MEETING:	**REGULAR MEETING OF THE PLAN COMMISSION**
DATE & TIME:	**Monday, April 13, 2026 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. **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.*

IV. **MEETING MINUTES:**

A. PC Minutes 3-9-26

V. **PUBLIC HEARINGS:**

A. The public hearing scheduled for April 13th regarding the proposal from VLS Environmental Solutions, Agent for SRRT Carnegie LLC, Property Owner of W190 N11393 & N11260 Carnegie Drive, for Rezoning and Conditional Use Permit (CUP) applications for a wastewater pre-treatment facility has been POSTPONED to a future date not yet determined. Consequently, public comments regarding this proposal will not be received and the Plan Commission will not discuss this proposal at the April 13th meeting.

VI. **NEW BUSINESS:**

A. Springfield Sign, Agent for Dan Braatz, Burgers & Braatz Properties LLC, and Blackstone Creek LLC, Property Owner. Sign Permit Application for a new 4,400 soft Culver's located at N112 W17300 Mequon Road. (ACTION)

B. Susan Hillstrom, Property Owner. Zoning Permit application to install a 4' fence in a public storm sewer and drainage easement on property located at W151N11818 Mistletoe Road. (ACTION)

C. Abacus Architects, Agent for DONTOF LLC, Property Owner, and Basic Metals, Inc. Certified Survey Map (CSM) and Site Plan applications for a 42,000 sqft addition to the existing office and manufacturing facility located at W180N11819 River Lane in the Germantown Industrial Park. (ACTION)

D. Crew Carwash, Property Owner of N96 W17500 County Line Road. Request to extend Village approval of the site plans and Conditional Use Permit No. 05-2025 for a 4,500 sqft automated car wash facility. (ACTION)

E. Signworks, Agent for Quality Electric Service, Property Owner. Sign Review application for Quality Electric Service at N114W18697 Clinton Drive. (ACTION)

F. Greg & Monica Schmidt, Property Owners of N124 W18420 Lovers Lane. Request for a variance from the architectural and exterior materials requirements under Section 17.41 of the Zoning Code for a detached accessory garage. (ACTION)

VII. ANNOUNCEMENTS:

VIII. 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, March 9, 2026 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 6:31pm.

II. ROLL CALL:

Committee Members Soderberg, Warren, Tarantino, Williams, Henk and Ewert were all present. Committee Member Shadid was absent excused. Also present were Community Development Director Retzlaff and Associate Planner Yanke.

III. 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.
Archie Reeder who lives on Fond du Lac Avenue.
Jeralyn Schuster who lives on Fond du Lac Avenue.
Peggy Reeder who lives on Fond du Lac Avenue.
Melanie Smythe who lives on Cedar Lane.

IV. MEETING MINUTES:

A. PC Minutes 2-9-26

Motion: Approve as presented
Motioned By: Robert Williams
Seconded By: Robert Warren
Yes: Robert Warren, Robert Williams, Josh Tarantino, Russell Ewert
No: None
Abstain: Bob Soderberg, Bridget Henk
Motion (Yes 4, No 0, Abstained 2)

V. NEW BUSINESS:

A. Kevin H. Behnke, Property Owner and Agent for Apple Works Winery, W179 N12536 Fond du Lac Avenue - Application to amend the conditions of approval in Conditional Use Permit (CUP) No. 05-2022 that apply to the operation of the

Apple Works Winery LLC, including the expansion of the hours of operation and uses to allow a morning coffee shop from 7:00am to 11:00am. (PUBLIC HEARING & ACTION)

Director Retzlaff went over the history of the property and the original CUP along with several amendments that were made to it over the years. The 6 proposed amendments include: Delete Condition 11 that restricts the transferability of the CUP to only family members, Delete Condition 12 that prohibits the sale or service of hard liquor, Revise Condition 16 to expand hours for indoor music in the Tasting Room & Barn, Revise Condition 17 to expand the hours of operation for winery activities, Delete Condition 18 that requires installation/operation of a sound monitoring system and Add new use of the Tasting Room as a "Morning Coffee Shop" to the list of permitted activities with hours of operation from 7am-11am daily. The property owner has taken steps to mitigate sound levels to limit the noise impact on the neighbors. There have been no noise complaints received to date about the winery.

Staff recommends approval of the proposed amendments to CUP#05-2022 in part as specified below for the Apple Works Winery. Unless revised below, all existing conditions in CUP#05-2022 shall remain in full force and effect. All existing, revised, and additional conditions specified below shall be incorporated into a new CUP document recorded as a restriction on the property if approved by the Village Board:

1. Condition #11 in CUP#05-2022 shall be revised as follows:

This Conditional Use Permit shall be transferable to an immediate family member only provided that any change in the operator and/or property owner is reported to the Community Development Department along with any proposed changes to the operation, permitted uses & activities, and extent of the operation on the property. In the event there are any changes, Village staff shall work cooperatively with the new operator/owner to evaluate the need to enforce Condition #3 herein. In the event there is a change in the owner/operator of the winery operation outside the immediate family, this CUP shall become null and void. A new CUP shall be required for a new owner/operator to commence operation of a winery, event venue and/or storage operation from this property.

2. Condition #12 in CUP#05-2022shall be revised as follows:

The sale and dispensing of hard liquor shall be allowed on the winery premises subject to applicable Village and WI Department of Revenue licensing requirements and limitations. There shall be no licensing for the sale or dispensing of hard liquor on site for business purposes. In the event the property owner would like to apply for additional liquor licensing (i.e. hard liquor license), an amendment to this Conditional Use Permit is required to be approved by the Village Plan Commission and Village Board prior to the issuance of said permit.

3. Condition #16 in CUP#05-2022 shall be revised as follows:

Indoor music is allowed only in the tasting room building and the renovated barn and shall be permitted and only between during the hours from 10:00am to 10:00pm

Sunday through Saturday12:00pm and 6:00pm only on Sunday through Thursday and from 12:00pm until 9:00pm on Friday and Saturday.

4. Condition #17 shall be revised as follows:

The hours of operation for the winery shall be between 6:00am to 11:00pm Sunday through Saturday 10:00am and 9:00pm Sunday through Thursday, and between 10:00am and 11:00pm on Fridays and Saturdays. Only clean-up type activities may take place between 10:00pm and 11:00pm on Friday and Saturdays.

5. Condition #18 in CUP#05-2022 shall be revised as follows:

A sound monitoring and notification system shall be installed and operational on the property during all hours of operation at all times while the winery is operating from the property. The owner/operator of the winery shall continuously monitor and keep records of sound levels during all hours of operation and implement whatever measures may be necessary to limit sound levels at or below 65dbA. In the event complaints are received concerning sound levels that may be in excess of 65dbA, the owner/operator shall make the sound level data collected on the date of said complaint(s) available for inspection by the Village.

6. Pursuant to Section12.03of the Germantown Municipal Code, and subject to the same restrictions and limitations set forth herein, the owner/operator of the winery shall obtain an outdoor entertainment permit for any outdoor music or entertainment provided on the property. [This is a new condition recommended by staff]

7. Use of the tasting room building and associated outdoor seating areas shall be allowed to be used as a“morning coffee shop” during the hours of 7:00am to 11:00am. The preparation and sale of food items from the morning coffee shop and winery shall be allowed subject to the terms and limitations of any food license issued by the Washington-Ozaukee County Health Department. [This is a new condition recommended by staff]

Chairman Soderberg opened the Public Hearing at 6:46pm.
Residents who spoke included:
Kirk Will who lives on Apple Blossom Lane was opposed to several of the amendments, including the serving of hard liquor, deleting the condition for transfer of the CUP to family members and deleting the sound monitoring system requirement. He feels this will be a noise nuisance and thinks this business is becoming too big for this location.
Dan Roeming who lives on Apple Blossom Lane is opposed changing the same amendments and wants the area to remain rural and quiet and doesn't want to live next door to a bar.
Associate Planner Yanke stated that 1 email came in that supported the proposal and 1 letter was submitted that opposed the proposal. Copies of both were given to all Plan Commission members.
Chairman Soderberg closed the Public Hearing at 7:04pm.

Director Retzlaff went over the conditions along with recommended changes as listed above. Discussion Followed.
Commissioners asked for confirmation that the CUP could now transfer to anyone if/when the business sells as long as they follow the same rules and conditions. Property owner, Behnke came forward to discuss the liquor license that he acquired from the State of Wisconsin in 2024 and why he did so and stated that he has not been selling hard liquor on the property so far as he has not needed to. That has changed recently, as when he gets calls to book events on the property, he loses revenue/bookings because he cannot offer hard liquor. He stated that he is adapting to the market as necessary for the business. An outdoor music permit would have to be obtained through the Clerk's Department. There was some concern from neighbors that the coffee shop operates at a peak traffic time, and it would impact neighbors' ability to leave their driveways. A sign maybe 20 feet past the driveways to direct traffic into the winery, so cars wouldn't turn into neighboring driveways by accident when kids are waiting for the school bus was suggested. Commissioners and Mr. Behnke discussed the noise monitoring system and whether it should be a requirement or not. Mr. Behnke said he had no problem with installing a new working system so he could provide noise data when needed on his own accord.

Motion 1: Approve all conditions EXCEPT for 1/11 & 5/18 as presented
Motioned By: Robert Warren
Seconded By: Russell Ewert
Yes: Robert Warren, Robert Williams, Bridget Henk, Josh Tarantino, Russell Ewert
No: None
Abstain: Bob Soderberg
Motion Passed (Yes 5, No 0, Abstained 1)

Motion 2: Eliminate condition 1/11 from the CUP
Motioned By: Robert Warren
Seconded By: Russell Ewert
Yes: Robert Warren, Russell Ewert
No: Robert Williams, Bridget Henk, Josh Tarantino
Abstain: Bob Soderberg
Motion Failed (Yes 2, No 3, Abstained 1)

Motion 3: Approve condition 1/11 as written
Motioned By: Bridget Henk
Seconded By: Robert Williams
Yes: Robert Williams, Bridget Henk, Josh Tarantino
No: Robert Warren, Russell Ewert
Abstain: Bob Soderberg
Motion Passed (Yes 3, No 2, Abstained 1)

Motion: Eliminate condition 5/18
Motioned By: Robert Warren
Seconded By: Russell Ewert
Yes: Robert Warren, Robert Williams, Bridget Henk, Josh Tarantino, Russell Ewert
No: None

Abstain: Bob Soderberg
Motion Passed (Yes 5, No 0, Abstained 1)

B. Peter & Donna Maniaci, Property Owners. Conditional Use Permit (CUP) application to convert/expand an existing detached accessory structure (garage) into a "Mother-In-Law Suite" accessory dwelling unit and modify the provisions under Section 17.08(64) of the Zoning Code, for property located at W213N11111 Appleton Avenue. (PUBLIC HEARING & ACTION)

Associate Planner Yanke went over the background on the property and the detached "mother-in-law suite" (MILS) accessory dwelling unit proposal. The new MILS dwelling (converted/expanded detached garage) would be used to house the property owner's son and his family while the property owners would continue to reside in the principal dwelling. He also stated that there are no other alternatives (land division, rezoning, use variance) for the property owner to petition for the second dwelling (MILS) given current property characteristics, zoning code provisions, lack of municipal utility access, and the 2050 Plan designation.

Staff recommends approval of the Conditional Use Permit (CUP) application for Peter & Donna Maniaci to convert/expand an existing detached accessory structure (garage) into a “Mother-In-Law Suite” accessory dwelling unit and modify the provisions under Section 17.08(64) of the Zoning Code, for property located at W213 N11111 Appleton Avenue, subject to the following conditions:

1. The MILS shall be constructed consistent with the building/floor plan dated November 13, 2024, as presented to the Village Plan Commission and Village Board.
2. The MILS shall comply with MILS requirements d, g, h, i, and j as defined in Section 17.08(64) of the Zoning Code on an ongoing basis. The MILS shall not be subject to MILS requirements a, b, c, e, and f as defined by the same code section.
3. The property owner shall notify the Community Development Director/Village Zoning Administrator if/when use of the detached accessory structure changes or ceases to be used as a “Mother-In-Law Suite” accessory dwelling.
4. This Conditional Use Permit (CUP) shall be non-transferable to a subsequent owner unless said owner is a member of the Maniaci family. In the event there is a change in the owner, this CUP shall become null and void, and a new CUP would have to be obtained pursuant to Sections17.08(64) and 17.42 of the Zoning Code.
5. Prior to recording of the Conditional Use Permit (CUP) and issuance of building permits from the Village for the conversion/expansion work, the owner shall obtain necessary well and on-site sanitary (i.e. septic) permits from Washington County to ensure the proposed MILS accessory dwelling unit complies with all applicable plumbing code requirements.

Chairman Soderberg opened the public hearing at 8:10pm.
No residents came forward to speak.
Chairman Soderberg closed the public hearing at 8:11pm.

Motion: Approve as presented

Motioned By: Robert Warren
Seconded By: Bridget Henk
Yes: Bob Soderberg, Robert Warren, Robert Williams, Bridget Henk, Josh Tarantino, Russell Ewert
No: None
Abstain: None
Motion Passed (Yes 6, No 0, Abstained 0)

C. Virtus Development LLC, Agent for District One LLC, Property Owner W140 N10363 Fond du Lac Avenue (GTNV 351-965001 & GTNV 351-965002); Site Plan Application for a 4-unit Multi-Family Townhouse and 33-Stall Parking Lot. (ACTION)

Director Retzlaff went over a brief history of the property/proposed development. This extension is for basically the same plan set as approved in 2023 & 2024. The restaurant is slated to be complete in summer of 2026, and townhouse construction is to commence 60 days after site plan approval with completion in Spring of 2027.

Staff recommends approval of the Site Development & Building Plans for a 33-stall commercial parking lot and 4-unit multifamily townhouse building located in the southwest corner of the Donges Bay Road @ Fond du Lac Ave/STH145 intersection in the “Kuhburg Planned Development District” 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 superseded by subsequent plan sheets approved by Village Staff pursuant to revisions required herein and/or by the Plan Commission:
2. Architectural plans dated 5-23-2024 & 2-1-2024;
3. Civil Engineering plans dated 7-20-2023, 10-5-2023, & 11-13-2023;
4. Lighting plans (photometric plan) dated7-18-2023;
5. Storm Water Management Report dated July 21, 2023;
6. Landscape Planting Plan dated 11-3-2023.

If revised plan sheets are necessary, each revised sheet shall contain the date of said revision clearly stamped in the lower right corner.

2. All landscaping, screening, grading, and paving improvements shown on the approved site plans 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.

3. All outstanding items and issues identified by Village Staff in the following review memos shall be resolved and reflected in additional information and/or revised plans submitted to Staff for further review, comment, and approval prior to commencing construction or issuance of building permits (excluding “early start” site clearing and footing/foundation work approved by the Village and/or WI DSPS):

1. February 16, 2026, memo from Kevin Driscoll, Village Engineer

4. 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.

5. Dumpster enclosures shall be designed to meet the Village's dumpster enclosure guidelines. The Developer shall provide a complete set (showing elevations and gate/doorway) of dumpster enclosure plans for review and approval by the Village Planner prior to issuance of an occupancy permit for the townhouse building.

6. The developer shall install a privacy fence along the west property line adjacent to the commercial parking lot and connect to the existing privacy fence to the north. Detailed specifications for the proposed fence shall be submitted to the Village planner for review and approval prior to issuance of any building permit for the townhouse building construction.

7. This approval shall become null and void if construction does not commence by March10, 2027, and continue toward completion as provided under Section 17.43(11) of the Zoning Code.

8. A decorative privacy fence and landscape screen/buffer shall be installed along the entire length of the paved driveway and parking stall area abutting the south property line. The decorative privacy fence shall be a minimum of 6 feet in height and not be a simple board-on-board wood fence. The landscaping shall also be installed along the south side of the fence.

9. The four (4) street trees proposed to be planted in the Fond du Lac Ave right-of-way shall be included in a right-of-way permit issued by WisDOT to allow installation in the right-of-way. If the street trees cannot be added to the existing or new agreement the developer has with WisDOT to permit these trees in the ROW, the trees shall be relocated onto the townhouse & parking lot properties.

10. The proposed landscaping along the south side of the parking lot shall be supplemented with evergreen trees and shrubs to enhance screening of car headlight glare on the townhouses. Said plan to be reviewed and approved by the Village Planner and Plan Commissioner Tarantino.

11. Prior to issuance of any building permit for the townhouse building construction, the developer shall provide the following information to the Village Planner:
    1. The average and range of projected rental rates for the townhouses if the units are rentals, or, the estimated assessed value or projected cost per unit if the units will be sold for owner occupancy;
    2. The construction value of each unit and the overall building

[NEW CONDITION]

12. The proposed architectural and elevation details for the townhouse building show fewer windows on the south elevation that result in a featureless, uninteresting, and bland appearance. The developer shall incorporate additional color, material, and feature changes to the elevations on all the townhouse units to enhance their appearance and quality of materials, e.g. stone on the exposed lower levels instead of painted concrete block, an additional gable or other feature with wall articulation on the south elevation that resembles that on the north elevation, etc. A revised set of architectural elevation plans and renderings shall be prepared and submitted for Plan Commission review and approval.[NEW CONDITION]

Property owner Greg Nagel came forward to discuss reasons for the delays in construction and the environmental impacts they have had to clean up. Discussion Followed.
Commissioners discussed revising condition 12.

Motion: Approval with a revision to condition 12 to change Plan Commission review and approval to Staff review and approval unless staff feels the need to elevate to Plan Commission
Motioned By: Russell Ewert
Seconded By: Bridget Henk
Yes: Bob Soderberg, Robert Warren, Robert Williams, Bridget Henk, Josh Tarantino, Russell Ewert
No: None
Abstain: None
Motion Passed (Yes 6, No 0, Abstained 0)

D. Karen Dodge, Agent for MGAC Properties, LLC, Property Owner; Germantown Animal Hospital N112 W16017 Mequon Road; Sign Application for monument signage. (ACTION)

Staff recommends approval of the proposed monument sign for Germantown Animal Hospital for property located at N112W16017 Mequon Road, subject to the following condition:

1. Prior to issuance of a building permit and sign installation, the applicant shall provide a complete landscaping plan for the monument sign meeting the requirements of VillageSign Code Section17.46(7).

Motion: Approve as presented
Motioned By: Robert Warren
Seconded By: Bridget Henk
Yes: Bob Soderberg, Robert Warren, Robert Williams, Bridget Henk, Josh Tarantino, Russell Ewert
No: None
Abstain: None
Motion (Yes 6, No 0, Abstained 0)

E. Village of Germantown Community Development Department - Proposed Text Amendments to Section 14 (Building) and Section 17 (Zoning) of the Village of Germantown Municipal Code. (PUBLIC HEARING AND ACTION)

Director Retzlaff stated that there are 6 amendments proposed to portions of the building and zoning code, they are relatively minor in nature and are proposed to address specific issues Building Inspection services and Planning & Zoning services staff have had to address.

Amendment #1 (see Section I; page 1)
This proposed amendment deletes the Property Record Maintenance Fee Schedule under Section 14.055(4) and replaces it with language that indicates the fee schedule will be adopted by Village Board resolution. This revision simply allows the fee schedule to be changed by resolution along with other building permit fee changes without having to adopt an ordinance.

Amendment #2 (see Section II; page 2)
This proposed amendment clarifies the term for building permit expiration (after 12 months) and re-issuance if work authorized under a permit has commenced but is not completed within 12 months.

Amendment #3 (see Section III; page 2)
This proposed amendment revises language concerning occupancy bond requirements for non-residential structures subject of a building permit and indicates the occupancy bond schedule will be established by Village Board resolution.

Amendment #4 (see Section IV; page 3)
This proposed amendment increases the maximum height from 6 feet to 10 feet for fences in a side or rear yard of residential property abutting Interstate Highway US41.

Amendment #5 (see Section V; page 3)
This proposed amendment clarifies the conditions under which monument sign height and sign area may be increased by the Plan Commission due to differences in elevation between a business or industrial property and the abutting roadway.

Amendment #6 (see Section VI; page 4)
This proposed amendment adds specific land uses/activities to the list of Conditional Uses and provides for visual screening requirements of outdoor storage areas in the M-1: Limited Industrial Zoning District.

Staff recommends approval of the 6 proposed text amendments as presented in the draft ordinance as summarized above.

Chairman Soderberg opened the public hearing at 8:46pm.
No residents came forward to speak.
Chairman Soderberg closed the public hearing at 8:46pm.

Motion: Approve as presented
Motioned By: Josh Tarantino
Seconded By: Robert Williams

Yes: Bob Soderberg, Robert Warren, Robert Williams, Bridget Henk, Josh Tarantino, Russell Ewert
No: None
Abstain: None
Motion Passed (Yes 6, No 0, Abstained 0)

F. Village of Germantown Community Development Department - Single-Family vs. Multi-Family Housing Definitions & Ratio Policy. (DISCUSSION)

Chairman Soderberg stated that he asked for this topic to be added to the agenda for tonight. Director Retzlaff stated that in 2025 the Plan Commission and Village Board discussed the multi/single family ratio policy multiple times. It all came back to a point in time where we started to ask ourselves; what's the actual definition of multifamily housing? Historically, it's viewed as rental, which isn't always the case and, likewise, single-family doesn't always mean owner-occupied, affordable housing or rental housing doesn't necessarily mean subsidized or low income. We never came to a definite conclusion and defined the terminology. Single family attached units vs single family detached units, attached is by definition in building codes, a condominium or a townhouse. Retzlaff went over 2 tables that he created and stated that the tables include Sutton Farm, Carillon-Cirrus, Victory Place and the Virtus townhouses. The current percentage not including recently approved housing developments is owner occupied = 75%, renter occupied = 25%.

Chairman Soderberg stated that he feels that we will need this information based on the atmosphere in the community and going into the neighborhood meetings for the Grosneck and Flower Source properties. Retzlaff questioned how we want to define multifamily and single family moving forward. If we want to track ownership vs renter what are we going to do about the baseline 8,619 units that were already in the Village that don't factor into the ownership vs rental? Do we need to go back and recategorize those as well? Because they may fall into a different category if we look closely. Soderberg stated that the VB will need to review the mix with each upcoming development project. He would like to get more specifics moving forward, but this could be a starting point. Retzlaff stated that we don't currently prohibit rental property developments but there are ways to do so moving forward if that's what the Village wants to do. The conclusion in September was that we were not going to adopt a multifamily policy, but we were going to keep track of the %. Soderberg stated that there are developers that will make a decision on whether to bring future developments to the village based on what they hear from this body tonight. Soderberg committed to work with the Community Development team to come back with a recommendation.

VI. ANNOUNCEMENTS:

None.

VII. ADJOURNMENT:

Chairman Soderberg adjourned the meeting at 9:20pm.

SIGN PERMIT APPLICATION

4/13/26 Plan Commission Meeting

Springfield Sign / Burgers & Braatz Properties LLC

Village Staff Report & Recommendation ***Germantown, Wisconsin***

SUMMARY

Springfield Sign, agent for Dan Braatz, Burgers & Braatz Properties, LLC, and Blackstone Creek, LLC, Property Owner, is requesting approval for a package of monument, wall, and directional signs for the new 4,400 sqft Culver's restaurant located at N112 W17300 Mequon Road in the Village Center District.

Location: N112 W17300 Mequon Road (Blackstone Creek PDD)

Applicant/
Property Owner:

Burgers & Braatz Properties, LLC 12455 Wrayburn Road Elm Grove, WI 53122	Blackstone Creek, LLC 5150 N Port Wash Road Glendale, WI 53217

Zoning: B-1: Business District/Planned Development District (PDD)

Adjacent Land Uses		Zoning
North	Recreational (Existing Golf Course)	PDD
South	Institutional (Church)	I
East	Commercial (Bank)	B-1
West	Residential (Fairway Knoll)	PDD



Background

At the December 2025 meeting, the Plan Commission approved site development & building plans for construction and operation of a new 4,400 sqft Culver's restaurant at the corner of Mequon Road @ Division Road in the Blackstone Creek area. At that time, no formal sign package was proposed and a condition of approval required Plan Commission action on any/all proposed signs at a later date with a formal sign permit application.

Proposal

At this time, Culver's is proposing a sign package that includes a total of (6) permanent wall signs, (1) monument sign, (1) on-site direction sign, and (2) drive-thru electronic menu boards with the following characteristics (see enclosed sign package for dimensions and color renders):

Wall Signs

- (3) 44" x 94.5" (29 total sqft) wall-mounted, internally illuminated channel letter "Culver's" logo signs installed on the north, west, and south building elevations;
- (1) 56" x 120" (47 total sqft) wall-mounted, internally illuminated channel letter "Culver's" logo sign installed on the east building elevation;
- (1) 18" x 28" (3.5 total sqft) wall-mounted metal panel "Coming Right Up" installed on the west building elevation along the drive-thru lane;
- (1) 68" x 338" (160 total sqft) wall-mounted "Welcome to Delicious" mural panel installed on the south building elevation just before the drive-thru pick-up window

Monument Signs

- (1) 7'6" x 7' x 10' height (51 sqft per side; 102 total sqft) double-sided, internally illuminated monument sign with an integrated 7'6" x 2'5" electronic messaging center (EMC) mounted on a masonry brick base to be installed in the southeast corner of the site

Directional Signs

- (1) 17" x 28" (3.25 sqft per side) double-sided, internally illuminated cabinet mounted on a 28" decorative post in the drive-thru on the east side of the site

Drive-Thru Menu Board Signs

- (2) 86.5" x 49.6" (29.75 sqft) internally illuminated, digital display menu boards installed along the two drive-thru lanes each with 8'3" high canopies with integrated audio order systems

Staff Comments

All of the proposed signs meet the requirements and limitations of the sign regulations except for the following items that Staff recommends be addressed in further revised plans or supplemental information:

1. Revisions to the previously approved landscape plan for the around the base of the monument sign shall be submitted to the Village Planner for approval prior to installation of the monument sign. Said plan shall show the type, number and size of plantings to be installed around the sign base as required under Section 17.46(7)(c) of the Zoning Code;

2. Address coordinates shall be mounted/installed on the sign base or other visible part of the sign as required under Section 17.46(7)(c) of the Zoning Code;
3. Although the brick base color matches the lower part of the exterior walls of the building, the single-color scheme is basic and bland. Consider using color variation or patterns with the brick to create a more interesting and distinctive appearance like the corners in the exterior walls of the building that uses a darker main brick with a lighter “quoin” stone or brick.
4. While interesting, the 6’x 28’ mural panel on the exterior wall facing Mequon Road simply covers up the half-timbered “fachwerk” architectural appearance (vs. being integral with it like the other signs). In the context of the Village’s sign regulations, the mural is an architectural component (and not a very complimentary one) vs. signage. If necessary, Staff supports use of a temporary sign displaying a “Welcome to Delicious” message elsewhere on the site but not as a permanent, tacked on feature that is not integral with the architectural components of the building. Joking aside, everyone knows what the quality of Culver’s food and service is like… both the “delicious” mural and the small “coming right up” wall sign are superfluous and only detract from the “Germanic Theme” architectural design and appearance.

Staff recommended conditions of approval addressing the above items are contained in the staff recommendation below.

VILLAGE STAFF RECOMMENDATION

APPROVE the proposed wall, monument, directional and menu board signs as proposed for the new 4,400 sqft Culver’s restaurant located N112 W17300 Mequon Road subject to the following requirements, exceptions, and limitations:

1. An electrical permit is required for all electrical installations or modifications prior to installation of all signs requiring electrical service. Contact Inspection Services staff (SAFEBuilt) for code and permit application requirements.
2. Revisions to the previously approved landscape plan for the around the base of the monument sign shall be submitted to the Village Planner for approval prior to installation of the monument sign. Said plan shall show the type, number and size of plantings to be installed around the sign base as required under Section 17.46(7)(c) of the Zoning Code;
3. Address coordinates shall be mounted/installed on the sign base or other visible part of the sign as required under Section 17.46(7)(c) of the Zoning Code;
4. The appearance of the proposed brick base shall be enhanced to be more attractive and interesting. Embellishments may include the use of color variations or patterns of brick or other masonry features to create a distinctive appearance like the corners in the exterior walls of the building that use a darker main brick with a lighter “quoin” stone or brick.
5. The 6’x28’ wall mural is not approved for installation on the south building elevation as proposed.

Village of Germantown ...Willkommen

Fee must accompany application

$275 Sign Review Fee

$ 75 Sign Face Replacement

Paid _____ Date_____

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

Springfield Sign
Lora Trent
4825 E Kearney St.
Springfield, MO 65803
Phone (417)862-2454
Fax ( )
E-Mail lorat@springfieldsign.com

PROPERTY OWNER

Blackston Creek, LLC
5150 N Port Washington Rd. Ste. 115
Glendale, WI 53217
Phone ( )

2 PROPERTY ADDRESS OR GENERAL LOCATION

N112W 17300 Mequon Rd. Germantown, WI 53022

3 SIGN INFORMATION Breakdown of signage attached

Sign Dimensions _____height x _____ width Single/Multi Tenant (circle one)
Number of Sides _____ Building Frontage SF _____
Total Square Footage of Sign (include all sides)_____
Total height of the Sign_____
Is the Sign to be illuminated _____X____yes _____ no
Type of Sign Construction Materials_____
Distance to Closest Property Line_____

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!

Lora Trent 01/28/2026
Applicant Date

_____
Owner Date

Village of Germantown ...Willkommen

Fee must accompany application

$275 Sign Review Fee

$ 75 Sign Face Replacement

Paid _____ Date_____

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

Springfield Sign
Lora Trent
4825 E Kearney St.
Springfield, MO 65803
Phone (417)862-2454
Fax ( )
E-Mail loram@springfieldsign.com

PROPERTY OWNER

Burgers & Braatz Properties, LLC / Dan Braatz
12455 Wrayburn Rd.
Elm Grove, WI 53122
Phone (262) 510-8057

2 PROPERTY ADDRESS OR GENERAL LOCATION

N112W 17300 Mequon Rd. Germantown, WI 53022

3 SIGN INFORMATION Breakdown of signage attached

Sign Dimensions _____height x _____ width Single/Multi Tenant (circle one)
Number of Sides _____ Building Frontage SF _____
Total Square Footage of Sign (include all sides)_____
Total height of the Sign_____
Is the Sign to be illuminated ____X____yes _____ no
Type of Sign Construction Materials_____
Distance to Closest Property Line_____

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!

Lora Trent 09/19/2025
Applicant Date

Owner 9/19/25
Date

SPRINGFIELD SIGN
design | build | install | service

ADDRESS
4825 E Kearney St
Springfield, MO 65803

CONTACT US
800.845.9927
springfieldsign.com

Culver's Signage Breakdown
N112 W17300 Mequon Rd.
Germantown, WI

Main Elevation
SL-30 LED Illuminated Channel Letters 44.37" x 94.50" = **29.12 sq. ft.**

Front Elevation
SL-45 LED Illuminated Channel Letters 56" x 120" = **46.67 sq. ft.**

Drive-Thru Elevation
SL-30 LED Illuminated Channel Letters 44.37" x 94.50" = **29.12 sq. ft.**
Mural 68" x 338" = **159.6133 sq. ft.**

Rear Elevation
SL-30 LED Illuminated Channel Letters 44.37" x 94.50" = **29.12 sq. ft.**
BB-1 NON Illuminated 17.67" x 27.88" = **3.42**

Directional Signs
DIR 1 LED Illuminated 27 7/8" x 16 ¾" = **3.2 sq. ft.**

Vehicle Height Detector
NON Illuminated Clearance Panel – 40" x 5" = **1.39 sq. ft.**

Drive Thru Canopy
Please see attached artwork **(x2)**

Menu Boards
MB-DT-DD 86.40" x 49.59" = **29.75 sq. ft. (x2)**

SPRINGFIELD SIGN
design | build | install | service

ADDRESS
4825 E Kearney St
Springfield, MO 65803

CONTACT US
800.845.9927
springfieldsign.com

Freestanding Sign

ME-35 Oval LED Illuminated 7’ 3” x 4’ 6” = **26.51 sq. ft.** (mathematical)

ME-35 EMC Electronic Message Center 2’5” x 7’ 3” = **17.52 sq. ft.** (mathematical)

SPRINGFIELD SIGN & GRAPHICS, INC / DBA SPRINGFIELD SIGN Village of Germantown, WI 01/28/2026 104197

Date	Ref No.	Amount Due	Credits Applied	Discount	Payment	Balance Due
1/28/2026	ermantown, WI AO 63554	320.00	0.00	0.00	320.00	0.00

Culver's N112W17300 Mequon Rd - Plem Comission

Village of Germantown

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

02/02/2026 09:52AM PRAVINA P
001071-0012
Payment effective date 01/30/2026

MISCELLANEOUS
ZONING FEES (GENZON)
2026 GENZON
1 @ $320.00 $320.00

$320.00

Subtotal **$320.00**
Total **$320.00**

Tenders
CHECK $320.00
Check Number104197

Change due **$0.00**

Thank you for your payment

CUSTOMER COPY

*WALL SIGN AREA IS MATHEMATICAL AREA OF VISUAL OPENING OF OVAL SIGN-SEE ARTWORK

WALL SIGN AREA CALCULATIONS		
SIGN	SIZE (APPROX.)	AREA
SL-45	10'-0" (W) X 4'-0" (H)	46.67 S.F.
SL-30	7'-10 1/2" (W) X 4'-8" (H)	29.12 S.F.
SL-30	7'-10 1/2" (W) X 4'-8" (H)	29.12 S.F.
SL-30	7'-10 1/2" (W) X 4'-8" (H)	29.12 S.F.
BB-3	17.665" (W) X 27.875" (H)	3.42 S.F.
MURAL	338" (W) X 68" (H)	159.61 S.F.

WALL SIGN AREA TOTAL = 297.06 S.F

MENU BOARD AREA CALCULATIONS		
SIGN	SIZE (APPROX.)	AREA
MB-DT-DD3	86.40" (W) X 49.60" (H)	29.75 S.F.
MB-DT-DD3	86.40" (W) X 49.60" (H)	29.75 S.F.

MENU BOARD TOTAL = 59.50 S.F.

*MONUMENT SIGN AREA IS MATHEMATICAL AREA OF VISUAL OPENING OF OVAL SIGN-SEE ARTWORK

MONUMENT SIGN AREA CALCULATIONS		
SIGN	SIZE (APPROX.)	AREA
ME-35	7'-6" (W) X 4'6" (H)	26.51 S.F.
EMC	7'-3"(W) X 2'-5" (H)	17.52 S.F.

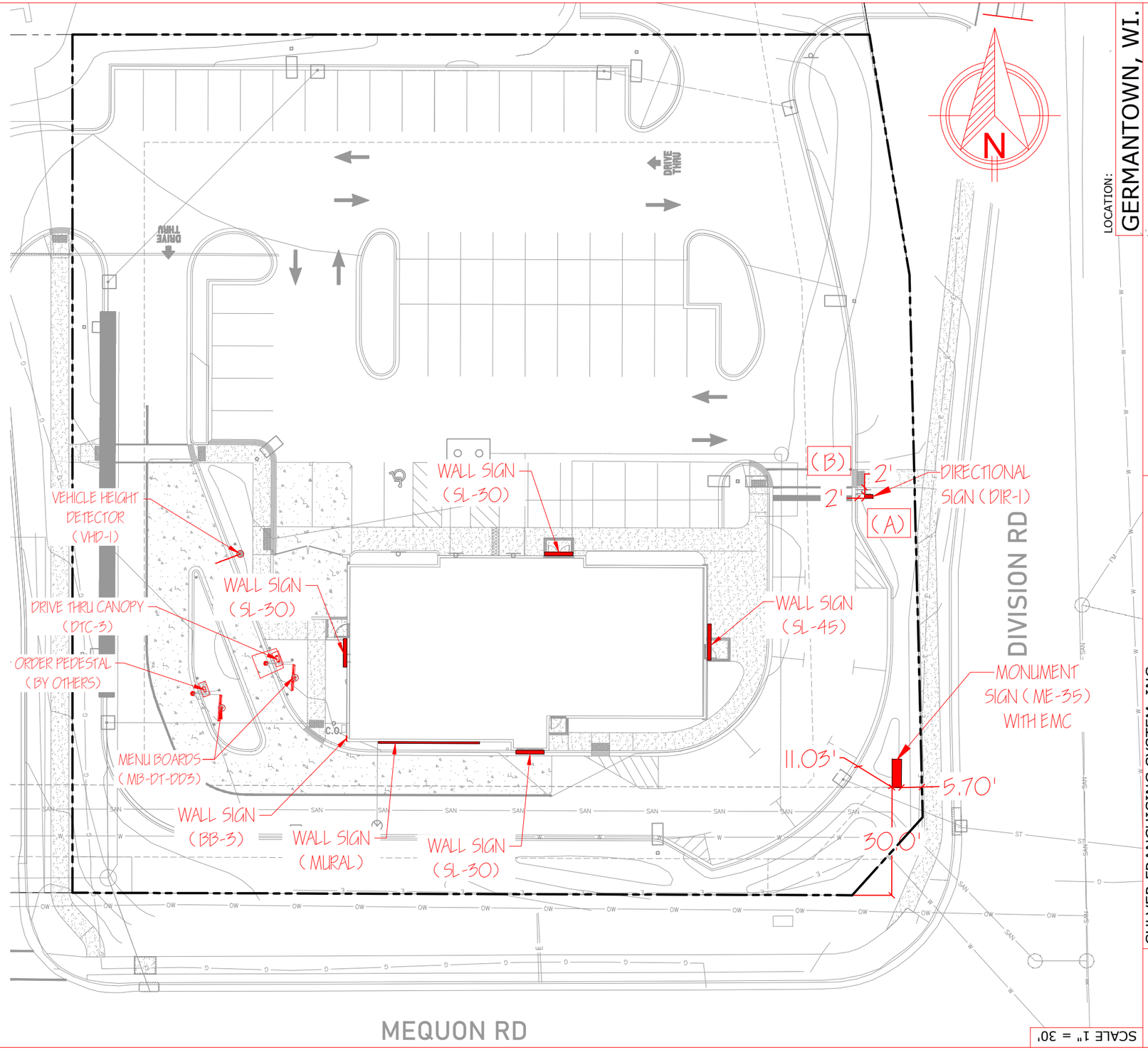
MONUMENT SIGN AREA TOTAL = 44.03 S.F

*DIRECTIONAL SIGN AREA IS MATHEMATICAL AREA OF VISUAL OPENING OF OVAL SIGN-SEE ARTWORK

DIRECTIONAL SIGN AREA CALCULATIONS		
SIGN	SIZE (APPROX.)	AREA
DIR-1	27 7/8"(W) X 16 3/4" (H)	2.55 S.F.

DIRECTIONAL SIGN AREA TOTAL = 2.55 S.F

OVERALL SIGN AREA TOTAL = 403.14 S.F



LOCATION:
GERMANTOWN, WI.

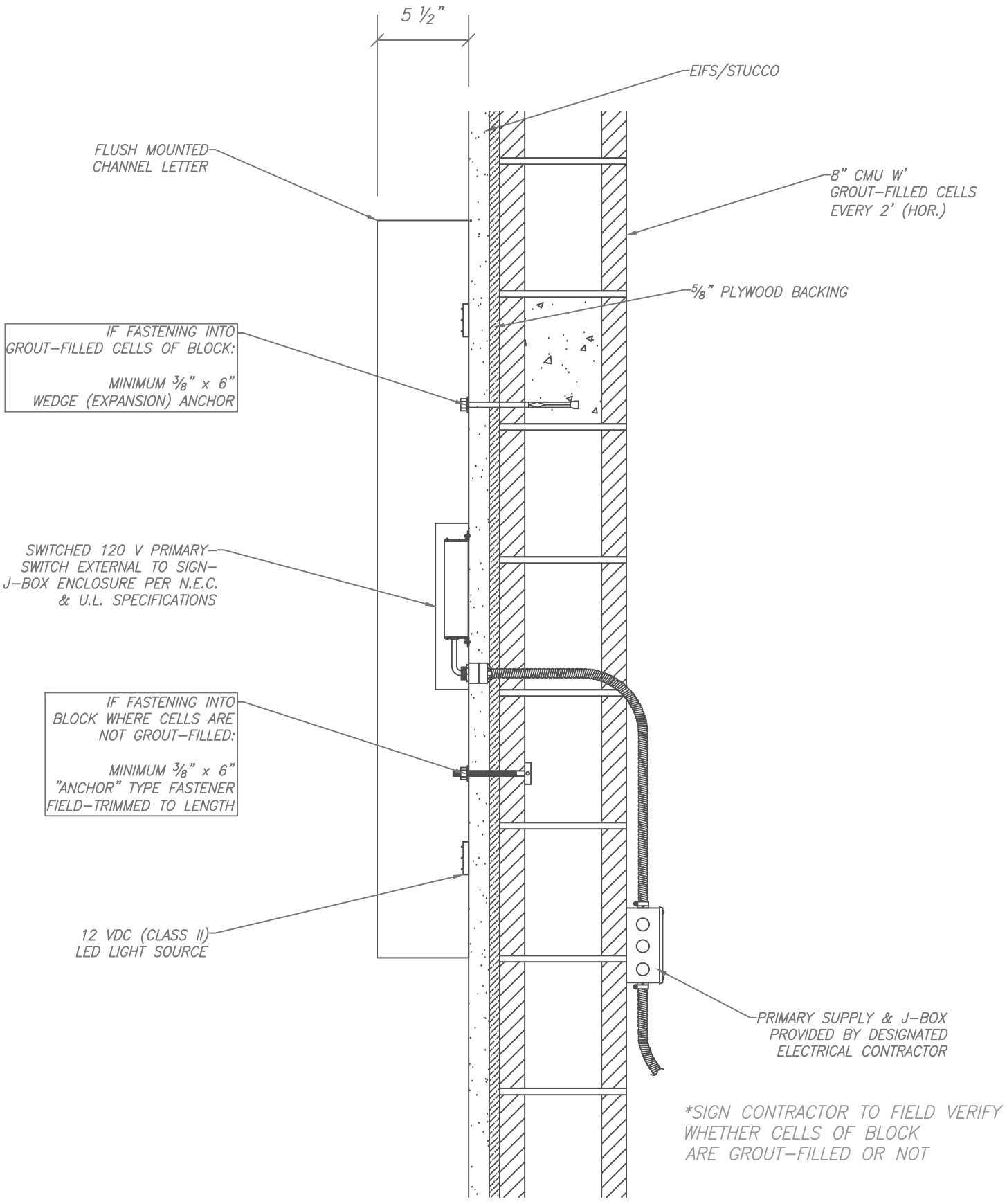
SPRINGFIELD SIGN
4825 E. Kearney St.
Springfield, MO 65803
(417) 862-2454

Client:
Culver Franchising System, Inc.
540 Water Street
Prairie du Sac, WI 53578
p (608) 643-7980

CULVER FRANCHISING SYSTEM, INC.
NEW CULVER'S-SIGNAGE
NW CORNER OF MEQUON AND DIVISION RD.
GERMANTOWN, WI. 53022
SIGN PLACEMENT PLAN

Project Number: 63554
Drawn By: CLH
Reviewed By: MW
Date: 1-22-26

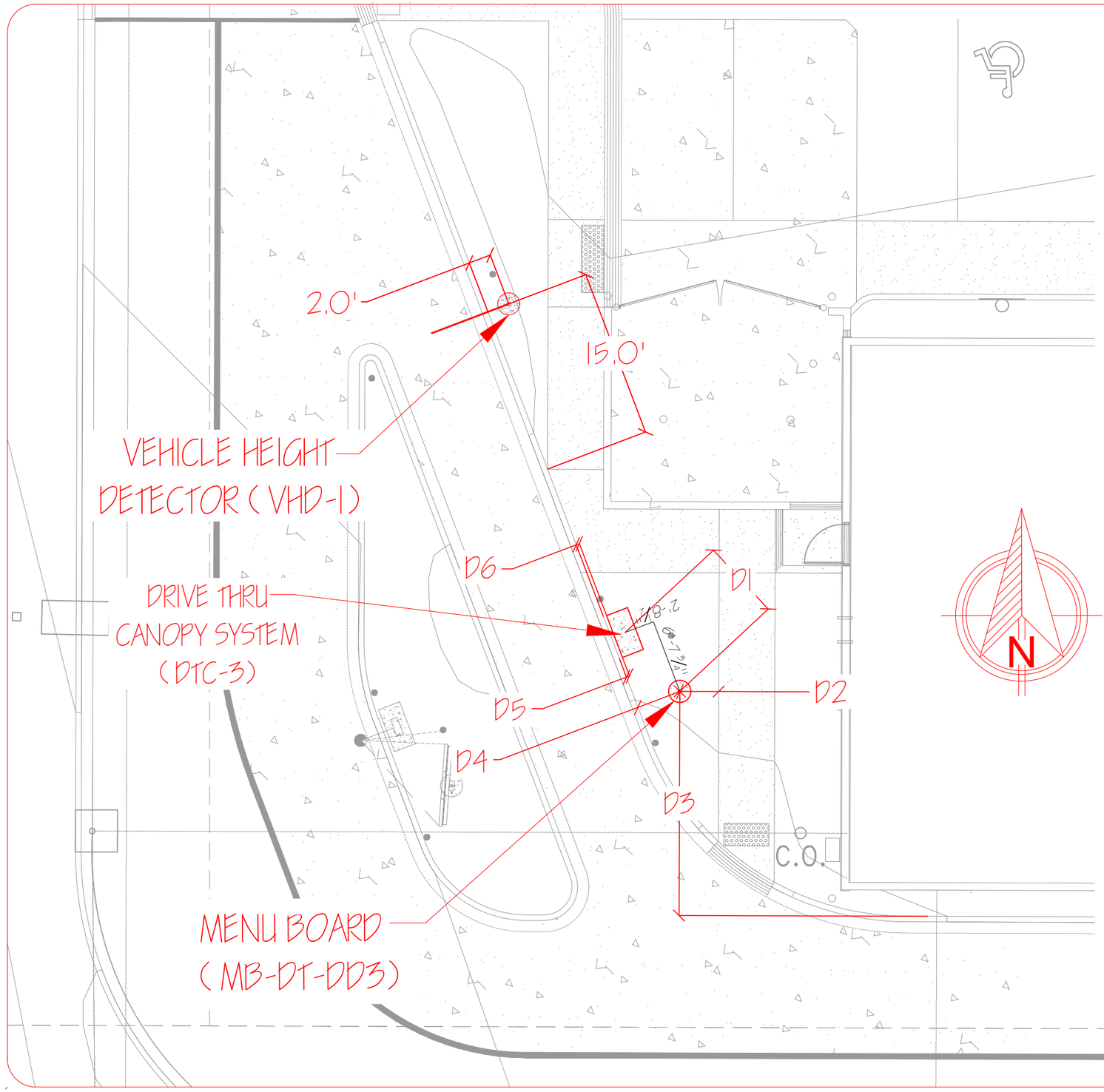
Sheet Number
1 OF 1



LOCATION:

SCALE ⅛" = 1"

Project Number: 13949 Drawn By: DEN Reviewed By: MW Date: 2-14-18 Sheet Number: 1 OF 1	CULVER FRANCHISING SYSTEM, INC. WALL SIGN MOUNTED TO EIFS/STUCCO W/CMU'S ATTACHMENT DETAILS	Client: Culver Franchising System, Inc. 540 Water Street Prairie du Sac, WI 53578 p (608) 643-7980 SPRINGFIELD SIGN 4825 E. Kearney St. Springfield, MO 65803 (417) 862-2454



NOTE: ANY DEVIATION GREATER THAN TOLERANCES GIVEN IN THE TABLE MUST BE APPROVED BY SPRINGFIELD SIGN & NEON IN WRITING. SSN WILL SEEK OUT C.F.S.I. APPROVAL FOR CHANGE.

MENU BOARD FOOTING TO BE LOCATED PER G.C./ SURVEYOR OF RECORD, BALANCE OF FOOTINGS SIMILARLY LOCATED OR PER THE D1-D6 TABLE GIVEN. EITHER METHOD MUST CONFIRM TOLERANCES AND DIMENSIONS ABOVE.

LAYOUT

NOTE: SURVEYOR/ G.C. OF RECORD SHALL STAKE ALL FOOTING CENTER LOCATIONS. IF THIS CANNOT BE DONE, USE LAYOUT SEQUENCE GIVEN BELOW.

WITH EITHER METHOD, EITHER BY SURVEYOR OR LAYOUT SEQUENCE, THE DIMENSIONS WITH ABOVE STATED TOLERANCES MUST BE CONFIRMED BY SIGN INSTALLER. ANY DEVIATIONS MUST BE PRESENTED TO SPRINGFIELD SIGN & NEON IN WRITING, SPRINGFIELD SIGN & NEON WILL RESOLVE THE CONFLICT SO THAT INSTALLER CAN PROCEED.

LAYOUT SEQUENCE

VERIFY GENERAL FIELD (AS-BUILT) CONDITIONS TO MATCH PROVIDED DRAWINGS. DON'T GUESS-CALL WITH ANY QUESTIONS.

-LOCATE THE CENTER POINT OF THE PRIMARY MENU BOARD FOOTING WITH DIMENSIONS D3 & D4

-USE DIMENSIONS D1 & D5 TO POSITION THE OTHER FOOTING, (CANOPY) RELATIVE TO THE MENU BOARD FOOTING

-ROTATE THE PLACEMENT (USING D1 & D5) AROUND THE MENU BOARD FOOTING UNTIL DIMENSIONS D2 & D6 ARE CONFIRMED. ALL POINTS SHOULD BE STAKED AND READY TO LAY OUT.

* DIMENSION	MEASUREMENT	DEVIATION ALLOWED (TOLERANCE)
D1	7'-2 1/8"	+ / - 2" MAXIMUM
D2	3'-5 1/16"	+ / - 2" MAXIMUM
D3	19'-11 7/8"	+ / - 2" MAXIMUM
D4	4'-0"	+ / - 1" MAXIMUM
D5	3 1/2"	+ / - 2" MAXIMUM
D6	3 1/2"	+ / - 2" MAXIMUM

SCALE 1" = 10'

LOCATION:
BLOOMFIELD HILLS, MI.

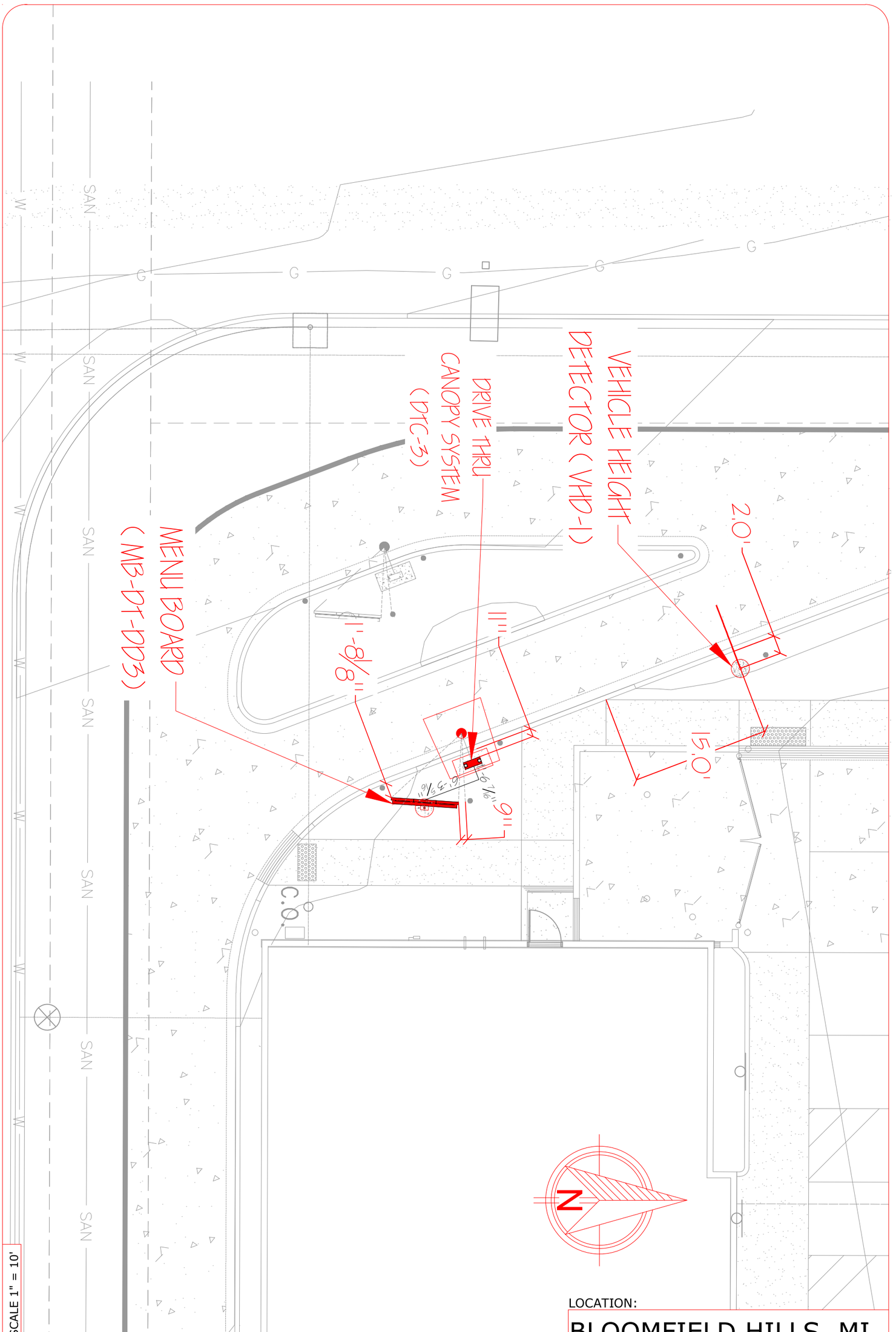
Client:
Culver Franchising System, Inc.
540 Water Street
Prairie du Sac, WI 53578
p (608) 643-7980

SPRINGFIELD SIGN
4825 E. Kearney St.
Springfield, MO 65803
(417) 862-2454

CULVER FRANCHISING SYSTEM, INC.
DRIVE THROUGH/MENU BOARD LAYOUT

Project No.: 63554
Drawn By: CLH
Reviewed By: MW
Date: 1-22-26

Sheet Number:
1 OF 4



SCALE 1" = 10'

LOCATION:

BLOOMFIELD HILLS, MI.

Project No.:	63554
Drawn By:	CLH
Reviewed By:	MW
Date:	1-22-26

Sheet Number:
2 OF 4

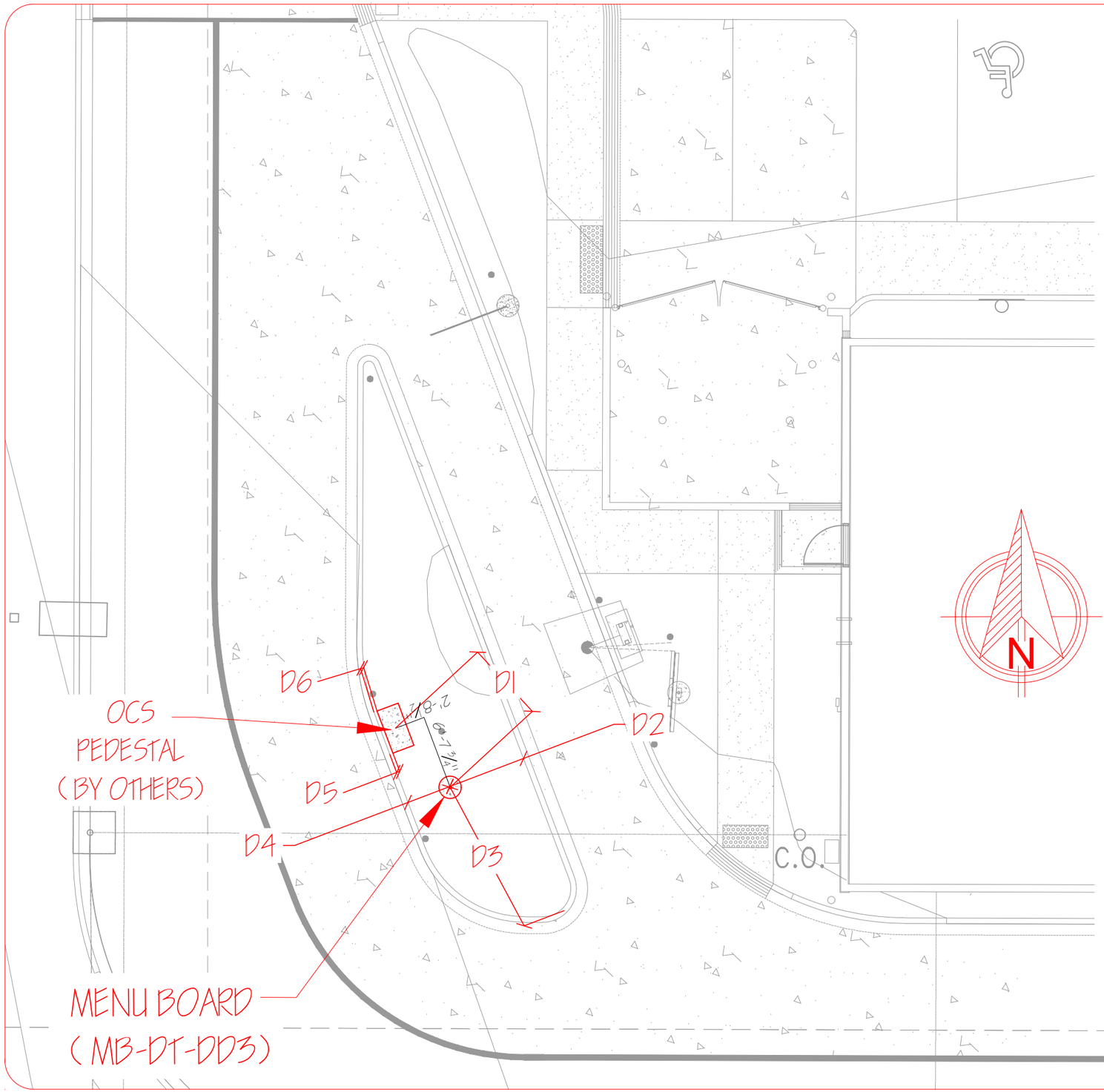
CULVER FRANCHISING SYSTEM, INC.

DRIVE THROUGH/MENU BOARD LAYOUT

Client:

Culver Franchising System, Inc.
540 Water Street
Prairie du Sac, WI 53578
p (608) 643-7980

SPRINGFIELD SIGN
4825 E. Kearney St.
Springfield, MO 65803
(417) 862-2454



NOTE: ANY DEVIATION GREATER THAN TOLERANCES GIVEN IN THE TABLE MUST BE APPROVED BY SPRINGFIELD SIGN & NEON IN WRITING. SSN WILL SEEK OUT C.F.S.I. APPROVAL FOR CHANGE.

MENU BOARD FOOTING TO BE LOCATED PER G.C./ SURVEYOR OF RECORD, BALANCE OF FOOTINGS SIMILARLY LOCATED OR PER THE D1-D6 TABLE GIVEN. EITHER METHOD MUST CONFIRM TOLERANCES AND DIMENSIONS ABOVE.

LAYOUT

NOTE: SURVEYOR/ G.C. OF RECORD SHALL STAKE ALL FOOTING CENTER LOCATIONS. IF THIS CANNOT BE DONE, USE LAYOUT SEQUENCE GIVEN BELOW.

WITH EITHER METHOD, EITHER BY SURVEYOR OR LAYOUT SEQUENCE, THE DIMENSIONS WITH ABOVE STATED TOLERANCES MUST BE CONFIRMED BY SIGN INSTALLER. ANY DEVIATIONS MUST BE PRESENTED TO SPRINGFIELD SIGN & NEON IN WRITING, SPRINGFIELD SIGN & NEON WILL RESOLVE THE CONFLICT SO THAT INSTALLER CAN PROCEED.

LAYOUT SEQUENCE

VERIFY GENERAL FIELD (AS-BUILT) CONDITIONS TO MATCH PROVIDED DRAWINGS. DON'T GUESS-CALL WITH ANY QUESTIONS.

-LOCATE THE CENTER POINT OF THE PRIMARY MENU BOARD FOOTING WITH DIMENSIONS D3 & D4
-USE DIMENSIONS D1 & D5 TO POSITION THE OTHER FOOTING, (CANOPY) RELATIVE TO THE MENU BOARD FOOTING

-ROTATE THE PLACEMENT (USING D1 & D5) AROUND THE MENU BOARD FOOTING UNTIL DIMENSIONS D2 & D6 ARE CONFIRMED. ALL POINTS SHOULD BE STAKED AND READY TO LAY OUT.

* DIMENSION	MEASUREMENT	DEVIATION ALLOWED (TOLERANCE)
D1	7'-2 1/8"	+/- 2" MAXIMUM
D2	7'-0"	+/- 2" MAXIMUM
D3	13'-11 3/4"	+/- 2" MAXIMUM
D4	4'-0"	+/- 1" MAXIMUM
D5	3 1/2"	+/- 2" MAXIMUM
D6	3 1/2"	+/- 2" MAXIMUM

SCALE 1" = 10'

LOCATION:
BLOOMFIELD HILLS, MI.

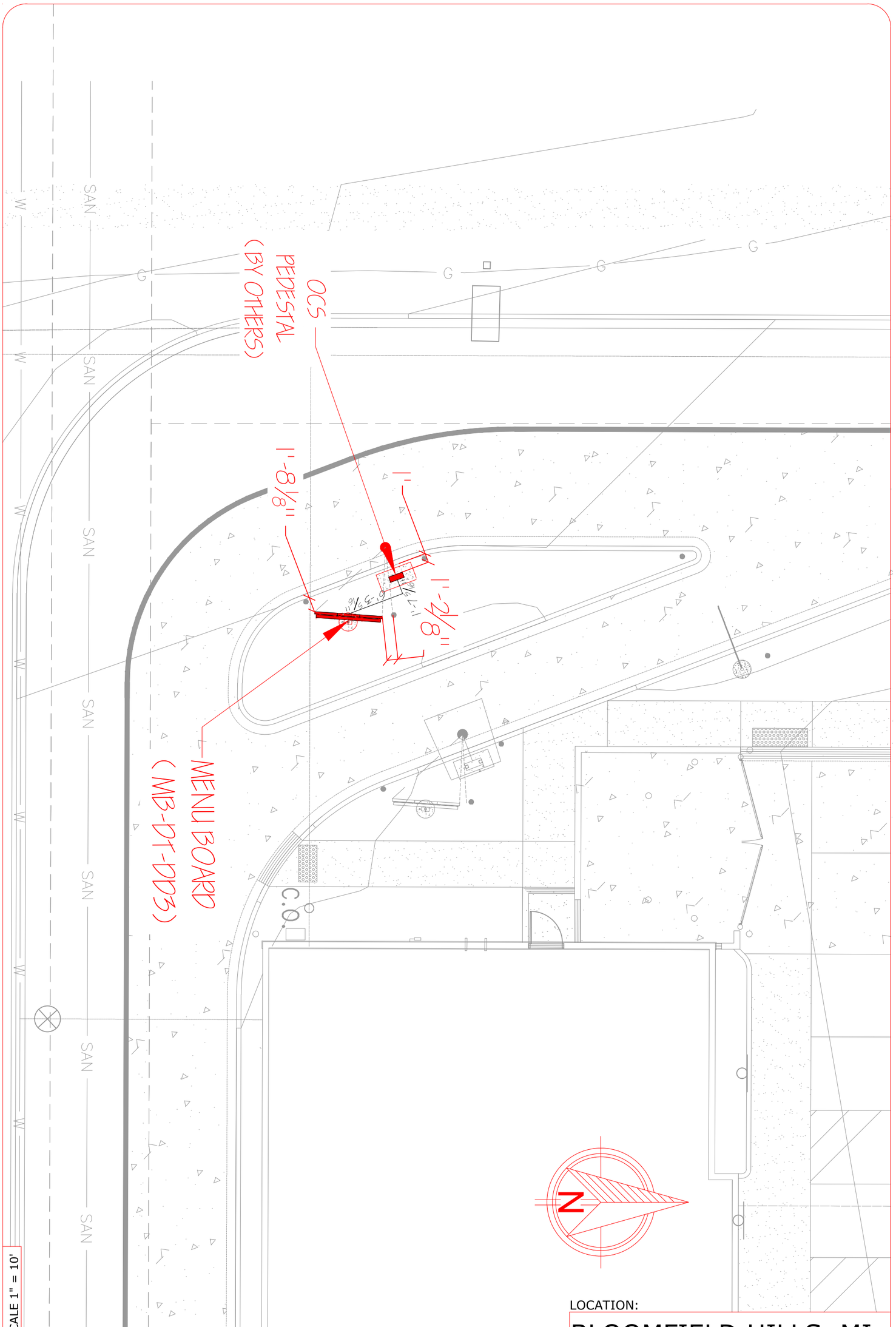
Client:
Culver Franchising System, Inc.
540 Water Street
Prairie du Sac, WI 53578
p (608) 643-7980

SPRINGFIELD SIGN
4825 E. Kearney St.
Springfield, MO 65803
(417) 862-2454

CULVER FRANCHISING SYSTEM, INC.
DRIVE THROUGH/MENU BOARD LAYOUT

Project No.: 63554
Drawn By: CLH
Reviewed By: MW
Date: 1-22-26

Sheet Number: 3 OF 4



LOCATION:

BLOOMFIELD HILLS, MI.

Project No.:	63554
Drawn By:	CLH
Reviewed By:	MW
Date:	1-22-26

Sheet Number:
4 OF 4

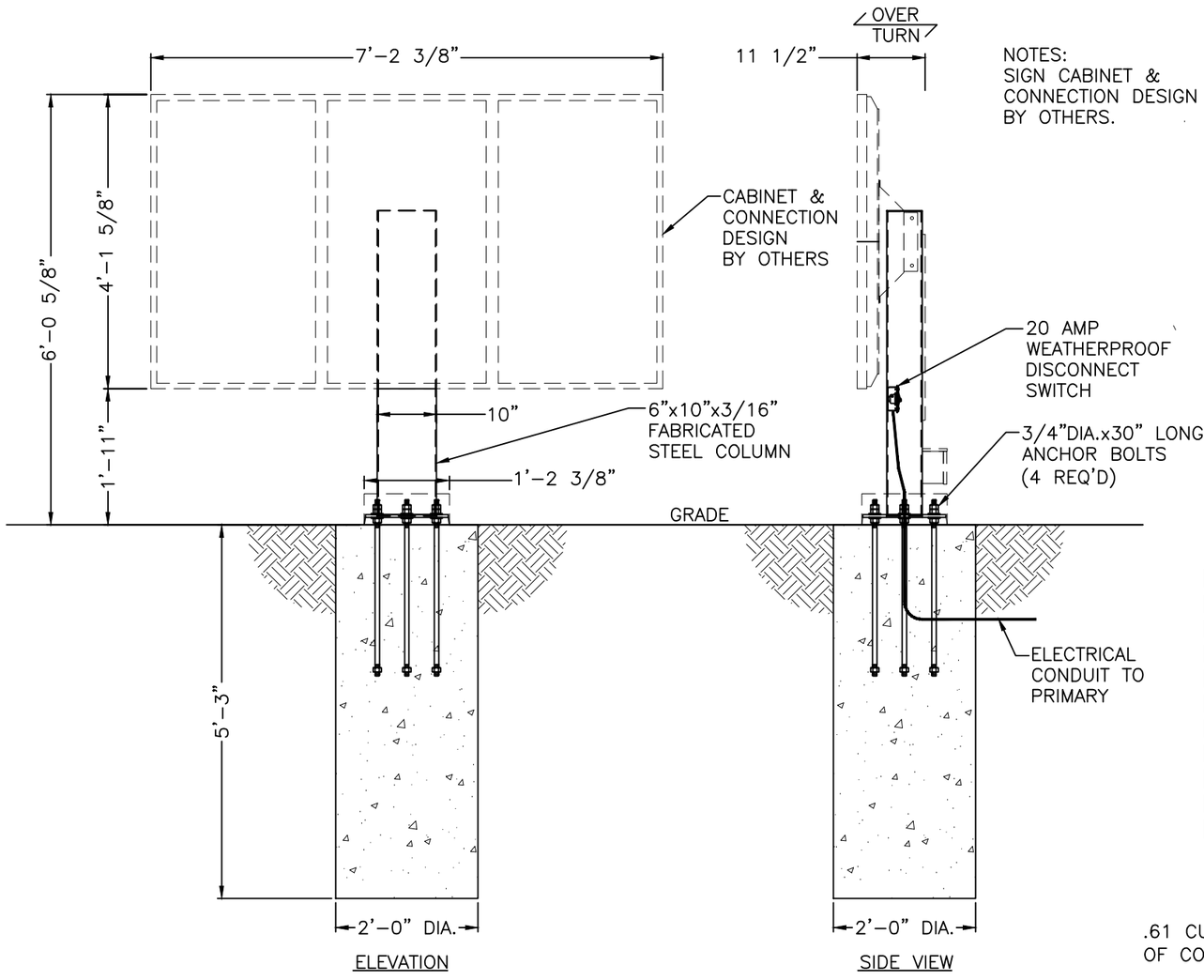
CULVER FRANCHISING SYSTEM, INC.

DRIVE THROUGH/MENU BOARD LAYOUT

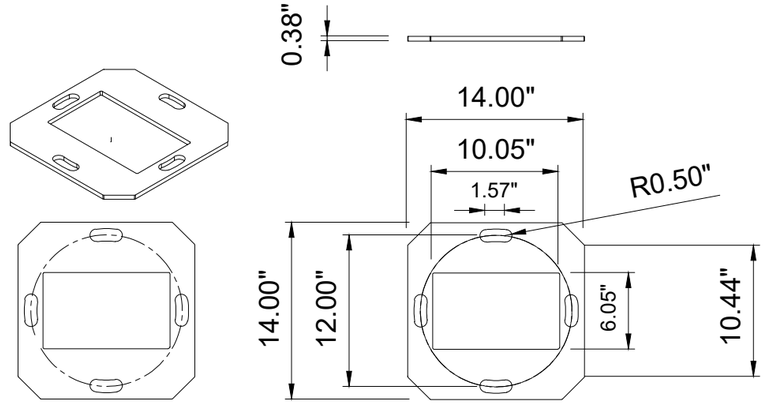
Client:

Culver Franchising System, Inc.
540 Water Street
Prairie du Sac, WI 53578
p (608) 643-7980

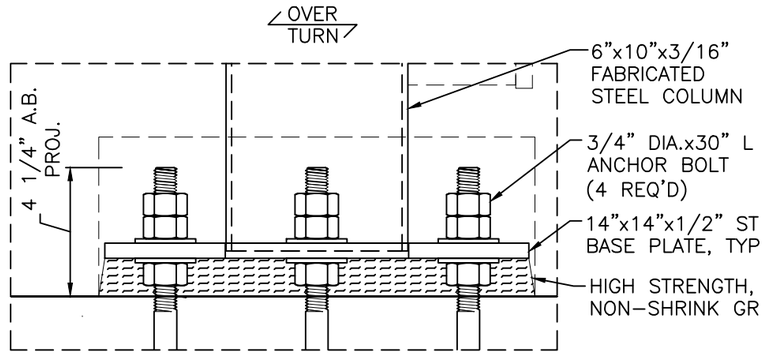
SPRINGFIELD SIGN
4825 E. Kearney St.
Springfield, MO 65803
(417) 862-2454



NOTES:
SIGN CABINET & CONNECTION DESIGN BY OTHERS.



BASE PLATE DETAIL



ANCHOR BOLT PROJECTION DETAIL

.61 CU. YDS.
OF CONC. REQ'D.

SCALE ½" = 1'

LOCATION: CULVER'S

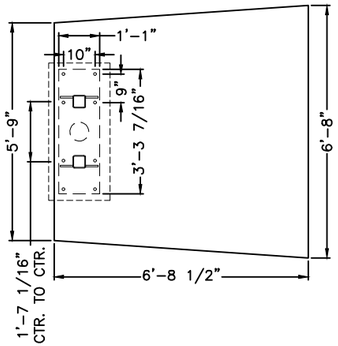
SPRINGFIELD SIGN
4825 E. Kearney St.
Springfield, MO 65803
(417) 862-2454

Client:
Culver Franchising System, Inc.
540 Water Street
Prairie du Sac, WI 53578
p (608) 643-7980

CULVER FRANCHISING SYSTEM, INC.
MB-DT-DD BASE
MAIN/PRE-SALE/POD MENU BOARD
FOOTING PLAN & DETAILS

Project Number: XXXXX
Drawn By: DEN
Reviewed By: MW
Date: 12-04-25

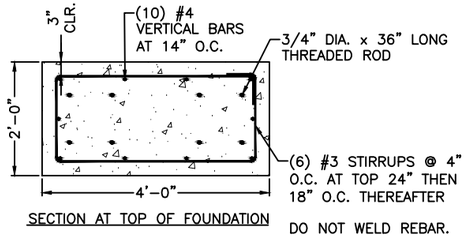
Sheet Number: 1 OF 1



FOUNDATION & PEDESTAL SHALL BE PLACED MONOLITHICALLY

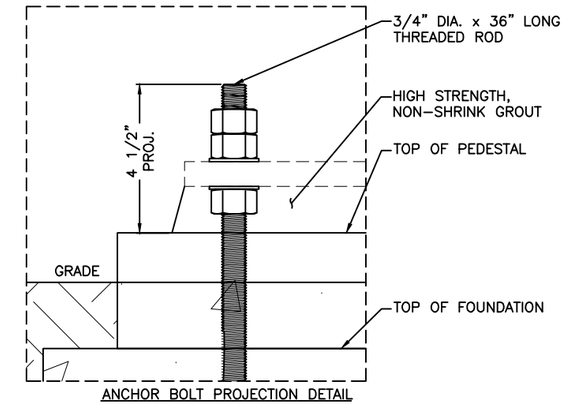
POWER REQUIREMENTS:

POWER: <40 WATTS OVER ETHERNET

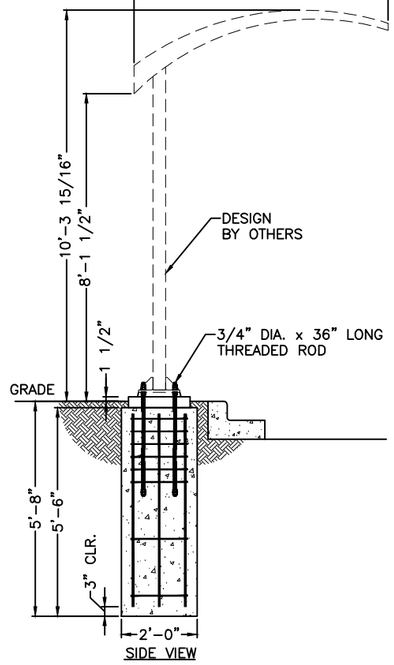


SECTION AT TOP OF FOUNDATION

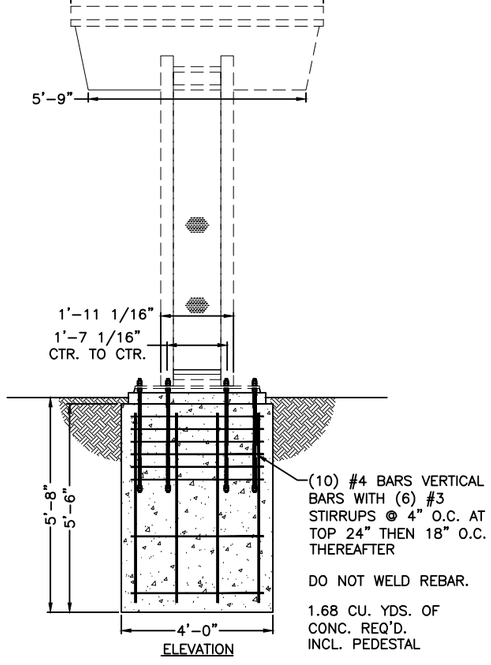
DO NOT WELD REBAR.



ANCHOR BOLT PROJECTION DETAIL



SIDE VIEW



ELEVATION

DO NOT WELD REBAR.

1.68 CU. YDS. OF CONC. REQ'D. INCL. PEDESTAL

SCALE ¼" = 1'

LOCATION: CULVER'S

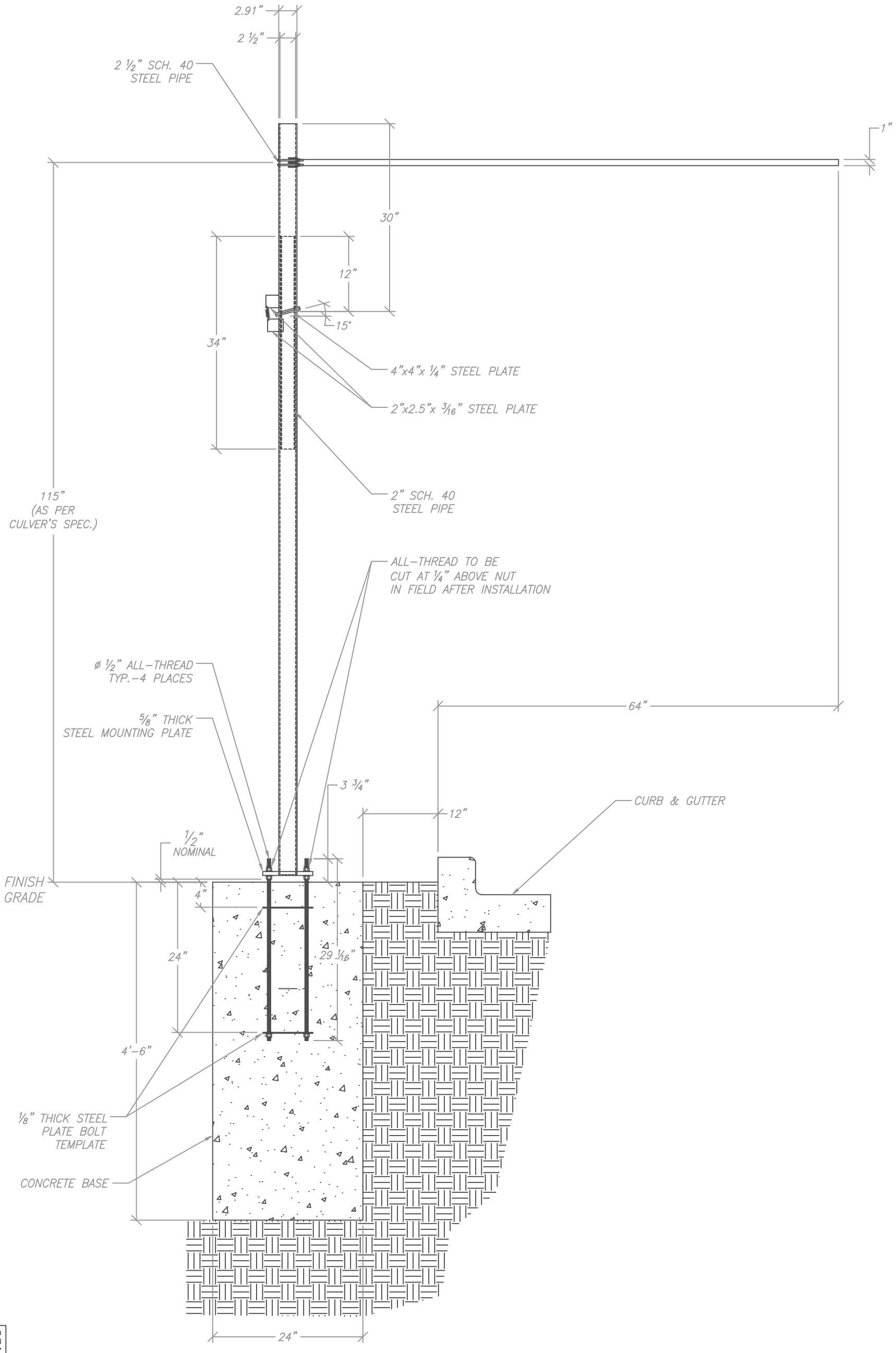
SPRINGFIELD SIGN
4825 E. Kearney St.
Springfield, MO 65803
(417) 862-2454

Client:
Culver Franchising System, Inc.
540 Water Street
Prairie du Sac, WI 53578
p (608) 643-7980

CULVER FRANCHISING SYSTEM, INC.
DTC-3 BASE
DRIVE-THROUGH CANOPY
FOOTING PLAN & DETAILS

Project Number: xxxxx
Drawn By: DEN
Reviewed By: MW
Date: 10-28-25

Sheet Number: 1 OF 1

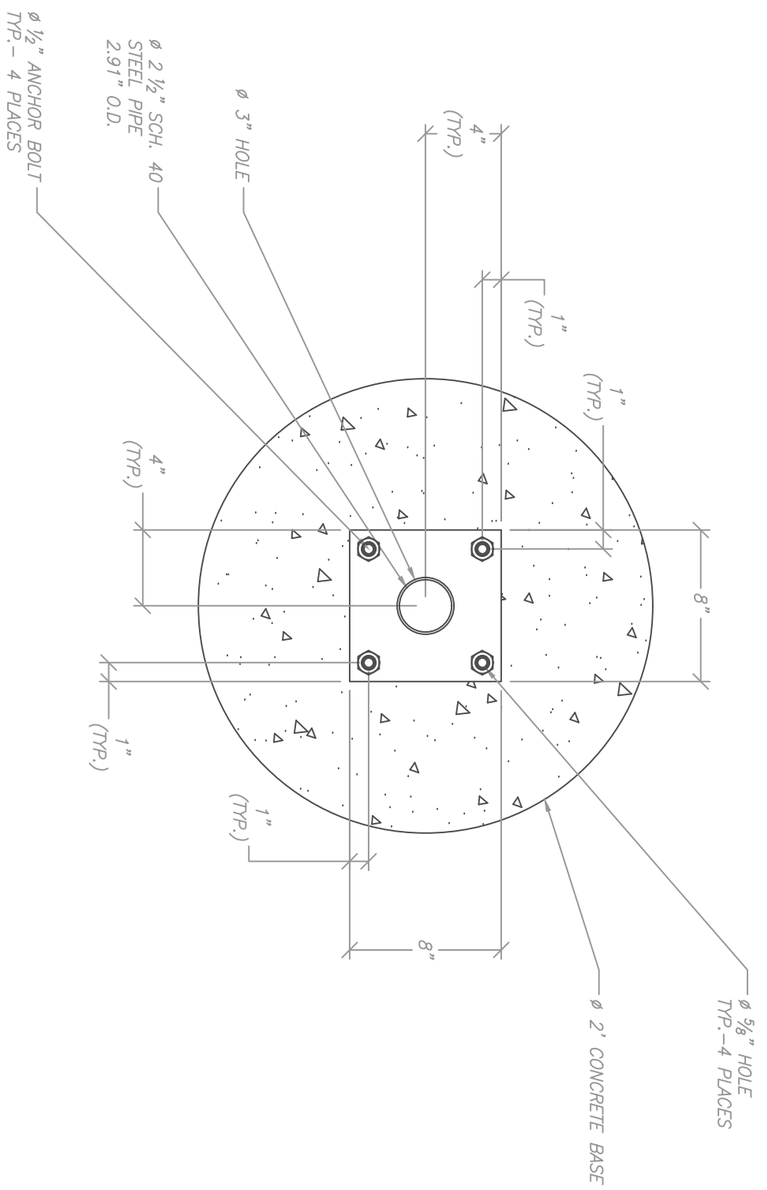


SCALE ¾" = 1'

Project Number: 9902 Drawn By: DEN Reviewed By: MW Date: 8-04-17 Sheet Number: 1 OF 3	CULVER FRANCHISING SYSTEM, INC. VEHICLE HEIGHT DETECTOR FRONT VIEW LOCATION: CULVER'S	Client: Culver Franchising System, Inc. 540 Water Street Prairie du Sac, WI 53578 p (608) 643-7980

SPRINGFIELD SIGN & NEON
2531 N. Patterson
Springfield, MO 65803
(417) 862-2454

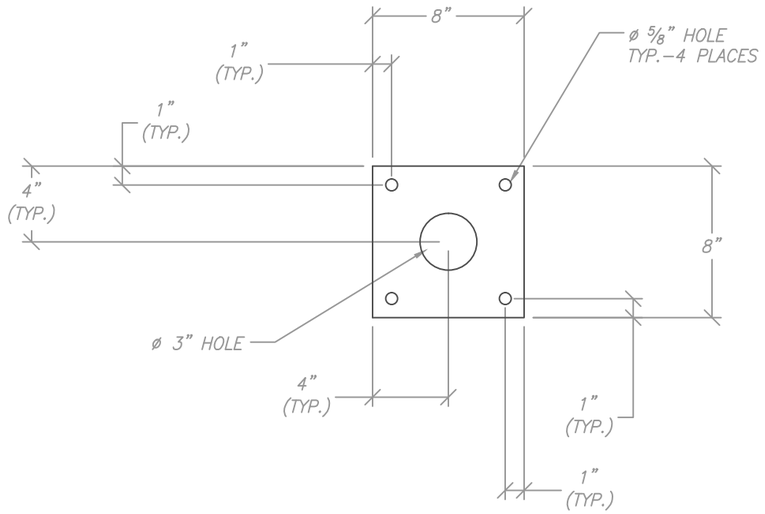
STEEL PLATE–5/8" THICK
CENTERED ON ø 2' CONCRETE BASE



SCALE 1 ½" = 1'

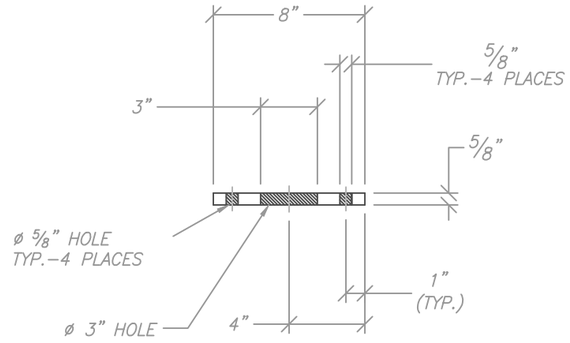
Project Number: XXXXX Drawn By: DEN Reviewed By: MW Date: 3-02-17 Sheet Number: 2 OF 3	CULVER FRANCHISING SYSTEM, INC. VEHICLE HEIGHT DETECTOR CONCRETE BASE/MOUNTING PLATE TOP VIEW	Client: Culver Franchising System, Inc. 540 Water Street Prairie du Sac, WI 53578 p (608) 643-7980

SPRINGFIELD SIGN
4825 E. Kearney St.
Springfield, MO 65803
(417) 862-2454

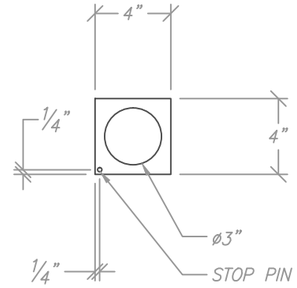


TOP VIEW

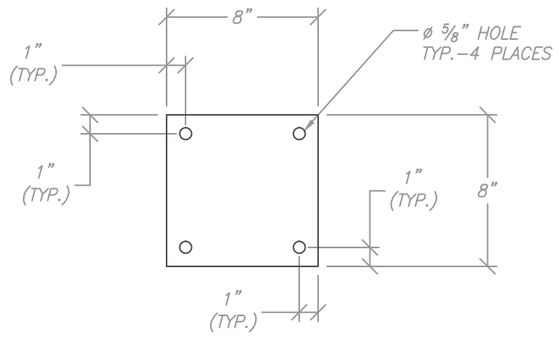
STEEL PLATE-5/8" THICK



SIDE VIEW

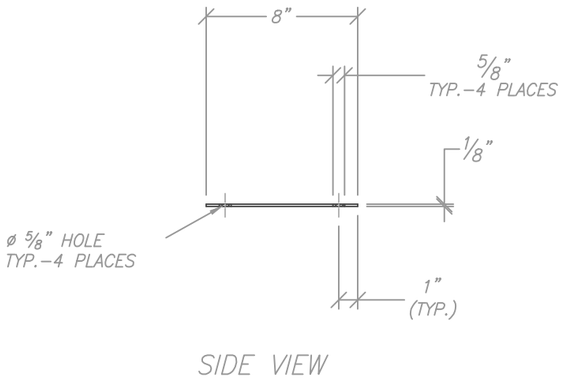


STEEL PLATE-1/4" THICK

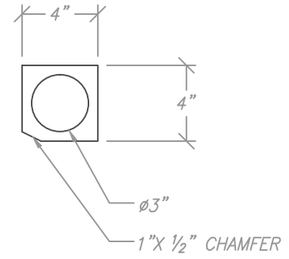


TOP VIEW

STEEL PLATE-1/8" THICK



SIDE VIEW



STEEL PLATE-1/4" THICK

SCALE 1 ½" = 1'

SPRINGFIELD SIGN
4825 E. Kearney St.
Springfield, MO 65803
(417) 862-2454

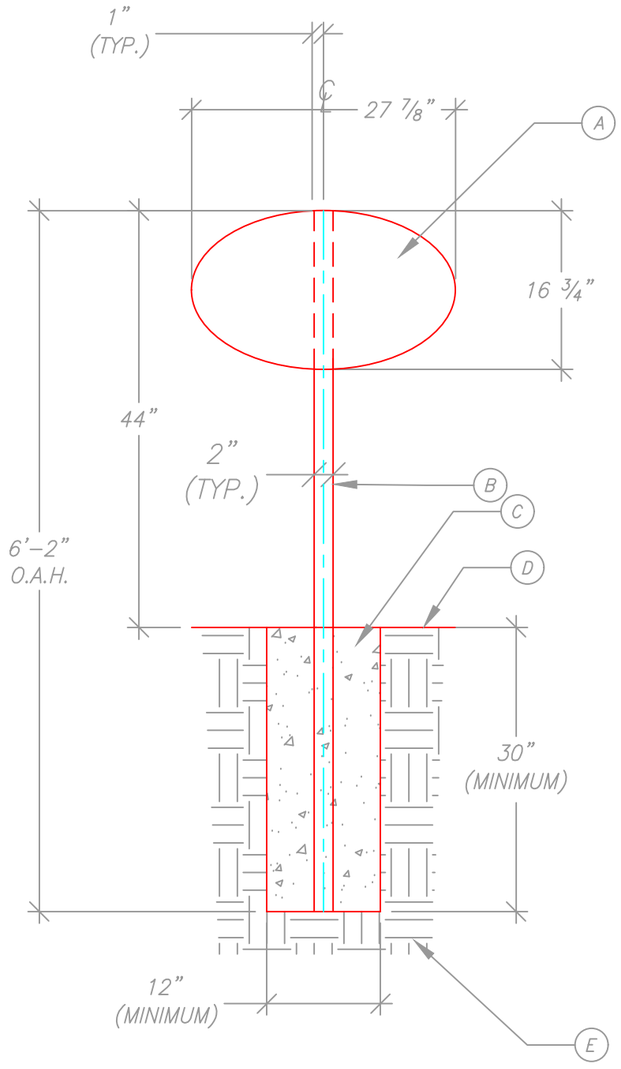
Client:
Culver Franchising System, Inc.
540 Water Street
Prairie du Sac, WI 53578
p (608) 643-7980

CULVER FRANCHISING SYSTEM, INC.
VEHICLE HEIGHT DETECTOR
STEEL MOUNTING PLATE

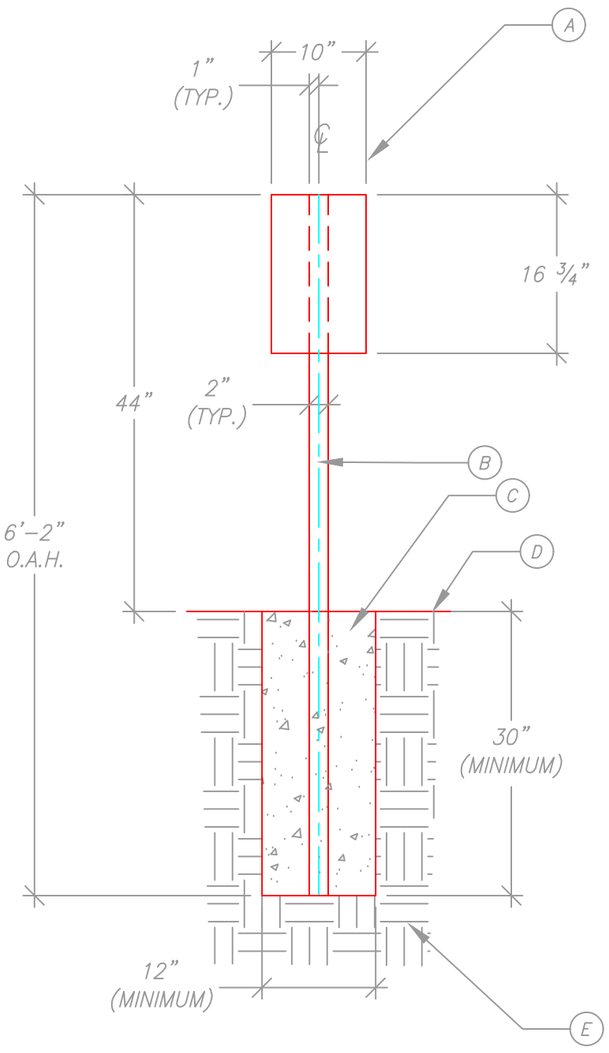
Project Number: XXXX
Drawn By: DEN
Reviewed By: MW
Date: 3-02-17

Sheet Number: 3 OF 3

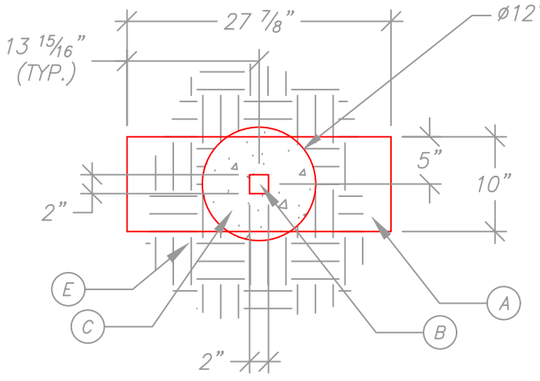
CULVER'S DIRECTIONAL SIGN	
A	DIRECTIONAL SIGN
B	SIGN POST
C	CONCRETE
D	FINISH GRADE
E	UNDISTURBED SOIL



FRONT VIEW



SIDE VIEW



TOP VIEW

LOCATION:
CULVER'S

SPRINGFIELD SIGN
4825 E. Kearney St.
Springfield, MO 65803
(417) 862-2454

Client:
Culver Franchising System, Inc.
540 Water Street
Prairie du Sac, WI 53578
p (608) 643-7980

CULVER FRANCHISING SYSTEM, INC.
DIRECTIONAL SIGN-SIGN BASE

SCALE ¾" = 1'

Project Number: CUL
Drawn By: CLH
Reviewed By: MW
Date: 4-18-24

Sheet Number: 1 OF 1

SIGN PACKAGE PROPOSAL

NEW BUILD

PRESENTED TO:

Culver's
NW Corner of Mequon Rd & Division Rd
Germantown, WI

DATE PREPARED:

7/8/25 - Preliminary
9/11/25 - Elevations update
9/18/25 - Digital menu boards
1/16/26 - Elevations update, DTC3, VHD2, Dd3
1/23/26 - QTY edit

SPRINGFIELDSIGN
www.springfieldsign.com

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ELEVATION WALL SIGNS

GERMANTOWN, WI

SL-45 & SL-30 Illuminated White Script Channel Letters

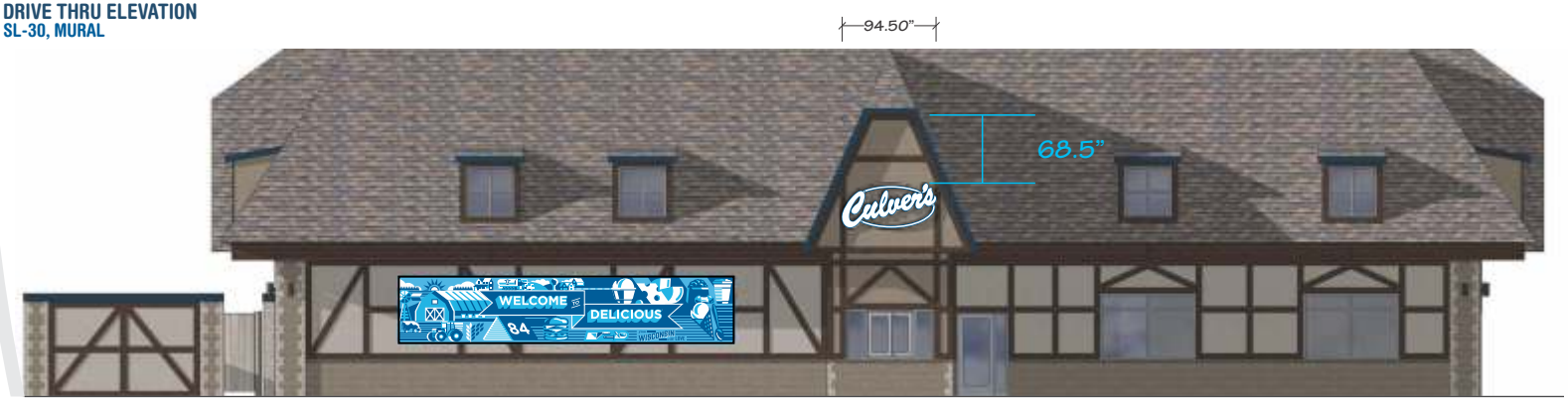
SL-SERIES

- Channel letter construction
- One piece (saddle capped sections)
- LED internal illumination
- Typical application for new construction
- Embedded power supplies
- UL marked product
- No install pattern needed, level line scribed in back of sign

MAIN ELEVATION
SL-30



DRIVE THRU ELEVATION
SL-30, MURAL



SCALE: 1/16" = 1'

*SCALE AND COLORS NOT REPRESENTATIVE FROM EMAIL ATTACHMENTS
*ALL MEASUREMENTS ARE APPROXIMATE

SIGN SQUARE FOOTAGE

MAIN ELEVATION:	QTY-1 SL-30 (44.37" X 94.50") = 29.12 SF
FRONT ELEVATION:	QTY-1 SL-45 (56.00" X 120.00") = 46.67 SF
REAR ELEVATION:	QTY-1 SL-30 (44.37" X 94.50") = 29.12 SF
	QTY-1 BB-3 (17.67" X 27.88") = 3.42 SF
DRIVE THRU ELEVATION:	QTY-1 SL-30 (44.37" X 94.50") = 29.12 SF
	QTY-1 (68.0" X 338.0") = 159.61.33 SF

NOTES

BB-3 typical Drive-Thru placement: REAR

MFG: T.B.D.
STYLE: T.B.D.
COLOR: T.B.D.

MFG: T.B.D.
STYLE: T.B.D.
COLOR: T.B.D.

DATE CREATED / REVISION HISTORY

7/8/25 - NEW
9/11/25 - Elevation update
1/16/26 - Elevation update

SALES PERSON:	DESIGNED BY:	AO:
MARK WESSELL	J KROEGER	63554

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ELEVATION WALL SIGNS

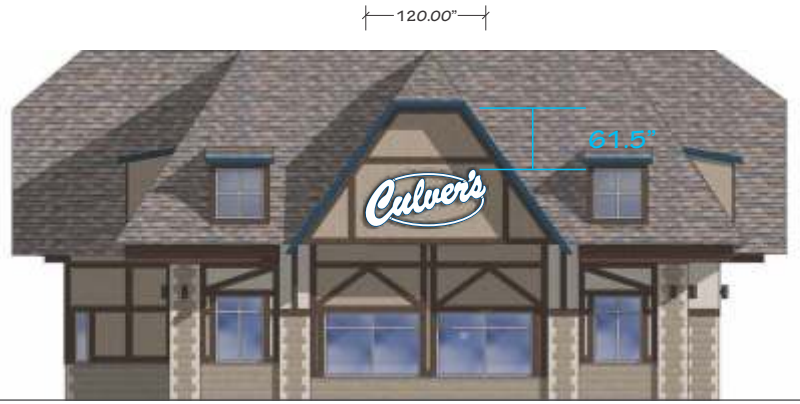
GERMANTOWN, WI

SL-45 & SL-30 Illuminated White Script Channel Letters

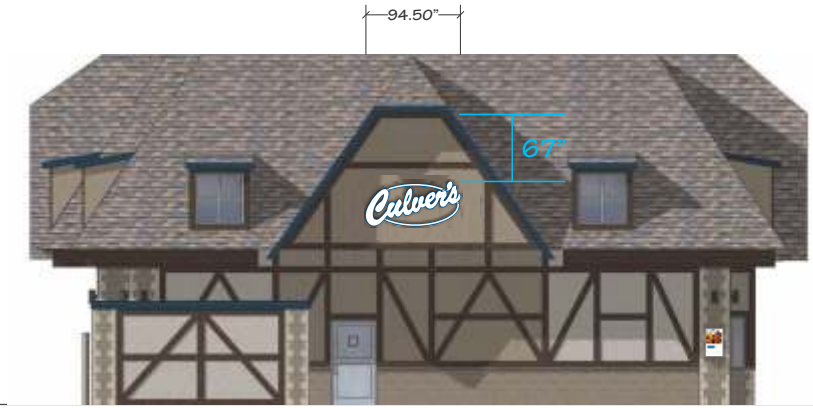
SL-SERIES

- Channel letter construction
- One piece (saddle capped sections)
- LED internal illumination
- Typical application for new construction
- Embedded power supplies
- UL marked product
- No install pattern needed, level line scribed in back of sign

FRONT ELEVATION
SL-45



REAR ELEVATION
SL-30, BB-3



SCALE: 1/16" = 1'

*SCALE AND COLORS NOT REPRESENTATIVE FROM EMAIL ATTACHMENTS
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SIGN SQUARE FOOTAGE

MAIN ELEVATION:	QTY-1 SL-30 (44.37" X 94.50") = 29.12 SF
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NOTES

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STYLE: T.B.D.
COLOR: T.B.D.

MFG: T.B.D.
STYLE: T.B.D.
COLOR: T.B.D.

DATE CREATED / REVISION HISTORY

7/8/25 - NEW
9/11/25 - Elevation update
1/16/26 - Elevation update

SALES PERSON:	DESIGNED BY:	AO:
MARK WESSELL	J KROEGER	63554

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LOW VOC
ENVIRONMENTALLY RESPONSIBLE

SPRINGFIELDSIGN
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BB-3 BUTTERBURGER PANEL

GERMANTOWN, WI

ButterBurger Outdoor Panel Wall Sign

BB-3

All aluminum 0.080" thick panel - backside is blank (white)

Baked on aluminum white enamel finish

Digital print overlay with overlaminate

Rounded corners are to be 1.25" radius

Sign is to be mounted flush to wall



* Determined by physical address numbers

SCALE: 1-1/2" = 1'

*SCALE AND COLORS NOT REPRESENTATIVE FROM EMAIL ATTACHMENTS
*ALL MEASUREMENTS ARE APPROXIMATE

TYPICAL INSTALLATION - TOP VIEW

WALL

SIGN FACE
FLUSH MOUNTS TO WALL

SCALE: N.T.S

INSTALL NOTES

TYPICALLY USED FOR MIRRORED METRO L LAYOUTS

NOTES

SALES PERSON:	DESIGNED BY:	AO:
MARK WESSELL	J KROEGER	63554

DATE CREATED / REVISION HISTORY

7/8/25 - NEW	

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WALL MURAL

GERMANTOWN, WI

Panel Sign Wall Mural

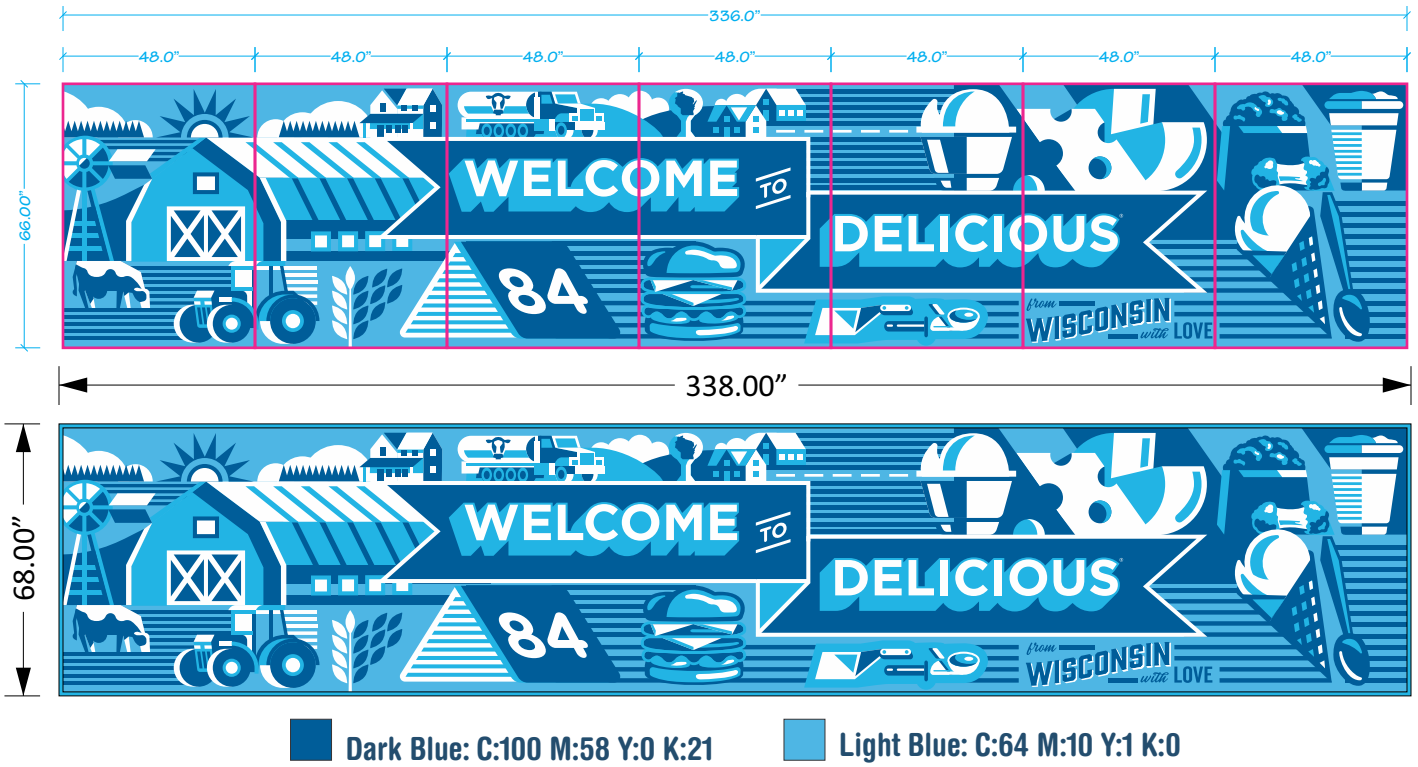
WALL MURAL

"Welcome to delicious" wall mural, for Drive-thru elevation.

.25" White ACM substrate with full color digital print, 1st surface applied.

1" trim painted blue

Flush mounted to Drive-thru elevation facade



Dark Blue: C:100 M:58 Y:0 K:21

Light Blue: C:64 M:10 Y:1 K:0

SCALE: 1/4"=1'

*SCALE AND COLORS NOT REPRESENTATIVE FROM EMAIL ATTACHMENTS
*ALL MEASUREMENTS ARE APPROXIMATE

SIGN SQUARE FOOTAGE	
DRIVE THRU ELEVATION:	QTY-1 (68.0" X 338.0") = 159.61.33 SF

NOTES

DATE CREATED / REVISION HISTORY			
1/16/26 - NEW			

SALES PERSON:	DESIGNED BY:	AO:
MARK WESSELL	J KROEGER	63554

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DIR DIRECTIONAL SIGNS

GERMANTOWN, WI

Illuminated Directional Signs

DIR

- All aluminum construction
- LED internal illumination
- Totally self contained lighting
- Polycarbonate thermoformed faces
- Face removal for service
- Site plans show placement & field orientation
- UL marked product

DIRECTIONAL SIGN 1

DIR-D10-D12



SIDE: A SIDE: B

DIRECTIONAL SIGN 2

DIR-#-#

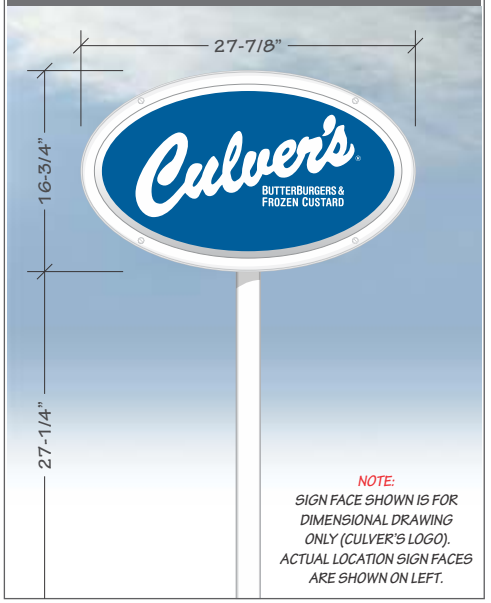
DIRECTIONAL SIGN 3

DIR-#-#

SCALE: 3/4" = 1'

*SCALE AND COLORS NOT REPRESENTATIVE FROM EMAIL ATTACHMENTS
*ALL MEASUREMENTS ARE APPROXIMATE

SIGN CONCEPTUAL



NOTES

SQUARE FOOTAGE CALCULATIONS:
MATHEMATICAL: 2.55 SF
RECTANGULAR: 3.24 SF

SALES PERSON:	DESIGNED BY:	AO:
MARK WESSELL	J KROEGER	63554

DATE CREATED / REVISION HISTORY

7/8/25 - NEW	

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LOW VOC ENVIRONMENTALLY RESPONSIBLE

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ME-35 MONUMENT WITH EMC

GERMANTOWN, WI

ME-35-L-60X210-10-RGB

ME-35

Culver's sign cabinet of aluminum construction and internally illuminated with LED's

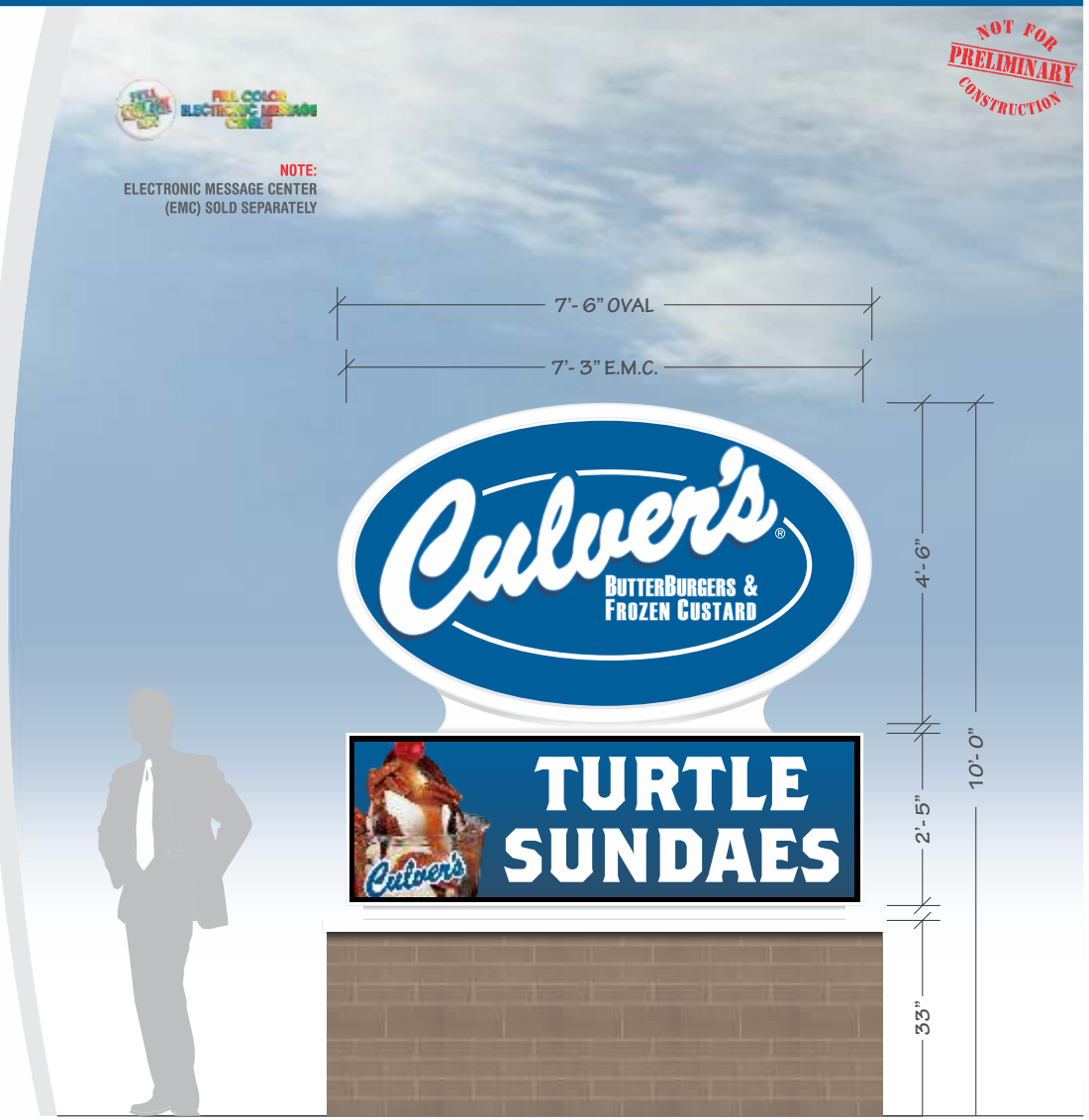
Thermoformed polycarbonate faces, embossed Culver's, 3M[1] HP vinyl decoration

Watchfire 60x210 RGB full color 10mm Electronic Message Center (EMC) with RF wireless communication

Amber EMC option available

Broadband communication option available

UL marked product



SCALE: 3/16" = 1'

*SCALE AND COLORS NOT REPRESENTATIVE FROM EMAIL ATTACHMENTS
*ALL MEASUREMENTS ARE APPROXIMATE

EMC CHART - KNOWN RESTRICTIONS

COLOR: Y☑ N☐ STATIC: Y☑ N☐ VIDEO: Y☐ N☒
ANIMATION: Y☐ N☒ MOVEMENT: Y☐ N☒

HOLD TIME (IF STATIC): 7 Sec
TRANSITION TYPE: Transition if applicable
DAYTIME BRIGHTNESS: Brightness if applicable
NIGHTTIME BRIGHTNESS: Brightness if applicable

ADDITIONAL RESTRICTIONS:

The transition interval may include fading, dissolving or traveling but shall not exceed 3 seconds. Shall not be located within 150 feet of a residential zoning district. The electronic message board shall be programmed or set in such a manner that the display face will turn dark and emit no light in case of a malfunction. Electronic message boards shall be equipped with a sensor or other device that is programmed to automatically determine the ambient light level and adjust or dim the message board light level to not exceed a maximum brightness level of 0.3 foot-candles above ambient light conditions during both daylight hours (i.e. sunrise to sunset) and night time hours (i.e. sunset to sunrise);

SIGN CODES

Max Height: 10'
Max Square Footage: 80 SF

NOTES

Square Footage:
MATHEMATICAL METHOD:
OVAL (26.51 SF) + EMC (17.52 SF) = 44.03 SF
RECTANGULAR METHOD:
OVAL (33.75 SF) + EMC (17.52 SF) = 51.27 S

SALES PERSON:	DESIGNED BY:	AO:
MARK WESSELL	J KROEGER	63554

DATE CREATED / REVISION HISTORY
7/8/25 - NEW
3/17/26 - Base edit

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VHD-2 VEHICLE HEIGHT DETECTOR

GERMANTOWN, WI

Vehicle Height Detector for Drive-Thru Lane

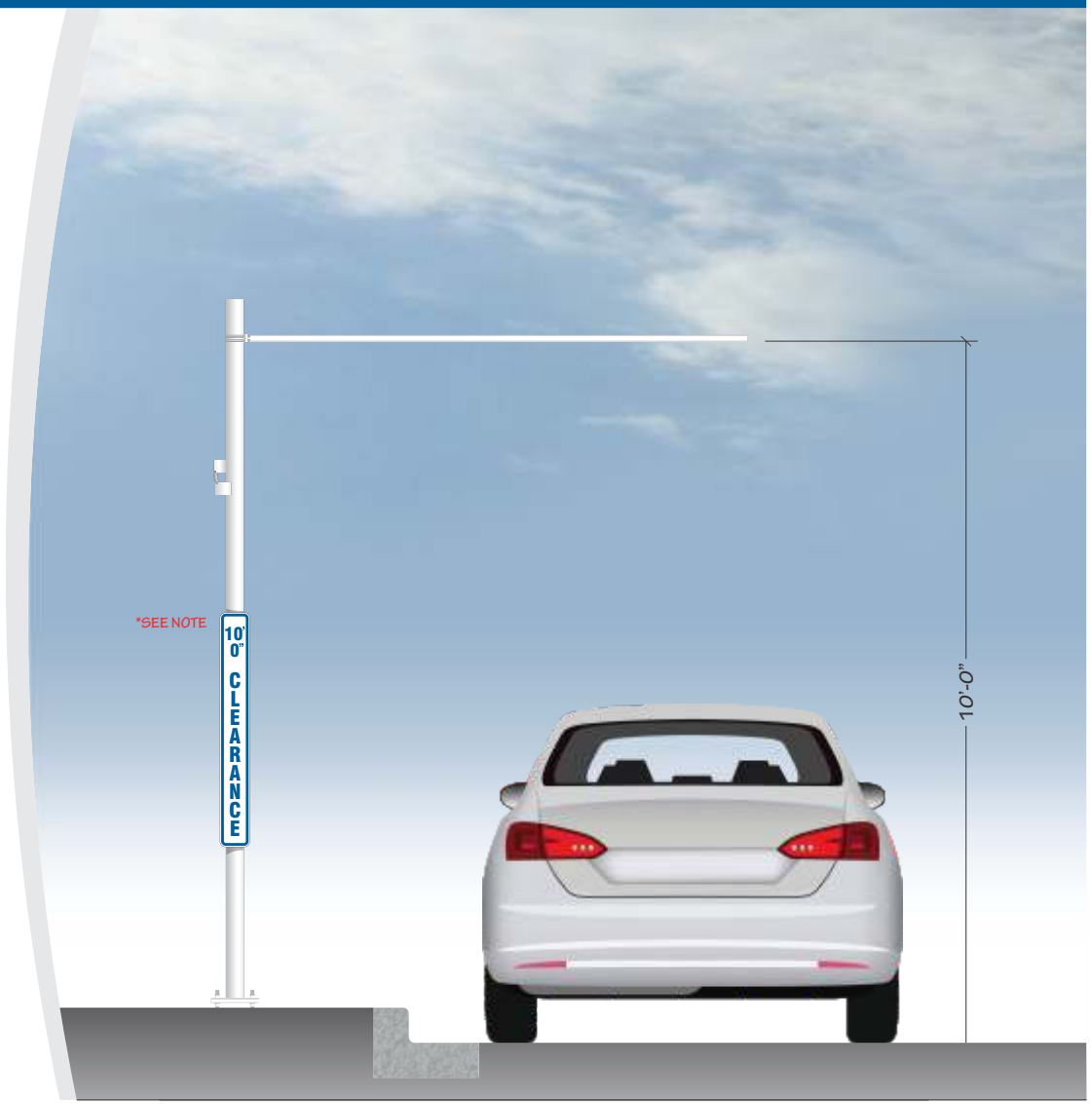
VHD-2

All steel (painted) construction

Re-settable if engaged

Used to help protect canopies from advancing vehicles that are too tall

NOTE: Clearance height must be verified prior to mfg.

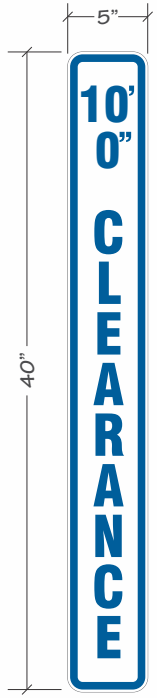


SCALE: 3/8" = 1'

*SCALE AND COLORS NOT REPRESENTATIVE FROM EMAIL ATTACHMENTS
*ALL MEASUREMENTS ARE APPROXIMATE

CLEARANCE PANEL

*SEE NOTE



SCALE: 1" = 1'

SALES PERSON:	DESIGNED BY:	AO:
MARK WESSELL	J KROEGER	63554

DATE CREATED / REVISION HISTORY	
1/16/26 - NEW	

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LOW VOC

ENVIRONMENTALLY RESPONSIBLE

SPRINGFIELDSIGN
www.springfieldsign.com

DTC-3 DRIVE-THRU CANOPY

GERMANTOWN, WI

Drive-Thru Canopy For Order Confirmation System (OCS)

DTC-3

All aluminum construction

Rated for 160 mph winds (3 second burst) & heavy northern states snow loads

Order Confirmation System (OCS) by others

Rear panel (door) access - lockable

Provides protection from rain for DT customer

Houses speaker & microphone





SCALE: 3/8" = 1'

*SCALE AND COLORS NOT REPRESENTATIVE FROM EMAIL ATTACHMENTS
*ALL MEASUREMENTS ARE APPROXIMATE

NOTES

DATE CREATED / REVISION HISTORY			
1/16/26- DTC3			

SALES PERSON:	DESIGNED BY:	AO:
MARK WESSELL	J KROEGER	63554

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MB-DT-DD3 EXTERIOR DIGITAL DISPLAY MENU BOARD

HUNTSVILLE, AL

Outdoor Drive-Thru Menu Board - 3 Screens

MB-DT -DD3

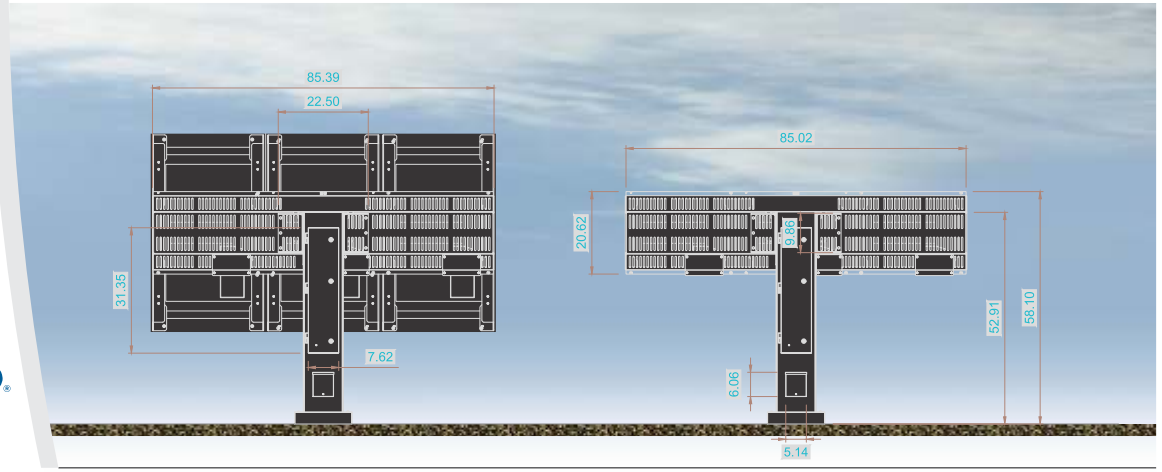
Standard Menu Board for Drive-Thru Lane

LED Internal Illumination

Digital display option

QTY: 2

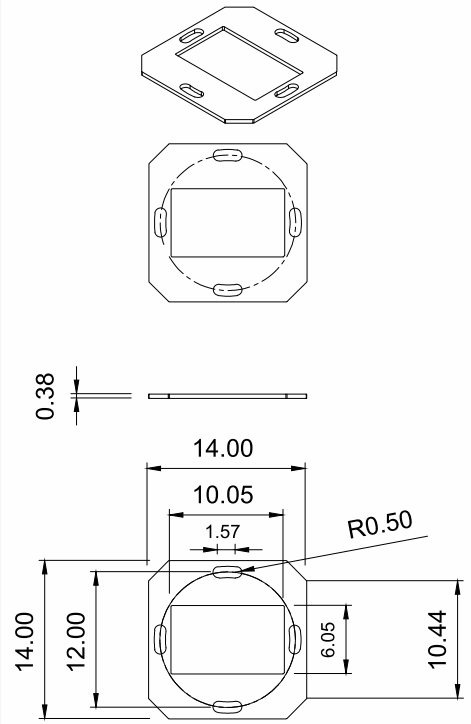




SCALE: 1/4" = 1'

*SCALE AND COLORS NOT REPRESENTATIVE FROM EMAIL ATTACHMENTS
*ALL MEASUREMENTS ARE APPROXIMATE

NOTES



SALES PERSON:	DESIGNED BY:	AO:
MARK WESSELL	J KROEGER	64353

DATE CREATED / REVISION HISTORY	
12/12/25 - NEW	

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CULVER'S - GERMANTOWN, WI

SITE DEVELOPMENT PLANS

VILLAGE OF GERMANTOWN, WISCONSIN

GENERAL NOTES

1. THE LATEST EDITIONS OF THE FOLLOWING DOCUMENTS AND ANY SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS ON THIS PLAN UNLESS OTHERWISE NOTED.

   -STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, 6TH EDITION (SSSWCW)
   -THE WISCONSIN D.O.T. STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION
   -WDNR STORMWATER RUNOFF TECHNICAL STANDARDS.
   -WISDOT PAL APPROVED EROSION CONTROL MEASURES LIST, LATEST EDITION.
   -VILLAGE OF GERMANTOWN STANDARDS AND SPECIFICATIONS.

2. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO MINIMIZE EROSION, WATER POLLUTION AND SILTATION CAUSED BY CONSTRUCTION OF THIS PROJECT. EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS.

3. EROSION CONTROL PLAN: PRIOR TO BEGINNING WORK, AN APPROVED EROSION CONTROL PLAN WILL BE PROVIDED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY IMPLEMENTING THE APPROVED PLAN.

4. THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATIONS OF THE BENCHMARKS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL ALSO FIELD VERIFY LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES, AND VERIFY FLOOR, CURB OR PAVEMENT ELEVATIONS WHERE MATCHING INTO EXISTING WORK. THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL CONTROL BY REFERENCING SHOWN COORDINATES TO KNOWN PROPERTY LINES. NOTIFY ENGINEER OF DISCREPANCIES IN EITHER VERTICAL OR HORIZONTAL CONTROL PRIOR TO PROCEEDING WITH WORK.

5. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION (CALL DIGGERS HOTLINE AT 800-242-8511). COST OF REPLACEMENT OR REPAIR OF EXISTING UTILITIES DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

6. EXISTING UTILITY INFORMATION IS SHOWN FROM SURVEY WORK, FIELD OBSERVATIONS, AVAILABLE PUBLIC RECORDS, AND AS-BUILT DRAWINGS. EXACT LOCATIONS AND ELEVATIONS OF UTILITIES SHALL BE DETERMINED PRIOR TO INSTALLING NEW WORK. EXCAVATE TEST PITS AS REQUIRED.

7. PROPERTY CORNERS SHALL BE CAREFULLY PROTECTED UNTIL THEY HAVE BEEN REFERENCED BY A PROFESSIONAL LAND SURVEYOR. PROPERTY MONUMENTS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

8. ENGINEER SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF PERFORMING ANY CONSTRUCTION.

9. ALL TRENCHING SHALL BE PERFORMED ACCORDING TO OSHA STANDARDS.

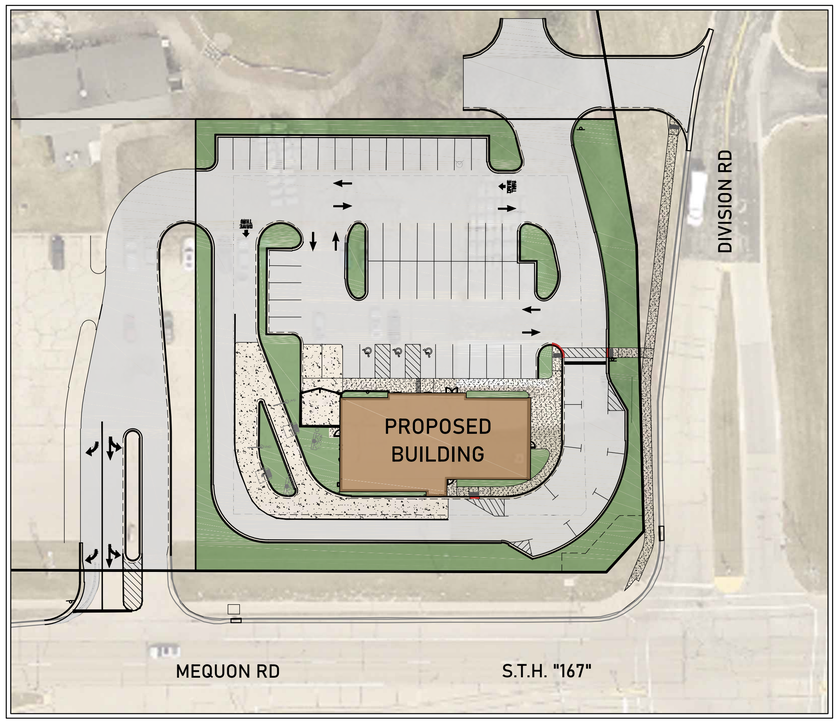
10. ALL ITEMS SHALL INCLUDE ALL THE NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.

11. THE CONTRACTOR SHALL CLEAN ALL ADJACENT STREETS OF ANY SEDIMENT OR DEBRIS BY SWEEPING BEFORE THE END OF THE WORKING DAY OR AS REQUIRED BY THE VILLAGE OF GERMANTOWN.

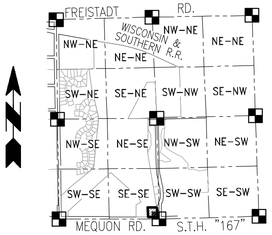
12. THE CONTRACTOR MUST AND IS REQUIRED TO NOTIFY THE VILLAGE OF GERMANTOWN SEWER AND WATER UTILITY A MINIMUM OF 48 HOURS IN ADVANCE OF WATER MAIN FILLING, WATER MAIN FLUSHING, WATER MAIN TESTING AND WATER MAIN CONNECTIONS. NO CONNECTION SHALL BE MADE TO THE EXISTING WATER SYSTEM UNTIL SAFE SAMPLES FROM THE NEW MAIN HAVE BEEN OBTAINED.



LOCATION MAP
NOT TO SCALE



SITE PLAN
SCALE: 1" = 40'



LOCALITY MAP
SCALE: 1" = 2000'

DEVELOPER:
BURGERS & BRAATZ PROPERTIES, LLC.
12455 WRAYBURN RD.
ELM GROVE, WI 53122
PHONE: 262-510-8057

ENGINEER / SURVEYOR:
TRIO ENGINEERING, LLC
4100 N. CALHOUND ROAD, SUITE 300
BROOKFIELD, WISCONSIN 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481

SHEET INDEX

CIVIL		
T1	-	COVER SHEET
C1.0	-	EXISTING SITE PLAN
C1.1	-	PROPOSED SITE PLAN
C2.0	-	GRADING & DRAINAGE PLAN
C2.1	-	STORMWATER FACILITY DETAILS
C3.0	-	EROSION CONTROL PLAN
C4.0	-	UTILITY PLAN
C5.0	-	CONSTRUCTION DETAILS
C5.1	-	ADS DETAILS & SPECIFICATIONS

WISCONSIN MATTHEW A. MATTHEWS E-41533 OCONOMOWOC WI PROFESSIONAL ENGINEER

TRIO DESIGN • LAND SURVEYING CIVIL ENGINEERING

4100 N. CALHOUN RD., SUITE 300
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: jpudelko@trioeng.com

PROJECT: CULVER'S - GERMANTOWN, WI
NWC OF MEQUON ROAD AND DIVISION ROAD
VILLAGE OF GERMANTOWN, WISCONSIN

REVISION HISTORY

DATE	DESCRIPTION
7/7/2025	PRELIMINARY SUBMITTAL
10/3/2025	SITE RECONFIGURATION
10/30/2025	PC Submittal

DATE: OCTOBER 30, 2025

JOB NUMBER: 25-28-1265

DESCRIPTION: COVER SHEET

SHEET T1

X:\2025\25-28-1265 CULVERS-GERMANTOWN\DRAWINGS\CONSTRUCTION PLANS\CULVERS_CIVIL PLAN SET_22X34.DWG

SITE DATA

ZONING:	PDD-27 (Blackstone Creek District)
BASE ZONING:	RD-2 & B-1 (One-Family/Two-Family Resident & Neighborhood Business)

SETBACKS:

FRONT YARD:	30 FEET
SIDE YARD:	20 FEET

PROPOSED LOT AREA DATA:

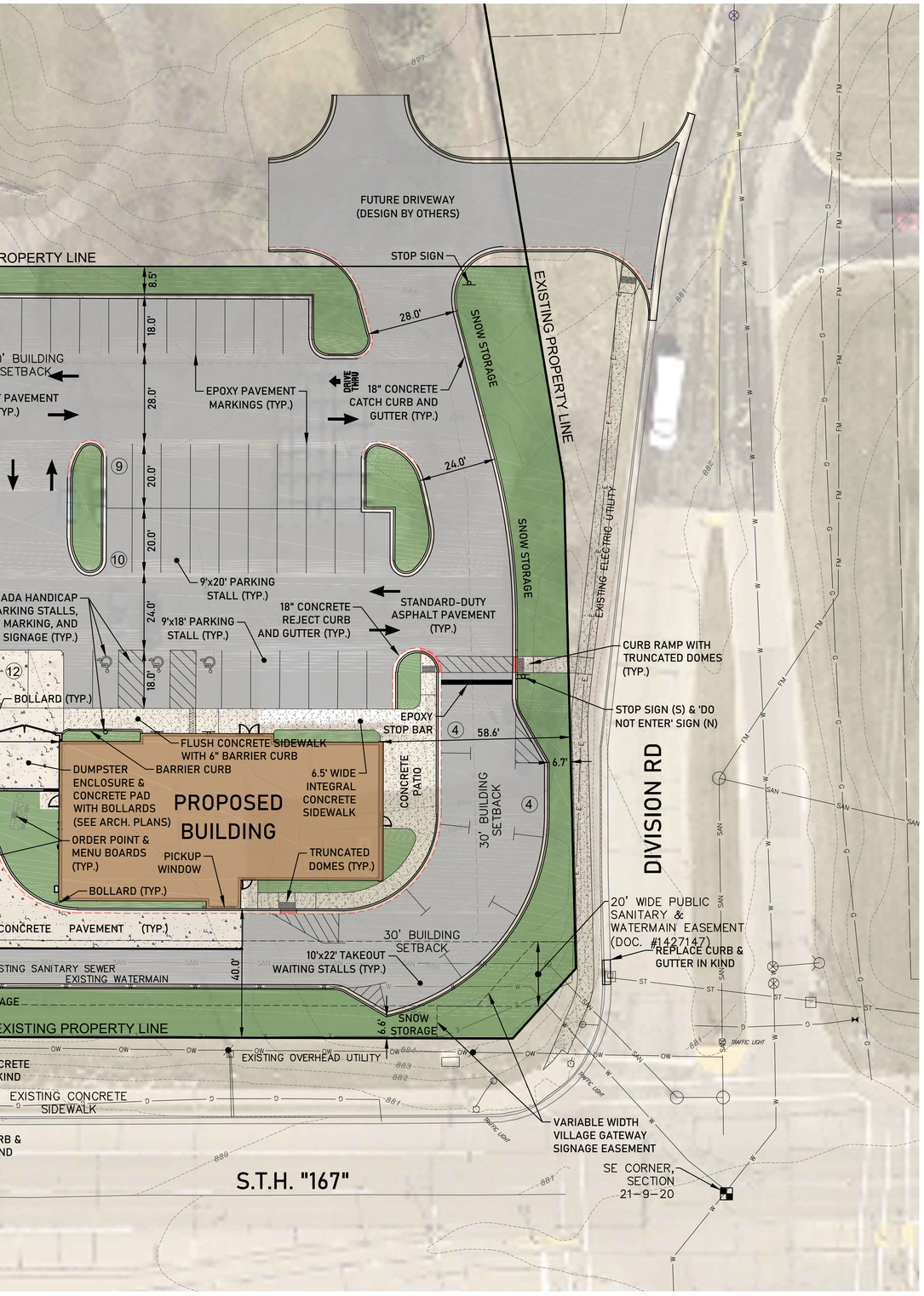
TOTAL LOT AREA:	55,432 S.F. (1.27 Acres)
LOT COVERAGE PERMITTED:	75.0% of Lot
LOT COVERAGE PROVIDED:	74.9% of Lot
BUILDING AREA:	4,403 S.F. (0.10 Acres) 8.0% of Lot
PAVEMENT AREA:	37,102 S.F. (0.85 Acres) 66.9% of Lot
OPEN SPACE AREA:	13,927 S.F. (0.32 Acres) 25.1% of Lot

~12 Concurrent Employees (at any given time)

PARKING DATA:

REQUIRED PARKING SPACES:	36 SPACES
(1 SPACE/150 SF FLOOR + 1 SPACE/2 EMPLOYEES)	
PROPOSED PARKING SPACES:	
STANDARD SPACES:	49 SPACES
HANDICAP SPACES:	3 SPACES
FORWARD PICKUP SPACES:	8 SPACES
TOTAL SPACES:	60 SPACES

PAVEMENT NOTE:
UNLESS OTHERWISE SPECIFIED, ALL PARKING STALLS SHALL BE STANDARD DUTY PAVEMENT AND ALL DRIVE AISLES SHALL BE HEAVY DUTY PAVEMENT



N

0 10 20 40

SCALE: 1" = 20' (22"X34")
SCALE: 1" = 40' (11"X17")

LEGEND:

- SAN – EXISTING SANITARY SEWER
- – EXISTING SANITARY MANHOLE
- W – EXISTING WATER MAIN
- – EXISTING HYDRANT
- ST – EXISTING STORM SEWER
- – EXISTING STORM MANHOLE
- – EXISTING STORM INLET
- – EXISTING TRANSFORMER
- – EXISTING ELECTRIC PEDESTAL
- – EXISTING TELEPHONE PEDESTAL
- – EXISTING CATV PEDESTAL
- – EXISTING POWER POLE
- – PROPOSED SANITARY SEWER
- – PROPOSED SANITARY MANHOLE
- – PROPOSED WATER MAIN
- – PROPOSED HYDRANT
- – PROPOSED WATER VALVE
- – PROPOSED STORM SEWER
- – PROPOSED STORM MANHOLE
- – PROPOSED STORM INLET
- – PROPOSED STORM END SECTION
- – PROPOSED REJECT CURB & GUTTER

811 CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE. KNOW WHAT'S BELOW. **CALL BEFORE YOU DIG.**

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.

X:\2025\25-28-1265 CULVERS-GERMANTOWN\DRAWINGS\CONSTRUCTION PLANS\CULVERS_CIVIL PLAN SET_22X34.DWG

WISCONSIN MATTHEW A. MAUDEN E-41533 OCONOMOWOC WI PROFESSIONAL ENGINEER

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PROJECT:
CULVER'S - GERMANTOWN, WI
NWC OF MEQUON ROAD AND DIVISION ROAD
VILLAGE OF GERMANTOWN, WISCONSIN

REVISION HISTORY

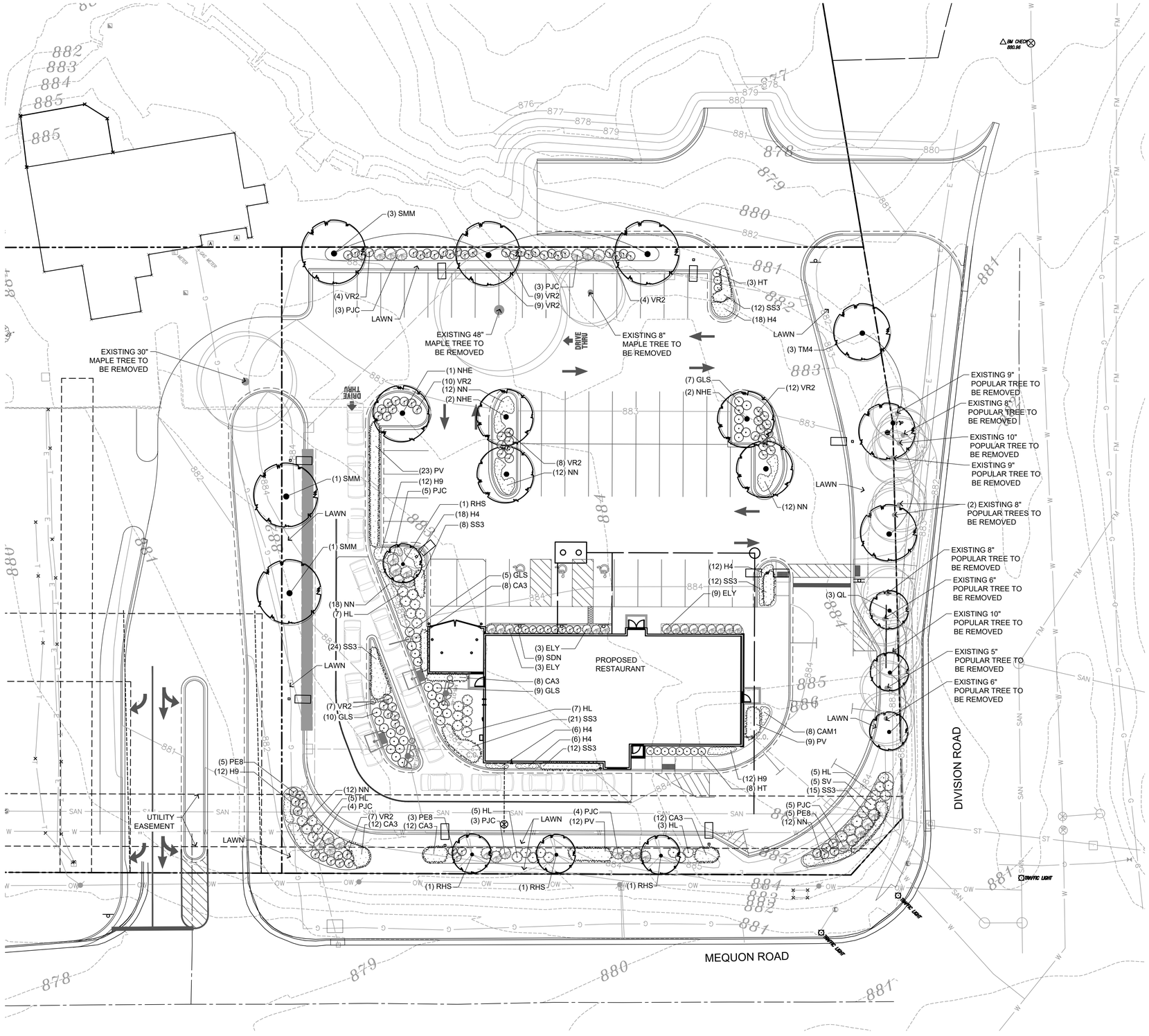
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10/3/2025	SITE RECONFIGURATION
10/30/2025	PC Submittal

DATE:
OCTOBER 30, 2025

JOB NUMBER:
25-28-1265

DESCRIPTION:
PROPOSED SITE PLAN

SHEET
C1.1



PLANT SCHEDULE SITE

CODE	QTY	COMMON NAME	BOTANICAL NAME	INSTALLED SIZE	ROOT	SPACING
SHADE TREES						
SMM	5	State Street Miyabe Maple	Acer miyabei `Morton` State Stree	2 1/2" CAL	B&B	Spacing as shown
QL	3	Regal Prince® Oak	Quercus robur x bicolor 'Long'	2 1/2" CAL	CONT	Spacing as shown
TM4	3	American Sentry® Linden	Tilia americana 'McKSentry'	2 1/2" CAL	B&B	Spacing as shown
NHE	5	New Horizon Elm	Ulmus x `New Horizon`	2 1/2" CAL	B&B	Spacing as shown
ORNAMENTAL TREES						
RHS	4	Robin Hill Serviceberry	Amelanchier x grandiflora `Robin Hill`	2" CAL	B&B	Spacing as shown
DECIDUOUS SHRUBS						
SDN	9	Nikko Slender Deutzia	Deutzia gracilis `Nikko`	15" HT	CONT	Spacing as shown
VR2	70	Kodiak® Black Honeysuckle	Diervilla rivularis 'SMNDRSF'	15" HT	CONT	Spacing as shown
HT	11	Fire Light Tidbit® Hydrangea	Hydrangea paniculata 'SMNHPK'	15" HT	CONT	Spacing as shown
HL	32	Little Quick Fire® Hydrangea	Hydrangea paniculata `SMHPLQF`	18" HT	CONT	Spacing as shown
PE8	13	Little Joker® Ninebark	Physocarpus opulifolius 'Hoogi021'	18" HT	CONT	Spacing as shown
GLS	31	Gro-Low Fragrant Sumac	Rhus aromatica `Gro-Low`	15" HT	CONT	Spacing as shown
SV	5	Violet Uprising™ Korean Lilac	Syringa patula 'JN Upright Select' TM	24" HT	CONT	Spacing as shown
EVERGREEN SHRUBS						
PJC	27	Kallay Compact Pfitzer Juniper	Juniperus chinensis `Kallays Compact`	18" SPD	CONT	Spacing as shown
ELY	15	Everlow Yew	Taxus x media `Everlow`	15" HT	B&B	Spacing as shown
ORNAMENTAL GRASSES						
CA3	52	Overdam Feather Reed Grass	Calamagrostis x acutiflora `Overdam`	1 GAL	CONT	24" Spacing
PV	44	Ruby Ribbons® Switch Grass	Panicum virgatum 'RR1'	1 GAL	CONT	30" Spacing
SS3	104	Carousel Little Bluestem Grass	Schizachyrium scoparium `Carousel`	1 GAL	CONT	24" Spacing
PERENNIALS						
CAM1	8	Montrose White Calamint	Calamintha nepeta `Montrose White`	1 GAL	POT	18" Spacing
H9	36	Apricot Sparkles Daylily	Hemerocallis x 'Apricot Sparkles'	1 GAL	POT	18" Spacing
H4	60	Happy Returns Daylily	Hemerocallis x `Happy Returns`	1 GAL	POT	18" Spacing
NN	78	Junior Walker™ Catmint	Nepeta x faassenii 'Novanepjun'	1 GAL	POT	24" Spacing

VILLAGE OF GERMANTOWN - 17.43 SITE PLAN APPROVAL -LANDSCAPING AND SCREENING - 17.45 TRAFFIC, PARKING, LOADING AND ACCESS

17.43 (5)(c)(2) Parking Lot Landscaping - requires 5% of interior parking to be landscaped and (1) tree for every 10 spaces - requires (6) trees for proposed 52 spaces.

17.43 (5)(c)(3) Parking Lot Landscaping - requires street frontage screening and perimeter screening to be minimum 5 feet wide..

17.45 (1)(c) Parking Lot Landscaping - requires parking areas to be bounded by minimum 15 feet landscaped greengbelt between parking and all property boundaries.

NORTH

0 10 20 40
GRAPHIC SCALE

Know what's **below.**
Call before you dig.

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DESCRIPTION	DATE

raSmith
CREATIVITY BEYOND ENGINEERING
16745 W. Bluemound Road
Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com
Brookfield, WI | Milwaukee, WI | Appleton, WI | Madison, WI
Cedarburg, WI | Naperville, IL | Irvine, CA

CULVER'S
VILLAGE OF GERMANTOWN

SITE LANDSCAPE PLAN

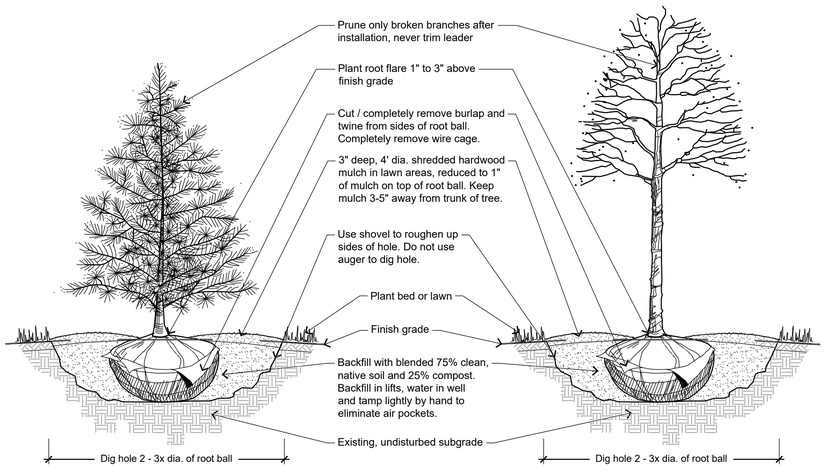
© COPYRIGHT 2025
R.A. Smith, Inc.

DATE: **10/01/25**
SCALE: **1" = 20'**
JOB NO. **3250150**
PROJECT MANAGER: **ROB WILLIAMS**
DESIGNED BY: **REW**
CHECKED BY: **REW**

SHEET NUMBER
L100

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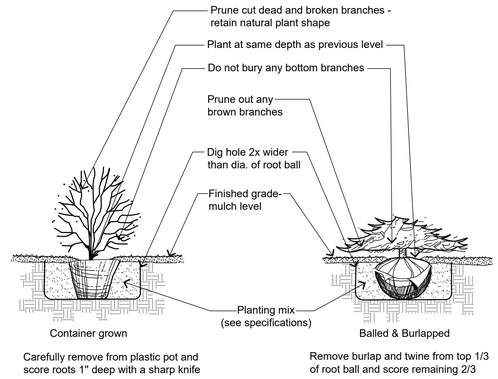
PLANTING DETAILS



1 TREE PLANTING DETAIL

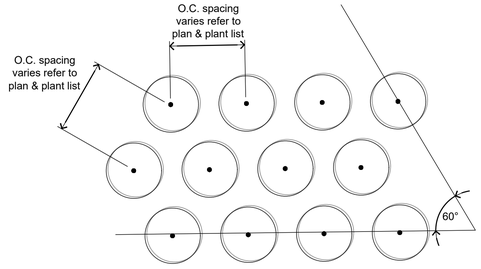
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P-PL-TREE-07



2 SHRUB PLANTING DETAIL

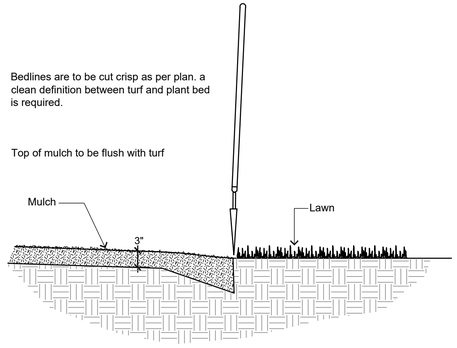
NOT TO SCALE



3 PLANTING LAYOUT

NOT TO SCALE

P-PL-PLO-01



4 SHOVEL CUT PLANT BED EDGING DETAIL

NOT TO SCALE

P-PL-BDEG-01

GENERAL LANDSCAPE NOTES

1. Contractor responsible for contacting public and private underground utility locating service to have site marked prior to any digging or earthwork.
2. Contractor to verify all plant quantities shown on plant list and verify with plan. Report any discrepancies immediately to general contractor.
3. All plantings shall comply with standards as described in American Standard of Nursery Stock - ANSI Z60.1 (latest version). General contractor or owner's representative reserves the right to inspect and potentially reject any plants that are inferior, compromised, undersized, diseased, improperly transported, installed incorrectly or damaged.
4. Any potential plant substitutions must be submitted in writing to the general contractor and approved by the owner's representative or landscape architect prior to installation. All plants must be installed as per sizes and quantities shown on plant material schedule, unless approved by the owner's representative or landscape architect. Any potential changes to sizes shown on plan and appropriate cost credits / adjustments must be submitted in writing to the general contractor and approved by the owner's representative or landscape architect prior to installation.
5. The subsequent requirements regarding topsoil should be coordinated between the general contractor, grading contractor and landscape contractor.
6. Subgrade areas shall be graded to within 1", more or less, of proposed subgrade. Deviations shall not be consistent in one direction.
7. Topsoil shall be placed to meet proposed finished grade. Planting islands to be backfilled with clean topsoil free of debris (per note below) to a minimum depth of 18" by general / grading contractor to insure long term plant health. All other landscaped areas to receive a minimum depth of 6" of clean topsoil (per note below).
8. Topsoil shall be: screened existing stockpiled topsoil, existing in-place soil, or screened soil from an off-site source that will support plant growth, and meets the following requirements. Clean topsoil shall be free of rocks, coarse fragments, gravel, sticks, trash, roots, debris over 3/4" and any substances harmful to plant growth. It also must be free of plants or plant parts of any noxious weeds. Topsoil shall contain 3 to 5 percent decomposed organic matter and a pH between 5.5 and 7.0.
9. Planting beds and parking lot islands: Landscape contractor is responsible for ensuring that unwanted material (gravel, debris, roots and other extraneous material harmful to plant growth) has been removed from the topsoil and for the fine grading of all landscaped areas. The fine grading of planting beds and parking lot islands may require additional topsoil to bring to finish grade, allowing for mulch depth. Crown all planting islands and planting beds not adjacent to buildings, a minimum of 6" to provide proper drainage, unless otherwise specified. All other finished landscaped areas to be smooth, uniform and provide positive drainage away from structures and pavement.
10. Seeded areas: to receive a settled minimum depth of 6" of blended, prepared and non-compacted topsoil. Landscape contractor is responsible for excavation and removal of unwanted material (gravel, debris, roots and other extraneous material harmful to plant growth) to the specified depth, supplementing with additional topsoil (if necessary) and the fine grading of all seeded areas.
11. Tree planting (see planting detail): plant all trees slightly higher than finished grade at root flare. Remove excess soil from top of root ball, if needed. An auger is not an acceptable method of digging tree planting holes. Scarify side walls of tree pit prior to installation. Once tree has been placed into the hole, is at the correct depth and vertical alignment and will no longer be moved; brace root ball by tamping soil around the lower portion of the root ball. Remove and discard twine / rope, burlap and support wire from the sides of root ball. Backfill pit with 75% existing soil removed from excavation and 25% compost blended prior to backfilling holes, in six-inch lifts. Lightly tamp each lift using foot pressure or hand tools to settle backfill, support the tree and eliminate voids. Do not over compact or use mechanical or pneumatic tamping equipment. Discard any gravel, heavy clay or stones. When hole has been backfilled to three-quarters of its depth, pour water around the root ball and allow to soak into soil to settle the soil. Continue backfilling until soil is brought to grade level.

    Provide a 3" deep, 4 ft. diameter shredded hardwood bark mulch ring around all trees in lawn areas, reduced to 1" deep on top of root ball. Keep mulch 3"- 5" away from trunk of tree. Trees that are installed incorrectly will be replaced at the time and expense of the landscape contractor. Trees too large for two people to lift in and out of holes, shall be placed with sling. Do not rock the trees in holes to raise them.
12. Shrub planting (see planting detail): all shrubs to be pocket planted with a mix of 75% existing soil removed from excavation and 25% compost, blended prior to backfilling holes. When hole is two-thirds full, shrubs shall be watered thoroughly and water left to soak in before proceeding.
13. Mulching: all tree and shrub planting beds to receive a 3" deep layer of high-quality shredded hardwood bark mulch (not enviromulch or wood chips). Mulch shall be uniform in size, color, quality and overall appearance. Mulch shall be free of debris, large wood chunks, soil, rocks, weeds, invasive plant parts or seeds and any other material injurious to plant growth. All perennial and ornamental grass planting areas to receive a 2" layer and groundcover areas a 1-2" layer of the same mulch. Do not mulch annual flower beds (if applicable). Do not allow mulch to contact plant stems and tree trunks.
14. Edging: edge all planting beds with a 4" deep spaded edge (shovel cut or mechanical). Bedlines are to be cut crisp, as per plan. A clean definition between lawn area and plant bed is required.
15. Plant bed preparation: the soil in all perennial, ornamental grass, annual and groundcover areas shall be amended with compost prior to plant installation. Spread a 2" layer of compost (per note below) on top of clean topsoil and rototill to a depth of approximately 8".
16. Compost shall be stable, and weed-free organic matter. It shall be resistant to further decomposition and free of compounds, such as ammonia and organic acids, in concentrations toxic to plant growth. The compost shall contain no pathogens or other chemical contaminants and meet the requirements of WisDNR S100 Compost Specification.
17. Lawn installation for all seeded turfgrass areas: remove / kill off any existing unwanted vegetation prior to seeding. Prepare the topsoil and seed bed by removing all surface stones 1" or larger and grading lawn areas to finish grade. Apply a starter fertilizer and specified seed, ensure good seed to soil contact, and provide mulch covering suitable to germinate and establish turf. Provide seed and fertilizer mix information to general contractor prior to installation. Erosion control measures are to be used in swales and on steep grades, where applicable. Methods of installation may vary at the discretion of the landscape contractor on his/her responsibility to establish and guarantee a smooth, uniform, quality turf. If straw mulch is used as a mulch covering, a tackifier may be necessary to avoid wind damage. Marsh hay containing reed canary grass is not acceptable as a mulch covering.

    An acceptable quality turf is defined as having no more than 5% of the total area with bare spots larger than 1/2 square foot and uniform coverage throughout all turf areas.
18. Seed mix type 'A' for lawn areas - use only a premium quality seed mix. Premium blend seed mix (or equivalent): 50% blended bluegrass, 25% creeping red fescue, 25% perennial rye applied at 5 lbs per 1,000 SF or at recommended rates from supplier. Provide seed specifications to general contractor prior to installation.
19. Lawn installation for all sodded turfgrass areas(Optional): remove / kill off any existing unwanted vegetation prior to sodding. Prepare the topsoil and sod bed by removing all surface stones 1" or larger and grading lawn areas to finish grade, allowing for thickness of sod. Use only premium sod blend according to TPI (revised 1995) and ASPA standards. Install sod uniformly with staggered joints, laid tightly end to end and side to side. Roll sod with a walk behind roller and water immediately upon installation to a 3" depth. Stake any sod installed on steep slopes or in swales, etc. Landscape contractor is responsible to provide a smooth, uniform, healthy turf. Landscape contractor shall repair and re-sod any eroded, sunken or bare spots (larger than ½ square foot) until acceptance by owner.
20. The landscape contractor is responsible for the watering and maintenance of all landscape areas at time of planting and throughout construction until the substantial completion of the installation and acceptance by the owner. This includes all trees, shrubs, evergreens, perennials, ornamental grasses, and seeded slopes and turf grass areas. Maintenance includes mowing, weeding, watering, mulching, edging, pruning, deadheading, raking leaves / debris, sweeping up grass clippings, fertilizing and maintaining turf areas (including applying pre and post emergent herbicides), and any other needs that are required to keep the landscape healthy and well maintained.
21. Substantial Completion of Landscape: after the landscape has been installed, the landscape contractor is responsible to conduct a final review with the owner's representative and the general contractor to ensure that all plans and specifications have been met. After this review, the landscape will be considered to be installed in substantial completion unless otherwise noted by the owner's representative and/or general contractor. Any items missing or incomplete, shall be corrected within 30 days. The landscape contractor shall provide written watering and maintenance instructions for the new plantings and lawn to the owner.
22. Warranty and replacements: All plants (trees, evergreens, shrubs, perennials, ornamental grasses and groundcovers) shall be warranted by the landscape contractor to be in healthy and flourishing condition for a period of one year from the date of substantial completion. This assumes the owner performs required maintenance (i.e. regular watering) after substantial completion of the landscape. Only one replacement per plant will be required during the warranty period, except for losses or replacements due to failure to comply with specified requirements. Replacements shall be plants of the same variety specified on the plan and closely match adjacent specimens in size. The landscape contractor is responsible for keeping a documented record of which plants have been replaced during the warranty period.

811 Know what's **below.** **Call** before you dig.

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DATE	DESCRIPTION

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rasmith.com
Brookfield, WI | Milwaukee, WI | Appleton, WI | Madison, WI
Cedarburg, WI | Naperville, IL | Irvine, CA

CULVER'S
VILLAGE OF GERMANTOWN

LANDSCAPE NOTES AND DETAILS

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R.A. Smith, Inc.

DATE: 10/01/25

SCALE: –

JOB NO. 3250150

PROJECT MANAGER: ROB WILLIAMS

DESIGNED BY: REW

CHECKED BY: REW

SHEET NUMBER

L200

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NORTH / MAIN ENTRY ELEVATION



EAST / FRONT ELEVATION

MATERIAL	COLOR
ROOFING SHINGLES	MULTI
ROOF FASCIA	"REGAL BLUE" EXCEPTIONAL METALS
TOWER ACCENT EIFS	"TONY TAUPE" SW7038
MAIN FIELD EIFS	"POPULAR GRAY" SW6071
FAUX TRIM EIFS	"SABLE" SW6083
ALUM. CLADDING SYSTEM (LONGBOARD)	"TABLE WALNUT" 6" V-GROOVE
SCONCE FIXTURES	BRONZE
WINDOW & DOOR FRAMES	NATURAL ALUMINUM
MAIN BRICK	"RALEIGH" SUMMITVILLE
QUOIN BRICK	"SAVANNAH" SUMMITVILLE

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NEW CULVER'S RESTAURANT
NWC Mequon Road & Division Road
Germantown, WI 53022
County of WASHINGTON

Culver Franchising System, Inc
1240 Water Street
Prairie du Sac, WI 53578
608-643-7980

OLLMANN ASSOCIATES ARCHITECTS
200 South State Street
Belvidere, Illinois 61008
815-544-7790 Phone

2D ELEVATIONS

NOTE: THOUGH THESE IMAGES HAVE PHOTO REALISTIC QUALITIES, THE ACTUAL BUILDING MATERIALS MAY VARY IN APPEARANCE.

Date: 10-30-2025
Revision:

2025-111

A1.1



SOUTH / DRIVE THRU ELEVATION



WEST / REAR ELEVATION

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NWC Mequon Road & Division Road
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NOTE: THOUGH THESE IMAGES HAVE PHOTO REALISTIC QUALITIES, THE ACTUAL BUILDING MATERIALS MAY VARY IN APPEARANCE.

Date: 10-30-2025
Revision:

2025-111

A1.2













NEW CULVER'S RESTAURANT
NWC Mequon Road & Division Road
Germantown, WI 53022
County of WASHINGTON

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Culver Franchising System, Inc
1240 Water Street
Prairie du Sac, WI 53578
608-643-7980

OLLMANN ASSOCIATES ARCHITECTS
200 South State Street
Belvidere, Illinois 61008
815-544-7790 Phone

3D IMAGES

NOTE: THOUGH THESE IMAGES HAVE PHOTO REALISTIC QUALITIES, THE ACTUAL BUILDING MATERIALS MAY VARY IN APPEARANCE.

Date: 10-30-2025
Revision:

2025-111

A2

(ADDED MATERIAL)



QUOIN BRICK
"SAVANNAH" SUMMITVILLE



ALUM. CLADDING SYSTEM
"TABLE WALNUT"



MAIN FIELD EIFS
"POPULAR GRAY" SW 6071



TOWERS & D/T. EIFS
"TONY TAUPE" SW 7038

ROOFING SHINGLES

TOWERS & D/T EIFS

ALUM. CLADDING SYSTEM (LONGBOARD)

MAIN FIELD EIFS

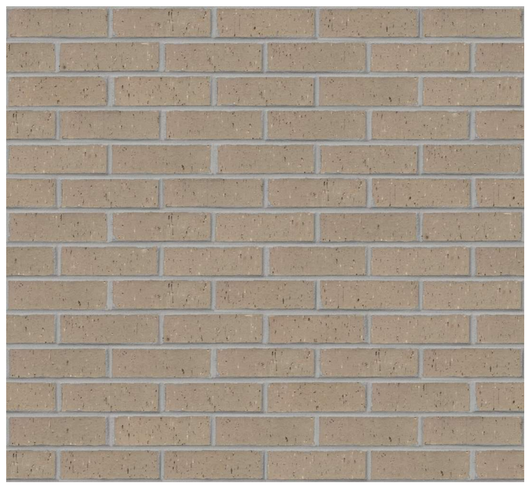
EIFS ACCENT FAUX TRIM

MAIN BRICK

QUOIN BRICK



(ADDED MATERIAL)



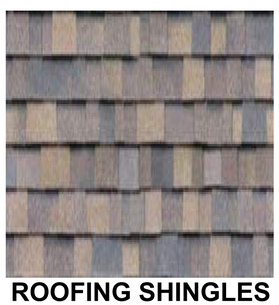
MAIN BRICK
"RALEIGH" SUMMITVILLE

(ADDED MATERIAL)



EIFS ACCENT FAUX TRIM
"SABLE SW6083"

(ADDED MATERIAL)



ROOFING SHINGLES
"MULTI"

©2025

NEW CULVER'S RESTAURANT
NWC Mequon Road & Division Road
Germantown, WI 53022
County of WASHINGTON

Culver Franchising System, Inc
1240 Water Street
Prairie du Sac, WI 53578
608-643-7980

OLLMANN ASSOCIATES ARCHITECTS
200 South State Street
Belvidere, Illinois 61008
815-544-7790 Phone

SAMPLE BOARD

NOTE: THOUGH THESE IMAGES HAVE PHOTO REALISTIC QUALITIES, THE ACTUAL BUILDING MATERIALS MAY VARY IN APPEARANCE.

Date: 10-30-2025
Revision:

2025-111

A3

ZONING PERMIT REVIEW

04/13/26 Plan Commission Meeting

Susan Hillstrom

Village Staff Report & Recommendation ***Germantown, Wisconsin***

SUMMARY

Susan Hillstrom, Property Owner. Zoning Permit application to install a 4' fence in a public storm sewer and drainage easement on property located at W151N11818 Mistletoe Road.

Property Location: W151N11818 Mistletoe Road

Property Owner: Susan Hillstrom
W151N11818 Mistletoe Road
Germantown, WI 53022

Zoning: Wrenwood Planned Development District (Rs-5/PDD)

Adjacent Land Uses		Zoning
North	Common Area/Detention Area	Rs-5/PDD
South	Single-Family Residential	Rs-5/PDD
East	Single-Family Residential	Rs-5/PDD
West	Single-Family Residential	Rs-5/PDD



Background/Proposal

Susan Hillstrom, Property Owner. Zoning Permit application to install a 4' fence in a public storm sewer and drainage easement on property located at W151N11818 Mistletoe Road.

As indicated in the supporting documentation, the applicant would like to install a 4’ high aluminum picket fence around the rear yard. The proposed fence would encroach approximately 8’ into a storm drainage easement that runs along the western property boundary (see attached survey). Note that Section 17.50(2)(f)6. of the Zoning Code restricts fences from being installed within a publicly owned and maintained storm/drainage 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 storm/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.

Regarding drainage flow interference, the proposed aluminum fence is open picket style which is not expected to interfere with storm water flow within the easement. Regarding the Homeowner's Association (HOA) provision, the owner will be required to submit documentation showing HOA approval for the fence prior to the Village issuance of a building permit for fence installation. This is reflected as a condition of approval.

The Public Works Department recommends fences to be installed outside of easements, but in the event a fence is 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.

VILLAGE STAFF RECOMMENDATION

APPROVE the zoning permit application to install a 4' aluminum picket style fence in a public storm sewer and drainage easement along the western lot line of property located at W151N11818 Mistletoe Road, subject to the following conditions:

1. A fence permit is required from Building Inspection Services. The property owner is required to contact SAFEBuilt Inspection Services for more information. Prior to issuance of a fence permit by the Village, the property shall submit documentation showing HOA approval for the proposed fence.
2. 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.
3. It shall be the responsibility of the homeowner to maintain a free flow of water within the drainage easement at all times.
4. 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.
5. 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

RECEIVED JAN 2 REC'D
OFFICE OF THE VILLAGE PLANNER
VILLAGE OF GERMANTOWN

Fee must accompany application.

- [x] $210 Zoning Permit (New construction or tenant occupancy)
- [ ] $30 Residential/Agricultural (accessory buildings, fences & other minor items)
- [ ] $60 Non-Residential (accessory buildings, fences & other minor items)

Paid On: 2/2/26 Check/CC 3383

ZONING COMPLIANCE / OCCUPANCY PERMIT

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

APPLICANT/AGENT:
Susan M. Hillstrom
W151 N11818 Mistletoe Rd.
Germantown, WI 53022

Phone (414) 750-2698
Email shillstrom@davians.com

PROPERTY OWNER:
Susan M. Hillstrom
W151 N11818 Mistletoe Rd.
Germantown, WI 53022

Phone (414) 750-2698
Email shillstrom@davians.com

PROPERTY ADDRESS
W151 N11818 Mistletoe Rd. Germantown

TAX KEY NUMBER
GTNV232258

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):

(274') 4' High Imperial Verona 3-Rail Flat Top Smooth Black Aluminum (2) 6' Wide, 4' High Walk Gate. (1) 4' Wide, 4' High Walk gate.

READ AND INITIAL THE FOLLOWING:

SH I understand that Village Staff may request additional information to properly evaluate this request and failure to provide such information may in itself by sufficient cause to deny the petition.

SH 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:

- [x] A scaled site plan showing location of proposed use on the property (not required if within building).
- [x] Other Information required by Zoning Administrator

VILLAGE USE ONLY

SIGNATURES: ALL APPLICATIONS MUST BE SIGNED

Susan M. Hillstrom 1/30/26
Applicant Date

Susan M. Hillstrom 1/30/26
Owner Date

Revised 12/5/25

Sharepoint>06-APPLICATIONS ALL>Application Forms>Zoning Compliance

Village of Germantown

COPY

Village of Germantown
N112 W17001 Mequon Road
Germantown, WI 53022
262-346-4460
germantowninspections@safebuilt.com

Building Permit Application

2026

PERMIT NO: F0001

☒ **One & Two Family** ☐ **Multi-Family** ☐ **Commercial** ☐ **Agricultural**

Project Address: W151N11818 Mistletoe Road	**Date:** 01/16/2026
Description of Work: (274') 4' High Imperial Verona 3-Rail Flat Top Smooth Black Aluminum (2) 6' Wide, 4' High Walk Gate. (1) 4' Wide, 4' High Walk Gate.	**Size of Structure/Square Footage:** 274' **Height:** 4'
Zoning District: _____ **Setbacks:** Front 68' Rear 2' Side 1.5'	**Estimated Cost of Project:** 15,938.77
Owner: Sue Hillstrom	**Owner Phone:** (414) 750-2698
Address: W151N11818 Mistletoe Road	**Email:** sHillstrom@davians.com
City/State/Zip: Germantown, WI 53022 USA	**Parcel ID:**
Contractor: Yutka Fence	**Contractor #** HICN 0204240 **EXP** 02/27/26 **Qualifier #** **EXP**
Address: 11880 12th St	**Contractor Phone:** 262-859-3226
City/State/Zip: Kenosha WI, 53144	**Email:** Permits@yutkafence.com

RECEIVED
JAN 26 2026
INSPECTION SERVICES
VILLAGE OF GERMANTOWN

If applicable, you should contact your homeowner's association for any approval that may be required.

It is hereby agreed between the undersigned, as owner/agent and the Village of Germantown for and in consideration of the premises and of the permit to construct, erect, alter, or install and the occupancy of building as above described, to be issued and granted by the Village Building Inspector, that the work thereon will be done in strict compliance with the Ordinances of the Village of Germantown and to obey all and any lawful orders of the Village Building Inspector and the State Laws relating to the construction, alteration, repairs, removal and safety of buildings and other structures and permanent building equipment. **I have received and read the cautionary statements and notices on the reverse side of this application form. I expressly grant the building inspector, or the inspector's authorized agent, permission to enter the premises for which this permit is sought at all reasonable hours and for any proper purpose to inspect the work which is being done. As provided under SPS 320.10(4), the Applicant agrees to receive email notification of inspection results at said email address provided herein.**

Signature Susan M. Hillstrom **Print Name** Susan M. Hillstrom

REMARKS: N/A

SEPARATE ELECTRICAL, PLUMBING AND HEATING PERMITS MAY BE REQUIRED
NOTE: TRIPLE FEES FOR WORK STARTED BEFORE OBTAINING A PERMIT

OFFICE USE ONLY

Building/Remodeling	$_____	Bldg. Permit Fees (BLD)	$_____	
Plan Review	$_____	Zoning Fee (ZON)	$_____	_____ Permit Issued By
Occupancy Permit	$_____	Prop. Record Fee (APF)	$_____	
Building Subtotal	$_____	Technology Fee (TMF)	$ 4.23	_____ Date
Triple Fees	$_____	TOTAL	$_____	

Cautionary Statement to Owners Obtaining Building Permits

101.65(Ir) of the Wisconsin Statutes requires municipalities that enforce the Uniform Dwelling Code to provide an owner who applies for a building permit with a statement advising the owner that: **If the owner hires a contractor to perform work under the building permit and the contractor is not bonded or insured as required under s.101.654(2)(a), the following consequences might occur:** (a) The owner may be held liable for any bodily injury to or death of others or for any damage to the property of others that arises out of the work performed under the building permit or that is caused by any negligence of the contractor that occurs in connection with the work performed under the building permit. (b) The owner may not be able to collect from the contractor damages for any loss sustained by the owner because of a violation by the contractor of the one- and 2-family dwelling code or an ordinance enacted under sub.(1)(a), because of any bodily injury to or death of others or damage to the property of others that arises out of the work performed under the building permit or because of any bodily injury to or death of others or damage to the property of others that is caused by any negligence by the contractor that occurs in connection with the work performed under the building permit.

Cautionary Statement to Contractors for Projects Involving Building Built Before 1978

If this project is in a dwelling or child-occupied facility, built before 1978, and disturbs 6 sq. ft. or more of paint per room, 20 sq. ft. or more of exterior paint, or involves windows, then the requirements of ch. DHS 163 requiring Lead-Safe Renovation Training and Certification apply. Call (608) 261-6876 or go to http://dhs.wisconsin.gov/lead/WisconsinRRPRule.htm for details of how to be in compliance.

Wetlands Notice to Permit Applicants

You are responsible for complying with state and federal laws concerning construction near or on wetlands, lakes, and streams. Wetlands that are not associated with open water can be difficult to identify. Failure to comply may result in removal or modification of construction that violates the law or other penalties or costs. For more information, visit the Department of Natural Resources wetlands identification web page or contact a Department of Natural Resources service center. http://dnr.wi.gov/wetlands/locating.html

Germantown Municipal Code 14.055 Property Record Maintenance Fees.(Cr. Ord. #36-04)

The Village of Germantown Assessor's Office creates and maintains property records for all real estate parcels within the Village of Germantown in which it has jurisdiction. Pursuant to Wisconsin Statute 70.32(1), all properties that are issued building permits are field reviewed, described, and valued by "actual view". This means that each building permit requires 1) assessment personnel to initially process existing records or create new records, 2) physically review, onsite, the purpose of each building permit to document all property description additions and/or alterations, and 3) process the information gathered in the field to determine an assessed value. Every person receiving an approved building permit from the Village in which said building permit requires an employee of the Assessor's Office to physically view onsite any descriptive property change in an effort to maintain the property record shall pay a property maintenance fee commensurate with the type of building permit issued by the Village.

I expressly grant the building inspector, or the inspector's authorized agent, permission to enter the premises for which this permit is sought at all reasonable hours and for any proper purpose to inspect the work which is being done.

Susan M. Hiestrom — OWNER SIGNATURE

1/27/26 — DATE

GTNV 232258

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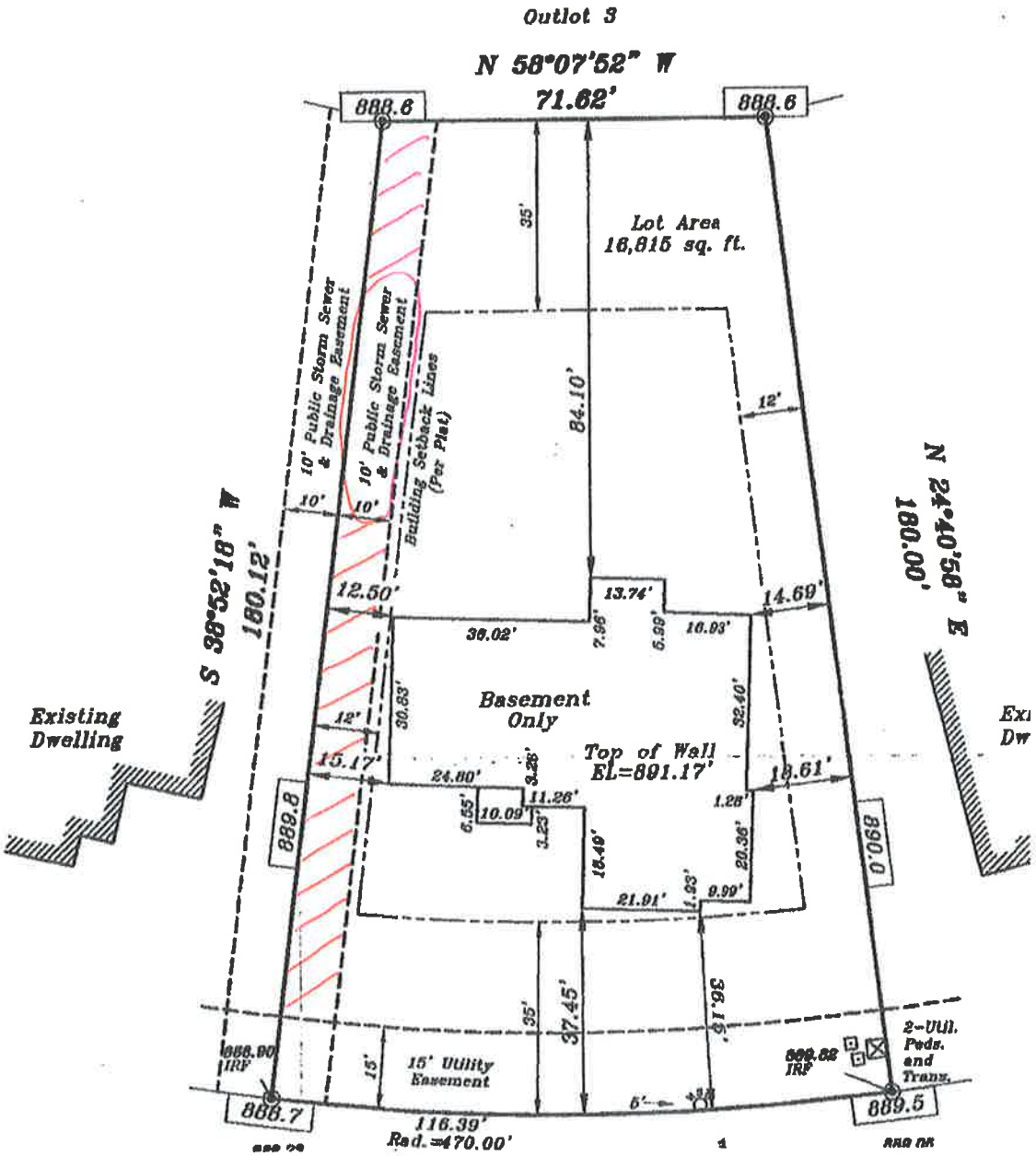
PLAT OF SURVEY

LOCATION: W151 N11818 Mistletoe Road, Germantown, Wisconsin

LEGAL DESCRIPTION:
Lot 28 in **WRENWOOD NORTH**, being a redivision of Lot 4 of Certified Survey being located in a part of the Northeast 1/4 and Southeast 1/4 of the Nc the Southwest 1/4 of the Northeast 1/4 of Section 23, Township 9 North, in the Village of Germantown, Washington County, Wisconsin.

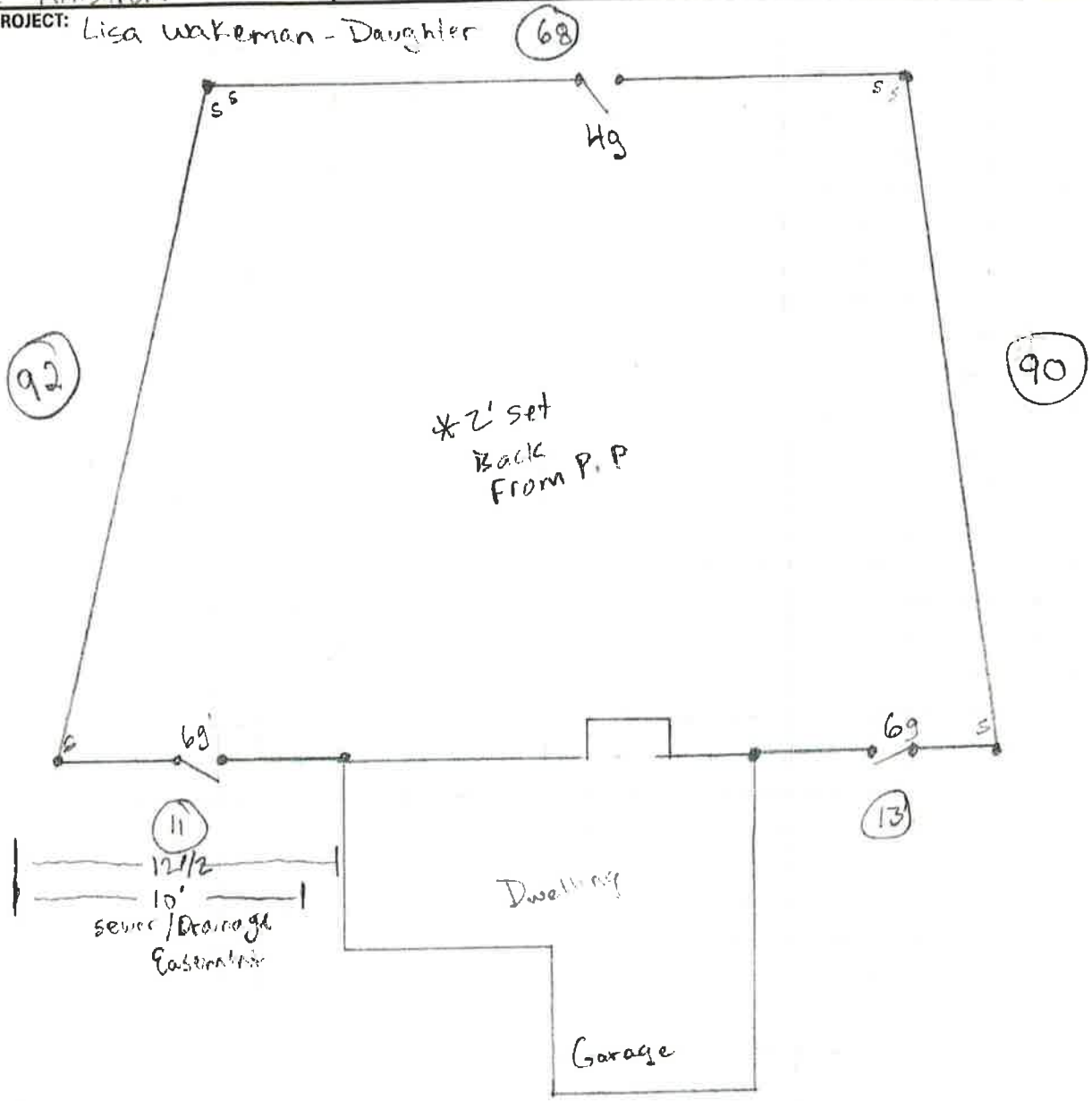
August 09, 2024

Surv



JOB ID:	TYPE: ☐ ESTIMATE ☐ LAYOUT	INSTALL DATE:	FOREMAN:
CUSTOMER: Sue Hillstrom	DESIGN TECH: Justin J	DATE: 12/11/2025	

SKETCH OF PROJECT: Lisa Wakeman - Daughter



W151 N11818 Mistletoe Road Germantown, WI 53022

STYLE #1		STYLE #2		STYLE #3	
Imperial Verona Alum					
HEIGHT 4	FOOTAGE 274	HEIGHT	FOOTAGE	HEIGHT	FOOTAGE
GATE(S) (2) 6' wg (1) 4' wg		GATE(S)		GATE(S)	

NEW FENCE — STICK BUILD — PROPERTY PINS •PP
LEAVE FENCE — MEASURE — TAPER — CORE DRILLS *
REPLACEMENT — UTILITIES — DIGS ⊙

PROC: EMAIL: TECH: BOM: CREW: TAGS: DLR:

N W E S

SIGNATURE:



Imperial ALUMINUM



VERONA



SIENA

YUTKA FENCE

IMPERIAL ALUMINUM BY YUTKA FENCE

Discover the perfect synergy of style and security with Yutka Fence's signature line of aluminum fencing. Elevate your property with a fence that defines boundaries while adding a touch of sophistication.

THE RESIDENTIAL SERIES

Verona

Crafted from durable aluminum, its sleek black finish resists corrosion. The minimalist flat-top design blends elegance with modernity, while the 3-rail layout ensures both openness and strength.

Available in 4' high 3-rail design only with pickets extending below bottom rail

Siena

Make a sophisticated statement while ensuring pool safety with this all-in-one solution.

Available in 4' high 3-rail design only with flush bottom rail (pool code compliant)

ASK YOUR SALES PERSON ABOUT THIS PREMIUM LINE.

11880 12TH ST, KENOSHA, WI 53144
(262) 859-3226
SALES@YUTKAFENCE.COM

CERTIFIED SURVEY MAP (CSM) & SITE PLAN APPLICATION

04/13/26 Plan Commission Meeting

Abacus Architects / DONTOF LLC / Basic Metals, Inc.

Village Staff Report & Recommendation ***Germantown, Wisconsin***

SUMMARY

Abacus Architects, Agent for DONTOF LLC, Property Owner, and Basic Metals, Inc. Certified Survey Map (CSM) and Site Plan applications for a 42,000 sqft addition to the existing office and manufacturing facility located at W180N11819 River Lane in the Germantown Industrial Park.

Location: W180N11819 River Lane

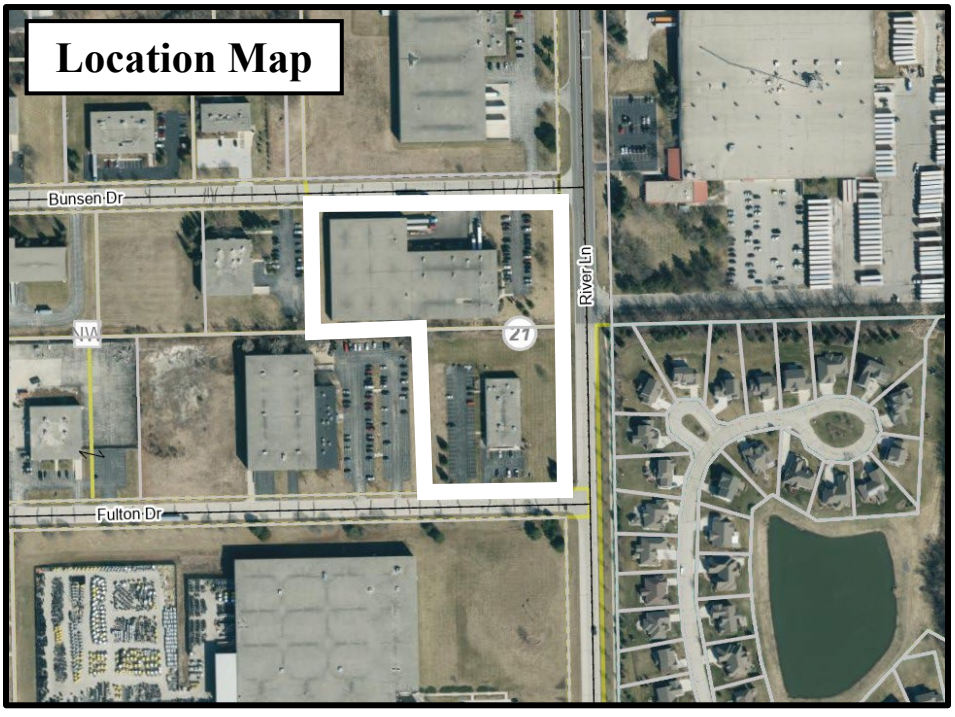
Applicant/ Owner:

Abacus Architects
640 N. Vel R. Phillips Ave, Suite 210
Milwaukee, WI 53203

DONTOF LLC
W180N11819 River Lane
Germantown, WI 53022

Zoning: M-1: Limited Industrial

Adjacent Land Uses		Zoning
North	Industrial	M-1
South	Industrial	M-1
East	Industrial/Single-Family Residential	M-1/PDD-27
West	Industrial	M-1



Background/Proposal
Abacus Architects, Agent for DONTOF LLC, Property Owner, and Basic Metals, Inc. Certified Survey Map (CSM) and Site Plan applications for a 42,000 sqft addition to the existing office and manufacturing facility located at W180N11819 River Lane in the Germantown Industrial Park.

Basic Metals is an independent metal supplier specializing in cut-to-length aluminum sheet, slit coil, and circle products (website). Originally approved for their manufacturing and warehousing facility at the subject location in 1994, the company is currently looking to expand its facility to serve their continued growth. Thus, Basic Metals has submitted this application and development proposal for consideration.

Certified Survey Map (CSM)
The subject site is currently comprised of two (2) parcels totaling 6.96 acres. The applicant submitted a Certified Survey Map (CSM) to combine the parcels to create one (1) lot for development purposes. The lot combination is necessary in order to accommodate the proposed building expansion and to comply with applicable zoning standards. Below are the parcels that would be combined into an individual lot:

- GTNV_212904 (4.00 Acres) – Existing Basic Metals Site
- GTNV_212970 (2.96 Acres) – Former VBA Site (Acquired by Basic Metals)

Site Plan
The total site is 6.96 acres in area with an existing 76,855 square foot manufacturing and warehouse facility (northern building) and a 12,640 square foot office building (southern building). Associated driveways and off-street parking areas serve the site. As presented on the site plan, the proposed construction includes an approximate 42,000 square foot building addition which will be connected to both existing structures. This will create one overall building/facility roughly 131,495 square feet in size. The following is a summarized list of the proposed site plan components:

- 42,000 sqft building addition (total building approximately 131,495 sqft)
- New truck loading and unloading area with (2) new dock doors and (4) drive-in doors
- Building addition to incorporate the following:
  - Precast concrete wall panels with color consistent with existing manufacturing facility (northern building)
  - Building height of 43.5’
  - Metal parapet coping
  - Overhead door with dock seal leveler, stops, and vehicle constraints
- Existing office building portion to be repainted according to rendering
- Existing off-street parking areas and driveway entrances to Fulton Drive to be reconfigured/reconstructed

Parking, Access, and Traffic Circulation
Access to the northern area of the site will remain the same with two (2) access driveways to/from Bunsen Drive, one serving an off-street parking lot and the other used by trucks for loading and unloading purposes. The southern portion of the site will also be served by two (2) driveways. Similar to the northern area of the site, a southern

driveway to/from Fulton Drive will serve an off-street parking lot and the other will serve trucks for loading and unloading activities. As the applicant points out in the submitted project narrative, the newly constructed southern driveway providing access to the dock doors will be 129' in width. Given that this width is above the 35' standard for driveways in non-residential districts, the applicant has requested the Plan Commission to vary the standard as part of their Site Plan application.

The proposed project does include a reduction in the number of parking spaces in the southern part of the property (i.e. southern parking lot). Currently, there are 71 parking spaces while the proposed project would result in a total of 36 parking spaces, meaning a reduction of 35 spaces. The northern parking lot contains 40 parking spaces and will remain unchanged.

Storm Water Management
The proposed addition and reconfigured asphalt/concrete areas will add 0.98 acres of impervious area to the 6.96-acre site, resulting in 63% impervious lot coverage on site, or 4.39 acres (191,425 sqft) of impervious area. This percentage is below the maximum allowed percentage for the property's M-1: Limited Industrial District designation and the Industrial Park requirements. In order to accommodate the increased impervious area, the project involves the creation of a detention pond that will be located just east of the new building addition.

Landscaping and Buffering
A mixture of evergreen trees, deciduous trees, and shrubs are shown as part of new landscape plantings in the application materials. The plantings are primarily shown around the southeastern part of the site, mostly surrounding the new parking lot along River Lane.

Lighting
Additional exterior lighting is proposed with this development. The applicant submitted a lighting plan and site photometric study, which is included as an attachment to this memo. The plan shows three (3) 20' single-head light poles and five (5) new LED wall pack lights on the building addition.

Utilities
The site will continue to be served by municipal water and sanitary sewer. As shown on the submitted Certified Survey Map (CSM), there are existing easements running east/west through the middle of the site that will need to be vacated to allow for the building addition. Through separate processing and documentation, the noted 20' public utility and drainage easement will be vacated by the Village, while the 15' WEPCO (We Energies) easement will be released. New easements will be established to serve each entity where necessary.

Signage
No additional exterior signage is proposed at this time.

Staff Comments

Community Development: Planning & Zoning

The zoning for this parcel in the Germantown Industrial Park is M-1: Limited Industrial, and the proposed site improvements comply with the M-1 zoning district regulations. The office/manufacturing/warehousing use that Basic Metals maintains at the subject location is a desirable land use under the Village's 2050 Comprehensive Plan in the Germantown Industrial Park. Staff finds the proposal consistent with the 2050 Comprehensive Plan.

As mentioned previously, the project proposal includes a reduction in the number of off-street parking spaces in the southern part of the site. There are currently 71 spaces serving the southern building. Upon the completion of construction, a total of 36 parking spaces would be located in this same area. Given that the existing southern building (12,640 sqft) will be used as office space and the proposed building addition (42,000 sqft) will be used for warehousing purposes, 36 parking spaces are sufficient to serve that area of the site. Not only do the existing 71 spaces seem excessive, the added building area dedicated to warehousing does not factor in when determining required parking per the Zoning Code.

Part of the project proposal includes reconfiguration/reconstruction of the southern driveways to/from Fulton Drive. Most importantly and pointed out in the submitted project narrative, one of the new southern driveways is shown at 129' in width. While the Zoning Code specifies a maximum width of 35' for driveways in non-residential districts, Code Section 17.45(4)(e) states that the Plan Commission is authorized to vary the width requirement in appropriate situations. As pointed out in the narrative, Basic Metals is requesting an increased driveway width to serve the new loading and unloading area at the southern end of the building addition. This is strictly for full-size 53' flatbed trailers that will be coming to the site and either docking or driving into the new warehousing area. With 85' from the front of the building to the right-of-way on Fulton Drive, the trucks will not protrude onto the public road according to the applicant, even if there is waiting time for the trucks to dock or drive into the building. In respect to the width, it is not dissimilar to existing driveway widths used for the same purpose throughout the Industrial Park. In fact, Basic Metals existing northern building is served by a driveway that is approximately 110' in width, and nearby businesses such as D&G Transportation and Wacker Neuson have driveways that are even greater in width. The Plan Commission should discuss the driveway width and determine if the proposed 129' width is acceptable or if modifications need to be made.

The Plan Commission should also discuss the architecture of the building addition. Elevations and a rendering were submitted by the applicant and included as attachments to this memo. While there are no set design standards, the Zoning Code specifies that the Plan Commission shall act as the Architectural Review Board. Although staff understands that the building addition is intended to incorporate the design and color of Basic Metals existing facility (northern building), the addition height (43.5') and length (324') present a façade that could be deemed monotonous or drab. In other words, it lacks variety or architectural detail that would "break up" the large façade facing River Lane. At the same time, the overall color scheme with black and blue geometric panels on the office building against a solid brown façade behind it creates a

stark contrast that appears disjointed. The Plan Commission should discuss the design of the new building addition and overall color scheme to determine if it's acceptable or if alterations in the design/color are warranted.

Regarding the exterior lighting, the proposal is within the Village's lighting guidelines in terms of pole height and fixture type. However, since the site is slightly higher in elevation than the Blackstone Creek residential area to the east, staff recommends additional measures be taken in order to shield any light that may emanate from the new light pole fixtures around the parking lot across River Lane to the east. A condition of approval has been added to address this.

Finally, note that a condition of approval addresses existing and future roof-mounted equipment. Any existing or proposed rooftop equipment (RTU) shall be screened from view by line of sight at 5' above grade from all property lines around the building and the centerline of the adjacent roadways.

Public Works/Village Engineer/Village Surveyor
The Village Engineer identified a series of technical corrections in an April 9, 2026, memo which is included as an attachment to this report. The Village Surveyor has also identified a series of technical corrections in a February 25, 2026, memo which is included as an attachment as well. The applicant will be required to review these staff comments and make the necessary corrections prior to recording the Certified Survey Map (CSM) and issuance of permits to commence construction.

Village Forester
The Village Forester has reviewed the submitted landscape plan and provided comments to the applicant. The landscaping proposed is lacking the required street tree plantings and both the interior and perimeter parking lot planting requirements. More specifically, additional plantings are needed to fulfill the required landscape greenbelt standard (15' width) between the new parking lot and property boundaries, as noted under Zoning Code Section 17.45(1)(c). These plantings will be important to act as a visual buffer and keep potential light from headlights shining east toward the residential properties across the road.

The tree removal plan and preservation plan are also lacking required information, although minimal changes at that. A condition of approval has been included to address the review comments by making the landscape plan contingent upon final approval/acceptance by the Village Forester and Community Development staff.

VILLAGE STAFF RECOMMENDATIONS

APPROVE the proposed 1-lot Certified Survey Map (CSM) for the Basic Metals property located at W180N11819 River Lane, subject to the following condition:

1. All technical issues and corrections identified by the Village Surveyor (see February 25, 2026, memo from Bob Beilfuss, PLC) shall be addressed and reflected in a revised CSM reviewed and approved by Village staff prior to recording.

APPROVE the Site Plan application for Basic Metals for a 42,000 square foot building addition to an existing office and manufacturing facility located at W180N11819 River Lane, subject to the following conditions:

1. This approval is for the various plan sheets that comprise the site development plan set as noted below and is subject to compliance with all the conditions and requirements set forth herein and subsequently adopted and/or revised by the Plan Commission. Approval is granted for the following unless superseded by subsequent plan sheets approved by Village Staff pursuant to revisions required herein and/or by the Plan Commission:
    a. *Architectural, civil, and landscaping plans dated February 9, 2026 (11 pages).*
    b. *Lighting and photometric study plan dated February 5, 2026 (22 pages).*

    If revised plan sheets are necessary, each revised sheet shall contain the date of said revision clearly stamped in the lower right corner.
2. State agency (DSPS) approved plans and a $20,000 occupancy bond are required by Inspection Services. The Village of Germantown is an authorized delegated agent of DSPS and may be used as an alternative to provide all commercial plan review and inspection services through SAFEBuilt of WI and the Village of Germantown.
3. The technical issues and plan revisions identified in the April 9, 2026, memo from the Village Engineer shall be addressed in revised plan sheets and/or supplemental documents prior to commencing construction activities and/or issuance of building permits.
4. The landscape plan shall be subject to final approval/acceptance from the Village Forester and Community Development staff prior to commencing construction activities. The landscape plan shall be revised to include the required street tree, interior/perimeter parking lot, and landscape greenbelt (15' width) plantings on site. Plantings along the east side of the new parking lot shall act as a buffer and ensure light from headlights does not shine east toward the residential properties across the road.
5. All temporary and permanent exterior signs require a Sign Permit and shall comply with all current Village sign regulations. New signage shall be subject to review and approval by the Plan Commission.

6. Existing and proposed rooftop equipment (RTU) shall be screened from view by line of sight at 5’ above grade from all property lines around the building and the centerline of the adjacent roadways.
7. Applicant/owner shall work cooperatively with the Village to secure the necessary easement vacation/release of the 20’ public utility and drainage easement prior to issuance of building permits.
8. Applicant/owner shall secure the necessary easement vacation/release of the 15’ WEPCO (We Energies) easement prior to issuance of building permits. Proof of easement vacation/release shall be submitted to the Village.
9. Applicant/owner shall revise the lighting plan to include additional measures (i.e. back-shielding) to reduce light emanating from the new light poles around the parking lot to the east. The plan shall be revised to specifically eliminate any light trespass or glare directed towards River Lane to avoid any nuisance for the residential properties to the east.

RECEIVED
FEB - 9 REC'D
OFFICE OF THE VILLAGE PLANNER
VILLAGE OF GERMANTOWN

Village of Germantown
...Willkommen

Fee must accompany application.
☐ $3340 with public improvements
☒ $2260 no public improvements
Paid On: 2/9/26 Check/CC 14039

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.**

APPLICANT/AGENT:

Keith Solum
Abacus Architects
610 N. Vel R. Phillips Ave, Ste 210
Milwaukee, WI 53203
Phone (920) 234-2394
Email ksolum@abacusarch.com

PROPERTY OWNER:

DONTOF LLC
W180N11819 River Ln
PO Box 757
Germantown, WI 53022-0757
Phone (262) 345-3174
Email afogel@basicmetals.com

PROPERTY ADDRESS

W180N11819 and W180N11711 N. River Lane

TAX KEY NUMBER

212904 and 212970

PURPOSE OF LAND SPLIT

The purpose is to combine two properties into one property

Will the land split require rezoning? No

From N/A To N/A

READ AND INITIAL THE FOLLOWING:

AF 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.

AF 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.

AF 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.

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

SIGNATURES: ALL APPLICATIONS MUST BE SIGNED

Applicant 02-06-2026 Date

Owner 2-6-25 Date

Village of Germantown ...Willkommen

RECEIVED
FEB - 9 REC'D
OFFICE OF THE VILLAGE PLANNER
VILLAGE OF GERMANTOWN

Fee must accompany application
- ☐ $810 Minor Addition
- ☐ $1,430 Construction <10,000 SF
- ☒ $2,410 Construction 10,000 SF to 50,000
- ☐ $3,980 Industrial Construction >50,000 SF
- ☐ $3,980 Commercial Construction >50,000
- ☐ $350 Plan Commission Consultation
- ☒ $125 Fire Department Plan Review

Paid On: 2/9/26 Check/CC 14039

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

Keith Solum
Abacus Architects
640 N. Vel R. Phillips Ave, Ste 210
Milwaukee, WI 53203

Phone (920) 234-2394
E-Mail ksolum@abacusarch.com

PROPERTY OWNER

DONTOF LLC
W180N11819 River Ln
PO Box 757
Germantown, WI 53022-757

Phone (262) 345-3174
E-Mail afogel@basicmetals.com

2 PROPERTY ADDRESS

W180N11819 and W180N11711 N. River Lane
Germantown, WI 53022

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

North	South	East	West
Nelson Box-Industrial Basic Metals-Industrial	Wacker Neuson-Industrial	Heaney, Thompson, Scheidmeir - Residential	Banner-Ind.

4 READ AND INITIAL THE FOLLOWING:

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

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

AF 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!

Applicant 02-06-2026 Date

Owner 2-6-25 Date

Revised 12/5/25

Sharepoint>06-APPLICATIONS ALL>Application Forms>Site Plan

Basic Metals, Inc.

The Cutting Edge Source
For Your Metal Needs

Dear Village of Germantown Officials,

My name is Andrew Fogel, and I am the President of Basic Metals Inc., located in the Germantown Industrial Park. We are currently planning a 42,000 square foot warehouse addition to our existing facility, representing a significant investment in Germantown and supporting continued growth, employment, and economic activity within the Village.

We are writing to respectfully request relief from the Village's recently implemented ordinance limiting industrial driveway entrances to a maximum width of 35 feet.

Our proposed building addition has been specifically designed to safely and efficiently accommodate our daily truck traffic, including the simultaneous loading and unloading of up to six full-size 53-foot flatbed trailers. Under the new ordinance, we would be limited to only two loading docks instead of the six total truck positions (two docks and four drive-in doors) included in the current design. This reduction would materially impact our operations and create unintended traffic and safety concerns.

Specifically:

Limiting the facility to two loading docks would result in increased truck congestion on Fulton Drive as trucks wait for available loading or unloading positions. With only two on-site parking spaces available, truck drivers would likely begin preparing their loads for final delivery while staged on Fulton Drive. This preparation often includes removing tarps, releasing straps, and adjusting loads, activities that are not appropriate to perform on the side of a public road.

Allowing a wider driveway would enable us to accommodate trucks fully on-site, reducing congestion on Fulton Drive and eliminating the temptation for drivers to conduct strapping or untarping activities on the street.

The proposed driveway configuration would also allow us to shift a significant portion of our truck traffic away from Bunsen Drive, where our current loading docks are located, improving overall traffic flow within the industrial park.

Additionally, other businesses within the Industrial Park have driveway entrances exceeding the 35' requirement. Basic Metals current drive is approximately 110' on Bunsen Dr. D&G Transportation (west of Basic Metals on Bunsen) drive is approximately 165' and Wacker Neuson Logistics (south of Basic Metals on Morse Dr) has a drive approximately 250' wide.

Our goal is to design a facility that operates efficiently, minimizes traffic impacts, and prioritizes safety for drivers, employees, and neighboring businesses. Granting relief from the driveway width limitation would directly support these objectives and, in our view, aligns with the original intent of industrial zoning within the park.

Thank you for your time and consideration. We appreciate your willingness to review this request and would welcome the opportunity to discuss our site plan in greater detail.

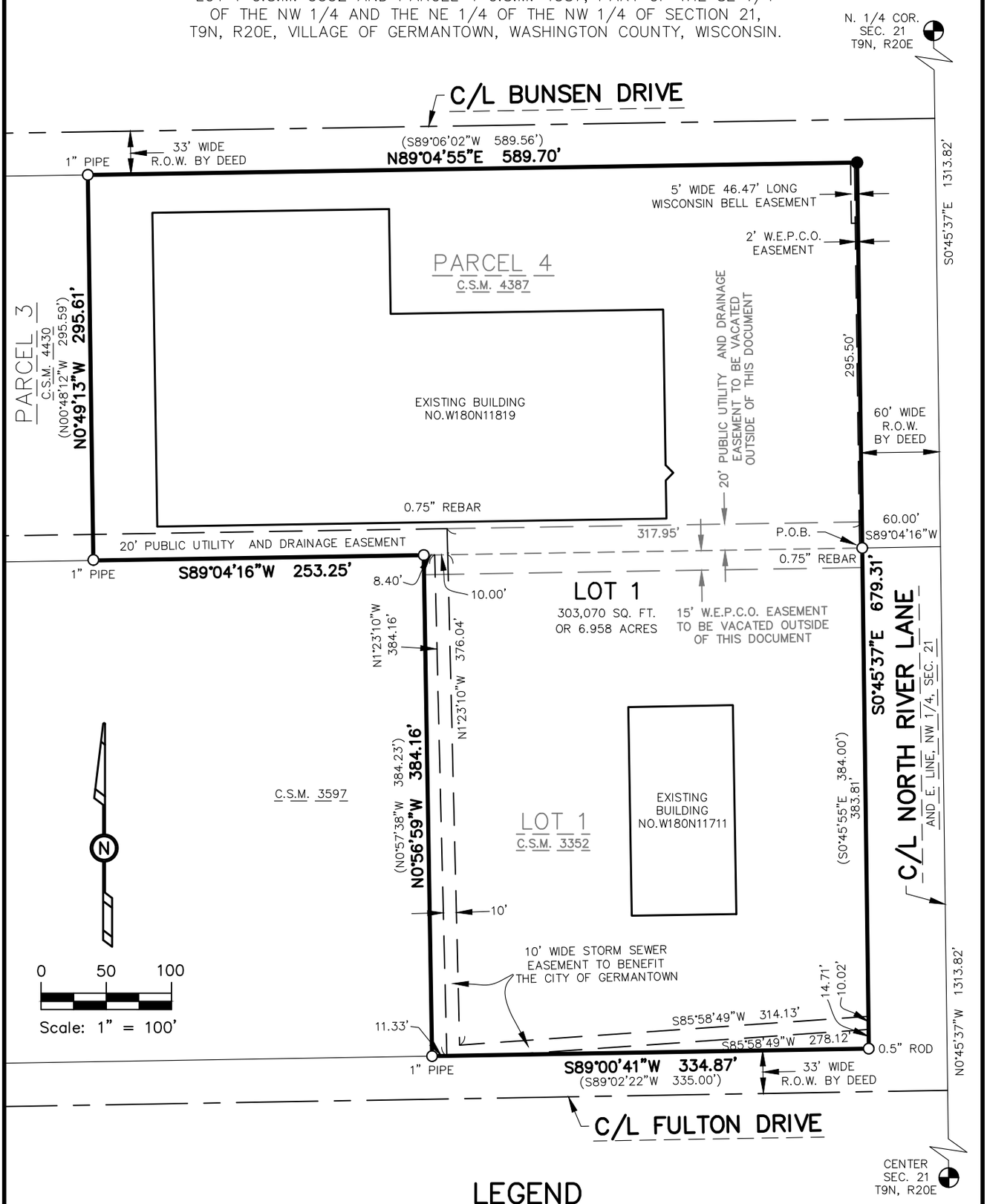
Sincerely,

Andrew Fogel
President
Basic Metals Inc.

W180 N11819 River Lane • P.O. Box 757 • Germantown, WI 53022
1-800-989-1996 • (262) 255-9034 • Fax (262) 255-9073
www.basicmetals.com

CERTIFIED SURVEY MAP NO. _____

LOT 1 C.S.M. 3352 AND PARCEL 4 C.S.M. 4387, PART OF THE SE 1/4 OF THE NW 1/4 AND THE NE 1/4 OF THE NW 1/4 OF SECTION 21, T9N, R20E, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.



LEGEND

- ⊕ = County Monument
- ○ = Iron Stake Found
- ● = 0.75" Iron Stake Set
- (##.##) = Recorded Dimension

WISCONSIN
BENJAMIN J. REENDERS
S-3114
OOSTBURG
WIS.
1/14/2026
LAND SURVEYOR

Benjamin J. Reenders

NOTES:

OWNER AND SUBDIVIDER:
DONTOF, LLC

BEARINGS ARE BASED ON THE EAST LINE OF THE NORTHWEST 1/4 OF SECTION 21, T9N, R20E, AS BEING S0°45'37"E PER THE WISCONSIN STATE PLANE COORDINATE SYSTEM GRID SOUTH ZONE.

This instrument was drafted by Benjamin J. Reenders.

CEDAR CREEK CIVIL
ENGINEERS•SURVEYORS•DRAFTERS
www.cedarcreekcivil.com

FILE No.:	DATE:	PAGE:
2025190S	1/14/2026	1 OF 3

CERTIFIED SURVEY MAP NO. _____

LOT 1 C.S.M. 3352 AND PARCEL 4 C.S.M. 4387, PART OF THE SE 1/4
OF THE NW 1/4 AND THE NE 1/4 OF THE NW 1/4 OF SECTION 21,
T9N, R20E, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

SURVEYOR'S CERTIFICATE

I, Benjamin J. Reenders, Professional Land Surveyor, hereby certify:

That I have surveyed, divided and mapped Lot 1, Certified Survey Map Number 3352 and Parcel 4, Certified Survey Map Number 4387 being a part of the Southeast 1/4 of the Northwest 1/4 and the Northeast 1/4 of the Northwest 1/4 of Section 21, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin bounded and described as follows:

Commencing at the North 1/4 Corner of said Section 21; thence S0°45'37"E 1313.82 feet along the East line of said Northwest 1/4; thence S89°04'16"W 60.00 feet to the West right-of-way line of River Lane and the POINT OF BEGINNING of this description; thence S0°45'37"E 383.81 feet along said West right-of-way line; thence S89°00'41"W 334.87 feet along the North right-of-way line of Fulton Drive; thence N0°56'59"W 384.16 feet along the West line of said Lot 1; thence S89°04'16"W 253.25 feet along the South line of said Parcel 4; thence N0°49'13"W 295.61 feet along the West line of said Parcel 4; thence N89°04'55"E 589.70 feet along the South right-of-way line of Bunsen Drive; thence S0°45'37"E 295.50 feet along the West right-of-way line of River Lane to the point of beginning.

This parcel contains 303,070 square feet, or 6.958 acres.

That such map is a correct representation of the exterior boundaries of the land surveyed and the division thereof.

That I have fully complied with provisions of Section 236.34 of the Wisconsin Statutes and the subdivision regulation of the Village of Germantown in surveying, dividing and mapping the same.

Benjamin J. Reenders Dated this 14th day of January. 2026

Benjamin J. Reenders PLS S-3114



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www.cedarcreekcivil.com

This instrument was drafted by Benjamin J. Reenders.

FILE No.:	DATE:	PAGE:
2025190S	1/14/2026	2 OF 3

CERTIFIED SURVEY MAP NO. _____

LOT 1 C.S.M. 3352 AND PARCEL 4 C.S.M. 4387, PART OF THE SE 1/4
OF THE NW 1/4 AND THE NE 1/4 OF THE NW 1/4 OF SECTION 21,
T9N, R20E, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

CORPORATE OWNER'S CERTIFICATE

DONTOF, LLC as Owner, does hereby certify the they have caused the lands described herein to be surveyed, divided, mapped, and dedicated as represented on this map. DONTOF, LLC further certifies that this map is required by section 236.20 or 236.12 to be submitted to the following for approval or objection: Village of Germantown.

_____
Managing Member

WITNESS the hand and seal of said Owner on this _____ day of _____ 2026.

STATE OF WISCONSIN)
WASHINGTON COUNTY) ss

PERSONALLY came before me on this _____ day of _____, 2026
The signer is to me known to be the person who executed the foregoing certificate and acknowledged the same.

_____ My Commission Expires _____
Notary Public

VILLAGE OF GERMANTOWN PLANNING COMMISSION APPROVAL

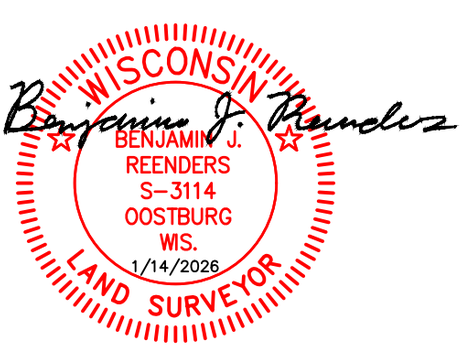
APPROVED by the Village of Germantown Planing Commission on this _____ day of _____2026.

_____ _____
Planning Commission Chairperson Planning Commission Secretary

VILLAGE OF GERMANTOWN BOARD APPROVAL

APPROVED by the Village of Germantown Village Board on this _____ day of _____2026.

_____ _____
Village President Village Clerk



This instrument was drafted by Benjamin J. Reenders.

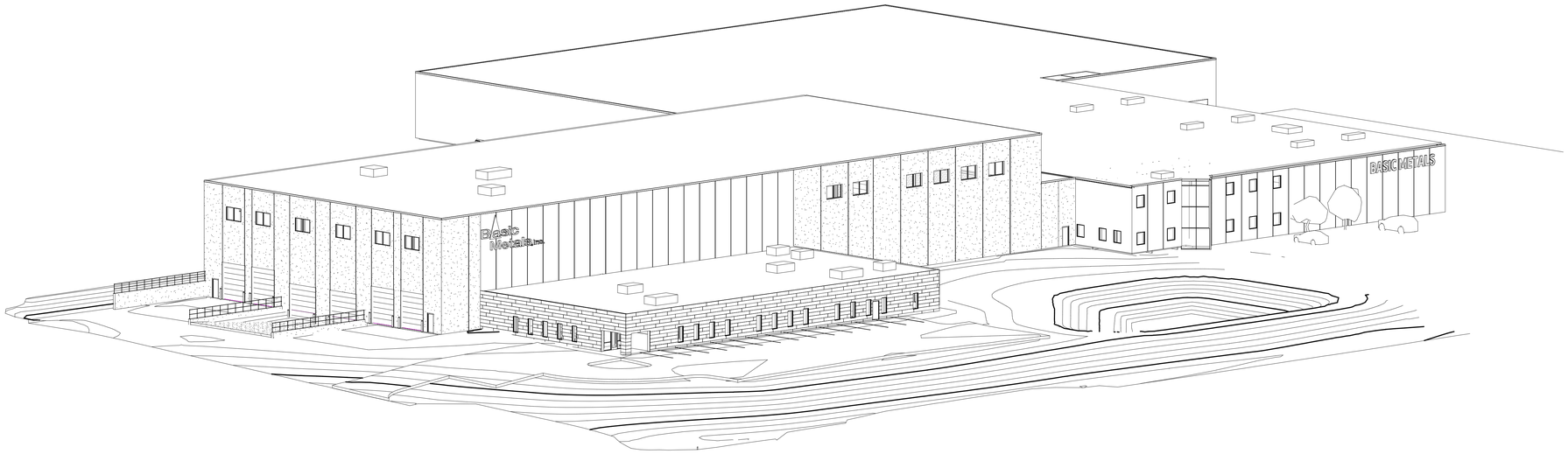
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ENGINEERS•SURVEYORS•DRAFTERS
www.cedarcreekcivil.com

FILE No.:	DATE:	PAGE:
2025190S	1/14/2026	3 OF 3

BUILDING ADDITION & ALTERATION

BASIC METALS II

BASIC METALS INC., W180N11819 N RIVER LN, GERMANTOWN, WI, 53022



ARCHITECTURAL / CIVIL

ABACUS ARCHITECTS, INC.
1135A MICHIGAN AVENUE
SHEBOYGAN, WISCONSIN 53081
P: 920-452-4444

A 101	TITLE SHEET
A 200	EXISTING CONDITIONS AND DEMO PLAN
A 201	SITE PLAN
A 202	GRADING PLAN
A 203	EROSION CONTROL PLAN
A 204	UTILITY PLAN
A 205	DETAILS
A 206	LANDSCAPE PLAN
A 302	EXISTING DEMO & NEW FLOOR PLANS
A 303	OVERALL FLOOR PLAN & CLERESTORY PLAN
A 501	EXTERIOR ELEVATIONS

STRUCTURAL

CSD STRUCTURAL ENGINEERS
8989 N PORT WASHINGTON RD, SUITE 101
MILWAUKEE, WI 53217
P: 414-351-5588

PROJECT INFORMATION

APPLICABLE BUILDING CODES

2025 WISCONSIN ADMINISTRATIVE CODE (W.C.B.C.), SPS 361-366
2021 INTERNATIONAL BUILDING CODE (IBC)
2021 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
2017 ICC / ANSI A117.1 ACCESSIBLE AND USABLE BUILDING AND FACILITIES

PROJECT SUMMARY

BASIC METALS ACQUIRED THE PROPERTY TO THE SOUTH OF THEIR CURRENT SITE. PARCELS ARE TO BE COMBINED THROUGH REVISED CSM. EXISTING 12,000 SF OFFICE BUILDING TO REMAIN AS AN OFFICE BUILDING. NEW ADDITION IS A STORAGE OCCUPANCY. ADDITION TO HAVE 3HR FIRE WALL BETWEEN BUILDING TO THE NORTH AND THE ADDITION. NO FIRE WALL REQUIRED BETWEEN ADDITION AND OFFICE BUILDING TO THE EAST.

BUILDING AREA

EXISTING BUILDING AREA:
NORTH BLDG AREA - 76,855 S.F.
EAST BLDG AREA - 12,640 S.F.

BUILDING ADDITION AREA:
FLOOR AREA - 41,658 S.F.

CONSTRUCTION CLASSIFICATION

TYPE IIB CONSTRUCTION (W.C.B.C. SECTION 602.2)

OCCUPANCY CLASSIFICATION

NON-SEPARATED OCCUPANCIES (W.C.B.C. SECTION 508.3)

USE GROUPS PRESENT IN THE BUILDING INCLUDE:

BUSINESS GROUP "B" (W.C.B.C. SECTION 304.1)

FACTORY INDUSTRIAL GROUP "F-1" MODERATE HAZARD (W.C.B.C. SECTION 306.2)

STORAGE GROUP (S-2) LOW HAZARD (SECTION 311.3)

FIRE PROTECTION

BUILDING IS FULLY PROTECTED WITH AN AUTOMATIC SPRINKLER SYSTEM PER NFPA 13.

PROJECT NOTES

EXTENT OF WORK

THE INTENT OF THE CONTRACT DOCUMENTS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK BY THE CONTRACTOR. PERFORMANCE BY THE CONTRACTOR SHALL BE REQUIRED TO THE EXTENT CONSISTENT WITH THE CONTRACT DOCUMENTS AND REASONABLY INFERABLE FROM THEM AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS.

SITE VISIT

THE CONTRACTOR SHALL VISIT THE SITE, BECOME FAMILIAR WITH LOCAL CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND CORRELATE PERSONAL OBSERVATIONS WITH REQUIREMENTS OF THE CONTRACT DOCUMENTS.

NOTICE TO BIDDERS

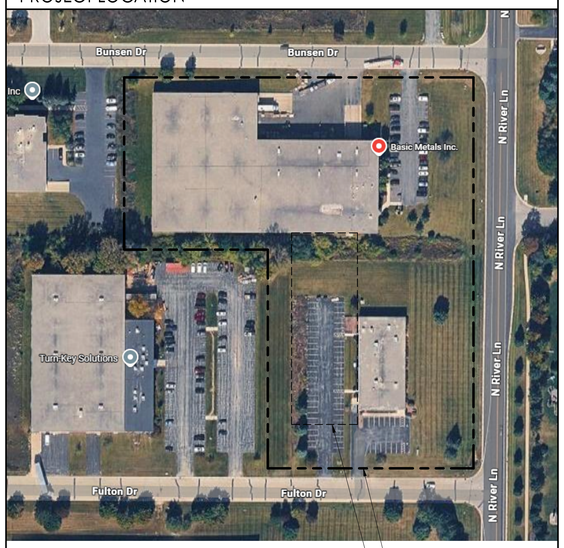
BIDDERS SHALL REVIEW ALL DRAWINGS AND ALL SPECIFICATION SECTIONS TO DETERMINE THE IMPACT OF OTHER SECTIONS OF WORK ON THEIR OWN WORK.

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PROJECT LOCATION



AERIAL MAP

ABACUS ARCHITECTS

REVISIONS:

△	DATE	ISSUE

NOTICE TO BIDDERS
BIDDERS SHALL REVIEW ALL DRAWINGS AND SPECIFICATION SECTIONS TO DETERMINE THE IMPACT OF OTHER SECTIONS OF WORK ON THEIR OWN WORK.

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ISSUE DATE: 02/09/2026

BUILDING ADDITION & ALTERATION

BASIC METALS II

BASIC METALS INC., W180N11819 N RIVER LN, GERMANTOWN, WI, 53022

1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 640 VEL R. PHILLIPS AVE. SUITE 210, MILWAUKEE, WI 53203

PRELIMINARY - NOT FOR CONSTRUCTION

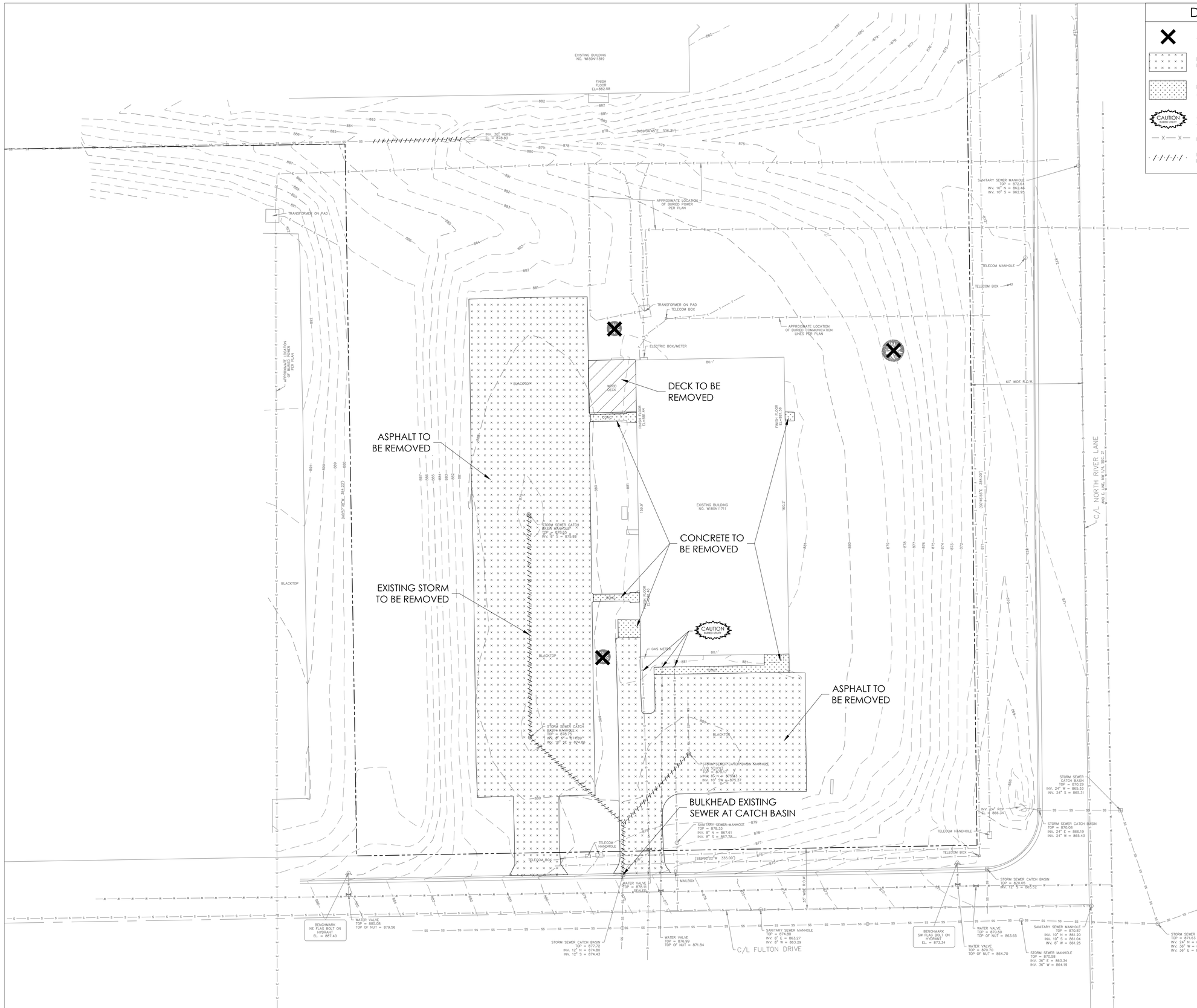
DRAWN BY: MSJ

CHECKED BY: KS

TITLE SHEET

A
101

PROJ. NO. 2024-100



DEMOLITION LEGEND

- APPROXIMATE LOCATION OF TREES TO BE REMOVED.
- HATCH TYPE INDICATES ASPHALT PAVEMENT TO BE REMOVED AND DISPOSED OF OFFSITE
- HATCH TYPE INDICATES CONCRETE PAVEMENT TO BE REMOVED AND DISPOSED OF OFFSITE
- SYMBOL INDICATES LOCATIONS WHERE ADDITIONAL CAUTION IS ADVISED AS A RESULT OF POTENTIAL UTILITY CONFLICTS
- LINE TYPE INDICATES FULL-DEPTH SAWCUT TO BE PERFORMED
- LINE TYPE INDICATES UTILITIES TO BE ABANDONED OR RELOCATED. REFER TO NOTES ON PLANS FOR ADDITIONAL INFORMATION.

ABACUS ARCHITECTS

REVISIONS:

△	DATE	ISSUE

NOTICE TO BIDDERS
BIDDERS SHALL REVIEW ALL DRAWINGS AND SPECIFICATION SECTIONS TO DETERMINE THE IMPACT OF OTHER SECTIONS OF WORK ON THEIR OWN WORK

© 2026 ABACUS ARCHITECTS, INC.

ISSUE DATE: 02/09/2026

NEW CONSTRUCTION/EXPANSION

BASIC METALS II

BASIC METALS INC., W180N11819 N RIVER LN, GERMANTOWN, WI, 53022

1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 (920) 452-4444 | 640 N VEL R. PHILLIPS AVE. SUITE 210 MILWAUKEE, WI 53203

DRAWN BY: JMN

CHECKED BY: JRV

EXISTING CONDITIONS AND DEMO PLAN

A
200

PROJ. NO. 2024-100

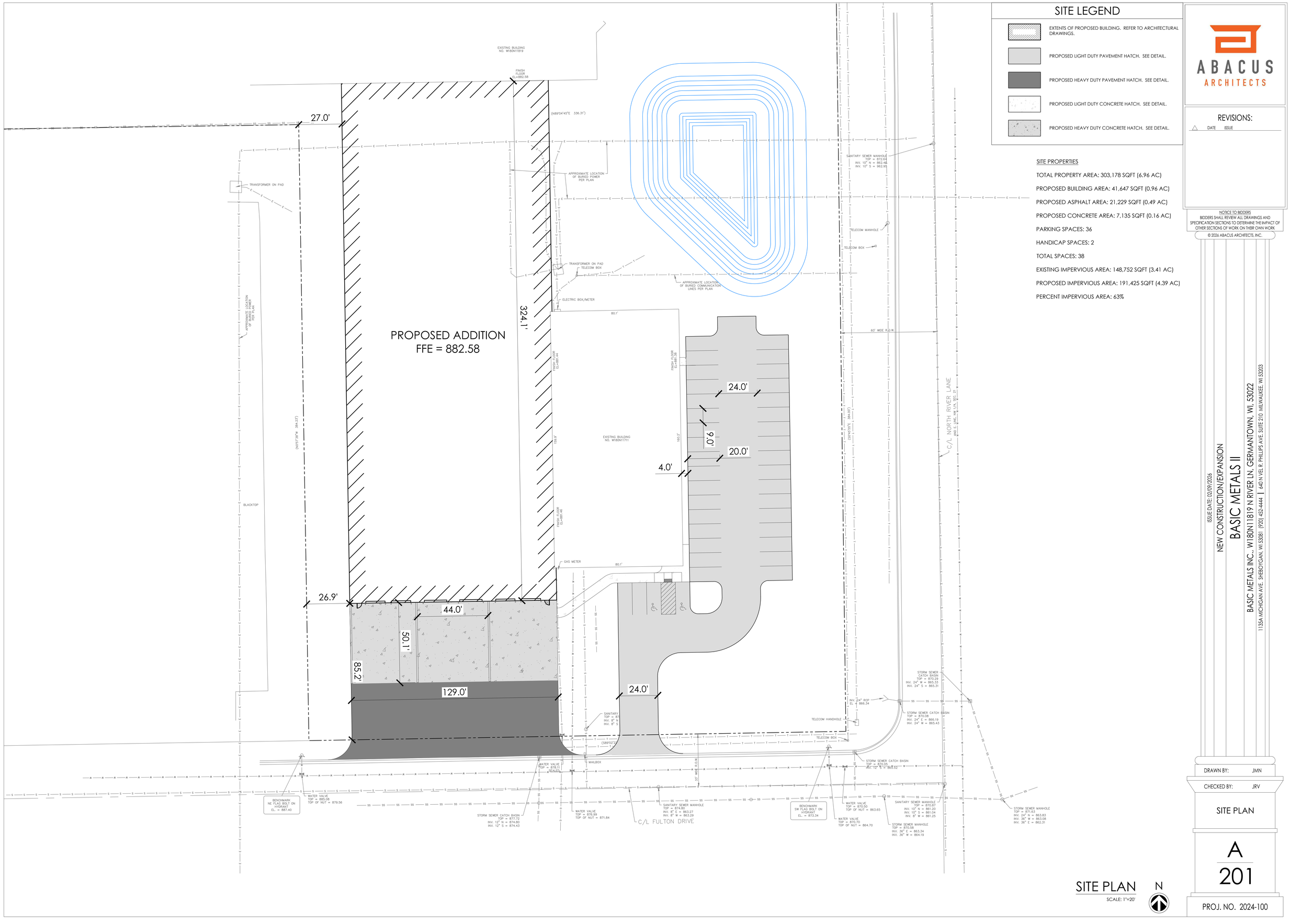
EXISTING CONDITIONS AND DEMO PLAN

SCALE: 1"=20'

N

February 6, 2026

P:\2024-CONTRACTS\2024-100 Basic Metals Expansion\Phase - 2\Construction Documents\S.3 Site\2024-100 - Base.dwg



SITE LEGEND

- EXTENTS OF PROPOSED BUILDING. REFER TO ARCHITECTURAL DRAWINGS.
- PROPOSED LIGHT DUTY PAVEMENT HATCH. SEE DETAIL.
- PROPOSED HEAVY DUTY PAVEMENT HATCH. SEE DETAIL.
- PROPOSED LIGHT DUTY CONCRETE HATCH. SEE DETAIL.
- PROPOSED HEAVY DUTY CONCRETE HATCH. SEE DETAIL.

SITE PROPERTIES

TOTAL PROPERTY AREA: 303,178 SQFT (6.96 AC)

PROPOSED BUILDING AREA: 41,647 SQFT (0.96 AC)

PROPOSED ASPHALT AREA: 21,229 SQFT (0.49 AC)

PROPOSED CONCRETE AREA: 7,135 SQFT (0.16 AC)

PARKING SPACES: 36

HANDICAP SPACES: 2

TOTAL SPACES: 38

EXISTING IMPERVIOUS AREA: 148,752 SQFT (3.41 AC)

PROPOSED IMPERVIOUS AREA: 191,425 SQFT (4.39 AC)

PERCENT IMPERVIOUS AREA: 63%

ABACUS ARCHITECTS

REVISIONS:

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NOTICE TO BIDDERS
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ISSUE DATE: 02/09/2026

NEW CONSTRUCTION/EXPANSION

BASIC METALS II

BASIC METALS INC., W180N11819 N RIVER LN, GERMANTOWN, WI, 53022

1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 640 N VEL R. PHILLIPS AVE. SUITE 210 MILWAUKEE, WI 53203

DRAWN BY: JMN

CHECKED BY: JRV

SITE PLAN

A
201

PROJ. NO. 2024-100

SITE PLAN

SCALE: 1"=20'

N

February 6, 2026

P:\2024-CONTRACTS\2024-100 Basic Metals Expansion\Phase - 2\Construction Documents\5.3 Site\2024-100 - Base.dwg

GRADING LEGEND

595	PROPOSED CONTOUR
595	EXISTING CONTOUR
595.00	PROPOSED SPOT ELEVATION
595.00±	MATCH EXISTING ELEVATION
TC 595.00 BC 595.50	PROPOSED TOP OF CURB ELEVATION PROPOSED BOTTOM OF CURB ELEVATION

PROPOSED ADDITION
FFE = 882.58

EXISTING BUILDING NO. W180N11819

EXISTING BUILDING NO. W180N11711

C/L NORTH RIVER LANE
AND E. LINE, NW 1/4, SEC. 21

C/L FULTON DRIVE

TRANSFORMER ON PAD

APPROXIMATE LOCATION OF BURIED POWER PER PLAN

APPROXIMATE LOCATION OF BURIED COMMUNICATION LINES PER PLAN

TRANSFORMER ON PAD
TELECOM BOX

ELECTRIC BOX/METER

SANITARY SEWER MANHOLE
RIM = 872.64
INV. 10" N = 862.44
INV. 10" S = 862.35

TELECOM MANHOLE

TELECOM BOX

TELECOM MANHOLE

TELECOM BOX

STORM SEWER CATCH BASIN
TOP = 870.29
INV. 24" W = 865.33
INV. 24" S = 865.33

STORM SEWER CATCH BASIN
TOP = 870.08
INV. 24" E = 866.19
INV. 24" W = 865.43

STORM SEWER CATCH BASIN
TOP = 870.05
INV. 12" S = 865.52

STORM SEWER CATCH BASIN
TOP = 871.72
INV. 12" N = 874.80
INV. 12" S = 874.43

STORM SEWER MANHOLE
TOP = 874.80
INV. 8" E = 863.27
INV. 8" W = 863.29

STORM SEWER MANHOLE
TOP = 871.63
INV. 24" N = 863.83
INV. 36" W = 863.08
INV. 36" E = 862.31

SANITARY SEWER MANHOLE
TOP = 870.87
INV. 10" N = 861.20
INV. 10" S = 861.04
INV. 8" W = 861.25

STORM SEWER MANHOLE
TOP = 870.58
INV. 36" E = 863.34
INV. 36" W = 864.19

WATER VALVE
TOP = 878.11
SEALED

MAILBOX

WATER VALVE
TOP = 876.99
TOP OF NUT = 871.84

WATER VALVE
TOP = 870.50
TOP OF NUT = 863.65

WATER VALVE
TOP = 870.70
TOP OF NUT = 864.70

BENCHMARK
NE FLAG BOLT ON HYDRANT
EL. = 887.40

WATER VALVE
TOP = 885.08
TOP OF NUT = 879.56

BENCHMARK
SW FLAG BOLT ON HYDRANT
EL. = 873.34

BLACKTOP

GAS METER

FINISH FLOOR EL=882.58

FINISH FLOOR EL=881.44

FINISH FLOOR EL=881.46

TC 881.37
BC 880.87

TC 881.29
BC 880.79

TC 881.54
BC 881.04

TC 881.17
BC 880.67

(N89°50'03"E 336.31')

(S89°50'03"W 336.33')

(N00°04'57"W 364.33')

80.1'

165.9'

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DRAWN BY: JMN

CHECKED BY: JRV

GRADING PLAN

A
202

PROJ. NO. 2024-100

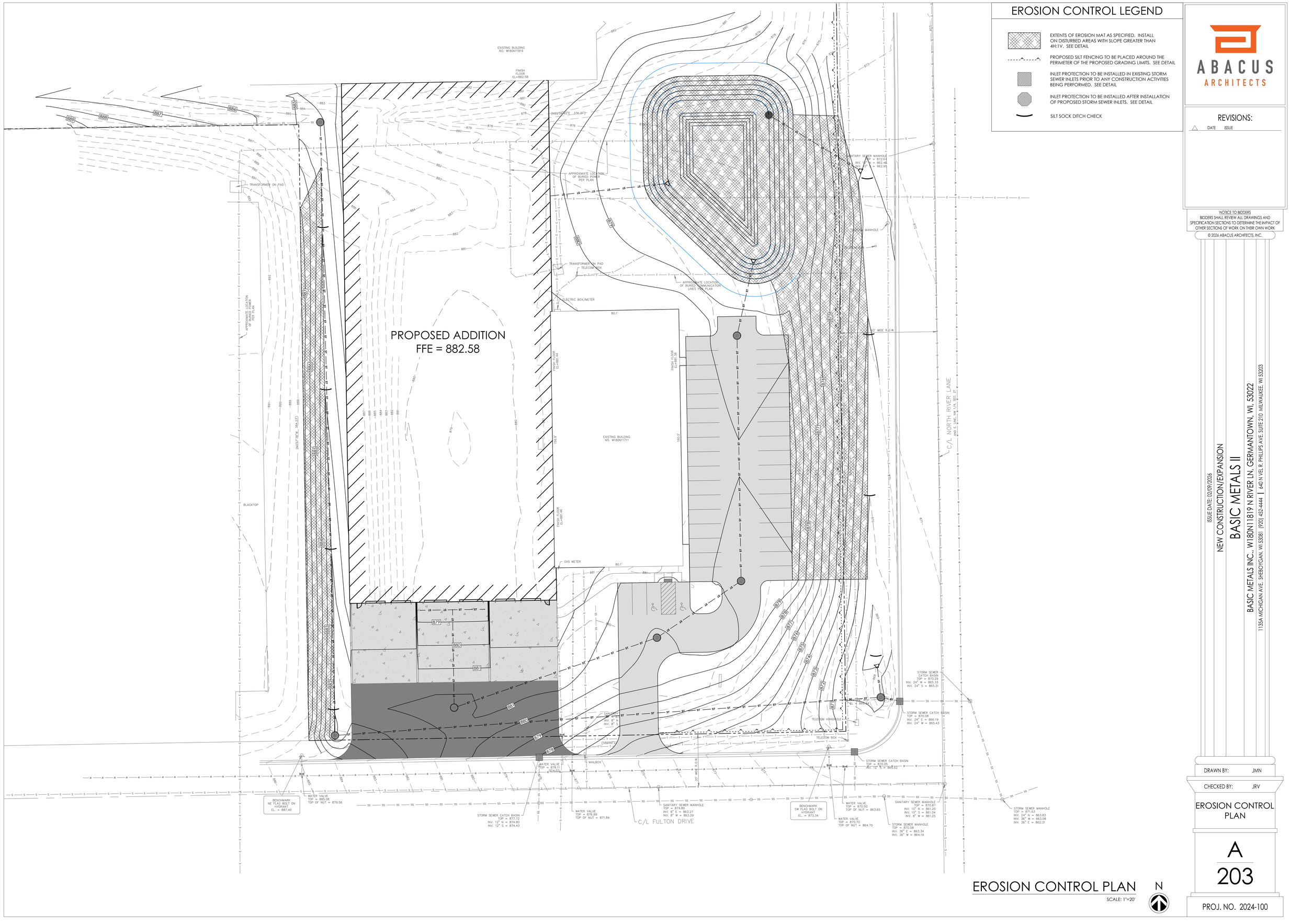
GRADING PLAN

SCALE: 1"=20'

N

February 6, 2026

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EROSION CONTROL LEGEND

- EXTENTS OF EROSION MAT AS SPECIFIED. INSTALL ON DISTURBED AREAS WITH SLOPE GREATER THAN 4H:1V. SEE DETAIL
- PROPOSED SILT FENCING TO BE PLACED AROUND THE PERIMETER OF THE PROPOSED GRADING LIMITS. SEE DETAIL
- INLET PROTECTION TO BE INSTALLED IN EXISTING STORM SEWER INLETS PRIOR TO ANY CONSTRUCTION ACTIVITIES BEING PERFORMED. SEE DETAIL
- INLET PROTECTION TO BE INSTALLED AFTER INSTALLATION OF PROPOSED STORM SEWER INLETS. SEE DETAIL
- SILT SOCK DITCH CHECK

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EROSION CONTROL PLAN

A
203

PROJ. NO. 2024-100

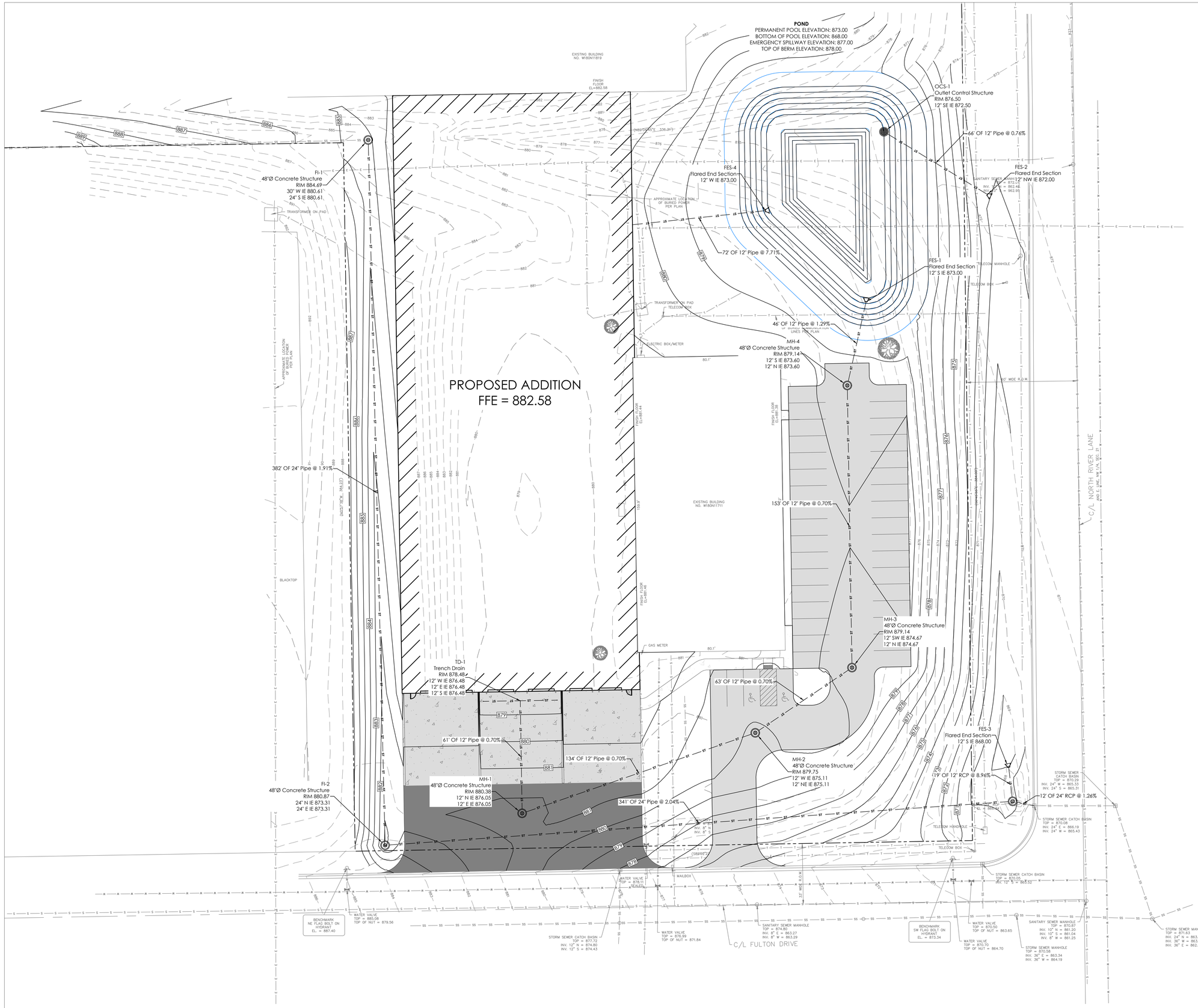
EROSION CONTROL PLAN

SCALE: 1"=20'

N

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UTILITY PLAN

SCALE: 1"=20'

N

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CHECKED BY: JRV

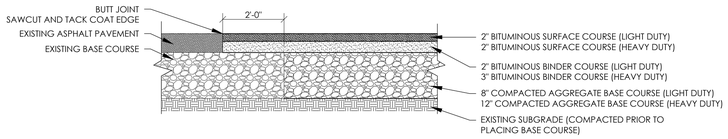
UTILITY PLAN

A
204

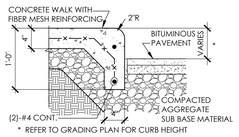
PROJ. NO. 2024-100

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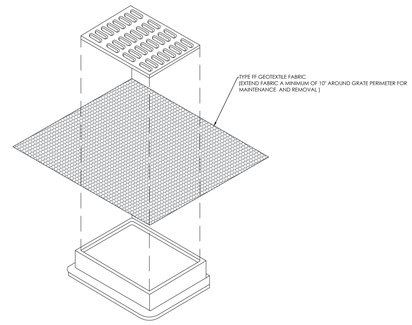
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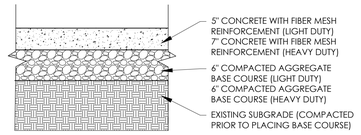
ASPHALT PAVEMENT CROSS SECTION



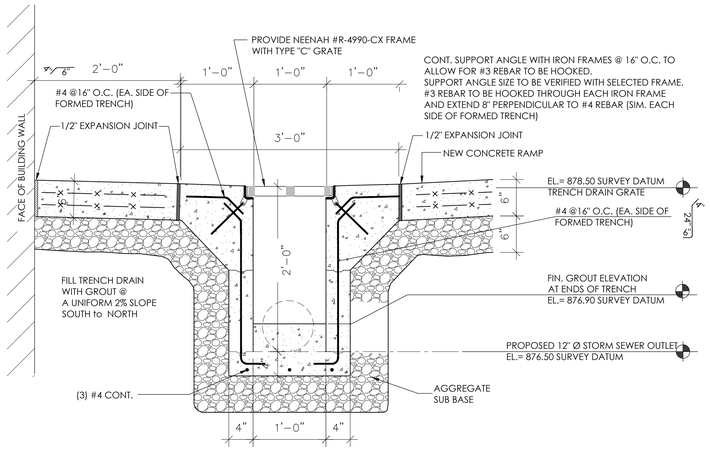
CONCRETE CURB & SIDEWALK SECTION



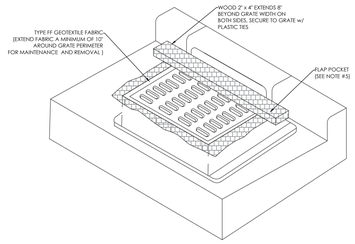
INLET PROTECTION TYPE "B"



CONCRETE PAVEMENT CROSS SECTION



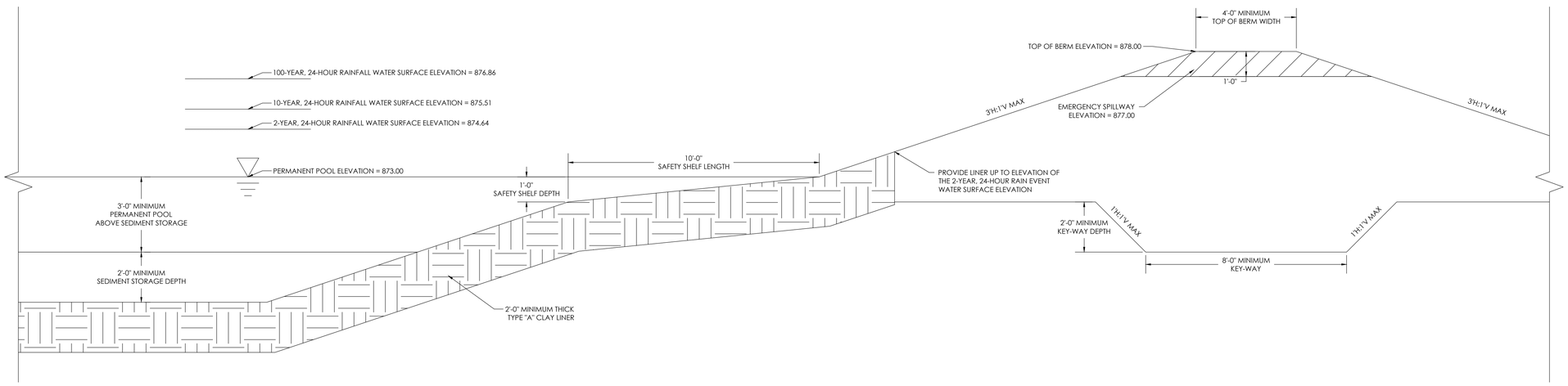
TRENCH DRAIN SECTION



INLET PROTECTION TYPE "C"

MAINTENANCE NOTES:

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



WET DETENTION POND CROSS SECTION

DETAILS

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NEW CONSTRUCTION/EXPANSION
BASIC METALS II
BASIC METALS INC., W180N11819 N RIVER LN, GERMANTOWN, WI, 53022
11354 MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 640 N VEL R. PHILLIPS AVE. SUITE 210 MILWAUKEE, WI 53203

DRAWN BY: JMN
CHECKED BY: JRV

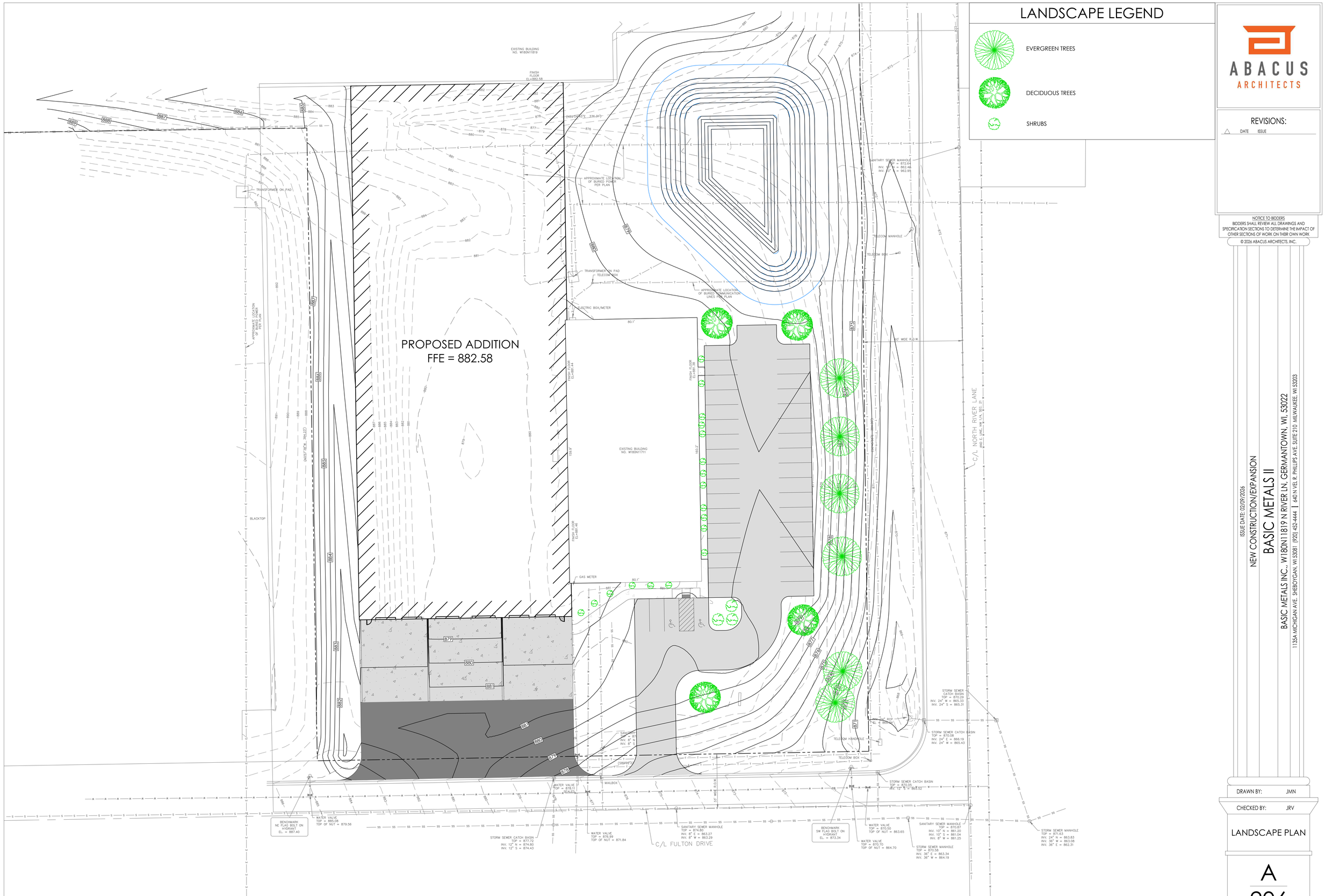
DETAILS

A
205

PROJ. NO. 2024-100

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LANDSCAPE LEGEND

- EVERGREEN TREES
- DECIDUOUS TREES
- SHRUBS

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NEW CONSTRUCTION/EXPANSION

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11354 MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 640 N VEL R. PHILLIPS AVE. SUITE 210 MILWAUKEE, WI 53203

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CHECKED BY: JRV

LANDSCAPE PLAN

A
206

PROJ. NO. 2024-100

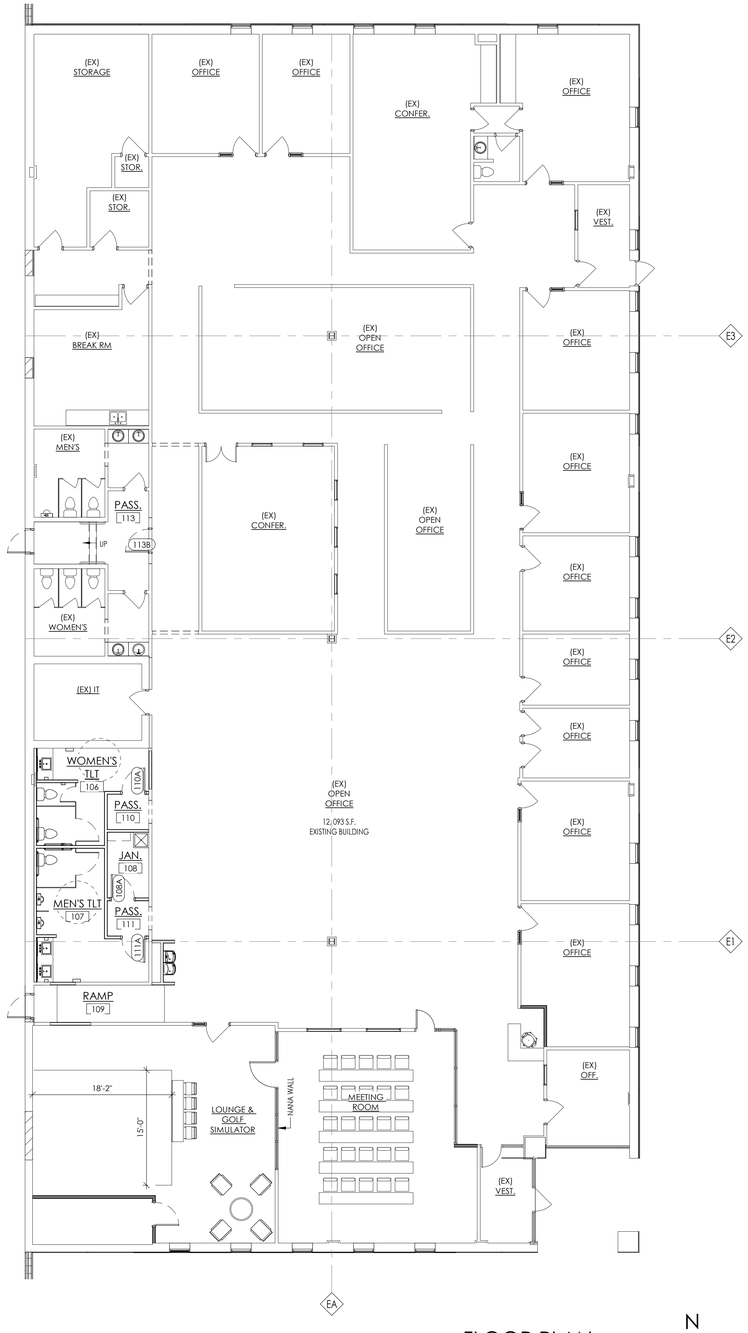
LANDSCAPE PLAN

SCALE: 1"=20'

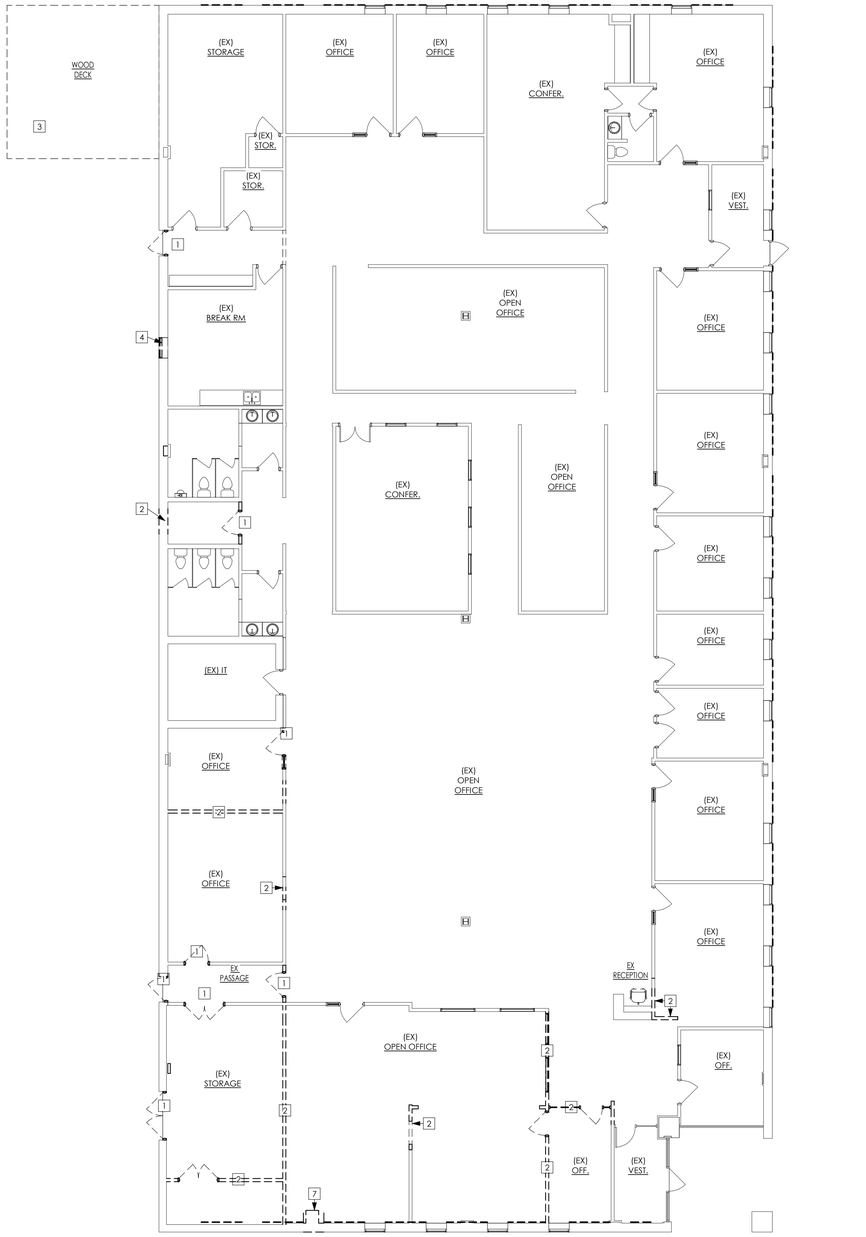
N

February 6, 2026

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FLOOR PLAN 2 A 302
SCALE: 1/8" = 1'-0"



DEMOLITION FLOOR PLAN 1 A 302
SCALE: 1/8" = 1'-0"

GENERAL DEMOLITION PLAN NOTES

- GENERAL CONTRACTOR AND SUBCONTRACTORS TO VERIFY ALL FIELD CONDITIONS & DIMENSIONS.
- OWNER SHALL REMOVE ALL MOVABLE FURNISHINGS AND EQUIPMENT WHICH IS NOT MECHANICALLY FASTENED TO EXISTING PRIOR TO DEMOLITION PHASE. GENERAL CONTRACTOR SHALL COORDINATE WITH OWNER.
- WHERE ITEMS ARE TO BE REMOVED, PATCH & REPAIR ADJACENT SURFACES AS NECESSARY TO RECEIVE NEW FINISHES.
- DIMENSIONS SHOWING THE EXTENT OF REMOVAL ARE TO BE FIELD VERIFIED TO COORDINATE WITH NEW CONDITIONS.
- ALL EXISTING MATERIALS TO BE TURNED OVER TO OWNER.
- GENERAL CONTRACTOR TO CONFIRM EXTENT OF DEMOLITION/RENOVATION WITH ALL TRADES PRIOR TO BIDDING. DRAWINGS DO NOT SHOW EXTENT OF PLUMBING, HVAC, OR ELECTRICAL DESIGN/INTENT.
- PATCH & REPAIR ALL EXISTING CONSTRUCTION TO REMAIN AS NECESSARY FOR NEW CONSTRUCTION.

DEMOLITION PLAN KEYNOTES

NO.	DESCRIPTION
1	REMOVE DOOR/OPENING TO REPLACE
2	REMOVE WALLS/SECTION OF WALL
3	REMOVE EXTERIOR DECK & SUPPORT STRUCTURE
4	REMOVE & INFILL WINDOW
5	REMOVE DOOR/OPENING AND INFILL
6	REMOVE WALLS/SECTION OF WALL FOR NEW DOOR
7	REMOVE SECTION OF WALL FOR NEW WINDOW

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BUILDING ADDITION & ALTERATION

BASIC METALS II

BASIC METALS INC., W180N11819 N RIVER LN, GERMANTOWN, WI, 53022
11354 MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 640 VEL R. PHILLIPS AVE SUITE 210, MILWAUKEE, WI 53203

PRELIMINARY - NOT FOR CONSTRUCTION

DRAWN BY: BK/MSJ
CHECKED BY: KS

EXISTING DEMO & NEW FLOOR PLANS

A
302

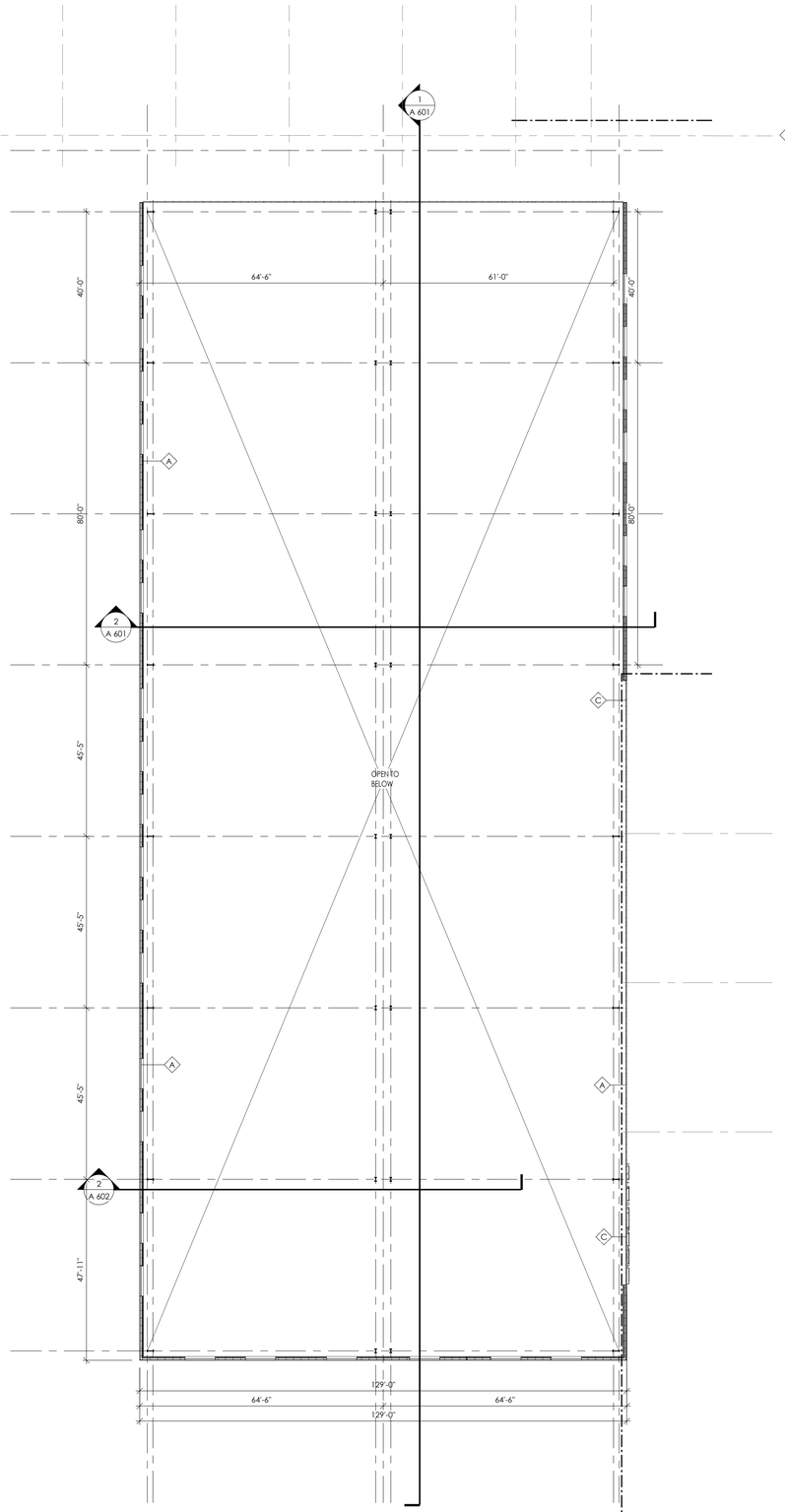
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GENERAL PLAN NOTES

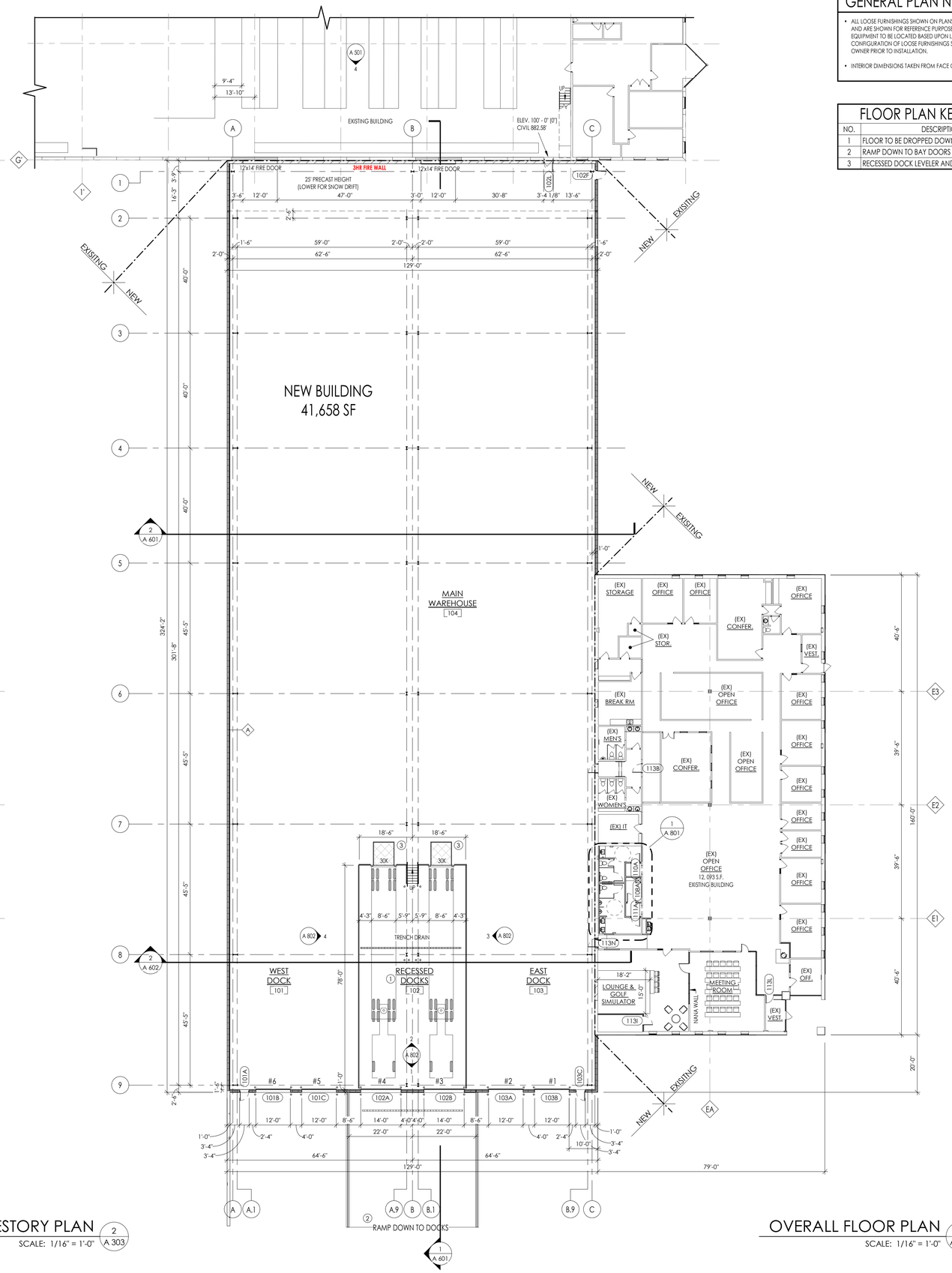
- ALL LOOSE FURNISHINGS SHOWN ON PLANS ARE NOT IN CONTRACT AND ARE SHOWN FOR REFERENCE PURPOSES ONLY. ANY DEVICES OR EQUIPMENT TO BE LOCATED BASED UPON LOCATION OR CONFIGURATION OF LOOSE FURNISHINGS SHALL BE VERIFIED WITH THE OWNER PRIOR TO INSTALLATION.
- INTERIOR DIMENSIONS TAKEN FROM FACE OF STUD TO FACE OF STUD.

FLOOR PLAN KEYNOTES

NO.	DESCRIPTION
1	FLOOR TO BE DROPPED DOWN 4' OF REST OF FLOOR
2	RAMP DOWN TO BAY DOORS
3	RECESSED DOCK LEVELER AND DOCK BUMPERS



CLERESTORY PLAN (2 / A 303)
SCALE: 1/16" = 1'-0"



OVERALL FLOOR PLAN (1 / A 303)
SCALE: 1/16" = 1'-0"

ABACUS ARCHITECTS

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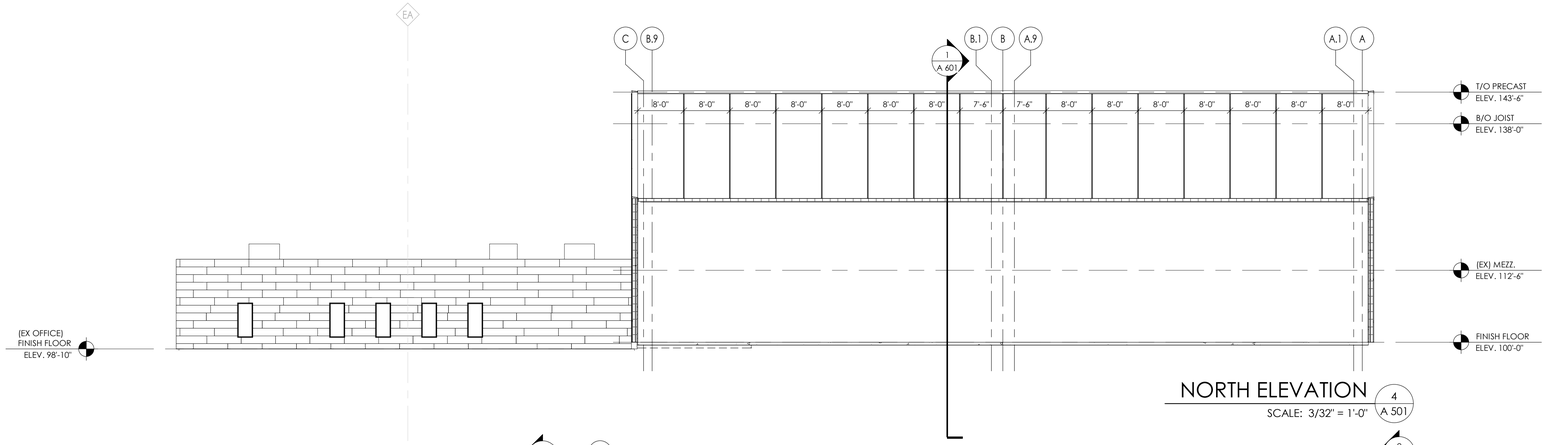
PRELIMINARY - NOT FOR CONSTRUCTION

DRAWN BY: MSJ/BK
CHECKED BY: KS

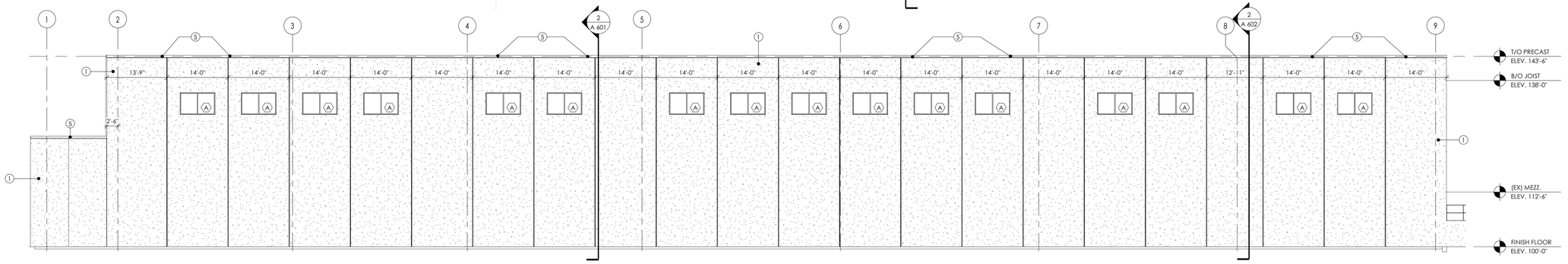
OVERALL FLOOR PLAN & CLERESTORY PLAN

A
303

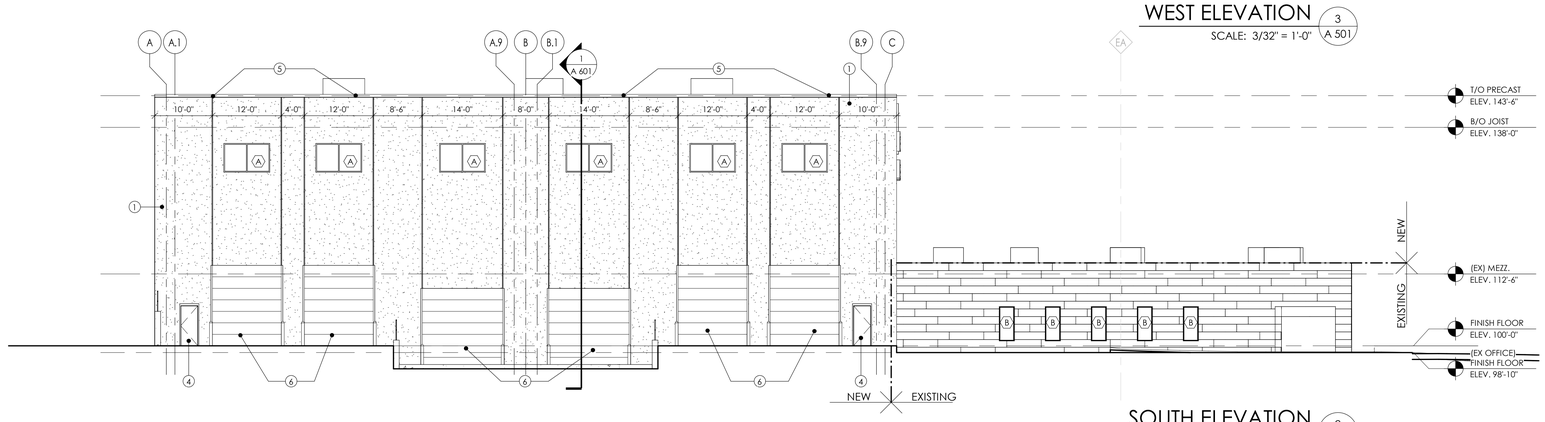
PROJ. NO. 2024-100



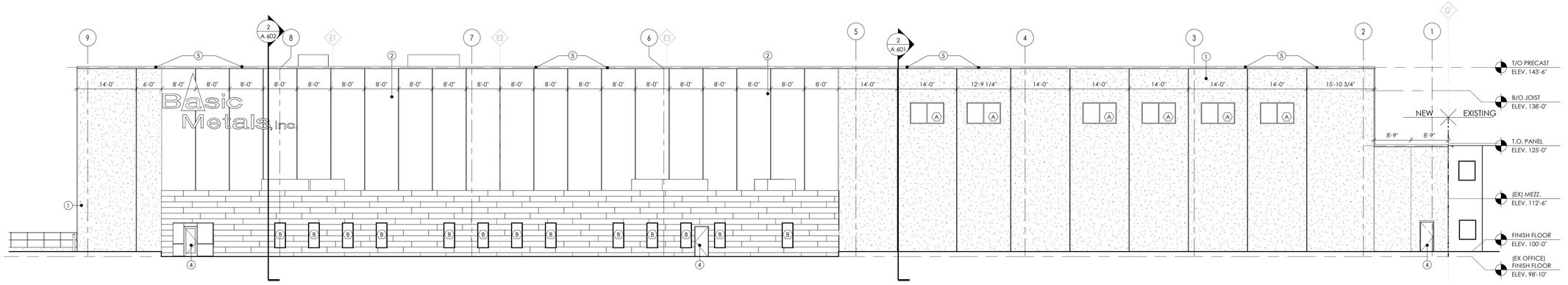
NORTH ELEVATION 4 / A 501
SCALE: 3/32" = 1'-0"



WEST ELEVATION 3 / A 501
SCALE: 3/32" = 1'-0"



SOUTH ELEVATION 2 / A 501
SCALE: 3/32" = 1'-0"



EAST ELEVATION 1 / A 501
SCALE: 3/32" = 1'-0"

GENERAL EXTERIOR ELEVATION NOTES

- ALL EXPOSED MISC. EXTERIOR STEEL SHALL BE PAINTED WITH PAINT FINISH E-1.
- MASONRY COURSING SHOWN FOR MATERIAL REPRESENTATION ONLY. ACTUAL COURSING MAY VARY.
- MASONRY CONTROL JOINTS SHALL BE LOCATED AT ALL MASONRY HEIGHT CHANGES, WINDOW OPENINGS, DOOR OPENINGS, 5' MAX. FROM BUILDING CORNERS, AND 25' MAX. AT CONTINUOUS WALL LOCATIONS.

ELEVATION KEYNOTES

NO.	DESCRIPTION
1	PRECAST CONCRETE PANELS
2	INSULATED METAL PANEL
4	HOLLOW METAL DOOR AND FRAME
5	METAL PARAPET COPING
6	OVER HEAD DOOR WITH DOCK SEAL LEVELER, STOPS & VEHICLE RESTRAINT

ABACUS ARCHITECTS

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BASIC METALS II

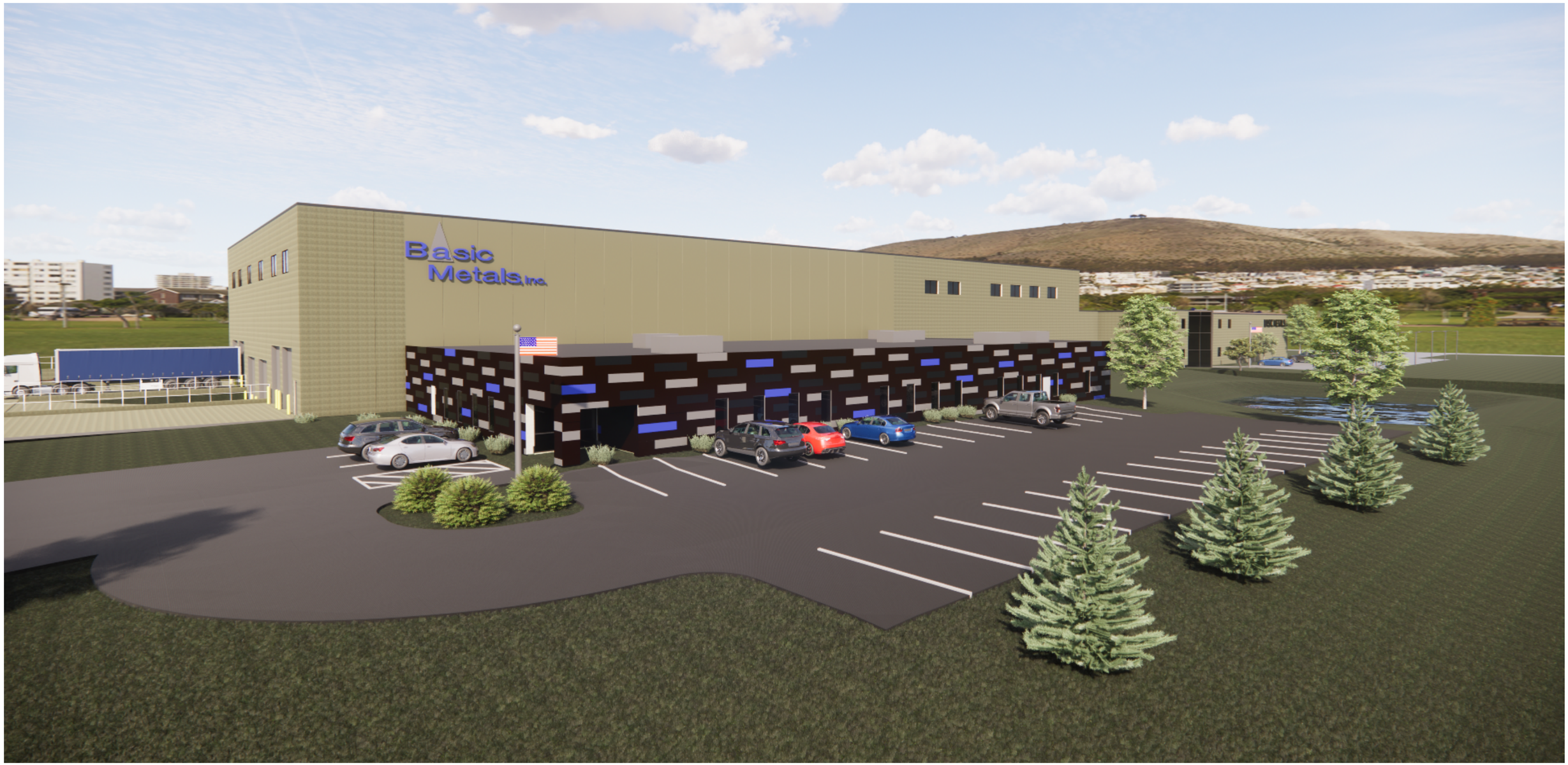
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1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 640 VEL R. PHILLIPS AVE. SUITE 210, MILWAUKEE, WI 53203

DRAWN BY: MSJ
CHECKED BY: KS

EXTERIOR ELEVATIONS

A
501

PROJ. NO. 2024-100



02/09/2026

BASIC METALS II

BASIC METALS INC., W180N11819 N RIVER LN, GERMANTOWN, WI, 53022

A1 RENDERING

PROJ. NO. 2024-100

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ELECTRICAL LIGHTING SUBMITTAL

To: Kathryn Sullivan
Attn: Moore Construction Services

Project: Basic Metals
W180N11819 North River Lane
Germantown, WI 53022

Submittal Number: (1)

Division: Electrical
Specification Section: 26 51 00
Description: Product Data – Site Lighting

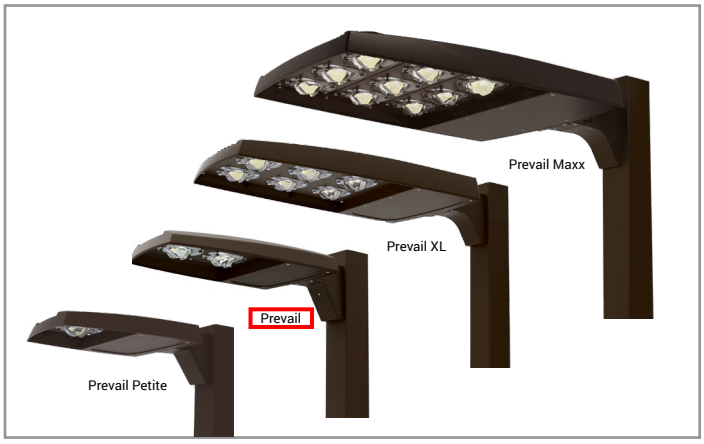
LYONS ELECTRIC APPROVAL STAMP
X APPROVED
___ APPROVED AS NOTED
___ REVISE & RESUBMIT

Please review and send this submittal back as product will not be ordered until submittal is APPROVED.

Date: February 5, 2026

By: *Kevin Konkel*
Kevin Konkel
Design/Estimating Department Manager
Designer of Engineering Systems
Certified Master Electrician
TC Lyons Electric

Type: OA
Project: Basic Metals
Catalog #: PRV-C25-840-D-UNV-T4-SA-BZ/RPSQ-20-4-11-AB-D1-NB



Lumark

Prevail LED

Area / Site Luminaire

Product Features

BAA · TAA · BABA · Light ARchitect™ · FADC

Interactive Menu

- Ordering Information page 2
- Mounting Details page 3, 4
- Optical Configurations page 5
- Product Specifications page 5
- Energy and Performance Data page 6, 7
- Control Options page 8

Product Certifications

ISO Certified · UL Certified · DLC Listed [1] · DLC Listed Premium [1] · FC Class A CAN ICES-005 · RoHS Compliant · IP66 · Dark Sky Approved [2] · 5 Year Limited Warranty

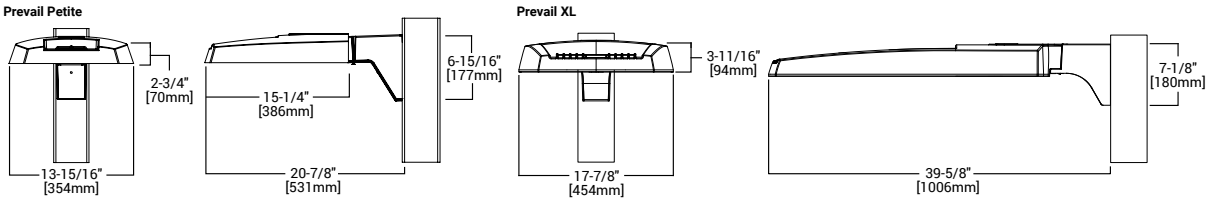
Quick Facts

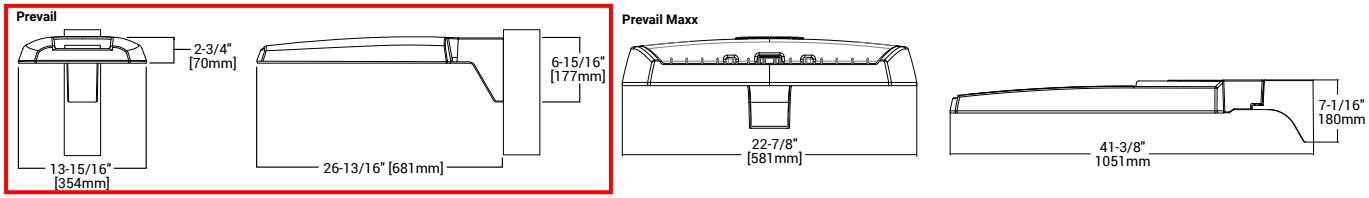
- Lumen packages range from 4,800 - 84,000 lumens (35W - 588W)
- Replaces 70W up to 1,000W HID equivalents
- Efficacies up to 160 lumens per watt
- Energy and maintenance savings up to 85% versus HID solutions
- Standard universal quick mount arm with universal drill pattern

Connected Systems

- WaveLinx PRO Wireless
- WaveLinx LITE Wireless

Dimensional Details





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

Ordering Information

SAMPLE NUMBER: **PRV-XL-C75-740-D-UNV-T4-SA-BZ**

Product Family [1, 2]	Light Engine [4]	Color Temperature	Driver	Voltage	Distribution	Mounting	Color
PRV-P=Prevail Petite **BAA-PRV-P**=Prevail Petite BAA Compliant [3] **TAA-PRV-P**=Prevail Petite TAA Compliant [3] **BABA-PRV-P**=Prevail Petite BABA Build America Buy America Act Compliant [30]	**C10**=(1 LED) 4,900 Nominal Lumens **C15**=(1 LED) 6,900 Nominal Lumens **C20**=(1 LED) 9,800 Nominal Lumens **C25**=(1 LED) 11,800 Nominal Lumens	**740**=70CRI, 4000K **727**=70CRI, 2700K **730**=70CRI, 3000K **750**=70CRI, 5000K **8540**=85CRI, 4000K	**D**=Dimming (0-10V)	**UNV**=Universal (120-277V) **H**=High Voltage, 347-480V **8**=480V [5] **9**=347V **DV**=DuraVolt (277-480V) [5, 6]	**T2**=Type II **T3**=Type III **T4**=Type IV **T5**=Type V	**SA**=QM Standard Versatile Arm **MA**=QM Mast Arm **FMA**= Fixed Mast Arm [26] **WM**=QM Wall Mount Arm **ADJA-WM**=Adjustable Arm–Wall Mount [28] **ADJA**=Adjustable Arm–Pole Mount [28] **ADJS**=Adjustable Arm–Slipfitter, 3" vertical tenon [28] **SP2**=Adjustable Arm–Slipfitter, 2 3/8" vertical tenon [26, 28]	**BZ**=Bronze **AP**=Grey **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White
PRV=Prevail **BAA-PRV**=Prevail BAA Compliant [3] **TAA-PRV**=Prevail TAA Compliant [3] **BABA-PRV**=Prevail BABA Build America Buy America Act Compliant [30]	**C15**=(1 LED) 7,100 Nominal Lumens **C25**=(2 LEDs) 13,100 Nominal Lumens **C40**=(2 LEDs) 17,100 Nominal Lumens **C60**=(2 LEDs) 20,000 Nominal Lumens						
PRV-XL=Prevail XL **BAA-PRV-XL**=Prevail XL BAA Compliant [3] **TAA-PRV-XL**=Prevail XL TAA Compliant [3] **BABA-PRV-XL**=Prevail XL BABA Build America Buy America Act Compliant [30]	**C75**=(4 LED) 26,100 Nominal Lumens **C100**=(4 LED) 31,000 Nominal Lumens **C125**=(4 LED) 36,000 Nominal Lumens **C150**=(6 LED) 41,100 Nominal Lumens **C175**=(6 LED) 48,600 Nominal Lumens						
PRV-M=Prevail Maxx **BAA-PRV-M**=Prevail Maxx BAA Compliant[3] **TAA-PRV-M**=Prevail MaxxTAA Compliant [3] **BABA-PRV-M**=Prevail Maxx BABA Build America Buy America Act Compliant [30]	**C200**=(9 LED) 48,000 Nominal Lumens **C225**=(9 LED) 56,000 Nominal Lumens **C250**=(9 LED) 65,000 Nominal Lumens **C275**=(9 LED) 73,000 Nominal Lumens						

Options (Add as Suffix)

CC=Coastal Construction finish [9]
HSS=House Side Shield [7]
L90=Optics Rotated 90° Left
R90=Optics Rotated 90° Right
10K=10kV/10kA UL 1449 Fused Surge Protective Device
20MSP=20kV MOV Surge Protective Device
20K=20kV UL 1449 Fused Surge Protective Device
HA=50°C High Ambient Temperature [8]
PR=NEMA 3-PIN Twistlock Photocontrol Receptacle [10]
PR7=NEMA 7-PIN Twistlock Photocontrol Receptacle [10]
FADC=Field Adjustable Dimming Controller [29]
MS/DIM-L08=Dimming Motion and Daylight Sensor, IR Remote Programmable, < 8' Mounting Height [11, 12]
MS/DIM-L20=Dimming Motion and Daylight Sensor, IR Remote Programmable, 8' - 20' Mounting Height [11, 12]
MS/DIM-L40=Dimming Motion and Daylight Sensor, IR Remote Programmable, 21' - 40' Mounting [11, 12]
SPB1=Dimming Motion and Daylight Sensor, Bluetooth Programmable, < 8' Mounting Height [11, 13]
SPB2=Dimming Motion and Daylight Sensor, Bluetooth Programmable, 8' - 20' Mounting Height [11, 13]
SPB4=Dimming Motion and Daylight Sensor, Bluetooth Programmable, 21' - 40' Mounting Height [11, 13, 26, 27]
WPS2XX=WaveLinx Pro, SR Driver, Dimming Motion and Daylight, WAC Programmable, 7' - 15' Mounting [11, 14, 15, 16]
WPS4XX=WaveLinx Pro, SR Driver, Dimming Motion and Daylight, WAC Programmable, 15' - 40' Mounting [11, 14, 15, 16]
WLS2XX=WaveLinx Lite, SR Driver, Dimming Motion and Daylight, Bluetooth Programmable, 7' - 15' Mounting [11, 14, 15, 16]
WLS4XX=WaveLinx Lite, SR Driver, Dimming Motion and Daylight, Bluetooth Programmable, 15' - 40' Mounting [11, 14, 15, 16]

Accessories (Order Separately) [20, 21]

PRVSA-XX=Standard Arm Mounting Kit [21]
PRVMA-XX=Mast Arm Mounting Kit [21]
PRVWM-XX=Wall Mount Kit [21]
PRV-ADJA-XX=Adjustable Arm - Pole Mount Kit [21]
PRV-ADJS-XX=Adjustable Arm - Slipfitter Kit [21]
PRV-ADJA-WM-XX=Adjustable Arm - Wall Mount Kit [21]
PRVXLSA-XX=Standard Arm Mounting Kit [27]
PRVXLMA-XX=Mast Arm Mounting Kit [27]
PRVXLWM-XX=Wall Mount Kit [27]
PRV-XL-ADJA-XX=Adjustable Arm - Pole Mount Kit [27]
PRV-XL-ADJS-XX=Adjustable Arm - Slipfitter Kit [27]
PRV-XL-ADJA-WM-XX=Adjustable Arm - Wall Mount Kit [27]
PRV-M-ADJA-XX=Adjustable Arm - Pole Mount Kit [26]
PRV-M-ADJS-XX=Adjustable Arm - Slipfitter Kit [26]
PRV-M-ADJA-WM-XX=Adjustable Arm - Wall Mount Kit [26]
MA1010-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon
MA1011-XX=2@180° Tenon Adapter for 3-1/2" O.D. Tenon
MA1017-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon
MA1018-XX=2@180° Tenon Adapter for 2-3/8" O.D. Tenon
SRA238=Tenon Adapter from 3" to 2-3/8"
PRV/COB-FDV=Full Drop Visor [22]
PRVXL/COB-FDV=Full Drop Visor [17]
HS/VERD=House Side Shield Kit [7, 23]
VGS-F/B= Vertical Glare Shield Kit, Front/Back [23]
VGS-SIDE=Vertical Glare Shield Kit, Side [23]
OA/RA1013=Photocontrol Shorting Cap
OA/RA1014=NEMA Photocontrol - 120V
OA/RA1016=NEMA Photocontrol - Multi-Tap 105-285V
OA/RA1201=NEMA Photocontrol - 347V
OA/RA1027=NEMA Photocontrol - 480V
FSIR-100=Wireless Configuration Tool for Occupancy Sensor [24]
WOLC-7P-10A=WaveLinx Outdoor Control Module (7-PIN) [25]

NOTES:

1. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
2. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for alll applications. Refer to installation instructions IB500002EN and pole white paper WP513001EN for additional support information.
3. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
4. Standard 4000K CCT and 70CRI.
5. 480V not to be used with ungrounded or impedance grounded systems.
6. DuraVolt drivers feature added protection from power quality issues such as loss of neutral, transients and voltage fluctuations. Visit www.signify.com/duravolt for more information.
7. House Side Shield not suitable with T5 distribution. Not available with PRV-C60 lumen package.
8. Not available with PRV-C60 lumen package. Not available with PRV-P-C25 lumen package.
9. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654.
10. If DuraVolt (DV) is specified, use a photocontrol that matches the input voltage used.
11. Controls system is not available in combination with a photocontrol receptacle (PR & PER7) or another controls system (MS or SPB). Option not available with DuraVolt (DV) voltage option.
12. Utilizes the Wattstopper sensor FSP-211. Sensor color white unless specified otherwise via PDR. To field-configure, order FSIR-100 accessory separately.
13. Utilizes the Wattstopper sensor FSP-3XX series. Sensor color determined by product finish. See Sensor Color Reference Table. Field-configures via mobile application. See Controls section for details.
14. Sensor passive infrared (PIR) may be overly sensitive when operating below -20°C (-4°F).
15. For the device to be field-configurable, requires WAC Gateway components WAC-PoE and WPOE-120 in appropriate quantities. Only compatible with WaveLinx system and software and requires system components to be installed for operation. See website for more Wavelinx application information.
16. Replace XX with sensor color (WH, BZ, or BK).
17. Only available in PRV-XL configurations C75, C100, C125, C150, or C175.
18. Not available with 347V, 480V, DV, or HA options.
19. Replace XX with paint color.
20. For BAA or TAA requirements, Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.
21. Not for use with PRV-XL or PRV-M configurations.
22. Only for use with PRV. Not applicable to PRV-M, PRV-XL, or PRV-P.
23. Must order one per optic/LED when ordering as a field-installable accessory (1, 2, 4, 6 or 9).
24. This tool enables adjustment to Motion Sensor (MS) parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative for more information.
25. Requires 7-PIN NEMA twistlock photocontrol receptacle (PR & PER7) option. The WOLC-7 cannot be used in conjunction with other controls systems (MS or LWR). Operates on 120-347V input voltages.
26. Only for use with PRV-M configurations.
27. Only for use with PRV-XL configurations.
28. Fixed for PRV-M.
29. Cannot be used with PR7 or other motion response control options
30. Only product configurations with these prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or the Build America Buy America Act (BABA). BABA is the minimum Government compliance requirement for the Build America Buy America standards which is part of the Infrastructure and Investment Jobs Act (IIJA). Individual Government Agencies may have more stringent compliance standards. Please refer to the DOMESTIC PREFERENCES website or consult the CLS Domestic Preferences team for more information. Components shipped separately may be separately analyzed under domestic preference requirements.

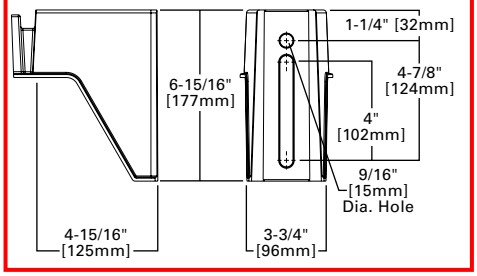
Stock Ordering Information

Product Family [1]	Light Engine	Voltage	Distribution
PRVS=Prevail	**C15**=(1 LED) 7,100 Nominal Lumens **C25**=(2 LEDs) 13,100 Nominal Lumens **C40**=(2 LEDs) 17,100 Nominal Lumens **C60**=(2 LEDs) 20,000 Nominal Lumens	**UNV**=Universal (120-277V) **347**=347V [2]	**T3**=Type III **T4**=Type IV
PRVS-XL=Prevail XL	**C75**=(4 LED) 26,100 Nominal Lumens **C100**=(4 LED) 31,000 Nominal Lumens **C125**=(4 LED) 36,000 Nominal Lumens **C150**=(6 LED) 41,100 Nominal Lumens **C175**=(6 LED) 48,600 Nominal Lumens		

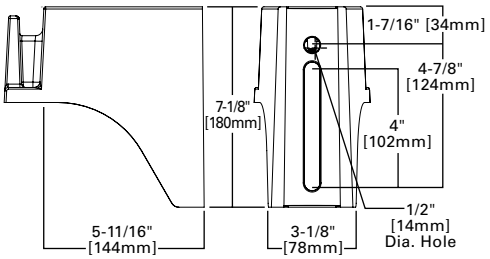
NOTES:
1. All stock configurations are standard 4000K/70CRI, bronze finish, and include the standard versatile mounting arm.
2. Only available in PRVS configurations C15, C25, C40 or C60.

Mounting Details

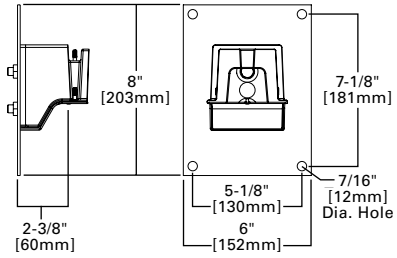
SA=QM Pole Mount Arm (PRV & PRV-P)



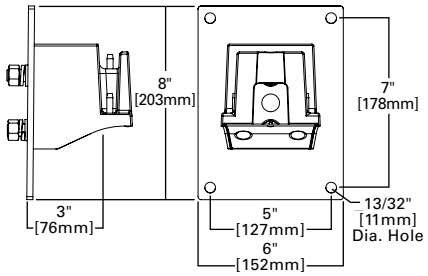
SA=QM Pole Mount Arm (PRV-XL)



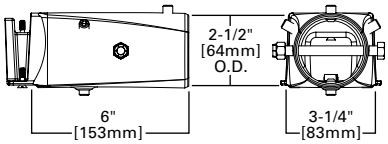
WM=QM Wall Mount Arm (PRV & PRV-P)



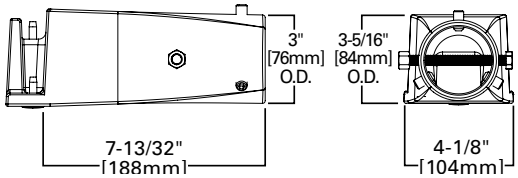
WM=QM Wall Mount Arm (PRV-XL)



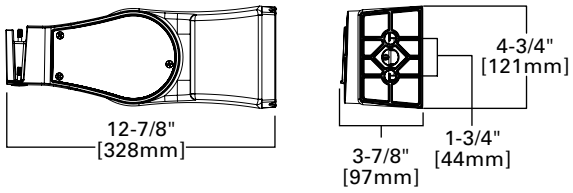
MA=QM Mast Arm (PRV & PRV-P)



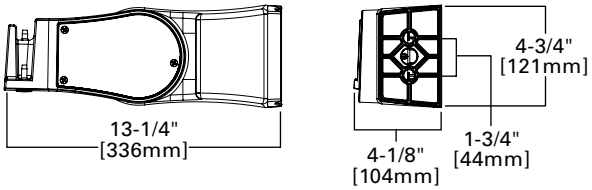
MA=QM Mast Arm (PRV-XL)



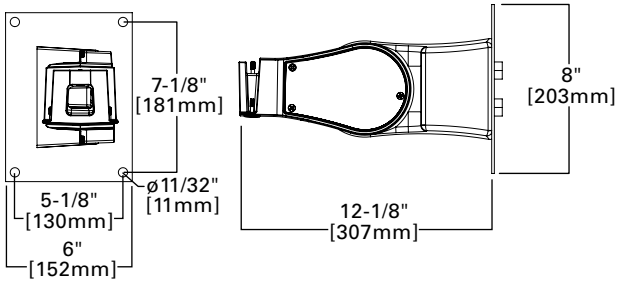
ADJA=Adjustable Arm Pole Mount (PRV & PRV-P)



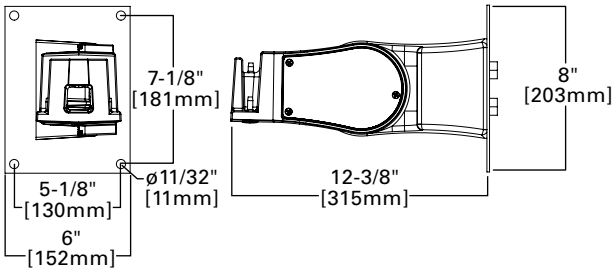
ADJA=Adjustable Arm Pole Mount (PRV-XL)



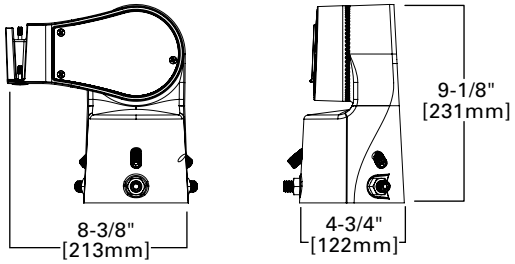
ADJA-WM=Adjustable Arm Wall Mount (PRV & PRV-P)



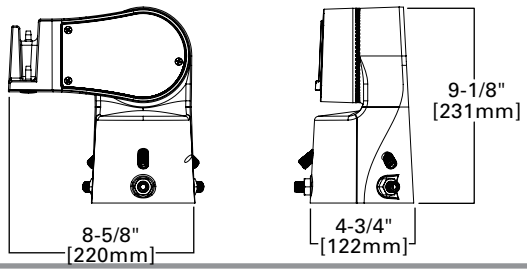
ADJA-WM=Adjustable Arm Wall Mount (PRV-XL)



ADJS=Adjustable Slipfitter 3 (PRV & PRV-P)

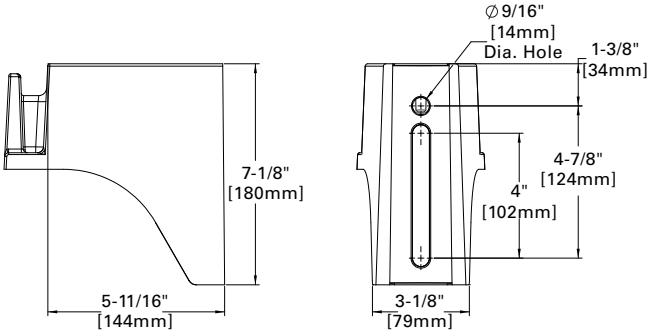


ADJS=Adjustable Slipfitter 3 (PRV-XL)

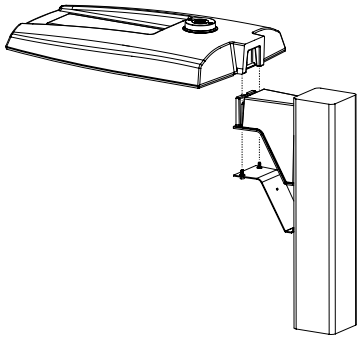


Mounting Details

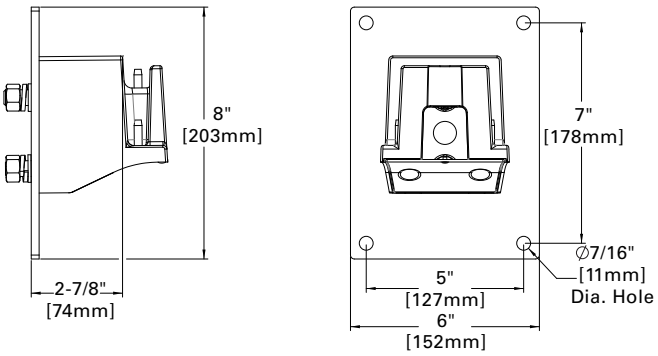
SA=QM Pole Mount Arm (PRV-M)



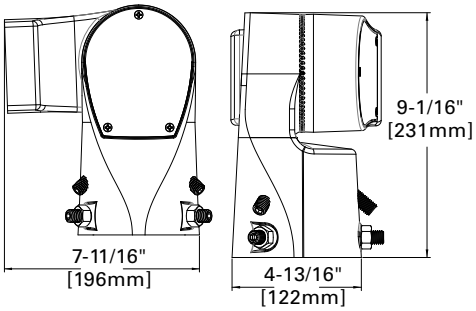
Versatile Mount System



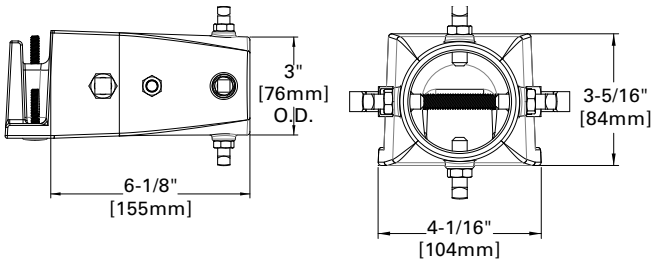
WM=QM Wall Mount Arm (PRV-M)



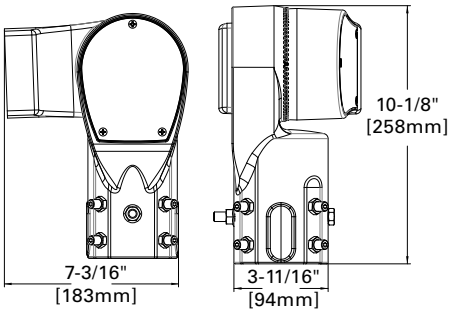
ADJS=Adjustable Slipfitter (PRV-M)



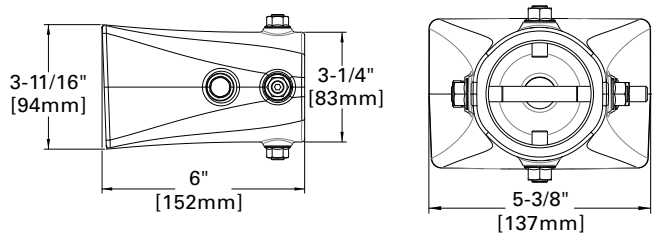
MA=QM Mast Arm (PRV-M)



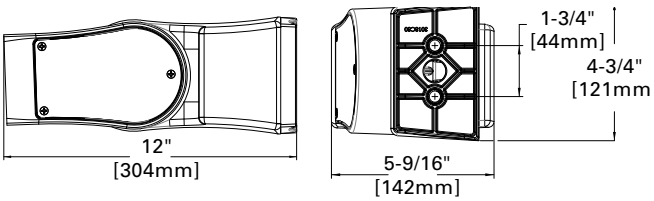
SP2=Adjustable Slipfitter 2-3/8" (PRV-M)



FMA=Fixed Mast Arm (PRV-M)

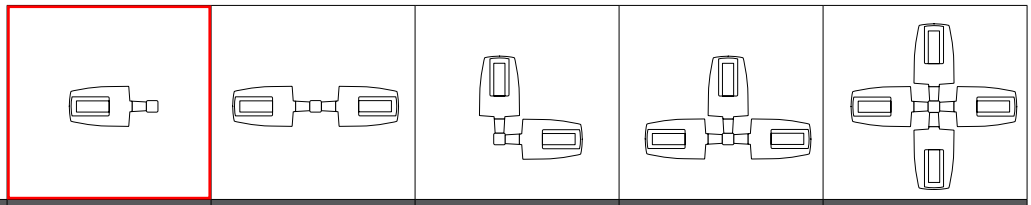


DM=Direct Pole Mount Arm (PRV-M)



Mounting Details

Mounting Configurations and EPAs



Housing Size	Tilt Angle (Degrees)	Arm Mount Single	Arm Mount 2 @ 180°	Arm Mount 2 @ 90°	Arm Mount 3 @ 90°	Arm Mount 4 @ 90°
Prevail Petite	0°	0.54	1.08	0.84	1.38	1.38
	60°	1.68	1.85	2.42	3.15	3.30
Prevail	0°	0.92	1.35	1.42	1.63	1.63
	60°	2.20	2.40	3.05	3.88	4.07
	60° + Full Drop Visor	2.20	2.40	3.25	4.28	4.47
Prevail XL	0°	1.12	2.25	2.13	2.52	2.52
	60°	3.99	4.30	5.26	6.51	6.79
	60° + Full Drop Visor	3.99	4.30	5.59	7.17	7.49
Prevail Maxx	0°	1.28	2.56	1.7	2.69	2.69
	60°	5.09	5.52	6.34	7.49	7.81

NOTE: For 2 PRV's mounted at 90°, requires minimum 3" square or 4" round pole for fixture clearance. For 2 PRV-XL's mounted at 90°, requires minimum 4" square or round pole for fixture clearance. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for applications.

Optical Configurations

PRV-P-C10/C15/C20/C25 (4,900/6,900/9,800/11,800 Nominal Lumens)

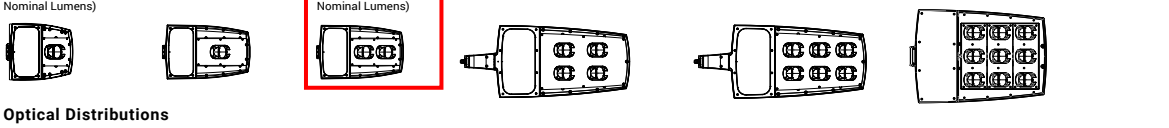
PRV-C15 (7,100 Nominal Lumens)

PRV-C25/C40/C60 (13,100/17,100/20,000 Nominal Lumens)

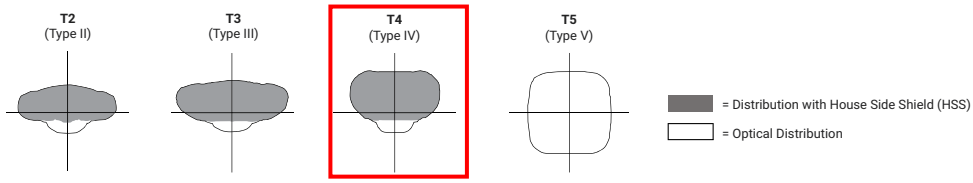
PRV-XL-C75/C100/C125 (26,100/31,000/36,300 Nominal Lumens)

PRV-XL-C150/C175 (41,100/48,600 Nominal Lumens)

PRV-M-PA6X (50,000/60,000/70,000/80,000 Nominal Lumens)



Optical Distributions



Product Specifications

Optics
- Precision molded polycarbonate optics

Electrical
- -40°C minimum operating temperature
- 40°C maximum operating temperature
- >.9 power factor
- <20% total harmonic distortion
- Class 1 electronic drivers have expected life of 100,000 hours with <1% failure rate
- 0-10V dimming driver is standard with leads external to the fixture
- Standard MOV surge protective device designed to withstand 10kV of transient line surge

Physical Characteristics
- Single-piece die-cast aluminum housing
- Tethered die-cast aluminum door
- Five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness
- Finish is compliant to 3,000 hour salt spray standard (per ASTM B117)
- Versatile, patented, standard mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8" (Type M drilling recommended for new installations)
- A knock-out on the standard mounting arm enables round pole mounting
- Adjustable pole and wall mount arms adjust in 5° increments from 0° to 60°; Downward facing orientation only (Type N drilling required for ADJA mount)
- Adjustable slipfitter arm adjusts in 5° increments from -5° to 85°; Downward facing orientation only

Controls
- Luminaire available with the field adjustable dimming controller (FADC) to manually adjust wattage and reduce the total lumen output and light levels; Comes pre-set to the highest position at the lumen output selected

Compliance
- DarkSky approved for 3000K CCT and warmer, with mounting options less than 10° of tilt.
- DLC and DLC Premium listed – visit designlights.org to confirm listed variations
- Prevail and Prevail Petite: 3G vibration rated
- Prevail XL Mast Arm: 3G vibration rated
- Prevail XL Standard Arm: 1.5G vibration rated
- Adjustable Arms: 1.5G vibration rated
- BAA domestic preference option meets BAA requirements. See DOMESTIC PREFERENCES website or consult the CLS Domestic Preferences team for more information
- FHWA and FTA agencies are utilizing their BAA rules for BABA compliance. Cooper's products with a BAA designation are manufactured in the US and utilize a BAA COTS exemption rule for compliance. To verify a configured product with specific accessories and options meet BABA Domestic Preference Requirements; submit this catalog number to Cooper Lighting Quotation team for validation by our Engineering and Manufacturing teams. Please refer to the DOMESTIC PREFERENCES website or consult the CLS Domestic Preferences team for more information. Components shipped separately may be separately analyzed under domestic preference requirements.

Typical Applications
- Parking lots
- Walkways
- Roadways
- Building Areas

Shipping Data
- Prevail Petite: 18 lbs. (7.94 kgs.)
- Prevail: 20 lbs. (9.09 kgs.)
- Prevail XL: 45 lbs. (20.41 kgs.)
- Prevail Maxx: 49 lbs. (22.23 kgs.)

Warranty
- Five year limited warranty, consult website for details. www.cooperlighting.com/legal

Energy and Performance Data

View PRV-P IES files | View PRV IES files | View PRV-XL IES files

Power and Lumens

Product Family		Prevail Petite				Prevail				Prevail XL					Prevail Maxx			
Light Engine		C10	C15	C20	C25	C15	C25	C40	C60	C75	C100	C125	C150	C175	C200	C225	C250	C275
Power (Watts)		35	49	73	94	52	96	131	153	176	217	264	285	346	346	418	487	588
Input Current @ 120V (A)		0.29	0.41	0.61	0.79	0.43	0.80	1.09	1.32	1.50	1.84	2.21	2.38	2.92	2.89	3.49	4.06	4.90
Input Current @ 277V (A)		0.13	0.18	0.27	0.35	0.19	0.35	0.48	0.57	0.66	0.82	0.97	1.04	1.25	1.26	1.51	1.72	2.06
Input Current @ 347V (A)		0.11	0.16	0.23	0.29	0.17	0.30	0.41	0.48	0.54	0.66	0.79	0.84	1.02	1.00	1.21	1.40	1.70
Input Current @ 480V (A)		0.08	0.12	0.17	0.22	0.12	0.22	0.30	0.35	0.40	0.48	0.57	0.62	0.74	0.73	0.88	1.00	1.21
Distribution [1]																		
Type II	4000K Lumens	4,775	6,717	9,542	11,521	7,123	13,205	17,172	20,083	26,263	31,231	36,503	41,349	48,876	50,349	59,444	68,447	79,322
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B5-U0-G5
	Lumens per Watt	138	137	131	122	137	138	131	131	149	144	138	145	141	146	142	141	135
	3000K Lumens [1]	4,869	6,595	9,369	11,312	6,994	12,965	16,860	19,718	25,786	30,664	35,840	40,598	47,989	49,437	58,368	67,208	77,886
Type III	4000K Lumens	4,782	6,727	9,556	11,538	7,111	13,183	17,144	20,050	26,120	31,061	36,304	41,124	48,610	50,162	59,223	68,193	79,027
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	138	137	131	123	137	137	131	131	148	143	138	144	140	145	142	140	135
	3000K Lumens [1]	4,695	6,605	9,383	11,329	6,982	12,944	16,832	19,686	25,646	30,497	35,645	40,377	47,727	49,254	58,151	66,958	77,596
Type IV	4000K Lumens	4,880	6,865	9,752	11,774	7,088	13,140	17,087	19,984	26,098	31,035	36,274	41,089	48,569	50,575	59,711	68,754	79,678
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B5-U0-G5
	Lumens per Watt	141	140	134	125	136	137	130	131	148	143	137	144	140	146	143	141	136
	3000K Lumens [1]	4,792	6,740	9,575	11,561	6,959	12,901	16,777	19,621	25,624	30,471	35,615	40,343	47,687	49,659	58,630	67,510	78,235
Type V	4000K Lumens	5,067	7,128	10,126	12,226	7,576	14,045	18,264	21,360	28,129	33,450	39,097	44,287	52,349	53,531	63,201	72,773	84,335
	BUG Rating	B3-U0-G2	B3-U0-G2	B4-U0-G3	B4-U0-G3	B3-U0-G3	B4-U0-G3	B4-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	146	145	139	130	146	146	139	140	160	154	148	155	151	155	151	150	144
	3000K Lumens [1]	4,975	6,999	9,942	12,004	7,438	13,790	17,932	20,972	27,618	32,843	38,387	43,483	51,398	52,562	62,057	71,455	82,808

NOTES:
1. For 3000K, 5000K or HSS data, refer to published IES files.

Lumen Maintenance

Configuration	TM-21 Lumen Maintenance (50,000 Hours)	Theoretical L70 (Hours)
Prevail and Prevail Petite at 25°C	91.30%	> 194,000
Prevail and Prevail Petite at 40°C	87.59%	> 134,000
Prevail XL at 25°C	91.40%	> 204,000
Prevail XL at 40°C	89.41%	> 158,000
Prevail Maxx at 25°C	91.40%	> 204,000
Prevail Maxx at 40°C	89.41%	> 158,000

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
10°C	**1.02**
15°C	**1.01**
25°C	**1.00**
40°C	**0.99**

Sensor Color Reference Table (SPBx)

Housing Finish	Sensor Color
AP=Grey	Grey
BZ=Bronze	Bronze
BK=Black	Black
DP=Dark Platinum	Grey
GM=Graphite Metallic	Black
WH=White	White

FADC Settings

FADC Position	Lumen Multiplier
1	25%
2	46%
3	55%
4	62%
5	72%
6	77%
7	82%
8	85%
9	90%
10	100%

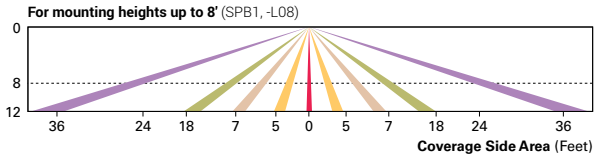
Note: +/-5% typical value

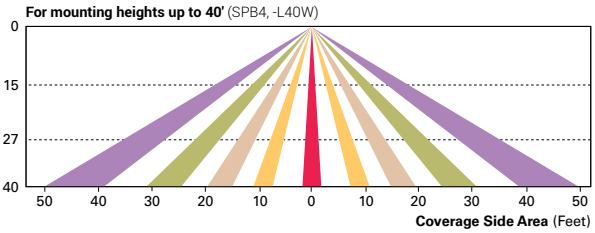
Control Options

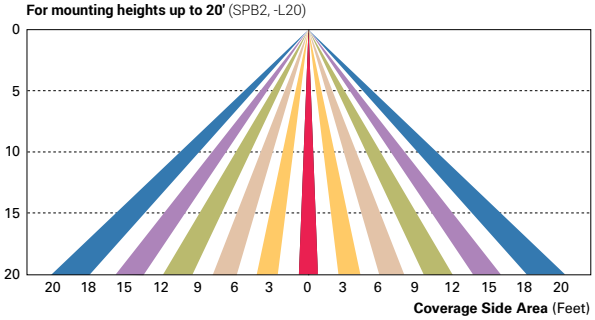
0-10V This fixture provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (PR and PR7) Photocontrol receptacles provide a flexible solution to enable “dusk-to-dawn” lighting by sensing light levels. Advanced control systems compatible with NEMA 7-PIN standards can be utilized with the PR7 receptacles.

Dimming Occupancy Sensor (SPB, MS/DIM-LXX) These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the luminaire will dim down after five minutes of no activity detected. When activity is detected, the luminaire returns to full light output. These occupancy sensors include an integral photocell for “dusk-to-dawn” control or “daylight harvesting.” Factory default is enabled for the MS sensors and disabled for the SPB. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes.



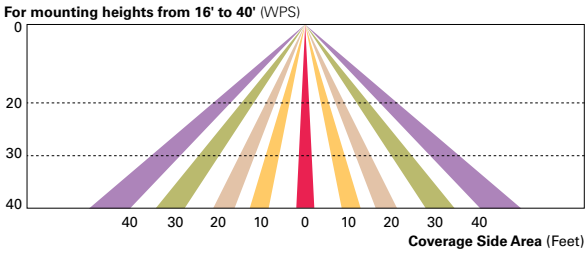




WaveLinx Wireless Control and Monitoring System Available in 7-PIN or 4-PIN configurations, the WaveLinx Outdoor control platform operates on a wireless mesh network based on IEEE 802.15.4 standards enabling wireless control of outdoor lighting. At least one Wireless Area Controller (WAC) is required for full functionality and remote communication (including adjustment of any factory pre-sets).

WaveLinx Outdoor Control Module (WOLC-7P-10A) A photocontrol that enables astronomic or time-based schedules to provide ON, OFF and dimming control of fixtures utilizing a 7-PIN receptacle. The out-of-box functionality is ON at dusk and OFF at dawn.

WaveLinx Wireless Sensor (WPS2 and WPS4) These outdoor sensors offer passive infrared (PIR) occupancy sensing and a photocell for closed-loop daylight sensing. These sensors are factory preset to dim down to approximately 50 percent power after 15 minutes of no activity detected, and the photocell for “dusk-to-dawn” control is default enabled. A variety of sensor lenses are available to optimize the coverage pattern for mounting heights from 7'-40'.



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Peachtree City, GA 30269
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www.cooperlighting.com

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Specifications and dimensions subject to change without notice.

Type: OA
Project: Basic Metals
Catalog #: RPSQ-25-4-11-AB-D1-NB

Spec Sheets

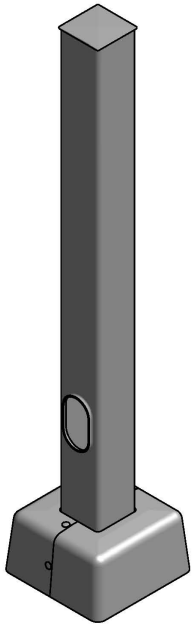
SQUARE STRAIGHT STEEL POLES

UNITED LIGHTING STANDARDS
A DWM COMPANY

Specifications, Options, and Accessories

United Lighting Standard's Square Straight Steel Poles are engineered to meet the rigorous demands of the natural environment. The Information below can be used to determine the exact pole needed for a variety of lighting applications.

Please note that standards mounted on structures (parking garages, buildings, bridges, piers, etc.) require factory consultation.



Pole Shaft Specifications

— The pole shaft is one-piece construction — fabricated from a weldable-grade carbon steel structural tubing with a uniform wall thickness. The pole shaft material shall conform to ASTM A-500 Grade B with a minimum yield strength of 46,000 psi. It has a full-length longitudinal resistance weld and is uniformly square in cross section with flat sides, small corner radii, and excellent torsional properties.

Base Plate Cover

— For our anchor-base designs, a full base cover is supplied. The base cover is made of automotive structural grade ABS plastic with a UV inhibitor to eliminate color fading. It is rust proof and tamper resistant.



Anchor Bolts

— Complete sets of (4) anchor bolts are included with each of our poles. The size of the bolts are determined by the pole type. Our 3/4" anchor bolts are fully galvanized. All other sizes are partially galvanized on the threaded side of the bolt only. Fully galvanized bolts are available upon request.

Direct Burial

— For embedded designs, an optional alkali-resistant, coal-tar epoxy can be applied to the burial portion of embedded poles. Our direct-burial poles are supplied complete with a 2"×4" wiring slot below grade.

Hand Hole

— All of our straight steel poles come standard with a 3"x5" hand hole, centered at 14" above grade. Each pole comes with a complete ABS hand hole cover assembly to match the finish of the pole.

Wind Loading Data: AASHTO

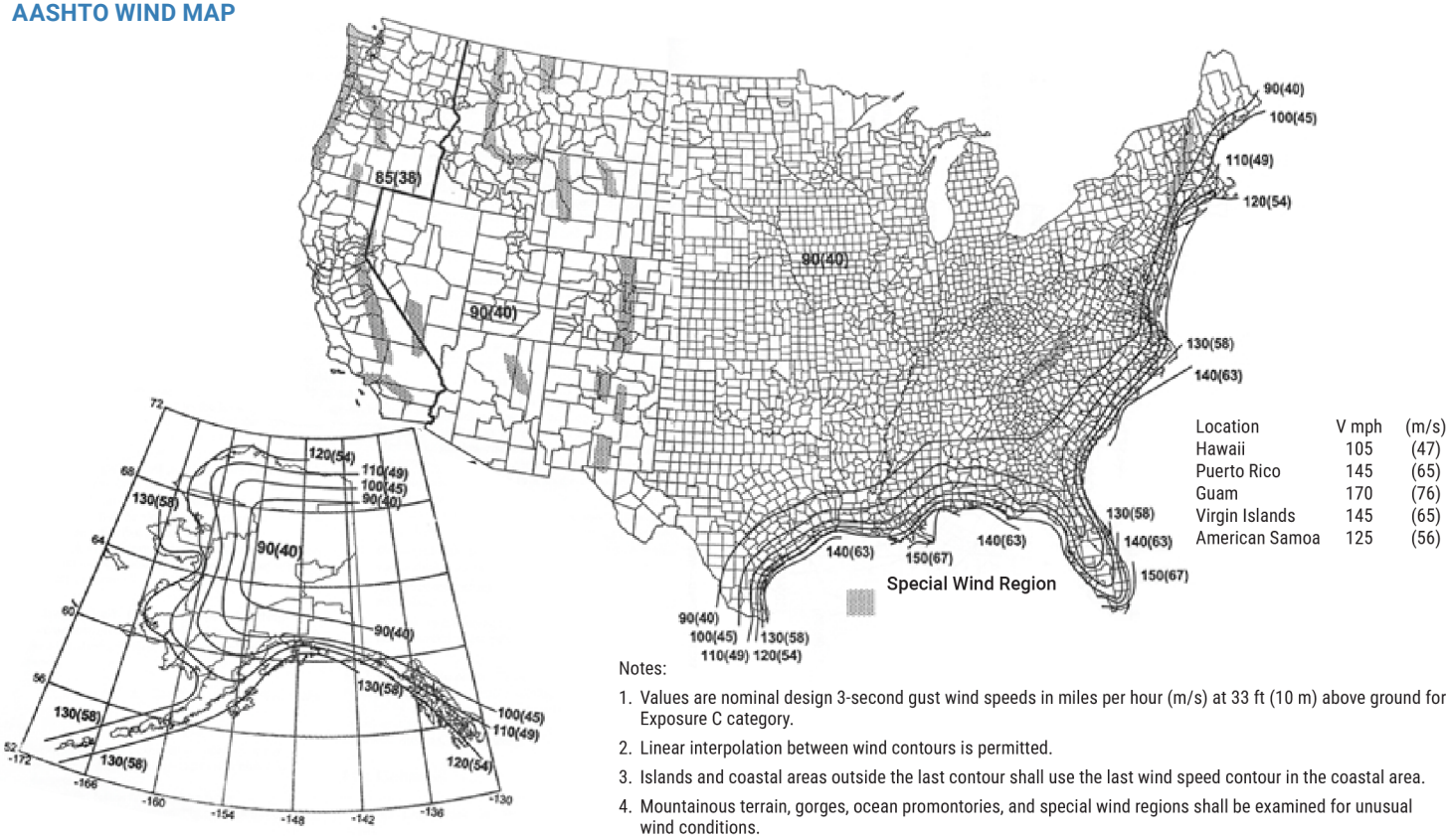
2013 AASHTO LTS-6

ULS PART #	Mounting Height (ft)	Diameter (A)x Wall (B)x Height (C)	Plate	Bolt Circle (Range)	Bolt Dia x Vertical x Horizontal	Max Luminaire Weight	Pole EPA Rating						
							80 MPH	90 MPH	100 MPH	110 MPH	120 MPH	130 MPH	140 MPH
RPSQ 10-4-11	10	4" x 11 ga. x 10'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	35.7	27.6	21.8	17.6	14.3	11.8	9.8
RPSQ 12-4-11	12	4" x 11 ga. x 12'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	28.6	21.9	17.1	13.5	10.8	8.7	7.1
RPSQ 14-4-11	14	4" x 11 ga. x 14'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	23.3	17.6	13.5	10.5	8.2	6.4	5
RPSQ 15-4-11	15	4" x 11 ga. x 15'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	21.1	15.8	12	9.2	7.1	5.4	4.1
RPSQ 16-4-11	16	4" x 11 ga. x 16'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	19.1	14.2	10.7	8	6	4.5	3.3
RPSQ 18-4-11	18	4" x 11 ga. x 18'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	15.6	11.3	8.2	5.9	4.2	2.8	1.8
RPSQ 20-4-11	20	4" x 11 ga. x 20'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	12.5	8.7	6	4.1	2.6	1.4	0.4
RPSQ 20-4-7	20	4" x 7 ga. x 20'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	19.4	14.3	10.7	8	5.9	4.3	3.1
RPSQ 25-4-11	25	4" x 11 ga. x 25'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	6.7	3.9	1.9	0.4	N/A	N/A	N/A
RPSQ 25-4-7	25	4" x 7 ga. x 25'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	8.7	8.7	6	3.9	2.3	1.1	N/A
RPSQ 20-5-11	20	5" x 11 ga. x 20'	11" x 0.75"	10.5/11.5" (11.0")	.75 x 17 x 3	200	19.3	13.8	9.8	6.9	4.7	3	1.6
RPSQ 20-5-7	20	5" x 7 ga. x 20'	11" x 1.00"	10.5/11.5" (11.0")	1 x 36 x 4	200	38	28.7	22	17.1	13.3	10.4	8.1
RPSQ 25-5-11	25	5" x 11 ga. x 25'	11" x 0.75"	10.5/11.5" (11.0")	.75 x 17 x 3	200	11.2	7.1	4.1	1.9	0.3	N/A	N/A
RPSQ 25-5-7	25	5" x 7 ga. x 25'	11" x 1.00"	10.5/11.5" (11.0")	1 x 36 x 4	200	25.6	18.6	13.6	9.9	7.1	4.9	3.1
RPSQ 30-5-11	30	5" x 11 ga. x 30'	11" x 0.75"	10.5/11.5" (11.0")	.75 x 17 x 3	200	5.4	2.2	N/A	N/A	N/A	N/A	N/A
RPSQ 30-5-7	30	5" x 7 ga. x 30'	11" x 1.00"	10.5/11.5" (11.0")	1 x 36 x 4	200	17.1	11.6	7.6	4.7	2.5	0.7	N/A
RPSQ 35-5-7	35	5" x 7 ga. x 35'	11" x 1.00"	10.5/11.5" (11.0")	1 x 36 x 4	200	10.7	6.2	3	0.6	N/A	N/A	N/A
RPSQ 25-6-7	25	6" x 7 ga. x 25'	12" x 1.00"	11.0/12.0" (11.5")	1 x 36 x 4	200	38.2	28.1	20.9	15.8	11.5	8.4	5.9
RPSQ 30-6-7	30	6" x 7 ga. x 30'	12" x 1.00"	11.0/12.0" (11.5")	1 x 36 x 4	200	26.9	18.8	13.1	8.8	5.5	3	1
RPSQ 35-6-7	35	6" x 7" ga. x 35'	12" x 1.00"	11.0/12.0" (11.5")	1 x 36 x 4	200	18.2	11.6	6.8	3.3	0.7	N/A	N/A
RPSQ 39-6-7	39	6" x 7 ga. x 39'	12" x 1.00"	11.0/12.0" (11.5")	1 x 36 x 4	200	6.7	6.6	2.6	N/A	N/A	N/A	N/A

For steel poles, we have the ability to modify the base plate to accommodate alternate bolt circles to fit existing anchor bolt patterns. Note that we can only increase the size to the standard bolt circle; we cannot accommodate decreased bolt circle sizes for our cataloged poles. Contact the factory with any questions. New anchor bolts should be set using factory-supplied anchor bolt templates.

Vibration dampeners are recommended for poles 25' and above.

AASHTO WIND MAP



BASIC WIND SPEED

BASIC WIND SPEED – ALASKA

Notes:

1. Values are nominal design 3-second gust wind speeds in miles per hour (m/s) at 33 ft (10 m) above ground for Exposure C category.
2. Linear interpolation between wind contours is permitted.
3. Islands and coastal areas outside the last contour shall use the last wind speed contour in the coastal area.
4. Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.

Wind Loading Data: Florida Building Code

2020 FBC / ASCE-7

ULS PART #	Mounting Height (ft)	Diameter (A)x Wall (B)x Height (C)	Plate	Bolt Circle (Range)	Bolt Dia x Vertical x Horizontal	Max Luminaire Weight	Pole EPA Rating						
							120 MPH	130 MPH	140 MPH	150 MPH	160 MPH	170 MPH	180 MPH
RPSQ 10-4-11	10	4" x 11 ga. x 10'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	31.1	26	22.1	18.9	16.2	14.1	12.2
						500	29.9	25	21.2	18.1	15.5	13.4	11.8
RPSQ 12-4-11	12	4" x 11 ga. x 12'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	24.8	20.7	17.4	14.7	12.5	10.7	9.2
						500	23.8	19.8	16.6	14	11.9	10.2	8.7
RPSQ 14-4-11	14	4" x 11 ga. x 14'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	20.3	16.7	13.8	11.5	9.7	8.1	6.8
						500	19.5	15.9	13.2	11	9.2	7.7	6.4
RPSQ 15-4-11	15	4" x 11 ga. x 15'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	18.4	15	12.4	10.2	8.5	7	5.8
						500	17.5	14.3	11.8	9.7	8	6.6	5.4
RPSQ 16-4-11	16	4" x 11 ga. x 16'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	16.5	13.4	10.9	8.9	7.3	6	4.8
						500	15.7	12.7	10.4	8.4	6.9	5.6	4.5
RPSQ 18-4-11	18	4" x 11 ga. x 18'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	13.3	10.6	8.4	6.7	5.3	4.1	3.2
						500	12.6	10	7.9	6.3	4.9	3.8	2.9
RPSQ 20-4-11	20	4" x 11 ga. x 20'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	10.6	8.3	6.4	4.9	3.6	2.6	1.7
						500	10	7.8	6	4.5	3.3	2.3	1.5
RPSQ 20-4-7	20	4" x 7 ga. x 20'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	11.2	8.8	7	5.4	4.2	3.2	2.3
						500	10.6	8.3	6.5	5.1	3.8	2.9	2
RPSQ 25-4-11	25	4" x 11 ga. x 25'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	5.7	3.9	2.4	1.3	0.3	N/A	N/A
						500	5.2	3.5	2	1	N/A	N/A	N/A
RPSQ 25-4-7	25	4" x 7 ga. x 25'	8" x 0.75"	8.0/9.0" (8.5)	.75 x 17 x 3	200	6.4	4.6	3.1	2	1	N/A	N/A
						500	5.9	4.2	2.8	1.7	0.8	N/A	N/A
RPSQ 20-5-11	20	5" x 11 ga. x 20'	11" x 0.75"	10.5/11.5" (11.0")	.75 x 17 x 3	200	13.8	10.8	8.3	6.3	4.7	3.4	2.3
						500	13.3	10.3	7.9	6	4.4	3.1	2
RPSQ 20-5-7	20	5" x 7 ga. x 20'	11" x 1.00"	10.5/11.5" (11.0")	1 x 36 x 4	200	33.2	27.4	22.7	19	15.9	13.3	11.2
						500	32.8	27.1	22.4	18.7	15.7	13.1	11
RPSQ 25-5-11	25	5" x 11 ga. x 25'	11" x 0.75"	10.5/11.5" (11.0")	.75 x 17 x 3	200	7.4	5	3.2	1.7	0.4	N/A	N/A
						500	6.9	4.7	2.8	1.4	N/A	N/A	N/A
RPSQ 25-5-7	25	5" x 7 ga. x 25'	11" x 1.00"	10.5/11.5" (11.0")	1 x 36 x 4	200	22.5	18	14.5	11.6	9.3	7.3	5.7
						500	22.2	17.7	14.2	11.4	9.1	7.1	5.5
RPSQ 30-5-11	30	5" x 11 ga. x 30'	11" x 0.75"	10.5/11.5" (11.0")	.75 x 17 x 3	200	2.7	0.8	N/A	N/A	N/A	N/A	N/A
						500	2.3	0.5	N/A	N/A	N/A	N/A	N/A
RPSQ 30-5-7	30	5" x 7 ga. x 30'	11" x 1.00"	10.5/11.5" (11.0")	1 x 36 x 4	200	15.1	11.5	8.6	6.3	4.5	2.9	1.6
						500	14.8	11.3	8.4	6.2	4.3	2.8	1.5
RPSQ 35-5-7	35	5" x 7 ga. x 35'	11" x 1.00"	10.5/11.5" (11.0")	1 x 36 x 4	200	9.5	6.5	4.2	2.3	0.7	N/A	N/A
						500	9.3	6.3	4	2.1	0.6	N/A	N/A
RPSQ 25-6-7	25	6" x 7 ga. x 25'	12" x 1.00"	11.0/12.0" (11.5")	1 x 36 x 4	200	22	17.3	13.6	10.5	8.1	6	4.3
						500	21.6	17	13.3	10.3	7.9	5.9	4.2
RPSQ 30-6-7	30	6" x 7 ga. x 30'	12" x 1.00"	11.0/12.0" (11.5")	1 x 36 x 4	200	13.9	10.1	7.2	4.7	2.8	1.1	N/A
						500	13.6	9.9	7	4.6	2.6	1	N/A
RPSQ 35-6-7	35	6" x 7" ga. x 35'	12" x 1.00"	11.0/12.0" (11.5")	1 x 36 x 4	200	7.8	4.7	2.2	N/A	N/A	N/A	N/A
						500	7.6	4.5	2	N/A	N/A	N/A	N/A
RPSQ 39-6-7	39	6" x 7 ga. x 39'	12" x 1.00"	11.0/12.0" (11.5")	1 x 36 x 4	200	3.7	1	N/A	N/A	N/A	N/A	N/A
						500	3.5	0.8	N/A	N/A	N/A	N/A	N/A

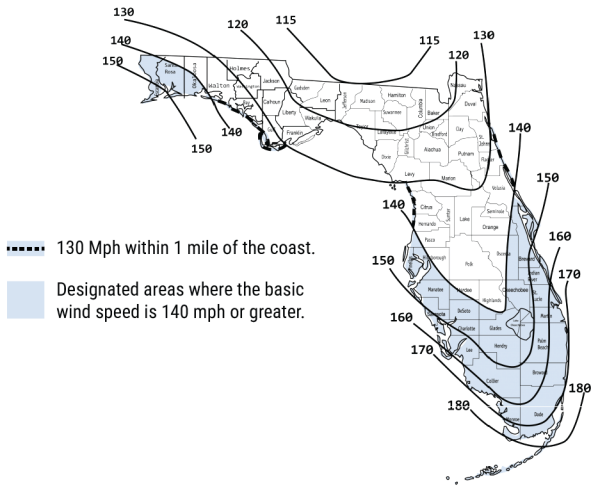
For steel poles, we have the ability to modify the base plate to accommodate alternate bolt circles to fit existing anchor bolt patterns. Note that we can only increase the size to the standard bolt circle; we cannot accommodate decreased bolt circle sizes for our cataloged poles. Contact the factory with any questions. New anchor bolts should be set using factory-supplied anchor bolt templates.

Vibration dampeners are recommended for poles 25' and above.

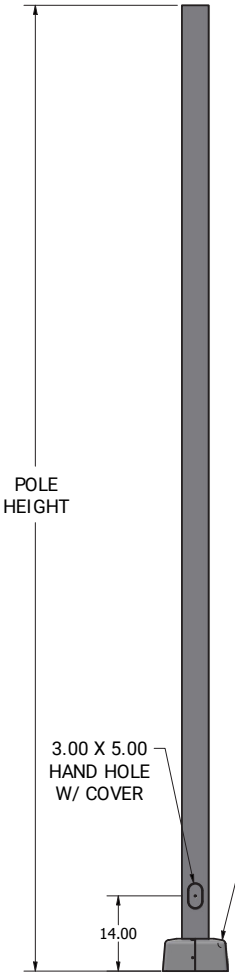
FBC WIND MAP

Notes:

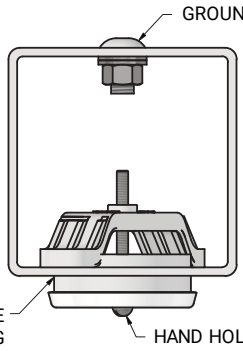
1. Values are nominal design 3-second gust wind speeds in miles per hour (m/s) at 33 ft (10 m) above ground for Exposure C category.
2. Linear interpolation between wind contours is permitted.
3. Islands and coastal areas outside the last contour shall use the last wind speed contour in the coastal area.
4. Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.
5. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (Annual Exceedance Probability = 0.00143, MRI = 700 years).
6. This map is accurate to the county. Local Governments establish specific wind speed/wind-borne debris lines using physical landmarks such as major roads, canals, rivers and shorelines.
7. Within 1 mile (1.61 km) of the mean high-water line where and Exposure D condition exists upwind at the waterline and the ultimate design wind speed, V_{ult} is 130 mph (58 m/s) or greater.
8. Location-specific wind speeds shall be permitted to be determined using the ASCE Wind Design Geodatabase. The ASCE Wind Design Geodatabase can be accessed at the ASCE 7 Hazard Tool (https://asce7hazardtool.online) or equivalent.

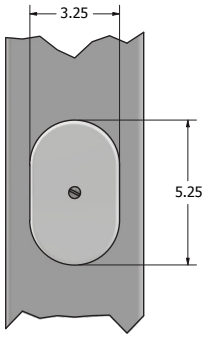


Pole Details

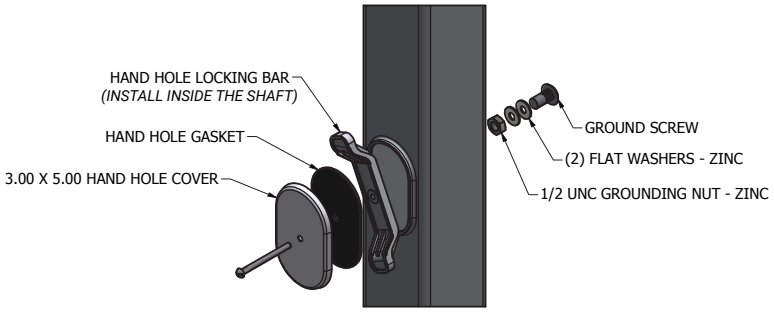


Hand Hole Detail

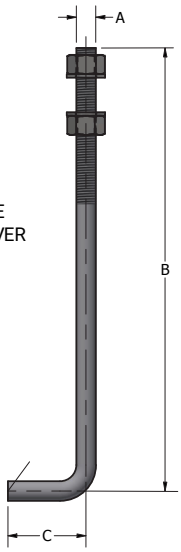




Hand Hole Cover Assembly

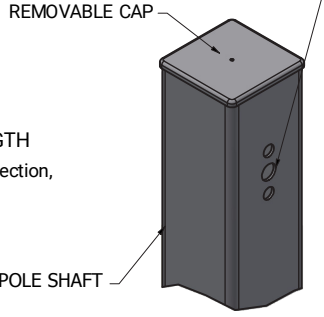


Anchor Bolt Detail



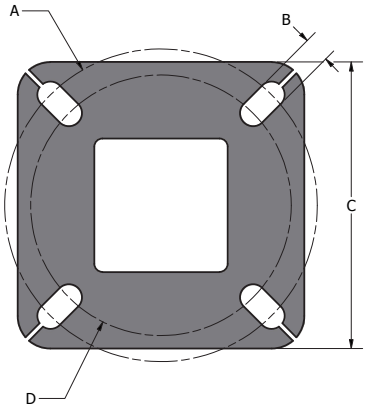
A = DIAMETER
B = VERTICAL LENTH
C = HORIZONTAL LENGTH
*Sizing based on pole selection, see table on page 2

Drill Mount Options



DRILL PER FIXTURE REQUIREMENTS:
D1 - DRILLED FOR 1 FIXTURE
D2 - DRILLED FOR 2 FIXTURES AT 90° OR 180°
D3 - DRILLED FOR 3 FIXTURES
D4 - DRILLED FOR 4 FIXTURES

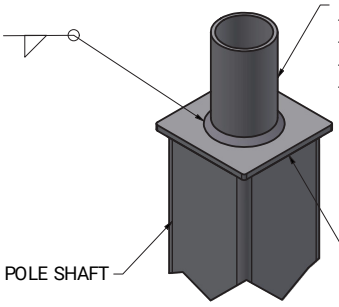
Base Plate / Bolt Circle



A = OUTER BOLT CIRCLE (OF RANGE)
B = BOLT HOLE PROVISION
C = PLATE SIZE
D = INNER BOLT CIRCLE (OF RANGE)

*Sizing based on pole selection, see table on page 2

Tenon Mount Options



TENON MOUNT OPTIONS:
T2- Ø2.38 OD X 4.00 LG
T2.5 - Ø2.88 OD X 4.00 LG
T3- Ø3.00 OD X 5.00 LG
T4- Ø4.00 OD X 6.00 LG

Build Your Part Number

The information below allows you to pull together the exact part number for the Square Straight Steel Pole required for your application. Details about the various options and accessories available can be found on the following pages. **Please note that each option and accessory must denote a mounting orientation (hand hole is at 0°) and height from base the of the pole.**

Catalog Number (found in wind load tables)				Mounting Type	Fixture Mounting Arrangement	Finish	Options			Accessories		
Design	Shaft Size	Wall Thickness	Mounting Height				Design	Orientation	Height From Base	Design	Orientation	Height From Base

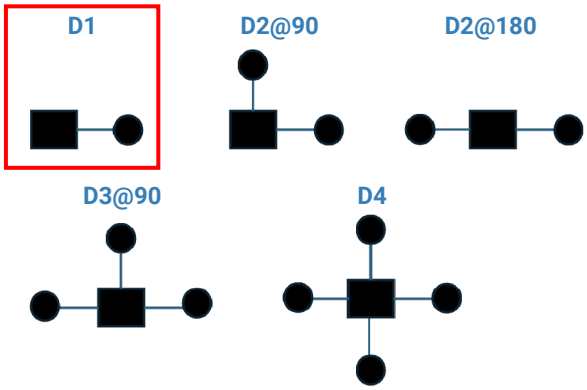
Mounting Type Options

AB = Anchor Base

EMB = Embedded (Direct Burial)

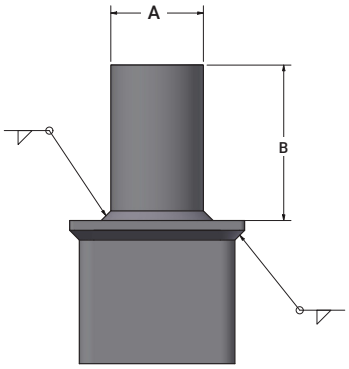
Fixture Mounting Arrangement Options

Drill Mount Options



Tenon Mount Options

Design	Dia. (A)	Length (B)
T2	2.38"	4.00"
T2.5	2.88"	4.00"
T3	3.00"	5.00"
T4	4.00"	6.00"



Tenon Mount

Finish Options

Standard Finishes

DP = Dark Platinum

MG = Moss Green

WH = White

TWH = Textured White

DB = Dark Bronze

HB = Harvest Bronze

TMB = Textured Medium Bronze

NB = New Bronze

SL = Silver

MGY = Medium Gray

GR = Gray

TGR = Textured Gray

MA= Matte Aluminum

PSP = Platinum Silver

BK = Black

TBK = Textured Black

Premium Finishes

GM = Graphite Metallic

DP = Dark Platinum

MG = Moss Green

Available Options

CSBC = Custom Steel Base Cover

MODBASE = Modified Steel Base Plate

VD = Vibration Dampener

GFI = Ground Fault Circuit Interrupter

FESTOON = Switch or Receptacle Mounting Provision

CMB = Camera Mounting Bracket

CMP = Camera Mounting Plate

WB = Welded Bracket

WC = Welded Coupling

WN = Welded Nipple

PE = Pad Eye

SCP = Shielded Circuit Provision

XHH = Extra Hand Hole

FGAB = Fully Galvanized Anchor Bolts

L/AB = Anchor Bolt Deduct

UL = UL Listed

CSA = CSA Listed

BUY AMERICA = Buy America Act (BAA) Requirement for US-Sourced Steel (must be requested at time of order)

Available Accessories

BA = Banner Arm

FH = Flag Holder

FPH = Flower Pot Holder

PTTA = Pole Top Tenon Adapter

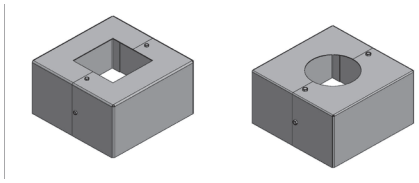
BAC = Breakaway Couplings

TTAP = Two-Tier Adapter Plate

Available Options Detail

Custom Steel Base Cover

Design	Description
CSBC	Custom Steel Base Cover



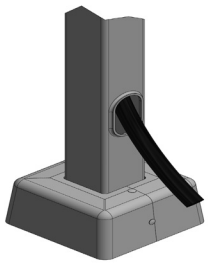
Modified Steel Base Plate*

Catalog Number	Description
MODBASE	Accommodate existing bolt patterns or other required specifications on steel poles. Plates can only be made to increase the standard bolt circle of a pole, smaller bolt circles cannot be accommodated. Bolt circle size must be provided to release an order.

*Includes custom steel base cover to fit

Vibration Dampener*

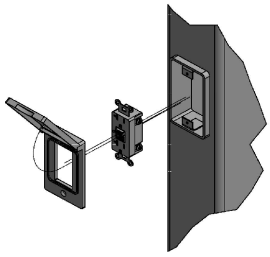
Design	Description
VD	Recommended for use with all poles 25' and higher

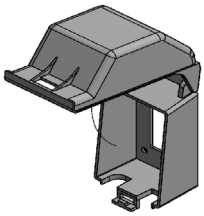


*All vibration dampeners are plus freight if purchased and shipped separately.

Ground Fault Circuit Interrupter*

Design	Description
GFI	Weatherproof 15-20 amp. 125V A/C Recessed Ground Fault Circuit Interrupter with In Use Cover

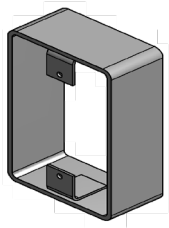




*Requires a mounting location of a minimum of 10" above hand hole to not affect the structural integrity of the pole.

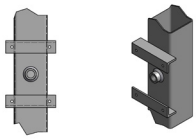
Festoon - Switch or Receptacle Mounting Provision

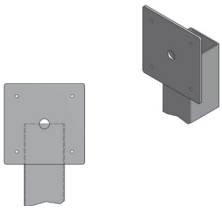
Design	Description
FESTOON	Mounting provision for customer-supplied switch or standard receptacle.



Mounting Bracket

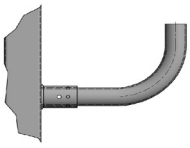
Design	Description
CMB	Mounting Bracket
CMP	Mounting Plate





Welded Bracket

Design	Description
WB	2-3/8" OD Bent Slip-fit Pipe Bracket Welded on Pole



Welded Coupling*

Design	Description
WC	Threaded Pipe Coupling with Wire Hole Welded to Pole



*See cutsheet on our website for available coupling sizes.

Available Options Detail (continued)

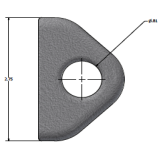
Welded Nipple

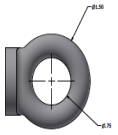
Design	Description
WN	Threaded Pipe Nipple with Wire Hole Welded to Pole



Pad Eye

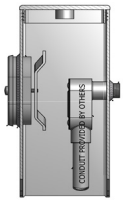
Design	Description
PE	Welded Padeye Provision Available in Aluminum or Steel to Match Pole





Shielded Circuit Provision

Design	Description
SCP	Shielded Circuit Mounting Provision



Extra Hand Hole*

Design	Description
XHH	Extra Hand Hole Provision Located as Specified on Order



*Includes hand hole cover assembly.

Fully Galvanized Anchor Bolts*

Catalog Number	Description (in.)
FGAB	¾" x 20"
	¾" x 28"
	1" o.d.
	1.5" o.d.



*3/4" x 20" standard bolt is fully galvanized, all other anchor bolts are partially galvanized on the threaded end only.

Anchor Bolt Deduct — Used When Customer Does Not Want Anchor Bolts Shipped

Catalog Number	Description
L/AB	Deduct amount for all 3/4" anchor bolts (see pole type matrices for anchor bolt size)
	Deduct amount for all 1" anchor bolts (see pole type matrices for anchor bolt size)

Ul or CSA Listing

Catalog Number	Description
UL	Poles can be ordered to meet UL requirements. "UL" must appear in the part number. UL Listed poles include a metal hand hole cover and UL label.
CSA	Poles can be ordered to meet CSA requirements. "CSA" must appear in the part number. CSA approved poles include required grounding provision and CSA label.

CLASSIFIED UL LUMINAIRE POLE WITH RESPECT TO ELECTRICAL HAZARDS ONLY <E473617>

BRAND COMPANIES OF DWM HOLDINGS

C SA US

CLASS - 3426 03 - LUMINAIRES - LUMINAIRE POLES

CATALOG NUMBER

YEAR OF MANUFACTURE

SUITABLE FOR WET LOCATIONS.

Available Accessories Detail

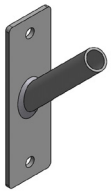
Banner Arm — Includes Top And Bottom Arm

Catalog Number	Description
BA	Banner Arm 25" or 31"



Flag Holder

Catalog Number	Description
FH	Flag Holder



Flower Pot Holder

Catalog Number	Description
FPH	Flower Pot Holder



Ptta — Square Pole Top Tenon Adapters

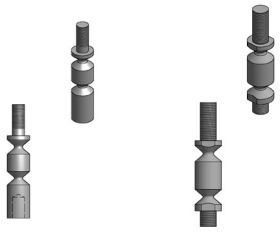
Catalog Number	Drill Mount Options	Height (in.)	Pole Size (in. sq.)
PTTA-4SQ-DXX	D1,D2,D3,D4	13	4
PTTA-5SQ-DXX	D1,D2,D3,D4	13	5
PTTA-6SQ-DXX	D1,D2,D3,D4	13	6



Break Away Couplings*

Catalog Number	To Fit Anchor Bolt Size (in.)
BAC-.75-SET	0.75 O.D.
BAC-1.0-SET	1.00 O.D.

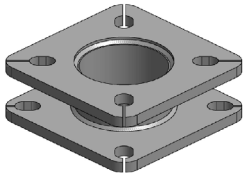
*Break away couplings provided with square skirt cover.



Two-Tier Adapter Plate*

Catalog Number	Min Bolt Circle (in.)	Max Bolt Circle (in.)	Included Base Cover
TTAP	------	12	YES
TTAP-16	12	16	YES

*Includes connecting hardware and Square Steel Base Cover



WME G2 - Emergency Wall Pack

CONTRACTOR XP



(Images are shown for illustration purposes only)

Type: OV
Project: E
Catalog #

KEY FEATURES

- Sturdy, weather resistant emergency wall pack.
- 3 CCT selectable.
- Preinstalled, switchable photocell.
- 3 year warranty.
- Emergency mode lasting up to 190 mins (see Page 2 for details).

SPECIFICATIONS

Housing
High impact, weather resistant lens die-cast aluminum housing.

Ambient Temperature
Suitable for use in -20° C to 50° C (-4° F to 122° F).

Finish
Dark bronze.

Mounting
Wall mount.

Efficacy
Up to 140 lumens per watt.

Lumen Output
1,400 Lm at 10W (AC mode).
700 Lm 4W (EM mode).

CCT and CRI
Field Selectable: 3000K, 4000K, and 5000K - 80 CRI

Lifespan
L70 > 50,000 hours @ 25°C.

Warranty
3-year limited warranty.
Comprehensive warranty terms can be located on www.slgus.com.

Electrical
Standard voltage 120-277V.
PF > 90%. THD <20%.

Certifications
UL Listed for wet locations. FCC compliant.

ORDERING GUIDE

Example: **WME L14 G2 FSK**

Fixture Type	Lumen Output	Generation	Voltage	CCT	Photocell	Finish
• WME LED Emergency Wall Pack	• L14 1,400 Lm / 10 W (AC), 700 Lm / 4W (EM)	• G2 Second Generation	• BLANK 120-277V	• FSK 3000K 4000K 5000K - CRI 80	• BLANK Preinstalled switcable photocell.	• BLANK Dark Bronze

For stocking opportunities please reach out to your local SLG Lighting rep or contact sales@slgus.com.
Leadtimes may vary based on current inventory levels - always consult your local SLG Lighting rep for leadtimes and project needs.

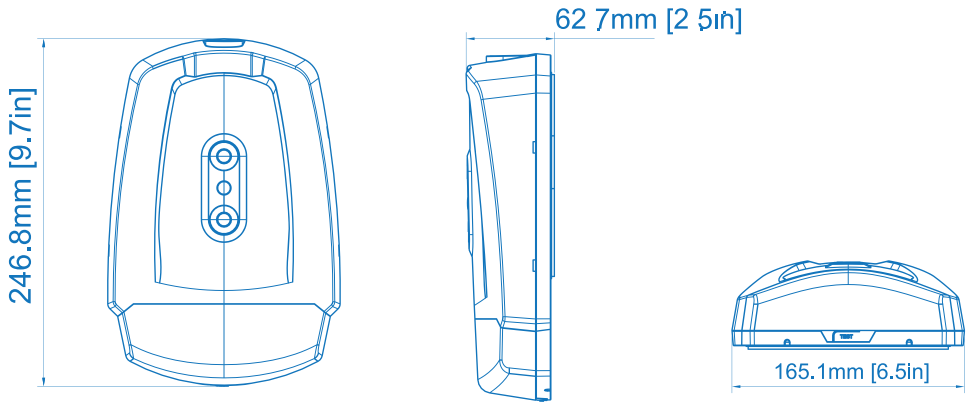
PERFORMANCE INFORMATION

Series Number	Power Setting	Wattage	Lumens (3000K)	LPW	Lumens (4000K)	LPW	Lumens (5000K)	LPW	CRI
WME L14 G2 FSK	AC (Standard Mode)	10 W	1,300 Lm	130 Lm/W	1,400 Lm	140 Lm/W	1,350 Lm	135 Lm/W	80

Performance data based on vigorous, industry standard testing and has been verified by lab results.

DIMENSIONS

WME G2 - 10 W



Due to continuous product improvements, specification and/or equipment updates may change without notice.

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EMERGENCY BACKUP MODE

Series Number	Wattage	Lumens	Operating Temperature	Operating Time
WME L14 G2 FSK	4 W	>700 Lm	18°C to +40°C (64.4° F to 104° F)	190 Min (Roughly 3 hours, 10 mins)
			0° C (32° F)	160 Min (Roughly 2 hours, 40 mins)
			-20°C (-4° F)	100 Min (Roughly 1 hour, 40 mins)

SHIPPING INFORMATION

Product number	Individual box size	Master Carton Size	Master Carton Quanity
WME L14 G2 FSK	10.04" X 6.69" X 2.87"	20.87" X 10.83" X 12.40"	12 Pcs

Fixtures ship 1 per box and specific dimensions may change without notice due to improvements.

PHOTOMETRIC

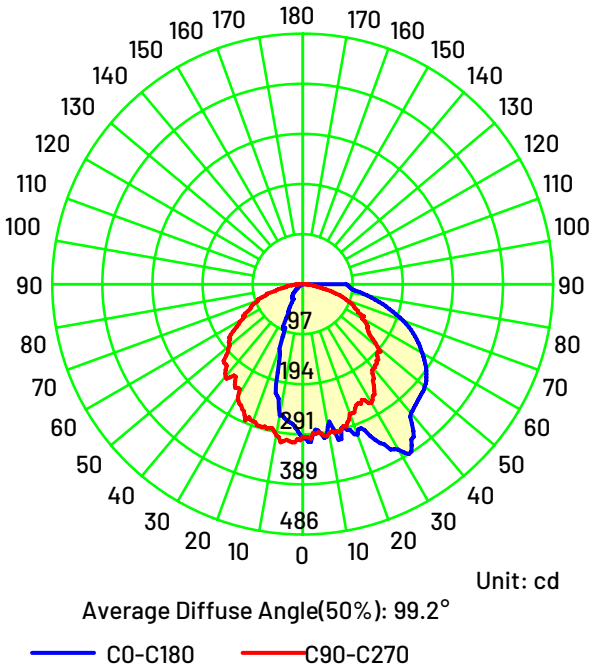
Luminaire Property

Luminaire Manufacturer: SLG Lighting
Luminaire Category: Wall Mount
Luminaire Description: WME G2
Lamp Catalog:
Number of Lamps: 1
Luminous Length (mm): 245
Luminous Height (mm):
Current: 0 A
Power Factor: 0
Lamp Description:
Lumens per Lamp:
Luminous Width (mm): 162
Voltage: 0 V
Power: 0 W

Photometric Results

CIE Class: Direct
Measurement Flux: 832.1 lm
Downward Ratio: 100%
Horizontal Diffuse Angle(10%,50%,75%,100%): H132.6,H89.1,H67.9,H32
Vertical Diffuse Angle(10%,50%,75%,100%): V162,V114.2,V77.7,V11
Luminaire Efficacy Rating (LER): 832.15
Max. Intensity: 389.26 cd
S/MH(C0/C180): 0.99
Total Rated Lamp Lumens: 832.1 lm
Efficiency: 100%
Upward Ratio: 0%
C0r0 Intensity: 299.27 cd
Pos of Max. Intensity: H0 V32
S/MH(C90/C270): 1.27

Luminous Intensity Distribution Curve



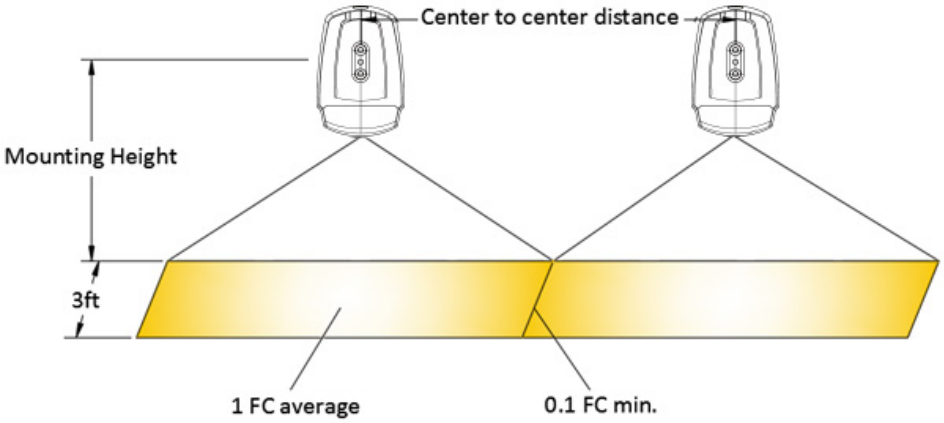
Unit: cd

Average Diffuse Angle(50%): 99.2°

C0-C180 C90-C270

Due to continuous product improvements, specification and/or equipment updates may change without notice.

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NFPA 101 requires 1.0 foot-candle average and 0.1 foot-candle minimum with a 40:1 maximum /minimum ratio. The corridor used is 80 feet long, 9 feet ceiling with a 6 foot wide walkway and 6&3 feet path of egress. The refleance are 80% ceiling, 50% walls and 20% floors. The fixture mounting height is 7.5 feet.

Model (Emergency Mode)	7.5ft Mount Height	8ft Mount Height	10ft Mount Height
WME G2	45ft distance	50ft distance	46ft distance

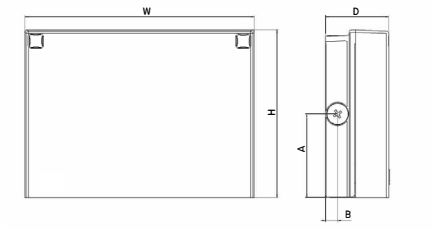
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WPX LED
Wall Packs

Type: OW2
Project: Basic Metals
Catalog #: WPX3-LED-40K-MVOLT

Specifications



Front View Side View

Luminaire	Height (H)	Width (W)	Depth (D)	Side Conduit Location		Weight
				A	B	
WPX1	8.1" (20.6 cm)	11.1" (28.3 cm)	3.2" (8.1 cm)	4.0" (10.3 cm)	0.6" (1.6 cm)	6.1 lbs (2.8kg)
WPX2	9.1" (23.1 cm)	12.3" (31.1 cm)	4.1" (10.5 cm)	4.5" (11.5 cm)	0.7" (1.7 cm)	8.2 lbs (3.7kg)
WPX3	9.5" (24.1 cm)	13.0" (33.0 cm)	5.5" (13.7 cm)	4.7" (12.0 cm)	0.7" (1.7 cm)	11.0 lbs (5.0kg)

Introduction

The WPX LED wall packs are energy-efficient, cost-effective, and aesthetically appealing solutions for both HID wall pack replacement and new construction opportunities. Available in three sizes, the WPX family delivers 1,550 to 9,200 lumens with a wide, uniform distribution.

The WPX full cut-off solutions fully cover the footprint of the HID glass wall packs that they replace, providing a neat installation and an upgraded appearance. Reliable IP66 construction and excellent LED lumen maintenance ensure a long service life. Photocell and emergency egress battery options make WPX ideal for every wall mounted lighting application.

Ordering Information

EXAMPLE: WPX2 LED 40K MVOLT DDBXD

Series		Color Temperature		Voltage		Options		Finish	
WPX1 LED P1	1,550 Lumens, 11W [1]	30K	3000K	MVOLT	120V - 277V	(blank)	None	DDBXD	Dark bronze
WPX1 LED P2	2,900 Lumens, 24W	40K	4000K	347	347V [3]	E4WH	Emergency battery backup, CEC compliant (4W, 0°C min) [2]	DWHXD	White
WPX2 LED	6,000 Lumens, 47W	50K	5000K			E14WC	Emergency battery backup, CEC compliant (14W, -20°C min) [2]	DBLXD	Black
WPX3 LED	9,200 Lumens, 69W					PE	Photocell [3]	Note : For other options, consult factory.	

Note: The lumen output and input power shown in the ordering tree are average representations of all configuration options. Specific values are available on request.

NOTES
1. All WPX wall packs come with 6kV surge protection standard, except WPX1 LED P1 package which comes with 2.5kV surge protection standard. Add SPD6KV option to get WPX1 LED P1 with 6kV surge protection.
   Sample nomenclature: WPX1 LED P1 40K MVOLT SPD6KV DDBXD
2. Battery pack options only available on WPX1 and WPX2.
3. Battery pack options not available with 347V or PE options.

FEATURES & SPECIFICATIONS

INTENDED USE
The WPX LED wall packs are designed to provide a cost-effective, energy-efficient solution for the one-for-one replacement of existing HID wall packs. The WPX1, WPX2 and WPX3 are ideal for replacing up to 150W, 250W, and 400W HID luminaires respectively. WPX luminaires deliver a uniform, wide distribution. WPX is rated for -40°C to 40°C.

CONSTRUCTION
WPX feature a die-cast aluminum main body with optimal thermal management that both enhances LED efficacy and extends component life. The luminaires are IP66 rated, and sealed against moisture or environmental contaminants.

ELECTRICAL
Light engine(s) configurations consist of high-efficacy LEDs and LED lumen maintenance of L90/100,000 hours. Color temperature (CCT) options of 3000K, 4000K and 5000K with minimum CRI of 70. Electronic drivers ensure system power factor >90% and THD <20%. All luminaires have 6kV surge protection (Note: WPX1 LED P1 package comes with a standard surge protection rating of 2.5kV. It can be ordered with an optional 6kV surge protection).
All photocell (PE) operate on MVOLT (120V - 277V) input.

Note: The standard WPX LED wall pack luminaires come with field-adjustable drive current feature. This feature allows tuning the output current of the LED drivers to adjust the lumen output (to dim the luminaire).

INSTALLATION
WPX can be mounted directly over a standard electrical junction box. Three 1/2 inch conduit ports on three sides allow for surface conduit wiring. A port on the back surface allows poke-through conduit wiring on surfaces that don't have an electrical junction box. Wiring can be made in the integral wiring compartment in all cases. WPX is only recommended for installations with LEDs facing downwards. The WPX is intended for installation on flat wall surfaces. Other applications may void warranty

LISTINGS
CSA Certified to meet U.S. and Canadian standards. Suitable for wet locations. IP66 Rated. DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. International Dark Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

WARRANTY
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.

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Performance Data

Electrical Load

Luminaire	Input Power (W)	120V	208V	240V	277V	347V
WPX1 LED P1	11W	0.09	0.05	0.05	0.04	0.03
WPX1 LED P2	24W	0.20	0.12	0.10	0.09	0.07
WPX2	47W	0.39	0.23	0.20	0.17	0.14
WPX3	69W	0.58	0.33	0.29	0.25	0.20

Projected LED Lumen Maintenance

Data references the extrapolated performance projections in a 25°C ambient, based on 6,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	50,000	75,000	100,000
Lumen Maintenance Factor	>0.94	>0.92	>0.90

HID Replacement Guide

Luminaire	Equivalent HID Lamp	WPX Input Power
WPX1 LED P1	100W	11W
WPX1 LED P2	150W	24W
WPX2	250W	47W
WPX3	400W	69W

Lumen Output

Luminaire	Color Temperature	Lumen Output
WPX1 LED P1	3000K	1,537
	4000K	1,568
	5000K	1,602
WPX1 LED P2	3000K	2,748
	4000K	2,912
	5000K	2,954
WPX2	3000K	5,719
	4000K	5,896
	5000K	6,201
WPX3	3000K	8,984
	4000K	9,269
	5000K	9,393

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient	Ambient	Lumen Multiplier
0°C	32°F	1.05
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Emergency Egress Battery Packs

The emergency battery backup is integral to the luminaire — no external housing or back box is required. The emergency battery will power the luminaire for a minimum duration of 90 minutes and deliver minimum initial output of 550 lumens. Both battery pack options are CEC compliant.

Battery Type	Minimum Temperature Rating	Power (Watts)	Controls Option	Ordering Example
Standard	0°C	4W	E4WH	WPX2 LED 40K MVOLT **E4WH** DDBXD
Cold Weather	-20°C	14W	E14WC	WPX2 LED 40K MVOLT **E14WC** DDBXD

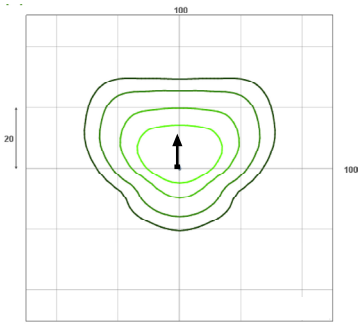
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting WPX LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards

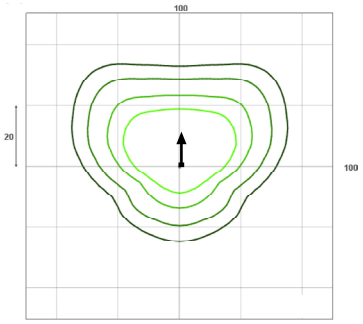
LEGEND

- 0.1 fc
- 0.2 fc
- 0.5 fc
- 1.0 fc

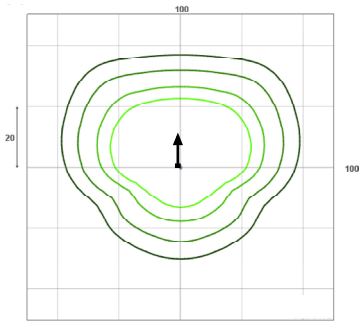
WPX1 LED P1



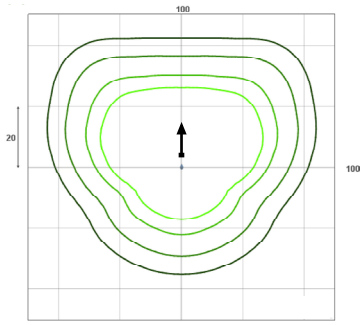
WPX1 LED P2



WPX2 LED



WPX3 LED



Mounting Height = 12 Feet.

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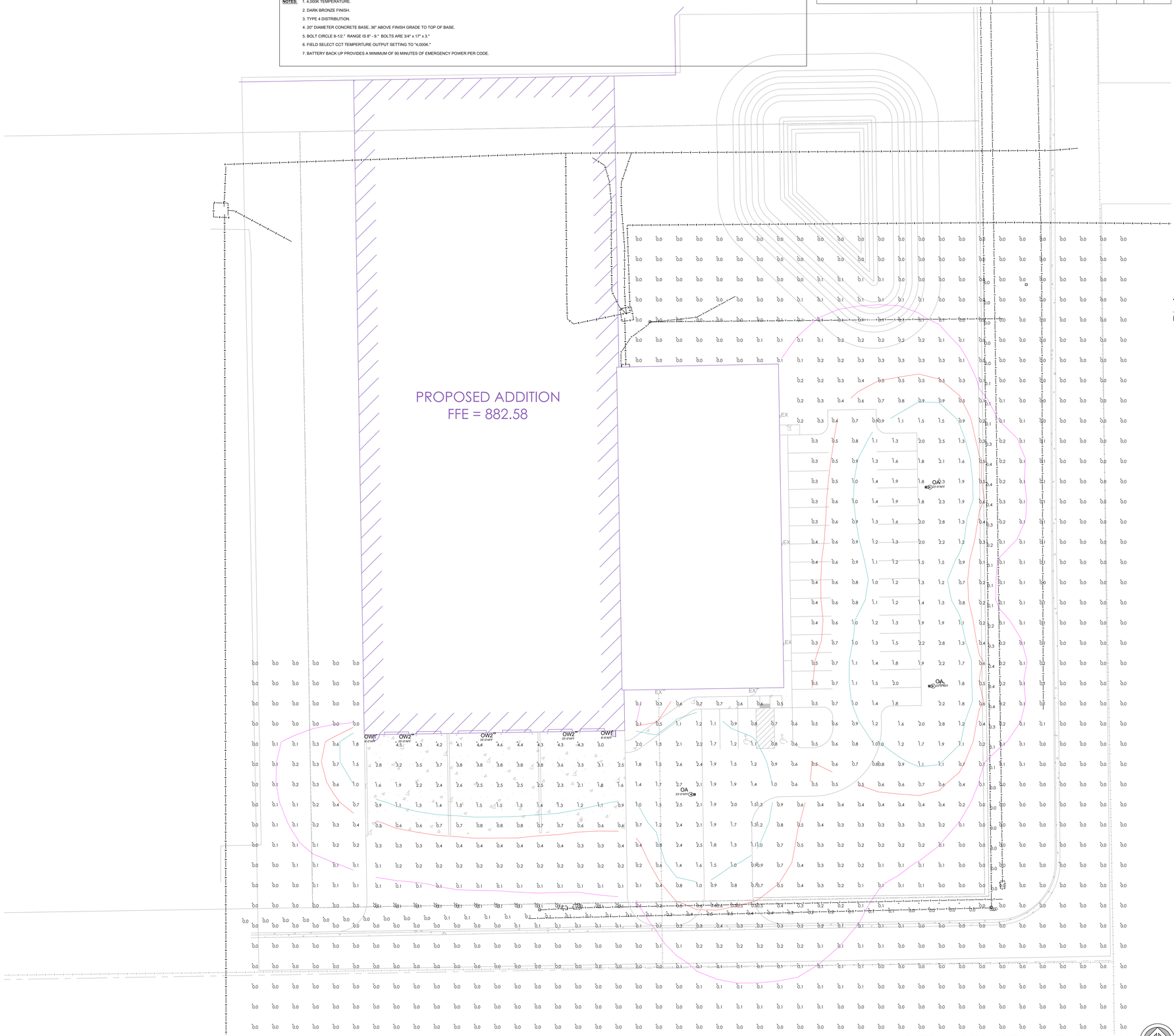
LUMINAIRE SCHEDULE

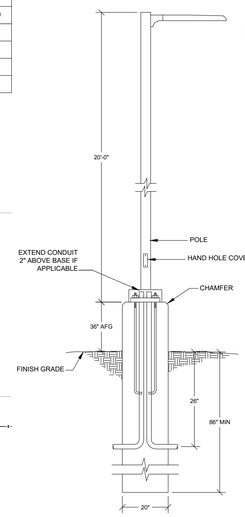
QTY	TYPE	DESCRIPTION	LAMP DATA		PART NUMBERS		MOUNT	VOLT	NOTES
			#	TYPE	MFG	CATALOG #			
3	OA	SINGLE HEAD 20'-0" POLE	LED	96 WATT-4,000K-85CRI-13,140 LUMENS	LUMARK	PRV-C25-D-UNV-T4-BZ / RPSQ-20-4-11-AB-D1-NB	POLE	120	1,2,3,4,5
2	OW1	WALL PACK	LED	10.11 WATT-4,000K-80CRI-1,401 LUMENS	SLG	WME-L14-G2-FSK	SURFACE	120	1,2,6,7
3	OW2	WALL PACK	LED	72.33 WATT-4,000K-80CRI-9,270 LUMENS	LITHONIA	WPX3-LED-40K-MVOLT	SURFACE	120	1,2
-	-	-	-	-	-	-	-	-	-

NOTES:
1. 4,000K TEMPERATURE.
2. DARK BRONZE FINISH.
3. TYPE 4 DISTRIBUTION.
4. 20" DIAMETER CONCRETE BASE. 36" ABOVE FINISH GRADE TO TOP OF BASE.
5. BOLT CIRCLE 8-1/2." RANGE IS 8" - 9." BOLTS ARE 3/4" x 17" x 3."
6. FIELD SELECT CCT TEMPERTURE OUTPUT SETTING TO "4,000K."
7. BATTERY BACK UP PROVIDES A MINIMUM OF 90 MINUTES OF EMERGENCY POWER PER CODE.

CALCULATION SUMMARY

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
LOADING DOCK AREA	Illuminance	Fc	1.36	5.00	0.10	13.60	50.00
OPEN PARKING LOT	Illuminance	Fc	0.98	2.00	0.30	3.27	6.67
OUTDOOR	Illuminance	Fc	0.24	2.80	0.00	N/A	N/A
PRESUMED LOT LINE EAST	Illuminance	Fc	0.15	0.40	0.00	N/A	N/A
PRESUMED LOT LINE SOUTH	Illuminance	Fc	0.12	0.50	0.00	N/A	N/A





TYPICAL POLE BASE DETAIL
NTS

SITE PHOTOMETRIC STUDY PLAN
1" = 20'-0"

NORTH

GENERAL NOTES:

1. SWITCH ARC IS DRAWN FOR REFERENCE ONLY AND DOES NOT REPRESENT ACTURAL BRANCH WIRING.
2. ALL NIGHT LIGHTS, EXIT LIGHTS, EMERGENCY BATTERY UNITS AND OCCUPANCY SENSORS SHALL BE WIRED AHEAD OF ANY LIGHTING CONTROL SYSTEM THE PROJECT MAY CONTAIN.
3. REFER TO SHEET E000 FOR MOUNTING STYLES, HEIGHTS AND LUMINAIRE PART NUMBERS.
4. RECORD ANY AND ALL CHANGES TO THIS SHEET IN RED PEN FOR AS BUILT PURPOSES. SUBMIT AS BUILTS TO SUPERINTENDENT AT THE END OF THE PROJECT. MAKE REVISIONS AS JOB PROGRESSES NOT ALL AT ONCE IN THE END PLEASE WRITE LEGIBLY.
5. TEST LIGHTS, EXITS, EMERGENCY BATTERY UNITS AND ALL SWITCHES PRIOR TO THE END OF THE PROJECT AND REPORT ANY FAILED COMPONENTS.
6. PROGRAM AND TEST ALL OCCUPANCY SENSORS, TIME CLOCKS AND LIGHTING CONTACTORS PRIOR TO THE END OF THE PROJECT AND REPORT ANY FAILED COMPONENTS.
7. INSTALL TYPED PANEL SCHEDULES UPON COMPLETION OF THE PROJECT.
8. INSTALL ALL WALL PLATES LEVEL WITH THE SLOTS OF THE SCREW HEAD IN A VERTICAL POSITION.
9. INSTALL ARC FLASH STICKERS AND PANEL IDENTIFICATION PER NEC.
10. ALL NEW DEVICES MUST MATCH COLOR OF EXISTING DEVICES.

~ ALL DRAWINGS ARE SCHEMATIC ONLY. THE INSTALLING ELECTRICAL CONTRACTOR SHALL BE THE ENGINEER OF RECORD. THE INSTALLING ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CALCULATIONS, SIZING, ENGINEERING AND MEETING OF NEC.

VILLAGE SUBMITTAL PLAN 02.05.2026

LYONS ELECTRIC Since 1979 powered by design

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REVISIONS

NO.	DESCRIPTION	DATE

FIRM NAME AND ADDRESS:
LYONS ELECTRIC
75 ENTERPRISE ROAD
DELAFIELD, WI 53018
www.lyons-electric.com

CONTACT INFORMATION:
TIM ANDERSON
MOBILE:(262) 370-1589
EMAIL:timanderson@lyons-electric.com

PROJECT NAME:

PROPOSED BUILDING ADDITION FOR:
BASIC METALS, INC
OFFICE ADDITION
W180 N11819 NORTH RIVER LANE
GERMANTOWN, WI 53022

SHEET TITLE:
SITE PHOTOMETRIC STUDY PLAN

DRAWN BY:	JOB NUMBER:
DMG	
DATE DRAWN:	APPROVED BY:
02.05.2026	KRK

SHEET 1 OF 1

SHEET #:
ES100

ABACUS ARCHITECTS

Civil Engineering Services

STORM WATER MANAGEMENT AND SITE NARRATIVE

Basic Metals Addition
W180N11711 North River Lane, Germantown, WI 53022

February 2026

OWNER CONTACT:
Andy Fogel
Basic Metals
W180N11819 North River Lane
Germantown, WI 53022
(262) 255-9034
afogel@basicmetals.com

REGISTERED PROFESSIONAL ENGINEER:
Joel VanEss, P.E.
Abacus Architects, Inc.
1135A Michigan Avenue
Sheboygan, WI 53081
(920)452-4444
jvaness@abacusarchitects.net

PROJECT DESCRIPTION

A total of about 149,945 sq.ft. of area will be disturbed during this project. Approximately 28,183 sq.ft. of new concrete and pavement and 41,647 sq.ft. of new building additions will be added to the existing Basic Metals.

The roads to be constructed will be asphalt roads with curb and gutter. The storm sewer was designed to collect the drainage associated with the majority of the site, which is then directed to a detention pond located northeast on the site.

PROPERTY INFORMATION

This development involves Parcels #GTNV212904 and #GTNV212970 that are being combined as part of this project.

The parcels listed above are part of the SE ¼ of the NW ¼ and the NE ¼ of the NW ¼ of Section 21, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin.

EXISTING CONDITIONS

The existing site consists of grassland with Hydrologic Grade C and D soil, which were modeled with a runoff curve number (CN) of 74 and 80, and paved parking and an existing building, which were modeled with a runoff curve number (CN) of 98, per the requirement of the MMSD.

The existing site was divided into two separate drainage areas for modeling purposes, which are as follows:

E-1 Existing East Area
E-2 Existing West Area

E-1 consists of the majority of the existing grass on the site that flows to the east and off the site through a culvert in the southeast.

E-2 consists of the majority of the development on the existing site, including the existing building and pavement, that flows into the existing storm system on the site and into the storm system in the street to the south.

Refer to the appendix for information on the soils. Soils information was gathered using the NRCS Web Soil Survey.

Refer to the appendix for rainfall information. Rainfall information was gathered using the NOAA Atlas 14 Point Precipitation Estimates.

The following table represents the flow rates with respect to the existing drainage areas:

Design Storm	**Flow Rate (cfs)**		
	E-1	**E-2**	**Total**
1-year/24-hour MSE 4	0.88	2.61	3.34
2-year/24-hour MSE 4	1.23	3.13	4.19
10-year/24-hour MSE 4	2.75	5.10	7.58
100-year/24-hour MSE 4	6.74	9.49	15.73
Time of Concentration (min)	20.7	18.2	---
Size (acres)	2.0	1.7	3.7

Table 1: Existing Storm Water Runoff Peak Flow Rates

PROPOSED CONDITIONS

Refer to the appendix for information regarding the proposed site layout and drainage patterns. The project site has been divided into two separate drainage areas, which are as follows:

P-1 Captured To Pond
P-2 Uncaptured Area

P-1 will consist of the proposed building addition and a majority of the paved parking areas, as well as the existing building. This drainage area will be collected by the proposed storm sewer network, which will direct the runoff to the proposed detention pond.

P-2 will consist of the uncaptured paved parking and drives, and the uncaptured grass areas on the outside of the site.

The following tables summarize the proposed storm water runoff peak flow rates:

Design Storm	Flow Rate (cfs)		
	P-1	P-2	Total
1-year/24-hour MSE 4	6.18	0.76	6.41
2-year/24-hour MSE 4	7.20	0.99	7.53
10-year/24-hour MSE 4	10.99	1.94	11.76
100-year/24-hour MSE 4	19.26	4.30	21.17
Time of Concentration (min)	6.0	27.9	---
Size (acres)	2.4	1.3	3.7

Table 2: Proposed Storm Water Runoff Peak Flow Rates without Controls

Design Storm	Flow Rate (cfs)		
	P-1	P-2	Total
1-year/24-hour MSE 4	0.29	0.76	1.03
2-year/24-hour MSE 4	0.31	0.99	1.28
10-year/24-hour MSE 4	0.39	1.94	2.30
100-year/24-hour MSE 4	2.39	4.30	6.33
Time of Concentration (min)	6.0	27.9	---
Size (acres)	2.4	1.3	3.7

Table 3: Proposed Storm Water Runoff Peak Flow Rates with Controls

Design Storm	Flow Rate (cfs)	
	Requirement	Proposed
1-year/24-hour Type II	3.34	1.03
2-year/24-hour Type II	4.19	1.28
10-year/24-hour Type II	7.58	2.30
100-year/24-hour Type II	7.58	6.33

Table 4: Requirement vs. Proposed Storm Water Runoff Peak Flow Rates

The detention pond has been designed per the requirements of the DNR using HydroCAD and WinSLAMM software. The proposed TSS reduction has been modeled to be **56.82%.** Additional information regarding the proposed detention pond and modeling of the TSS reduction can be found in the Proposed HydroCAD modeling and WinSLAMM summary, located in the appendix of this report.

This development will not require storm water infiltration practices due to being a redevelopment post-construction site, under s. NR 151.121 (5). Additional information regarding the soils can be found in the Intertek Geotechnical Exploration and Evaluation Report and the Intertek Stormwater Tests Pits Letter, located in the appendix of this report.

NR 151.122 Total suspended solids performance standard.

(1) Requirement. BMPs shall be designed, installed and maintained to control total suspended solids carried in runoff from the post-construction site. BMPs shall be designed in accordance with Table 1… The design shall be based on an average annual rainfall, as compared to no runoff management controls.

Table 1. TSS Reduction Standards	
Development Type	**TSS Reduction**
New Development	80 percent
In–fill ≥ 5 acres	80 percent
In–fill < 5 acres on or after October 1, 2012	80 percent
Redevelopment	40 percent of load from parking areas and roads
In–fill < 5 acres and before October 1, 2012	40 percent

NR 151.123 Peak discharge performance standard.

(1) Requirement. By design, BMPs shall be employed to maintain or reduce the 1-year, 24-hour and the 2-year, 24-hour post-construction peak runoff discharge rates to the 1-year, 24-hour and the 2-year, 24-hour pre-development peak runoff discharge rates respectively, or to the maximum extent practicable. The runoff curve numbers in Table 2. shall be used to represent the actual pre-development condition.

Table 2. Maximum Pre–Development Runoff Curve Numbers				
Runoff Curve Number	**Hydrologic Soil Group**			
	A	**B**	**C**	**D**
Woodland	30	55	70	77
Grassland	39	61	71	78
Cropland	55	69	78	83

Note: Where the pre–development condition is a combination of woodland, grassland, or cropland, the runoff curve number should be pro–rated by area.

151.124(4)(c) Infiltration performance standard.

(1) Where the infiltration rate of the soil measured at the proposed bottom of the infiltration system is less than 0.6 inches per hour using a scientifically credible field test method.

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EXISTING STORMWATER MODELING

EXISTING CONDITIONS

EXISTING HYDROCAD MODELING REPORT

EXISTING AREA TO EAST (E-1)
TOTAL AREA: 2.0 ACRES
Tc: 20.7 MIN.
CN: 74

100 LF OF SHEET FLOW (GRASS) @ 4.1%

632 LF OF SHALLOW CONCENTRATED FLOW (GRASS) @ 2.7%

100 LF OF SHEET FLOW (GRASS) @ 0.7%

EXISTING AREA TO SOUTH (E-2)
TOTAL AREA: 1.7 ACRES
Tc: 15.2 MIN.
CN: 89

186 LF OF SHALLOW CONCENTRATED FLOW (GRASS) @ 1.7%

c/L NORTH RIVER LANE

c/L FULTON DRIVE

EXISTING CONDITIONS

N

SCALE: 1"=60'

February 4, 2026

Basic Metals

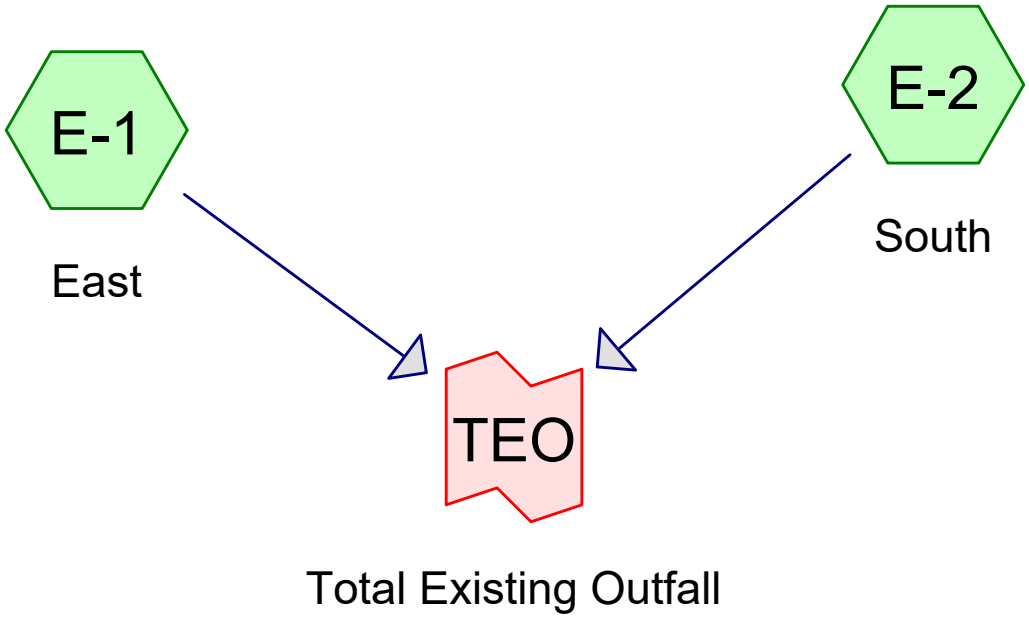
Germantown, WI 2024-100

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ABACUS ARCHITECTS

2/3/2026

P:\2024-CONTRACTS\2024-100 Basic Metals Expansion\Phase - 2\Construction Documents\5.3 Site\SWMP\2024-100 - SWMP.dwg



Total Existing Outfall

Subcat Reach Pond Link

Routing Diagram for 2024-100 - Basic Metals
Prepared by HP Inc., Printed 2/6/2026
HydroCAD® 10.00-26 s/n 10791 © 2020 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
2.153	74	>75% Grass cover, Good, HSG C (E-1, E-2)
0.600	80	>75% Grass cover, Good, HSG D (E-1, E-2)
0.628	98	Paved parking, HSG B (E-2)
0.294	98	Roofs, HSG B (E-2)
3.675	**81**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.922	HSG B	E-2
2.153	HSG C	E-1, E-2
0.600	HSG D	E-1, E-2
0.000	Other	
3.675		**TOTAL AREA**

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	2.153	0.600	0.000	2.753	>75% Grass cover, Good	E-1, E-2
0.000	0.628	0.000	0.000	0.000	0.628	Paved parking	E-2
0.000	0.294	0.000	0.000	0.000	0.294	Roofs	E-2
0.000	**0.922**	**2.153**	**0.600**	**0.000**	**3.675**	**TOTAL AREA**	

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E-1: East Runoff Area=1.958 ac 0.00% Impervious Runoff Depth>0.53"
Flow Length=732' Tc=20.7 min CN=74 Runoff=0.88 cfs 0.086 af

Subcatchment E-2: South Runoff Area=1.717 ac 53.70% Impervious Runoff Depth>1.33"
Flow Length=286' Tc=15.2 min CN=89 Runoff=2.61 cfs 0.190 af

Link TEO: Total Existing Outfall Inflow=3.34 cfs 0.277 af
Primary=3.34 cfs 0.277 af

Total Runoff Area = 3.675 ac Runoff Volume = 0.277 af Average Runoff Depth = 0.90"
74.91% Pervious = 2.753 ac 25.09% Impervious = 0.922 ac

Summary for Subcatchment E-1: East

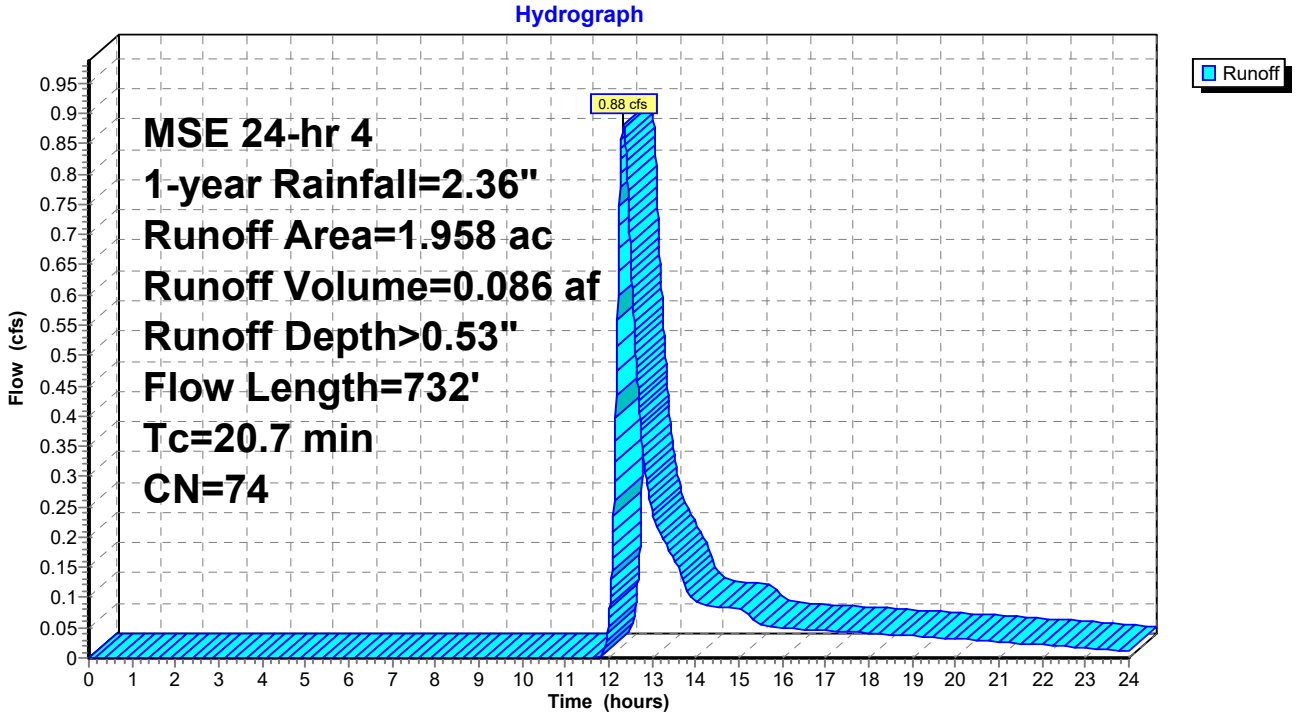
Runoff = 0.88 cfs @ 12.35 hrs, Volume= 0.086 af, Depth> 0.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 1-year Rainfall=2.36"

	Area (ac)	CN	Description
	0.000	39	>75% Grass cover, Good, HSG A
	0.000	61	>75% Grass cover, Good, HSG B
*	1.847	74	>75% Grass cover, Good, HSG C
*	0.111	80	>75% Grass cover, Good, HSG D
	0.000	98	Paved parking, HSG B
	0.000	98	Roofs, HSG B
	1.958	74	Weighted Average
	1.958		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	100	0.0413	0.14		**Sheet Flow, Sheet Flow** Grass: Dense n= 0.240 P2= 2.70"
9.1	632	0.0273	1.16		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
20.7	732	Total			

Subcatchment E-1: East



Summary for Subcatchment E-2: South

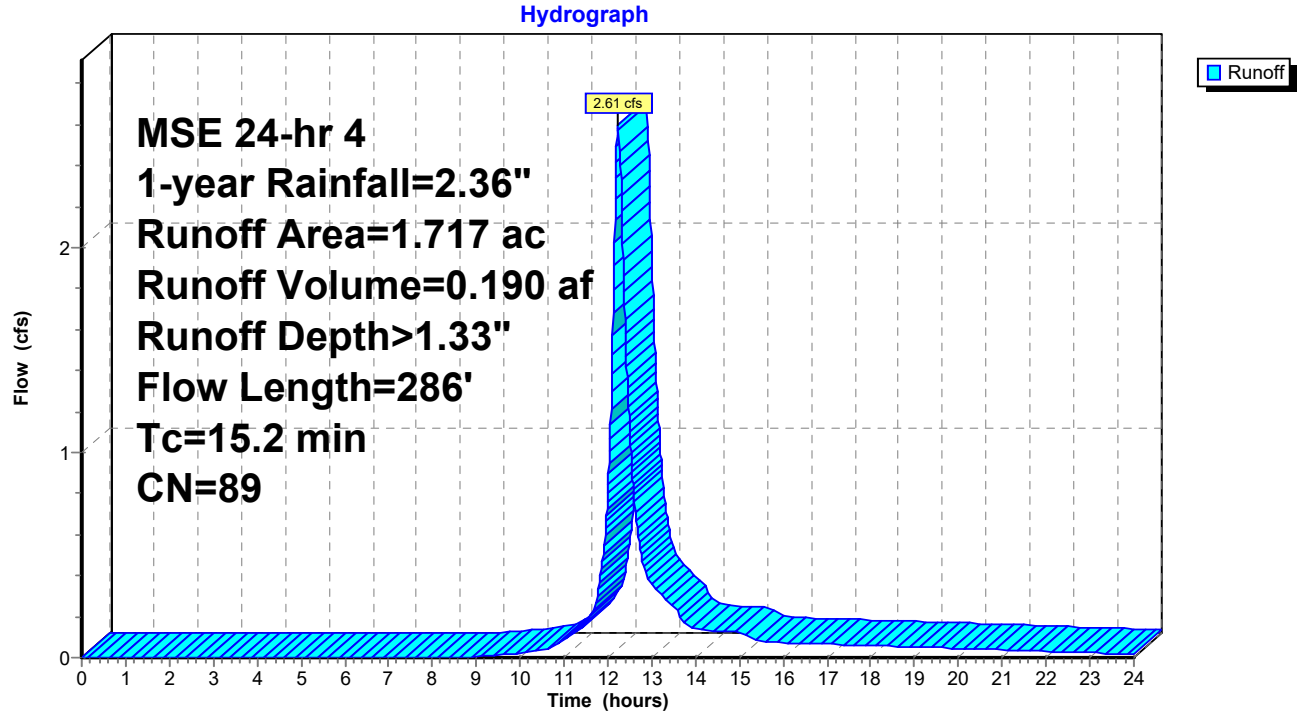
Runoff = 2.61 cfs @ 12.24 hrs, Volume= 0.190 af, Depth> 1.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 1-year Rainfall=2.36"

Area (ac)	CN	Description
0.000	39	>75% Grass cover, Good, HSG A
0.000	61	>75% Grass cover, Good, HSG B
0.306	74	>75% Grass cover, Good, HSG C
0.489	80	>75% Grass cover, Good, HSG D
0.628	98	Paved parking, HSG B
0.294	98	Roofs, HSG B
1.717	89	Weighted Average
0.795		46.30% Pervious Area
0.922		53.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0400	0.14		**Sheet Flow, Sheet Flow** Grass: Dense n= 0.240 P2= 2.70"
3.4	186	0.0173	0.92		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
15.2	286	Total			

Subcatchment E-2: South

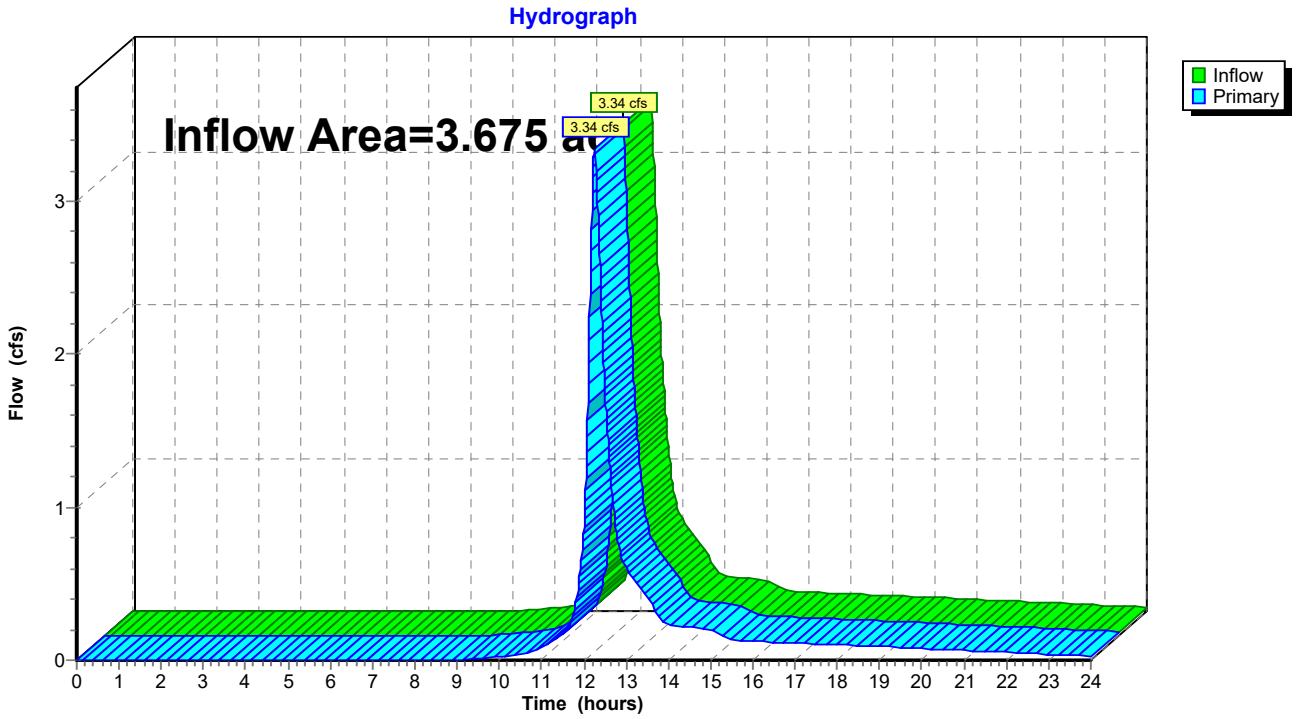


Summary for Link TEO: Total Existing Outfall

Inflow Area = 3.675 ac, 25.09% Impervious, Inflow Depth > 0.90" for 1-year event
Inflow = 3.34 cfs @ 12.25 hrs, Volume= 0.277 af
Primary = 3.34 cfs @ 12.25 hrs, Volume= 0.277 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link TEO: Total Existing Outfall



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E-1: East Runoff Area=1.958 ac 0.00% Impervious Runoff Depth>0.70"
Flow Length=732' Tc=20.7 min CN=74 Runoff=1.23 cfs 0.115 af

Subcatchment E-2: South Runoff Area=1.717 ac 53.70% Impervious Runoff Depth>1.60"
Flow Length=286' Tc=15.2 min CN=89 Runoff=3.13 cfs 0.229 af

Link TEO: Total Existing Outfall Inflow=4.19 cfs 0.344 af
Primary=4.19 cfs 0.344 af

Total Runoff Area = 3.675 ac Runoff Volume = 0.344 af Average Runoff Depth = 1.12"
74.91% Pervious = 2.753 ac 25.09% Impervious = 0.922 ac

Summary for Subcatchment E-1: East

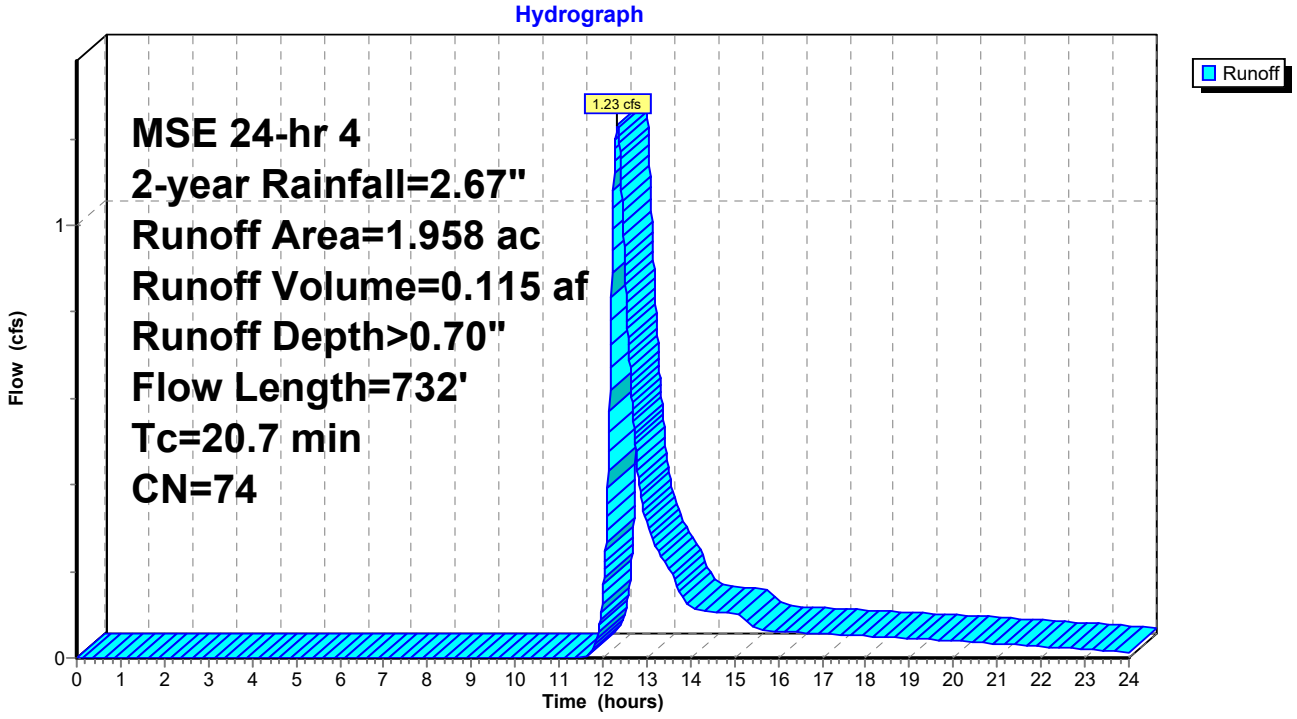
Runoff = 1.23 cfs @ 12.33 hrs, Volume= 0.115 af, Depth> 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 2-year Rainfall=2.67"

	Area (ac)	CN	Description
	0.000	39	>75% Grass cover, Good, HSG A
	0.000	61	>75% Grass cover, Good, HSG B
*	1.847	74	>75% Grass cover, Good, HSG C
*	0.111	80	>75% Grass cover, Good, HSG D
	0.000	98	Paved parking, HSG B
	0.000	98	Roofs, HSG B
	1.958	74	Weighted Average
	1.958		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	100	0.0413	0.14		**Sheet Flow, Sheet Flow** Grass: Dense n= 0.240 P2= 2.70"
9.1	632	0.0273	1.16		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
20.7	732	Total			

Subcatchment E-1: East



Summary for Subcatchment E-2: South

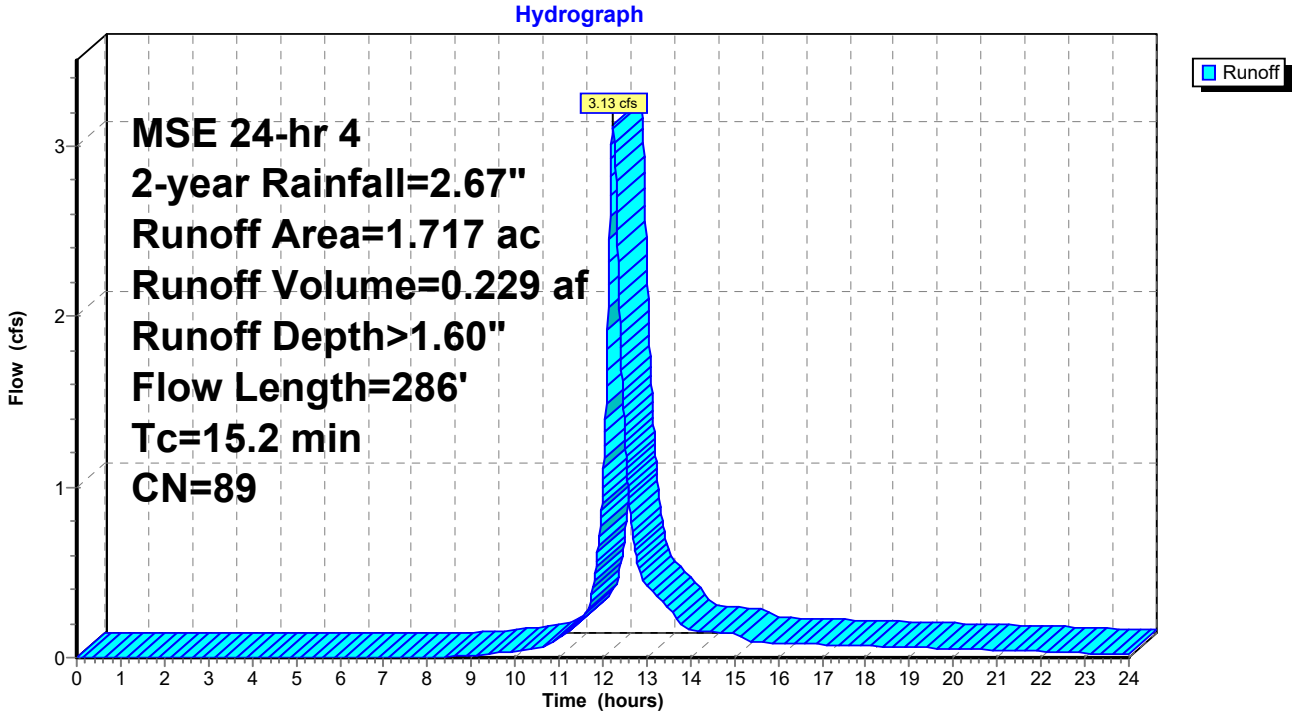
Runoff = 3.13 cfs @ 12.24 hrs, Volume= 0.229 af, Depth> 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 2-year Rainfall=2.67"

Area (ac)	CN	Description
0.000	39	>75% Grass cover, Good, HSG A
0.000	61	>75% Grass cover, Good, HSG B
0.306	74	>75% Grass cover, Good, HSG C
0.489	80	>75% Grass cover, Good, HSG D
0.628	98	Paved parking, HSG B
0.294	98	Roofs, HSG B
1.717	89	Weighted Average
0.795		46.30% Pervious Area
0.922		53.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0400	0.14		**Sheet Flow, Sheet Flow** Grass: Dense n= 0.240 P2= 2.70"
3.4	186	0.0173	0.92		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
15.2	286	Total			

Subcatchment E-2: South

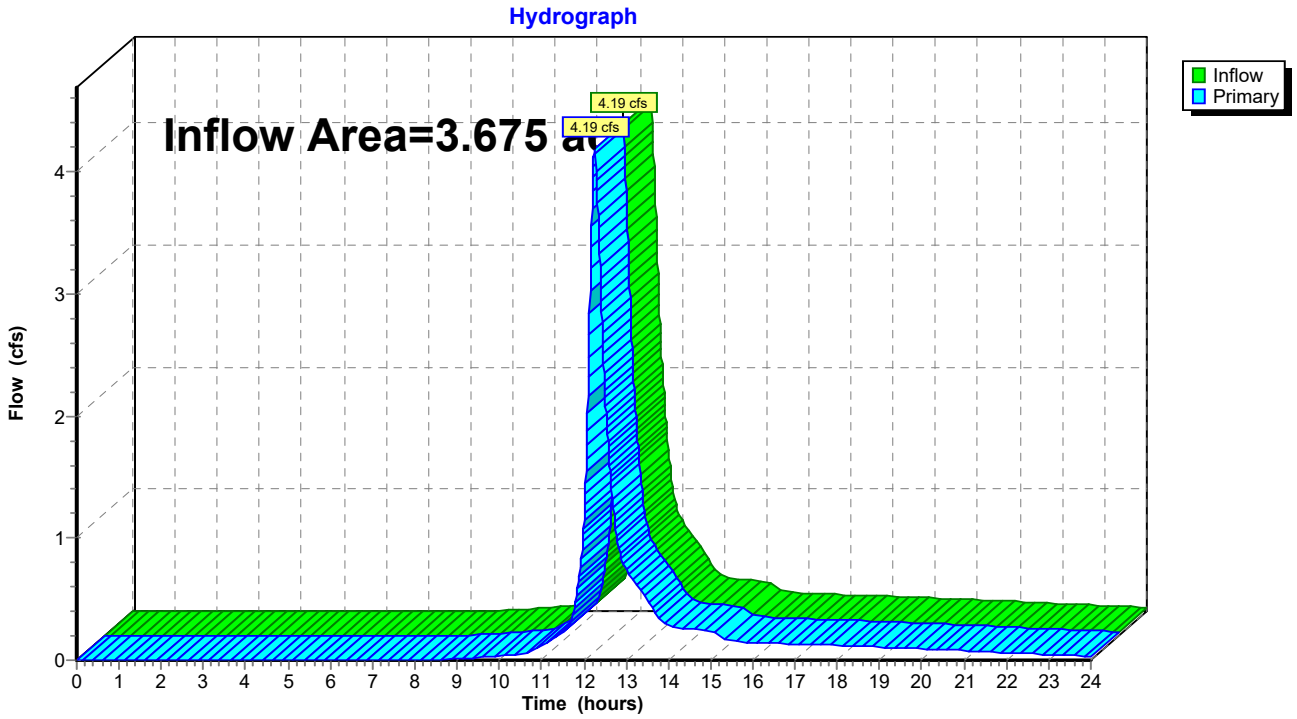


Summary for Link TEO: Total Existing Outfall

Inflow Area = 3.675 ac, 25.09% Impervious, Inflow Depth > 1.12" for 2-year event
Inflow = 4.19 cfs @ 12.25 hrs, Volume= 0.344 af
Primary = 4.19 cfs @ 12.25 hrs, Volume= 0.344 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link TEO: Total Existing Outfall



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E-1: East Runoff Area=1.958 ac 0.00% Impervious Runoff Depth>1.46"
Flow Length=732' Tc=20.7 min CN=74 Runoff=2.75 cfs 0.239 af

Subcatchment E-2: South Runoff Area=1.717 ac 53.70% Impervious Runoff Depth>2.65"
Flow Length=286' Tc=15.2 min CN=89 Runoff=5.10 cfs 0.379 af

Link TEO: Total Existing Outfall Inflow=7.58 cfs 0.618 af
Primary=7.58 cfs 0.618 af

Total Runoff Area = 3.675 ac Runoff Volume = 0.618 af Average Runoff Depth = 2.02"
74.91% Pervious = 2.753 ac 25.09% Impervious = 0.922 ac

Summary for Subcatchment E-1: East

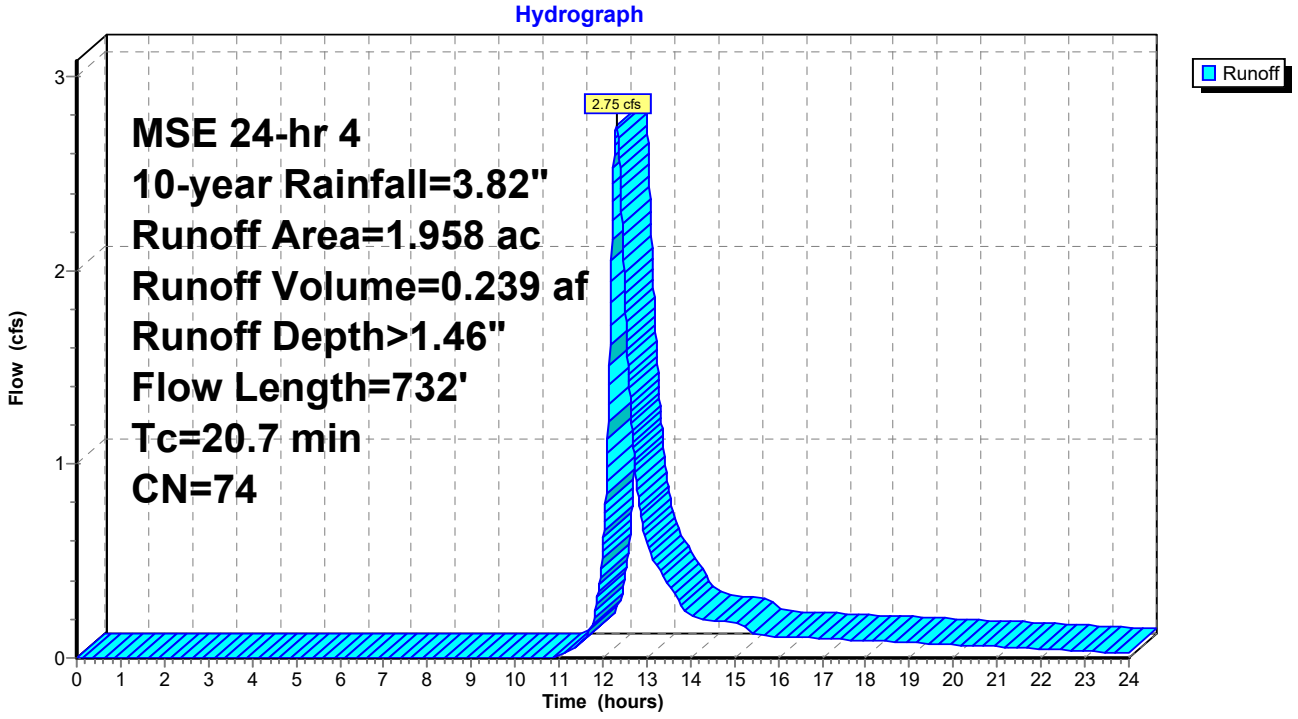
Runoff = 2.75 cfs @ 12.31 hrs, Volume= 0.239 af, Depth> 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 10-year Rainfall=3.82"

	Area (ac)	CN	Description
	0.000	39	>75% Grass cover, Good, HSG A
	0.000	61	>75% Grass cover, Good, HSG B
*	1.847	74	>75% Grass cover, Good, HSG C
*	0.111	80	>75% Grass cover, Good, HSG D
	0.000	98	Paved parking, HSG B
	0.000	98	Roofs, HSG B
	1.958	74	Weighted Average
	1.958		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	100	0.0413	0.14		**Sheet Flow, Sheet Flow** Grass: Dense n= 0.240 P2= 2.70"
9.1	632	0.0273	1.16		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
20.7	732	Total			

Subcatchment E-1: East



Summary for Subcatchment E-2: South

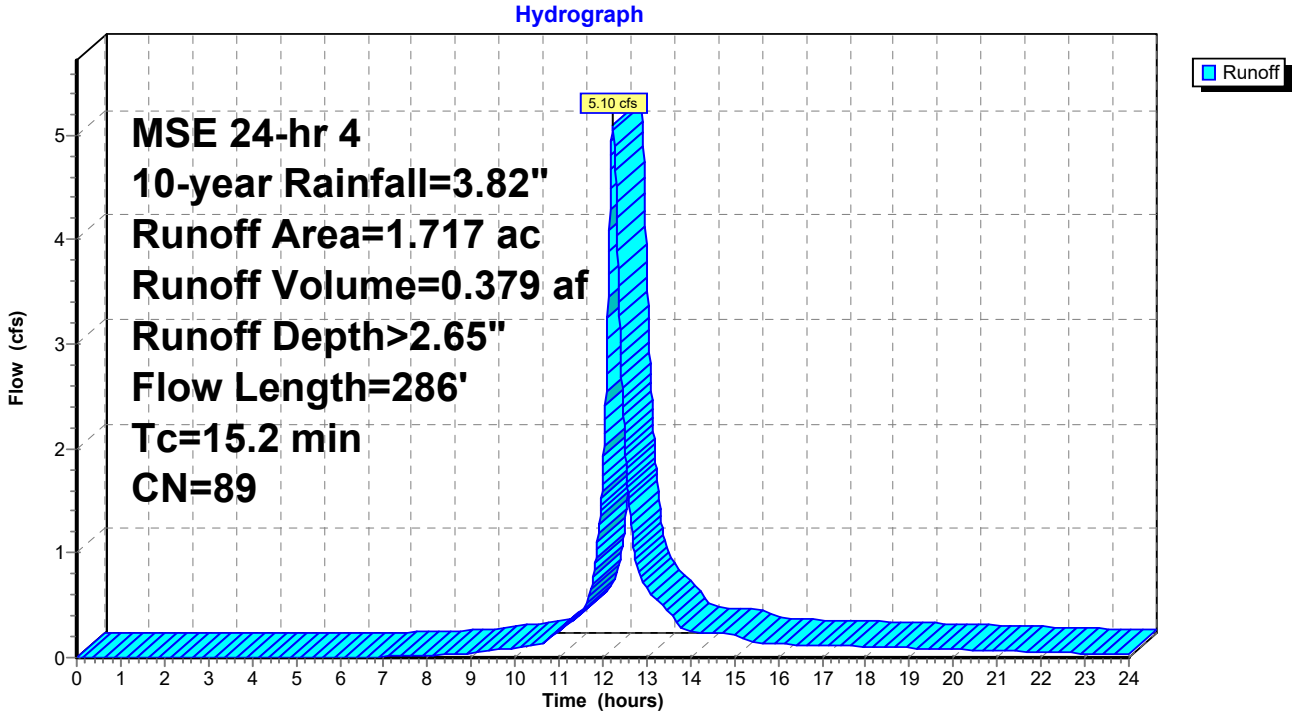
Runoff = 5.10 cfs @ 12.23 hrs, Volume= 0.379 af, Depth> 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 10-year Rainfall=3.82"

Area (ac)	CN	Description
0.000	39	>75% Grass cover, Good, HSG A
0.000	61	>75% Grass cover, Good, HSG B
0.306	74	>75% Grass cover, Good, HSG C
0.489	80	>75% Grass cover, Good, HSG D
0.628	98	Paved parking, HSG B
0.294	98	Roofs, HSG B
1.717	89	Weighted Average
0.795		46.30% Pervious Area
0.922		53.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0400	0.14		**Sheet Flow, Sheet Flow** Grass: Dense n= 0.240 P2= 2.70"
3.4	186	0.0173	0.92		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
15.2	286	Total			

Subcatchment E-2: South

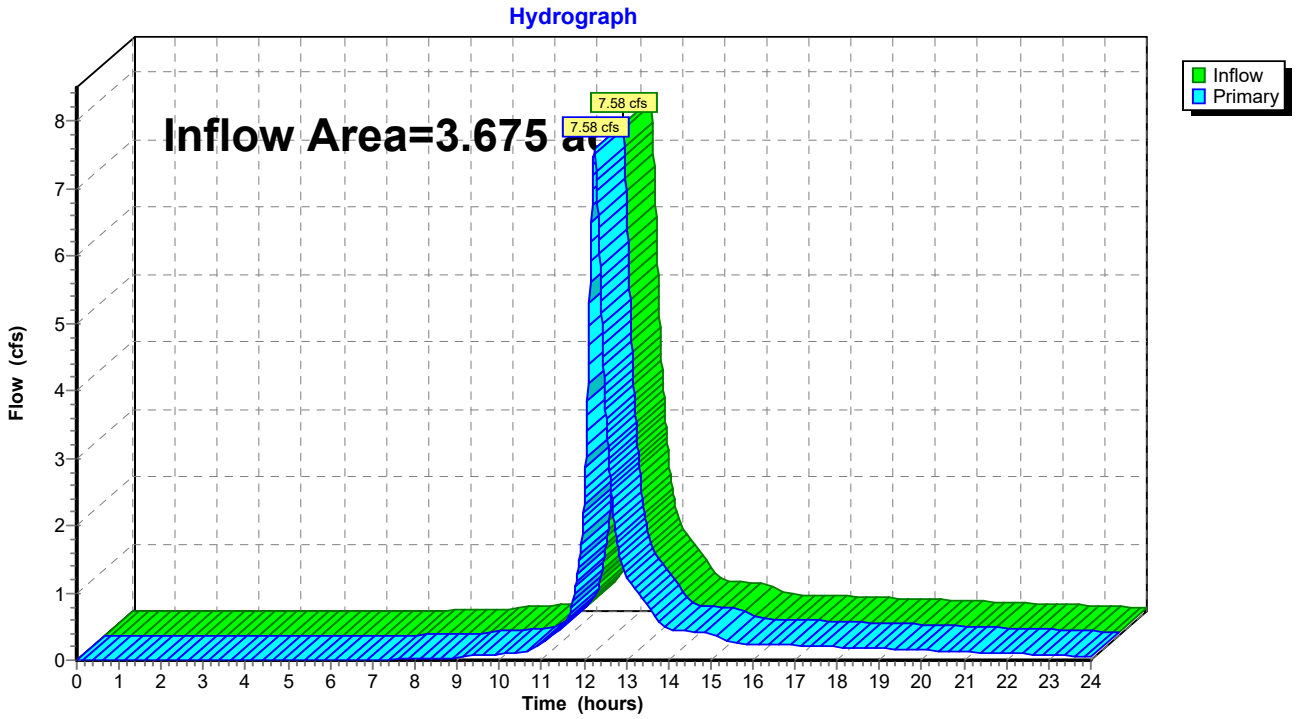


Summary for Link TEO: Total Existing Outfall

Inflow Area = 3.675 ac, 25.09% Impervious, Inflow Depth > 2.02" for 10-year event
Inflow = 7.58 cfs @ 12.25 hrs, Volume= 0.618 af
Primary = 7.58 cfs @ 12.25 hrs, Volume= 0.618 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link TEO: Total Existing Outfall



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E-1: East Runoff Area=1.958 ac 0.00% Impervious Runoff Depth>3.49"
Flow Length=732' Tc=20.7 min CN=74 Runoff=6.74 cfs 0.570 af

Subcatchment E-2: South Runoff Area=1.717 ac 53.70% Impervious Runoff Depth>5.09"
Flow Length=286' Tc=15.2 min CN=89 Runoff=9.49 cfs 0.728 af

Link TEO: Total Existing Outfall Inflow=15.73 cfs 1.298 af
Primary=15.73 cfs 1.298 af

Total Runoff Area = 3.675 ac Runoff Volume = 1.298 af Average Runoff Depth = 4.24"
74.91% Pervious = 2.753 ac 25.09% Impervious = 0.922 ac

Summary for Subcatchment E-1: East

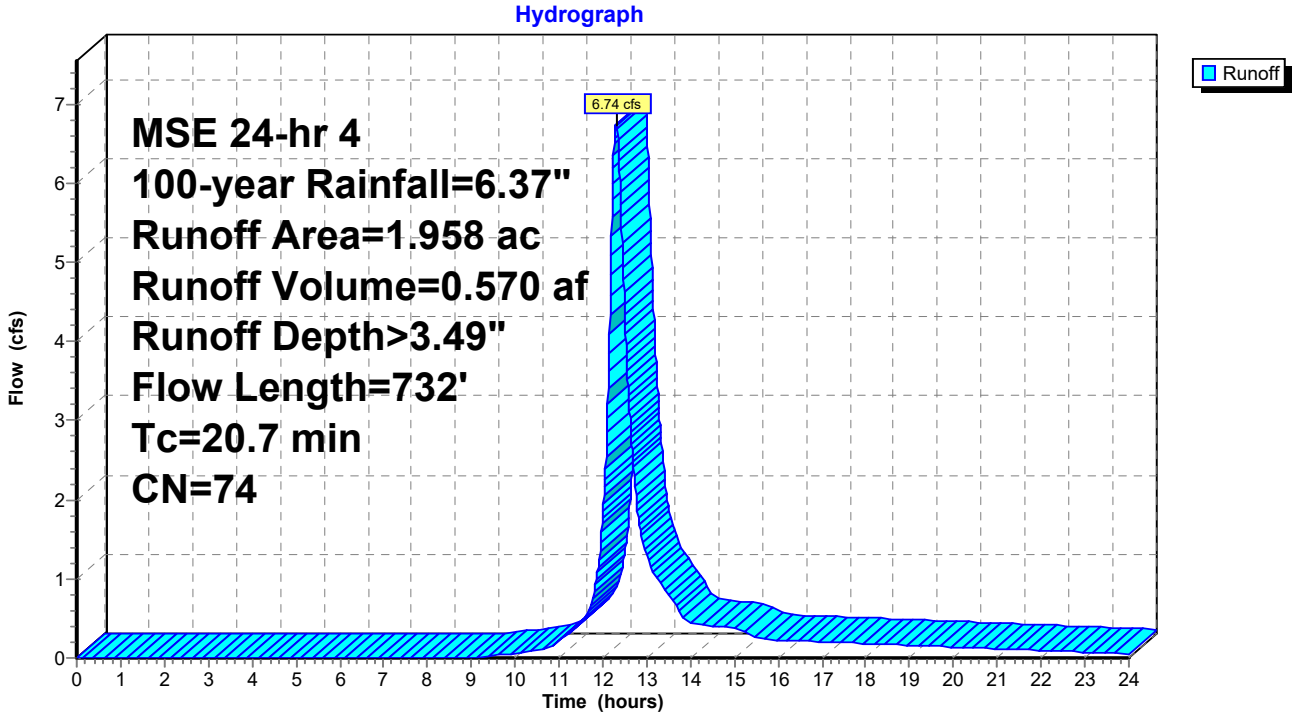
Runoff = 6.74 cfs @ 12.30 hrs, Volume= 0.570 af, Depth> 3.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 100-year Rainfall=6.37"

	Area (ac)	CN	Description
	0.000	39	>75% Grass cover, Good, HSG A
	0.000	61	>75% Grass cover, Good, HSG B
*	1.847	74	>75% Grass cover, Good, HSG C
*	0.111	80	>75% Grass cover, Good, HSG D
	0.000	98	Paved parking, HSG B
	0.000	98	Roofs, HSG B
	1.958	74	Weighted Average
	1.958		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	100	0.0413	0.14		**Sheet Flow, Sheet Flow** Grass: Dense n= 0.240 P2= 2.70"
9.1	632	0.0273	1.16		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
20.7	732	Total			

Subcatchment E-1: East



Summary for Subcatchment E-2: South

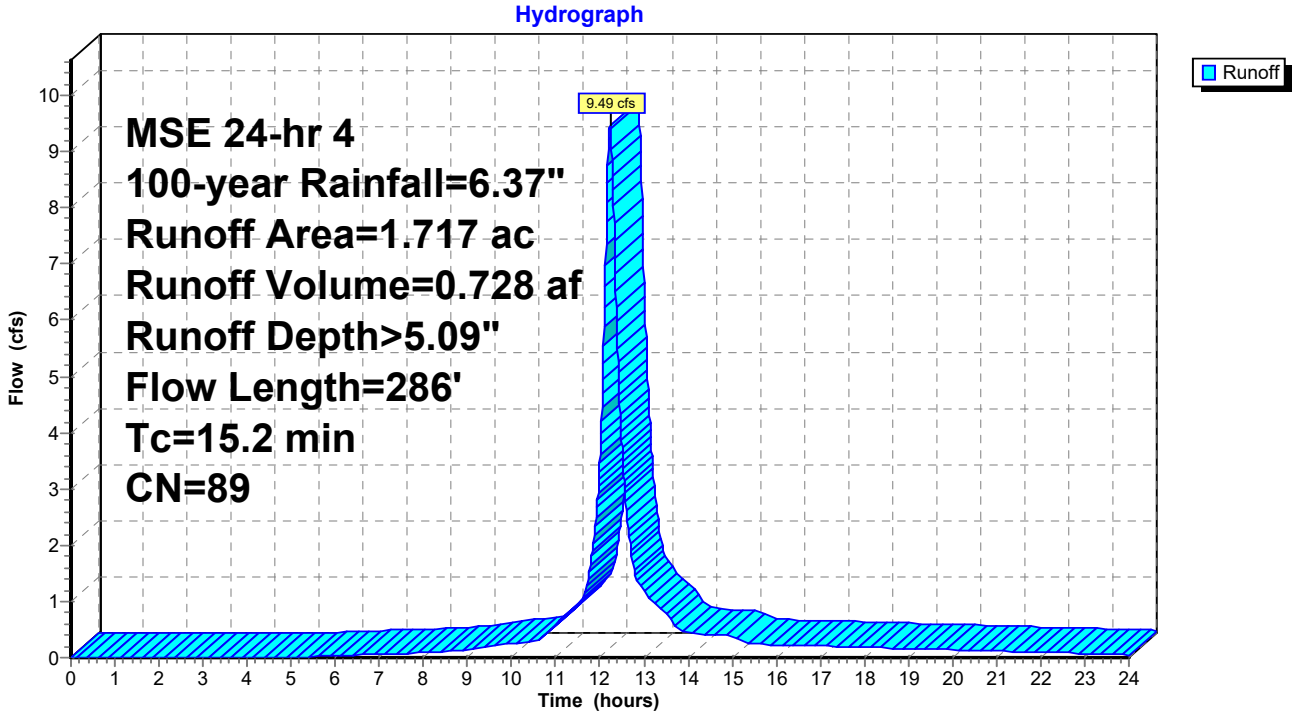
Runoff = 9.49 cfs @ 12.23 hrs, Volume= 0.728 af, Depth> 5.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 100-year Rainfall=6.37"

Area (ac)	CN	Description
0.000	39	>75% Grass cover, Good, HSG A
0.000	61	>75% Grass cover, Good, HSG B
0.306	74	>75% Grass cover, Good, HSG C
0.489	80	>75% Grass cover, Good, HSG D
0.628	98	Paved parking, HSG B
0.294	98	Roofs, HSG B
1.717	89	Weighted Average
0.795		46.30% Pervious Area
0.922		53.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0400	0.14		**Sheet Flow, Sheet Flow** Grass: Dense n= 0.240 P2= 2.70"
3.4	186	0.0173	0.92		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
15.2	286	Total			

Subcatchment E-2: South

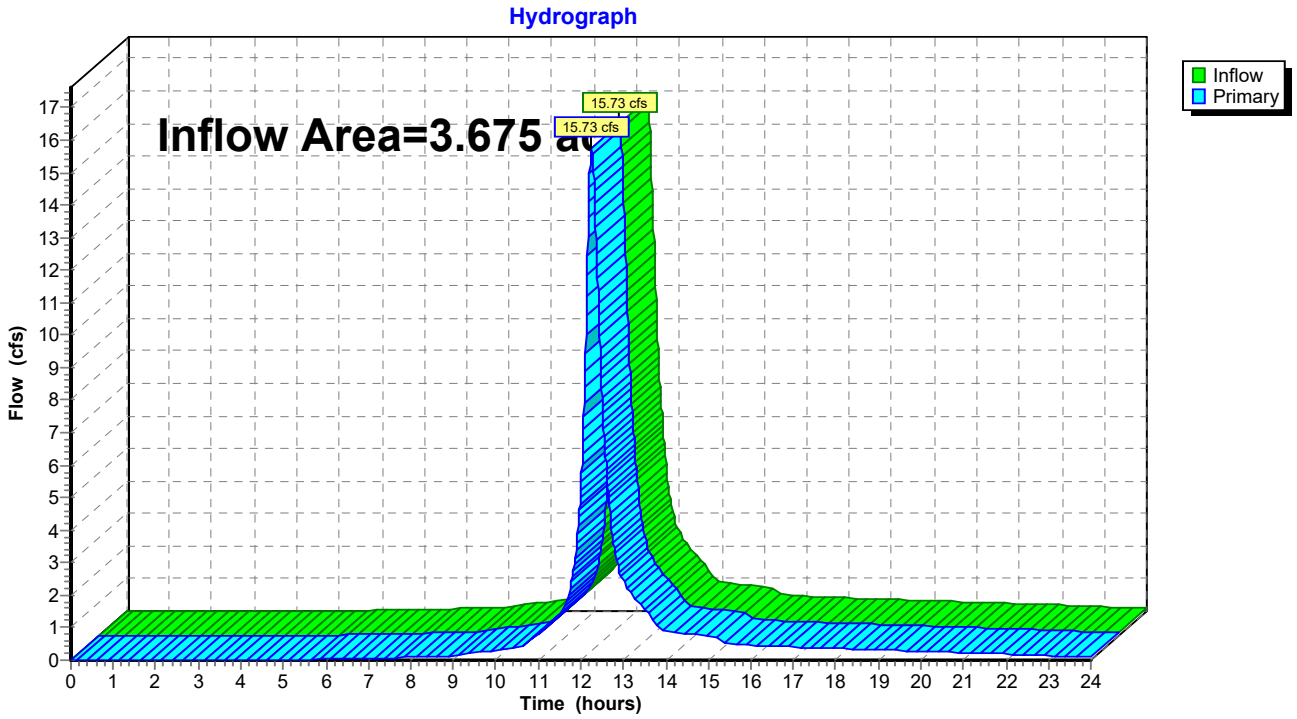


Summary for Link TEO: Total Existing Outfall

Inflow Area = 3.675 ac, 25.09% Impervious, Inflow Depth > 4.24" for 100-year event
Inflow = 15.73 cfs @ 12.25 hrs, Volume= 1.298 af
Primary = 15.73 cfs @ 12.25 hrs, Volume= 1.298 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link TEO: Total Existing Outfall

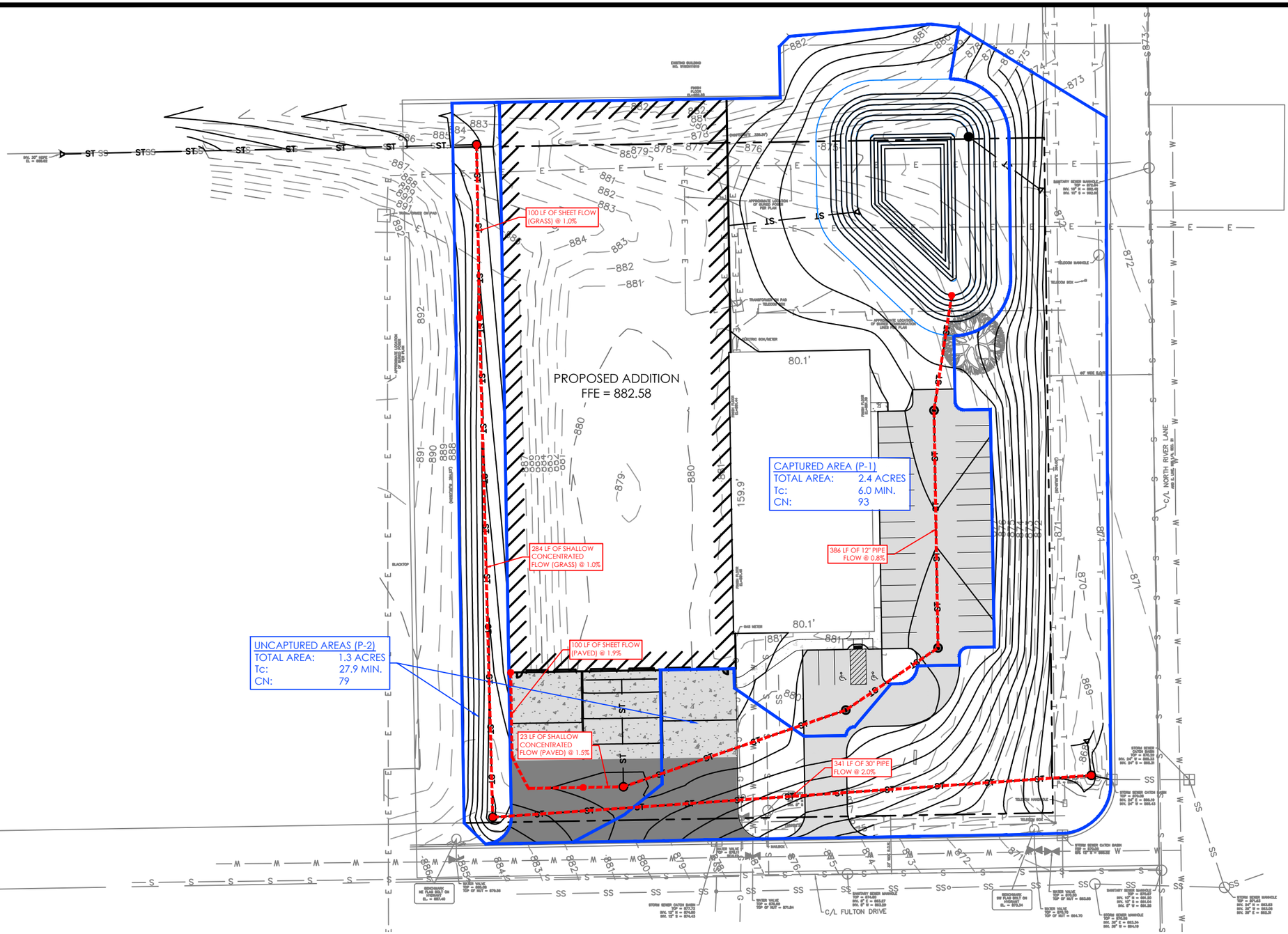


PROPOSED STORMWATER MODELING

PROPOSED CONDITIONS

PROPOSED HYDROCAD MODELING REPORT

WINSLAMM ANALYSIS



PROPOSED CONDITIONS

N

SCALE: 1"=60'

February 4, 2026

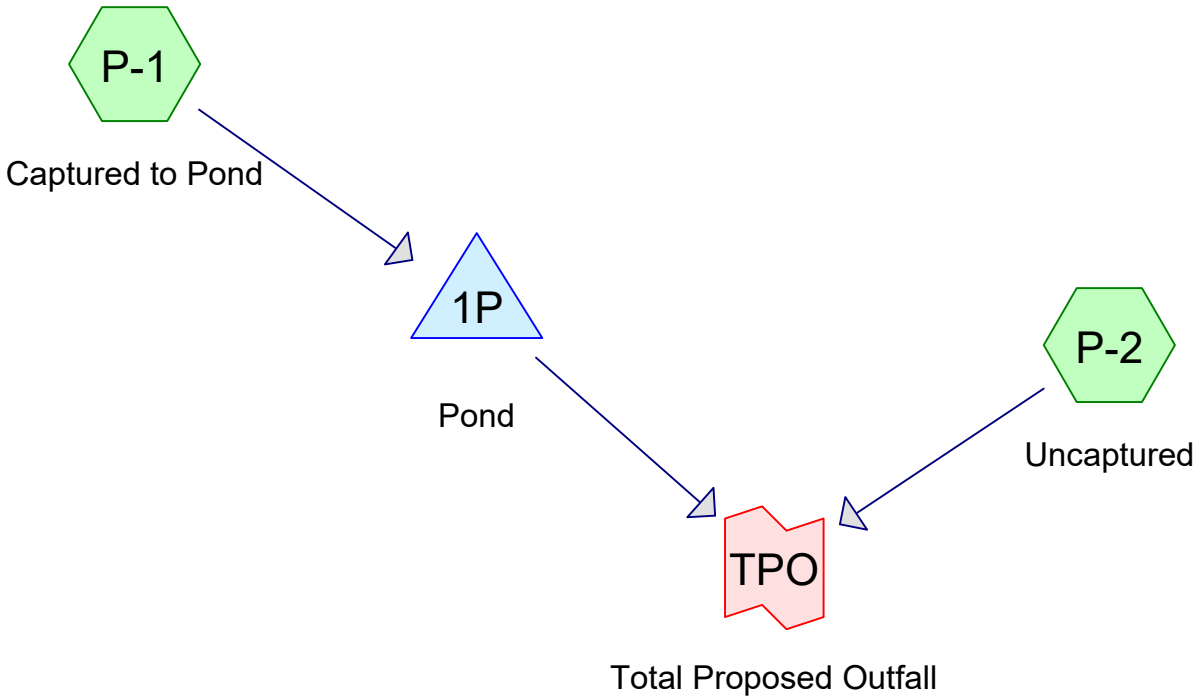
Basic Metals

Germantown, WI 2024-100

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ABACUS ARCHITECTS

2/3/2026
P:\2024-CONTRACTS\2024-100 Basic Metals Expansion\Phase - 2\Construction Documents\3.3 Site\SWMP\2024-100 - SWMP.dwg



Subcat Reach Pond Link

Routing Diagram for 2024-100 - Basic Metals
Prepared by HP Inc., Printed 2/6/2026
HydroCAD® 10.00-26 s/n 10791 © 2020 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.343	74	>75% Grass cover, Good, HSG C (P-1, P-2)
0.322	80	>75% Grass cover, Good, HSG D (P-1, P-2)
0.647	98	Paved parking, HSG B (P-1, P-2)
1.247	98	Roofs, HSG B (P-1)
0.117	98	Water Surface, HSG A (P-1)
3.676	**88**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.117	HSG A	P-1
1.894	HSG B	P-1, P-2
1.343	HSG C	P-1, P-2
0.322	HSG D	P-1, P-2
0.000	Other	
3.676		**TOTAL AREA**

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	1.343	0.322	0.000	1.665	>75% Grass cover, Good	P-1, P-2
0.000	0.647	0.000	0.000	0.000	0.647	Paved parking	P-1, P-2
0.000	1.247	0.000	0.000	0.000	1.247	Roofs	P-1
0.117	0.000	0.000	0.000	0.000	0.117	Water Surface	P-1
0.117	**1.894**	**1.343**	**0.322**	**0.000**	**3.676**	**TOTAL AREA**	

Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	P-1	0.00	0.00	386.0	0.0079	0.010	12.0	0.0	0.0
2	P-2	0.00	0.00	341.0	0.0204	0.010	30.0	0.0	0.0
3	1P	872.50	872.00	66.0	0.0076	0.010	15.0	0.0	0.0

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment P-1: Captured to Pond Runoff Area=2.391 ac 76.75% Impervious Runoff Depth>1.65"
Flow Length=509' Tc=6.0 min CN=93 Runoff=6.18 cfs 0.328 af

Subcatchment P-2: Uncaptured Runoff Area=1.285 ac 13.70% Impervious Runoff Depth>0.74"
Flow Length=725' Tc=27.9 min CN=79 Runoff=0.76 cfs 0.079 af

Pond 1P: Pond Peak Elev=874.50' Storage=8,629 cf Inflow=6.18 cfs 0.328 af
Outflow=0.29 cfs 0.260 af

Link TPO: Total Proposed Outfall Inflow=1.03 cfs 0.340 af
Primary=1.03 cfs 0.340 af

Total Runoff Area = 3.676 ac Runoff Volume = 0.408 af Average Runoff Depth = 1.33"
45.29% Pervious = 1.665 ac 54.71% Impervious = 2.011 ac

Summary for Subcatchment P-1: Captured to Pond

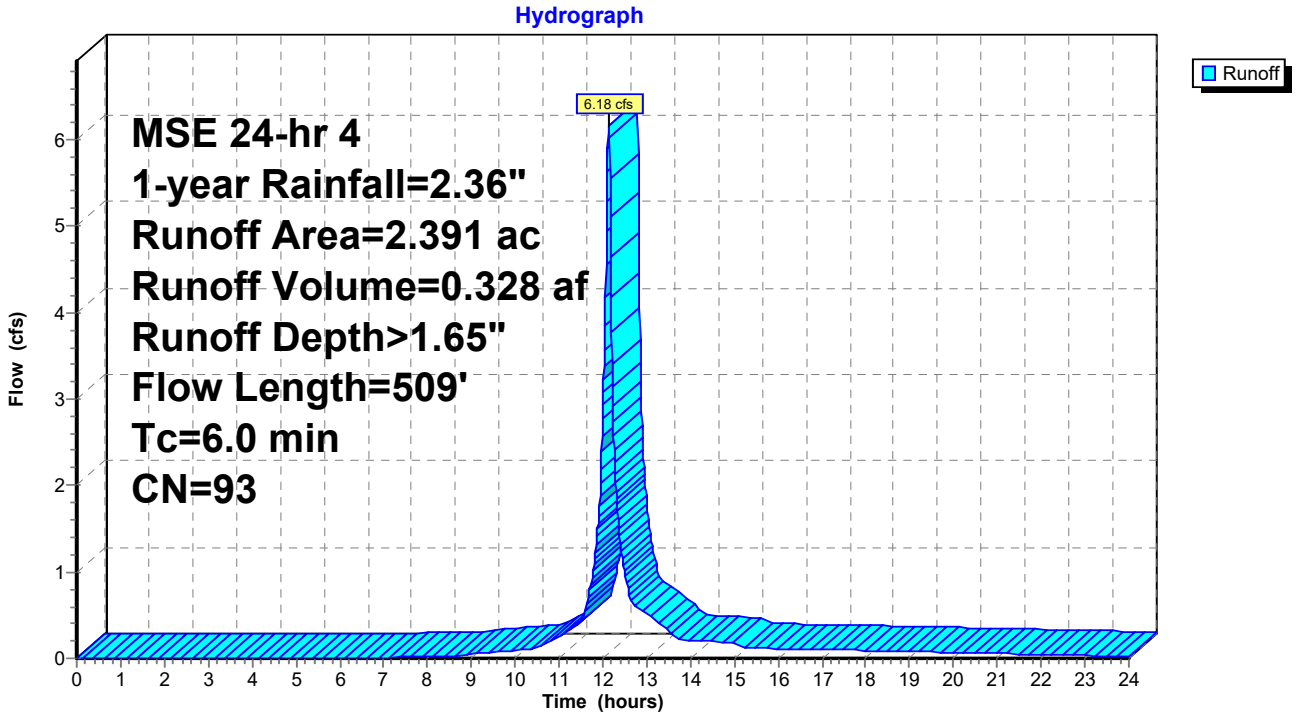
Runoff = 6.18 cfs @ 12.13 hrs, Volume= 0.328 af, Depth> 1.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 1-year Rainfall=2.36"

Area (ac)	CN	Description
0.000	39	>75% Grass cover, Good, HSG A
0.000	61	>75% Grass cover, Good, HSG B
0.521	74	>75% Grass cover, Good, HSG C
0.035	80	>75% Grass cover, Good, HSG D
0.471	98	Paved parking, HSG B
1.247	98	Roofs, HSG B
0.117	98	Water Surface, HSG A
2.391	93	Weighted Average
0.556		23.25% Pervious Area
1.835		76.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0186	1.23		**Sheet Flow, Sheet Flow** Smooth surfaces n= 0.011 P2= 2.70"
0.2	23	0.0149	2.48		**Shallow Concentrated Flow, Shallow Concentrated Flow** Paved Kv= 20.3 fps
1.2	386	0.0079	5.24	4.12	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
2.8	509	Total, Increased to minimum Tc = 6.0 min			

Subcatchment P-1: Captured to Pond



Summary for Subcatchment P-2: Uncaptured

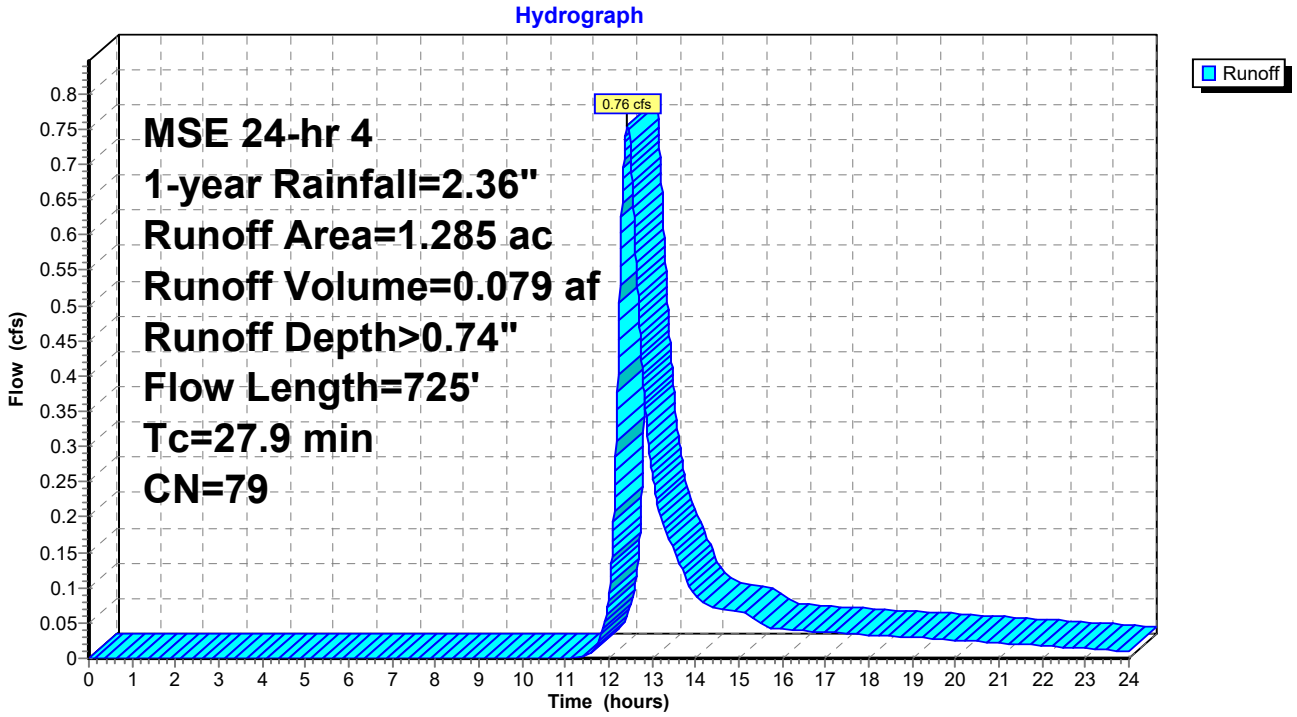
Runoff = 0.76 cfs @ 12.43 hrs, Volume= 0.079 af, Depth> 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 1-year Rainfall=2.36"

Area (ac)	CN	Description
0.000	39	>75% Grass cover, Good, HSG A
0.000	61	>75% Grass cover, Good, HSG B
0.822	74	>75% Grass cover, Good, HSG C
0.287	80	>75% Grass cover, Good, HSG D
0.176	98	Paved parking, HSG B
0.000	98	Roofs, HSG B
1.285	79	Weighted Average
1.109		86.30% Pervious Area
0.176		13.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.7	100	0.0098	0.08		**Sheet Flow, Sheet Flow** Grass: Dense n= 0.240 P2= 2.70"
6.8	284	0.0100	0.70		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
0.4	341	0.0204	15.52	76.16	**Pipe Channel,** 30.0" Round Area= 4.9 sf Perim= 7.9' r= 0.63' n= 0.010 PVC, smooth interior
27.9	725	Total			

Subcatchment P-2: Uncaptured



Summary for Pond 1P: Pond

Inflow Area = 2.391 ac, 76.75% Impervious, Inflow Depth > 1.65" for 1-year event
Inflow = 6.18 cfs @ 12.13 hrs, Volume= 0.328 af
Outflow = 0.29 cfs @ 13.57 hrs, Volume= 0.260 af, Atten= 95%, Lag= 86.1 min
Primary = 0.29 cfs @ 13.57 hrs, Volume= 0.260 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 874.50' @ 13.57 hrs Surf.Area= 6,455 sf Storage= 8,629 cf

Plug-Flow detention time= 303.1 min calculated for 0.260 af (79% of inflow)
Center-of-Mass det. time= 234.0 min (1,028.1 - 794.1)

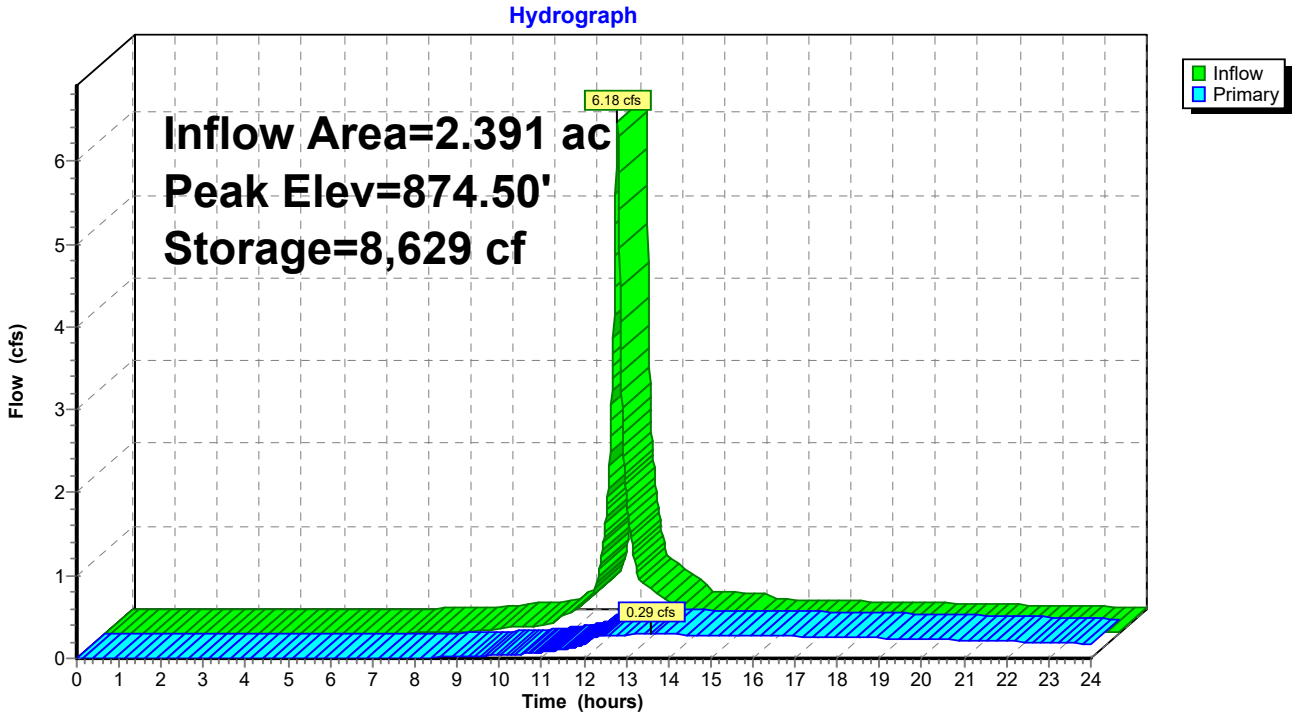
Volume	Invert	Avail.Storage	Storage Description
#1	873.00'	37,425 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
873.00	5,107	0	0
874.00	5,990	5,549	5,549
875.00	6,930	6,460	12,009
876.00	7,927	7,429	19,437
877.00	8,980	8,454	27,891
878.00	10,089	9,535	37,425

Device	Routing	Invert	Outlet Devices
#1	Primary	872.50'	**15.0" Round Culvert** L= 66.0' Ke= 1.000 Inlet / Outlet Invert= 872.50' / 872.00' S= 0.0076 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.23 sf
#2	Device 1	873.00'	**3.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	876.50'	**48.0" Vert. Orifice/Grate** C= 0.600
#4	Primary	877.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.29 cfs @ 13.57 hrs HW=874.50' (Free Discharge)
- **1=Culvert** (Passes 0.29 cfs of 5.19 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.29 cfs @ 5.89 fps)
  - **3=Orifice/Grate** (Controls 0.00 cfs)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Pond

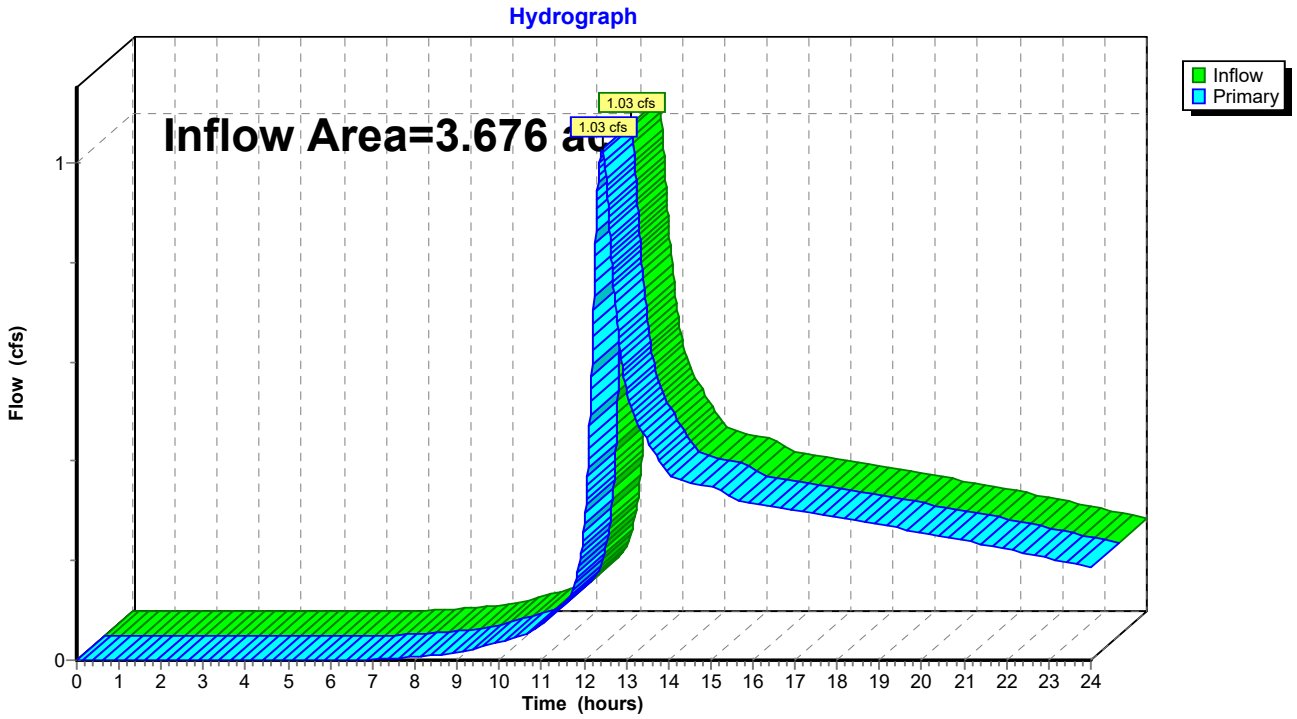

Hydrograph
Inflow Area=2.391 ac
Peak Elev=874.50'
Storage=8,629 cf
6.18 cfs
0.29 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Summary for Link TPO: Total Proposed Outfall

Inflow Area = 3.676 ac, 54.71% Impervious, Inflow Depth > 1.11" for 1-year event
Inflow = 1.03 cfs @ 12.43 hrs, Volume= 0.340 af
Primary = 1.03 cfs @ 12.43 hrs, Volume= 0.340 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link TPO: Total Proposed Outfall



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment P-1: Captured to Pond Runoff Area=2.391 ac 76.75% Impervious Runoff Depth>1.94"
Flow Length=509' Tc=6.0 min CN=93 Runoff=7.20 cfs 0.386 af

Subcatchment P-2: Uncaptured Runoff Area=1.285 ac 13.70% Impervious Runoff Depth>0.95"
Flow Length=725' Tc=27.9 min CN=79 Runoff=0.99 cfs 0.102 af

Pond 1P: Pond Peak Elev=874.76' Storage=10,346 cf Inflow=7.20 cfs 0.386 af
Outflow=0.31 cfs 0.291 af

Link TPO: Total Proposed Outfall Inflow=1.28 cfs 0.393 af
Primary=1.28 cfs 0.393 af

Total Runoff Area = 3.676 ac Runoff Volume = 0.488 af Average Runoff Depth = 1.59"
45.29% Pervious = 1.665 ac 54.71% Impervious = 2.011 ac

Summary for Subcatchment P-1: Captured to Pond

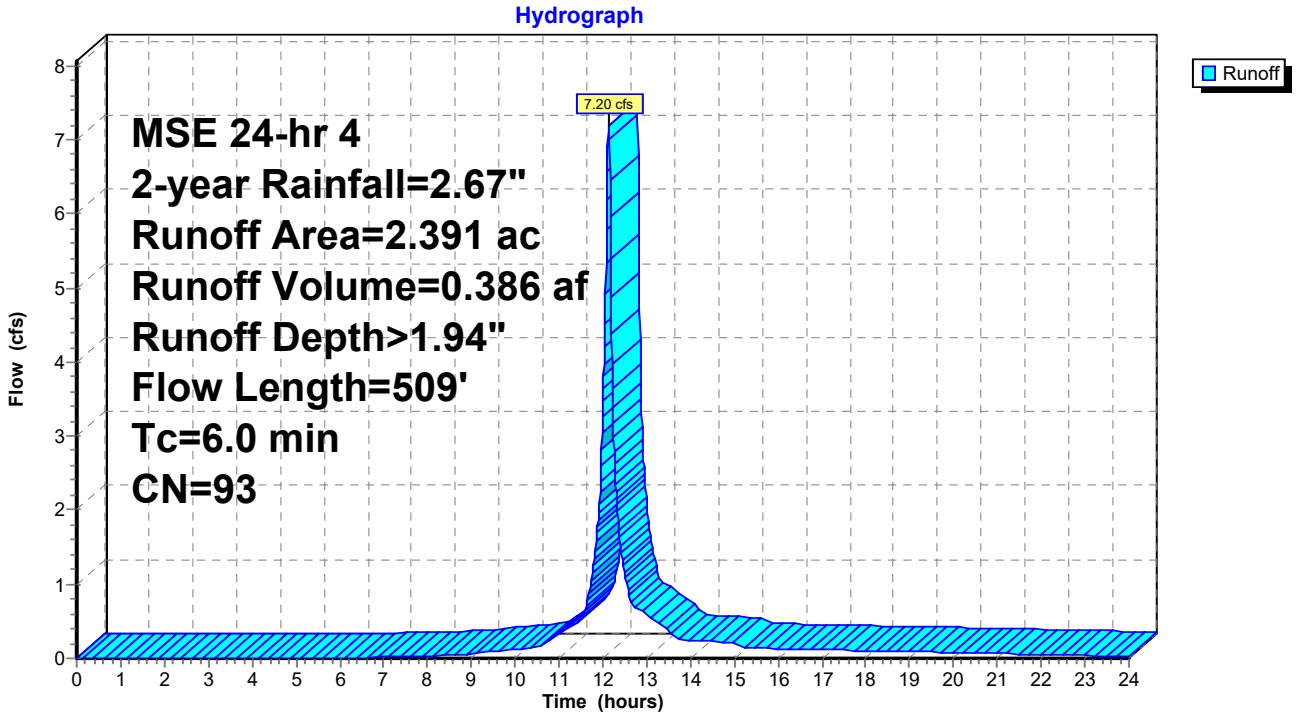
Runoff = 7.20 cfs @ 12.13 hrs, Volume= 0.386 af, Depth> 1.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 2-year Rainfall=2.67"

Area (ac)	CN	Description
0.000	39	>75% Grass cover, Good, HSG A
0.000	61	>75% Grass cover, Good, HSG B
0.521	74	>75% Grass cover, Good, HSG C
0.035	80	>75% Grass cover, Good, HSG D
0.471	98	Paved parking, HSG B
1.247	98	Roofs, HSG B
0.117	98	Water Surface, HSG A
2.391	93	Weighted Average
0.556		23.25% Pervious Area
1.835		76.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0186	1.23		**Sheet Flow, Sheet Flow** Smooth surfaces n= 0.011 P2= 2.70"
0.2	23	0.0149	2.48		**Shallow Concentrated Flow, Shallow Concentrated Flow** Paved Kv= 20.3 fps
1.2	386	0.0079	5.24	4.12	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
2.8	509	Total, Increased to minimum Tc = 6.0 min			

Subcatchment P-1: Captured to Pond



Summary for Subcatchment P-2: Uncaptured

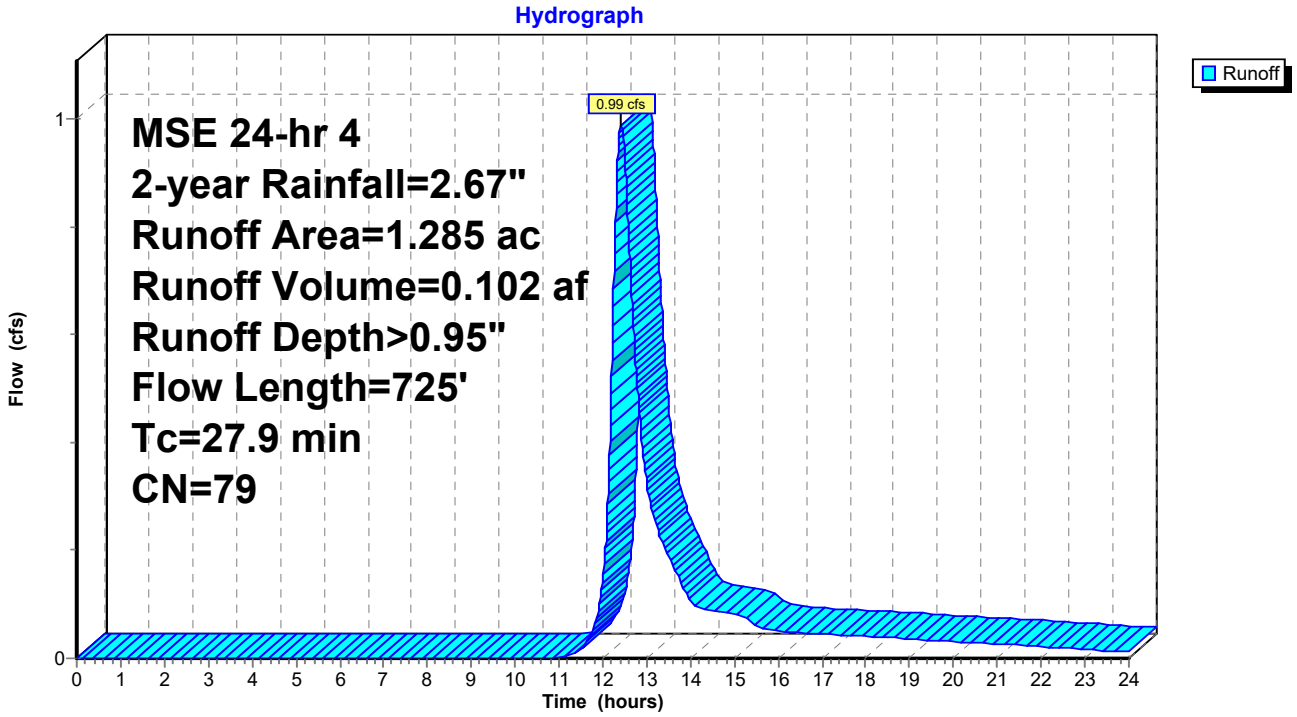
Runoff = 0.99 cfs @ 12.43 hrs, Volume= 0.102 af, Depth> 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 2-year Rainfall=2.67"

Area (ac)	CN	Description
0.000	39	>75% Grass cover, Good, HSG A
0.000	61	>75% Grass cover, Good, HSG B
0.822	74	>75% Grass cover, Good, HSG C
0.287	80	>75% Grass cover, Good, HSG D
0.176	98	Paved parking, HSG B
0.000	98	Roofs, HSG B
1.285	79	Weighted Average
1.109		86.30% Pervious Area
0.176		13.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.7	100	0.0098	0.08		**Sheet Flow, Sheet Flow** Grass: Dense n= 0.240 P2= 2.70"
6.8	284	0.0100	0.70		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
0.4	341	0.0204	15.52	76.16	**Pipe Channel,** 30.0" Round Area= 4.9 sf Perim= 7.9' r= 0.63' n= 0.010 PVC, smooth interior
27.9	725	Total			

Subcatchment P-2: Uncaptured



Summary for Pond 1P: Pond

Inflow Area = 2.391 ac, 76.75% Impervious, Inflow Depth > 1.94" for 2-year event
Inflow = 7.20 cfs @ 12.13 hrs, Volume= 0.386 af
Outflow = 0.31 cfs @ 13.58 hrs, Volume= 0.291 af, Atten= 96%, Lag= 87.0 min
Primary = 0.31 cfs @ 13.58 hrs, Volume= 0.291 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 874.76' @ 13.58 hrs Surf.Area= 6,701 sf Storage= 10,346 cf

Plug-Flow detention time= 311.8 min calculated for 0.291 af (75% of inflow)
Center-of-Mass det. time= 238.1 min (1,028.4 - 790.3)

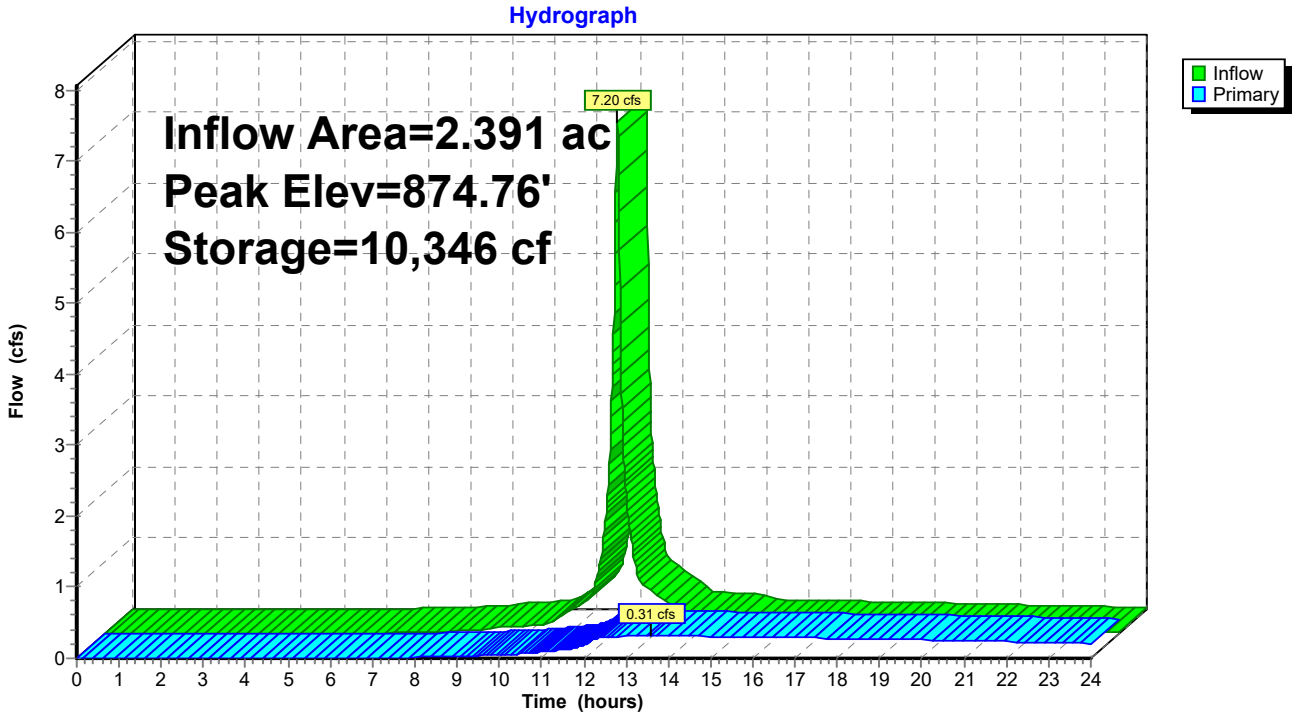
Volume	Invert	Avail.Storage	Storage Description
#1	873.00'	37,425 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
873.00	5,107	0	0
874.00	5,990	5,549	5,549
875.00	6,930	6,460	12,009
876.00	7,927	7,429	19,437
877.00	8,980	8,454	27,891
878.00	10,089	9,535	37,425

Device	Routing	Invert	Outlet Devices
#1	Primary	872.50'	**15.0" Round Culvert** L= 66.0' Ke= 1.000 Inlet / Outlet Invert= 872.50' / 872.00' S= 0.0076 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.23 sf
#2	Device 1	873.00'	**3.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	876.50'	**48.0" Vert. Orifice/Grate** C= 0.600
#4	Primary	877.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.31 cfs @ 13.58 hrs HW=874.76' (Free Discharge)
- **1=Culvert** (Passes 0.31 cfs of 5.66 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.31 cfs @ 6.38 fps)
  - **3=Orifice/Grate** (Controls 0.00 cfs)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Pond

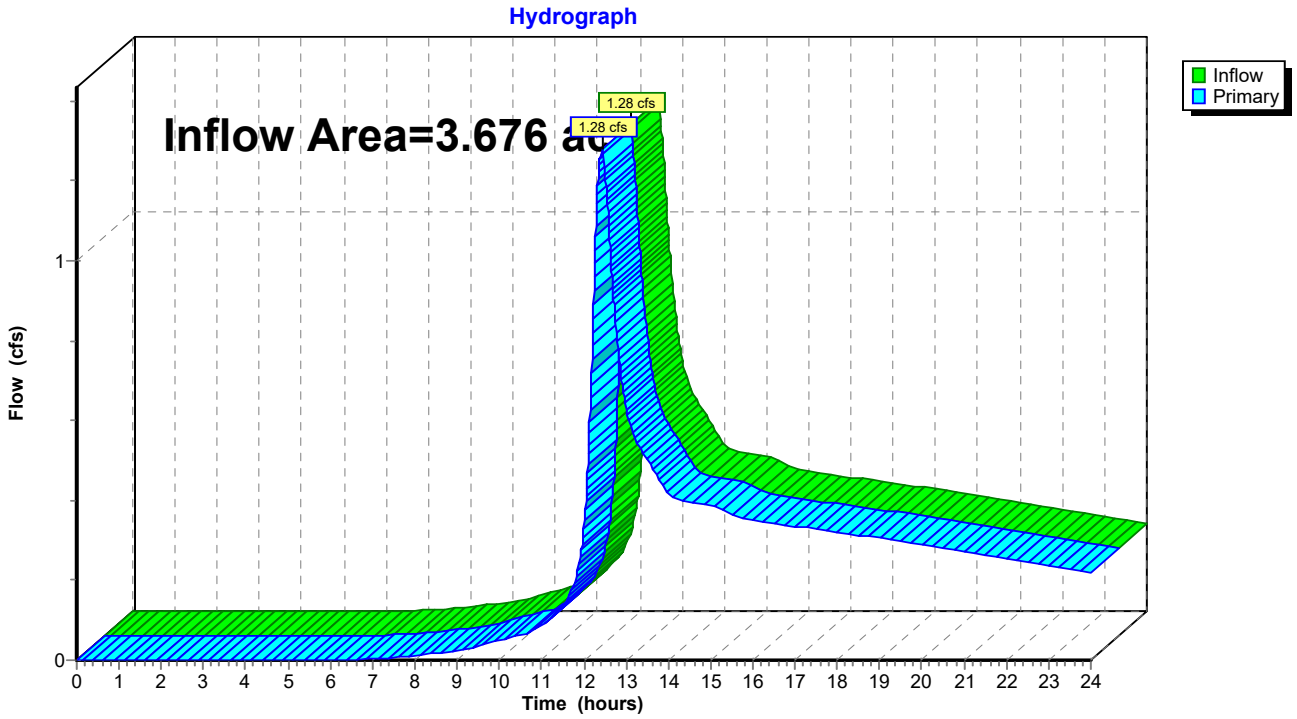

Hydrograph
Inflow Area=2.391 ac
Peak Elev=874.76'
Storage=10,346 cf
7.20 cfs
0.31 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 1 2 3 4 5 6 7 8
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Summary for Link TPO: Total Proposed Outfall

Inflow Area = 3.676 ac, 54.71% Impervious, Inflow Depth > 1.28" for 2-year event
Inflow = 1.28 cfs @ 12.43 hrs, Volume= 0.393 af
Primary = 1.28 cfs @ 12.43 hrs, Volume= 0.393 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link TPO: Total Proposed Outfall



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment P-1: Captured to Pond Runoff Area=2.391 ac 76.75% Impervious Runoff Depth>3.04"
Flow Length=509' Tc=6.0 min CN=93 Runoff=10.99 cfs 0.606 af

Subcatchment P-2: Uncaptured Runoff Area=1.285 ac 13.70% Impervious Runoff Depth>1.81"
Flow Length=725' Tc=27.9 min CN=79 Runoff=1.94 cfs 0.194 af

Pond 1P: Pond Peak Elev=875.69' Storage=16,997 cf Inflow=10.99 cfs 0.606 af
Outflow=0.39 cfs 0.389 af

Link TPO: Total Proposed Outfall Inflow=2.30 cfs 0.583 af
Primary=2.30 cfs 0.583 af

Total Runoff Area = 3.676 ac Runoff Volume = 0.801 af Average Runoff Depth = 2.61"
45.29% Pervious = 1.665 ac 54.71% Impervious = 2.011 ac

Summary for Subcatchment P-1: Captured to Pond

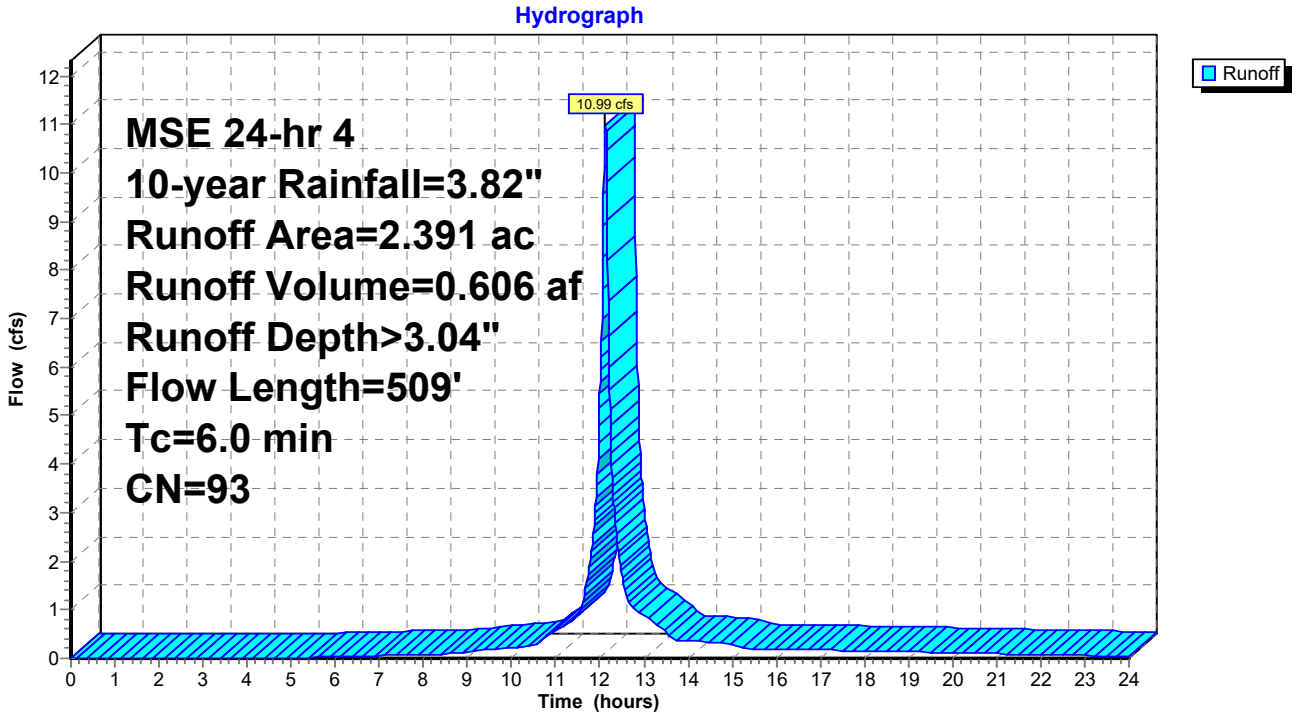
Runoff = 10.99 cfs @ 12.13 hrs, Volume= 0.606 af, Depth> 3.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 10-year Rainfall=3.82"

Area (ac)	CN	Description
0.000	39	>75% Grass cover, Good, HSG A
0.000	61	>75% Grass cover, Good, HSG B
0.521	74	>75% Grass cover, Good, HSG C
0.035	80	>75% Grass cover, Good, HSG D
0.471	98	Paved parking, HSG B
1.247	98	Roofs, HSG B
0.117	98	Water Surface, HSG A
2.391	93	Weighted Average
0.556		23.25% Pervious Area
1.835		76.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0186	1.23		**Sheet Flow, Sheet Flow** Smooth surfaces n= 0.011 P2= 2.70"
0.2	23	0.0149	2.48		**Shallow Concentrated Flow, Shallow Concentrated Flow** Paved Kv= 20.3 fps
1.2	386	0.0079	5.24	4.12	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
2.8	509	Total, Increased to minimum Tc = 6.0 min			

Subcatchment P-1: Captured to Pond



Summary for Subcatchment P-2: Uncaptured

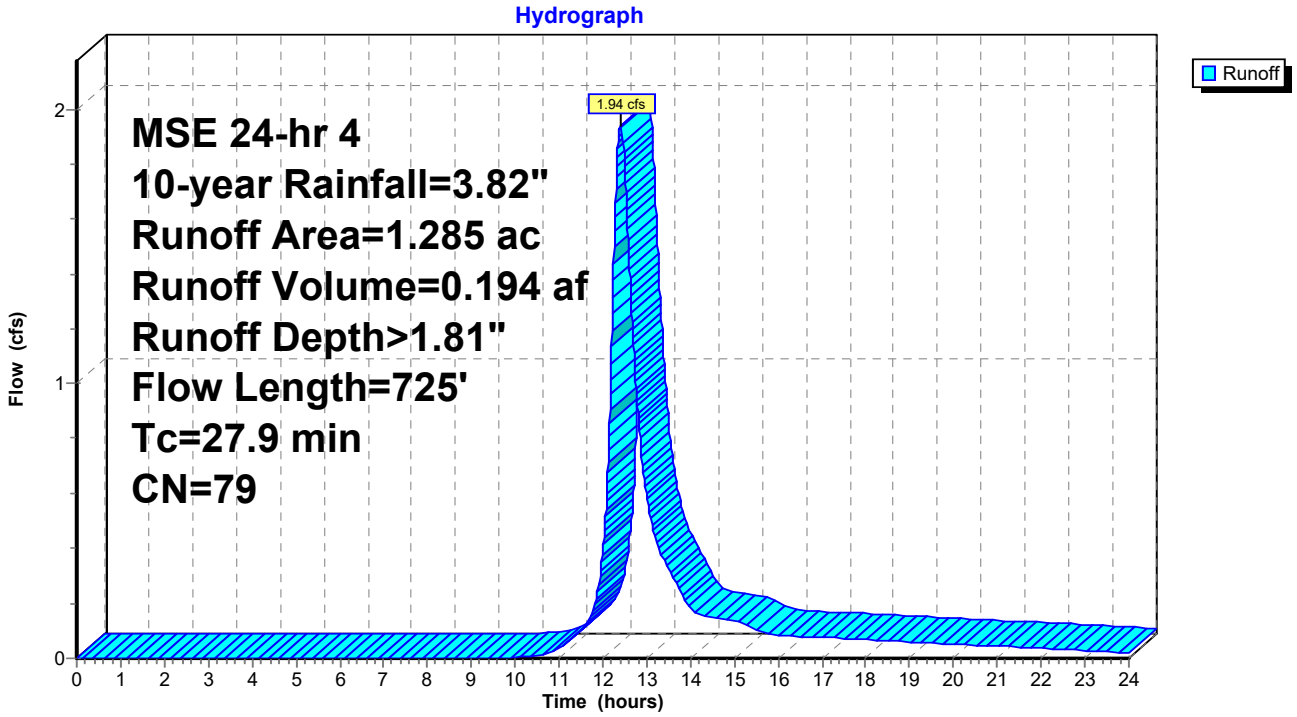
Runoff = 1.94 cfs @ 12.40 hrs, Volume= 0.194 af, Depth> 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 10-year Rainfall=3.82"

Area (ac)	CN	Description
0.000	39	>75% Grass cover, Good, HSG A
0.000	61	>75% Grass cover, Good, HSG B
0.822	74	>75% Grass cover, Good, HSG C
0.287	80	>75% Grass cover, Good, HSG D
0.176	98	Paved parking, HSG B
0.000	98	Roofs, HSG B
1.285	79	Weighted Average
1.109		86.30% Pervious Area
0.176		13.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.7	100	0.0098	0.08		**Sheet Flow, Sheet Flow** Grass: Dense n= 0.240 P2= 2.70"
6.8	284	0.0100	0.70		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
0.4	341	0.0204	15.52	76.16	**Pipe Channel,** 30.0" Round Area= 4.9 sf Perim= 7.9' r= 0.63' n= 0.010 PVC, smooth interior
27.9	725	Total			

Subcatchment P-2: Uncaptured



Summary for Pond 1P: Pond

Inflow Area = 2.391 ac, 76.75% Impervious, Inflow Depth > 3.04" for 10-year event
Inflow = 10.99 cfs @ 12.13 hrs, Volume= 0.606 af
Outflow = 0.39 cfs @ 13.65 hrs, Volume= 0.389 af, Atten= 96%, Lag= 91.2 min
Primary = 0.39 cfs @ 13.65 hrs, Volume= 0.389 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 875.69' @ 13.65 hrs Surf.Area= 7,614 sf Storage= 16,997 cf

Plug-Flow detention time= 327.8 min calculated for 0.389 af (64% of inflow)
Center-of-Mass det. time= 244.8 min (1,024.6 - 779.8)

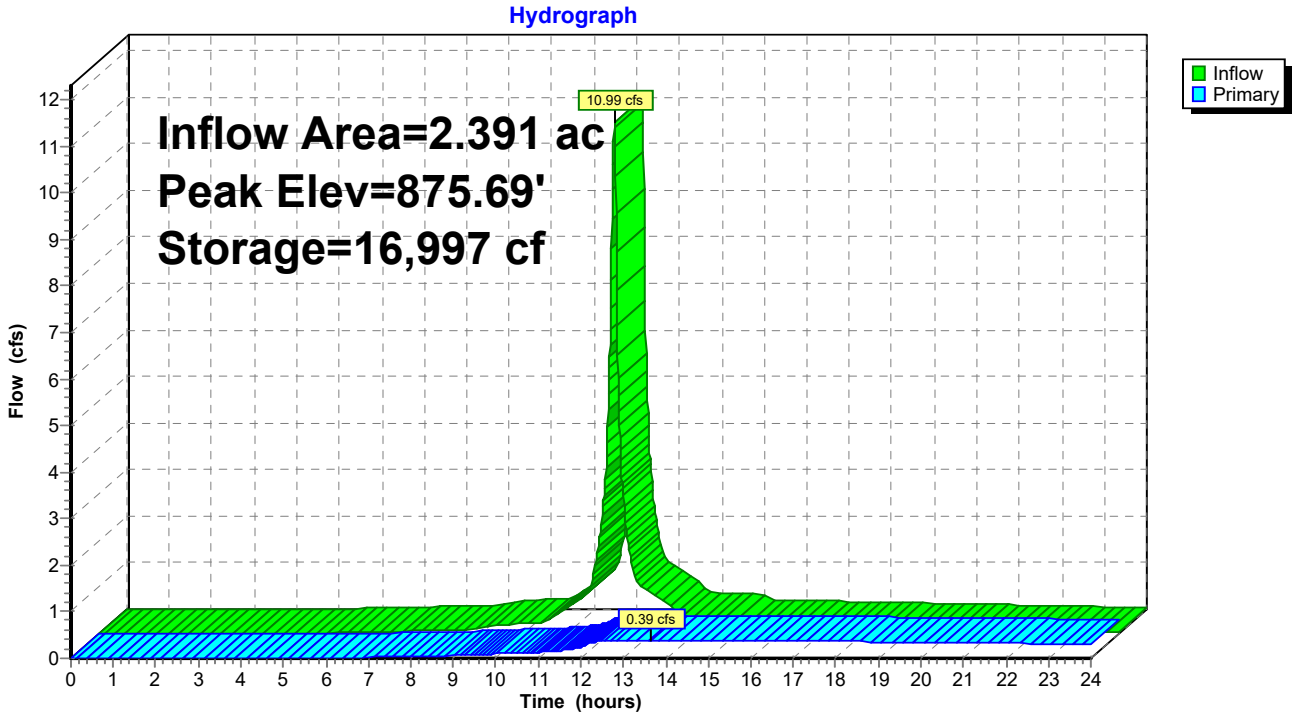
Volume	Invert	Avail.Storage	Storage Description
#1	873.00'	37,425 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
873.00	5,107	0	0
874.00	5,990	5,549	5,549
875.00	6,930	6,460	12,009
876.00	7,927	7,429	19,437
877.00	8,980	8,454	27,891
878.00	10,089	9,535	37,425

Device	Routing	Invert	Outlet Devices
#1	Primary	872.50'	**15.0" Round Culvert** L= 66.0' Ke= 1.000 Inlet / Outlet Invert= 872.50' / 872.00' S= 0.0076 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.23 sf
#2	Device 1	873.00'	**3.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	876.50'	**48.0" Vert. Orifice/Grate** C= 0.600
#4	Primary	877.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.39 cfs @ 13.65 hrs HW=875.69' (Free Discharge)
- **1=Culvert** (Passes 0.39 cfs of 7.09 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.39 cfs @ 7.89 fps)
  - **3=Orifice/Grate** (Controls 0.00 cfs)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Pond

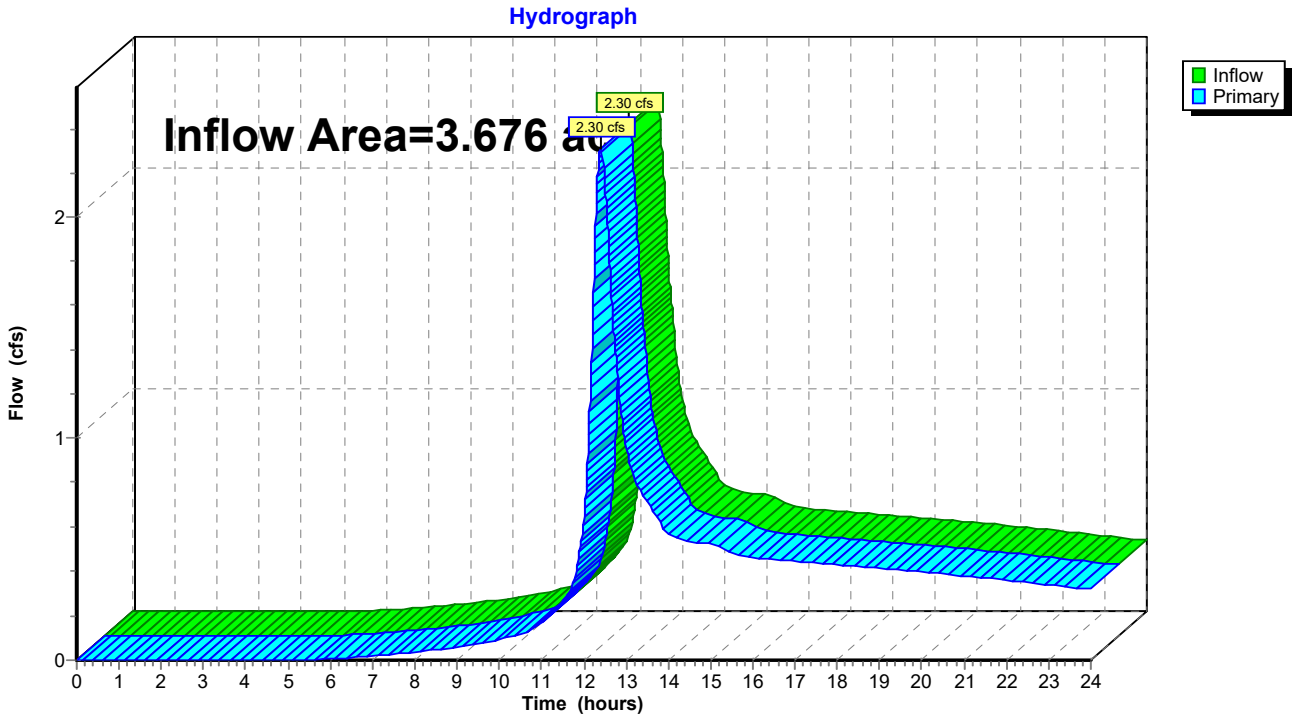

Hydrograph
Inflow Area=2.391 ac
Peak Elev=875.69'
Storage=16,997 cf
10.99 cfs
0.39 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 1 2 3 4 5 6 7 8 9 10 11 12
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Summary for Link TPO: Total Proposed Outfall

Inflow Area = 3.676 ac, 54.71% Impervious, Inflow Depth > 1.90" for 10-year event
Inflow = 2.30 cfs @ 12.40 hrs, Volume= 0.583 af
Primary = 2.30 cfs @ 12.40 hrs, Volume= 0.583 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link TPO: Total Proposed Outfall



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment P-1: Captured to Pond Runoff Area=2.391 ac 76.75% Impervious Runoff Depth>5.55"
Flow Length=509' Tc=6.0 min CN=93 Runoff=19.26 cfs 1.105 af

Subcatchment P-2: Uncaptured Runoff Area=1.285 ac 13.70% Impervious Runoff Depth>4.00"
Flow Length=725' Tc=27.9 min CN=79 Runoff=4.30 cfs 0.428 af

Pond 1P: Pond Peak Elev=876.97' Storage=27,596 cf Inflow=19.26 cfs 1.105 af
Outflow=2.39 cfs 0.708 af

Link TPO: Total Proposed Outfall Inflow=6.33 cfs 1.136 af
Primary=6.33 cfs 1.136 af

Total Runoff Area = 3.676 ac Runoff Volume = 1.533 af Average Runoff Depth = 5.01"
45.29% Pervious = 1.665 ac 54.71% Impervious = 2.011 ac

Summary for Subcatchment P-1: Captured to Pond

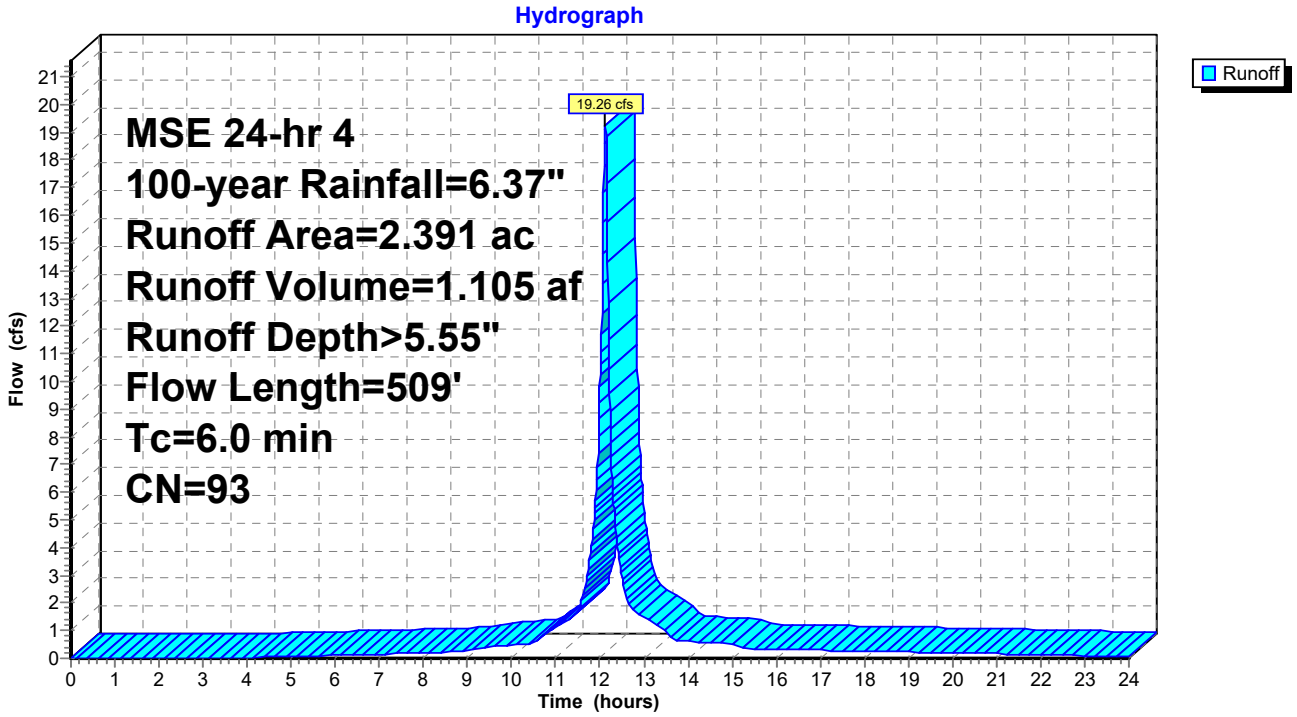
Runoff = 19.26 cfs @ 12.13 hrs, Volume= 1.105 af, Depth> 5.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 100-year Rainfall=6.37"

Area (ac)	CN	Description
0.000	39	>75% Grass cover, Good, HSG A
0.000	61	>75% Grass cover, Good, HSG B
0.521	74	>75% Grass cover, Good, HSG C
0.035	80	>75% Grass cover, Good, HSG D
0.471	98	Paved parking, HSG B
1.247	98	Roofs, HSG B
0.117	98	Water Surface, HSG A
2.391	93	Weighted Average
0.556		23.25% Pervious Area
1.835		76.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0186	1.23		**Sheet Flow, Sheet Flow** Smooth surfaces n= 0.011 P2= 2.70"
0.2	23	0.0149	2.48		**Shallow Concentrated Flow, Shallow Concentrated Flow** Paved Kv= 20.3 fps
1.2	386	0.0079	5.24	4.12	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
2.8	509	Total, Increased to minimum Tc = 6.0 min			

Subcatchment P-1: Captured to Pond



Summary for Subcatchment P-2: Uncaptured

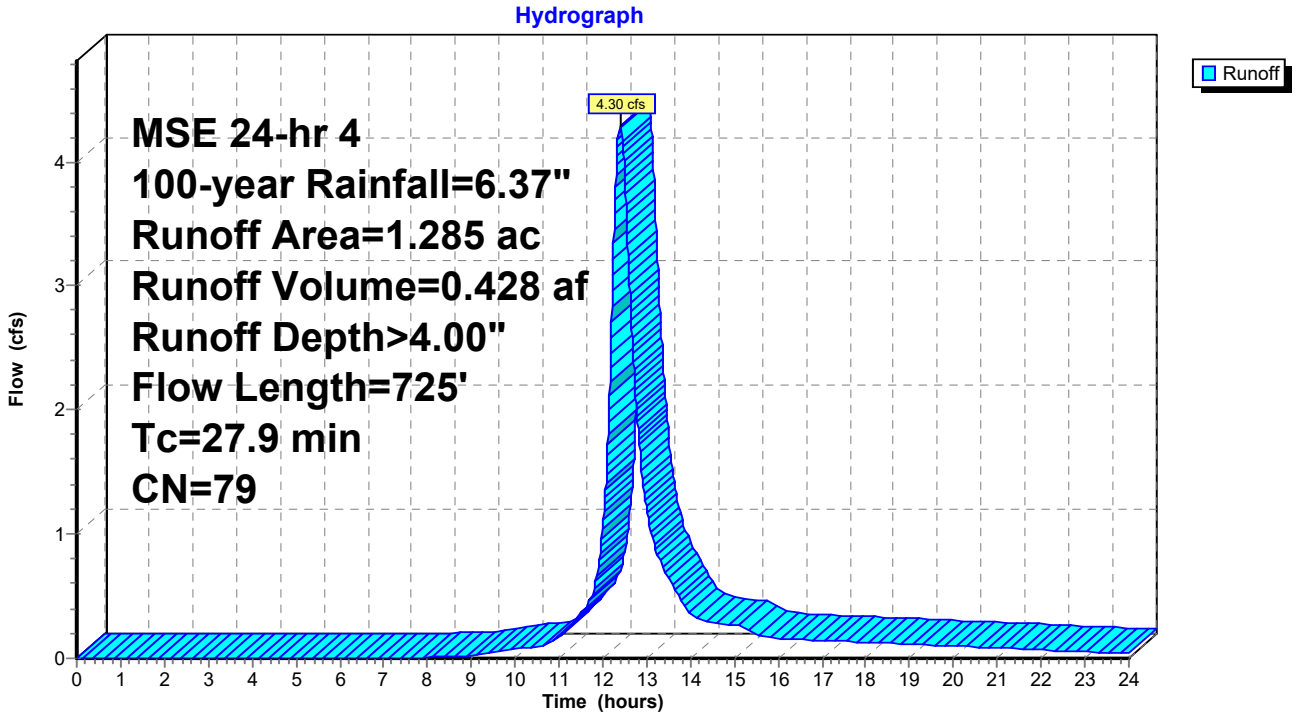
Runoff = 4.30 cfs @ 12.40 hrs, Volume= 0.428 af, Depth> 4.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 4 100-year Rainfall=6.37"

Area (ac)	CN	Description
0.000	39	>75% Grass cover, Good, HSG A
0.000	61	>75% Grass cover, Good, HSG B
0.822	74	>75% Grass cover, Good, HSG C
0.287	80	>75% Grass cover, Good, HSG D
0.176	98	Paved parking, HSG B
0.000	98	Roofs, HSG B
1.285	79	Weighted Average
1.109		86.30% Pervious Area
0.176		13.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.7	100	0.0098	0.08		**Sheet Flow, Sheet Flow** Grass: Dense n= 0.240 P2= 2.70"
6.8	284	0.0100	0.70		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
0.4	341	0.0204	15.52	76.16	**Pipe Channel,** 30.0" Round Area= 4.9 sf Perim= 7.9' r= 0.63' n= 0.010 PVC, smooth interior
27.9	725	Total			

Subcatchment P-2: Uncaptured



Summary for Pond 1P: Pond

Inflow Area = 2.391 ac, 76.75% Impervious, Inflow Depth > 5.55" for 100-year event
Inflow = 19.26 cfs @ 12.13 hrs, Volume= 1.105 af
Outflow = 2.39 cfs @ 12.57 hrs, Volume= 0.708 af, Atten= 88%, Lag= 26.7 min
Primary = 2.39 cfs @ 12.57 hrs, Volume= 0.708 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 876.97' @ 12.57 hrs Surf.Area= 8,945 sf Storage= 27,596 cf

Plug-Flow detention time= 258.4 min calculated for 0.707 af (64% of inflow)
Center-of-Mass det. time= 174.7 min (941.4 - 766.7)

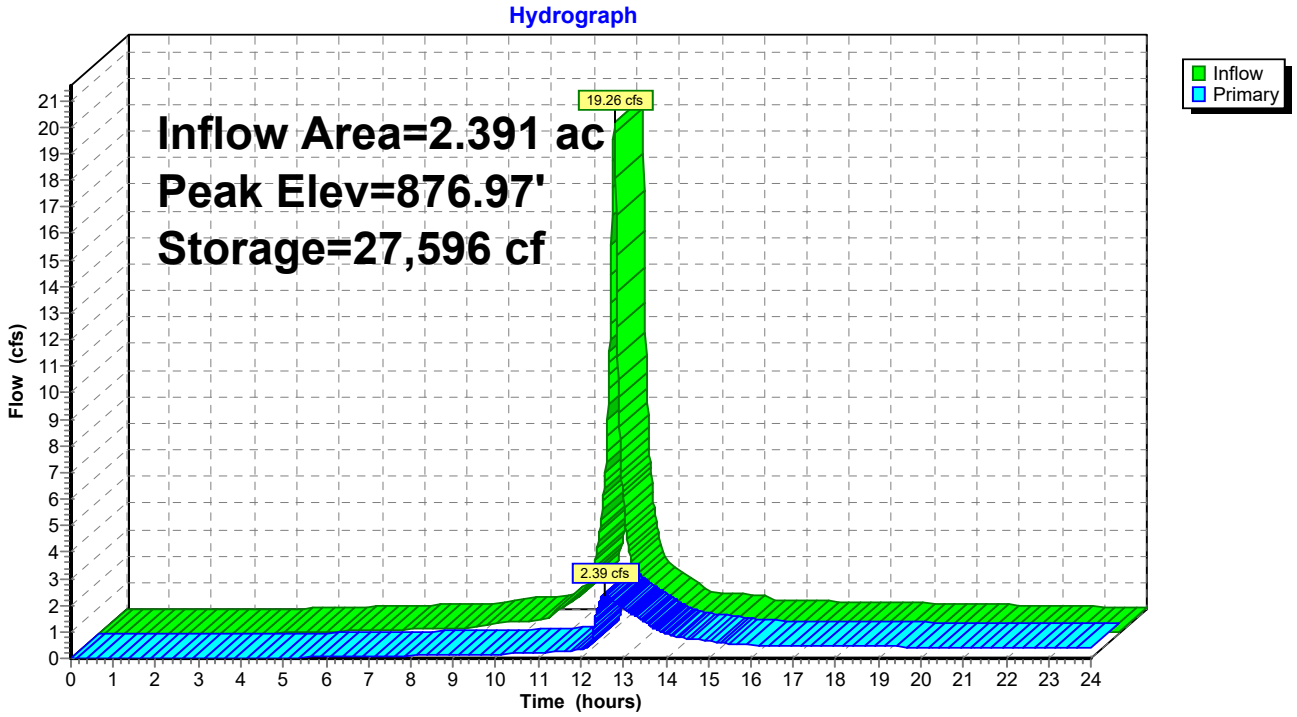
Volume	Invert	Avail.Storage	Storage Description
#1	873.00'	37,425 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
873.00	5,107	0	0
874.00	5,990	5,549	5,549
875.00	6,930	6,460	12,009
876.00	7,927	7,429	19,437
877.00	8,980	8,454	27,891
878.00	10,089	9,535	37,425

Device	Routing	Invert	Outlet Devices
#1	Primary	872.50'	**15.0" Round Culvert** L= 66.0' Ke= 1.000 Inlet / Outlet Invert= 872.50' / 872.00' S= 0.0076 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.23 sf
#2	Device 1	873.00'	**3.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	876.50'	**48.0" Vert. Orifice/Grate** C= 0.600
#4	Primary	877.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=2.38 cfs @ 12.57 hrs HW=876.97' (Free Discharge)
- **1=Culvert** (Passes 2.38 cfs of 8.69 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.47 cfs @ 9.59 fps)
  - **3=Orifice/Grate** (Orifice Controls 1.91 cfs @ 2.33 fps)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Pond

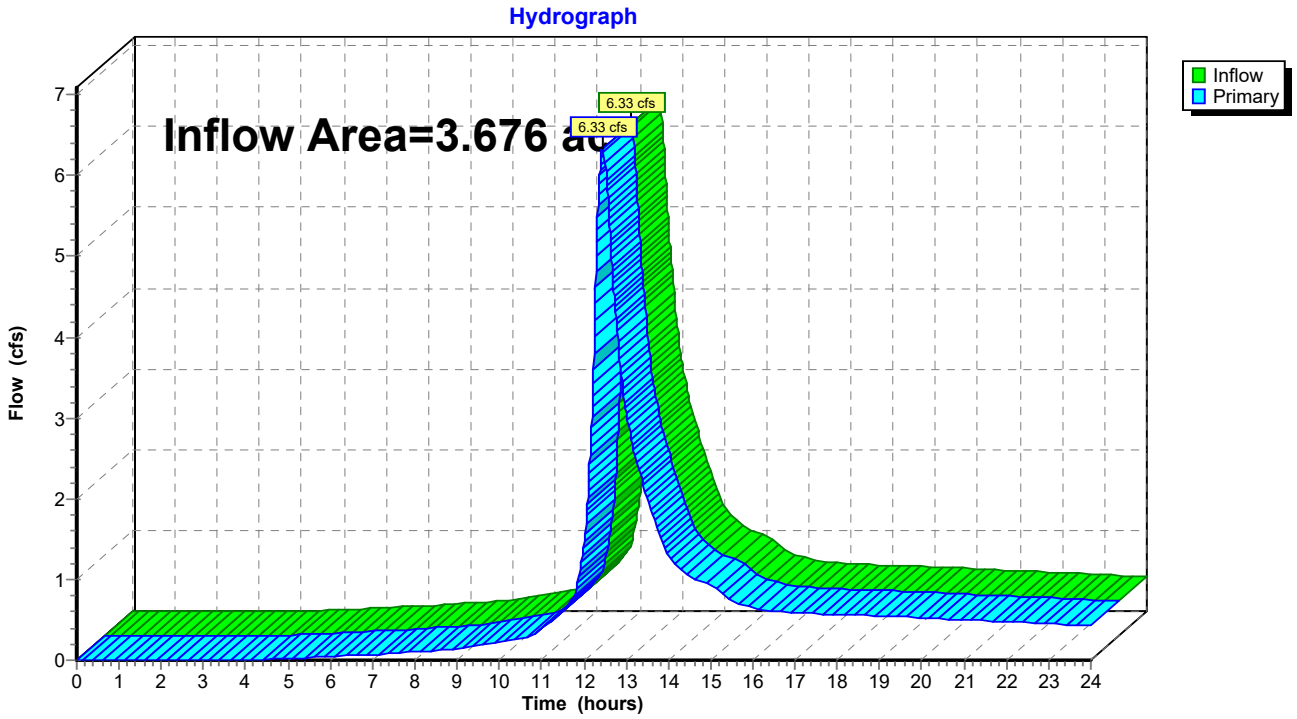

Hydrograph
Inflow Area=2.391 ac
Peak Elev=876.97'
Storage=27,596 cf
19.26 cfs
2.39 cfs
Inflow
Primary
Flow (cfs)
Time (hours)

Summary for Link TPO: Total Proposed Outfall

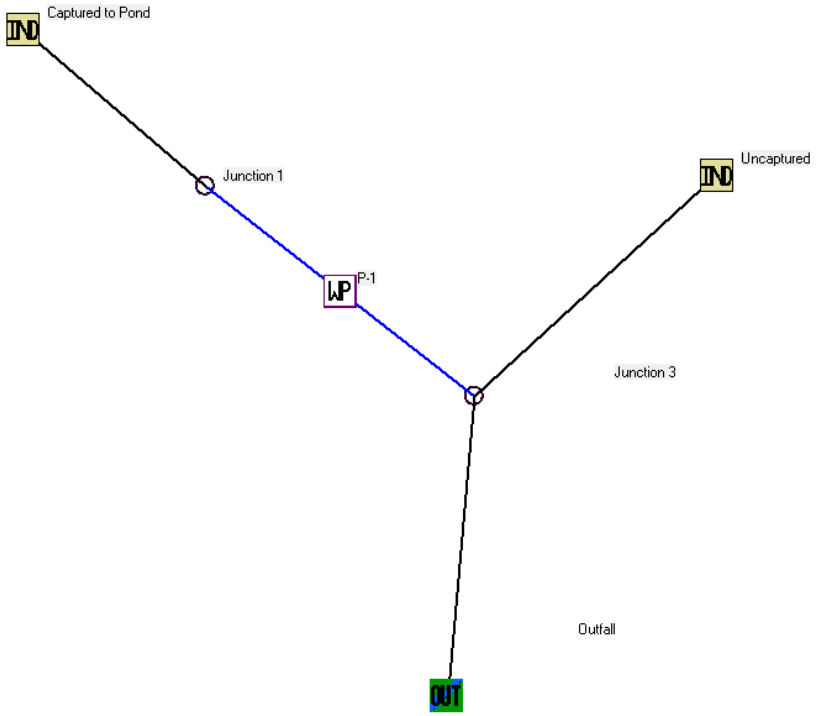
Inflow Area = 3.676 ac, 54.71% Impervious, Inflow Depth > 3.71" for 100-year event
Inflow = 6.33 cfs @ 12.44 hrs, Volume= 1.136 af
Primary = 6.33 cfs @ 12.44 hrs, Volume= 1.136 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link TPO: Total Proposed Outfall



WINSLAMM ANALYSIS SUMMARY FINAL



File Name:

P:\2024-CONTRACTS\2024-100 Basic Metals Expansion\Phase - 2\Construction Documents\S.3 Site\SWMP\2024-100 - Basic Metals.mdb

Outfall Output Summary

	Runoff Volume (cu. ft.)	Percent Runoff Reduction	Runoff Coefficient (Rv)	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of All Land Uses without Controls	177038		0.40	101.1	1117	
Outfall Total with Controls	177197	-0.09 %	0.40	43.60	482.3	56.82 %
Current File Output: Annualized Total After Outfall Controls	179658	Years in Model Run:	0.99		489.0	

Print Output Summary to .csv File
Print Output Summary to Text File
Print Output Summary to Printer

Total Area Modeled (ac): 3.675

Total Control Practice Costs

Capital Cost	N/A
Land Cost	N/A
Annual Maintenance Cost	N/A
Present Value of All Costs	N/A
Annualized Value of All Costs	N/A

Perform Outfall Flow Duration Curve Calculations

Receiving Water Impacts Due To Stormwater Runoff

(CWP Impervious Cover Model)

	Calculated Rv	Approximate Urban Stream Classification
Without Controls	0.40	Poor
With Controls	0.40	Poor

Input Data

```
Data file name:  P:\2024-CONTRACTS\2024-100 Basic Metals Expansion\Phase - 2\Construction Documents\S.3 Site\SWMP\2024-100 -
Basic Metals.mdb
WinSLAMM Version 10.4.1
Rain file name:  C:\WinSLAMM Files\Rain Files\WI_Multi_rain\Milwaukee\WisReg - Milwaukee Annual 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:
Seed for random number generator:  -42
Study period starting date:  01/05/69       Study period ending date:  12/31/69
Start of Winter Season:  12/02              End of Winter Season:  03/12
Date:  02-06-2026                           Time:  16:31:43
Site information:

LU# 1 - Industrial:  Captured to Pond     Total area (ac):  2.390
     1 - Roofs 1:  1.247 ac.    Flat    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     13 - Paved Parking 1:  0.470 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     45 - Large Landscaped Areas 1:  0.556 ac.    Normal Silty    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     70 - Water Body Areas:  0.117 ac.    Source Area PSD File:

LU# 2 - Industrial:  Uncaptured     Total area (ac):  1.285
     13 - Paved Parking 1:  0.176 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     45 - Large Landscaped Areas 1:  1.109 ac.    Normal Silty    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz


      Control Practice 1:  Wet Detention Pond CP# 1 (DS) - P-1
         Particle Size Distribution file name:  Not needed - calculated by program
         Initial stage elevation (ft):   5
         Peak to Average Flow Ratio:   3.8
         Maximum flow allowed into pond (cfs):  No maximum value entered
         Outlet Characteristics:
              Outlet type:  Orifice 1
                    1.  Orifice diameter (ft):   0.33
                    2.  Number of orifices:   1
                    3.  Invert elevation above datum (ft):   5
              Outlet type:  Broad Crested Weir
                    1.  Weir crest length (ft):   10
                    2.  Weir crest width (ft):   5
                    3.  Height from datum to bottom of weir opening:   9
              Outlet type:  Vertical Stand Pipe
                    1.  Stand pipe diameter (ft):   4
                    2.  Stand pipe height above datum (ft):   8.5
         Pond stage and surface area
                   Entry       Stage     Pond Area   Natural Seepage   Other Outflow
                   Number      (ft)      (acres)              (in/hr)                  (cfs)
                      0           0.00        0.0000            0.00                    0.00
                      1           0.01        0.0324            0.00                    0.00
                      2           1.00        0.0404            0.00                    0.00
                      3           2.00        0.0493            0.00                    0.00
                      4           3.00        0.0590            0.00                    0.00
                      5           4.00        0.0695            0.00                    0.00
                      6           5.00        0.1172            0.00                    0.00
                      7           6.00        0.1375            0.00                    0.00
                      8           7.00        0.1591            0.00                    0.00
                      9           8.00        0.1820            0.00                    0.00
                      10           9.00        0.2061            0.00                     0.00
                      11           10.00        0.2316            0.00                     0.00
```

Output Summary

SLAMM for Windows Version 10.4.1
(c) Copyright Robert Pitt and John Voorhees 2019, All Rights Reserved

Data file name: P:\2024-CONTRACTS\2024-100 Basic Metals Expansion\Phase - 2\Construction Documents\S.3 Site\SWMP\2024-100 - Basic Metals.mdb
Data file description:
Rain file name: C:\WinSLAMM Files\Rain Files\WI_Multi_rain\Milwaukee\WisReg - Milwaukee Annual 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.ppdx
Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
Seed for random number generator: -42
Start of Winter Season: 12/02 End of Winter Season: 03/12
Model Run Start Date: 01/05/69 Model Run End Date: 12/31/69
Date of run: 02-06-2026 Time of run: 16:31:31
Total Area Modeled (acres): 3.675
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:	177038	-	101.1	1117	-
Outfall Total with Controls:	177197	-0.09%	43.60	482.3	56.82%
Annualized Total After Outfall Controls:	179658			489.0	

SOILS INFORMATION

USGS WEB SOIL SURVEY

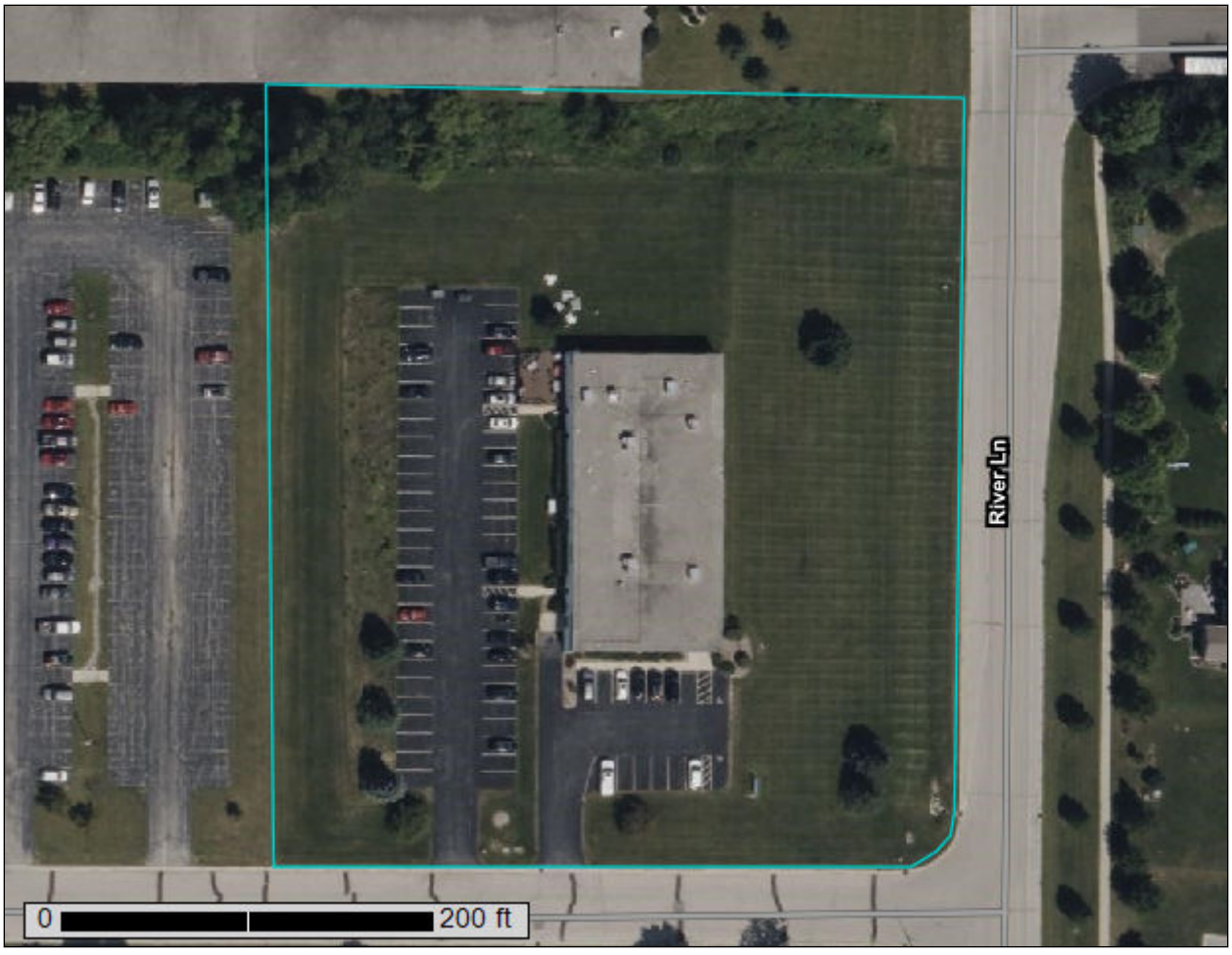
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for Washington County, Wisconsin



Preface

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

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

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

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

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

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

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How Soil Surveys Are Made

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

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

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

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

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

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

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

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

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

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

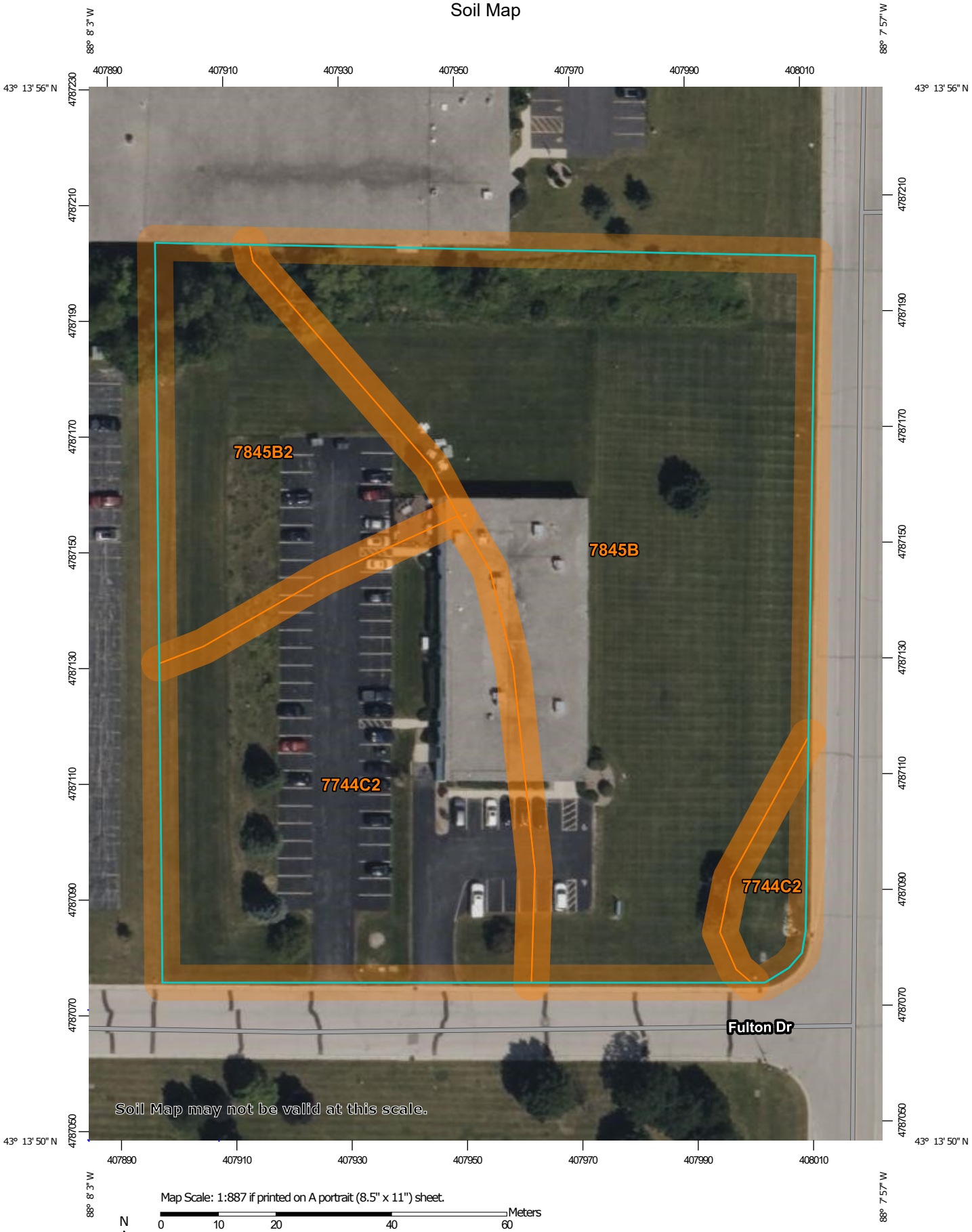
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree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

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

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

Soil Map

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



Map Scale: 1:887 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 10 20 40 60

Feet
0 40 80 160 240

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

MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Washington County, Wisconsin
Survey Area Data: Version 25, Sep 10, 2025

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

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

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
7744C2	Hochheim loam, 6 to 12 percent slopes, eroded	1.2	32.9%
7845B	Theresa silt loam, 2 to 6 percent slopes	1.8	51.2%
7845B2	Theresa silt loam, 2 to 6 percent slopes, eroded	0.6	15.9%
Totals for Area of Interest		**3.5**	**100.0%**

Map Unit Descriptions

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

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

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

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

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

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

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

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

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

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

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

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

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

Washington County, Wisconsin

7744C2—Hochheim loam, 6 to 12 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2t03r
Elevation: 900 to 1,340 feet
Mean annual precipitation: 31 to 33 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 135 to 175 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

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

Description of Hochheim, Eroded

Setting

Landform: Drumlins
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy till and/or calcareous, dense loamy till

Typical profile

Ap - 0 to 7 inches: loam
Bt - 7 to 16 inches: clay loam
C - 16 to 33 inches: gravelly sandy loam
Cd - 33 to 79 inches: gravelly sandy loam

Properties and qualities

Slope: 6 to 12 percent
Depth to restrictive feature: 20 to 40 inches to densic material
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 60 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Ecological site: F095XB007WI - Loamy Upland with Carbonates
Forage suitability group: Mod AWC, adequately drained (G095BY005WI)
Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)
Hydric soil rating: No

Minor Components

Theresa

Percent of map unit: 5 percent
Landform: Drumlins
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: F095XB007WI - Loamy Upland with Carbonates
Hydric soil rating: No

Hochheim

Percent of map unit: 5 percent
Landform: Drumlins
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Head slope, side slope
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: F095XB006WI - Shallow Upland
Hydric soil rating: No

7845B—Theresa silt loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 2szd9
Elevation: 700 to 1,240 feet
Mean annual precipitation: 31 to 35 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 140 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Theresa and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Theresa

Setting

Landform: Drumlins
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loess over loamy till and/or calcareous, dense loamy till

Typical profile

Ap - 0 to 8 inches: silt loam
BE - 8 to 14 inches: silt loam

Bt1 - 14 to 18 inches: silty clay loam
2Bt2 - 18 to 34 inches: clay loam
2Cd - 34 to 79 inches: loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: 32 to 35 inches to densic material
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 60 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: F095XB007WI - Loamy Upland with Carbonates
Forage suitability group: Mod AWC, adequately drained with limitations (G095BY006WI)
Other vegetative classification: Mod AWC, adequately drained with limitations (G095BY006WI)
Hydric soil rating: No

Minor Components

Hochheim

Percent of map unit: 10 percent
Landform: Drumlins
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: F095XB006WI - Shallow Upland
Hydric soil rating: No

Lamartine

Percent of map unit: 5 percent
Landform: Drumlins
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: F095XB005WI - Moist Loamy or Clayey Lowland
Hydric soil rating: No

7845B2—Theresa silt loam, 2 to 6 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2szd7
Elevation: 660 to 1,290 feet
Mean annual precipitation: 31 to 35 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 150 to 195 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Theresa, eroded, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Theresa, Eroded

Setting

Landform: Drumlins
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loess over loamy till and/or calcareous, dense loamy till

Typical profile

Ap - 0 to 8 inches: silt loam
BE - 8 to 11 inches: silt loam
Bt1 - 11 to 16 inches: silty clay loam
2Bt2 - 16 to 35 inches: gravelly clay loam
2Cd - 35 to 79 inches: gravelly sandy loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: 24 to 40 inches to densic material
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 60 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: F095XB007WI - Loamy Upland with Carbonates

Forage suitability group: Mod AWC, adequately drained with limitations (G095BY006WI)
Other vegetative classification: Mod AWC, adequately drained with limitations (G095BY006WI)
Hydric soil rating: No

Minor Components

Hochheim, eroded
Percent of map unit: 10 percent
Landform: Drumlins
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: F095XB006WI - Shallow Upland
Hydric soil rating: No

Lamartine
Percent of map unit: 5 percent
Landform: Drumlins
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: F095XB005WI - Moist Loamy or Clayey Lowland
Hydric soil rating: No

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RAINFALL INFORMATION

NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATES

NOAA Atlas 14, Volume 8, Version 2
Location name: Germantown, Wisconsin, USA*
Latitude: 43.2318°, Longitude: -88.1376°
Elevation: 920 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffery Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.334** (0.260-0.415)	**0.404** (0.314-0.502)	**0.515** (0.399-0.640)	**0.603** (0.466-0.753)	**0.721** (0.541-0.911)	**0.808** (0.597-1.03)	**0.893** (0.643-1.15)	**0.975** (0.682-1.28)	**1.08** (0.734-1.44)	**1.15** (0.773-1.56)
10-min	**0.489** (0.381-0.608)	**0.591** (0.460-0.735)	**0.753** (0.585-0.937)	**0.883** (0.683-1.10)	**1.06** (0.792-1.33)	**1.18** (0.874-1.51)	**1.31** (0.942-1.69)	**1.43** (0.998-1.88)	**1.58** (1.07-2.11)	**1.69** (1.13-2.29)
15-min	**0.597** (0.465-0.741)	**0.721** (0.561-0.896)	**0.919** (0.713-1.14)	**1.08** (0.832-1.34)	**1.29** (0.965-1.63)	**1.44** (1.07-1.84)	**1.59** (1.15-2.06)	**1.74** (1.22-2.29)	**1.93** (1.31-2.58)	**2.06** (1.38-2.79)
30-min	**0.814** (0.633-1.01)	**0.988** (0.768-1.23)	**1.26** (0.982-1.57)	**1.49** (1.15-1.86)	**1.78** (1.34-2.25)	**2.00** (1.48-2.55)	**2.21** (1.59-2.86)	**2.42** (1.69-3.18)	**2.68** (1.82-3.58)	**2.87** (1.92-3.89)
60-min	**1.05** (0.815-1.30)	**1.26** (0.983-1.57)	**1.62** (1.26-2.02)	**1.92** (1.49-2.40)	**2.34** (1.77-2.98)	**2.67** (1.98-3.42)	**3.00** (2.17-3.90)	**3.34** (2.34-4.41)	**3.79** (2.58-5.09)	**4.13** (2.77-5.60)
2-hr	**1.28** (1.01-1.58)	**1.54** (1.21-1.90)	**1.98** (1.56-2.44)	**2.36** (1.84-2.91)	**2.90** (2.22-3.67)	**3.33** (2.50-4.25)	**3.78** (2.77-4.89)	**4.25** (3.02-5.59)	**4.89** (3.37-6.54)	**5.40** (3.64-7.26)
3-hr	**1.44** (1.14-1.76)	**1.71** (1.36-2.10)	**2.19** (1.73-2.68)	**2.62** (2.06-3.22)	**3.25** (2.52-4.12)	**3.78** (2.86-4.81)	**4.33** (3.20-5.60)	**4.93** (3.53-6.47)	**5.77** (4.00-7.69)	**6.44** (4.36-8.62)
6-hr	**1.74** (1.40-2.11)	**2.02** (1.62-2.44)	**2.53** (2.03-3.07)	**3.02** (2.41-3.67)	**3.77** (2.98-4.78)	**4.42** (3.41-5.62)	**5.13** (3.84-6.61)	**5.91** (4.28-7.73)	**7.03** (4.94-9.34)	**7.95** (5.43-10.6)
12-hr	**2.07** (1.68-2.48)	**2.34** (1.90-2.80)	**2.86** (2.32-3.43)	**3.37** (2.72-4.05)	**4.18** (3.35-5.26)	**4.90** (3.82-6.18)	**5.69** (4.32-7.28)	**6.58** (4.82-8.55)	**7.87** (5.58-10.4)	**8.94** (6.15-11.8)
24-hr	**2.36** (1.95-2.80)	**2.67** (2.20-3.17)	**3.26** (2.67-3.87)	**3.82** (3.12-4.56)	**4.72** (3.82-5.87)	**5.50** (4.34-6.87)	**6.37** (4.88-8.07)	**7.33** (5.42-9.43)	**8.72** (6.23-11.4)	**9.87** (6.85-12.9)
2-day	**2.64** (2.20-3.10)	**3.04** (2.54-3.57)	**3.78** (3.14-4.44)	**4.46** (3.69-5.26)	**5.50** (4.48-6.74)	**6.38** (5.07-7.86)	**7.34** (5.66-9.18)	**8.38** (6.24-10.7)	**9.87** (7.10-12.8)	**11.1** (7.75-14.4)
3-day	**2.90** (2.44-3.39)	**3.32** (2.79-3.87)	**4.07** (3.41-4.76)	**4.77** (3.98-5.60)	**5.84** (4.79-7.12)	**6.76** (5.41-8.27)	**7.74** (6.01-9.63)	**8.82** (6.60-11.2)	**10.4** (7.49-13.4)	**11.6** (8.17-15.0)
4-day	**3.13** (2.65-3.64)	**3.55** (3.00-4.13)	**4.32** (3.64-5.03)	**5.03** (4.22-5.88)	**6.12** (5.04-7.42)	**7.05** (5.67-8.59)	**8.06** (6.28-9.98)	**9.15** (6.88-11.5)	**10.7** (7.77-13.8)	**12.0** (8.45-15.4)
7-day	**3.67** (3.14-4.23)	**4.17** (3.56-4.80)	**5.04** (4.29-5.82)	**5.82** (4.94-6.74)	**7.00** (5.80-8.37)	**7.97** (6.45-9.60)	**9.01** (7.07-11.0)	**10.1** (7.65-12.6)	**11.7** (8.52-14.9)	**13.0** (9.19-16.6)
10-day	**4.16** (3.58-4.77)	**4.72** (4.06-5.41)	**5.68** (4.87-6.52)	**6.53** (5.57-7.52)	**7.76** (6.46-9.20)	**8.77** (7.13-10.5)	**9.82** (7.73-11.9)	**10.9** (8.29-13.5)	**12.5** (9.13-15.8)	**13.7** (9.77-17.5)
20-day	**5.68** (4.95-6.43)	**6.36** (5.55-7.21)	**7.50** (6.52-8.52)	**8.46** (7.31-9.64)	**9.80** (8.22-11.4)	**10.9** (8.90-12.8)	**11.9** (9.47-14.3)	**13.0** (9.94-15.9)	**14.5** (10.7-18.1)	**15.6** (11.2-19.7)
30-day	**7.01** (6.17-7.89)	**7.82** (6.87-8.81)	**9.12** (7.99-10.3)	**10.2** (8.87-11.5)	**11.6** (9.79-13.4)	**12.7** (10.5-14.8)	**13.8** (11.0-16.4)	**14.9** (11.4-18.0)	**16.3** (12.0-20.1)	**17.3** (12.5-21.7)
45-day	**8.75** (7.76-9.79)	**9.75** (8.64-10.9)	**11.3** (10.0-12.7)	**12.6** (11.0-14.1)	**14.2** (12.0-16.2)	**15.3** (12.7-17.7)	**16.4** (13.2-19.3)	**17.5** (13.5-21.0)	**18.8** (13.9-23.1)	**19.7** (14.3-24.6)
60-day	**10.3** (9.16-11.4)	**11.5** (10.2-12.8)	**13.3** (11.8-14.9)	**14.7** (13.0-16.5)	**16.5** (14.0-18.7)	**17.8** (14.8-20.4)	**18.9** (15.2-22.1)	**20.0** (15.4-23.8)	**21.1** (15.7-25.8)	**21.9** (15.9-27.3)

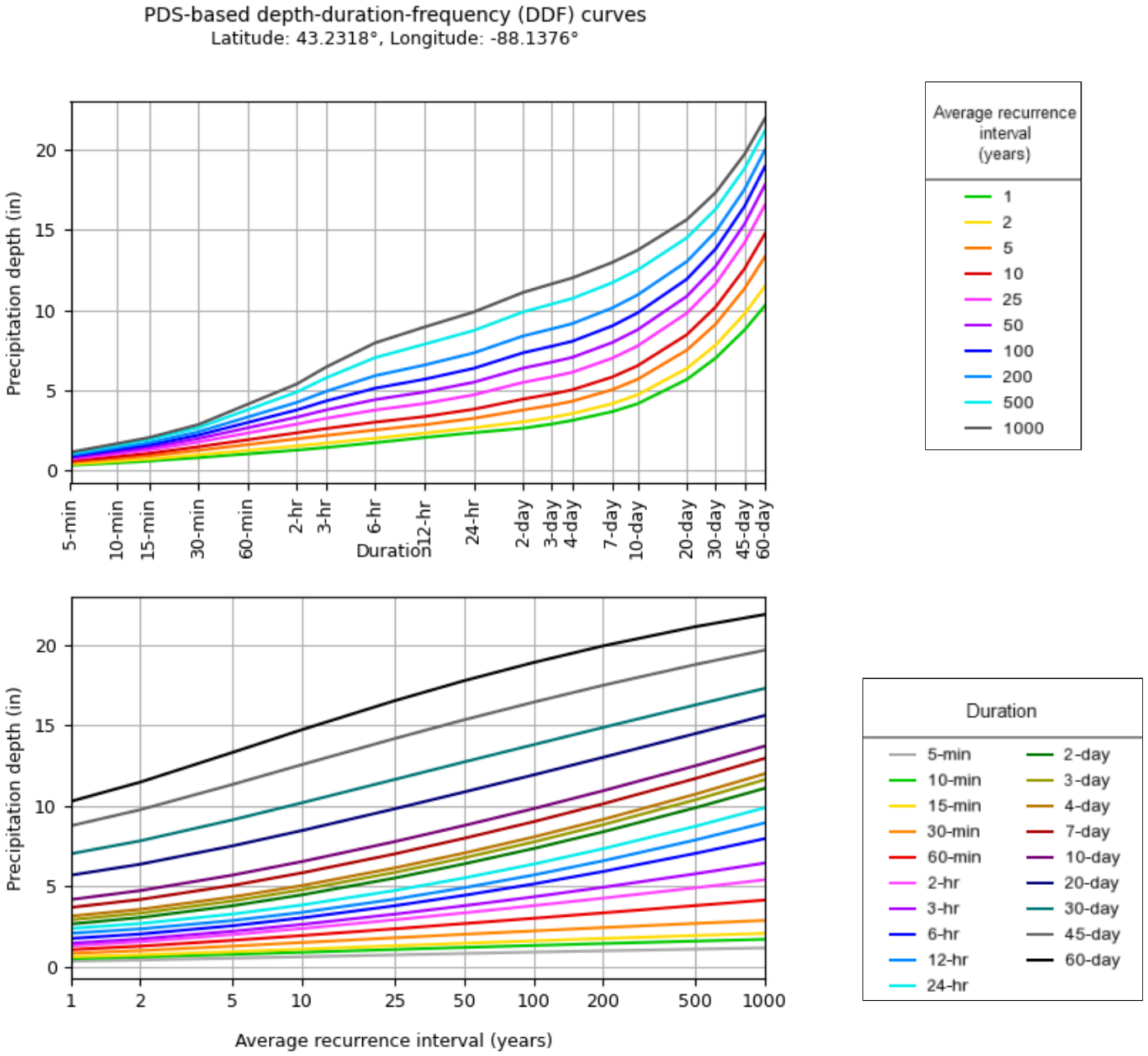
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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PF graphical



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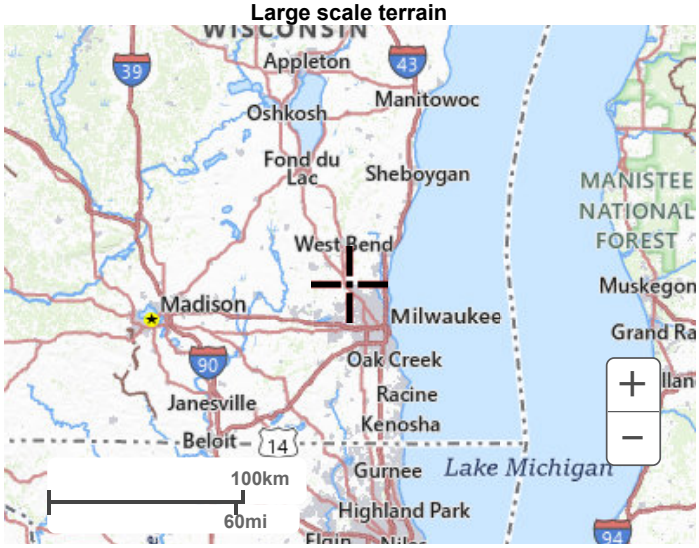
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Maps & aerials

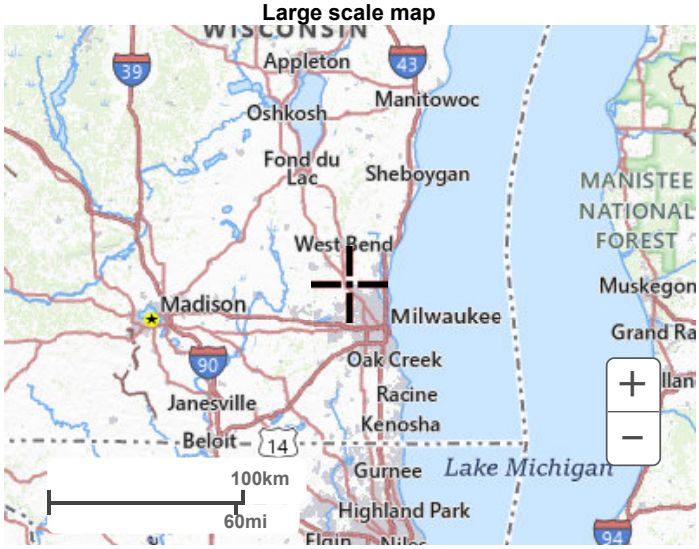
Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



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National Weather Service
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GEOTECH INFORMATION

INTERTEK GEOTECHNICAL EXPLORATION AND EVALUATION

Professional Service Industries, Inc
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Phone (262) 521-2125
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January 20, 2026

Abacus Architects
640 N Vel R Phillips Ave, Suite 210
Milwaukee, WI 53203

Attn: Mr. Keith Solum
Principal Project Architect

Re: Geotechnical Exploration and Evaluation
Proposed Basic Metals Addition
W180N11711 N River Lane
Germantown, Wisconsin
PSI Project No. 00523594

Dear Mr. Solum:

The geotechnical exploration and evaluation for the referenced project has been completed. An electronic copy of the report is being provided via email. Paper copies can be issued upon request. After you have had the opportunity of reading the report, please call at any time with any questions or comments you may have. Professional Service Industries, Inc. (PSI), an Intertek Company, appreciates the opportunity to be of service on this project, and looks forward to continuing as your geotechnical consultant during the design and construction phases, as well as your upcoming projects.

Sincerely,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Ilyas Ahmed
Staff Engineer

1/20/26
James M. Becco, P.E.
Principal Consultant



The above Professional Engineering Seal and signature is an electronic reproduction of the original seal and signature. Original hard copies can be provided upon request. This electronic reproduction shall not be construed as an original or certified document.

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Figure 1 – Boring Location Plan
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INTRODUCTION

General

This report presents the results of the geotechnical exploration and evaluation for the proposed Basic Metals Addition project located in Germantown, Wisconsin. The work was performed for Abacus Architects, at the request of Mr. Keith Solum.

Purpose

The purpose of this study was to evaluate the subsurface conditions at specific boring locations on the site, and to establish parameters for use by the design engineers and architects in preparing the foundation, floor slab, and pavement designs for the proposed project.

Scope

The scope of services included the subsurface exploration, an evaluation of soil characteristics by field and laboratory testing, and an evaluation of the data obtained. Subgrade preparation recommendations and construction considerations are also provided. The scope of the field work, including the number, location, and depth of the borings was determined by the client.

Authorization

The description of services and authorization to perform this subsurface exploration and evaluation were in the form of a signed PSI Proposal No. 465784, dated December 8, 2025. This report has been prepared on behalf of, and exclusively for the use of Abacus Architects. The information contained in this report may not be relied upon by any other parties without the express written consent of PSI, and acceptance by such parties of PSI's General Conditions.

SITE AND PROJECT DESCRIPTION

Site Features

The project site is located at W180N11711 N River Lane in Germantown, Wisconsin. The new addition is planned to the west side of the existing building. At the time of exploration, the site was occupied by a building with associated pavements, grass areas, and trees. The project site is surrounded by Fulton Drive to the south, N River Lane to the east, commercial properties to the west, and another Basic Metal Facility to the north. A review of aerial photos of various years between 2000 to 2025 on Google Earth indicates that the site has remained relatively similar in appearance to that described herein throughout the series of photos. The subject site is depicted on the enclosed Boring Location Plans (Figure 1).

The topography of the site is slightly rolling, with an elevation difference at the borings of about 6 feet (EL. 885 to EL. 879), generally sloping down to the south.

Project Description

The project is understood to consist of a new addition with associated paved parking and drive areas. The addition will be to the north and east sides of the existing building. It will be a single story, slab-on-grade structure with a total footprint of about 41,472 square feet. A loading dock is planned on the south side of the addition. It is indicated that maximum column loads will not exceed 160 kips (sustained load) and 150 kips (transient load). The maximum uniform floor load will not exceed 1,000 psf. No other details were provided.

A finished first floor elevation (FFE) of EL. 882.6 was provided by the client. Based on the elevations at the building borings B-1 through B-4 of EL. 885 to EL. 879, it is estimated that cuts of up to about 2.5 feet and fills of up to about 3.5 feet may be required. However, this will also be dependent on the subgrade preparation criteria, to be discussed in a later section.

The new pavements are estimated to consist of hot mix asphalt (HMA) and/or Portland cement concrete (PCC). The project will consist of standard duty pavement (employee parking and light delivery) on the east side and heavy-duty pavement (heavy truck) on the south side of proposed addition. The following traffic volumes for pavements have been provided by the client.

- Semi-trucks per day (total weight of 80,000 lbs): 8 total trips (Heavy duty)
- Passenger cars per day: 25 (Standard duty)
- Smaller box delivery trucks per day: 2 (Standard duty)

When additional information regarding the project becomes available, and/or if any of the information discussed herein differs from current plans or changes as design progresses, PSI must be informed so that any necessary revisions to this report can be made.

EXPLORATION AND LABORATORY PROCEDURES

Scope Summary

The field and laboratory data utilized in the evaluation of the subsurface materials was obtained by drilling exploratory test borings, securing soil samples by the split-spoon sampling method, and subjecting the samples to standard laboratory testing.

Field Exploration

Five (5) soil borings were performed for this project. B-1 through B-4 were performed in the building area to a planned depth of about 20 feet below existing grade. B-5 was performed in a planned pavement area to a depth of about 5 feet below existing grade. The number, depth, and approximate location of the soil borings was provided by the client. The borings were located in the field by PSI utilizing a handheld consumer grade GPS device. The locations are estimated to be accurate to within several feet. The surface elevations shown on the logs were estimated by interpolation of a 1-foot contour map of the property, provided by the client. The

elevations are estimated to be accurate to within about 1 foot. The approximate locations of the borings performed are shown on the Boring Location Plan (Figure 1), which is provided in the Appendix of this report.

The soil test borings were performed with an all-terrain vehicle (ATV) mounted rotary drilling rig utilizing continuous flight hollow stem augers to advance the holes. Representative samples were obtained by the Standard Penetration Test (SPT) method using split-spoon sampling procedures in general accordance with ASTM D-1586 procedures. Samples were collected at 2.5-foot intervals to 10 feet, and then at 5-foot intervals thereafter to the end of the borings. As an exception, the pavement boring samples were collected at 2 feet continuously. The standard penetration value (N) is defined as the number of blows of a 140-pound hammer, falling thirty (30) inches, required to advance the split-spoon sampler one (1) foot into the soil. The sampler is lowered to the bottom of the drill hole and the number of blows recorded for each of the three (3) successive increments, or (4) successive increments for pavement boring, of six (6) inches penetration. The “N” value is obtained by adding the second and third incremental numbers. The SPT provides a means of estimating the relative density of granular soils and comparative consistency of cohesive soils, thereby providing a method of evaluating the relative strength and compressibility characteristics of the subsoils.

The SPT soil samples were transferred into clean glass jars immediately after retrieval and returned to the laboratory upon completion of the field operations. Samples will be discarded unless other instructions are received. The soil samples were visually classified in general accordance with the Unified Soil Classification System (ASTM D-2488-75). A description of the subsurface conditions encountered at each boring location is shown on the enclosed Soil Boring Logs. After completion of the borings, the auger holes were backfilled to the ground surface with bentonite or auger cuttings dependent upon depth. In addition, the surface at B-4 was patched with cold asphalt.

A copy of the Soil Boring Logs and Boring Location Plan (Figure 1) are enclosed in the Appendix. The soil stratification shown on the logs represents the approximate soil conditions in the actual boring locations at the time of the exploration. The terms and symbols used on the logs are described in the General Notes found in the Appendix.

Laboratory Physical Testing

Soil samples obtained from the exploration were visually classified in the laboratory, and subjected to testing, which included moisture content determinations.

Selected cohesive soil samples were tested in unconfined compression with an uncontrolled strain loading rate and/or with a calibrated hand penetrometer to aid in evaluating the soil strength characteristics. The values of strength tests performed on soil samples obtained by the Standard Penetration Test Method (SPT) are considered approximate, recognizing that the SPT method provides a representative but somewhat disturbed soil sample.

The laboratory testing was performed in general accordance with the respective ASTM methods, as applicable, and the results are shown on the boring logs in the Appendix.

DESCRIPTION OF SUBSURFACE CONDITIONS

General

A description of the subsurface conditions encountered at the test boring locations is shown on the Soil Boring Logs. The lines of demarcation shown on the logs represent an approximate boundary between the various soil classifications. It must be recognized that the soil descriptions are considered representative estimates for the specific test hole location, but those variations may occur between and beyond the sampling intervals and boring locations. Soil depths, topsoil, and layer thicknesses, and demarcation lines utilized for preconstruction planning should not be expected to yield exact and final quantities. A summary of the major soil profile components is described in the following paragraphs.

Soil Conditions

The surficial materials present at the borings (excluding B-4) consisted of about 5 to 8 inches of lean clay classified as topsoil fill. The surficial materials present at B-4 consisted of about 2.75 inches of asphalt, followed by 9.5 inches of crushed stone base. Underlying the surface materials at the borings were fill and possible fill soils consisting of lean clay, fine to medium sand, silt and gravel to depths of about 3 to 8 feet (EL. 882 to EL. 872) below existing grade. Beneath the fill and possible fill were natural soils consisting of lean clay, gravel, and fine to medium sand to the maximum depth explored. Possible cobbles and/or boulders were encountered at B-1, B-2, and B-3 to depths ranging from 5.5 to 8 feet (EL. 879.5 to EL. 872) below existing grade.

The natural cohesive soils were in a very stiff consistency with an unconfined compressive strength of 2.7 tons per square foot (tsf). The natural granular soils were generally medium dense to extremely dense in relative density with N-values ranging from 20 blows per foot (bpf) to 50+ blows per inch of penetration. The fill/possible fill granular soils were generally medium dense in relative density with an N-value ranging from 13 to 18 blows per foot (bpf).

The fill and possible fill were classified as such based on their varied visual characteristics and composition. However, it must be recognized that in the absence of foreign substances and/or debris within the soil samples obtained, it is often difficult to distinguish between natural soils and clean soil fill.

The foregoing discussion of soil conditions on this site represents a generalized soil profile as determined at the test boring locations. A more detailed description and supporting data for each test location can be found on the individual Soil Boring Logs.

Groundwater Observations

Groundwater observations were made during the drilling operations and in the open boreholes upon completion of drilling and removal of the augers. No groundwater was observed within the borings during auger advancement or upon completion of drilling and removal of the augers.

The groundwater observations reported herein are considered approximate. It must be recognized that groundwater levels fluctuate with time due to variations in seasonal precipitation, lateral drainage conditions, and soil permeability characteristics. Longer term monitoring would be required to further evaluate groundwater levels on this site.

EVALUATION AND RECOMMENDATIONS

General Development Considerations

In view of the subsurface conditions encountered in the test borings, together with the structural loading criteria and development grades anticipated, conventional spread footings can be used for support of the proposed addition. However, fill and possible fill soils were present at the building borings to depths of about 3 to 8 feet (EL. 882 to EL. 872) below existing grade. Existing fill soils are not recommended for foundation support due to the potential for variable strength and support characteristics. The proposed structure can be supported by means of conventional spread footings extended through the existing fill to bear on suitable natural soils, or upon newly placed and compacted structural fill (or lean concrete mix) used to replace the existing materials. About 2.5 to 6.5 feet of overexcavation may be necessary below frost depth (with deeper undercuts for interior footings) in some areas of the planned building. However, some variation should be expected.

Very dense to extremely dense granular soils and possible cobbles and/or boulders were encountered within B-1, B-2, and B-3 at depths of about 5.5 to 8 feet (EL. 879.5 to EL. 872.5). Substantial difficulty digging and longer excavation times for conventional excavating, and substantial difficulty with the installation of bracing systems may be experienced.

The existing fill and natural soils can generally be utilized for support of the floor slabs and pavements after proper subgrade preparation. However, some over-excavation of unsuitable soils may be necessary. A discussion of the building foundation and pavement design parameters, as well as the support conditions for the floor slab and pavement are included in later sections.

Site Preparation

The presence of organic topsoil and vegetation in the subgrade can adversely affect the serviceability of structural fills, foundations, floor slabs, pavements, and other structures placed upon them. Approximately 5 to 8 inches of topsoil fill were present on the surface at most of the borings. However, some variation should be expected. All topsoil, vegetation, trees, roots and

other organic matter must be stripped from the areas of footings, floor slabs, pavements, sidewalks, and other structures. The existing pavement must also be removed from the proposed addition area.

Backfill adjacent to the existing foundation walls, and within any existing utility trenches, must be evaluated by a representative of the soil engineer to determine its suitability to support new fill, floor slabs, and footings. Some removal of loose or unsuitable soils may be necessary. Existing utilities or portions of the existing structure that extend into the planned new development areas must be completely removed or rerouted, as necessary, and the area properly backfilled.

After stripping the topsoil and cutting any high areas of the site to the planned finished grade, and prior to the placement of new fill which may be placed to raise grades, surface subgrades must be thoroughly proofrolled to detect unstable, yielding soils. This should consist of overlapping passes in a perpendicular grid pattern, with a fully loaded tandem-axle dump truck, or other equipment of similar size and weight suitable for the surface conditions. Proofrolling should be performed in consultation with the geotechnical engineer at the time of construction. Substantial and widespread subgrade instability, possibly requiring deep undercutting, can occur within highly moisture sensitive silty and clayey soils (such as were encountered in the borings), especially in wet or cold weather, or during thawing conditions. It is generally recommended that earthwork be carried out during relatively warm, dry weather. Any soft, wet, or otherwise unstable zones which cannot be improved by scarification and aeration, must be removed and replaced with compacted structural fill, such as clean crushed stone, possibly in conjunction with the use of a geotextile fabric. Lime, lime kiln dust, fly ash, or Portland cement modification are additional remedial measures which can be considered for clayey and some silty soils. However, this must only be performed at the direction and under the supervision of the geotechnical engineer. A proper mix design must be performed prior to the performance of any modification. Long delays and substantial difficulty with subgrade stabilization may be experienced if the soils are wet, or are otherwise at high moisture contents at the time of construction. It is recommended that construction roads be installed to reduce disturbance to the highly sensitive subgrade soils.

Every effort must be made to keep excavations dry. If construction proceeds during wet weather, some additional overexcavation may be necessary. If weather permits, the soil could be dried and recompacted. A crushed stone working mat, possibly in conjunction with a geotextile fabric may also be feasible to help stabilize subgrades. Site grading runoff should be directed to catch basins, so that the potential for the softening of the foundation and pavement subgrade soils is reduced.

If site grades are raised in excess of 2 feet, the first lift of new fill must be placed so as to extend a minimum lateral distance of 5 feet beyond the planned top building pad dimension (for fills less than 5 feet in thickness), or for a distance equal to at least 1 foot laterally beyond the top pad dimension for every foot of fill thickness (for fills greater than 5 feet in depth). Subsequent lifts can then be placed on an approximate 1H:1V slope back up to the planned top perimeter

dimension of the pad. Similarly, where undercutting of unsuitable soils is performed beneath footings, floor slabs, or other structural areas, it is recommended that the removal extend laterally beyond the perimeter of the structure at least 0.5 feet for every 1 foot of removal below the planned bearing depth. Proper moisture control is essential to reduce the amount of compactive effort necessary to achieve the desired densities.

When a firm and stable subgrade is established, low areas may be raised to planned grades with properly compacted structural fill. Any new fill should be a clean well graded granular soil. If fine-grained soils, such as those with high silt or clay content are used, they should generally be placed over large open areas, where conditions are more favorable for the proper placement and compaction of such materials. It must be recognized that high silt or clay content materials are extremely difficult to compact when placed at moisture contents beyond a few percent of the optimum moisture content. Fill must be placed in layers of not more than nine (9) inches in thickness, at moisture contents at or near optimum, and be compacted to a minimum density of 95 percent of the maximum dry density as determined by ASTM designation D-1557 (Modified Proctor). Silt, clay, and wet granular soils are not suitable for reuse as compacted fill in trenches, or adjacent to foundation stem walls or retaining walls. Importing of suitable granular backfill soils is likely to be required.

Proper moisture control is essential to reduce the amount of compactive effort necessary to achieve the desired densities. This is especially true of clayey soils, where scarification and aeration may be required to achieve near - optimum moisture levels prior to compaction. A sheepsfoot roller is generally required for compaction of clayey soils, whereas a vibratory smooth drum roller is preferred for granular material. Small hand-operated compactors should be used in confined areas; granular fills are generally more readily compacted to the required densities in such applications.

It is recommended that well-graded granular soils be utilized as backfill in new utility trenches and alongside below grade walls to reduce the potential for consolidation and settlement of the fill. All fill soils must be placed and compacted under engineering-controlled conditions, to provide suitable support for overlaying structures and roadways. Additional guidance can be provided at the time of construction in the selection process for grade-raising fill and trench backfill.

The selection of fill materials for various applications should be done in consultation with the soils engineer. Similarly, the evaluation of the subgrade and placement and compaction of fill for structural applications should be monitored and tested by a qualified representative of the soils engineer.

Foundation Evaluation

The proposed addition can be supported by a conventional spread foundation system, bearing on suitable naturally occurring soils or within structural fill, prepared as discussed in a previous section. Based upon the planned finished first floor elevation of EL. 882.6, interior and exterior

footings will bear at about EL. 881.1 and EL. 878.6, respectively. Fill and possible fill soils were present at building borings B-1 through B-4 to depths of about 3 to 8 feet (EL. 882 to EL. 872) below existing grade. Existing fill soils are not recommended for foundation support due to the potential for variable strength and support characteristics. The proposed structure can be supported by means of conventional spread footings extended through the existing fill to bear on suitable natural soils, or upon newly placed and compacted structural fill (or lean concrete mix) used to replace the existing materials. About 2.5 to 6.5 feet and 5 to 9 feet of overexcavation may be necessary below frost depth and interior footings, respectively, in some areas of the planned building. Conventional spread footings bearing upon suitable natural soils, or upon compacted structural fill or lean concrete mix used to replace unsuitable materials, may be designed for a net allowable soil pressure of 4,000 psf. Some undercutting of soft, wet, or otherwise unsuitable natural soils may be necessary.

The suitability of the existing soils for support of the proposed foundation must be determined by testing by a qualified geotechnical engineer during construction, utilizing static cone penetrometer tests or dynamic cone penetrometer tests for cohesive and granular soils, respectively. Soft, loose, or otherwise unsuitable materials not disclosed by the borings, may be encountered in the foundation excavations at the bearing elevation. If unsuitable existing soil is present, it must be removed throughout a zone extending one foot laterally for each foot removed below the foundation, on either side of the planned footing. The over-excavated area must be backfilled with structural compacted fill.

In lieu of the use of compacted structural fill, lean concrete mix can be used to replace the unsuitable soils. The foundation excavations should be about 4 inches wider than the proposed footing width and must extend to suitable natural bearing soils. The concrete must be placed immediately after excavation to avoid intrusion of soil into the excavation. The concrete should contain sufficient aggregate and cement to attain a 28-day compressive strength of at least 1000 psi. Some sloughing or caving of the overlying soils may be experienced. Should this occur during concrete placement, the area must be removed and recast. Additionally, should caving become extensive (such as can more typically occur within granular or soft clay soil), it may be necessary to substantially widen excavations to avoid soil intrusion into the concrete. This may result in the use of additional concrete quantities significantly in excess of preconstruction budget estimates.

Where new foundations are planned adjacent to existing foundations or to each other, the effects of overlapping soil stresses must be considered. The net allowable soil bearing pressure recommended above must not be exceeded. It should be noted that backfill materials may be encountered within existing utility trenches and adjacent to existing foundation walls. Overexcavation of unsuitable trench backfill and replacement with structural fill may be necessary for proper foundation support. All foundations must bear upon suitable natural soils or properly placed and compacted structural fill.

All perimeter footings must be placed at a depth of at least 4 feet (or deeper if required by local code or in accordance with customary local practice) below the finished grade for frost

protection. Due to periodic severity of winters in this area, it is recommended that footings in poorly heated or unheated areas of the building also be placed at least 4 feet below the adjacent exterior grade. Interior footings not subject to frost action may be placed at a shallow depth of at least 18 inches below the floor slab, provided they bear on suitable natural soils or engineered fills. All footings must be protected from the effects of frost if construction is carried out during winter months.

It is recommended that the footings supporting individual columns have a minimum dimension of 24 inches, and continuous footings have a minimum width of 18 inches, even if the maximum recommended allowable bearing pressure is not fully utilized. In order to minimize the effects of any slight differential movement that may occur due to variations in the character of the supporting soils and any variations in seasonal moisture contents, it is recommended that all foundations be suitably reinforced to make them as rigid as needed.

In general, the performance of the foundation system on this site is dependent on the various factors discussed herein. The excavation, preparation, and concreting of foundations should be monitored and tested by a representative of the soils engineer.

Floor Slab and Pavement Subgrades

Prior to constructing the surface floor slabs or pavements, and prior to the placement of any fill used to raise grades, the exposed subgrade must be prepared utilizing the proofrolling procedures described previously. In areas that exhibit soft, yielding or unstable soil conditions, the following remedial measures are recommended to provide a stable subgrade. It must be recognized that high silt and clay content soils are highly sensitive to increases in moisture and construction disturbance. It will therefore be necessary to maintain these materials in a relatively dry condition to allow for proper subgrade preparation. It is recommended that the proofrolling operations be monitored by a representative of the geotechnical engineer to ensure that a firm, suitable subgrade is present prior to placement of new fills, or to construction of floor slabs and pavements.

Localized wet, soft or unstable areas can be undercut to such depths determined necessary in the field to reach stable material, and the area backfilled with well graded granular soil, placed and compacted as recommended in the Site Preparation section of this report. If relatively thick zones or areas of extensive yielding are observed, and they cannot be stabilized by normal discing, aeration and recompaction procedures, undercutting and replacement with crushed stone and geotextile fabric (if needed) may also be required in these areas.

The floor slab(s) may be designed utilizing an estimated modulus of subgrade reaction of 125 pci based on the presence of a suitable and stable subgrade, prepared as discussed in this report. However, this is based on common range values obtained from 1 ft. x 1 ft. plate load tests on specific soil types. Depending on how the slab load is applied, the value may need to be modified for larger areas using the following:

Modulus of Subgrade Reaction $k_s = (\frac{k}{B})$ for cohesive soil

$k_s = k\,(\frac{B+1}{2B})^2$ for cohesionless soil

where: k_s = coefficient of vertical subgrade reaction for loaded area
k = coefficient of vertical subgrade reaction for a 1x1 foot square area
B = width of area loaded, in feet

The final design and detailing should be performed by a qualified structural engineer based on the intended slab use, loading conditions and anticipated subgrade conditions.

A granular mat, which can be designed as a drainage layer, should be provided below the floor slab. This must be a minimum of six (6) inches in thickness and properly compacted. In moisture sensitive areas, a vapor retarder may be placed beneath the floor slab or base course, however, it is recommended that the architect be consulted in this regard. The proper use of a vapor retarder may not completely prevent moisture beneath or on top of slabs. If the base course contains sharp particles, a cushion layer of sand approximately 2 inches in thickness may be required to provide protection from puncture.

The floor slabs should be suitably reinforced to make them as rigid as necessary and proper joints provided at the junction of slabs and the foundation system so that a small amount of independent movement can occur without causing damage. Large floor areas must be provided with joints at frequent intervals (maximum spacing of 30 times the slab thickness, per ACI) to compensate for concrete volume changes (shrinkage). It is recommended that appropriate construction methods and curing procedures be used to minimize shrinkage and curling of the floor slabs.

Exterior/Unheated Area Slabs

Based on the borings, entry slabs, sidewalks, aprons, and other slabs in exterior or unheated areas will bear upon silty or clayey soils. Such materials are highly frost susceptible and poorly drained. Slabs placed directly upon such soils are subject to heaving and subsequent settlement due to freeze/thaw cycles. This can result in cracking, misalignment, and other related effects (especially at joints). It is recommended that consideration be given to limited undercutting of the frost susceptible materials to a depth of 1 to 2 feet below the slab, and replacement with well graded, properly placed and compacted granular soils. A properly designed underdrain system connected to the municipal sewer (if permissible) or directed to on-site stormwater management areas should also be incorporated to reduce the potential effects of freeze/thaw cycles.

Utility Construction

In general, the on-site soils can generally be used for support of utility lines. However, some undercutting of soft, wet, or otherwise unsuitable soils, in conjunction with the placement of crushed stone or other suitable granular backfill may be necessary. Some difficulty with the

stability of utility trenches may be experienced, especially in the presence of water. The use of shoring, bracing, or trench boxes will be required. Utility construction should be performed in accordance with “The Standard Specifications for Sewer and Water Line Construction” for the State of Wisconsin.

It is recommended that well graded granular soils such as those specified in Tables 37 and 39 of the Standard Specification for Sewer and Water Construction be utilized as backfill in utility trenches to reduce the potential for consolidation and settlement of the backfill. All fill soils must be properly placed and compacted under engineering-controlled conditions to provide suitable support for overlaying structures and roadways. Silty and clayey soils, organic soils, and wet materials are not recommended for use as backfill within utility trenches due to the substantial difficulty of obtaining proper compaction in confined areas. Substantial importing of suitable fill may be required.

As with all excavation work, all open cut trenches must be properly shored and braced as required by applicable federal and state OSHA codes, and as necessary to protect life and property.

Loading Dock Walls

It is recommended that the dock walls be protected by a suitable drainage system to prevent development of excessive lateral pressures. The walls must therefore be backfilled for a lateral distance of 3 to 4 feet with a well-graded, free draining granular material such as clean crushed stone or sand and gravel. Silty and clayey soils are not recommended for such applications. The granular materials must be placed in lifts not exceeding 12 inches in thickness, and be compacted to at least 95% of the maximum dry density as determined by Modified Proctor (ASTM D1557).

Based upon the use of a free draining granular crushed stone backfill (ϕ=30; γm =130 pcf), an equivalent fluid pressure of 43 psf may be used as the horizontal component of the active earth pressure for walls which are not restrained from movement. For “fixed” walls, an at rest fluid pressure of 65 psf must be used. These values are exclusive of traffic and other surcharge loads near the walls, which must be factored into the design. When a proposed fill material has been selected, a representative sample must be submitted to PSI for testing to verify the above values and associated recommendations. It must be recognized that the above values are based upon a drained condition and level backfill. It is therefore recommended that a fabric wrapped footing drain be placed behind the walls, and directed to a suitable outlet, such as the municipal sewer (if permissible). If this is not feasible, the drains must be properly daylighted to an appropriate area of the site to prevent pavement icing in winter.

CONSTRUCTION CONSIDERATIONS

Groundwater Control

Groundwater observations were made during the drilling operations and in the open boreholes upon completion of drilling and removal of the augers. No groundwater was observed within the borings during auger advancement or upon completion of drilling and removal of the augers.

On the basis of the observations, no major difficulty with groundwater is expected to be experienced in typical shallow foundation and utility excavations. For low volume perched zones, a filtered sump pump should suffice for control. However, for rising groundwater levels, or for large volume perched zones, prolonged dewatering with a series of sump pumps may be necessary to facilitate construction.

Discharge water from roof drains should be directed away from the building, and the site grading direct runoff to catch basins, so that the potential for the softening of the foundation and pavement subgrade soils is reduced.

While no groundwater was encountered at the time the borings were drilled, seasonal variations, site drainage conditions, soil permeability, and other factors can cause groundwater levels to rise and/or perched zones to be present in the upper soils at varying times of the year.

Excavations and Site Drainage

Sloping, shoring or bracing of the excavation sidewalls will be necessary to facilitate construction and to protect life and property. Sloughing and caving should be expected within unprotected excavations. The degree of excavation instability problems is dependent upon the depth and length of time that excavations remain open, excavation bank slopes, water levels and the effectiveness of any dewatering systems. However, severe instability can be expected within granular or soft cohesive soils, especially encroaching upon and extending below the groundwater or perched zones. All excavation work must be performed in accordance with OSHA and local building code requirements.

Very dense to extremely dense granular soils and possible cobbles and/or boulders were encountered within B-1, B-2, and B-3 at depths of about 5.5 to 8 feet (EL. 879.5 to EL. 872.5). Substantial difficulty digging and longer excavation times for conventional excavating, and substantial difficulty with the installation of bracing systems are likely to be experienced. Refusal or near refusal conditions may also occur. If it is desired to evaluate potential longer digging times and excavating difficulty within the overburden soils, additional subsurface exploration with backhoe test pits is recommended as part of design and construction planning.

All excavations must be performed with caution and utilize methods which will prevent undermining or destabilization of buildings, utilities, pavements, or other structures. New building foundations should be stepped to match the bearing elevation of the existing building

foundations and bear on suitable natural soil or structural fill. The use of a properly designed shoring and bracing, sheet piling, or underpinning system must be utilized as necessary to adequately protect utilities, pavements, and other structures. This must be performed by an experienced specialty contractor. Additionally, extreme care must be used during the installation of any bracing system, especially those using driven or vibratory methods, in order to avoid damaging existing buildings, utilities, and other structures. Consideration should be given to the performance of video and/or photographic documentation of the condition of nearby buildings, utilities, and other structures prior to installation. In addition, monitoring such structures must be performed from the time of commencement and extending through completion of the installation activities.

It is mandated that excavations, whether they be for utility trenches, basement excavations or footing excavations, be constructed in accordance with current Occupational Safety and Health Administration (OSHA) guidelines to protect workers and others during construction. PSI recommends that these regulations be strictly enforced. The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope, or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. The contractor's "responsible person", as defined in 29 CFR Part 1926, should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations. PSI is providing this information solely as a service to our client. PSI does not assume responsibility for construction site safety or the contractor's or other parties' compliance with local, state, and federal safety or other regulations.

Since the subgrade soils are generally sensitive to moisture, every effort should be made to provide adequate drainage across the site during construction, and to prevent ponding of runoff on the subgrade. These soils are also subject to erosion caused by runoff, and erosion control measures should be implemented where needed or required by local ordinances.

Seismic Design Considerations

Based on local experience; and the results of the soil test borings, it is recommended that Site Class D, in accordance with Table 20.3-1 of ASCE 7-16, be used in design.

The site latitude and longitude are 43.231360^{O} N and 88.133853^{O} W. Using the USGS Seismic Design Maps (https://seismicmaps.org); and the requirements of International Building Code (IBC) 2021 and Minimum Design Loads for Buildings and Other Structures (ASCE 7-16), the following are mapped acceleration parameters for this site.

Mapped MCE Spectral Response Acceleration		Site Amplification Factor		Numeric Seismic Design Value		Site Modified Spectral Acceleration		PGA (Peak Ground Acceleration)	F_{PGA} (Site Application Factor at PGA	PGA_M (Site Modified Peak Ground Acceleration
*S_s	0.071	*F_a	1.6	*S_{Ds}	0.075	S_{Ms}	0.113	0.034	1.6	0.054
**S_1	0.046	**F_v	2.4	**S_{D1}	0.074	S_{M1}	0.111			

*0.2 second time period
** 1.0 second time period

PAVEMENT DESIGN RECOMMENDATIONS

Pavements for this project are understood to consist of asphalt and/or concrete for standard duty and heavy-duty pavement. Traffic loading for pavements, as provided by the client, is estimated to consist of an average of 8 semi-trucks per day, 25 passenger vehicles per day, and 2 smaller box delivery trucks per day. Based on the traffic data provided, estimated minimum 20-year design ESAL values of about 24,000 and 275,000 for HMA, and about 25,000 and 480,000 for PCC, were determined for the standard duty and heavy-duty pavement sections, respectively.

The near surface pavement subgrade soils encountered at the borings consisted of lean clay fill with an estimated visual classification of A-6 by the AASHTO soil classification method. These soils are generally rated as poor for pavement subgrade support due to their high frost susceptibility, poor drainage characteristics, and higher susceptibility to strength loss when exposed to free water. Provided that the subgrade soils are prepared as outlined in the Site Preparation section of this report, the in-place subgrade soils and any new structural fill can be used for standard flexible or rigid pavement construction.

The existing asphalt and aggregate base section are not considered suitable for reuse as new pavement. However, the existing asphalt pavement and base materials may be suitable, when properly pulverized, for use as engineered fill or possibly for base material and evaluation of the pulverized pavement material suitability should be made at the time of construction.

Evaluation of the visual soil classification has been made in estimating pertinent subgrade design coefficients as described in the Wisconsin Soils Manual for Pavement Design. Based on the soils encountered, and with proper subgrade preparation and drainage, the following pavement subgrade design parameters are recommended for the pavement section design. However, if soils with support characteristics different from the lean clay materials are encountered or are used to raise grades in new pavement areas, revised coefficients will need to be provided.

Pavement Subgrade Design Coefficients

Soil Parameter	Value
AASHTO Soil Classification	A-6
Drainage	Poor
Shrink-Swell Potential	Medium to High
Frost Index	F-3
Design Group Index	14
Soil Support Value	4.0
Estimated CBR Value	3
Estimated Resilient Modulus (Mr)	2800
Estimated Subgrade Modulus (k)	125

During construction, the surficial subgrade soils can become wet, softened and disturbed from rainfall and construction equipment. Therefore, prior to placing the pavement base materials, the subgrade must be proofrolled as outlined previously. Particular attention should be given to high traffic areas that have become rutted and areas of backfilled trenches. Localized wet, soft, or unstable areas can be undercut to such depths determined necessary in the field to reach stable materials. The granular base course should consist of well-graded crushed stone meeting the requirements from the State of Wisconsin DOT Standard Specifications for construction for dense graded base. If relatively large or thick zones of extensive yielding are observed, and normal discing and recompaction procedures cannot stabilize them, undercutting and replacement with crushed stone and geotextile fabric (if needed) may be required in these areas. Preparation and evaluation of the pavement subgrade must be performed as outlined in the Site Preparation section of this report. Generally, construction traffic loading is more severe than the design traffic after construction. Therefore, the subgrade, base and pavement materials must be protected from heavy construction traffic during construction.

The recommended minimum pavement section was determined utilizing the WinPAS pavement design software. This program embodies the methodology of the 1993 AASHTO Guide for the Design of Pavement Structures. The following design factors were used in developing the recommended pavement sections.

- Design Life: 20 years
- Design Traffic (Heavy Duty): 480,000 ESALs (rigid); 275,000 ESALs (flexible)
- Design Traffic (Standard Duty): 25,000 ESALs (rigid); 24,000 ESALs (flexible)
- Modulus of Subgrade Reaction (k): 125 pci
- Resilient Modulus (Mr): 2800
- Reliability: 85%
- Initial Serviceability: 4.5 (rigid); 4.2 (flexible)
- Terminal Serviceability: 2.0
- Standard Deviation: 0.35 (rigid), 0.45 (flexible)
- Load Transfer Coefficient : 3.2
- Concrete Modulus of Rupture: 600 psi

- Structural Coefficient Hot Mix Asphalt: 0.44
- Structural Coefficient Aggregate Base: 0.14

The following table presents the recommended thickness for flexible and rigid pavement structures on a properly prepared clay subgrade, along with their recommended structural coefficients.

Recommended Flexible Pavement Section				
Pavement Material	**Structural Layer Coefficient**	**Standard Duty Thickness (inches)**	**Heavy Duty Thickness (inches)**	**WDOT Specification**
Hot-Mix Asphalt	0.44	4	5	WisDOT 360
Crushed Aggregate Base (1¼" DG Crushed Stone)	0.14	8	12	WisDOT 305

Recommended Rigid Pavement Section				
Pavement Material	**Structural Layer Coefficient**	**Standard Duty Thickness (inches)**	**Heavy Duty Thickness (inches)**	**WDOT Specification**
Portland Cement Concrete	4000 psi	5	7	WisDOT 415
Crushed Aggregate Base (1¼" DG Crushed Stone)	0.14	6	6	WisDOT 305

The asphaltic base and surface course should be placed and provided in accordance with Section 455/460 of the State of Wisconsin Standard Specification for Highway and Structure Construction. The crushed aggregate base course should be provided and placed in accordance with Section 301 and 305 of the Standard Specification.

The Portland Cement Concrete pavement construction materials and procedures should be in accordance with Section 415 and Section 305 (for concrete and base course, respectively) of the Standard Specification.

The thickness designs shown above are based on the traffic loading provided to PSI; the assumption that all subgrade materials, natural or fill, have minimum strength characteristics equal to or greater than the expected clay soils; the subgrade being properly prepared as outlined in this report; and the pavement being properly drained to prevent softening and erosion of the subgrade. Actual service life will be dependent upon deterioration caused by weather conditions and pavement use. All pavement materials and construction must be in accordance with the guidelines of the State of Wisconsin Standard Specification for Highway and Structure construction. If design traffic loading is found to be different from that discussed

above; or if the soils encountered at planned subgrade vary from the anticipated clay fill soils; new pavement section designs may be necessary.

It should be recognized that all pavements require regular maintenance and occasional repairs to keep the pavements in a serviceable condition. Maintenance is necessary to reduce the effects of pavement stress caused by changes in temperature and moisture, repetitive traffic loadings, and movement of the subgrade soils. As pavement distress is observed, it should be repaired as quickly as possible. Timely sealing of joints and cracks is essential to help reduce the potential for water to enter the pavement section and cause rapid deterioration of the pavement during freeze-thaw cycles. Unrepaired areas will generally lead to more severe and widespread distress, and eventually, pavement disintegration. Therefore, annual maintenance should include sealing of cracks and joints, and maintenance of proper surface drainage to avoid ponding water on or near the pavements. Periodic pavement condition surveys of the pavement can also be implemented to evaluate the need for other surface maintenance, and treatments or repairs that may be needed to obtain the design service life.

The subject site is located in an area that experiences annual freezing cycles and the subgrade soils encountered have been classified as moderately to highly susceptible to frost action when water is present. In order to reduce the potential for frost action, it will be necessary to control surface runoff and water seepage, because complete removal and replacement of the frost susceptible subgrade soils is not considered economically feasible. It is recommended that underdrains be placed within the subgrade, just below the granular base, to help reduce the potential for trapping water within the aggregate base layer. Sufficient drain tiles extending radially outward an adequate distance from each interior catch basin must be installed. In addition, drain tiles should extend along curb lines, up the slope from curb inlets. The drain tile should be directly connected to the storm sewer manholes or catch basins (if permissible by local municipal or other applicable code). The drain tile should consist of perforated PVC pipe of adequate diameter placed beneath the base layer, extending a sufficient distance into the subgrade. The pipe should be surrounded by appropriately sized clean stone, with the pipe and stone being wrapped with a geotextile filter fabric to reduce the potential for soils to migrate into and obstruct the pipe.

GENERAL COMMENTS

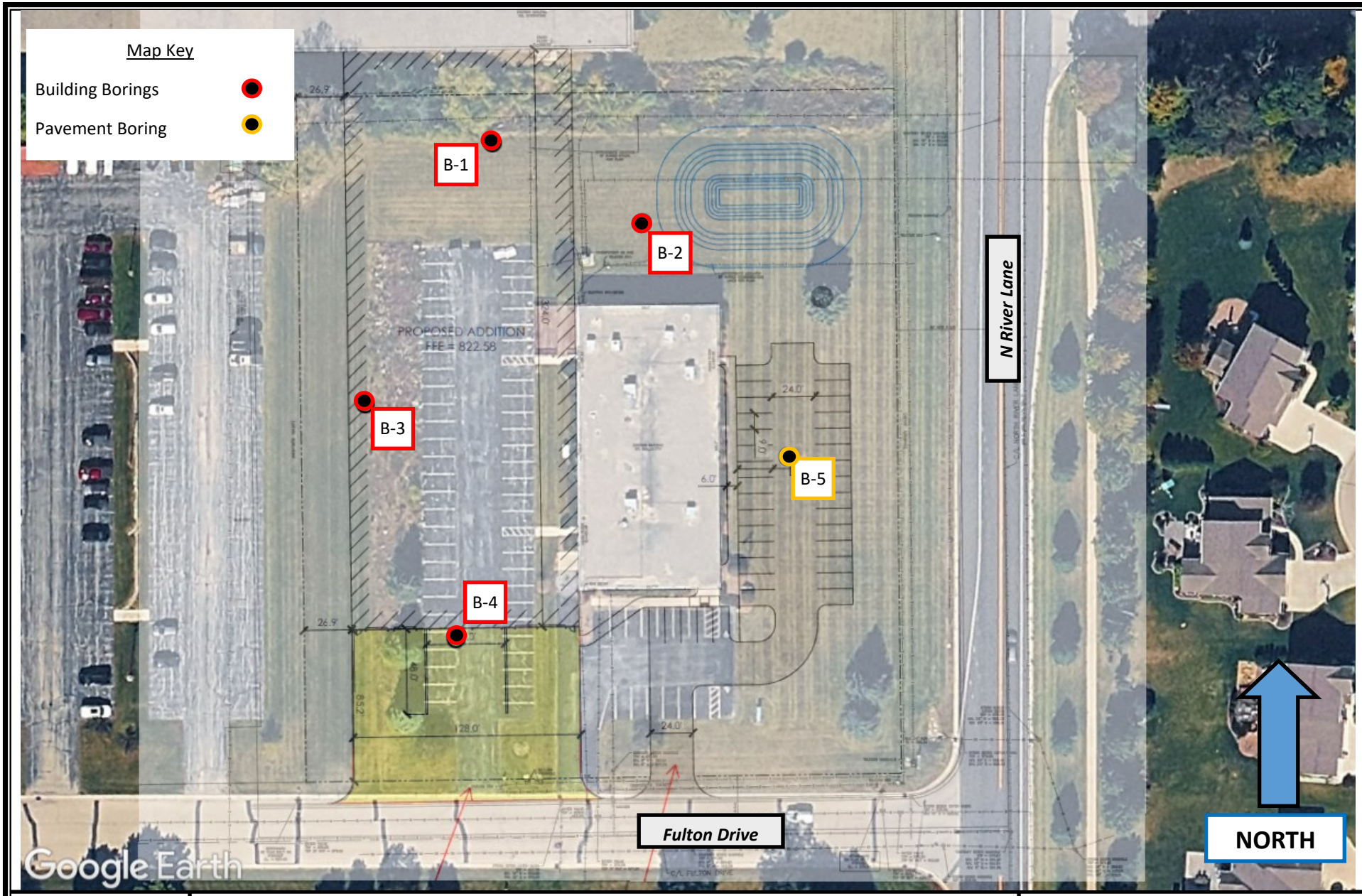
This geotechnical exploration and subgrade evaluation have been prepared to aid in the evaluation of the soil conditions on this site. The recommendations presented herein are based on the available soil information and the preliminary project information provided. Any changes in the planned project activities should be brought to the attention of the soil engineer to determine if modifications in the recommendations are required. The final design plans and specifications should also be reviewed by the soil engineer to determine that the recommendations presented herein have been interpreted and implemented as intended.

This geotechnical study has been conducted in a manner consistent with that level of care ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. The findings, recommendations and opinions contained herein have been promulgated in accordance with generally accepted practice in the fields of foundation engineering, soils mechanics, and engineering geology. No other representations, expressed or implied, and no warranty or guarantee is included or intended in this report.

It is recommended that the earthwork and foundation operations be monitored by the soil engineer, to test and evaluate the subgrade stability, bearing capacities, and the selection, placement and compaction of controlled fills.

Appendix

Figure 1– Boring Location Plan
Soil Boring Logs
General Notes



intertek psi	Proposed Basic Metals Addition W180N11711 N River Ln Germantown, WI	SCALE: 1 inch = 80 feet (approx.)
		DATE: 01/14/2026
	FIGURE 1: BORING LOCATION PLAN	PROJECT NUMBER: 00523594

BORING B-1

DATE STARTED:	12/23/25	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	12/23/25	**DRILLER:** RB	**LOGGED BY:** AW
COMPLETION DEPTH	20.0 ft	**DRILL RIG:**	Mobile Drill B-57
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	880 ft	**SAMPLING METHOD:**	2-in SS
LATITUDE:		**HAMMER TYPE:**	Automatic
LONGITUDE:		**EFFICIENCY**	N/A
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	
REMARKS:			

Water		
While Drilling		Not Observed
Upon Completion		Not Observed
Delay		N/A

BORING LOCATION:

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ Moisture × PL ◪ LL ✚ (0, 25, 50) STRENGTH, tsf ▲ Qu ✳ Qp (0, 2.0, 4.0)	Additional Remarks
	0					Topsoil Fill, Dark Brown Lean Clay with Sand, Trace Roots, Very Moist (8"± Thick)	TPSL		30		
				1	10	Fill, Brown Lean Clay with Sand and Gravel, Moist	FILL	6-6-9 N=15	11		
				2	8	Possible Fill, Very Dark Greenish Brown Lean Clay with Sand and Gravel, Moist	POSS FILL	5-4-7 N=11	20		
875	5			2	3	Possible Fill, Light Brown Fine-Medium Sand with Gravel, Damp	POSS FILL	6-6-7 N=13	6		
				4	12	Light Brown Gravel with Sand, Possible Cobbles and/or Boulders, Damp		15-22-43 N=65	3	>>◎	
870	10										
				5	5		GP	21-34-50/5"	5		
865	15										
				6	2			50/4"		>>◎	
860	20					End of Boring at 20 Feet Cave In at 10 Feet					

intertek psi

Professional Service Industries, Inc.
821 Corporate Court, Suite 100
Waukesha, WI 53189
Telephone: (262) 521-2125

PROJECT NO.: 00523594
PROJECT: Basic Metals Addition
LOCATION: W180N11711 N River Ln
Germantown, WI

The stratification lines represent approximate boundaries. The transition may be gradual.

BORING B-2

DATE STARTED:	12/23/25	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	12/23/25	**DRILLER:** RB	**LOGGED BY:** AW
COMPLETION DEPTH	20.0 ft	**DRILL RIG:**	Mobile Drill B-57
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	880.5 ft	**SAMPLING METHOD:**	2-in SS
LATITUDE:		**HAMMER TYPE:**	Automatic
LONGITUDE:		**EFFICIENCY**	N/A
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	

REMARKS:

Water		
	While Drilling	Not Observed
	Upon Completion	Not Observed
	Delay	N/A

BORING LOCATION:

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ Moisture × PL ◪ LL ✚ (0, 25, 50) STRENGTH, tsf ▲ Qu ✳ Qp (0, 2.0, 4.0)	Additional Remarks
880	0					Topsoil Fill, Dark Brown Lean Clay with Silt Seams, Trace Sand and Roots, Very Moist (8"± Thick)	TPSL		33		
				1	6	Fill, Light Brown Fine to Medium Sand with Silt, Clay, and Gravel, Moist	FILL	6-6-8 N=14	5		
				2	6			10-8-8 N=16	6		
875	5			3	10	Greenish-Brown Lean Clay with Sand, Mottled Gray, Moist	CL	8-6-9 N=15	21		>>✳ Q_p = 2.7 tsf
				4	5	Light Brown Gravel with Sand and Silt Seams, Possible Cobbles and/or Boulders, Moist		6-7-15 N=22	15		
870	10										
				5	10		GP	15-25-23 N=48	3		
865	15										
				6	10			16-22-26 N=48	4		
	20					End of Boring at 20 Feet Cave In at 9 Feet					

intertek psi

Professional Service Industries, Inc.
821 Corporate Court, Suite 100
Waukesha, WI 53189
Telephone: (262) 521-2125

PROJECT NO.: 00523594
PROJECT: Basic Metals Addition
LOCATION: W180N11711 N River Ln
Germantown, WI

The stratification lines represent approximate boundaries. The transition may be gradual.

BORING B-3

DATE STARTED:	12/23/25	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	12/23/25	**DRILLER:** RB	**LOGGED BY:** AW
COMPLETION DEPTH	20.0 ft	**DRILL RIG:**	Mobile Drill B-57
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	885 ft	**SAMPLING METHOD:**	2-in SS
LATITUDE:		**HAMMER TYPE:**	Automatic
LONGITUDE:		**EFFICIENCY**	N/A
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	

REMARKS:

Water		
	While Drilling	Not Observed
	Upon Completion	Not Observed
	Delay	N/A

BORING LOCATION:

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ Moisture × PL ◪ LL ✚ (0, 25, 50) STRENGTH, tsf Qu ▲ Qp ✳ (0, 2.0, 4.0)	Additional Remarks
	0					Topsoil Fill, Very Dark Brown Lean Clay with Roots, Very Moist (5"± Thick)	TPSL		38		
				1	4	Possible Fill, Brown Fine to Medium Sand with Silt and Gravel, Moist	POSS FILL	12-7-11 N=18	4		
				2	12	Brown Fine to Medium Sand with Silt and Gravel, Moist	SP-SM	13-13-12 N=25	5		
880	5										
				3	14	Light Brown Gravel with Sand and Silt, Possible Cobbles and/or Boulders, Moist		15-16-11 N=27	4		
				4	8			8-50/5"	7	>>◎	
875	10						GP				
				5	5			31-50/2"	3	>>◎	
870	15										
				6	3			43-50/1"	3	>>◎	
865	20					End of Boring at 20 Feet Cave In at 11 Feet					

intertek psi

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821 Corporate Court, Suite 100
Waukesha, WI 53189
Telephone: (262) 521-2125

PROJECT NO.: 00523594
PROJECT: Basic Metals Addition
LOCATION: W180N11711 N River Ln
Germantown, WI

The stratification lines represent approximate boundaries. The transition may be gradual.

BORING B-4

DATE STARTED:	12/23/25	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	12/23/25	**DRILLER:** RB	**LOGGED BY:** AW
COMPLETION DEPTH	20.0 ft	**DRILL RIG:**	Mobile Drill B-57
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	879 ft	**SAMPLING METHOD:**	2-in SS
LATITUDE:		**HAMMER TYPE:**	Automatic
LONGITUDE:		**EFFICIENCY**	N/A
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	

REMARKS:

Water		
	While Drilling	Not Observed
	Upon Completion	Not Observed
	Delay	N/A

BORING LOCATION:

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ Moisture × PL ◪ LL ✚ (0, 25, 50) STRENGTH, tsf Qu ▲ Qp ✳ (0, 2.0, 4.0)	Additional Remarks
	0					Asphalt (2.75"± Thick)	ASPH		8		
						Base, Dense Graded Crushed Stone, Moist (9.5"± Thick)	BASE				
				1	5	Fill, Brown Lean Clay with Sand and Gravel, Moist	FILL	6-4-6 N=10	5		
875						Light Brown Fine to Medium Sand with Gravel, Damp					
	5			2	10			5-9-11 N=20	3		
				3	12			7-12-21 N=33	2		
870				4	12			13-20-15 N=35	2		
	10						SP				
865				5	14			11-13-9 N=22	2		
	15					Light Brown Fine Sand with Gravel and Silt Seams, Very Moist					
860				6	12		SP-SM	10-11-11 N=22	12		
	20					End of Boring at 20 Feet Cave In at 9 Feet					

intertek psi

Professional Service Industries, Inc.
821 Corporate Court, Suite 100
Waukesha, WI 53189
Telephone: (262) 521-2125

PROJECT NO.: 00523594
PROJECT: Basic Metals Addition
LOCATION: W180N11711 N River Ln
Germantown, WI

The stratification lines represent approximate boundaries. The transition may be gradual.

BORING B-5

DATE STARTED:	12/23/25	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	12/23/25	**DRILLER:** RB	**LOGGED BY:** AW
COMPLETION DEPTH	5.0 ft	**DRILL RIG:**	Mobile Drill B-57
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	880 ft	**SAMPLING METHOD:**	2-in SS
LATITUDE:		**HAMMER TYPE:**	Automatic
LONGITUDE:		**EFFICIENCY**	N/A
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	

REMARKS:

Water		
	While Drilling	Not Observed
	Upon Completion	Not Observed
	Delay	N/A

BORING LOCATION:

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ × Moisture ◪ PL ✚ LL (0, 25, 50) STRENGTH, tsf ▲ Qu ✳ Qp (0, 2.0, 4.0)	Additional Remarks
	0					Topsoil Fill, Very Dark Brown Lean Clay with Roots, Very Moist (8"± Thick)	TPSL		55	>>×	
				1	12	Possible Fill, Dark Brown Lean Clay with Sand and Gravel, Moist	POSS FILL	2-2-3-4 N=5	24	◎ ×	
				2	16	Brown Lean Clay with Sand and Gravel, Moist	CL	7-7-9-12 N=16	13	◎ ×	
875	5					End of Boring at 5 Feet Cave In at 3 Feet					

intertek psi

Professional Service Industries, Inc.
821 Corporate Court, Suite 100
Waukesha, WI 53189
Telephone: (262) 521-2125

PROJECT NO.: 00523594
PROJECT: Basic Metals Addition
LOCATION: W180N11711 N River Ln
Germantown, WI

The stratification lines represent approximate boundaries. The transition may be gradual.

GENERAL NOTES

SAMPLE IDENTIFICATION

The Unified Soil Classification System (USCS), AASHTO 1988 and ASTM designations D2487 and D-2488 are used to identify the encountered materials unless otherwise noted. Coarse-grained soils are defined as having more than 50% of their dry weight retained on a #200 sieve (0.075mm); they are described as: boulders, cobbles, gravel or sand. Fine-grained soils have less than 50% of their dry weight retained on a #200 sieve; they are defined as silts or clay depending on their Atterberg Limit attributes. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size.

DRILLING AND SAMPLING SYMBOLS

SFA: Solid Flight Auger - typically 4" diameter flights, except where noted.
HSA: Hollow Stem Auger - typically 3¼" or 4¼ I.D. openings, except where noted.
M.R.: Mud Rotary - Uses a rotary head with Bentonite or Polymer Slurry
R.C.: Diamond Bit Core Sampler
H.A.: Hand Auger
P.A.: Power Auger - Handheld motorized auger


SS: Split-Spoon - 1 3/8" I.D., 2" O.D., except where noted.


ST: Shelby Tube - 3" O.D., except where noted.

RC: Rock Core


TC: Texas Cone


BS: Bulk Sample


PM: Pressuremeter

CPT-U: Cone Penetrometer Testing with Pore-Pressure Readings

SOIL PROPERTY SYMBOLS

N: Standard "N" penetration: Blows per foot of a 140 pound hammer falling 30 inches on a 2-inch O.D. Split-Spoon.
N_{60}: A "N" penetration value corrected to an equivalent 60% hammer energy transfer efficiency (ETR)
Q_u: Unconfined compressive strength, TSF
Q_p: Pocket penetrometer value, unconfined compressive strength, TSF
w%: Moisture/water content, %
LL: Liquid Limit, %
PL: Plastic Limit, %
PI: Plasticity Index = (LL-PL),%
DD: Dry unit weight, pcf

Apparent groundwater level at time noted

RELATIVE DENSITY OF COARSE-GRAINED SOILS

Relative Density	N - Blows/foot
Very Loose	0 - 4
Loose	4 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	50 - 80
Extremely Dense	80+

ANGULARITY OF COARSE-GRAINED PARTICLES

Description	Criteria
Angular:	Particles have sharp edges and relatively plane sides with unpolished surfaces
Subangular:	Particles are similar to angular description, but have rounded edges
Subrounded:	Particles have nearly plane sides, but have well-rounded corners and edges
Rounded:	Particles have smoothly curved sides and no edges

GRAIN-SIZE TERMINOLOGY

Component	Size Range
Boulders:	Over 300 mm (>12 in.)
Cobbles:	75 mm to 300 mm (3 in. to 12 in.)
Coarse-Grained Gravel:	19 mm to 75 mm (¾ in. to 3 in.)
Fine-Grained Gravel:	4.75 mm to 19 mm (No.4 to ¾ in.)
Coarse-Grained Sand:	2 mm to 4.75 mm (No.10 to No.4)
Medium-Grained Sand:	0.42 mm to 2 mm (No.40 to No.10)
Fine-Grained Sand:	0.075 mm to 0.42 mm (No. 200 to No.40)
Silt:	0.005 mm to 0.075 mm
Clay:	<0.005 mm

PARTICLE SHAPE

Description	Criteria
Flat:	Particles with width/thickness ratio > 3
Elongated:	Particles with length/width ratio > 3
Flat & Elongated:	Particles meet criteria for both flat and elongated

RELATIVE PROPORTIONS OF FINES

Descriptive Term	% Dry Weight
Trace:	< 5%
With:	5% to 12%
Modifier:	>12%

GENERAL NOTES

(Continued)

CONSISTENCY OF FINE-GRAINED SOILS

Q_U - TSF	N - Blows/foot	Consistency
0 - 0.25	0 - 2	Very Soft
0.25 - 0.50	2 - 4	Soft
0.50 - 1.00	4 - 8	Firm (Medium Stiff)
1.00 - 2.00	8 - 15	Stiff
2.00 - 4.00	15 - 30	Very Stiff
4.00 - 8.00	30 - 50	Hard
8.00+	50+	Very Hard

MOISTURE CONDITION DESCRIPTION

Description	Criteria
Dry:	Absence of moisture, dusty, dry to the touch
Moist:	Damp but no visible water
Wet:	Visible free water, usually soil is below water table

RELATIVE PROPORTIONS OF SAND AND GRAVEL

Descriptive Term	% Dry Weight
Trace:	< 15%
With:	15% to 30%
Modifier:	>30%

STRUCTURE DESCRIPTION

Description	Criteria
Stratified:	Alternating layers of varying material or color with layers at least ¼-inch (6 mm) thick
Laminated:	Alternating layers of varying material or color with layers less than ¼-inch (6 mm) thick
Fissured:	Breaks along definite planes of fracture with little resistance to fracturing
Slickensided:	Fracture planes appear polished or glossy, sometimes striated
Blocky:	Cohesive soil that can be broken down into small angular lumps which resist further breakdown
Lensed:	Inclusion of small pockets of different soils
Layer:	Inclusion greater than 3 inches thick (75 mm)
Seam:	Inclusion 1/8-inch to 3 inches (3 to 75 mm) thick extending through the sample
Parting:	Inclusion less than 1/8-inch (3 mm) thick

SCALE OF RELATIVE ROCK HARDNESS

Q_U - TSF	Consistency
2.5 - 10	Extremely Soft
10 - 50	Very Soft
50 - 250	Soft
250 - 525	Medium Hard
525 - 1,050	Moderately Hard
1,050 - 2,600	Hard
>2,600	Very Hard

ROCK BEDDING THICKNESSES

Description	Criteria
Very Thick Bedded	Greater than 3-foot (>1.0 m)
Thick Bedded	1-foot to 3-foot (0.3 m to 1.0 m)
Medium Bedded	4-inch to 1-foot (0.1 m to 0.3 m)
Thin Bedded	1¼-inch to 4-inch (30 mm to 100 mm)
Very Thin Bedded	½-inch to 1¼-inch (10 mm to 30 mm)
Thickly Laminated	1/8-inch to ½-inch (3 mm to 10 mm)
Thinly Laminated	1/8-inch or less "paper thin" (<3 mm)

ROCK VOIDS

Voids	Void Diameter
Pit	<6 mm (<0.25 in)
Vug	6 mm to 50 mm (0.25 in to 2 in)
Cavity	50 mm to 600 mm (2 in to 24 in)
Cave	>600 mm (>24 in)

GRAIN-SIZED TERMINOLOGY

(Typically Sedimentary Rock)

Component	Size Range
Very Coarse Grained	>4.76 mm
Coarse Grained	2.0 mm - 4.76 mm
Medium Grained	0.42 mm - 2.0 mm
Fine Grained	0.075 mm - 0.42 mm
Very Fine Grained	<0.075 mm

ROCK QUALITY DESCRIPTION

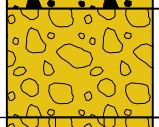
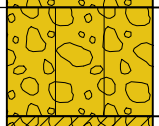
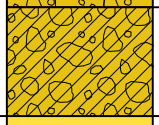
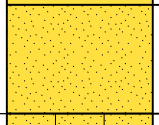
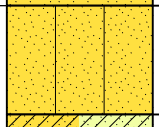
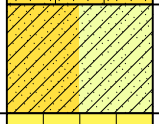
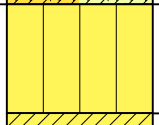
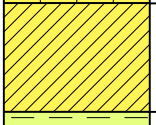
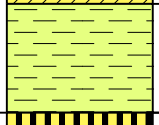
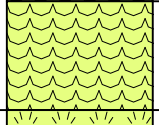
Rock Mass Description	RQD Value
Excellent	90 -100
Good	75 - 90
Fair	50 - 75
Poor	25 -50
Very Poor	Less than 25

DEGREE OF WEATHERING

Slightly Weathered:	Rock generally fresh, joints stained and discoloration extends into rock up to 25 mm (1 in), open joints may contain clay, core rings under hammer impact.
Weathered:	Rock mass is decomposed 50% or less, significant portions of the rock show discoloration and weathering effects, cores cannot be broken by hand or scraped by knife.
Highly Weathered:	Rock mass is more than 50% decomposed, complete discoloration of rock fabric, core may be extremely broken and gives clunk sound when struck by hammer, may be shaved with a knife.

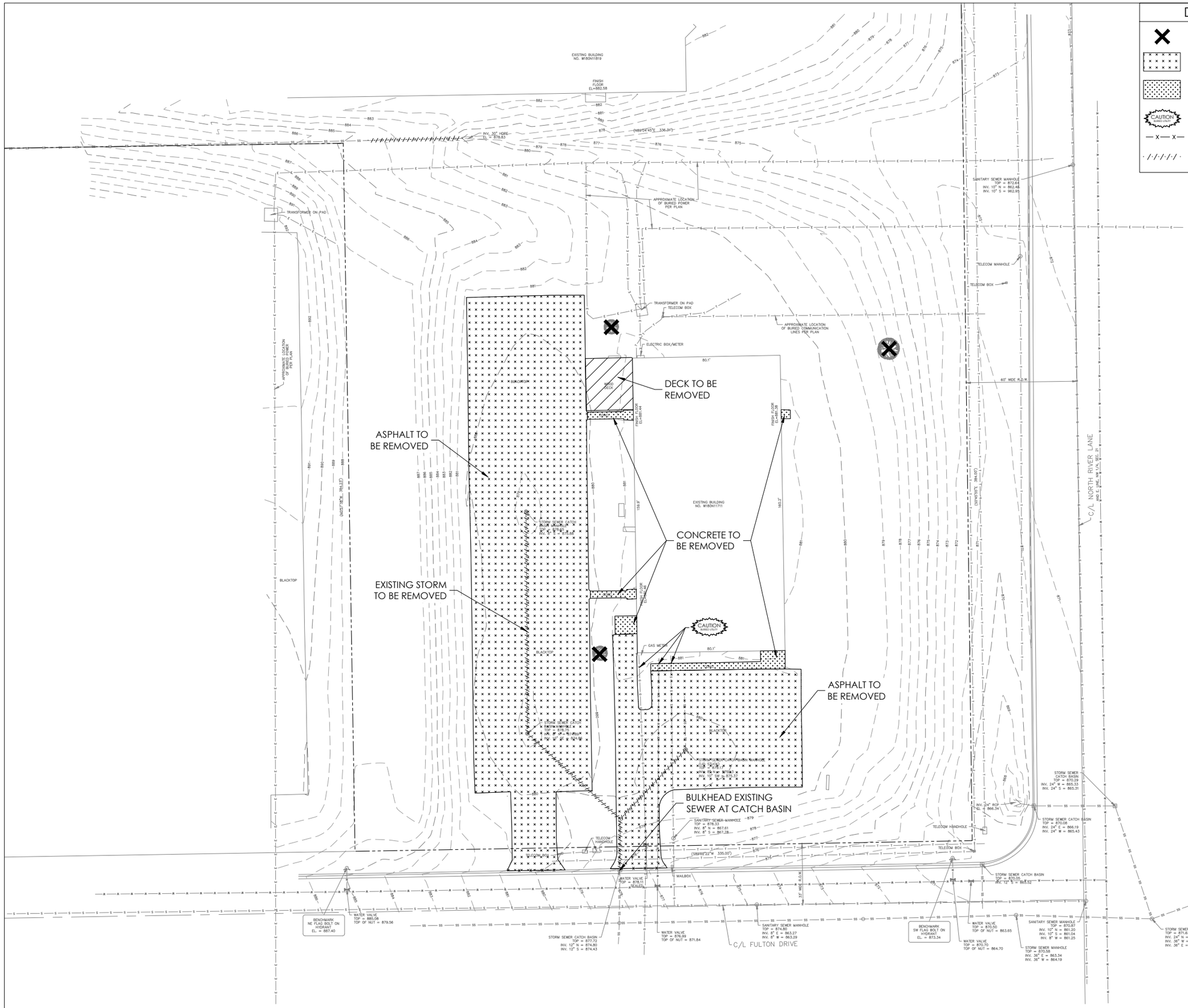
SOIL CLASSIFICATION CHART

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

CIVIL PLAN SET

1 EXISTING CONDITIONS AND DEMO PLAN
2 SITE PLAN
3 GRADING PLAN
4 EROSION CONTROL PLAN
5 UTILITY PLAN
6 DETAILS



DEMOLITION LEGEND

- APPROXIMATE LOCATION OF TREES TO BE REMOVED.
- HATCH TYPE INDICATES ASPHALT PAVEMENT TO BE REMOVED AND DISPOSED OF OFFSITE
- HATCH TYPE INDICATES CONCRETE PAVEMENT TO BE REMOVED AND DISPOSED OF OFFSITE
- CAUTION — SYMBOL INDICATES LOCATIONS WHERE ADDITIONAL CAUTION IS ADVISED AS A RESULT OF POTENTIAL UTILITY CONFLICTS
- LINE TYPE INDICATES FULL-DEPTH SAWCUT TO BE PERFORMED
- LINE TYPE INDICATES UTILITIES TO BE ABANDONED OR RELOCATED. REFER TO NOTES ON PLANS FOR ADDITIONAL INFORMATION.

ABACUS ARCHITECTS

REVISIONS:

△	DATE	ISSUE

NOTICE TO BIDDERS
BIDDERS SHALL REVIEW ALL DRAWINGS AND SPECIFICATION SECTIONS TO DETERMINE THE IMPACT OF OTHER SECTIONS OF WORK ON THEIR OWN WORK.

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ISSUE DATE: 02/09/2026
NEW CONSTRUCTION/EXPANSION

BASIC METALS II

BASIC METALS INC., W180N11819 N RIVER LN, GERMANTOWN, WI, 53022
11135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 640 N VEL R. PHILLIPS AVE. SUITE 210 MILWAUKEE, WI 53203

DRAWN BY: JMN
CHECKED BY: JRV

EXISTING CONDITIONS AND DEMO PLAN

A
200

PROJ. NO. 2024-100

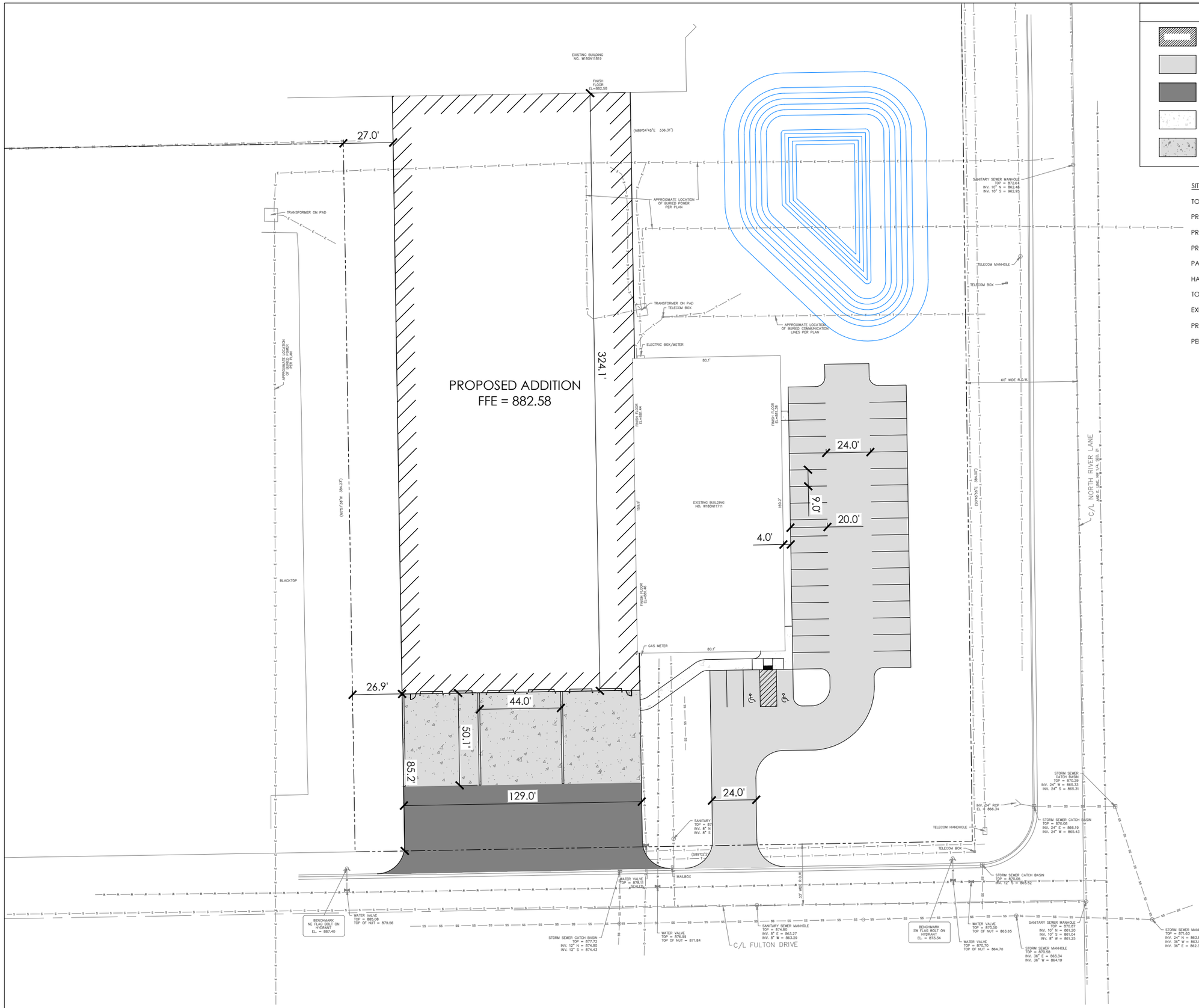
EXISTING CONDITIONS AND DEMO PLAN

SCALE: 1"=20'

N

February 6, 2026

P:\2024-CONTRACTS\2024-100 Basic Metals Expansion\Phase - 2\Construction Documents\3.3 Site\2024-100 - Basic.dwg



SITE LEGEND

- EXTENTS OF PROPOSED BUILDING. REFER TO ARCHITECTURAL DRAWINGS.
- PROPOSED LIGHT DUTY PAVEMENT HATCH. SEE DETAIL.
- PROPOSED HEAVY DUTY PAVEMENT HATCH. SEE DETAIL.
- PROPOSED LIGHT DUTY CONCRETE HATCH. SEE DETAIL.
- PROPOSED HEAVY DUTY CONCRETE HATCH. SEE DETAIL.

SITE PROPERTIES

TOTAL PROPERTY AREA: 303,178 SQFT (6.96 AC)

PROPOSED BUILDING AREA: 41,647 SQFT (0.96 AC)

PROPOSED ASPHALT AREA: 21,229 SQFT (0.49 AC)

PROPOSED CONCRETE AREA: 7,135 SQFT (0.16 AC)

PARKING SPACES: 36

HANDICAP SPACES: 2

TOTAL SPACES: 38

EXISTING IMPERVIOUS AREA: 148,752 SQFT (3.41 AC)

PROPOSED IMPERVIOUS AREA: 191,425 SQFT (4.39 AC)

PERCENT IMPERVIOUS AREA: 63%

ABACUS ARCHITECTS

REVISIONS:

△	DATE	ISSUE

NOTICE TO BIDDERS

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ISSUE DATE: 02/09/2026

NEW CONSTRUCTION/EXPANSION

BASIC METALS II

BASIC METALS INC., W180N11819 N RIVER LN, GERMANTOWN, WI, 53022

1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 (920) 452-4444 | 640 N VEL R. PHILLIPS AVE. SUITE 210 MILWAUKEE, WI 53203

DRAWN BY: JMN

CHECKED BY: JRV

SITE PLAN

A
201

PROJ. NO. 2024-100

SITE PLAN

SCALE: 1"=20'

N

February 6, 2026

P:\2024-CONTRACTS\2024-100 Basic Metals Expansion\Phase - 2\Construction Documents\5.3 Site\2024-100 - Base.dwg

GRADING LEGEND

595	PROPOSED CONTOUR
595	EXISTING CONTOUR
595.00	PROPOSED SPOT ELEVATION
595.00±	MATCH EXISTING ELEVATION
TC 595.00 BC 595.50	PROPOSED TOP OF CURB ELEVATION PROPOSED BOTTOM OF CURB ELEVATION

PROPOSED ADDITION
FFE = 882.58

C/L NORTH RIVER LANE
AND E. LINE, NW 1/4, SEC. 21

C/L FULTON DRIVE

GRADING PLAN
SCALE: 1"=20'

N

ABACUS ARCHITECTS

REVISIONS:

△	DATE	ISSUE

NOTICE TO BIDDERS
BIDDERS SHALL REVIEW ALL DRAWINGS AND SPECIFICATION SECTIONS TO DETERMINE THE IMPACT OF OTHER SECTIONS OF WORK ON THEIR OWN WORK.

© 2026 ABACUS ARCHITECTS, INC.

ISSUE DATE: 02/09/2026
NEW CONSTRUCTION/EXPANSION

BASIC METALS II

BASIC METALS INC., W180N11819 N RIVER LN, GERMANTOWN, WI, 53022
11354 MICHIGAN AVE. SHEBOYGAN, WI 53081 (920) 452-4444 | 640 N VEL R. PHILLIPS AVE. SUITE 210 MILWAUKEE, WI 53203

DRAWN BY: JMN
CHECKED BY: JRV

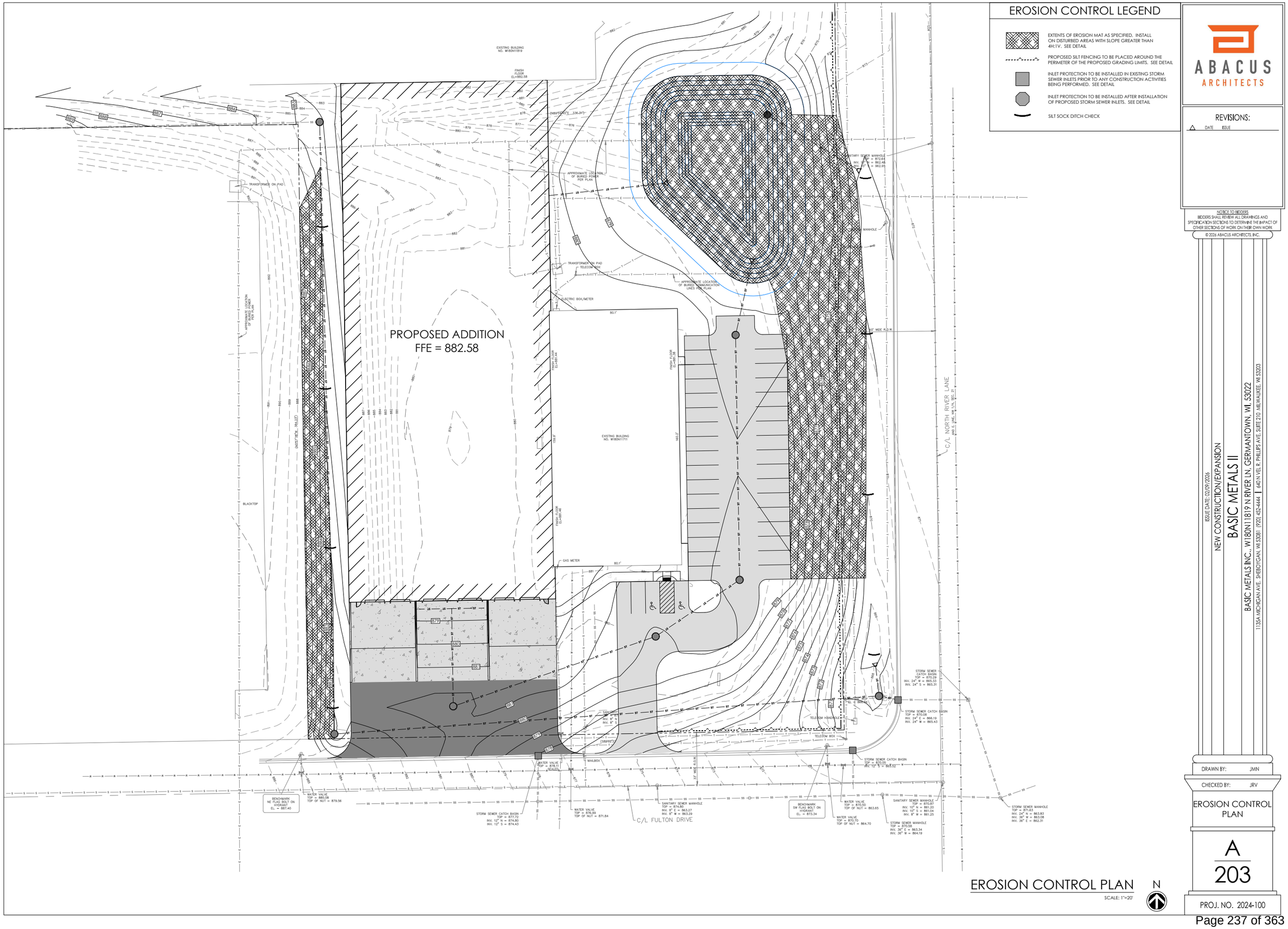
GRADING PLAN

A
202

PROJ. NO. 2024-100

February 6, 2026

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EROSION CONTROL LEGEND

- EXTENTS OF EROSION MAT AS SPECIFIED. INSTALL ON DISTURBED AREAS WITH SLOPE GREATER THAN 4H:1V. SEE DETAIL
- PROPOSED SILT FENCING TO BE PLACED AROUND THE PERIMETER OF THE PROPOSED GRADING LIMITS. SEE DETAIL
- INLET PROTECTION TO BE INSTALLED IN EXISTING STORM SEWER INLETS PRIOR TO ANY CONSTRUCTION ACTIVITIES BEING PERFORMED. SEE DETAIL
- INLET PROTECTION TO BE INSTALLED AFTER INSTALLATION OF PROPOSED STORM SEWER INLETS. SEE DETAIL
- SILT SOCK DITCH CHECK

EROSION CONTROL PLAN

SCALE: 1"=20'

N

ABACUS ARCHITECTS

REVISIONS:

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ISSUE DATE: 02/09/2026

NEW CONSTRUCTION/EXPANSION

BASIC METALS II

BASIC METALS INC., W180N11819 N RIVER LN, GERMANTOWN, WI, 53022

1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 6401 N VEL R. PHILLIPS AVE. SUITE 210 MILWAUKEE, WI 53203

DRAWN BY: JMN

CHECKED BY: JRV

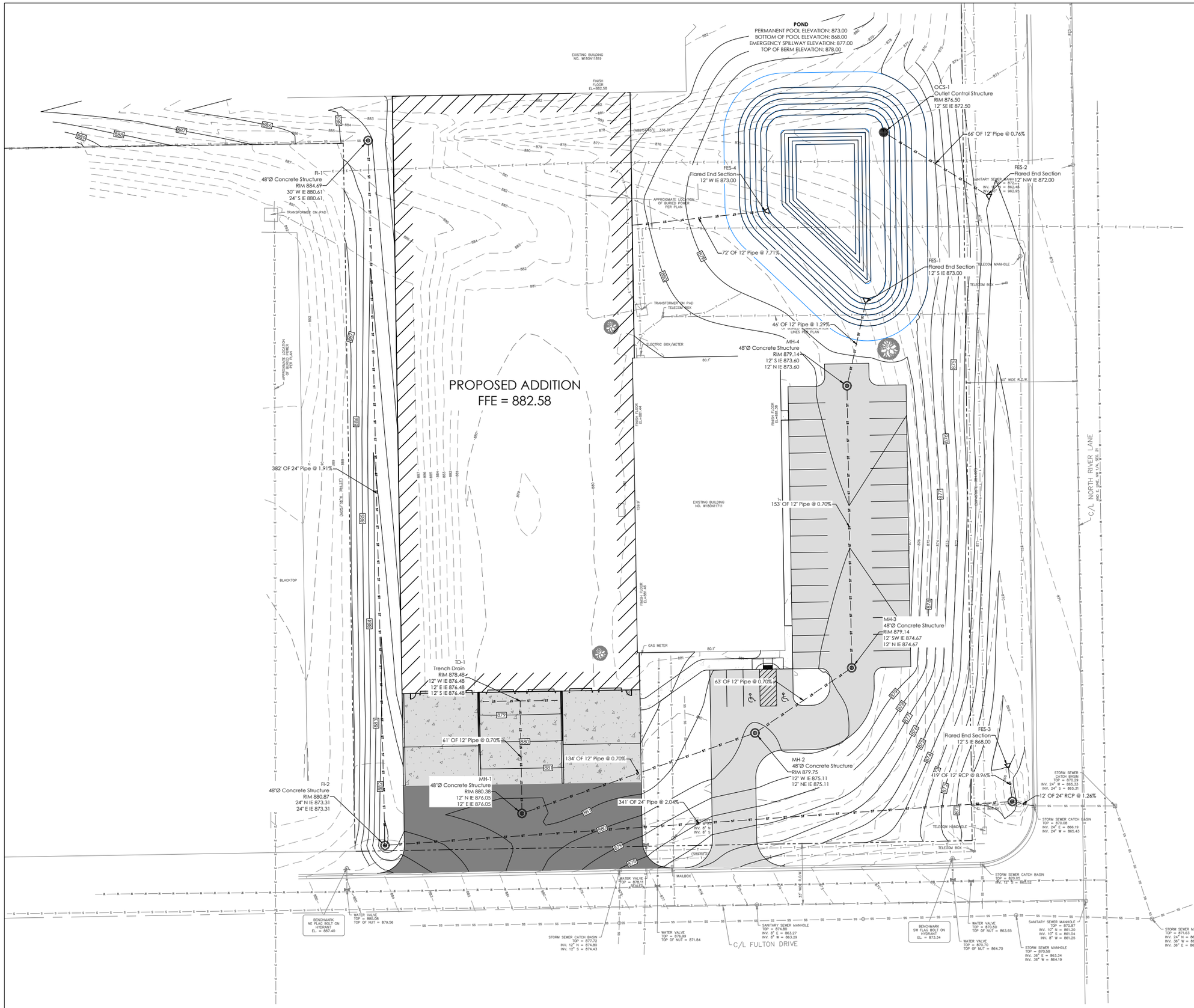
EROSION CONTROL PLAN

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203

PROJ. NO. 2024-100

February 6, 2026

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UTILITY PLAN

SCALE: 1"=20'

N

ABACUS ARCHITECTS

REVISIONS:

△	DATE	ISSUE

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ISSUE DATE: 02/09/2026

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BASIC METALS II

BASIC METALS INC., W180N11819 N RIVER LN, GERMANTOWN, WI, 53022

11354 MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 640 N VEL R. PHILLIPS AVE. SUITE 210 MILWAUKEE, WI 53203

DRAWN BY: JMN

CHECKED BY: JRV

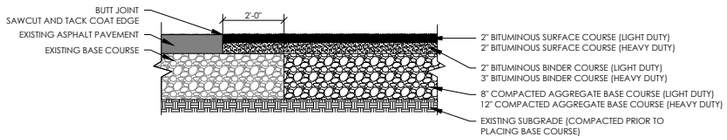
UTILITY PLAN

A
204

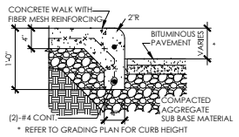
PROJ. NO. 2024-100

February 6, 2026

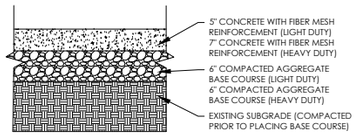
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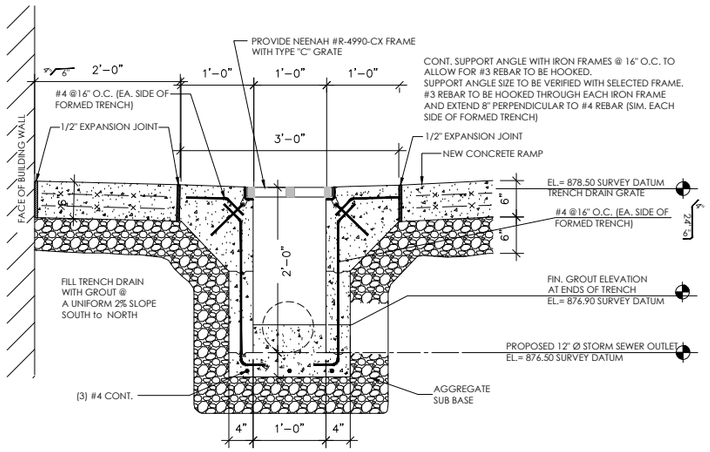
ASPHALT PAVEMENT CROSS SECTION



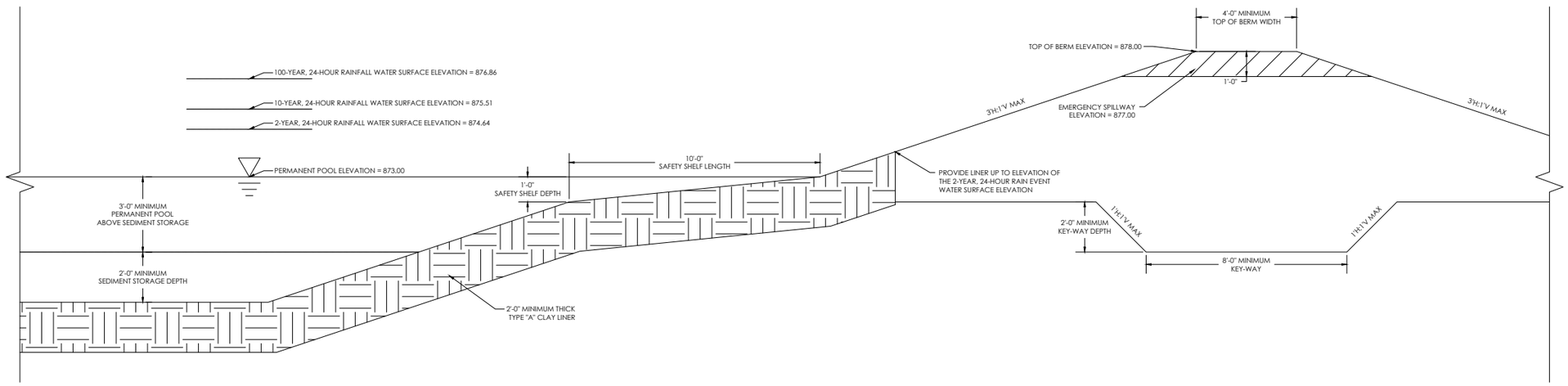
CONCRETE CURB & SIDEWALK SECTION



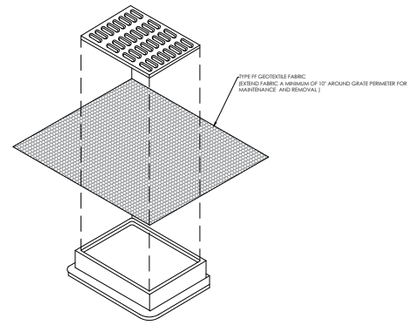
CONCRETE PAVEMENT CROSS SECTION



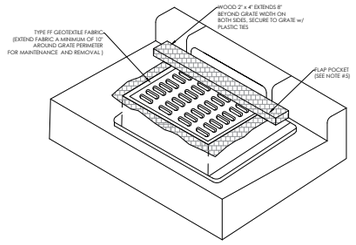
TRENCH DRAIN SECTION



WET DETENTION POND CROSS SECTION



INLET PROTECTION TYPE "B"



INLET PROTECTION TYPE "C"

MAINTENANCE NOTES:

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

DETAILS

ABACUS ARCHITECTS

REVISIONS:

△	DATE	ISSUE

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ISSUE DATE: 02/09/2026
NEW CONSTRUCTION/EXPANSION
BASIC METALS II
BASIC METALS INC., W180N11819 N RIVER LN, GERMANTOWN, WI, 53022
11354 MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 640 N VEL R. PHILLIPS AVE. SUITE 210 MILWAUKEE, WI 53203

DRAWN BY: JMN
CHECKED BY: JRV

DETAILS

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205

PROJ. NO. 2024-100

February 6, 2026

P:\2024-CONTRACTS\2024-100 Basic Metals Expansion\Phase - 2\Construction Documents\S.3 Site\2024-100 - Base.dwg

We Energies
W140 N9100 Lilly Rd.
Menomonee Falls, WI 53051
www.we-energies.com

January 30, 2026

DONTOF LLC
PO BOX 757
GERMANTOWN, WI 53022

RE: W180N11711 RIVER LN GERMANTOWN, WI 53022 and Intent to Release Easement Documents 538388, 527509 and 547756

To Whom It May Concern:

Recorded easement Document No. 547756 will be released in full and the portions of easement Documents No. 538388 and No. 527509 that are located on Certified Survey Map No. 3352, Lot 1, will be released (partial release of these easements) when facilities in these easements have been relocated and a new easement executed and returned to me at We Energies to cover the new location of facilities.

If you have any questions, please call me at 262-502-6817.

Sincerely,

Barb Schaefer

Barb Schaefer
Right of Way Agent – Contractor
We Energies
W140N9100 Lilly Road
Menomonee Falls, WI 53051
262-502-6817

To: Kevin Driscoll, Village Engineer

CC: Jeff Retzlaff Village Planner

From: Bob Beilfuss, PLS

Date: February 25, 2026

Re: Basic Metals CSM

Kevin,

Here is my review comments for the Basic Metals CSM received 2/10/2026.

Certified Survey Map

Applicant or Owner: Dontof LLC

Address: W180 N11819 River Lane, Germantown WI. 53022
Tax Key No. GNTV 212904 and GNTV 212970

Land Surveyor/Firm: Benjamin j. Reenders][Cedar Creek Civil

Review Comments are based on the CSM Review Checklist approved 4/9/2025:

1. A 3"x 3" square in the upper right-hand corner of Sheet 1 is to be left blank for the County recording information. This reserved area is in addition to the areas needed for sheet borders. (per Washington County Register of Deeds Office)

2. Per Chapter 18 of the Village Land Division Ordinance, all subdivision and Certified Survey Maps will be referenced to the Wisconsin State Plane Coordinate System, South Zone (NAD 1983-2011 datum) grid bearings for a bearing basis.

3. Legend denoting: found or set boundary markers, their size and weight and other symbols, linetypes and hatching being used on the map. The provided legend does not indicate the PLSS monument type and size and needs to be provided.

4. The note on Sheet 1 of 3 indicate the "60' wide R.O.W. by deed" is actually dedicated per CSM No. 3352 and this statement needs to be revised. The same applies to the 33' wide R.O.W. by deed on Fulton Drive. This R/W was dedicated per CSM No. 3352.

5. The 10' wide Storm Sewer Easement on Lot 1 note to benefit The ***City*** of Germantown needs to be revised to reflect the ***Village*** of Germantown.

6. Wisconsin State Plane Coordinates, South Zone (NAD 1983 Grid) of point of commencement monument need to be added.

7. A small drawing of the section or governmental subdivision of the section in which the subdivision lies is missing.

8. Current building setback lines mapped, dimensioned and date stamped.

9. All existing utility and drainage easements with recording information will be shown and dimensioned.

10. Owner's name, address and telephone number needs to be added.

11. **Mortgagee's Certificate** (Required if land is mortgaged)
Complete statements per Chapter 236.21(2)(a)

    Lending institution name, signature of bank officer and date.

    Notary statement, seal, signature and date.

    Mortgagee certificate requirement is waived if owner can provide written proof of ownership that the property is free of mortgage from the lending institution.

12. Village of Germantown Planning Commission Approval

    This Certified Survey Map is hereby approved by the Planning Commission of the Village of Germantown on this day_____ of_____ , 2026.

    _____ _____
    Robert A. Soderberg, Chairman Date

    _____ _____
    Deborah J. Remich, Secretary Date

13. 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 model space of the drawing will be done in Wisconsin State Plane Coordinate System, South Zone (NAD 1983 datum 2011 Adjustment) and the Grid Bearing basis.

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

Professional Land Surveying and Mapping Services
W174 N9467 Joper Road, Menomonee Falls, Wisconsin, 53051
262-250-8003 office *pointlandsurveying@gmail.com* *email*

Village of Germantown

Engineering Section Memorandum

To: Jeff Retzlaff, Director of Community Development

From: Kevin Driscoll, Village Engineer

Date: April 9, 2026

Re: W180 N11819 River Lane – Basic Metals (GTNV_212904 & GTNV_

Items Reviewed:
1. Site Plan Review Application Dated: 2/9/2026

General Comments:
1. A REVISED PLAN IS REQUIRED FOR TRANSMITTAL TO DPW/ENGINEERING OFFICE ALONG WITH ALL NECESSARY PERMITS PRIOR TO COMMENCING WITH CONSTRUCTION.
2. Please respond to each item below. **A written response addressing each item shall be included in your submittal**.
3. 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.
4. This project will require a WRAPP/NOI from the DNR. Please submit a copy of the approved permit prior to final 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 driveway work and excavation within the ROW are required. Contact the Village engineering department to obtain permits.
8. Provide documentation for WisDOT approval of the work shown in the ROW.
9. 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.

Easements / CSM

1. Coordinate with Village Staff on the vacation of the existing municipal drainage easement. Anticipated process includes a "Vacating Municipal Drainage Easement Item" on an upcoming Public Works and Highways Committee agenda in addition to a "Vacating Municipal Drainage Easement Item" on an upcoming Village Board agenda. Refer to CSM 4387 &

2. Drainage Provide update on the status of note that references WEPCO easement to be vacated. Clarify anticipated workplan schedule. Work can be authorized by municipal staff, once an updated easement/CSM is recorded. Refer to CSM 3352.
3. Provide documents of updated easements and/or CSMs for drainage and respective utilities.
4. Refer to Village of Germantown (not a city)
5. 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/storm sewer 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.
6. Establish 20-ft Storm Sewer / Drainage Easement per Development Handbook Section 1.6.1.5

Storm Water Management

1. Refer to memo dated 11-12-2025 regarding drainage analysis. See Attached.
2. Storm Manholes 1, 2 and 3 appear to overtop south towards the road and not to the basin. Provide information on how the 100 year storm event will be routed to the basin or adjust calcs to reflect the 100 year event from these areas being released undetained.
3. Storm Structure Fl-1 has a 30″ pipe entering the structure but only a 24″ pipe leaving the structure. Increase downstream pipe to 30″ minimum and provide storm sewer calcs.
4. Applicant to Relocate outlet control structure and discharge piping location south of telecom facilities to avoid new storm sewer work and discharge onto telecom facilities. Revise and Resubmit.
5. Sheet 202 – Applicant to Check with Fiberobtic Utility regarding new proposed storm water discharge near/onto existing Fiberoptic Telecom facilities.
6. Are the existing electric and telecom lines running though the basin being re-located? Add notes to the plans to clarify intent.
7. Show emergency overflow location of the basin on the grading plan. Including spot elevations for the overflow and top of berm. Add additional contour labels around the basin.
8. Build access manhole with inlet grate midway for each run to allow for additional drainage; in drainage swale and in existing driveway cut, for clean-out and maintenance.
9. Clarify clearance of new storm water pipe over existing sanitary.
10. Storm MH2 will take minimal runoff based on current grading plan. Revise grading to create a depression to capture runoff or adjust drainage boundaries.
11. Proposed conditions drainage map shows the roof of the existing building being routed to the proposed basin. Provide information on how this water will be routed to the basin.
12. Tc path for drainage area P2 starts with 100 feet of sheet flow, but the flow path is shown within a swale. Flow through a swale is shallow concentrated not sheet flow. Revise Tc calcs.
13. This project adds over a ½ acre of impervious surface and is required to meet MMSD requirements.
14. Sheet 201 – Call out proposed new impervious area. Call out total impervious area (proposed plus existing). Call out existing and proposed areas of pervious/grass surfaces.
15. Narrative notes the site is a redevelopment site with a 40% TSS requirement, but the table has the new development requirements highlighted. Please clarify.
16. Narrative includes DNR tables showing maximum curve numbers for cropland highlighted. Please clarify why this was included. Project does not include any cropland.
17. The infiltration section of the requirements seems to indicate the site is exempt from infiltration due to soils having and infiltration rate of less than 0.60 in/hr. The Geotech boring provided appear to show infiltration rates exceeding 0.60 in/hr.
18. Include soil types on the drainage maps.
19. Provide outlet control structure detail.
20. Outlet control pipe size on plans doesn't appear to match modelling.

21. Complete Long Term Maintenance Agreement for drainage facilities (piping from easement and storm water pond)

Grading & Erosion Control

1. Add Emergency spillway. Refer to Development Handbook Section 6.3.7. Revise and Resubmit.

Driveway

1. Ordinance allows for maximum 35-ft driveway. Revise and resubmit. Village may consider an allowance of two 35-ft driveways over the 120-ft of proposed driveway frontage.

Sanitary

1. Developer to provide an updated NOI for current and future employee count. Transmit NOI to Wastewater Utility Superintendent/Director of Public Works and Village Engineer.
2. Schedule site inspection with DPW / Engineering staff to inspect Sample manhole for determination if updates are required to adhere with current standards. See Development Handbook, Section 3.1.5.
3. Sheet 202 - Update manhole elevations for consistency 962 v. 862

Water

1. Developer to confirm if there is going to be plumbing interconnection between the existing building at W180 N11819 River Ln and the new 41,658 SF building.
2. Clarify any changes to the water feed/meter sizing at W180 N11711 River Ln.
3. Address Water Utility Comments with Water Utility Superintendent prior to scheduling a a pre-construction meeting.

Landscaping

1. Sheet A200 – Existing Conditions and Demo Plan.
   This page is lacking additional removal trees to accommodate proposed site changes.
   For each proposed "remove" tree, include species, DBH (trunk diameter 4.5' above grade), and condition class (Excellent, Good, Fair, Poor, Dead). Update trees removal plan.
2. The plan requires detailed preservation measures for the two evergreen trees in the southeast corner of the lot, if they will not be removed.
3. Sheet A206 of Landscape Plans.
   This plan as submitted does not meet minimum new planting requirements per municipal codes listed below:
   - 17.43 Site Plan Approval Requirements. (5) Landscape Requirements and Plan Review. Requires the following:
     - Street trees adjacent to new construction.

4. Parking lots.
   Both a perimeter planting (to block headlights from adjacent traffic) and interior parking lot planting of one tree for every 10 parking spaces.
5. Tree locations. Show underground pipe on landscaping plan. Offset trees to avoid being over piping.

November 12, 2025

Kevin Driscoll, PE
Village Engineer
Village of Germantown
N112 W17001 Mequon Road
Germantown WI

RE: GERMANTOWN INDUSTRIAL PARK
Stormwater Review

Harwood Engineering Consultants has reviewed the existing stormwater management plan for the Germantown Industrial Park. This memo includes the findings of our review.

Background

Germantown has a number of regional stormwater management basins that manage stormwater for areas within the Village. Pond #31A is located on the northern end of the Blackstone Creek Development. This pond receives runoff from the northern portion of the Blackstone Creek Development and from a portion of the Germantown Industrial Park. A drainage map outlining drainage to the basin is included within this memo. The area is generally bounded by River Lane, Bunsen Drive, Maple Road and Morse Drive.

A stormwater basin was construction in 1988 or 1989 to serve this area. The design and calculations for the basin were completed by Ruekert and Mielke. The full details of those calculations is not available for review. Summary information was included in the Blackstone Creek stormwater management plan and was used for this study.

In 2007 the existing Lake Park Golf Club was redeveloped into the Blackstone Creek Estates. As a part of that development a stormwater management plan was developed. That stormwater management plan was designed to continue to accept runoff from the industrial park. Two 42" culvert pipes under River Lane rout runoff to the basin.

The 2007 stormwater management plan included two drainage basins from the industrial park. Details are summarized in the table below.

Sub-Area Name	Area (acres)	Curve Number
Post Area 1A	46.30	88
Post Area 1B	32.00	88
Total	78.30	

Current Conditions

GIS data and Village storm sewer maps were used to estimate the current drainage from the industrial park to Pond #31A and compare the results to what was assumed in the 2007 stormwater

management plan. A drainage map outlining these areas is included with this memo. The table below summaries the results.

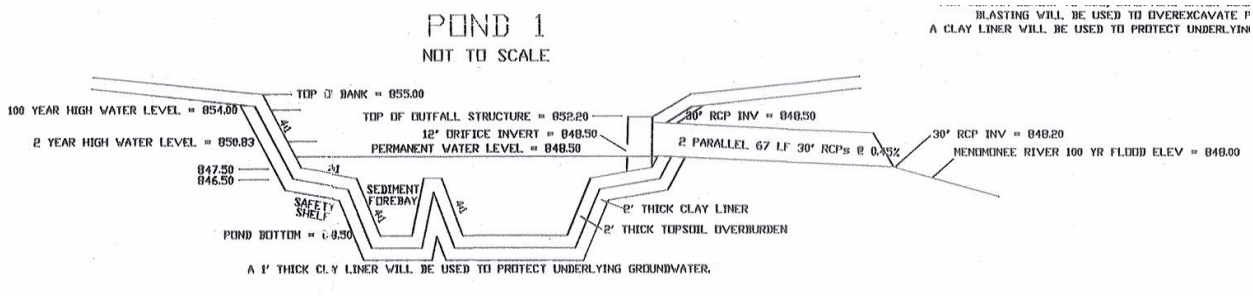
	2007 SWMP		Current Conditions	
Sub-Area Name	**Area (acres)**	**Curve Number**	**Area (Acres)**	**Curve Number**
Post Area 1A	46.3	88	35.4	89
Post Area 1B	32.0	88	43.1	86
Total	78.3		78.5	

The current conditions and curve numbers match very closely with what was assumed in the 2007 stormwater management plan.

Time of concentration used on the 2007 report is not known. GIS data was used to best estimate the current Tc times and those estimated times have been used for this study.

Basin Performance

The data available in the 2007 stormwater management plan was used to model the stormwater basin in HydroCAD



The hydroCAD model was run using current rainfall values for Washington County with MSE 3 distribution. The results are presented in the table below.

Storm Event	Elevation	Release Rate (cfs)
2-yr	851.65	6.15
10-yr	852.95	45.95
100-yr	857.30*	439.74*

*Calcs show the basin overtops in the 100 year event.

The elevation of the emergency overflow spillway is not detailed on the plans shown above. For this study it is assumed to be 1' below the top of bank elevation of 855.00 and 20'wide. The hydroCAD model shows the 100 year event overtops the basin and utilizes the emergency overflow spillway.

Existing vs. Proposed

Much of the industrial park was constructed prior to 2001 when MMSD stormwater management requirements came into effect. We do not have aerial photos from 2001 so the 2000 aerial photo was used to estimate the impervious in the industrial park in 2001. A curve number of 68 has been assigned to represent the existing conditions for the Blackstone Creek subdivision and is consistent with the approved SWMP.

Sub-Area Name	Area (acres)	Curve Number
Post Area 1A	35.4	85
Post Area 1B	42.9	86
Post Area B	18.3	68

The table below compares the peak rates for the existing conditions compares to the current conditions when routed through Pond #31A.

Peak rate comparison:

Storm Event	Existing (cfs)	Current (cfs)
2-yr	108.58	6.15
10-yr	196.78	45.95
100-yr	405.58	202.15

The site is in the Menomonee River Watershed and has a critical time of 9.5 hours. The critical time period starts at 11.75 hours and ends at 21.25 hours. The table below compares the volume during the critical time period assigned by MMSD.

Critical Time Volume Comparison:

Storm Event	Existing (ac-ft)	Current (ac-ft)
2-yr	8.84	4.38
100-yr	31.36	28.24

Summary

Based on the information available for this study, Pond 31A on the north end of the Blackstone Creek Community is providing and significant reduction in peak rates when comparing existing condition (year 200) to the current conditions. The basin is also currently meeting MMSD volumetric requirements.

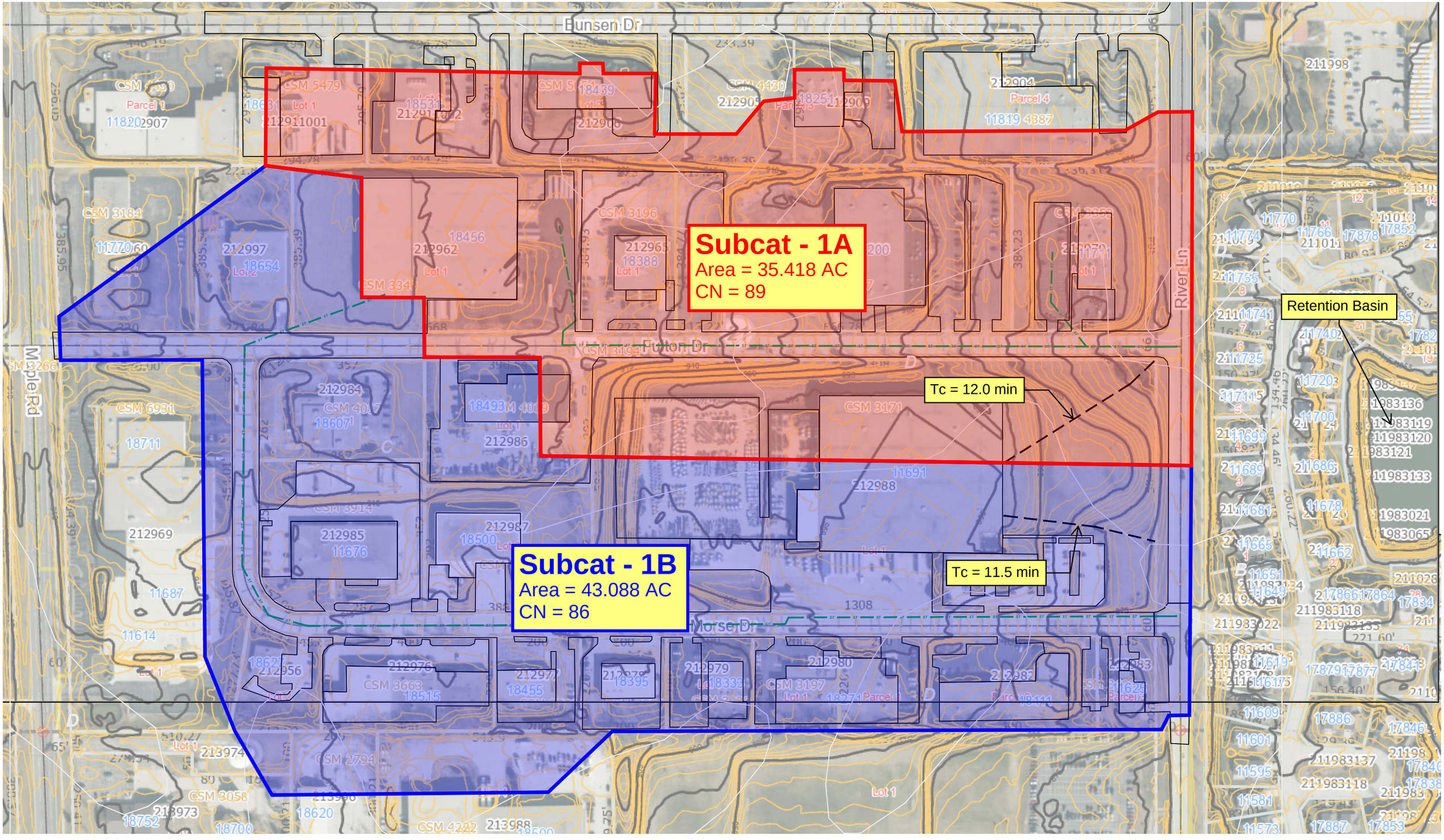
Utilizing the current rainfall rates in the model shows that the basin overtops through the emergency spillway for the 100 year event. Based on this overflow the basin is currently at capacity. We recommend that any additional impervious area that is added to the Industrial Park be controlled by on-site stormwater management controls meeting current Village and MMSD requirements prior to discharging to the Village's storm sewer network and Pond 31A.

Sincerely,

Harwood Engineering Consultants, Ltd.



Brad M. Seubert, PE
Vice President | Director of Civil Engineering



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

Germantown Industrial Park
Existing Drainage Map

North

Scale: 1" = 200'

SITE PLAN & CONDITIONAL USE PERMIT (CUP) APPROVAL EXTENSION

4/13/26 Plan Commission Meeting

Crew Carwash

Staff Report & Recommendation **Germantown, Wisconsin**

Summary

Crew Carwash, property owner, is requesting an extension of the Site Plan and Conditional Use Permit (CUP) approvals originally granted in 2024 and extended in 2025, to allow the construction and operation of a 4,512 sqft self-serve carwash facility located at N96 W17500 County Line Road.

Property Location: N96 W17500 County Line Road (existing BP Station)

Agent/
Property Owner:

Attorney Brian Randall Amundsen Davis LLC 111 Kilbourn Ave Milwaukee, WI	Katherine Rayner Crew Carwash 11700 Exit 5 Pkwy Fishers, IN

Current Zoning: B-5: Highway Business

Adjacent Land Uses		Zoning
North	Highway Business	B-5
South	Highway Business	B-5
East	Highway Business	B-5
West	Highway Business	B-5



Background/Proposal

In April, 2024, Crew Carwash was granted Site Plan and Conditional Use Permit (CUP) approval from the Village to allow the construction and operation of a 4,512 sqft self-serve carwash facility located at N96 W17500 County Line Road.

Site Plan approval was granted by the Plan Commission on April 8, 2024 subject to seven (7) conditions (see attached Staff Report and meeting minutes for details). Conditional Use Permit (see enclosed CUP# 05-2025) approval was granted by the Village Board on April 15, 2024, subject to six (6) conditions. Sign plan approval was granted by the Plan Commission on June 10, 2024.

In April 2025, Crew Carwash requested extensions of both the Plan Commission Site Plan approval and the Village Board conditional use permit approval. At this time, Attorney Brian Randall, Amundsen-Davis LLC, agent for Crew Carwash, property owner, is requesting a second extension of the Site Plan and CUP approvals granted by the Village as provided for under Section 17.42 (CUP) and 17.43 (Site Plan) of the Zoning Code included for reference below:

CUP Approval (Section 17.42):

Section 17.42(6) stipulates:

(a) Except under the following conditions, if substantial construction or other activities necessary to implement a use authorized by a conditional use permit and/or the use has not commenced within 12 months from the date approval is granted by the Village Board, and, continue toward completion in accordance with the proposed/approved timeframe, or, if said construction or use has commenced but subsequently is stopped or abandoned for a period of 12 consecutive or cumulative months, the conditional use permit shall be deemed to have lapsed and all other Village permits and/or approvals granted subsequent to such conditional use permit approval shall expire and be null and void.

1. *An extension has been granted pursuant to section 17.42(8); or*
2. *Different project-specific commencement and/or completion deadlines and timeframes have been established as a condition of approval in the conditional use permit.*

Section 17.42(8) stipulates:

EXTENSION OF DEADLINE FOR COMMENCEMENT OR COMPLETION. *At its discretion, for good cause and following consideration of a written request by the applicant/property owner, the Village Board may grant one or more extensions of the deadline to commence, complete or continue the use for which a conditional use permit was granted. The duration of each extension shall be determined by the Village Board but shall not exceed 12 months.*

Site Plan Approval (Section 17.43):

Section 17.43(11)(a) stipulates:

(a) Except under the following conditions, if construction or other activities necessary to complete a development project and/or land use have not commenced within 12 months from the date site plan approval has been granted and continue toward completion in accordance with the proposed/approved timeframe, or, said construction or other activities have commenced but subsequently are stopped or abandoned for a period of 12 consecutive or cumulative months, site plan approval shall be deemed to have lapsed and all Village permits and/or approvals granted subsequent to such site plan approval shall expire and be null and void.

1. *An extension has been granted pursuant to subsection (11a); or*
2. *Different project-specific commencement and/or completion deadlines have been established as a condition of approval in the site plan approval, in a conditional use permit, or in a PDD condition and restrictions resolution adopted by the Village Board (including but not limited to phased development).*

Section 17.43(11a) provides:

EXTENSION OF DEADLINE FOR CONSTRUCTION COMPLETION. *At its discretion, for good cause and following consideration of a written request submitted by the applicant/property owner to the Village prior to expiration of the previous deadline, the Plan Commission (and Village Board in the case of projects being developed in a PDD) may grant one or more extensions of the deadline to complete the project for which site plan approval was granted. The duration of each extension shall be determined by the Plan Commission (or Village Board in the case of PDD projects) but shall not exceed 12 months. A deadline extension request that is received prior to expiration of the current deadline will not be subject to any applicable application fees. Requests received after expiration of the current deadline will be subject to applicable application fees.*

Approval Extension Request

As stated in the February 19, 2026, extension request letter (copy enclosed), the agent for Crew Carwash cites a combination of unanticipated factors and other coordination elements related to Crew Carwash's business operations and construction similar to those that existed in 2025 when Crew Carwash requested the first approval extension.

The developer provides additional details, explanations and a revised timeline for expected commencement & completion dates for the Crew Carwash facility. The request is to extend the approvals for both the CUP and Site Plan an additional 12 months with a new deadline to commence construction being extended to April 8, 2027.

Staff Comments

As noted in the February 19 extension request letter, the original approval in April 2024 was extended once before back in April 2025. Copies of the original 2024 plans and staff report presented to the Plan Commission and Village Board in 2024 are attached for additional supporting information with details about the project and conditions of approval.

Staff supports the request to extend both the Site Plan and CUP approvals as requested for 12 months with a new deadline for commencement of construction to April 8, 2027, with the same list of conditions contained in the original approvals.

VILLAGE STAFF RECOMMENDATION

APPROVE the request to extend Site Plan approval plan for an additional 12 months with a new deadline for commencement of construction to April 8, 2027, with the same conditions of approval in the original April 8, 2024, Plan Commission approval.

Recommend to the Village Board to **APPROVE** the request to extend the approval of CUP #05-2025 for an additional 12 months with a new deadline for commencement of construction to April 8, 2027, with the same conditions of approval contained in CUP #05-2025.

AMUNDSEN DAVIS

February 19, 2026

VIA EMAIL
jretzlaff@germantownwi.gov
Mr. Jeffrey W. Retzlaff, AICP
Director, Community Development Department
Village Planner & Zoning Administrator
N112 W17001 Mequon Road
Germantown, WI 53022

Re: Crew Carwash – N96 W17500 County Line Road **(GTNV 334990)**

Subj: Project Approvals Extension Request

Dear Mr. Retzlaff:

As you know, we represent Crew Carwash in connection with the approvals and construction of a self-service carwash facility to be located at N96 W17500 County Line Road. Originally approved in 2024, the Commission granted a 12-month extension of the Site Plan on April 14, 2025, and the Village Board granted an extension of the Conditional Use Permit on April 21, 2025.

Renewed Requests for Extension

Crew Carwash renews its request for an extension due to the need to coordinate our marketing and business roll out. Our approval in the Village was the first in the State of Wisconsin and Crew Carwash has been working to open additional locations with the intent to enter the market in a coordinated fashion to become a recognizable brand and company to new customers and potential employees.

For the employees it needs, Crew Carwash continues to internally recruit key team members to relocate to Southeastern Wisconsin and it is preparing to recruit and train new employees that it will need at all of its locations.

Complex coordination and a desire to be intentional with each decision has resulted in a lengthier than anticipated development and construction timeline. For our site in the Village, Crew Carwash's planning includes demolishing the existing structure and Wisconsin DNR-approved gas tank removals.

Crew Carwash remains dedicated to constructing its new facility in the Village as its affiliate DAHM NO 74 LLC already owns the property and it has paid all taxes due per the Village's installment schedule.

To accommodate for all of these circumstances and execute this project to its high standards, Crew Carwash has adjusted its construction schedule which it now foresees commencing in late 2026 to early 2027. Accordingly, Crew Carwash renews its requests for extension of its construction commencement dates.

Conclusion

Crew Carwash respectfully requests a 12-month extension of the Site Plan approval and the Conditional Use Permit to April 8, 2027, pursuant to Sections 17.42(8) and 17.43(11a), Village Zoning Code.

Please do not hesitate to contact me at 414-225-1484 or BRandall@AmundsenDavisLaw.com should you or others have immediate questions, wish to discuss anything, or need anything further from us.

Very truly yours,

Amundsen Davis, LLC



Brian C. Randall

cc: Mr. Jordan Yanke – Associate Planner
Crew Carwash
Excel Engineering
Kristina S. Atterholt, Esq.

CUP # 05-2025 Document No.	CONDITIONAL USE PERMIT Document Title

VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN
CONDITIONAL USE ZONING PERMIT

Whereas the Applicants:
Crew Carwash Inc., Agent for Dahm Properties 74 LLC, Property Owner

agree to comply with applicable Codes and Ordinances of the Village of Germantown, Wisconsin, and further agrees that all work done pursuant to the permission granted herewith will conform with the applications and drawings filed with and approvals granted by officials of the Village for the purpose of obtaining this permit.

Now, therefore, this permit is issued to allow the development and operation of a carwash facility from the property located at N96 W17500 County Line Road pursuant to Section 17.32(3)(g) of the Village Zoning Code.

Document # **1614721**
WASHINGTON COUNTY WISCONSIN
2025-06-02 12:31:00 PM

LISA BUDISH
WASHINGTON COUNTY
REGISTER OF DEEDS
Fee: **$30.00**

Return via EMAIL
Pages: **3**

3

Name & Return Address:
Village of Germantown
P.O. Box 337
Germantown, WI 53022

Parcel Identification No:
GTNV 334-990

On the following described property located in the Village of Germantown, Washington County, Wisconsin:
That part of the Southeast Quarter of the Southeast Quarter (SE 1/4 SE 1/4) of Section 33, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin, described as follows, viz: Commencing at the Southeast corner of said Section; thence North 89° 51'00" West, 1321.30 feet; thence North 00° 24'00" West, 440.70 feet; thence South 84° 15'00" East, 201.16 feet to the place of beginning of this description; thence North 00° 24'00" West, 219.05 feet; thence South 84° 15'00" East, 200.00 feet; thence South 00° 24'00" East, 219.05 feet; thence North 84° 15'00" West along the Northerly right of way of road, 200 feet to the place of beginning.

Tax Key No: 334-990
Address: N96 W17500 County Line Road

Pursuant to the following condition(s):

1. The uses and activities allowed on the property shall be limited to those uses and activities specified in the conditional use permit (CUP) application, project narrative dated February 12, 2024, and supporting site plan documents dated January 12, 2024, and February 12, 2024. Days and hours of operation shall be limited to those specified in the CUP application and supporting documents submitted to the Village (Sunday through Saturday 7:00am to 9:00pm.
2. The Owner/Operator is responsible for reporting any significant changes in the type, intensity, amount, or location of the land uses and activities, days and hours of operation, size or location or other operational characteristics of said uses and activities authorized under this CUP to the Village Zoning Administrator.

3. 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.
4. All temporary and permanent exterior signs require a permit and shall comply with all current sign regulations. Off-premises advertising and directional signage is regulated by the Village and requires a permit if/when allowed.
5. All future site improvements, including all building, parking area, landscaping, storm water management facilities, signage, exterior lighting, and any other improvements made to or on the property that are necessary for the land uses and activities authorized under this CUP shall be submitted for review and approval by the Village through the Zoning Permit or Site Plan application process as determined by the Village Zoning Administrator. If required, Site Plan review and approval will include Plan Commission review and approval.
6. Building permits and commercial building code plan approval are required for the planned demolition of existing structures on the site and the proposed building and kiosk. Contact SAFEbuilt staff in Inspection Services at Village Hall prior to any work for information about required permits and/or plan approvals.

Granted by the Village Board of the Village of Germantown, Washington County, Wisconsin on the 15th day of April, 2024, and as the deadline to commence construction was extended on April 21, 2025.

Robert A Soderberg, Village President

ATTEST:

Donna Ott, Village Clerk

STATE OF WISCONSIN) SS
WASHINGTON COUNTY)

Personally came before me this 27th day of May, 2025, the above named Robert A. Soderberg, Village President, and Donna Ott, Village Clerk, to me known to be the persons who executed the foregoing instrument and acknowledged the same.

Kasie R Miller
{type or print name of Notary on this line}

{signature of Notary on this line}

Notary Public, State of Wisconsin
My Commission Expires: 05/03/2029

KASIE R. MILLER NOTARY PUBLIC STATE OF WISCONSIN

ACCEPTANCE OF TERMS AND CONDITIONS BY PROPERTY OWNER/OPERATOR
As agent for Crew Carwash, Inc., and Dahm Properties 74 LLC, I hereby accept the terms and conditions set forth in this permit and realize that non-adherence to the terms and conditions as stated hereon may result in the revocation of this Permit by the Village of Germantown.

Dated this 14 day of May, 2025

Agent for Crew Carwash, Inc. and Dahm Properties 74 LLC

STATE OF INDIANA) SS
~~HAMILTON~~ MARION COUNTY)

Personally came before me this 14 day of MAY, 2025, being the above named Katherine Rayner, to me known to be the person who executed the foregoing instrument and acknowledged the same.

ANITA R GRAVES
Notary Public, State of Indiana
Marion County
Commission Number NP0688198
My Commission Expires
September 04, 2032

Anita R Graves
{type or print name of Notary on this line}
ANITA R. GRAVES
{signature of Notary on this line}

Notary Public, State of Indiana
My Commission Expires: Sept 4, 2032

This instrument was drafted by:
Jeffrey W. Retzlaff, AICP
Community Development Director/Zoning Administrator
Village of Germantown, Wisconsin

SITE PLAN & CONDITIONAL USE PERMIT (CUP) APPLICATIONS

4/8/28 Plan Commission Meeting

Crew Carwash / Nomies Investments LLC

Staff Report & Recommendation **Germantown, Wisconsin**

Summary

Crew Carwash, agent for Nomies Investments LLC, property owner, is requesting Site Plan approval and a Conditional Use Permit (CUP) to allow the construction and operation of a 4,512 sqft self-serve carwash facility located at N96 W17500 County Line Road.

Property Location: N96 W17500 County Line Road (existing BP Station)

Agent/
Property Owner: Katherine Rayner
Crew Carwash
11700 Exit 5 Pkwy
Fishers, IN

Nomies Investments LLC
N96 W17500 County Line Road
Germantown, WI

Current Zoning: B-5: Highway Business

Adjacent Land Uses		Zoning
North	Highway Business	B-5
South	Highway Business	B-5
East	Highway Business	B-5
West	Highway Business	B-5



Background/Proposal
Crew Carwash, agent for Nomies Investments LLC, property owner, is requesting Site Plan approval and a Conditional Use Permit (CUP) to allow the construction and operation of a 4,512 sqft self-serve carwash facility located at N96 W17500 County Line Road.

As presented on their website, Crew Carwash is a multi-generational, family-owned business founded in 1948 and based in Fiskers, Indiana. https://crewcarwash.com/the-crew-story/ . Crew Carwash currently has 45 locations in Indiana and Minnesota. The proposed site in Germantown is one of a few leading their expansion into Wisconsin.

Conditional Use Permit (CUP)
Within the B-5 District, a self-serve carwash requires a Conditional Use Permit (CUP). The proposed Germantown facility and operation has the following components:

- 4,512 sqft self-serve carwash building w/ 345 sqft kiosk
- Business operations Sunday to Saturday from 7:00a to 9:00p with 2-3 shifts per day
- 25 Total Employees (2-5 employees per shift)

Site Plan
As indicated in the applications and February 12 project narrative, the proposed development includes a complete demolition and replacement of the existing BP gasoline station and carwash. The new Crew Carwash will have the following features:

- 4,512 sqft single-story carwash building 20’ height w/ tower feature to 35’ height
- 345 sqft single-story kiosk 13’ height w/ 4-lane canopy (vehicle entry point)
- Masonry walls comprised of ground (smooth) face concrete masonry units color red with a knee-high wall and upper banding of limestone split-face concrete units with a buff color
- Tower feature comprised of architectural wall panel color pewter
- Aluminum-framed storefront and glazing system color clear anodized w/ overhead supported canopies above all windows
- Flat roof w/ exposed RTU’s
- Paved curb & gutter parking area w/ 5 vehicle parking stalls for employees (1 ADA compliant) & 9 stalls with self-serve vacuum bays
- 20 vehicle staging area w/ 4 lanes wide
- New lighting & landscaping

Parking, Access & Traffic Circulation
Access will remain the same with two (2) driveways to Emmer Road on the southeast side of the property. The Village’s parking guidelines do not include carwashes, but the number of stalls provided for employees (5) appears sufficient.

Storm Water Management

This 1.0-acre site is a re-development site with 90% of the area expected to be disturbed. A total of 30,506 sqft (70%) of impervious surfaces are proposed as part of the new development leaving 13,052 sqft or 30% in open/green space. Stormwater facilities include storm sewer, roof drains and grading to convey run-off from the building, staging, vacuum, and parking areas to on-site catch basins and storm sewer located through the middle of the site to an existing concrete pipe south the site in the Emmer Road ROW and to a new “green infrastructure” rain garden feature in the southeast corner of the site.

Utilities

Sanitary and water utilities will be upgraded and replace the existing in easements running north across the hotel property to existing laterals.

Landscaping & Buffering

Existing established landscaping along the north property line is going to be removed and replaced with a 1’-2’ high retaining wall. A very large deciduous shade tree is going to be removed along the east property line and replaced with sod for a snow storage area. Minimal landscaping is provided along or within the curbed areas internal to the site. Decorative stone “mulch” is placed around the plantings across the site.

Lighting.

Exterior lighting of the site and building includes:

- (4) 50W 4,000 lumens @ 5700K (cool white) LED recessed canopy lights mounted at a height of 10’ under the kiosk canopy;
- (1) 131W 20,900 lumen @ 3000K (bright white) LED cut-off style pole-mounted fixtures mounted at overall 23’ height on a pole near the south driveways;
- (6) 131W 13,175 lumen @ 3000K (bright white) LED cut-off style pole-mounted fixtures mounted at overall 23’ height on poles around the parking and building;

Signage.

A total of (21) permanent signs are proposed for the site, including:

- (1) Refacing the exiting monument sign in the SE corner of the site with the brick base painted black (see sign rendering EC-01; sheet 1 of 15 w/ no date);
- (1) Refacing the existing 50’+ pylon sign in the NE corner of the site with the pylon support structure to be painted black (see sign rendering EC-02; sheet 2 of 15 w/ no date)
- (3) internally lit wall-mounted signs on the tower structure w/ “Crew Carwash” lettering translucent white (see sign rendering EC-03; sheet 3 of 15 w/ no date)
- (1) internally lit wall-mounted sign above the exit door on the south end of the building w/ “Crew Carwash” lettering translucent white (see sign rendering EC-04; sheet 4 of 15 w/ no date)
- (1) internally lit monument sign w/ digital menu board mounted on a painted aluminum panel base located north of the kiosk on the north side of the property (see sign rendering EC-05; sheet 5 of 15 w/ no date)
- (2) internally lit directional signs installed at the driveway entrances on the south

side of the property w/ both saying “Open” and “Enter” (see sign rendering EC-06; sheet 6 of 15 w/ no date)
- (2) non-illuminated letter sets installed on south side of the kiosk canopy above the drive lanes indicating “Unlimited Club” (see sign rendering EC-07; sheet 7 of 15 w/ no date)
- (2) non-illuminated letter sets installed on south side of the kiosk canopy above the drive lanes indicating “Cashier” (see sign rendering EC-08; sheet 8 of 15 w/ no date)
- (4) non-illuminated framed menu panels installed on the columns of the kiosk lanes (see sign rendering EC-09; sheet 9 of 15 w/ no date)
- (1) non-illuminated letter sets installed on south side of the building above the exit door indicating “Clean Car Exit” (see sign rendering EC-11; sheet 11 of 15 w/ no date)
- (1) non-illuminated pole-mounted panel sign installed near the north entrance of the building indicating “We Are Responsible For” (see sign rendering EC-12; sheet 12 of 15 w/ no date)
- (2) non-illuminated painted directional signs installed on south side of the building near the exist indicating “”Vacuums” (see sign rendering EC-14; sheet 14 of 15 w/ no date)

Note: There are detail sheets for signs EC-10, EC-13, and EC-15 but they are not included in site map showing where these signs are proposed; It is assumed that they will not be installed at this site.

Staff Comments

Community Development: Planning & Zoning

This property is in the “County Line Road District” under the Village’s 2050 Comprehensive Plan and the current zoning is B-5: Highway Business. The property is located within the Village’s Sanitary Sewer Service Area (SSSA) and capable of being served with public sewer and water with extensions from existing laterals nearby from the north (water main and sanitary sewer). The proposed carwash use falls under the “desirable” commercial land use.

The amount, type, and location of proposed landscaping is a concern. First, an established deciduous shrub hedge (see views from both sides below) is being removed entirely and replaced with a 1’-2’ retaining wall. The area abutting the hotel property to the north will be planted with sod. The property line runs right up against the front of the parking stalls on most of the hotel property, so all of the shrubs will be removed. Something needs to be installed to replace this hedge. There doesn’t appear to be adequate area in the minimum required 8’ buffer strip because there is a retaining wall proposed in that 8’ buffer area.





More landscaping around the perimeter is required. The Village Forester has a similar comment (see below). Also, the large tree along the east side of the property (see below) is proposed to be removed and placed with sod for a snow storage area (see Sheet C1.0). The tree species has not been identified by the developer.



Construction work is required on the adjacent hotel property to the north to install upgraded water & sanitary sewer laterals within “private utility easements” to be obtained by others. Building permits for installation of water & sanitary sewer should not be issued until the easements are obtained and the adjacent property owner agrees with the construction work required to install the utilities and restore the easements to pre-construction conditions.

Signage appears to be excessive for a business model that relies on a recurring customer base (and probably not so much signage for every step of the way through the process). More signs are proposed than trees to be installed. Many of the directional signs exceed the height and area allowances in the sign regulations. Three “Crew Carwash” signs on the tower seem excessive given the re-use of the 50’+ pylon sign and monument sign in the SE corner of the sight. The detail sheets for the sign face replacement signs do not indicate the sign area and refer to a survey being needed. For these reasons, Staff recommend that sign package be re-evaluated in light of the sign regulations with goal of only proposing code-compliant signs that provide the minimum business name notification. A Sign Permit application is also required.

Finally, the photo renderings provided in the application from other Crew Carwash locations show actual wood mulch in the landscaping beds. At this location, the proposal is to install decorative “stone mulch”. Stone does not exactly satisfy the minimum 20% “green space” requirement in the B-5 Zoning District. Wood mulch is recommended.

Community Development: 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.

Public Works/ Village Engineer
The Village Engineer, Public Works Department and Utility staff have identified several technical issues and plan revisions that need to be resolved or otherwise addressed by the Developer prior to commencing construction activities and issuance of building permits. Nonetheless, Staff is recommending conditional approval of the site development and building plans subject to all the outstanding items and issues identified in the following review memos being resolved and reflected in additional information and/or revised plans submitted to Staff for further review, comment and approval prior to commencing any site construction or issuance of building permits (excluding early start site preparation and footing and foundation installation):

- April 3, 2024, memo from Kevin Driscoll, Village Engineer

Village Forester
The following issues will need to be addressed as part of a revised landscape plan prior to issuance of a building permit:

- Tree planting detail image revision on sheet C1.4: Include that root flare should be left exposed, moss/mulch line should be at or just below top of root ball.
- Recommend substitution of tree options for the two (2) Acer platanoides and the two (2) Pyrus calleryana ‘Jaczam’. The Village has many Maple (Acer) trees and would benefit from an increased species diversity. Also, Pyrus calleryana has the potential to establish as an invasive tree species in Wisconsin. Acceptable substitutes: Common Hackberry (Celtis Occidentalis), Kentucky Coffeetree (seedless) (Gymnocladus dioicus), London Planetree (Platanus x acerifolia), Tulip tree (Liriodendron tulipifera), Oak spp. (Quercus)
- Per municipal code 17.43(c). Parking lot landscaping: perimeter plantings are required around the parking lot for screening from adjacent properties. This plan does not include perimeter plantings along the east boundary, the northwest, or southwest corners of the property. This is an existing perimeter planting along the property boundary to north (see similar comment above), the street tree plantings along the south side of the property are sufficient.

Fire & Police Departments
No comment. Concerns have been addressed into submitted plan set.

VILLAGE STAFF RECOMMENDATIONS

APPROVE the Conditional Use Permit (CUP) application for Crew Carwash for the construction and operation of a self-serve car wash facility on the property located at N96 W17500 County Line Road subject to the following conditions:

1. The uses and activities allowed on the property shall be limited to those uses and activities specified in the conditional use permit (CUP) application, project narrative dated February 12, 2024, and supporting site plan documents dated January 12, 2024, and February 12, 2024. Days and hours of operation shall be limited to those specified in the CUP application and supporting documents submitted to the Village (Sunday through Saturday 7:00am to 9:00pm.
2. The Owner/Operator is responsible for reporting any significant changes in the type, intensity, amount, or location of the land uses and activities, days and hours of operation, size or location or other operational characteristics of said uses and activities authorized under this CUP to the Village Zoning Administrator.
3. 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.
4. All temporary and permanent exterior signs require a permit and shall comply with all current sign regulations. Off-premises advertising and directional signage is regulated by the Village and requires a permit if/when allowed.
5. All future site improvements, including all building, parking area, landscaping, storm water management facilities, signage, exterior lighting, and any other improvements made to or on the property that are necessary for the land uses and activities authorized under this CUP shall be submitted for review and approval by the Village through the Zoning Permit or Site Plan application process as determined by the Village Zoning Administrator. If required, Site Plan review and approval will include Plan Commission review and approval.
6. Building permits and commercial building code plan approval are required for the planned demolition of existing structures on the site and the proposed building and kiosk. Contact SAFEbuilt staff in Inspection Services at Village Hall prior to any work for information about required permits and/or plan approvals.

APPROVE the site development and building plans submitted by Crew Carwash for a 4,512 sqft self-serve carwash facility w/ 345 sqft kiosk & canopy located at N96 W17500 County Line Road subject to the following conditions:

1. This approval is for the various plan sheets that comprise the site plan set as noted below and is subject to compliance with all the conditions and requirements set forth herein and subsequently adopted and/or revised by the Plan Commission. Approval is granted for the following unless superseded by subsequent plan sheets approved by Village Staff pursuant to revisions required herein and/or by the Plan Commission:
   a. Architectural plans dated January 12, 2024;
   b. Civil Engineering plans dated February 12, 2024;
   c. Landscaping plans dated February 12, 2024;
   d. Lighting plans (photometric plan) dated February 12, 2024;

   If revised plan sheets are necessary, each revised sheet shall contain the date of said revision clearly stamped in the lower right corner.

2. Additional landscaping shall be shown in a revised landscape plan review and approved by the Village Forester, including:
   a. along the north property to reasonably replace the existing screen hedge.
   b. Per municipal code 17.43(c) around the perimeter of the site with plantings along the east boundary, the northwest, or southwest corners of the property.

3. The mulch in the landscaping beds shall be wood mulch and not decorative stone.

4. Tree planting detail on sheet C1.4 shall be revised to include that root flare should be left exposed, moss/mulch line should be at or just below top of root ball.

5. The following tree species shall be substituted for the two (2) Acer platanoides and the two (2) Pyrus calleryana ‘Jaczam’. The Village has many Maple (Acer) trees and would benefit from an increased species diversity. Also, Pyrus calleryana has the potential to establish as an invasive tree species in Wisconsin. Acceptable substitutes: Common Hackberry (Celtis Occidentalis), Kentucky Coffeetree (seedless) (Gymnocladus dioicus), London Planetree (Platanus x acerifolia), Tulip tree (Liriodendron tulipifera), Oak spp. (Quercus)

6. The technical issues and plan revisions identified in the April 3, 2024 memo from the Village Engineer shall be addressed in revised plan sheets and/or supplemental documents as necessary prior to commencing construction activities and issuance of building permits (excluding site demolition, early

start site preparation, and footing & foundation installation).

7. 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 and may be used as an alternative to provide all commercial plan review and inspection services through SAFEBuilt of WI and the Village of Germantown.

TABLE the action on the sign package pending re-submittal of a sign permit application and code-compliant signs

Engineering Department Memorandum

To: **Jeff Retzlaff**

From: **Kevin Driscoll, P.E.**

Date: **April 3, 2024**

Re: **Planning Commission Item Review – Crew Carwash**
Site Plan Review - N96 W17500 COUNTY LINE RD - Parcel GTNV_334990

Items Reviewed:

1. Civil Plan Set Dated: 02-12-2024
2. Storm Water Management Plan Dated: 02-12-24

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. The project will require DSPS plumbing system review and approval. Please provide a copy of the DSPS approval prior to engineering approval.
4. A professional engineer's original seal is to be affixed, signed and dated on the final set of construction plans.
5. Utility permits and permits for work within the ROW are required. Contact the Village engineering department to obtain permits.
6. As-builts prepared to Village standards shall be prepared and provided to the Village post-construction (for all applicable items).
7. 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.

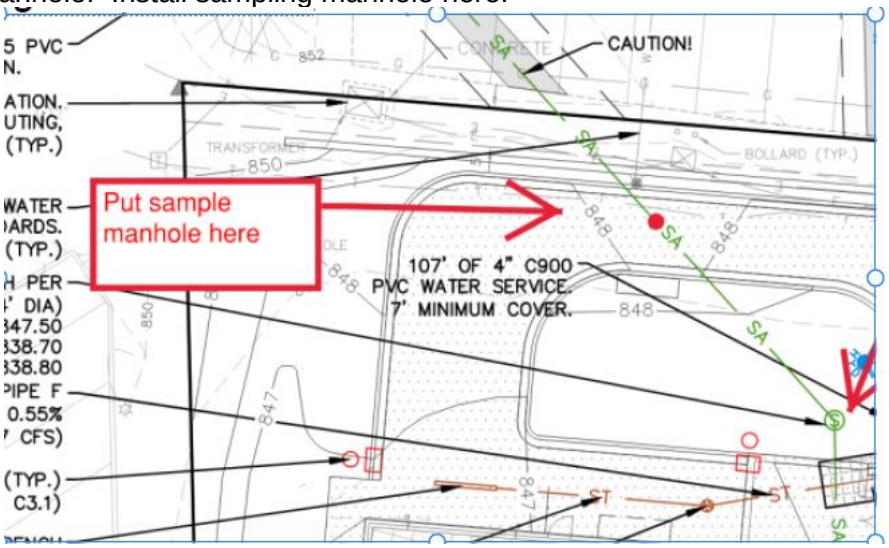
Water Utility Comments

1. Sheet C1.3, Explain the need for a separate sprinkler line. Normal set up is one line and the sprinkler is split off in the mechanical room.
2. Sheet C1.3, describe the dash lines around the sewer and water lines, just making sure this is not a reference for a utility easement.

3. We will require a review of the meter room for adequate space and installation requirements.
4. Call out gate valve to be Mueller onto a 8" x 6" Tapping saddle with a S.S. MJ spigot outlet.
5. Remove existing water lateral from the water main, install a full circumference Hymax repair clamp over CC tap hole. minimum 8" x 20"

Wastewater Utility Comments:

1. Change of direction is not allowed in the sampling manhole. Change sampling manhole to a private manhole. Install sampling manhole here.



2. Connection to existing manhole to be made via outside drop to invert of the manhole.

C1.3 Utility Plan

1. Copies of executed sewer and water easements are required prior to engineering plan approval.
2. Add a trench drain at the exit of the car wash to capture water before draining to the ROW.

Stormwater Management Plan

1. Include disturbance in the ROW and utility installation to the north and confirm the disturbance remains under 1 acre.
2. Drainage area to proposed rain garden exceeds the max allowed per WDNR technical standard 1009. Adjust to meet technical standard requirements or add a piped outlet.

Village of Germantown
Willkommen

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_____

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

Crew Carwash
11700 Exit 5 Pkwy
Fishers, IN 46037

Phone (317) 572-2408
E-Mail katherine.rayner@crewcarwash.com

PROPERTY OWNER

Nomies Investments LLC
N96 W17500 County Line Rd
Germantown, WI 53022

Phone ( )
E-Mail

2 PROPERTY ADDRESS

N96 W17500 County Line Road

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

North	South	East	West
Super 8-Business/Hotel	ROW	Landmark Credit Union-Business/Bank	McDonald's-Business/Restaurant

4 READ AND INITIAL THE FOLLOWING:

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

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

RR 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

2/9/24
Applicant Date

DocuSigned by:
1A6C429E20BF410...
2/9/2024
Owner Date

SITE PLAN REVIEW CHECKLIST

Pursuant to Section 17.43 of the Municipal Code

This checklist provides a summary of requirements found in the Municipal Code. It is intended purely as a guide for developers and should not substitute for a full review of the Code and applicable regulations. (Revised 1/02)

GENERAL INFORMATION

- [x] Provide Completed Checklist with submittal
- [x] Names and addresses of owner/developer/designer
- [x] Graphic scale, north arrow
- [x] Location sketch
- [x] Size of site (gross and net acreage)
- [x] Existing zoning
- [x] Adjacent zoning and uses
- N/A [ ] Number of residents (subdivisions)
- [x] Number of employees

EXISTING SITE INFORMATION

- [x] Dimensions of site and lot lines (pipes found, pipes set, monuments)
- [x] Existing grades (2' contours minimum)
- [x] Adjacent property grades (within 10' minimum of property lines)
- [x] Adjacent structures (within 20' minimum of property lines)
- [x] Drainage systems and structures
- [x] Natural features (woods, streams, lakes, ponds, outcroppings)
- N/A [ ] Wetland boundaries (provide date of staking)
- N/A [ ] Floodplain elevation and boundaries
- [x] Environmental concerns (underground tanks, etc)
- [x] Roads, curbs, parking lots, pavement areas
- [x] Structures (location, size)
- [x] Rights-of-Way (existing/ultimate)
- [x] Easements (drainage, utility)
- [x] Existing utilities (sanitary, water, electric, gas, telephone)
- [x] Benchmark locations and elevations
- [x] Location of fences, wells, borings, etc

ARCHITECTURAL PLANS

- [x] Existing building location
- [x] Existing building elevations/materials
- [x] Proposed use (use list from Section 17.45)
- [x] Statement of design intent (narrative)
- [x] Proposed floor plans (dimension)
- [x] Square footage (total and individual rooms/stores)
- [x] Proposed elevations (dimension)
- [x] Proposed building height
- [x] Proposed materials and colors (material sample board required for new construction)
- [x] Proposed signage (elevations, color, square footage, height, construction material, lighting)
- [x] Details of any special features

PROPOSED SITE PLAN

- [x] Grading and spot elevations
- [x] Erosion control measures (silt fencing, hay bales, rip-rap, tracking mat, stockpile locations)
- [x] Stormwater management
  - stormwater management design report
  - general drainage pattern
  - swales w/ arrows for direction of flow
  - pond design with outfalls
  - culverts (location/size)
- [x] Utilities (size, invert elevations, length, slope, etc.)
  - -- sanitary
  - -- water
  - -- stormsewer
- [x] Building location (dimension)
- [x] Building elevation (finished grade)
- [x] Location of proposed signage
- [x] Details of outside storage (including trash receptacles)
- [x] Setbacks (clearly marked and dimensioned)
- [x] Vehicular entrances (dimension to centerline of nearest intersection)
- [x] Streets (dimension and direction for one-ways)
- [x] Curve radii
- [x] Sidewalks (dimension)
- [x] Parking areas (show striping/spot elevations)
- [x] Parking setback from property line
- [x] Loading areas (dimension)
- [x] Lot coverage
  - Square footage total
  - Impervious surfaces total (%)
  - Green space total (%)
  - Percent permitted (over/under %)
- [x] Municipal utility connections
  - Sanitary sewer (pipe size/elevations)
  - Water (size, valve location, elevations)
  - Location of hydrants
- [x] Easement for public water mains

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LIGHTING PLAN

- [x] Major improvements for context
- [x] Location/nature of existing fixtures
- [x] Location of proposed fixtures
- [x] Photometric report (to scale on plan)
- [x] Manufacturers cut-sheets of all fixtures
- [x] Lighting schedule
  - key to plan
  - number/type of fixtures
  - output (wattage)
- [x] Installation details as appropriate

LANDSCAPING PLAN

- [x] Major improvements for context (building, drives, walks)
- [x] Proposed outdoor amenities (benches, paths, etc.)
- [x] Existing vegetation
  - Species
  - Size
  - Approximate canopy in plan
- [x] Vegetation to be destroyed
  - List and show location
- [x] Proposed method of saving existing vegetation during construction
- [x] Proposed landscape features (berms, fountains)
- [x] Existing/proposed lighting
- [x] Irrigation/watering systems (locate outlets)
- [x] Plant lists or schedules
  - Keyed to plan
  - Number of each species
  - Size when planted (caliper)
- [x] Installation details/staking

MODEL SUBMITTAL INCLUDES THE FOLLOWING PLANS:

1. Cover / Title Page
2. Existing Conditions Survey
3. General Site Plan
4. Grading, Paving & Erosion Control Plan
5. Utility Plan
6. Site Details (curbing, catch basins, detention ponds, pavement, erosion control and sign details)
7. Landscape Plan
8. Landscape details (planting schedule, berming cross-sections, method of installation)
9. Lighting Plan
10. Floor Plan
11. Exterior Building Elevations
12. Building Material Sample Board

In addition to the items on this list, Village Staff and/or the Plan Commission may require additional drawings and data to be submitted for approval.

If any public improvements or work is to be done in the Public Right-of-Way, the Village will require that a Developer's Agreement be submitted and approved by the Village Board.

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Village of Germantown
Willkommen

Fee must accompany application

☒ **$1460** Paid _____ Date_____

CONDITIONAL USE PERMIT APPLICATION

Pursuant to Section 17.42 of the Municipal Code

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

1 APPLICANT OR AGENT

Crew Carwash
11700 Exit 5 Pkwy
Fishers, IN 46037

Phone (317) 572-2408
Fax ( )
E-Mail katherine.rayner@crewcarwash.com

PROPERTY OWNER

Nomies Investments LLC
N96 W17500 County Line Rd
Germantown, WI 53022

Phone ( )

2 TO WHOM SHOULD THE PERMIT BE ISSUED?

Crew Carwash

3

PROPERTY ADDRESS	TAX KEY NUMBER
N96 W17500 County Line Road	334990

4 DESCRIPTION OF EXISTING OPERATION

Briefly describe the use as it exists today, including use, size, number of employees, hours of operation, etc. If this permit involves new construction, describe the current status of the property, e.g. "vacant." Use additional pages as necessary.

Existing BP gas station to be demolished for construction of carwash.

5 DESCRIPTION OF PROPOSED OPERATION

Write the name of the proposed conditional use exactly as it appears in the Municipal Code

Self-Serve Carwash

Describe the proposed use, including size, number of employees, hours of operation and extent of any new construction/alterations

A 4,512 SF self-serve carwash with 346 SF kiosk. Location to staff approximately 20-25 team members with 2-5 team members per shift. Each day operation of the carwash from 7:00am-9:00pm. See narrative for additional information.

6 METES AND BOUNDS LEGAL DESCRIPTION OF PROPERTY – REQUIRED

Attach pages as necessary

See attached.

7 SUPPORTING DOCUMENTATION:

- ☐ Site Plan and elevations for new construction (can be conceptual)
- ☐ Photos of existing use and/or proposed use operating elsewhere
- ☐ _____
- ☐ _____

8 READ AND INITIAL THE FOLLOWING:

KR I understand that the Village is under no obligation to issue a Conditional Use Permit and will do so only if the applicant successfully demonstrates that the proposed use is harmonious with the neighborhood and the long range goals of the Village.

KR I will notify the Village if any aspects of the conditional use changes. I understand that failure to do so may result in the revocation of the CUP.

KR I understand that a Conditional Use Permit is valid only if the conditions and restrictions of the permit are met. I understand that failure to comply with any aspect of the permit may result in revocation.

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 being 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 timeframe.

9 SIGNATURES – ALL APPLICATIONS MUST BE SIGNED BY OWNER!

KRaymond 2/9/24
Applicant Date

DocuSigned by:
2/9/2024
Owner 9A6C429E20BF410... Date

February 12, 2024

Project Narrative

Project: Crew Carwash
N96 W17500 County Line Road
Germantown, WI 53022

Crew Carwash is requesting Site Plan Review, Architectural Review, and Conditional Use Permit review and approval for a new carwash located at N96 W17500 County Line Road in the Village of Germantown. A BP gas station currently exists on the site and will be demolished as a part of the proposed project. The property is zoned B-5, Highway Business with Highway Interchange Area Overlay and the proposed self-serve carwash use requires Conditional Use Permit approval.

Founded in 1948, Crew Carwash is a family-owned business based in Indiana, currently has 45 locations, and is actively growing. Crew carwashes feature the most advanced technology available, specially formulated detergents, soft cloth, computer-controlled equipment, and special touchless hot air dryers. Crew carwashes utilize 40 percent recycled water and 60 percent fresh water due to water reclamation systems that filter, clean and re-use some of the water in the wash process. At Crew Carwash locations, used water runs directly to a unique collection system that filters the water and removes harmful sediments and oil before it reaches the local sanitary sewer. All cleaning and drying functions are contained inside the facility. The customer remains in the car riding on a conveyor belt the entire way through the tunnel and exits the facility themselves. Self-serve vacuum stations are provided for customers at no charge.

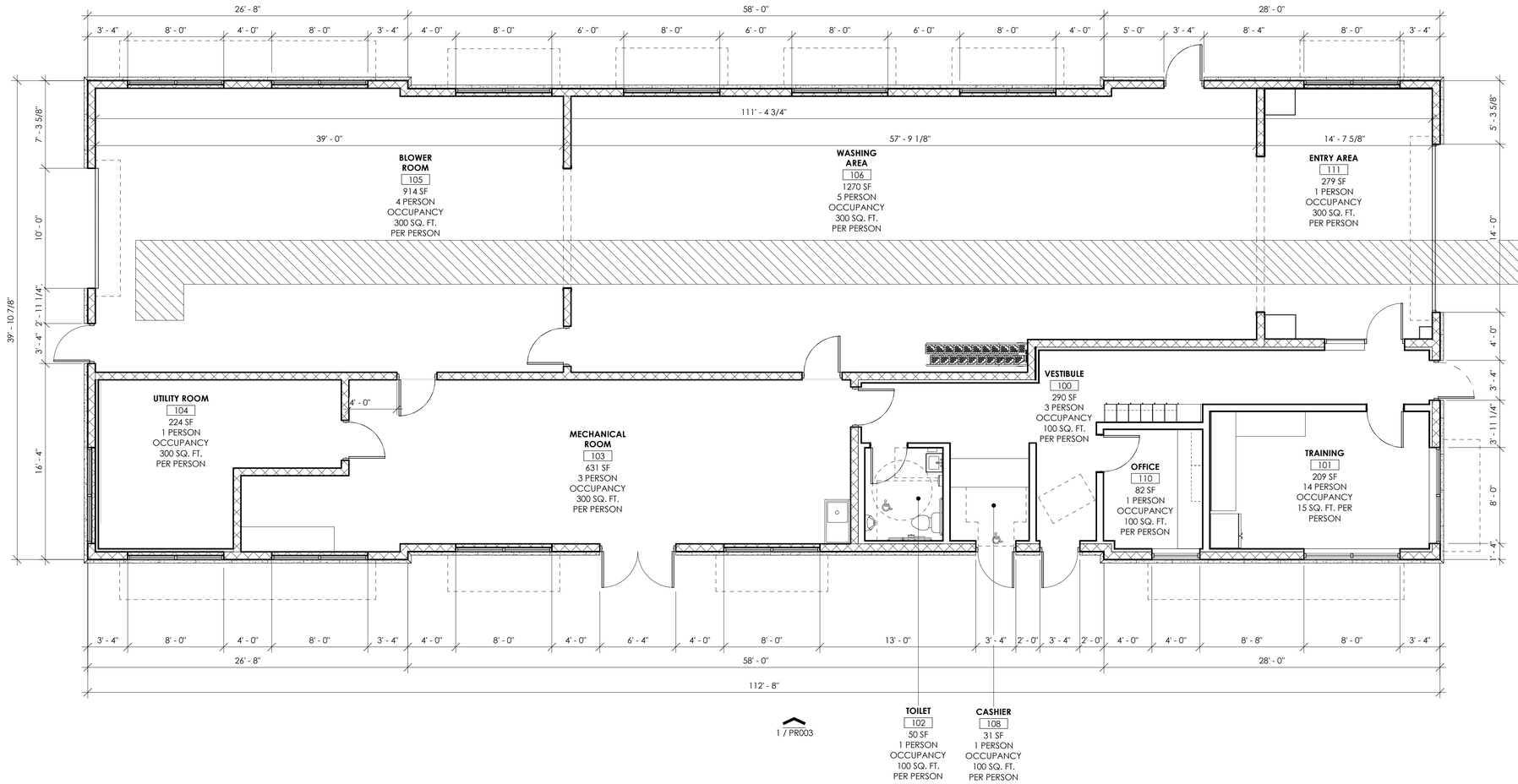
Crew invests approximately six-million dollars per facility and is a community-oriented company. Typically, each location staffs 20 to 25 highly trained and motivated team members with two (2) to five (5) team members per shift and two (2) to three (3) shifts each day operating the carwash from 7 AM to 9 PM. Once all appropriate approvals and permits are granted, the construction timeline is typically six (6) months.

The proposed project will include a proposed carwash building with vehicle queuing located to the far east of the site and vacuum parking stalls located to the east of the carwash facility. The proposed carwash will be 4,512 SF and the proposed kiosk will be 346 SF on a 1.00 acre site with approximately 0.99 acres of site disturbance. Building materials and colors are detailed in the included elevations and will consist of red ground face masonry and buff limestone with an architectural aluminum wall system tower in pewter mica. Clear anodized aluminum storefront and glazing is proposed. Overhead accent canopies above the windows will also be pewter mica in color. The waste enclosure gates will be Trex board in winchester gray, while the gates will consist of brick to match the main building structure.

Proposed drainage patterns will match the existing site drainage patterns. Stormwater will be conveyed via sheet flow to various new inlet structures that will convey stormwater to the same discharge point as the current site condition at the south end of the site. A rain garden green infrastructure BMP will be located at the southeast corner of the site to meet local stormwater management requirements.

The proposed development will fit in to this existing commercially developed area. The building and site will blend in with and enhance the character of the neighborhood. The property will be transformed into a commercial development that is aesthetically pleasing with high-quality exterior materials on the building along with landscaping designed to ensure species resiliency and complimentary style. Site lighting will be provided in a fashion that provides appropriate foot candles for safety with cut-off fixtures for minimal light trespass and directed inward toward the development. The site layout and internal circulation has been designed to provide adequate on-site customer vehicle queuing and efficient, safe circulation. The building and grounds will be well maintained. No hazards or nuisances to nearby neighbors are anticipated as a result of this project.

2 / PR003



1 / PR002

1 / PR003

2 / PR002

BUILDING FLOOR PLAN

CREW CARWASH, INC
N96 W17500 COUNTY LINE RD.
GERMANTOWN, WI 53022

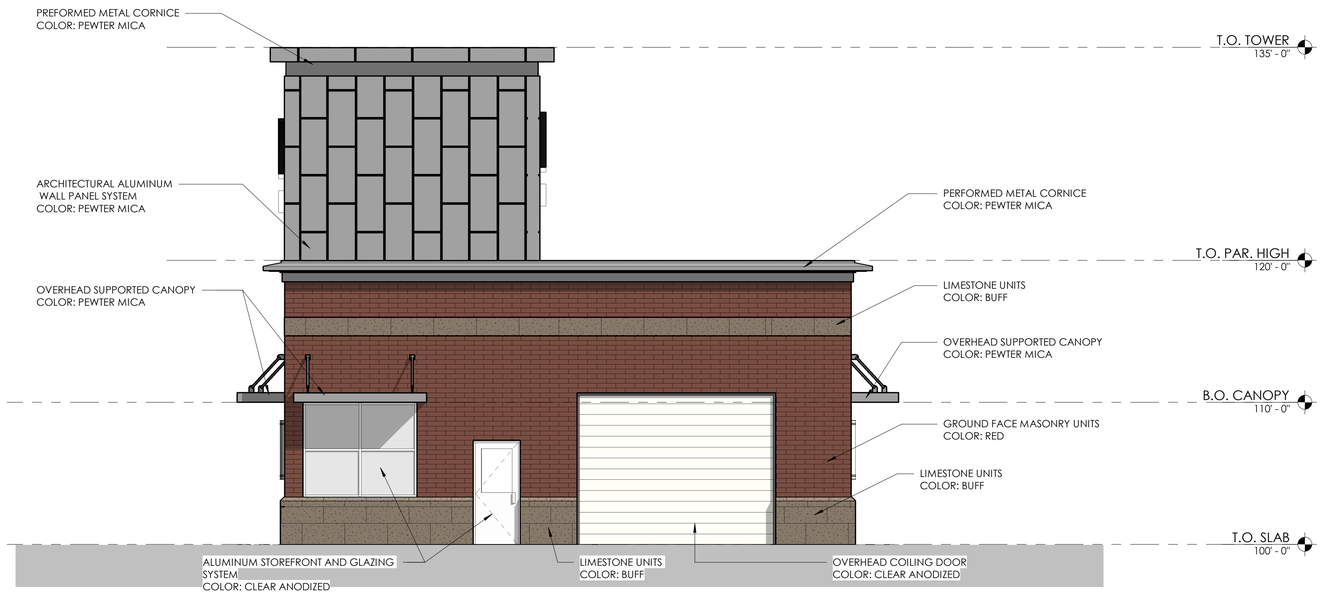
NORTH

01/12/2024

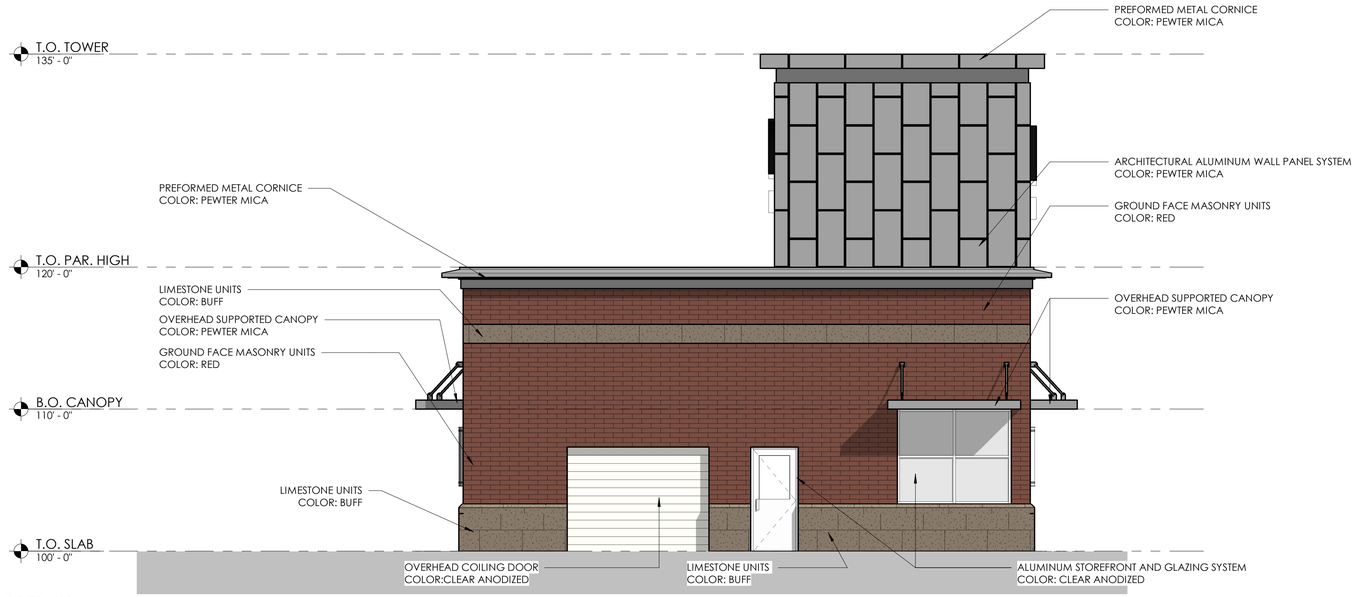
PRO2024

3/16" = 1'-0"

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NORTHEAST ELEVATION



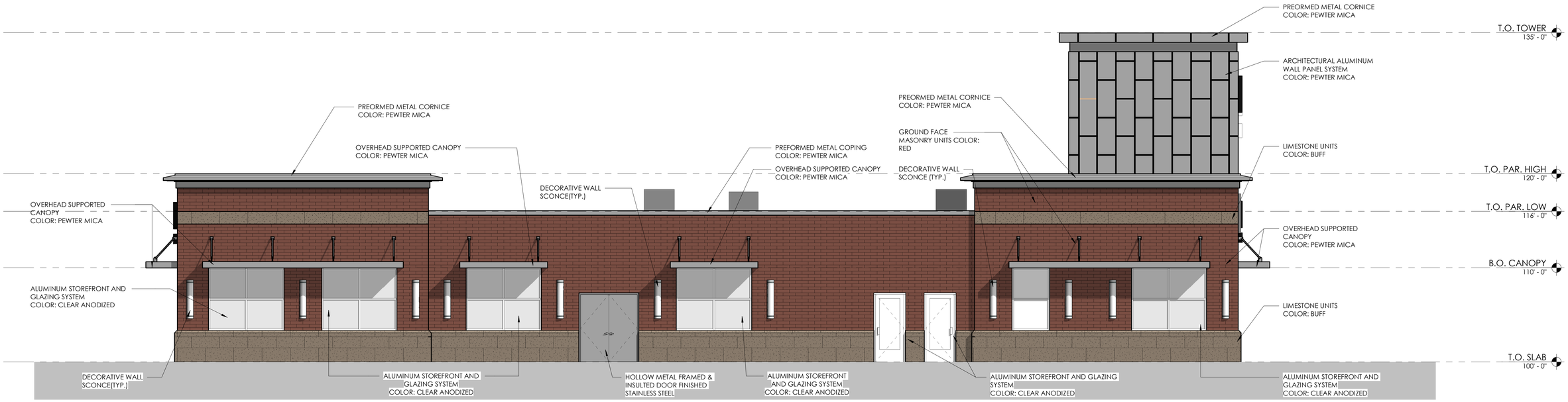
SOUTHWEST ELEVATION

CREW CARWASH - BUILDING ELEVATIONS

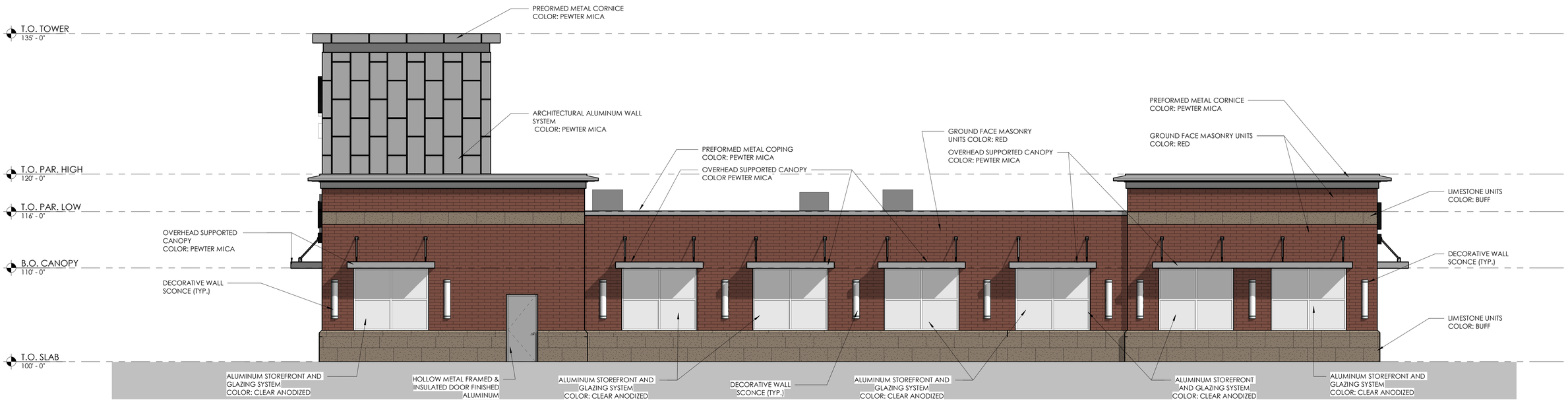
CREW CARWASH, INC
N96 W17500 COUNTY LINE RD.
GERMANTOWN, WI 53022

01/12/2024
PRO2024
3/16" = 1'-0"

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SOUTHEAST ELEVATION



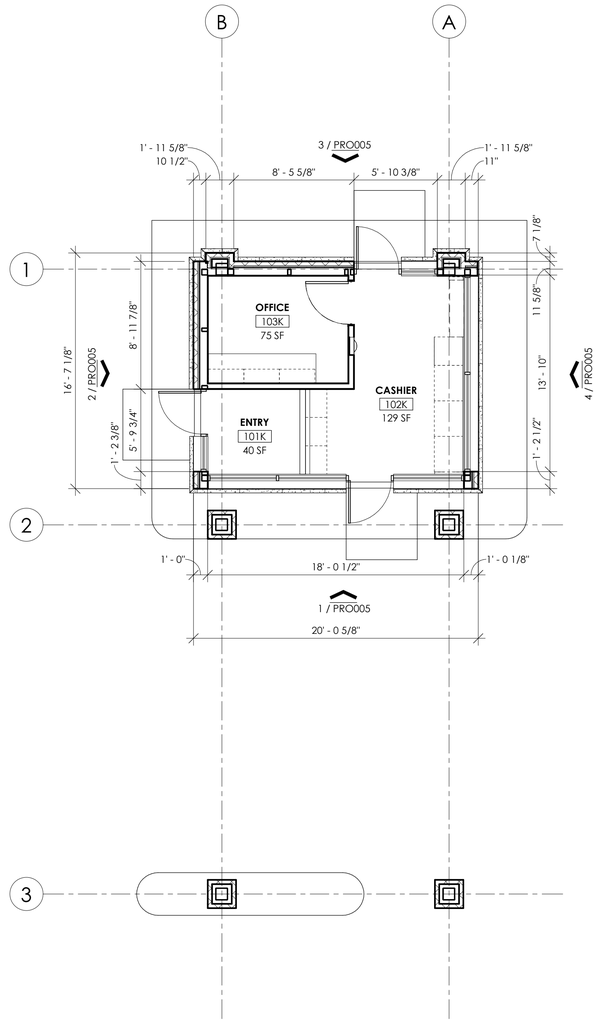
NORTHWEST ELEVATION

CREW CARWASH - BUILDING ELEVATIONS

CREW CARWASH, INC
N96 W17500 COUNTY LINE RD.
GERMANTOWN, WI 53022

01/12/2024
PRO2024
3/16" = 1'-0"

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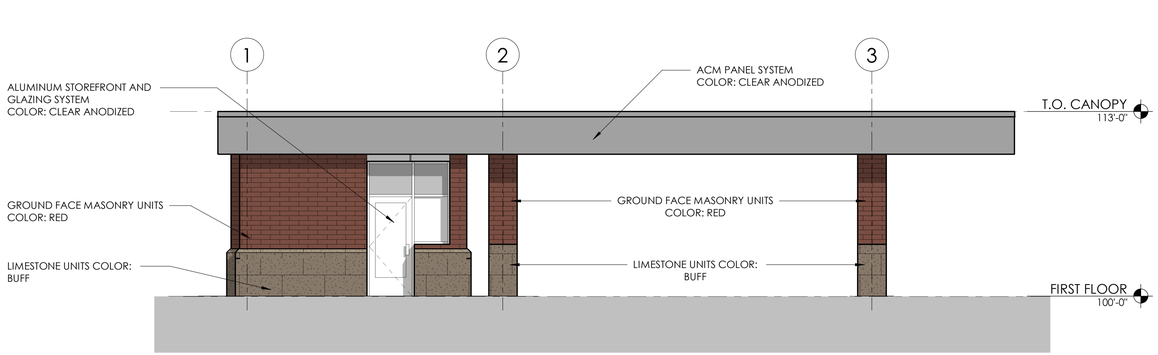
CREW CARWASH - KIOSK FLOOR PLAN

CREW CARWASH, INC
N96 W17500 COUNTY LINE RD.
GERMANTOWN, WI 53022

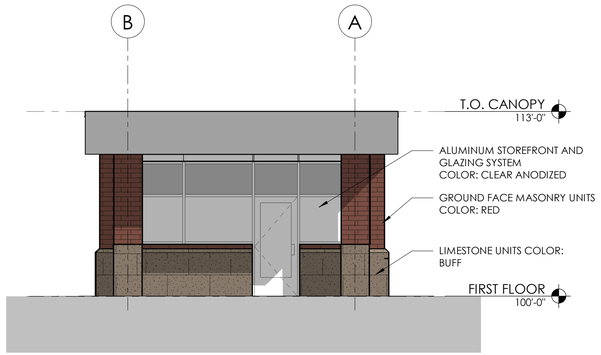
NORTH

01/12/24
PRO2024
3/16" = 1'-0"

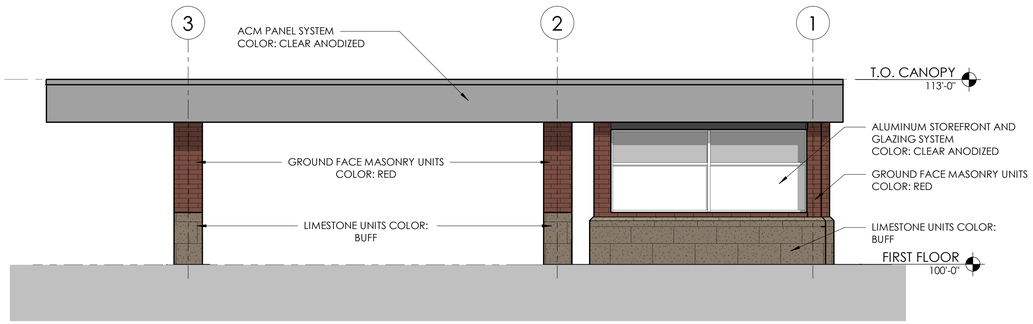
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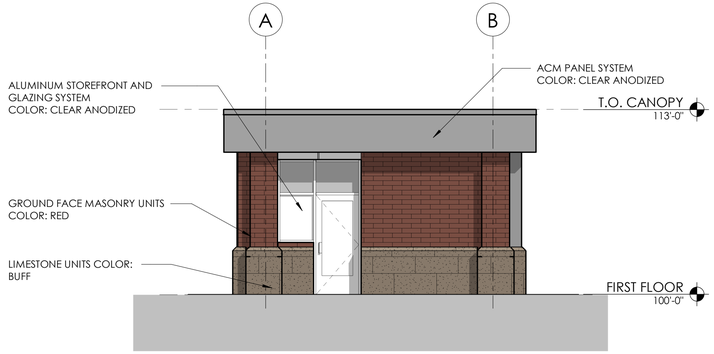
2 KIOSK - ENTRY
3/16" = 1'-0"



1 KIOSK - SOUTHEAST ELEVATION
3/16" = 1'-0"



4 KIOSK - EXIT
3/16" = 1'-0"



3 KIOSK - NORTHWEST ELEVATION
3/16" = 1'-0"

CREW CARWASH - KIOSK ELEVATIONS

CREW CARWASH, INC
N96 W17500 COUNTY LINE RD.
GERMANTOWN, WI 53022

01/12/24
PRO2024
3/16" = 1'-0"

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PROPOSED CAR WASH FOR:
CREW CARWASH
GERMANTOWN, WISCONSIN

LEGEND

- 000.00 — PROPOSED SPOT ELEVATIONS (FLOW LINE OF CURB UNLESS OTHERWISE SPECIFIED)
- 000.00 EG — EXISTING GRADE SPOT ELEVATIONS
- 000.00 BG / 000.00 FG — PROPOSED SPOT ELEVATIONS (REFERENCE R–WALL DETAIL) BG–FINISHED SURFACE GRADE AT BACK OF WALL FG–FINISHED SURFACE GRADE AT FRONT OF WALL
- 000.00 TC / 000.00 FL — PROPOSED SPOT ELEVATIONS (TOP OF CURB, FLOWLINE OF CURB)
- 000.00 TW / 000.00 BW — PROPOSED SPOT ELEVATIONS (TOP OF WALK, BOTTOM OF WALK @ FLOWLINE)
- EXISTING WATER VALVE IN BOX
- PROPOSED WATER VALVE IN BOX
- EXISTING WATER VALVE IN MANHOLE
- EXISTING WATER SERVICE VALVE
- EXISTING TELEPHONE MANHOLE
- EXISTING STORM CATCH BASIN
- PROPOSED STORM CATCH BASIN — ST CB
- PROPOSED STORM FIELD INLET — ST FI
- EXISTING SQUARE CATCH BASIN
- EXISTING STORM CURB INLET
- PROPOSED STORM CURB INLET — ST CI
- EXISTING UTILITY POLE
- EXISTING UTILITY POLE WITH GUY WIRE
- EXISTING STREET LIGHT
- EXISTING TELEPHONE PEDESTAL
- EXISTING ELECTRIC PEDESTAL
- EXISTING ELECTRIC BOX
- EXISTING CABLE TV PEDESTAL
- PROPOSED DRAINAGE FLOW
- 1–1/4" REBAR SET WEIGHING 4.30 LB/FT.
- 3/4" REBAR SET WEIGHING 1.50 LB/FT.
- 1–1/4" REBAR FOUND
- 3/4" REBAR FOUND
- 2" IRON PIPE FOUND
- 1" IRON PIPE FOUND
- EXISTING FLOOD LIGHT
- SECTION CORNER
- PROPOSED APRON END SECTION
- EXISTING MARSH AREA
- EXISTING DECIDUOUS TREE WITH TRUNK DIAMETER
- EROSION MATTING
- IP — PROPOSED INLET PROTECTION

- EXISTING CONIFEROUS TREE
- EXISTING SHRUB
- EXISTING STUMP
- SOIL BORING
- EXISTING WELL
- PROPOSED WELL
- PROPOSED LIGHT POLE
- EXISTING LIGHT POLE
- PROPOSED SIGN
- EXISTING SIGN
- CENTER LINE
- EXISTING HANDICAP PARKING STALL
- PROPOSED HANDICAP PARKING STALL
- EXISTING GAS VALVE
- EXISTING WOODED AREA
- EXISTING HEDGE
- EXISTING CHAINLINK FENCE
- EXISTING WOOD FENCE
- EXISTING BARBED WIRE FENCE
- PROPOSED PROPERTY LINE
- EXISTING GUARD RAIL
- ST — EXISTING STORM SEWER AND MANHOLE
- ST — PROPOSED STORM SEWER AND MANHOLE — ST MH
- SA — EXISTING SANITARY SEWER AND MANHOLE
- SA — PROPOSED SANITARY SEWER AND MANHOLE — SAN MH
- W — EXISTING WATER LINE AND HYDRANT
- W — PROPOSED WATER LINE AND HYDRANT
- OU — EXISTING OVERHEAD UTILITY LINE
- FO — EXISTING UNDERGROUND FIBER OPTIC LINE
- E — EXISTING UNDERGROUND ELECTRIC CABLE
- T — EXISTING UNDERGROUND TELEPHONE CABLE
- G — EXISTING UNDERGROUND GAS LINE
- PROPOSED CURB AND GUTTER
- EXISTING CURB AND GUTTER
- GRADING/SEEDING LIMITS
- RIGHT–OF–WAY LINE
- INTERIOR PROPERTY LINE
- RAILROAD TRACKS
- 800 — EXISTING GROUND CONTOUR
- 800 — PROPOSED GROUND CONTOUR

PLAN SPECIFICATIONS (BASED ON CSI FORMAT)

DIVISION 31 EARTH WORK

31 10 00 SITE CLEARING (DEMOLITION)

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

31 20 00 EARTH MOVING

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

31 30 00 EROSION CONTROL

A. THE GRADING PLAN REFLECTS LESS THAN 1 ACRE OF DISTURBED AREA. THE SITE IS THEREFORE EXEMPT FROM WISCONSIN DEPARTMENT OF NATURAL RESOURCES NR 216 NOTICE OF INTENT REQUIREMENTS. THE DESIGN ENGINEER SHALL PREPARE AN EROSION CONTROL PLAN TO MEET NR 151.105 CONSTRUCTION SITE PERFORMANCE STANDARDS FOR NON-PERMITTED SITES.
B. EROSION AND SEDIMENT CONTROL IMPLEMENTED DURING CONSTRUCTION SHALL STRICTLY COMPLY WITH THE GUIDELINES AND REQUIREMENTS SET FORTH IN WISCONSIN ADMINISTRATIVE CODE (W.A.C.) NR 151, THE STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES RUNOFF MANAGEMENT PERFORMANCE STANDARDS. TECHNICAL STANDARDS PUBLISHED BY THE WISCONSIN DNR SHALL ALSO BE UTILIZED TO IMPLEMENT THE REQUIRED PERFORMANCE STANDARDS. THE METHODS AND TYPES OF EROSION CONTROL WILL BE DEPENDENT ON THE LOCATION AND TYPE OF WORK INVOLVED. ALL SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION, AND INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. BELOW IS A LIST OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES TO ACHIEVE THE PERFORMANCE STANDARDS REQUIRED.
   1. SILT FENCE SHALL BE PLACED ON SITE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. SILT FENCE SHALL ALSO BE PROVIDED AROUND THE PERIMETER OF ALL SOIL STOCKPILES THAT WILL EXIST FOR MORE THAN 7 DAYS. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1056 (CURRENT EDITION).
   2. DITCH CHECKS SHALL BE PROVIDED TO REDUCE THE VELOCITY OF WATER FLOWING IN DITCH BOTTOMS. PLACE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1062 (CURRENT EDITION).
   3. STONE TRACKING PADS AND TRACKOUT CONTROL PRACTICES SHALL BE PLACED AT ALL CONSTRUCTION SITE ENTRANCES AND SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE CONSTRUCTION SITE. SEE THE EROSION CONTROL PLAN FOR LOCATIONS. THE AGGREGATE USED FOR THE STONE TRACKING PAD SHALL BE 3/8" TO 3 INCH CLEAR OR WASHED STONE AND SHALL BE PLACED IN A LAYER AT LEAST 12 INCHES THICK. THE STONE SHALL BE UNDERLAIN WITH A WISDOT TYPE R GEOTEXTILE FABRIC AS NEEDED. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT (OR MIN WIDTH) AND SHALL BE A MINIMUM OF 50 FEET LONG. SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. OTHER TRACKOUT CONTROL PRACTICES INCLUDING STABILIZED WORK SURFACES, MANUFACTURED TRACKOUT CONTROL DEVICES, TIRE WASHING, AND STREET/PAVEMENT CLEANING SHALL BE IMPLEMENTED AS NECESSARY TO MITIGATE THE TRACKOUT OF SEDIMENT OFFSITE. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1057 (CURRENT EDITION).
   4. STORM DRAIN INLET PROTECTION SHALL BE PROVIDED FOR ALL NEW AND DOWNSTREAM STORM CATCH BASINS AND CURB INLETS. TYPE B OR C PROTECTION SHOULD BE PROVIDED AND SHALL BE IN CONFORMANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1060 (CURRENT EDITION).
   5. DUST CONTROL MEASURES SHALL BE PROVIDED TO REDUCE OR PREVENT THE SURFACE AND AIR TRANSPORT OF DUST DURING CONSTRUCTION. CONTROL MEASURES INCLUDE APPLYING MULCH AND ESTABLISHING VEGETATION, WATER SPRAYING, SURFACE ROUGHENING, APPLYING POLYMERS, SPRAY-ON TACKIFIERS, CHLORIDES, AND BARRIERS. SOME SITES MAY REQUIRE AN APPROACH THAT UTILIZES A COMBINATION OF MEASURES FOR DUST CONTROL. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1068 (CURRENT EDITION).
   6. THE USE, STORAGE, AND DISPOSAL OF CHEMICALS, CEMENT, AND OTHER COMPOUNDS AND MATERIALS USED ON SITE SHALL BE MANAGED DURING THE CONSTRUCTION PERIOD TO PREVENT THEIR TRANSPORT BY RUNOFF INTO WATERS OF THE STATE.
   7. CONTRACTOR SHALL PROVIDE AN OPEN AGGREGATE CONCRETE TRUCK WASHOUT AREA ON SITE. CONTRACTOR TO ENSURE THAT CONCRETE WASHOUT SHALL BE CONTAINED TO THIS DESIGNATED AREA AND NOT BE ALLOWED TO RUN INTO STORM INLETS OR INTO THE OVERLAND STORMWATER DRAINAGE SYSTEM. WASHOUT AREA SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION.
   8. TEMPORARY SITE RESTORATION SHALL TAKE PLACE IN DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 14 DAYS AND REQUIRES VEGETATIVE COVER FOR LESS THAN ONE YEAR. THIS TEMPORARY SITE RESTORATION REQUIREMENT ALSO APPLIES TO SOIL STOCKPILES THAT EXIST FOR MORE THAN 7 DAYS. PERMANENT RESTORATION APPLIES TO AREAS WHERE PERENNIAL VEGETATIVE COVER IS NEEDED TO PERMANENTLY STABILIZE AREAS OF EXPOSED SOIL. PERMANENT STABILIZATION SHALL OCCUR WITHIN 3 WORKING DAYS OF FINAL GRADING. TOPSOIL, SEED, AND MULCH SHALL BE IN GENERAL CONFORMANCE WITH TECHNICAL STANDARDS 1058 AND 1059 AND SHALL MEET THE SPECIFICATIONS FOUND IN THE LANDSCAPING AND SITE STABILIZATION SECTION OF THIS CONSTRUCTION DOCUMENT. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR FINAL STABILIZATION MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
   9. IF SITE DEWATERING IS REQUIRED FOR PROPOSED CONSTRUCTION ACTIVITIES, ALL SEDIMENT LADEN WATER GENERATED DURING THE DEWATERING PROCESS SHALL BE TREATED TO REMOVE SEDIMENT PRIOR TO DISCHARGING OFF-SITE OR TO WATERS OF THE STATE. FOLLOW ALL PROCESSES FOUND IN TECHNICAL STANDARD 1061.
   10. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR A STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH WORKING DAY. DUST CONTROL REQUIREMENTS SHALL BE FOLLOWED PER WI DNR TECHNICAL STANDARD 1068 (CURRENT EDITION); FLUSHING SHALL NOT BE ALLOWED.
C. ALL EROSION CONTROL DEVICES SHALL AT A MINIMUM BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24 HOUR PERIOD. MAINTENANCE SHALL BE PERFORMED PER WISCONSIN ADMINISTRATIVE CODE (W.A.C.) NR 151 STORMWATER MANAGEMENT TECHNICAL STANDARD REQUIREMENTS.
D. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL THE AREA(S) SERVED HAVE ESTABLISHED VEGETATIVE COVER.
E. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL EROSION CONTROL PERMITS.

DIVISION 32 EXTERIOR IMPROVEMENTS

32 10 00 AGGREGATE BASE & ASPHALT PAVEMENT

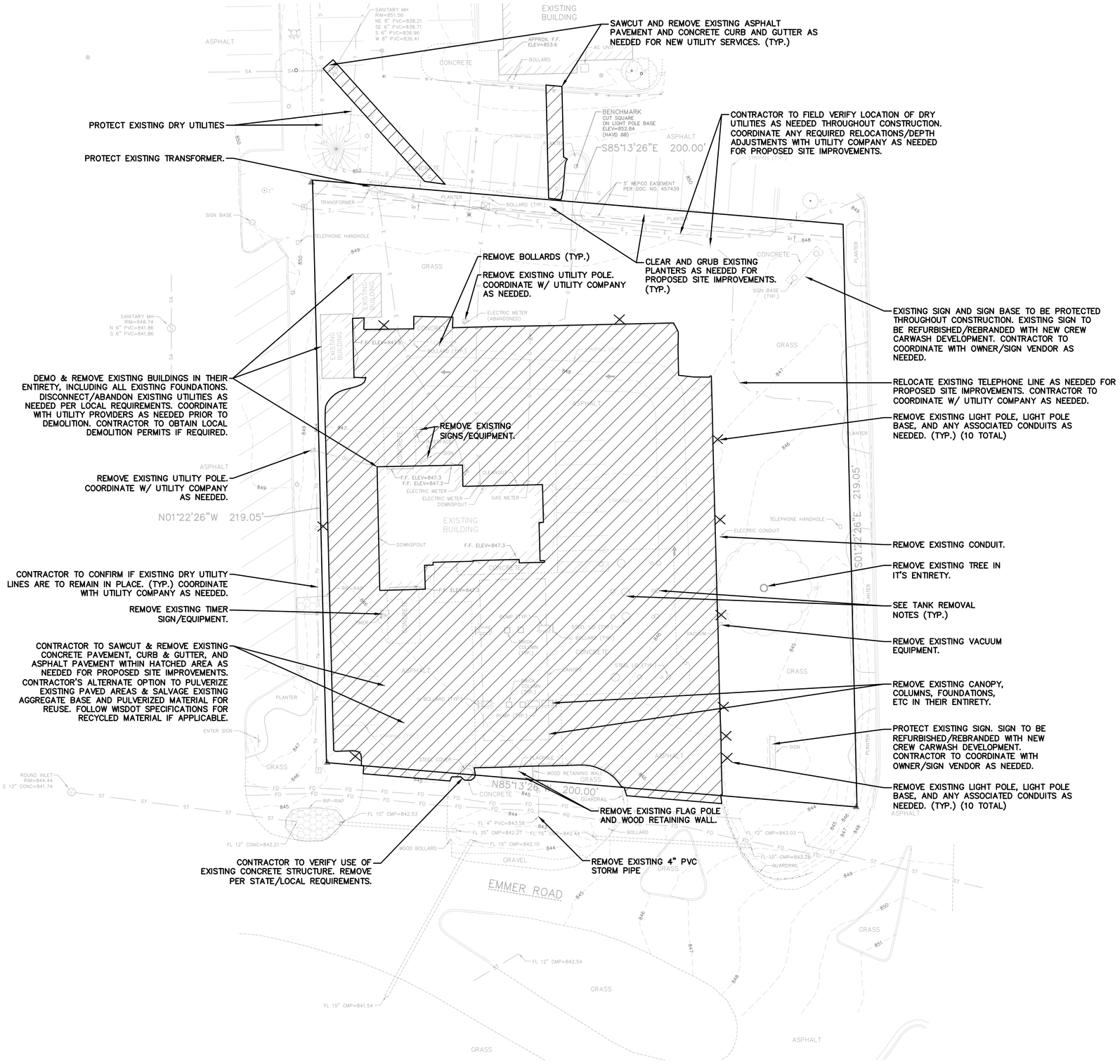
A. CONTRACTOR TO PROVIDE COMPACTED AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT WHERE INDICATED ON THE PLANS. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. PROVIDE HOT MIX ASPHALT MIXTURE TYPES PER SECTION 460 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. CONTRACTOR TO PROVIDE AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT TYPES TO MATCH THE EXISTING PAVEMENT SECTION WHERE REMOVAL AND REPLACEMENT IS REQUIRED IN ACCORDANCE WITH LOCAL STANDARDS.
B. CONTRACTOR TO COMPACT THE AGGREGATE BASE, ASPHALT BINDER COURSE, AND ASPHALT SURFACE COURSE TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL ASPHALT PAVEMENT AREAS SHALL BE PAVED TO WITHIN 0.05' OF DESIGN SURFACE GRADES WITH POSITIVE DRAINAGE BEING MAINTAINED IN ACCORDANCE WITH DESIGN PLANS.
C. HOT MIX ASPHALT CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF GEOTECHNICAL REPORT OR CONSTRUCTION DOCUMENTS.

32 20 00 CONCRETE AND AGGREGATE BASE

A. CONTRACTOR TO PROVIDE CRUSHED AGGREGATE BASE AND CONCRETE WHERE INDICATED ON THE PLANS.
B. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. CONCRETE MUST BE COMMERCIALLY MIXED TO MEET THE AVERAGE DESIGN PER WISCONSIN SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
C. DESIGN AND CONSTRUCTION OF ALL CAST-IN-PLACE EXTERIOR CONCRETE FLAT WORK SHALL CONFORM TO ACI 330R-08 & ACI 318-08.
D. EXTERIOR CONCRETE FLAT WORK CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF THE GEOTECHNICAL REPORT OR THIS SPECIFICATION. CONCRETE FLAT WORK CONSTRUCTION IS AS FOLLOWS:
   1. SIDEWALK CONCRETE - 5" OF CONCRETE OVER 4" OF 3/4" CRUSHED AGGREGATE BASE. CONTRACTION JOINTS SHALL CONSIST OF 1/8" WIDE BY 1" DEEP TOOLED JOINT WHERE INDICATED ON THE PLANS.
   2. HEAVY DUTY CONCRETE - 6" OF CONCRETE OVER 6" OF 3/4" CRUSHED AGGREGATE. CONCRETE SHALL BE REINFORCED WITH #3 REBARS ON CHAIRS AT 3'-0" C. REBAR SHALL BE PLACED PLACED IN THE UPPER 1/3 TO ½ OF THE SLAB. CONTRACTION JOINTS SHALL BE SAWCUT 1.5" IN DEPTH AND BE SPACED A MAXIMUM OF 15' ON CENTER.
   3. DUMPSTER PAD/APRON CONCRETE - 8" OF CONCRETE OVER 6" OF AGGREGATE BASE.
      a. CONCRETE SHALL BE STEEL REINFORCED WITH THE FOLLOWING AND PLACED IN THE UPPER 1/3 TO ½ OF THE SLAB:
         1). TIE BARS AT ALL CONTRACTION JOINTS OF THE CONCRETE. TIE BARS SHALL BE #4 REBAR 30" LONG PLACED AT 30" O.C.
      b. DUMPSTER PAD CONCRETE JOINTING SHALL BE AS FOLLOWS:
         1). CONTRACTION SAWCUT JOINT - CONTRACTOR SHALL PROVIDE A SAWCUT JOINT AT MAXIMUM SPACING OF 15' ON CENTER. SAWCUT SHALL BE 2" IN DEPTH.
         2). TYPICAL POUR CONTROL JOINT - POUR CONTROL JOINT SHALL BE PROVIDED WITH 1-1/4" DIAMETER BY 20" LONG SMOOTH DOWEL PLACED AT 12" O.C. ONE HALF OF THE DOWEL SHALL BE GREASED. GREENSTREAK 9" SPEED DOWEL TUBES SHALL BE USED.
E. DESIGN MIXES SHALL BE IN ACCORDANCE WITH ASTM C94
   1. STRENGTH SHALL BE A MINIMUM OF 4,500 PSI AT 28 DAYS FOR EXTERIOR CONCRETE.
   2. MAXIMUM WATER/CEMENT RATIO SHALL BE 0.45.
   3. SLUMP SHALL NOT EXCEED 4" FOR EXTERIOR CONCRETE FLAT WORK
   4. SLUMP SHALL BE 2.5" OR LESS FOR SLIP-FORMED CURB AND GUTTER
   5. SLUMP SHALL BE BETWEEN 1.5" TO 3" FOR NON SLIP-FORMED CURB AND GUTTER.
   6. ALL EXTERIOR CONCRETE SHALL BE AIR ENTRAINED WITH 4% TO 7% AIR CONTENT. NO OTHER ADMIXTURES SHALL BE USED WITHOUT APPROVAL OF EXCEL ENGINEERING, INC. CALCIUM CHLORIDE SHALL NOT BE USED.
   7. MAXIMUM AGGREGATE SIZE FOR ALL EXTERIOR CONCRETE SHALL BE 0.75 INCHES.
F. VERIFY EQUIPMENT CONCRETE PAD SIZES WITH CONTRACTOR REQUIRING PAD. PADS SHALL HAVE FIBERMESH 300 FIBERS AT A RATE OF 1.5 LBS/CY). 10' OR 6.6-W1.4 X W1.4 WELDED WIRE MESH WITH MINIMUM 1 INCH COVER. EQUIPMENT PADS SHALL BE 5.5 INCHES THICK WITH 1 INCH CHAMFER UNLESS SPECIFIED OTHERWISE. COORDINATE ADDITIONAL PAD REQUIREMENTS WITH RESPECTIVE CONTRACTOR.
G. ALL CONCRETE FLAT WORK SURFACES AND CONCRETE CURB FLOWLINES SHALL BE CONSTRUCTED TO WITHIN 0.05' OF DESIGN SURFACE AND FLOWLINE GRADES ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE DESIGN PLANS.
H. CONCRETE FLAT WORK SHALL HAVE CONSTRUCTION JOINTS OR SAW CUT JOINTS PLACED AS INDICATED ON THE PLANS OR PER THIS SPECIFICATION. SAWCUTS SHALL BE DONE AS SOON AS POSSIBLE, BUT NO LATER THAN 24 HOURS AFTER CONCRETE IS PLACED. CONCRETE CURB AND GUTTER JOINTING SHALL BE PLACED EVERY 10' OR CLOSER (6' MIN.). IF CONCRETE PAVEMENT IS ADJACENT TO CONCRETE CURB, JOINTING IN THE PAVEMENT AND CURB SHALL ALIGN. ALL EXTERIOR CONCRETE SHALL HAVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE. A UNIFORM COAT OF A HIGH SOLIDS CURING COMPOUND MEETING ASTM C309 SHOULD BE APPLIED TO ALL EXPOSED CONCRETE SURFACES. ALL CONCRETE IS TO BE CURED FOR 7 DAYS. EXTERIOR CONCRETE SHALL BE SEPARATED FROM BUILDINGS WITH CONTINUOUS 0.5 INCH FIBER EXPANSION JOINT AND/OR 0.25 INCH FIBER EXPANSION JOINT AT DECORATIVE MASONRY UNITS.
I. ALL REINFORCING BARS SHALL BE ASTM A615 GRADE 60. THICKNESS OF CONCRETE COVER OVER REINFORCEMENT SHALL BE NOT LESS THAN 3" WHERE CONCRETE IS DEPOSITED AGAINST THE GROUND AND NOT LESS THAN 1.5" IN ALL OTHER LOCATIONS. ALL REINFORCING SHALL BE LAPPED 36 DIAMETERS FOR UP TO #6 BARS, 60 DIAMETERS FOR #7 TO #10 BARS OR AS NOTED ON THE DRAWINGS AND EXTENDED AROUND CORNERS WITH CORNER BARS. PLACING AND DETAILING OF STEEL REINFORCING AND REINFORCING SUPPORTS SHALL BE IN ACCORDANCE WITH CRSI AND ACI MANUAL AND STANDARD PRACTICES. THE REINFORCEMENT SHALL NOT BE PAINTED AND MUST BE FREE OF GREASE/OIL, DIRT OR DEEP RUST WHEN PLACED IN THE WORK. ALL WELDED WIRE FABRIC SHALL MEET THE REQUIREMENTS OF ASTM A 185. WELDED WIRE FABRIC SHALL BE PLACED 2" FROM TOP OF SLAB, UNLESS INDICATED OTHERWISE.
J. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO SAMPLE MATERIALS, PERFORM TESTS, AND SUBMIT TEST REPORTS DURING CONCRETE PLACEMENT. TESTS WILL BE PERFORMED ACCORDING TO ACI 301. CAST AND LABORATORY CURE ONE SET OF FOUR STANDARD CYLINDERS FOR EACH COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIX EXCEEDING 5 CU. YD., BUT LESS THAN 25 CU. YD, PLUS ONE SET FOR EACH ADDITIONAL 50 CU. YD. OR FRACTION THEREOF. PERFORM COMPRESSIVE STRENGTH TESTS ACCORDING TO ASTM C 39. TEST TWO SPECIMENS AT 7 DAYS AND TWO SPECIMENS AT 28 DAYS. PERFORM SLUMP TESTING ACCORDING TO ASTM C 143. PROVIDE ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
K. PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. IN HOT, DRY, AND WINDY WEATHER, APPLY AN EVAPORATION-CONTROL COMPOUND ACCORDING TO MANUFACTURER'S INSTRUCTIONS AFTER SCREEDING AND BULL FLOATING, BUT BEFORE POWER FLOATING AND TROWELLING.
L. LIMIT MAXIMUM WATER-CEMENTITIOUS RATIO OF CONCRETE EXPOSED TO FREEZING, THAWING AND DEICING SALTS TO 0.45.
M. TEST RESULTS WILL BE REPORTED IN WRITING TO THE DESIGN ENGINEER, READY-MIX PRODUCER, AND CONTRACTOR WITHIN 24 HOURS AFTER TESTS. REPORTS OF COMPRESSIVE STRENGTH TESTS SHALL CONTAIN THE PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING SERVICE, CONCRETE TYPE AND CLASS, LOCATION OF CONCRETE BATCH IN STRUCTURE, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIX PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7-DAY TESTS AND 28-DAY TESTS.
N. CONTRACTOR TO PROVIDE 4" WIDE YELLOW OR WHITE (VERIFY WITH OWNER PRIOR TO STRIPING) PAINTED STRIPING FOR PARKING STALLS, TRAFFIC LANES, AND NO PARKING AREAS. PAINT MARKINGS SHALL ALSO BE PROVIDED FOR H.C. ACCESSIBLE SYMBOLS, TRAFFIC ARROWS, AND TRAFFIC MESSAGES.

32 30 00 LANDSCAPING AND SITE STABILIZATION

A. TOPSOIL: CONTRACTOR TO PROVIDE A MINIMUM OF 6" OF TOPSOIL FOR ALL DISTURBED OPEN AREAS, OTHER THAN AT LANDSCAPE ISLANDS WITHIN PAVEMENT AREAS WHERE A MINIMUM OF 10" OF TOPSOIL SHALL BE PROVIDED. REUSE SURFACE SOIL STOCKPILED ON SITE AND SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN QUANTITIES ARE INSUFFICIENT. EXCAVATOR SHALL BE RESPONSIBLE FOR ROUGH PLACEMENT OF TOPSOIL TO WITHIN 1" OF FINAL GRADE PRIOR TO LANDSCAPER FINAL GRADING. LANDSCAPER TO PROVIDE PULVERIZING AND FINAL GRADING OF TOPSOIL. PROVIDE SOIL ANALYSIS BY A QUALIFIED SOIL TESTING LABORATORY AS REQUIRED TO VERIFY THE SUITABILITY OF SOIL TO BE USED AS TOPSOIL AND TO DETERMINE THE NECESSARY SOIL AMENDMENTS. TEST SOIL FOR PRESENCE OF ATRAZINE AND IMPORM EXCEL ENGINEERING, INC. IF PRESENT PRIOR TO BRIDGING PROJECT. TOPSOIL SHALL HAVE A PH RANGE OF 5.5 TO 8, CONTAIN A MINIMUM OF 5 PERCENT ORGANIC MATERIAL CONTENT, AND SHALL BE FREE OF STONES 1 INCH OR LARGER IN DIAMETER. ALL MATERIALS HARMFUL TO PLANT GROWTH SHALL ALSO BE REMOVED.
B. TOPSOIL INSTALLATION: LOOSEN SUBGRADE TO A MINIMUM DEPTH OF 6 INCHES AND REMOVE STONES LARGER THAN 1" IN DIAMETER. ALSO REMOVE ANY STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER AND DISPOSE OF THEM OFF THE PROPERTY. SPREAD TOPSOIL TO A DEPTH OF 6" BUT NOT LESS THAN WHAT IS REQUIRED TO MEET FINISHED GRADES AFTER LIGHT ROLLING AND NATURAL SETTLEMENT. DO NOT SPREAD TOPSOIL IF SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET. GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN 0.05 FEET OF FINISHED GRADE ELEVATION.
C. SODDED LAWNS: PROVIDE SOD CONSISTING OF THE FOLLOWING GRASS SPECIES - 45% KENTUCKY BLUEGRASS, 20% PERENNIAL RYEGRASS, 15% FINE FESCUE. PROVIDE VIABLE SOD OF UNIFORM DENSITY, COLOR, AND TEXTURE. SOD SHOULD BE STRONGLY ROOTED AND CAPABLE OF VIGOROUS GROWTH AND DEVELOPMENT WHEN



SPECIFICATION NOTE:
SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

NOTE:
PROPERTY LINES AND EASEMENTS SHOWN ON THIS SURVEY WERE DRAFTED FROM INFORMATION CONTAINED IN TITLE COMMITMENT NO. 2237081, BY KNIGHT BARRY TITLE, INC., DATED SEPTEMBER 19, 2023.

NOTE:
SURFACE INDICATIONS OF UTILITIES ALONG WITH DIGGER'S HOTLINE MARKINGS PER TICKET NO.: 20230306381 AND NO: 20234005120 HAVE BEEN SHOWN. SIZES AND ELEVATION OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD MEASUREMENTS OF VISIBLE STRUCTURES IN COMBINATION WITH AVAILABLE DATA PROVIDED TO EXCEL ENGINEERING. EXCEL ENGINEERING MAKES NO GUARANTEE THAT ALL THE EXISTING UTILITIES IN THE SURVEYED AREA HAVE BEEN SHOWN NOR THAT THEY ARE IN THE EXACT LOCATION INDICATED. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

DEMOLITION PLAN NOTES:

- DEMOLITION PLAN IS AN OVERVIEW OF DEMOLITION TO TAKE PLACE ON SITE. CONTRACTOR TO FIELD VERIFY EXISTING SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE, OR DEMOLISH ITEMS AS NEEDED DURING CONSTRUCTION.
- PRIVATE LOCATE SHALL BE COMPLETED PRIOR TO CONSTRUCTION AND EXISTING UTILITY LOCATIONS AND DEPTHS SHALL BE FIELD VERIFIED AS NEEDED. PROPOSED DOWNSTREAM UTILITY CONNECTIONS SHALL BE VERIFIED PRIOR TO CONSTRUCTION. NOTIFY DESIGN ENGINEER OF CONFLICTS AND/OR DISCREPANCIES.

TANK REMOVAL NOTE:

NOTE THAT ALL FUELING EQUIPMENT AND UNDERGROUND FUEL STORAGE TANKS ARE TO BE COMPLETELY REMOVED BY THE SELLER AT THE SELLER'S EXPENSE PRIOR TO CONSTRUCTION OF CREW CARWASH. CONTRACTOR TO COORDINATE WITH OWNER IF ANY UNDERGROUND FUELING TANKS OR EQUIPMENT ARE DISCOVERED DURING CONSTRUCTION.

EXISTING SEWER/WATER LATERAL NOTE:

CONTRACTOR SHALL REMOVE EXISTING SEWER AND WATER SERVICE LATERALS TO THE PROPERTY LINE. CAP/ABANDON PER LOCAL REQUIREMENTS. COORDINATE WITH LOCAL UTILITY DEPARTMENTS AS NEEDED PRIOR TO ABANDONMENT.

NORTH

1" = 20' SCALE — 20' 0 20' 40' FEET

CIVIL EXISTING SITE AND DEMOLITION PLAN

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

PROJECT INFORMATION

PROPOSED CAR WASH FOR:
CREW CARWASH
N96 W17500 COUNTY LINE RD • GERMANTOWN, WI 53022

PROFESSIONAL SEAL

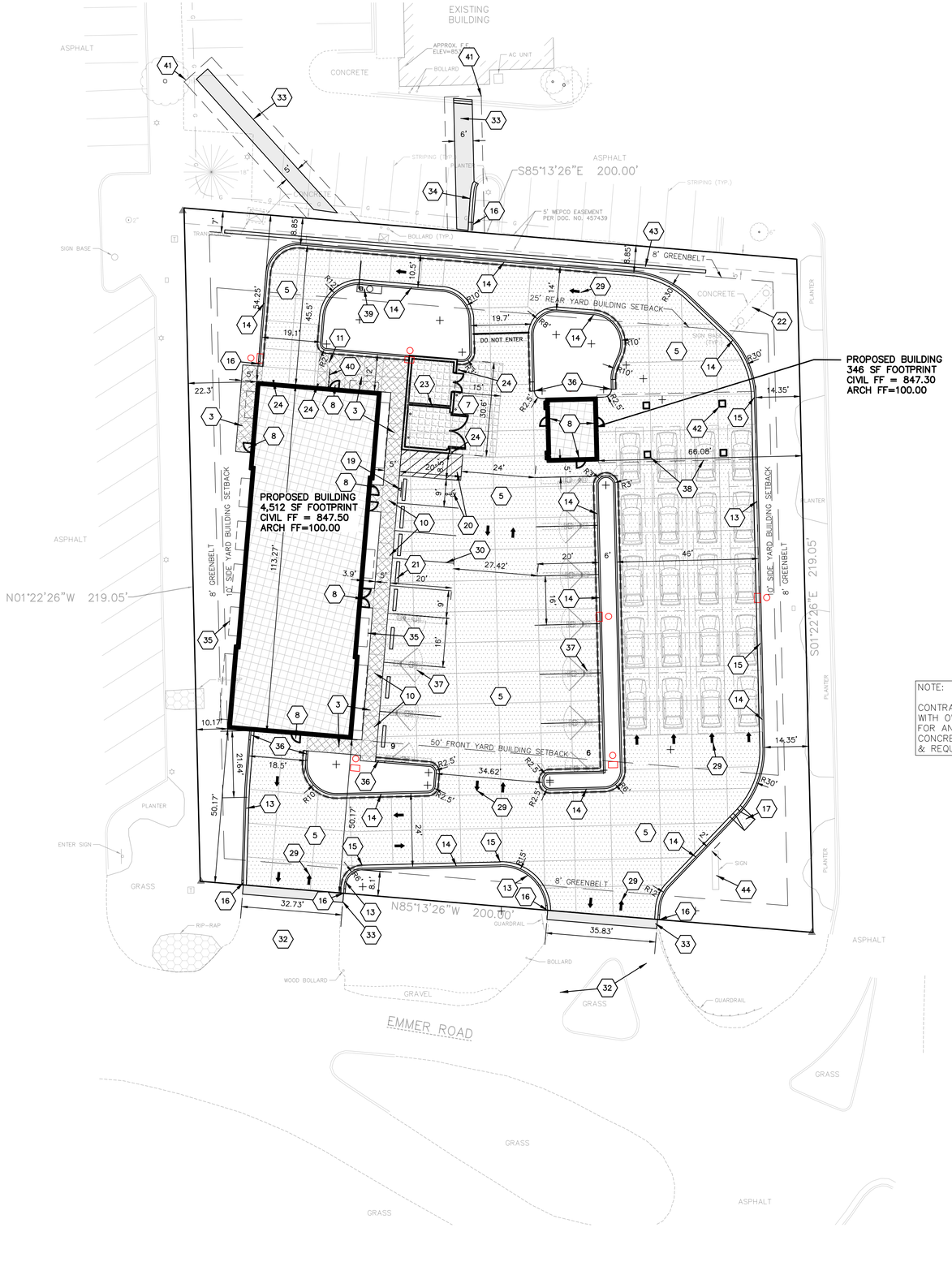
PRELIMINARY DATES
FEB. 12, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
230022600

SHEET NUMBER
C1.0

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SPECIFICATION NOTE:
SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

SITE INFORMATION:

PROPERTY ADDRESS: N96W17500 COUNTY LINE RD, GERMANTOWN WI

PARCEL ID NUMBER: 334990

PROPERTY AREA: 43,558 S.F. (1.00 ACRES).

EXISTING ZONING: B-5 W/ HIGHWAY INTERCHANGE AREA OVERLAY

PROPOSED ZONING: B-5 W/ HIGHWAY INTERCHANGE AREA OVERLAY

ADJACENT PROPERTY ZONING: B-5

PROPOSED USE: CONVEYOR-STYLE CARWASH

AREA OF SITE DISTURBANCE: 43,346 SF (0.995 AC)

SETBACKS: BUILDING: FRONT = 50'
SIDE = 10'
REAR = 25'

PAVEMENT: FRONT = 8'
SIDE = 8'
REAR = 8'

PROPOSED BUILDING HEIGHT: 35' TO TOP OF TOWER (MAX. HEIGHT ALLOWED: 35')

PARKING REQUIRED: NO CODIFIED REQUIREMENT FOR CARWASH USE; ADEQUATE SPACE FOR EMPLOYEES AND CUSTOMERS

PARKING PROVIDED: 14 TOTAL (5 STANDARD EMPLOYEE SPACES, 9 VACUUM SPACES)

HANDICAP STALLS REQUIRED: 1 REQUIRED, 1 PROVIDED

LANDSCAPE REQUIREMENTS: MIN. LANDSCAPE SURFACE RATIO = 20% OPEN AREA

EXISTING SITE DATA

	AREA (AC)	AREA (SF)	RATIO
PROJECT SITE	1.00	43,558	
BUILDING FLOOR AREA	0.06	2,627	6.0%
PAVEMENT (ASP. & CONC.)	0.50	21,843	50.1%
TOTAL IMPERVIOUS	0.56	24,470	56.2%
LANDSCAPE/ OPEN SPACE	0.44	19,088	43.8%

PROPOSED SITE DATA

	AREA (AC)	AREA (SF)	RATIO
PROJECT SITE	1.00	43,558	
BUILDING FLOOR AREA	0.11	4,858	11.2%
PAVEMENT (ASP. & CONC.)	0.59	25,648	58.9%
TOTAL IMPERVIOUS	0.70	30,506	70.0%
LANDSCAPE/ OPEN SPACE	0.30	13,052	30.0%

NOTE:
CONTRACTOR TO COORDINATE WITH OWNER AND MEP PLANS FOR ANY EXTERIOR HEATED CONCRETE SLAB LOCATIONS & REQUIREMENTS.

NOTE:
KNOX BOX TO BE PROVIDED AT PRIMARY ENTRANCE PER LOCAL REQUIREMENTS. CONTRACTOR TO COORDINATE W/ BUILDING INSPECTOR/FIRE DEPARTMENT FOR SPECIFIC REQUIREMENTS.

PAVEMENT HATCH KEY:
- ASPHALT
- HEAVY DUTY CONCRETE
- DUMPSTER PAD CONCRETE
- SIDEWALK CONCRETE

*SEE SHEET C0.1 FOR SECTION REQUIREMENTS

CURB & GUTTER MARKING KEY:
- INVERTED CURB & GUTTER
- SHEDDING CURB & GUTTER

SITE PLAN KEYNOTES

3	CONCRETE SIDEWALK (TYP.)
5	HEAVY DUTY CONCRETE (TYP.)
7	DUMPSTER PAD/APRON CONCRETE (TYP.)
8	CONCRETE STOOP (TYP.) SEE ARCH. PLANS FOR DETAILS.
10	FLUSH WALK (TYP.)
11	SIDEWALK RAMP, SEE SHEET C1.2. (TYP.)
13	18" ROLL CURB, 3" CURB HEIGHT (TYP.)
14	18" CURB & GUTTER (TYP.)
15	ROLL CURB/STANDARD CURB TRANSITION. (TYP.)
16	CURB TAPER (TYP.)
17	CURB CUT W/ 5" THICK CONCRETE PAD/FLUME WARPED TO MATCH CURB CUT (TYP.)
19	HANDICAP SIGN (TYP.)
20	HANDICAP STALL & STRIPING PER STATE CODES.
21	PRECAST CONCRETE WHEEL STOP PINNED TO PAVEMENT (9 TYP.)
22	EXISTING PYLON SIGN TO REMAIN AND BE RE-BRANDED. (DETAILS & APPROVAL BY SIGN VENDOR)
23	DUMPSTER/STORAGE ENCLOSURE. ROLL OUT DUMPSTERS REQUIRED FOR SERVICE. (SEE ARCH PLANS FOR DETAILS)
24	6" CONCRETE BOLLARDS (SEE DETAIL)
29	TRAFFIC FLOW ARROWS. COLOR TO MATCH PARKING STALL STRIPING.
30	PAINT STRIPING (TYP). COLOR TO MATCH PARKING STALL STRIPING.
32	EXISTING DRIVEWAY ENTRANCES TO REMAIN IN PLACE (TYP.)
33	REPLACE EXISTING ASPHALT PAVEMENT PER LOCAL STANDARDS. MATCH EXISTING PAVEMENT SECTION. (TYP.)
34	REPLACE CONCRETE CURB AND GUTTER TO MATCH EXISTING. (TYP.)
35	CANOPY. SEE ARCH PLANS. (TYP.)
36	TAPER CURB TO FLUSH IN 3' (TYP.)
37	OUTDOOR VACUUM EQUIPMENT. CONTRACTOR TO COORDINATE FINAL PRODUCTS, DETAILS, ETC WITH OWNER/DIRECTOR OF PROJECTS. VERIFY CONCRETE SLAB REQUIREMENTS WITH OWNER & EQUIPMENT SUPPLIER PRIOR TO INSTALLATION.
38	ISLAND AND CANOPY TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. CONTRACTOR TO VERIFY FINAL LOCATIONS, DETAILS, EQUIPMENT, ETC WITH OWNER AND EQUIPMENT SUPPLIERS PRIOR TO CONSTRUCTION.
39	BUG GATE (TYP.) CONTRACTOR TO VERIFY FINAL DETAILS AND REQUIREMENTS WITH OWNER AND EQUIPMENT SUPPLIER AS NEEDED.
40	6' OF RAILING/GUARDRAIL. FINAL COLOR/STYLE/DETAIL BY OWNER. (TYP.)
41	PRIVATE UTILITY EASEMENTS TO BE COMPLETED BY OTHERS AS A SEPARATE DOCUMENT. OWNER TO COORDINATE AS NEEDED. SEE SHEET C1.3 FOR UTILITY SERVICE EXTENSIONS.
42	COLUMN (TYP.) COORDINATE FINAL LOCATIONS W/ CANOPY SUPPLIER DRAWINGS.
43	157 LF OF VERSA LOK OR EQUIVALENT LANDSCAPE BLOCK RETAINING WALL. SEE SHEET C1.2 FOR WALL HEIGHTS. FINAL DESIGN DETAILS AND SPECIFICATIONS BY WALL SUPPLIER. CONTRACTOR TO COORDINATE DETAILS W/ WALL SUPPLIER & OWNER AS NEEDED.
44	EXISTING MONUMENT SIGN TO REMAIN AND BE RE-BRANDED. (DETAILS & APPROVAL BY SIGN VENDOR.)

NORTH

1"= 20' SCALE

20' 0 20' 40' FEET

CIVIL SITE PLAN

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

PROJECT INFORMATION

PROPOSED CAR WASH FOR:
CREW CARWASH
N96 W17500 COUNTY LINE RD • GERMANTOWN, WI 53022

PROFESSIONAL SEAL

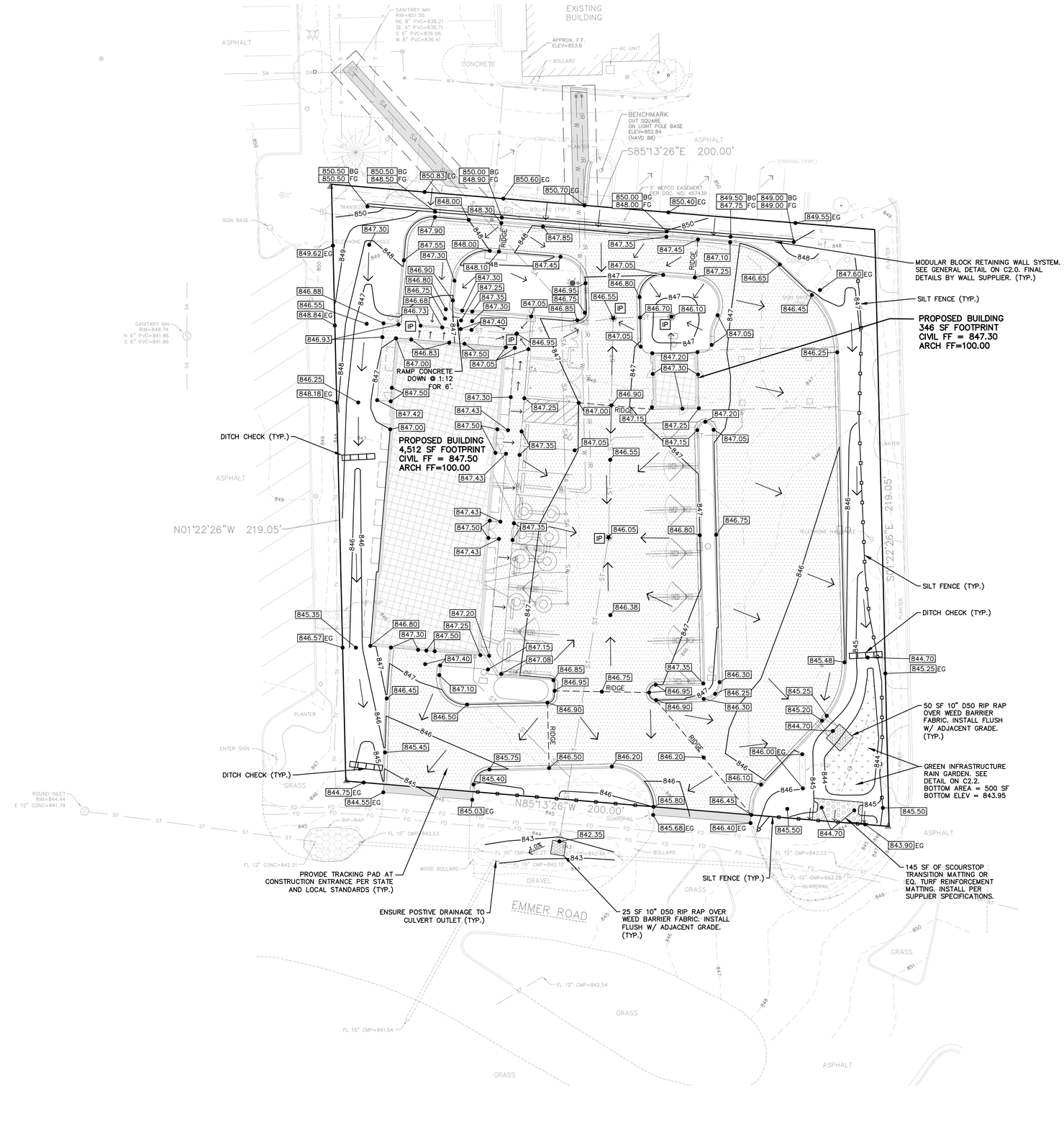
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SPECIFICATION NOTE:
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NOTES:

1. HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
2. ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.

IP

INLET PROTECTION NOTE:

CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

STABILIZED CONSTRUCTION ENTRANCE NOTE:

CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.

CONCRETE WASHOUT NOTE:

CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.

SPOT ELEVATION NOTE:

ALL SPOT ELEVATIONS NOTED ON THE PLAN REPRESENT FLOW LINE OF CURB UNLESS SPECIFICALLY NOTED OTHERWISE.

GRADING NOTE:

CONTRACTOR SHALL COORDINATE PROPOSED SITE GRADING AT PERIMETER OF BUILDING AND AT TUNNEL ENTRANCE/EXIT WITH ARCH/STRUCT PLANS AS NEEDED.

EROSION CONTROL/SWM COST ESTIMATE
(FOR REFERENCE ONLY)

LAND DISTURBANCE APPROX. 0.99 AC

Itemized cost of Erosion Control:

Tracking Pad = $1500ea. x 1 = $1500
Inlet Protection = $75 x 5 = $375
Silt Fence = 325' x $2/ lin. ft = $650
Ditch Check = 3 x $100ea. = $300
Total Erosion Control Cost Estimate = $2,825

Itemized cost of Storm Water Management:

Rain Garden/Spillway = $10,000ea. x 1 = $10,000

Total Storm Water Cost = $10,000

NORTH

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

CIVIL GRADING AND EROSION CONTROL PLAN

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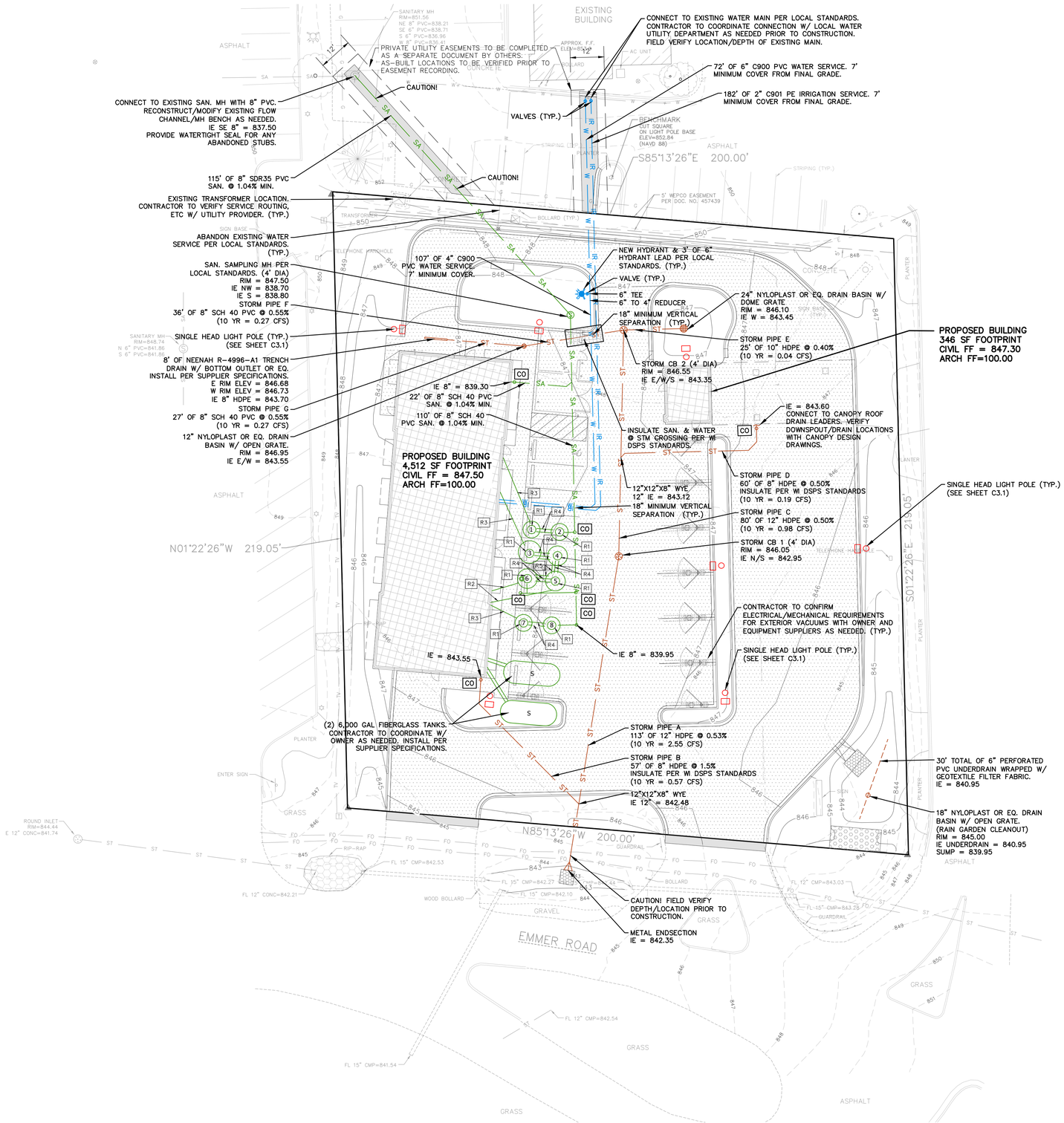
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SHEET NUMBER
C1.2

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SPECIFICATION NOTE:
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CLEANOUT NOTE:

CO = DENOTES LOCATIONS WHERE CONTRACTOR SHALL INSTALL CLEANOUTS, SEE C0.1 FOR SPECIFICATION.

UTILITY NOTE:

CONTRACTOR TO VERIFY FINAL SIZE, DESIGN, AND LOCATIONS OF ALL EXTERIOR SITE UTILITIES WITH INTERNAL MEP DESIGN AND OWNER AS NEEDED.

UTILITY NOTE:

CONTRACTOR TO ENSURE ADEQUATE SEPARATION IS PROVIDED BETWEEN DOMESTIC WATER SERVICE AND SANITARY/STORM SERVICE PER WI DSPS PLUMBING CODE STANDARDS.

DRY UTILITY SERVICE NOTES:

CONTRACTOR SHALL COORDINATE DRY UTILITY SERVICE ROUTING FOR ELECTRIC, GAS, ETC WITH APPLICABLE SERVICE PROVIDERS AS NEEDED

WATER RECLAMATION SYSTEM NOTES (R):

R1. ACCESS RISER AND OPERATING 38" DIAMETER STEEL PLAT LID, MODEL PER OWNER SPECIFICATIONS. STRUCTURE TOP TO HAVE A 36" DIAMETER OPENING CASTING. LID TO BE ALIGNED WITH LADDER RUNGS IN MANHOLE.

R2. 8" PVC, SCHEDULE 40, TO RECLAIM PIT.

R3. 8" PVC, SCHEDULE 80 CONVEYOR TRENCH DRAIN. CONVEYOR TRENCH DRAINS MUST BE RUN IN STRAIGHT LINES WITH NO TURNS.

R4. 8" PVC CONNECTOR TO SLEEVES, REFER TO TABLE FOR INVERT ELEVATIONS.

R5. 4" PVC CONNECTOR SLEEVES.

GENERAL SYSTEM NOTES:

- CONTRACTOR SHALL VERIFY WATER RECLAMATION SYSTEM LAYOUT, COMPONENTS, INVERT ELEVATIONS, AND PIPE ROUTING WITH OWNER AND INTERNAL PLUMBING DESIGNER PRIOR TO ORDERING MATERIALS.
- CONTRACTOR SHALL READ AND REVIEW GEOTECHNICAL REPORT PREPARED FOR THE SITE. IF HIGH GROUNDWATER IS NOTED OR ENCOUNTERED DURING CONSTRUCTION, CONTRACTOR SHALL REVIEW WITH TANK SUPPLIER & OWNER TO DETERMINE IF ANTI-BUOYANCY ACTIONS SHALL BE TAKEN.
- CONTRACTOR SHALL INSULATE RECLAMATION SYSTEM CONNECTOR PIPES W/ POLYSTYRENE INSULATION BOARDS OR OTHER APPROVED METHOD PER WI DSPS STANDARDS.

WATER RECLAIM SYSTEM (GRIT PIT) STRUCTURE TABLE
FFE = 847.50

STRUCTURE NUMBER	STRUCTURE DIAMETER (IN)	RIM ELEV.	INVERT IN	INVERT OUT	SUMP	SUBGRADE	PROVIDED STORAGE (CU FT)	PROVIDED STORAGE (US GAL)
1	60	847.25	842.00	841.75	833.67	833.17	137.40	1028
2	60	846.87	841.75	841.50	833.67	833.17	132.54	991
3	84	847.22	842.00	841.75	833.67	833.17	298.25	2230
4	72	846.90	841.75	841.50	833.67	833.17	212.06	1586
5	72	846.87	841.50	841.25	833.67	833.17	205.00	1533
6	72	847.25	841.25	841.00	833.67	833.17	197.92	1480
7	60	847.13	842.00	841.75	833.67	833.17	142.35	1065
8	60	846.83	841.75	841.50	833.67	833.17	137.40	1028

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

CIVIL UTILITY PLAN

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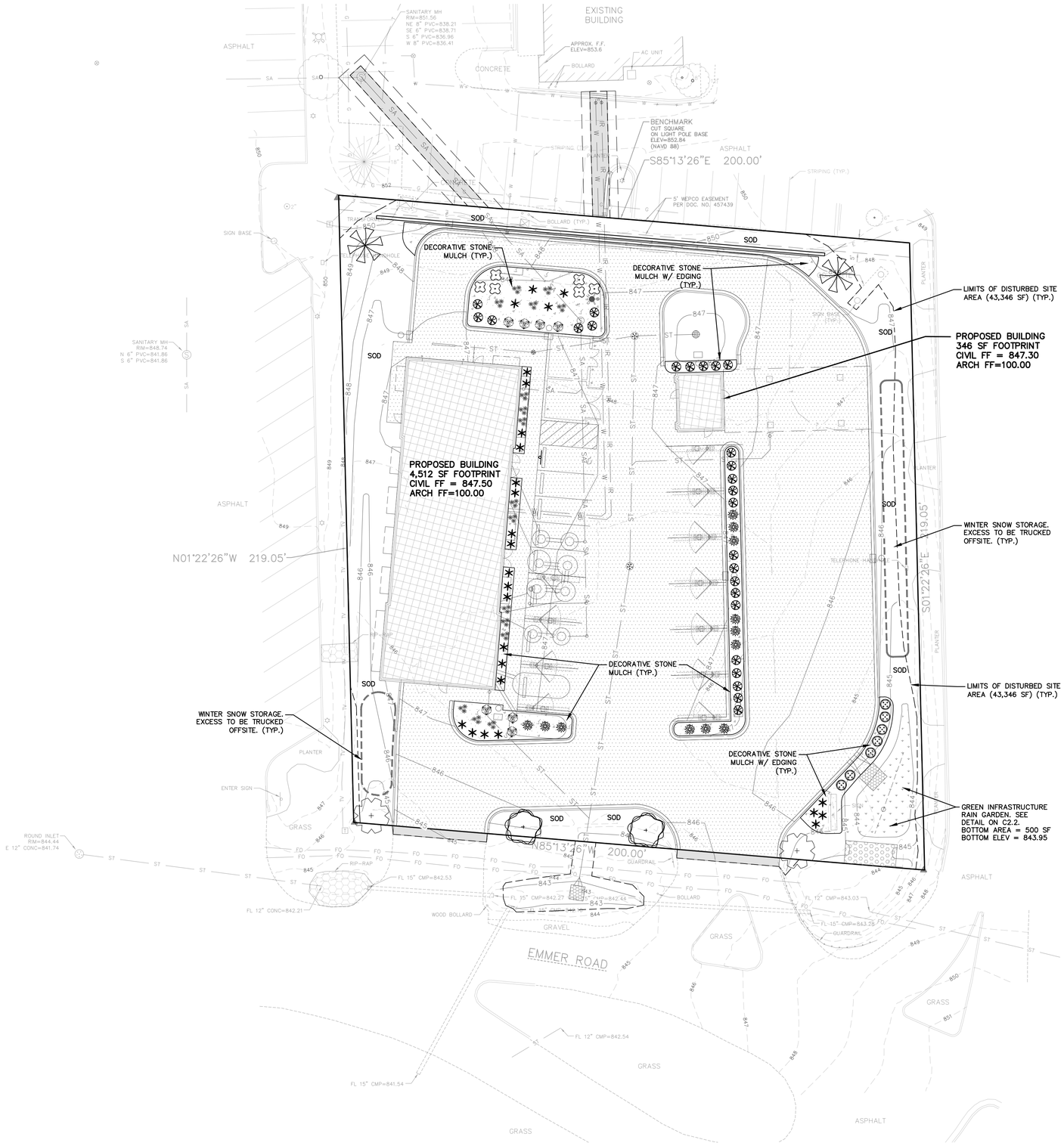
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C1.3

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SPECIFICATION NOTE:
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LANDSCAPING PLANTING SCHEDULE

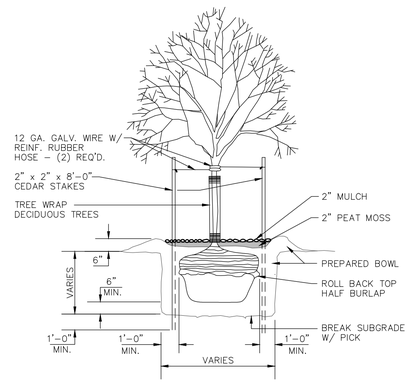
SYMBOL	COMMON NAME	BOTANICAL NAME	PLANTED SIZE	QUANTITY
	DECIDUOUS TREES			
	Princeton Sentry Ginkgo	Ginkgo biloba	3"	2
	Parkway Maple	Acer platanoides	3"	2
	Jack Flowering Pear (Ornamental)	Pyrus calleryana 'Jaczam'	1.5"	2
	DECIDUOUS SHRUBS			
	Gro-Low Fragrant Sumac	Rhus aromatica 'Gro Low'	18"	6
	Goldmound Spirea	Spiraea x bumalda 'Goldmound'	15"-18"	12
	Weigela Carnaval	Weigela Florida 'courtalor'	24"	7
	EVERGREEN SHRUBS			
	Taunton Yew	Tauntonii	24"	26
	Emerald Green Arborvitae	Thuja occidentalis 'Emerald Green'	36"	7
	PERENNIALS			
	Daylilies 'Stella de Oro'	Hemerocallis 'Stella de Oro'	1 gal pot	26
	Karl Foerster Reed Grass	Clamagrostis x acutiflora 'Karl Foerster'	1 gal pot	16

LANDSCAPING CALCULATIONS

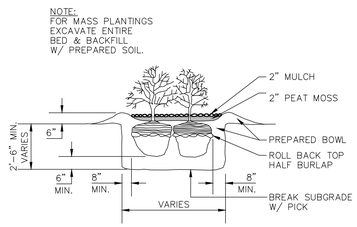
ZONE	REQ. PLANTS	PLANTS PROVIDED
STREET	1 PER 50 LF FRONTAGE 200 LF FRONTAGE = 4 TREES	4 PROVIDED
PARKING	1 TREE PER 10 SPACES 15 SPACES = 2 TREES	2 PROVIDED
TOTAL	6 TOTAL TREES REQ.	6 TOTAL TREES PROVIDED

IRRIGATION NOTE: PROVIDE IRRIGATION FOR ALL LAWN/LANDSCAPED AREAS IN ACCORDANCE WITH PLAN SPECIFICATIONS ON SHEET C0.1. DESIGN-BUILD LANDSCAPE/IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL DESIGN, LAYOUT, AND INSTALLATION. COORDINATE FINAL LAYOUT WITH OWNER/GC AS NEEDED.

NOTE: LANDSCAPE CONTRACTOR SHALL REVIEW FINAL PLANTING LOCATIONS AND SPECIES WITH OWNER PRIOR TO INSTALLATION.



TREE PLANTING DETAIL
NO SCALE



SHRUB PLANTING DETAIL
NO SCALE

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

CIVIL LANDSCAPE AND RESTORATION PLAN

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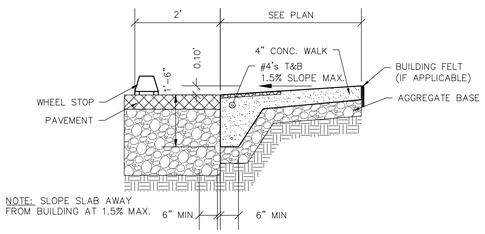
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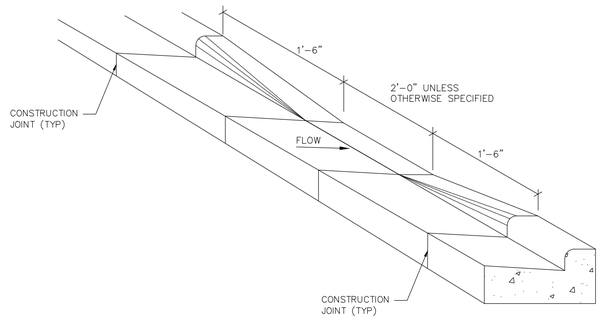
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C1.4

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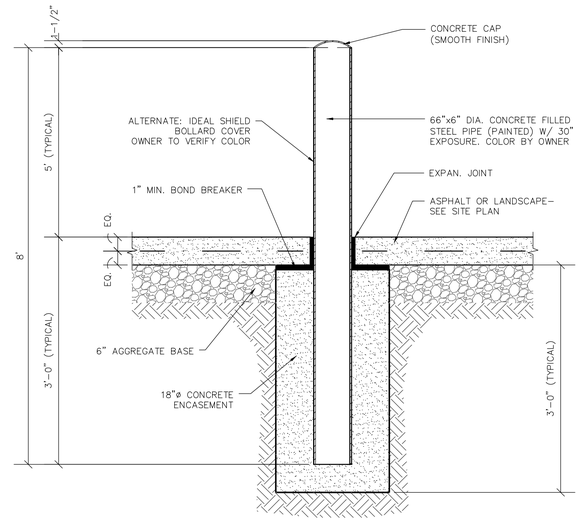
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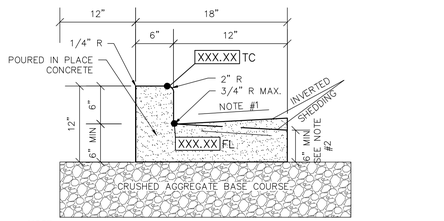
FLUSH WALK DETAIL
NO SCALE



CURB CUT DETAIL
NO SCALE



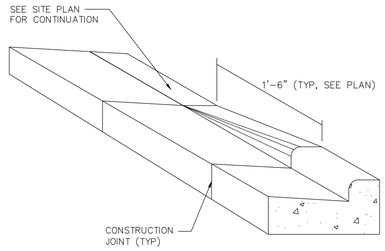
6" PIPE BOLLARD DETAIL
NO SCALE



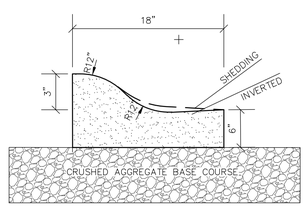
NOTE:

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

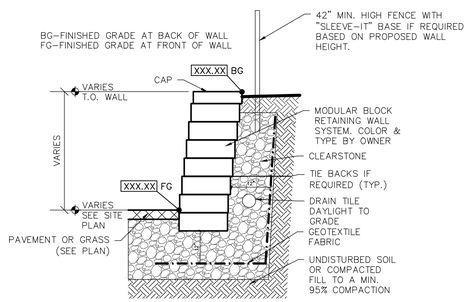
18" CONCRETE CURB & GUTTER DETAIL
NO SCALE



CURB TAPER DETAIL
NO SCALE



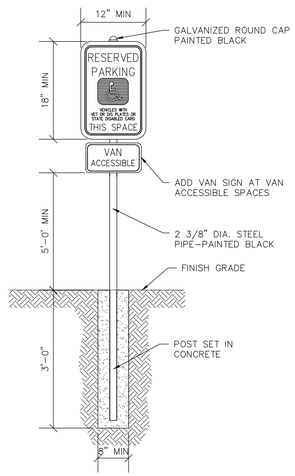
18" ROLLED CURB DETAIL
NO SCALE



NOTE:

THIS DETAIL IS INFORMATIONAL ONLY AND IS NOT FOR CONSTRUCTION PURPOSES. THE WALL MANUFACTURER/SUPPLIER IS RESPONSIBLE FOR FINAL DESIGN AND CONSTRUCTION DETAILS.

RETAINING WALL DETAIL
NO SCALE



HANDICAP SIGNAGE WITH CONCRETE BASE DETAIL
NO SCALE

CIVIL DETAILS

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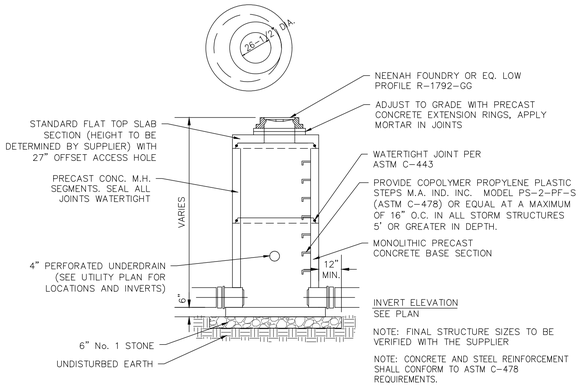
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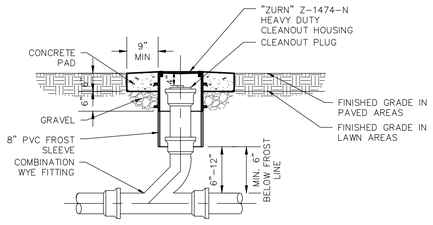
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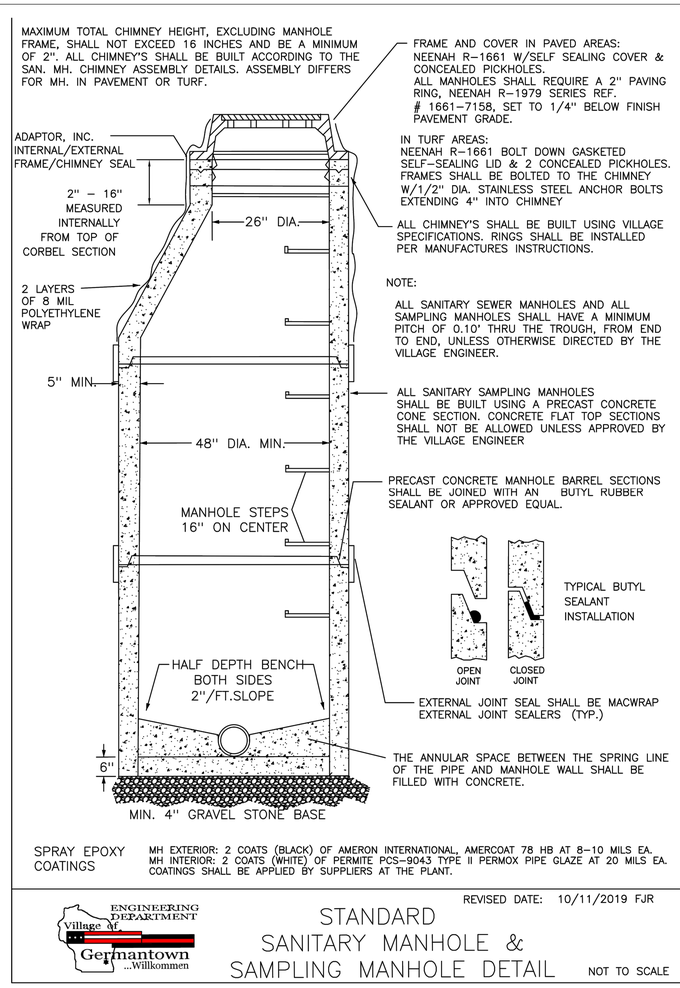
SPECIFICATION NOTE:
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STORM CATCH BASIN DETAIL
NO SCALE



CLEANOUT TO GRADE DETAIL
NO SCALE



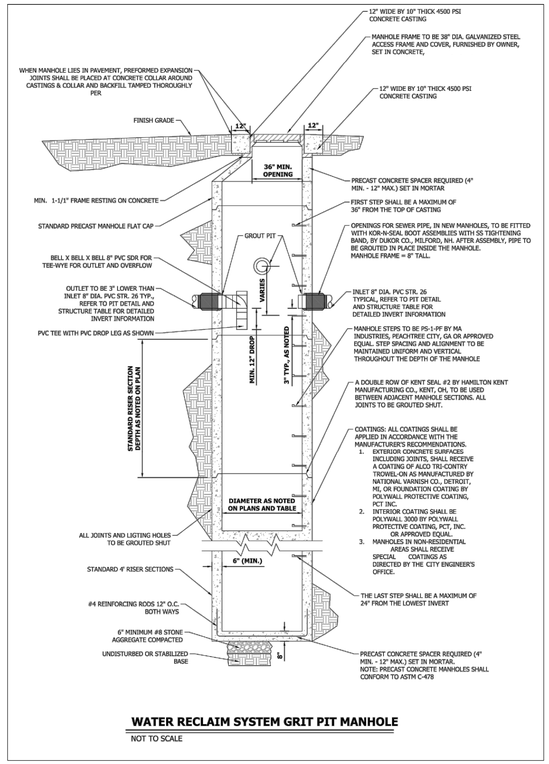
SPRAY EPOXY COATINGS

MH EXTERIOR: 2 COATS (BLACK) OF AMERON INTERNATIONAL, AMERCOAT 78 HB AT 8-10 MILS EA.
MH INTERIOR: 2 COATS (WHITE) OF PERMITE PCS-9043 TYPE II PERMOX PIPE GLAZE AT 20 MILS EA.
COATINGS SHALL BE APPLIED BY SUPPLIERS AT THE PLANT.

ENGINEERING DEPARTMENT Village Of Germantown ...Willkommen

REVISED DATE: 10/11/2019 FJR

STANDARD SANITARY MANHOLE & SAMPLING MANHOLE DETAIL
NOT TO SCALE



WATER RECLAIM SYSTEM GRIT PIT MANHOLE
NOT TO SCALE

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

PROJECT INFORMATION

PROPOSED CAR WASH FOR:
CREW CARWASH
N96 W17500 COUNTY LINE RD • GERMANTOWN, WI 53022

PROFESSIONAL SEAL

PRELIMINARY DATES
FEB. 12, 2024

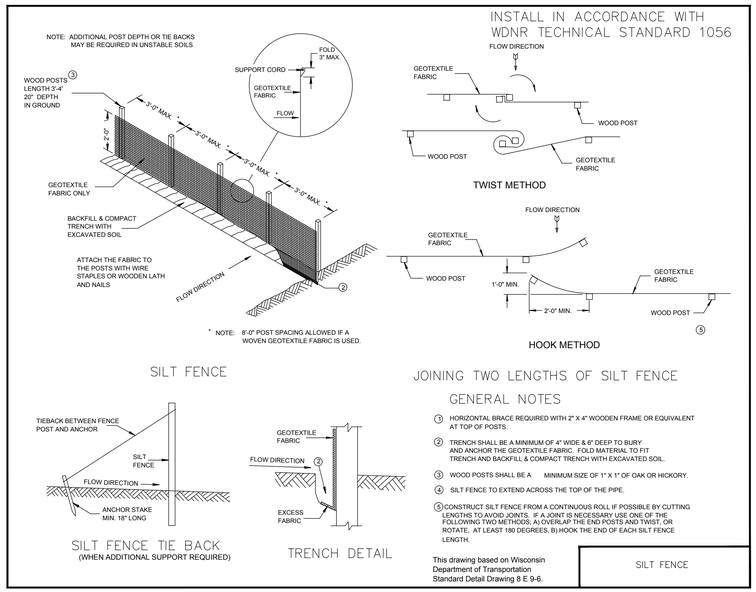
NOT FOR CONSTRUCTION

JOB NUMBER
230022600

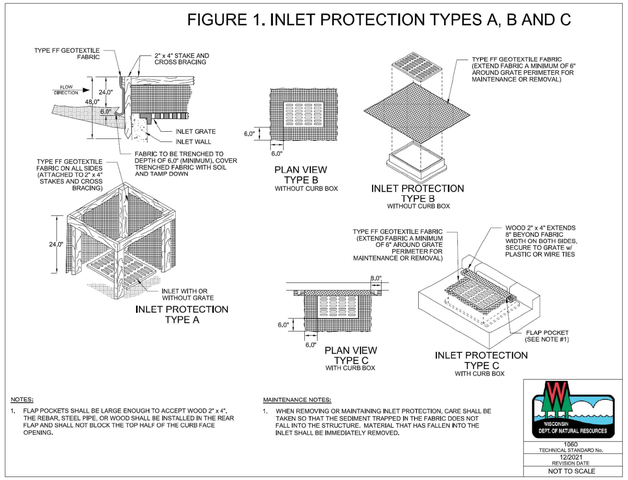
SHEET NUMBER
C2.1

CIVIL DETAILS

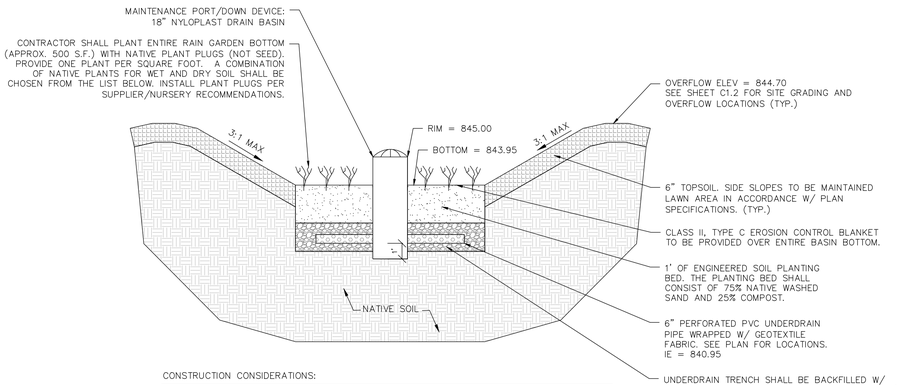
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SILT FENCE – INSTALLATION DETAIL
NO SCALE



INLET PROTECTION DETAIL
NO SCALE



CONSTRUCTION CONSIDERATIONS:

NOTE:

AVOID COMPACTION WITHIN RAIN GARDEN DURING CONSTRUCTION. MINIMIZE OR AVOID USE OF HEAVY EQUIPMENT WITHIN THE BASIN THROUGHOUT CONSTRUCTION WHEN PRACTICAL. FINAL CONSTRUCTION OF THE RAIN GARDEN SHALL TAKE PLACE ONCE CONTRIBUTING DRAINAGE AREA IS STABILIZED TO AVOID SILTATION. REMOVE ANY SEDIMENT DEPOSITS FOLLOWING CONSTRUCTION AS NEEDED. IT IS RECOMMENDED THAT THE BOTTOM OF THE BASIN BE SCARIFIED AND RAKED TO PROMOTE PROPER INFILTRATION.

ENGINEERED SOIL:

THE NATIVE SAND SHALL BE WASHED USDA SAND, 0.02 TO 0.04 INCHES IN DIAMETER. THE COMPOST COMPONENT SHALL MEET THE REQUIREMENTS OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES SPECIFICATION S100. ENGINEERED SOIL MIX SHALL HAVE A PH BETWEEN 5.5 AND 8.0.

VEGETATION ESTABLISHMENT:

NATIVE PLANTINGS SHALL BE ESTABLISHED AT THE BOTTOM OF THE RAIN GARDEN BASIN. VEGETATION SHALL BE ESTABLISHED WITH NATIVE PLANT PLUGS. CLASS II TYPE C EROSION CONTROL BLANKET IS REQUIRED AT THE BOTTOM OF THE BASIN TO PREVENT WASHOUTS AND ENSURE PROPER ESTABLISHMENT. FOR NATIVE PLANT PLUGS, INSTALL EROSION CONTROL BLANKET PRIOR TO PLANTING AND CUT THROUGH TO INSTALL PLANT PLUGS AS NEEDED. FOLLOW WDNR TECH STANDARD 1009 FOR ADDITIONAL CONSTRUCTION RECOMMENDATIONS. LANDSCAPE CONTRACTOR SHALL COORDINATE FINAL PLANTINGS/ESTABLISHMENT METHODS WITH SUPPLIER. REGULAR WATERING SHALL OCCUR TO PROMOTE PROPER ESTABLISHMENT OF THE NATIVE VEGETATION.

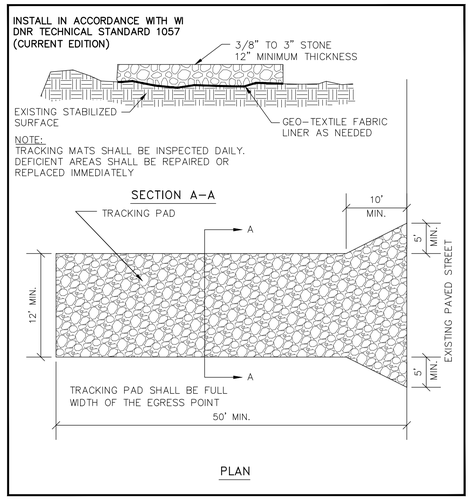
RECOMMENDED PLANT LIST:

A COMBINATION OF PLANTS SUITED FOR WET AND DRY SOIL IS RECOMMENDED TO ENSURE PROPER ESTABLISHMENT. THE LIST BELOW IS PROVIDED AS A REFERENCE FOR POTENTIAL SPECIES TO INCLUDE. FINAL SELECTIONS BY LANDSCAPER/SUPPLIER.

DRY SOIL: BUTTERFLY FLOWER, PURPLE PRAIRIE CLOVER, BEE BALM, LITTLE BLUESTEM SPIDERWORT, WHITE FALSE INDIGO, VIRGINIA WATERLEAF, SWEET BLACK-EYED SUSAN, BIG BLUSTEM, CUP PLANT, COMMON IRONWEED.

WET SOIL: GIANT HISSOP, CANADA ANEMONE, MARSH MILKWEED, NEW ENGLAND ASTER, TURTLEHEAD, JOE-PYE WEED, BONESET, BLUEFLAG IRIS, GREAT BLUE LOBELIA, SWITCHGRASS OBEDIENT PLANT, MOUNTAIN MINT, TALL MEADOW RUE, CULVER'S ROOT, GOLDEN ALEXANDER.

RAIN GARDEN DETAIL
NO SCALE



TRACKPAD DETAILS
NO SCALE

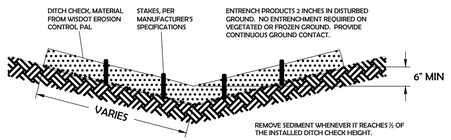
CONSTRUCTION SEQUENCE

PHASE	TYPE OF ACTION
1. PRE-CONSTRUCTION ACTION	1. CONTRACTOR TO CALL DIGGERS HOTLINE AT A MINIMUM OF 3 DAYS PRIOR TO CONSTRUCTION.
	2. CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF ALL UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF DISCREPANCIES.
	3. PLACE ALL SILT FENCE AND INLET PROTECTION.
	4. CONSTRUCT TRACKING STONE ENTRANCES AND ANY TEMPORARY CONSTRUCTION ROADWAYS AS NEEDED.
	5. CONSTRUCT PERMANENT STORMWATER CONVEYANCE SYSTEMS.
	6. CONSTRUCT ANY TEMPORARY STORMWATER CONVEYANCE SYSTEMS AS NEEDED.
	7. STABILIZE ALL TEMPORARY AND PERMANENT EROSION CONTROL AND STORMWATER CONVEYANCE SYSTEMS BEFORE TOPSOIL CAN BE STRIPPED.
2. CONSTRUCTION ACTION	1. SITE DEMOLITION AS REQUIRED.
	2. STRIP AND RELOCATE TOPSOIL TO THE DESIGNATED TOPSOIL STOCKPILE. FINAL LOCATION BY CONTRACTOR/OWNER. PROVIDE PERIMETER SILT FENCE UNTIL STABILIZED.
	3. BEGIN MASS EARTH WORK FOR THE BUILDING PAD AND PAVEMENT AREAS.
	4. CONSTRUCT ANY REMAINING STORMWATER CONVEYANCE SYSTEMS, AND INSTALL ALL OTHER UTILITIES ON SITE.
	5. DIG AND POUR ALL BUILDING FOOTINGS.
	6. PLACE GRAVEL FOR ALL PROPOSED PAVEMENT AREAS.
	7. TOPSOIL, SEED, AND MULCH ALL DISTURBED AREAS OUTSIDE THE BUILDING AND PROPOSED PAVEMENT AREAS.
	8. CONSTRUCT BUILDING.
	9. PAVE DRIVEWAYS AND PARKING AREAS.
	10. TOPSOIL, SEED, AND MULCH ALL OTHER DISTURBED AREAS. PLACE EROSION MATTING AND RIP RAP AS NEEDED.
	11. ONCE SITE IS STABILIZED, FINALIZE CONSTRUCTION OF RAIN GARDEN.
3. POST CONSTRUCTION ACTION	1. CONTRACTOR TO REMOVE TEMPORARY EROSION CONTROL MEASURES UPON SITE STABILIZATION.
	2. SEE THE POST CONSTRUCTION MAINTENANCE PLAN FOR PERMANENT STORMWATER MANAGEMENT SYSTEMS.

CONTRACTOR TO FOLLOW THE EROSION CONTROL SPECIFICATIONS FOR CONSTRUCTION EROSION CONTROL INSPECTION AND MAINTENANCE.

DITCH CHECK DETAIL

LOG-TYPE DITCH CHECK



SPECIFICATION NOTE:
SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

CIVIL DETAILS

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

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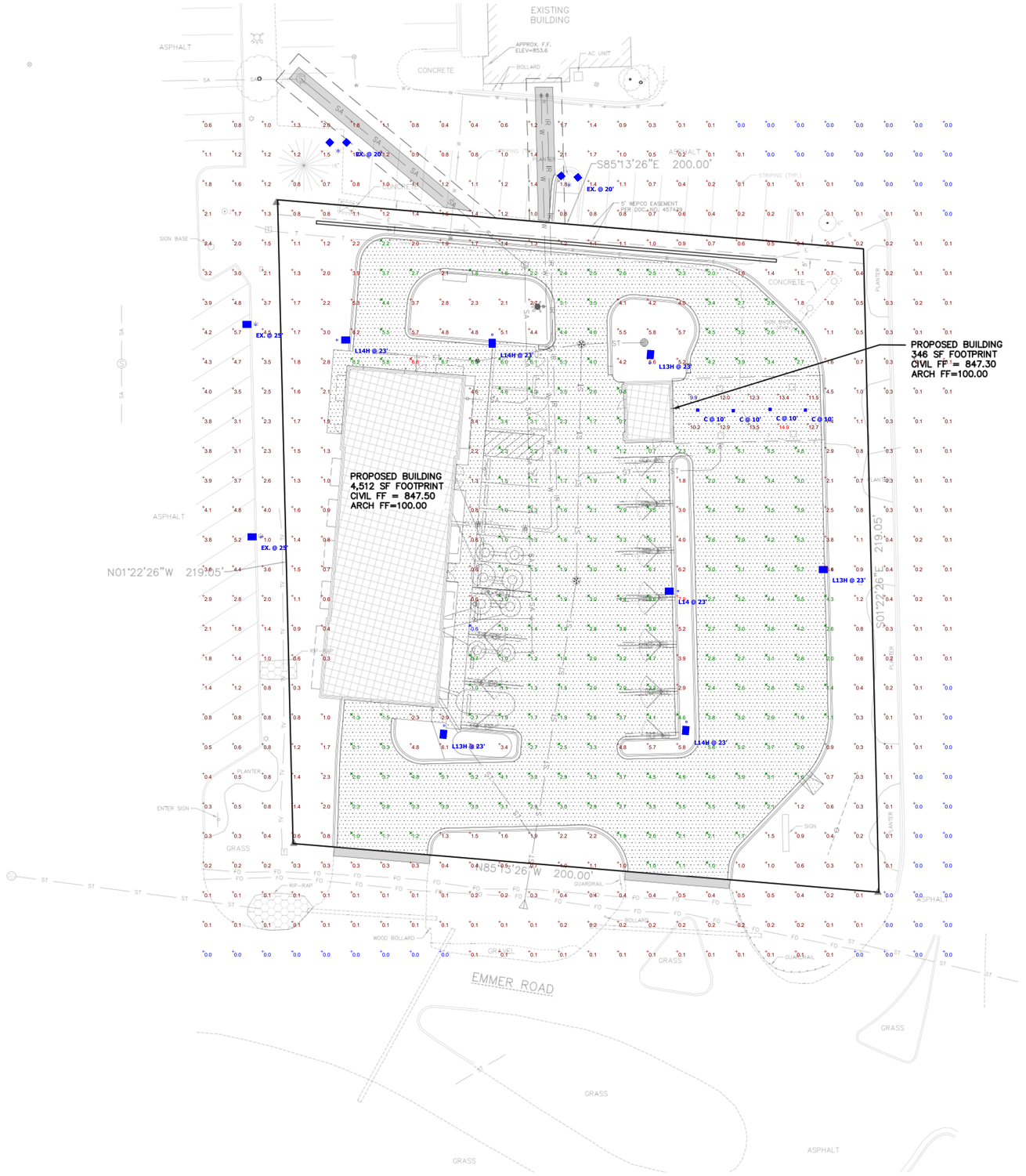
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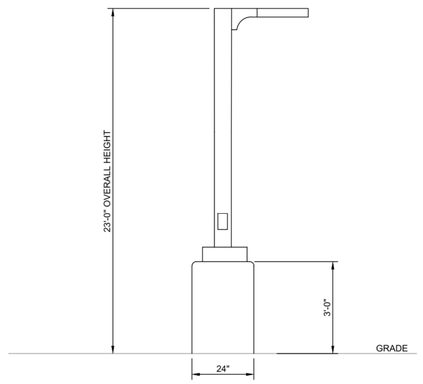
NOT FOR CONSTRUCTION

JOB NUMBER
230022600

SHEET NUMBER
C2.2

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LIGHT POLE DETAIL

NO SCALE

OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Patented NanoComfort™ Technology – Version C

Rev. Date: V7 11/01/2023

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. Medium is suitable upgrade for HID applications up to 400 Watts. Large is suitable upgrade for HID applications up to 1000 Watts. Extra Large is suitable upgrade for HID applications up to multiple 1000 Watts.
Applications: Parking lots, walkways, campuses, car dealerships, office complexes, pickleball courts, high-mast and internal roadways.

Performance Summary

- Utilizes Patented NanoComfort™ Technology
- Utilizes Cree TrueWhite® Technology on 5000K Luminaires
- Assembled in the USA by Cree Lighting from US and imported parts
- **Initial Delivered Lumens:** 4,000 - 85,000
- **Efficacy:** Up to 171 LPW
- **CRI:** Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)
- **CCT:** 3000K, 4000K, 5000K, 5700K
- **Limited Warranty*:** 10 years for luminaire; 10 years for ColorFast DeltaGuard® finish; 5 years for BML sensor; up to 5 years for Synapse™ accessories; 1 year for luminaire accessories

*See https://creelighting.com/warranty/terms for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Mount:** OSQ-WL-C-AA-BK + **Luminaire:** OSQM-C-4L-30K7-3M-UL-MW-BK

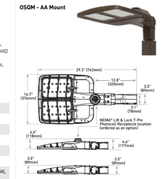
Mount (Luminaire must be ordered separately)*

OSQ-

Medium/Large Mounts	Extra Large Mounts	Color Options:	
OSQ-WL-C-AA Adjustable Arm	**OSQ-X-C-AA** Adjustable Arm	**BK** Black	**BZ** Bronze
OSQ-WL-C-DA Direct Arm	**OSQ-X-C-DA** Direct Arm		**WH** White
OSQ-WL-C-TN Trunnion Mount			

* Must match mount/mounting part options, EPA, and pole configuration suitability data beginning on page 14.

OSQM - AA Mount



Luminaire	Weight
OSQM	19.3 lbs. (8.8kg)

Note: For OSQL, OSQX and additional mounts, refer to drawings on page 27.

Luminaire (Mount must be ordered separately)

OSQ-

1 Family	2 Size	3 Series	4 Lumen Package	5 CCT/CRI	6 Optic	7 Voltage	8 Mount	9 Color Options	10 Controls*	11 Options
OSQ	**M** Medium **L** Large **X** Extra Large	**C**	**Medium:** **2L** 2,000 Lumens **4L** 4,000 Lumens **6L** 6,000 Lumens **8L** 8,000 Lumens **10L** 10,000 Lumens **Large:** **15L** 15,000 Lumens **20L** 20,000 Lumens **Extra Large:** **30L** 30,000 Lumens **40L** 40,000 Lumens **55L** 55,000 Lumens **70L** 70,000 Lumens **85L** 85,000 Lumens	**30K7** 3000K, 70 CRI **40K7** 4000K, 70 CRI **50K7** 5000K, 70 CRI **57K7** 5700K, 70 CRI **30K9** 3000K, 90 CRI **40K9** 4000K, 90 CRI **50K9** 5000K, 90 CRI **57K9** 5700K, 90 CRI	**Asymmetric:** **4F**** Type IV Medium Forward Installed **4B**** Type IV Medium Backlight Shield Installed - Available with 4L Lumen package (except WL) **4T** Automotive FrontGuard™ Type IV Left Incline **4R**** Automotive FrontGuard™ Type IV Left Incline - Available with 4L Lumen package (except WL) **Symmetric:** **3** Type V Wide **2** Type V Narrow **5** Type V Square **32** NEMA® 3x3 **33** NEMA® 3x3 **55** NEMA® 5x5 **44** NEMA® 4x4 **77** NEMA® 7x7	**UL** 120-277V **HV** 347-480V **MV** 347-480V Not available with 4L, 2L, 70L or 85L Lumen packages	**MA** No Mount Adapter (specify Color Option for finish) **AA** Adjustable Arm **DA** Direct Arm **TN** Trunnion Mount (Other mounts available, refer to page 14)	**BK** Black **BZ** Bronze **SV** Silver **WH** White (Other colors available, refer to page 14)	**BML** Bluetooth® Technology Enabled Multi-Level Sensor - Utilizes a mobile/tablet app - Mounting height 20' max - Not available with 8' or 9' pole - Not available with 2F option or with 4T or 4R lumen package except WL - Not available with 8-pin 3 options or 7-pin receptacle options - Not available with 3F option **BMLT** Bluetooth® Technology Enabled Multi-Level Sensor - Utilizes a mobile/tablet app - Mounting height 20' max - Not available with 8' or 9' pole - Not available with 2F option or with 4T or 4R lumen package except WL - Not available with 8-pin 3 options or 7-pin receptacle options - Not available with 3F option **GY/GH/GT/GA/GB/GL/GJ/GZ/G1** Field Adjustable Output - Offers 50, 60, 70, 80, 85, 90, 95, 100, 50-80, or 80-100% power and lumen values - Not available with BML or Q options **HA/HY/HJ/HB/HL/HZ/H1** Field Adjustable Output - Must select 5K, 57, 9K, 90, 9A, 93, or 95 CCT - Not available with BML or Q options **Q** Wireless - 57 option not available with the following lumen package/voltage combinations: 2L/UL, 4L/UL, 6L/UL, 8L/UL, 10L/UL, 15L/UL, 20L/UL, 30L/UL, 40L/UL, 55L/UL - 57 option not available 7L/UL, 70L/UL, 85L/UL - Lumen output is permanently locked to the setting selected - Not available with 2S, 3S for power and lumen values	**10KV** 10kV/5kA Surge Suppression Protection - Not available with 2S, 3S options - Not available with the BML option as it is included when BML option is selected **WP** NEMA® Photocell Receptacle Location Certification - Requires use of twist-lock(s) (by others) - Available only with 70V and 5P controls - Not available with HS option **ZT** Zhaga Book 18 Socket, bottom of luminaire - Includes cap (Zhaga connects by others) - Available only with 4L, 6L, 8L Lumen packages - Available only with UL voltage - Available only with BLANK control option - Not available with HS option	**F** Fusing - Canada only rated per ANSI C136.15-2020 - Compatible with 120V, 277V or 347V (phase to neutral) - Circuit fusing (Fusing is required for CSA) (Add -F to end of part number) - Includes pre-glazed - Wires-out-durable fusing, see inline delay fuse **U(duty Label and NEMA® L/R & Lock 7-Pin Photocell Receptacle** - Factory connects to 120-277V loads - Requires photocell or shorting cap by others **N** NEMA® L/R & Lock 7-Pin Photocell Receptacle - Factory connected to 120-277V loads - Requires photocell or shorting cap by others **R** NEMA® L/R & Lock 7-Pin Photocell Receptacle - Factory connected to 120-347V loads - Requires photocell or shorting cap by others - Refer to page 21 for compatible Synapse control interface **RL** Right - L/R & Lock pins are rotated to the left - Refer to RR/RL configuration diagram on page 27 for optic directionality - Not for use with symmetric optics **RR** Rotate Right - L/R & Lock pins are rotated to the right - Refer to RR/RL configuration diagram on page 27 for optic directionality - Not for use with symmetric optics

* Lumen Package codes identify approximate light output only. Actual lumen output levels vary by CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values.
** Recessed with, recessed canopy, cut-reach, hook & cord and pendant mounts are also available. Refer to https://www.creelighting.com/products/outdoor/canopy-and-soffit/ for spec sheets for these additional mounts.

US: creelighting.com T (800) 236-4800
Canada: creelighting-canada.com T (800) 473-1234

CREE LIGHTING

CPY500™ Series

CPY500™ LED Canopy Luminaire - Direct Mount

Rev. Date: V10 09/25/2023

Product Description

The CPY500™ Series LED luminaire features a large 11" X 11" glass optic that delivers the best in visual comfort and performance. Diffused optics minimize glare and increase visual comfort while delivering top-of-category 175 LPW efficiency and high-performance light distribution. Its sleek and low-profile form blends into the canopy while still being easily serviceable from below. Above the canopy, its uniquely angled extruded aluminum driver housing allows the CPY500™ Series to easily install around existing structures, making it ideal for both retrofit or new construction applications. Optional bezels provide enhanced aesthetics and optical control to minimize uplight and diffract the eye of drivers.
Applications: Petroleum canopies, CNG fueling stations

Performance Summary

- Assembled in the USA by Cree Lighting from US and imported parts
- **Initial Delivered Lumens:** Up to 20,900
- **Efficacy:** Up to 175 LPW
- **CRI:** Minimum 70 CRI (40K, 50K, 57K); 80 CRI (30K); 90 CRI (40K, 50K)
- **CCT:** 3000K, 4000K, 5000K, 5700K
- **Limited Warranty*:** 10 years on luminaire/10 years on ColorFast DeltaGuard® finish/up to 5 years for Synapse™ accessories/1 year on field-installed accessories
- IP65 overall, IP66 optics/IP66 driver housing
- Class I, Division 2 Hazardous Location for select models

*See https://creelighting.com/warranty/terms for warranty terms.

Accessories

Field-Installed Accessories

10" Square Sparkle Bezel
CPY-BZ-SQ-10 (Specify 1 per 10ft or SPI controls)
10" Square Cut-Off Bezel
CPY-BZ-SQ-10 (Specify 1 per 10ft or SPI controls)
24" Square Beauty Plate
Glass roof includes backer plate)
CPY-BP-SQ-24
- May be used with bezel accessories
- Not for use with SML or 2F options

Square Backer Plate for Glass Plate
CPY-BP-11 (With 2x case with 12" canopies)
- Not for use with SML or 2F options
- Field-customizable to upgrade most existing recessed luminaires
- May be used with bezel accessories
- Not for use with SML or 2F options

Wet Location Junction Box w/Mounting Bracket for Driver Extrusion
CPY-JBOX-KIT
- Suitable for use with standard and hazardous locations
- 4.5" (114mm) H x 2.75" (70mm) W x 2.63" (67mm) D die-cast aluminum w/ gray powdercoat
- 1/2" (13mm) hub in each end and in back

Synapse™ SimplyWise 10V Interface
CPY-SYNAPSE-10V
- 10V, 277V
- Refer to Cree Lighting Synapse components to complete system
- Refer to Synapse spec sheet for details

Bird Spikes
Glass roof not include beauty plate)
CPY-BSPK-10 (for use with 10" canopies)
CPY-BSPK-16 (for use with 16" canopies)
- Field-customizable to upgrade most existing recessed mounted luminaires
- Not for use with SML or 2F options

Adapter Plate for Double Skin Canopies
CPY-ADPT-KIT
- Allows for full luminaire installation from below the canopy

*Must specify color: BK (Black), BZ (Bronze), SV (Silver) or WH (White)

Ordering Information
Example: CPY-11L-57K7-DF-UL-2M-WH-120V

CPY

Product	Lumen Package*	CCT/CRI	Optic	Voltage	Mounting**	Color Options	Controls (specify one)	Options
CPY	**2L** 2,000 Lumens **4L** 4,000 Lumens **6L** 6,000 Lumens **11L** 11,000 Lumens **20L** 20,900 Lumens	**30K8** 3000K, 80 CRI **40K7** 4000K, 70 CRI **40K9** 4000K, 90 CRI **50K7** 5000K, 70 CRI **50K9** 5000K, 90 CRI **57K7** 5700K, 70 CRI	**DF** Type V Diffused Lumiberline **DT** Type V Clear Lumiberline	**UL** 120-277V **HV** 347-480V Not available with 2L, 4L, 70L or 85L Lumen packages	**DM** Direct	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**10V** 10V Dimming to 10% - Not available with other controls - Must specify 277 option **2F** Zhaga Book 18 Socket, Bottom of Luminaire - Includes cap (Zhaga connects by others) - Available only with 4L, 6L, 8L Lumen packages - Available only with UL voltage - Available only with BLANK control option - Not available with HS option	**10KV** 10kV/5kA Surge Suppression Protection - Not available with 2F, 3F options - Not available with the BML option as it is included when BML option is selected **WP** NEMA® Photocell Receptacle Location Certification - Requires use of twist-lock(s) (by others) - Available only with 70V and 5P controls - Not available with HS option **ZT** Zhaga Book 18 Socket, bottom of luminaire - Includes cap (Zhaga connects by others) - Available only with 4L, 6L, 8L Lumen packages - Available only with UL voltage - Available only with BLANK control option - Not available with HS option

* Lumen Package codes identify approximate light output only. Actual lumen output levels vary depending on CCT. Refer to Delivered Lumens tables for specific lumen values.
** For Decorative, Architectural or Recessed options, consult factory.



Lumen Package	Dim "A"	Dim "B"	Weight
2L, 4L, 6L, 11L	11.1" (282mm)	15.6" (397mm)	15.4 lbs. (6.7kg)
15L	11.1" (282mm)	15.9" (404mm)	15.8 lbs. (6.9kg)
20L	13.2" (335mm)	17.9" (455mm)	17.9 lbs. (8.1kg)

Refer to page 4 for line drawings of the CPY or SPS, control, CT options and bezel accessories.

CPY-BZ-SQ-10 (Specify 1 per 10ft or SPI controls)



CPY-BP-SQ-24 (Glass roof includes backer plate)

CPY-BP-11 (With 2x case with 12" canopies)



- May be used with bezel accessories
- Not for use with SML or 2F options

- Field-customizable to upgrade most existing recessed mounted luminaires
- May be used with bezel accessories
- Not for use with SML or 2F options

Wet Location Junction Box w/Mounting Bracket for Driver Extrusion
CPY-JBOX-KIT
- Suitable for use with standard and hazardous locations
- 4.5" (114mm) H x 2.75" (70mm) W x 2.63" (67mm) D die-cast aluminum w/ gray powdercoat
- 1/2" (13mm) hub in each end and in back

Synapse™ SimplyWise 10V Interface
CPY-SYNAPSE-10V
- 10V, 277V
- Refer to Cree Lighting Synapse components to complete system
- Refer to Synapse spec sheet for details

Bird Spikes
Glass roof not include beauty plate)
CPY-BSPK-10 (for use with 10" canopies)
CPY-BSPK-16 (for use with 16" canopies)

Adapter Plate for Double Skin Canopies
CPY-ADPT-KIT
- Allows for full luminaire installation from below the canopy

Ordering Information
Example: CPY-11L-57K7-DF-UL-2M-WH-120V

CPY

Product	Lumen Package*	CCT/CRI	Optic	Voltage	Mounting**	Color Options	Controls (specify one)	Options
CPY	**2L** 2,000 Lumens **4L** 4,000 Lumens **6L** 6,000 Lumens **11L** 11,000 Lumens **20L** 20,900 Lumens	**30K8** 3000K, 80 CRI **40K7** 4000K, 70 CRI **40K9** 4000K, 90 CRI **50K7** 5000K, 70 CRI **50K9** 5000K, 90 CRI **57K7** 5700K, 70 CRI	**DF** Type V Diffused Lumiberline **DT** Type V Clear Lumiberline	**UL** 120-277V **HV** 347-480V Not available with 2L, 4L, 70L or 85L Lumen packages	**DM** Direct	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**10V** 10V Dimming to 10% - Not available with other controls - Must specify 277 option **2F** Zhaga Book 18 Socket, Bottom of Luminaire - Includes cap (Zhaga connects by others) - Available only with 4L, 6L, 8L Lumen packages - Available only with UL voltage - Available only with BLANK control option - Not available with HS option	**10KV** 10kV/5kA Surge Suppression Protection - Not available with 2F, 3F options - Not available with the BML option as it is included when BML option is selected **WP** NEMA® Photocell Receptacle Location Certification - Requires use of twist-lock(s) (by others) - Available only with 70V and 5P controls - Not available with HS option **ZT** Zhaga Book 18 Socket, bottom of luminaire - Includes cap (Zhaga connects by others) - Available only with 4L, 6L, 8L Lumen packages - Available only with UL voltage - Available only with BLANK control option - Not available with HS option

* Lumen Package codes identify approximate light output only. Actual lumen output levels vary depending on CCT. Refer to Delivered Lumens tables for specific lumen values.
** For Decorative, Architectural or Recessed options, consult factory.

US: creelighting.com T (800) 236-4800
Canada: creelighting-canada.com T (800) 473-1234

CREE LIGHTING

Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Wattage
	C	4	Cree Lighting	CPS-4L-57K7-DF-UL-xx-xx-xxx	CPS Canopy Luminaire, 8L Lumen Package, 5700K, 70 CRI, Diffuse Lambertian Distribution	1	8091	50.6
	L14	1	Cree Lighting	OSQL-C-22L-57K7-4M-Ux-xx-xx-xx-xx CONFIGURED FROM OSQL-C-xxL-30K7-4M-UL-xx-xx-xx	CONFIGURED FROM OSQL-C Luminaire, 3000K, 70 CRI, Type IV Mid	1	20900	131
	L13H	3	Cree Lighting	OSQL-C-22L-57K7-3B-Ux-xx-xx-xx-xx CONFIGURED FROM OSQL-C-40L-30K7-3B-UL-xx-xx-xx	CONFIGURED FROM OSQL-C Luminaire, 40L Lumen Package, 3000K, 70CRI, Type III Mid Optic w/Internal BLS	1	14375	131
	L14H	3	Cree Lighting	OSQL-C-22L-57K7-4B-Ux-xx-xx-xx-xx CONFIGURED FROM OSQL-C-xxL-40K7-4B-UL-xx-xx-xx	CONFIGURED FROM OSQL-C Luminaire, 3000K, 70 CRI, Type IV Mid w-Internal BLS	1	13175	131

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
POS CANOPY	+	12.2 fc	14.0 fc	9.9 fc	1.4:1	1.2:1
Calc Zone #1	+	1.8 fc	7.9 fc	0.0 fc	N/A	N/A
PARKING LOT	X	3.0 fc	6.8 fc	0.6 fc	11.3:1	5.0:1

NORTH

1" = 20'

20' 0 20' 40'

SCALE FEET

CIVIL SITE PHOTOMETRIC PLAN & DETAILS

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

PROJECT INFORMATION

PROPOSED CAR WASH FOR:
CREW CARWASH
N96 W17500 COUNTY LINE RD • GERMANTOWN, WI 53022

PROFESSIONAL SEAL

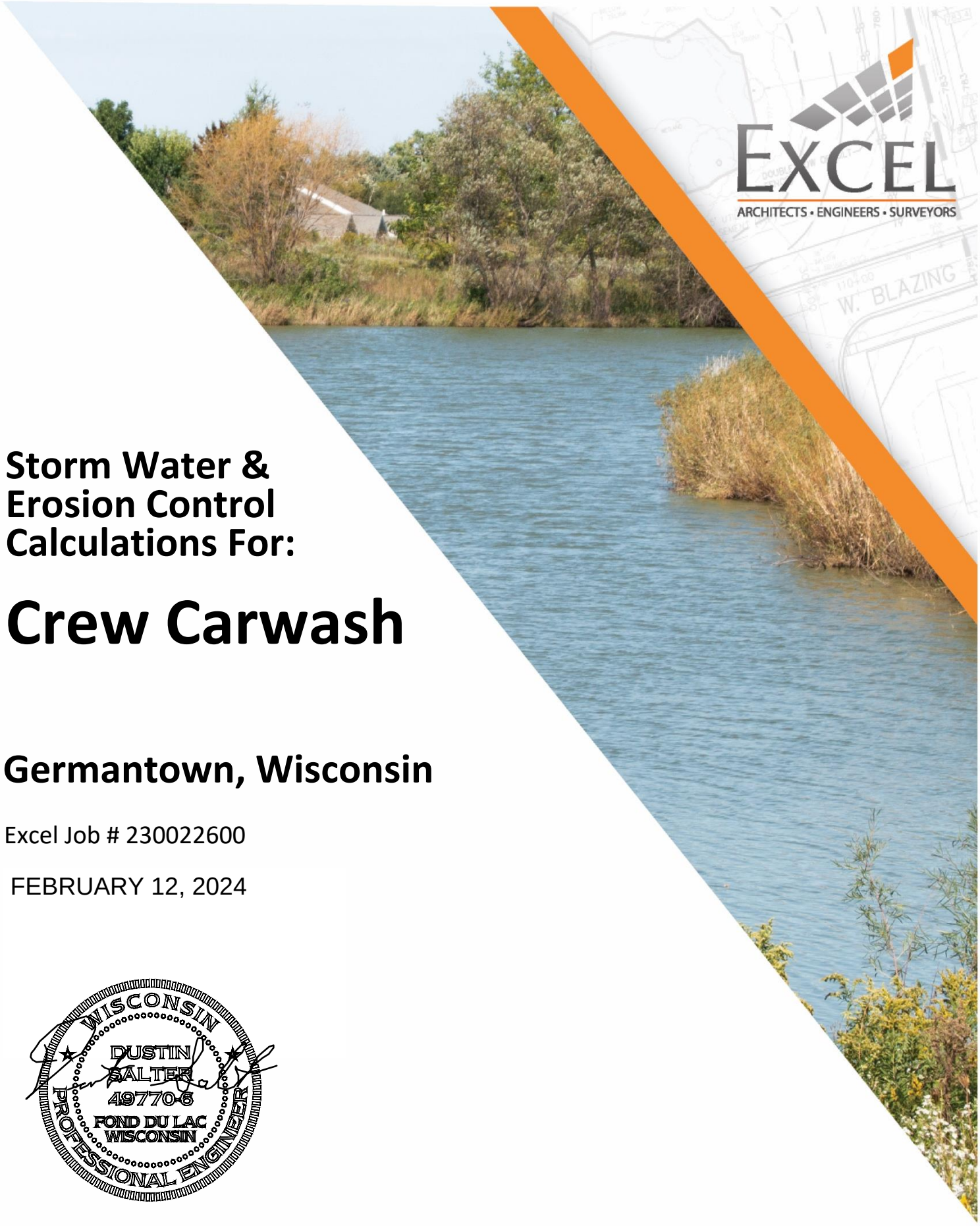
PRELIMINARY DATES
FEB. 12, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
230022600

SHEET NUMBER
C3.1

2021 © EXCEL ENGINEERING, INC.



Storm Water & Erosion Control Calculations For:

Crew Carwash

Germantown, Wisconsin

Excel Job # 230022600

FEBRUARY 12, 2024

WISCONSIN
DUSTIN SALTER
49770-6
FOND DU LAC WISCONSIN
PROFESSIONAL ENGINEER

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

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Appendices

Appendix A: Existing Drainage Patterns

Appendix B: Green Infrastructure Drainage Exhibit

Appendix C: Storm Pipe Calculations

Appendix D: Web Soil Survey Map

Appendix E: Post Construction Operation and Maintenance Plan

0.0 Introduction

0.1 Existing Conditions

The proposed redevelopment project site is located at N96W17500 County Line Road in the Village of Germantown, Wisconsin. The project site is approximately 1 acre in size. The site is bound by Emmer Road to the south and adjacent commercial properties to the north, east, and west. The existing site currently consists of a BP gas station along with a self-serve carwash and associated paved parking and drive lanes. The existing site will be completely razed as needed for the proposed new site improvements. The site currently sheet drains from north to south where stormwater is conveyed to a roadside ditch at the south end of the property. Stormwater is eventually conveyed via culverts to the Menomonee River located directly south of County Line Road. A representation of the existing site and current drainage patterns is provided in Appendix A.

0.2 Proposed Project Overview

The proposed redevelopment project consists of constructing a new Crew Carwash facility along with associated site improvements. Site improvements include concrete parking areas, sidewalks, and drive aisles. The proposed site improvements will result in approximately 43,346 square feet (0.995 acres) of disturbed site area. Proposed drainage patterns will match the existing site drainage patterns. Stormwater will be conveyed via sheet flow to various new inlet structures that will convey stormwater to the same discharge point as the current condition at the south end of the site. Refer to the construction plan set for a representation of the proposed site and final drainage patterns.

0.3 Stormwater Management Applicability

As previously mentioned, this project site is considered a redevelopment project site as defined by WDNR standards. Since the disturbed project area is less than one acre in total site disturbance, a construction site NOI is not required and the project is exempt from the WI DNR post construction stormwater management performance standards outlined in NR 151 for redevelopment sites. The project site will therefore be required to meet the local performance standards as required by the Village of Germantown and MMSD. Furthermore, since the redevelopment project site will disturb less than two acres of land and will add between 5,000 square feet and 21,780 square feet of new impervious area, the project site will be subject to meeting the green infrastructure requirements as defined by Chapter 13 of MMSD. The below sections of this report detail how the project site meets or exceeds the applicable requirements.

1.0 Design Criteria

1.1 Soils

Site specific geotechnical investigations have not yet been completed on the project site, therefore, soil characteristics were determined by utilizing available web soil survey information. See Table 1 below for a summary of the soils and hydrologic ratings indicated by the web soil survey map. Refer to Appendix D for the associated web soil survey map. Hydrologic soil group C soils were utilized for the site storm sewer sizing calculation.

Table 1: Web Soil Survey

MAP SYMBOL	SOIL TYPE	HYDROLOGIC RATING
Cw	Colwood silt loam	C/D
MtA	Mequon silt loam	C/D
OuB	Ozaukee silt loam	C

1.2 Rainfall Data

NOAA Atlas 14, Washington County rainfall depths with an MSE3 distribution were used for the site stormwater calculations. See Table 2 below for the rainfall data used.

Table 2: NOAA Atlas 14 24-hour Rainfall Depth

DESIGN STORM	RAINFALL DEPTH (INCHES)
10-YEAR	3.82

2.0 Stormwater Management Requirements

2.1 Wisconsin DNR Summary

As previously stated, the project site will result in 43,346 square feet (0.995 acres) of disturbed site area. Therefore, a construction site NOI will not be required by WI DNR. Therefore, the performance standards relating to peak discharge, TSS removal, infiltration, etc do not apply to the proposed redevelopment project.

2.2 Village of Germantown/MMSD Summary

Since the redevelopment project site will disturb less than two acres of land and will add between 5,000 square feet and 21,780 square feet of new impervious area, the project site will be subject to meeting the green infrastructure requirements as defined by Chapter 13.302(3)(c) of MMSD.

2.3 Green Infrastructure

The redevelopment project site will utilize a rain garden BMP to meet the green infrastructure requirements as defined by Chapter 13.302(3)(c) of MMSD. A total of 432 square feet of rain garden area is required based upon the new impervious area added. The proposed rain garden will total approximately 500 square feet, therefore exceeding this requirement. See Table 3 below for a summary of the green infrastructure requirements. Refer to Appendix B for a green infrastructure drainage area exhibit. Refer to the construction plan set for design details of the proposed rain garden BMP.

Table 3. Rain Garden

Green Infrastructure Summary		
Total New Added Impervious	6093	sf
Volume Required (1/2" x New Impervious Area)	254	cf
	1899	gal
Rain Garden Area Required (Per Section 13.302(4)(b) Table)	432	sf
Rain Garden Area Provided	500	sf

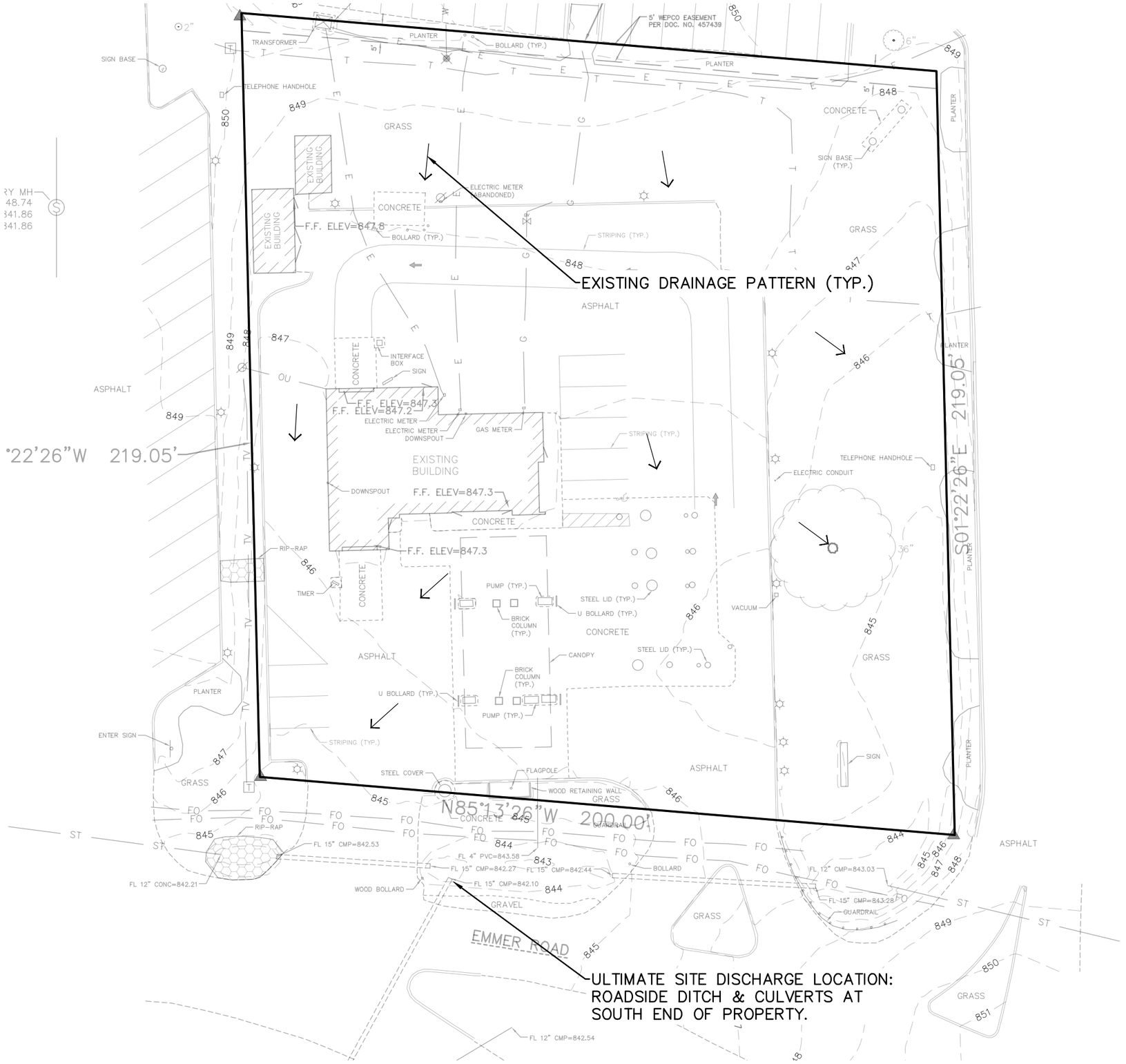
3.0 Storm Sewer Design

All storm sewer has been designed to convey the 10-year 24-hour post development storm. Additional capacity has been provided as a safety factor. See Appendix C, for pipe drainage areas and calculations

4.0 Erosion Control

The erosion control specifications, construction sequence, site stabilization notes, seeding notes, dewatering notes, and post construction and maintenance plan will be included on sheet C0.1, C1.2, and C2.2 of the construction plan set.

Appendix A: Existing Drainage Patterns



EXISTING SITE DRAINAGE PATTERNS

NORTH

1"= 30'

SCALE 30' 0 30' 60' FEET

Appendix B: Green Infrastructure Drainage Exhibit

PROPOSED BUILDING
346 SF FOOTPRINT
CIVIL FF = 847.30
ARCH FF=100.00

PROPOSED BUILDING
4,512 SF FOOTPRINT
CIVIL FF = 847.50
ARCH FF=100.00

PROPOSED IMPERVIOUS AREA DRAINING TO RAIN GARDEN = 9000 SF

GREEN INFRASTRUCTURE RAIN GARDEN. SEE DETAIL ON C2.2 (500 SF)

ULTIMATE SITE DISCHARGE LOCATION: ROADSIDE DITCH & CULVERTS AT SOUTH END OF PROPERTY.

RAIN GARDEN EXHIBIT

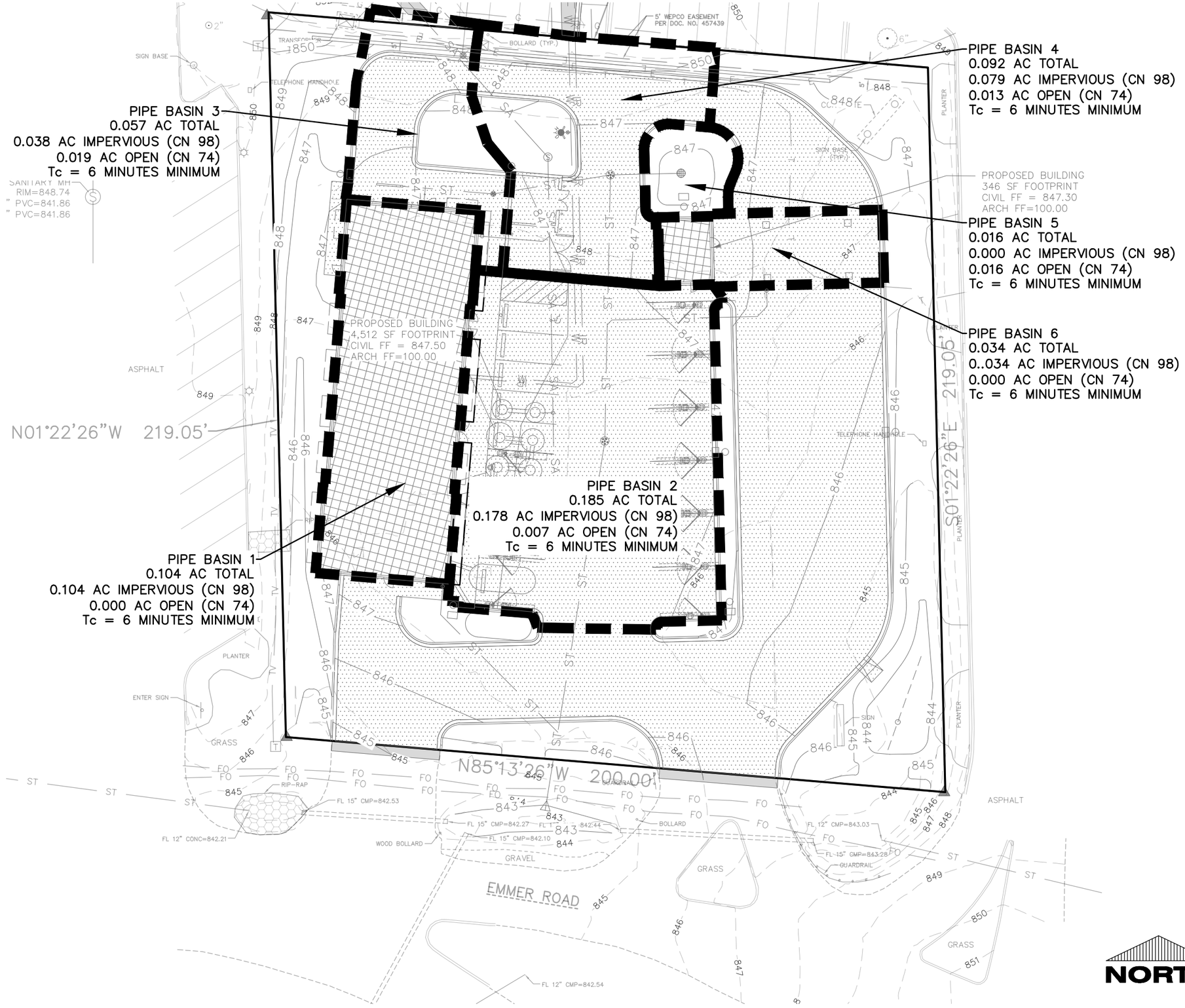
NORTH

1"= 30'

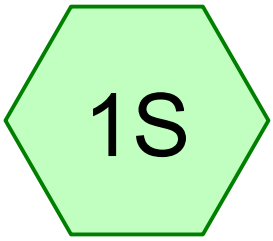
30' 0 30' 60'

SCALE FEET

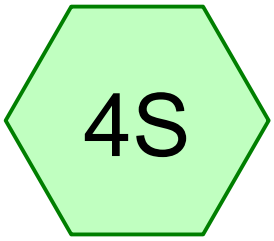
Appendix C: Storm Pipe Calculations



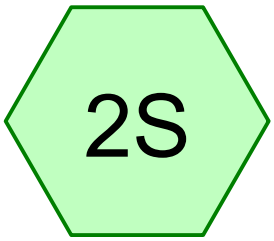
STORM SEWER BASIN MAP



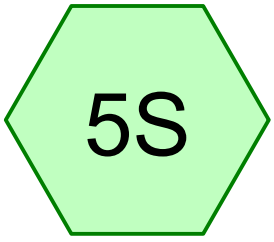
PIPE BASIN 1



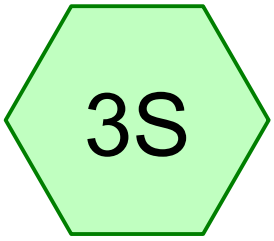
PIPE BASIN 4



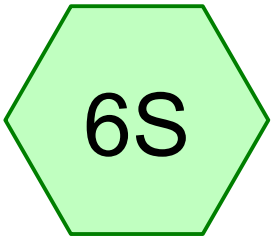
PIPE BASIN 2



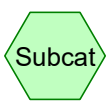
PIPE BASIN 5



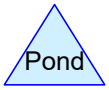
PIPE BASIN 3



PIPE BASIN 6









Routing Diagram for Pipe Calculations
Prepared by {enter your company name here}, Printed 2/12/2024
HydroCAD® 10.00-21 s/n 01178 © 2018 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.433	98	(1S, 2S, 3S, 4S, 6S)
0.055	74	(2S, 3S, 4S, 5S)
0.488	**95**	**TOTAL AREA**

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 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: PIPE BASIN 1 Runoff Area=0.104 ac 100.00% Impervious Runoff Depth>3.58"
Tc=6.0 min CN=98 Runoff=0.57 cfs 0.031 af

Subcatchment2S: PIPE BASIN 2 Runoff Area=0.185 ac 96.22% Impervious Runoff Depth>3.47"
Tc=6.0 min CN=97 Runoff=1.00 cfs 0.054 af

Subcatchment3S: PIPE BASIN 3 Runoff Area=0.057 ac 66.67% Impervious Runoff Depth>2.75"
Tc=6.0 min CN=90 Runoff=0.27 cfs 0.013 af

Subcatchment4S: PIPE BASIN 4 Runoff Area=0.092 ac 85.87% Impervious Runoff Depth>3.25"
Tc=6.0 min CN=95 Runoff=0.48 cfs 0.025 af

Subcatchment5S: PIPE BASIN 5 Runoff Area=0.016 ac 0.00% Impervious Runoff Depth>1.47"
Tc=6.0 min CN=74 Runoff=0.04 cfs 0.002 af

Subcatchment6S: PIPE BASIN 6 Runoff Area=0.034 ac 100.00% Impervious Runoff Depth>3.58"
Tc=6.0 min CN=98 Runoff=0.19 cfs 0.010 af

Total Runoff Area = 0.488 ac Runoff Volume = 0.135 af Average Runoff Depth = 3.31"
11.27% Pervious = 0.055 ac 88.73% Impervious = 0.433 ac

Summary for Subcatchment 1S: PIPE BASIN 1

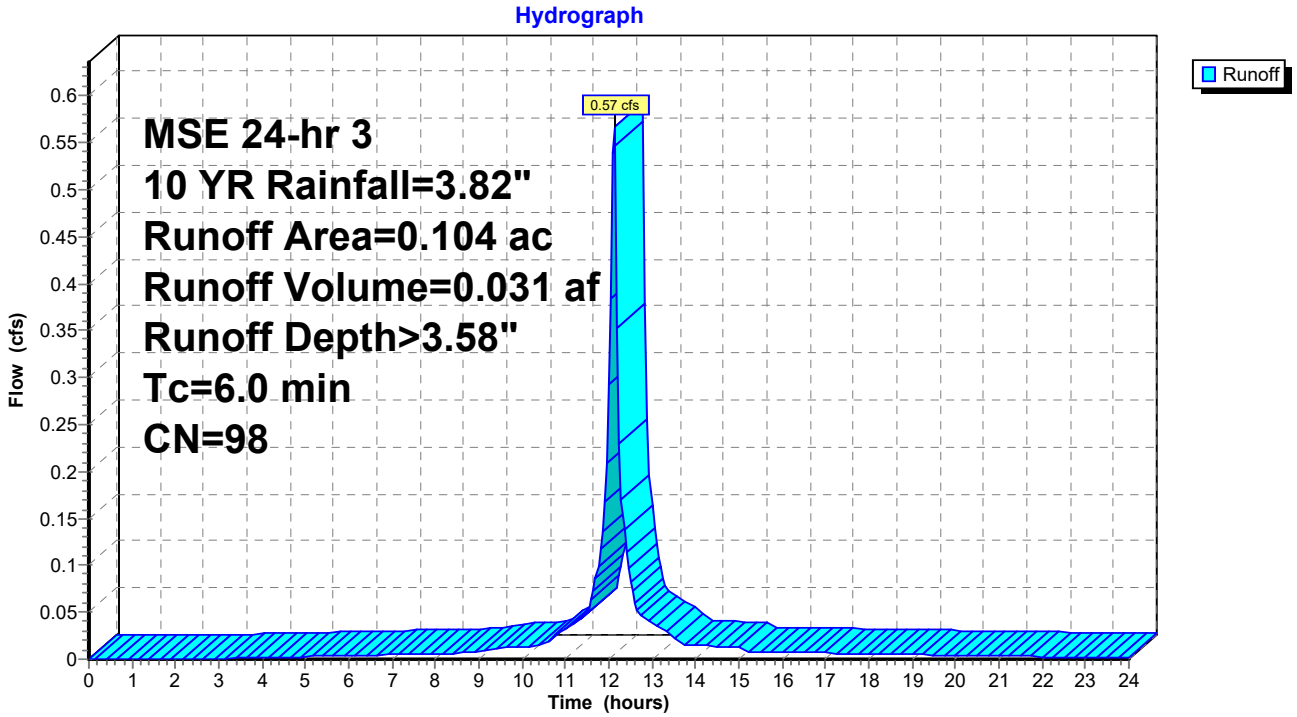
Runoff = 0.57 cfs @ 12.13 hrs, Volume= 0.031 af, Depth> 3.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10 YR Rainfall=3.82"

	Area (ac)	CN	Description
*	0.104	98	
	0.104		100.00% Impervious Area

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

Subcatchment 1S: PIPE BASIN 1



Summary for Subcatchment 2S: PIPE BASIN 2

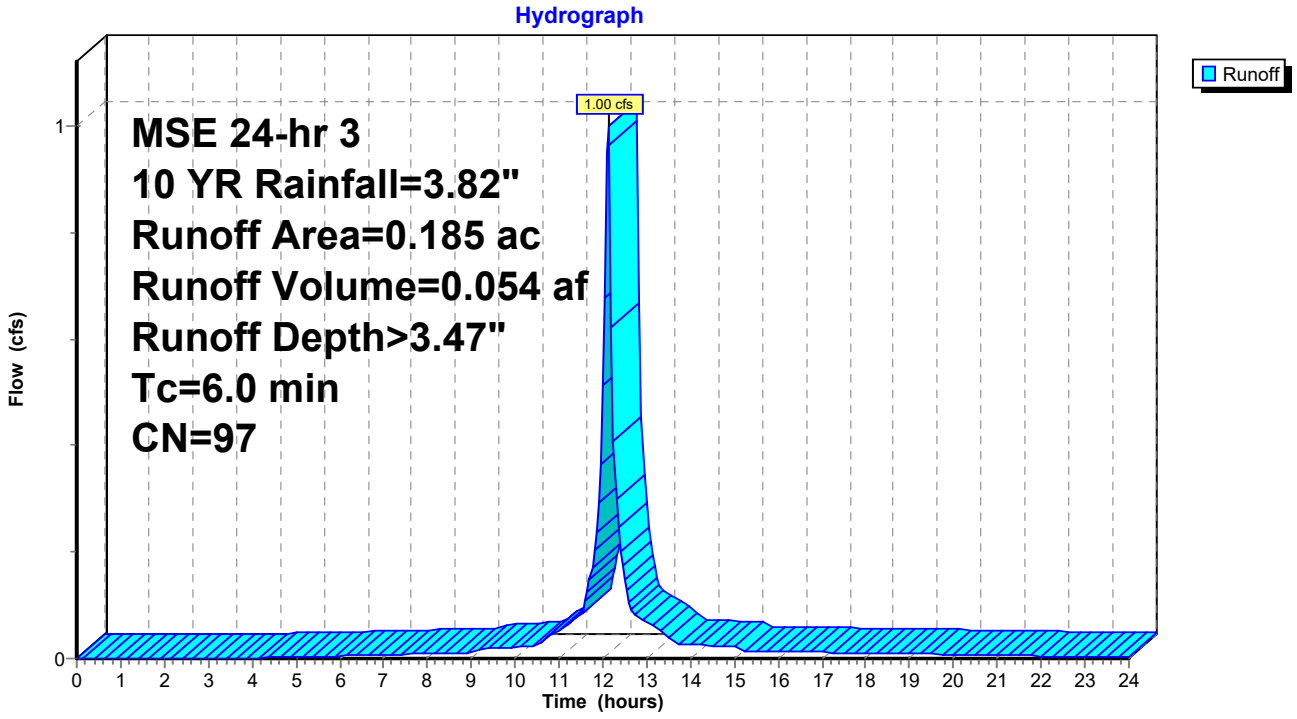
Runoff = 1.00 cfs @ 12.13 hrs, Volume= 0.054 af, Depth> 3.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10 YR Rainfall=3.82"

	Area (ac)	CN	Description
*	0.178	98	
*	0.007	74	
	0.185	97	Weighted Average
	0.007		3.78% Pervious Area
	0.178		96.22% Impervious Area

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

Subcatchment 2S: PIPE BASIN 2



Summary for Subcatchment 3S: PIPE BASIN 3

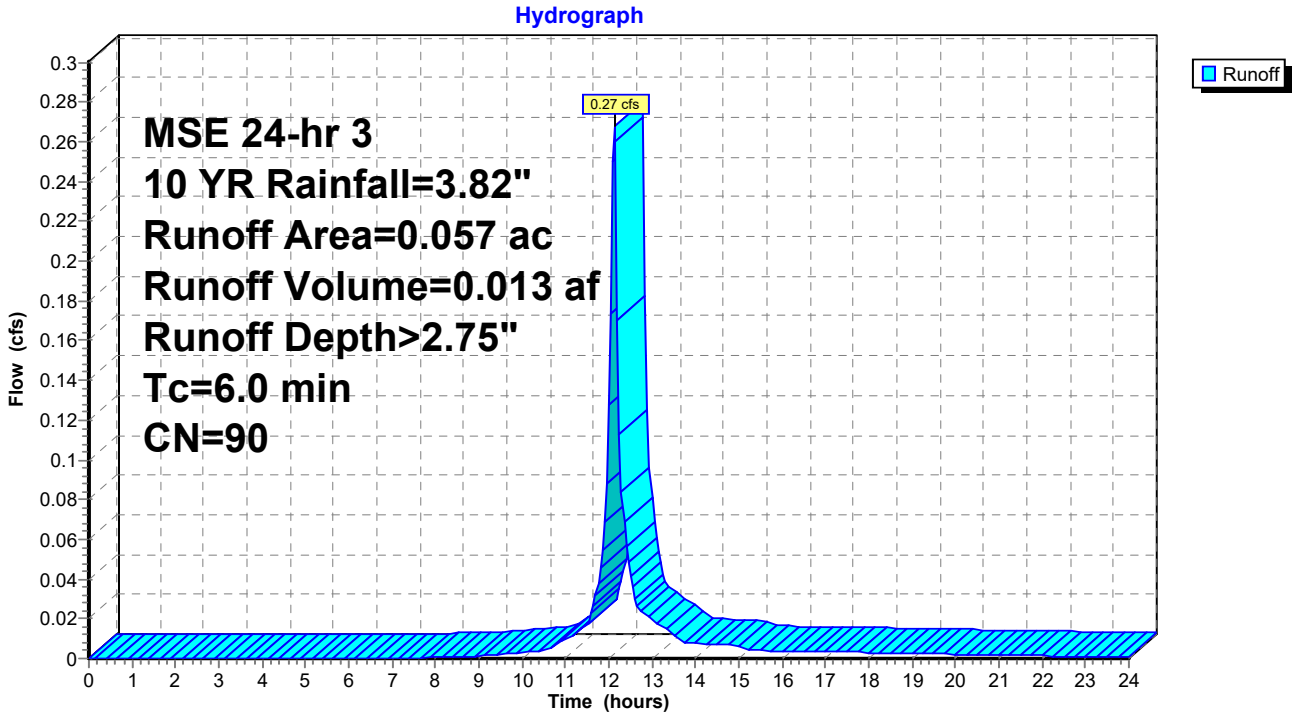
Runoff = 0.27 cfs @ 12.13 hrs, Volume= 0.013 af, Depth> 2.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10 YR Rainfall=3.82"

	Area (ac)	CN	Description
*	0.038	98	
*	0.019	74	
	0.057	90	Weighted Average
	0.019		33.33% Pervious Area
	0.038		66.67% Impervious Area

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

Subcatchment 3S: PIPE BASIN 3



Summary for Subcatchment 4S: PIPE BASIN 4

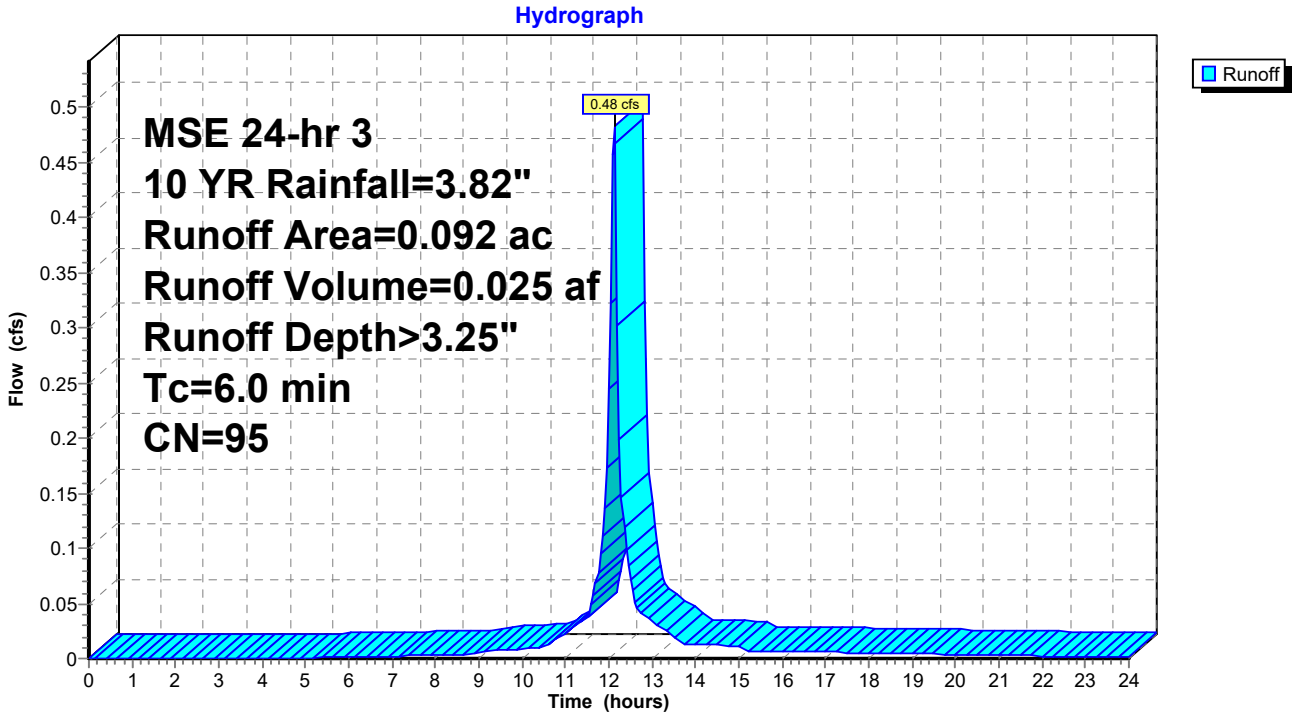
Runoff = 0.48 cfs @ 12.13 hrs, Volume= 0.025 af, Depth> 3.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10 YR Rainfall=3.82"

	Area (ac)	CN	Description
*	0.079	98	
*	0.013	74	
	0.092	95	Weighted Average
	0.013		14.13% Pervious Area
	0.079		85.87% Impervious Area

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

Subcatchment 4S: PIPE BASIN 4



Summary for Subcatchment 5S: PIPE BASIN 5

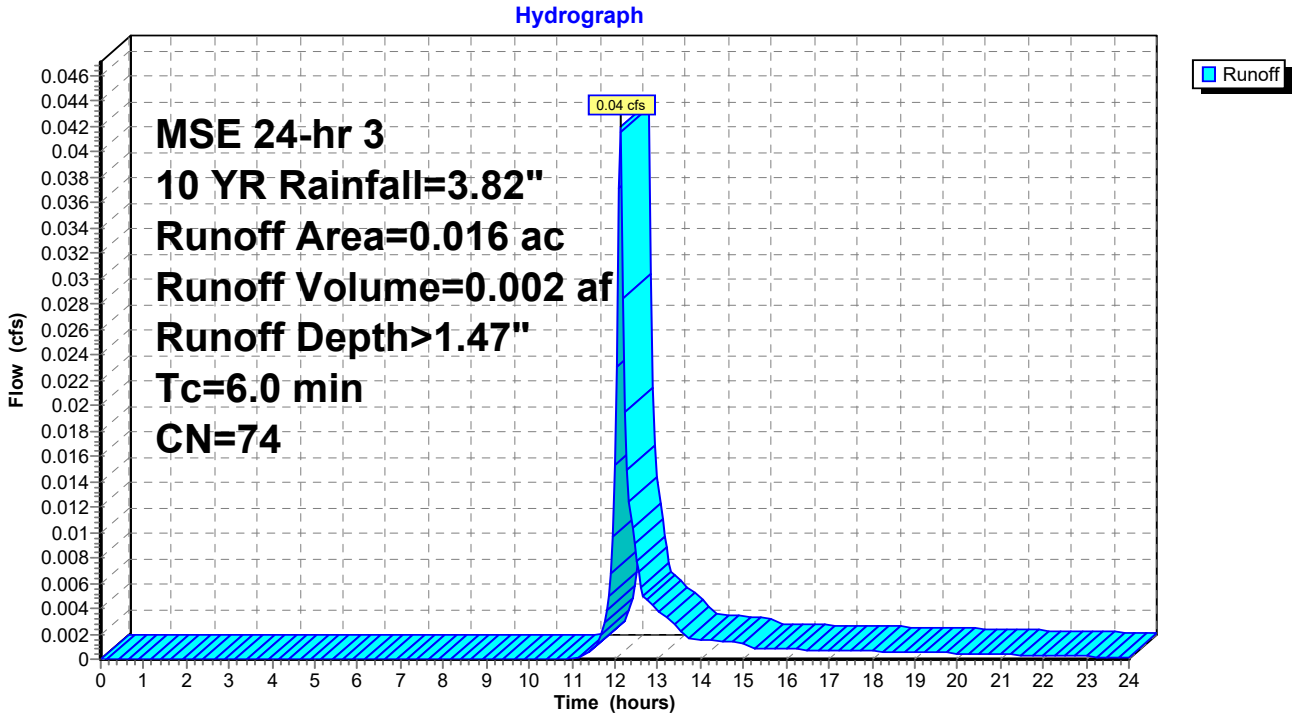
Runoff = 0.04 cfs @ 12.14 hrs, Volume= 0.002 af, Depth> 1.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10 YR Rainfall=3.82"

	Area (ac)	CN	Description
*	0.016	74	
	0.016		100.00% Pervious Area

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

Subcatchment 5S: PIPE BASIN 5



Summary for Subcatchment 6S: PIPE BASIN 6

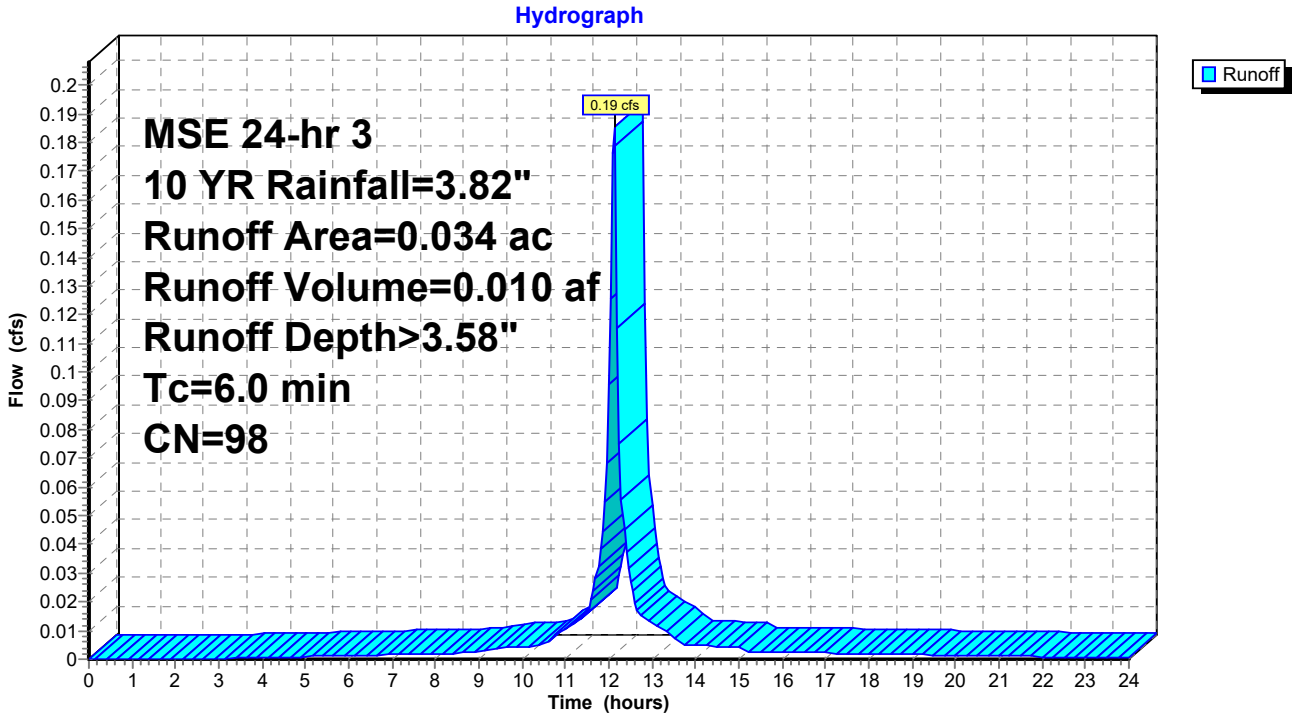
Runoff = 0.19 cfs @ 12.13 hrs, Volume= 0.010 af, Depth> 3.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10 YR Rainfall=3.82"

	Area (ac)	CN	Description
*	0.034	98	
	0.034		100.00% Impervious Area

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

Subcatchment 6S: PIPE BASIN 6



Excel Engineering Project No. 230022600 Project Name Crew Carwash - Germantown

Pipe Data				Pipe Capacity (10-yr)				
Pipe ID	Diameter (FT)	Slope (FT/FT)	Manning's n	Contributing Basin Numbers	Total Flow (cfs)	Total Flow (gpm)	Full Flow Capacity (cfs)	Full Flow Capacity (gpm)
A	1	0.0053	0.012	1,2,3,4,5,6	2.55	1144	2.82	1264
B	0.67	0.0150	0.012	1	0.57	256	1.63	731
C	1	0.0050	0.012	3,4,5,6	0.98	440	2.74	1228
D	0.67	0.0050	0.012	6	0.19	85	0.94	422
E	0.83	0.0040	0.012	5	0.04	18	1.49	668
F	0.67	0.0055	0.012	3	0.27	121	0.99	443
G	0.67	0.0055	0.012	3	0.27	121	0.99	443

Full Flow Capacity based off Manning's Equation $Q = \frac{1.49}{n} R^{2/3} S^{1/2} a$

Where: Q = Full Flow Capacity of Pipe (cfs)
n = manning's roughness coefficient
R = hydraulic radius (ft) (D/4)
s = hydraulic gradient, slope (ft/ft)
a = flow area (sq. ft.)

Typical Manning's n	
HDPE	0.012
PVC	0.012
Concrete	0.013
CMP	0.024

Pipe Basin Number	10 Yr Flow (cfs)
1	0.57
2	1.00
3	0.27
4	0.48
5	0.04
6	0.19

*Total Flow calculated via TR-55 hydrologic calculations. Reference Storm Pipe Basin Map & TR-55 Calculations

Appendix D: Web Soil Survey Map



Map Scale: 1:507 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 5 10 20 30

Feet
0 20 40 80 120

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

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

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

Soil Rating Lines

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

Soil Rating Points

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

Water Features

- Streams and Canals

Transportation

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

Background

- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Washington County, Wisconsin
Survey Area Data: Version 23, Sep 8, 2023

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
Cw	Colwood silt loam, 0 to 2 percent slopes	C/D	0.1	10.6%
MtA	Mequon silt loam, 1 to 3 percent slopes	C/D	1.1	89.0%
OuB	Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes	C	0.0	0.4%
Totals for Area of Interest			**1.2**	**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 E: Post Construction Operation and Maintenance Plan

The owner of the property affected shall inspect and maintain the following stormwater management systems frequently, especially after heavy rainfalls, but at least on an annual basis unless otherwise specified.	
STORMWATER FACILITY	**TYPE OF ACTION**
1. Lawn and Landscaped Areas	All lawn areas shall be kept clear of any materials that block the flow of stormwater. Rills and small gullies shall immediately be filled and seeded or have sod placed in them. The lawn shall be kept mowed, tree seedlings shall be removed, and litter shall be removed from landscaped areas.
2. Swales	All grassed swales showing signs of erosion, scour, or channelization shall be repaired, reinforced, and revegetated immediately. All swales shall be repaired to the original plan requirements. Mowing shall take place no less than twice per year at a height of no less than three inches. Grasses shall not be allowed to grow to a height that permits branching or bending. Mowing shall only take place when the ground is dry and able to support machinery.
3. Rip Rap	All rip rap showing signs of erosion or scour shall be repaired and reinforced immediately. Rip rap should be kept clean of vegetation and sediment. All rip rap shall be repaired to the construction plan requirements.
4. Catch Basin/Curb Inlet Grates	The grate openings to these structures must be kept cleared of any clogging or the blocking of stormwater flow.
5. Rain Garden	During the first 2-3 months of establishment, the garden will require, at a minimum, watering on a weekly basis depending on weather. Visual inspections of the garden shall be performed annually at a minimum and more frequently during establishment. Maintenance shall be required when standing water occurs 3 days after a rain event. Rain garden can be dewatered by utilizing a submersible pump in the maintenance port/drawdown device. Maintenance shall consist of the removal of sediment, and a 2 foot undercut. Replace the undercut material with 1/3 topsoil, 1/3 compost, and 1/3 sand. Restoration of plant material shall be by plugging 1 native perennial per square foot, not by seeding. In the spring of each growing year, dead vegetation shall be removed to allow for new growth. At least 2 times during the growing season, the garden should be weeded and additional hardwood mulch shall be added as needed to assist in weed suppression.
6. Record of Maintenance	The operation and maintenance plan shall remain onsite and be available for inspection when requested by the local governing agency. When requested, the owner shall make available for inspection all maintenance records to the department or agent for the life of the system.


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CARWASH
Crew
CARWASH
9705
Clean Car Exit
Crew
CARWASH
Cashier
Cashier
Unlimited
Club
Unlimited
Club


Crew
CARWASH
Crew
CARWASH
9705
Clean Car Exit
Cashier
Cashier
Unlimited
Club
Unlimited
Club


Crew
CARWASH
Cashier
Cashier
Unlimited Club
Unlimited Club


Crew
CARWASH


Crew
CARWASH


Crew
CARWASH
Friendly

Village of Germantown ...Willkommen

Fee must accompany application

$275 Sign Review Fee

$ 75 Sign Face Replacement

Paid _____ Date_____

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

SignCraft Industries
8816 Corporation Dr
Indianapolis, IN 46256
Insaller - TBD
Phone (317) 842-8664
Fax ( )
E-Mail mkelsey@signcraftind.com

PROPERTY OWNER

Crew Carwash
11650 Exit 5 Parkway
Fishers, IN 46037
Phone ( )

2

PROPERTY ADDRESS OR GENERAL LOCATION

N96 W 17500 County Line Rd, Germantown, WI 53022

3

SIGN INFORMATION

EC01

Sign Dimensions 5' height x 10' width Single/Multi Tenant (circle one)
Number of Sides 2 Building Frontage SF _____
Total Square Footage of Sign (include all sides) 100
Total height of the Sign 9.43'
Is the Sign to be illuminated x yes _____ no
Type of Sign Construction Materials Existing brick base, metal retainer, plactic face
Distance to Closest Property Line 10'

Are there any existing signs on the property Yes, monument sign
If yes, what is the total Square Footage of existing signs 50 sqft

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

4

SIGNATURES -- ALL APPLICATIONS MUST BE SIGNED BY OWNER!

Christina Blackwell 5/31/24
Applicant Date

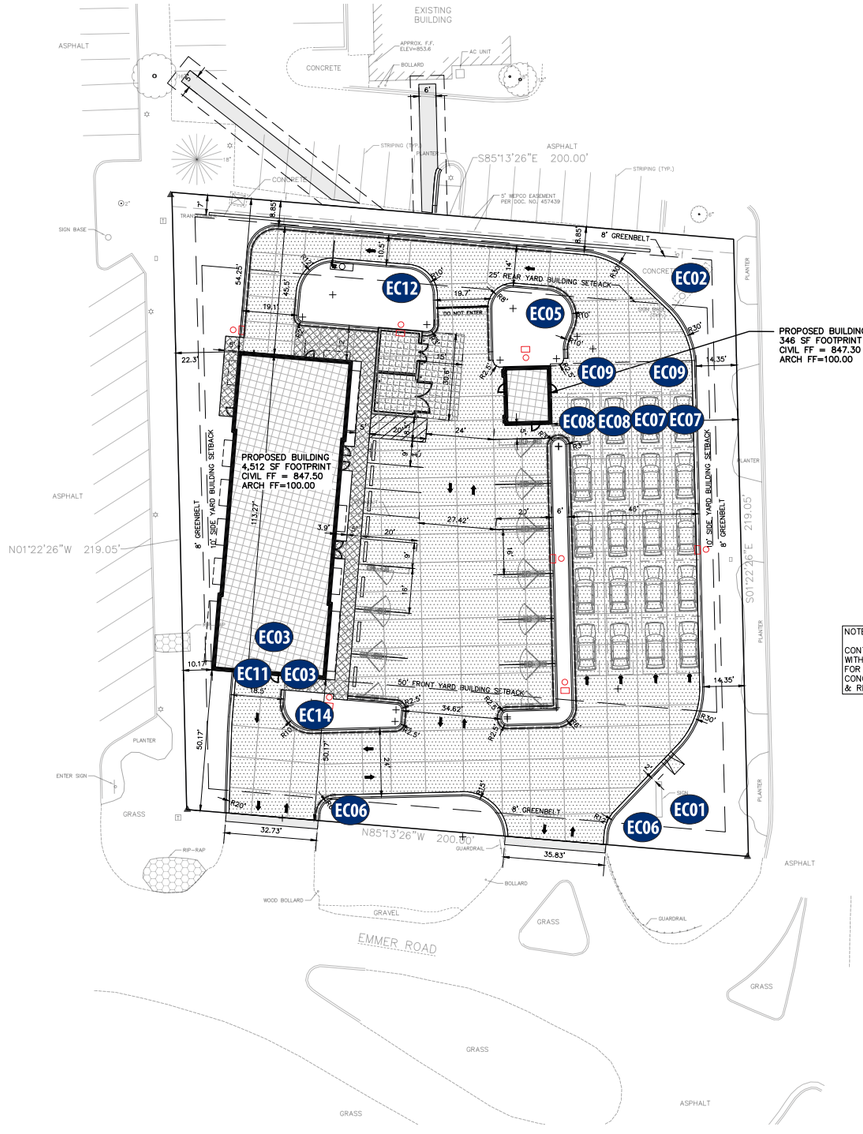
_____
Owner Date



GERMANTOWN, WI

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SITE MAP



NOTE:
CONTRACTOR TO COORDINATE WITH OWNER AND MEP PLANS FOR ANY EXTERIOR HEATED CONCRETE SLAB LOCATIONS & REQUIREMENTS.

NOTE:
KNOX BOX TO BE PROVIDED AT PRIMARY ENTRANCE PER LOCAL REQUIREMENTS. CONTRACTOR TO COORDINATE W/ BUILDING INSPECTOR/FIRE DEPARTMENT FOR SPECIFIC REQUIREMENTS.

PAVEMENT HATCH KEY:
- ASPHALT
- HEAVY DUTY CONCRETE
- DUMPSTER PAD CONCRETE
- SIDEWALK CONCRETE

*SEE SHEET C0.1 FOR SECTION REQUIREMENTS

CURB & GUTTER MARKING KEY:
- INVERTED CURB & GUTTER
- SHEDDING CURB & GUTTER

SPECIFICATION NOTE:
SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

SITE INFORMATION:

PROPERTY ADDRESS: N96W17500 COUNTY LINE RD, GERMANTOWN WI

PARCEL ID NUMBER: 334990

PROPERTY AREA: 43,558 S.F. (1.00 ACRES).

EXISTING ZONING: B-5 W/ HIGHWAY INTERCHANGE AREA OVERLAY

PROPOSED ZONING: B-5 W/ HIGHWAY INTERCHANGE AREA OVERLAY

PROPOSED USE: CONVEYOR-STYLE CARWASH

AREA OF SITE DISTURBANCE: 43,346 SF (0.995 AC)

SETBACKS: BUILDING: FRONT = 50'
SIDE = 10'
REAR = 25'

PAVEMENT: FRONT = 8'
SIDE = 8'
REAR = 8'

PROPOSED BUILDING HEIGHT: 35' TO TOP OF TOWER (MAX. HEIGHT ALLOWED: 35')

PARKING REQUIRED: NO CODIFIED REQUIREMENT FOR CARWASH USE; ADEQUATE SPACE FOR EMPLOYEES AND CUSTOMERS

PARKING PROVIDED: 14 TOTAL (5 STANDARD EMPLOYEE SPACES, 9 VACUUM SPACES)

HANDICAP STALLS REQUIRED: 1 REQUIRED, 1 PROVIDED

LANDSCAPE REQUIREMENTS: MIN. LANDSCAPE SURFACE RATIO = 20% OPEN AREA

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

CIVIL SITE PLAN

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

PROJECT INFORMATION

PROPOSED CAR WASH FOR:
CREW CARWASH
N96 W17500 COUNTY LINE RD • GERMANTOWN, WI 53022

PROFESSIONAL SEAL

PRELIMINARY DATES
FEB. 1, 2024
FEB. 5, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
230022600

SHEET NUMBER
C1.1

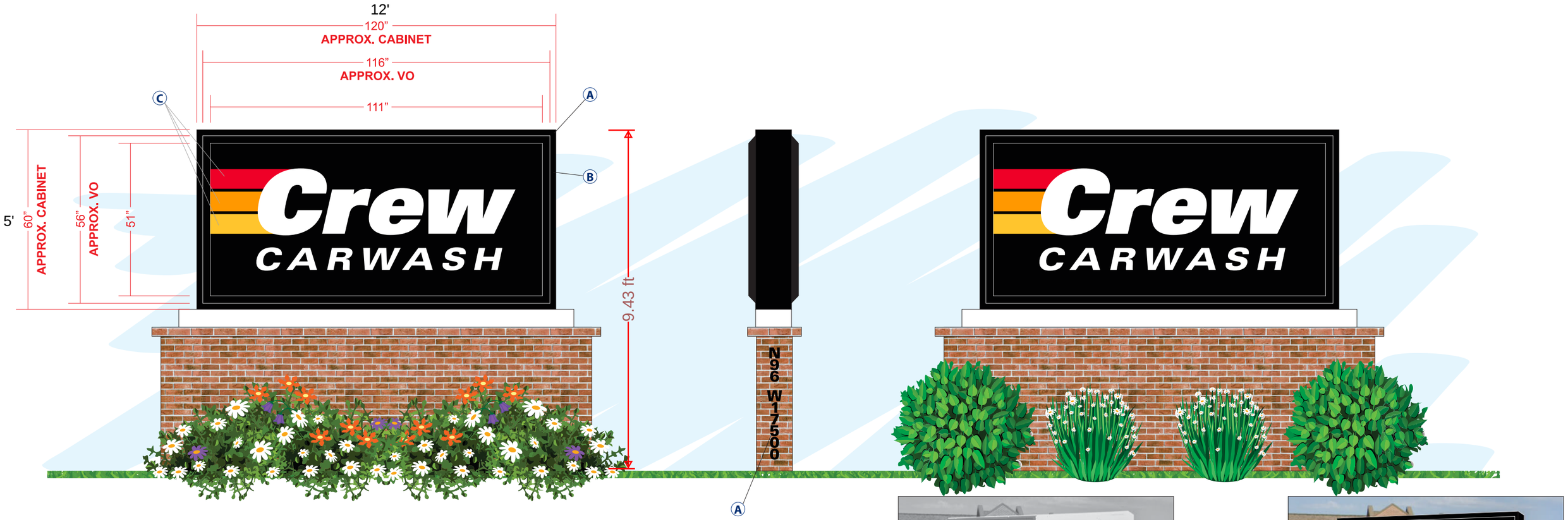
2021 © EXCEL ENGINEERING, INC.

SIGN SPECIFICATIONS

EC01	EXISTING MONUMENT
EC02	EXISTING PYLON
EC03	2 CHANNEL LETTERS
~~EC04~~	~~EXIT CHANNEL LETTERS~~
EC05	DIGITAL MENU BOARD
EC06	2 DIRECTIONAL SIGNS
EC07	2 UNLIMITED CLUB SETS
EC08	2 CASHIER SETS
EC09	4 SNAP FRAMES
EC10	2 SPECIAL SERVICE SIGNS
EC11	CLEAN CAR EXIT
EC12	WE ARE RESPONSIBLE SIGN
EC13	CLEARANCE BAR
EC14	VACUUMS SIGN
EC15	COMING SOON SITE SIGN

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EC01





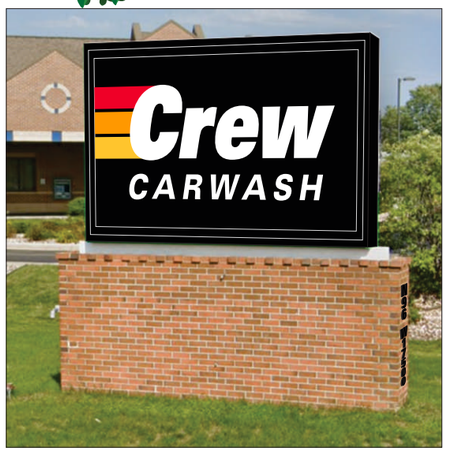


PHOTO SCALE: 3/16" = 1' - 0"

***NOTE: BRICK BASE AND CABINET ARE EXISTING**

***NOTE: A SURVEY IS NEEDED TO DETERMINE SIZE OF NEW FACES**

***NOTE: CABINET TO BE REPAINTED BLACK**

FABRICATE AND INSTALL QTY 2 NEW FACES FOR EXISTING D/F MONUMENT SIGN
Area: 50 sqft

FACES

MATERIAL - PAN FORMED, EMBOSSED PLASTIC TO MATCH SPECS
FLANGE - 2 1/2"
PAN DEPTH - 2"

INSTALLATION - MOUNTED INTO RIGID RETAINERS

FABRICATE AND INSTALL QTY 2 NEW SETS OF ADDRESS NUMBERS

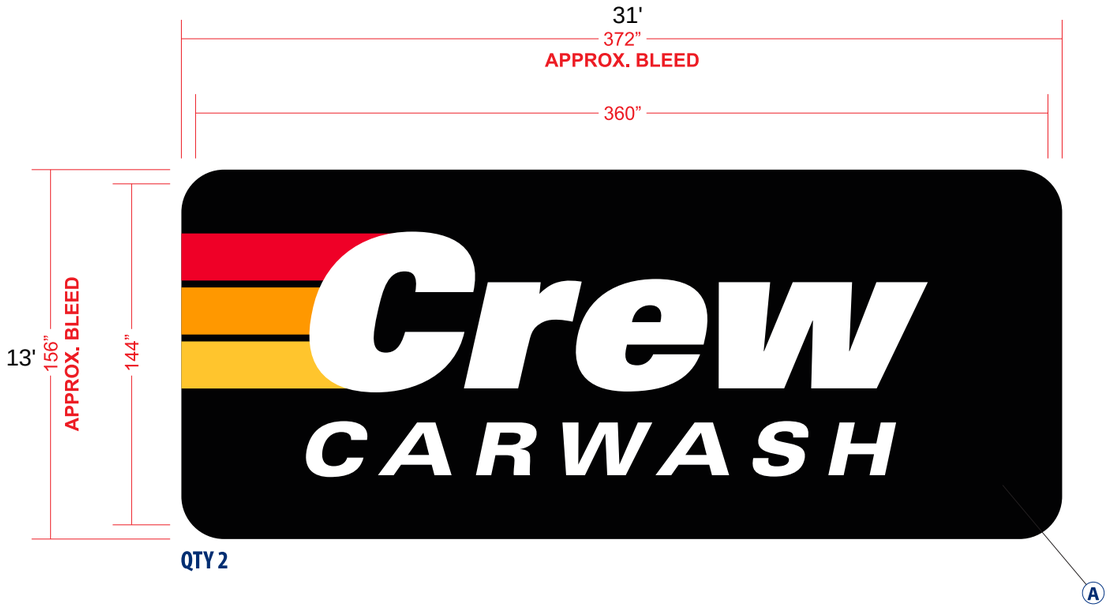
FACES - 1/2" BLACK PVC PAINTED TO MATCH SPECS

INSTALLATION - MOUNTED FLUSH TO EXISTING BRICK BASE

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ART SCALE: 3/8" = 1' - 0"

EC02



QTY 2

*NOTE: A SURVEY IS NEEDED TO DETERMINE SIZE OF NEW FACES

*NOTE: PYLON TO BE REPAINTED BLACK

Area: 360 sqft

FABRICATE AND INSTALL QTY 2 NEW FACES FOR EXISTING D/F PYLON SIGN

FACES
MATERIAL - FLEX FACE MATERIAL PRINTED TO MATCH SPECS

INSTALLATION - MOUNTED INTO EXISTING RIGID RETAINERS

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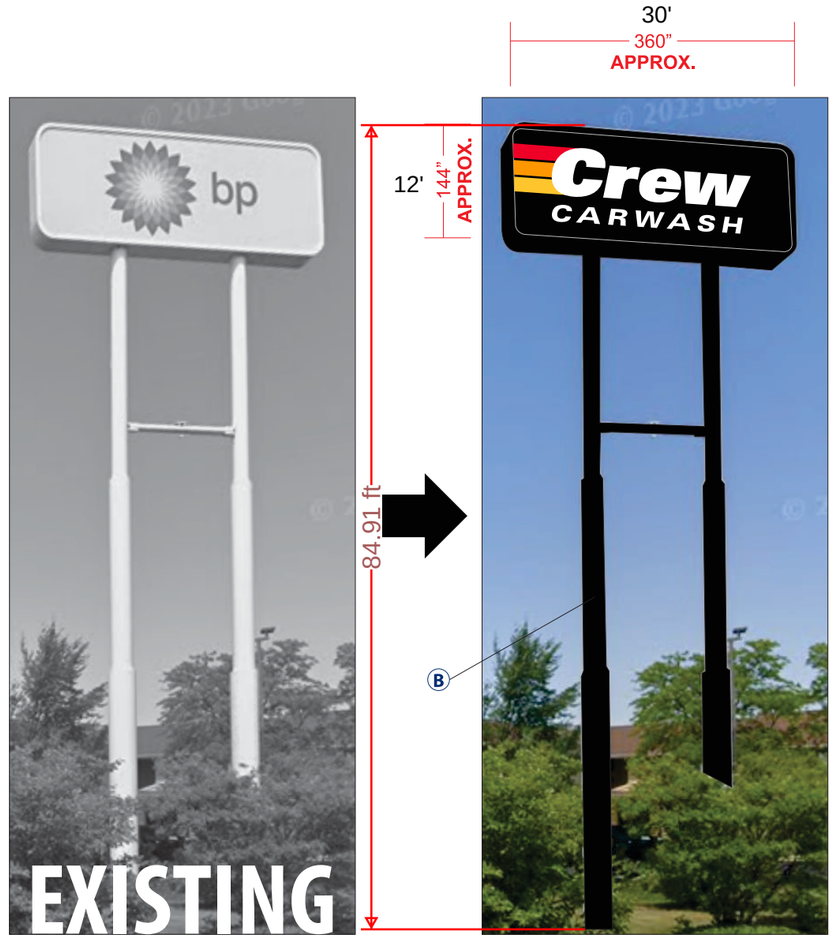
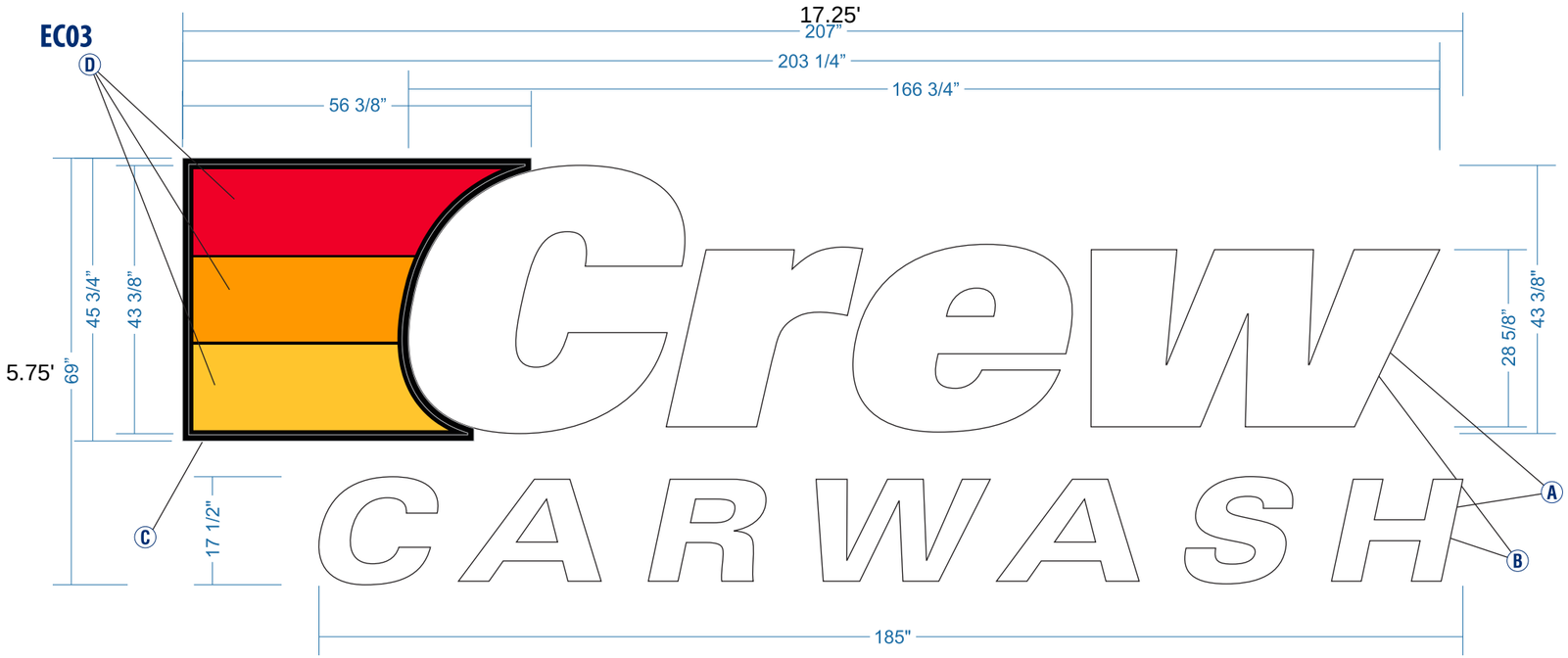


PHOTO SCALE: 1/16” = 1’ - 0”

ART SCALE: 3/16” = 1’ - 0”

EC03



99.19 SQ FT PER SIGN (198.38 SQ FT TOTAL)
FABRICATE AND INSTALL QTY 2 INTERNALLY ILLUMINATED FACE-LIT BUILDING SIGNS

RIBBON CABINET
BODY - 1” ALUMINUM ANGLE SKINNED IN .090 ALUMINUM
RETURNS - 3”TO MATCH SPECS
RETAINERS - 1” RIGID RETAINERS TO MATCH SPECS
LEDS - WHITE - **ADD EXTRA LEDS**

INSTALLATION - MOUNTED FLUSH TO FASCIA

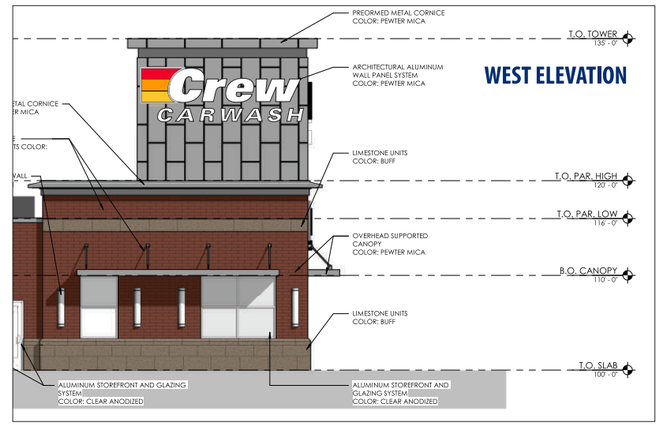
RIBBON FACES
MATERIAL - PAN FORMED, EMBOSSED PLASTIC PAINTED SECOND SURFACE TO MATCH SPECS
FLANGE - 1 1/4”
PAN DEPTH - 1”

INSTALLATION - MOUNTED INTO RIGID RETAINERS

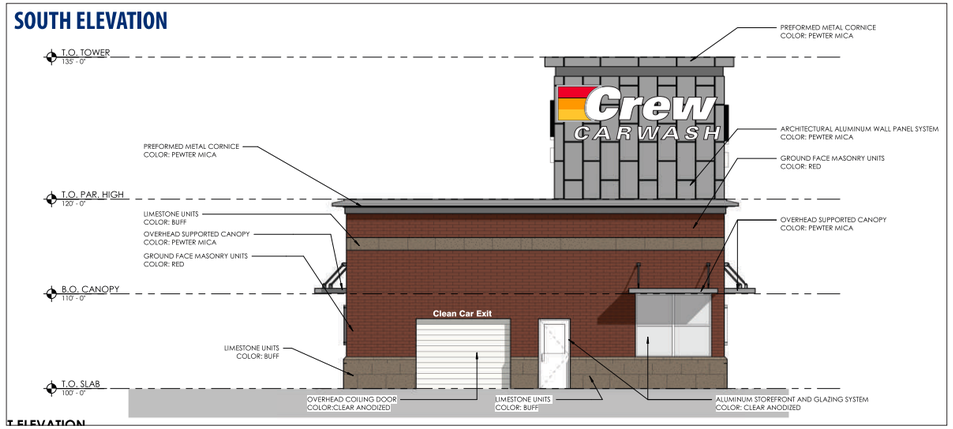
“CREW” & “CARWASH”
FACES - 1/8” 2447 WHITE ACRYLIC
RETURNS - 4”TO MATCH SPECS
TRIM CAPS - 1”TO MATCH SPECS
BACKS - .063 ALUMINUM
LEDS - WHITE

INSTALLATION - MOUNTED FLUSH TO FASCIA

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SOUTH ELEVATION

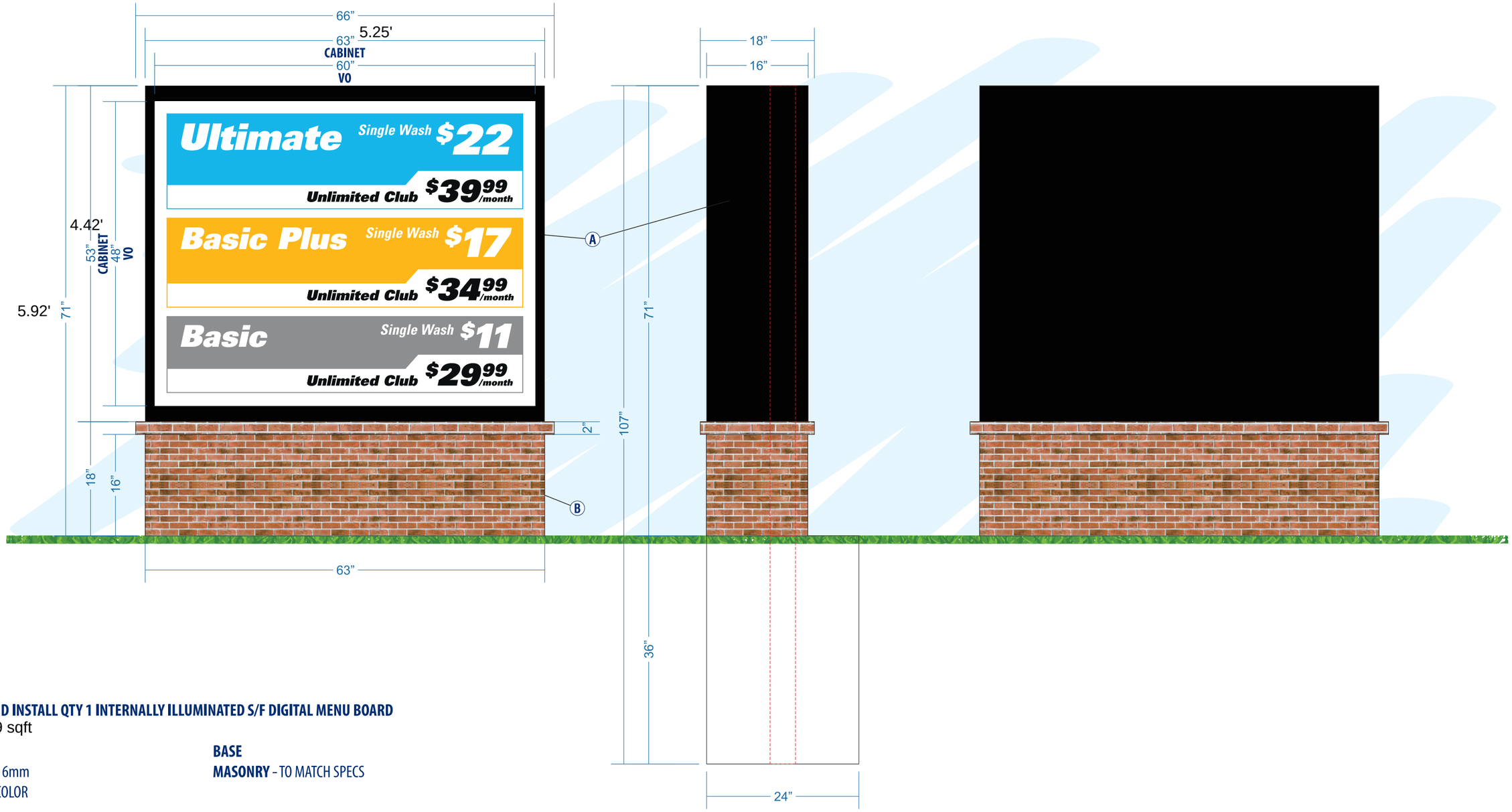


T ELEVATION

PHOTO SCALE: 1/16” = 1’ - 0”

ART SCALE: 1/2” = 1’ - 0”

EC05



FABRICATE AND INSTALL QTY 1 INTERNALLY ILLUMINATED S/F DIGITAL MENU BOARD
Area: 23.19 sqft

EMC
RESOLUTION - 6mm
COLOR - FULL COLOR
DEPTH - 5”

BASE
MASONRY - TO MATCH SPECS

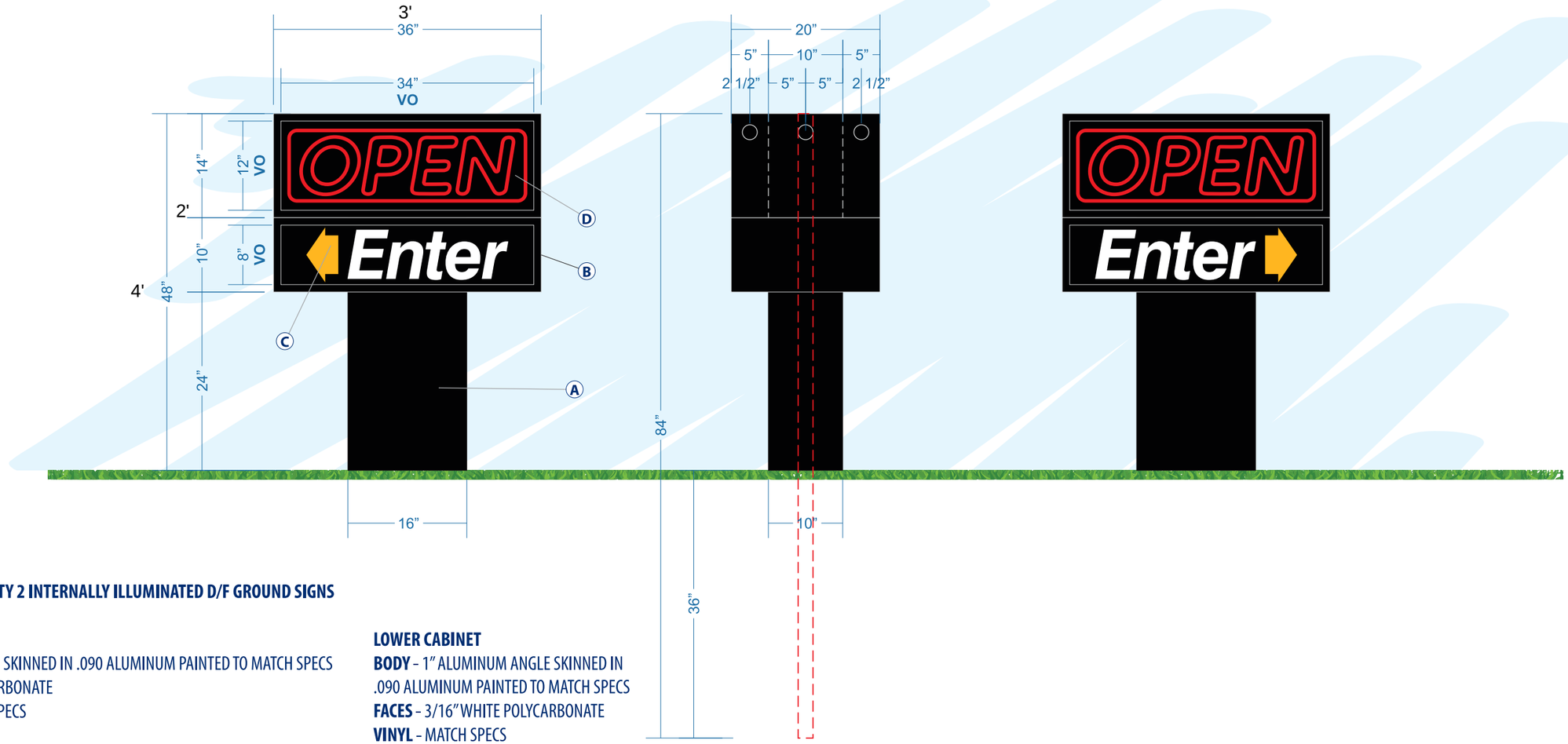
INSTALLATION - MOUNTED TO SIGN BASE & POST

INSTALLATION - MOUNTED AROUND 4” SCH 40 PIPE BURIED INTO GRADE

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ART SCALE: 3/4” = 1’ - 0”

EC06



6 SQ FT
FABRICATE AND INSTALL QTY 2 INTERNALLY ILLUMINATED D/F GROUND SIGNS

UPPER CABINET
BODY - 1" ALUMINUM ANGLE SKINNED IN .090 ALUMINUM PAINTED TO MATCH SPECS
FACES - 3/16" CLEAR POLYCARBONATE
RETAINERS - 1"TO MATCH SPECS
NEON - 12 MM RED

INSTALLATION - BAFFLE & DIVIDER NEEDED BETWEEN TOP AND BOTTOM CABINETS

BASE
BODY - 1" ALUMINUM ANGLE SKINNED IN .090 ALUMINUM PAINTED TO MATCH SPECS

INSTALLATION - INSTALLED AROUND 2" SQ ALUMINUM POST BURIED INTO GRADE

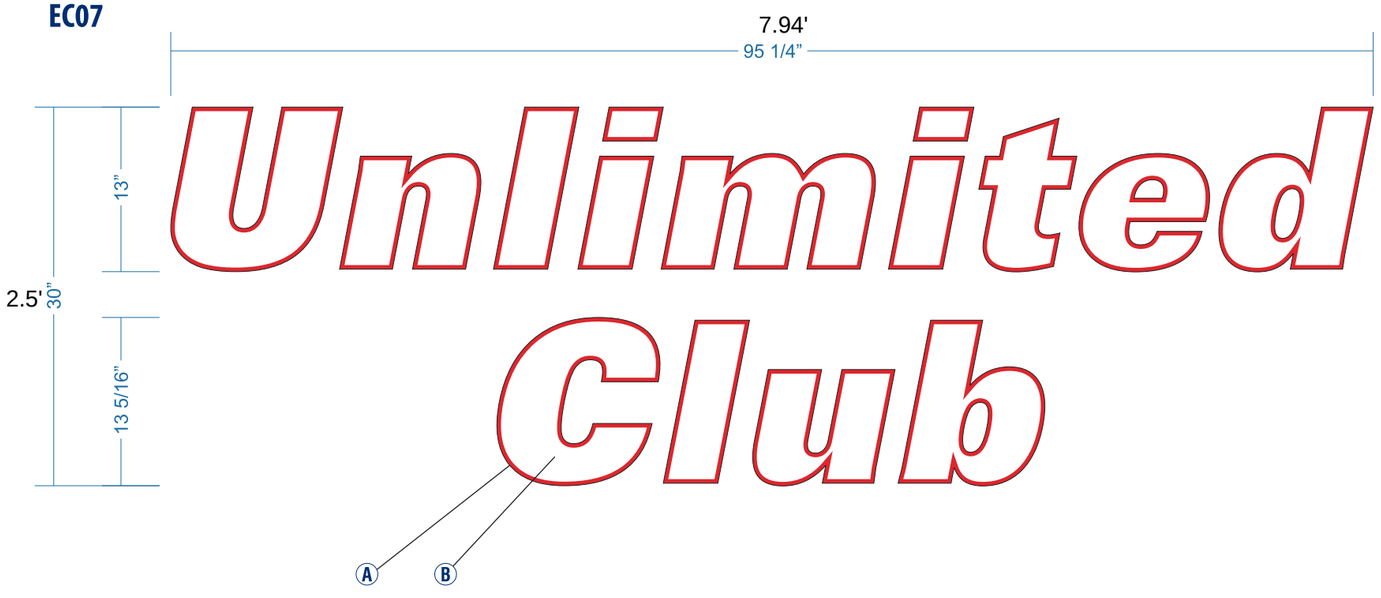
LOWER CABINET
BODY - 1" ALUMINUM ANGLE SKINNED IN .090 ALUMINUM PAINTED TO MATCH SPECS
FACES - 3/16"WHITE POLYCARBONATE
VINYL - MATCH SPECS
RETAINERS - 1"TO MATCH SPECS

INSTALLATION - MOUNTED TO BASE & POST

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ART SCALE: 3/4" = 1' - 0"

EC07



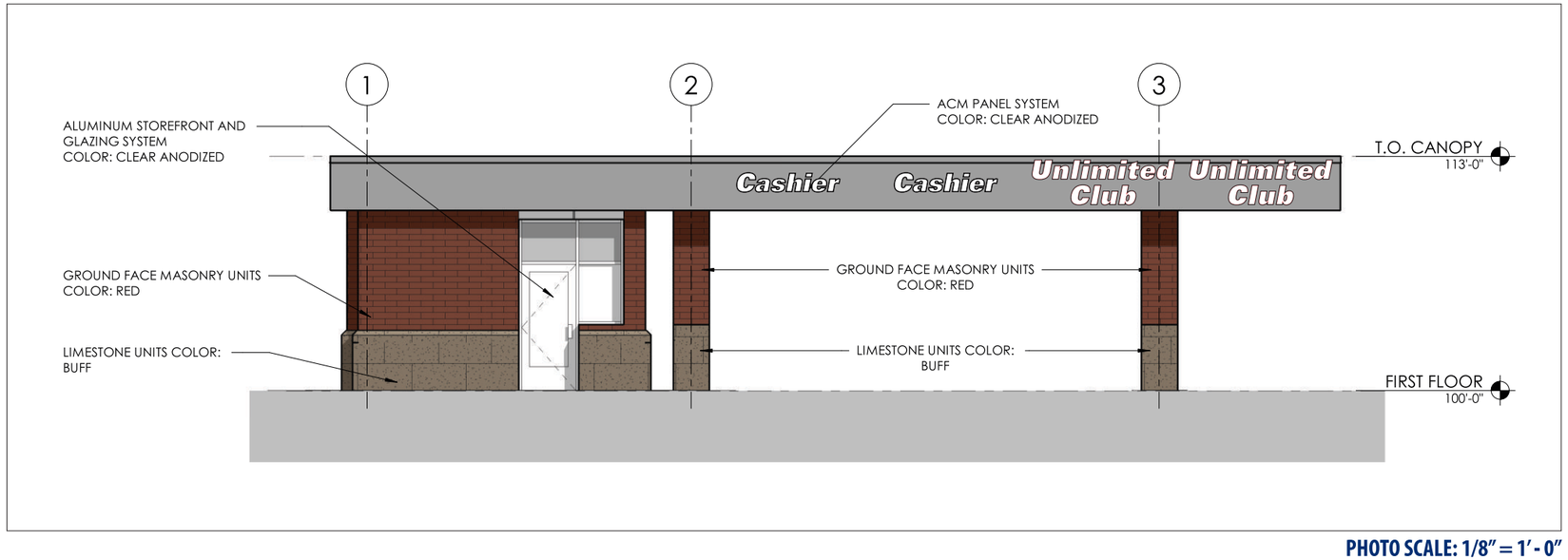


PHOTO SCALE: 1/8" = 1' - 0"

FABRICATE AND INSTALL QTY 2 NON-ILLUMINATED LETTER SETS

FACES - 1" WHITE PVC PAINTED TO MATCH SPECS
VINYL - MATCH SPECS

INSTALLATION - MOUNTED FLUSH TO CANOPY

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ART SCALE: 1" = 1' - 0"

EC08



FABRICATE AND INSTALL QTY 2 NON-ILLUMINATED LETTER SETS

FACES - 1” WHITE PVC PAINTED TO MATCH SPECS
VINYL - MATCH SPECS

INSTALLATION - MOUNTED FLUSH TO CANOPY

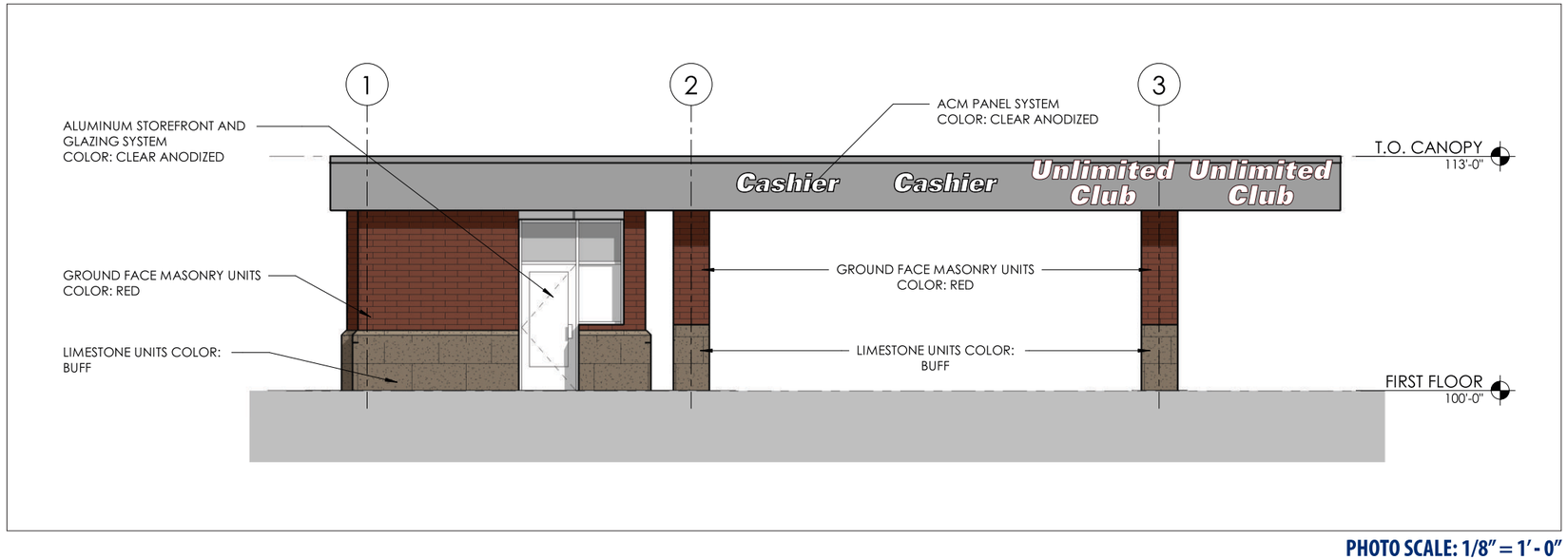


PHOTO SCALE: 1/8” = 1’ - 0”

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ART SCALE: 1” = 1’ - 0”

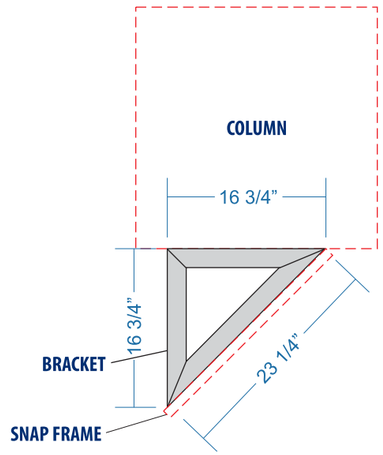
EC09



ASSEMBLED SIGN



DIBOND FACE ONLY



FABRICATE AND INSTALL QTY 4 SNAP FRAMES

BODY
SIGN COMP KIT - 1899 & 1869A PAINTED TO MATCH SPECS

INSTALLATION - QTY 2 FRAMES FLUSH MOUNTED TO COLUMNS, QTY 2 FRAMES ANGLED OFF COLUMNS

FACES
MATERIAL - 3MM WHITE DIBOND
VINYL - MATCH SPECS

INSTALLATION - MOUNTED INTO SNAP FRAMES

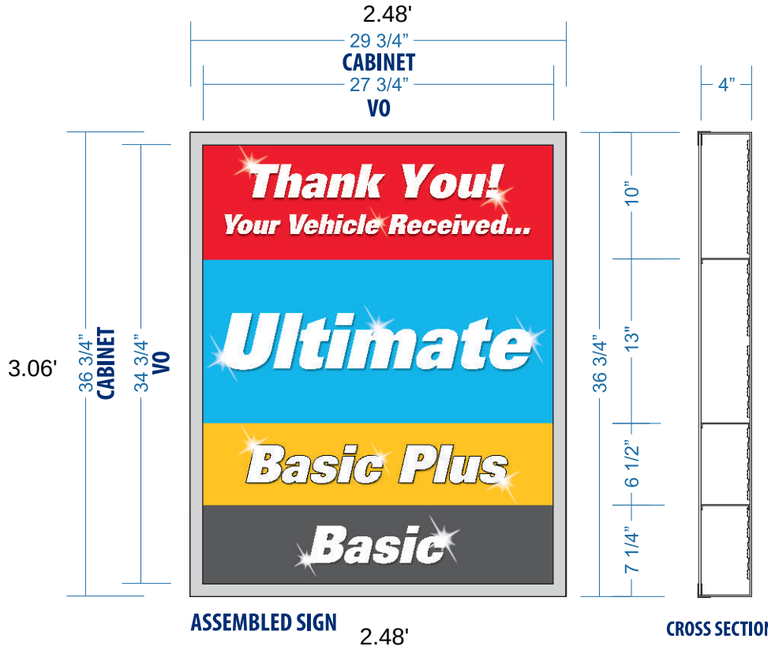
ANGLED BRACKETS
BODY - 2" ALUMINUM ANGLE

INSTALLATION - MOUNTED TO SNAP FRAME AND COLUMN

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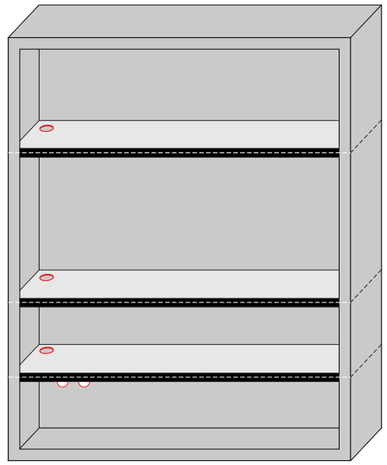
ART SCALE: 1-1/2" = 1' - 0"

EC10

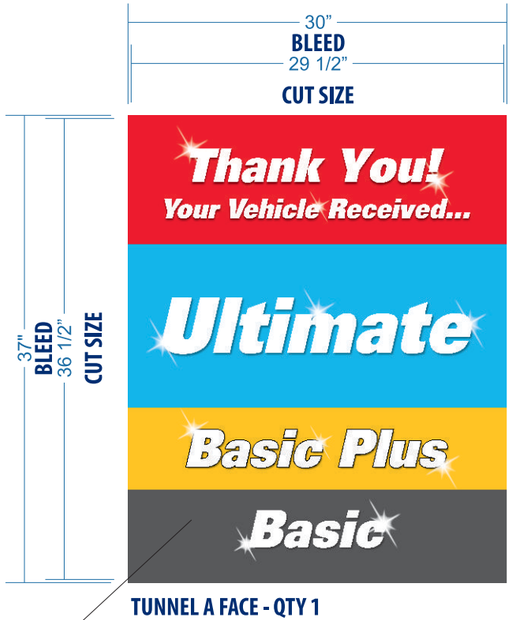


ASSEMBLED SIGN

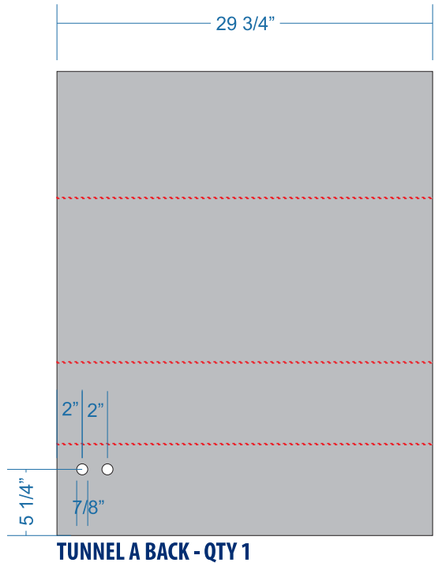
CROSS SECTION



NOT TO SCALE
ISOMETRIC VIEW OF TUNNEL CABINET SIGNS



TUNNEL A FACE - QTY 1



TUNNEL A BACK - QTY 1

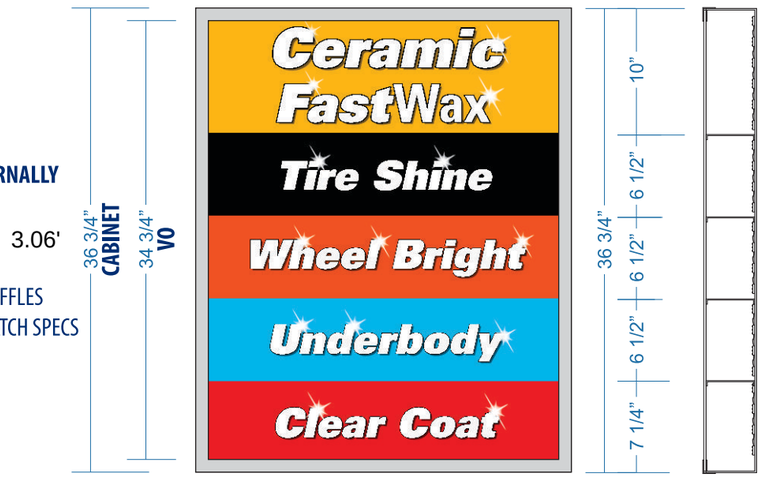


TUNNEL A & B DIVIDERS TOP VIEW - QTY 7

FABRICATE AND DELIVER QTY 2 INTERNALLY ILLUMINATED S/F CABINET SIGNS

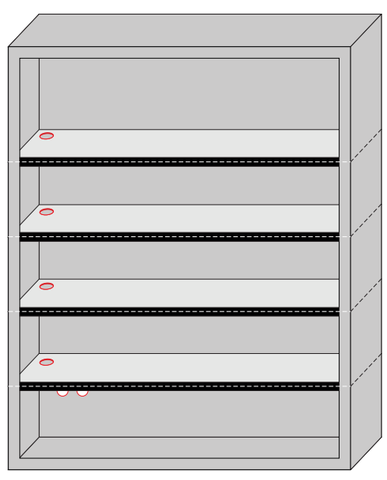
STRUCTURE
BODY - STAINLESS STEEL BODY WITH BAFFLES
RETAINERS - 1" STAINLESS STEEL TO MATCH SPECS
DEPTH - 5"
LEDS - PRINCIPLE IP68 WHITE

FACES
MATERIAL - 3/16" CLEAR ACRYLIC
VINYL - MATCH SPECS

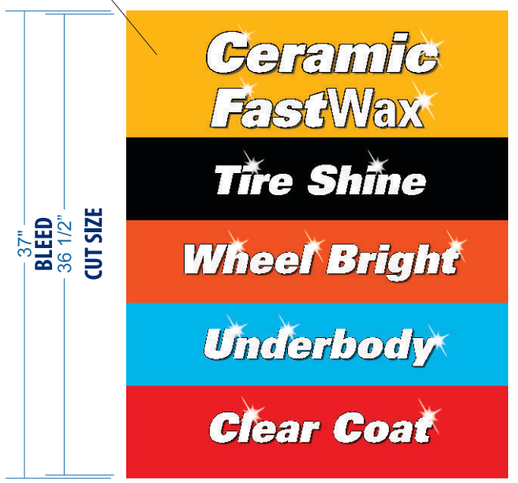


ASSEMBLED SIGN

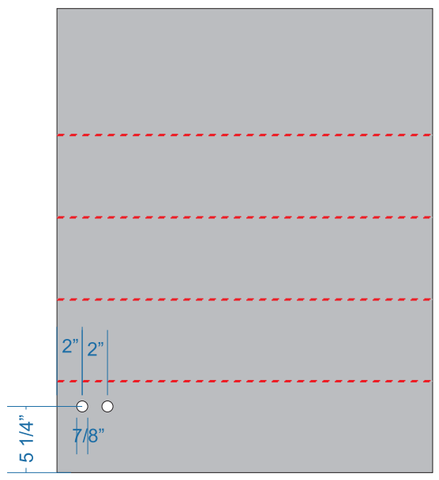
CROSS SECTION



NOT TO SCALE
ISOMETRIC VIEW OF TUNNEL CABINET SIGNS



TUNNEL B FACE - QTY 1



TUNNEL B BACK - QTY 1

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ART SCALE: 1" = 1' - 0"

EC11



FABRICATE AND INSTALL QTY 1 NON-ILLUMINATED LETTER SET

FACES - 1”WHITE PVC PAINTED TO MATCH SPECS

INSTALLATION - MOUNTED FLUSH TO FASCIA

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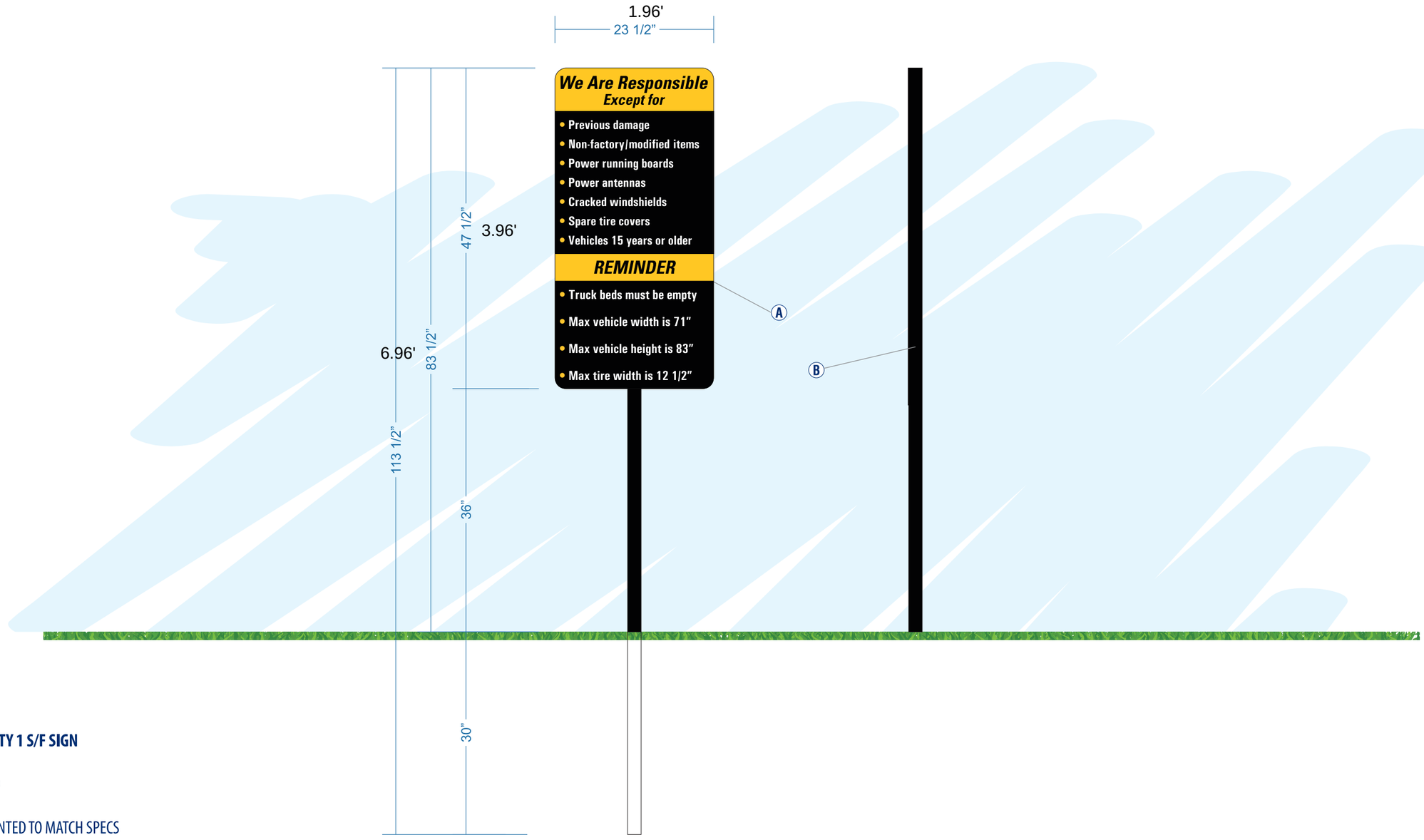
SW ELEVATION



PHOTO SCALE: 1/16” = 1’ - 0”

ART SCALE: 1-1/2” = 1’ - 0”

EC12



FABRICATE AND INSTALL QTY 1 S/F SIGN

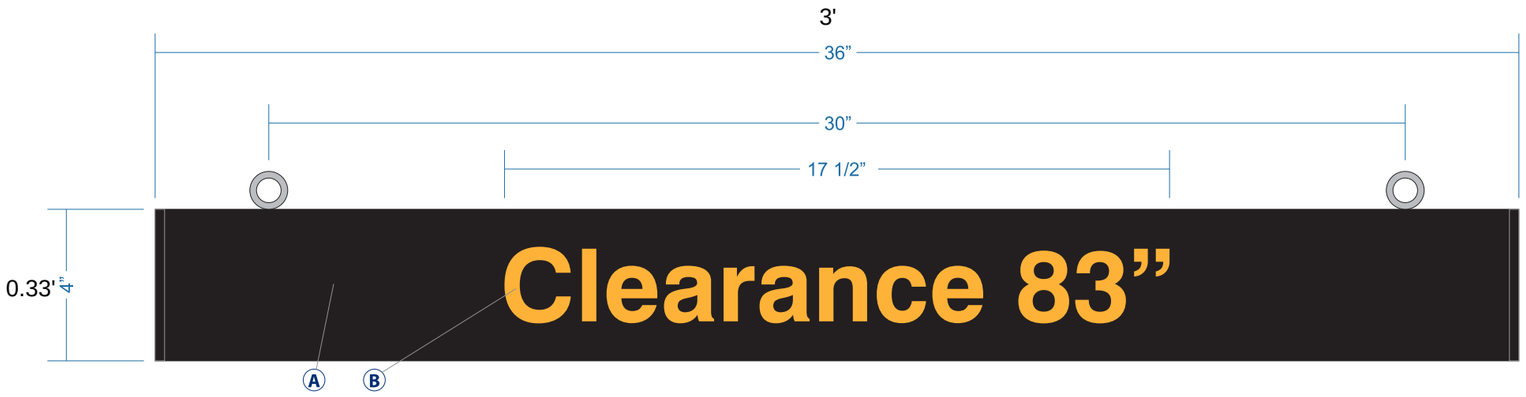
FACES - 3MM BLACK DIBOND
VINYL - MATCH SPECS
POST - 2” SQ ALUMINUM PAINTED TO MATCH SPECS

INSTALLATION - FACE MOUNTED TO POST, POST BURIED INTO GRADE

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ART SCALE: 3/4” = 1’ - 0”

EC13



FABRICATE AND INSTALL QTY 1 S/F CLEARANCE BAR

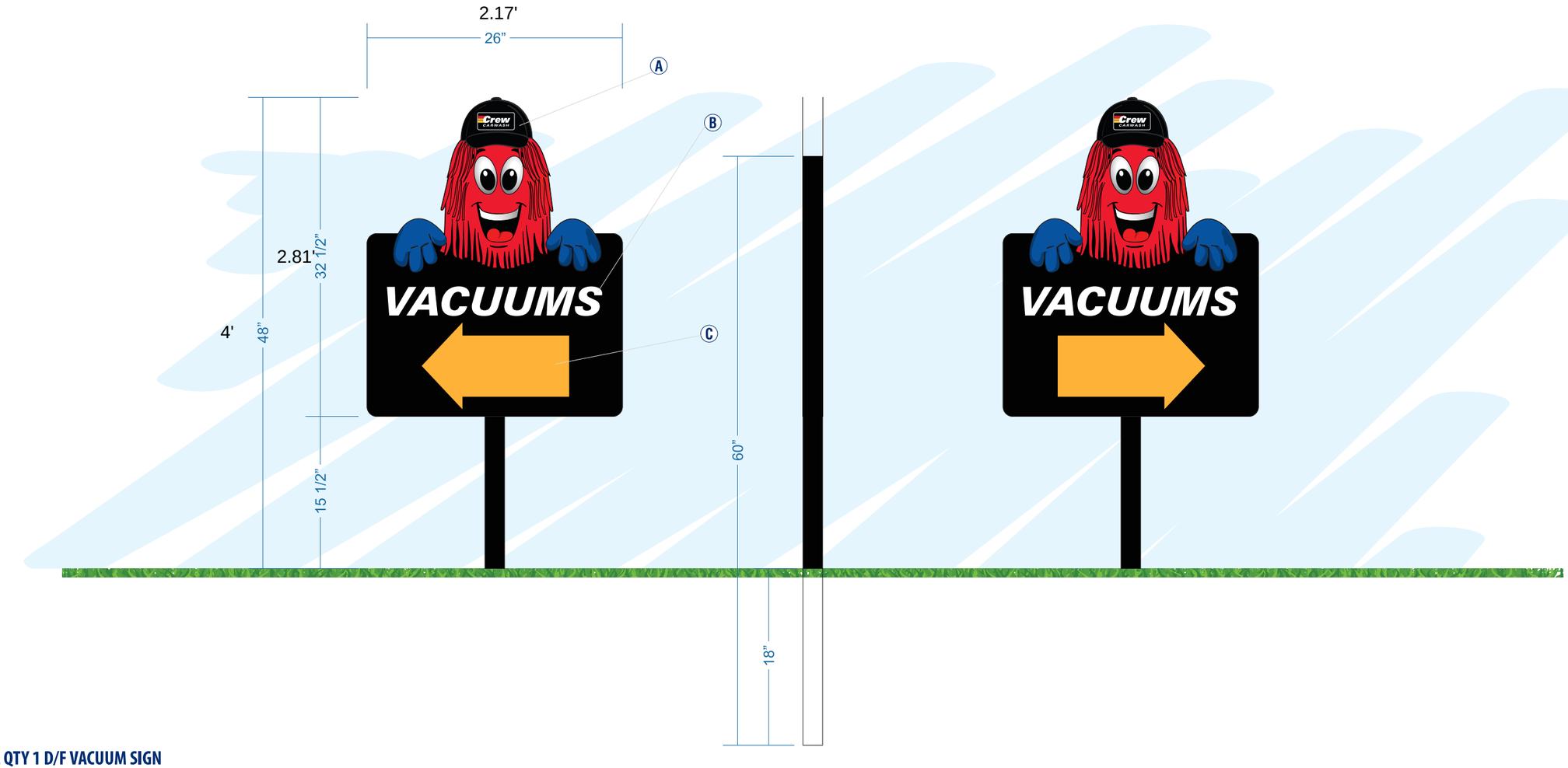
MATERIAL - 4” ROUND PVC PIPE WITH CAPS ON ENDS AND PAINTED TO MATCH SPECS
EYE HOOKS - STAINLESS STEEL
VINYL - TO MATCH SPECS

INSTALLATION - HUNG WITH AIRCRAFT CABLE 83” ABOVE GRADE

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ART SCALE: 3” = 1’ - 0”

EC14



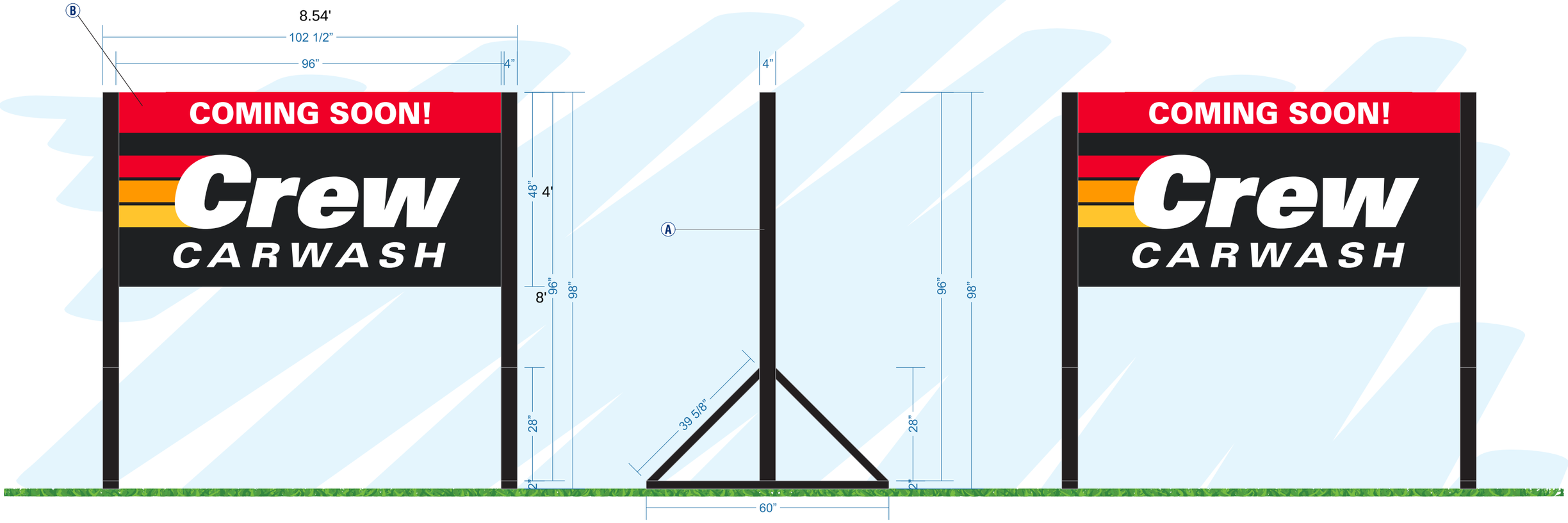
5.87 SQ FT
FABRICATE AND INSTALL QTY 1 D/F VACUUM SIGN

FACES - 3MM BLACK DIBOND PRINTED TO MATCH SPECS
VINYL - MATCH SPECS
POST - 2” SQ ALUMINUM PAINTED TO MATCH SPECS

INSTALLATION - FACES MOUNTED TO POST, POST BURIED INTO GRADE

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ART SCALE: 1” = 1’ - 0”



FABRICATE AND INSTALL QTY 1 D/F STANDING SIGN POSTS W/ SANDBAGS

FACES - 1/2” ALUMCORE PRINTED TO MATCH SPECS

POSTS - QTY 3 - 10’ 2x4 TREATED WOOD PAINTED TO MATCH SPECS
QTY 2 - 8’ 4x4 POSTS PAINTED TO MATCH SPECS

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ART SCALE: 1/2” = 1’ - 0”

SIGN REVIEW APPLICATION

04/13/26 Plan Commission Meeting

Signworks / Quality Electric Service

Village Staff Report & Recommendation ***Germantown, Wisconsin***

SUMMARY

Signworks, Agent for Quality Electric Service, Property Owner. Sign Review application for Quality Electric Service at N114W18697 Clinton Drive.

Property Location: N114W18697 Clinton Drive

Applicant/ Owner:

Signworks
501 W Summer Street
Hartford, WI 53027

Quality Electric Service
N114W18697 Clinton Drive
Germantown, WI 53022

Zoning: M-1: Limited Industrial District

Adjacent Land Uses		Zoning
North	Industrial	M-1
South	Industrial	M-1
East	Industrial	M-1
West	Industrial	M-1



Background/Proposal

Signworks, Agent for Quality Electric Service, Property Owner. Sign Review application for Quality Electric Service at N114W18697 Clinton Drive.

Quality Electric Service (QES) is an electrical service company providing electric motor/pump repair. The Village granted a Zoning Permit to QES in early 2026 to occupy the subject building and operate from the property. At this time, QES is seeking a new wall sign. Details of the proposed sign are listed as follows:

- (1) Wall Sign – (Northern façade/building front)
  87 square feet, channel letter wall sign with formed plastic white letters mounted to building. The proposed sign is non-illuminated.

Staff Comments

The proposed sign complies with applicable standards per the Village's Sign Code.

VILLAGE STAFF RECOMMENDATION

APPROVE the proposed sign for Quality Electric Service for property located at N114W18697 Clinton Drive.

Village of Germantown ...Willkommen

SCANNED

Fee must accompany application

☒ $320 Sign Review Fee

☐ $ 90 Sign Face Replacement

Paid On: 03.06.26 Check/CC 1536

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/AGENT:

Dan Schaefer
Signworks
501 W. Sumner St.
Hartford, WI 53027
Phone (262) 673-7318
Email dan@signworkswi.com

PROPERTY OWNER:

Jon Landgraf
N114 W18697 Clinton Dr
Germantown, WI 53022
Phone (262) 573-9564
Email amandac@gesmke.com

2

PROPERTY ADDRESS OR GENERAL LOCATION | **TAX KEY NUMBER**

N114 W18697 Clinton Dr., Germantown, WI. 53022 | GTNV 213983

3

SIGN INFORMATION

Sign Dimensions ~~5'~~ 4' height x ~~8'~~ 20' 2" width (Single/Multi Tenant (circle one)
Number of Sides 1 Building Frontage SF 1855
Total Square Footage of Sign (include all sides) 90
Total height of the Sign 18'
Is the Sign to be illuminated ____ yes x no
Type of Sign Construction Materials Formed Plastic
Distance to Closest Property Line 49' to front lot line

Are there any existing signs on the property NO
If yes, what is the total Square Footage of existing signs N/A

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

RECEIVED MAR 06 REC'D OFFICE OF THE VILLAGE PLANNER VILLAGE OF GERMANTOWN

4

SIGNATURES -- ALL APPLICATIONS MUST BE SIGNED BY OWNER!

Applicant 3/5/2026 Date

Owner 3/5/2026 Date

Revised 12/5/25

Sharepoint>06-APPLICATIONS ALL>Application Forms>Signs

SIGNworks
A Sign of Quality Since 1985
Custom Signs & Digital Graphics
signworkswi.com 262-673-7318

Building Sign

Option B1

40 years 1985 - 2025





JOB DETAILS:

Formed Plastic Letters
- Painted White
Direct Mount to Wall

☐ Customer Pickup
☐ Signworks Deliver
☒ Signworks Install
☐ Other _____
☐ Ship To _____

R1 2/19/2026

Quote Number:

Customer Name: Quality Electric Service	Sales Representative: Brittany	Designer: Brittany
Customer Address:	Job Location:	
File: 2026 Sketches/by name/Quality Electric Service/Building Sign		

These conceptual designs are the property of Signworks of Wisconsin, Inc. The drawing is for presentation only - actual colors may vary on the finished sign.


Clinton Dr
66
166.46'
CSM 1948
49.22 ft
203.63'
21
SW
18775
18697
213992
1AC
213983
1.22AC
261.20'
259.61'
Parcel 1
Parcel 2
166.42'
203.58'
168.31
CSM 2822
18633
18635
213982
1AC
213982
1AC
168.27

ZONING PERMIT REVIEW

4/13/26 Plan Commission Meeting

Greg & Monica Schmidt

Village Staff Report & Recommendation ***Germantown, Wisconsin***

SUMMARY

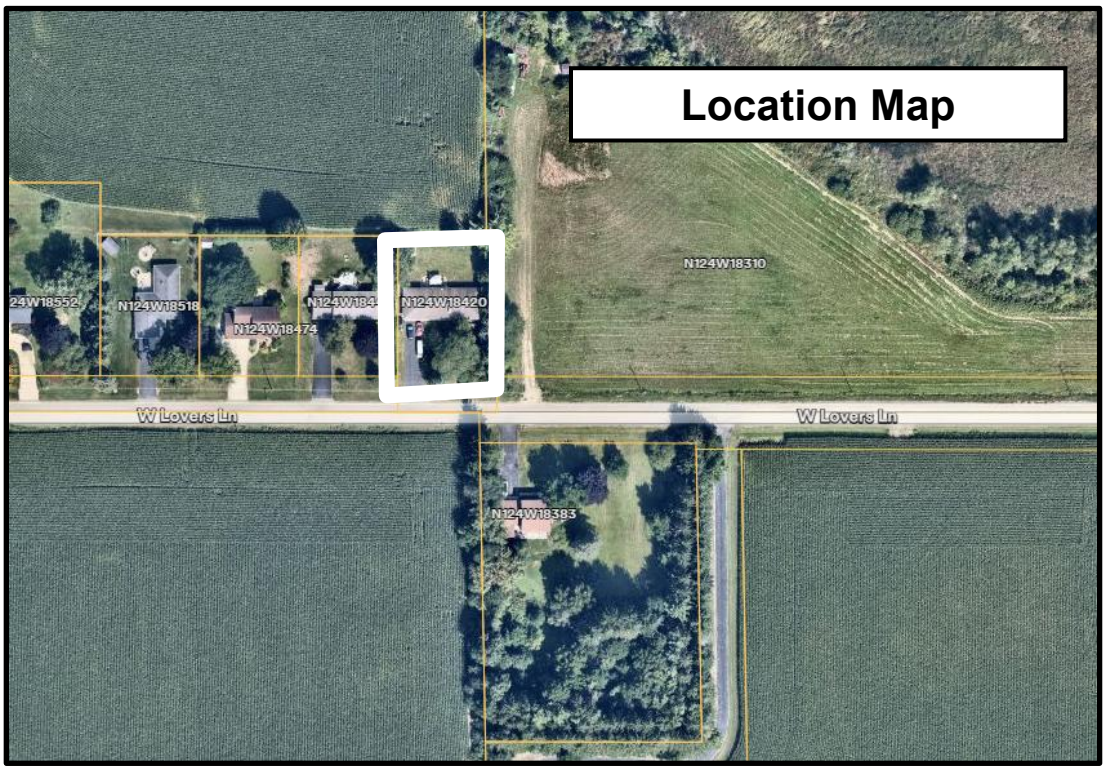
Greg & Monica Schmidt, Property Owners, are requesting an architectural appearance and materials variance from Section 17.41(2a) of the Zoning Code related to the construction of a detached accessory garage on a .5-acre property located at N124 W18420 Lovers Lane.

Property Location: N124 W18420 Lovers Lane

Applicant/Owner: Greg & Monica Schmidt
N124 W18420 Lovers Lane
Germantown, WI 53022

Zoning: Rs-4: Single-Family Residential District

Adjacent Land Uses		Zoning
North	Agricultural	A-1
South	Agricultural & Residential	A-1/Rs-3
East	Agricultural	A-1
West	Residential	Rs-4



Proposal

Greg & Monica Schmidt, Property Owners, are requesting an architectural appearance and materials variance from Section 17.41(2a) of the Zoning Code related to the construction of a detached accessory garage on a .5-acre property located at N124 W18420 Lovers Lane.

As indicated in the application, Schmidt is proposing to replace an existing 14' x 22' (308 sqft) detached garage with a new and larger 24' x 24' (576 sqft) detached garage for personal use. The proposed building will be a wood frame construction with vinyl siding and asphalt shingles. Section 17.41 of the Zoning Code requires detached accessory buildings over 160 square feet to have "…a similar architectural appearance and exterior material as the dwelling on the property." The existing ranch dwelling has exterior walls finished in Lannon Stone.

Staff Comments

The Schmidt building permit application for the garage has been put on hold and referred to the Plan Commission pursuant to Section 17.41(2a) of the Zoning Code that requires accessory buildings greater than 160 sqft to have a similar architectural appearance and exterior materials as the dwelling unless a variance is granted by the Plan Commission:

17.41(2a) ARCHITECTURAL APPEARANCE AND MATERIALS. *(Cr. Ord. #02-18) In single-family and 2-family zoning districts (Rs-1 through Rs-7 and Rd-2), accessory buildings which exceed 160 square feet in area shall be of a similar architectural appearance and exterior material as the dwelling on the property. For accessory buildings greater than 160 square feet in area, the Plan Commission may, in circumstances which it deems appropriate, grant a variance to this requirement and approve different architecture and/or exterior materials with a Zoning Permit.*

In 2018 the Village made several revisions to the accessory building allowances for all the residential districts. Generally speaking, the number, size, and height of accessory buildings in all the residential districts was increased to allow more, taller, and larger accessory buildings. The Village also revised the provision that requires the architecture and materials of larger accessory buildings to be like those of an existing dwelling on a property. The revisions made were to add the word "similar" in place of the word "same" with an allowance for the Plan Commission to approve different materials and architecture (vs. an owner filing having to file an appeal to the Board of Zoning Appeals). The "similar" requirement is less stringent, and the process is streamlined compared to years ago for owners to seek a "variance" from this requirement if the architecture and materials for a proposed accessory building are different. In 2021, the Plan Commission reviewed the ordinance adopted in 2018 and directed staff to leave the ordinance as written with respect to the "similar architectural appearance and exterior material…" requirement.

As indicated above, the Plan Commission has the authority to approve the architectural appearance and exterior materials for residential accessory buildings that the Zoning Administrator and/or Building Inspector determine do not meet the requirements of Section 17.41(2a).

In doing so, the Plan Commission acting as the Architectural Review Board is to consider the following principles pursuant to Section 17.49(3) of the Zoning Code:

a) *No building shall be permitted, the design or exterior appearance of which is of unorthodox or abnormal character in relation to its surroundings as to be unsightly or offensive to generally accepted taste and community standards.*
b) *No building shall be permitted, the design or exterior appearance of which is so identical with those adjoining as to create excessive monotony or drabness.*
c) *No building shall be permitted where any exposed facade is constructed or faced with a finished material which is aesthetically incompatible with the other facades, and which presents an unattractive appearance to the public and to surrounding properties.*
d) *No building or sign shall be permitted to be sited on the property in a manner which would unnecessarily destroy or substantially damage the natural beauty of the area, particularly insofar as it would adversely affect values incident to ownership of land in that area; or which would unnecessarily have an adverse effect on the beauty and general enjoyment of existing structures on adjoining properties.*

The applicant indicates that the proposed detached accessory garage will be finished with vinyl siding (vs. Lannon Stone) and asphalt shingles. Aside from the vinyl siding being different from the existing dwelling material, the proposed accessory garage will be generally consistent with the dwelling in terms of height, roof pitch and shingle type. For these reasons, Staff supports the variance provided that the color of the vinyl siding and shingles are complimentary to the earth tone colors of the existing dwelling.

VILLAGE STAFF RECOMMENDATION

APPROVE the Zoning Permit application for an architectural variance from Section 17.41(2a) of the Zoning Code to construct a detached accessory garage with vinyl siding and asphalt shingles on the property located at N124 W18420 Lovers Lane subject to (1) condition:

1. The color of the vinyl siding and roof shingles are complimentary to the earth tone color scheme of the existing dwelling.



Village of Germantown ...Willkommen

Fee must accompany application.

- ☐ $210 Zoning Permit (New construction or tenant occupancy)
- ☑ $30 Residential/Agricultural (accessory buildings, fences & other minor items)
- ☐ $60 Non-Residential (accessory buildings, fences & other minor items)

Paid On: _____ Check/CC_____

ZONING COMPLIANCE / OCCUPANCY PERMIT

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

APPLICANT/AGENT:

Greg Schmidt
N124 W18420 Lovers Ln
Germantown, WI 53022

Phone ( )

Email

PROPERTY OWNER:

Same

Phone ( )

Email

PROPERTY ADDRESS

N124 W18420 Lovers Ln Germantown, WI

TAX KEY NUMBER

162004

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):

Remove existing 14' x 22' (1-car) garage. Put up a 24' x 24' (2-car) garage for personal use. No business operations will be done in the space. The total structure height will be 15' to the roof peak. The building will be made of construction grade lumber, with a vaulted ceiling and a ridge beam with posts in the gable ends. A single 12' garage door with one walk in door. Over

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 by 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.

VILLAGE USE ONLY

INCLUDE THE FOLLOWING WITH YOUR APPLICATION:

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

SIGNATURES: ALL APPLICATIONS MUST BE SIGNED

Applicant — Date 4-2-26

Owner — Date

Revised 12/5/25

Sharepoint>06-APPLICATIONS ALL>Application Forms>Zoning Compliance

The roof will be asphalt shingles that match the exact shingles used on the house. The house is sided with lannon stone. The new structure will not be built with lannon stone. A vinyl or other type of siding to match similar strutures in the area will be used. The attached plans are for size and shape and layout only. The materials in the plan will not be used. No steel siding or roofing. Final siding color TBD.

10'8" walls

4/12 pitch rook

Total height 15'

Current residential home is 15' to peak of roof.

Design #: 317353861060
Store: GERMANTOWN

MENARDS

Post Frame Building Estimate
Date: Apr 1, 2026, 8:39:31 PM

Building Information

1. Building Use:	Code Exempt
2. Width:	24 ft
3. Length:	24 ft
4. Inside Clear Height:	10 ft
5. Framing Type:	Ladder Framing
6. Floor Finish:	Concrete
7. Floor Thickness:	5 in
8. Curb Height:	4" 8 in

Wall Information

1. Post Spacing:	4 ft
2. Post Type:	2-Ply Studs
3. Exterior Wall Panel:	Pro-Rib
4. Exterior Wall Color:	Beige
5. Trim Color:	Bronze
6. Gable Accent:	No
7. Sidewall A Eave Light:	None
8. Sidewall B Eave Light:	None
9. Wall Fastener Location:	In the Flat
10. Anchor Bolt Size:	1/2"x12"

Interior Finish

1. Wall Insulation Type:	None
2. Wall Liner Type:	None
3. Roof Condensation Control:	None

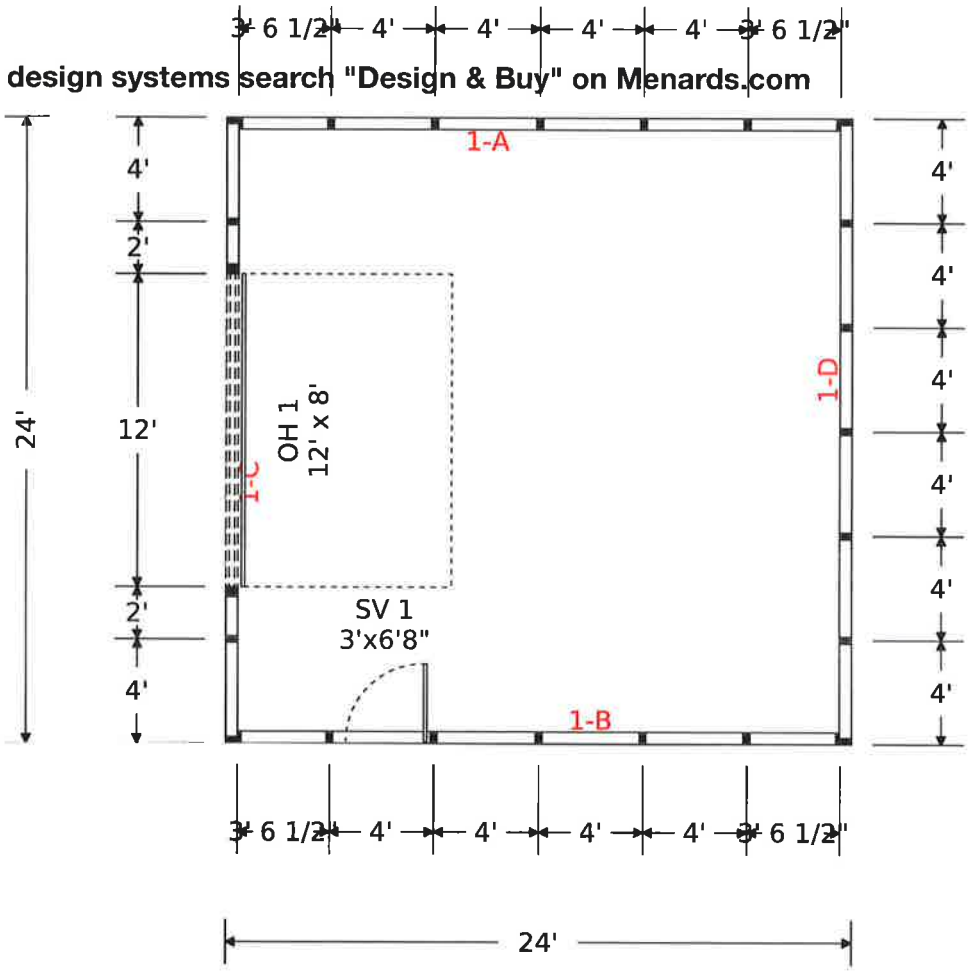
Roof Information

1. Pitch:	4/12
2. Truss Spacing: Vaulted with Ridge Beam and end posts	4 ft
3. Roof Type:	Pro-Rib
4. Roof Color:	Bronze
5. Ridge Options:	Universal Ridge Cap
6. Roof Fastener Location:	In the Flat
7. Endwall Overhangs:	0 ft
8. Sidewall Overhangs:	1 ft
9. Fascia Size:	6 in Fascia
10. Soffit Color:	Bronze
11. Skylight Size:	None
12. Ridge Vent Quantity:	None
13. Ceiling Liner Type:	None
14. Purlin Placement:	Flat
15. Ceiling Insulation Type:	None

Accessories

1. Outside Closure Strip:	Standard
2. Inside Closure Strip:	Standard
3. Gable Vent Type:	None
4. Cupola Size:	None
5. Gutters:	Yes
6. Gutters Color:	Bronze
7. End Cap:	No
8. Snow Guard:	No
9. Mini Print:	Email Only

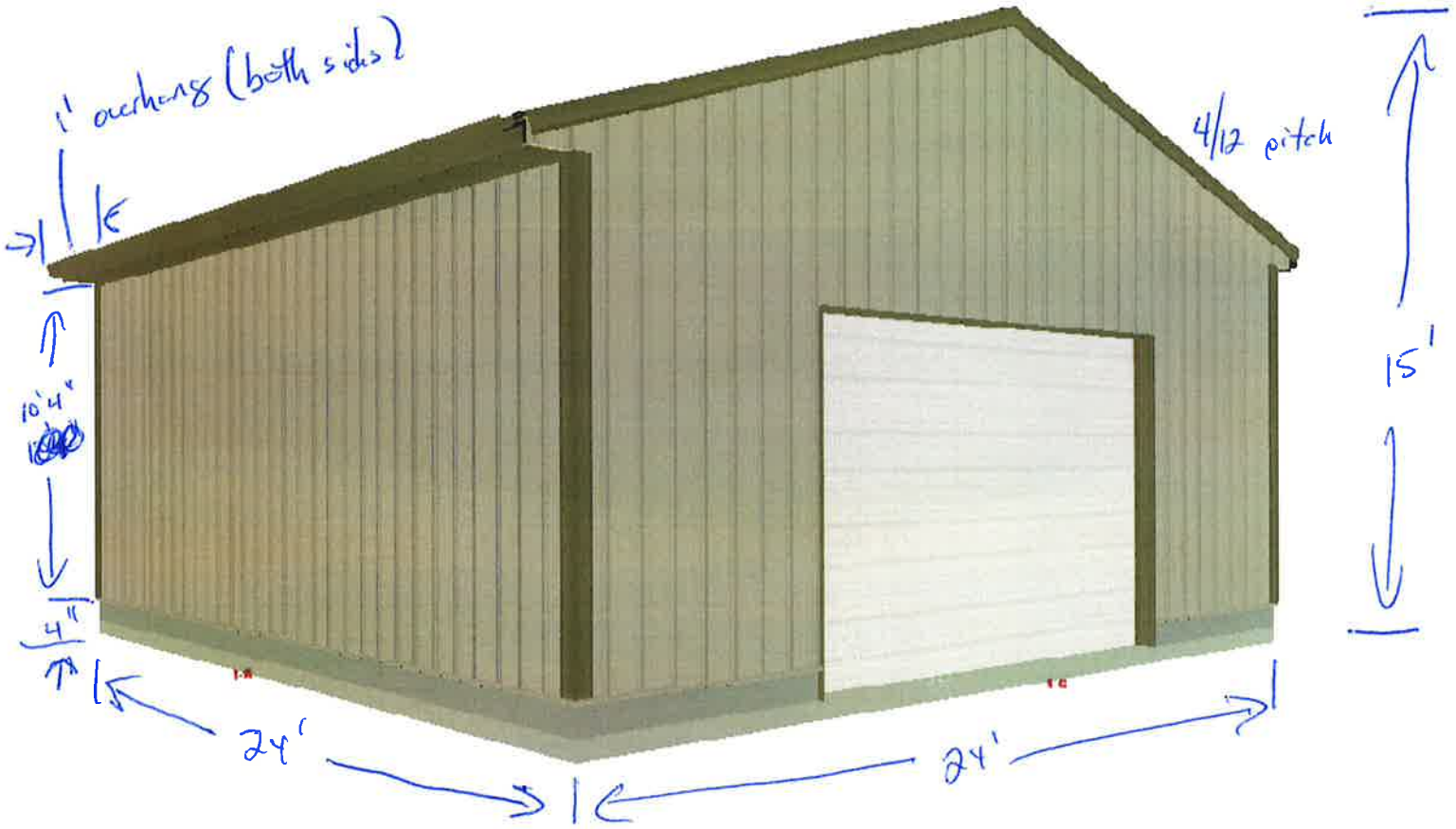
FLOOR PLAN

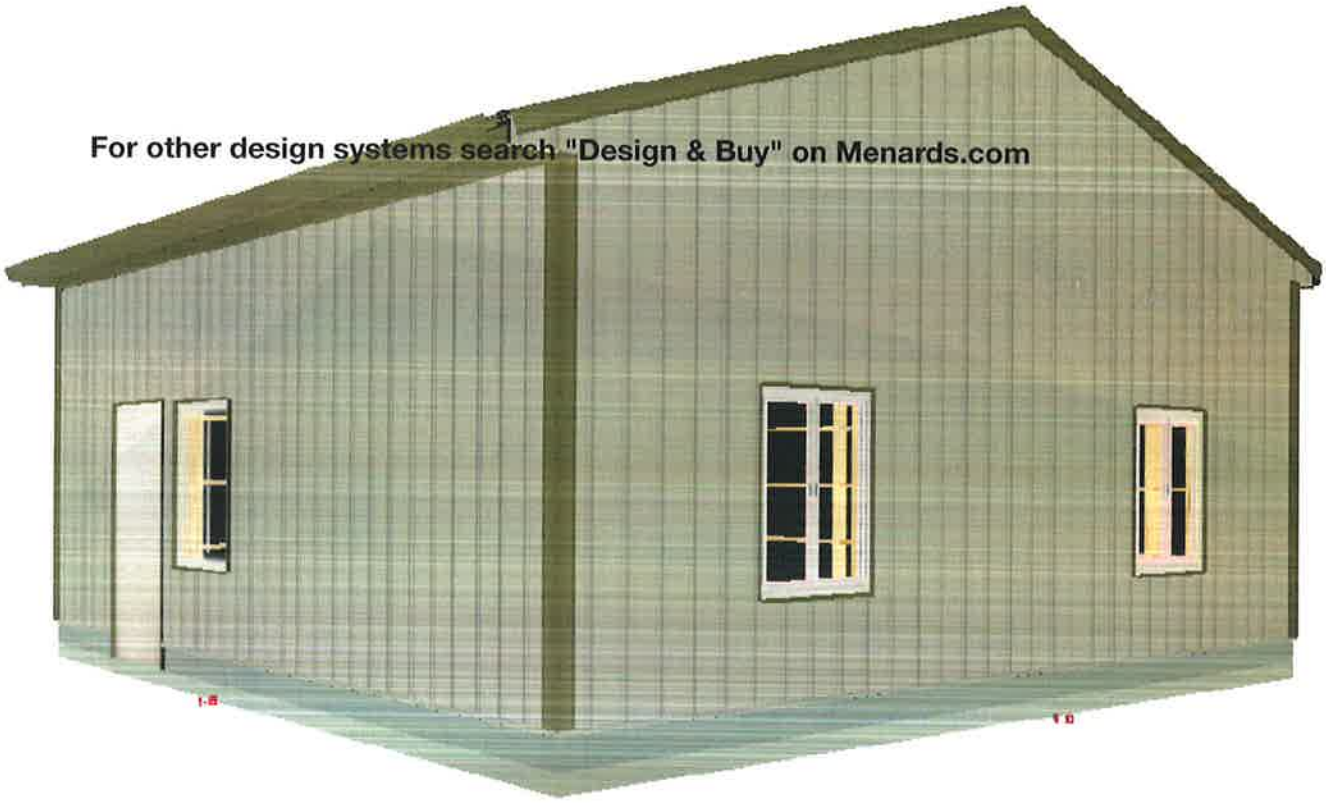

3' 6 1/2"
4'
4'
4'
4'
3' 6 1/2"
For other design systems search "Design & Buy" on Menards.com
Page 1 of 7
1-A
4'
2'
12'
24'
OH 1
12' x 8'
1-C
1-D
SV 1
3'x6'8"
2'
4'
1-B
4'
4'
4'
4'
4'
4'
4'
3' 6 1/2"
4'
4'
4'
4'
24'

Design #: 317353861060
Store: GERMANTOWN

Post Frame Building Estimate
Date: Apr 1, 2026, 8:39:31 PM

Elevation Views




For other design systems search "Design & Buy" on Menards.com

Design #: 317353861060
Store: GERMANTOWN

Post Frame Building Estimate
Date: Apr 1, 2026, 8:39:31 PM

Doors & Windows

Name	Size	Wall
Service Door	36"x80"	1-B
Window	36"x48"	1-B
Overhead Door	12' x 8'	1-C
Window	36"x48"	1-D
Window	36"x48"	1-D

Floor type (concrete, dirt, gravel) is NOT included in estimated price. The floor type is used in the calculation of materials needed. Labor, foundation, steel beams, paint, electrical, heating, plumbing, and delivery are also NOT included in estimated price. This is an estimate. It is only for general price information. This is not an offer and there can be no legally binding contract between the parties based on this estimate. The prices stated herein are subject to change depending upon the market conditions. The prices stated on this estimate are not firm for any time period unless specifically written otherwise on this form. The availability of materials is subject to inventory conditions. MENARDS IS NOT RESPONSIBLE FOR ANY LOSS INCURRED BY THE GUEST WHO RELIES ON PRICES SET FORTH HEREIN OR ON THE AVAILABILITY OF ANY MATERIALS STATED HEREIN. All information on this form, other than price, has been provided by the guest and Menards is not responsible for any errors in the information on this estimate, including but not limited to quantity, dimension and

Village of

Germantown

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

04/02/2026 11:53AM PRAVINA P
001094-0049
Payment effective date 03/31/2026

MISCELLANEOUS
ZONING FEES (GENZON)
2026 GENZON
1 @ $30.00 $30.00

$30.00

Subtotal	**$30.00**
TP CC UB	$2.50
Total	**$32.50**

Tenders
TYLER PAYMENTS CREDIT CARD $32.50
**********0690
Ref=59e3858e-eaed-4fca-9d4b-afd2c422d6b6
Auth=881513

Change due **$0.00**

Paid by: SCHMIDT/GREGORY A

Thank you for your payment

Village of Germantown COPY
DUPLICATE RECEIPT

This confirms that you have authorized Tyler Technologies to collect a service fee to complete this transaction. If you have any questions regarding this fee, contact Tyler Technologies customer service department at TPCustomerService@TylerTech.com for assistance.

Tyler Technologies, Inc