2S: B Runoff Area=20,550 sf 42.06% Impervious Runoff Depth>1.24"
Tc=6.0 min CN=84 Runoff=1.10 cfs 0.049 af

Subcatchment4S: C Runoff Area=35,816 sf 1.63% Impervious Runoff Depth>0.70"
Tc=0.0 min CN=74 Runoff=1.24 cfs 0.048 af

Subcatchment5S: D Runoff Area=7,629 sf 100.00% Impervious Runoff Depth>2.41"
Tc=6.0 min CN=98 Runoff=0.68 cfs 0.035 af

Subcatchment8S: PRE Runoff Area=373,638 sf 9.98% Impervious Runoff Depth>0.65"
Flow Length=433' Slope=0.0600 '/' Tc=37.9 min CN=73 Runoff=4.16 cfs 0.462 af

Pond 3P: WET POND Peak Elev=803.54' Storage=25,146 cf Inflow=20.36 cfs 0.912 af
Outflow=1.40 cfs 0.573 af

Pond 6P: INFILTRATIONBASIN Peak Elev=801.09' Storage=4,971 cf Inflow=1.50 cfs 0.621 af
Discarded=0.06 cfs 0.036 af Primary=1.04 cfs 0.543 af Outflow=1.10 cfs 0.579 af

Link 7L: POST Inflow=1.08 cfs 0.578 af
Primary=1.08 cfs 0.578 af

Summary for Subcatchment 1S: A

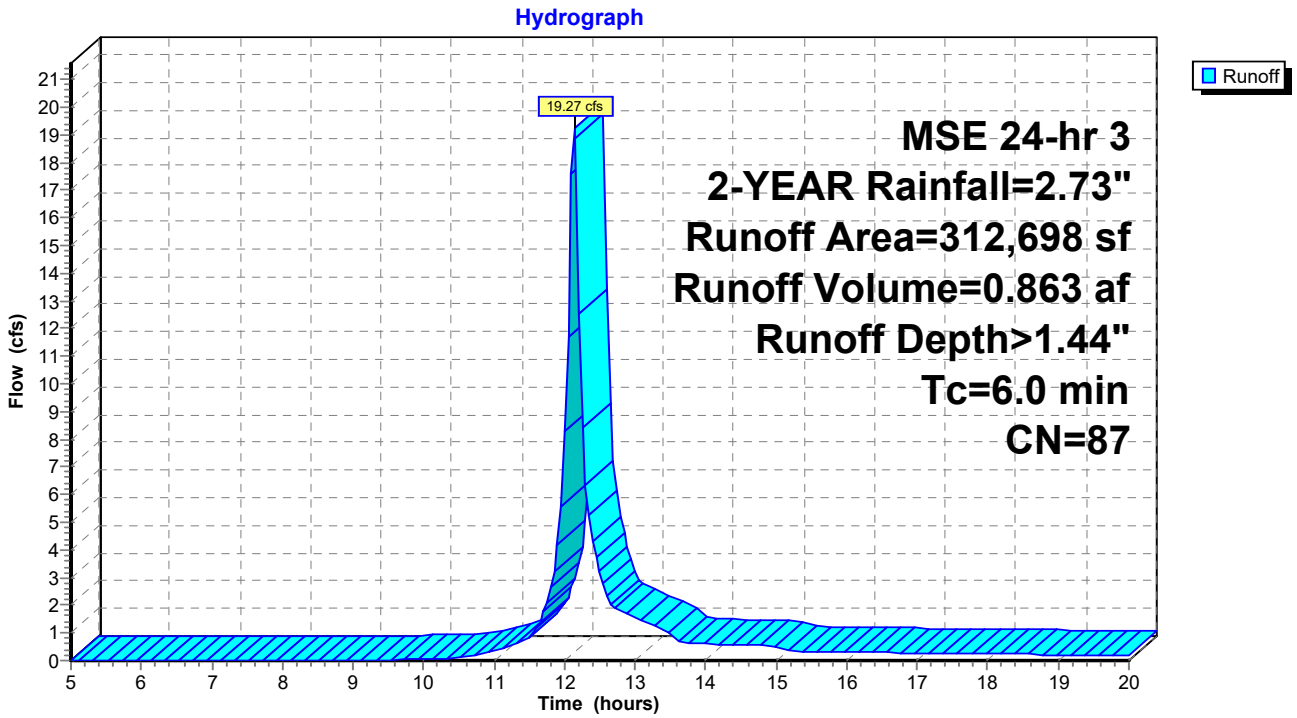
Runoff = 19.27 cfs @ 12.13 hrs, Volume= 0.863 af, Depth> 1.44"
Routed to Pond 3P : WET POND

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-YEAR Rainfall=2.73"

	Area (sf)	CN	Description
*	49,429	98	
*	124,161	98	
	139,108	74	>75% Grass cover, Good, HSG C
	312,698	87	Weighted Average
	139,108		44.49% Pervious Area
	173,590		55.51% Impervious Area

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

Subcatchment 1S: A



Summary for Subcatchment 2S: B

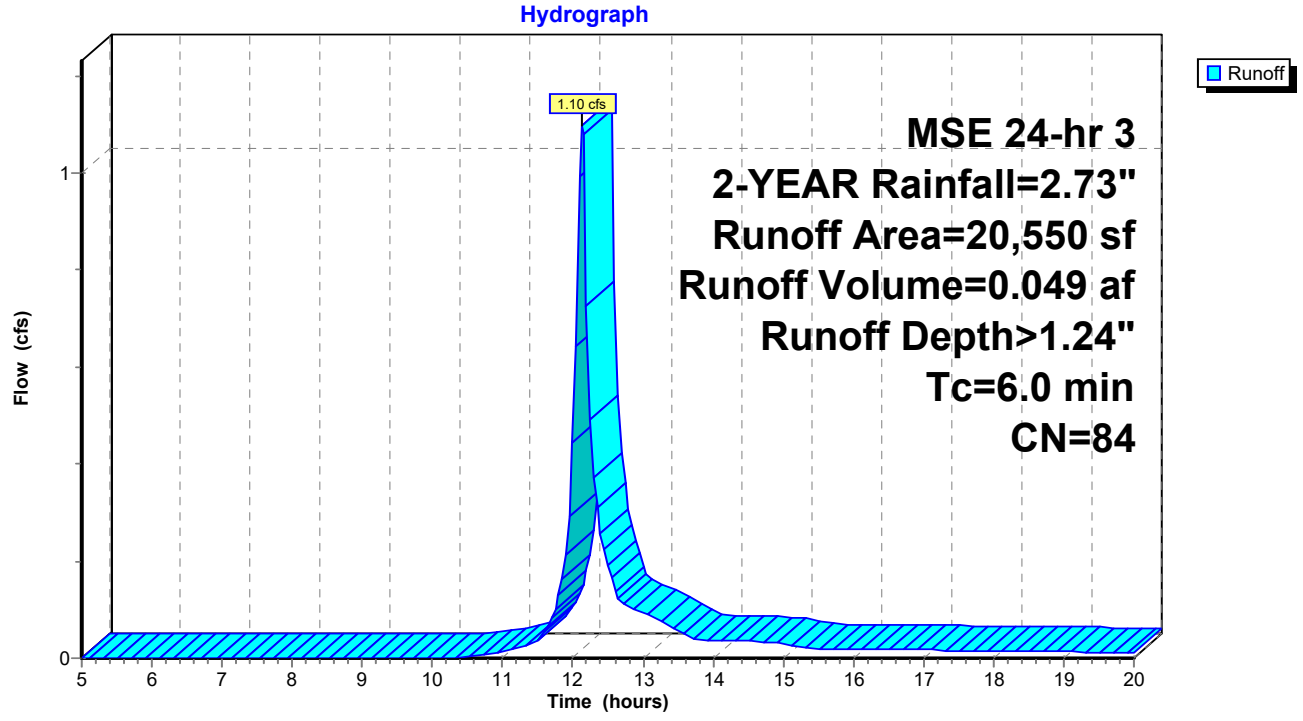
Runoff = 1.10 cfs @ 12.13 hrs, Volume= 0.049 af, Depth> 1.24"
Routed to Pond 3P : WET POND

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-YEAR Rainfall=2.73"

	Area (sf)	CN	Description
*	8,643	98	
*	11,907	74	
	20,550	84	Weighted Average
	11,907		57.94% Pervious Area
	8,643		42.06% Impervious Area

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

Subcatchment 2S: B



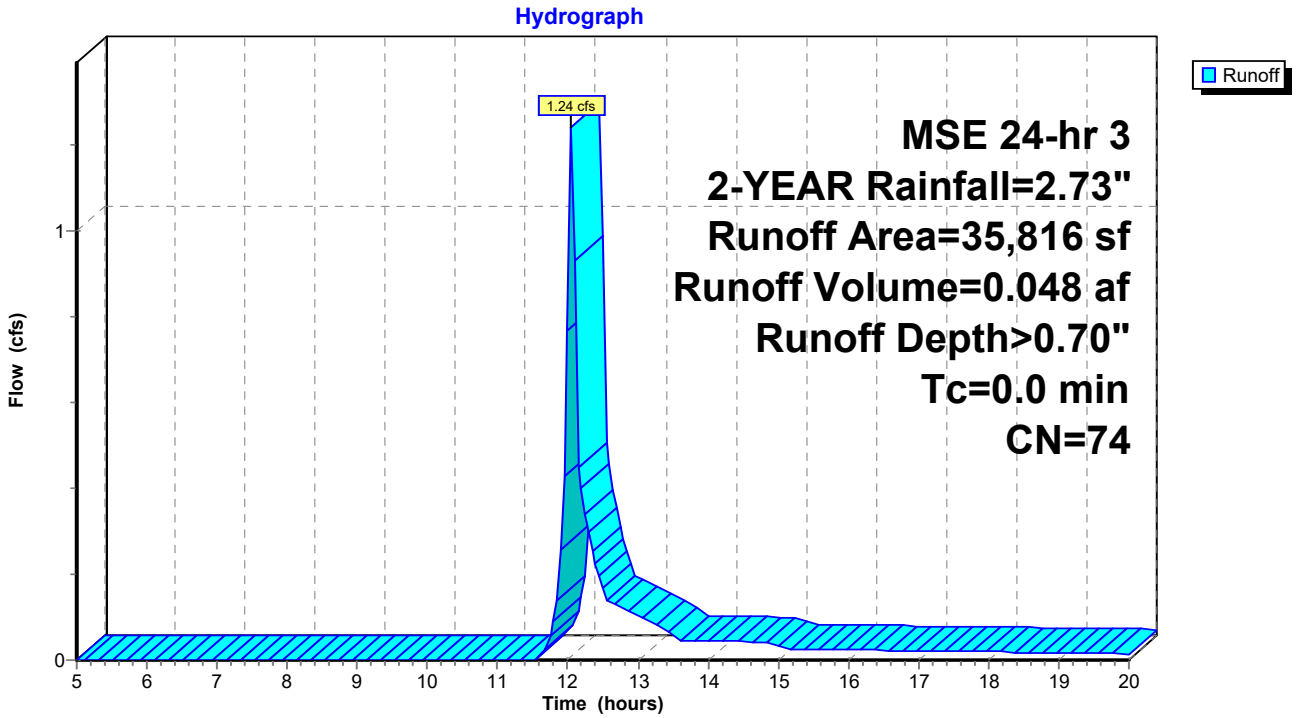
Summary for Subcatchment 4S: C

Runoff = 1.24 cfs @ 12.06 hrs, Volume= 0.048 af, Depth> 0.70"
Routed to Pond 6P : INFILTRATION BASIN

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-YEAR Rainfall=2.73"

	Area (sf)	CN	Description
*	583	98	
	35,233	74	>75% Grass cover, Good, HSG C
	35,816	74	Weighted Average
	35,233		98.37% Pervious Area
	583		1.63% Impervious Area

Subcatchment 4S: C



Summary for Subcatchment 5S: D

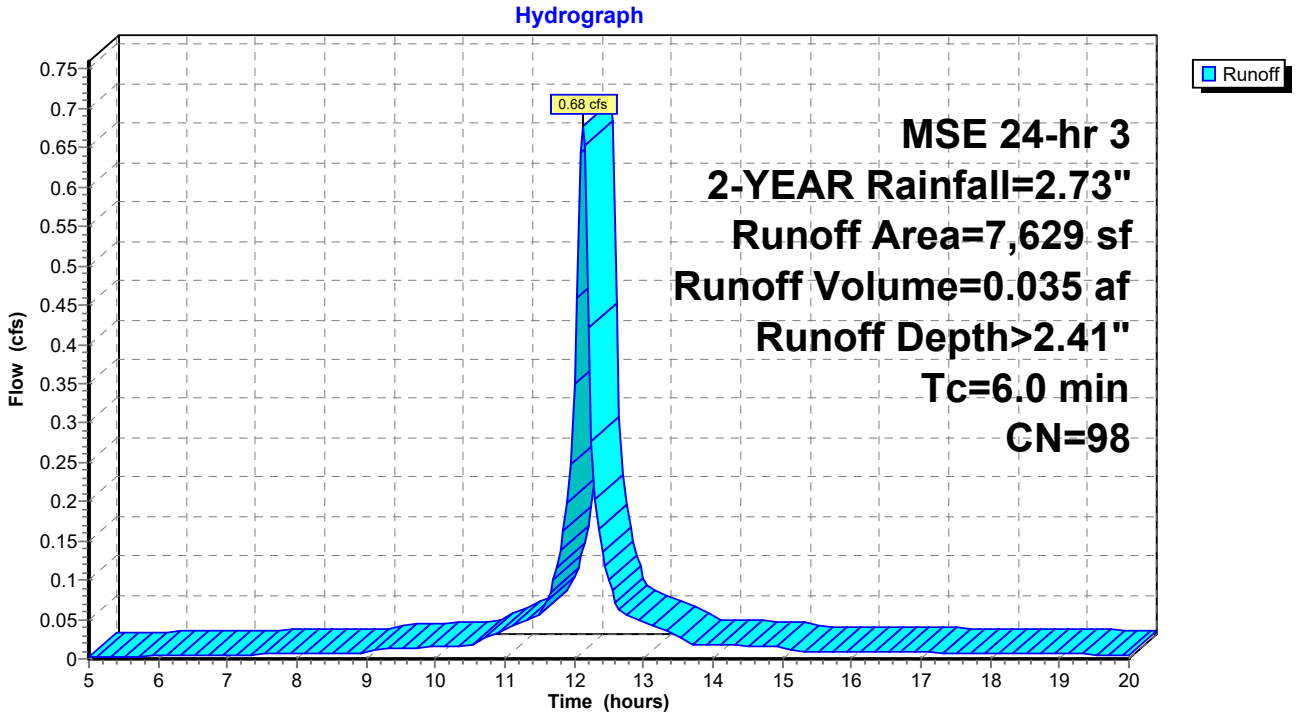
Runoff = 0.68 cfs @ 12.13 hrs, Volume= 0.035 af, Depth> 2.41"
Routed to Link 7L : POST

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-YEAR Rainfall=2.73"

	Area (sf)	CN	Description
*	7,629	98	
	7,629		100.00% Impervious Area

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

Subcatchment 5S: D



Summary for Subcatchment 8S: PRE

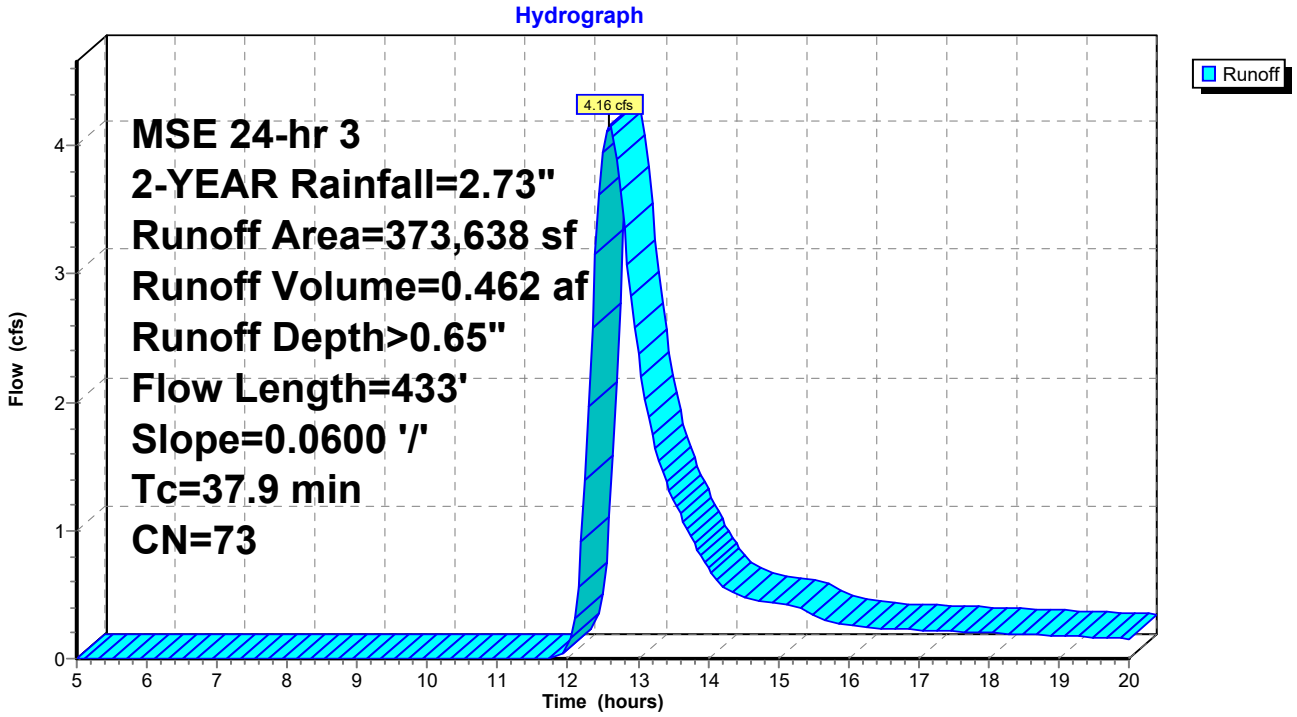
Runoff = 4.16 cfs @ 12.59 hrs, Volume= 0.462 af, Depth> 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-YEAR Rainfall=2.73"

	Area (sf)	CN	Description
*	336,331	70	
*	37,307	98	
	373,638	73	Weighted Average
	336,331		90.02% Pervious Area
	37,307		9.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.1	300	0.0600	0.14		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.73"
1.8	133	0.0600	1.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
37.9	433	Total			

Subcatchment 8S: PRE



Summary for Pond 3P: WET POND

Inflow Area = 7.650 ac, 54.68% Impervious, Inflow Depth > 1.43" for 2-YEAR event
Inflow = 20.36 cfs @ 12.13 hrs, Volume= 0.912 af
Outflow = 1.40 cfs @ 13.21 hrs, Volume= 0.573 af, Atten= 93%, Lag= 64.7 min
Primary = 1.40 cfs @ 13.21 hrs, Volume= 0.573 af
Routed to Pond 6P : INFILTRATION BASIN

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 803.54' @ 13.21 hrs Surf.Area= 18,861 sf Storage= 25,146 cf

Plug-Flow detention time= 196.3 min calculated for 0.573 af (63% of inflow)
Center-of-Mass det. time= 137.4 min (918.5 - 781.2)

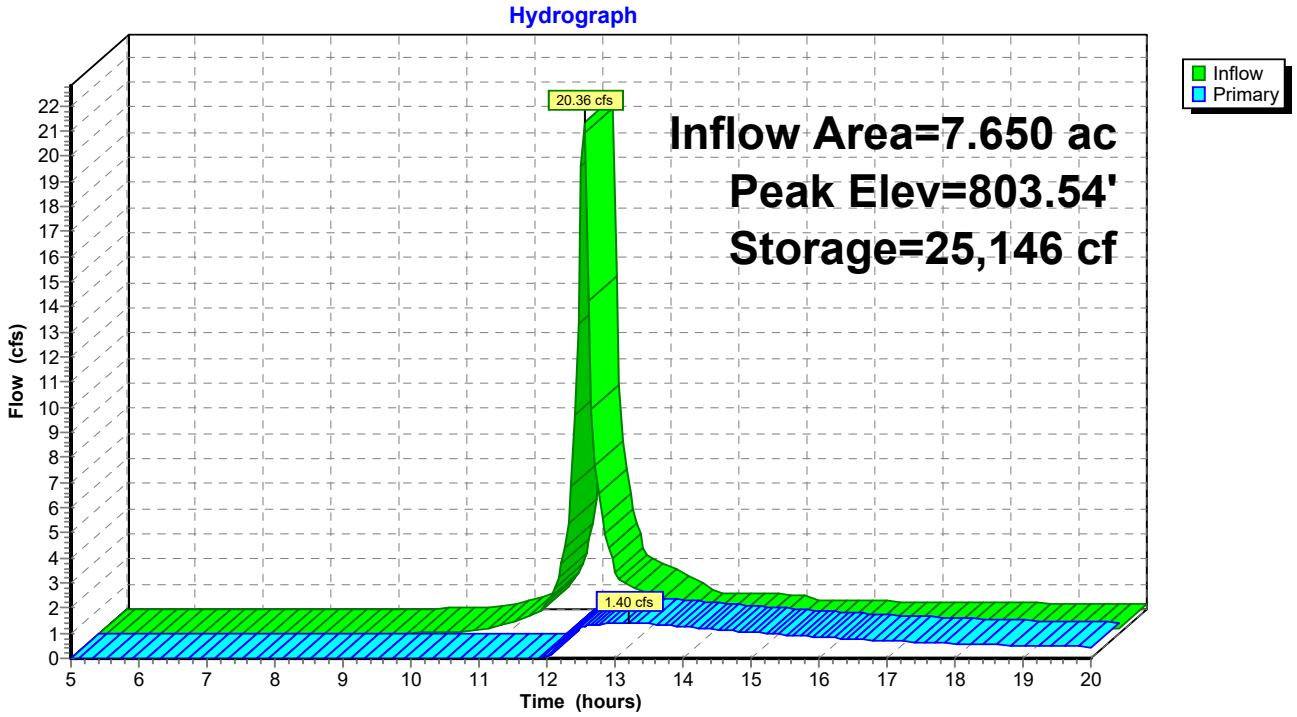
Volume	Invert	Avail.Storage	Storage Description
#1	802.00'	120,650 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
802.00	13,000	0	0
803.00	17,500	15,250	15,250
804.00	20,000	18,750	34,000
805.00	22,900	21,450	55,450
806.00	25,500	24,200	79,650
807.00	28,000	26,750	106,400
807.50	29,000	14,250	120,650

Device	Routing	Invert	Outlet Devices
#1	Primary	802.00'	**10.0" Round Culvert** L= 546.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 802.00' / 800.00' S= 0.0037 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.55 sf
#2	Device 1	802.00'	**20.0 deg Sharp-Crested Vee/Trap Weir** Cv= 2.69 (C= 3.36)
#3	Primary	806.50'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#4	Device 1	805.00'	**24.0" x 36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.41 cfs @ 13.21 hrs HW=803.54' (Free Discharge)
- **1=Culvert** (Passes 1.41 cfs of 1.48 cfs potential flow)
  - **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 1.41 cfs @ 3.34 fps)
  - **4=Orifice/Grate** (Controls 0.00 cfs)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 3P: WET POND



Summary for Pond 6P: INFILTRATION BASIN

Inflow Area = 8.473 ac, 49.54% Impervious, Inflow Depth > 0.88" for 2-YEAR event
Inflow = 1.50 cfs @ 13.04 hrs, Volume= 0.621 af
Outflow = 1.10 cfs @ 13.34 hrs, Volume= 0.579 af, Atten= 27%, Lag= 17.9 min
Discarded = 0.06 cfs @ 13.34 hrs, Volume= 0.036 af
Primary = 1.04 cfs @ 13.34 hrs, Volume= 0.543 af
Routed to Link 7L : POST

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 801.09' @ 15.10 hrs Surf.Area= 5,103 sf Storage= 4,971 cf

Plug-Flow detention time= 62.0 min calculated for 0.577 af (93% of inflow)
Center-of-Mass det. time= 43.2 min (952.9 - 909.6)

Volume	Invert	Avail.Storage	Storage Description
#1	800.00'	62,850 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

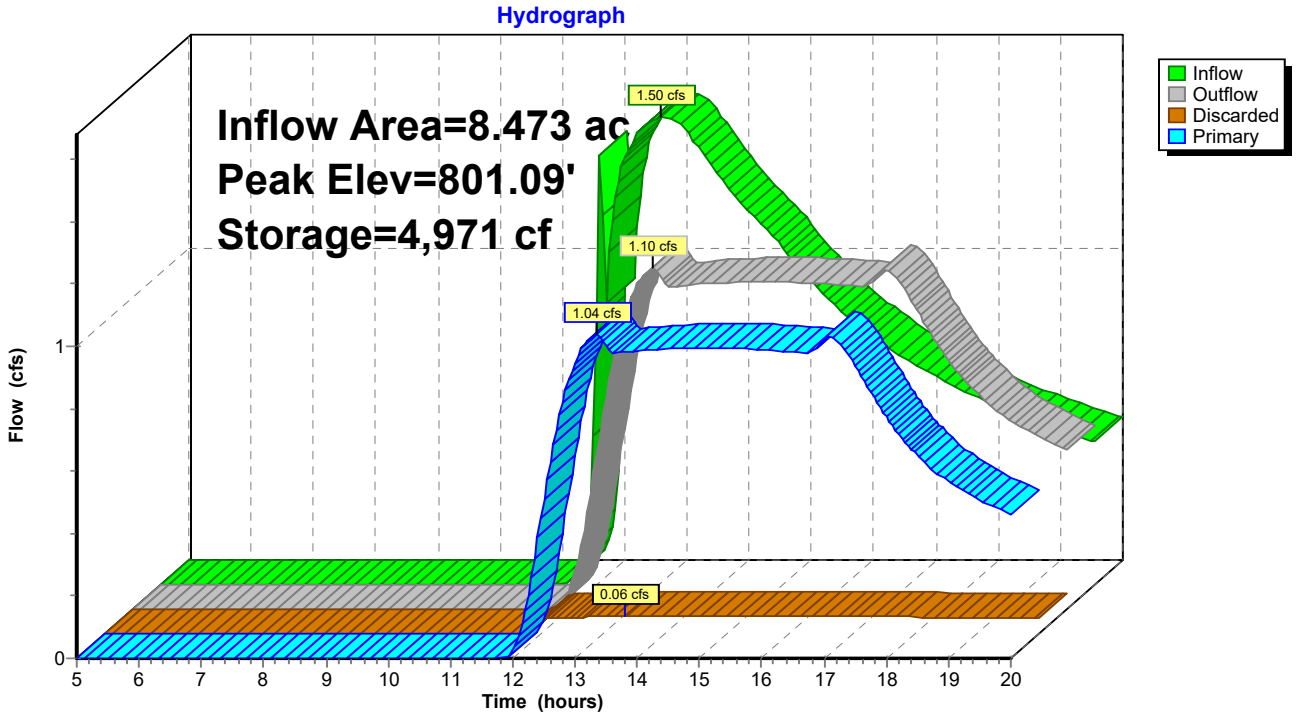
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
800.00	4,000	0	0
801.00	5,000	4,500	4,500
802.00	6,100	5,550	10,050
803.00	7,500	6,800	16,850
804.00	8,500	8,000	24,850
805.00	10,000	9,250	34,100
806.00	11,000	10,500	44,600
807.00	12,500	11,750	56,350
807.50	13,500	6,500	62,850

Device	Routing	Invert	Outlet Devices
#1	Primary	800.00'	**8.0" Round Culvert** L= 391.0' CMP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 800.00' / 794.00' S= 0.0153 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.35 sf
#2	Primary	806.50'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#3	Discarded	800.00'	**0.500 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 700.00'

Discarded OutFlow Max=0.06 cfs @ 13.34 hrs HW=800.83' (Free Discharge)
└**3=Exfiltration** (Controls 0.06 cfs)

Primary OutFlow Max=1.04 cfs @ 13.34 hrs HW=800.83' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.04 cfs @ 3.09 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6P: INFILTRATION BASIN

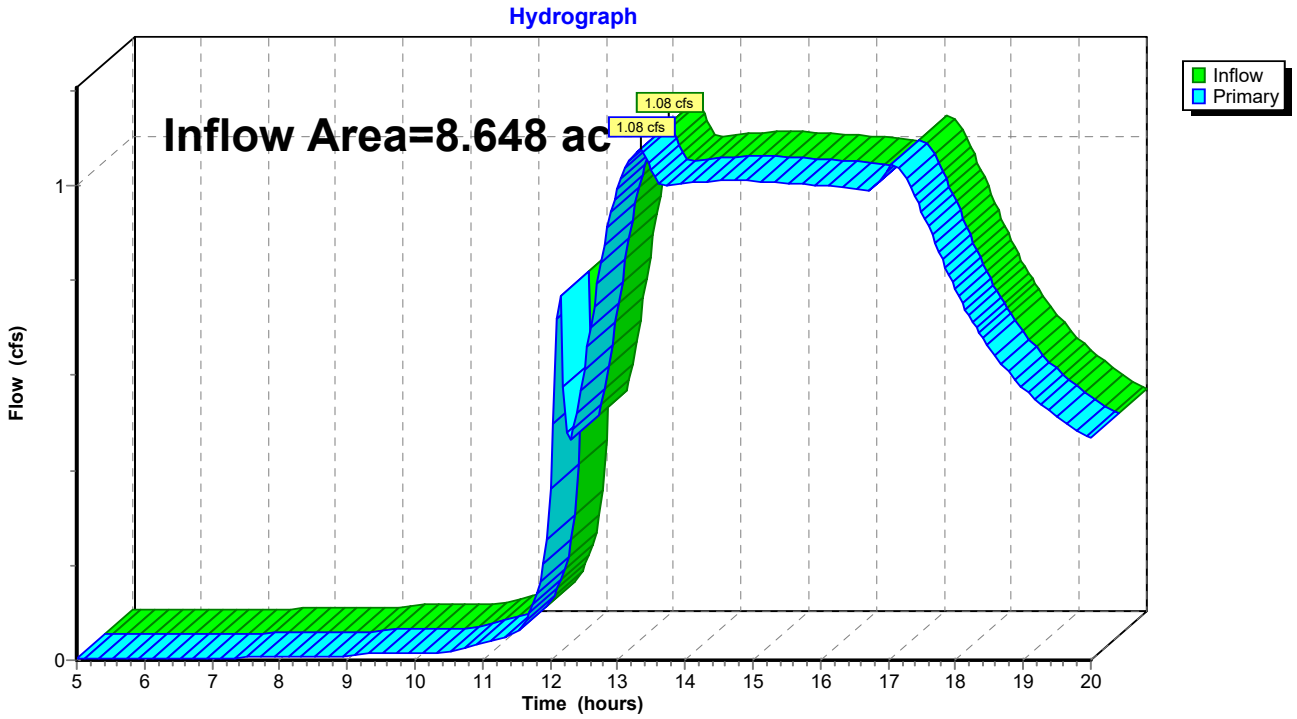


Summary for Link 7L: POST

Inflow Area = 8.648 ac, 50.56% Impervious, Inflow Depth > 0.80" for 2-YEAR event
Inflow = 1.08 cfs @ 13.33 hrs, Volume= 0.578 af
Primary = 1.08 cfs @ 13.33 hrs, Volume= 0.578 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link 7L: POST



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: A Runoff Area=312,698 sf 55.51% Impervious Runoff Depth>4.54"
Tc=6.0 min CN=87 Runoff=56.92 cfs 2.716 af

Subcatchment2S: B Runoff Area=20,550 sf 42.06% Impervious Runoff Depth>4.22"
Tc=6.0 min CN=84 Runoff=3.55 cfs 0.166 af

Subcatchment4S: C Runoff Area=35,816 sf 1.63% Impervious Runoff Depth>3.21"
Tc=0.0 min CN=74 Runoff=5.72 cfs 0.220 af

Subcatchment5S: D Runoff Area=7,629 sf 100.00% Impervious Runoff Depth>5.70"
Tc=6.0 min CN=98 Runoff=1.56 cfs 0.083 af

Subcatchment8S: PRE Runoff Area=373,638 sf 9.98% Impervious Runoff Depth>3.08"
Flow Length=433' Slope=0.0600 '/' Tc=37.9 min CN=73 Runoff=21.64 cfs 2.202 af

Pond 3P: WET POND Peak Elev=806.42' Storage=90,528 cf Inflow=60.47 cfs 2.882 af
Outflow=2.12 cfs 1.400 af

Pond 6P: INFILTRATIONBASIN Peak Elev=804.90' Storage=33,065 cf Inflow=7.36 cfs 1.620 af
Discarded=0.12 cfs 0.069 af Primary=1.25 cfs 0.790 af Outflow=1.37 cfs 0.860 af

Link 7L: POST Inflow=2.57 cfs 0.874 af
Primary=2.57 cfs 0.874 af

Summary for Subcatchment 1S: A

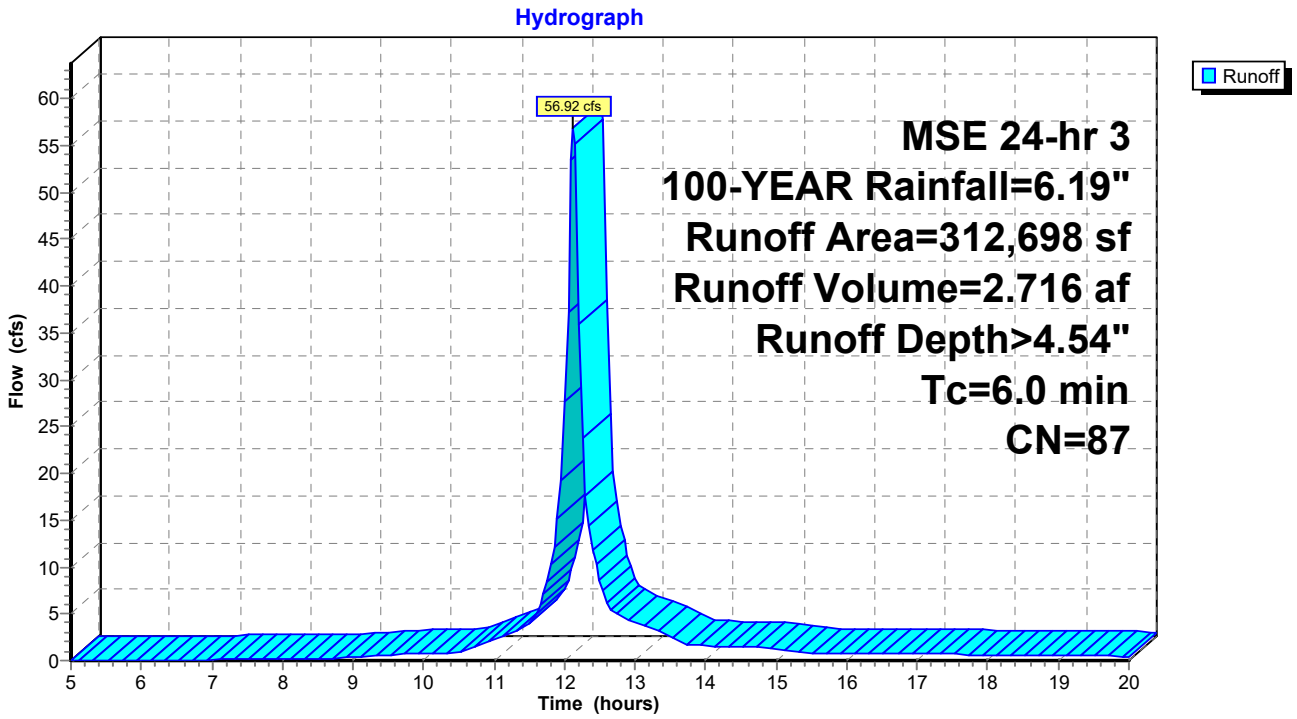
Runoff = 56.92 cfs @ 12.13 hrs, Volume= 2.716 af, Depth> 4.54"
Routed to Pond 3P : WET POND

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	49,429	98	
*	124,161	98	
	139,108	74	>75% Grass cover, Good, HSG C
	312,698	87	Weighted Average
	139,108		44.49% Pervious Area
	173,590		55.51% Impervious Area

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

Subcatchment 1S: A



Summary for Subcatchment 2S: B

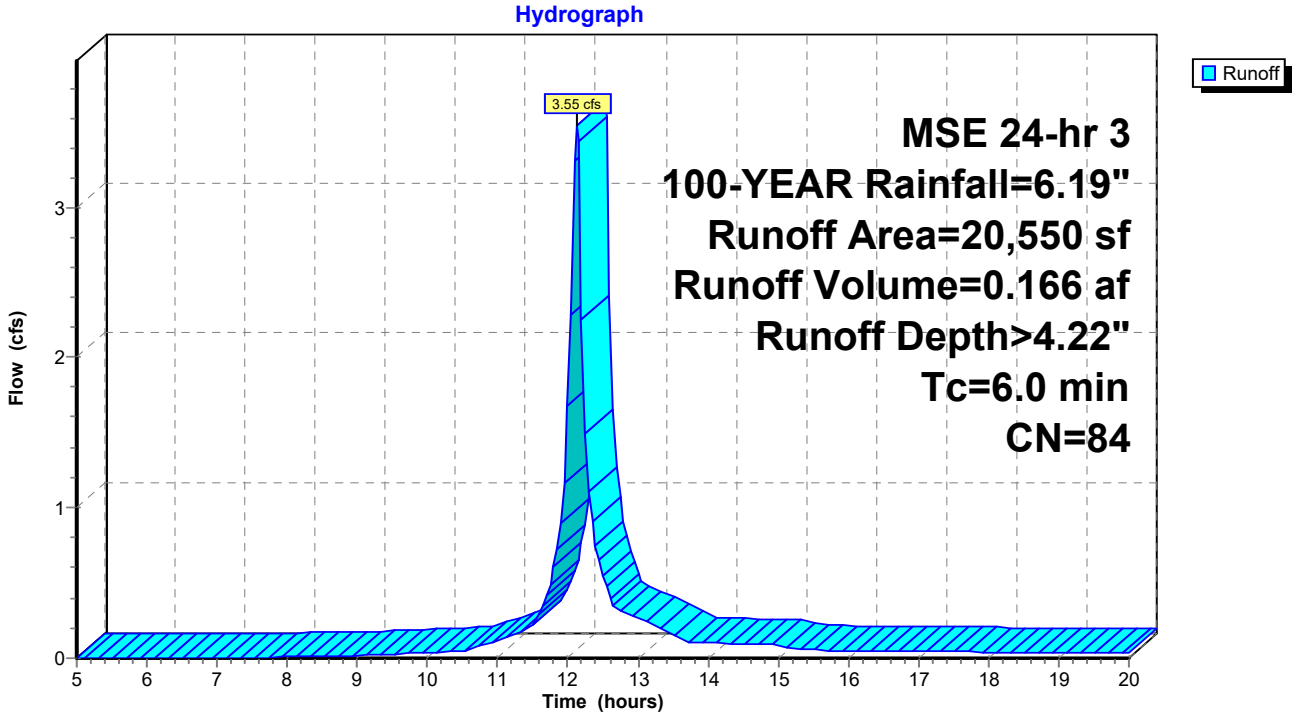
Runoff = 3.55 cfs @ 12.13 hrs, Volume= 0.166 af, Depth> 4.22"
Routed to Pond 3P : WET POND

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	8,643	98	
*	11,907	74	
	20,550	84	Weighted Average
	11,907		57.94% Pervious Area
	8,643		42.06% Impervious Area

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

Subcatchment 2S: B



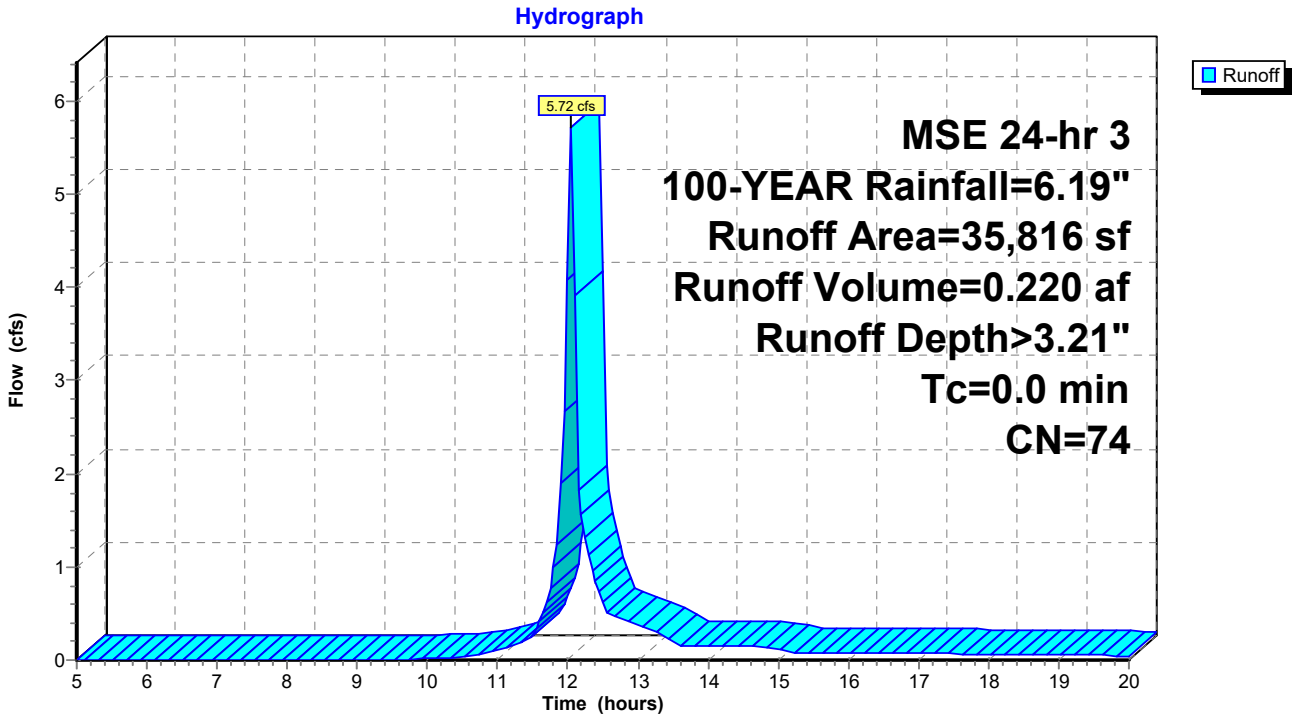
Summary for Subcatchment 4S: C

Runoff = 5.72 cfs @ 12.05 hrs, Volume= 0.220 af, Depth> 3.21"
Routed to Pond 6P : INFILTRATION BASIN

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	583	98	
	35,233	74	>75% Grass cover, Good, HSG C
	35,816	74	Weighted Average
	35,233		98.37% Pervious Area
	583		1.63% Impervious Area

Subcatchment 4S: C



Summary for Subcatchment 5S: D

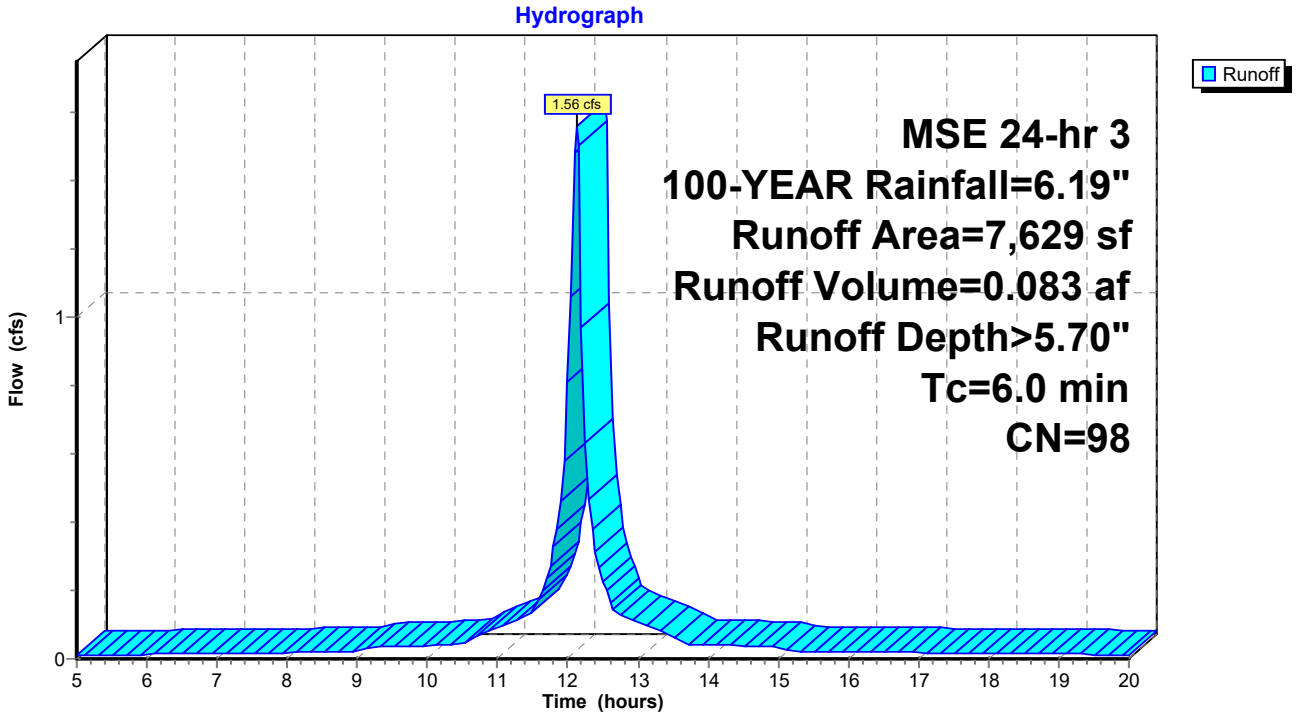
Runoff = 1.56 cfs @ 12.13 hrs, Volume= 0.083 af, Depth> 5.70"
Routed to Link 7L : POST

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	7,629	98	
	7,629		100.00% Impervious Area

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

Subcatchment 5S: D



Summary for Subcatchment 8S: PRE

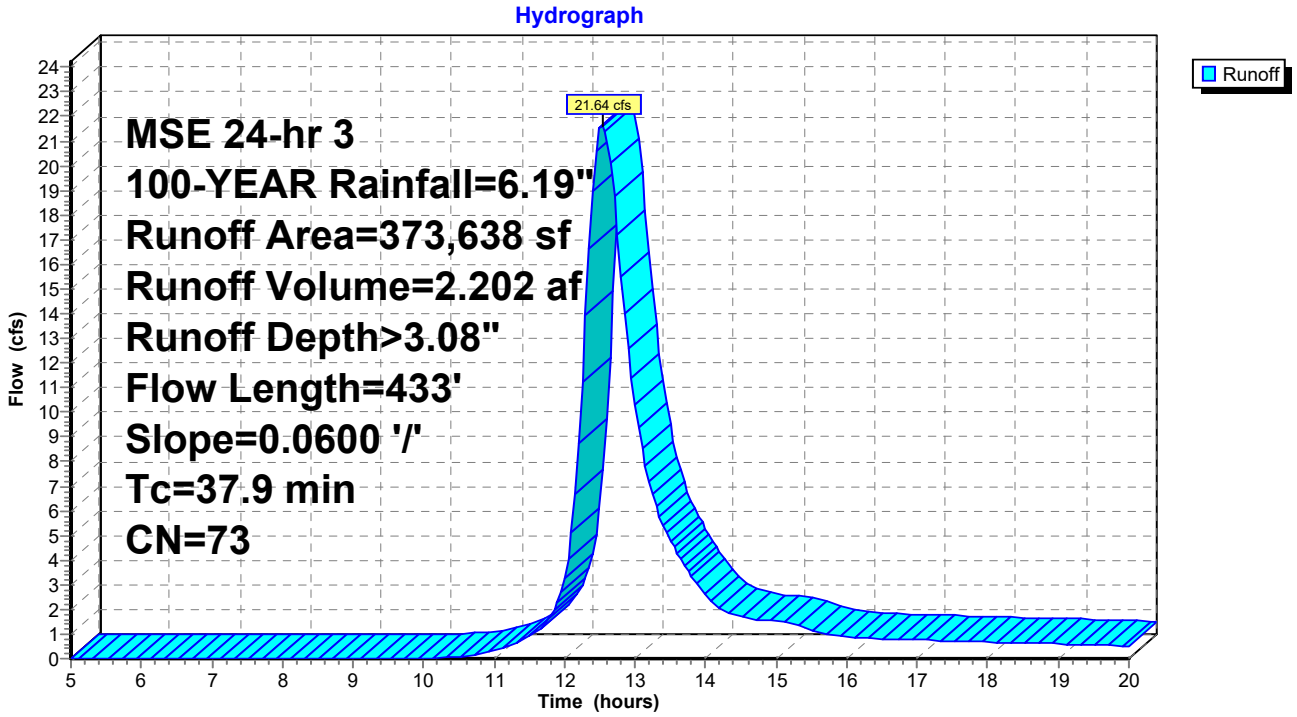
Runoff = 21.64 cfs @ 12.53 hrs, Volume= 2.202 af, Depth> 3.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	336,331	70	
*	37,307	98	
	373,638	73	Weighted Average
	336,331		90.02% Pervious Area
	37,307		9.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.1	300	0.0600	0.14		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.73"
1.8	133	0.0600	1.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
37.9	433	Total			

Subcatchment 8S: PRE



Summary for Pond 3P: WET POND

Inflow Area = 7.650 ac, 54.68% Impervious, Inflow Depth > 4.52" for 100-YEAR event
Inflow = 60.47 cfs @ 12.13 hrs, Volume= 2.882 af
Outflow = 2.12 cfs @ 13.60 hrs, Volume= 1.400 af, Atten= 96%, Lag= 88.2 min
Primary = 2.12 cfs @ 13.60 hrs, Volume= 1.400 af
Routed to Pond 6P : INFILTRATION BASIN

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 806.42' @ 13.60 hrs Surf.Area= 26,545 sf Storage= 90,528 cf

Plug-Flow detention time= 250.8 min calculated for 1.395 af (48% of inflow)
Center-of-Mass det. time= 187.5 min (949.2 - 761.7)

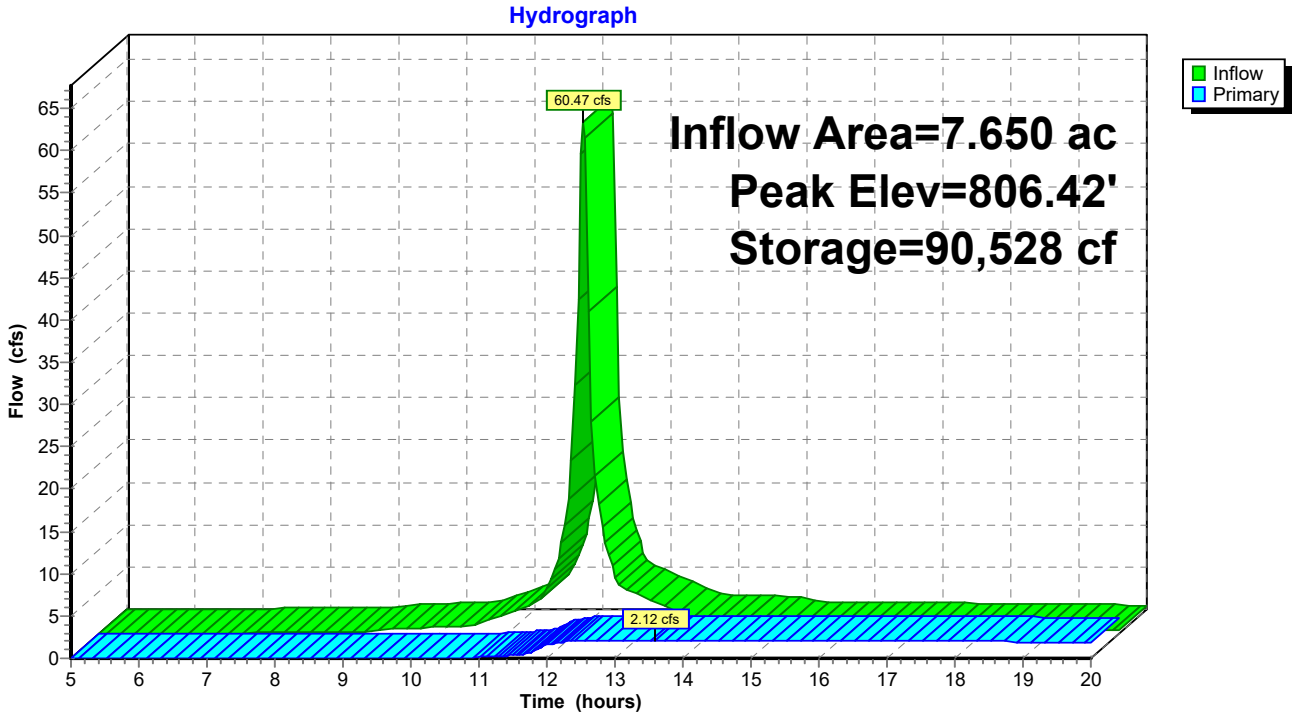
Volume	Invert	Avail.Storage	Storage Description
#1	802.00'	120,650 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
802.00	13,000	0	0
803.00	17,500	15,250	15,250
804.00	20,000	18,750	34,000
805.00	22,900	21,450	55,450
806.00	25,500	24,200	79,650
807.00	28,000	26,750	106,400
807.50	29,000	14,250	120,650

Device	Routing	Invert	Outlet Devices
#1	Primary	802.00'	**10.0" Round Culvert** L= 546.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 802.00' / 800.00' S= 0.0037 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.55 sf
#2	Device 1	802.00'	**20.0 deg Sharp-Crested Vee/Trap Weir** Cv= 2.69 (C= 3.36)
#3	Primary	806.50'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#4	Device 1	805.00'	**24.0" x 36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.12 cfs @ 13.60 hrs HW=806.42' (Free Discharge)
- **1=Culvert** (Barrel Controls 2.12 cfs @ 3.89 fps)
  - **2=Sharp-Crested Vee/Trap Weir** (Passes < 19.46 cfs potential flow)
  - **4=Orifice/Grate** (Passes < 34.40 cfs potential flow)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 3P: WET POND



Summary for Pond 6P: INFILTRATION BASIN

Inflow Area = 8.473 ac, 49.54% Impervious, Inflow Depth > 2.29" for 100-YEAR event
Inflow = 7.36 cfs @ 12.05 hrs, Volume= 1.620 af
Outflow = 1.37 cfs @ 20.00 hrs, Volume= 0.860 af, Atten= 81%, Lag= 477.0 min
Discarded = 0.12 cfs @ 20.00 hrs, Volume= 0.069 af
Primary = 1.25 cfs @ 20.00 hrs, Volume= 0.790 af
Routed to Link 7L : POST

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 804.90' @ 20.00 hrs Surf.Area= 9,843 sf Storage= 33,065 cf

Plug-Flow detention time= 159.2 min calculated for 0.857 af (53% of inflow)
Center-of-Mass det. time= 35.7 min (961.5 - 925.8)

Volume	Invert	Avail.Storage	Storage Description
#1	800.00'	62,850 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

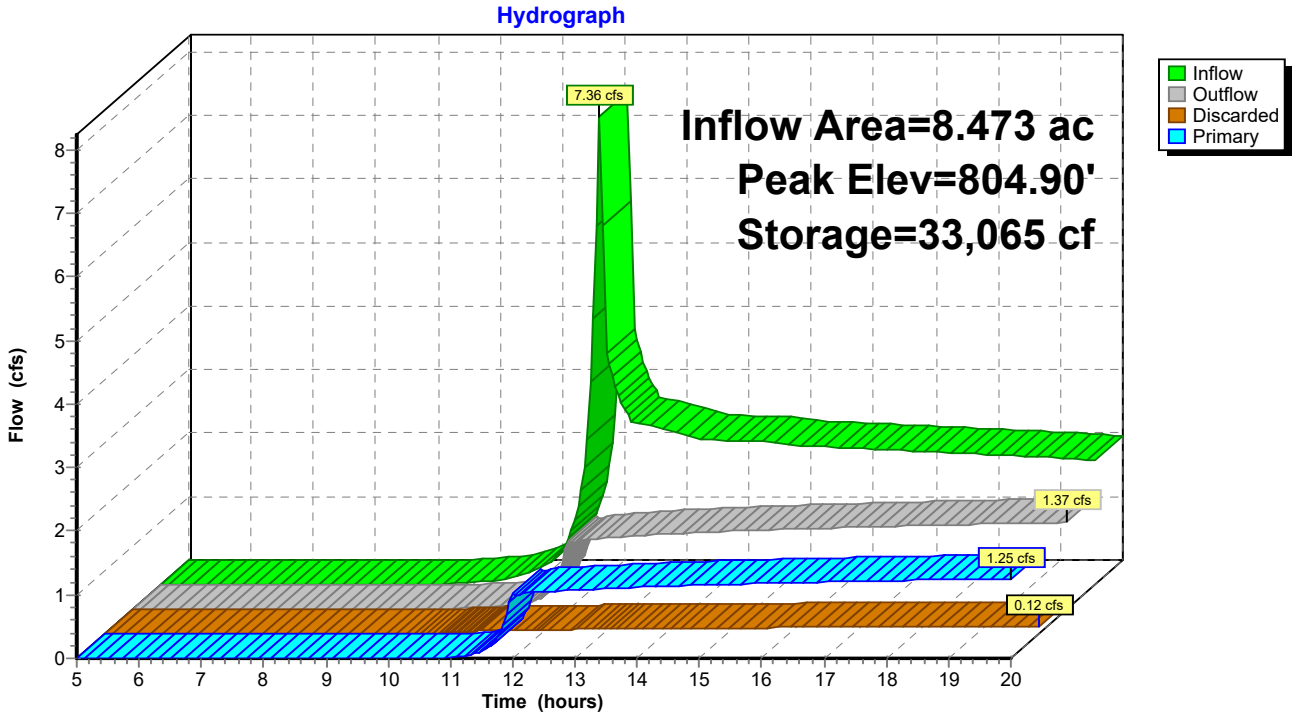
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
800.00	4,000	0	0
801.00	5,000	4,500	4,500
802.00	6,100	5,550	10,050
803.00	7,500	6,800	16,850
804.00	8,500	8,000	24,850
805.00	10,000	9,250	34,100
806.00	11,000	10,500	44,600
807.00	12,500	11,750	56,350
807.50	13,500	6,500	62,850

Device	Routing	Invert	Outlet Devices
#1	Primary	800.00'	**8.0" Round Culvert** L= 391.0' CMP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 800.00' / 794.00' S= 0.0153 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.35 sf
#2	Primary	806.50'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#3	Discarded	800.00'	**0.500 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 700.00'

Discarded OutFlow Max=0.12 cfs @ 20.00 hrs HW=804.90' (Free Discharge)
└**3=Exfiltration** (Controls 0.12 cfs)

Primary OutFlow Max=1.25 cfs @ 20.00 hrs HW=804.90' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.25 cfs @ 3.58 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6P: INFILTRATION BASIN

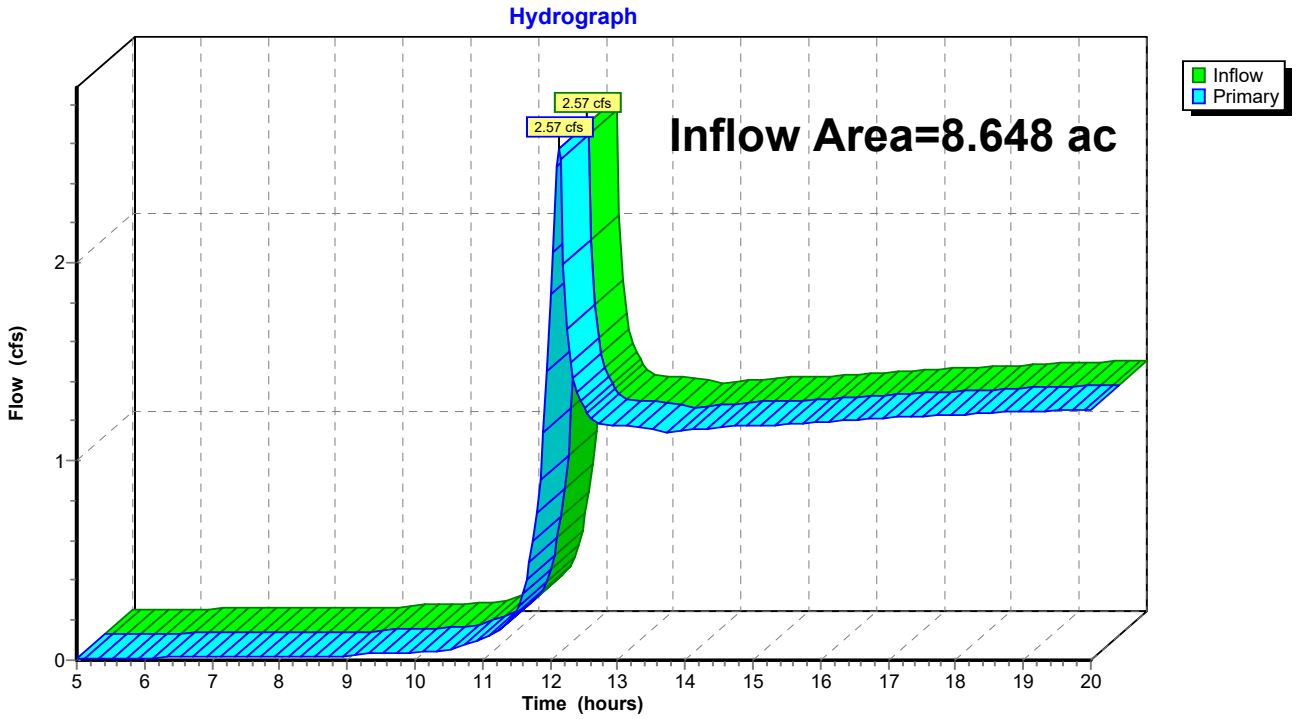


Summary for Link 7L: POST

Inflow Area = 8.648 ac, 50.56% Impervious, Inflow Depth > 1.21" for 100-YEAR event
Inflow = 2.57 cfs @ 12.13 hrs, Volume= 0.874 af
Primary = 2.57 cfs @ 12.13 hrs, Volume= 0.874 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link 7L: POST



Appendix D: Web Soil Survey Map

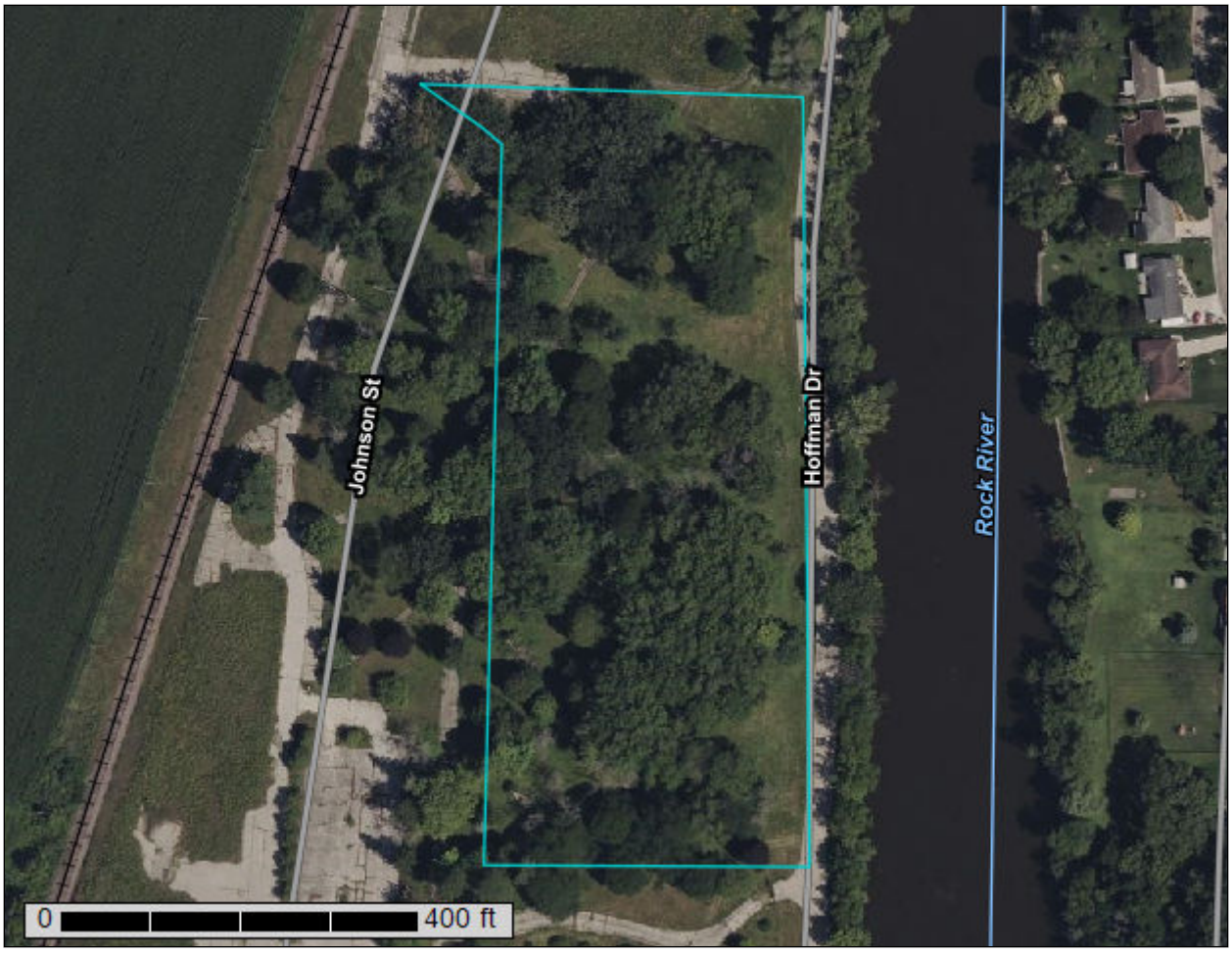
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Jefferson County, Wisconsin



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

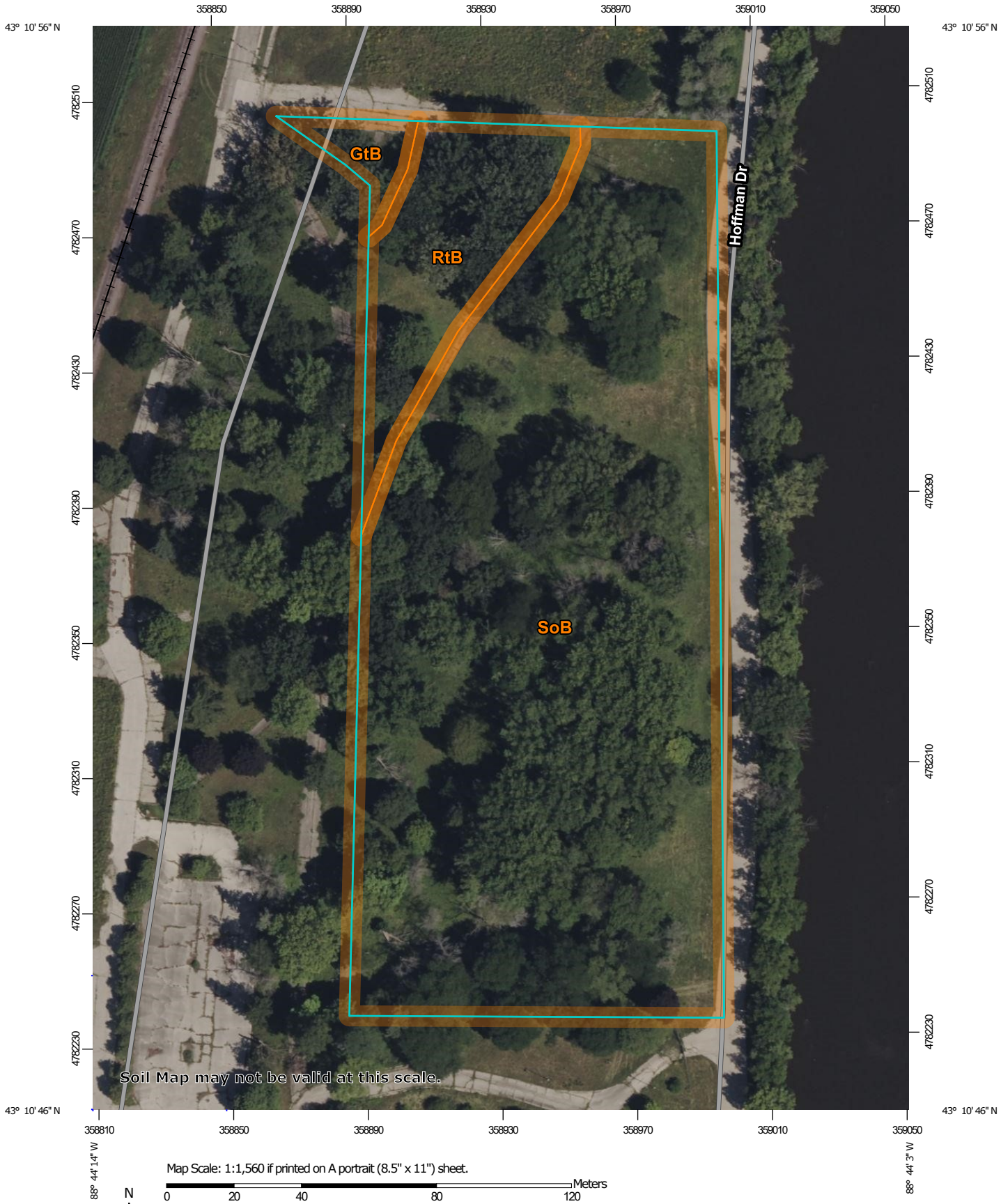
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,560 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Jefferson County, Wisconsin
Survey Area Data: Version 23, Sep 3, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 4, 2022—Sep 13, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
GtB	Grellton fine sandy loam, 2 to 6 percent slopes	0.1	2.0%
RtB	Rotamer loam, 2 to 6 percent slopes, eroded	0.8	12.0%
SoB	Sisson fine sandy loam, 2 to 6 percent slopes	6.1	86.0%
Totals for Area of Interest		**7.1**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Jefferson County, Wisconsin

GtB—Grellton fine sandy loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: g6zl
Elevation: 780 to 1,060 feet
Mean annual precipitation: 28 to 35 inches
Mean annual air temperature: 36 to 57 degrees F
Frost-free period: 135 to 170 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Grellton and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Grellton

Setting

Landform: Till plains
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy eolian deposits and/or loamy outwash over eolian deposits

Typical profile

Ap,BA - 0 to 14 inches: fine sandy loam
Bt - 14 to 35 inches: loam
2Bt - 35 to 44 inches: silt loam
2C - 44 to 60 inches: sandy loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 36 to 60 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F095XB010WI - Loamy and Clayey Upland
Forage suitability group: Mod AWC, adequately drained (G095BY005WI)
Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)
Hydric soil rating: No

RtB—Rotamer loam, 2 to 6 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2wpxt
Elevation: 790 to 1,070 feet
Mean annual precipitation: 33 to 35 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 150 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Rotamer, eroded, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rotamer, Eroded

Setting

Landform: Moraines, drumlins
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Calcareous loamy till

Typical profile

Ap - 0 to 9 inches: loam
Bt - 9 to 19 inches: clay loam
C - 19 to 79 inches: gravelly sandy loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F095XB007WI - Loamy Upland with Carbonates
Forage suitability group: Mod AWC, adequately drained (G095BY005WI)
Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)
Hydric soil rating: No

Minor Components

Kidder

Percent of map unit: 5 percent
Landform: Moraines, drumlins
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: F095XB010WI - Loamy and Clayey Upland
Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)
Hydric soil rating: No

Lapeer

Percent of map unit: 3 percent
Landform: Moraines, drumlins
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: F095XB007WI - Loamy Upland with Carbonates
Hydric soil rating: No

Lamartine

Percent of map unit: 2 percent
Landform: Moraines, drumlins
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Crest
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: F095XB005WI - Moist Loamy or Clayey Lowland
Hydric soil rating: No

SoB—Sisson fine sandy loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 2wsr8
Elevation: 590 to 1,030 feet
Mean annual precipitation: 29 to 35 inches
Mean annual air temperature: 43 to 48 degrees F
Frost-free period: 124 to 193 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Sisson and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sisson

Setting

Landform: Lake plains
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy lacustrine deposits over stratified sandy and silty lacustrine deposits

Typical profile

Ap - 0 to 8 inches: fine sandy loam
E - 8 to 12 inches: fine sandy loam
Bt - 12 to 30 inches: loam
2C - 30 to 79 inches: stratified fine sand to silt loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 35 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F095XB010WI - Loamy and Clayey Upland
Forage suitability group: Mod AWC, adequately drained (G095BY005WI)
Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)
Hydric soil rating: No

Minor Components

Kibbie

Percent of map unit: 4 percent
Landform: Lake plains
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: F095XB005WI - Moist Loamy or Clayey Lowland
Hydric soil rating: No

Yahara

Percent of map unit: 3 percent
Landform: Lake plains
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: F095XB005WI - Moist Loamy or Clayey Lowland

Other vegetative classification: Mod AWC, high water table (G095BY004WI)
Hydric soil rating: No

Plainfield, eroded

Percent of map unit: 3 percent
Landform: Lake plains
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: F095XB009WI - Sandy Upland
Hydric soil rating: No

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Appendix E: Soil Borings

= Site Borings (12)

= Stormwater Area Borings (8)

PROPOSED PATHWAY

PROPOSED PATHWAY. CONNECT TO COLLECTIVE PATHWAY

SB-1

SB-2

SB-3

SB-4

SB-5

SB-6

SB-7

SB-8

SB-9

SB-10

SB-11

SB-12

SW-1

SW-2

SW-3

SW-4

SW-5

SW-6

SW-7

SW-8

MULTI FAMILY BUILDING

TWIN HOMES

TWIN HOMES (9)

POTENTIAL STORMWATER BASIN

775'

780'

584'

177'

752'

345'

102'

244'

210'

225'

NEIGHBORHOOD PLAN

MULTI-FAMILY HOUSING - 20 UNITS PER BUILDING (4) = 80 UNITS

TWIN HOMES - 2 UNITS PER BUILDING (9) = 18 UNITS

SINGLE FAMILY HOMES - 80 UNITS

HARWOOD

255 N 21st Street, Milwaukee, WI 53233 | 414-475-5554

GWCHF Development

Site Exhibit

2/01/2024

North

Scale: 1" = 80'

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SB-1**
Surface Elevation (ft) **819±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE No.	TYPE	Rec (in.)	Moist	N	Depth (ft)	VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES qu (qa) (tsf)	W	LL	PL	LOI
						18" Dark Brown Clayey TOPSOIL					
1		18	VM	1		Very Loose, Dark Brown Sandy SILT; Little Clay, Trace Gravel (ML)					
2		18	VM	8		Loose, Brown and Gray Mottled Sandy SILT; Little Clay, Trace Gravel (ML)					
					5						
3		12	VM	6							
4		16	VM	47		Dense, Brown and Gray Mottled Sandy SILT; Little Clay, Trace Gravel (ML)					
					10						
						Very Dense, Light Brown SILT; Little Fine Sand, Few Cobbles (ML)					
5		18	W	91							
					15						
						Very Dense, Brown and Gray Mottled Sandy SILT; Little Gravel (ML)					
6		12	W	50							
					20	End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **13.0'**			Upon Completion of Drilling	**--**
Time After Drilling				**5 min.**
Depth to Water				**5.0'** ▼
Depth to Cave in				

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/2/24** End **5/2/24**
Driller **GeoServe** Chief **Eddie** Rig **7822**
Logger **Eddie** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SB-2**
Surface Elevation (ft) **809.5±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE No.	TYPE	Rec (in.)	Moist	N	Depth (ft)	VISUAL CLASSIFICATION and Remarks	qu (qa) (tsf)	W	LL	PL	LOI
						8" Black Clayey TOPSOIL					
1		18	VM	6		Medium Stiff, Brown and Gray Mottled Lean CLAY; Trace Sand and Gravel (CL)	(1.0)				
2		18	VM	10	5	Medium Dense, Brown and Gray Mottled SILT; with Clay, Little Sand, Trace Gravel (ML)					
3		4	VM	16							
4		16	M	23	10						
5		12	M	70 ▽		Very Dense, Gray Sandy SILT; Little Gravel, Few Cobbles and Boulders (ML)					
					15	End of Boring and Refusal on Probable Boulder at 16 ft Backfilled with Bentonite Chips					
					20						
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **14.0'**			Upon Completion of Drilling	**--**
Time After Drilling				**5 min.**
Depth to Water				**NW** ▼
Depth to Cave in				

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/2/24** End **5/2/24**
Driller **GeoServe** Chief **Eddie** Rig **7822**
Logger **Eddie** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SB-3**
Surface Elevation (ft) **817±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE No.	TYPE	Rec (in.)	Moist	N	Depth (ft)	VISUAL CLASSIFICATION and Remarks	qu (qa) (tsf)	W	LL	PL	LOI
						12" Black Clayey TOPSOIL					
1		18	W	2		Very Loose, Dark Brown Sandy SILT; Little Clay, Trace Gravel (ML)	(2.0)				
						Stiff, Brown and Gray Mottled Lean CLAY; Trace Sand and Gravel (CL)					
2		18	M	14		Medium Dense, Brown and Gray Mottled Sandy SILT; Little Gravel (ML)					
					5						
3		18	VM	22		Medium Dense to Very Dense, Brown Sandy SILT; Trace Gravel (ML)					
4		18	W	45							
					10						
5		16	W	95							
					15						
						Dense, Gray Sandy SILT; Little Clay, Trace Gravel (ML)					
6		18	W	32							
					20	End of Boring at 20 ft Backfilled with Bentonite Chips Note: Boring offset 15 ft south due to dense brush.					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **14.0'**	Upon Completion of Drilling			**--**
Time After Drilling				**5 min.**
Depth to Water				**5.0'** ▼
Depth to Cave in				

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/2/24** End **5/2/24**
Driller **GeoServe** Chief **Eddie** Rig **7822**
Logger **Eddie** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SB-4**
Surface Elevation (ft) **807.5±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE No.	TYPE	Rec (in.)	Moist	N	Depth (ft)	VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES qu (qa) (tsf)	W	LL	PL	LOI
						24" Black Clayey TOPSOIL					
1		12	VM	4			(1.0)				
						Medium Stiff, Brown and Gray Mottled Lean CLAY; Trace Sand and Gravel (CL)					
2		18	M	12		Medium Demse, Brown and Gray Mottled Sandy SILT; Little Clay, Trace Gravel (ML)					
					5						
3		18	M	51		Very Dense, Brown and Gray Mottled Sandy SILT; Little Gravel (ML)					
					▽						
4		18	M	71	▼	Very Dense, Gray Sandy SILT; Little Gravel (ML)					
					10						
5		18	M	82							
					15						
6		18	M	34							
					20	End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **8.0'** Upon Completion of Drilling **--**
Time After Drilling **5 min.**
Depth to Water **9.0'** ▼
Depth to Cave in

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/2/24** End **5/2/24**
Driller **GeoServe** Chief **Eddie** Rig **7822**
Logger **Eddie** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SB-5**
Surface Elevation (ft) **825.5±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE No.	TYPE	Rec (in.)	Moist	N	Depth (ft)	VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES qu (qa) (tsf)	W	LL	PL	LOI
						10" Dark Brown Clayey TOPSOIL					
1		18	VM	2		Stiff to Soft, Dark Brown Sandy CLAY; Trace Gravel (CL)	(1.5)				
2		18	VM	3	5		(0.5)				
3		16	M/W	15		Medium Dense to Very Dense, Brown Sandy SILT; Little Gravel (ML)					
4		18	W	20	10						
5		12	M	50	15						
6		18	W	42		Very Dense, Gray Sandy SILT; Little Gravel (ML)					
					20	End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **7.0'**	Upon Completion of Drilling			**--**
Time After Drilling				**5 min.**
Depth to Water				**8.0'** ▼
Depth to Cave in				

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/2/24** End **5/2/24**
Driller **GeoServe** Chief **Eddie** Rig **7822**
Logger **Eddie** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SB-6**
Surface Elevation (ft) **828±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE No.	TYPE	Rec (in.)	Moist	N	Depth (ft)	VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES qu (qa) (tsf)	W	LL	PL	LOI
						3.5" ASPHALT over 8" Gray Crushed Stone BASE COURSE					
1	■	16	M	7		Very Stiff to Stiff, Dark Brown Sandy CLAY; Trace Gravel (CL)	(3.0)				
2	■	4	VM	9			(1.5)				
					5	Loose, Brown Sandy SILT; Little Clay, Trace Gravel (ML)					
3	■	18	VM	11		Medium Dense, Brown Sandy SILT; Little Gravel (ML)					
4	■	18	VM	12							
					10						
						Very Dense, Brown and Gray Mottled SILT; Little Fine Sand (ML)					
5	■	18	W	66							
					15						
						Very Dense, Gray SILT; Little Fine Sand (ML)					
6	■	3	M	50							
					20	End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **13.0'**	Upon Completion of Drilling			**--**
Time After Drilling				**5 min.**
Depth to Water				**12.0'** ▼
Depth to Cave in				

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/2/24** End **5/2/24**
Driller **GeoServe** Chief **Eddie** Rig **7822**
Logger **Eddie** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SB-7**
Surface Elevation (ft) **833±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE No.	TYPE	Rec (in.)	Moist	N	Depth (ft)	VISUAL CLASSIFICATION and Remarks	qu (qa) (tsf)	W	LL	PL	LOI
						FILL: 4" Black Clayey Topsoil					
1	■	18	M	41		FILL: Gray Crushed/Reprocessed Concrete					
2	■	18	M	61							
					5						
3	■	18	M	25							
4	■	18	VM	6		FILL: Brown, Gray and Dark Brown Lean Clay, Trace Sand and Gravel	(1.0)				
					10						
					▼	Loose, Dark Brown and Dark Clayey SAND (SC)					
5	■	18	W	6	▽						
					15						
						Medium Dense, Brown Sandy SILT; Little Clay, Trace Gravel (ML)					
6	■	12	W	21							
					20	End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **14.0'**			Upon Completion of Drilling	**--**
Time After Drilling				**5 min.**
Depth to Water				**12.0'** ▼
Depth to Cave in				

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/3/24** End **5/3/24**
Driller **GeoServe** Chief **Eddie** Rig **7822**
Logger **Eddie** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SB-8**
Surface Elevation (ft) **816±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE						VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	TYPE	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	W	LL	PL	LOI
						FILL: 4" Dark Brown Clayey Topsoil					
1		18	M	7		FILL: Brown/Dark Brown Mixed Sandy Silt, Little Clay, Trace Gravel					
2		16	M	8							
					5						
						FILL: Dark Brown Sandy Silt, Trace Clay, Little Gravel					
3		18	M	11							
4		18	M	10							
					10						
5		6	M	23							
6		18	M	17							
					15						
						Very Dense, Light Brown Sandy SILT; Trace Gravel (ML)					
7		18	W	61	▽						
						Very Dense, Gray SILT; Little Fine Sand (ML)					
8		18	M	54							
					20						
						End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽	**17.0'**	Upon Completion of Drilling		**--**
Time After Drilling				**5 min.**
Depth to Water				**NW** ▼
Depth to Cave in				

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/2/24** End **5/2/24**
Driller **GeoServe** Chief **Eddie** Rig **7822**
Logger **Matt** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SB-9**
Surface Elevation (ft) **821±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE No.	TYPE	Rec (in.)	Moist	N	Depth (ft)	VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES qu (qa) (tsf)	W	LL	PL	LOI
						18" Black Clayey TOPSOIL					
1		18	M	4		Stiff, Brown and Gray Mottled Lean CLAY; Trace Sand and Gravel (CL)	(1.5)				
2		18	M/W	5	▽	Loose, Brown and Gray Mottled Sandy SILT; Little Gravel (ML)					
					5						
3		16	W	17		Medium Dense, Brown Sandy SILT; Little Clay, Trace Gravel (ML)					
4		18	W	13							
					10						
					▼	Medium Dense, Brown SILT; with Clay, Little Sand, Trace Gravel (ML)					
5		4	VM/W	25							
					15						
						Medium Dense, Gray Sandy SILT; Little Clay, Trace Gravel (ML)					
6		18	VM	14							
					20	End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **4.0'**			Upon Completion of Drilling	**--**
Time After Drilling				**5 min.**
Depth to Water				**12.0'** ▼
Depth to Cave in				

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/3/24** End **5/3/24**
Driller **GeoServe** Chief **Eddie** Rig **7822**
Logger **Eddie** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SB-10**
Surface Elevation (ft) **816±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	TYPE	Rec (in.)	Moist	N	Depth (ft)	qu (qa) (tsf)	W	LL	PL	LOI
					FILL: Black Clayey Topsoil					
1	■	18	M	12						
					Loose, Brown and Gray Mottled Sandy SILT; Little Clay, Trace Gravel (ML)					
2	■	18	VM	6	5					
					Medium Dense, Brown Sandy SILT; Little Clay, Trace Gravel (ML)					
3	■	18	VM	13						
4	■	18	VM	16	10 ▼					
					Dense to Very Dense, Gray Sandy SILT; Little Gravel (ML)					
5	■	18	M/W	48 ▽	15					
6	■	18	W	71	20					
					End of Boring at 20 ft Backfilled with Bentonite Chips					
					25					

WATER LEVEL OBSERVATIONS

While Drilling ▽ **14.0'** Upon Completion of Drilling **--**
Time After Drilling **5 min.**
Depth to Water **11.0'** ▼
Depth to Cave in

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/2/24** End **5/2/24**
Driller **GeoServe** Chief **Eddie** Rig **7822**
Logger **Eddie** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SB-11**
Surface Elevation (ft) **807.5±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE No.	TYPE	Rec (in.)	Moist	N	Depth (ft)	VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES qu (qa) (tsf)	W	LL	PL	LOI
						FILL: 5" Dark Brown Clayey Topsoil					
1	■	18	VM	3		FILL: Brown Sandy Clay, Trace Gravel	(1.25-1.5)				
						FILL: Gray and Dark Gray Mixed Sandy Silt, Little Clay, Trace Gravel					
2	■	18	VM	5	5		(1.5)				
						Stiff, Black Silty CLAY; with Organics (BURIED TOPSOIL) (OL)					
3	■	18	M	5			(1.5)				
						Stiff, Dark Gray Lean CLAY; Trace Sand and Gravel (CL)					
4	■	4	M	14			(2.0)				
					10	Medium Dense, Tan and Gray Mottled Sandy SILT; Little Gravel (ML)					
5	■	18	M	19							
					15						
						Dense, Gray Sandy SILT; Little Gravel (ML)					
6	■	18	M	36							
					20	End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **NW**			Upon Completion of Drilling	**--**
Time After Drilling				**5 min.**
Depth to Water				**NW** ▼
Depth to Cave in				

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/12/24** End **5/1/24**
Driller **GeoServe** Chief **Matt** Rig **7822**
Logger **Matt** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SB-12**
Surface Elevation (ft) **824±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE						VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	TYPE	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	W	LL	PL	LOI
						FILL: Gray Crushed/Reprocessed Concrete					
1	■	18	M	33							
2	■	18	VM	10	▽						
					5	Stiff, Brown and Dark Gray Mottled Sandy CLAY; Trace Gravel (CL)	(1.5)				
3	■	18	VM	10		Very Stiff, Light Brown and Gray Mottled Lean CLAY; Trace Sand and Gravel (CL)	(2.5)				
4	■	12	W	7		Loose, Brown and Gray Mottled Sandy SILT; Little Clay, Trace Gravel (ML)					
					10						
						Dense to Medium Dense, Brown Sandy SILT; Little Clay, Trace Gravel (ML)					
5	■	18	W	39							
					15						
6	■	6	W	13							
					20	End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **4.0'**			Upon Completion of Drilling	**--**
Time After Drilling				**5 min.**
Depth to Water				**NW** ▼
Depth to Cave in				

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/3/24** End **5/3/24**
Driller **GeoServe** Chief **Eddie** Rig **7822**
Logger **Eddie** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SW-1**
Surface Elevation (ft) **801±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE						VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	TYPE	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	W	LL	PL	LOI
						8" Black Clayey TOPSOIL					
1		6	W	6		Loose, Tan and Gray Mottled SILT; with Clay, Little Sand, Trace Gravel (ML)					
2		18	W	20	5	Medium Dense, Tan and Gray Mottled Fine SAND; Little Silt (SP-SM)					
3		18	W/M	18		Medium Dense, Gray SILT; Little Fine Sand (ML)					
4		18	M	23	10						
5		18	M	12							
6		18	M	32		Dense, Gray Sandy SILT; Little Gravel (ML)					
7		18	M	38	15						
8		18	M	31							
					20	End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **1.0'**				Upon Completion of Drilling	**--**
Time After Drilling					**5 min.**
Depth to Water					**5.0'** ▼
Depth to Cave in					

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/1/24** End **5/1/24**
Driller **GeoServe** Chief **Matt** Rig **7822**
Logger **Matt** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SW-2**
Surface Elevation (ft) **804±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE No.	TYPE	Rec (in.)	Moist	N	Depth (ft)	VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES qu (qa) (tsf)	W	LL	PL	LOI
						24" Black Clayey TOPSOIL					
1		18	VM	5							
						Stiff, Tan and Gray Mottled Silty CLAY; Trace Sand and Fine Roots (CL/CL-ML)	(1.0-2.0)				
2		18	M	18		Medium Dense, Tan and Gray Mottled Sandy SILT; Little Gravel (ML)					
					5						
3		16	W	31		Dense, Grayish Brown Sandy SILT; Little Gravel (ML)					
4		18	M	25		Medium Dense to Very Dense, Gray Sandy SILT; Little Gravel, Occasional Cobbles and Boulders (ML)					
					10						
5		12	M	80/9"							
6		12	M	69							
					15						
7		18	M	60							
8		18	M	66							
					20	End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **7.0'**	Upon Completion of Drilling			**--**
Time After Drilling				**5 min.**
Depth to Water				**8.0'** ▼
Depth to Cave in				

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/1/24** End **5/1/24**
Driller **GeoServe** Chief **Matt** Rig **7822**
Logger **Matt** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SW-3**
Surface Elevation (ft) **798±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE						VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	TYPE	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	W	LL	PL	LOI
						FILL: 5" Black Clayey Topsoil					
1		18	M	11		FILL: Brown and Dark Brown Mixed Sandy Silt, Little Gravel, Trace Clay					
2		18	M	12		Black Silty CLAY; with Organics (BURIED TOPSOIL)					
					5						
3		18	M	11		Medium Dense, Tan and Gray Sandy SILT; Little Gravel (ML)					
4		4	VM/W	20		Medium Dense, Grayish Brown Sandy SILT; Little Clay, Trace Gravel (ML)					
					10						
5		18	M/W	36		Dense to Very Dense, Gray SILT; Trace to Some Sand, Few Sand Seams (ML)					
6		16	M	32							
					15						
7		18	W	37							
8		18	W	83							
					20						
						End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **12.0'**			Upon Completion of Drilling	**--**
Time After Drilling				**5 min.**
Depth to Water				**10.0'** ▼
Depth to Cave in				

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/1/24** End **5/1/24**
Driller **GeoServe** Chief **Matt** Rig **7822**
Logger **Matt** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SW-4**
Surface Elevation (ft) **801.5±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE						VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	TYPE	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	W	LL	PL	LOI
						FILL: 4" Black Clayey Topsoil					
1		18	M	20		FILL: Brown Silty Sand, Trace Clay and Gravel					
2		18	M	10		FILL: Black and Dark Gray Mixed Sandy Silt, Little Clay, Trace Gravel with Intermixed Topsoil					
					5	Black Silty CLAY; with Organics (BURIED TOPSOIL)					
3		18	M	12							
4		18	M	8		Loose, Brown and Gray Mottled SILT; Little Clay, Trace to Little Sand, Trace Gravel (ML)					
					10						
5		18	M/W	28	▽	Medium Dense, Brown Sandy SILT; Little Gravel (ML)					
6		18	M	38		Dense, Gray SILT; Trace Fine Sand (ML)					
					15						
7		18	M	70		Very Dense, Gray Sandy SILT; Little Gravel (ML)					
8		18	M	54							
					20	End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **12.0'** Upon Completion of Drilling **--**
Time After Drilling **5 min.**
Depth to Water **15.0'** ▼
Depth to Cave in

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/1/24** End **5/1/24**
Driller **GeoServe** Chief **Matt** Rig **7822**
Logger **Matt** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SW-5**
Surface Elevation (ft) **823±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE						VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	TYPE	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	W	LL	PL	LOI
						FILL: Gray Crushed/Reprocessed Concrete					
1		18	M	12							
2		12	W	7							
					5	Dark Gray and Black Mottled Silty CLAY; with Organics (BURIED TOPSOIL)	(1.75)				
						Very Stiff, Brown and Gray Mottled Silty CLAY; Trace Sand (CL/CL-ML)					
3		16	W	10			(2.5-3.0)				
						Medium Dense, Brown Sandy SILT; Little Gravel (ML)					
4		18	W	11							
					10						
5		18	W	8							
6		18	W	14							
					15						
						Soft, Sandy CLAY; Trace Gravel (CL)					
7		18	W	6			(0.5)				
8		4	W	9							
					20						
						End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **3.0'**			Upon Completion of Drilling	**--**
Time After Drilling				**5 min.**
Depth to Water				**2.0'** ▼
Depth to Cave in				

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/3/24** End **5/3/24**
Driller **GeoServe** Chief **Matt** Rig **7822**
Logger **Matt** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SW-6**
Surface Elevation (ft) **822.5±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE No.	TYPE	Rec (in.)	Moist	N	Depth (ft)	VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES qu (qa) (tsf)	W	LL	PL	LOI
						FILL: Gray Crushed/Reprocessed Concrete					
1		18	M	10							
						Black Silty CLAY; with Organics (BURIED TOPSOIL)					
2		18	W	4	▽						
					5	Loose, Brown and Gray Mottled Sandy SILT; Some Clay, Few Sand Seams (ML)					
3		18	M	10		Very Stiff, Brown and Gray Mottled Lean CLAY; Trace Sand and Gravel (CL)	(2.5-2.75)				
						Medium Stiff, Gray Lean CLAY; Trace Sand and Gravel, Few Silt Seams (CL)					
4		18	W	6	▼		(1.0)				
					10	Loose, Gray Sandy SILT; Little to Some Clay, Trace Gravel (ML)					
5		18	W	9							
6		4	W	8							
					15	Medium Dense, Gray Sandy SILT; Little Gravel (ML)					
7		18	W	20							
8		18	W	15							
					20	End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **4.0'** Upon Completion of Drilling **--**
Time After Drilling **5 min.**
Depth to Water **10.0'** ▼
Depth to Cave in

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/3/24** End **5/3/24**
Driller **GeoServe** Chief **Matt** Rig **7822**
Logger **Matt** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SW-7**
Surface Elevation (ft) **794±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE No.	TYPE	Rec (in.)	Moist	N	Depth (ft)	VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES qu (qa) (tsf)	W	LL	PL	LOI
						Black Clayey TOPSOIL					
1		18	M	4			(1.0-2.0)				
2		6	M	41							
					5	Dense, Brown and Gray Mottled Silty SAND; Little Gravel (SM)					
						Medium Dense to Dense, Gray Gravelly, Sandy SILT; Little Clay (ML)					
3		2	W	24							
4		2	W	32							
					10						
						Very Dense to Medium Dense, Gray SILT; Little Sand, Trace to Little Gravel, Trace Clay (ML)					
5		18	VM	46							
6		18	M	56							
					15						
7		8	W	45							
8		18	W	24			(4.5)				
					20						
						End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **6.0'**			Upon Completion of Drilling	**--**
Time After Drilling				**5 min.**
Depth to Water				**2.0'** ▼
Depth to Cave in				

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/1/24** End **5/1/24**
Driller **GeoServe** Chief **Matt** Rig **7822**
Logger **Matt** Editor **TAC**
Drill Method **2.25" HSA**

CGC Inc.

LOG OF TEST BORING

Project **GWCHF Residential Development**
Hoffmann Drive
Location **Watertown, Wisconsin**

Boring No. **SW-8**
Surface Elevation (ft) **797.5±**
Job No. **CM24062**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE No.	TYPE	Rec (in.)	Moist	N	Depth (ft)	VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES qu (qa) (tsf)	W	LL	PL	LOI
						18" Black Clayey TOPSOIL					
1		18	VM	4		Stiff, Light Gray and Brown Mottled Lean CLAY; Trace Sand and Gravel (CL)	(1.5)				
2		18	VM	6							
					5	Loose, Brown and Gray Mottled Sandy SILT; Little Gravel (ML)					
3		2	M/W	20	▽	Stiff, Brown and Gray Mottled Sandy CLAY; Trace Gravel (CL)					
4		12	M	22		Medium Dense to Very Dense, Gray SILT; Little Sand and Gravel (ML)					
					10						
5		18	M	75							
6		12	M	36	▼						
					15						
7		18	M	18		Medium Dense, Gray Sandy CLAY; Trace Gravel (CL)					
8		4	M	24							
					20	End of Boring at 20 ft Backfilled with Bentonite Chips					
					25						

WATER LEVEL OBSERVATIONS

While Drilling ▽ **6.0'**			Upon Completion of Drilling	**--**
Time After Drilling				**5 min.**
Depth to Water				**15.0'** ▼
Depth to Cave in				

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

GENERAL NOTES

Start **5/1/24** End **5/1/24**
Driller **GeoServe** Chief **Matt** Rig **7822**
Logger **Matt** Editor **TAC**
Drill Method **2.25" HSA**

Wisconsin Department of Commerce
Division of Safety and Buildings

SOIL AND SITE EVALUATION - STORM

In accordance with SPS 382.365, 385, Wis. Adm. Code, and WDNR Standard 1002

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	Jefferson
Parcel I.D.	291-0815-0814-001
Review by	**Date**

Property Owner		**Property Location**	600 and 700 Hoffman Drive
Hoffman Matz LLC		**Govt. Lot**	SE 1/4 of NE 1/4 S08 T8N R15E
Property Owner's Mailing Address		**Lot #**	**Block #** / **Subd. Name or CSM#**
600 E. Main Street, Suite 200		1	4146-02-181
City	**State** / **Zip Code** / **Phone Number**	[X] **City** [ ] **Village** [ ] **Town**	**Nearest Road**
Watertown	WI 53094	Watertown	Johnson Street

Drainage area: _____ [ ] **sq. ft.** [ ] **acres**

Test Site Suitable for (check all that apply) [ ] **Site not suitable**

[ ] **Bioretention** [ ] **Subsurface Dispersal System**

[ ] **Reuse** [ ] **Irrigation** [ ] **Other** _____

Hydraulic Application Test Method

[X] **Morphological Evaluation**

[ ] **Double-Ring Infiltrometer**

[ ] **Other (Specify)** _____

Soil Moisture

Date of soil borings: May 1-3, 2024

USDA-NRCS WETS Value:

[ ] **Dry = 1**

[X] **Normal = 2**

[ ] **Wet = 3**

SW-1 **Obs. #** [X] **Boring** [ ] **Pit** **Ground Surface Elev.** **801±** **ft** **Elevation of limiting factor** **801±** **ft**

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	% Fines	Hydraulic App. Rate Inches/Hr
1	0-8	Topsoil (Not Sampled)								
2	8-36	10YR6/4	c2d 10YR7/2	L	0,m	mfr	g	<5	70	0.24
3	36-66	10YR5/6	c2f 10YR7/2	LFS	0,sg	mfr	g	<5	15	0.50
4	66-156	10YR5/1	--	SICL	0,m	mvfi	g	<5	80	0.04
5	156-240	10YR6/1	--	SL	0,m	mvfi	g	<15	50	0.50

Comments:

SW-2 **Obs. #** [X] **Boring** [ ] **Pit** **Ground Surface Elev.** **804±** **ft** **Elevation of limiting factor** **804±** **ft**

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	% Fines	Hydraulic App. Rate Inches/Hr
1	0-24	Topsoil (Not Sampled)								
2	24-36	10YR6/2	c2d 10YR7/4	SIC	0,m	mfi	g	<5	>90	0.07
3	36-66	10YR6/4	c2d 10YR7/1	SL	0,m	mfr	g	<15	40	0.50
4	66-96	10YR6/2	--	SL	0,m	mfi	g	<15	50	0.50
5	96-240	10YR6/1	--	SL	0,m	mvfi	g	<15	50	0.50

Comments:

CST/PSS Name (Please Print)	Signature	CST Number
Paul J. Giese, CST	Paul J. Giese	SP-030800004
Address	**Date Evaluation Conducted**	**Telephone Number**
336 S. Curtis Road, West Allis, WI 53214	5/9/24	(414) 443-2000

SBD-10793 (R 01/17)

Property Owner Hoffman Matz LLC **Parcel ID#** 291-0815-0814-001 **Page** 2 **of** 3

SW-3 **Obs. #** [X] **Boring** [ ] **Pit** **Ground Surface Elev.** 798± ft **Elevation of limiting factor** 798± ft

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	% Fines	Hydraulic App. Rate Inches/Hr
1	0-5	Topsoil Fill (Not Sampled)								
2	5-36	10YR4/2 & 10YR6/4	--	L*	0,m	mfi	a	<15	60	0.24
3	36-66	10YR2/1	--	SICL**	0,m	mfi	a	<5	>90	0.04
4	66-96	10YR5/6	c2d 10YR7/2	SL	0,m	mfr	g	<5	50	0.50
5	96-126	10YR6/2	--	SCL	0,m	mfr	g	<5	55	0.11
6	126-240	10YR6/2	--	SIL	0,m	mvfi	g	<15	70-80	0.13

Comments: * FILL ** Buried Topsoil

SW-4 **Obs. #** [X] **Boring** [ ] **Pit** **Ground Surface Elev.** 801.5± ft **Elevation of limiting factor** 801.5± ft

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	% Fines	Hydraulic App. Rate Inches/Hr
1	0-4	Topsoil Fill (Not Sampled)								
2	4-36	10YR5/4	--	SL*	0,sg	mfr	a	<15	15	0.50
3	36-54	10YR4/2 & 10YR2/1	--	SL*	0,m	mfr	a	<5	50	0.50
4	54-96	10YR2/1	--	SICL**	0,m	mfi	a	<5	>90	0.04
5	96-126	10YR6/4	c2d 2.5Y7/1	CL	0,m	mfi	g	<5	70	0.03
6	126-156	10YR6/6	c2f 10YR7/2	SL	0,m	mfi	g	<5	40	0.50
7	156-186	10YR6/2	--	SI	0,m	mfr	g	<5	90	0.13
8	186-240	10YR6/2	--	SL	0,m	mfi	g	<15	50	0.50

Comments: * FILL ** Buried Topsoil

SW-5 **Obs. #** [X] **Boring** [ ] **Pit** **Ground Surface Elev.** 823± ft **Elevation of limiting factor** 823± ft

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	% Fines	Hydraulic App. Rate Inches/Hr
1	0-48	10YR6/2	--	GRS*	0,sg	mfr	a	15-35	5-10	3.60
2	48-66	10YR3/1	m2p 10YR2/1	SIC**	0,m	mfr	a	<5	>90	0.07
3	66-96	10YR5/6	m2p 10YR7/2	SIC	0,m	mfi	g	<5	>90	0.07
4	96-186	10YR6/4	--	SICL	0,m	mfi	g	<5	50	0.04
5	186-240	10YR6/2	--	SC	0,m	mfr	g	<5	55	0.04

Comments: * FILL (Crushed/Reprocessed Concrete) ** Buried Topsoil

Property Owner Hoffman Matz LLC **Parcel ID#** 291-0815-0814-001 **Page** 3 **of** 3

SW-6 **Obs. #** [X] **Boring** [ ] **Pit** **Ground Surface Elev.** 822.5± ft **Elevation of limiting factor** 822.5± ft

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	% Fines	Hydraulic App. Rate Inches/Hr
1	0-24	10YR6/2	--	GRS*	0,sg	mfr	a	15-35	5-10	3.60
2	24-48	10YR2/1	--	SIC**	0,m	mfr	g	<5	>90	0.07
3	48-72	2.5Y6/1	c2f 10YR7/3	SCL	0,m	mfr	g	<5	55	0.11
4	72-96	10YR5/6	m2p 10YR6/3	C	0,m	mfi	g	<5	>90	0.07
5	96-126	10YR6/2	--	C	0,m	mfi	g	<5	>90	0.07
6	126-186	10YR6/1	--	SCL	0,m	mfr	g	<15	55	0.11
7	186-240	10YR6/2	--	SL	0,m	mfi	g	<15	50	0.50

Comments: * FILL (Crushed/Reprocessed Concrete) ** Buried Topsoil

SW-7 **Obs. #** [X] **Boring** [ ] **Pit** **Ground Surface Elev.** 794± ft **Elevation of limiting factor** 794± ft

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	% Fines	Hydraulic App. Rate Inches/Hr
1	0-48	10YR2/1	--	SIC*	0,m	mfr	g	<5	>90	0.07
2	48-66	10YR6/8	m2p 10YR7/1	SL	0,sg	mfr	g	<15	15-20	0.50
3	66-126	10YR6/2	--	GRSCL	0,m	mfi	g	15-35	50	0.11
4	126-240	10YR6/2	--	L	0,m	mfi	g	<15	60	0.24

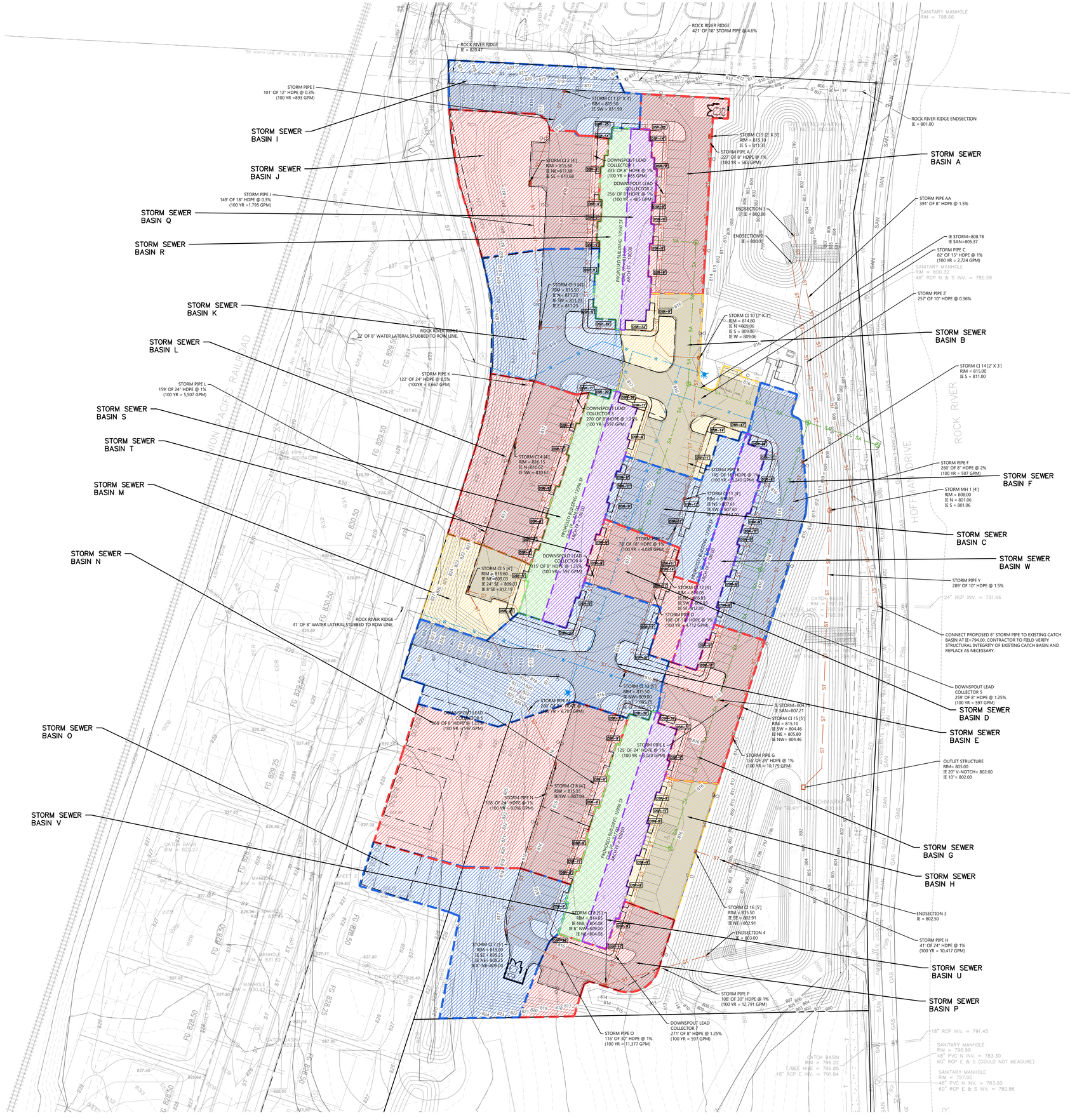
Comments: * Topsoil

SW-8 **Obs. #** [X] **Boring** [ ] **Pit** **Ground Surface Elev.** 797.5± ft **Elevation of limiting factor** 797.5± ft

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	% Fines	Hydraulic App. Rate Inches/Hr
1	0-18	Topsoil (Not Sampled)								
2	18-48	10YR7/1	m2d 10YR6/4	C	0,m	mfi	g	<5	>90	0.07
3	48-66	10YR6/4	m2d 10YR7/1	SCL	0,m	mfi	g	5-10	50	0.11
4	66-96	10YR6/2	c2d 10YR6/2	SC	0,m	mfi	g	5	50	0.04
5	96-186	10YR6/1	--	GRL	0,m	mfi	g	15-35	50-60	0.24
6	186-240	10YR5/1	--	SC	0,m	mfr	g	<15	55	0.04

Comments:

Appendix F: Storm Sewer Basin Map



PIPE BASIN	TOTAL (SF)	TOTAL (AC)	IMPERVIOUS (SF)	IMPERVIOUS (AC)	OPEN (SF)	OPEN (AC)
A	12,555	0.29	11,184	0.26	1,371	0.03
B	17,077	0.39	12,838	0.29	4,239	0.10
C	10,199	0.23	9,465	0.22	734	0.02
D	7,944	0.18	7,209	0.17	735	0.02
E	25,631	0.59	13,246	0.30	12,385	0.28
F	13,281	0.30	11,761	0.27	1,520	0.03
G	10,820	0.25	8,456	0.19	2,364	0.05
H	7,815	0.18	7,214	0.17	601	0.01
I	10,955	0.25	6,155	0.14	4,800	0.11
J	19,472	0.45	7,525	0.17	11,947	0.27
K	16,867	0.39	7,637	0.18	9,230	0.21
L	16,596	0.38	8,993	0.21	7,603	0.17
M	8,078	0.19	2,567	0.06	5,511	0.13
N	33,870	0.78	14,078	0.32	19,792	0.45
O	19,598	0.45	6,728	0.15	12,870	0.30
P	9,415	0.22	6,543	0.15	2,872	0.07
Q	5,280	0.12	5,280	0.12	0	0.00
R	5,280	0.12	5,280	0.12	0	0.00
S	6,498	0.15	6,498	0.15	0	0.00
T	6,498	0.15	6,498	0.15	0	0.00
U	6,498	0.15	6,498	0.15	0	0.00
V	6,498	0.15	6,498	0.15	0	0.00
W	6,498	0.15	6,498	0.15	0	0.00

SCALE: 1" = 40'
40' 0 40' 80'
NORTH

STORM SEWER BASIN MAP

EXCEL
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT
LUMIN TERRACE
JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

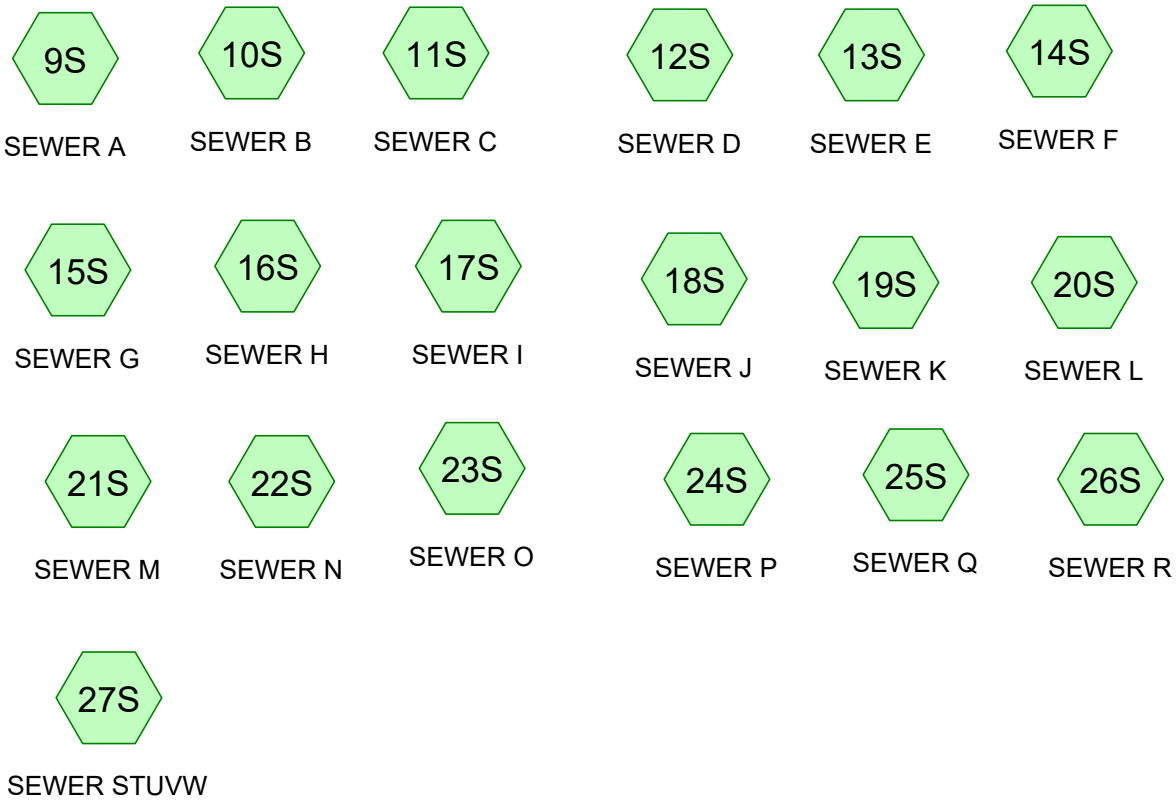
PRELIMINARY DATES

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
SSBM

Appendix G: Storm Sewer TR-55 Calculations



Subcat Reach Pond Link

Routing Diagram for hydrocad240136200
Prepared by Excel Engineering, Printed 10/29/2024
HydroCAD® 10.20-4a s/n 01178 © 2023 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
3.642	98	(9S, 10S, 11S, 12S, 13S, 14S, 15S, 16S, 17S, 18S, 19S, 20S, 21S, 22S, 23S, 24S, 25S, 26S, 27S)
2.263	74	(9S, 10S, 11S, 12S, 13S, 14S, 15S, 16S, 17S, 18S, 19S, 20S, 21S, 22S, 23S, 24S)

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
5.905	Other	9S, 10S, 11S, 12S, 13S, 14S, 15S, 16S, 17S, 18S, 19S, 20S, 21S, 22S, 23S, 24S, 25S, 26S, 27S

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.000	5.905	5.905		9S, 10S, 11S, 12S, 13S, 14S, 15S, 16S, 17S, 18S, 19S, 20S, 21S, 22S, 23S, 24S, 25S, 26S, 27S

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment9S: SEWER A Runoff Area=12,555 sf 89.08% Impervious Runoff Depth>5.41"
Tc=6.0 min CN=95 Runoff=2.52 cfs 0.130 af

Subcatchment10S: SEWER B Runoff Area=17,077 sf 75.18% Impervious Runoff Depth>5.09"
Tc=6.0 min CN=92 Runoff=3.33 cfs 0.166 af

Subcatchment11S: SEWER C Runoff Area=10,199 sf 92.80% Impervious Runoff Depth>5.52"
Tc=6.0 min CN=96 Runoff=2.06 cfs 0.108 af

Subcatchment12S: SEWER D Runoff Area=7,944 sf 90.75% Impervious Runoff Depth>5.52"
Tc=6.0 min CN=96 Runoff=1.61 cfs 0.084 af

Subcatchment13S: SEWER E Runoff Area=25,631 sf 51.68% Impervious Runoff Depth>4.43"
Tc=6.0 min CN=86 Runoff=4.59 cfs 0.217 af

Subcatchment14S: SEWER F Runoff Area=13,281 sf 88.56% Impervious Runoff Depth>5.41"
Tc=6.0 min CN=95 Runoff=2.67 cfs 0.138 af

Subcatchment15S: SEWER G Runoff Area=10,820 sf 78.15% Impervious Runoff Depth>5.20"
Tc=6.0 min CN=93 Runoff=2.13 cfs 0.108 af

Subcatchment16S: SEWER H Runoff Area=7,815 sf 92.31% Impervious Runoff Depth>5.52"
Tc=6.0 min CN=96 Runoff=1.58 cfs 0.082 af

Subcatchment17S: SEWER I Runoff Area=10,955 sf 56.18% Impervious Runoff Depth>4.54"
Tc=6.0 min CN=87 Runoff=1.99 cfs 0.095 af

Subcatchment18S: SEWER J Runoff Area=19,472 sf 38.65% Impervious Runoff Depth>4.11"
Tc=6.0 min CN=83 Runoff=3.30 cfs 0.153 af

Subcatchment19S: SEWER K Runoff Area=16,867 sf 45.28% Impervious Runoff Depth>4.33"
Tc=6.0 min CN=85 Runoff=2.97 cfs 0.140 af

Subcatchment20S: SEWER L Runoff Area=16,596 sf 54.19% Impervious Runoff Depth>4.54"
Tc=6.0 min CN=87 Runoff=3.02 cfs 0.144 af

Subcatchment21S: SEWER M Runoff Area=8,078 sf 31.78% Impervious Runoff Depth>4.01"
Tc=6.0 min CN=82 Runoff=1.34 cfs 0.062 af

Subcatchment22S: SEWER N Runoff Area=33,870 sf 41.56% Impervious Runoff Depth>4.22"
Tc=6.0 min CN=84 Runoff=5.85 cfs 0.273 af

Subcatchment23S: SEWER O Runoff Area=19,598 sf 34.33% Impervious Runoff Depth>4.01"
Tc=6.0 min CN=82 Runoff=3.25 cfs 0.150 af

Subcatchment24S: SEWER P Runoff Area=9,415 sf 69.50% Impervious Runoff Depth>4.98"
Tc=6.0 min CN=91 Runoff=1.82 cfs 0.090 af

Subcatchment25S: SEWER Q Runoff Area=5,280 sf 100.00% Impervious Runoff Depth>5.70"
Tc=6.0 min CN=98 Runoff=1.08 cfs 0.058 af

Subcatchment26S: SEWER R Runoff Area=5,280 sf 100.00% Impervious Runoff Depth>5.70"
Tc=6.0 min CN=98 Runoff=1.08 cfs 0.058 af

Subcatchment27S: SEWER STUVW Runoff Area=6,498 sf 100.00% Impervious Runoff Depth>5.70"
Tc=6.0 min CN=98 Runoff=1.33 cfs 0.071 af

Summary for Subcatchment 9S: SEWER A

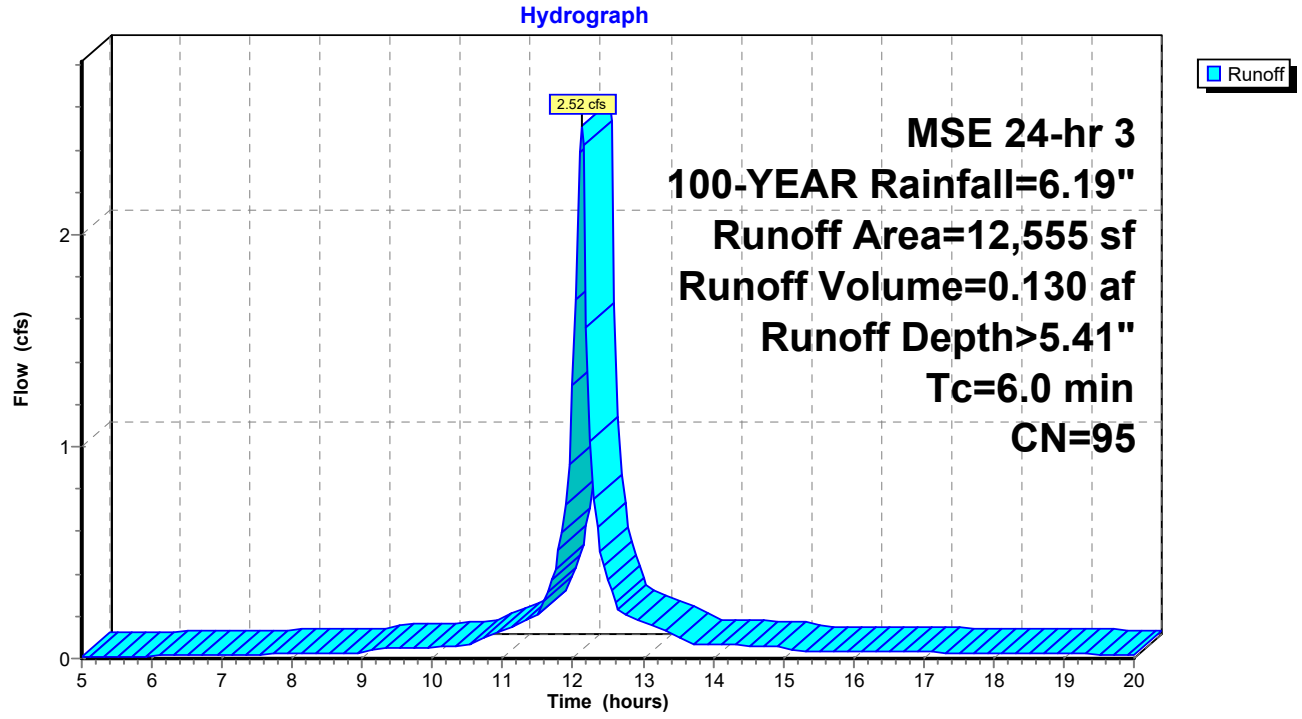
Runoff = 2.52 cfs @ 12.13 hrs, Volume= 0.130 af, Depth> 5.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	11,184	98	
*	1,371	74	
	12,555	95	Weighted Average
	1,371		10.92% Pervious Area
	11,184		89.08% Impervious Area

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

Subcatchment 9S: SEWER A



Summary for Subcatchment 10S: SEWER B

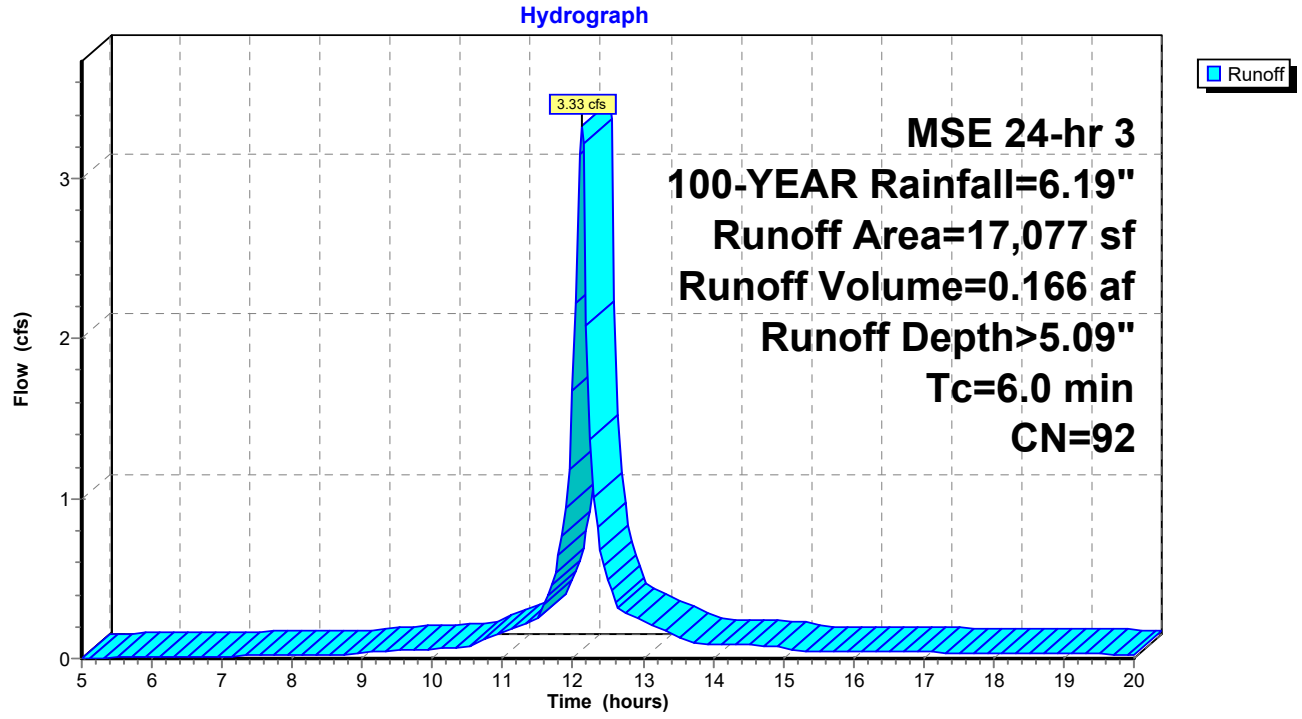
Runoff = 3.33 cfs @ 12.13 hrs, Volume= 0.166 af, Depth> 5.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	12,838	98	
*	4,239	74	
	17,077	92	Weighted Average
	4,239		24.82% Pervious Area
	12,838		75.18% Impervious Area

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

Subcatchment 10S: SEWER B



Summary for Subcatchment 11S: SEWER C

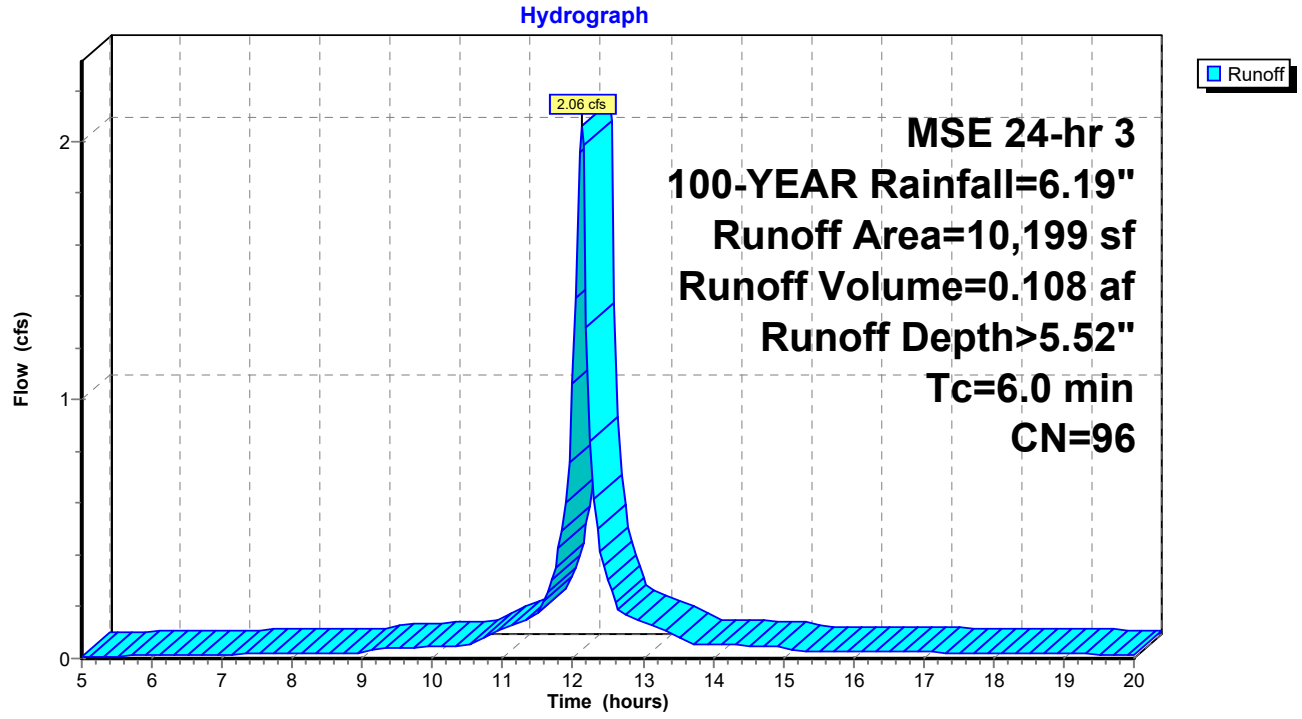
Runoff = 2.06 cfs @ 12.13 hrs, Volume= 0.108 af, Depth> 5.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	9,465	98	
*	734	74	
	10,199	96	Weighted Average
	734		7.20% Pervious Area
	9,465		92.80% Impervious Area

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

Subcatchment 11S: SEWER C



Summary for Subcatchment 12S: SEWER D

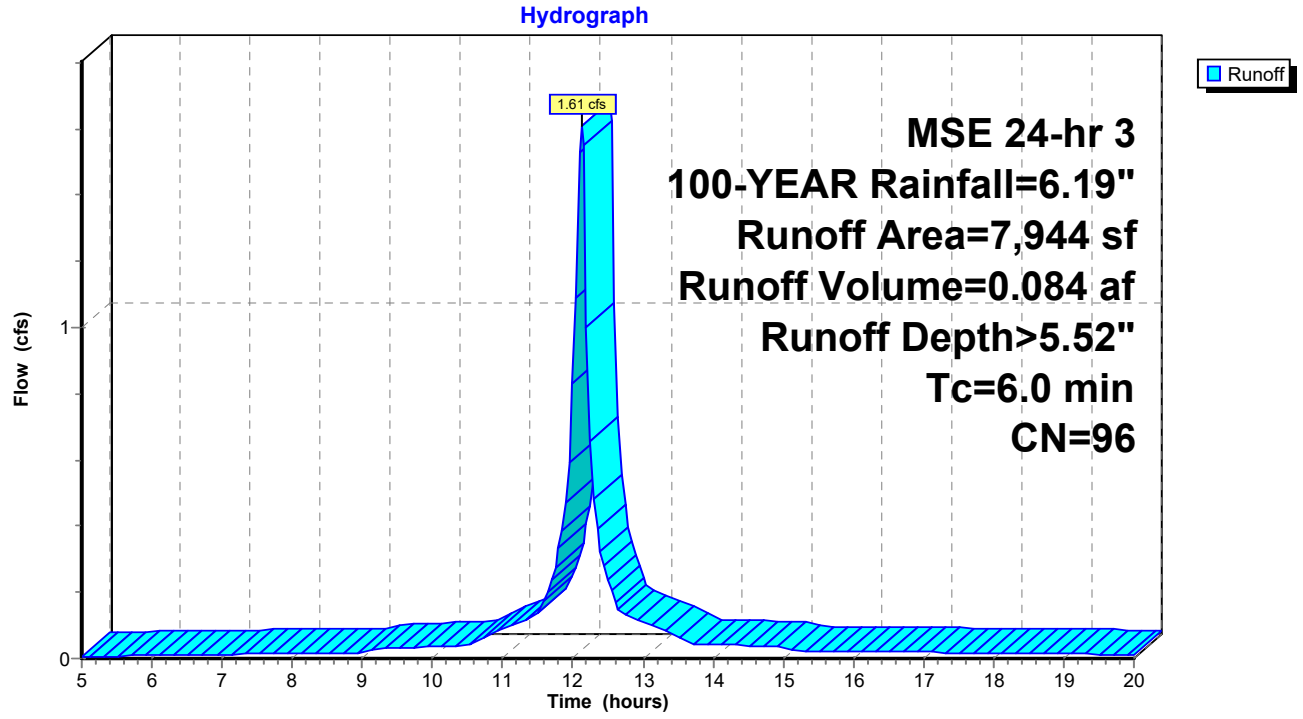
Runoff = 1.61 cfs @ 12.13 hrs, Volume= 0.084 af, Depth> 5.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	7,209	98	
*	735	74	
	7,944	96	Weighted Average
	735		9.25% Pervious Area
	7,209		90.75% Impervious Area

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

Subcatchment 12S: SEWER D



Summary for Subcatchment 13S: SEWER E

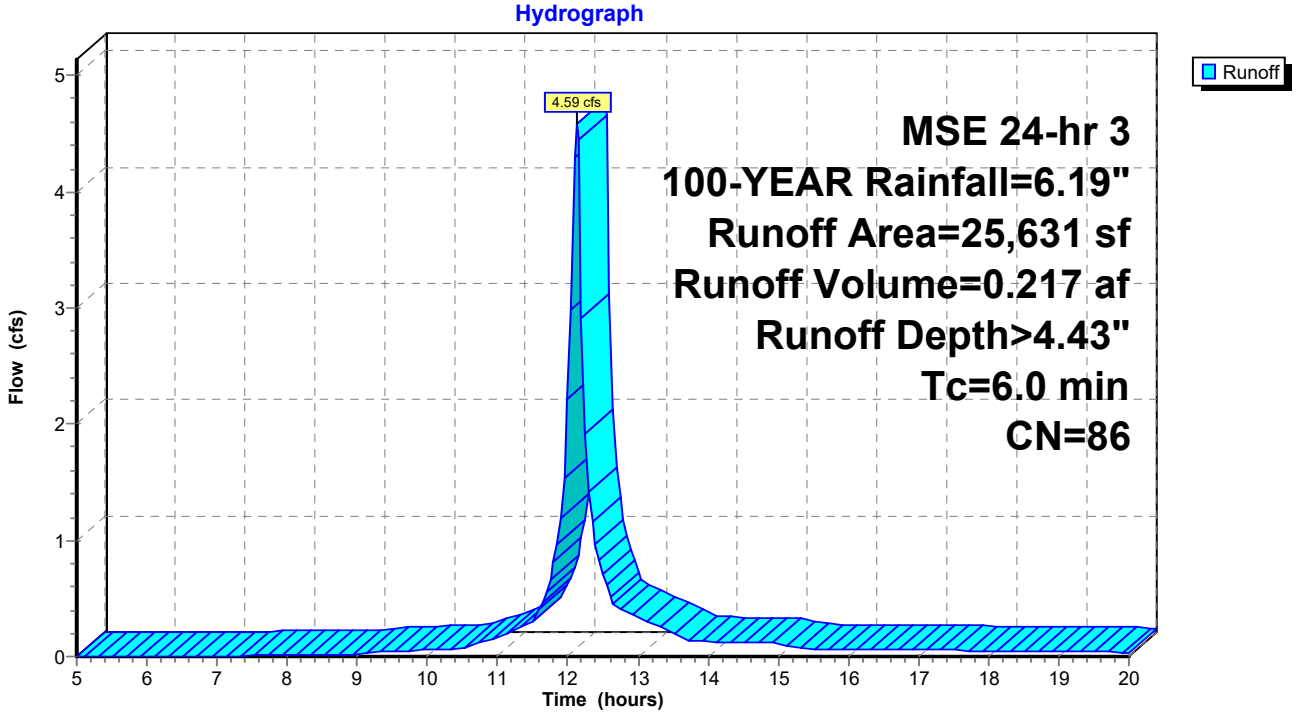
Runoff = 4.59 cfs @ 12.13 hrs, Volume= 0.217 af, Depth> 4.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	13,246	98	
*	12,385	74	
	25,631	86	Weighted Average
	12,385		48.32% Pervious Area
	13,246		51.68% Impervious Area

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

Subcatchment 13S: SEWER E



Summary for Subcatchment 14S: SEWER F

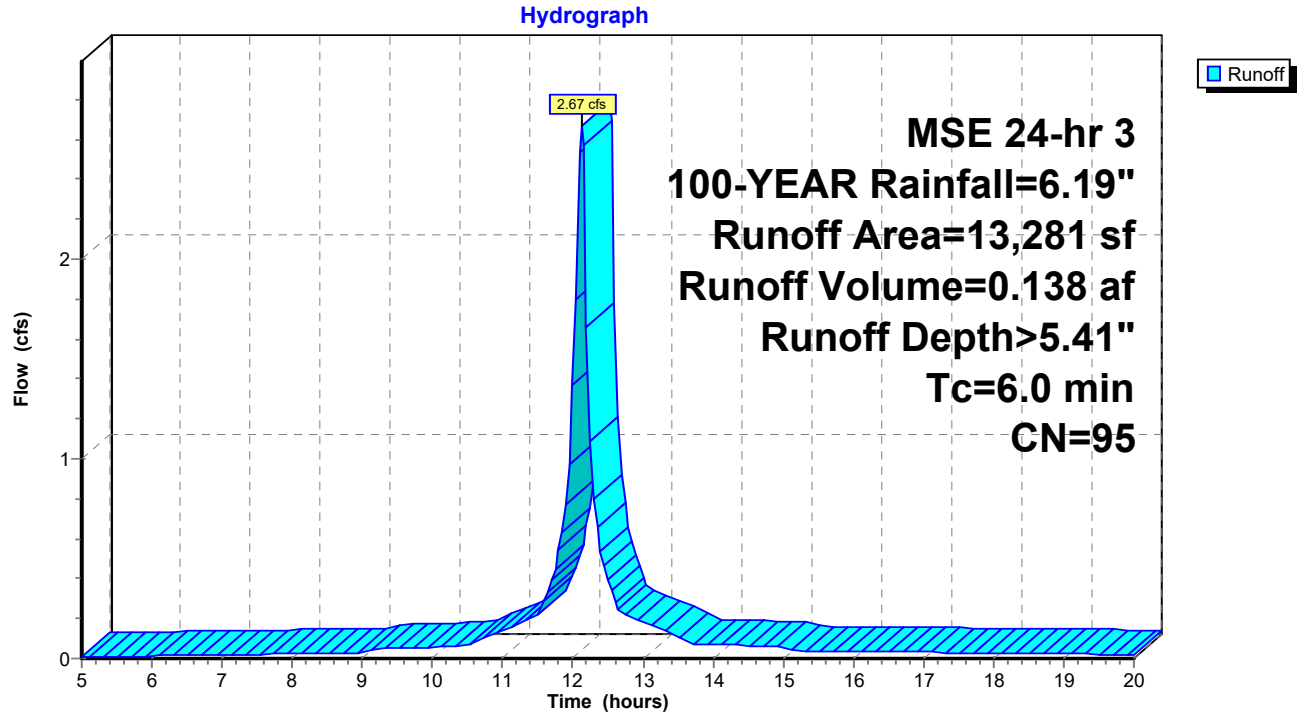
Runoff = 2.67 cfs @ 12.13 hrs, Volume= 0.138 af, Depth> 5.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	11,761	98	
*	1,520	74	
	13,281	95	Weighted Average
	1,520		11.44% Pervious Area
	11,761		88.56% Impervious Area

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

Subcatchment 14S: SEWER F



Summary for Subcatchment 15S: SEWER G

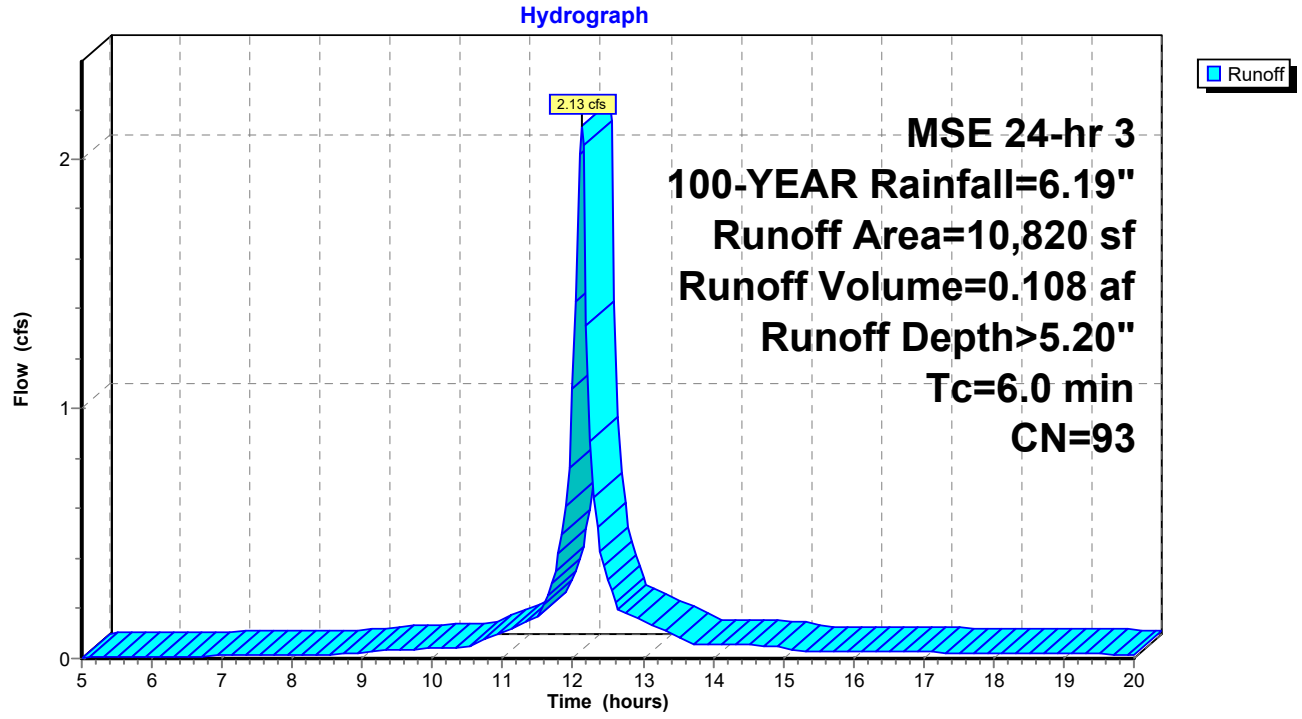
Runoff = 2.13 cfs @ 12.13 hrs, Volume= 0.108 af, Depth> 5.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	8,456	98	
*	2,364	74	
	10,820	93	Weighted Average
	2,364		21.85% Pervious Area
	8,456		78.15% Impervious Area

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

Subcatchment 15S: SEWER G



Summary for Subcatchment 16S: SEWER H

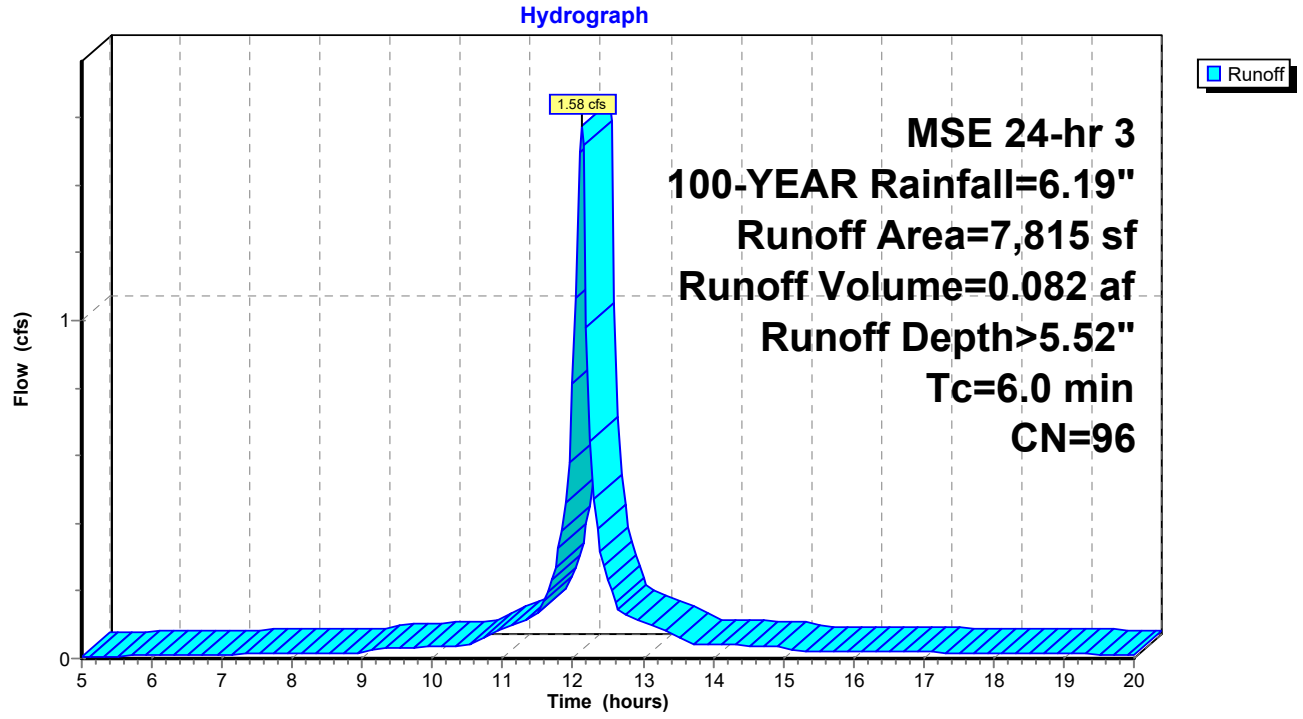
Runoff = 1.58 cfs @ 12.13 hrs, Volume= 0.082 af, Depth> 5.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	7,214	98	
*	601	74	
	7,815	96	Weighted Average
	601		7.69% Pervious Area
	7,214		92.31% Impervious Area

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

Subcatchment 16S: SEWER H



Summary for Subcatchment 17S: SEWER I

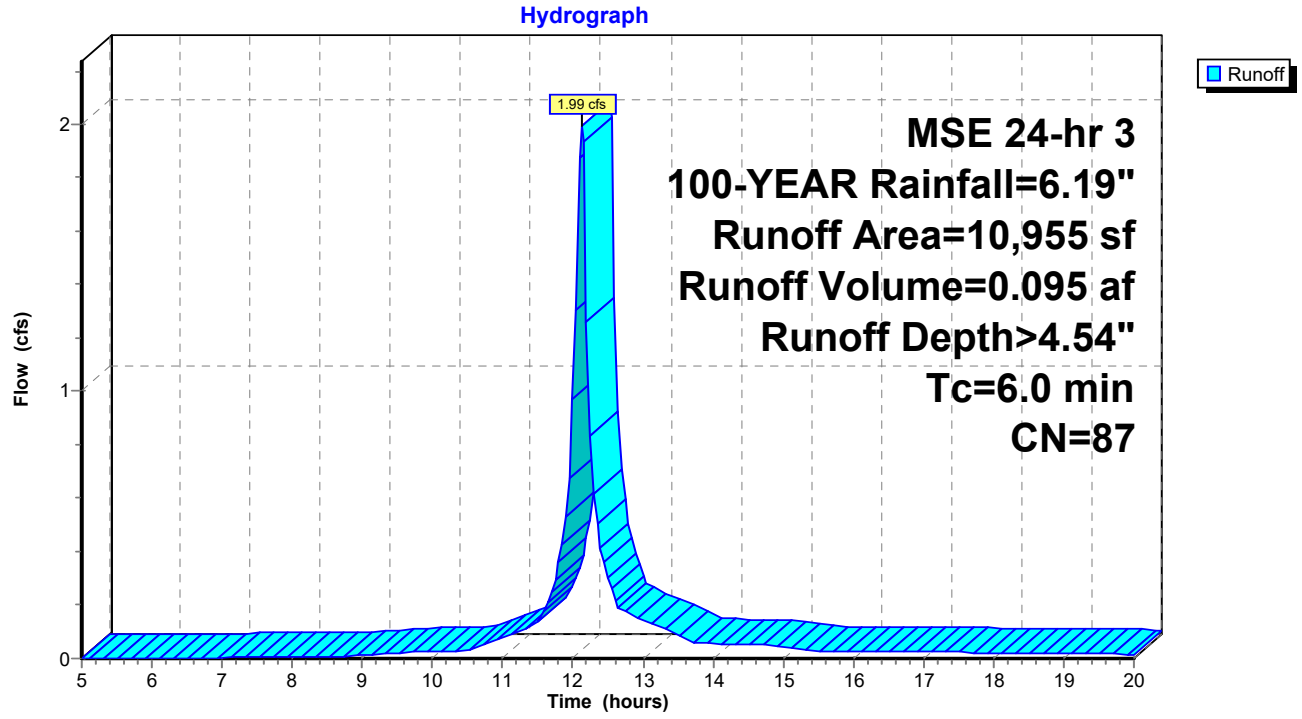
Runoff = 1.99 cfs @ 12.13 hrs, Volume= 0.095 af, Depth> 4.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	6,155	98	
*	4,800	74	
	10,955	87	Weighted Average
	4,800		43.82% Pervious Area
	6,155		56.18% Impervious Area

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

Subcatchment 17S: SEWER I



Summary for Subcatchment 18S: SEWER J

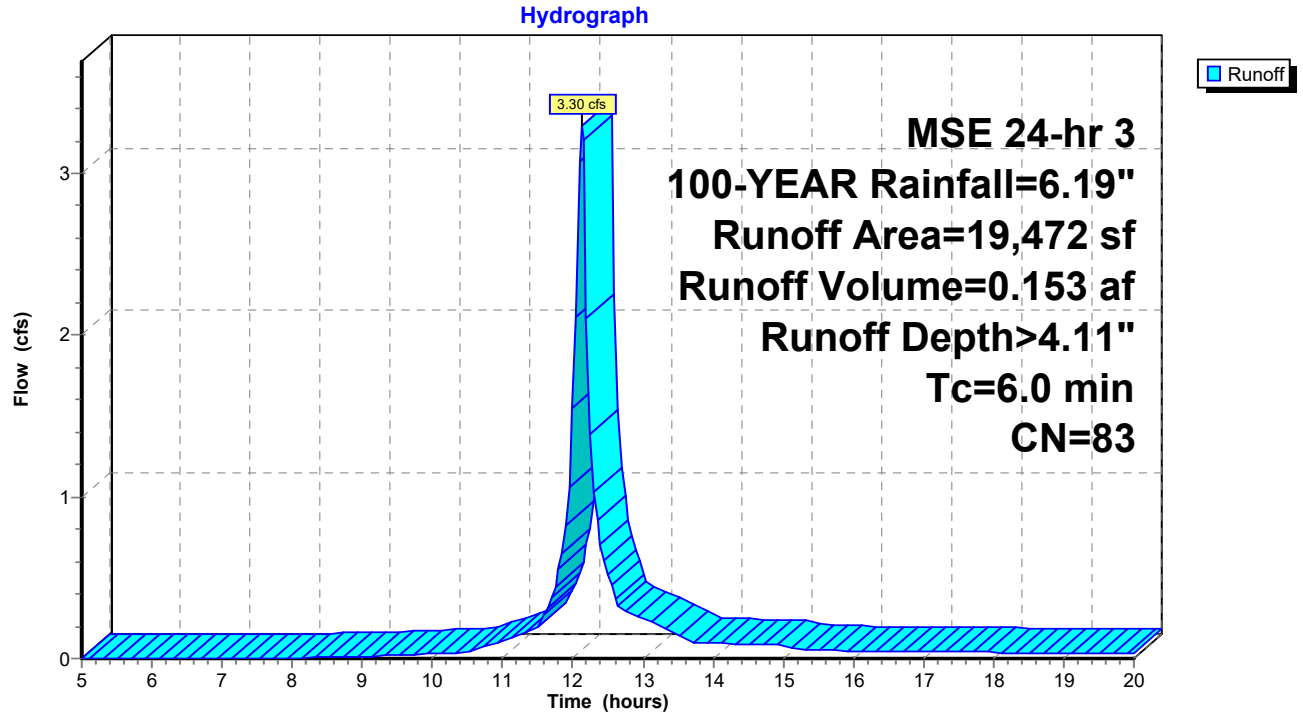
Runoff = 3.30 cfs @ 12.13 hrs, Volume= 0.153 af, Depth> 4.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	7,525	98	
*	11,947	74	
	19,472	83	Weighted Average
	11,947		61.35% Pervious Area
	7,525		38.65% Impervious Area

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

Subcatchment 18S: SEWER J



Summary for Subcatchment 19S: SEWER K

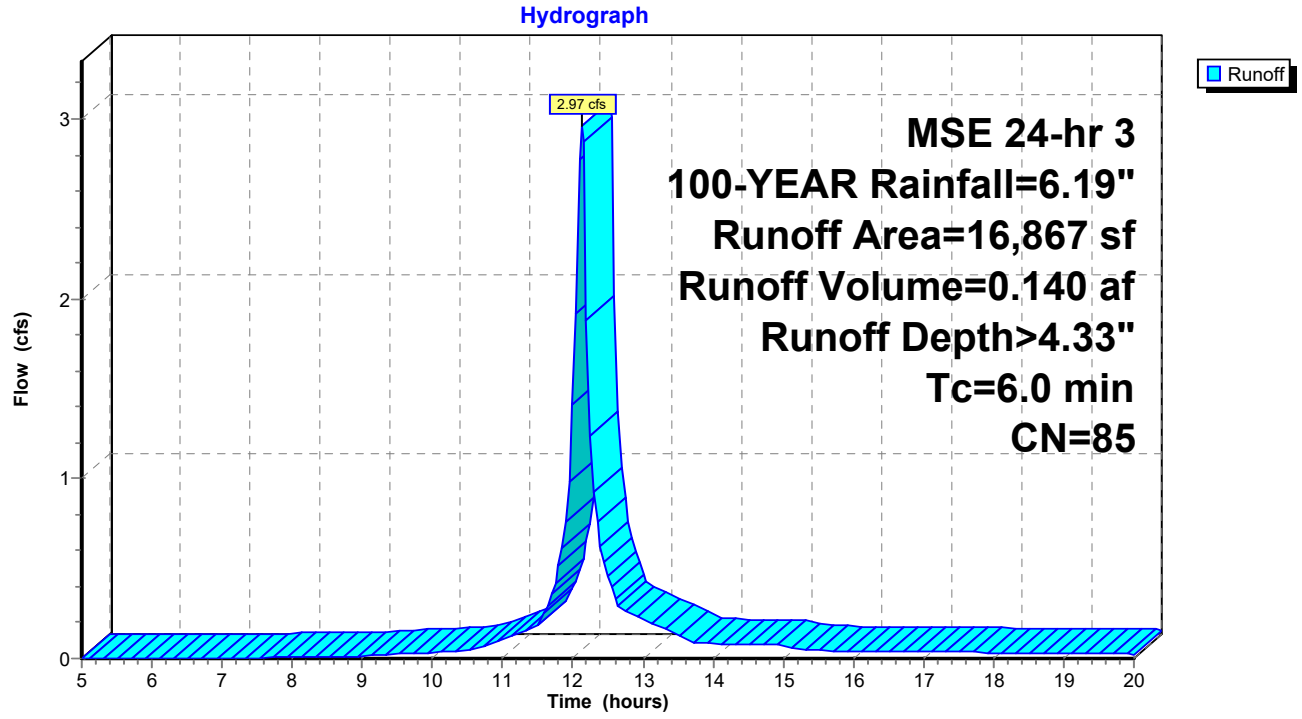
Runoff = 2.97 cfs @ 12.13 hrs, Volume= 0.140 af, Depth> 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	7,637	98	
*	9,230	74	
	16,867	85	Weighted Average
	9,230		54.72% Pervious Area
	7,637		45.28% Impervious Area

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

Subcatchment 19S: SEWER K



Summary for Subcatchment 20S: SEWER L

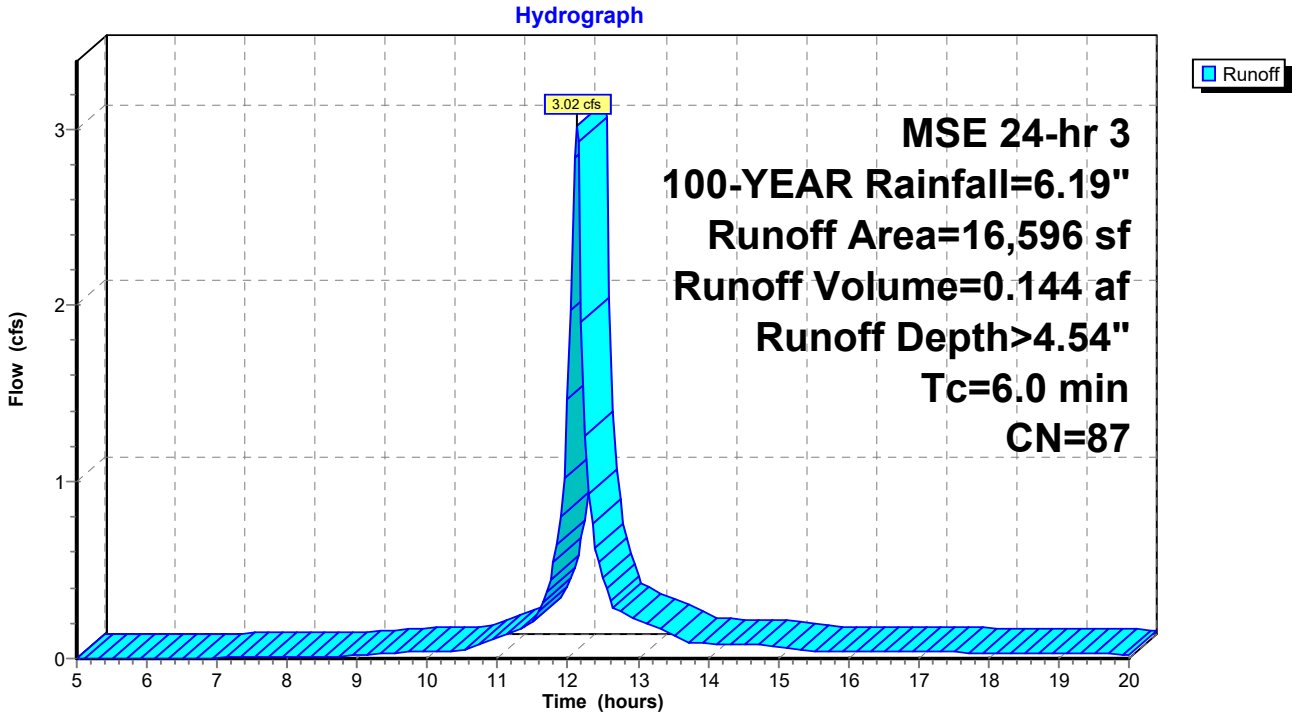
Runoff = 3.02 cfs @ 12.13 hrs, Volume= 0.144 af, Depth> 4.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	8,993	98	
*	7,603	74	
	16,596	87	Weighted Average
	7,603		45.81% Pervious Area
	8,993		54.19% Impervious Area

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

Subcatchment 20S: SEWER L



Summary for Subcatchment 21S: SEWER M

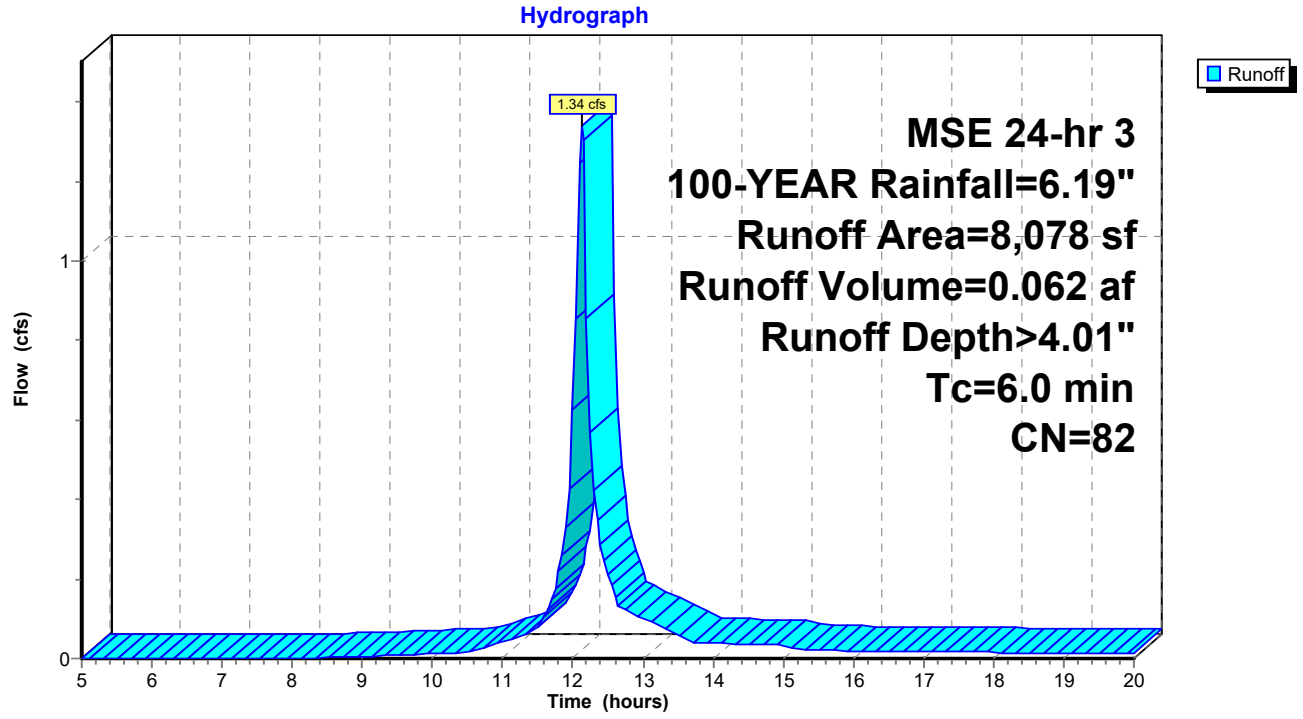
Runoff = 1.34 cfs @ 12.13 hrs, Volume= 0.062 af, Depth> 4.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	2,567	98	
*	5,511	74	
	8,078	82	Weighted Average
	5,511		68.22% Pervious Area
	2,567		31.78% Impervious Area

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

Subcatchment 21S: SEWER M



Summary for Subcatchment 22S: SEWER N

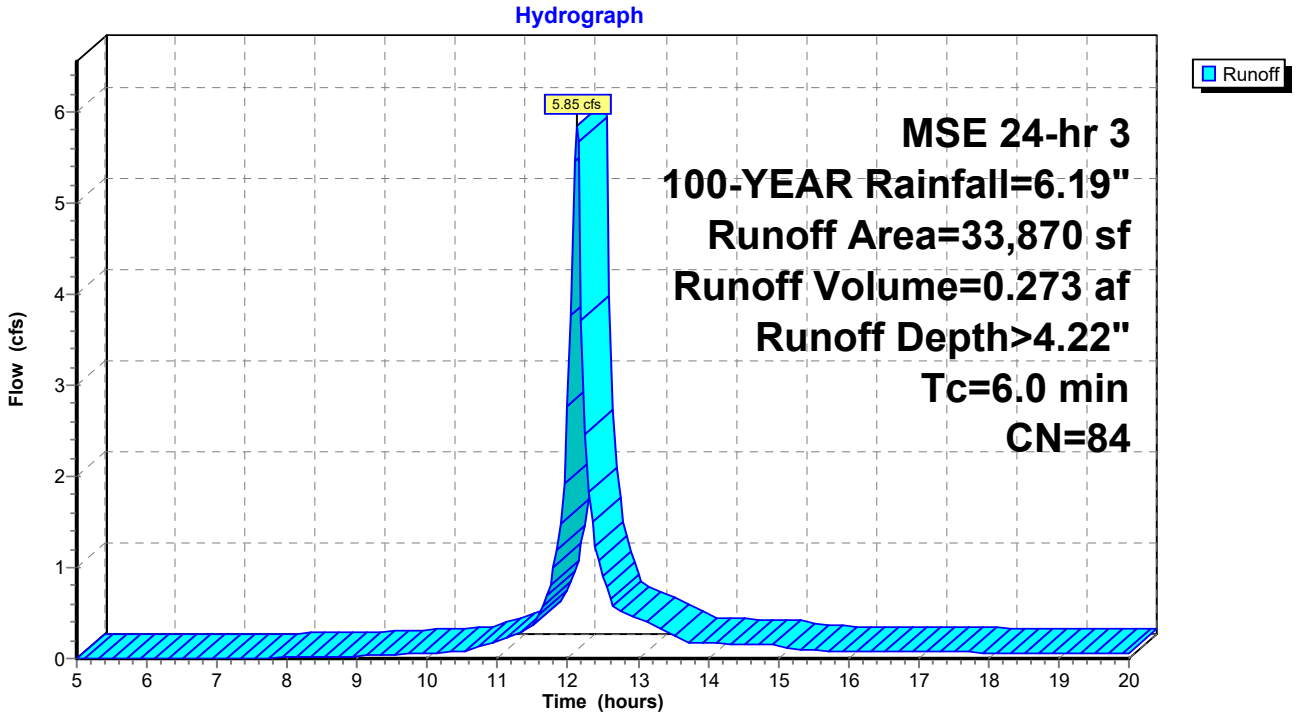
Runoff = 5.85 cfs @ 12.13 hrs, Volume= 0.273 af, Depth> 4.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	14,078	98	
*	19,792	74	
	33,870	84	Weighted Average
	19,792		58.44% Pervious Area
	14,078		41.56% Impervious Area

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

Subcatchment 22S: SEWER N



Summary for Subcatchment 23S: SEWER O

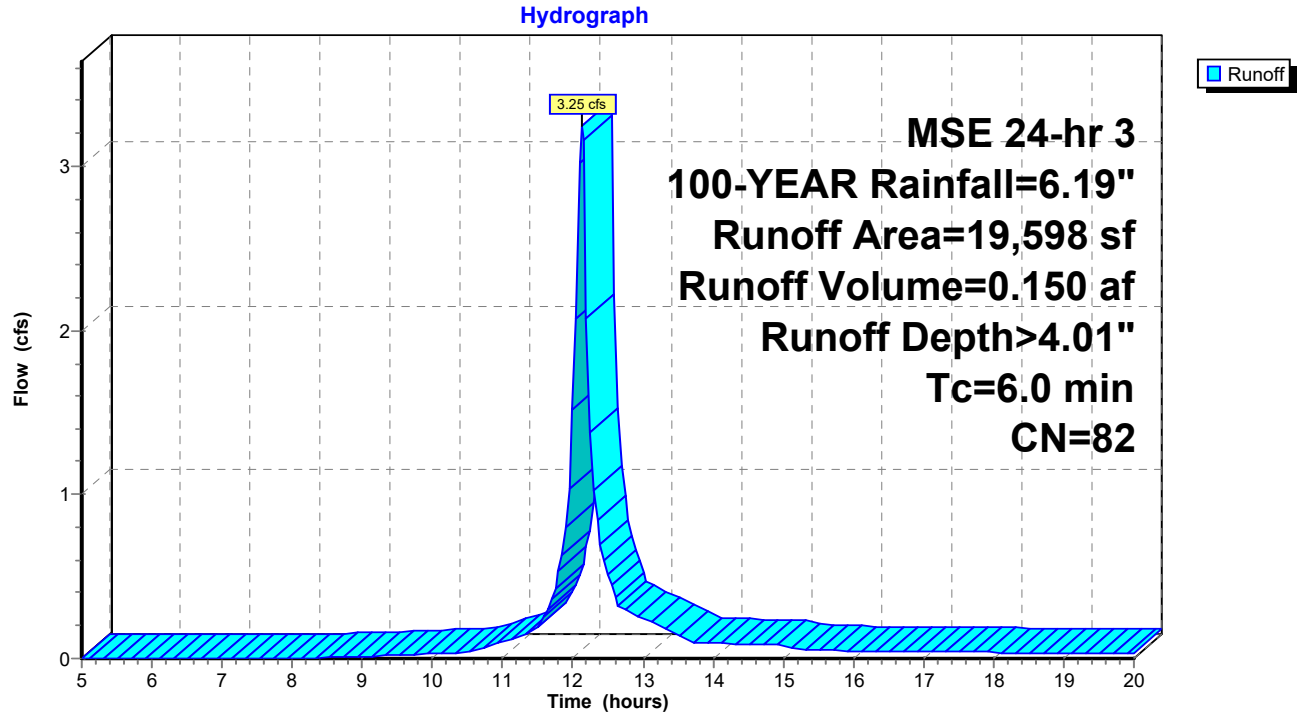
Runoff = 3.25 cfs @ 12.13 hrs, Volume= 0.150 af, Depth> 4.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	6,728	98	
*	12,870	74	
	19,598	82	Weighted Average
	12,870		65.67% Pervious Area
	6,728		34.33% Impervious Area

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

Subcatchment 23S: SEWER O



Summary for Subcatchment 24S: SEWER P

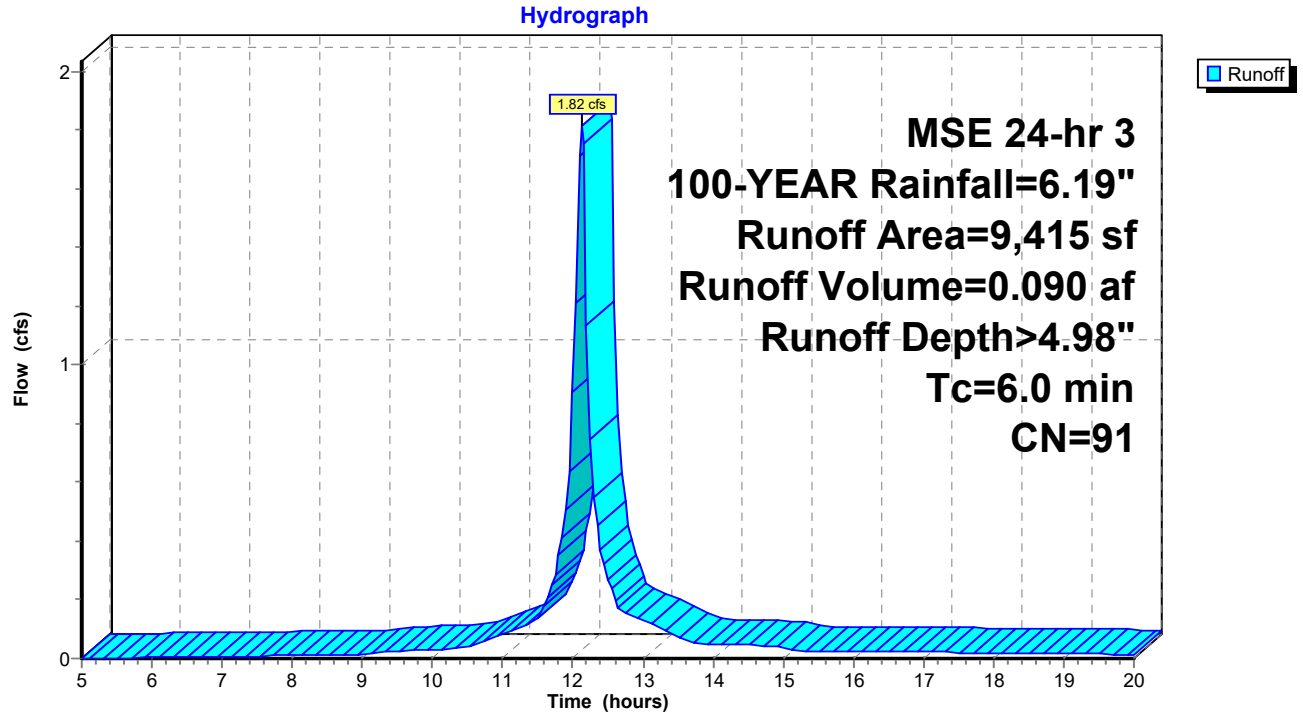
Runoff = 1.82 cfs @ 12.13 hrs, Volume= 0.090 af, Depth> 4.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	6,543	98	
*	2,872	74	
	9,415	91	Weighted Average
	2,872		30.50% Pervious Area
	6,543		69.50% Impervious Area

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

Subcatchment 24S: SEWER P



Summary for Subcatchment 25S: SEWER Q

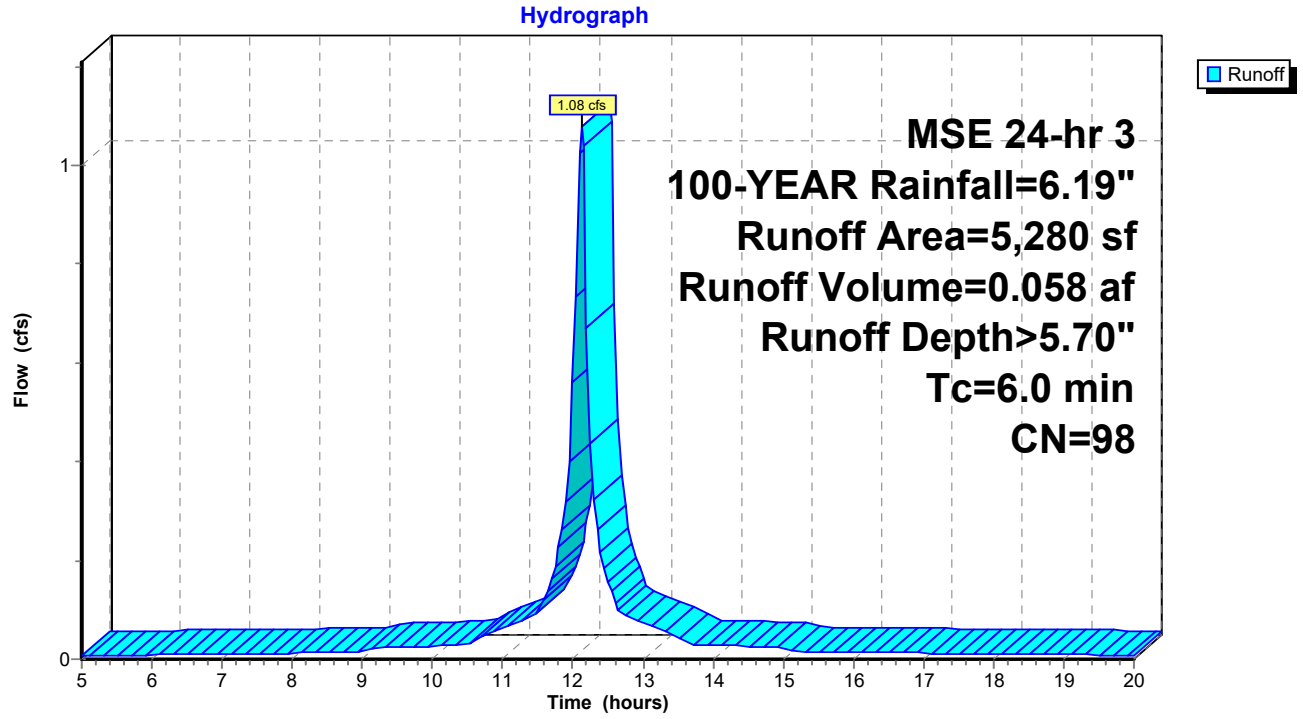
Runoff = 1.08 cfs @ 12.13 hrs, Volume= 0.058 af, Depth> 5.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	5,280	98	
	5,280		100.00% Impervious Area

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

Subcatchment 25S: SEWER Q



Summary for Subcatchment 26S: SEWER R

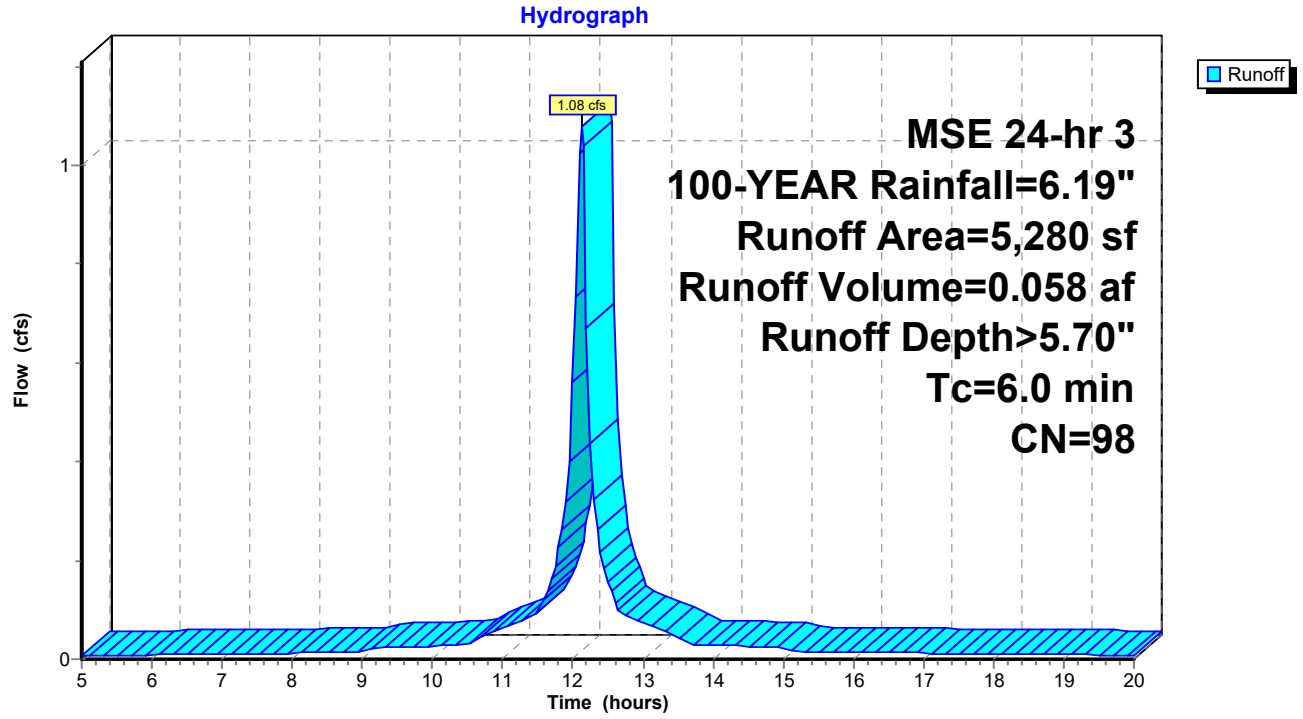
Runoff = 1.08 cfs @ 12.13 hrs, Volume= 0.058 af, Depth> 5.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	5,280	98	
	5,280		100.00% Impervious Area

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

Subcatchment 26S: SEWER R



Summary for Subcatchment 27S: SEWER STUVW

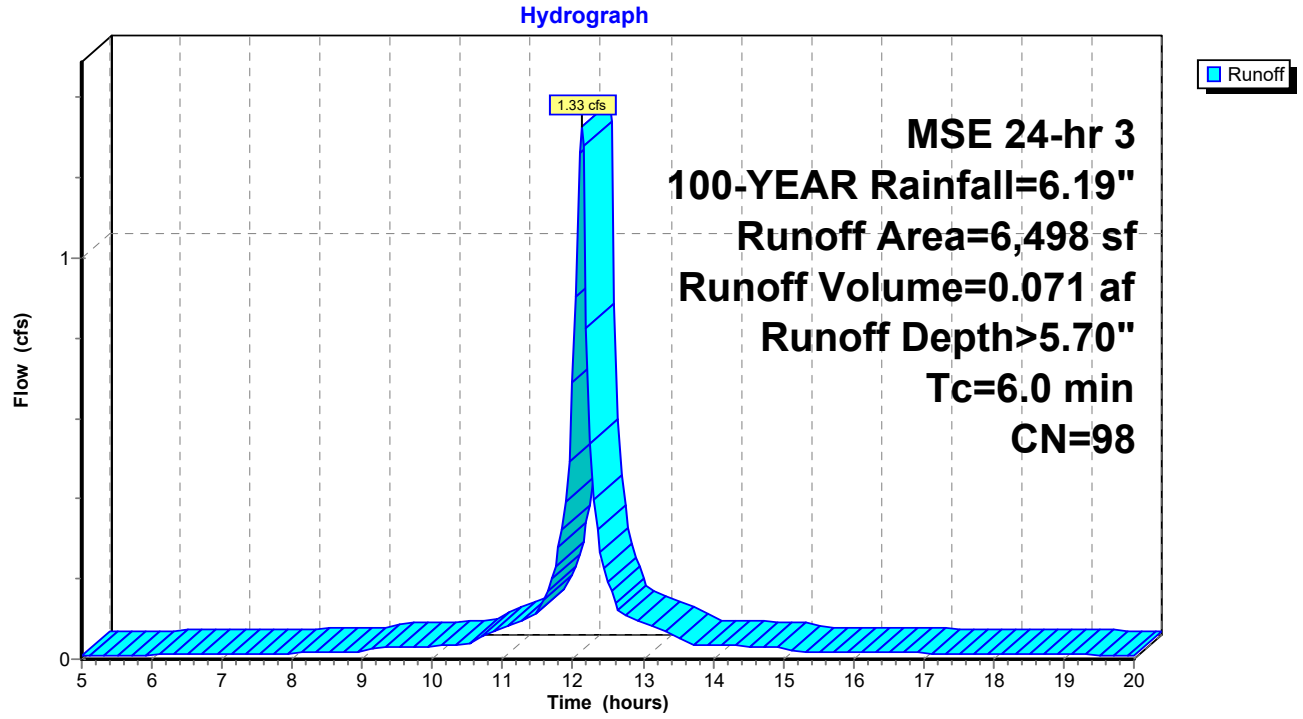
Runoff = 1.33 cfs @ 12.13 hrs, Volume= 0.071 af, Depth> 5.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-YEAR Rainfall=6.19"

	Area (sf)	CN	Description
*	6,498	98	
	6,498		100.00% Impervious Area

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

Subcatchment 27S: SEWER STUVW



Appendix H: Storm Sewer Manning's Spreadsheet

Excel Engineering Project No. 240136200 Project Name Lumin Terrace

Pipe Data				Pipe Capacity (100-yr)				
Pipe ID	Diameter (FT)	Slope (FT/FT)	Manning's n	Basin No.	Total Flow (cfs)	Total Flow (gpm)	Full Flow Capacity (cfs)	Full Flow Capacity (gpm)
A	1	0.010	0.012	A	2.52	1131	3.87	1737
B	1.5	0.010	0.012	A,B,Q	6.93	3110	11.41	5121
C	1.5	0.010	0.012	A,B,C,Q	8.99	4035	11.41	5121
D	1.5	0.010	0.012	A,B,C,D,Q	10.60	4757	11.41	5121
E	2	0.010	0.012	A,B,C,D,E,Q,T,W	17.85	8011	24.57	11029
F	0.83	0.020	0.012	F	2.67	1198	3.37	1511
G	2	0.010	0.012	A,B,C,D,E,F,G,Q,T,W	22.65	10165	24.57	11029
H	2	0.010	0.012	A,B,C,D,E,F,G,H,Q,T,W	24.23	10874	24.57	11029
I	1.00	0.003	0.012	I	1.99	893	2.12	951
J	1.5	0.003	0.012	I,J	5.29	2374	6.25	2805
K	2	0.005	0.012	I,J,K,R	9.34	4192	17.38	7798
L	2	0.010	0.012	I,J,K,L,R	12.36	5547	24.57	11029
M	2	0.010	0.012	I,J,K,L,M,R,S	15.03	6745	24.57	11029
N	2	0.010	0.012	I,J,K,L,M,N,R,S	20.88	9371	24.57	11029
O	2.5	0.010	0.012	I,J,K,L,M,N,O,R,S,V	25.46	11426	44.55	19996
P	1.5	0.010	0.012	I,J,K,L,M,N,O,P,R,S,U,V	28.61	12840	11.41	5121
DS	0.666666667	0.010	0.012	Q	1.08	485	1.31	589
DS	0.666666667	0.013	0.012	S	1.33	597	1.47	659

Full Flow Capacity based off Manning's Equation $Q = \frac{1.49}{n} R^{2/3} S^{1/2} a$

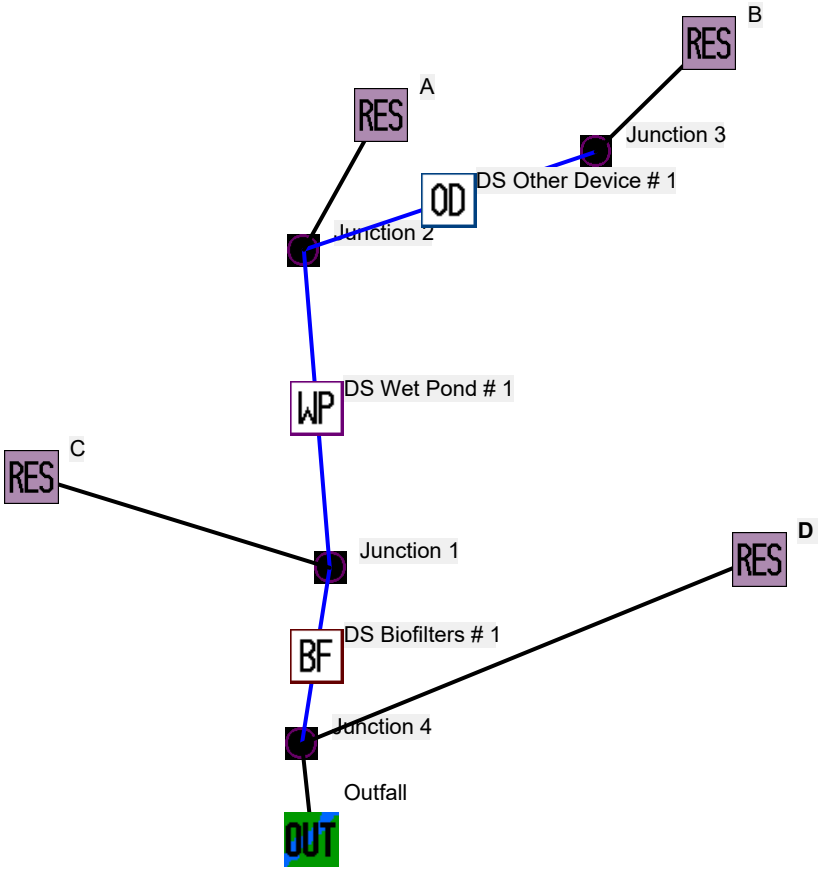
Where:
Q = Full Flow Capacity of Pipe (cfs)
n = manning's roughness coefficient
R = hydraulic radius (ft) (D/4)
s = hydraulic gradient, slope (ft/ft)
a = flow area (sq. ft.)

Typical Manning's n

HDPE	0.012
PVC	0.012
Concrete	0.013
CMP	0.024

*Total Flow calculated via TR-55 hydrologic calculations. Reference Storm Pipe Basin Map & TR-55 Calculations

Appendix I: SLAMM Input/ Output Information


RES
B
RES
A
Junction 3
OD
DS Other Device # 1
Junction 2
WP
DS Wet Pond # 1
RES
C
Junction 1
RES
D
BF
DS Biofilters # 1
Junction 4
Outfall
OUT

Data file name: \\job-files\2024 Job Files\240136200 Horizon - Lumin Terrace Multifamily - Watertown WI\240136204 Civil\storm water report and calculations\2024-10-10 SUBMITTAL\CALCS\slamm2340136200.mdb
WinSLAMM Version 10.5.0
Rain file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WisReg - Madison WI 1981.ran
Particulate Solids Concentration file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Pollutant Relative Concentration file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_GEO03.ppdx
Source Area PSD and Peak to Average Flow Ratio File: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\NURP Source Area PSD Files.csv
Cost Data file name:
If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load % Reduction calculations
Seed for random number generator: -42
Study period starting date: 01/01/81 Study period ending date: 12/31/81
Start of Winter Season: 12/02 End of Winter Season: 03/12
Date: 10-30-2024 Time: 08:24:21
Site information:

LU# 1 - Residential: A Total area (ac): 7.170
  1 - Roofs 1: 1.130 ac. Pitched Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  13 - Paved Parking 1: 2.850 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  45 - Large Landscaped Areas 1: 3.190 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

```
LU# 2 - Residential:  D     Total area (ac):  0.180
     31 - Sidewalks 1:  0.180 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 3 - Residential:  C     Total area (ac):  0.750
     31 - Sidewalks 1:  0.010 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     45 - Large Landscaped Areas 1:  0.740 ac.    Normal Silty    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz

LU# 4 - Residential:  B     Total area (ac):  0.470
     1 - Roofs 1:  0.200 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     45 - Large Landscaped Areas 1:  0.270 ac.    Normal Silty    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz


      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):   6
         Peak to Average Flow Ratio:   3.8
         Maximum flow allowed into pond (cfs):  No maximum value entered
         Outlet Characteristics:
              Outlet type:  V - notch weir
                    1.  Weir angle (degrees):   20
                    2.  Weir height from invert:   0
                    3.  Invert elevation above datum (ft):   6
              Outlet type:  Broad Crested Weir
                    1.  Weir crest length (ft):   10
                    2.  Weir crest width (ft):   10
                    3.  Height from datum to bottom of weir opening:   10.5
         Pond stage and surface area
                   Entry       Stage     Pond Area   Natural Seepage   Other Outflow
                   Number      (ft)      (acres)              (in/hr)                   (cfs)
                      0           0.00        0.0000           0.00                     0.00
                      1           0.01        0.0700           0.00                     0.00
                      2           1.00        0.0900           0.00                     0.00
                      3           2.00        0.1000           0.00                     0.00
                      4           3.00        0.1300           0.00                     0.00
                      5           4.00        0.1500           0.00                     0.00
                      6           5.00        0.1600           0.00                     0.00
```

7	6.00	0.3000	0.00	0.00
8	7.00	0.4000	0.00	0.00
9	8.00	0.4600	0.00	0.00
10	9.00	0.5300	0.00	0.00
11	10.00	0.5900	0.00	0.00
12	11.00	0.6400	0.00	0.00
13	11.50	0.6700	0.00	0.00

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

Control Practice 3: Biofilter CP# 1 (DS) - DS Biofilters # 1
   1. Top area (square feet) = 15000
   2. Bottom aea (square feet) = 3300
   3. Depth (ft):   8.5
   4. Biofilter width (ft) - for Cost Purposes Only: 10
   5. Infiltration rate (in/hr) = 0.5
   6. Random infiltration rate generation? No
   7. Infiltration rate fraction (side):   1
   8. Infiltration rate fraction (bottom):   1
   9. Depth of biofilter that is rock filled (ft) 0
   10. Porosity of rock filled volume = 0
   11. Engineered soil infiltration rate: 0
   12. Engineered soil depth (ft) = 0
   13. Engineered soil porosity = 0
   14. Percent solids reduction due to flow through engineered soil = 0
   15. Biofilter peak to average flow ratio = 3.8
   16. Number of biofiltration control devices = 1
   17. Particle size distribution file: Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
        Soil Data   Soil Type Fraction in Eng. Soil
        Biofilter Outlet/Discharge Characteristics:
       Outlet type: Broad Crested Weir
              1. Weir crest length (ft):   10
              2. Weir crest width (ft):   10

3. Height of datum to bottom of weir opening: 7.5

Outlet type: Surface Discharge Pipe

1. Surface discharge pipe outlet diameter (ft): 0.67
2. Pipe invert elevation above datum (ft): 1
3. Number of surface pipe outlets: 1

SLAMM for Windows Version 10.5.0

Data file name: \\job-files\2024 Job Files\240136200 Horizon - Lumin Terrace Multifamily - Watertown WI\240136204 Civil\storm water report and calculations\2024-10-10 SUBMITTAL\CALCS\slamm2340136200.mdb
Data file description:
Rain file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WisReg - Madison WI 1981.ran
Particulate Solids Concentration file name:
J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_SL06 Dec06.rsvx
Pollutant Relative Concentration file name:
J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_GEO03.ppdx
Residential Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name:
J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter 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:
J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\NURP Source Area PSD Files.csv
Cost Data file name:
If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load % Reduction calculations
Seed for random number generator: -42
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: 10-30-2024 Time of run: 08:23:55
Total Area Modeled (acres): 8.570
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:	384604	-	100.9	2423	-
Outfall Total with Controls:	129292	66.38%	31.23	252.0	89.60%
Annualized Total After Outfall Controls:	129647			252.7	

. Percent Solids Reduction due to Engineered Media Not Used

Appendix J: USLE Map and Calculations

USLE

EXCEL

Always a Better Plan

100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT

LUMIN TERRACE

JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES

NOT FOR CONSTRUCTION

JOB NUMBER

240136200

SHEET NUMBER

Soil Loss & Sediment Discharge Calculation Tool

for use on Construction Sites in the State of Wisconsin

WDNR Version 2.0 (06-29-2017)

WISCONSIN DEPT. OF NATURAL RESOURCES

YEAR 1

Developer:

Project:

Date: 11/08/24

County: Jefferson

Version 1.0

Activity (1)	Begin Date (2)	End Date (3)	Period % R (4)	Annual R Factor (5)	Sub Soil Texture (6)	Soil Erodibility K Factor (7)	Slope (%) (8)	Slope Length (ft) (9)	LS Factor (10)	Land Cover C Factor (11)	Soil loss A (tons/acre) (12)	SDF (13)	Sediment Control Practice (14)	Sediment Discharge (t/ac) (15)
Bare Ground	04/01/25	06/08/25	20.4%	140	Sandy Loam	0.28	5.7%	223	0.94	1.00	7.5	0.923	Inlet Protection	4.9
End	06/08/25	-----	-----	-----	-------	-----	5.7%	223	0.94	------	-----	0.000		0.0
		-----	-----	-----	-------	-----	5.7%	223	0.94	-----	-----	0.000		0.0
		-----	-----	-----	-------	-----	5.7%	223	0.94	-----	-----	0.000		0.0
		-----	-----	-----	-------	-----	5.7%	0	-----	-----	-----	0.000		0.0
		-----	-----	-----	-------	-----	0.0%	0	-----	-----	-----	0.000		0.0
										TOTAL	**7.5**		**TOTAL**	**4.9**
													% Reduction Required	**NONE**

Notes:

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

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

Recommended Permanent Seeding Dates:

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

Designed By:	
Date	

Appendix K: Post Construction Operation and Maintenance Plan

The owner of the property affected shall inspect and maintain the following stormwater management systems frequently, especially after heavy rainfalls, but at least on an annual basis unless otherwise specified.	
STORMWATER FACILITY	**TYPE OF ACTION**
1. Lawn and Landscaped Areas	All lawn areas shall be kept clear of any materials that block the flow of stormwater. Rills and small gullies shall immediately be filled and seeded or have sod placed in them. The lawn shall be kept mowed, tree seedlings shall be removed, and litter shall be removed from landscaped areas.
2. Rip Rap	All rip rap showing signs of erosion or scour shall be repaired, reinforced, and revegetated immediately. Rip rap should be kept clean of vegetation and sediment. All rip rap shall be repaired to the construction plan requirements.
3. Catch Basin/Curb Inlet Grates	The grate openings to these structures must be cleared of any clogging or the blocking of stormwater flow from getting into the stormwater conveyance system of any kind.
4. Retention/Detention Basins	Trash racks, standpipes, outlet structures, inlet and outlet pipes, and anti vortex devices shall be kept clear of debris. Non-structurally sound devices shall be replaced. Floating litter and algae shall be removed monthly. All grassed areas, embankments, and flow control devices showing signs of erosion shall be repaired, reinforced, and revegetated immediately to the original plan requirements. Dry basins shall be mowed no less than twice per year at a height of no less than 3 inches. Grasses shall not be allowed to grow to a height that permits branching or bending. Mowing shall only take place when the ground is dry and able to support machinery. Every 5 years, the elevations of the pond bottom shall be surveyed to determine the permanent pool depth and sediment depth in the pond. When silt has accumulated three feet from the original design depth elevation of the pond, the pond shall be cleaned out and restored back to the original design depth of a minimum of 5’ from the normal water elevation. Cleaning, removal, and deposit of silt from the detention pond shall be done by means and methods acceptable to the Wisconsin Department of Natural Resources.
5. Infiltration Basin	Inspections shall occur at minimum every 3 months. Inspections shall include the spreader, overflow spillway, and the condition of vegetation. To maintain vegetation, the first mowing of newly planted seed shall occur once it reaches a height of 10 to 12 inches. Mowing shall reduce the height of plants to 5 to 6 inches. After establishment, if burning cannot be accommodated, mowing shall occur once in the fall after November 1st. Mowing shall reduce the height of plants to 5 to 6 inches. If burning can take

	place, beginning the second year, burning shall occur in the early spring prior to May 1st, or in late fall after November 1st. Burning shall be done two consecutive years and then up to three years can pass before the next burning. Under no circumstances shall burning occur every other year. If standing water is observed over 50% of the basin floor 3 days after rainfall, the basin is considered clogged. If this ever occurs, remove the top 2 to 3 inches, chisel plow and add topsoil and compost. If deep tilling is used, the basin shall be drained and soils dried to a depth of 8 inches. Replant with turf grass. If clogging again occurs, the basin shall be replanted with prairie style vegetation. During winter conditions, all draw down devices in the pond shall be opened to discourage the infiltration of high levels of chlorides. For enclosed basins, the use of chloride deicers shall be limited in the upland areas of the basin. Trash shall be removed as quickly as possible once observed.
6. Record of Maintenance	The operation and maintenance plan shall remain onsite and be available for inspection when requested by WDNR. When requested, the owner shall make available for inspection all maintenance records to the department or agent for the life of the system.

FRONT ELEVATION

SCALE: 1/8" = 1'-0"

REAR ELEVATION

SCALE: 1/8" = 1'-0"

SIDE ELEVATION

SCALE: 1/8" = 1'-0"

SIDE ELEVATION

SCALE: 1/8" = 1'-0"

ARCHITECTURAL EXTERIOR ELEVATIONS

EXCEL
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT

LUMIN TERRACE

JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES
OCT. 14, 2024
NOV. 7, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

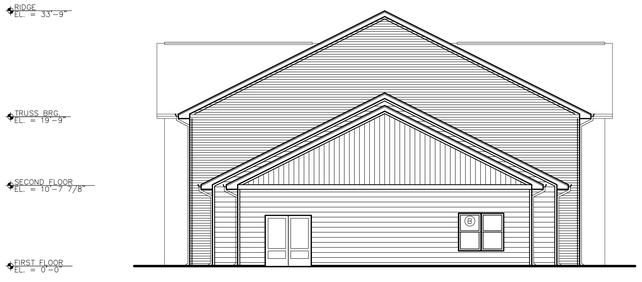
SHEET NUMBER
A2.0

FRONT ELEVATION

SCALE: 1/8" = 1'-0"

REAR ELEVATION

SCALE: 1/8" = 1'-0"



SIDE ELEVATION

SCALE: 1/8" = 1'-0"

SIDE ELEVATION

SCALE: 1/8" = 1'-0"

ARCHITECTURAL EXTERIOR ELEVATIONS

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PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT

LUMIN TERRACE

JOHNSON STREET • WATERTOWN, WI

PROFESSIONAL SEAL

PRELIMINARY DATES
NOV. 7, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
240136200

SHEET NUMBER
A2.1

THE CITY OF WATERTOWN

EROSION CONTROL AND STORM WATER RUNOFF PERMIT APPLICATION

106 JONES STREET
PO BOX 477
WATERTOWN, WI 53094
(920) 262-4060

FOR OFFICE USE ONLY

Permit #_____ Date_____

Permit Effective Date_____

Permit Expires_____

Amount Paid (Calculations on Page 2 of this permit):_____

Payment Method (or Check #)_____

700 Hoffman Drive		
Project Address		
Horizon - Lumin Terrace Multifamily		s.kwiecinski@horizondbm.com
Project Name and Description		**Applicant Email**
Horizon Development Group, Inc.	5201 E Terrace Dr Suite 300, Madison, WI 53718	608-354-0820
Applicant	**Address**	**Phone**
Hoffman Matz LLC	600 E Main St Suite 200, Watertown, WI 53094	920-390-4000
Landowner	**Address**	**Phone**

Proposed:

Redeveloped/Existing Impervious Area= 37,255 Square Feet

New Impervious Area= 144,666 Square Feet

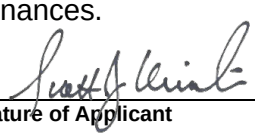
Total Land Disturbance Area= 387,800 Square Feet
(existing pervious or impervious, disturbed this project)

Check All That Applicable:

- [X] Land Disturbing/Erosion Control Permit (Section 288, Article I)
- [X] Storm Water Runoff Control Permit (Section 288, Article II):
  - [X] Plan Submittal Checklist
  - [X] Site and Grading Plan
  - [ ] Financial Guarantee (up to 120% of the estimated cost of construction and maintenance)
  - [X] Storm Water Calculations
  - [X] Maintenance Agreement

I, Scott Kwiecinski , hereby certify that all the information herein and attached hereto is Correct, that I understand the provisions of City of Watertown's Erosion and Sediment Control Ordinance and Program (Section 288, Article I) and/or Storm Water Runoff Control Ordinance and Program (Section 288, Article II), and that I accept responsibility for carrying out, in full compliance with all pertinent City Ordinances, the Erosion and Sediment Control Plan, and the Storm Water Runoff Control Plan for the above-referenced project as approved by the City. I understand that the Permit Application Fee is non-refundable and must be paid at the time of permit submittal.

I further grant the right-of-entry onto this property, as described above, to the designated personnel of the City of Watertown for the purpose of inspecting and monitoring for compliance with the aforesaid Ordinances.



Signature of Applicant

November 7, 2024
Date

Scott Kwiecinski
Print Name

Approved:

City of Watertown Official _____ Date _____

City of Watertown Official _____ Date _____

FEE CALCULATIONS

Erosion Control Plan Review

Total Disturbed Area (this project):	387,800	Square feet x	0.002	$ per Square Foot =	$ 775.60
Total New Impervious Area (this project):	144,666	Square feet x	0.003	$ per Square Foot =	$ 434.00
Total Redeveloped Impervious Area (this project):	37,255	Square feet x	0.0015	$ per Square Foot =	$ 55.88
				Total Erosion Fee =	$ 1,265.48

Storm Water Runoff Control

Total Disturbed Area (this project):	387,800	Square feet x	0.002	$ per Square Foot =	$ 775.60
Total New Impervious Area (this project):	144,666	Square feet x	0.003	$ per Square Foot =	$ 434.00
Total Redeveloped Impervious Area (this project):	37,255	Square feet x	0.0015	$ per Square Foot =	$ 55.88
				Total Storm Water Fee =	$ 1,265.48

Erosion Control Inspections**

- 3,000 Square Feet > 1 Acre: $55 x _____ months site will be disturbed = $ _____
- 1 Acre > 5 Acres: $110 x _____ months site will be disturbed = $ _____
- 5 Acres or more: $165 x 12 months site will be disturbed = $ 1,980.00

Long Term Maintenance Agreement County Recording Fee

$30.00

Base Fee = $125.00

Total Permit Fee (Erosion+Stormwater+Inspection+Recording+Base)= $ 4,665.96

Permit applies for:

- Disturbing or grading more than 3,000 square feet of land
- Excavating and/or filling more than 400 cubic yards of material

**Erosion control inspections completed by a 3rd party consultant may be charged at consultant rates.

THE CITY OF WATERTOWN

Construction Site Erosion Control Inspections

City staff or a consultant conduct erosion control inspections on construction sites to meet Section 2.4.4 of the Wisconsin Department of Natural Resources (WDNR) Municipal Separate Storm Sewer System (MS4) Permit No. WI-S050075-3 and Section § 288.11-1. Inspection. of the City of Watertown (City) Municipal Code.

Per City municipal code § 288-11., Fee Schedule: *The fees referred to in other sections of this article shall be established by the Common Council and may from time to time be modified by resolution. A schedule of the fees established by the Common Council shall be available for review in City Hall. The fee shall cover all City and consultant costs to review the permit application and perform the required site inspections.*

(Single & Two-Family Residential Building Permit sites < 1 acre are exempt from this erosion control inspection and inspection fee requirement. Erosion control on Single & Two-Family Residential Building sites < 1 acre is reviewed, inspected and enforced through the City's Single & Two-Family Residential Building Permit.)

Erosion Control Inspections

Permit-Holders: Any construction site with 3,000 square feet or more of land disturbance within the City is required to obtain an Erosion Control and Stormwater Permit from the City Engineering Department. The Erosion Control and Stormwater Permit requires permit holders to conduct erosion control inspections on their sites:

- Once per week, and
- After every ½-inch rain event

Permit holders are requested to send the weekly and post – ½ inch rain event inspection reports to the City at maureenm@cityofwatertown.org

City Inspectors: City erosion control inspectors also complete erosion control inspections to ensure the sites are in compliance with the Erosion Control and Stormwater Permit and related technical standards. City inspections on conducted:

- Within the 1st two weeks of construction*
- Monthly
    - Weekly if deficiencies are noted on site, until erosion control measures are properly installed and maintained
- Final inspection after construction is done

*Permit holders are requested to notify the City Engineering Department when construction starts on site at 920-262-4060 or maureenm@cityofwatertown.org.

Erosion Control Inspection Fees

An erosion control inspection fee is included with the Erosion Control and Stormwater Permit Fee, to be paid at the time the permit application is submitted. The erosion control inspection fee is calculated based on the following rates** multiplied by the estimated number of months the site will be under construction:

- 3,000 Square Feet > 1 Acre: $55 x _____ months site will be disturbed = $_____
- 1 Acre > 5 Acres: $110 x _____ months site will be disturbed = $_____
- 5 Acres or more: $165 x _____ months site will be disturbed = $_____

Example: a 4.5-acre site that will be under construction from April through October ($110 x 7 months) = $770

**Erosion control inspections completed by a 3rd party consultant may be charged at consultant rates.

The City implements a Construction Site Pollutant Control Program to engage residents, private property owners, developers, engineers and other interested parties in activities with the goal of reducing the amount of pollution from active construction sites that enters local streams, lakes and wetlands. This program is implemented per Section 2.4 of the WDNR MS4 Permit No. WI-S050075-3. The City's Construction Site Stormwater Runoff Program uses permitting, inspections, enforcement and education measures to reduce the amount of Total Suspended Solids (TSS), Total Phosphorus (TP) and other pollutants from reaching the Rock River, Silver Creek, Silver Creek Pond, Lake Victoria, Heiden Pond, and other local tributaries and wetlands through stormwater runoff.

Additional information on Construction Site Stormwater Management and the City's Stormwater Management Program can be found at:

City of Watertown Stormwater Utility:
https://www.ci.watertown.wi.us/departments/stormwater_information.php

Wisconsin Construction Site Erosion Control Field Guide:

https://dnr.wi.gov/topic/stormWater/documents/WIconstECfieldGuide.pdf

Protect WI Waterways:

https://protectwiwaterways.org/learn-about-stormwater/construction-and-stormwater/

Horizon Development - Location Map

City Boundary

Common Area

Parcels Lines

Address Points

THE CITY OF WATERTOWN
Opportunity runs through it.

N

City of Watertown Geographic Information System

Scale: 1:3,421
SCALE BAR = 1"

Printed on: Nove
Author:

189

Shapes on map represent general recommendations for future land use. Actual boundaries between different land use types and associated zoning districts may vary somewhat from representations on this map. Not all lands shown in a future developed land use category are immediately appropriate for development, rezoning, or subdivision.
Environmental Corridors depicted on this map use generalized boundaries of environmental features identified by the DNR. Actual Environmental Corridor boundaries are to be refined through detailed on-site investigation.

City of Watertown Growth Area*

City of Watertown And Town of Emmet Intergovernmental Agreement**

Horizon Development Location

Town of Shields

Town of Emmet

Town of Watertown

Dodge County

Jefferson County

Rock River

Silver Creek

Welsh Rd

Provimi Rd

N Water St

2nd Street Rd

Hancock Rd

Jumeau St

N 4th St

Church St

W Main St

S Water St

Hall St

West St

Western Ave

Milford St

River Dr

S 3rd St

S 12th St

Summit Ave

Clark St

Jefferson Rd

South Rd

River Rd

Air Park Dr

Beryl Dr

High Rd

Turf Dr

Gypsy Rd

Horseshoe Rd

Hilltop Rd

Gophe

Q R M K T A Y X D E CW

Future Land Use Urban Area

Map 6b

City of Watertown Comprehensive Plan

City/Town IGA**
- City Growth Area
- City Periphery Areas

*Each "Planned Mixed Use Area" may include mix of:
1. Office
2. Multi-Family Residential
3. Mixed Industrial
4. Commerical Services/Retail
5. Institutional
6. Parks & Recreation

**"Planned Neighborhoods" should include a mix of the following:
1. Single-Family - Sewered (predominant land use)
2. Two-family Residential
3. Multi-Family Residential
4. Institutional
5. Neighborhood Mixed Use
6. Parks & Recreation

***Each "Riverside Mixed Use Area" may include mix of:
1. Office
2. Single-Family - Sewered
3. Two-Family Residential
4. Multi-Family Residential
5. Commerical Services/Retail
6. Institutional
7. Parks & Recreation

- City of Watertown
- Town Boundary
- Parcel
- Railroad
- Watertown Urban Service Area
- Watertown Long Range Growth Area

Airport Height Limitations
- Maximum Building Elevation b/t 865 and 968 ft
- Maximum Building Elevation b/t 968 and 1005 ft

Land Use Categories
- Agricultural
- Single-Family Residential - Unsewered
- Single-Family Residential - Sewered
- Two-Family Residential
- Multi-Family Residential
- Planned Neighborhood**
- Institutional
- Airport
- Rights-of-Way
- Neighborhood Mixed Use
- Planned Mixed Use*
- Central Mixed Use
- Riverside Mixed Use***
- Mixed Industrial
- Parks & Recreation
- Environmental Corridor
- Surface Water

Miles: 0 0.25 0.5 1

Draft: August 7, 2019
Source: WisDNR, FEMA, City of Watertown, Dodge Co. LIO & Jefferson Co. LIO, V&A

THE CITY OF WATERTOWN
Opportunity runs through it.

VANDEWALLE & ASSOCIATES INC.
Shaping places, shaping change

THE CITY OF WATERTOWN

Main Office 920-262-4060
Brian Zirbes 920-262-4041
Mark Hady 920-342-0986
Nikki Zimmerman 920-262-4045
Dell Zwieg 920-262-4042
Doug Zwieg 920-262-4062
Dennis Quest 920-262-4061

TO: Plan Commission
DATE: December 9th, 2024
SUBJECT: 848 Milford Street – Preliminary Plat

A request by Gremar LLC, agent for RJAB LLC, for review of the 'Edge Field' Preliminary Plat within the City of Watertown. Parcel PIN(s): 291-0815-0741-061.

SITE DETAILS:
Acres: 20
Current Zoning: Single Family Residential (SR-4)
Existing Land Use: Vacant Land
Future Land Use Designation: Planned Neighborhood

BACKGROUND & APPLICATION DESCRIPTION:
The applicant is proposing to create a 54 Lot subdivision plat with a mixture of Single-Family and Twin-Home Lots. Lots 11 thru 16 and lots 29 thru 34 are proposed for Twin Home Development, the remaining 42 lots are proposed for Single-Family Development. In addition, two Outlots are proposed with Outlot 2 being reserved as a future park. The preference of the Parks and Recreation Director is that Outlot 2 not be reserved for park purposes. A proposed park dedication in the Hepp Heights Subdivision at the north end of Ryan Ridge is the preferred park location. The proposed platted lots are located within the Airport Approach Protection Zone with a maximum elevation of 968 feet above mean sea level for all buildings and vegetation. A note indicating this elevation will need to be added to the plat. The plat will dedicate extensions of Linda Lane and Ryan Ridge to the south ending at a 'T' intersection with a stub street to the south. In addition, three other streets will also be dedicated by the plat: the aforementioned stub street to the south, a stub street to the west, and an east-west cul-du-sac that will connect with Linda Lane to the east. Names will need to be assigned to each of these streets. A portion of Milford St in the southeast portion of the property will also need to be dedicated by this plat. A rezoning to Two-Family Residential (TR-6) will be required for the proposed Twin Home Lots.

STAFF EVALUATION:

Site Plan Review Committee:
See Minutes of December 9th, 2024.

Wisconsin Statutes
Per the Wisconsin Statues it is the role of the Plan Commission to review and recommend to Council all plats of land within the City.

Per Wisconsin State Statute § 62.23(5):

(5) ***Matters referred to city plan commission.*** *The council, or other public body or officer of the city having final authority thereon, shall refer to the city plan commission, for its consideration and report before final action is taken by the council, public body or officer, the following matters: The location and architectural design of any public building; the location of any statue or other memorial; the location, acceptance, extension, alteration, vacation, abandonment, change of use, sale, acquisition of land for or lease of land for any street, alley or other*

public way, park, playground, airport, area for parking vehicles, or other memorial or public grounds; the extension, abandonment or authorization for any public utility whether publicly or privately owned; ***all plats of lands in the city*** *or within the territory over which the city is given platting jurisdiction by ch. 236; the location, character and extent or acquisition, leasing or sale of lands for public or semipublic housing, slum clearance, relief of congestion, or vacation camps for children; and the amendment or repeal of any ordinance adopted pursuant to this section. Unless such report is made within 30 days, or such longer period as may be stipulated by the common council, the council or other public body or officer, may take final action without it.*

Land Use

Within the City Code, Chapter 545 Subdivision of Land outlines the procedures and requirements for preliminary plat review of subdivisions within the City. [*per § 545-13*] Under the preliminary platting procedures, the preliminary plat shall be submitted to the appropriate County Planning Agency and the Wisconsin Department of Administration (WDOA) for review, comment, and approval. Comments from these agencies are below:

Jefferson County Comments:
The County listed three comments. Provide labels on the radii of curves, label the City limits, and add street names.

State Agency Comments:
No State Agency objections or certifications received as of December 3rd, 2024. If the WDOA fails to act by December 20th, 2024 (30 days deadline), they shall be deemed to have no objections and shall certify the plat. [*per § 545-13A(6)*] Comments are expected on December 18th, 2024 per WDOA.

Within the City Code, Chapter 545 Subdivision of Land outlines the preliminary platting requirements for platting of subdivisions within the City. [*per § 545-13B*] Under the preliminary platting requirements, the preliminary plat shall include specific information on the description, existing conditions, and proposed conditions of the area to be platted. Below are additional informational items needed on the preliminary plat:

1. All streets names.
2. Dedication of Milford St / CTH A ROW and the creation of a third outlot to include the small remnant property east of the dedicated ROW.
3. Twin Lots need notes that pair up each set of twin lots.
4. Subsurface soil, rock, and water conditions including depth to bedrock and average depth to groundwater.
5. Stormwater BPM locations, drainage easements, drainage restrictions, and basement/groundwater considerations.
6. The preliminary plat is located within the Airport Approach Protection Zone with maximum elevations of 968 feet above mean sea level for all buildings and vegetation. Maximum elevations need to be added to the preliminary plat.

Also, under the preliminary platting procedures, the Plan Commission shall recommend approval, denial, or approval with conditions of the plat to the Common Council [*per § 545-13A(7)*].

PLAN COMMISSION OPTIONS:

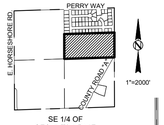
The following possible options for the Plan Commission:
1. Deny the preliminary plat.
2. Approve the preliminary plat without conditions.
3. Approve the preliminary plat with conditions as identified by the Plan Commission:
   a. Add all road names to the plat.
   b. Add to the plat a dedication of Milford St / CTH A ROW and a third outlot to include the small remnant property east of the dedicated ROW.

c. Add to the plat notes indicating which lots are paired up for twin homes.
d. Add subsurface soil, rock, and water conditions including depth to bedrock and average depth to groundwater to the plat.
e. Add stormwater BPM locations, drainage easements, drainage restrictions, and basement/groundwater considerations to the plat as detailed at the Site Plan Review Committee.
f. Add Airport Approach Protection Zone maximum elevations to the plat.
g. Obtain Erosion Control and Storm Water Runoff Permit review and approval.
h. Perform a Traffic Impact Analysis on the plat and surrounding area.
i. Include an extension of River Road west to Ryan Ridge on the plat to provide a connection to Milford St/CTH A.
j. Apply for rezoning of Twin Home lots to Two-Family Residential (TR-6) to run concurrently with Final Plat approval.
k. Remove future park designation from Outlot 2.

ATTACHMENTS:

- Application materials.

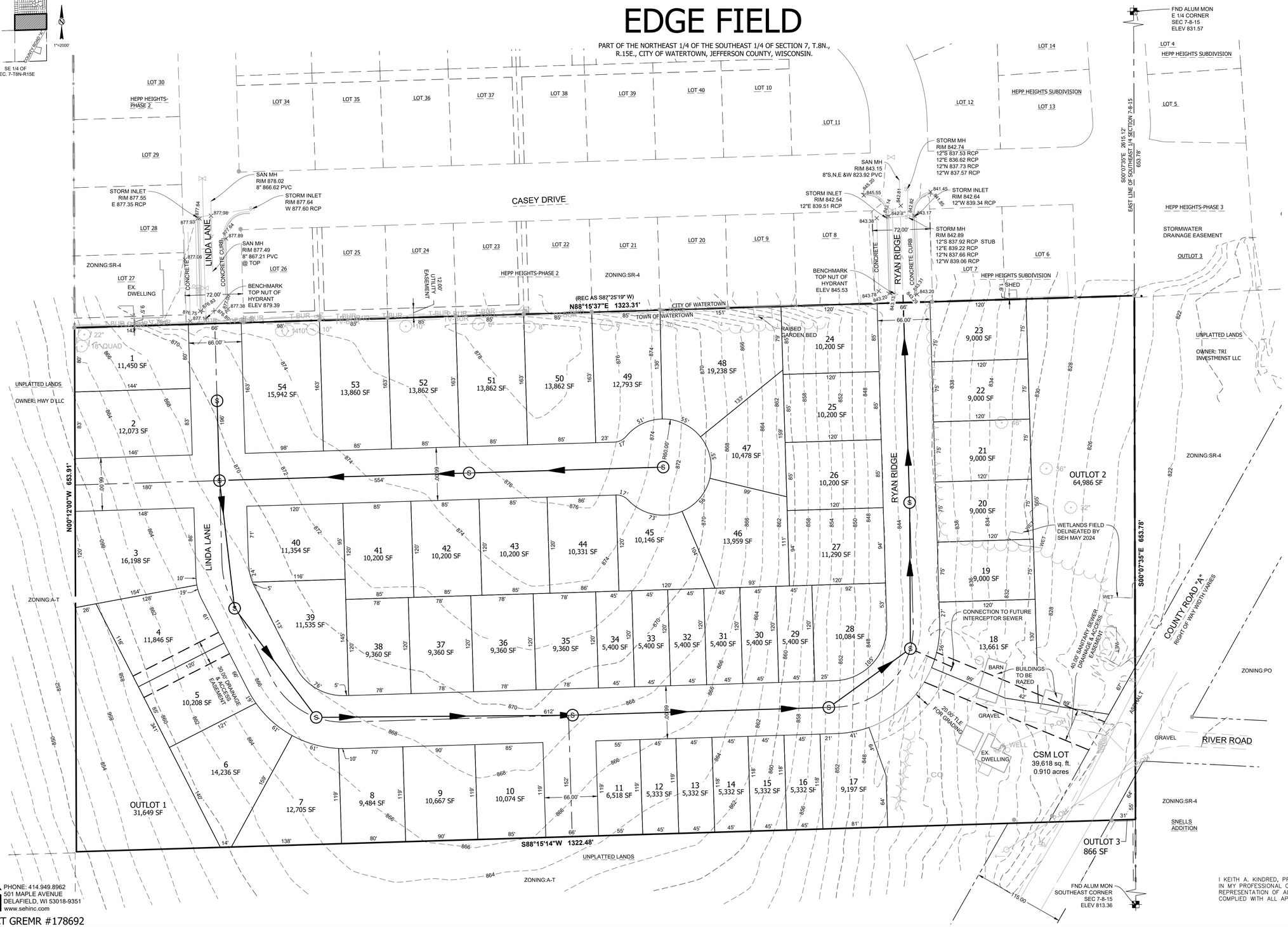
LOCATION MAP



PRELIMINARY PLAT OF

EDGE FIELD

PART OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 7, T.8N., R.15E., CITY OF WATERTOWN, JEFFERSON COUNTY, WISCONSIN.



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ANGLES ARE COMPUTED TO THE NEAREST 00°00'00.5" AND MEASURED TO THE NEAREST 00°00'05"

SCALE: 1" = 60'

0 30 60 120

SURVEYOR:
KEITH A. KINDRED, PLS S-2082
SEH, INC.
501 MAPLE AVE.
DELAFIELD, WI 53018
(414) 949-8919
KKINDRED@SEHINC.COM

SURVEY FOR:
GREMAR LLC
435 VILLAGE WALK LANE 2A
JOHNSON CREEK, WI 53038
920-543-5403

WISCONSIN
KEITH A.
KINDRED
S-2082
OSHKOSH, WI
LAND SURVEYOR

DATED THIS 7TH DAY OF OCTOBER, 2024.

I KEITH A. KINDRED, PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT IN MY PROFESSIONAL OPINION PRELIMINARY PLAT IS A CORRECT REPRESENTATION OF ALL EXISTING LAND DIVISION FEATURES, AND THAT I HAVE COMPLIED WITH ALL APPLICABLE ORDINANCES IN PREPARING THE SAME.

SEH
PHONE: 414.949.8962
501 MAPLE AVENUE
DELAFIELD, WI 53018-9351
www.sehinc.com

PROJECT GREMR #178692

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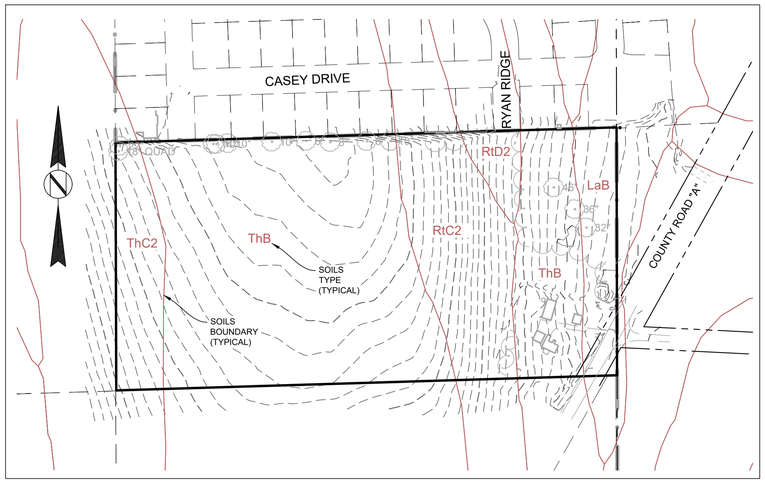

SOILS MAP

SCALE:1"=200'

LEGEND

- SANITARY SEWER AND MANHOLE
- CLEANOUT
- WATER MAIN, HYDRANT, VALVE AND CURB STOP
- STORM SEWER, MANHOLE AND CATCH BASIN
- CULVERT
- BURIED FIBER OPTIC CABLE AND MANHOLE
- BURIED PHONE CABLE, PEDESTAL AND MANHOLE
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- LIGHT POLE
- SIGN
- DECIDUOUS AND CONIFEROUS TREE
- EDGE OF WOODED AREA
- WETLAND
- WOOD FENCE

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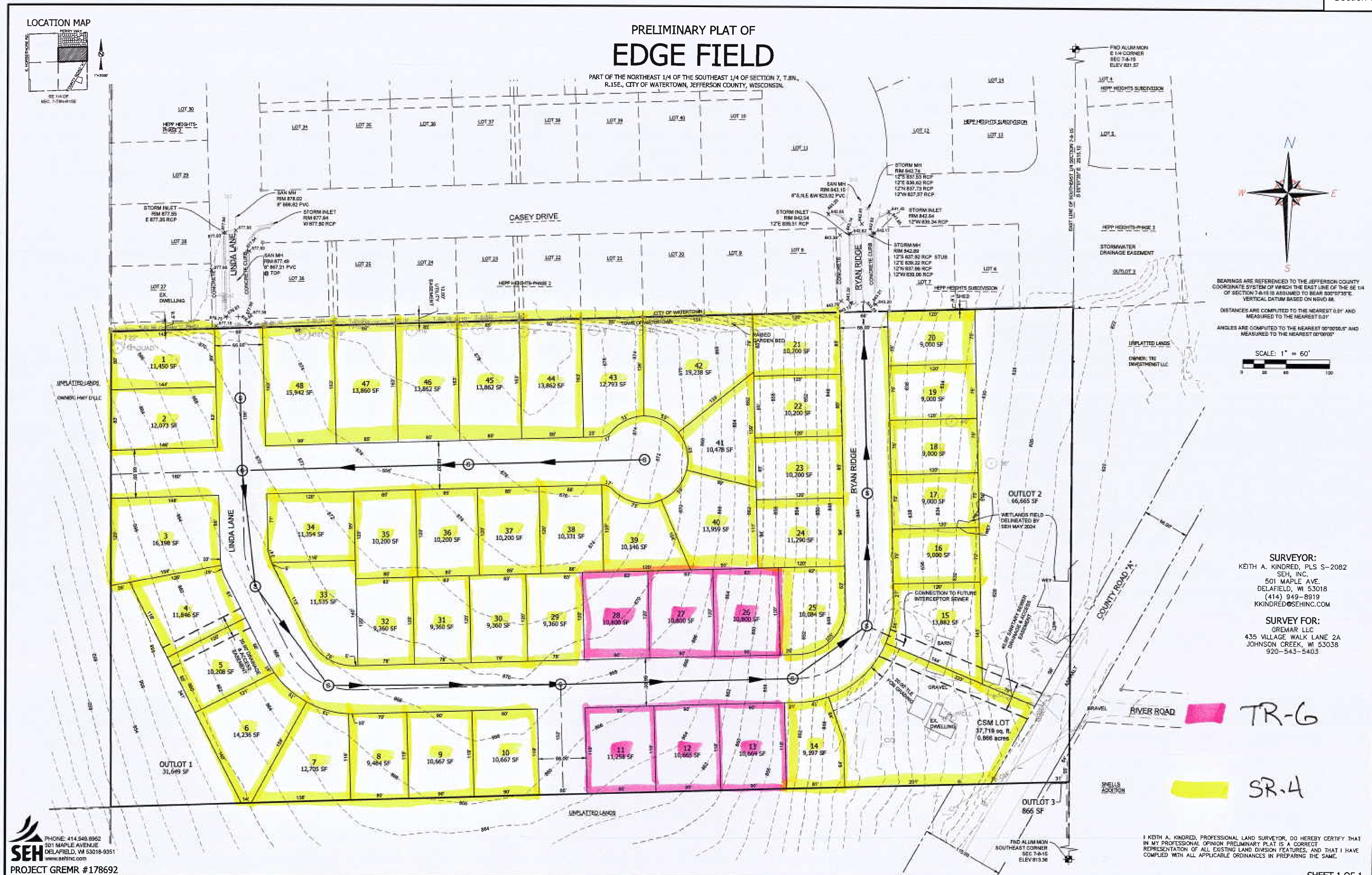
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LOCATION MAP
PERRY WAY
E. HORSESHORE RD.
COUNTY ROAD "A"
SE 1/4 OF SEC. 7-T8N-R15E
CASEY DRIVE
LINDA LANE
RYAN RIDGE
COUNTY ROAD "A"
RIVER ROAD
HEPP HEIGHTS-PHASE 2
HEPP HEIGHTS-PHASE 3
HEPP HEIGHTS SUBDIVISION
STORMWATER DRAINAGE EASEMENT
UNPLATTED LANDS
OWNER: HWY D LLC
OWNER: TRI INVESTMENT LLC
CITY OF WATERTOWN
TOWN OF WATERTOWN
1 11,450 SF
2 12,073 SF
3 16,198 SF
4 11,846 SF
5 10,208 SF
6 14,236 SF
7 12,705 SF
8 9,484 SF
9 10,667 SF
10 10,667 SF
11 11,258 SF
12 10,665 SF
13 10,664 SF
14 9,197 SF
15 13,882 SF
16 9,000 SF
17 9,000 SF
18 9,000 SF
19 9,000 SF
20 9,000 SF
21 10,200 SF
22 10,200 SF
23 10,200 SF
24 11,290 SF
25 10,084 SF
26 10,800 SF
27 10,800 SF
28 10,800 SF
29 9,360 SF
30 9,360 SF
31 9,360 SF
32 9,360 SF
33 11,535 SF
34 11,354 SF
35 10,200 SF
36 10,200 SF
37 10,200 SF
38 10,331 SF
39 10,146 SF
40 13,959 SF
41 10,478 SF
42 19,238 SF
43 12,793 SF
44 13,862 SF
45 13,862 SF
46 13,862 SF
47 13,860 SF
48 15,942 SF
OUTLOT 1 31,649 SF
OUTLOT 2 66,665 SF
OUTLOT 3 866 SF
CSM LOT 37,719 sq. ft. 0.866 acres
WETLANDS FIELD DELINEATED BY SEH MAY 2024
CONNECTION TO FUTURE INTERCEPTOR SEWER
EX. DWELLING
BARN
GRAVEL
RAISED GARDEN BED
SNELLS ADDITION
FND ALUM MON E 1/4 CORNER SEC 7-8-15 ELEV 831.57
FND ALUM MON SOUTHEAST CORNER SEC 7-8-15 ELEV 813.36
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TR-6
SR-4
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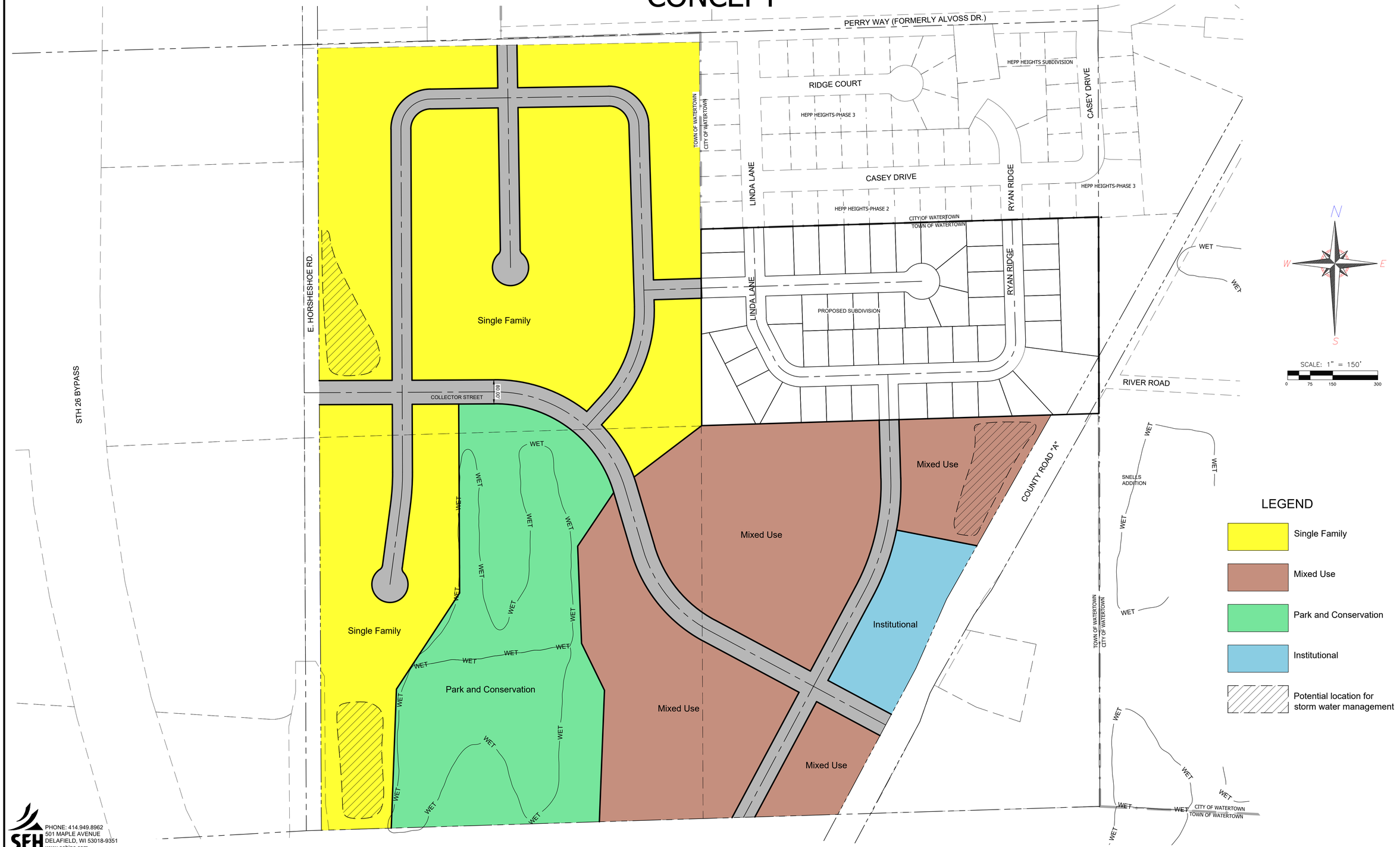
PROJECT GREMR #178692
SHEET 1 OF 1

CONCEPT



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SHEET 1 OF 1

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CASEY DRIVE

LINDA LANE

RYAN RIDGE

HEFF HEIGHTS SUBDIVISION

HEFF HEIGHTS-PHASE 2

HEFF HEIGHTS-PHASE 3

ZONING SR-4

ZONING A-T

ZONING PO

UNPLATTED LANDS

OWNER: HWY D LLC

OWNER: TRJ INVESTMENST LLC

OUTLOT 1 31,649 SF

OUTLOT 2 64,986 SF

OUTLOT 3 866 SF

CSM LOT 39,618 sq. ft. 0.910 acres

STORMWATER DRAINAGE EASEMENT

WETLANDS FIELD DELINEATED BY SEH MAY 2024

CONNECTION TO FUTURE INTERCEPTOR SEWER

BUILDINGS TO BE RAZED

EX. DWELLING

BARN

GRAVEL

RIVER ROAD

COUNTY ROAD "A"

SNELLS ADDITION

RAISED GARDEN BED

BENCHMARK TOP NUT OF HYDRANT ELEV 875.26

BENCHMARK TOP NUT OF HYDRANT ELEV 846.03

FND ALUM MON E 1/4 CORNER SEC 7-8-15 ELEV 851.57

FND ALUM MON SOUTHEAST CORNER SEC 7-8-15 ELEV 813.38

(REC AS S87°28'19" W)
N88°15'37"E 1323.31'

S88°15'14"W 1322.48'

N00°12'00"W 653.91'

S00°07'35"E 653.78'

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SURVEY FOR:
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435 VILLAGE WALK LANE 2A
JOHNSON CREEK, WI 53038
920-563-5403

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DATED THIS 7TH DAY OF OCTOBER, 2024

WISCONSIN KEITH A. KINDRED S-2082 OSHKOSH, WI LAND SURVEYOR

SEH
PHONE: 414.949.8902
501 MAPLE AVENUE
DELAFIELD, WI 53018-9351
www.sehinc.com

PROJECT GREMR #178692

SHEET 1 OF 2

PRELIMINARY PLAT OF

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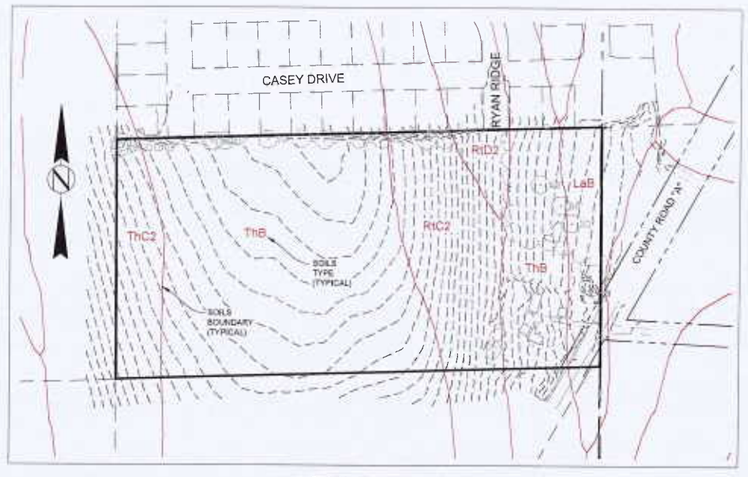

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PROJECT GREMR #178692

SUBDIVISION OF LAND

545 Attachment 1

City of Watertown

Site Assessment Checklist

NOTE: All "yes" answers must be explained in detail by attaching maps and supportive documentation describing the impacts of the proposed development.

Item No.	Item of Information	Yes	No
I.	**Land Resources. Does the project site involve?**		
A.	Changes in relief and drainage patterns (attach a topographical map showing, at a minimum, two-foot contour intervals)	✓	
B.	A landform or topographical feature, including perennial streams and hills over 50 feet in elevation		✓
C.	A floodplain (If "yes" attach two copies of the one-hundred-year floodplain limits and the floodway limits - if officially adopted)		✓
D.	An area of soil instability — greater than 18% slope and/or organic soils, peats or mucks at or near the surface as depicted in the applicable County Soils Atlas		✓
E.	An area of bedrock within 6 feet of the soil surface as depicted in the applicable County Soils Atlas		✓
F.	An area with groundwater table within 10 feet of the soil surface as depicted in the applicable County Soils Atlas		✓
G.	An area with fractured bedrock within 10 feet of the soil surface as depicted in the applicable County Soils Atlas		✓
H.	Prevention of gravel extraction		
I. ✱	A drainageway for 5 or more acres of land	✓	
J.	Lot coverage of more than 50% impermeable surfaces		✓
K.	Prime agricultural land as depicted in adopted farmland preservation plans		✓
L. ✱	Wetlands as depicted on wetland inventory maps	✓	
M.	Area within the airport height limitations or noise impact zone		✓
N.	Officially mapped environmental corridors		✓
II.	**Water Resources. Does the project involve?**		
A.	Location in an area traversed by a navigable stream or dry run		✓
B.	Impact on the capacity of a stormwater storage system or flow of a waterway within 1 mile		✓
C.	The use of septic tank for on-site waste disposal		✓
D.	Lowering of water table by pumping or drainage		✓

WATERTOWN CODE

Item No.	Item of Information	Yes	No
E.	Raising of water table by altered drainage		✓
F.	Lake or river frontage		✓
III.	**Biological Resources. Does the project site involve?**		
A.	Critical habitat for plants and animals of community interest per DNR inventory (SEE WDNR EMAIL)		✓
B.	Endangered, unusual or rare species of:		✓
1.	Land animals per DNR inventory		✓
2.	Birds per DNR inventory		✓
3.	Plants per DNR inventory		✓
C.	Removal of over 30% of the present trees on the site		✓
IV.	**Human and Scientific Interest per State Historical Society Inventory. Does the project site involve?**		
A.	An area of archaeological interest		✓
B.	An area of historical interest		✓
1.	Historic buildings or monuments		✓
V.	**Energy, Transportation and Communications.**		
A.	Does the development increase traffic flow on any arterial or collector street by more than 10% based upon the most recent traffic counts and trip generation rates provided by the ITE?		✓
B. ✳	Is the development traversed by an existing or planned utility corridor (gas, electrical, water, sewer, storm, communications)?	✓	
VI.	**Population.**		
A.	Which public school service areas (elementary, middle and high) are affected by the proposed development, and what is their current available capacity?	E: Cap.: M: Cap.: H: Cap.:	
VII.	**Comments on any of the above which may have significant impact.**		
VIII.	**Appendixes and Supporting Material.**		

1) A. ✳ CONTOURS SHOWN ON PREPLAT
1) I. ✳ TWO STORMWATER DETENTION BASINS TO BE CONSTRUCTED IN OUTLOTS 1 AND 2.
1) L. ✳ SMALL WETLAND FIELD NEAR LOT 20 (SEE LETTER AND PLAT)
5) B. ✳ SEWER LAYOUT PROVIDED ON PREPLAT

JEFFERSON COUNTY
WISCONSIN
Explore. Thrive. Belong.

JEFFERSON COUNTY
PLANNING AND DEVELOPMENT DEPARTMENT
ZONING DIVISION

Room C1040
311 S Center Ave
Jefferson, WI 53549

zoning@jeffersoncountywi.gov
Phone: 920-674-7130
Fax 920-674-7525

DATE: October 16, 2024

TO: SEH Inc.

FROM: Matt Zangl, Director of Planning and Zoning 10/16/24

RE: Edge Field Preliminary CSM Review

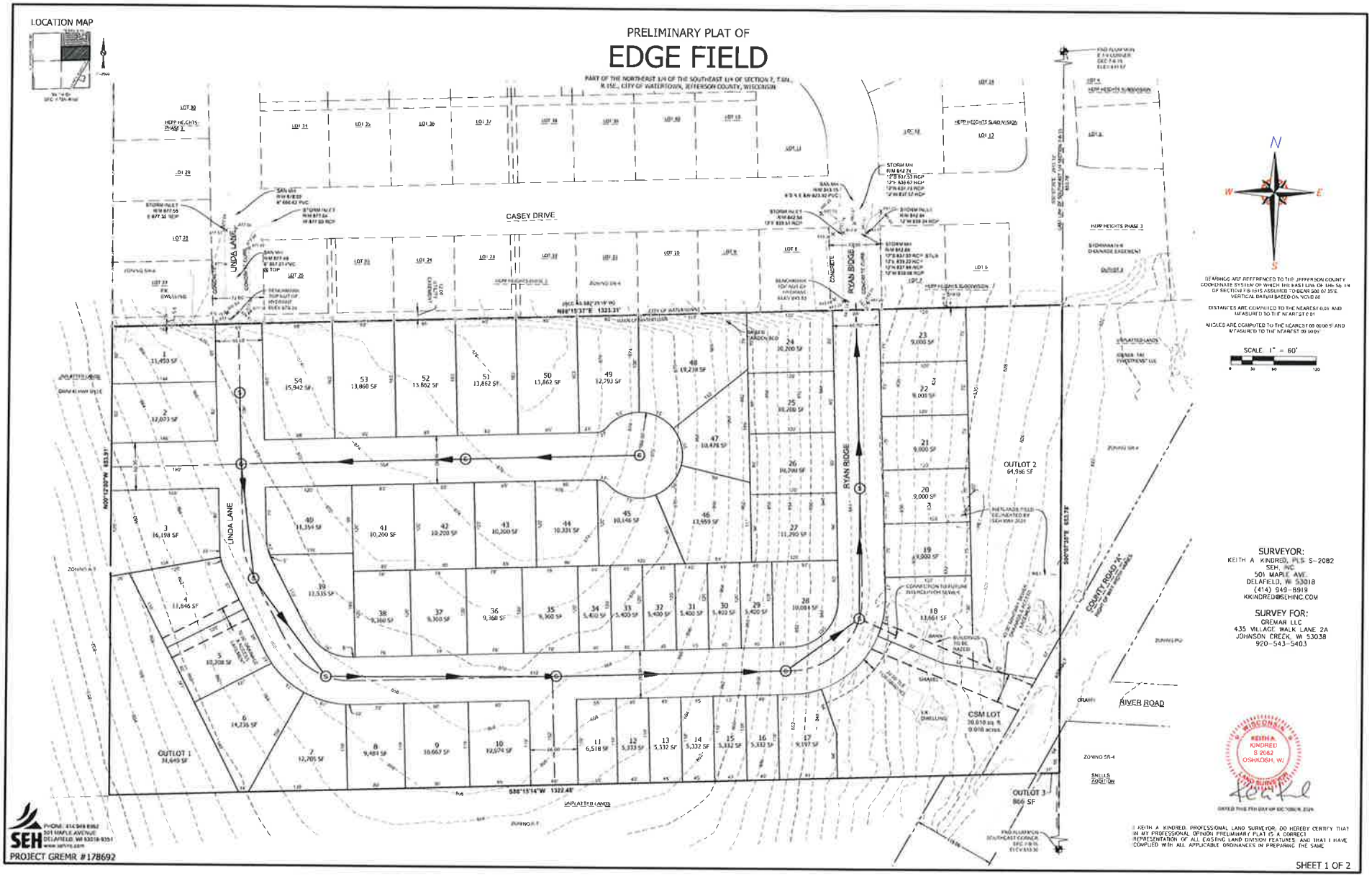
The County Surveyor and I have reviewed the preliminary CSM for Edge Field, prepared by Keith Kindred, PLS, job no. 178692, as dated October 15, 2024, and have the following comments:

- label the radii of the curves
- label the City/Town corporate limits
- Include a road name for the east/west cul-du-sac road and the southernmost road stub

Other comments:

For the final plat, any stormwater outlots (outlot 1 and 2) a note will need to be placed on the plat stating that all lots have an undivided interest in the outlots. Draft language can be provided if needed.

cc: City of Watertown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PROJECT GREMR #178692
SHEET 1 OF 2

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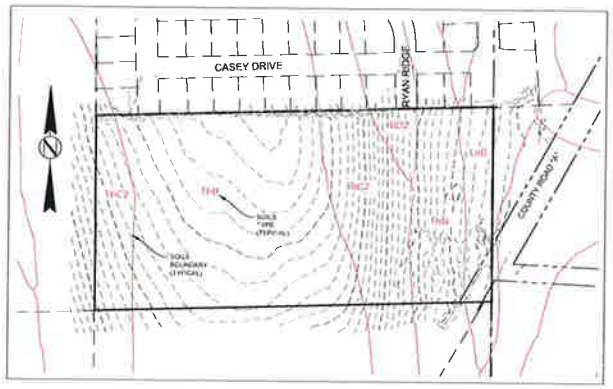

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5) AREA SHOWN IS ZONE X, AREA OF MINIMAL FLOODING, PER FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 55055C0087F, EFFECTIVE DATE FEBRUARY 4, 2015.

6) THE OVERALL AREA OF THIS PRELIMINARY PLAT IS 864,637 SQ. FT., 19.849 ACRES.

7) ALL ROADS WITHIN THE SUBDIVISION ARE DEDICATED TO THE PUBLIC.

8) ALL LOTS TO BE SERVED BY PUBLIC SEWER AND WATER.

WISCONSIN
KEITH A. KINDRED
S-2082
OSHKOSH, WI
LAND SURVEYOR

GIVEN THIS 7TH DAY OF OCTOBER 2024.

I KEITH A. KINDRED, PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT IN MY PROFESSIONAL OPINION PRELIMINARY PLAT IS A CORRECT REPRESENTATION OF ALL EXISTING LAND DIVISION FEATURES AND THAT I HAVE COMPLIED WITH ALL APPLICABLE ORDINANCES IN PREPARING THE SAME.

SURVEYOR:
KEITH A. KINDRED, PLS S-2082
SEH, INC.
501 MAPLE AVE.
DELAFIELD, WI 53018
(414) 949-8919
KKINDRED@SEHINC.COM

SURVEY FOR:
GREMAR LLC
435 VILLAGE WALK LANE 2A
JOHNSON CREEK, WI 53038
920-563-5403

SEH
PHONE: 414 949 8982
501 MAPLE AVENUE
DELAFIELD, WI 53018-9351
www.sehinc.com

PROJECT GREMR #178692

SHEET 2 OF 2

JEFFERSON COUNTY
WISCONSIN
Explore. Thrive. Belong.

JEFFERSON COUNTY
PLANNING AND DEVELOPMENT DEPARTMENT
ZONING DIVISION

Room C1040
311 S Center Ave
Jefferson, WI 53538

zoning@jeffersoncountywi.gov
Phone: 920-674-7524
Fax 920-674-7525

DATE: December 2, 2024

TO: Plat Review
WI Department of Administration

RE: Edge Field Preliminary Plat Review

Jefferson County does conditionally certify the Edge Field preliminary subdivision plat with the following conditions:

- Include a road name for the east/west cul-du-sac road and the southernmost road stub
- For the final plat, any stormwater outlots (outlot 1 and 2) a note will need to be placed on the plat stating that all lots have an undivided interest in the outlots. Draft language can be provided if needed.

Thank you,

Matt Zangl
Director of Planning and Development
Jefferson County
920-674-8638

NO OBJECTION TO SUBDIVISION PLAT BY THE JEFFERSON COUNTY PLANNING AND ZONING DEPT.
with Conditions- See 12/2/24 letter
12/2/24

LOCATION MAP

SE 1/4 OF SEC. 7-T6N-R15E

PRELIMINARY PLAT OF

EDGE FIELD

PART OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 7, T.8N., R.15E., CITY OF WATERTOWN, JEFFERSON COUNTY, WISCONSIN.

CASEY DRIVE
LINDA LANE
RYAN RIDGE
RIVER ROAD
COUNTY ROAD "A"
RIGHT OF WAY WIDTH VARIES

LOT 1 11,450 SF
LOT 2 12,073 SF
LOT 3 16,198 SF
LOT 4 11,846 SF
LOT 5 10,208 SF
LOT 6 14,236 SF
LOT 7 12,705 SF
LOT 8 9,484 SF
LOT 9 10,667 SF
LOT 10 10,074 SF
LOT 11 6,518 SF
LOT 12 5,333 SF
LOT 13 5,332 SF
LOT 14 5,332 SF
LOT 15 5,332 SF
LOT 16 5,332 SF
LOT 17 9,197 SF
LOT 18 13,661 SF
LOT 19 9,000 SF
LOT 20 9,000 SF
LOT 21 9,000 SF
LOT 22 9,000 SF
LOT 23 9,000 SF
LOT 24 10,200 SF
LOT 25 10,200 SF
LOT 26 10,200 SF
LOT 27 11,290 SF
LOT 28 10,084 SF
LOT 29 5,400 SF
LOT 30 5,400 SF
LOT 31 5,400 SF
LOT 32 5,400 SF
LOT 33 5,400 SF
LOT 34 5,400 SF
LOT 35 9,360 SF
LOT 36 9,360 SF
LOT 37 9,360 SF
LOT 38 9,360 SF
LOT 39 11,535 SF
LOT 40 11,354 SF
LOT 41 10,200 SF
LOT 42 10,200 SF
LOT 43 10,200 SF
LOT 44 10,331 SF
LOT 45 10,146 SF
LOT 46 13,959 SF
LOT 47 10,478 SF
LOT 48 19,238 SF
OUTLOT 1 31,649 SF
OUTLOT 2 64,986 SF
OUTLOT 3 866 SF
CSM LOT 39,618 sq. ft. 0.910 acres

FND ALUM MON E 1/4 CORNER SEC 7-8-15 ELEV 831.57
FND ALUM MON SOUTHEAST CORNER SEC 7-8-15 ELEV 813.36
S00°07'35"E 2615.12' EAST LINE OF SOUTHEAST 1/4 SECTION 7-8-15
S00°07'35"E 653.78'
N00°12'00"W 653.91'
S88°15'14"W 1322.48'
(REC AS S87°25'19" W)
N88°15'37"E 1323.31'

HEPP HEIGHTS-PHASE 2
HEPP HEIGHTS SUBDIVISION
HEPP HEIGHTS-PHASE 3
STORMWATER DRAINAGE EASEMENT
UNPLATTED LANDS
OWNER: HWY D LLC
OWNER: TNJ INVESTMENST LLC
ZONING:SR-4
ZONING:A-T
ZONING:PO
SNELLS ADDITION
EX. DWELLING
SHED
BARN
BUILDINGS TO BE RAZED
WETLANDS FIELD DELINEATED BY SEH MAY 2024
CONNECTION TO FUTURE INTERCEPTOR SEWER
RAISED GARDEN BED
BENCHMARK TOP NUT OF HYDRANT ELEV 879.39
BENCHMARK TOP NUT OF HYDRANT ELEV 845.53
SAN MH RIM 878.02 8" 866.52 PVC
SAN MH RIM 877.49 8" 867.21 PVC @ TOP
SAN MH RIM 843.15 8"S,N,E &W 823.92 PVC
STORM INLET RIM 877.55 E 877.35 RCP
STORM INLET RIM 877.64 W 877.60 RCP
STORM INLET RIM 842.54 12"E 839.51 RCP
STORM MH RIM 842.74 12"S 837.53 RCP 12"E 836.62 RCP 12"N 837.73 RCP 12"W 837.57 RCP
STORM INLET RIM 842.64 12"W 839.34 RCP
STORM MH RIM 842.89 12"S 837.92 RCP STUB 12"E 839.22 RCP 12"N 837.86 RCP 12"W 839.06 RCP
72.00' CONCRETE CURB
66.00'
12.00' LIGHT EASEMENT
30.00' DRAINAGE & ACCESS EASEMENT
40.00' SANITARY SEWER DRAINAGE & ACCESS EASEMENT
20.00' TIE FOR GRADING
GRAVEL
ASPHALT
WET

BEARINGS ARE REFERENCED TO THE JEFFERSON COUNTY COORDINATE SYSTEM OF WHICH THE EAST LINE OF THE SE 1/4 OF SECTION 7-8-15 IS ASSUMED TO BEAR S00°07'35"E. VERTICAL DATUM BASED ON NGVD 88.

DISTANCES ARE COMPUTED TO THE NEAREST 0.01' AND MEASURED TO THE NEAREST 0.01'

ANGLES ARE COMPUTED TO THE NEAREST 00°00'00.5" AND MEASURED TO THE NEAREST 00°00'05"

SCALE: 1" = 60'
0 30 60 120

SURVEYOR:
KEITH A. KINDRED, PLS S-2082
SEH, INC.
501 MAPLE AVE.
DELAFIELD, WI 53018
(414) 949-8919
KKINDRED@SEHINC.COM

SURVEY FOR:
CREMAR LLC
435 VILLAGE WALK LANE 2A
JOHNSON CREEK, WI 53038
920-543-5403

WISCONSIN KEITH A. KINDRED S-2082 OSHKOSH, WI LAND SURVEYOR

DATED THIS 7TH DAY OF OCTOBER, 2024.

I KEITH A. KINDRED, PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT IN MY PROFESSIONAL OPINION PRELIMINARY PLAT IS A CORRECT REPRESENTATION OF ALL EXISTING LAND DIVISION FEATURES, AND THAT I HAVE COMPLIED WITH ALL APPLICABLE ORDINANCES IN PREPARING THE SAME.

SEH
PHONE: 414.849.8862
501 MAPLE AVENUE
DELAFIELD, WI 53018-8351
www.sehinc.com

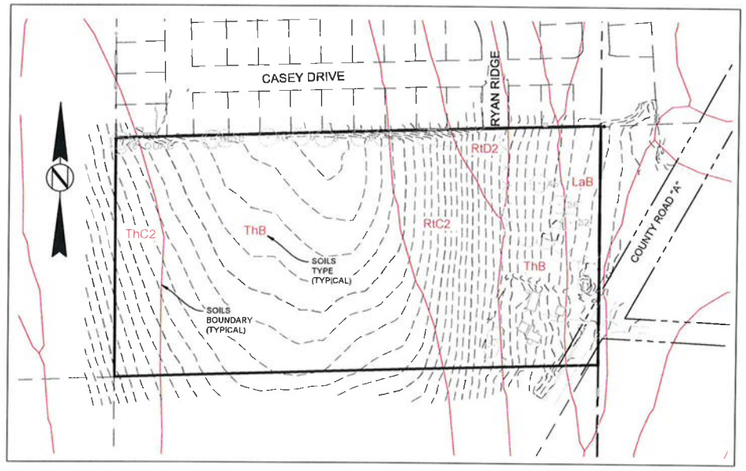
PROJECT GREMR #178692

SHEET 1 OF 2

PRELIMINARY PLAT OF

EDGE FIELD

PART OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 7, T.8N., R.15E., CITY OF WATERTOWN, JEFFERSON COUNTY, WISCONSIN.



SOILS MAP

SCALE:1"=200'

LEGEND

- SANITARY SEWER AND MANHOLE
- CLEANOUT
- WATER MAIN, HYDRANT, VALVE AND CURB STOP
- STORM SEWER, MANHOLE AND CATCH BASIN
- CULVERT
- BURIED FIBER OPTIC CABLE AND MANHOLE
- BURIED PHONE CABLE, PEDESTAL AND MANHOLE
- BURIED TV CABLE, PEDESTAL AND MANHOLE
- BURIED ELECTRIC AND METER
- OVERHEAD WIRE, POLE AND GUY WIRE
- LIGHT POLE
- SIGN
- DECIDUOUS AND CONIFEROUS TREE
- EDGE OF WOODED AREA
- WETLAND
- WOOD FENCE

GENERAL NOTES:

1) ALL EASEMENTS ARE GRANTED TO THE CITY OF WATERTOWN UNLESS OTHERWISE STATED.

2) OUTLOT 2 IS RESERVED FOR FUTURE PARK.

3) JEFFERSON COUNTY SHALL NOT BE LIABLE FOR ANY FEES OR SPECIAL ASSESSMENTS IN THE EVENT THEY BECOME THE OWNER OF ANY LOT IN THE SUBDIVISION BY REASON OF TAX DELINQUENCY.

4) NO POLES, PADS BOXES OR BURIED CABLES ARE TO BE PLACED SUCH THAT THE INSTALLATION WOULD DISTURB ANY SURVEY STAKE. THE DISTURBANCE OF A SURVEY STAKE BY ANYONE IS A VIOLATION OF SECTION 236.32 OF WISCONSIN STATUTES.

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8) ALL LOTS TO BE SERVED BY PUBLIC SEWER AND WATER.

WISCONSIN
KEITH A. KINDRED
S-2082
OSHKOSH, WI
LAND SURVEYOR

DATED THIS 7TH DAY OF OCTOBER, 2024.

I KEITH A. KINDRED, PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT IN MY PROFESSIONAL OPINION PRELIMINARY PLAT IS A CORRECT REPRESENTATION OF ALL EXISTING LAND DIVISION FEATURES, AND THAT I HAVE COMPLIED WITH ALL APPLICABLE ORDINANCES IN PREPARING THE SAME.

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KKINDRED@SEHINC.COM

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JOHNSON CREEK, WI 53038
920-543-5403

SEH
PHONE: 414.949.8862
501 MAPLE AVENUE
DELAFIELD, WI 53018-9351
www.sehinc.com

PROJECT GREMR #178692

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
1027 W St Paul Ave
Milwaukee WI, WI, 53233

Tony Evers, Governor

Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

WISCONSIN
DEPT. OF NATURAL RESOURCES

09/09/2024 WIC-SC-2024-28-02628

Gremar LLC
Attn: Cory O'Donnell
435 Village Walk Lane, Ste 2A
Johnson Creek, WI 53038

RE: Wetland Delineation Confirmation for "Hepp South, N9009 County Road A' located in NE 1/4, SE 1/4, Section 07, Township 08N, Range 15E, in the City of Watertown, Jefferson County

Dear Cory O'Donnell:

We have reviewed the wetland delineation report from SEH Inc. prepared for the above-mentioned site. This letter will serve as confirmation that the wetland boundaries shown on the enclosed wetland delineation figure are acceptable. This finding is based upon a detailed report review and interview with the delineator. Any filling or grading within these areas may require DNR approvals. Our wetland confirmation is valid for five years. Be sure to send a copy of the report, as well as any approved revisions, to the U.S. Army Corps of Engineers.

In order to comply with Chapter 23.321, State Statutes, please supply the department with a polygon shapefile of the wetland boundaries delineated within the project area. Please do not include data such as parcel boundaries, project limits, wetland graphic representation symbols, etc. If internal upland polygons are found within a wetland polygon, then please label as UPLAND. The shapefile should utilize a State Plane Projection and be overlain onto recent aerial photography. If a different projection system is used, please indicate in which system the data are projected. In the correspondence sent with the shapefile, please supply a brief description of each wetland's plant community (eg: wet meadow, floodplain forest, etc.). Please send these data to Calvin Lawrence (608-266-0756 or email at calvin.lawrence@wisconsin.gov).

If you are planning development on the property, you must avoid take of endangered and threatened species or obtain an incidental take authorization to comply with the state's Endangered Species Law. To ensure compliance, submit an endangered resources review form (Form 1700-047 available at https://dnr.wi.gov/topic/ERReview/Review.html) and t the DNR Endangered Resources Program will provide a review response letter identifying any endangered and threatened species and any conditions that must be followed to address potential incidental take.

In addition, be sure to contact your local zoning office and the U.S. Army Corps of Engineers to determine if any local or federal permits may be required for your project.

If you have any questions, please contact me at (414) 308-6780 or kara.brooks@wisconsin.gov.

Sincerely,

Kara Brooks
Wetland Identification Specialist

Enclosures:
Wetland Delineation Figure

Email CC:
USACE Project Manager
Sheri Lieffring, SEH Inc
File

Cory O'Donnell

From: DNR ER Review <DNRERReview@wisconsin.gov>
Sent: Thursday, May 9, 2024 4:41 PM
To: Cory O'Donnell
Subject: RE: Endangered Resources Review Request
Attachments: ER Verification_RJAB LLC Property, County Road A, Watertown, WI.pdf

Hi Cory,

The RJAB LLC Property, County Road A, Watertown, WI project is covered by Table 2 of the Broad Incidental Take Permit/Authorization for No/Low Impact Activities (No/Low BITP/A), a formal ER Review letter is not needed and there are no actions that need to be taken to comply with state endangered species laws. Any take that may result from the proposed project is permitted/authorized, and the ER Review fee is waived.

Specifically, the project is covered by Activities:

2-A4, Any upland activity with only mussel, fish, aquatic insect and/or aquatic plant species present, erosion controls required within 300' of wetlands and waterbodies, and

2-A6, Blanchard's Cricket Frog present, based on the distance to the nearest suitable waterbody no further actions needed.

Please note, Table 2 is for use by DNR Staff and ER Certified Reviewers only, therefore, the table is not available online. The no/low BITP/A covers projects that the DNR has determined will have no impact or a minimal impact to endangered and threatened species in the state.

Attached is an ER Review Verification Form for you to keep on file and submit with any other necessary DNR permit applications to indicate that ER requirements have been met. This notice only addresses endangered resources issues. This notice does not constitute DNR authorization of the proposed project and does not exempt the project from securing necessary permits and approvals from the DNR and/or other permitting authorities.

Please contact me if you have any questions.

Thanks,
Melissa

We are committed to service excellence.
Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Melissa Tumbleson
Pronouns: she/her/hers
Endangered Resources Review Specialist – Natural Heritage Conservation
Wisconsin Department of Natural Resources
Cell Phone: 608-419-2755
melissa.tumbleson@wisconsin.gov

dnr.wi.gov

From: Cory O'Donnell <Cory@looshomes.com>
Sent: Thursday, May 9, 2024 12:35 PM
To: DNR ER Review <DNRERReview@wisconsin.gov>
Subject: Endangered Resources Review Request

Hello,

Please see the attached ERRR request for a 20 acre parcel (tax key) **032-0815-0741-002.** The parcel is located in the Town of Watertown.

Thanks,

Cory O'Donnell

Loos Custom Homes Land Dev.
435 Village Walk Lane 2A
Johnson Creek, WI 53038
Main Phone: 920-699-3787
Direct Phone: 920-543-5403

THE CITY OF WATERTOWN

EROSION CONTROL AND STORM WATER RUNOFF PERMIT APPLICATION

106 JONES STREET
PO BOX 477
WATERTOWN, WI 53094
(920) 262-4060

FOR OFFICE USE ONLY

Permit #_____ Date_____

Permit Effective Date_____

Permit Expires_____

Amount Paid (Calculations on Page 2 of this permit):_____

Payment Method (or Check #)_____

700 Hoffman Drive		
Project Address		
Horizon - Lumin Terrace Multifamily		s.kwiecinski@horizondbm.com
Project Name and Description		**Applicant Email**
Horizon Development Group, Inc.	5201 E Terrace Dr Suite 300, Madison, WI 53718	608-354-0820
Applicant	**Address**	**Phone**
Hoffman Matz LLC	600 E Main St Suite 200, Watertown, WI 53094	920-390-4000
Landowner	**Address**	**Phone**

Proposed:

Redeveloped/Existing Impervious Area= 37,255 Square Feet

New Impervious Area= 144,666 Square Feet

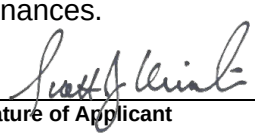
Total Land Disturbance Area= 387,800 Square Feet
(existing pervious or impervious, disturbed this project)

Check All That Applicable:

- [X] Land Disturbing/Erosion Control Permit (Section 288, Article I)
- [X] Storm Water Runoff Control Permit (Section 288, Article II):
  - [X] Plan Submittal Checklist
  - [X] Site and Grading Plan
  - [ ] Financial Guarantee (up to 120% of the estimated cost of construction and maintenance)
  - [X] Storm Water Calculations
  - [X] Maintenance Agreement

I, Scott Kwiecinski , hereby certify that all the information herein and attached hereto is Correct, that I understand the provisions of City of Watertown's Erosion and Sediment Control Ordinance and Program (Section 288, Article I) and/or Storm Water Runoff Control Ordinance and Program (Section 288, Article II), and that I accept responsibility for carrying out, in full compliance with all pertinent City Ordinances, the Erosion and Sediment Control Plan, and the Storm Water Runoff Control Plan for the above-referenced project as approved by the City. I understand that the Permit Application Fee is non-refundable and must be paid at the time of permit submittal.

I further grant the right-of-entry onto this property, as described above, to the designated personnel of the City of Watertown for the purpose of inspecting and monitoring for compliance with the aforesaid Ordinances.



Signature of Applicant

November 7, 2024
Date

Scott Kwiecinski
Print Name

Approved:

City of Watertown Official _____ Date _____

City of Watertown Official _____ Date _____

FEE CALCULATIONS

Erosion Control Plan Review

Total Disturbed Area (this project):	387,800	Square feet x	0.002	$ per Square Foot =	$ 775.60
Total New Impervious Area (this project):	144,666	Square feet x	0.003	$ per Square Foot =	$ 434.00
Total Redeveloped Impervious Area (this project):	37,255	Square feet x	0.0015	$ per Square Foot =	$ 55.88
				Total Erosion Fee =	$ 1,265.48

Storm Water Runoff Control

Total Disturbed Area (this project):	387,800	Square feet x	0.002	$ per Square Foot =	$ 775.60
Total New Impervious Area (this project):	144,666	Square feet x	0.003	$ per Square Foot =	$ 434.00
Total Redeveloped Impervious Area (this project):	37,255	Square feet x	0.0015	$ per Square Foot =	$ 55.88
				Total Storm Water Fee =	$ 1,265.48

Erosion Control Inspections**

- 3,000 Square Feet > 1 Acre: $55 x _____ months site will be disturbed = $ _____
- 1 Acre > 5 Acres: $110 x _____ months site will be disturbed = $ _____
- 5 Acres or more: $165 x 12 months site will be disturbed = $ 1,980.00

Long Term Maintenance Agreement County Recording Fee

$30.00

Base Fee = $125.00

Total Permit Fee (Erosion+Stormwater+Inspection+Recording+Base)= $ 4,665.96

Permit applies for:

- Disturbing or grading more than 3,000 square feet of land
- Excavating and/or filling more than 400 cubic yards of material

**Erosion control inspections completed by a 3rd party consultant may be charged at consultant rates.

THE CITY OF WATERTOWN

Construction Site Erosion Control Inspections

City staff or a consultant conduct erosion control inspections on construction sites to meet Section 2.4.4 of the Wisconsin Department of Natural Resources (WDNR) Municipal Separate Storm Sewer System (MS4) Permit No. WI-S050075-3 and Section § 288.11-1. Inspection. of the City of Watertown (City) Municipal Code.

Per City municipal code § 288-11., Fee Schedule: *The fees referred to in other sections of this article shall be established by the Common Council and may from time to time be modified by resolution. A schedule of the fees established by the Common Council shall be available for review in City Hall. The fee shall cover all City and consultant costs to review the permit application and perform the required site inspections.*

(Single & Two-Family Residential Building Permit sites < 1 acre are exempt from this erosion control inspection and inspection fee requirement. Erosion control on Single & Two-Family Residential Building sites < 1 acre is reviewed, inspected and enforced through the City's Single & Two-Family Residential Building Permit.)

Erosion Control Inspections

Permit-Holders: Any construction site with 3,000 square feet or more of land disturbance within the City is required to obtain an Erosion Control and Stormwater Permit from the City Engineering Department. The Erosion Control and Stormwater Permit requires permit holders to conduct erosion control inspections on their sites:

- Once per week, and
- After every ½-inch rain event

Permit holders are requested to send the weekly and post – ½ inch rain event inspection reports to the City at maureenm@cityofwatertown.org

City Inspectors: City erosion control inspectors also complete erosion control inspections to ensure the sites are in compliance with the Erosion Control and Stormwater Permit and related technical standards. City inspections on conducted:

- Within the 1st two weeks of construction*
- Monthly
    - Weekly if deficiencies are noted on site, until erosion control measures are properly installed and maintained
- Final inspection after construction is done

*Permit holders are requested to notify the City Engineering Department when construction starts on site at 920-262-4060 or maureenm@cityofwatertown.org.

Erosion Control Inspection Fees

An erosion control inspection fee is included with the Erosion Control and Stormwater Permit Fee, to be paid at the time the permit application is submitted. The erosion control inspection fee is calculated based on the following rates** multiplied by the estimated number of months the site will be under construction:

- 3,000 Square Feet > 1 Acre: $55 x _____ months site will be disturbed = $_____
- 1 Acre > 5 Acres: $110 x _____ months site will be disturbed = $_____
- 5 Acres or more: $165 x _____ months site will be disturbed = $_____

Example: a 4.5-acre site that will be under construction from April through October ($110 x 7 months) = $770

**Erosion control inspections completed by a 3rd party consultant may be charged at consultant rates.

The City implements a Construction Site Pollutant Control Program to engage residents, private property owners, developers, engineers and other interested parties in activities with the goal of reducing the amount of pollution from active construction sites that enters local streams, lakes and wetlands. This program is implemented per Section 2.4 of the WDNR MS4 Permit No. WI-S050075-3. The City's Construction Site Stormwater Runoff Program uses permitting, inspections, enforcement and education measures to reduce the amount of Total Suspended Solids (TSS), Total Phosphorus (TP) and other pollutants from reaching the Rock River, Silver Creek, Silver Creek Pond, Lake Victoria, Heiden Pond, and other local tributaries and wetlands through stormwater runoff.

Additional information on Construction Site Stormwater Management and the City's Stormwater Management Program can be found at:

City of Watertown Stormwater Utility:
https://www.ci.watertown.wi.us/departments/stormwater_information.php

Wisconsin Construction Site Erosion Control Field Guide:

https://dnr.wi.gov/topic/stormWater/documents/WIconstECfieldGuide.pdf

Protect WI Waterways:

https://protectwiwaterways.org/learn-about-stormwater/construction-and-stormwater/

RESOLUTION TO
APPROVE THE PRELIMINARY PLAT FOR
EDGE FIELD SUBDIVISION
SPONSOR: MAYOR EMILY MCFARLAND
FROM: PLAN COMMISSION

WHEREAS, the City of Watertown Plan Commission & Site Plan Review Committee have reviewed and made recommendations with conditions on December 9, 2024 to the Common Council on the preliminary plat known as Edge Field Subdivision; and,

WHEREAS, the Site Plan Review Committee & Plan Commission have made the following conditions:

Conditions, if any, to be added on December 10th; and,

WHEREAS, the action of the Common Council shall be noted on three copies of the preliminary plat: one (1) copy of which shall be returned to the developer (Gremar, LLC) with the date and action endorsed thereon, one (1) copy of which shall be retained by the Engineering Department, and one (1) copy of which shall be retained by the City of Watertown's Assessor; and,

WHEREAS, the developer (Gremar, LLC) shall provide a copy of the approved preliminary plat to the following utility providers or their successor company(ies) for their comments prior to the drawing of the final plat: WE Energies, AT&T, Spectrum; and,

WHEREAS, the developer (Gremar, LLC) has agreed to enter into a contract for improvements as required by Article III of Chapter 545 of the City of Watertown Municipal Code. Prior to the signing of said contract by the Mayor and the City Clerk, the developer (Gremar, LLC) shall pay to the City all required fees, area charges and deposits, and provide any required performance bonds.

NOW, THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF WATERTOWN, WISCONSIN:

That the preliminary plat of Edge Field Subdivision is hereby approved with the conditions identified by the City of Watertown's Plan Commission and Site Plan Review Committee.

	YES	*NO*
DAVIS		
LAMPE		
BOARD		
BARTZ		
BLANKE		
SMITH		
SCHMID		
WETZEL		
MOLDENHAUER		
MAYOR MCFARLAND		
TOTAL		

ADOPTED ___Type meeting date_____

_____

CITY CLERK

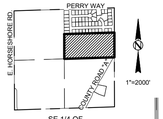
APPROVED ___Type meeting date_____

_____

MAYOR

EXHIBIT A

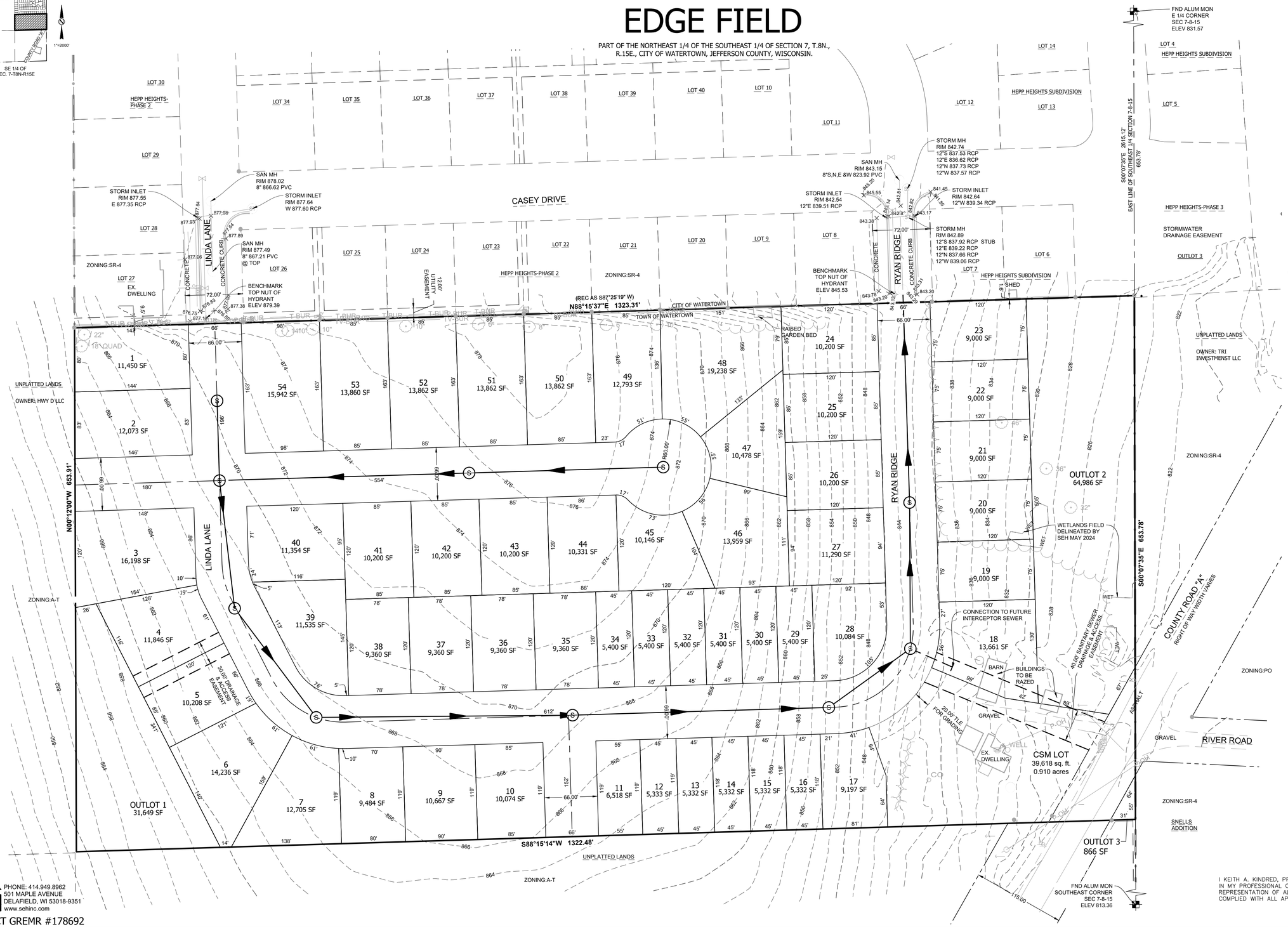
LOCATION MAP



PRELIMINARY PLAT OF

EDGE FIELD

PART OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 7, T.8N., R.15E., CITY OF WATERTOWN, JEFFERSON COUNTY, WISCONSIN.



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BEARINGS ARE REFERENCED TO THE JEFFERSON COUNTY COORDINATE SYSTEM OF WHICH THE EAST LINE OF THE SE 1/4 OF SECTION 7-8-15 IS ASSUMED TO BEAR S00°07'35"E. VERTICAL DATUM BASED ON NGVD 88.

DISTANCES ARE COMPUTED TO THE NEAREST 0.01' AND MEASURED TO THE NEAREST 0.01'

ANGLES ARE COMPUTED TO THE NEAREST 00°00'00.5" AND MEASURED TO THE NEAREST 00°00'05"

SCALE: 1" = 60'

0 30 60 120

SURVEYOR:
KEITH A. KINDRED, PLS S-2082
SEH, INC.
501 MAPLE AVE.
DELAFIELD, WI 53018
(414) 949-8919
KKINDRED@SEHINC.COM

SURVEY FOR:
GREMAR LLC
435 VILLAGE WALK LANE 2A
JOHNSON CREEK, WI 53038
920-543-5403

WISCONSIN
KEITH A. KINDRED
S-2082
OSHKOSH, WI
LAND SURVEYOR

DATED THIS 7TH DAY OF OCTOBER, 2024.

I KEITH A. KINDRED, PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT IN MY PROFESSIONAL OPINION PRELIMINARY PLAT IS A CORRECT REPRESENTATION OF ALL EXISTING LAND DIVISION FEATURES, AND THAT I HAVE COMPLIED WITH ALL APPLICABLE ORDINANCES IN PREPARING THE SAME.

SEH
PHONE: 414.949.8962
501 MAPLE AVENUE
DELAFIELD, WI 53018-9351
www.sehinc.com

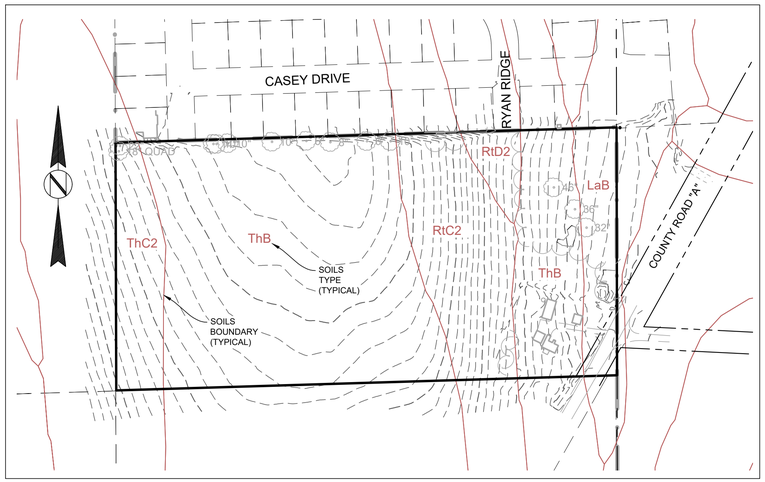
PROJECT GREMR #178692

SHEET 1 OF 2

PRELIMINARY PLAT OF

EDGE FIELD

PART OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 7, T.8N., R.15E., CITY OF WATERTOWN, JEFFERSON COUNTY, WISCONSIN.



SOILS MAP

SCALE:1"=200'

LEGEND

- SANITARY SEWER AND MANHOLE
- CLEANOUT
- WATER MAIN, HYDRANT, VALVE AND CURB STOP
- STORM SEWER, MANHOLE AND CATCH BASIN
- CULVERT
- BURIED FIBER OPTIC CABLE AND MANHOLE
- BURIED PHONE CABLE, PEDESTAL AND MANHOLE
- BURIED TV CABLE, PEDESTAL AND MANHOLE
- BURIED ELECTRIC AND METER
- OVERHEAD WIRE, POLE AND GUY WIRE
- LIGHT POLE
- SIGN
- DECIDUOUS AND CONIFEROUS TREE
- EDGE OF WOODED AREA
- WETLAND
- WOOD FENCE

GENERAL NOTES:

1) ALL EASEMENTS ARE GRANTED TO THE CITY OF WATERTOWN UNLESS OTHERWISE STATED.

2) OUTLOT 2 IS RESERVED FOR FUTURE PARK.

3) JEFFERSON COUNTY SHALL NOT BE LIABLE FOR ANY FEES OR SPECIAL ASSESSMENTS IN THE EVENT THEY BECOME THE OWNER OF ANY LOT IN THE SUBDIVISION BY REASON OF TAX DELINQUENCY.

4) NO POLES, PADS BOXES OR BURIED CABLES ARE TO BE PLACED SUCH THAT THE INSTALLATION WOULD DISTURB ANY SURVEY STAKE. THE DISTURBANCE OF A SURVEY STAKE BY ANYONE IS A VIOLATION OF SECTION 236.32 OF WISCONSIN STATUTES.

5) AREA SHOWN IS ZONE X, AREA OF MINIMAL FLOODING, PER FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 55055C0067F, EFFECTIVE DATE FEBRUARY 4, 2015.

6) THE OVERALL AREA OF THIS PRELIMINARY PLAT IS 864,637 SQ. FT., 19.849 ACRES

7) ALL ROADS WITHIN THE SUBDIVISION ARE DEDICATED TO THE PUBLIC.

8) ALL LOTS TO BE SERVED BY PUBLIC SEWER AND WATER.

WISCONSIN
KEITH A. KINDRED
S-2082
OSHKOSH, WI
LAND SURVEYOR

DATED THIS 7TH DAY OF OCTOBER, 2024.

I KEITH A. KINDRED, PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT IN MY PROFESSIONAL OPINION PRELIMINARY PLAT IS A CORRECT REPRESENTATION OF ALL EXISTING LAND DIVISION FEATURES, AND THAT I HAVE COMPLIED WITH ALL APPLICABLE ORDINANCES IN PREPARING THE SAME.

SURVEYOR:
KEITH A. KINDRED, PLS S-2082
SEH, INC.
501 MAPLE AVE.
DELAFIELD, WI 53018
(414) 949-8919
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920-543-5403

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PHONE: 414.949.8962
501 MAPLE AVENUE
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PROJECT GREMR #178692

Shapes on map represent general recommendations for future land use. Actual boundaries between different land use types and associated zoning districts may vary somewhat from representations on this map. Not all lands shown in a future developed land use category are immediately appropriate for development, rezoning, or subdivision.
Environmental Corridors depicted on this map use generalized boundaries of environmental features identified by the DNR. Actual Environmental Corridor boundaries are to be refined through detailed on-site investigation.

City of Watertown Growth Area*

City of Watertown And Town of Emmet Intergovernmental Agreement**

Town of Shields

Town of Emmet

Town of Watertown

Dodge County

Jefferson County

Edge Field Plat

Future Land Use Urban Area

Map 6b

City of Watertown Comprehensive Plan

Land Use Categories

- Agricultural
- Single-Family Residential - Unsewered
- Single-Family Residential - Sewered
- Two-Family Residential
- Multi-Family Residential
- Planned Neighborhood**
- Institutional
- Airport
- Rights-of-Way
- Neighborhood Mixed Use
- Planned Mixed Use*
- Central Mixed Use
- Riverside Mixed Use***
- Mixed Industrial
- Parks & Recreation
- Environmental Corridor
- Surface Water

City/Town IGA**
- City Growth Area
- City Periphery Areas

*Each "Planned Mixed Use Area" may include mix of:
1. Office
2. Multi-Family Residential
3. Mixed Industrial
4. Commerical Services/Retail
5. Institutional
6. Parks & Recreation

**"Planned Neighborhoods" should include a mix of the following:
1. Single-Family - Sewered (predominant land use)
2. Two-family Residential
3. Multi-Family Residential
4. Institutional
5. Neighborhood Mixed Use
6. Parks & Recreation

***Each "Riverside Mixed Use Area" may include mix of:
1. Office
2. Single-Family - Sewered
3. Two-Family Residential
4. Multi-Family Residential
5. Commerical Services/Retail
6. Institutional
7. Parks & Recreation

Miles: 0 0.25 0.5 1

- City of Watertown
- Town Boundary
- Parcel
- Railroad
- Watertown Urban Service Area
- Watertown Long Range Growth Area

Airport Height Limitations
- Maximum Building Elevation b/t 865 and 968 ft
- Maximum Building Elevation b/t 968 and 1005 ft

Draft: August 7, 2019
Source: WisDNR, FEMA, City of Watertown, Dodge Co. LIO & Jefferson Co. LIO, V&A

THE CITY OF WATERTOWN
Opportunity runs through it.

VANDEWALLE & ASSOCIATES INC.
Shaping places, shaping change

Main Office
920-262-4060

Brian Zirbes
920-262-4041

Mark Hady
920-342-0986

Nikki Zimmerman
920-262-4045

Dell Zwieg
920-262-4042

Doug Zwieg
920-262-4062

Dennis Quest
920-262-4061

TO: Plan Commission
DATE: December 9th, 2024
SUBJECT: Hunter Oaks PUD Amendment - Initial Review and Set Public Hearing Date

Initial Review and Setting of a Public Hearing Date for an amended Planned Unit Development (PUD) General Development Plan (GDP) requested by John Donovan, agent for Bielinski Homes Inc., Hunter Oaks Subdivision, West Street, Watertown, WI. Parcel PIN(s): 291-0815-0642-006, 291-0815-0642-007

SITE DETAILS:
Acres: 6.16 & 6.21 Acres
Current Zoning: Single-Family Residential (SR-4) with a PUD Overlay
Existing Land Use: Undeveloped
Future Land Use Designation(s): Multi-Family Residential

BACKGROUND AND APPLICATION DESCRIPTION:
The applicant is seeking an initial review and the setting of a public hearing date by the Plan Commission for an amended Planned Unit Development (PUD) General Development Plan (GDP). The amended proposal looks to revise Area C(b) from the General Development Plan approved in August of 2024.

STAFF EVALAUATION:

Site Plan Review Committee:
See Minutes of November 25th, 2024.

Land Use and Zoning:

The proposed PUD General Development Plan is requesting flexibilities to Zoning Standards as allowed under Section § 550-152B of the Zoning Code.

The amended proposal consists of the following:
- Declares the GDP will serve as the Precise Implementation Plan (PIP) for Area C(b).
- Sets the minimum street frontage at 45ft.
- Sets the minimum lot width at 45ft.
- Sets the front yard setback at 24ft.
- Reduces the number of lots from 53 to 44.

The applicant also requests that the vacation of a portion of Belmont Drive within Area C(b) no longer proceeds. Denial of the vacation was requested and granted at the December 3rd Common Council meeting.

All other terms of the August 20th, 2024 GDP remain the same.

.

Flexibilities allowed by a Planned Unit Development under Section § 550-152B:
B. Provision of flexible development standards for planned unit developments.
(1) Permitted location. Planned unit developments shall be permitted with the approval of a Planned Unit Development Overlay Zoning District specific to the approved planned unit development.

(2) Flexible development standards. The following exemptions to the development standards of the underlying zoning district may be provided with the approval of a planned unit development:

(a) Land use requirements. All land uses listed as "residential," "institutional" or "commercial" may be permitted within a planned unit development.

(b) Density and intensity requirements. All requirements listed for residential density and nonresidential intensity may be waived within a planned unit development.

(c) Bulk requirements. All residential and nonresidential bulk requirements may be waived within a planned unit development.

(d) Landscaping requirements. All landscaping requirements may be waived within a planned unit development.

(e) Parking and loading requirements. All requirements for off-street parking, traffic circulation, and off-street loading may be waived within a planned unit development.

(f) Drainageway Overlay District requirements. All Drainageway Overlay District requirements may be waived within a planned unit development.

(3) Requirements to depict all aspects of development. Only development which is explicitly depicted on the required site plan approved by the Common Council as part of the approved planned unit development shall be permitted, even if such development (including all aspects of land use, density and intensity, bulk landscaping, and parking and loading) is otherwise listed as permitted. Requested exemptions from these standards shall be made explicit by the applicant in the application and shall be recommended by the Plan Commission and approved explicitly by the Common Council. If not so requested and approved, such exemptions shall not be permitted. Flexible development standards shall be limited to density and intensity bonuses of no greater than 25% higher than otherwise permitted by the MR-10 District, unless specifically granted by the Common Council, and shall be limited to reductions in bulk, landscaping, parking and loading requirements of no greater than 25% lower than otherwise permitted for the proposed land uses, unless specifically granted by the Common Council.

Per Sections § 550-152G(2), the GDP step shall be identical to that for Zoning Map amendments:

(2) The process and fees for review and approval of the GDP shall be identical to that for Zoning Map amendments per this chapter and (if land is to be divided) to that for preliminary and final plats of subdivision per the City Code.

PLAN COMMISSION OPTIONS:

The following are possible options for the Plan Commission:

1. Set public hearing date to January 7th, 2024.
2. Postpone public hearing to a later date.

ATTACHMENTS:

- Application materials.

PETITION AND REQUEST TO

AMEND THE PUD/GDP FOR HUNTER OAKS NEIGHBORHOOD

(Second Amendment)

CITY OF WATERTOWN, WI

Bielinski Development Inc. ("Bielinski") hereby respectfully requests that the City of Watertown Plan Commission and Common Council review the real property consisting of approximately 13.13 acres, which is more particularly described in the Site Plans dated 10/30/24 which are incorporated herein ("Subject Parcels") with this submission.

Bielinski is requesting amending the approved (August 20th, 2024) Planned Unit Development (PUD) & General Development Plan (GDP) for these two parcels in the Hunter Oaks Neighborhood.

All the below statements and information, whether written on this Petition or attached, are true and correct to the undersigned's knowledge and belief.

Proposal and Commitments

The Petitioner, Bielinski, respectfully requests that the City Planning Commission and Common Council approve this amended General Development Plan land use of the Subject Parcels with substantial conformance of the enclosed site plans dated 10/30/24, a Bielinski Affordable Housing Initiative of Single Family Residential Small Lot Homes.

This amended GDP includes the following amended term(s):

- **Name of this Subdivision: The Enclave at Hunter Oaks**
- **The GDP serves as the PIP exclusively for Area C(b).**
- **Minimum Lot Width at Street Frontage: 45 ft.**
- **Minimum Lot Width at Front Setback: 45 ft. (previously approved at 50 ft.)**
- **Building Setback Street (Front): 24 ft. (previously approved at 20 ft.)**
- **Single Family lots reduced from 53 to 44 to accommodate an improved design layout.**

All other terms of the approved GDP on June 20th, 2023 and the approved amendment on August 20th, 2024 stay the same.

Dated this 7th day of November, 2024.

OWNER & PETITIONER:

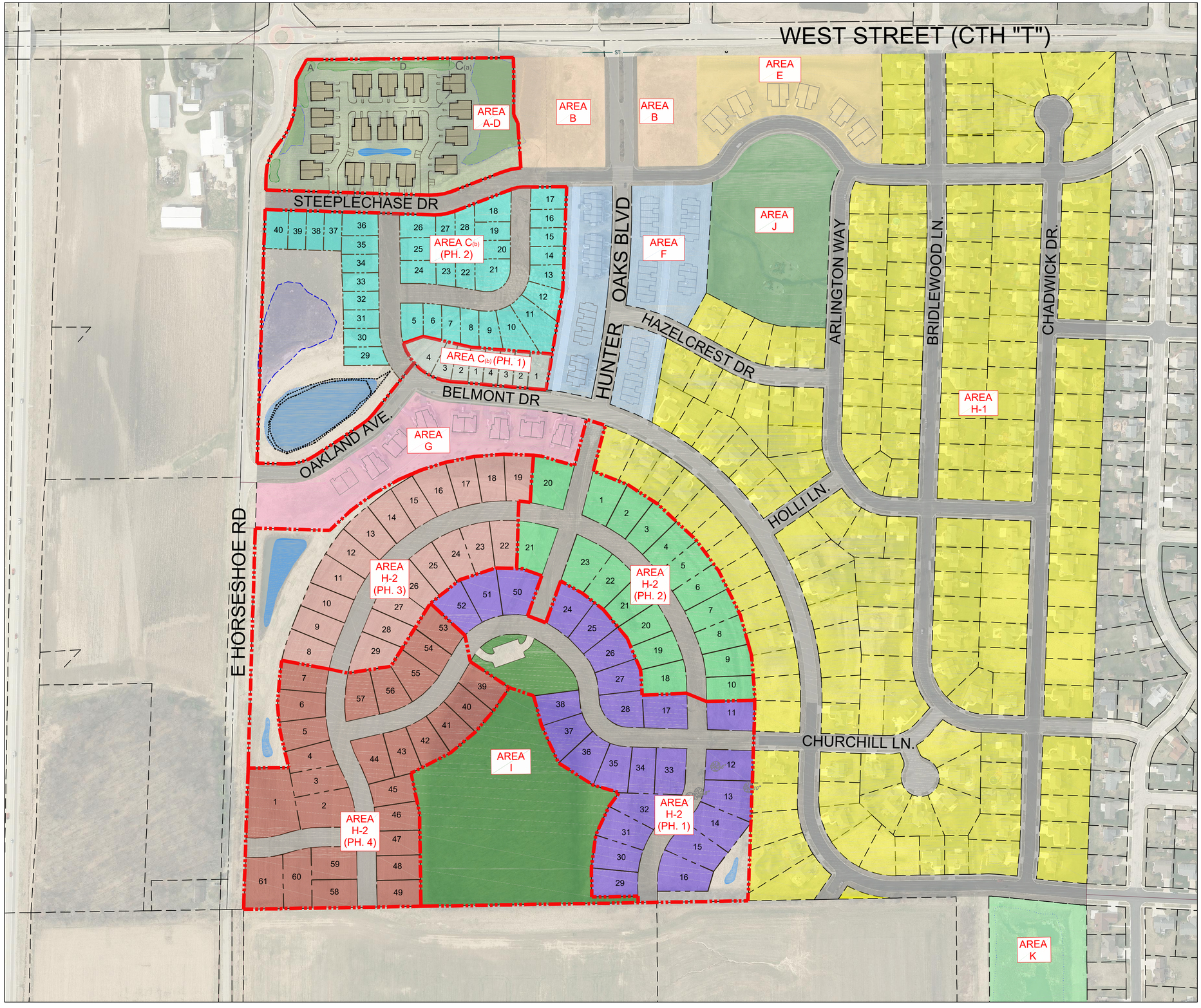
Bielinski Development, Inc.

1830 Meadow Lane, Suite A

Pewaukee, Wisconsin 53072

By: _____ Dated: 11/7/24

Frank Bielinski, President



BIELINSKI HOMES

GENERAL DEVELOPMENT PLAN (AMENDMENT)

"Hunter Oaks Neighborhood"

City of Watertown, Wisconsin

Site Data Table (Original)

Acreage Calculations & Unit Counts					
Area	Land Use	Net Acreage	Number of Units	Net Density	% of Unit Count
$C_{(a)}$	Multi-Family Homes	3.8	54	14.2	9.0%
$C_{(b)}$	Multi-Family Homes	6.2	81	13.1	16.7%
E	Single-Family Attached Condos (2-Unit)	3.3	12	3.8	2.0%
F	Single-Family Attached Condos (4 to 6 Unit)	5	50	10	9.0%
G	Single-Family Attached Condos (4 to 8 Unit)	6.4	60	9.4	11.0%
H	Single-Family Attached Condos (2-Unit)	3.7	20	5.4	4.0%
I	Single-Family Lots (75'w to 110'w)	3.8	294	3.9	51.0%
J	Neighborhood Park	8.2	-	-	
K	Neighborhood Park	4.3	-	-	
L	Storm Water Detention	8.9	-	-	
	Street Right of Way	38.9			
	Total		571		

Site Data Table (Amended)

Acreage Calculations & Unit Counts					
Area	Land Use	Net Acreage	Number of Units	Net Density	% of Unit Count
A-D	Multi-Family Condos (2-Unit)	6.5	34	5.23	7.66%
B	Single-Family Attached Condos (2-Unit)	3.5	20	5.71	4.50%
$C_{(b)}$ (PH1)	Single-Family Lots	1.1	8	7.3	1.80%
$C_{(b)}$ (PH2)	Single-Family Lots	10.4	36	3.5	8.11%
E	Single-Family Attached Condos (2-unit)	3.3	12	3.64	2.70%
F	Single-Family Attached Condos (4 to 6 Unit)	5.1	50	9.80	11.26%
G	Single-Family Attached Condos (2-Unit)	3.8	20	5.26	4.50%
H-1	Single-Family Lots	48.1	174	3.60	39.19%
H-2 (PH1)	Single-Family Lots	8.1	25	3.09	5.63%
H-2 (PH2)	Single-Family Lots	5.3	18	3.40	4.05%
H-2 (PH3)	Single-Family Lots	7.8	20	2.56	4.50%
H-2 (PH4)	Single-Family Lots	8.1	27	3.33	6.08%
I	Neighborhood Park	7.5	-	-	–
J	Neighborhood Park	4.4	-	-	–
K	Storm Water Detention	8.9	-	-	–
	Street Right of Way	31.5	-	–	–
	Total Project Area	163.4	444		

Overall Gross Density:

- 444 Total Units / 163.4 Total Project Acres = 2.72 DUA

Overall Net Density:

- 444 Total Units / 123.0 = 3.61 DUA
  *Net Residential & Neighborhood Park Land Use Acres

*Net Residential & Neighborhood Park Land Use Acres is Equal to Areas A-D, B, $C_{(b)}$, E, F, G, H, I, J

TRIO DESIGN • LAND SURVEYING CIVIL ENGINEERING
4100 North Calhoun Road
Brookfield, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: info@trioeng.com

0 75 150 300

Scale: 1" = 150' (22"X34")

Scale: 1" = 300' (11"X17")

DATE: 10-30-2024

H:\C900\966\16046--01--Hunter Oaks\Concepts\SITE PLAN_2024--10--30.dwg

Shapes on map represent general recommendations for future land use. Actual boundaries between different land use types and associated zoning districts may vary somewhat from representations on this map. Not all lands shown in a future developed land use category are immediately appropriate for development, rezoning, or subdivision.
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City of Watertown Growth Area*

City of Watertown And Town of Emmet Intergovernmental Agreement**

Proposed Amended PUD GDP Area C(b)

Town of Shields

Town of Emmet

Town of Watertown

Dodge County

Jefferson County

Rock River

Silver Creek

Q M R K T A Y X D E CW

16 26 Welsh Rd Provimi Rd N Water St 2nd Street Rd Hancock Rd Church St W Main St S Water St Hall St West St Western Ave Milford St River Dr S 3rd St S 12th St Summit Ave Clark St Jefferson Rd South Rd Air Park Dr Beryl Dr High Rd Turf Dr Gypsy Rd Horseshoe Rd Hilltop Rd River Rd Gophe

Future Land Use Urban Area

Map 6b

City of Watertown Comprehensive Plan

City/Town IGA**
- City Growth Area
- City Periphery Areas

*Each "Planned Mixed Use Area" may include mix of:
1. Office
2. Multi-Family Residential
3. Mixed Industrial
4. Commerical Services/Retail
5. Institutional
6. Parks & Recreation

**"Planned Neighborhoods" should include a mix of the following:
1. Single-Family - Sewered (predominant land use)
2. Two-family Residential
3. Multi-Family Residential
4. Institutional
5. Neighborhood Mixed Use
6. Parks & Recreation

***Each "Riverside Mixed Use Area" may include mix of:
1. Office
2. Single-Family - Sewered
3. Two-Family Residential
4. Multi-Family Residential
5. Commerical Services/Retail
6. Institutional
7. Parks & Recreation

- City of Watertown
- Town Boundary
- Parcel
- Railroad
- Watertown Urban Service Area
- Watertown Long Range Growth Area

Airport Height Limitations
- Maximum Building Elevation b/t 865 and 968 ft
- Maximum Building Elevation b/t 968 and 1005 ft

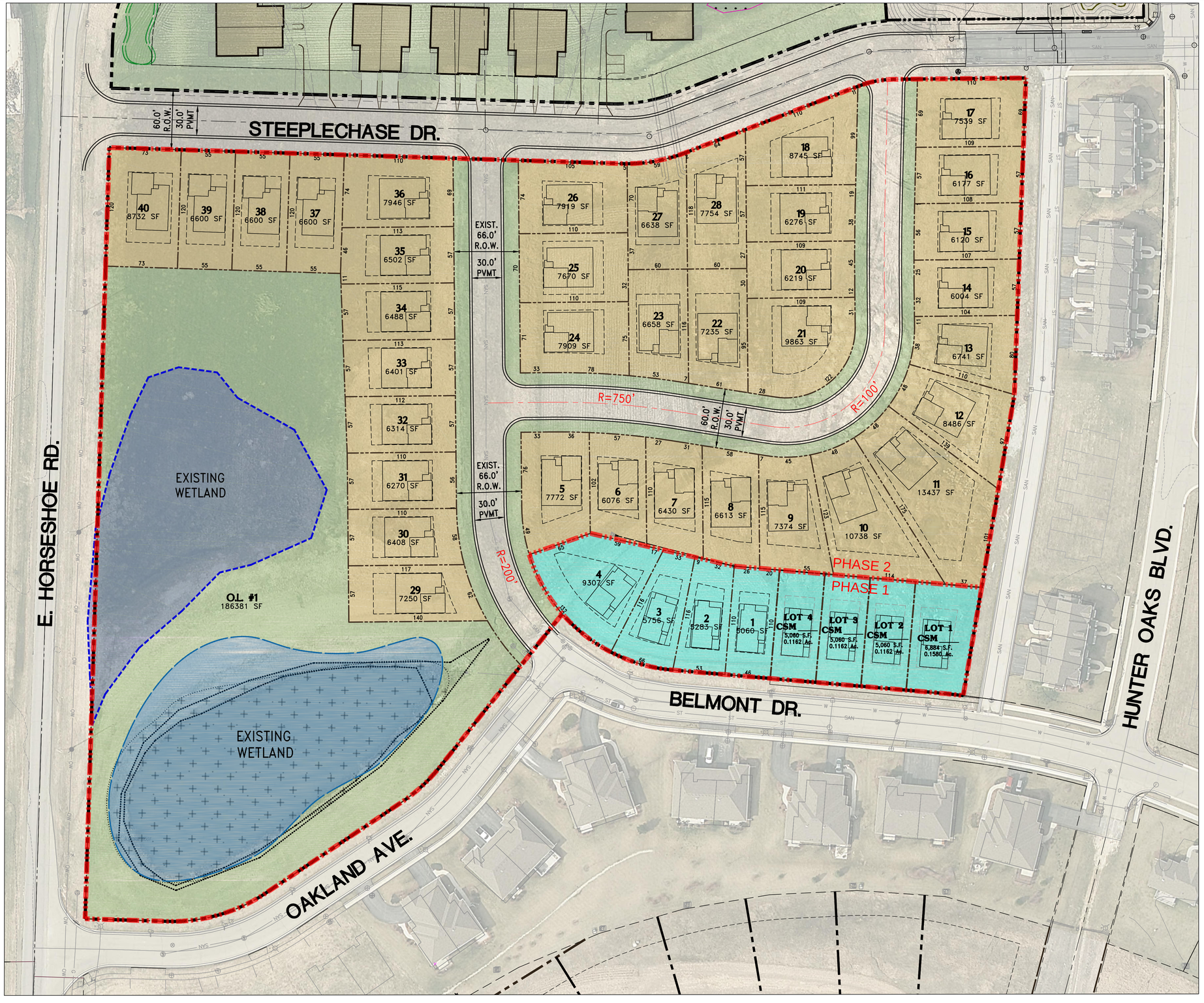
Land Use Categories
- Agricultural
- Single-Family Residential - Unsewered
- Single-Family Residential - Sewered
- Two-Family Residential
- Multi-Family Residential
- Planned Neighborhood**
- Institutional
- Airport
- Rights-of-Way
- Neighborhood Mixed Use
- Planned Mixed Use*
- Central Mixed Use
- Riverside Mixed Use***
- Mixed Industrial
- Parks & Recreation
- Environmental Corridor
- Surface Water

Miles
0 0.25 0.5 1

Draft: August 7, 2019
Source: WisDNR, FEMA, City of Watertown, Dodge Co. LIO & Jefferson Co. LIO, V&A

THE CITY OF WATERTOWN
Opportunity runs through it.

VANDEWALLE & ASSOCIATES INC.
Shaping places, shaping change



BIELINSKI™ HOMES

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www.trioeng.com

PIP SITE PLAN

EXCLUSIVE FOR

AREA Cb

"THE ENCLAVE AT HUNTER OAKS"
SINGLE FAMILY HOME SITES
City of Watertown, WI

DATA SUMMARY	
Proposed Site	AREA Cb
Parcel Area:	13.13 acres
Development:	44 lots
Density:	3.35 lots/acre
Average Lot Size:	7,090 s.f. (0.163 Ac)
Proposed Phasing:	
Phase 1:	8 lots, CSM Lots 1-4 & Plat Lots 1-4 (Fall 2024)
Phase 2:	36 lots, 5-40 (2025)
Proposed Pad Dimensions:	
	28'x48' - CSM Lots 1-4 & Plat Lots 1-4
	38'x58' - Lots 37-40
	40'x50' - Lots 5-36
Proposed Building Setbacks:	
Street (Front):	24'
Street (Corner):	20'
Rear:	25'
Side:	8'
Min. Lot Width:	45'

0 25 50 100

Scale: 1" = 50' (22"X34")
Scale: 1" = 100' (11"X17")

DATE: 10-30-2024

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THE CITY OF WATERTOWN

BUILDING, SAFETY & ZONING DEPARTMENT

Main Office 920-262-4060
Brian Zirbes 920-262-4041
Mark Hady 920-342-0986
Nikki Zimmerman 920-262-4045
Dell Zwieg 920-262-4042
Doug Zwieg 920-262-4062
Dennis Quest 920-262-4061

TO: Plan Commission
DATE: December 9th, 2024
SUBJECT: Bielinski Enclave – Preliminary Plat

A request by John Donovan, agent for Bielinski Homes, for review of the 'The Enclave' Preliminary Plat within the City of Watertown. Parcel PIN(s): 291-0815-0642-007 & 291-0815-0642-006

SITE DETAILS:
Acres: 6.21 & 6.16 Acres
Current Zoning: Single-Family Residential with PUD Overlay Zoning
Existing Land Use: Vacant Land
Future Land Use Designation: Mixed Residential

BACKGROUND & APPLICATION DESCRIPTION:
The applicant is proposing to create a 40 Lot subdivision plat of single-family lots. The Enclave Plat is part of the larger Hunter Oaks development with an approved Planned Development (PD) Overlay. As a result of the approved PD Overlay for this site, the minimum lot area required in the Single-Family Residential Zoning District is reduced from 8,000 S.F. to 4,601 S.F. per dwelling unit, the front and street yard building setbacks are reduced to 24ft, and new dedicated ROWs are reduced to 60ft in width. The plat contains one Outlot for wetlands, open space, and stormwater management purposes. The proposed platted lots are located within the Airport Approach Protection Zone with a maximum elevation of 975 feet above mean sea level for all buildings and vegetation. A note indicating this elevation will need to be added to the plat. The plat also will dedicate a new road between Belmont Drive and Steeplechase Drive called Enclave Lane. An amendment to the PD-GDP is also pending for this development.

STAFF EVALUATION:

Site Plan Review Committee:
See Minutes of November 25th, 2024.

Wisconsin Statutes
Per the Wisconsin Statues it is the role of the Plan Commission to review and recommend to Council all plats of land within the City.

Per Wisconsin State Statute § 62.23(5):

(5) ***Matters referred to city plan commission.*** *The council, or other public body or officer of the city having final authority thereon, shall refer to the city plan commission, for its consideration and report before final action is taken by the council, public body or officer, the following matters: The location and architectural design of any public building; the location of any statue or other memorial; the location, acceptance, extension, alteration, vacation, abandonment, change of use, sale, acquisition of land for or lease of land for any street, alley or other public way, park, playground, airport, area for parking vehicles, or other memorial or public grounds; the location, extension, abandonment or authorization for any public utility whether publicly or privately owned;* ***all plats of lands in the city*** *or within the territory over which the city is given platting jurisdiction by ch. 236; the location, character and extent or acquisition, leasing or sale of lands for public or semipublic housing, slum clearance,*

relief of congestion, or vacation camps for children; and the amendment or repeal of any ordinance pursuant to this section. Unless such report is made within 30 days, or such longer period as may be stipulated by the common council, the council or other public body or officer, may take final action without it.

Land Use

Within the City Code, Chapter 545 Subdivision of Land outlines the procedures and requirements for preliminary plat review of subdivisions within the City. [*per § 545-13*]. Under the preliminary platting procedures, the preliminary plat shall be submitted to the appropriate County Planning Agency and the Wisconsin Department of Administration (WDOA) for review, comment, and approval. Comments from these agencies are below:

Jefferson County Comments:
The County does not object to the plat and provided one comment regarding a section corner the subdivision description is tied to. The applicant's surveyor is addressing this comment.

State Agency Comments:
The State reported no objections to the original version of this plat and provided one comment regarding lots less than 6,000 S.F. in area needing verification that these lot are allowed under City ordinances *[per Wis. Stats. s. 236.16 (1)]*. The approved PUD satisfies the Wis. Stats. requirement for this verification. The revised version of this Plat has also been submitted to the State by the applicant for further review and comment.

Within the City Code, Chapter 545 Subdivision of Land outlines the preliminary platting requirements for platting of subdivisions within the City. [*per § 545-13B*] Under the preliminary platting requirements, the preliminary plat shall include specific information on the description, existing conditions, and proposed conditions of the area to be platted. Below are additional informational items needed on the preliminary plat:

1. Minimum Street Frontage of 45 ft listed in 'Site Data Table' consistent with amended PD-GDP/PIP.
2. Existing zoning should be stated as Single-Family Residential with PD Overlay in 'Development Summary Table'.
3. Subsurface soil, rock, and water conditions including depth to bedrock and average depth to groundwater.
4. Drainage easements for individual lots.
5. The preliminary plat is located within the Airport Approach Protection Zone with maximum elevations 975ft above mean sea level for all buildings and vegetation. Maximum elevations need to be added to the preliminary plat.

Also, under the preliminary platting procedures, the Plan Commission shall recommend approval, denial, or approval with conditions of the plat to the Common Council [*per § 545-13A(7)*].

PLAN COMMISSION OPTIONS:

The following possible options for the Plan Commission:
1. Deny the preliminary plat.
2. Approve the preliminary plat without conditions.
3. Approve the preliminary plat with conditions as identified by the Plan Commission:
    a. Add minimum Street Frontage of 45 ft per amended PD-GDP/PIP to 'Site Data Table'.
    b. Change listed zoning information in 'Development Summary Table' to Single-Family Residential with PD Overlay.
    c. Add subsurface soil, rock, and water conditions including depth to bedrock and average depth to groundwater to the plat.
    d. Add drainage easements for individual lots to the plat.

e. Add a note to the plat that indicates permanent improvements to the existing stormwater
meeting current stormwater standards will be completed as part of Phase 2 of the plat.
f. Add Airport Approach Protection Zone maximum elevations to the plat.

ATTACHMENTS:

- Application materials.

PRELIMINARY PLAT
OF
HUNTER OAKS ENCLAVE

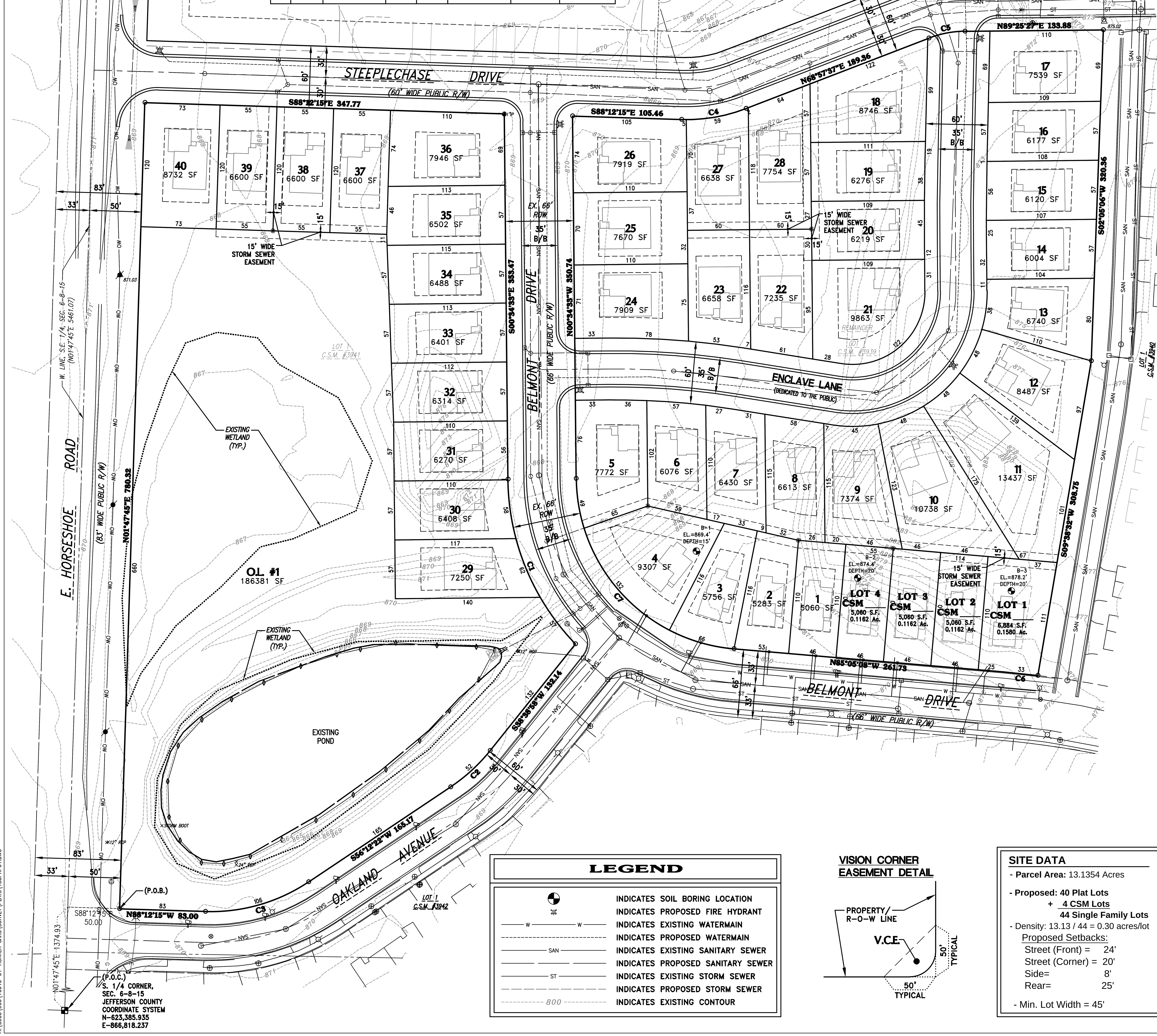
BEING A REDIVISION OF LOT 1 OF CERTIFIED SURVEY MAP NO. 3941, LOT 1 OF CERTIFIED SURVEY MAP NO. 3939, LOCATED IN A PART OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWN 8 NORTH, RANGE 15 EAST, IN THE CITY OF WATERTOWN, JEFFERSON COUNTY, WISCONSIN.

CURVE TABLE:

NO.	RADIUS	CENTRAL ANGLE	ARC	CHORD	CHORD BEARING	TANGENT IN	TANGENT OUT
C1	233.00	43°22'38"	176.40	172.22	S22°15'52"E	S00°34'33"E	S43°57'11"E
C2	170.00	17°33'24"	52.09	51.89	S47°25'40"W	S38°38'58"W	S56°12'22"W
C3	170.00	35°35'23"	105.60	103.91	S74°00'03"W	S56°12'22"W	N88°12'15"W
C4	160.00	22°50'08"	63.77	63.35	N80°22'41"E	S88°12'15"E	N68°57'37"E
C5	100.00	20°27'50"	35.72	35.53	N79°11'32"E	N68°57'37"E	N89°25'27"E
C6	962.81	1°58'32"	33.20	33.20	N84°05'53"W	N83°06'37"W	N85°05'08"W
C7	167.00	84°30'35"	246.32	224.59	N42°49'51"W	N85°05'08"W	N00°34'33"W

ENGINEER / SURVEYOR:
TRIO ENGINEERING, LLC
4100 N. CALHOUN ROAD, SUITE 300
BROOKFIELD, WISCONSIN 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481

DEVELOPER:
BIELINSKI HOMES
1830 MEADOW LANE
SUITE "A"
PEWAUKEE, WI 53072
PHONE: (262) 548-5570



LEGEND

(symbol)	INDICATES SOIL BORING LOCATION
(symbol)	INDICATES PROPOSED FIRE HYDRANT
—W—	INDICATES EXISTING WATERMAIN
- - -	INDICATES PROPOSED WATERMAIN
—SAN—	INDICATES EXISTING SANITARY SEWER
— —	INDICATES PROPOSED SANITARY SEWER
—ST—	INDICATES EXISTING STORM SEWER
— — —	INDICATES PROPOSED STORM SEWER
- - 800 - -	INDICATES EXISTING CONTOUR

VISION CORNER EASEMENT DETAIL

PROPERTY/ R-O-W LINE
V.C.E.
50' TYPICAL
50' TYPICAL

SITE DATA

- **Parcel Area:** 13.1354 Acres
- **Proposed: 40 Plat Lots**
  + 4 CSM Lots
  44 Single Family Lots
- Density: 13.13 / 44 = 0.30 acres/lot

Proposed Setbacks:

Street (Front) =	24'
Street (Corner) =	20'
Side=	8'
Rear=	25'

- Min. Lot Width = 45'

DEVELOPMENT SUMMARY:

1. Tax Key No. 291-0815-0642-006 and 291-0815-0642-007
2. Subdivision contains approximately 13.1354 Acres.
3. Subdivision contains 44 Lots and 1 Outlot.
4. All lots to be served by Sanitary Sewer and Watermain.
5. Public Roads to have Concrete Curb and Gutter & Asphalt Pavement with Storm Sewer.
6. All lots to have Underground Telephone, Electric, and Gas Service. Utility Easements shall be determined by the Utility Companies and included on the Final Plat.
7. Proposed Zoning = PUD
8. Outlot 1 contains Stormwater Management Facilities and Open Space.
9. The Owners of C.S.M. #_______ Lots 1-4 and Lots 1-40 within this Subdivision shall each own an equal undivided fractional interest in all Outlots of this Subdivision. Jefferson County shall not be liable for fees or special charges in the event they become the owner of any Lot or Outlot in the Subdivision by reason of tax delinquency.
10. Stormwater Management Facilities are located on Outlot 1 of this Subdivision. The Owners of C.S.M. #_______ Lots 1-4 and Lots 1-40 within this Subdivision shall each be liable for an equal undivided fractional share of the cost to repair, maintain or restore said Stormwater Management Facilities. Said repairs, maintenance and restoration shall be performed by the Subdivision Master Association.

VISION CORNER EASEMENT: (V.C.E.)

Corner Lots & Outlots are herein subject to a Vision Corner Easement in that the height of planting berms, fences, signs & any other structure within the Easement is restricted to 24" above the intersection elevation. There shall be no direct vehicular access from the Lots and Outlots in this Subdivision to the public Roads across the Vision Corner Easement.

BASEMENT RESTRICTION FOR GROUNDWATER:

Although all Lots in the Subdivision have been reviewed and approved for development with single-family residential use in accordance with Section 236 Wisconsin Statutes, some Lots contain soil conditions that, due to the possible presence of groundwater near the surface, may require additional soil engineering and foundation design with regard to basement construction. It is recommended that a licensed professional engineer design a basement and foundation that will meet Chapter 288, municipal code, and will be suitable to withstand the various problems associated with saturated soil conditions on basement walls or floors or that other special measures be taken. Soil conditions should be subject to each owner's special investigation prior to construction and no specific representation is made herein.

HORIZONTAL DATUM PLANE:

All bearings are referenced to the Jefferson County Coordinate System, in which the West line of the Southeast 1/4 of Section 6, Town 8 North, Range 15 East, Bears North 01°47'45" East.

VERTICAL DATUM PLANE:

All elevations are referenced to the North American Vertical Datum of 1988 (12).

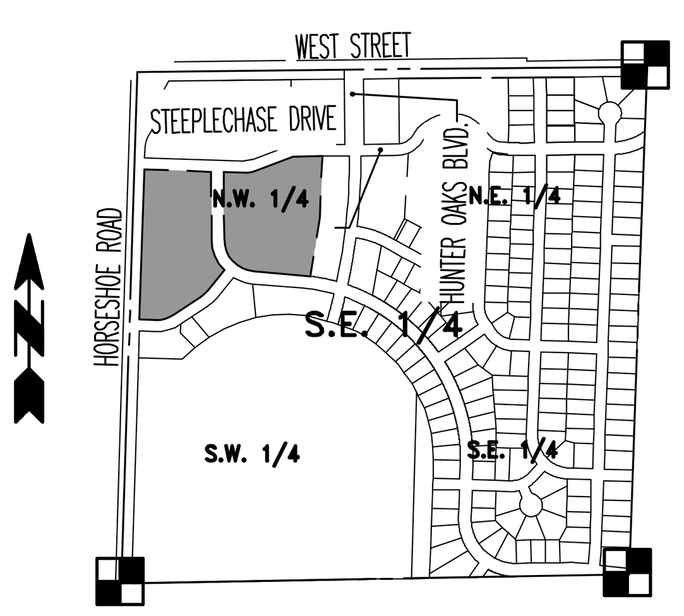
AGENCIES HAVING THE AUTHORITY TO OBJECT:

- State of Wisconsin, Department of Administration
- Jefferson County, Planning and Zoning Department

APPROVING AUTHORITY:

- City of Watertown

SCALE: 1"=50'
0 25 50 100



LOCALITY MAP:
S.E. 1/4, SEC. 6, T. 8 N., R. 15 E.
SCALE: 1"=1000'

SURVEYOR'S CERTIFICATE:

I hereby certify that this preliminary plat is a correct representative of all existing land divisions and features and that I have fully complied with the provisions of the subdivision regulations of the City of Watertown.

Date: 8/19/2024
Revised: 10/08/2024
Revised: 11/14/2024

WISCONSIN GRADY L. GOSSER S-2972 MENOMONEE FALLS, WI LAND SURVEYOR

Grady L. Gosser
Grady L. Gosser, P.L.S.
Professional Land Surveyor S-2972

WISCONSIN GRADY L. GOSSER S-2972 MENOMONEE FALLS, WI LAND SURVEYOR

TRIO
DESIGN • LAND SURVEYING • CIVIL ENGINEERING
4100 N. CALHOUN ROAD, SUITE 300
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: ggosser@trioeng.com

PROJECT: HUNTER OAKS ENCLAVE
SINGLE FAMILY RESIDENTIAL SUBDIVISION
CITY OF WATERTOWN, WISCONSIN
BY: BIELINSKI HOMES
1830 MEADOW LANE, SUITE "A"
PEWAUKEE, WI 53072
PHONE: (262) 548-5570

REVISION HISTORY

DATE	DESCRIPTION
8/19/2024	INITIAL SUBMITTAL
10/8/2024	REVISED PARCELS
11/14/2024	REVISED PARCELS

DATE:
NOVEMBER 14, 2024

JOB NUMBER:
22-059-1155-01

DESCRIPTION:
PRELIMINARY PLAT

SHEET
1 OF 1

H:\C900\966\16046-01-HUNTER OAKS\SURVEY\PLATS\150PRP01.DWG

JEFFERSON COUNTY
PLANNING AND DEVELOPMENT DEPARTMENT
ZONING DIVISION

Room C1040
311 S Center Ave
Jefferson, WI 53538

zoning@jeffersoncountywi.gov
Phone: 920-674-7524
Fax 920-674-7525

DATE: September 9, 2024

TO: Plat Review
WI Department of Administration

RE: Hunter Oaks Enclave

Jefferson County does not object to the Hunter Oaks Enclave preliminary subdivision plat.

The County Surveyor does have the following comment:

- The subdivision is tied to the north and south ends of the quarter line of Section 6, Town 8 North, Range 15 East, beginning at the south quarter corner. The center quarter corner has a tie sheet from 2018. Was this corner searched for, and not recovered?

Thank you,

Matt Zangl
Director of Planning and Development
Jefferson County
920-674-8638

PRELIMINARY PLAT
OF
HUNTER OAKS ENCLAVE

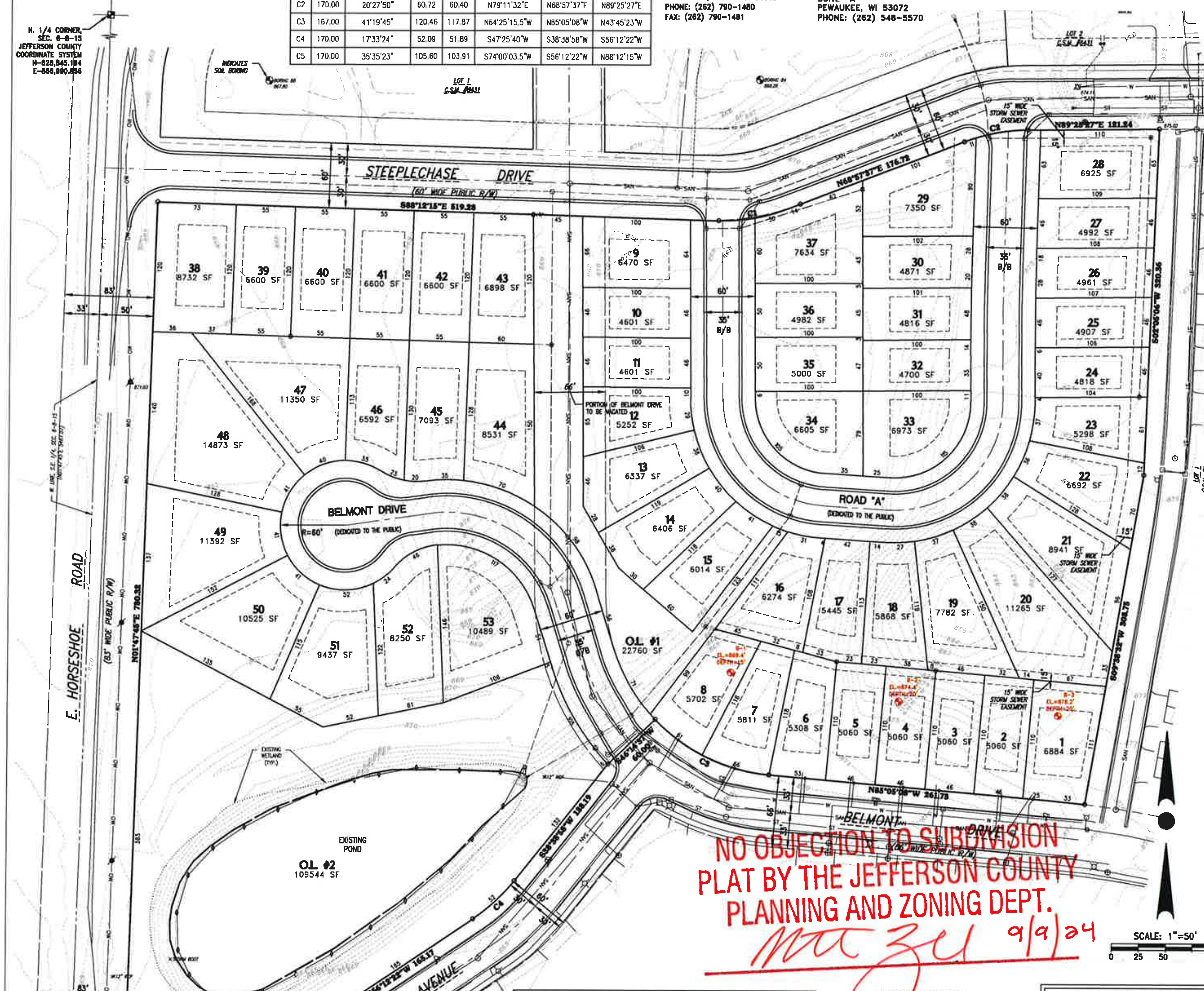
BEING A REDIVISION OF LOT 1 OF CERTIFIED SURVEY MAP NO. 3941, LOT 1 OF CERTIFIED SURVEY MAP NO. 3939 AND VACATED BELMONT DRIVE, LOCATED IN A PART OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWN 8 NORTH, RANGE 15 EAST, IN THE CITY OF WATERTOWN, JEFFERSON COUNTY, WISCONSIN.

CURVE TABLE:

NO.	RADIUS	CENTRAL ANGLE	ARC	CHORD	CHORD BEARING	TANGENT IN	TANGENT OUT
C1	160.00	22°50'08"	63.77	63.35	N80°22'41"E	S88°12'15"E	N68°57'37"E
C2	170.00	20°27'50"	60.72	60.40	N79°11'32"E	N68°57'37"E	N89°25'27"E
C3	167.00	41°19'45"	120.46	117.87	N64°25'15.5"W	N85°05'08"W	N43°45'23"W
C4	170.00	17°33'24"	52.09	51.89	S47°25'40"W	S38°38'58"W	S56°12'22"W
C5	170.00	35°35'23"	105.60	103.91	S74°00'03.5"W	S56°12'22"W	N88°12'15"W

ENGINEER / SURVEYOR:
TRIO ENGINEERING, LLC
4100 N. CALHOUN ROAD, SUITE 300
BROOKFIELD, WISCONSIN 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481

DEVELOPER:
BIELINSKI HOMES
1830 MEADOW LANE
SUITE "A"
PEWAUKEE, WI 53072
PHONE: (262) 548-5570



NO OBJECTION TO SUBDIVISION PLAT BY THE JEFFERSON COUNTY PLANNING AND ZONING DEPT.
[signature] 9/9/24

DEVELOPMENT SUMMARY:

1. Tax Key No. 291-0815-0642-006 and 291-0815-0642-007
2. Subdivision contains approximately 13.1354 Acres.
3. Subdivision contains 53 Lots and 2 Outlots.
4. All lots to be served by Sanitary Sewer and Watermain.
5. Public Roads to have Concrete Curb and Gutter & Asphalt Pavement with Storm Sewer.
6. All lots to have Underground Telephone, Electric, and Gas Service. Utility Easements shall be determined by the Utility Companies and included on the Final Plat.
7. Proposed Zoning = PUD
8. Outlot 1 contains Utilities and Open Space.
9. Outlot 2 contains Stormwater Management Facilities and Open Space.
10. The Owners of all Lots within this Subdivision shall each own an equal undivided fractional interest in all Outlots of this Subdivision. Jefferson County shall not be liable for fees or special charges in the event they become the owner of any Lot or Outlot in the Subdivision by reason of tax delinquency.
11. Stormwater Management Facilities are located on Outlot 2 of this Subdivision. The Owners of all Lots within this Subdivision shall each be liable for an equal undivided fractional share of the cost to repair, maintain or restore said Stormwater Management Facilities. Said repairs, maintenance and restoration shall be performed by the Subdivision Master Association.

VISION CORNER EASEMENT: (V.C.E.)

Corner Lots & Outlots are herein subject to a Vision Corner Easement in that the height of planting berms, fences, signs & any other structure within the Easement is restricted to 24" above the intersection elevation. There shall be no direct vehicular access from the Lots and Outlots in this Subdivision to the public Roads across the Vision Corner Easement.

BASEMENT RESTRICTION FOR GROUNDWATER:

Although all Lots in the Subdivision have been reviewed and approved for development with single-family residential use in accordance with Section 236 Wisconsin Statutes, some Lots contain soil conditions that, due to the possible presence of groundwater near the surface, may require additional soil engineering and foundation design with regard to basement construction. It is recommended that a licensed professional engineer design a basement and foundation that will be suitable to withstand the various problems associated with saturated soil conditions on basement walls or floors or that other special measures be taken. Soil conditions should be subject to each owner's special investigation prior to construction and no specific representation is made herein.

HORIZONTAL DATUM PLANE:

All bearings are referenced to the Jefferson County Coordinate System, in which the West line of the Southeast 1/4 of Section 6, Town 8 North, Range 15 East, Bears North 01°47'45" East.

VERTICAL DATUM PLANE:

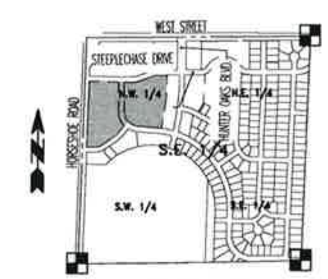
All elevations are referenced to the North American Vertical Datum of 1988 (12).

AGENCIES HAVING THE AUTHORITY TO OBJECT:

- State of Wisconsin, Department of Administration
- Jefferson County, Planning and Zoning Department

APPROVING AUTHORITY:

- City of Watertown

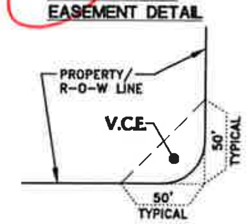


LOCALITY MAP:
S.E. 1/4, SEC. 6, T. 8 N., R. 15 E.
SCALE: 1"=1000'

LEGEND

(soil boring symbol)	INDICATES SOIL BORING LOCATION
(hydrant symbol)	INDICATES PROPOSED FIRE HYDRANT
—W—	INDICATES EXISTING WATERMAIN
- - - -	INDICATES PROPOSED WATERMAIN
—SAN—	INDICATES EXISTING SANITARY SEWER
— — —	INDICATES PROPOSED SANITARY SEWER
—ST—	INDICATES EXISTING STORM SEWER
— — —	INDICATES PROPOSED STORM SEWER
- - 800 - -	INDICATES EXISTING CONTOUR

VISION CORNER EASEMENT DETAIL



SITE DATA

- Parcel Area: 13.1354 Acres
- Proposed: 53 Single Family Lots
- Density: 13.13 / 53 = 0.25 acres/lot

Proposed Setbacks:

Stree (Front) =	20'
Street (Corner) =	20'
Side=	8'
Rear=	25'

- Min. Lot Width = 50'

SURVEYOR'S CERTIFICATE:

I hereby certify that this preliminary plat is a correct representative of all existing land divisions and features and that I have fully complied with the provisions of the subdivision regulations of the City of Watertown.

Date: 8/19/2024

WISCONSIN GRADY L. GOSSER S-2972 MENOMONEE FALLS, WI LAND SURVEYOR

[signature]
Grady L. Gosser, P.L.S.
Professional Land Surveyor S-2972

WISCONSIN GRADY L. GOSSER S-2972 MENOMONEE FALLS, WI LAND SURVEYOR

TRIO
DESIGN • LAND SURVEYING • CIVIL ENGINEERING
4100 N. CALHOUN ROAD, SUITE 300
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: ggosser@trioeng.com

PROJECT:
HUNTER OAKS ENCLAVE
SINGLE FAMILY RESIDENTIAL SUBDIVISION
CITY OF WATERTOWN, WISCONSIN
BY: BIELINSKI HOMES
1830 MEADOW LANE, SUITE "A"
PEWAUKEE, WI 53072
PHONE: (262) 548-5570

REVISION HISTORY

DATE	DESCRIPTION

DATE: AUGUST 19, 2024

JOB NUMBER: 22-059-1155-01

DESCRIPTION: PRELIMINARY PLAT

SHEET 1 OF 1

JEFFERSON COUNTY
PLANNING AND DEVELOPMENT DEPARTMENT
ZONING DIVISION

Room C1040
311 S Center Ave
Jefferson, WI 53538

zoning@jeffersoncountywi.gov
Phone: 920-674-7524
Fax 920-674-7525

DATE: December 2, 2024

TO: Plat Review
WI Department of Administration

RE: Hunter Oaks Enclave

Jefferson County does not object to the Hunter Oaks Enclave subdivision plat and certifies the plat as non-objectionable.

Thank you,

Matt Zangl
Director of Planning and Development
Jefferson County
920-674-8638

PRELIMINARY PLAT
OF
HUNTER OAKS ENCLAVE

BEING A REDIVISION OF LOT 1 OF CERTIFIED SURVEY MAP NO. 3941, LOT 1 OF CERTIFIED SURVEY MAP NO. 3939, LOCATED IN A PART OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWN 8 NORTH, RANGE 15 EAST, IN THE CITY OF WATERTOWN, JEFFERSON COUNTY, WISCONSIN.

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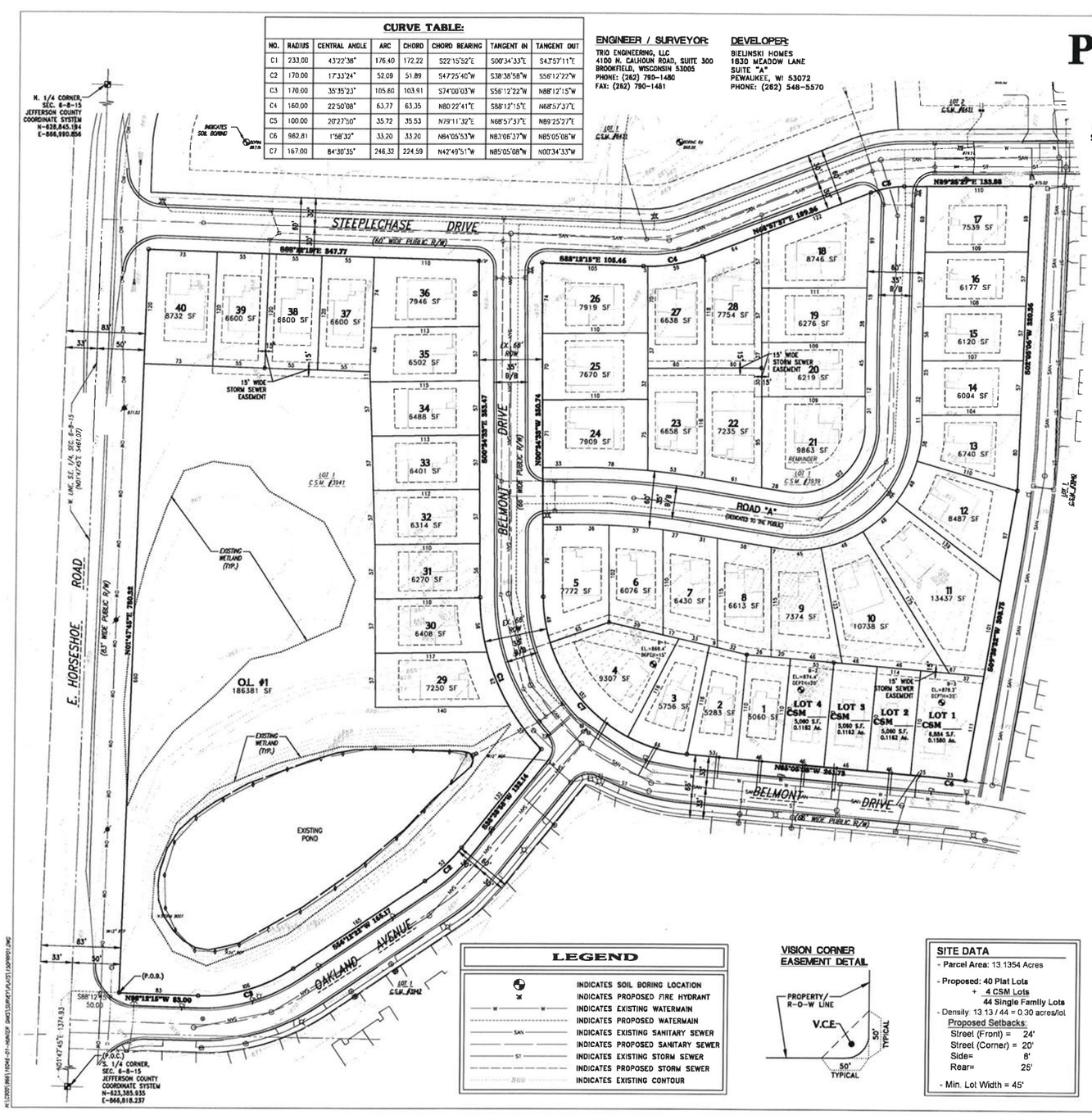

ENGINEER / SURVEYOR:
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BROOKFIELD, WISCONSIN 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481

DEVELOPER:
BIELINSKI HOMES
1830 MEADOW LANE
SUITE "A"
PEWAUKEE, WI 53072
PHONE: (262) 548-5570

DEVELOPMENT SUMMARY:

1. Tax Key No. 291-0815-0642-006 and 291-0815-0642-007
2. Subdivision contains approximately 13.1354 Acres.
3. Subdivision contains 44 Lots and 1 Outlot.
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VERTICAL DATUM PLANE:

All elevations are referenced to the North American Vertical Datum of 1988 (12).

AGENCIES HAVING THE AUTHORITY TO OBJECT:

- State of Wisconsin, Department of Administration
- Jefferson County, Planning and Zoning Department

APPROVING AUTHORITY:

- City of Watertown

SCALE: 1"=50'
0 25 50 100

LOCALITY MAP:
S.E. 1/4, SEC. 6, T. 8 N., R. 15 E.
SCALE: 1"=1000'

LEGEND

⊕	INDICATES SOIL BORING LOCATION
	INDICATES PROPOSED FIRE HYDRANT
W W	INDICATES EXISTING WATERMAIN
	INDICATES PROPOSED WATERMAIN
SAN	INDICATES EXISTING SANITARY SEWER
	INDICATES PROPOSED SANITARY SEWER
ST	INDICATES EXISTING STORM SEWER
	INDICATES PROPOSED STORM SEWER
800	INDICATES EXISTING CONTOUR

VISION CORNER EASEMENT DETAIL

SITE DATA

- Parcel Area: 13.1354 Acres
- Proposed: 40 Plat Lots
  + 4 CSM Lots
  44 Single Family Lots
- Density: 13.13 / 44 = 0.30 acres/lot

Proposed Setbacks:
Street (Front) = 24'
Street (Corner) = 20'
Side= 8'
Rear= 25'

- Min. Lot Width = 45'

SURVEYOR'S CERTIFICATE:

I hereby certify that this preliminary plat is a correct representative of all existing land divisions and features and that I have fully complied with the provisions of the subdivision regulations of the City of Watertown.

Date: 8/18/2024
Revised: 10/08/2024
Revised: 11/14/2024

WISCONSIN GRADY L. GOSSER S-2972 MENOMONEE FALLS, WI LAND SURVEYOR

Grady L. Gosser, P.L.S.
Professional Land Surveyor S-2972

WISCONSIN GRADY L. GOSSER S-2972 MENOMONEE FALLS, WI LAND SURVEYOR

TRIO

4100 N. CALHOUN ROAD, SUITE 300
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: gosser@trioeng.com

NO OBJECTION TO SUBDIVISION PLAT BY THE JEFFERSON COUNTY PLANNING AND ZONING DEPT.
12-2-24

PROJECT:
HUNTER OAKS ENCLAVE
SINGLE FAMILY RESIDENTIAL SUBDIVISION
CITY OF WATERTOWN, WISCONSIN
BY:
BIELINSKI HOMES
1830 MEADOW LANE, SUITE "A"
PEWAUKEE, WI 53072
PHONE: (262) 548-5570

REVISION HISTORY

DATE	DESCRIPTION
8/19/2024	INITIAL SUBMITTAL
10/8/2024	REVISED PARCELS
11/14/2024	REVISED PARCELS

DATE:
NOVEMBER 8, 2024

JOB NUMBER:
22-059-1155-01

DESCRIPTION:
PRELIMINARY PLAT

SHEET
1 OF 1

TONY EVERS
GOVERNOR
KATHY BLUMENFELD
SECRETARY
Plat **R**eview
PO Box 1645, Madison WI 53701
E-mail: plat.review@wi.gov
https://doa.wi.gov/platreview

October 02, 2024

Grady Gosser
TRIO ENGINEERING LLC
ggosser@trioeng.com

FILE NO. 122012
Hunter Oaks Enclave
City of Watertown, Jefferson County

Dear Grady Gosser:

You have submitted the preliminary plat of Hunter Oaks Enclave for review. The Department of Administration does not object to this preliminary plat and certifies it as complying with the requirements of: s. 236.16, and s. 236.20 Wis. Stats.; the Jefferson County Planning Agency.

DEPARTMENT OF ADMINISTRATION COMMENTS:
We have examined and find that, with the exceptions noted below, this preliminary plat appears to conform with the applicable layout requirements of ss. 236.16 and 236.20, Wis. Stats.

s. 236.16 (1) Lots in counties having more than 40,000 population are required to be no less than 50' in width and 6,000 square feet in area; except "In municipalities, towns and counties adopting SUBDIVISION CONTROL ORDINANCES under s. 236.45, minimum lot width and area may be reduced to dimensions authorized under such ORDINANCES if the lots are served by public sewers." Many lots in this subdivision are less than 50' in width and/or 6,000 square feet in area.

Prior to our certification of the plat, we must be provided with verification that City of Watertown ordinance allows such lot widths and/or areas. Verification may be in the form of a letter or email from the City that cites the ordinance, or you may provide the same.

COUNTY PLANNING AGENCY:
The Jefferson County Planning Agency is an objecting agency on this plat. On 09/06/2024 we transmitted copies to them for review. On 09/09/2024, we were notified that they do not object to this plat.

Local government units, during their review of the plat, will resolve, when applicable, that the plat:
- complies with local ordinances;
- conforms with areawide water quality management plans, if sewered;
- complies with Wisconsin shoreland management regulations;
- resolves possible problems with storm water runoff;
- fits the design to the topography;
- displays well designed lot and street layout;
- includes service or is serviceable by necessary utilities.

If there are any questions concerning this review or preparation and submittal of the final plat, please contact our office as listed above.

Regards,

Don Sime, PLS
Plat Review

cc: Bielinski Homes, Owner
Clerk, City of Watertown
Jefferson County Planning Agency

PLAT RECEIVED FROM SURVEYOR ON 09/06/2024; REVIEWED ON 10/02/2024

October 22, 2024

Andrew Beyer, P.E.
Director of Public Works/City Engineer
City of Watertown

RE: Hunter Oaks Preliminary Plat Review

Dear Mr. Beyer,

Survey Comments

1. There appears to be a bust in the exterior boundary; it does not close by approximately 30+ feet.
2. 545-13B(3)(a), Proposed Road "A" should be given its proper name.
3. 545-13B(1)(b), Provide the name and address of the property owner on the plat.
4. 545-13B(2)(i), Verify the current platting status of lands lying east and northeast of plat. They are shown as CSM lots but county parcel mapping shows them as Condo plats.
5. 545-13B(2)(j), Show the existing land use and current zoning information.

Engineering Comments

1. 545-13B(3)(c), Provide a draft of proposed covenants, if any, to be imposed.
2. 545-13B(2)(d), label the existing alley adjacent to the preliminary plat.
3. 545-13B(3)(e), Provide a statement from a licensed engineer representing the project that certifies that the technical requirements of City Code § 545 will be met when final engineering design plans (including plans and profiles for public improvements and grading, erosion control, and stormwater management plans) are submitted. Such final engineering design plans shall be submitted and approved by the City Engineer prior to approval of the final plat.
4. 545-13B(2)(h), all final engineering approved plans shall provide the size and invert elevation of any existing sanitary and storm sewers, culverts, or drainpipes and the location and size of any existing water and gas mains on or adjacent to the plat and for proposed use in the development.
5. 545 Attachment 2, The City's minimum right-of-way (ROW) width for Residential (typical) roads is 66 feet. The preliminary plat includes a ROW of 60 feet. Provide a typical cross-section or plan showing the proposed improvements meeting City standards (roadway, curb and gutter, terrace, sidewalk, etc.) will fit within the 60 foot ROW.
6. Show all required drainage easements per City code.

Please find enclosed the preliminary plat with markups for some of the above comments.

Joseph M. Komorowski, PE
Civil Engineer
GRAEF

Christina Rauh, PE
Civil Engineer
GRAEF

Troy Collins, PLS
Project Surveyor
GRAEF

Encl. Plat markups

PRELIMINARY PLAT
OF
HUNTER OAKS ENCLAVE

BEING A REDIVISION OF LOT 1 OF CERTIFIED SURVEY MAP NO. 3941, LOT 1 OF CERTIFIED SURVEY MAP NO. 3939 AND VACATED BELMONT DRIVE, LOCATED IN A PART OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWN 8 NORTH, RANGE 15 EAST, IN THE CITY OF WATERTOWN, JEFFERSON COUNTY, WISCONSIN.

ENGINEER / SURVEYOR:
TRIO ENGINEERING, LLC
4100 N. CALHOUN ROAD, SUITE 300
BROOKFIELD, WISCONSIN 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481

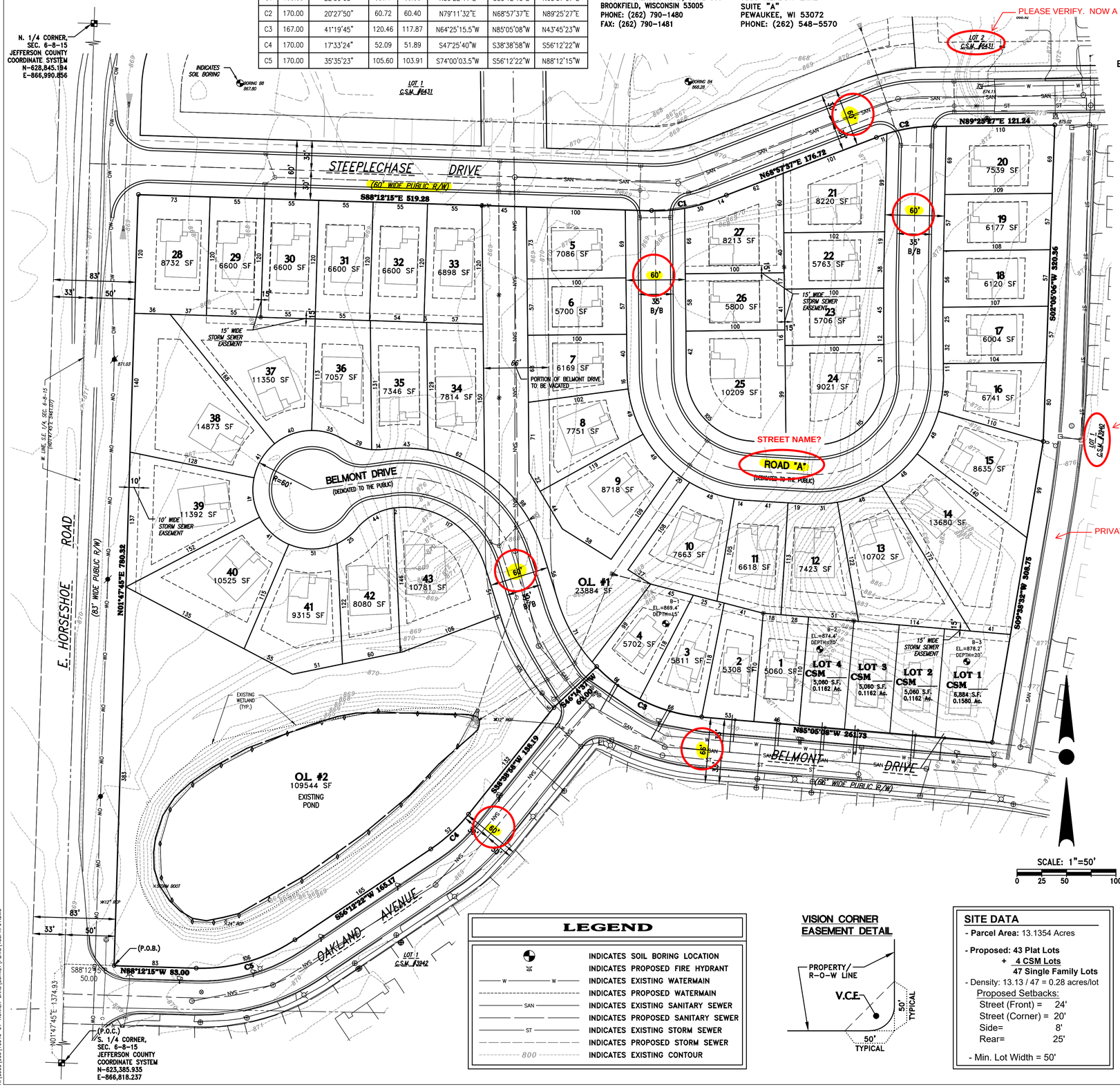
DEVELOPER:
BIELINSKI HOMES
1830 MEADOW LANE
SUITE "A"
PEWAUKEE, WI 53072
PHONE: (262) 548-5570

OWNER:
BIELINSKI DEVELOPMENT INC??

PLEASE VERIFY. NOW A CONDO PLAT?

CURVE TABLE:

NO.	RADIUS	CENTRAL ANGLE	ARC	CHORD	CHORD BEARING	TANGENT IN	TANGENT OUT
C1	160.00	22°50'08"	63.77	63.35	N80°22'41"E	S88°12'15"E	N68°57'37"E
C2	170.00	20°27'50"	60.72	60.40	N79°11'32"E	N68°57'37"E	N89°25'27"E
C3	167.00	41°19'45"	120.46	117.87	N64°25'15.5"W	N85°05'08"W	N43°45'23"W
C4	170.00	17°33'24"	52.09	51.89	S47°25'40"W	S38°38'58"W	S56°12'22"W
C5	170.00	35°35'23"	105.60	103.91	S74°00'03.5"W	S56°12'22"W	N88°12'15"W



DEVELOPMENT SUMMARY:

1. Tax Key No. 291-0815-0642-006 and 291-0815-0642-007
2. Subdivision contains approximately 13.1354 Acres.
3. Subdivision contains 47 Lots and 2 Outlots.
4. All lots to be served by Sanitary Sewer and Watermain.
5. Public Roads to have Concrete Curb and Gutter & Asphalt Pavement with Storm Sewer.
6. All lots to have Underground Telephone, Electric, and Gas Service. Utility Easements shall be determined by the Utility Companies and included on the Final Plat.
7. Proposed Zoning = PUD CURRENT ZONING AND LAND USE?
8. Outlot 1 contains Utilities and Open Space.
9. Outlot 2 contains Stormwater Management Facilities and Open Space.
10. The Owners of all Lots within this Subdivision shall each own an equal undivided fractional interest in all Outlots of this Subdivision. Jefferson County shall not be liable for fees or special charges in the event they become the owner of any Lot or Outlot in the Subdivision by reason of tax delinquency.
11. Stormwater Management Facilities are located on Outlot 2 of this Subdivision. The Owners of all Lots within this Subdivision shall each be liable for an equal undivided fractional share of the cost to repair, maintain or restore said Stormwater Management Facilities. Said repairs, maintenance and restoration shall be performed by the Subdivision Master Association.

VISION CORNER EASEMENT: (V.C.E.)

Corner Lots & Outlots are herein subject to a Vision Corner Easement in that the height of planting berms, fences, signs & any other structure within the Easement is restricted to 24" above the intersection elevation. There shall be no direct vehicular access from the Lots and Outlots in this Subdivision to the public Roads across the Vision Corner Easement.

PLEASE VERIFY. NOW A CONDO PLAT?

BASEMENT RESTRICTION FOR GROUNDWATER:

Although all Lots in the Subdivision have been reviewed and approved for development with single-family residential use in accordance with Section 236 Wisconsin Statutes, some Lots contain soil conditions that, due to the possible presence of groundwater near the surface, may require additional soil engineering and foundation design with regard to basement construction. It is recommended that a licensed professional engineer design a basement and foundation that will be suitable to withstand the various problems associated with saturated soil conditions on basement walls or floors or that other special measures be taken. Soil conditions should be subject to each owner's special investigation prior to construction and no specific representation is made herein.

HORIZONTAL DATUM PLANE:

All bearings are referenced to the Jefferson County Coordinate System, in which the West line of the Southeast 1/4 of Section 6, Town 8 North, Range 15 East, Bears North 01°47'45" East.

VERTICAL DATUM PLANE:

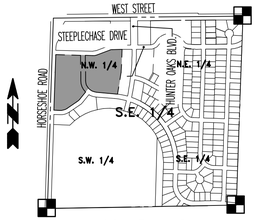
All elevations are referenced to the North American Vertical Datum of 1988 (12).

AGENCIES HAVING THE AUTHORITY TO OBJECT:

- State of Wisconsin, Department of Administration
- Jefferson County, Planning and Zoning Department

APPROVING AUTHORITY:

- City of Watertown



LOCALITY MAP:
S.E. 1/4, SEC. 6, T. 8 N., R. 15 E.
SCALE: 1"=1000'

LEGEND

⊕	INDICATES SOIL BORING LOCATION
W	INDICATES PROPOSED FIRE HYDRANT
W W	INDICATES EXISTING WATERMAIN
	INDICATES PROPOSED WATERMAIN
SAN	INDICATES EXISTING SANITARY SEWER
	INDICATES PROPOSED SANITARY SEWER
ST	INDICATES EXISTING STORM SEWER
	INDICATES PROPOSED STORM SEWER
800	INDICATES EXISTING CONTOUR

VISION CORNER EASEMENT DETAIL

SITE DATA

- Parcel Area: 13.1354 Acres
- Proposed: 43 Plat Lots
  \+ 4 CSM Lots
  47 Single Family Lots
- Density: 13.13 / 47 = 0.28 acres/lot

Proposed Setbacks:

Street (Front) =	24'
Street (Corner) =	20'
Side=	8'
Rear=	25'

- Min. Lot Width = 50'

SURVEYOR'S CERTIFICATE:

I hereby certify that this preliminary plat is a correct representative of all existing land divisions and features and that I have fully complied with the provisions of the subdivision regulations of the City of Watertown.

Date: 8/19/2024
Date: 10/08/2024

WISCONSIN GRADY L GOSSER S-2972 MENOMONEE FALLS, WI LAND SURVEYOR

Grady L. Gosser
Grady L. Gosser, P.L.S.
Professional Land Surveyor S-2972

WISCONSIN GRADY L. GOSSER S-2972 MENOMONEE FALLS, WI LAND SURVEYOR

TRIO DESIGN • LAND SURVEYING CIVIL ENGINEERING

4100 N. CALHOUN ROAD, SUITE 300
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: ggosser@trioeng.com

PROJECT:
HUNTER OAKS ENCLAVE
SINGLE FAMILY RESIDENTIAL SUBDIVISION
CITY OF WATERTOWN, WISCONSIN
BY: BIELINSKI HOMES
1830 MEADOW LANE, SUITE "A"
PEWAUKEE, WI 53072
PHONE: (262) 548-5570

REVISION HISTORY

DATE	DESCRIPTION
8/19/2024	INITIAL SUBMITTAL
10/8/2024	REVISED PARCELS

DATE:
OCTOBER 8, 2024

JOB NUMBER:
22-059-1155-01

DESCRIPTION:
PRELIMINARY PLAT

SHEET
1 OF 1

Shapes on map represent general recommendations for future land use. Actual boundaries between different land use types and associated zoning districts may vary somewhat from representations on this map. Not all lands shown in a future developed land use category are immediately appropriate for development, rezoning, or subdivision.
Environmental Corridors depicted on this map use generalized boundaries of environmental features identified by the DNR. Actual Environmental Corridor boundaries are to be refined through detailed on-site investigation.

City of Watertown Growth Area*

City of Watertown And Town of Emmet Intergovernmental Agreement**

Town of Shields

Town of Emmet

Town of Watertown

Dodge County

Jefferson County

Bielinski Enclave Plat

Welsh Rd
Provimi Rd
N Water St
2nd Street Rd
Hancock Rd
Silver Creek
Church St
W Main St
Rock River
Hall St
S Water St
Western Ave
West St
Milford St
Horseshoe Rd
Gypsy Rd
River Dr
S 3rd St
S 12th St
Summit Ave
Clark St
Jefferson Rd
South Rd
Air Park Dr
Beryl Dr
High Rd
Turf Dr
Hilltop Rd
River Rd
Gophe
N 4th St
Juneau St

Future Land Use Urban Area

Map 6b

City of Watertown Comprehensive Plan

City/Town IGA**
- City Growth Area
- City Periphery Areas

*Each "Planned Mixed Use Area" may include mix of:
1. Office
2. Multi-Family Residential
3. Mixed Industrial
4. Commerical Services/Retail
5. Institutional
6. Parks & Recreation

**"Planned Neighborhoods" should include a mix of the following:
1. Single-Family - Sewered (predominant land use)
2. Two-family Residential
3. Multi-Family Residential
4. Institutional
5. Neighborhood Mixed Use
6. Parks & Recreation

***Each "Riverside Mixed Use Area" may include mix of:
1. Office
2. Single-Family - Sewered
3. Two-Family Residential
4. Multi-Family Residential
5. Commerical Services/Retail
6. Institutional
7. Parks & Recreation

- City of Watertown
- Town Boundary
- Parcel
- Railroad
- Watertown Urban Service Area
- Watertown Long Range Growth Area

Airport Height Limitations
- Maximum Building Elevation b/t 865 and 968 ft
- Maximum Building Elevation b/t 968 and 1005 ft

Land Use Categories
- Agricultural
- Single-Family Residential - Unsewered
- Single-Family Residential - Sewered
- Two-Family Residential
- Multi-Family Residential
- Planned Neighborhood**
- Institutional
- Airport
- Rights-of-Way
- Neighborhood Mixed Use
- Planned Mixed Use*
- Central Mixed Use
- Riverside Mixed Use***
- Mixed Industrial
- Parks & Recreation
- Environmental Corridor
- Surface Water

Miles: 0 0.25 0.5 1

Draft: August 7, 2019
Source: WisDNR, FEMA, City of Watertown, Dodge Co. LIO & Jefferson Co. LIO, V&A

THE CITY OF WATERTOWN
Opportunity runs through it.

VANDEWALLE & ASSOCIATES INC.
Shaping places, shaping change

Main Office
920-262-4060

Brian Zirbes
920-262-4041

Mark Hady
920-342-0986

Nikki Zimmerman
920-262-4045

Dell Zwieg
920-262-4042

Doug Zwieg
920-262-4062

Dennis Quest
920-262-4061

TO: Plan Commission
DATE: December 9th, 2024
SUBJECT: Review Public Hearing Comments and Recommend to Council – Overlay Zoning Amendments to Chapter 550 Zoning.

A request for Overlay Zoning Text and Map amendments to the City of Watertown Zoning Code - Chapter 550.

BACKGROUND & APPLICATION DESCRIPTION:
The City of Watertown is working with Vandewalle and Associates on a project to make amendments to several Overlay Zoning Districts and map these districts on the City's Official Zoning Map. The purpose of the project is to improve and clarify some code language within these Overlay Zoning Districts and to update the mapping of these districts. Some of the Overlay Zoning Districts are being mapped for the first time. Plan Commission review of the public hearing comments, if any, and a recommendation to Council are required to move the project forward.

PUBLIC HEARING COMMENT:
Public comments from the December 3rd, 2024 Public Hearing before the Common Council, if any, are attached.

PLAN COMMISSION OPTIONS:
The following are possible options for the Plan Commission:

1. Negative recommendation of the Zoning Map Amendments to Common Council.
2. Positive recommendation of Zoning Map Amendments to Common Council.
3. Positive recommendation of the Zoning Map Amendments to Common Council, with conditions identified by the Plan Commission.

ATTACHMENTS:
- Application materials

VANDEWALLE & ASSOCIATES INC.

To: Brian Zirbes, Zoning Administrator

From: Sonja Kruesel, AICP, Vandewalle & Associates – City Consulting Planner

Date: November 1, 2024

Re: City of Watertown Zoning Overlay Map and Text Corrections

---

Introduction

An overlay district is a common zoning tool whereby a special set of regulations is described and mapped on top of a base zoning district. A common use of overlay zoning is to protect natural resources. For example, a neighborhood may have a base zoning district of Single Family, but certain areas are also mapped in an overlay where there are floodplains present. Additional regulations apply in the areas where the two districts overlap. Watertown has ten overlay districts referenced in its Zoning Code. Together with City staff, we have reviewed whether the mapping of each district is established or up-to-date and whether the associated regulatory text reflects best practices and desired policy and if it is well organized. The attached Table 1 summarizes each overlay district including a description and issue addressed through this project.

Map Changes Summary

Map changes for each overlay district are summarized in Table 1. In addition to simply mapping each district onto the official zoning map, the official zoning map has been broken into two maps to ensure legibility of all districts. The two maps must be used together to determine which zoning districts apply to a given property.

- Zoning Map A: All base zoning districts
- Zoning Map B: All overlay districts

Text Changes Summary

In many cases, text amendments involved reorganization and minor clarifications to the overlay districts. In other cases, policy changes are proposed including the following. See attached Table 1 for more detail.

1. Planned Unit Development Overlay, clean up, procedural streamlining, other policy changes
2. Minor changes to the Drainageway Overlay, other substantial reorganization work
3. Floodplain and Wetland Overlay, title changes (including Chapter 532)
4. Community Entry Corridor Overlay, policy changes for design standards, potential removal
5. Community Gateway Overlay, potential removal
6. Airport Overlay, addition of text to reflect current policy

Plan Commission Policy Questions

Feedback is welcomed on any component of the proposed changes; however, three specific policy changes are called out with a request for Plan Commission direction. Please refer to the attached Table 1 and the specific text changes proposed below for guidance on the three policy questions below.

1. Changes to the Planned Development Overlay text
2. Decision whether to keep and modify or repeal the Community Entry Corridor language
3. Decision whether to keep or repeal the Gateway language

Proposed Text Amendments

There are numerous changes to all overlay district zoning code text sections. Those changes are shown in redline form below by section.

Ordinance Adoption Formatting Comments:

Once the proposed changes are finalized, a formal ordinance is needed that identifies all text amendments, which would be scheduled for a public hearing, Plan Commission review and recommendation, and Common Council adoption. Because of the numerous text changes in addition to renumbering and reorganization of this section, a "repeal and replace" approach is easier for ordinance adoption and record keeping (compared to meticulous tracking of all revisions, additions, and removals of text by section).

- It is recommended that Article II Sections 550-38 through 550-43 (all overlay districts) be repealed and replaced entirely with the content below.
- Article IX is proposed to be repealed entirely (its content was incorporated into the above sections in Article II).
- Article II runs out of section numbers (there are no sections reserved for future additions) so the proposed numbering systems continues with decimals after the last available whole number (example: Section 550-43.1).

Section 550-38 Planned Development Overlay District

A. Description and purpose. This district is intended to provide more incentives for redevelopment in areas of the community which are experiencing a lack of reinvestment, or which require flexible zoning treatment because of factors specific to the site. This district is designed to forward both aesthetic and economic objectives of the City by controlling the site design and the land use, appearance, density or intensity of development within the district in a manner that is consistent with sound land use, urban design and economic revitalization principles. The application of these standards will ensure long-term progress and broad participation toward these principles. Refer to § 550-152 for the procedures applicable to proposal review in this ~~standard~~ overlay zoning district.

B. Development standards. Development standards are flexible within this overlay zoning district. Refer to § 550-152B for the range of development standards potentially available in this overlay zoning district.

Section 550-152 Planned ~~Unit~~ Development Procedures

A. Purpose.

1. The purpose of this section is to provide regulations that govern the procedure and requirements for the review and approval, or denial, of proposed planned ~~unit~~ developments and to provide for the possible relaxation of certain development standards pertaining to the underlying ~~standard~~ overlay zoning district.
2. Planned ~~unit~~ developments are intended to provide more incentives for infill development and redevelopment in areas of the community that are experiencing a lack of significant reinvestment. Furthermore, planned ~~unit~~ developments are designed to forward both the aesthetic and economic development objectives of the City by controlling the site design and the appearance, density or intensity of development in terms of more flexible requirements for land uses, density, intensity, bulk, landscaping and parking requirements. In exchange for such flexibility, the planned ~~unit~~ development shall provide a much higher level of site design, architectural control and other aspects of aesthetic and functional excellence than normally required for other developments.
3. Planned ~~unit~~ developments have the potential to create undesirable impacts on nearby properties if allowed to develop simply under the general requirements of this chapter. In addition to such potential, planned ~~unit~~ developments also have the potential to create undesirable impacts on nearby properties which potentially cannot be determined except with a binding site plan, landscape plan and architectural plan, and on a case-by-case basis. In order to prevent this from occurring, all planned ~~unit~~ developments are required to meet certain procedural requirements applicable only to planned ~~unit~~ developments, in addition to the general requirements of this chapter. A public hearing process is required to review a request for a planned ~~unit~~ development. ~~This process shall essentially combine the process for a Zoning Map amendment with that required for a conditional use, with several additional requirements.~~

B. Provision of flexible development standards for planned ~~unit~~ developments.

1. Permitted location. Planned ~~unit~~ developments shall be permitted with the approval of a Planned ~~Unit~~ Development Overlay Zoning District specific to the approved planned ~~unit~~ development.
2. Flexible development standards. The following exemptions to the development standards of the underlying zoning district may be provided with the approval of a planned ~~unit~~ development:
   (a) Land use requirements. All land uses listed as "residential," "institutional" or "commercial" may be permitted within a planned ~~unit~~ development. Industrial land uses may only be allowed in Planned Developments that use an underlying zoning district which specifically list industrial uses as permitted or conditional uses.
   (b) Density and intensity requirements. All requirements listed for residential density and nonresidential intensity may be waived within a planned ~~unit~~ development.
   (c) Bulk requirements. All residential and nonresidential bulk requirements may be waived within a planned ~~unit~~ development.

(d) Landscaping requirements. All landscaping requirements may be waived within a planned ~~unit~~ development.

(e) Parking and loading requirements. All requirements for off-street parking, traffic circulation, and off-street loading may be waived within a planned ~~unit~~ development.

(f) ~~Drainageway~~Waterway Overlay District requirements. All ~~Drainageway~~Waterway Overlay District requirements may be waived within a planned unit development.

3. Requirements to depict all aspects of development. Only development which is explicitly depicted on the required site plan approved by the Common Council as part of the approved planned ~~unit~~ development shall be permitted, even if such development (including all aspects of land use, density and intensity, bulk, landscaping, and parking and loading) is otherwise listed as permitted. Requested exemptions from these standards shall be made explicit by the applicant in the application and shall be recommended by the Plan Commission and approved explicitly by the Common Council. If not so requested and approved, such exemptions shall not be permitted. ~~Flexible development standards shall be limited to density and intensity bonuses of no greater than 25% higher than otherwise permitted by the MR-10 District, unless specifically granted by the Common Council, and shall be limited to reductions in bulk, landscaping, parking and loading requirements of no greater than 25% lower than otherwise permitted for the proposed land uses, unless specifically granted by the Common Council.~~

C. Initiation of request for approval of a planned ~~unit~~ development. Proceedings for approval of a planned ~~unit~~ development shall be initiated by:

1. An application of the owner(s) of the subject property, lease holders or contract purchasers.
2. A recommendation of the Plan Commission and action by the Common Council, relative to City-owned property.

~~D. Application requirements. All applications for proposed planned unit developments, regardless of the party of their initiation per Subsection **C** above, shall be approved as complete by the Zoning Administrator a minimum of two weeks prior to the initiation of this procedure. The Zoning Administrator shall forward copies of said complete application to the office of the City Clerk. Said application shall apply to each of the process steps in Subsections **E** through **H** below. [Amended 7-5-2022 by Ord. No. 22-63]~~

~~E.~~D. P~~U~~D Process Step 1: Preapplication conference.

1. The applicant shall contact the Zoning Administrator to schedule a ~~place an informal~~ discussion regarding the potential PD application and to obtain informal feedback regarding the application and the PD process. ~~item for the PUD on the Plan Commission agenda.~~

~~2. No details beyond the name of the applicant and the identification of the discussion item as a PUD are required to be given in the agenda.~~

~~3.~~2. ~~At the Plan Commission meeting, the applicant shall engage in an informal discussion with the Plan Commission regarding the potential PUD.~~ Appropriate topics for discussion may include the location of the P~~U~~D, general project themes and images, the general mix of dwelling unit types and/or land uses being considered, approximate residential densities and nonresidential intensities, the general treatment of natural

features, the general relationship to nearby properties and public streets, and relationship to the Comprehensive Plan. The discussion should also include a review of the justification for use of the PD overlay and whether alternative options such as rezoning to a standard zoning district or amending the proposed development plans are advised.

~~4.~~3. Points of discussion and conclusions reached in this stage of the process shall in no way be binding upon the applicant or the City but should be considered as the informal nonbinding basis for proceeding to the next step.

~~F.~~E. P~~U~~D Process Step 2: Optional ~~C~~concept plan.

1. Optional review may be pursued at the request of the applicant or the Zoning Administrator. The applicant shall provide the Zoning Administrator with a draft P~~U~~D concept plan submittal packet for a determination of completeness prior to placing the proposed P~~U~~D on the Plan Commission agenda for concept plan review. This submittal packet shall contain all of the following items, prior to its acceptance by the Zoning Administrator and placement of the item on a Plan Commission agenda for concept plan review:
   (a) A location map of the subject property and its vicinity at 11 inches by 17 inches~~, as depicted on a copy of the City of Watertown Land Use Plan Map.~~
   (b) A general written description of the proposed P~~U~~D, including:
      1. General project themes and images;
      2. The general mix of dwelling unit types and/or land uses;
      3. Approximate residential densities and nonresidential intensities as described by dwelling units per acre, floor area ratio and impervious surface area ratio;
      4. The general treatment of natural features;
      5. The general relationship to nearby properties and public streets;
      6. The general relationship of the project to the Comprehensive Plan; and
      7. An initial draft list of zoning standards which will not be met by the proposed P~~U~~D and the location(s) in which they apply and a complete list of zoning standards which will be more than met by the proposed P~~U~~D and the location(s) in which they apply shall be identified. ~~Essentially, t~~The purpose of this listing shall be to provide the Plan Commission with information necessary to determine the relative merits of the project in regard to private benefit versus public benefit and in regard to the mitigation of potential adverse impacts created by design flexibility.

   ~~(c) A written description of potentially requested exemptions from the requirements of the underlying zoning district, in the following order:~~
      ~~1. Land use exemptions.~~
      ~~2. Density and intensity exemptions.~~
      ~~3. Bulk exemptions.~~
      ~~4. Landscaping exceptions.~~
      ~~5. Parking and loading requirements exceptions.~~

   ~~(d)~~(c) A conceptual plan drawing (at 11 inches by 17 inches) of the general land use layout and the general location of major public streets and/or private drives. ~~The applicant may~~

submit copies of a larger version of the "bubble plan" in addition to the 11 inches by 17 inches reduction.

2. Within 10 working days of receiving the draft PUD concept plan submittal packet, the Zoning Administrator shall determine whether the submittal is complete. Once the Zoning Administrator has received a complete packet, the proposed PUD concept plan shall be placed on the Plan Commission agenda.

3. At the Plan Commission meeting, the applicant shall engage in an informal discussion with the Plan Commission regarding the conceptual PUD. Appropriate topics for discussion may include the any of the information provided in the PUD concept plan submittal packet or other items as determined by the Plan Commission.

4.2. Points of discussion and conclusions reached in this stage of the process shall in no way be binding upon the applicant or the City but should be considered as the informal nonbinding basis for proceeding to the next step. The preferred procedure is for one or more iterations of Plan Commission review of the concept plan to occur prior to introduction of the formal petition for rezoning which accompanies the general development plan (GDP) application.

5. Each application for review shall be accompanied by a check payable to the City of Watertown or cash as stated in § **550-157**.

[Amended by Ord. No. 08-19]

G.F. PUD Process Step 3: General development plan (GDP).

1. The applicant shall provide the Zoning Administrator with a draft GDP plan submittal packet for a determination of completeness prior to placing the proposed GDP on the Plan Commission agenda for GDP review. This submittal packet shall contain all of the following items prior to its acceptance by the Zoning Administrator and placement of the item on a Plan Commission agenda for GDP review:
   (a) A location map of the subject property and its vicinity at 11 inches by 17 inches, as depicted on a copy of the City of Watertown Land Use Plan Map..
   (b) A map of the subject property, showing all lands for which the planned infill development is proposed and all other lands within 200 feet of the boundaries of the subject property, together with the names and addresses of the owners of all lands on said map as the same appear on the current records of the Register of Deeds of Dodge and/or Jefferson County (as provided by the City of Watertown). Said map shall clearly indicate the current zoning of the subject property and its environs. and the jurisdiction(s) which maintains that control. Said map and all its parts and attachments shall be submitted in a form which is clearly reproducible with a photocopier and shall be at a scale which is not less than one inch equals 800 feet. All lot dimensions of the subject property, a graphic scale, and a North arrow shall be provided.
   (c) A general written description of proposed PUD, including:
      1. General project themes and images.
      2. The general mix of dwelling unit types and/or land uses.

3. Approximate residential densities and nonresidential intensities as described by dwelling units per acre, floor area ratio and impervious surface area ratio.
4. The general treatment of natural features.
5. The general relationship to nearby properties and public streets.
6. The general relationship of the project to the Comprehensive Plan.
7. A statement of rationale as to why P~~U~~D zoning is proposed. This shall identify barriers that the applicant perceives in the form of requirements of standard zoning districts and opportunities for community betterment that the applicant suggests are available through the proposed P~~U~~D zoning.
8. A complete list of zoning standards which will not be met by the proposed P~~U~~D and the location(s) in which they apply and a complete list of zoning standards which will be more than met by the proposed P~~U~~D and the location(s) in which they apply shall be identified. ~~Essentially, t~~The purpose of this listing shall be to provide the Plan Commission with information necessary to determine the relative merits of the project in regard to private benefit versus public benefit and in regard to the mitigation of potential adverse impacts created by design flexibility.
9. A written description of potentially requested exemptions from the requirements of the underlying zoning district, in the following order:
   a. Land use exemptions.
   b. Density and intensity exemptions.
   c. Bulk exemptions.
   d. Landscaping exceptions.
   e. Parking and loading requirements exceptions.

(d) A general development plan drawing at a minimum scale of one inch equals 100 feet (reduction of 11 inches by 17 inches) of the proposed project shall also be provided by the applicant), showing at least the following information in sufficient detail to make an evaluation against criteria for approval:

1. A conceptual plan drawing (at 11 inches by 17 inches) of the general land use layout and the general location of major public streets and/or private drives~~. The applicant may submit copies of a larger version of the "bubble plan" in addition to the reduction of 11 inches by 17 inches~~;
2. Location of recreational and open space areas and facilities, and specifically describing those that are to be reserved or dedicated for public acquisition and use;
3. Statistical data on minimum lot sizes in the development, the approximate areas of large development lots and pads, density/intensity of various parts of the development, floor area ratio, impervious surface area ratio and landscape surface area ratio of various land uses, expected staging, and any other plans required by the Plan Commission or Common Council; and
4. Notations relating the written information provided in Subsection **G(1)(c)[1]** to **[6]** above to specific areas on the GDP drawing.

(e) A general conceptual landscaping plan for subject property, noting approximate locations of foundation, street, yard and paving, landscaping and the compliance of development with all landscaping requirements of this chapter (except as noted in the listing of exceptions), and the use of extra landscaping and bufferyards.

(f) A general signage plan for the project, including all project identification signs and concepts for public fixtures and signs (such as streetlight fixtures and/or poles or street sign faces and/or poles) which are proposed to vary from City standards or common practices.

(g) Written justification for the proposed planned ~~unit~~ development. ~~(The applicant is advised to use the requirements of the Zoning Map amendment procedure to develop said written justification.)~~

(h) Written demonstration of financial capability to complete all public and private improvements associated with the proposed P~~U~~D.

2. The process and fees for review and approval of the GDP shall require a public hearing at the Plan Commission preceded by a Class II notice. The Plan Commission shall hold a public hearing, review the application, and make a recommendation for action on the application. The Common Council shall take final action on consideration of the application. ~~be identical to that for Zoning Map amendments per this chapter and (if land is to be divided) to that for preliminary and final plats of subdivision per the City Code.~~

3. All portions of an approved ~~PUD/~~GDP not fully developed within ~~three~~ five years of final Common Council approval shall ~~expire~~lapse, and no additional P~~U~~D-based development shall be permitted. Prior to the end of the five-year period, the property owner may request reapproval of the GDP for up to five additional years or shall request amendment of the GDP. Reapproval or amendment requests shall obtain a recommendation from the Plan Commission and approval from the Common Council following a public hearing held before the Plan Commission. If an application for renewal or amendment is not submitted, the zoning administrator may propose rezoning to the underlying zoning district or another standard zoning district. In the case of an expired PD, the base zoning district shall remain in effect and no development under the prior PD approvals may proceed. ~~The Common Council may extend this three-year period by up to five additional years via a majority vote following a public hearing.~~

~~H.~~G. PUD Process Step 4: Precise implementation plan (PIP).

1. After the effective date of the rezoning to ~~PUD/~~GDP, the applicant may file an application for a proposed precise implementation plan (PIP) with the Plan Commission. Alternatively, a combination GDP and PIP application may be submitted if authorized by the Zoning Administrator and if all information required for both the GDP and PIP submittal is also included. In the case of a combination GDP/PIP, a public hearing is required in accordance with GDP procedures. Any PIP ~~This~~ submittal packet shall contain all of the following items, prior to its acceptance by the Zoning Administrator and placement of the item on a Plan Commission agenda for P~~U~~D review:

(a) A location map of the subject property and its vicinity at 11 inches by 17 inches~~, as depicted on a copy of the City of Watertown Land Use Plan Map~~.

(b) A map of the subject property, showing all lands for which the planned infill development is proposed and all other lands within 200 feet of the boundaries of the subject property~~, together with the names and addresses of the owners of all lands on said map as the same appear on the current records of the Register of Deeds of Dodge and/or Jefferson County (as provided by the City of Watertown)~~. Said map shall clearly indicate the current zoning of the subject property and its environs~~ and the jurisdiction(s) which maintains that control~~. Said map and all its parts and attachments shall be submitted in a form which is clearly reproducible with a photocopier and shall be at a scale not less than one inch equals 800 feet. All lot dimensions of the subject property, a graphic scale, and a North arrow shall be provided.

(c) A general written description of the proposed PIP, including:

1. Specific project themes and images.
2. The specific mix of dwelling unit types and/or land uses.
3. Specific residential densities and nonresidential intensities as described by dwelling units per acre, floor area ratio and impervious surface area ratio.
4. The specific treatment of natural features.
5. The specific relationship to nearby properties and public streets.

~~6. A statement of rationale as to why PUD zoning is proposed. This shall identify barriers that the applicant perceives in the form of requirements of standard zoning districts and opportunities for community betterment the applicant suggests are available through the proposed PUD zoning.~~

~~7. A complete list of zoning standards which will not be met by the proposed PIP and the location(s) in which they apply and a complete list of zoning standards which will be more than met by the proposed PIP and the location(s) in which they apply shall be identified. The purpose of this listing shall be to provide the Plan Commission with information necessary to determine the relative merits of the project in regard to private benefit versus public benefit and in regard to the mitigation of potential adverse impacts created by design flexibility.~~

(d) A precise implementation plan drawing at a minimum scale of one inch equals 100 feet (reduction of 11 inches by 17 inches) of the proposed project shall also be provided by the applicant, showing at least the following information in sufficient detail to make an evaluation against criteria for approval:

1. A PIP site plan conforming to any and all the requirements of the site plan review and approval procedures. If the proposed planned~~ unit~~ development is a cluster development or a group development, a proposed preliminary plat or conceptual plat shall be provided in addition to the required site plan;
2. Location of recreational and open space areas and facilities and specifically describing those that are to be reserved or dedicated for public acquisition and use;

3. Statistical data on minimum lot sizes in the development, the precise areas of all development lots and pads, density/intensity of various parts of the development, floor area ratio, impervious surface area ratio and landscape surface area ratio of various land uses, expected staging, and any other plans required by the Plan Commission or Common Council; and
4. Notations relating the written information provided in Subsection **G(1)(c)[1]** to **[6]** above to specific areas on the GDP drawing.

(e) A landscaping plan for the subject property, specifying the location, species and installed size of all trees and shrubs. This plan shall also include a chart, which provides a cumulative total for each species, type and required location (foundation, yard, street, paved area or bufferyard) of all trees and shrubs.

(f) A series of building elevations for the entire exterior of all buildings in the planned ~~unit~~ development, including detailed notes as to the materials and colors proposed.

(g) A general signage plan for the project, including all project identification signs, concepts for public fixtures and signs (such as streetlight fixtures and/or poles or street sign faces and/or poles), and group development signage themes which are proposed to vary from City standards or common practices.

(h) A general outline of the intended organizational structure for a property owners' association, if any; deed restrictions and provisions for private provision of common services, if any.

(i) A written description which demonstrates the full consistency of the proposed PIP with the approved GDP.

(j) Any and all variations between the requirements of the applicable ~~PUD/~~GDP zoning district and the proposed PIP development.

2. The applicant shall submit proof of financial capability pertaining to construction, ~~and~~ maintenance, and operation of all public and private improvements associated with the proposed P~~U~~D.
3. The area included in a precise implementation plan may be only a portion of the area included in a previously approved general implementation plan.
4. The precise implementation plan (PIP) submission may include site plan and design information, allowing the Plan Commission to combine design review and review of the PIP. Design review may, at the choice of the applicant, be deferred until a later time when specific site and building developments will be brought forth.
5. The Plan Commission or Common Council may specify other plans, documents or schedules that must be submitted prior to consideration or approval of the PIP, as such may be relevant to review.
6. The process and fees for review and approval of a PIP shall be identical to that for GDP approvals per this chapter.
7. ~~The process and fees for review and approval of the PUD shall be identical to that for Zoning Map amendments per this chapter and (if land is to be divided) to that for preliminary and final plats of subdivision per the City Code.~~

8.7. All portions of an approved ~~PUD/~~PIP not fully developed within ~~three~~ five years of final Common Council approval shall ~~expire~~lapse, and no additional P~~U~~D-based development shall be permitted. The Common Council may extend this ~~three-year~~ period ~~by~~ up to five additional years via a majority vote following a public hearing. The applicant may also request reapproval or amendment of a previously approved PIP before the applicable five-year period lapses. In the case of an expired PIP, procedures shall be identical to that for GDP expirations per this Chapter.

~~9. Approved PUDs which have not been initiated within the time limits established by Subsection **H(7)** above shall revert to the preexisting zoning designation.~~

~~**Section 550-39 Natural resource protection overlay zoning**~~

~~A. This chapter employs overlay zoning districts to identify and regulate areas in which natural resource protection requirements apply. Each type of natural resource regulated by this chapter is represented by an overlay zoning district bearing its name.~~

~~B. Natural resource protection overlay districts include:~~

~~1. (1) Floodplain Overlay Districts.~~

~~2. (2) Shoreland-Wetland Overlay District.~~

~~3. (3) Drainageway~~Waterway ~~Overlay District.~~

~~4. (4) Woodland Overlay District.~~

~~5. (5) Steep Slope Overlay District.~~

~~C. For specific natural resource protection overlay district regulations, see Article IX.~~

Section 550-39 Purpose and Mapping of Natural Resource Protection Overlays

A. This section introduces overlay zoning districts which regulate areas in which natural resource protection requirements apply. Each type of natural resource regulated by this chapter is represented by an overlay zoning district bearing its name. Natural resource protection overlay districts include:

1. Floodplain Overlay Districts.
2. Shoreland-Wetland Overlay District.
3. ~~Drainageway~~Waterway Overlay District.
4. Woodland Overlay District.
5. Steep Slope Overlay District.

B. Natural resource protection overlay zoning districts established by this chapter are shown on the Official Zoning Map of the City of Watertown which, together with all the explanatory material thereon, is hereby made part of this chapter. For specific natural resource protection overlay district designation criteria, see ~~Article **IX**~~Sections 550—41 through 550-43.5 of this chapter and also Chapter **532**, Floodplain and Shoreland-Wetland Zoning..

C. Purpose. The purpose of this article is to set forth the requirements for the mandatory protection of natural resources and permanently protected green space areas within the jurisdiction of this chapter (see § **500-9**). The provisions of this article interact closely with the provisions of § **550-58** (Natural resource disruption and required mitigation standards), § **550-73** (Required natural

resources site evaluation), and §§ **550-74** and **550-75** which provide residential and nonresidential development standards. Section **550-76** provides a complete overview of the interrelationship between the above-listed sections. Appendix B provides a table of permitted land uses in permanently protected green space areas.[1] In part, the provisions of this article are designed to ensure the implementation of the City of Watertown Comprehensive Plan and §§ 62.231 and 87.30, Wis. Stats.

[1] *Editor's Note: Appendix B is* ***attached to this chapter****.*

D. How to use this article. This article contains the standards that govern the protection, disturbance and mitigation of disruption of all natural resources and other permanently protected green space areas. The provisions of this article are intended to supplement those of the City of Watertown, Dodge and/or Jefferson County, the State of Wisconsin, and the Federal Government of the United States that pertain to natural resource protection. Prior to using the provisions of this article to determine the permitted disruption of such areas, the requirements provided below should be reviewed. This article recognizes the important and diverse benefits that natural resource features provide in terms of protecting the health, safety and general welfare of the community. Each of the following sections is oriented to each natural resource type and is designed to accomplish several objectives:

1. First, a definition of the natural resource is provided.
2. Second, the specific purposes of the protective regulations governing each natural resource type are provided.
3. Third, the required method of identifying and determining the boundaries of the natural resource area is given.
4. Fourth, mandatory protection requirements are identified.

   Note: protection requirements for specific land uses and natural resource types designed to minimize disruption of natural resource functions are presented in § **550-58**.

E. ~~**A.**~~ Where an apparent discrepancy exists between the location of the outermost boundary of the flood-fringe district or the floodplain district shown on the Official Zoning Map and actual field conditions, the location shall be initially determined by the Zoning Administrator using the criteria described in Subsections ~~**B**~~ **F** and ~~**C**~~ **G** below. Where the Zoning Administrator finds that there is a significant difference between the map and the actual field conditions, the map shall be amended using the procedures established in § **550-141**. Disputes between the Zoning Administrator and the applicant over the location of the district boundary line shall be settled using the procedures outlined in § **550-156H**.

~~D.~~F. ~~**B.**~~ Where flood profiles exist, the location of the district boundary line shall be determined by the Zoning Administrator using both the scale appearing on the map and the elevations shown on the water surface profile of the regional flood. Where a discrepancy exists between the map and actual field conditions, the regional flood elevations shall govern. A map amendment is required where there is a significant discrepancy between the map and actual field conditions. The Zoning Administrator shall have the authority to grant or deny a land use permit on the basis of a district boundary derived from the elevations shown on the water surface profile of the

regional flood, whether or not a map amendment is required. The Zoning Administrator shall be responsible for initiating any map amendments required under this section within a reasonable period of time.

~~E.~~G. Where flood profiles do not exist, the location of the district boundary line shall be determined by the Zoning Administrator using the scale appearing on the map, visual on-site inspection and any available information provided by the Department of Natural Resources. Where there is a significant difference between the map and actual field conditions, the map shall be amended. Where a map amendment has been approved by both the Common Council and the Department of Natural Resources, the Zoning Administrator shall have the authority to grant or deny a land use permit.

Section 550-41 Floodway, Flood-Fringe, and Floodplain Overlay Districts

See Chapter 532, Floodplain and Shoreland-Wetland Overlay Zoning.

Section 550-42 Shoreland-Wetland Overlay District

See Chapter 532, Floodplain and Shoreland-Wetland Overlay Zoning.

Section 550-43 ~~Drainageway~~Waterways Overlay District

A. Definition. ~~Drainageway~~Waterways are navigable or nonnavigable, aboveground watercourses, detention basins and/or their environs which are identified by the presence of one or more of the following:

1. All areas within 75 feet of the ordinary high-water mark of a "perennial stream," as shown on a detailed on-site survey prepared by the applicant [see § **550-145C(8)**].
   (a) Where an existing development pattern exists, the ~~drainageway~~waterway setback for a proposed principal structure may be reduced to the average ~~drainageway~~waterway setback of the principal structure on each adjacent lot, but the ~~drainageway~~waterway setback may not be reduced to less than 35 feet from the ordinary high-water mark of any "perennial stream."
   [Added 10-17-2017 by Ord. No. 17-24]
2. All areas within 50 feet of the ordinary high-water mark of an "intermittent stream" or "open channel ~~drainageway~~waterway," as shown on a detailed on-site survey prepared by the applicant [see § **550-145C(8)**].
   (a) Where an existing development pattern exists, the ~~drainageway~~waterway setback for a proposed principal structure may be reduced to the average ~~drainageway~~waterway setback of the principal structure on each adjacent lot, but the ~~drainageway~~waterway setback may not be reduced to less than 35 feet from the ordinary high-water mark of an "intermittent stream" or "open channel ~~drainageway~~waterway."
   [Added 10-17-2017 by Ord. No. 17-24]

B. Purpose of ~~drainageway~~waterway protection requirements. ~~Drainageway~~Waterways serve in the transporting of surface runoff to downstream areas. As such, ~~drainageway~~waterways serve to carry surface waters, supplement floodplain, wetland and lakeshore water storage functions in

heavy storm or melt events, filter waterborne pollutants and sediments, promote infiltration and groundwater recharging, and provide a unique habitat at the land/water margin. ~~Drainageway~~Waterway protection requirements preserve each of these functions as well as greatly reducing the potential for soil erosion along ~~drainageway~~waterways by protecting vegetative ground cover in areas which are susceptible to variable runoff flows and moderate-to-rapid water movement.

C. Determination of ~~drainageway~~waterway boundaries. General ~~drainageway~~waterway boundaries are depicted on the Official Zoning Map. Upon the proposal of development activity on any property which contains a ~~drainageway~~waterway depicted on the Official Zoning Map, the petitioner shall prepare a detailed site analysis per the requirements of § **550-145C(8)**. This analysis shall depict the location of all ~~drainageway~~waterway areas on the subject property as related to the provisions of Subsection **A** above.

D. Mandatory ~~drainageway~~waterway protection requirements. ~~Drainageway~~Waterways shall remain in an undisturbed state except for the land uses permitted in Appendix B per the requirements in § **550-58**. Vegetation clearing to maintain ~~drainageway~~waterway functions is permitted with the written approval of the Public Works Director/City Engineer. All areas designated as ~~drainageway~~waterways shall be located within a public easement or dedication for maintenance purposes to preserve proper drainage flow.

[Amended 7-5-2022 by Ord. No. 22-63]

Section 550-43.1 Woodland Overlay District

A. Definition. Woodlands are areas of trees whose combined canopies cover a minimum of 80% of an area of one acre or more, as shown on a detailed on-site survey prepared by the applicant [see § **550-145C(8)**].

B. Purpose of woodland protection requirements. Woodlands provide a wide variety of environmental functions. These include atmospheric benefits such as removing airborne pollutants, carbon dioxide uptake, oxygen production, and evapotranspiration returns. Water quality benefits include substantial nutrient uptake rates (particularly for nitrogen and phosphorus) and surface runoff reduction in terms of both volumes and velocities. Woodlands provide unique wildlife habitats and food sources. Woodlands are excellent soil stabilizers, greatly reducing runoff-related soil erosion. Woodlands also serve to reduce wind velocities which further reduces soil erosion. Finally, under proper management techniques, woodlands serve as regenerative fuel sources.

C. Determination of woodland boundaries. General woodland boundaries are depicted on the Official Zoning Map. Upon the proposal of development activity on any property which contains a woodland depicted on the Official Zoning Map, the petitioner shall prepare a detailed site analysis per the requirements § **550-145C(8)**. This analysis shall depict the location of all woodland areas on the subject property as related to the provisions of Subsection **A** above.

D. Mandatory woodland protection requirements. Woodlands shall remain in an undisturbed state except for the land uses permitted in Appendix B per the requirements of § **550-58** and areas subject to the following mitigation requirements:

1. Selective cutting operations are permitted by right in all woodland areas (per the requirements of § **550-50F**).
2. Clear-cutting is permitted as a conditional use in all woodland areas (per the requirements of § **550-50G**).

Section 550-43.2 Steep Slope Overlay District

A. Definition. Steep slopes are areas which contain a gradient of 12% or greater (equivalent to a ten-foot elevation change in a distance of 83 feet or less), as shown on a detailed on-site survey prepared by the applicant [see § 550-145C(8)].

B. Purpose of steep slope protection requirements. Steep slopes are particularly susceptible to damage resulting from site disruption, primarily related to soil erosion. Such damage is likely to spread to areas which were not originally disturbed. Such erosion reduces the productivity of the soil, results in exacerbated erosion downhill, and results in increased sedimentation in ~~drainageway~~waterways, wetlands, streams, ponds and lakes. Beyond adversely affecting the environmental functions of these resources areas, such sedimentation also increases flood hazards by reducing the floodwater storage capacity of hydrological system components, thus elevating the flood level of the drainage system in affected areas. Beyond these threats to the public safety, disruption of steep slopes also increases the likelihood of slippage and slumping, unstable soil movements which may threaten adjacent properties, buildings and public facilities such as roads and utilities.

C. Determination of steep slope boundaries. General steep slope boundaries are depicted on the Official Zoning Map. Upon the proposal of development activity on any property which contains a steep slope depicted on the Official Zoning Map, the petitioner shall prepare a detailed site analysis per the requirements of § 550-145C(8). This analysis shall depict the location of all steep slope areas on the subject property as related to the provisions of Subsection A above.

D. Mandatory steep slope protection requirements. Steep slopes shall remain in an undisturbed state except for the land uses permitted in Appendix B[1] per the requirements of § 550-58.

[1]*Editor's Note: Appendix B is attached to this chapter.*

Section 550-43.2 Downtown Historic Preservation Overlay Zoning District

This district is intended to implement the urban design recommendations of the Comprehensive Plan by preserving and enhancing the historical quality of the downtown and by attaining a consistent visually pleasing image for the downtown area. As emphasized by said plan, this district is designed to forward both aesthetic and economic objectives of the City by controlling the site design and appearance of development within the district in a manner that is consistent with sound land use, urban design and economic revitalization principles. The application of these standards will ensure long-term progress and broad participation toward these principles. Refer to § **550-149** for the procedures applicable to proposal review in this overlay district.

Section 550-43.3 Community Entry Corridor Design Overlay Zoning District

This district is intended to implement the urban design recommendations of the Comprehensive Plan by preserving and enhancing the historical quality of the STH 19 corridor west and east of the downtown, ~~CTH E corridor southeast of the downtown,~~ STH 26 south of the downtown and the STH ~~26/~~16 corridor north of the downtown ~~and east of the downtown and~~ by enhancing the economic redevelopment potential of the STH 26 corridor north and south of the downtown. As emphasized by the plan, this district is designed to forward both aesthetic and historic preservation objectives of the City by controlling the site design and appearance of development within the district in a manner that is consistent with sound land use, urban design and economic revitalization principles. The application of these standards will ensure long-term progress and broad participation toward these principles. Refer to § **550-150** for the procedures applicable to proposal review in this overlay district.

Section 550-150 Community Entry Corridor Overlay Zoning District

The following requirements shall be effective upon the date of adoption ~~of detailed neighborhood plans and upon the~~ date of depicting these overlay zoning districts on the Official Zoning Map. Any new development, other than single-family and two-family residential., ~~in this overlay zoning district shall be regulated as a conditional use, subject to the site design requirements of Article VI.~~

A. Requirement of compatibility. Proposed site design and construction within this district, including new structures and building additions, shall be reviewed per § **550-145**, Site plan review and approval procedures, by the Plan Commission. The building setback, height, mass, roof form, exterior materials, exterior surface appurtenances, exterior colors, landscaping and lighting shall be compatible with the following general design theme, as determined by the Plan Commission.

B. Design standards for multi-family residential development. The general design theme for multi-family residential development within the Community Entry Corridor Overlay Zoning District shall be designed to accommodate typical impacts of transportation and nearby nonresidential development, particularly through the use of building orientation, door and window location and design, and on-site landscaping and related buffering structures or berms. Above and beyond such concerns, particular attention shall be devoted to ensuring that selected multi-family residential design components complement nearby residential styles with high-quality building materials, in an attractive manner as becoming an entry corridor, and as determined by the Plan Commission. Where a detailed neighborhood plan has been adopted, it should be used to provide additional guidance in the design review process.

C. Design standards for nonresidential development. The general design theme for nonresidential development within the Community Entry Corridor Overlay Zoning District shall be characterized by high-quality building materials, architectural design, site design and on-site landscaping. Prominent urban design elements and architectural details, which are decorative and functional, shall be considered as a required component of each site within the district. Above and beyond such concerns, particular attention shall be devoted to ensuring that selected nonresidential design components complement nearby nonresidential styles and reflect positively on the character of the community, as becoming an entry corridor, and as determined

by the Plan Commission. Where a detailed neighborhood plan has been adopted, it should be used to provide additional guidance in the design review process.

1. Building exterior materials shall be of high quality on all sides of the structure, including glass, brick, decorative concrete block or stucco, Decorative architectural metal with concealed fasteners may be approved with special permission from the city.
2. Building exterior design shall be unified in design and materials throughout the structure and shall be complementary to other structures in the vicinity. However, the development shall employ varying building setbacks, height, roof, treatments, door and window openings, and other structural and decorative elements to reduce the apparent size and scale of the structure. A minimum of 20% of the combined facades of the structure shall employ actual facade protrusions or recesses. A minimum of 20% of the combined linear roof eave or parapet lines of the structure shall employ differences in height of eight feet or more. Roofs with particular slopes may be required by the City to complement existing buildings or otherwise establish a particular aesthetic objective.
3. Mechanical equipment, refuse containers and any permitted outdoor storage shall be fully concealed from on-site and off-site ground-level views with materials identical to those used on the building exterior.
4. Public entryways shall be prominently indicated from the building's exterior design and shall be emphasized by on-site traffic flow patterns. All sides of the building that directly face or abut a public street shall have public entrances.
5. Parking lot design shall employ interior landscaped islands with a minimum of 400 square feet at all parking islands, and in addition shall provide a minimum of one landscaped island of a minimum of 400 square feet in each parking aisle for every 20 cars in that aisle. Aisle-end islands shall count toward meeting this requirement. Landscaped medians shall be used to break large parking areas into distinct pods, with a maximum of 100 spaces in any one pod.
6. On-site landscaping shall be provided per the landscaping requirements of this chapter, except that building foundation landscaping and paved area landscaping shall be provided at 1.5 times the required landscape points for development in the zoning district.
7. The entire development shall provide for full and safe pedestrian and bicycle access within the development and shall provide appropriate connections to the existing and planned pedestrian and bicycle facilities in the community and in surrounding neighborhoods, including sidewalk connections to all building entrances from all public streets. The development shall provide secure bicycle parking and pedestrian furniture in appropriate quantities and location. A central pedestrian gathering area shall be provided.
8. The Plan Commission may waive any of the above standards by a three-fourths' vote of members in attendance, but only if supplemental design elements or improvements are incorporated into the project that compensate for the waiver of the particular standard.

Section 550-43.4 Community Gateway Design Overlay Zoning District

This district is intended to implement the urban design recommendations of the Comprehensive Plan by requiring that development located at and around the most important entrances to the community has a character which recognizes the City's adopted objectives of establishing an attractive and high-quality image. These important community gateways are located around the STH 26/16 interchange, the intersection of STH 16 and East Gate Drive, STH 26 near Ebenezer Road, STH 19 near Gypsy Road and CTH E/Concord Avenue near CTH D. As emphasized by the plan, this district is designed to forward both aesthetic and economic development objectives of the City by controlling the site design and appearance of development within the district in a manner that is consistent with sound land use, urban design and economic development principles. The application of these standards will ensure long-term progress and broad participation toward these principles. Refer to § 550-151 for the procedures applicable to proposal review in this overlay district.

Section 550-43.5 Airport Overlay

This district is intended to implement height limitations for preservation of the City of Watertown Municipal Airport approach zones. The application of these standards will ensure long-term viability and safety of airport operations. Refer to Chapter 211 for procedures applicable to proposal review in this overlay district.

Repeal Article IX Entirely

~~**Article IX Natural Resource Protection Regulations**~~
~~550-86 Purpose~~
~~550-87 How to use this article.~~
~~550-88 Floodway, Flood-Fringe, and Floodplain Overlay Zoning District~~
~~550-89 Shoreland-Wetland Overlay Zoning District~~
~~550-90 Drainageway~~Waterway ~~Overlay Zoning District~~
~~550-91 Woodland Overlay Zoning District~~
~~550-92 Steep Slope Overlay Zoning District~~

Chapter 532 Floodplain and Shoreland-Wetland Overlay Zoning

Chapter 532 Article III Shoreland-Wetland Overlay Zoning District

Chapter 532 Article IV Floodplain Overlay Zoning District

Table 1: Overlay District Summary					
	Overlay District	**Existing Code Section**	**Description (Existing Code)**	**Policy Questions**	**Issue Addressed**
1	Planned Development	550-38 (district) and 550-152 (procedures and regulations)	PD zoning is a negotiated zoning district that offers flexibility from base zoning standards in exchange for benefit to the community or a project with higher quality and design.	Policy Question 1	• Revise title of Section 550-38 to include the word "overlay" and other changes that clarify this is an overlay district. • Change terminology from PUD to PD (Wisconsin Statute refers to PD) • Improve text for efficiency in process and clearer understanding of requirements. • Move the pre-application review to staff level rather than Plan Commission. • Make the concept review step at Plan Commission optional rather than required. • Allow for combination of GDP and PIP stage as determined by the zoning administrator and if all requirements are met. • Clarify expiration of GDPs and PIPs. • Require that the Public Hearing be held before the Plan Commission for PDs.
2	Natural Resources Protection: Floodway, Flood-Fringe, Floodplain Overlay	550-39 (district), 550-40 (map) and 550-88 (regulations). Refers to Chapter 532.	Regulates areas covered by the regional flood elevation as shown on FEMA Flood Insurance Rate Maps.		• Separate from the Natural Resources Overlay group. Refer only to the specific resource overlay in the title. • Relocate regulatory content to Article II rather than Article IX and another reference to Chapter 532. • Maintain reference from Article II to Chapter 532 (skipping the intermediate referral to Article IX) • No other changes identified. • Regular updates to Floodplain Ordinances occur on DNR cycles associated with new FIRMs and FISs at which time updates are required by FEMA.
3	Natural Resources Protection: Shoreland-Wetland Overlay	550-39 (district), 550-40 (map) and 550-89 (regulations). Refers to Chapter 532.	Contains all wetlands in the City of Watertown which are two acres or more in size and are shown on the Wisconsin Wetland Inventory Map. Regulates uses in wetlands but does not require setbacks from wetland boundaries.		• Separate from the Natural Resources Overlay group. Refer only to the specific resource overlay in the title. • Relocate regulatory content to Article II rather than Article IX and another reference to Chapter 532. • Maintain reference from Article II to Chapter 532 (skipping the intermediate referral to Article IX) • No other changes identified.
4	Natural Resources Protection: Drainageway Overlay	550-39 (district), 550-40 (map) and 550-90 (regulations)	Non-navigable, aboveground watercourses, detention basins and/or their environs (i.e. areas w/in 75 feet of perennial stream, 50 feet of OHWM of intermittent stream or open channel drainageway.)		• Separate from the Natural Resources Overlay group. Refer only to the specific resource overlay in the title. • Add the word "navigable". Currently, the language contradicts itself by limiting it to non-navigable but also referencing basins and perennial streams which are likely navigable. This limits applicability to the Rock River, for example. • Change name to "Waterway" overlay and update the map legend title
5	Natural Resources Protection: Woodland Overlay	550-39 (district), 550-40 (map) and 550-91 (regulations)	Areas of trees whose combined canopies cover a minimum of 80% of an area of one acre or more.		• Separate from the Natural Resources Overlay group. Refer only to the specific resource overlay in the title. • Relocate regulatory content to Article II rather than Article IX. • No other changes identified.
6	Natural Resources Protection: Steep Slopes Overlay	550-39 (district), 550-40 (map) and 550-92 (regulations)	Areas which contain a gradient of 12% or greater.		• Separate from the Natural Resources Overlay group. Refer only to the specific resource overlay in the title. • Relocate regulatory content to Article II rather than Article IX. • No other changes identified.

7	Downtown Historic Preservation	550-41 (district) and 550-149 which refers to Chapter 325 Historic Preservation Code	Preserve and enhance historical quality of the downtown, attain consistent image for downtown, forward aesthetic and economic objectives of the city.		• The district has long been recorded in the city ordinance but was not mapped on the official zoning map. • The district is now shown on the official zoning map based on the creation of boundaries identified in a 1988 Resolution. • No other changes identified.

8	Community Entry Corridor Design Overlay	550-42 (district) and 550-150 (regulations)	Preserve and enhance historical quality of STH 19 west of downtown, CTH E southeast of downtown, STH 26 south of downtown, and STH26/16 north/east of downtown, and enhance economic redevelopment potential of STH 26 corridor north and south of downtown. Advance aesthetic and historic preservation objectives of the city.	Policy Question 2	• The district has long been recorded in the city ordinance but is not effective until mapped on the official zoning map.
					• The purpose of the district is to require higher design standards for development other than single-family and two-family (this part added) along highly visible and key entry corridors into the community.
					• The design standards currently in the code link back to the design standards for Group Developments and require a CUP.
					  o Note: Reducing the use of CUPs is advised in response to WI Act 67.
					• The location of the district is proposed to be peeled back (removed) in certain locations as follows:
					  o County Highway E Corridor. The Future Land Use map recommends this area for residential development.
					  o The STH 16 Bypass Corridor around the north/east sides of the city. Certain areas are constrained by wetlands which limit development.
					  o Minor adjustments in other areas to align with interchanges
					  o ***Decision: Keep corridors as proposed or amend the locations***
					• Minor change to applicability. Does not apply to single family (already in code) or two family (*added*).
					• District is effective upon adoption of neighborhood plans (*removed*) and mapping on the official zoning map.
					• There is a policy decision for the city to confirm whether to keep this district.
					  o If kept, requirements should be simplified and the requirement for CUPs for all development should be removed.
					  o If the overlay is removed now, there is an alternative option to address these areas with a future zoning code rewrite. One idea is to create a zoning district that has higher standards and apply it in appropriate areas rather than using an overlay.
					  o ***Decision: Keep or remove***

9	Community Gateway Design Overlay	550-43 (district) and 550-151 (regulations)	Require a higher level of design for development located at and around the most important entrances to the community, to reflect character which recognizes city's objectives of establishing attractive and high-quality image. Locations: STH 26/16, STH16/East Gate Drive, STH 26/Ebenezer, STH 19/Gypsy, CTH E and Concord near CTH D.	Policy Question 3	• The district has long been recorded in the city ordinance but is not effective until mapped on the official zoning map. • The purpose of the district is to require higher design standards for development at key community entrances. • Locations are listed in the code text; however, all of these are located outside of the current municipal boundary. The intent is to map them upon annexation. • These are located relatively far outside the municipal boundary so imminent annexation is unlikely. • This is a policy decision whether to keep the placeholder text in the code. Keeping it retains an "ineffective zoning district". The Comprehensive Plan can still contain recommendations regarding future implementation. o ***Decision: Keep or remove***
10	Airport Height Limitations Overlay	Chapter 211	Protects airport approach zone by limiting the height of buildings to a certain elevation. The elevation changes based on proximity to the airport.		• Clarify height limitations and location of mapping data. • Map corrects overlay zone on official zoning map. • Create text identifying as an overlay.

AN ORDIANCE

TO AMEND CHAPTER 550: ZONING CODE, THROUGH THE AMENDMENTS OF LANGUAGE TO SECTIONS §550-38, §550-39, §550-40, §550-41; §550-42, §550-43, and §550-150, and §550-152 and to CHAPTER 532: FLOOD PLAIN and SHORELAND-WETLAND ZONING CODE

SPONSOR: MAYOR MCFARLAND, CHAIR

FROM: PLAN COMMISSION WITH POSITIVE RECOMMENDATION

THE COMMON COUNCIL OF THE CITY OF WATERTOWN DOES ORDAIN AS FOLLOWS:

SECTION 1. Section § 550-38 is hereby repealed and replaced with:

§ 550-38 Planned Development Overlay District.

A. Description and purpose. This district is intended to provide more incentives for redevelopment in areas of the community which are experiencing a lack of reinvestment, or which require flexible zoning treatment because of factors specific to the site. This district is designed to forward both aesthetic and economic objectives of the City by controlling the site design and the land use, appearance, density or intensity of development within the district in a manner that is consistent with sound land use, urban design and economic revitalization principles. The application of these standards will ensure long-term progress and broad participation toward these principles. Refer to § 550-152 for the procedures applicable to proposal review in this overlay zoning district.

B. Development standards. Development standards are flexible within this overlay zoning district. Refer to § 550-152B for the range of development standards potentially available in this overlay zoning district.

* * * * * *

SECTION 2. Section § 550-152 is hereby repealed and replaced with:

§ 550-152 Planned Development Procedures.

A. Purpose.

(1) The purpose of this section is to provide regulations that govern the procedure and requirements for the review and approval, or denial, of proposed planned developments and to provide for the possible relaxation of certain development standards pertaining to the underlying overlay zoning district.

(2) Planned developments are intended to provide more incentives for infill development and redevelopment in areas of the community that are experiencing a lack of significant reinvestment. Furthermore, planned developments are designed to forward both the aesthetic and economic development objectives of the City by controlling the site design and the appearance, density or intensity of development in terms of more flexible requirements for land uses, density, intensity, bulk, landscaping and parking requirements. In exchange for such flexibility, the planned development shall provide a much higher level of site design, architectural control and other aspects of aesthetic and functional excellence than normally required for other developments.

(3) Planned developments have the potential to create undesirable impacts on nearby properties develop simply under the general requirements of this chapter. In addition to such potential, planned developments also have the potential to create undesirable impacts on nearby properties which potentially cannot be determined except with a binding site plan, landscape plan and architectural plan, and on a case-by-case basis. In order to prevent this from occurring, all planned developments are required to meet certain procedural requirements applicable only to planned developments, in addition to the general requirements of this chapter. A public hearing process is required to review a request for a planned development.

B. Provision of flexible development standards for planned developments.

(1) Permitted location. Planned developments shall be permitted with the approval of a Planned Development Overlay Zoning District specific to the approved planned development.

(2) Flexible development standards. The following exemptions to the development standards of the underlying zoning district may be provided with the approval of a planned development:

(a) Land use requirements. All land uses listed as "residential," "institutional" or "commercial" may be permitted within a planned development. Industrial land uses may only be allowed in Planned Developments that use an underlying zoning district which specifically list industrial uses as permitted or conditional uses.

(b) Density and intensity requirements. All requirements listed for residential density and nonresidential intensity may be waived within a planned development.

(c) Bulk requirements. All residential and nonresidential bulk requirements may be waived within a planned development.

(d) Landscaping requirements. All landscaping requirements may be waived within a planned development.

(e) Parking and loading requirements. All requirements for off-street parking, traffic circulation, and off-street loading may be waived within a planned development.

(f) Waterway Overlay District requirements. All Waterway Overlay District requirements may be waived within a planned development.

(3) Requirements to depict all aspects of development. Only development which is explicitly depicted on the required site plan approved by the Common Council as part of the approved planned development shall be permitted, even if such development (including all aspects of land use, density and intensity, bulk, landscaping, and parking and loading) is otherwise listed as permitted. Requested exemptions from these standards shall be made explicit by the applicant in the application and shall be recommended by the Plan Commission and approved explicitly by the Common Council. If not so requested and approved, such exemptions shall not be permitted.

C. Initiation of request for approval of a planned development. Proceedings for approval of a planned development shall be initiated by:

(1) An application of the owner(s) of the subject property, lease holders or contract purchasers.

(2) A recommendation of the Plan Commission and action by the Common Council, relative to City-owned property.

D. PD Process Step 1: Preapplication conference.

(1) The applicant shall contact the Zoning Administrator to schedule a discussion regarding the potential PD application and to obtain informal feedback regarding the application and the PD process.

(2) Appropriate topics for discussion may include the location of the PUD, general project themes, the general mix of dwelling unit types and/or land uses being considered, approximate residential densities and non-residential intensities, the general treatment of natural features, the general relationship to nearby properties and public streets, and relationship to the Comprehensive Plan. The discussion should also include a review of the justification for use of the PD overlay and whether alternative options such as rezoning to a standard zoning district or amending the proposed development plans are advised.

(3) Points of discussion and conclusions reached in this stage of the process shall in no way be binding upon the applicant or the City but should be considered as the informal nonbinding basis for proceeding to the next step.

E. PD Process Step 2: Optional concept plan.

(1) Optional review may be pursued at the request of the applicant or the Zoning Administrator. The applicant shall provide the Zoning Administrator with a draft PD concept plan submittal packet for a determination of completeness prior to placing the proposed PD on the Plan Commission agenda for concept plan review. This submittal packet shall contain all of the following items, prior to its acceptance by the Zoning Administrator and placement of the item on a Plan Commission agenda for concept plan review:

(a) A location map of the subject property and its vicinity at 11 inches by 17 inches.

(b) A general written description of the proposed PD, including:

[1] General project themes and images;

[2] The general mix of dwelling unit types and/or land uses;

[3] Approximate residential densities and nonresidential intensities as described by dwelling units per acre, floor area ratio and impervious surface area ratio;

[4] The general treatment of natural features;

[5] The general relationship to nearby properties and public streets;

[6] The general relationship of the project to the Comprehensive Plan; and

[7] An initial draft list of zoning standards which will not be met by the proposed PUD and the location(s) in which they apply and a complete list of zoning standards which will be more than met by the proposed PUD and the location(s) in which they apply shall be identified. The purpose of this listing shall be to provide the Plan Commission with information necessary to determine the relative merits of the project in regard to private benefit versus public benefit and in regard to the mitigation of potential adverse impacts created by design flexibility.

(c) A conceptual plan drawing (at 11 inches by 17 inches) of the general land use layout and the general location of major public streets and/or private drives.

(2) Points of discussion and conclusions reached in this stage of the process shall in no way be binding upon the applicant or the City but should be considered as the informal nonbinding basis for proceeding to the next step. The preferred procedure is for one or more iterations of Plan Commission review of the concept plan to occur prior to introduction of the formal petition for rezoning which accompanies the general development plan (GDP) application.

F. PD Process Step 3: General development plan (GDP).

(1) The applicant shall provide the Zoning Administrator with a GDP plan submittal packet for a determination of completeness prior to placing the proposed GDP on the Plan Commission agenda for GDP review.

This submittal packet shall contain all of the following items prior to its acceptance b Administrator and placement of the item on a Plan Commission agenda for GDP review:

(a) A location map of the subject property and its vicinity at 11 inches by 17 inches.

(b) A map of the subject property, showing all lands for which the planned infill development is proposed and all other lands within 200 feet of the boundaries of the subject property. Said map shall clearly indicate the current zoning of the subject property and its environs. Said map and all its parts and attachments shall be submitted in a form which is clearly reproducible with a photocopier and shall be at a scale which is not less than one-inch equals 800 feet. All lot dimensions of the subject property, a graphic scale, and a North arrow shall be provided.

(c) A general written description of proposed PD, including:

[1] General project themes and images.

[2] The general mix of dwelling unit types and/or land uses.

[3] Approximate residential densities and nonresidential intensities as described by dwelling units per acre, floor area ratio and impervious surface area ratio.

[4] The general treatment of natural features.

[5] The general relationship to nearby properties and public streets.

[6] The general relationship of the project to the Comprehensive Plan.

[7] A statement of rationale as to why PD zoning is proposed. This shall identify barriers that the applicant perceives in the form of requirements of standard zoning districts and opportunities for community betterment that the applicant suggests are available through the proposed PD zoning.

[8] A complete list of zoning standards which will not be met by the proposed PUD and the location(s) in which they apply and a complete list of zoning standards which will be more than met by the proposed PD and the location(s) in which they apply shall be identified. The purpose of this listing shall be to provide the Plan Commission with information necessary to determine the relative merits of the project in regard to private benefit versus public benefit and in regard to the mitigation of potential adverse impacts created by design flexibility.

[9] A written description of potentially requested exemptions from the requirements of the underlying zoning district, in the following order:

[a] Land use exemptions.

[b] Density and intensity exemptions.

[c] Bulk exemptions.

[d] Landscaping exceptions.

[e] Parking and loading requirements exceptions.

(d) A general development plan drawing at a minimum scale of one inch equals 100 feet (reduction of 11 inches by 17 inches) of the proposed project shall also be provided by the applicant), showing at least the following information in sufficient detail to make an evaluation against criteria for approval:

[1] A conceptual plan drawing (at 11 inches by 17 inches) of the general land use layout and the general location of major public streets and/or private drives.

[2] Location of recreational and open space areas and facilities, and specifically describ
are to be reserved or dedicated for public acquisition and use;

[3] Statistical data on minimum lot sizes in the development, the approximate areas of large development lots and pads, density/intensity of various parts of the development, floor area ratio, impervious surface area ratio and landscape surface area ratio of various land uses, expected staging, and any other plans required by the Plan Commission or Common Council; and

[4] Notations relating the written information provided in Subsection G(1)(c)[1] to [6] above to specific areas on the GDP drawing.

(e) A general conceptual landscaping plan for subject property, noting approximate locations of foundation, street, yard and paving, landscaping and the compliance of development with all landscaping requirements of this chapter (except as noted in the listing of exceptions), and the use of extra landscaping and bufferyards.

(f) A general signage plan for the project, including all project identification signs and concepts for public fixtures and signs (such as streetlight fixtures and/or poles or street sign faces and/or poles) which are proposed to vary from City standards or common practices.

(g) Written justification for the proposed planned development.

(h) Written demonstration of financial capability to complete all public and private improvements associated with the proposed PD.

(2) The process and fees for review and approval of the GDP shall require a public hearing before the Plan Commission preceded by a Class II notice. The Plan Commission shall hold the formal public hearing, review the application, and make a recommendation for action on the application. The Mayor or Council representative on the Plan Commission may request an additional public hearing to be held by the Common Council. The Common Council shall take final action on consideration of the application.

(3) All portions of an approved GDP not fully developed within five years of final Common Council approval shall lapse, and no additional PD-based development shall be permitted. Prior to the end of the five-year period, the property owner may request reapproval of the GDP for up to five additional years or shall request amendment of the GDP. Reapproval or amendment requests shall obtain a recommendation from the Plan Commission and approval from the Common Council following a public hearing held before the Plan Commission. If an application for renewal or amendment is not submitted, the Zoning Administrator may propose rezoning to the underlying zoning district or another standard zoning district. In the case of an expired PD, the base zoning district shall remain in effect and no development under the prior PD approvals may proceed.

G. PD Process Step 4: Precise implementation plan (PIP).

(1) After the effective date of the rezoning to GDP, the applicant may file an application for a proposed precise implementation plan (PIP) with the Plan Commission. Alternatively, a combination GDP and PIP application may be submitted if authorized by the Zoning Administrator and if all information required for both the GDP and PIP submittal is also included. In the case of a combination GDP/PIP, a public hearing is required in accordance with GDP procedures. Any PIP submittal packet shall contain all of the following items, prior to its acceptance by the Zoning Administrator and placement of the item on a Plan Commission agenda for PD review:

(a) A location map of the subject property and its vicinity at 11 inches by 17 inches.

(b) A map of the subject property, showing all lands for which the planned infill development is proposed and all other lands within 200 feet of the boundaries of the subject property. Said map shall clearly

indicate the current zoning of the subject property and its environs. Said map and al attachments shall be submitted in a form which is clearly reproducible with a photocopier and shall be at a scale not less than one-inch equals 800 feet. All lot dimensions of the subject property, a graphic scale, and a North arrow shall be provided.

(c) A general written description of the proposed PIP, including:

[1] Specific project themes and images.

[2] The specific mix of dwelling unit types and/or land uses.

[3] Specific residential densities and nonresidential intensities as described by dwelling units per acre, floor area ratio and impervious surface area ratio.

[4] The specific treatment of natural features.

[5] The specific relationship to nearby properties and public streets.

(d) A precise implementation plan drawing at a minimum scale of one inch equals 100 feet (reduction of 11 inches by 17 inches) of the proposed project shall also be provided by the applicant, showing at least the following information in sufficient detail to make an evaluation against criteria for approval:

[1] A PIP site plan conforming to any and all the requirements of the site plan review and approval procedures. If the proposed planned development is a cluster development or a group development, a proposed preliminary plat or conceptual plat shall be provided in addition to the required site plan;

[2] Location of recreational and open space areas and facilities and specifically describing those that are to be reserved or dedicated for public acquisition and use;

[3] Statistical data on minimum lot sizes in the development, the precise areas of all development lots and pads, density/intensity of various parts of the development, floor area ratio, impervious surface area ratio and landscape surface area ratio of various land uses, expected staging, and any other plans required by the Plan Commission or Common Council; and

[4] Notations relating the written information provided in Subsection G(1)(c)[1] to [6] above to specific areas on the GDP drawing.

(e) A landscaping plan for the subject property, specifying the location, species and installed size of all trees and shrubs. This plan shall also include a chart, which provides a cumulative total for each species, type and required location (foundation, yard, street, paved area or bufferyard) of all trees and shrubs.

(f) A series of building elevations for the entire exterior of all buildings in the planned development, including detailed notes as to the materials and colors proposed.

(g) A general signage plan for the project, including all project identification signs, concepts for public fixtures and signs (such as streetlight fixtures and/or poles or street sign faces and/or poles), and group development signage themes which are proposed to vary from City standards or common practices.

(h) A general outline of the intended organizational structure for a property owners' association, if any; deed restrictions and provisions for private provision of common services, if any.

(i) A written description which demonstrates the full consistency of the proposed PIP with the approved GDP.

(j) Any and all variations between the requirements of the applicable GDP zoning district and PIP development.

(2) The applicant shall submit proof of financial capability pertaining to construction, maintenance, and operation of all public and private improvements associated with the proposed PD.

(3) The area included in a precise implementation plan may be only a portion of the area included in a previously approved general implementation plan.

(4) The precise implementation plan (PIP) submission may include site plan and design information, allowing the Plan Commission to combine design review and review of the PIP. Design review may, at the choice of the applicant, be deferred until a later time when specific site and building developments will be brought forth.

(5) The Plan Commission or Common Council may specify other plans, documents or schedules that must be submitted prior to consideration or approval of the PIP, as such may be relevant to review.

(6) The process and fees for review and approval of a PIP shall be identical to that GDP approvals per this chapter

(7) All portions of an approved PIP not fully developed within five years of final Common Council approval shall lapse, and no additional PD-based development shall be permitted. The Common Council may extend this period up to five additional years via a majority vote following a public hearing. The applicant may also request reapproval or amendment of a previously approved PIP before the applicable five-year period lapses. In the case of an expired PIP, procedures shall be identical to that for GDP expirations per this Chapter.

* * * * * *

SECTION 3. Section § 550-39 is hereby repealed and replaced with:

§ 550-39 Purpose and Mapping of Natural Resource Protection Overlays

A. This section introduces overlay zoning districts which regulate areas in which natural resource protection requirements apply. Each type of natural resource regulated by this chapter is represented by an overlay zoning district bearing its name. Natural resource protection overlay districts include:

(1) Floodplain Overlay Districts.

(2) Shoreland-Wetland Overlay District.

(3) Waterway Overlay District.

(4) Woodland Overlay District.

(5) Steep Slope Overlay District.

B. Natural resource protection overlay zoning districts established by this chapter are shown on the Official Zoning Map of the City of Watertown which, together with all the explanatory material thereon, is hereby made part of this chapter. For specific natural resource protection overlay district designation criteria, see Sections 550-41 through 550-43.5 of this chapter and also Chapter 532, Floodplain and Shoreland-Wetland Zoning.

C. Purpose. The purpose of this article is to set forth the requirements for the mandatory protection of natural resources and permanently protected green space areas within the jurisdiction of this chapter (see § 500-9).

The provisions of this article interact closely with the provisions of § 550-58 (Natural resource required mitigation standards), § 550-73 (Required natural resources site evaluation), and §§ 550-74 and 550-75 which provide residential and nonresidential development standards. Section 550-76 provides a complete overview of the interrelationship between the above-listed sections. Appendix B provides a table of permitted land uses in permanently protected green space areas.[1] In part, the provisions of this article are designed to ensure the implementation of the City of Watertown Comprehensive Plan and §§ 62.231 and 87.30, Wis. Stats.

D. How to use this article. This article contains the standards that govern the protection, disturbance and mitigation of disruption of all natural resources and other permanently protected green space areas. The provisions of this article are intended to supplement those of the City of Watertown, Dodge and/or Jefferson County, the State of Wisconsin, and the Federal Government of the United States that pertain to natural resource protection. Prior to using the provisions of this article to determine the permitted disruption of such areas, the requirements provided below should be reviewed. This article recognizes the important and diverse benefits that natural resource features provide in terms of protecting the health, safety and general welfare of the community. Each of the following sections is oriented to each natural resource type and is designed to accomplish several objectives:

(1) First, a definition of the natural resource is provided.

(2) Second, the specific purposes of the protective regulations governing each natural resource type are provided.

(3) Third, the required method of identifying and determining the boundaries of the natural resource area is given.

(4) Fourth, mandatory protection requirements are identified. Note: protection requirements for specific land uses and natural resource types designed to minimize disruption of natural resource functions are presented in § 550-58.

E. Where an apparent discrepancy exists between the location of the outermost boundary of the flood-fringe district or the floodplain district shown on the Official Zoning Map and actual field conditions, the location shall be initially determined by the Zoning Administrator using the criteria described in Subsections F and G below. Where the Zoning Administrator finds that there is a significant difference between the map and the actual field conditions, the map shall be amended using the procedures established in § 550-141. Disputes between the Zoning Administrator and the applicant over the location of the district boundary line shall be settled using the procedures outlined in § 550-156H.

F. Where flood profiles exist, the location of the district boundary line shall be determined by the Zoning Administrator using both the scale appearing on the map and the elevations shown on the water surface profile of the regional flood. Where a discrepancy exists between the map and actual field conditions, the regional flood elevations shall govern. A map amendment is required where there is a significant discrepancy between the map and actual field conditions. The Zoning Administrator shall have the authority to grant or deny a land use permit on the basis of a district boundary derived from the elevations shown on the water surface profile of the regional flood, whether or not a map amendment is required. The Zoning Administrator shall be responsible for initiating any map amendments required under this section within a reasonable period of time.

G. Where flood profiles do not exist, the location of the district boundary line shall be determined by the Zoning Administrator using the scale appearing on the map, visual on-site inspection and any available information provided by the Department of Natural Resources. Where there is a significant difference between the map and actual field conditions, the map shall be amended. Where a map amendment has been approved by both the Common Council and the Department of Natural Resources, the Zoning Administrator shall have the authority to grant or deny a land use permit.

* * * * * *

SECTION 4. Section § 550-40 is hereby repealed and replaced with:

Section § 550-40 Floodway, Flood-Fringe, and Floodplain Overlay Districts

See Chapter 532, Floodplain and Shoreland-Wetland Overlay Zoning.

* * * * * *

SECTION 5. Section § 550-41 is hereby repealed and replaced with:

Section § 550-41 Shoreland-Wetland Overlay District

See Chapter 532, Floodplain and Shoreland-Wetland Overlay Zoning.

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SECTION 6. Section § 550-42 is hereby repealed and replaced with:

Section § 550-42 Waterways Overlay District

A. Definition. Waterways are navigable or non-navigable, aboveground watercourses, detention basins and/or their environs which are identified by the presence of one or more of the following:

(1) All areas within 75 feet of the ordinary high-water mark of a "perennial stream," as shown on a detailed on-site survey prepared by the applicant [see § 550-145C(8)].

(a) Where an existing development pattern exists, the waterway setback for a proposed principal structure may be reduced to the average waterway setback of the principal structure on each adjacent lot, but the waterway setback may not be reduced to less than 35 feet from the ordinary high-water mark of any "perennial stream."

(2) All areas within 50 feet of the ordinary high-water mark of an "intermittent stream" or "open channel waterway," as shown on a detailed on-site survey prepared by the applicant [see § 550-145C(8)].

(a) Where an existing development pattern exists, the waterway setback for a proposed principal structure may be reduced to the average waterway setback of the principal structure on each adjacent lot, but the waterway setback may not be reduced to less than 35 feet from the ordinary high-water mark of an "intermittent stream" or "open channel waterway."

B. Purpose of waterway protection requirements. Waterways serve in the transporting of surface runoff to downstream areas. As such, waterways serve to carry surface waters, supplement floodplain, wetland and lakeshore water storage functions in heavy storm or melt events, filter waterborne pollutants and sediments, promote infiltration and groundwater recharging, and provide a unique habitat at the land/water margin. Waterway protection requirements preserve each of these functions as well as greatly reducing the potential for soil erosion along waterways by protecting vegetative ground cover in areas which are susceptible to variable runoff flows and moderate-to-rapid water movement.

C. Determination of waterway boundaries. General waterway boundaries are depicted on the Official Zoning Map. Upon the proposal of development activity on any property which contains a waterway depicted on the Official Zoning Map, the petitioner shall prepare a detailed site analysis per the requirements of § 550-145C(8). This analysis shall depict the location of all waterway areas on the subject property as related to the provisions of Subsection A above.

D. Mandatory waterway protection requirements. Waterways shall remain in an undisturbed state except for the land uses permitted in Appendix B per the requirements in § 550-58. Vegetation clearing to maintain waterway functions is permitted with the written approval of the Public Works Director/City Engineer. All areas

designated as waterways shall be located within a public easement or dedication for maintena to preserve proper drainage flow.

* * * * * *

SECTION 7. Section § 550-43 is hereby repealed and replaced with:

Section § 550-43 Woodland Overlay District

A. Definition. Woodlands are areas of trees whose combined canopies cover a minimum of 80% of an area of one acre or more, as shown on a detailed on-site survey prepared by the applicant [see § 550-145C(8)].

B. Purpose of woodland protection requirements. Woodlands provide a wide variety of environmental functions. These include atmospheric benefits such as removing airborne pollutants, carbon dioxide uptake, oxygen production, and evapotranspiration returns. Water quality benefits include substantial nutrient uptake rates (particularly for nitrogen and phosphorus) and surface runoff reduction in terms of both volumes and velocities. Woodlands provide unique wildlife habitats and food sources. Woodlands are excellent soil stabilizers, greatly reducing runoff-related soil erosion. Woodlands also serve to reduce wind velocities which further reduces soil erosion. Finally, under proper management techniques, woodlands serve as regenerative fuel sources.

C. Determination of woodland boundaries. General woodland boundaries are depicted on the Official Zoning Map. Upon the proposal of development activity on any property which contains a woodland depicted on the Official Zoning Map, the petitioner shall prepare a detailed site analysis per the requirements § 550-145C(8). This analysis shall depict the location of all woodland areas on the subject property as related to the provisions of Subsection A above.

D. Mandatory woodland protection requirements. Woodlands shall remain in an undisturbed state except for the land uses permitted in Appendix B per the requirements of § 550-58 and areas subject to the following mitigation requirements:

(1) Selective cutting operations are permitted by right in all woodland areas (per the requirements of § 550-50F).

(2) Clear-cutting is permitted as a conditional use in all woodland areas (per the requirements of § 550-50G).

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SECTION 8. Section § 550-43.1 is hereby created to read as follows:

Section § 550-43.1 Steep Slope Overlay District

A. Definition. Steep slopes are areas which contain a gradient of 12% or greater (equivalent to a ten-foot elevation change in a distance of 83 feet or less), as shown on a detailed on-site survey prepared by the applicant [see § 550-145C(8)].

B. Purpose of steep slope protection requirements. Steep slopes are particularly susceptible to damage resulting from site disruption, primarily related to soil erosion. Such damage is likely to spread to areas which were not originally disturbed. Such erosion reduces the productivity of the soil, results in exacerbated erosion downhill, and results in increased sedimentation in waterways, wetlands, streams, ponds and lakes. Beyond adversely affecting the environmental functions of these resources areas, such sedimentation also increases flood hazards by reducing the floodwater storage capacity of hydrological system components, thus elevating the flood level of the drainage system in affected areas. Beyond these threats to the public safety, disruption

of steep slopes also increases the likelihood of slippage and slumping, unstable soil movement threaten adjacent properties, buildings and public facilities such as roads and utilities.

C. Determination of steep slope boundaries. General steep slope boundaries are depicted on the Official Zoning Map. Upon the proposal of development activity on any property which contains a steep slope depicted on the Official Zoning Map, the petitioner shall prepare a detailed site analysis per the requirements of § 550-145C(8). This analysis shall depict the location of all steep slope areas on the subject property as related to the provisions of Subsection A above.

D. Mandatory steep slope protection requirements. Steep slopes shall remain in an undisturbed state except for the land uses permitted in Appendix B[1] per the requirements of § 550-58.

SECTION 9. Section § 550-43.2 is hereby created to read as follows:

Section § 550-43.2 Downtown Historic Preservation Overlay Zoning District

A. Purpose. This district is intended to implement the urban design recommendations of the Comprehensive Plan by preserving and enhancing the historical quality of the downtown and by attaining a consistent visually pleasing image for the downtown area. As emphasized by said plan, this district is designed to forward both aesthetic and economic objectives of the City by controlling the site design and appearance of development within the district in a manner that is consistent with sound land use, urban design and economic revitalization principles. The application of these standards will ensure long-term progress and broad participation toward these principles. Refer to § 550-149 for the procedures applicable to proposal review in this overlay district.

SECTION 10. Section § 550-43.3 is hereby created to read as follows:

Section § 550-43.3 Community Entry Corridor Design Overlay Zoning District

A. Purpose. This district is intended to implement the urban design recommendations of the Comprehensive Plan by preserving and enhancing the historical quality of the STH 19 corridor west and east of the downtown, STH 26 south of the downtown and the STH 16 corridor north of the downtown by enhancing the economic redevelopment potential of the STH 26 corridor north and south of the downtown. As emphasized by the plan, this district is designed to forward both aesthetic and historic preservation objectives of the City by controlling the site design and appearance of development within the district in a manner that is consistent with sound land use, urban design and economic revitalization principles. The application of these standards will ensure long-term progress and broad participation toward these principles. Refer to § 550-150 for the procedures applicable to proposal review in this overlay district.

SECTION 11. Section § 550-150 is hereby repealed and replaced with:

Section § 550-150 Community Entry Corridor Overlay Zoning District

The following requirements shall be effective upon the date of adoption date of depicting these overlay zoning districts on the Official Zoning Map. Any new development, other than single-family and two-family residential.

A. Requirement of compatibility. Proposed site design and construction within this district, including new structures and building additions, shall be reviewed per § 550-145, Site plan review and approval procedures, by the Plan Commission. The building setback, height, mass, roof form, exterior materials, exterior surface appurtenances, exterior colors, landscaping and lighting shall be compatible with the following general design theme, as determined by the Plan Commission.

B. Design standards for multi-family residential development. The general design theme for multi-family residential development within the Community Entry Corridor Overlay Zoning District shall be designed to accommodate typical impacts of transportation and nearby nonresidential development, particularly through the use of building orientation, door and window location and design, and on-site landscaping and related buffering structures or berms. Above and beyond such concerns, particular attention shall be devoted to ensuring that selected multi-family residential design components complement nearby residential styles with high-quality building materials, in an attractive manner as becoming an entry corridor, and as determined by the Plan Commission. Where a detailed neighborhood plan has been adopted, it should be used to provide additional guidance in the design review process.

C. Design standards for nonresidential development. The general design theme for nonresidential development within the Community Entry Corridor Overlay Zoning District shall be characterized by high-quality building materials, architectural design, site design and on-site landscaping. Prominent urban design elements and architectural details, which are decorative and functional, shall be considered as a required component of each site within the district. Above and beyond such concerns, particular attention shall be devoted to ensuring that selected nonresidential design components complement nearby nonresidential styles and reflect positively on the character of the community, as becoming an entry corridor, and as determined by the Plan Commission. Where a detailed neighborhood plan has been adopted, it should be used to provide additional guidance in the design review process.

(1) Building exterior materials shall be of high quality on all sides of the structure, including glass, brick, decorative concrete block or stucco, Decorative architectural metal with concealed fasteners may be approved with special permission from the city.

(2) Building exterior design shall be unified in design and materials throughout the structure and shall be complementary to other structures in the vicinity. However, the development shall employ varying building setbacks, height, roof, treatments, door and window openings, and other structural and decorative elements to reduce the apparent size and scale of the structure. A minimum of 20% of the combined facades of the structure shall employ actual facade protrusions or recesses. A minimum of 20% of the combined linear roof eave or parapet lines of the structure shall employ differences in height of eight feet or more. Roofs with particular slopes may be required by the City to complement existing buildings or otherwise establish a particular aesthetic objective.

(3) Mechanical equipment, refuse containers and any permitted outdoor storage shall be fully concealed from on-site and off-site ground-level views with materials identical to those used on the building exterior.

(4) Public entryways shall be prominently indicated from the building's exterior design and shall be emphasized by on-site traffic flow patterns. All sides of the building that directly face or abut a public street shall have public entrances.

(5) Parking lot design shall employ interior landscaped islands with a minimum of 400 square feet at all parking islands, and in addition shall provide a minimum of one landscaped island of a minimum of 400 square feet in each parking aisle for every 20 cars in that aisle. Aisle-end islands shall count toward meeting this requirement. Landscaped medians shall be used to break large parking areas into distinct pods, with a maximum of 100 spaces in any one pod.

(6) On-site landscaping shall be provided per the landscaping requirements of this chapter, except that building foundation landscaping and paved area landscaping shall be provided at 1.5 times the required landscape points for development in the zoning district.

(7) The entire development shall provide for full and safe pedestrian and bicycle access within the development and shall provide appropriate connections to the existing and planned pedestrian and bicycle facilities in the community and in surrounding neighborhoods, including sidewalk connections to all building entrances from all public streets. The development shall provide secure bicycle parking and

pedestrian furniture in appropriate quantities and location. A central pedestrian gathering provided.

(8) The Plan Commission may waive any of the above standards by a three-fourths' vote of members in attendance, but only if supplemental design elements or improvements are incorporated into the project that compensate for the waiver of the particular standard.

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SECTION 12. Section § 550-43.4 is hereby created to read as follows:

Section § 550-43.4 Airport Overlay Zoning District

A. Purpose. This district is intended to implement height limitations for preservation of the City of Watertown Municipal Airport approach zones. The application of these standards will ensure long-term viability and safety of airport operations. Refer to Chapter 211 for procedures applicable to proposal review in this overlay district.

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SECTION 13. Article IX Natural Resource Protection Regulations will be repealed entirely:

~~**Article IX Natural Resource Protection Regulations**~~

~~550-86 Purpose~~

~~550-87 How to use this article;~~

~~550-88 Floodway, Flood-Fringe, and Floodplain Overlay Zoning District~~

~~550-89 Shoreland-Wetland Overlay Zoning District~~

~~550-90 Drainageway/Waterway Overlay Zoning District~~

~~550-91 Woodland Overlay Zoning District~~

~~550-92 Steep Slope Overlay Zoning District~~

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SECTION 14. Chapter 532 shall be amended as follows:

Chapter 532 Floodplain and Shoreland-Wetland Overlay Zoning

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SECTION 15. Chapter 532 shall be amended as follows:

Chapter 532 Article III Shoreland-Wetland Overlay Zoning District

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SECTION 16. Chapter 532 shall be amended as follows:

Chapter 532 Article IV Floodplain Overlay Zoning District

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SECTION 17. All ordinances or parts of ordinances inconsistent with the provisions of this ordinance are hereby repealed.

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SECTION 18. This ordinance shall take effect and be in force the day after its passage and publication.

DATE:				
READING:	*1ST*		*2ND*	
	YES	*NO*	*YES*	*NO*
DAVIS				
LAMPE				
BOARD				
BARTZ				
BLANKE				
SMITH				
SCHMID				
WETZEL				
MOLDENHAUER				
MAYOR MCFARLAND				
TOTAL				

ADOPTED_____

_____

CITY CLERK/TREASURER

APPROVED_____

_____

MAYOR

City of Watertown Overlay Zoning Map

DRAFT

- Rail
- City of Watertown Boundary
- Historic District Overlay
- Community Corridors (Includes Parcel Frontages on Both Sides)

Airport Overlay*

- Maximum Elevation between 968 and 1005 ft
- Airport Height Limit - Max. Elevation b/t 865 and 968 ft

- Shoreland-Wetland Overlay
- Woodland Overlay
- General Floodplain Overlay
- Flood Fringe Overlay
- Floodway Overlay
- Waterway Overlay
- Steep Slopes Overlay
- Water

*Note: Please see Figure 2.11, "Elevation Limitations", from the Watertown Municipal Airport Masterplan for detailed delineations of building height limits within this boundary.
Height limits range from 865 feet to 1005 feet depending on location.

0 0.375 0.75 1.5 Miles

Date: 11/1/2024

Sources: City of Watertown, Dodge County, Jefferson County, US Census Bureau, State of WI, FEMA, WI DNR, USDA-NRCS, MSA