

VILLAGE OF GERMANTOWN
N112 W17001 MEQUON ROAD, GERMANTOWN, WI 53022

MEETING: **PLAN COMMISSION**
DATE AND TIME: **MONDAY, JUNE 8, 2020 6:30 p.m.**
LOCATION: **VIRTUAL WEBEX MEETING:**

Meeting Number: 126 308 6293 Meeting Password: Umvpzq4q9z8

<https://villageofgermantown.my.webex.com/villageofgermantown.my/j.php?MTID=mec692e94f71f04fc64ce7afa74455170>
or Call 408-418-9388.

NOTICE: Pursuant to the current recommendation of the Centers for Disease Control and Prevention limiting the size of public gatherings and the various federal and state orders implementing that recommendation, this meeting will be held virtually through the WebEx platform with each member accessing the meeting remotely. Citizens wishing to view the meeting are encouraged to watch the live broadcast of the meeting through Channel 25 on Spectrum cable, or on the Village's website.

Citizens wishing to submit any public comments should do so by sending an email to comments@village.germantown.wi.us by 4 p.m. on the day of the meeting so that it can be provided to the members for their consideration. Citizens wishing to present their comments verbally can join the WebEx meeting using their phone, computer or other internet-capable device and using the meeting number access code specified above.

To reasonably accommodate citizens who are unable to view or participate in another manner, the Village Board room will be open and set up with technology to access the meeting. Social distancing will be employed within the Board room so seating will be limited.

AGENDA

- I. **CALL TO ORDER** This meeting has been given public notice in accordance with Wisconsin Statutes, Section 19.83 and 19.84 in such form that will apprise the general public and news media of subject matter that is intended for discussion and action.
- II. **ROLL CALL**
- III. **PUBLIC INPUT/PUBLIC APPEARANCE** Please be advised per §19.84(2) that information will be received from the public, however, no action will be taken at this time. Written Public Comments should be directed to comments@village.germantown.wi.us by 4 p.m. on Monday, April 13 so that they can be provided to the members for the consideration.
- IV. **APPROVAL OF MINUTES** May 11, 2020
- V. **NEW BUSINESS**
 - A. James & Maureen Dragich, Property Owners of W172 N13186 Division Road and N132 W17073 Rockfield Road, Dragich Auto Sales & Service. Land Use Plan Map Amendment from Agricultural/Conservation Residential to Commercial, Rezoning from A-2: Agricultural to B-3: General Business District and Rs-1: Single-Family Residential, Conditional Use Permit Amendment for CUP#1-76 for an Expansion of the Auto Sales Operation and 2-Lot Certified Survey Map (CSM). **[PUBLIC HEARING & ACTION]**
 - B. MSI General Corp., Agent for Redstone Land Holdings LLC, Property Owner of Hampel Corporation - W194 N11551 McCormick Drive. Conditional Use Permit (CUP) for 52' High Storage Silos and Site Plan Review for Site Improvements. **[PUBLIC HEARING & ACTION]**

Village of Germantown Plan Commission
Meeting Agenda
Monday, June 8, 2020

- C. Tyler Edwards, Agent for Menard Inc., Property Owner - W186 N9754 Appleton Avenue. Site Plan Review for a proposed storage yard expansion, warehouse addition, building additions and exterior remodeling. **[ACTION]**
- D. Kurt & Hannah Degner, Property Owners of W146 N10906 Heritage Parkway. Zoning Permit to Install a 6' Fence. **[ACTION]**
- E. Keller Inc, Agent for NSE Limited Partnership, Property Owner of North Shore Environmental Construction - N117 W18493 Fulton Drive. Site Plan Review for a 15,950 SQFT Addition & Site Improvements. **[ACTION]**
- F. LaCrosse Sign Group, Agent for KT Real Estate Holdings LLC, Property Owner of Kwik Trip Inc W188 N10963 Maple Road. Sign Review. **[ACTION]**
- G. Signarama, Agent for ELLARETEE LLC, Property Owners of Dielectric Mfg. - W206 N12865 Gateway Court. Sign Review **[ACTION]**

VI. **ANNOUNCEMENTS**

VII. **ADJOURNMENT**

UPON REASONABLE NOTICE, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service please contact the Village Clerk at (262)250-4740 at least 2 days prior to the meeting. Notice is given that a majority of the Village Board may attend this meeting to gather information about an item over which they have decision making responsibility. This may constitute a meeting of the Village Board per State ex rel. Badke v. Greendale Village Board, even though the Village Board will not take formal action at this meeting.

PLAN COMMISSION MINUTES
May 11, 2020

CALL TO ORDER: Chairman Wolter called the meeting to order at 7:08 pm. The meeting was held as a virtual WebEx meeting.

ROLL CALL: Chairman Dean Wolter, Trustee Rep David Baum, Commissioners Tony Laszewski, Bill Shadid, Bob Williams and Peter Nilles were in attendance. Commissioner Matt Kimmler was absent and excused. Also present were Community Development Director Jeff Retzlaff, Associate Planner Emily Zandt and Planning Assistant Lori Johnson.

PUBLIC INPUT: None

APPROVAL OF MINUTES:

MOTION Baum second Shadid to Approve the minutes from 4-13-20.

MOTION carried.

Waste Management - N96 W13840, W13600 & W13640 County Line Road. The applicant is requesting an amendment to Conditional Use Permit (CUP) No. 4-2019 to operate a truck maintenance facility and Site Plan Review for revised plans for a 29,760 square foot truck maintenance facility. Planner Retzlaff summarized the proposal.

Public Hearing opened at 7:20 pm.

- Don Smith, Waste Management, stated he would answer questions and clarified that Condition #7 be corrected to say compressed gas contain the same odorant found in gas supplied to homes and businesses.
- Richard and Sue Wruck, N96 W14193 Knollcrest Circle. Planner Retzlaff read their letter into the record citing concerns with generator noise, truck traffic noise and County Line Road deteriorating.

Public Hearing closed at 7:27 pm.

MOTION Baum second Shadid to Approve a conditional use permit (CUP) for Waste Management of WI (WM), property owner to develop and operate a 29,760 35,035 sqft truck maintenance facility from the property located at N96 W13840 County Line Road subject to (7) conditions:

- 1. The uses and activities allowed on the property shall be limited to those uses and activities and relative locations specified in the conditional use permit (CUP) and site plan application materials dated January 4, 2019, and supporting documents including a February 11, 2019 letter from Lynn Morgan, and a March 1, 2019 letter from Diversified Engineering Inc. The physical facilities from which said uses and activities are permitted include those as presented in the detailed site development and building plans dated February 28, 2020 ~~March 1, 2019~~. Days and hours of operation shall be limited to those specified in the CUP application and supporting materials submitted to the Village. This permit shall include the right to install and use a 10,000 gal above-ground storage fuel tank (AST) to be installed on the site.***
- 2. All temporary and permanent exterior signs require a permit and shall comply with all current sign regulations. Off-premise advertising and directional signage is regulated by the Village and requires a permit if/when allowed.***
- 3. In the event the Village receives complaints regarding noise negatively affecting the nearby residential areas that is coming from the truck maintenance facility operation, including but not limited to noise from truck-mounted backup alarms, WM will cooperate with the Village in resolving the issue. WM has indicated that they will replace the backup alarms with "white noise"***

warning devices if this noise becomes a problem.

4. *The LED fixtures proposed for installation and use on the building and site have the ability to be dimmed at no or low activity periods during the day. WM shall provide a mutually-agreeable schedule or plan detailing when and to what lighting levels the building and/or site lighting will operate and be dimmed on the site should be prepared and submitted to the Village as part of the operational plan. In the event the Village receives complaints regarding light and/or glare coming from the truck maintenance facility site that is not Village Code compliant or becomes public nuisance negatively affecting the nearby residential areas, WM will cooperate with the Village in resolving the issue.*
5. *No trash, recyclables or other waste material that may create an odor negatively affecting the nearby residential areas shall be kept on the property or in the waste removal/recycling trucks stored on the property.*
6. *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 permitted conditional uses and activities which cause special problems or harmful effects associated with the permitted uses and activities that were not revealed or anticipated at the time this CUP was granted, or, where conditions imposed by this CUP that were anticipated to mitigate or eliminate harmful effects associated with the uses and activities but are subsequently insufficient to do so, or, for similar cause based upon consideration for the public comfort, safety, and welfare, this conditional use permit may be terminated or modified by the Village Board by the amendment to or addition of conditions after public hearing thereon.*
- ~~7. *WM intends to combine a series of adjacent parcels pending approval of the CUP and site development and building plans. WM shall file the certified survey map (CSM) for purposes of combining their parcels within (90) days after Village Board approval of this CUP.*~~
- ~~8. *WM shall prepare and submit to the Village an updated wetland delineation for the property to ensure site development does not encroach into any wetland or the Village's 25' wetland setback. The CSM shall be submitted to the Village within (90) days after Village Board approval of this CUP.*~~
7. *WM indicated at the February 11, 2019 public hearing that the compressed natural gas (CNG) to be stored and dispensed on the property does not contain the same odorant found in gas supplied to homes and businesses. WM shall ensure that the storage and use of CNG at this facility does not create an odor or safety issue affecting employees on the site or residents and property owners in the surrounding area.*

MOTION to Amend Baum second Nilles to clarify condition #7 by taking out the word not -“the compressed natural gas stored and dispensed on the property does not contain the same odorant”.

Discussion followed. Don Smith, WM, said compressed natural gas vehicles would be extremely quiet. He explained the trucks would hook up to a hose at the end of the day so they are ready in the morning. Maria, TruStar Energy, explained the compressors have low level noise and would not all run at the same time. Commissioner Williams asked if the Village of Germantown is listed on their pollution liability policy including the onsite cleanup pollution liability policy. Mr. Smith agreed to set that up.

MOTION to Amend carried unanimously.

MOTION to Amend Williams second Baum to require Waste Management to add the Village of Germantown as an additional insured on the pollution liability policy as well as the excess pollution liability policy.

MOTION to Amend carried unanimously.

MOTION to Approve the CUP as Amended carried unanimously.

MOTION Baum second Shadid to Approve the site development and building plans for a 29,760 ~~35,035~~ sqft truck maintenance facility from the property located at N96 W13840 County Line Road subject to (11) 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 architectural and engineering plan set dated February 28, 2020 ~~March 1, 2019~~, and the site plan application materials dated January 4, 2019, and supporting documents including a February 11, 2019 letter from Lynn Morgan, and a March 1, 2019 letter from Diversified Engineering Inc., unless superseded by subsequent plan sheets approved by the Village Planner or Engineer pursuant to revisions required herein and/or by the Plan Commission.**
- 2. All landscaping, screening, grading, paving, storm water management, utility and other improvements that are not fire-safety related as 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.**
- 3. The following items shall be provided as required by the Village Fire Department: (a) a Knox Box shall be located and installed to a mutually-agreeable location approved by the Germantown Fire Department; (b) the maintenance building and office will require fire sprinkler protection per IBC 903.2.9.1; (c) the Fire Department Connection (FDC) location shall be approved by the Germantown Fire Department; (d) a new man gate shall be installed at the southeast corner of the fenced area on the south side of the maintenance parking lot at a mutually-agreed to location and design with the Germantown fire Department; (e) State approval is required for the 10,000 gal above-ground diesel fuel storage tank.**
- 4. All exterior doors (except primary entrance) shall be clearly marked with reflective 5" or larger letters/numbers to aid emergency personnel access as required by the Police Department.**
- 5. All technical issues, corrections and plan requirements identified by the ~~Village Engineer and~~ Public Works Department staff (see March 24, 2020 February 12, 2019 Village Engineer memo) shall be addressed and reflected in revised plans and/or supplemental information reviewed and approved by Village staff prior to issuance of a building permit (excluding "early start" site clearing and footing/foundation work approved by the Village and/or WI DSPS).**
- 6. WM shall cooperate with the Germantown Fire Department and Menomonee Falls engineering and water utility to ensure adequate water supply and fire flow pressure is provided to the proposed maintenance facility, including conducting pressure testing. WM shall install new fire hydrants and/or other water system improvements required by Menomonee Falls.**
- 7. State approved plans and a \$20,000 occupancy bond are required by the Building Inspection Department as part of the building permit application.**
- ~~8. WM shall prepare and submit to the Village an updated wetland delineation for the property to ensure site development does not encroach into any wetland or the Village's 25' wetland setback. The CSM shall be submitted to the Village within (90) days after Village Board approval of the CUP. In the event development encroaches into a wetland or 25' wetland setback, WM shall obtain the necessary WisDNR and Village permits, or modify the site development accordingly.~~**
- ~~9. All landscaping, screening, grading, paving, storm water management, utility and other improvements that are not fire-safety related as 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.~~

8. WM shall revise the landscape plan to address the Village's street tree requirements. At a minimum, additional street trees in an amount equal to one (1) tree per 50 feet of road frontage of the existing Port-O-Let parcel shall be added to the plan and installed in addition to the site landscaping already shown in the landscape plan.
9. WM shall cooperate with the Menomonee Falls engineering and highway departments to ensure adequate road and intersection capacity and level of service is provided to the proposed maintenance facility and adjacent road system, including the driveway intersections onto County Line road and the Fond du Lac Ave/STH145 intersection. WM shall install and/or contribute to the cost of all road and intersection improvements deemed necessary as a result of or contribution of traffic generated to/from the proposed truck maintenance facility as required by the Menomonee Falls Village Engineer.
10. The paving options shown on Sheets C1.10 and C1.11 include an option for a crushed limestone aggregate surface course for the drive areas around the building and truck parking areas. The Village Code requires bituminous concrete or concrete pavement on non-residential parking areas and drive lanes. The crushed aggregate alternative shall not be installed. WM shall consult with the Village Engineer to investigate acceptable alternative paving options prior to installation of the parking areas and drive lanes if necessary.
11. The landscape plan shall be revised as recommended by the Village Forester to: (a) replace White Spruce with Norway Spruce; and (b) replace Balsam Fir with Concolor Fir.

MOTION carried unanimously.

Menard Inc. - W186 N9754 Appleton Avenue. The property owner has submitted Rezoning, Conditional Use Permit and Site Development and Building Plan applications in support of a proposed storage yard expansion, warehouse addition, building addition and exterior remodeling to the existing store. Planner Retzlaff summarized the proposal.

Public Hearing opened at 7:58 pm.

-Tyler Edwards, agent for Menard Inc., said they were excited to move forward with expanding the store and would answer any questions.

Public Hearing closed at 8:04 pm.

MOTION Baum second Laszewski to Approve the request to rezone and remove 39,833 sqft (.914 acres) of filled wetland from the Shoreland-Wetland Zoning District as shown in the detailed site plans subject to one (1) condition:

1. Menards shall provide a legal description of the wetland fill area to Village staff prior to scheduling the rezoning application for Village Board review.

MOTION carried unanimously.

MOTION Baum second Shadid to Approve a Conditional Use Permit to allow development within the 25' wetland setback area pursuant to Section 24.04 of the Shoreland-Wetland Zoning Code as presented in the revised Site Plan set dated March 5, 2020 (Sheet C1.3).

MOTION carried unanimously.

MOTION Baum second Shadid to Approve a revision to Conditional Use Permit (CUP) #7-2002 to increase the size of retail building to 169,300 sqft with an additional warehouse area of

51,750 sqft consistent with the proposed facility expansion presented in the Site Plan set dated March 5, 2020 (Sheet C1.3).

MOTION carried unanimously.

MOTION Baum second Shadid to Approve a revision to Conditional Use Permit (CUP) #8-2002 to increase the size of the enclosed storage yard to 3.85 acres as shown in the Site Plan set dated March 5, 2020 (Sheet C1.3).

MOTION carried unanimously.

MOTION Baum second Laszewski to Approve the site development and building plans for the proposed storage yard expansion, warehouse addition, building addition & exterior remodeling to the existing Menards home improvement and retail store located at W186 N9754 Appleton Avenue 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 site development and building plan set dated as set forth below unless superseded by subsequent plan sheets approved by the Village Planner pursuant to revisions required herein and/or by the Plan Commission:**

Landscaping & Lighting Plans dated October 15, 2019

Architecture & Building Elevation Plans dated October 3, 2019

Engineering Plans dated February 24 & March 5, 2020

- 2. All landscaping, screening, grading, paving, storm water management, utility and other improvements that are not fire-safety related as 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.**
- 3. All exterior doors (except primary entrance) shall be clearly marked with reflective 5" or larger letters/numbers to aid emergency personnel access as required by the Police Department.**
- 4. All technical issues and plan corrections identified by the Public Works Department/Village Engineer in the November 11, 2019 review letter, including final approval of the engineering plans and stormwater management report, shall be addressed and reflected in revised plans and/or supplemental information reviewed and approved by the Public Works Department prior to issuance of a building permit (excluding "early start" site clearing and footing/foundation work approved by the Village and/or WI DSPS).**
- 5. State approved plans and a \$20,000 occupancy bond are required by the Building Inspection Department as part of the building permit application.**
- 6. Relocation of the storage yard access gate/canopy to the southeast side of the retail building requires the construction of a wall or fence between the existing building and the gate/canopy structure. Menards shall install the same 14' high wood "privacy" fence/wall that is installed around other portions of the storage yard. Menards shall be responsible for the installation and ongoing maintenance of the approved landscaping along the outside of the wall to ensure the appearance of the fence/wall does not become dilapidated or a visual eyesore (as a result of staining, mold, etc.).**

Trustee Baum stated he has a problem with accessing the rear lot on the east side of the property. He said that combined access to Appleton Avenue is the busiest access point and there are cars

backed up in all directions and now it will be compounded with cars waiting and staging to get to the back yard. He asked if there was another solution to access the back yard. Mr. Edwards explained how the new gate with three lanes would expedite entering the yard area. Trustee Baum said that won't help because most people use the shared entrance as the primary entrance and not the center one. He commented that on a Saturday people are cutting each other off and the left turn lane will queue up with people coming from Menards and Steins with 10 to 12 cars stacked up forming a Y. He said the issue needs to be resolved with this operation. Chairman Wolter agreed saying he frequents both retail outlets and it can be a congestion point. He said the middle entrance is not used as often as it should be and the heaviest entry point is coming in the far southern entrance. Mr. Edwards explained products will be in the approximate same locations. He explained they want to move the heavier truck and vehicle traffic away from the garden center to help with safety.

***MOTION to Amend Baum second Nilles that the fencing choice is the wood plank fence.
MOTION carried unanimously.***

Discussion continued. Mr. Edwards said yard traffic is significantly less than the general traffic to the parking lot and there will not be a significant increase of people coming in from the street driving into the gate. Trustee Baum said he has encountered traffic backed up going out and inbound and the tie up station in the parking lot creates more congestion. He said there is too much happening in one spot. Mr. Edwards offered to move the tie down area inside the yard with a dedicated space and not cause further congestion in the parking lot. Planner Retzlaff asked if there was a way to modify the island as it enters into the parking lot to separate traffic better with more queuing area. Mr. Edwards commented there may be an opportunity to connect the islands so there are not so many entrances converging on one.

***MOTION Baum second Laszewski to Postpone the Site Plan approval until Menards comes back with an alternative for the Steins shared entry and it is resolved to a satisfactory condition to allow better traffic flow.
MOTION carried 5-1 (Nilles).***

Planner Retzlaff said staff would work with Menards on alternatives. Chairman Wolter said he appreciates Menards coming forward and expanding their business in Germantown.

All Terrain Construction - N112 W14972 Mequon Road. Scott Morgan, property owner, is requesting approval of a Conditional Use Permit (CUP) to operate a Construction Services Contractor Shop. Associate Planner Zandt summarized the proposal.

Public Hearing opened at 8:38 pm

- Frederick Gierach, N128 W19157 Holy Hill Road, Richfield, WI - Chairman Wolter read his letter into the record. Mr. Gierach indicated he did not object to the proposed use but questioned the capability of the property being able to support the business.

Public Hearing closed at 8:45 pm

MOTION Baum second Shadid to Approve a conditional use permit (CUP) for Scott Morgan and All-Terrain Construction to allow the operation of a construction services contractor shop at the property located at N112W14972 Mequon Road subject to the following conditions:

- 1. The uses and activities allowed on the property shall be limited to those uses and activities and relative locations specified in the conditional use permit (CUP) application and supporting documents dated February 26, 2019. The size and relative location of those***

areas within the property from which said uses and activities are permitted are limited to that presented in the detailed site plan and description submitted with the supporting documents. Days and hours of operation shall be limited to those specified in the CUP application and supporting documents submitted to the Village. 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 Planner.

- 2. A Site Plan shall be reviewed and approved by the Plan Commission for a paved driveway and parking area, accessory building in the rear of the existing building, and the modified front paved area/driveway modifications within three (3) months of CUP approval. This approval shall include all items deemed necessary by the Village Public Works Department as outlined in the memo dated March 25, 2020 and any other information requested by Village Staff. The paved driveway and parking area shall be installed no later than six (6) months from the date of site plan approval. The accessory building shall be constructed within one (1) year of site plan approval.**
- 3. The existing pavement in the front yard shall be reduced in size to come into conformance with current driveway width (maximum 40' at road right-of-way) and residential setback requirements from a residential district (50'). Subsequently, the number of driveways shall be reduced to one, which meets current Village Public Works Department and/or WI Department of Transportation (WisDOT) driveway requirements. Pavement for the existing sidewalk shall also be extended and/or replaced at that time. All listed improvements included in this condition shall be completed no later than two (2) years from the date of site plan approval in accordance with Village Code (Chapter 17.43 Site Plan Approval Requirements).**
- 4. The outdoor storage of construction vehicles, equipment, and materials between the front of the existing residential dwelling and Mequon Road shall be prohibited. All storage of construction vehicles, equipment and materials shall be limited to the rear and/or side yards of the property and be enclosed and screened from view by adjacent properties.**
- 5. In the event the Village receives complaints regarding outdoor storage, noise, dust, odor, vibration or other negative impacts on surrounding neighborhood and properties, the Owner/Operator shall work cooperatively with the Village to mitigate and resolve the issue.**
- 6. Temporary company vehicle parking may be permitted in the front of the property for up to six (6) months from the date of Site Plan Approval by the Village Plan Commission to accommodate the construction of the proposed driveway and parking area in the rear of the property. Temporary company vehicle parking may also be permitted and during construction of the accessory structure in the rear of the property. Once completed, there shall be no parking of company vehicles or other storage in the front of the property.**
- 7. All nonconforming signage shall be removed from the property. All temporary and permanent exterior signs require a permit and shall comply with all current sign regulations.**
- 8. Site improvements, buildings, signage, exterior lighting and any other improvements on the property that are necessary for the land uses and activities authorized under this CUP shall be reviewed and approved 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.**
- 9. 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 permitted conditional uses and activities which cause special problems or harmful effects associated with the permitted uses and activities that were not revealed or**

anticipated at the time this CUP was granted, or, where conditions imposed by this CUP that were anticipated to mitigate or eliminate harmful effects associated with the uses and activities but are subsequently insufficient to do so, or, for similar cause based upon consideration for the public comfort, safety, and welfare, this conditional use permit may be terminated or modified by the Village Board by the amendment to or addition of conditions after public hearing thereon.

Discussion followed. Trustee Baum stated he did not have a problem with the use and indicated it would be better if the accessory building was constructed sooner than later to avoid the backyard getting cluttered with junk. Associate Planner Zandt commented that staff tried to address outdoor storage in condition #4 by stating no vehicles can be stored in the front yard. Chairman Wolter asked if there were plans to remove any trees on the lot. Mr. Morgan said a majority of the trees would need to be removed to provide enough room for parking. He said he may not be able to complete the driveway before winter because the front of the property needs to be redone including removing a large section of asphalt, eliminating one entrance, repaving everything in the front including the sidewalk and curb and extending the watermain. He stated he would be willing to put shrubs in along the apartment line as a privacy screen that would be located on an earth berm on the apartment property to create more separation and privacy. He would also install a berm along the back of the property on the east. He explained his business is seasonal and plans to construct the accessory building in fall when his season is over.

MOTION carried 5-1 (Nilles)

Redline Canine Training Center - W188 N11786 Maple Road. Lynne Luckow, operator, is seeking an amendment to the existing Conditional Use Permit (CUP #01-19) for the dog training and education facility. Associate Planner Zandt summarized the proposal. She explained Ms. Luckow had spoken with her about increasing the occupancy limit in the building and said staff believes that is addressed in Conditions #4 and #5 in the existing CUP, per the requirements of the fire department. Chief Delain said he had spoken to Ms. Luckow about changing use of the building to a class b kennel that would change the occupancy limit to up to 130 people ratio and that would be allowed with the conditions in place.

Lynne Luckow explained she had reached out to the fire department to discuss adding the additional space and if he had any additional concerns. Associate Planner Zandt stated Condition #4 and #5 do not limit the number of people allowed to 49 people but allow the option to work with the Fire Department regarding maximum capacity. She added there was nothing in the existing conditions that would limit the ability to do so. Chief Delain stated a change in capacity would be approved at staff level to reclassify the occupancy from class B to kennel.

Public Hearing opened at 9:16 pm.

Public Hearing closed at 9:18 pm.

MOTION Baum second Williams to Approve a conditional use permit amendment for the operation of a dog training and education facility in the existing building located at W188 N11786 Maple Road (Alpine Business Center Suite 2, 3 & 4) to include the space in Suite 1, expand hours of operation to 24 hours/day 7 days/week and to add canine massage to the list of available services subject to all conditions of CUP #01-19 and the addition of the following condition:

- 1. This permit authorizes limited uses and activities as set forth in the conditional use***

permit amendment application dated February 3, 2020 and in the supporting documents made part of the application on file with the Village. All of the operational characteristics and services as described, as well as any commitments made by the Applicant as set forth in the application, supporting documents, and made during presentations to the Village Plan Commission, Village Board and Village staff are deemed to be conditions of approval.

MOTION to Amend Baum second Shadid to revise Condition #5 of the existing CUP #01-19 to “re-classify the occupancy type from business to kennel”.

MOTION to Amend carried unanimously.

MOTION to Approve as amended carried unanimously.

Enviro-Safe Consulting - W130 N10500 Washington Drive. The request is for approval of site development and building plans for a 29,746 sqft expansion to the existing hazardous/non-hazardous processing, transfer, storage and recycling facility. Planner Retzlaff summarized the proposal.

MOTION Baum second Shadid to Approve the site development & building plans for a 29,746 sqft expansion to the existing Enviro-Safe facility located on the 5.6-acre parcel at W130 N10500 Washington Drive in the Germantown Business Park subject to the following (11) 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 architectural and engineering plan set dated February 4, 2020 and supporting documents including a February 3, 2019 letter from Michael Krenz, Skyline Development Corp., unless superseded by subsequent plan sheets approved by the Village Planner or Engineer pursuant to revisions required herein and/or by the Plan Commission.***
- 2. All landscaping, screening, grading, paving, storm water management, utility and other improvements that are not fire-safety related as 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.***
- 3. All technical issues, corrections and plan requirements identified by the Public Works Department staff (see April 9, 2020 letter from Troy Hartjes, RA Smith, and an April 3, 2020 Village Surveyor Engineer memo) shall be addressed and reflected in revised plans and/or supplemental information reviewed and approved by Village staff prior to issuance of a building permit or as may be mutually agreed to with the Public Works Director (excluding “early start” site clearing and footing/foundation work approved by the Village and/or WI DSPS).***
- 4. Enviro-Safe shall re-evaluate and update the Closure Plan required under Condition #5 in Conditional Use Permit #6-15 given the significantly larger amount of storage capability for both hazardous and non-hazardous material and adjust the financial surety amount accordingly. Results of said re-evaluation shall be submitted to the Village Planner for review and approval within six (6) months after the date the occupancy permit is used for the proposed building expansion.***
- 5. Enviro-Safe shall re-evaluate and update the Spill Prevention, Control and Countermeasure Plan (SPCC) required under Condition #1 in Conditional Use Permit #6-15 given the significantly larger amount of storage capability for both hazardous and non-hazardous material. Results of said re-evaluation and updated SPCC shall be submitted to the Village Fire Chief for review and approval within six (6) months after the date the occupancy permit is used for the proposed building expansion.***

6. *The landscape plan shall be revised as recommended by the Village Forester to: (a) identify the tree species, size and future location of the transplanted removed trees on the landscape plan; (b) identify the quantities for each new plant species that will be installed on the plant schedule; and (c) install/replace an alternative species to one of the two Maple tree varieties proposed to promote diversity.*
7. *Additional landscaping shall be installed in the northwest corner of the site and along the north elevation to further enhance the appearance of the north elevation and provide a better visual screen of the loading dock area on the north elevation. Said landscaping shall include evergreen trees & shrubs like those previously installed along the north elevation that are now proposed to be relocated, A revised landscaping plan shall be prepared and submitted to the Village Planner for review and approval prior to issuance of an occupancy permit.*
8. *State approved plans and a \$20,000 occupancy bond are required by the Building Inspection Department as part of the building permit application (in addition to the bonding requirements of Section 11.071).*
9. *All exterior doors (except primary entrance) shall be clearly marked with reflective 5" or larger letters/numbers to aid emergency personnel access as required by the Police Department.*
10. *Enviro-Safe shall coordinate an inspection of the existing sampling manhole. If said manhole is found to not be code compliant, Enviro-Safe shall upgrade the manhole to current Code in coordination with the Wastewater Utility.*
11. *Pursuant to the provisions and requirements of Section 24.04 of the Shoreland-Wetland Code, Enviro-Safe shall obtain a conditional use permit for the proposed driveway encroachment into the 25' wetland setback prior to commencing construction of said driveway. In the event that the wetland associated with the regional storm basin is determined to be an "artificial wetland" (and consequently exempt from regulation) by either the WisDNR or Village of Germantown, this requirement shall not apply.*

Commissioner Williams asked if the Village is listed as an additional insured on the Enviro Safe pollution control policy. Mr. Vilione said he would list the Village as an additional insured on the policy.

Chairman Wolter stated Mr. Vilione has run an exemplary service for what he does and has proven it's a top-notch service without any issues. He congratulated him on his success and the need to expand his business. Chief Delain added that the business has been run excellent and has given the fire department everything they need to do their job.

MOTION carried unanimously.

Bliffert Lumber - N116 W16474 Main Street. The property owner is seeking approval of site development and building plans to enclosed approximately 3,800 square feet in the front area of the existing building (already covered) for additional retail space as well as the addition of an entrance tower and front porch area. Additional customer parking spaces will also be marked in the front of the building. Associate Planner Zandt summarized the proposal.

MOTION Baum second Laszewski to Approve the site development and building plans for the proposed 3,800 square foot enclosure, entry tower, and porch area to the existing facility located at N116 W16474 Main Street subject to the following conditions:

1. *Approval is for the site development and building plan set dated April 23, 2020 (unless otherwise revised by a subsequent plan set approved by the Village Planner pursuant to revisions required herein or by the Plan Commission).*
2. *All information and revised plans including, but not limited to, the items identified in the Memo from the Public Works Director dated May 7, 2020 must be submitted to the Village Public Works Department staff for review and approval prior to the issuance of*

a building permit for the proposed work. This shall include either the widening of the existing driveway or a connection between the existing residential driveway to the west and the Bliffert commercial property.

- 3. A landscaping plan, meeting the requirements of Chapter 17.43(5) Site Plan Approval Requirements shall be submitted and approved by the Village Arborist and Planning Staff prior to the issuance of any permits for the proposed work.*
- 4. 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.*
- 5. State approved plans and a \$20,000 occupancy bond may be required by Inspection Services as part of the building permit application.*
- 6. If proposed in the future, all exterior signage and exterior lighting will require separate review and approval by the Plan Commission.*

Trustee Baum asked which access alternative was preferred. Josh Brown, Bliffert Lumber, said they would prefer to widen the drive in the event the residential property is ever sold off and to not inconvenience any tenants. Fire Chief Delain stated the department had initially required a fire hydrant be added to the site to help suppress any fires in the lumber yard, but there were concerns with flooding the adjacent property. He explained widening the driveway and gate would allow the fire department to get appropriate apparatus to that area. Chairman Wolter said he appreciates the proposed changes and for enhancing the building and area.

MOTION carried unanimously.

Zilber Property Group - W210 N13150 Gateway Crossing. The request is for approval of Site Development and Building Plans for the fourth phase of development in the Germantown Corporate Park which includes a 146,000 square foot industrial building. Associate Planner Zandt summarized the proposal.

MOTION Baum second Shadid to Approve the site development and building plans for Zilber 4 (146,000 square foot industrial building) in the Gateway Corporate Park 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 architectural and engineering plans unless superseded by subsequent plan sheets approved by Village Staff pursuant to revisions required herein and/or by the Plan Commission:*
 - a. "Onsite Civil Engineering and Infrastructure Plans for the Zilber Industrial 4 at Germantown Corporate Park" dated April 16, 2020.*
 - b. Architectural plans labeled "Zilber Industrial 4" dated March 25, 2020 and revised April 10, 2020;*
- 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.

3. *All exterior doors (except primary entrance) shall be clearly marked with reflective 5" or larger letters/numbers to aid emergency personnel access as required by the Police Department.*
4. *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 issuance of a building permit for the Zilber 4 building (excluding "early start" site clearing and footing/foundation work approved by the Village and/or WI DSPS):*
 - a. *March 24, 2020 memo from Public Works Director, Larry Ratayczak*
5. *State approved plans and a \$20,000 occupancy bond are required by Inspection services as part of the building permit application.*
6. *The following items shall be provided as required by the Village Fire Department:*
 - a. *An approved water supply with fire hydrants required at intervals of approximately 400' apart.*
 - b. *Fire Sprinkler and alarm systems shall be installed as required by IBC based on occupancy class (currently unknown). Locations of fire protection equipment is subject to approval of GFD.*
 - c. *Knox boxes will be required on each building at locations to be determined by GFD.*
7. *The Developer shall provide a detailed plan or set of specifications for what type, i.e. design, materials, color, etc. of roof-mounted mechanical screening will be installed in the event that screening is required at the time one or more tenants apply for building permits and occupancy from the Village, and, submit said specifications to the Village Planner for review and approval prior to issuance of an occupancy permit for the Zilber 4 building.*

MOTION carried unanimously.

Germantown Dental Care - N112 W16286 Mequon Road. The request is for approval of two wall signs. Associate Planner Zandt summarized the proposal.

MOTION Baum second Shadid to approve the proposed wall sign on the south elevation for the Germantown Dental Care property subject to the following condition:

1. *Electrical permits shall be obtained from Inspection Services prior to installation of any/all electrical components.*

MOTION carried unanimously.

MOTION Baum second Shadid to approve the proposed wall sign on the west elevation for the Germantown Dental Care property subject to the following condition:

2. *Electrical permits shall be obtained from Inspection Services prior to installation of any/all electrical components.*

MOTION carried unanimously.

American Parts Equipment Supply - W188 N10707 Maple Road. The request is for approval of a wall sign. Associate Planner Zandt summarized the proposal.

MOTION Baum second Shadid to Approve the proposed wall sign for the American Parts Equipment Supply subject to the following condition:

- 1. Electrical permits shall be obtained from Inspection Services prior to installation of any/all electrical components.***

MOTION 5-1 (Williams)

ANNOUNCEMENTS: None

ADJOURNMENT: There being no further business, the meeting was adjourned at 10:04 pm.

Respectfully submitted,

Lori Johnson
Planning Assistant

**CERTIFIED SURVEY MAP (CSM),
2020 LAND USE PLAN MAP AMENDMENT, REZONING, &
CONDITIONAL USE PERMIT (CUP) APPLICATIONS
6/8/20 Plan Commission Meeting**

JAMES DRAGICH / DRAGICH AUTO SALES & SERVICE

Village Planner Report

Germantown, Wisconsin

Summary

James Dragich, property owner, and agent for Dragich Auto Sales & Service is seeking approval of a 2-lot Certified Survey Map (CSM), Land Use Plan Amendment from Agricultural/Conservation Residential to Commercial, Rezoning from B-3: General Business and A-2: Agricultural to B-3: General Business and Rs-1: Single-family Residential, and amendment to CUP #01-76 for the continued operation of an existing auto sales and body shop.

Location: W172N13186 Division Road / N132W17073 Rockfield Road

Applicant/

Property Owner:	Dragich Auto Sales & Service W172N13186 Division Road Germantown, WI	James Dragich N132W17073 Rockfield Road Germantown, WI
------------------------	--	--

Current Zoning District: B-3: General Business / A-2: Agricultural

Proposed Zoning District: B-3: General Business / Rs-1: Single-Family Residential

Adjacent Land Uses		Zoning
North	Agricultural/Residential	A-1/Rs-2
South	Industrial (Gateway Corp Park)	M-1
East	Agricultural	A-2
West	Residential/Agricultural	Rs-1/A-2



Proposal

James Dragich, property owner, and agent for Dragich Auto Sales & Service is seeking approval of a 2-lot Certified Survey Map (CSM), Land Use Plan Amendment from Agricultural/Conservation Residential to Commercial, Rezoning from B-3: General Business and A-2: Agricultural to B-3: General Business and Rs-1: Single-family Residential, and amendment to CUP #01-76 for the continued operation of an existing auto sales and body shop.

Mr. Dragich has submitted an application for a Certified Survey Map (CSM) to modify the lot lines between the two properties listed above, enlarging the commercial property at W172N13186 Division Road to include the existing shed. This request also requires a Land Use Plan Map Amendment to change the area being added to the commercial property from "Agricultural/Conservation Residential" to "Commercial", as well as a Rezoning of a portion of the property from the A-2: Agricultural District to the B-3: General Business District and the Rs-1: Single-family Residential District. The applicant has also submitted an Amendment to CUP#1-76 to allow the continued operation of the auto sales and body shop operation, Dragich Auto Sales and Service, and the expansion of the area covered under the CUP (to be consistent with the boundaries of proposed Lot 1).

CSM

Proposed Lot 1 will be expanded to contain 1.719 acres in order to include the existing shed on the commercial property, in addition to the existing commercial garage. Lot 2 will contain 7.090 acres and the existing single-family dwelling. No improvements are proposed to the property at this time.

Land Use Plan Map Amendment

As a result of the property line modification, the portion of land being added to the commercial lot (Lot 1) needs to be reclassified from "Agricultural/ Conservation Residential" to "Commercial" on the 2020 Future Land Use Plan Map. This amendment is requested in order to be consistent with the boundaries of the enlarged parcel. The use of the parcel is not changing or expanding with this request.

Rezoning

Similar to the Land Use Plan Map amendment request, the applicant is requesting to expand the existing B-3: General Business District to be consistent with the boundaries of the enlarged parcel. Further, the expansion of this district is not intended to create additional area for expanded or new commercial uses in this location.

The existing residential property (proposed Lot 2) is currently zoned A-2: Agricultural and does not meet the minimum lot size for a single-family dwelling in the A-2: Agricultural District. With the expansion of the commercial lot (proposed Lot 1), this lot will decrease in size further. As such, a rezoning to the Rs-1: Single-family Residential District is requested in order to bring this lot into conformance with the minimum lot size. All setback requirements in the Rs-1: Single-family Residential District are met by proposed Lot 2.

CUP Amendment

A Conditional Use Permit for Dragich Auto Sales & Service was issued in 1976 (CUP #01-76). With the request to expand the area zoned B-3: General Commercial, an amendment to CUP #01-76 is required to also expand the area covered by the CUP to include all of proposed Lot 1 of the CSM. The applicant has indicated that the operation of Dragich Auto will continue as it has for the last 44 years. There is no proposed expansion of the use/business or hours of the operation at this time.

Staff Comment

The Village Surveyor has identified several technical items in a memo dated May 27, 2020. These items will need to be corrected prior to Village Board action on the CSM.

Staff notes that the zoning districts are listed as incorrectly on the plat (B2 and R1) and should be modified to be consistent with the Village of Germantown Zoning Districts (B-3: General Business and Rs-1: Single-family Residential).

This is an opportunity to take a closer look at the existing operation and add additional conditions to the CUP. At this point, staff has not received any public comment on this proposal. Planning staff recommends adding hours of operation to the CUP, limiting hours of business operation to Monday through Friday, 8am to 8pm.

Aerial imagery shows numerous vehicles, most likely inoperable, being stored on both proposed Lot 1 and proposed Lot 2. There also appears to be scrap and junk being stored on proposed Lot 1. This is in violation of Section 10.06 of the Village Code, which limits businesses engaged with automotive sales or repair to keeping inoperable vehicles on private property for no more than 30 days. Planning staff recommend adding a condition requiring compliance with Section 10.06 of the Village Code.

VILLAGE STAFF RECOMMENDATION

APPROVE the proposed 2-lot Certified Survey Map (CSM) to reconfigure the 9.23 acres owned by James Dragich located at W172N13186 Division Road and N132W17073 Rockfield Road with the following conditions:

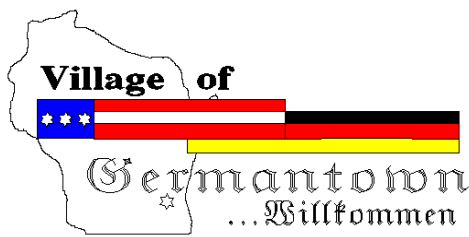
1. All technical issues and plan corrections identified by the Village Surveyor (see May 27, 2020 memo) shall be addressed and reflected in revised plans submitted and approved by Village Staff prior to recording.
2. The Zoning Districts listed on the plat shall be corrected to read B-3: General Business District and Rs-1: Single-family Residential District.

APPROVE the proposed 2020 Land Use Plan (LUP) map amendment to change proposed Lot 1 (1.719 acres) from "Commercial" and "Agricultural/ Conservation Residential" to "Commercial", as proposed.

APPROVE rezoning of proposed Lot 1 (1.719 acres) from B-3: General Business and A-2: Agricultural to B-3: General Business, and, proposed Lot 2 (7.090 acres) from A-2: Agricultural to Rs-1: Single-family Residential, as proposed.

APPROVE a conditional use permit amendment for the operation of the existing auto sales and body shop located at W172N13186 Division Road to include all of proposed Lot 1 subject to all condition so CUP #01-76 and the addition of the following conditions:

1. The uses and activities allowed on the property shall be limited to those uses and activities and relative locations specified in the conditional use permit (CUP) application and supporting documents dated May 18, 2020. The size and relative location of those areas within the property from which said uses and activities are permitted are limited to that presented in the site plan and description submitted with the supporting documents. Days and hours of operation shall be limited to those specified in the CUP application (Monday through Friday 8am to 8pm) and supporting documents submitted to the Village. 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 Planner.
2. This business shall operate consistent with the requirements of *Section 10.08 Junk and Junked Vehicles* of the Village Code.



Engineering Department Memorandum

To: Jeff Retzlaff Village Planner

CC:

From: Bob Beilfuss, PLS, Village Surveyor

Date: May 27, 2020

Re: Dragich CSM

Jeff,

Here are my review comments for the CSM received 3/31/2020.

Certified Survey Map

Applicant or Owner: James and Maureen Dragich

Land Surveyor/Firm: Rich Simon, PLS – Cornerstone Land Surveying, Inc

1. Show the well for Lot 1.
2. Update all dates on the document from 2019 to 2020.
3. The Village Clerks name is Deanna Braunschweig. Please correct the Village Board approval certificate accordingly.
4. Provide the following statement on the bottom of each sheet: "This instrument prepared by..."
5. The location of existing curb, drives and pavements are not required for village approval, but are accepted,
6. Add the following statement to the Owner's Certificate;

"As Owners, we hereby dedicate that part of (*street name*) to the Village of Germantown for public road purposes as represented on Sheet ____ of ____ of this Certified Survey Map."

7. The monument symbol marking the NE corner of Lot 2 at the new road right of way line is missing and needs to be added.

May 27, 2020

8. Use the following Village Board approval Certificate;

Village of Germantown Board Approval

This Certified Survey Map, being a division of (¼ ¼ Section __, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin, having been approved by the Planning Commission being the same, is hereby approved and *(the dedication of that part of (insert street name) for public road purposes as shown on Sheet __ of __ is hereby)* accepted by the Village Board of Trustees of the Village of Germantown on this __ day of _____, 2020.

Dean Wolter, Village President

Date

Deanna Braunschweig, Village Clerk

Date

- ☐ Include text in red italics for Certified Survey Maps which require road right of way dedication to the Village.

9. A certificate of mortgagee is required in the land is mortgaged with a lender. The certificate of mortgagee requires the following information:

- Complete statements per Chapter 236.21(2)(a)
- Lending institution name, signature of bank officer and date.
- Notary statement, seal, signature and date.

The mortgage certificate requirement is waived if owner can provide written proof of ownership that the property is free of mortgage from the lending institution.

10. I had a telephone conversation with the Surveyor who is revising his mapping to coincide with the new Wisconsin State Plane Coordinate System, South Zone, Grid and the NAD83, 2011 Adjustment.

As such, the coordinate values for all section and quarter section corners used to establish the boundary will need to be updated to the NAD83/2011 Adjustment values.

This new coordinate system has been approved by Washington County, SEWRPC and the Village of Germantown Engineering Department for all Certified Survey Maps, subdivision plats and engineering site plans submitted for review and approval.

The required copy of the CSM in a .dwg CADD format that will be submitted to the Engineering Department as part of its approval will also need to be in this new coordinate system

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.

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 2019 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.

Note: In 2020, the Village will be upgrading its municipal code to recognize the NAD83 Datum, 2011 adjustment for horizontal control and NAVD88 for vertical control for mapping all land division documents and plan submittals for review.

There are new dossier sheets for all the Public Land Survey System monuments that contain the new coordinate positions and elevations available currently on the State Cartographer's website by using the Survey Control Finder application

Prior to Recording the Certified Survey Map or Final Subdivision Plat, the Village Engineering Department will verify that the boundary markers have been installed as described on the submitted map. All boundary corners are to be clearly marked in the field by the professional land surveyor of record.



Village of



Germantown

Willkommen

Fee must accompany application

☐ \$2,900 with public improvements

☒ \$1,960 no public improvements

Paid LF Date 3-25-20

CERTIFIED SURVEY MAP APPLICATION

Pursuant to Section 18.06 of the Municipal Code

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

1 APPLICANT OR AGENT

James Dragich
W172 N13186 Division Rd
Germantown WI 53022

Phone (262) 305-6320

Fax ()

E-Mail jdragich@ticon.net

PROPERTY OWNER

James Dragich
W172 N13186 Division Rd
Germantown WI 53022

Phone (262) 305-6320

PROPERTY ADDRESS OR GENERAL LOCATION

TAX KEY NUMBER

2 W172 N13186 Division Road
N132 W17073 Rockfield Road

GTNV 103990
GTNV 103990

3 PURPOSE OF LAND SPLIT

<u>Add to business property</u>	Will the land split require rezoning?	
	From	To

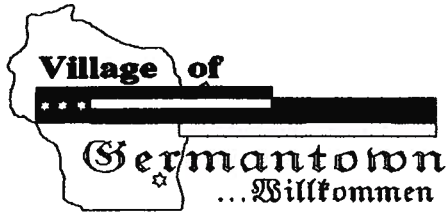
4 READ AND INITIAL THE FOLLOWING:

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

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

Maureen Dragich 3-25-20 Maureen Dragich 3-25-20
Applicant Date Owner Date

Jim P. Dragich 3-25-20



Engineering Department

Certified Survey Map Review Checklist

This checklist has been compiled from the requirements of Chapter 236 of the Wisconsin Statutes and Chapter 17 and 18 of the Village of Germantown Zoning and Land Division Ordinances.

Mapping Requirements (for Sheet 1 and/or all needed mapping sheets)

- ☐ Map Scale: 1"=~~40~~ Ft. (1'=500' max per Ch.236.34 (c) **Only** recognized engineering scales (1"=10 - 60, 100, 200, 300, 400, 500) will be approved.
- ☐ Minimum text height = 100 Leroy or a 12 pt. font.
- ☐ Graphic Scale.
- ☐ North Arrow.
- ☐ Sheet size is 8 ½" x 14" with borders as described by Chapter 236
- ☐ 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)
- ☐ Bearing basis noting the grid bearing of a designated USPLSS line. 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 1927 datum) grid bearings for a bearing basis.
- ☐ Mapping will be provided using the Wisconsin State Plane Coordinate System, South Zone (NAD 1927 datum).
- ☐ Legend denoting: found or set boundary markers, their size and weight and other symbols, linetypes and hatching being used on the map.
- ☐ Direct bearing and distance tie to two (2) USPLSS corner monuments (excluding center of section)
- ☐ Coordinates (NAD 1927 Grid) of point of commencement monument.
- ☐ Point of Beginning noted if a metes and bounds description format used in Surveyor's Certificate.
- ☐ Bearing and distance annotation for all exterior lot lines.
- ☐ Does exterior boundary form a mathematically closed figure?
- ☐ Parcels annotated as "Lot #" or Outlot per 236.34(1).
- ☐ Street name
- ☐ Existing right of way width noted.
- ☐ Proposed street right of way dedication shall include the following statement
 "Dedicated to the Village of Germantown for Public Road Purposes".
- ☐ Existing structures shown.
- ☐ Existing well to be shown.
- ☐ Current building setback lines mapped, dimensioned and date stamped.



Village of
★★★
Germantown
---Willkommen

FEES MUST BE PAID AT TIME OF APPLICATION

- ☐ \$200 Plan Commission Consultation
- ☒ \$1,085 Rezoning
- ☒ \$1,240 PDD < 5 acres
- ☐ \$2,095 PDD 5-20 acre site
- ☐ \$3,460 PDD > 20 acre site

Date Paid: 3-31-20 Received by: [Signature]

REZONING & PDD APPLICATION

Pursuant to Section 17.51 of the Municipal Code

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

1 APPLICANT OR AGENT

James P. Dragich

PROPERTY OWNER

James P. Dragich
Maureen K. Dragich

Phone (262) 305-6320

Phone (262) 305-6320

Fax ()

262-305-6321

E-Mail jdragich@ticon.net

2 PROPERTY ADDRESS OR GENERAL LOCATION

TAX KEY NUMBER

N132W17073 Rockfield Rd

GTNV 103990

3 REZONING REQUEST

FROM B3-A1
Agricultural

TO B3-R1
Commercial
Residential

- Jeff

4 METES AND BOUNDS LEGAL DESCRIPTION OF PROPERTY - REQUIRED

Attach pages as necessary

See Survey

PURPOSE OF REZONING REQUEST

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

Changing some agricultural property to business.

6 SUPPORTING DOCUMENTATION:

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

7 READ AND INITIAL THE FOLLOWING:

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

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

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

8 SIGNATURES – ALL APPLICATIONS MUST BE SIGNED BY OWNER!

Maureen Droegh 3-25-20
Applicant Date

Maureen Droegh 3-25-20
Owner Date

Village of



Germantown

Willkommen

Fee Must Accompany Application

☒ \$ 1165 Paid h Date 3-31-20

☐ \$ _____ PC Consultation Only
Paid _____ Date _____

COMPREHENSIVE PLAN AMENDMENT APPLICATION

Please read and complete this application carefully. All applications must be signed and dated. Attach additional sheets and/or include supplemental information in support of your application.

APPLICANT OR AGENT:

James Dragich

PROPERTY OWNER(S):

James + Maureen Dragich

Address: W172N13186 Division Rd Address: W172N13186 Division Rd
Germantown WI 53022 Germantown WI 53022

Phone: 262-305-6320

Phone: 262-305-6320

FAX: _____

FAX: _____

E-Mail: jdragich@ticon.net

E-Mail: jdragich@ticon.net

☐ REQUEST TO AMEND LAND USE MAP

Current Land Use Map Designation(s):

Ag/Konservation Residential

Proposed Land Use Map Designation(s):

Commercial

Address of Property, Parcel ID Number(s) or General Location (1/4 section 1/4 section):

W172 N13186 Division Rd GTNV 103991
N132 W12073 Rockfield Rd GTNV 103990

Legal Description of Property or Area (metes and bounds description):

See Survey

Size of Property or Area:

Acres: 8.81 Square Feet: _____

7,090

1,719

Comprehensive Plan Amendment Application

Page 2 of 3

Land Use and Zoning of Adjacent Properties (example: residential; Rs-2):

Adjacent Property Land Uses		Zoning
North	Farm	Ag
South	Business	B
East	Farm	Ag
West	Business	B

☐ REQUEST TO AMEND PLAN TEXT

Section(s) of Comprehensive Plan to be Amended:

Proposed Text Amendment:

Attach separate pages as necessary

Detailed Explanation and Justification for Proposed Amendment(s):

Required for both Land Use Map Amendment and Text Amendments
Attach separate pages as necessary

Comprehensive Plan Amendment Application

Page 3 of 3

APPLICATION SUBMITTAL REQUIREMENTS (to be submitted at time of application):

All Amendment Applications:

- ☐ Complete Application Form (Affidavit of Understanding and signatures required)
- ☐ Application Fee
- ☐ Additional Sheet(s) for explanation of and justification for proposed amendment(s)

Land Use Plan Map Amendment Only:

- ☐ Legal Description of the land subject of map amendment in electronic/digital file format (e.g. Microsoft Word)
- ☐ Detailed Plat of Survey or Site Plan of the land subject of the map amendment at a scale of 1" = 60' or other suitable scale necessary to accurately present:
 - o Exterior boundary of the land subject of the map amendment
 - o Concept plan showing general size, shape and relative location of existing and future roads, lots, structures, wetlands, floodplain or other natural features, environmental etc. as may be necessary to further explain and/or support the proposed map amendment.

AFFIDAVIT OF UNDERSTANDING

Please read and indicate that you understand and agree to the following (initials in box):



I understand that Village Staff, the Plan Commission and/or the Village Board may request additional information to properly evaluate this application and failure to provide such information may be sufficient justification to deny this application;

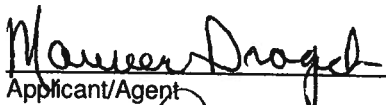


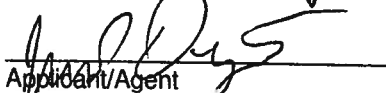
I understand that, regardless of the justification and/or information provided in support of my application, the Village is under no obligation to approve my application nor amend the Comprehensive Plan as requested;

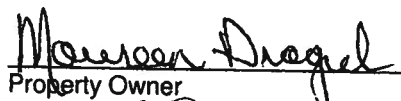


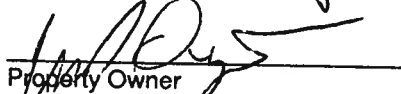
I am aware that the approval of an application to amend the Land Use Plan Map only amends the Land Use Map and does not otherwise revise or change the zoning of the land affected by the Map amendment, and, if I am applying for a Map amendment in order to pursue actual development of the land affected by the amendment, I may be required to obtain separate permits and/or approvals (e.g. rezoning, land division, site plan, etc.) from the Village or other agencies as a prerequisite to the development of such land.

ALL APPLICATIONS MUST BE SIGNED BY THE APPLICANT/AGENT AND PROPERTY OWNER(S)

 3-25-20
Applicant/Agent Date

 3-25-20
Applicant/Agent Date

 3-25-20
Property Owner Date

 3-25-20
Property Owner Date



PO BOX 8046, MADISON WI 53708-8046 | SummitCreditUnion.com | 608-243-5000 | 800-236-5560

February 28, 2020

Maureen Dragich
W172N13186 Division Rd
Germantown, WI 53022

RE: Partial Release Request

Dear Maureen:

Summit Credit Union has received your request for a partial release of 1.25 acres of your parcel GTNV 103990. We will agree to issue a Partial Release of Mortgage for the first mortgage and the Home Equity Line of Credit. We will not require a principal reduction payment for the release of the 1.25 acres. Please let me know when you are ready to move forward with the Partial Release and we can discuss the final steps.

Thank you for your assistance in providing the necessary documentation to complete this request. Please contact me if you have any questions regarding this transaction at 800-236-5560 ext. 2112.

Sincerely,

A handwritten signature in black ink, appearing to read "Kate A. Hughes". The signature is fluid and cursive, with the first name "Kate" being more prominent.

Kate A. Hughes
Sr. Mortgage Loan Servicing Specialist
Summit Credit Union



Village of

Germantown
Willkommen

Fee must accompany application

☐ \$1460 Paid _____ Date _____

up date existing
conditional

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

James Dragich

Phone (262) 305-6320

Fax (262) 677-3852

E-Mail jdragich@tiscali.net

PROPERTY OWNER

James Dragich

Phone () same

2

TO WHOM SHOULD THE PERMIT BE ISSUED?

James Dragich Auto Sales & Service

3

PROPERTY ADDRESS

W172 N13186 Division Rd

TAX KEY NUMBER

GTN V
103991

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.

8am - 8pm 2-3 employees
Auto Body repairs, some auto sales
Same as the last 44 yrs

5

DESCRIPTION OF PROPOSED OPERATION

Write the name of the proposed conditional use exactly as it appears in the Municipal Code.

Describe the proposed use, including size, number of employees, hours of operation and extent of any new construction/alterations.

same as above
Same as last 44 yrs

6

See current survey

7

- 8

9

Applicant Juan P. Lopez Date 5-18-2020 Owner Juan Lopez Date 5-18-2020

VILLAGE of GERMANTOWN

CONDITIONAL USE ZONING PERMIT

OFFICE OF ZONING INSPECTOR

No. 1-76

DATE August 20, 1976

Whereas, James P. Dragich owner / agent agrees to comply with the requirements of the Village of Germantown, Washington County Wis., relating to Zoning and Building Codes and all the changes alterations, or amendments thereto, and further agrees that all work done pursuant to the permission granted herewith, will conform with the applications and drawings filed with the Zoning Inspector and Planning Commission for the purpose of obtaining this permit.

Pursuant to said conditions:

- 1). All disabled vehicles screened from sight from roadways. *3-4-86 non compliance*
- 2). Area landscaped.
- 3). No residency on premises.
- 4). Front of block building to be covered with face brick. *ok*
- 5). Driveways and parking areas to be blacktopped within one year. *?*
- 6). No driveway off Rockfield Road

this Conditional Use Permit is issued for the following described real estate in the Village of Germantown, Washington County, Wis. to wit:

W172 N13186 Division Road-Germantown

update

Owners name James P. Dragich

Property address W172 N13186 Division Road

Fee \$25.00 Date paid June 24, 1976

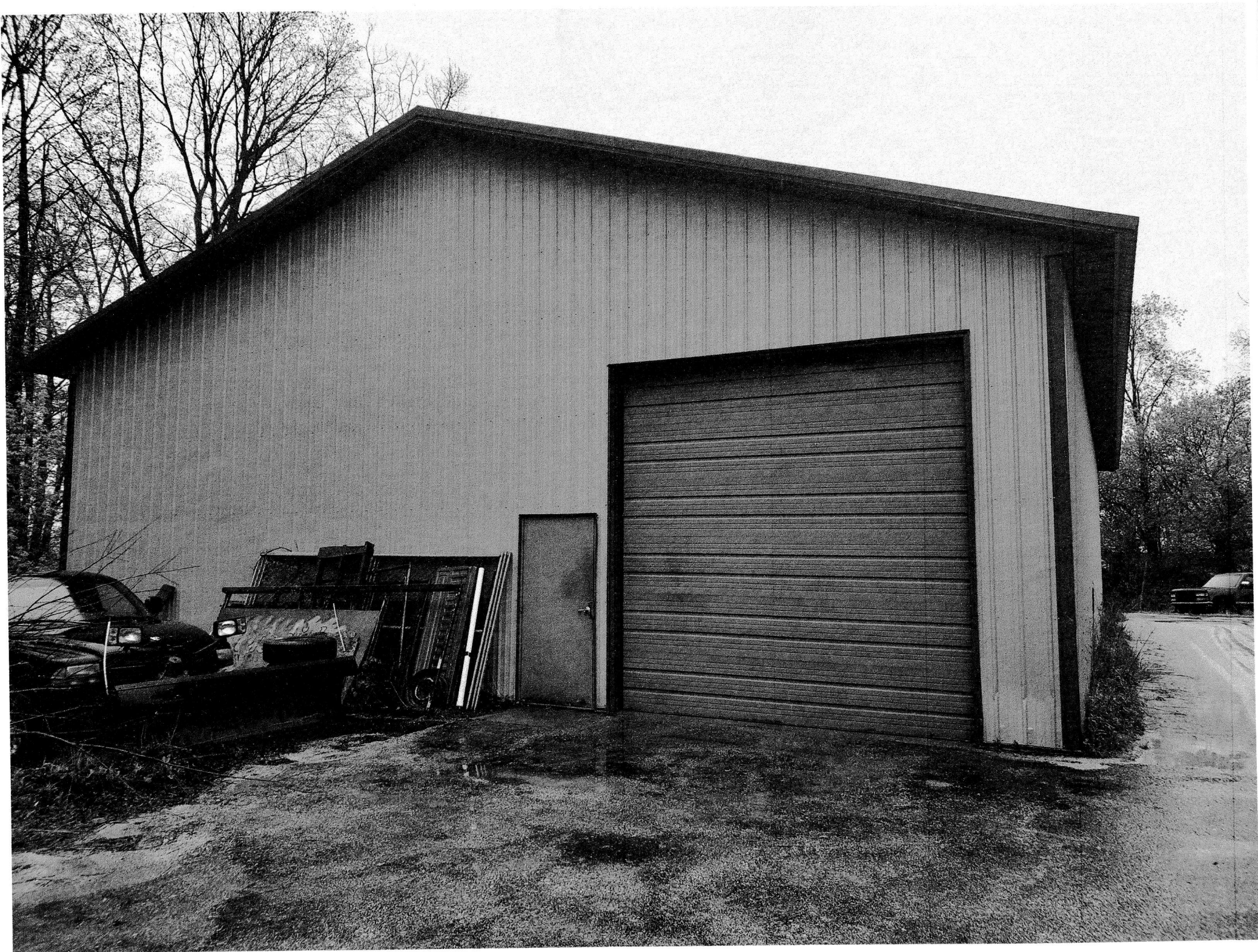
APPROVED

James R. Kautz
Zoning Inspector

DRAGICH AUTO
Sales & Service
AUTO BODY

HOURS: M-F 9-5 - W172 N13186 DIVISION RD - 262.305.6320





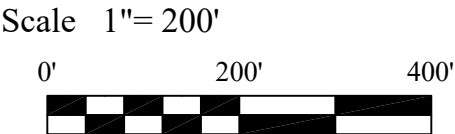
Certified Survey Map No. _____

That part of the Northwest ¼ of the Northwest ¼ of Section 10, Township 9 North,
Range 20 East, Village of Germantown, Washington County, Wisconsin.

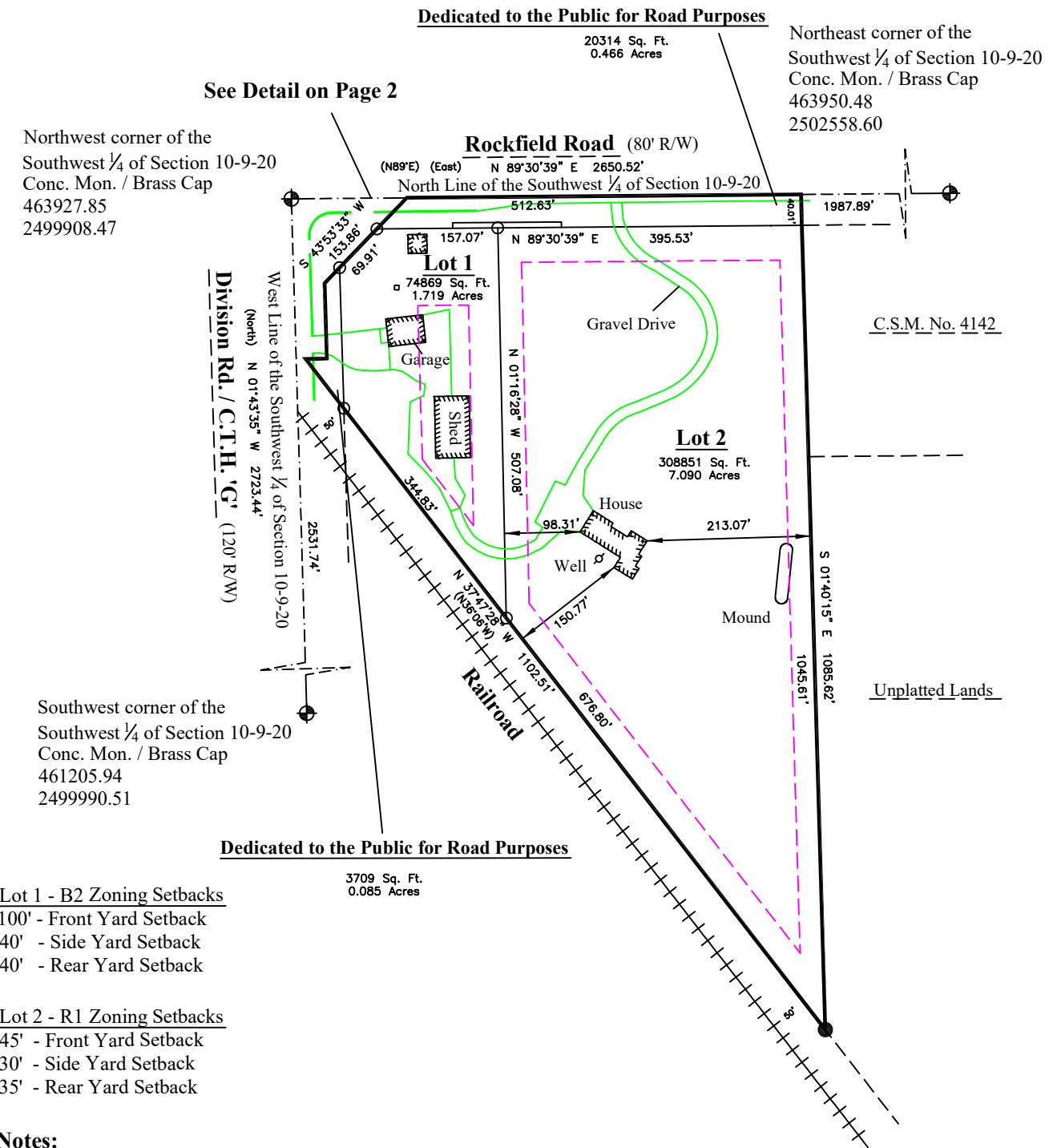


Surveyor:
Richard Simon
Cornerstone Land Surveying, Inc.
5080 Fairy Chasm
West Bend, WI 53095
(262) 424-5630

Owners:
James P. Dragich
Maureen K. Dragich
W172 N13186 Division Road
Germantown, WI 53022



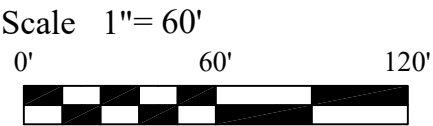
- Legend:**
- Denotes Iron Pipe Found
 - 3/4" OD X 18" Iron Rod 1.50 Lbs./Lin. Ft., Set



- Notes:**
- 1) Bearings are referenced to the North line of the Southwest ¼ of Section 10-9-20, bearing N89°30'39"E, Wisconsin State Plane Coordinate System, South Zone (NAD - 1927)
 - 2) In providing this boundary survey no attempt has been made to obtain or show data concerning the existence of any utility on the site, whether private, municipal, or public owned.
 - 3) No Title Policy furnished therefore completeness of easements is not warranted.

Certified Survey Map No. _____

That part of the Northwest 1/4 of the Northwest 1/4 of Section 10, Township 9 North,
Range 20 East, Village of Germantown, Washington County, Wisconsin.



Dedicated to the Public for Road Purposes

20314 Sq. Ft.
0.466 Acres

Area previously dedicated on P.723 P.271 Washington County Registry

990 Sq. Ft.
0.023 Acres

Rockfield Road (80' R/W)

(N89°E) (East) N 89°30'39" E 2650.52'

North Line of the Southwest 1/4 of Section 10-9-20

150.00'

P.O.B.

512.63'

Septic Cover / Vent

N 89°30'39" E 141.29'

7.01'

40.01'

N 89°30'39" E 395.53'

West Line of the Southwest 1/4 of Section 10-9-20
(North) N 01°43'35" W 2723.44'

Division Rd. / C.T.H. "G" (120' R/W)

N 43°53'33" E 153.86'

N 01°43'35" W 27.98'

N 01°43'35" W 40.00'

N 01°43'35" W 60.00'

N 88°16'25" E 27.62'

80.88'

2531.74'

"No Access"
See Note Below

Lot 1

74869 Sq. Ft.
1.719 Acres

48.33'

35.90'

Garage

58.03'

182.81'

Ameritech Exclusive Easement as described
on Document 845212 Washington Co. Registry

Gravel / Blacktop

Utility Box

"No Access"
See Note Below

Gravel Drive

50.00'

54.64'

344.83'

Gravel / Blacktop

Utility Box

45.10'

80.16'

42.00'

42.00'

507.08'

N 01°16'28" W

98.31'

Gravel Drive

House

50' Gas Easement as shown on
Document No. 845212
Washington Co. Registry

50.00'

676.80'

N 37°47'28" W
(N36°06'W)

1102.51'

Dedicated to the Public for Road Purposes

3709 Sq. Ft.
0.085 Acres

Note:
Any asphalt or concrete currently existing behind the head of the curb running
along C.T.H. "G" / Division Road within the "No Access" area shall be removed.

Certified Survey Map No. _____

That part of the Northwest ¼ of the Northwest ¼ of Section 10, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin.

Surveyor's Certificate

I, Richard L Simon, Professional Land Surveyor, hereby certify:

That part of the Northwest ¼ of the Northwest ¼ of Section 10, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin.

Described as follows:

That part of the Northwest ¼ of the Northwest ¼ of Section 10, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin; Described of follows; Commencing at the Northwest corner of said Northwest ¼; thence N89°30'39"E along the North line of said Northwest ¼, 150.00 feet to the point of beginning; thence continuing N89°30'39"E along said North line, 512.63 feet; thence S01°40'15"E, 1085.62 feet to a point on the Northerly R/W of Railroad; thence N37°47'28"W along said Northerly R/W, 1102.51 feet; thence N88°16'25"E, 27.62 feet; thence N01°43'35"W, 97.85; thence N43°53'33E, 153.86 feet to the point of beginning of this description.

Said parcel contains 9.383 Acres Gross

That I have made such survey, division, and map by the direction of James P. Dragich and Maureen K. Dragich

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

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

Dated this 4th day of August, 2019

Richard L Simon, P.L.S. #2698
Cornerstone Land Surveying
5080 Fairy Chasm Road
West Bend, WI 53095
262-424-5630

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 _____, 2019.

Dean Wolter, Chairman Date

Laura A. Johnson, Secretary Date

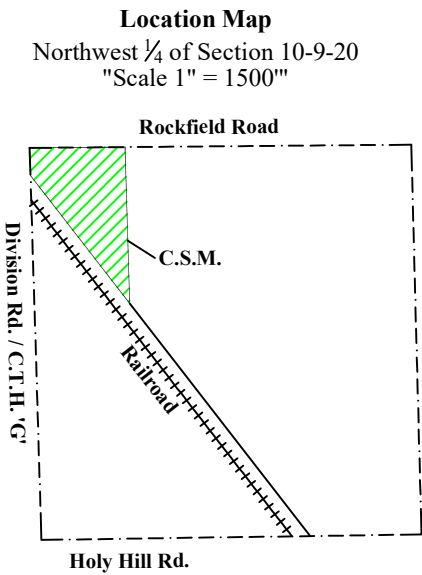
Village of Germantown Board Approval

This Certified Survey Map, being a division of (Northwest ¼ of the Northwest ¼ of Section 10, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin) having been approved by the Planning Commission being the same, is hereby approved and accepted by the Village Board of Trustees of the Village of Germantown on this

_____ day of _____, 2019.

Dean Wolter, Village President Date

Barbara K.D. Goeckner, Village Clerk Date



Certified Survey Map No. _____

That part of the Northwest ¼ of the Northwest ¼ of Section 10, Township 9 North,
Range 20 East, Village of Germantown, Washington County, Wisconsin.

Owner's Certificate

We, James P. Dragich and Maureen K. Dragich do hereby certify that we caused the land described in the foregoing affidavit of Richard L. Simon , Surveyor, to be surveyed, divided and mapped as represented on this Certified Survey Map.

WITNESS the hand and seal of said Signer, this _____ day of _____, _____

James P. Dragich

Maureen K. Dragich

State of Wisconsin) SS
_____) County)

Personally came before me this _____ day of _____, _____, the above named,
James P. Dragich and Maureen K. Dragich, to me, known to be the people who executed the foregoing instrument
and acknowledge the same.

Notary Public

_____ County, State of Wisconsin

My commission expires: _____

CONDITIONAL USE PERMIT (CUP) & SITE PLAN APPLICATION

6/8/20 Plan Commission Meeting

Hampel Corporation/MSI General Inc.

Village Planner Report

Germantown, Wisconsin

Summary

MSI General, agent for the Redstone Land Holding LLC, property owner and the Hampel Corporation, is seeking approval of a conditional use permit and site development for an accessory storage area comprised of up to four (4) 52' storage silos for the existing manufacturing facility located at W194 N11551 McCormick Drive in the Germantown Industrial Park.

Property Location: W194 N11551 McCormick Drive

Applicant/

Property Owners:

Eric Neumann
MSI General
Oconomowoc, WI

Lance Hampel
LANRO Corp
Germantown, WI 53022

Current Zoning: M-1: Limited Industrial

Adjacent Land Uses		Zoning
North	Industrial	M-1
South	Industrial	M-1
East	Industrial	M-1
West	Residential/County Park	Rs-3/I

Location Map



Background

MSI General, agent for the Redstone Land Holding LLC, property owner and the Hampel Corporation, is seeking approval of a conditional use permit and site development for an accessory storage area comprised of up to four (4) 52' storage silos for the existing manufacturing facility located at W194 N11551 McCormick Drive in the Germantown Industrial Park.

Hampel designs, engineers, manufactures (thermoform) and markets heavy-gauge plastic products used in a variety of industrial, lawn & garden, agricultural and portable sanitation equipment for customers all over the world. Hampel's manufacturing facility in Germantown has over 130 employees and operates 24/7 with (3) shifts five days/week.

Proposal: Site Development Plans

As described in the March 30 "Project Details" summary and shown in the site plans, Hampel is proposing to install/construct an accessory silo storage facility near the northeast corner of the building (facing McCormick Drive) with the following features:

- 32'x32' concrete pad w/ a temporary gravel tracking path for use during construction (via internal driveway connection)
- Two (2) 52' high x 12' diameter painted steel storage silos (factory painted to match building w/ 20-year guarantee)
- Piping used to fill the silos to be mounted on "H" frame supports 3' off the ground from the silos along the east side of the building to the existing paved docking area
- Piping used to transfer material into the building to be mounted at the top of the silos and directly into the building

No changes in access to the existing building are proposed; access will continue to be from three (3) existing driveways on McCormick Drive. No changes in parking are proposed. No change is proposed to the existing water and sewer service. No exterior lighting or landscaping is proposed.

Only a small increase in impervious area is expected (1,024 sqft) to a total of 271,464 sqft or 58 percent of the 10.8-acre site (vs. the 80% maximum allowed) leaving 42 percent in green/open space. Storm water run-off from the concrete pad will sheet flow to an existing storm sewer culvert under the driveway before being diverted to the existing regional storm water basin located east of McCormick Drive.

Proposal: Conditional Use Permit (CUP)

The Hampel property is in the Germantown Industrial Park and an M-1: Limited Industrial Zoning District. The maximum height allowance for buildings and accessory structures in the M-1 District is 45 feet. However, there is an allowance for accessory structures, specifically storage silos, taller than 45 feet if a conditional use permit is granted by the Village.

As explained in the CUP application, the 52' tall storage silos are proposed for reasons related to "industry standards", needed capacity and delivery efficiency.

Staff Comments**Planning & Zoning**

Staff's concerns are related to potential noise and appearance. No information is given regarding the process of filling/dispensing product to/from the silos and what, if any, noise may be associated with these activities. Given that the facility operates 24/7 five days a week, it is possible that noise from the silo operations may create a nuisance for the residential area west of the Hampel property. Staff recommends that operation of the silos be monitored in terms of noise complaints that may be received concerning the silo operation over the next year and, if necessary, include specific limits on the hours of operation (potentially 6:00am to 10:00pm only) or require other measures necessary to mitigate any such impacts as part of an amended conditional use permit.

MSI indicates that the silos will be factory painted and guaranteed for 20 years. Because the silos will be hidden for the most part (rising only 19' above the existing building height) due to the existing mature trees that surround the proposed silo compound. However, there's no information about the piping or "H" racking upon which the piping will rest 3' above the ground. Those components should also be painted to match or be hidden.

Fire Department/Police Department

No comments provided.

Public Works Department/Engineering

The Public Works Department has identified a few minor issues and plan corrections (see April 20, 2020 review memo from Public Works Director, Larry Ratayczak) that will need to be addressed in a revised plan set and/or supplemental information submitted for review and approval by the Public Works/Engineering prior to issuance of a building permit.

NOTE: Revised plans addressing these issues were submitted in the revised plan set date stamped received by the Village on June 1, 2020. and are currently being reviewed by staff. We do not anticipate having a revised staff review completed before the June 8 Plan Commission meeting. Therefore, conditional approval is recommended subject to addressing all outstanding issues prior to issuing a building permit.

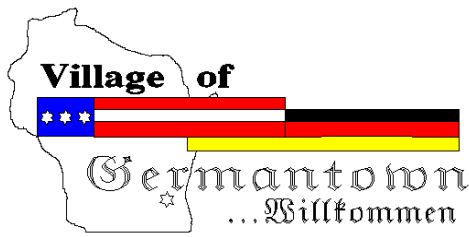
Inspection Services

The Building Inspection Department has indicated that the submission of state-approved plans and the standard \$20,000 occupancy bond will be required prior to issuing a building permit.

VILLAGE STAFF RECOMMENDATION

APPROVE the conditional use permit (CUP) and site development plans for the proposed silo storage facility for the Hampel Corporation facility located at W194 N11551 McCormick Drive 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 site development and building plan set with a date stamped as being received by the Village on June 1, 2020.
2. All landscaping, screening, grading, paving, storm water management, utility and other improvements that are not fire-safety related as 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.
3. All technical issues and plan corrections identified by the Public Works Department/Village Engineer in the April 20, 2020 review letter, including final approval of the grading and erosion control plans shall be addressed and reflected in revised plans and/or supplemental information reviewed and approved by the Public Works Department prior to issuance of a building permit (excluding "early start" site clearing and footing/foundation work approved by the Village and/or WI DSPS).
4. State approved plans and a \$20,000 occupancy bond are required by the Building Inspection Department as part of the building permit application.
5. The silos and all associated piping and support structures shall be painted to match or be compatible with the existing building.
6. Operation of the silos shall be monitored with respect to noise and any complaints received by the Village concerning the silo filling & dispensing functions over a one (1) year period from the date of commencing operation. If necessary, the operation and CUP shall be reviewed for potential changes to the list of conditions including potential limits on the hours of operation (potentially 6:00am to 10:00pm only) and/or require other measures necessary to mitigate noise or other impacts as part of an amended conditional use permit.
7. 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 permitted conditional uses and activities which cause special problems or harmful effects associated with the permitted uses and activities that were not revealed or anticipated at the time this CUP was granted, or, where conditions imposed by this CUP that were anticipated to mitigate or eliminate harmful effects associated with the uses and activities but are subsequently insufficient to do so, or, for similar cause based upon consideration for the public comfort, safety, and welfare, this conditional use permit may be terminated or modified by the Village Board by the amendment to or addition of conditions after public hearing thereon.



Engineering Department Memorandum

To : Jeffrey W. Retzlaff, AICP, Planning Director/Zoning Administrator
From : Lawrence Ratayczak, P.E., Director of Public Works
Date : April 20, 2020
Re : Hampel Corporation

Items Reviewed:

1. Civil Plan Set C1 – C4 (4 pages) Dated: 03-26-20

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. A professional engineer's original seal is to be affixed, signed and dated on the final set of construction plans.
4. Contact Ryan Ehlerding, 262-250-4723 for a utility permit.
5. Please provide a grading plan show how this area will be graded.
6. Please provide an erosion control plan.



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

ERIC J. NEUMANN c/o
MSI GENERAL CORP.
P.O. Box 7
Oconomowoc, WI 53066

Phone (414) 333-6800
E-Mail eric@msigeneral.com

PROPERTY OWNER

Hample Corp c/o
Lance Hample
W194 N11551 Mc Cormick Drive
GERMANTOWN WI 53022
Don Wittmann Main Contact

Phone (262) 255-4540
E-Mail donw@hamplecorp.com

2 PROPERTY ADDRESS

W194 N11551 Mc Cormick Drive

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

North	South	East	West
<u>Industrial</u>	<u>Industrial</u>	<u>Road, Pond</u>	<u>Residential</u>

4 READ AND INITIAL THE FOLLOWING:

X-N/A I am aware of the Village of Germantown ordinance requiring fire sprinklers in most new construction.

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

X 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!

[Signature] 3/30/2000
Applicant Date

[Signature] 3-30-2000
Owner Date



Village of

Germantown
...Willkommen

Fee must accompany application

☒ \$1460 Paid h Date 6-1-20

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

L.T. Hampel Corp
W194 N11551 McCormick Drive
Germantown, WI 53022

Phone (262) 255-4540

Fax ()

E-Mail paul@orge.hampelcorp.com

PROPERTY OWNER

Redstone Land Holding LLC
W194 N11551 McCormick Drive
Germantown, WI 53022

Phone (262) 255-4540

2 TO WHOM SHOULD THE PERMIT BE ISSUED?

L.T. Hampel Corp.

3 PROPERTY ADDRESS

W194 N11551 McCormick Drive, Germantown, WI

TAX KEY NUMBER

GTN/V 204953

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.

see attached

5 DESCRIPTION OF PROPOSED OPERATION

Write the name of the proposed conditional use exactly as it appears in the Municipal Code

Eric to provide?

Describe the proposed use, including size, number of employees, hours of operation and extent of any new construction/alterations.

see attached

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:

PAC 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.

PAC 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.

PAC 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.

PAC 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!

Peggy President 05/29/2020
Applicant L.T. Hampel Corp. Date

James T. Hampel 05/29/2020
Owner Redstone Land Holding LLC Date

L.T. Hampel Corp.
Conditional Use Permit Application Responses
05/21/20

4. Description of Existing Operation

L.T. Hampel Corp. is engaged in the design, manufacture and marketing of plastic products used in industrial equipment, lawn and garden, agricultural and portable sanitation markets. The company sells its products to customers located in North and South America, Europe, Asia, Australia and other parts of the world. The company employs 146 team members throughout the world, of which approximately 130 team members staff and operate the manufacturing plant in Germantown, WI over three shifts operating five days per week.

5. Description of Proposed Operation

a. The request for the conditional use is for relief from M-1 Zoning District, accessory structures and silos over 45 feet in height may be approved with a conditional use per (under Section 17.33(3)(i). Hampel Corp Answer for the 45' Height limitation – Please see attached CUP Application and Back up information. Please note silos cannot be lower than the proposed 52' because a 52' x 12' diameter silo is industry standard size and set up to hold an entire rail car of plastic pellets. This also is the same as 4 semi tankers equals one rail car. A wider silo is not shippable effectively. Smaller Silo would mean partial loads which is costlier and defeats the purpose of the silo's efficiency. This height is also consistent with many other silos currently in the industrial park.

b. Through this conditional use permit, Hampel seeks to vertically integrate the production of extruded plastic sheet; its largest raw material component used in its manufacturing process. This vertical integration will result in the addition of approximately ten (10) full time positions at the Germantown facility. Generally, the extrusion operation hours will mirror the existing plant production hours of 24 hours per day, five days per week and may be expanded to 24 x 7 depending on demand requirements.



Design Build
Since 1957

HAMPEL CORP SILO PROJECT DETAILS

March 30, 2020

GENERAL PROJECT INFORMATION:

1. Construct a Concrete Foundation (buried) 30' x 30' w/ 8' tall chain link fence (Security)
2. Install two 12' Diameter by 52' tall Silos for plastic pellets for Hampel to be able to do their own extruding.
3. Silo pad for engineering reasons (tipping moment) is large enough for 4 silos.
4. Provide piping needed to fill tanks from current driveways (lower to ground pipes on stands +/- 3' off ground)
5. Provide piping from top of tank and down to feed into building directly west of silos to feed extruders.
6. Paint silo if needed same color as building.
7. Photos of the area and all of the trees screening we have as well as the grade changes to hide the silos and keep the tops of them as low as we can above the wall height (and below the tree tops).

MSI General

Corporation

P.O. Box 7

Oconomowoc

Wisconsin

53066

262.367.3661

Fax 262.367.7390

www.msigeneral.com



Community Development Department

Jeffrey W. Retzlaff, AICP, Director

Village Planner & Zoning Administrator

N112 W17001 Mequon Road P.O. Box 337

Germantown, WI 53022-0337

Telephone: (262) 250-4735

Website: www.village.germantown.wi.us

FAX: (262) 253-8255

E-mail: jretzlaff@village.germantown.wi.us

May 18, 2020
Eric Neumann
MSI General Corp.
PO Box 7
Oconomowoc, WI 53066

RE: Hampel Corp W194 N11551 McCormick Drive; Silo Project Site Plan Application
Staff Review Comments

Mr. Neumann:

Village Staff has reviewed the application, plan set and supporting materials submitted for the proposed silo project. Below are the outstanding items/issues that need to be addressed. Please provide the requested information, corrections and/or revisions as soon as possible.

Community Development Department

1. In the M-1 Zoning District, accessory structures and silos over 45 feet in height may be approved with a conditional use permit (under Section 17.33(3)(i)). A separate CUP application is required, along with an explanation as to why the silos cannot meet the maximum height allowance of 45 feet. Application form can be obtained from Planning & Zoning Services @ Village Hall.
2. Please describe in detail the process and piping used to fill/feed the silos from the trailers used to off-load the materials into the silos and from the silos into the building. Where will the trailers/containers used to off-load be located? How often will the silos need to be filled?
3. What, if any, noise, dust, odor, vibration or other potential impact may be associated with the process of filling and/or operating the silos?
4. In addition to the pad area, what portion of the existing wooded area (approx. sqft) will need to be cleared to make way for the silo pad, cleared path for installation/construction and future maintenance? Will the silos be constructed in place?

Public Works/Village Engineer

5. Please refer to the separate review memo provided by the Director of Public Works dated April 20, 2020 for additional comments regarding engineering, erosion control, storm water, etc.
6. Need to confirm with Tim Zimmermann, Waste Water Superintendent, that sampling manhole is complete/code compliant.

Fire Department

7. No comment.

When submitting revised plans or additional information, please submit (1) digital plan set and three (3) full-size, hard-copy plan sets set to the Community Development Department. Complete responses and/or information, plan revisions, etc. to the items/issues listed above will help avoid delay in the review and processing of your application.

Respectfully,

Jeffrey W. Retzlaff, AICP
Village Planner & Zoning Administrator

A handwritten signature in blue ink, appearing to read "Jeffrey W. Retzlaff", is written over the printed name and title.

MSI General & L.T. Hampel Corp.
Silo Project Site Plan Application Staff Review Comments Reply Memo
05/28/20

To: Jeffrey W Retzlaff, AICP, Village Planner and Zoning Administrator

From: Eric J Neumann, Vice President - Sr. Project Executive

Re: Replies to 5/18/2020 Village of Germantown Memo

Jeff,

In response to your memo of 5/18/2020 please see the following replies and requested details;

Community Development Department Items 1-4

1. 45' Height limitation – Please see attached CUP Application and Back up information. Please note silos can not be lower than the proposed 52' because a 52' x 12' diameter silo is industry standard size and set up to hold an entire rail car of plastic pellets. This also is the same as 4 semi tankers equals one rail car. A wider silo is not shippable effectively. Smaller Silo would mean partial loads which is costlier and defeats the purpose of the silo's efficiency.
2. See Site plan showing a 2 to 4 pipe system running from the North edge of the eastern loading dock thru the wooded area and to the tank pad and up the side of each silo. Each pipe is a 4" diameter and would be set on an H frame system that would have the delivery pipes mounted to the horizontal portion of the H. The height of the pipe above ground would be +/-3'. The truck loading side of the piping would be set at mid-point of the tank trailer area. Truck deliveries to fill silo is expected to be 3-4 times a week. All material from silo to the building will be pump from system internal to the building.
3. The trucks have pumps built into the tank system that will pump the pellet to the silo. This pump can be heard and is one of the reasons why placement of the silos on the east side Industrial/Pond Wooded area vs the West (adjacent to Residential) was selected. They are no odors, dust or smells from this operation.
4. See updated site plan that show the access road to the pad area. This will be cut in at +/- 20' and used for construction. Hampel plans on removing the stone road and re planting grass there after construction. Delivery and setting of the silos will be by Crane on the North Driveway most likely in one or two pieces.

MSI General & L.T. Hampel Corp.
Silo Project Site Plan Application Staff Review Comments Reply Memo
05/28/20

Community Development Department Items 5-6

5. Duly noted and see attached updated Civil plans (these address and acknowledge the 4/20/2020 Memo from Lawrence Ratayczak with Items #1 Reviewed and General Comments 1-6).
6. No Sanitary Connections or use are part of this project. We will confirm with Tom as required.

We trust that these answers and attached plans will satisfy the concerns raised by staff on this project. The need for the Conditional Use Permit is understood and attached as well to this re-submittal. We encourage staff to drive the site to see the proposed location and the logic it makes to place and honestly hide the tanks in that location. We look forward to your Comment and the June 8th Plan Commission meeting for L.T. Hampel Corp. to continue to grow and prosper at its headquarters since the late 70's.

Respectfully,

Eric J Neumann, Vice President – Sr. Project Executive
MSI General Corp.



ENGINEERS

CONTRACTORS

Proposal:
Bid:
Contract:
State Submittal / Permit:
As-Built:

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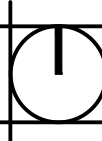


ALL WORK TO BE COMPLETED AS SHOWN, AND IN ACCORDANCE WITH THE LATEST EDITION OF THE MSI GENERAL MASTER SPECIFICATION

Sheet Title:
**OVERALL EXISTING
SITE PLAN**
Sheet Number:

Project Number

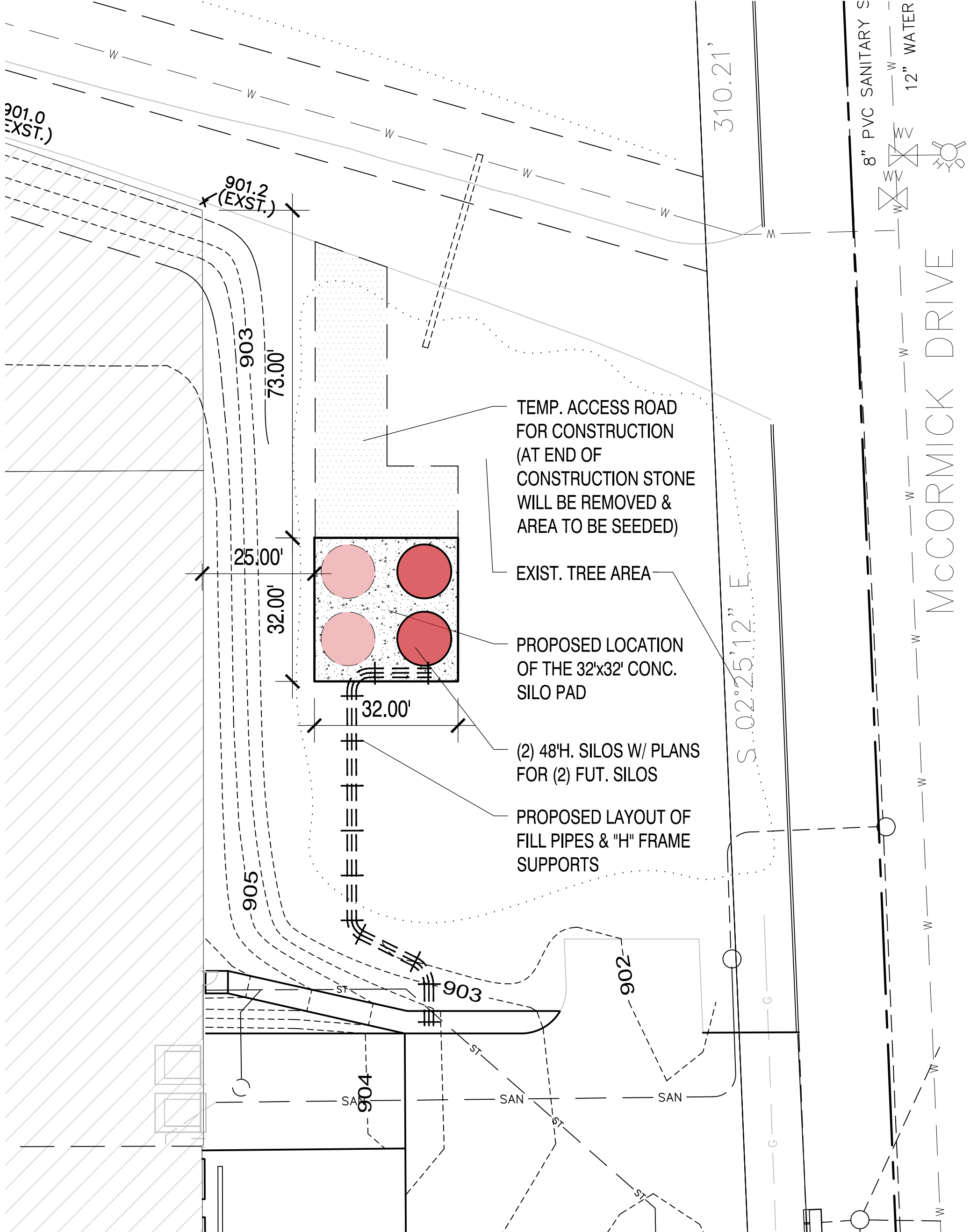
ARCHITECTS



OVERALL EXISTING SITE PLAN 1" = 50'-0"



AERIAL SITE PLAN 1" = 20'=0"



SILO SITE PLAN 1" = 20'=0"

SITE PLANS



MSI GENERAL CORPORATION
P.O. BOX. 7
OCONOMOWOC, WI 53066
PHONE: 262-367-3661

WWW.MSIGENERAL.COM
SINGLE SOURCE RESPONSIBILITY™

ISSUE DATES:

Proposal:
Bid:
Contract:
State Submittal / Permit:
As-Built:

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PROJECT ADDRESS:

PROJECT NAME
Hampel Corp. Silo
STREET ADDRESS
W194 N11551 McCormick Drive
CITY/ STATE / ZIP
Germantown, WI 53022

ALL WORK TO BE COMPLETED AS SHOWN, AND IN
ACCORDANCE WITH THE LATEST EDITION OF THE
MSI GENERAL MASTER SPECIFICATION

Architect: Engineer: Reviewed By:

BJZ --

Sheet Title:

SITE PLANS

Sheet Number:

C-101

Project Number:

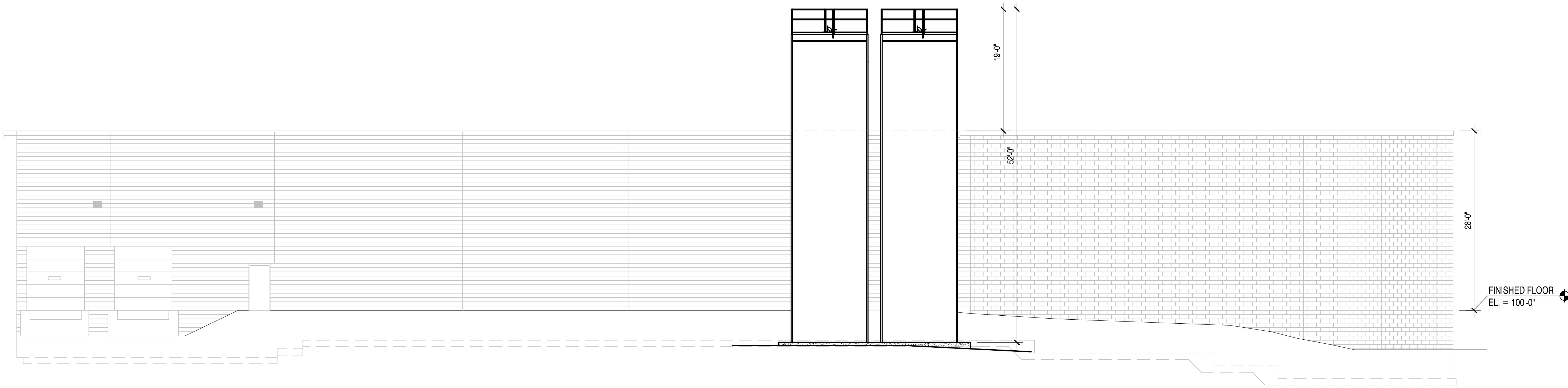
S20056

MANAGERS

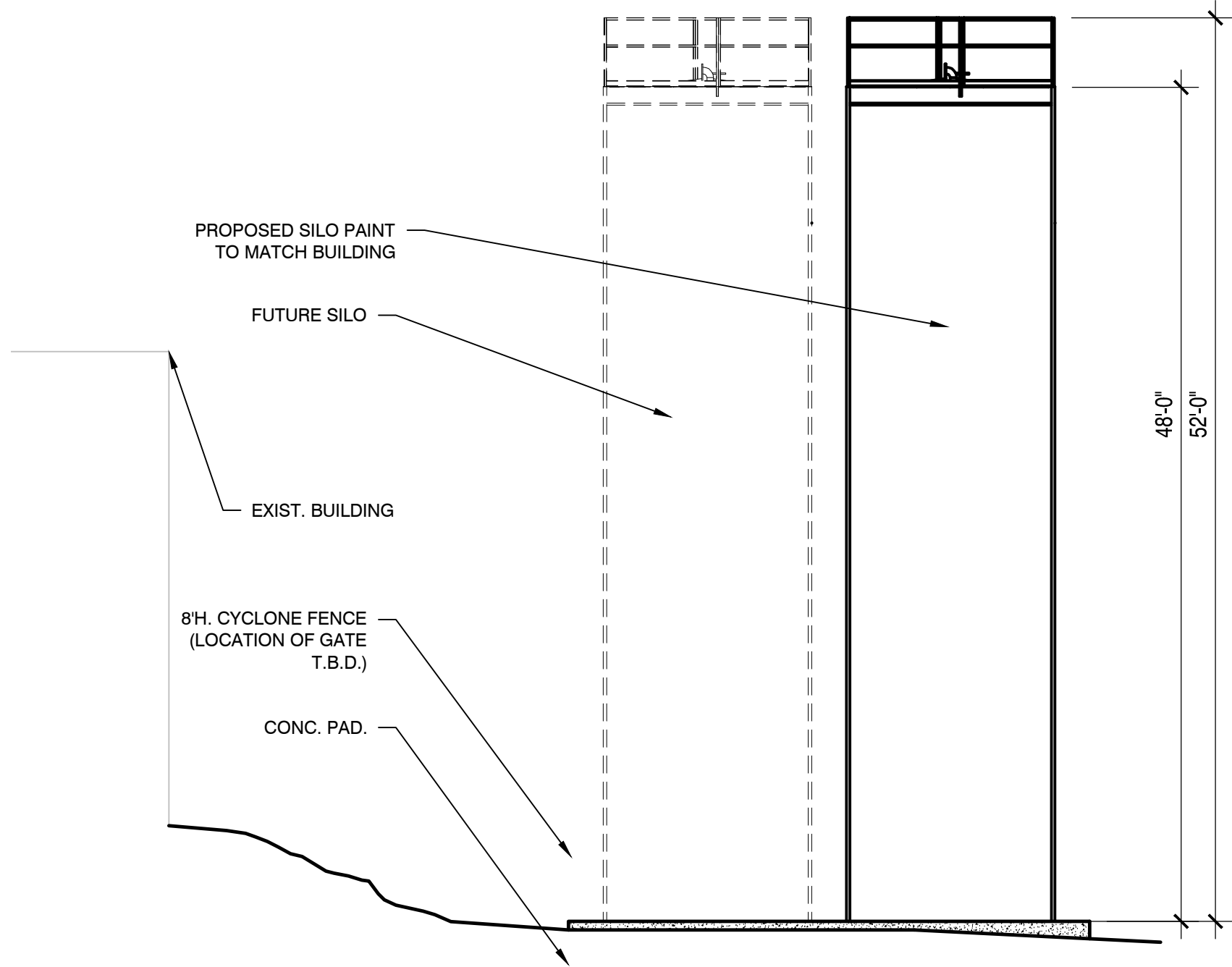
ENGINEERS

CONTRACTORS

ARCHITECTS



EAST ELEVATION



NORTH ELEVATION



MSI GENERAL CORPORATION
P.O. BOX. 7
OCONOMOWOC, WI 53066
PHONE: 262-367-3661

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ISSUE DATES:
Proposal:
Bid:
Contract:
State Submittal / Permit:
As-Built:

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PROJECT ADDRESS:

PROJECT NAME
Hampel Corp. Silo
STREET ADDRESS
W194 N11551 McCormick Drive
CITY/ STATE / ZIP
Germantown, WI 53022

ALL WORK TO BE COMPLETED AS SHOWN, AND IN
ACCORDANCE WITH THE LATEST EDITION OF THE
MSI GENERAL MASTER SPECIFICATION

Architect: Engineer: Reviewed By:

BJZ -- -

Sheet Title:

EXTERIOR ELEVATIONS

Sheet Number:

A-201

Project Number:

S20056

MANAGERS

ENGINEERS

CONTRACTORS

ARCHITECTS











SITE PLAN REVIEW

6/8/20 Plan Commission Meeting
Menard Inc.

Village Planner Report

Germantown, Wisconsin

Summary

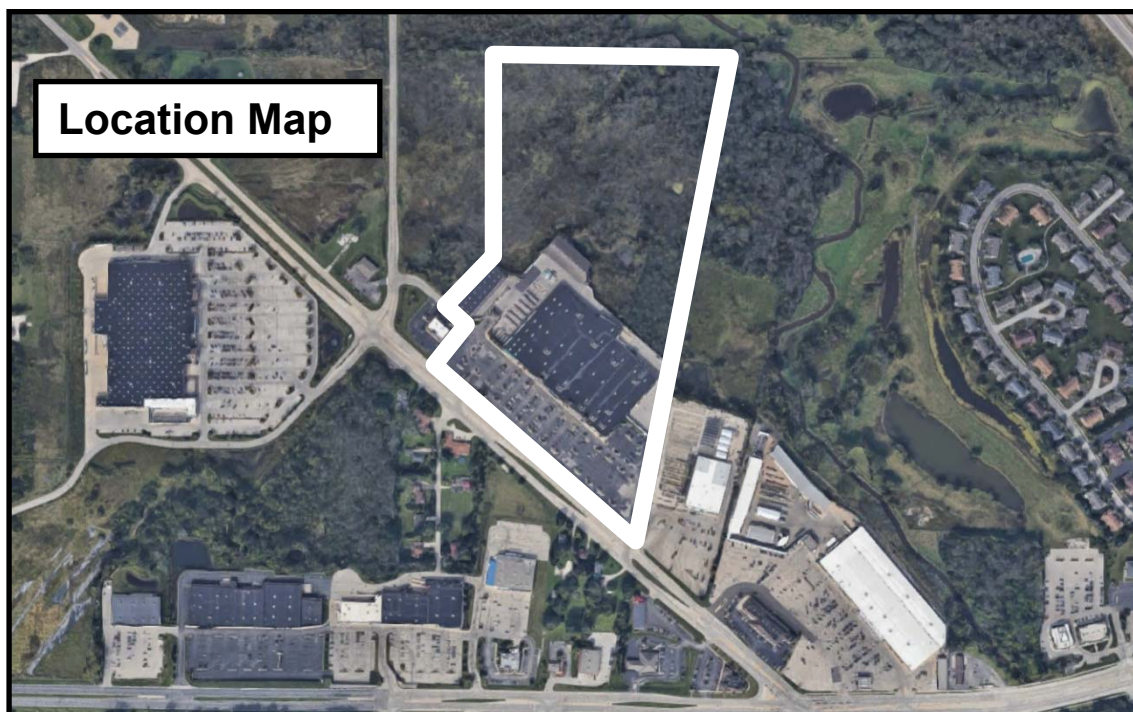
Tyler Edwards, agent for Menard Inc., property owner, has submitted a revised Site Development and Building Plan application for the proposed storage yard expansion, warehouse addition, building addition & exterior remodeling to the existing home improvement and retail store located on a 34.8-acre parcel at W186 N9754 Appleton Avenue.

Location: W186 N9754 Appleton Avenue

Property Owner: Menard Inc.
5101 Menard Drive
Eau Claire, WI

Current Zoning: B-2: Community Business

Adjacent Land Uses		Zoning
North	Agricultural/Commercial	A-1
South	Commercial/Residential	B-1/B-3/Rs-3
East	Commercial (Stein's)	B-1
West	Commercial (Wal-Mart & bank)	B-1



Background

Tyler Edwards, agent for Menard Inc., property owner, has submitted a revised Site Plan application for the proposed storage yard expansion, warehouse addition, building addition and exterior remodeling to the existing home improvement and retail store located at W186 N9754 Appleton Avenue. Menards indicates that the proposed improvements are intended to update the retail store in terms of the space needed to provide the type and quantity of products and amenities that other Menards stores across the country provide.

In May, the Plan Commission recommended approval of the following applications:

- Rezoning application to remove .914 acres of filled wetland from the Shoreland-Wetland Zoning District;
- Conditional Use Permit application to allow development within a 25' wetland setback (adjacent to the .914 acres of filled wetland);
- Conditional Use Permit application to amend CUP #7-2002 to allow a retail store >50,000 sqft (increase to 169,283 sqft);
- Conditional Use Permit application to amend CUP #8-2002 to allow an enclosed storage yard (increase to 3.85 acres)

However, the Plan Commission tabled action on the Site Plan application given concerns with existing traffic entering/exiting the site via the Appleton Avenue driveway shared with Stein's Garden Center.

Menards has submitted a revised Site Plan with modified curbing/islands that are intended to better control and guide traffic to/from this area of the site, as well as, provide additional vehicle "stacking" area for outbound vehicles. A summary of the plan revisions is contained in a June 4, 2020 letter from Menards (copy enclosed).

The following summarizes the improvements proposed that require approval as part of the Site Plan application. Highlighted sections are revised from the original staff report:

Proposal: Site Development & Building Plans

As presented in the detailed site plans and other supporting information, the Menards expansion includes the following improvements:

- Storage yard area expansion from 2.6 to 3.85 acres (113,853 to 167,610 sqft)
 - o Expand area on north, east and south sides of retail building
 - o Remove/replace 14' high wood perimeter yard (privacy) fence
 - o Fill 39,833 sqft (.914 acres) of wetland
 - o Fill portions of existing storm water basin (north of & outside storage yard)
 - o Install two (2) Stormtech sub-surface storm water retention/detention chamber systems (under pavement in storage yard)
- Storage yard warehouse expansion to 51,736 sqft
 - o Existing warehouse #1 reduced to 7,621 sqft
 - o Existing warehouse #2 reduced to 18,691 sqft
 - o New warehouse connecting #1 to #2 with additional 25,424 sqft
- Storage yard access gate/canopy relocation & expansion (from northwest to southeast side of building)

-
- o Relocate canopy & add 3rd controlled access gate for “order pickup”
 - o Install new 14’ wood wall or wrought iron fence (alternative) between south side of building and “new” access gate/canopy
 - o convert “old” existing storage yard gate/canopy access to single-lane emergency access only (to provide 360⁰ accessibility for Fire/EMS services)
 - Parking lot reconfiguration
 - o Remove islands and (83) parking stalls near shared access driveway w/ Stein’s Garden Center to accommodate expanded storage yard & “new” relocated access gate
 - o Remove islands and add (13) parking stalls near “old” existing storage yard access gate
 - o Net reduction of (76) parking stalls from (531) to (455) stalls (almost all stalls to be removed are currently located in less-used, remote location south of store)
 - Retail building expansion (10,445 sqft addition; 169,283 sqft total)
 - o Enclose portions of the existing garden center and receiving area located in rear (north) side of store into 8,269 sqft of heated “special order” storage and pick-up area, and, 2,176 sqft of additional unheated garden center storage area

Access & Parking. The Menards property will continue to be served by three (3) driveways: the primary driveway to/from Appleton Ave; a driveway shared with Stein’s Garden Center further south along Appleton Ave; and a driveway shared with Waterstone Bank to/from Maple road. As summarized above, the storage yard expansion and access gate/canopy relocation will result in a net decrease of (70) parking stalls from (531) to (461). Menards indicates that this reduction in parking stalls will not impact the operation because of the increase in online orders & in-vehicle pick-up, as well as, the typical distribution of contractor (weekday-daytime) vs. homeowner (weekend-evening) customer traffic.

Storm Water Management. A total of approximately 17.87 acres (51.4%) of impervious area is proposed with the storage yard pavement expansion, warehouse expansion and retail building additions on the 34.8-acre site leaving 48.6% in open space. The site is currently served by one (1) storm water basin north of the enclosed storage yard and one (1) Stormtech sub-surface retention/detention chamber systems under the existing parking lot south of the retail building. Due to a reduction in the size of the existing storm water basin and increase in impervious area resulting from the storage yard expansion, warehouse expansion and building addition, two (2) additional Stormtech sub-surface chamber systems will be installed under the pavement in the expanded storage yard (see sheet C1.3).

Landscaping. Landscaping changes are limited to the relocation of existing and installation of new deciduous and evergreen trees & shrubs from the parking lot islands and foundation plantings where the “old” storage yard access/gate canopy will be removed, and, where the “new” gate/canopy will be constructed.

Lighting. Exterior lighting changes include replacing existing 400W metal-halide pole-mounted and building-mounted fixtures with 200W LED cut-off fixtures in the parking lot and storage yard areas, as well as, new 200W LED cut-off fixtures in the expanded storage yard and warehouse areas.

Signage. No new or additional signage is proposed.

Staff Comments

Planning & Zoning

As shown on various sheets in the site plan set, the proposed storage yard and warehouse expansions are erroneously shown as encroaching into the 100-year floodplain. While a portion of the Menards property is located within the 100-year floodplain, that area is located further north and away from the proposed development expansion. The floodplain line shown on the site plans is actually the 500-year floodplain line (Zone "X" as presented on the FEMA FIRM maps adopted by the Village for this area as part of the Village's Floodplain Zoning Code). Because the Village does not regulate land within the 500-year floodplain (most communities do not), no restrictions or limitations contained in the Village's Floodplain Zoning Code apply to the Menards proposal.

At the May meeting, Menards committed to installing a Finally, the proposed relocation of the storage yard access gate & canopy from the northwest to the southeast side of the retail building also includes the construction of a wall or fence between the existing building and the gate/canopy structure. Menards is proposing to install either a: (1) 14' high wood "privacy" fence/wall that is the same as that already installed around other portions of the storage yard; or (2) wrought iron fencing mounted on a concrete base... the same as some sections already installed near the "old" existing access gate. Menards has indicated that they will install whatever alternative the Village prefers.

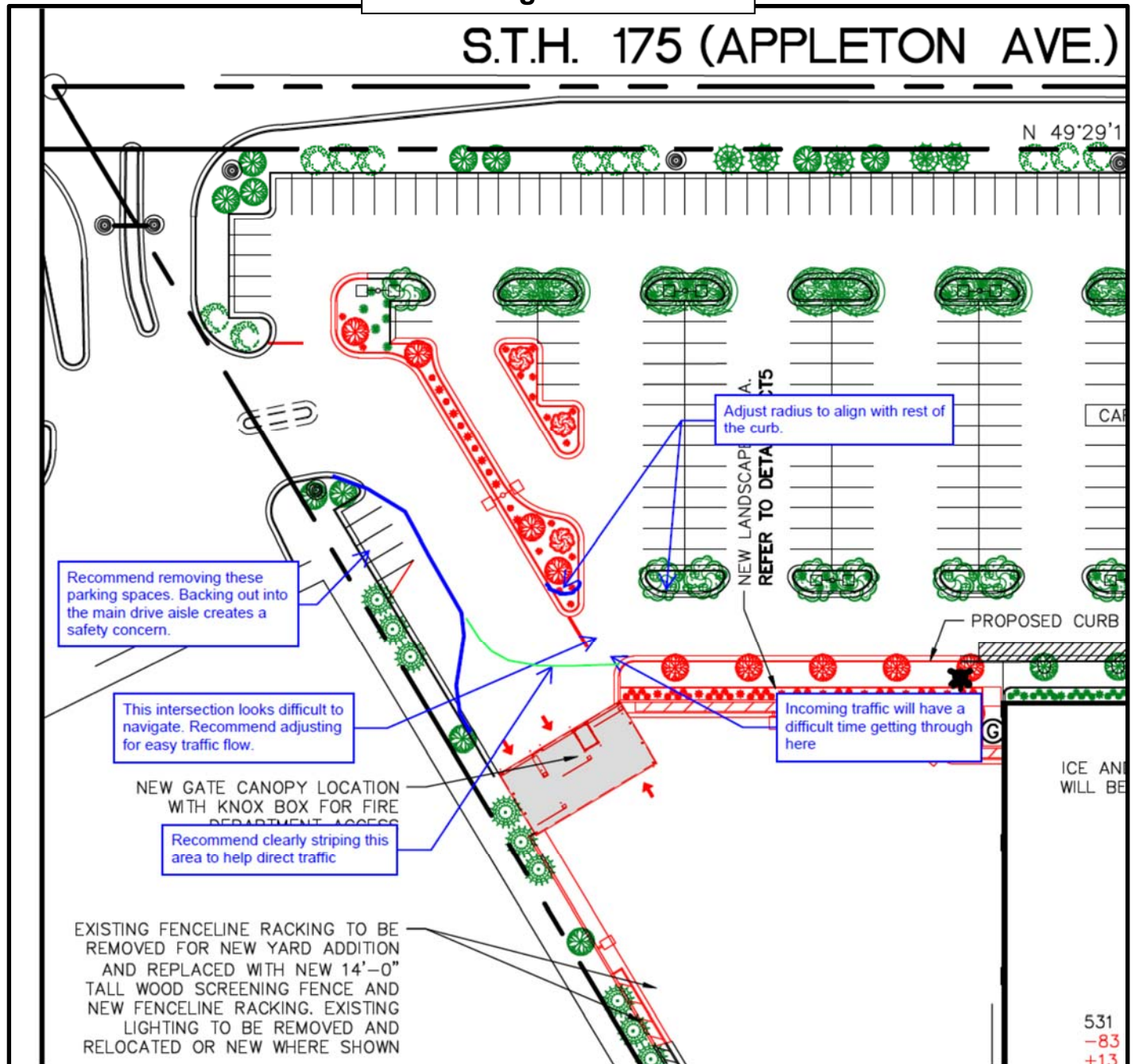
Because the area on the inside of the proposed wall or fence is intended to be used for additional storage of product and materials, including the installation of the same rack-mounted shelving that already exists within the storage yard, Staff recommends that the 14' high wood privacy fence/wall be installed provided that sufficient landscaping is also installed on the outside of the wall (as shown on the landscape plan), and, that the wall is continually maintained so as to not become dilapidated or a visual eyesore (as a result of staining, mold, etc.).

Public Works Department/Engineering

The Public Works Department and Village Engineer reviewed the revised plans and supplemental information submitted in response to the outstanding issues and plan corrections identified in their initial review memo dated November 11, 2019. A revised review memo dated June 4, 2020 identifies the few remaining items that will need to be submitted for review and approval by the Public Works/Engineering prior to issuance of a building permit.

Comments from the Village Engineer regarding the proposed driveway modifications proposed by Menards to address the concerns raised by the PC regarding the shared driveway w/ Steins Garden Center are shown on Figure 1:

Figure 1.



Fire Department/Police Department

All of the Fire Department's initial plan review comments and concerns have been addressed with the revised plan set, including the retention & conversion of the existing storage yard access gate as an emergency only access to provide 360⁰ perimeter access for Fire/EMS equipment and staff.

Inspection Services

Inspection Services has indicated that the submission of state-approved plans will be required prior to issuing a building permit along with the required \$20,000 occupancy bond.

Village Forester

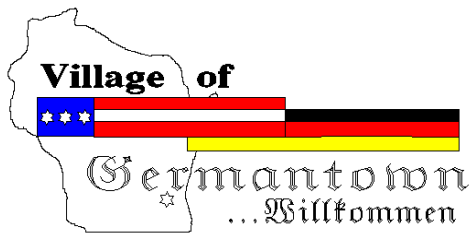
The Village Forester recommends the following alternatives to the proposed landscape plan:

1. With respect to the new landscape border I and recommending substituting "Autumn Fantasy Maple" for the "Autumn Blaze Maple" and substituting "Little Princess Spirea" for "Anthony Waterer".

VILLAGE STAFF RECOMMENDATION*Site Development & Building Plans ("Site Plans")*

APPROVE the site development and building plans for the proposed storage yard expansion, warehouse addition, building addition & exterior remodeling to the existing Menards home improvement and retail store located at W186 N9754 Appleton Avenue 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 revised Site Plan (sheet CT1) dated May 21, 2020 and building plan set dated as set forth below unless superseded by subsequent plan sheets approved by the Village Planner pursuant to revisions required herein and/or by the Plan Commission:
Landscaping & Lighting Plans dated October 15, 2019
Architecture & Building Elevation Plans dated October 3, 2019
Engineering Site Plan dated February 24, March 5 & May 21, 2020
2. All landscaping, screening, grading, paving, storm water management, utility and other improvements that are not fire-safety related as 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.
3. All exterior doors (except primary entrance) shall be clearly marked with reflective 5" or larger letters/numbers to aid emergency personnel access as required by the Police Department.
4. All technical issues and plan corrections identified by the Public Works Department/Village Engineer in the June 4, 2020 November 11, 2019 review letter, including final approval of the engineering plans and stormwater management report, shall be addressed and reflected in revised plans and/or supplemental information reviewed and approved by the Public Works Department prior to issuance of a building permit (excluding "early start" site clearing and footing/foundation work approved by the Village and/or WI DSPS).
5. State approved plans and a \$20,000 occupancy bond are required by the Building Inspection Department as part of the building permit application.
6. Relocation of the storage yard access gate/canopy to the southeast side of the retail building ~~shall include requires the construction of a wall or fence between the existing building and the gate/canopy structure. Menards shall install the~~ same 14' high wood "privacy" fence/wall that is installed around other portions of the storage yard. Menards shall be responsible for the installation and ongoing maintenance of the approved landscaping along the outside of the wall to ensure the appearance of the fence/wall does not become dilapidated or a visual eyesore (as a result of staining, mold, etc.).



Engineering Department Memorandum

To : Jeffrey W. Retzlaff, AICP, Planning Director/Zoning Administrator
From : Lawrence Ratayczak, P.E., Director of Public Works
Date : June 4, 2020
Re : Menards Site Plan Review

Items Reviewed:

1. Civil Plan Set C1.0 – C1.8 (12 pages)
2. Stormwater Management Report

Dated: 03-05-2020

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. The electronic copies of the plans are blurry and difficult to read. This review is limited to the information provided. Additional comments could arise as a result of the plan completion and modifications. The items listed below will need to be fully resolved before the Engineering Dept. can recommend a formal approval of the plans and permit for construction.
3. This project will require a WRAPP/NOI from the DNR. Please submit a copy of the approved permit prior to final approval.
4. The project will require DSPS plumbing system review and approval. Please provide a copy of the DSPS approval prior to engineering approval
5. This project will require a wetland fill permit. Please provide a copy of the approved wetland fill permit.
6. As-builts prepared to Village standards shall be prepared and provided to the Village post-construction (for all applicable items).
7. A professional engineer's original seal is to be affixed, signed and dated on the final set of construction plans.
8. Contact Ryan Ehlerding, 262-250-4723 for a utility permit.
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.
10. Following the plan commission meeting a revised landscape plan showing the modifications to the site plan to address the plan commissions concerns was submitted and reviewed. In general this revised plan is an improvement over the current condition. A few recommendations to further improve this plan are included in the attached markup.

C-1.1 Existing Site Conditions

1. *Plan shows the wetlands running though the corner of the existing warehouse building. Is that correct?*

Please provide a copy of the delineation report.

C-1.3 Site Plan

- 1. In general the site plan at 50 scale is difficult to review. Recommend providing additional plans at a smaller scale to ease reviews and construction.*
- 2. New warehouse building appears to be in the floodplain. Please provide additional information on the flood elevation, building elevation, and compensatory storage volumes.*
- 3. Add a site data table to the plans showing disturbance area and additional impervious area*
4. Provide details on the type of retaining wall proposed. Is this modular block? Cast in place? Who will be designing it?
5. Provide railings at the retaining walls meeting code requirements.

C-1.4 Grading Plan

- 1. Electronic copy of the plan is blurry and difficult to read. For future submittals please provide legible electronic copies.*
- 2. Provide additional details on the concrete drainage channel around the ware house building. What's the purpose of the concrete channel?*
3. Provide detailed retaining wall elevations. **Top of wall elevations do not appear to match adjacent pavement grades and in some places the top of wall is over 1' higher than the pavement. Is this intended?**
4. Top of the retaining wall is higher than the finished floor elevations of the buildings. So the 100 year overland flow path through the site and how it will safely route around the buildings. Overland flow route shall provide at least 1' of freeboard between the overflow elevation and floor elevations.
5. Label floor elevation of the existing building.

C-1.5 Erosion Control Plan

1. Add late season stabilization requirements to the plans. **Add the season dates and specific seeding requirements to the plans.**
2. Add a construction sequence to the plans.
3. Silt fence appears to stop short of the wetland. Please ensure the wetland areas is protected by silt fence.
4. Add erosion control inspection requirements matching DNR standards to the plans.
5. Slit fence is not an approved erosion control method at pipe outfalls. Revise the plan to show appropriate erosion control measure at pipe outfalls.

C-1.6 Utility Plan

1. Two Village owned hydrants are shown for relocation. Please satisfy the comments below.

- *Where are the hydrants being moved to?*
- *Will we be able to adequately flush our hydrants without disturbing or damaging materials or Menard infrastructure once the hydrants are relocated?*
- *Add "any new water main used for relocating of hydrants will be C900".*
- *Swab and chlorinate hydrant lead before reconnection.*
- *Add "include rerouting tracer wire per hydrant branch detail".*
- *Any Sleeves used for tying new pipe to old will be a HYMAX GRIP coupling.*
- *Once Hydrant is pulled the utility will be called to verify its integrity before relocation. 262-253-8254 (office)*
- *Water Utility will be the ones to operate the system valves. We will want a two day notice for water shut downs.*
- *Provide photo documentation of hydrant relocates during open cut and reconnection phase of work to the water utility.*
- *Once backfilled the Hydrants must be pressure tested by opening lead to system pressure and checked for leaks. Verify onsite with the Water Utility.*
- *We will need the plan to reflect construction notes with any new laying lengths.*
- *GPS new hydrant and valve locations.*
- *Changes to our GIS will be paid for by Menards.*
- *Survey and add to plan view new easement description.*
- *Add Hydrant branch profile view to the construction plan set-Attached.*

2. Plans show proposed storm sewer under the proposed building. Provide information that the pipe material proposed is approved by state plumbing code for use under the building.

3. Provide storm sewer calculations

C-1.8 Site Details

1. *Add tracking pad detail*

2. *Revise inlet protection detail to include round style grates.*

Stormwater management plan

1. *Provide additional details on the ADS systems on the construction plans. Show the system layout, access locations, outlet control structure, system elevation etc.*

2. Stormtech systems are open bottom systems and considered infiltration systems. Provide soil borings in the locations of the system and provide information on the seasonal high groundwater and bedrock (if applicable) at the system locations. DSPS infiltration system review and approval of the systems is required. **Based on soil borings provided it appears the groundwater is within 5' of the bottom of the system. Please provide information on the seasonal high groundwater elevation in relation to the bottom of the system.**

3. Stormwater management plan is incomplete and does not contain enough information to review. Please provide a stormwater management plan for the site with a narrative describing the site modifications, existing site conditions, and how the site meets today's requirements. Include drainage exhibits showing

the existing conditions and proposed conditions. **Many of these items are not provided in the submittal report.**

4. Provide exhibits showing the proposed drainage areas for the site.
5. The report does not demonstrate that the MMSD runoff rate requirements have been met. This site is part of an approved stormwater management plan. The entire site will need to be modeled to demonstrate that the site meets the MMSD requirement of 0.15 cfs/acre for the 2 year event and 0.50 cfs /acre for the 100 year event.
6. The site is required to provide for 40% TSS removal for all new pavement areas. Demonstrate that the 40% requirement is being met for all new pavement area, not just the areas that drain to the stormtech basins.



June 4, 2020

Re: Menards Yard Gate Traffic

Dear Members of the Planning Commission,

Menard, Inc. has submitted a revised site plan and the supplemental information below based on the feedback received from commission members during the 5/11 Planning Commission meeting. Members of the commission had concerns that relocating the yard gate could change the way traffic enters/exits the Menards site and I would like to address those as part of the site plan review.

The Menards site plan has been revised to include new curbed islands to control the flow of traffic exiting the Menards parking lot through the shared access drive. The new plan allows for orderly departure from the Menards site and adequate stacking distances for the busiest days.

The Menards yard gate sees three types of traffic. First is the semi-truck delivery vehicles and depending on the day and the season the store can expect 4-8 of those trucks a day. Typically those trucks are visiting the site in early morning or in the evening to drop off their trailers to be unloaded at the store. Those trucks tend not to come and go during peak hours. The second type of traffic is from guests that have parked in the parking lot, purchased an item inside the store, and need to drive through the gate to pick up their order. The third type of traffic is guests that have made an online order and proceed directly through the gate to pickup their order without using the parking lot.

Adding a second entrance lane to the yard gate allows the guests with an online order the ability to bypass any semi-trucks entering through the main entry gate and reduces any congestion outside the gate. The existing yard gate does not have the additional access or stacking. The yard gate's single exit lane does control the flow of traffic leaving the gate as the guard needs to check each vehicle before it leaves the yard. The load tie down box will be moved within the yard to prevent any vehicles from stopping within the drive lane after they exit the yard.

In summary, Menard has made several changes to the plans to make sure that traffic congestion is controlled through that intersection on the busiest days. The flow of traffic through a Menards site is relatively steady most of the year however, we understand that during the busy spring season the store can see a lot of vehicles during peak hours. It is uncommon for Menards stores to have three full access points to a main road like the Germantown store has and traffic should have plenty of access options to Appleton Ave. Regardless of the season the Menards gate sees between 3% and 8% of the daily trips made to Menards and the vast majority of guests are still using the parking lot and walking into the store to shop.

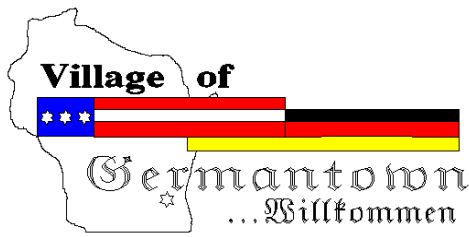
Sincerely,
Menard, Inc.

A handwritten signature in black ink, appearing to read 'Tyler Edwards', is written over the printed name.

Tyler Edwards

Real Estate Representative

Menard, Inc. 5101 Menard Drive Eau Claire, WI 54703
O: 715.876.2143 C: 715.579.6699 tedwards@menard-inc.com



Engineering Department Memorandum

To : Jeffrey W. Retzlaff, AICP, Planning Director/Zoning Administrator
From : Lawrence Ratayczak, P.E., Director of Public Works
Date : November 11, 2019
Re : Menards Site Plan Review

Items Reviewed:

1. Civil Plan Set C1.0 – C1.8 (12 pages)
2. Stormwater Management Report

Dated: 10-09-2019

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. The electronic copies of the plans are blurry and difficult to read. This review is limited to the information provided. Additional comments could arise as a result of the plan completion and modifications. The items listed below will need to be fully resolved before the Engineering Dept. can recommend a formal approval of the plans and permit for construction.
3. This project will require a WRAPP/NOI from the DNR. Please submit a copy of the approved permit prior to final approval.
4. The project will require DSPS plumbing system review and approval. Please provide a copy of the DSPS approval prior to engineering approval
5. As-builts prepared to Village standards shall be prepared and provided to the Village post-construction (for all applicable items).
6. A professional engineer's original seal is to be affixed, signed and dated on the final set of construction plans.
7. Contact Ryan Ehlerding, 262-250-4723 for a utility permit.
8. As a guide to the review response: Items in *italics* are resolved or acknowledged, items in regular font are to be addressed yet, items in **Bold** are additional feedback to remaining original comment.

C-1.3 Site Plan

1. In general the site plan at 50 scale is difficult to review. Recommend providing additional plans at a smaller scale to ease reviews and construction.
2. New warehouse building appears to be in the floodplain. Please provide additional information on the flood elevation, building elevation, and compensatory storage volumes.
3. Add a site data table to the plans showing disturbance area and additional impervious area

C-1.4 Grading Plan

1. Electronic copy of the plan is blurry and difficult to read. For future submittals please provide legible electronic copies.
2. Provide additional details on the concrete drainage channel around the ware house building. Whats the purpose of the concrete channel?
3. Provide detailed retaining wall elevations

C-1.5 Erosion Control Plan

1. Add late season stabilization requirements to the plans.
2. Add a construction sequence to the plans.
3. Silt fence appears to stop short of the wetland. Please ensure the wetland areas is protected by silt fence.

C-1.6 Utility Plan

1. Two Village owned hydrants are shown for relocation. Please satisfy the comments below.
 - Where are the hydrants being moved to?
 - Will we be able to adequately flush our hydrants without disturbing or damaging materials or Menard infrastructure once the hydrants are relocated?
 - Add "any new water main used for relocating of hydrants will be C900".
 - Swab and chlorinate hydrant lead before reconnection.
 - Add "include rerouting tracer wire per hydrant branch detail".
 - Any Sleeves used for tying new pipe to old will be a HYMAX GRIP coupling.
 - Once Hydrant is pulled the utility will be called to verify its integrity before relocation. 262-253-8254 (office)
 - Water Utility will be the ones to operate the system valves. We will want a two day notice for water shut downs.
 - Provide photo documentation of hydrant relocates during open cut and reconnection phase of work to the water utility.
 - Once backfilled the Hydrants must be pressure tested by opening lead to system pressure and checked for leaks. Verify onsite with the Water Utility.
 - We will need the plan to reflect construction notes with any new laying lengths.
 - GPS new hydrant and valve locations.
 - Changes to our GIS will be paid for by Menards.
 - Survey and add to plan view new easement description.
 - Add Hydrant branch profile view to the construction plan set-Attached.

C-1.8 Site Details

1. Add tracking pad detail

2. Revise inlet protection detail to include round style grates.

Stormwater management plan

1. Provide additional details on the ADS systems on the construction plans. Show the system layout, access locations, outlet control structure, system elevation etc.
2. Stormtech systems are open bottom systems and considered infiltration systems. Provide soil borings in the locations of the system and provide information on the seasonal high groundwater and bedrock (if applicable) at the system locations. DSPS infiltration system review and approval of the systems is required.
3. Stormwater management plan is incomplete and does not contain enough information to review. Please provide a stormwater management plan for the site with a narrative describing the site modifications, existing site conditions, and how the site meets today's requirements. Include drainage exhibits showing the existing conditions and proposed conditions.



February 24, 2020

RE: Menards Expansion Engineering Response Letter

Dear Mr. Ratayczak,

Menard, Inc. and Cedar Corporation have reviewed your 11/11/19 review letter and we are providing the revised plans and attached reports to address the review comments.

General Comments

1. This letter is being submitted as a written response to the comments.
2. The revised site plans have been altered to be easier to read. If you have additional problems viewing the plans please let me know and I would be happy to try another method to make the plans easier to read.
3. Menards plans to apply for the WRAPP/NOI permit from the DNR prior to applying for any building permits. The DNR permit application will be submitted after the public hearings with the Village have been completed.
4. Menards will submit the final plans to DSPS for approval after the public hearing process has been completed and when the engineering revisions are approved by the Village.
5. Menards will provide as-built plans pose-construction as requested.
6. The revised plans have been stamped and sealed.
7. A utility permit will be requested prior to construction.
8. Noted.

C-1.3 Site Plan

1. The plans were revised to be easier to read. However if there are specific details that need to be magnified please let me know and we can submit additional pages in a larger form.
2. The expansion of the yard is outside of the 100 year floodplain.
3. The site data table has been added to the plans.

C-1.4 Grading Plan

1. The electronic copy of the plans has been cleaned up to be easier to read.
2. The concrete channels have been added to the plans to prevent discharge of stormwater from the roof of the warehouse into the wetlands before it is treated via the underground detention system.
3. The elevation of the walls have been noted on the plans.

C-1.5 Erosion Control Plan

1. The late season stabilization requirements have been added to the plans.
2. The construction sequence is noted on the plans.
3. The silt fence has been extended to protect all of the wetland area.

C-1.6 Utility Plan

1. Both hydrants that are being relocated are only moving a few feet. The hydrant on the north end of the yard is being moved further north to match the new fence line. The hydrant on the north corner of the building is being moved further north to be outside of the building footprint.
- The Village will be able to access and flush any hydrants without disturbing the Menards store operation.
- C900 will be used on new water main.
- Hydrant will be swabbed and chlorinated as noted
- The new hydrant details are on page C-1.8

C-1.8 Site Details

1. Tracking pad detail was added to the plans.
2. Inlet protection has been shown around the grates.

Stormwater Management Plan

1. The ADS is shown on the construction plans and detailed on the attached ADS sheets.
2. The soil boring report has been included in this submittal.
3. A revised stormwater management plan has been submitted.

Sincerely,
Menard, Inc.



Tyler Edwards

Real Estate Representative

Menard, Inc. 5101 Menard Drive Eau Claire, WI 54703

O: 715.876.2143 C: 715.579.6699 tedwards@menard-inc.com



October 4, 2019

RE: Menard, Inc. Site Plan Review Application

Dear Members of the Planning Commission,

Menard, Inc. is submitting a site plan review application for the expansion of the Germantown Menards store. The proposed expansion will allow the Menards store the space needed to grow and add the materials, storage space, and amenities that all Menards stores across the country now have. This project primarily involves the expansion of the yard area and warehouse building within the yard and further described in the letter below.

The Menards yard will grow from 2.6 acres to 3.9 acres to allow four exterior changes to the property. One of those changes involves adding heated storage space between the loading dock and the garden center. This storage space will hold the orders for guests that order materials online and pick them up at the store. The elevations submitted with this application show the finish materials of green steel to match the existing building. This area is contained behind the store building and within the yard in a way that is not visible from outside the Menards yard.

There is an existing warehouse building in the northwest corner of the yard and that building is being extended to become a 50,317 sq ft building. The exterior finish of that building will match the existing building. The elevation plan for that has been included with this submittal. This will continue to be a drive through covered material storage building.

The yard fence surrounding the expanded yard will be a replacement of the existing 14 foot tall treated wood fence on the north side of the yard. The fencing facing west and the parking lot will be the same black wrought iron fence found on the site today.

The yard gate is being relocated to the south side of the property. Yard gates at all Menards stores are being expanded to add a 2nd entrance lane for online order pickups. Guests scan a barcode from their order and enter the yard to pick up their materials without waiting for the gate guard to let them in. the program allows guests to pick up their orders without parking. This lessens the parking needs at the store when guests no longer have to park in a space in the lot and get out to pick up their materials. This part of the project will reduce the number of parking stall by 75 spaces. 13 spaces will be created on the north end of the lot where the drive for the yard gate used to be. Overall the existing parking 531 stalls will be reduced to 461 parking stalls. Please note that this reduction will not have any adverse impact on available parking stalls at Menards. As a reference I have included a list of new store locations and the number of parking stalls that were provided. Because half of Menards traffic is contractors that shop during the daytime hours and the other half is home owners that shop on nights and weekends the demand at a Menards is about half of a general retailer or grocery store that tends to see the bulk of its traffic at one time in the evening and on weekends.

A portion of the stormwater pond is being filled with the yard expansion and the existing underground stormwater treatment area will be expanded to accommodate the additional stormwater runoff. The new underground detention will be placed in the parking lot and in the yard area in front of the new warehouse building. The Army Corps of Engineers and the Wisconsin DNR have already issued wetland fill permits for the expansion project. The project being submitted is the expansion plan that has the smallest impact on the wetlands while still expanding the Menards store to fit our needs.



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

Menard, Inc.
Tyler Edwards - Real Estate Rep
5101 Menard Dr
Eau Claire WI 54703

Phone (715) 876-2143

E-Mail tedwards@menard-inc.com

PROPERTY OWNER

Menard, Inc.
5101 Menard Dr
Eau Claire WI 54703

Phone (715) 876-2143

E-Mail tedwards@menard-inc.com

2

PROPERTY ADDRESS

W186N 9754 Appleton Ave

3

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

North	South	East	West
<u>Vacant wetland</u>	<u>Commercial/Residential</u>	<u>Commercial - Stein Gardens</u>	<u>Vacant wetland</u>

4

READ AND INITIAL THE FOLLOWING:

- ☒ I am aware of the Village of Germantown ordinance requiring fire sprinklers in most new construction.
- ☒ I understand that all new development is subject to Impact and/or Connection Fees that must be paid before building permits will be issued.
- ☒ I understand that an incomplete application will be withdrawn from the Plan Commission agenda and that all resubmissions to the Plan Commission are subject to a new application fee.

5

SIGNATURES - ALL APPLICATION MUST BE SIGNED BY OWNER!

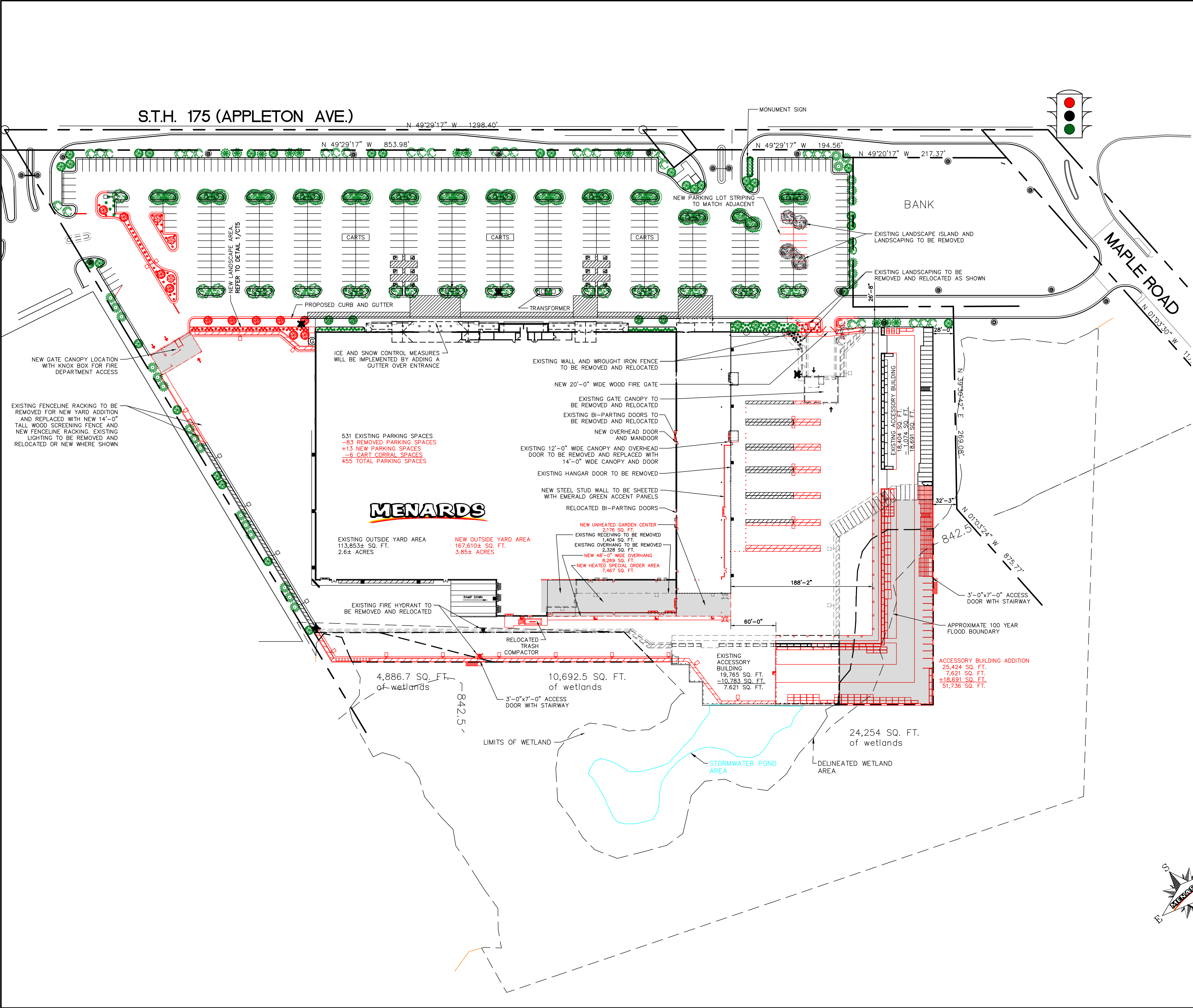
Applicant

Date

Tyler Edwards
Owner Real Estate Rep
Menard, Inc.

Date

10/15/19



ELECTRICAL LEGEND		
	15	K118L WASHINGTON LUMINARE C/W #1 FINIAL AND K5/K9 CAPITAL 150W METAL HALIDE PULSE START BALLAST
	3	EXISTING K118L WASHINGTON LUMINARE C/W #1 FINIAL AND K5/K9 CAPITAL 75W TO REMAIN
	2	EXISTING K118L WASHINGTON LUMINARE C/W #1 FINIAL AND K5/K9 CAPITAL 75W TO BE REMOVED AND RELOCATED
	2	(2) K118L WASHINGTON LUMINARE C/W #1 FINIAL AND K5/K9 CAPITAL 150W METAL HALIDE PULSE START BALLAST
	15	EXISTING 800W 277V M.H. CUTOFF LUMINAIRE PARKING LOT LIGHTING ON 25'-0" TALL POLES TO REMAIN
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	1	RELOCATED 800W 277V M.H. CUTOFF LUMINAIRE PARKING LOT LIGHTING ON 25'-0" TALL POLE TO MATCH EXISTING
	16	400W 277V M.H. CUTOFF LUMINAIRE BUILDING LIGHTS
	4	EXISTING 400W 277V M.H. CUTOFF LUMINAIRE BUILDING LIGHTS TO BE REMOVED AND RELOCATED
	16	400W 277V M.H. CUTOFF LUMINAIRE YARD LIGHTS
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	19	RELOCATED OR NEW 400W 277V M.H. CUTOFF LUMINAIRE YARD LIGHTS TO MATCH EXISTING
	17	175W CANOPY LIGHTS

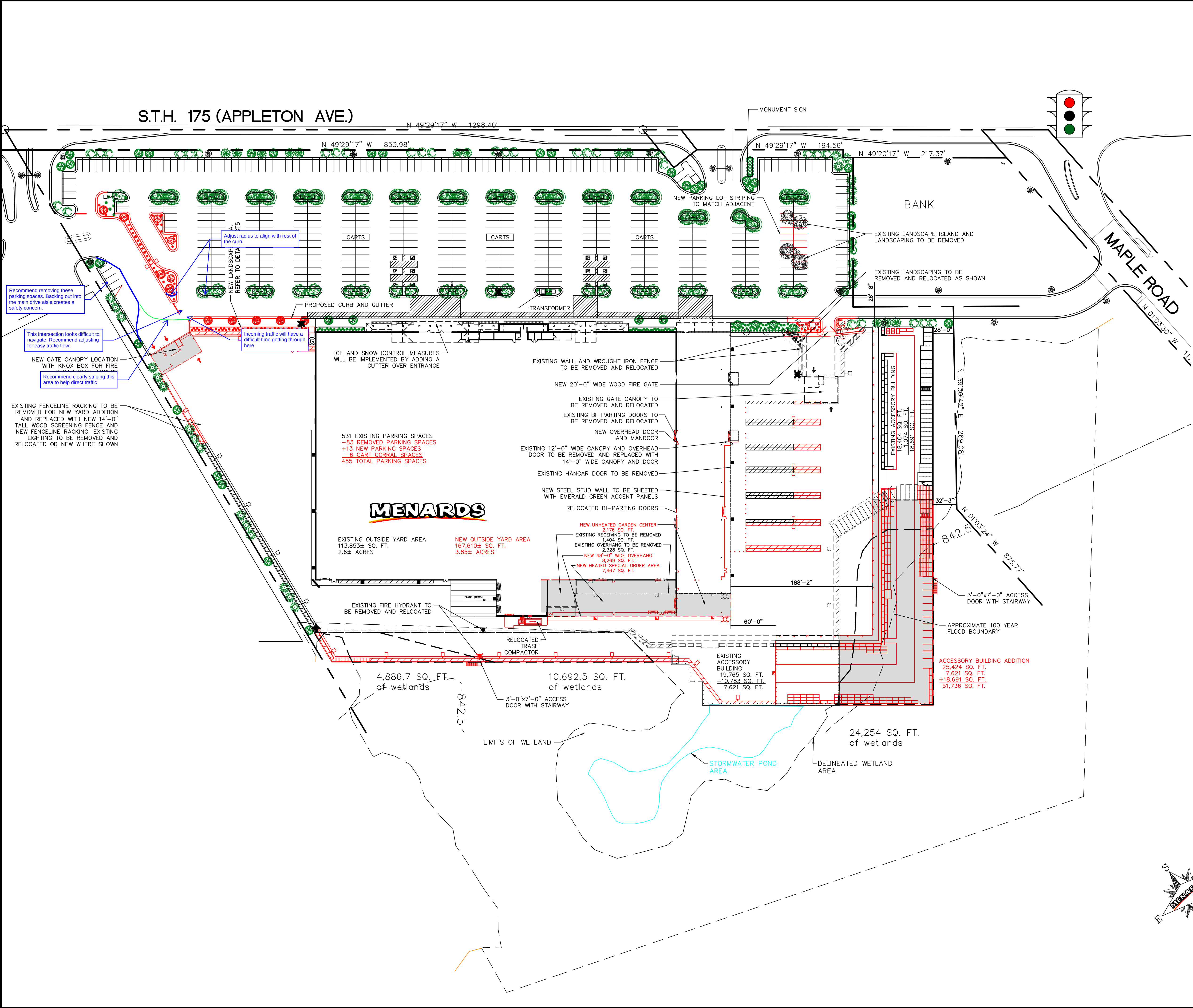
LANDSCAPE LEGEND		
SYMBOL	SCIENTIFIC, COMMON NAME	QUANTITY
	EXISTING ACER SACCHARUM 'LEGACY', 'LEGACY' MAPLE	28
	EXISTING ACER SACCHARUM 'LEGACY', 'LEGACY' MAPLE TO BE REMOVED	6 REMOVED 3 TRANSPLANTED
	EXISTING ACER X FREEMANII 'AUTUMN BLAZE', 'AUTUMN BLAZE' RED MAPLE TO REMAIN	39
	EXISTING ACER X FREEMANII 'AUTUMN BLAZE', 'AUTUMN BLAZE' RED MAPLE TO BE REMOVED	6 TRANSPLANTED 11 NEW
	EXISTING MALUS AMBERINA, WHITE FLOWERING CRABAPPLE TO BE REMOVED	31
	EXISTING MALUS AMBERINA, WHITE FLOWERING CRABAPPLE TO BE EITHER REMOVED OR TRANSPLANTED	5 REMOVED 2 TRANSPLANTED
	EXISTING CELTIS OCCIDENTALIS, COMMON HACKBERRY TO REMAIN	28
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	EXISTING PINUS NIGRA, 'AUSTRIAN PINE' TO REMAIN	24
	EXISTING THUJA OCCIDENTALIS NIGRA, DARK GREEN ARBORVITAE TO REMAIN	2
	EXISTING RHUS AROMATICA 'GRO-LOW', 'GRO-LOW' DWARF FRAGRANT SUMAC TO REMAIN	8
	EXISTING CUPRESSUS, SIBERIAN CYPRESS TO REMAIN	96
	EXISTING CUPRESSUS, SIBERIAN CYPRESS TO BE REMOVED	27
	EXISTING SPIRAEA JAPONICA 'ANTHONY WATERER', 'ANTHONY WATERER' SPIREA TO REMAIN	41
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Tyler Edwards
Real Estate Representative
Menard, Inc.
5101 Menard Drive
Eau Claire, Wisconsin 54703



Germantown, Wisconsin
Menards Site Plan
May 21, 2020
Scale: 1" = 50'-0"

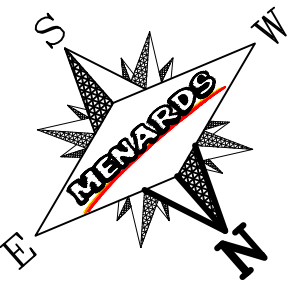
ENGINEER COMMENTS



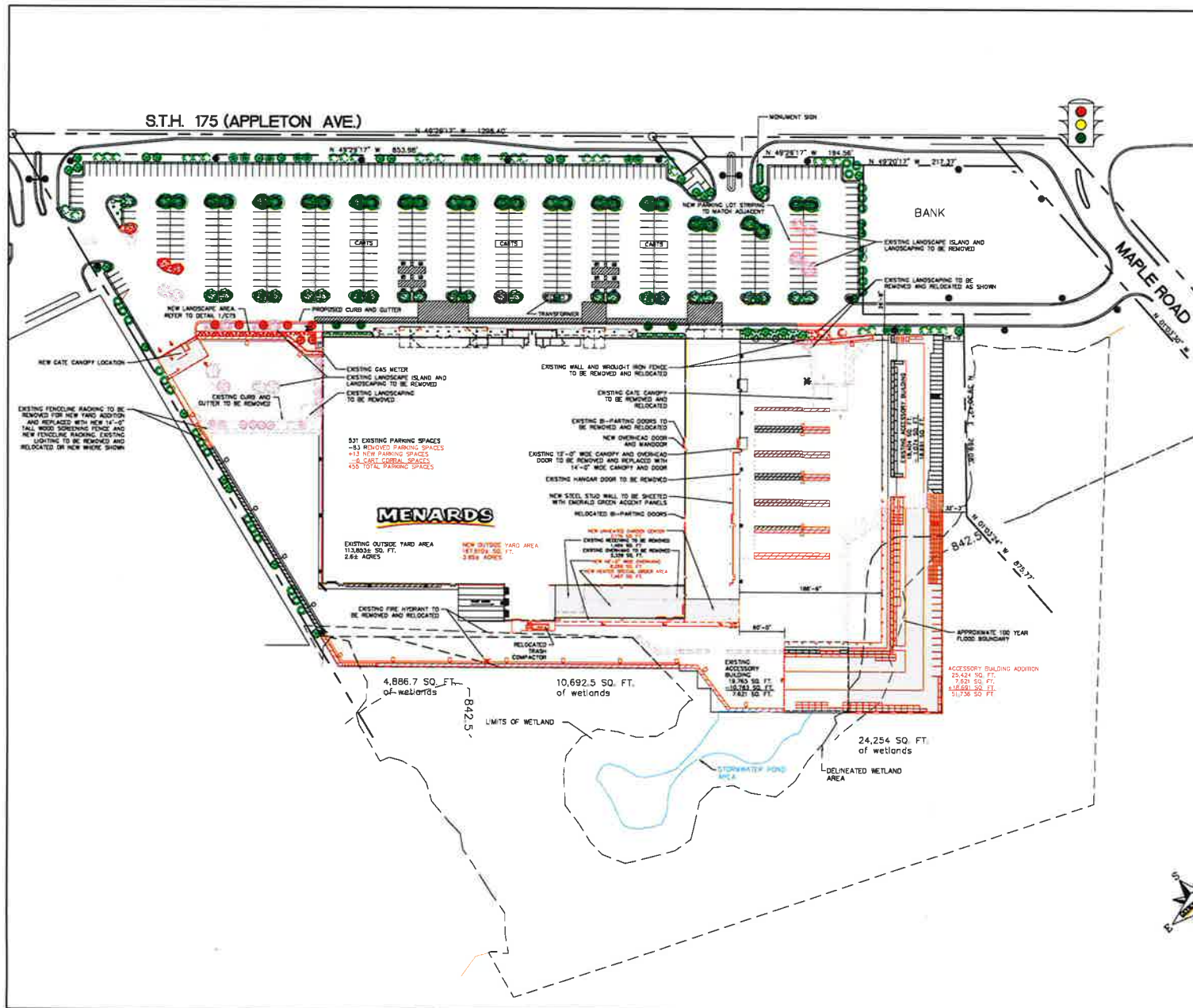
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Tyler Edwards
Real Estate Representative
Menard, Inc.
5101 Menard Drive
Eau Claire, Wisconsin 54703



Germantown, Wisconsin
Menards Site Plan
May 21, 2020
Scale: 1" = 50'-0"



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	EXISTING ACER X FREEMANII 'AUTUMN BLAZE' MAPLE	39
	EXISTING ACER X FREEMANII 'AUTUMN BLAZE' MAPLE TO BE REMOVED	8 REMOVED
	EXISTING ACER X FREEMANII 'AUTUMN BLAZE' MAPLE TO BE REMOVED	1 NEW
	EXISTING MALUS AMABILIS 'WHITE FLOWERING CRABAPPLE' TO BE REMOVED	31
	EXISTING MALUS AMABILIS 'WHITE FLOWERING CRABAPPLE' TO BE REMOVED OR TRANSPLANTED	2 TRANSPLANTED
	EXISTING CELTIS OCCIDENTALIS 'COMMON HACKBERRY' TO REMAIN	28
	EXISTING CELTIS OCCIDENTALIS 'COMMON HACKBERRY' TO BE REMOVED	6
	EXISTING PINUS NIGRA 'AUSTRIAN PINE' TO REMAIN	24
	EXISTING THUJA OCCIDENTALIS 'NORA DARK GREEN ARBORVITAE' TO REMAIN	2
	EXISTING RHUS AROMATICA 'GRO-LOW' DWARF FRAGRANT SUMAC TO REMAIN	8
	EXISTING CUPRESSUS, SIBIRIAN CYPRESS TO REMAIN	98
	EXISTING CUPRESSUS, SIBIRIAN CYPRESS TO BE REMOVED	27
	EXISTING SPIRAEA JAPONICA 'ANTHONY WATERER' 'ANTHONY WATERER' SPIREA TO REMAIN	41
	EXISTING SPIRAEA JAPONICA 'ANTHONY WATERER' 'ANTHONY WATERER' SPIREA TO BE TRANSPLANTED	34 TRANSPLANTED OR NEW
	EXISTING COTONEASTER APICULATUS 'CHAMBERLY' COTONEASTER TO REMAIN	15
	EXISTING COTONEASTER APICULATUS 'CHAMBERLY' COTONEASTER TO BE TRANSPLANTED	10 TRANSPLANTED OR NEW
	EXISTING WIBURNUM LANTANA 'MOKICAN' 'MOKICAN' WATYASING SHRUB TO REMAIN	12
	EXISTING WIBURNUM LANTANA 'MOKICAN' 'MOKICAN' WATYASING SHRUB TO BE REMOVED	7
	EXISTING JUNIPERUS HORIZONTALIS 'BAR HARBOR' 'BAR HARBOR' JUNIPER TO REMAIN	143
	EXISTING JUNIPERUS HORIZONTALIS 'BAR HARBOR' 'BAR HARBOR' JUNIPER TO BE TRANSPLANTED	28 TRANSPLANTED OR NEW
	EXISTING JUNIPERUS PFTIZERIANA 'COMPACT PFTIZER' 'COMPACT PFTIZER' JUNIPER TO REMAIN	8

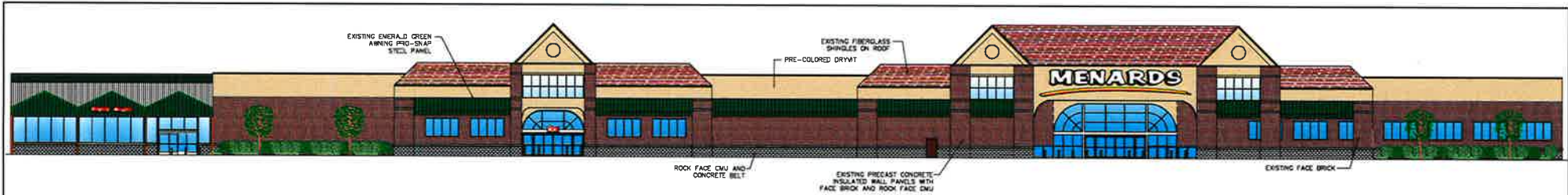
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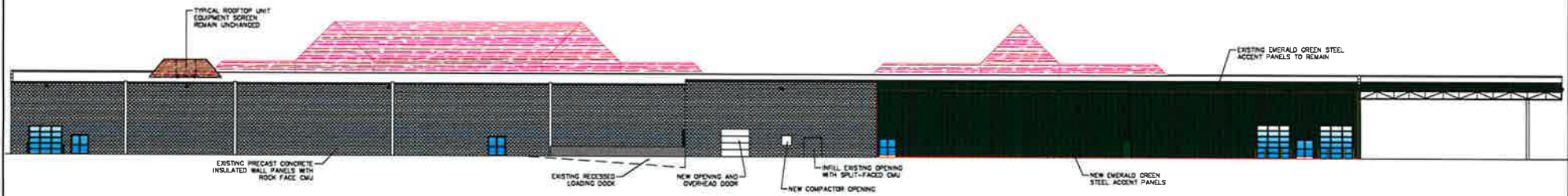
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Germantown, Wisconsin
Menards Site Plan
October 15, 2019
Scale: 1" = 50'-0"

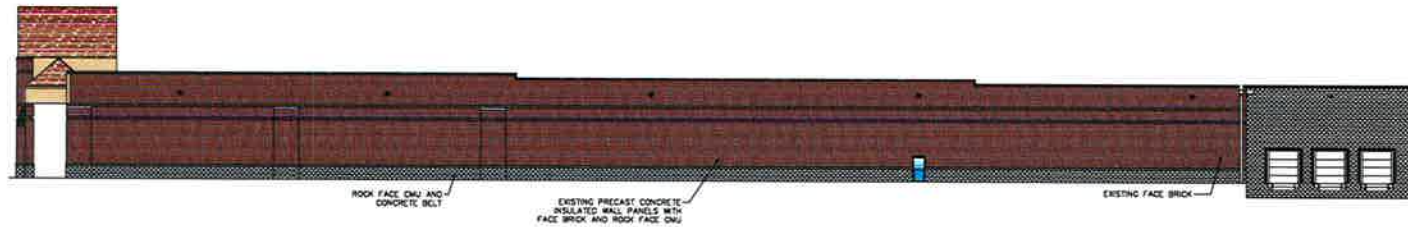
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1 - EXISTING FRONT ELEVATION (TO REMAIN UNCHANGED)



2 - PROPOSED REAR ELEVATION



3 - EXISTING SIDE ELEVATION (TO REMAIN UNCHANGED)



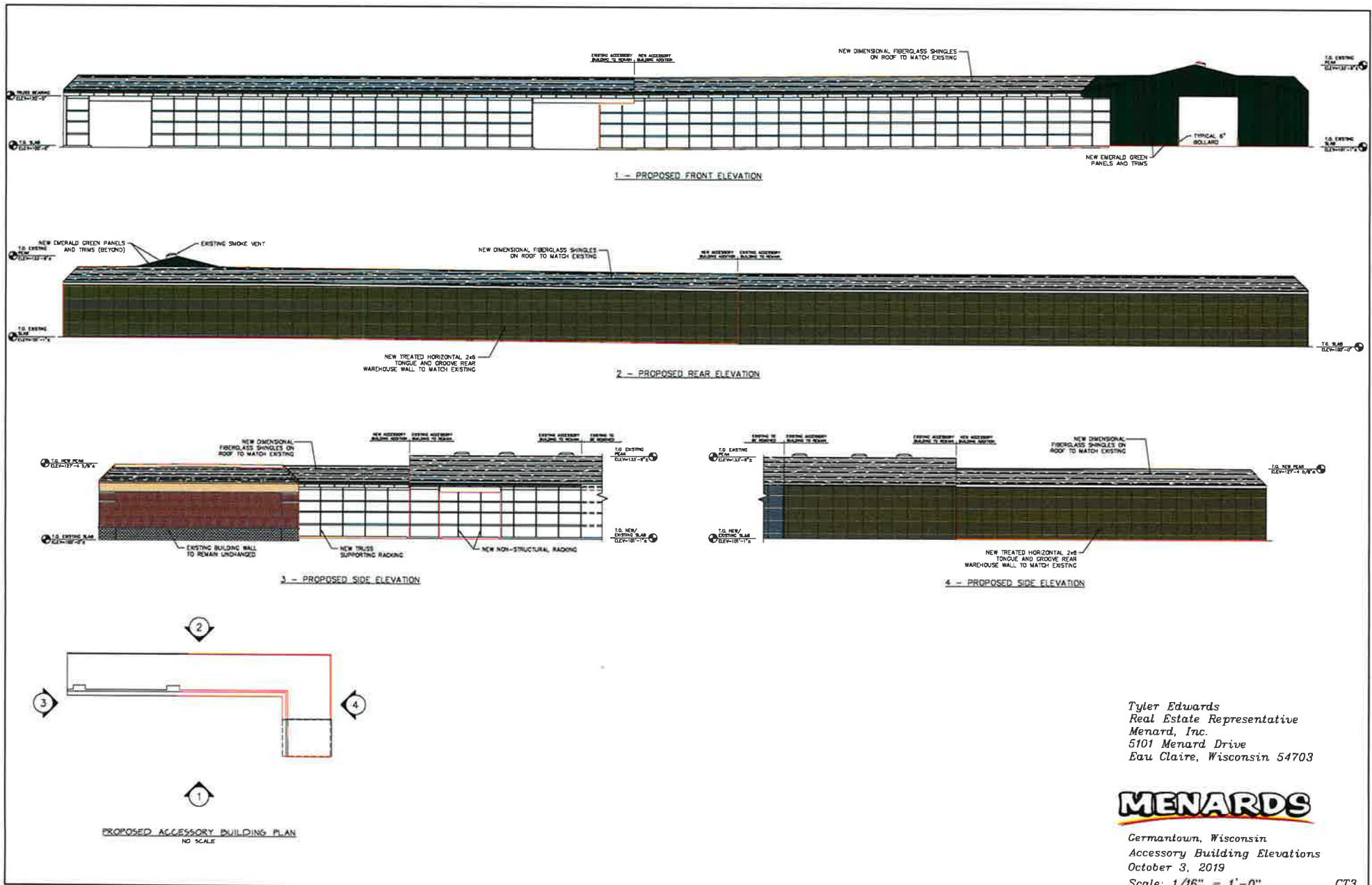
4 - PROPOSED SIDE ELEVATION

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Germantown, Wisconsin
Building Elevations
October 3, 2019
Scale: 1/16" = 1'-0"

CT2



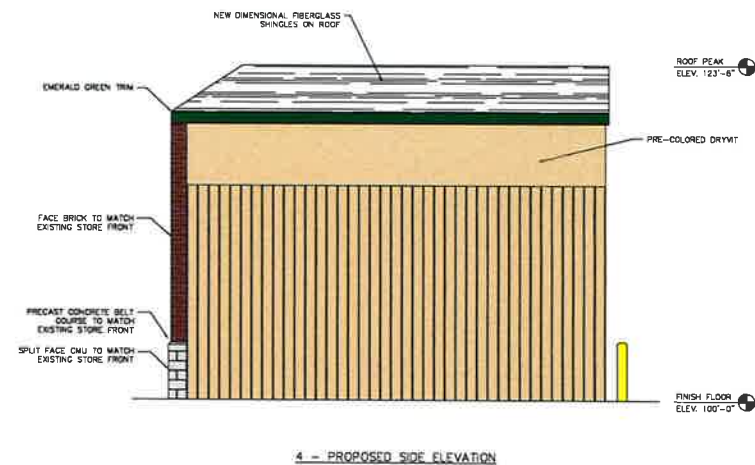
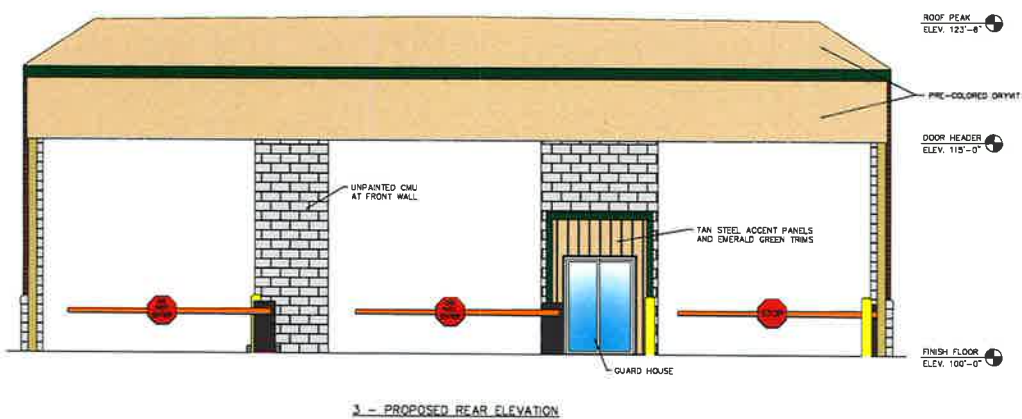
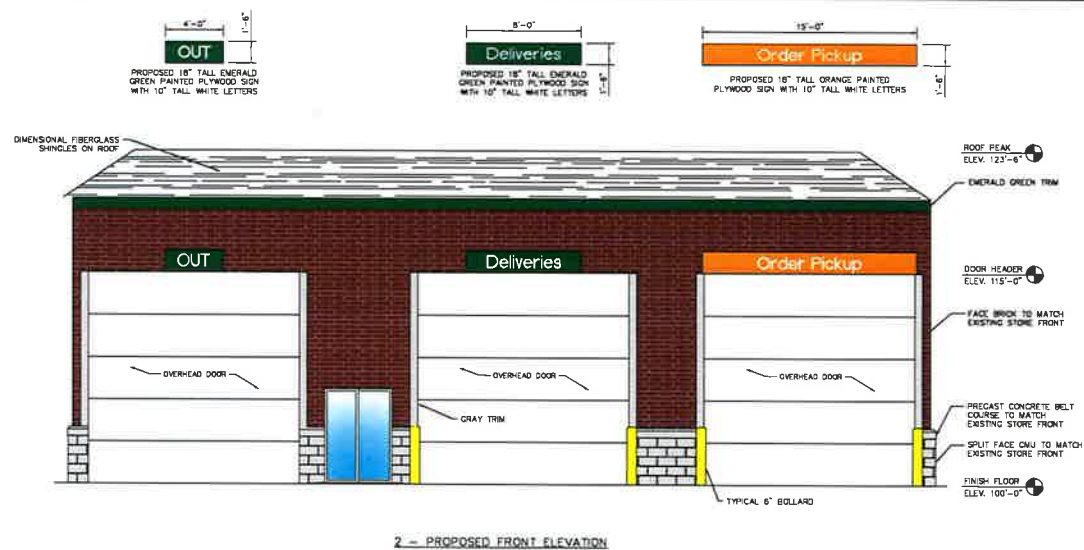
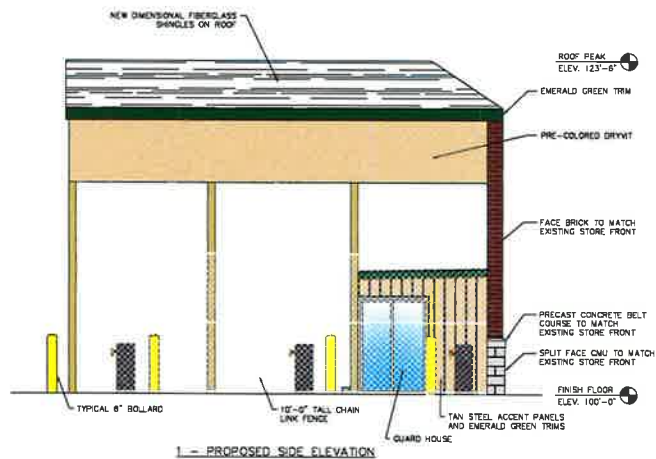
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German town, Wisconsin
Accessory Building Elevations
October 3, 2019

Scale: 1/16" = 1'-0"

CT3

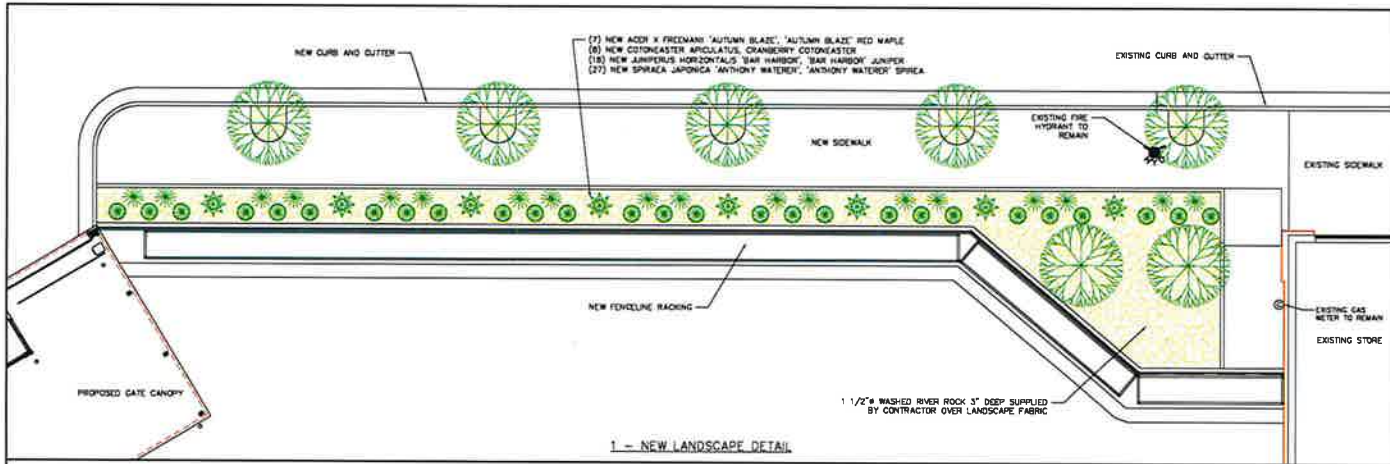


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Germantown, Wisconsin
Gate Canopy Elevations
October 3, 2019
Scale: 1/4" = 1'-0"

CT4



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MENARDS

Germanstown, Wisconsin
 Detail Sheet
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 Scale: as shown

CT5







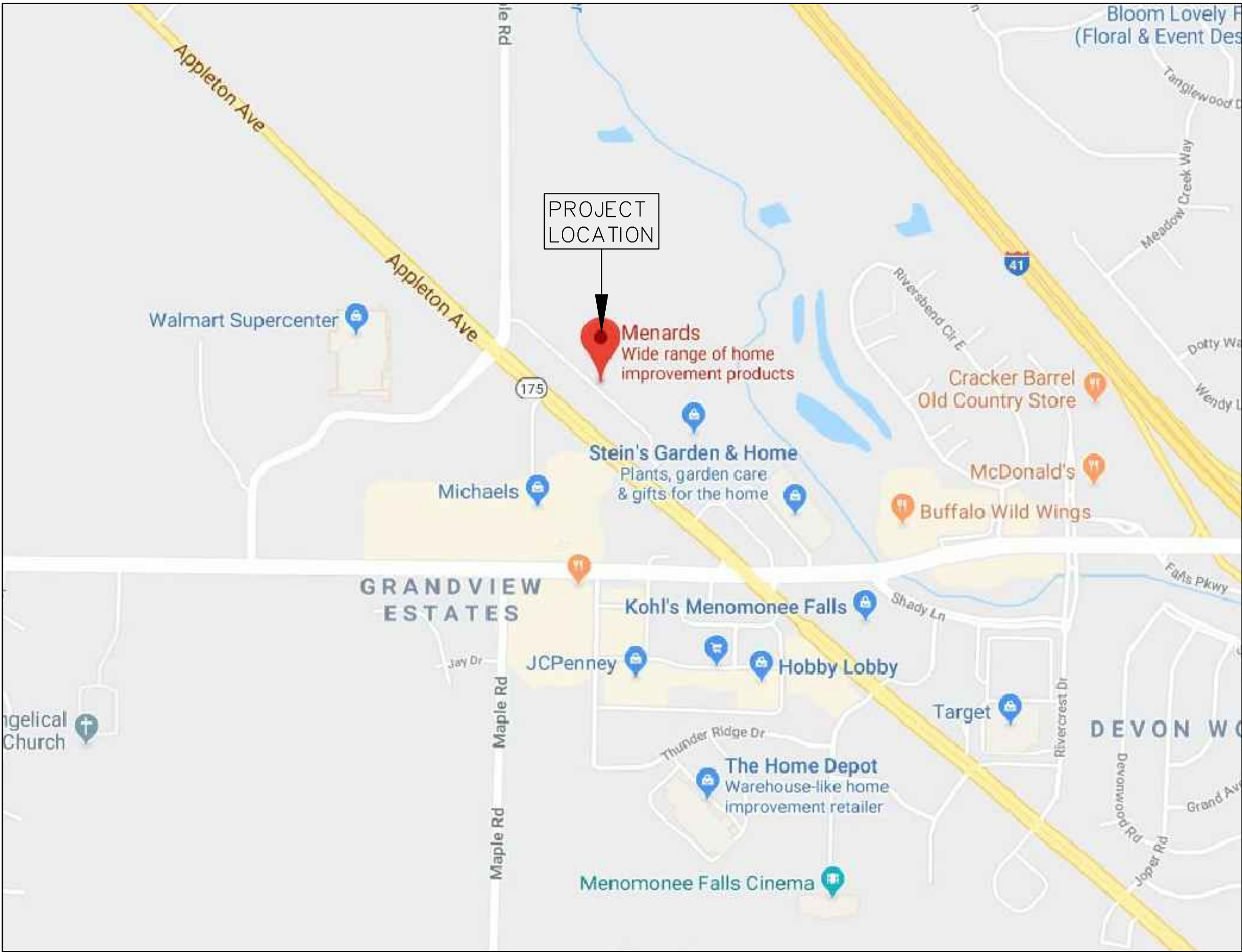
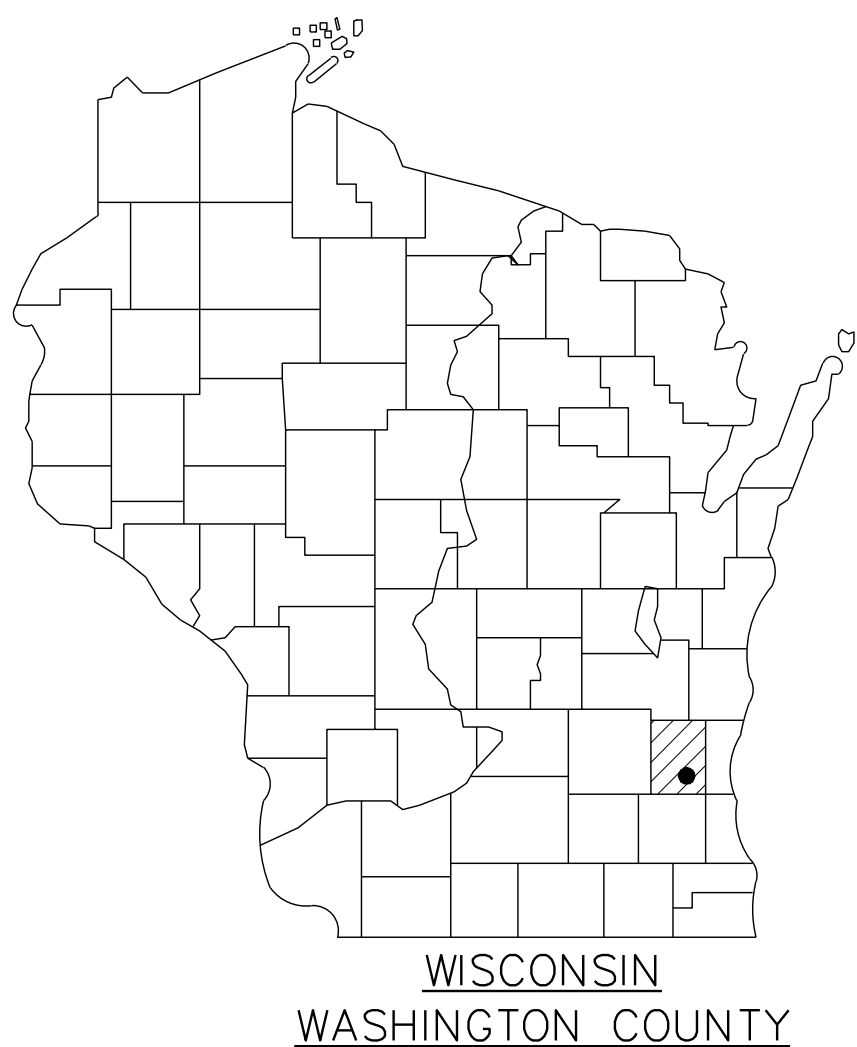


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MENARDS, CITY GERMANTOWN

W186N9754 APPLETON AVENUE

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LOCATION MAP

NO SCALE

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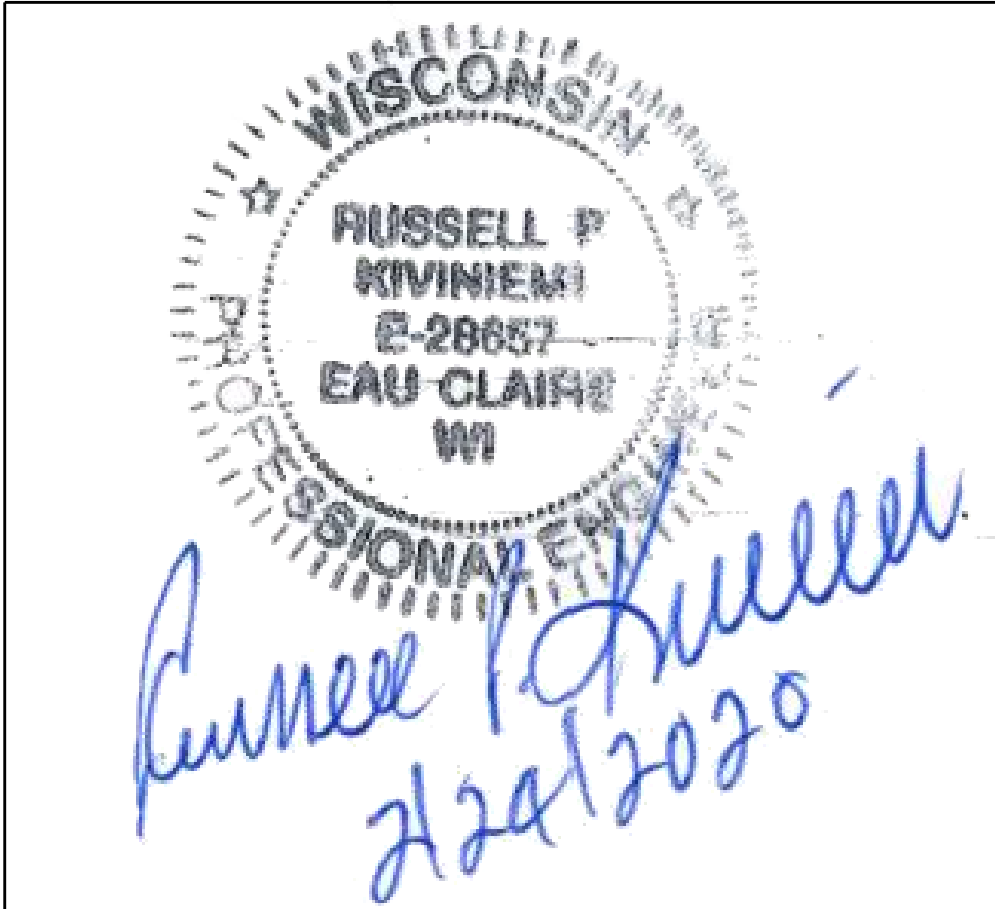
CIVIL INDEX

SHEET	SHEET DESCRIPTION
C1.0	TITLE SHEET
C1.1	EXISTING SITE CONDITIONS
C1.2	REMOVAL PLAN
C1.3	SITE PLAN
C1.4	GRADING PLAN
C1.5	EROSION CONTROL PLAN
C1.6	SITE DETAILS
C1.7	SITE DETAILS
1-6	MENARDS EXPANSION SYSTEM # 1
1-6	MENARDS EXPANSION SYSTEM # 2

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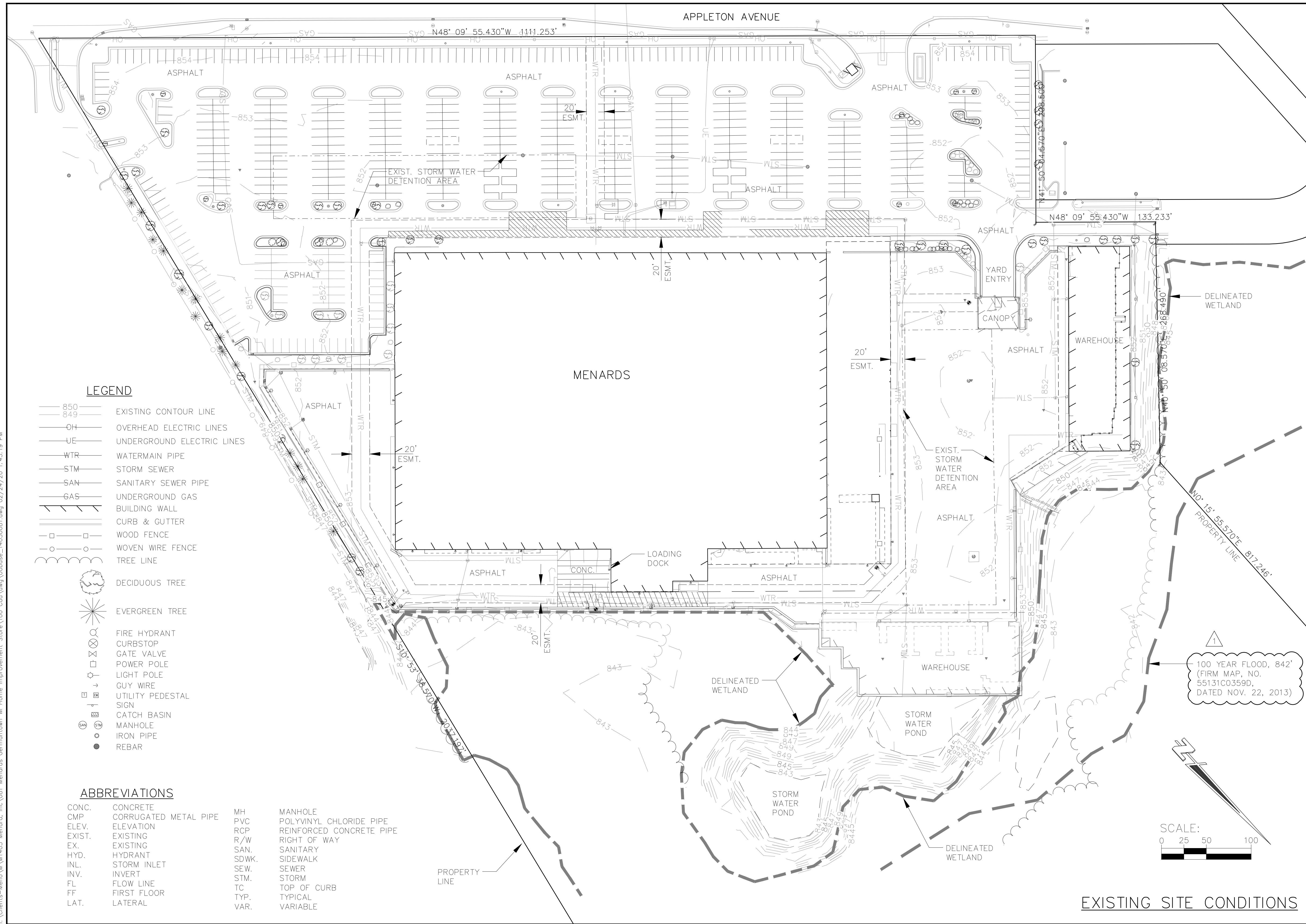
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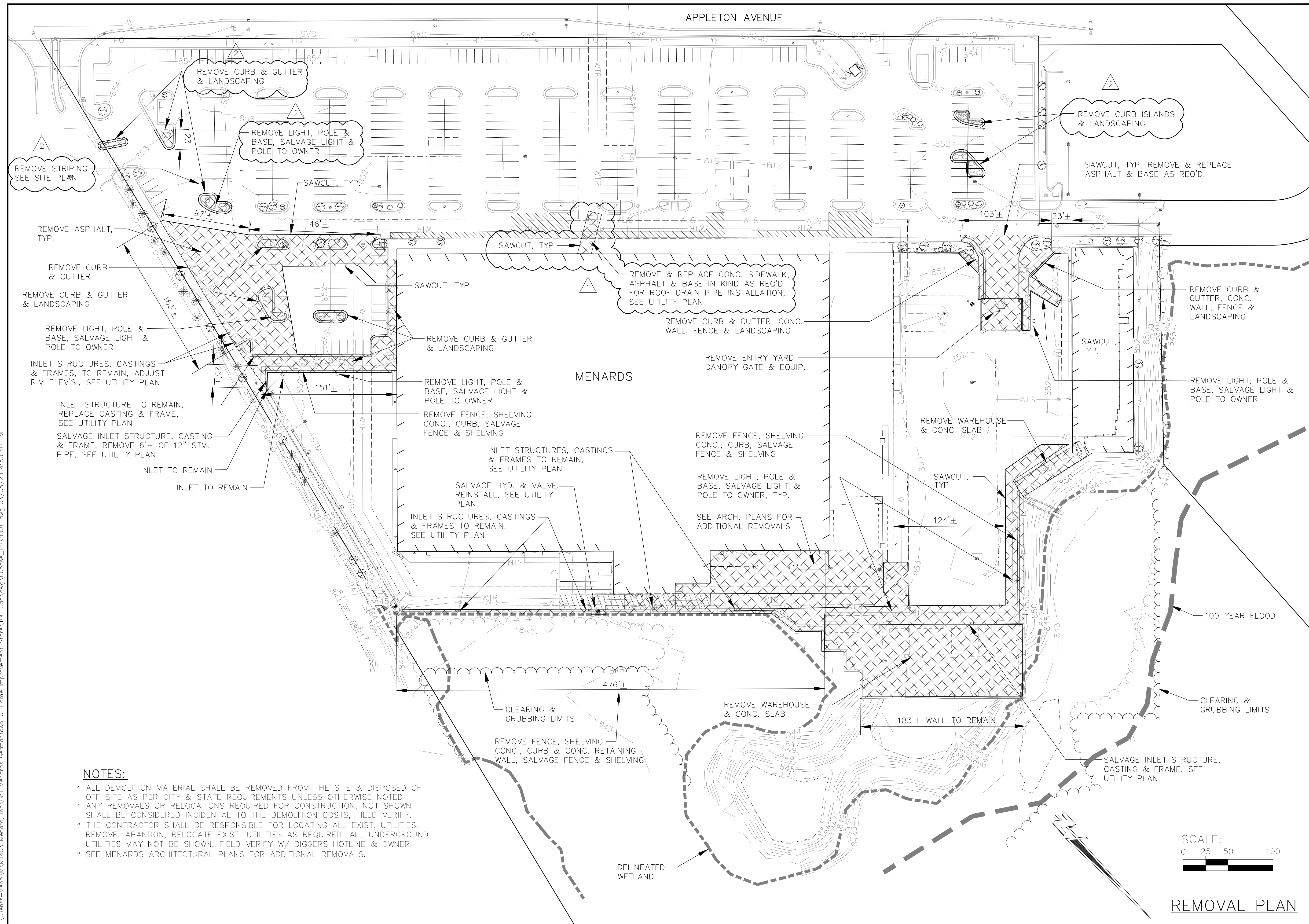
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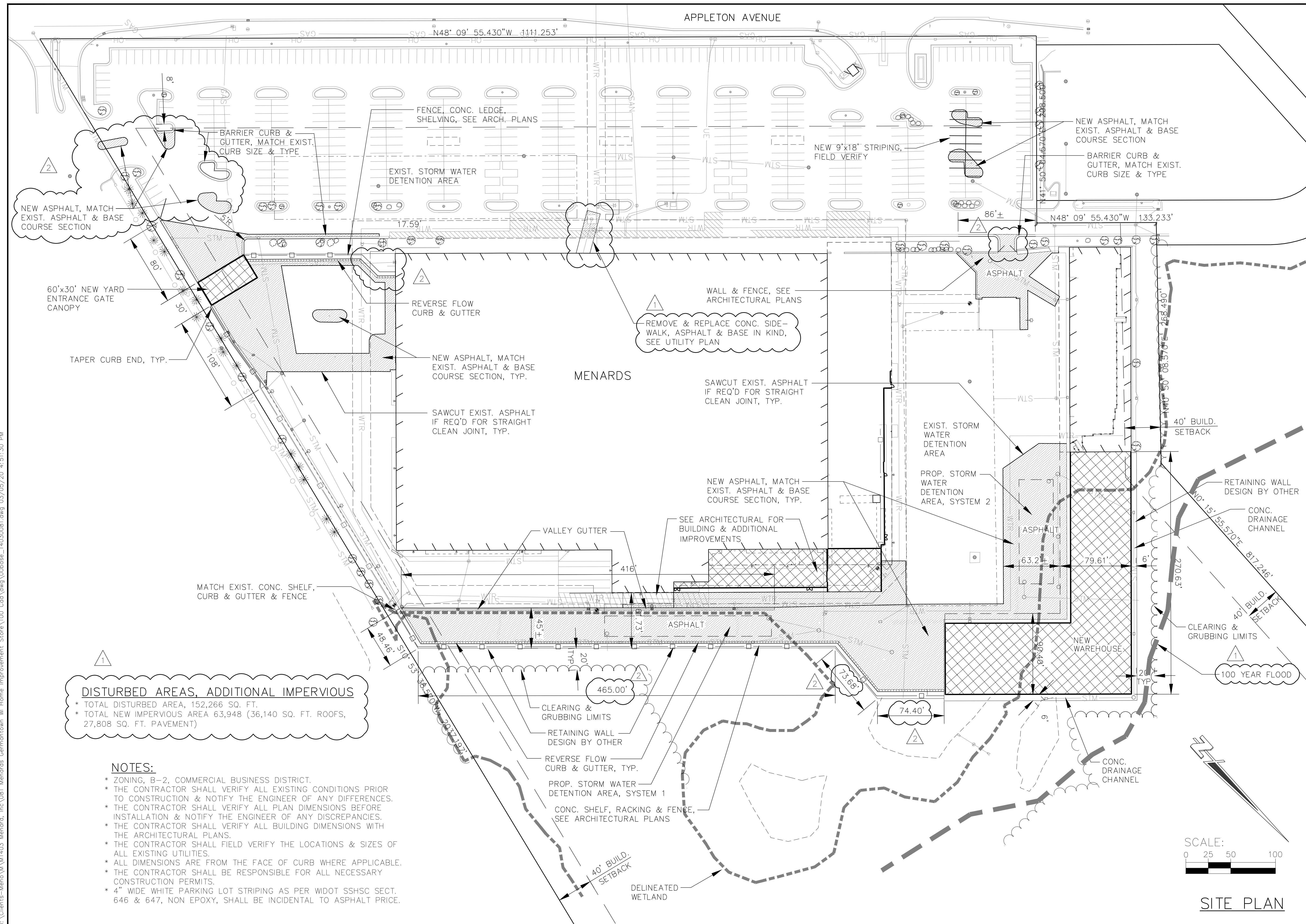
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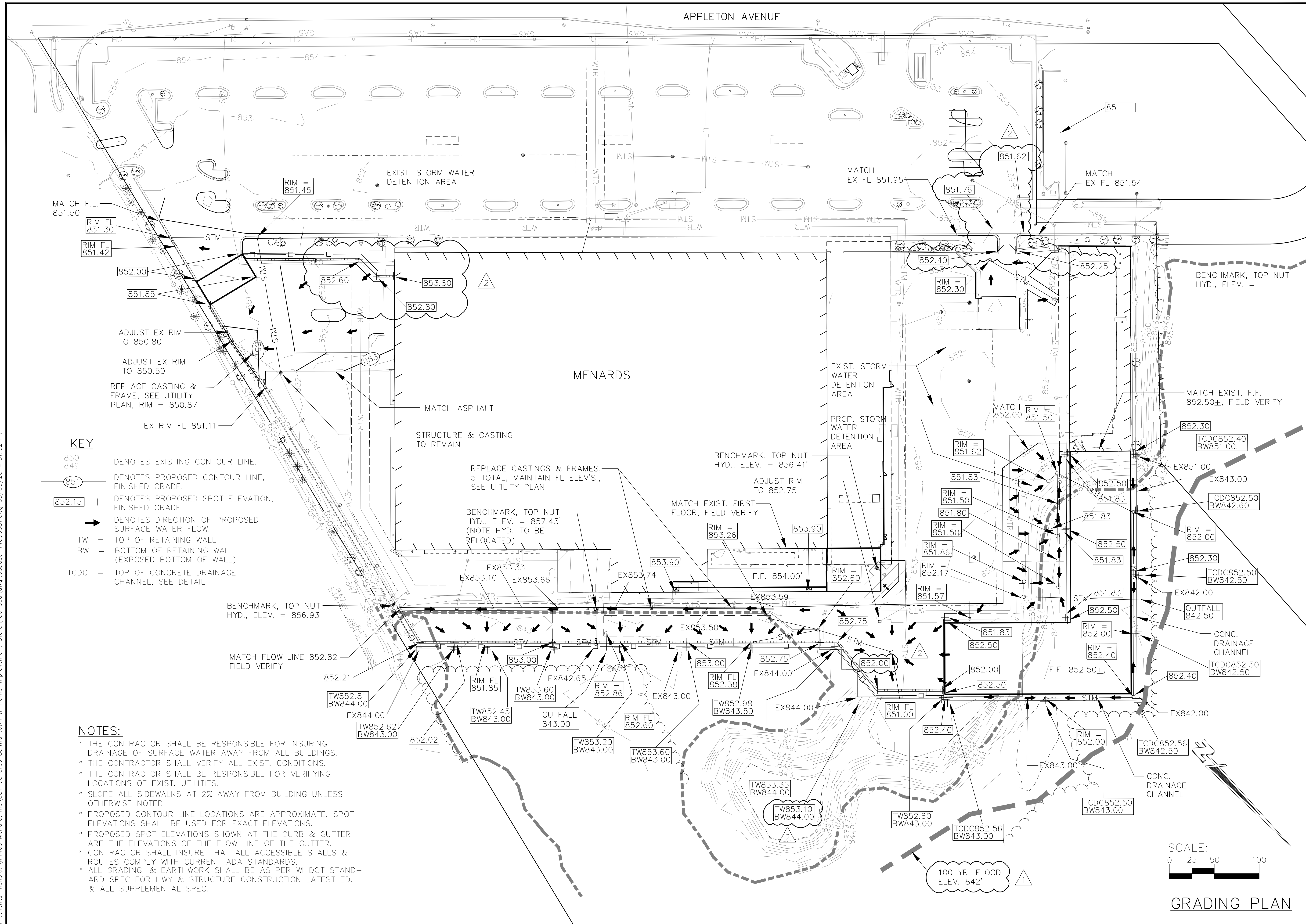
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SITE PLAN

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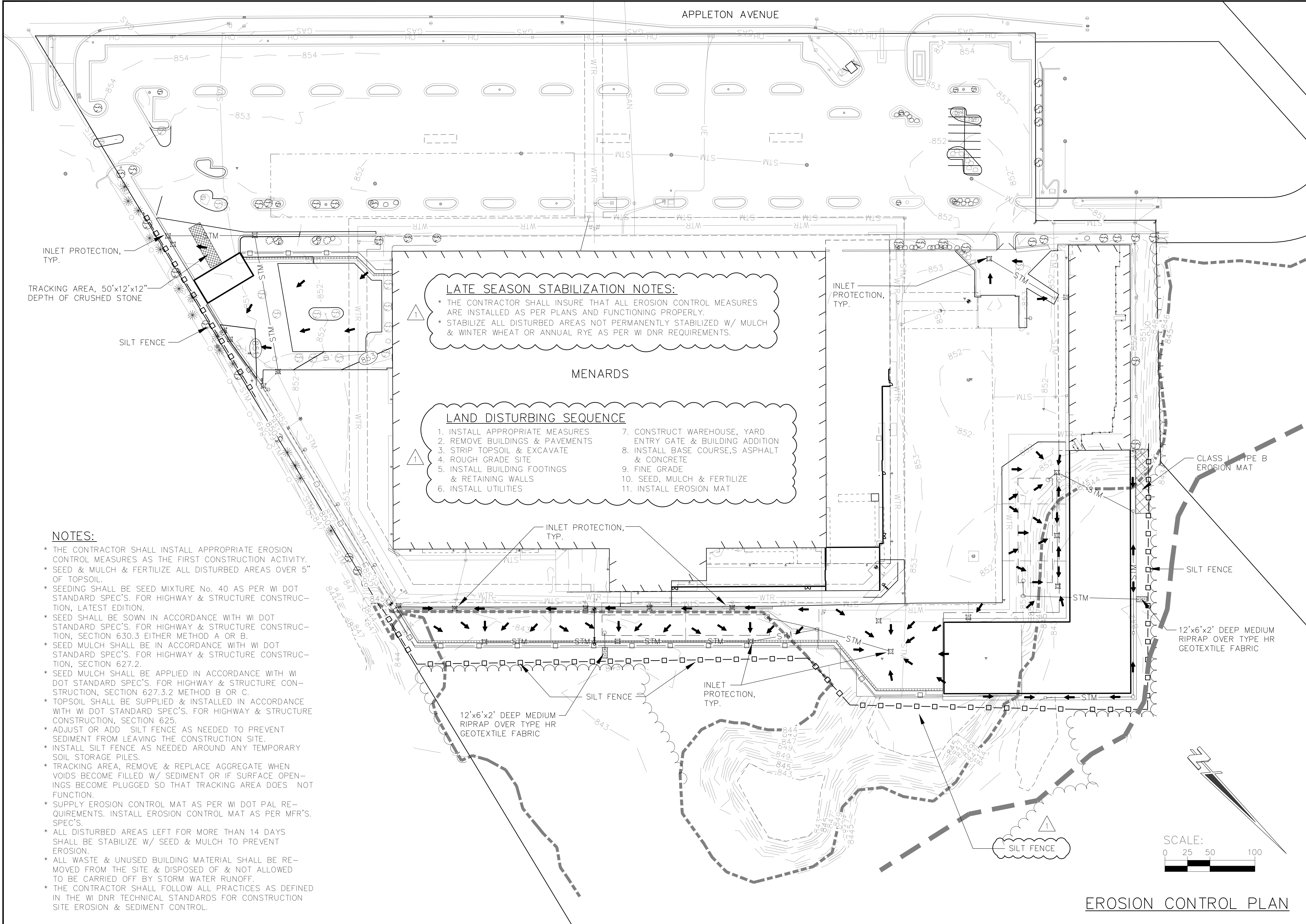
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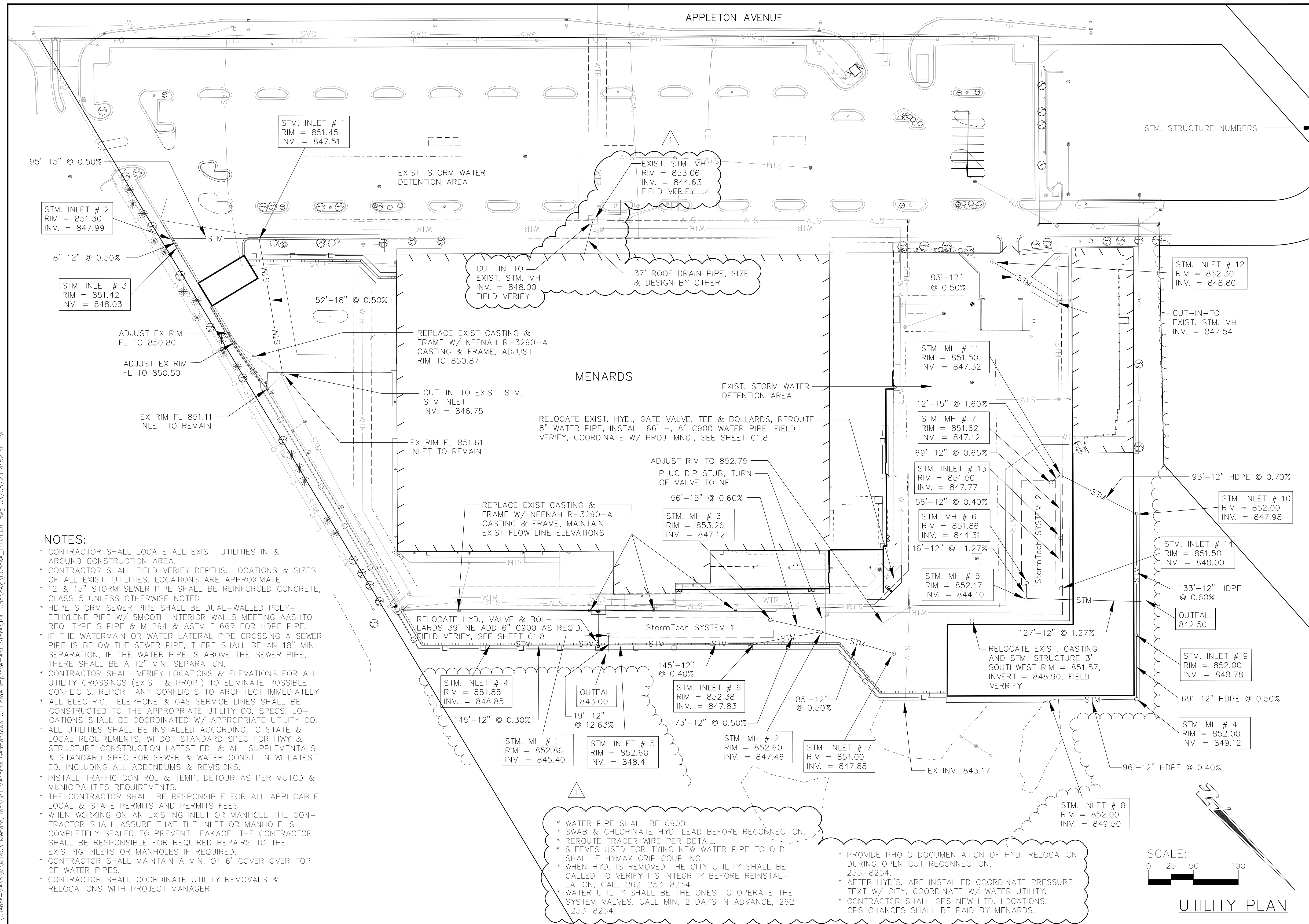
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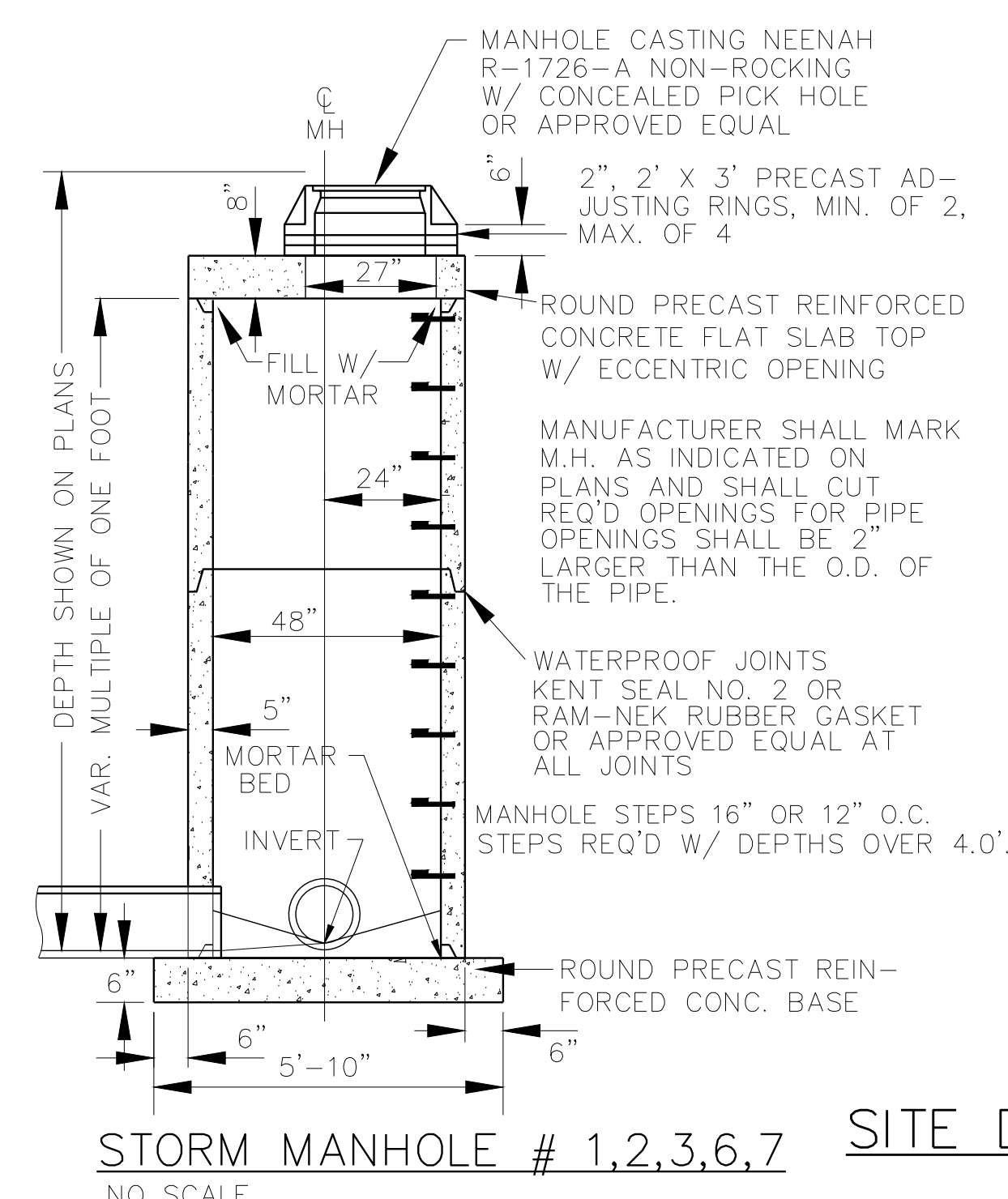
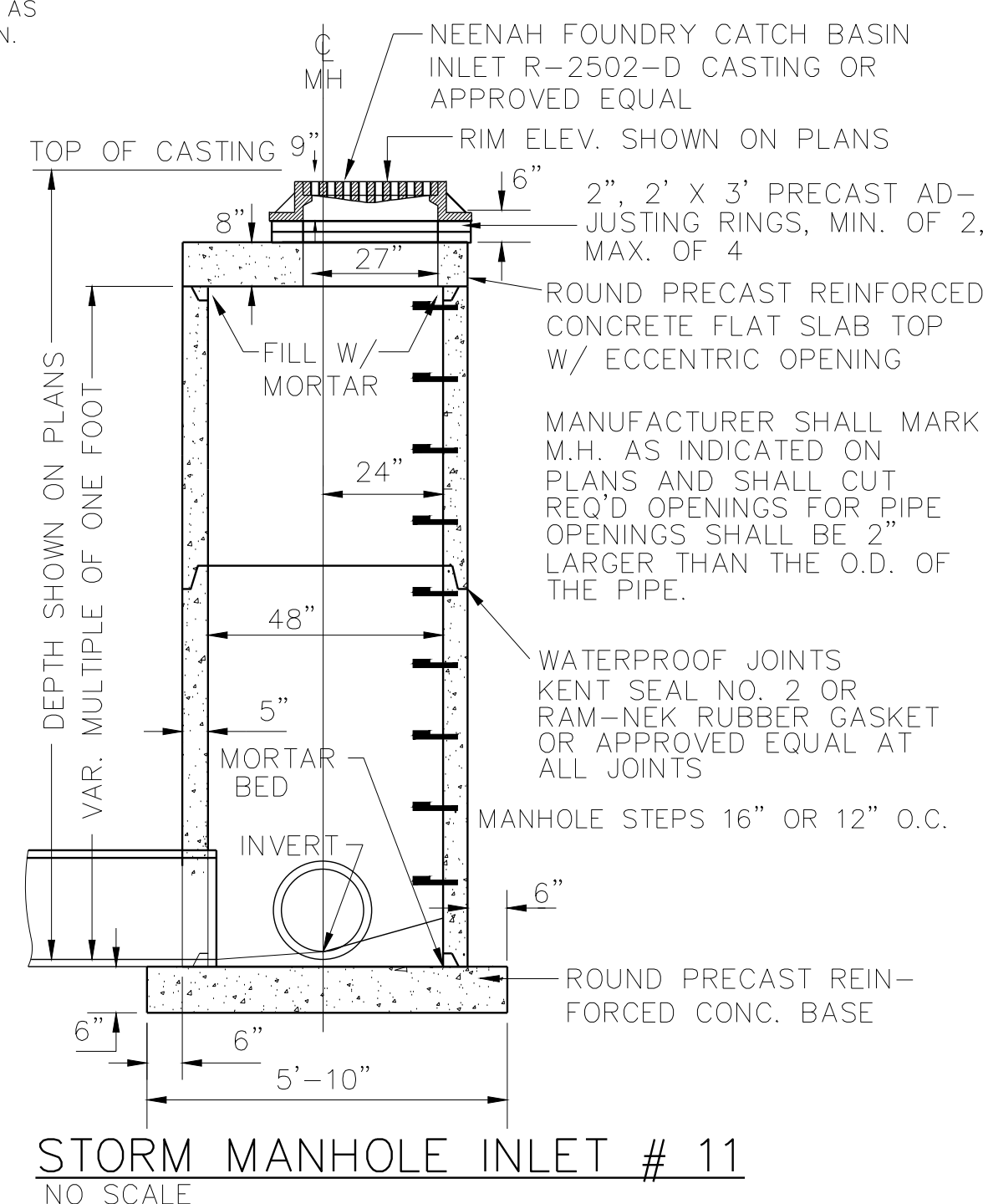
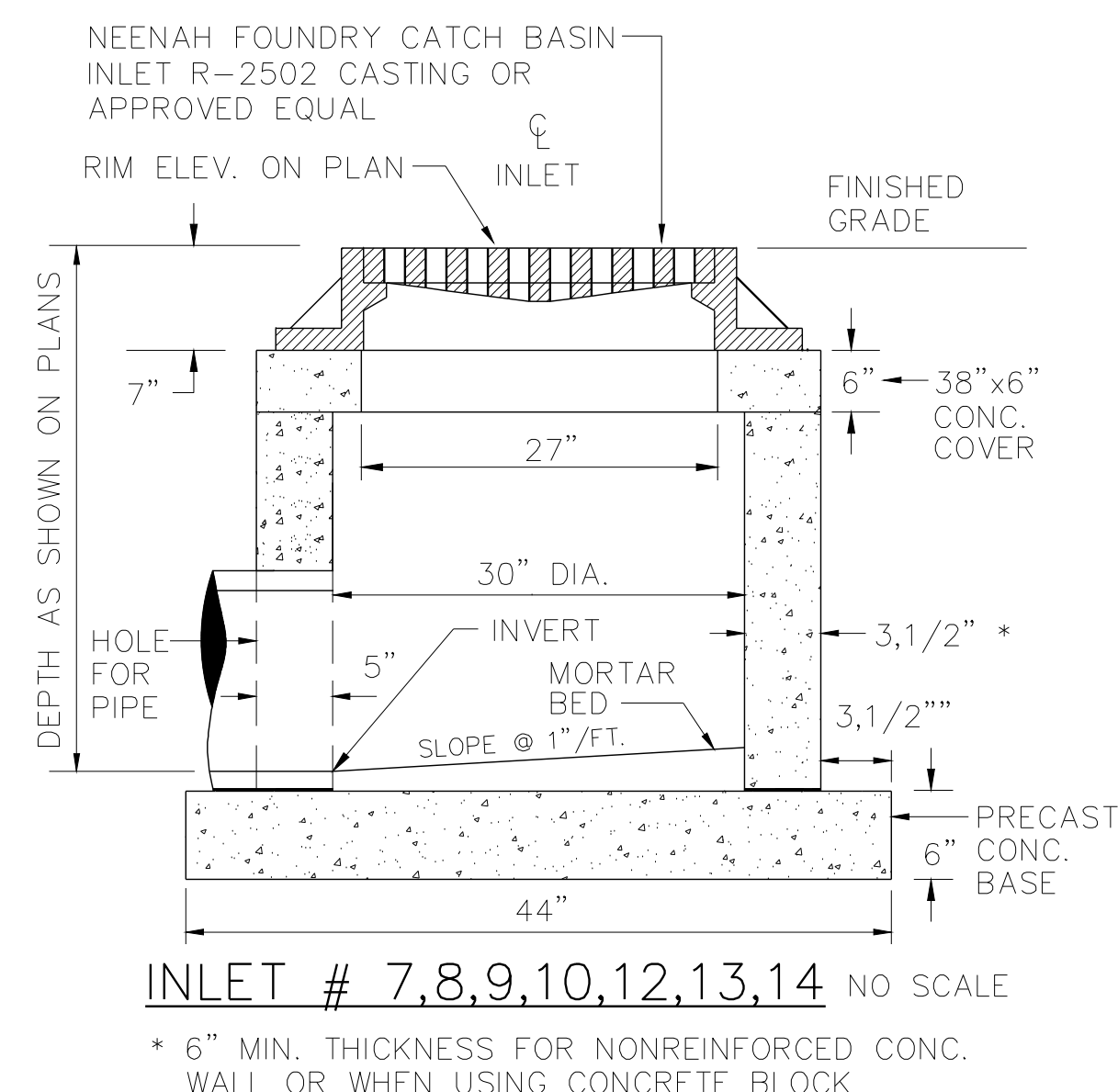
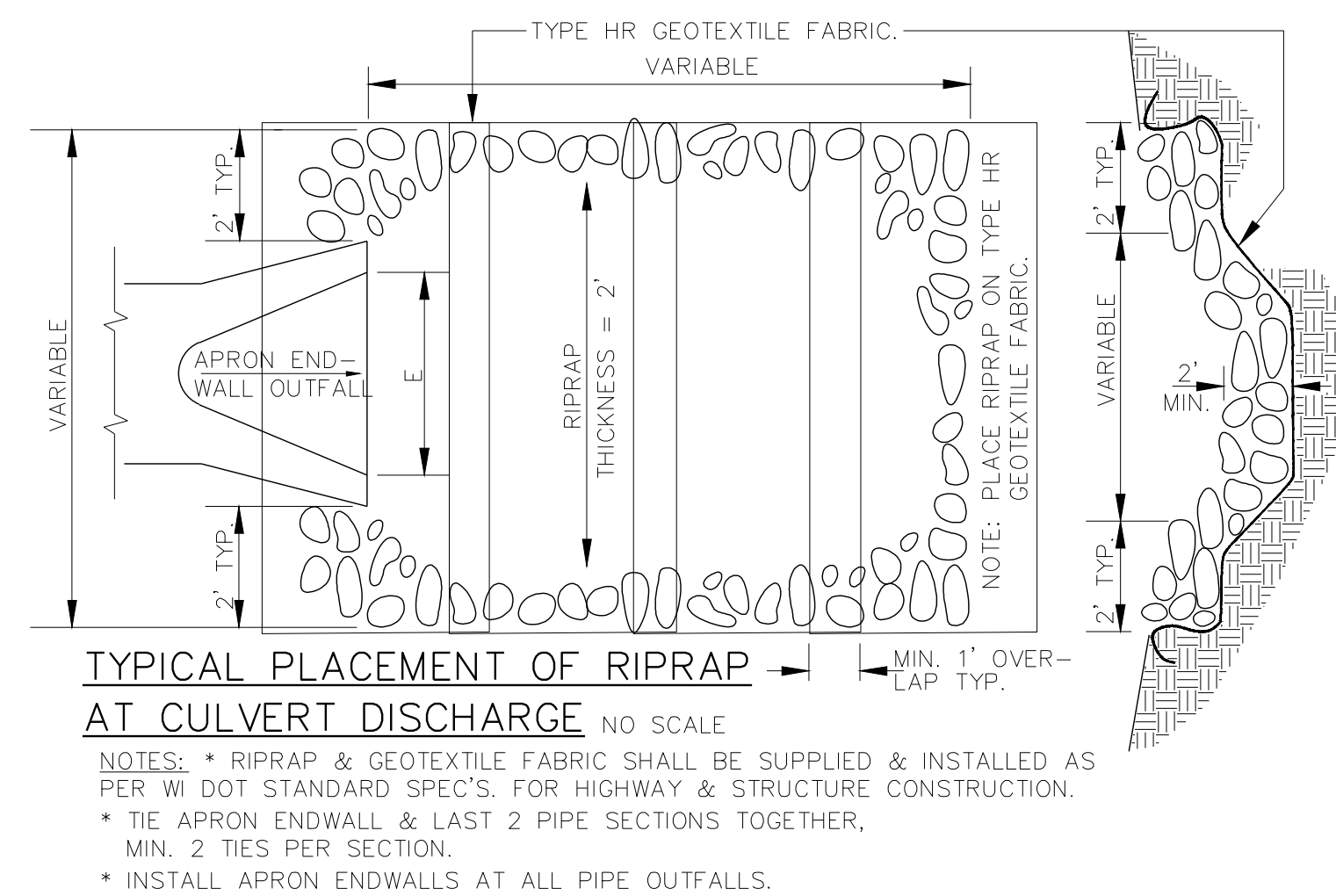
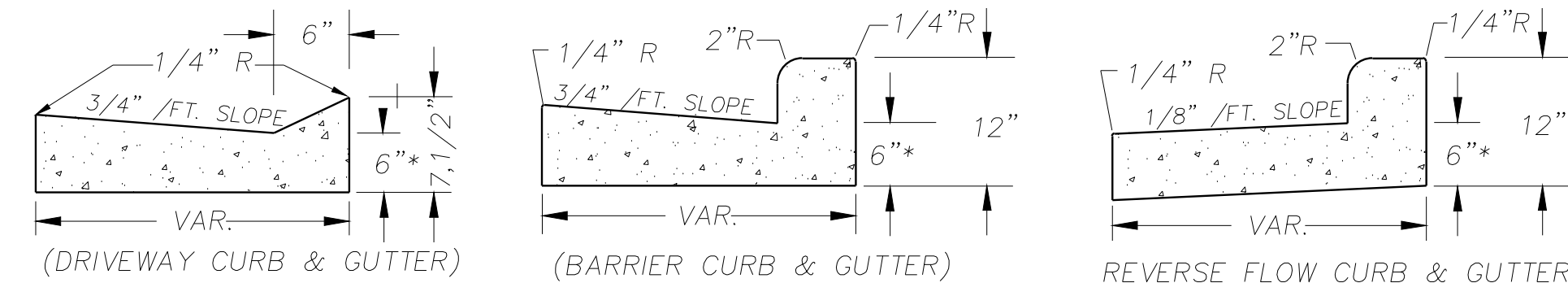
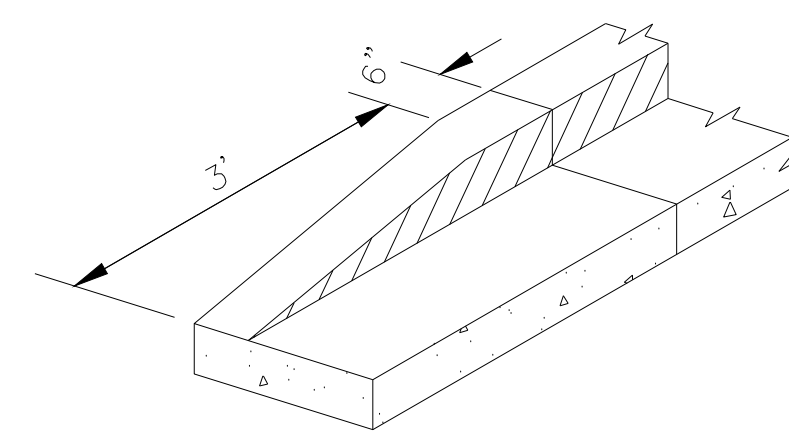
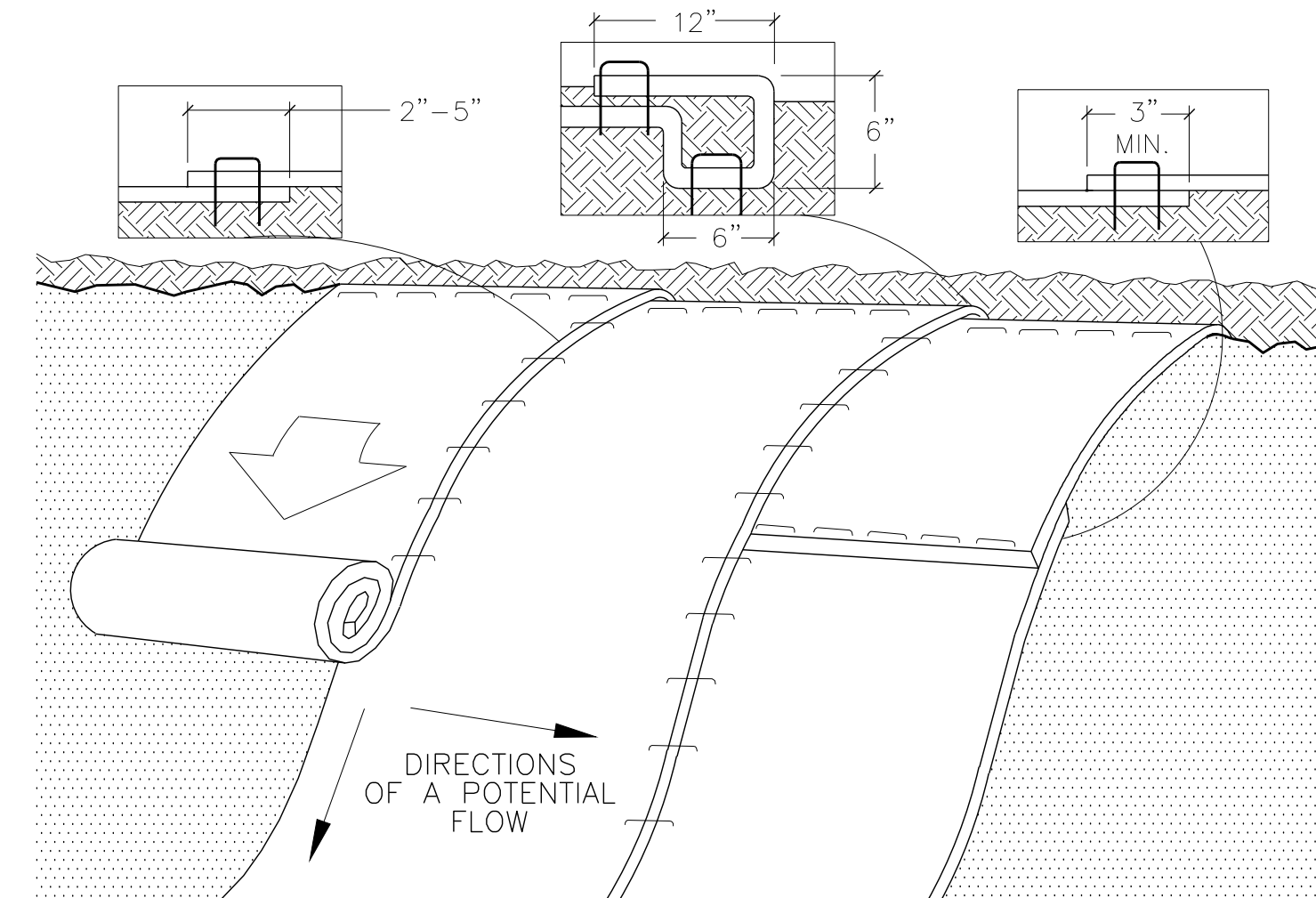
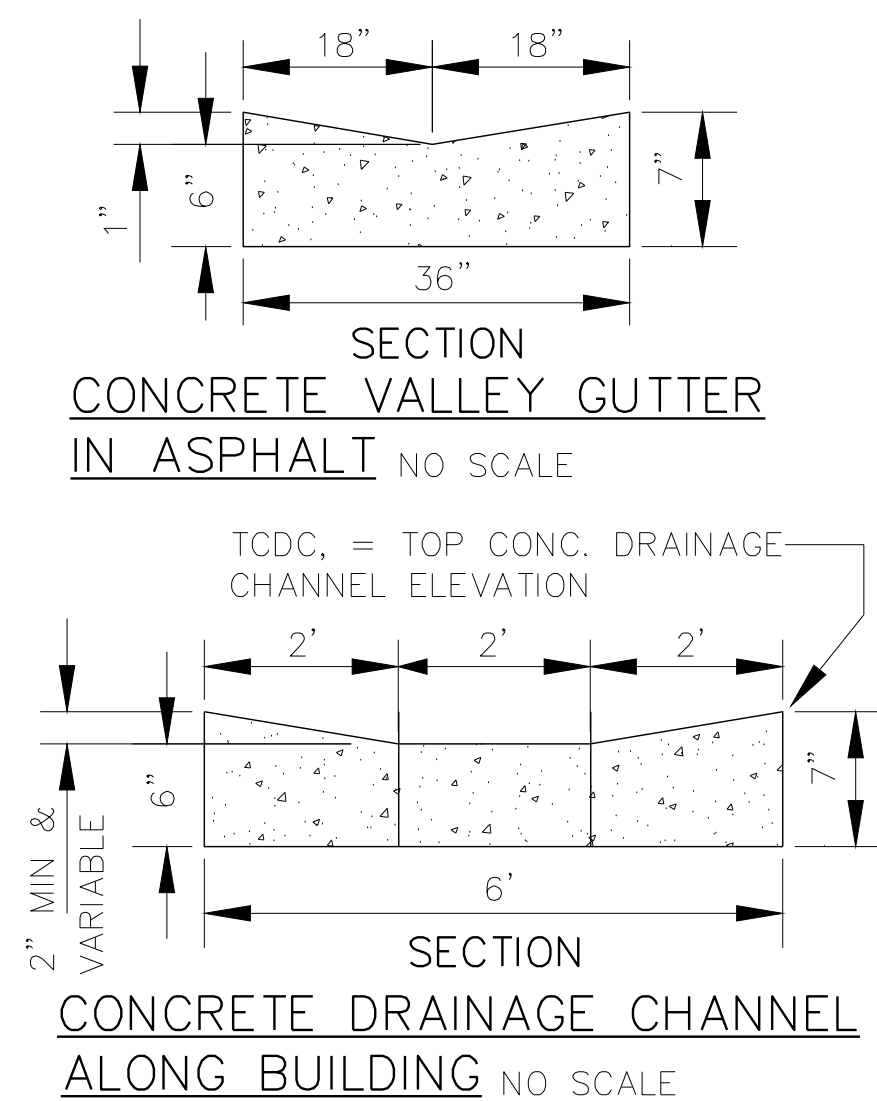
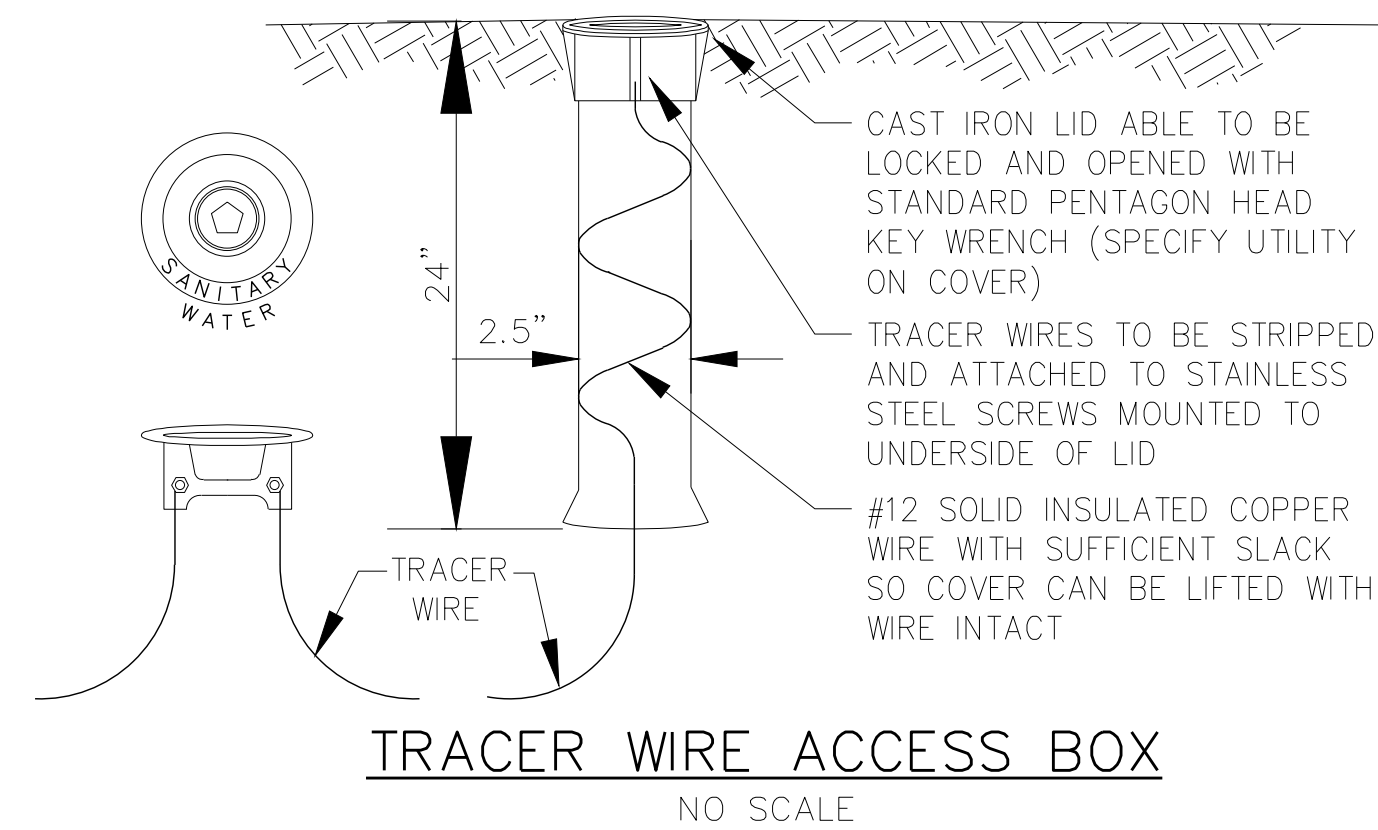
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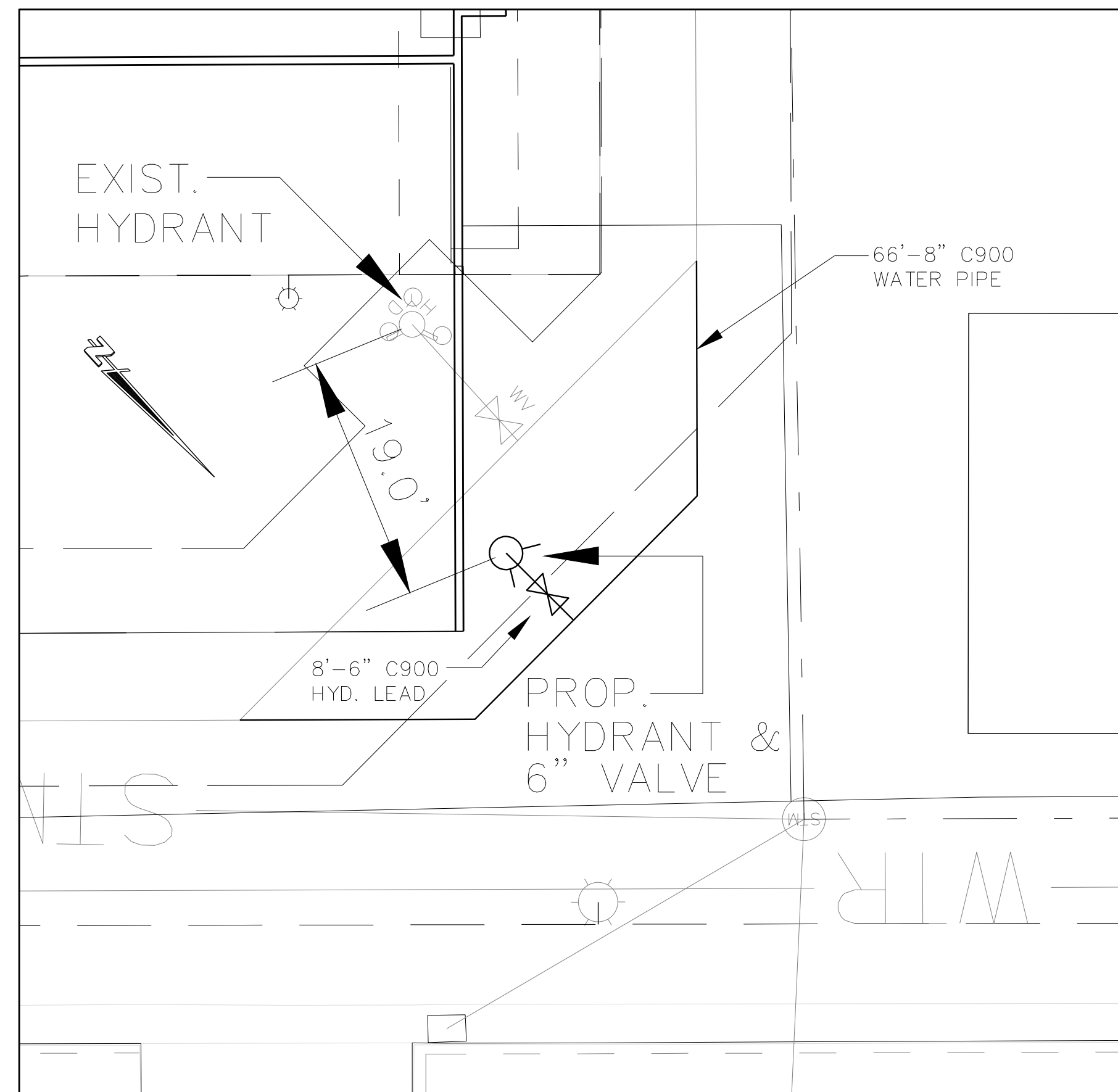
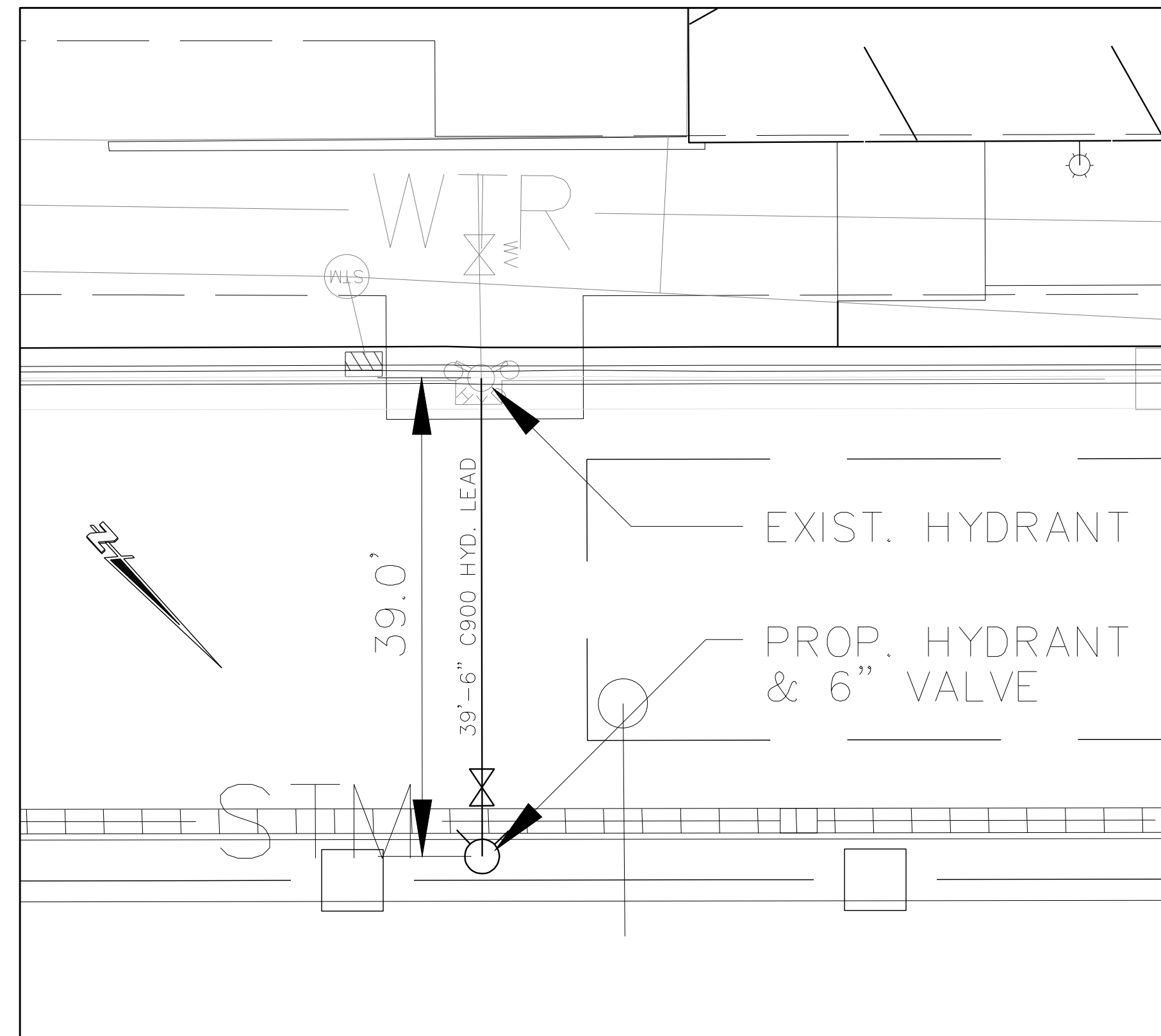
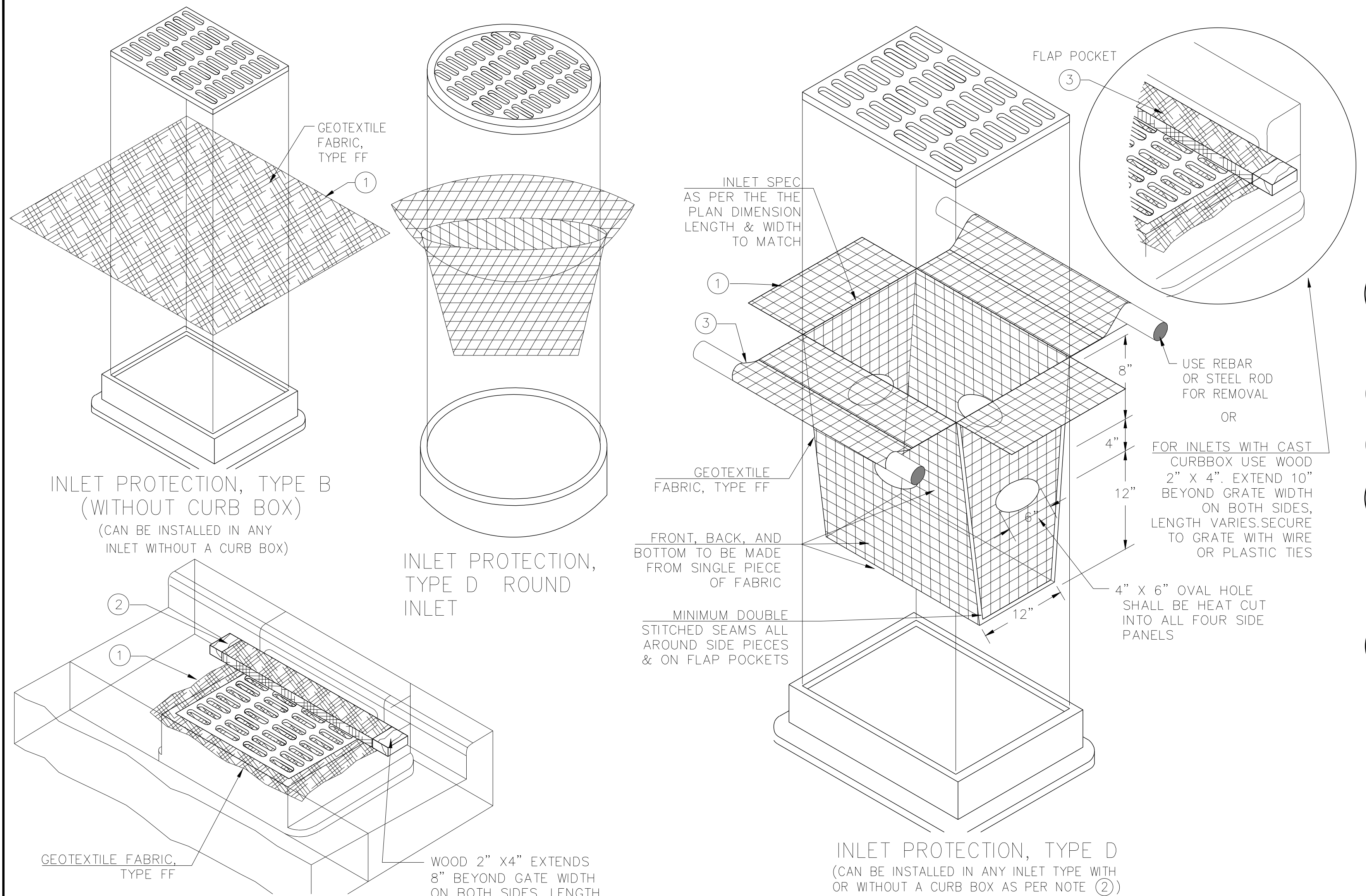
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PROJECT INFORMATION	
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ADS SALES REP	SALES NAME SALES NUMBER SALES EMAIL
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MENARDS EXPANSION SYSTEM #1

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MC-3500 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH MC-3500.
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
 - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
 - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
 - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

- STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONESHOOTER LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM - 9" (230 mm) SPACING BETWEEN THE CHAMBER ROWS.
- INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
- STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER Tired LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

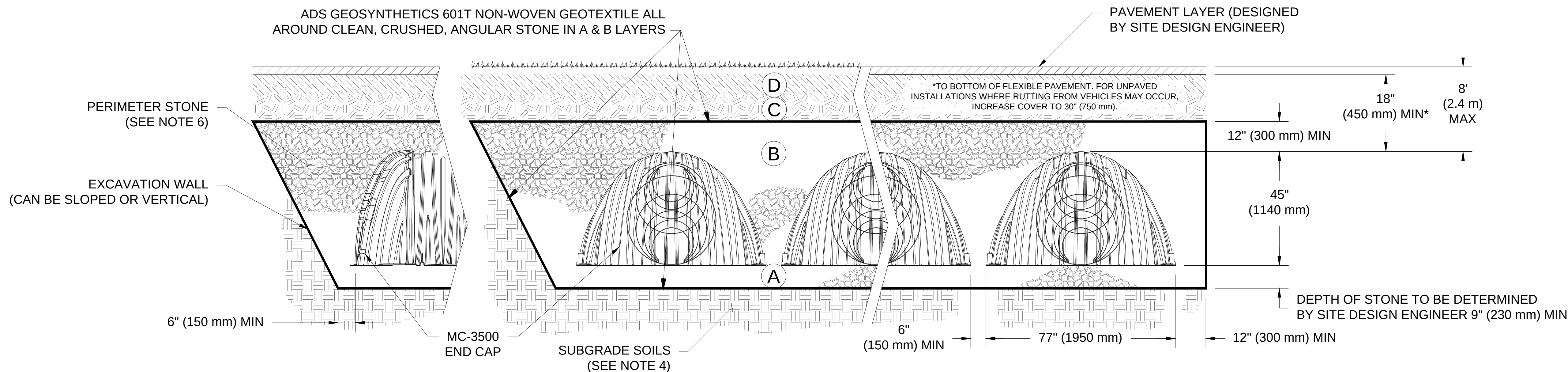
CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 4	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

PLEASE NOTE:

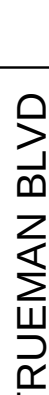
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



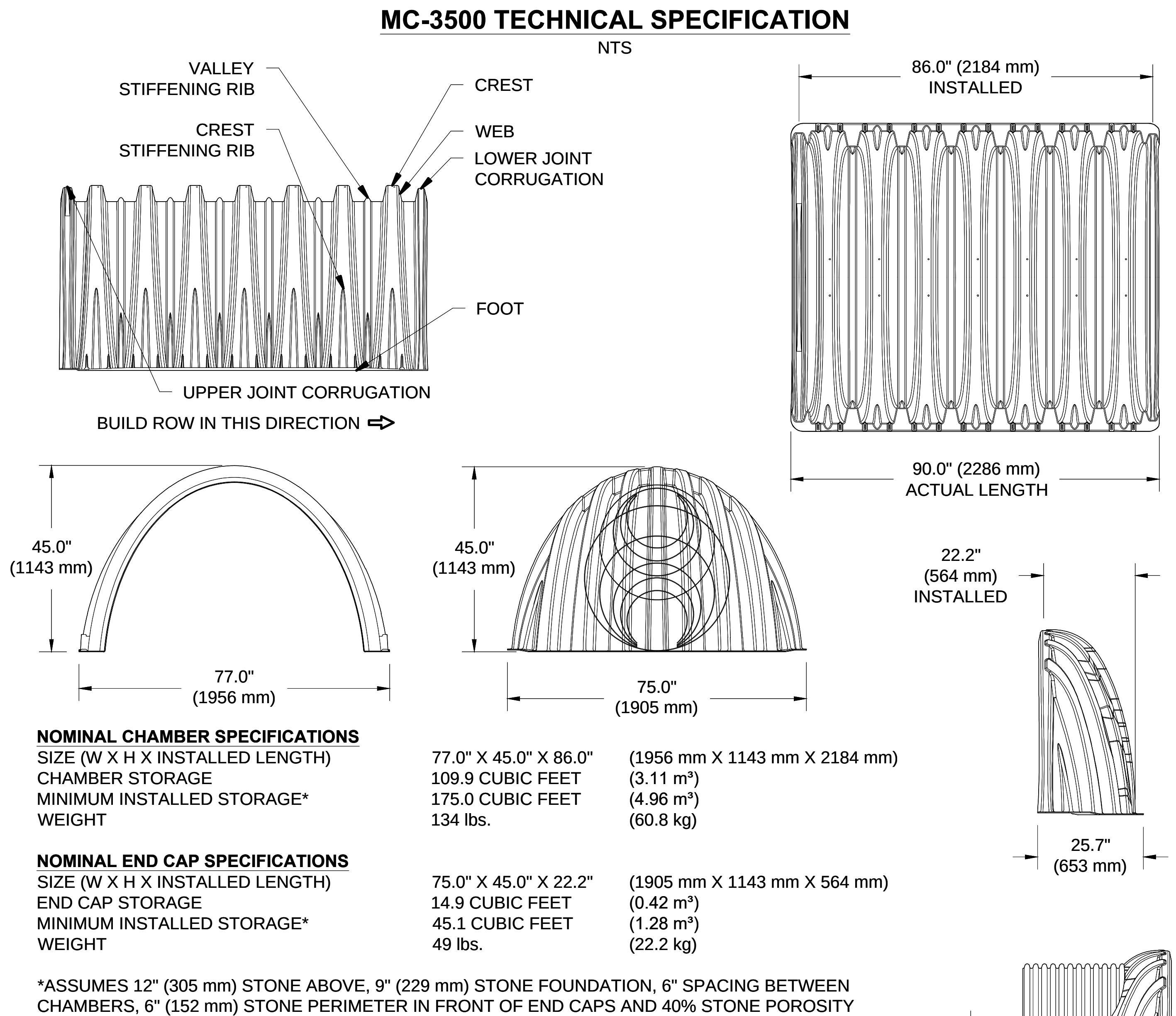
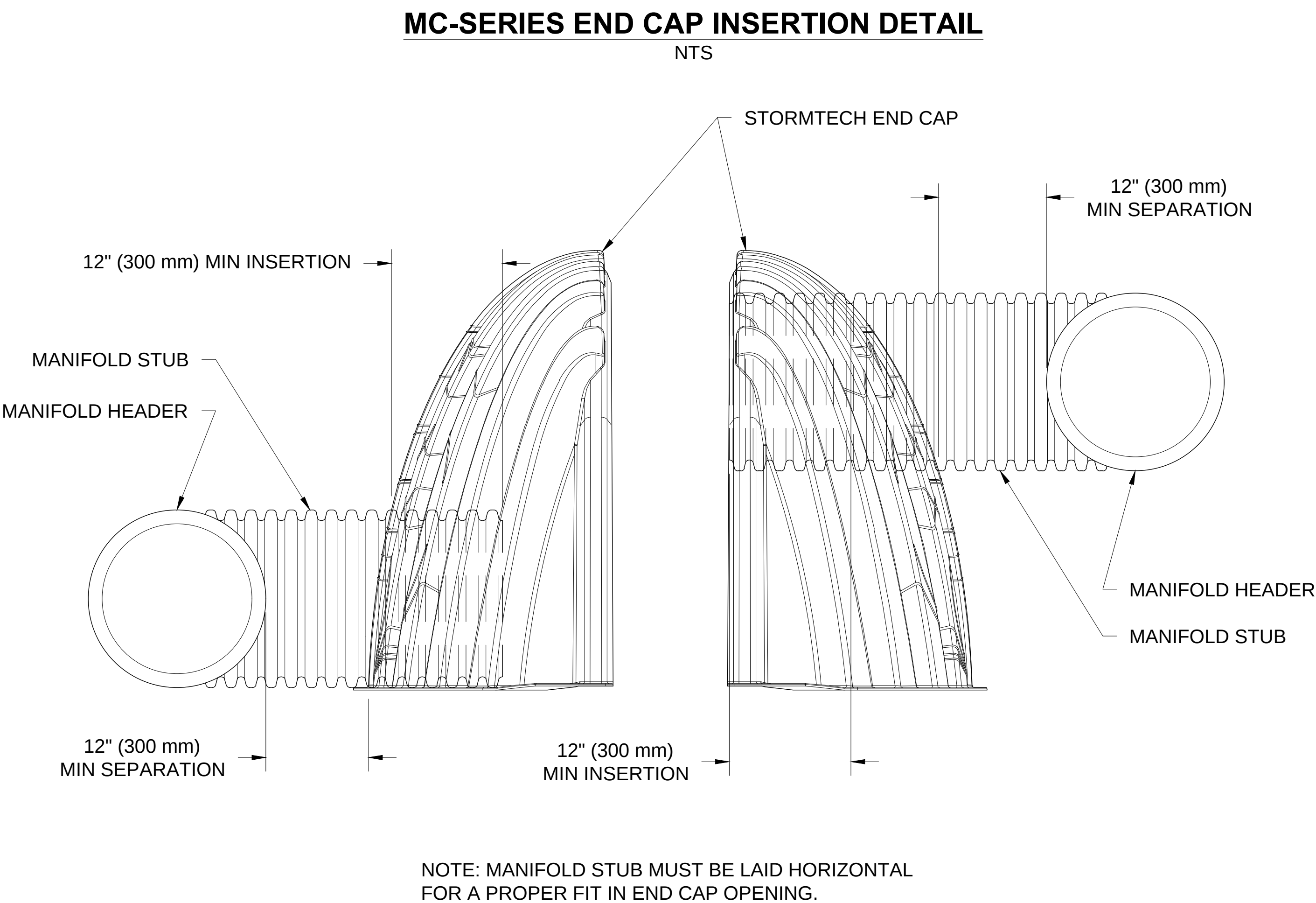
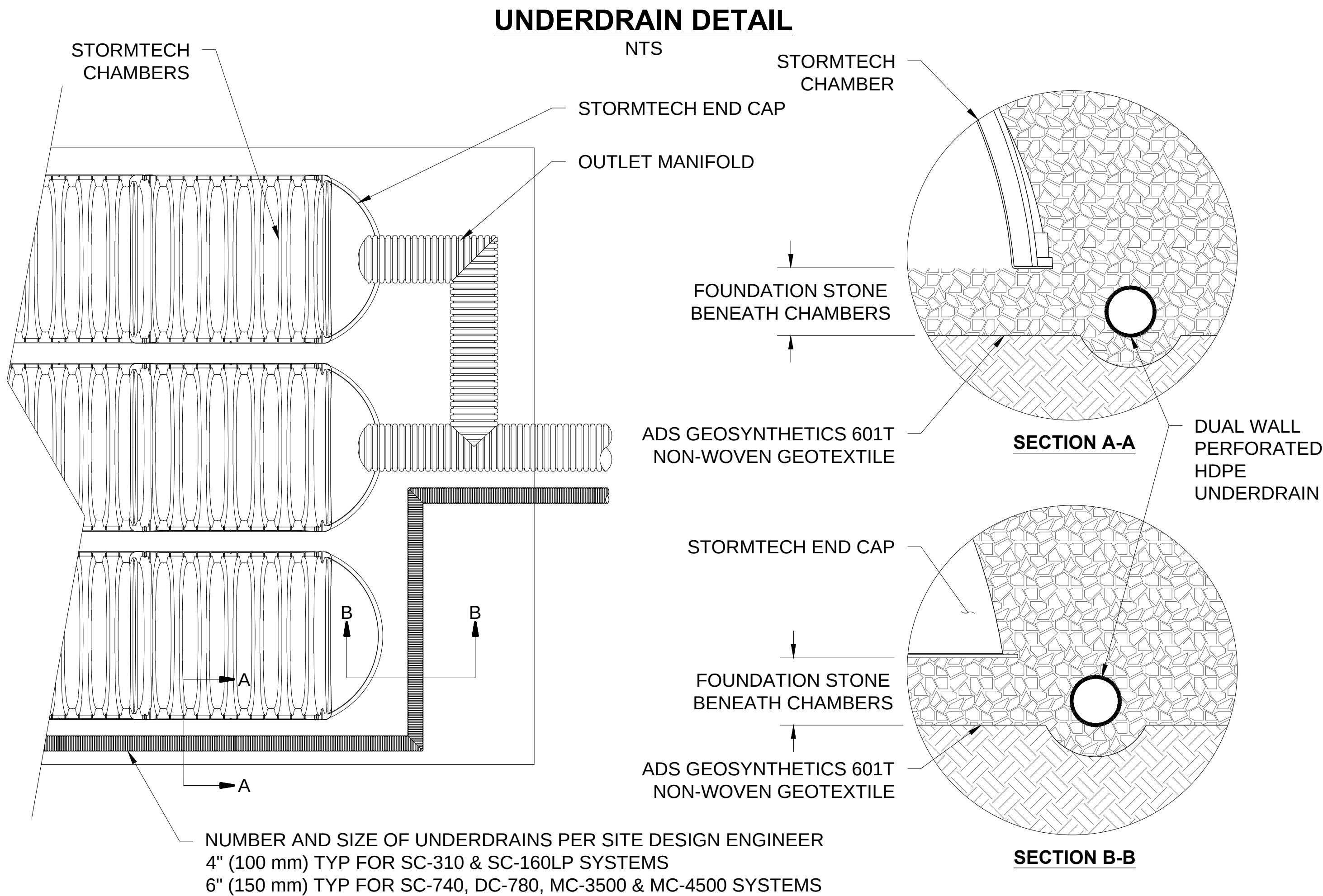
NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

SYSTEM #1

 ADVANCED DRAINAGE SYSTEMS, INC. 4640 TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473	 StormTech® <i>Detention • Retention • Water Quality</i> 70 INWOOD ROAD, SUITE 3 ROCKY HILL CT 06067 860-529-8188 888-492-2694 WWW.STORMTECH.COM	REV	DRW	CHK	DESCRIPTION	MENARDS EXPANSION SYSTEM #1 GERMANTOWN, WI
		DATE:		DRAWN: JB		
		PROJECT #:		CHECKED: N/A		

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.



STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"

STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

END CAPS WITH A WELDED CROWN PLATE END WITH "C"

END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC3500IEPP06T	6" (150 mm)	33.21" (844 mm)	---
MC3500IEPP06B		---	0.66" (17 mm)
MC3500IEPP08T	8" (200 mm)	31.16" (791 mm)	---
MC3500IEPP08B		---	0.81" (21 mm)
MC3500IEPP10T	10" (250 mm)	29.04" (738 mm)	---
MC3500IEPP10B		---	0.93" (24 mm)
MC3500IEPP12T	12" (300 mm)	26.36" (670 mm)	---
MC3500IEPP12B		---	1.35" (34 mm)
MC3500IEPP15T	15" (375 mm)	23.39" (594 mm)	---
MC3500IEPP15B		---	1.50" (38 mm)
MC3500IEPP18TC	18" (450 mm)	20.03" (509 mm)	---
MC3500IEPP18TW		---	1.77" (45 mm)
MC3500IEPP18BC			
MC3500IEPP18BW			
MC3500IEPP24TC	24" (600 mm)	14.48" (368 mm)	---
MC3500IEPP24TW		---	2.06" (52 mm)
MC3500IEPP24BC			
MC3500IEPP24BW			
MC3500IEPP30BC	30" (750 mm)	---	2.75" (70 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL

CUSTOM PRECORED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.



4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473



MENARDS EXPANSION SYSTEM #1
GERMANTOWN, WI

DATE: PROJECT #:

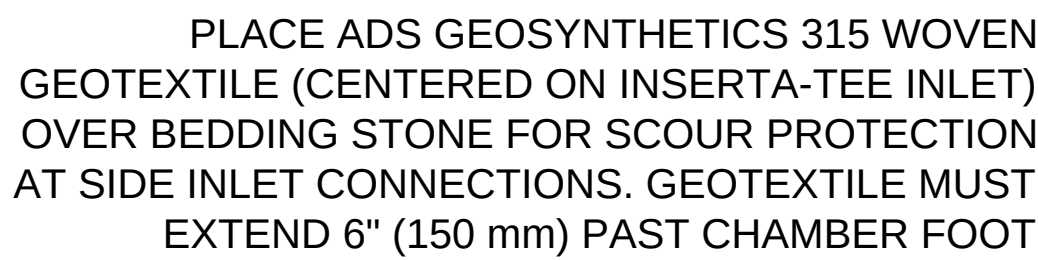
DRAWN: JB
CHECKED: N/A

DESCRIPTION

DRW CHK

REV

NTS



SECTION A-A

SIDE VIEW

CHAMBER	MAX DIAMETER OF INSERTA TEE	HEIGHT FROM BASE OF CHAMBER (X)
SC-310	6" (150 mm)	4" (100 mm)
SC-740	10" (250 mm)	4" (100 mm)
DC-780	10" (250 mm)	4" (100 mm)
MC-3500	12" (300 mm)	6" (150 mm)
MC-4500	12" (300 mm)	8" (200 mm)
INSERTA TEE FITTINGS AVAILABLE FOR SDR 26, SDR 35, SCH 40 IPS GASKETED & SOLVENT WELD, N-12, HP STORM, C-900 OR DUCTILE IRON		

NOTE:
PART NUMBERS WILL VARY BASED ON INLET PIPE MATERIALS.
CONTACT STORMTECH FOR MORE INFORMATION.

INSERTA TEE FITTINGS AVAILABLE FOR SDR 26, SDR 35, SCH 40 IPS
GASKETED & SOLVENT WELD, N-12, HP STORM, C-900 OR DUCTILE IRON

The logo for TIE INSERTA features the letters "TIE" in a large, bold, black sans-serif font. A red arrow points upwards through the center of the "IE". Below "TIE", the word "INSERTA" is written in white, bold, sans-serif capital letters, slanted upwards to the right, set against a red rectangular background.

INSERTA TEE | PO BOX 714
CORNELIUS, OR 97116
PH: (503) 357-2110 FAX: (503) 359-5417
SALES@INSERTATEE.COM

AD[®]
ADVANCED DRAINAGE SYSTEMS, INC.

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

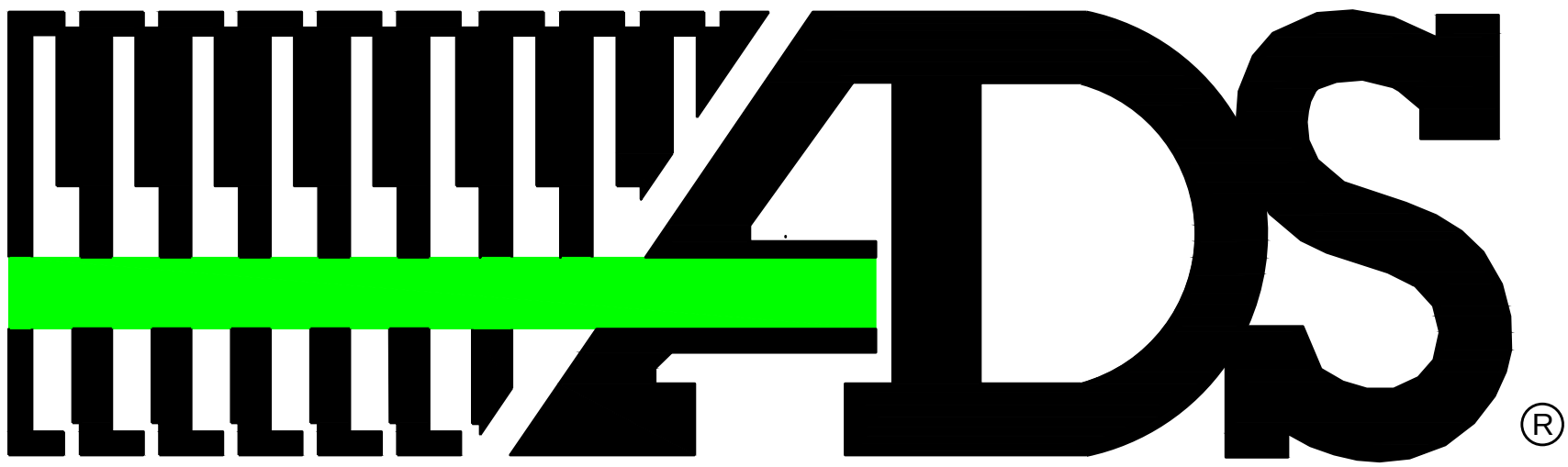
SHEET

6 OF 6

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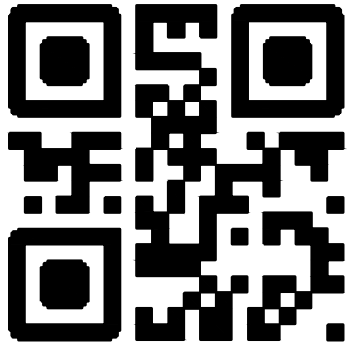
SYSTEM #1

PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER	EPM NAME EPM NUMBER EPM EMAIL
ADS SALES REP	SALES NAME SALES NUMBER SALES EMAIL
PROJECT NO.	



ADVANCED DRAINAGE SYSTEMS, INC.

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INSTALLATION APP



MENARDS EXPANSION SYSTEM #2

GERMANTOWN, WI

MC-4500 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH MC-4500.
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
 - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
 - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
 - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-4500 CHAMBER SYSTEM

- STORMTECH MC-4500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH MC-4500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONESHOOTER LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM 9" (230 mm) SPACING BETWEEN THE CHAMBER ROWS.
- INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
- STONE SHALL BE BROUGHT UP EVENLY AROUND CHAMBERS SO AS NOT TO DISTORT THE CHAMBER SHAPE. STONE DEPTHS SHOULD NEVER DIFFER BY MORE THAN 12" (300 mm) BETWEEN ADJACENT CHAMBER ROWS.
- STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIAL BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

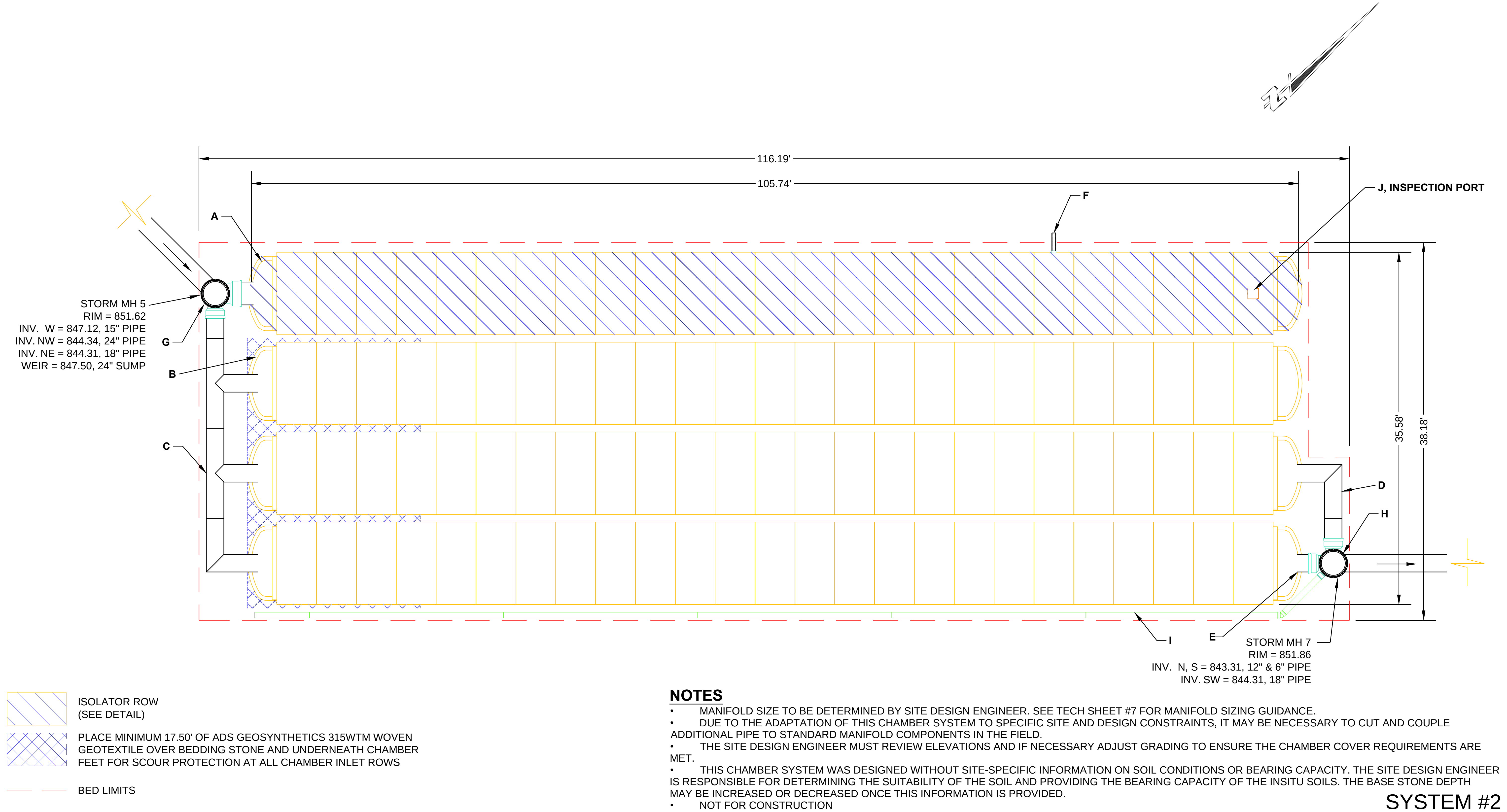
- STORMTECH MC-4500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- THE USE OF EQUIPMENT OVER MC-4500 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

PROPOSED LAYOUT		PROPOSED ELEVATIONS	
100	STORMTECH MC-4500 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	856.15
8	STORMTECH MC-4500 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	851.65
12	STONE ABOVE (in)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	851.15
9	STONE BELOW (in)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	851.15
40	% STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	851.15
18295	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)	TOP OF STONE:	850.15
		TOP OF MC-4500 CHAMBER:	849.15
		4" INSERTA TEE INVERT:	844.82
		24" ISOLATOR ROW INVERT:	844.34
		18" x 18" BOTTOM MANIFOLD INVERT:	844.31
4346	SYSTEM AREA (SF)	18" x 18" BOTTOM MANIFOLD INVERT:	844.31
308.75	SYSTEM PERIMETER (ft)	18" BOTTOM CONNECTION INVERT:	844.31
		BOTTOM OF MC-4500 CHAMBER:	844.15
		UNDERDRAIN INVERT:	843.40
		BOTTOM OF STONE:	843.40

PART TYPE	ITEM ON LAYOUT	DESCRIPTION	*INVERT ABOVE BASE OF CHAMBER	
			INVERT*	MAX FLOW
PREFABRICATED END CAP	A	24" BOTTOM CORED END CAP/TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR ROWS	2.26"	
PREFABRICATED END CAP	B	18" BOTTOM CORED END CAP/TYP OF ALL 18" BOTTOM CONNECTIONS	29.37"	
MANIFOLD	C	18" X 18" BOTTOM, ADS N-12	1.97"	
MANIFOLD	D	18" X 18" BOTTOM, ADS N-12	1.97"	
PIPE CONNECTION	E	18" BOTTOM CONNECTION	1.97"	
INSERTA TEE	F	4" DIAMETER	8.00"	
NYLOPLAST (INLET W/ ISO ROW)	G	30" DIAMETER (24" SUMP MIN)		16.5 CFS IN
NYLOPLAST (OUTLET)	H	30" DIAMETER (DESIGN BY ENGINEER)		8.0 CFS OUT
UNDERDRAIN	I	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		
INSPECTION PORT	J	4" SEE DETAIL		



MENARDS EXPANSION SYSTEM #2

GERMANTOWN, WI

DRAWN: JB

CHECKED: N/A

DATE:

PROJECT #:

REV	DRW	CHK	DESCRIPTION
2/24/20			info added

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

StormTech
Detention • Retention • Water Quality
70 INWOOD ROAD, SUITE 3 | ROCKY HILL | CT 06067
860-529-8188 | 888-892-2694 | WWW.STORMTECH.COM

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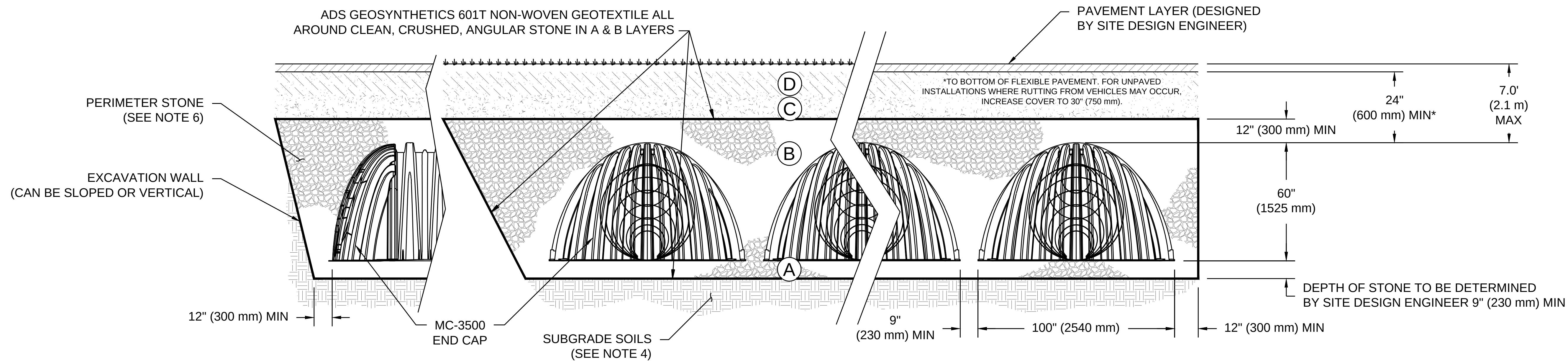
SHEET 2 OF 6

ACCEPTABLE FILL MATERIALS: STORMTECH MC-4500 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 4	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

PLEASE NOTE:

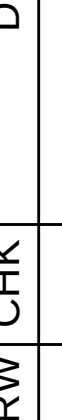
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



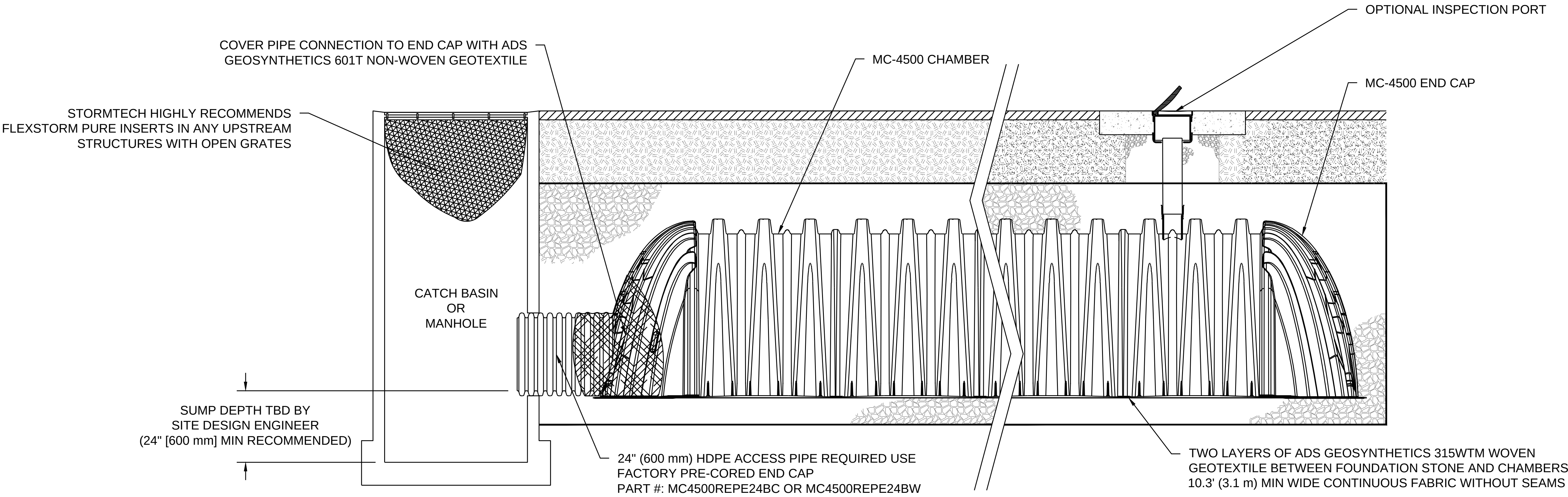
NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101
2. MC-4500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

SYSTEM #2

	StormTech® Detention-Retention-Water Quality 70 INWOOD ROAD, SUITE 3 ROCKY HILL, CT 06067 860-529-8188 888-892-2694 WWW.STORMTECH.COM			4640 TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473			 ADVANCED DRAINAGE SYSTEMS, INC.	SHEET 3 OF 6
	REV	DRW	CHK	DESCRIPTION				
MENARDS EXPANSION SYSTEM #2 GERMANTOWN, WI							DATE:	DRAWN: JB
							PROJECT #:	CHECKED: N/A

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.



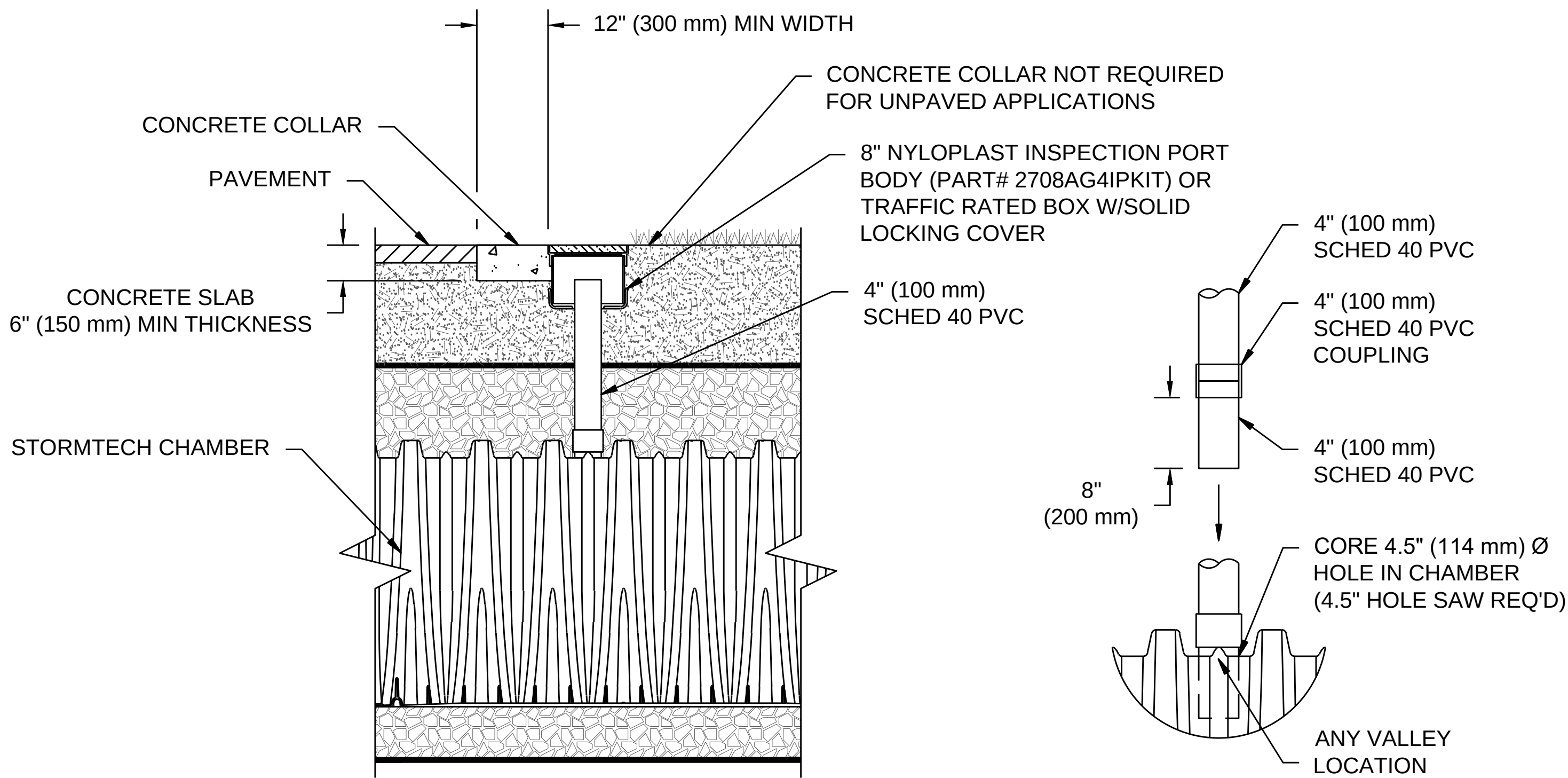
MC-4500 ISOLATOR ROW DETAIL
NTS

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
 - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
 - B. ALL ISOLATOR ROWS
 - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
 - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
 - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
 - B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
 - C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



- NOTES:
- INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.
 - ALL SCHEDULE 40 FITTINGS TO BE SOLVENT CEMENTED (4" PVC NOT PROVIDED BY ADS).

4" PVC INSPECTION PORT DETAIL
NTS

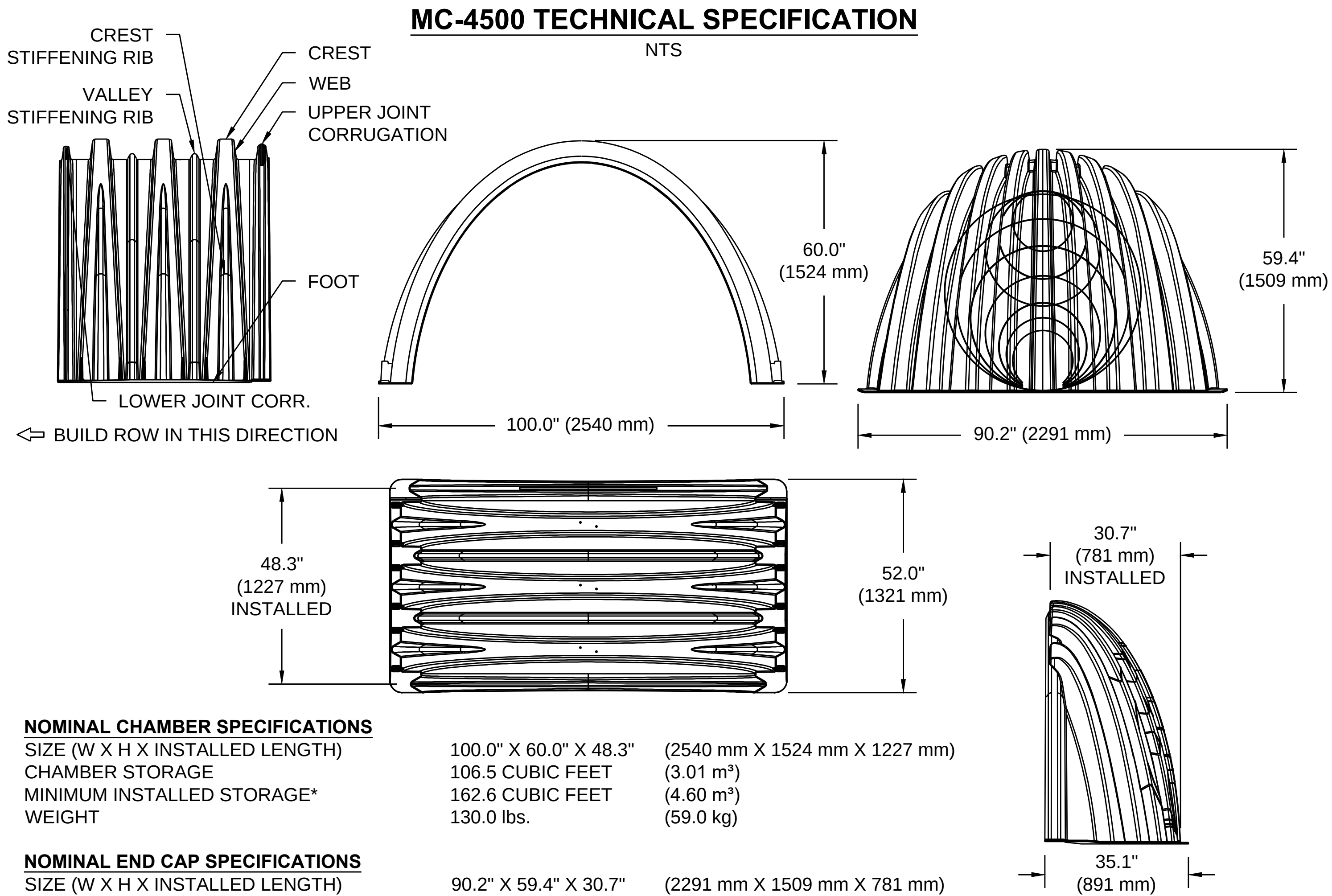
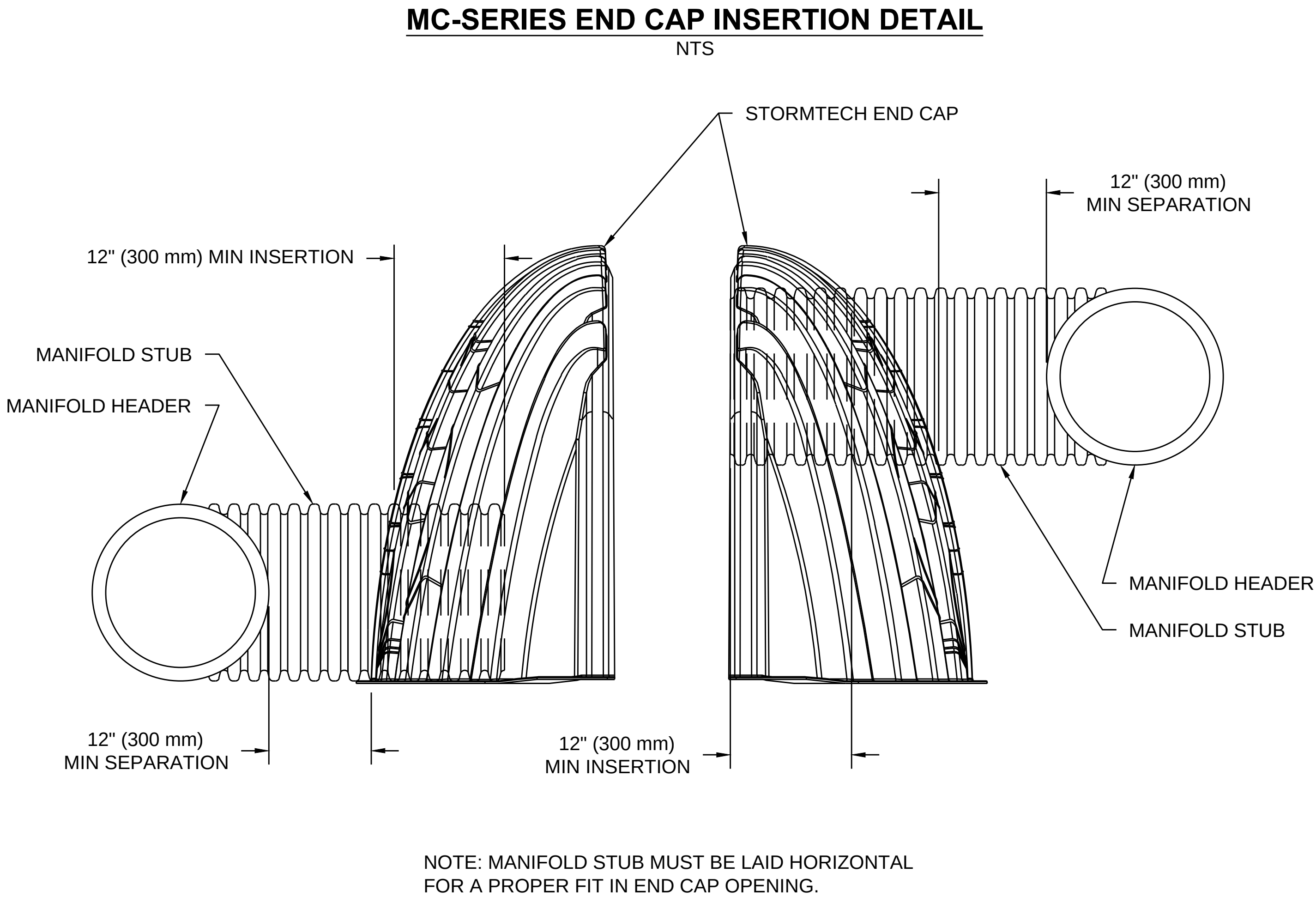
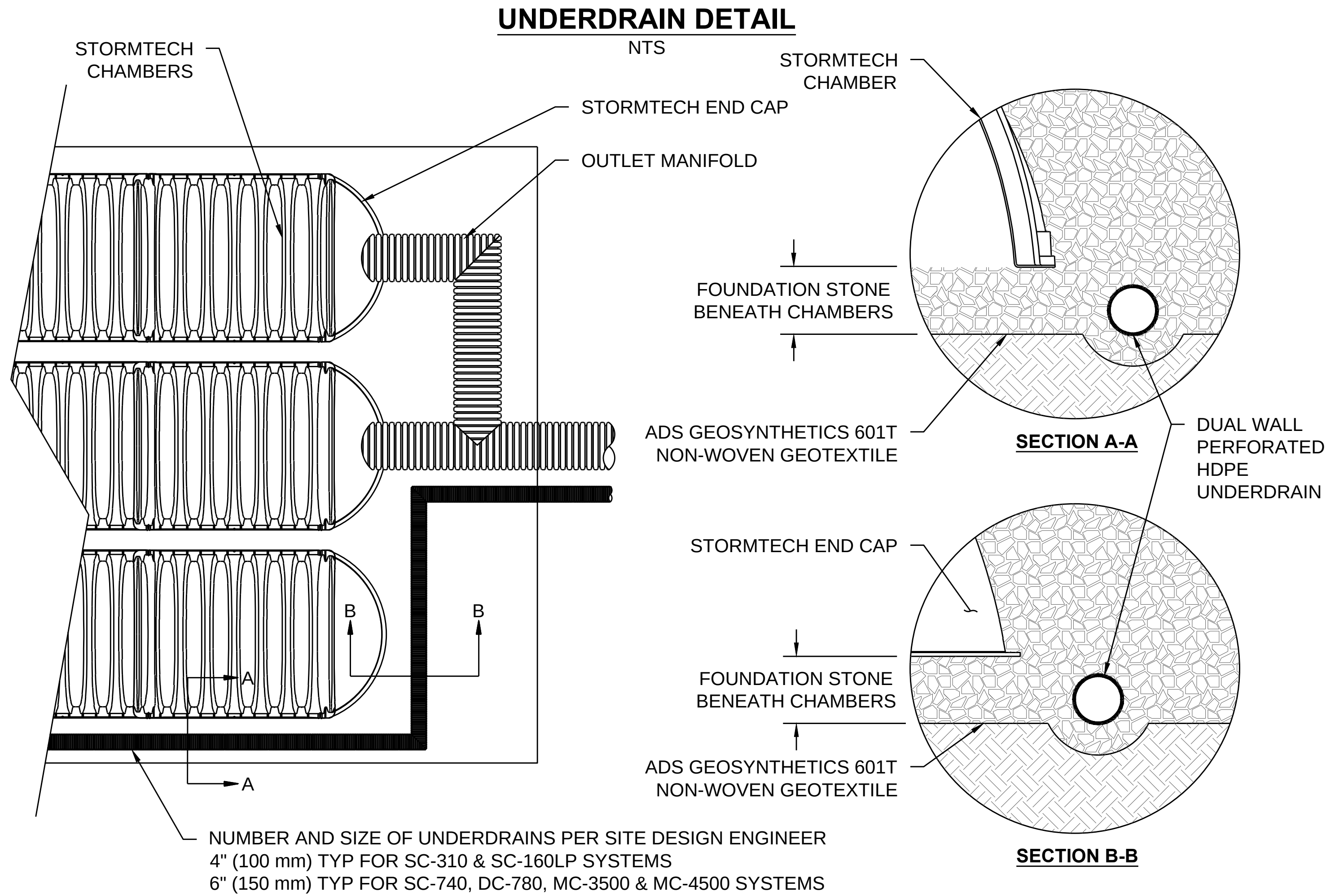
SYSTEM #2

MENARDS EXPANSION SYSTEM #2		DATE:	DRAWN: JB	CHECKED: N/A
GERMANTOWN, WI				

REV	DRW	CHK	DESCRIPTION



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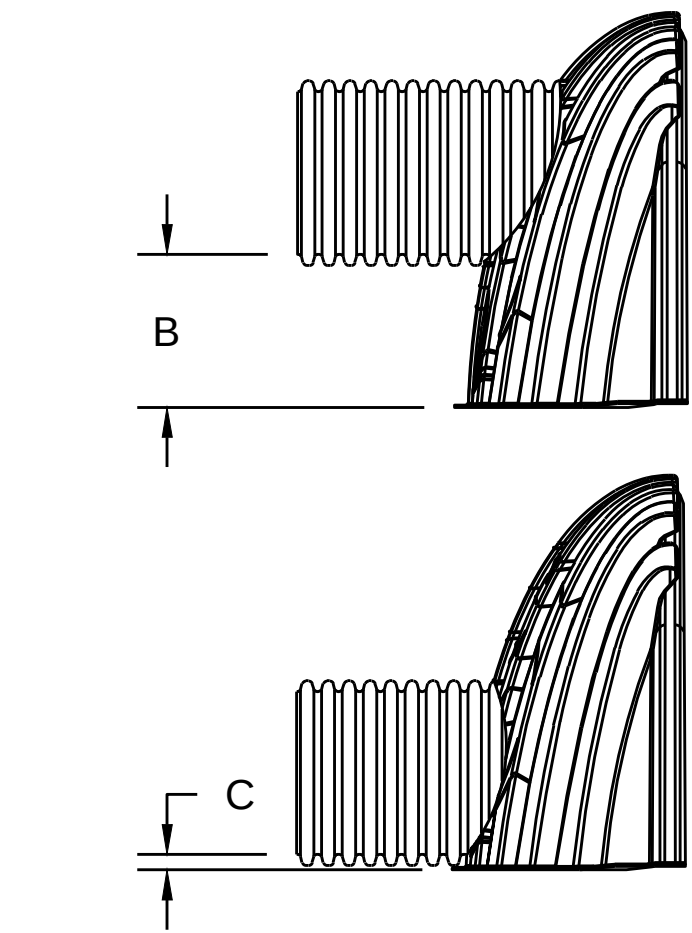


*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION AND BETWEEN CHAMBERS, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A WELDED CROWN PLATE END WITH "C"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC4500REPE06T	6" (150 mm)	42.54" (1.081 m)	---
MC4500REPE06B		---	0.86" (22 mm)
MC4500REPE08T	8" (200 mm)	40.50" (1.029 m)	---
MC4500REPE08B		---	1.01" (26 mm)
MC4500REPE10T	10" (250 mm)	38.37" (975 mm)	---
MC4500REPE10B		---	1.33" (34 mm)
MC4500REPE12T	12" (300 mm)	35.69" (907 mm)	---
MC4500REPE12B		---	1.55" (39 mm)
MC4500REPE15T	15" (375 mm)	32.72" (831 mm)	---
MC4500REPE15B		---	1.70" (43 mm)
MC4500REPE18TC	18" (450 mm)	29.36" (746 mm)	---
MC4500REPE18TW		---	1.97" (50 mm)
MC4500REPE18BC			---
MC4500REPE18BW	24" (600 mm)	23.05" (585 mm)	---
MC4500REPE24TC		---	2.26" (57 mm)
MC4500REPE24TW			---
MC4500REPE24BC			---
MC4500REPE24BW	30" (750 mm)	---	2.95" (75 mm)
MC4500REPE30BC		---	---
MC4500REPE36BC	36" (900 mm)	---	3.25" (83 mm)
MC4500REPE42BC	42" (1050 mm)	---	3.55" (90 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL



CUSTOM PRECORED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-4500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

STORMTECH
Detention-Retention-Water Quality

70 INWOOD ROAD, SUITE 31 | ROCKY HILL | CT | 06067
860-529-8188 | 888-892-2694 | WWW.STORMTECH.COM

ADVANCED DRAINAGE SYSTEMS, INC.

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

MENARDS EXPANSION SYSTEM #2
GERMANTOWN, WI

DESCRIPTION

CHK

DRW

REV

DATE:

DRAWN: JB

CHECKED: N/A

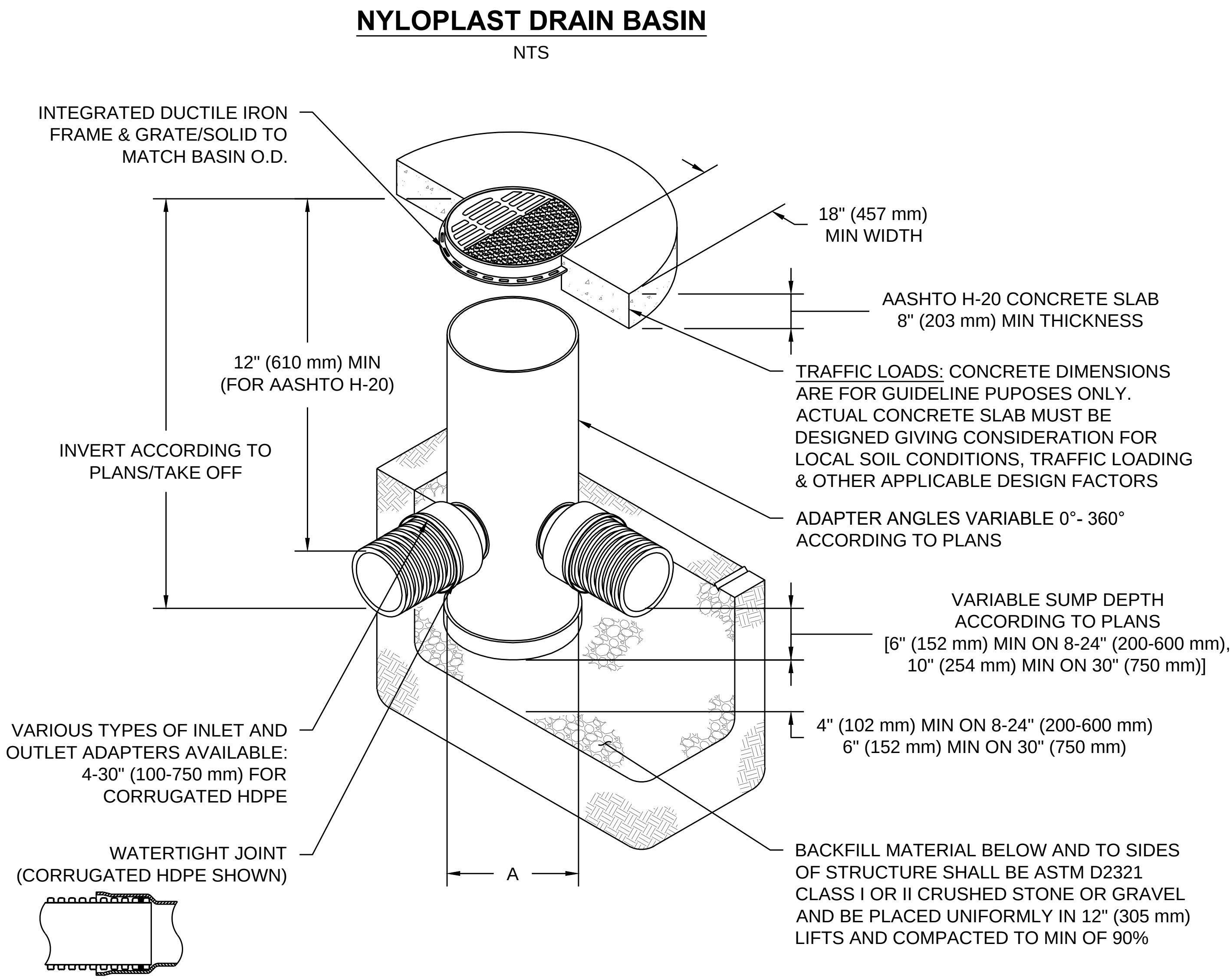
PROJECT #:

SHEET

5 OF 6

SYSTEM #2

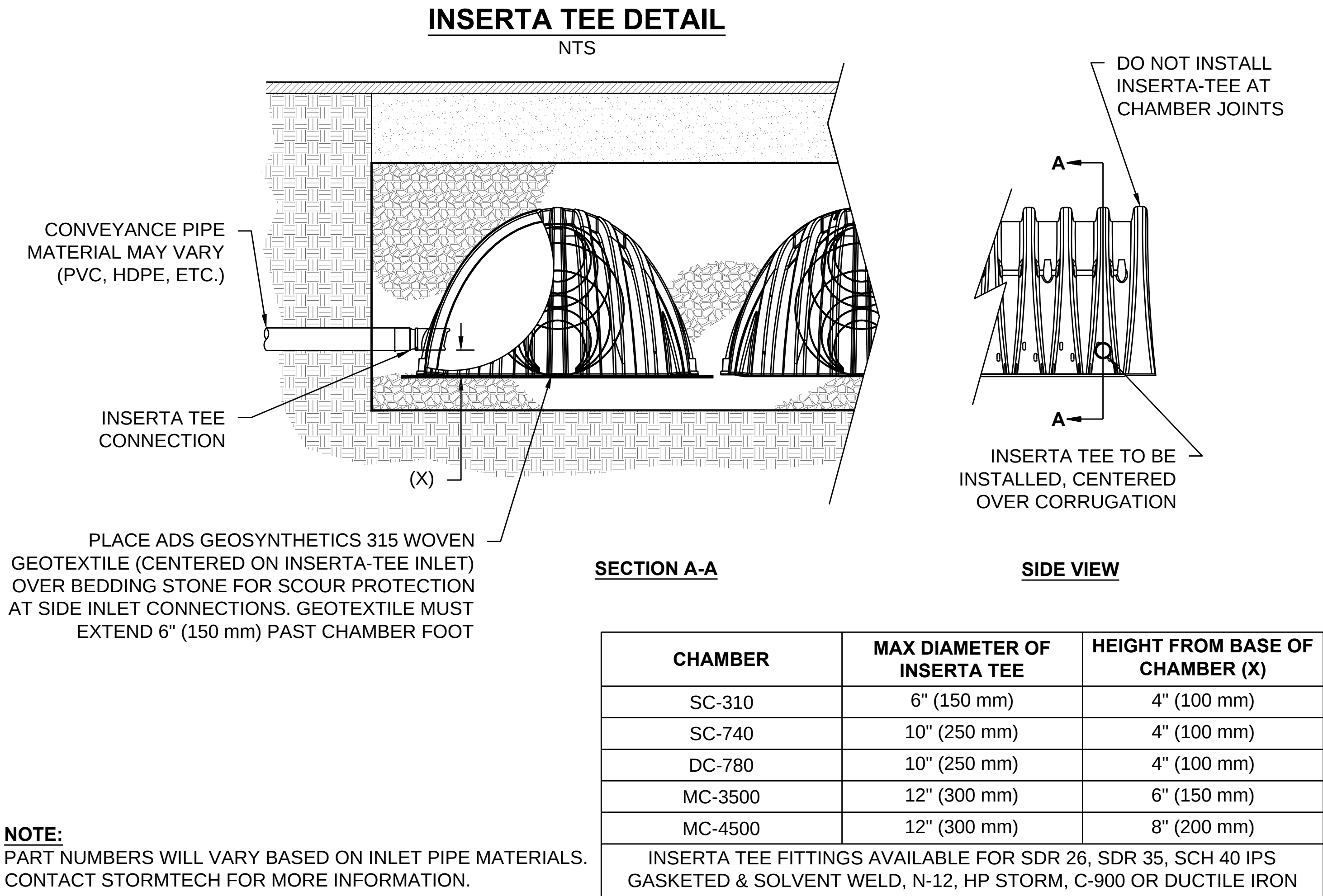
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NOTES

- 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
- 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
- DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
- DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
- FOR COMPLETE DESIGN AND PRODUCT INFORMATION: **WWW.NYLOPLAST-US.COM**
- TO ORDER CALL: **800-821-6710**

A	PART #	GRATE/SOLID COVER OPTIONS		
8" (200 mm)	2808AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
10" (250 mm)	2810AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
12" (300 mm)	2812AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
15" (375 mm)	2815AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
18" (450 mm)	2818AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
24" (600 mm)	2824AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
30" (750 mm)	2830AG	PEDESTRIAN AASHTO H-20	STANDARD AASHTO H-20	SOLID AASHTO H-20



MENARDS EXPANSION SYSTEM #2
GERMANTOWN, WI
DATE: DRAWN: JB
PROJECT #: CHECKED: N/A

REV	DRW	CHK	DESCRIPTION

3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

Nyloplast

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

ADS
ADVANCED DRAINAGE SYSTEMS, INC.

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EASEMENT AGREEMENT

Document Number

Document Title

DOC#: 856000

Recorded
MAY 16, 2000 AT 03:35PM

DOROTHY C. GONNERING
REGISTER OF DEEDS
WASHINGTON COUNTY, WI
Fee Amount: \$28.00



Recording Area

28-10

Name and Return Address

ALAN MARCOWITZ
700 N WATER ST #1500
MILWAUKEE WI 53202

Parcel Identification Number (PIN)

This information must be completed by submitter: document title, name & return address, and PIN (if required). Other information such as the granting clauses, legal description, etc. may be placed on this first page of the document or may be placed on additional pages of the document. Note: Use of this cover page adds one page to your document and \$2.00 to the recording fee. Wisconsin Statutes, 59.517. WRDA 2/96

EASEMENT AGREEMENT

THIS EASEMENT AGREEMENT (hereinafter referred to as the "Agreement"), made this 13 day of March, 2000, by and between L&D INVESTMENT CO., a Wisconsin partnership (hereinafter referred to as "L&D") and the ESTATE OF ALFRIEDA C. ROGERS, an estate pending in the Washington County, Wisconsin Circuit Court, as File No. 96-IN-153 (hereinafter referred to as "Rogers").

WITNESSETH:

WHEREAS, Rogers is the owner of certain real estate situated in the Village of Germantown, Washington County, Wisconsin, as more particularly described on EXHIBIT "A" attached hereto and incorporated herein by reference (the "Rogers Parcel"); and

WHEREAS, L&D is the owner of certain real estate located adjacent to the Rogers Parcel, which real estate is also situated in the Village of Germantown, Washington County, Wisconsin, as more particularly described on EXHIBIT "B" attached hereto and incorporated herein by reference (the "L&D Parcel"); and

WHEREAS, Rogers and L&D mutually desire to grant to the other certain easements for ingress and egress to and from their respective parcels and to set forth in detail their respective rights and obligations with respect to the use and maintenance of such easements, all in accordance with the terms and conditions hereinafter set forth;

NOW, THEREFORE, for and in consideration of the premises, the mutual covenants and promises contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. L&D hereby grants and conveys to Rogers a permanent, perpetual and non-exclusive easement for vehicular and pedestrian ingress and egress on, over and across that portion of the L&D Parcel equal to 6,464 square feet, as further described in EXHIBIT "C" attached hereto and made a part hereof.

2. Rogers hereby grants and conveys to L&D a permanent, perpetual and non-exclusive easement for vehicular and pedestrian ingress and egress on, over and across that portion of the Rogers Parcel equal to 6,145 square feet, as further described on EXHIBIT "C" attached hereto and made a part hereof.

3. The adjacent easements hereinabove granted together form a driveway approximately 45 feet in width, the location of which is set forth on said EXHIBIT "C."

4. It is understood and agreed by the parties hereto that each easement granted herein is a non-exclusive easement and that each grantor party reserves the right to use its easement area for ingress and egress to and from the balance of such grantor party's parcel.

5. L&D shall be responsible for the construction of the improvements within the area depicted in Exhibit "C." If Rogers conveys its parcel to anyone within six months of the date of this document, the party to whom the Rogers parcel is conveyed shall thereupon reimburse L&D in the amount of \$ 15,000. If there is no such conveyance, the obligation to reimburse L&D shall be null and void.

6. L&D shall also be responsible for the repair, replacement and maintenance, including snow removal of the area depicted in Exhibit "C." If and when the Rogers parcel is developed with one or more commercial uses, Rogers shall thereafter pay 50% of such costs each calendar quarter. Such amount shall be paid by Rogers to L&D, within 15 days after delivery of said bill. Fulfillment of the foregoing obligations by L&D shall not unreasonably interfere with

the rights of Rogers hereunder. Upon the failure of L&D to perform any of its obligations hereunder, and after reasonable notice to L&D, Rogers shall have the right to perform or cause to be performed the necessary repairs, replacements, and maintenance and to bill L&D for its allocable share of the full cost thereof. The party performing, or causing to be performed, the foregoing procedures shall substantiate to the other party, by means of invoices or other documentation, the costs incurred. Further, the party performing or causing to be performed such procedures shall indemnify and defend the other party from claims or suits arising from such activities. The responsibility of the party performing or causing such activities to be performed shall also be responsible for prompt and complete restoration.

7. Each party warrants and represents that it shall not construct any buildings or improvements over any portion of the easements so as not to interfere with the use of the same as herein provided and that the surface of the easements shall at all times be in such condition as to permit ingress and egress of trucks, trailers and automobiles. In connection therewith, each of the parties agrees to pay for any damages arising from its negligent use of the easements granted herein.

8. The rights and privileges granted herein shall accrue to the benefit of and be appurtenant to the parcel of each grantor and run with such party's parcel. The easements and rights granted herein shall constitute permanent, perpetual encumbrances on the parcel of each grantor. The rights, privileges and obligations hereunder shall inure to the benefit of and be binding upon the parties hereto, their successors and assigns.

Either party may enforce this instrument by appropriate action and, should it prevail in such litigation, that party shall be entitled to recover as part of its costs reasonable attorney's fees.

9. The address for notices to Rogers is c/o Harold L. Rogers, Personal Representative, 15 Windsor Court, Streamwood, Illinois 60107, and the address for notices to L&D is c/o Jack Stein, 5400 South 27th Street, Milwaukee, Wisconsin 53221. Either party may give written notice of change of address to the other party. All notices shall be sent by U.S. Mail to the address provided for and shall be deemed given when deposited in the mail.

10. None of the foregoing shall (i) unduly restrict or interfere with the rights of the respective parties hereto as granted herein, (ii) require the dedication of any further portion of the parcel of either party, or (iii) impose any cost or expense on either party except as provided hereinabove. In the event any action by the Village of Germantown, Washington County, or State of Wisconsin shall require widening, relocation or otherwise have an impact on the easements provided herein, the parties shall equitably share of the costs incurred, as a result thereof.

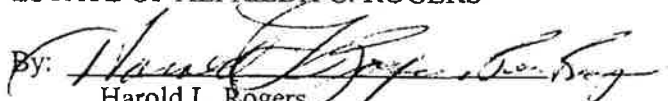
11. L&D and Rogers may terminate this instrument only by jointly executing and recording a mutual release in recordable form, whereupon all rights, duties, and liabilities hereby created shall terminate.

IN WITNESS WHEREOF, the parties hereto have executed this instrument as of the day and year first set forth above.

L&D INVESTMENT CO., a partnership

By: 
Jack Stein, Attorney in Fact

ESTATE OF ALFRIEDA C. ROGERS

By: 
Harold L. Rogers
Personal Representative

STATE OF WISCONSIN)
) ss
 COUNTY OF MILWAUKEE)

Personally came before me this 13 day of March, 2000, L&D Investment Co., by Jack Stein, Attorney-in-fact for its partners, to me known to be the person who executed the foregoing instrument and acknowledged that he executed the same as such.



Alan Marcumitz
 Notary Public, State of Wisconsin
 My commission (is) ~~(exp.)~~ permanent

STATE OF WISCONSIN)
) ss
 COUNTY OF WASHINGTON)

Personally came before me this 13th day of March, 2000, Harold L. Rogers, personal representative of the Estate of Alfrieda C. Rogers, to me known to be the person who executed the foregoing instrument and acknowledged that he executed the same as such.



Robert L. Wilkins
 Notary Public, State of Wisconsin
 My commission (is) ~~(exp.)~~ PERMANENT

This instrument was drafted by and following recording should be returned to Attorney Sherwin C. Peltin, Weiss Berzowski Brady & Donahue LLP, 700 North Water Street, Suite 1500, Milwaukee, WI 53202.

DOC#: 856000

National Survey & Engineering

16745 West Bluemound Road, Suite 200
Brookfield, Wisconsin 53005-5938
Phone 414-781-1000
Fax 414-781-8466
Website www.nsae.com

EXHIBIT A

THAT PART OF THE SOUTHWEST 1/4 OF SECTION 33, TOWN 9 NORTH, RANGE 22 EAST,
TOWN OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN, BOUNDED AND
DESCRIBED AS FOLLOWS:

COMMENCING AT THE WEST 1/4 CORNER, SECTION 33, TOWN 9 NORTH, RANGE 22 EAST;
THENCE NORTH 89°55' EAST ON THE WEST 1/4 LINE OF SAID SECTION 1182.00 FEET TO
THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE CONTINUING NORTH 89°55'
EAST 204.00 FEET; THENCE SOUTH 10°28' WEST 2109.90 FEET; THENCE NORTH 48°28'
WEST ON CENTER LINE OF STATE TRUNK HIGHWAY 175, 200.85 FEET; THENCE NORTH
09°38' EAST 1969.08 FEET TO THE POINT OF BEGINNING.

PREPARED BY: ERIC R STURM
DATE: JANUARY 14, 2000
SURVEY NO.: 5152853

W:\5152853\EXHIBIT-A

S I T E B A L A N C E



National Survey & Engineering

16745 West Bluemound Road, Suite 200
Brookfield, Wisconsin 53005-5938
Phone 414-781-1000
Fax 414-781-8466
Website www.nsae.com

EXHIBIT B

THAT PART OF THE SOUTHWEST 1/4 OF SECTION 33, TOWN 9 NORTH, RANGE 22 EAST, TOWN OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN, BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT IN THE CENTER LINE OF THE MENOMONEE RIVER WHERE THE EAST AND WEST QUARTER LINE OF SECTION 33 CROSSES THE SAME (BEING 25.00 CHAINS EAST OF THE WEST QUARTER STONE OF SAID SECTION); THENCE WEST ALONG SAID QUARTER SECTION LINE, 4.00 CHAINS (BEING THE NORTHEAST CORNER OF FORMER PETER RUDOLPH LANDS); THENCE SOUTH 10-3/4 DEGREES WEST (ALONG SAID PETER RUDOLPH EAST LINE) TO A STAKE SET 13.50 CHAINS EAST OF THE SOUTHWEST CORNER OF SAID SECTION 33 AND ON THE SECTIONS AND COUNTY LINE; THENCE EAST ALONG SAID SECTION AND COUNTY LINE 4.50 CHAINS; THENCE NORTH 14° EAST 22.45 CHAINS TO A STAKE ON THE SOUTHWEST SIDE OF THE MENOMONEE RIVER; THENCE NORTH AND EAST TO THE CENTER OF SAID RIVER, 25 LINKS; THENCE NORTHERLY ALONG THE CENTER OF SAID RIVER TO THE PLACE OF BEGINNING.

EXCEPTING THEREFROM THAT PORTION THEREOF HERETOFORE CONVEYED TO KENNETH DUEHRING AND ELIZABETH DUEHRING, HIS WIFE, AS DESCRIBED BY DEED RECORDED IN THE WASHINGTON COUNTY REGISTRY IN VOLUME 341 OF RECORDS ON PAGE 435, AS DOCUMENT NO. 252890.

PREPARED BY: ERIC R STURM
DATE: JANUARY 14, 2000
SURVEY NO.: 5152853

W:\5152853\EXHIBIT-B

S I T E B A L A N C E



National Survey & Engineering

16745 West Bluemound Road, Suite 200

Brookfield, Wisconsin 53005-5938

Phone 262-781-1000

Fax 262-781-8466

Website www.nsae.com

*Exhibit C/1***INGRESS AND EGRESS EASEMENT
FOR THE BENEFIT OF ROGERS**

SITUATED ON WEST APPLETON AVENUE, VILLAGE OF GERMANTOWN, WISCONSIN

PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 33, TOWN 9 NORTH, RANGE 20 EAST, IN THE VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN. COMMENCING AT THE SOUTHEAST CORNER OF THE SOUTHWEST 1/4 OF SAID SECTION 33; THENCE SOUTH 89°20'48" WEST ALONG THE SOUTH LINE OF SAID SOUTHWEST 1/4 SECTION 1002.80 FEET TO A POINT ON THE CENTERLINE OF WEST APPLETON AVENUE; THENCE NORTH 49°53'22" WEST ALONG THE CENTERLINE OF WEST APPLETON AVENUE 868.30 FEET TO A POINT; THENCE NORTH 09°33'19" EAST 69.68 FEET TO A POINT ON THE NORTH LINE OF WEST APPLETON AVENUE AND THE POINT OF BEGINNING OF THE LANDS TO BE DESCRIBED; THENCE NORTH 09°33'19" EAST 182.05 FEET TO A POINT; THENCE SOUTH 77°09'43" EAST 45.59 FEET TO A POINT; THENCE SOUTH 13°00'57" WEST 121.40 FEET TO A POINT; THENCE SOUTH 39°54'39" WEST 44.68 FEET TO A POINT; THENCE SOUTHWESTERLY 29.45 FEET ALONG THE ARC OF A CURVE WHOSE CENTER LIES TO THE SOUTHEAST, WHOSE RADIUS IS 30.00 FEET AND WHOSE CHORD BEARS SOUTH 11°47'20" WEST 28.28 FEET TO A POINT ON THE NORTH RIGHT OF WAY LINE OF WEST APPLETON AVENUE; THENCE NORTH 49°53'22" WEST 16.84 FEET TO THE POINT OF BEGINNING.

SAID LAND CONTAINS 6,464 SQUARE FEET.

**INGRESS AND EGRESS EASEMENT
FOR THE BENEFIT OF L & D INVESTMENT COMPANY (STEINS)**

SITUATED ON WEST APPLETON AVENUE, VILLAGE OF GERMANTOWN, WISCONSIN

PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 33, TOWN 9 NORTH, RANGE 20 EAST, IN THE VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN. COMMENCING AT THE SOUTHEAST CORNER OF THE SOUTHWEST 1/4 OF SAID SECTION 33; THENCE SOUTH 89°20'48" WEST ALONG THE SOUTH LINE OF SAID SOUTHWEST 1/4 SECTION 1002.80 FEET TO A POINT ON THE CENTERLINE OF WEST APPLETON AVENUE; THENCE NORTH 49°53'22" WEST ALONG THE CENTERLINE OF WEST APPLETON AVENUE 868.30 FEET TO A POINT; THENCE NORTH 09°33'19" EAST 38.32 FEET TO THE NORTH LINE OF WEST APPLETON AVENUE AND THE POINT OF BEGINNING OF SAID LANDS TO BE DESCRIBED; THENCE NORTH 49°53'22" WEST ALONG SAID NORTH LINE 199.85 FEET TO A POINT; THENCE SOUTH 64°31'55" EAST 87.03 FEET TO A POINT; THENCE SOUTH 49°53'24" EAST 25.21 FEET TO A POINT; THENCE NORTHEASTERLY 47.12 FEET ALONG THE ARC OF A CURVE WHOSE CENTER LIES TO THE NORTHEAST, WHOSE RADIUS IS 30.00 FEET AND WHOSE CHORD BEARS NORTH 85°06'36" EAST 42.43 FEET TO A POINT; THENCE NORTH 40°06'36" EAST 29.92 FEET TO A POINT; THENCE NORTH 12°48'58" EAST 112.55 FEET TO A POINT; THENCE SOUTH 77°09'43" EAST 4.01 FEET TO A POINT; THENCE SOUTH 09°33'19" WEST 213.40 FEET TO THE POINT OF BEGINNING.

SAID LAND CONTAINS 6,145 SQUARE FEET

PREPARED BY: ERIC R. STURM
DATE: MARCH 8, 2000
SURVEY NO.: 152853

SITE BALANCE

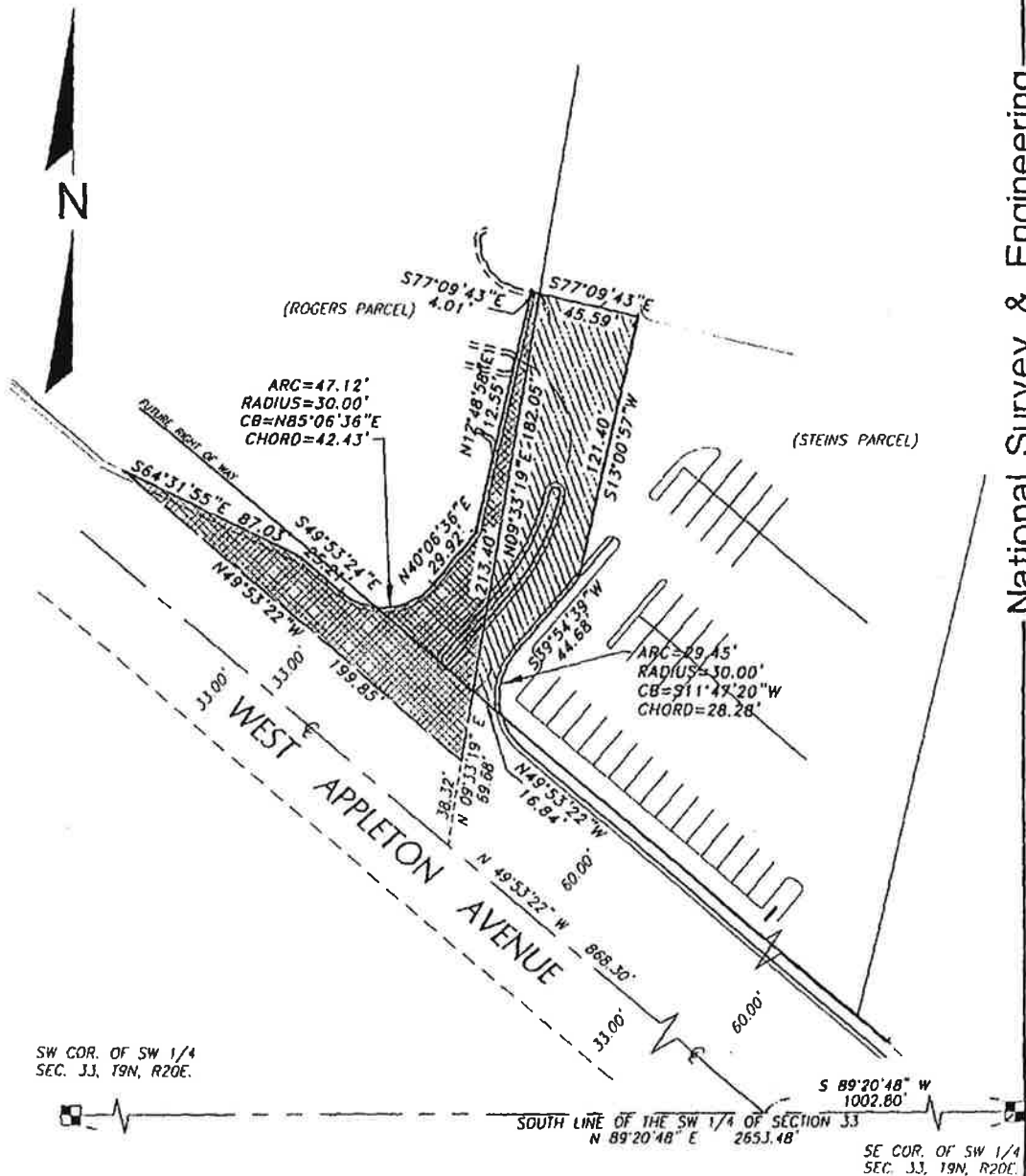


EASEMENT EXHIBIT "C" / 2

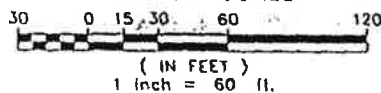
SITUATED ON WEST APPLETON AVENUE, VILLAGE OF GERMANTOWN, WISCONSIN.

MARCH 8, 2000

NSE NO. 5152853

SW COR. OF SW 1/4
SEC. 33, 19N, R20E.SE COR. OF SW 1/4
SEC. 33, 19N, R20E.

GRAPHIC SCALE



INDICATES INGRESS AND EGRESS EASEMENT
FOR THE BENEFIT OF L & D INVESTMENT CO.
(STEINS) AREA = 1,817 SQ. FT.

INDICATES INGRESS AND EGRESS EASEMENT
FOR THE BENEFIT OF ROGERS
AREA = 5,770 SQ. FT.

National Survey & Engineering

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Brookfield, WI 53005-5938
www.nsee.com



NSE NO. 5152853 \ SPED0460 - ERS

National Survey & Engineering

Natural silt, sandy silt, fine sand, and sandy/lean clay soils were encountered below the fill, extending to the boring termination depths. The native granular soils were loose to dense in relative density with N-values ranging from about 5 to 31 bpf. The natural cohesive soils were very stiff in consistency with estimated unconfined compressive strengths ranging from about 2.5 to 3 tsf.

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 was encountered during auger advancement in all borings, at depths ranging from 11 to 13 feet (EL. 87.8 to EL. 84.3) below the ground surface. Upon completion and removal of the augers, groundwater was present at boring B-3 above the caved soils at a depth of about 15 feet (EL. 85.8).

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 better 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 development grades estimated, conventional spread footings founded on new structural fill or suitable bearing natural materials can be used to support the proposed structures. However, it should be noted that the soil conditions beyond the existing retaining wall are unknown and could vary dramatically from the conditions encountered in the borings. Additional test pits or borings must be performed in the area north of the retaining wall to evaluate the subsurface conditions in these areas to help determine the necessary measures to properly develop this area to support the proposed construction. However, major difficulty with preparation of the subgrade is anticipated in low lying wetland areas. Thick topsoil, subgrade instability, and comprehensive groundwater control measures will likely be encountered.

A discussion of the preliminary foundation, floor slab, pavement, and stormwater management area design parameters are included in the following 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. All topsoil, vegetation, trees, roots and other organic matter must be stripped from the areas of proposed fill and other structures.

Topsoil depths may increase substantially within and encroaching upon wetland areas. It is generally recommended that development within wetland areas not be performed due to the typical presence of highly organic soils and shallow groundwater. If such development is contemplated, special permits will likely be required from the Army Corps of Engineers, the WDNR, or other government agencies.

Comprehensive dewatering with the use of well points or a series of sumps, along with high capacity pumps will likely be necessary in the wetland area in order to properly prepare the subgrade for structural fill placement. Care must be taken during any dewatering to prevent possible settlement of adjacent structures due to rapid and/or severe drawdown related effects. Major difficulty is anticipated in this area, in creating a stable subgrade necessary for proper structural fill placement. A specialty dewatering firm should be consulted to provide the appropriate measures necessary for dewatering.

Where the new construction extends beyond the existing retaining wall, the retaining wall, along with any loose, soft, wet, or otherwise unsuitable backfill must also be removed to expose suitable natural soils. The existing slope must then be properly benched to create a suitable bond between the existing fill soils and the new structural fill. Where undermining of the existing pavement, utilities, and building is a concern, the existing retaining wall could be removed to a minimum depth of 2 feet below planned finished grade, to help retain the existing structures. The removal to a minimum depth of 2 feet below subgrade is recommended to help provide a more uniform subgrade condition. It should be noted however, that where the retaining wall is left in-place, it may create obstructions during utility installation.

After stripping the topsoil and prior to the placement of new fill which may be placed to raise grades, the subgrade must be thoroughly proofrolled to detect unstable, yielding soils, which must be removed or improved by appropriate preparation and compaction techniques. Proofrolling should consist of overlapping passes in a perpendicular grid pattern of a fully-loaded tandem-axle dump truck, or other equipment of similar size and weight. However, care must be used on this site to avoid disturbing the near surface fine-grained soils during the proofrolling, especially during periods of precipitation or spring thaw. Proofrolling with rubber tired equipment may be preferable, but should be performed in consultation with the geotechnical engineer at the time of construction. **Major subgrade instability is anticipated in the existing wetlands areas to the north of the existing retaining wall and may be encountered in other areas of the site as well, at least on an isolated basis.** When encountered, unstable soils must be improved in place (if possible) or removed and replaced. Scarification, drying and recompaction of wet soils or removal and replacement with suitable fill, are two methods, which can be considered, but this must be determined by the soils engineer at the time of construction. Low areas may then be raised to the planned grades with suitable properly compacted fill. It must be recognized that the silt and lean clay soils present on the site are highly moisture sensitive, and substantial difficulty with subgrade preparation can be expected if the soils are wet during construction. In the wetland area, over-excavation

along with the placement of a geogrid and coarse aggregate crushed stone (such as breaker run materials) will likely be necessary.

Cohesive soils are considered highly moisture sensitive and subject to substantial softening. Therefore, equipment and worker traffic must be kept to a minimum on subgrade bearing surfaces, especially during periods of precipitation or following spring thaw. Some difficulty with subgrade preparation can be expected in wet or cold weather conditions. Removal of unsuitable portions of the near surface soils and replacement with structural fill may be required, on at least an isolated basis, especially if earthwork is not carried out during periods of relatively warm, dry weather, which provide more favorable conditions for drying of these soils. Any soft 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 and fly ash modification are two additional remedial measures which can be considered. 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. Substantial construction delays and difficulty with subgrade stabilization should be expected during periods of wet and/or cool weather. Consideration should be given to installing construction roads to reduce disturbance to the 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, floor slab, and pavement subgrade soils is reduced.

Where the removal of unsuitable bearing material is performed beneath proposed footings, the excavation must extend laterally beyond the perimeter of the foundation for a distance at least equal to the thickness of the fill below the footing bottom. This general guideline also applies to instances where a raised structural fill pad is constructed to achieve a bearing elevation greater than existing grades. The influence zone of footing stresses can be represented as an imaginary 45° line extending downward and outward from the footing bottom. All fill placed within this zone after cutting to firm soil must be properly engineered, from the bottom of the cut, up to the planned subgrade elevation.

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. 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 granular soil, such as

those materials meeting the gradations outlined in Section 209 or 305 of the State of Wisconsin Standard Specification for Highway and Structure Construction. If fine-grained soils, such as those encountered on site, 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 difficult to compact when placed at moisture contents beyond a few percent of their optimum moisture content. In addition, the near surface soils across the site are considered moisture sensitive; therefore, some difficulty with subgrade preparation should be expected, especially if they become wet during construction. Where fill depths are less than 10 feet, 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-698. Where fill depths are greater than 10 feet, fill must be compacted to a minimum of 98 percent of the maximum dry density as determined by the Standard Proctor (ASTM D-698) to help reduce the amount of settlement resulting from the self-weight of the fill materials. Silt, clay, and wet granular soils are not suitable for reuse as compacted fill in trenches, or adjacent to retaining walls.

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 sheepfoot 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 and retaining 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 pavements. 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.

Preliminary Foundation Recommendations

The following is a general overview of the subsurface conditions for the site, as it relates to foundation evaluation, and can be used in preliminary site planning.

The foundation for the expanded accessory building is estimated to be placed at frost depth within new structural fill or down at the existing grade on the northwest and northeast sides where the retaining wall is present. However, no planned foundation bearing grades have been provided. New retaining walls are anticipated to the east as well, where the pavement will be

extended northeast. The proposed accessory building addition and retaining walls may be supported by conventional spread foundation systems, bearing on suitable naturally occurring soils, or upon properly prepared new structural fill. Spread and continuous wall footings bearing upon suitable natural soils similar to those encountered within the soil borings, or upon compacted structural fill, may be designed for a net allowable soil bearing pressure of 2,000 to 3,000 psf, depending upon bearing grade. However, due to the possibility of varying conditions between the borings and the locations of new foundations, the actual bearing capacity must be determined at each foundation member subgrade during construction by a representative of the geotechnical engineer. At least some isolated undercutting of lower strength natural soils will likely be necessary to utilize the allowable bearing capacity. Additional exploration with test pits or borings must be performed beyond the existing retaining wall to the north to evaluate the soils in this area. The subsurface conditions in this area may vary significantly from those encountered in the borings performed in this preliminary exploration. Upon completion of this additional exploration, and provision of structural plans, a redirection or re-evaluation of the recommendations herein may be necessary.

Very moist to wet lean clay or silt soils may be encountered at the footing bearing elevations, especially within the natural soils in the wetland areas. These soils are susceptible to a substantial loss in strength when the confining effect of the overburden is removed. A significantly softened subgrade may develop. To stabilize and protect these soils during construction, where the lean clay and silt soils are in a very moist condition, undercutting on the order of about 12 to 18 inches and the placement a crushed stone working mat (along with a geogrid where necessary) can be performed to establish a stable bearing grade. The need for over-excavation and placement of a protective mat of clean crushed stone should be determined by a representative of the geotechnical engineer at the time of construction.

Where new foundations are planned adjacent to existing foundations, the effects of overlapping soil stresses must be considered. The net allowable soil bearing pressure of must not be exceeded. It should be noted that backfill materials may be encountered within existing utility trenches and adjacent to existing foundation walls. Over-excavation 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.

Excavations must be performed with caution and utilize methods which will prevent undermining of existing foundations and destabilizing the existing structure. Any new foundations should be stepped to match the bearing elevation of existing foundations to avoid lateral loading of existing walls, and bear on suitable natural soils or structural fill. The use of properly designed shoring and bracing or sheet piling, or underpinning of the existing foundations, must be used as necessary to properly protect buildings, pavement, sidewalks, utilities, and other structures, especially if excavation is performed within the influence zone of existing foundations. This must be performed by an experienced specialty contractor. Additionally, if sheet piling or other bracing is planned to be installed using driving or vibratory techniques, extreme care must be used during installation to avoid damaging existing buildings, utilities, and other structures.

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 two feet removed below the foundation, on either side of the planned footing. The over-excavated area must be backfilled with structural compacted fill.

All perimeter footings must be placed at a depth of at least four (4) feet (or deeper if required by local code or in accordance with customary practice) below the finished exterior grade for frost protection. All footings must be protected from the effects of frost if construction is carried out during winter months. Interior footings not subject to frost action may be placed at a shallower depth of at least eighteen (18) inches below the floor slab, provided they bear on suitable natural soils or engineered fills.

It is recommended that the footings supporting individual columns have a minimum dimension of 30 inches, and continuous footings have a minimum width of 24 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.

General Retaining Wall Recommendations

Walls with unbalanced backfill levels on opposite sides such as retaining walls, must be designed to resist lateral earth pressures. Earth pressures will be influenced by the structural design of the walls, conditions of wall restraint, methods of construction and/or compaction, and the strength of the materials being restrained. Lateral earth pressure is developed from the soils present within a wedge-shaped geometry formed by the vertical below-grade wall and an imaginary line extending up and away from the bottom of the wall at an approximate 45° angle. The lateral earth pressures are determined by multiplying the vertical applied pressure by the appropriate lateral earth pressure coefficient K. Walls that are permitted to rotate and deflect at the top can be designed for the active lateral earth pressure condition using K_a . Passive pressure can be determined using K_p , with a factor of safety of 2.0. Recommended parameters for use in the retaining wall design where imported select materials are used as backfill are shown in the following table.

MATERIAL TYPE	DRAINED FRICTION ANGLE (ϕ')	TOTAL UNIT WEIGHT (PCF)
1. Well-Graded, Well-Draining Granular Soils	35°	135
2. Clean Crushed Stone (such as No.1 or No.2 Crushed Limestone)	32°	115
PARAMETERS SPECIFIC TO SOIL TYPE	1	2
Coefficient of Active Pressure (K_a)	0.27	0.31
Coefficient of Passive Pressure (K_p)	3.69	3.25
Coefficient of At-Rest Pressure (K_0)	0.43	0.47

Notes: ¹ Ultimate passive pressure typically requires large strains to be fully mobilized, therefore, PSI recommends using 50% or less of the

ultimate passive pressure to limit the strain on the structure.

² Earth pressure coefficients valid for level backfill conditions with no surcharge.

If surface loads are placed near the walls, such as foundation or traffic loads, the walls should be designed to resist an additional uniform lateral load of one-half of the vertical surface loads. An “equivalent fluid” pressure can be obtained from the above chart by multiplying the appropriate K-factor times the total unit weight of the soil. This applies to unsaturated conditions only. If a saturated “equivalent fluid” pressure is needed, the effective unit weight (total unit weight minus unit weight of water) should be multiplied times the appropriate K-factor and the unit weight of water added to that resultant. However, it is recommended that the retaining walls be designed with drainage where possible to relieve the hydrostatic pressure.

Passive resistance should be neglected to a depth of four feet below exterior grade due to seasonal softening from freeze-thaw. Where materials other than those indicated above are used for backfilling, revised coefficients may be necessary. Where several soil types are present within a lateral distance from the wall equal to the height of the wall (based on the 45° angle extending up and out from the bottom of the wall), a weighted average of these various materials must be calculated to determine the lateral pressure on the walls.

Wall structural backfill is recommended to consist of well-draining granular soils with a free-draining layer directly adjacent to the wall, as described below. The backfill materials must be placed in layers that are less than eight inches (measured loose) and at a moisture content within three percent of the optimum moisture content determined by the Standard Proctor compaction test (ASTM D698). The backfill material should be compacted to a minimum of 95 percent of the maximum dry density as determined by the Standard Proctor test.

In order to intercept groundwater and limit lateral earth pressures, free draining (less than 5 percent fines) gravel or crushed stone backfill is recommended to be placed as a drainage course directly adjacent to the walls for a minimum width of 12 inches. The gravel or crushed stone backfill should have less than five percent passing the No. 200 sieve and a maximum particle size less than three inches. If a material with a fines content greater than 5 percent is used within this 12-inch width adjacent to the wall, water-related and structural problems may develop, and the walls will have to be designed for an undrained condition which will result in higher lateral pressures on the wall due to the added hydrostatic pressure. A one-foot-thick layer of relatively impervious clay is recommended to be placed above the backfill that will be exposed to precipitation to minimize surface water infiltration. In addition, the ground surface should be sloped to drain surface water away from the structures.

Drain tiles should be placed behind the walls near the bottom, but above the static groundwater or perched water level. The drain tile should have a minimum diameter of four inches and should be wrapped with an appropriate filter fabric. Drainage pipes should be surrounded by clean gravel and should be discharged to an appropriate area of the site. A procedure should be used to discharge water from the collecting point, which would not allow reverse flow into the system.

The wall design should include the influence of any traffic surcharge at the top of the wall due

to the adjacent parking/drive areas. Heavy equipment should not operate within a distance closer than the exposed height of the wall to prevent lateral pressures more than those provided.

CONSTRUCTION CONSIDERATIONS

Groundwater Control

Groundwater was encountered during auger advancement in all borings, at depths ranging from 11 to 13 feet (EL. 87.8 to EL. 84.3) below the ground surface. Upon completion and removal of the augers, groundwater was present at boring B-3 above the caved soils at a depth of about 15 feet (EL. 85.8). On the basis of the observations in the borings and the standing water within the wetland area to the north of the existing retaining wall encountered during the exploration, and the estimated footing bearing elevations, major difficulty with groundwater is expected during excavation work on this site. If excavations extend only a few inches or so below the groundwater, filtered sump pumps or other conventional means may suffice to control the groundwater. However, for deeper excavations, or for substantial perched zones, prolonged dewatering with a series of sumps or well points and high capacity sump pumps, or other more comprehensive means may be necessary to facilitate construction. Care must be taken during any dewatering to prevent possible settlement of adjacent structures due to rapid and/or severe drawdown related effects. A specialty dewatering firm should be consulted to provide the appropriate measures necessary for dewatering.

Since the foundation materials are subject to softening when exposed to free moisture, every effort should be made to keep excavations dry. 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.

Seasonal variations in precipitation, site drainage conditions, and other factors can cause groundwater to be present in the upper soils at other times, including during construction.

Excavations and Site Drainage

Sloping, shoring or bracing of the excavation sidewalls will be necessary. Excavating may be difficult due to the instability of vertical slopes, and will therefore require a flattening of trench sides, or some other means of protection, to facilitate construction and to protect life and property. Substantial 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 may occur within granular or soft clay 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.

All excavations must be performed with caution and utilize methods which will prevent undermining or destabilization of existing slopes, buildings, utilities, pavements, sidewalks or other structures. This is especially critical in areas where the existing retaining wall may be removed. The use of a properly designed shoring and bracing, sheet piling, or underpinning system must be utilized as necessary to adequately protect buildings, 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.

Where undermining of the existing pavement, utilities, and building is a concern, the existing retaining wall could be removed to a minimum depth of 2 feet below planned finished grade, to help retain the existing structures. The removal to a minimum depth of 2 feet below subgrade is recommended to help provide a more uniform subgrade condition. It should be noted however, that where the retaining walls are left in-place, they may create obstructions during utility installation.

It is mandated that 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; otherwise, workers could be in danger and the owner(s) and the contractor(s) could be liable for substantial penalties. 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.

Seismic Design Considerations

The on-site natural soils are considered to meet the criteria for Site Class D in accordance with Table 1613.5.2 of the International Building Code-2015.

STORMWATER MANAGEMENT AREA CONSIDERATIONS

As requested by the client, the subgrade soils encountered at the boring locations have been visually classified in general accordance with the USDA textural soil classification system. They consisted of sandy clay loam (scl), silt loam (sil), loamy sand (ls), silty clay (sic), and silty clay loam (sicl). Groundwater was encountered during auger advancement in all borings, at depths ranging from 11 to 13 feet (EL. 87.8 to EL. 84.3) below the ground surface. Upon

completion and removal of the augers, groundwater was present at boring B-3 above the caved soils at a depth of about 15 feet (EL. 85.8).

With regard to the above soil and groundwater conditions encountered at the borings, NR 151.124(4)(c)1 and 2 – *Infiltration rate exemptions* indicates that infiltration practices located in an area 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; or an area where the least permeable soil horizon to 5 feet below the proposed bottom of the infiltration system using the USDA method of soils analysis consists of sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay or clay may be credited toward meeting the requirements, but the decision to infiltrate under these conditions is optional. In addition, NR 151.124(4)(b)1 – *Separation distances* indicates that infiltration practices shall be located so that the characteristics of the soil and the separation distance between the bottom of the infiltration system and the elevation of seasonal high groundwater or the top of bedrock are in accordance with the following Table (reproduced from NR 151.124):

Table 3. Separation Distances and Soil Characteristics		
Source Area	Separation Distance	Soil Characteristics
Industrial, Commercial, Institutional Parking Lots and Roads	5 feet or more	Filtering Layer*
Residential Arterial Roads	5 feet or more	Filtering Layer*
Roofs Draining to Surface Infiltration Practices	1 foot or more	Native or Engineered Soil with Particles Finer than Coarse Sand
Roofs Draining to Surface Infiltration Practices	Not Applicable	
All Other Impervious Source Areas	3 feet or more	Filtering Layer*

*Defined in NR 151.002(14r) as a “soil that has at least a 3-foot deep layer with at least 20 percent fines; or at least a 5-foot deep layer with at least 10 percent fines; or an engineered soil with an equivalent level of protection as determined by the regulatory authority for the site.”

The information shown above is a selected excerpt from NR151 that is intended only as general guidance for considering stormwater management in conjunction with the encountered subsurface conditions at the borings. Basin design must be performed by a qualified and experienced firm. In addition, the entirety of Chapter NR151 of the Wisconsin Administrative Code, the Site Evaluation for Stormwater Infiltration (1002) document, and other applicable references; along with appropriate state, local or other municipal requirements must be consulted as part of site-specific stormwater design.

Stormwater management basins are not recommended to be placed in close proximity to basements or other below grade structures. Proper and careful consideration of soils and

subsurface conditions must be given during site and design planning, and extreme care must be exercised during construction. Lateral migration of water may result in substantially increased sump pump activity and can quickly overcome the ability of such pumps to maintain a desirable water level, resulting in significant flooding. The potential for such conditions to occur can greatly increase when basement floors are below the elevation of basin bottoms and/or when basins are placed in close proximity to structures (strongly not recommended). In addition, the presence of granular or other generally permeable soils, which is typically necessary in the areas of structures for utility backfill, alongside basement walls, or within other development excavations/trenches can act as extensive migration channels to rapidly carry large volumes of water from basins and into nearby basements. Building codes or municipal regulations may require that basement floor elevations be a specified distance above the water level of nearby basins or other stormwater features. It is therefore recommended that the design engineer (or other appropriate representative) review applicable municipal or other regulatory requirements and verify the design normal and design high water elevations of stormwater basins/features with respect to planned basement slab elevations.

PRELIMINARY PAVEMENT DESIGN RECOMMENDATIONS

The new pavements for this project will include yard areas and drive lanes where truck traffic will be present. Additionally, it is estimated that substantial fill placement will be required along the northwest and northeast portions of the project. Therefore, the existing surficial soils encountered at the borings may not be indicative of the actual pavement subgrade soils.

However, the near surface subgrade soils encountered within the borings predominantly consisted of lean or sandy clay. It is therefore anticipated that at least some of the pavement subgrade soils will consist of these clay soils. The clayey subgrade soils have been assigned an estimated visual classification of A-6 by the AASHTO classification method. They are generally rated as poor for pavement subgrade support due to their moderate to high frost susceptibility, poor drainage characteristics, and moderate to high susceptibility to strength loss when exposed to free water. Provided that the subgrade soils are prepared as outlined in the Site Preparation and Grading section of this report, the in-place subgrade soils and any new structural fill can be used for standard flexible or rigid pavement construction.

Analysis of the visual soil classifications 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 estimated 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

AASHTO Soil Classification	A-6
Design Frost Index	F-3
Design Group Index	14
Soil Support Value	4.0
Estimated Subgrade Modulus (k)	125 pci

These values are representative of the cohesive soils, which are the poorer soils present across this site. Some variations may be encountered and should be expected due to the widely spaced borings. In order to use the above values, all new fill used to raise low areas or replace unsuitable material must have pavement support characteristics that are equal to or better than the existing soils. The final design should be performed by a qualified engineer based on the intended pavement use, anticipated loading and subgrade conditions, and desired service life.

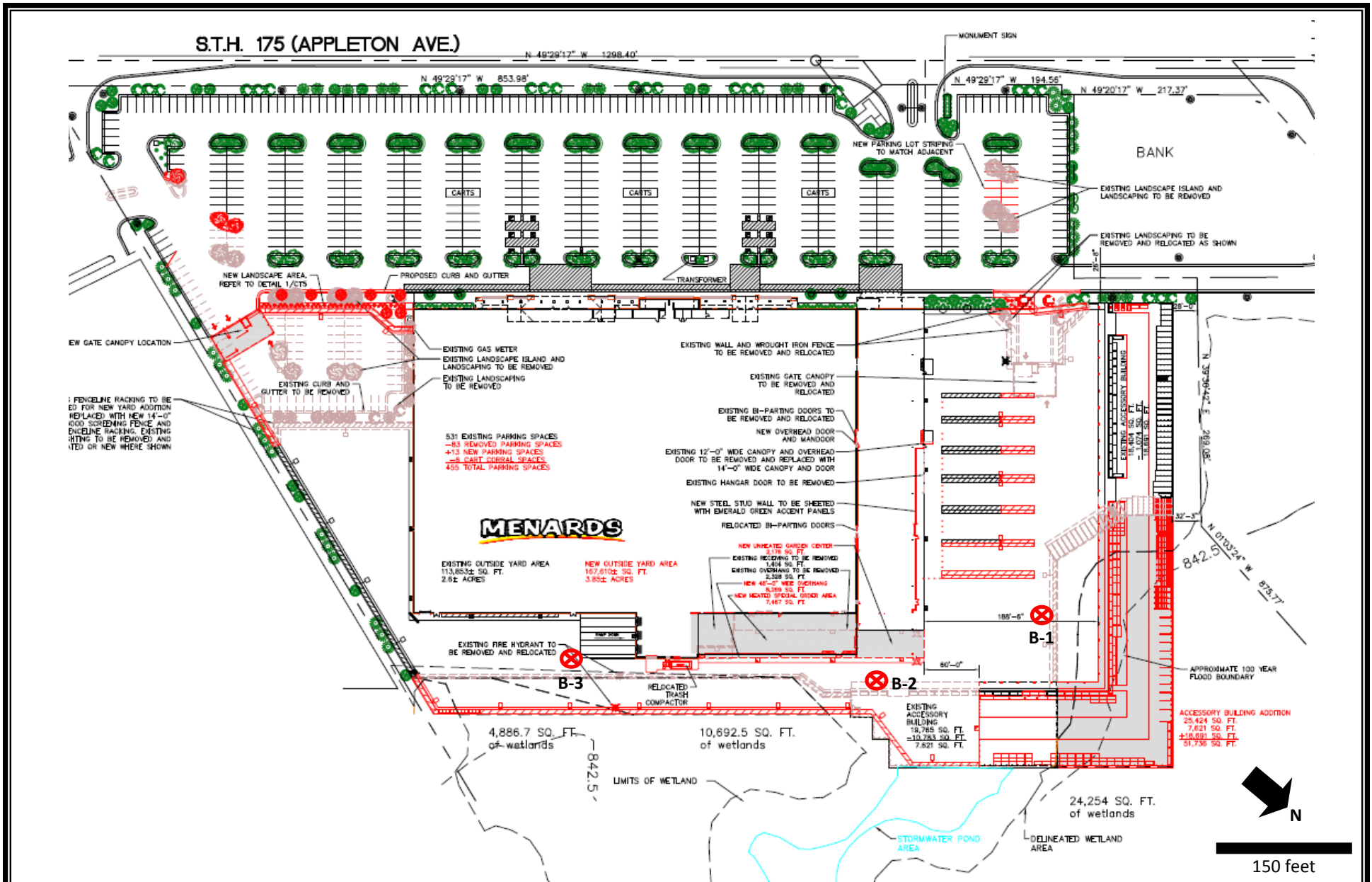
The subject site is located in an area that experiences annual freezing cycles and the subgrade soils encountered have been classified as highly susceptible to frost action when free water is present. In order to reduce the potential for frost action, it will be necessary to control surface runoff and 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 migrating into and obstruct the pipe. It is also recommended that roof drains be connected to the stormwater collection system to minimize the potential for this water to enter the base and subgrade.

GENERAL COMMENTS

This geotechnical exploration and foundation evaluation has been prepared to aid in the evaluation of the foundation conditions on this site. The recommendations presented herein are based on the available soil information and the design information provided. Any changes in the design information or building locations should be brought to the attention of the soils engineer to determine if modifications in the recommendations are required. The final design plans and specifications should also be reviewed by the soils 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 soils engineer, to test and evaluate the bearing capacities, and the selection, placement and compaction of controlled fills.



DATE STARTED: 1/9/20 DATE COMPLETED: 1/9/20 COMPLETION DEPTH: 20.0 ft BENCHMARK: N/A ELEVATION: 95.3 ft LATITUDE: LONGITUDE: STATION: N/A OFFSET: N/A REMARKS:		DRILL COMPANY: PSI, Inc. DRILLER: TE LOGGED BY: NC DRILL RIG: Truck-Mounted - Rig #431 DRILLING METHOD: Hollow Stem Auger SAMPLING METHOD: 2-in SS HAMMER TYPE: Automatic EFFICIENCY: N/A REVIEWED BY:		BORING B-01 Water ☐ While Drilling ☒ Upon Completion ☐ Delay 11 feet Not Obsvd N/A BORING LOCATION:	
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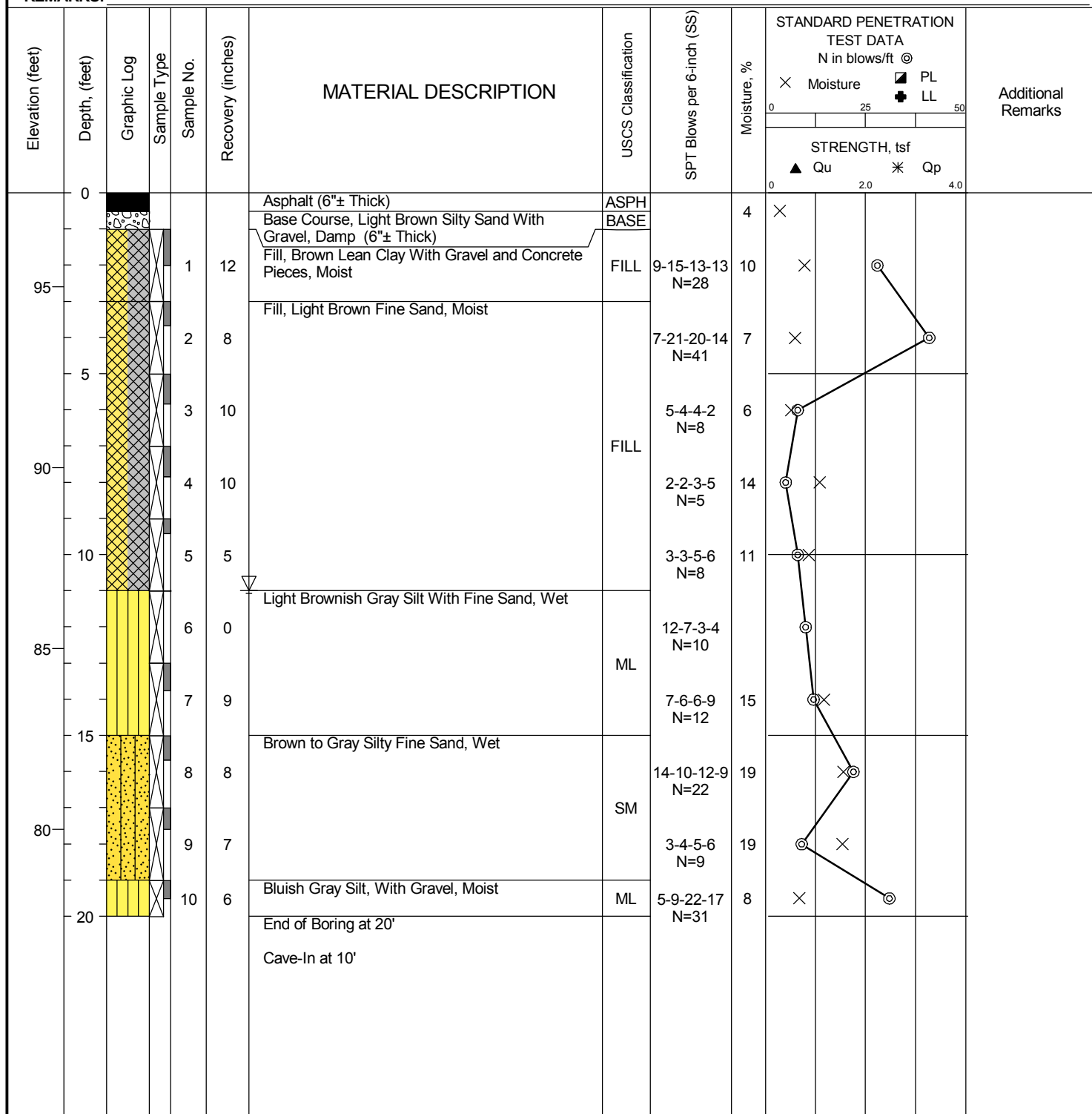
Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft @	Additional Remarks	
								X Moisture ▲ Qu ■ PL ◆ LL				
								0 25 50 0 2.0 4.0				
95	0					Asphalt (5"± Thick) Base Course, Grayish Brown Silty Sand With Gravel, Damp (6"± Thick) Fill, Light Brown Sandy Clay With Gravel, Moist	ASPH BASE		1	X		
	1			2		9-5-5-4 N=10	8	X				
	2			6		3-2-2-3 N=4	19	X	*			
90	5			3	7	FILL 2-2-4-0 N=6	23	X	*			
	4			2		3-5-6-8 N=11	9	X				
85	10			5	2	4-3-4-4 N=7	14	X				
	6			9		ML 1-2-3-4 N=5	23	X				
	7			0		SP 2-3-5-13 N=8	18	X				
80	15			8	5	ML 10-8-6-7 N=14	20	X				
	9			8		1-2-5-6 N=7	18	X				
	10	0		CL 2-4-6-7 N=10	22	X	*			Q _r = 2.5 tsf		
20						End of Boring at 20'						
						Cave-In at 9'						



Professional Service Industries, Inc.
821 Corporate Court, Suite 100
Waukesha, WI 53189
Telephone: (262) 521-2125

PROJECT NO.: 00522495
PROJECT: Menards Store Expansion
LOCATION: W186N9754 Appleton Ave.
Germantown, WI 53022
Washington County

DATE STARTED: 1/9/20 DATE COMPLETED: 1/9/20 COMPLETION DEPTH: 20.0 ft BENCHMARK: N/A ELEVATION: 97.6 ft LATITUDE: LONGITUDE: STATION: N/A OFFSET: N/A REMARKS:	DRILL COMPANY: PSI, Inc. DRILLER: TE LOGGED BY: NC DRILL RIG: Truck-Mounted - Rig #431 DRILLING METHOD: Hollow Stem Auger SAMPLING METHOD: 2-in SS HAMMER TYPE: Automatic EFFICIENCY: N/A REVIEWED BY:	BORING B-02 <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td rowspan="3" style="width: 5%; text-align: center; font-weight: bold;">Water</td> <td style="width: 10%; text-align: center;">▽</td> <td style="width: 65%;">While Drilling</td> <td style="width: 20%; text-align: right;">11 feet</td> </tr> <tr> <td style="text-align: center;">▼</td> <td>Upon Completion</td> <td style="text-align: right;">Not Obsvd</td> </tr> <tr> <td style="text-align: center;">▽</td> <td>Delay</td> <td style="text-align: right;">N/A</td> </tr> </table> BORING LOCATION:	Water	▽	While Drilling	11 feet	▼	Upon Completion	Not Obsvd	▽	Delay	N/A
Water	▽	While Drilling		11 feet								
	▼	Upon Completion		Not Obsvd								
	▽	Delay	N/A									



	Professional Service Industries, Inc. 821 Corporate Court, Suite 100 Waukesha, WI 53189 Telephone: (262) 521-2125	PROJECT NO.: 00522495 PROJECT: Menards Store Expansion LOCATION: W186N9754 Appleton Ave. Germantown, WI 53022 Washington County
--	--	--

The stratification lines represent approximate boundaries. The transition may be gradual.

Water		While Drilling	13 feet
		Upon Completion	15 feet
		Delay	N/A

STANDARD PENETRATION
TEST DATA

N in blows/ft ©

× Moisture ■ PL
 + LL

0 25 50

STRENGTH, tsf

▲ Qu * Qp

0 2.0 4.0

PROJECT NO.: 00522495
PROJECT: Menards Store Expansion
LOCATION: W186N9754 Appleton Ave.
 Germantown, WI 53022
 Washington County

SOIL EVALUATION - STORM

In accordance with SPS 382.365 and 385, Wis. Adm. Code

Attach complete site plan on paper not less than 8 ½ x 11 inches in size. Plan must include, but not be limited to: vertical and horizontal reference point (BM), direction and percent slope, scale or dimensions, north arrow, and BM referenced to nearest road.

Please print all information

Personal information you provide may be used for secondary purposes (Privacy Law, s. 15.04 (1) (m)).

County Washington
Parcel I.D. 333963
Reviewed by _____ Date _____

Property Owner Menard Inc				Property Location Govt. Lot ¼ SW ¼ S 33 T9 N20 E			
Property Owner's Mailing Address 4777 Menard Drive				Lot # 1	Block #	CSM# 5517	
City Eau Claire	State WI	Zip Code 54703	Phone Number ()	☐ City	☒ Village	☐ Town	Nearest Road W186N9754 Appleton Ave

Drainage area _____ ☐ sq. ft. ☐ acres Optional: Test Site Suitable for (check all that apply) ☐ Irrigation ☐ Bioretention trench ☐ Trench(es) ☐ Rain garden ☐ Infiltration Pond ☐ Reuse ☐ infiltration trench ☐ Retention Pond ☐ Other _____	Hydraulic Application Test Method: ☒ Morphological Evaluation ☐ Double-Ring Infiltrometer ☐ Other (specify) _____	Soil Moisture Date of Soil Borings: 1/9/2020 USDA-NRCS WETS Value: ☐ Dry = 1 ☐ Normal = 2 ☒ Wet = 3
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1	Obs. #	☒ Boring B-01 ☐ Pit	Ground surface elev: 95.3 ft.	Depth to limiting factor: 132 in.	Table 2 Infiltration Rate					
Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.**	% Fines**1	Inches/Hr
1	0-12	Pavement								-
2	12-132	10YR 5/6		scl ¹	0	mfi	-	15-35	20-55	0.11 ²
3	132-156	10Y 5/2		sil	1, m, abk	mfi	-	0	50-100	0.13
4	156-180	10YR 5/4		lfs	0	ml	-	0	10-30	0.50
5	180-204	10YR 5/2		sil	2, m, abk	mvfr	-	0	50-100	0.13
6	204-228	10YR 5/1		sil	2, m, abk	mvfr	-	0	50-100	0.13
7	228-240	7.5YR 4/4		sic	2, m, abk	mfi	-	0	80-100	0.07

2	Obs. #	☒ Boring B-02 ☐ Pit	Ground surface elev: 97.6 ft.	Depth to limiting factor: 132 in.	Table 2 Infiltration Rate					
Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.**	% Fines**1	Inches/Hr
1	0-12	Pavement								-
2	12-36	10YR 4/3		scl ¹	0	mfi	-	15-35	20-55	0.11 ²
3	36-132	10YR 6/3		fls ¹	0	ml	-	0	10-30	1.63 ²
4	132-156	10YR 6/2		sicl	0	ml	-	0	80-100	0.04
5	156-180	10YR 5/4		lfs	0	ml	-	0	15-55	0.50
6	180-228	10YR 5/2		lfs	0	ml	-	0	15-55	0.50
7	228-240	10YR 4/1		sil	0	mfi	-	0	50-100	0.13

SOIL EVALUATION - STORM

In accordance with SPS 382.365 and 385, Wis. Adm. Code

3

Obs. #

☒ Boring B-03

☐ Pit

Ground surface elev: 100.8 ft.

Depth to limiting factor: 84 in.

										Table 2 Infiltration Rate
Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.**	% Fines** ¹	Inches/Hr
1	0-12	Pavement								-
2	12-36	10YR 5/4		sl	0	mvfr	-	15-35	15-55	0.50 ²
3	36-60	10YR 5/4		sicl	0	mfi	-	0	80-100	0.04 ²
4	60-84	10YR 6/4		lfs	0	ml	-	0	15-55	0.50 ²
5	84-156	GLE Y 2 4/1		sic	1, m, abk	mfi	-	0	80-100	0.07
6	156-180	10YR 6/4		sil	1, m, abk	mfr	-	0	50-100	0.13
7	180-204	10YR 5/4		ls	0	mfi	-	0	15-55	1.63
8	204-240	10YR 6/2		sicl	1, m, abk	mfi	-	0	80-100	0.04

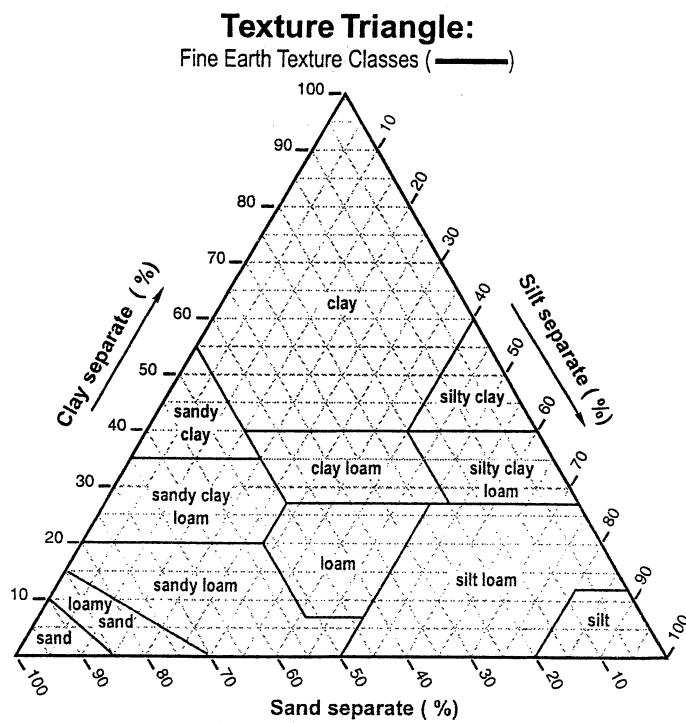
** Estimated based upon the visual classification and not based upon laboratory testing

¹ Fill soils

² Actual infiltration rates of fill soils may vary significantly from Table 2 estimated values due to inherent variability in the composition and density of fill materials

CST/PSS Name (Please Print)	Signature	WI-CST Number
Bradley J. Broback, P.E.	<i>Bradley J. Broback</i>	1411511
Address	Date Evaluation Conducted	Telephone Number
821 Corporate Court, Waukesha, Wisconsin 53189		262-521-2125

SBD-10793 (R.01/17)



TEXTURE MODIFIERS - Conventions for using "Rock Fragment Texture Modifiers" and for using textural adjectives that convey the "% volume" ranges for Rock Fragments - Size and Quantity.

Fragment Content % By Volume	Rock Fragment Modifier Usage
< 15	No texture adjective is used (noun only; e.g., <i>loam</i>).
15 to < 35	Use adjective for appropriate size; e.g., <i>gravelly</i> .
35 to < 60	Use "very" with the appropriate size adjective; e.g., <i>very gravelly</i> .
60 to < 90	Use "extremely" with the appropriate size adjective; e.g., <i>extremely gravelly</i> .
≥ 90	No adjective or modifier. If ≤ 10% fine earth, use the appropriate noun for the dominant size class; e.g., <i>gravel</i> . Use Terms in Lieu of Texture .

(SOIL) TEXTURE

This is the numerical proportion (percent by weight) of sand, silt, and clay in a soil. Sand, silt, and clay content is estimated in the field by hand (or quantitatively measured in the office/lab by hydrometer or pipette) and then placed within the texture triangle to determine **Texture Class**. Estimate the **Texture Class**; e.g., *sandy loam*; or **Subclass**; e.g., *fine sandy loam* of the fine earth (≤ 2 mm) fraction, or choose a **Term in Lieu of Texture**; e.g., *gravel*. If appropriate, use a **Textural Class Modifier**; e.g., *gravelly silt loam*.

NOTE: Soil Texture encompasses only the fine earth fraction (≤ 2 mm). **Particle Size Distribution (PSD)** encompasses the whole soil, including both the fine earth fraction (≤ 2 mm; weight %) and rock fragments (> 2 mm; volume %).

TEXTURE CLASS

Texture Class or Subclass	Code	
	Conv.	NASIS
Coarse Sand	cos	COS
Sand	s	S
Fine Sand	fs	FS
Very Fine Sand	vfs	VFS
Loamy Coarse Sand	lcos	LCOS
Loamy Sand	ls	LS
Loamy Fine Sand	lfs	LFS
Loamy Very Fine Sand	lvfs	LVFS
Coarse Sandy Loam	cosl	COSL
Sandy Loam	sl	SL
Fine Sandy Loam	fsl	FSL
Very Fine Sandy Loam	vfsl	VFSL
Loam	l	L
Silt Loam	sil	SIL
Silt	si	SI
Sandy Clay Loam	scl	SCL
Clay Loam	cl	CL
Silty Clay Loam	sicl	SICL
Sandy Clay	sc	SC
Silty Clay	sic	SIC
Clay	c	C

TEXTURE MODIFIERS - (adjectives)

ROCK FRAGMENTS: Size & Quantity ¹	Code		Criteria: Percent (By Volume) of Total Rock Fragments and Dominated By (name size): ¹
	Conv.	PDP/ NASIS	
ROCK FRAGMENTS (> 2 mm; ≥ Strongly Cemented)			
Gravelly	GR	GR	≥ 15% but < 35% gravel
Fine Gravelly	FGR	GRF	≥15% but < 35% fine gravel
Medium Gravelly	MGR	GRM	≥15% but < 35% med. gravel
Coarse Gravelly	CGR	GRC	≥ 15% but < 35% coarse gravel
Very Gravelly	VGR	GRV	≥ 35% but < 60% gravel
Extremely Gravelly	XGR	GRX	≥ 60% but < 90% gravel
Cobbly	CB	CB	≥ 15% but < 35% cobbles
Very Cobbly	VCB	CBV	≥ 35% but < 60% cobbles
Extremely Cobbly	XCB	CBX	≥ 60% but < 90% cobbles
Stony	ST	ST	≥ 15% but < 35% stones
Very Stony	VST	STV	≥ 35% but < 60% stones
Extremely Stony	XST	STX	≥ 60% but < 90% stones
Bouldery	BY	BY	≥ 15% but < 35% boulders
Very Bouldery	VBY	BYV	≥ 35% but < 60% boulders
Extremely Bouldery	XBY	BYX	≥ 60% but < 90% boulders
Channery	CN	CN	≥ 15% but < 35% channers
Very Channery	VCN	CNV	≥ 35% but < 60% channers
Extremely Channery	XCN	CNX	≥ 60% but < 90% channers
Flaggy	FL	FL	≥ 15% but < 35% flagstones
Very Flaggy	VFL	FLV	≥ 35% but < 60% flagstones
Extremely Flaggy	XFL	FLX	≥ 60% but < 90% flagstones
PARAROCK FRAGMENTS (> 2 mm; < Strongly Cemented) ^{2, 3}			
Parabouldery	PBY	PBY	(same criteria as bouldery)
Very Parabouldery	VPBY	PBYV	(same criteria as very bouldery)
Extr. Parabouldery	XPBY	PBYX	(same criteria as ext. bouldery)
etc.	etc.	etc.	(same criteria as non-para)

¹ The "Quantity" modifier (e.g., *very*) is based on the total rock fragment content. The "Size" modifier (e.g., *cobbly*) is independently based on the largest, dominant fragment size. For a mixture of sizes (e.g., *gravel and stones*), a smaller size-class is named only if its quantity (%) sufficiently exceeds that of a larger size-class. For field texture determination, a smaller size-class must exceed 2 times the quantity (vol. %) of a larger size class before it is named (e.g., 30% gravel and 14% stones = *very gravelly*, but 20% gravel and 14% stones = *stony*). For more explicit naming criteria see NSSH-Part 618, Exhibit 618.11 (Soil Survey Staff, 2001b).

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.	☒ SS: Split-Spoon - 1 3/8" I.D., 2" O.D., except where noted.
HSA: Hollow Stem Auger - typically 3 1/4" or 4 1/4" I.D. openings, except where noted.	■ ST: Shelby Tube - 3" O.D., except where noted.
M.R.: Mud Rotary - Uses a rotary head with Bentonite or Polymer Slurry	▮ RC: Rock Core
R.C.: Diamond Bit Core Sampler	↓ TC: Texas Cone
H.A.: Hand Auger	☞ BS: Bulk Sample
P.A.: Power Auger - Handheld motorized auger	☒ 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 (3/4 in. to 3 in.)
Fine-Grained Gravel:	4.75 mm to 19 mm (No.4 to 3/4 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

<u>Q_u - TSF</u>	<u>N - Blows/foot</u>	<u>Consistency</u>
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

<u>Description</u>	<u>Criteria</u>
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

<u>Descriptive Term</u>	<u>% Dry Weight</u>
Trace:	< 15%
With:	15% to 30%
Modifier:	>30%

STRUCTURE DESCRIPTION

<u>Description</u>	<u>Criteria</u>	<u>Description</u>	<u>Criteria</u>
Stratified:	Alternating layers of varying material or color with layers at least ¼-inch (6 mm) thick	Blocky:	Cohesive soil that can be broken down into small angular lumps which resist further breakdown
Laminated:	Alternating layers of varying material or color with layers less than ¼-inch (6 mm) thick	Lensed:	Inclusion of small pockets of different soils
Fissured:	Breaks along definite planes of fracture with little resistance to fracturing	Layer:	Inclusion greater than 3 inches thick (75 mm)
Slickensided:	Fracture planes appear polished or glossy, sometimes striated	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

<u>Q_u - TSF</u>	<u>Consistency</u>
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

<u>Description</u>	<u>Criteria</u>
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

<u>Voids</u>	<u>Void Diameter</u>
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

<u>(Typically Sedimentary Rock)</u>	
<u>Component</u>	<u>Size Range</u>
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

<u>Rock Mass Description</u>	<u>RQD Value</u>
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		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
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

ZONING PERMIT REVIEW

6/8/20 Plan Commission Meeting

Hannah & Kurt Degner

Village Planner Report

Germantown, Wisconsin

Summary

Hannah & Kurt Degner, property owners, are seeking approval to construct a privacy fence in a front yard at a height of 6' on their residential lot located at W146 N10906 Heritage Parkway.

Property Location: W146 N10906 Heritage Parkway

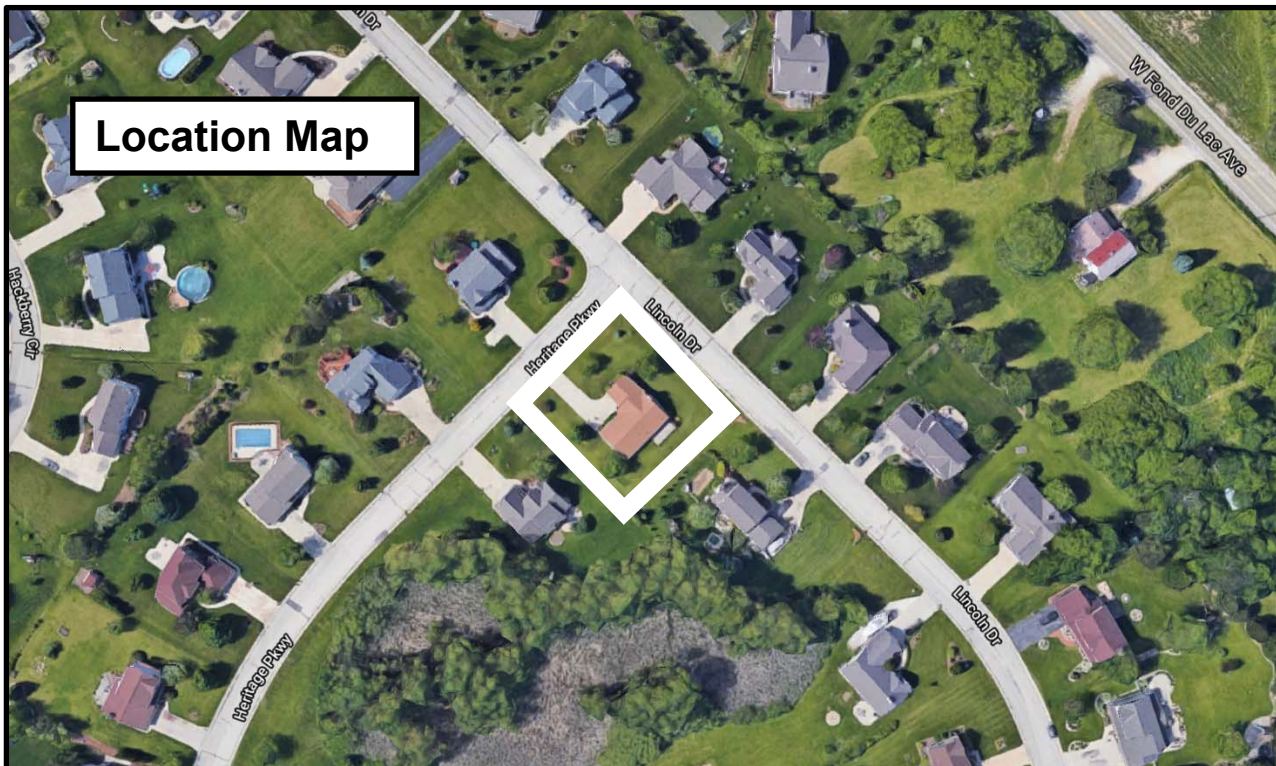
Applicant/

Property Owners: Hannah & Kurt Degner
W146 N10906 Heritage Parkway
Germantown, WI

Current Zoning: Rs-4: Single-family Residential

Adjacent Land Uses		Zoning
North	Residential	Rs-4
South	Residential	Rs-5
East	Residential	Rs-5
West	Residential	Rs-5

Location Map



Proposal

Hannah & Kurt Degner, property owners, are seeking approval to construct a privacy fence in a front yard at a height of 6' on their residential lot located at W146 N10906 Heritage Parkway.

As indicated in their supporting information, Degner would like to install a 6' high, white cedar dog-eared privacy fence around their side and rear yards of their property located at the corner of Heritage Parkway @ Lincoln Drive.

Staff Comments

The Degner property is located at the intersection of Heritage Parkway @ Lincoln Drive. By Zoning Code definition, the road frontage along Lincoln Drive is a "front" or "street" yard. As indicated below, Section 17.50(2)(f) of the Zoning Code prohibits fences over 4' in height in a front yard unless approved by the Plan Commission:

(f) Fences in Residential Districts.

1. *All fences shall be subject to review and approval of the Building Inspector prior to the issuance of a building permit.*
2. *Fences in rear or side yards may be up to 6 feet in height.*
3. *Fences in front yards may not exceed 4 feet in height, except a maximum height of 6 feet on approval of the Plan Commission after consideration of visibility, privacy and access concerns.*
4. *No fence shall be closer than 2 feet to a public right-of-way.*
5. *Fences that contain a finished side and an unfinished side, shall be installed in a manner in which the finished side faces the adjacent property. In case of a discrepancy, the Village Building Inspector shall determine which side of the fence is the finished side.*
6. *Fences and easements.*
 - (i) *Fences shall not be located within any type of easement, provided however, the Planning Commission may authorize the encroachment by a fence into a drainage easement where the owner of the land encumbered by the easement shows to the satisfaction of the Planning 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.*
 - (ii) *If the Planning 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.*
 - (iii) *If the applicant whose property abuts the drainage way shall be aggrieved by the decision of the Planning Commission, such aggrieved person may appeal the decision to the Village Board by filing a request for appeal review of the record below within 14 days of the date of the Planning Commission's decision.*
7. *It is the property owner's responsibility for any lawn maintenance of lands that lie between a fence and the property line.*
8. *Should it be necessary that the Village or its agent, remove the fence, the material costs (materials and labor) would be borne by the owner of the fence.*

As indicated above, the Planning Commission may authorize the installation of a residential fence up to 6' in height after considering such things as visibility, privacy and access.

Village Planner Recommendation

APPROVE the proposed installation of a fence 6' in height along the Lincoln Drive front/street yard for the residential lot located at W146 N10906 Heritage Parkway.



Village of



Germantown

Willkommen

ZONING COMPLIANCE/ OCCUPANCY PERMIT

Date of Application:

3/19/20

\$175 Application Fee Received By:

J.

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

APPLICANT OR AGENT:

Name: Hannah & Kurt Degner

Address: 11411 N10904 Heritage Pkwy

Phone: 262-622-3541

Fax: _____

E-Mail: hlodwick7@gmail.com

PROPERTY or Business OWNER:

Name: Kurt & Hannah Degner

Address: 11411 N10904 Heritage Pkwy

Phone: 262-622-3541

Fax: _____

E-Mail: hlodwick7@gmail.com

PROPERTY ADDRESS OR Tax Parcel ID#:

GTNV-261-132

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):

please see attached documents

READ AND INITIAL THE FOLLOWING:

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

INCLUDE THE FOLLOWING WITH YOUR APPLICATION:

- ☐ A scaled site plan showing location of proposed use on the property (not required if within building).
- ☐ \$175 Application Fee V# 5105
- ☐ Other Information required by Zoning Administrator

SIGNATURES: ALL APPLICATIONS MUST BE SIGNED

Hannah Degner

Applicant

3/18/20

Date

Kurt Degner

3/18/20

Date

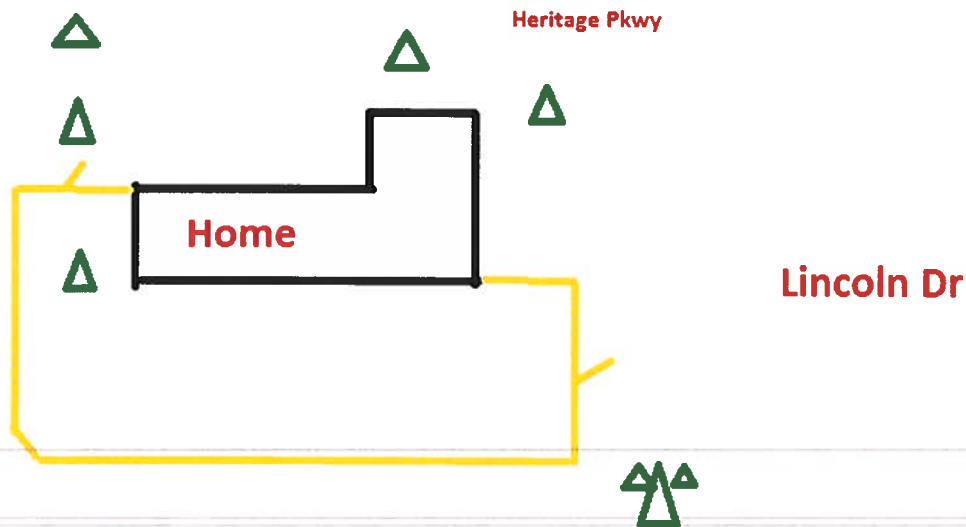
Property Owner

VILLAGE USE ONLY

Kurt & Hannah Degner
W146N10906 Heritage Pkwy
Germantown, WI 53022
262.622.3541

The following describes details of the project and our intended use and purpose of the fence we are proposing to be built on our property:

- Provide privacy and quiet we desire.
- The fence would follow grade and extend off the back corner of our home towards Lincoln Drive approximately 9-15' extend towards the back lot line, follow our back property line and up the side lot line, and connect back up to our home (see first picture below). We are seeking approval to install 6' fence in "front" yard.
- The fence would be installed by A to Z Fencing LLC and is northern white cedar, dog-eared privacy (see second picture below) with premium hand-built gates with 24 ring shank nails, gorilla glue and 6" screws.
- There are several corner properties in our subdivision, the subdivision across Pilgrim road and multiple properties along Pilgrim Road that have 6' high such fence we would like to construct in our yard.
- I have marked the position of the proposed fence below and on our property plot map.



Dog-eared style cedar fence:



A to Z Quality Fencing LLC

5717 Black Walnut Dr
Hartford, WI 53027
(262) 346-6100

1512 Windsor Lane
Shakopee, MN 55379
(612) 964-3310

801 Fullview Drive, Unit 4
Appleton, WI 54913
(920) 423-3557

Customer: Hannah Degner Email: hlodwick7@gmail.com Date 3/12/2020
Phone: (262) 622-3541 Address: W146 N10906 Heritage Parkway City: Germantown Zip: 53022

Village/City/Town: _____

Top of Fence Shall: Follow Grade ☒ Be Level _____

Post will be set: concrete Footings _____ Dig and Tamp _____ Driven Post ☒

Linear Feet 220' Fence Style: Cedar Privacy Height: 6' Post Top: _____

Post: 4x4 Top: Gate Post: 5x5 Top: Rails: 2x4x8 Pickets: _____

Gates: Qty 2 Single 4' Wide, Qty _____ Single _____ Wide
Qty 0 Double _____ Wide, Qty _____ Double _____ Wide

Post Spacing: 8 +/- _____ Remove Dirt From Work Site: YES _____ NO ☒ Line Clearing: YES _____ NO ☒

Coring: YES _____ NO ☒ Diggers hotline called by: Customer _____ A to Z ☒

Tear out: YES _____ NO ☒ Disposal: YES _____ NO ☒ Water: YES ☒ no _____ Electrical: YES ☒ No _____

Sincerely,

Kurt & Hannah Degner

JAMES R. ELDER

PROFESSIONAL ENGINEER — REGISTERED LAND SURVEYOR

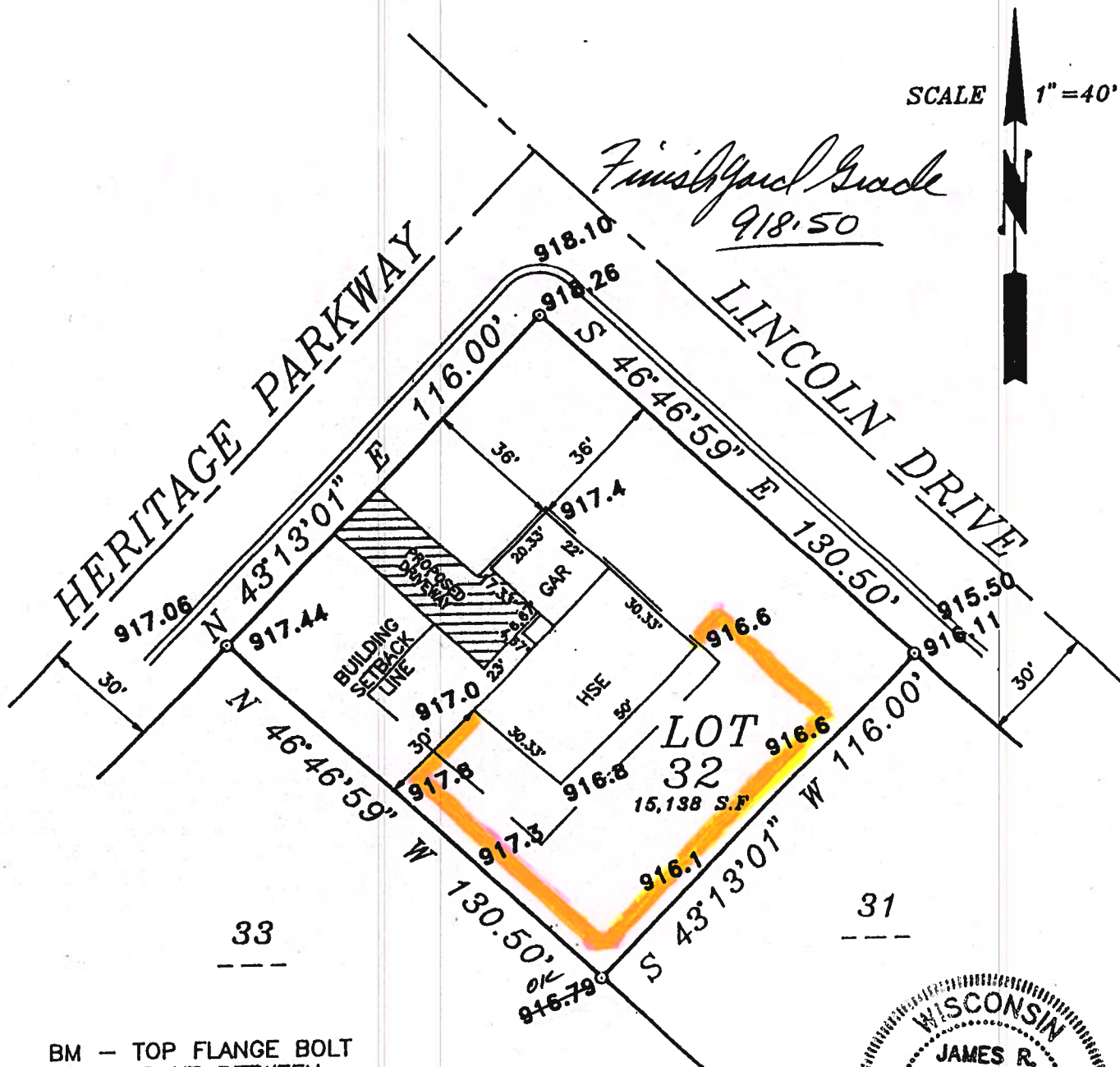
3782 OVERLOOK DRIVE WEST

HUBERTUS, WISCONSIN 53033

PHONE 414-628-1409

FAX (414)628-1855

PLAT OF SURVEY



DESCRIPTION:

All of Lot 32 in HIGH POINTE, being a Subdivision in part of the SW 1/4 of the NE 1/4 of Section 26, T9N, R20E, in the Village of Germantown, Washington County, Wisconsin.

"I HAVE SURVEYED THE ABOVE DESCRIBED PROPERTY, AND THE ABOVE MAP IS A TRUE REPRESENTATION THEREOF AND SHOWS THE SIZE AND LOCATION OF THE PROPERTY, ITS EXTERIOR BOUNDARIES, THE LOCATION AND DIMENSIONS OF ALL STRUCTURES THEREON, FENCES, APPARENT EASEMENTS, ROADWAYS AND VISIBLE ENCROACHMENTS. THIS SURVEY IS MADE FOR THE EXCLUSIVE USE OF THE PRESENT OWNERS OF THE PROPERTY; ALSO THOSE WHO PURCHASE, MORTGAGE, OR GUARANTEE THE TITLE THERETO, WITHIN ONE YEAR FROM DATE HEREOF."

DATED THIS 8th DAY OF September 1993.

SURVEY FOR: Perthel Custom Homes, Inc.

GTOWN\H1P0132.DWG

James R. Elder
SURVEYOR

THIS IS AN ORIGINAL
PRINT ONLY IF SEAL IS
IMPRINTED IN RED

SITE PLAN REVIEW

6/8/20 Plan Commission Meeting

Keller, Inc. / North Shore Environmental (NSE Limited Partnership 1) Village Planner Report Germantown, Wisconsin

Summary

Keller, Inc., agent for NSE Limited Partnership 1, property owner, and North Shore Environmental, is seeking approval of site development & building plans for a 15,950-square foot expansion to the existing office/warehouse building located on a 2.6-acre parcel at N117W18493 Fulton Drive in the Germantown Industrial Park.

Property Location: N117W18493 Fulton Drive

Applicant/

Property Owners:

Aaron Nagel

Keller, Inc.

W204N11509 Goldendale Rd

Germantown, WI 53022

NSE Limited Partnership 1

North Shore Environmental

N117W18493 Fulton Drive

Germantown, WI 53022

Current Zoning: M-1: Limited Industrial

Adjacent Land Uses		Zoning
North	Industrial	M-1
South	Industrial	M-1
East	Industrial	M-1
West	Industrial	M-1



Background

North Shore Environmental provides non-hazardous and hazardous waste cleanup, waste management services, transportation, disposal, industrial cleaning, and emergency spill response for utility companies, manufactures, Wisconsin Department of Natural Resources (WDNR), and the Environmental Protection Agency (EPA). The existing 9,000-square foot facility was constructed in 1993 and includes office and conference space, restrooms, breakrooms, and interior storage/warehouse space.

North Shore Environmental does not bring hazardous waste to the subject property for storage and does not clean equipment of hazardous waste at this facility. North Shore rents yard space at Shoreline of Wisconsin for the storage of roll-off boxes, portable tanks, and equipment. Transport vehicles are decontaminated at the site of generation at disposal facilities or at outside cleaning facilities.

Proposal

Keller, Inc., agent for NSE Limited Partnership 1, property owner, and North Shore Environmental, is seeking approval of site development & building plans for a 15,950-square foot expansion to the existing office/warehouse building located on a 2.6-acre parcel at N117W18493 Fulton Drive in the Germantown Industrial Park.

As presented in the site development and building plans, the proposed expansion of this facility includes the following features:

- 15,950-square foot Building Addition
 - 3,000 square feet of office, shop breakroom, locker rooms and restrooms
 - 12,950 square feet of warehouse/storage
- Six (6) additional overhead doors on the south elevation and four (4) on the north elevation
- Widening of east driveway to serve the four (4) proposed overhead doors on the north elevation and the east asphalt drive
- Expansion of fenced storage area to the east
- 24'-26' high precast and custom concrete exterior panels painted to match the existing building, shadow line bump outs and glazed aluminum windows
- Flat roof w/ parapet wall component to shield roof-mounted mechanicals

Parking, Access & traffic Circulation

Access will be provided to the site from Fulton Drive via the existing driveway on the west side of the property. Employee parking (24 stalls) will continue to be located on the west side of the building and further south, on the west edge of the fenced storage area. Company equipment will then travel south through the fenced area and pull directly into the overhead doors on the south elevation or continue traveling on the east side of the building to exit via the east driveway. The aligned overhead doors on the north side of the building will allow trucks and equipment to pull out forward onto Fulton Drive, eliminating the need for equipment and trucks to back out on to Fulton Drive.

Storm Water Management

Between the proposed building expansion, additional asphalt and the existing building and paved areas, impervious surfaces will increase by approximately 8,200 square feet totaling 80,200 square feet. This is equivalent to 70.6% of this 2.6-acre site (vs. the 80% maximum allowed) leaving nearly 30 percent of the property as green/open space.

Utilities

Storm water run-off from the additional impervious surface proposed on the site will be collected on-site via storm sewer and go to a proposed bio-retention basin located on the north side of the property, which will discharge to the public storm sewer on Fulton Drive. Sanitary sewer will continue to serve the proposed building expansion via connections to the service lines in the existing building.

Landscaping & Lighting

Landscaping is proposed along a portion of the north and along the east side of the building addition. Additional landscaping is proposed near the west driveway and along the east property line, three (3) additional deciduous street trees are proposed to be planted along Fulton Drive.

Exterior lighting includes:

- (9) 90W 12,000 Lumen LED cut-off wall-mounted fixtures at a height of 18' on the north, south, and east elevations of the addition

Staff Comments

Planning & Zoning

Planning staff shared a few items and questions related to landscaping, parking stall size, onsite traffic pattern, and driveway width in the review memo dated May 15, 2020 and email correspondence on May 21, 2020. The applicant will be required to obtain a new driveway permit for the proposed driveway which exceeds the 45' maximum width. This, however, is consistent with how the industrial park has developed, as there are many driveways that exceed the standard 45' maximum width.

Additional questions regarding onsite traffic flow were raised by staff. The applicant provided additional information on the truck routes, indicating that although there is not enough space for large vehicles to turn around on site, they would be able to pull around the building or through the overhead doors, eliminating the need to back out on to Fulton Drive.

Staff recommends additional façade detail be added to the east elevation of the proposed addition. Details from the north elevation could be carried over to the east, including panels of the darker color. This has been included as a condition of approval.

Staff also recommends adding two additional street trees along the north side of the bio-retention basin, south of the Fulton Drive right-of-way to further buffer the improvements from the road. John Gall, Village Forester, has confirmed that there is enough space for up to two additional trees in this area. This has also been added as a condition of approval.

Roof-mounted mechanicals are proposed for the area above the office space. There is a small wall parapet that extends above the roofline in order to block the roof-mounted mechanicals from street view. The warehouse is not proposed with any roof-mounted mechanicals. A roof plan showing all proposed roof-mounted mechanicals shall be submitted prior to the issuance of a building permit.

Police Department

The Police Department is requesting that all doors be numbered with 5-inch reflective numbers to aid emergency personnel access.

Public Works Department/Village Engineer/Village Surveyor

The Public Works Department has recommended a number of plan revisions and technical corrections as set forth in the April 21, 2020 review memo. A revised set of plans was submitted and reviewed by Public Works. A few additional items have been identified in a memo dated June 2, 2020. These plan corrections will need to be addressed in a revised plan set or supplemental information submitted for review and approval prior to issuance of a building permit.

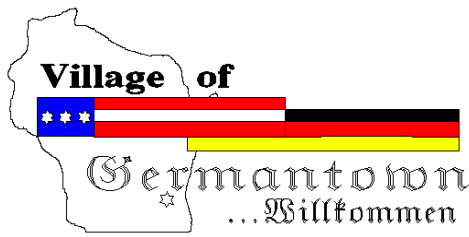
Building Inspection Services

The Building Inspection Department has indicated that the submission of state-approved plans will be required prior to issuing a building permit along with the required \$20,000 occupancy bond.

VILLAGE STAFF RECOMMENDATION

APPROVE the site development & building plans for North Shore Environmental for a 15,950- square foot expansion to the existing office/warehouse building located on a 2.6-acre parcel at N117W18493 Fulton Drive in the Germantown Industrial Park subject to the following (10) 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 architectural and engineering plan set dated May 27, 2020 and supporting documents including a May 21, 2020 letter from Keith Hitzke, North Shore Environmental, unless superseded by subsequent plan sheets approved by the Village Planner or Engineer pursuant to revisions required herein and/or by the Plan Commission.
2. All landscaping, screening, grading, paving, storm water management, utility and other improvements that are not fire-safety related as 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.
3. All technical issues, corrections and plan requirements identified by the Public Works Department staff (see June 2, 2020 Memo from the Director of Public Works) shall be addressed and reflected in revised plans and/or supplemental information reviewed and approved by Village staff prior to issuance of a building permit.
4. Additional architectural detail should be added to the east façade of the building. The details shall be submitted and approved by the Village Planner prior to the issuance of a building permit.
5. Two (2) additional street trees shall be installed along the north property line to provide a better visual screen from the street. A revised landscaping plan shall be prepared and submitted to the Village Planner for review and approval prior to issuance of a building permit.
6. State approved plans and a \$20,000 occupancy bond are required by the Building Inspection Department as part of the building permit application (in addition to the bonding requirements of Section 11.071).
7. All exterior doors (except primary entrance) shall be clearly marked with reflective 5" or larger letters/numbers to aid emergency personnel access as required by the Police Department.
8. The Developer shall provide a detailed roof plan showing all rooftop mechanicals and screening to be added to the facility addition to the Village Planner for review and approval prior to issuance of a building permit.
9. A new driveway permit for the widened driveway shall be obtained from the Department of Public Works prior to the issuance of a building permit.
10. All proposed exterior signage, including monument and wall-mounted signs, shall be reviewed and approved under a separate application by the Plan Commission.



Engineering Department Memorandum

To : Jeffrey W. Retzlaff, AICP, Planning Director/Zoning Administrator
From : Lawrence Ratayczak, P.E., Director of Public Works
Date : June 2, 2020
Re : North Shore Environmental Site Plan Review

Items Reviewed:

1. Civil Plan Set C1.0 – C4.0 (12 pages)

Dated: 05-21-20

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 and infiltration system review and approval. Please provide a copy of the DSPS approval prior to engineering approval
4. As-builts prepared to Village standards shall be prepared and provided to the Village post-construction (for all applicable items).
5. A professional engineer's original seal is to be affixed, signed and dated on the final set of construction plans.
6. Contact Ryan Ehlerding, 262-250-4723 for a utility permit.
7. *Please provide a plan that shows the existing conditions.*

Waste Water Utility Comments

1. *Please note the following requirements for the sampling manhole on the plan. Remove root intrusions at first barrel joint, mortar joint from the outside, install a Mac Wrap over the joint, Wrap structure in plastic per specifications, if chimney is disturbed during excavation replace per current spec and detail.*

C-1.0 Site Plan

1. *Plan notes a retaining wall on the east side of the building. If a wall is intended here provide additional details on the height and type of wall.*

C-2.0 Site Grading and Utility Plan

1. *A large portion of pavement at 4%-5% will sheet off the edge of the pavement and onto a 3:1 slope. How will that slope be protected from erosion and on-going maintenance issues?*
2. The existing 10" storm sewer that the bio-retention basin connects to appears to already have a large area draining to it. Provide calculations showing the pipe can handle the additional proposed flow. **Calculations provided show the existing pipe is undersized in the 2 year storm event. Increase the pipe between the outlet structure and the catch basin in the roadway to 12" or provide calcs that the pipes can pass the 10 year event without being pressurized.**
3. Provide calculations showing the bio-retention basin and outlets area sized adequately to handle the flow. **Outlets listed in the HydroCAD model do not match the plans. Revise plans and model to match. Updated rainfall values to match NOAA Atlas 14.**

C-3.0 Site Grading and Utility Plan

1. *Show silt fence across the driveway on the north side of the site to protect the roadway from silt until the drive is stabilized.*
2. *Callout erosion matting for the disturbed area of the steep slope on the east side of the site.*

C-4.0 Site Details

1. Provide information on existing soils under the bio-retention basin and seasonal high groundwater level. **Final approval cannot be given until this information is provided.**



Community Development Department
Jeffrey W. Retzlaff, AICP, Director
Village Planner & Zoning Administrator
N112 W17001 Mequon Road P.O. Box 337
Germantown, WI 53022-0337
Telephone: (262) 250-4735 Website: www.village.germantown.wi.us
FAX: (262) 253-8255 E-mail: jretzlaff@village.germantown.wi.us

May 15, 2020

Aaron Nagel – Keller Inc.
W204N11509 Goldendale Road
Germantown, WI 53022

RE: North Shore Environmental Site Plan Review Application
Staff Review Comments

Mr. Nagel,

Village Staff has reviewed the application, plan set and supporting materials submitted for the proposed addition to the building at N117W18493 Fulton Drive. Below are the outstanding items/issues that need to be addressed before this item can be placed on the Plan Commission Agenda for review/approval. Please provide the requested information, corrections and/or revisions as soon as possible. If necessary, Village staff would be happy to meet with you to discuss or clarify any of these items.

Community Development Department

1. Please provide additional information on what is stored onsite. Are hazardous waste materials brought back to the site after clean-up? Are the equipment and vehicles cleaned of hazardous material onsite? If so, how?

Public Works/Village Engineer

2. Please refer to the Memo provided by the Director of Public Works dated April 21, 2020.

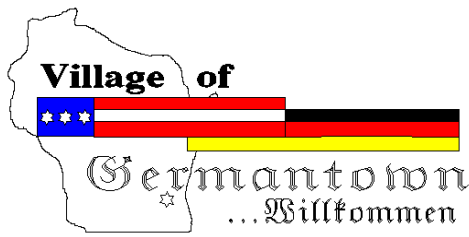
Village Arborist

3. Under proposed plant material table, planting size for Accolade Elm should be 2 1/2" Cal-B&B
4. Under Comments #4, grind stump to a minimum of 12" below adjacent grade.

When submitting revised plans or additional information, please submit (1) digital plan set and three (3) full-size, hard-copy plan sets set to the Community Development Department. Complete responses and/or information, plan revisions, etc. to the items/issues listed above will help avoid delay in the review and processing of your application.

Respectfully,

Jeffrey W. Retzlaff, AICP
Village Planner & Zoning Administrator



Engineering Department Memorandum

To : Jeffrey W. Retzlaff, AICP, Planning Director/Zoning Administrator
From : Lawrence Ratayczak, P.E., Director of Public Works
Date : April 21, 2020
Re : North Shore Environmental Site Plan Review

Items Reviewed:

1. Civil Plan Set C1.0 – C4.0 (12 pages)

Dated: 07-11-19

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 and infiltration system review and approval. Please provide a copy of the DSPS approval prior to engineering approval
4. As-builts prepared to Village standards shall be prepared and provided to the Village post-construction (for all applicable items).
5. A professional engineer's original seal is to be affixed, signed and dated on the final set of construction plans.
6. Contact Ryan Ehlerding, 262-250-4723 for a utility permit.
7. Please provide a plan that shows the existing conditions.

Waste Water Utility Comments

1. Please note the following requirements for the sampling manhole on the plan. Remove root intrusions at first barrel joint, mortar joint from the outside, install a Mac Wrap over the joint, Wrap structure in plastic per specifications, if chimney is disturbed during excavation replace per current spec and detail.

C-1.0 Site Plan

1. Plan notes a retaining wall on the east side of the building. If a wall is intended here provide additional details on the height and type of wall.

C-2.0 Site Grading and Utility Plan

1. A large portion of pavement at 4%-5% will sheet off the edge of the pavement and onto a 3:1 slope. How will that slope be protected from erosion and on-going maintenance issues?
2. The existing 10" storm sewer that the bio-retention basin connects to appears to already have a large area draining to it. Provide calculations showing the pipe can handle the additional proposed flow.
3. Provide calculations showing the bio-retention basin and outlets area sized adequately to handle the flow.

C-3.0 Site Grading and Utility Plan

1. Show silt fence across the driveway on the north side of the site to protect the roadway from silt until the drive is stabilized.
2. Callout erosion matting for the disturbed area of the steep slope on the east side of the site.

C-4.0 Site Details

1. Provide information on existing soils under the bio-retention basin and seasonal high groundwater level.



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

Aaron Nagel-Keller Inc.
W204 N11509 Goldendale Rd.
Germantown, WI 53022

Phone (262) 894-8810
E-Mail anagel@kellerbuilds.com

PROPERTY OWNER

NSE Limited Partnership 1
1117 W18493 Fulton Drive
Germantown, WI 53022

Phone (262) 255-4468
E-Mail khitzke@nseinc.com

2 PROPERTY ADDRESS

1117 W18493 Fulton Dr.
Germantown

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

North <u>Transport/Warehouse</u> <u>Industrial</u>	South <u>E-commerce</u> <u>Distribution</u>	East <u>Industrial</u> <u>Manufacturing</u>	West <u>Machine</u> <u>Shop-Industrial</u>
---	--	--	---

4 READ AND INITIAL THE FOLLOWING:

- ☒ I am aware of the Village of Germantown ordinance requiring fire sprinklers in most new construction.
- ☒ I understand that all new development is subject to Impact and/or Connection Fees that must be paid before building permits will be issued.
- ☒ I understand that an incomplete application will be withdrawn from the Plan Commission agenda and that all resubmissions to the Plan Commission are subject to a new application fee.

5 SIGNATURES - ALL APPLICATION MUST BE SIGNED BY OWNER!

[Signature] 3-23-20
Applicant Date

[Signature] 3/23/20
Owner Date



Keller
Planners | Architects | Builders
*With Offices in the Fox Cities, Madison,
Milwaukee & Wausau*



March 26, 2020

Village Of Germantown
N112 W17001 Mequon Road
Germantown, WI 53022

RE: North Shore Environmental Expansion Site & Building Review

Dear Village Plan Commission Members,

North Shore Environmental Construction, Inc. (NSEC), is looking to do an expansion of their existing office/ warehouse building located at N117 W18493 Fulton Drive. NSEC is an environmental contractor that has been providing industrial and environmental cleanup and management services since 1989. NSEC is based in Germantown, WI and provides non-hazardous and hazardous waste cleanup, waste management services, transportation, disposal of waste, industrial cleaning and emergency spill response services 24/7 for utility companies, manufacturers, Wisconsin Department of Natural Resources (WDNR) and the EPA. Currently, the company is seeking construction of an addition onto its existing building for the expansion of its operations, which will include constructing new offices, warehouse and indoor storage for construction vehicles and equipment.

The subject property is approximately 2.6 acres, and has an existing freestanding office/ warehouse building constructed of decorative CMU exterior walls and is 9,000 SF in size. Built in 1993, the building has roughly 3,000 SF of existing office, conference, bathrooms and breakrooms in addition to approximately 6,000 SF of indoor storage/warehouse. The site features of the existing property contain roughly 40,000 SF of existing asphalt parking/drive area, and another 22,000 SF of gravel parking/drive. The total impervious surface of the existing property is roughly 72,000 SF or 63.4% of the total area of the parcel.

The proposed building addition will have a 15,950 SF footprint built with painted precast concrete exterior wall panels and a metal bar joist roof structure. The aesthetically appealing precast wall panels will range from 24' high to 26' high with shadow line bump outs and glazed window openings throughout. The proposed addition will be attached to the existing building's east facing exterior wall, and will feature the same color scheme as the original buildings painted CMU exterior. The additions interior will contain 3,000 SF of new executive offices, a shop breakroom, locker rooms, and shop/ office bathrooms. The remainder of the footprint square footage will be dedicated to warehousing and storage of NSEC's various job related equipment and vehicles.

ADDRESS

W204 N11509 Goldendale Road
Germantown, WI 53022

PHONE

262.250.9710 1.800.236.2534

FAX

262.250.9740

WEB SITE

www.kellerbuilds.com



Keller
Planners | Architects | Builders
*With Offices in the Fox Cities, Madison,
Milwaukee & Wausau*



The proposed site improvements include added privacy fencing and roller gates on the east side of the property, as well as a heavy duty asphalt drive area. Also proposed is an asphalt exit drive and concrete apron on the building addition's North side, exiting to Fulton Dr. Additional employee parking stalls will be painted in to the existing asphalt surface, landscaping per Village of Germantown ordinance will be installed, and a proposed bio-swale storm water detention basin will be added to the Northern edge of the property. In total, the added impervious surface to the existing parcel will be minimal, consisting of roughly 8,200 SF. This will bring the total amount of impervious surface to approximately 70.6% of the total area of the parcel. Well under the 80% code enforced threshold.

If any of the Plan Commission members, Village planning department members, or the general public have any questions regarding the business, new addition, or site layout, please feel free to contact Keller, Inc. at any time. Site visits and tours will also be granted at the time of the request. Thank you all for your consideration of this project.

OWNER

Keith Hitzke (Principal)
North Shore Environmental Construction Inc.
N117 W18493 Fulton Drive
Germantown, WI 53022
262.255.4468 (office)
414.708.0536 (cell)
khitzke@nsecinc.com

**ARCHITECT/
BUILDER**

Keller, Inc.
Aaron Nagel (Project Manager)
Nathan Laurent (Regional Manager)
Chris Manske (Project Architect)
W204 N11509 Goldendale Road
Germantown, WI 53022
262.250.9710 office
262.894.8810 cell
262.250.9740 fax
anagel@kellerbuilds.com

ADDRESS

W204 N11509 Goldendale Road
Germantown, WI 53022

PHONE

262.250.9710 1.800.236.2534

FAX

262.250.9740

WEB SITE

www.kellerbuilds.com



9205 W. Center Street
Suite 214
Milwaukee, WI 53222
(414) 443-1312

Village Review Response Memorandum:

To: Village of Germantown – Jeffery W. Retzlaff & Lawrence Ratayczak

Comments Received: 05/15/2020

Project: North Shore Environmental, N117 W18493 Fulton Drive

Plans Reviewed:

1. Civil Plan Set (C1.0 - C4.0)
By: CJ Engineering
Dated: 3-25-2020

General Comments

1. Please respond to each item below. **A written response addressing each item shall be included in your submittal.**
Response: A written response for each item has been provided.
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.
Response: This is understood, no further response needed.
3. The project will require DSPS plumbing and infiltration system review and approval. Please provide a copy of the DSPS approval prior to engineering approval
Response: DSPS Plumbing Plan Review appointment has been made. Approval letter to be provided upon receipt.
4. As-builts prepared to Village standards shall be prepared and provided to the Village post-construction (for all applicable items).
Response: Note referencing this requirement has been added to plan sheet.
5. A professional engineer's original seal is to be affixed, signed and dated on the final set of construction plans.
Response: PE original seal will be put on final set of construction plans with signature and date.
6. Contact Ryan Ehlerding, 262-250-4723 for a utility permit.
Response: The contractor will contact Ryan Ehlerding for the utility permit.

7. Please provide a plan that shows the existing conditions.

Response: Existing site survey has been provided. Please see attached plan set.

Waste Water Utility Comments

1. Please note the following requirements for the sampling manhole on the plan. Remove root intrusions at first barrel joint, mortar joint from the outside, install a Mac Wrap over the joint, Wrap structure in plastic per specifications, if chimney is disturbed during excavation replace per current spec and detail.

Response: A note with these requirements has been added to the site grading & utility plan sheet (C3.0).

C-1.0 Site Plan

1. Plan notes a retaining wall on the east side of the building. If a wall is intended here provide additional details on the height and type of wall

Response: Retaining wall on east side of the building has been removed.

C-2.0 Site Grading and Utility Plan

1. A large portion of pavement at 4%-5% will sheet off the edge of the pavement and onto a 3:1 slope. How will that slope be protected from erosion and on-going maintenance issues?

Response: Erosion Matting will be provided on all disturbed 3:1 sloped areas. The area sheet draining to the existing 3:1 sloped area has been reduced as a result of this project. There is no existing erosion problem and there should be none after this expansion.

2. The existing 10" storm sewer that the bio-retention basin connects to appears to already have a large area draining to it. Provide calculations showing the pipe can handle the additional proposed flow.

Response: Existing condition storm sewer design with proposed bio-retention basin connection has been modeled in HydroCAD and provided in the revised storm water management plan.

3. Provide calculations showing the bio-retention basin and outlets are sized adequately to handle the flow.

Response: HydroCAD modeling in the revised storm water management plan shows that the bio-retention basin is sized properly for the 2, 10 and 100 year storm events. The peak elevation, during all analyzed storm events, will stay within the basin.

C-3.0 Site Grading and Utility Plan

1. Show silt fence across the driveway on the north side of the site to protect the roadway from silt until the drive is stabilized.

Response: Silt fence and note has been added to the site erosion control plan (C4.0).

2. Callout erosion matting for the disturbed area of the steep slope on the east side of the site.

Response: Erosion matting has been added to the disturbed area on the steep slope on the east side of the site.

C-4.0 Site Details

1. Provide information on existing soils under the bio-retention basin and seasonal high groundwater level.

Response: Soil boring to be provided depicting existing condition of soils and seasonal high groundwater level under the bio-retention basin. Once this information is received, we will review to make sure the bio-retention design is in conformance with village & state requirements



May 21, 2020

Attn: Jeff Retzlaff
Community Development Village of Germantown
N112 W17001 Mequon Road
Germantown, WI 53022

Dear Village of Germantown Community Development:

To answer the question on hazardous waste stored onsite: North Shore is a hazardous waste transporter but we do not bring hazardous waste to the Germantown facility for storage. When hazardous waste is generated from an environmental release or remediation, it has been North Shore's protocol to temporarily store waste at the site of generation or transport the waste directly from the site of generation to off-site disposal facilities.

North Shore rents (long term) substantial yard space at Shoreline of Wisconsin (across from the Waste Management Orchard Ridge Landfill) for the storage of roll-off boxes, portable tanks and construction equipment. North Shore's Germantown facility is our corporate location and the building expansion will allow the storage of clean trucks and equipment inside. Containers, drums and poly totes are new containers for future use and are stored outside. If empty roll-off containers are on-site, they are either getting repaired (bows and tarps) or are going out on a job that next day.

Typically our transport vehicles are decontaminated at the site of generation, at disposal facilities or at outside cleaning facilities like Quala Wash (tanker washout). North Shore does wash-out vacuum trucks (non hazardous) with soap and water here, with the rinsate always being collected into a 55-gallon drum for off-site disposal (non-hazardous). All equipment utilized during hazardous waste handling is decontaminated, if necessary, at the site of waste generation.

North Shore is in contract with WDNR as a zone contractor (State of Wisconsin) for emergency response (All Hazards). WDNR management has been to our facility many times to review our management and waste handling procedures. North Shore was recognized starting in 2014 as a Green Tier contractor for fostering superior environmental and economic results. North Shore has never had an environmental violation or a reportable spill in the history of the company, approximately 30 years. As a WDNR response contractor, we have assisted the Germantown Fire Department and Germantown Municipal in past incidents, and will continue to do so.

Keith Hitzke, Principal
North Shore Environmental Construction Inc
N117 W18493 Fulton Drive
Germantown, WI 53022
Office: 262-255-4468
Fax: 262-255-6993
Mobil: 414-708-0536
khitzke@nsecinc.com
www.nsecinc.com



Follow Up Email Comments/ Questions:

ATTN: Jeff Retzlaff; Emily Zandt

Responses to Emily Zandt email dated 5/21/2020 10:16 AM to Aaron Nagel (Keller Inc.)

North Shore Environmental Addition Project

5-21-2020

1. The driveway width exceeds the 45' allowance; a new driveway permit will be required and justification for the wider width provided (not a huge concern given how the park has developed to date with other wide driveways in the neighborhood); **We are willing to apply for the new driveway permit. Due to the buildings close proximity to the road, and the goal of the addition for indoor vehicle storage, we are proposing a wider exit apron to utilize all (4) OH doors as vehicle exit lanes to Fulton Ave.**
2. The close proximity of the truck bays/overhead doors on the north elevation to Fulton Drive suggest that trucks may have to given no room on site to turn around; however, matching overhead doors on south elevation appear to allow vehicles to drive through in a one-way direction, thereby eliminating need to back in from Fulton. Can this be verified? **This is correct. The site is designed and will function that vehicles entering the site will use the existing "western" entrance. They will then travel south and east around the existing building and addition, and either enter the addition through (4) new OH doors to the south, or drive around the addition on the proposed "bypass" lane to the east. Vehicles exiting the addition will then use the (4) OH doors on the North side of the building. This provides proper turn radius for larger vehicles to enter and exit the property comfortably without the need to back into the addition off of Fulton Ave.**
3. The proposed trees shown on the landscape plan are extremely large... in the presentation vs. what the size is when planted. One is shown with a 65' dia canopy! Even the existing deciduous trees out front aren't that large. While not uncommon to show at mature size on a landscape plan, this size tends to exaggerate how the landscape will actually look for the foreseeable future. Since they are removing so many mature trees, and constructing about 1/3 of the parcel frontage with asphalt driveway, additional street trees cluster in front east of the new basin should be required; **Response from Insite below:**

How many? I would need more direction on how many street trees and etc.

And please define foreseeable future as the plant material has varies growth rates and I do not control the many site conditions that affect a plants growth

We are listing the quantity and size of the existing trees that are being removed (9) and the (15) that are to remain

And we are installing 10 broadleaf deciduous trees and 10 upright evergreens

As far as the plan goes I would disagree with the previous statement. I do not feel we are exaggerating the size of the trees at all

It is quite common to show the plant material in mature growth

The below information is pulled from location grower information and local botanical/horticultural sources

Quercus bicolor shown at 60'-0" in diameter as the ultimate growth for proper planting spacing of this over story tree

Common Name: swamp white oak

Type: Tree

Family: Fagaceae

Native Range: Northeastern North America

Zone: 3 to 8

Height: 55.00 to 65.00 feet

Spread: 55.00 to 65.00 feet

Ulmus 'Morton' ACCOLADE shown at 30'-0" in diameter as the ultimate growth for proper planting spacing

Common Name: elm

Type: Tree

Family: Ulmaceae

Zone: 4 to 9

Height: 50.00 to 60.00 feet

Spread: 25.00 to 40.00 feet

Gymnocladus dioica Common Name: Kentucky coffee tree *shown at 30'-0" in diameter in plan*

Type: Tree

Family: Fabaceae

Native Range: Central and eastern United States, Ontario and Quebec, Canada

Zone: 3 to 8

Height: 60.00 to 80.00 feet

Spread: 40.00 to 55.00 feet

Acer saccharum 'Green Mountain' shown at 35'-0" in diameter in plan

Common Name: sugar maple

Type: Tree

Family: Sapindaceae

Zone: 4 to 8

Height: 40.00 to 60.00 feet

Spread: 25.00 to 45.00 feet

Betula populifolia 'Whitespire' shown at 15'-0" in diameter in plan

Common Name: Asian white birch

Type: Tree

Family: Betulaceae

Zone: 3 to 6

Height: 20.00 to 40.00 feet

Spread: 10.00 to 20.00 feet

Ginkgo biloba 'Princeton Sentry' shown at 35'-0" in diameter in plan

Common Name: maidenhair tree

Type: Tree

Family: Ginkgoaceae

Zone: 3 to 8

Height: 40.00 to 50.00 feet

Spread: 20.00 to 30.00 feet

Juniperus virginiana 'Hillspire' shown at 7'-0" in diameter in plan

Common Name: red cedar

Type: Needled evergreen

Family: Cupressaceae

Zone: 2 to 9

Height: 15.00 to 30.00 feet

Spread: 5.00 to 15.00 feet

Pinus flexilis "Vanderwolf's Pyramid" shown at 12'-0" in diameter in plan

Common Name: limber pine

Type: Needled evergreen

Family: Pinaceae

Zone: 4 to 7

Height: 20.00 to 30.00 feet

Spread: 10.00 to 15.00 feet

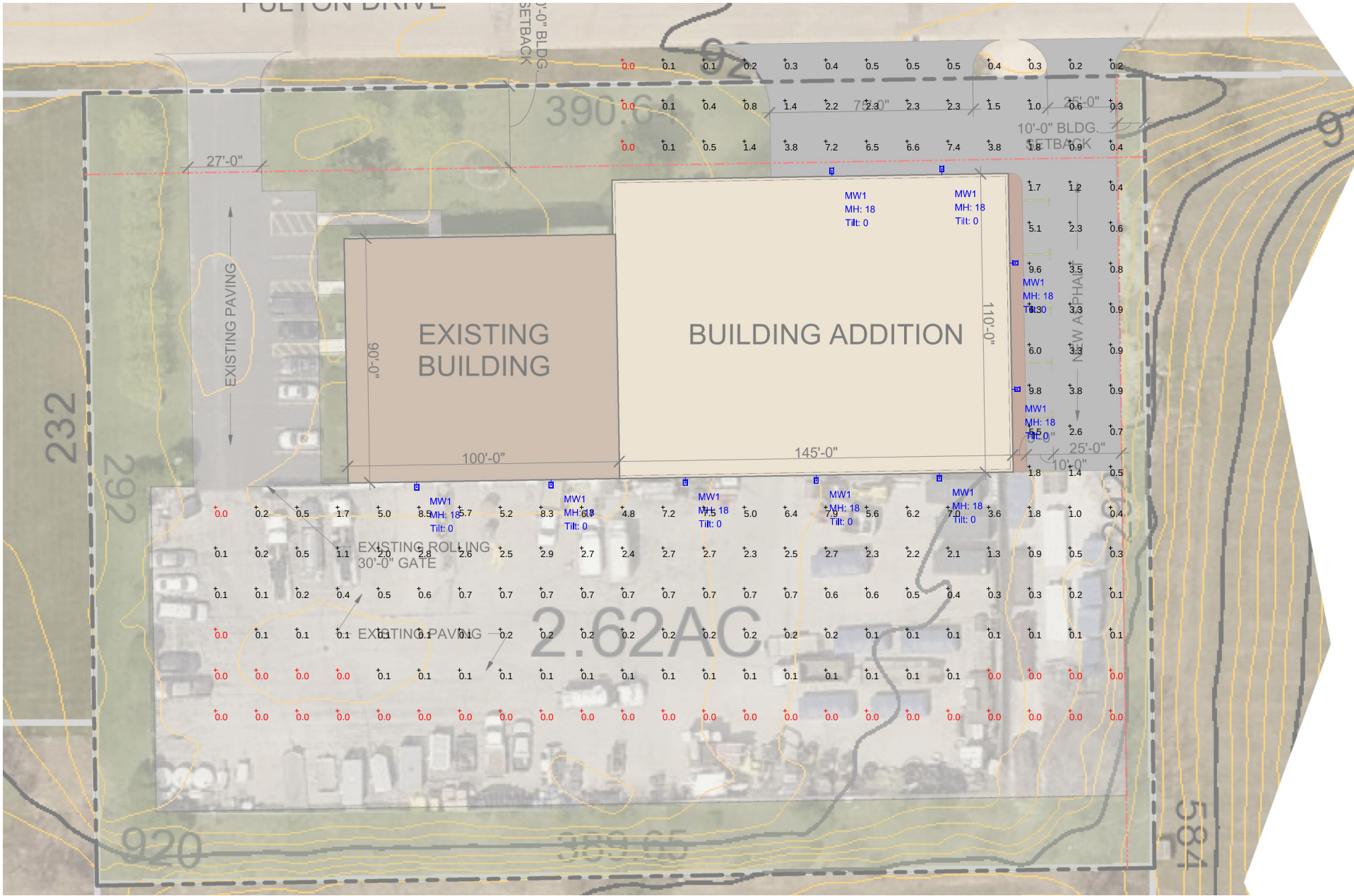
Star Power Juniper *Juniperus x* 'J.N. Select Blue' shown at 9'-0" in diameter in plan

Mature Height: 17 feet Mature Spread: 7-9 feet

I did not travel to the site and physically measure the drip line of each tree on site not did I identify each tree by genus and species either

The existing symbol is just a generic symbol shown at 18'-0" in diameter which I feel is appropriate and not an over estimation

4. Parking stall size as shown (9'x18') is not to code; **Attached plans show this revision.**



SITE LIGHTING
SCALE: 1" = 50'

FC READINGS @ ' AFG

LUMINAIRE SCHEDULE							
Symbol	Qty	Label	Arrangement	Lum. Watts	Lum. Lumens	LLF	Description
	9	MW1	SINGLE	90.2468	12163	0.900	MWP0209W27V50KD

CALCULATION SCHEDULE							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
SITE_LIGHTING	Illuminance	Fc	1.48	9.8	0.0	N.A.	N.A.

IMPORTANT
PRESENTATION PLANS ONLY.
DO NOT USE FOR CONSTRUCTION.

GENERAL NOTES

1) CALCULATIONS ARE PROVIDED USING INDUSTRY RECOGNIZED SOFTWARE AND ARE PROVIDED FOR ESTIMATION PURPOSES ONLY. INPUT DATA AND DATA, HOWEVER, ACTUAL LIGHTING LEVELS WILL VARY DEPENDING ON FIELD CONDITIONS SUCH AS ROOM CHARACTERISTICS, TEMPERATURE, THE CALCULATIONS CORRESPOND TO THE INFORMATION PROVIDED. ASSUMPTIONS MAY BE MADE FOR INFORMATION THAT IS NOT PROVIDED. IT IS THE RESPONSIBILITY OF THOSE USING THIS SERVICE TO VERIFY THAT OUR INPUT DATA IS CONSISTENT WITH ACTUAL FIELD CONDITIONS. RESULTS OF THE LIGHTING CALCULATIONS ACCURATELY REFLECT THE INPUT VOLTAGE AND LUMINAIRE OUTPUT AND OTHER FACTORS. CALCULATIONS ARE SUBJECT TO LIMITATIONS OF THE SOFTWARE. DUE TO THE ABOVE CONSIDERATIONS, UNIFORM LED WILL NOT GUARANTEE THAT ACTUAL LIGHT LEVELS MEASURED IN THE FIELD WILL MATCH THE INITIAL CALCULATIONS.

2) NO OBJECTS CONSIDERED IN CALCULATIONS UNLESS OTHERWISE NOTED ON THE PRINT.

REFLECTION VALUES

CEILING: 8
WALLS: 5
FLOOR: 2
RACKING: 5
(IF APPLICABLE)



NORTH SHORE ENVIRONMENTAL GERMANTOWN, WI				SHEET NO. E101	
DRAWING	DATE	DRAWN BY	REVIEWED BY		
PRELIM	3-24-20	CS	CS		

SHEET INDEX

C1.0	SITE PLAN
EX1.0	EXISTING FLOOR PLAN
A1.0	FLOOR PLAN
A2.0	ELEVATIONS
A3.0	SECTIONS
A7.0	REFLECTED CEILING PLAN
S1.0	FOUNDATION PLAN

PROJECT INFORMATION

APPLICABLE BUILDING CODE

2015 INTERNATIONAL BUILDING CODE (WITH WISCONSIN AMENDMENTS)
ASHRE STANDARD 90.1-2013

BUILDING CONTENT

BUILDING & FIRE AREA SQUARE FOOTAGES

FLOOR AREAS	EXISTING	NEW	SUB-TOTAL
SECOND FLOOR	----- S.F.	----- S.F.	----- S.F.
FIRST FLOOR	9,000 S.F.	15,950 S.F.	24,950 S.F.
CANOPIES (COLUMN SUPPORTED)	----- S.F.	----- S.F.	----- S.F.
BASEMENT	----- S.F.	----- S.F.	----- S.F.
BUILDING AREA SUB-TOTALS	9,000 S.F.	15,950 S.F.	24,950 S.F.
MEZZANINES	----- S.F.	3,000 S.F.	3,000 S.F.
FIRE AREA TOTALS	9,000 S.F.	18,950 S.F.	27,950 S.F.

HIGH PILE STORAGE	NO
FIRE ALARM SYSTEM	YES/NO

OCCUPANCY

B, F1, S1
NON SEPARATED

CONSTRUCTION CLASSIFICATION

TYPE IIB CONSTRUCTION
SPRINKLED YES (EXISTING + ADDITION)
FIREWALL NO

ALLOWABLE AREA

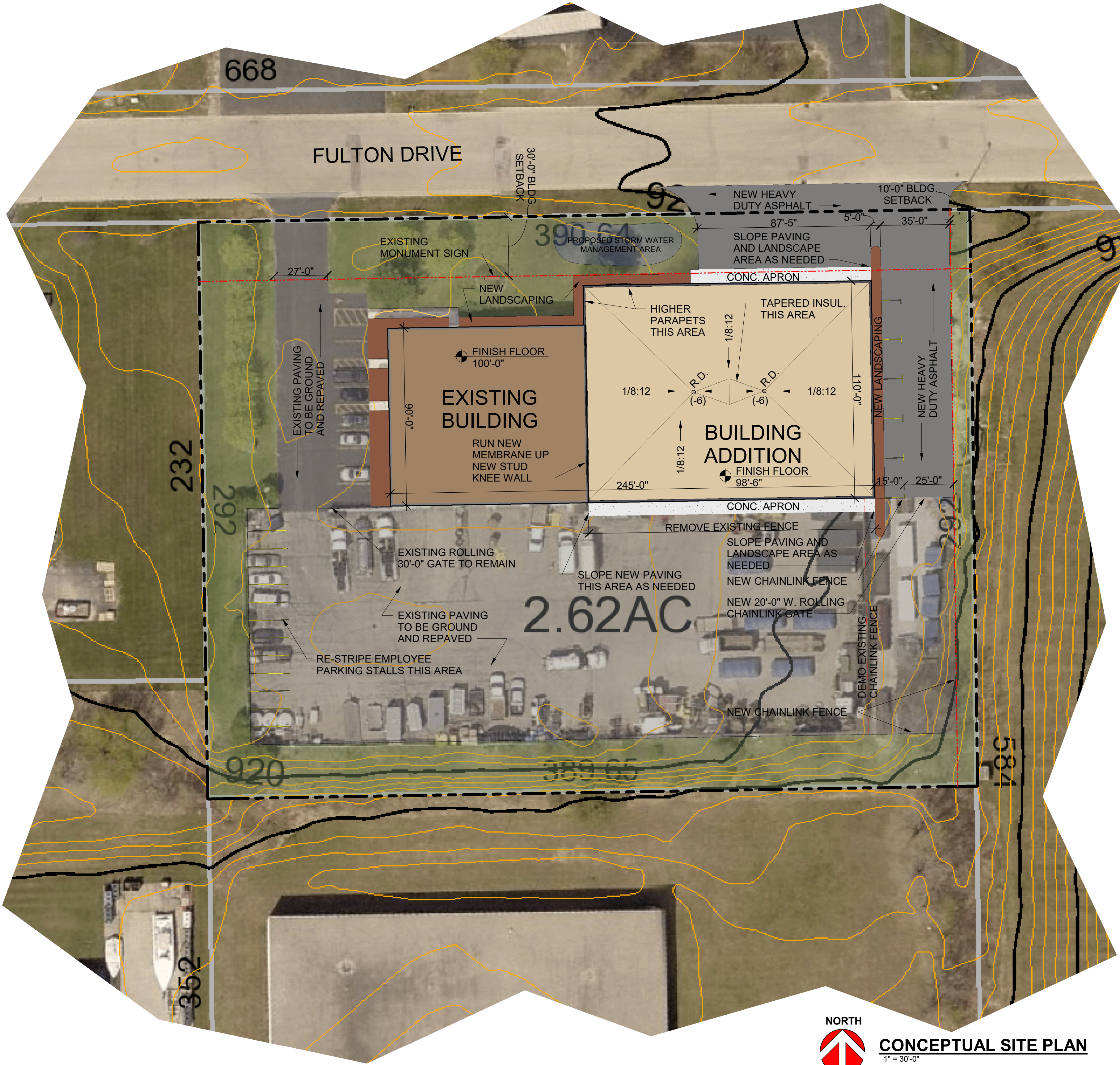
TABULAR FLOOR AREA:	15,500 S.F.
FRONTAGE INCREASE:	11,625 S.F.
SPRINKLER INCREASE:	46,500 S.F.
TOTAL ALLOWABLE AREA:	73,625 S.F.
ALLOWABLE FIRE AREA:	73,625 S.F.

BUILDING/SITE CONTENT

BUILDING SIZE	24,950 S.F.	21.9%
HARD SURFACE	59,265 S.F.	52.0%
GREEN SPACE	29,707 S.F.	26.1% (20% MIN.)
PARCEL SIZE (APPROX.)	113,922 S.F.	2.62 ACRES
PARKING PROVIDED	15 STALLS (1 STALL/1,663.3 S.F.)	

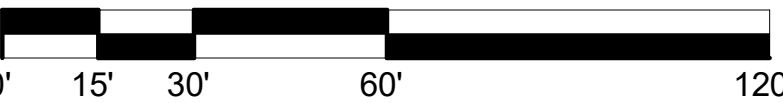
ZONING INFORMATION

ZONING:	M1
FRONT YARD SETBACK:	30'-0"
SIDE YARD SETBACK:	10'-0"
REAR YARD SETBACK:	25'-0"

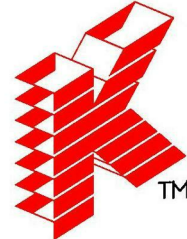


CONCEPTUAL SITE PLAN

1" = 30'-0"



THE LOT DIMENSIONS AND BEARINGS SHOWN ON THIS PLAN
ARE INTERPRETED VALUES. FOLLOW UP INVESTIGATION WITH STATE
AND LOCAL AUTHORITIES AND/OR WITH CERTIFIED SURVEY MAP DATA
WHEN AVAILABLE IS REQUIRED.



Keller

PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 /
1-800-236-2534
FAX (920) 766-5004

MADISON
711 Lake Dr.
San Prairie, WI 53590
PHONE (608) 318-2336
FAX (608) 318-2337

www.kellerbuilds.com

PROPOSED FOR:

NORTH SHORE ENVIRONMENTAL

GERMANTOWN, WISCONSIN

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consent of KELLER, INC.

REVISIONS

1	03/04/2020	J.S.B.
2	03/13/2020	J.S.B.
3	03/24/2020	J.S.B.
4		
5		
6		

PROJECT MANAGER:

A. NAGEL

DESIGNER:

C. MANSKE

DRAWN BY:

J. BOCHE

EXPEDITOR:

SUPERVISOR:

PRELIMINARY NO:

P20045

CONTRACT NO:

DATE:

02/13/2020

SHEET:

C1.0



Keller

PLANNERS | ARCHITECTS | BUILDERS

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FAX (920) 766-5004

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www.kellerbuilds.com

NORTH SHORE ENVIRONMENTAL

WISCONSIN

GERMANTOWN,

PROPOSED FOR:

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REVISIONS

1	03/04/2020	J.S.B.
2	03/13/2020	J.S.B.
3	03/24/2020	J.S.B.
4		
5		
6		

PROJECT MANAGER:

A. NAGEL

DESIGNER:

C. MANSKE

DRAWN BY:

J. BOCHE

EXPEDITOR:

SUPERVISOR:

PRELIMINARY NO:

P20045

CONTRACT NO:

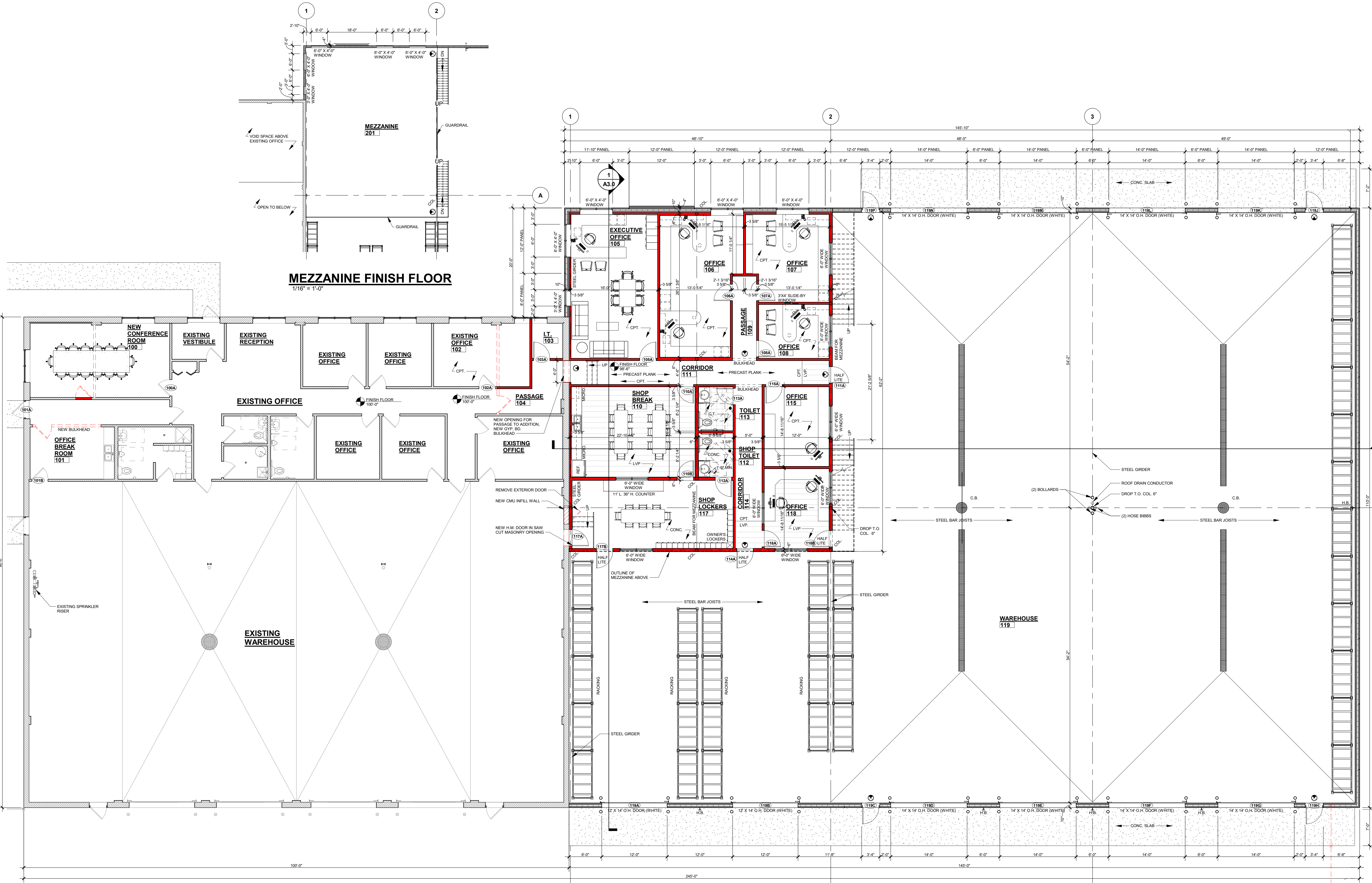
DATE:

02/13/2020

SHEET:

A1.0

PRELIMINARY - NOT FOR CONSTRUCTION



FLOOR PLAN

1/8" = 1'-0"

WALL KEY

	NEW WALL/FURRING
	NEW MASONRY/ VENEER WALL
	NEW COOLER/ FREEZER WALLS
	NEW FOUNDATION WALL
	TYPICAL EXISTING WALL
	DEMO WALLS
	FIRE WALL OR FIRE BARRIER

CHARLINK FENCE TO
BE REMOVED



Keller

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N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 /
1-800-236-2534
FAX (920) 766-5004

MADISON
711 Lake Dr.
Sun Prairie, WI 53590
PHONE (608) 318-2336
FAX (608) 318-2337

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

WISCONSIN

GERMANTOWN,

PROPOSED FOR:

NORTH SHORE ENVIRONMENTAL

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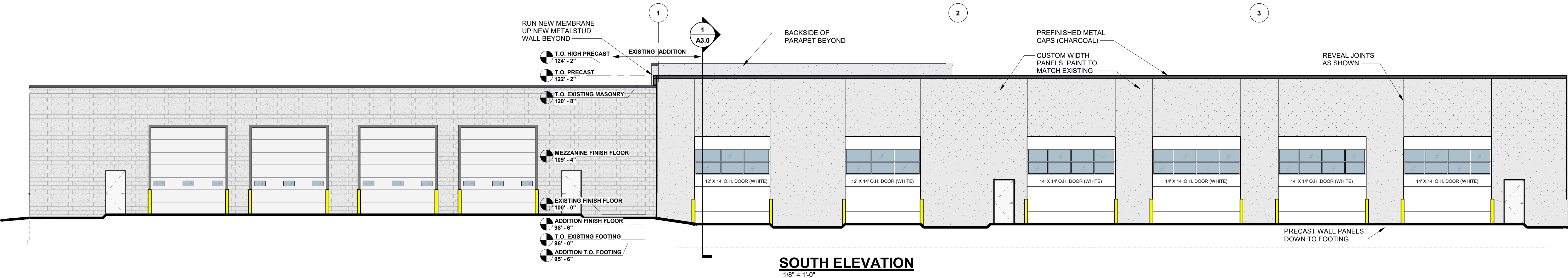
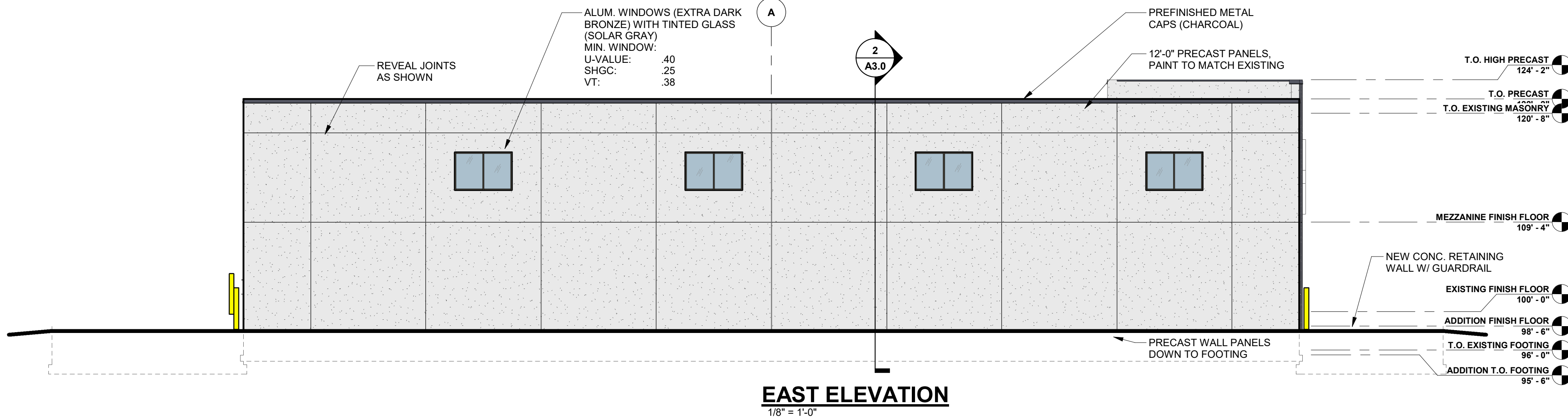
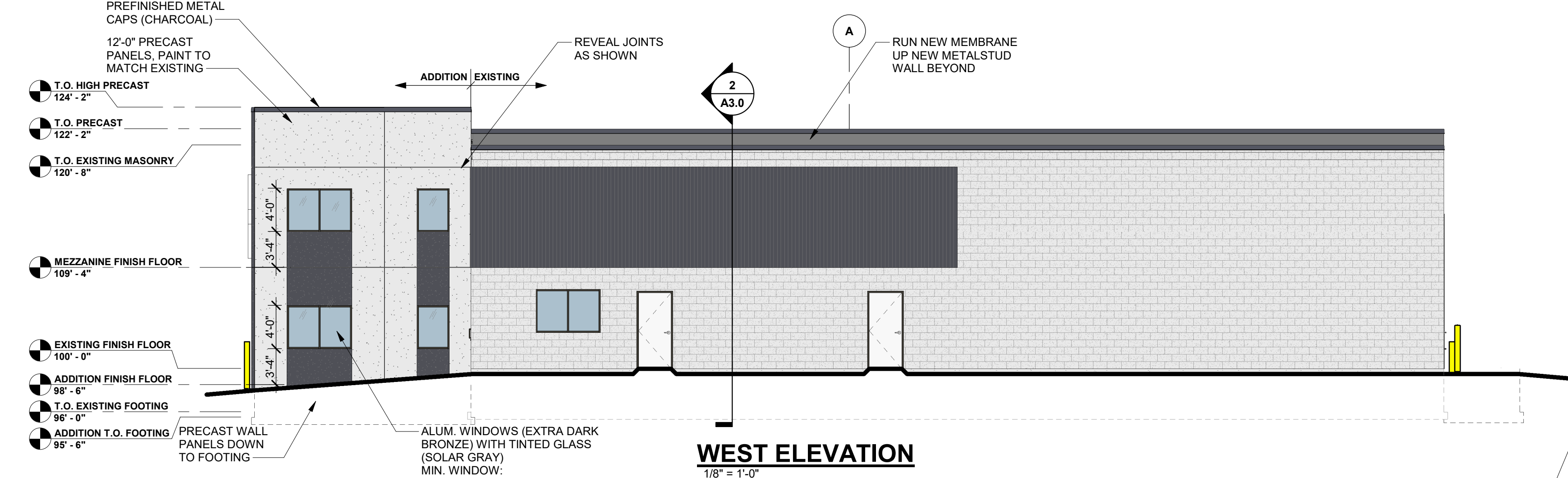
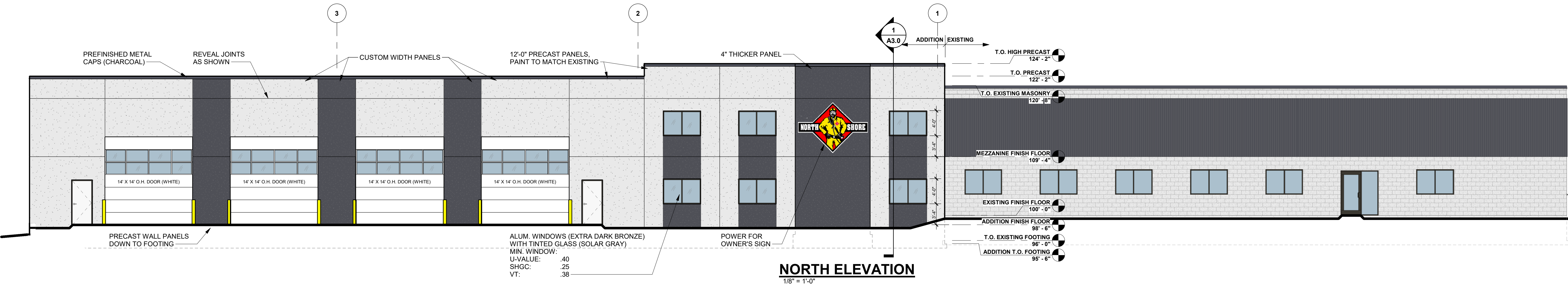
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02/13/2020

SHEET:

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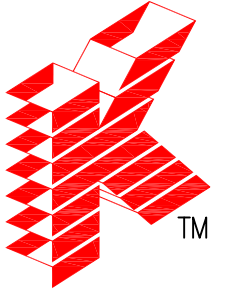




NORTH SHORE ENVIRONMENTAL

GERMANTOWN,

WISCONSIN



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PLANNERS / ARCHITECTS / BUILDERS

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Goldendale Rd
Germantown, WI
53022
(262)250-9710

NORTH SHORE ENVIRONMENTAL
N117 W18493 FULTON DRIVE GERMANTOWN, WI

CJE NO.: CJE2015R2
MARCH 26, 2020
REV.:05-21-20

C1.0
SHEET 1 OF 4

SITE AREAS:

TOTAL SITE AREA = 113,922 S.F. (2.615 ACRES)

EXISTING SITE AREAS:
EXISTING BUILDING AREA = 9,000 S.F.
EXISTING PAVEMENT = 39,632 S.F.
EXISTING PAVEMENT TO BE REMOVED = 8073 S.F.
EXISTING GRAVEL AREA TO BE REMOVED = 15,472 S.F.

TOTAL IMPERVIOUS AREA = 72,177 S.F. (1.657 ACRES), 63.4%
TOTAL GREEN SPACE AREA = 41,745 S.F. (0.958 ACRES), 36.6%

PROPOSED SITE AREAS:
PROPOSED BUILDING = 16,015 S.F.
PROPOSED PAVEMENT = 15,769 S.F.

TOTAL IMPERVIOUS AREA = 80,416 S.F. (1.846 ACRES), 70.6%
TOTAL GREEN SPACE AREA = 33,506 S.F. (0.769 ACRES), 29.4%

1. DISTURBED AREA = 39,400 S.F. (0.905 ACRES).
2. NET INCREASE IN IMPERVIOUS AREA = 8,239 S.F.

NOTE: THE PROPOSED DEVELOPMENT WILL REDUCE THE AMOUNT OF PAVEMENT (INCLUDING GRAVEL AREA) BY 7,776 S.F.

3. STORM WATER MANAGEMENT MEETING THE GREEN INFRASTRUCTURE REQUIREMENTS OF THE VILLAGE AND MMSD CHAPTER 13.302(3)(C) WILL BE PROVIDED BY A PROPOSED BIO-RETENTION BASIN ALONG THE NORTH SIDE OF THE SITE.

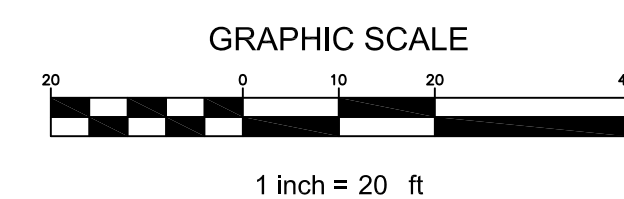
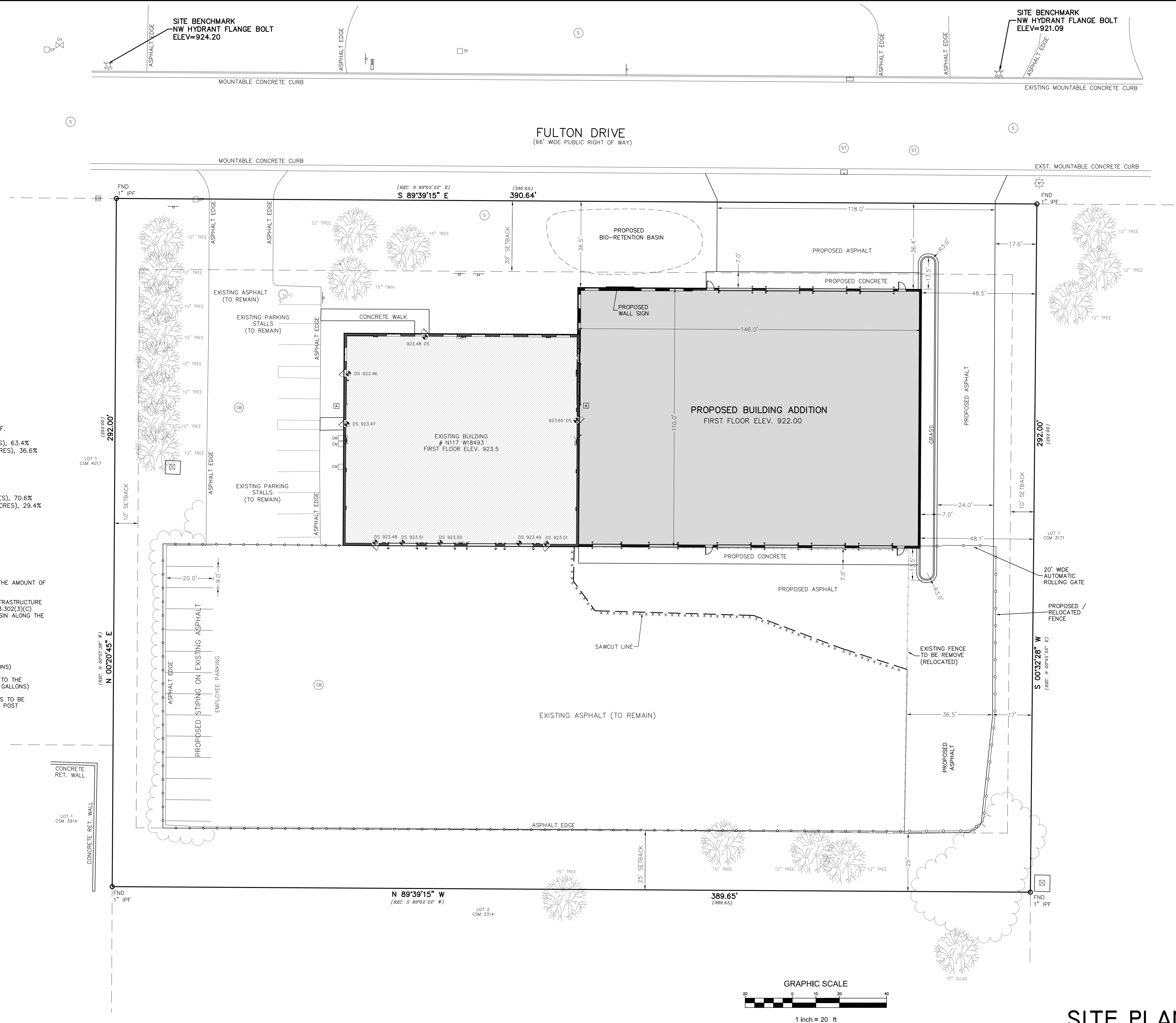
GREEN INFRASTRUCTURE REQUIREMENT:

REQUIRED VOLUME = $\frac{1}{2}$ X TOTAL AREA OF NEW IMPERVIOUS SURFACE

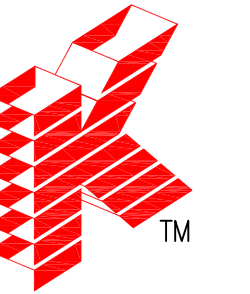
0.0416 FT. X 8,239 S.F. = 343 C.F. (2,564 GALLONS)

PROPOSED VOLUME PROVIDED FROM BOTTOM OF BASIN TO THE SPILLWAY ELEVATION (EL. 920.5) = 1,970 C.F. (14,737 GALLONS)

4. AS-BUILT PLANS PREPARED TO VILLAGE STANDARDS TO BE PREPARED AND PROVIDED TO VILLAGE OF GERMANTOWN POST CONSTRUCTION, PER CITY REQUIREMENTS.



GENERAL CONTRACTOR:



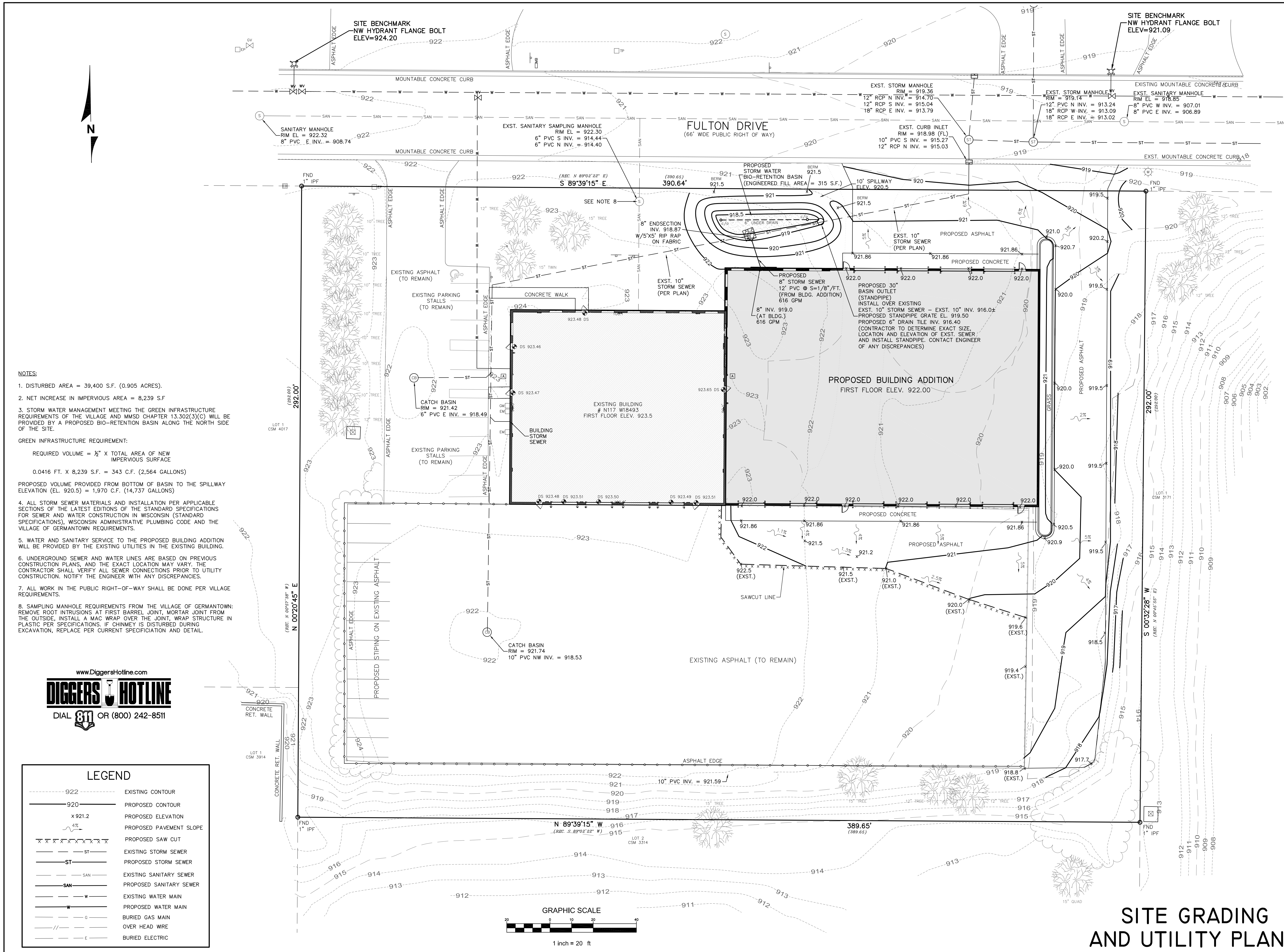
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(262)250-9710

NORTH SHORE ENVIRONMENTAL
N117 W18493 FULTON DRIVE GERMANTOWN, WI

CJE NO.: CJE2015R2
MARCH 26, 2020
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C2.0
SHEET 2 OF 4



NOTES:

1. DISTURBED AREA = 39,400 S.F. (0.905 ACRES).
2. NET INCREASE IN IMPERVIOUS AREA = 8,239 S.F.
3. STORM WATER MANAGEMENT MEETING THE GREEN INFRASTRUCTURE REQUIREMENTS OF THE VILLAGE AND MMSD CHAPTER 13.302(3)(C) WILL BE PROVIDED BY A PROPOSED BIO-RETENTION BASIN ALONG THE NORTH SIDE OF THE SITE.

GREEN INFRASTRUCTURE REQUIREMENT:

REQUIRED VOLUME = $\frac{1}{2}$ " X TOTAL AREA OF NEW IMPERVIOUS SURFACE

0.0416 FT. X 8,239 S.F. = 343 C.F. (2,564 GALLONS)

PROPOSED VOLUME PROVIDED FROM BOTTOM OF BASIN TO THE SPILLWAY ELEVATION (EL. 920.5) = 1,970 C.F. (14,737 GALLONS)

4. ALL STORM SEWER MATERIALS AND INSTALLATION PER APPLICABLE SECTIONS OF THE LATEST EDITIONS OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN (STANDARD SPECIFICATIONS), WISCONSIN ADMINISTRATIVE PLUMBING CODE AND THE VILLAGE OF GERMANTOWN REQUIREMENTS.
5. WATER AND SANITARY SERVICE TO THE PROPOSED BUILDING ADDITION WILL BE PROVIDED BY THE EXISTING UTILITIES IN THE EXISTING BUILDING.
6. UNDERGROUND SEWER AND WATER LINES ARE BASED ON PREVIOUS CONSTRUCTION PLANS, AND THE EXACT LOCATION MAY VARY. THE CONTRACTOR SHALL VERIFY ALL SEWER CONNECTIONS PRIOR TO UTILITY CONSTRUCTION. NOTIFY THE ENGINEER WITH ANY DISCREPANCIES.
7. ALL WORK IN THE PUBLIC RIGHT-OF-WAY SHALL BE DONE PER VILLAGE REQUIREMENTS.
8. SAMPLING MANHOLE REQUIREMENTS FROM THE VILLAGE OF GERMANTOWN: REMOVE ROOT INTRUSIONS AT FIRST BARREL JOINT. MORTAR JOINT FROM THE OUTSIDE. INSTALL A MAC WRAP OVER THE JOINT. WRAP STRUCTURE IN PLASTIC PER SPECIFICATIONS. IF CHIMNEY IS DISTURBED DURING EXCAVATION, REPLACE PER CURRENT SPECIFICATION AND DETAIL.



LEGEND	
---	EXISTING CONTOUR
- - -	PROPOSED CONTOUR
x 921.2	PROPOSED ELEVATION
4%	PROPOSED PAVEMENT SLOPE
x x x x x x x x	PROPOSED SAW CUT
ST	EXISTING STORM SEWER
ST	PROPOSED STORM SEWER
SAN	EXISTING SANITARY SEWER
SAN	PROPOSED SANITARY SEWER
W	EXISTING WATER MAIN
W	PROPOSED WATER MAIN
G	BURIED GAS MAIN
//	OVER HEAD WIRE
E	BURIED ELECTRIC

CONSTRUCTION SCHEDULE

1. OBTAIN PLAN APPROVAL AND OTHER APPLICABLE PERMITS.
2. INSTALL CONSTRUCTION EXIT BY UPGRADING EXISTING ASPHALT DRIVE TO MEET WDNR TECH. STANDARD 1057.
3. INSTALL SILT FENCE
4. INSTALL INLET PROTECTION.
5. ROUGH GRADE SITE. DO NOT INSTALL BIORETENTION BASIN DURING SITE ROUGH GRADING.
6. BEGIN BUILDING CONSTRUCTION AND ASPHALT BASE COURSE.
7. ONCE BASE COURSE OF ASPHALT AND FOOTINGS AND FOUNDATIONS ARE INSTALLED, CONSTRUCT BIORETENTION BASIN. BIORETENTION BASIN CONSTRUCTION TO INCLUDE ALL ELEMENTS INCLUDING STANPIPE AND DRAIN TILE, AGGREGATE BASE COURSE AND ENGINEERED SOIL, ETC.
8. INSTALL BUILDING STORM SEWER & OUTLET PROTECTION.
9. FINAL GRADE SLOPES AND TOPSOIL; VEGETATE ALL DISTURBED AREAS AND PROVIDE EROSION MAT ON ALL SLOPES 4:1 OR GREATER. PROVIDE BIORETENTION BASIN PLANTINGS.
9. ALL EROSION CONTROL PRACTICES WILL BE INSPECTED WEEKLY AND AFTER RAINFALL, NEEDED REPAIRS WILL BE PERFORMED IMMEDIATELY.
10. AFTER SITE IS STABILIZED, REMOVE ALL TEMPORARY MEASURES AND VEGETATE THE DISTURBED AREAS.
11. ESTIMATED TIME BEFORE FINAL STABILIZATION - 3 MONTHS.

MAINTENANCE PLAN

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY "X" RUNOFF-PRODUCTION RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
2. SEDIMENT WILL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES ABOUT 0.5 FT. DEEP AT THE FENCE. THE SILT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.
3. ALL SEEDED AREAS WILL BE WATERED, FERTILIZED, RESEED AS NECESSARY, AND MULCHED TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
4. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BY STREET CLEANING BEFORE THE END OF EACH DAY.

EROSION CONTROL PRACTICES SCHEDULE

- ① SILT FENCE
- ② CONSTRUCTION EXIT
- ③ EROSION MATTING
- ④ OUTLET PROTECTION
- ⑤ INLET PROTECTION

FOR FINAL STABILIZATION, PROVIDE CLASS I, TYPE B EROSION MAT PER WSDOT EROSION CONTROL PAL (OR EQUAL) IN ALL ROADSIDE DITCHES, DEFINED SWALES, SIDE SLOPES, BERMS AND ALL OTHER SLOPES 4:1 OR GREATER. INSTALL PER MANUFACTURERS SPECIFICATIONS.

NOTES:

1. ALL EROSION CONTROL METHODS SHALL BE IN ACCORDANCE WITH THE VILLAGE OF GERMANTOWN STANDARDS AND WDNR CPS TECHNICAL STANDARDS.
2. ALL EXPOSED SOIL AREAS NOT DISTURBED WITHIN SEVEN (7) DAYS SHALL BE IMMEDIATELY RESTORED WITH SEED, TEMPORARY SEED AND MULCH OR POLYMER.
3. SILT FENCE PLACED ALONG PROPOSED NORTH EAST ENTRANCE DRIVE CAN BE REPLACED WITH WATTLE OR SEDIMENT LOG AS AN ALTERNATIVE.

TEMPORARY STABILIZATION METHODS

TEMPORARY SEEDING:
DURING GROWING SEASON (MAY 2 - OCTOBER 31) TEMPORARY SEEDING (COVER CROP) TO BE USED FOR TEMPORARY STABILIZATION DURING SITE CONSTRUCTION.

Species	Lbs/Acre	Percent Purity
Oats	131	98
Cereal Rye	131*	97
Winter Wheat	131*	95
Annual Ryegrass	80*	97

* Fall Seeding

LAND APPLICATION OF ADDITIVES:
DURING NONGROWING SEASON (NOVEMBER 1 - MAY 1) CONTRACTOR TO PROVIDE TYPE B SOIL STABILIZER DURING SITE CONSTRUCTION. STABILIZER TO BE POLYACRYLAMIDE (PAM) PER LATEST WDOT PAL (UPDATED 11/2/2017) - SEE WDNR TECHNICAL STANDARD 1050.

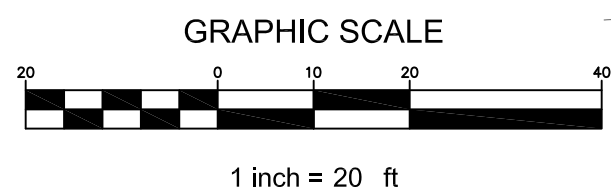
STABILIZATION SHOULD BE COMPLETED WITHIN 7 DAYS OF ESTABLISHING FINAL GRADE OR THAT WILL OTHERWISE EXIST FOR MORE THAN 14 DAYS.

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LEGEND

922	EXISTING CONTOUR
920	PROPOSED CONTOUR
x 921.2	PROPOSED ELEVATION
x x x x x x x x x x	PROPOSED SAW CUT
ST	EXISTING STORM SEWER
ST	PROPOSED STORM SEWER
SAN	EXISTING SANITARY SEWER
SAN	PROPOSED SANITARY SEWER
W	EXISTING WATER MAIN
W	PROPOSED WATER MAIN
G	BURIED GAS MAIN
//	OVER HEAD WIRE
E	BURIED ELECTRIC
□	SILT FENCE

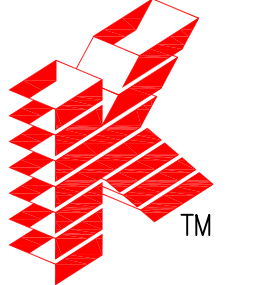


SITE EROSION
CONTROL PLAN

C3.0
SHEET 3 OF 4

CJ
engineering
civil design and consulting
9205 W. Center Street
Suite 214
Milwaukee, WI 53222
PH. (414) 443-1312
www.cj-engineering.com

GENERAL CONTRACTOR:



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Germantown, WI
53022
(262)250-9710

NORTH SHORE ENVIRONMENTAL

N117 W18493 FULTON DRIVE GERMANTOWN, WI

CJE NO.: CJE2015R2
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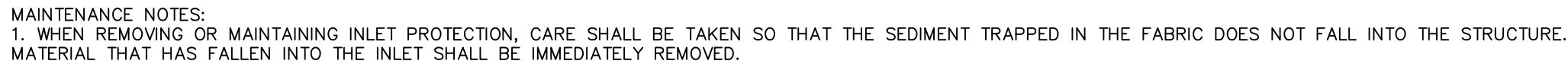


NORTH SHORE ENVIRONMENTAL
N117 W18493 FULTON DRIVE GERMANTOWN, WI

C4.0

SHEET 4 OF 4

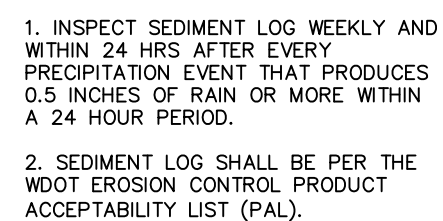
SHEET 4 OF 4



9. USE WISDOT APPROVED SILT FENCE

NOTE: EXIT SHALL BE MINIMUM 18' WIDE

6. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION.



SITE DETAILS

LEGAL DESCRIPTION:

LOT 1 OF CSM 4019 IN THE SOUTHWEST 1/4 OF THE
NORTHWEST 1/4 OF SECTION 21, TOWNSHIP 9 NORTH,
RANGE 20 EAST, IN THE VILLAGE OF GERMANTOWN,
WASHINGTON COUNTY, WISCONSIN.

CONTAINING: 113922 SQUARE FEET OR 2.6153 ACRES.

NOTES

1. LEGAL DESCRIPTION BASED ON INFORMATION FROM CLIENT.
2. THE UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, ON INFORMATION FURNISHED BY THE UTILITY COMPANIES, DIGGERS HOTLINE AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.
3. SUBJECT PROPERTY IS LOCATED WITHIN AN AREA HAVING A ZONE DESIGNATION X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN PER INFORMATION FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NO. 55131C03570, WITH A DATE OF IDENTIFICATION OF 11/20/2013. IN COMMUNITY NO. VILLAGE OF GERMANTOWN, 550472, WHICH IS THE COMMUNITY IN WHICH THE SUBJECT PROPERTY IS SITUATED.
4. PROJECT BENCHMARK - WEST INVERT ELEVATION AT SANITARY MANHOLE FOUND IN BUNSEN DRIVE, 400' WEST OF CENTERLINE OF BUILDING AT N118 W18631 FULTON DRIVE, EL = 908.76'.
5. SITE BENCHMARK - NW FLANGE BOLT ON HYDRANTS, AS SHOWN HEREON'.
6. ELEVATIONS BASED ON INFORMATION FROM THE VILLAGE OF GERMANTOWN AND ARE AT NGVD 1929.
7. SURVEY DATUM: COORDINATES ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), DANE COUNTY, NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT (NAD83(2011)).
8. DUE TO SNOW AND ICE CONDITIONS AT TIME OF SURVEY, NOT ALL IMPROVEMENTS AND/OR PHYSICAL FEATURES MAY BE SHOWN.

LEGEND		
	SAN	SANITARY SEWER
	ST	STORM SEWER
	W	WATER MAIN
	G	BURIED GAS LINE
	TEL	BURIED TELEPHONE LINE
	E	BURIED ELECTRIC LINE
	FO	BURIED FIBER OPTIC LINE
	///	OVERHEAD UTILITY LINES
	CATV	BURIED CABLE TELEVISION LINES
	COMB	COMBINATION SEWER
	W	WOOD FENCE
	M	METAL FENCE
		EDGE OF TREES AND BRUSH
	923.65 DS	DOOR SILL ELEVATION
		FIRE DEPARTMENT CONNECTION
		ELECTRIC TRANSFORMER
		ELECTRIC METER
		ELECTRIC PEDESTAL
		ELECTRIC BOX AT GRADE
		TELEPHONE BOX AT GRADE
		TELEPHONE PEDESTAL
		TV PEDESTAL
		GAS METER
		AIR CONDITIONER
		UTILITY POLE
		WOOD SIGN
		METAL SIGN
		FLAG POLE
		BOLLARD
		BOLLARD LIGHT
		YARD LIGHT
		HYDRANT
		WATER VALVE
		GAS VALVE
		MANHOLE
		STORM MANHOLE
		CATCH BASIN
		CURB INLET
		METAL LIGHT POLE
		CONCRETE LIGHT POLE
		WOOD LIGHT POLE
		MAIL BOX
		FIBER OPTIC MARKER
		GUY WIRE

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I CERTIFY THAT I HAVE SURVEYED THE ABOVE DESCRIBED PROPERTY, AND THE ABOVE MAP IS A TRUE REPRESENTATION THEREOF AND SHOWS THE SIZE AND LOCATION OF THE PROPERTY, ITS EXTERIOR BOUNDARIES, THE LOCATION AND DIMENSIONS OF ALL VISIBLE STRUCTURES THEREON, BOUNDARY FENCES, APPARENT EASEMENTS AND ROADWAYS AND VISIBLE ENCROACHMENTS, IF ANY. THIS SURVEY IS MADE FOR THE EXCLUSIVE USE OF THE PRESENT PROPERTY, AND ALSO THOSE WHO PURCHASE, MORTGAGE, OR GUARANTEE THE TITLE THERETO, WITHIN ONE (1) YEAR FROM DATE THEREOF.

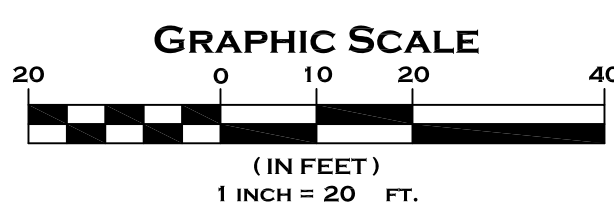
MARCH 5, 2017
DATE

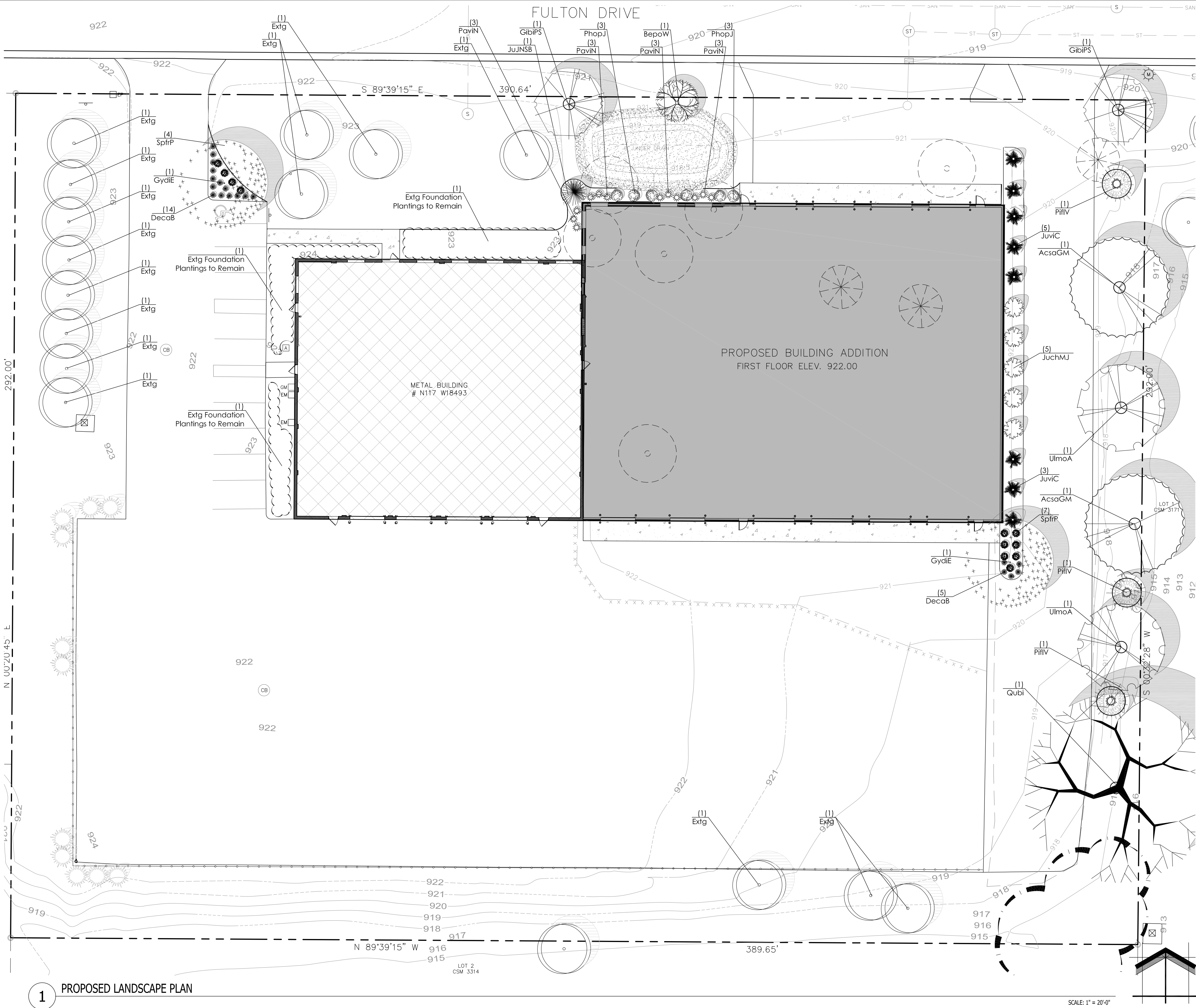
MICHAEL J. BERRY, S-2545
REGISTERED LAND SURVEYOR - S-2545

PLAT OF SURVEY WITH TOPOGRAPHY

FOR
NORTH SHORE ENVIRONMENTAL
N117 W18493 FULTON DRIVE
GERMANTOWN, WI

DRAWN BY:	ES	DATE:	MARCH 05, 2020
CHECKED BY:	MJB	DRAWING NO.	P-0
CSE Job No.:	20-018	SHEET	1 OF 1





SITE INFORMATION

USDA PLANT HARDINESS ZONE 5a (-20 to -15 Degrees F)
LOT ZONING
LOT AREA 114,127 SQ. FT. (2.62 Acres)
SITE BUILDING AREA
TOTAL IMPERVIOUS
TOTAL GREENSPACE
SITE LANDSCAPE PERCENTAGE
TOTAL PARKING STALLS
DESIGN COMPLIANCE: THIS LANDSCAPE PLAN IS ACCURATE AND IN COPLAINE WITH THE VILLAGE OF GERMANTOWN LANDSCAPE REQUIREMENTS SET FOR IN SECTION 17-43 SITE PLAN APPROVAL REQUIREMENTS, 17.43(5)(C) PARKING LOT, 17.57 BERMS, 17.60 TREES, 17.43(5)(C) PARKING LOT.
IN PARKING LOTS, AT LEAST 5% OF THE INTERIOR PARKING AREA SHALL BE LANDSCAPED WITH PLANTINGS, AND ONE TREE OF A MINIMUM 2-INCH CALIPER, FOR EACH 10 SPACES

LANDSCAPE PLAN GENERAL NOTES

- AT LEAST SEVENTY-TWO HOURS PRIOR TO ANY EXCAVATION, CONTRACTOR SHALL VERIFY UTILITY LOCATIONS AS GIVEN BY THE ELECTRIC, GAS, TELEPHONE, WATER, SEWER, AND CABLE TELEVISION COMPANIES, UTILITIES OR ENTITIES. REVIEW WITH OWNER'S REPRESENTATIVE SITE MECHANICAL, SITE ELECTRICAL AND LIGHTING, SITE GRADING AND DRAINAGE, SITE IRRIGATION AND ALL OTHER DRAWINGS PERTAINING TO UNDERGROUND UTILITY LOCATIONS. RECORD SET OF INFORMATION THE SAME AS IN POSSESSION OF OWNER'S REPRESENTATIVE. ALSO REVIEW OWNER'S "MARK SETS" OR ALL OF THESE DRAWINGS IN POSSESSION OF THE CONTRACTOR OR OWNER. MARK ALL SUCH UTILITIES ON THE SITE PRIOR TO COMMENCING. COORDINATE WITH OWNER BEFORE AND DURING CONSTRUCTION. REPAIR ANY DAMAGE TO ANY SYSTEM THAT IS CAUSED BY LANDSCAPE CONTRACTOR AT NO COST TO OWNER.
- ALL PLANTINGS SPECIFIED FOR THE NORTH SHORE ENVIRONMENTAL PROJECT PLANTING TABLES SHALL COMPLY WITH STANDARDS AS DESCRIBED IN AMERICAN STANDARD OF NURSERY STOCK ANSI Z60.1 2014 AND ANSI STANDARDS FOR PLANTING 2012.
- ALL DEVIATIONS FROM THE APPROVED NORTH SHORE ENVIRONMENTAL PROJECT PLANS SHALL BE NOTED ON THE RECORD DRAWINGS BY THE CONTRACTOR AND MAY BE EXECUTED ONLY WITH PRIOR APPROVAL FROM THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE. VERBAL AGREEMENTS OR REVISIONS WITHOUT A CHANGE ORDER WILL NOT BE RECOGNIZED BY LANDSCAPE ARCHITECT AND OWNER.
- ALL PLANTS MUST BE BID AND SELECTED PER THE SPECIES SPECIFIED ON THE PLANS. ANY SPECIES SUBSTITUTIONS MUST BE APPROVED IN WRITING BY LANDSCAPE ARCHITECT. THE SIZES OF PLANT MATERIAL LISTED HEREIN IS A MINIMUM ACCEPTABLE SIZE. ADDITIONALLY, IF EXCESSIVE PRUNING REDUCES THE CROWN THE PLANT SHALL BE REPLACED.
- PROTECT PUBLIC FROM CONSTRUCTION WITH BARRIERS AND BARRICADES.
- ALL AREAS THAT WERE DISTURBED DURING CONSTRUCTION AND AREAS NOT COVERED WITH PAVEMENT, BUILDING, PLANTING BEDS, OR TREE PITS ARE TO BE TOPSOILED 3" DEEP (MIN.) AND SHALL BE SODDED/SEEDED WITH SPECIFIED LAWN GRASS. LANDSCAPE CONTRACTOR SHALL INCLUDE COST PER SQUARE YARD FOR ADDITIONAL SEED OPERATIONS AS MAY BE POSSIBLY REQUIRED TO REESTABLISH ADJACENT TURF GRASS AREAS WHICH MAY BECOME DAMAGED DURING THE CONSTRUCTION PROCESS OR TO REPAIR DAMAGE DONE BY OTHERS.
- CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL MATERIALS, TOOLS, EQUIPMENT, LABOR, AND PLANTS NECESSARY FOR PROPER PLANTING AND INSTALLATION OF ALL LANDSCAPE MATERIAL.
- QUANTITIES ON PLANT MATERIALS LIST ARE FOR CONVENIENCE OF BIDDING ONLY. CONTRACTOR IS RESPONSIBLE FOR ALL PLANTS SHOWN ON LANDSCAPE PLANS AND COVERAGE OF ALL AREAS DELINEATED. THE PLANS ARE TO SUPERSEDE THE PLANT LIST IN ALL CASES.
- CONTRACTOR IS RESPONSIBLE FOR ALL ESTIMATING AND BIDDING, ALL AREAS, QUANTITIES MATERIALS SHOULD BE FIELD VERIFIED WITH SITE CONDITION.
- WHERE DISCREPANCIES OCCUR BETWEEN THE LANDSCAPE PLANS AND/OR ARCHITECTURAL AND/OR THE CIVIL DRAWINGS (AND ANY OTHER SITE DRAWINGS) THE DISCREPANCIES MUST BE BROUGHT TO THE LANDSCAPE ARCHITECTS ATTENTION FOR COORDINATION AND RESOLUTION.
- ALL DISEASED, NOXIOUS OR INAPPROPRIATE MATERIALS SHALL BE REMOVED FROM THE PROPOSED SITE PRIOR TO THE START OF CONSTRUCTION AND DURING THE MAINTENANCE PERIOD.
- GENERAL CONTRACTOR SHALL LEAVE THE SITE FREE OF CONSTRUCTION DEBRIS.
- ALL LAWN AND PLANTING AREAS SHALL SLOPE TO DRAIN A MINIMUM OF 2% UNLESS NOTED OTHERWISE AND REVIEWED WITH OWNER'S REPRESENTATIVE FOR FINAL APPROVAL.
- FINISH GRADES FOR SHRUB AND GROUND COVER AREAS SHALL BE HELD 1" BELOW TOP OF ADJACENT PAVEMENTS AND CURBS, UNLESS NOTED OTHERWISE ON THE PLANS. REFER TO LSP1.2 FOR FURTHER INFORMATION.
- ALL PERENNIAL, ANNUAL AND GROUND COVER AREAS TO RECEIVE A BLEND OF ORGANIC SOIL AMENDMENTS PRIOR TO PLANTING. TILL THE FOLLOWING MATERIALS INTO EXISTING TOPSOIL TO A DEPTH OF APPROXIMATELY 8". A DEPTH OF 12" IN TREE PITS. PROPORTIONS AND QUANTITIES MAY REQUIRE ADJUSTMENT DEPENDING ON THE CONDITION OF EXISTING SOIL. REFER TO LSP1.2 FOR FURTHER INFORMATION.
PER EVERY 100 SQUARE FEET ADD: ONE - 2 CUBIC FOOT BALE OF PEAT MOSS, 2 POUNDS OF 5-10-5 GARDEN FERTILIZER, 1/4 CUBIC YARD OF COMPOSTED MANURE OR OTHER COMPOSTED, ORGANIC MATERIAL.
- ALL SHRUBS TO BE POCKET PLANTED WITH A 50/50 MIX OF COMPOSTED, ORGANIC MATERIAL AND EXISTING SOIL. INSTALL TOPSOIL INTO ALL BEDS AS NEEDED TO ACHIEVE PROPER GRADE. REMOVE ALL EXCESSIVE GRAVEL, CLAY AND STONES. REFER TO LSP1.2 FOR FURTHER INFORMATION.
- PLANT ALL TREES SLIGHTLY HIGHER THAN FINISHED GRADE AT ROOT FLARE. BACK FILL HOLE WITH 2/3 EXISTING TOPSOIL AND ORGANIC SOIL AMENDMENTS SPECIFIED IN NOTE 15. AVOID ANY AIR POCKETS. DISCARD ANY GRAVEL CLAY OR STONES. REFER TO LSP1.2 FOR FURTHER INFORMATION.
- ALL TREES TO BE INSTALLED, STAKED AND GUYED ACCORDING TO DETAILS. REFER TO ANSI STANDARDS FOR PLANTING 2012 AND DETAILS ON LSP1.2 FOR FURTHER INFORMATION.
- PROVIDE A 4'-0" - 5'-0" DIAMETER MULCH RING AT THE ROOT BALL FLARE OF ALL LAWN TREES.
- ALL PLANTINGS TO BE WATERED AT THE TIME OF PLANTING, THROUGHOUT CONSTRUCTION AND UPON COMPLETION OF PROJECT AS REQUIRED.
- WHERE SPECIFIED, ALL PLANT BEDS, PITS AND TREE RINGS ARE TO RECEIVE A MINIMUM OF 2" - 3" DRESSING OF SHREDDED HARDWOOD OAK BARK MULCH SHAVINGS FREE OF GROWTH, WEEDS, FOREIGN MATTER DETRIMENTAL TO PLANT LIFE OR GERMINATION INHIBITING INGREDIENTS. LANDSCAPE CONTRACTOR TO PROVIDE A SAMPLE TO OWNER FOR APPROVAL. CONTRACTOR TO TAKE CARE WITH INSTALLATION NOT TO DAMAGE OR COVER PLANTS. REFER TO LSP1.2 FOR FURTHER INFORMATION.
- DELUXE 50 GRASS SEED MIX REINDER'S (800) 785-3301**
20% KENTUCKY BLUE GRASS
15% NEWPORT KENTUCKY BLUE GRASS
15% SR 2100 Kentucky Bluegrass
25% Creeping Red Fescue
15% Replicator Perennial Ryegrass
10% Fiesta 4 Perennial Ryegrass
APPLY AT A RATE OF 200 POUNDS PER ACRE. REFER TO SUPPLIERS SPECIFICATIONS & INSTALLATION CUT SHEETS FOR FURTHER FORMATION
- DURING THE INITIAL "30 DAY MAINTENANCE PERIOD" THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE AND ON-GOING PLEASANT VISUAL ENVIRONMENT WHEREAS ANY PLANT WHICH IS NOT RESPONDING TO TRANSPANTING OR THRIVING SHALL IMMEDIATELY BE REPLACED. NEW LAWNS SHALL BE WATERED AND REPAIRED AND WEEDS MUST CONSTANTLY BE REMOVED, NO EXCEPTIONS WILL BE GRANTED.
MAINTENANCE NOTE:
MAINTENANCE IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN REQUIRED LANDSCAPING IN ACCORDANCE WITH THE MUNICIPALITY'S PROPERTY MAINTENANCE CODE AND AN APPROVED MAINTENANCE PLAN. THE MAINTENANCE MUST INCLUDE, AT A MINIMUM, METHODS FOR PROVIDING THE FOLLOWING:
 - NECESSARY IRRIGATION (IF REQUIRED)
 - INTEGRATED PEST MANAGEMENT,
 - PROPER FERTILIZATION
 - TREE CARE AND PRUNING, SHRUB TIP CLIPPING AND SHAPING AS REQUIRED
 - REPLACEMENT OF LOST VEGETATION, AND ALL DISEASED, DAMAGED, OR DEAD MATERIAL WILL BE REPLACED BY THE END OF THE FOLLOWING PLANTING SEASON IN PERPETUITY.
 - WEED MANAGEMENT AND BED CARE.
- ALL NEWLY PLANTED TREES AND SHRUBS ARE TO RECEIVE AN APPLICATION OF AN ANTI-TRANSPARENT SPRAY THAT WILL EFFECTIVELY REDUCE THE WATER LOSS OF TRANSPIRATION OF PLANT MATERIAL AND REDUCE THE STRESS OF TRANSPANTATION. IT IS RECOMMENDED AS PART OF THE ONGOING MAINTENANCE THAT ANY BROADLEAF EVERGREEN AND CONIFEROUS TREE AND SHRUBS (EXCLUDING ARBORVITAE) RECEIVE AN APPLICATION OF AN ANTI-DESICCANT SPRAY TO REDUCE THE LOSS OF MOISTURE DUE TO WINTER DESICCATION.
- MAINTENANCE. THE OWNER SHALL TEND AND MAINTAIN ALL PLANT MATERIALS IN A HEALTHY GROWING CONDITION AS PER THE APPROVED PLAN. PLANTINGS SHALL BE REPLACED WHEN NECESSARY AND KEPT FREE FROM REFUSE & DEBRIS. ALL PLANTING MATERIAL WHICH IS DYING OR DAMAGED BEYOND RECOVERY SHALL BE REPLACED WITHIN SIX (6) MONTHS OR BY THE NEXT PLANTING SEASON, WHICHEVER COMES FIRST.
- LANDSCAPE / SITE DEMOLITION CONTRACTOR TO VERIFY LOCATIONS OF EXISTING TREES AND SHRUBS TO BE SALVAGED AND CLEARLY TAG THEM WITH MARKING TAPE AND CONSTRUCTION FENCE.

EXISTING CONDITIONS GENERAL NOTES

- INFORMATION PERTAINING TO EXISTING CONDITIONS GIVEN ON THESE LANDSCAPE DRAWINGS REPRESENTS TO THE BEST OF OUR KNOWLEDGE THE ACTUAL EXISTING FIELD CONDITIONS. INSITE LANDSCAPE DESIGN, INC. MAKES NO WARRANTY AS TO THEIR ACCURACY. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS IMPERATIVE TO THEIR NEW WORK. REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND FIELD CONDITIONS TO THE LANDSCAPE ARCHITECT FOR REVIEW. ANY WORK PERFORMED PRIOR TO RESOLUTION OF DISCREPANCIES BY THE LANDSCAPE ARCHITECT IS SUBJECT TO REMOVAL AND REPLACEMENT AT NO ADDITIONAL COST TO THE CONTRACT.
- THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA OF DISTURBANCE THAT ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES.
- VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECTS ATTENTION PRIOR TO FABRICATION / CONSTRUCTION BEGINS.
- INSITE LANDSCAPE DESIGN, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF INSITE LANDSCAPE DESIGN, INC.

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN
DIGGERS HOT LINE
WISCONSIN STATUTE 182.0175 (1974) REQUIRES A MINIMUM OF 3 DAYS NOTICE BEFORE YOU EXCAVATE. (NOT INCLUDING SATURDAY, SUNDAY OR LEGAL HOLIDAYS)

UNDERGROUND SEWER AND UTILITY INFORMATION AS SHOWN IS OBTAINED FROM THE RECORDS OF MUNICIPALITY AND LOCAL UTILITY COMPANIES. THE ACCURACY OF WHICH CAN NOT BE GUARANTEED OR CERTIFIED TO. THE LOCATION OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS SURVEY ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN CALL THE MILWAUKEE UTILITY ALERT NETWORK (800) 242-8511, (262) 432-7910 (877) 500-5992
www.diggershotline.com OR
811
Know what's below. Call before you dig.

InSITE
LANDSCAPE DESIGN
Landscape Consulting
& Master Planning Design Services
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mdavis@insitedesigninc.com

Project:
NORTH SHORE ENVIRONMENTAL
N117 W18493 Fulton Drive
Germantown, WI

Issuance and Revisions:		
Date	Number	Description
03/19/20		70% Client Review Submittal
03/25/20		Plan Commission Submittal
5-27-2020		P.C. REVISIONS

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Sheet Title:
PROPOSED LANDSCAPE PLAN, GENERAL NOTES, AND PLANT MATERIAL TABLE

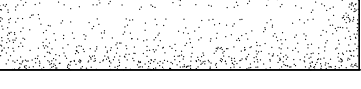
Date of Drawing: 03/25/20
Scale: 1" = 20'-0"
Drawn By: MCD
Job Number: L20-001
Sheet Number:

LSP1.1

1 PROPOSED LANDSCAPE PLAN

Proposed Plant Material Table

Broadleaf Deciduous Tree						
Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Comments
2	AcsoGM		Acer Saccharum 'Green Mountain'	Green Mountain Sugar Maple	2 1/2" Cal - B&B	
1	BepoW		Betula populifolia 'Whitespire'	Whitespire Japanese White Birch	8" - 10" - Clump B&B	
2	GibiPS		Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Maidenhair Tree	2 1/2" Cal - B&B	
2	GydiaE		Gymnocladus dioica 'Espresso'	Espresso Kentucky Coffee Tree	2 1/2" Cal - B&B	
1	Qubi		Quercus bicolor	Swamp White Oak	2 1/2" Cal - B&B	
2	UlmoA		Ulmus 'Morton' Accolade	Accolade Elm	2 1/2" Cal - B&B	
15	Extg		Existing to Remain	Existing to Remain		
6	Extg		Existing to be Removed	Existing to be Removed		
Conifer Evergreen Tree						
Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Comments
1	JUNSB		Juniperus 'J.N. Select Blue'	Star Power Juniper	4" - 5" - B&B	
6	JuviC		Juniperus virginiana 'Cupressifolia'	Hillspire Juniper	5" - 6" - B&B	
3	PIV		Pinus flexilis 'Vanderwolf's Pyramid'	Vanderwolf's Pyramid Limber Pine	5" - 6" - B&B	
3	Extg		Existing to be Removed	Existing to be Removed		
Broadleaf Deciduous Shrub						
Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Comments
6	PhopJ		Physocarpus opulifolius 'Jefam'	First Editions Amber Jubilee Ninebark	18" - 24" - Cont	
11	SpriP		Spiraea fritschiana 'J.N. Select A'	Pink-a-licious Spirea	4 1/2" pot	

Conifer Evergreen Shrub						
Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Comments
5	JuchMJ		Juniperus chinensis 'Mint julep'	Mint julep juniper	18" - 24" - B&B	
Perennial Grass						
Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Comments
19	DecoB		Deschampsia caespitosa Bronzeschleier	Bronze Veil Tuft Hair Grass	1-Gal - Cont	
12	PavIN		Panicum virgatum 'Northwind'	Northwind Switch Grass	1-Gal - Cont	
Rain Garden #1 - Storm Water Management Area						
Quantity	Symbol	Supplier	Type			
1500 sq. ft.		Agrecol	Rainwater Renewal Seed Mix - Designed for an extensive root system, these plants will increase infiltration rates, reduce erosion, and manage rainwater. Mixture contains 15 native permanent grass/ sedge species and 19 native forb species. Apply at 8 PLS pounds per acre. Refer to cut sheets for mix specifics and installation instructions.			
Comments						
1. Straight central leader, full & even crown. Prune only after planting. 2. Well balanced, multi-stemmed tree with a minimum of (3) strong canes and full appearance. 3. Prune existing tree, remove any dead, diseased or hazardous limbs. Thin out as required and raise canopy for safety and viability for both pedestrians and motorists. 4. Remove tree in its entirety and grind stump to a minimum of 12" below adjacent grade. Remove grinding chips and fill hole with topsoil and sow turf grass seed as required. 5. Evenly shaped upright tree with full branching to the ground. 6. Full, well rooted plant, evenly shaped. 7. Full, well rooted plant. 8. Male only						

NOT FOR CONSTRUCTION - PRELIMINARY - FOR ESTIMATING AND REVIEW ONLY - DO NOT SCALE THESE DRAWINGS-
These documents reflect progress & intent & may be subject to change, including additional notes and detail. These are not final construction documents and should not be used for final bidding or construction-related purposes.

L20-001 - NORTH SHORE ENVIRONMENTAL - 03/25/2020

FULL CUTOFF WALL PACK(MWP02)



DESCRIPTION

Available in two sizes, full cutoff wall pack is designed for perimeter illumination for safety, security and identity. Rugged cast-aluminum, corrosion-resistant housing with bronze polyester powder paint for lasting durability and long lifespan and secures the thermally conductive LED panel and electrical chamber 4 pcs-holes(top, bottom, and sides) make connection/disconnection safe and easy.



Medium Size 27W&45W&70W

Large Size 90W&135W

SPECIFICATION FEATURES

Construction

- Sealed die-casting profile for outdoor applications.
- Casting thermally conducts LED heat to optimize performance and long life.
- Suitable for applications requiring 3G testing prescribed by ANSI C136.31.

Optics

- Light engines are available in standard 4000 K and 5000 K (70 CRI) configurations.
- Scalable Lumen Packages from 3,800 to 18,000 Lumens.
- Tempered UV coated flat lens provide outstanding performance, uniformity and glare control.

Electrical

- Universal 120-277 or 347-480 VAC input voltage.
- Greater than 0.9 power factor, less than 20% harmonic distortion, and is suitable for operation in -40°C to 45°C ambient environments.

Lifespan

- Estimated 50,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

Warranty

- Five-year warranty.

PHOTOMETRICS

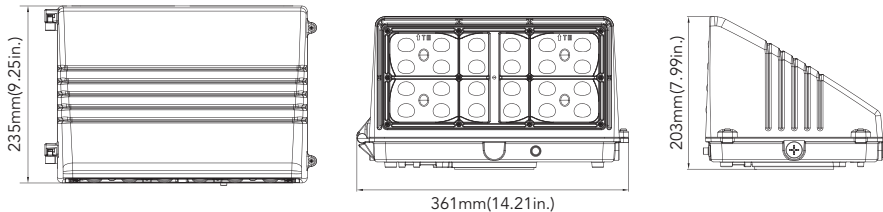
ACCESSORIES

Photocell
No. PC-JL-120-277V
USE: Photocell is field installed or pre-installed in factory by requesting

DIMENSIONS

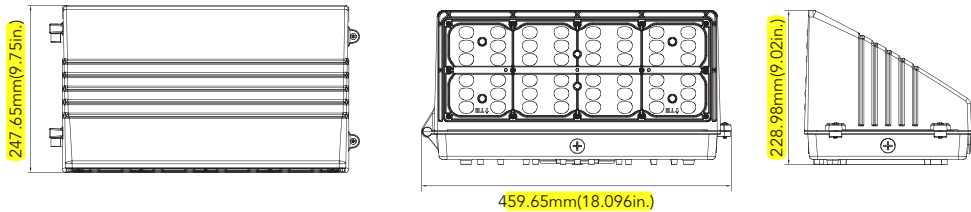
unit: mm/inch

Medium Size



Net Weight
27W: 5.774lb
45W: 5.983lb
70W: 6.164lb

Large Size



Net Weight
90W: 10.478lb
135W: 10.952lb

PERFORMANCE DATA

SYSTEM WATTS	VOLTAGE	CRI	LUMENS (4000K)	LPW (4000K)	LUMENS (5000K)	LPW (5000K)
27W	120-277VAC	70	3800lm	141 lm/W	3850lm	143 lm/W
45W	120-277V/347-480V AC	70	6300lm	140 lm/W	6350lm	141 lm/W
70W	120-277V/347-480V AC	70	9700lm	139 lm/W	9750lm	139 lm/W
90W	120-277V/347-480V AC	70	12200lm	136 lm/W	12300lm	137 lm/W
135W	120-277V/347-480V AC	70	18000lm	133 lm/W	18000lm	133 lm/W

ELECTRICAL DATA

Number Of Drivers	Driver Current (mA)	Nominal Power (W)	INPUT VOLTAGE (V)	CURRENT (Amps)
1	430	27	120	0.23
		27	208	0.13
		27	240	0.11
		27	277	0.10
1	770	45	120	0.38
		45	208	0.22
		45	240	0.19
		45	277	0.16
	1200	45	347	0.13
		45	480	0.09
1	1110	70	120	0.58
		70	208	0.34
		70	240	0.29
		70	277	0.25
	1850	70	347	0.20
		70	480	0.15
1	2270	90	120	0.75
		90	208	0.43
		90	240	0.38
		90	277	0.32
		90	347	0.26
		90	480	0.19
2	3260	135	120	1.13
		135	208	0.65
		135	240	0.56
		135	277	0.49
	3750	135	347	0.39
		135	480	0.28

ORDERING GUIDE							Example: MWP0245W27V40KDP0
Fixture Type	Wattage	Voltage	CCT	Finish	Sensor (Option)	Internal Code	
MWP02 Wall Pack Series	27 27W 45 40W 70 70W 90 90W 135 135W	27V 120-277V 48V 347-480V	40K 4000K 50K 5000K	D Dark Bronze B Black W White	P0 120-277V Photocell Blank Without Sensor	Blank Alphanumeric	



9205 W. Center Street, Suite 214
Milwaukee, WI 53222
Ph: (414) 443-1312

***GREEN INFRASTRUCTURE
STORM WATER MANAGEMENT PLAN***

FOR

North Shore Environmental

N117W18493 Fulton Drive
Germantown, WI

March 30, 2020
Revised: May 21, 2020

PREPARED BY:
Randy Bruckner, PE
CJ Engineering
9205 W. Center Street Suite 214
Milwaukee, WI 53222
Ph. 414-443-1312

CJE Job No.: 2015R1-SWMP

TABLE OF CONTENTS

- 1.) Introduction
- 2.) SWMP Requirements
- 3.) Developed Site Area & Cover
- 4.) 24-Hour Rainfall Values
- 5.) Method of Analysis
- 6.) Drainage Summary
- 7.) Appendix
 - A. Proposed Conditions
 - i. SWMP – Proposed Conditions Plan
 - ii. HydroCAD / TR-55 calculations – Proposed Conditions
 - B. Maintenance Requirements

Introduction:

The proposed North Shore Environmental, located at N117W18493 Fulton Dr., redevelopment will consist of an expansion of the current industrial building along with an asphalt drive and driveway approach expansion. The proposed 16,015 s.f. building expansion will be located over both existing open space and existing asphalt and graveled surfaces. In addition, the proposed asphalt expansion will also be located over both existing open space and existing asphalt and graveled surfaces. Therefore, the total net increase in impervious surface is 8,239 s.f. and the total disturbed area of the project is 39,400 s.f. (0.905 acres).

Existing conditions in the area of redevelopment include a rear fenced asphalt area, large graveled storage area and drive, asphalt drive and open grass space. The redevelopment area slopes and drains via overland flow northerly to the existing ROW of Fulton Drive or easterly to the neighboring property.

In order to meet the storm water management requirements of the Village of Germantown and MMSD, a bioretention basin, designed to Green Infrastructure requirements, will be located north of the existing/proposed building and south of Fulton Drive. Runoff from the proposed building addition will be directed to the biobasin. Storm water managed by the basin will discharge via 30" standpipe to an existing 10" storm sewer that is currently connected to public storm sewer in Fulton Drive.

Storm water management for the site has been designed so that the redevelopment site runoff meets the storm water management requirements of MMSD and the Village of Germantown by providing the required detention volume per Green Infrastructure requirements

Green Infrastructure storm water requirements per the Village of Germantown and MMSD:

Required Detention Volume:

The proposed redevelopment includes the construction of a building addition and asphalt driveway. A total of 8,239 s.f. (0.189 acres) of additional impervious surface is proposed for the redevelopment.

Per Chapter 13.302.3(c) of the Milwaukee Metropolitan Sewerage District's Surface Water and Stormwater Rules, the development must include green infrastructure with a detention volume equal to at least $\frac{1}{2}$ " multiplied by the total area of new impervious surface.

Required Volume:

$0.0416 \text{ feet} \times 8,239 \text{ feet}^2 = 343 \text{ ft}^3$ (2,564 gallons) required detention volume

Proposed Volume provided from the bottom of the basin to the emergency spillway elevation 920.5 = $1,970 \text{ ft}^3$ (14,737 gallons)

Total provided detention volume from green infrastructure = $1,970 \text{ ft}^3$ (14,737 gallons)

Total required detention volume from green infrastructure = 343 ft^3 (2,564 gallons)

Developed Site: (See the Proposed Conditions Plan: Appendix “B”).

Cover & CN: CN 74, 50-75% Grass Cover, Good, HSG C.
CN 98, Paved Drives and Roofs

Area: **0.460 Acres (total area entering biobasin and includes all added impervious surfaces)**

24-Hour Rainfall Values:

2-Year: 2.67”

100-Year: 6.40”

Rainfall Distributions per Village of Germantown

Method of Analysis:

The storm water runoff quantity was calculated using the methods outlines in TR-55 (“Urban Hydrology for Small Watersheds” by the U.S. Department of Agriculture’s Soil Conservation Services). Calculations were performed with the “HydroCAD 7.10” computer software. Water quality calculations were performed using WinSLAMM for Windows version 10.2.0.

Drainage Summary: (See Summary of Calculations in Appendix)

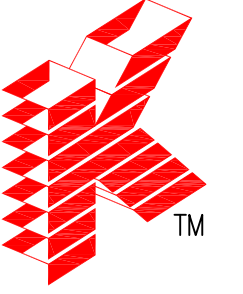
Area	2 Year Storm	100 Year Storm
Proposed Conditions		
Flow into Bioretention Basin	1.58 cfs	4.25 cfs
Bioretention Basin	1.08 cfs	4.13 cfs
Bioretention Basin Elev.	918.80 cfs	919.73 cfs

Conclusion:

The proposed storm water management system consists of the construction of a bioretention basin to meet the Green Infrastructure storm water requirements of the Village of Germantown and MMSD.

APPENDIX

GENERAL CONTRACTOR:



Keller
PLANNERS / ARCHITECTS / BUILDERS

W204 N11509
Goldendale Rd
Germantown, WI
53022
(262)250-9710

NORTH SHORE ENVIRONMENTAL
N117 W18493 FULTON DRIVE GERMANTOWN, WI

CJE NO.: CJE2015R1
MARCH 30, 2020
REV.: 05-21-20

STORM WATER MANAGEMENT MEETING THE GREEN INFRASTRUCTURE REQUIREMENTS OF THE VILLAGE AND MMSD CHAPTER 13 WILL BE PROVIDED BY A PROPOSED BIO-RETENTION BASIN ALONG THE NORTH SIDE OF THE SITE.

GREEN INFRASTRUCTURE REQUIREMENT:

REQUIRED VOLUME = $\frac{1}{2}$ " X TOTAL AREA OF NEW IMPERVIOUS SURFACE

0.0416 FT. X 8,239 S.F. = 343 C.F. (2,564 GALLONS)

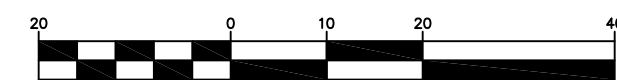
PROPOSED VOLUME PROVIDED FROM BOTTOM OF BASIN TO THE SPILLWAY ELEVATION (EL. 920.5) = 1,970 C.F. (14,737 GALLONS)



LEGEND

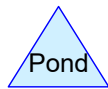
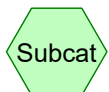
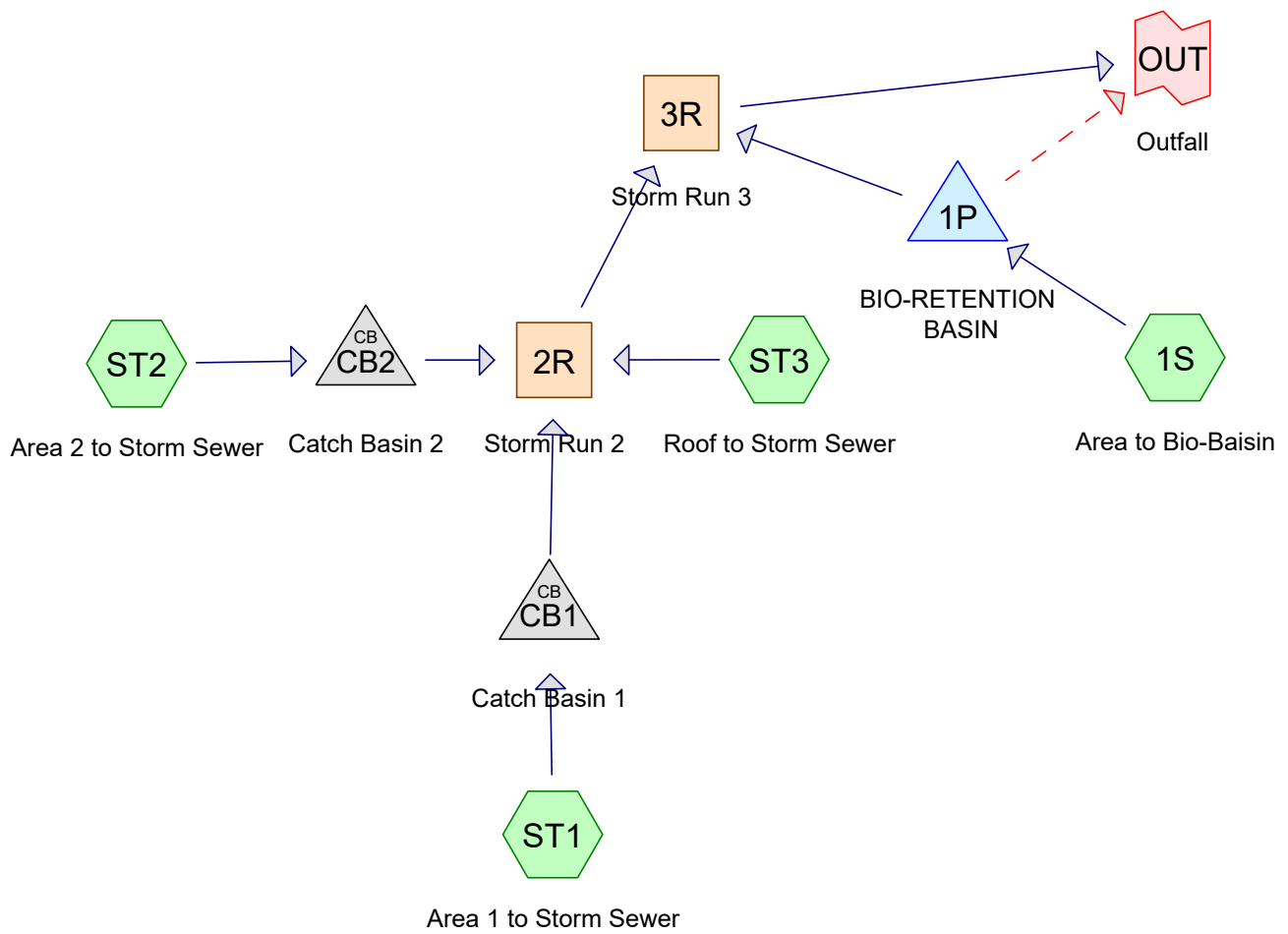
922	EXISTING CONTOUR
920	PROPOSED CONTOUR
x 921.2	PROPOSED ELEVATION
x x x x x x x x x x	PROPOSED SAW CUT
ST	EXISTING STORM SEWER
ST	PROPOSED STORM SEWER
SAN	EXISTING SANITARY SEWER
SAN	PROPOSED SANITARY SEWER
W	EXISTING WATER MAIN
W	PROPOSED WATER MAIN
G	BURIED GAS MAIN
//	OVER HEAD WIRE
E	BURIED ELECTRIC

GRAPHIC SCALE



1 inch = 20 ft

PROPOSED CONDITIONS



CJE2015R1-North Shore Environmental

Prepared by {enter your company name here}

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.156	74	>75% Grass cover, Good, HSG C (1S, ST2)
0.513	98	Paved parking, HSG C (ST1, ST2)
0.368	98	Proposed Building Addition (1S)
0.206	98	Roofs, HSG C (ST3)
1.243	95	TOTAL AREA

CJE2015R1-North Shore Environmental*MSE 24-hr 3 2-yr Rainfall=2.67"*

Prepared by {enter your company name here}

Printed 5/20/2020

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Page 3

Time span=5.00-24.00 hrs, dt=0.01 hrs, 1901 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 1S: Area to Bio-Baisin Runoff Area=20,038 sf 80.00% Impervious Runoff Depth>1.94"
Tc=6.0 min CN=93 Runoff=1.58 cfs 0.074 af

Subcatchment ST1: Area 1 to Storm Sewer Runoff Area=0.386 ac 100.00% Impervious Runoff Depth>2.43"
Tc=6.0 min CN=98 Runoff=1.52 cfs 0.078 af

Subcatchment ST2: Area 2 to Storm Sewer Runoff Area=0.191 ac 66.49% Impervious Runoff Depth>1.68"
Tc=6.0 min CN=90 Runoff=0.59 cfs 0.027 af

Subcatchment ST3: Roof to Storm Sewer Runoff Area=0.206 ac 100.00% Impervious Runoff Depth>2.43"
Tc=6.0 min CN=98 Runoff=0.81 cfs 0.042 af

Reach 2R: Storm Run 2 Avg. Flow Depth=0.83' Max Vel=4.47 fps Inflow=2.91 cfs 0.147 af
10.0" Round Pipe n=0.013 L=196.0' S=0.0095 '/' Capacity=2.14 cfs Outflow=2.26 cfs 0.146 af

Reach 3R: Storm Run 3 Avg. Flow Depth=0.83' Max Vel=4.47 fps Inflow=3.25 cfs 0.218 af
10.0" Round Pipe n=0.013 L=83.0' S=0.0095 '/' Capacity=2.14 cfs Outflow=2.23 cfs 0.218 af

Pond 1P: BIO-RETENTION BASIN Peak Elev=918.80' Storage=392 cf Inflow=1.58 cfs 0.074 af
Primary=1.08 cfs 0.072 af Secondary=0.00 cfs 0.000 af Outflow=1.08 cfs 0.072 af

Pond CB1: Catch Basin 1 Peak Elev=919.48' Inflow=1.52 cfs 0.078 af
10.0" Round Culvert n=0.013 L=120.0' S=0.0050 '/' Outflow=1.52 cfs 0.078 af

Pond CB2: Catch Basin 2 Peak Elev=919.36' Inflow=0.59 cfs 0.027 af
6.0" Round Culvert n=0.013 L=34.0' S=0.0165 '/' Outflow=0.59 cfs 0.027 af

Link OUT: Outfall Inflow=2.23 cfs 0.218 af
Primary=2.23 cfs 0.218 af

Total Runoff Area = 1.243 ac Runoff Volume = 0.221 af Average Runoff Depth = 2.13"
12.55% Pervious = 0.156 ac 87.45% Impervious = 1.087 ac

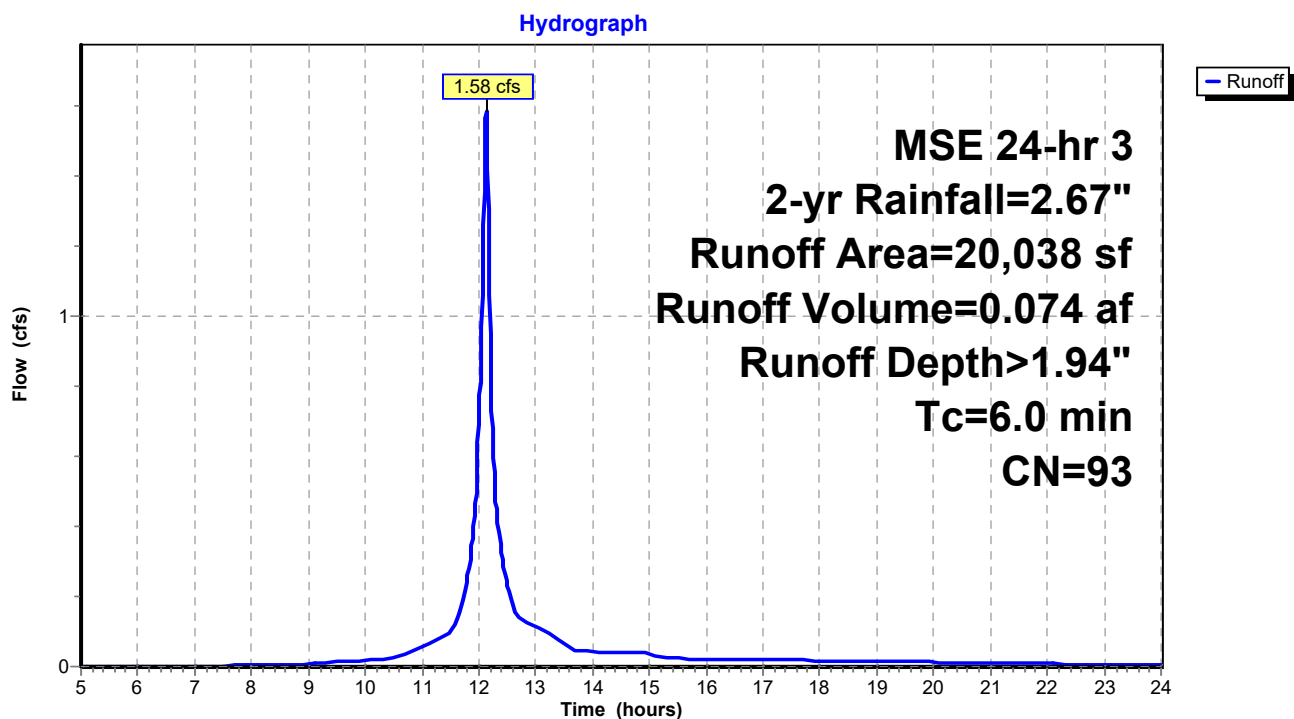
Summary for Subcatchment 1S: Area to Bio-Baisin

Runoff = 1.58 cfs @ 12.13 hrs, Volume= 0.074 af, Depth> 1.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-yr Rainfall=2.67"

	Area (sf)	CN	Description
*	16,030	98	Proposed Building Addition
	4,008	74	>75% Grass cover, Good, HSG C
	20,038	93	Weighted Average
	4,008		20.00% Pervious Area
	16,030		80.00% Impervious Area

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

Subcatchment 1S: Area to Bio-Baisin

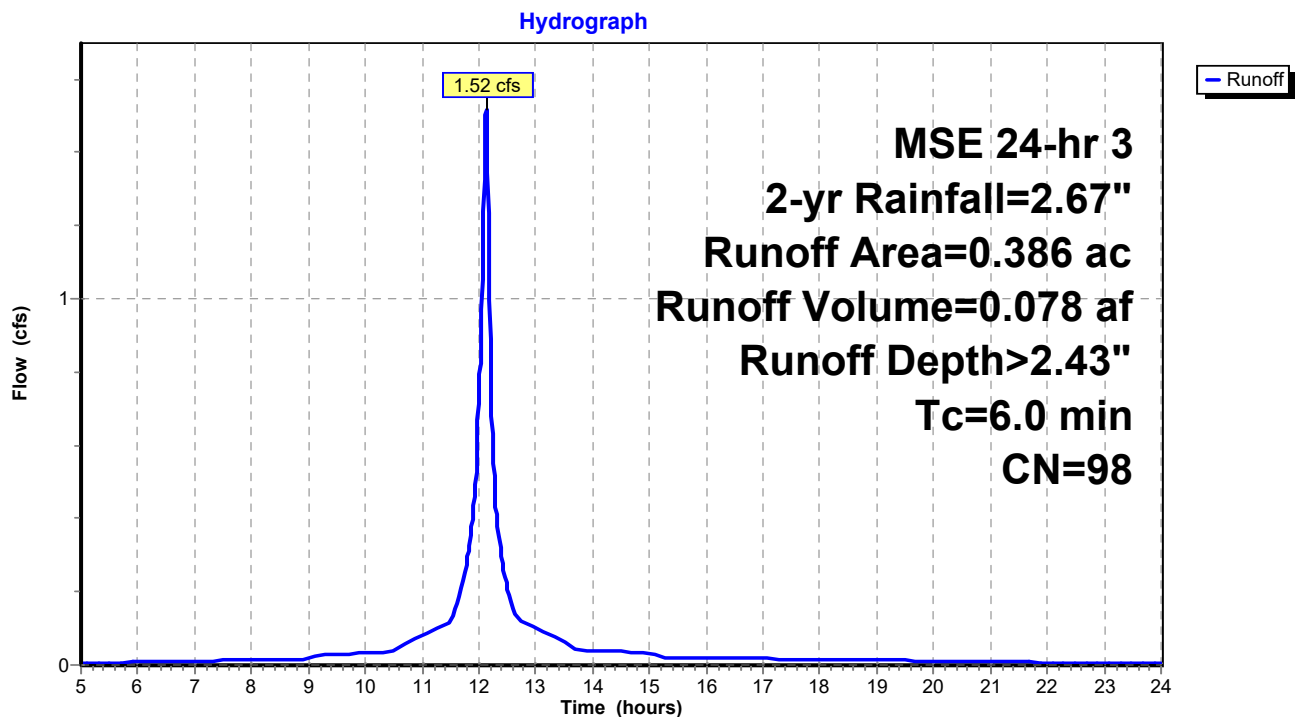
Summary for Subcatchment ST1: Area 1 to Storm Sewer

Runoff = 1.52 cfs @ 12.13 hrs, Volume= 0.078 af, Depth> 2.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-yr Rainfall=2.67"

Area (ac)	CN	Description
0.386	98	Paved parking, HSG C
0.386		100.00% Impervious Area

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

Subcatchment ST1: Area 1 to Storm Sewer

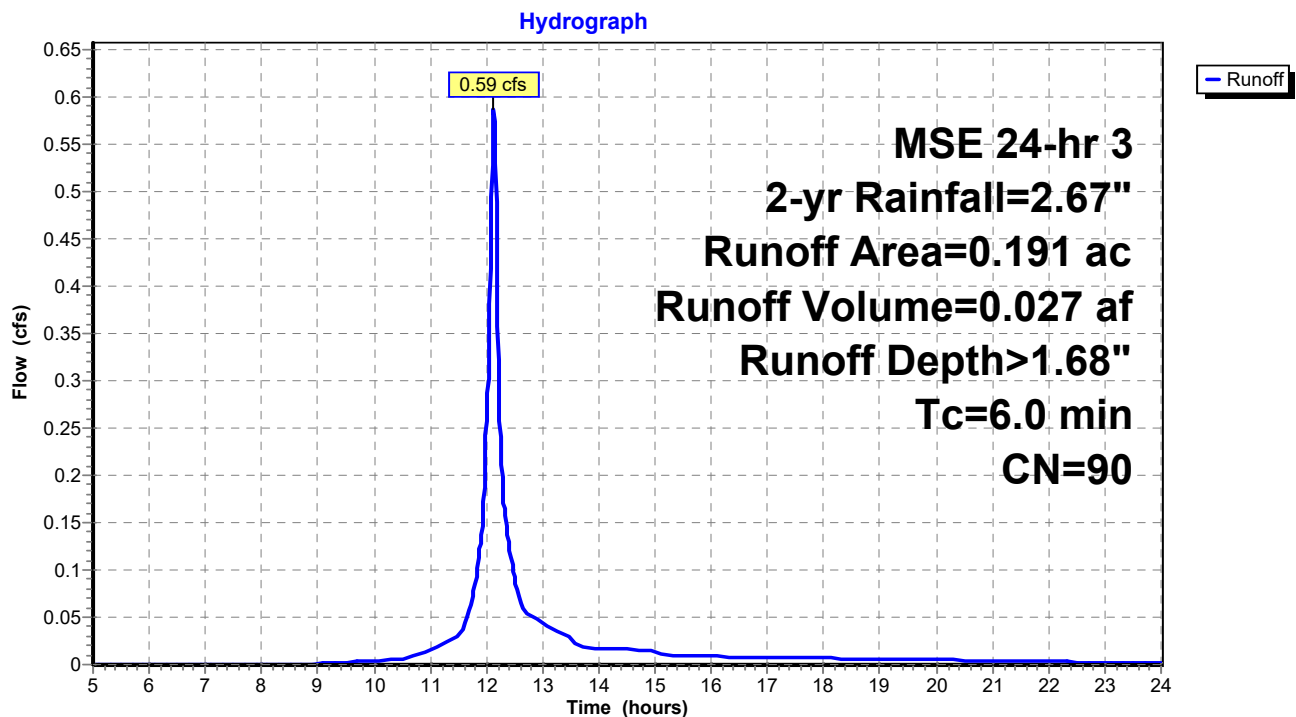
Summary for Subcatchment ST2: Area 2 to Storm Sewer

Runoff = 0.59 cfs @ 12.13 hrs, Volume= 0.027 af, Depth> 1.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-yr Rainfall=2.67"

Area (ac)	CN	Description
0.127	98	Paved parking, HSG C
0.064	74	>75% Grass cover, Good, HSG C
0.191	90	Weighted Average
0.064		33.51% Pervious Area
0.127		66.49% Impervious Area

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

Subcatchment ST2: Area 2 to Storm Sewer

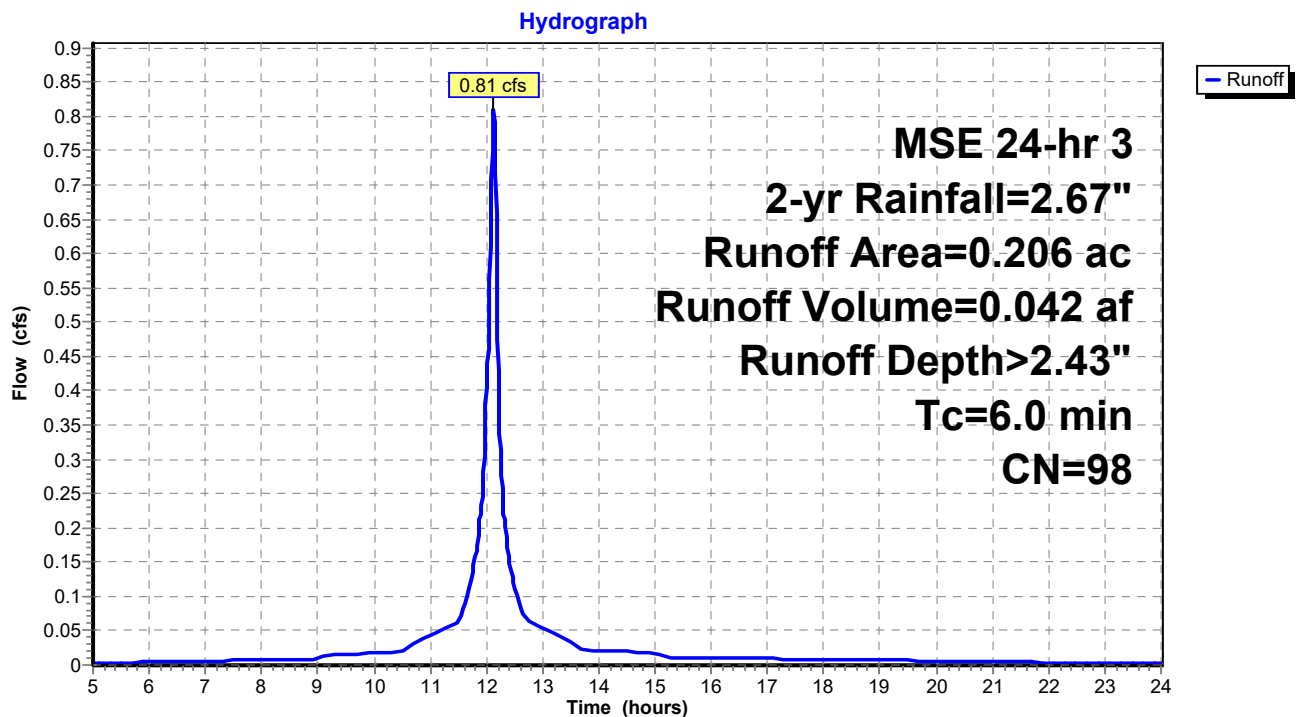
Summary for Subcatchment ST3: Roof to Storm Sewer

Runoff = 0.81 cfs @ 12.13 hrs, Volume= 0.042 af, Depth> 2.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-yr Rainfall=2.67"

Area (ac)	CN	Description
0.206	98	Roofs, HSG C
0.206		100.00% Impervious Area

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

Subcatchment ST3: Roof to Storm Sewer

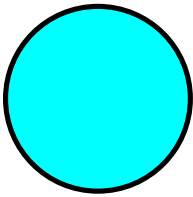
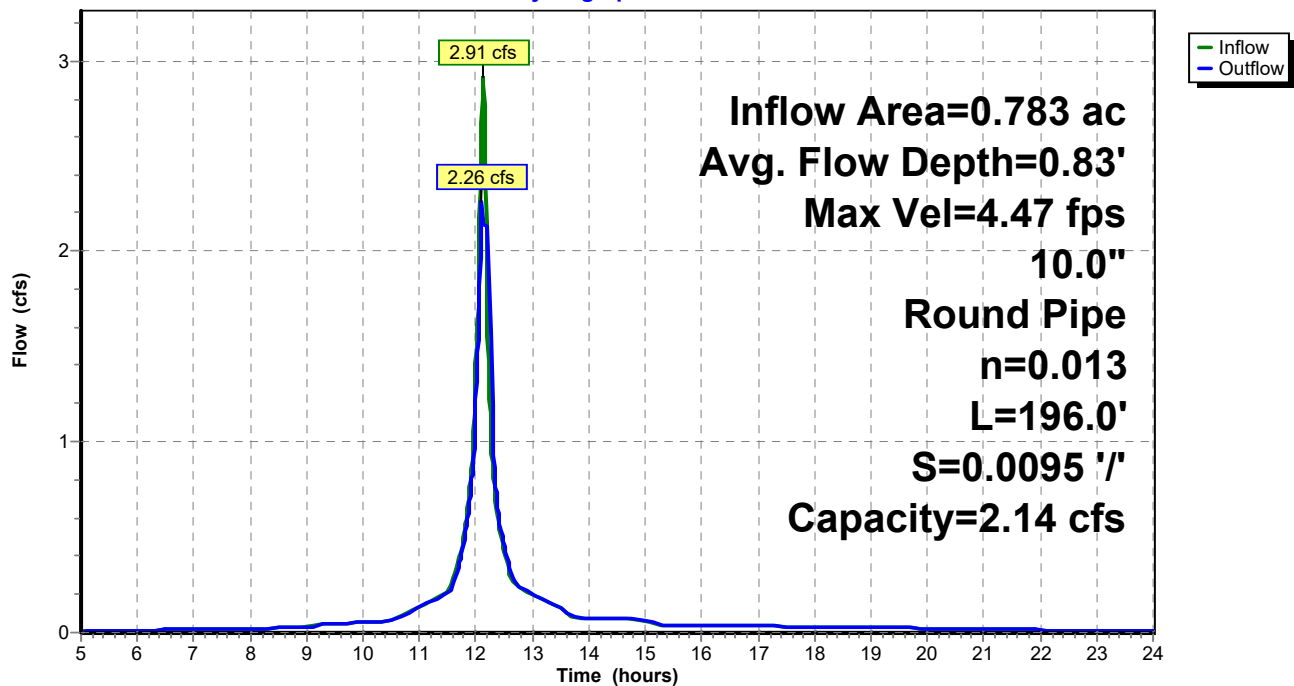
Summary for Reach 2R: Storm Run 2

Inflow Area = 0.783 ac, 91.83% Impervious, Inflow Depth > 2.25" for 2-yr event
Inflow = 2.91 cfs @ 12.13 hrs, Volume= 0.147 af
Outflow = 2.26 cfs @ 12.10 hrs, Volume= 0.146 af, Atten= 22%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.47 fps, Min. Travel Time= 0.7 min
Avg. Velocity= 1.55 fps, Avg. Travel Time= 2.1 min

Peak Storage= 107 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.83'
Bank-Full Depth= 0.83' Flow Area= 0.5 sf, Capacity= 2.14 cfs

10.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 196.0' Slope= 0.0095 '/'
Inlet Invert= 917.93', Outlet Invert= 916.06'

**Reach 2R: Storm Run 2****Hydrograph**

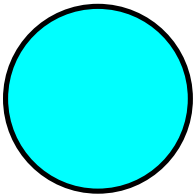
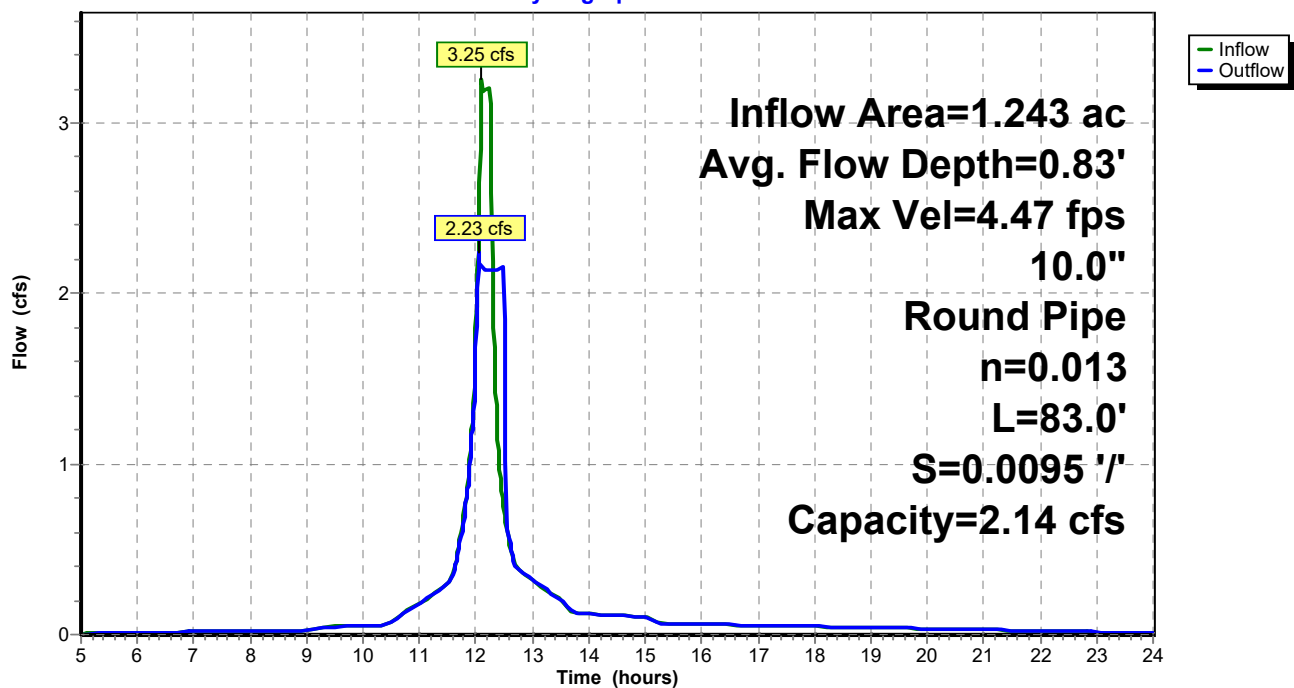
Summary for Reach 3R: Storm Run 3

Inflow Area = 1.243 ac, 87.45% Impervious, Inflow Depth > 2.11" for 2-yr event
Inflow = 3.25 cfs @ 12.10 hrs, Volume= 0.218 af
Outflow = 2.23 cfs @ 12.05 hrs, Volume= 0.218 af, Atten= 31%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.47 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.70 fps, Avg. Travel Time= 0.8 min

Peak Storage= 45 cf @ 12.06 hrs
Average Depth at Peak Storage= 0.83'
Bank-Full Depth= 0.83' Flow Area= 0.5 sf, Capacity= 2.14 cfs

10.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0095 '/'
Inlet Invert= 916.06', Outlet Invert= 915.27'

**Reach 3R: Storm Run 3****Hydrograph**

Summary for Pond 1P: BIO-RETENTION BASIN

Inflow Area = 0.460 ac, 80.00% Impervious, Inflow Depth > 1.94" for 2-yr event
 Inflow = 1.58 cfs @ 12.13 hrs, Volume= 0.074 af
 Outflow = 1.08 cfs @ 12.19 hrs, Volume= 0.072 af, Atten= 32%, Lag= 3.4 min
 Primary = 1.08 cfs @ 12.19 hrs, Volume= 0.072 af
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs / 5
 Peak Elev= 918.80' @ 12.19 hrs Surf.Area= 463 sf Storage= 392 cf

Plug-Flow detention time= 27.2 min calculated for 0.072 af (97% of inflow)
 Center-of-Mass det. time= 9.9 min (793.2 - 783.3)

Volume	Invert	Avail.Storage	Storage Description	
#1	915.50'	3,571 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
915.50	315	0.0	0	0
915.51	315	33.0	1	1
916.50	315	33.0	103	104
916.51	315	27.0	1	105
918.49	315	27.0	168	273
918.50	315	100.0	3	276
919.00	565	100.0	220	496
920.00	1,055	100.0	810	1,306
921.00	1,600	100.0	1,328	2,634
921.50	2,150	100.0	938	3,571

Device	Routing	Invert	Outlet Devices
#1	Primary	916.00'	10.0" Round Culvert L= 1.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 916.00' / 915.95' S= 0.0500 '/ Cc= 0.900 n= 0.011, Flow Area= 0.55 sf
#2	Device 1	916.45'	6.0" Round Culvert L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 916.45' / 916.40' S= 0.0100 '/ Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#3	Device 2	916.50'	1.63 cfs Exfiltration when above 916.50'
#4	Device 1	919.50'	30.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Secondary	920.50'	100.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.08 cfs @ 12.19 hrs HW=918.80' (Free Discharge)

1=Culvert (Passes 1.08 cfs of 4.05 cfs potential flow)

2=Culvert (Inlet Controls 1.08 cfs @ 5.50 fps)

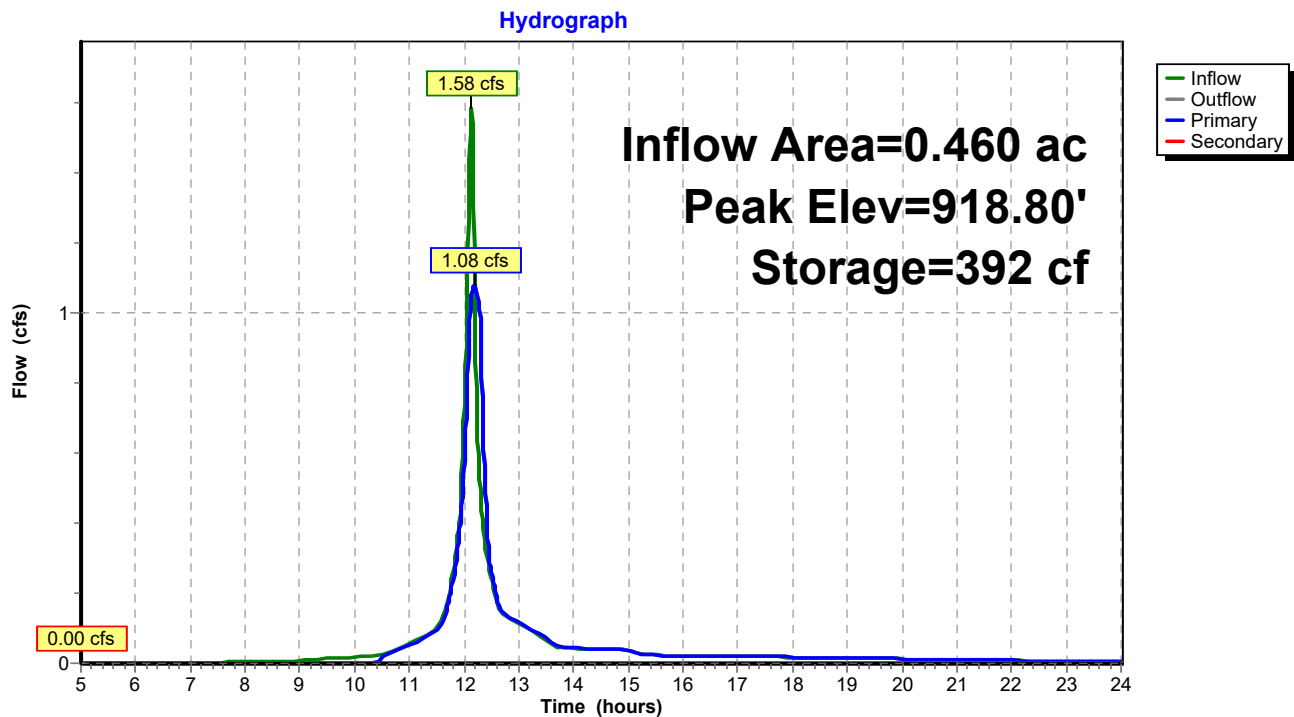
3=Exfiltration (Passes 1.08 cfs of 1.63 cfs potential flow)

4=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=915.50' (Free Discharge)

5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 1P: BIO-RETENTION BASIN



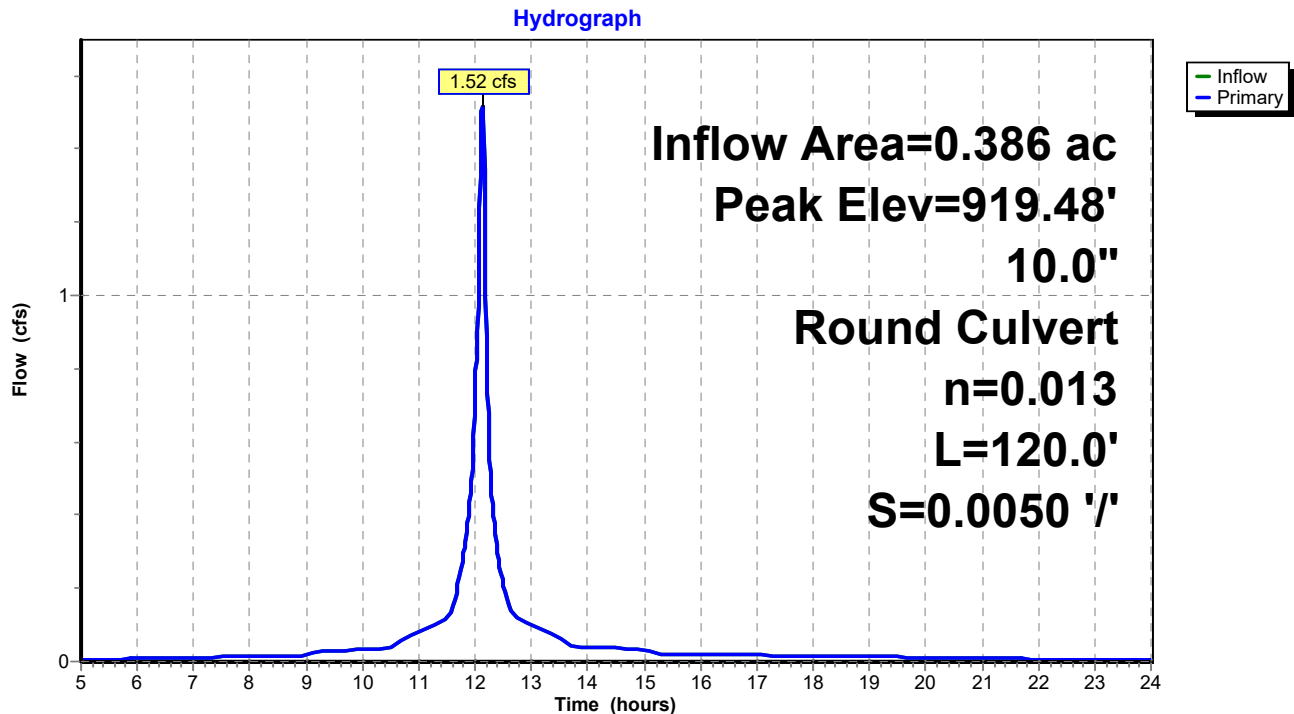
Summary for Pond CB1: Catch Basin 1

Inflow Area = 0.386 ac, 100.00% Impervious, Inflow Depth > 2.43" for 2-yr event
 Inflow = 1.52 cfs @ 12.13 hrs, Volume= 0.078 af
 Outflow = 1.52 cfs @ 12.13 hrs, Volume= 0.078 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.52 cfs @ 12.13 hrs, Volume= 0.078 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 919.48' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	918.53'	10.0" Round Culvert L= 120.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 918.53' / 917.93' S= 0.0050 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=1.52 cfs @ 12.13 hrs HW=919.48' (Free Discharge)
 ↑ **1=Culvert** (Inlet Controls 1.52 cfs @ 2.78 fps)

Pond CB1: Catch Basin 1

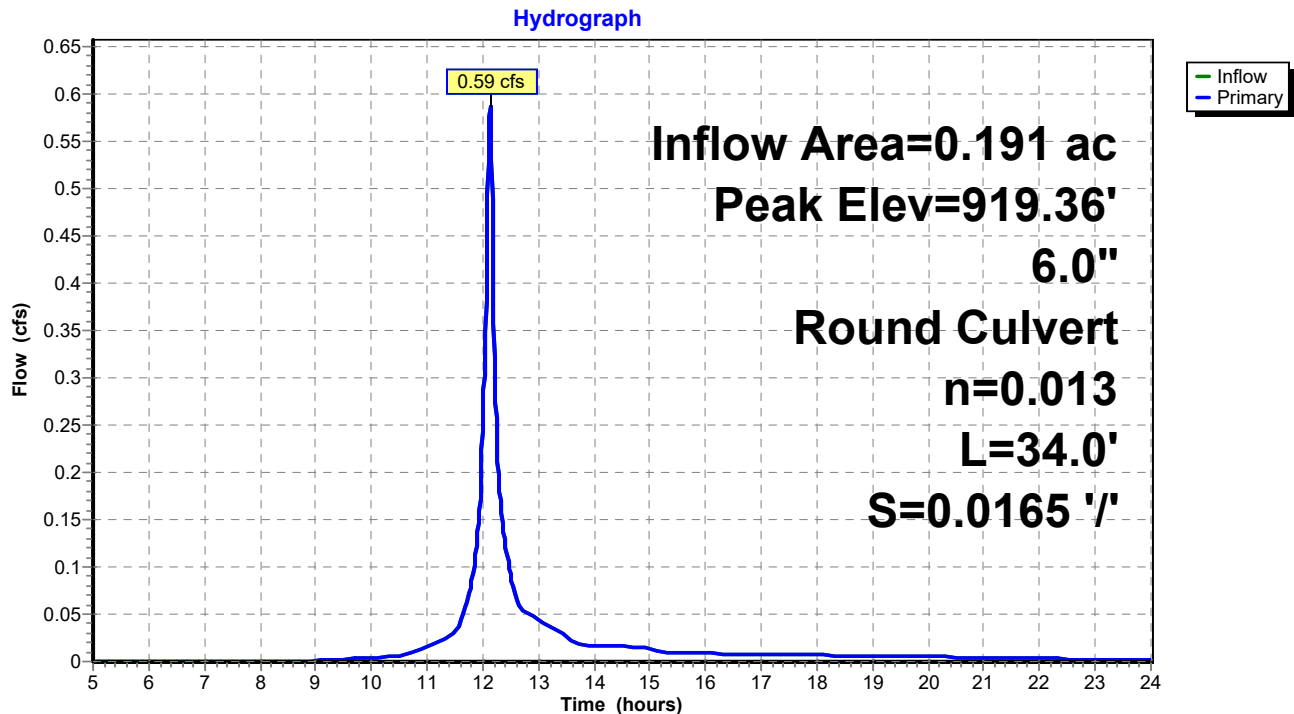
Summary for Pond CB2: Catch Basin 2

Inflow Area = 0.191 ac, 66.49% Impervious, Inflow Depth > 1.68" for 2-yr event
 Inflow = 0.59 cfs @ 12.13 hrs, Volume= 0.027 af
 Outflow = 0.59 cfs @ 12.13 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.59 cfs @ 12.13 hrs, Volume= 0.027 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 919.36' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	918.49'	6.0" Round Culvert L= 34.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 918.49' / 917.93' S= 0.0165 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.59 cfs @ 12.13 hrs HW=919.36' (Free Discharge)
 1=Culvert (Inlet Controls 0.59 cfs @ 2.98 fps)

Pond CB2: Catch Basin 2

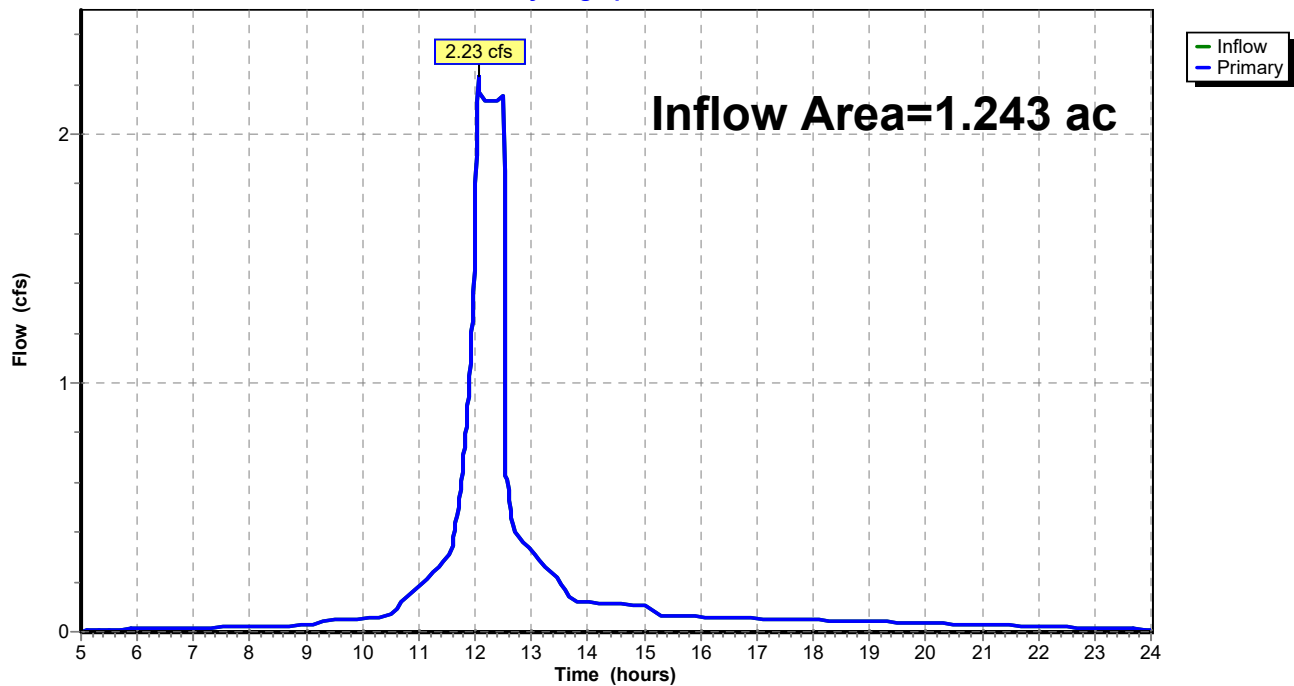
Summary for Link OUT: Outfall

Inflow Area = 1.243 ac, 87.45% Impervious, Inflow Depth > 2.11" for 2-yr event
Inflow = 2.23 cfs @ 12.05 hrs, Volume= 0.218 af
Primary = 2.23 cfs @ 12.05 hrs, Volume= 0.218 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs

Link OUT: Outfall

Hydrograph



CJE2015R1-North Shore Environmental**MSE 24-hr 3 10-yr Rainfall=3.73"**

Prepared by {enter your company name here}

Printed 5/20/2020

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Page 15

Time span=5.00-24.00 hrs, dt=0.01 hrs, 1901 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 1S: Area to Bio-Baisin Runoff Area=20,038 sf 80.00% Impervious Runoff Depth>2.96"
Tc=6.0 min CN=93 Runoff=2.35 cfs 0.113 af

Subcatchment ST1: Area 1 to Storm Sewer Runoff Area=0.386 ac 100.00% Impervious Runoff Depth>3.46"
Tc=6.0 min CN=98 Runoff=2.14 cfs 0.111 af

Subcatchment ST2: Area 2 to Storm Sewer Runoff Area=0.191 ac 66.49% Impervious Runoff Depth>2.66"
Tc=6.0 min CN=90 Runoff=0.91 cfs 0.042 af

Subcatchment ST3: Roof to Storm Sewer Runoff Area=0.206 ac 100.00% Impervious Runoff Depth>3.46"
Tc=6.0 min CN=98 Runoff=1.14 cfs 0.059 af

Reach 2R: Storm Run 2 Avg. Flow Depth=0.83' Max Vel=4.47 fps Inflow=4.18 cfs 0.213 af
10.0" Round Pipe n=0.013 L=196.0' S=0.0095 ' /' Capacity=2.14 cfs Outflow=2.28 cfs 0.213 af

Reach 3R: Storm Run 3 Avg. Flow Depth=0.83' Max Vel=4.47 fps Inflow=3.36 cfs 0.324 af
10.0" Round Pipe n=0.013 L=83.0' S=0.0095 ' /' Capacity=2.14 cfs Outflow=2.25 cfs 0.324 af

Pond 1P: BIO-RETENTION BASIN Peak Elev=919.38' Storage=745 cf Inflow=2.35 cfs 0.113 af
Primary=1.22 cfs 0.111 af Secondary=0.00 cfs 0.000 af Outflow=1.22 cfs 0.111 af

Pond CB1: Catch Basin 1 Peak Elev=920.36' Inflow=2.14 cfs 0.111 af
10.0" Round Culvert n=0.013 L=120.0' S=0.0050 ' /' Outflow=2.14 cfs 0.111 af

Pond CB2: Catch Basin 2 Peak Elev=920.21' Inflow=0.91 cfs 0.042 af
6.0" Round Culvert n=0.013 L=34.0' S=0.0165 ' /' Outflow=0.91 cfs 0.042 af

Link OUT: Outfall Inflow=2.25 cfs 0.324 af
Primary=2.25 cfs 0.324 af

Total Runoff Area = 1.243 ac Runoff Volume = 0.327 af Average Runoff Depth = 3.15"
12.55% Pervious = 0.156 ac 87.45% Impervious = 1.087 ac

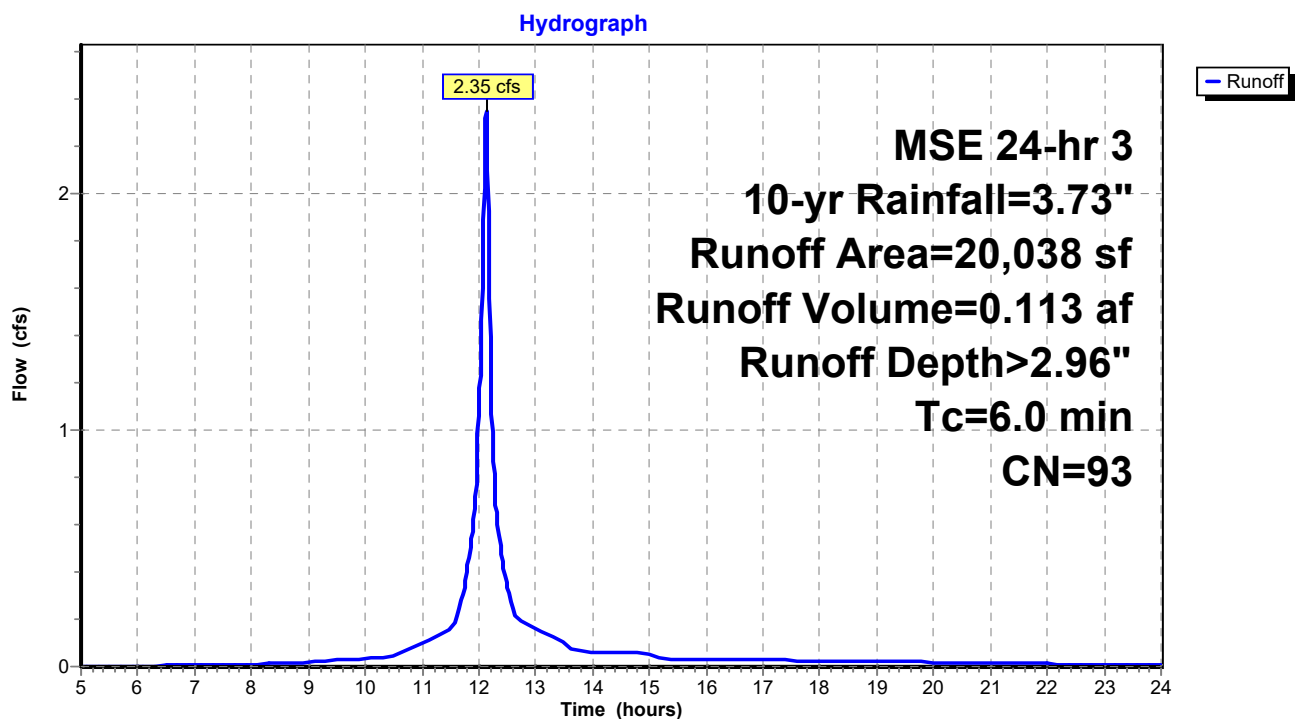
Summary for Subcatchment 1S: Area to Bio-Baisin

Runoff = 2.35 cfs @ 12.13 hrs, Volume= 0.113 af, Depth> 2.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-yr Rainfall=3.73"

	Area (sf)	CN	Description
*	16,030	98	Proposed Building Addition
	4,008	74	>75% Grass cover, Good, HSG C
	20,038	93	Weighted Average
	4,008		20.00% Pervious Area
	16,030		80.00% Impervious Area

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

Subcatchment 1S: Area to Bio-Baisin

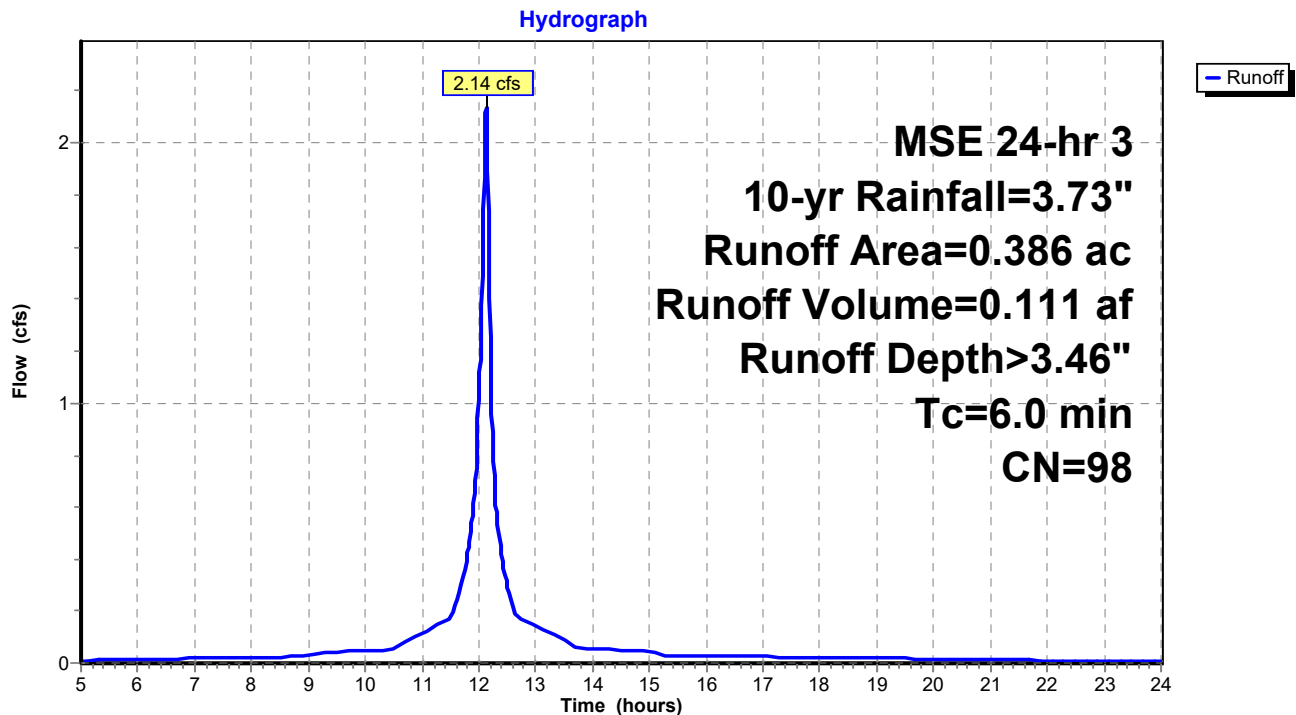
Summary for Subcatchment ST1: Area 1 to Storm Sewer

Runoff = 2.14 cfs @ 12.13 hrs, Volume= 0.111 af, Depth> 3.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-yr Rainfall=3.73"

Area (ac)	CN	Description
0.386	98	Paved parking, HSG C
0.386		100.00% Impervious Area

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

Subcatchment ST1: Area 1 to Storm Sewer

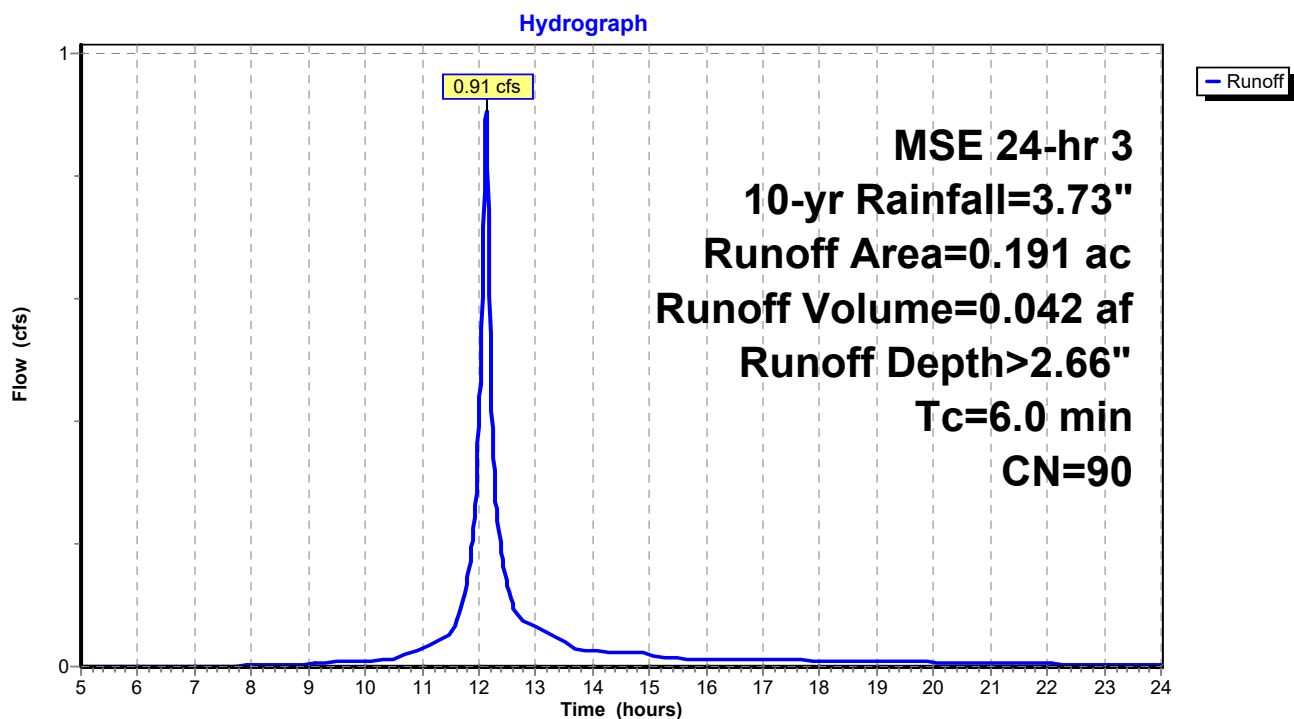
Summary for Subcatchment ST2: Area 2 to Storm Sewer

Runoff = 0.91 cfs @ 12.13 hrs, Volume= 0.042 af, Depth> 2.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-yr Rainfall=3.73"

Area (ac)	CN	Description
0.127	98	Paved parking, HSG C
0.064	74	>75% Grass cover, Good, HSG C
0.191	90	Weighted Average
0.064		33.51% Pervious Area
0.127		66.49% Impervious Area

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

Subcatchment ST2: Area 2 to Storm Sewer

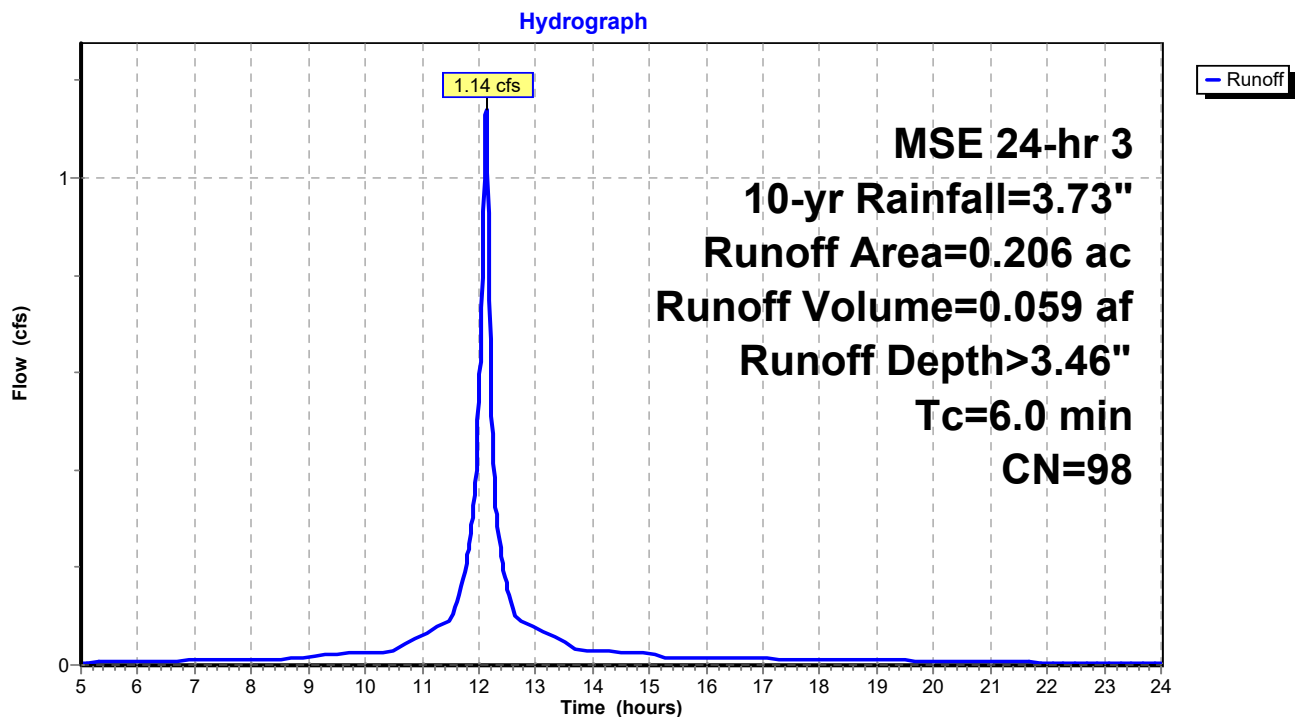
Summary for Subcatchment ST3: Roof to Storm Sewer

Runoff = 1.14 cfs @ 12.13 hrs, Volume= 0.059 af, Depth> 3.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-yr Rainfall=3.73"

Area (ac)	CN	Description
0.206	98	Roofs, HSG C
0.206		100.00% Impervious Area

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

Subcatchment ST3: Roof to Storm Sewer

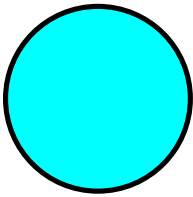
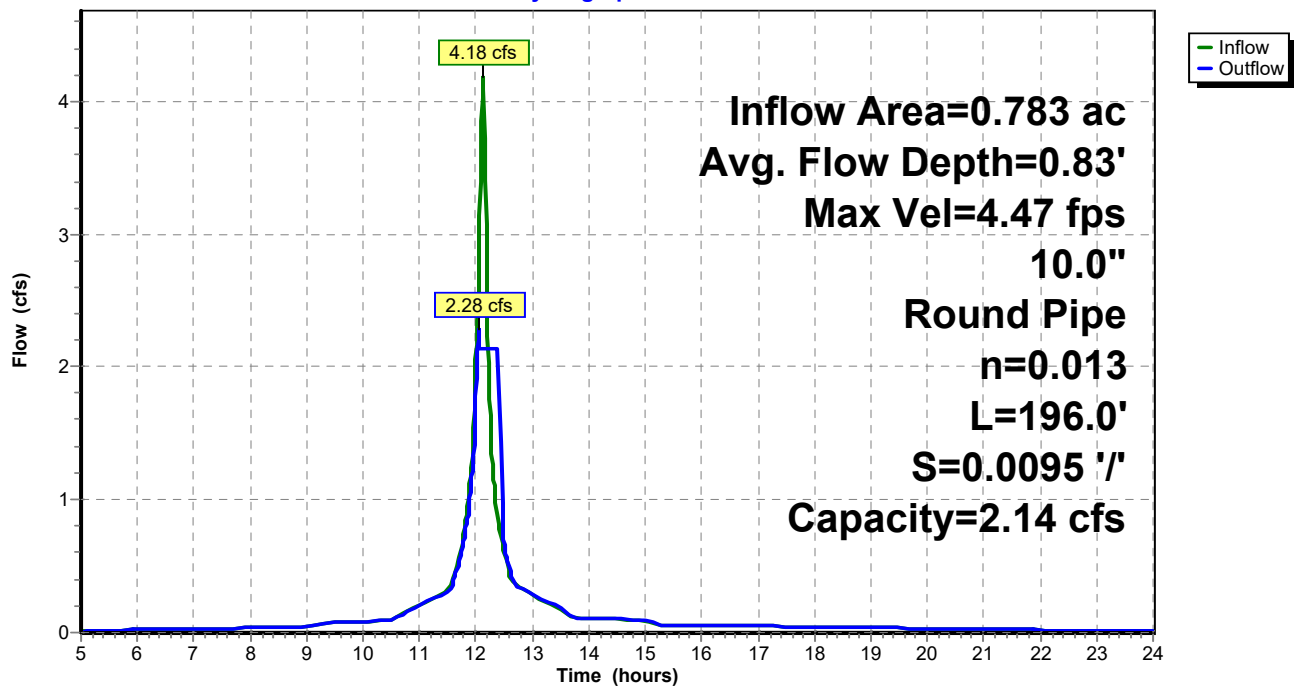
Summary for Reach 2R: Storm Run 2

Inflow Area = 0.783 ac, 91.83% Impervious, Inflow Depth > 3.27" for 10-yr event
Inflow = 4.18 cfs @ 12.13 hrs, Volume= 0.213 af
Outflow = 2.28 cfs @ 12.05 hrs, Volume= 0.213 af, Atten= 45%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.47 fps, Min. Travel Time= 0.7 min
Avg. Velocity= 1.73 fps, Avg. Travel Time= 1.9 min

Peak Storage= 107 cf @ 12.05 hrs
Average Depth at Peak Storage= 0.83'
Bank-Full Depth= 0.83' Flow Area= 0.5 sf, Capacity= 2.14 cfs

10.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 196.0' Slope= 0.0095 '/'
Inlet Invert= 917.93', Outlet Invert= 916.06'

**Reach 2R: Storm Run 2****Hydrograph**

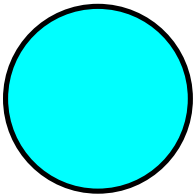
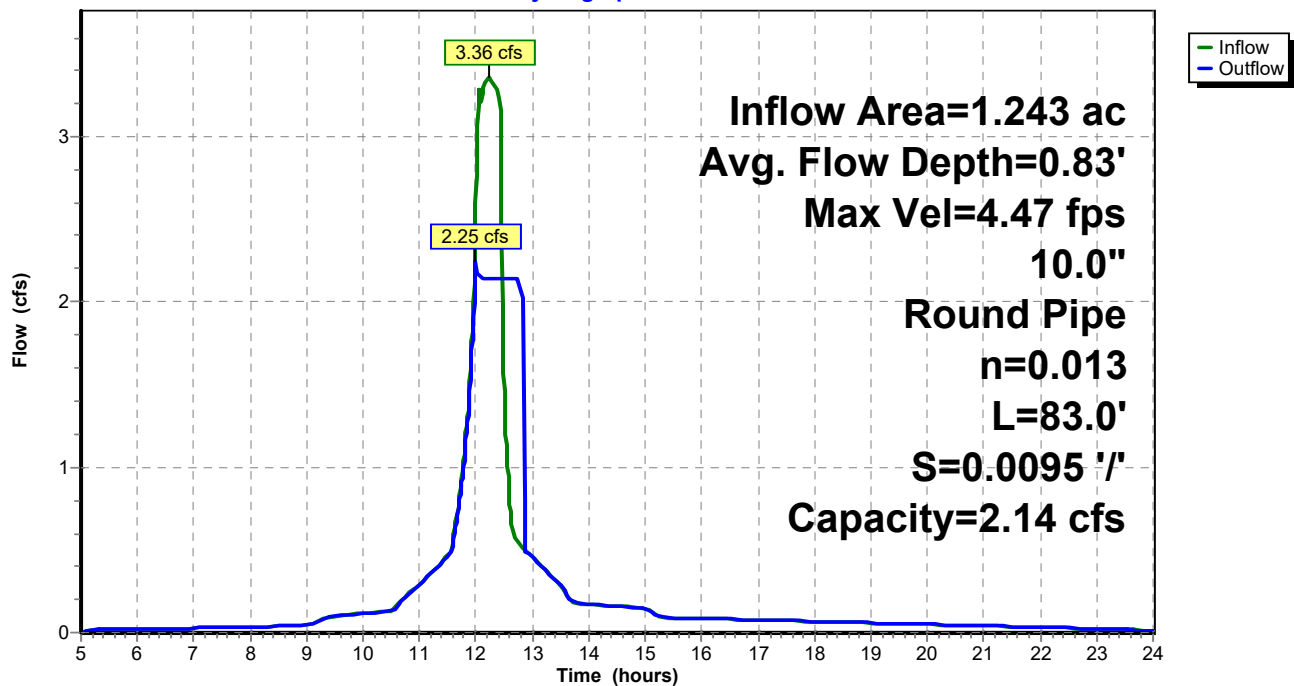
Summary for Reach 3R: Storm Run 3

Inflow Area = 1.243 ac, 87.45% Impervious, Inflow Depth > 3.13" for 10-yr event
Inflow = 3.36 cfs @ 12.21 hrs, Volume= 0.324 af
Outflow = 2.25 cfs @ 11.99 hrs, Volume= 0.324 af, Atten= 33%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.47 fps, Min. Travel Time= 0.3 min
Avg. Velocity= 1.92 fps, Avg. Travel Time= 0.7 min

Peak Storage= 45 cf @ 12.00 hrs
Average Depth at Peak Storage= 0.83'
Bank-Full Depth= 0.83' Flow Area= 0.5 sf, Capacity= 2.14 cfs

10.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0095 '/'
Inlet Invert= 916.06', Outlet Invert= 915.27'

**Reach 3R: Storm Run 3****Hydrograph**

Summary for Pond 1P: BIO-RETENTION BASIN

Inflow Area = 0.460 ac, 80.00% Impervious, Inflow Depth > 2.96" for 10-yr event
 Inflow = 2.35 cfs @ 12.13 hrs, Volume= 0.113 af
 Outflow = 1.22 cfs @ 12.21 hrs, Volume= 0.111 af, Atten= 48%, Lag= 5.0 min
 Primary = 1.22 cfs @ 12.21 hrs, Volume= 0.111 af
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs / 5
 Peak Elev= 919.38' @ 12.21 hrs Surf.Area= 750 sf Storage= 745 cf

Plug-Flow detention time= 22.0 min calculated for 0.111 af (98% of inflow)
 Center-of-Mass det. time= 10.1 min (785.1 - 775.0)

Volume	Invert	Avail.Storage	Storage Description	
#1	915.50'	3,571 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
915.50	315	0.0	0	0
915.51	315	33.0	1	1
916.50	315	33.0	103	104
916.51	315	27.0	1	105
918.49	315	27.0	168	273
918.50	315	100.0	3	276
919.00	565	100.0	220	496
920.00	1,055	100.0	810	1,306
921.00	1,600	100.0	1,328	2,634
921.50	2,150	100.0	938	3,571

Device	Routing	Invert	Outlet Devices
#1	Primary	916.00'	10.0" Round Culvert L= 1.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 916.00' / 915.95' S= 0.0500 '/' Cc= 0.900 n= 0.011, Flow Area= 0.55 sf
#2	Device 1	916.45'	6.0" Round Culvert L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 916.45' / 916.40' S= 0.0100 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#3	Device 2	916.50'	1.63 cfs Exfiltration when above 916.50'
#4	Device 1	919.50'	30.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Secondary	920.50'	100.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.22 cfs @ 12.21 hrs HW=919.38' (Free Discharge)

1=Culvert (Passes 1.22 cfs of 4.52 cfs potential flow)

2=Culvert (Inlet Controls 1.22 cfs @ 6.22 fps)

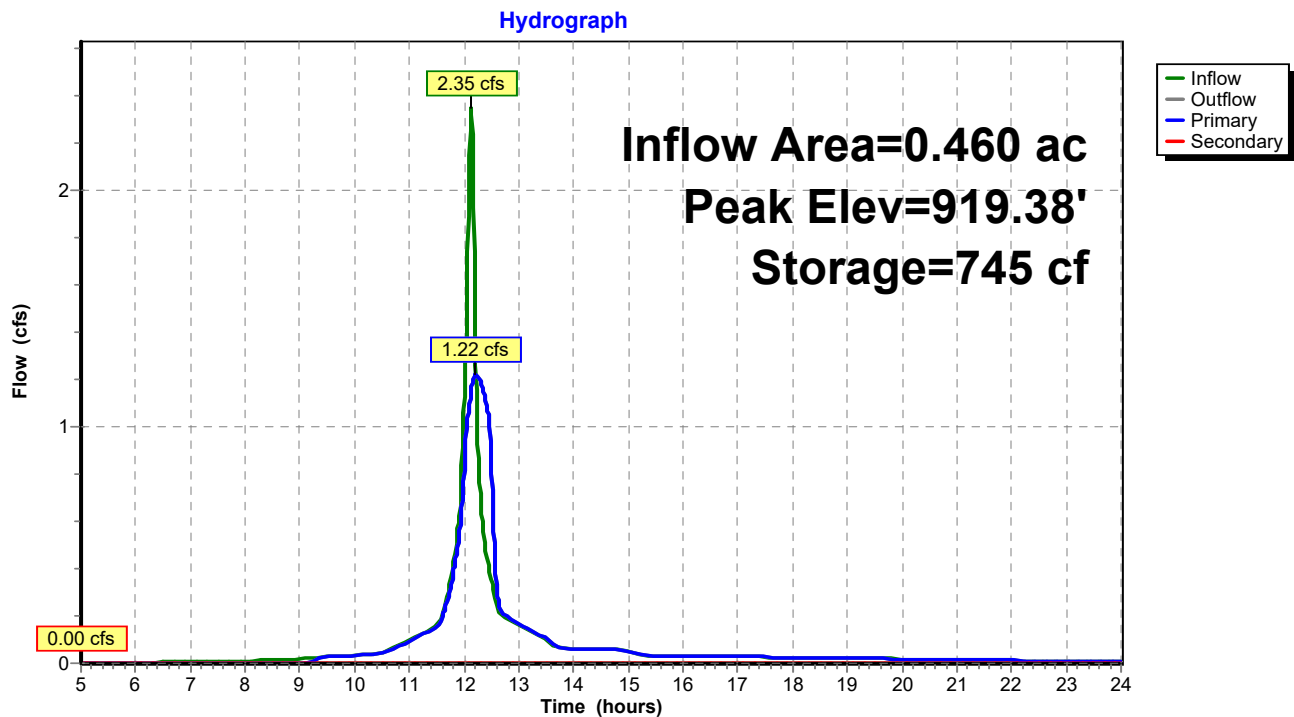
3=Exfiltration (Passes 1.22 cfs of 1.63 cfs potential flow)

4=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=915.50' (Free Discharge)

5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 1P: BIO-RETENTION BASIN



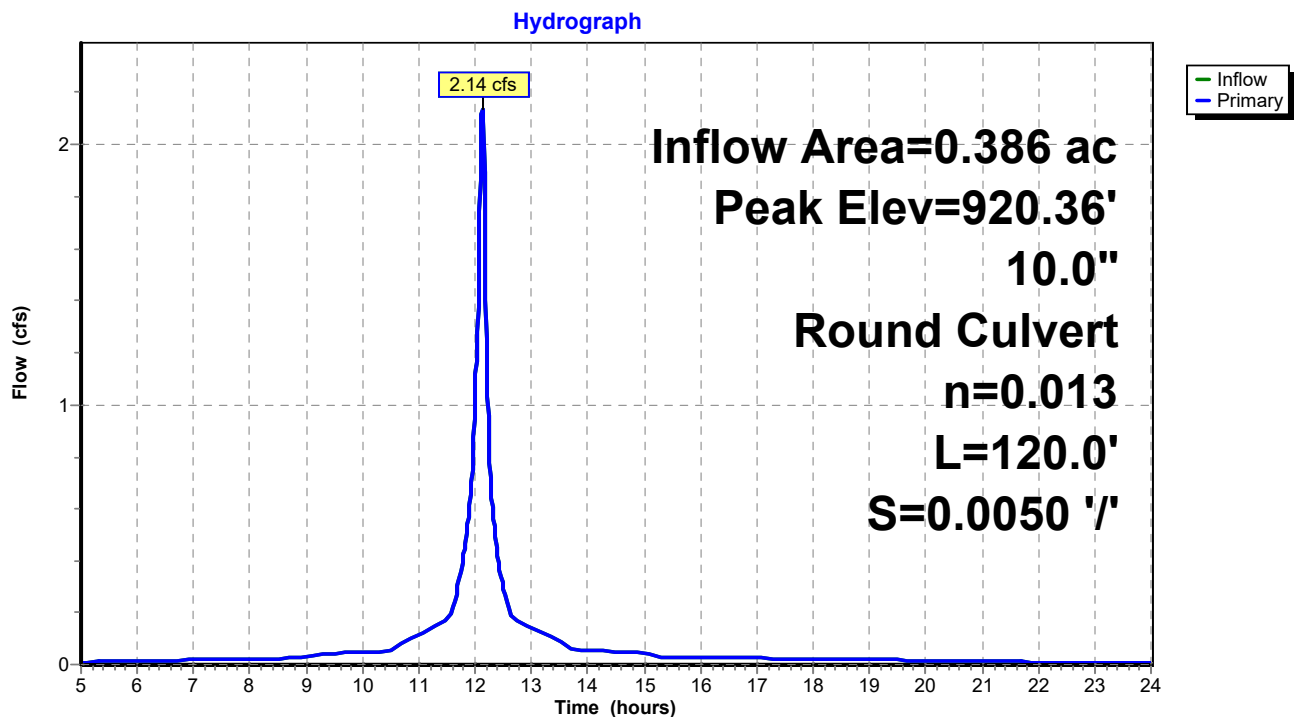
Summary for Pond CB1: Catch Basin 1

Inflow Area = 0.386 ac, 100.00% Impervious, Inflow Depth > 3.46" for 10-yr event
 Inflow = 2.14 cfs @ 12.13 hrs, Volume= 0.111 af
 Outflow = 2.14 cfs @ 12.13 hrs, Volume= 0.111 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.14 cfs @ 12.13 hrs, Volume= 0.111 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 920.36' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	918.53'	10.0" Round Culvert L= 120.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 918.53' / 917.93' S= 0.0050 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=2.13 cfs @ 12.13 hrs HW=920.36' (Free Discharge)
 1=Culvert (Barrel Controls 2.13 cfs @ 3.91 fps)

Pond CB1: Catch Basin 1

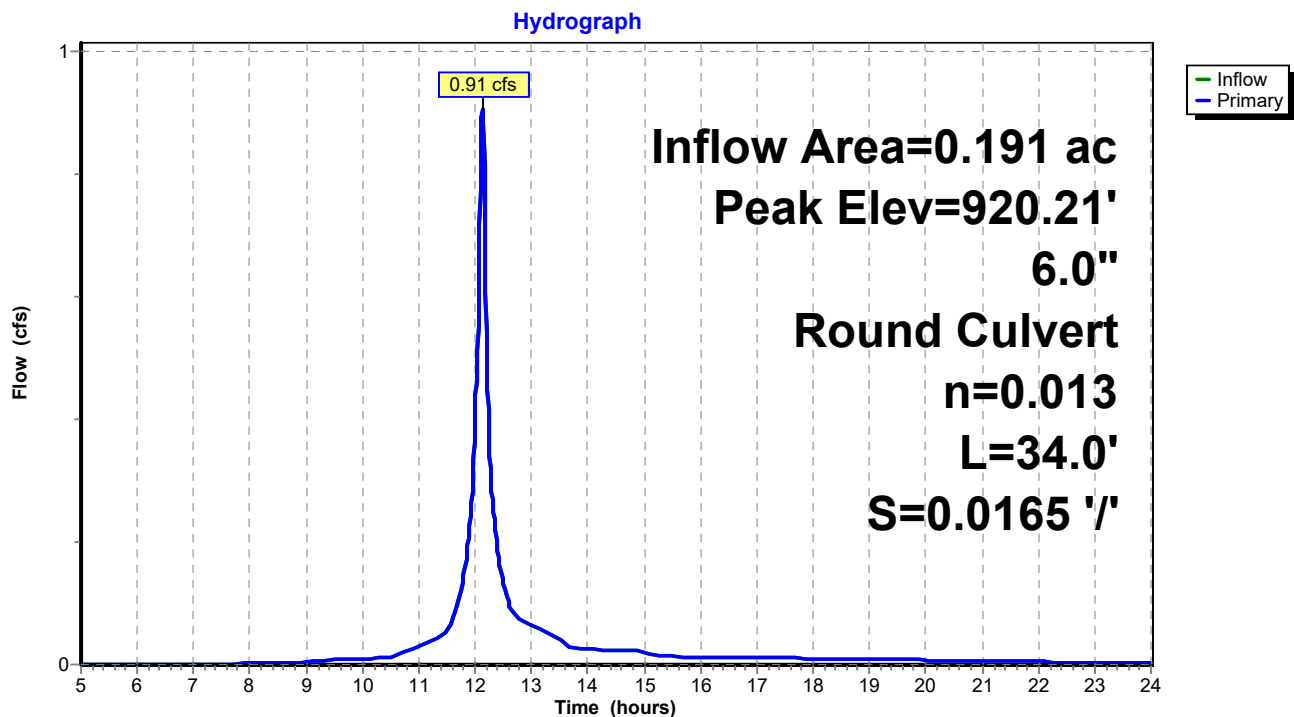
Summary for Pond CB2: Catch Basin 2

Inflow Area = 0.191 ac, 66.49% Impervious, Inflow Depth > 2.66" for 10-yr event
 Inflow = 0.91 cfs @ 12.13 hrs, Volume= 0.042 af
 Outflow = 0.91 cfs @ 12.13 hrs, Volume= 0.042 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.91 cfs @ 12.13 hrs, Volume= 0.042 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 920.21' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	918.49'	6.0" Round Culvert L= 34.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 918.49' / 917.93' S= 0.0165 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.91 cfs @ 12.13 hrs HW=920.21' (Free Discharge)
 ↑1=Culvert (Inlet Controls 0.91 cfs @ 4.61 fps)

Pond CB2: Catch Basin 2

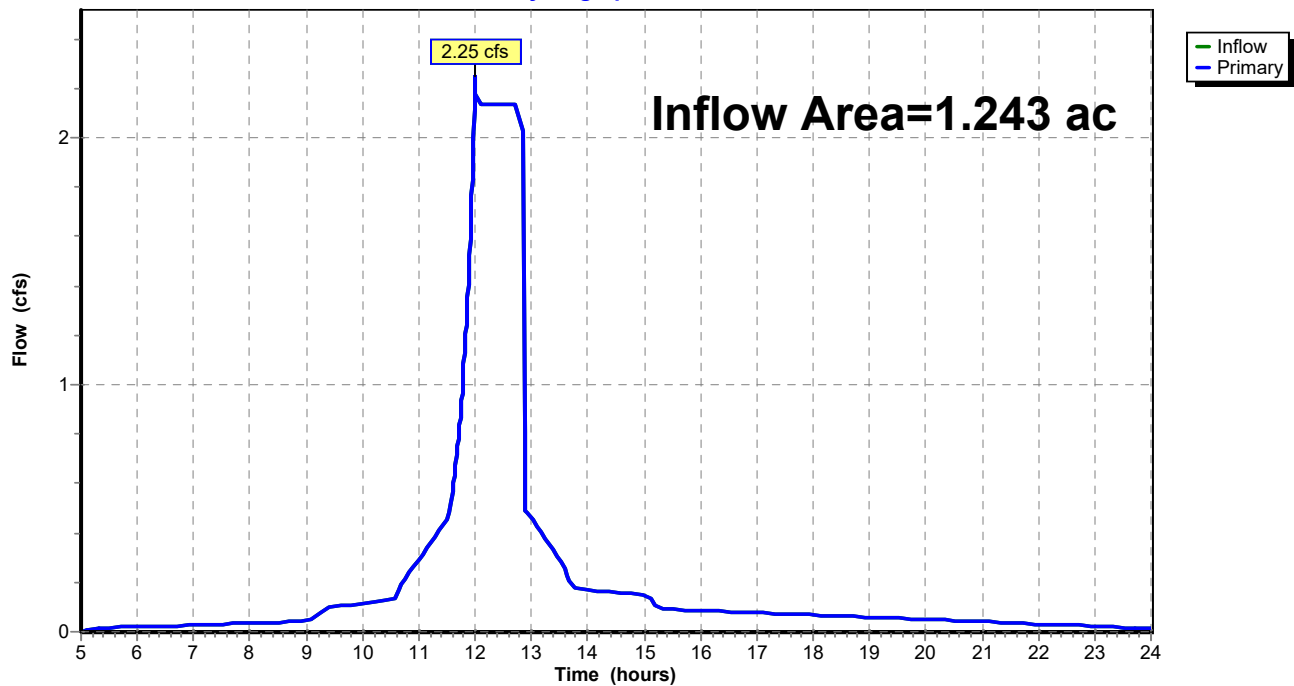
Summary for Link OUT: Outfall

Inflow Area = 1.243 ac, 87.45% Impervious, Inflow Depth > 3.13" for 10-yr event
Inflow = 2.25 cfs @ 11.99 hrs, Volume= 0.324 af
Primary = 2.25 cfs @ 11.99 hrs, Volume= 0.324 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs

Link OUT: Outfall

Hydrograph



CJE2015R1-North Shore Environmental*MSE 24-hr 3 100-yr Rainfall=6.40"*

Prepared by {enter your company name here}

Printed 5/20/2020

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Page 27

Time span=5.00-24.00 hrs, dt=0.01 hrs, 1901 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 1S: Area to Bio-Baisin Runoff Area=20,038 sf 80.00% Impervious Runoff Depth>5.57"
Tc=6.0 min CN=93 Runoff=4.25 cfs 0.213 af

Subcatchment ST1: Area 1 to Storm Sewer Runoff Area=0.386 ac 100.00% Impervious Runoff Depth>6.07"
Tc=6.0 min CN=98 Runoff=3.69 cfs 0.195 af

Subcatchment ST2: Area 2 to Storm Sewer Runoff Area=0.191 ac 66.49% Impervious Runoff Depth>5.23"
Tc=6.0 min CN=90 Runoff=1.71 cfs 0.083 af

Subcatchment ST3: Roof to Storm Sewer Runoff Area=0.206 ac 100.00% Impervious Runoff Depth>6.07"
Tc=6.0 min CN=98 Runoff=1.97 cfs 0.104 af

Reach 2R: Storm Run 2 Avg. Flow Depth=0.83' Max Vel=4.47 fps Inflow=7.36 cfs 0.383 af
10.0" Round Pipe n=0.013 L=196.0' S=0.0095 ' /' Capacity=2.14 cfs Outflow=2.27 cfs 0.383 af

Reach 3R: Storm Run 3 Avg. Flow Depth=0.83' Max Vel=4.47 fps Inflow=6.27 cfs 0.594 af
10.0" Round Pipe n=0.013 L=83.0' S=0.0095 ' /' Capacity=2.14 cfs Outflow=2.28 cfs 0.594 af

Pond 1P: BIO-RETENTION BASIN Peak Elev=919.73' Storage=1,038 cf Inflow=4.25 cfs 0.213 af
Primary=4.13 cfs 0.211 af Secondary=0.00 cfs 0.000 af Outflow=4.13 cfs 0.211 af

Pond CB1: Catch Basin 1 Peak Elev=923.52' Inflow=3.69 cfs 0.195 af
10.0" Round Culvert n=0.013 L=120.0' S=0.0050 ' /' Outflow=3.69 cfs 0.195 af

Pond CB2: Catch Basin 2 Peak Elev=923.97' Inflow=1.71 cfs 0.083 af
6.0" Round Culvert n=0.013 L=34.0' S=0.0165 ' /' Outflow=1.71 cfs 0.083 af

Link OUT: Outfall Inflow=2.28 cfs 0.594 af
Primary=2.28 cfs 0.594 af

Total Runoff Area = 1.243 ac Runoff Volume = 0.596 af Average Runoff Depth = 5.75"
12.55% Pervious = 0.156 ac 87.45% Impervious = 1.087 ac

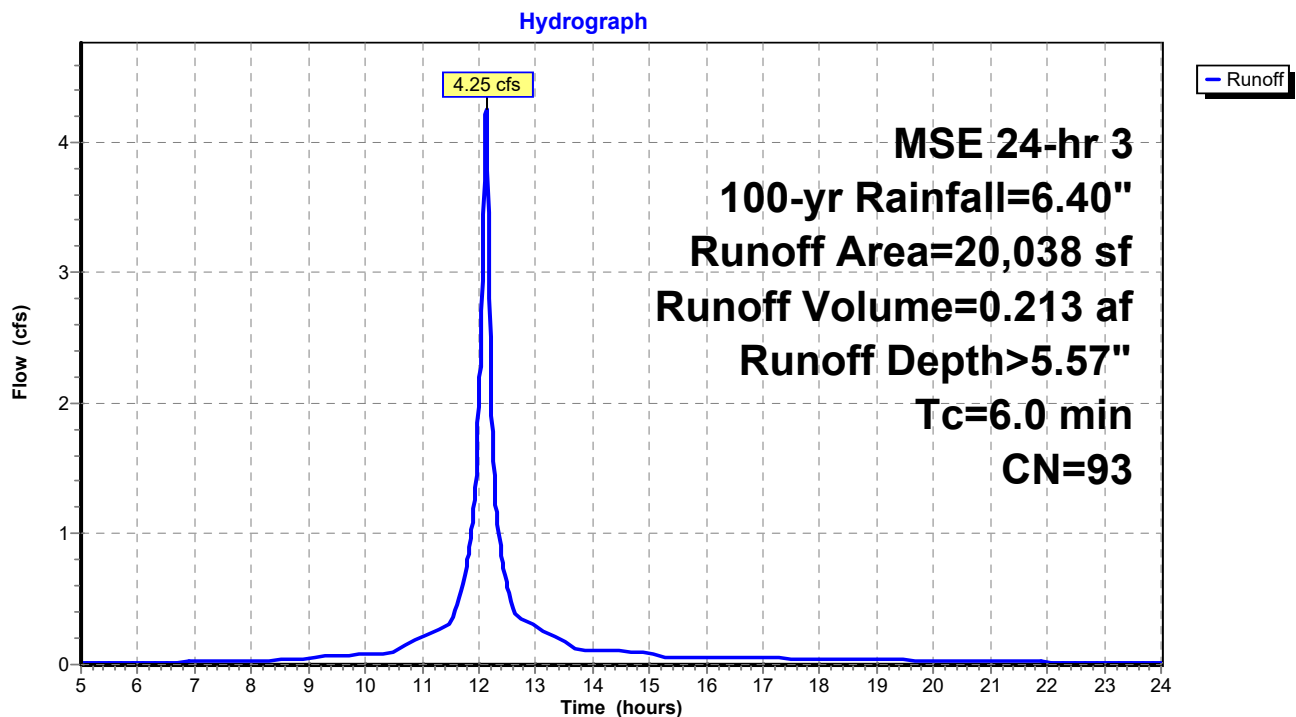
Summary for Subcatchment 1S: Area to Bio-Baisin

Runoff = 4.25 cfs @ 12.13 hrs, Volume= 0.213 af, Depth> 5.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-yr Rainfall=6.40"

	Area (sf)	CN	Description
*	16,030	98	Proposed Building Addition
	4,008	74	>75% Grass cover, Good, HSG C
	20,038	93	Weighted Average
	4,008		20.00% Pervious Area
	16,030		80.00% Impervious Area

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

Subcatchment 1S: Area to Bio-Baisin

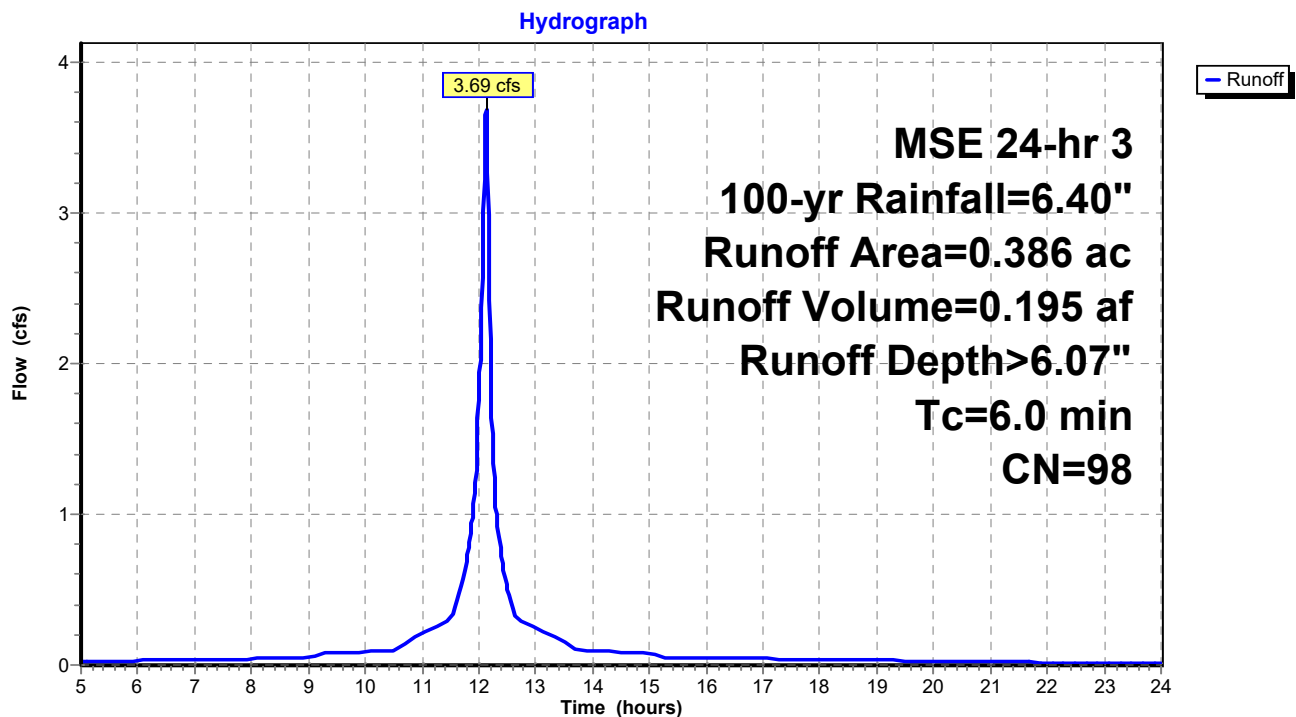
Summary for Subcatchment ST1: Area 1 to Storm Sewer

Runoff = 3.69 cfs @ 12.13 hrs, Volume= 0.195 af, Depth> 6.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-yr Rainfall=6.40"

Area (ac)	CN	Description
0.386	98	Paved parking, HSG C
0.386		100.00% Impervious Area

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

Subcatchment ST1: Area 1 to Storm Sewer

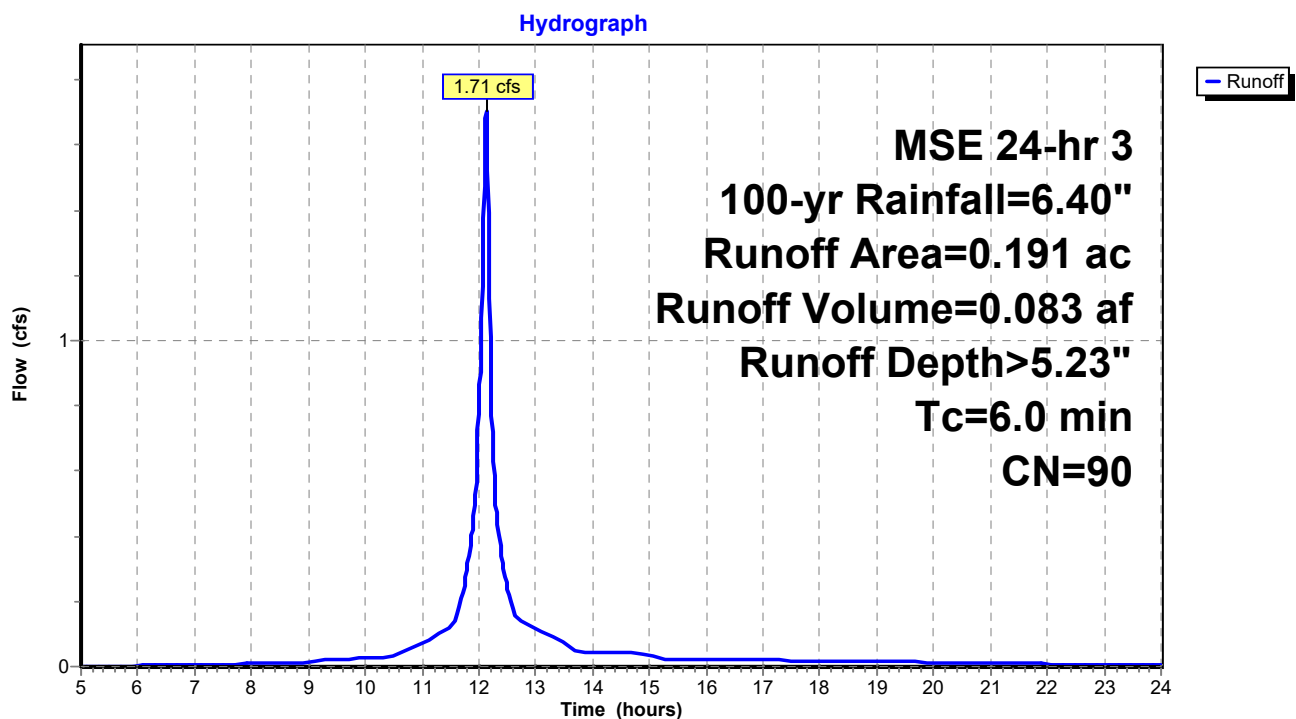
Summary for Subcatchment ST2: Area 2 to Storm Sewer

Runoff = 1.71 cfs @ 12.13 hrs, Volume= 0.083 af, Depth> 5.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-yr Rainfall=6.40"

Area (ac)	CN	Description
0.127	98	Paved parking, HSG C
0.064	74	>75% Grass cover, Good, HSG C
0.191	90	Weighted Average
0.064		33.51% Pervious Area
0.127		66.49% Impervious Area

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

Subcatchment ST2: Area 2 to Storm Sewer

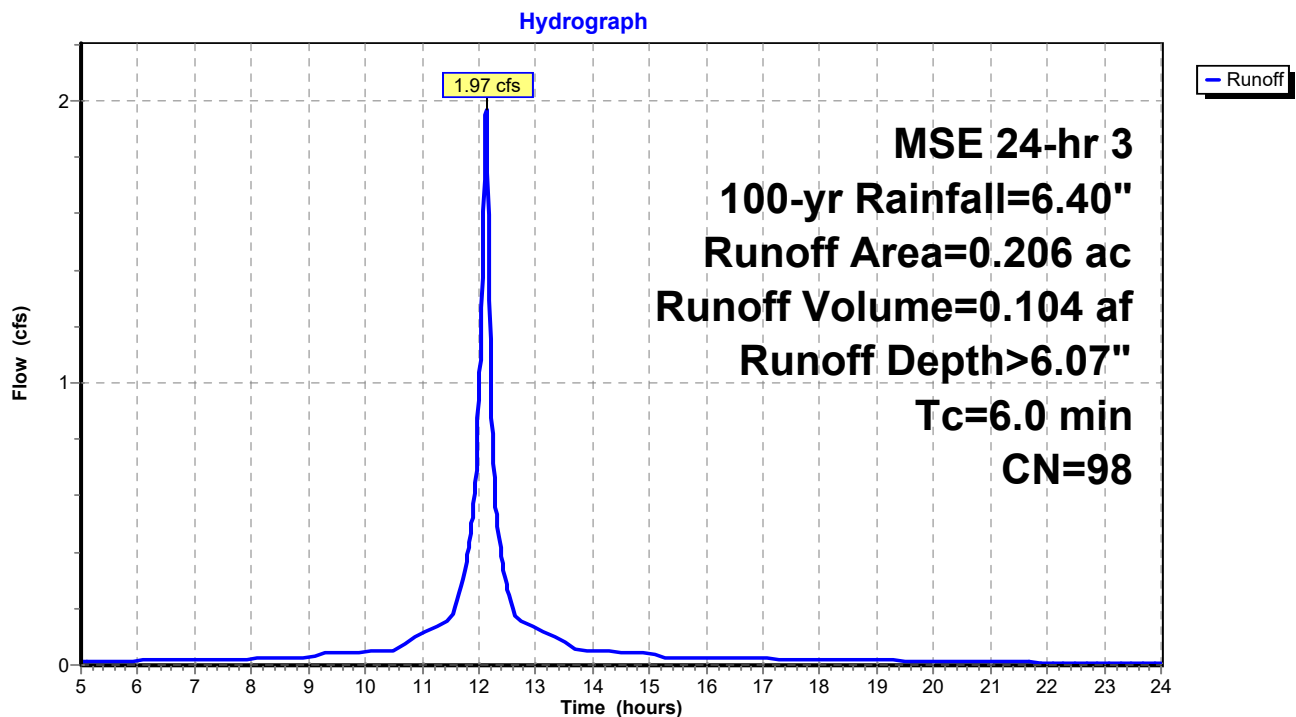
Summary for Subcatchment ST3: Roof to Storm Sewer

Runoff = 1.97 cfs @ 12.13 hrs, Volume= 0.104 af, Depth> 6.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-yr Rainfall=6.40"

Area (ac)	CN	Description
0.206	98	Roofs, HSG C
0.206		100.00% Impervious Area

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

Subcatchment ST3: Roof to Storm Sewer

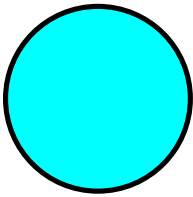
Summary for Reach 2R: Storm Run 2

Inflow Area = 0.783 ac, 91.83% Impervious, Inflow Depth > 5.86" for 100-yr event
 Inflow = 7.36 cfs @ 12.13 hrs, Volume= 0.383 af
 Outflow = 2.27 cfs @ 12.98 hrs, Volume= 0.383 af, Atten= 69%, Lag= 50.9 min

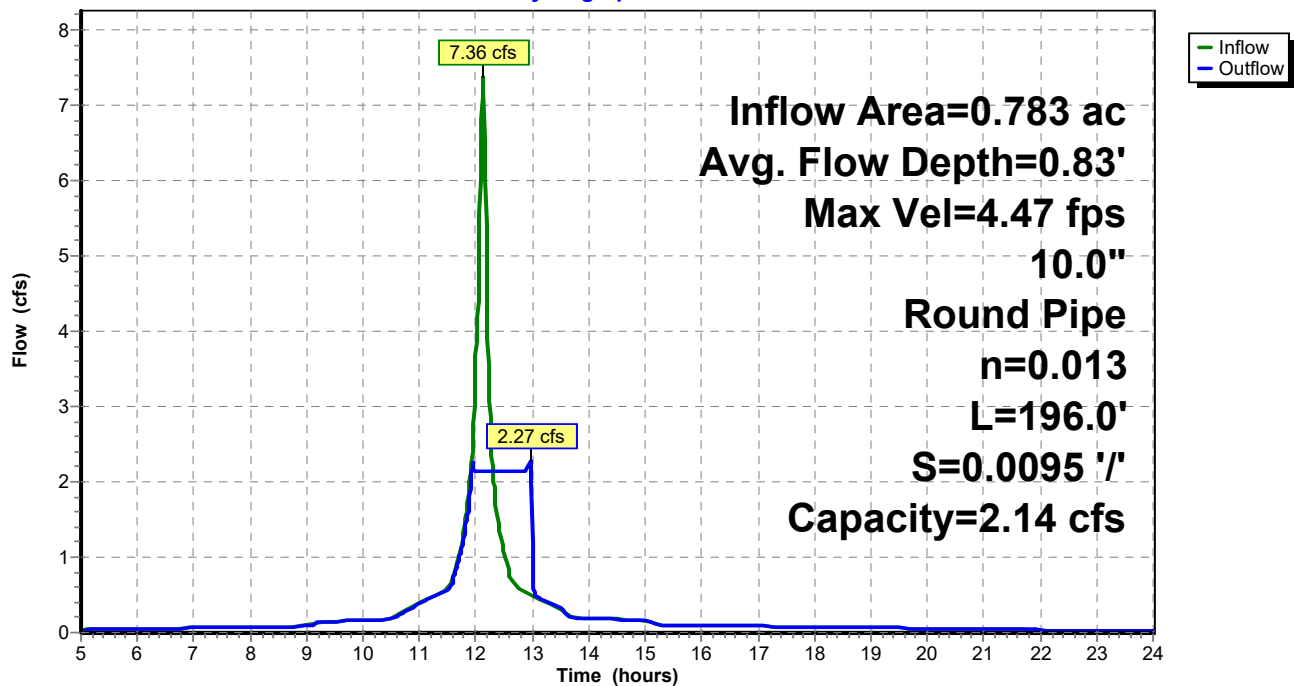
Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.47 fps, Min. Travel Time= 0.7 min
 Avg. Velocity = 2.06 fps, Avg. Travel Time= 1.6 min

Peak Storage= 107 cf @ 11.95 hrs
 Average Depth at Peak Storage= 0.83'
 Bank-Full Depth= 0.83' Flow Area= 0.5 sf, Capacity= 2.14 cfs

10.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 196.0' Slope= 0.0095 '/'
 Inlet Invert= 917.93', Outlet Invert= 916.06'

**Reach 2R: Storm Run 2**

Hydrograph



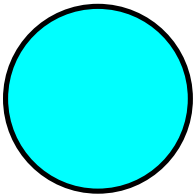
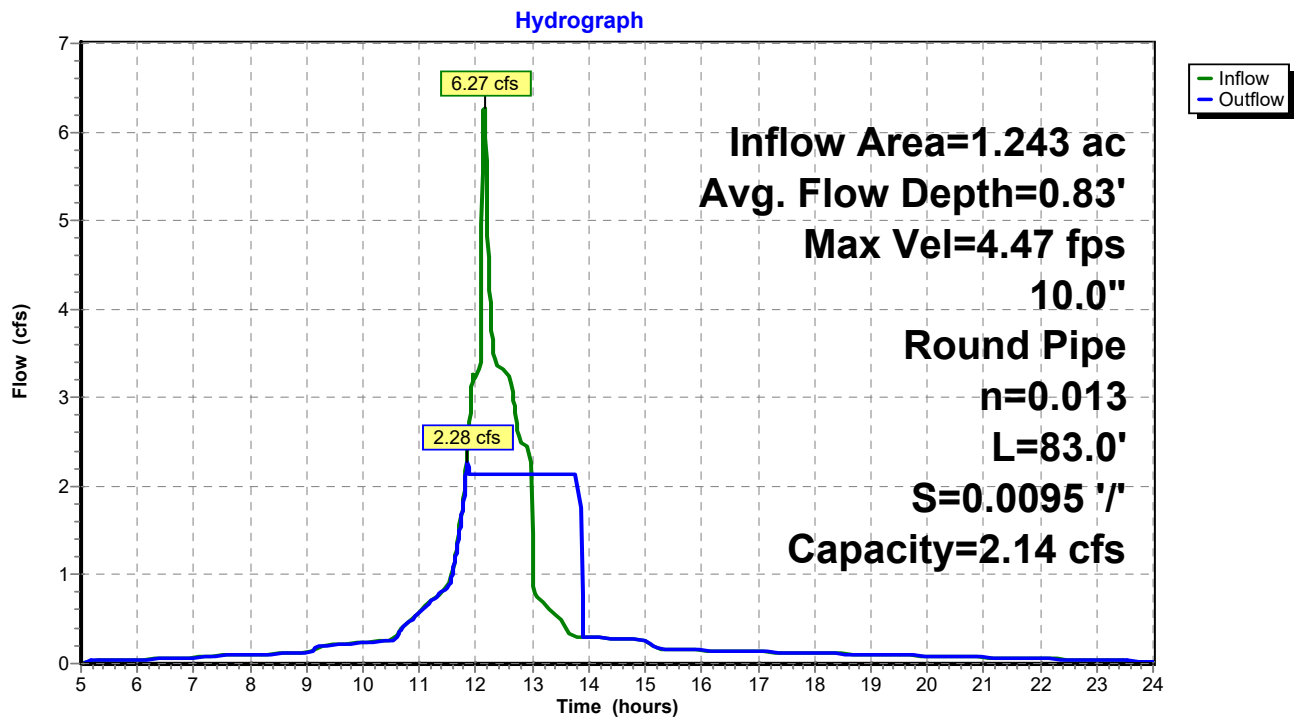
Summary for Reach 3R: Storm Run 3

Inflow Area = 1.243 ac, 87.45% Impervious, Inflow Depth > 5.73" for 100-yr event
Inflow = 6.27 cfs @ 12.14 hrs, Volume= 0.594 af
Outflow = 2.28 cfs @ 11.85 hrs, Volume= 0.594 af, Atten= 64%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.47 fps, Min. Travel Time= 0.3 min
Avg. Velocity= 2.31 fps, Avg. Travel Time= 0.6 min

Peak Storage= 45 cf @ 11.86 hrs
Average Depth at Peak Storage= 0.83'
Bank-Full Depth= 0.83' Flow Area= 0.5 sf, Capacity= 2.14 cfs

10.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0095 '/'
Inlet Invert= 916.06', Outlet Invert= 915.27'

**Reach 3R: Storm Run 3**

Summary for Pond 1P: BIO-RETENTION BASIN

Inflow Area = 0.460 ac, 80.00% Impervious, Inflow Depth > 5.57" for 100-yr event
 Inflow = 4.25 cfs @ 12.13 hrs, Volume= 0.213 af
 Outflow = 4.13 cfs @ 12.14 hrs, Volume= 0.211 af, Atten= 3%, Lag= 0.9 min
 Primary = 4.13 cfs @ 12.14 hrs, Volume= 0.211 af
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs / 5
 Peak Elev= 919.73' @ 12.14 hrs Surf.Area= 922 sf Storage= 1,038 cf

Plug-Flow detention time= 15.4 min calculated for 0.211 af (99% of inflow)
 Center-of-Mass det. time= 8.4 min (772.1 - 763.7)

Volume	Invert	Avail.Storage	Storage Description	
#1	915.50'	3,571 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
915.50	315	0.0	0	0
915.51	315	33.0	1	1
916.50	315	33.0	103	104
916.51	315	27.0	1	105
918.49	315	27.0	168	273
918.50	315	100.0	3	276
919.00	565	100.0	220	496
920.00	1,055	100.0	810	1,306
921.00	1,600	100.0	1,328	2,634
921.50	2,150	100.0	938	3,571

Device	Routing	Invert	Outlet Devices
#1	Primary	916.00'	10.0" Round Culvert L= 1.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 916.00' / 915.95' S= 0.0500 '/' Cc= 0.900 n= 0.011, Flow Area= 0.55 sf
#2	Device 1	916.45'	6.0" Round Culvert L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 916.45' / 916.40' S= 0.0100 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#3	Device 2	916.50'	1.63 cfs Exfiltration when above 916.50'
#4	Device 1	919.50'	30.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Secondary	920.50'	100.0' 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=4.10 cfs @ 12.14 hrs HW=919.73' (Free Discharge)

1=Culvert (Passes 4.10 cfs of 4.78 cfs potential flow)

2=Culvert (Inlet Controls 1.30 cfs @ 6.61 fps)

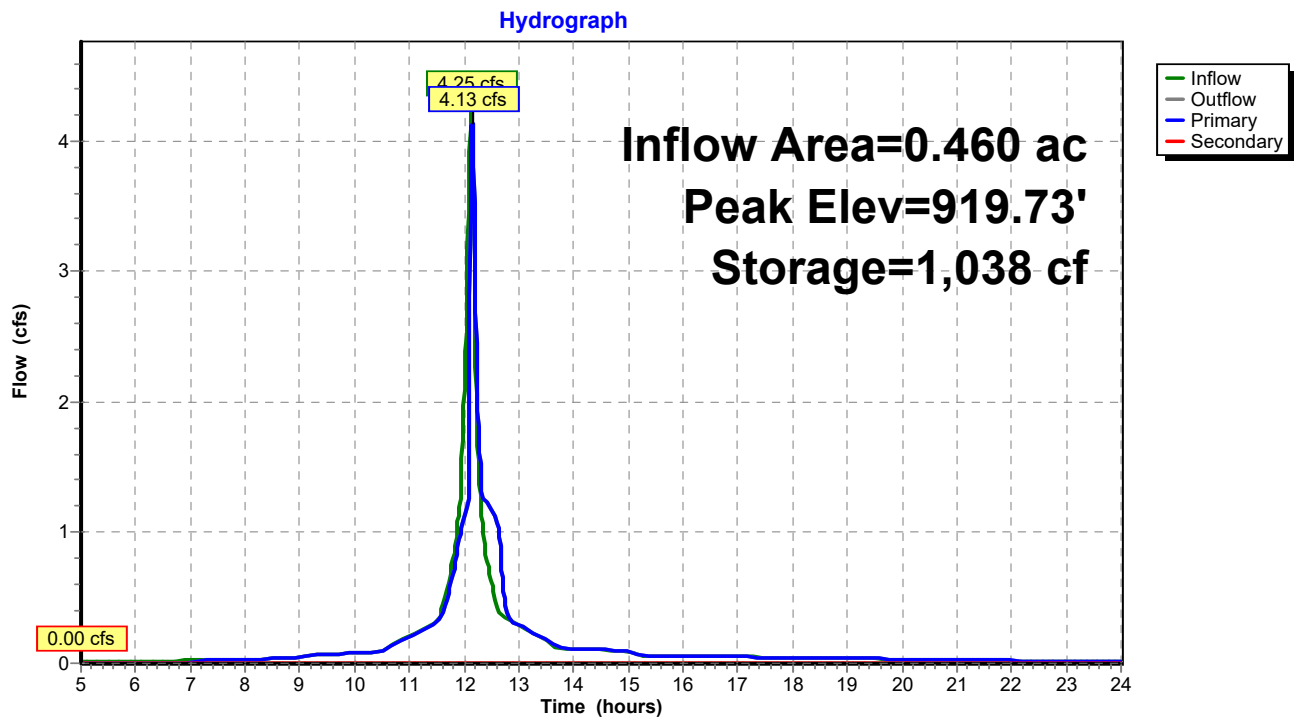
3=Exfiltration (Passes 1.30 cfs of 1.63 cfs potential flow)

4=Orifice/Grate (Weir Controls 2.80 cfs @ 1.56 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=915.50' (Free Discharge)

5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 1P: BIO-RETENTION BASIN



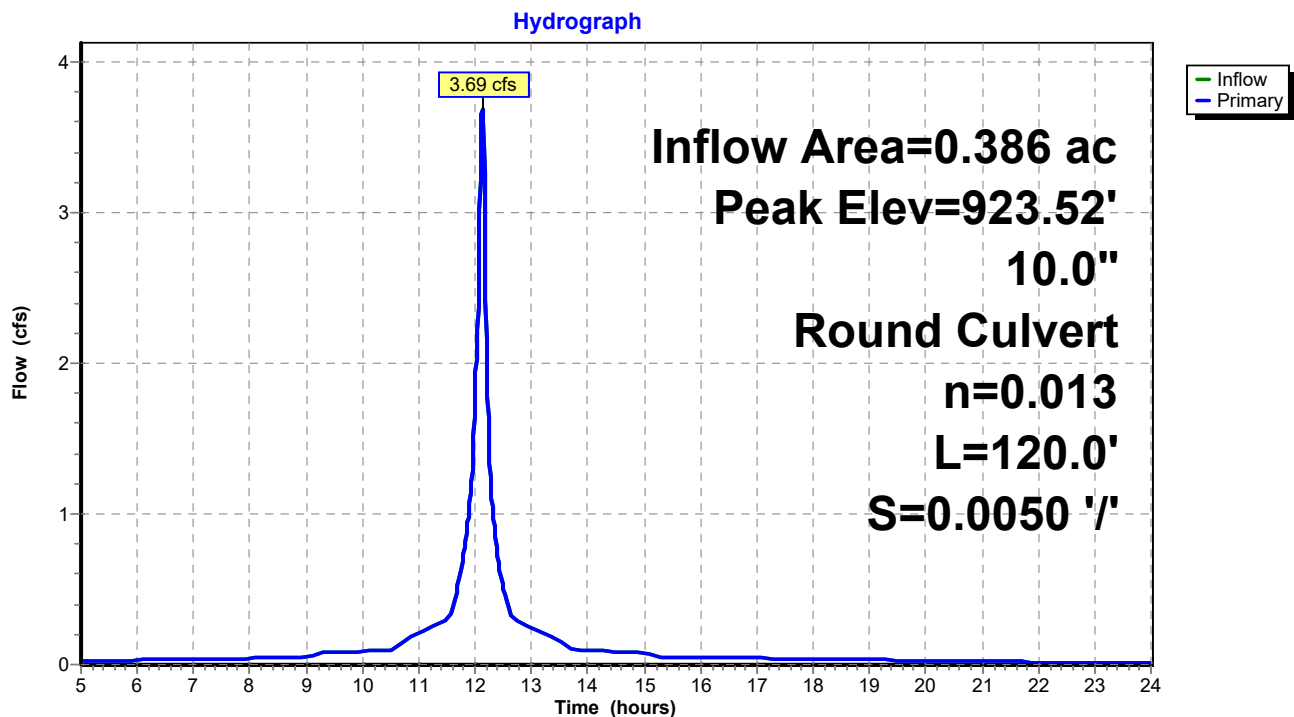
Summary for Pond CB1: Catch Basin 1

Inflow Area = 0.386 ac, 100.00% Impervious, Inflow Depth > 6.07" for 100-yr event
 Inflow = 3.69 cfs @ 12.13 hrs, Volume= 0.195 af
 Outflow = 3.69 cfs @ 12.13 hrs, Volume= 0.195 af, Atten= 0%, Lag= 0.0 min
 Primary = 3.69 cfs @ 12.13 hrs, Volume= 0.195 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 923.52' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	918.53'	10.0" Round Culvert L= 120.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 918.53' / 917.93' S= 0.0050 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=3.68 cfs @ 12.13 hrs HW=923.51' (Free Discharge)
 1=Culvert (Barrel Controls 3.68 cfs @ 6.75 fps)

Pond CB1: Catch Basin 1

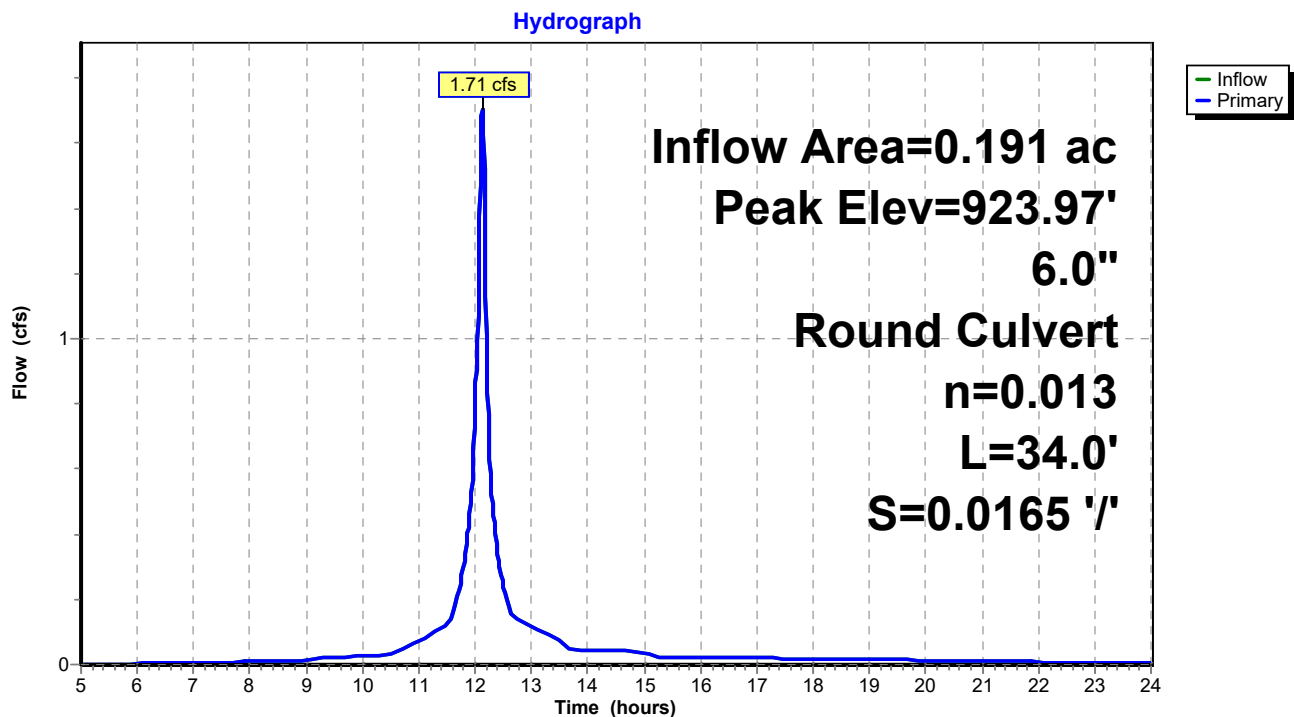
Summary for Pond CB2: Catch Basin 2

Inflow Area = 0.191 ac, 66.49% Impervious, Inflow Depth > 5.23" for 100-yr event
 Inflow = 1.71 cfs @ 12.13 hrs, Volume= 0.083 af
 Outflow = 1.71 cfs @ 12.13 hrs, Volume= 0.083 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.71 cfs @ 12.13 hrs, Volume= 0.083 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 923.97' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	918.49'	6.0" Round Culvert L= 34.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 918.49' / 917.93' S= 0.0165 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=1.71 cfs @ 12.13 hrs HW=923.97' (Free Discharge)
 ↑ **1=Culvert** (Inlet Controls 1.71 cfs @ 8.69 fps)

Pond CB2: Catch Basin 2

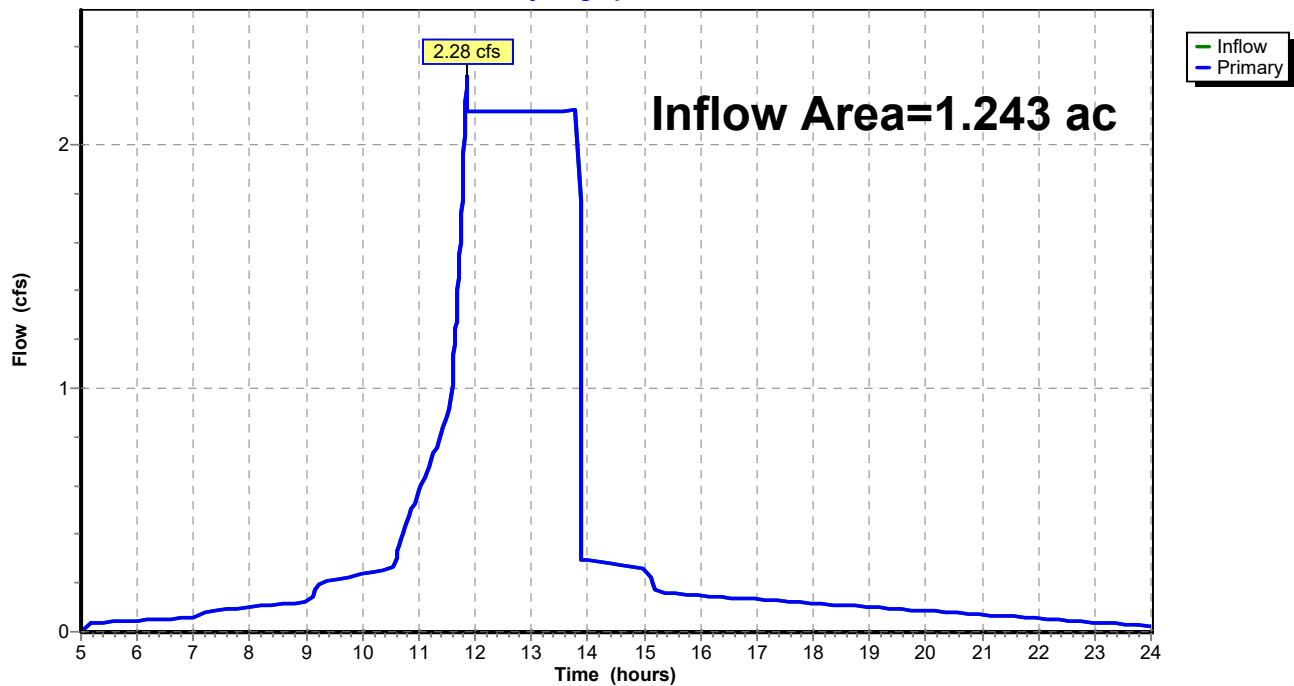
Summary for Link OUT: Outfall

Inflow Area = 1.243 ac, 87.45% Impervious, Inflow Depth > 5.73" for 100-yr event
Inflow = 2.28 cfs @ 11.85 hrs, Volume= 0.594 af
Primary = 2.28 cfs @ 11.85 hrs, Volume= 0.594 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-24.00 hrs, dt= 0.01 hrs

Link OUT: Outfall

Hydrograph



Bioretention Basin Minimum Storm Water Practice Maintenance Requirements

System Description:

The storm water management facility includes a bioretention basin. The basin is designed to reduce peak flows and reduce runoff total suspended solids (TSS) from the site by intercepting the runoff and allowing it to seep (infiltrate) into the engineered soil layer and through the perforated under-drain pipe. To function correctly, the bioretention basin size, depth, outlet manhole and under-drain pipe must be maintained as specified in this Agreement.

Minimum Maintenance Requirements:

To ensure the proper function of the bioretention basin, the following list of maintenance activities are required to be performed by the owner or authorized qualified representative:

1. A minimum of 70% soil cover made up of plants must be maintained on the bioretention basin bottom. The basin sides shall be a turf grass. Maintain plants and grasses per qualified landscape contractor recommendations.
2. Seasonal (early spring) inspection of the soil surface for the presence of sodium accumulation due to the introduction of chlorides for winter maintenance of the parking lot should occur. It is also recommended that the soil be flushed with 1" of clean water 3-4 times each spring. Consider reducing sodium/salting or use sodium alternatives.
3. The basin and all components (outlet manhole, outlet pipe, vegetation and spillway) should be inspected after each heavy rain of 1.5" or more. If the basin is not draining properly (within 72 hours), further inspection may be required by persons with expertise in storm water management and/or soils.
 - o If basin is not draining, the 6" drain tile should be cleared of any blockages or obstructions. Clear blockages in the underdrain pipe, if present through the underdrain cleanout. Expose the stone and soil immediately around the pipe, clear blockages and replace per approved design. Also examine outlet orifice through the dual treated planks within the pond outlet manhole. Remove any sediment accumulated within the manhole and orifice.
 - o If soil testing shows that the soil surface has become crusted, sealed or compacted, Engineered soil should be replaced. Expose 6" drain tile and verify it is clear of obstructions. Remove and replace engineered soil per WDNR specifications. Replace bioretention plantings per approved Landscape Plan for the project.
 - o If sedimentation is determined to be causing the failure, the accumulated sediment must be removed and the area replanted in accordance with the approved Landscape Plan for the project. Sediment removed shall be deposited offsite at an appropriate soil disposal facility.
4. All outlet pipes, other flow control devices within the basin outlet manhole must be kept free of debris. Any blockage must be removed immediately.
5. Any eroding areas must be repaired immediately to prevent premature sediment build-up in the system. Erosion matting is recommended for repairing grassed areas.
6. Heavy equipment and vehicles must be kept off of the bottom and side slopes of bioretention basin to prevent soil compaction. Soil compaction will reduce infiltration and may cause failure of the basin, resulting in ponding and possible growth of wetland plants.
7. No unauthorized trees are to be planted or allowed to grow on the earthen berms or bottom of the basin. On the berms, tree root systems can reduce soil compaction and cause berm failure. On the basin bottom, trees may shade out the native grasses. Woody vegetation must be removed.
8. Check for invasive species growth and remove per species specific recommended practices.
9. No grading or filling of the basin or berms other than for sediment removal is allowed.
10. One required inspection a year shall be conducted in spring (between March 15th and April 15th). An inspection form must be completed and documented by a qualified person that represents the Owner. Any needed maintenance must be documented and scheduled for immediate repair. All repairs must be documented, preferably with photographs.
11. Snow shall not be dumped directly onto the conditioned planting bed.

12. See chart below for maintenance activity and frequency:

Activity	Frequency
Water Plants	As necessary during first growing season
Water as necessary during dry periods	As needed after first growing season
Re-mulch void areas	As needed
Treat diseased trees and shrubs	As needed
Inspect soil and repair eroded areas	Monthly
Remove litter and debris	Monthly
Add additional mulch	Once per year

6/8/20 Plan Commission Meeting

Kwik Trip

Village Planner Report

Germantown, Wisconsin

Summary

LaCrosse Sign Group, agent for KT Real Estate and Kwik Trip Inc., property owner, is requesting approval of a revised monument sign and electronic message center (EMC) for the convenience store located at W188 N10963 Maple Road.

Location: W188 N10963 Maple Road

Applicant/

Property Owners: Cindy Buske
LaCrosse Sign
1450 Oak Forest Dr
LaCrosse, WI

KT Real Estate/Kwik Trip Inc.
1626 Oak Street
La Crosse, WI

Current Zoning: B-5: Highway Business

Adjacent Land Uses		Zoning
North	Commercial	B-5
South	Commercial	B-1
West	Commercial	B-5
East	Institutional	I



Proposal

LaCrosse Sign Group, agent for KT Real Estate and Kwik Trip Inc., property owner, is requesting approval of a revised monument sign and electronic message center (EMC) for the convenience store located at W188 N10963 Maple Road. The proposal is comprised of three (3) items:

- Replace existing “KWIK TRIP” logo sign faces with opaque panels w/ night-only illuminated logo;
- Upgrade existing digital price sign cabinets;
- Replace existing 18.75 sqft “CARWASH” manual reader board w/ a new 2’11” x 5’ (14.7 sqft or 23% of the total sign area) double-sided electronic message center (EMC) mounted on the existing masonry base located at the Lannon Road @ Maple Road intersection.

Staff Comments

The proposed existing monument sign meets the Village's area and other dimensional requirements for monument signs in the Zoning Code, including the requirements for base materials, address coordinates and landscaping.

The installation and operation of electronic message boards are subject to a series of eight (8) specific requirements under Section 17.46(7)(h) of the Zoning Code (see below).

VILLAGE STAFF RECOMMENDATION

APPROVE the proposed monument sign revisions and electronic message center (EMC) for Kwik Trip located at W188 N10963 Maple Road subject to the following conditions:

1. A separate electrical permit shall be obtained from Inspection Services prior to installation.
2. All electronic components shall be labeled by a licensed lab and inspected prior to or concurrent with installation.
3. Kwik Trip shall provide written evidence to the Zoning Administrator from the sign manufacturer and/or installer that the electronic message board complies with the automatic light level adjustment and other operational requirements prior to issuance of an electrical permit as required under 17.46(7)(h)6. and (h)7. of the Zoning Code.
4. Kwik Trip shall operate and maintain the electronic message board in compliance with the message display appearance, duration/timing and all other requirements under 17.46(7)(h) at all times.

Section 17.46(7)(h) ELECTRONIC MESSAGE BOARDS.

Electronic message boards may be permitted by the Plan Commission but only as an integral and subordinate portion of a freestanding monument or ground sign (and not a wall, projecting, window or any other sign) provided said monument sign complies with the provisions set forth in section 17.46(7)(c) above. Electronic message boards may be allowed with approval by the Plan Commission and shall meet all of the following requirements:

1. Electronic message boards may be allowed for permitted and conditional uses located within the B-1, B-2, B-3, B-4, B-5, I, M-1 and M-2 zoning districts, except on those lots within the boundaries of the Germantown Business Park and Willow Creek Business Park of Germantown;
2. Electronic message boards shall not be located within 150 feet of a residential zoning district boundary, or, be located, designed or operated in such a manner as to create in the opinion of the Plan Commission at the time of sign approval a negative visual impact on property used for existing residential uses;
3. Electronic message boards may be installed as part of an existing monument or ground sign which is in compliance with all applicable requirements of this chapter and other applicable requirements of law. No electronic message board may be installed on or otherwise be made part of a nonconforming sign;
4. Electronic message boards shall only display static messages. Messages shall not contain animation, effects simulating animation, or video. Messages shall not contain text or images that dissolve, fade, scroll, travel, flash, spin, revolve, shake or include any other type of movement or motion during the message interval. The message interval, i.e. the minimum amount of time a message is required to be displayed, shall not be less than 7 seconds. The transition interval, i.e. the maximum amount of time allowed to transition from one message to the next message, may include fading, dissolving or traveling but shall not exceed 3 seconds;
5. The sign area or display face of the message board shall be included in the calculation of sign area for the monument or ground sign to which it is attached, and, shall not exceed 40 percent of the total sign area allowed for the monument or ground sign to which it is attached;
6. 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);
7. 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;
8. The owner of the property upon which a ground sign containing off-premises signage is located is responsible for preparing and keeping up-to-date information in an electronic message board use and maintenance agreement that identifies the name and contact information for the person(s) responsible for maintaining the message board and ensuring that the use and content of the message board complies with the provisions set forth herein on a continual basis.



Fee must accompany application

\$275 Sign Review Fee ✓

\$ 75 Sign Face Replacement

Paid 7 Date 3-9-20

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

La Crosse Sign Group
1450 Oak Forest Dr
Onalaska WI 54650
Phone (608) 781-1450
Fax ()
E-Mail cindyb@lacrossesign.com

PROPERTY OWNER

Kwik Trip Inc
1626 Oak St / PO Box 2107
La Crosse WI 54602
Phone (608) 793-5913

2 PROPERTY ADDRESS OR GENERAL LOCATION

W188 N10963 Maple Rd (Kwik Trip #631)

3 SIGN INFORMATION

Retro existing monument sign: Message center : 2' 10 7/8" x 5' 5/8" (existing cabinet is 4' x 4' 8 1/4")
Fuel Price Sign: 5' 4" x 4' 8" (existing cabinet same size)
Kwik Trip Sign: 3' x 8' (existing cabinet same size)

Sign Dimensions _____ height x _____ width Single/Multi Tenant (circle one)
Number of Sides 2 Building Frontage SF _____
Total Square Footage of Sign (include all sides) 127.14 (existing is 135.5)
Total height of the Sign same as existing
Is the Sign to be illuminated _____ x _____ yes _____ no
Type of Sign Construction Materials aluminum, acrylic, vinyl, internal LED lighting
Distance to Closest Property Line same as existing

Are there any existing signs on the property yes

If yes, what is the total Square Footage of existing signs 190.2 (existing mnmt, KT, (3) Kwik Trip, Enter, Exit)

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

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

Cindy Bluske 3/3/2020
Applicant Date
Cindy Bluske

Ryan Roberts 3/3/2020
Owner Date
Ryan Roberts



**La Crosse
Sign Group**

lacrossesign.com

1450 Oak Forest Drive • Onalaska, WI 54650 • 608-781-1450
2242 Mustang Way • Madison, WI 53718 • 608-222-5353
2502 Melby Street • Eau Claire, WI 54703 • 715-835-6189

March 3, 2020



Village of Germantown
Planning & Zoning
N112 W17001 Mequon Road
Germantown WI 53022

Sign Permit Application for Kwik Trip #631 at W188 N10963 Maple Rd:

Kwik Trip is updating several of their sites to make their signs more consistent and readable. They would also like to replace one of the cabinets on the monument sign with an electronic message center. The retro would include replacing the Kwik Trip faces with aluminum faces backed with red acrylic so that only the copy illuminates at night. The price sign cabinet updated to 2 newer models to replace the existing two. Replace the existing carwash readerboard with an electronic message center which would reduce the square footage slightly. Please see the attached artwork and application.

I believe your regulations for the message center are: *"Electronic message boards shall only display static messages. Messages shall not contain animation, effects simulating animation, or video. Messages shall not contain text or images that dissolve, fade, scroll, travel, flash, spin, revolve, shake or include any other type of movement or motion during the message interval. The message interval, i.e. the minimum amount of time a message is required to be displayed, shall not be less than 7 seconds. The transition interval, i.e. the maximum amount of time allowed to transition from one message to the next message, may include fading, dissolving or traveling but shall not exceed 3 seconds."* Please let me know if this is not correct.

Encl: \$275

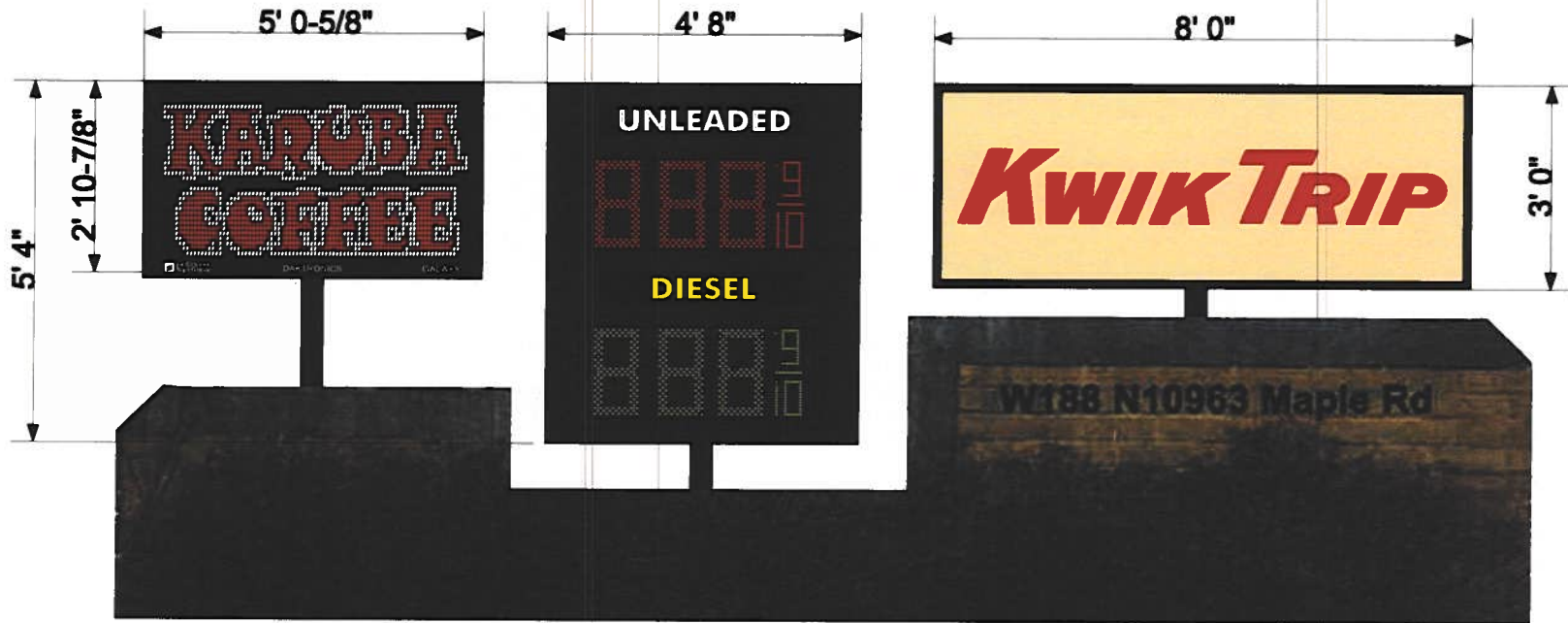
If you have questions or concerns please call Cindy Bluske (see contact information below).

*Thank you,
Cindy Bluske*

LaCrosse Sign Group -home office 1450 Oak Forest Dr. / Onalaska, WI 54650 / Phone: 608-781-1450
LaCrosse Sign Group of Madison 2242 Mustang Way / Madison, WI 53718 / Phone: 608-222-5353
LaCrosse Sign Group of Eau Claire 2502 Melby St. / Eau Claire, WI 54703 / Phone: 715-835-6189
www.lacrossesign.com
cindyb@lacrossesign.com

RETRO EXISTING DOUBLE FACED MONUMENT

#631 GERMANTOWN, WI



NEW MC
72x144
10mm RGB
Active SF 11.52
Overall SF 14.68

existing carwash cabinet is 4' x 4 8 1/4" for 18.75 SF

NEW 16"
PRICERS
existing cabinet same size

NEW OPAQUE
ALUMINUM FACE
W/ #2283 RED
ACRYLIC COPY
existing cabinet same size

Approved by: _____ Date: _____ Landlord: _____ Date: _____

lacrossesign.com



1450 Oak Forest Drive • Onateska, WI 54860 • 608-781-1450
2242 Mustang Way • Madison, WI 53716 • 608-222-6363
2502 Melby Street • Eau Claire, WI 54703 • 715-635-6189

DESIGN

SALES

FILE

Drawing by: Danielle Hadley

Sign Type: Retro Monument

Date Created: 1/24/2020

Last Modified:

Scale: 3/8" = 1' 0"

Job Name: Kwik Trip

Job Address:
W188 N10963 Maple Rd
Germantown, WI 53022

Salesperson: Cindy Bluske

Job Number: 108009

Revision Number:

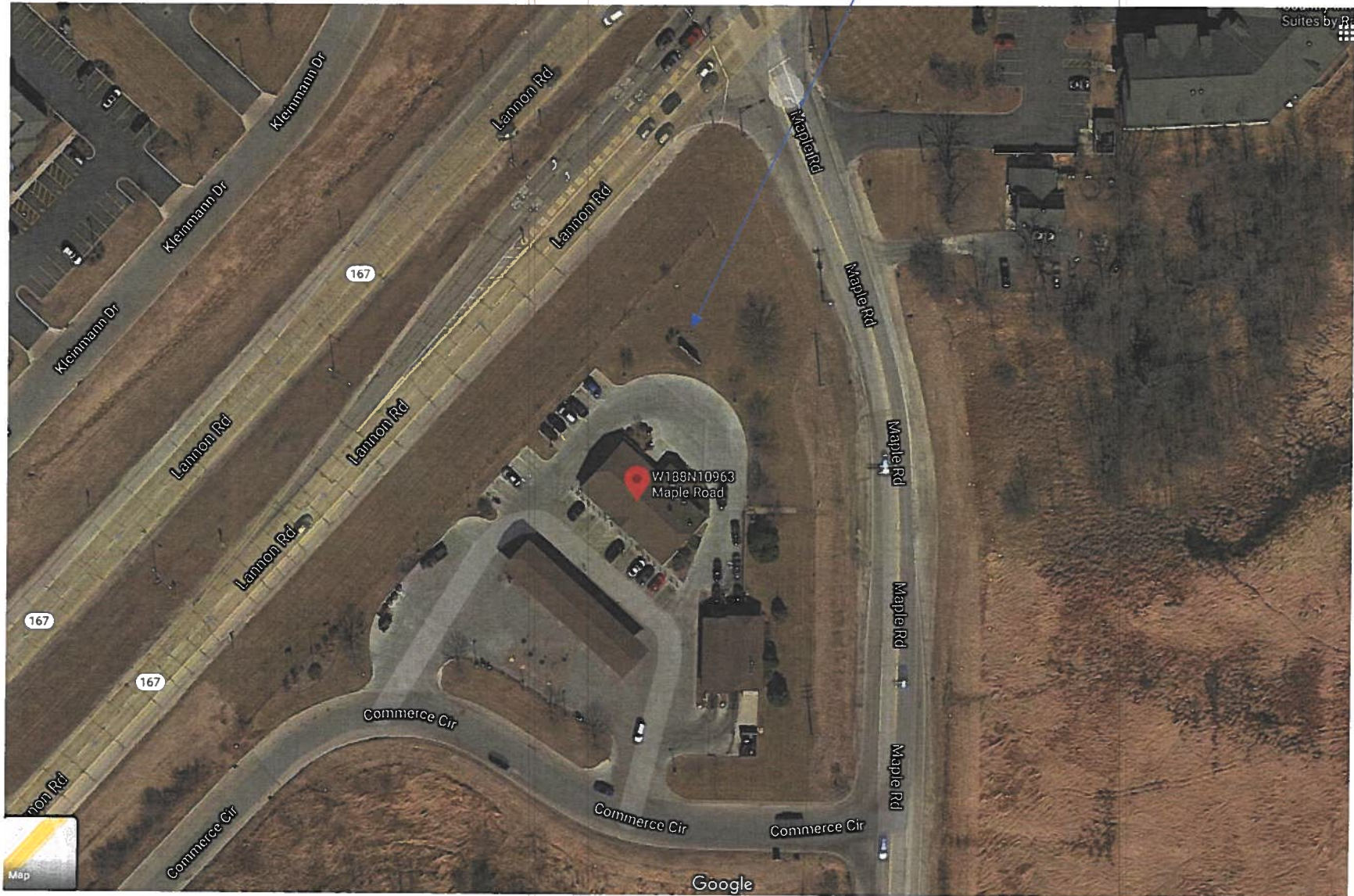
Job File Location:
S:\1 - Kwik Trip\Germantown, WI
#631\108009 - Retro Monument
2020\Design\631 Germantown
Art 108009



Existing Sign

Site view of Kwik Trip #631

monument



SIGN REVIEW

6/8/20 Plan Commission Meeting

Signarama / Dielectric Manufacturing

Village Planner Report

Germantown, Wisconsin

Summary

Signarama, agent for Dielectric Manufacturing, property owner, is requesting approval for one wall sign and one ground sign for the Dielectric Manufacturing located at W206N12865 Gateway Court.

Location: W206N12865 Gateway Court

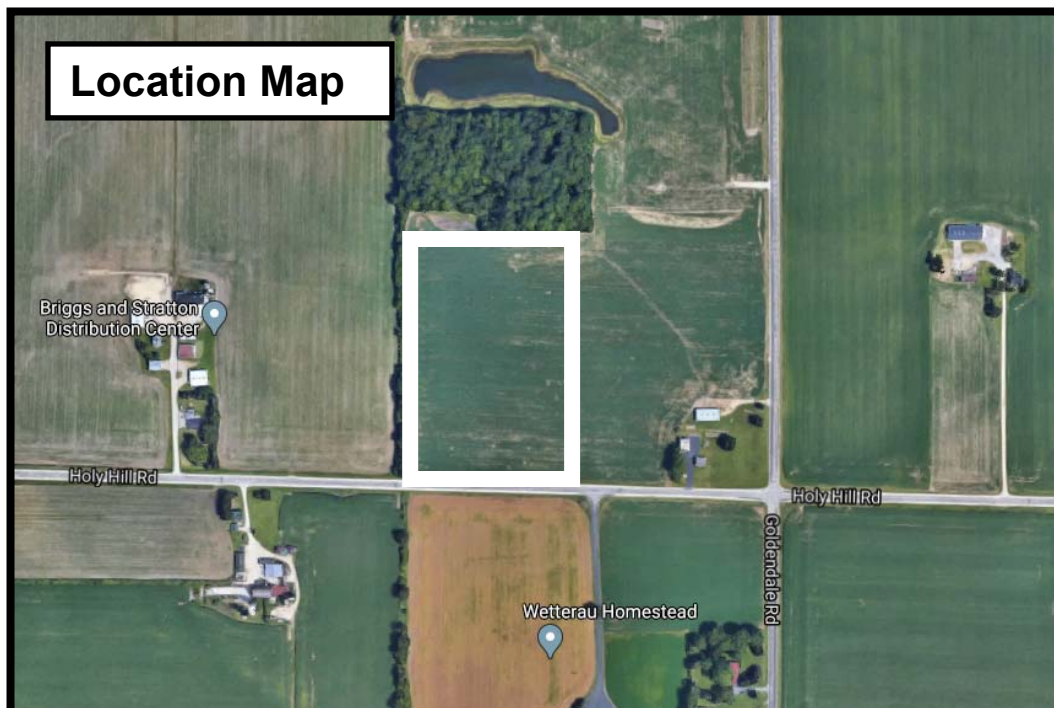
Agent/

Property Owners: Signarama
N84W15787 Menomonee Ave
Menomonee Falls, WI 53051

Dielectric Manufacturing
W206N12865 Gateway Court
Germantown, WI 53076

Zoning: M-1: Limited Industrial

Adjacent Land Uses		Zoning
North	Industrial	M-1
South	Industrial	M-1
East	Industrial	M-1
West	Industrial	M-1



Background/Proposal

Signarama, agent for Dielectric Manufacturing, property owner, is requesting approval for one wall sign and one ground sign for the Dielectric Manufacturing located at W206N12865 Gateway Court.

Wall Sign

- 57-square foot, LED internally illuminated channel letters, lexan faces with dark red and dark blue vinyl, attached with raceway mounts. The sign will be placed on the south elevation of the building.

Ground Sign

- 4.5' x 10' (45 square feet per side; 90 square feet total) double-sided, internally illuminated aluminum cabinet. The sign cabinet will be placed on an approximately 2.5' tall brick layered base with concrete pad (total height of 7'7"). Landscaping is required for the base of the sign and must meet the required 3' minimum on all sides of the base of the sign. The white background on the sign is opaque and only the letters will be illuminated at night, per Village code.

Both signs will include solar eyes that will turn off the sign lighting during daylight hours and turn on the lighting during nighttime hours.

Staff Comments

The proposed wall sign meets the Village's sign requirements. A landscaping plan for the base of the ground sign will be required to be reviewed and approved by the Village Planner prior to the installation of the landscaping and within 60 days of building occupancy.

Village Planner Recommendation

APPROVE the proposed wall and ground signs for Dielectric Manufacturing subject to the following conditions:

1. A landscaping plan (three feet on all sides of the ground sign) shall be submitted and approved by the Village Planner prior to the installation of the landscaping and within 60 days of building occupancy.
2. Electrical permits shall be obtained from Inspection Services prior to installation of any/all electrical components.



Village of



Germantown

Willkommen

Fee must accompany application

\$275 Sign Review Fee

\$ 75 Sign Face Replacement

Paid h. Date 5-19-20

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

Signarama
N 84 W 15787 Menomonee Ave.
Menomonee Falls, WI 53051
Phone (262) 261-4300
Fax (262) 261-4301
E-Mail JIM@signswithimpact.com

PROPERTY OWNER

DIELECTRIC MFG.
W 206 N 12865 Gateway Ct.
Germantown, WI 53022
Phone (262) 255-2600 X 317
JAMIE.Koenig@dielectricmfg.com

2 PROPERTY ADDRESS OR GENERAL LOCATION

W 206 N 12865 Gateway Court
Germantown, WI 53022

3 SIGN INFORMATION

Sign Dimensions 83" height x 120" width Single/Multi Tenant (circle one)
Number of Sides 4 Building Frontage SF _____
Total Square Footage of Sign (include all sides) 69
Total height of the Sign 83
Is the Sign to be illuminated X yes _____ no
Type of Sign Construction Materials BRICK, ALUM, LEXAN
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 N/A

What are the intentions for the existing signs: Take down N/A Remain N/A

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

[Signature] 4/8/20
Applicant Date

[Signature] 5/1/2020
Owner Date



Village of



Germantown

Willkommen

illuminating sign on building

Fee must accompany application

\$275 Sign Review Fee

\$ 75 Sign Face Replacement

Paid 8 Date 5-19-20

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

SIGNARAMA
N. 84 W. 15787 Menomonee Ave.
Menomonee Falls, WI 53051
Phone (262) 251-4300
Fax (262) 251-4301
E-Mail Jim@signswithimpact.com

PROPERTY OWNER

DIELECTRIC MFG.
W. 206 N. 12865 Gateway Ct.
Germantown, WI 53022
Phone (262) 255-2600 x 317
Jamie.Koenig@dielectricmfg.com

2 PROPERTY ADDRESS OR GENERAL LOCATION

W. 206 N. 12865 GATEWAY COURT (CORNER)
GERMANTOWN, WI 53022

3 SIGN INFORMATION

Sign Dimensions 36" height x 226" width Single/Multi Tenant (circle one)
Number of Sides _____ Building Frontage SF _____
Total Square Footage of Sign (include all sides) 57 sq ft.
Total height of the Sign 36"
Is the Sign to be illuminated X yes _____ no
Type of Sign Construction Materials ALUMINUM
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 N/A

What are the intentions for the existing signs: Take down N/A Remain N/A

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

[Signature] 4/8/20
Applicant Date

[Signature] 5/1/2020
Owner Date

Oracal 8500030 dark red
Oracal 8500007 dark blue
Oracal 751050 dark blue

FINAL ART 4-14-20



8" raceways

8" raceways

8" raceways

Raceways painted to match building / install solar eye on sign

57 sq. ft.

DM
5" deep formed cabinet
white lexan face w/ 2 color cut vinyl
white cans / white gemlite trim
LEDs / flush mount to building
36" tall x 66" in length

DIELECTRIC
-13' in length / 21" tall letters / 5" deep letters on raceway
white cans / white lexan face w/ burgandy vinyl / white trim
LED / raceway mount to building

MANUFACTURING
8' 9" in length x 10" tall letters / 5" deep letters on raceway
white cans / white lexan faces w/ blue vinyl / white trim
LED / raceway mount to building

Dielectric Building
W206 N12865 Gateway Ct.

Raceway sign

Parking

Lanscaped Birm

Retention Pond

Monument sign

50 ft
set back

50 ft
set back

Village Transformer Box

← Briggs & Stratton

Hwy. 167 Holy Hill Rd

↑
Gateway Court

Jamie / 262-255-2600 / jamie.koenig@dielectricmfg.com W206 N12865 Gateway court Germantown

FINAL ART 4-14-20



54" tall x 120" in length
30" deep cabinet

BACK LIT ONLY LETTERS LITE AT NITE

re-enforced structure complete with single pole in concrete

Double sided , All Aluminum construction , CNC Cut Faces , Painted White
Backed with translucent lexan and colored vinyls , LED internal illumination
service switch , UL listed , 2" retainers , install solar eye on cabinet

GRAY BRICK , BLUE CABINET , WHITE ALUM. FACES
use same colors as on bldg.

Oracal 8500030 dark red
Oracal 8500007 dark blue
Oracal 751050 dark blue

W206 N12865
cnc cut numbers
6" tall

17" x 28" logo

11" x 76" - DIELECTRIC

4" x 44" - MANUFACTURING

8" x 108" - Custom Plastic & Metal Solutions

OPTION 2 \$19,850.00 plus tax

complete turn key / electrical to sign is customer responsibility

46 sq. ft.

1000 lbs of windload on sign at 30 mph.





DM **DIELECTRIC**
MANUFACTURING

FINAL ART RACEWAY ON BLDG
4-14-20