

MEETING: REGULAR MEETING OF THE PLAN COMMISSION
DATE & TIME: Monday, July 14, 2025 at 6:30 PM
LOCATION: Germantown Village Hall Board Room
N112 W17001 Mequon Road

Any member of the body and/or citizen also attend the meeting virtually through the WebEx platform, Meeting #: **2553 216 2843** Password: **qRNIKJrY345** which can be accessed by phone at **408-418-9388** or by logging on at <https://villageofgermantown.my.webex.com/villageofgermantown.my/j.php?MTID=m3e60c9657945a5ad89155bdbfd3c356f>

Citizens not wishing to attend the meeting personally or virtually may submit any public comments by sending an email to comments@germantownwi.gov by 4 p.m. on the day of the meeting so that it can be provided to the members of the body for their consideration.

Previously recorded Village Board Meeting Videos can be viewed at https://www.youtube.com/channel/UCOYp0EgELzTCa9X_iCohyhQ.

AGENDA

- I. **CALL TO ORDER:** *This meeting has been given public notice in accordance with Section 19.83 and 19.84, Wis. Stats, in such form that will apprise the general public and news media of subject matter that is intended for consideration and action.*
- II. **ROLL CALL:**
- III. **APPROVAL OF MINUTES:**
 - A. PC Minutes 6/9/25
 - B. PC Minutes 6/23/25
- IV. **CITIZEN INPUT/PUBLIC APPEARANCE:** *(Please be advised per 19.84(2) that information and comment will be received from the public. It is the policy of this municipality that public input be limited to a four (4) minute period per person with a time extension granted at the discretion of the Chairperson. Be advised that there may be limited discussion of the information received but no action will be taken under public comments.) Comments that may be injurious to village personnel or other individuals will not be allowed.*
- V. **NEW BUSINESS:**
 - A. Amendment to the Village of Germantown 2050 Comprehensive Plan to revise and update the Saintry Sewer Service Area (SSSA) text and maps (PUBLIC HEARING & ACTION)
 - B. Accurate Surveying & Engineering LLP, Agent for Rao Farms LLC, Property Owner N136 W21238 Bonniwell Road. An Application to Rezone 115 acres from the A-1 to the A-2: Agricultural Zoning District and a 4-Lot Certified survey Map (CSM). (PUBLIC HEARING & ACTION)
 - C. Bellcraft Builders, Agent for Bliffert Germantown Holdings LLC, Property Owner N116 W16474 Main Street. Site Plan Application for a 4,800 sqft storage building. (ACTION)
 - D. Justin and Elizabeth Rundle, Property Owners. Zoning Permit Application to install a 6' privacy fence in a public drainage easement and a storm sewer easement on property located at W160N10766 Hidden Glen Lane. (ACTION)
 - E. Lemberg Electric, Agent for Green Bay Packaging, Inc., Property Owner. Sign Review Application for Green Bay Packaging located at N128W21600 Holy Hill Road in the Holy Hill Gateway District. (ACTION)

- F. Sign Effectz, Inc., Agent for TDC Willow Creek, LLC, Property Owner. Sign Review Application for Xylem located at N102W19200 Willow Creek Way in the Willow Creek Business Park. (ACTION)

VI. ANNOUNCEMENTS:

VII. ADJOURNMENT:

UPON REASONABLE NOTICE, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service, please contact the Village Clerk at (262)250-4745 at least 2 days prior to the meeting.

Notice is hereby given that a possible quorum of other boards, committees, and/or commissions may attend this meeting to gather information about an item over which they have decision-making responsibility. This may constitute a meeting of these bodies per State ex rel. Badke v Greendale Village Board, even though these bodies will not take formal action at this meeting.

MEETING:	REGULAR MEETING OF THE PLAN COMMISSION
DATE AND TIME:	Monday, June 9, 2025 6:30 PM
LOCATION:	Germantown Village Hall Board Room N112 W17001 Mequon Road

MINUTES

- I. **CALL TO ORDER:** *This meeting has been given public notice in accordance with Section 19.83 and 19.84, Wis. Stats, in such form that will apprise the general public and news media of subject matter that is intended for consideration and action.*
Chairman Soderberg called the meeting to order at 6:30pm.

- II. **ROLL CALL:**
Chairman Soderberg and Committee Members Warren, Tarantino, Williams, Shadid, Henk and Ewert were all present. Also present were Community Development Director Retzlaff, Associate Planner Yanke and Administrative Coordinator Remich (via Webex).

- III. **APPROVAL OF MINUTES:**
 - A. PC Minutes 5/12/25
Motion: Approve as presented
Motioned By: Robert Warren
Seconded By: William Shadid
Yes: Bob Soderberg, Robert Warren, William Shadid, Robert Williams, Bridget Henk, Josh Tarantino, Russell Ewert
No: None
Abstain: None
Motion Passed (Yes 7, No 0, Abstained 0)

- IV. **CITIZEN INPUT/PUBLIC APPEARANCE:** *(Please be advised per 19.84(2) that information and comment will be received from the public. It is the policy of this municipality that public input be limited to a four (4) minute period per person with a time extension granted at the discretion of the Chairperson. Be advised that there may be limited discussion of the information received but no action will be taken under public comments.) Comments that may be injurious to village personnel or other individuals will not be allowed.*
Citizens that spoke included:
Lynn Bednarz who lives on Pawnee Court.
Melanie Smythe who lives on Cedar Lane.
Robert Lietzau who lives on Oak Lane.
Tanya Kapp who lives on Appleton Avenue.
Sharon Gleissner who lives on Appleton Avenue.
Angela Schneider who lives on Auburn Lane.
William Walter who lives on Lilac Lane.
Dennis Myers who lives on Woodland Drive.

Matt Seban who owns TLC Acres.

Chairman Soderberg read aloud one email that was received regarding TLC Acres.

V. UNFINISHED BUSINESS:

- A. Parish Survey & Engineering, Agent for Matt Seban and TLC Acres, Property Owner W210N10738 Appleton Avenue. Site Plan Review for a 5,200 sqft building and a Conditional Use Permit (CUP) Application to allow grading & filling within a 25' wetland and 75' navigable waterway setback. (ACTION; Continued from April 28)

Director Retzlaff stated that this was a continuation of the April 28th Plan Commission meeting at which 10 area residents came forward to discuss issues they were having with TLC Acres including: noise, vibration, dust/dirt, filling, drainage, traffic accidents, etc. The Commission decided to table the topic until the business owner, Matt Seban could be present. Matt Seban came forward with a prepared statement giving some history of his business and of his current CUP permit. He reviewed past complaints and discussed how they were handled.

Retzlaff summed up the Site Plan application, which included a proposed building addition, additional asphalt as well as a storm water management basin to accommodate runoff from impervious surfaces. The second application is for a separate Conditional Use Permit that focuses on the Village setback areas. There are no direct wetland impacts involved in this proposal. Staff has indicated that the original CUP #08-2019 should be revised to reflect any improvements, including the updated Site Plan. Adding the navigable waterway designation and including DNR permits which may be required. Seban stated that he has agreed to put the Tier 2 area of his property back to its original condition and elevations to provide proper drainage.

Motion 1: Approve Site Plan (with noted conditions)

Motioned By: William Shadid

Seconded By: Robert Warren

Discussion Followed.

Committee members were concerned that the neighbors' issues would not be addressed by these applications. Retzlaff stated that the Staff Report states that the filling east of the Tier 2 area to return it to its original condition is to be completed by November 1st and the staff recommended operation hours would change to M-F, 10am-5pm. Staff added that condition as a way to address some of the residents' concerns. Seban stated that his normal business hours are M-F 7:30am-4:30pm, Sat. 7:30am-Noon and they are closed Sundays. He stated that the condition requiring his filling hours to be Mon.-Fri. 10am-5pm, would be a detriment to his business. He would like those hours changed to M-F 7am-6pm and Sat. 7am-2pm. Retzlaff would like Seban to agree to an end date for the filling. Evan Nickodem with Parish Survey stated that the flood plain map adoption date would be their goal. Washington County has stated that they think it will be adopted in February 2026, but that date is not set in stone. Soderberg stated that he would not want to live next door to this business with operations starting at 7am every weekday and Saturdays. Retzlaff stated that the Plan Commission could direct staff to initiate the process to revise a condition in the original CUP which states that if conditions changed, the Village has the right to bring Matt Seban back through the CUP process to review it. Committee members asked how

the Village would be able to regulate the hours of operation and a completion date of November 1, 2025? The only thing that would officially stop the filling would be the new flood plain maps taking effect. Retzlaff stated that if trucks and noise continue to be a problem after the filling completion date, then we will need to review the original CUP. Soderberg stated that conditions 11 & 12 deal with an end date as well as filling hours. Seban is agreeable to 8am start time. Committee updated condition 12 to change #4 to #11 and the hours to M-F 8am-6pm and Sat. 8am-2pm. Henk suggested going with that November 1st end date and doing a good-faith review on November 1st and giving a possible 60-day extension for the months of November and December. Committee members agreed to bring this back in October for review.

Staff recommends approval of the site development and building plans for a 5,200 sqft accessory building addition subject to the following conditions:

1. This approval is subject to all the conditions and requirements set forth herein and adopted by the Plan Commission. Approval is granted for the following plans unless the conditions of approval adopted by the Plan Commission require or necessitate revisions to these plans: a. Architectural, Building & Elevation plans dated March 19, 2024; b. Civil Engineering plans dated June 5, 2025; c. Storm water Management Report dated January 23, 2025; d. Wetland and Navigable Waterway Setback Compensation Plan (dated January 30, 2025).
2. The existing hoop storage structure and re-located shipping container shall be moved to meet the minimum required 50 feet property line setback from the side yard (north) property line.
3. CUP #08-2019 shall be revised to include by reference the proposed Site Plan set including the proposed building addition, asphalt paving, and storm water basin improvements as approved by the Plan Commission.
4. The Owner/operator shall submit a revised erosion control permit application to the Village of Germantown as necessary to include the site improvements and other land disturbing activities approved as part of this Site Plan so the permit and any requirements stipulated in the erosion control permit are accurate and up-to-date. No additional land disturbing activity shall commence until a revised erosion control permit has been issued by the Village.
5. All landscaping, screening, grading, and paving improvements shown on the approved site plans related to construction of the building shall be installed as proposed prior to issuance of an occupancy permit unless a cash bond or letter of credit in an amount equal to 120 percent of the estimated installation and material costs reviewed and approved by the Village is submitted to the Village as necessary to ensure that installation of the proposed features and improvements will be completed within one (1) year after issuance of the occupancy permit for the shell building.

6. All exterior doors (except primary entrance) shall be clearly marked with reflective 5" or larger letters/numbers to aid emergency personnel access as required by the Police Department.
7. All comments and issues raised in the Village engineer's February 21, 2025 and June 6, 2025 review memos shall be resolved and reflected in additional information and/or revised plans submitted to the Engineer for further review, comment, and approval prior to commencing construction or issuance of building permits (excluding any "early start" site clearing and footing/foundation work approved by the Village and/or WI DSPS).
8. The owner/operator is responsible for applying for and obtaining all permits or approvals required by the Wisconsin Department of Natural Resources (WisDNR) for construction of the storm basin and other land disturbing activities located on the property prior to commencing said construction or land disturbing activities.
9. At such time as the shipping container is no longer used for farm-related storage purposes it shall be removed from the property pursuant to Section 17.41(7)(c) of the Zoning Code.
10. The owner/operator is advised that the Village's flood hazard rate maps (FIRMs) that establish the 100-year floodplain boundary used for determining eligibility in the National Flood Insurance Program (NFIP) and by the Wisconsin DNR and Village of Germantown for regulatory purposes are in the process of being revised. Sometime in late 2025 or early 2026, the new FIRMs will become effective, and the Village will update the Floodplain Zoning Code to include the new maps. As a result, portions of the TLC Acres property are expected to become impacted by and subsequently further regulated by the 100-year floodplain boundary and Floodplain Zoning Code. That part of the TLC Acres property will be subject to new and more restrictive floodplain zoning regulations and any proposed grading, filling or other elevation changes and improvements may be prohibited or otherwise impacted by these new regulations to the extent that said elevation changes and improvements may not be allowed after the new FIRM maps and Floodplain Zoning Code are adopted. To the extent provided by law, Village approval of the Site Plan referenced herein does not provide a vested right to the owner/operator to complete the grading, filling and other improvements set forth in said Site Plan in the event the new FIRMs and resulting 100-year floodplain boundary, revised Village of Germantown Floodplain Zoning Code, or other applicable floodplain regulations effect the TLC Acres property.
11. Filling, grading and site restoration activities in the area east of the proposed storm basin and shown on the revised Site Plan as "Ongoing Grading Area" shall be completed by November 1, 2025. Filling in this area shall only be allowed to the extent that the pre-existing elevations shown on the revised Site Plan are restored and positive drainage toward the waterway is achieved. Plan Commission will revisit this at their October 13th meeting to potentially extend the completion date by up to 60 days.

12. All trucking associated with the filling, grading and site restoration activities in condition 11 above shall be restricted to only the following days and hours in any given week: Mon.-Fri. 8am-6pm and Sat. 8am-2pm.

Results of Motion 1: (with noted conditions)

Yes: Bob Soderberg, Robert Warren, William Shadid, Robert Williams, Bridget Henk, Josh Tarantino, Russell Ewert

No: None

Abstain: None

Motion Passed (Yes 7, No 0, Abstained 0)

Staff recommends approval of the Conditional Use Permit to allow encroachment into a 25' wetland and 75' navigable waterway setback as presented in the Wetland and Navigable Waterway Setback Compensation Plan (dated January 30, 2025) for the TLC Acres property pursuant to Section 24.04 of the Shoreland-Wetland Zoning Code and subject to the following conditions:

1. To the extent practicable, CUP #08-2019 should be revised to include approval of the setback encroachment and Wetland and Navigable Waterway Setback Compensation Plan (dated January 30, 2025).
2. If the use, activities and/or operation subject of this permit falls out of conformity with the conditions herein, or, where there is a change in the nature, character, intensity or extent of the activities or uses which causes problems or harmful effects that were not anticipated at the time of approval of this CUP, the conditional use permit may be modified or terminated by the Village Board by the amendment to or addition of conditions after public hearing thereon.
3. The Property Owner shall implement the setback compensation measures as set forth in the Setback Compensation Plan dated January 30, 2025, as part of the site development activities. Any changes to the mitigation plan or changes to any proposed development of the site that impacts the ability to implement the mitigation plan shall be reported to the Village.
4. The Property Owner shall prepare and submit an annual monitoring report to the Village concerning the management activities proposed in the CUP narrative including the planting of native vegetation. Said report shall, at a minimum, detail the type and number of seeding and plantings, activities carried out in the previous year and the observed success (or failure) of previous activities, and detail on the planned activities to be carried out for the coming year. Said report shall be submitted to the Community Development Department annually at the end of each year beginning in 2025 and for a period of three (3) years.

Motion 3: Approve CUP

Motioned By: William Shadid

Seconded By: Robert Warren

Yes: Bob Soderberg, Robert Warren, William Shadid, Robert Williams, Bridget Henk, Josh Tarantino, Russell Ewert

No: None

Abstain: None

Motion Passed (Yes 7, No 0, Abstained 0)

VI. NEW BUSINESS:

- A. Ken Frank, Agent for Home Path Financial, LP, and Mohrhusen Family Farm, LLC, Property Owner. Rezoning application to create the "Sutton Farm" Planned Development District (PDD) and Rezone 88.3 acres from the A-1: Agricultural District into the Sutton Farm PDD; and a Preliminary Subdivision Plat for an 88.3-acre residential neighborhood comprised of 171 single-family units and 102 multi-family units located at the northeast corner of Lannon Road (CTH Y) @ County Line Road (CTH Q) in the Lannon Gateway Neighborhood. (PUBLIC HEARING & ACTION)

Associate Planner Yanke summarized the proposal and stated that the Village's 2050 Plan specifies the proposed type of development as desirable for the subject location, and it is within the allowable density for single-family and multi-family residential use. He went over the amenities, which includes a Central Park, preservation of 10 acres of woodlands, walking/pedestrian paths, 30' landscape buffer around the site perimeter, and street trees. There are 4 phases proposed at this time but no specific development schedule has been submitted. There will be three (3) public access points into the subdivision/development, one (1) onto Lannon Road and two (1) onto County Line Road. Public sewer and water will be extended to serve the development with a separate private lift station and force main serving the multi-family area. There is also an acre of the site that is shown as a future well for the Village. The estimated revenues from the development are \$662K annually from property taxes and a one-time \$2.3M sum in terms of impact fees. Yanke showed architectural details and renderings and went over the different types of housing products proposed by the developer. Both Washington County and Waukesha County are looking over the proposal as they maintain jurisdiction over the roads fronting the proposal. Ken Frank from Home Path Financial discussed some issues that were brought up at the consultation meeting a few months ago, including the possibility of rentals. He stated that this is not a rental project, and they don't expect the number of rentals to go above 15%. They increased the buffer around the site to 30' and the lots are clustered to allow for 28-30% more open space. The private life station is for the portion in the SW corner and the need is driven by the depth of the bedrock in that area. The lift station and the private drive serving the multi-family area will be included in their budget when establishing a capital reserve fund for maintenance costs. That will be defined in the deed restrictions. Questions were addressed regarding lot size, square footage, the 30' buffer, and the private lift station.

Chairman Soderberg called the Public Hearing to order at 8:18pm.

Citizens who spoke included:

Lynn Bednarz who lives on Pawnee Court GT, stated her concerns about bedrock, wants to know what this will cost the taxpayers and wants to see neighborhood meetings.

Jerry Siegle who lives on County Line Rd GT, stated that he believes Pathway Homes are for recovering drug addicts and paroled prisoners.

Tim Johnson who lives on Hillview Dr MF, stated that this development doesn't fit with the area, feels the lots should be 1/2 acre at the smallest and is concerned traffic.

Darcel Ehley who lives on County Line Rd GT, stated her concerns including the lack of communication with Home Path, headlights shining into her home and roads encircling her home.

Tammy Schneider who lives on Lannon Rd GT, stated her concerns, which included rentals, wildlife, traffic, long-term upkeep, blasting and drainage.

Scott Schroeder who lives on County Line Rd GT, stated that he's concerned about density and blasting.

Roger Back who lives on County Line Rd MF, stated that he wants the property to remain agricultural, wants only large lots with single family homes and has concerns about personal wells.

Melanie Smyth who lives on Cedar Ln GT, stated that she'd like to see a bigger buffer, neighborhood meetings, a lower density and is concerned about transitions and feels there are too many town houses.

Ron Schneider who lives on Lannon Rd GT, stated that he sees no benefit to this development and is against it.

Robert Lietzau who lives on Oak Lane GT, stated that he feels this will compete with the Village Center, feels this is wrong for this location, wants to see large houses and is concerned about school impact.

Scoff Hefle who lives on Old Farm Road GT, stated that he has concerns about traffic, round-a-bouts, well land, private lift station and wants to know who is paying for this.

Gidget Stroik who lives on Lannon Rd GT, stated that she agrees with all the concerns that were already brought up.

Carla Schubert who lives on Lannon Rd GT, wants nothing to happen in that area. She is concerned about a berm keeping people off of her property, wildlife, property values decreasing and damage from blasting.

Doug Loman who lives on Riversbend Circle GT, spoke about the pricing of the properties and what they cost to build.

President Soderberg read aloud emails that were received by 4pm on June 9th from the homeowners of 24 properties: 13 from Germantown, 10 from Menomonee Falls and 1 from Richfield. All of whom were opposed other than 1 from Germantown. Seven of whom spoke during the Public Hearing.

Tom Barney who lives on Old Farm Road GT, spoke in favor of the development for the tax revenue, the single-family homes, and feels that this is much better than high-density multifamily housing.

Kevin DeMar who lives in Oconomowoc stated that he's a real estate developer and that large lots were a standard back in the 60's because they needed them for septic systems and that is no longer the case.

President Soderberg closed the Public Hearing at 9:46pm.

Motion 1: Approve Rezone with conditions as presented

Motioned By: Russell Ewert

Seconded By: Robert Warren

Discussion Followed. Ewert stated that the two expected school studies are complete and will be discussed at the School Board next week. Amy Belle School could accommodate approximately 72 more students and this project has the potential of 166 more students or 115 if we exclude the attached townhomes, but that number would be distributed out over several schools. This is a unique area of the Village with a dead commercial area on County Line and this could be a growth stimulator for the

redevelopment of that area. Soderberg stated that the risk, if any, to the school district is low. Director Retzlaff asked Frank to address the issue of blasting and how it would affect the neighboring properties. Frank stated that blasting is heavily regulated for obvious reasons and there are a lot of precautions that will be put in place. Chris Hitch of Foth Infrastructure stated that the blasting and rock removal will only happen in the center of this property to pull a trunk line sewer through the middle of the property. Warren stated that this is very scientific and the specialists that do blasting understand what can happen and there are surveys done for private properties to review any issues/cracks from blasting and address them. Warren also requested clarification on the future well site. The developer indicated that an overall Homeowners Association will maintain the green space and a sub-association for the attached townhomes will maintain the private drive. Retzlaff clarified that the well site area was a request from the Public Works Department. This site was found to be a suitable location for a potential deep well for future planning. It's not a water tower, just a well site, which could be a long way off. In a response to public comment, the developer explained that the "Pathway" home is just the name of a product line of theirs and there is no connection to any government-funded programs or low-income programs for that housing type.

Committee members were all in favor of the proposal and verbalized the following reasons as to why:

- Low to moderate density, which is less than what is allowed per Village plans;
- Modern/fresh look to the buildings;
- 30' perimeter landscape buffer;
- Preservation of 10 AC of woodlands;
- 28 acres of open space, which is 32% of the total site;
- TADI traffic impact analysis stated that the impact will not reduce the level of service on the roads and intersections below an acceptable level of service during the peak hours and the surrounding highways have adequate capacity to handle the traffic from the development;
- Smart growth;
- Minimal impact on schools;
- Tax revenue and impact fees to reduce taxpayer burden;
- Developer is paying for the infrastructure;
- Plan Commission hasn't seen anything like this in years, and it feels like a breath of fresh air;
- Not rental housing. The 15% is just realism and not the intended plan;
- Not putting cost on the Village for developing the project;
- For the greater good of the Village of Germantown and the School District, this project needs to move forward at this time.

Staff recommends approval to create a Planned Development District (PDD) based on the underlying Rs-7: Single-Family and Rm-2: Multi-Family Zoning Districts to be known as the "Sutton Farm PDD" for the 88.3-acre Mohrhusen Family Farm, LLC property and rezoning said 88.3 acres from the A-1: Agricultural District into the "Sutton Farm PDD", subject to the following requirements and conditions:

1. The Rs-7: Single-Family Zoning District and Rm-2: Multi-Family Zoning District regulations shall constitute the underlying conditions and restrictions for the PDD subject to the Developer proposed modifications and Village staff provisions summarized herein. A complete “conditions & restrictions” resolution establishing all use and development allowances, requirements, and restrictions shall be drafted for review and approval by the Village Board concurrent with review and approval of an ordinance creating the Sutton Farm Planned Development District (PDD).
2. The Site Illustrative Plan revised dated March 25, 2025, and any subsequent revisions necessary as a result of satisfying Village approval shall constitute the General Development Plan (GDP) required under Section 17.27 of the Zoning Code.
3. The General Development Plan (GDP) and PDD conditions and restrictions shall be revised to include the following: a. A minimum 30’ wide landscaped buffer is required around the perimeter of the property including around the two “existing farmstead” parcels on County Line Road, b. Details regarding the intend use of and improvements to (if any) the common open space areas, including the .85-ac internal park and pedestrian paths (can be provided in a supplement to the GDP).

Staff recommends the approval of the preliminary subdivision plat for “Sutton Farm”, subject to the following conditions:

1. Approval of the preliminary plat is subject to creation of and rezoning of the 88.3-ac Mohrhusen property into the proposed “Sutton Farm Planned Development District” by the Village Board.
2. Approval of the preliminary plat is subject to approval/acceptance of the Traffic Impact Analysis (TIA) by the Washington County Highway Department and Waukesha County Department of Public Works, for the proposed access/intersection locations, recommended turn-lane, and traffic control improvements.
3. Approval of the preliminary plat is subject to it being accepted (i.e. no objections) by the Wisconsin Department of Administration (DOA).
4. Developer shall enter into a Development Agreement with the Village pursuant to Section 18 of the Village Code (Subdivision and Platting), as well as, the preparation of detailed construction plans for the public improvements including, but not limited to public street and intersection improvements, sanitary sewer, water, storm water management facilities, master grading and erosion control, landscaping & street trees, open space trails, lighting and signage. At a minimum, said agreement shall require the review and approval of said plans by Village staff prior to the commencement of construction activities and establish the timing for installation of said improvements (or as otherwise provided for therein).
5. The Development Agreement shall include a requirement that subdivision deed restrictions and covenants be submitted to the Village prior to final plat submittal that include a requirement that each individual lot contain the minimum landscaping required under Section 17.43(5).

6. The Developer shall submit a detailed street tree and landscaping plan for any common area improvements to the Plan Commission and Village Forester for review and approval prior to execution of a Development Agreement with the Village.
7. All technical issues and corrections identified by the Village Surveyor (see April 14, 2025, memo from Bob Beilfuss, PLC) shall be addressed and reflected in a revised preliminary subdivision plat reviewed and approved by Village staff prior to recording.
8. All items, issues and technical requirements identified in the May 16, 2025 review memo from the Village Engineer and Public Works Department shall be addressed and reflected in additional information and/or revised plans submitted to Village staff for further review, comment, and approval prior to recording the preliminary plat and final approval of construction plans for all public and private improvements.
9. The Developer proposes to install a private sanitary lift station and force main that is not recommended by Public Works Department Staff as detailed in the May 16, 2025 and June 6, 2025, review memos from the Village Engineer. As stated therein, prior to recommending approval of the proposed private sanitary system, the Village Engineer has requested additional information that is needed to ensure the private system will be installed and properly maintained by the Developer and/or Homeowner's Association into the future and not become a financial burden to nor the responsibility of the Village. The Developer shall provide the information requested in the June 6, 2025, memo to the Village Public Works Department Staff prior to recording the preliminary plat and final approval of construction plans for all public and private improvements. If deemed necessary by the Village and agreed to with the Developer, adequate provisions to protect the Village shall be incorporated into the Development Agreement and/or Homeowner's Association restrictions and protective covenants.

Results of Motion 1:

Yes: Bob Soderberg, Robert Warren, William Shadid, Robert Williams, Bridget Henk, Josh Tarantino, Russell Ewert

No: None

Abstain: None

Motion Passed (Yes 7, No 0, Abstained 0)

Motion 2: Approve Subdivision Plat with conditions as presented

Motioned By: Robert Warren

Seconded By: William Shadid

Yes: Bob Soderberg, Robert Warren, William Shadid, Robert Williams, Bridget Henk, Josh Tarantino, Russell Ewert

No: None

Abstain: None

Motion Passed (Yes 7, No 0, Abstained 0)

- B. Village of Germantown Community Development Department - Proposed Text Amendments to Section 17 (Zoning) of the Village of Germantown Municipal Code. (PUBLIC HEARING AND ACTION)

Director Retzlaff went over the 5 proposed Zoning Code Text Amendments.

Chairman Soderberg opened the Public Hearing at 10:45pm.

No citizens came forward.

Chairman Soderberg closed the Public Hearing at 10:46pm.

The recommendation is to APPROVE the proposed text amendments as presented in the draft ordinance.

Discussion Followed. Henk asked to fix typo in 17.3 part 7, 3rd line to fix the word deemed, and she wanted to add a timeframe to the ordinance and suggested 90 days.

Motion 1: Approve as presented

Motioned By: Robert Warren

Seconded By: Bridget Henk

Yes: Bob Soderberg, Robert Warren, William Shadid, Robert Williams, Bridget Henk, Josh Tarantino, Russell Ewert

No: None

Abstain: None

Motion Passed (Yes 7, No 0, Abstained 0)

Motion 2: Amend Motion to change the 30 days to 90 days in the ordinance

Motioned By: Robert Warren

Seconded By: William Shadid

Yes: Bob Soderberg, Robert Warren, William Shadid, Robert Williams, Bridget Henk, Josh Tarantino, Russell Ewert

No: None

Abstain: None

Motion Passed (Yes 7, No 0, Abstained 0)

C. Elevated Identity, Inc., Agent for Exeter Holy Hill, LP, Property Owner. Sign Review Application for Generac located at W210 N12800 Holy Hill Road in the Holy Hill Gateway District. (ACTION)

Associate Planner Yanke went over the proposed wall sign for Generac as well as monument sign inserts.

Staff recommends the approval of the proposed sign package for Generac for property located at W210 N12800 Holy Hill Road.

Motion: Approve as presented

Motioned By: William Shadid

Seconded By: Josh Tarantino

Yes: Bob Soderberg, Robert Warren, William Shadid, Robert Williams, Bridget Henk, Josh Tarantino, Russell Ewert

No: None

Abstain: None

Motion Passed (Yes 7, No 0, Abstained 0)

VII. ANNOUNCEMENTS:

None.

VIII. ADJOURNMENT:

Chairman Soderberg adjourned the meeting at 10:55pm.

MEETING:	SPECIAL MEETING OF THE PLAN COMMISSION
DATE & TIME:	Monday, June 23, 2025 at 6:30 PM
LOCATION:	Germantown Village Hall Board Room N112 W17001 Mequon Road

Any member of the body and/or citizen also attend the meeting virtually through the WebEx platform, Meeting #: **2554 915 6290** Password: vbBsJn478R3 which can be accessed by phone at **408-418-9388** or by logging on at <https://villageofgermantown.my.webex.com/villageofgermantown.my/j.php?MTID=m346442641011b4239decb111c3da7490>

Citizens not wishing to attend the meeting personally or virtually may submit any public comments by sending an email to comments@germantownwi.gov by 4 p.m. on the day of the meeting so that it can be provided to the members of the body for their consideration.

Previously recorded Village Board Meeting Videos can be viewed at https://www.youtube.com/channel/UCOYp0EgELzTCa9X_iCohyhQ.

AGENDA

- I. **CALL TO ORDER:** *This meeting has been given public notice in accordance with Section 19.83 and 19.84, Wis. Stats, in such form that will apprise the general public and news media of subject matter that is intended for consideration and action.*
- II. **ROLL CALL:**
- III. **NEW BUSINESS:**

PERSPECTIVES ON GROWTH: HOUSING, RETAIL & MIXED-USE DEVELOPMENT IN THE VILLAGE OF GERMANTOWN

- A. Germantown School District Enrollment Projection Report (PRESENTATION & DISCUSSION)
Speaker: Nick Johnson, Project Manager, MDROffers Consulting
- B. Market Overview: Village Center Residential & Commercial Study (PRESENTATION & DISCUSSION)
Speaker: Pete Moegenburg, Moegenburg Research Inc.
- C. Residential Realtor Perspective: Germantown Housing Needs (PRESENTATION & DISCUSSION)
Speakers: Pat Tasker, Shorewest
Kevin Nash, Shorewest
Joey Carini, Keller Williams Realty
- D. Developer Perspective: Multi-Family & Mixed-Use Development Experience (PRESENTATION & DISCUSSION)
Speakers: Cindy Shaffer, Shaffer Development
Matt Moroney, Wangard Partners
- E. Commercial Retail Broker Perspective: What Makes a Successful Mixed-Use Development (PRESENTATION & DISCUSSION)
Speaker: Kevin Schmoldt, Newmark

- IV. **CITIZEN INPUT/PUBLIC APPEARANCE:** *(Please be advised per 19.84(2) that information and comment will be received from the public. It is the policy of this municipality that public input be limited to a four (4) minute period per person with a time extension granted at the discretion of the Chairperson. Be advised that there may*

be limited discussion of the information received but no action will be taken under public comments.) Comments that may be injurious to village personnel or other individuals will not be allowed.

V. ANNOUNCEMENTS:

VI. ADJOURNMENT:

UPON REASONABLE NOTICE, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service, please contact the Village Clerk at (262)250-4745 at least 2 days prior to the meeting.

Notice is hereby given that a possible quorum of other boards, committees, and/or commissions may attend this meeting to gather information about an item over which they have decision-making responsibility. This may constitute a meeting of these bodies per State ex rel. Badke v Greendale Village Board, even though these bodies will not take formal action at this meeting.

2050 COMPREHENSIVE PLAN AMENDMENT

7/14/25 Plan Commission Meeting

Germantown Community Development Department

Village Staff Status Report

Germantown, Wisconsin

In 2023, when the 2050 Plan was amended to incorporate the Intergovernmental Agreement for the Provision of Municipal Wastewater and Water Utility Service Between the Village of Richfield and the Village of Germantown to expand the Village's sanitary sewer system area (SSSA) into the Village of Richfield, Germantown was informed by SEWRPC that Germantown needed to have a complete update of its local sewer service area plan consistent with SEWRPC's Regional Water Quality Management Plan... something that had not been done since Germantown's sewer service area plan was originally adopted by SEWRPC and the DNR in 1983.

To that end, Village staff submitted a request to SEWRPC to complete a comprehensive update of the Germantown sewer service area including a series of proposed boundary adjustments that include the addition of certain parcels and the removal of other parcels from the current sewer service area (*see Map 2.1 in the attached Community Assistance Planning Report No. 70 2nd edition*).

As shown on Map 2.1 (see next page), a total of 1,369 acres of land in seven separate areas are proposed to be added to the SSSA and a total of 197 acres in two separate areas are proposed to be removed. These SSSA boundary adjustments are consistent with the recommendations and action taken by the Utility Advisory Board (UAB) at their January 27, 2025 meeting, the Public Works & Highway Committee at their February 5, 2025 meeting, and the Village Board at their February 17, 2025 meeting.

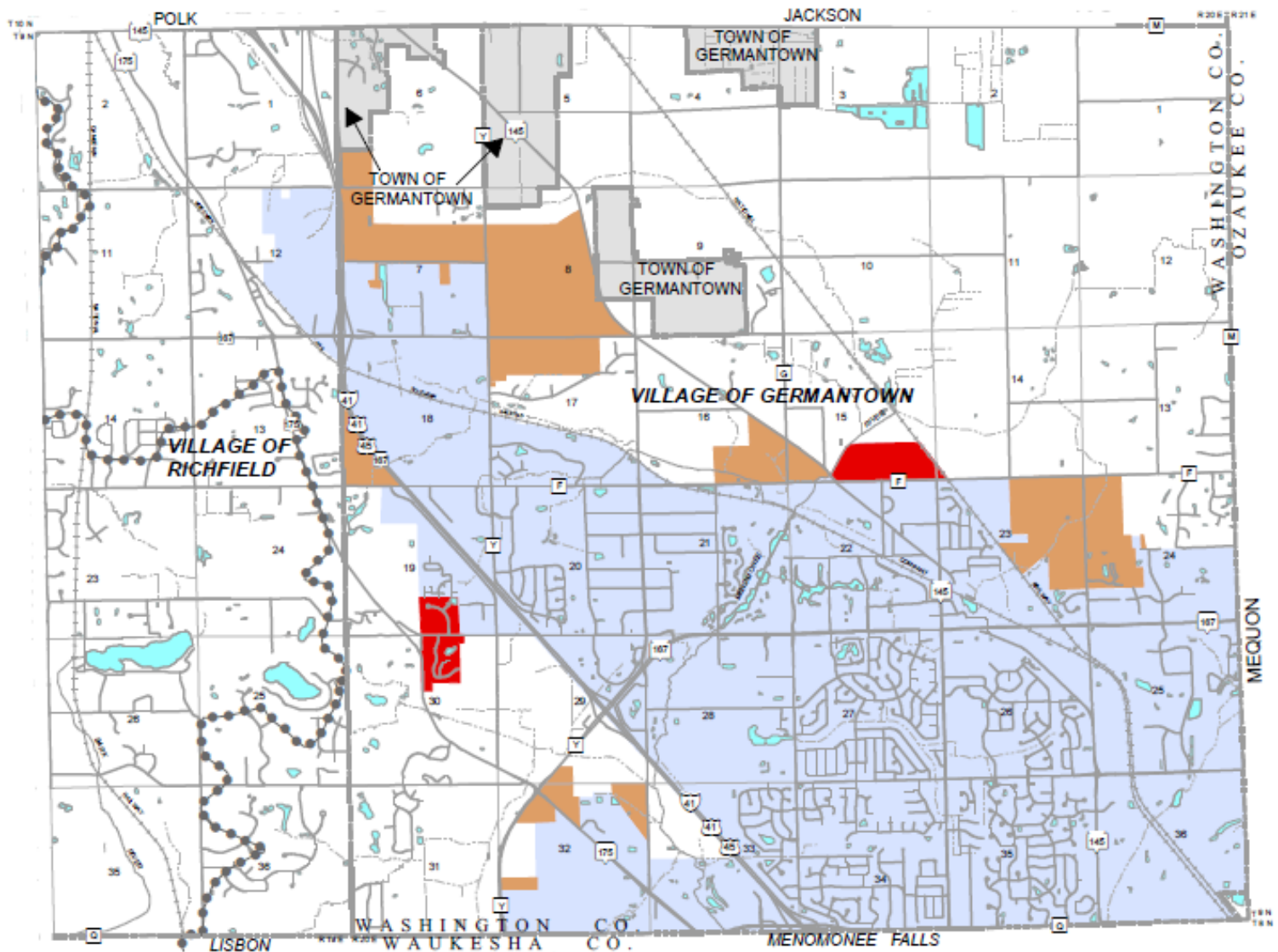
The purpose and extent of this proposed amendment to the Village's 2050 Plan is to:

1. replace the existing and potential sanitary sewer service area maps in the 2050 Plan (Map 7.8 and Map 7.9) with Map 2.1 and Map 2.2 from SEWRPC's *Community Assistance Planning Report No. 70 (2nd edition)*; and
2. update references to these maps and the associated text to ensure consistency between the Village's and SEWRPC's sewer service area plans for the Village of Germantown.

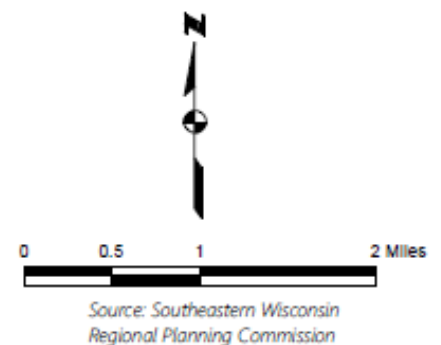
Following the public hearing on July 14, the Plan Commission is required to act on a resolution to recommend adoption (or not) of the proposed amendment to the 2050 Plan and *Community Assistance Planning Report No. 70 (2nd edition)*.

The Village Board will hold a separate and joint public hearing with SEWRPC at the Village Board meeting on July 21 to take final action on both the 2050 Plan amendment and *Community Assistance Planning Report No. 70 (2nd edition)*.

Map 2.1 Proposed Changes to the Village of Germantown Sanitary Sewer Service Area



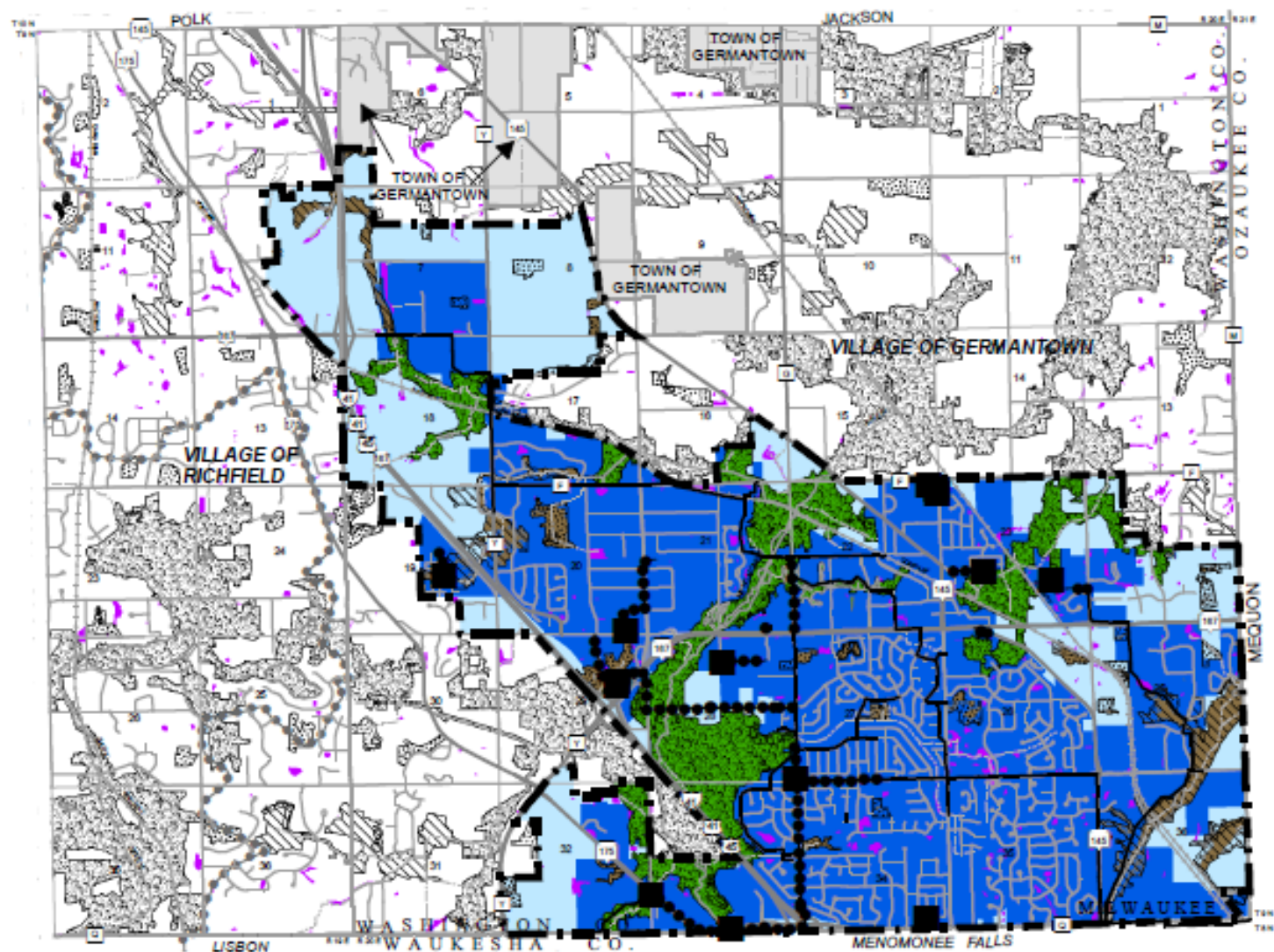
-  VILLAGE OF GERMANTOWN PLANNED SANITARY SEWER SERVICE AREA AS DEFINED IN THE FIRST EDITION OF SEWRPC COMMUNITY ASSISTANCE PLANNING REPORT NO. 70, AS AMENDED
-  AREAS TO BE ADDED TO THE VILLAGE OF GERMANTOWN SEWER SERVICE AREA
-  AREAS TO BE REMOVED FROM THE VILLAGE OF GERMANTOWN SEWER SERVICE AREA
-  EXISTING MUNICIPAL BOUNDARIES: 2025
-  SUBCONTINENTAL DIVIDE



Map last updated June 2025.

PRELIMINARY DRAFT

Map 2.2 Village of Germantown Planned Sanitary Sewer Service Area



- | | | | |
|---|--|---|--|
|  | PRIMARY ENVIRONMENTAL CORRIDOR |  | PRIMARY ENVIRONMENTAL CORRIDOR WITHIN THE PLANNED SANITARY SEWER SERVICE AREA: THE EXTENSION OF SEWERS TO SERVE NEW DEVELOPMENT IS CONFINED TO LIMITED RECREATIONAL AND INSTITUTIONAL USES AND RURAL-DENSITY RESIDENTIAL DEVELOPMENT IN AREAS OTHER THAN WETLANDS, FLOODPLAINS, RIPARIAN BUFFERS, AND ADJACENT STEEP SLOPES. |
|  | SECONDARY ENVIRONMENTAL CORRIDOR |  | PORTIONS OF SECONDARY ENVIRONMENTAL CORRIDOR AND ISOLATED NATURAL AREAS WITHIN THE PLANNED SANITARY SEWER SERVICE AREA WHICH ARE COMPRISED OF WETLANDS, FLOODPLAINS, RIPARIAN BUFFERS, AND ADJACENT STEEP SLOPES: THE EXTENSION OF SEWERS TO SERVE NEW DEVELOPMENT IN THIS AREA IS NOT PERMITTED. |
|  | ISOLATED NATURAL RESOURCE AREA |  | EXISTING FORCE MAIN |
|  | EXISTING AREA SERVED BY SANITARY SEWER |  | EXISTING TRUNK SEWER |
|  | VILLAGE OF GERMANTOWN PLANNED SANITARY SEWER SERVICE AREA |  | EXISTING LIFT STATION |
|  | WETLANDS AND SURFACE WATER AREAS LESS THAN 5 ACRES IN SIZE LOCATED OUTSIDE ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS | | |

PRELIMINARY DRAFT



Source: Southeastern Wisconsin
Regional Planning Commission

Map last updated June 2025.

NOTICE OF PUBLIC HEARING VILLAGE OF GERMANTOWN

NOTICE is hereby given that a Public Hearing will be held before the Village of Germantown Plan Commission at the Germantown Village Hall located at N112 W17001 Mequon Road, Germantown, Wisconsin at the following date and time:

DATE: Monday, July 14th, 2025
TIME: 6:30 pm or later

The public hearing will be held to gather public input on a proposed amendment to the "Village of Germantown 2050 Comprehensive Plan." The 2050 Plan is required under Wis. Stats. Chapter 66.1001 and serves as a guide for protecting and enhancing Germantown's existing and future quality of life, including the type, density, location, and appearance of future land use, development, public infrastructure and community facilities, and the preservation of environmentally sensitive land and open space in the Village through the year 2050.

The purpose for this amendment is to update the Sanitary Sewer Service Area (SSSA) boundary map contained in Chapter 7 to reflect areas to be added and areas to be removed consistent with the recommendation by the Village's Utility Advisory Board and action by the Village Board.

The draft amendment to the 2050 Plan is available for review at the Community Development Department-Planning & Zoning Services office in the Germantown Village Hall and on the Village's website by following this link: <https://www.germantownwi.gov/589/Proposed-Development-Projects>

Written comments on the draft amendment to the 2050 Plan should be directed to Bob Soderberg, Village President & Plan Commission Chairman, at the Community Development Department in Village Hall or by email to comments@germantownwi.gov no later than 4:00 pm on the public hearing date. All written comments will be entered into the record as if given at the hearing and made available to members of the Village Board and Plan Commission for consideration but may not be read during the public hearing.

Members of the Village Board who are not members of the Plan Commission may attend the public hearing to participate and gather information. Therefore, notice is given that the public hearing may constitute a meeting of the Village Board although the Village Board will not take any formal action. At the conclusion of the Public Hearing, the Plan Commission may consider and act on a resolution recommending adoption of the proposed amendment to the 2050 Comprehensive Plan.

If you cannot attend the meeting in person and would like to participate virtually, a link to the Village's WebEx platform will be included on the meeting agenda when posted if this service is available.

Donna Ott, Village Clerk
Dated this 4th day of June, 2025
To Be Published On: June 11th and June 18th, 2025

EXHIBIT 1

Chapter 4 Text Revisions

1. Revise the following text in the Regional Context & Intergovernmental Cooperation Chapter under the “Sanitary Sewer System” heading beginning on page 32:

Germantown and Richfield staff, engineers and attorneys ~~worked~~ are working with the Southeast Wisconsin Regional Planning Commission (SEWRPC), the Milwaukee Metropolitan Sewerage District (MMSD) and the Wisconsin Department of Natural Resources (WisDNR) to obtain approval to expand the Village of Germantown’s Sanitary Sewer Service Area (SSSA) in 2023. as one of the prerequisites to extending sewer service into Richfield. ~~Staff has submitted the necessary application to SEWRPC to initiate the review/approval process that involves concurrent review and approval by both MMSD and WisDNR. It is expected that a decision to expand the SSSA will occur in 2023.~~

~~Germantown is also coordinating with the Wisconsin Department of Transportation (WisDOT), the Eastern Wisconsin Counties Railroad Consortium (EWCRC), WATCO Companies, and the Wisconsin & Southern Railroad (WSOR) regarding the proposal to utilize existing railroad right-of-way for the extension of municipal water and sewer utility services along the railroad right-of-way and under US41.~~

EXHIBIT 1

Chapter 7 Text Revisions

1. **Revise the following text in the Systems Chapter in the Utilities & Community Facilities section and under the “Sanitary Sewer System” heading beginning on page 171:**

Germantown and Richfield staff, engineers and attorneys ~~worked~~ **are working** with the Southeast Wisconsin Regional Planning Commission (SEWRPC), the Milwaukee Metropolitan Sewerage District (MMSD) and the Wisconsin Department of Natural Resources (WisDNR) ~~to obtain approval to~~ **expand the Village of Germantown’s Sanitary Sewer Service Area (SSSA) in 2023. as one of the prerequisites to extending sewer service into Richfield.** ~~Staff has submitted the necessary application to SEWRPC to initiate the review/approval process that involves concurrent review and approval by both MMSD and WisDNR. It is expected that a decision to expand the SSSA will occur in 2023.~~

~~SEWRPC informed the Village that the “immediate” SSSA expansion amendment necessary to serve the Northeast Corridor in the Village of Richfield should include parcels of land in the Village of Germantown that meets the following criteria:~~

1. ~~Include the smallest area & fewest parcels necessary to which service is to be provided;~~
2. ~~Parcels included must be contiguous to the existing SSSA boundary;~~
3. ~~Include parcels through which sewer & water services will be physically located and other adjoining parcels is intended to be served;~~
4. ~~Parcels included cannot create or encircle unserved parcels (no unserved “donut holes”)~~

~~For this reason, the Germantown expansion area includes all property within the Freistadt District east of US41, north of Freistadt Road, west of Goldendale Road and south of the railroad. Portions of the “Freistadt District” and the area north of the railroad located in the “Holy Hill Gateway District” include environmentally sensitive features, including a navigable waterway (tributary to the Menomonee River), wetlands, and floodplain. The parcels containing these features are included in the “immediate” SSSA expansion strictly due to the “contiguity” criteria discussed above. It is intended that these environmentally sensitive features will not be developed and will be protected from the negative impacts of any nearby development served by municipal sewer and water through administration and enforcement of the Village’s development codes, including but not limited to the general Zoning Code, Shoreland-Wetland Zoning Code, Floodplain Zoning Code, and Subdivision and Platting Code.~~

~~As a result, the Village of Germantown will be required to submit a separate SSSA amendment(s) in the future to include other parcels in Germantown that do not meet the criteria above but that are expected to be added to the SSSA as identified in the 2050 Comprehensive Plan. See Map 7.8, Map 7.9, Map 7.10, and Map 7.11 in Chapter 7 that show the current, potential, and proposed SSSA boundaries and “immediate” and~~

EXHIBIT 1

“future” amendments, as well as the overall MMSD Planning Area for the Village of Germantown.

When the 2050 Plan was amended to incorporate the Intergovernmental Agreement for the Provision of Municipal Wastewater and Water Utility Service Between the Village of Richfield and the Village of Germantown to expand the Village’s sanitary sewer system area (SSSA) into the Village of Richfield, Germantown was informed by SEWRPC that Germantown needed to have a complete update of its local sewer service area plan consistent with SEWRPC’s Regional Water Quality Management Plan... something that had not been done since Germantown’s sewer service area plan was originally adopted by SEWRPC and the DNR in 1983.

In 2025, Germantown submitted a request to SEWRPC to complete a comprehensive update of the Germantown sewer service area including a series of proposed boundary adjustments that include a total of 1,369 acres of land in seven separate areas to be added to the SSSA and a total of 197 acres in two separate areas to be removed from the SSSA (see Map 7.8). Map 7.9 presents the complete SSSA boundary with the boundary adjustments proposed by Germantown. Action by SEWRPC and the DNR on the proposed boundary adjustments is expected in the fall of 2025 as part of SEWRPC’s approval of the comprehensive update of the Germantown sewer service area plan.

Chapter 7 Map Revisions

1. Delete the current Map 7.10
2. Renumber the current Map 7.11 to Map 7.10

EXHIBIT 1

3. Replace the current Map 7.8 with the map below on page 173:

Map 7.8
Proposed Adjustments to the Village of Germantown Sanitary Sewer Service Area

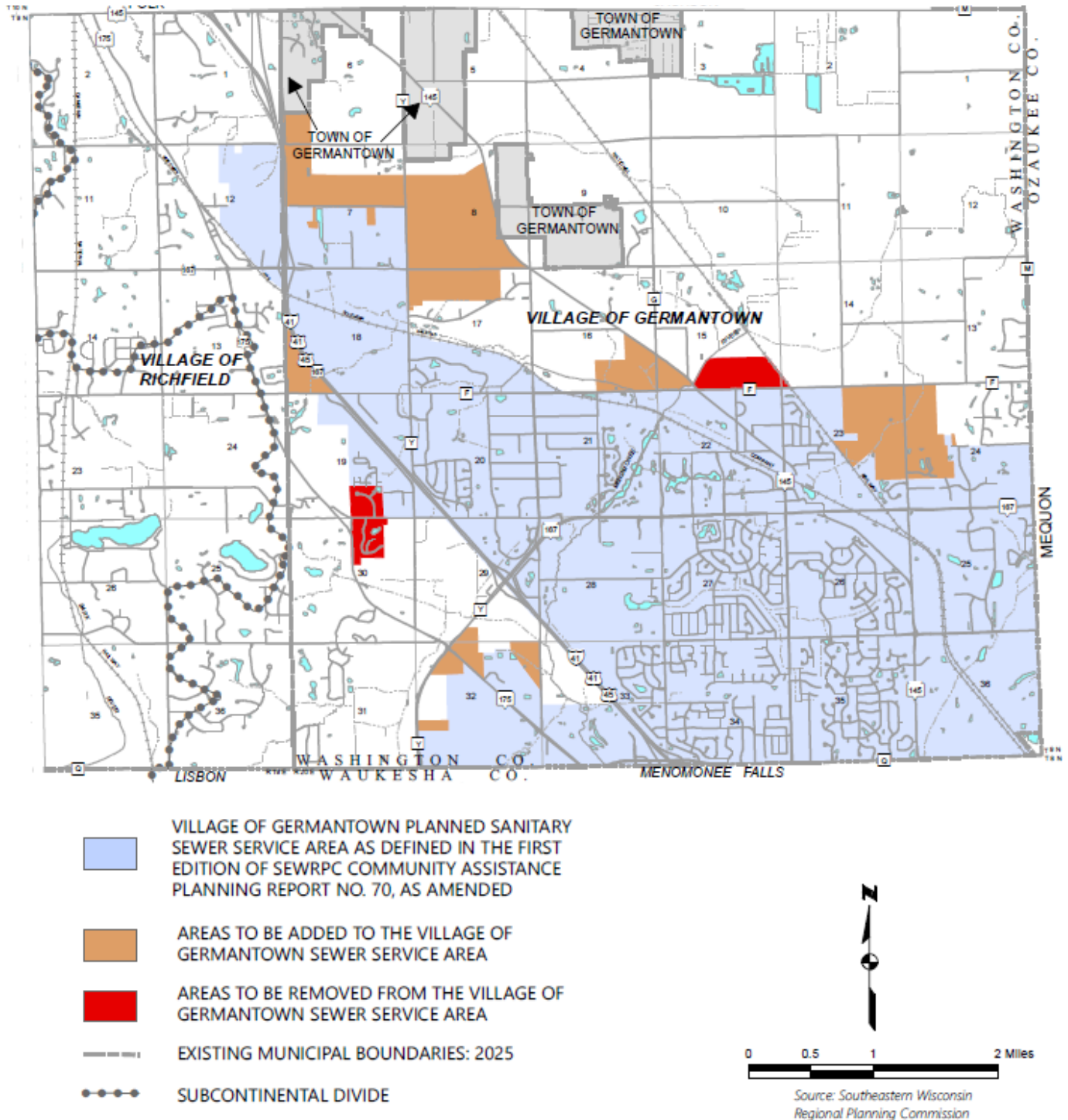
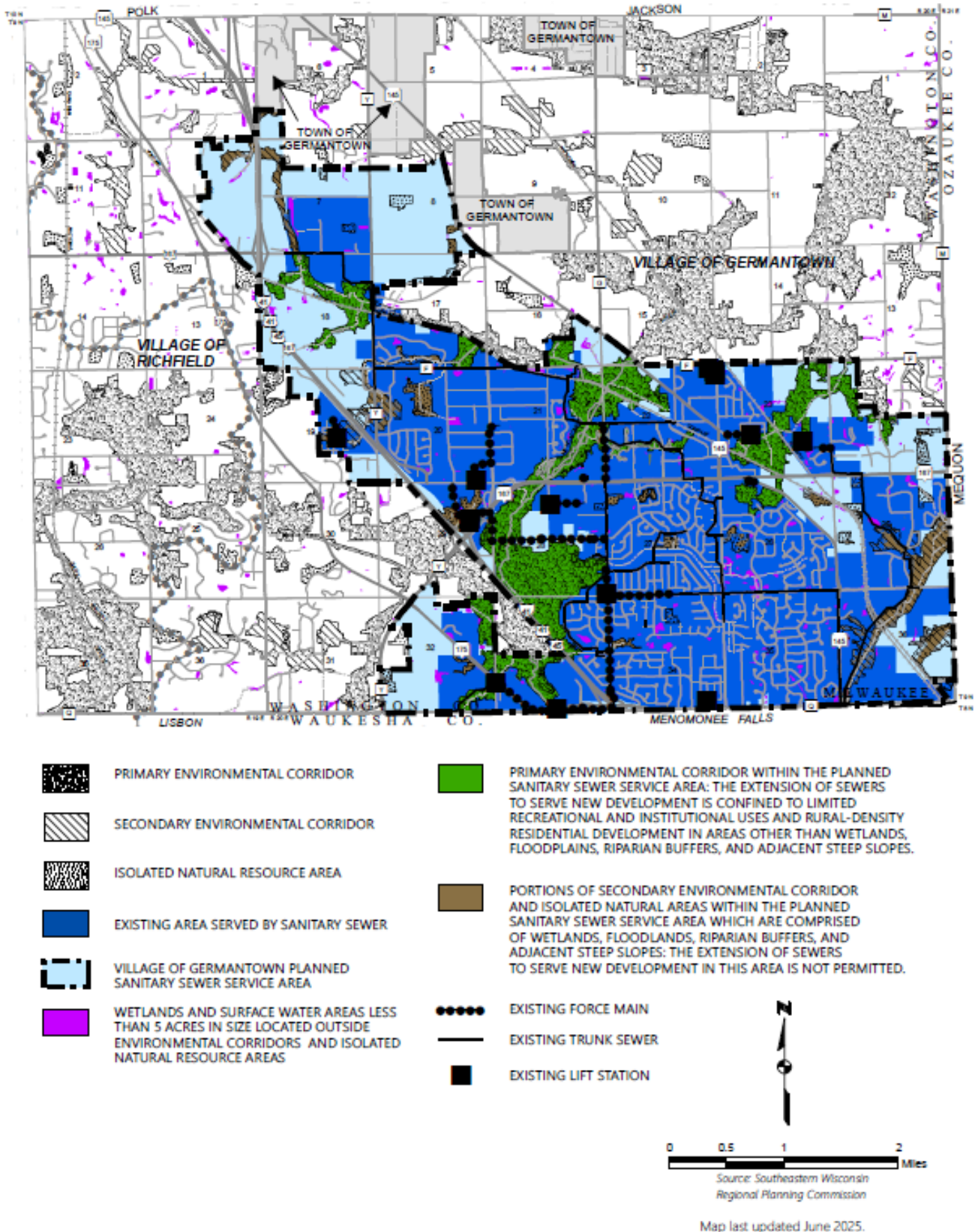


EXHIBIT 1

3. Replace the current Map 7.9 with the map below on page 174:

Map 7.9
2025 Village of Germantown Sanitary Sewer Service Area



REZONING & CERTIFIED SURVEY MAP (CSM) APPLICATIONS

7/14/25 Plan Commission Meeting

Accurate Surveying / Rao Farms LLC

Village Planner Report

Germantown, Wisconsin

Summary

Don Thoma, Accurate Surveying & Engineering LLP, agent for Rao Farms LLC, property owner, is requesting approval to rezone 115 acres from A-1 to A-2: Agricultural and a 4-lot Certified Survey Map (CSM) of the property located at N136 W21238 Bonniwell Road.

Location: N136 W21238 Bonniwell Road (1/2 mile west of Goldendale Road)

Agent/

Property Owners: Don Thoma
Accurate Surveying
2911 Wildlife Dr
Richfield, WI

Kailas & Becky Rao
Rao Farms LLC
w204 n13781 Goldendale Rd
Germantown, WI

Current Zoning: A-1: Agricultural

Proposed Zoning: A-2: Agricultural

Adjacent Land Uses		Zoning
North	Agricultural	A-1
South	Agricultural/Residential	A-2/Rs-1
East	Agricultural	A-1
West	Agricultural/Residential	A-1/Rs-2

Location Map



Proposal

Don Thoma, Accurate Surveying & Engineering LLP, agent for Rao Farms LLC, property owner, is requesting approval to rezone 115 acres from A-1 to A-2: Agricultural and a 4-lot Certified Survey Map (CSM) of the property located at N136 W21238 Bonniwell Road.

As indicated in the application, the purpose for the rezoning and land division applications is to divide the farm land for estate planning, to separate an existing house and equestrian facility, and to relocate an existing pond into an outlot.

Certified Survey Maps

As shown on the CSM, the following parcels are proposed (net acres less additional right-of-way dedication for Bonniwell Road):

- | | | |
|------------|------------|--------------------------------------|
| • Lot 1 | 24.6 acres | undeveloped farm land |
| • Lot 2 | 20.0 acres | existing house & equestrian facility |
| • Lot 3 | 29.6 acres | undeveloped farm land |
| • Outlot 1 | 39.4 acres | undevelopable wetland & floodway |

Rezoning

Due to the reduced size of the proposed parcels less than 35 acres (the minimum parcel size required for A-1 District), rezoning into the A-2 District is proposed.

Staff Comment

The property is located within the “Rural Preservation District” under the 2050 Comprehensive Plan. The proposed rezoning and land division is consistent with the Preferred Land Use table that requires parcels not less than 20 acres and allows agricultural & hobby farming use as the most “desirable” (single-family residential uses at a density of 1 DU/20 acres).

Village Engineer/Surveyor

The Village’s surveying consultant has identified a couple of minor technical corrections that need to be made to the CSM prior to recording in a memo dated June 9, 2025 (copy enclosed).

VILLAGE STAFF RECOMMENDATIONS

APPROVE the proposed Certified Survey Map (CSM) for Rao Farms LLC subject to the following conditions:

1. All technical issues and plan correction identified by the Village Surveyor’s review memo dated June 9, 2025 shall be addressed and reflected in a revised CSM submitted and approved by the Village Surveyor prior to recording the CSM.

APPROVE rezoning the 115 +/- acres Rao Farms LLC property from A-1: Agricultural to A-2: Agricultural as proposed.



Village of
Germantown
 ...Willkommen

Fee must accompany application

☐ \$2,900 with public improvements

☒ \$1,960 no public improvements

Paid OR Date 5/12/25
 CHK # 20747

CERTIFIED SURVEY MAP APPLICATION

Pursuant to Section 18.06 of the Municipal Code

Please read and complete this application carefully. **All applications must be signed and dated.**

1

APPLICANT OR AGENT

Accurate Surveying & Engineering LLP

Donald J. Thoma

2911 Wildlife Lane

Richfield, WI 53076

Phone (262) 677-2120

Fax ()

E-Mail don@accuratesurveying.net

PROPERTY OWNER

Rao Farms LLC

Kailas Rao, Becky Rao

W204N13781 Goldendale Rd

Richfield, WI 53076

Phone (414) 881-4582

PROPERTY ADDRESS OR GENERAL LOCATION

TAX KEY NUMBER

2

N136W21238 BONNIWELL RD

GTNV 063989, 064996, 064994881

3

PURPOSE OF LAND SPLIT

Estate planning. Split off farmland from the horse barn facility. Lot line adjustment to place pond on northern parcel

Will the land split require rezoning?

Yes

From A-1

To A-2

4

READ AND INITIAL THE FOLLOWING:

KR BR DT

I understand that the Certified Survey Map is not valid until recorded at the Washington County Register of Deeds. The Village will record the document and charge the applicant all applicable recording fees.

KR BR DT

I understand that the Map will not be placed on the Village Board agenda until all the technical corrections to the CSM are made, the payment of any outstanding impact fees are paid to the Village Clerk's Department, and the original signed and stamped copy of the Map is submitted on the proper paper.

KR BR DT

I understand that parcels created outside the Sewer Service Area will require a soil test. I also understand that all properties abutting a State Highway will require DOT approval and I will be responsible for securing such approval prior to recording.

KR BR DT

I understand all delinquent property taxes on any of the properties involved shall be paid prior to recording.

5

SIGNATURES -- ALL APPLICATIONS MUST BE SIGNED BY OWNER!

Donald Thoma 05/09/25
 Applicant Date

Becky Rao
 Owner

Kailas Rao
 Date

05/09/25



FEES MUST BE PAID AT TIME OF APPLICATION

\$200 Plan Commission Consultation

\$1,085 Rezoning

\$1,240 PDD < 5 acres

\$2,095 PDD 5-20 acre site

\$3,460 PDD > 20 acre site

Date Paid: 5/12/25 Received by: QR

CHK # 20747

REZONING & PDD APPLICATION

Pursuant to Section 17.51 of the Municipal Code

Please read and complete this application carefully. **All applications must be signed and dated.**

1

APPLICANT OR AGENT

Accurate Surveying & Engineering LLP

Donald J. Thoma

2911 Wildlife Lane

Richfield, WI 53076

Phone (262) 677-2120

E-Mail don@accuratesurveying.net

PROPERTY OWNER

Rao Farms LLC

Kailas Rao, Becky Rao

W204N13781 Goldendale Rd

Richfield, WI 53076

Phone (414) 881-4582

E-Mail brao@iodogs.com

Accurate Surveying & Engineering LLP

2

PROPERTY ADDRESS OR GENERAL LOCATION

TAX KEY NUMBER

N136W21238 BONNIWELL RD

GTNV 063989, 064996,
064994881

3

REZONING REQUEST

FROM

A-1

TO

A-2

4

METES AND BOUNDS LEGAL DESCRIPTION OF PROPERTY – REQUIRED

Attach pages as necessary

Placed on the attached CSM

5 PURPOSE OF REZONING REQUEST

Briefly describe why the applicant is rezoning the property. Include a description of the proposed use, including any new construction and number of employees, if applicable.

The purpose of the rezoning is rezone the newly created parcels from A-1 to A-2 to align with the requirements under the Germantown zoning ordinance. Parcels are being divided for estate planning, to divide farmland off of the house with the horse barn and do a lot line adjustment to put the pond on one parcel (northern parcel). All current land uses will remain the same.

6 SUPPORTING DOCUMENTATION:

- ☐ Plat of Survey (1:100)
- ☐ Site Plan and elevations for new construction (can be conceptual)

7 READ AND INITIAL THE FOLLOWING:

DT RR KR

I understand that the Village is under no obligation to rezone property and that density and lot coverages provided in the Zoning Code are maximums. Actual build out will depend on myriad factors including topography and other natural conditions, surrounding neighborhood context and the detailed design of a project.

DT RR KR

I understand that Village Staff, Plan Commission and/or Village Board may request additional information to properly evaluate this request and failure to provide such information may in itself be sufficient cause to deny the petition.

DT RR KR

I am aware that this rezoning shall go into effect immediately upon the final approval of the Village Board and its execution of the rezoning ordinance

DT RR KR

I understand that Village Staff is required to post one or more signs along the street frontage of and/or on the property subject of this application that indicate to nearby property owners and the general public that a public hearing of my application will be held before the Village Plan Commission and/or Village Board prior to action taken on this application; I hereby grant Village Staff permission to enter onto the property for the expressed purpose of installing said sign(s) provided Village Staff is responsible for installing, maintaining and removing said signs in a reasonable manner and time frame.

8 SIGNATURES – ALL APPLICATIONS MUST BE SIGNED BY OWNER!

Authentisign
Donald Thoma

05/09/25

Applicant

Date

Authentisign
Becky Rao

05/09/25

Owner

Date

Authentisign
Kailas Rao

05/09/25

All of the NW 1/4 of the SE 1/4, part of the SW 1/4 of the SE 1/4 and part of the SE 1/4 of the SW Fractional 1/4 of Section 6, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin.

P.O.B. - means "Point of Beginning".

● - indicates 1.3"od iron pipe found unless noted.

unplatted lands

RAO Farms LLC
Kailas & Becky Rao
W204N13781 Goldendale Rd.
Richfield, WI 53076

Donald J. Thoma
Accurate Surveying &
Engineering, LLP.
2911 Wildlife Lane
Richfield, WI 53076
(262)677-2120

East Quarter corner
Sec. 6-9-20
conc. mon./bras cap
found

unplatted lands
owned by subdivider

Outlot 1
39.422 Acres
1,717,212 Sq. Ft.
(exclusive of road)
A-2 zoning

Lot 3

see Sheet 2 of 5 for Line Table
415.00'
S 88°59'58" W

see Sheet 2 of 5 for Line Table

Lot 1

24.457 Acres
1,065,354 Sq. Ft.
(exclusive of road)
A-2 zoning

33' dedicated to the Village of Germantown for road purposes 0.505 acre (21,996 sq.ft.)

Lot 2
20.010 Acres
871,627 Sq. Ft.
(exclusive of road
A-2 zoning

CSM No. 4429
(r.a. S 00°30'23" E)

A circular professional seal for Donald J. Thoma, a Wisconsin Land Surveyor. The seal features a double-lined circular border. Between the lines, the word "WISCONSIN" is written in an arc at the top, and "LAND SURVEYOR" is written in an arc at the bottom. Two small five-pointed stars are positioned on the left and right sides, separating the top and bottom text. In the center of the seal, the text "DONALD J THOMA", "S-2470", "RICHFIELD", and "WIS." is printed in a stacked, sans-serif font.

Bonniwell Road

N 89°29'26" E 666.4

to south line, SE 1/4

1325.34'

650.68' — 75.5'

ot 1A

CSM No. 40 /

Southeast corner
Sec. 6-9-20

conc. mon./brass cap
found

J. Thoma, S-2470

Dated this 9th day of May

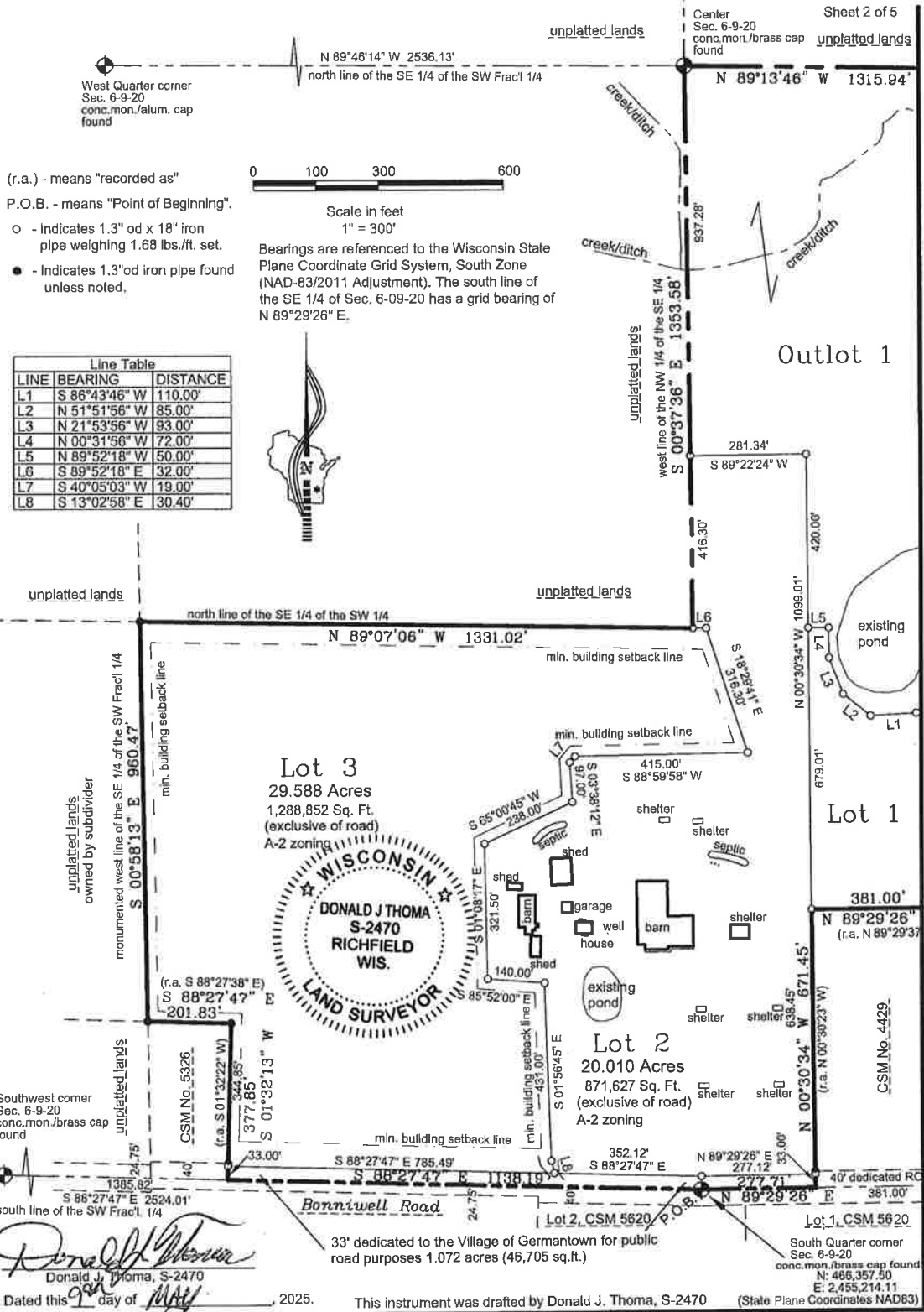
Signed this 1st day of May 1907

South Quarter corner
Sec. 6-9-20
conc.mon./brass cap found
N: 466,357.50
E: 2,455,214.11
/State Plane Coordinates N

This instrument was drafted by Donald J. Thoma, S-2470

Washington County Certified Survey Map

All of the NW 1/4 of the SE 1/4, part of the SW 1/4 of the SE 1/4 and part of the SE 1/4 of the SW Fractional 1/4 of Section 6, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin.



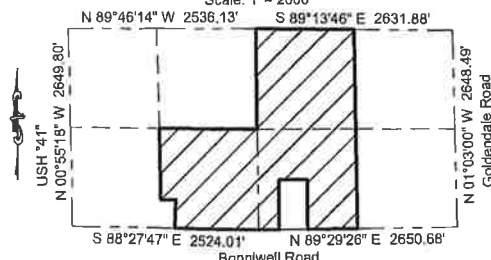
Washington County Certified Survey Map

All of the NW 1/4 of the SE 1/4, part of the SW 1/4 of the SE 1/4 and part of the SE 1/4 of the SW Fractional 1/4 of Section 6, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin.

Location Sketch

SE 1/4 & SW 1/4 Section 6-9-20

Scale: 1" = 2000'



Surveyor's Certificate:

I, Donald J. Thoma, Professional Land Surveyor, hereby certify that by the direction of Kailas & Becky Rao, I have surveyed, divided, mapped and dedicated the land shown and described hereon. All of the NW 1/4 of the SE 1/4, part of the SW 1/4 of the SE 1/4 and part of the SE 1/4 of the SW Fractional 1/4 of Section 6, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin, which is bounded and described as follows:

Beginning at the South Quarter corner of said Section 6, marked by a concrete monument with a brass cap found; thence N 89°29'26" E, along the south line of said SE 1/4, 277.71 feet, to the southwest corner of Certified Survey Map No. 4429 as recorded in the Washington County Registry in Volume 29 of Certified Survey Maps on pages 235-237 as Document No. 683821; thence N 00°30'34" W, along the west line of said Certified Survey Map No. 4429, 671.45 feet; thence N 89°29'26" E, along the north line of said Certified Survey Map No. 4429, 381.00 feet; thence S 00°30'34" E, along the east line of said Certified Survey Map No. 4429, 671.45 feet, to the intersection of said south line of the SE 1/4; thence N 89°29'26" E, along said south line of the SE 1/4, 666.63 feet, to the east line of said SW 1/4 of the SE 1/4; thence N 00°50'10" W, along said east line of the SW 1/4 of the SE 1/4 and along the east line of said NW 1/4 of the SE 1/4, 2677.81 feet; thence N 89°13'46" W, along the north line of said SE 1/4, 1315.94 feet, to the Center of said Section 6, marked by a concrete monument with a brass cap found; thence S 00°37'36" E, along the west line of said SE 1/4, 1353.58 feet; thence N 89°07'06" W, along the north line of said SE 1/4 of the SW Fractional 1/4, 1331.02 feet, to the intersection of the monumented west line of said SE 1/4 of the SW Fractional 1/4, marked by a 1.3 inch od iron pipe found; thence S 00°58'13"E, along said monumented west line of the SE 1/4 of the SW Fractional 1/4, 960.47 feet, to the northwest corner of Certified Survey Map No. 5326 as recorded in the Washington County Registry in Volume 37 of Certified Survey Maps on pages 305-306 as Document No. 874346, marked by a 1.3 inch od iron pipe found; thence S 88°27'47" E, along the north line of said Certified Survey Map No. 5326, 201.83 feet, to a 1.3 inch od iron pipe found; thence S 01°32'13" W, along the east line of said Certified Survey Map No. 5326, 377.85 feet, to the intersection of the south line of said SW Fractional 1/4; thence S 88°27'47" E, along said south line of the SW Fractional 1/4, 1138.19 feet, to the point of beginning.

Containing 115.054 acres (5,011,746 square feet) more or less.

I further certify that I have fully complied with the provisions of sec. 236.34 of Wisconsin Statutes and the Chapter 18 of the Village of Germantown Subdivision Control Ordinance in surveying, dividing, mapping and dedicating said lands, and that this map is a correct representation of the exterior boundaries of the land surveyed and the division of said lands.

Dated this 9th day of May, 2025.

Donald J. Thoma
Donald J. Thoma, S-2470



Washington County Certified Survey Map

All of the NW 1/4 of the SE 1/4, part of the SW 1/4 of the SE 1/4 and part of the SE 1/4 of the SW Fractional 1/4 of Section 6, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin.

Corporate Owner's Certificate:

RAO Farms LLC, a corporation duly organized and existing under and by virtue of the laws of the State of Wisconsin, as owner, does hereby certify that said corporation caused the land on this Certified Survey Map to be surveyed, divided, mapped and dedicated that part of Bonniwell Road to the Village of Germantown for public road purposes as represented on Sheet 1 and 2 of 5 of this Certified Survey Map.

RAO Farms LLC, does further certify that there is no mortgage on this property and this Certified Survey Map is required by sec. 236.34 of Wisconsin Statutes to be submitted to the following for approval.

Village of Germantown Plan Commission

Village of Germantown Village Board

IN WITNESS WHEREOF, RAO Farms LLC, has caused these presents

to be signed by Kailas J. Rao & Becky L. Rao, its Officers,

at _____, Wisconsin,

and its corporate seal to be hereunto affixed this _____ day of _____, 202__.

In the presence of:

RAO Farms LLC

Corporate Name

Officer/Member

Officer/Member

Kailas J. Rao

Becky L. Rao

(Print)

(Print)

STATE OF WISCONSIN)

WASHINGTON COUNTY)s.s

Personally came before me this _____ day of _____, 202__, Kailas J. Rao & Becky L. Rao

Officers of the above named corporation, to me known to be the persons who executed the foregoing instrument, and to me known to be such Officers of said corporation, and acknowledge that they executed the foregoing instrument as such officers as the deed of said corporation, by its authority.

(Notary Seal) _____, Notary Public, _____, Wisconsin.

My commission expires _____

Village of Germantown Plan Commission Approval:

This Certified Survey Map is hereby approved by the Planning Commission of the Village

of Germantown on this _____ day of _____, 202__.

Robert A. Soderberg - Chairperson

Deborah J. Remich - Secretary

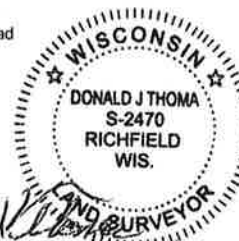
Village of Germantown, Village Board Approval:

This Certified Survey Map, All of the NW 1/4 of the SE 1/4, part of the SW 1/4 of the SE 1/4 and part of the SE 1/4 of the SW Fractional 1/4 of Section 6, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin, having been approved by the Planning Commission being the same, is hereby approved and the dedication of that part of Bonniwell Road for public road purposes as shown on Sheet 1 of 5 and Sheet 2 of 5 is hereby accepted by the Village Board of Trustees of the Village of Germantown on

this _____ day of _____, 202__.

Robert A. Soderberg - Village President

Donna Ott - Village Clerk



Donald J. Thoma, S-2470

Dated this _____ day of _____, 2025.

Accurate

Surveying & Engineering LLP

Land Surveying, Developing and Consulting

2911 Wildlife Lane, Richfield, WI 53076

Phone (262)677-2120

May 9, 2025

RE: Rao Farms LLC, Legal description for land to be rezoned to A-2:

All of the NW 1/4 of the SE 1/4, part of the SW 1/4 of the SE 1/4 and part of the SE 1/4 of the SW Fractional 1/4 of Section 6, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin, which is bounded and described as follows:

Beginning at the South Quarter corner of said Section 6, marked by a concrete monument with a brass cap found; thence N 89°29'26" E, along the south line of said SE 1/4, 277.71 feet, to the southwest corner of Certified Survey Map No. 4429 as recorded in the Washington County Registry in Volume 29 of Certified Survey Maps on pages 235-237 as Document No. 683821; thence N 00°30'34" W, along the west line of said Certified Survey Map No. 4429, 671.45 feet; thence N 89°29'26" E, along the north line of said Certified Survey Map No. 4429, 381.00 feet; thence S 00°30'34" E, along the east line of said Certified Survey Map No. 4429, 671.45 feet, to the intersection of said south line of the SE 1/4; thence N 89°29'26" E, along said south line of the SE 1/4, 666.63 feet, to the east line of said SW 1/4 of the SE 1/4; thence N 00°50'10" W, along said east line of the SW 1/4 of the SE 1/4 and along the east line of said NW 1/4 of the SE 1/4, 2677.81 feet; thence N 89°13'46" W, along the north line of said SE 1/4, 1315.94 feet, to the Center of said Section 6, marked by a concrete monument with a brass cap found; thence S 00°37'36" E, along the west line of said SE 1/4, 1353.58 feet; thence N 89°07'06" W, along the north line of said SE 1/4 of the SW Fractional 1/4, 1331.02 feet, to the intersection of the monumented west line of said SE 1/4 of the SW Fractional 1/4, marked by a 1.3 inch od iron pipe found; thence S 00°58'13" E, along said monumented west line of the SE 1/4 of the SW Fractional 1/4, 960.47 feet, to the northwest corner of Certified Survey Map No. 5326 as recorded in the Washington County Registry in Volume 37 of Certified Survey Maps on pages 305-306 as Document No. 874346, marked by a 1.3 inch od iron pipe found; thence S 88°27'47" E, along the north line of said Certified Survey Map No. 5326, 201.83 feet, to a 1.3 inch od iron pipe found; thence S 01°32'13" W, along the east line of said Certified Survey Map No. 5326, 377.85 feet, to the intersection of the south line of said SW Fractional 1/4; thence S 88°27'47" E, along said south line of the SW Fractional 1/4, 1138.19 feet, to the point of beginning.

Containing 115.054 acres (5,011,746 square feet) more or less.

Village of

Germantown

Village of Germantown
Clerk Treasurer
N112W17001 MEQUON ROAD
Germantown, WI 53022
(262)250-4700
Welcome

05/12/2025 10:54AM Matthew U
000899-0002
Payment Effective Date 05/12/2025

MISCELLANEOUS

PLAT REVIEW FEES (GENPLT)

2025 Item: GENPLT

1 @ \$3,045.0000

PLAT REVIEW FEES

(GENPLT)

\$3,045.00

\$3,045.00

Subtotal

\$3,045.00

Total

\$3,045.00

CHECK

\$3,045.00

Check Number 20747

Change due

\$0.00

Thank you for your payment

Village of Germantown COPY
DUPLICATE RECEIPT

To: Kevin Driscoll, Village Engineer

CC: Jeff Retzlaff Village Planner

From: Bob Beilfuss, PLS

Date: June 9, 2025

Re: Robert Overmier CSM

Kevin,

Here is my review comments for the CSM received 6/9/2025.

Certified Survey Map

Applicant or Owner: Becky and Kailas Rao

Address: W204 N13781 Goldendale Road, Richfield WI. 53076

Tax Key No. GNTV 063989, 064996 and 064994881

Land Surveyor/Firm: Don Thoma, PLS – Accurate Surveying and Engineering LLP

1. The wetland line, 100 year flood line, floodway and existing creek have been traced from the Washington County website. A stream setback line needs to be added to the map along with a wetland setback line unless the Planning Commission waives this requirement
2. No further review comments.

Document Approval and Recording

For this CSM to be approved by the Village Board and recorded at the Washington County Register of Deeds, the document must be provided to the Village Clerk's office in a completed format including all original signatures of the owner and lending institution, original seals of the professional land surveyor on the recordable media the Wednesday prior to the scheduled Village Board meeting.

This includes the CADD file.

Any documents or digital files not submitted by the due date or contain outstanding technical review comments that have not be addressed, will be moved to the next scheduled Village Board meeting agenda.

Document Submittals and Data Conversion

As of October 2005, the Village of Germantown requires a digital copy of all Certified Survey Maps, Condominium Plats and Subdivision Plats in addition to the documents as required by Wisconsin Statute and Village Ordinances as part of the land division approval.

The digital mapping should be prepared using the NAD83 Datum (2011 Adjustment)

Prior to Recording the Certified Survey Map or Subdivision Plat

The professional land surveyor is responsible for submitting a copy of the AutoCAD drawing file (.dwg) of the document in version 2024 via email to the Village Surveyor for mapping purposes.

All digital professional land surveyor seals and signatures will be purged from the digital copy prior to submittal.

Sincerely,
Point Land Surveying & Mapping

Bob Beilfuss

Bob Beilfuss, P.L.S.
Principle

SITE PLAN REVIEW

7/14/25 Plan Commission Meeting

Bellcraft Builders / Bliffert Germantown Holdings LLC

Village Planner Report

Germantown, Wisconsin

Summary

Curt Bushman, Bellcraft Builders, Inc., agent for Bliffert Germantown Holdings LLC, property owner, is seeking approval of site development & building plans to construct a 4,800 sqft cold storage building and bioretention basin on the 11.2-ac Bliffert Lumber & Design facility located at N116 W16474 Main Street.

Location: N116 W16474 Main Street

Applicant/

Owner:

Curt Bushman
Bellcraft Builders Inc.
W230 S4353 Milky Way
Waukesha, WI

Dan Platz
Bliffert Germantown Holdings LLC
N116 W16474 Main St
Germantown, WI

Current Zoning: B-3: General Business

Adjacent Land Uses		Zoning
North	Residential/Open Space	A-2/Rs-2, 3, 4
South	Residential	Rs-4,5/Rm-3
East	Residential	Rd-2
West	Park/Industrial	I / M-1



Proposal

Curt Bushman, Bellcraft Builders, Inc., agent for Bliffert Germantown Holdings LLC, property owner, is seeking approval of site development & building plans to construct a 4,800 sqft cold storage building and bioretention basin on the Bliffert Lumber & Design facility located at N116 W16474 Main Street.

The Bliffert Lumber site is 11.2 acres on the west end of Main Street, immediately east of Haupt Strasse Park. This property was the former Neu's Hardware Store. Bliffert took ownership of the property in 2019. The proposed 4,800 sqft non-conditioned "cold" storage building will enclose lumber products similar to other existing storage buildings on the property. The storage building will have wood post & frame construction and metal wall siding & roofing. Asphalt paving will be installed in front (south) of the proposed building along with a biofiltration basin and drain tile for storm water management immediately to the west and outside the 25' wetland setback boundary to the west.

Staff CommentsPlanning & Zoning

The zoning for this parcel is B-3: General Business. Subject to the staff recommended conditions herein, the proposed development plans comply with the B-3: General Business Zoning district regulations.

The current plans do not include any new lighting or landscaping for the site (other than erosion control stabilization in/around the bioretention swale). In May, 2024, Bliffert was issued a Zoning Permit for tree removal and wetland restoration activities to the west and south side of the property. At that time, Bliffert committed to delineating all wetland areas on the property (which was completed; see attached wetland boundary map), cutting & removal of all dead trees on the property, and preparation and submittal of a restoration plan (with DNR guidance on suitable tree and plant species) for the area west of the wetlands and along the south property line and adjoining residential properties. That work has not yet been completed and the restoration plan not submitted for Village staff approval.

Staff recommends requiring that the approval of this site development & building plan contain a condition that requires the completion of these activities previously committed to by Bliffert by September 1, 2025 and deposit of an occupancy bond with the Village to ensure completion (the standard \$20K occupancy bond required at the time of building permit issuance will be sufficient).

Finally, the storm water bioretention basin is proposed in a location that is close to the 25' wetland setback boundary on the west side of the proposed construction site. Prior to construction of that swale and any other site grading, Bliffert should be required to adequately flag the 25' wetland setback boundary in the field to ensure all construction activity falls outside the 25' setback.

Building Inspection Services

State agency (DSPS) approved plans and a \$20,000 occupancy bond are required by Inspection Services at the time of building permit application. The Village of Germantown is an authorized delegated agent of DSPS to provide all commercial plan review and inspection services through SAFEBuilt of WI and the Village of Germantown.

Village Forester

For any tree removal required to accommodate the new storage building, a tree survey indicating the location, species, and trunk diameter at breast height should be provided to the Village Forester for review and approval.

Public Works Department/Village Engineer

The Public Works Department has identified several technical corrections and plan revisions that are required in a July 10, 2025 review memo from the Village Engineer (copy attached). The Village Engineer also notes that the Main Street driveway condition is deteriorated with cracked and broken concrete and, as a result, Bliffert is required to obtain a driveway permit and replace the concrete driveway. These items will need to be addressed in a revised plan set or supplemental information submitted for review and approval by the Village Engineer prior to issuance of any building permits.

VILLAGE STAFF RECOMMENDATION

APPROVE the site development & building plans for the proposed 4,800 sqft storage building on the Bliffert Lumber & Design property located at N116 W16474 Main Street subject to the following conditions:

1. This approval is for the proposed storage building, asphalt pavement, and storm water management bioretention basin and is subject to all the conditions and requirements set forth herein and adopted by the Plan Commission. Approval is granted for the following plans unless superseded by subsequent plan sheets approved by the Village Planner or Engineer pursuant to revisions required herein and/or by the Plan Commission:
 - a. Architectural plan set dated March 1, 201 & May 10, 2021
 - b. Engineering plan set dated June 9, 2025 & June 19, 2025
2. All landscaping, grading, paving, storm water management, utility and other improvements shown on the approved site plans shall be installed as approved prior to issuance of an occupancy permit for the building addition unless a cash bond or letter of credit in an amount equal to 120 percent of the estimated installation and material costs reviewed and approved by the Village is submitted to the Village as necessary to ensure that installation of the proposed features and improvements will be completed within one (1) year after issuance of the occupancy permit.

-
3. All issues, plan revisions and technical corrections identified in the June 30, 2025 review memo from the Village Engineer shall be addressed in revised plans and/or supplemental information submitted for review and approval prior to issuance of any building permits.
 4. The Main Street driveway condition is deteriorated with cracked and broken concrete and, as a result, Bliffert shall obtain a driveway permit from the Village and replace the concrete driveway. Replacement shall be coordinated with the Village Engineer and Public Works Department.
 5. State approved plans and a \$20,000 occupancy bond shall be required by Inspection Services as part of and prior to issuance of a building permit for the storage building.
 6. Bliffert shall complete all the dead tree cutting & removal and submit a site & landscaping restoration plan for the west side of the property around the wetlands and along the south property line and abutting residential properties previously committed to by September 1, 2025. To ensure completion of these requirements, Bliffert shall deposit an occupancy bond with the Village (the standard \$20K occupancy bond required at the time of building permit issuance shall satisfy this requirement) and shall not be refunded until such time as all requirements are complete as verified by Village staff.
 7. The storm water bioretention basin is proposed in a location close to the 25' wetland setback boundary near the west side of the proposed construction site. Prior to construction of the bioretention swale or any other site grading required for the project, Bliffert shall adequately flag the 25' wetland setback boundary on the property and in the vicinity of any construction activity to ensure all construction activity is outside the 25' wetland setback.
 8. Any lighting or signage installed on the building or site after construction shall comply with the Village's lighting guidelines and be reviewed and approved by Village staff prior to installation.



Fee must accompany application

- ☐ \$700 Minor Addition
- ☒ \$1,240 Construction <10,000 SF
- ☐ \$2,095 Construction 10,000 SF to 50,000
- ☐ \$3,460 Industrial Construction >50,000 SF
- ☐ \$3,460 Commercial Construction >50,000
- ☐ \$200 Plan Commission Consultation
- ☐ \$125 Fire Department Plan Review

PAID

DATE

3/20/25

CHK# 2041

SITE PLAN REVIEW APPLICATION

Pursuant to Section 17.43 of the Municipal Code

Please read and complete this application carefully. All applications must be signed and dated.

1 APPLICANT OR AGENT

Bellcraft Builders
Curt Bushner
W230 S4353 Milky Way Rd
Waukesha, WI 53189

Phone (414) 254-1458

E-Mail ccbush@hotmai.com

PROPERTY OWNER

Bliffert Germantown Holdings LLC
N116 W16474 Main St.
Germantown WI

Phone (262) 261-7121

E-Mail dan.plate@bliffertlumber.com

Dan Plate - 262-989-7141

2 PROPERTY ADDRESS

N116 W16474 Main St. Germantown

3 NEIGHBORING USES - Specify name and type of use, e.g. Enviro Tech - Industrial, Smith - Residential, etc.

North	South	East	West
R.R. Track	Residential	Residential	woods

4 READ AND INITIAL THE FOLLOWING:

☒ I am aware of the Village of Germantown ordinance requiring fire sprinklers in most new construction.

☒ I understand that all new development is subject to Impact and/or Connection Fees that must be paid before building permits will be issued.

☒ I understand that an incomplete application will be withdrawn from the Plan Commission agenda and that all resubmissions to the Plan Commission are subject to a new application fee.

5 SIGNATURES - ALL APPLICATION MUST BE SIGNED BY OWNER!

CR 3-19-25

Applicant

Date

T. Wagon 3/20/25

Owner



Village of

Germantown

Village of Germantown
Clerk Treasurer
N112W17001 MEQUON ROAD
Germantown, WI 53022
(262)250-4700
Welcome

03/20/2025 02:07PM PRAVINA P

000861-0032

Payment Effective Date 03/19/2025

MISCELLANEOUS

ZONING FEES (GENZON)

2025 Item: GENZON

1 @ \$1,240.0000

ZONING FEES (GENZON)

\$1,240.00

\$1,240.00

Subtotal

\$1,240.00

Total

\$1,240.00

CHECK

\$1,240.00

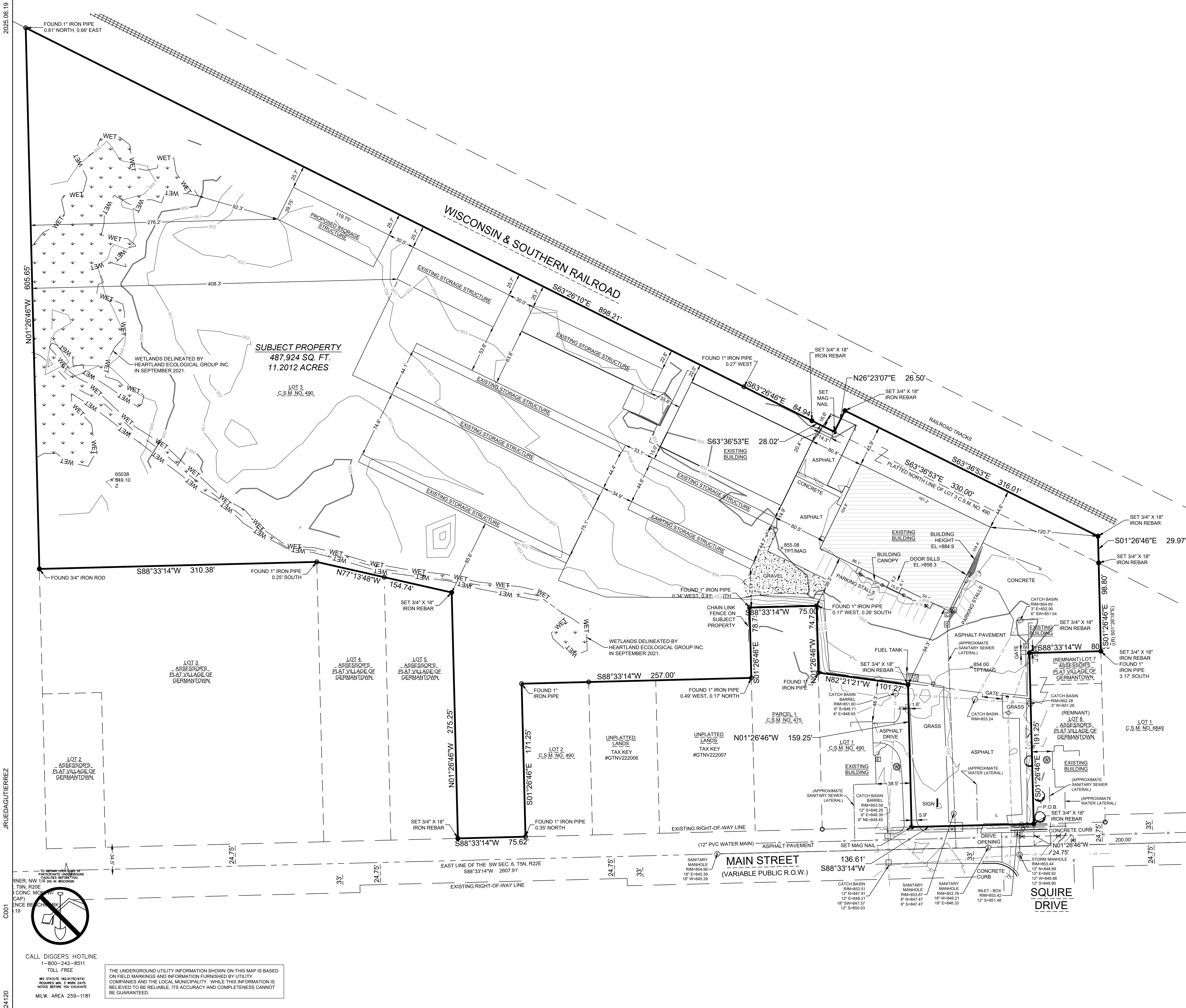
Check Number2041

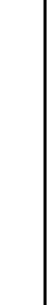
Change due

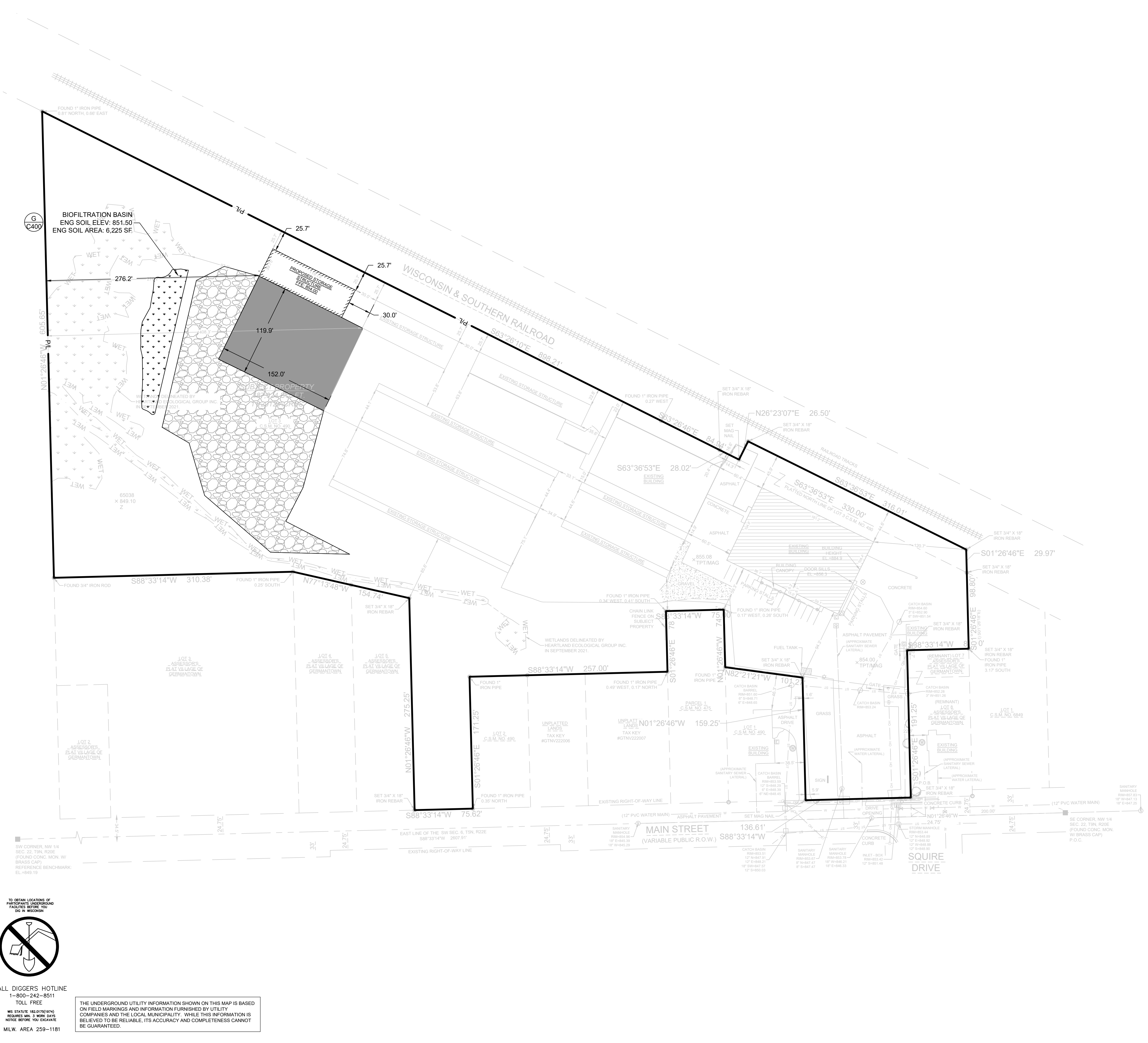
\$0.00

Thank you for your payment

Village of Germantown COPY
DUPLICATE RECEIPT



 Single Source. Sound Solutions. www.thisigmagroup.com 1300 West Canal Street Milwaukee, WI 53233 Phone: 414-643-4200 Fax: 414-643-4210	
 	
BLIFFERT GERMANTOWN N116 W16474 MAIN ST GERMANTOWN, WI 53022	SITE SURVEY
PRELIMINARY NOT FOR CONSTRUCTION	
ISSUANCE	DATE
----- ----- ----- ----- ----- ----- ----- -----	
NO. REVISION	DATE
----- ----- ----- ----- ----- ----- ----- ----- ----- -----	
PROJECT NO:	24120
DESIGN DATE:	----
PLOT DATE:	2025.06.19
DRAWN BY:	----
CHECKED BY:	----
APPROVED BY:	----
SHEET NO:	
C001	



SITE INFORMATION			
SITE AREA	487924	11.201 AC	
SITE DISTURBED AREA	76670	1.760 AC	
EXISTING IMPERVIOUS AREA	257505	5.912 AC	52.8 %
PROPOSED IMPERVIOUS AREA	292800	6.722 AC	60.0 %

THE SIGMA GROUP

Single Source. Sound Solutions.

www.thesigmagroup.com

1300 West Canal Street

Milwaukee, WI 53233

Phone: 414-643-4200

Fax: 414-643-4210

N

GRAPHIC SCALE

0 60 120

BLIFFERT GERMANTOWN
N116 W16474 MAIN ST
GERMANTOWN, WI 53022

SITE DIMENSION PLAN

PRELIMINARY
NOT FOR
CONSTRUCTION

ISSUANCE	DATE
----	----
NO. REVISION	DATE
----	----
PROJECT NO:	24120
DESIGN DATE:	----
PLOT DATE:	2025.06.19
DRAWN BY:	----
CHECKED BY:	----
APPROVED BY:	----
SHEET NO:	C100

LEGEND:

ASPHALT SURFACE

GRAVEL SURFACE

- GENERAL NOTES:
- THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS DRAWING IS BASED ON FIELD LOCATIONS AND/OR RECORDS FURNISHED BY MUNICIPALITIES AND UTILITY COMPANIES. THE LOCATION AND ACCURACY OF WHICH CANNOT BE GUARANTEED. THERE MAY BE ADDITIONAL UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
 - VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
 - WORK TO BE COMPLETED IS INDICATED IN BOLD TYPE LINES AND EXISTING CONDITIONS ARE INDICATED BY LIGHT TYPE LINES.
 - ELECTRONIC CIVIL FILES ARE AVAILABLE UPON WRITTEN REQUEST. DO NOT USE ELECTRONIC CIVIL FILES TO LAYOUT FOUNDATIONS, COLUMN LINES, LIGHT POLES, OR OTHER NON CIVIL SITE WORK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDING AND ARCHITECTURAL FEATURES.
 - DIMENSIONS ARE FROM FACE OF CURB OR EDGE OF PAVEMENT.
 - WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING BUT NOT LIMITED TO DRIVEWAY OPENINGS, SIDEWALK AND RAMPS, PAVING, AND CURB AND GUTTER SHALL BE COMPLETED PER MUNICIPAL AND/OR COUNTY REQUIREMENTS AND STANDARDS.
 - EARTHWORK SHALL BE IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

TO OBTAIN LOCATIONS OF PARAPETMENTS UNDERGROUND FACILITIES BEFORE YOU DO IN WISCONSIN

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

WE STATUTE 182.07(2)(74)
REQUIRES MIN. 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE
MIL.W. AREA 259-1181

THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS MAP IS BASED ON FIELD MARKINGS AND INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED.

2025.06.19

JRUEDAGUTIERREZ

C200

24/120



CALL DIGGERS' HOTLINE
1-800-242-8511
TOLL FREE
WE STATUTE 182.07(2)(197A)
REQUIRES MIN. 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE
MILW. AREA 259-1181

THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS MAP IS BASED ON FIELD MARKINGS AND INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED.



- PROPOSED STORM SEWER
- PROPOSED DRAIN TILE (UNDERDRAIN)
- PROPOSED OUTLET CONTROL STRUCTURE
- PROPOSED FLARED END SECTION
- PROPOSED CLEANOUT
- ASPHALT SURFACE
- GRAVEL SURFACE
- GRADE BREAK LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED CURB & GUTTER SPOT GRADE
T/C: TOP OF CURB GRADE
FL: FLOW LINE CURB GRADE
- PROPOSED SURFACE SPOT GRADE
- PROPOSED TOP OF WALL AT FINISHED GRADE
PROPOSED BOTTOM OF WALL AT FINISHED GRADE
- EXISTING SURFACE SPOT GRADE (MATCH)

- LEGEND:**
- ASPHALT SURFACE
- GRAVEL SURFACE
- GRADE BREAK LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED CURB & GUTTER SPOT GRADE
T/C: TOP OF CURB GRADE
FL: FLOW LINE CURB GRADE
- PROPOSED SURFACE SPOT GRADE
- PROPOSED TOP OF WALL AT FINISHED GRADE
PROPOSED BOTTOM OF WALL AT FINISHED GRADE
- EXISTING SURFACE SPOT GRADE (MATCH)

- GENERAL NOTES:**
- THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS DRAWING IS BASED ON FIELD LOCATIONS AND/OR RECORDS FURNISHED BY MUNICIPALITIES AND UTILITY COMPANIES. THE LOCATION AND ACCURACY OF WHICH CANNOT BE GUARANTEED. THERE MAY BE ADDITIONAL UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
 - VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
 - WORK TO BE COMPLETED IS INDICATED IN BOLD TYPE LINES AND EXISTING CONDITIONS ARE INDICATED BY LIGHT TYPE LINES.
 - ELECTRONIC CIVIL FILES ARE AVAILABLE UPON WRITTEN REQUEST. DO NOT USE ELECTRONIC CIVIL FILES TO LAYOUT FOUNDATIONS, COLUMN LINES, LIGHT POLES, OR OTHER NON-CIVIL SITE WORK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDING AND ARCHITECTURAL FEATURES.
 - DIMENSIONS ARE FROM FACE OF CURB OR EDGE OF PAVEMENT.
 - WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING BUT NOT LIMITED TO DRIVEWAY OPENINGS, SIDEWALK AND RAMPS, PAVING, AND CURB AND GUTTER SHALL BE COMPLETED PER MUNICIPAL AND/OR COUNTY REQUIREMENTS AND STANDARDS.
 - EARTHWORK SHALL BE IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

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N116 W16474 MAIN ST
GERMANTOWN, WI 53022

GRADING PLAN AND UTILITY PLAN

PRELIMINARY
NOT FOR
CONSTRUCTION

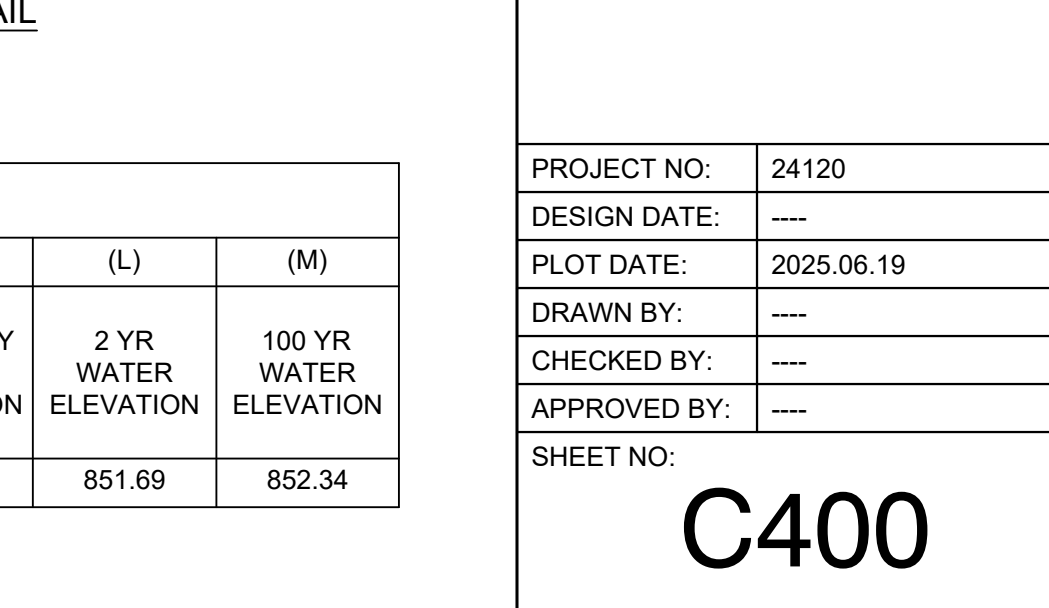
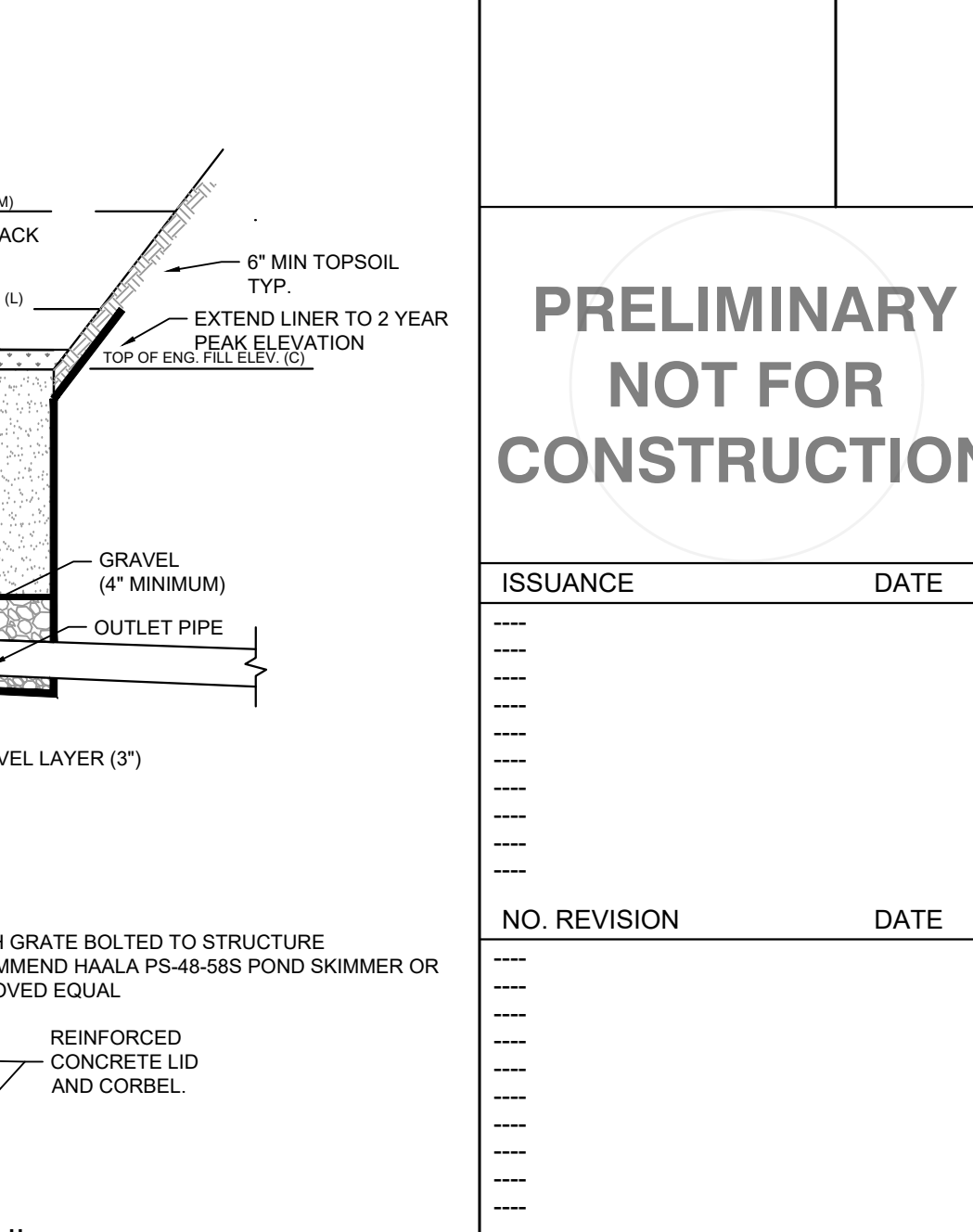
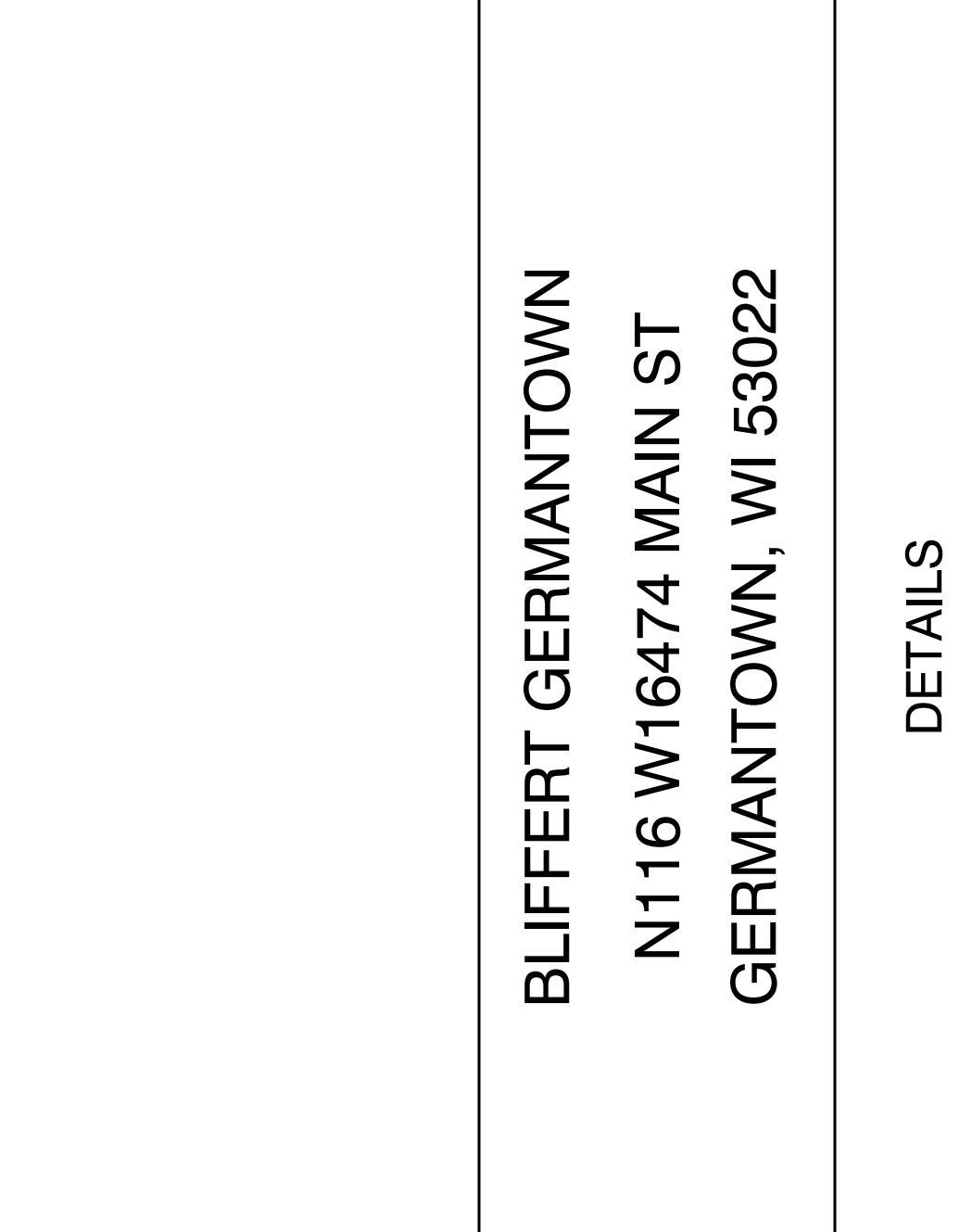
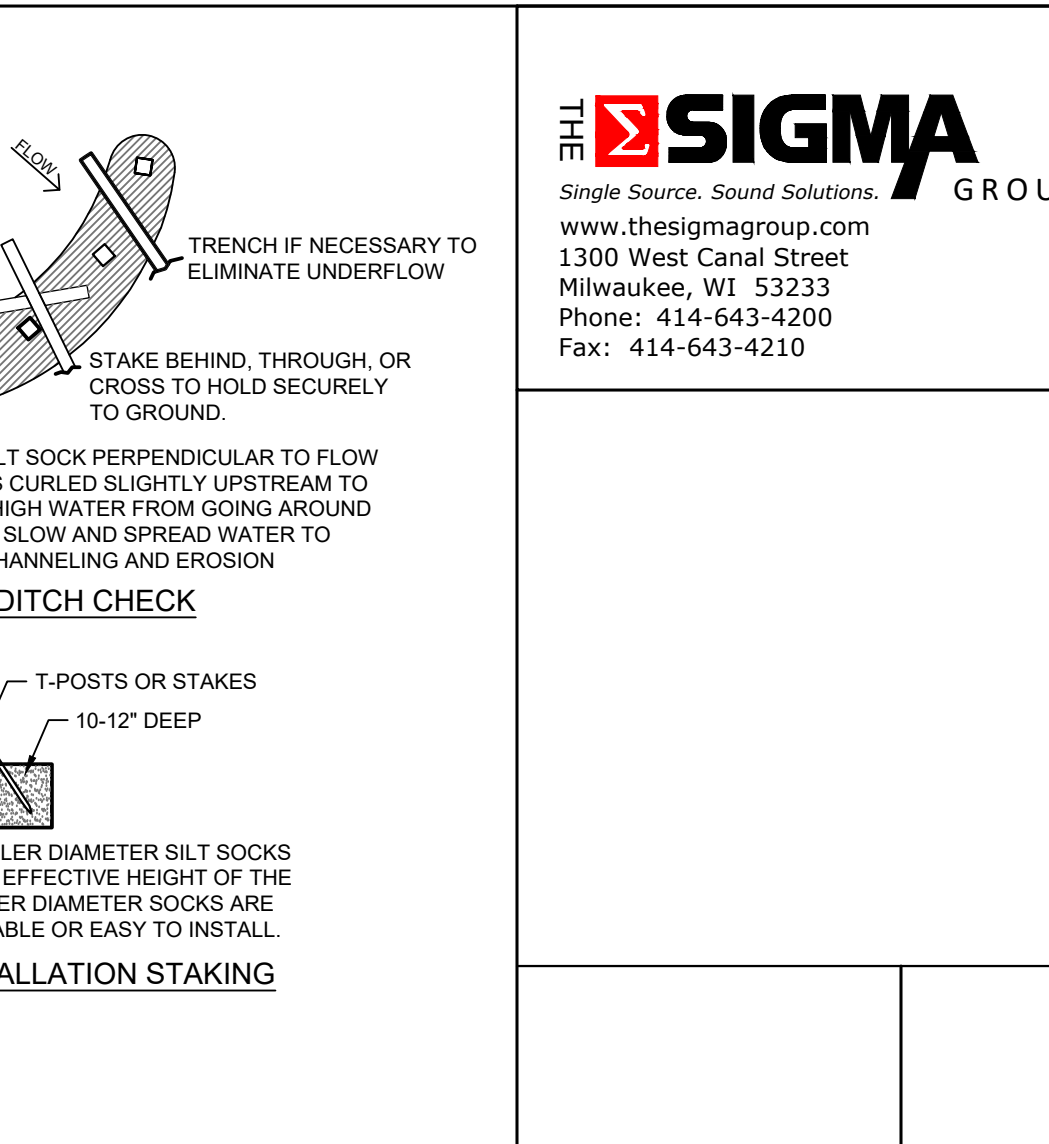
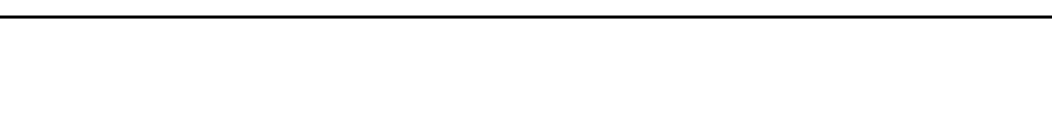
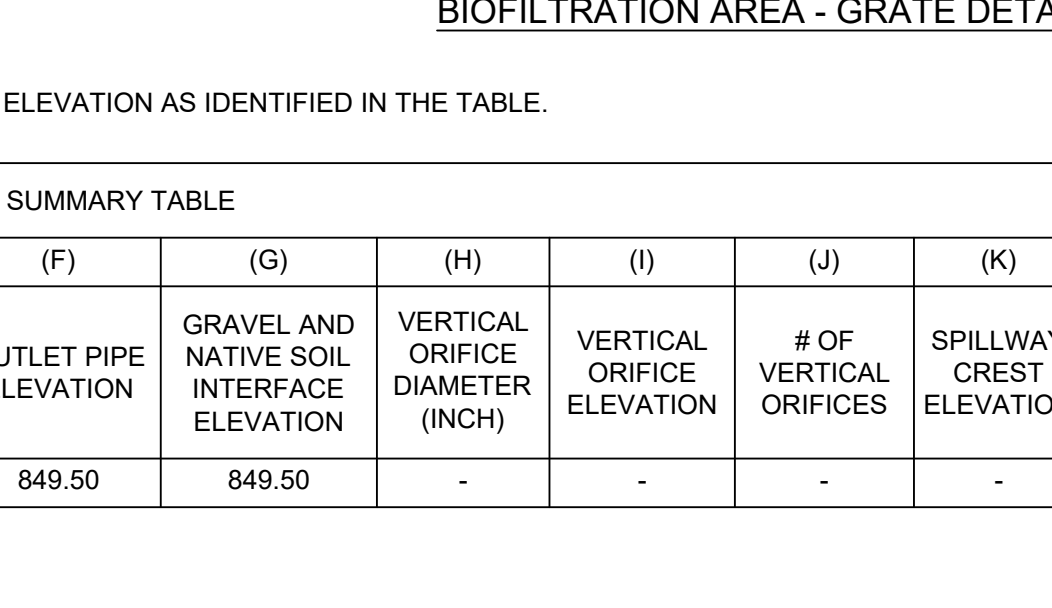
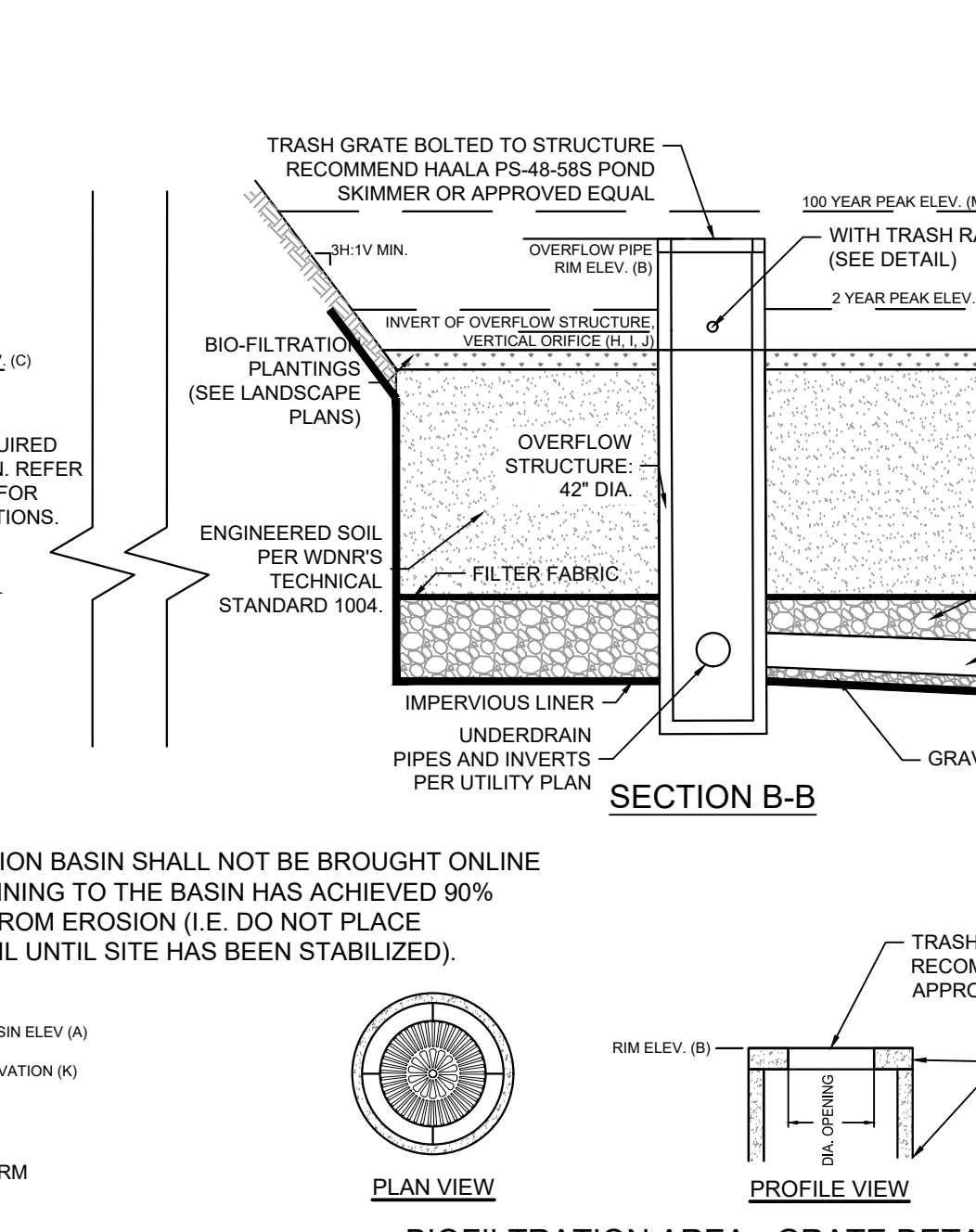
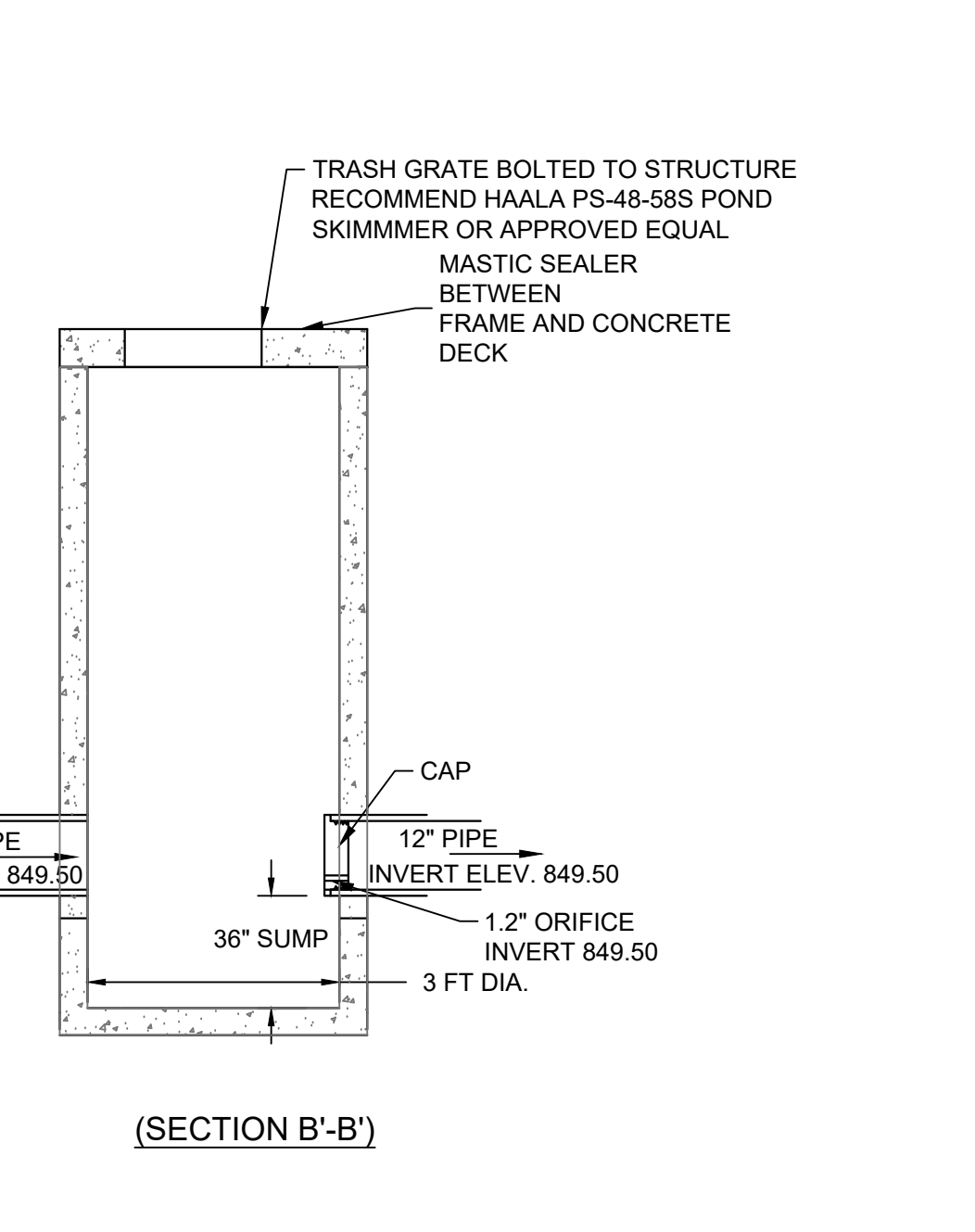
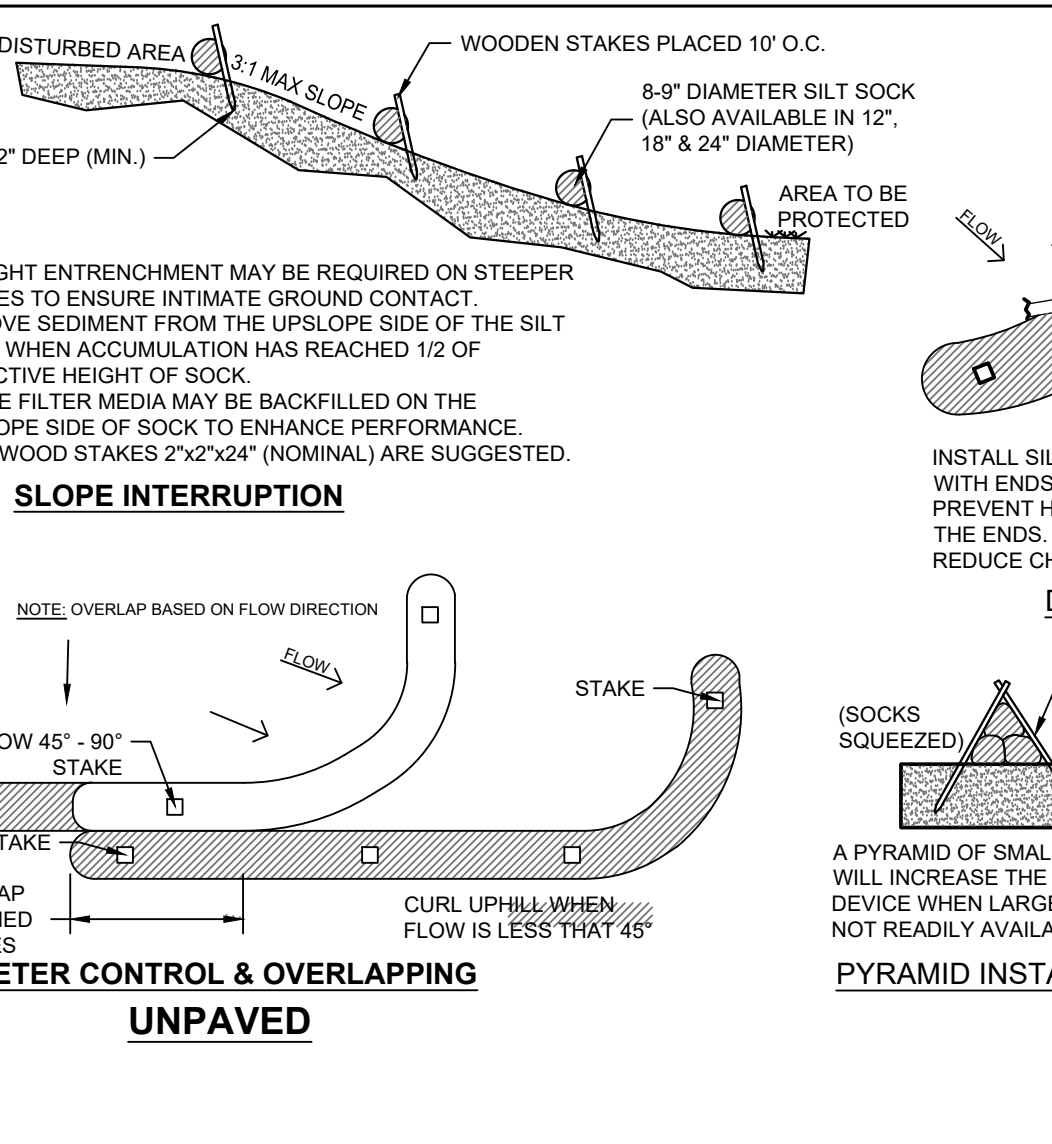
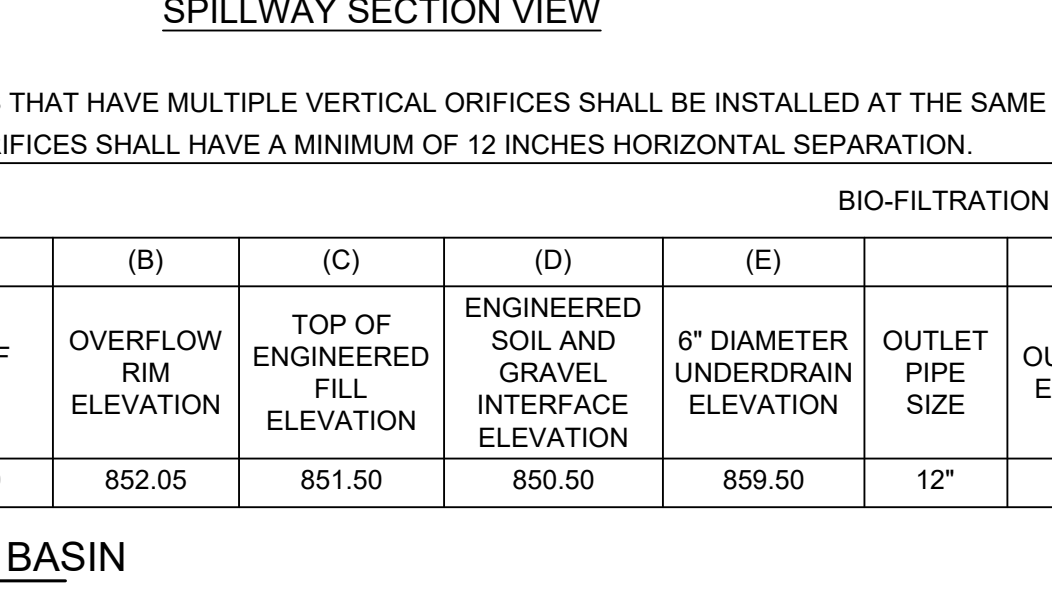
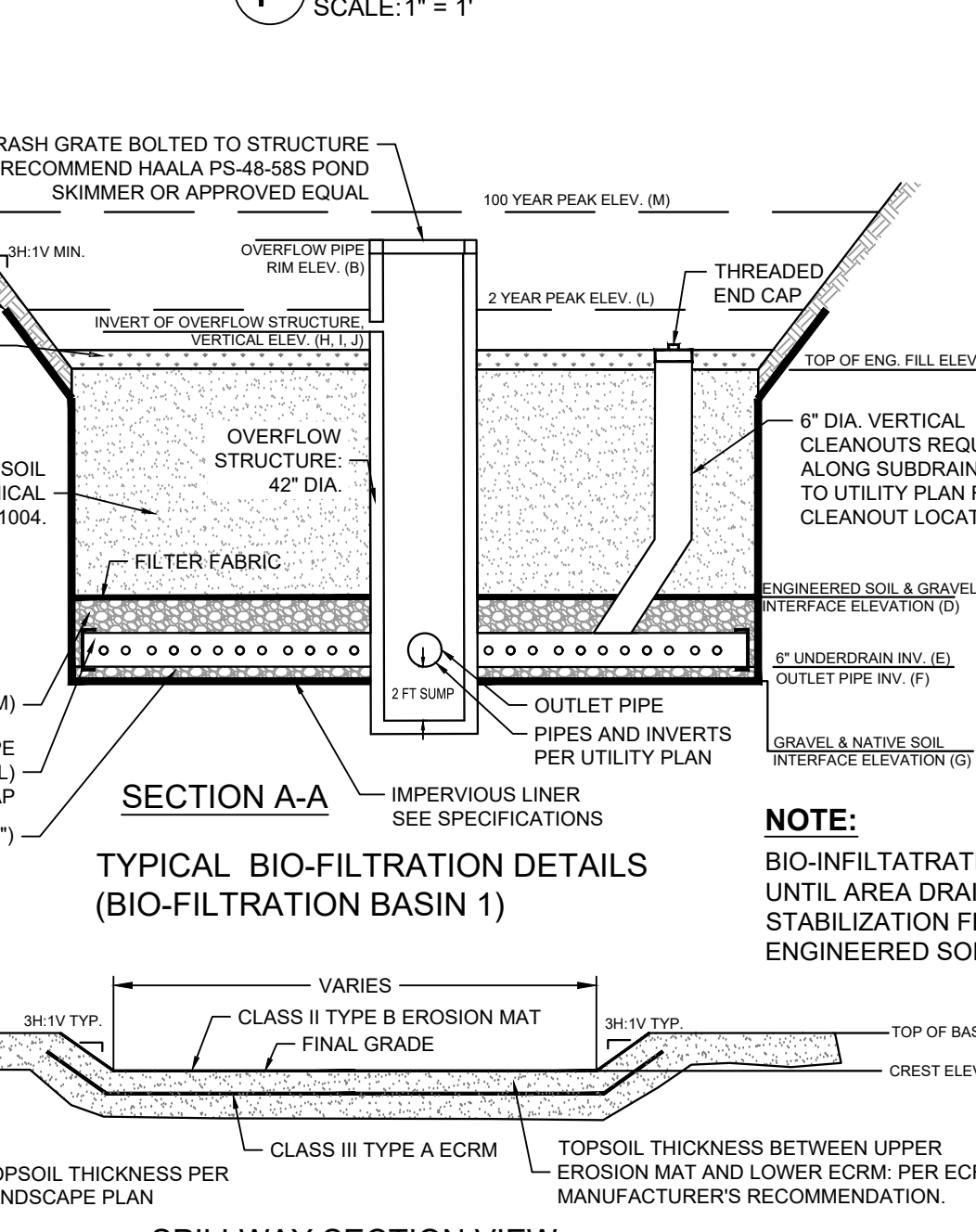
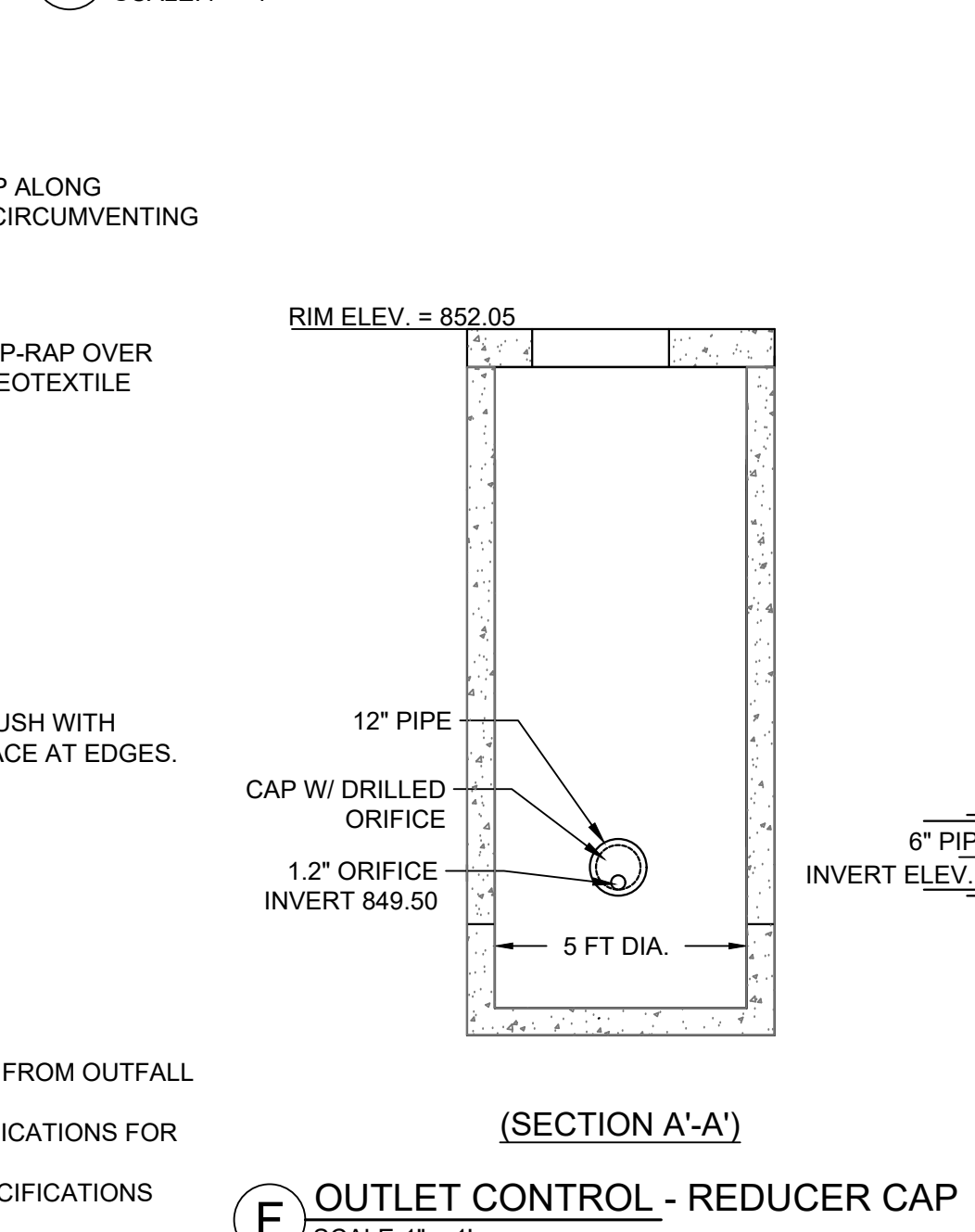
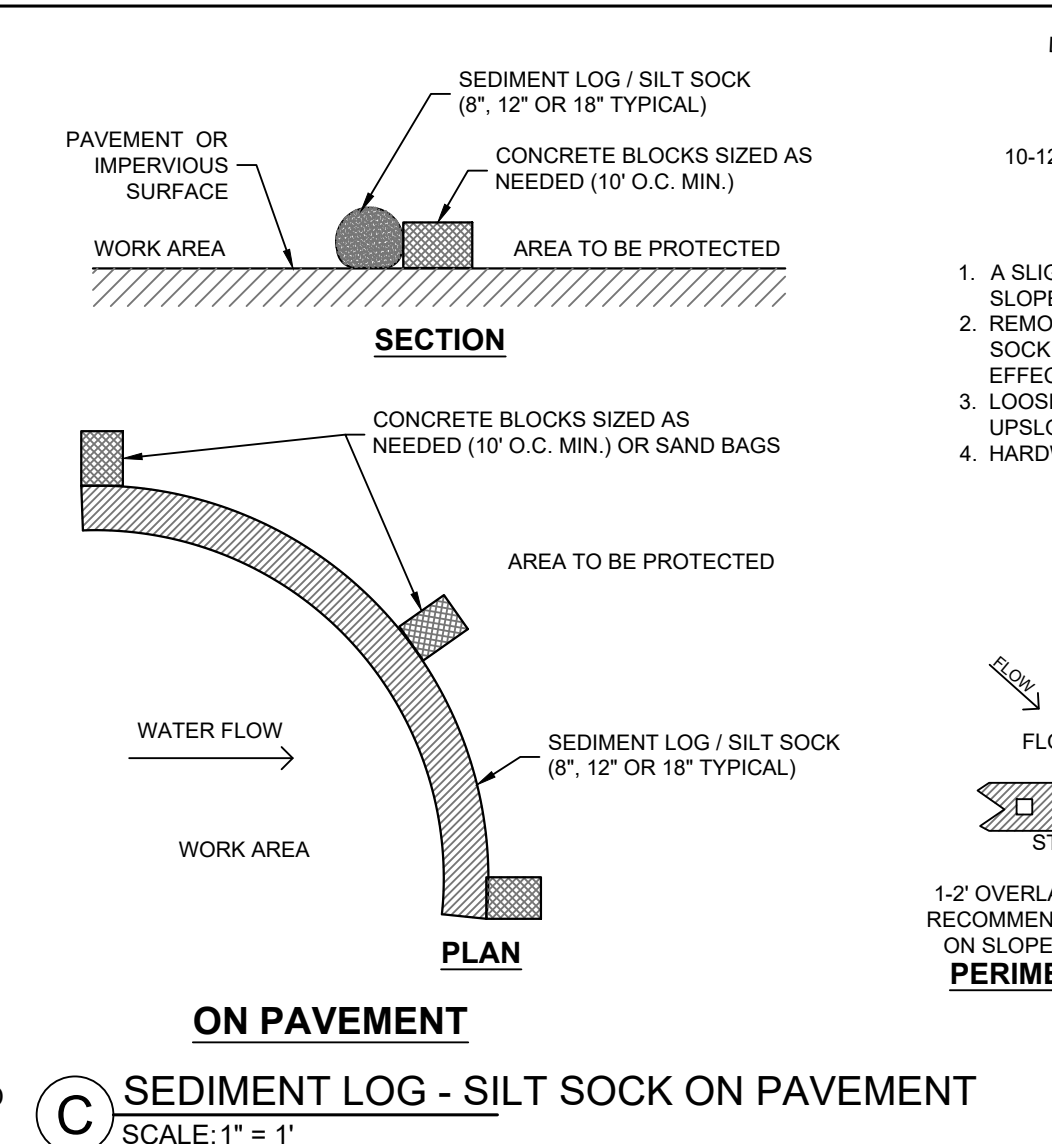
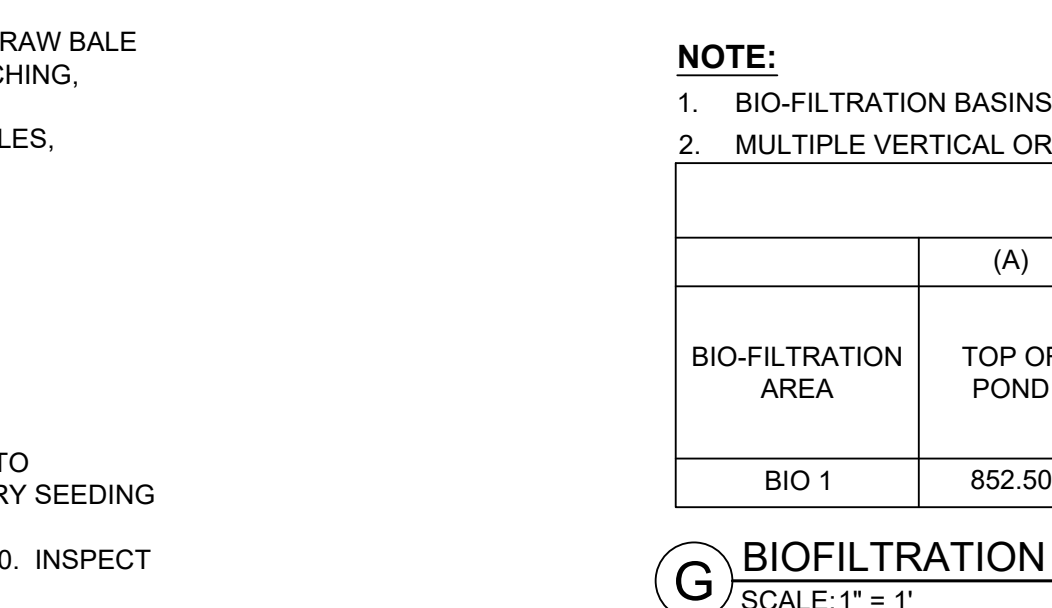
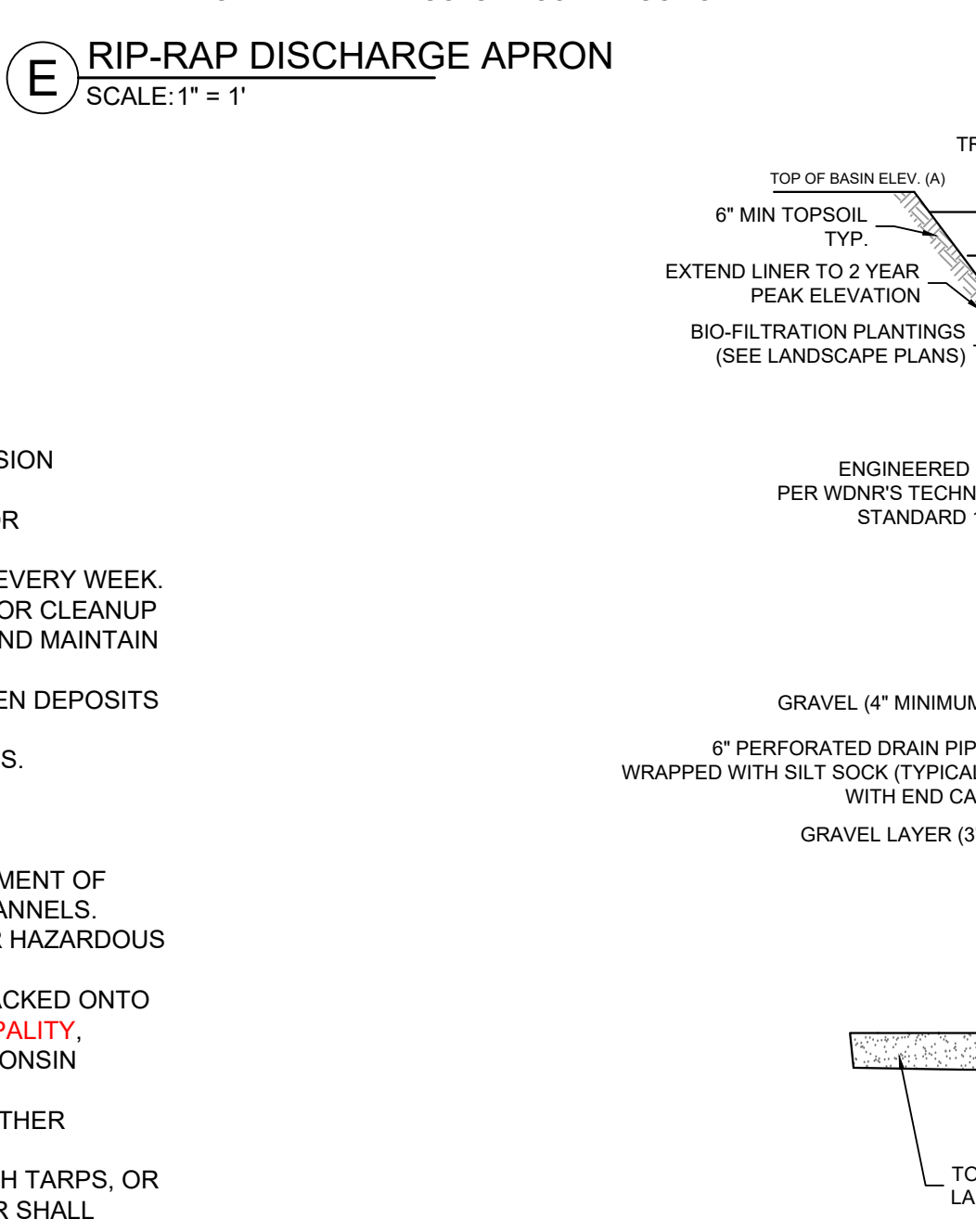
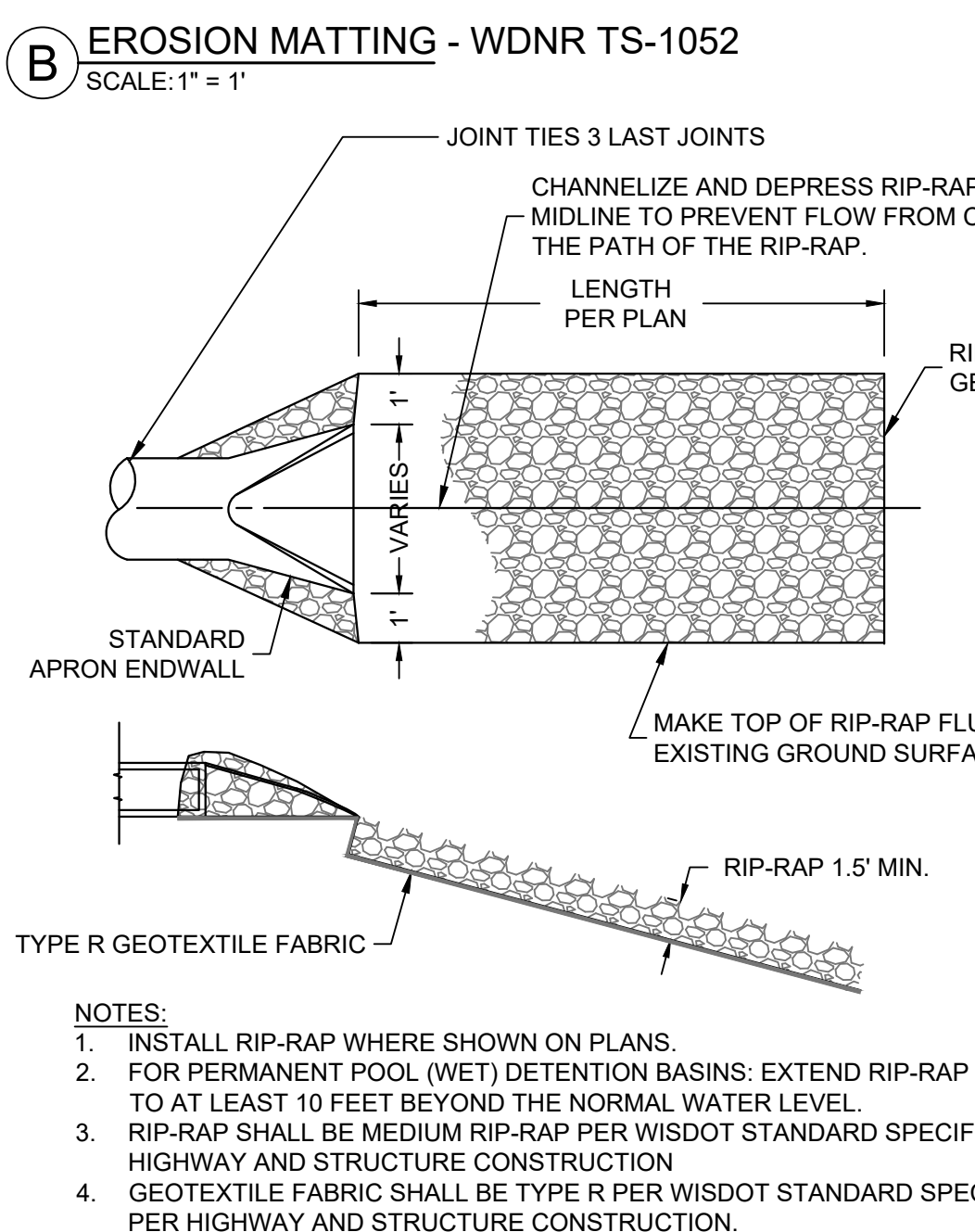
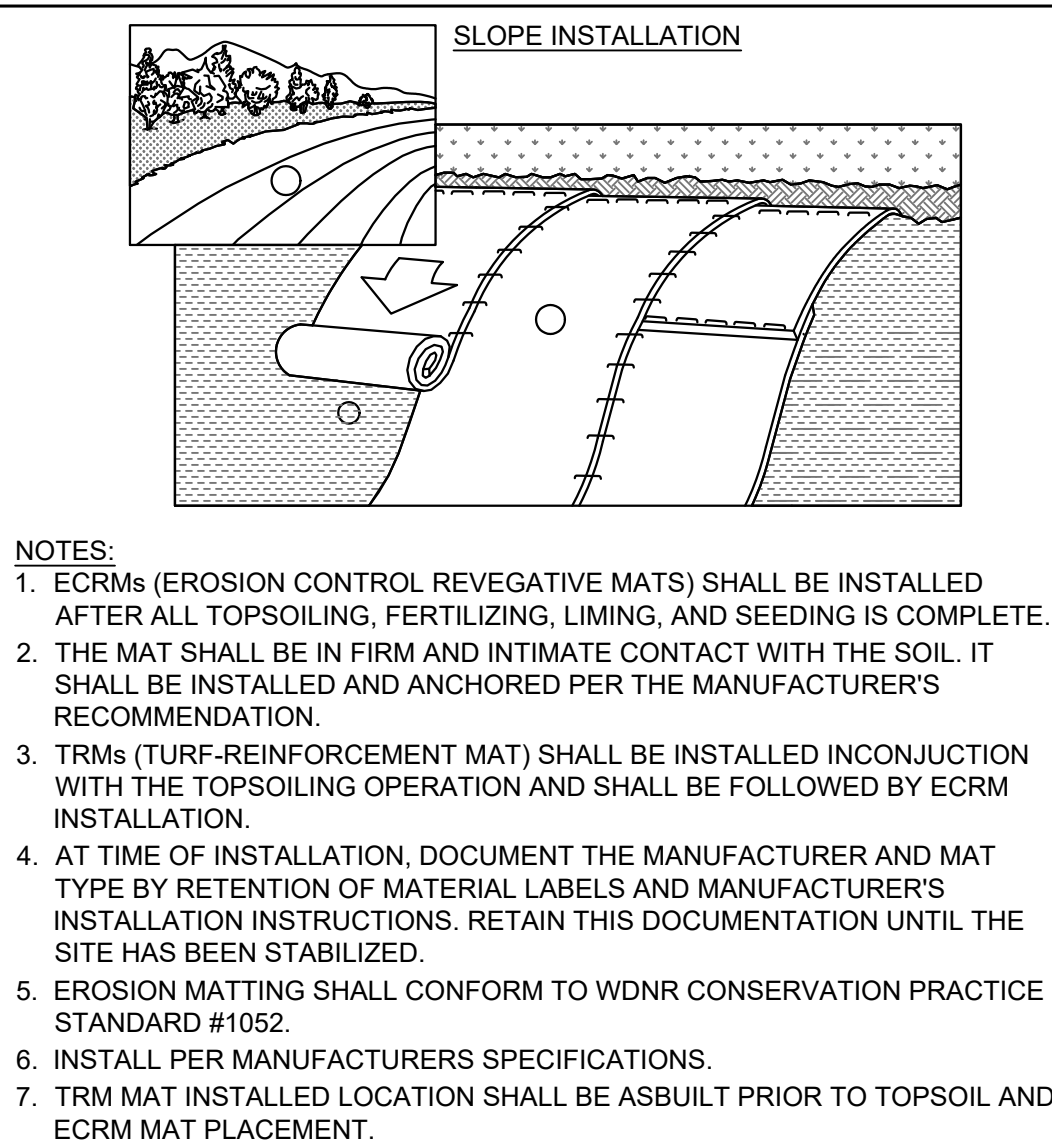
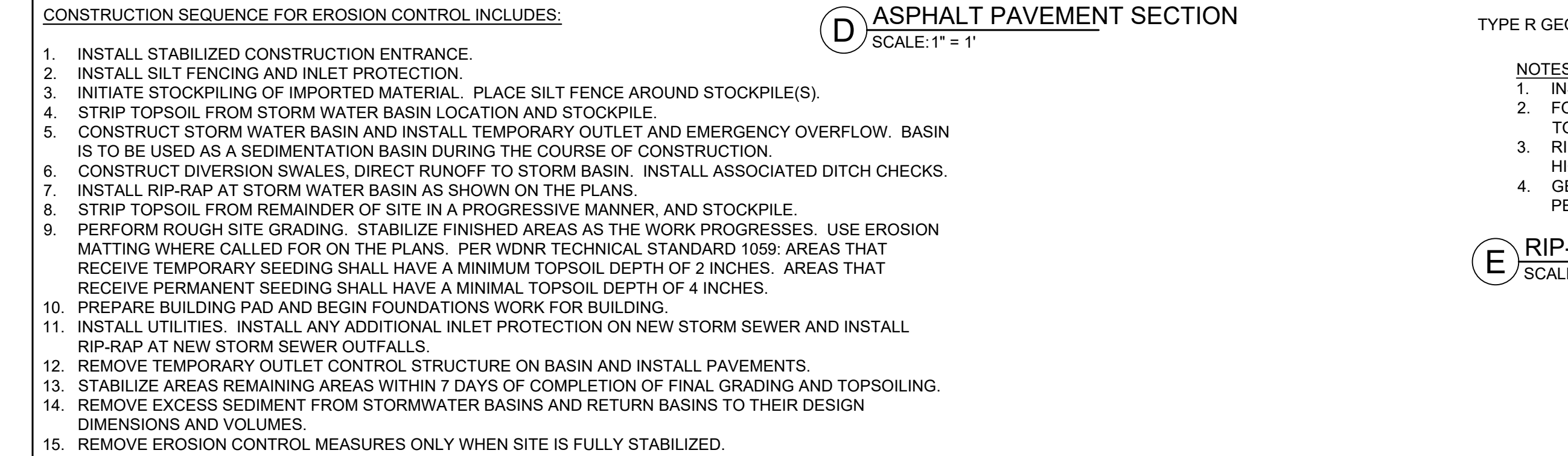
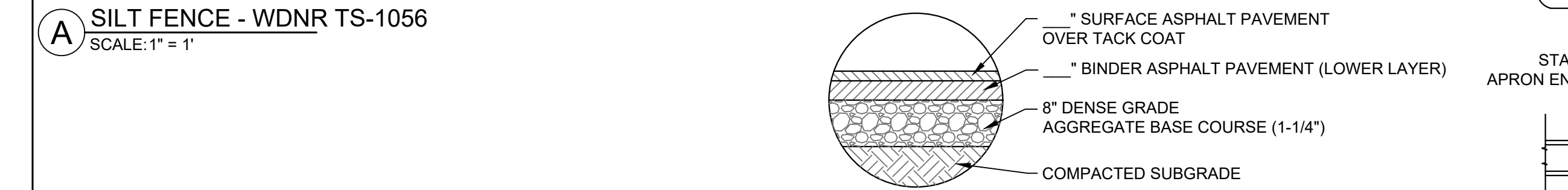
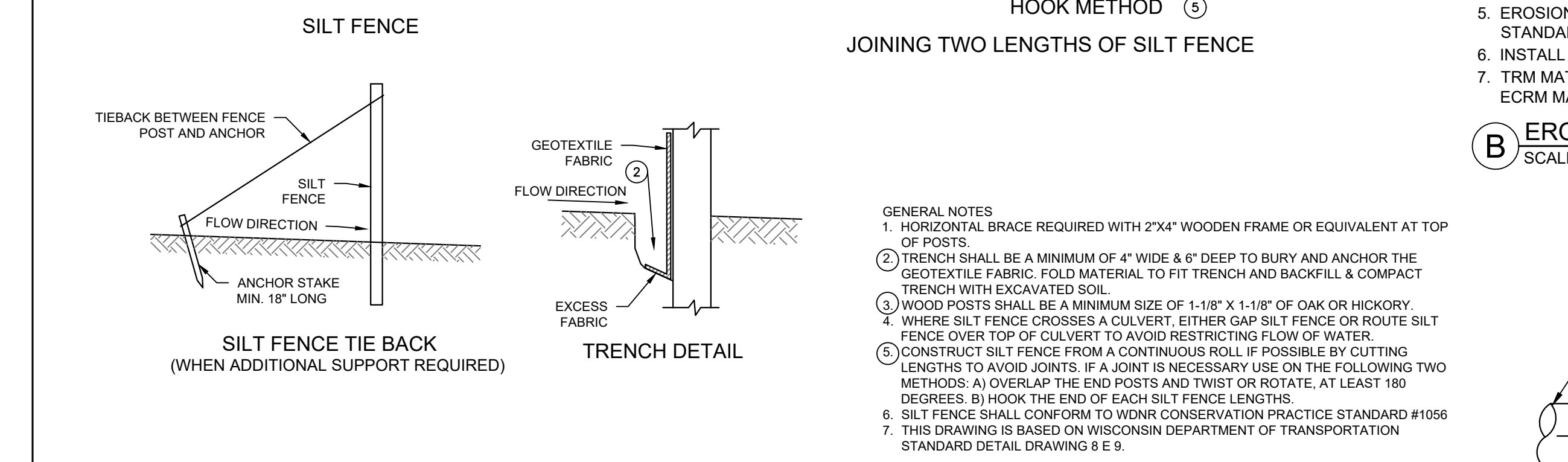
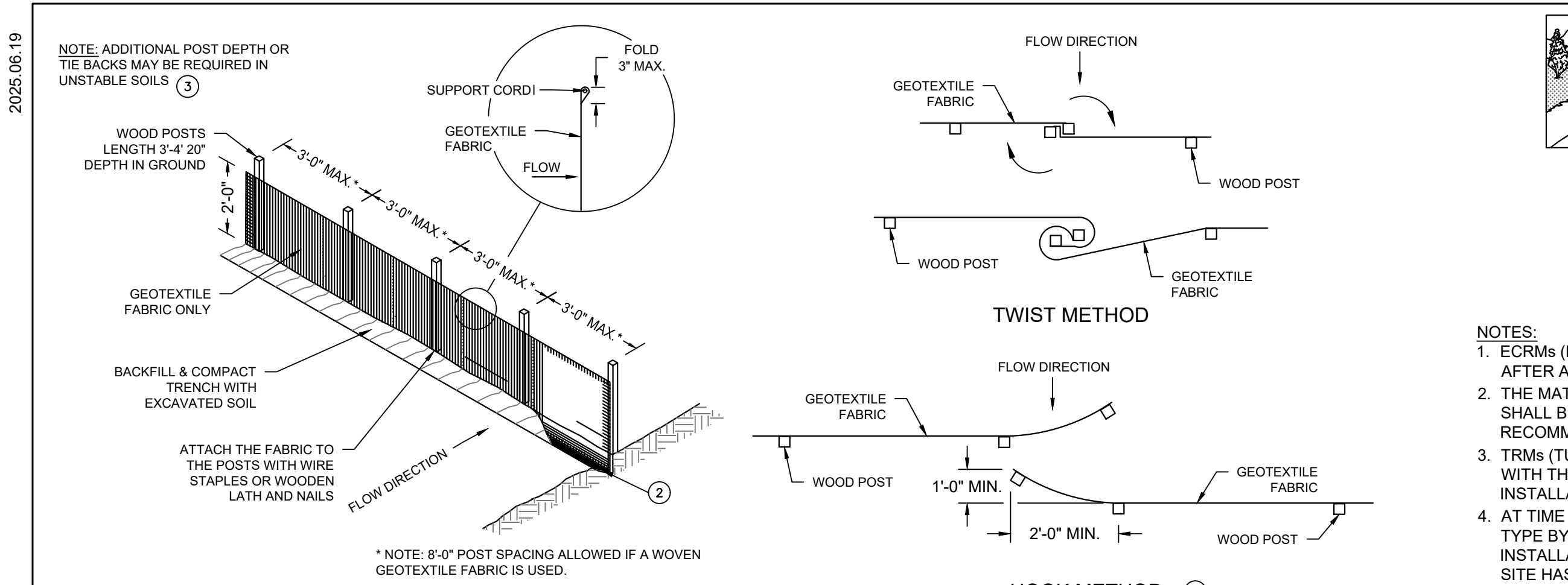
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GENERAL:

1. EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY, AND NO RESPONSIBILITY IS ASSUMED BY THE OWNER OR ENGINEER FOR THEIR ACCURACY OR COMPLETENESS.
2. CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR SHALL HAVE SITE MARKED BY DIGGER'S HOTLINE AND SHALL HAVE PRIVATE UTILITIES MARKED BY A PRIVATE UTILITY LOCATOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL VERIFY ALL ELEVATIONS, LOCATIONS, AND SIZES OF EXISTING UTILITIES AND SHALL CHECK ALL UTILITY CROSSINGS AND PROPOSED CONNECTIONS FOR CONFLICTS/DISCREPANCIES PRIOR TO INITIATING CONSTRUCTION. REPORT ANY CONFLICTS OR DISCREPANCIES TO THE ENGINEER SO REDESIGN MAY OCCUR IF NEEDED.
3. LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLANS. LENGTHS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR.

SITE CLEARING:

1. EXCEPT FOR STRIPPED TOPSOIL TO OTHER MATERIALS INDICATED TO REMAIN ON OWNER'S PROPERTY, CLEARED MATERIALS SHALL BECOME CONTRACTOR'S PROPERTY AND SHALL BE REMOVED FROM PROJECT SITE.
2. MINIMIZE INTERFERENCE WITH ADJOINING ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES DURING SITE-CLEARING OPERATIONS.
3. SALVABLE IMPROVEMENTS: CAREFULLY REMOVE ITEMS INDICATED TO BE SALVAGED AND STORE ON OWNER'S PREMISES WHERE INDICATED.
4. UTILITY LOCATOR SERVICE: NOTIFY UTILITY LOCATOR SERVICE FOR AREA WHERE PROJECT IS LOCATED BEFORE SITE CLEARING.
5. DO NOT COMMENCE SITE CLEARING OPERATIONS UNTIL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE IN PLACE.
6. PROTECT AND MAINTAIN BENCHMARKS AND SURVEY CONTROL POINTS FROM DISTURBANCE DURING CONSTRUCTION.
7. LOCATE AND CLEARLY FLAG TREES AND VEGETATION TO REMAIN OR TO BE RELOCATED.
8. PROTECT EXISTING SITE IMPROVEMENTS TO REMAIN FROM DAMAGE DURING CONSTRUCTION; RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO OWNER.
9. LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF UTILITIES INDICATED TO BE REMOVED; ARRANGE WITH UTILITY COMPANIES TO SHUT OFF INDICATED UTILITIES.
10. EXISTING UTILITIES: DO NOT INTERRUPT UTILITIES SERVING FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED BY THE OWNER AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY UTILITY SERVICES.
11. FILL DEPRESSIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY SOIL MATERIAL UNLESS FURTHER EXCAVATION OR EARTHWORK IS INDICATED; PLACE FILL MATERIAL IN HORIZONTAL LAYERS NOT EXCEEDING A LOOSE DEPTH OF 6 INCHES, AND COMPACT EACH LAYER TO A DENSITY EQUAL TO ADJACENT ORIGINAL GROUND.
12. REMOVE SOD AND GRASS BEFORE STRIPPING TOPSOIL.
13. STRIP TOPSOIL TO WHATEVER DEPTHS ARE ENCOUNTERED IN A MANNER TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OR OTHER WASTE MATERIALS.
14. STOCKPILE TOPSOIL MATERIALS AWAY FROM EDGE OF EXCAVATIONS WITHOUT INTERMIXING WITH SUBSOIL. GRADE AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN DUST.
15. REMOVE EXISTING ABOVE- AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO FACILITATE NEW CONSTRUCTION.
16. SAWCUT ALL PAVEMENTS FULL DEPTH PRIOR TO REMOVAL; SAWCUTS SHALL BE IN STRAIGHT LINES PERPENDICULAR AND/OR PARALLEL TO EXISTING PAVEMENT JOINTS AND PAVEMENT EDGES.
17. REMOVE SURPLUS SOIL MATERIAL, UNSUITABLE TOPSOIL, OBSTRUCTIONS, DEMOLISHED MATERIALS, AND WASTE MATERIALS INCLUDING TRASH AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
18. SEPARATE RECYCLABLE MATERIALS PRODUCED DURING SITE CLEARING FROM OTHER NONRECYCLABLE MATERIALS. STORE OF STOCKPILE WITHOUT INTERMIXING WITH OTHER MATERIALS AND TRANSPORT THEM TO RECYCLING FACILITIES.

STORM DRAINAGE:

1. ALL PRIVATE STORM SEWER WORK SHALL BE IN ACCORDANCE WITH THE DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES PLUMBING CODE - CHAPTERS SPS 382 AND SPS 384 AND LOCAL MUNICIPAL REQUIREMENTS.
2. ALL PUBLIC STORM SEWER WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION (STANDARD SPECIFICATIONS) AND LOCAL MUNICIPAL REQUIREMENTS.
3. PVC SEWER PIPE AND FITTINGS: ASTM D 3034, SDR 35, WITH BELL-AND-SPIGOT ENDS WITH RUBBER GASKETED JOINTS IN ACCORDANCE WITH CHAPTER 8.10.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. JOINTS SHALL CONFORM TO ASTM D-3212.
4. REINFORCED CONCRETE PIPE: ASTM C76 WITH BELL AND SPIGOT ENDS AND GASKETED JOINTS WITH ASTM C443 RUBBER GASKETS IN ACCORDANCE WITH CHAPTER 8.6.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
5. HDPE PIPE: ADS N12 PIPE AS APPROVED ON THE DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES PLUMBING PRODUCT REGISTER.
6. CATCH BASINS: STANDARD PRECAST CONCRETE CATCH BASINS CONFORMING TO CHAPTER 3.6.0 OF THE STANDARD SPECIFICATIONS AND IN GENERAL CONFORMANCE WITH FILE NO. 26 OF THE STANDARD SPECIFICATIONS. DEPTH AND DIAMETER AS INDICATED ON PLANS. CATCH BASIN SIZES TO BE VERIFIED BY CONTRACTOR AND SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING STRUCTURES.
7. FRAMES AND GRATES: AS INDICATED ON PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING SPECIFIED FRAME/GRATE IS COMPATIBLE WITH STRUCTURE; IF NOT, NOTIFY ENGINEER.
8. MANHOLES: STANDARD PRECAST REINFORCED CONCRETE MANHOLES CONFORMING TO ASTM C478, SECTION 8.39.0 OF THE STANDARD SPECIFICATIONS AND CONFORMING TO FILE NOS. 12, 13 AND 15 OF THE STANDARD SPECIFICATIONS. DIAMETER AND DEPTH AS INDICATED ON PLANS. MANHOLE SIZES TO BE VERIFIED BY CONTRACTOR AND SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING STRUCTURES.
9. MANHOLES AND CATCH BASINS DEEPER THAN FOUR FEET SHALL BE PROVIDED WITH MANHOLE STEPS CONFORMING TO SECTION 8.40.0 OF THE STANDARD SPECIFICATIONS.
10. SEWERS SHALL BE INSTALLED IN CONFORMANCE WITH SECTION 3.2.0 OF THE STANDARD SPECIFICATIONS. INSTALL PROPER SIZE INCREASERS, REDUCERS AND COUPLINGS WHERE DIFFERENT SIZES OR MATERIALS OF PIPES AND FITTINGS ARE CONNECTED. INSTALL TRACER PIPE OVER NON-METALLIC PIPING IN ACCORDANCE WITH SPS SECTION 382.30(11)(H) AND 382.36(7)(D).
11. PROVIDE AND INSTALL CLEANOUTS IN ACCORDANCE WITH SPS CHAPTER 382.35. INSTALL CLEANOUTS AND RISER EXTENSIONS FORM SEWER PIPES TO PROPOSED GRADE. INSTALL PIPING SO CLEANOUTS OPEN IN DIRECTION OF FLOW IN SEWER PIPE. USE LIGHT DUTY, TOP LOADING CLASSIFICATION CLEANOUTS IN EARTH OR UNPAVED FOOT TRAFFIC AREAS; USE MEDIUM DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN PAVED FOOT TRAFFIC AREAS; USE HEAVY DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN VEHICULAR TRAFFIC AREAS. SET CLEANOUT FRAMES AND COVERS IN PAVEMENT AREAS FLUSH WITH PAVEMENT SURFACE.
12. CLASS B COMPACTED TRENCH SECTION (FILE NO. 4 OF STANDARD SPECIFICATIONS) SHALL BE UTILIZED. BEDDING AND COVER MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 8.43.0 OF THE STANDARD SPECIFICATIONS.
13. TRENCH BACKFILL MATERIAL SHALL BE GRANULAR BACKFILL IN ACCORDANCE WITH SECTION 8.43.4 OF THE STANDARD SPECIFICATIONS BENEATH AND WITHIN FIVE FEET OF PAVEMENT AREAS; COMPACTED SPOIL BACKFILL IN ACCORDANCE WITH SECTION 8.43.5 OF THE STANDARD SPECIFICATIONS MAY BE USED BENEATH LANDSCAPE AREAS.
14. MANHOLE INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 3.5.0 OF THE STANDARD SPECIFICATIONS. SET MANHOLE RIMS TO ELEVATIONS INDICATED ON PLANS.
15. CATCH BASIN INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 3.6 OF THE STANDARD SPECIFICATIONS. CATCH BASIN EXCAVATION AND PREPARATION SHALL BE IN ACCORDANCE WITH SECTION 3.5.4(A) AND (B) OF THE STANDARD SPECIFICATIONS. FRAMES AND GRATES SHALL BE SET TO THE ELEVATIONS SHOWN ON THE PLANS.
16. AFTER INSTALLATION OF SEWER PIPE CLEAN ALL DEBRIS FROM SEWER AND INSPECT INTERIOR OF PIPING TO DETERMINE WHETHER LINE DISPLACEMENT OR OTHER DAMAGE HAS OCCURRED. CONDUCT DEFLECTION TESTING OF INSTALLED PIPE IN ACCORDANCE WITH SECTION 3.2.6(I)(4) OF THE STANDARD SPECIFICATIONS; REPLACE ANY PIPE SECTION NOT PASSING THE DEFLECTION TESTING USING NEW PIPE MATERIALS.

EARTH MOVING:

1. ALL EARTHWORK SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER PRESENTED IN THE GEOTECHNICAL REPORT, GEOTECHNICAL ENGINEER RECOMMENDATIONS MADE IN THE FIELD AND THESE SPECIFICATIONS. IN CASE OF CONFLICT BETWEEN THESE SPECIFICATIONS AND THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER, THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER SHALL GOVERN.
2. CONTRACTOR SHALL PROVIDE MATERIAL TEST REPORTS FROM A QUALIFIED TESTING AGENCY INDICATING TEST RESULTS FOR CLASSIFICATION ACCORDING TO ASTM D2487 AND LABORATORY COMPACTION CURVES ACCORDING TO ASTM D 1557 FOR EACH ON-SITE AND OFF-SITE SOIL MATERIAL PROPOSED FOR FILL AND BACKFILL.
3. CONTRACTOR SHALL PROVIDE PREEXCAVATION PHOTOS OR VIDEOS SHOWING EXISTING CONDITIONS OF ADJOINING STRUCTURES AND SITE IMPROVEMENTS THAT MIGHT BE MISCONSTRUED AS DAMAGE CAUSED BY EARTHWORK OPERATIONS.
4. OLD BUILDING FOUNDATIONS, BUILDING REMNANTS OR UNSUITABLE BACKFILL MATERIAL SHALL BE COMPLETELY REMOVED FROM WITHIN AND A MINIMUM OF 10 FEET BEYOND THE NEW BUILDING PAD AREAS. THE RESULTING EXCAVATION SHALL BE BACKFILLED WITH COMPACTED ENGINEERED FILL.
5. FOUNDATIONS, FOUNDATION WALLS OR CONCRETE FLOOR SLABS SHALL BE REMOVED TO A MINIMUM OF TWO FEET BELOW PROPOSED SUBGRADE WITHIN PROPOSED PARKING AND GREENSPACE AREAS. BASEMENT SLABS LOCATED BELOW 2 FEET FROM PLANNED SUBGRADE ELEVATION MAY BE LEFT IN PLACE BUT SHALL BE BROKEN INTO MAXIMUM 6 INCH PIECES TO FACILITATE DRAINAGE.
6. SATISFACTORY SOILS FOR FILL: ASTM D 2487 SOIL CLASSIFICATION GROUPS GW, GP, SM, SW, SP, AND SM, OR A COMBINATION OF THESE GROUPS; FREE OF ROCK OR GRAVEL LARGER THAN 3 INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION, AND OTHER DELETERIOUS MATTER OR ANY SOIL GROUP OR COMBINATION OF GROUPS APPROVED OF BY THE PROJECT GEOTECHNICAL ENGINEER.
7. UNSATISFACTORY SOILS FOR FILL: SOIL CLASSIFICATION GROUPS GC, SC, CL, ML, OH, CH, MH, OH, AND PT ACCORDING TO ASTM D 2487 OR A COMBINATION OF THESE GROUPS UNLESS DEEMED SATISFACTORY BY THE PROJECT GEOTECHNICAL ENGINEER. UNSATISFACTORY SOILS ALSO INCLUDE SOILS NOT MAINTAINED WITHIN 3 PERCENT OF OPTIMUM SOIL MOISTURE CONTENT AT THE TIME OF COMPACTION.
8. AGGREGATE BASE COURSE BENEATH PAVEMENTS: SHALL BE 1-1/4" DENSE GRADED BASE COURSE CONFORMING TO SECTION 305 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION.
9. ENGINEERED FILL: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND; ASTM D 2940; WITH AT LEAST 90 PERCENT PASSING A 1/2-INCH (37.5-MM) SIEVE AND NOT MORE THAN 12 PERCENT PASSING A NO. 200 SIEVE OR ANY SOIL DEEMED ACCEPTABLE FOR ENGINEERED FILL BY THE PROJECT GEOTECHNICAL ENGINEER. ENGINEERED FILL SHALL BE FREE OF ORGANIC, FROZEN, OR OTHER DELETERIOUS MATERIAL AND HAVE A MAXIMUM PARTICLE SIZE LESSER THAN 3 INCHES. CLAY FILLS SHALL HAVE A LIQUID LIMIT OF LESS THAN 49 AND PLASTICITY INDEX BETWEEN 11 AND 25.
10. BEDDING COURSE FOR SEWERS AND WATER SERVICE: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND CONFORMING TO THE REQUIREMENTS OF SECTION 8.43.2 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
11. DRAINAGE COURSE BENEATH BUILDING SLABS: NARROWLY GRADED MIXTURE OF WASHED, CRUSHED STONE, OR CRUSHED OR UNCRUSHED GRAVEL; ASTM D 448; COARSE-AGGREGATE GRADING SIZE 57; WITH 100 PERCENT PASSING A 1/2-INCH (37.5-MM) SIEVE AND 0 TO 5 PERCENT PASSING A NO. 8 SIEVE.
12. TRENCH BACKFILL MATERIAL SHALL BE GRANULAR BACKFILL IN ACCORDANCE WITH SECTION 8.43.4 OF THE STANDARD SPECIFICATIONS BENEATH AND WITHIN FIVE FEET OF PAVEMENT AREAS; COMPACTED SPOIL BACKFILL IN ACCORDANCE WITH SECTION 8.43.5 OF THE STANDARD SPECIFICATIONS MAY BE USED BENEATH LANDSCAPE AREAS.
13. PIPE COVER MATERIAL: CONFORM TO SECTION 8.43.3 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
14. PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES, AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA.
15. SHORING, SHEETING AND BRACING: SHORE, BRACE OR SLOPE BANKS OF EXCAVATION TO PROTECT WORKMEN, BANKS, ADJACENT PAVING, STRUCTURES, AND UTILITIES TO MEET OSHA REQUIREMENTS. DESIGN OF TEMPORARY SUPPORT OF EXCAVATION IS THE RESPONSIBILITY OF THE CONTRACTOR.
16. EXCAVATE TO SUBGRADE ELEVATIONS REGARDLESS OF THE CHARACTER OF SURFACE AND SUBSURFACE CONDITIONS ENCOUNTERED. UNCLASSIFIED EXCAVATED MATERIALS MAY INCLUDE ROCK, SOIL MATERIALS, AND OBSTRUCTIONS. NO CHANGES IN THE CONTRACT SUM OR THE CONTRACT TIME WILL BE AUTHORIZED FOR ROCK EXCAVATION OR REMOVAL OF OBSTRUCTIONS.
17. PROOF-ROLL SUBGRADE BELOW THE BUILDING SLABS AND PAVEMENTS WITH FULLY LOADED TANDEM AXLE DUMP TRUCK OR RUBBER TIRMED VEHICLE OF SIMILAR SIZE AND WEIGHT, TYPICALLY 9 TONS/AXLE, WHERE COHESIVE SOILS ARE ENCOUNTERED OR WITH A SMOOTH DRUMMED VIBRATORY ROLLER WHERE GRANULAR SOILS ARE PRESENT. DO NOT PROOF-ROLL WET OR SATURATED SUBGRADES AND PROOFROLL IN DRY WEATHER. PROOF ROLL IN PRESENCE OF PROJECT GEOTECHNICAL ENGINEER OR TECHNICIAN. SOILS THAT ARE OBSERVED TO RUT OR DEFLECT EXCESSIVELY UNDER THE MOVING LOAD (TYPICALLY >1") SHALL BE UNDERCUT AND REPLACED WITH PROPERLY COMPACTED ENGINEERED FILL. IN PAVEMENT AREAS WHERE UNDERCUTS ARE PERFORMED, THE EDGES OF THE OVEREXCAVATIONS SHALL BE FEATHERED INTO THE SURROUNDING SUITABLE SOIL SO THAT EDGE FAILURE OF THE OVEREXCAVATED AREA DOES NOT OCCUR.
18. DUE TO CLAYEY SOILS, IF UNDERCUTS OCCUR WITHIN PAVEMENT AREAS AND THEY ARE BACKFILLED WITH GRANULAR SOILS, THE BOTTOM OF THE OVEREXCAVATION SHALL BE SLOPED TO A DRAIN TILE THAT IS IN KIND SLOPED TOWARD THE NEAREST STORM SEWER. MINIMUM SLOPES OF SUCH DRAIN TILES SHALL BE 0.5%.
19. CONVENTIONAL DISKING AND AERATION TECHNIQUES SHALL BE USED TO DRY SOILS BEFORE PROOF ROLLING. ALLOT FOR PROPER DRYING TIME IN PROJECT SCHEDULE.
20. ENGINEERED FILL SHALL BE PLACED IN MAXIMUM LIFTS OF EIGHT INCHES OF LOOSE MATERIAL AND COMPACTED WITHIN 3% OF OPTIMUM SOIL MOISTURE CONTENT VALUE AND A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST ASTM D1557. EACH LIFT OF COMPACTED ENGINEERED FILL SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER OR TECHNICIAN.
21. EXISTING OLD FILL MATERIAL SHALL BE REMOVED BELOW FOOTINGS OR FOUNDATION SUPPORTING FILL. ENGINEERED FILL BELOW FOOTINGS SHOULD HAVE AN IN-PLACE DENSITY OF 95% OF THE MAXIMUM DRY DENSITY AND A MOISTURE CONTENT WITHIN 3% OF OPTIMUM AS DETERMINED BY ASTM D1557. ENGINEERED FILL BELOW FOOTINGS SHALL BE EVALUATED BY IN-FIELD DENSITY TESTS DURING CONSTRUCTION.
22. WHERE UNSUITABLE BEARING SOILS ARE ENCOUNTERED IN A FOOTING EXCAVATION, THE EXCAVATION SHALL BE DEEPEINED TO COMPETENT BEARING SOIL AND THE FOOTING LOWERED OR AN OVEREXCAVATION AND BACKFILL PROCEDURE PERFORMED. OVEREXCAVATION AND BACKFILL TREATMENT REQUIRES WIDENING THE DEEPEENED EXCAVATION IN ALL DIRECTIONS AT LEAST 6 INCHES BEYOND THE EDGE OF THE FOOTING FOR EACH 12 INCHES OF OVEREXCAVATION DEPTH. THE OVEREXCAVATION SHALL BE BACKFILLED UP TO FOOTING BASE ELEVATION IN MAXIMUM 8 INCH LOOSE LIFTS WITH SUITABLE GRANULAR FILL MATERIAL AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AND A MOISTURE CONTENT WITHIN 3% OF OPTIMUM AS DETERMINED BY ASTM D1557. SOILS AT FOUNDATION BEARING ELEVATION IN THE FOOTING EXCAVATIONS SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER OR TECHNICIAN.
23. A MINIMUM OF FOUR INCHES OF DRAINAGE COURSE MAT SHALL BE PLACED BELOW BUILDING FLOOR SLABS. DRAINAGE COURSE SHALL BE COMPACTED TO A MINIMUM OF 95% COMPACTION WITH RESPECT TO THE MODIFIED PROCTOR (ASTM D1557)
24. UTILITY TRENCHES FOR SEWER AND WATER SHALL CONFORM TO CLASS B COMPACTED TRENCH SECTION IN ACCORDANCE WITH FILE NO. 4 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
25. BACKFILL UTILITY TRENCHES IN 4 TO 6 INCH LOOSE LIFTS COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557. BACKFILL SHALL BE MOISTURE CONDITIONED TO BE WITH 3% OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D1557.
26. UTILITY BEDDING PLACEMENT: CONFORM TO SECTION 3.2.6 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. BEDDING MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% COMPACTION WITH RESPECT TO THE MODIFIED PROCTOR (ASTM D1557).
27. COMPACTION TESTING OF UTILITY TRENCHES SHALL BE PERFORMED ONE FOR EVERY 200 CUBIC YARDS OF BACKFILL PLACED OR ONE FOR TEST PER 200 LINEAR FEET OF TRENCH FOR EACH LIFT, WHICHEVER IS LESS.
28. AGGREGATE BASE COURSE BENEATH PAVEMENTS SHALL BE PLACED AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN 3% OF OPTIMUM AS DETERMINED BY ASTM D1557. AGGREGATE BASE SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER OR TECHNICIAN.
29. GRADING GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES. COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES, AND ELEVATIONS INDICATED. SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING.
30. TESTING AGENCY: CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM FIELD QUALITY-CONTROL TESTING.
31. FOOTING SUBGRADE TESTING: EACH ISOLATED FOOTING SHALL INCLUDE AT LEAST ONE TEST PROBE. TEST PROBES SHALL BE PERFORMED EVERY 20 LINEAR FEET IN CONTINUOUS FOOTINGS.
32. BUILDING SLAB AREA TESTING: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST 1 TEST PER LIFT FOR EVERY 2500 SQ. FT. OR LESS OF BUILDING SLAB, BUT IN NO CASE FEWER THAN 3 TESTS.
33. PAVEMENT AREA TESTING: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY LIFT FOR EVERY 2,500 SQUARE FEET OF PAVEMENT AREA, BUT IN NO CASES FEWER THAN 3 TESTS.
34. FOUNDATION WALL BACKFILL: AT EACH COMPACTED BACKFILL LAYER, AT LEAST 1 TEST PER LIFT FOR EACH 50 FEET OR LESS OF WALL LENGTH, BUT NO FEWER THAN 2 TESTS.
35. WHEN 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.
36. DISPOSAL: REMOVE SURPLUS SOIL AND WASTE MATERIAL, INCLUDING UNSATISFACTORY SOIL, TRASH, AND DEBRIS, AND LEGALLY DISPOSE OF IT OFF OWNER'S PROPERTY.

ASPHALTIC PAVING:

1. THE COMPOSITION, PLACING AND CONSTRUCTION OF ASPHALTIC PAVEMENTS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460, 465, AND 475 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION (WISDOT STANDARD SPECIFICATIONS).
2. CONTRACTOR SHALL PROVIDE PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED - INCLUDE TECHNICAL DATA AND TESTED PHYSICAL AND PERFORMANCE PROPERTIES; JOB-MIX DESIGNS: CERTIFICATION THAT MIX MEETS OR EXCEEDS WISDOT STANDARD SPECIFICATIONS; AND MATERIAL CERTIFICATES CERTIFYING COMPLIANCE WITH WISDOT STANDARD SPECIFICATIONS.
3. MANUFACTURER QUALIFICATIONS: MANUFACTURER SHALL BE REGISTERED WITH AND APPROVED BY THE DOT OF THE STATE IN WHICH PROJECT IS LOCATED.
4. ENVIRONMENTAL LIMITATIONS: DO NOT APPLY ASPHALT MATERIALS IF BASE COURSE IS WET OR EXCESSIVELY DAMP OR IF THE FOLLOWING CONDITIONS ARE NOT MET: APPLY TACK COAT WHEN AMBIENT TEMPERATURE IS ABOVE 50 DEGREES FAHRENHEIT AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35 DEGREES FAHRENHEIT FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION; PLACE ASPHALTIC CONCRETE SURFACE COURSE WHEN TEMPERATURE IS ABOVE 40 DEGREES FAHRENHEIT; BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30 DEGREES FAHRENHEIT AND RISING. PROCEED WITH PAVEMENT MARKING ONLY ON CLEAN, DRY SURFACES. DO NOT APPLY BELOW THE MINIMUM PAVEMENT TEMPERATURE AS RECOMMENDED BY THE MANUFACTURER.
5. AGGREGATES SHALL BE IN ACCORDANCE WITH SECTION 460.2.2 OF THE WISDOT STANDARD SPECIFICATIONS.
6. ASPHALT MATERIALS SHALL BE IN ACCORDANCE WITH CHAPTER 455 OF THE WISDOT STANDARD SPECIFICATIONS.
7. PAVEMENT MARKING PAINT: PROVIDE PAINT FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION'S APPROVED PRODUCTS LIST. COLOR SHALL BE WHITE UNLESS INDICATED OTHERWISE ON PLANS.
8. HOT-MIX ASPHALT: ASPHALTIC BINDER COURSE AND SURFACE COURSE SHALL BE MIXTURE LT FOR REGULAR DUTY PAVEMENT AND LT FOR HEAVY DUTY PAVEMENT COMPLYING WITH THE WISDOT STANDARD SPECIFICATIONS. ASPHALTIC BINDER SHALL BE 58-28 S UNLESS NOTED.
9. AGGREGATE BASE COURSE BENEATH PAVEMENTS: SHALL BE 1-1/4" DENSE GRADED BASE COURSE CONFORMING TO SECTION 305 OF THE WISDOT STANDARD SPECIFICATIONS.
10. PAVEMENT PLACEMENT GENERAL: ASPHALT CONCRETE PAVING EQUIPMENT, WEATHER LIMITATIONS, JOB-MIX FORMULA, MIXING, CONSTRUCTION METHODS, COMPACTION, FINISHING, TOLERANCE AND PROTECTION SHALL CONFORM TO THE REQUIREMENTS OF THE APPROPRIATE SECTIONS OF THE WISDOT STANDARD SPECIFICATIONS.
11. PREPARE AND PROOFROLL SUBGRADES AND AGGREGATE BASE COURSE AS OUTLINED IN EARTH MOVING SPECIFICATIONS PRIOR TO PLACEMENT OF ASPHALT PAVEMENTS.
12. SWEEP LOOSE GRANULAR PARTICLES FROM SURFACE OF AGGREGATE BASE COURSE PRIOR TO PAVEMENT PLACEMENT. DO NOT DISLOOSE OR DISTURB AGGREGATE EMBEDDED IN COMPACTED SURFACE OF BASE COURSE.
13. SPREAD AND FINISH ASPHALTIC MIXTURE IN ACCORDANCE WITH SECTION 450.3.2.5 OF THE WISDOT STANDARD SPECIFICATIONS. PAVEMENT THICKNESSES SHALL BE AS INDICATED ON THE PLANS.
14. PROMPTLY CORRECT SURFACE IRREGULARITIES IN PAVING COURSE BEHIND PAVER. USE SUITABLE HAND TOOLS TO REMOVE EXCESS MATERIAL FORMING HIGH SPOTS. FILL DEPRESSIONS WITH HOT-MIX ASPHALT TO PREVENT SEGREGATION OF MIX; USE SUITABLE HAND TOOLS TO SMOOTH SURFACE.
15. COMPACT ASPHALTIC PAVEMENT IN ACCORDANCE WITH SECTION 450.3.2.6 OF THE WISDOT STANDARD SPECIFICATIONS.
16. PROTECTION: AFTER FINAL ROLLING, DO NOT PERMIT VEHICULAR TRAFFIC ON PAVEMENT UNTIL IT HAS COOLED AND HARDENED. ERECT BARRICADES TO PROTECT PAVING FROM TRAFFIC UNTIL MIXTURE HAS COOLED ENOUGH NOT TO BECOME MARKED.
17. THICKNESS TOLERANCE: COMPACT EACH COURSE TO PRODUCE THE THICKNESS INDICATED WITHIN PLUS/MINUS 1/4 INCH FOR BINDER COURSE AND PLUS 1/4 INCH FOR SURFACE COURSE, NO MINUS.
18. SURFACE SMOOTHNESS TOLERANCE: COMPACT EACH COURSE TO PRODUCE A SURFACE SMOOTHNESS WITHIN THE FOLLOWING TOLERANCES AS DETERMINED BY BEING A 10-FOOT STRAIGHTEDGE APPLIED TRANSVERSELY OR LONGITUDINALLY TO PAVED AREAS: BINDER COURSE: 1/4 INCH; SURFACE COURSE: 1/8 INCH. REMOVE AND REPLACE ALL HUMPS OR DEPRESSIONS EXCEEDING THE SPECIFIED TOLERANCES.
19. DO NOT APPLY PAVEMENT-MARKING PAINT UNTIL LAYOUT, COLORS, AND PLACEMENT HAVE BEEN VERIFIED WITH ENGINEER.
20. APPLY MARKINGS TO A DRY SURFACE FREE FROM FROST. REMOVE DUST, DIRT, OIL, GREASE, GRAVEL, DEBRIS OR OTHER MATERIAL THAT MAY PREVENT BONDING TO THE PAVEMENT.
21. APPLY PAINT AS THE MANUFACTURER SPECIFICS WITH MECHANICAL EQUIPMENT TO PRODUCE PAVEMENT MARKINGS, OF DIMENSIONS INDICATED, WITH UNIFORM, STRAIGHT EDGES. APPLY AT MANUFACTURER'S RECOMMENDED RATES AT A MINIMUM RATE OF 17.6 GALLONS/MILE FOR A CONTINUOUS 4" LINE.
22. TESTING AGENCY: CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS AND TO PREPARE TEST REPORTS.

BIOFILTRATION BASIN:

1. BIOFILTRATION BASIN SHALL BE CONSTRUCTED IN GENERAL ACCORDANCE WITH WDNR TECHNICAL STANDARD 1004: BIORETENTION FOR INFILTRATION AND THESE SPECIFICATIONS.
2. ENGINEERED SOIL MIX SHALL CONSIST OF A MIX OF 70 TO 85% SAND AND 15 TO 30% COMPOST BASED ON VOLUME. SAND SHALL MEET THE REQUIREMENTS FOR FINE AGGREGATE SAND SPECIFIED SECTION 501.2.5.3.4 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION OR MEET ASTM C33 (FINE AGGREGATE CONCRETE SAND).
3. PRIOR TO PLACEMENT IN THE BIOFILTRATION BASIN, THE ENGINEERED SOIL SHALL BE PREMIXED AND THE MOISTURE CONTENT SHALL BE LOW ENOUGH TO PREVENT CLUMPING AND COMPACTION DURING PLACEMENT.
4. THE ENGINEERED SOIL SHALL BE PLACED IN MULTIPLE LIFTS, EACH APPROXIMATELY 12 INCHES IN DEPTH.
5. ENGINEERED SOIL MIX SHALL BE FREE OF ROCKS, STUMPS, ROOTS, BRUSH OR OTHER MATERIAL OVER ONE INCH IN DIAMETER. NO OTHER MATERIALS SHALL BE MIXED WITH THESE PLANTING SOIL THAT MAY BE HARMFUL TO PLANT GROWTH OR BE A HINDRANCE TO PLANTING OR MAINTENANCE.
6. ENGINEERED SOIL AND GRAVEL SHALL BE IN ACCORDANCE WITH THE LATEST WDNR TECHNICAL STANDARD 1004.
7. PEA GRAVEL SHALL BE GRADED SUCH THAT MINIMUM PARTICLE SIZE IS LARGE ENOUGH TO PREVENT FALLING THROUGH PERFORATIONS OF THE UNDERDRAIN PIPE.
8. BIOFILTRATION BASIN DRAIN PIPE: 6-INCH SCHEDULE 40 PVC PIPE MEETING PERFORATION REQUIREMENTS OF AASHTO M278 HIGHWAY UNDERDRAIN SPECIFICATIONS WITH 3/8" PERFORATIONS ON 6" CENTERS WITH 4 HOLES PER ROW.
9. BEEHIVE INLET: NEENAH R-2561, OR EQUAL
10. RISER STRUCTURE: 36" DIAMETER PRECAST CATCH BASIN STRUCTURE WITH 24" TOP OPENING TO ACCOMMODATE BEEHIVE INLET. IN GENERAL ACCORDANCE WITH FILE NO. 26 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
11. GRAVEL STORAGE LAYER (IF INDICATED ON PLANS): COURSE AGGREGATE #2 IN ACCORDANCE WITH SECTION 501.2.5.4.4 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
12. FILTER FABRIC: GEOTEXTILE FABRIC IN ACCORDANCE WITH SECTION 645.2.2.4 OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION
13. EXCAVATE TO GRADES AS INDICATED ON PLANS.
14. CONSTRUCT TEMPORARY DIVERSION SWALES OR PROVIDE OTHER MEANS AS NECESSARY TO PREVENT CONSTRUCTION SITE RUNOFF FROM DISTURBED AREAS, AND RUNOFF FROM PERVIOUS AREAS WHICH HAVE NOT YET BEEN STABILIZED, FROM ENTERING THE BIORETENTION AREA.
15. CONSTRUCTION SHALL BE SUSPENDED DURING PERIODS OF RAINFALL OR SNOWMELT. CONSTRUCTION SHALL REMAIN SUSPENDED IF PONDED WATER IS PRESENT OR IF RESIDUAL SOIL MOISTURE CONTRIBUTES SIGNIFICANTLY TO THE POTENTIAL FOR SOIL SMEARING, CLUMPING OR OTHER FORMS OF COMPACTION.
16. COMPACTION AND SMEARING OF THE ENGINEERED SOIL AND TOP SOIL BENEATH THE FLOORS, IN THE SOIL PLANTING BED, AND THE SIDE SLOPES OF THE BASIN, AND COMPACTION OF THE ENGINEERED SOILS IN THE BASIN SHALL BE MINIMIZED. DURING SITE DEVELOPMENT, THE AREA DEDICATED TO THE BIOFILTRATION BASIN SHALL BE CORDONED OFF TO PREVENT ACCESS BY HEAVY EQUIPMENT. ACCEPTABLE EQUIPMENT FOR CONSTRUCTING THE BIOFILTRATION BASIN INCLUDES EXCAVATION HOES, LIGHT EQUIPMENT WITH TURF TYPE TIRES, MARSH EQUIPMENT OR WIDE-TRACK LOADERS.
17. IF COMPACTION OCCURS AT THE BASE OF THE BIOFILTRATION BASIN, THE SOIL SHALL BE CORRECTED TO A DEPTH OF AT LEAST 12 INCHES. IF SMEARING OCCURS, THE SMEARED AREAS OF THE INTERFACE SHALL BE RECTIFIED BY RAKING OR ROTO-TILLING.
18. STEPS MAY BE TAKEN TO INDUCE MILD SETTLING OF THE ENGINEERED SOIL BED AS NEEDED TO PREPARE A STABLE PLANTING MEDIUM AND TO STABILIZE THE PONDING DEPTH. VIBRATING PLATE-STYLE COMPACTORS SHALL NOT BE UTILIZED.
19. ANY SEDIMENT ACCUMULATED IN THE BASIN DUE TO CONSTRUCTION ACTIVITIES SHOULD BE REMOVED AND THE ENGINEERED SOIL SHALL BE DEEP TILLED PRIOR TO PLANTING.
20. IMPERVIOUS LINER SHALL BE 45 MIL FIRESTONE EPDM (GSI PRODUCTS), OR 30 MIL PVC (GSI PRODUCTS), OR EQUAL.



SPECIFICATIONS

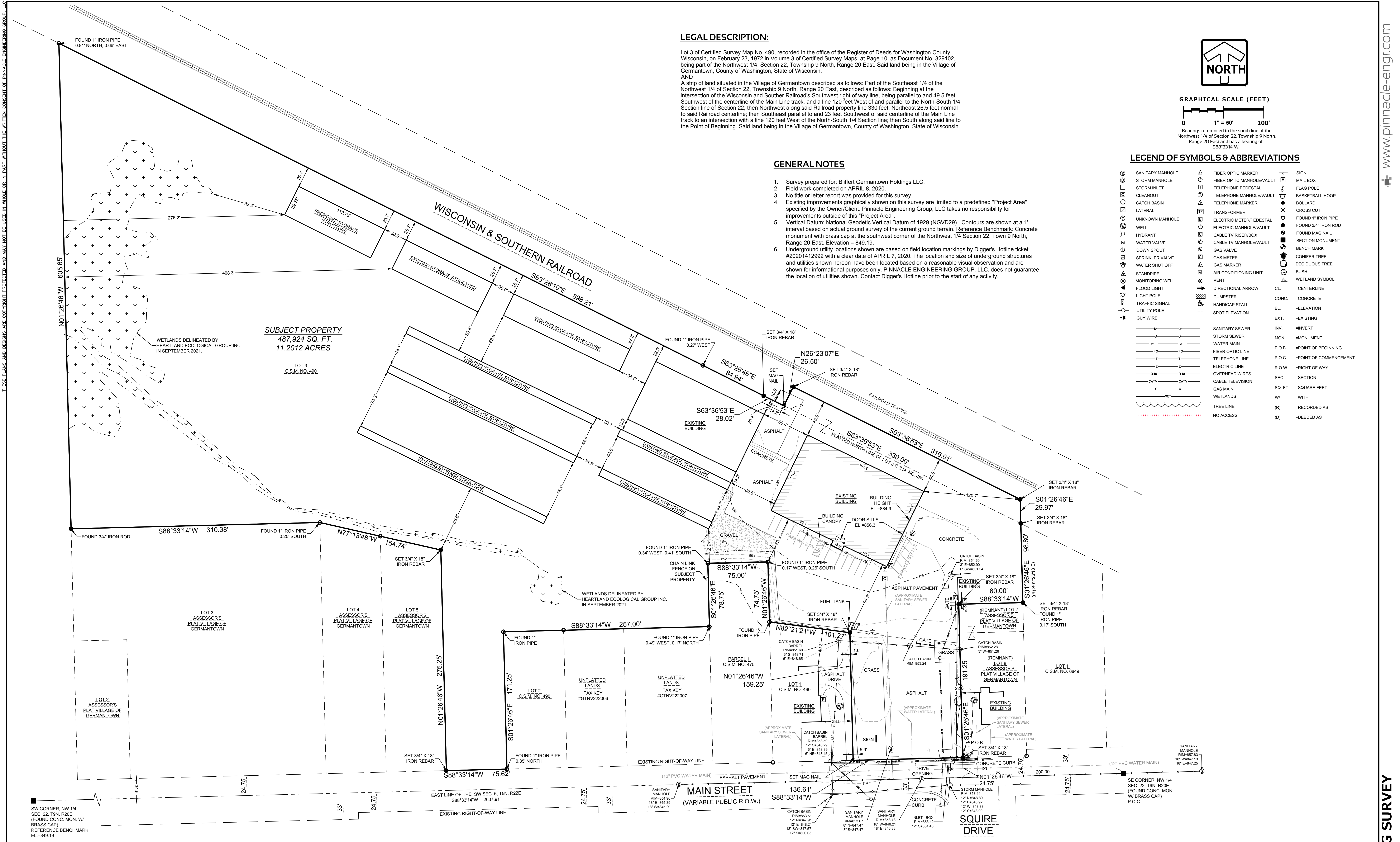
SPECIFICATIONS

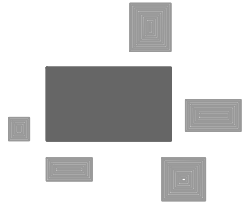
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PLAN | DESIGN | DELIVER

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PINNACLE ENGINEERING GROUP

ENGINEERING | NATURAL RESOURCES | SURVEYING

WISCONSIN OFFICE:
20725 WATERTOWN ROAD SUITE 100
BROOKFIELD, WI 53186
(262) 754-8888

CHICAGO | MILWAUKEE | NATIONWIDE

N116W16474 MAIN STREET

BEING LOT 3 OF C.S.M. NO. 490 AND ADDITIONAL LANDS IN THE SE 1/4 OF THE NW 1/4 OF SEC. 22, T9N, R20E, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN

EXISTING SURVEY

REVISIONS	

REG. JOB NO. 2000.10

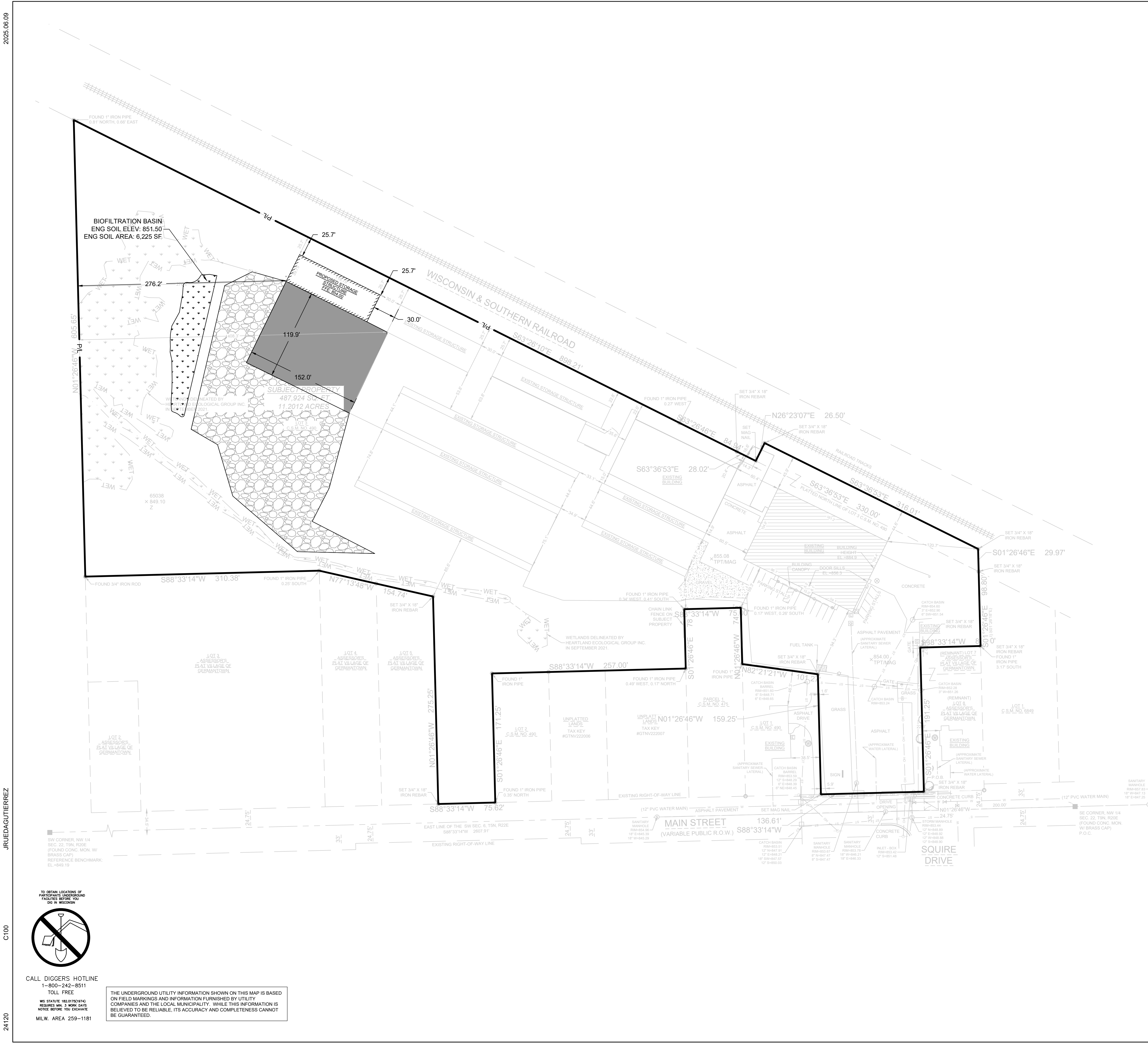
REG. FIRM ASZ

DATE 03/19/2025

SCALE 1"=50'

SHEET 1 of 1

EXISTING SURVEY



SITE INFORMATION			
SITE AREA	487924	11.201 AC	
SITE DISTURBED AREA	76670	1.760 AC	
EXISTING IMPERVIOUS AREA	257505	5.912 AC	52.8 %
PROPOSED IMPERVIOUS AREA	292800	6.722 AC	60.0 %

THE

SIGMA

GROUP

Single Source. Sound Solutions.

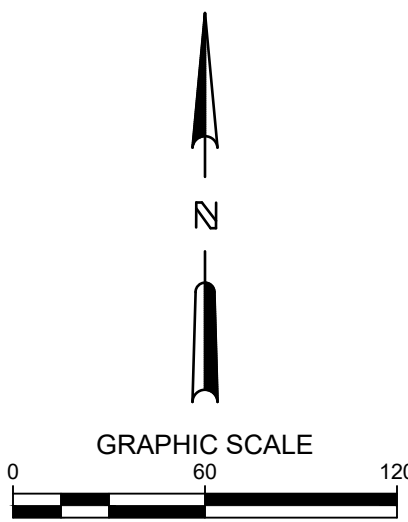
www.thesigmagroup.com

1300 West Canal Street

Milwaukee, WI 53233

Phone: 414-643-4200

Fax: 414-643-4210



BLIFFERT GERMANTOWN
N116 W16474 MAIN ST
GERMANTOWN, WI 53022

SITE DIMENSION PLAN

LEGEND:

ASPHALT SURFACE

GRAVEL SURFACE

PRELIMINARY
NOT FOR
CONSTRUCTION

ISSUANCE	DATE
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NO. REVISION	DATE
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- GENERAL NOTES:**
- THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS DRAWING IS BASED ON FIELD LOCATIONS AND/OR RECORDS FURNISHED BY MUNICIPALITIES AND UTILITY COMPANIES. THE LOCATION AND ACCURACY OF WHICH CANNOT BE GUARANTEED. THERE MAY BE ADDITIONAL UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
 - VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
 - WORK TO BE COMPLETED IS INDICATED IN BOLD TYPE LINES AND EXISTING CONDITIONS ARE INDICATED BY LIGHT TYPE LINES.
 - ELECTRONIC CIVIL FILES ARE AVAILABLE UPON WRITTEN REQUEST. DO NOT USE ELECTRONIC CIVIL FILES TO LAYOUT FOUNDATIONS, COLUMN LINES, LIGHT POLES, OR OTHER NON CIVIL SITE WORK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDING AND ARCHITECTURAL FEATURES.
 - DIMENSIONS ARE FROM FACE OF CURB OR EDGE OF PAVEMENT.
 - WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING BUT NOT LIMITED TO DRIVEWAY OPENINGS, SIDEWALK AND RAMPS, PAVING, AND CURB AND GUTTER SHALL BE COMPLETED PER MUNICIPAL AND/OR COUNTY REQUIREMENTS AND STANDARDS.
 - EARTHWORK SHALL BE IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

PROJECT NO:	24120
DESIGN DATE:	----
PLOT DATE:	2025.06.09
DRAWN BY:	----
CHECKED BY:	----
APPROVED BY:	----
SHEET NO:	

C100

2025.06.09

JRUEDAGUTIERREZ

C200

24/120



CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE
WIS. STATUTE 182.07(2)(197A)
REQUIRES MIN. 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE
MILW. AREA 259-1181

THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS MAP IS BASED ON FIELD MARKINGS AND INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED.

FOUND 1" IRON PIPE
0.81' NORTH, 0.66' EAST

BIOFILTRATION BASIN
ENG SOIL ELEV: 851.50
ENG SOIL AREA: 6,225 SF

STORM OCS
RIM:952.05
12" SW INV:849.50

20.2 L.F. of 12" STORM @ 2.47%

STORM FES
12" NE INV:849.00

FOUND 3/4" IRON ROD

FOUND 1" IRON PIPE
0.25' SOUTH

SUBJECT PROPERTY
487,924 SQ. FT.
11.2012 ACRES

WETLANDS DELINEATED BY
WATLAND ECOLOGICAL GROUP INC.
IN SEPTEMBER 2021.

C.S.M. NO. 490

PROPOSED STORAGE
STRUCTURE
FFE: 854.00

WISCONSIN & SOUTHERN RAILROAD

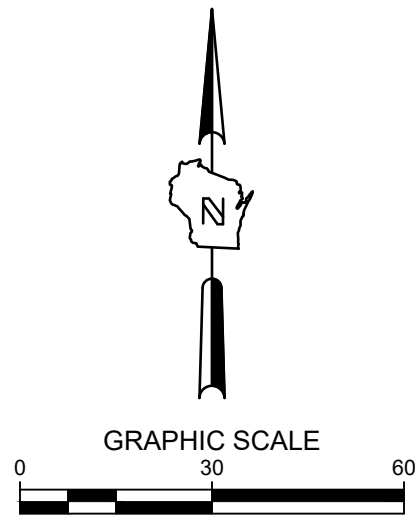
EXISTING STORAGE STRUCTURE

EXISTING STORAGE STRUCTURE

- LEGEND:**
- ASPHALT SURFACE
 - GRAVEL SURFACE
 - GRADE BREAK LINE
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - PROPOSED CURB & GUTTER SPOT GRADE
T/C: TOP OF CURB GRADE
FL: FLOW LINE CURB GRADE
 - PROPOSED SURFACE SPOT GRADE
 - PROPOSED TOP OF WALL AT FINISHED GRADE
PROPOSED BOTTOM OF WALL AT FINISHED GRADE
 - EXISTING SURFACE SPOT GRADE (MATCH)

- GENERAL NOTES:**
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 - VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
 - WORK TO BE COMPLETED IS INDICATED IN BOLD TYPE LINES AND EXISTING CONDITIONS ARE INDICATED BY LIGHT TYPE LINES.
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 - EARTHWORK SHALL BE IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

THE **SIGMA** GROUP
Single Source. Sound Solutions.
www.thesigmagroup.com
1300 West Canal Street
Milwaukee, WI 53233
Phone: 414-643-4200
Fax: 414-643-4210



BLIFFERT GERMANTOWN
N116 W16474 MAIN ST
GERMANTOWN, WI 53022

GRADING PLAN

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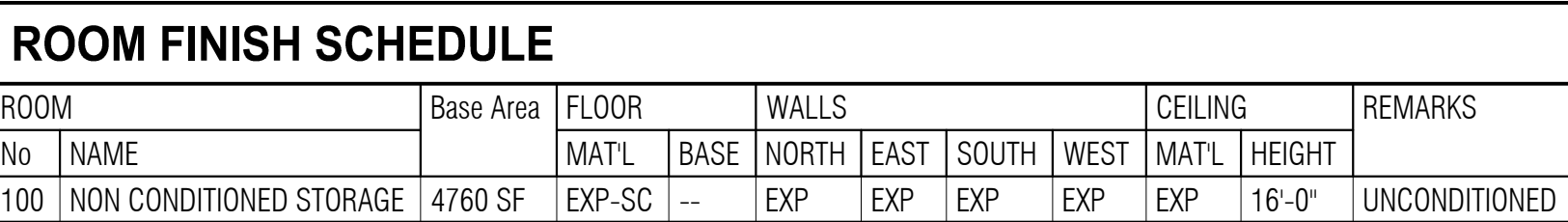
ISSUANCE	DATE
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NO. REVISION	DATE
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PROJECT NO:	24120
DESIGN DATE:	----
PLOT DATE:	2025.06.09
DRAWN BY:	----
CHECKED BY:	----
APPROVED BY:	----
SHEET NO:	C200

the CONSORTIUM ae PROJECT #:0021-13

WISCONSIN
05-10-21
GREGG M
PROSSEN
E-28075
MILWAUKEE
WI
PROFESSIONAL ENGINEER

The map displays the Germantown area in Maryland. A red star indicates the location of Bliffer Lumber & Hardware, situated near the intersection of Main St and Knight Dr. Other notable businesses and landmarks include Carriage Hill Apartment, Wright Auto Repair, Gehl Foods, and McDonald's. The map also shows major roads like I-495 and I-270, and parks like Haupt Strasse Park. The map is oriented with North at the top.

ACCESSIBILITY: WORK PROPOSED PROVIDES ACCESSIBLE COMPLIANT PATH PROVIDED TO PRIMARY FUNCTION PER IBC 1104.4.

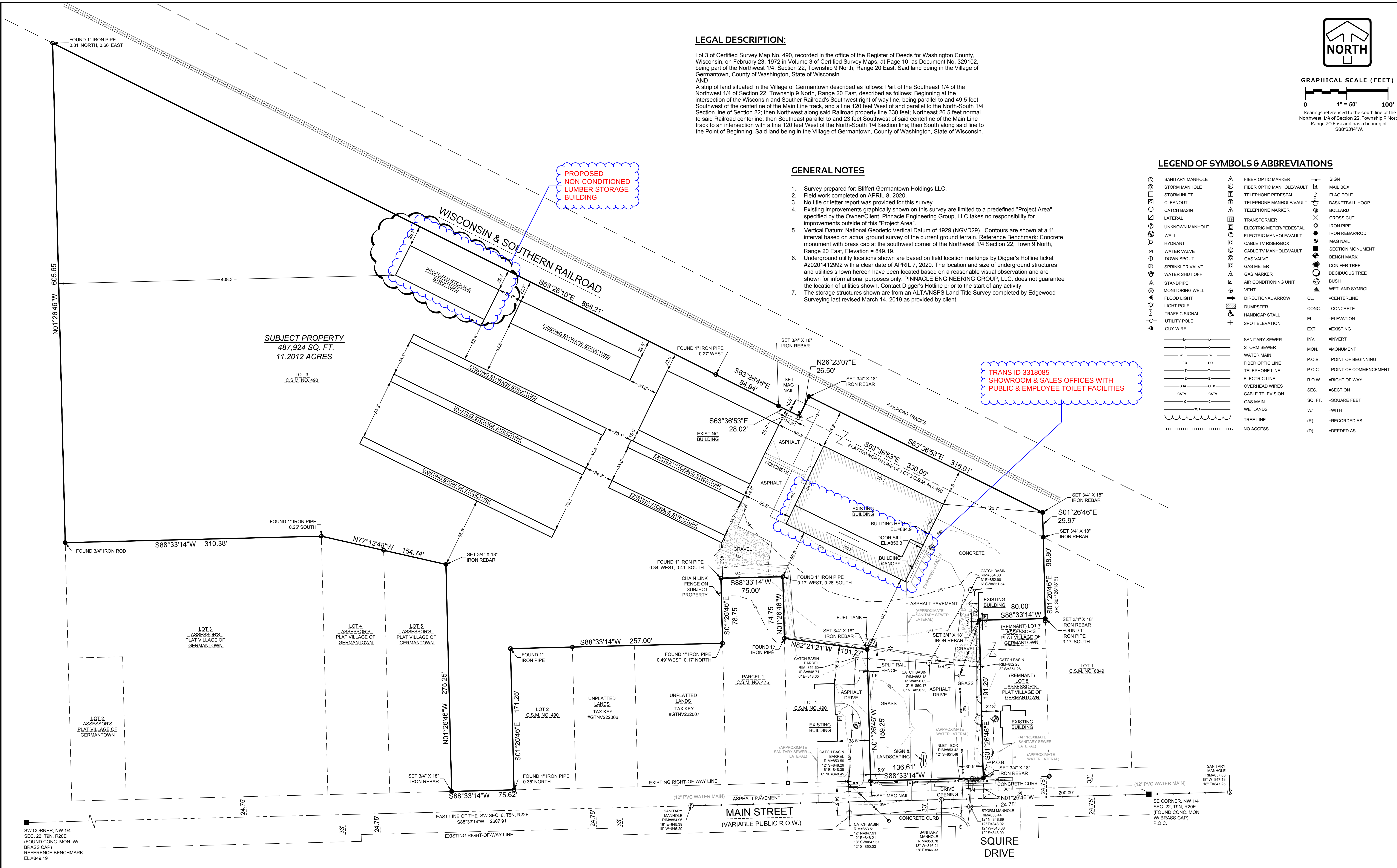


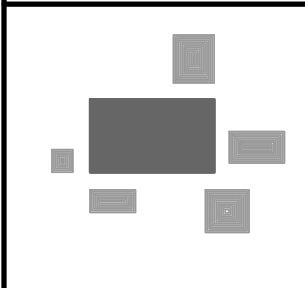
GENERAL DOOR & FRAME NOTES:
 HS-1 1.5 PAIR BB HINGES, CLOSER, LOCKSET (ACCESSIBLE STYLE LEVER HANDLE)
 HS-2 SURFACE MOUNTED BARN DOOR STYLE HARDWARE FOR BI-PARTING DOORS. OPENING 20' WIDE x 14' HIGH

N116 W16522 MAIN STREET
Location:
GERMANTOWN WI 53022

A1.00

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DESIGNED: ASZ
REVIEWED: ASZ
DRAFTED: BR





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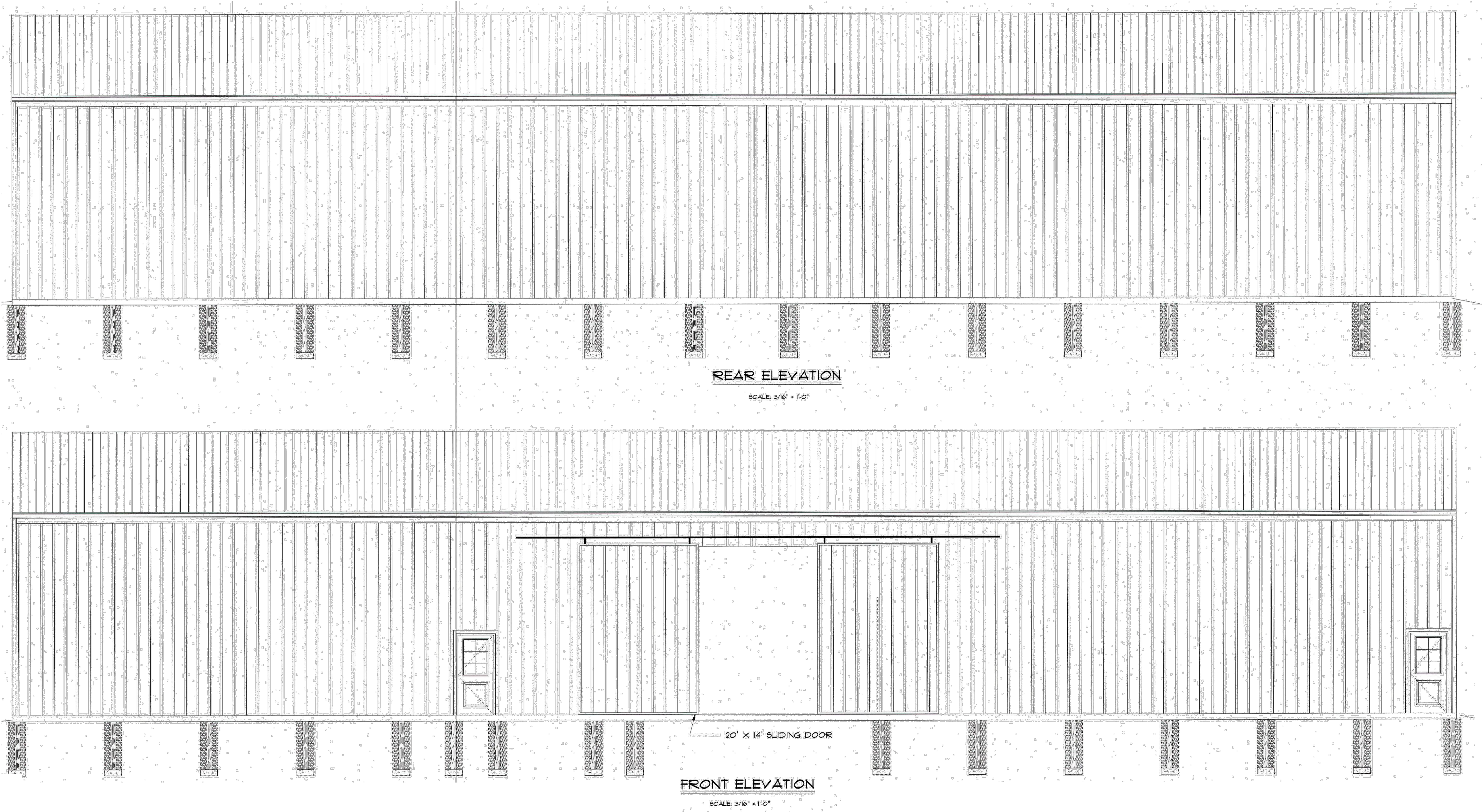
WISCONSIN OFFICE:
20725 WATERTOWN ROAD, SUITE 100
BROOKFIELD, WI 53186
(262) 754-8888
CHICAGO | MILWAUKEE | NATIONWIDE

BLIFFERT LUMBER PROPOSED STORAGE STRUCTURE VILLAGE OF GERMANTOWN

PROPOSED SITE PLAN

REVISIONS	

REG JOB NO. 2000.00-WI	ASZ	SHEET
REG PM	ASZ	C-2
START DATE	9/15/20	C-2
SCALE	1" = 50'	



Project:
BLIFFERT
GERMANTOWN
LUMBER YARD COLD
STORAGE BUILDING

N116 W16522 MAIN STREET
Location:
GERMANTOWN WI 53022

Sheet:
BUILDING ELEVATIONS

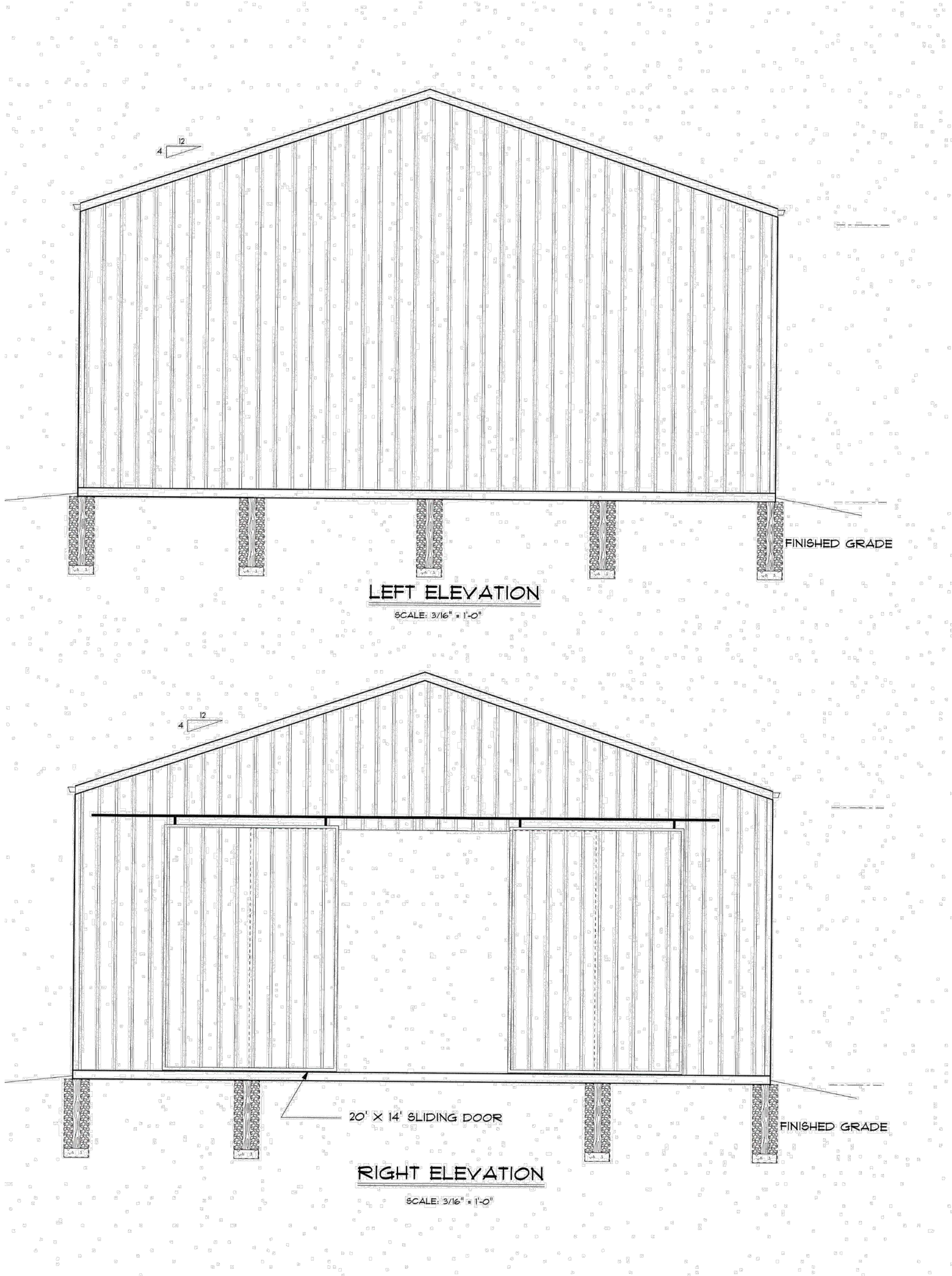
Date: Issue Set:

Date:
2021-05-10

Project No.:
0021-13

Sheet No.:

A4.00



Project:
**BLIFFERT
GERMANTOWN
LUMBER YARD COLD
STORAGE BUILDING**

N116 W16522 MAIN STREET
Location:
GERMANTOWN WI 53022

Sheet:
BUILDING ELEVATIONS

Date:	Issue Set:

Date:
2021-05-10

Project No.:
0021-13

Sheet No.:

A4.10

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B

A

GENERAL
- ALL MATERIALS, CONSTRUCTION, PLANS AND DETAILS SHALL CONFORM w/ THE APPLICABLE CODES AND STANDARDS AS SHOWN IN THESE DRAWINGS AS WELL AS THE PROJECT SPECIFICATIONS, FIRE UNDERWRITER RULES AND REGULATIONS AND ASTM STANDARDS RELATED TO EACH ELEMENT. - THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL BE FAMILIAR w/ THE ENTIRE SET OF CONSTRUCTION DOCUMENTS (NOT LIMITED TO CIVIL, ARCHITECTURAL, PLUMBING, ELECTRICAL, STRUCTURAL, AND MECHANICAL, ETC.) IN ORDER TO PROVIDE ALL CONSTRUCTION AND MATERIALS FOR THE PROJECT. - THE CONTRACTOR SHALL REFER TO ALL DRAWINGS OF THE CONSTRUCTION DOCUMENTS FOR ADDITIONAL SPECIFIED ITEMS SUCH AS MEMBERS, ELEVATIONS, BRICK LEGENDS, DIMENSIONS, SLEEVES, PENETRATIONS, DEPRESSIONS, ETC. NOT SHOWN ON THE STRUCTURAL DRAWINGS THAT MAY BE REQUIRED FOR COMPLETION OF THE PROJECT. - CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT AND STRUCTURAL ENGINEER. - DETAILS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE DUPLICATED IN SIMILAR PORTIONS OF THE BUILDING UNLESS NOTED OTHERWISE. - DRAWINGS REPRESENT THE FINISHED STRUCTURAL SYSTEM AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, LAGGING, SHORING, BRACING, FORM WORK, ETC. AS REQUIRED FOR THE PROTECTION AND SAFETY OF LIFE AND PROPERTY DURING CONSTRUCTION. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT OR STRUCTURAL ENGINEER WILL NOT INVOLVE REVIEW OF THESE ITEMS. - ALL INSPECTIONS REQUIRED BY THE BUILDING CODES, JURISDICTION OR THESE PLANS SHALL BE PROVIDED BY AN INDEPENDENT INSPECTION AGENCY OR THE BUILDING DEPARTMENT. SITE VISITS BY THE ARCHITECT OR STRUCTURAL ENGINEER DO NOT CONSTITUTE AN INSPECTION. - CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR FULL COMPLIANCE w/ ALL LOCAL, STATE AND FEDERAL REGULATIONS CONCERNING THE HEALTH AND SAFETY OF WORKERS AND THE PUBLIC IN AND AROUND THE CONSTRUCTION SITE. - CONSTRUCTION MATERIALS SHALL BE UNIFORMLY LAID OUT SUCH THAT NOTED STRUCTURAL DESIGN LIVE LOAD PER SQUARE FOOT IS NOT EXCEEDED. - PLANS ARE NOT TO BE SCALED. - NOTES ON SPECIFIC PLANS AND DETAILS AS SHOWN ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. - IN NO CASE SHALL STRUCTURAL ALTERATIONS, MODIFICATIONS OR WORK AFFECTING STRUCTURAL MEMBERS BE MADE w/OUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER. - CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS RELATED TO ELEVATOR/ESCALATOR EQUIPMENT PITS AND SHAFTS w/ SELECTED MANUFACTURER. - CONTRACTOR SHALL CONFIRM ELEVATOR/ESCALATOR/EQUIPMENT SUPPORT BEAM/GUIDE RAIL ELEVATIONS AND LOCATIONS w/ THE APPROVED ELEVATOR/ESCALATOR/EQUIPMENT SHOP DRAWINGS. - REFER TO ARCHITECTURAL DRAWINGS FOR FIRE RATING REQUIREMENTS. - UNLESS NOTED OTHERWISE, CENTERLINE OF FRAMING ELEMENTS COINCIDE w/ COLUMN CENTERLINES. FRAMING BETWEEN MEMBERS SHALL BE EQUALLY SPACED UNLESS NOTED OTHERWISE. - IF ANY ERRORS OR OMISSIONS APPEAR IN THESE DRAWINGS, SPECIFICATIONS OR OTHER DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER IN WRITING PRIOR TO PROCEEDING w/ WORK. - NO PROVISIONS HAVE BEEN MADE FOR FUTURE EXPANSION.

FOUNDATIONS
- ALL ACTIVITIES CONCERNING PREPARATION AND VERIFICATION OF THE BEARING STRATUM FOR SLAB-ON-GRADES AND FOUNDATIONS SHALL BE SUPERVISED AND APPROVED BY A QUALIFIED GEOTECHNICAL ENGINEER. - ALL EXTERIOR FOUNDATIONS SHALL BEAR BELOW THE LOCAL FROST LINE. FOUNDATIONS ARE NOT TO BE PLACED ON FROZEN SUBGRADE. - WALLS, GRADE BEAMS AND SIMILAR ELEMENTS SHALL BE BACKFILLED UNIFORMLY ON BOTH SIDES OF ELEMENTS. BELOW GRADE WALLS SHALL BE ADEQUATELY BRACED UNTIL FINAL FLOOR STRUCTURE, INCLUDING SLAB-ON-GRADE IS IN PLACE. BRACING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. DO NOT BACKFILL AGAINST ANY ELEMENT UNTIL THE DESIGN STRENGTH OF THE ELEMENT HAS BEEN ACHIEVED. - SUBGRADE PREPARATION SHALL CONSIST OF EXCAVATION TO REQUIRED FOOTING DEPTH. FOUNDATIONS SHALL EXTEND TO COMPETENT BEARING MATERIAL CONFORMING TO THE NET ALLOWABLE SOIL BEARING CAPACITY NOTED, WHERE UNSUITABLE SOIL IS ENCOUNTERED, REFER TO THE REFERENCED GEOTECHNICAL REPORT OR CONTACT THE STRUCTURAL ENGINEER FOR FURTHER DIRECTION. - AT A MINIMUM, ALL FILL BELOW FOOTINGS SHALL BE COMPACTED TO 85% OF THE MAXIMUM DRY DENSITY (ASTM D-1557, MODIFIED PROCTOR) AND PLACED IN UNIFORM LIFTS. REFER TO THE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION OR STRICTER REQUIREMENTS. - ALL BACKFILL WITH A MINIMUM OF 36" OF BASEMENT AND RETAINING WALLS SHALL BE FREE DRAINING, GRANULAR MATERIAL AND COMPACTED TO 90% STANDARD PROCTOR. MATERIALS MUST BE APPROVED BY GEOTECHNICAL ENGINEER, CONSULT GEOTECHNICAL REPORT FOR ADDITIONAL RECOMMENDATIONS. - REMOVE ANY EXISTING CONSTRUCTION TO A MINIMUM OF 24" BELOW BOTTOM OF NEW FOUNDATION. - ALL PIERS AND COLUMNS ARE CENTERED ON COLUMN CENTERLINES UNLESS NOTED OTHERWISE. - CONTRACTOR IS TO KEEP EXCAVATIONS DRY AT ALL TIMES DURING THE FOUNDATION CONSTRUCTION. ALL FOUNDATION CONCRETE SHALL BE PLACED AS SOON AS POSSIBLE AFTER EXCAVATIONS ARE OPENED. NO FOUNDATION SHALL BE PLACED IN STANDING WATER. CONTRACTOR SHALL PROVIDE MEANS FOR DETERAERING EXCAVATIONS AS REQUIRED TO ACHIEVE DRY EXCAVATIONS. - REFER TO PROJECT GEOTECHNICAL REPORT FOR GENERAL SOIL CONDITIONS AND SPECIFIC PROJECT REQUIREMENTS. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ARCHITECT IF SOIL CONDITIONS VARY FROM THOSE INDICATED IN THE GEOTECHNICAL REPORT.

CAST-IN-PLACE CONCRETE
- CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE w/ ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE." - CONCRETE SLAB CONSTRUCTION SHALL BE IN ACCORDANCE w/ ACI 302 "GUIDE TO CONCRETE FLOOR AND SLAB CONSTRUCTION." - CONCRETE MIXING, TRANSPORTING AND PLACEMENT SHALL CONFORM TO ACI 304 "GUIDE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE." - CONCRETE PLACED DURING HOT OR COLD WEATHER SHALL CONFORM TO ACI 305 "GUIDE FOR HOT WEATHER CONCRETING" AND ACI 306 "GUIDE TO COLD WEATHER CONCRETING." - CONCRETE SHALL BE MECHANICALLY CONSOLIDATED IN ACCORDANCE w/ ACI 309 "GUIDE FOR CONSOLIDATION OF CONCRETE." SLAB-ON-GRADE NEED ONLY BE VIBRATED AROUND EMBEDDED ITEMS, THICKENED SLABS, TRENCHES, FLOOR DRAINS, ETC. - CONCRETE CURING SHALL CONFORM TO ACI 308 "GUIDE TO EXTERNAL CURING OF CONCRETE" OR ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE," WHICHEVER IS APPLICABLE UNLESS ALTERNATE METHODS ARE APPROVED BY ARCHITECT AND STRUCTURAL ENGINEER. WHERE CURING COMPOUNDS ARE APPROVED, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING COMPATIBILITY w/ FLOORING PRIOR TO CURING COMPOUND APPLICATION. - MAXIMUM UNFINISHED CONCRETE FREE FALL SHALL BE LIMITED TO 5'-0". - WATER SHALL BE CLEAN AND POTABLE AND SHALL CONFORM TO ASTM C84. NO WATER SHALL BE ADDED AT THE JOBSITE UNLESS SPECIFICALLY APPROVED IN WRITING BY THE CONCRETE SUPPLIER. - CONCRETE MIXING OPERATION SHALL CONFORM TO ASTM C94. - CLEAR COVER REQUIREMENTS FOR CONCRETE REINFORCEMENT SHALL CONFORM TO THE FOLLOWING UNLESS SPECIFICALLY NOTED OTHERWISE: - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3" - CONCRETE EXPOSED TO EARTH OR WEATHER #5 AND SMALLER 1-1/2" #6 THROUGH #18 2" - CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT w/ GROUND - SLABS, WALLS, JOISTS: #11 AND SMALLER 3/4" - BEAMS, COLUMNS: PRIMARY, TIES, STIRRUPS OR SPIRALS 1-1/2" - UNLESS OTHERWISE DETAILED, PROVIDE (2) #5 BARS AROUND ALL OPENINGS AND (2) #5 DIAGONAL BARS AT ALL OPENINGS AND RE-ENTRANT CORNERS. BARS SHALL EXTEND A MINIMUM OF 30" PAST OPENING. - EXISTING SURFACES THAT ARE TO RECEIVE NEW CONCRETE SHALL BE INTENTIONALLY ROUGHENED TO AN AMPLITUDE OF 1/4" UNLESS NOTED OTHERWISE. - BASE PLATE GROUT SHALL BE NON-SHRINK, NON-METALLIC w/ A MINIMUM COMPRESSIVE STRENGTH OF 8,000 PSI. THICKNESS SHALL BE AS DETAILED. - ALL EXPOSED CONCRETE EDGES SHALL HAVE A 3/4" CHAMFER UNLESS SPECIFICALLY DETAILED OTHERWISE. TOP SURFACES OF WALLS EXPOSED TO VIEW SHALL BE FINISHED SMOOTH UNLESS NOTED OTHERWISE. - ALL REINFORCING BARS, ANCHOR BOLTS, WIRE MESH, DOWELS, AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN FINAL POSITION PRIOR TO PLACING CONCRETE. - PROVIDE SLEEVES FOR PLUMBING, ELECTRICAL AND MECHANICAL PENETRATIONS. PENETRATIONS THROUGH BEAMS AND COLUMNS ARE ONLY PERMITTED WHERE SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS INDICATING LOCATION OF ALL PENETRATIONS AND EMBEDDED CONDUIT THROUGH OR IN CONCRETE. CONCRETE IS NOT TO BE CUT OR CORED w/OUT PRIOR APPROVAL OF STRUCTURAL ENGINEER. COORDINATION OF OTHER TRADES RELATED TO THE CONCRETE WORK IS THE RESPONSIBILITY OF THE CONTRACTOR. - CONDUIT, PIPES OR SIMILAR ITEMS RUNNING THROUGH OR IN CONCRETE SHALL BE PLACED SO THEY ARE NOT CLOSER THAN 3 DIAMETERS TO CENTER. CONCRETE COVER IS NOT LESS THAN 1" AND NO REINFORCING STEEL IS DISPLACED UNLESS APPROVED BY THE STRUCTURAL ENGINEER. - CALCIUM CHLORIDE SHALL NOT BE USED IN CONCRETE MIXES. - CONTRACTOR IS RESPONSIBLE FOR REPAIR OF IRREGULARITIES OR DEFECTS IN CONCRETE WORK PRIOR TO PLACEMENT OF FINISH MATERIALS. - CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS AND TEST DATA COMPLAINT w/ REFERENCED ACI STANDARDS AND THE LOCAL BUILDING CODE. MIX DESIGNS SHALL INCLUDE THE PROJECT NAME AND INDICATE WHERE EACH MIX IS TO BE USED IN THE STRUCTURE. - CONTRACTOR SHALL HIRE A MATERIALS TESTING LABORATORY TO CAST AND TEST CYLINDERS. SAMPLING, PREPARATION AND TESTING SHALL CONFORM TO ASTM C172, ASTM C31 AND ASTM C39. TEST RESULTS MUST BE SUBMITTED TO ARCHITECT AND STRUCTURAL ENGINEER. ACCEPTANCE CRITERIA WILL BE BASED ON ACI 318. TEST RESULTS SHALL PROVIDE THE FOLLOWING INFORMATION AT A MINIMUM: - LOCATION IN PROJECT WHERE SAMPLE WAS TAKEN w/ MIX DESIGNATION. - COMPRESSIVE STRENGTH AT 7 DAYS. - COMPRESSIVE STRENGTH AT 28 DAYS. - AIR CONTENT. - SUMP. - WATER ADDED AT JOB SITE. - SHOP DRAWINGS FOR REINFORCEMENT DETAILING, FABRICATING, BENDING AND PLACING OF CONCRETE REINFORCEMENT SHALL CONFORM TO ACI 318 AND CRSI MANUAL OF STANDARD PRACTICE. BAR SCHEDULES, STIRRUP SPACING, BENT BAR DIAGRAMS, AND ARRANGEMENT OF REINFORCEMENT SHALL BE SHOWN. - CONCRETE REINFORCING BARS SHALL CONFORM TO ASTM A615 (GRADE 60). - ALL SPLICES IN CONCRETE REINFORCEMENT SHALL BE CLASS B LAP SPLICES UNLESS NOTED OTHERWISE. ADJACENT SPLICES SHALL BE STAGGERED A MINIMUM OF 4'-0" UNLESS DETAILED OTHERWISE. REFER TO LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE. - PROVIDE CORNER BARS AT ALL CORNERS AND WALL INTERSECTIONS. - SLAB-ON-GRADE CONTROL JOINTS SHALL BE PLACED AS INDICATED ON THE STRUCTURAL DRAWINGS. SAW CUTTING SHALL BE PERFORMED AS SOON AS CUT WILL NOT RAVEL THE JOINT. 1/2" EXPANSION JOINT MATERIAL SHALL BE PLACED WHERE SLABS ABUT ALL VERTICAL SURFACES. - WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064. WELDED WIRE FABRIC SHALL BE LAPPED ONE WIRE SPACE PLUS 2" FOR PLAIN WIRE AND 8" FOR DEFORMED WIRE. - SMOOTH FACED FORMS SHALL BE USED FOR ALL CONCRETE EXPOSED TO VIEW.

DESIGN INFORMATION			
BUILDING CODE			
CODE INTERNATIONAL BUILDING CODE 2015			
GRAVITY SYSTEM			
ELEMENT ROOF	DEAD LOAD 10 PSF	LIVE LOAD REFER TO SNOW LOAD	
SNOW CRITERIA			
CODE INFORMATION	DESIGN INFORMATION		
DESIGN SNOW LOAD	25 PSF PLUS DRIFT WHERE INDICATED		
FLAT ROOF SNOW LOAD	25 PSF		
SNOW EXPOSURE FACTOR	Ce = 1.0		
SNOW IMPORTANCE FACTOR	Is = 1.0		
THERMAL FACTOR	Ct = 1.2		
GROUND SNOW	Pg = 25 PSF		
RAIN ON SNOW SURCHARGE	0 PSF		
SLOPED ROOF FACTOR	Cs = 1.0		
WIND CRITERIA			
CODE INFORMATION	DESIGN INFORMATION		
BASIC WIND SPEED (3 SECOND GUST)	105 MPH (ULTIMATE)		
WIND DIRECTIONALITY FACTOR	Kd = 1.0		
MEAN ROOF HEIGHT	19.7 FT		
WIND IMPORTANCE FACTOR	Iw = 1.0		
WIND OCCUPANCY CATEGORY	I		
WIND EXPOSURE CATEGORY	B		
INTERNAL PRESSURE COEFFICIENT	GCPI = +0.18		
TOPOGRAPHIC FACTOR	Kzt = 1.0		
DESIGN PROCEDURE	SIMPLE DIAPHRAGM		
ROOF SURFACE WIND PRESSURES ULTIMATE			
AREA	10 SF	50 SF	100 SF
NEGATIVE ZONE 1	-18.1 PSF	-18.9 PSF	-18.4 PSF
NEGATIVE ZONE 2	-31.5 PSF	-25.6 PSF	-23.1 PSF
NEGATIVE ZONE 3	-46.5 PSF	-39.5 PSF	-36.5 PSF
POSITIVE ZONE 1	16.0 PSF	16.0 PSF	16.0 PSF
POSITIVE ZONE 2 AND 3	16.0 PSF	16.0 PSF	16.0 PSF
WALL SURFACE WIND PRESSURES ULTIMATE			
AREA	10 SF	100 SF	500 SF
NEGATIVE ZONE 4	-21.4 PSF	-18.5 PSF	-16.4 PSF
NEGATIVE ZONE 5	-26.4 PSF	-20.5 PSF	-18.4 PSF
POSITIVE ZONE 4 AND 5	19.7 PSF	16.8 PSF	16.0 PSF
SEISMIC CRITERIA			
CODE INFORMATION	DESIGN INFORMATION		
SEISMIC IMPORTANCE FACTOR	I = 1.0		
OCCUPANCY CATEGORY	I		
MAPPED SPECTRAL RESPONSE ACCELERATION (SHORT)	Ss = 10.3%g		
MAPPED SPECTRAL RESPONSE ACCELERATION (LONG)	S1 = 5.1%g		
SITE CLASS	D		
SPECTRAL RESPONSE COEFFICIENT (SHORT)	SDS = 0.11		
SPECTRAL RESPONSE COEFFICIENT (LONG)	SD1 = 0.082		
SEISMIC DESIGN CATEGORY	B		
BASIC SEISMIC FORCE RESISTING SYSTEM	LIGHT FRAME WALLS WITH SHEAR PANELS		
DESIGN BASE SHEAR	0.055W		
INTERNAL PRESSURE COEFFICIENT	Cs = 0.055		
RESPONSE MODIFICATION FACTOR	2.5		
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE ANALYSIS		
GEOTECHNICAL CRITERIA			
INFORMATION	DESIGN INFORMATION		
SOIL UNIT WEIGHT	145 PCF		
ACTIVE EARTH PRESSURE (MOVEMENT)	38 PSF/FT		
AT-REST PRESSURE (BRACED)	50 PSF/FT		
PASSIVE PRESSURE	300 PSF		
COEFFICIENT OF SLIDING FRICTION	0.35		
SUBGRADE MODULUS	150 PCI		
ALLOWABLE NET BEARING PRESSURE	4,000 (PER REPORT)		
REPORT	BASED ON REPORT PREPARED BY BUTLER ENGINEERING, INC. FOR DESCRIPTION OF SOILS. REPORT DATED FEBRUARY 25.		

SHEET INDEX
S001 GENERAL STRUCTURAL NOTES AND
S100 FOUNDATION PLAN
S101 ROOF FRAMING PLAN

D

PROJECT INFORMATION:

20171 GREAT LAKES
COMPONENTS

C

203 W CENTRALIA ST
ELKHORN, WISCONSIN
53214

DRAWING ISSUANCE:

CONSTRUCTION
DOCUMENTS

#	DATE	DESCRIPTION
2	MAR 1 2021	Revision 2

B

MAR 1 2021

PROJECT NUMBER PROJECT MANAGER

20171 PDR

GENERAL STRUCTURAL
NOTES AND
STRUCTURAL
SCHEDULES

S001

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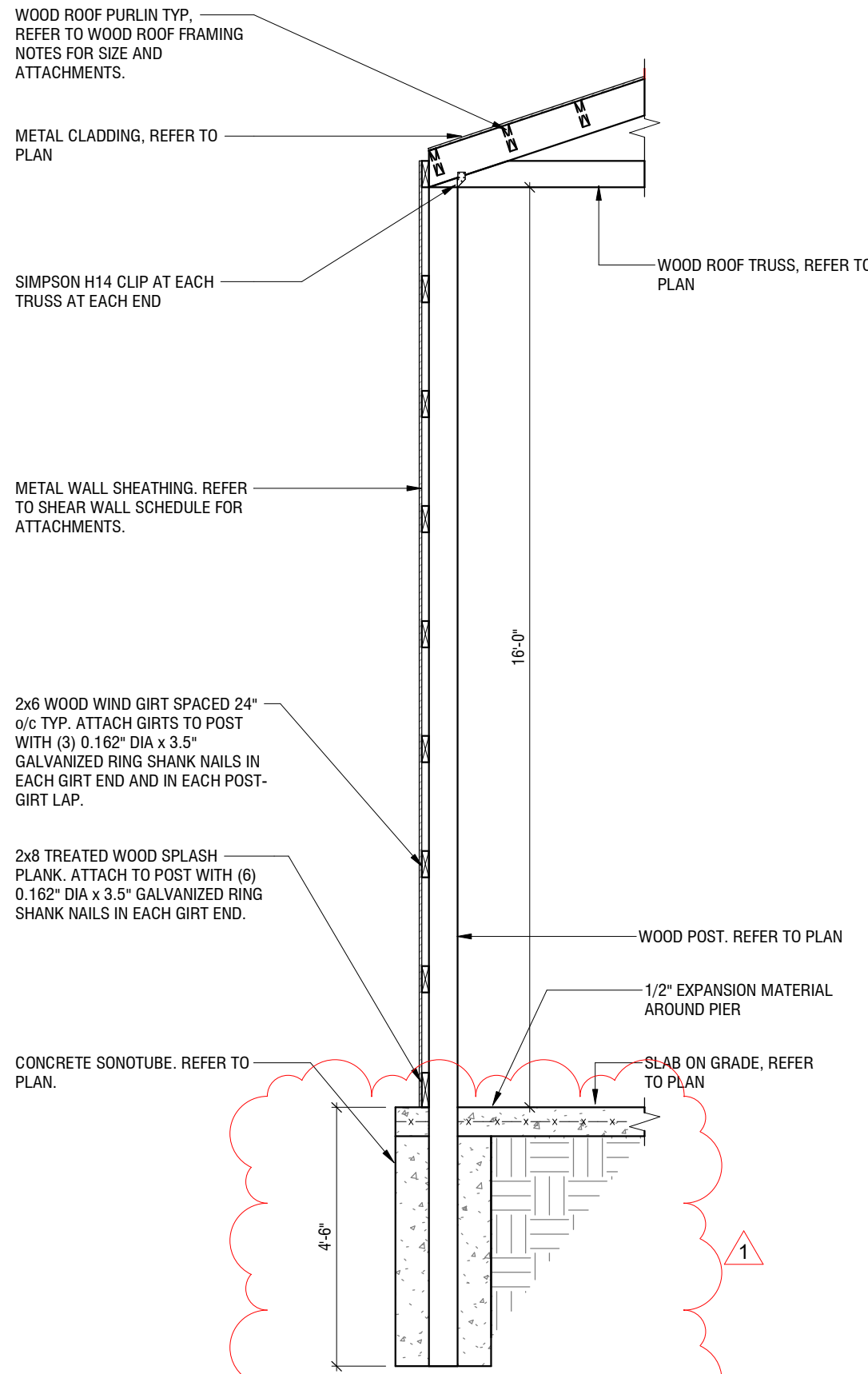
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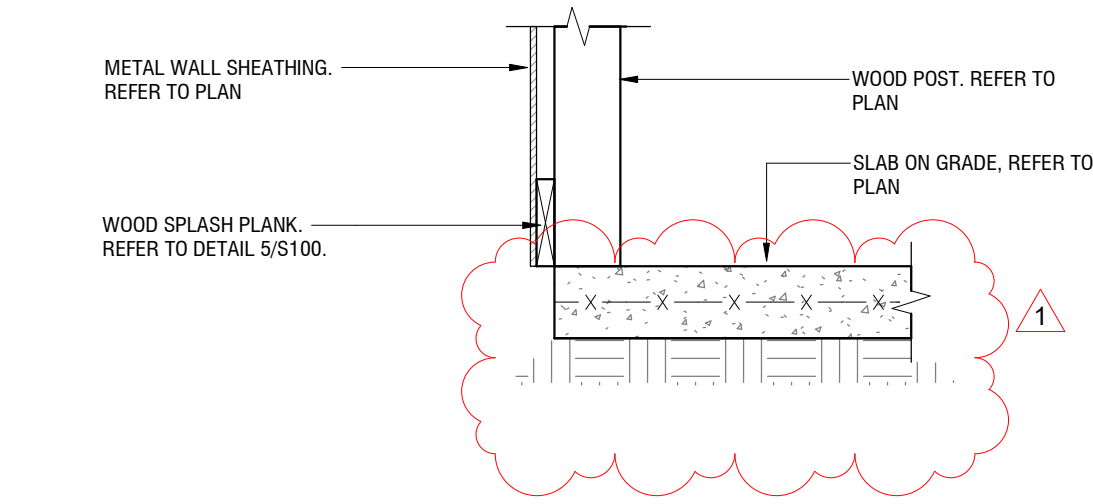
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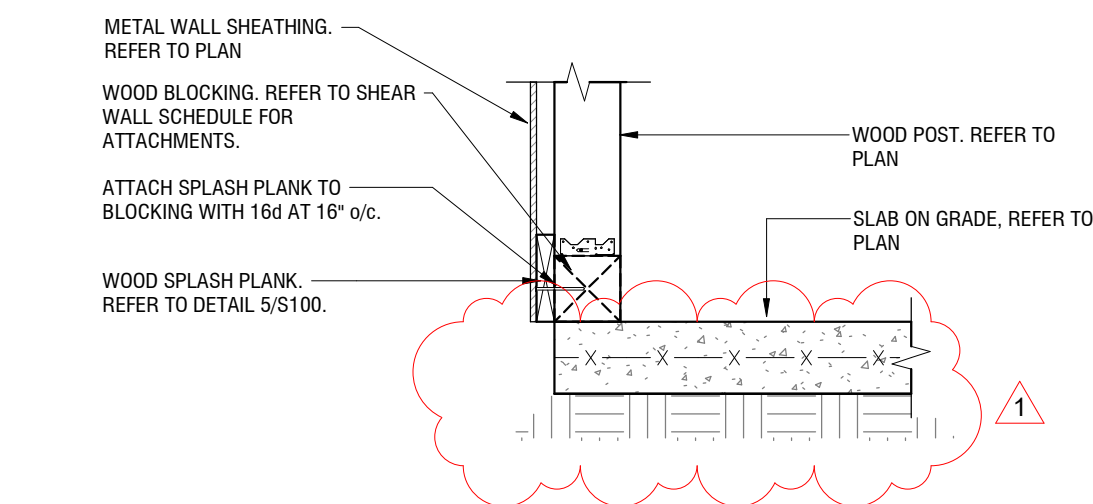
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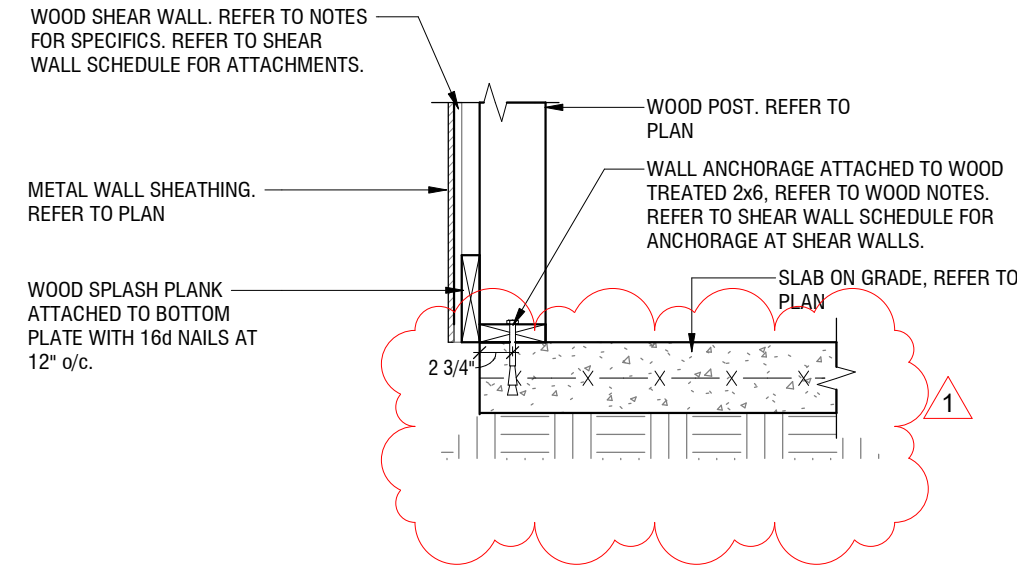
5 WALL SECTION
S100 3/8" = 1'-0"



4 THICKENED SLAB AT SWM2
S100 3/4" = 1'-0"

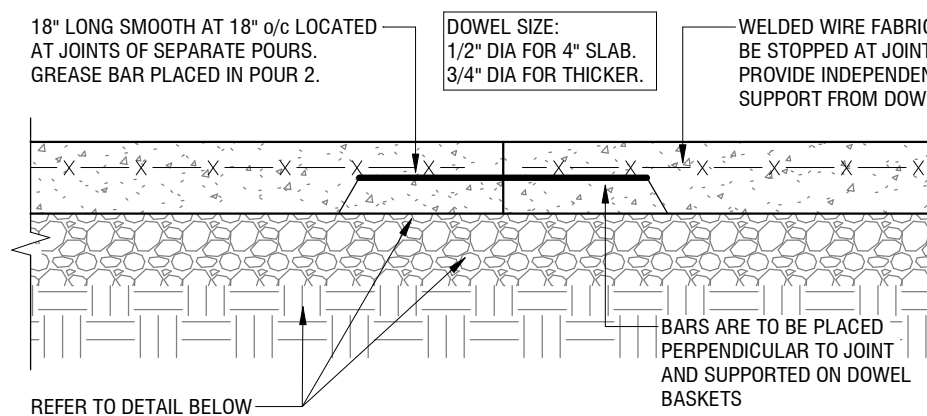


2 THICKENED SLAB AT SWM1
S100 3/4" = 1'-0"



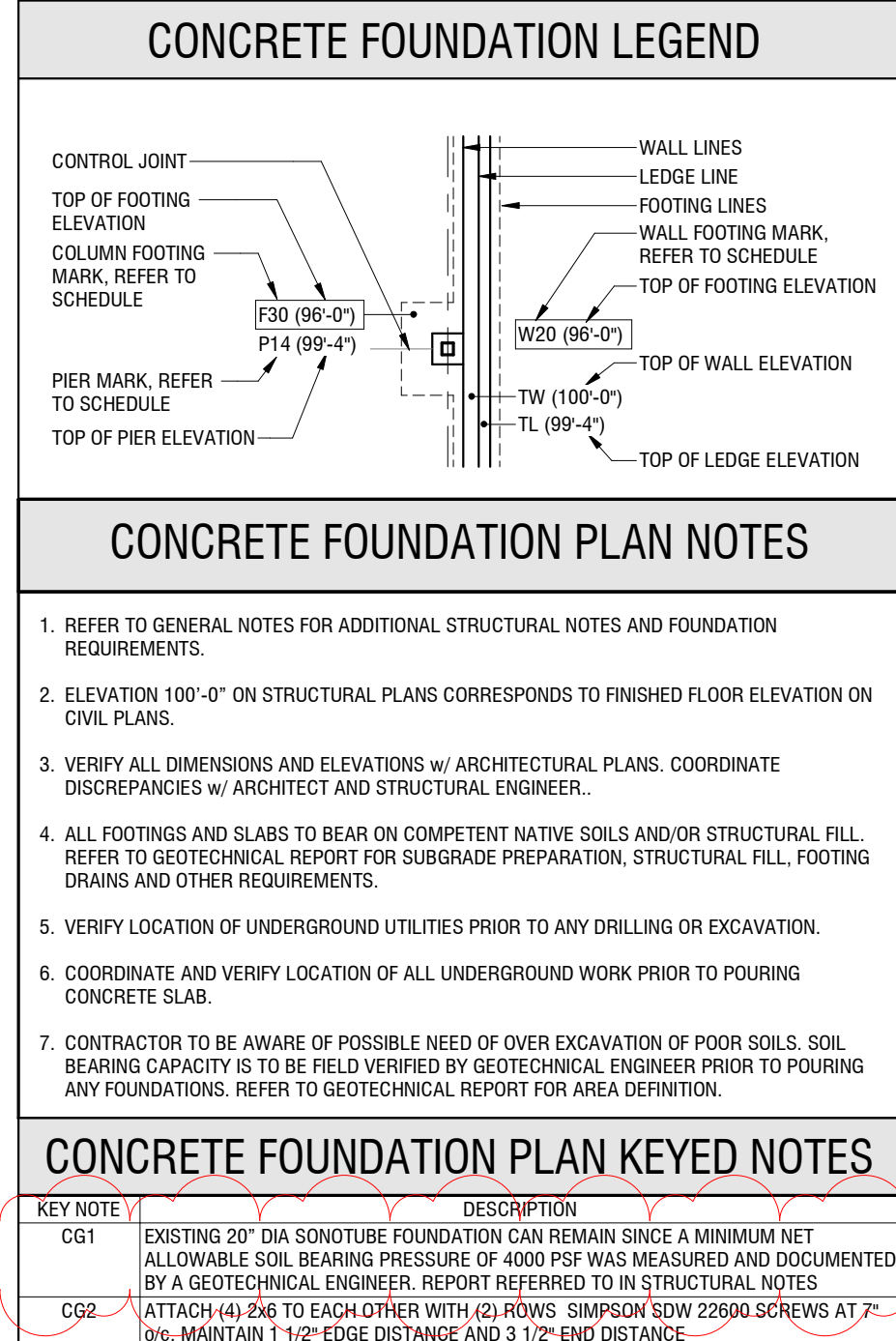
3 THICKENED SLAB AT WOOD SHEAR WALL
S100 3/4" = 1'-0"

- NOTES:
1. REFER TO ARCHITECTURAL DRAWINGS FOR ALL FLOOR COATINGS AND SLAB FINISHES. GENERAL CONTRACTOR IS RESPONSIBLE FOR COMPATIBILITY OF ALL CONCRETE MATERIALS w/ FINISH FLOOR COATINGS.
 2. REINFORCING SHALL BE HELD IN PLACE w/ CHAIRS, BOLSTERS, SPACERS OR OTHER APPROVED METHOD.
 3. SLAB ON GRADE SHALL BE WET CURED FOR A MINIMUM OF 7 DAYS UNLESS A CURING COMPOUND IS APPROVED PRIOR TO USE.
 4. IN LIEU OF WELDED WIRE FABRIC, CONTRACTOR MAY SUBMIT MACROSYNTHETIC FIBERS COMPLYING w/ ASTM C1160/116M AND DESIGNED FOR USE IN SLAB ON GRADES FOR REVIEW AND APPROVAL BY STRUCTURAL ENGINEER. PROVIDE RECOMMENDED DOSAGE RATE BY MANUFACTURER.
 5. JOINTS SUBJECT TO MOVING TRAFFIC AND EQUIPMENT SHALL BE FILLED w/ A SEMI-RIGID EPOXY.



CONSTRUCTION JOINT

1 SLAB ON GRADE
S100 3/4" = 1'-0"



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C

B

A

PROJECT INFORMATION:

20171 GREAT LAKES
COMPONENTS

203 W CENTRALIA ST
ELKHORN, WISCONSIN
53214

DRAWING ISSUANCE:

CONSTRUCTION
DOCUMENTS

REVISIONS

#	DATE	DESCRIPTION
1	FEB 12 2020	Revision 1
2	MAR 1 2021	Revision 2

MAR 1 2021

PROJECT NUMBER PROJECT MANAGER
20171 PDR

FOUNDATION PLAN

S100

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1

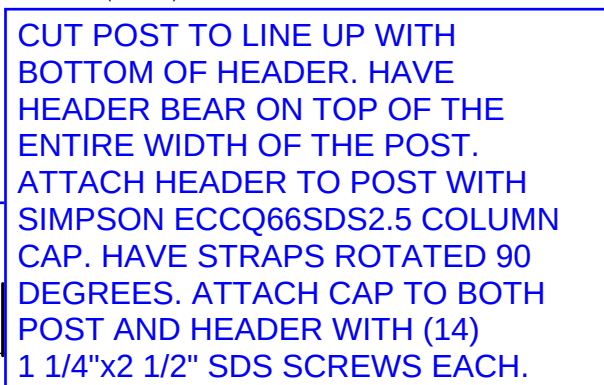
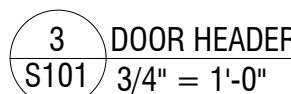
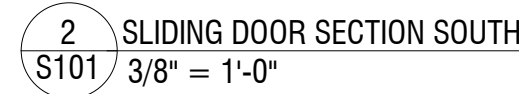
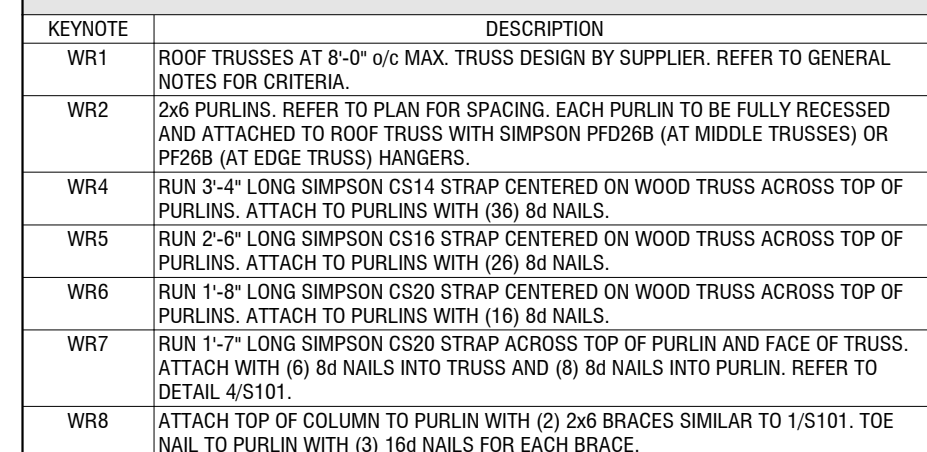
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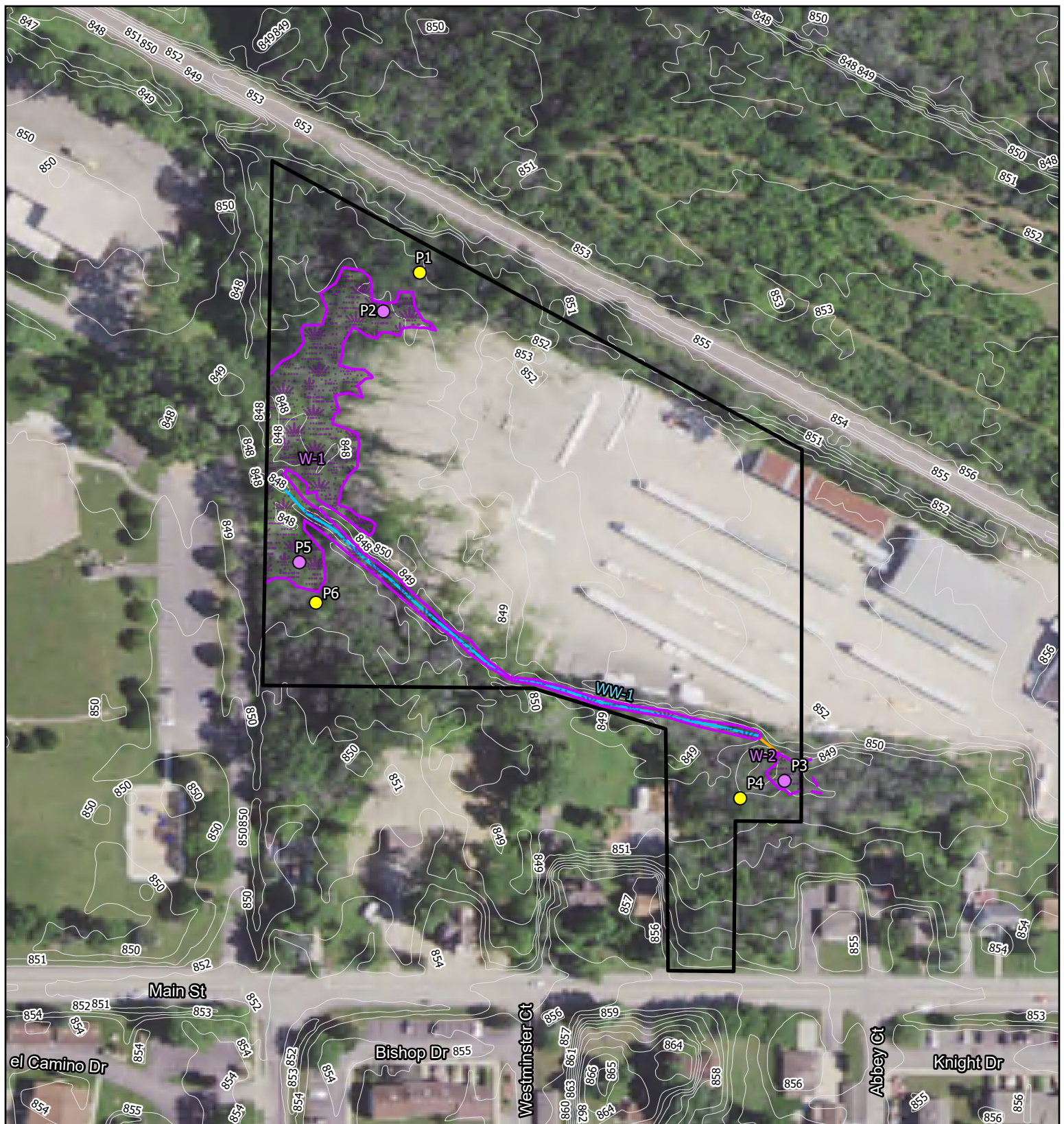
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- Study Area (7.02 ac)
 - Field Delineated Wetlands (0.80 ac)
 - Off-site Wetland Boundary
 - Culvert
 - Washington Co 1' Contours
 - ~ Waterway
- Sample Points**
- Upland
 - Wetland

0 150
Ft

Heartland
ECOLOGICAL GROUP INC

Figure 6. Field Map

Germantown Property
Project #20210553
T9N, R20E, S22
V Germantown,
Washington Co
2020 NAIP
Washington Co, HEG

Bliffert Germantown - Stormwater Report DRAFT

Village of Germantown, Washington County, Wisconsin

PREPARED FOR

Bellcraft Builders, Inc.
PO Box 1226
Waukesha, Wisconsin 53189

PREPARED BY



Project Number – 24120
2025/06/20

Janette Rueda Gutierrez
Project Engineer

Christopher Carr, P.E.
Vice President

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2. Applicable Stormwater Management Regulations/Requirements	1
3. Design Analysis	2
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5. Proposed Developed Conditions Description	- 2 -
6. Stormwater Quantity Modeling	2
7. Stormwater Quality Modeling	2
8. Conclusion	2

Figures

SW 1.0 – Existing Stormwater Conditions

SW 2.0 – Proposed Stormwater Conditions

Appendices

- Appendix A – Soils Map
- Appendix B – Stormwater Quantity (HydroCAD) and Quality (WinSLAMM) Modeling
- Appendix C – Stormwater Maintenance Agreement

1. Introduction

This Stormwater Management memorandum presents the design calculations and considerations for proposed development located at N116 W16474 in the Village of Germantown, Washington County, Wisconsin. The site property encompasses approximately 11.2 acres. This Stormwater Management memorandum addresses the stormwater requirements and serves as a summary of calculations showing the proposed development meets all applicable ordinances.

2. Applicable Stormwater Management Regulations/Requirements

The project is a development project which will disturb approximately 1.760 acres of land and will create 0.81 acres of additional impervious surface. The following summarizes the required post-construction stormwater management requirements for the project.

Quality

WDNR NR 151.122 / Village of Germantown Chapter 27

Redevelopment:

Reduce to the maximum extent practicable, the total suspended solids load by 40%, based on an average annual rainfall, as compared to no runoff management controls.

Peak Flow Reduction

Village of Germantown Chapter 27/MMSD Chapter 13

Control the runoff leaving the site to a release rate of less than

1. For the 50% probability event (2 year recurrence interval) for the 24-hour design storm to achieve a maximum rate of 0.15 cubic feet per second per acre or limit post-development runoff volume to existing condition runoff volume during a critical time period.
2. For the 1% probability event (100 year recurrence interval) for the 24-hour design storm the BMPs shall be designed to achieve a runoff release rate that is less than or equal to 0.50 cubic feet per second per acre or limit post-development runoff volume to existing condition runoff volume during a critical time period.
 - a. OR Volumetric Design Procedure over critical time period. The storm water discharge control for the critical time period in the Post-Development condition must not exceed storm water discharge for the Pre-Condition for the critical time period for the 2-year and the 100-year, 24 hr storm event.

Wisconsin Department of Natural Resources NR 151

Stormwater Quality: 400% TSS removal from post-construction redevelopment site.

3. Design Analysis

- Rainfall data used in the hydrologic analysis were obtained from the NOAA Atlas 14 precipitation depths, and the appropriate NRCS Wisconsin MSE3 precipitation distribution for 24 hour duration (1-yr, 2-yr, 10-yr, and 100-yr storm events).

1 year	2 year	10 year	100 year
2.35"	2.65"	3.82"	6.41"

- Curve numbers for the soils within the analysis region were selected from the values published in TR-55. Native soil types were determined from NRCS maps.
- Time of concentration values were calculated based on the standard TR-55 method.
- The hydraulic calculations and analysis presented in this report were performed using HydroCAD Watershed Modeling software which utilizes the methodologies of TR-55 for a hydrograph based analysis of watershed conditions. Hydrographs were developed using a standard MSE-3 24 hour hydrograph for the various 24-hr storm events.
- Sediment reduction characteristics for the proposed water quality facilities were determined using WinSLAMM (Version 10.4.1) Source Loading and Management Model.

4. Existing Conditions Description

The existing site is bounded by railroad tracks to the north, residential to the East, commercial and recreation to the west and Main Street to the South. The total project site area is approximately 11.2 acres.

Vegetative cover at the site consists mostly wooded areas on the south and west areas. The site generally drains to the existing wetlands on site to the southwest.

There are three existing soils identified based on NRCS soils mapping. The sites existing soils include Mundelein silt loam (MzfA) which is classified as a hydrologic group 'B/D', Pella silt loam (Ph) which is classified as a hydrologic group 'B/D', and Yahara silt loam (YrA) which is classified as a hydrologic group 'B/D'.

5. Proposed Developed Conditions Description

The proposed construction includes a 4,760 square foot storage structure with paved and gravel drive areas, and a biofiltration basin. The project will increase the overall impervious surface by approximately 35,295 square feet.

To meet stormwater quantity and quality requirements, some drainage from the proposed improvements flowing to the west towards the wetlands will be directed to a stormwater biofiltration basin that will capture and treat the stormwater. The pond will have an outlet control structure with a 1.2" restrictor orifice and with an outfall culvert that discharges to the southwest towards the existing wetlands. Parts of the site improvements that drains to the east and south will be uncaptured and untreated, ultimately discharging to the existing wetlands.

6. Stormwater Quantity Modeling

Village stormwater regulations require that the project employ BMPs.

Village of Germantown Chapter 27		
Volume Over the Critical Time Period Summary		
Storm Frequency (yr)	Pre-Conditions Volume Runoff Discharge Rate (ac-ft)	Post-Development Site Conditions Peak Runoff Discharge Rate (ac-ft)
2	0.168	0.157
100	0.573	0.554

The critical time duration is 9.5 hrs for the Menomonee River Basin

7. Stormwater Quality Modeling

NR 151 regulations require that the project employ BMPs to reduce sediment load leaving the site by 40% compared to no controls for redevelopment on site. Proposed paved areas were modeled as the site's on-site development. The proposed project achieves the required stormwater quality standard through the modeling of a biofiltration.

Quality Summary Table

Total Suspended Solids Loading	
Total TSS prior to controls/treatment	1,667 lbs
Total TSS after controls/treatment	955.6 lbs
Total Percent TSS Reduction	42.68%

8. Conclusion

The proposed stormwater management plan meets the requirements of the local municipality, WDNR, and other regulatory bodies through the implementation of best management practices described within this report to the greatest extent practicable.

Appendix A

Soils Map

Hydrologic Soil Group—Washington County, Wisconsin



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

MAP LEGEND**Area of Interest (AOI)**
 Area of Interest (AOI)
Soils**Soil Rating Polygons**

-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Lines

-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Points

-  A
-  A/D
-  B
-  B/D

-  C
-  C/D
-  D
-  Not rated or not available

Water Features
 Streams and Canals
Transportation

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

Background
 Aerial Photography
MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Washington County, Wisconsin
Survey Area Data: Version 24, Sep 3, 2024

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

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

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
MzfA	Mundelein silt loam, 0 to 3 percent slopes	B/D	1.8	25.7%
Ph	Pella silt loam, 0 to 2 percent slopes	B/D	3.3	47.1%
YrA	Yahara silt loam, 0 to 3 percent slopes	B/D	1.9	27.2%
Totals for Area of Interest			7.0	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

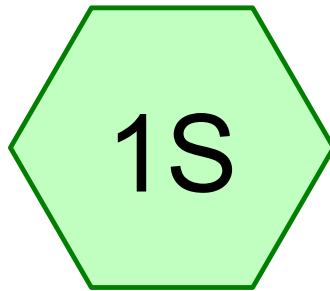
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

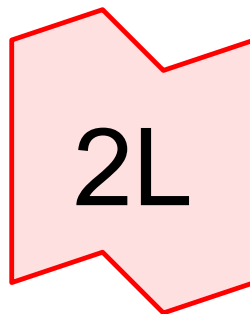
Tie-break Rule: Higher

Appendix B

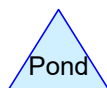
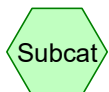
Stormwater Quantity (HydroCAD) and Quality (WinSLAMM) Modeling



Existing Watershed
Area



Existing Outfall



Routing Diagram for 24120 HydroCAD - Existing
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24120 HydroCAD - Existing

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	MSE 24-hr	3	Default	24.00	1	2.65	2
2	100-Year	MSE 24-hr	3	Default	24.00	1	6.41	2

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.689	96	Gravel surface, HSG D (1S)
1.071	77	Woods, Good, HSG D (1S)
1.760	84	TOTAL AREA

24120 HydroCAD - Existing

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
1.760	HSG D	1S
0.000	Other	
1.760		TOTAL AREA

24120 HydroCAD - Existing

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Ground Covers (all 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	0.689	0.000	0.689	Gravel surface	1S
0.000	0.000	0.000	1.071	0.000	1.071	Woods, Good	1S
0.000	0.000	0.000	1.760	0.000	1.760	TOTAL AREA	

24120 HydroCAD - Existing*MSE 24-hr 3 2-Year Rainfall=2.65"*

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Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 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: Existing Watershed Area Runoff Area=76,670 sf 0.00% Impervious Runoff Depth>1.23"
Tc=6.0 min CN=84 Runoff=3.90 cfs 0.181 af

Link 2L: Existing Outfall

after 11.75 hrs before 21.25 hrs Inflow=3.90 cfs 0.181 af

Primary=3.90 cfs 0.168 af Secondary=0.30 cfs 0.013 af

Total Runoff Area = 1.760 ac Runoff Volume = 0.181 af Average Runoff Depth = 1.23"
100.00% Pervious = 1.760 ac 0.00% Impervious = 0.000 ac

24120 HydroCAD - Existing

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MSE 24-hr 3 2-Year Rainfall=2.65"

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Summary for Subcatchment 1S: Existing Watershed Area

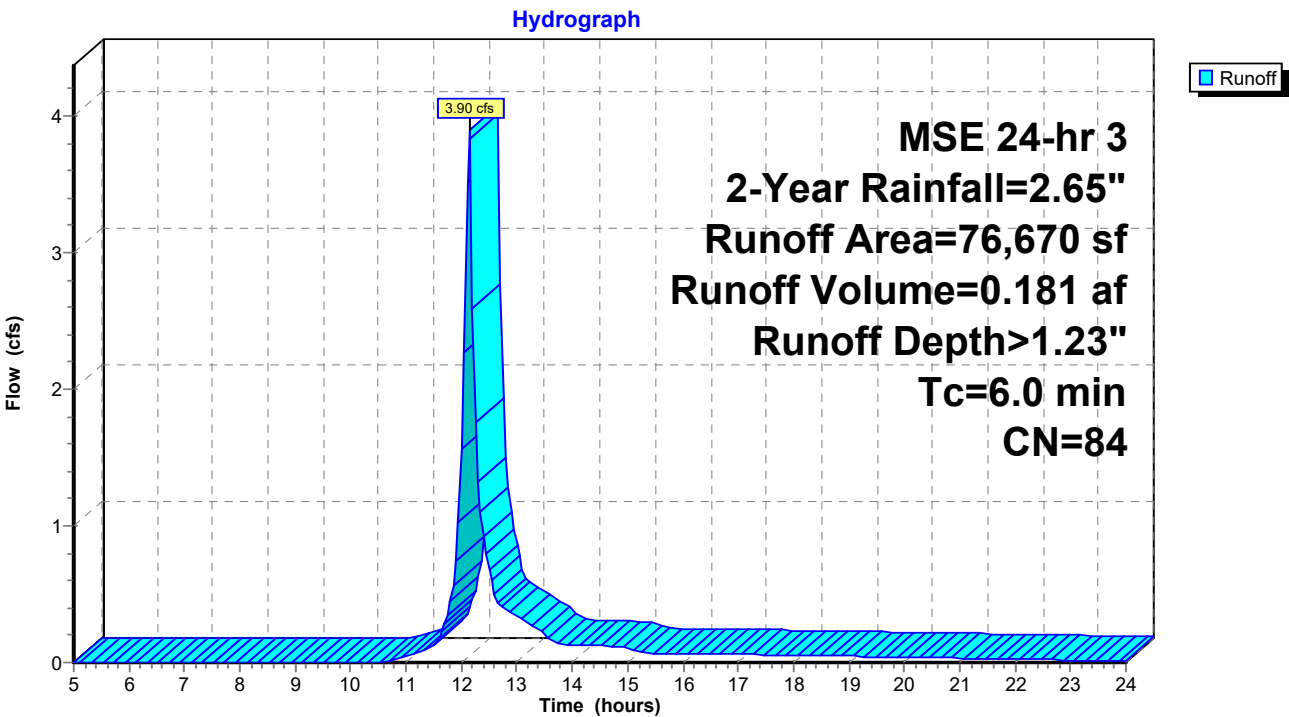
Runoff = 3.90 cfs @ 12.14 hrs, Volume= 0.181 af, Depth> 1.23"
Routed to Link 2L : Existing Outfall

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (sf)	CN	Description
46,665	77	Woods, Good, HSG D
30,005	96	Gravel surface, HSG D
76,670	84	Weighted Average
76,670		100.00% Pervious Area

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

Subcatchment 1S: Existing Watershed Area



24120 HydroCAD - Existing

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MSE 24-hr 3 2-Year Rainfall=2.65"

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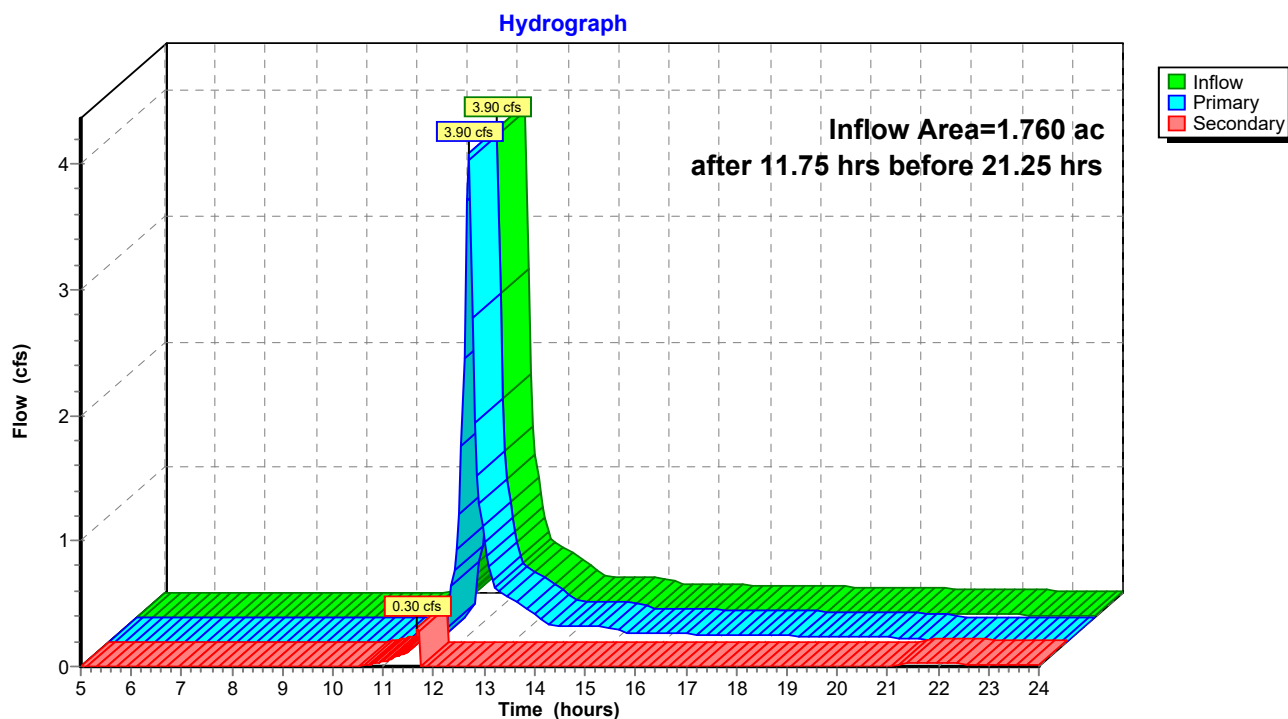
Hydrograph for Subcatchment 1S: Existing Watershed Area

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.10	0.00	0.00	18.00	2.51	1.13	0.05
5.25	0.11	0.00	0.00	18.25	2.52	1.13	0.05
5.50	0.12	0.00	0.00	18.50	2.53	1.14	0.05
5.75	0.13	0.00	0.00	18.75	2.54	1.15	0.05
6.00	0.14	0.00	0.00	19.00	2.55	1.16	0.05
6.25	0.14	0.00	0.00	19.25	2.56	1.16	0.04
6.50	0.15	0.00	0.00	19.50	2.57	1.17	0.04
6.75	0.17	0.00	0.00	19.75	2.57	1.17	0.04
7.00	0.18	0.00	0.00	20.00	2.58	1.18	0.04
7.25	0.19	0.00	0.00	20.25	2.59	1.18	0.04
7.50	0.20	0.00	0.00	20.50	2.59	1.19	0.04
7.75	0.21	0.00	0.00	20.75	2.60	1.19	0.03
8.00	0.22	0.00	0.00	21.00	2.61	1.20	0.03
8.25	0.23	0.00	0.00	21.25	2.61	1.20	0.03
8.50	0.25	0.00	0.00	21.50	2.62	1.21	0.03
8.75	0.26	0.00	0.00	21.75	2.62	1.21	0.03
9.00	0.27	0.00	0.00	22.00	2.63	1.21	0.02
9.25	0.29	0.00	0.00	22.25	2.63	1.22	0.02
9.50	0.32	0.00	0.00	22.50	2.63	1.22	0.02
9.75	0.34	0.00	0.00	22.75	2.64	1.22	0.02
10.00	0.36	0.00	0.00	23.00	2.64	1.23	0.02
10.25	0.39	0.00	0.00	23.25	2.64	1.23	0.02
10.50	0.41	0.00	0.00	23.50	2.65	1.23	0.01
10.75	0.46	0.00	0.02	23.75	2.65	1.23	0.01
11.00	0.51	0.01	0.04	24.00	2.65	1.23	0.01
11.25	0.58	0.02	0.08				
11.50	0.66	0.03	0.12				
11.75	0.81	0.08	0.35				
12.00	1.23	0.26	1.56				
12.25	1.84	0.63	1.75				
12.50	1.99	0.74	0.68				
12.75	2.07	0.80	0.40				
13.00	2.14	0.84	0.34				
13.25	2.19	0.88	0.28				
13.50	2.24	0.91	0.21				
13.75	2.26	0.93	0.13				
14.00	2.29	0.95	0.13				
14.25	2.31	0.97	0.13				
14.50	2.33	0.99	0.12				
14.75	2.36	1.00	0.12				
15.00	2.38	1.02	0.12				
15.25	2.39	1.03	0.07				
15.50	2.40	1.04	0.07				
15.75	2.42	1.05	0.07				
16.00	2.43	1.06	0.07				
16.25	2.44	1.07	0.07				
16.50	2.45	1.08	0.06				
16.75	2.46	1.09	0.06				
17.00	2.47	1.10	0.06				
17.25	2.48	1.10	0.06				
17.50	2.50	1.11	0.06				
17.75	2.51	1.12	0.06				

Summary for Link 2L: Existing Outfall

Inflow Area = 1.760 ac, 0.00% Impervious, Inflow Depth > 1.23" for 2-Year event
Inflow = 3.90 cfs @ 12.14 hrs, Volume= 0.181 af
Primary = 3.90 cfs @ 12.14 hrs, Volume= 0.168 af, Atten= 0%, Lag= 0.0 min
Secondary = 0.30 cfs @ 11.68 hrs, Volume= 0.013 af

Primary outflow = Inflow after 11.75 hrs before 21.25 hrs, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Link 2L: Existing Outfall

24120 HydroCAD - Existing*MSE 24-hr 3 2-Year Rainfall=2.65"*

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Hydrograph for Link 2L: Existing Outfall

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Secondary (cfs)
5.00	0.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	0.00
6.00	0.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	0.00
7.00	0.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	0.00
8.00	0.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	0.00
9.00	0.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00	0.00
11.00	0.04	0.00	0.00	0.04
11.50	0.12	0.00	0.00	0.12
12.00	1.56	0.00	1.56	0.00
12.50	0.68	0.00	0.68	0.00
13.00	0.34	0.00	0.34	0.00
13.50	0.21	0.00	0.21	0.00
14.00	0.13	0.00	0.13	0.00
14.50	0.12	0.00	0.12	0.00
15.00	0.12	0.00	0.12	0.00
15.50	0.07	0.00	0.07	0.00
16.00	0.07	0.00	0.07	0.00
16.50	0.06	0.00	0.06	0.00
17.00	0.06	0.00	0.06	0.00
17.50	0.06	0.00	0.06	0.00
18.00	0.05	0.00	0.05	0.00
18.50	0.05	0.00	0.05	0.00
19.00	0.05	0.00	0.05	0.00
19.50	0.04	0.00	0.04	0.00
20.00	0.04	0.00	0.04	0.00
20.50	0.04	0.00	0.04	0.00
21.00	0.03	0.00	0.03	0.00
21.50	0.03	0.00	0.00	0.03
22.00	0.02	0.00	0.00	0.02
22.50	0.02	0.00	0.00	0.02
23.00	0.02	0.00	0.00	0.02
23.50	0.01	0.00	0.00	0.01
24.00	0.01	0.00	0.00	0.01

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MSE 24-hr 3 100-Year Rainfall=6.41"

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Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 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: Existing Watershed Area Runoff Area=76,670 sf 0.00% Impervious Runoff Depth>4.58"
Tc=6.0 min CN=84 Runoff=13.83 cfs 0.672 af

Link 2L: Existing Outfall

after 11.75 hrs before 21.25 hrs Inflow=13.83 cfs 0.672 af
Primary=13.83 cfs 0.573 af Secondary=1.76 cfs 0.099 af

Total Runoff Area = 1.760 ac Runoff Volume = 0.672 af Average Runoff Depth = 4.58"
100.00% Pervious = 1.760 ac 0.00% Impervious = 0.000 ac

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MSE 24-hr 3 100-Year Rainfall=6.41"

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Summary for Subcatchment 1S: Existing Watershed Area

Runoff = 13.83 cfs @ 12.13 hrs, Volume= 0.672 af, Depth> 4.58"
Routed to Link 2L : Existing Outfall

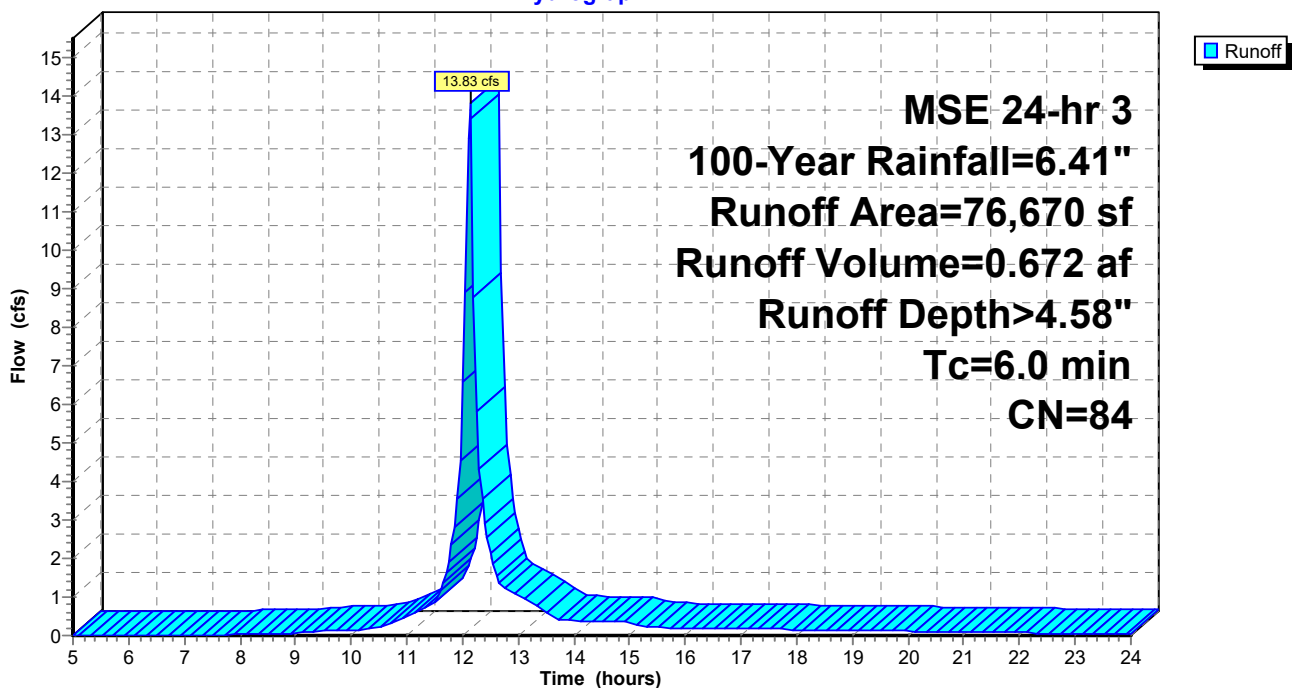
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (sf)	CN	Description
46,665	77	Woods, Good, HSG D
30,005	96	Gravel surface, HSG D
76,670	84	Weighted Average
76,670		100.00% Pervious Area

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

Subcatchment 1S: Existing Watershed Area

Hydrograph



24120 HydroCAD - Existing

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MSE 24-hr 3 100-Year Rainfall=6.41"

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Hydrograph for Subcatchment 1S: Existing Watershed Area

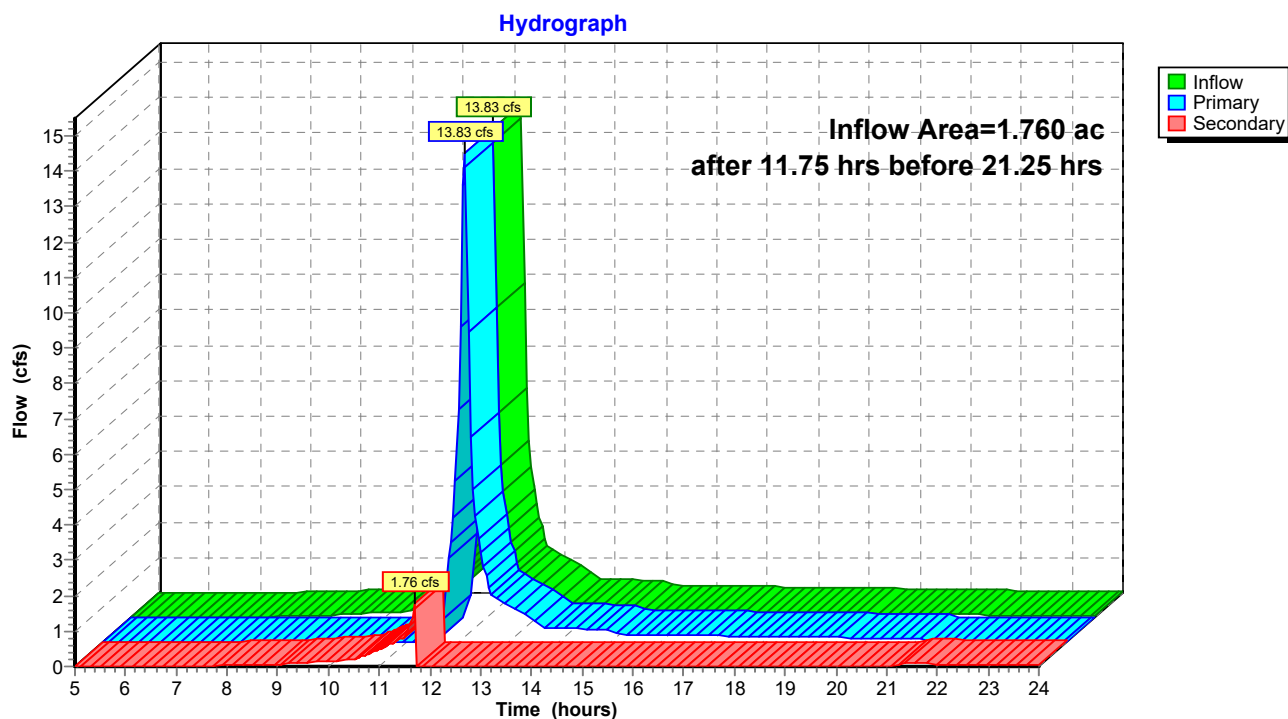
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.24	0.00	0.00	18.00	6.08	4.27	0.16
5.25	0.26	0.00	0.00	18.25	6.11	4.30	0.15
5.50	0.28	0.00	0.00	18.50	6.13	4.32	0.15
5.75	0.30	0.00	0.00	18.75	6.15	4.34	0.14
6.00	0.33	0.00	0.00	19.00	6.17	4.36	0.13
6.25	0.35	0.00	0.00	19.25	6.19	4.37	0.13
6.50	0.37	0.00	0.00	19.50	6.21	4.39	0.12
6.75	0.40	0.00	0.00	19.75	6.23	4.41	0.12
7.00	0.43	0.00	0.01	20.00	6.24	4.42	0.11
7.25	0.45	0.00	0.01	20.25	6.26	4.44	0.11
7.50	0.48	0.00	0.02	20.50	6.27	4.45	0.10
7.75	0.51	0.01	0.02	20.75	6.29	4.47	0.10
8.00	0.54	0.01	0.03	21.00	6.30	4.48	0.09
8.25	0.57	0.02	0.03	21.25	6.32	4.49	0.09
8.50	0.60	0.02	0.04	21.50	6.33	4.51	0.08
8.75	0.63	0.03	0.05	21.75	6.34	4.52	0.08
9.00	0.66	0.04	0.05	22.00	6.35	4.53	0.07
9.25	0.71	0.05	0.10	22.25	6.36	4.54	0.07
9.50	0.77	0.07	0.11	22.50	6.37	4.54	0.06
9.75	0.82	0.08	0.13	22.75	6.38	4.55	0.06
10.00	0.88	0.10	0.15	23.00	6.39	4.56	0.05
10.25	0.94	0.13	0.17	23.25	6.39	4.57	0.05
10.50	1.00	0.15	0.18	23.50	6.40	4.57	0.04
10.75	1.10	0.20	0.34	23.75	6.41	4.58	0.04
11.00	1.24	0.26	0.49	24.00	6.41	4.58	0.03
11.25	1.40	0.35	0.65				
11.50	1.59	0.47	0.85				
11.75	1.97	0.72	1.93				
12.00	2.97	1.49	6.58				
12.25	4.44	2.76	5.80				
12.50	4.82	3.11	2.14				
12.75	5.01	3.28	1.23				
13.00	5.17	3.43	1.03				
13.25	5.31	3.55	0.84				
13.50	5.41	3.65	0.64				
13.75	5.47	3.70	0.40				
14.00	5.53	3.76	0.39				
14.25	5.59	3.81	0.38				
14.50	5.64	3.86	0.37				
14.75	5.70	3.91	0.36				
15.00	5.75	3.96	0.34				
15.25	5.78	3.99	0.21				
15.50	5.81	4.02	0.21				
15.75	5.84	4.05	0.20				
16.00	5.87	4.08	0.20				
16.25	5.90	4.11	0.19				
16.50	5.93	4.13	0.19				
16.75	5.96	4.16	0.18				
17.00	5.98	4.18	0.18				
17.25	6.01	4.21	0.17				
17.50	6.04	4.23	0.17				
17.75	6.06	4.25	0.16				

Summary for Link 2L: Existing Outfall

Inflow Area = 1.760 ac, 0.00% Impervious, Inflow Depth > 4.58" for 100-Year event
Inflow = 13.83 cfs @ 12.13 hrs, Volume= 0.672 af
Primary = 13.83 cfs @ 12.13 hrs, Volume= 0.573 af, Atten= 0%, Lag= 0.0 min
Secondary = 1.76 cfs @ 11.68 hrs, Volume= 0.099 af

Primary outflow = Inflow after 11.75 hrs before 21.25 hrs, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Link 2L: Existing Outfall



24120 HydroCAD - Existing*MSE 24-hr 3 100-Year Rainfall=6.41"*

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Hydrograph for Link 2L: Existing Outfall

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Secondary (cfs)
5.00	0.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	0.00
6.00	0.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	0.00
7.00	0.01	0.00	0.00	0.01
7.50	0.02	0.00	0.00	0.02
8.00	0.03	0.00	0.00	0.03
8.50	0.04	0.00	0.00	0.04
9.00	0.05	0.00	0.00	0.05
9.50	0.11	0.00	0.00	0.11
10.00	0.15	0.00	0.00	0.15
10.50	0.18	0.00	0.00	0.18
11.00	0.49	0.00	0.00	0.49
11.50	0.85	0.00	0.00	0.85
12.00	6.58	0.00	6.58	0.00
12.50	2.14	0.00	2.14	0.00
13.00	1.03	0.00	1.03	0.00
13.50	0.64	0.00	0.64	0.00
14.00	0.39	0.00	0.39	0.00
14.50	0.37	0.00	0.37	0.00
15.00	0.34	0.00	0.34	0.00
15.50	0.21	0.00	0.21	0.00
16.00	0.20	0.00	0.20	0.00
16.50	0.19	0.00	0.19	0.00
17.00	0.18	0.00	0.18	0.00
17.50	0.17	0.00	0.17	0.00
18.00	0.16	0.00	0.16	0.00
18.50	0.15	0.00	0.15	0.00
19.00	0.13	0.00	0.13	0.00
19.50	0.12	0.00	0.12	0.00
20.00	0.11	0.00	0.11	0.00
20.50	0.10	0.00	0.10	0.00
21.00	0.09	0.00	0.09	0.00
21.50	0.08	0.00	0.00	0.08
22.00	0.07	0.00	0.00	0.07
22.50	0.06	0.00	0.00	0.06
23.00	0.05	0.00	0.00	0.05
23.50	0.04	0.00	0.00	0.04
24.00	0.03	0.00	0.00	0.03

24120 HydroCAD - Existing

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Multi-Event Tables

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Events for Subcatchment 1S: Existing Watershed Area

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
2-Year	2.65	3.90	0.181	1.23
100-Year	6.41	13.83	0.672	4.58

24120 HydroCAD - Existing

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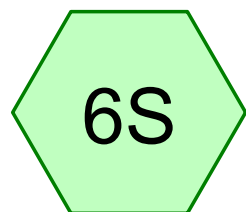
Multi-Event Tables

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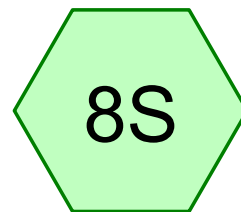
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Events for Link 2L: Existing Outfall

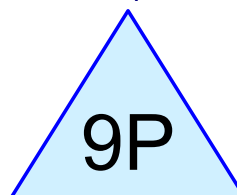
Event	Inflow (cfs)	Primary (cfs)	Secondary (cfs)	Volume (acre-feet)	Elevation (feet)
2-Year	3.90	3.90	0.30	0.168	0.00
100-Year	13.83	13.83	1.76	0.573	0.00



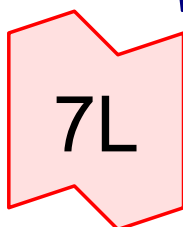
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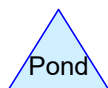
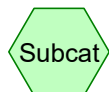
Area to Bio



Bio



Proposed Outfall



Routing Diagram for 24120 HydroCAD - Proposed
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24120 HydroCAD - Proposed

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	MSE 24-hr	3	Default	24.00	1	2.65	2
2	100-Year	MSE 24-hr	3	Default	24.00	1	6.41	2

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.261	80	>75% Grass cover, Good, HSG D (8S)
1.390	96	Gravel surface, HSG D (6S, 8S)
0.109	98	Roofs, HSG D (8S)
1.760	94	TOTAL AREA

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
1.760	HSG D	6S, 8S
0.000	Other	
1.760		TOTAL AREA

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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	0.261	0.000	0.261	>75% Grass cover, Good	8S
0.000	0.000	0.000	1.390	0.000	1.390	Gravel surface	6S, 8S
0.000	0.000	0.000	0.109	0.000	0.109	Roofs	8S
0.000	0.000	0.000	1.760	0.000	1.760	TOTAL AREA	

24120 HydroCAD - Proposed*MSE 24-hr 3 2-Year Rainfall=2.65"*

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Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment6S: Uncaptured

Runoff Area=33,760 sf 0.00% Impervious Runoff Depth>2.21"

Tc=6.0 min CN=96 Runoff=2.79 cfs 0.143 af

Subcatchment8S: Area to Bio

Runoff Area=42,910 sf 11.09% Impervious Runoff Depth>1.83"

Tc=6.0 min CN=92 Runoff=3.12 cfs 0.150 af

Pond 9P: Bio

Peak Elev=851.69' Storage=4,956 cf Inflow=3.12 cfs 0.150 af

Outflow=0.06 cfs 0.056 af

Link 7L: Proposed Outfall

after 11.75 hrs before 21.25 hrs Inflow=2.83 cfs 0.199 af

Primary=2.83 cfs 0.157 af Secondary=0.43 cfs 0.042 af

Total Runoff Area = 1.760 ac Runoff Volume = 0.293 af Average Runoff Depth = 2.00"**93.79% Pervious = 1.651 ac 6.21% Impervious = 0.109 ac**

24120 HydroCAD - Proposed

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MSE 24-hr 3 2-Year Rainfall=2.65"

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Summary for Subcatchment 6S: Uncaptured

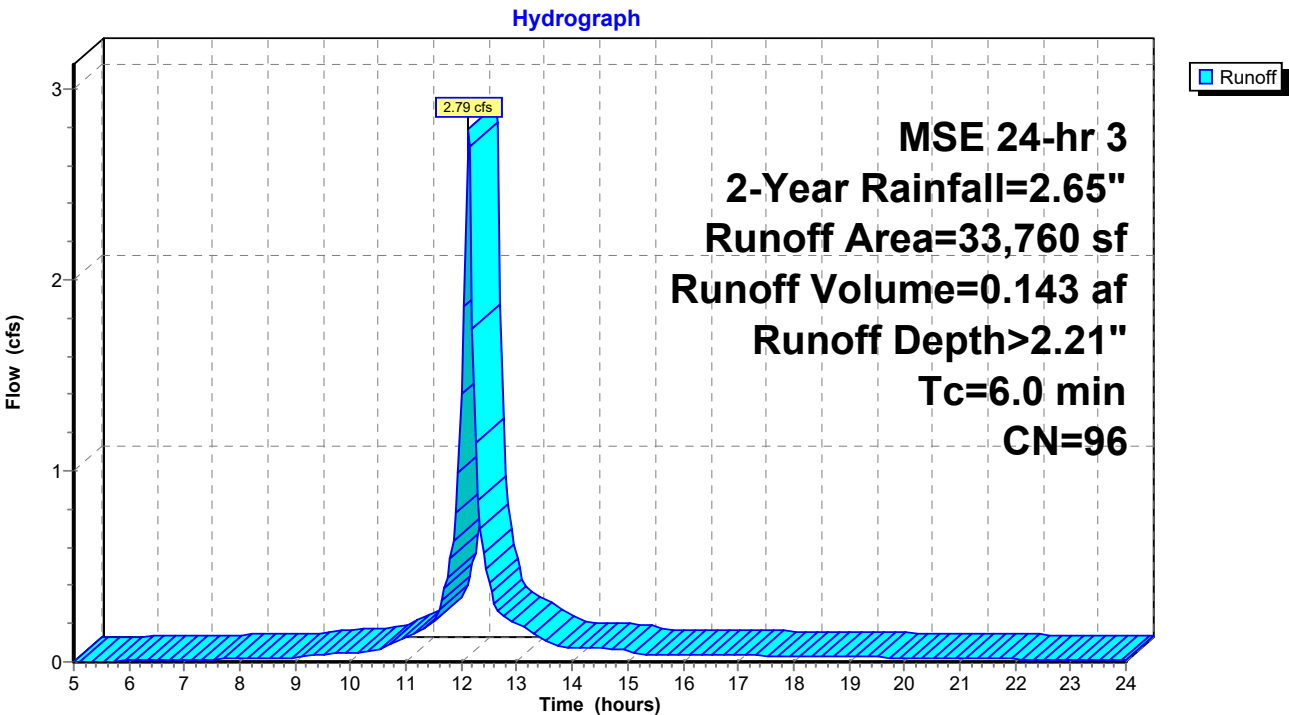
Runoff = 2.79 cfs @ 12.13 hrs, Volume= 0.143 af, Depth> 2.21"
Routed to Link 7L : Proposed Outfall

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (sf)	CN	Description
33,760	96	Gravel surface, HSG D
33,760		100.00% Pervious Area

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

Subcatchment 6S: Uncaptured



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MSE 24-hr 3 2-Year Rainfall=2.65"

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Hydrograph for Subcatchment 6S: Uncaptured

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.10	0.00	0.00	18.00	2.51	2.08	0.03
5.25	0.11	0.00	0.00	18.25	2.52	2.09	0.03
5.50	0.12	0.00	0.00	18.50	2.53	2.09	0.03
5.75	0.13	0.00	0.00	18.75	2.54	2.10	0.03
6.00	0.14	0.01	0.01	19.00	2.55	2.11	0.03
6.25	0.14	0.01	0.01	19.25	2.56	2.12	0.02
6.50	0.15	0.01	0.01	19.50	2.57	2.13	0.02
6.75	0.17	0.01	0.01	19.75	2.57	2.13	0.02
7.00	0.18	0.02	0.01	20.00	2.58	2.14	0.02
7.25	0.19	0.02	0.01	20.25	2.59	2.15	0.02
7.50	0.20	0.02	0.01	20.50	2.59	2.15	0.02
7.75	0.21	0.03	0.01	20.75	2.60	2.16	0.02
8.00	0.22	0.03	0.02	21.00	2.61	2.17	0.02
8.25	0.23	0.04	0.02	21.25	2.61	2.17	0.02
8.50	0.25	0.05	0.02	21.50	2.62	2.18	0.02
8.75	0.26	0.05	0.02	21.75	2.62	2.18	0.01
9.00	0.27	0.06	0.02	22.00	2.63	2.18	0.01
9.25	0.29	0.07	0.04	22.25	2.63	2.19	0.01
9.50	0.32	0.08	0.04	22.50	2.63	2.19	0.01
9.75	0.34	0.10	0.04	22.75	2.64	2.20	0.01
10.00	0.36	0.11	0.05	23.00	2.64	2.20	0.01
10.25	0.39	0.13	0.05	23.25	2.64	2.20	0.01
10.50	0.41	0.15	0.05	23.50	2.65	2.20	0.01
10.75	0.46	0.18	0.10	23.75	2.65	2.21	0.01
11.00	0.51	0.22	0.13	24.00	2.65	2.21	0.01
11.25	0.58	0.27	0.17				
11.50	0.66	0.33	0.21				
11.75	0.81	0.47	0.44				
12.00	1.23	0.84	1.40				
12.25	1.84	1.42	1.15				
12.50	1.99	1.57	0.42				
12.75	2.07	1.64	0.24				
13.00	2.14	1.71	0.20				
13.25	2.19	1.76	0.16				
13.50	2.24	1.80	0.12				
13.75	2.26	1.83	0.08				
14.00	2.29	1.85	0.07				
14.25	2.31	1.88	0.07				
14.50	2.33	1.90	0.07				
14.75	2.36	1.92	0.07				
15.00	2.38	1.94	0.07				
15.25	2.39	1.95	0.04				
15.50	2.40	1.97	0.04				
15.75	2.42	1.98	0.04				
16.00	2.43	1.99	0.04				
16.25	2.44	2.00	0.04				
16.50	2.45	2.01	0.04				
16.75	2.46	2.03	0.03				
17.00	2.47	2.04	0.03				
17.25	2.48	2.05	0.03				
17.50	2.50	2.06	0.03				
17.75	2.51	2.07	0.03				

24120 HydroCAD - Proposed

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MSE 24-hr 3 2-Year Rainfall=2.65"

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Summary for Subcatchment 8S: Area to Bio

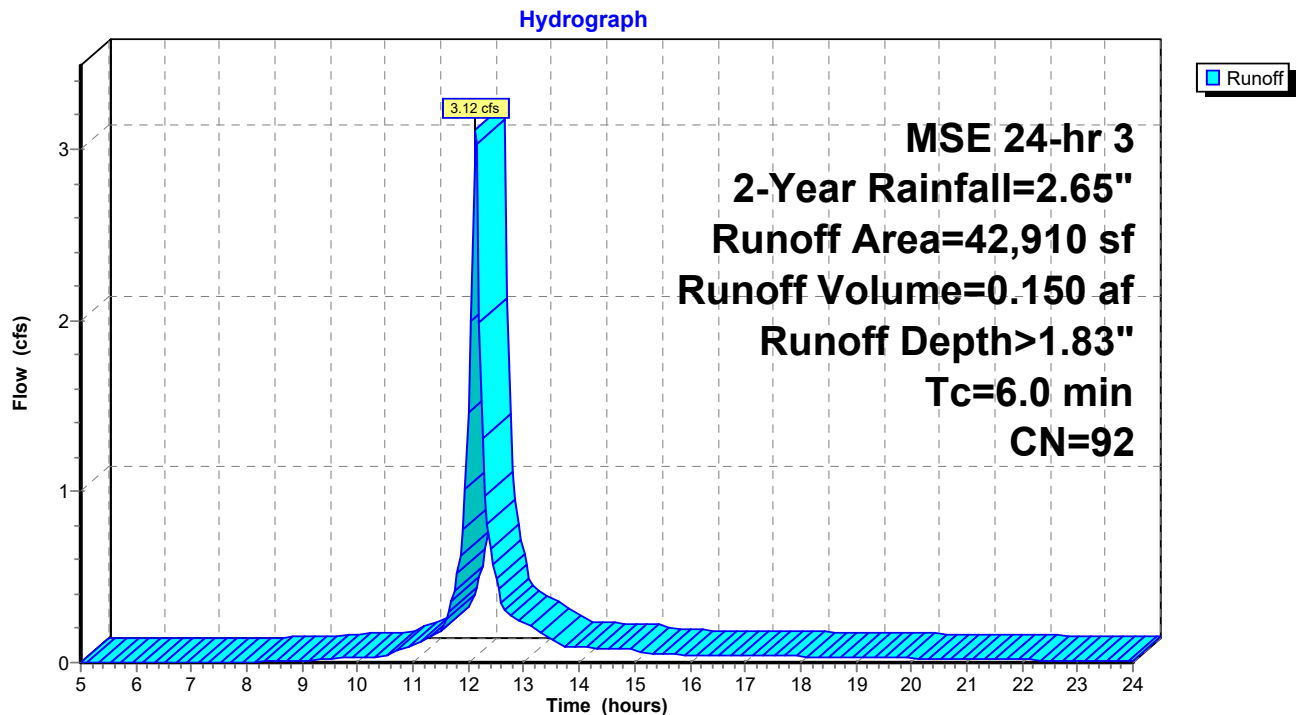
Runoff = 3.12 cfs @ 12.13 hrs, Volume= 0.150 af, Depth> 1.83"
Routed to Pond 9P : Bio

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (sf)	CN	Description
26,780	96	Gravel surface, HSG D
4,760	98	Roofs, HSG D
11,370	80	>75% Grass cover, Good, HSG D
42,910	92	Weighted Average
38,150		88.91% Pervious Area
4,760		11.09% Impervious Area

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

Subcatchment 8S: Area to Bio



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MSE 24-hr 3 2-Year Rainfall=2.65"

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Hydrograph for Subcatchment 8S: Area to Bio

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.10	0.00	0.00	18.00	2.51	1.71	0.04
5.25	0.11	0.00	0.00	18.25	2.52	1.72	0.03
5.50	0.12	0.00	0.00	18.50	2.53	1.72	0.03
5.75	0.13	0.00	0.00	18.75	2.54	1.73	0.03
6.00	0.14	0.00	0.00	19.00	2.55	1.74	0.03
6.25	0.14	0.00	0.00	19.25	2.56	1.75	0.03
6.50	0.15	0.00	0.00	19.50	2.57	1.75	0.03
6.75	0.17	0.00	0.00	19.75	2.57	1.76	0.03
7.00	0.18	0.00	0.00	20.00	2.58	1.77	0.03
7.25	0.19	0.00	0.00	20.25	2.59	1.77	0.02
7.50	0.20	0.00	0.00	20.50	2.59	1.78	0.02
7.75	0.21	0.00	0.00	20.75	2.60	1.79	0.02
8.00	0.22	0.00	0.00	21.00	2.61	1.79	0.02
8.25	0.23	0.00	0.01	21.25	2.61	1.80	0.02
8.50	0.25	0.01	0.01	21.50	2.62	1.80	0.02
8.75	0.26	0.01	0.01	21.75	2.62	1.81	0.02
9.00	0.27	0.01	0.01	22.00	2.63	1.81	0.02
9.25	0.29	0.01	0.02	22.25	2.63	1.81	0.02
9.50	0.32	0.02	0.02	22.50	2.63	1.82	0.01
9.75	0.34	0.03	0.03	22.75	2.64	1.82	0.01
10.00	0.36	0.03	0.03	23.00	2.64	1.82	0.01
10.25	0.39	0.04	0.03	23.25	2.64	1.83	0.01
10.50	0.41	0.05	0.04	23.50	2.65	1.83	0.01
10.75	0.46	0.07	0.07	23.75	2.65	1.83	0.01
11.00	0.51	0.09	0.10	24.00	2.65	1.83	0.01
11.25	0.58	0.13	0.14				
11.50	0.66	0.17	0.18				
11.75	0.81	0.27	0.42				
12.00	1.23	0.58	1.47				
12.25	1.84	1.09	1.32				
12.50	1.99	1.23	0.49				
12.75	2.07	1.30	0.28				
13.00	2.14	1.36	0.23				
13.25	2.19	1.41	0.19				
13.50	2.24	1.45	0.15				
13.75	2.26	1.47	0.09				
14.00	2.29	1.50	0.09				
14.25	2.31	1.52	0.09				
14.50	2.33	1.54	0.08				
14.75	2.36	1.56	0.08				
15.00	2.38	1.58	0.08				
15.25	2.39	1.59	0.05				
15.50	2.40	1.60	0.05				
15.75	2.42	1.62	0.05				
16.00	2.43	1.63	0.05				
16.25	2.44	1.64	0.04				
16.50	2.45	1.65	0.04				
16.75	2.46	1.66	0.04				
17.00	2.47	1.67	0.04				
17.25	2.48	1.68	0.04				
17.50	2.50	1.69	0.04				
17.75	2.51	1.70	0.04				

24120 HydroCAD - Proposed

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MSE 24-hr 3 2-Year Rainfall=2.65"

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Summary for Pond 9P: Bio

Inflow Area = 0.985 ac, 11.09% Impervious, Inflow Depth > 1.83" for 2-Year event
 Inflow = 3.12 cfs @ 12.13 hrs, Volume= 0.150 af
 Outflow = 0.06 cfs @ 15.13 hrs, Volume= 0.056 af, Atten= 98%, Lag= 180.0 min
 Primary = 0.06 cfs @ 15.13 hrs, Volume= 0.056 af
 Routed to Link 7L : Proposed Outfall

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 851.69' @ 15.13 hrs Surf.Area= 6,486 sf Storage= 4,956 cf

Plug-Flow detention time= 366.9 min calculated for 0.056 af (37% of inflow)
 Center-of-Mass det. time= 278.7 min (1,066.0 - 787.4)

Volume	Invert	Avail.Storage	Storage Description
#1	849.50'	10,638 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
849.50	6,225	0.0	0	0
850.50	6,225	33.0	2,054	2,054
851.50	6,225	27.0	1,681	3,735
852.50	7,581	100.0	6,903	10,638

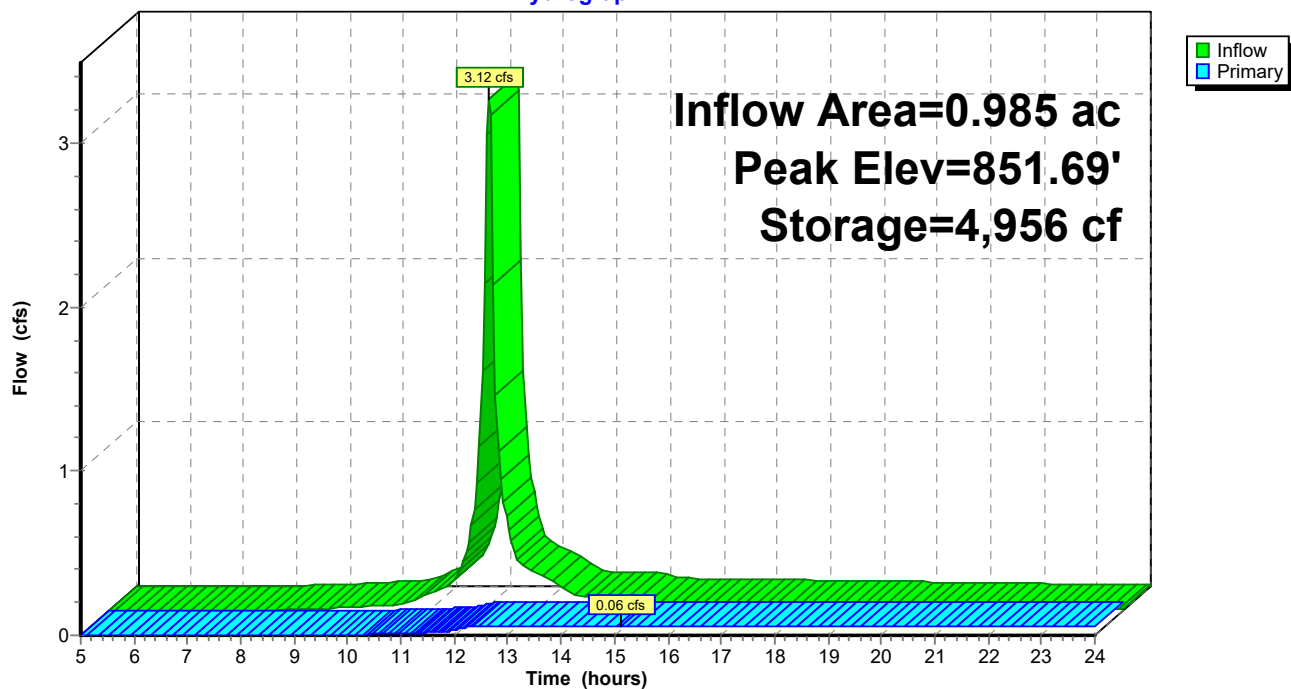
Device	Routing	Invert	Outlet Devices
#1	Primary	849.50'	12.0" Round Culvert L= 20.2' Ke= 0.500 Inlet / Outlet Invert= 849.50' / 849.00' S= 0.0248 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.79 sf
#2	Device 5	849.50'	6.0" Vert. Drain tile X 2.00 C= 0.600 Limited to weir flow at low heads
#3	Device 2	849.50'	3.600 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 1.00'
#4	Device 1	852.05'	36.0" Horiz. Grate C= 0.600 Limited to weir flow at low heads
#5	Device 1	849.50'	1.2" Vert. Restrictor Orifice C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.06 cfs @ 15.13 hrs HW=851.69' (Free Discharge)

1=Culvert (Passes 0.06 cfs of 4.92 cfs potential flow)
 4=Grate (Controls 0.00 cfs)
 5=Restrictor Orifice (Orifice Controls 0.06 cfs @ 7.05 fps)
 2=Drain tile (Passes 0.06 cfs of 2.64 cfs potential flow)
 3=Exfiltration (Passes 0.06 cfs of 0.54 cfs potential flow)

Pond 9P: Bio

Hydrograph



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MSE 24-hr 3 2-Year Rainfall=2.65"

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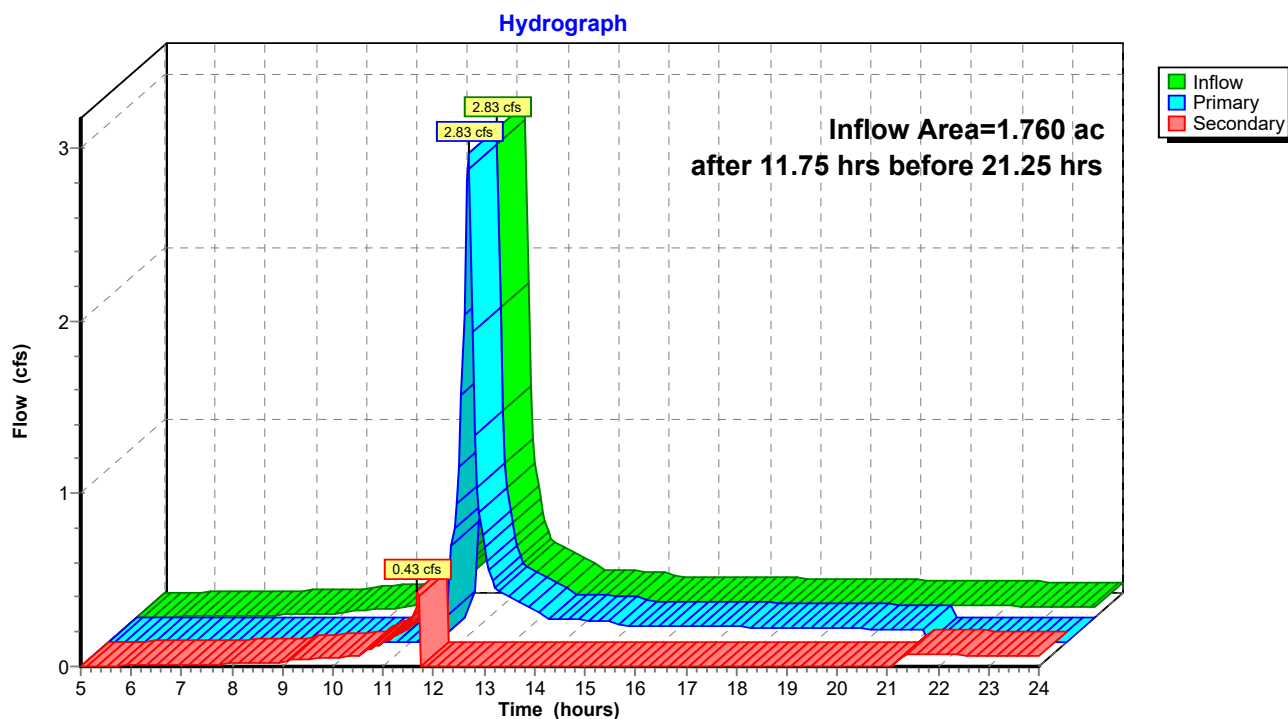
Hydrograph for Pond 9P: Bio

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	849.50	0.00
5.50	0.00	0	849.50	0.00
6.00	0.00	0	849.50	0.00
6.50	0.00	0	849.50	0.00
7.00	0.00	0	849.50	0.00
7.50	0.00	2	849.50	0.00
8.00	0.00	7	849.50	0.00
8.50	0.01	17	849.51	0.00
9.00	0.01	32	849.52	0.00
9.50	0.02	62	849.53	0.00
10.00	0.03	105	849.55	0.00
10.50	0.04	158	849.58	0.01
11.00	0.10	271	849.63	0.01
11.50	0.18	500	849.74	0.02
12.00	1.47	1,413	850.19	0.03
12.50	0.49	4,070	851.55	0.05
13.00	0.23	4,520	851.62	0.05
13.50	0.15	4,765	851.66	0.05
14.00	0.09	4,847	851.68	0.06
14.50	0.08	4,904	851.68	0.06
15.00	0.08	4,951	851.69	0.06
15.50	0.05	4,948	851.69	0.06
16.00	0.05	4,931	851.69	0.06
16.50	0.04	4,911	851.69	0.06
17.00	0.04	4,886	851.68	0.06
17.50	0.04	4,857	851.68	0.06
18.00	0.04	4,824	851.67	0.06
18.50	0.03	4,787	851.67	0.06
19.00	0.03	4,746	851.66	0.05
19.50	0.03	4,700	851.65	0.05
20.00	0.03	4,651	851.64	0.05
20.50	0.02	4,597	851.64	0.05
21.00	0.02	4,539	851.63	0.05
21.50	0.02	4,477	851.62	0.05
22.00	0.02	4,411	851.61	0.05
22.50	0.01	4,341	851.60	0.05
23.00	0.01	4,267	851.58	0.05
23.50	0.01	4,189	851.57	0.05
24.00	0.01	4,106	851.56	0.05

Summary for Link 7L: Proposed Outfall

Inflow Area = 1.760 ac, 6.21% Impervious, Inflow Depth > 1.36" for 2-Year event
Inflow = 2.83 cfs @ 12.13 hrs, Volume= 0.199 af
Primary = 2.83 cfs @ 12.13 hrs, Volume= 0.157 af, Atten= 0%, Lag= 0.0 min
Secondary = 0.43 cfs @ 11.68 hrs, Volume= 0.042 af

Primary outflow = Inflow after 11.75 hrs before 21.25 hrs, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Link 7L: Proposed Outfall

24120 HydroCAD - Proposed

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MSE 24-hr 3 2-Year Rainfall=2.65"

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Hydrograph for Link 7L: Proposed Outfall

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Secondary (cfs)
5.00	0.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	0.00
6.00	0.01	0.00	0.00	0.01
6.50	0.01	0.00	0.00	0.01
7.00	0.01	0.00	0.00	0.01
7.50	0.01	0.00	0.00	0.01
8.00	0.02	0.00	0.00	0.02
8.50	0.02	0.00	0.00	0.02
9.00	0.02	0.00	0.00	0.02
9.50	0.04	0.00	0.00	0.04
10.00	0.05	0.00	0.00	0.05
10.50	0.06	0.00	0.00	0.06
11.00	0.14	0.00	0.00	0.14
11.50	0.22	0.00	0.00	0.22
12.00	1.43	0.00	1.43	0.00
12.50	0.47	0.00	0.47	0.00
13.00	0.25	0.00	0.25	0.00
13.50	0.18	0.00	0.18	0.00
14.00	0.13	0.00	0.13	0.00
14.50	0.13	0.00	0.13	0.00
15.00	0.12	0.00	0.12	0.00
15.50	0.09	0.00	0.09	0.00
16.00	0.09	0.00	0.09	0.00
16.50	0.09	0.00	0.09	0.00
17.00	0.09	0.00	0.09	0.00
17.50	0.09	0.00	0.09	0.00
18.00	0.08	0.00	0.08	0.00
18.50	0.08	0.00	0.08	0.00
19.00	0.08	0.00	0.08	0.00
19.50	0.08	0.00	0.08	0.00
20.00	0.08	0.00	0.08	0.00
20.50	0.07	0.00	0.07	0.00
21.00	0.07	0.00	0.07	0.00
21.50	0.07	0.00	0.00	0.07
22.00	0.07	0.00	0.00	0.07
22.50	0.07	0.00	0.00	0.07
23.00	0.06	0.00	0.00	0.06
23.50	0.06	0.00	0.00	0.06
24.00	0.06	0.00	0.00	0.06

24120 HydroCAD - Proposed*MSE 24-hr 3 100-Year Rainfall=6.41"*

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Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment6S: Uncaptured

Runoff Area=33,760 sf 0.00% Impervious Runoff Depth>5.90"
Tc=6.0 min CN=96 Runoff=7.08 cfs 0.381 af

Subcatchment8S: Area to Bio

Runoff Area=42,910 sf 11.09% Impervious Runoff Depth>5.47"
Tc=6.0 min CN=92 Runoff=8.69 cfs 0.449 af

Pond 9P: Bio

Peak Elev=852.34' Storage=9,460 cf Inflow=8.69 cfs 0.449 af
Outflow=4.92 cfs 0.286 af

Link 7L: Proposed Outfall

after 11.75 hrs before 21.25 hrs Inflow=10.00 cfs 0.667 af
Primary=10.00 cfs 0.554 af Secondary=1.19 cfs 0.113 af

Total Runoff Area = 1.760 ac Runoff Volume = 0.830 af Average Runoff Depth = 5.66"
93.79% Pervious = 1.651 ac 6.21% Impervious = 0.109 ac

24120 HydroCAD - Proposed

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MSE 24-hr 3 100-Year Rainfall=6.41"

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Summary for Subcatchment 6S: Uncaptured

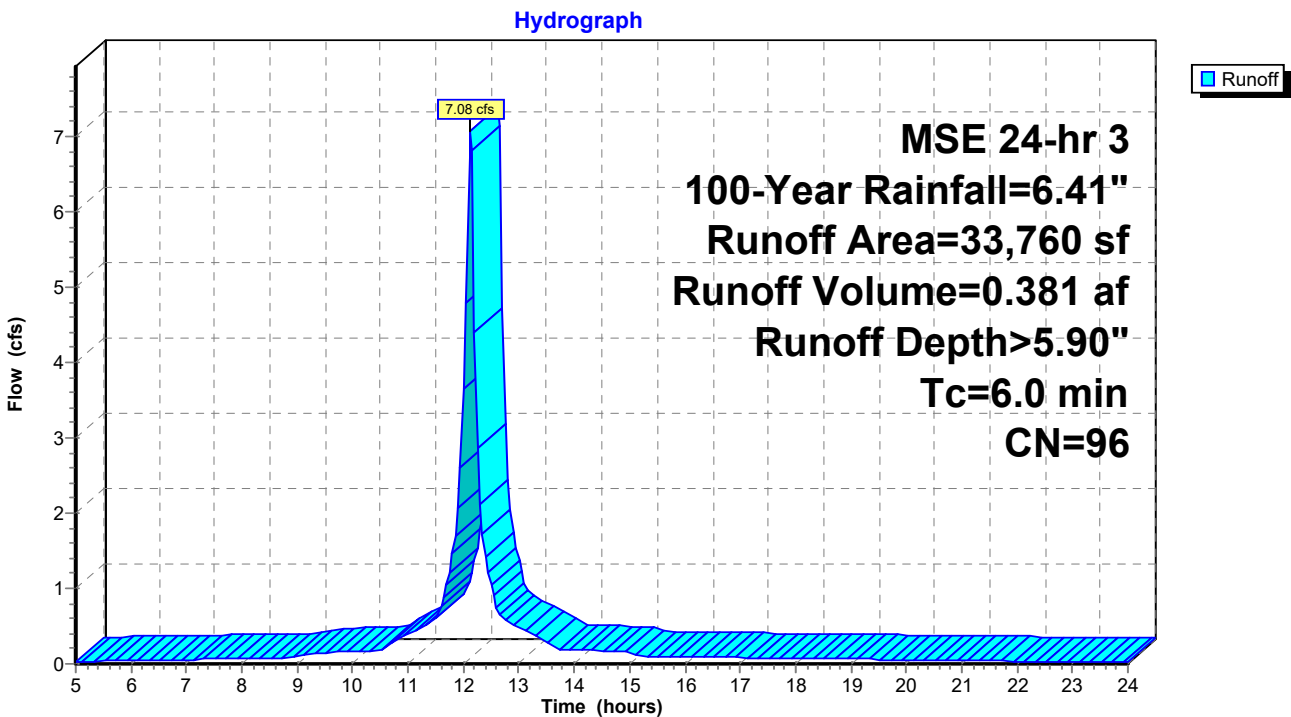
Runoff = 7.08 cfs @ 12.13 hrs, Volume= 0.381 af, Depth> 5.90"
Routed to Link 7L : Proposed Outfall

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (sf)	CN	Description
33,760	96	Gravel surface, HSG D
33,760		100.00% Pervious Area

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

Subcatchment 6S: Uncaptured



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MSE 24-hr 3 100-Year Rainfall=6.41"

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Hydrograph for Subcatchment 6S: Uncaptured

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.24	0.04	0.03	18.00	6.08	5.61	0.07
5.25	0.26	0.05	0.03	18.25	6.11	5.63	0.07
5.50	0.28	0.06	0.04	18.50	6.13	5.65	0.07
5.75	0.30	0.08	0.04	18.75	6.15	5.68	0.07
6.00	0.33	0.09	0.04	19.00	6.17	5.70	0.06
6.25	0.35	0.10	0.05	19.25	6.19	5.72	0.06
6.50	0.37	0.12	0.05	19.50	6.21	5.73	0.06
6.75	0.40	0.14	0.05	19.75	6.23	5.75	0.06
7.00	0.43	0.15	0.06	20.00	6.24	5.77	0.05
7.25	0.45	0.17	0.06	20.25	6.26	5.79	0.05
7.50	0.48	0.19	0.06	20.50	6.27	5.80	0.05
7.75	0.51	0.21	0.07	20.75	6.29	5.82	0.05
8.00	0.54	0.24	0.07	21.00	6.30	5.83	0.04
8.25	0.57	0.26	0.07	21.25	6.32	5.84	0.04
8.50	0.60	0.28	0.08	21.50	6.33	5.86	0.04
8.75	0.63	0.31	0.08	21.75	6.34	5.87	0.04
9.00	0.66	0.34	0.08	22.00	6.35	5.88	0.03
9.25	0.71	0.38	0.14	22.25	6.36	5.89	0.03
9.50	0.77	0.42	0.14	22.50	6.37	5.90	0.03
9.75	0.82	0.47	0.15	22.75	6.38	5.91	0.03
10.00	0.88	0.52	0.16	23.00	6.39	5.91	0.02
10.25	0.94	0.58	0.17	23.25	6.39	5.92	0.02
10.50	1.00	0.63	0.17	23.50	6.40	5.93	0.02
10.75	1.10	0.73	0.30	23.75	6.41	5.93	0.02
11.00	1.24	0.85	0.39	24.00	6.41	5.94	0.01
11.25	1.40	1.00	0.49				
11.50	1.59	1.18	0.58				
11.75	1.97	1.55	1.21				
12.00	2.97	2.52	3.65				
12.25	4.44	3.98	2.87				
12.50	4.82	4.35	1.04				
12.75	5.01	4.54	0.59				
13.00	5.17	4.71	0.49				
13.25	5.31	4.84	0.40				
13.50	5.41	4.94	0.30				
13.75	5.47	5.00	0.19				
14.00	5.53	5.06	0.18				
14.25	5.59	5.12	0.18				
14.50	5.64	5.17	0.17				
14.75	5.70	5.23	0.17				
15.00	5.75	5.28	0.16				
15.25	5.78	5.31	0.10				
15.50	5.81	5.34	0.10				
15.75	5.84	5.37	0.09				
16.00	5.87	5.40	0.09				
16.25	5.90	5.43	0.09				
16.50	5.93	5.46	0.09				
16.75	5.96	5.49	0.09				
17.00	5.98	5.51	0.08				
17.25	6.01	5.54	0.08				
17.50	6.04	5.56	0.08				
17.75	6.06	5.59	0.08				

24120 HydroCAD - Proposed

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MSE 24-hr 3 100-Year Rainfall=6.41"

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Summary for Subcatchment 8S: Area to Bio

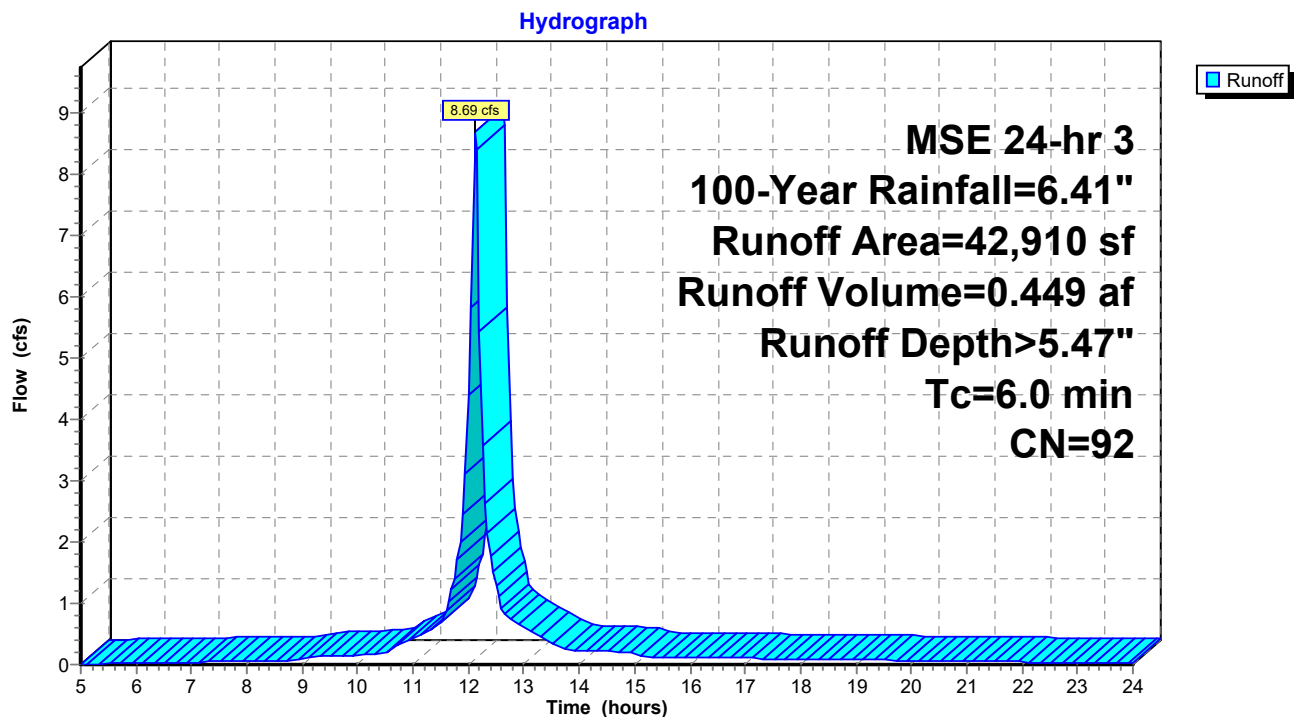
Runoff = 8.69 cfs @ 12.13 hrs, Volume= 0.449 af, Depth> 5.47"
Routed to Pond 9P : Bio

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (sf)	CN	Description
26,780	96	Gravel surface, HSG D
4,760	98	Roofs, HSG D
11,370	80	>75% Grass cover, Good, HSG D
42,910	92	Weighted Average
38,150		88.91% Pervious Area
4,760		11.09% Impervious Area

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

Subcatchment 8S: Area to Bio



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MSE 24-hr 3 100-Year Rainfall=6.41"

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Hydrograph for Subcatchment 8S: Area to Bio

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.24	0.00	0.01	18.00	6.08	5.15	0.09
5.25	0.26	0.01	0.01	18.25	6.11	5.17	0.09
5.50	0.28	0.01	0.02	18.50	6.13	5.20	0.09
5.75	0.30	0.02	0.02	18.75	6.15	5.22	0.08
6.00	0.33	0.02	0.02	19.00	6.17	5.24	0.08
6.25	0.35	0.03	0.03	19.25	6.19	5.26	0.08
6.50	0.37	0.04	0.03	19.50	6.21	5.27	0.07
6.75	0.40	0.05	0.04	19.75	6.23	5.29	0.07
7.00	0.43	0.06	0.04	20.00	6.24	5.31	0.07
7.25	0.45	0.07	0.04	20.25	6.26	5.32	0.06
7.50	0.48	0.08	0.05	20.50	6.27	5.34	0.06
7.75	0.51	0.09	0.05	20.75	6.29	5.35	0.06
8.00	0.54	0.11	0.06	21.00	6.30	5.37	0.05
8.25	0.57	0.12	0.06	21.25	6.32	5.38	0.05
8.50	0.60	0.14	0.07	21.50	6.33	5.39	0.05
8.75	0.63	0.16	0.07	21.75	6.34	5.40	0.05
9.00	0.66	0.17	0.07	22.00	6.35	5.42	0.04
9.25	0.71	0.21	0.13	22.25	6.36	5.43	0.04
9.50	0.77	0.24	0.14	22.50	6.37	5.43	0.04
9.75	0.82	0.28	0.15	22.75	6.38	5.44	0.03
10.00	0.88	0.32	0.16	23.00	6.39	5.45	0.03
10.25	0.94	0.36	0.17	23.25	6.39	5.46	0.03
10.50	1.00	0.40	0.18	23.50	6.40	5.46	0.02
10.75	1.10	0.48	0.31	23.75	6.41	5.47	0.02
11.00	1.24	0.58	0.42	24.00	6.41	5.47	0.02
11.25	1.40	0.72	0.54				
11.50	1.59	0.88	0.66				
11.75	1.97	1.21	1.41				
12.00	2.97	2.13	4.39				
12.25	4.44	3.54	3.56				
12.50	4.82	3.91	1.29				
12.75	5.01	4.10	0.73				
13.00	5.17	4.26	0.61				
13.25	5.31	4.39	0.50				
13.50	5.41	4.49	0.38				
13.75	5.47	4.55	0.24				
14.00	5.53	4.61	0.23				
14.25	5.59	4.66	0.22				
14.50	5.64	4.72	0.22				
14.75	5.70	4.77	0.21				
15.00	5.75	4.82	0.20				
15.25	5.78	4.85	0.13				
15.50	5.81	4.89	0.12				
15.75	5.84	4.92	0.12				
16.00	5.87	4.95	0.12				
16.25	5.90	4.97	0.11				
16.50	5.93	5.00	0.11				
16.75	5.96	5.03	0.11				
17.00	5.98	5.05	0.10				
17.25	6.01	5.08	0.10				
17.50	6.04	5.10	0.10				
17.75	6.06	5.13	0.09				

24120 HydroCAD - Proposed

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MSE 24-hr 3 100-Year Rainfall=6.41"

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Summary for Pond 9P: Bio

Inflow Area = 0.985 ac, 11.09% Impervious, Inflow Depth > 5.47" for 100-Year event
 Inflow = 8.69 cfs @ 12.13 hrs, Volume= 0.449 af
 Outflow = 4.92 cfs @ 12.22 hrs, Volume= 0.286 af, Atten= 43%, Lag= 5.6 min
 Primary = 4.92 cfs @ 12.22 hrs, Volume= 0.286 af
 Routed to Link 7L : Proposed Outfall

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 852.34' @ 12.22 hrs Surf.Area= 7,367 sf Storage= 9,460 cf

Plug-Flow detention time= 147.4 min calculated for 0.286 af (64% of inflow)
 Center-of-Mass det. time= 75.3 min (841.7 - 766.4)

Volume	Invert	Avail.Storage	Storage Description
#1	849.50'	10,638 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
849.50	6,225	0.0	0	0
850.50	6,225	33.0	2,054	2,054
851.50	6,225	27.0	1,681	3,735
852.50	7,581	100.0	6,903	10,638

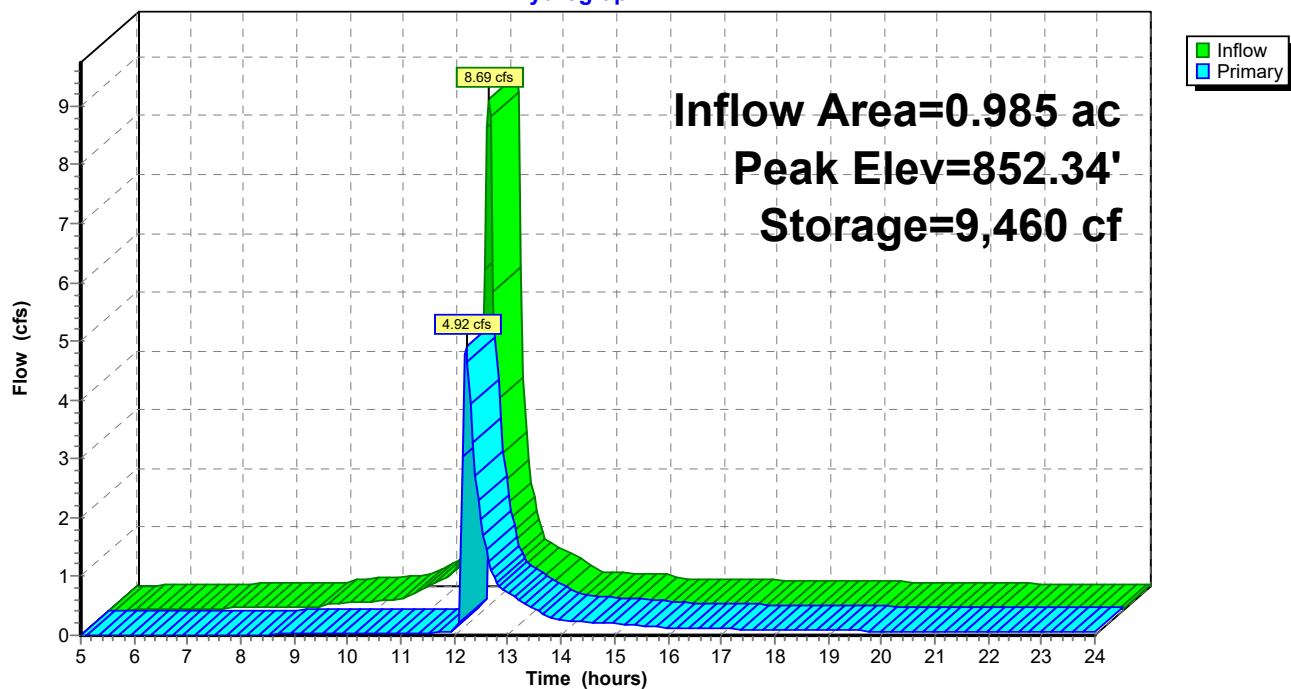
Device	Routing	Invert	Outlet Devices
#1	Primary	849.50'	12.0" Round Culvert L= 20.2' Ke= 0.500 Inlet / Outlet Invert= 849.50' / 849.00' S= 0.0248 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.79 sf
#2	Device 5	849.50'	6.0" Vert. Drain tile X 2.00 C= 0.600 Limited to weir flow at low heads
#3	Device 2	849.50'	3.600 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 1.00'
#4	Device 1	852.05'	36.0" Horiz. Grate C= 0.600 Limited to weir flow at low heads
#5	Device 1	849.50'	1.2" Vert. Restrictor Orifice C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=4.69 cfs @ 12.22 hrs HW=852.33' (Free Discharge)

1=Culvert (Passes 4.69 cfs of 5.78 cfs potential flow)
 4=Grate (Weir Controls 4.63 cfs @ 1.74 fps)
 5=Restrictor Orifice (Orifice Controls 0.06 cfs @ 8.03 fps)
 2=Drain tile (Passes 0.06 cfs of 3.04 cfs potential flow)
 3=Exfiltration (Passes 0.06 cfs of 0.61 cfs potential flow)

Pond 9P: Bio

Hydrograph



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MSE 24-hr 3 100-Year Rainfall=6.41"

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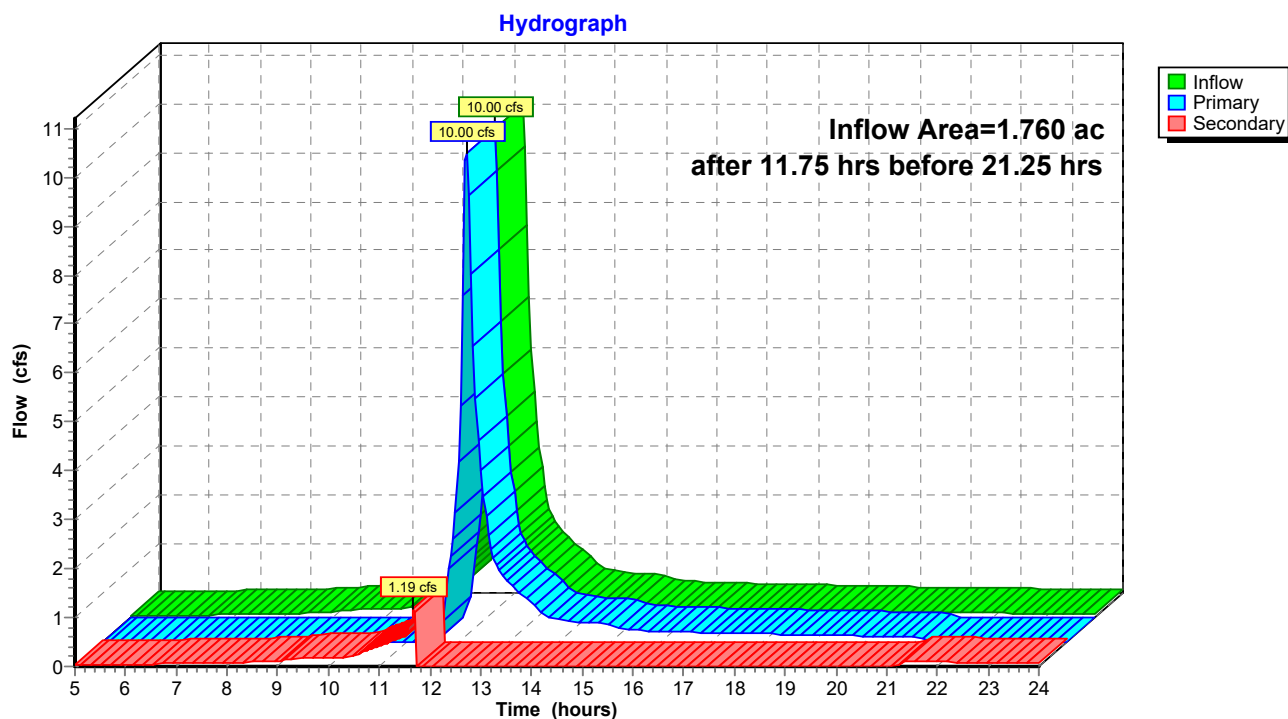
Hydrograph for Pond 9P: Bio

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.01	1	849.50	0.00
5.50	0.02	24	849.51	0.00
6.00	0.02	59	849.53	0.00
6.50	0.03	105	849.55	0.00
7.00	0.04	161	849.58	0.01
7.50	0.05	227	849.61	0.01
8.00	0.06	303	849.65	0.01
8.50	0.07	390	849.69	0.01
9.00	0.07	489	849.74	0.02
9.50	0.14	671	849.83	0.02
10.00	0.16	898	849.94	0.02
10.50	0.18	1,157	850.06	0.03
11.00	0.42	1,660	850.31	0.03
11.50	0.66	2,564	850.80	0.04
12.00	4.39	5,542	851.78	0.06
12.50	1.29	8,464	852.21	1.95
13.00	0.61	7,900	852.13	0.72
13.50	0.38	7,749	852.10	0.46
14.00	0.23	7,603	852.08	0.26
14.50	0.22	7,577	852.08	0.23
15.00	0.20	7,563	852.08	0.21
15.50	0.12	7,485	852.07	0.15
16.00	0.12	7,452	852.06	0.13
16.50	0.11	7,437	852.06	0.12
17.00	0.10	7,428	852.06	0.11
17.50	0.10	7,419	852.06	0.10
18.00	0.09	7,411	852.06	0.10
18.50	0.09	7,403	852.06	0.09
19.00	0.08	7,395	852.05	0.08
19.50	0.07	7,387	852.05	0.08
20.00	0.07	7,379	852.05	0.07
20.50	0.06	7,371	852.05	0.07
21.00	0.05	7,363	852.05	0.06
21.50	0.05	7,347	852.05	0.06
22.00	0.04	7,321	852.04	0.06
22.50	0.04	7,283	852.04	0.06
23.00	0.03	7,235	852.03	0.06
23.50	0.02	7,176	852.02	0.06
24.00	0.02	7,106	852.01	0.06

Summary for Link 7L: Proposed Outfall

Inflow Area = 1.760 ac, 6.21% Impervious, Inflow Depth > 4.54" for 100-Year event
Inflow = 10.00 cfs @ 12.16 hrs, Volume= 0.667 af
Primary = 10.00 cfs @ 12.16 hrs, Volume= 0.554 af, Atten= 0%, Lag= 0.0 min
Secondary = 1.19 cfs @ 11.68 hrs, Volume= 0.113 af

Primary outflow = Inflow after 11.75 hrs before 21.25 hrs, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Link 7L: Proposed Outfall

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MSE 24-hr 3 100-Year Rainfall=6.41"

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Page 25

Hydrograph for Link 7L: Proposed Outfall

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Secondary (cfs)
5.00	0.03	0.00	0.00	0.03
5.50	0.04	0.00	0.00	0.04
6.00	0.04	0.00	0.00	0.04
6.50	0.05	0.00	0.00	0.05
7.00	0.06	0.00	0.00	0.06
7.50	0.07	0.00	0.00	0.07
8.00	0.08	0.00	0.00	0.08
8.50	0.09	0.00	0.00	0.09
9.00	0.10	0.00	0.00	0.10
9.50	0.16	0.00	0.00	0.16
10.00	0.18	0.00	0.00	0.18
10.50	0.20	0.00	0.00	0.20
11.00	0.43	0.00	0.00	0.43
11.50	0.63	0.00	0.00	0.63
12.00	3.71	0.00	3.71	0.00
12.50	2.99	0.00	2.99	0.00
13.00	1.21	0.00	1.21	0.00
13.50	0.77	0.00	0.77	0.00
14.00	0.45	0.00	0.45	0.00
14.50	0.40	0.00	0.40	0.00
15.00	0.37	0.00	0.37	0.00
15.50	0.25	0.00	0.25	0.00
16.00	0.22	0.00	0.22	0.00
16.50	0.20	0.00	0.20	0.00
17.00	0.19	0.00	0.19	0.00
17.50	0.18	0.00	0.18	0.00
18.00	0.17	0.00	0.17	0.00
18.50	0.16	0.00	0.16	0.00
19.00	0.15	0.00	0.15	0.00
19.50	0.14	0.00	0.14	0.00
20.00	0.12	0.00	0.12	0.00
20.50	0.11	0.00	0.11	0.00
21.00	0.10	0.00	0.10	0.00
21.50	0.10	0.00	0.00	0.10
22.00	0.09	0.00	0.00	0.09
22.50	0.09	0.00	0.00	0.09
23.00	0.08	0.00	0.00	0.08
23.50	0.08	0.00	0.00	0.08
24.00	0.07	0.00	0.00	0.07

24120 HydroCAD - Proposed

Prepared by The Sigma Group Inc

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Multi-Event Tables

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Events for Subcatchment 6S: Uncaptured

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
2-Year	2.65	2.79	0.143	2.21
100-Year	6.41	7.08	0.381	5.90

24120 HydroCAD - Proposed

Prepared by The Sigma Group Inc

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Multi-Event Tables

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Events for Subcatchment 8S: Area to Bio

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
2-Year	2.65	3.12	0.150	1.83
100-Year	6.41	8.69	0.449	5.47

24120 HydroCAD - Proposed

Prepared by The Sigma Group Inc

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Multi-Event Tables

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Page 28

Events for Pond 9P: Bio

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)	Storage (cubic-feet)
2-Year	3.12	0.06	851.69	4,956
100-Year	8.69	4.92	852.34	9,460

24120 HydroCAD - Proposed

Prepared by The Sigma Group Inc

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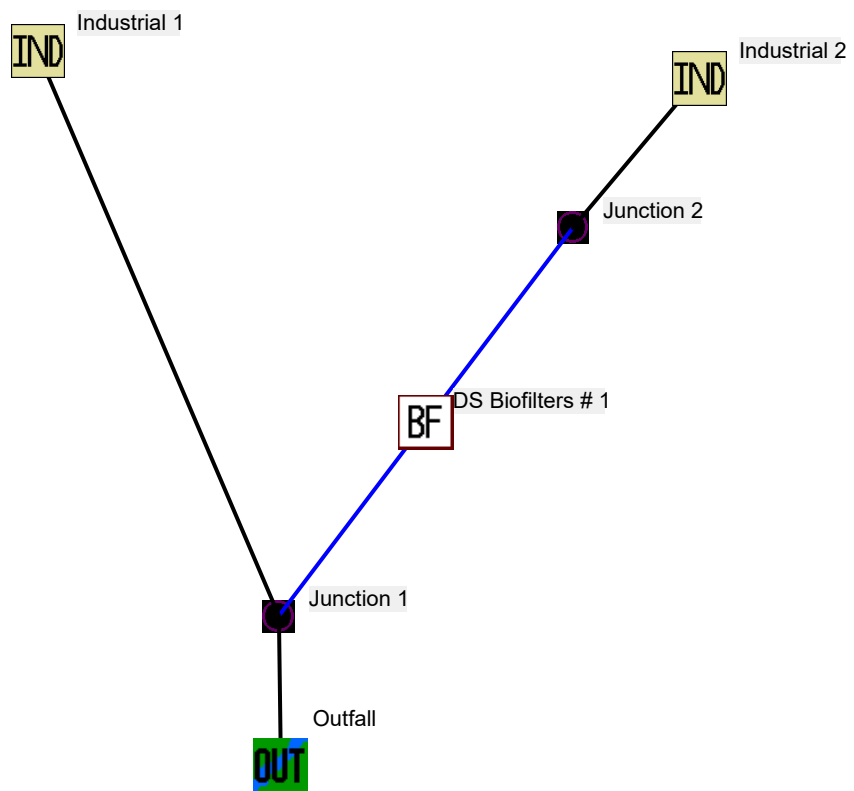
Multi-Event Tables

Printed 6/20/2025

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Events for Link 7L: Proposed Outfall

Event	Inflow (cfs)	Primary (cfs)	Secondary (cfs)	Volume (acre-feet)	Elevation (feet)
2-Year	2.83	2.83	0.43	0.157	0.00
100-Year	10.00	10.00	1.19	0.554	0.00



Data file name: I:\Bellcraft Builders\24120 - Bliffert Germantown\060 CAD\800_SWMP\040_WinSLAMM\24120 WinSLAMM Model.mdb

WinSLAMM Version 10.5.0

Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN

Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx

Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx

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

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

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

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

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

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

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

Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx

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

Cost Data file name:

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: 01/05/69

Study period ending date: 12/31/69

Start of Winter Season: 12/06

End of Winter Season: 03/28

Date: 06-20-2025

Time: 15:30:59

Site information:

LU# 1 - Industrial: Industrial 1 Total area (ac): 0.775

13 - Paved Parking 1: 0.775 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 2 - Industrial: Industrial 2 Total area (ac): 0.985

1 - Roofs 1: 0.109 ac. Pitched Connected PSD File: C:\WinSLAMM Files\NURP.cpz Source Area PSD File: C:\WinSLAMM Files\NURP.cpz OD-CP#2

13 - Paved Parking 1: 0.615 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 0.261 ac. Normal Clayey Low Density PSD File: C:\WinSLAMM Files\NURP.cpz Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

Control Practice 1: Biofilter CP# 1 (DS) - DS Biofilters # 1

1. Top area (square feet) = 7581

2. Bottom area (square feet) = 6225

3. Depth (ft): 3

4. Biofilter width (ft) - for Cost Purposes Only: 10

5. Infiltration rate (in/hr) = 0.3

6. Random infiltration rate generation? No

7. Infiltration rate fraction (side): 0.001

8. Infiltration rate fraction (bottom): 1

9. Depth of biofilter that is rock filled (ft) 1

10. Porosity of rock filled volume = 0.33

11. Engineered soil infiltration rate: 3.6

12. Engineered soil depth (ft) = 1

13. Engineered soil porosity = 0.27

14. Percent solids reduction due to flow through engineered soil = 80

15. Biofilter peak to average flow ratio = 3.8

16. Number of biofiltration control devices = 1

17. Particle size distribution file: Not needed - calculated by program

18. Initial water surface elevation (ft): 0

Soil Data Soil Type Fraction in Eng. Soil

User-Defined Media Type 1.000

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: 2.59

Outlet type: Vertical Stand Pipe

1. Stand pipe diameter (ft): 3

2. Stand pipe height above datum (ft): 2.55

Outlet type: Drain Tile/Underdrain

1. Underdrain outlet diameter (ft): 0.1

2. Invert elevation above datum (ft): 0

3. Number of underdrain outlets: 1

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

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

Particulate Concentration reduction fraction = 1.00

Filterable Concentration reduction fraction = 0.00

Runoff volume reduction fraction = 0

Control Practice 3: Other Device CP# 2 (SA) - SA Device, LU# 2 ,SA# 45

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

Particulate Concentration reduction fraction = 1.00

Filterable Concentration reduction fraction = 0.00

Runoff volume reduction fraction = 0

Data file name: I:\Bellcraft Builders\24120 - Bliffert Germantown\060 CAD\800_SWMP\040_WinSLAMM\24120 WinSLAMM Model.mdb
WinSLAMM Version 10.5.0
Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppd
Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
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: 01/05/69 Study period ending date: 12/31/69
Start of Winter Season: 12/06 End of Winter Season: 03/28
Model Run Start Date: 01/05/69 Model Run End Date: 12/31/69
Date of run: 06-20-2025 Time of run: 15:31:32
Total Area Modeled (acres): 1.760
Years in Model Run: 0.99

	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:	119311	-	223.8	1667	-
Outfall Total with Controls:	70164	41.19%	218.2	955.6	42.68%
Annualized Total After Outfall Controls:	71138			968.8	

Biofilter # 1 is expected to clog in 17.32 years.. Percent Solids Reduction due to Engineered Media = 80

Appendix C

Stormwater Maintenance Agreement

DRAFT Long-Term Stormwater Management Maintenance Agreement

Site Name:

Bliffert Germantown
N116 W16474
Germantown, WI

Biofiltration Basin

Inspection:

To ensure the proper function of the biofiltration basin, the following activities must be completed on a monthly during the growing season (March – November):

1. Inspect basin for erosion damage.
2. Inspect for litter
3. Inspect the basin inlets and outlet riser for blockage and structural integrity on an annual basis.
4. Inspect the basin for the presence of weeds.
5. Inspect condition of plants in basin for plants that appear to be dead or dying
6. Inspect basin for visible indication of engineered soil clogging or overtopping of the basin.

Maintenance:

1. Remove litter on a regular basis
2. Repair any noted erosion damage. Apply topsoil/seed/much/geotextile as necessary to stabilize repaired areas.
3. Water plants as regularly during first growing season; plants should only need watering during periods of drought after establishment.
4. Water plants as needed during drought periods.
5. Remove weeds regularly during the establishment period (first two years) and as needed thereafter; hand weed to prevent compaction of and minimize disturbance of plants; weed after watering or after rain event to minimize disturbance and aid in removal.
6. Remove invasive weeds (Canada thistle, garlic mustard, tree seedlings) immediately; hand weed to prevent compaction of and minimize disturbance of plants; weed after watering or after rain event to minimize disturbance and aid in removal.
7. Remove/replace diseased, dying, or dead plantings as needed
8. When standing water is observed in 50% of the basin floor 3 days after rainfall event it is an indication that the engineered soils have clogged and lost their infiltration capacity and soil maintenance is required; soil maintenance shall consist of remove sediment and replacement top 2 to 3 inches of engineered soil and deep tilling and replacement/re-establishment of plants damaged during soil maintenance activities.
9. Remove any blockage from outlet structure/overflow riser
10. Repair any structural damage to outlet structure/overflow riser

[Signatures on next page]

Signatures

The undersigned agree to the provision set forth in this agreement.

For the Owner:

Name

Title

Signature

Date

STATE OF WISCONSIN)

) S.S.

WASHINGTON COUNTY)

Personally came before me this _____ day of _____, 20__, the above named _____ to me known to be the person who executed the foregoing instrument and acknowledged the same.

Notary Public

State of Wisconsin

My Commission expires _____

This document was drafted by:

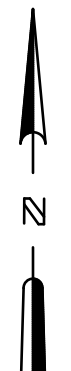
The Sigma Group, Inc.
1300 W. Canal Street
Milwaukee, WI 53233
414-643-4200



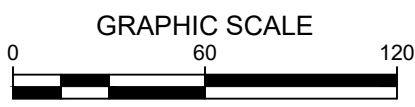
EXISTING WATERSHED AREA			
Tc = 6.0 min.	SF	ACRE	CN
PROPOSED			
WOODS	46665	1.071	77
GRAVEL	30005	0.689	96
TOTAL	76670	1.760	84



Single Source. Sound Solutions.
www.thesigmagroup.com
1300 West Canal Street
Milwaukee, WI 53233
Phone: 414-643-4200
Fax: 414-643-4210



N



GRAPHIC SCALE
0 60 120

BLIFFERT GERMANTOWN

N116 W16474 MAIN ST

GERMANTOWN, WI 53022

EXISTING CONDITIONS

PRELIMINARY

NOT FOR

CONSTRUCTION

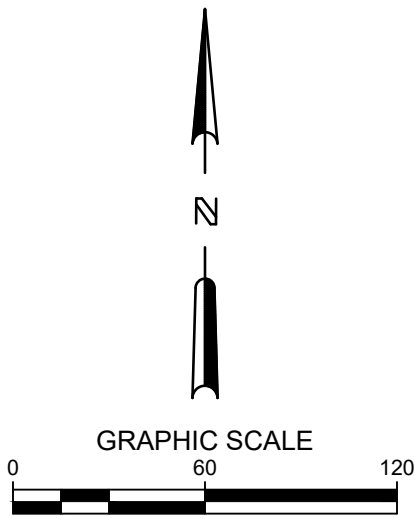
ISSUANCE	DATE
----	----
NO. REVISION	DATE
----	----
PROJECT NO:	24120
DESIGN DATE:	----
PLOT DATE:	2025.06.09
DRAWN BY:	----
CHECKED BY:	----
APPROVED BY:	----
SHEET NO:	SW 1.0



WATERSHED AREA TO BIO			
Tc = 6.0 min.	SF	ACRE	CN
PROPOSED			
GRASS	11370	0.261	80
GRAVEL	26780	0.615	96
ROOF	4760	0.109	98
TOTAL	42910	0.985	92

UNCAPTURED WATERSHED AREA			
Tc = 6.0 min.	SF	ACRE	CN
PROPOSED			
GRAVEL	33760	0.775	96
TOTAL	33760	0.775	96

THE SIGMA GROUP
Single Source. Sound Solutions.
www.thesigmagroup.com
1300 West Canal Street
Milwaukee, WI 53233
Phone: 414-643-4200
Fax: 414-643-4210



BLIFFERT GERMANTOWN
N116 W16474 MAIN ST
GERMANTOWN, WI 53022

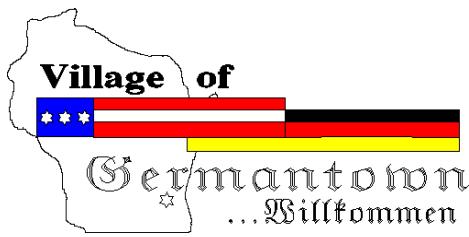
POST DEVELOPMENT CONDITIONS

PRELIMINARY
NOT FOR
CONSTRUCTION

ISSUANCE	DATE
----------	------

NO. REVISION	DATE
--------------	------

PROJECT NO:	24120
DESIGN DATE:	----
PLOT DATE:	2025.06.09
DRAWN BY:	----
CHECKED BY:	----
APPROVED BY:	----
SHEET NO:	SW 2.0



Engineering Department Memorandum

To: Jeffrey W. Retzlaff, AICP - Planning Director/Zoning Administrator

From: Kevin Driscoll, P.E. - Village Engineer

Date: July 10, 2025

Re: Bliffert Lumber

Items Reviewed:

- | | |
|-------------------------------|-----------------|
| 1. Civil Plan Set | Dated: 06-19-25 |
| 2. Stormwater Management Plan | Dated: 06-19-25 |

General Comments:

1. Please respond to each item below. **A written response addressing each item shall be included in your submittal.**
2. The submitted plans have been reviewed for general conformance with State and Village design guidelines. Additional comments could arise as a result of the plan completion and modifications. The items listed below will need to be fully resolved before the Engineering Dept. can recommend a formal approval of the plans and permit for construction.
3. This project will require a WRAPP/NOI from the DNR. Please submit a copy of the approved permit prior to final approval.
4. The project will require DSPS plumbing and infiltration system review and approval. Please provide a copy of the DSPS approval prior to engineering approval
5. As-builts prepared to Village standards shall be prepared and provided to the Village post-construction (for all applicable items).
6. A professional engineer's original seal is to be affixed, signed and dated on the final set of construction plans.
7. Utility permits and permits for work within the ROW are required. Contact the Village engineering department to obtain permits.
8. As a guide to the review response: Items in *italics* are resolved or acknowledged, items in regular font are to be addressed yet, items in **Bold** are additional feedback to remaining original comment.

C100

1. Driveway condition is deteriorated with cracked and broken concrete. Complete Driveway Permit and replace concrete driveway.

C200

2. Provide additional spot elevations showing how the paved area will be graded. Currently based on contours and spot elevations there are large flat areas at elevation 854 that don't appear to drain.
3. Show basin overflow location and elevation.
4. Provide spot elevations for the top of the berm.
5. Show proposed and existing grading North, East and West sides of the proposed building including the railroad row to the north.

6. Dimension the impervious setback distance to the wetlands on the south side of the site. Demonstrate compliance with NR151 wetland setback requirements.
7. Provide permanent outfall protection at the storm sewer outlet.

C400

1. Outlet control structure detail show both 5' diameter and 3' diameter. Revise to be consistent.
2. Bio-filtration basin must meet WDNR technical standards including 18" min engineered soil thickness.
3. Underdrain elevation is incorrect in the table.
4. Provide details of gravel used for the basin.
5. Provide details of liner type to be used.

Stormwater Management Plan

1. Correct typo require 400% TSS removal on page 1.
2. Provide information on the start and end time used for the critical time period.
3. The hydrocad model must span the entire 24 hours starting at 0 hours.
4. Provide hydrograph tables for the entire 24 hour study period showing the discharge volumes.
5. Revise proposed hydroCAD model to include the pavement area with a curve number of 98.
6. Proposed hydrocad calcs are showing the area as 100% pervious. Adjust model to correct.
7. Provide details on the building roof and show how the north half of the roof will be routed to the basin.
8. Drainage area boundary on the west side of the proposed building do not appear to match the contours. Revise to accurately reflect drainage boundaries. Include all disturbed areas in the calcs. Including the back side of the pond berm and around the proposed building.
9. Adjust the WinSLAMM to 0 in/hr for the infiltration rate if the basin is lined.
10. Provide information on why the other devices are being used in the model. Typically those are used for offsite drainage flowing to a control practice.

|

ZONING PERMIT REVIEW

07/14/25 Plan Commission Meeting

Justin and Elizabeth Rundle

Village Staff Report & Recommendation

Germantown, Wisconsin

SUMMARY

Justin and Elizabeth Rundle, Property Owners. Zoning Permit Application to install a 6' privacy fence in a public drainage easement and a storm sewer easement on property located at W160 N10766 Hidden Glen Lane.

Property Location: W160 N10766 Hidden Glen Lane

Property Owner: Justin and Elizabeth Rundle
W160 N10766 Hidden Glen Lane
Germantown, WI 53022

Zoning: Rs-5: Single-Family Residential District

Adjacent Land Uses		Zoning
North	Single-Family Residential	Rs-5
South	Single-Family Residential	Rs-5
East	Single-Family Residential	Rs-7
West	Single-Family Residential	Rs-5

Location Map



Background/Proposal

Justin and Elizabeth Rundle, Property Owners. Zoning Permit Application to install a 6' privacy fence in a public drainage easement and a storm sewer easement on property located at W160 N10766 Hidden Glen Lane.

As indicated in the supporting documentation, the applicant would like to install a 6' high solid white privacy fence along both side property lines and the rear property line. For reference, the side property lines are the northern and southern lot lines, while the rear lot line is the eastern property boundary. The applicant has advised that the bottom of the fence will be installed at 6" (inches) above grade within the drainage easement. While the fence installation is part of an overall in-ground pool project and will act as a perimeter barrier/enclosure around pool area and property, the lot is encumbered by two (2) easements, which are detailed as follows:

- 20' Storm Drainage Easement – Runs North/South along Rear Property Line
- 10' Storm Sewer Easement – Runs East/West along Southern Property Line

The fence would encroach into both easements at different points throughout the property. Please refer to the included graphic below (next page) and attached site layout plans for illustrative purposes and note that the lot is Lot 82 of the Brook Hollow Subdivision. Note that Section 17.50(2)(f)6. of the Zoning Code restricts fences from being installed within a publicly owned and maintained easement, except when authorized by the Plan Commission:

6. Fences and Easements.

- i. Fences should not be located within any type of utility or private easement unless written authorization to install said fence is provided to the Village at the time a building permit is submitted by the utility owner and/or beneficiary of the easement.*
- ii. The Plan Commission may authorize the installation of a fence in a publicly owned and maintained drainage easement where the owner of the land encumbered by the easement shows to the satisfaction of the Plan Commission that, considering the proposed location, design, and materials of the proposed fence, the encroachment of the fence into the easement will not materially interfere with drainage flow within the easement, and, in the case of a subdivision, the homeowners association consents in writing to the encroachment, or if not in a subdivision, the adjacent landowners consent in writing.*
- iii. If the Plan Commission deems it necessary in order to make its decision to authorize an encroachment into a drainage easement by a fence, it may require that the applicant provide a report by a professional engineer providing an opinion that the encroachment will not impair drainage flow within the easement.*
- iv. Should it be necessary and in the public interest for the Village or its designee to remove a fence installed in a publicly owned and maintained easement or right-of-way, all costs (materials and labor) shall be borne by the owner of the fence.*
- v. If the installation of a fence in a public drainage easement is approved, the Plan Commission may require as a condition of approval that the property owner enter into an agreement with the Village that the property owner assumes responsibility for removing and/or replacing the fence and any other damages or costs if access to or maintenance of the easement is required by the Village.*
- vi. If the applicant whose property abuts the drainage way shall be aggrieved by the decision of the Plan Commission, such aggrieved person may appeal the decision to the Village's Board of Zoning Appeals by filing an appeal within thirty (30) days after the date of the Plan Commission's decision.*



Staff Analysis

The Plan Commission may authorize the installation of a fence in a publicly owned and maintained easement where the owner of the land encumbered by the easement shows to the satisfaction of the Plan Commission that, considering the proposed location, design, and materials of the proposed fence, the encroachment of the fence into the easement will not materially interfere with drainage flow within the easement, and, in the case of a subdivision, the homeowners association consents in writing to the encroachment, or if not in a subdivision, the adjacent landowners consent in writing.

Regarding the drainage easement and flow, the project includes a 6' solid privacy fence that is proposed in the easement. The applicant has proposed the bottom of the fence to be 6" (inches) above grade throughout the drainage easement in effort to allow better stormwater flow. While the fence being installed at 6" above grade will allow better stormwater flow than being installed at grade, staff recommends an "open" style fence within the drainage easement, or a design determined by the Plan Commission that would not materially interfere with drainage flow. The Plan Commission may also determine the fence, as proposed, is acceptable.

As previously mentioned, the property is also encumbered by a 10' swath of storm sewer easement running east/west along the southern boundary (side lot line). Since

this proposal includes a segment of the 6' privacy fence within this easement as well, staff has recommended conditions that the Village be held harmless in the event the fence needs to be removed for any reason and not be made responsible for any costs associated with removal, replacement, or damage to any storm utility while being installed. Finally, regarding the Homeowner's Association (HOA) provision, there is no known active HOA for the Brook Hollow Subdivision.

The Public Works Department recommends fences to be installed outside of easements, but in the event fences are authorized to be installed in a publicly maintained easement they recommend that extreme caution be taken when installing the fence. Furthermore, the Public Works Department recommends that the Village be held harmless in the event the fence needs to be removed for any reason and not be made responsible for any costs associated with removal and/or replacement. Please refer to the attached review memo provided by the Village Engineer, dated May 29, 2025.

VILLAGE STAFF RECOMMENDATION

APPROVE the zoning permit application to install a 6' privacy fence in a public drainage easement and a storm sewer easement on property located at W160 N10766 Hidden Glen Lane, subject to the following conditions:

1. The segments of fence installed within the drainage easement shall be modified to be an "open" style fence for stormwater flow purposes, or a design determined by the Plan Commission to not materially interfere with drainage flow.
2. A fence permit is required from Building Inspection Services. The property owner is required to contact SAFEBuilt Inspection Services for more information.
3. The property owner shall enter into an encroachment agreement with the Village that specifies the property owner assumes responsibility for removing and/or replacing the fence and any other damages or costs if access to or maintenance of the easement is required by the Village.
4. It shall be the responsibility of the homeowner to maintain a free flow of water within the drainage easement at all times.
5. If the fence needs to be removed to make improvements and/or conduct maintenance within the easement, the property owner shall be responsible for all costs associated with removing the fence to the extent necessary within seven (7) days of being notified by the Village (or another mutually agreeable deadline). The property owner shall be responsible for any and all costs associated with any damage, removal, or re-installation of said fence.
6. The property owner and/or fence installer shall be liable for any and all damage to any storm sewer utility upon installation and all site restoration within the easements.



Village of


Germantown
Willkommen

ZONING COMPLIANCE/ OCCUPANCY PERMIT

Date of Application: 5/28/25

Fee Received By: QR

Please read and print legibly. List name of actual contact person (NOT just business name).

pd cash

APPLICANT OR AGENT:

Name: Justin & Liz Rundle

Address: 1160 N10766 Hidden Glen

City/State/Zip: Germantown WI 53022

Phone: 920-980-7528

E-Mail: Erundle@capricommunities.com

PROPERTY or Business OWNER:

Name: _____

Address: _____

City/State/Zip: _____

Phone: _____

E-Mail: _____

PROPERTY ADDRESS OR Tax Parcel ID#:

1160 N10766 Hidden Glen Lane
Germantown WI 53022

DESCRIPTION OF PROPOSED USE (Describe improvements, structures, uses and activities conducted, services provided, products made or sold, # of employees, hours of operation, etc. that will enable Zoning Administrator to determine if the proposed use or operation complies with the applicable zoning district and/or other use restrictions that may apply to the subject property. Use back side or additional sheets as needed):

Fence for property for around inground pool
around/in drainage easement

6' white privacy fence; installed 6" above grade within drainage easement

READ AND INITIAL THE FOLLOWING:

- ☒ I understand that Village Staff may request additional information to properly evaluate this request and failure to provide such information may in itself be sufficient cause to deny the petition.
- ☒ I understand that Village Staff can impose conditions or other requirements necessary in order to meet and/or remain in compliance with the Village's Zoning Codes and/or other Village requirements that may apply to the subject property.

INCLUDE THE FOLLOWING WITH YOUR APPLICATION:

- ☒ A scaled site plan showing location of proposed use on the property (not required if within building).
- ☒ \$175 Application Fee
- ☒ Other Information required by Zoning Administrator

SIGNATURES: ALL APPLICATIONS MUST BE SIGNED

Liz Rundle

Applicant

Erundle

Property Owner

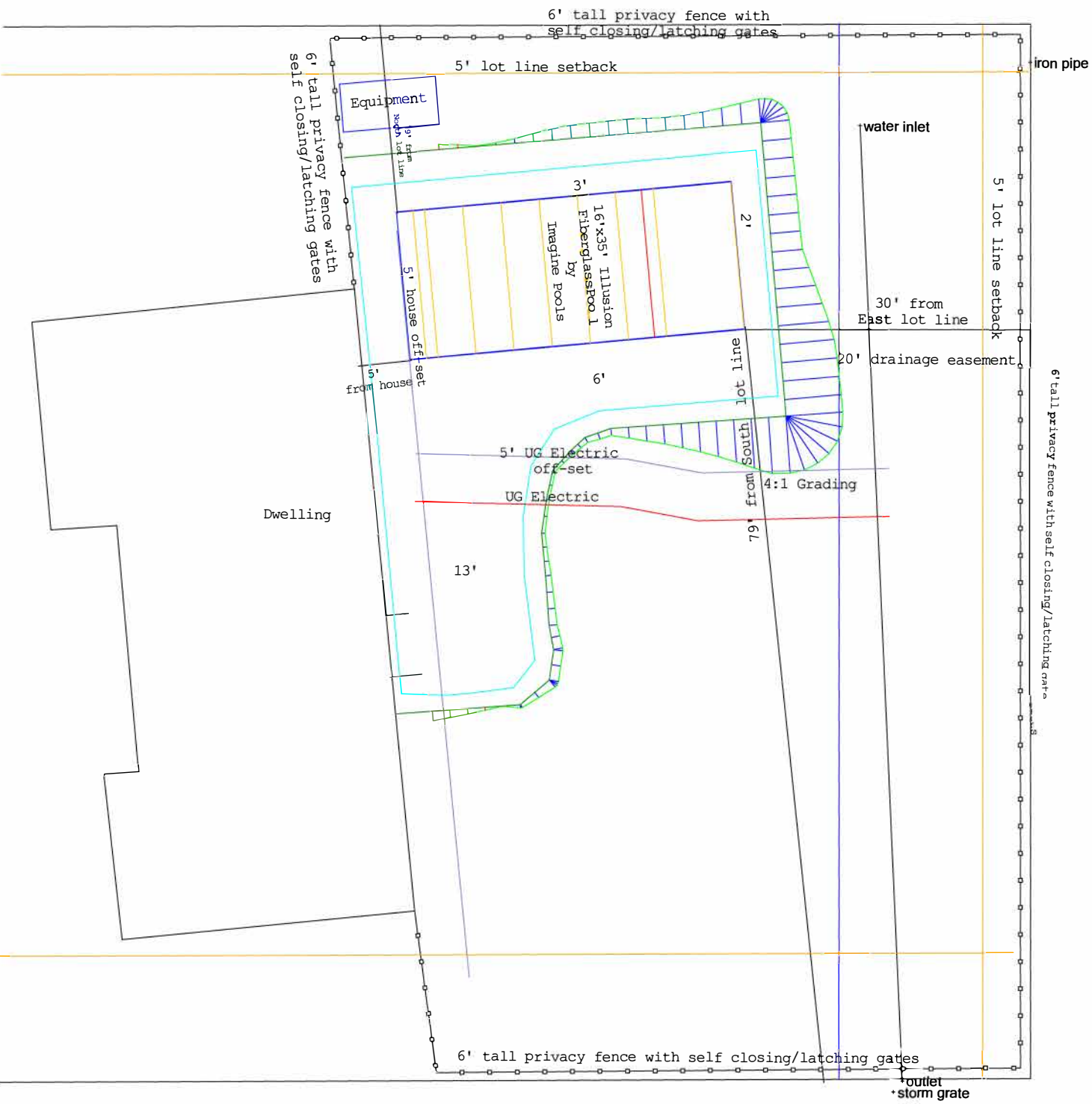
Date

5-27-25

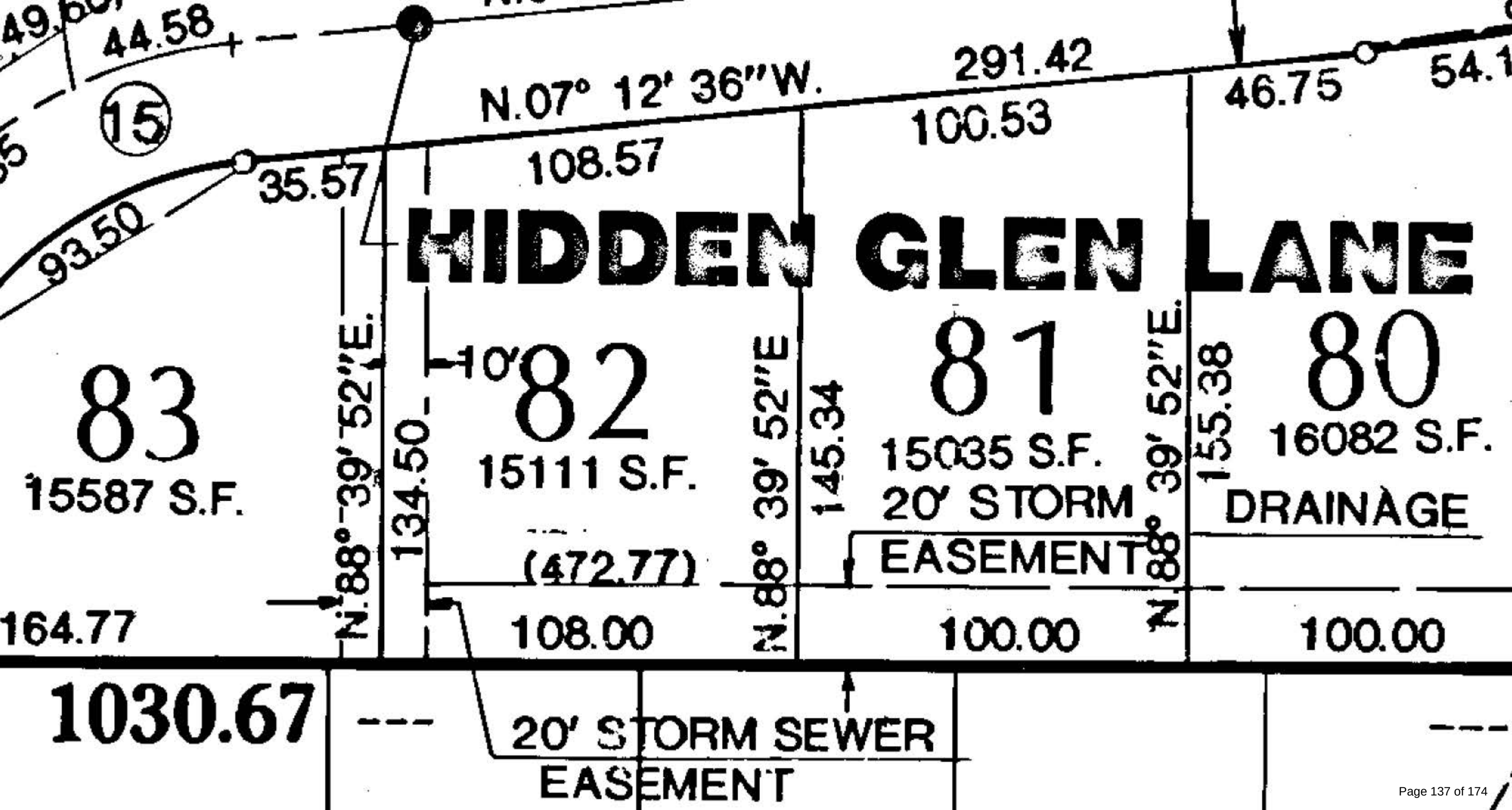
Date

VILLAGE USE ONLY





10 ft



108.57

**6' WHITE PRIVACY
FENCE; 6" ABOVE
GRADE IN DRAINAGE
EASEMENT**

HIDDEN GLEN LANE

[HOME](#)

POOL

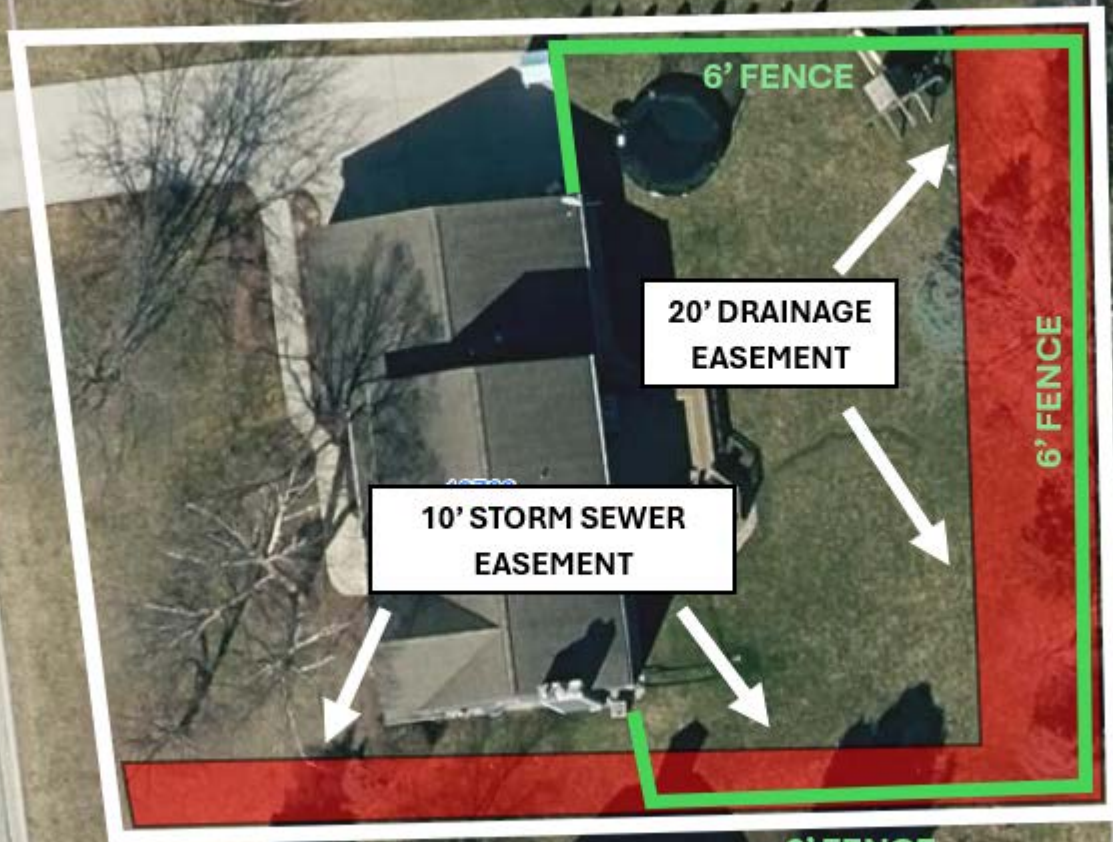
81

15035 S.F.
20' STORM
EASEMENT

80

16082 S.F.
DRAINAGE

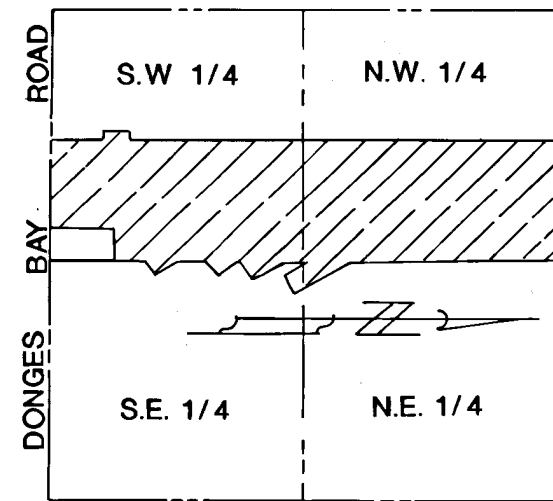
20' STORM SEWER EASEMENT



LOCATION MAP

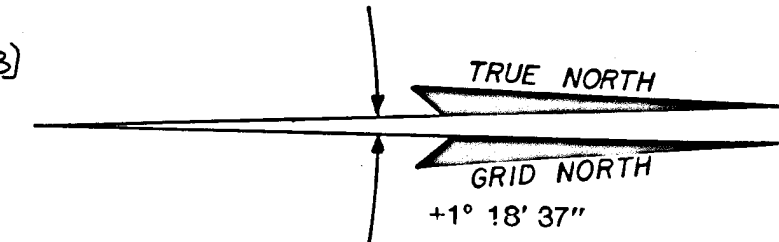
SCALE 1" = 1000'

0 500 1000 2000

S.W. COR.
SE 1/4 SEC. 27,
T9N, R20E
CONC. MON. W/
BRASS CAPPILGRIM ROAD
S.E. 1/4 SEC. 27, T9N, R20E.

BROOK HOLLOW

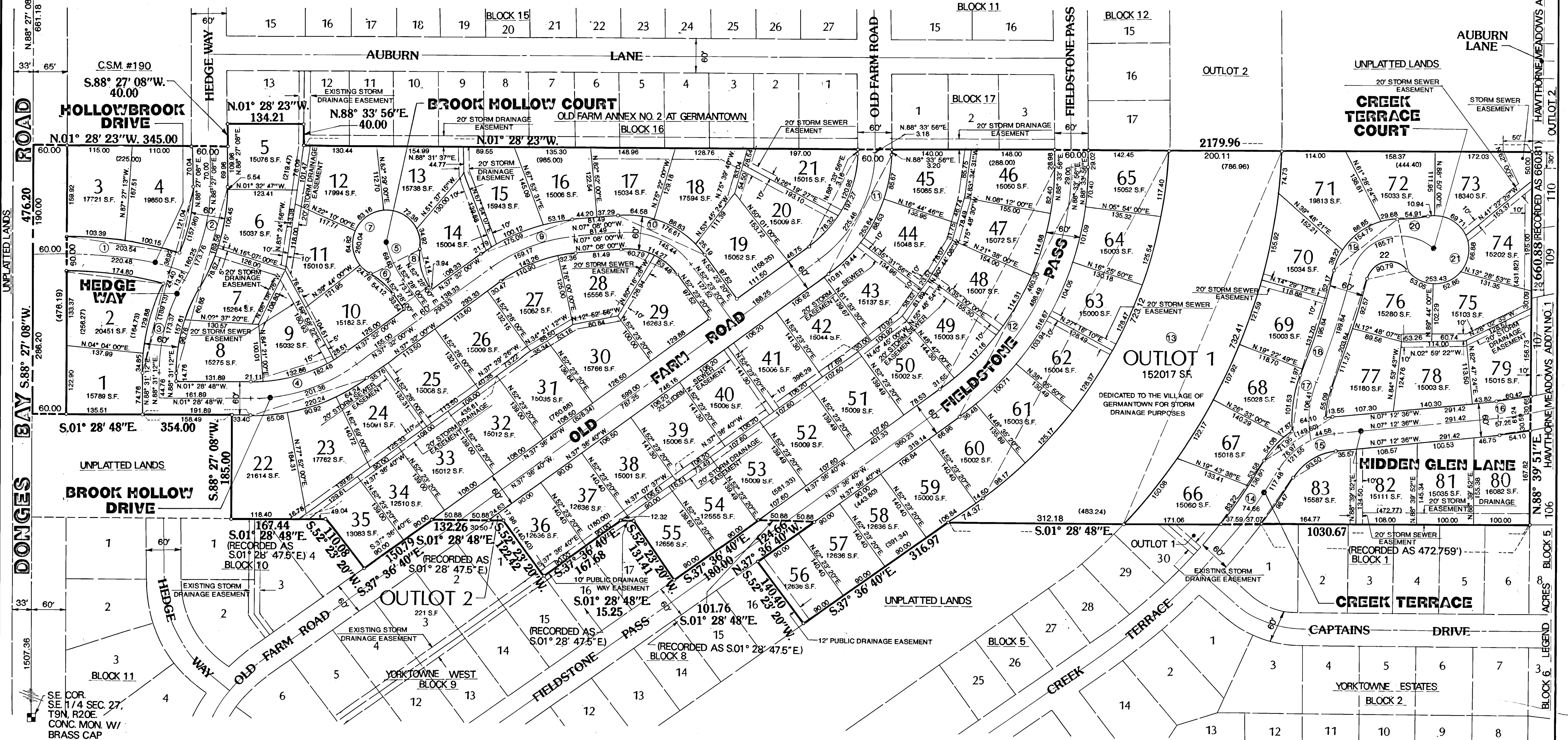
BEING A SUBDIVISION OF OUTLOT 1, BLOCK 16, OF "OLD FARM ANNEX NO. 2 AT GERMANTOWN" AND OUTLOT 2 OF BLOCK NO. 8, OUTLOTS 1 AND 2 OF BLOCK NO. 9 AND OUTLOT 1 OF BLOCK NO. 10 OF "YORKTOWNE WEST" AND LANDS ALL BEING IN THE N.W. 1/4, N.E. 1/4, S.E. 1/4 AND THE S.W. 1/4 OF THE S.E. 1/4 OF SECTION 27, T9N, R20E. IN THE VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

FEE
EXEMPT 72.25(13)

0 50' 100' 200' 300' 400' 500'

SCALE 1" = 100'

MICHAEL J. LOSIK & ASSOC.
WAUKESHA, WISCONSIN
PROFESSIONAL ENGINEERS - LAND SURVEYORS



ACCESS RESTRICTION

Owner does hereby restrict Lots 1 through 3 in that no owner, possessor, user, nor licensee, nor other person shall have any right of direct vehicular ingress or egress with Donges Bay Road, as shown on the plat. It being expressly intended that this restriction for the benefit of the public according to Section 236.293 of the Wisconsin Statutes and shall be enforceable by the Village of Germantown.

NOTES:

• Indicates 2" x 30" iron pipe weighing 3.65 lbs. per lineal foot. All other lot corners are staked with a 1" x 24" iron pipe weighing 1.13 lbs. per lineal foot. All bearings are referenced to Grid North of the Wisconsin State Plane Coordinate System-South Zone, in which the South line of the Southeast 1/4 of Section 27, Town 9, North, Range 20 East was taken to bear N.88° 27' 08"E. All linear measurements have been made to the nearest one-hundredth of a foot. All angular measurements have been made to the nearest second and computed to the nearest one-half second.

REGISTERS OFFICE
WASHINGTON CO., WIS.

Rec'd For Record This 22nd
Day of March A.D. 19 90
At 2:00 P. M.

John C. Steilen
REGISTER OF DEEDS

DATED THIS 31st DAY OF JULY, 1989
REVISED THIS 22nd DAY OF JANUARY, 1990
REVISED THIS 14th DAY OF FEBRUARY, 1990





Engineering Department Memorandum

To: Jeff Retzlaff, AICP - Director of Community Development

From: Kevin Driscoll, PE - Village Engineer

Date: May 29, 2025

Re: W160 N107766 Hidden Glen – Fence in Drainage Easement

Items Reviewed:

1. Zoning Compliance / Occupancy Permit – 5/28/2025

General Comments:

1. Please respond to each item below. **A written response addressing each item shall be included in your submittal.**
2. The submitted plans have been reviewed for general conformance with Village design guidelines. Additional comments could arise as a result of the plan completion and modifications. The items listed below will need to be fully resolved before the Engineering Dept. can recommend a formal approval of the plans and permit for construction.
3. As a guide to the review response: Items in *italics* are resolved or acknowledged, items in regular font are to be addressed yet, items in **Bold** are additional feedback to remaining original comment.

Fence in Drainage Easement

The Village of Germantown Code of Ordinances reads:

9.121 - FILLING PROHIBITED. No person shall fill or otherwise impede the flow of water in any drainage ditch or drainage swale, which is of record, dedicated to the public or to the Village.

Staff recommends placement of the fence outside of the easement.

In the event an obstruction in an easement needs to be removed due to the operation and maintenance of the Village's interest to the existing drainage easement, sanitary sewer and/or storm sewer in the easement, the property owner is responsible for repair and/or restoration that occurred from any necessary Village operation and maintenance activities in the platted/recorded easement.

In addition, in a previous 2025 Plan Commission meeting, Plan Commissioners identified that due to the proposed fence work in proximity to an existing drainage easement, prior to approval, the applicant was to provide a hydrologic and hydraulic analysis so the fence is designed with parameters to avoid an adverse impact.

SIGN APPLICATION REVIEW

07/14/25 Plan Commission Meeting

Lemberg Electric / Green Bay Packaging, Inc.

Village Staff Report & Recommendation

Germantown, Wisconsin

SUMMARY

Lemberg Electric, Agent for Green Bay Packaging, Inc., Property Owner. Sign Application Review for Green Bay Packaging located at N128 W21600 Holy Hill Road in the Holy Hill Gateway District.

Location: N128 W21600 Holy Hill Road

Applicants/

Owner:	Lemberg Electric 4085 N 128 TH Street Brookfield, WI 53005	Green Bay Packaging, Inc. 1700 N Webster Court Green Bay, WI 54302
---------------	---	--

Zoning: M-1: Limited Industrial District

Adjacent Land Uses		Zoning
North	Agricultural	A-1
South	Business/Industrial	B-5/M-1
East	Industrial	M-1
West	Business (Richfield)	N/A

Location Map



Background

In November 2023, the Village Board approved a request from Green Bay Packaging to change the future land use plan designation for the subject area from “Mixed-Use Commercial & High Density Residential” to “Light Industrial/Warehouse” and rezone the property from A-1: Agricultural to M-1: Limited Industrial. In April 2024, the Plan Commission approved Site Development & Building Plans for Green Bay Packaging’s new 270,000 square foot light manufacturing facility and 12,500 square foot office at the location.

Proposal

Lemberg Electric, Agent for Green Bay Packaging, Inc., Property Owner, is requesting approval of a monument sign, several directional/wayfinding and visitor parking signs, and a wall-mounted cabinet/logo sign for Green Bay Packaging located at N128 W21600 Holy Hill Road in the Holy Hill Gateway District. The details of the proposed signs are listed as follows:

- (1) Monument Sign – Sign S2
10’0” x 6’0” (60 square feet), fabricated aluminum monument sign cabinet with digitally printed letters, logo, and address. The proposed sign is illuminated and will be landscaped in accordance with Village code.
- (9) Directional/Wayfinding Signs – Signs S3-11
2’0” x 3’0” (6 square feet), double-sided fabricated aluminum panel signs with painted finish and digitally printed vinyl graphics, non-illuminated.
- (4) Visitor Parking Signs – Signs S20-23
1’1” x 4’0” (4 square feet), single-sided fabricated aluminum sign with painted finish and reflective vinyl graphics, non-illuminated.
- (1) Wall-Mounted Cabinet Logo Sign – S26
13’0” x 13’0” (169 square feet), single-sided fabricated aluminum cabinet logo with painted finish and translucent graphics. The proposed sign is illuminated.

Staff Comments

As proposed, the monument sign, directional/wayfinding signs, and visitor parking signs comply with Village code requirements, and while the proposed wall-mounted cabinet sign would exceed the threshold for maximum wall signage on the site, the Board of Zoning Appeals granted a variance allowing the increased square footage on April 23, 2025.

Regarding the variance, note that the subject property is zoned M-1 Limited Industrial District, which permits a maximum of 300 square feet of wall signage for any individual use. Given the Plan Commission’s approval of a 273 square foot wall sign for Green Bay Packaging on the western building façade earlier this year, the proposed 169 square foot wall-mounted cabinet sign exceeds the maximum allowed threshold by 142 square feet ($273 \text{ sqft} + 169 \text{ sqft} = 442 \text{ sqft}$). As mentioned above, the Board of Zoning Appeals granted a variance for the specific amount of square feet over the permitted maximum, so at this time the Plan Commission is tasked with reviewing the sign’s material elements, placement, and overall aesthetic appearance.

VILLAGE STAFF RECOMMENDATION

APPROVE the proposed sign package for Green Bay Packaging for property located at N128 W21600 Holy Hill Road, subject to the following condition:

1. Applicant/owner shall obtain an electrical permit(s) from SAFEBuilt Inspection Services prior to sign installation.
2. The monument sign shall be installed with landscaping meeting the requirements of Village Code Sec. 17.46(7)(c).



Village of
Germantown
Willkommen

Fee must accompany application

\$275 Sign Review Fee

\$ 75 Sign Face Replacement

Paid JY Date 02/03/25

SIGN REVIEW APPLICATION

Pursuant to Section 17.46 of the Municipal Code

S2

Please read and complete this application carefully. **All applications must be signed and dated.**

1 APPLICANT OR AGENT

Jaina Westphal, Lemberg
4085 N 128th St,
Brookfield WI 53005

Phone 414-322-0077

Fax ()

E-Mail jwestphal@lemberelectric.com

PROPERTY OWNER

Green Bay Packaging LLC

Phone ()

2 PROPERTY ADDRESS OR GENERAL LOCATION

N128 W12600 Holy Hill Rd

3 SIGN INFORMATION

Sign Dimensions 7'6" height x 10' width Single/Multi Tenant (circle one)

Number of Sides 2

Building Frontage SF _____

Total Square Footage of Sign (include all sides) 75+75=150

Total height of the Sign 7'6"

Is the Sign to be illuminated yes no

Type of Sign Construction Materials aluminum sign cabinet

Distance to Closest Property Line 100'+

Are there any existing signs on the property no

If yes, what is the total Square Footage of existing signs _____

What are the intentions for the existing signs: Take down _____ Remain _____

4 SIGNATURES -- ALL APPLICATIONS MUST BE SIGNED BY OWNER!

Jaina Westphal

5/21/2025

Applicant

Date

Owner

Date

ALREADY
SIGNED PER
✓ 02/03/25 APPLICATION



Fee must accompany application

\$275 Sign Review Fee

\$ 75 Sign Face Replacement

Paid JY Date 02/03/25

SIGN REVIEW APPLICATION

Pursuant to Section 17.46 of the Municipal Code

S3-11

Please read and complete this application carefully. **All applications must be signed and dated.**

1 APPLICANT OR AGENT

Jaina Westphal, Lemberg
4085 N 128th St,
Brookfield WI 53005

Phone 414-322-0077

Fax ()

E-Mail jwestphal@lembergelectric.com

PROPERTY OWNER

Green Bay Packaging LLC

Phone ()

2 PROPERTY ADDRESS OR GENERAL LOCATION

N128 W12600 Holy Hill Rd

3 SIGN INFORMATION

Sign Dimensions 2' height x 3' width Single/Multi Tenant (circle one)

Number of Sides 2

Building Frontage SF _____

Total Square Footage of Sign (include all sides) 6+6=12'

Total height of the Sign 4'

Is the Sign to be illuminated _____ yes no

Type of Sign Construction Materials aluminum sign

Distance to Closest Property Line throughout middle of property

Are there any existing signs on the property no

If yes, what is the total Square Footage of existing signs _____

What are the intentions for the existing signs: Take down _____ Remain _____

4 SIGNATURES -- ALL APPLICATIONS MUST BE SIGNED BY OWNER! ALREADY SIGNED PER 02/03/25 APPLICATION

Jaina Westphal

5/21/2025

Applicant

Date

Owner

Date



Fee must accompany application

\$275 Sign Review Fee

\$ 75 Sign Face Replacement

Paid JY Date 02/03/25

SIGN REVIEW APPLICATION

S20-23

Pursuant to Section 17.46 of the Municipal Code

Please read and complete this application carefully. **All applications must be signed and dated.**

1 APPLICANT OR AGENT

Jaina Westphal, Lemberg
4085 N 128th St,
Brookfield WI 53005

Phone 414-322-0077

Fax ()

E-Mail jwestphal@lembergelectric.com

PROPERTY OWNER

Green Bay Packaging LLC

Phone ()

2 PROPERTY ADDRESS OR GENERAL LOCATION

N128 W12600 Holy Hill Rd

3 SIGN INFORMATION

Sign Dimensions 4' height x 1'-1" width Single/Multi Tenant (circle one)

Number of Sides 1

Building Frontage SF _____

Total Square Footage of Sign (include all sides) 4'

Total height of the Sign 4'

Is the Sign to be illuminated _____ yes no

Type of Sign Construction Materials aluminum sign

Distance to Closest Property Line far away, in parking lot by building

Are there any existing signs on the property no

If yes, what is the total Square Footage of existing signs _____

What are the intentions for the existing signs: Take down _____ Remain _____

4 SIGNATURES -- ALL APPLICATIONS MUST BE SIGNED BY OWNER!

Jaina Westphal

5/21/2025

Applicant

Date

Owner

Date

ALREADY
SIGNED PER
02/03/25 APPLICATION



Fee must accompany application

\$275 Sign Review Fee

\$ 75 Sign Face Replacement

Paid JY Date 02/03/25

SIGN REVIEW APPLICATION

Pursuant to Section 17.46 of the Municipal Code

S26

Please read and complete this application carefully. **All applications must be signed and dated.**

1 APPLICANT OR AGENT

Jaina Westphal, Lemberg
4085 N 128th St,
Brookfield WI 53005

Phone 414-322-0077

Fax ()

E-Mail jwestphal@lembergelectric.com

PROPERTY OWNER

Green Bay Packaging LLC

Phone ()

2 PROPERTY ADDRESS OR GENERAL LOCATION

N128 W12600 Holy Hill Rd

3 SIGN INFORMATION

Sign Dimensions 13' height x 13' width Single/Multi Tenant (circle one)

Number of Sides 1

Building Frontage SF _____

Total Square Footage of Sign (include all sides) 169

Total height of the Sign 13'

Is the Sign to be illuminated yes no

Type of Sign Construction Materials aluminum sign cabinet

Distance to Closest Property Line on north building elevation

Are there any existing signs on the property no

If yes, what is the total Square Footage of existing signs _____

What are the intentions for the existing signs: Take down _____ Remain _____

4 SIGNATURES -- ALL APPLICATIONS MUST BE SIGNED BY OWNER!

Jaina Westphal

5/21/2025

Applicant

Date

Owner

Date

**ALREADY
SIGNED PER
02/03/25 APPLICATION**



GREEN BAY PACKAGING
SMART PARTNERS ... SMARTER SOLUTIONS

Green Bay Packaging - Great Lakes Division / Exterior Signage
N128w21600 Holy Hill Road Germantown, Wisconsin 53076

Drawing Package Title: Green Bay Packaging Exterior Signage 1 (11) CA

Date: 5-19-25

THIS BAND FOR LEMBERG SIGN TEAM SIGNATURES (Client Signs Off in Area at Bottom of Sheet).			
Design Review Signature Date	Project Management Review Signature Date	Operations Review Signature Date	Sales Review Signature Date



SIGNS

4085 North 128th Street
Brookfield, WI 53005
p. 262-781-1500
www.LembergElectric.com

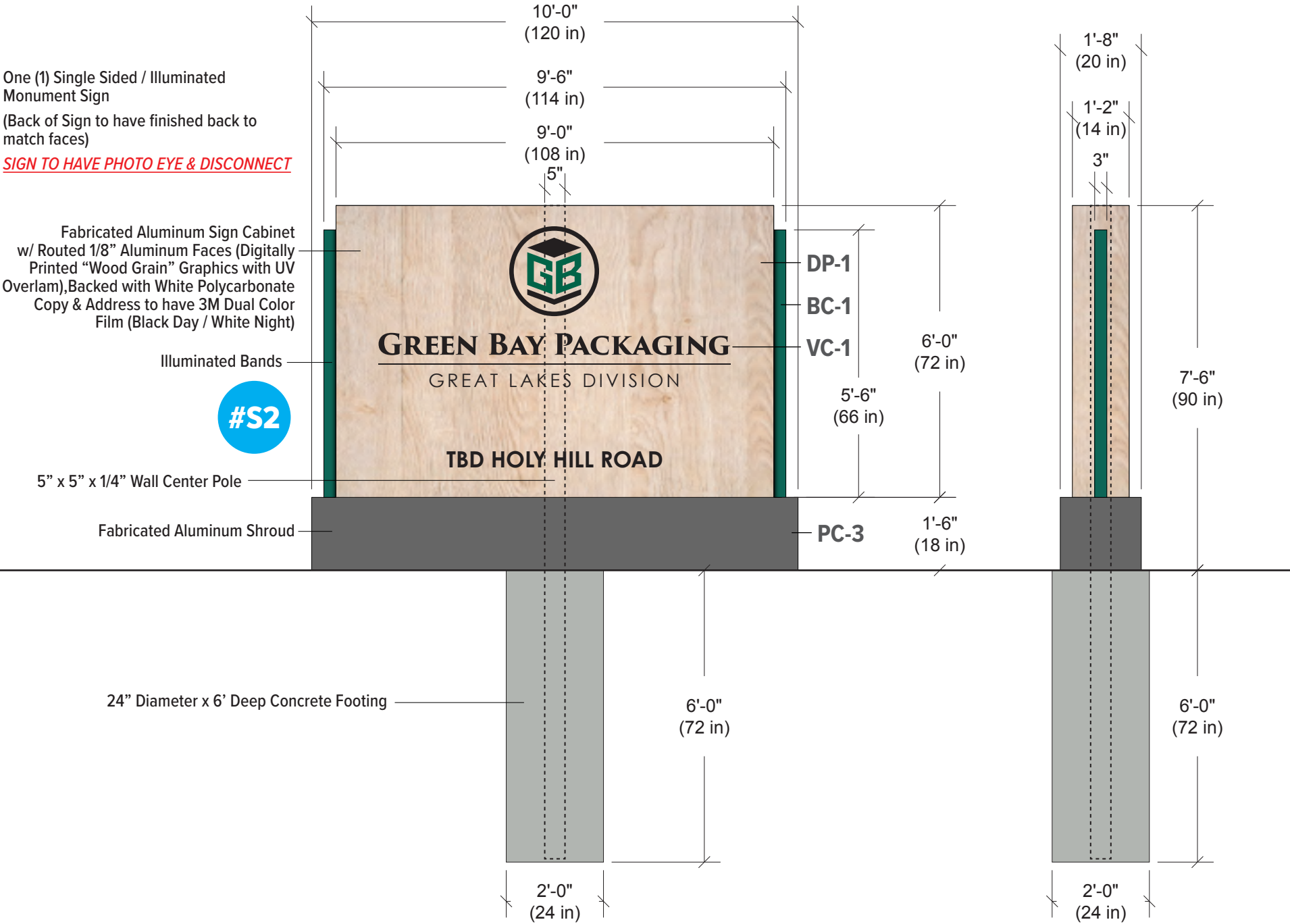
CLIENT DRAWING APPROVAL - PLEASE PROOFREAD ALL DRAWINGS CAREFULLY - Check off the boxes below / sign & date.

Job # 2446-0596 CLIENT APPROVAL DRAWING

I have checked the following details on ALL pages and approve: ☐ Spelling / Copy Content ☐ Sign Placement ☐ Colors (I have reviewed physical samples of colors, as listed in this document)

Client Signature

Date



Side View



Illumination

PROJECT COLOR SPECS (MATCH TO BUILDING EXTERIOR)

- BC-1: MATCH PMS 342
- PC-1: SW 7636 ORIGAMI WHITE
- PC-2: SW 7016 MINDFUL GRAY
- PC-3: SW 7019 GAUNTLET GRAY
- PC-4: SW 7523 BURNISHED BRANDY
- PC-5: SW 9170 ACIER
- VC-1: 3M DUAL COLOR FILM BLACK (3635-222)
- VC-2: 3M BLACK REFLECTIVE (580-85)
- VC-3: 3M WHITE REFLECTIVE (580-10)
- DP-1: DIGITAL PRINT (WOODGRAIN) MATTE OVERLAM



SIGNS

4085 North 128th Street
Brookfield, WI 53005
p. 262-781-1500
www.LembergElectric.com

Client: Green Bay Packaging - Great Lakes Division

Location: N128 W21600 Holy Hill Road

City: Germantown, Wisconsin 53076

Sales Representative: John Wachniak

Project Manager: TBD

Designer: Eric Bailey

Scale: 3/8"=1'

Paper Size: 11x17

Signature / Date:

Client / Location or Project / Sign Classification / Version# or Sheet / Revision# / Drawing Status

GreenBayPackaging_GLD_PYL_v01_r08_CA

Date:

5-21-25



4085 North 128th Street
Brookfield, WI 53005
p. 262-781-1500
www.LembergElectric.com

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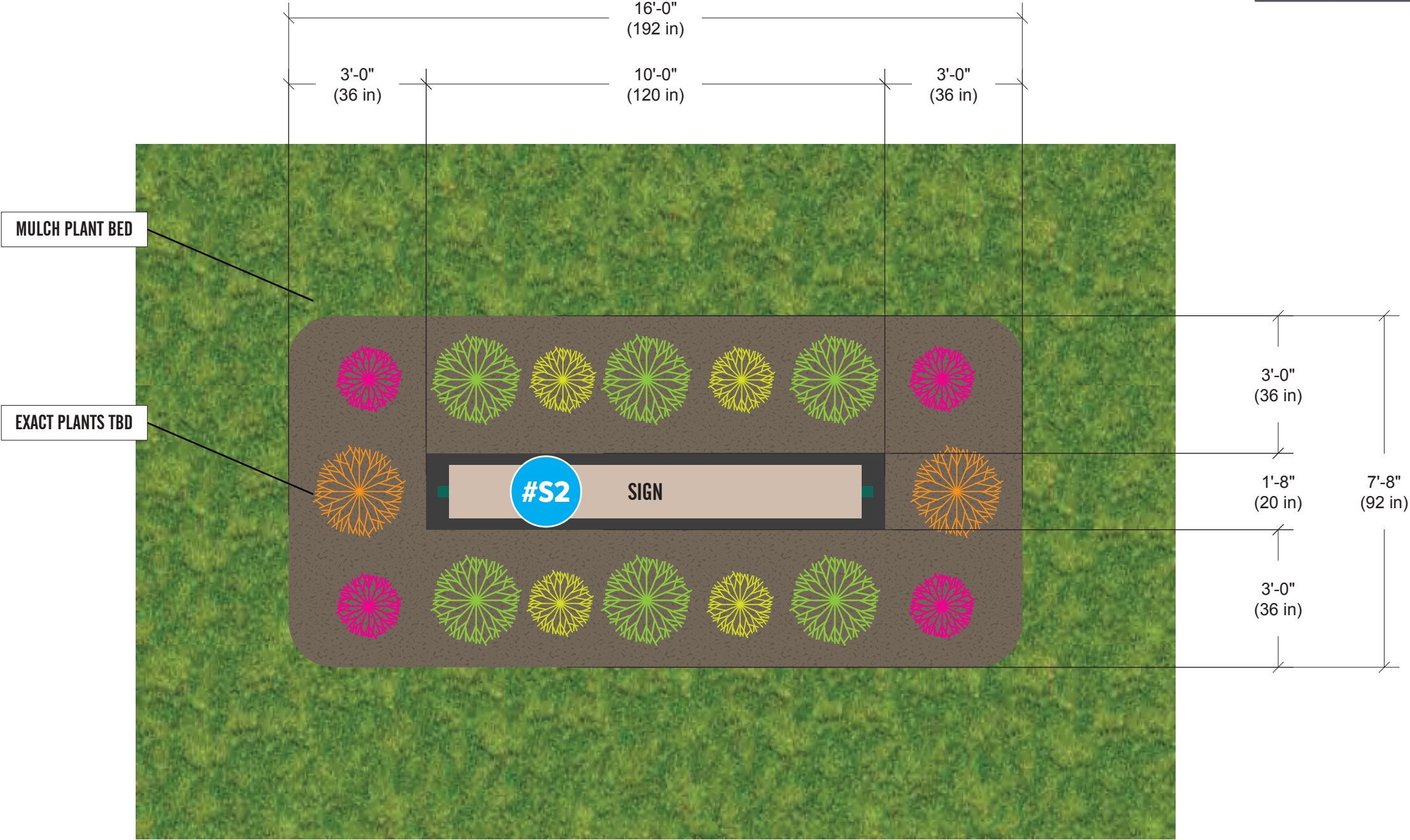
Designer: Eric Bailey

Scale: NTS

Paper Size: 11x17

Signature / Date:

Client / Location or Project / Sign Classification / Version# or Sheet / Revision# / Drawing Status	Date:
GreenBayPackaging_GLD_MON(PD)_v02_r00_CA	5-21-25



LANDSCAPE PLAN - SCALE: 3/8"=1'



SIGNS

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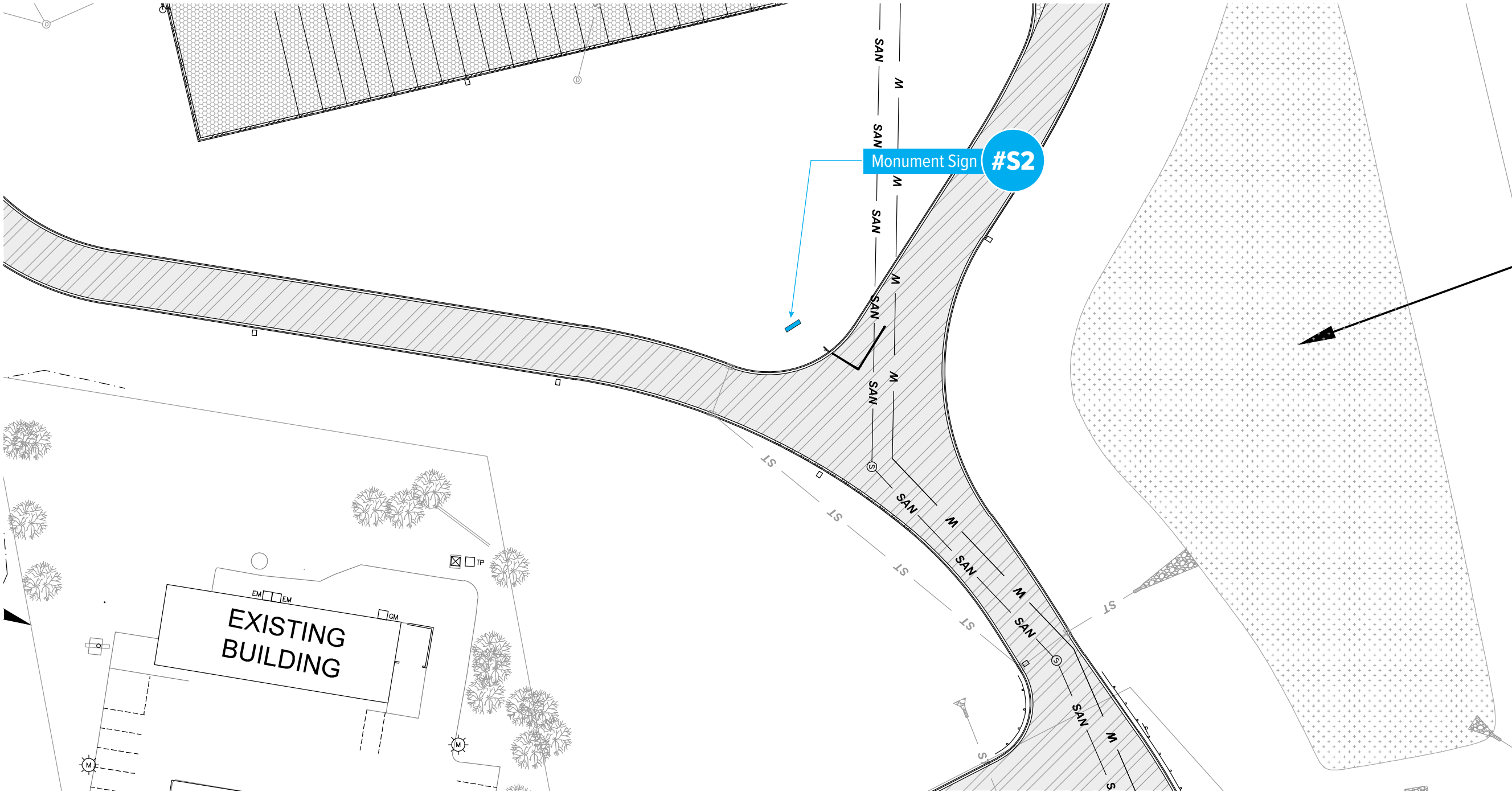
Designer: Eric Bailey

Scale: 3/8"=1'

Paper Size: 11x17

Signature / Date:

Client / Location or Project / Sign Classification / Version# or Sheet / Revision# / Drawing Status Date:
GreenBayPackaging_GLD_PYL(LSP)_v01_r01_CA 5-19-25



4085 North 128th Street
Brookfield, WI 53005
p. 262-781-1500
www.LembergElectric.com

Client: Green Bay Packaging - Great Lakes Division

Location: N128 W21600 Holy Hill Road

City: Germantown, Wisconsin 53076

Sales Representative: John Wachniak

Project Manager: TBD

Designer: Eric Bailey / Mark Mayzik

Scale: -

Paper Size: 11x17

Signature / Date:

Client / Location or Project / Sign Classification / Version# or Sheet / Revision# / Drawing Status Date:
GreenBayPackaging_GLD_MON(SB)_v01_r05_CA 5-21-25

#S3-11 Wayfinding Signs

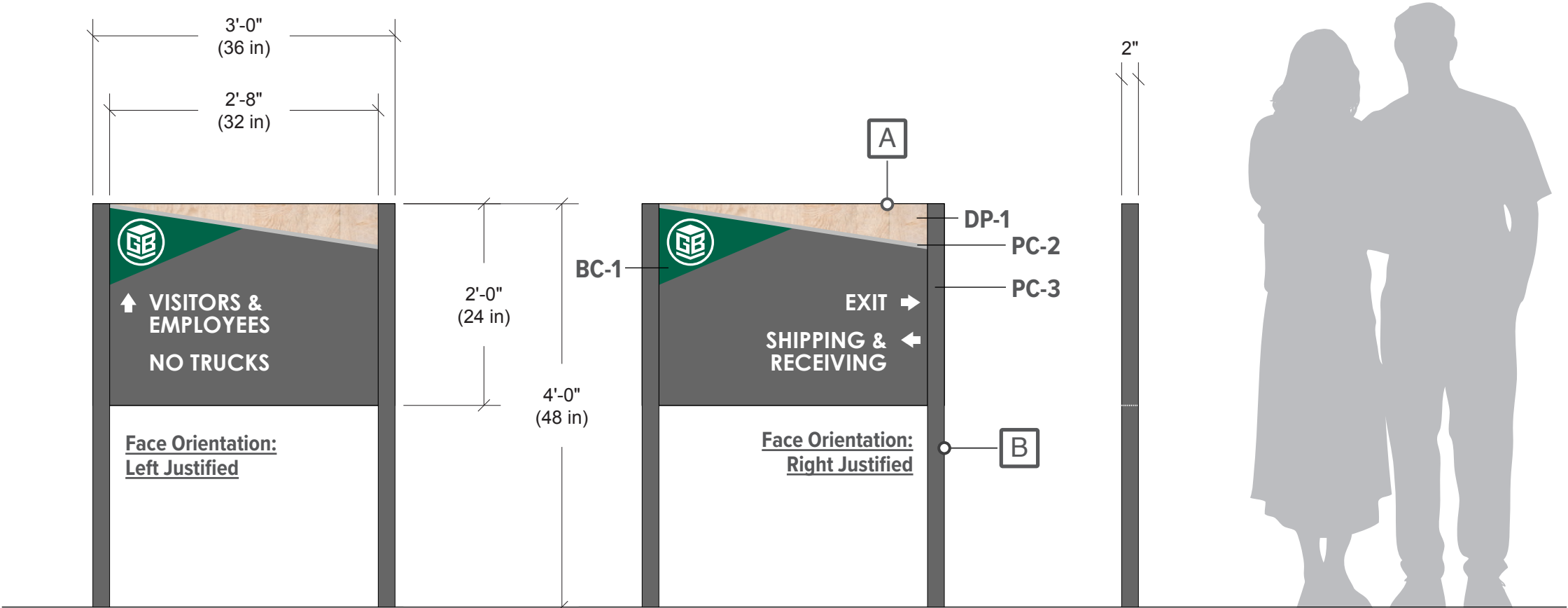
Nine (9) Post & Panel Signs.
Non-Illuminated / Double Sided.

(A) Panel
2” Deep Fabricated Aluminum Panel with Single Color Painted Finish & Digitally Printed Vinyl Graphics (with UV Overlamine).

Copy & Arrows (Including “GB” Logo) to be 3M Reflective Vinyl Graphics.

(B) Posts
2” x 2” Square Aluminum Tube Posts. Posts are 4’ in ground in typical concrete footing (Provide 8’ Posts).

PROJECT COLOR SPECS (MATCH TO BUILDING EXTERIOR)	
	BC-1: MATCH PMS 342
	PC-1: SW 7636 ORIGAMI WHITE
	PC-2: SW 7016 MINDFUL GRAY
	PC-3: SW 7019 GAUNTLET GRAY
	PC-4: SW 7523 BURNISHED BRANDY
	PC-5: SW 9170 ACIER
	VC-1: 3M DUAL COLOR FILM BLACK (3635-222)
	DP-1: DIGITAL PRINT (WOODGRAIN) MATTE OVERLAM



#S5

Shown as Example / See Next Sheet for All Sign Layouts

Side View



SIGNS

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Brookfield, WI 53005
p. 262-781-1500
www.LembergElectric.com

Client: Green Bay Packaging - Great Lakes Division
Location: N128 W21600 Holy Hill Road
City: Germantown, Wisconsin 53076

Sales Representative: John Wachniak
Project Manager: Jaina Westphal
Designer: Eric Bailey

Scale: 3/4"=1'
Paper Size: 11x17
Signature / Date:

Client / Location or Project / Sign Classification / Version# or Sheet / Revision# / Drawing Status
GreenBayPackaging_GLD_WAY_v03_r01_CA

Date:
5-19-25

#S3-11 Wayfinding Signs

Face Orientation:
Left Justified

← VISITORS & EMPLOYEES

→ SHIPPING & RECEIVING

#S3

South

Face Orientation:
Right Justified

EXIT ↑

HAVE A SAFE DAY!

North

Face Orientation:
Left Justified

NO PEDESTRIAN VEHICLES

#S7

Face Orientation:
Right Justified

NO TRUCKS

Face Orientation:
Left Justified

← VISITORS & EMPLOYEES

→ SHIPPING & RECEIVING

#S11

Face Orientation:
Right Justified

EXIT ↑

HAVE A SAFE DAY!

Face Orientation:
Right Justified

VISITORS & EMPLOYEES ↑

NO TRUCKS

#S4

South

Face Orientation:
Left Justified

→ EXIT

← SHIPPING & RECEIVING

North

Face Orientation:
Left Justified

NO PEDESTRIAN VEHICLES

#S8

Face Orientation:
Right Justified

NO TRUCKS

Face Orientation:
Left Justified

↑ VISITORS & EMPLOYEES

NO TRUCKS

#S5

Face Orientation:
Right Justified

EXIT →

SHIPPING & RECEIVING ←

Face Orientation:
Left Justified

← SHIPPING

↑ RECEIVING

#S9

South

Face Orientation:
Right Justified

EXIT ↑

HAVE A SAFE DAY!

North

Face Orientation:
Left Justified

→ VISITORS & OFFICE EMPLOYEES

↑ PRODUCTION EMPLOYEES

#S6

Face Orientation:
Right Justified

EXIT ↑

HAVE A SAFE DAY!

Face Orientation:
Left Justified

← RECEIVING

#S10

South

Face Orientation:
Right Justified

EXIT ↑

HAVE A SAFE DAY!

North



SIGNS

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p. 262-781-1500
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Client: Green Bay Packaging - Great Lakes Division

Location: N128 W21600 Holy Hill Road

City: Germantown, Wisconsin 53076

Sales Representative: John Wachniak

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Designer: Eric Bailey

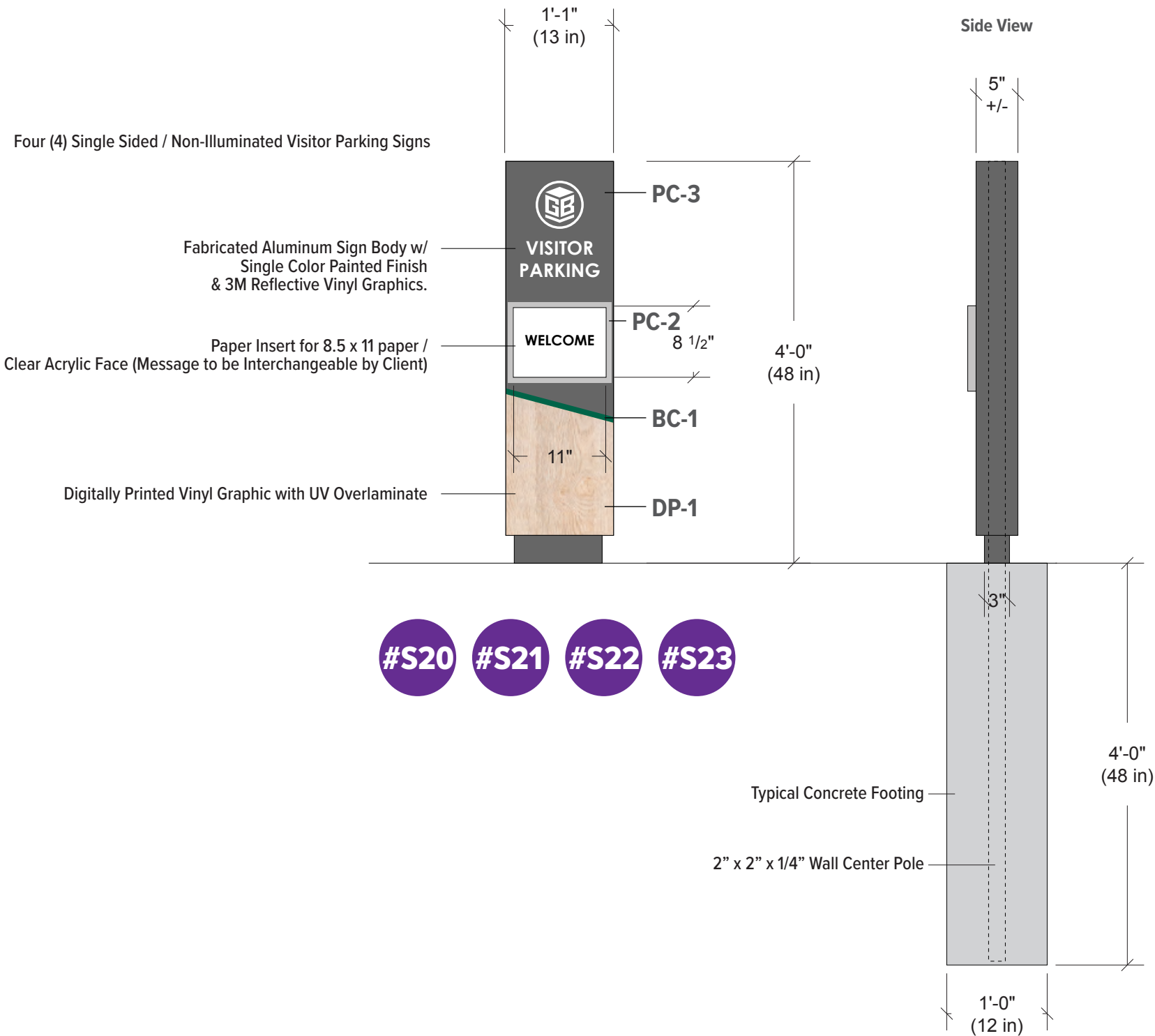
Scale: 3/8"=1'

Paper Size: 11x17

Signature / Date:

Client / Location or Project / Sign Classification / Version# or Sheet / Revision# / Drawing Status Date:
GreenBayPackaging_GLD_WAY(F_LAY)_v02_r01_CA 5-19-25

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PROJECT COLOR SPECS (MATCH TO BUILDING EXTERIOR)

- BC-1: MATCH PMS 342
- PC-1: SW 7636 ORIGAMI WHITE
- PC-2: SW 7016 MINDFUL GRAY
- PC-3: SW 7019 GAUNTLET GRAY
- PC-4: SW 7523 BURNISHED BRANDY
- PC-5: SW 9170 ACIER
- VC-1: 3M DUAL COLOR FILM BLACK (3635-222)
- DP-1: DIGITAL PRINT (WOODGRAIN) MATTE OVERLAM



SIGNS

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Brookfield, WI 53005
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Client: Green Bay Packaging - Great Lakes Division

Location: N128 W21600 Holy Hill Road

City: Germantown, Wisconsin 53076

Sales Representative: John Wachniak

Project Manager: TBD

Designer: Eric Bailey

Scale: 3/4"=1'

Paper Size: 11x17

Signature / Date:

Client / Location or Project / Sign Classification / Version# or Sheet / Revision# / Drawing Status
GreenBayPackaging_GLD_VP_v01_r02_CA

Date:
5-19-25

#S26 Wall Mounted Sign Cabinet

One (1) Wall Mounted Sign Cabinet.
Illuminated / Single Sided / UL approved fabrication
Photocell for Automatic On & Off Lighting Control
Raceway Located Power Supplies (120 / 277v Universal)
169 Sq'

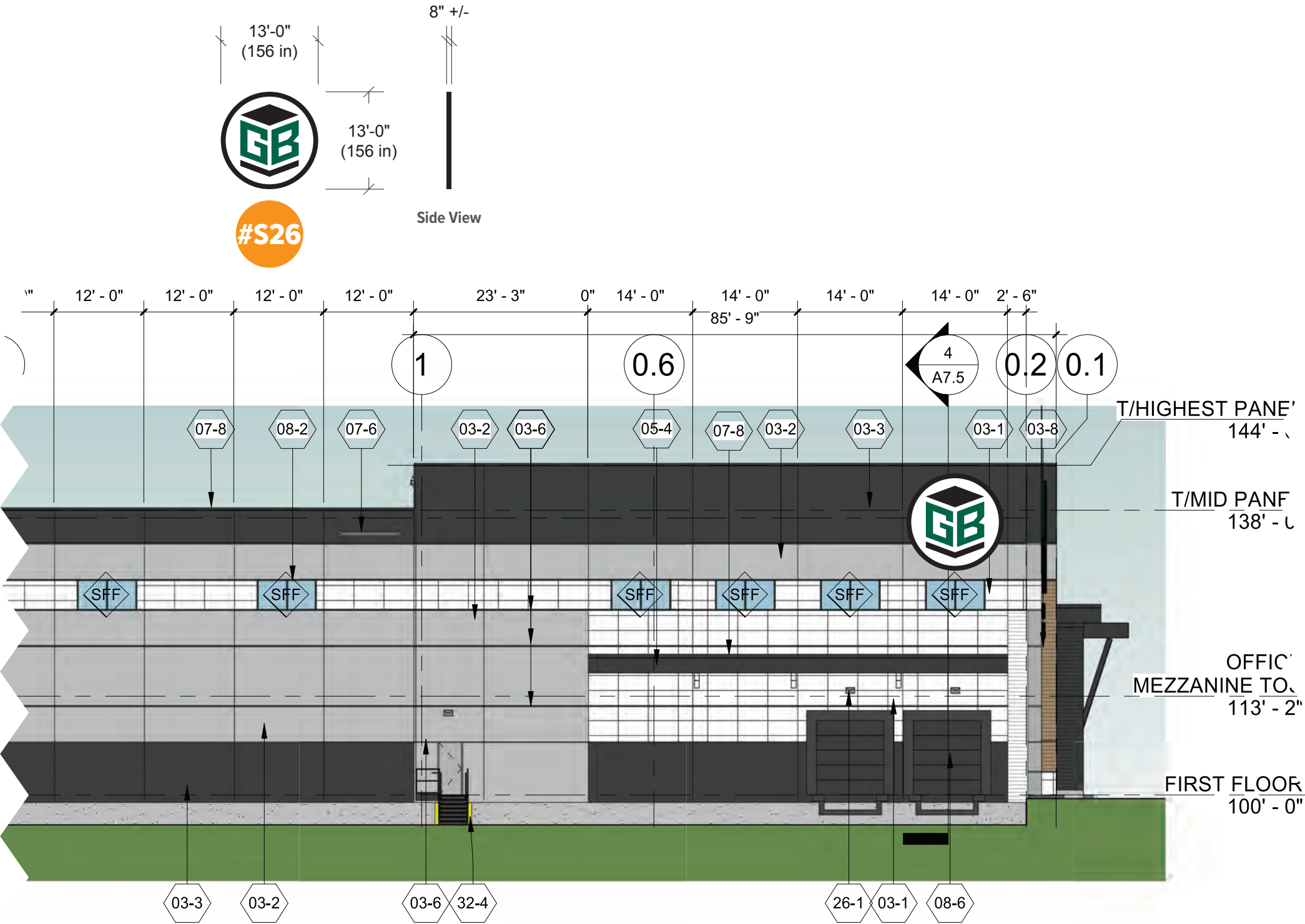
(A) Sign Cabinet
8" +/- Aluminum Cabinet (Black Painted Finish) / Fabricated Aluminum Retainers (Black Painted Finish) / White Flex Face w/ 3M Translucent Vinyl Graphics / Internal White LED Illumination.

Note: Sign to Have Two (2) Lifting Eyes at Top for Install.

Note: Sign to Clip Mount with Exposed Clips (Paint to Match Building)

JW Signs pulls 3-5 Amps

- PROJECT COLOR SPECS (MATCH TO BUILDING EXTERIOR)**
- BC-1: MATCH PMS 342
 - PC-1: SW 7636 ORIGAMI WHITE
 - PC-2: SW 7016 MINDFUL GRAY
 - PC-3: SW 7019 GAUNTLET GRAY
 - PC-4: SW 7523 BURNISHED BRANDY
 - PC-5: SW 9170 ACIER
 - VC-1: 3M DUAL COLOR FILM BLACK (3635-222)
 - DP-1: DIGITAL PRINT (WOODGRAIN) MATTE OVERLAM



GENERAL NORTH EXTERIOR ELEVATION

1/16" = 1'-0"



SIGNS

4085 North 128th Street
Brookfield, WI 53005
p. 262-781-1500
www.LembergElectric.com

Client: Green Bay Packaging - Great Lakes Division

Location: N128 W21600 Holy Hill Road

City: Germantown, Wisconsin 53076

Sales Representative: John Wachniak

Project Manager: TBD

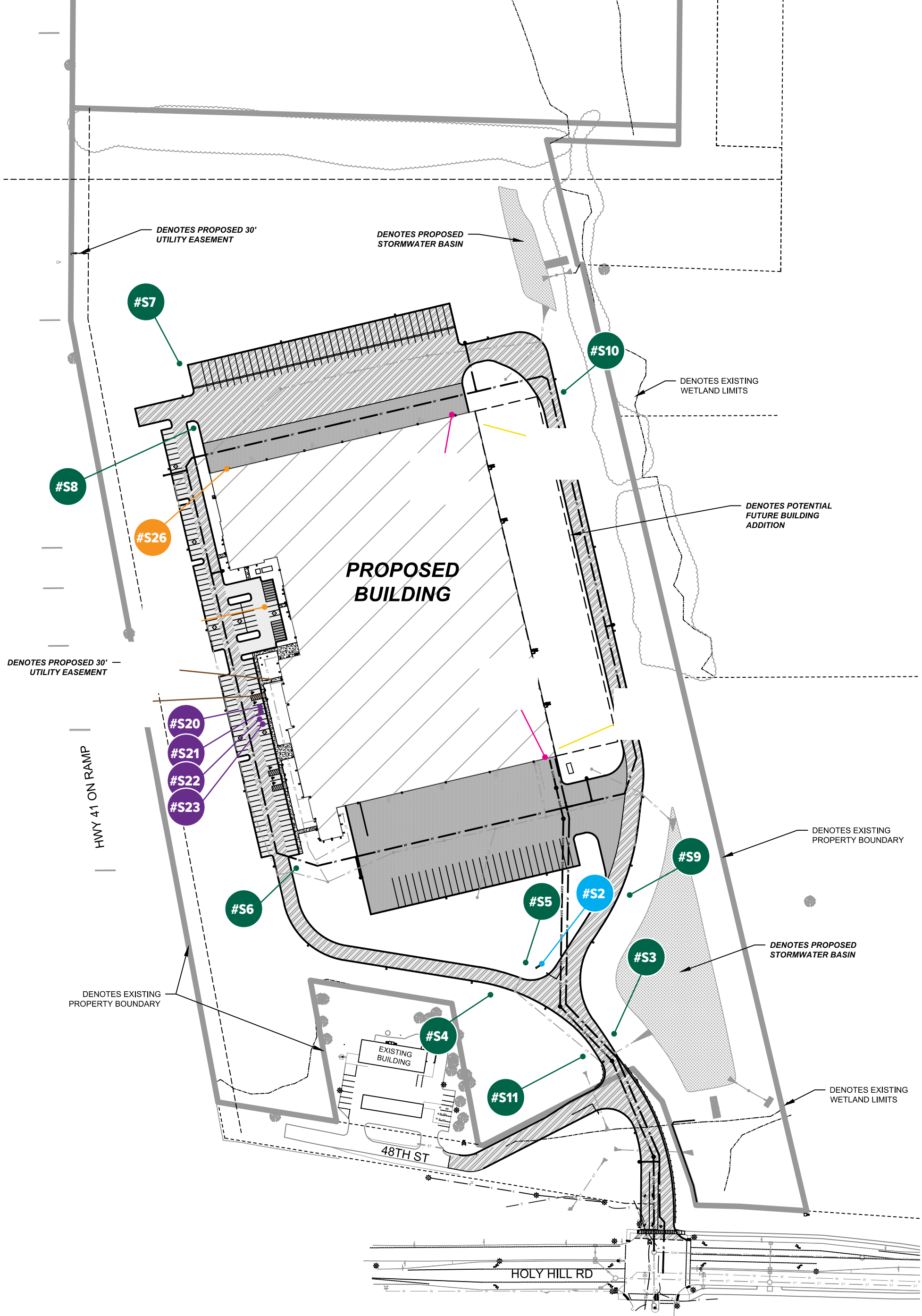
Designer: Eric Bailey

Scale: 1/16"=1'

Paper Size: 11x17

Signature / Date:

Client / Location or Project / Sign Classification / Version# or Sheet / Revision# / Drawing Status Date:
GreenBayPackaging_GLD_WS_v01_r02_CA 5-19-25



Job # 2446-0596 CLIENT APPROVAL DRAWING

Green Bay Packaging - Great Lakes Division
Exterior Signage Site Map (All Signage)

PROPOSED NEW BUILDING FOR:
GREEN BAY PACKAGING
HOLY HILL ROAD
GERMANTOWN, WISCONSIN



SGIS

4085 North 128th Street
Brookfield, WI 53005
p. 262-781-1500
www.LembergElectric.com



SIGN REVIEW APPLICATION

07/14/25 Plan Commission Meeting

Sign Effectz, Inc. / TDC Willow Creek, LLC / Xylem

Village Staff Report & Recommendation

Germantown, Wisconsin

SUMMARY

Sign Effectz, Inc., Agent for TDC Willow Creek, LLC, Property Owner. Sign Review Application for Xylem located at N102 W19200 Willow Creek Way in the Willow Creek Business Park.

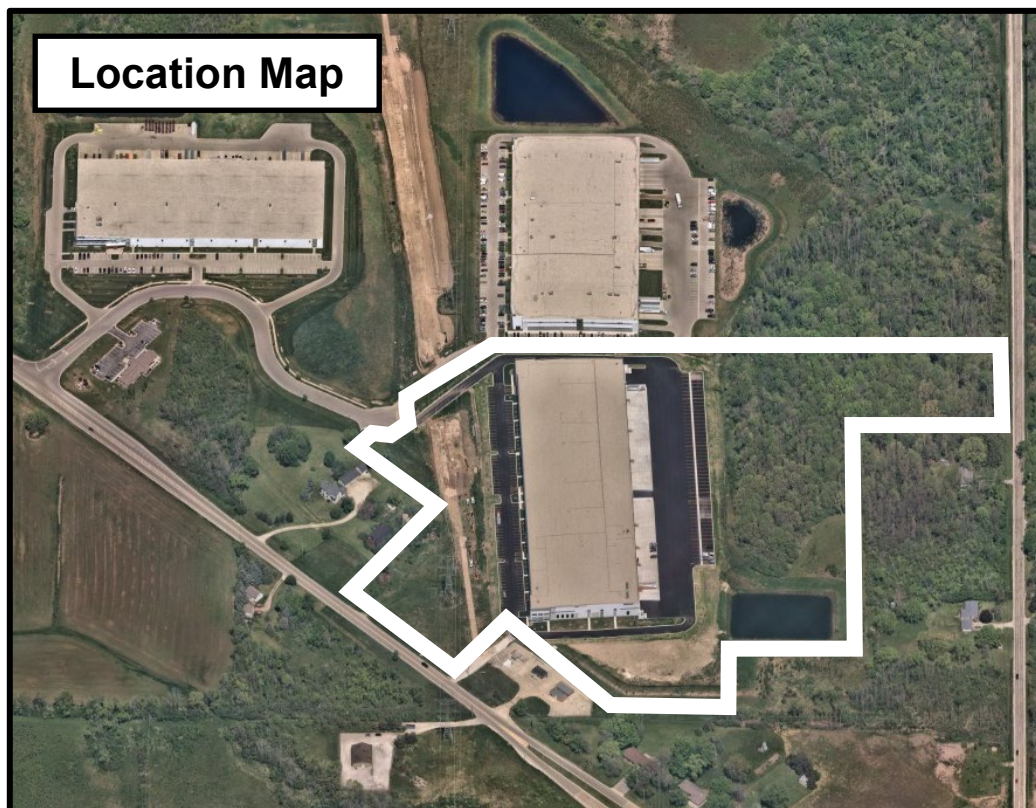
Location: N102 W19200 Willow Creek Way

Applicants/

Owner:	Sign Effectz, Inc. 1827 W Glendale Avenue Milwaukee, WI 53209	TDC Willow Creek, LLC 3885 N Brookfield Rd, Suite 200 Brookfield, WI 53045
---------------	---	--

Zoning: M-1: Limited Industrial District

Adjacent Land Uses		Zoning
North	Industrial	M-1
South	Institutional/Residential	I/Rs-3
East	Residential	Rs-3/Rs-4
West	Commercial/Residential	B-5/Rs-2



Background/Proposal

Sign Effectz, Inc., Agent for TDC Willow Creek, LLC, Property Owner. Sign Review Application for Xylem located at N102 W19200 Willow Creek Way in the Willow Creek Business Park.

In 2024, Xylem received zoning permit approval to occupy approximately 39,000 square feet of an existing industrial building at the subject location. The overall size of the building is approximately 209,000 square feet with other tenants, including Diamond Vogel, occupying sections of the building. At this time, Xylem is seeking approval of signage for their site. Details of the proposed signs are listed as follows:

- (1) Wall Sign – (Western façade/building front)
173 square feet, single-sided channel letter/logo sign mounted on façade.
The proposed sign is non-illuminated per application.
- (3) Vinyl Graphic Logo Signs on Entry/Exit Doors

Staff Comments

The proposed signs comply with applicable standards per the Village's Sign Code.

VILLAGE STAFF RECOMMENDATION

APPROVE the proposed sign package for Xylem for property located at N102 W19200 Willow Creek Way.



Village of



Germantown

Willkommen

Fee must accompany application

\$275 Sign Review Fee

\$ 75 Sign Face Replacement

Paid SS Date 6/2/25

CHK # 12631

SIGN REVIEW APPLICATION

Pursuant to Section 17.46 of the Municipal Code

Please read and complete this application carefully. **All applications must be signed and dated.**

1 APPLICANT OR AGENT

Sign Effectz Inc.

Jkayla Hodges

1827 W Glendale Avenue

Milwaukee, WI 53209

Phone (414) 312-6973

Fax ()

E-Mail Jkaylah@signeffectz.com

PROPERTY OWNER

VILLAGE OF GERMANTOWN,

TDC WILLOW CREEK LLC - Xylem

Phone ()

2 PROPERTY ADDRESS OR GENERAL LOCATION

N102 W19200 Willow Creek Way Germantown, WI 53022

3 SIGN INFORMATION

Sign Dimensions 4'-0" height x 21'-2" width Single/Multi Tenant (circle one)

Number of Sides 1 Building Frontage SF

Total Square Footage of Sign (include all sides) 84.64

Total height of the Sign 8'-2"

Is the Sign to be illuminated yes ☒ no

Type of Sign Construction Materials Aluminum channel letters

Distance to Closest Property Line na

Are there any existing signs on the property no

If yes, what is the total Square Footage of existing signs no existing signage new onstruction property

What are the intentions for the existing signs: Take down Remain

4 SIGNATURES -- ALL APPLICATIONS MUST BE SIGNED BY OWNER!

Jkayla Hodges 5/27/25
Applicant Date

will submit via email
email, AS client will provide
that way
Owner Date





WALTON

xylem

N 102 W 19200 WILLOW CREEK WAY

GERMANTOWN, WI 53022-1236 | USA

REVISION NOTES

REV#	DATE	INITIALS	REVISION DESCRIPTION
R1	03/27/25	RJB	UPDATE SUITE ELEVATION PER MARKED UP DESIGN REQUEST - ADD SURVEY INFORMATION FOR CORRECT SUITE - SHOW INTERIOR SIGN ON WALL SHOW REAR ENTRY DOOR VINYL (2 DOORS)
R2	05/07/25	IP	UPDATED SIGN “A” TO NON-ILLUMINATED
R3			
R4			
R5			
R6			
R7			
R8			
R9			
R10			
R11			
R12			
R13			
R14			



10101 Reunion Place
Suite 200
San Antonio, TX 78216

P 210. 886. 0644
waltonsignage.com

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Client: XYLEM
Address: XYLEM OF GERMANTOWN WISONSIN
Address: N 102 W 19200 WILLOW CREEEK WAY
City/State: GERMANTOWN, WI 53022-1236
Sales: DM PM: LS Designer: RJB
Date: 02/17/25 Revision: 01

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Signs will be manufactured with **120 Volts A/C** | Signs will be manufactured by **UL Guidelines** | **All Primary** electrical service to the sign is the responsibility of the buyer. If primary electrical service is existing and **within 6 feet of sign area**, Walton to make final connections **unless restricted by municipality**. All work is to be done in accordance with the purchase agreement attached hereto. **In case of variance between the specifications of purchase agreement and this drawing, the drawing shall prevail.**

Z:\Customers\Xylem\Programs\Xylem\6. Projects\US\WI\Germantown - PR346566\3. Design

This sign is intended to be installed in accordance with the requirements of Article 600 of the National Electrical Code and/or other applicable local codes. This includes proper grounding and bonding of the sign.

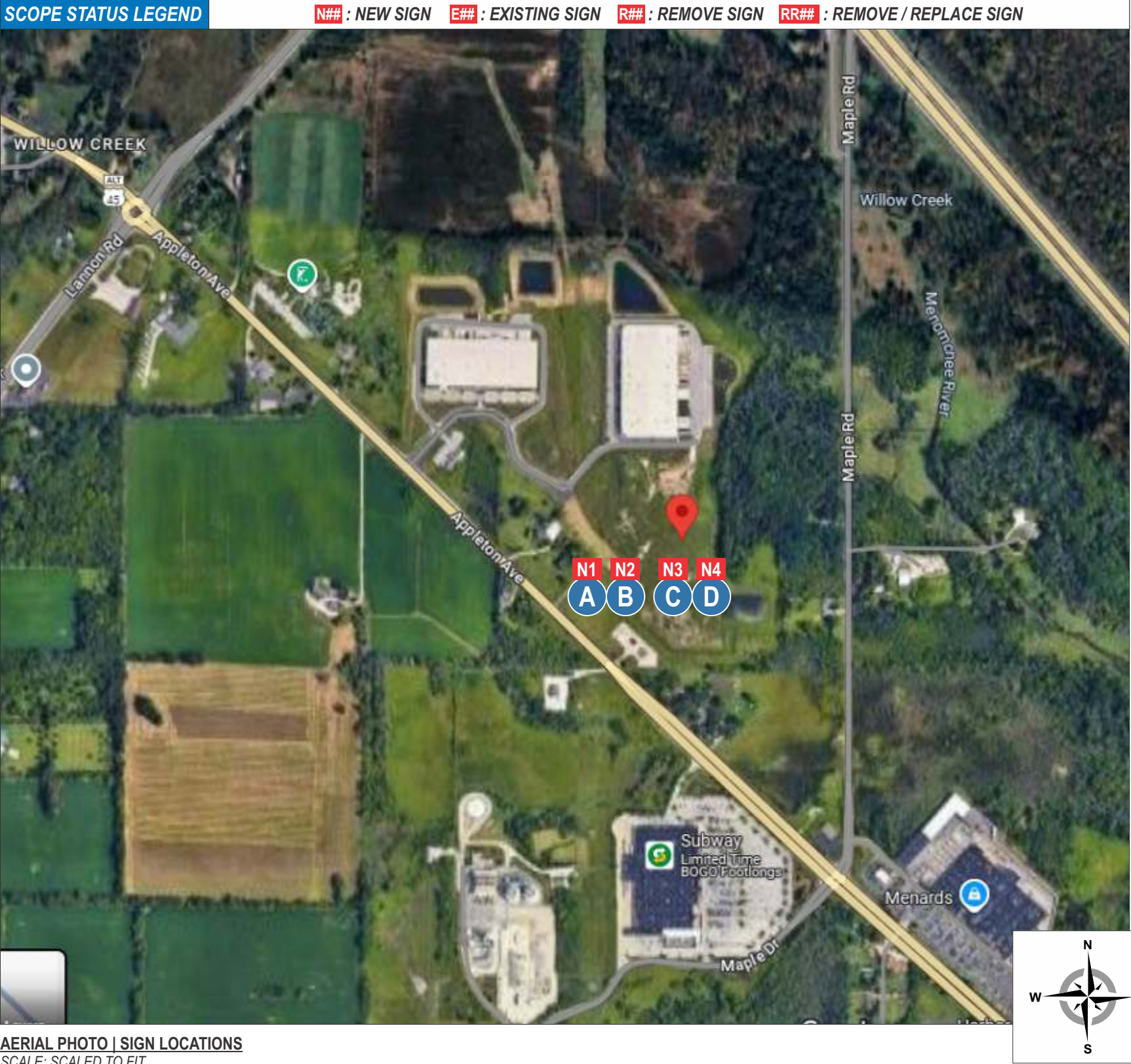
The location of the disconnect switch after installation shall comply with Article 600.6(A)(1) of the National Electrical Code.

PAGE SIZE: 11x17

CID346566

SHEET: 2
Page 164 of 174

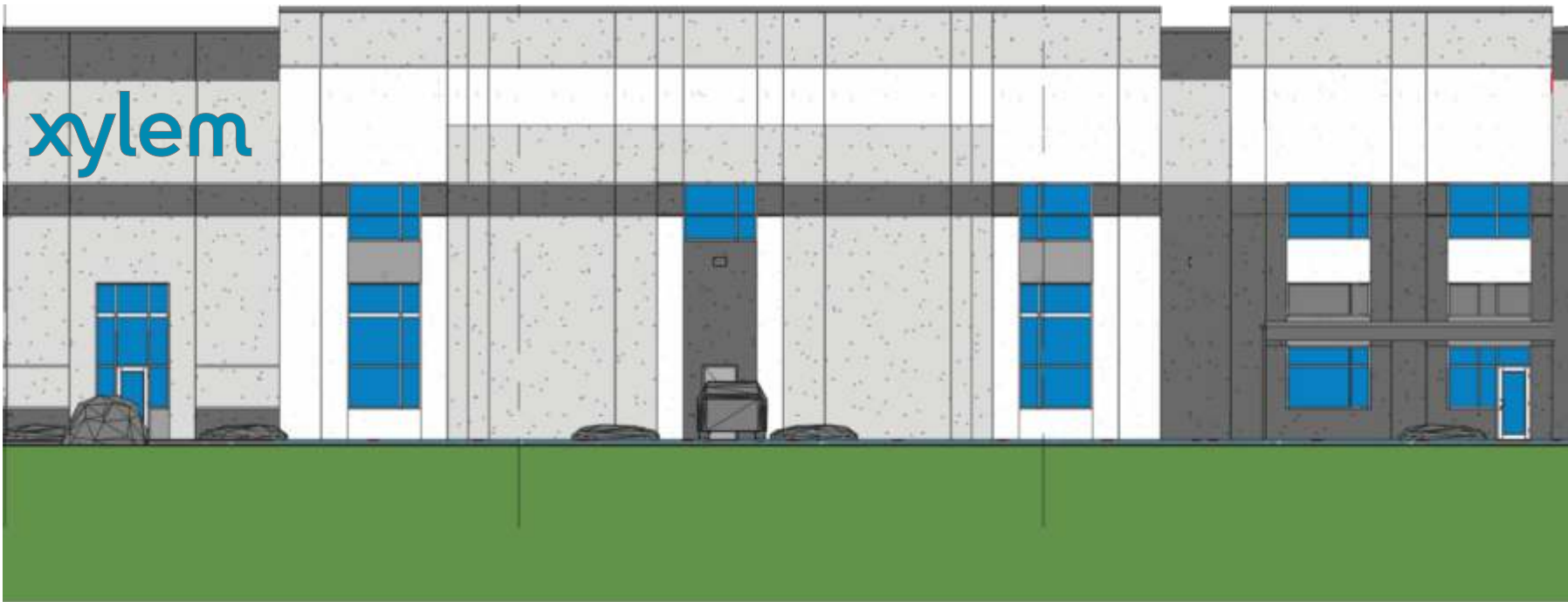
SIGN LEGEND SUMMARY SQFT.				
SIGN #	CONDITION	SIGN DESCRIPTION	PART #	SQ FOOTAGE
(N)EW (R)EMOVAL (E)XISTING (R/R)REMOVE & REPLACE				
A	N	4'-0" NON-ILLUMINATED CHANNEL LOGO XYLEM	WALTON PART #	173.62 SQFT
B	N	ENTRY DOOR ID WINDOW VINYL XYLEM	WALTON PART #	.88 SQFT
C	N	REAR DOOR ID WHITE VINYL XYLEM	WALTON PART #	.88 SQFT
D	N	REAR DOOR ID WHITE VINYL XYLEM	WALTON PART #	.88 SQFT
E	N	RECEPTION AREA FCO LOGO XYLEM	WALTON PART #	9.12 SQFT
INTERIOR SIGN NOT MARKED				



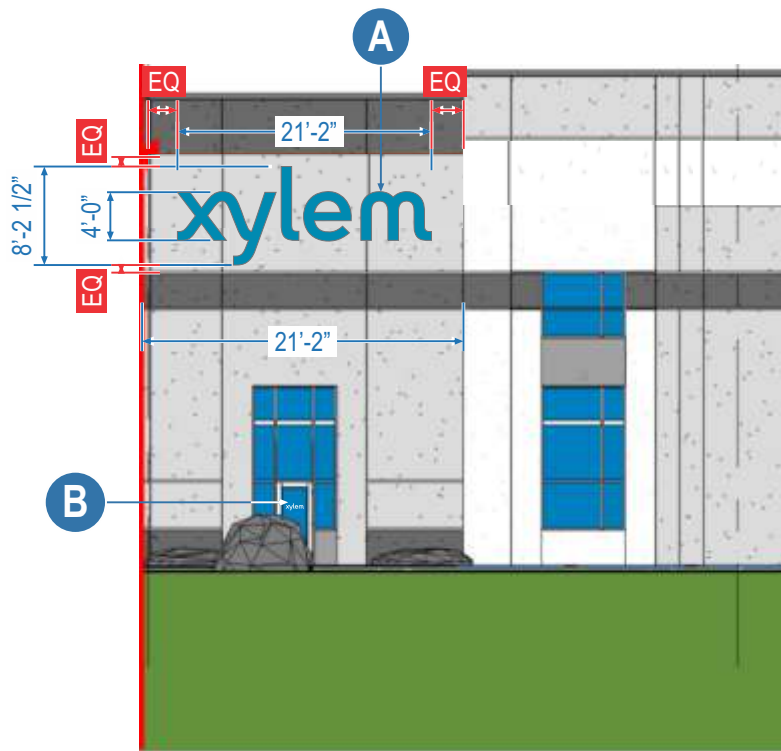
AERIAL PHOTO | SIGN LOCATIONS
SCALE: SCALED TO FIT



WEST ELEVATION | MAIN ENTRANCE
SCALED PROPORTIONATELY



WEST ELEVATION | MAIN ENTRANCE
SCALE: 1/16"=1'



TRUNCATED WEST ELEVATION @ SIGN LOCATION - DETAILS
SCALE: 1/16"=1'



10101 Reunion Place
Suite 200
San Antonio, TX 78216
P 210. 886. 0644
waltonsignage.com

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Client: **XYLEM**
Address: **XYLEM OF GERMANTOWN WISONSIN**
Address: **N 102 W 19200 WILLOW CREEEK WAY**
City/State: **GERMANTOWN, WI 53022-1236**
Sales: **DM** PM: **LS** Designer: **RJB**
Date: **02/17/25** Revision: **01**

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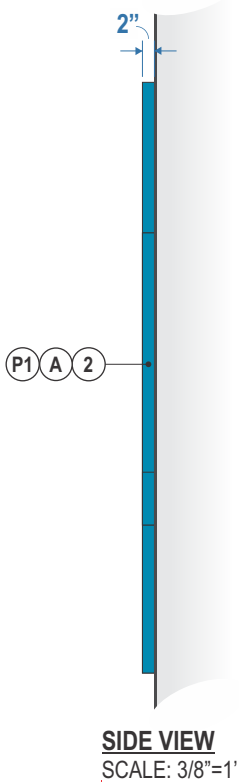
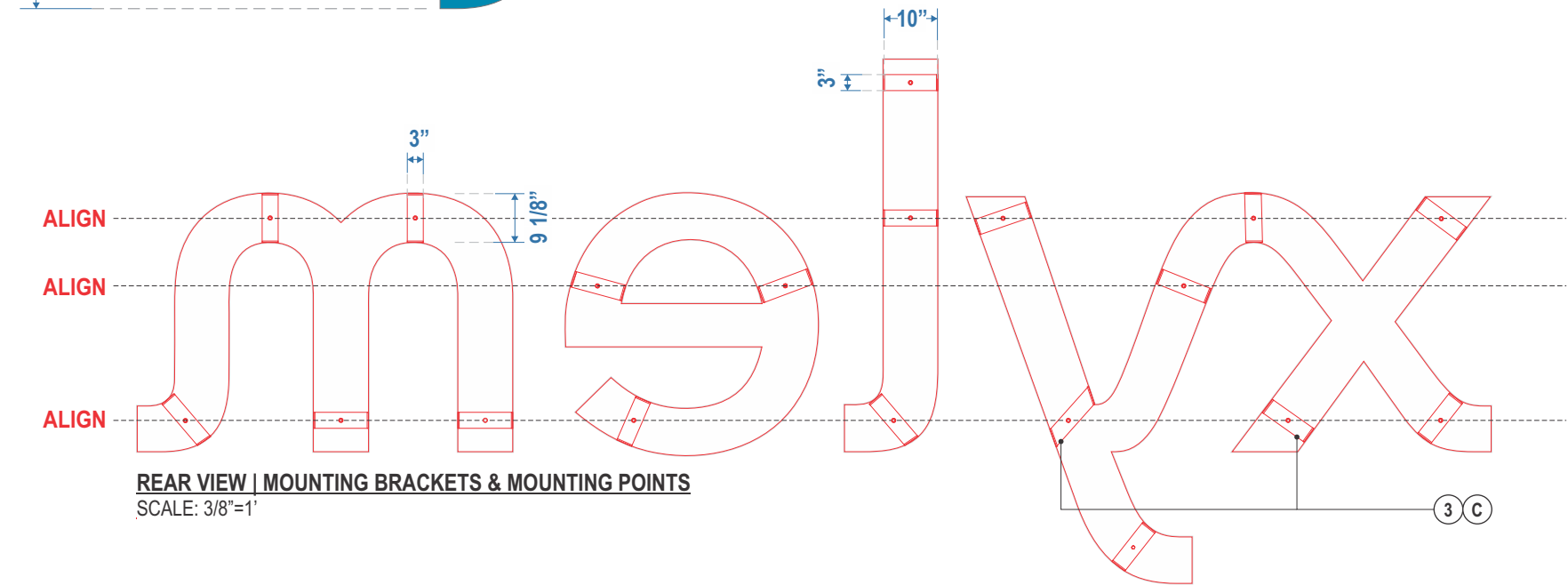
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PAGE SIZE: 11x17

CID346566

SHEET: 4
Page 166 of 174



MATERIALS & SPECIFICATIONS	
#	DESCRIPTION
1	.125 ALUMINUM FACE
2	.063 ALUMINUM RETURN
3	3" x 9"-10"+/- (VARIES) x .063 ALUMINUM
4	NUT-SERT
5	2"x2" ALUMINUM ANGLE
6	1/4" THREADED ROD W/ NUT END

NOTES:

A. LETTER RETURNS PAINTED P1 TO MATCH FACE

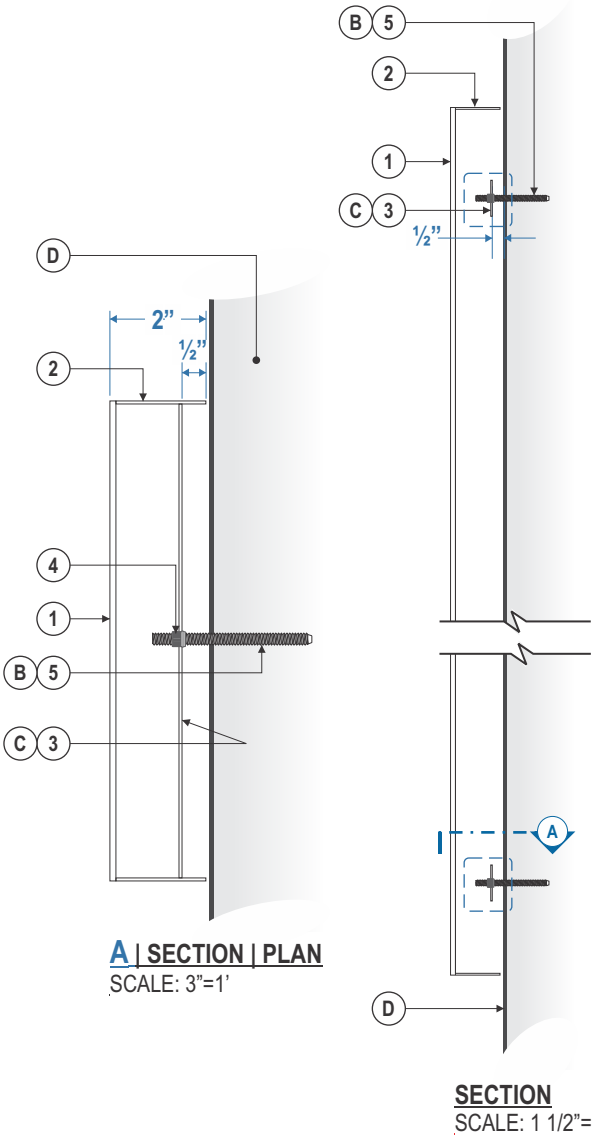
B. MOUNTING HARDWARE TBD - FIELD SURVEY REQUIRED

C. TACK-WELD .063 ALUMINUM TO INSIDE OF LETTER STROKE

D. BUILDING FASCIA - VIF



**ALL COLORS
TO BE VERIFIED
PRIOR TO MANUFACTURING**

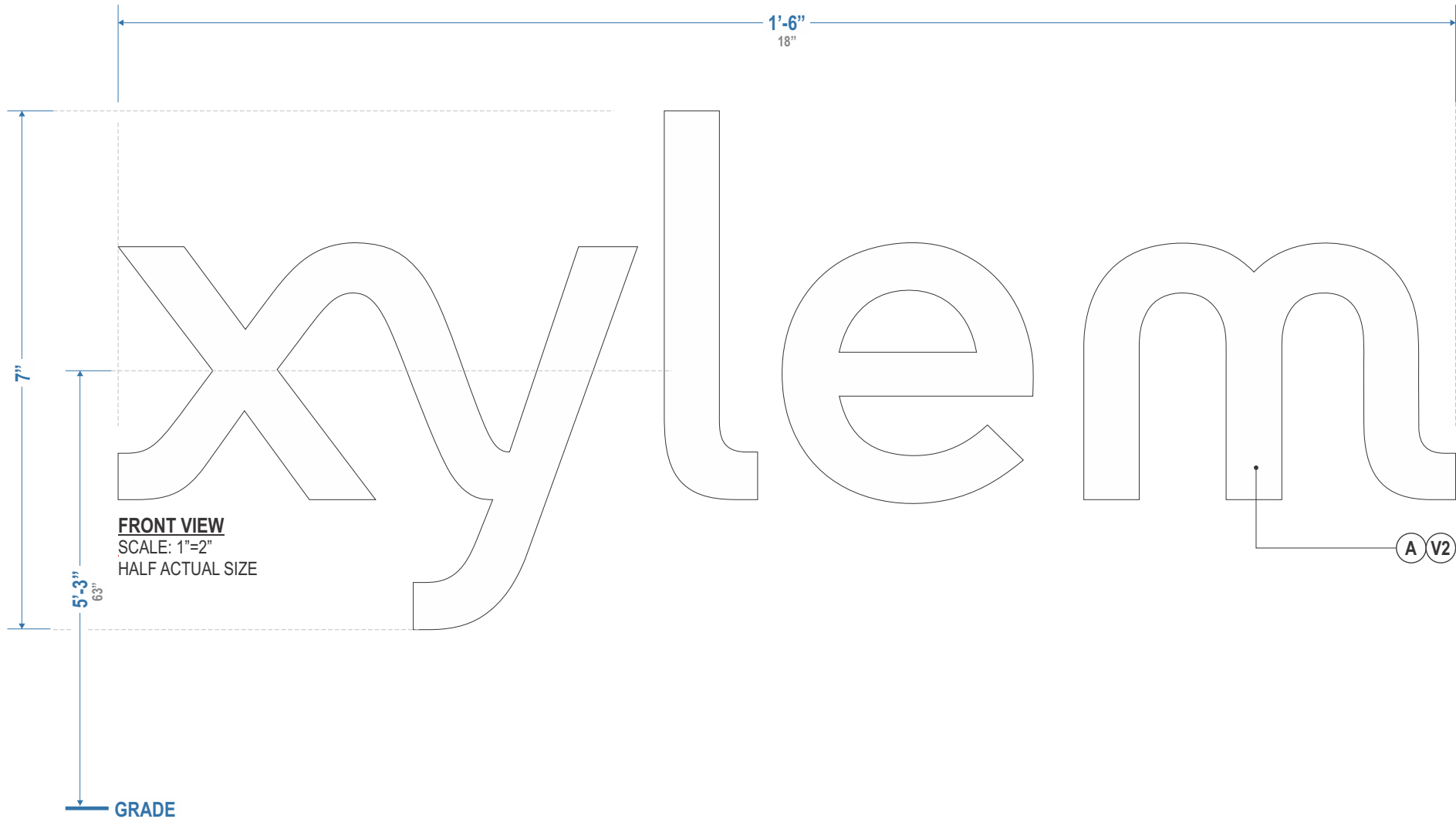




EXISTING CONDITION



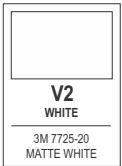
PROPOSED CONDITION

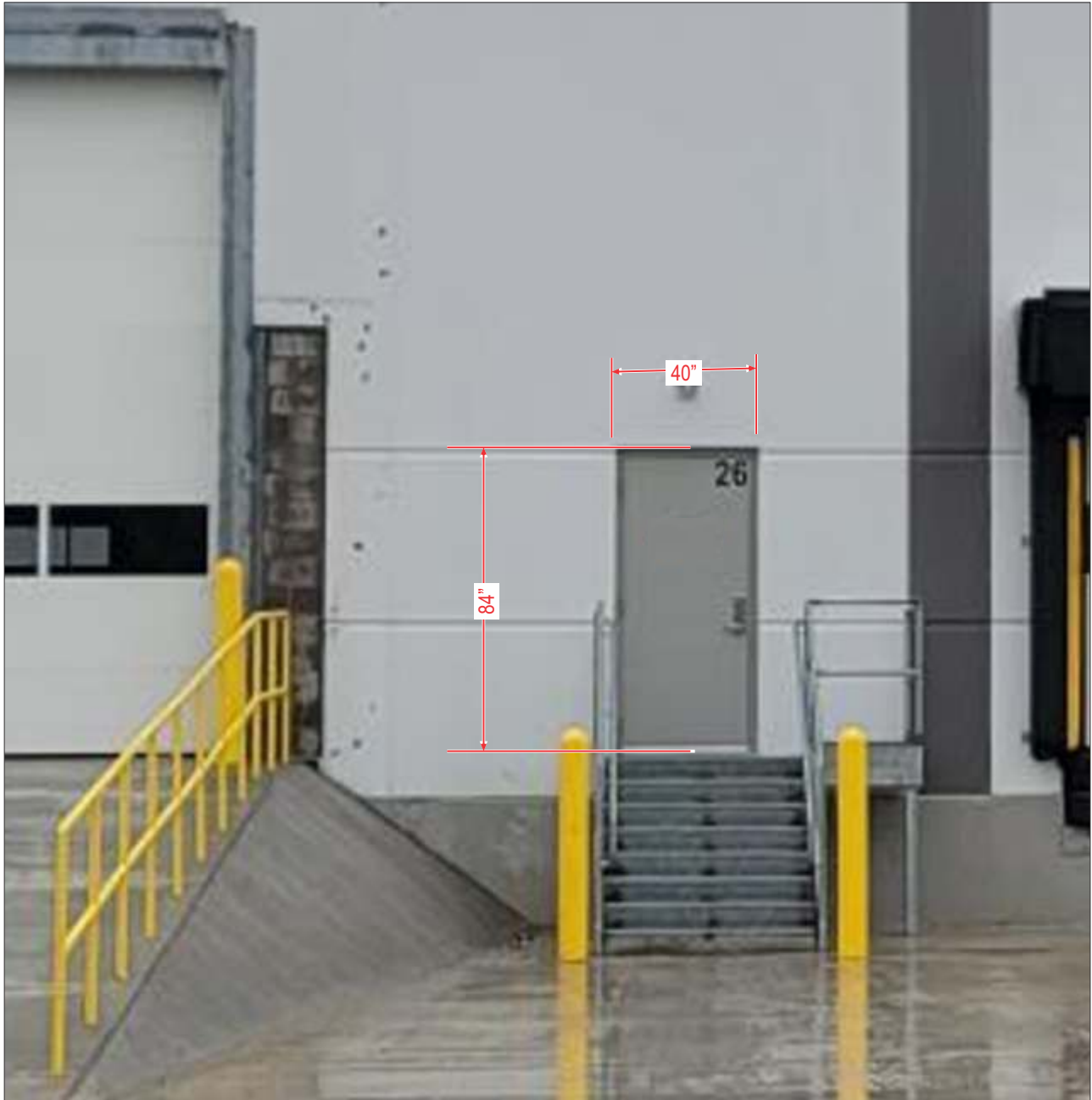


MATERIALS & SPECIFICATIONS

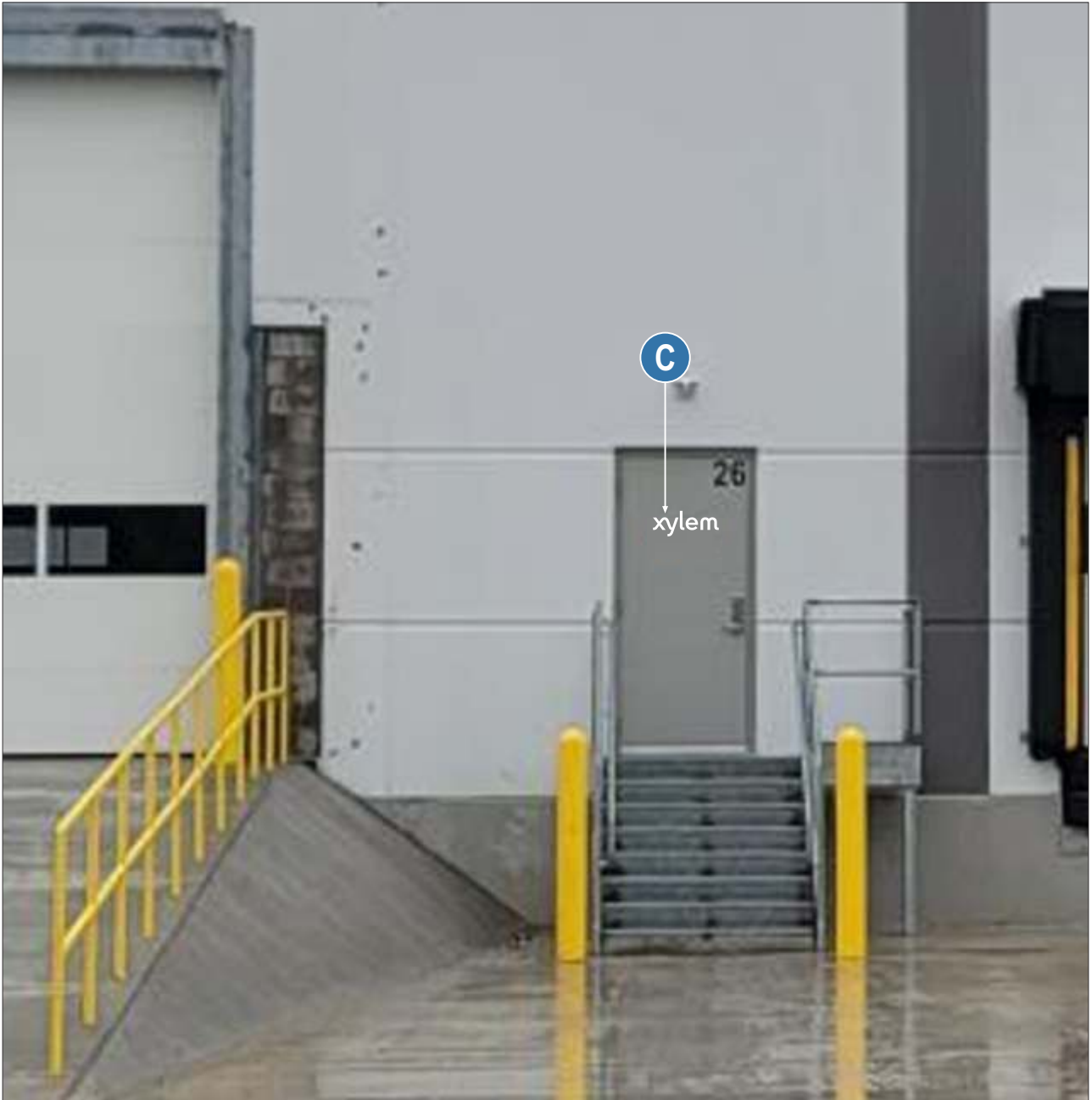
NOTES:
A. INSTALLED FIRST SURFACE TO GLASS

VINYL:





EXISTING CONDITION



PROPOSED CONDITION



10101 Reunion Place
Suite 200
San Antonio, TX 78216

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Sales: DM PM: LS Designer: RJB
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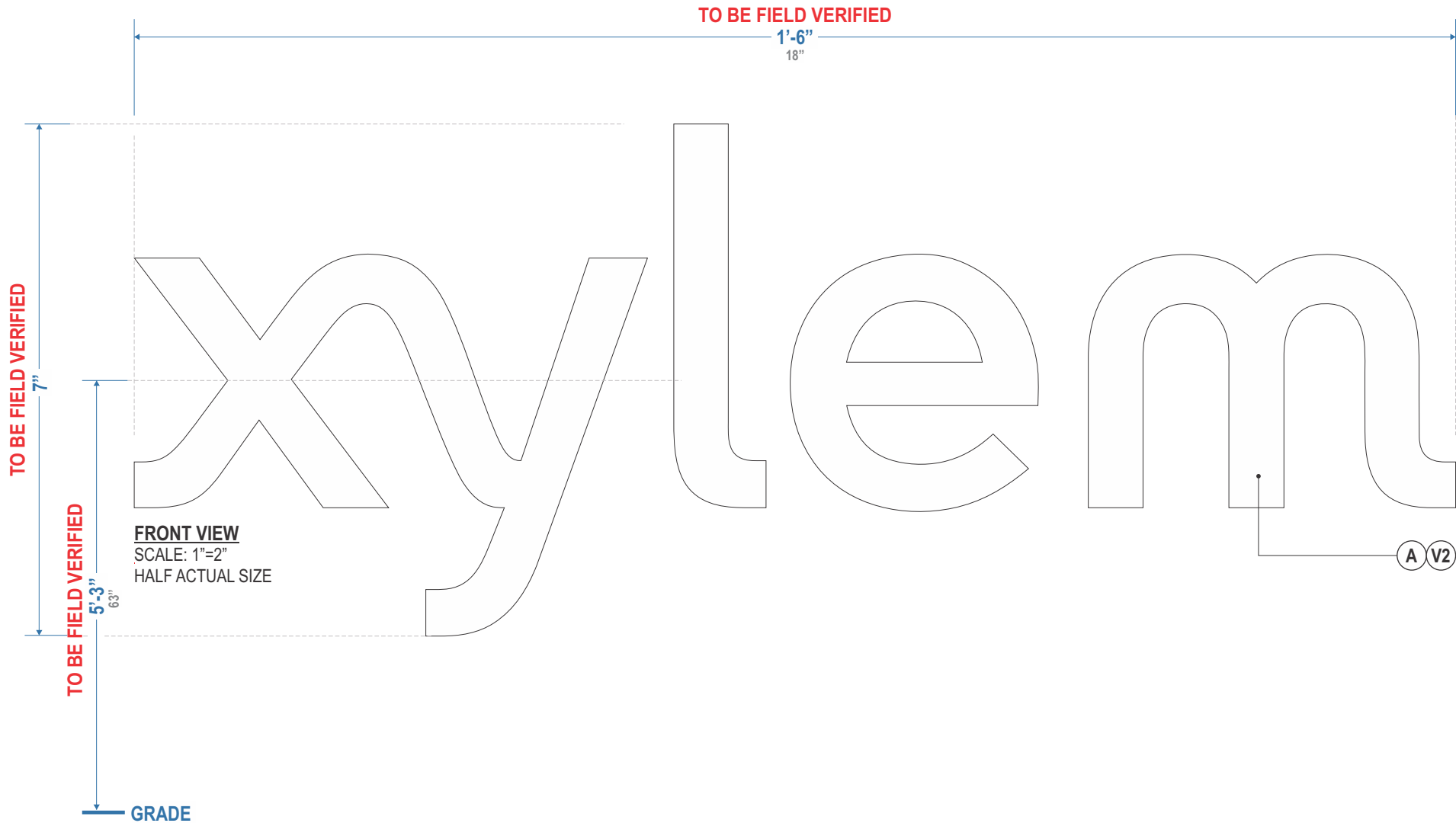
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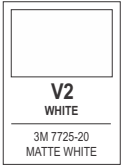
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MATERIALS & SPECIFICATIONS

NOTES:
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VINYL:





EXISTING CONDITION



PROPOSED CONDITION



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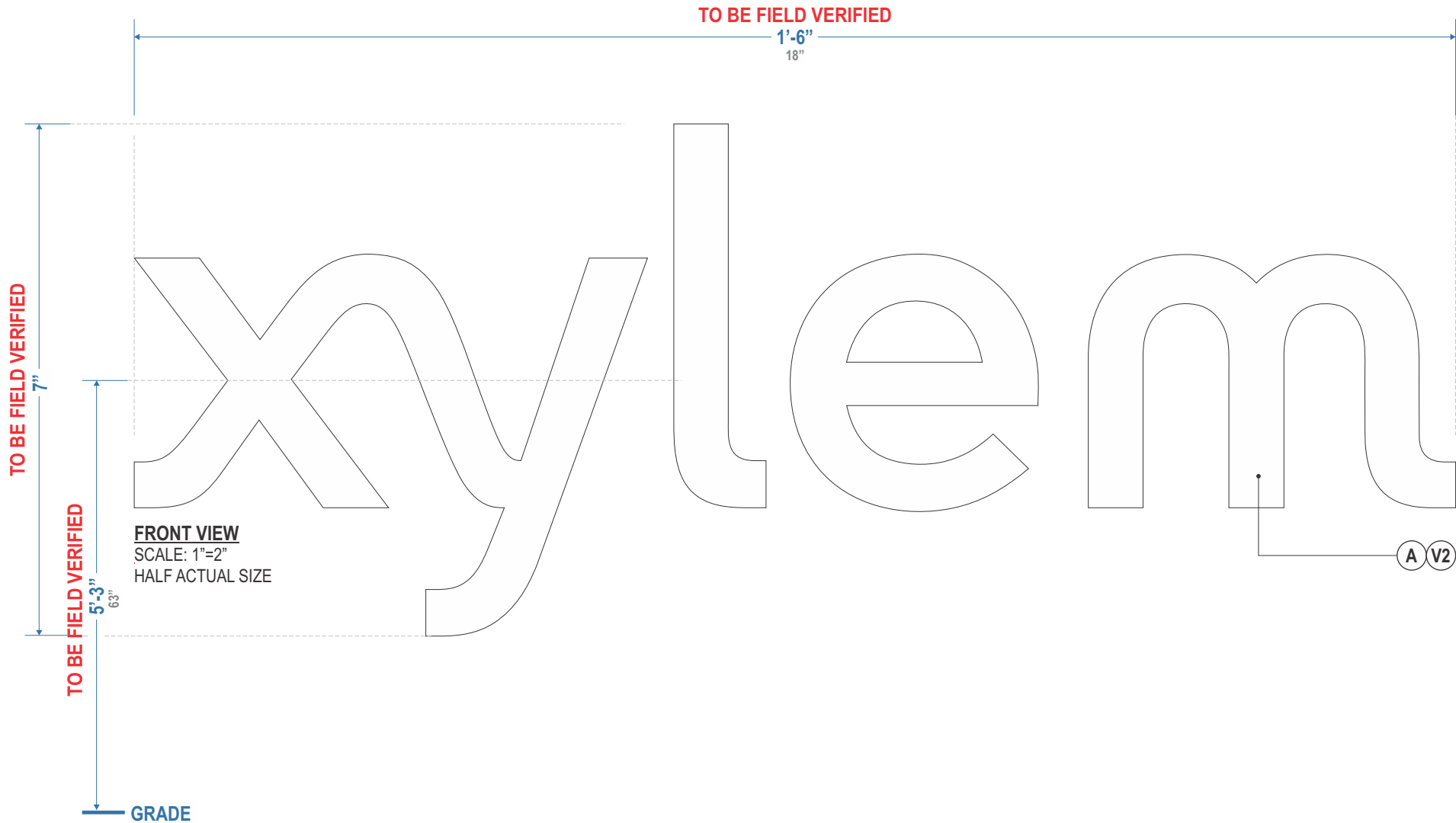
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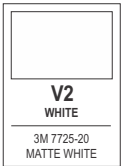
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MATERIALS & SPECIFICATIONS

NOTES:
A. INSTALLED FIRST SURFACE TO GLASS

VINYL:



RE: Willow Creek, Germantown - Xylem - Building Signage

From Samuel Dickman, Sr. <sam@dickmanrealestate.com>

Date Mon 6/9/2025 2:07 PM

To Jesse Barry <jbarry@waltonsignage.com>; Brad Wondra <bwondra@briohn.com>; Barone, Jill - Xylem <Jill.Barone@xylem.com>; Dorsa, Jeffrey - Xylem <Jeffrey.Dorsa@xylem.com>

Cc Samuel Dickman, Jr. <sam-jr@dickmanrealestate.com>; Samuel Dickman, Sr. <sam@dickmanrealestate.com>

 1 attachment (675 KB)

Message from "RNP583879372ADD";

CAUTION: This email originated from outside of the Walton Signage organization. Do not click links or open attachments unless you recognize the sender and know that the content is safe.

Jesse,
Attached please find the signed permit application.
You may also take this as the Landlord's approval of the sign design and placement.
Regards, Sam

Samuel D. Dickman
The Dickman Company, Inc.
626 East Wisconsin Avenue, Suite 1200, Milwaukee, WI 53202
T (414) 271-6100 | M (414) 305-8111
Sam@dickmanrealestate.com | [LinkedIn](#)
CORFAC International

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From: Jesse Barry <jbarry@waltonsignage.com>

Sent: Monday, June 9, 2025 12:50 PM

To: Samuel Dickman, Sr. <sam@dickmanrealestate.com>; Brad Wondra <bwondra@briohn.com>; Barone, Jill - Xylem <Jill.Barone@xylem.com>; Dorsa, Jeffrey - Xylem <Jeffrey.Dorsa@xylem.com>

Cc: Samuel Dickman, Jr. <sam-jr@dickmanrealestate.com>

Subject: Re: Willow Creek, Germantown - Xylem - Building Signage

Importance: High

Good afternoon Samuel,

I wanted to follow up regarding the signed permit application and the signed drawings.

Our permit expeditor was informed by the AHJ that this project will need to be scheduled for review by the Plan Commission Design Review. They mentioned that it is currently slated for the August 11th PC meeting. However, there is a possibility that it could be added to the July meeting if the agenda isn't too full.

To improve our chances of making it onto the July agenda, it would be ideal to secure the landlord's signature as soon as possible. While it may be a long shot, we'd like to try to push for the earlier meeting if we can.

Thank you for your help!

Please Note: I will be out of the office from **June 23, 2025** through **July 1, 2025**, returning on **July 2, 2025**. During this time, I will **not have access to email**. For urgent matters, please reach out to the designated out-of-office contacts who will be available to assist you. I will respond to your message as soon as possible upon my return.



Jesse Barry
Senior Project Manager

M 210-992-6817
E jbarry@waltonsignage.com | www.waltonsignage.com
10101 Reunion Place, Suite 200 | San Antonio, TX 78216 | USA

