Village of Mukwonago

Notice of Meeting and Agenda

PLAN COMMISSION MEETING
Tuesday, May 11, 2021

Time: **6:30 pm**
Place: **Mukwonago Municipal Building, Board Room, 440 River Crest Ct, Mukwonago, WI 53149**

1. Call to Order

2. Roll Call

3. Comments from the Public

Please be advised, per Wisconsin Statute Sec. 19.84(2), information and comment will be received from the public by the Plan Commission. The Public Comment Session is granted to the public at the start of each Plan Commission meeting. The Public Comment Session shall last no longer than fifteen (15) minutes and individual presentations are limited to three (3) minutes per speaker. However, these time limits may be extended at the discretion of the Chief Presiding Officer. The Plan Commission may not respond to or have any discussion on information received during the public comment session unless it is placed upon the Agenda for a subsequent meeting. Public comments should be addressed to the Plan Commission as a body. Presentations shall not deal in personalities personal attacks on members of the Plan Commission, the applicant for any project or Village Employees. Comments shall not be used to engage others in a debate in this forum. All comments, questions and concerns should be presented in a respectful professional manner. Any questions to an individual member of the Plan Commission or Staff will be deemed out of order by the Presiding Officer.

4. Approval of Minutes

4.1 Approval of April 13, 2021 minutes.
20210413 PlanCommissionMinutesdraft.pdf

5. Public Hearings

All persons interested in making comments about any of the public hearing items will be heard. Formal petitions and written comments regarding any of the public hearing items may be submitted tonight. During the public hearing(s), if you wish to be heard, the Plan Commission asks that you begin by stating your name and address, speak for no more than three minutes and attempt to avoid duplication. Each person speaking at the public hearing must sign the Public Hearing Appearance sign-in sheet before speaking. The sign-in sheet is available on the table located at the back of the room.

5.1 Public Hearing on a request to consider an Amendment to a Planned Unit Development for a 20-Unit addition onto structure Birchrock Properties LLC, applicant; 210 McDivitt Ln; Parcel MUKV 2012-215-002.
Public Hearing Notice PC -CU - Birchrock -210 McDivvit - MUKV2012215002 (2).pdf

5.2 Public Hearing to consider a Conditional Use application for a drive-trough facility, with a permitted or conditional use Espresso Love, applicant; 301 Main St; Parcel MUKV 1976-128.
Public Hearing Notice PC -CU- Espresso Love - 301 Main Street - MUKV1976128.pdf

5.3 Public Hearing to consider a Conditional Use application for a drive-through facility with a permitted or conditional use Mark A Sykes, DBA Subway, applicant; 827 S Rochester St, #104; Parcel MUKV 2009-978-003.
Public Hearing Notice PC -CU- Subway - 827 S ROCHESTER ST - MUKV2009978003.pdf

6. New Business

Discussion and Possible Action on the Following Items

6.1 Discussion and possible recommendation to Village Board **RESOLUTION 2021-36** to approve a Conditional Use for a RCAC facility located at 210 McDivitt Lane, for Kristopher Kiefer/ Birchrock Properties, LLC, applicant; Parcel MUKV 2012-215-005.
Packet - CU-SPAR - 210 McDivitt - MUKV2012215002.pdf
RESOLUTION 2021-36 - CU - 210 McDivitt Ln - MUKV2012215002.pdf

6.2 Discussion and possible recommendation to Village Board on **RESOLUTION 2021-37** for Site Plan and Architectural Review for Birchrock Properties, LLC, applicant; 210 McDivitt Ln; Parcel MUKV 2012-215-002.
RESOLUTION 2021-37 - SPAR - 210 McDivitt Ln - MUKV2012215002.pdf

6.3 Discussion and possible recommendation to Village Board **RESOLUTION 2021-38** to approve Conditional Use for a Drive Through Facility for a tenant space located at 301 Main Street, for Elovecoffee LLC DBA Espresso Love Coffee, applicant; Parcel MUKV 1976-128
Packet - CU-SPAR - 301 Main Street - MUKV1976128.pdf
RESOLUTION 2021-38 - CU - 301 Main Street - MUKV1976128.pdf

6.4 Discussion and possible recommendation to Village Board for **RESOLUTION 2021-39** for Site Plan and Architectural Review for ELoveCoffee DBA Espresso Love Coffee, applicant; 301 Main St; MUKV 1976-128.
RESOLUTION 2021-39 - SPAR - 301 Main Street - MUKV1976128.pdf

6.5 Discussion and possible recommendation to Village Board **RESOLUTION 2021-40** to approve Conditional Use for a Drive Through Facility for a tenant space located at 827 S Rochester Street, for Mark Sykes / Sykes Foods, LLC, applicant; MUKV 2009-998-003
Staff Report - CU-SPAR - 827 S ROCHESTER ST - MUKV2009978003.pdf
RESOLUTION 2021-40 - CU - 827 S ROCHESTER ST - MUKV2009978003.pdf

6.6 Discussion and possible recommendation to Village Board on **RESOLUTION 2021-41** for Site Plan and Architectural Review for Mark Sykes/Skyes Foods, LLC, applicant; 827 S Rochester St; Parcel MUKV 2009-998-003.
RESOLUTION 2021-41 - SPAR - 827 S ROCHESTER ST - MUKV2009978003.pdf

6.7 Discussion and possible recommendation to Village Board **RESOLUTION 2021-42** to approve Site Plan and Architectural Review for structures located at 211 Fox Street, for Robert G Kokott / Lakeland Property Management, applicant; Parcel MUKV 1973-951-001.

Staff Report -Lakeland Property Management - SPAR - 211 Fox Street - MUKV1973951001.pdf
RESOLUTION 2021-42 - 211 Fox St MUKV 1973951001.pdf

7. Adjournment

Membership:
Eric Brill, James Decker, Bob Harley, Karl Kettner, Mark Penzkover, Jason Wamser, Fred Winchowky, and John Fellows (Advisory)

It is possible that a quorum of, members of other governmental bodies of the municipality may be in attendance at the above stated meeting to gather information. No action will be taken by any governmental body at the above stated meeting other than the governmental body specifically referred to above in this notice. Please note, upon reasonable notice, efforts will be made to accommodate the needs of individuals with disabilities through appropriate aids and services. For additional information or to request this service, contact the Municipal Clerk's Office, (262) 363-6420.

MINUTES OF THE PLAN COMMISSION MEETING
Tuesday, April 13, 2021

Call to Order
Chairman Winchowky called the meeting to order at 6:30 p.m. located in the Board Room of the Mukwonago Municipal Building, 440 River Crest Ct.

Roll Call
Commissioners present: Fred Winchowky, Chairman
Jim Decker
Ken Werner
Eric Brill
Robert Harley
Mark Penzkover

Commissioners excused: Jason Wamser

Also present: John Fellows, Village Planner
Linda Gourdoux, Deputy Clerk/Treasurer

Comments from the Public
Opened at 6:31 pm
No Comments from the public
Closed at 6:31 pm

Minutes
Motion made by Decker/Penzkover to approve the minutes of the March 9, 2021 meeting, carried.

Public Hearings

Public Hearing on a request for a new park structures as a conditional use pursuant to Section 100-351 of the Village's Zoning Ordinance; Village of Mukwonago, applicant; 820 Main Street; Parcels MUKV 2009-959 and MUKV 2009-977.
Opened at 6:32 pm
No Comments
Closed at 6:33 pm

Public Hearing for a request for a medical office as a conditional use pursuant to Section 100-351 of the Village's Zoning Ordinance; Life's Connection Mukwonago Center Inc., applicant; 801 N Rochester Street; Parcel MUKV 1974-904.
Opened at 6:33 pm
Crawley, applicant; thanked Village for hearing request to change locations.
Closed at 6:36 pm

Public Hearing for a request for a secondhand store as a conditional use pursuant to Section 100-351 of the Village's Zoning Ordinance, Goodwill Industries of SE WI and NE

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IL, applicant; Southwest corner of S Rochester and Arrowhead Dr; Parcel MUKV 2015-997-010.

Opened at 6:36 pm
No comments
Closed at 6:37 pm

New Business

Recommendation to the Village Board on RESOLUTION 2021-19 a Resolution to approve Conditional Use for a request for park structures for the Village of Mukwonago, applicant; 820 Main Street; MUKV 2009-959 and MUKV 2009-977.

Fellows gave overview of project
Bittner gave overview of project
Motion made by Decker/Harley to approve **RESOLUTION 2021-19** a Resolution to approve Conditional Use for a request for park structures for the Village of Mukwonago, applicant; 820 Main Street; MUKV 2009-959 and MUKV 2009-977, carried

Recommendation to the Village Board on RESOLUTION 2021-20 a Resolution to approve Site Plan and Architectural Review for structures within a public park for Village of Mukwonago, applicant; 820 Main Street; MUKV 2009-959 and MUKV 2009-977.

Fellows gave overview of project
Bittner gave overview of project
Motion by Penzkover/Decker to approve **RESOLUTION 2021-20** a Resolution to approve Site Plan and Architectural Review for structures within a public park for Village of Mukwonago, applicant; 820 Main Street; MUKV 2009-959 and MUKV 2009-977, carried

Recommendation to the Village Board on RESOLUTION 2021-21 a Resolution to approve Conditional Use for a request for a medical office for Life's Connection Mukwonago Center Inc., applicant; 801 N Rochester Street; MUKV 1974-904.

Fellows gave overview of project
Fellows stated he received an email from Mrs. Miller (building owner) that she is in favor of having Life's Connection purchase the building and moving to this location.
Motion by Penzkover/Decker to approve **RESOLUTION 2021-21** a Resolution to approve Conditional Use for a request for a medical office for Life's Connection Mukwonago Center Inc., applicant; 801 N Rochester Street; MUKV 1974-904, carried.

Recommendation to the Village Board on RESOLUTION 2021-22 a Resolution to approve a Conditional Use application for a secondhand store Goodwill Industries of SE WI and NE IL, applicant; located at the Southwest corner of S Rochester St and Arrowhead Dr; MUKV 2015-997-010.

Fellows gave overview of project.
Email from Rosanne McGuire, 103 Park Ave, in favor of Goodwill.
Email from Todd Ciske, Kettle-Moraine Community Radio, in favor of Goodwill
Email from Jackie Thelen, Circle of Friends, against Goodwill
Motion by Decker/Werner to approve **RESOLUTION 2021-22** a Resolution to approve a Conditional Use application for a secondhand store Goodwill Industries of SE WI and NE IL, applicant; located at the Southwest corner of S Rochester St and Arrowhead Dr; MUKV 2015-997-010, carried

Recommendation to the Village Board on RESOLUTION 2021-23 a Resolution to approve a Site Plan and Architectural Review for Goodwill Industries of SE WI and NE IL, applicant; located at the Southwest corner of S Rochester St and Arrowhead Dr; MUKV 2015-997-010.

Fellows gave overview of project
Doug Bushing, Goodwill Industries, gave overview of project
Smitha Chintamaneni, attorney, gave overview of project
Brian Deckow, architect, gave overview of project
There was discussion about the exterior lighting.
Motion by Decker/Werner to approve **RESOLUTION 2021-23** a Resolution to approve a Site Plan and Architectural Review Goodwill Industries of SE WI and NE IL, applicant; located at the Southwest corner of S Rochester St and Arrowhead Dr; MUKV 2015-997-010, with the additional listed conditions, carried, Penzkover abstained.

16. The parking lot lighting shall be coordinate with regard to the design of the fixture and pole with the adjacent property to the south. Final lighting specifications and details shall be provided to the Village Planner for review and approval prior to issuance of a building permit.

17. A shared access driveway shall be provided on the south side of the property. This driveway shall coordinate with the access agreement indicated on the Alta Survey. The applicant shall also place a shared access agreement on this subject property. All legal and recorded documents must be drafted and recorded, with a copy of the recorded documents provided to the Village at time of issuance of any land disturbance or building permit.

Recommendation to the Village Board on 402 Grand Avenue, Parcel MUKV 1973-047; Regina L Kellner, applicant, request for a Certificate of Design Approval for new construction and site improvements (garage and driveway) in the Grand and Pearl Historic District, as recommended by the Historic Preservation Commission.

Fellows gave overview of project
Kellner, owner, gave overview of project
Motion by Decker/Werner to approve **r**equest for a Certificate of Design Approval for new construction and site improvements (garage and driveway) in the Grand and Pearl Historic District, carried

Recommendation to the Village Board on RESOLUTION 2021-10 a Resolution to approve Site Plan and Architectural Review for a liquor store and assembly hall for Aman's Beer and Wine (VM Investments), applicant; 110 Chapman Farms Blvd; Parcel MUKV 1962-996-005.

Fellows gave overview of project
Motion by Decker/Penzkover to approve **RESOLUTION 2021-10** a Resolution to approve Site Plan and Architectural Review for a liquor store and assembly hall for Aman's Beer and Wine (VM Investments), applicant; 110 Chapman Farms Blvd; Parcel MUKV 1962-996-005, carried

Recommendation to the Village Board on RESOLUTION 2021-24 a Resolution to Amend the Comprehensive Plan for Bielinski Homes, Inc., applicant; Outlot 1 CSM #11755; Parcel MUKV 1957-997-001.

Fellows gave overview of project

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Motion by Decker/Penzkover to approve **RESOLUTION 2021-24** a Resolution to Amend the Comprehensive Plan for Bielinski Homes, Inc., applicant; Outlot 1 CSM #11755; Parcel MUKV 1957-997-001, carried

Conceptual discussion of plan for a new mixed-use development located on STH 83 just north of CTH NN.

Fellows gave overview of project
Randall gave overview of project
Koch gave overview of project
Discussion regarding extension of Marsh View Rd; Not changing, at Village expense, Lift Station

Discussion on Zoning Code and Sign Code rewrite.

Adjournment
Meeting adjourned at 9:12 p.m.

Respectfully Submitted,
Linda Gourdoux
Deputy Clerk/Treasurer

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NOTICE OF PUBLIC HEARING BEFORE THE VILLAGE OF MUKWONAGO PLAN COMMISSION TO CONSIDER AN APPLICATION FOR AN AMENDMENT TO A PLANNED UNIT DEVELOPMENT FOR A 20 UNIT ADDITION ONTO STRUCTURE AT 210 MCDIVITT LANE, TAX KEY NO. MUKV2012215002 (BIRCHROCK PROPERTIES LLC)

Please take notice there will be a public hearing before the Plan Commission of the Village of Mukwonago in the Board Room of the Village Hall, 440 River Crest Court, Mukwonago, Waukesha and Walworth Counties, on Tuesday, May 11, 2021 commencing at 6:30 P.M. or soon thereafter to consider the following matter:

REGARDING:	Consider Planned Unit Development approval as a Conditional Use pursuant to Article IV of Section 100 of the Village Municipal Code (a/k/a Zoning Ordinance). A Planned Unit Development allows modifications to development standards, such as building setbacks. Applicant is proposing to modify construction plans to a prior approved single-story addition on the East side of the existing structure and remodel the exterior of the existing structure so all architectural elements are complimentary, the property has a base zoning district of R-10, Medium Density Multi-Family Residential District.
TAX KEY/LOCATION:	MUKV2012215002 / Property located on the NW corner of the intersections of McDivitt Lane and Mukwonago Drive.
OWNER:	Birchrock Properties LLC.
APPLICANT:	Birchrock Properties LLC

LEGAL DESCRIPTION:

LOT 2 CERT SURV 7901 VOL 68/140 REC AS DOC# 2089198 OUTLOT 1 MUKWONAGO ESTATES EAST PT SE1/4 SEC 35 T5N R18E :: DOC# 4331918

The meeting/public hearing may be held online via Zoom if so information will be indicated on the meeting agenda.

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The proposal may be viewed at Village Hall, 440 River Crest Court, Mukwonago, WI during business hours, or by contacting the John Fellows, AICP, Village Planner at (262) 363-6420 x. 2111, or at planner@villageofmukwonago.com.

All interested parties will be heard. Written comments will be accepted up to the time of the hearing. For more information, please contact the village planner at (262) 363-6420 x. 2111, or at jfellows@villageofmukwonago.com.

Diana Dykstra
Deputy Clerk

To be published: April 20, 2021 and April 27, 2021.

NOTICE OF PUBLIC HEARING BEFORE THE VILLAGE OF MUKWONAGO PLAN COMMISSION TO CONSIDER A CONDITIONAL USE APPLICATION FOR A DRIVE-THROUGH FACILITY, WITH A PERMITTED OR CONDITIONAL USE LOCATED AT 301 MAIN STREET

Please take notice there will be a public hearing before the Village of Mukwonago Plan Commission in the Board Room of the Village Hall, 440 River Crest Court, Mukwonago, Waukesha and Walworth Counties, on Tuesday, May 11, 2021, commencing at 6:30 P.M. or soon thereafter to consider the following matter:

REGARDING: Consider a request for a for a Drive-Through Facility, with a permitted or conditional use as a conditional use pursuant to Section 100-351 of the Village's Zoning Ordinance

TAX KEY/LOCATION: MUKV1976128; 301 Main Street

APPLICANT: Expresso Love

LEGAL DESCRIPTION: LOT 1 & PT LOT 4 EX SLY 6 FT BLK 16 ORIGINAL PLAT PT SE1/4 SEC 26 T5N R18E

The meeting/public hearing may be held online via Zoom if so information will be indicated on the meeting agenda.

The proposal may be viewed at Village Hall, 440 River Crest Court, Mukwonago, WI during business hours, or by contacting the John Fellows, AICP, Village Planner at (262) 363-6420 x. 2111, or at planner@villageofmukwonago.com.

All interested parties will be heard. Written comments will be accepted up to the time of the hearing. For more information, please contact the village planner at (262) 363-6420 x. 2111, or at jfellows@villageofmukwonago.com.

Diana Dykstra, Clerk-Treasurer

To be published: April 20th and April 27th, 2021

NOTICE OF PUBLIC HEARING BEFORE THE VILLAGE OF MUKWONAGO PLAN COMMISSION TO CONSIDER A CONDITIONAL USE APPLICATION FOR A FOR A DRIVE-THROUGH FACILITY, WITH A PERMITTED OR CONDITIONAL USE LOCATED AT 827 S. ROCHSTER STREET, #104.

Please take notice there will be a public hearing before the Village of Mukwonago Plan Commission in the Board Room of the Village Hall, 440 River Crest Court, Mukwonago, Waukesha and Walworth Counties, on Tuesday, April 13, 2021, commencing at 6:30 P.M. or soon thereafter to consider the following matter:

REGARDING:	Consider a request for a for a Drive-Through Facility, with a permitted or conditional use as a conditional use pursuant to Section 100-351 of the Village's Zoning Ordinance
TAX KEY/LOCATION:	MUKV2009978003; 827 S. Rochester Street, #104
APPLICANT:	Mark A. Sykes, Skyes Foods, LLC DBA Subway
LEGAL DESCRIPTION:	PARCEL 2 CERT SURV 6592 VOL 55/1 REC AS DOC# 1683246 PT NE1/4 SEC 35 & NW1/4 SEC 36 T5N R18E :: INCLUDING ACCESS EASEMENT TO STH 83 AS SHOWN ON CERT SURV 6592 :: R1410/346

The meeting/public hearing may be held online via Zoom if so information will be indicated on the meeting agenda.

The proposal may be viewed at Village Hall, 440 River Crest Court, Mukwonago, WI during business hours, or by contacting the John Fellows, AICP, Village Planner at (262) 363-6420 x. 2111, or at planner@villageofmukwonago.com.

All interested parties will be heard. Written comments will be accepted up to the time of the hearing. For more information, please contact the village planner at (262) 363-6420 x. 2111, or at jfellows@villageofmukwonago.com.

Diana Dykstra, Clerk-Treasurer

To be published: April 20th and April 27th, 2021

PLANNING COMMISSION
May 11, 2021 at 6:30pm
Mukwonago, WI

SITE PLAN AND ARCHITECTURAL REVIEW AND CONDITIONAL USE PERMIT

210 McDivitt Lane
Parcel Number: MUKV 2012-215-005

Case Summary

Parcel Data

Proposal:	20-Unit RCAC, site improvements and existing building modifications.
Applicant:	Kristopher Kiefer/ Birchrock Properties, LLC
Request:	Site Plan and Architectural Review Conditional Use Permit for a PUD
Staff Recommendation:	Approve with Conditions
Planning Commission Recommendation:	Pending

Parcel Characteristics / Conditions

Acreage:	2.33
Current Use:	Existing RCAC 20 beds
Proposed Use:	RCAC 40 beds
Reason for Request:	New Construction/ Building Modifications
Land Use Classification:	Medium Density Multi-Family Residential
Zoning Classification:	R-10 Multi-Family Residential District
Census Tract:	2039.01

Public Notice

A public hearing notice was published two times in the Waukesha Freeman, and letters were mailed to surrounding property owners. Public comment as of this date, staff has not received any comments or other communications regarding this proposal.

Site Plan and Architectural Review Request

Architectural/ Site Review

Birchrock Properties LLC, received SPAR approval on February 11, 2020 from the Planning Commission. The applicant has submitted plans for approval that include a number of modifications that will change the appearance of the property. These include an addition on the rear of the exiting building to close the U-shaped building and make it an O-shaped building. This addition will encroach into the 20 ft setback from

	the Wetlands. The applicant is seeking an additional variance on May 27, 2021. Modifications are proposed for the rear service access; however an additional variance is not required for this modification.
Site Modifications	The applicant will remove the existing parking lot, construct a new 20 unit building, construct new parking and provide an access drive to the rear of the building.
Utilities	All Utilities will be underground, sewer and water are available.
Stormwater Management	On Site System
Wetlands	Existing on Property – Requesting a variance from the 20ft Setback.
Signage	Will be reviewed by staff per ordinance.
Parking	Meets minimum standards. 25 required with 26 being provided.
Landscaping	Landscaping Plan have been submitted. The plans is short 4 trees. See recommendations below as to possible location.
Trash Enclosure	Details and specifications are noted on plans
Fencing	No additional fencing is proposed.
Outdoor Lighting	Lighting is planned for the site and will coordinate with surrounding properties.
Misc. Performance Standards	None

Staff Review

Engineering	Approve with Conditions – See attached letters.
Public Works	Approve with Conditions - Tree Survey review required.
Utilities	Approve with Conditions - Utilities request full drawings of utility connections including fire hydrant locations. Existing utilities hall also be detailed. Full Size plans shall be submitted to utilities prior for approval prior to any land disturbance.
Police	No Comment
Fire	Approve with Conditions - Approve with same conditions as 2019-2020 approval.
Building Inspection	No Comment
Planning	

1. All lighting within the parking lot and building lighting shall be full cut of lighting and meet municipal standards. Building lighting shall not direct light or the appearance of light towards adjoining properties. The Police Department or Zoning Administrator, after completion or any modification to the lighting in the future, may request adjustments.
2. The applicant applies for and receiving approval for all new signage.
3. Trash dumpster enclosure shall be constructed per village standards and plans submitted.
4. Landscaping Plans shall be updated:

a. The R-10 zoning code requires 1 shade or evergreen tree per unit on the property. The plans submitted in 2019 indicating 36 such trees. The total number of units on the property is 40. McDivitt Ln shall have an additional 4 trees planted to line the right of way similar to those on Mukwonago Drive.

5. Any future modification to the site such as modification of parking, lighting, grading, retaining walls, fences, etc. shall require Site Plan and Architectural Review.

Conditional Use Request

The applicant is seeking an amendment to their Conditional Use permit for a Planned Unit Development (PUD). This request is for the following:

1. Modification to the R-10 Zoning standards as follows:
2. The rear yard building setback shall be permitted to be amended from the required 40 feet to the shown 24.4 feet,
3. The parking lot setback standards, shall be amended from the required 20 feet to the shown 15 feet with landscaping between the surface and the roadway, and
4. The total amount of impervious coverage shall be permitted to be amended from the required 40% to the proposed percentage of 52%, as calculated, and
5. As shown on the plans submitted by the applicants dated December 12, 2019 and February 6, 2020.

Conditional Use Process / Findings

Review procedures The Plan Commission holds the public hearing and makes a recommendation to the Village Board which makes the final decision.

Following the close of the public hearing, the Plan Commission may recommend (1) approval, (2) approval with conditions, or (3) denial.

If approval is recommended, the Plan Commission can recommend conditions deemed necessary to protect the public health, safety, and welfare. The Plan Commission, in passing on the matter, will need to make the following determinations consistent with Section 100-354 of Mukwonago's zoning regulations:

1. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.

2. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.

3. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.

4. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.

5. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

In addition, the property owner / tenant has shown compliance with the requirements set forth in the Village's zoning regulations for the specified use.

The Village Board will carefully review the recommendation of the Plan Commission and concurs with the Plan Commission's findings set forth above, provided the conditional use is operated pursuant to the conditions of approval set forth in this order.

These findings are incorporated into the draft conditional use order which is attached.

The Plan Commission shall approve a conditional use application if the terms and conditions of the zoning regulations are met. However, in the event the terms and conditions of the ordinance are not consented to and complied with by the applicant, the Commission may deny the application. In addition, the Commission may deny the application or place conditions on it if substantial evidence, as defined in §62.23(7) Wis. Stats. is presented. That evidence must demonstrate the inability of the applicant to comply with or meet the conditions of the zoning regulations or that the conditions to be applied by the Plan Commission are necessary to protect the public health, safety or welfare of the community based upon the presentation of substantial evidence. Potential motion for approval Recommend to the Village Board approval of the project as a conditional use as set forth in the attached conditional use order as drafted, provided the Village Attorney approves the final form of the conditional use order.

Recommendation

Site Plan and Architectural Review

Staff recommends the Planning Commission Approve a resolution for the Site Plan and Architectural Review, as set forth in the attached resolution.

1. Prior to any land disturbing activity, the applicant must submit a complete and final set of plans to the Village planner. All Village department heads must verify in writing whether they have approved the final plans within their purview. Any outstanding matters must be resolved to staff's satisfaction.
2. Prior to any land-disturbing activity, a pre-construction meeting must be held with the applicant's representatives and primary contractors, and Village department heads and representatives.
3. Prior to any land-disturbing activity, the applicant must reimburse the Village for any outstanding charges and establish an escrow account with the Village as may be required.
4. The applicant must obtain all required building permits within nine months of this date, and start construction within six months of the date of building permit issuance and continue in good faith to completion.
5. All work related to this project must comply with all project plans approved by the Village.

6. The developer must comply with all requirements related to impact fees imposed by the Village.
7. The developer shall comply with all parts of the Municipal Code as it relates to this project.
8. The developer shall comply with comments from Ruekert-Mielke letters regarding stormwater and utilities as well as comment regarding future reviews.
9. A tree survey is required prior to any disturbance on the property. Such plan shall be reviewed and approved by the Director of Public Works.
10. A stormwater management maintenance agreement shall be prepared and executed prior to any disturbance of land. A copy of the recorded document shall be provided to the Village.
11. If the approved plans need to be revised to address any of the conditions of approval or to conform to Building and Fire Safety Codes, the Zoning Administrator and the Supervisor of Inspections are authorized to approve minor modifications so long as the overall project elements remain unchanged. If they determine that the revision is substantial, the plans must be submitted to the Plan Commission for review and approval.
12. Plans must allow for a WB-50 vehicle to access the site as required by the fire department.
13. A dedicated hydrant for FDC and suppression system must be provided as required by the fire department.
14. All lighting within the parking lot and building lighting shall be full cut of lighting and meet municipal standards. Building lighting shall not direct light or the appearance of light towards adjoining properties. The Police Department or Zoning Administrator, after completion or any modification to the lighting in the future, may request adjustments.
15. The applicant applies for and receiving approval for all new signage.
16. Trash dumpster enclosure shall be constructed per village standards and plans submitted.
17. Landscaping Plans shall be updated:
    a. The R-10 zoning code requires 1 shade or evergreen tree per unit on the property. The plans submitted in 2019 indicating 36 such trees. The total number of units on the property is 40. McDivitt Ln shall have an additional 4 trees planted to line the right of way similar to those on Mukwonago Drive.
18. Any future modification to the site such as modification of parking, lighting, grading, retaining walls, fences, etc. shall require Site Plan and Architectural Review.

Conditional Use

Staff Recommends the Planning Commission recommend to the Village Board approval of a conditional use permit as set forth in Resolution 2021-XX

To – Grant a Conditional Use permit for a PUD For a RCAC subject to the following on going conditions deemed necessary to protect the health, safety, and welfare

1. **Ongoing conditions of approval**. The following conditions shall constitute an ongoing

obligation:

a. The authorized use shall not be conducted in such a way so as to exceed on-site parking.
b. The authorized use shall not be conducted in such a way so as to violate fire-related building capacity standards established by the local fire department or the state of Wisconsin.
c. The authorized use shall not be conducted in such a way so as to constitute a public or private nuisance as determined by the Plan Commission.
d. Potable water and sanitation must be provided and maintained.
e. The Plan Commission may unilaterally amend an approved site plan/plan of operation by revising existing provisions or adding new provisions. Such amendment shall be limited in scope to address negative impacts the use is having on surrounding properties and/or the public health, safety, and welfare.
f. The use of the subject property shall at all times be in compliance with all applicable laws, rules, regulations or orders, and ordinances of the federal government, State of Wisconsin, Waukesha County, and Village of Mukwonago.
g. All buildings on the subject property shall comply with all applicable building requirements as may be adopted by the Village of Mukwonago or the state of Wisconsin.
h. The subject property must be in a clean and neat appearance as determined by the Plan Commission.
i. The property owner shall obtain and maintain all licenses for the operation of this facility, as may be required by the Village or the State of Wisconsin.
j. Modification to the R-10 Zoning standards as follows:
    i. The rear yard building setback shall be permitted to be amended from the required 40 feet to the shown 24.4 feet,
    ii. The parking lot setback standards, shall be amended from the required 20 feet to the shown 15 feet with landscaping between the surface and the roadway, and
    iii. The total amount of impervious coverage shall be permitted to be amended from the required 40% to the proposed percentage of 52%, as calculated, and
    iv. As shown on the plans submitted by the applicants dated December 12, 2019 and February 6, 2020.
k. Site Plan and Architectural Review approval for the new single story 20 unit RCAC structure and associated parking lot, building additions, storm water pond, shall be subject to all plans and information submitted for the application by the applicant, Castle Senior Living, and dated February 6, 2020, and February 28, 2020 with all plans and information on file in the office of the Zoning Administrator. The plans may be further modified to conform to other conditions of approval; the building and floor plans may be modified with the approval of the Zoning Administrator and Supervisor of Inspections to conform to the Building and Fire Safety Codes and all plans may be further modified to conform to Village design standards. However, the basic layout and design of the site shall remain unchanged. The existing building shall be remodeled on the exterior subject to the plans and information submitted for the applications by the applicant, Castle Senior Living, and Dated February 5, 2021.
l. Approval shall be valid for one (1) year from date of approval by the Village Board and will be unique to the applicant and this proposal only.
m. Prior to the start of any site construction or issuance of a building permit, whichever occurs first, the following shall occur:

1. All final site development plans shall be consistent with the plans noted in Condition No 1 and all calculations verified or as modified.
2. Approval of the site construction and building plans by the Fire Chief, which may include, but are not limited to, Knox box and notification requirements, internal fire suppression, external fire department connection location and hydrant locations.
3. Approval of building plans by the Building Inspector after receipt of approval of building plans by the State of Wisconsin.
4. The Village Engineer, the Utilities Director and the Public Works Director shall approve all updated revised site engineering and utility plans and documents, including a complete Erosion Control Plan, and Stormwater Management Plan. Items specified in the letter from the Village Engineer dated January 6, 2020 and April 20,2021 and any further review comments shall be satisfied with the consent of the Village Engineer prior to permit issuance.
5. The issuance of this permit is contingent upon the approval of a storm water management plan and storm water maintenance agreement by the Village Board.
6. Approval of building plans shall include appropriate locations of the external mechanical equipment (if applicable) to be placed hidden from view from neighboring properties, as approved by the Zoning Administrator.
7. Approval of dumpster construction plan specification showing block construction and shielded metal gates to ensure the Zoning standards are met, as approved by the Zoning Administrator.
8. A pre-construction meeting shall occur with Village Staff to ensure all applicable items mentioned above have been remedied.

n. Prior to temporary occupancy issuance, and if needed prior to final occupancy permit, the following shall occur:
   1. Completion of all site grading in accordance with submitted and approved plans.
   2. Completion of the storm water management basin for the overall development.
   3. Completion of the building and additions in accordance with approved plans and all applicable codes.
   4. Completion of paving of driveways and parking lots, including parking signage, space pavement markings and all other pavement markings.

   5. Prior to final occupancy permit, which shall be issued no later than 120 days after any temporary occupancy permit, the following shall occur:
   6. Completion of all items required in Condition No 7.
   7. Installation of all Zoning Administrator approved site landscaping as shown on approved plans.

and determining that the conditions are consistent with Section 100-354 of Mukwonago's zoning regulations:

1. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.
2. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.
3. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the

district and/or which are consistent with the standards in the Comprehensive Plan.

4. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.
5. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

Attachments

1. Maps
2. Plans
3. Resolution 2021-XX for approval of a Conditional Use
4. Resolution 2021-XX for approval of the Site Plan and Architectural Review

Village of Mukwonago GIS

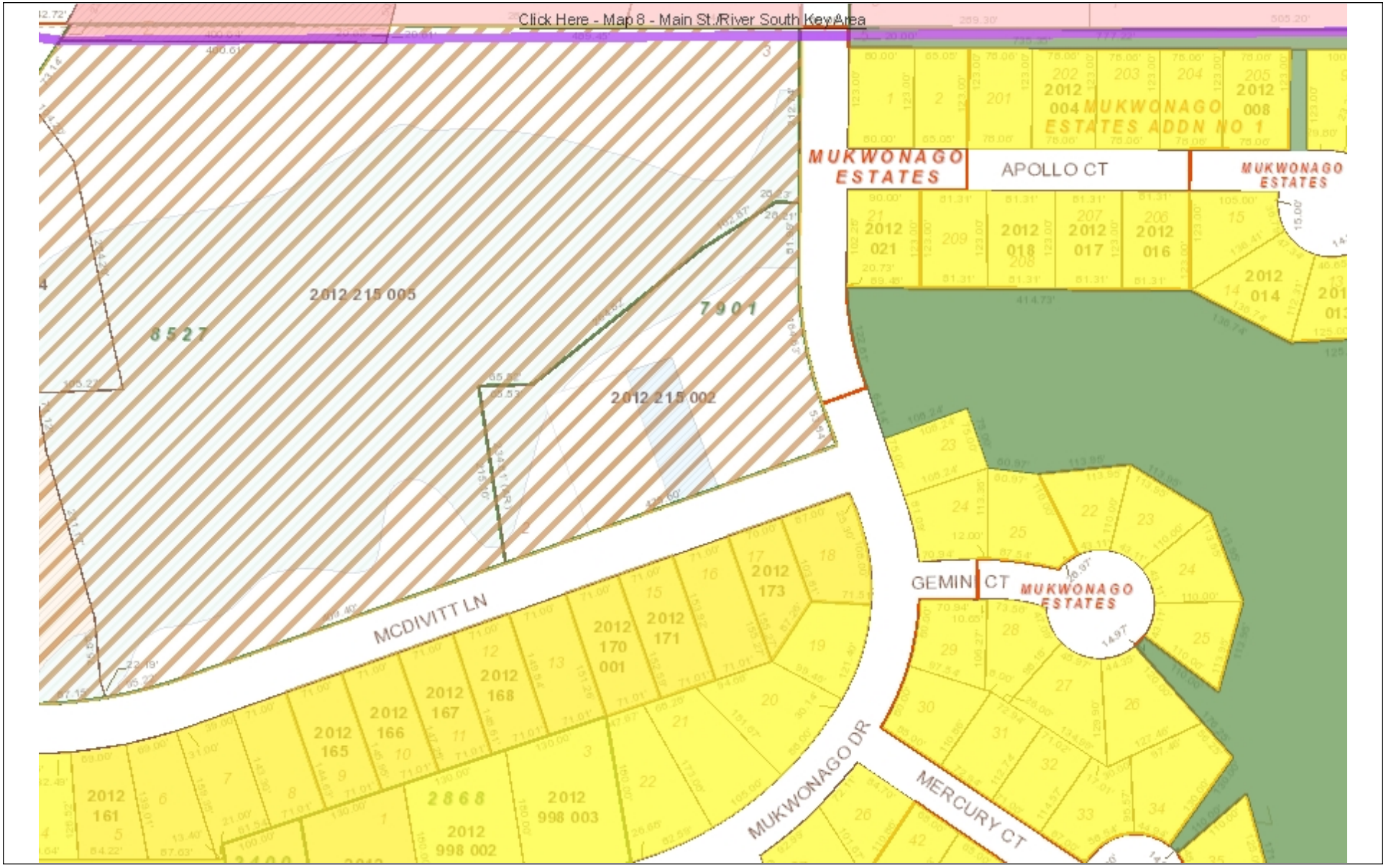
Birchrock- Aerial Map

DISCLAIMER: The Village of Mukwonago does not guarantee the accuracy of the material contained here in and is not responsible for any misuse or misrepresentation of this information or its derivatives.

SCALE: 1" = 167 '

VILLAGE OF MUKWONAGO
440 River Crest Court
PO Box 206
Mukwonago, WI 53149
262-363-6420

Print Date: 5/4/2021



Village of Mukwonago GIS

Birchrock- Land Use

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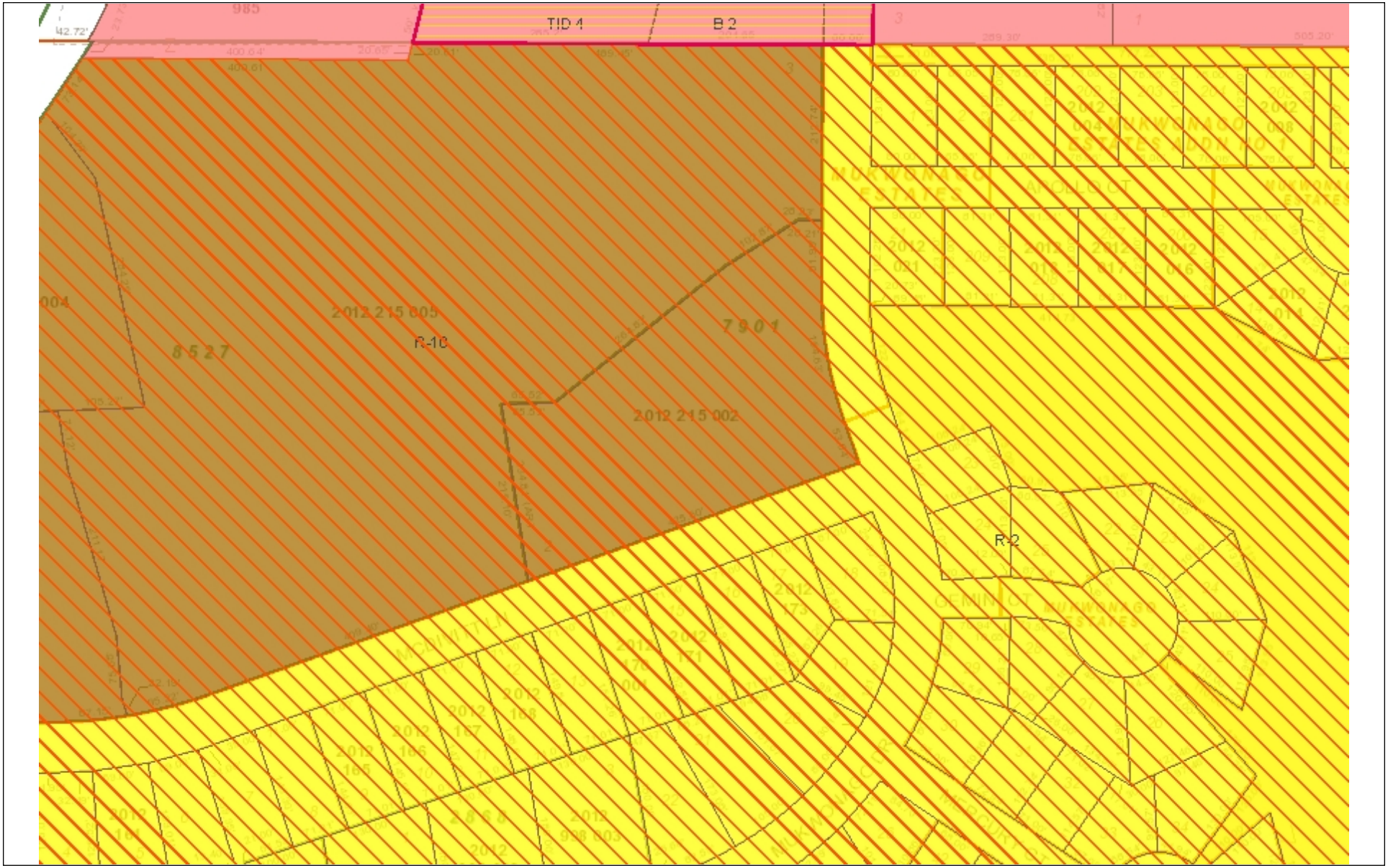

Village of Mukwonago GIS

Birchrock- Zoning

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SCALE: 1" = 167 '

VILLAGE OF MUKWONAGO
440 River Crest Court
PO Box 206
Mukwonago, WI 53149
262-363-6420

Print Date: 5/4/2021

PAVING NOTES

1. GENERAL

1.1. ALL PAVING SHALL CONFORM TO "STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY & STRUCTURE CONSTRUCTION, LATEST EDITION, APPLICABLE VILLAGE OF MUKWONAGO ORDINANCES AND THE GEOTECH REPORT.

1.2. FINAL PAVEMENT DESIGN TO BE DETERMINED BY OWNER BASED ON GEOTECHNICAL ENGINEER OF RECORD RECOMMENDATIONS. ALL PAVING SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER OF RECORD RECOMMENDATIONS AS SPECIFIED IN THE SAID GEOTECHNICAL REPORT.

1.3. THE VILLAGE OF MUKWONAGO AND JSD PROFESSIONAL SERVICES (JSD) SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF PERFORMING ANY CONSTRUCTION.

1.4. SIGN CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.

1.5. ALL PAVING DIMENSIONS AND RADII ARE DIMENSIONED TO FACE OF CURB UNLESS SPECIFIED OTHERWISE.

1.6. ALL COORDINATES AND DIMENSIONS ARE REFERENCED TO THE EDGE OF PAVEMENT, UNLESS NOTED OTHERWISE.

1.7. FOR LANDSCAPING SEE SEPARATE PLAN.

1.8. REFER TO ARCHITECTURAL PLANS FOR ALL BUILDING DIMENSIONS AND DETAILS.

1.9. ALL CURB AND GUTTER IS WSDOT TYPE D, 18", UNLESS NOTED OTHERWISE. USE HIGH SIDE CURB AS NECESSARY TO DRAIN WATER PROPERLY.

1.10. SOME FIELD ADJUSTMENTS MAY BE NECESSARY AT POINTS WHERE PROPOSED PAVEMENT, CURB AND SIDEWALKS MEET EXISTING PAVEMENT, CURB AND SIDEWALKS. REVIEW ANY REQUIRED CHANGES WITH THE ENGINEER PRIOR TO CONSTRUCTION OF WORK.

1.11. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS FOR ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED TO COMPLETE PROPOSED ITEMS IN PLACE. ALL WORK SHALL BE IN ACCORDANCE WITH AUTHORITY HAVING JURISDICTION'S SPECIFICATIONS AND SHALL BE APPROVED AS SUCH.

1.12. ALL COSTS SHALL BE INCLUDED IN THE BID.

1.13. ALL PAVEMENT TO BE STANDARD DUTY PAVEMENT, UNLESS NOTED OTHERWISE.

1.14. ANY REQUIRED REPLACEMENT OF PUBLIC CURB AND GUTTER SHALL MATCH EXISTING AND MEET MUNICIPALITY REQUIREMENTS.

2. ASPHALTIC CONCRETE PAVING SPECIFICATIONS

2.1. CODES AND STANDARDS – THE PLACING, CONSTRUCTION AND COMPOSITION OF THE ASPHALTIC BASE COURSE AND ASPHALTIC CONCRETE SURFACE COURSE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460 AND 465 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, EDITION OF 2019. HEREAFTER, THIS PUBLICATION WILL BE REFERRED TO AS STATE HIGHWAY SPECIFICATIONS.

2.2. WEATHER LIMITATIONS – APPLY TACK COATS WHEN AMBIENT TEMPERATURE IS ABOVE 50° F (10° C) AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35° F (1° C) FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION. DO NOT APPLY WHEN BASE IS WET OR CONTAINS EXCESS OF MOISTURE. CONSTRUCT ASPHALTIC CONCRETE SURFACE COURSE WHEN ATMOSPHERIC TEMPERATURE IS ABOVE 40° F (4° C) AND WHEN BASE IS DRY AND WHEN WEATHER IS NOT RAINY. BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30° F (–1° C).

2.3. GRADE CONTROL – ESTABLISH AND MAINTAIN REQUIRED LINES AND ELEVATIONS FOR EACH COURSE DURING CONSTRUCTION.

2.4. CRUSHED AGGREGATE BASE COURSE – THE TOP LAYER OF BASE COURSE SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS. CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

2.5. BINDER COURSE AGGREGATE – THE AGGREGATE FOR THE BINDER COURSE SHALL CONFORM TO SECTIONS 460.2.7 AND 315, STATE HIGHWAY SPECIFICATIONS.

2.6. SURFACE COURSE AGGREGATE – THE AGGREGATE FOR THE SURFACE COURSE SHALL CONFORM TO SECTIONS 460.2.7 AND 465, STATE HIGHWAY SPECIFICATIONS.

2.7. ASPHALTIC MATERIALS – THE ASPHALTIC MATERIALS SHALL CONFORM TO SECTION 455 AND 460, STATE HIGHWAY SPECIFICATIONS.

2.8. SURFACE PREPARATION – NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.

3. CONCRETE PAVING SPECIFICATIONS

3.1. CODES AND STANDARDS – THE PLACING, CONSTRUCTION AND COMPOSITION OF THE CONCRETE PAVEMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 415 AND 416 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, CURRENT EDITION. HEREAFTER, THIS PUBLICATION WILL BE REFERRED TO AS STATE HIGHWAY SPECIFICATIONS.

3.2. REINFORCEMENT – CONCRETE PAVEMENT SHALL BE REINFORCED WITH NOVOMESH 950 (OR EQUAL) FIBER REINFORCEMENT AT A RATE OF 5 LBS/CUBIC YARD.

3.3. CURING COMPOUNDS – CURING COMPOUNDS SHALL CONFORM TO SECTION 415 OF THE STATE HIGHWAY SPECIFICATIONS.

3.4. FINISHING –

3.4.1. CONTRACTOR SHALL PROVIDE CONTROL JOINTS AND CONSTRUCTION JOINTS OF ONE–QUARTER CONCRETE THICKNESS AT AN EQUAL RATIO OF LENGTH TO WIDTH WHEREVER POSSIBLE WITH A MAXIMUM LENGTH BETWEEN JOINTS OF 8' ON CENTER.

3.4.2. EXTERIOR CONCRETE SURFACES SHALL BE BROOM FINISHED.

3.4.3. ALL CONCRETE SURFACES TO BE SEALED WITH TYPE TK–26UV CONCRETE SEALANT.

3.5. CRUSHED AGGREGATE BASE COURSE – THE BASE COURSE SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS. CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

3.6. SURFACE PREPARATION – NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.

4. PAVEMENT MARKING SPECIFICATIONS

4.1. CONTRACTOR SHALL CONSULT STRIPING COLOR WITH OWNER PRIOR TO CONSTRUCTION.

4.2. PROVIDE CONTRACTOR GRADE LATEX, STRIPING PAINT. ALL STRIPING SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

4.3. THOROUGHLY CLEAN SURFACES FREE OF DIRT, SAND, GRAVEL, OIL AND OTHER FOREIGN MATTER. CONTRACTOR RESPONSIBLE TO INSPECT PAVEMENT SURFACES FOR CONDITIONS AND DEFECTS THAT WILL ADVERSELY AFFECT QUALITY OF WORK, AND WHICH CANNOT BE PUT INTO AN ACCEPTABLE CONDITION THROUGH NORMAL PREPARATORY WORK AS SPECIFIED.

4.4. DO NOT PLACE MARKING OVER UNSOUND PAVEMENTS. IF THESE CONDITIONS EXIST, NOTIFY OWNER. STARTING INSTALLATION CONSTITUTES CONTRACTOR'S ACCEPTANCE OF SURFACE AS SUITABLE FOR INSTALLATION.

4.5. LAYOUT MARKINGS USING GUIDE LINES, TEMPLATES AND FORMS. STENCILS AND TEMPLATES SHALL BE PROFESSIONALLY MADE TO INDUSTRY STANDARDS. "FREE HAND" PAINTING OF ARROWS, SYMBOLS, OR WORDING SHALL NOT BE ALLOWED. APPLY STRIPES STRAIGHT AND EVEN.

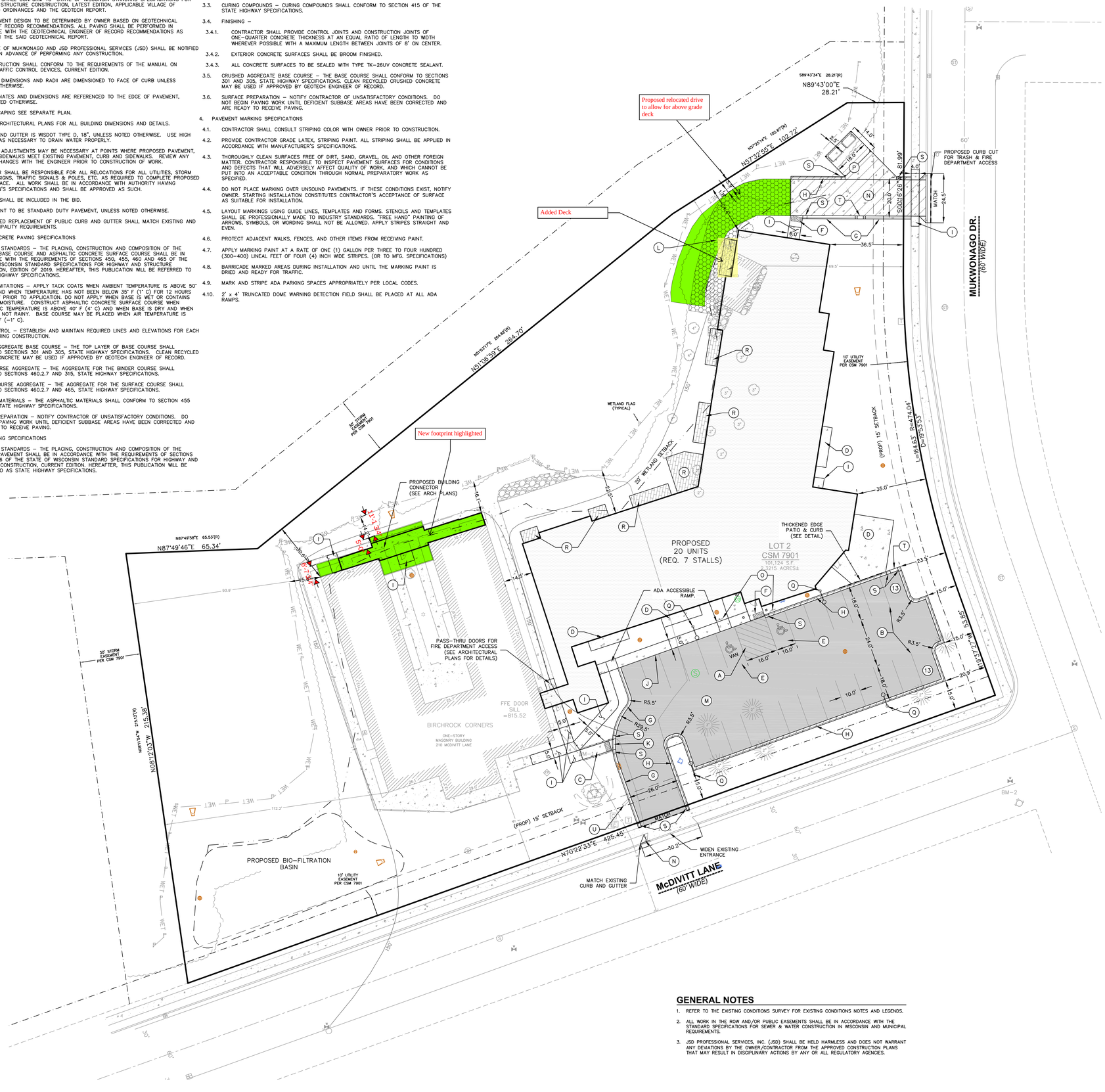
4.6. PROTECT ADJACENT WALKS, FENCES, AND OTHER ITEMS FROM RECEIVING PAINT.

4.7. APPLY MARKING PAINT AT A RATE OF ONE (1) GALLON PER THREE TO FOUR HUNDRED (300–400) LINEAL FEET OF FOUR (4) INCH WIDE STRIPES. (OR TO MFG. SPECIFICATIONS)

4.8. BARRICADE MARKED AREAS DURING INSTALLATION AND UNTIL THE MARKING PAINT IS DRIED AND READY FOR TRAFFIC.

4.9. MARK AND STRIPE ADA PARKING SPACES APPROPRIATELY PER LOCAL CODES.

4.10. 2' x 4' TRUNCATED DOME WARNING DETECTION FIELD SHALL BE PLACED AT ALL ADA RAMPS.



SITE LEGEND

- (A) DIAGONAL HATCH – SWSL/4" AT 45° @ 2'–0" O.C.
- (B) PARKING STALLS – 18'–0" SWSL/4" @ 10'–0" O.C.
- (C) 5' CONCRETE SIDEWALK WITH RAILING (SEE DETAIL)
- (D) CONCRETE PATIOS, REFER TO ARCHITECTURAL PLANS FOR DETAILS
- (E) ACCESSIBLE PARKING SPACE. SEE DETAILS FOR ACCESSIBLE PARKING SPACE SIZE, SIGN AND SYMBOL ("VAN" – INDICATES VAN ACCESSIBLE SPACE)
- (F) SIDEWALK RAMP W/ DETECTABLE WARNING FIELD (SEE DETAIL)
- (G) 18" STANDARD CURB AND GUTTER (SEE DETAIL)
- (H) 18" REJECT CURB AND GUTTER (SEE DETAIL)
- (I) CONCRETE SIDEWALK (SEE DETAIL)
- (J) THICKENED EDGE SIDEWALK (SEE DETAIL)
- (K) 18" VALLEY CURB AND GUTTER (SEE DETAIL)
- (L) GRASSPAVE 2 (SEE DETAIL)
- (M) STANDARD DUTY HMA PAVEMENT (SEE DETAILS)
- (N) HEAVY DUTY CONCRETE PAVEMENT (SEE DETAILS)
- (O) ADA PARKING SIGN (SEE DETAIL)
- (P) TRASH ENCLOSURE, REFER TO ARCHITECTURAL PLANS FOR DETAILS
- (Q) LIGHTPOLE
- (R) RAISED WOODEN DECK, REFER TO ARCH PLANS FOR DETAILS
- (S) 2' CURB TAPER (SEE DETAIL)
- (T) CURB WEIR (SEE DETAIL)
- (U) EXISTING MONUMENT SIGN TO BE RELOCATED

SITE INFORMATION BLOCK

SITE ADDRESS	210 McDIVITT LN MUKWONAGO, WI 53149
PROPERTY ACREAGE	2.34 ACRES
NUMBER OF BUILDING STORIES	1
BUILDING SQUARE FOOTAGE	
EXISTING	8,055
PROPOSED	16,260
TOTAL	24,315
NUMBER OF PARKING STALLS	
STANDARD	24
ACCESSIBLE	2
TOTAL	26
REQUIRED PARKING STALLS	
40 BED – (1 PARKING PER 3 BEDS)	14
EMPLOYEE PARKING	11
TOTAL	25
EXISTING VS. PROPOSED SITE COVERAGE *	
EXISTING IMPERVIOUS SURFACE AREA	32,291 SF (31.7%)
EXISTING PERVIOUS SURFACE AREA	69,612 SF (68.3%)
EXISTING IMPERVIOUS SURFACE AREA RATIO	0.32
PROPOSED IMPERVIOUS SURFACE AREA	52,435 SF (51.4%)
PROPOSED PERVIOUS SURFACE AREA	49,488 SF (48.6%)
PROPOSED IMPERVIOUS SURFACE AREA RATIO	0.51

R–10 ZONING REQUIREMENTS	REQUIRED	PROVIDED
BUILDING SETBACK (STREET)	35 FEET	35 FEET
BUILDING SETBACK (SIDE)	15 FEET	93.9 FEET
BUILDING SETBACK (REAR)	40 FEET	24.4 FEET
PARKING LOT SETBACK	20 FEET	15 FEET
MINIMUM GREEN SPACE	40%	59%
MAX BUILDING COVERAGE	40%	24%

* THE WETLAND AREAS ARE SPLIT SO THAT 50% OF THE AREA IS IMPERVIOUS AND 50% IS PERVIOUS FOR EXISTING AND PROPOSED AREA CALCULATIONS.

LEGEND

- PROPERTY LINE
- EASEMENT LINE
- WETLAND BOUNDARY
- BUILDING OUTLINE
- PAVEMENT SETBACK LINE
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- STANDARD DUTY ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- CONCRETE
- LIGHT POLE
- ADA PARKING SIGN
- PROPOSED STORM CATCH BASIN
- PROPOSED FLARED END SECTION
- PROPOSED STORM MANHOLE
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY CLEANOUT
- PROPOSED WATER VALVE
- PROPOSED FIRE HYDRANT

GENERAL NOTES

1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGENDS.
2. ALL WORK IN THE ROW AND/OR PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN AND MUNICIPAL REQUIREMENTS.
3. JSD PROFESSIONAL SERVICES, INC. (JSD) SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.

north
SCALE IN FEET
20' 0 20'

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MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living
CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1	12/12/2019	Revised per Village Comments
2	01/24/2020	Rev. Building Connector
3	02/06/2020	Rev. per Vill. & WDNR Comments
4	02/20/2020	Issued For Construction
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
C3.0

JSD PROJECT NO: 19-9231

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File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Civil Sheets\19-9231 C3 - Site Plan.dwg Layout: C3.0 Site Plan User: lnewman Plotted: Feb 28, 2020 - 11:43am Xref's:

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VIEW FROM STREET

1 EAST VIEW LOOKING WEST

2 SOUTH VIEW LOOKING NORTH

3 NORTH VIEW LOOKING SOUTH EAST

PLUNKETT RAYSICH ARCHITECTS, LLP

209 south water street, suite 200, milwaukee, wisconsin 53204, t 414 339 3060
210 lincoln boulevard, middleton, wisconsin 53562, t 608 836 2690
1900 main street, suite 309, sarasota, florida 34236, t 941 444 8845

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CASTLE SENIOR LIVING
BIRCHROCK COMMUNITY

210 McDIVITT LANE, MUKWONAGO, WI 53149

REVISIONS:

EXTERIOR PERSPECTIVES

CONSTRUCTION SET

DATE: 02-05-21

JOB NO: 190161-01

SHEET NO: A-401

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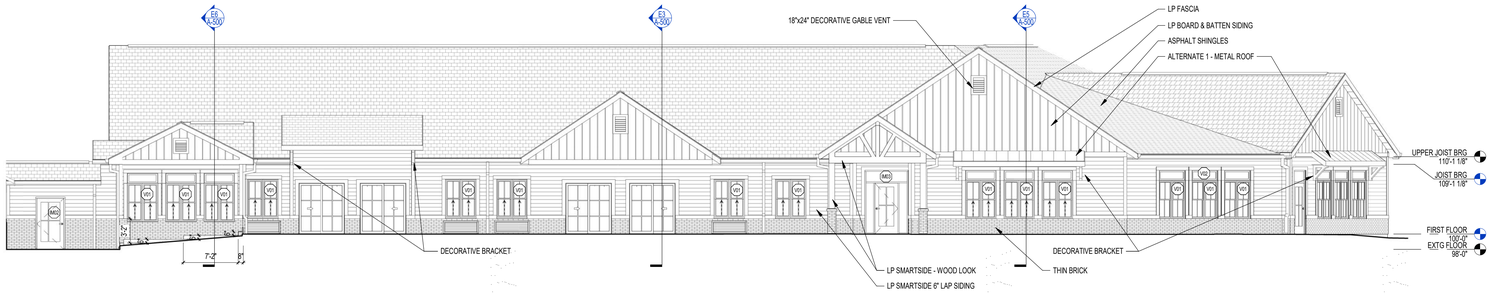
A2 **EAST ENTRANCE ELEVATION**
1/8" = 1'-0"



A3 **SOUTH ELEVATION**
1/8" = 1'-0"

EXTERIOR ELEVATIONS SYMBOLS LEGEND

SECTION REFERENCE
ELEVATION NOTE
DETAIL REFERENCE
WINDOW TYPE
CONSTRUCTION KEYNOTE

EXTERIOR FINISH PATTERNS

THIN VENEER BRICK
ALUMINUM LAP SIDING
ENGINEERED WOOD LAP SIDING
ENGINEERED WOOD PANEL & VERTICAL SIDING
ASPHALT SHINGLES
STANDING SEAM METAL ROOF

EXTERIOR ELEVATIONS GENERAL NOTES

A. PAINT ALL EXPOSED STEEL LINTELS TO MATCH ADJACENT MASONRY COLOR

B. TRIM ALL EXTERIOR LIGHTING FIXTURES, OUTLETS, HOSE BIBBS AND ALL OTHER SIDING PENETRATIONS WITH 1X6 TRIM (TYP.)

C. SEALANT COLORS TO MATCH ADJACENT FINISHED SURFACES.

D. SIDING COLOR TO BE WHITE.

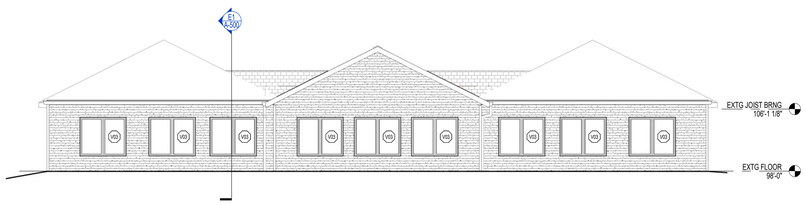
EXTERIOR ELEVATION NOTES	
NOTE #	EXTERIOR ELEVATION NOTE

B2 **SOUTHEAST ELEVATION**
1/8" = 1'-0"

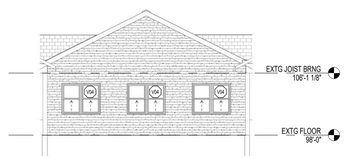
B6 **NORTHEAST ELEVATION**
1/8" = 1'-0"

C1 **NORTHWEST ELEVATION**
1/8" = 1'-0"

C5 **NORTH ELEVATION**
1/8" = 1'-0"

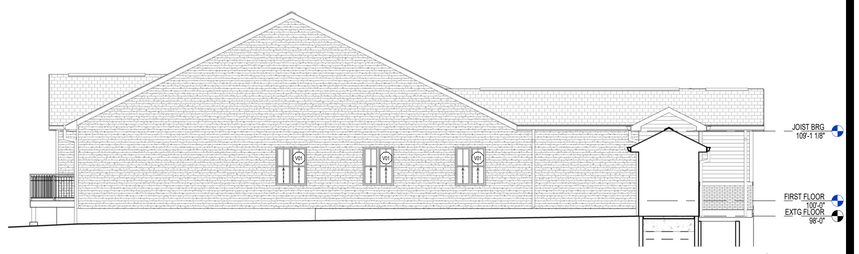


D1 **NORTH ELEVATION - CONNECTOR**
1/8" = 1'-0"



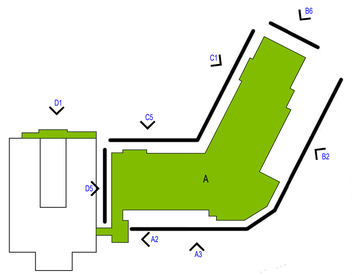
D3 **SOUTH ELEVATION - EXISTING COURTYARD**
1/8" = 1'-0"

D4 **WEST ELEVATION - CONNECTOR**
1/8" = 1'-0"



D5 **WEST ELEVATION**
1/8" = 1'-0"

EXISTING BUILDING



KEY PLAN

PLUNKETT RAYSICH ARCHITECTS, LLP
209 south water street suite 200 milwaukee, wisconsin 53204 t 414 339 3060
210 lincoln avenue suite 309 monroe, wisconsin 53566 t 608 328 3060
1900 main street suite 309 sarasota, florida 34236 t 941 444 8845
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BIRCHROCK COMMUNITY
210 McDIVITT LANE, MUKWONAGO, WI 53149

REVISIONS:
AD01 Date 1

EXTERIOR ELEVATIONS

CONSTRUCTION SET
DATE: 02-05-21
JOB NO: 190161-01
SHEET NO: A-400

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Darker lines is revised building layout.
Gray lines are the previous submitted layout

A-400 D1

E1 A-500

86'-1"
29'-6 3/4" | 26'-11 1/2" | 74'-3 3/4" | 29'-6 3/4"
7'-2 3/4" | 9'-0" | 8'-0" | 5'-4" | 6'-0" | 7'-5 3/4" | 7'-5 3/4" | 6'-0" | 5'-4" | 8'-0" | 9'-0" | 7'-2 3/4"
2'-10 1/2"

C005 CORR C005 | 2D.1 | STOR 037 | 037
ALIGN | VA0 | EJ0 | HOLD | 6'-8" | 2'-0" | 5'-0" | 4'-0" | 6" | B6 A-500 SIM
A-400 D4

EXISTING UNIT | EXISTING UNIT | EMPLOYEE LOUNGE 050 | EXISTING UNIT | EXISTING UNIT
050 | 12'-6" | 8'-6" | 9'-0" | 8'-6" | EQ
4'-6" | 8'-6" | 8'-6" | 4'-6"

D3 A-400

MAX 49 OCCUPANTS
MAX 49 OCCUPANTS

051 STOR 051 | 4'-8" | STOR 052 | 052

A-400 D5

EXISTING ALUMINUM SIDING
42'-10 1/8"
11'-4" | 12'-0" | 22'-0"
5'-9 3/8" | 9'-0" | 6'-6" | 5'-0" | 001.1 | 6 5/8" | 6'-8" | 2W
200 | 002 | DF2 | ENTRY 001 | 2'-6" | MZ | 2D.2 | 6'-11 1/2" | 001
VA0 | ALIGN | B6 A-500
16'-7 7/8" | 14'-9 3/8"

EXISTING FLOOR ELEVATION =98'-0"

NEW ENGINEERED WOOD SIDING
ALTERNATE 3 - THIN VENEER STONE OVER EXISTING BRICK

NEW ENGINEERED WOOD SIDING
ALTERNATE 3 - THIN VENEER STONE OVER EXISTING BRICK

NEW ENGINEERED WOOD SIDING
ALTERNATE 3 - THIN VENEER STONE OVER EXISTING BRICK

CLAD COLUMNS IN WOOD LOOK SIDING

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BIRCHROCK CASTLE ADDITION

VILLAGE OF MUKWONAGO, WISCONSIN

NW 1/4, SE 1/4, SECTION 35, TOWNSHIP 05 NORTH, RANGE 18 EAST

DRAWING INDEX

C0.0	TITLE SHEET
C1.0	EXISTING CONDITIONS
C2.0	DEMOLITION PLAN
C3.0	SITE PLAN
C4.0	EROSION CONTROL PLAN
C5.0	GRADING AND UTILITY PLAN
C6.0	DETAILS
C6.1	DETAILS
L1.0	LANDSCAPE PLAN
L2.0	LANDSCAPE DETAILS & NOTES

PROJECT AREA
NOT TO SCALE

north

PROJECT LOCATION:

VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WI

PROJECT INFORMATION

OWNER
CONTACT: Kristopher Klefer
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13050 West Cleveland Avenue
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P: 414-427-1655

ARCHITECT / INTERIOR DESIGN
CONTACT: Gregg Golden
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CIVIL CONSULTANT
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WISCONSIN
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PROFESSIONAL ENGINEER
11/06/19

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COEUR D'ALENE
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P. 262.513.0666

CLIENT:
Castle Senior Living
CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

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Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
C0.0

JSD PROJECT NO: 19-9231

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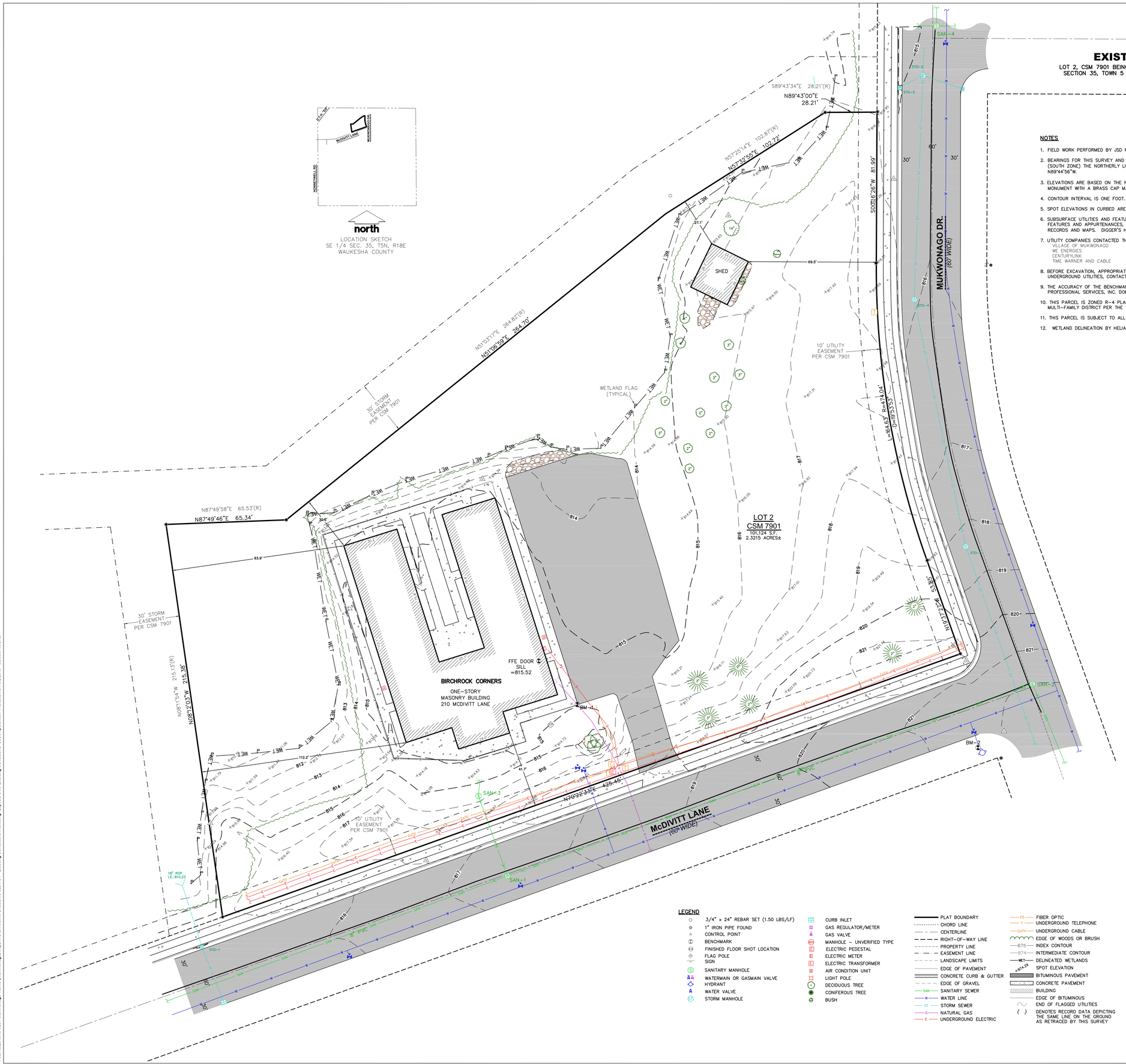
EXISTING CONDITIONS SURVEY

LOT 2, CSM 7901 BEING A PART OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 35, TOWN 5 NORTH, RANGE 18 EAST, VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN.



NOTES

1. FIELD WORK PERFORMED BY JSD PROFESSIONAL SERVICES, INC. ON JUNE 24, 25 & 27, 2019.
2. BEARINGS FOR THIS SURVEY AND MAP ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM 1927, (SOUTH ZONE) THE NORTHERLY LINE OF THE SOUTHEAST QUARTER SECTION 35, T5N, R18E, RECORDED AS N89°44'56"W.
3. ELEVATIONS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM (NGVD29). BENCHMARK IS CONCRETE MONUMENT WITH A BRASS CAP MARKING THE EAST 1/4 CORNER OF SECTION 35, T5N, R18E, ELEVATION = 826.61'
4. CONTOUR INTERVAL IS ONE FOOT.
5. SPOT ELEVATIONS IN CURBED AREAS REFERENCE THE PAVEMENT EDGE ELEVATIONS.
6. SUBSURFACE UTILITIES AND FEATURES SHOWN ON THIS MAP HAVE BEEN APPROXIMATED BY LOCATING SURFICIAL FEATURES AND APPURTENANCES, LOCATING DIGGERS HOTLINE FIELD MARKINGS AND BY REFERENCE TO UTILITY RECORDS AND MAPS. DIGGER'S HOTLINE TICKET NO. 20192518651, WITH A CLEAR DATE OF 06/25/2019.
7. UTILITY COMPANIES CONTACTED THRU DIGGERS HOTLINE:
   - VILLAGE OF MUKWONAGO
   - WE ENERGIES
   - CENTURYLINK
   - TIME WARNER AND CABLE
8. BEFORE EXCAVATION, APPROPRIATE UTILITY COMPANIES SHOULD BE CONTACTED. FOR EXACT LOCATION OF UNDERGROUND UTILITIES, CONTACT DIGGERS HOTLINE, AT 1.800.242.8511.
9. THE ACCURACY OF THE BENCHMARKS SHOWN ON THIS MAP SHALL BE VERIFIED BEFORE BEING UTILIZED. JSD PROFESSIONAL SERVICES, INC. DOES NOT WARRANT THE ACCURACY OF THESE BENCHMARKS.
10. THIS PARCEL IS ZONED R-4 PLANNED RESIDENTIAL DEVELOPMENT DISTRICT R-10 MULTI-FAMILY DISTRICT R-10 MULTI-FAMILY DISTRICT PER THE VILLAGE OF MUKWONAGO GIS ZONING MAP.
11. THIS PARCEL IS SUBJECT TO ALL EASEMENTS AND AGREEMENTS, BOTH RECORDED AND UNRECORDED.
12. WETLAND DELINEATION BY HELIANTHUS ON JUNE 25, 2019 AND LOCATED BY JSD ,INC ON JUNE 25, 2019.

SANITARY SEWER MANHOLES

STRUCT. ID	RIM ELEVATION	INVERT	ELEVATION	PIPE SIZE	PIPE TYPE
SAN-1	817.61	N	807.10	6"	PVC
		W	806.72	8"	PVC
		E	807.11	8"	PVC
SAN-2	822.04	W	811.65	8"	PVC
		S	811.74	8"	PVC
SAN-3	815.64	NE & S	807.44	6"	PVC
SAN-4	815.18	E&W	799.41	8"	PVC
		N	801.41	8"	PVC

STORM SEWER STRUCTURES

INLET ID	RIM ELEVATION	INVERT	ELEVATION	PIPE SIZE	PIPE TYPE
STO-1	814.92	S	810.0	18"	–
		N	809.8	18"	RCP
STO-2	815.16	NOT ACCESSIBLE		–	–
STO-3	815.16	E&W	808.4	–	–
STO-4	815.94	N&S	809.5	–	–
STO-5	818.27	N&S	812.1	–	–

BENCHMARKS

BENCH MARK	ELEVATION	DESCRIPTION
BM-1	815.17	CHISELED SQUARE IN CORNER OF CONCRETE SIDEWALK
BM-2	823.58	SW BOLT ON HYDRANT AT SW CORNER OF INTERSECTION

*JSD DOES NOT GUARANTEE THE BENCHMARK ELEVATIONS LISTED ON THIS MAP ARE ACCURATE AND SHOULD BE VERIFIED PRIOR TO CONSTRUCTION ACTIVITIES.

LEGEND

- 3/4" x 24" REBAR SET (1.50 LBS/LF)
- 1" IRON PIPE FOUND
- CONTROL POINT
- BENCHMARK
- FINISHED FLOOR SHOT LOCATION
- FLAG POLE
- SIGN
- SANITARY MANHOLE
- WATERMAIN OR GASMAIN VALVE
- HYDRANT
- WATER VALVE
- STORM MANHOLE
- CURB INLET
- GAS REGULATOR/METER
- GAS VALVE
- MANHOLE – UNVERIFIED TYPE
- ELECTRIC PEDESTAL
- ELECTRIC METER
- ELECTRIC TRANSFORMER
- AIR CONDITION UNIT
- LIGHT POLE
- DECIDUOUS TREE
- CONIFEROUS TREE
- BUSH
- PLAT BOUNDARY
- CHORD LINE
- CENTERLINE
- RIGHT-OF-WAY LINE
- PROPERTY LINE
- EASEMENT LINE
- LANDSCAPE LIMITS
- EDGE OF PAVEMENT
- CONCRETE CURB & GUTTER
- EDGE OF GRAVEL
- SAN — SANITARY SEWER
- W — WATER LINE
- ST — STORM SEWER
- G — NATURAL GAS
- E — UNDERGROUND ELECTRIC
- FO — FIBER OPTIC
- T — UNDERGROUND TELEPHONE
- CaTV — UNDERGROUND CABLE
- EDGE OF WOODS OR BRUSH
- 875 — INDEX CONTOUR
- 874 — INTERMEDIATE CONTOUR
- WET — DELINEATED WETLANDS
- +814.09 — SPOT ELEVATION
- BITUMINOUS PAVEMENT
- CONCRETE PAVEMENT
- BUILDING
- EDGE OF BITUMINOUS
- END OF FLAGGED UTILITIES
- ( ) DENOTES RECORD DATA DEPICTING THE SAME LINE ON THE GROUND AS RETRACED BY THIS SURVEY

north

SCALE IN FEET
20' 0 20'

LEGAL DESCRIPTION

LOT 2, CERTIFIED SURVEY MAP NO. 7901, RECORDED IN VOLUME 68 OF WAUKESHA COUNTY CERTIFIED SURVEY MAPS ON PAGES 140-146 AS DOCUMENT NUMBER 2089198, VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN.

TAX KEY NO: MUKV2012215002

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P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

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Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

SHEET TITLE:
EXISTING CONDITIONS SURVEY

SHEET NUMBER:
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JSD PROJECT NO: 19-9231

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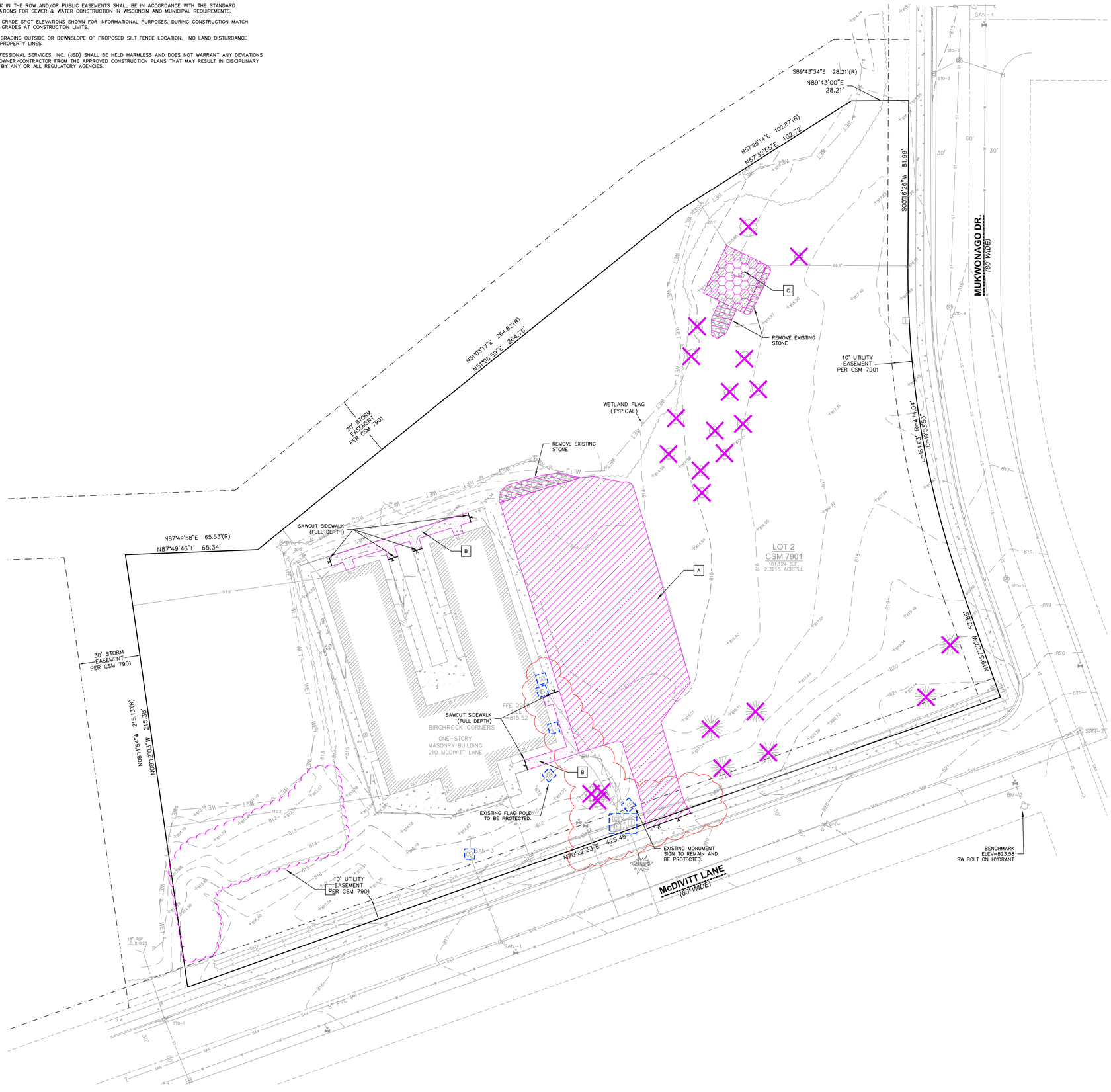
GENERAL NOTES

1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGENDS.
2. ALL WORK IN THE ROW AND/OR PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN AND MUNICIPAL REQUIREMENTS.
3. EXISTING GRADE SPOT ELEVATIONS SHOWN FOR INFORMATIONAL PURPOSES. DURING CONSTRUCTION MATCH EXISTING GRADES AT CONSTRUCTION LIMITS.
4. NO SITE GRADING OUTSIDE OR DOWNSLOPE OF PROPOSED SILT FENCE LOCATION. NO LAND DISTURBANCE BEYOND PROPERTY LINES.
5. JSD PROFESSIONAL SERVICES, INC. (JSD) SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.



DEMOLITION NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES) OF ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., IN A LAWFUL MANNER, SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
2. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING FOR ALL FEES AND CHARGES. COORDINATION REQUIRED PRIOR TO CONSTRUCTION.
3. THIS PLAN INDICATES ITEMS ON THE PROPERTY INTENDED FOR DEMOLITION BASED ON THE CURRENT SITE DESIGN THAT HAVE BEEN IDENTIFIED BY A REASONABLE OBSERVATION OF THE EXISTING CONDITIONS THROUGH FIELD SURVEY RECONNAISSANCE, "DIGGER'S HOTLINE" LOCATION, AND GENERAL "STANDARD OF CARE". THERE MAY BE ADDITIONAL ITEMS THAT CAN NOT BE IDENTIFIED BY A REASONABLE ABOVE GROUND OBSERVATION, OF WHICH THE ENGINEER WOULD HAVE NO KNOWLEDGE OR MAY BE A PART OF ANOTHER DESIGN DISCIPLINE. IT IS THE CONTRACTOR'S/BIDDER'S RESPONSIBILITY TO REVIEW THE PLANS, INSPECT THE SITE AND PROVIDE THEIR OWN DUE DILIGENCE TO INCLUDE IN THEIR BID WHAT ADDITIONAL ITEMS, IN THEIR OPINION, MAY BE NECESSARY FOR DEMOLITION. ANY ADDITIONAL ITEMS IDENTIFIED BY THE CONTRACTOR/BIDDER SHALL BE IDENTIFIED IN THE BID AND REPORTED TO THE ENGINEER OF RECORD. JSD PROFESSIONAL SERVICES, INC. (JSD) TAKES NO RESPONSIBILITY FOR ITEMS ON THE PROPERTY THAT COULD NOT BE LOCATED BY A REASONABLE OBSERVATION OF THE PROPERTY OR OF WHICH THEY WOULD HAVE NO KNOWLEDGE.
4. ALL PERIMETER EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF DEMOLITION ACTIVITIES. CONTRACTOR SHALL KEEP ALL STREETS, PRIVATE DRIVES AND PAVEMENT FREE AND CLEAR OF ALL CONSTRUCTION RELATED DIRT, DUST AND DEBRIS.
5. CONTRACTOR TO MAINTAIN CONTINUOUS ACCESS TO SURROUNDING PROPERTIES AND REMAINING PARTS OF THE EXISTING BUILDING AT ALL TIMES DURING THE DEMOLITION PHASE OF THE PROJECT.
6. ALL TREES WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNLESS SPECIFICALLY CALLED OUT FOR PROTECTION. ALL TREES TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY AND STUMPS SHALL BE GROUND TO PROPOSED SUBGRADE.
7. PERFORM TREE PRUNING IN ALL LOCATIONS WHERE PROPOSED PAVEMENT AND/OR UTILITY INSTALLATION ENCROACH WITHIN THE EXISTING DRIP LINE OF THE TREES TO REMAIN. ALL TRENCHING WITHIN THE EXISTING DRIP LINE OF THE TREES TO REMAIN SHALL BE DONE RADIALLY AWAY FROM THE TRUNK IF ROOTS IN EXCESS OF 1" DIAMETER ARE EXPOSED. ROOTS MUST BE CUT BY REPUTABLE TREE PRUNING SERVICE PRIOR TO ANY TRANSVERSE TRENCHING.
8. ABANDONED/REMOVED ITEMS SHALL BE DISPOSED OF OFF SITE UNLESS OTHERWISE NOTED.
9. CONTRACTOR TO REPLACE ALL SIDEWALK AND CURB AND GUTTER ABUTTING THE PROPERTIES, WHICH IS DAMAGED BY THE CONSTRUCTION, OR ANY SIDEWALK AND CURB AND GUTTER THAT THE VILLAGE ENGINEER DETERMINES NEEDS TO BE REPLACED BECAUSE IT IS NOT AT A DESIRABLE GRADE REGARDLESS OF WHETHER THE CONDITION EXISTED PRIOR TO BEGINNING CONSTRUCTION.
10. VOIDS LEFT BY ANY ITEM REMOVED UNDER ANY PROPOSED PAVEMENT, WALK, ETC. OR WITHIN 24" THEREOF SHALL BE FILLED AND BACKFILLED WITH GRANULAR MATERIALS AND COMPACTED PER SPECIFICATIONS.
11. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR:
    - 11.1. EXAMINE ALL SITE CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY TO THE DESIGN ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
    - 11.2. VERIFYING UTILITY ELEVATIONS AND NOTIFYING THE DESIGN ENGINEER OF ANY DISCREPANCIES. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCIES ARE RESOLVED.
    - 11.3. NOTIFYING ALL UTILITIES PRIOR TO THE REMOVAL OF ANY UNDERGROUND UTILITIES.
    - 11.4. NOTIFYING THE DESIGN ENGINEER AND LOCAL CONTROLLING MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION INSPECTION.
    - 11.5. PERFORMING UTILITY LOCATE OBSERVATIONS (ULO) ON ALL UTILITY CROSSINGS. CONTRACTOR TO REPORT ANY PLAN DISCREPANCIES OR CONFLICTS PRIOR TO THE START OF UTILITY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE APPROPRIATE UTILITY COMPANIES TO CONDUCT ULO'S.
12. ALL EXISTING UTILITIES TO BE FIELD LOCATED AND FLAGGED BY CONTRACTOR.
13. ANY SANITARY SEWER, SANITARY SEWER SERVICES, WATER MAIN, WATER SERVICES, STORM SEWER, OR OTHER UTILITIES, WHICH ARE TO REMAIN, THAT ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
14. CONTRACTOR SHALL NOTIFY JSD OF ANY ROOF LEADERS AND/OR STORM DRAIN LINES ENCOUNTERED DURING DEMOLITION WHICH ARE NOT SHOWN ON THE PLANS PRIOR TO ABANDONMENT OR REMOVAL.
15. CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONSTRUCTION OF THESE IMPROVEMENTS.
16. ALL DEMOLITION SHALL BE IN ACCORDANCE WITH THE APPROVED MUNICIPALITY RECYCLING PLAN.
17. ANY CONTAMINATED SOILS SHALL BE REMOVED IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS TO AN APPROVED LANDFILL.
18. EXISTING FIBER OPTIC LINE(S) TO BE CLEARLY MARKED PRIOR TO ANY EXCAVATION. CONTRACTOR TO NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF ANY DISCREPANCIES OCCUR IN THE LOCATION SHOWN OR PROPOSED IMPROVEMENTS IMPACTING EXISTING FIBER OPTIC LINE(S) LOCATION(S).
19. BUILDING REMOVALS SHALL BE BY A QUALIFIED CONTRACTOR. CONTRACTOR TO FOLLOW ALL DEMOLITION REGULATIONS, DISCONNECT ALL UTILITIES, OBTAIN ALL APPLICABLE PERMITS AND DISPOSE OF ALL BUILDING MATERIALS IN APPROPRIATE LANDFILLS. DEMOLISHED MATERIALS SHALL NOT BE BURIED ON SITE. IF ENCOUNTERED, ANY CONTAMINATED BUILDING MATERIAL AND/OR SOILS SHALL BE REMOVED AND DISPOSED OF OFF-SITE BY THE CONTRACTOR IN ACCORDANCE WITH APPROPRIATE STATE AND FEDERAL REGULATIONS.
20. CONTRACTOR TO REMOVE EXISTING UTILITY PIPE/CONDUITS WITHIN BUILDING FOOTPRINT AND BACKFILL WITH MATERIALS PER GEOTECHNICAL REPORT.
21. CONTRACTOR MAY LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE CONSTRUCTION PLANS BUT IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, CURB, SIDEWALK, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IT'S REMOVAL AND REPAIR. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
22. RESTORATION OF THE EXISTING ROADWAY RIGHT-OF-WAYS ARE CONSIDERED INCIDENTAL AND SHOULD BE PART OF THE COST OF THE UNDERGROUND IMPROVEMENTS, DEMOLITION AND REMOVAL. THIS INCLUDES CURB & GUTTER, SIDEWALK, TOPSOIL, SEEDING AND MULCHING.

DEMOLITION LEGEND/KEY

- A — EXISTING ASPHALT PAVEMENT AND BASE TO BE REMOVED
- B — EXISTING CONCRETE AND BASE TO BE REMOVED
- C — EXISTING BUILDING TO BE REMOVED
- D — TREES AND VEGETATION TO BE REMOVED
- PROTECT UTILITY STRUCTURE
- REMOVE TREE
- SAWCUT PAVEMENT FULL DEPTH
- CAUTION EXISTING UNDERGROUND UTILITIES (GAS, ELECTRIC, CABLE, TELEPHONE, ETC)

LEGEND

- GOVERNMENT CORNER
- 1" IRON PIPE FOUND
- 2" IRON PIPE FOUND
- IRON PIPE FOUND (SIZE NOTED)
- PK/MAG NAIL FOUND
- 1¼" REBAR FOUND
- ¾" REBAR FOUND
- CONTROL POINT
- BENCHMARK
- FINISHED FLOOR SHOT LOCATION
- SIGN
- EXISTING SANITARY MANHOLE
- EXISTING WATERMAIN OR GASMAIN VALVE
- EXISTING WATER MANHOLE
- EXISTING HYDRANT
- CURB STOP/SERVICE VALVE
- EXISTING STORM MANHOLE
- EXISTING CURB INLET
- GAS REGULATOR/METER
- GAS VALVE
- MANHOLE – UNVERIFIED TYPE
- ELECTRIC TRANSFORMER
- EXISTING LIGHT POLE
- POWER POLE W/GUY
- YARD LIGHT
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- CABLE MANHOLE
- CABLE PEDESTAL
- PLAT BOUNDARY
- SECTION LINE
- EASEMENT LINE
- EDGE OF PAVEMENT
- EXISTING CONCRETE CURB & GUTTER
- EDGE OF GRAVEL
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING STORM SEWER
- NATURAL GAS
- OVERHEAD LINE
- UNDERGROUND ELECTRIC
- FIBER OPTIC
- UNDERGROUND TELEPHONE
- EDGE OF WOODS OR BRUSH
- BUILDING
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- DELINEATED WETLANDS
- EXISTING BITUMINOUS PAVEMENT
- EXISTING ROCK/ GRAVEL AREAS
- CONCRETE PAVEMENT/ SIDEWALKS
- END OF FLAGGED UTILITIES

north
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CLIENT:
Castle Senior Living
CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

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Design/Drawn:	CAP
Approved:	DSR
Date:	11/06/2019

SHEET TITLE:
DEMOLITION PLAN

SHEET NUMBER:
C2.0

JSD PROJECT NO: 19-9231

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PAVING NOTES

1. GENERAL

1.1. ALL PAVING SHALL CONFORM TO "STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY & STRUCTURE CONSTRUCTION, LATEST EDITION, APPLICABLE VILLAGE OF MUKWONAGO ORDINANCES AND THE GEOTECH REPORT.

1.2. FINAL PAVEMENT DESIGN TO BE DETERMINED BY OWNER BASED ON GEOTECHNICAL ENGINEER OF RECORD RECOMMENDATIONS. ALL PAVING SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER OF RECORD RECOMMENDATIONS AS SPECIFIED IN THE SAID GEOTECHNICAL REPORT.

1.3. THE VILLAGE OF MUKWONAGO AND JSD PROFESSIONAL SERVICES (JSD) SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF PERFORMING ANY CONSTRUCTION.

1.4. SIGN CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.

1.5. ALL PAVING DIMENSIONS AND RADII ARE DIMENSIONED TO FACE OF CURB UNLESS SPECIFIED OTHERWISE.

1.6. ALL COORDINATES AND DIMENSIONS ARE REFERENCED TO THE EDGE OF PAVEMENT, UNLESS NOTED OTHERWISE.

1.7. FOR LANDSCAPING SEE SEPARATE PLAN.

1.8. REFER TO ARCHITECTURAL PLANS FOR ALL BUILDING DIMENSIONS AND DETAILS.

1.9. ALL CURB AND GUTTER IS WSDOT TYPE D, 18", UNLESS NOTED OTHERWISE. USE HIGH SIDE CURB AS NECESSARY TO DRAIN WATER PROPERLY.

1.10. SOME FIELD ADJUSTMENTS MAY BE NECESSARY AT POINTS WHERE PROPOSED PAVEMENT, CURB AND SIDEWALKS MEET EXISTING PAVEMENT, CURB AND SIDEWALKS. REVIEW ANY REQUIRED CHANGES WITH THE ENGINEER PRIOR TO CONSTRUCTION OF WORK.

1.11. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS FOR ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED TO COMPLETE PROPOSED ITEMS IN PLACE. ALL WORK SHALL BE IN ACCORDANCE WITH AUTHORITY HAVING JURISDICTION'S SPECIFICATIONS AND SHALL BE APPROVED AS SUCH.

1.12. ALL COSTS SHALL BE INCLUDED IN THE BID.

1.13. ALL PAVEMENT TO BE STANDARD DUTY PAVEMENT, UNLESS NOTED OTHERWISE.

1.14. ANY REQUIRED REPLACEMENT OF PUBLIC CURB AND GUTTER SHALL MATCH EXISTING AND MEET MUNICIPALITY REQUIREMENTS.

2. ASPHALTIC CONCRETE PAVING SPECIFICATIONS

2.1. CODES AND STANDARDS – THE PLACING, CONSTRUCTION AND COMPOSITION OF THE ASPHALTIC BASE COURSE AND ASPHALTIC CONCRETE SURFACE COURSE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460 AND 465 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, EDITION OF 2019, HEREAFTER, THIS PUBLICATION WILL BE REFERRED TO AS STATE HIGHWAY SPECIFICATIONS.

2.2. WEATHER LIMITATIONS – APPLY TACK COATS WHEN AMBIENT TEMPERATURE IS ABOVE 50° F (10° C) AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35° F (1° C) FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION. DO NOT APPLY WHEN BASE IS WET OR CONTAINS EXCESS OF MOISTURE. CONSTRUCT ASPHALTIC CONCRETE SURFACE COURSE WHEN ATMOSPHERIC TEMPERATURE IS ABOVE 40° F (4° C) AND WHEN BASE IS DRY AND WHEN WEATHER IS NOT RAINY. BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30° F (–1° C).

2.3. GRADE CONTROL – ESTABLISH AND MAINTAIN REQUIRED LINES AND ELEVATIONS FOR EACH COURSE DURING CONSTRUCTION.

2.4. CRUSHED AGGREGATE BASE COURSE – THE TOP LAYER OF BASE COURSE SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS. CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

2.5. BINDER COURSE AGGREGATE – THE AGGREGATE FOR THE BINDER COURSE SHALL CONFORM TO SECTIONS 460.2.7 AND 315, STATE HIGHWAY SPECIFICATIONS.

2.6. SURFACE COURSE AGGREGATE – THE AGGREGATE FOR THE SURFACE COURSE SHALL CONFORM TO SECTIONS 460.2.7 AND 465, STATE HIGHWAY SPECIFICATIONS.

2.7. ASPHALTIC MATERIALS – THE ASPHALTIC MATERIALS SHALL CONFORM TO SECTION 455 AND 460, STATE HIGHWAY SPECIFICATIONS.

2.8. SURFACE PREPARATION – NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.

3. CONCRETE PAVING SPECIFICATIONS

3.1. CODES AND STANDARDS – THE PLACING, CONSTRUCTION AND COMPOSITION OF THE CONCRETE PAVEMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 415 AND 416 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, CURRENT EDITION. HEREAFTER, THIS PUBLICATION WILL BE REFERRED TO AS STATE HIGHWAY SPECIFICATIONS.

3.2. REINFORCEMENT – CONCRETE PAVEMENT SHALL BE REINFORCED WITH NOVOMESH 950 (OR EQUAL) FIBER REINFORCEMENT AT A RATE OF 5 LBS/CUBIC YARD.

3.3. CURING COMPOUNDS – CURING COMPOUNDS SHALL CONFORM TO SECTION 415 OF THE STATE HIGHWAY SPECIFICATIONS.

3.4. FINISHING –

3.4.1. CONTRACTOR SHALL PROVIDE CONTROL JOINTS AND CONSTRUCTION JOINTS OF ONE–QUARTER CONCRETE THICKNESS AT AN EQUAL RATIO OF LENGTH TO WIDTH WHEREVER POSSIBLE WITH A MAXIMUM LENGTH BETWEEN JOINTS OF 8' ON CENTER.

3.4.2. CONTRACTOR SHALL PROVIDE EXPANSION JOINTS IN SIDEWALKS AT A MAXIMUM 24' ON CENTER.

3.4.3. EXTERIOR CONCRETE SURFACES SHALL BE BROOM FINISHED.

3.4.4. ALL CONCRETE SURFACES TO BE SEALED WITH TYPE TK–26UV CONCRETE SEALANT.

3.5. CRUSHED AGGREGATE BASE COURSE – THE BASE COURSE SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS. CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

3.6. SURFACE PREPARATION – NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.

4. PAVEMENT MARKING SPECIFICATIONS

4.1. CONTRACTOR SHALL CONSULT STRIPING COLOR WITH OWNER PRIOR TO CONSTRUCTION.

4.2. PROVIDE CONTRACTOR GRADE LATEX, STRIPING PAINT. ALL STRIPING SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

4.3. THOROUGHLY CLEAN SURFACES FREE OF DIRT, SAND, GRAVEL, OIL AND OTHER FOREIGN MATTER. CONTRACTOR RESPONSIBLE TO INSPECT PAVEMENT SURFACES FOR CONDITIONS AND DEFECTS THAT WILL ADVERSELY AFFECT QUALITY OF WORK, AND WHICH CANNOT BE PUT INTO AN ACCEPTABLE CONDITION THROUGH NORMAL PREPARATORY WORK AS SPECIFIED.

4.4. DO NOT PLACE MARKING OVER UNSOUND PAVEMENTS. IF THESE CONDITIONS EXIST, NOTIFY OWNER. STARTING INSTALLATION CONSTITUTES CONTRACTOR'S ACCEPTANCE OF SURFACE AS SUITABLE FOR INSTALLATION.

4.5. LAYOUT MARKINGS USING GUIDE LINES, TEMPLATES AND FORMS. STENCILS AND TEMPLATES SHALL BE PROFESSIONALLY MADE TO INDUSTRY STANDARDS. "FREE HAND" PAINTING OF ARROWS, SYMBOLS, OR WORDING SHALL NOT BE ALLOWED. APPLY STRIPES STRAIGHT AND EVEN.

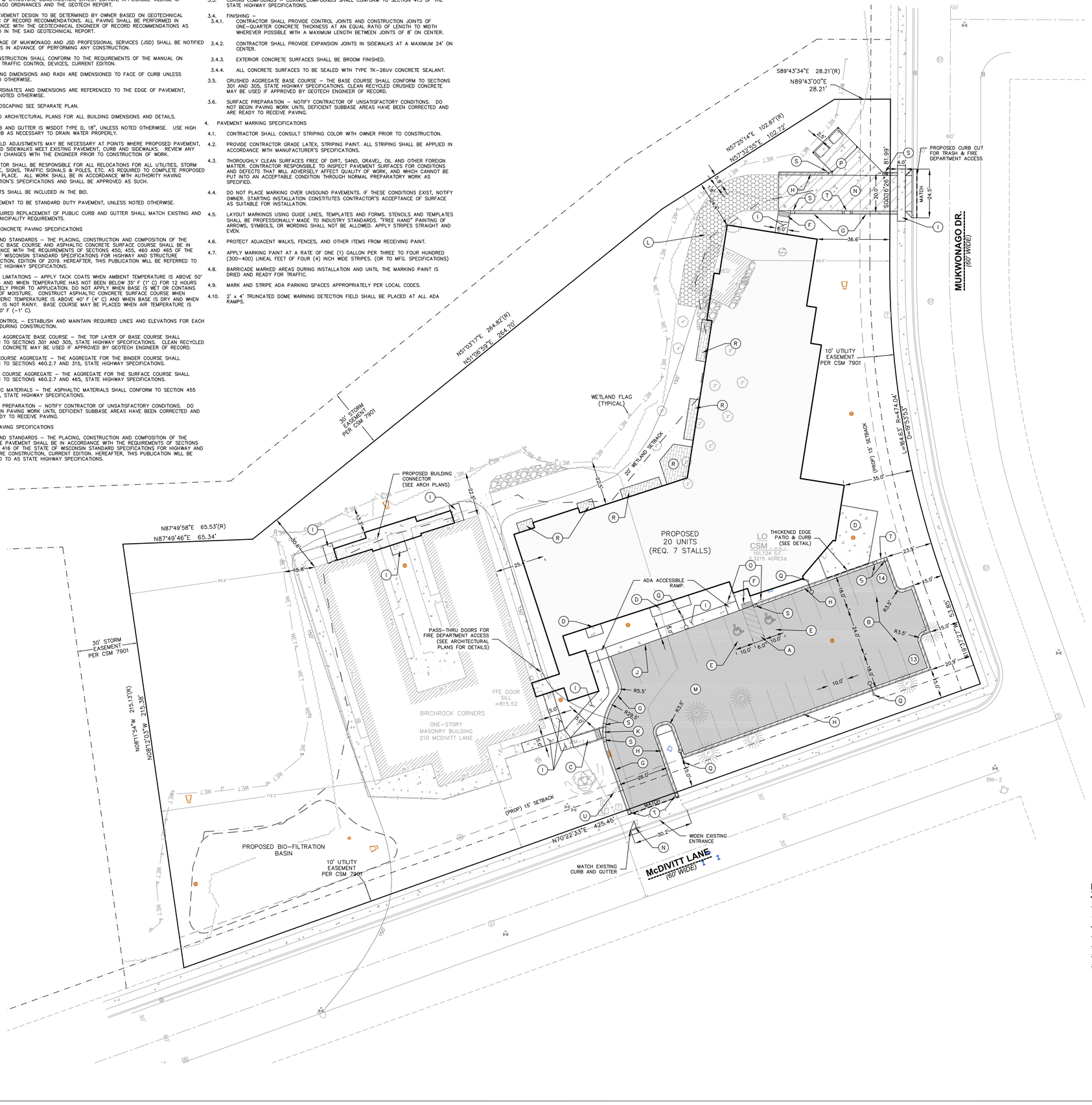
4.6. PROTECT ADJACENT WALKS, FENCES, AND OTHER ITEMS FROM RECEIVING PAINT.

4.7. APPLY MARKING PAINT AT A RATE OF ONE (1) GALLON PER THREE TO FOUR HUNDRED (300–400) LINEAL FEET OF FOUR (4) INCH WIDE STRIPES. (OR TO MFG. SPECIFICATIONS)

4.8. BARRICADE MARKED AREAS DURING INSTALLATION AND UNTIL THE MARKING PAINT IS DRIED AND READY FOR TRAFFIC.

4.9. MARK AND STRIPE ADA PARKING SPACES APPROPRIATELY PER LOCAL CODES.

4.10. 2' x 4' TRUNCATED DOME WARNING DETECTION FIELD SHALL BE PLACED AT ALL ADA RAMPS.



SITE LEGEND

- (A) DIAGONAL HATCH – SWSL/4" AT 45° @ 2'–0" O.C.
- (B) PARKING STALLS – 18'–0" SWSL/4" @ 10'–0" O.C.
- (C) 5' CONCRETE SIDEWALK WITH RAILING (SEE DETAIL)
- (D) CONCRETE PATIOS, REFER TO ARCHITECTURAL PLANS FOR DETAILS
- (E) ACCESSIBLE PARKING SPACE. SEE DETAILS FOR ACCESSIBLE PARKING SPACE SIZE, SIGN AND SYMBOL ("VAN" – INDICATES VAN ACCESSIBLE SPACE)
- (F) SIDEWALK RAMP W/ DETECTABLE WARNING FIELD (SEE DETAIL)
- (G) 18" STANDARD CURB AND GUTTER (SEE DETAIL)
- (H) 18" REJECT CURB AND GUTTER (SEE DETAIL)
- (I) CONCRETE SIDEWALK (SEE DETAIL)
- (J) THICKENED EDGE SIDEWALK (SEE DETAIL)
- (K) 18" VALLEY CURB AND GUTTER (SEE DETAIL)
- (L) GRASSPAVE 2 (SEE DETAIL)
- (M) STANDARD DUTY HMA PAVEMENT (SEE DETAILS)
- (N) HEAVY DUTY CONCRETE PAVEMENT (SEE DETAILS)
- (O) ADA PARKING SIGN (SEE DETAIL)
- (P) TRASH ENCLOSURE, REFER TO ARCHITECTURAL PLANS FOR DETAILS
- (Q) LIGHTPOLE
- (R) RAISED WOODEN DECK, REFER TO ARCH PLANS FOR DETAILS
- (S) 2' CURB TAPER (SEE DETAIL)
- (T) CURB WEIR (SEE DETAIL)
- (U) EXISTING MONUMENT SIGN TO BE RELOCATED

SITE INFORMATION BLOCK

SITE ADDRESS	210 McDIVITT LN MUKWONAGO, WI 53149
PROPERTY ACREAGE	2.34 ACRES
NUMBER OF BUILDING STORIES	1
BUILDING SQUARE FOOTAGE	
EXISTING	8,055
PROPOSED	16,260
TOTAL	24,315
NUMBER OF PARKING STALLS	
STANDARD	25
ACCESSIBLE	2
TOTAL	27
EXISTING VS. PROPOSED SITE COVERAGE	
EXISTING IMPERVIOUS SURFACE AREA	21,646 SF (21.2%)
EXISTING PERVIOUS SURFACE AREA	80,257 SF (78.8%)
EXISTING IMPERVIOUS SURFACE AREA RATIO	0.21
PROPOSED IMPERVIOUS SURFACE AREA	41,790 SF (41.0%)
PROPOSED PERVIOUS SURFACE AREA	60,133 SF (59.0%)
PROPOSED IMPERVIOUS SURFACE AREA RATIO	0.41

R–10 ZONING REQUIREMENTS	REQUIRED	PROVIDED
BUILDING SETBACK (STREET)	35 FEET	35 FEET
BUILDING SETBACK (SIDE)	15 FEET	93.9 FEET
BUILDING SETBACK (REAR)	40 FEET	24.4 FEET
PARKING LOT SETBACK	20 FEET	15 FEET
MINIMUM GREEN SPACE	40%	59%
MAX BUILDING COVERAGE	40%	24%

LEGEND

- PROPERTY LINE
- EASEMENT LINE
- WETLAND BOUNDARY
- BUILDING OUTLINE
- PAVEMENT SETBACK LINE
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- STANDARD DUTY ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- CONCRETE
- LIGHT POLE
- ADA PARKING SIGN
- PROPOSED STORM CATCH BASIN
- PROPOSED FLARED END SECTION
- PROPOSED HYDRANT

north
SCALE IN FEET
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WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living
CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
C3.0

JSD PROJECT NO: 19-9231

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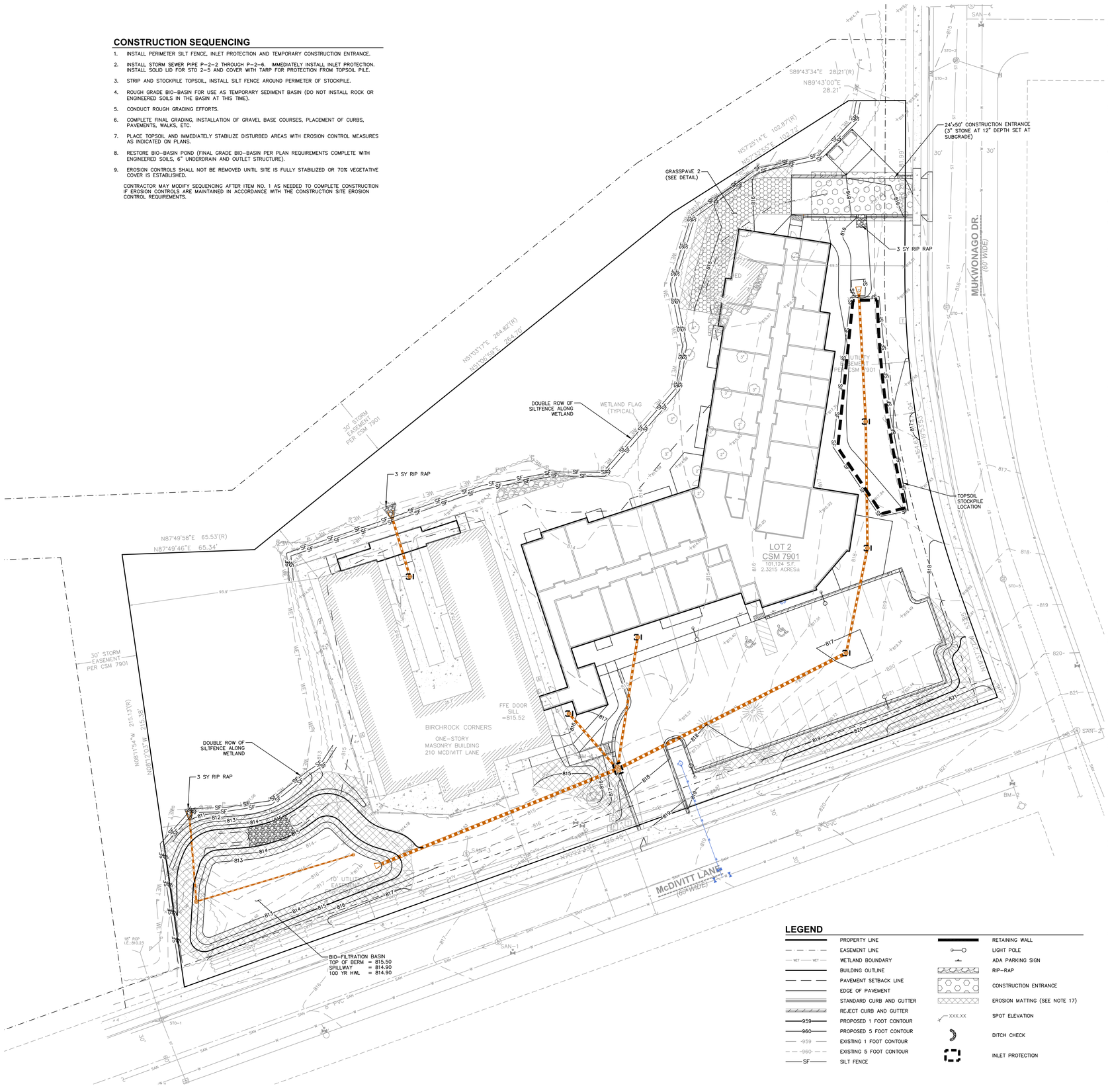
File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Civil Sheets\19-9231 C3 - Site Plan.dwg Layout: C3.0 Site Plan User: cpeterson Plotted: Nov 06, 2019 - 9:08am Xrefs:

CONSTRUCTION SEQUENCING

1. INSTALL PERIMETER SILT FENCE, INLET PROTECTION AND TEMPORARY CONSTRUCTION ENTRANCE.
2. INSTALL STORM SEWER PIPE P–2–2 THROUGH P–2–6. IMMEDIATELY INSTALL INLET PROTECTION. INSTALL SOLID LID FOR STO 2–5 AND COVER WITH TARP FOR PROTECTION FROM TOPSOIL PILE.
3. STRIP AND STOCKPILE TOPSOIL, INSTALL SILT FENCE AROUND PERIMETER OF STOCKPILE.
4. ROUGH GRADE BIO–BASIN FOR USE AS TEMPORARY SEDIMENT BASIN (DO NOT INSTALL ROCK OR ENGINEERED SOILS IN THE BASIN AT THIS TIME).
5. CONDUCT ROUGH GRADING EFFORTS.
6. COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
7. PLACE TOPSOIL AND IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROL MEASURES AS INDICATED ON PLANS.
8. RESTORE BIO–BASIN POND (FINAL GRADE BIO–BASIN PER PLAN REQUIREMENTS COMPLETE WITH ENGINEERED SOILS, 6" UNDERDRAIN AND OUTLET STRUCTURE).
9. EROSION CONTROLS SHALL NOT BE REMOVED UNTIL SITE IS FULLY STABILIZED OR 70% VEGETATIVE COVER IS ESTABLISHED.

CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM NO. 1 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS.



EROSION CONTROL NOTES

1. ALL CONSTRUCTION SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN WISCONSIN'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT FOR CONSTRUCTION SITE LAND DISTURBANCE ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) TECHNICAL STANDARDS AND VILLAGE OF MUKWONAGO ORDINANCES. IT IS THE RESPONSIBILITY OF ALL CONTRACTORS ASSOCIATED WITH THE PROJECT TO OBTAIN A COPY OF, AND UNDERSTAND, THESE STANDARDS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
2. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL CONTROL MEASURES AS DIRECTED BY JSD PROFESSIONAL SERVICES, INC. (JSD) OR AUTHORITY HAVING JURISDICTION SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
3. MODIFICATIONS TO THE APPROVED EROSION CONTROL PLAN IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS ARE ALLOWED IF MODIFICATIONS CONFORM TO WDNR TECHNICAL STANDARDS. CONTRACTOR IS RESPONSIBLE TO NOTIFY JSD AND AUTHORITY HAVING JURISDICTION OF ANY CHANGES TO THE EROSION CONTROL AND STORMWATER MANAGEMENT PLANS. ALL MODIFICATIONS MUST BE APPROVED BY JSD/AUTHORITY HAVING JURISDICTION PRIOR TO DEVIATION FROM THE APPROVED PLAN.
4. INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCE(S), SILT FENCE AND EXISTING INLET PROTECTION) PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN IN ORDER TO PROTECT ADJACENT PROPERTIES/STORM SEWER SYSTEMS FROM SEDIMENT TRANSPORT.
5. CONSTRUCTION ENTRANCE(S) SHALL BE INSTALLED AT THE LOCATION OF VEHICLE INGRESS/EGRESS POINT(S) AS SHOWN ON THE PLAN. CONTRACTOR IS RESPONSIBLE TO COORDINATE LOCATION(S) WITH THE PROPER AUTHORITY HAVING JURISDICTION, PROVIDE NECESSARY FEES AND OBTAIN ALL REQUIRED APPROVALS OR PERMITS. ADDITIONAL CONSTRUCTION ENTRANCES OTHER THAN AS SHOWN ON THE PLANS MUST BE PRIOR APPROVED BY THE APPLICABLE AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. CONSTRUCTION ENTRANCES SHALL BE MAINTAINED BY THE CONTRACTOR IN A CONDITION WHICH WILL PREVENT THE TRACKING OF MUD OR DRY SEDIMENT ONTO ADJACENT PUBLIC STREETS AFTER EACH WORKING DAY OR MORE FREQUENTLY AS REQUIRED.
6. PAVED SURFACES ADJACENT TO CONSTRUCTION ENTRANCES SHALL BE SWEPT AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST AFTER THE END OF EACH WORK DAY AND AS REQUESTED BY THE AUTHORITY HAVING JURISDICTION.
7. THE ADJACENT INLETS THAT WILL COLLECT RUNOFF FROM DISTURBED AREAS SHALL BE PROTECTED TO PREVENT SEDIMENT DEPOSITION. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER. ALL INLETS, STRUCTURES, PIPES, AND SWALES SHALL BE KEPT CLEAN AND FREE OF SEDIMENTATION AND DEBRIS.
8. AT A MINIMUM, SEDIMENT TRAPS AND NECESSARY TEMPORARY DRAINAGE PROVISIONS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE BEGINNING OF SIGNIFICANT MASS GRADING OPERATIONS TO PREVENT OFFSITE DISCHARGE OF UNTREATED RUNOFF.
9. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE OWNER WILL BE RESPONSIBLE IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT.
10. DITCH CHECKS AND APPLICABLE EROSION NETTING/MATTING SHALL BE INSTALLED IMMEDIATELY AFTER COMPLETION OF GRADING EFFORTS WITHIN DITCHES/SWALES TO PREVENT SOIL TRANSPORTATION.
11. EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, SANITARY SEWER, WATER MAIN, ETC.) OUTSIDE OF THE PERIMETER CONTROLS SHALL INCORPORATE THE FOLLOWING:
    - PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
    - BACKFILL, COMPACT, AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
    - DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH THE DEWATERING TECHNICAL STANDARD NO. 1061 PRIOR TO RELEASE INTO THE STORM SEWER, RECEIVING STREAM, OR DRAINAGE DITCH.
12. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER AND DITCH CHECKS SHALL BE IMMEDIATELY FITTED AT ALL INSTALLED CULVERT INLETS TO PREVENT SEDIMENT DEPOSITION WITHIN STORM SEWER SYSTEMS.
13. TOPSOIL STOCKPILE SHALL BE LOCATED GENERALLY AS SHOWN. CONTRACTOR MAY SUBMIT AN ALTERNATE PLAN FOR LOCATION OF TEMPORARY TOPSOIL STOCKPILE TO ENGINEER FOR APPROVAL. INSTALL EROSION CONTROLS ON THE DOWNSTREAM SIDE OF STOCKPILES. IF STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS IS REQUIRED. IF DISTURBANCE OCCURS BETWEEN NOVEMBER 15TH AND MAY 15TH, THE MULCHING SHALL BE PERFORMED BY HYDRO–MULCHING WITH A "TACKIFIER."
14. EROSION CONTROL MEASURES TEMPORARILY REMOVED FOR UNAVOIDABLE CONSTRUCTION ACTIVITIES SHALL BE IN WORKING ORDER PRIOR TO THE COMPLETION OF EACH WORK DAY.
15. PUMPS MAY BE USED AS BYPASS DEVICES. IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS.
16. GRADING EFFORTS SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. EROSION AND SEDIMENT CONTROL MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY OR PERMANENT MEASURES. ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR A PERIOD OF FOURTEEN (14) DAYS REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS.
17. ALL DISTURBED SLOPES EXCEEDING 4:1 YET LESS THAN 3:1, SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S75BN EROSION MATTING (OR APPROVED EQUAL) AND DISTURBED SLOPES EXCEEDING 3:1 YET LESS THAN 2:1 SHALL BE STABILIZED WITH NORTH AMERICAN GREEN C125BN (OR APPROVED EQUAL) OR APPLICATION OF AN APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED WITHIN 7 DAYS OF REACHING FINAL GRADE AND/OR AS SOON AS CONDITIONS ALLOW. DRAINAGE SWALES SHALL BE STABILIZED WITH CLASS II, TYPE B EROSION MATTING. EROSION MATTING AND/OR NETTING USED ONSITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND WDNR TECHNICAL STANDARDS 1052 AND 1053.
18. STABILIZATION PRACTICES:
    - 18.1. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. NO MORE THAN SEVEN (7) DAYS SHALL PASS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS CEASED UNLESS:
    - 18.2. THE INITIATION STABILIZATION MEASURES BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS CEASED IS PRECLUDED BY SNOW COVER. IN THAT EVENT, STABILIZATION SHALL BE INITIATED AS SOON AS PRACTICABLE.
    - 18.3. CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN FOURTEEN (14) DAYS FROM WHEN ACTIVITY CEASED, (I.E. THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN FOURTEEN (14) DAYS. IN THAT EVENT, STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED.
    - 18.4. STABILIZATION MEASURES SHALL BE DETERMINED BASED ON SITE CONDITIONS AT THE TIME OF CONSTRUCTION ACTIVITY HAS CEASED, INCLUDING BUT NOT LIMITED TO WEATHER CONDITIONS AND LENGTH OF TIME MEASURE MUST BE EFFECTIVE. THE FOLLOWING ARE ACCEPTABLE STABILIZATION MEASURES:
        - PERMANENT SEEDING; IN ACCORDANCE WITH APPROVED CONSTRUCTION SPECIFICATION
        - TEMPORARY SEEDING; MAY CONSIST OF SPRING OATS(100LBS/ACRE) AND/OR WHEAT OR CEREAL RYE (150LB/ACRE)
        - HYDRO–MULCHING WITH A TACKIFIER
        - GEOTEXTILE EROSION MATTING
        - SODDING
19. DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL KEEP A WATER TRUCK ON SITE FOR THE PURPOSE OF WATERING DOWN SOILS WHICH MAY OTHERWISE BECOME AIRBORNE. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING WIND EROSION (DUST) DURING CONSTRUCTION AT THEIR EXPENSE. REFER TO WDNR TECHNICAL STANDARD 1068.
20. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE VISUALLY INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM ON A DAILY BASIS.
21. MAINTAIN SOIL EROSION CONTROL DEVICES THROUGH THE DURATION OF THIS PROJECT. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL LAND DISTURBING CONSTRUCTION ACTIVITY AT THE SITE HAS BEEN COMPLETED AND THAT A UNIFORM PERENNIAL VEGETATIVE COVER HAS BEEN ESTABLISHED WITH A DENSITY OF AT LEAST 70% FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES OR THAT EMPLOY EQUIVALENT PERMANENT STABILIZATION MEASURES. DISTURBANCE ASSOCIATED WITH EROSION CONTROL REMOVAL SHALL BE IMMEDIATELY STABILIZED.
22. QUALIFIED PERSONNEL (PROVIDED BY THE GENERAL/PRIME CONTRACTOR) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AND EROSION AND SEDIMENT CONTROLS WITHIN 24 HOURS OF ALL 0.5–INCH, OR MORE, PRECIPITATION EVENTS WITH A MINIMUM INSPECTION INTERVAL OF ONCE EVERY SEVEN (7) CALENDAR DAYS IN THE ABSENCE OF A QUALIFYING RAIN OR SNOWFALL EVENT. REPORTING SHALL BE IN ACCORDANCE WITH PART IV D.4. (a–f). OF THE NPDES GENERAL PERMIT. CONTRACTOR SHALL IMMEDIATELY ARRANGE TO HAVE ANY DEFICIENT ITEMS REVEALED DURING INSPECTIONS REPAIRED/REPLACED.
23. THE FOLLOWING MAINTENANCE PRACTICES SHALL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES, AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN. UPON IDENTIFICATION, DEFICIENCIES IN STORMWATER CONTROLS SHALL BE ADDRESSED IMMEDIATELY. THE MAINTENANCE PROCEDURES FOR THIS DEVELOPMENT SHALL INCLUDE, BUT NOT BE LIMITED TO THOSE LISTED BELOW:
    - SILT FENCE – REPAIR OR REPLACE ANY DAMAGED FILTER FABRIC AND/OR STAKES. REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE–HALF THE ABOVE GROUND HEIGHT OF THE FENCE.
    - CONSTRUCTION ENTRANCE – AS NEEDED, ADD STONE TO MAINTAIN CONSTRUCTION ENTRANCE DIMENSIONS AND EFFECTIVENESS.
    - EROSION CONTROL MATTING – REPAIR MATTING IMMEDIATELY IF INSPECTION REVEALS BREACHED OR FAILED CONDITIONS. REPAIR AND RE–GRADE SOIL WHERE CHANNELIZATION HAS OCCURRED.
    - DIVERSION BERM/SWALE – REPLACE OR RE–COMPACT THE CONSTRUCTION MATERIALS AS NECESSARY.
    - INLET PROTECTION – CLEAN, REPAIR OR REPLACE FILTER FABRIC AND/OR STONE WHEN CONTROL MEASURE IS CLOGGED. INLET FILTER BAGS SHALL BE REPLACED ONCE BAG BECOMES ONE–HALF FULL OF SEDIMENT.

ADDITIONAL POLLUTANT CONTROL MEASURES TO BE IMPLEMENTED DURING CONSTRUCTION ACTIVITIES SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

- CONSTRUCTION WASTE SHALL BE PROPERLY DISPOSED OF. THIS INCLUDES ALL CONSTRUCTION SITE WASTE MATERIAL, SANITARY WASTE, AND WASTE FROM VEHICLE TRACKING OF SEDIMENTS. THE CONTRACTOR SHALL ENSURE THAT NO MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, BURNED, OR DISCHARGED TO THE WATERS OF THE STATE. VEHICLES HAULING MATERIAL AWAY FROM THE SITE SHALL BE COVERED WITH A TARPAULIN TO PREVENT BLOWING DEBRIS.
- DUST CONTROL SHALL BE ACCOMPLISHED BY ONE OR MORE OF THE FOLLOWING METHODS:
- COVERING 30% OR MORE OF THE SOIL SURFACE WITH A NON–ERODIBLE MATERIAL.
- ROUGHENING THE SOIL TO PRODUCE RIDGES PERPENDICULAR TO THE PREVAILING WIND. RIDGES SHALL BE AT LEAST SIX (6) INCHES IN HEIGHT.
- FREQUENT WATERING OF EXCAVATION AND FILL AREAS.
- PROVIDING GRAVEL OR PAVING AT ENTRANCE/EXIT DRIVES, PARKING AREAS AND TRANSIT PATHS.
- STREET SWEEPING SHALL BE PERFORMED TO IMMEDIATELY REMOVE ANY SEDIMENT TRACKED ON PAVEMENTS.

24. CONTRACTOR/OWNER SHALL FILE A NOTICE OF TERMINATION UPON COMPLETION OF THE PROJECT IN ACCORDANCE WITH WDNR REQUIREMENTS AND/OR PROPERTY SALE IN ACCORDANCE WITH WDNR REQUIREMENTS.

LEGEND

PROPERTY LINE	RETAINING WALL
EASEMENT LINE	LIGHT POLE
WETLAND BOUNDARY	ADA PARKING SIGN
BUILDING OUTLINE	RIP–RAP
PAVEMENT SETBACK LINE	CONSTRUCTION ENTRANCE
EDGE OF PAVEMENT	EROSION MATTING (SEE NOTE 17)
STANDARD CURB AND GUTTER	XXX.XX SPOT ELEVATION
REJECT CURB AND GUTTER	DITCH CHECK
959 PROPOSED 1 FOOT CONTOUR	INLET PROTECTION
960 PROPOSED 5 FOOT CONTOUR	
959 EXISTING 1 FOOT CONTOUR	
960 EXISTING 5 FOOT CONTOUR	
SF SILT FENCE	

north

SCALE IN FEET

20' 0 20'

DIGGERS HOTLINE
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P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1		
2		
3		
4		
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15		

Design/Drawn:	CAP
Approved:	DSR
Date:	11/06/2019

SHEET TITLE:
EROSION CONTROL PLAN

SHEET NUMBER:
C4.0

JSD PROJECT NO: 19-9231

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File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWGS\Civil Sheets\19-9231 C4 - Erosion Control Plan.dwg Layout: 4.0 Grading Plan User: cpeterson Plotted: Nov 06, 2019 - 9:09am XrefTc

UTILITY NOTES

1. ALL EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATIONS OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR/OWNER SHALL CALL "DIGGER'S HOTLINE" PRIOR TO ANY CONSTRUCTION.

2. PRIOR TO CONSTRUCTION, THE PRIME CONTRACTOR IS RESPONSIBLE FOR:
   - EXAMINING ALL SITE CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
   - OBTAINING ALL PERMITS INCLUDING PERMIT COSTS, TAP FEES, METER DEPOSITS, BONDS, AND ALL OTHER FEES REQUIRED FOR PROPOSED WORK TO OBTAIN OCCUPANCY.
   - VERIFYING ALL ELEVATIONS, LOCATIONS AND SIZES OF SANITARY, WATER AND STORM LATERALS AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS. NOTIFY ENGINEER OF ANY DISCREPANCY. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS RESOLVED.
   - NOTIFYING ALL UTILITIES PRIOR TO INSTALLATION OF ANY UNDERGROUND IMPROVEMENTS.
   - NOTIFYING THE DESIGN ENGINEER AND MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION OBSERVATION.
   - COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.

3. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN HEREIN REFERRED TO AS THE "STANDARD SPECIFICATIONS" AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.

4. SPECIFICATIONS SHALL COMPLY WITH THE VILLAGE OF MUKWONAGO SPECIFICATIONS AND WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES DSPS 382.

5. TRACER WIRES SHALL BE INSTALLED AS NECESSARY IN ACCORD WITH 182.0715(2R) OF THE STATE STATUTES AND THE VILLAGE OF MUKWONAGO REQUIREMENTS.

6. LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS ARE SHOWN FOR CONTRACTOR CONVENIENCE ONLY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPUTATIONS OF MATERIALS REQUIRED TO COMPLETE WORK. LENGTHS SHALL BE FIELD VERIFIED DURING CONSTRUCTION.

7. CONTRACTOR SHALL FIELD VERIFY LOCATIONS, ELEVATIONS, AND SIZES OF PROPOSED UTILITIES AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS PRIOR TO ATTEMPTING CONNECTIONS AND BEGINNING UTILITY CONSTRUCTION.

8. CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONSTRUCTION OF IMPROVEMENTS.

9. CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT ALL UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH THE FINISHED GRADES OF THE AREAS EFFECTED BY THE CONSTRUCTION.

10. THE PRIME CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.

11. ANY SANITARY SEWER, SANITARY SEWER SERVICES, WATER MAIN, WATER SERVICES, STORM SEWER, OR OTHER UTILITIES, WHICH ARE TO REMAIN, THAT ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.

12. SANITARY AND WATER SERVICES TO BE INTERNALLY FED FROM EXISTING BUILDING. SEE ARCHITECTURAL PLANS FOR DETAILS.

13. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING UTILITY AS-BUILT PLANS. DRAWINGS PREPARED TO MUNICIPALITY STANDARDS ARE REQUIRED PRIOR TO OCCUPANCY PERMIT ISSUANCE. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING AND REPORTING ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS TO THE ENGINEER AS WORK PROGRESSES.

14. SEE TABLE FOR STORM SEWER STRUCTURE INFORMATION.

15. STORM SEWER SPECIFICATIONS –

    PIPE – ALL STORM SEWER USED ON THIS PROJECT SHALL BE HIGH DENSITY POLYETHYLENE UNLESS OTHERWISE NOTED.

    HIGH DENSITY POLYETHYLENE SMOOTH-WALLED INTERIOR CORRUGATED PIPE SHALL BE AS MANUFACTURED BY ADS OR EQUAL, WITH WATER TIGHT JOINTS, MANNING "N" VALUE OF 0.010 AND SHALL MEET THE REQUIREMENTS OF AASHTO DESIGNATION M-294 TYPE S. MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D3350, D2412, AND D2321 WITH ELASTOMERIC GASKETS CONFORMING TO ASTM F477.

    INLETS AND FRAMES

    INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES SPS 382.36(9)a.3.

    FRAMES AND GRATES SHALL BE GRAY IRON MATERIAL (PER ASTM A-48) OF STYLES / NEENAH CATALOG NUMBERS AS INDICATED ON THESE CONSTRUCTION DRAWINGS.

    MANHOLES AND FRAMES

    MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF SPS 382.35(8)a.b.

    FRAMES AND LIDS SHALL BE GRAY IRON MATERIAL (PER ASTM A-48) OF STYLES/NEENAH CATALOG NUMBERS AS INDICATED ON THESE CONSTRUCTION DRAWINGS. INTERNAL CHIMNEY SEALS SHALL BE ORETEX SPECIALTY PRODUCTS, OR EQUAL.

    CLEANOUTS – CLEANOUTS SHALL BE EQUIPPED WITH FROST SLEEVES IN ACCORDANCE WITH SPS 382.35(5)(A)2. (REFER TO DETAIL)

    BACKFILL AND BEDDING – STORM SEWER SHALL BE CONSTRUCTED WITH GRAVEL BACKFILL AND CLASS "B" BEDDING IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".

    ROOF LEADER/STORM DRAIN LINES – ALL ROOF LEADERS/STORM DRAIN LINES ENCOUNTERED WHICH ARE NOT SHOWN ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF JSD PRIOR TO ABANDONMENT, REMOVAL, OR CONNECTION TO THE PROPOSED STORM SEWER SYSTEM.

16. WATER MAIN SPECIFICATIONS –

    PIPE – ALL WATERMAIN PIPE USED ON THIS PROJECT SHALL BE POLYVINYL CHLORIDE UNLESS OTHERWISE NOTED.

    POLYVINYL CHLORIDE (PVC) PIPE SHALL MEET THE REQUIREMENTS OF AWWA STANDARD C-900, CLASS 150, DR-18, WITH CAST IRON O.D. AND INTEGRAL ELASTOMERIC BELL AND SPIGOT JOINTS. NON-METALLIC WATER MAINS SHALL BE INSTALLED WITH BLUE INSULATION TRACER WIRE AND CONFORM WITH SPS 382.30(11)(h).

    VALVES AND VALVE BOXES – GATE VALVES SHALL BE AWWA GATE VALVES MEETING THE REQUIREMENTS OF AWWA C-500 AND CHAPTER 8.27.0 OF THE "STANDARD SPECIFICATIONS". GATE VALVES AND VALVE BOXES SHALL CONFORM TO LOCAL PLUMBING ORDINANCES.

    HYDRANTS – HYDRANTS SHALL CONFORM TO THE SPECIFICATIONS OF THE VILLAGE OF MUKWONAGO. THE DISTANCE FROM THE GROUND LINE TO THE CENTERLINE OF THE LOWEST NOZZLE AND THE LOWEST CONNECTION OF THE FIRE DEPARTMENT SHALL BE NO LESS THAN 18-INCHES AND NO GREATER THAN 23-INCHES (SEE DETAIL).

    THRUST BLOCKS SHOULD BE USED WHEREVER NECESSARY TO PREVENT SEPARATION OF JOINTS AND PIPE MOVEMENT. JOINT RESTRAINTS MAY ALSO BE USED AS APPLICABLE.

    10-GAUGE TRACER WIRE SHALL BE INSTALLED ALONG THE ENTIRE LENGTH OF ALL PRIVATE WATER MAINS. HYDRANT LEADS, FIRE DEPARTMENT CONNECTION LEADS AND LATERALS. THE TRACER WIRE SHALL BE EXTENDED TO THE SURFACE AT THE BUILDING WALL AND ALL OTHER SYSTEM LIMITS AND ENCLOSED IN RISER BOX WITH "WATER" ON THE COVER.

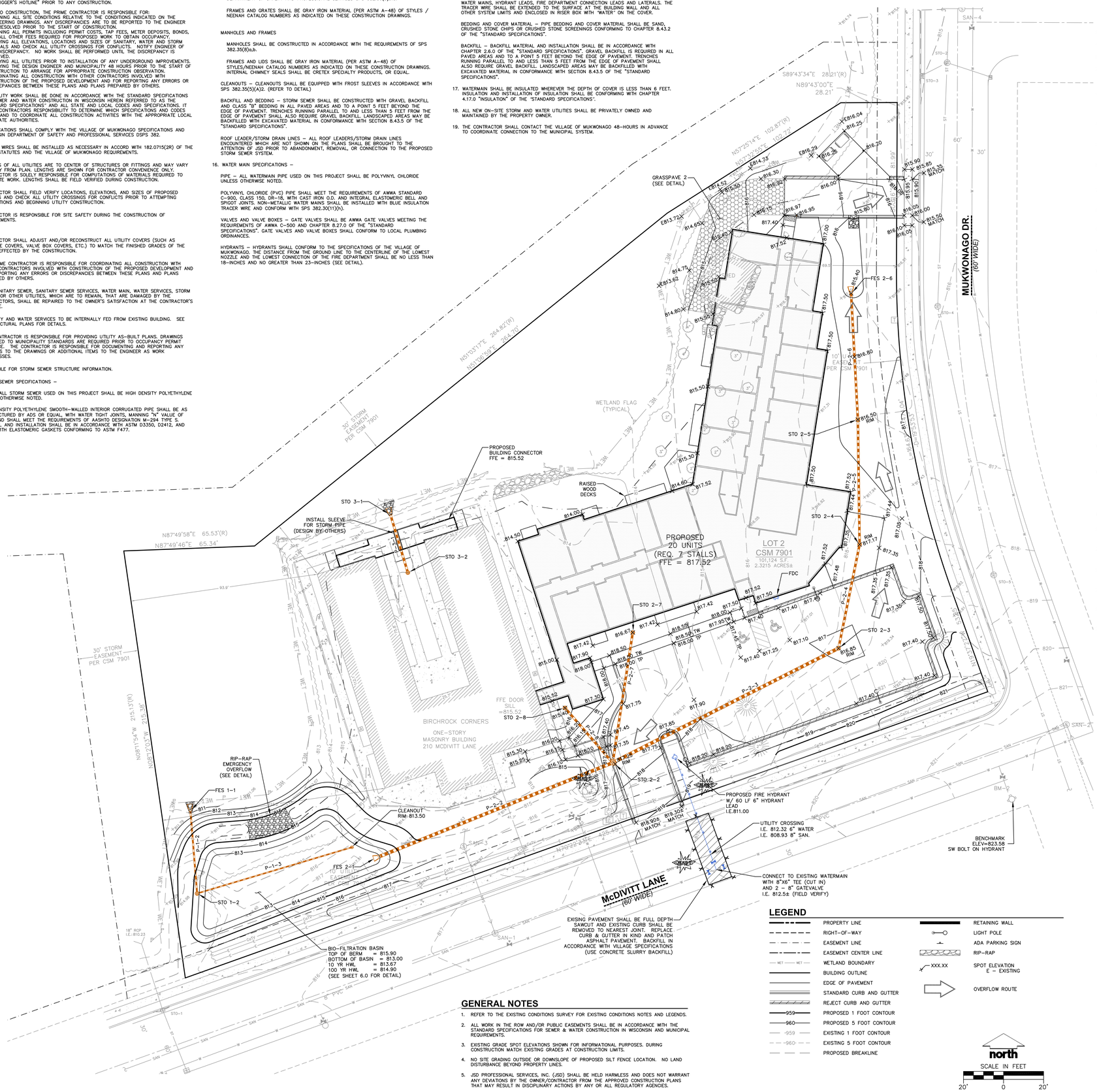
    BEDDING AND COVER MATERIAL – PIPE BEDDING AND COVER MATERIAL SHALL BE SAND, CRUSHED STONE CHIPS OR CRUSHED STONE SCREENINGS CONFORMING TO CHAPTER 8.43.2 OF THE "STANDARD SPECIFICATIONS".

    BACKFILL – BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS". GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".

17. WATERMAIN SHALL BE INSULATED WHEREVER THE DEPTH OF COVER IS LESS THAN 6 FEET. INSULATION AND INSTALLATION OF INSULATION SHALL BE CONFORMING WITH CHAPTER 4.17.0 "INSULATION" OF THE "STANDARD SPECIFICATIONS".

18. ALL NEW ON-SITE STORM AND WATER UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER.

19. THE CONTRACTOR SHALL CONTACT THE VILLAGE OF MUKWONAGO 48-HOURS IN ADVANCE TO COORDINATE CONNECTION TO THE MUNICIPAL SYSTEM.



LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY
- EASEMENT LINE
- EASEMENT CENTER LINE
- WETLAND BOUNDARY
- BUILDING OUTLINE
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- 959 PROPOSED 1 FOOT CONTOUR
- 960 PROPOSED 5 FOOT CONTOUR
- 959 EXISTING 1 FOOT CONTOUR
- 960 EXISTING 5 FOOT CONTOUR
- PROPOSED BREAKLINE
- RETAINING WALL
- LIGHT POLE
- ADA PARKING SIGN
- RIP-RAP
- XXX.XX SPOT ELEVATION (E - EXISTING)
- OVERFLOW ROUTE

GENERAL NOTES

1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGENDS.
2. ALL WORK IN THE ROW AND/OR PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN AND MUNICIPAL REQUIREMENTS.
3. EXISTING GRADE SPOT ELEVATIONS SHOWN FOR INFORMATIONAL PURPOSES. DURING CONSTRUCTION MATCH EXISTING GRADES AT CONSTRUCTION LIMITS.
4. NO SITE GRADING OUTSIDE OR DOWNSLOPE OF PROPOSED SILT FENCE LOCATION. NO LAND DISTURBANCE BEYOND PROPERTY LINES.
5. JSD PROFESSIONAL SERVICES, INC. (JSD) SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.

north
SCALE IN FEET
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GRADING AND SEEDING NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY THE FOLLOWING:
   A. ELEVATIONS OF THE BENCHMARKS PRIOR TO COMMENCING WORK.
   B. LOCATION AND ELEVATION OF:
      1. EXISTING PIPE INVERTS
2. FLOOR ELEVATIONS
      3. CURB OR PAVEMENT WHERE MATCHING INTO EXISTING WORK
4. HORIZONTAL CONTROL BY REFERENCING SHOWN COORDINATES TO KNOWN PROPERTY LINES.

NOTIFY ENGINEER OF DISCREPANCIES IN EITHER VERTICAL OR HORIZONTAL CONTROL PRIOR TO PROCEEDING WITH WORK.

2. ALL PROPOSED GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR SHALL VERIFY ALL GRADES, MAKE SURE ALL AREAS DRAIN PROPERLY AND SHALL REPORT ANY DISCREPANCIES TO THE JSD PROFESSIONAL SERVICES, INC. (JSD) PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
3. CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR COMPUTATIONS OF ALL GRADING QUANTITIES. WHILE JSD ATTEMPTS TO PROVIDE A COST- EFFECTIVE APPROACH TO BALANCE EARTHWORK, GRADING DESIGN IS BASED ON MANY FACTORS, INCLUDING SAFETY, AESTHETICS, AND COMMON ENGINEERING STANDARDS OF CARE. THEREFORE, NO GUARANTEE CAN BE MADE FOR A BALANCED SITE.
4. THE CONTRACTOR MAY SOLICIT APPROVAL FROM JSD/OWNER TO ADJUST FINAL GRADES FROM DESIGN GRADES TO PROVIDE AN OVERALL SITE BALANCE AS A RESULT OF FIELD CONDITIONS.
5. ALL UNSURFACED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL AND BE SEEDED, MULCHED AND WATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
6. THIS GRADING PLAN IS BASED ON A TOPOGRAPHIC SURVEY. SOME FIELD ADJUSTMENTS MAY BE NECESSARY AT POINTS WHERE PROPOSED GRADES MEET EXISTING. REVIEW ANY REQUIRED CHANGES WITH JSD PRIOR TO CONSTRUCTION OF WORK.
7. PROPERTY CORNER MARKERS SHALL BE CAREFULLY PROTECTED. MONUMENTS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
8. PROPOSED CONTOURS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. ALL CONSTRUCTION SHALL BE BASED UPON PROPOSED SPOT ELEVATIONS WHERE PROVIDED.
9. PARKING LOT AND DRIVEWAY ELEVATIONS ARE PAVEMENT GRADES LOCATED ALONG THE FLANGE LINE, NOT TOP OF CURB GRADES, UNLESS OTHERWISE NOTED.
10. ALL EXCAVATIONS AND MATERIAL PLACEMENT SHALL BE COMPLETED TO DESIGN ELEVATIONS AS DEPICTED IN THE PLANS.
11. GRADING ACTIVITIES SHALL BE IN A MANNER TO ALLOW POSITIVE DRAINAGE ACROSS DISTURBED SOILS, WHICH MAY INCLUDE EXCAVATION OF TEMPORARY DITCHES TO PREVENT PONDING, AND IF NECESSARY, PUMPING TO ALLEVIATE PONDING. CONTRACTOR SHALL PREVENT SURFACE WATER FROM ENTERING INTO EXCAVATIONS. IN NO WAY SHALL OWNER BE RESPONSIBLE FOR REMEDIATION OF UNSUITABLE SOILS CREATED/ORIGINATED AS A RESULT OF IMPROPER SITE GRADING OR SEQUENONG. CONTRACTOR SHALL SEQUENCE GRADING ACTIVITIES TO LIMIT EXPOSURE OF DISTURBED SOILS DUE TO WEATHER.
12. THE CONTRACTOR IS RESPONSIBLE FOR MEETING MINIMUM COMPACTION STANDARDS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. CONTRACTORS SHALL REFER TO THE GEOTECHNICAL ENGINEERING REPORT FOR SITE COMPACTION REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY ENGINEER/OWNER IF PROPER COMPACTION CANNOT BE OBTAINED. THE PROJECT'S GEOTECHNICAL CONSULTANT SHALL DETERMINE WHICH IN-SITU SOILS ARE TO BE CONSIDERED UNSUITABLE SOILS. THE ENGINEER/OWNER AND GEOTECHNICAL TESTING CONSULTANT WILL DETERMINE IF REMEDIAL MEASURES WILL BE NECESSARY.
13. IN THE EVENT THAT ANY MOISTURE-DENSITY TEST(S) FAIL TO MEET SPECIFICATION REQUIREMENTS, THE CONTRACTOR SHALL PERFORM CORRECTIVE WORK AS NECESSARY TO BRING THE MATERIAL INTO COMPLIANCE AND RETEST THE FAILED AREA AT NO COST TO THE OWNER.
14. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY JSD/OWNER IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION.
15. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ADEQUATE AND SAFE TEMPORARY SHORING, BRACING, RETENTION STRUCTURES, AND EXCAVATIONS.
16. THE SITE SHALL BE COMPLETED TO WITHIN 0.10-FT (+/-) OF THE PROPOSED GRADES AS INDICATED WITHIN THE PLANS PRIOR TO PLACEMENT OF TOPSOIL OR STONE. CONTRACTOR IS ENCOURAGED TO SEQUENCE CONSTRUCTION SUCH THAT THE SITE IS DIVIDED INTO SMALLER AREAS TO ALLOW STABILIZATION OF DISTURBED SOILS IMMEDIATELY UPON COMPLETION OF INDIVIDUAL SMALLER AREAS.
17. CONTRACTOR SHALL CONTACT "DIGGER'S HOTLINE" FOR LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR PROTECTING SAID UTILITIES FROM ANY DAMAGE DURING CONSTRUCTION.
18. WORK WITHIN ANY ROADWAY RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE AUTHORITY HAVING JURISDICTION PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FEES. GRADING WITHIN RIGHT-OF-WAY IS SUBJECT TO APPROVAL BY SAID AUTHORITY. RESTORATION OF RIGHT-OF-WAY IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF GRADING. RESTORATION SHALL INCLUDE ALL ITEMS NECESSARY TO RESTORE RIGHT-OF-WAY IN-KIND INCLUDING LANDSCAPING.
19. CONTRACTOR SHALL COMPLY WITH ALL CITY AND/OR STATE CONSTRUCTION STANDARDS/ORDINANCES.
20. CONTRACTOR SHALL PROVIDE NOTICE TO THE MUNICIPAUITY IN ADVANCE OF ANY SOIL DISTURBING ACTIVITIES, IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS.
21. ALL DISTURBED AREAS SHALL BE SODDED AND/OR SEEDED AND MULCHED IMMEDIATELY FOLLOWING GRADING ACTIVITIES. SOD/SEED MIX TO BE IN ACCORDANCE WITH LANDSCAPE PLAN.
22. CONTRACTOR SHALL WATER ALL NEWLY SODDED/SEEDED AREAS DURING THE SUMMER MONTHS WHENEVER THERE IS A 7 DAY LAPSE WITH NO SIGNIFICANT RAINFALL.
23. CONTRACTOR TO DEEP TILL ALL COMPACTED PERVIOUS SURFACES PRIOR TO SODDING AND/OR SEEDING AND MULCHING.
24. ALL SLOPES 20% OR GREATER SHALL BE TEMPORARY SEEDED, MULCHED, OR OTHER MEANS OF COVER PLACED ON THEM WITHIN 2 WEEKS OF DISTURBANCE.
25. ALL EXPOSED SOIL AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 30 DAYS AND REQUIRE VEGETATIVE COVER FOR LESS THAN 1 YEAR, REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1059 AND VILLAGE OF MUKWONAGO ORDINANCES.

PROPOSED STRUCTURES TABLE

LABEL	RIM EL. (FT)	INVERT EL. (FT)	DEPTH (FT)	STRUCTURE DESC.	FRAME & GRATE
FES 1-1		S INV: 810.83 (8")		8 IN HDPE FES	
FES 2-1		E INV: 813.00 (18")		18 IN HDPE FES	
FES 2-6		S INV: 815.40 (12")		12 IN HDPE FES	
STO 1-2	814.50	N INV: 811.50 (8") E INV: 811.50 (6")	3.0	36 IN MH (FLAT)	R-2370 TYPE G
STO 2-2	817.25	W INV: 813.25 (18") NE INV: 813.25 (18") NW INV: 813.25 (12") N INV: 813.25 (12")	4.0	72 IN MH (FLAT)	R-1550 SOLID LID
STO 2-3	816.85	SW INV: 813.50 (18") N INV: 813.50 (12")	3.4	48 IN MH (FLAT)	R-2501 TYPE D
STO 2-4	817.17	S INV: 813.71 (12") N INV: 813.71 (12")	3.5	12 IN DB	12 IN FLAT GRATE
STO 2-5	816.50	S INV: 813.83 (12") N INV: 813.83 (12")	2.7	12 IN DB	12 IN DOME GRATE
STO 2-7	816.67	S INV: 813.38 (12")	3.3	12 IN DB	12 IN DOME GRATE
STO 2-8	815.40	SE INV: 813.32 (12")	2.1	12 IN DB	12 IN DOME GRATE
STO 3-1		S INV: 812.50 (12")		12 IN HDPE FES	
STO 3-2	815.00	N INV: 812.65 (12")	1.9	12 IN DB	12 IN DOME GRATE

PROPOSED PIPES TABLE

LABEL	FROM	TO	LENGTH	INVERT EL. (FT)	DISCHARGE EL. (FT)	SLOPE	SIZE & MATERIAL
P-1-2	STO 1-2	FES 1-1	41'	811.50	810.83	1.62%	8 IN HDPE
P-1-3		STO 1-2	81'	811.90	811.50	0.50%	6 IN HDPE
P-2-2	STO 2-2	FES 2-1	125'	813.25	813.00	0.20%	18 IN HDPE (HP)
P-2-3	STO 2-3	STO 2-2	126'	813.50	813.25	0.20%	18 IN HDPE (HP)
P-2-4	STO 2-4	STO 2-3	53'	813.71	813.50	0.40%	12 IN HDPE (HP)
P-2-5	STO 2-5	STO 2-4	62'	813.83	813.71	0.20%	12 IN HDPE (HP)
P-2-6	FES 2-6	STO 2-5	63'	815.40	813.83	2.49%	12 IN HDPE
P-2-7	STO 2-7	STO 2-2	66'	813.38	813.25	0.20%	12 IN HDPE
P-2-8	STO 2-8	STO 2-2	36'	813.32	813.25	0.20%	12 IN HDPE
P-3-1	STO 3-1	STO 3-2	30'	812.50	812.65	0.50%	12 IN HDPE (HP)

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MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1		
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Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

SHEET TITLE:
GRADING AND UTILITY PLAN

SHEET NUMBER:
C5.0

JSD PROJECT NO: 19-9231

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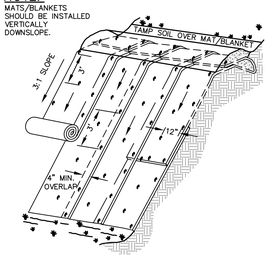
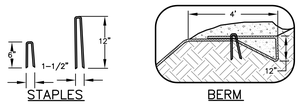
File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\ProjCivil Sheets\19-9231 C5 - Grading and Utility Plan.dwg Layout: 5.0 Grading Plan User: cpeterson Plotted: Nov 06, 2019 - 8:16am XrefFs:

NOTE:
MATS/BLANKETS SHOULD BE INSTALLED VERTICALLY DOWNSLOPE.



ISOMETRIC VIEW

TYPICAL SLOPE SOIL STABILIZATION



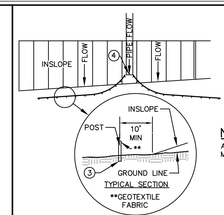
STAPLES

BERM

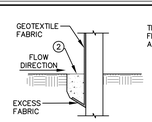
GENERAL NOTES:

1. EROSION MAT CONSTRUCTION SHALL BE IN ACCORDANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1052 "NON-CHANNEL EROSION MAT".
2. ONLY WisDOT EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) APPROVED MATS SHALL BE ALLOWED. REFER TO EROSION CONTROL PLAN FOR EXACT MAT CLASSIFICATION.
3. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
4. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
5. ONLY WisDOT EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) APPROVED MATS SHALL BE ALLOWED. REFER TO EROSION CONTROL PLAN FOR EXACT MAT CLASSIFICATION.

EROSION MATTING

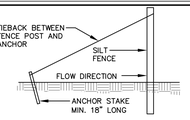


SILT FENCE ALONG SLOPES & OUTFALLS



NOTE:
ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS.

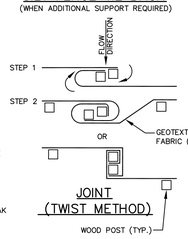
TRENCH DETAIL



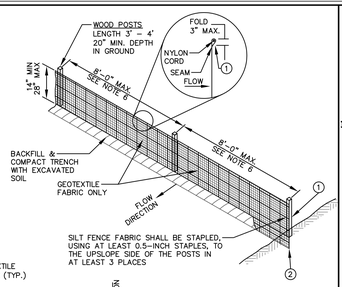
SILT FENCE TIE BACK
(WHEN ADDITIONAL SUPPORT REQUIRED)

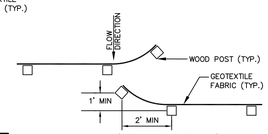
GENERAL NOTES:

1. SILT FENCE SHALL BE ANCHORED BY SPREADING AT LEAST 8-INCHES OF FABRIC IN A 4-INCH WIDE AND 6-INCH DEEP TRENCH OR 6-INCH DEEP V-TRENCH ON THE UPSLOPE SIDE OF THE FENCE. TRENCHES SHALL NOT BE EXCAVATED WIDER OR DEEPER THAN NECESSARY FOR PROPER INSTALLATION.
2. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1.125-INCHES x 1.125-INCHES OF DRIED OAK OR HICKORY.
4. SILT FENCE TO EXTEND ABOVE THE TOP OF PIPE.
5. SILT FENCE CONSTRUCTION AND GEOTEXTILE FABRIC SHALL CONFORM TO WDNR TECHNICAL STANDARD 1056.
6. POST SPACING SHALL BE SELECTED BASED ON GEOTEXTILE FABRIC (8-FEET FOR WOVEN & 3-FEET FOR NON-WOVEN)



JOINT (TWIST METHOD)

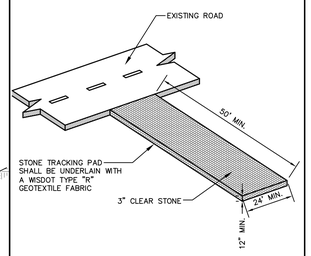




JOINT (HOOK METHOD)

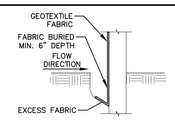
SILT FENCE
N.T.S.

REV. 7-30-2018



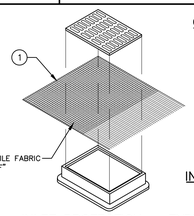
NOTE:
CONTRACTOR TO VERIFY LOCATION WITH OWNER.

CONSTRUCTION ENTRANCE
N.T.S.

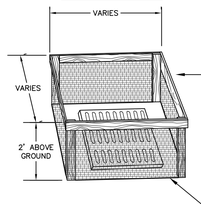


NOTE: 2" MINIMUM POST DEPTH. ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

TRENCH DETAIL



INLET PROTECTION – TYPE "B" WITHOUT CURB BOX



INLET PROTECTION – TYPE "A"

REV. 11-19-2018

GENERAL NOTES:

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

1. FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER OF FACILITATE MAINTENANCE OR REMOVAL.
2. FOR INLET PROTECTION, TYPE "C" (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
3. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT A WOOD 2X4

INSTALLATION NOTES:

TYPE "B" & "C"

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHODS TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

INSTALLATION NOTES:

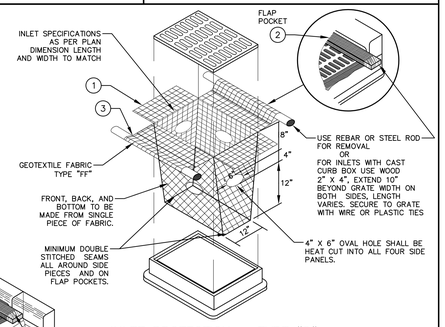
TYPE "D"

DO NOT INSTALL INLET PROTECTION TYPE "D" IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

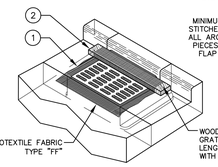
TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3 INCHES. WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCHES CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4 INCHES FROM THE BOTTOM OF THE BAG.

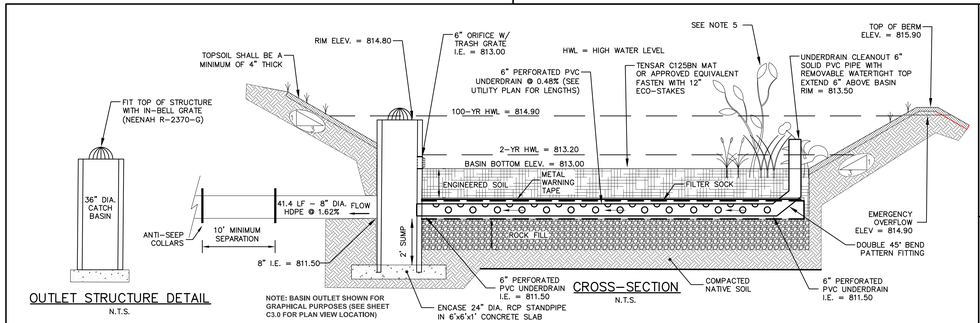
INLET PROTECTION
N.T.S.



INLET PROTECTION – TYPE "D"



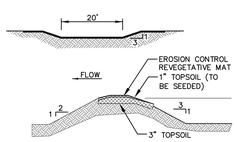
INLET PROTECTION – TYPE "C" WITH CURB BOX



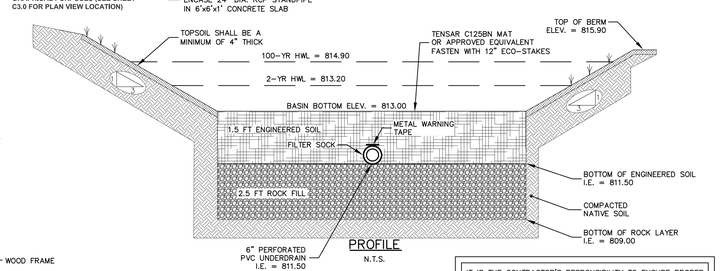
OUTLET STRUCTURE DETAIL
N.T.S.

NOTE: BASIN OUTLET SHOWN FOR GRAPHICAL PURPOSES (SEE SHEET C3.0 FOR PLAN VIEW LOCATION)

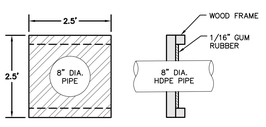
CROSS-SECTION
N.T.S.



BIORETENTION BASIN EMERGENCY OVERFLOW WEIR DETAIL
N.T.S.



PROFILE
N.T.S.



SECTION PROFILE

NOTE: ANTI-SEEP COLLAR TO BE AGRI DRAIN ASC05 OR EQUAL

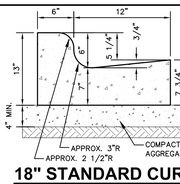
GUM RUBBER ANTI-SEEP COLLAR
N.T.S.

GENERAL NOTES

1. ALL CONSTRUCTION SHALL MEET THE SPECIFICATIONS OF WDNR "BIORETENTION FOR INFILTRATION" TECHNICAL STANDARD 1004.
2. ENGINEERED SOIL SHALL BE A 70% SAND AND 30% COMPOST MIXTURE.
3. RUNOFF MUST INFILTRATE WITHIN 24-HOURS. IF THE BASIN IS UNABLE TO MAINTAIN THESE RATES, IT MUST BE DEEP TILLED, REGRADED, AND IF NECESSARY REPLANTED BY OWNER TO RESTORE ORIGINAL INFILTRATION RATES.
4. ALL WORK TO BE CONDUCTED IN CONFORMANCE WITH THE STORMWATER MANAGEMENT PLAN FOR THE PROJECT SITE AS APPROVED BY THE REGULATORY ENGINEER OF RECORD.
5. SEE LANDSCAPING PLANS FOR PLANTING SCHEDULE AND CONFIGURATION.

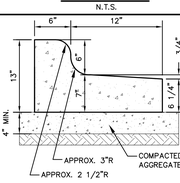
IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER CONSTRUCTION PRACTICES HAVE BEEN UTILIZED AND THAT STORMWATER MANAGEMENT FEATURES HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH APPROVED DESIGN PLANS. JSD, INC. SHALL NOT BE LIABLE FOR ANY CONSTRUCTION PRACTICES OR INSTALLATION WHICH DEVIATES FROM THE APPROVED PLAN SET. ONCE THE OWNER HAS PROVIDED FINAL APPROVAL TO THE WORK PERFORMED BY THE CONTRACTOR AND ENSURED COMPLIANCE WITH THE PLAN, IT IS THE OWNER'S RESPONSIBILITY TO MAINTAIN STORMWATER MANAGEMENT FEATURES IN ACCORDANCE WITH THE RECORDED MAINTENANCE AGREEMENT. PROPER OPERATION IS DEPENDENT ON A MULTITUDE OF VARIABLES INCLUDING WEATHER. THESE COMPONENTS REQUIRE ONGOING MAINTENANCE FOR WHICH THE OWNER IS RESPONSIBLE. JSD TAKES NO RESPONSIBILITY FOR PROPER OPERATION OF THE WATER QUALITY COMPONENTS.

STORMWATER BIO BASIN DETAIL
N.T.S.



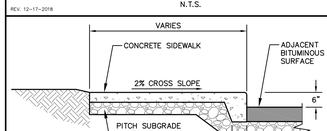
18" STANDARD CURB & GUTTER
N.T.S.

REV. 12-17-2018



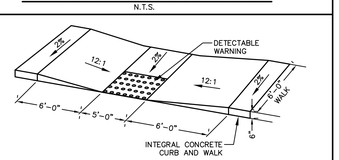
18" REJECT CURB & GUTTER
N.T.S.

REV. 12-17-2018



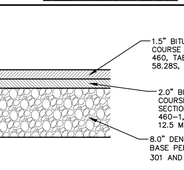
NOTE:
REFER TO SITE PLAN FOR CONSTRUCTION AND CONTROL JOINT LOCATIONS

THICKENED EDGE SIDEWALK
N.T.S.

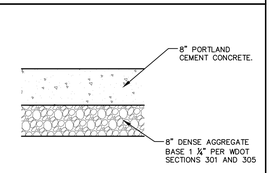


ADA ACCESSIBLE RAMP
N.T.S.

REV. 11-20-2018



STANDARD ASPHALT PAVEMENT SECTION

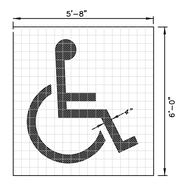


CONCRETE PAVEMENT SECTION

GENERAL NOTES:

1. REFER TO PAVEMENT RECOMMENDATIONS IN THE GEOTECHNICAL INVESTIGATION REPORT. IF THERE ARE ANY DISCREPANCIES BETWEEN THIS DETAIL AND THE PAVEMENT RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL INVESTIGATION REPORT, THE GEOTECHNICAL REPORT SHALL GOVERN.
2. WSDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, INCLUDING SUPPLEMENTAL SPECIFICATIONS, COMPACTION REQUIREMENTS:
   - BITUMINOUS CONCRETE: REFER TO SECTION 460-3.
   - BASE COURSE: REFER TO SECTION 301.3.4.2, STANDARD COMPACTION.
3. CONCRETE EQUIPMENT PADS SHALL HAVE A MINIMUM 6" THICK PORTLAND CEMENTER CONCRETE OVER COMPACTED 6" THICK DENSE GRADED BASE WITH REINFORCEMENT FOR CRACK CONTROL.

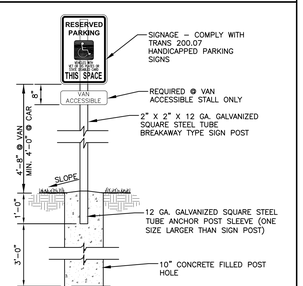
PAVEMENT SECTIONS
N.T.S.



NOTE:
SYMBOL DETAILS ARE SHOWN FOR INTENT ONLY. CONTRACTOR SHALL VERIFY EXACT REQUIREMENTS PRIOR TO CONSTRUCTION.

PAINTED SYMBOL
N.T.S.

REV. 11-26-2018



NOTE:
OPTION: DRIVEN POST MAY BE UTILIZED IN LIEU OF CONCRETE BASE. PROVIDE MIN. 3'-0" LONG ANCHOR POST SLEEVE.

ADA SIGN
N.T.S.

REV. 11-26-2018

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WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:

Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
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Design/Drawn:	CAP
Approved:	DSR
Date:	11/06/2019

SHEET TITLE:
DETAILS

SHEET NUMBER:
C6.0

JSD PROJECT NO: 19-9231

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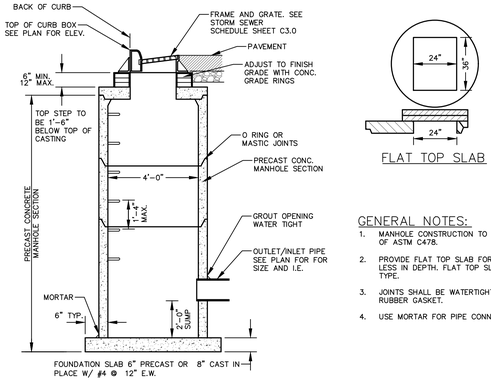
File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Civil Sheets\19-9231 C6 - Details.dwg Layout: C6.0 Details User: cpeterson Plotted: Nov 06, 2019 - 9:14am XrefPath:



FLAT TOP SLAB

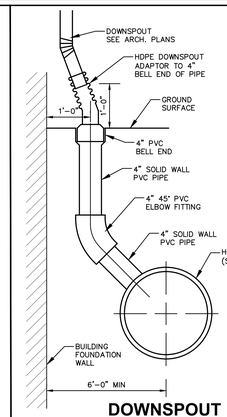
GENERAL NOTES:

1. MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
2. PROVIDE FLAT TOP SLAB FOR MANHOLES 5' OR LESS IN DEPTH. FLAT TOP SLABS TO BE IN-BELL TYPE.
3. JOINTS SHALL BE WATERTIGHT. USE BUTYL RUBBER GASKET.
4. USE MORTAR FOR PIPE CONNECTIONS.

4' CATCH BASIN (CURB INLET)

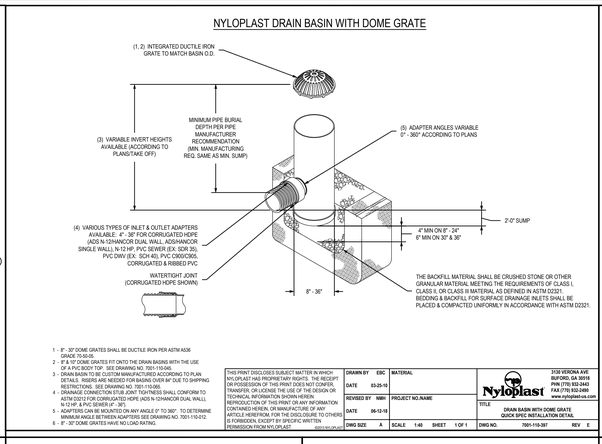
N.T.S.

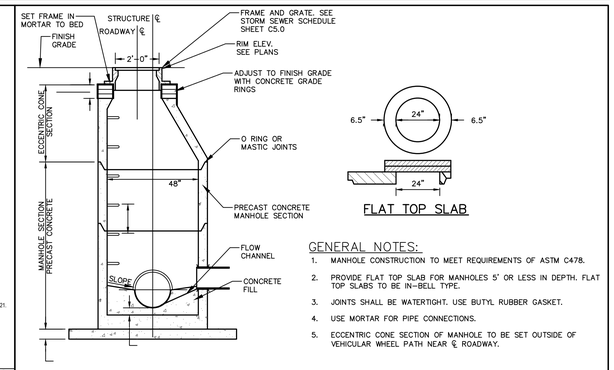
REV. 12-7-2018



DOWNSPOUT

N.T.S.





FLAT TOP SLAB

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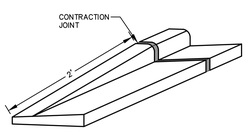
2. PROVIDE FLAT TOP SLAB FOR MANHOLES 5' OR LESS IN DEPTH. FLAT TOP SLABS TO BE IN-BELL TYPE.
3. JOINTS SHALL BE WATERTIGHT. USE BUTYL RUBBER GASKET.
4. USE MORTAR FOR PIPE CONNECTIONS.
5. ECCENTRIC CONE SECTION OF MANHOLE TO BE SET OUTSIDE OF VEHICULAR WHEEL PATH NEAR ℄ ROADWAY.

STORM MANHOLE

N.T.S.

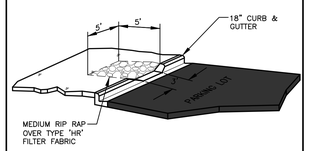
REV. 12-07-2018



TAPER CURB HEAD

N.T.S.

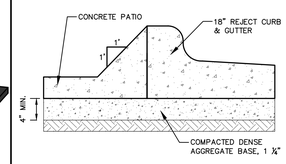
REV. 5-19-2017



CURB WEIR

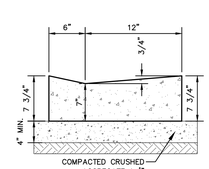
N.T.S.

REV. 5-19-2017



THICKENED EDGE PATIO & CURB

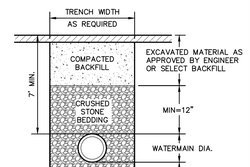
N.T.S.



18" VALLEY CURB & GUTTER

N.T.S.

REV. 11-19-2018



WATERMAIN BEDDING

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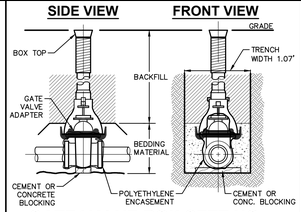
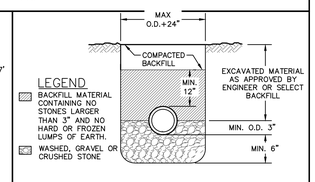
REV. 12-05-2018



GATE VALVE BOX SETTING

N.T.S.



STORM & SANITARY SEWER BEDDING

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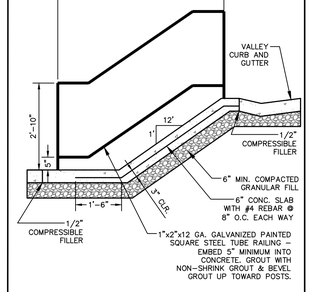
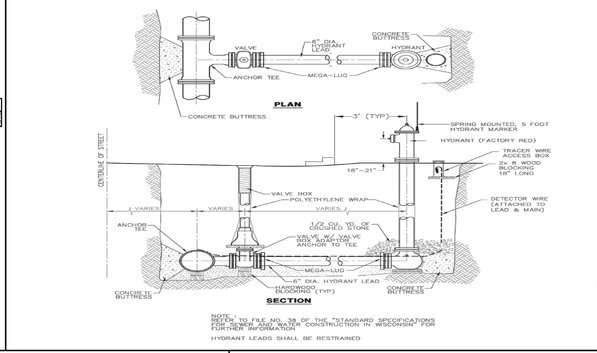
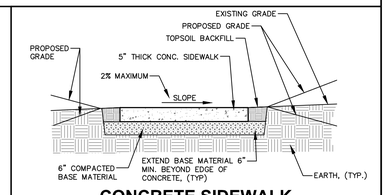


5' CONCRETE SIDEWALK W/ HANDRAIL

N.T.S.





CONCRETE SIDEWALK

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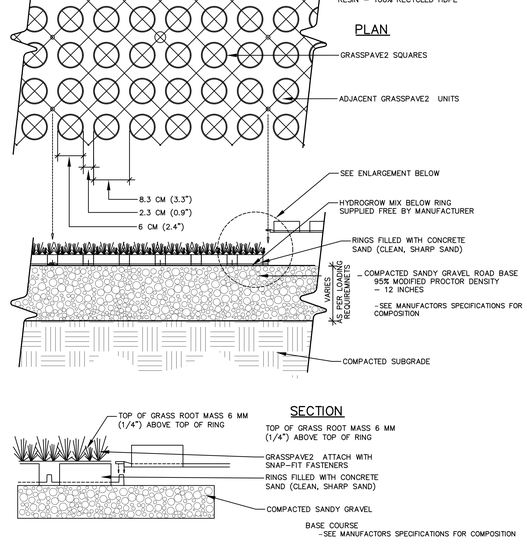

SPECIFICATIONS

UNIT SIZE – 50 CM X 50 CM X 2.5 CM
OR 1 M X 1 M X 2.5 CM
(20" X 20" X 1" OR 40 "X 40 "X 1 ")

AVAILABLE IN 9 STANDARD ROLL SIZES

UNIT WEIGHT – 510 GRAMS (18 OZ.)
OR 2.0 KG (4.5 POUNDS)

STRENGTH – 1121 KG/CM (15,940 PSI)

COLOR – BLACK

RESIN – 100% RECYCLED HDPE

NOTE: GRASS/PLANT TYPES SHALL BE SPECIFIED BY A LANDSCAPE ARCHITECT OR LANDSCAPE DESIGNER.

16265 E. 33RD DR., SUITE 20
AURORA, COLORADO 80011
800-233-1510 OR 303-233-8383
FAX: 800-233-1522 OR
303-233-8282
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GRASSPAVE2

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WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:

Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
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Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

SHEET TITLE:
DETAILS

SHEET NUMBER:
C6.1

JSD PROJECT NO: 19-9231

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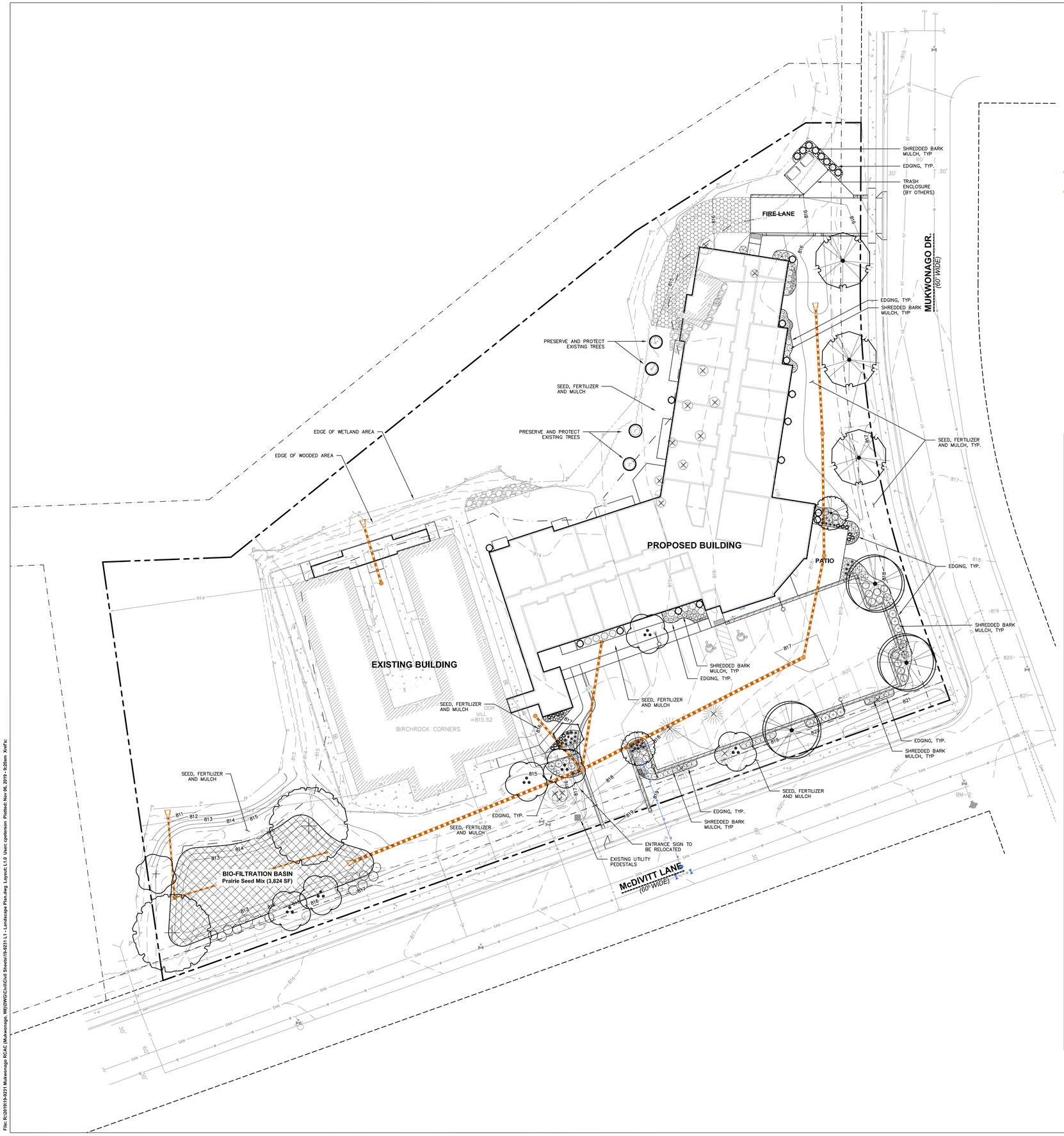
File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Civil Sheets\19-9231 C6 - Details.dwg Layout: C6.1 Details User: cpeterson Plotted: Nov 06, 2019 - 9:13am XrefS:



LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY
- EASEMENT LINE
- BUILDING OUTLINE
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- 819 PROPOSED 1 FOOT CONTOUR
- 820 PROPOSED 5 FOOT CONTOUR
- 959 EXISTING 1 FOOT CONTOUR
- 960 EXISTING 5 FOOT CONTOUR
- STORMWATER MANAGEMENT AREA
- S SANITARY SEWER
- W WATERMAIN
- STORM SEWER
- SAN EXISTING SANITARY SEWER
- W EXISTING WATERMAIN
- ST EXISTING STORM SEWER
- LIGHT POLE (REFER TO PHOTOMETRIC PLAN)
- ADA PARKING SIGN
- FLAG POLE
- REMOVE EXISTING TREE
- PROTECT EXISTING TREE
- POLYETHYLENE EDGING

GENERAL NOTES

1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGEND.
2. ALL WORK IN THE ROW SHALL BE IN ACCORDANCE WITH THE MUNICIPAL STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
3. JSD SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.
4. DRAWING FOR REVIEW – NOT FOR CONSTRUCTION UNLESS OTHERWISE NOTED IN THE TITLE BLOCK.
5. THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL FINE GRADING AND TOPSOILING WITH GENERAL CONTRACTOR
6. REFER TO "LANDSCAPE DETAILS, NOTES & SPECIFICATIONS" SHEET FOR ADDITIONAL DETAILS, NOTES AND SPECIFICATION INFORMATION INCLUDING MATERIALS, GUARANTEE AND EXECUTION RELATED TO LANDSCAPE PLAN
7. CONTRACTOR SHALL REVIEW SITE CONDITIONS FOR UTILITY CONFLICTS, DRAINAGE ISSUES, SUBSURFACE ROCK, AND PLANT PLACEMENT CONFLICTS PRIOR TO PLANT INSTALLATION. REPORT ANY CONDITIONS THAT MAY HAVE ADVERSE IMPACT ON PLANTING OPERATIONS TO LANDSCAPE ARCHITECT
8. DO NOT COMMENCE PLANTING OPERATIONS UNTIL ALL ADJACENT SITE IMPROVEMENTS AND FINISH GRADING EFFORTS ARE COMPLETE.

PLANT SCHEDULE

DECIDUOUS TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	SIZE
	BW	6	Betula populifolia 'Whitespire' / Whitespire Birch	B & B	1.5"Cal
	CV2	1	Crataegus viridis 'Winter King' / 'Winter King' Hawthorn	B & B	1.5"Cal
EVERGREEN TREES	**CODE**	**QTY**	**BOTANICAL NAME / COMMON NAME**	**CONT**	**SIZE**
	TE	14	Thuja occidentalis 'Emerald' / Emerald Arborvitae	B & B	Min. 4' Ht.
	TH	8	Thuja occidentalis 'Holmstrup' / Holmstrup Arborvitae	B & B	Min. 4' Ht.
CANOPY TREES	**CODE**	**QTY**	**BOTANICAL NAME / COMMON NAME**	**CONT**	**SIZE**
	AG	3	Acer rubrum 'October Glory' TM / October Glory Maple	B & B	2"Cal
	GA	3	Ginkgo biloba 'Autumn Gold' TM / Autumn Gold Gingko	B & B	2"Cal
	QB	2	Quercus bicolor / Swamp White Oak	B & B	2"Cal
ORNAMENTAL TREES	**CODE**	**QTY**	**BOTANICAL NAME / COMMON NAME**	**CONT**	**SIZE**
	CN	1	Cercis canadensis 'Minnesota Strain' / Minnesota Strain Redbud	B & B	1.5"Cal
	MS	2	Malus x 'Spring Snow' / Spring Snow Crab Apple	B & B	5' Ht.
DECIDUOUS SHRUBS	**CODE**	**QTY**	**BOTANICAL NAME / COMMON NAME**	**CONT**	**SIZE**
	CB	10	Cornus baileyi / Bailey's Red-twig Dogwood	3 gal	Min. 18"–24"
	CF	4	Cornus sericea 'Flaviramea' / Yellow Twig Dogwood	5 gal	Min. 18"–24"
	HA	3	Hydrangea arborescens 'Annabelle' / Annabelle Smooth Hydrangea	3 gal	Min. 18"–24"
	PG	5	Potentilla fruticosa 'Gold Star' / Gold Star Potentilla	1 Gal	10–12" Ht.
	RG3	10	Rhus aromatica 'Gro-Low' / Gro-Low Fragrant Sumac	3 gal	
	RC	20	Ribes alpinum 'Compacta' / Compact Alpine Currant	3 gal	12–18" Ht.
	SF	3	Spiraea japonica 'Flaming Mound' / Flaming Mound Spirea	3 gal	10–12" Ht.
	SG	7	Spiraea japonica 'Goldflame' / Spirea	3 gal	12–18" Ht.
	SM3	8	Spiraea japonica 'Walbuma' / Magic Carpet Spirea	2 gal	10–12" Ht.
	VS	8	Viburnum trilobum 'Spring Red' / Spring Red Compact Cranberrybush Viburnum	3 gal	18– 24" Ht.
EVERGREEN SHRUBS	**CODE**	**QTY**	**BOTANICAL NAME / COMMON NAME**	**CONT**	**SIZE**
	II	5	Ilex glabra 'Compacta' / Compact Inkberry	3 gal	12–18" Ht.
	MA	4	Juniperus sabina 'Mini-Arcadia' / Mini Arcadia Juniper	3 gal	18" Tall
LOW EVERGREEN SHRUB	**CODE**	**QTY**	**BOTANICAL NAME / COMMON NAME**	**CONT**	**SIZE**
	JB	2	Juniperus sabina 'Buffalo' / Buffalo Juniper	3 gal	12" Tall/Wide
	JM	11	Juniperus sabina 'Mini-Arcadia' / Mini Arcadia Juniper	3 gal	
ORNAMENTAL GRASSES/PERENNIALS	**CODE**	**QTY**	**BOTANICAL NAME / COMMON NAME**	**CONT**	**SIZE**
	AAF	24	Astilbe ardensii 'Fanal' / Fanal Red Astilbe	1 gal	Cont.
	AV	8	Astilbe chinensis 'Visions in White' / Chinese Astilbe	1 gal	Cont.
	CK	15	Calamagrostis x acutiflora 'Karl Foerster' / Feather Reed Grass	1 gal	Cont.
	HH	10	Hemerocallis x 'Happy Returns' / Happy Returns Daylily	1 gal	Cont.
	HB	4	Heuchera x 'Berry Smoothie' / Berry Smoothie Coral Bells	Cont.	10–12" Ht.
	HF	5	Hosta x 'Fire and Ice' / Fire and Ice Hosta	Cont.	10–12" Ht.
	PL	5	Perovskia atriplicifolia 'Little Spire' TM / Little Spire Russian Sage	1 gal	Cont.
	RG2	35	Rudbeckia fulgida sullivantii 'Goldsturm' / Black-eyed Susan	1 gal	Cont.
	SM	24	Salvia nemorosa 'Mainacht' / Maynight Salvia	Cont.	10–12" Ht.
	SL	9	Sedum spurium 'Lemon Drop'' / Lemon Drop Sedum	Cont.	10–12" Ht.

north

SCALE IN FEET
20' 0 20'

DIGGERS HOTLINE

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W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
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Design/Drawn: MAS
Approved: MAS
Date: 11/06/2019

SHEET TITLE:
LANDSCAPE PLAN

SHEET NUMBER:
L1.0

JSD PROJECT NO: 19-9231

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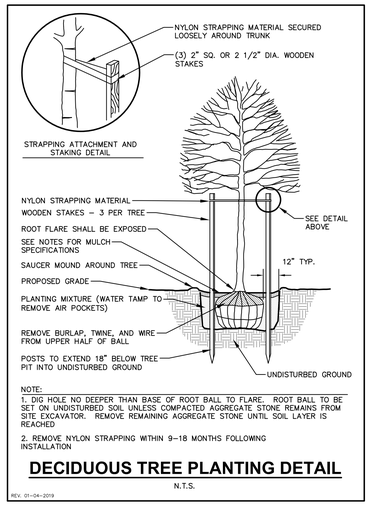


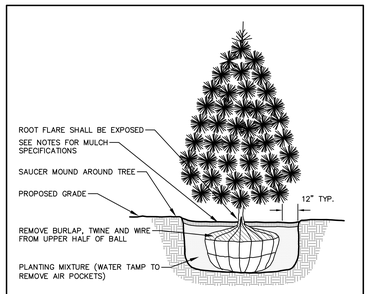
NOTE:
1. DIG HOLE NO DEEPER THAN BASE OF ROOT BALL TO FLARE. ROOT BALL TO BE SET ON UNDISTURBED SOIL UNLESS COMPACTED AGGREGATE STONE REMAINS FROM SITE EXCAVATOR. REMOVE REMAINING AGGREGATE STONE UNTIL SOIL LAYER IS REACHED.

2. REMOVE NYLON STRAPPING WITHIN 9–18 MONTHS FOLLOWING INSTALLATION

DECIDUOUS TREE PLANTING DETAIL

N.T.S.

REV. 01-04-2019

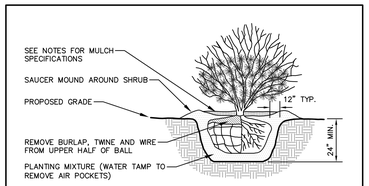


NOTE:
1. DIG HOLE NO DEEPER THAN BASE OF ROOT BALL TO FLARE. ROOT BALL TO BE SET ON UNDISTURBED SOIL UNLESS COMPACTED AGGREGATE STONE REMAINS FROM SITE EXCAVATOR. REMOVE REMAINING AGGREGATE STONE UNTIL SOIL LAYER IS REACHED

EVERGREEN TREE PLANTING DETAIL

N.T.S.

REV. 01-03-2019

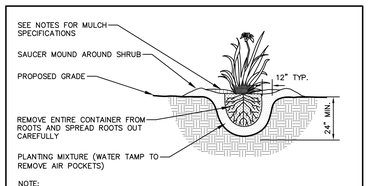


NOTE:
1. ROOT FLARE TO BE EXPOSED.

SHRUB PLANTING DETAIL

N.T.S.

REV. 01-03-2019

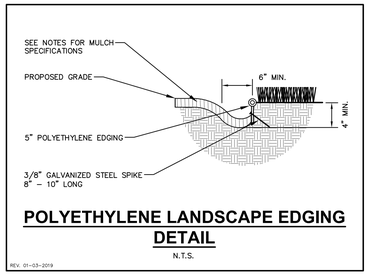


NOTE:
1. ROOT FLARE TO BE EXPOSED

PERENNIAL/ORNAMENTAL GRASS PLANTING DETAIL

N.T.S.

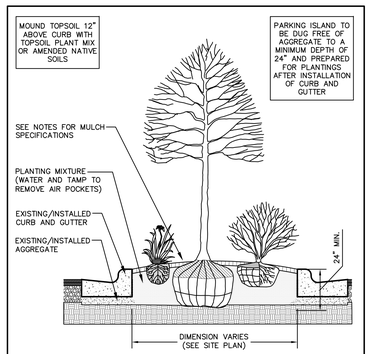
REV. 01-03-2019



POLYETHYLENE LANDSCAPE EDGING DETAIL

N.T.S.

REV. 01-03-2019



PARKING ISLAND LANDSCAPE DETAIL

N.T.S.

REV. 01-03-2019

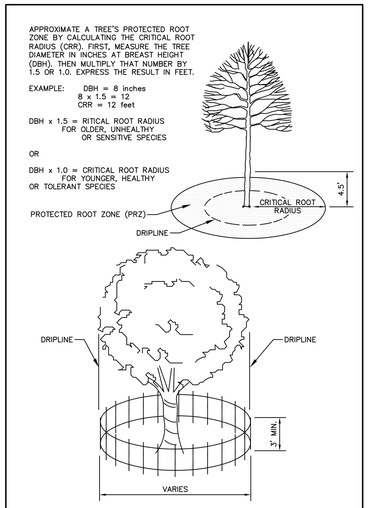
APPROXIMATE A TREE'S PROTECTED ROOT ZONE BY CALCULATING THE CRITICAL ROOT RADIUS (CRR). FIRST, MEASURE THE TREE DIAMETER IN INCHES AT BREAST HEIGHT (DBH). THEN MULTIPLY THAT NUMBER BY 1.5 OR 1.0. EXPRESS THE RESULT IN FEET.

EXAMPLE: DBH = 8 inches
8 x 1.5 = 12
CRR = 12 feet

DBH x 1.5 = RITICAL ROOT RADIUS FOR OLDER, UNHEALTHY OR SENSITIVE SPECIES

OR

DBH x 1.0 = CRITICAL ROOT RADIUS FOR YOUNGER, HEALTHY OR TOLERANT SPECIES



NOTE:
1. CONTRACTOR SHALL INSTALL TREE PROTECTION FENCING IN THE AREA SURROUNDING THE TREE WITHIN THE CRITICAL ROOT RADIUS

2. NO EXCAVATION IS PERMITTED WITHIN THE CRITICAL ROOT RADIUS

3. IF EXCAVATION WITHIN THE CRITICAL ROOT RADIUS OF ANY TREE IS NECESSARY, CONTRACTOR SHALL CONTACT CITY FORESTER PRIOR TO EXCAVATION TO ASSESS THE IMPACT TO THE TREE AND ROOT SYSTEM.

TREE PROTECTION DETAIL

N.T.S.

REV. 01-04-2019

GENERAL NOTES

1. GENERAL: ALL WORK IN THE R–O–W AND PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPAL REQUIREMENTS. JSD SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES. LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO UTILITIES. CONTRACTOR MUST CALL 1–800–242–8511 FOR UTILITY LOCATIONS AT LEAST THREE DAYS PRIOR TO DIGGING. HAND DIG AND INSTALL ALL PLANTS THAT ARE NEAR EXISTING UTILITIES. PROTECT PREVIOUSLY INSTALLED WORK OF OTHER TRADES. CONTRACTOR IS RESPONSIBLE FOR STAKING THE PLANT MATERIALS FOR REVIEW BY OWNER PRIOR TO DIGGING AND PLACEMENT AND SHALL COORDINATE ALL FINE GRADING AND RESTORATION WITH THE GRADING CONTRACTOR.

2. DELIVERY AND HANDLING: DO NOT DELIVER MORE PLANT MATERIALS THAN CAN BE PLANTED IN ONE DAY, UNLESS ADEQUATE, APPROPRIATE AND SECURE STORAGE IS PROVIDED AND APPROVED BY OWNER'S REPRESENTATIVE. AT ALL TIMES, PROTECT ALL PLANT MATERIALS FROM WIND AND DIRECT SUN. DELIVER PLANTS WITH LEGIBLE IDENTIFICATION LABELS. PROTECT PLANTS DURING DELIVERY AND DO NOT PRUNE PRIOR TO DELIVERY. ALL TREES AND SHRUBS SHALL BE PLANTED ON THE DAY OF DELIVERY; IF THIS IS NOT POSSIBLE, PROTECT THE PLANT MATERIALS NOT PLANTED BY STORING THEM IN A SHADED, SECURE AREA, PROTECTING THE ROOT MASS WITH WET SOIL, MULCH, HAY OR OTHER SUITABLE MEDIUM. CONTRACTOR TO KEEP ALL PLANT MATERIALS ADEQUATELY WATERED TO PREVENT ROOT DESICCATION. DO NOT REMOVE CONTAINER GROWN STOCK FROM CONTAINERS BEFORE TIME OF PLANTING. DO NOT PICK UP CONTAINER OR BALLED PLANTS BY STEM OR ROOTS. ALL PLANTS SHALL BE LIFTED AND HANDLED FROM THE BOTTOM OF THE CONTAINER OR BALL. PERFORM ACTUAL PLANTING ONLY WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE IN ACCORDANCE WITH LOCALLY ACCEPTED BEST HORTICULTURAL PRACTICES.

3. MATERIALS – PLANTS: ALL PLANTS SHALL CONFORM TO THE LATEST VERSION OF THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1. PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST 2 YEARS. PLANTS SHALL BE FRESHLY DUG (DURING THE MOST RECENT FAVORABLE HARVEST SEASON). PLANTS SHALL BE SO TRAINED IN DEVELOPMENT AND APPEARANCE AS TO BE UNQUESTIONABLY SUPERIOR IN FORM, COMPACTNESS, AND SYMMETRY. PLANTS SHALL BE SOUND, HEALTHY, VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF, AND FREE OF DISEASE AND INSECTS (ADULT EGGS, PUPAE OR LARVAE). THEY SHALL HAVE HEALTHY, WELL–DEVELOPED ROOT SYSTEMS AND SHALL BE FREE FROM PHYSICAL DAMAGE OR OTHER CONDITIONS THAT WOULD PREVENT THRIVING GROWTH OR PREMATURE MORTALITY. PLANTS SHALL BE OF THE HIGHEST QUALITY, POSSESS TYPICAL GROWTH HABITS AND FORM FOR THEIR SPECIES AND BE FREE OF INJURY. PARKWAY TREES AND PARKING LOT TREES SHALL HAVE A MINIMUM BRANCHING HEIGHT OF SIX (6) FEET ABOVE THE GROUND TO ALLOW ADEQUATE VISUAL AND PHYSICAL CLEARANCE.

4. PRUNING: THE CONTRACTOR SHALL PRUNE ALL TREES AND REPAIR ANY INJURIES THAT OCCURRED DURING THE PLANTING PROCESS. DOUBLE LEADERS, DEAD BRANCHES, AND LIMBS DAMAGED OR BROKEN DURING THE PLANTING PROCESS, SHALL BE PRUNED. THIS SHALL BE THE ONLY PRUNING ALLOWED AT PLANTING. PRUNING SHALL CONFORM TO THE LATEST VERSION OF THE AMERICAN STANDARD FOR TREE CARE OPERATIONS, ANSI A300. PRUNE TREES IN ACCORDANCE WITH NAA GUIDELINES. DO NOT TOP TREES. PRUNE SHRUBS ACCORDING TO STANDARD HORTICULTURAL PRACTICES. ON CUTS OVER 3/4" IN DIAMETER AND BRUISES OR SCARS ON BARK, TRACE THE INJURED CAMBIUM LAYER BACK TO LIVING TISSUE AND REMOVE. SMOOTH AND SHAPE WOUNDS SO AS NOT TO RETAIN WATER. TREAT THE AREA WITH AN APPROVED NONCONSPICUOUS LATEX BASED ANTISEPTIC TREE PAINT, IF PRUNING OCCURS "IN SEASON". DO NOT PRUNE ANY OAK TREES DURING THE MONTHS FROM APRIL TO OCTOBER.

5. CLEANUP: THE WORK AREA SHALL BE KEPT SAFE AND NEAT AT ALL TIMES. DISPOSED OF EXCESS SOIL. REMOVE ALL CUTTINGS AND WASTE MATERIALS. SOIL AND BRANCHES. BIND AND WRAP THESE MATERIALS, ANY REJECTED PLANTS, AND ANY OTHER DEBRIS RESULTING FROM ALL PLANTING TASKS AND PROMPTLY CLEAN UP AND REMOVE FROM THE PROJECT SITE. UNDER NO CIRCUMSTANCES SHALL THE ACCUMULATION OF SOIL, BRANCHES OR OTHER DEBRIS BE ALLOWED UPON A PUBLIC PROPERTY IN SUCH A MANNER AS TO RESULT IN A PUBLIC SAFETY HAZARD OR DAMAGE. LIKEWISE, UNDER NO CIRCUMSTANCES SHALL ANY DEBRIS OR INCIDENTAL MATERIALS BE ALLOWED UPON ADJACENT PRIVATE PROPERTY.

6. ANY SUBSTITUTIONS IN PLANT TYPE, LOCATION, OR SIZE SHALL BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

7. CONTRACTOR TO VERIFY PLANT MATERIAL QUANTITIES AND SQUARE FOOTAGES. QUANTITIES SHOWN ON PLAN TAKE PRECEDENCE OVER THOSE ON SCHEDULE.

LANDSCAPE MATERIAL NOTES

1. MATERIALS – PLANTING MIXTURE: ALL HOLES EXCAVATED FOR TREES, SHRUBS, PERENNIALS AND ORNAMENTAL GRASSES SHALL BE BACKFILLED WITH TWO (2) PARTS TOPSOIL, ONE (1) PART SAND AND ONE (1) PART COMPOST. SOIL MIXTURE SHALL BE WELL BLENDED PRIOR TO INSTALLATION.

2. MATERIALS – TOPSOIL: TOPSOIL TO BE CLEAN, FRIABLE LOAM FROM A LOCAL SOURCE, FREE FROM STONES OR DEBRIS OVER 3/4" IN DIAMETER, AND FREE FROM TOXINS OR OTHER DELETERIOUS MATERIALS. TOPSOIL SHALL HAVE A pH VALUE BETWEEN 6 AND 7. TOPSOIL AND PLANTING SOIL SHALL BE TESTED TO ENSURE CONFORMANCE WITH THESE SPECIFICATIONS AND SHALL BE AMENDED TO MEET THESE SPECIFICATIONS. PROVIDE TEST RESULTS TO OWNER'S REPRESENTATIVE PRIOR TO PLACEMENT. DO NOT PLACE FROZEN OR MUDDY TOPSOIL. APPLY SOIL AMENDMENTS TO ALL LANDSCAPE AREAS PER SOIL TEST.

3. MATERIALS – SHREDDED HARDWOOD BARK MULCH: ALL PLANTING AREAS LABELED ON PLAN SHALL RECEIVE CERTIFIED WEED FREE SHREDDED HARDWOOD BARK MULCH INSTALLED TO A MINIMUM AND CONSISTENT DEPTH OF 3–INCHES. SHREDDED HARDWOOD BARK MULCH SIZE & COLOR TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. FERTILIZER SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, COUNTY AND STATE REQUIREMENTS. SHREDDED HARDWOOD BARK MULCH AREAS SHALL NOT RECEIVE WOVEN WED BARRIER FABRIC.

4. MATERIALS – TREE & SHRUB RINGS: ALL TREES AND/OR SHRUBS PLANTED IN SEEDED LAWN AREAS TO BE INSTALLED WITH A MINIMUM 5' DIAMETER SHREDDED HARDWOOD BARK MULCH TREE RING SPREAD TO A CONSISTENT DEPTH OF 3–INCHES. ALL TREE RINGS SHOULD BE INSTALLED WITH A 5" DEPTH SHOVEL CUT EDGE, ANGLED 45 DEGREES INTO SOIL AT A 5' DIAMETER ABOUT THE CENTER OF THE TREE PLANTING. A PRE–EMERGENT GRANULAR HERBICIDE WEED–PREVENTER SHOULD BE MIXED WITH MULCH USED TO INSTALL TREE RING AS WELL AS TOPICALLY APPLIED TO COMPLETED INSTALLATION OF TREE RING.

5. MATERIALS – POLYETHYLENE EDGING: EDGING SHALL BE 5" DEEP, POLYETHYLENE EDGING. OWNER'S REPRESENTATIVE SHALL APPROVE PRODUCT SPECIFICATION PROVIDED BY LANDSCAPE CONTRACTOR.

SEEDING & POND VEGETATION NOTES

1. MATERIALS – TURFGRASS SEED: DISTURBED LAWN AREAS LABELED ON PLAN AS SUCH, SHALL RECEIVE 6" OF TOPSOIL AND EARTH CARPET'S "MADISON PARKS" GRASS SEED, OR EQUIVALENT AS APPROVED BY THE OWNER'S REPRESENTATIVE, INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. IN ADDITION TO TURFGRASS SEED, ANNUAL RYE SHALL BE APPLIED TO ALL DISTURBED AREAS AT A RATE OF 1 1/2 LBS PER 1000 SQUARE FEET. FERTILIZE AND MULCH PER MANUFACTURER'S RECOMMENDATIONS. MULCH SHALL BE CERTIFIED NOXIOUS WEED SEED–FREE

2. MATERIALS – PRAIRIE SEED MIX: BIO–INFILTRATION BASIN AREAS LABELED ON PLAN AS SUCH, SHALL BE BROADCAST SEEDED WITH "DIVERSE PRAIRIE FOR MEDIUM SOILS" SEED MIX, AS PROVIDED BY PRAIRIE NURSERY, P.O. BOX 306, WESTFIELD, WISCONSIN, 53964, TEL. 608–296–3679 (OR APPROVED EQUIVALENT). INSTALL SEED WITH SUPPLEMENTAL MATERIALS AND AMENDMENTS AS RECOMMENDED BY SEED SUPPLIER AND AT RATES AND OPTIMUM TIMES OF THE YEAR AS RECOMMENDED BY THE SEED SUPPLIER TO ENSURE SUCCESSFUL GERMINATION AND SEED/ROOT ZONE GROWTH DEVELOPMENT. REFER TO PRODUCT SPECIFICATIONS AND MANUFACTURERS RECOMMENDATIONS FOR INSTALLATION.

CONTRACTOR AND OWNER RESPONSIBILITY NOTES

1. **GUARANTEE: THE CONTRACTOR SHALL GUARANTEE ALL PLANTS THROUGH ONE (1) YEAR AFTER ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. PLANTS SHALL BE ALIVE AND IN HEALTHY AND FLOURISHING CONDITION AT THE END OF THE GUARANTEE PERIOD. THE CONTRACTOR SHALL REPLACE (AT NO COST TO OWNER) ANY PLANTS THAT ARE DEAD OR NOT IN A VIGOROUS THRIVING CONDITION. REPLACEMENT PLANTS SHALL BE OF THE SAME KIND AND SIZE AS ORIGINALLY SPECIFIED UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE. RESTORE BEDS AS NECESSARY FOLLOWING PLANT REPLACEMENT, INCLUDING BUT NOT LIMITED TO BEDDING, EDGING, MULCH, ETC. REPLACE PLANTS DAMAGED AT TIME OF PLANTING. REPAIR AREAS DISTURBED IN ANY WAY DURING PLANT REPLACEMENT AT NO COST TO OWNER. CONTRACTOR SHALL PROVIDE A ONE (1)–YEAR STRAIGHTENING GUARANTEE FOR ALL TREES.**

2. **CONTRACTOR IS RESPONSIBLE FOR STAKING THE PLANT MATERIALS FOR REVIEW BY OWNER'S REPRESENTATIVE PRIOR TO DIGGING AND PLACEMENT AND SHALL COORDINATE ALL FINE GRADING AND RESTORATION WITH THE GRADING CONTRACTOR.**

3. **MAINTENANCE: (CONTRACTOR) FOR ALL PLANTINGS AND SEEDDED LAWN AREAS: THE CONTRACTOR SHALL MAINTAIN ALL PLANTINGS AND LAWN AREAS FOR A MINIMUM TIME PERIOD OF 60 DAYS, UNTIL FINAL ACCEPTANCE BY OWNER'S REPRESENTATIVE. THE CONTRACTOR IS RESPONSIBLE FOR ADEQUATELY WATERING PLANTS AND LAWN/TURFGRASS DURING THIS 60 DAY ESTABLISHMENT PERIOD. CONTRACTOR IS RESPONSIBLE FOR THE ESTABLISHMENT OF HEALTHY VIGOROUS PLANT MATERIALS AND LAWN/TURFGRASS GROWTH. CONTRACTOR IS ALSO RESPONSIBLE FOR ANY PRUNING OF PLANT MATERIALS, AND SHAPING AND/OR REPLACEMENT OR SUPPLEMENT OF DEFICIENT SHREDDED HARDWOOD BARK MULCH DURING THIS PERIOD. LONG TERM PLANT MATERIALS AND LAWN/TURFGRASS MAINTENANCE AND ANY PROGRAM FOR SUCH IS THE RESPONSIBILITY OF THE OWNER. ALL PLANTINGS AND LAWN/TURFGRASS AREAS SHALL BE MAINTAINED IN A MANICURED CONDITION UNTIL THE TIME WHEN THE OWNER'S ACCEPTANCE IS GIVEN.**

4. **MAINTENANCE: (OWNER) THE OWNER IS RESPONSIBLE FOR THE CONTINUED MAINTENANCE, REPAIR AND REPLACEMENT OF ALL LANDSCAPING MATERIALS AND WEED BARRIER FABRIC AS NECESSARY FOLLOWING THE ONE (1) YEAR CONTRACTOR GUARANTEE PERIOD.**

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WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1		
2		
3		
4		
5		
6		
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9		
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11		
12		
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14		
15		

Design/Drawn: MAS
Approved: MAS
Date: 11/06/2019

SHEET TITLE:
LANDSCAPE NOTES, DETAILS & SPECIFICATIONS

SHEET NUMBER:
L2.0

JSD PROJECT NO: 19-9231

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF JSD PROFESSIONAL SERVICES, INC.

File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Civil Sheets\19-9231 L1 - Landscape Plan.dwg Layout: L2.0 User: cpetersen Plotted: Nov 06, 2019 - 8:18am

Luminaire Schedule							
Symbol	Qty	Label	Arrangement	LMF	Lum. Lumens	Lum. Watts	Part Number
	4	4B	SINGLE	1.010	8950	86	OSQ-A-NM-4ME-B-57K-xx-xx + OSQ-DAxx + OSQ-BLSMF

Calculation Summary (Footcandles calculated using predicted lumen values @ 50K hrs of operation)						
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
PARKING LOT	Fc	2.44	3.5	1.0	2.44	3.50
PROPERTY LINE	Fc	0.05	0.4	0.0	N.A.	N.A.

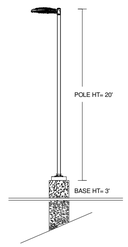
Pole Schedule
(4) SSS-4-11-20-CW-BS-1D-C-XX (20' X 4" STEEL SQUARE POLE)

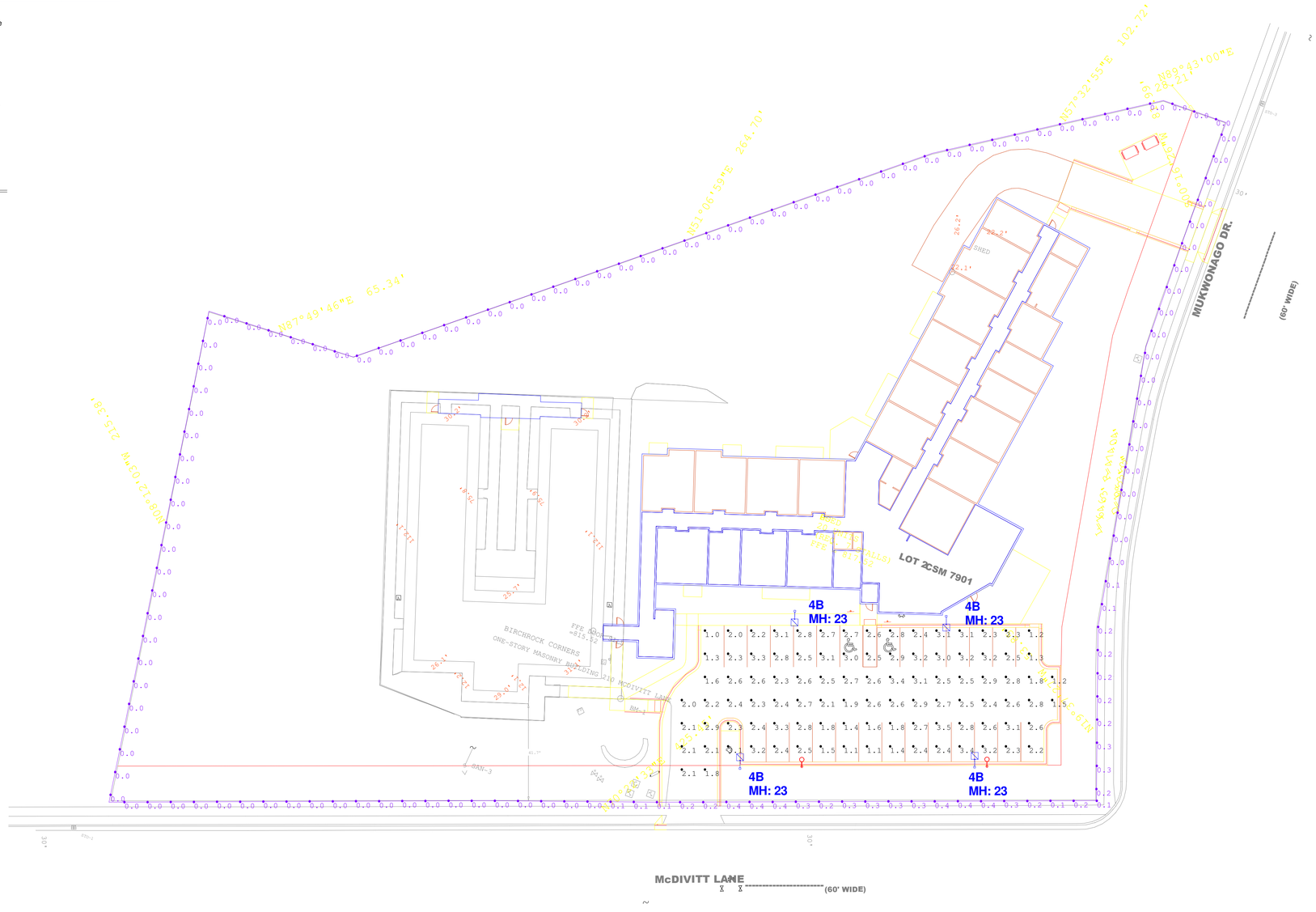
Proposed poles meet 130 MPH sustained winds.

Additional Equipment:
(4) OSQ-DAXX (DIRECT ARM MOUNT)
(4) OSQ-BLSMF (BACK LIGHT SHIELD)

*** CUSTOMER TO VERIFY ORDERING INFORMATION AND CATALOGUE NUMBER PRIOR TO PLACING ORDER ***

OSQ Area Luminaire





CREE LIGHTING
A COMPANY OF IDEAL INDUSTRIES, INC.
9201 Washington Ave, Racine, WI 53406 https://creelighting.com - (800) 236-6800

Illumination results shown on this lighting design are based on project parameters provided to Cree Lighting used inconjunction with luminaire test procedures conducted under laboratory conditions. Actual project conditions differing from these design parameters may affect field results. The customer is responsible for verifying dimensional accuracy along with compliance with any applicable electrical, lighting,or energy code.

Project Name: Castle Senior Living 210 Mcdivitt Ln Mukwonago, WI 53149

SR-39448 | Footcandles calculated at grade | Filename: 191105JP1LJS.AGI

Layout By:
Linda Schaller

Date:11/5/2019

Scale 1" = 25'
0 50 100

STORM WATER MANAGEMENT PRACTICES
MAINTENANCE AGREEMENT

THIS AGREEMENT, made and entered into this_____day of_____, 20___, by and between CASTLE SENIOR LIVING hereinafter called the "Owner", and the City of Mukwonago, hereinafter called the "City".

WITNESSETH:

WHEREAS, the Owner is the owner of the following described lands situated in the City of Mukwonago, Waukesha County, State of Wisconsin, to-wit:

PART OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 35, TOWNSHIP 05

NORTH, RANGE 18 EAST, IN THE CITY OF MUKWONAGO, WAUKESHA COUNTY,

WISCONSIN

hereinafter called the "Property".

WHEREAS, the Owner is developing the property; and

WHEREAS, the Site Plan/Subdivision Plan known as MUKWONAGO CBRF BUILDING hereinafter called the "Plan", which is expressly made a part hereof, as approved or to be approved by the City, provides for on-site storm water management practices within the confines of the Property; and

WHEREAS, the City and the Owner, its successors and assigns, including any homeowners association, agree that the health, safety and welfare of the residents of the City of Pewaukee, require that on-site storm water management practices as defined in Chapter 19 of the Pewaukee Municipal Code be constructed and maintained on the Property; and

WHEREAS, the City requires that on-site storm water management practices as shown on the Plan be constructed and adequately maintained by the Owner, its successors and assigns, including any homeowners association.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. The on-site storm water management practices shall be constructed by the Owner, its successors and assigns, including any homeowners association, in accordance with the plans and specifications indicated in the Plan and applicable statutes, ordinances and rules. The storm water management practices shall serve the drainage area designated in the Plan.

2. The Owner, its successors and assigns including but not limited to any homeowners association, shall regularly inspect the storm water management practices and specifically the function of the approved storm water management system as often as conditions require, but in any event at least once each year. The standard Operation and Maintenance Report attached to this agreement as

Exhibit D and by this reference made a part hereof shall be used for the purpose of the regular inspections of the storm water management practices. The Owner, its successors and assigns shall keep the Operation and Maintenance Reports from past inspections as well as a log of maintenance activity indicating the date and type of maintenance completed. The Reports and maintenance log shall be made available to the City for review. The purpose of the inspections is to assure safe and proper functioning of the facilities. The inspections shall cover all facilities including but not limited to berms, outlet structures, pond areas and access roads. Deficiencies shall be noted in the Operation and Maintenance Report.

3. The Owner, its successors and assigns, including any homeowners association, shall adequately maintain the storm water management practices, including but not limited to all pipes and channels built to convey storm water to the facility, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the storm water. Adequate maintenance is herein defined as keeping the storm water management facilities in good working condition so that these facilities are performing to their design functions and are in accordance with the Operations and Maintenance Standards attached to this agreement as Exhibit D and by this reference made a part hereof.

4. The Owner, its successors and assigns, including any homeowners association, hereby grant permission to the City, its authorized agents and employees, to enter upon the Property and to inspect the storm water management practices whenever the City deems necessary. The purpose of inspection is to investigate reported deficiencies and/or to respond to citizen complaints. The City shall provide the Owner, its successors and assigns, including any homeowners association, copies of the inspection findings and a directive to commence with the repairs if necessary. Corrective actions shall be taken within a reasonable time frame as established by the City Engineer.

5. If the Owner, its successors and assigns, including any homeowners association, fails to maintain the storm water management practices in good working condition, consistent with the terms of the approved plans and specifications approved by the City and does not perform the required corrective actions and inspections in the specified time, the City may:

    a. Issue a citation to the Owner, its successors and assigns. Each day that the violation exists shall constitute a separate offense, and shall be considered a continuing violation.

    b. Perform the corrective actions identified in the inspection report and assess the Owner, its successors and assigns for the cost of such work. The cost of such work may be specially assessed against the property pursuant to Wisconsin Statutes Section 66.0703. If the facilities are located on an outlot owned collectively by homeowners association, the City may assess each

member of the homeowners association according to the ownership interest in the facilities located on the property. This provision shall not be construed to allow the City to erect any structure of permanent nature on the land of the Owner outside of the easement for the storm water management practices, and in no event shall this Agreement be construed to impose any such obligation on the City.

6. The Owner, its successors and assigns, including any homeowners association, will perform the work necessary to keep these facilities in good working order as appropriate. In the event a maintenance schedule for the storm water management practices (including sediment removal) is outlined on the approved plans, the schedule will be followed. The minimum amount of maintenance on the storm water management practices shall be in accordance with the Maintenance Standards (Exhibit D).

7. In the event the City pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Owner, its successors and assigns, including any homeowners association, shall reimburse the City upon demand, within thirty (30) days of receipt for all actual costs incurred by the City hereunder.

8. This Agreement imposes no liability of any kind whatsoever on the City, its officers, agents and employees, and the owner agrees to indemnify and hold the City harmless as and against any and all claims, actions, causes of action, demands, including attorney fees which the City may incur as a result of the failure of the storm water management system and/or actions taken or not taken by the City to enforce the terms of this agreement including, but not limited to, the performance of maintenance activities.

9. This Agreement shall be attached as an exhibit to any document which creates a homeowners association that is responsible for maintenance of the storm water management practices and be recorded at the Waukesha County Register of Deeds, and shall constitute covenant running with the land, and shall be binding on the Owner, its administrators, executors, assigns, heirs and any other successors in interests, including any homeowners association. The owner shall provide the City with a copy of any document which creates a homeowners association that is responsible for the storm water management practices.

10. Notwithstanding anything in this Agreement to the contrary, in the event the Owner, or the Owner's successors and assigns, sell or otherwise transfer ownership in the Property, the Owner and the Owners successors and assigns, are hereby released from any and all liabilities and obligations under the terms of this Agreement.

WITNESS the following signatures and seals:

_____
Company/Corporation/Partnership Name (Seal)

_____
(Type Name), (Type Title)

The foregoing Agreement was acknowledged before me this_____day of _____ 20 ,by_____.

_____
NOTARY PUBLIC

My Commission Expires: _____

Exhibit A – Legal Description

The following description and reduced copy map identifies the land parcel(s) affected by this Agreement. For a larger scale view of the referenced document, contact the Waukesha County Register of Deeds office.

Project Identifier: Mukwonago CBRF building

Date of Recording: 11/6/95

Map Produced By: Gary Schaefer

Legal Description: Lot 2 of Certified Survey Map No. 7901, recorded on December 22. 1995 in Volume 68 of Certified Survey Maps on Pages 140 to 146, as Document No. 2089198, being a redivision of Outlet 1, Mukwonago Estates East, being a resubdivision of Lots 43 and 44, 56 to 61 inclusive, 78 to 82 inclusive, 103 and 104, 157 to 200 inclusive, Outlet 1, Part of outlot 2, and all of Outlots 3, 4, 7 and 8 in "Mukwonago Estates", being a subdivision of part of the Northwest l /4 of the Southeast I1/4 of Section 35, Township 5 North, Range l8 East, in the Village of Mukwonago, County of Waukesha, State of Wisconsin

Exhibit B - Location Map
Storm Water Management Practices Covered by this Agreement

The storm water management practices covered by this Agreement are depicted in the reduced copy of the construction plans, as shown below. The practices include the **Biofiltration Basin, Catch basins and storm sewer system.**

All of the noted storm water management practices are located in Lot 2 of CSM 7901, as noted in Exhibit A.

Subdivision Name**: N/A**

Storm water Practices**: Biofiltration Basin, Catch Basin and Storm Sewer System**

Location of Practices**: The Biofiltration Basin is located in the SW corner of site, the catch basin and storm sewer are located within the parking lot and landscape areas in front of the building**

Owners: **Castle Senior Living**

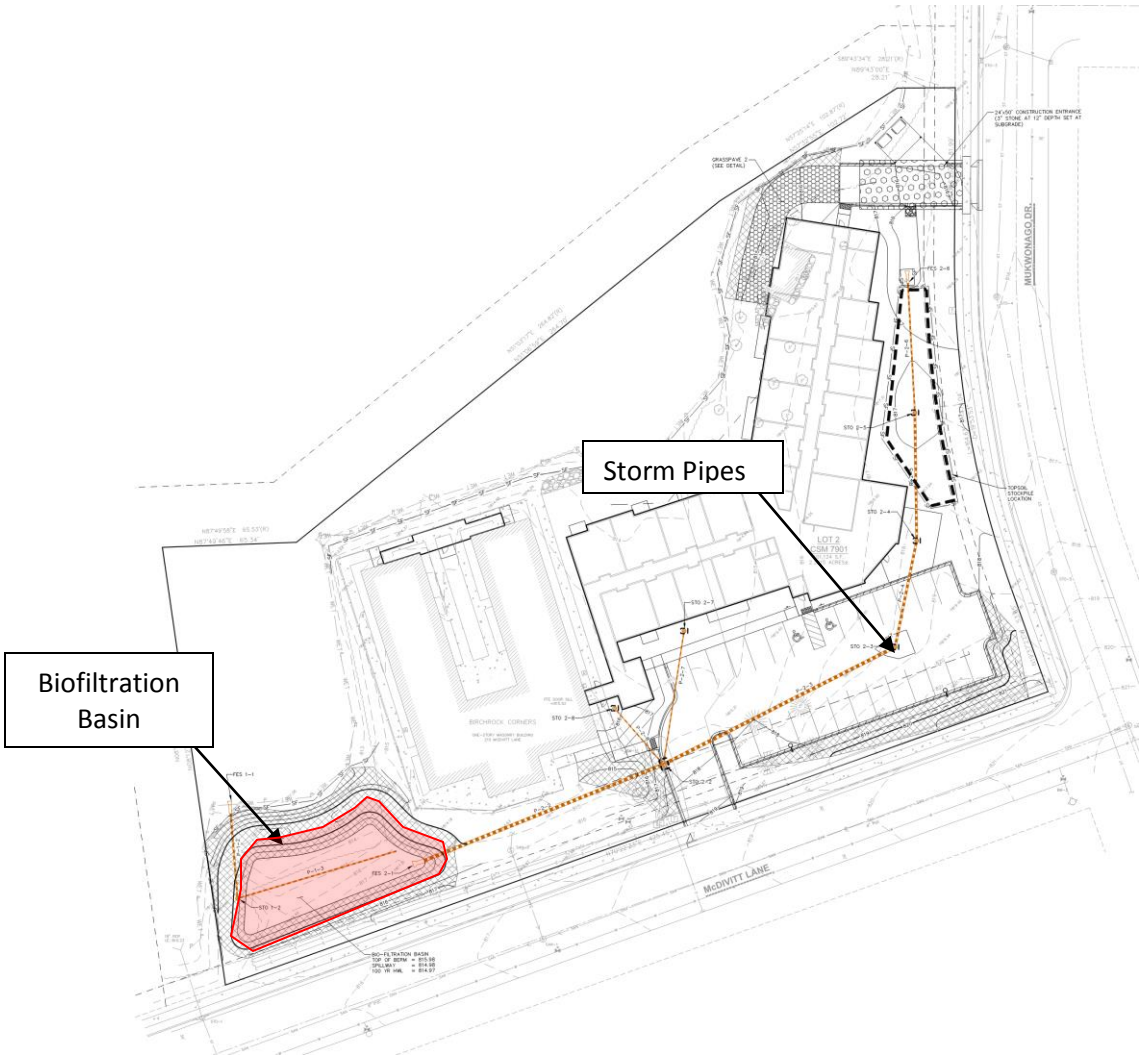


Exhibit C
Minimum Storm Water Practice Maintenance Requirements

This exhibit explains the basic function of each of the storm water practices listed in Exhibit B and prescribes the maintenance requirements beyond the minimum requirements in Exhibit D to remain compliant with this Agreement. The maintenance activities listed below are aimed to ensure these practices continue serving their intended functions in perpetuity. The list of activities is not all inclusive, but rather indicates the minimum type of maintenance that can be expected for this particular site. Access to the storm water practices for maintenance vehicles is shown in Exhibit B. Any failure of a storm water practice that is caused by a lack of maintenance will subject the Responsible Party to enforcement of the provisions of this Agreement by the City of Mukwonago.

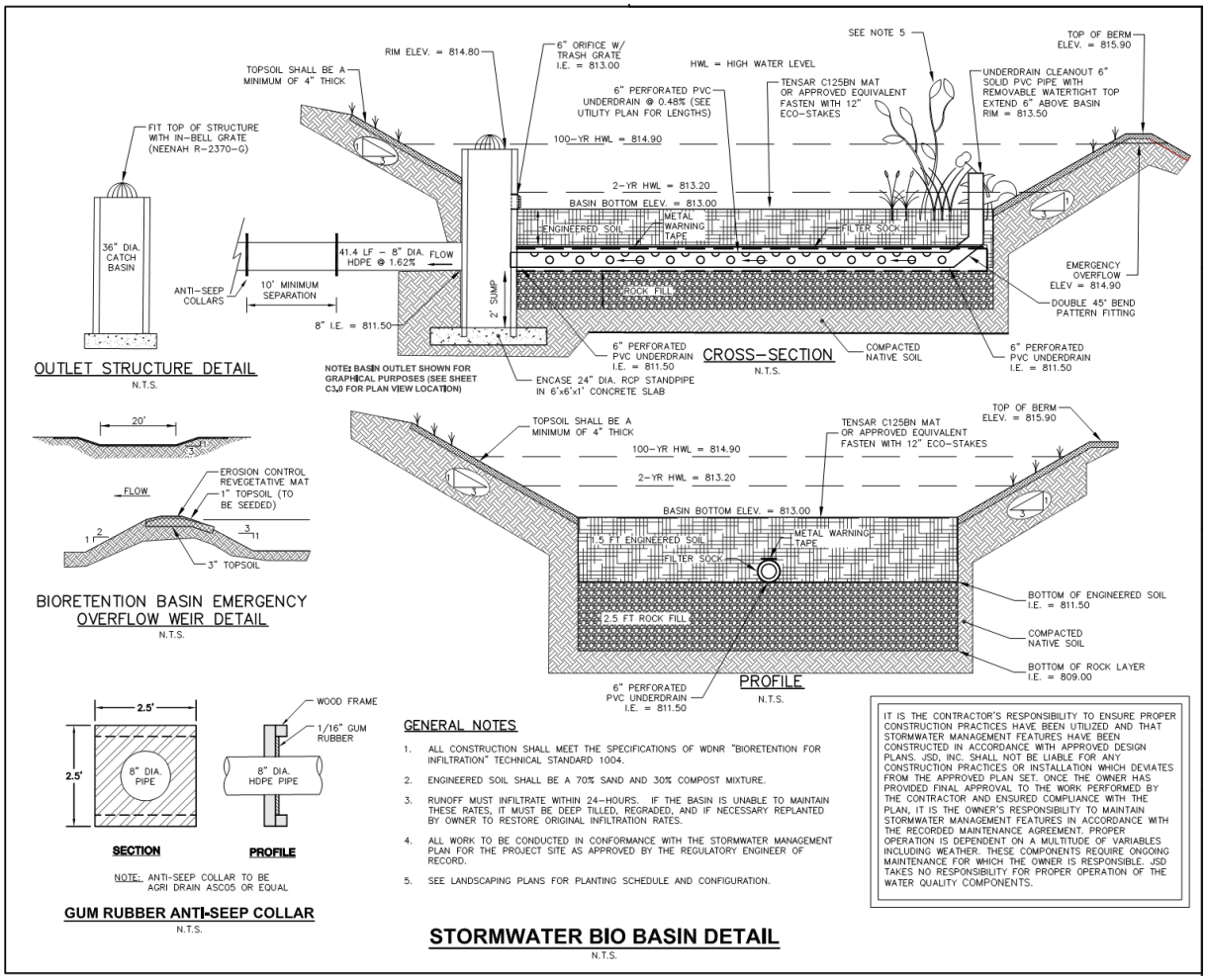


Exhibit D
Minimum Operation and Maintenance Requirements

BIOFILTRATION
OPERATIONS AND MAINTENANCE

I. ROUTINE MAINTENANCE

A. Inspection

1. Performance of the bioretention should be inspected monthly and after every major storm event, following the initial construction to evaluate if the basin is draining within the design time limits.
    a. Water plants should be watered as necessary the first year to establish plants.
2. If performance does not meet the design goals, complete repairs to the facility to meet the design requirements.
3. Following the initial year of monthly inspections, quarterly inspections of the facility should be made. Inspect the facility for:
    a. Differential settlement
    b. Cracking
    c. Erosion
    d. Leakage
    e. Tree and woody plant growth on the embankments and plant health
    f. Condition of the inlets and outlets and level spreaders
    g. Sediment accumulation
    h. Vigor and density of vegetation on the floor of the basin and buffer strips
    i. pH testing of the soil
    j. Observation wells and/or under drains

B. Mowing – Native Vegetation

1. During establishment of vegetation, the first mowing shall occur once it reaches a height of 10 to 12 inches.
2. Control woody plant invasion by mowing once a year. The vegetation height shall be 5 to 6 inches after mowing.
3. Mow once per year in the fall after November 1st.
4. Remove trash and debris at the time of mowing.

C. Erosion Control

1. Inspect quarterly for erosion. Inspection after major storm events for erosion problems is also recommended if practical
2. Repair all eroded areas immediately. Temporary erosion controls may be necessary to facilitate repairs.

D. Tilling

1. If the basin is located on marginally permeable soils, annual or semi-annual tilling may be needed to maintain infiltration capacity.
2. Tilled areas should be immediately re-vegetated to prevent erosion.

E. Pre-Treatment Systems

1. Maintenance of the pre-treatment system should include sediment removal, oil and grease skimming, and grass filter strip maintenance.
2. Inspect the structural elements of the pre-treatment system and repair if needed.

F. Mulch
   1. Re-mulch void areas as needed.
   2. Add additional mulch once per year.

II. NON-ROUTINE MAINTENANCE

A. Structural Maintenance
   1. Inspect pipe systems quarterly.
   2. Remove and replace pipe systems that have eroded or rusted.
   3. Earthen structures should be inspected annually. Erosion should be repaired immediately upon discovery.

B. Restoration of Infiltration Capacity
   1. Over time the original infiltration capacity of the basin will be diminished.
   2. Deep tilling can be done to restore the infiltration capacity of the basin. The basin will be drained and the soils dried to a depth of 8 inches.
   3. The top 2 to 3 inches of topsoil, chisel plowing, and adding topsoil and compost can be done.
   4. The basin must be restored with native plantings.

C. Watering
   1. Water plants need to be watered as necessary during the first growing season.
   2. After the first growing season, water as necessary during dry periods.

STORM SEWER SYSTEM
OPERATIONS AND MAINTENANCE

I. INSPECTION

A. Frequency

a. Inspect catch basins, inlets and manholes at least once per year.
b. Inspect storm sewer end sections at least twice per year and after major rainfall events.

B. Inspection

a. Catch Basins, Inlets and Manholes
   i. Inspect for sediment deposition in the bottom of structures.
   ii. Check frames and lids for cracks and wear such as rocking lids or lids moved by traffic and for shifted frames.
   iii. Check chimneys for cracked mortar, cracked lift rings and spalling.
   iv. Check for leaks at joints.
   v. Check surrounding areas for pollutants such as leaks from dumpsters, minor spills and oil dumping.
b. Storm Sewer End sections
   i. Observe for obstructions, accumulation of sediment and trash, undermining and joint separation.
   ii. Inspect end treatment for settlement, scour and displaced armoring.

II. STANDARD MAINTENANCE

A. Catch Basins, Inlets and Manholes

a. Repair any deterioration threatening structural integrity immediately.
b. Replace worn or cracked frames and lids. Frames that have shifted should be re-centered and re-set on the structure.
c. Repair any spalled or cracked mortar. Cracked rings should be repaired or replaced.
d. Repair leaking joints.
e. Clean manhole and storm inlet inverts of deposited material. Catch basins should be cleaned before the sump is 40 percent full or every 2-years, whichever comes first.
f. Remove potential sources of contamination away from catch basins, inlets and manholes.

B. Storm Sewer End sections

a. End sections should be free flowing; trash, debris and obstructions should be removed to prevent backups.
b. End sections which have separated from the storm sewer pipe shall be reset on firm bedding and reconnected to the existing storm sewer pipe. Restrain joints if necessary.
c. Scour areas shall be repaired immediately. Replace missing soil with clean fill and replace/install end treatment. Missing armoring will require additional stone, typically one class larger.
d. Excessive material deposited at the storm sewer outfall is indicative of: a disturbed area upstream draining to the system or a potential failure of a system component. Disturbed areas draining to the system should be stabilized immediately or diverted to drain to a BMP. Potential system failures require non-standard maintenance.

III. NON-STANDARD MAINTENANCE

A. Non-standard maintenance includes inspection, repair or replacement of buried structures.

a. Televising of buried structures (pipes) should occur when excessive material is

found within the system or at an outfall with no apparent source area visible at the surface, or the system experiences frequent backups.

b. Follow the recommendations for the repair and/or replacement of system components televised by a firm specializing in this work.

WETLAND DELINEATION REPORT

210 McDivitt Lane, Mukwonago

Castle Senior Living

13050 W. Cleveland Ave.

New Berlin, WI 53151

PROJECT #: 19-139

June 25, 2019

HELIANTHUS

247 W. Freshwater Way, Suite 210
Milwaukee, Wisconsin – 53204

www.helianthusdesign.com

INTRODUCTION

The subject site is a 2.34-acre parcel located at the northwest corner of the intersection of McDivitt Lane and Mukwonago Drive. The parcel is located in Section 35, Township 5 North, Range 18 East, in Mukwonago, Waukesha County, Wisconsin. A map identifying the project location can be found in **FIGURE 1**. The closest waterbody to the site is the Mukwonago River which is 2,700 feet north of the project site.

The predominant land cover for this property is developed land which consists of an existing building, lawn and landscaping. The west and north edges of the parcel consisted of woodland vegetation. The purpose of the wetland delineation was to identify the existing wetlands on the property and to create a map of their boundaries. A map of the surveyed wetland boundary is found in **FIGURE 7**.

Kristi Sherfinski of HELIANTHUS conducted the original wetland delineation field work on June 25, 2019. Field conditions on June 25 was sunny air temperatures in the mid-70s (°F). Growing season conditions as defined in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (2010) and Northcentral and Northeast Region (2012) were documented at the site prior to beginning the delineation. Soil temperatures must be at or above 41°F at depth of 12 inches and at least two plant species must be emerging or breaking bud. On June 25, full growing season conditions were present.

Kristi Sherfinski is certified as an Assured Wetland Delineator with the Wisconsin Department of Natural Resources (WIDNR). She has over 18 years of experience delineating wetlands in the Great Lakes Region. She received her initial basic wetland training at the Wetland Training Institute in Hastings, Michigan in 2002. Kristi worked as a project manager and wetland delineator at JFNew & Associates in Grand Haven, Michigan for six years, conducting wetland delineations in Michigan, Indiana, Illinois, and Wisconsin. Kristi then moved to Wisconsin to work for the Southeastern Wisconsin Regional Planning Commission (SEWRPC) with Dr. Donald Reed. At SEWRPC, Kristi updated the Wisconsin Wetland Inventory (WWI) in 2005 and in 2010 for the seven-county area of southeast Wisconsin. Kristi participated in the Advanced Wetland Delineation training in 2006. In 2009, she attended the Wetland Delineation USACE Regional Supplement training session, the Environmental Corridor Delineation Workshop, and the Farm Service Agency (FSA) Slide Review training session. After working at SEWRPC for seven years, Kristi worked as an environmental specialist at JSD Professional Services, Inc. for two years, before she started her own business—HELIANTHUS.

METHODS

The process of wetland delineation involves collecting information about the soils, vegetation, and hydrology of a site in order to determine where the wetland boundary is located. The methodology used to conduct the delineation followed the US Army Corps of Engineers Wetlands Delineation Manual (1987), and the appropriate Regional Supplement to the Corps of Engineers Wetland Delineation Manual. In general, in southeastern and western Wisconsin, the

Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0, August, 2010) is used. The remaining portions of the state follow the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0, January, 2012). At this site, the Northcentral and Northeast Regional Supplement was used.

Prior to the site visit, several sources of data are consulted to reveal information that will aid in the locating the wetlands on the site. The sources reviewed include weather records to determine antecedent hydrologic conditions, the Wisconsin Wetland Inventory (WWI) map, the soil survey map, a topographic map, and historic aerial photographs of the project area. In areas that are under active cultivation as farmland, a Farm Service Agency (FSA) Slide Review is also conducted.

Data sample points are chosen based on the potential wetland areas identified by reviewing the above-referenced sources, and other sample points are added based on information gathered while in the field. Sample points are chosen on either side of the wetland line for their ability to reveal information about the actual location of the line, and upland reference data samples are chosen in order to show the contrast between wetland and upland field conditions.

Once a data sample point is chosen and located in the field, data is collected on the vegetation, the hydrology, and the soils of the site. Vegetation is identified by strata (tree, shrub, herbaceous, and vine layers), and an aerial coverage percent is determined for each species by layer. The plot size for the tree, shrub, and vine layers is a 30-foot radius circle, and the plot size for the herbaceous layer is a 5-foot radius circle. The scientific names and wetland status of each plant species follows the National Wetland Plant List (2016). Once all species have been assigned a cover percentage, the dominance by wetland indicator plant species is assessed.

Hydrological indicators, as described in the Regional Supplements, are then listed for the sample point. A soil pit is excavated to required depths and the depth of water, saturation, and the water table is recorded. The soil profile at the sample point is also described, using the Munsell Soil-Color Charts (2009) to assess the color of the soil, and a texture analysis to determine the predominant texture of each soil layer. This data is used to determine if the soil profile meets the hydric soil indicators as defined in the Regional Supplements and the Field Guide for Identifying Hydric Soils V. 8.2 (USDA, 2018).

Once the location of the wetland line is determined from the data sampling effort, the edge of the wetland is flagged in the field and then surveyed in order to produce a map of the wetland that occurs on the subject property. Representative photographs of the sample points and of each wetland area were taken during the field visit. Any ditch, stream, pond or other water body that may be considered a Water of the U.S. and thus regulated by the U.S. Army Corps of Engineers (USACE) or the Wisconsin Department of Natural Resources (WDNR) is also identified.

RESULTS AND DISCUSSION

Antecedent Hydrologic Condition Analysis

Weather records were consulted from the Waukesha weather station to determine if precipitation levels were normal for the three months prior to the site visit. The antecedent hydrologic condition analysis for the site revealed that climactic conditions near the site were wetter than normal at the time of both site visits (**Table 1**). Drier than normal conditions means that hydrologic indicators may be absent from the wetland sample points and the data must be interpreted accordingly. Wetter than normal conditions must be accounted for when interpreting the data because saturation or the water table may be higher than it is during normal conditions, giving false positives for hydrological indicators.

Table 1 – Antecedent Hydrologic Condition Analysis

Month	3 yrs in 10 Less Than	3 yrs in 10 More Than	Rain Fall	Condition Dry, Wet, Normal	Condition Value	Month Weight Value	Product of Previous Two Columns
May	2.56	4.33	5.51	Wet	3	3	9
April	2.63	4.22	2.95	Normal	2	2	4
March	1.19	2.51	1.48	Normal	2	1	2
						Sum	15
If sum is:							
6-9	Then prior period has been drier than normal						
10-14	Then prior period has been normal						
15-18	Then prior period has been wetter than normal						
Conclusions:	A sum of 15 shows the prior period to the site visit to be wetter than normal.						

Review of Existing Data Sources

Existing data sources were reviewed to aid in the identification of wetland areas in the field.

The topographic map (**FIGURE 2**) shows the property reaching a peak elevation of 820 feet in the southeast corner. Moving northeast across the property, elevations decrease down to 810 feet in the northwest.

The soil survey map shows a small area of Sebewa silt loam (Sm) which coincides with the peak elevation on the property. The remainder and majority of soil on the property is Pella silt loam

(Ph) (**FIGURE 3**). The Ph and Sm soil types are predominantly hydric in depressions and drainageways. All of the soil types occurring on the property are listed in **Table 2**.

Table 2 – Soil Types

Map Symbol	Map Unit Name	Hydric Soil Type
Ph	Pella silt loam, 0-2%	Predominantly Hydric
Sm	Sebewa silt loam, 0-2%	Predominantly Hydric

The Wisconsin Wetland Inventory identifies two wetlands within the project area (**FIGURE 4**). One is a $S3K, filled, scrub-shrub wetland in the northeast corner of the property. Another is a S3/E2K, scrub-shrub and emergent-wet meadow wetland along the northern property line. Maximum extent wetland indicators cover the remainder of the property.

Historic aerial photographs revealed that the subject property had been continuously farmed since before 1941 (**FIGURE 5**), until the road infrastructure was put in as of 1980. The existing building was constructed some time around 2000.

Wetlands Identified During the Site Visit

One contiguous wetland was identified on the property during the site field visit. Site photos of the wetland are included in **FIGURE 6.** The acreages and types of wetlands that were identified and flagged in the project are shown in **FIGURE 7.** Field data sheets are included in **FIGURE 8**. A description of the wetland area follows.

Wetland A

Wetland A is a scrub-shrub and emergent-wet meadow wetland complex covering the northern and western borders of the property and extending off the property to the north and west. Three data points (Dp2, Dp3, and Dp6) were taken in the area, with the wetland consisting of Pella silt loam. Dominant plant species differ throughout the wetland area due differing wetland habitats.

Dp2 was taken in scrub-shrub wetland at the toe of a slope in the northeast corner of the property. The point had hydrology indicators of Drainage Patterns, Geomorphic Position, and FAC-Neutral Test. Dominant species at Dp1 were Box Elder, Reed Canary Grass, Spotted Touch-Me-Not, River-Bank Grape, and Virginia Creeper. The point had a hydric soil indicator of F6.Redox Dark Surface. An upland point (Dp1) 4 feet higher in elevation than Dp1 was recorded on a hillslope with no hydrology indicators. Dp1 was on a mowed lawn and had dominant species of Kentucky Blue Grass and planted Crabapple. The point had refusal at 10 inches due to gravel fill but met the hydric soil indicator for F6. Redox Dark Surface.

Dp3 was recorded in the southwest on the terrace of a drainageway in scrub-shrub wetland that had hydric soil indicators of A11. Depleted Below Dark Surface, F1. Loamy Mucky Mineral, F3. Depleted Matrix, and F6. Redox Dark Surface. The point had 1 inch of surface water with hydrology indicators of Surface Water, Drift Deposits, Water-Stained Leaves, Drainage Patterns, Geomorphic Position, and FAC-Neutral Test. Dominant species surrounding the point were Box Elder, Black Willow, Silky Dogwood, Highbush-Cranberry, Wild Black Currant, Spotted Touch-Me-Not, and River-Bank Grape. An upland point (Dp4) was recorded 4 feet higher than Dp3 on a hillslope in a transitional forest that had no hydrology indicators. The point had refusal at 9 inches due to rocky fill and contained no hydric soil indicators. Dominant vegetation around the point was Box Elder, Common Buckthorn, and Ground-Ivy.

Dp6 was recorded in a pocket of emergent wetland within the wetland complex. The point was recorded at the toe of a slope containing 1 inch of surface water that had hydrology indicators of Surface Water, Water-Stained Leaves, Drainage Patterns, Geomorphic Position, and FAC-Neutral Test. Dominant species at the point was Red Osier Dogwood, Glossy False Buckthorn, Broad-Leaf Cat-Tail, Reed Canary Grass, Spotted touch-Me-Not, and River-Bank Grape. The point had hydric soil indicators of A11. Depleted Below Dark Surface, F2. Loamy Gleyed Matrix, 3. Depleted Matrix, and F6. Redox Dark Surface. An upland hillslope point (Dp5) was recorded 3 feet higher in elevation than Dp6 on a lawn that contained no hydrology indicators. The point had refusal at 9 inches due to rock fill layer and had no hydric soil indicators. Dominant species at the point were Kentucky Blue Grass and Black Medick.

A final upland point (Dp7) was taken in the southeast of the property to confirm the remainder of the property didn't contain wetland. Dp7 was recorded on a hillslope lawn that contained no hydrology indicators. Kentucky Blue Grass was the only dominant species at the point. The point had refusal at 7 inches due to rock fill layer but contained a hydric soil indicator of F6. Redox Dark Surface.

CONCLUSION

HELIANTHUS LLC identified wetlands on the project site on June 25, 2019, using the standard practices described in this report and their best professional judgment. The wetland lines staked in the field and referred to in this report are the best estimate of the wetland boundaries based on the conditions present at the time of the delineation. The wetlands identified for this report may be subject to federal regulation under the jurisdiction of the U.S. Army Corps of Engineers, state regulation under the jurisdiction of Wisconsin DNR, and local jurisdiction under your local, county, town, city, or village. Because this delineation was conducted by Ms. Sherfinski, an Assured Wetland Delineator, obtaining a concurrence letter from the Wisconsin Department of Natural Resources is not necessary. It should be noted that all reports conducted by an Assured Delineator are required to be submitted to WDNR for their records, and may be subject to their review as part of an annual review process. Concurrence with these wetland lines by the U.S. Army Corps of Engineers, however, must be obtained before undertaking any alterations or modifications of this property.

In addition, because a wetland delineation is considered to be a point in time determination, wetland delineations are considered to be valid for a period of only five years for federal wetlands and 15 years for nonfederal wetlands. Weather patterns and site conditions can change over time, making a new delineation necessary.

Other environmental considerations include threatened or endangered species. It is recommended that an Endangered Resources (ER) Review request be submitted to the WDNR prior to pursuing any permits for proposed work.

Any impact, alteration, or fill to either the wetland areas or to waterways that are considered Waters of the U.S. are subject to state and federal regulations and permits may be required. The WDNR administers Chapters 30 and 281 of the Wisconsin State Statues, and the USACE administers Section 404 of the Clean Water Act. Additional county, city or village ordinances may also apply to wetlands or waterways. If any disturbance occurs on the property without obtaining wetland delineation concurrence or authorization from the USACE and WDNR, it should be considered at the owner's own risk and HELIANTHUS LLC shall not be considered responsible or liable for any resulting damages.

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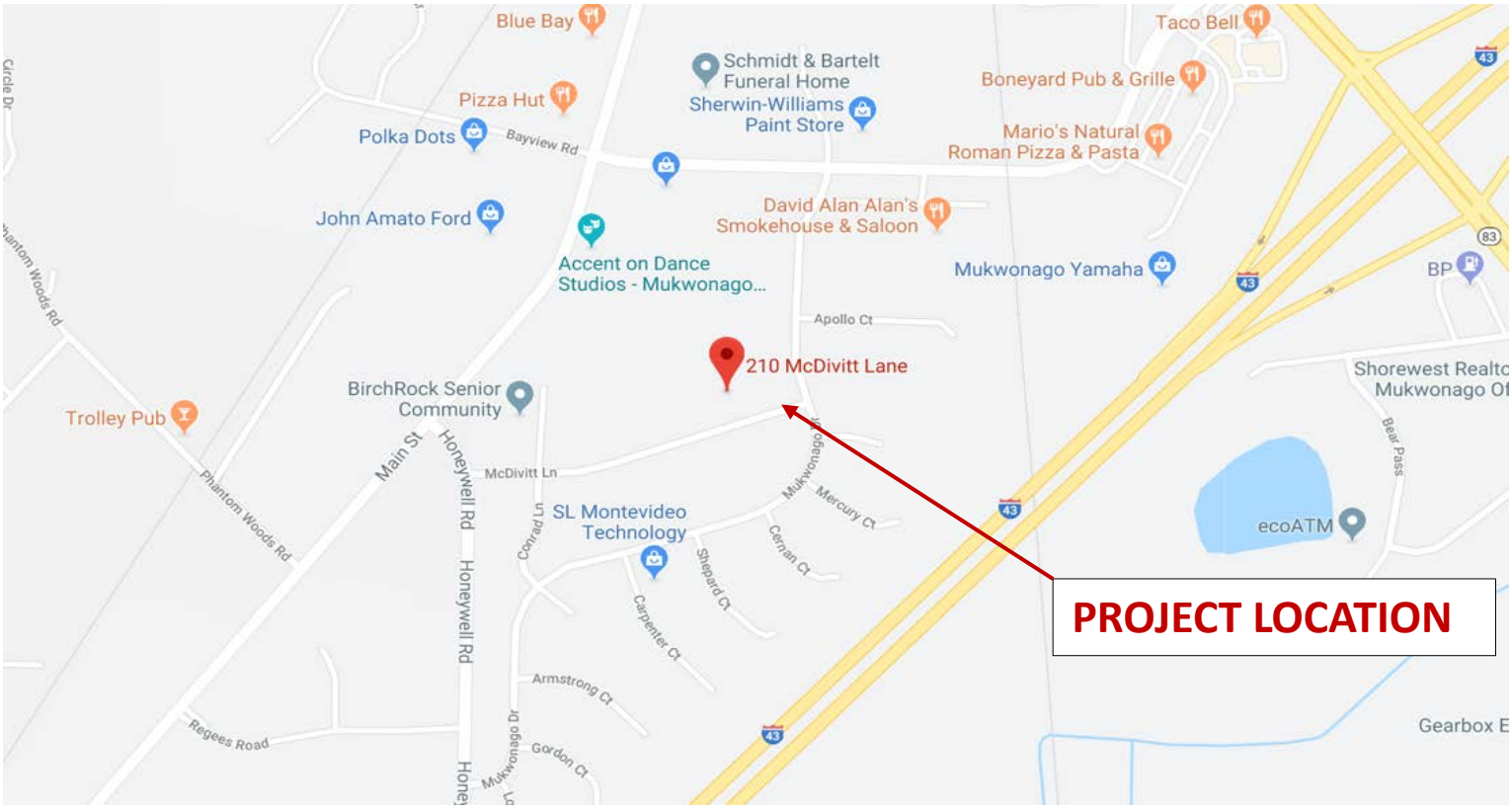


Source: Google Maps, 2019

500 FT

north

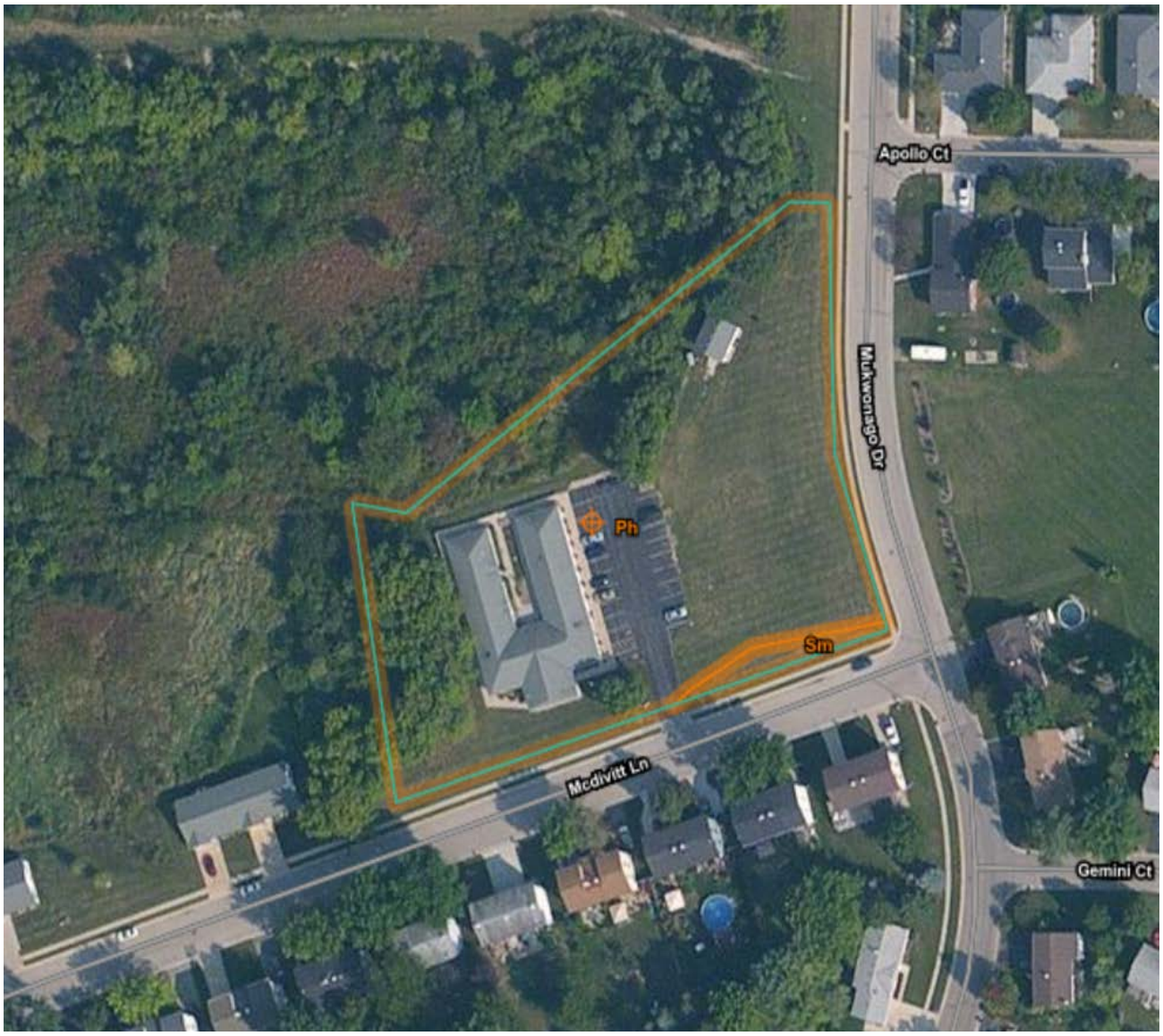
FIGURE 1. LOCATION MAP

200 FT

north

Source: Waukesha County GIS, 2019

FIGURE 2. TOPOGRAPHIC MAP



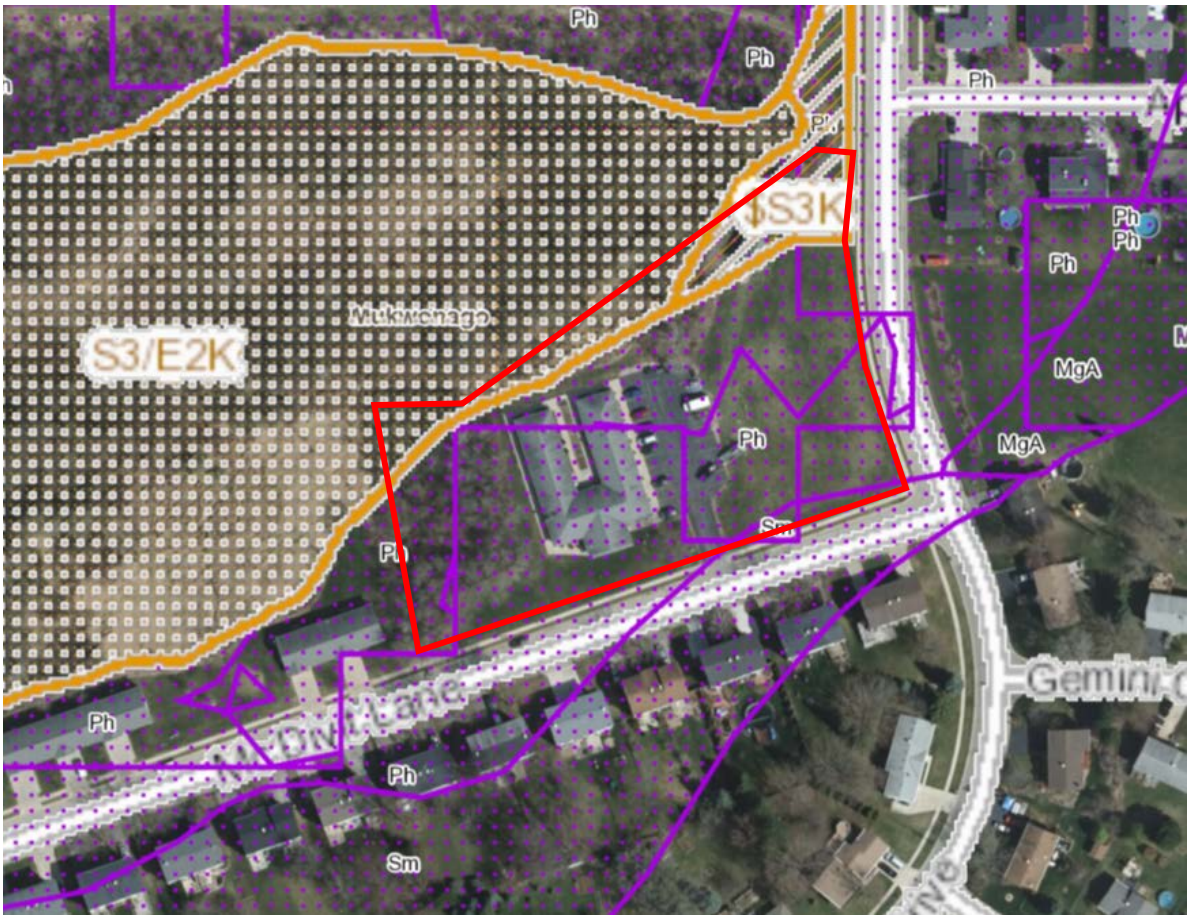
100 FT

north

Source: NRCS Web Soil Survey, 2019

Map Unit Symbol	Map Unit Name
Ph	Pella silt loam, 0-2% slopes
Sm	Sebewa silt loam, 0-2% slopes

FIGURE 3. SOIL SURVEY MAP



Legend

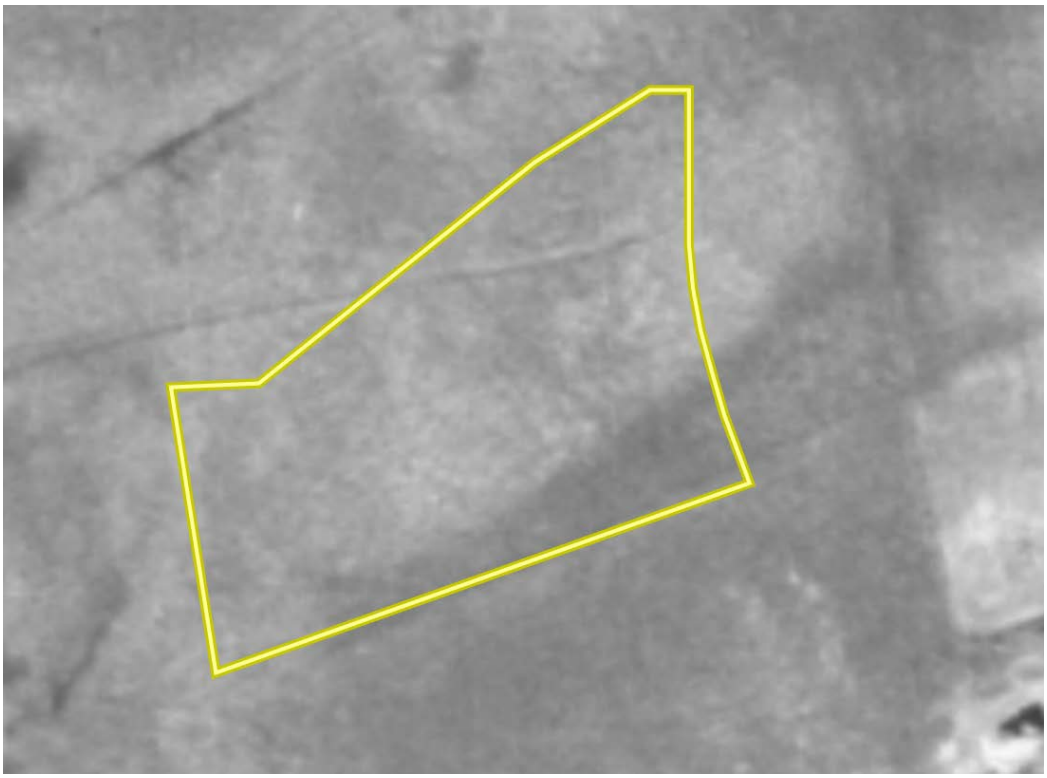
- Wetland Identifications and Confirmations
- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled excavated pond
  - Filled/drained wetland
  - Wetland too small to delineate
- Filled Points
- Wetland Class Areas
  - Wetland
  - Upland
- Filled Areas
- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled excavated pond
  - Filled/drained wetland
  - Wetland too small to delineate
- Filled Points
- Wetland Class Areas
  - Wetland
  - Upland
- Filled Areas
- NRCS Wetspots
- Maximum Extent Wetland Indicators
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway
- County and Local Roads

150 feet

north

Source: WIDNR Surface Water Data Viewer, 2019

FIGURE 4. WWI MAP



1941.

1970.

Source: Waukesha County GIS, 2019

FIGURE 5. HISTORIC AERIAL PHOTOS

1980.

2005.

Source: Waukesha County GIS, 2019

FIGURE 5. HISTORIC AERIAL PHOTOS

Most of the property is manicured lawn.

McDivitt Lane is a curb and gutter road with no ditch.

FIGURE 6. SITE PHOTOS

A senior living facility is currently located on site.

The wetland is a forested wetland with a drainage ditch.

FIGURE 6. SITE PHOTOS

The side slopes of the developed area next to wetland.

View of emergent wetland community within the wetland complex.

FIGURE 6. SITE PHOTOS

FIGURE 7. WETLAND BOUNDARY MAP

File: G:\My Drive\Project Folders\19-175 Castle New Berlin\CASTLE MUK WETLAND.dwg Layout: WETLAND BDY User: Kristin Plotted: Nov 04, 2019 – 11:42am Xref's:

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CLIENT:
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CLIENT ADDRESS:
NEW BERLIN, WI

PROJECT:
MUKWONAGO RCAC BUILDING

PROJECT LOCATION:
MUKWONAGO, WI
WAUKESHA CO.

north
0 25 50 100
SCALE: 1"=50'

Design/Drawn: **DHS 06/17/19**
Approved: **AWW 06/17/19**

SHEET TITLE:
WETLAND BOUNDARY MAP

SHEET NUMBER:
1 OF 1

JSD PROJECT NO: 19-9231

FIGURE 8. WETLAND DATA FORMS

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Castle Senior Living City/County: Mukwonago/Wauke Sampling Date: 06-25-19
Applicant/Owner: Kristopher Kiefer State: WI Sampling Point: 1
Investigator(s): K. Sherfinski Section, Township, Range: S35, T5N, R18E
Landform (hillslope, terrace, etc.): slight hillslope Local relief (concave, convex, none): none
Slope (%): 2% Lat.: Long.: Datum:
Soil Map Unit Name Pella silt loam (Ph) NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? N
Hydric soil present? Y
Indicators of wetland hydrology present? N

Is the sampled area within a wetland? N

If yes, optional wetland site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)

Antecedent hydrologic condition analysis show climactic conditions to be wetter than normal for this time of year.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches): ____
Water table present?	Yes	____	No	X	Depth (inches): ____
Saturation present? (includes capillary fringe)	Yes	____	No	X	Depth (inches): ____

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Dp1 is approximately four feet in elevation higher than Dp2.

VEGETATION - Use scientific names of plants

Sampling Point: 1

Tree Stratum	Plot Size (30ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1 *Malus pumila*		20	Y	UPL
2				
3				
4				
5				
6				
7				
8				
9				
10				
		20	= Total Cover	

Sapling/Shrub Stratum	Plot Size (30ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Herb Stratum	Plot Size (5ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1 *Poa pratensis*		90	Y	FACU
2 *Medicago lupulina*		10	N	FACU
3 *Taraxacum officinale*		2	N	FACU
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		102	= Total Cover	

Woody Vine Stratum	Plot Size (30ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	4	10
Sapling/Shrub Stratum	0	0
Herb Stratum	20	51
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	102	x 4 =	408
UPL species	20	x 5 =	100
Column totals	122 (A)		508 (B)

Prevalence Index = B/A = 4.16

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

Mowed lawn with planted crab trees.

SOIL **Sampling Point:** 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0 - 10	10YR 2/2	77	10YR 5/3	20	C	M	silty clay loam	
			10YR 5/6	3	C	M		

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: Gravel fill
Depth (inches): 10

Hydric soil present? Y

Remarks:
Gravel fill at 10 inches.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Castle Senior Living City/County: Mukwonago/Wauke Sampling Date: 06-25-19
Applicant/Owner: Kristopher Kiefer State: WI Sampling Point: 2
Investigator(s): K. Sherfinski Section, Township, Range: S35, T5N, R18E
Landform (hillslope, terrace, etc.): toe of slope Local relief (concave, convex, none): concave
Slope (%): 0-2% Lat.: Long.: Datum:
Soil Map Unit Name Pella silt loam (Ph) NWI Classification: $S3K
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Antecedent hydrologic condition analysis show climactic conditions to be wetter than normal for this time of year.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches): ____
Water table present?	Yes	____	No	X	Depth (inches): ____
Saturation present? (includes capillary fringe)	Yes	____	No	X	Depth (inches): ____

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 2

Tree Stratum (Plot Size (30ft radius))	Absolute % Cover	Dominant Species	Indicator Status
1 *Acer negundo*	20	Y	FAC
2			
3			
4			
5			
6			
7			
8			
9			
10			
	20 = Total Cover		

Sapling/Shrub Stratum (Plot Size (30ft radius))	Absolute % Cover	Dominant Species	Indicator Status
1 *Acer negundo*	10	Y	FAC
2			
3			
4			
5			
6			
7			
8			
9			
10			
	10 = Total Cover		

Herb Stratum (Plot Size (5ft radius))	Absolute % Cover	Dominant Species	Indicator Status
1 *Phalaris arundinacea*	70	Y	FACW
2 *Impatiens capensis*	20	Y	FACW
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	90 = Total Cover		

Woody Vine Stratum (Plot Size (30ft radius))	Absolute % Cover	Dominant Species	Indicator Status
1 *Vitis riparia*	5	Y	FAC
2 *Parthenocissus quinquefolia*	3	Y	FACU
3			
4			
5			
	8 = Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum	4	10
Sapling/Shrub Stratum	2	5
Herb Stratum	18	45
Woody Vine Stratum	2	4

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 80.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	35	x 3 =	105
FACU species	3	x 4 =	12
UPL species	0	x 5 =	0
Column totals	128 (A)		297 (B)

Prevalence Index = B/A = 2.32

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Scrub-shrub wetland.

SOIL **Sampling Point:** 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0 - 6	10YR 2/2	100					silt loam	
6 - 12	10YR 2/2	95	10YR 5/4	5	C	M	silty clay loam	
12 - 20	10YR 2/2	90	10YR 5/4	5	C	M	silty clay loam	
			10YR 4/4	5	C	PL		

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
X Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Castle Senior Living City/County: Mukwonago/Wauke Sampling Date: 06-25-19
Applicant/Owner: Kristopher Kiefer State: WI Sampling Point: 3
Investigator(s): K. Sherfinski Section, Township, Range: S35, T5N, R18E
Landform (hillslope, terrace, etc.): drainageway terreace Local relief (concave, convex, none): depression
Slope (%): 0-2% Lat.: Long.: Datum:
Soil Map Unit Name Pella silt loam (Ph) NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Antecedent hydrologic condition analysis show climactic conditions to be wetter than normal for this time of year.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- X Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	X	No		Depth (inches):	1
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):	

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A culvert is located nearby under Mcdivitt Lane, where the small creek drains.

VEGETATION - Use scientific names of plants

Sampling Point: 3

Tree Stratum (Plot Size (30ft radius))	Absolute % Cover	Dominant Species	Indicator Status
1 *Acer negundo*	60	Y	FAC
2 *Salix nigra*	20	Y	OBL
3			
4			
5			
6			
7			
8			
9			
10			
	80	= Total Cover	

Sapling/Shrub Stratum (Plot Size (30ft radius))	Absolute % Cover	Dominant Species	Indicator Status
1 *Cornus obliqua*	10	Y	FACW
2 *Viburnum opulus*	10	Y	FACW
3 *Lonicera X bella*	3	N	FACU
4			
5			
6			
7			
8			
9			
10			
	23	= Total Cover	

Herb Stratum (Plot Size (5ft radius))	Absolute % Cover	Dominant Species	Indicator Status
1 *Impatiens capensis*	60	Y	FACW
2 *Ribes americanum*	30	Y	FACW
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	90	= Total Cover	

Woody Vine Stratum (Plot Size (30ft radius))	Absolute % Cover	Dominant Species	Indicator Status
1 *Vitis riparia*	5	Y	FAC
2			
3			
4			
5			
	5	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	16	40
Sapling/Shrub Stratum	5	12
Herb Stratum	18	45
Woody Vine Stratum	1	3

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across all Strata: 7 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	20	x 1 =	20
FACW species	110	x 2 =	220
FAC species	65	x 3 =	195
FACU species	3	x 4 =	12
UPL species	0	x 5 =	0
Column totals	198 (A)		447 (B)

Prevalence Index = B/A = 2.26

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Scrub-shrub wetland.

SOIL **Sampling Point:** 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0 - 6	10YR 2/1	95	10YR 3/3	5	C	PL	clay loam	mucky
6 - 20	2.5Y 5/2	95	2.5Y 5/6	5	C	M	silty clay loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- _X_ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- _X_ Depleted Matrix (F3)
- _X_ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Castle Senior Living City/County: Mukwonago/Wauke Sampling Date: 06-25-19
Applicant/Owner: Kristopher Kiefer State: WI Sampling Point: 4
Investigator(s): K. Sherfinski Section, Township, Range: S35, T5N, R18E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex
Slope (%): 4 Lat.: Long.: Datum:
Soil Map Unit Name: Pella silt loam (Ph) NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Indicators of wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Antecedent hydrologic condition analysis show climactic conditions to be wetter than normal for this time of year.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches): ____
Water table present?	Yes	____	No	X	Depth (inches): ____
Saturation present? (includes capillary fringe)	Yes	____	No	X	Depth (inches): ____

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dp4 is 4 feet in elevation higher than Dp3.

VEGETATION - Use scientific names of plants

Sampling Point: 4

Tree Stratum	Plot Size (30ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1	*Acer negundo*	60	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
		60	= Total Cover	

Sapling/Shrub Stratum	Plot Size (30ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1	*Rhamnus cathartica*	40	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
		40	= Total Cover	

Herb Stratum	Plot Size (5ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1	*Glechoma hederacea*	60	Y	FACU
2	*Rhamnus cathartica*	10	N	FAC
3	*Taraxacum officinale*	3	N	FACU
4	*Geum canadense*	2	N	FAC
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		75	= Total Cover	

Woody Vine Stratum	Plot Size (30ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	12	30
Sapling/Shrub Stratum	8	20
Herb Stratum	15	38
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 66.67% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	112	x 3 =	336
FACU species	63	x 4 =	252
UPL species	0	x 5 =	0
Column totals	175 (A)		588 (B)

Prevalence Index = B/A = 3.36

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Disturbed forest.

SOIL **Sampling Point:** 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0 - 9	10YR 3/2	98	10YR 5/3	2	C	M	silty clay loam	
9+							rock fill	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: rock fill
Depth (inches): 9

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Castle Senior Living City/County: Mukwonago/Wauke Sampling Date: 06-25-19
Applicant/Owner: Kristopher Kiefer State: WI Sampling Point: 5
Investigator(s): K. Sherfinski Section, Township, Range: S35, T5N, R18E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex
Slope (%): 4 Lat.: Long.: Datum:
Soil Map Unit Name: Pella silt loam (Ph) NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Indicators of wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Antecedent hydrologic condition analysis show climactic conditions to be wetter than normal for this time of year.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches): ____
Water table present?	Yes	____	No	X	Depth (inches): ____
Saturation present? (includes capillary fringe)	Yes	____	No	X	Depth (inches): ____

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dp5 approximately 3 feet higher in elevation than Dp6.

VEGETATION - Use scientific names of plants

Sampling Point: 5

Tree Stratum	Plot Size (30ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Sapling/Shrub Stratum	Plot Size (30ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Herb Stratum	Plot Size (5ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1	*Poa pratensis*	80	Y	FACU
2	*Medicago lupulina*	40	Y	FACU
3	*Daucus carota*	20	N	UPL
4	*Taraxacum officinale*	5	N	FACU
5	*Trifolium repens*	3	N	FACU
6	*Cirsium arvense*	2	N	FACU
7				
8				
9				
10				
11				
12				
13				
14				
15				
		150	= Total Cover	

Woody Vine Stratum	Plot Size (30ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	30	75
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	130	x 4 =	520
UPL species	20	x 5 =	100
Column totals	150 (A)		620 (B)

Prevalence Index = B/A = 4.13

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

Lawn.

SOIL **Sampling Point:** 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0 - 6	10 YR 2/2	97	10YR 5/2	3	C	M	silty clay loam	
6 - 9	10YR 3/2	80					silty clay loam	
	10YR 4/4	20						
9+							rockfill	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: rock fill
Depth (inches): 9

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Castle Senior Living City/County: Mukwonago/Wauke Sampling Date: 06-25-19
Applicant/Owner: Kristopher Kiefer State: WI Sampling Point: 6
Investigator(s): K. Sherfinski Section, Township, Range: S35, T5N, R18E
Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): concave
Slope (%): 0-2% Lat.: Long.: Datum:
Soil Map Unit Name NWI Classification: S3/E2K
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Antecedent hydrologic condition analysis show climactic conditions to be wetter than normal for this time of year.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	X	No	___	Depth (inches):	1
Water table present?	Yes	___	No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	___	No	X	Depth (inches):	

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 6

	Tree Stratum	Plot Size (30ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
			0	= Total Cover	

	Sapling/Shrub Stratum	Plot Size (30ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1	*Cornus alba*		20	Y	FACW
2	*Frangula alnus*		10	Y	FAC
3	*Salix nigra*		5	N	OBL
4	*Salix bebbiana*		5	N	FACW
5					
6					
7					
8					
9					
10					
			40	= Total Cover	

	Herb Stratum	Plot Size (5ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1	*Typha latifolia*		50	Y	OBL
2	*Impatiens capensis*		50	Y	FACW
3	*Phalaris arundinacea*		30	Y	FACW
4	*Symphyotrichum puniceum*		3	N	OBL
5	*Cicuta maculata*		2	N	OBL
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
			135	= Total Cover	

	Woody Vine Stratum	Plot Size (30ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1	*Vitis riparia*		3		FAC
2					
3					
4					
5					
			3	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	8	20
Herb Stratum	27	68
Woody Vine Stratum	1	2

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	60	x 1 =	60
FACW species	105	x 2 =	210
FAC species	13	x 3 =	39
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	178 (A)		309 (B)

Prevalence Index = B/A = 1.74

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Emergent wetland pocket within the scrub-shrub wetland.

SOIL **Sampling Point:** 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0 - 10	10YR 3/1	98	10YR 3/3	2	C	PL	silty clay loam	
10 - 20	5Y 6/1	95	10YR 5/6	5	C	M	silty clay loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- X Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Castle Senior Living City/County: Mukwonago/Wauke Sampling Date: 06-25-19
Applicant/Owner: Kristopher Kiefer State: WI Sampling Point: 7
Investigator(s): K. Sherfinski Section, Township, Range: S35, T5N, R18E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none
Slope (%): 2-3% Lat.: Long.: Datum:
Soil Map Unit Name Pella silt loam (Ph) NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	Y		
Indicators of wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Antecedent hydrologic condition analysis show climactic conditions to be wetter than normal for this time of year.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches): ____
Water table present?	Yes	____	No	X	Depth (inches): ____
Saturation present? (includes capillary fringe)	Yes	____	No	X	Depth (inches): ____

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 7

Tree Stratum	Plot Size (30ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Sapling/Shrub Stratum	Plot Size (30ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Herb Stratum	Plot Size (5ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1	*Poa pratensis*	90	Y	FACU
2	*Festuca arundinacea*	20	N	FACU
3	*Trifolium repens*	10	N	FACU
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		120	= Total Cover	

Woody Vine Stratum	Plot Size (30ft radius)	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	24	60
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	120	x 4 =	480
UPL species	0	x 5 =	0
Column totals	120 (A)		480 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

Lawn.

SOIL **Sampling Point:** 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0 - 7	10YR 2/1	98	10YR 5/3	2	C	M		
7+							rock fill	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: rock fill
Depth (inches): 7

Hydric soil present? Y

Remarks:

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CASTLE SENIOR LIVING
BIRCHROCK COMMUNITY - CBRF ADDITION

210 McDIVITT LANE, MUKWONAGO, WI 53149

REVISIONS

FIRST FLOOR PLAN

SCHEMATIC DESIGN
DATE: 11-06-19
JOB NO: 19016101
SHEET NO: A-200

PLUNKETT RAYSICH ARCHITECTS, LLP
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UNIT SCHEDULE

Name	Area	Count
1 BED	515 SF	1
DOUBLE		4
STUDIO A	456 SF	6
STUDIO B	432 SF	3
STUDIO B	431 SF	1
SUITE A	313 SF	4
SUITE B	319 SF	1
TOTAL		20

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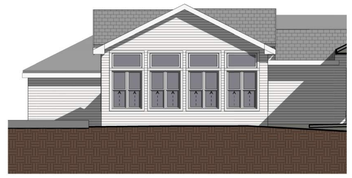
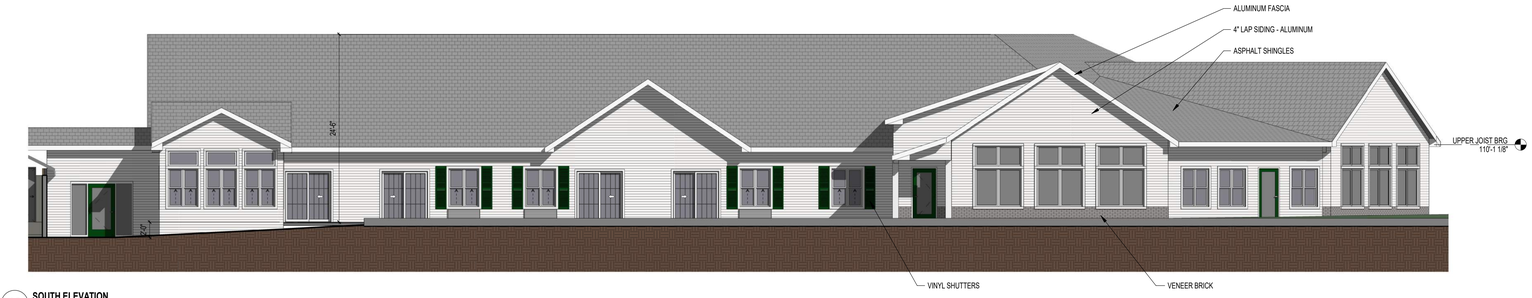


A2 **EAST ENTRANCE ELEVATION**
1/8" = 1'-0"

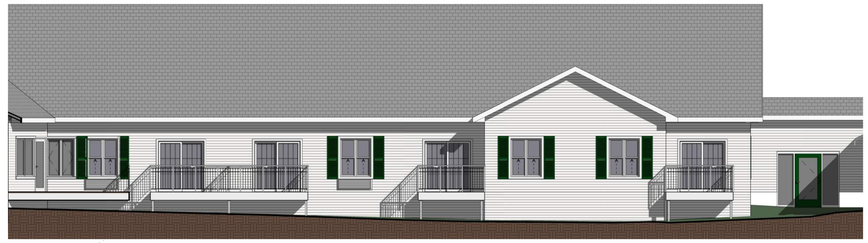


A3 **SOUTH ELEVATION**
1/8" = 1'-0"

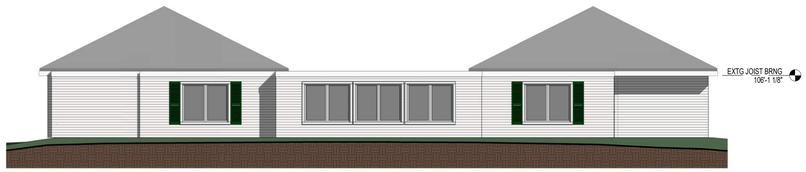
B2 **SOUTHEAST ELEVATION**
1/8" = 1'-0"

B6 **NORTHEAST ELEVATION**
1/8" = 1'-0"

C1 **NORTHWEST ELEVATION**
1/8" = 1'-0"



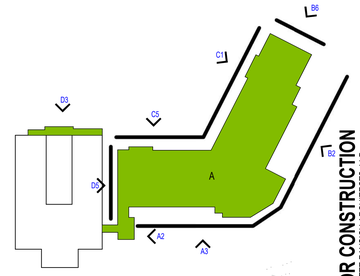
C5 **NORTH ELEVATION**
1/8" = 1'-0"



D3 **NORTH ELEVATION - CONNECTOR**
1/8" = 1'-0"

D5 **WEST ELEVATION**
1/8" = 1'-0"

EXISTING BUILDING



KEY PLAN

PLUNKETT RAYSICH ARCHITECTS, LLP
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SCHEMATIC DESIGN

DATE: 11-06-19
JOB NO: 190161-01
SHEET NO: A-400

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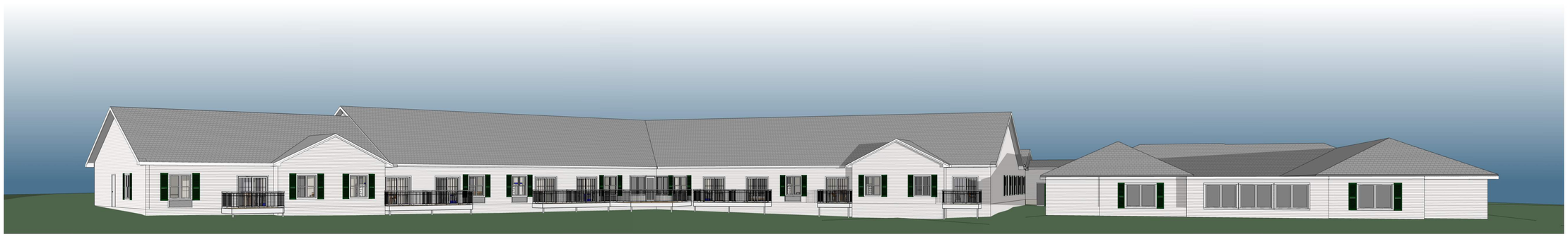
1 EAST VIEW LOOKING WEST

2 SOUTH VIEW LOOKING NORTH



3 NORTH VIEW LOOKING SOUTH EAST

CHAMPION BRICK-
GENERAL SHALE -CORTEZ
MATCH EXISTING

WHITE ALUMINUM LAP SIDING
MATCH EXISTING

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CASTLE SENIOR LIVING
BIRCHROCK COMMUNITY - CBRF ADDITION

210 McDIVITT LANE, MUKWONAGO, WI 53149

REVISIONS:

EXTERIOR ELEVATIONS

SCHEMATIC DESIGN

DATE: 10-29-19

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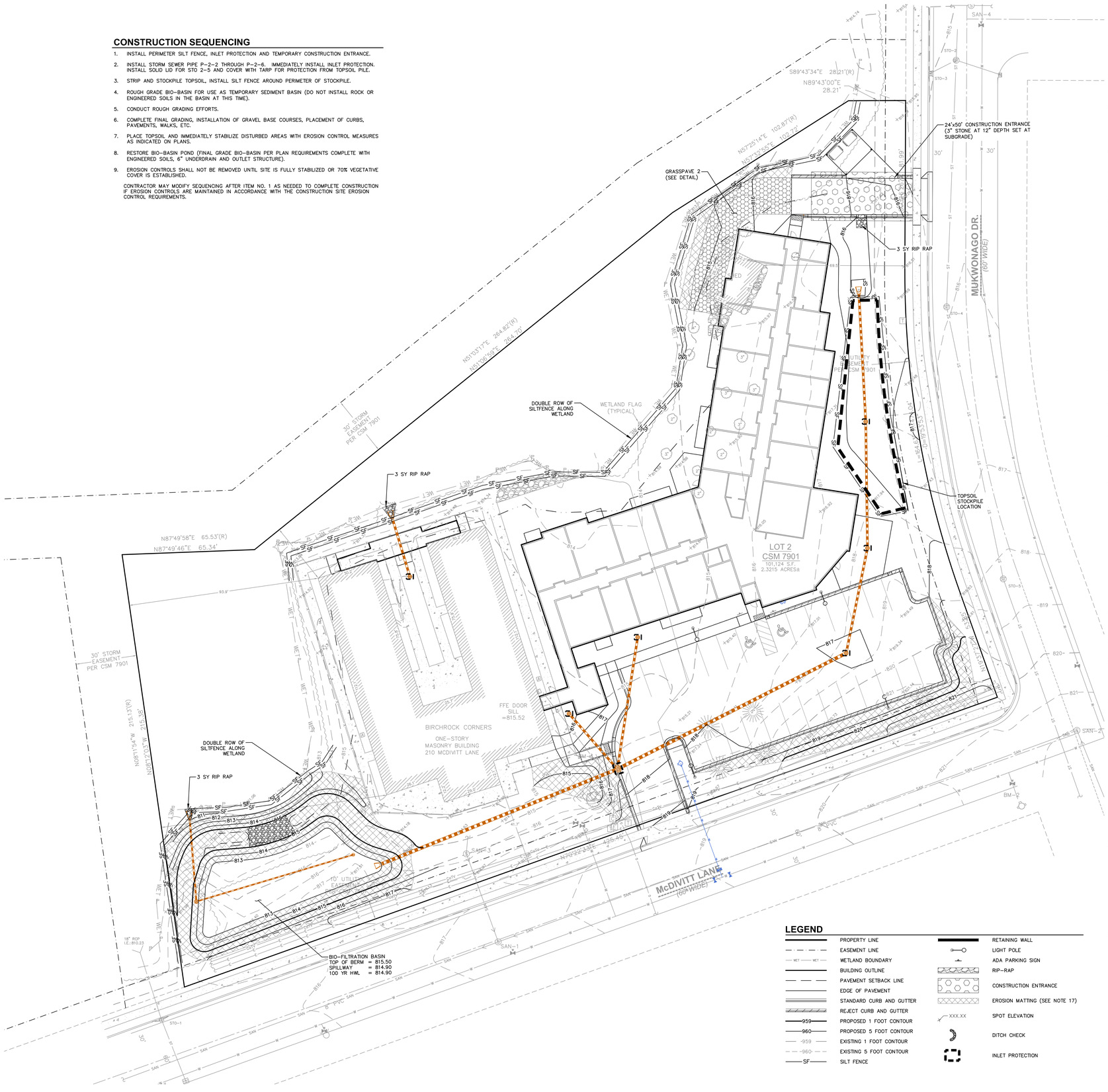
CONSTRUCTION SEQUENCING

1. INSTALL PERIMETER SILT FENCE, INLET PROTECTION AND TEMPORARY CONSTRUCTION ENTRANCE.
2. INSTALL STORM SEWER PIPE P–2–2 THROUGH P–2–6. IMMEDIATELY INSTALL INLET PROTECTION. INSTALL SOLID LID FOR STO 2–5 AND COVER WITH TARP FOR PROTECTION FROM TOPSOIL PILE.
3. STRIP AND STOCKPILE TOPSOIL, INSTALL SILT FENCE AROUND PERIMETER OF STOCKPILE.
4. ROUGH GRADE BIO–BASIN FOR USE AS TEMPORARY SEDIMENT BASIN (DO NOT INSTALL ROCK OR ENGINEERED SOILS IN THE BASIN AT THIS TIME).
5. CONDUCT ROUGH GRADING EFFORTS.
6. COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
7. PLACE TOPSOIL AND IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROL MEASURES AS INDICATED ON PLANS.
8. RESTORE BIO–BASIN POND (FINAL GRADE BIO–BASIN PER PLAN REQUIREMENTS COMPLETE WITH ENGINEERED SOILS, 6" UNDERDRAIN AND OUTLET STRUCTURE).
9. EROSION CONTROLS SHALL NOT BE REMOVED UNTIL SITE IS FULLY STABILIZED OR 70% VEGETATIVE COVER IS ESTABLISHED.

CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM NO. 1 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS.



LEGEND

PROPERTY LINE	RETAINING WALL
EASEMENT LINE	LIGHT POLE
WETLAND BOUNDARY	ADA PARKING SIGN
BUILDING OUTLINE	RIP–RAP
PAVEMENT SETBACK LINE	CONSTRUCTION ENTRANCE
EDGE OF PAVEMENT	EROSION MATTING (SEE NOTE 17)
STANDARD CURB AND GUTTER	XXX.XX SPOT ELEVATION
REJECT CURB AND GUTTER	DITCH CHECK
959 PROPOSED 1 FOOT CONTOUR	INLET PROTECTION
960 PROPOSED 5 FOOT CONTOUR	
959 EXISTING 1 FOOT CONTOUR	
960 EXISTING 5 FOOT CONTOUR	
SF SILT FENCE	

north

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EROSION CONTROL NOTES

1. ALL CONSTRUCTION SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN WISCONSIN'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT FOR CONSTRUCTION SITE LAND DISTURBANCE ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) TECHNICAL STANDARDS AND VILLAGE OF MUKWONAGO ORDINANCES. IT IS THE RESPONSIBILITY OF ALL CONTRACTORS ASSOCIATED WITH THE PROJECT TO OBTAIN A COPY OF, AND UNDERSTAND, THESE STANDARDS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
2. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL CONTROL MEASURES AS DIRECTED BY JSD PROFESSIONAL SERVICES, INC. (JSD) OR AUTHORITY HAVING JURISDICTION SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
3. MODIFICATIONS TO THE APPROVED EROSION CONTROL PLAN IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS ARE ALLOWED IF MODIFICATIONS CONFORM TO WDNR TECHNICAL STANDARDS. CONTRACTOR IS RESPONSIBLE TO NOTIFY JSD AND AUTHORITY HAVING JURISDICTION OF ANY CHANGES TO THE EROSION CONTROL AND STORMWATER MANAGEMENT PLANS. ALL MODIFICATIONS MUST BE APPROVED BY JSD/AUTHORITY HAVING JURISDICTION PRIOR TO DEVIATION FROM THE APPROVED PLAN.
4. INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCE(S), SILT FENCE AND EXISTING INLET PROTECTION) PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN IN ORDER TO PROTECT ADJACENT PROPERTIES/STORM SEWER SYSTEMS FROM SEDIMENT TRANSPORT.
5. CONSTRUCTION ENTRANCE(S) SHALL BE INSTALLED AT THE LOCATION OF VEHICLE INGRESS/EGRESS POINT(S) AS SHOWN ON THE PLAN. CONTRACTOR IS RESPONSIBLE TO COORDINATE LOCATION(S) WITH THE PROPER AUTHORITY HAVING JURISDICTION, PROVIDE NECESSARY FEES AND OBTAIN ALL REQUIRED APPROVALS OR PERMITS. ADDITIONAL CONSTRUCTION ENTRANCES OTHER THAN AS SHOWN ON THE PLANS MUST BE PRIOR APPROVED BY THE APPLICABLE AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. CONSTRUCTION ENTRANCES SHALL BE MAINTAINED BY THE CONTRACTOR IN A CONDITION WHICH WILL PREVENT THE TRACKING OF MUD OR DRY SEDIMENT ONTO ADJACENT PUBLIC STREETS AFTER EACH WORKING DAY OR MORE FREQUENTLY AS REQUIRED.
6. PAVED SURFACES ADJACENT TO CONSTRUCTION ENTRANCES SHALL BE SWEPT AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST AFTER THE END OF EACH WORK DAY AND AS REQUESTED BY THE AUTHORITY HAVING JURISDICTION.
7. THE ADJACENT INLETS THAT WILL COLLECT RUNOFF FROM DISTURBED AREAS SHALL BE PROTECTED TO PREVENT SEDIMENT DEPOSITION. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER. ALL INLETS, STRUCTURES, PIPES, AND SWALES SHALL BE KEPT CLEAN AND FREE OF SEDIMENTATION AND DEBRIS.
8. AT A MINIMUM, SEDIMENT TRAPS AND NECESSARY TEMPORARY DRAINAGE PROVISIONS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE BEGINNING OF SIGNIFICANT MASS GRADING OPERATIONS TO PREVENT OFFSITE DISCHARGE OF UNTREATED RUNOFF.
9. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE OWNER WILL BE RESPONSIBLE IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT.
10. DITCH CHECKS AND APPLICABLE EROSION NETTING/MATTING SHALL BE INSTALLED IMMEDIATELY AFTER COMPLETION OF GRADING EFFORTS WITHIN DITCHES/SWALES TO PREVENT SOIL TRANSPORTATION.
11. EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, SANITARY SEWER, WATER MAIN, ETC.) OUTSIDE OF THE PERIMETER CONTROLS SHALL INCORPORATE THE FOLLOWING:
    - PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
    - BACKFILL, COMPACT, AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
    - DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH THE DEWATERING TECHNICAL STANDARD NO. 1061 PRIOR TO RELEASE INTO THE STORM SEWER, RECEIVING STREAM, OR DRAINAGE DITCH.
12. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER AND DITCH CHECKS SHALL BE IMMEDIATELY FITTED AT ALL INSTALLED CULVERT INLETS TO PREVENT SEDIMENT DEPOSITION WITHIN STORM SEWER SYSTEMS.
13. TOPSOIL STOCKPILE SHALL BE LOCATED GENERALLY AS SHOWN. CONTRACTOR MAY SUBMIT AN ALTERNATE PLAN FOR LOCATION OF TEMPORARY TOPSOIL STOCKPILE TO ENGINEER FOR APPROVAL. INSTALL EROSION CONTROLS ON THE DOWNSTREAM SIDE OF STOCKPILES. IF STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS IS REQUIRED. IF DISTURBANCE OCCURS BETWEEN NOVEMBER 15TH AND MAY 15TH, THE MULCHING SHALL BE PERFORMED BY HYDRO–MULCHING WITH A "TACKIFIER."
14. EROSION CONTROL MEASURES TEMPORARILY REMOVED FOR UNAVOIDABLE CONSTRUCTION ACTIVITIES SHALL BE IN WORKING ORDER PRIOR TO THE COMPLETION OF EACH WORK DAY.
15. PUMPS MAY BE USED AS BYPASS DEVICES. IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS.
16. GRADING EFFORTS SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. EROSION AND SEDIMENT CONTROL MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY OR PERMANENT MEASURES. ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR A PERIOD OF FOURTEEN (14) DAYS REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS.
17. ALL DISTURBED SLOPES EXCEEDING 4:1 YET LESS THAN 3:1, SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S75BN EROSION MATTING (OR APPROVED EQUAL) AND DISTURBED SLOPES EXCEEDING 3:1 YET LESS THAN 2:1 SHALL BE STABILIZED WITH NORTH AMERICAN GREEN C125BN (OR APPROVED EQUAL) OR APPLICATION OF AN APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED WITHIN 7 DAYS OF REACHING FINAL GRADE AND/OR AS SOON AS CONDITIONS ALLOW. DRAINAGE SWALES SHALL BE STABILIZED WITH CLASS II, TYPE B EROSION MATTING. EROSION MATTING AND/OR NETTING USED ONSITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND WDNR TECHNICAL STANDARDS 1052 AND 1053.
18. STABILIZATION PRACTICES:
    - 18.1. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. NO MORE THAN SEVEN (7) DAYS SHALL PASS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS CEASED UNLESS:
    - 18.2. THE INITIATION STABILIZATION MEASURES BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS CEASED IS PRECLUDED BY SNOW COVER. IN THAT EVENT, STABILIZATION SHALL BE INITIATED AS SOON AS PRACTICABLE.
    - 18.3. CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN FOURTEEN (14) DAYS FROM WHEN ACTIVITY CEASED, (I.E. THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN FOURTEEN (14) DAYS. IN THAT EVENT, STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED.
    - 18.4. STABILIZATION MEASURES SHALL BE DETERMINED BASED ON SITE CONDITIONS AT THE TIME OF CONSTRUCTION ACTIVITY HAS CEASED, INCLUDING BUT NOT LIMITED TO WEATHER CONDITIONS AND LENGTH OF TIME MEASURE MUST BE EFFECTIVE. THE FOLLOWING ARE ACCEPTABLE STABILIZATION MEASURES:
        - PERMANENT SEEDING; IN ACCORDANCE WITH APPROVED CONSTRUCTION SPECIFICATION
        - TEMPORARY SEEDING; MAY CONSIST OF SPRING OATS(100LBS/ACRE) AND/OR WHEAT OR CEREAL RYE (150LB/ACRE)
        - HYDRO–MULCHING WITH A TACKIFIER
        - GEOTEXTILE EROSION MATTING
        - SODDING
19. DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL KEEP A WATER TRUCK ON SITE FOR THE PURPOSE OF WATERING DOWN SOILS WHICH MAY OTHERWISE BECOME AIRBORNE. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING WIND EROSION (DUST) DURING CONSTRUCTION AT THEIR EXPENSE. REFER TO WDNR TECHNICAL STANDARD 1068.
20. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE VISUALLY INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM ON A DAILY BASIS.
21. MAINTAIN SOIL EROSION CONTROL DEVICES THROUGH THE DURATION OF THIS PROJECT. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL LAND DISTURBING CONSTRUCTION ACTIVITY AT THE SITE HAS BEEN COMPLETED AND THAT A UNIFORM PERENNIAL VEGETATIVE COVER HAS BEEN ESTABLISHED WITH A DENSITY OF AT LEAST 70% FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES OR THAT EMPLOY EQUIVALENT PERMANENT STABILIZATION MEASURES. DISTURBANCE ASSOCIATED WITH EROSION CONTROL REMOVAL SHALL BE IMMEDIATELY STABILIZED.
22. QUALIFIED PERSONNEL (PROVIDED BY THE GENERAL/PRIME CONTRACTOR) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AND EROSION AND SEDIMENT CONTROLS WITHIN 24 HOURS OF ALL 0.5–INCH, OR MORE, PRECIPITATION EVENTS WITH A MINIMUM INSPECTION INTERVAL OF ONCE EVERY SEVEN (7) CALENDAR DAYS IN THE ABSENCE OF A QUALIFYING RAIN OR SNOWFALL EVENT. REPORTING SHALL BE IN ACCORDANCE WITH PART IV D.4. (a–f). OF THE NPDES GENERAL PERMIT. CONTRACTOR SHALL IMMEDIATELY ARRANGE TO HAVE ANY DEFICIENT ITEMS REVEALED DURING INSPECTIONS REPAIRED/REPLACED.
23. THE FOLLOWING MAINTENANCE PRACTICES SHALL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES, AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN. UPON IDENTIFICATION, DEFICIENCIES IN STORMWATER CONTROLS SHALL BE ADDRESSED IMMEDIATELY. THE MAINTENANCE PROCEDURES FOR THIS DEVELOPMENT SHALL INCLUDE, BUT NOT BE LIMITED TO THOSE LISTED BELOW:
    - SILT FENCE – REPAIR OR REPLACE ANY DAMAGED FILTER FABRIC AND/OR STAKES. REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE–HALF THE ABOVE GROUND HEIGHT OF THE FENCE.
    - CONSTRUCTION ENTRANCE – AS NEEDED, ADD STONE TO MAINTAIN CONSTRUCTION ENTRANCE DIMENSIONS AND EFFECTIVENESS.
    - EROSION CONTROL MATTING – REPAIR MATTING IMMEDIATELY IF INSPECTION REVEALS BREACHED OR FAILED CONDITIONS. REPAIR AND RE–GRADE SOIL WHERE CHANNELIZATION HAS OCCURRED.
    - DIVERSION BERM/SWALE – REPLACE OR RE–COMPACT THE CONSTRUCTION MATERIALS AS NECESSARY.
    - INLET PROTECTION – CLEAN, REPAIR OR REPLACE FILTER FABRIC AND/OR STONE WHEN CONTROL MEASURE IS CLOGGED. INLET FILTER BAGS SHALL BE REPLACED ONCE BAG BECOMES ONE–HALF FULL OF SEDIMENT.

ADDITIONAL POLLUTANT CONTROL MEASURES TO BE IMPLEMENTED DURING CONSTRUCTION ACTIVITIES SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

- CONSTRUCTION WASTE SHALL BE PROPERLY DISPOSED OF. THIS INCLUDES ALL CONSTRUCTION SITE WASTE MATERIAL, SANITARY WASTE, AND WASTE FROM VEHICLE TRACKING OF SEDIMENTS. THE CONTRACTOR SHALL ENSURE THAT NO MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, BURNED, OR DISCHARGED TO THE WATERS OF THE STATE. VEHICLES HAULING MATERIAL AWAY FROM THE SITE SHALL BE COVERED WITH A TARPAULIN TO PREVENT BLOWING DEBRIS.
- DUST CONTROL SHALL BE ACCOMPLISHED BY ONE OR MORE OF THE FOLLOWING METHODS:
- COVERING 30% OR MORE OF THE SOIL SURFACE WITH A NON–ERODIBLE MATERIAL.
- ROUGHENING THE SOIL TO PRODUCE RIDGES PERPENDICULAR TO THE PREVAILING WIND. RIDGES SHALL BE AT LEAST SIX (6) INCHES IN HEIGHT.
- FREQUENT WATERING OF EXCAVATION AND FILL AREAS.
- PROVIDING GRAVEL OR PAVING AT ENTRANCE/EXIT DRIVES, PARKING AREAS AND TRANSIT PATHS.
- STREET SWEEPING SHALL BE PERFORMED TO IMMEDIATELY REMOVE ANY SEDIMENT TRACKED ON PAVEMENTS.

24. CONTRACTOR/OWNER SHALL FILE A NOTICE OF TERMINATION UPON COMPLETION OF THE PROJECT IN ACCORDANCE WITH WDNR REQUIREMENTS AND/OR PROPERTY SALE IN ACCORDANCE WITH WDNR REQUIREMENTS.

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P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1		
2		
3		
4		
5		
6		
7		
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12		
13		
14		
15		

Design/Drawn:	CAP
Approved:	DSR
Date:	11/06/2019

SHEET TITLE:
EROSION CONTROL PLAN

SHEET NUMBER:
C4.0

JSD PROJECT NO: 19-9231

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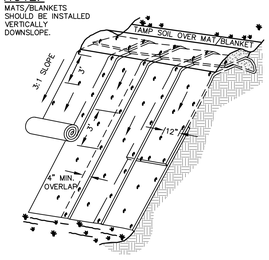
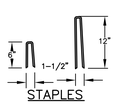
File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWGS\Civil Sheets\19-9231 C4 - Erosion Control Plan.dwg Layout: 4.0 Grading Plan User: cpeterson Plotted: Nov 06, 2019 - 9:09am XrefTc

NOTE:
MATS/BLANKETS SHOULD BE INSTALLED VERTICALLY DOWNSLOPE.

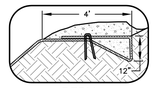


ISOMETRIC VIEW

TYPICAL SLOPE SOIL STABILIZATION



STAPLES

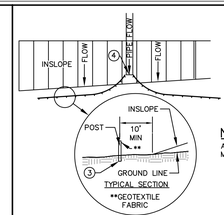


BERM

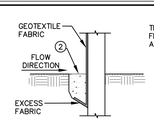
GENERAL NOTES:

1. EROSION MAT CONSTRUCTION SHALL BE IN ACCORDANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1052 "NON-CHANNEL EROSION MAT".
2. ONLY WisDOT EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) APPROVED MATS SHALL BE ALLOWED. REFER TO EROSION CONTROL PLAN FOR EXACT MAT CLASSIFICATION.
3. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
4. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
5. ONLY WisDOT EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) APPROVED MATS SHALL BE ALLOWED. REFER TO EROSION CONTROL PLAN FOR EXACT MAT CLASSIFICATION.

EROSION MATTING



SILT FENCE ALONG SLOPES & OUTFALLS



NOTE:
ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS.

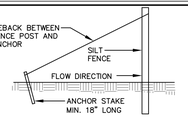
TRENCH DETAIL

GENERAL NOTES:

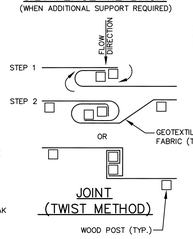
1. SILT FENCE SHALL BE ANCHORED BY SPREADING AT LEAST 8-INCHES OF FABRIC IN A 4-INCH WIDE AND 6-INCH DEEP TRENCH OR 6-INCH DEEP V-TRENCH ON THE UPSLOPE SIDE OF THE FENCE. TRENCHES SHALL NOT BE EXCAVATED WIDER OR DEEPER THAN NECESSARY FOR PROPER INSTALLATION.
2. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1.125-INCHES x 1.125-INCHES OF DRIED OAK OR HICKORY.
4. SILT FENCE TO EXTEND ABOVE THE TOP OF PIPE.
5. SILT FENCE CONSTRUCTION AND GEOTEXTILE FABRIC SHALL CONFORM TO WDNR TECHNICAL STANDARD 1056.
6. POST SPACING SHALL BE SELECTED BASED ON GEOTEXTILE FABRIC (8-FEET FOR WOVEN & 3-FEET FOR NON-WOVEN)

SILT FENCE

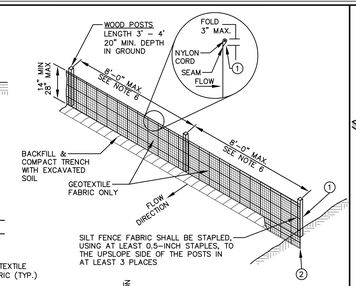
N.T.S.

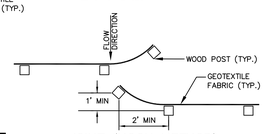


SILT FENCE TIE BACK
(WHEN ADDITIONAL SUPPORT REQUIRED)



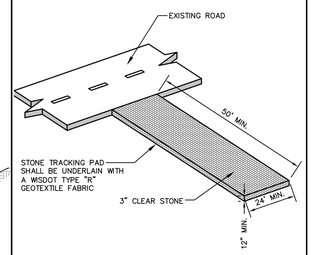
JOINT (TWIST METHOD)





JOINT (HOOK METHOD)

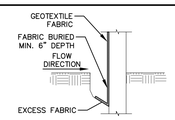
REV. 7-30-2018



NOTE:
CONTRACTOR TO VERIFY LOCATION WITH OWNER.

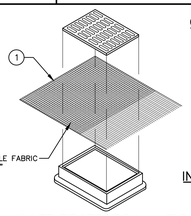
CONSTRUCTION ENTRANCE

N.T.S.

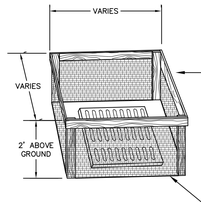


NOTE: 2' MINIMUM POST DEPTH. ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

TRENCH DETAIL



INLET PROTECTION – TYPE "B" WITHOUT CURB BOX



INLET PROTECTION – TYPE "A"

REV. 11-19-2018

GENERAL NOTES:

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

1. FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER OF FACILITATE MAINTENANCE OR REMOVAL.
2. FOR INLET PROTECTION, TYPE "C" (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
3. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT A WOOD 2X4

INSTALLATION NOTES:

TYPE "B" & "C"

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHODS TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

INSTALLATION NOTES:

TYPE "D"

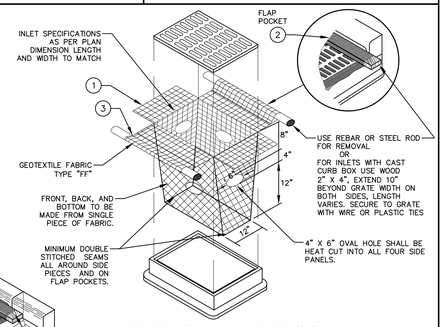
DO NOT INSTALL INLET PROTECTION TYPE "D" IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

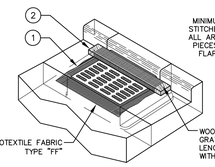
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3 INCHES. WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCHES CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4 INCHES FROM THE BOTTOM OF THE BAG.

INLET PROTECTION

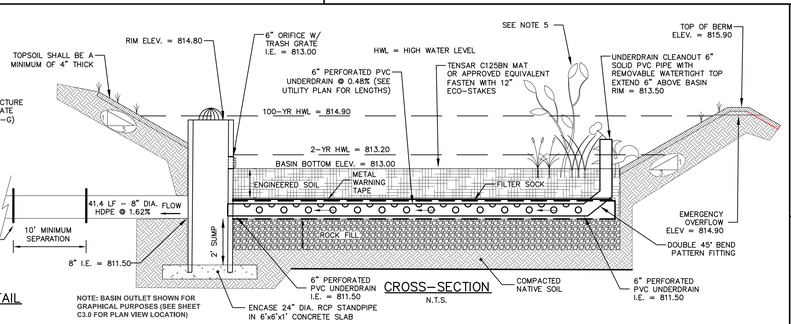
N.T.S.



INLET PROTECTION – TYPE "D"



INLET PROTECTION – TYPE "C" WITH CURB BOX



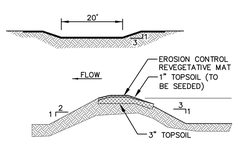
OUTLET STRUCTURE DETAIL

N.T.S.

NOTE: BASIN OUTLET SHOWN FOR GRAPHICAL PURPOSES (SEE SHEET C3.0 FOR PLAN VIEW LOCATION)

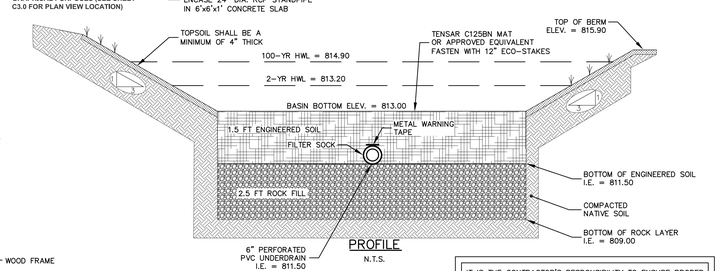
CROSS-SECTION

N.T.S.



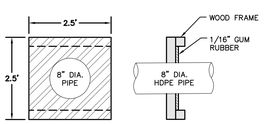
BIORETENTION BASIN EMERGENCY OVERFLOW WEIR DETAIL

N.T.S.



PROFILE

N.T.S.



SECTION PROFILE

NOTE: ANTI-SEEP COLLAR TO BE AGRI DRAIN ASC05 OR EQUAL

GUM RUBBER ANTI-SEEP COLLAR

N.T.S.

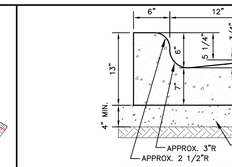
GENERAL NOTES

1. ALL CONSTRUCTION SHALL MEET THE SPECIFICATIONS OF WDNR "BIORETENTION FOR INFILTRATION" TECHNICAL STANDARD 1004.
2. ENGINEERED SOIL SHALL BE A 70% SAND AND 30% COMPOST MIXTURE.
3. RUNOFF MUST INFILTRATE WITHIN 24-HOURS. IF THE BASIN IS UNABLE TO MAINTAIN THESE RATES, IT MUST BE DEEP TILLED, REGRADED, AND IF NECESSARY REPLANTED BY OWNER TO RESTORE ORIGINAL INFILTRATION RATES.
4. ALL WORK TO BE CONDUCTED IN CONFORMANCE WITH THE STORMWATER MANAGEMENT PLAN FOR THE PROJECT SITE AS APPROVED BY THE REGULATORY ENGINEER OF RECORD.
5. SEE LANDSCAPING PLANS FOR PLANTING SCHEDULE AND CONFIGURATION.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER CONSTRUCTION PRACTICES HAVE BEEN UTILIZED AND THAT STORMWATER MANAGEMENT FEATURES HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH APPROVED DESIGN PLANS. JSD, INC. SHALL NOT BE LIABLE FOR ANY CONSTRUCTION PRACTICES OR INSTALLATION WHICH DEVIATES FROM THE APPROVED PLAN SET. ONCE THE OWNER HAS PROVIDED FINAL APPROVAL TO THE WORK PERFORMED BY THE CONTRACTOR AND ENSURED COMPLIANCE WITH THE PLAN, IT IS THE OWNER'S RESPONSIBILITY TO MAINTAIN STORMWATER MANAGEMENT FEATURES IN ACCORDANCE WITH THE RECORDED MAINTENANCE AGREEMENT. PROPER OPERATION IS DEPENDENT ON A MULTITUDE OF VARIABLES INCLUDING WEATHER. THESE COMPONENTS REQUIRE ONGOING MAINTENANCE FOR WHICH THE OWNER IS RESPONSIBLE. JSD TAKES NO RESPONSIBILITY FOR PROPER OPERATION OF THE WATER QUALITY COMPONENTS.

STORMWATER BIO BASIN DETAIL

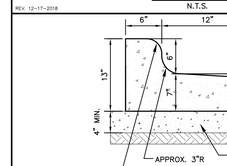
N.T.S.



18" STANDARD CURB & GUTTER

N.T.S.

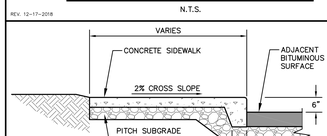
REV. 12-17-2018



18" REJECT CURB & GUTTER

N.T.S.

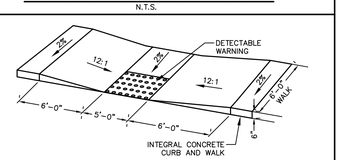
REV. 12-17-2018



NOTE:
REFER TO SITE PLAN FOR CONSTRUCTION AND CONTROL JOINT LOCATIONS

THICKENED EDGE SIDEWALK

N.T.S.



ADA ACCESSIBLE RAMP

N.T.S.

REV. 11-20-2018

STANDARD ASPHALT PAVEMENT SECTION

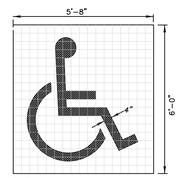
CONCRETE PAVEMENT SECTION

GENERAL NOTES:

1. REFER TO PAVEMENT RECOMMENDATIONS IN THE GEOTECHNICAL INVESTIGATION REPORT. IF THERE ARE ANY DISCREPANCIES BETWEEN THIS DETAIL AND THE PAVEMENT RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL INVESTIGATION REPORT, THE GEOTECHNICAL REPORT SHALL GOVERN.
2. WSDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, INCLUDING SUPPLEMENTAL SPECIFICATIONS, COMPACTION REQUIREMENTS:
   - BITUMINOUS CONCRETE: REFER TO SECTION 460-3.
   - BASE COURSE: REFER TO SECTION 301.3.4.2, STANDARD COMPACTION.
3. CONCRETE EQUIPMENT PADS SHALL HAVE A MINIMUM 6" THICK PORTLAND CEMENTER CONCRETE OVER COMPACTED 6" THICK DENSE GRADED BASE WITH REINFORCEMENT FOR CRACK CONTROL.

PAVEMENT SECTIONS

N.T.S.

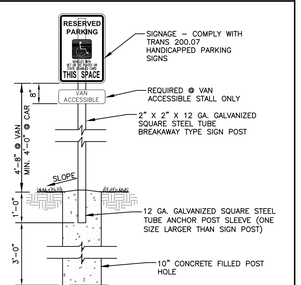


NOTE:
SYMBOL DETAILS ARE SHOWN FOR INTENT ONLY. CONTRACTOR SHALL VERIFY EXACT REQUIREMENTS PRIOR TO CONSTRUCTION.

PAINTED SYMBOL

N.T.S.

REV. 11-26-2018



NOTE:
OPTION: DRIVEN POST MAY BE UTILIZED IN LIEU OF CONCRETE BASE. PROVIDE MIN. 3'-0" LONG ANCHOR POST SLEEVE.

ADA SIGN

N.T.S.

REV. 11-26-2018

JSD Professional Services, Inc.
Engineers • Surveyors • Planners

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MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:

Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1		
2		
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Design/Drawn:	CAP
Approved:	DSR
Date:	11/06/2019

SHEET TITLE:
DETAILS

SHEET NUMBER:
C6.0

JSD PROJECT NO: 19-9231

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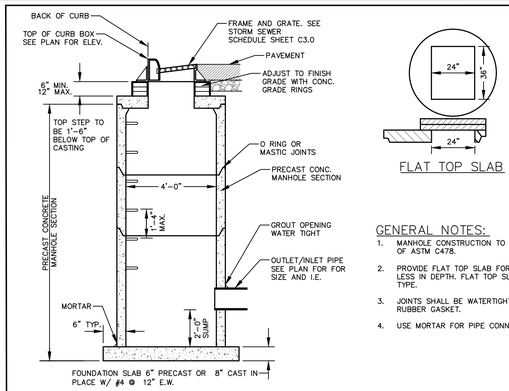
File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago WI)\DWG\Civil\Civil Sheets\19-9231 C6 - Details.dwg Layout: C6.0 Details User: cpeterson Plotted: Nov 06, 2019 - 9:14am XrefPath:



4' CATCH BASIN (CURB INLET)

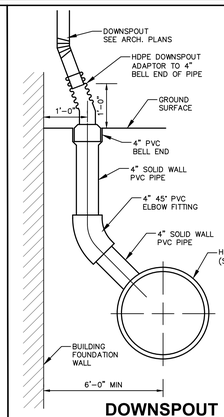
N.T.S.

REV. 12-7-2018

FLAT TOP SLAB

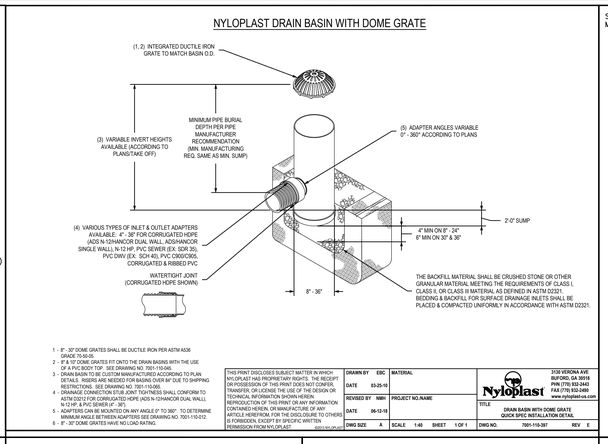
GENERAL NOTES:

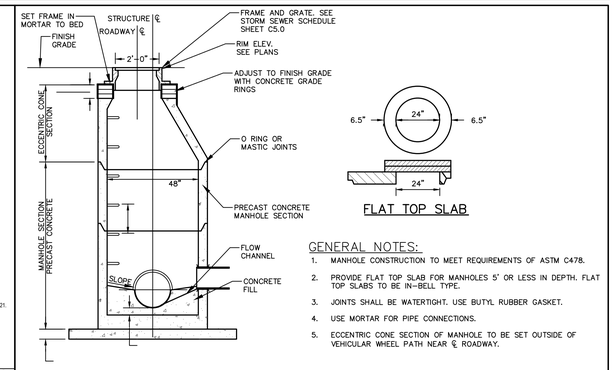
1. MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
2. PROVIDE FLAT TOP SLAB FOR MANHOLES 5' OR LESS IN DEPTH. FLAT TOP SLABS TO BE IN-BELL TYPE.
3. JOINTS SHALL BE WATERTIGHT. USE BUTYL RUBBER GASKET.
4. USE MORTAR FOR PIPE CONNECTIONS.



DOWNSPOUT

N.T.S.





FLAT TOP SLAB

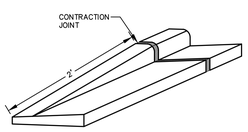
GENERAL NOTES:

1. MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
2. PROVIDE FLAT TOP SLAB FOR MANHOLES 5' OR LESS IN DEPTH. FLAT TOP SLABS TO BE IN-BELL TYPE.
3. JOINTS SHALL BE WATERTIGHT. USE BUTYL RUBBER GASKET.
4. USE MORTAR FOR PIPE CONNECTIONS.
5. ECCENTRIC CONE SECTION OF MANHOLE TO BE SET OUTSIDE OF VEHICULAR WHEEL PATH NEAR ℄ ROADWAY.

STORM MANHOLE

N.T.S.

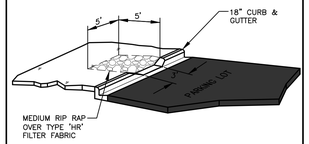
REV. 12-07-2018



TAPER CURB HEAD

N.T.S.

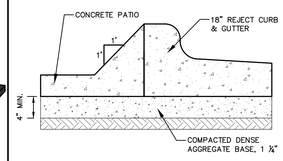
REV. 5-19-2017



CURB WEIR

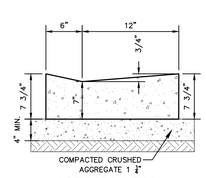
N.T.S.

REV. 5-19-2017



THICKENED EDGE PATIO & CURB

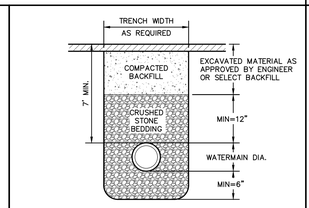
N.T.S.



18" VALLEY CURB & GUTTER

N.T.S.

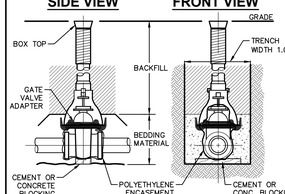
REV. 11-19-2018



WATERMAIN BEDDING

N.T.S.

REV. 12-05-2018



GATE VALVE BOX SETTING

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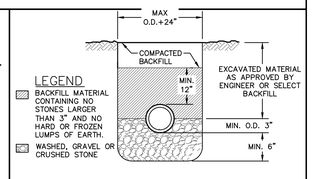
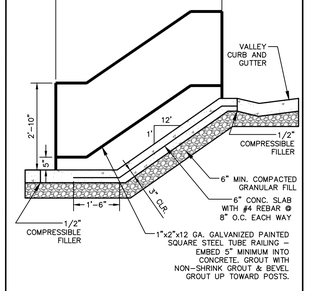


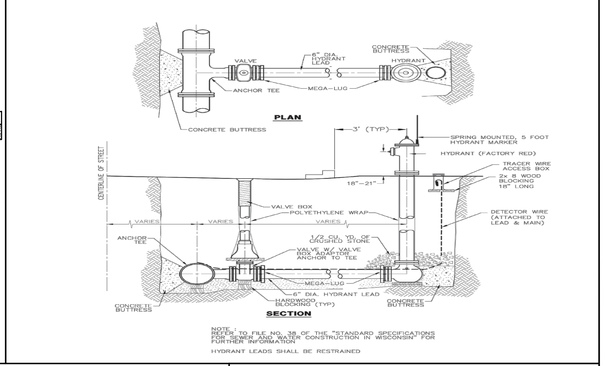
STORM & SANITARY SEWER BEDDING

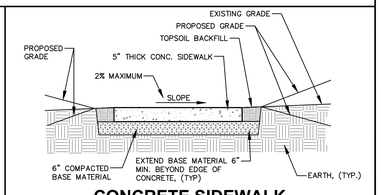
N.T.S.



5' CONCRETE SIDEWALK W/ HANDRAIL

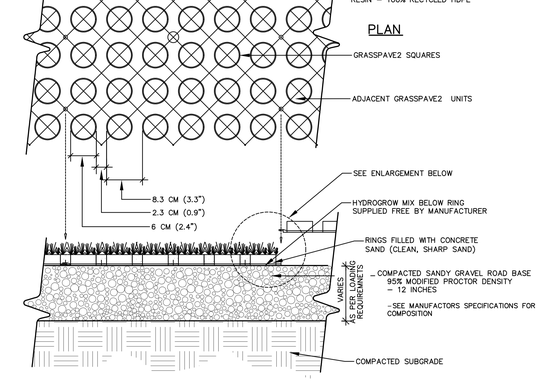
N.T.S.





CONCRETE SIDEWALK

N.T.S.



SPECIFICATIONS

UNIT SIZE – 50 CM X 50 CM X 2.5 CM OR 1 M X 1 M X 2.5 CM (20" X 20" X 1" OR 40 "X 40 "X 1 ")

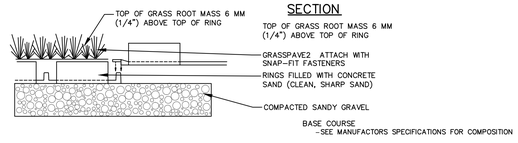
AVAILABLE IN 9 STANDARD ROLL SIZES

UNIT WEIGHT – 510 GRAMS (18 OZ.) OR 2.0 KG (4.5 POUNDS)

STRENGTH – 1121 KG/CM (15,940 PSI)

COLOR – BLACK

RESIN – 100% RECYCLED HDPE



NOTE: GRASS/PLANT TYPES SHALL BE SPECIFIED BY A LANDSCAPE ARCHITECT OR LANDSCAPE DESIGNER.

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WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:

Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

SHEET TITLE:
DETAILS

SHEET NUMBER:
C6.1

JSD PROJECT NO: 19-9231

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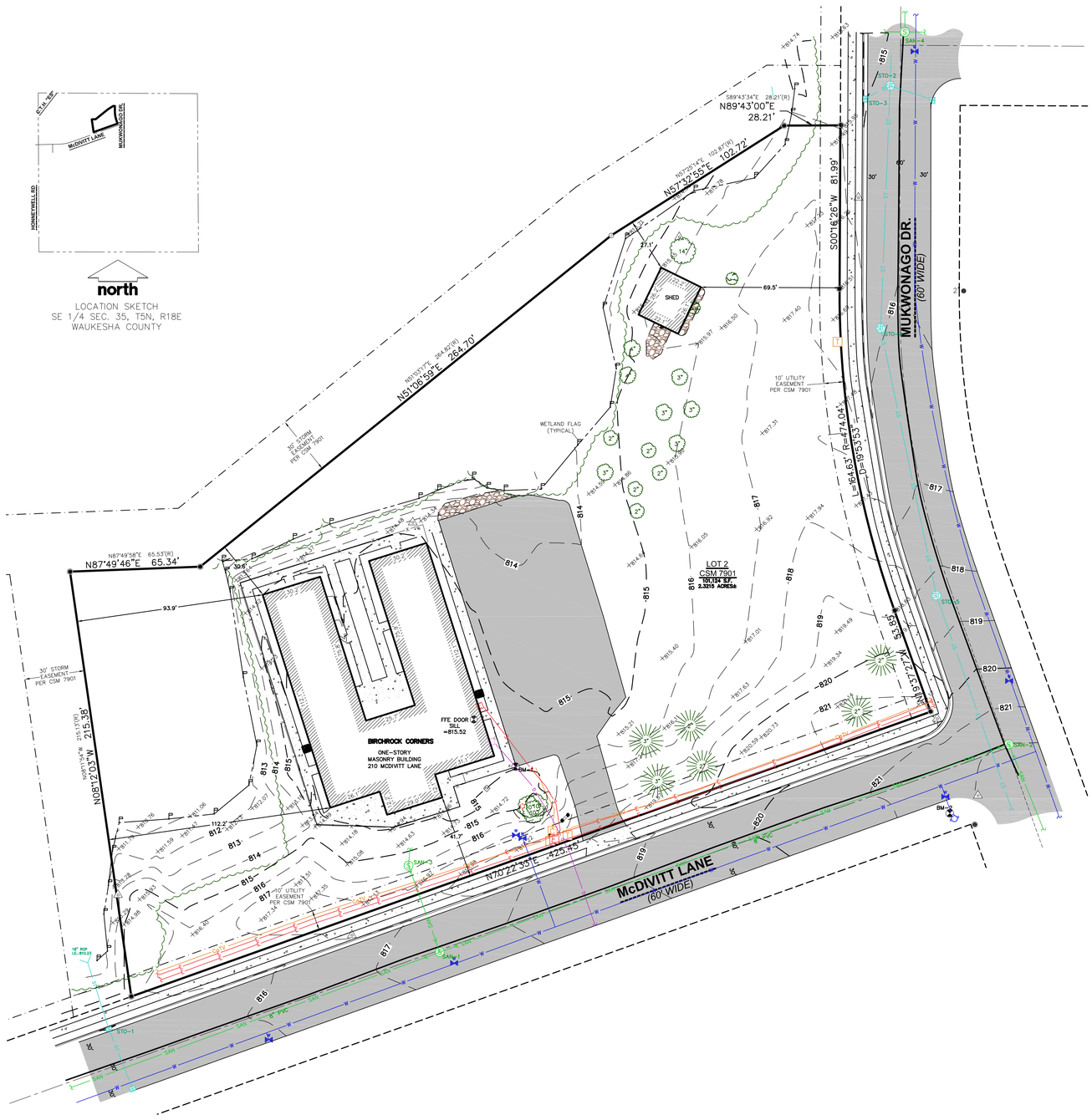
File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Civil Sheets\19-9231 C6 - Details.dwg Layout: C6.1 Details User: cpeterson Plotted: Nov 06, 2019 - 9:13am XrefS:

EXISTING CONDITIONS SURVEY

LOT 2, CSM 7901 BEING A PART OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 35, TOWN 5 NORTH, RANGE 18 EAST, VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN.

LOCATION SKETCH
SE 1/4 SEC. 35, T5N, R18E
WAUKESHA COUNTY



NOTES

1. FIELD WORK PERFORMED BY JSD PROFESSIONAL SERVICES, INC. ON JUNE 24, 25 & 27, 2019.
2. BEARINGS FOR THIS SURVEY AND MAP ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM 1927, (SOUTH ZONE) THE NORTHERLY LINE OF THE SOUTHEAST QUARTER SECTION 35, T5N, R18E, RECORDED AS N89°44'56"W.
3. ELEVATIONS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM (NGVD29). BENCHMARK IS CONCRETE MONUMENT WITH A BRASS CAP MARKING THE EAST 1/4 CORNER OF SECTION 35, T5N, R18E, ELEVATION = 826.61'
4. CONTOUR INTERVAL IS ONE FOOT.
5. SPOT ELEVATIONS IN CURBED AREAS REFERENCE THE PAVEMENT EDGE ELEVATIONS.
6. SUBSURFACE UTILITIES AND FEATURES SHOWN ON THIS MAP HAVE BEEN APPROXIMATED BY LOCATING SURFICIAL FEATURES AND APPURTENANCES, LOCATING DIGGERS HOTLINE FIELD MARKINGS AND BY REFERENCE TO UTILITY RECORDS AND MAPS. DIGGER'S HOTLINE TICKET NO. 20192518651, WITH A CLEAR DATE OF 06/25/2019.
7. UTILITY COMPANIES CONTACTED THRU DIGGERS HOTLINE:
   VILLAGE OF MUKWONAGO
   WE ENERGIES
   CENTURYLINK
   TIME WARNER AND CABLE
8. BEFORE EXCAVATION, APPROPRIATE UTILITY COMPANIES SHOULD BE CONTACTED. FOR EXACT LOCATION OF UNDERGROUND UTILITIES, CONTACT DIGGERS HOTLINE, AT 1.800.242.8511.
9. THE ACCURACY OF THE BENCHMARKS SHOWN ON THIS MAP SHALL BE VERIFIED BEFORE BEING UTILIZED. JSD PROFESSIONAL SERVICES, INC. DOES NOT WARRANT THE ACCURACY OF THESE BENCHMARKS.
10. THIS PARCEL IS ZONED R-4 PLANNED RESIDENTIAL DEVELOPMENT DISTRICT R-10 MULTI-FAMILY DISTRICT R-10 MULTI-FAMILY DISTRICT PER THE VILLAGE OF MUKWONAGO GIS ZONING MAP.
11. THIS PARCEL IS SUBJECT TO ALL EASEMENTS AND AGREEMENTS, BOTH RECORDED AND UNRECORDED.
12. WETLAND DELINEATION BY HELIANTHUS ON JUNE 25, 2019 AND LOCATED BY JSD ,INC ON JUNE 25, 2019.

SANITARY SEWER MANHOLES

STRUCT. ID	RIM ELEVATION	INVERT	ELEVATION	PIPE SIZE	PIPE TYPE
SAN-1	817.61	N	807.10	6"	PVC
		W	806.72	8"	PVC
		E	807.11	8"	PVC
SAN-2	822.04	W	811.65	8"	PVC
		S	811.74	8"	PVC
SAN-3	815.64	NE & S	807.44	6"	PVC
SAN-4	815.18	E&W	799.41	8"	PVC
		N	801.41	8"	PVC

STORM SEWER STRUCTURES

INLET ID	RIM ELEVATION	INVERT	ELEVATION	PIPE SIZE	PIPE TYPE
STO-1	814.92	S	810.0	18"	–
		N	809.8	18"	RCP
STO-2	815.16	NOT ACCESSIBLE		–	–
STO-3	815.16	E&W	808.4	–	–
STO-4	815.94	N&S	809.5	–	–
STO-5	818.27	N&S	812.1	–	–

BENCHMARKS

BENCH MARK	ELEVATION	DESCRIPTION
BM-1	815.17	CHISELED SQUARE IN CORNER OF CONCRETE SIDEWALK
BM-2	823.58	SW BOLT ON HYDRANT AT SW CORNER OF INTERSECTION

*JSD DOES NOT GUARANTEE THE BENCHMARK ELEVATIONS LISTED ON THIS MAP ARE ACCURATE AND SHOULD BE VERIFIED PRIOR TO CONSTRUCTION ACTIVITIES.

north

SCALE IN FEET
30' 0 30'

LEGEND

- 3/4" x 24" REBAR SET (1.50 LBS/LF)
- 1" IRON PIPE FOUND
- CONTROL POINT
- BENCHMARK
- FINISHED FLOOR SHOT LOCATION
- FLAG POLE
- SIGN
- SANITARY MANHOLE
- WATERMAIN OR GASMAIN VALVE
- HYDRANT
- WATER VALVE
- STORM MANHOLE
- CURB INLET
- GAS REGULATOR/METER
- GAS VALVE
- MANHOLE – UNVERIFIED TYPE
- ELECTRIC PEDESTAL
- ELECTRIC METER
- ELECTRIC TRANSFORMER
- AIR CONDITION UNIT
- LIGHT POLE
- DECIDUOUS TREE
- CONIFEROUS TREE
- BUSH
- PLAT BOUNDARY
- CHORD LINE
- CENTERLINE
- RIGHT-OF-WAY LINE
- PROPERTY LINE
- EASEMENT LINE
- LANDSCAPE LIMITS
- EDGE OF PAVEMENT
- CONCRETE CURB & GUTTER
- EDGE OF GRAVEL
- SANITARY SEWER
- WATER LINE
- STORM SEWER
- NATURAL GAS
- UNDERGROUND ELECTRIC
- FIBER OPTIC
- UNDERGROUND TELEPHONE
- UNDERGROUND CABLE
- EDGE OF WOODS OR BRUSH
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- DELINEATED WETLANDS
- SPOT ELEVATION
- BITUMINOUS PAVEMENT
- CONCRETE PAVEMENT
- BUILDING
- EDGE OF BITUMINOUS
- END OF FLAGGED UTILITIES
- DENOTES RECORD DATA DEPICTING THE SAME LINE ON THE GROUND AS RETRACED BY THIS SURVEY

LEGAL DESCRIPTION

LOT 2, CERTIFIED SURVEY MAP NO. 7901, RECORDED IN VOLUME 68 OF WAUKESHA COUNTY CERTIFIED SURVEY MAPS ON PAGES 140-146 AS DOCUMENT NUMBER 2089198, VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN.

TAX KEY NO: MUKV2012215002

SURVEYOR'S CERTIFICATE

I, ANDREW W. WILKOWSKI, WISCONSIN PROFESSIONAL LAND SURVEYOR NO. S-3121, HEREBY CERTIFY THAT UNDER THE DIRECTION OF CASTLE SENIOR LIVING, THIS SURVEY AND MAP HAS BEEN PREPARED AND COMPLIES WITH WISCONSIN ADMINISTRATIVE CODE A-E7 AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF IN ACCORDANCE WITH THE INFORMATION PROVIDED.

ANDREW W. WILKOWSKI, S-3121
PROFESSIONAL LAND SURVEYOR

OCTOBER 31, 2019
DATE

WISCONSIN ANDREW W. WILKOWSKI S-3121 WATERTOWN WI LAND SURVEYOR

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P. 262.513.0666

CLIENT:
CASTLE SENIOR LIVING

CLIENT ADDRESS:
13050 W CLEVELAND AVE
NEW BERLIN, WI 53151

PROJECT:
MUKWONAGO RCAC BUILDING

PROJECT LOCATION:
MUKWONAGO, WI
WAUKESHA COUNTY

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Design/Drawn:	AWW 07/03/2019
Approved:	AWW 07/03/2019

SHEET TITLE:
EXISTING CONDITIONS SURVEY

SHEET NUMBER:
1 OF 1

JSD PROJECT NO: 19-9231

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STORM WATER MANAGEMENT PLAN

Project:
Castle Senior Living Mukwonago CBRF

Village of Mukwonago, Wisconsin
JSD Project No: 19-9231

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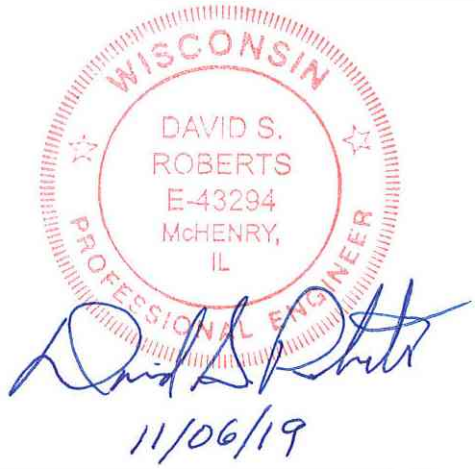
Planning & Development
Site/Civil Engineering
Transportation Engineering
Water Resources
Landscape Architecture
Surveying & Mapping
Construction Management

NOVEMBER 6, 2019

Prepared for:



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5.2 Water Quality – Total Suspended Solids Treatment 4

5.3 Infiltration 5

5.4 Storm Sewer 5

6.0 CONCLUSION 5

Questions and comments may be directed to:

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APPENDICES

APPENDIX 1 - LOCATION MAP

APPENDIX 2 - SOIL DATA

- USDA SOIL MAP
- WDNR SURFACE WATER DATA VIEWER MAP

APPENDIX 3 - EXISTING SITE HYDROLOGY

- EXISTING CONDITIONS HYDROLOGY EXHIBIT
- EXISTING HYDROCAD OUTPUT

APPENDIX 4 - PROPOSED SITE HYDROLOGY

- PROPOSED CONDITIONS HYDROLOGY EXHIBIT
- PROPOSED HYDROCAD OUTPUT

APPENDIX 5 - WATER QUALITY CALCULATIONS

- POST-DEVELOPMENT INPUT SUMMARY
- POST-DEVELOPMENT OUTPUT SUMMARY

APPENDIX 6 - DESIGN DETAILS

- PROPOSED GRADING, EROSION CONTROL, & UTILITY PLAN
- PROPOSED BIORETENTION BASIN DETAILS
- STORM SEWER SIZING CALCULATIONS
- ANTI-SEEP COLLAR DESIGN

APPENDIX 7 - OPERATION AND MAINENANCE PLAN

1.0 INTRODUCTION

The proposed CBRF addition will be located along the north side of McDivitt Lane and the west side of Mukwonago Drive in the Village of Mukwonago, Waukesha County, Wisconsin. The site is positioned in the Northwest 1/4 of the Southeast 1/4 of Section 35, Township 5 North, Range 18 East. The site is generally bounded by wetlands to the north and west and roads to the south and east. A location map illustrating the project site has been included in **Appendix 1**.

This Stormwater Management Plan has been created to address runoff rate control, water quality treatment, and infiltration requirements for the proposed CBRF Property.

This stormwater management system has been designed in accordance with Village of Mukwonago Code (Section 34-110 and Section 34-111). The stormwater for the project was designed as a "new development" site with an increase of 19,400 square feet of impervious area. A bio-retention basin will be built in the southwest corner of the site with the outlet being discharged into the wetlands. 430 linear feet of storm sewer will be installed to route the stormwater into the bio-basin

The proposed expansion consists of demolishing the existing parking lot east of the existing building. A 15,770 sq.ft. building addition will be constructed with new surface lots and driveways.

The proposed storm water management system has been designed to maintain or reduce the peak 1-yr, 2-yr, 10-year and 100-year runoff rates discharging from the existing stormwater pond at the southeast corner of the site. Please refer to **Section 3.0** and **Section 5.0** for design criteria and additional details of the stormwater facilities.

2.0 EXISTING CONDITIONS

The site consists of the existing Castle Senior Living building, associated parking lot and sidewalk, a shed, and mowed and maintained open land. The existing topography flows from the south to the north of the site into the existing wetland. See **Appendix 3** for an Existing Conditions Hydrology Exhibit.

In addition, multiple soil types have been identified on-site using soils data obtained from the United States Department of Agriculture – Natural Resources Conservation Service Web Soil Survey. A soil location map illustrating the various soils has been included in **Appendix 2**. A listing of the soil map units and descriptions is shown in Table 1 below.

Table 1 – Soil Types

Map Symbol	Map Unit Name	Hydrologic Soil Group
Sm	Sebewa silt loam, 1-2% slopes	B/D
Ph	Pella silt loam, 0-2% slopes	B/D

3.0 DESIGN CRITERIA

3.1 Village of Mukwonago

Village of Mukwonago Municipal Code Divison 4 – Stormwater Management and Erosion Control (Sec. 34-110 and Sec. 34-111)

3.2 Wisconsin Department of Natural Resources

WDNR – Technical Standards (NR151 and NR216)

Water Quantity: Village of Mukwonago ordinance requires that the Stormwater management practices reduce the peak post-development 100-year discharge rate to the peak pre-development 10-year discharge rate and also the peak post-development 10-year discharge rate to the peak pre-development 2-year discharge rate. Refer to **Section 5.1** for a description of the on-site water quantity measures.

Water Quality: Village of Mukwonago and the WDNR requires for a redevelopment, storm water discharges shall be treated to remove a minimum of 40% of the total suspended solids load, based on an average annual rainfall for a redevelopment and 80% for new developments. Please refer to **Section 5.2** for a description of the on-site water quality measures.

Infiltration: Village of Mukwonago states according to Sec. 34-110(d)(3)(f)1, sites are exempt "the soils at the proposed bottom of an infiltration system have a measured infiltration rate of less than 0.6 inches per hour using a scientifically credible field test method. "

NR 151 states: Infiltration practices located in the following areas may be credited toward meeting the requirement under the following conditions, but the decision to infiltrate under these conditions is optional:

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

As shown on the USDA Soils Map in **Appendix 2**, the silty loam soils on site have an infiltration rate significantly lower than 0.6 in/hr and so the site is exempt from infiltration requirements.

4.0 ANALYSIS

HydroCAD® Stormwater Modeling System (Version 10.00) software has been used to analyze stormwater characteristics for the CBRF project. HydroCAD® uses the accepted TR-55 methodology for determining peak runoff rates and runoff discharge volumes. Curve numbers for proposed ground cover have been selected using the standard values specified in TR-55 for a type "B" soil. Rainfall depths utilized in the HydroCAD® model were based on the rainfall depths specified in NOAA Atlas 14 with the MSE 3 rainfall intensity curve. Results of the modeling have been included in **Appendix 3** and **Appendix 4**. The corresponding rainfall depths are shown below in Table 2.

Table 2 – Rainfall Depths

Storm Event	Rainfall Depth
1-year	2.40”
2-year	2.70”
10-year	3.81”
100-year	6.18”

The sediment reduction and infiltration volume characteristics of the proposed stormwater management facilities have been analyzed using WinSLAMM® (Version 10.3.3) Source Loading and Management Model. Peak release rates from the proposed stormwater devices were based on the results of the HydroCAD® modeling. WinSLAMM® input and output data have been included in **Appendix 5**.

5.0 DESIGN

The proposed building expansion will encompass approximately 1.3 acres. The development will include installation of private utilities, construction of the building expansion with associated parking, and construction of a bio-filtration basin. Stormwater runoff will be conveyed to the bio-filtration basin via proposed storm sewers.

Drainage Area 1S represents 1.07 acres encompassing the building roof, parking lot, and landscape areas that will drain to the bio-filtration basin (1P).

Bio-filtration basin 1P will control peak runoff release and total suspended solids, and outlet to the existing wetlands on site. In the event the outlet structure becomes clogged or otherwise inoperable, storm water will discharge by an overflow weir into the wetlands.

The remaining sub-catchments, Drainage Areas 2S, 3S & 4S, represents 0.23 acres. Runoff from these areas will discharge from the site undetained but has still been included in the total runoff calculations.

A Proposed Conditions Hydrology Exhibit illustrating the drainage areas has been included in **Appendix 4.** Please refer to **Appendix 6** for additional details of the storm water wet pond and outlet structures.

5.1 Runoff Rate and Volume Control

The proposed stormwater biofiltration basin has been designed to meet the peak runoff release rates in accordance with the Village of Mukwonago ordinance for the 1-year 2-year, 10-year, and 100-year storm events.

Village of Mukwonago ordinance requires that the Stormwater management practices reduce the peak post-development 100-year discharge rate to the peak pre-development 10-year discharge rate and also the peak post-development 10-year discharge rate to the peak pre-development 2-year discharge rate. Table 3 summarizes the existing release rates for the

developed compared to the proposed peak release rates determined using HydroCAD®. Please refer to **Appendix 3** and **Appendix 4** for additional details of the existing and proposed peak runoff rate calculations.

Table 3 – Peak Release Rates

	Existing Release Rate (cfs)	Proposed Release Rate (cfs)
1-year	0.63	0.12
2-year	0.96	0.18
10-year	2.46	0.73
100-year	6.44	2.33

Table 5 and Table 6 present the proposed drainage area and storm water management facility characteristics, respectively.

Table 5 – Proposed Drainage Area Hydrologic Characteristics

Drainage Area (HydroCAD® Node)	Area (Acres)	Curve Number	Peak Runoff Rate (cfs)			
			1-year	2-year	10-year	100-year
1S	1.07	84	2.01	2.45	4.19	8.01
2S	0.18	64	0.05	0.09	0.27	0.79
3S	0.04	73	0.03	0.04	0.09	0.21
4S	0.02	93	0.05	0.06	0.08	0.14

Table 6 – Proposed Storm Water Management Facility Characteristics

Stormwater Management Facility		1-year	2-year	10-year	100-year
1P	Peak Inflow (cfs)	2.01	2.45	4.19	8.01
	Peak Outflow (cfs)	0.04	0.13	0.65	2.00
	Peak Water Surface Elevation	813.11	813.20	813.67	814.90
	Spillway Elevation	814.90			
	Top of Berm Elevation	815.50			

5.2 Water Quality – Total Suspended Solids Treatment

Water quality for the Mukwonago CBRF Expansion will be achieved through the settling of suspended solids in the proposed bio-filtration basin. The bio-filtration basin has been designed in accordance with the parameters set forth in WDNR Technical Standard 1004. Because the site has both redevelopment and new development areas a composite reduction rate of 72.8% was determined by weighing the reduction rates by area.

Type of Area	Area (sqft)	Removal rate
Redevelopment	10,203	40%
New development	46,417	80%
Total	56,620	72.8%

Calculation of overall TSS reduction for the site has been determined based on the difference between the total mass of solids generated under the "without controls" and "after controls" conditions using WinSLAMM® software. Table 7 summarizes the TSS reduction as calculated using WinSLAMM®. Refer to **Appendix 5** for input and output data used in the water quality and infiltration models.

Table 7 – Total Suspended Solids Loading

Without Controls (lbs)	After Controls (lbs)	Percent Reduction
324.8	81.37	**74.95%**

5.3 Infiltration

NR 151.124(3)(c)1 states that infiltration is not required through the bio-filtration basin. WDNR classifies silt loam as having an infiltration rate of 0.13 in/hr which is below the required rate of 0.6 in/hr.

5.4 Storm Sewer

Storm sewer will be constructed within the proposed site to convey storm water to the basin. The storm sewers have been sized to collect runoff from building roofs and pavement. All private storm sewers have been designed in accordance with the rational method and have been sized to accommodate runoff from the 100-year storm event. Complete storm sewer design computations have been included in **Appendix 6**.

6.0 CONCLUSION

The stormwater management facilities for the Mukwonago CBRF Expansion have been designed to meet or exceed Village of Mukwonago ordinance and WDNR Technical Standards NR151 and NR216. The post-development stormwater peak runoff release rates have been reduced below the City of Pewaukee's allowable peak release rates. The stormwater facilities will provide an overall TSS reduction of 74.95%.

(Appendices Follow)

APPENDIX 1

Location Map

SITE LOCATION

APPENDIX 2

Soil Data

- USDA Soil Map
- WDRN Surface Water Data Viewer Map

Map Scale: 1:1,350 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

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

MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 14, Sep 12, 2018

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

Date(s) aerial images were photographed: Apr 29, 2011—Mar 28, 2012

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
MgA	Martinton silt loam, 1 to 3 percent slopes	0.0	0.0%
Ph	Pella silt loam, 0 to 2 percent slopes	3.3	95.4%
Sm	Sebewa silt loam, 0 to 2 percent slopes	0.2	4.6%
Totals for Area of Interest		**3.4**	**100.0%**

Surface Water Data Viewer Map

Legend

- Wetland Identifications and Confirmations
- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled excavated pond
  - Filled/drained wetland
  - Wetland too small to delineate
- Filled Points
- Wetland Class Areas
  - Wetland
  - Upland
- Filled Areas
- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled excavated pond
  - Filled/drained wetland
  - Wetland too small to delineate
- Filled Points
- Wetland Class Areas
  - Wetland
  - Upland
- Filled Areas
- Intermittent Streams
- 24K Hydrography Streams and Rivers
- 24K Hydrography Lakes and Open Water
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway

Notes

0.1 0 0.03 0.1 Miles

NAD_1983_HARN_Wisconsin_TM

1: 1,980

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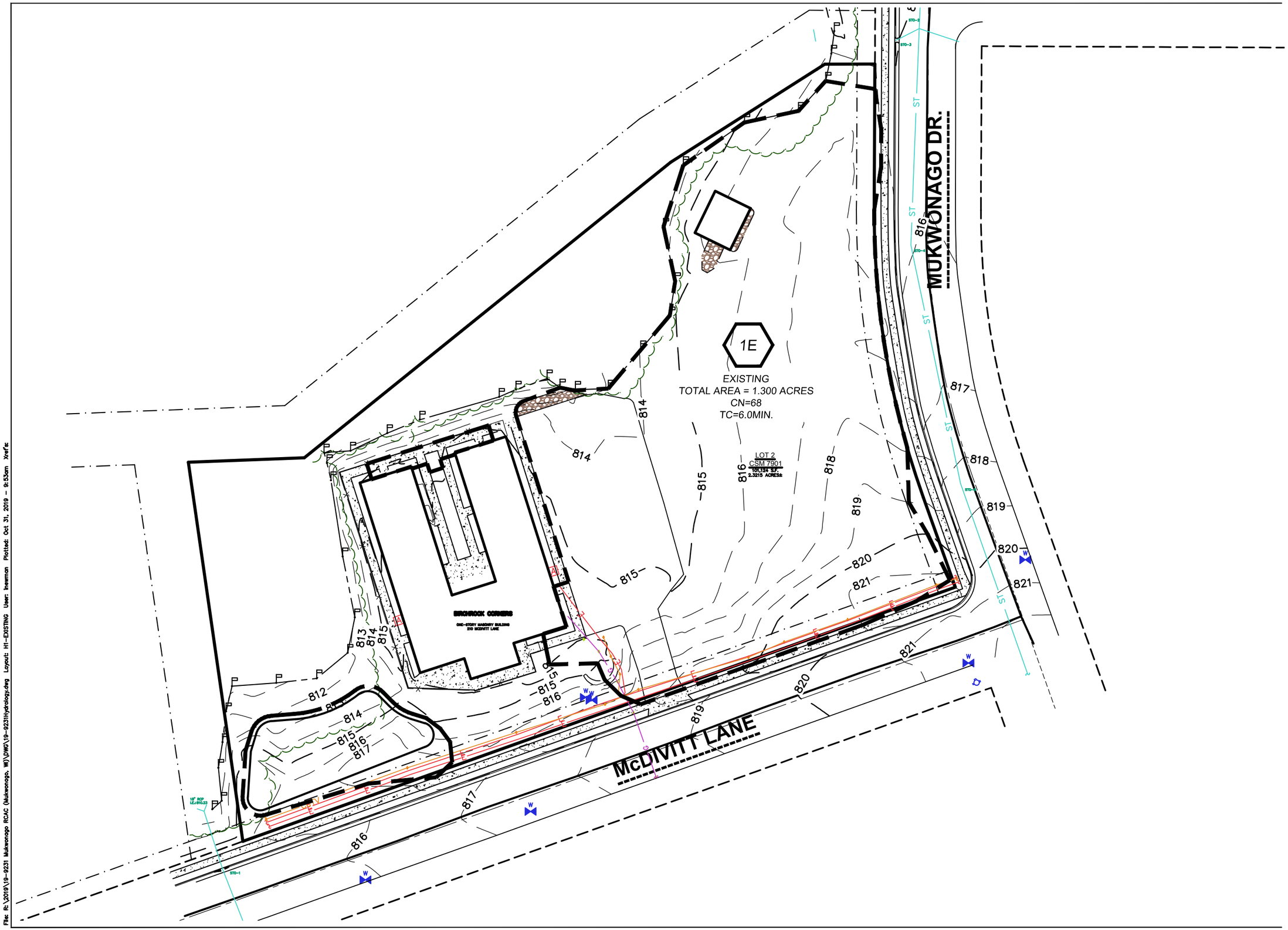
APPENDIX 3

EXISTING SITE HYDROLOGY

- Existing Conditions Hydrology Exhibit
- Existing Conditions HydroCAD Output



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MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
13050 WEST CLEVELAND AVE.
NEW BERLIN, WI 53151

PROJECT:
MUKWONAGO CBRF BUILDING

PROJECT LOCATION:
CITY OF MUKWONAGO
WAUKESHA COUNTY, WI

PLAN MODIFICATIONS:

#	Date:	Description:

Design/Drawn: IRN
Approved: DSR

SHEET TITLE:
EXISTING HYDROLOGY

SHEET NUMBER:
H1.0

JSD PROJECT NO: 19-9231

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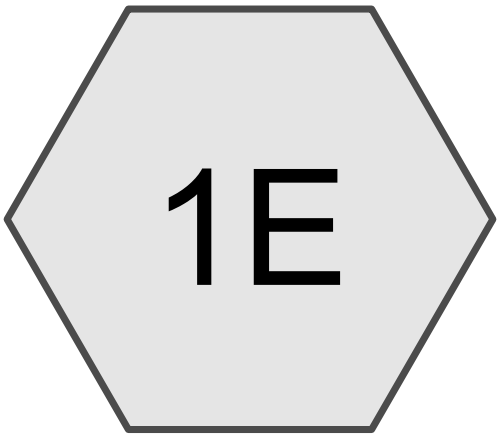
File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\19-9231hydrology.dwg Layout: H1-EXISTING User: lnewman Plotted: Oct 31, 2019 - 9:53am Xref's:



EXISTING

Subcat Reach Pond Link

Routing Diagram for 19-9231 Mukwonago RCAC revised
Prepared by Microsoft, Printed 10/31/2019
HydroCAD® 10.00-21 s/n 02918 © 2018 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.055	61	>75% Grass cover, Good, HSG B (1E)
0.010	96	Gravel surface, HSG B (1E)
0.235	98	IMPERVIOUS (1E)

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1E: EXISTING Runoff Area=56,620 sf 18.09% Impervious Runoff Depth=0.34"
Tc=6.0 min CN=68 Runoff=0.63 cfs 0.037 af

Summary for Subcatchment 1E: EXISTING

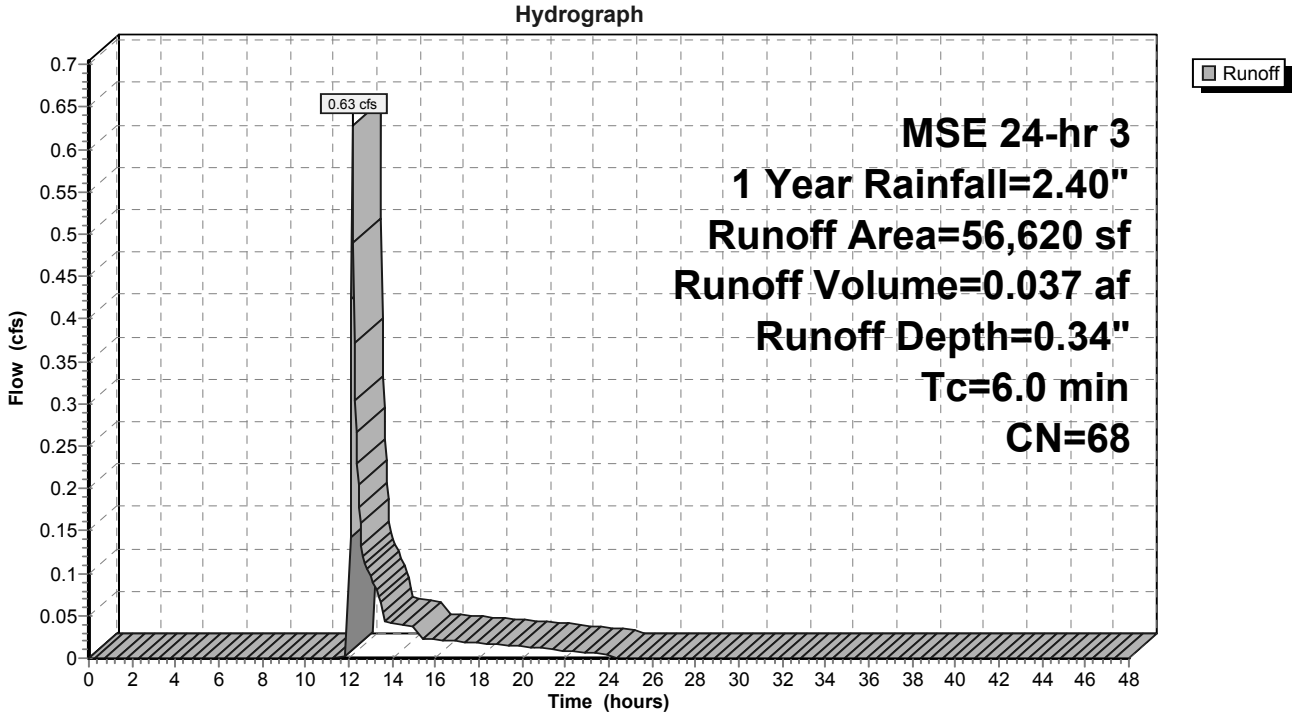
Runoff = 0.63 cfs @ 12.15 hrs, Volume= 0.037 af, Depth= 0.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1 Year Rainfall=2.40"

	Area (sf)	CN	Description
	45,945	61	>75% Grass cover, Good, HSG B
*	10,240	98	IMPERVIOUS
	435	96	Gravel surface, HSG B
	56,620	68	Weighted Average
	46,380		81.91% Pervious Area
	10,240		18.09% Impervious Area

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

Subcatchment 1E: EXISTING



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1E: EXISTING Runoff Area=56,620 sf 18.09% Impervious Runoff Depth=0.48"
Tc=6.0 min CN=68 Runoff=0.96 cfs 0.052 af

Summary for Subcatchment 1E: EXISTING

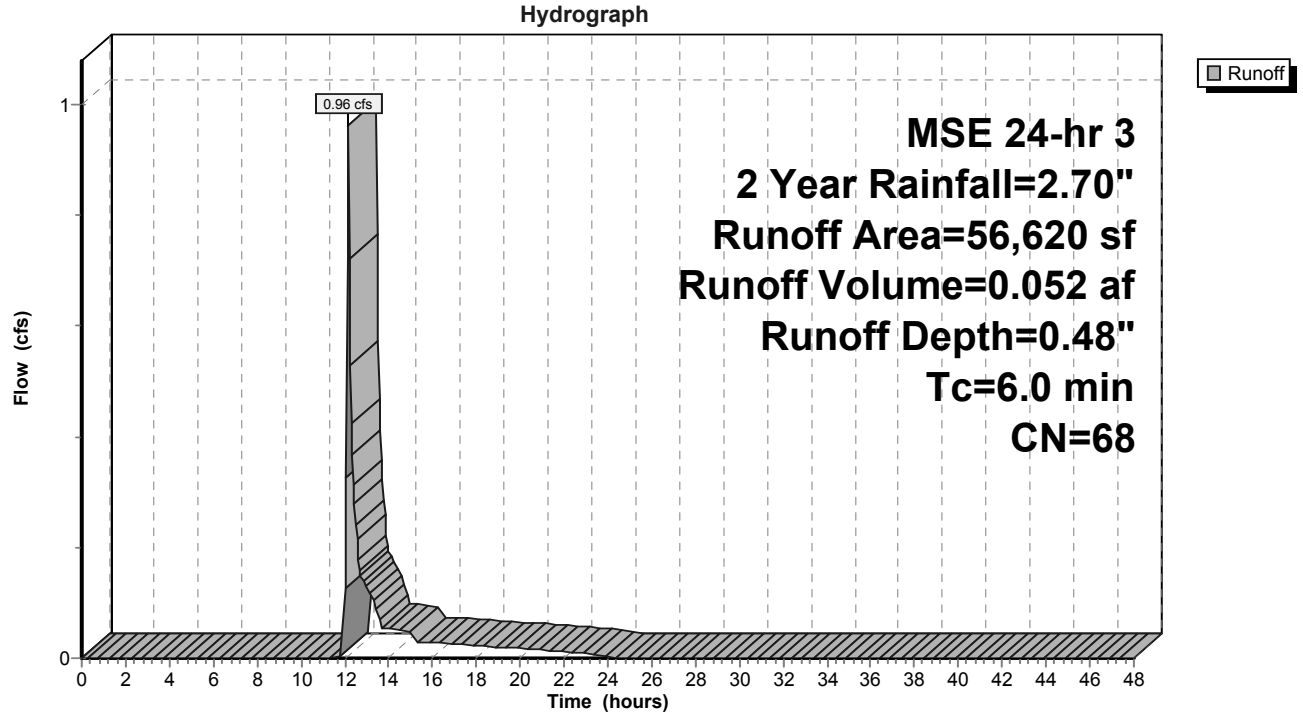
Runoff = 0.96 cfs @ 12.15 hrs, Volume= 0.052 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2 Year Rainfall=2.70"

	Area (sf)	CN	Description
	45,945	61	>75% Grass cover, Good, HSG B
*	10,240	98	IMPERVIOUS
	435	96	Gravel surface, HSG B
	56,620	68	Weighted Average
	46,380		81.91% Pervious Area
	10,240		18.09% Impervious Area

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

Subcatchment 1E: EXISTING



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1E: EXISTING Runoff Area=56,620 sf 18.09% Impervious Runoff Depth=1.08"
Tc=6.0 min CN=68 Runoff=2.46 cfs 0.117 af

Summary for Subcatchment 1E: EXISTING

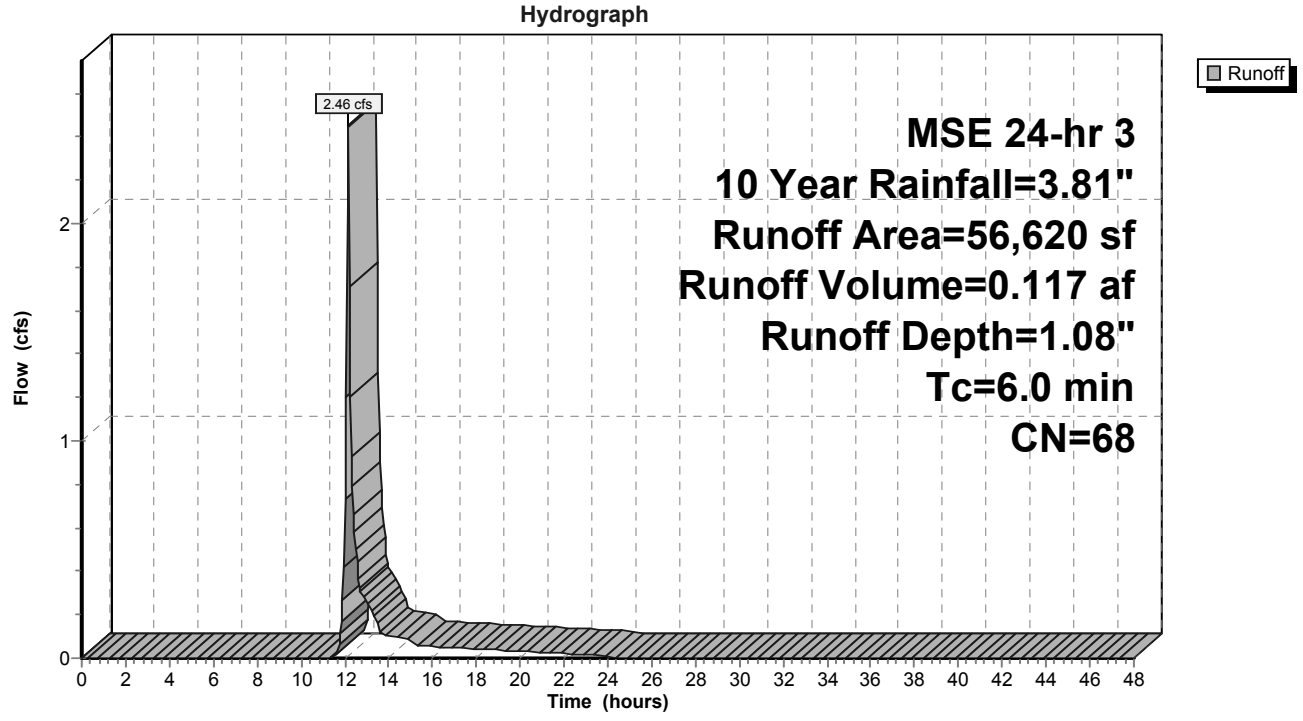
Runoff = 2.46 cfs @ 12.14 hrs, Volume= 0.117 af, Depth= 1.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10 Year Rainfall=3.81"

	Area (sf)	CN	Description
	45,945	61	>75% Grass cover, Good, HSG B
*	10,240	98	IMPERVIOUS
	435	96	Gravel surface, HSG B
	56,620	68	Weighted Average
	46,380		81.91% Pervious Area
	10,240		18.09% Impervious Area

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

Subcatchment 1E: EXISTING



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1E: EXISTING Runoff Area=56,620 sf 18.09% Impervious Runoff Depth=2.76"
Tc=6.0 min CN=68 Runoff=6.44 cfs 0.299 af

Summary for Subcatchment 1E: EXISTING

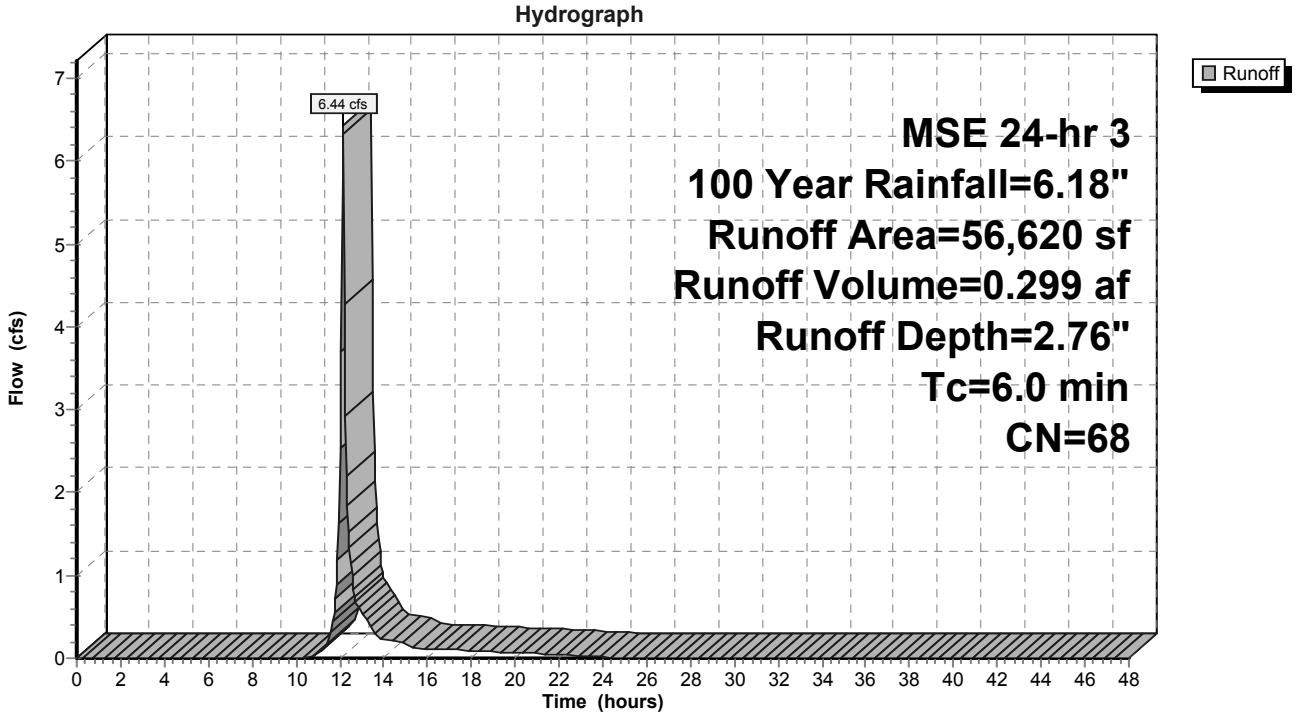
Runoff = 6.44 cfs @ 12.14 hrs, Volume= 0.299 af, Depth= 2.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 Year Rainfall=6.18"

	Area (sf)	CN	Description
	45,945	61	>75% Grass cover, Good, HSG B
*	10,240	98	IMPERVIOUS
	435	96	Gravel surface, HSG B
	56,620	68	Weighted Average
	46,380		81.91% Pervious Area
	10,240		18.09% Impervious Area

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

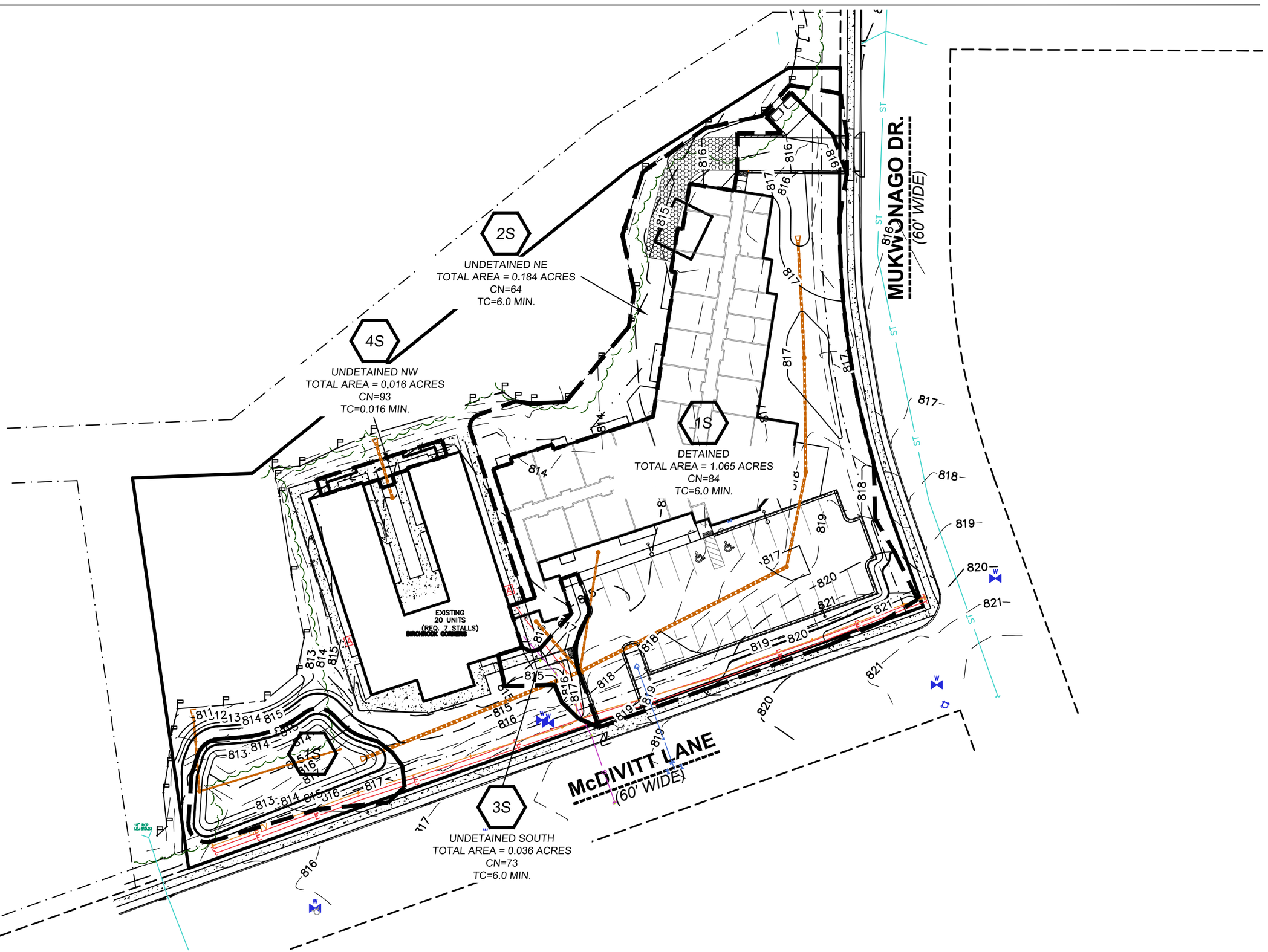
Subcatchment 1E: EXISTING



APPENDIX 4

PROPOSED SITE HYDROLOGY

- Proposed Conditions Hydrology Exhibit
- Proposed Conditions HydroCAD Output



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WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LN
MUKWONAGO, WI 53149

PROJECT:
MUKWONAGO
CBRF BUILDING

PROJECT LOCATION:
CITY OF MUKWONAGO
WAUKESHA COUNTY, WI

PLAN MODIFICATIONS:

#	Date:	Description:

Design/Drawn: IRN
Approved: DSR

SHEET TITLE:
PROPOSED HYDROLOGY

SHEET NUMBER:
H2.0

JSD PROJECT NO: 19-9231

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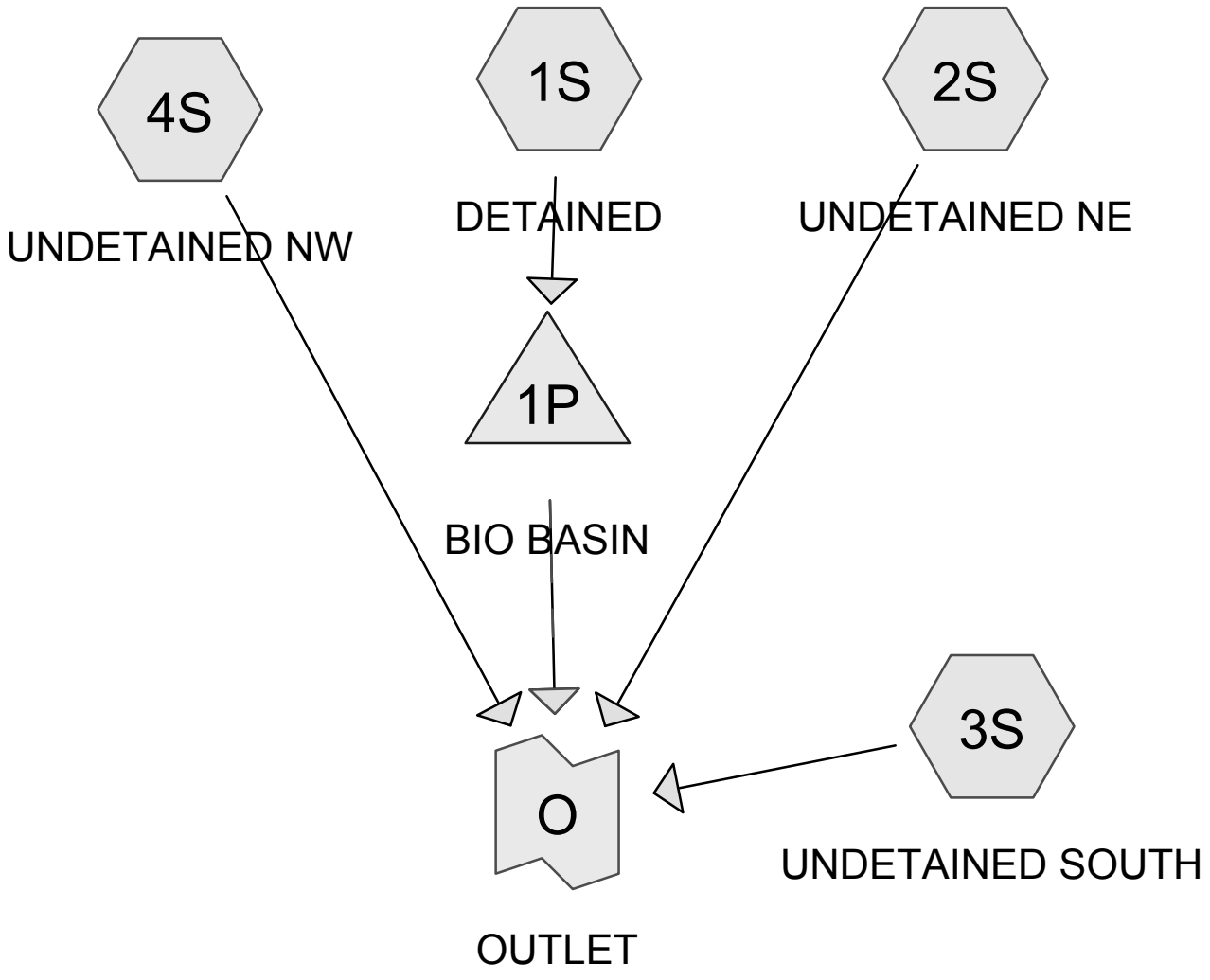
File: N:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\19-9231Hydrology.dwg Layout: H2-PROPOSED User: lnewman Plotted: Nov 05, 2019 - 4:10pm Xrefs:



Subcat Reach Pond Link

Routing Diagram for 19-9231 Mukwonago RCAC revised
Prepared by Microsoft, Printed 11/5/2019
HydroCAD® 10.00-21 s/n 02918 © 2018 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.592	61	>75% Grass cover, Good, HSG B (1S, 2S, 3S, 4S)
0.041	98	DRIVEWAY (1S, 2S)
0.260	98	PARKING (1S)
0.011	98	ROOF (4S)
0.034	98	SIDEWALK (1S, 2S, 3S, 4S)
0.362	98	Unconnected roofs, HSG C (1S)

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: DETAINED Runoff Area=46,335 sf 62.65% Impervious Runoff Depth=1.05"
Tc=6.0 min CN=84 Runoff=2.01 cfs 0.093 af

Subcatchment2S: UNDETAINEDNE Runoff Area=8,000 sf 8.62% Impervious Runoff Depth=0.24"
Tc=6.0 min CN=64 Runoff=0.05 cfs 0.004 af

Subcatchment3S: UNDETAINEDSOUTH Runoff Area=1,570 sf 32.17% Impervious Runoff Depth=0.51"
Tc=6.0 min CN=73 Runoff=0.03 cfs 0.002 af

Subcatchment4S: UNDETAINEDNW Runoff Area=715 sf 86.71% Impervious Runoff Depth=1.69"
Tc=6.0 min CN=93 Runoff=0.05 cfs 0.002 af

Pond 1P: BIO BASIN Peak Elev=813.11' Storage=3,066 cf Inflow=2.01 cfs 0.093 af
Discarded=0.01 cfs 0.024 af Primary=0.04 cfs 0.019 af Secondary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.043 af

Link O: OUTLET Inflow=0.12 cfs 0.026 af
Primary=0.12 cfs 0.026 af

Summary for Subcatchment 1S: DETAINED

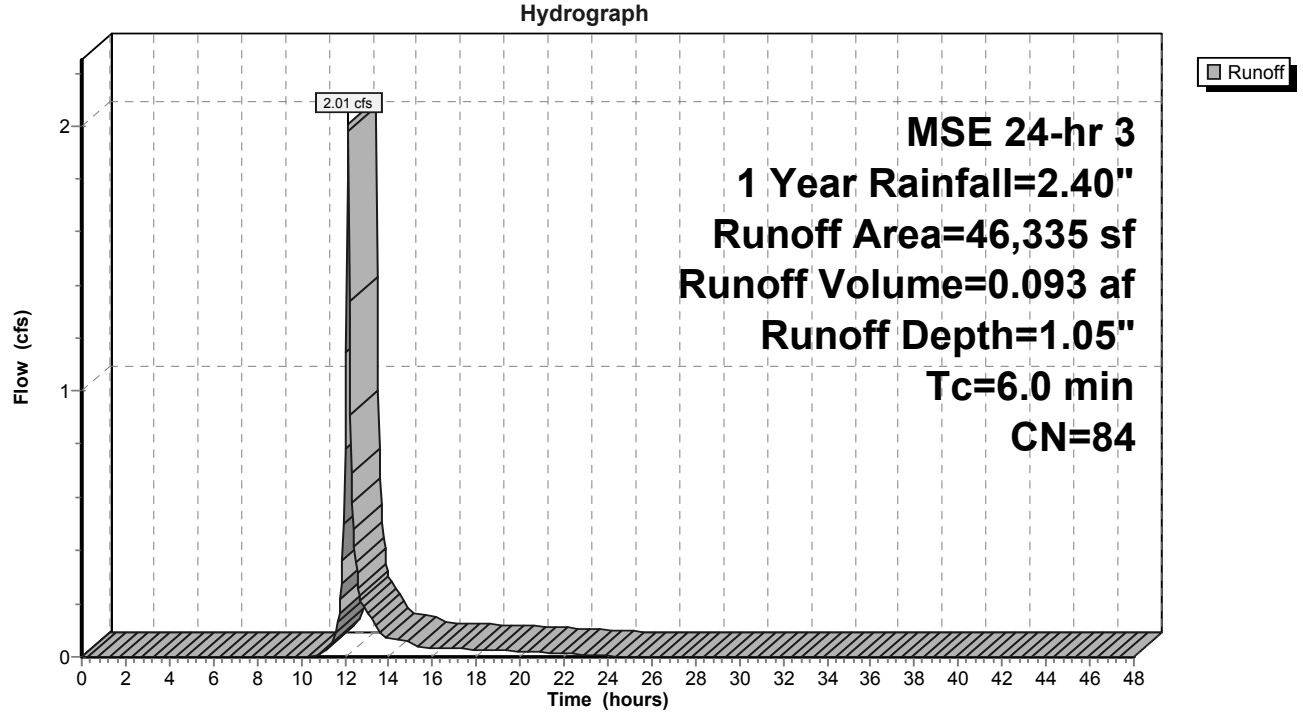
Runoff = 2.01 cfs @ 12.14 hrs, Volume= 0.093 af, Depth= 1.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1 Year Rainfall=2.40"

	Area (sf)	CN	Description
*	1,710	98	DRIVEWAY
	14,750	61	>75% Grass cover, Good, HSG B
	15,770	98	Unconnected roofs, HSG C
*	11,310	98	PARKING
*	240	98	SIDEWALK
	2,555	61	>75% Grass cover, Good, HSG B
	46,335	84	Weighted Average
	17,305		37.35% Pervious Area
	29,030		62.65% Impervious Area
	15,770		54.32% Unconnected

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

Subcatchment 1S: DETAINED



Summary for Subcatchment 2S: UNDETAINED NE

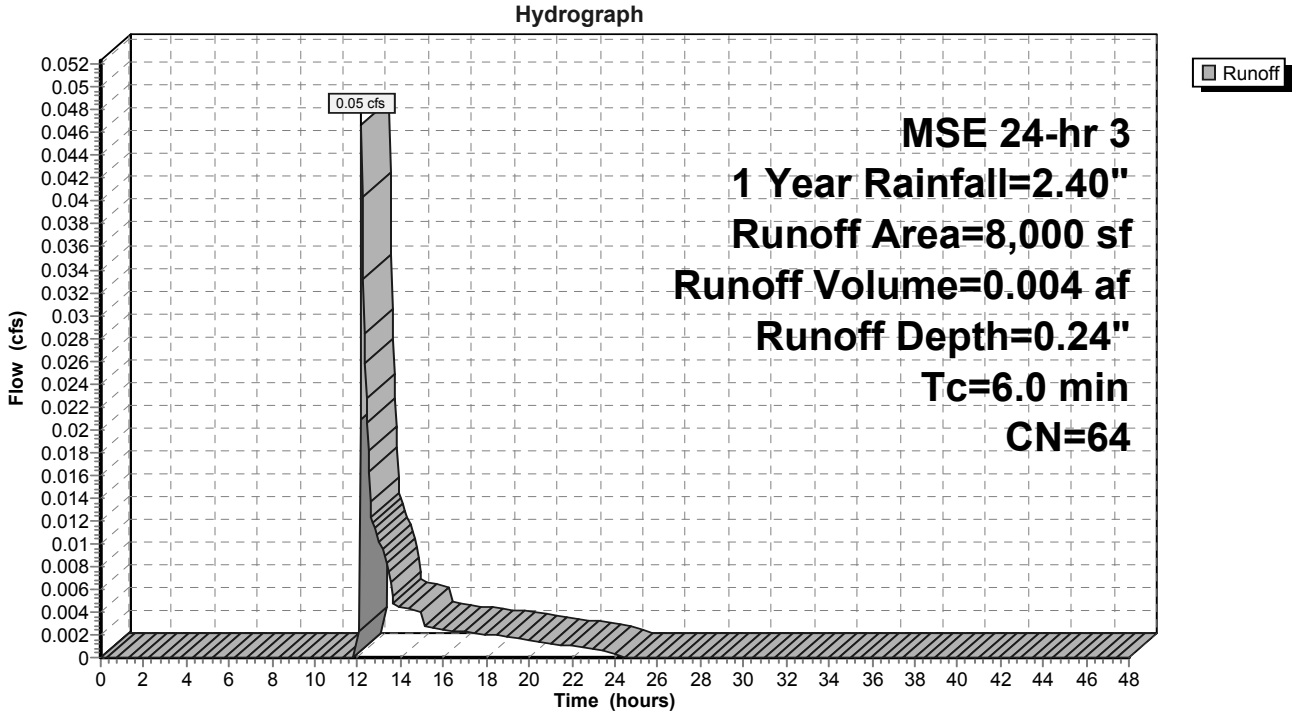
Runoff = 0.05 cfs @ 12.17 hrs, Volume= 0.004 af, Depth= 0.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1 Year Rainfall=2.40"

	Area (sf)	CN	Description
	5,975	61	>75% Grass cover, Good, HSG B
*	80	98	DRIVEWAY
*	610	98	SIDEWALK
	1,335	61	>75% Grass cover, Good, HSG B
	8,000	64	Weighted Average
	7,310		91.37% Pervious Area
	690		8.62% Impervious Area

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

Subcatchment 2S: UNDETAINED NE



Summary for Subcatchment 3S: UNDETAINED SOUTH

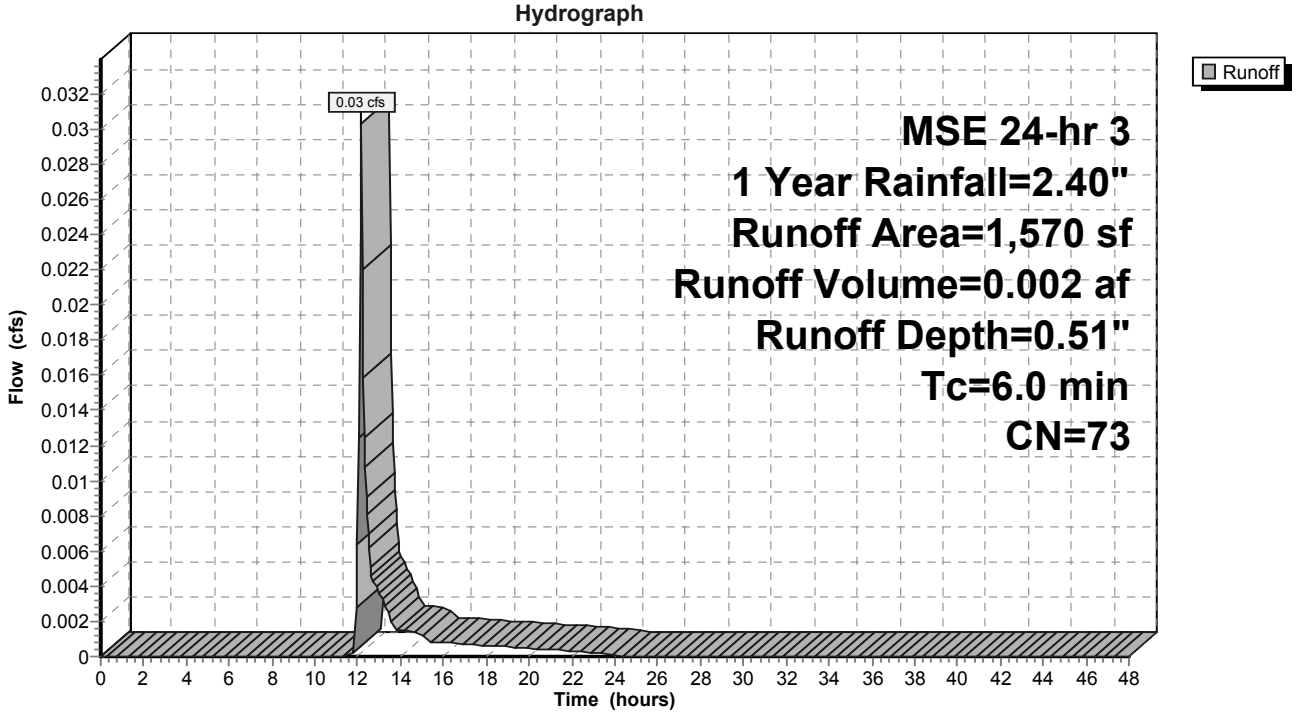
Runoff = 0.03 cfs @ 12.15 hrs, Volume= 0.002 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1 Year Rainfall=2.40"

	Area (sf)	CN	Description
	1,065	61	>75% Grass cover, Good, HSG B
*	505	98	SIDEWALK
	1,570	73	Weighted Average
	1,065		67.83% Pervious Area
	505		32.17% Impervious Area

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

Subcatchment 3S: UNDETAINED SOUTH



Summary for Subcatchment 4S: UNDETAINED NW

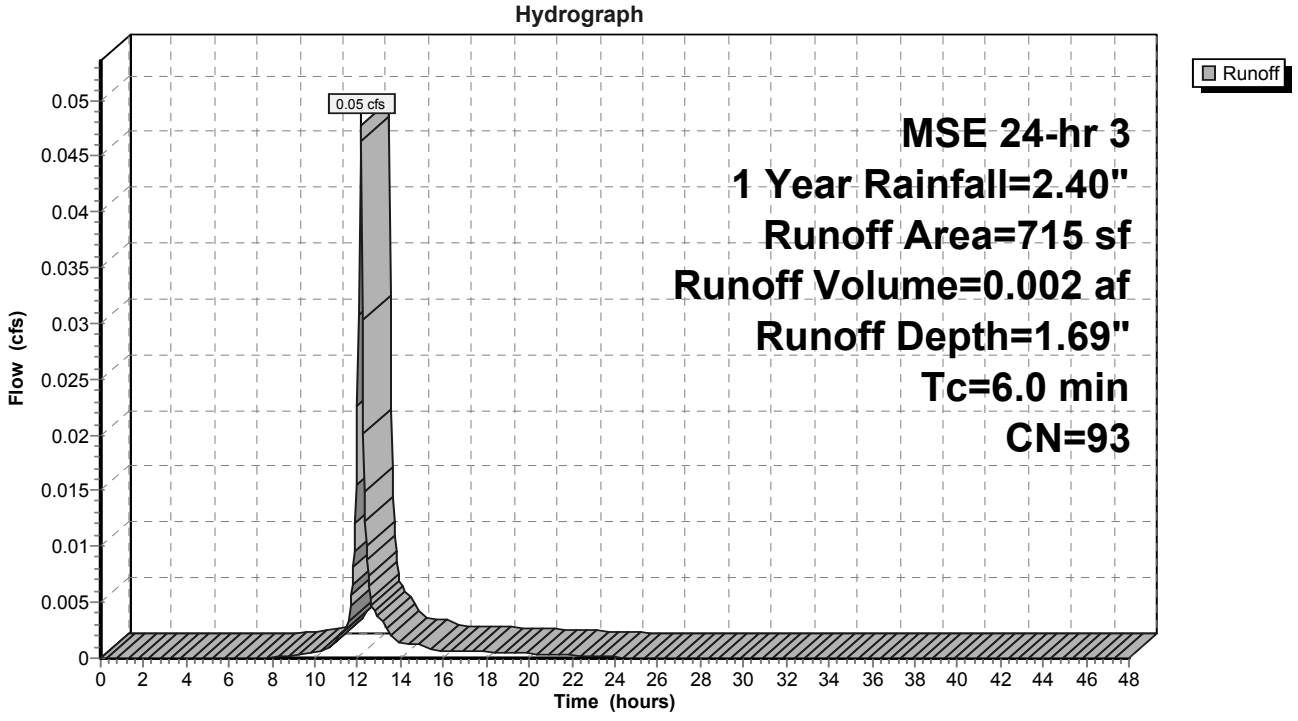
Runoff = 0.05 cfs @ 12.13 hrs, Volume= 0.002 af, Depth= 1.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1 Year Rainfall=2.40"

	Area (sf)	CN	Description
	95	61	>75% Grass cover, Good, HSG B
*	490	98	ROOF
*	130	98	SIDEWALK
	715	93	Weighted Average
	95		13.29% Pervious Area
	620		86.71% Impervious Area

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

Subcatchment 4S: UNDETAINED NW



Summary for Pond 1P: BIO BASIN

Inflow Area = 1.064 ac, 62.65% Impervious, Inflow Depth = 1.05" for 1 Year event
Inflow = 2.01 cfs @ 12.14 hrs, Volume= 0.093 af
Outflow = 0.05 cfs @ 15.08 hrs, Volume= 0.043 af, Atten= 97%, Lag= 176.9 min
Discarded = 0.01 cfs @ 15.08 hrs, Volume= 0.024 af
Primary = 0.04 cfs @ 15.08 hrs, Volume= 0.019 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 813.11' @ 15.08 hrs Surf.Area= 2,362 sf Storage= 3,066 cf

Plug-Flow detention time= 739.4 min calculated for 0.043 af (46% of inflow)
Center-of-Mass det. time= 649.0 min (1,463.4 - 814.4)

Volume	Invert	Avail.Storage	Storage Description
#1	809.00'	10,888 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
809.00	2,289	225.0	0.0	0	0	2,289
810.00	2,289	225.0	33.0	755	755	2,514
811.00	2,289	225.0	33.0	755	1,511	2,739
811.50	2,289	225.0	33.0	378	1,888	2,852
812.00	2,289	225.0	27.0	309	2,197	2,964
813.00	2,289	225.0	27.0	618	2,815	3,189
814.00	3,017	248.0	100.0	2,645	5,460	4,086
815.00	3,824	272.0	100.0	3,413	8,873	5,113
815.50	4,239	281.0	100.0	2,015	10,888	5,533

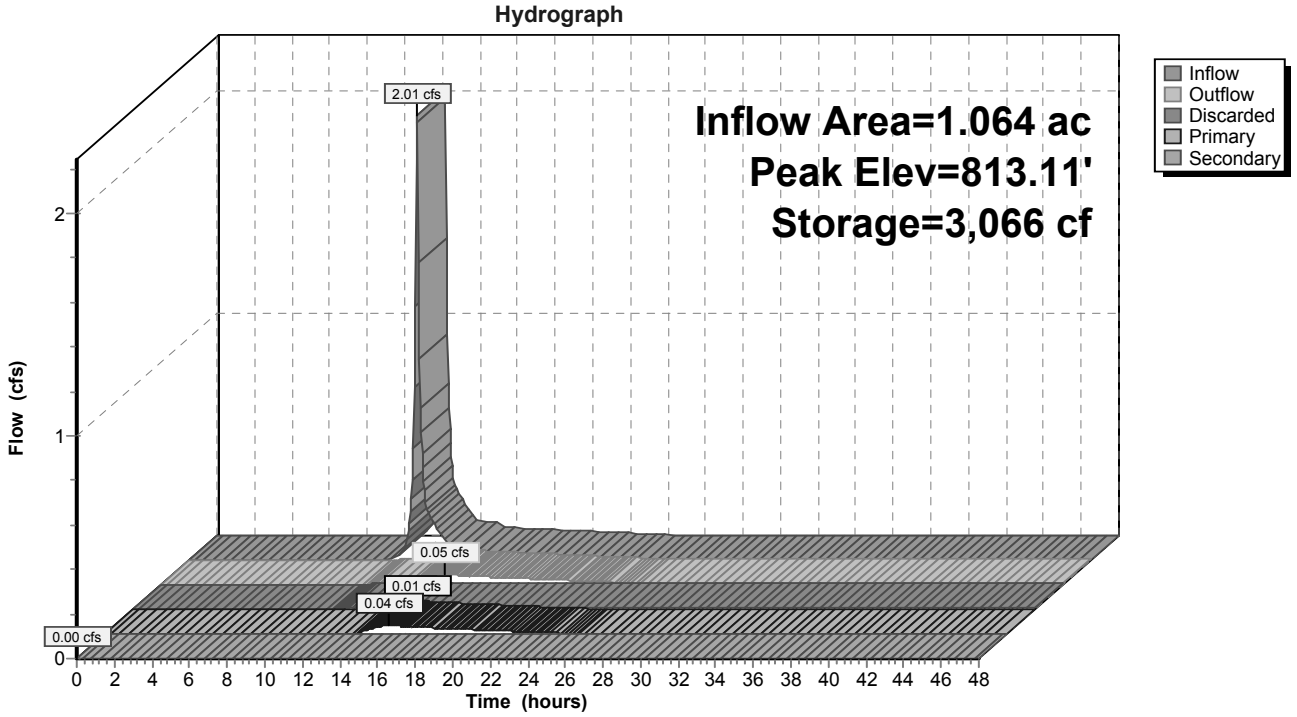
Device	Routing	Invert	Outlet Devices
#1	Discarded	809.00'	**0.150 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 20.00'
#2	Primary	811.50'	**8.0" Round Culvert** L= 41.4' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 811.50' / 810.83' S= 0.0162 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#3	Device 2	811.93'	**6.0" Round Culvert** L= 86.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 811.93' / 811.50' S= 0.0050 '/' Cc= 0.900 n= 0.100, Flow Area= 0.20 sf
#4	Device 3	811.50'	**3.600 in/hr Exfiltration over Surface area above 811.50'** Conductivity to Groundwater Elevation = 800.00' Excluded Surface area = 2,289 sf
#5	Device 2	813.00'	**6.0" Vert. Orifice/Grate** C= 0.600
#6	Device 2	814.80'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#7	Secondary	814.90'	**20.0' 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

Discarded OutFlow Max=0.01 cfs @ 15.08 hrs HW=813.11' (Free Discharge)
└**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.04 cfs @ 15.08 hrs HW=813.11' (Free Discharge)
└**2=Culvert** (Passes 0.04 cfs of 1.50 cfs potential flow)
  └**3=Culvert** (Passes 0.01 cfs of 0.08 cfs potential flow)
    └**4=Exfiltration** (Controls 0.01 cfs)
  └**5=Orifice/Grate** (Orifice Controls 0.03 cfs @ 1.12 fps)
  └**6=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=809.00' (Free Discharge)
└**7=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond 1P: BIO BASIN

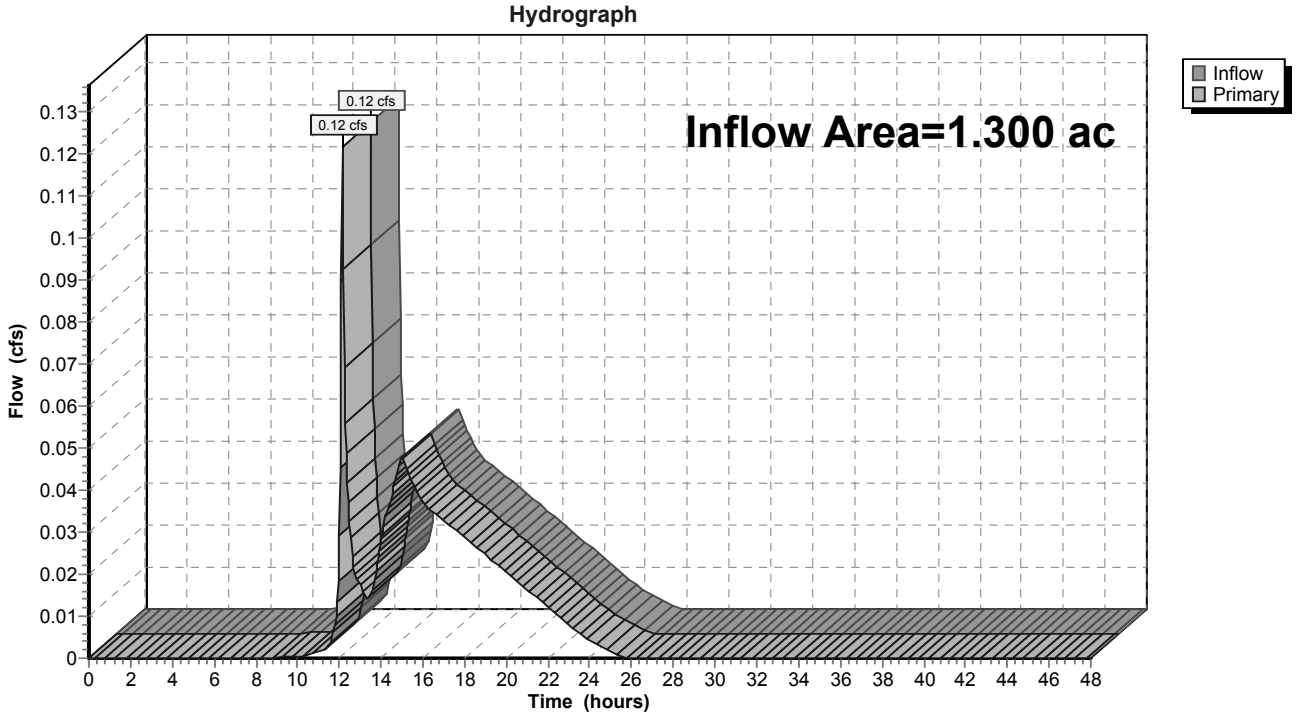


Summary for Link O: OUTLET

Inflow Area = 1.300 ac, 54.48% Impervious, Inflow Depth = 0.24" for 1 Year event
Inflow = 0.12 cfs @ 12.15 hrs, Volume= 0.026 af
Primary = 0.12 cfs @ 12.15 hrs, Volume= 0.026 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link O: OUTLET



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: DETAINED Runoff Area=46,335 sf 62.65% Impervious Runoff Depth=1.29"
Tc=6.0 min CN=84 Runoff=2.45 cfs 0.114 af

Subcatchment2S: UNDETAINEDNE Runoff Area=8,000 sf 8.62% Impervious Runoff Depth=0.35"
Tc=6.0 min CN=64 Runoff=0.09 cfs 0.005 af

Subcatchment3S: UNDETAINEDSOUTH Runoff Area=1,570 sf 32.17% Impervious Runoff Depth=0.67"
Tc=6.0 min CN=73 Runoff=0.04 cfs 0.002 af

Subcatchment4S: UNDETAINEDNW Runoff Area=715 sf 86.71% Impervious Runoff Depth=1.98"
Tc=6.0 min CN=93 Runoff=0.06 cfs 0.003 af

Pond 1P: BIO BASIN Peak Elev=813.20' Storage=3,291 cf Inflow=2.45 cfs 0.114 af
Discarded=0.01 cfs 0.025 af Primary=0.13 cfs 0.039 af Secondary=0.00 cfs 0.000 af Outflow=0.14 cfs 0.064 af

Link O: OUTLET Inflow=0.18 cfs 0.049 af
Primary=0.18 cfs 0.049 af

Summary for Subcatchment 1S: DETAINED

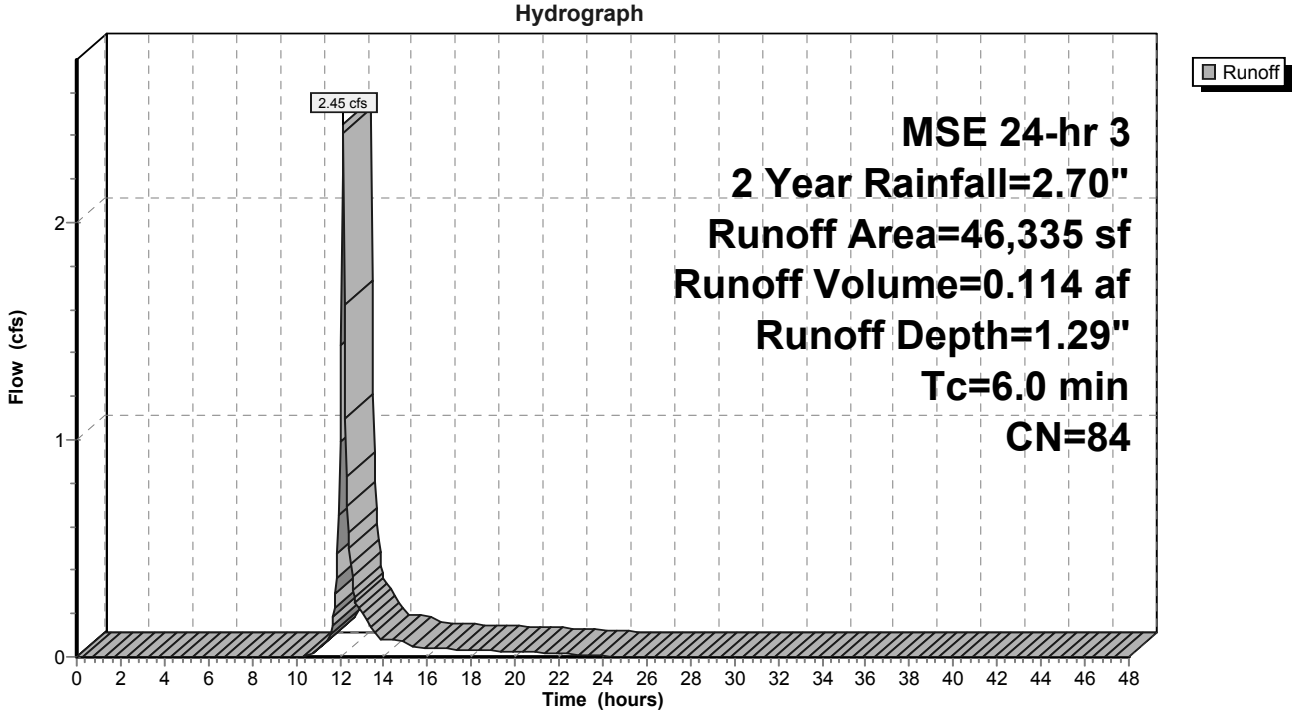
Runoff = 2.45 cfs @ 12.13 hrs, Volume= 0.114 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2 Year Rainfall=2.70"

	Area (sf)	CN	Description
*	1,710	98	DRIVEWAY
	14,750	61	>75% Grass cover, Good, HSG B
	15,770	98	Unconnected roofs, HSG C
*	11,310	98	PARKING
*	240	98	SIDEWALK
	2,555	61	>75% Grass cover, Good, HSG B
	46,335	84	Weighted Average
	17,305		37.35% Pervious Area
	29,030		62.65% Impervious Area
	15,770		54.32% Unconnected

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

Subcatchment 1S: DETAINED



Summary for Subcatchment 2S: UNDETAINED NE

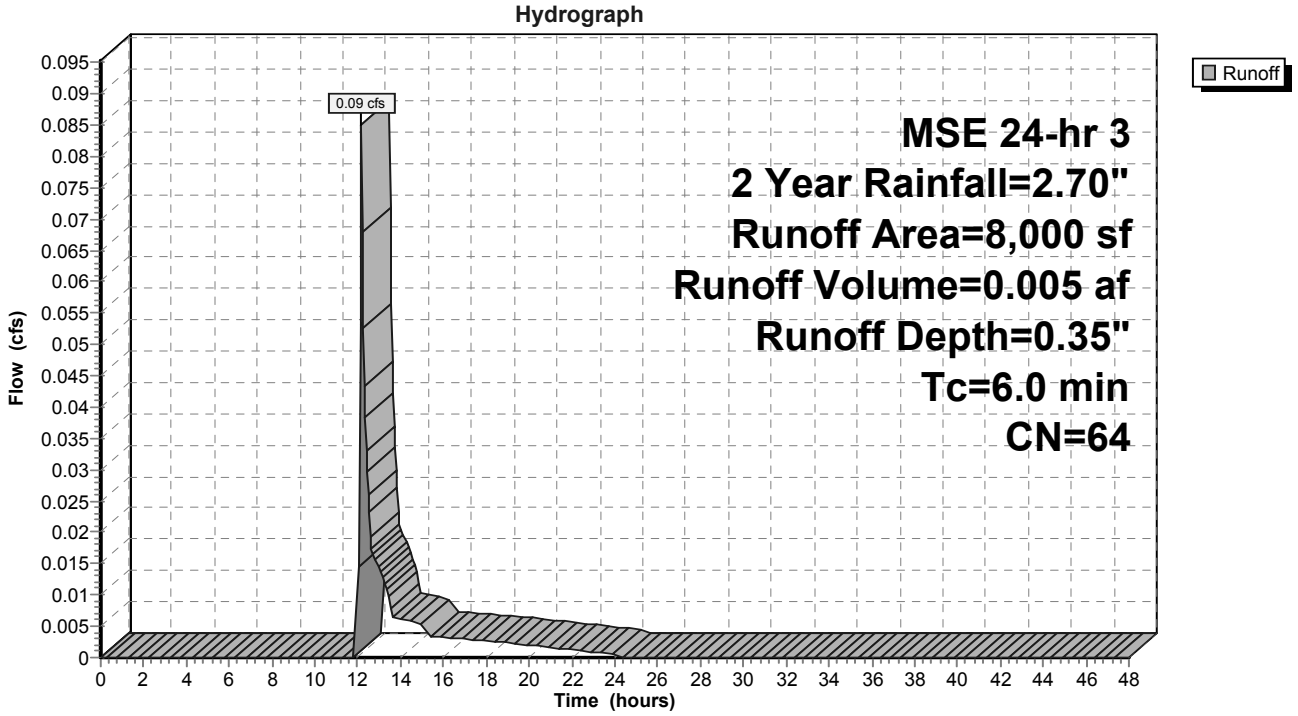
Runoff = 0.09 cfs @ 12.16 hrs, Volume= 0.005 af, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2 Year Rainfall=2.70"

	Area (sf)	CN	Description
	5,975	61	>75% Grass cover, Good, HSG B
*	80	98	DRIVEWAY
*	610	98	SIDEWALK
	1,335	61	>75% Grass cover, Good, HSG B
	8,000	64	Weighted Average
	7,310		91.37% Pervious Area
	690		8.62% Impervious Area

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

Subcatchment 2S: UNDETAINED NE



Summary for Subcatchment 3S: UNDETAINED SOUTH

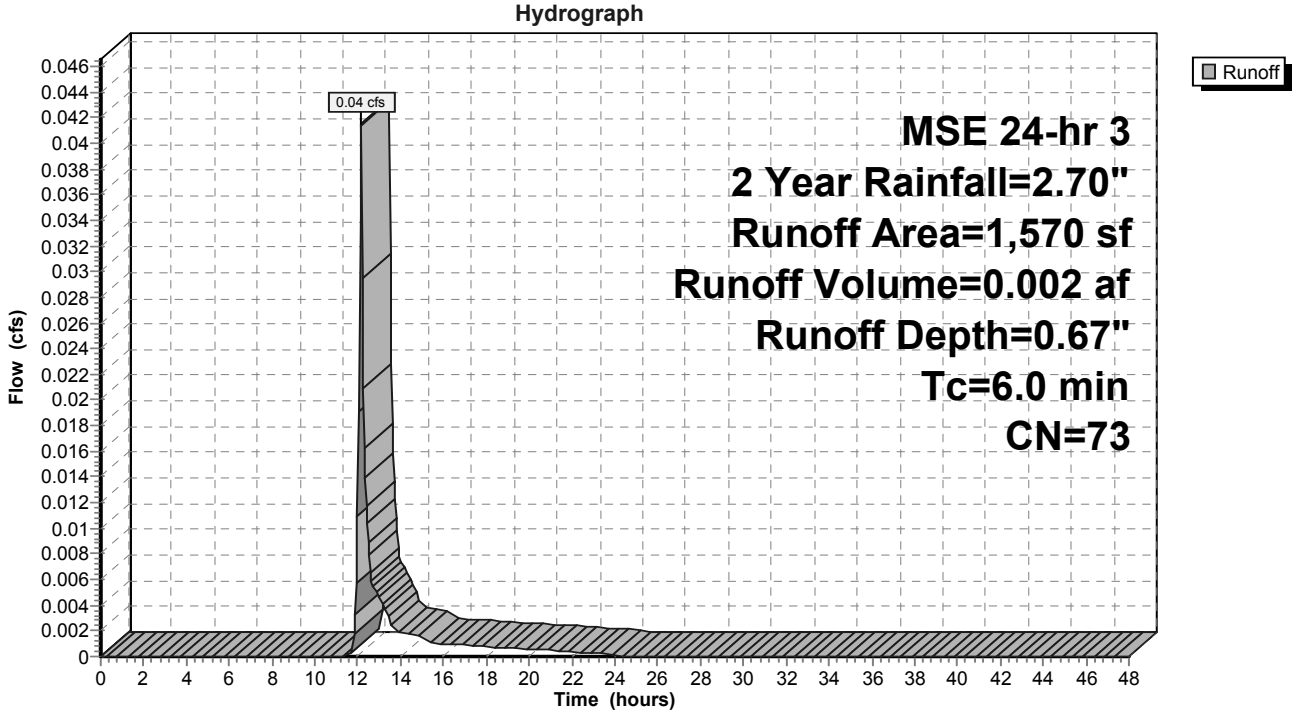
Runoff = 0.04 cfs @ 12.14 hrs, Volume= 0.002 af, Depth= 0.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2 Year Rainfall=2.70"

	Area (sf)	CN	Description
	1,065	61	>75% Grass cover, Good, HSG B
*	505	98	SIDEWALK
	1,570	73	Weighted Average
	1,065		67.83% Pervious Area
	505		32.17% Impervious Area

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

Subcatchment 3S: UNDETAINED SOUTH



Summary for Subcatchment 4S: UNDETAINED NW

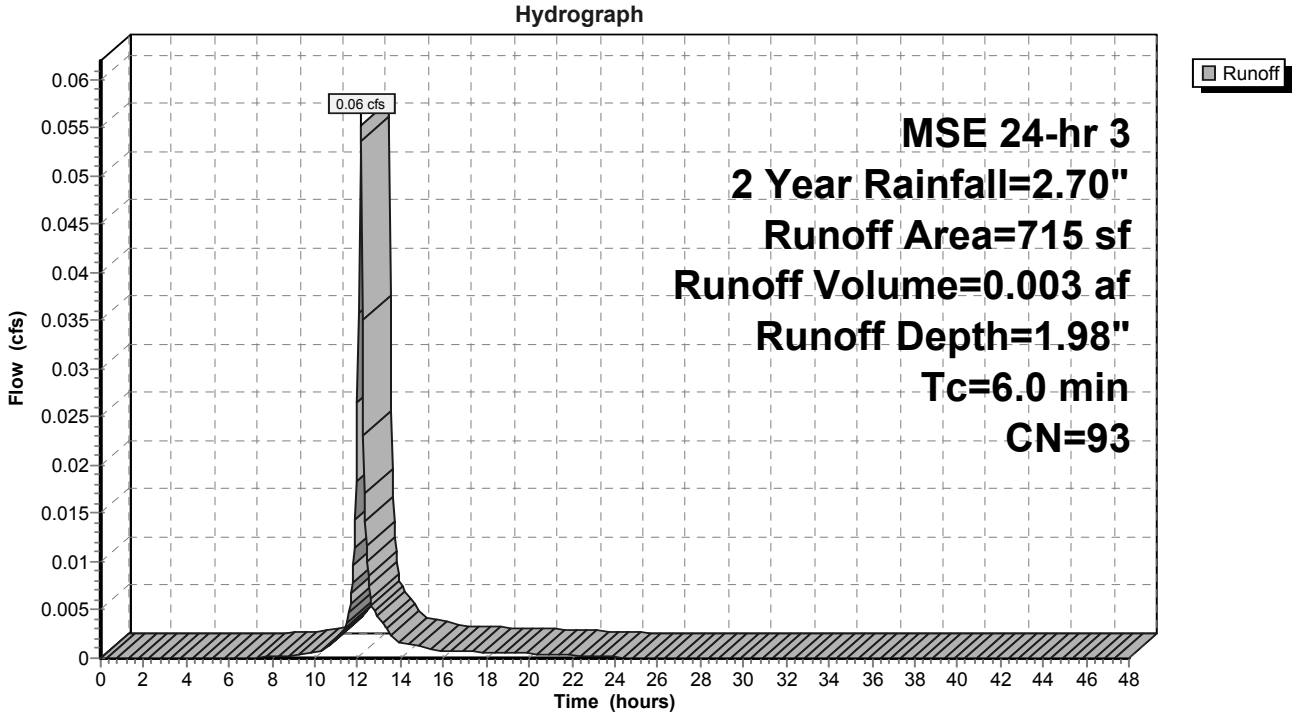
Runoff = 0.06 cfs @ 12.13 hrs, Volume= 0.003 af, Depth= 1.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2 Year Rainfall=2.70"

	Area (sf)	CN	Description
	95	61	>75% Grass cover, Good, HSG B
*	490	98	ROOF
*	130	98	SIDEWALK
	715	93	Weighted Average
	95		13.29% Pervious Area
	620		86.71% Impervious Area

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

Subcatchment 4S: UNDETAINED NW



Summary for Pond 1P: BIO BASIN

Inflow Area = 1.064 ac, 62.65% Impervious, Inflow Depth = 1.29" for 2 Year event
Inflow = 2.45 cfs @ 12.13 hrs, Volume= 0.114 af
Outflow = 0.14 cfs @ 13.48 hrs, Volume= 0.064 af, Atten= 94%, Lag= 80.7 min
Discarded = 0.01 cfs @ 13.48 hrs, Volume= 0.025 af
Primary = 0.13 cfs @ 13.48 hrs, Volume= 0.039 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 813.20' @ 13.48 hrs Surf.Area= 2,428 sf Storage= 3,291 cf

Plug-Flow detention time= 548.9 min calculated for 0.064 af (56% of inflow)
Center-of-Mass det. time= 464.5 min (1,274.7 - 810.2)

Volume	Invert	Avail.Storage	Storage Description
#1	809.00'	10,888 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
809.00	2,289	225.0	0.0	0	0	2,289
810.00	2,289	225.0	33.0	755	755	2,514
811.00	2,289	225.0	33.0	755	1,511	2,739
811.50	2,289	225.0	33.0	378	1,888	2,852
812.00	2,289	225.0	27.0	309	2,197	2,964
813.00	2,289	225.0	27.0	618	2,815	3,189
814.00	3,017	248.0	100.0	2,645	5,460	4,086
815.00	3,824	272.0	100.0	3,413	8,873	5,113
815.50	4,239	281.0	100.0	2,015	10,888	5,533

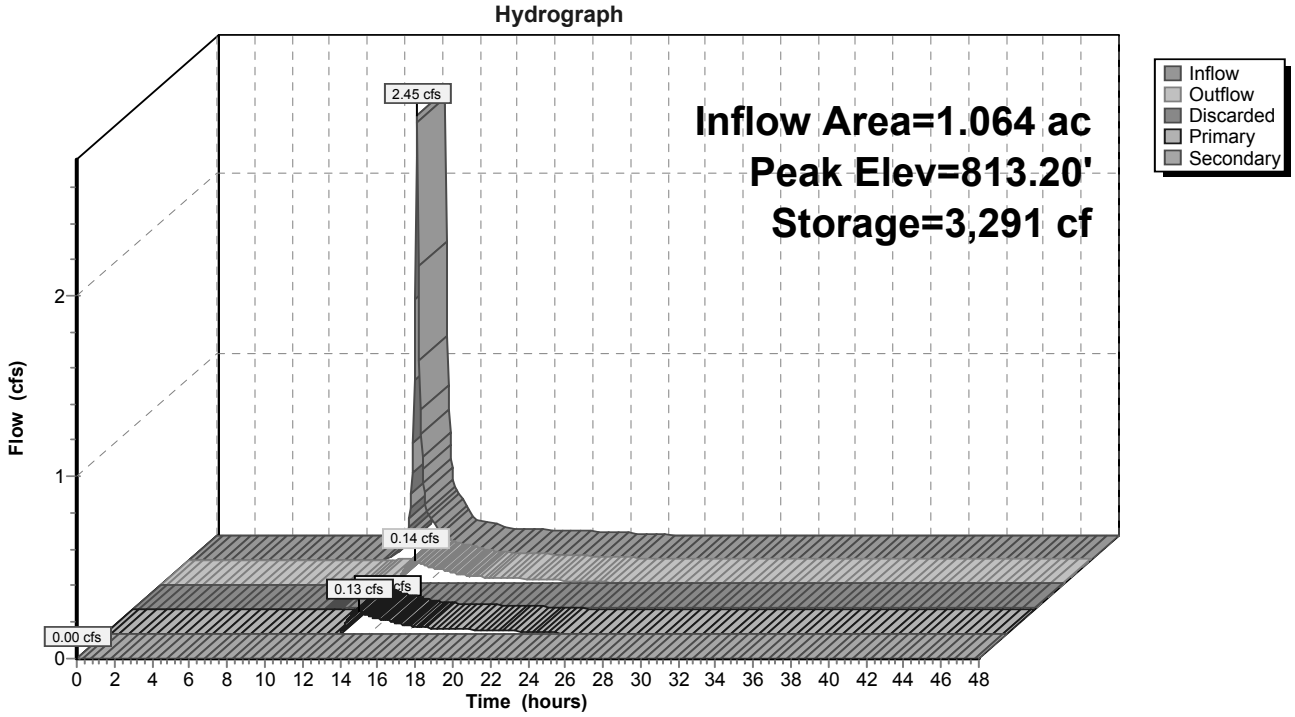
Device	Routing	Invert	Outlet Devices
#1	Discarded	809.00'	**0.150 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 20.00'
#2	Primary	811.50'	**8.0" Round Culvert** L= 41.4' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 811.50' / 810.83' S= 0.0162 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#3	Device 2	811.93'	**6.0" Round Culvert** L= 86.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 811.93' / 811.50' S= 0.0050 '/' Cc= 0.900 n= 0.100, Flow Area= 0.20 sf
#4	Device 3	811.50'	**3.600 in/hr Exfiltration over Surface area above 811.50'** Conductivity to Groundwater Elevation = 800.00' Excluded Surface area = 2,289 sf
#5	Device 2	813.00'	**6.0" Vert. Orifice/Grate** C= 0.600
#6	Device 2	814.80'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#7	Secondary	814.90'	**20.0' 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

Discarded OutFlow Max=0.01 cfs @ 13.48 hrs HW=813.20' (Free Discharge)
└**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.12 cfs @ 13.48 hrs HW=813.20' (Free Discharge)
└**2=Culvert** (Passes 0.12 cfs of 1.55 cfs potential flow)
  └**3=Culvert** (Passes 0.01 cfs of 0.09 cfs potential flow)
    └**4=Exfiltration** (Controls 0.01 cfs)
  └**5=Orifice/Grate** (Orifice Controls 0.11 cfs @ 1.53 fps)
  └**6=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=809.00' (Free Discharge)
└**7=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond 1P: BIO BASIN

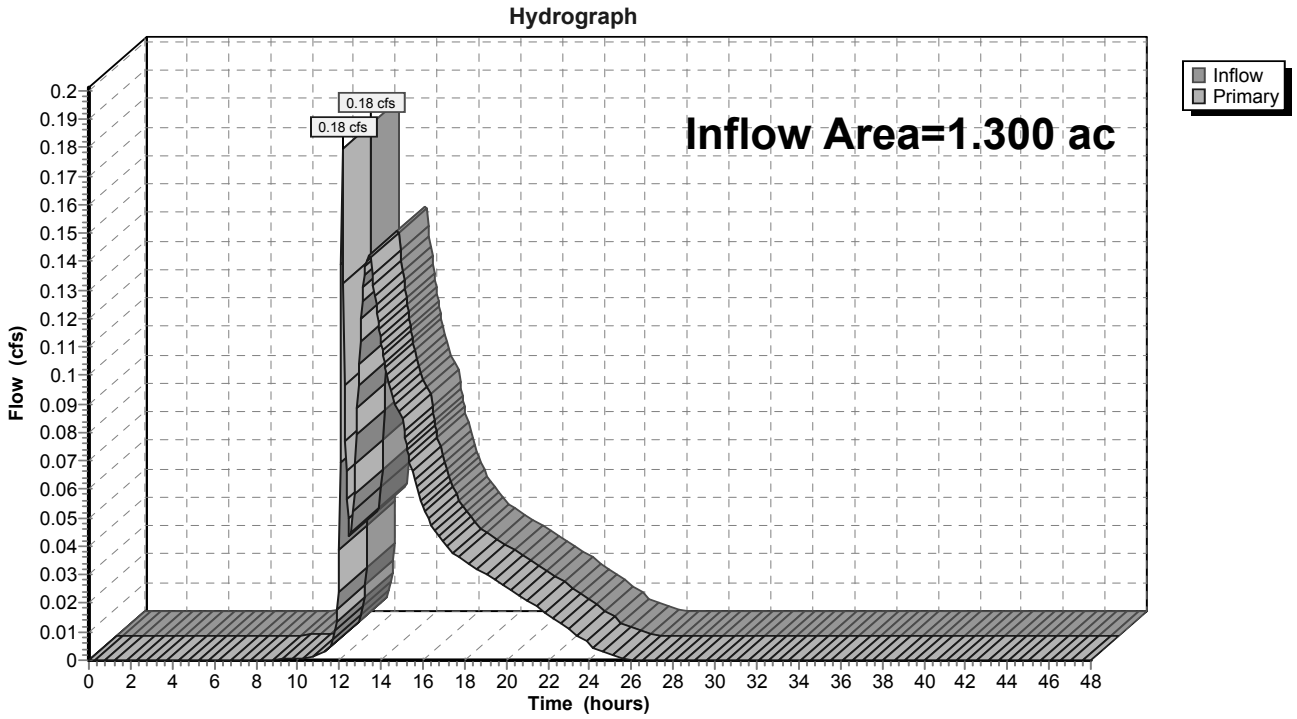


Summary for Link O: OUTLET

Inflow Area = 1.300 ac, 54.48% Impervious, Inflow Depth = 0.45" for 2 Year event
Inflow = 0.18 cfs @ 12.15 hrs, Volume= 0.049 af
Primary = 0.18 cfs @ 12.15 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link O: OUTLET



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: DETAINED Runoff Area=46,335 sf 62.65% Impervious Runoff Depth=2.22"
Tc=6.0 min CN=84 Runoff=4.19 cfs 0.197 af

Subcatchment2S: UNDETAINEDNE Runoff Area=8,000 sf 8.62% Impervious Runoff Depth=0.88"
Tc=6.0 min CN=64 Runoff=0.27 cfs 0.013 af

Subcatchment3S: UNDETAINEDSOUTH Runoff Area=1,570 sf 32.17% Impervious Runoff Depth=1.39"
Tc=6.0 min CN=73 Runoff=0.09 cfs 0.004 af

Subcatchment4S: UNDETAINEDNW Runoff Area=715 sf 86.71% Impervious Runoff Depth=3.04"
Tc=6.0 min CN=93 Runoff=0.08 cfs 0.004 af

Pond 1P: BIO BASIN Peak Elev=813.67' Storage=4,506 cf Inflow=4.19 cfs 0.197 af
Discarded=0.01 cfs 0.026 af Primary=0.65 cfs 0.121 af Secondary=0.00 cfs 0.000 af Outflow=0.66 cfs 0.146 af

Link O: OUTLET Inflow=0.76 cfs 0.142 af
Primary=0.76 cfs 0.142 af

Summary for Subcatchment 1S: DETAINED

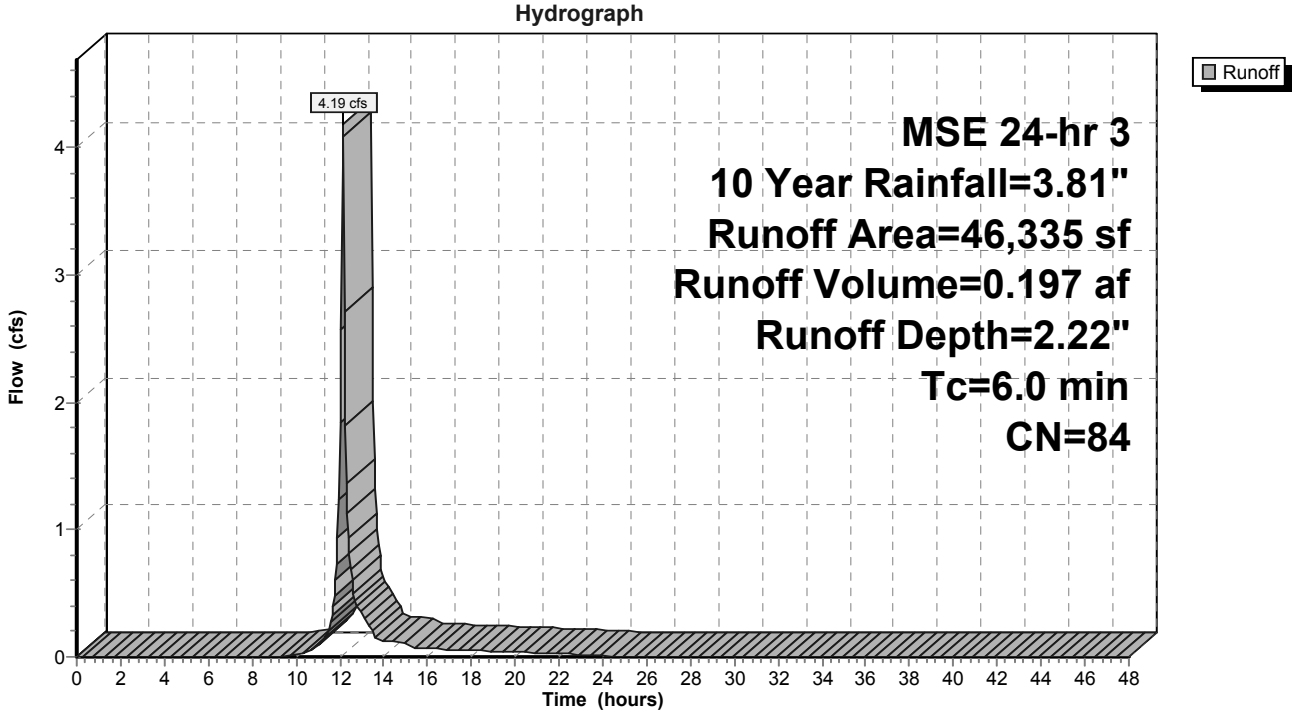
Runoff = 4.19 cfs @ 12.13 hrs, Volume= 0.197 af, Depth= 2.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10 Year Rainfall=3.81"

	Area (sf)	CN	Description
*	1,710	98	DRIVEWAY
	14,750	61	>75% Grass cover, Good, HSG B
	15,770	98	Unconnected roofs, HSG C
*	11,310	98	PARKING
*	240	98	SIDEWALK
	2,555	61	>75% Grass cover, Good, HSG B
	46,335	84	Weighted Average
	17,305		37.35% Pervious Area
	29,030		62.65% Impervious Area
	15,770		54.32% Unconnected

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

Subcatchment 1S: DETAINED



Summary for Subcatchment 2S: UNDETAINED NE

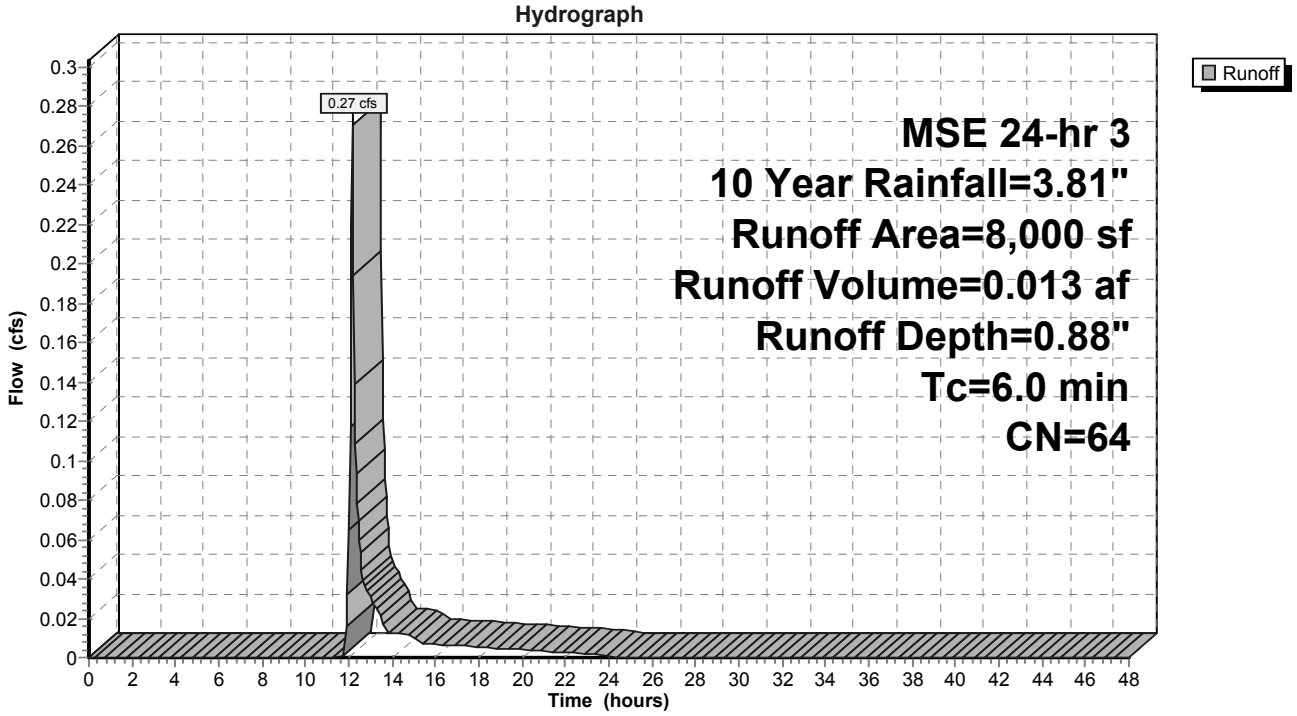
Runoff = 0.27 cfs @ 12.14 hrs, Volume= 0.013 af, Depth= 0.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10 Year Rainfall=3.81"

	Area (sf)	CN	Description
	5,975	61	>75% Grass cover, Good, HSG B
*	80	98	DRIVEWAY
*	610	98	SIDEWALK
	1,335	61	>75% Grass cover, Good, HSG B
	8,000	64	Weighted Average
	7,310		91.37% Pervious Area
	690		8.62% Impervious Area

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

Subcatchment 2S: UNDETAINED NE



Summary for Subcatchment 3S: UNDETAINED SOUTH

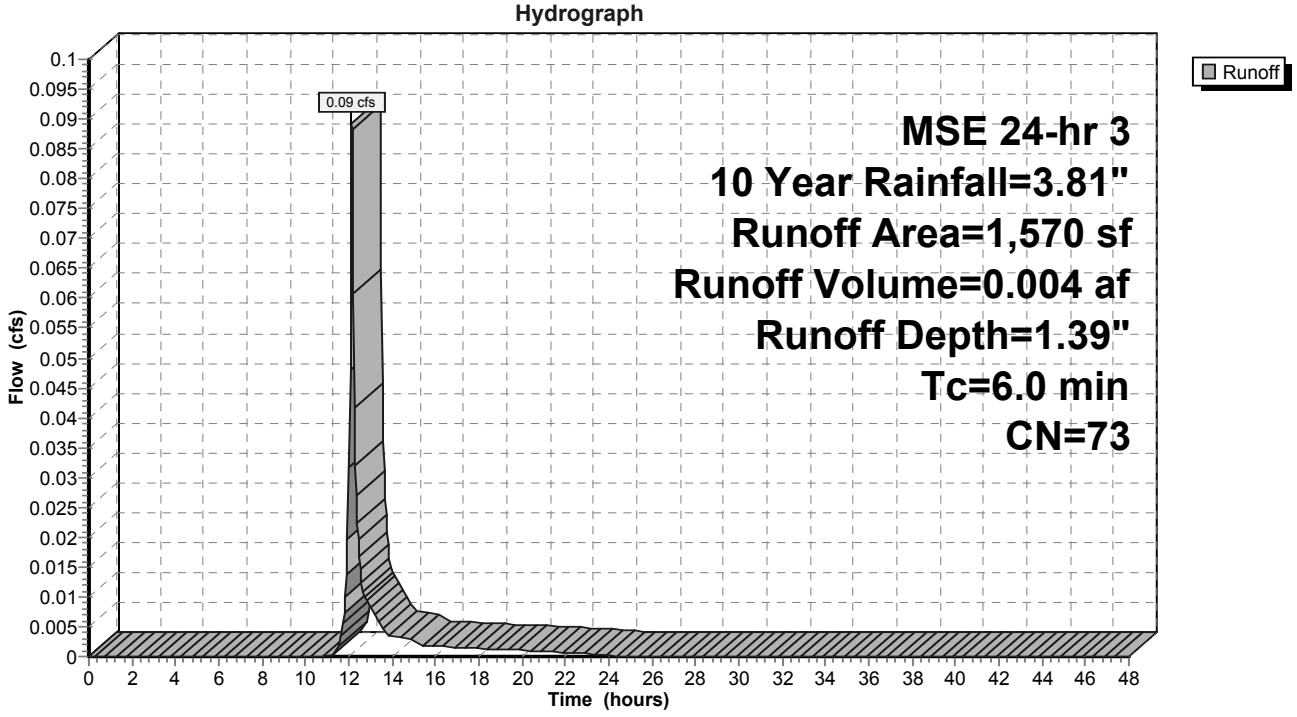
Runoff = 0.09 cfs @ 12.14 hrs, Volume= 0.004 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10 Year Rainfall=3.81"

	Area (sf)	CN	Description
	1,065	61	>75% Grass cover, Good, HSG B
*	505	98	SIDEWALK
	1,570	73	Weighted Average
	1,065		67.83% Pervious Area
	505		32.17% Impervious Area

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

Subcatchment 3S: UNDETAINED SOUTH



Summary for Subcatchment 4S: UNDETAINED NW

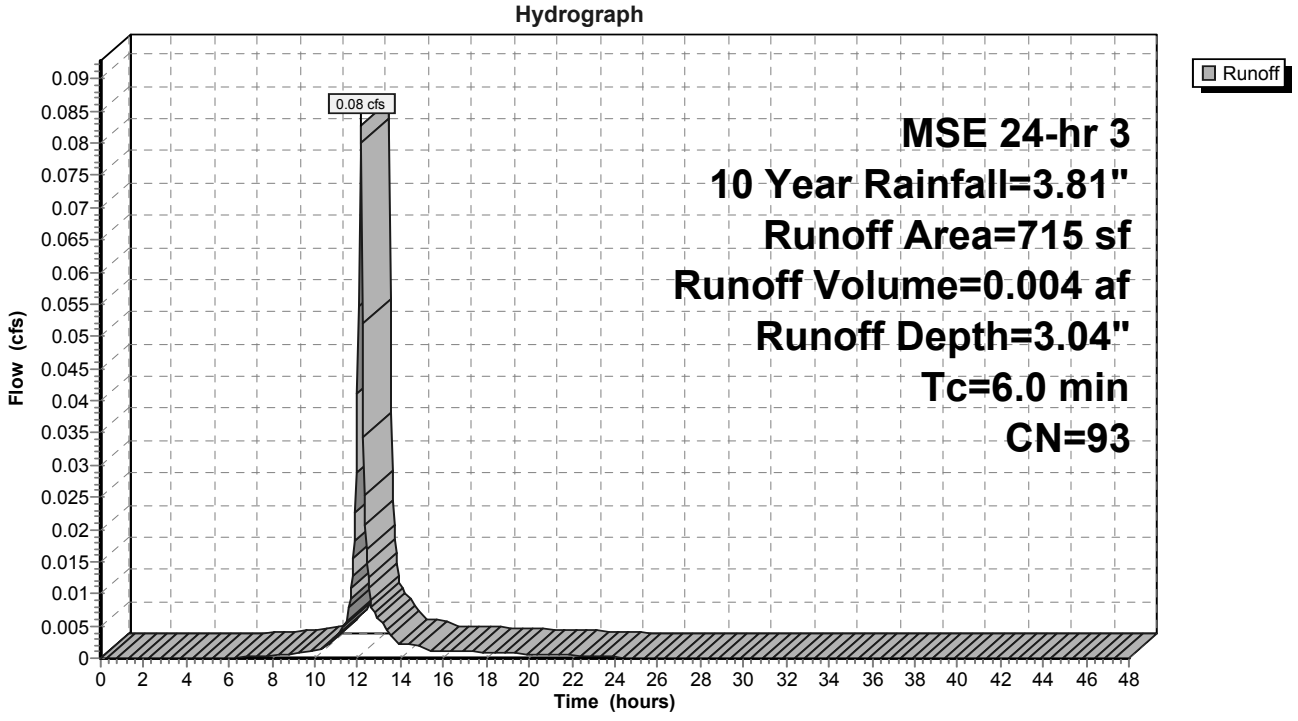
Runoff = 0.08 cfs @ 12.13 hrs, Volume= 0.004 af, Depth= 3.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10 Year Rainfall=3.81"

	Area (sf)	CN	Description
	95	61	>75% Grass cover, Good, HSG B
*	490	98	ROOF
*	130	98	SIDEWALK
	715	93	Weighted Average
	95		13.29% Pervious Area
	620		86.71% Impervious Area

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

Subcatchment 4S: UNDETAINED NW



Summary for Pond 1P: BIO BASIN

Inflow Area = 1.064 ac, 62.65% Impervious, Inflow Depth = 2.22" for 10 Year event
Inflow = 4.19 cfs @ 12.13 hrs, Volume= 0.197 af
Outflow = 0.66 cfs @ 12.52 hrs, Volume= 0.146 af, Atten= 84%, Lag= 23.0 min
Discarded = 0.01 cfs @ 12.52 hrs, Volume= 0.026 af
Primary = 0.65 cfs @ 12.52 hrs, Volume= 0.121 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 813.67' @ 12.52 hrs Surf.Area= 2,766 sf Storage= 4,506 cf

Plug-Flow detention time= 297.2 min calculated for 0.146 af (74% of inflow)
Center-of-Mass det. time= 227.3 min (1,026.4 - 799.1)

Volume	Invert	Avail.Storage	Storage Description
#1	809.00'	10,888 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
809.00	2,289	225.0	0.0	0	0	2,289
810.00	2,289	225.0	33.0	755	755	2,514
811.00	2,289	225.0	33.0	755	1,511	2,739
811.50	2,289	225.0	33.0	378	1,888	2,852
812.00	2,289	225.0	27.0	309	2,197	2,964
813.00	2,289	225.0	27.0	618	2,815	3,189
814.00	3,017	248.0	100.0	2,645	5,460	4,086
815.00	3,824	272.0	100.0	3,413	8,873	5,113
815.50	4,239	281.0	100.0	2,015	10,888	5,533

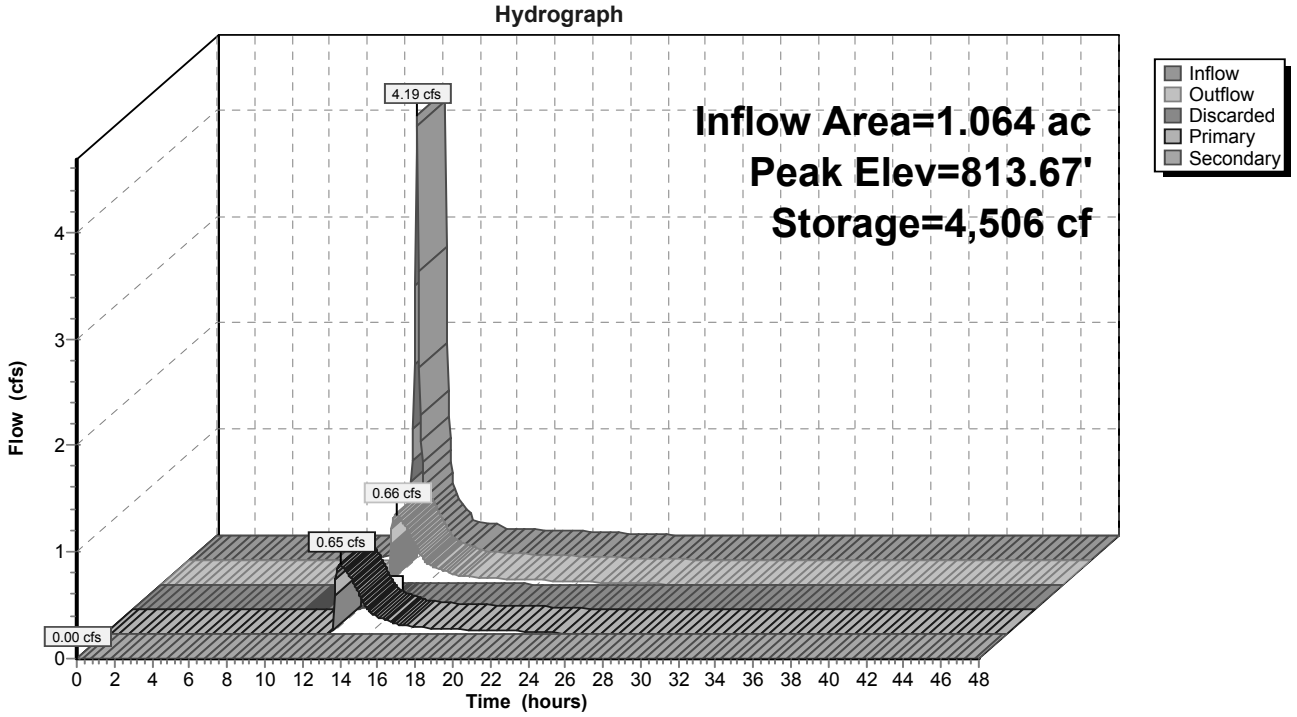
Device	Routing	Invert	Outlet Devices
#1	Discarded	809.00'	**0.150 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 20.00'
#2	Primary	811.50'	**8.0" Round Culvert** L= 41.4' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 811.50' / 810.83' S= 0.0162 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#3	Device 2	811.93'	**6.0" Round Culvert** L= 86.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 811.93' / 811.50' S= 0.0050 '/' Cc= 0.900 n= 0.100, Flow Area= 0.20 sf
#4	Device 3	811.50'	**3.600 in/hr Exfiltration over Surface area above 811.50'** Conductivity to Groundwater Elevation = 800.00' Excluded Surface area = 2,289 sf
#5	Device 2	813.00'	**6.0" Vert. Orifice/Grate** C= 0.600
#6	Device 2	814.80'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#7	Secondary	814.90'	**20.0' 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

Discarded OutFlow Max=0.01 cfs @ 12.52 hrs HW=813.67' (Free Discharge)
└**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.65 cfs @ 12.52 hrs HW=813.67' (Free Discharge)
└**2=Culvert** (Passes 0.65 cfs of 1.80 cfs potential flow)
  └**3=Culvert** (Passes 0.04 cfs of 0.10 cfs potential flow)
    └**4=Exfiltration** (Controls 0.04 cfs)
  └**5=Orifice/Grate** (Orifice Controls 0.61 cfs @ 3.12 fps)
  └**6=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=809.00' (Free Discharge)
└**7=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond 1P: BIO BASIN

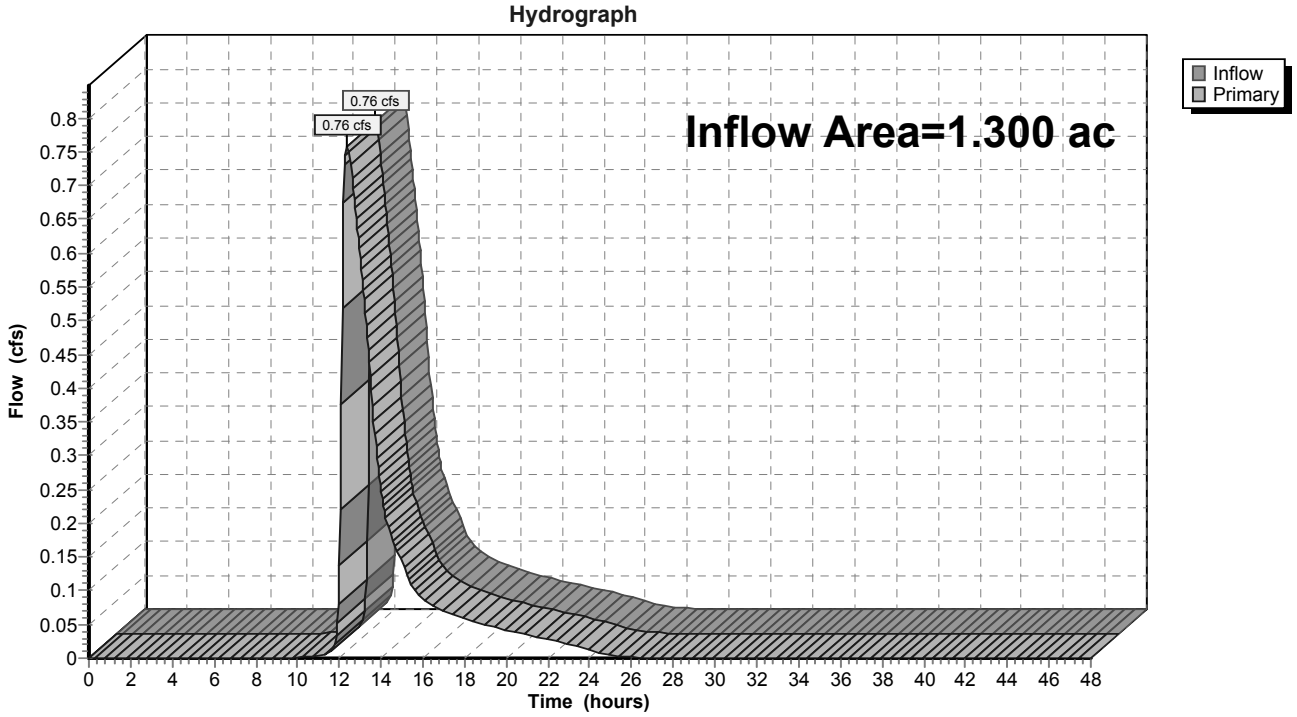


Summary for Link O: OUTLET

Inflow Area = 1.300 ac, 54.48% Impervious, Inflow Depth = 1.31" for 10 Year event
Inflow = 0.76 cfs @ 12.37 hrs, Volume= 0.142 af
Primary = 0.76 cfs @ 12.37 hrs, Volume= 0.142 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link O: OUTLET



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: DETAINED Runoff Area=46,335 sf 62.65% Impervious Runoff Depth=4.38"
Tc=6.0 min CN=84 Runoff=8.01 cfs 0.389 af

Subcatchment2S: UNDETAINEDNE Runoff Area=8,000 sf 8.62% Impervious Runoff Depth=2.41"
Tc=6.0 min CN=64 Runoff=0.79 cfs 0.037 af

Subcatchment3S: UNDETAINEDSOUTH Runoff Area=1,570 sf 32.17% Impervious Runoff Depth=3.23"
Tc=6.0 min CN=73 Runoff=0.21 cfs 0.010 af

Subcatchment4S: UNDETAINEDNW Runoff Area=715 sf 86.71% Impervious Runoff Depth=5.37"
Tc=6.0 min CN=93 Runoff=0.14 cfs 0.007 af

Pond 1P: BIO BASIN Peak Elev=814.90' Storage=8,498 cf Inflow=8.01 cfs 0.389 af
Discarded=0.01 cfs 0.028 af Primary=2.00 cfs 0.310 af Secondary=0.00 cfs 0.000 af Outflow=2.02 cfs 0.338 af

Link O: OUTLET Inflow=2.33 cfs 0.364 af
Primary=2.33 cfs 0.364 af

Summary for Subcatchment 1S: DETAINED

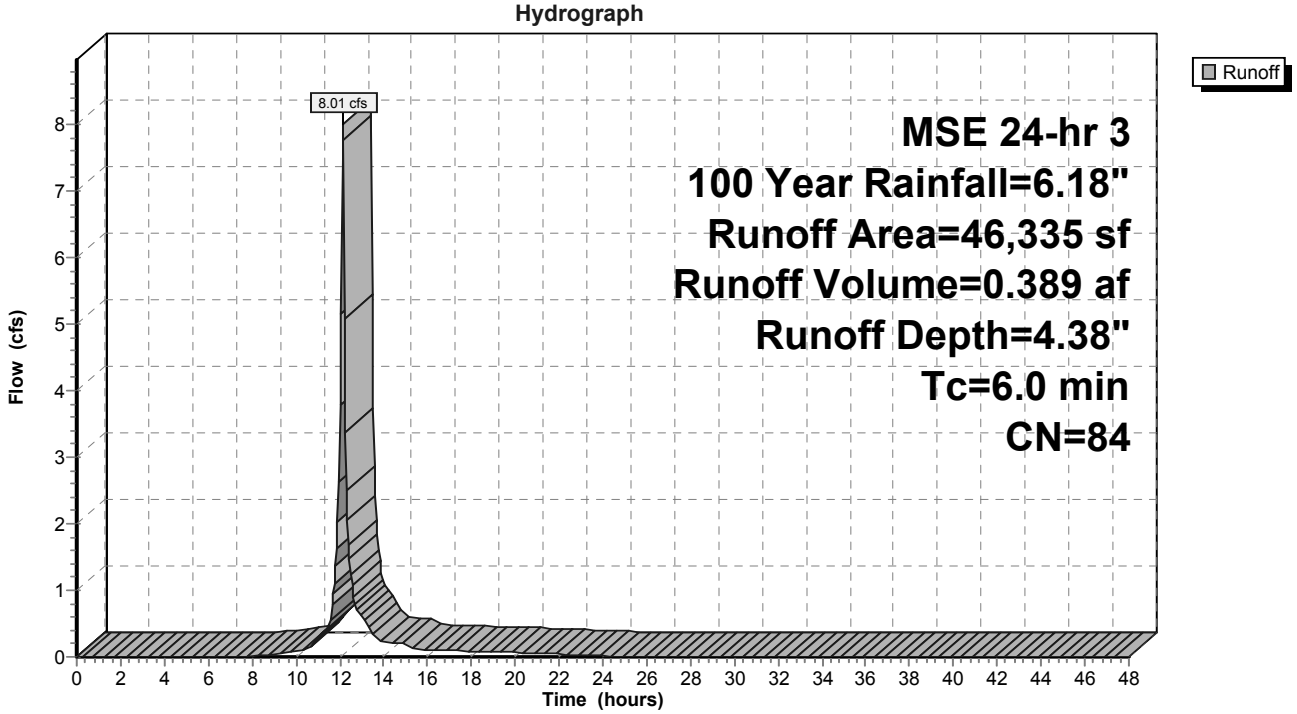
Runoff = 8.01 cfs @ 12.13 hrs, Volume= 0.389 af, Depth= 4.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 Year Rainfall=6.18"

	Area (sf)	CN	Description
*	1,710	98	DRIVEWAY
	14,750	61	>75% Grass cover, Good, HSG B
	15,770	98	Unconnected roofs, HSG C
*	11,310	98	PARKING
*	240	98	SIDEWALK
	2,555	61	>75% Grass cover, Good, HSG B
	46,335	84	Weighted Average
	17,305		37.35% Pervious Area
	29,030		62.65% Impervious Area
	15,770		54.32% Unconnected

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

Subcatchment 1S: DETAINED



Summary for Subcatchment 2S: UNDETAINED NE

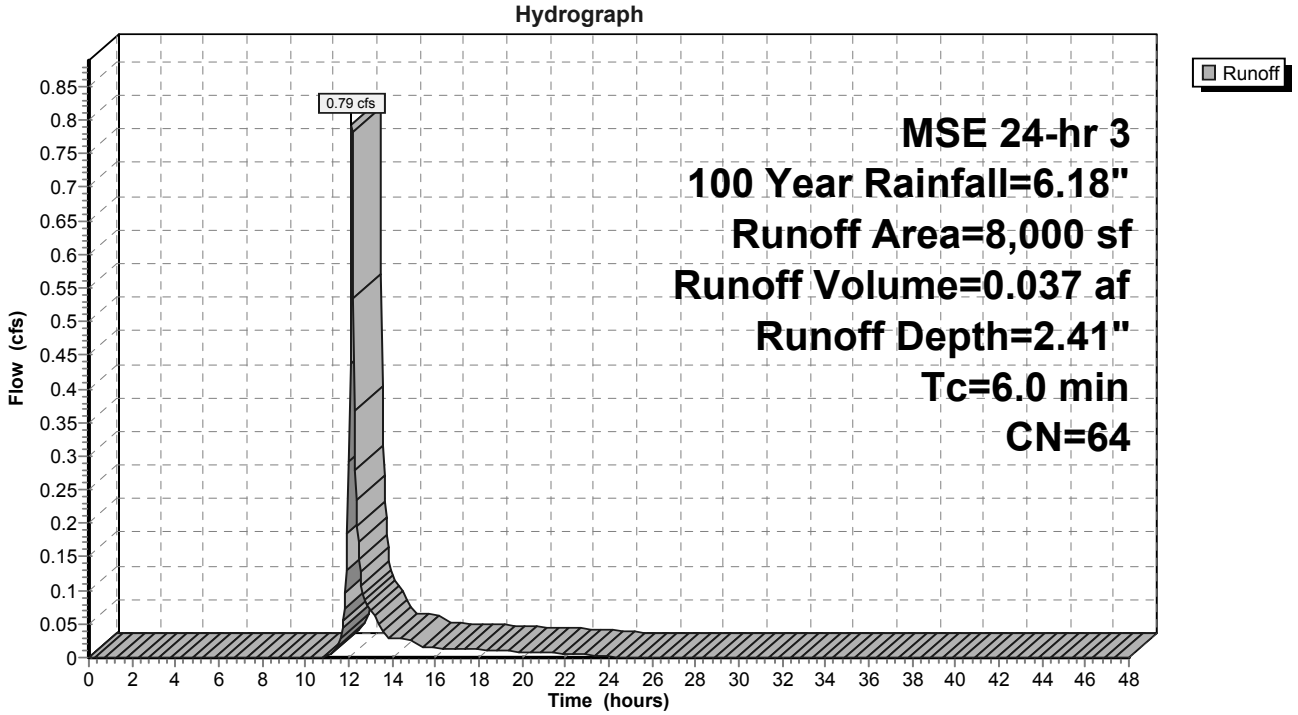
Runoff = 0.79 cfs @ 12.14 hrs, Volume= 0.037 af, Depth= 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 Year Rainfall=6.18"

	Area (sf)	CN	Description
	5,975	61	>75% Grass cover, Good, HSG B
*	80	98	DRIVEWAY
*	610	98	SIDEWALK
	1,335	61	>75% Grass cover, Good, HSG B
	8,000	64	Weighted Average
	7,310		91.37% Pervious Area
	690		8.62% Impervious Area

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

Subcatchment 2S: UNDETAINED NE



Summary for Subcatchment 3S: UNDETAINED SOUTH

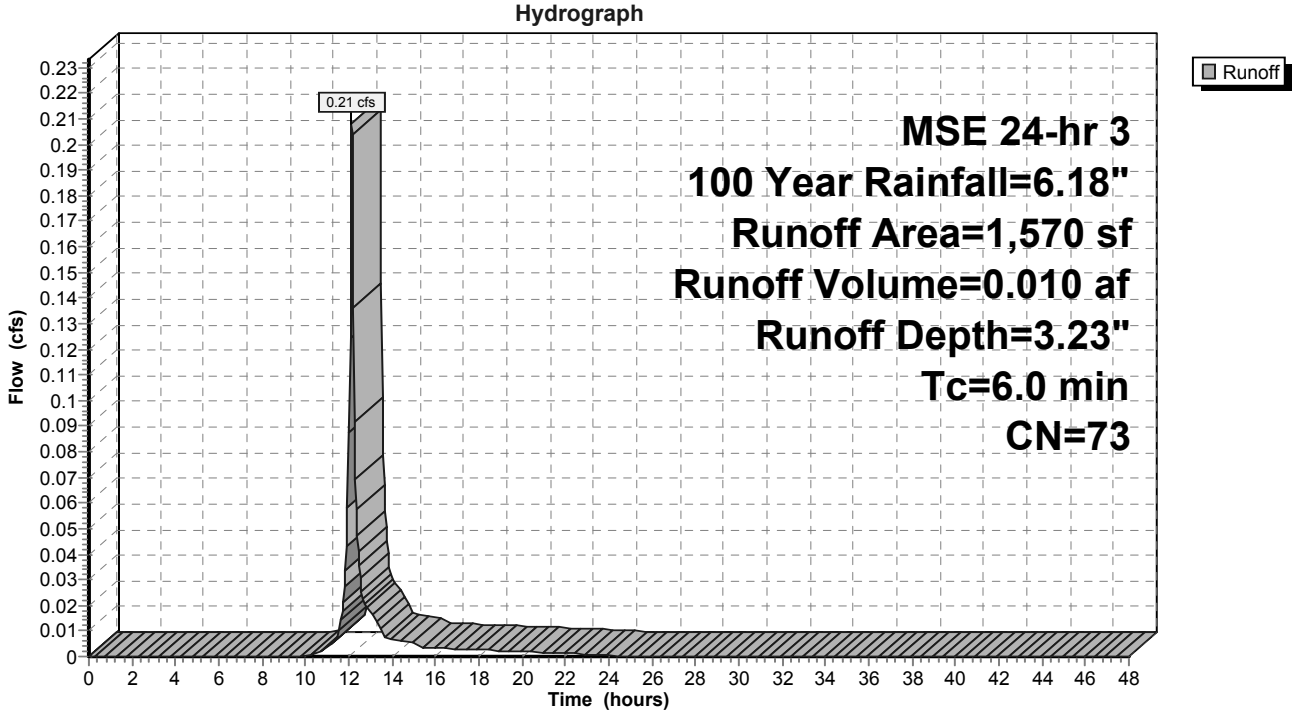
Runoff = 0.21 cfs @ 12.13 hrs, Volume= 0.010 af, Depth= 3.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 Year Rainfall=6.18"

	Area (sf)	CN	Description
	1,065	61	>75% Grass cover, Good, HSG B
*	505	98	SIDEWALK
	1,570	73	Weighted Average
	1,065		67.83% Pervious Area
	505		32.17% Impervious Area

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

Subcatchment 3S: UNDETAINED SOUTH



Summary for Subcatchment 4S: UNDETAINED NW

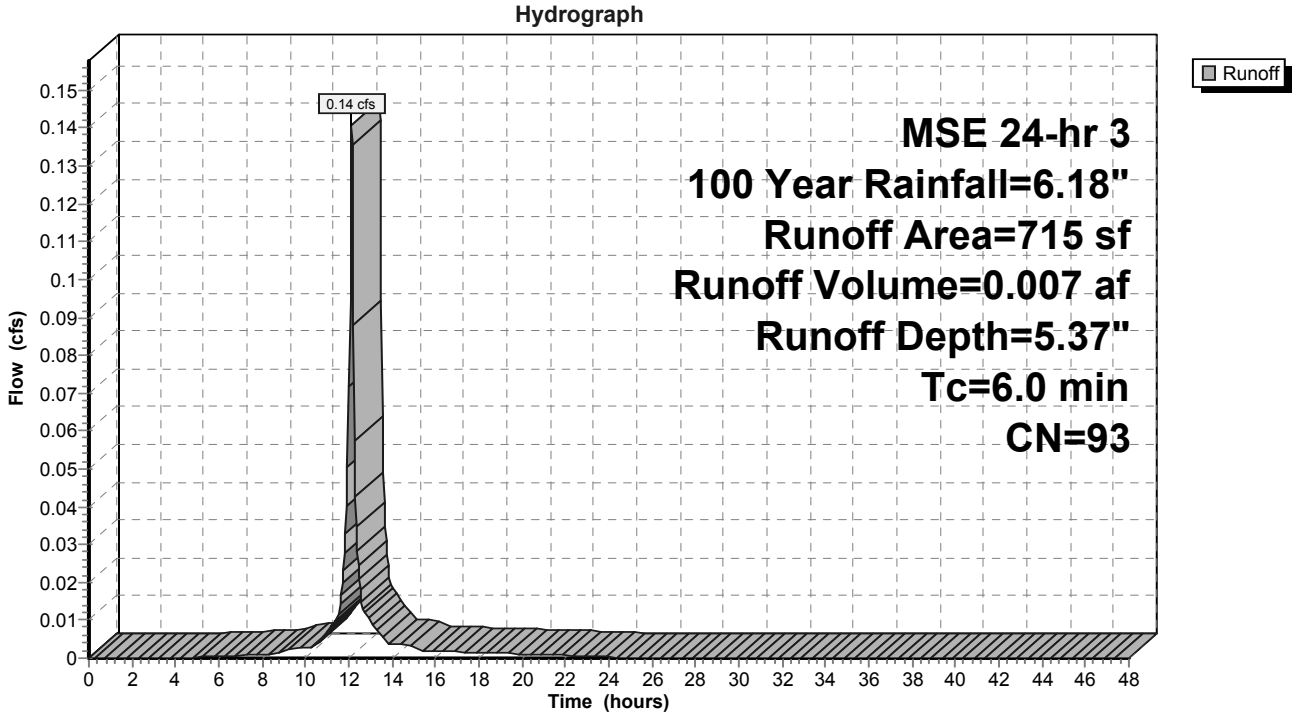
Runoff = 0.14 cfs @ 12.13 hrs, Volume= 0.007 af, Depth= 5.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 Year Rainfall=6.18"

	Area (sf)	CN	Description
	95	61	>75% Grass cover, Good, HSG B
*	490	98	ROOF
*	130	98	SIDEWALK
	715	93	Weighted Average
	95		13.29% Pervious Area
	620		86.71% Impervious Area

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

Subcatchment 4S: UNDETAINED NW



Summary for Pond 1P: BIO BASIN

Inflow Area = 1.064 ac, 62.65% Impervious, Inflow Depth = 4.38" for 100 Year event
Inflow = 8.01 cfs @ 12.13 hrs, Volume= 0.389 af
Outflow = 2.02 cfs @ 12.36 hrs, Volume= 0.338 af, Atten= 75%, Lag= 14.0 min
Discarded = 0.01 cfs @ 12.36 hrs, Volume= 0.028 af
Primary = 2.00 cfs @ 12.36 hrs, Volume= 0.310 af
Secondary = 0.00 cfs @ 12.35 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 814.90' @ 12.36 hrs Surf.Area= 3,740 sf Storage= 8,498 cf

Plug-Flow detention time= 182.9 min calculated for 0.337 af (87% of inflow)
Center-of-Mass det. time= 135.3 min (920.8 - 785.5)

Volume	Invert	Avail.Storage	Storage Description
#1	809.00'	10,888 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
809.00	2,289	225.0	0.0	0	0	2,289
810.00	2,289	225.0	33.0	755	755	2,514
811.00	2,289	225.0	33.0	755	1,511	2,739
811.50	2,289	225.0	33.0	378	1,888	2,852
812.00	2,289	225.0	27.0	309	2,197	2,964
813.00	2,289	225.0	27.0	618	2,815	3,189
814.00	3,017	248.0	100.0	2,645	5,460	4,086
815.00	3,824	272.0	100.0	3,413	8,873	5,113
815.50	4,239	281.0	100.0	2,015	10,888	5,533

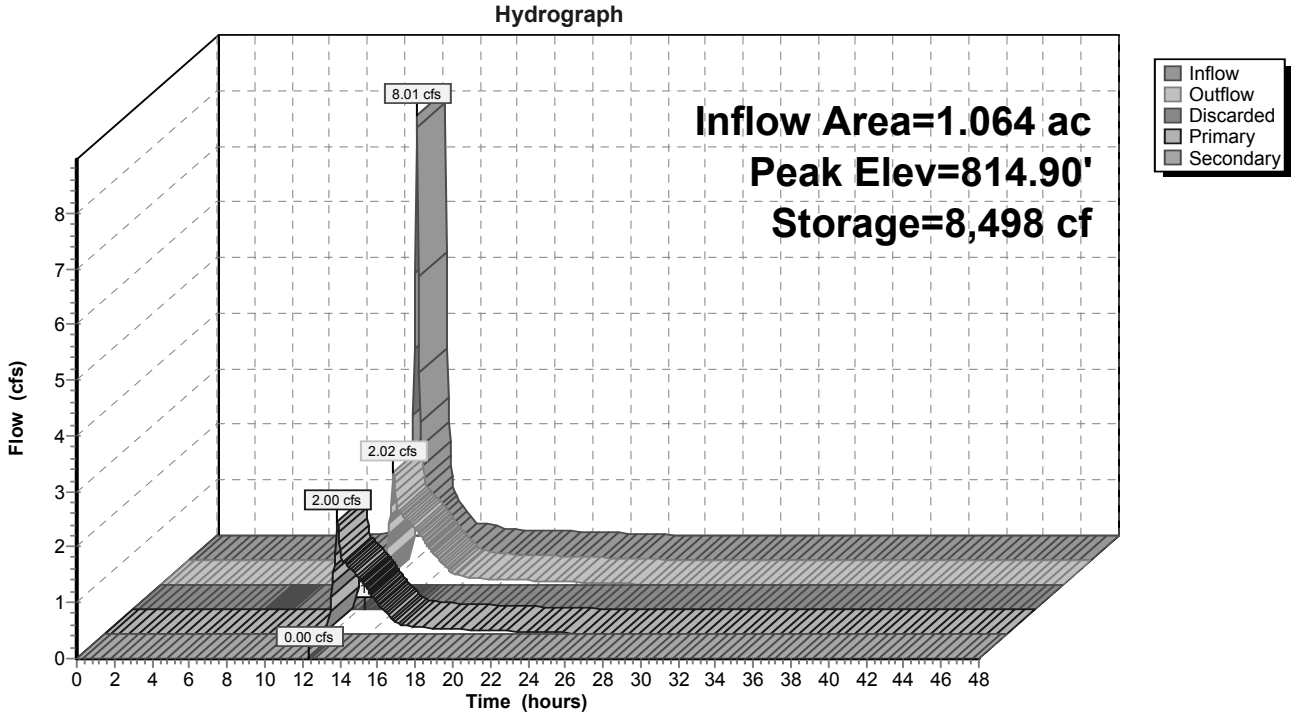
Device	Routing	Invert	Outlet Devices
#1	Discarded	809.00'	**0.150 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 20.00'
#2	Primary	811.50'	**8.0" Round Culvert** L= 41.4' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 811.50' / 810.83' S= 0.0162 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#3	Device 2	811.93'	**6.0" Round Culvert** L= 86.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 811.93' / 811.50' S= 0.0050 '/' Cc= 0.900 n= 0.100, Flow Area= 0.20 sf
#4	Device 3	811.50'	**3.600 in/hr Exfiltration over Surface area above 811.50'** Conductivity to Groundwater Elevation = 800.00' Excluded Surface area = 2,289 sf
#5	Device 2	813.00'	**6.0" Vert. Orifice/Grate** C= 0.600
#6	Device 2	814.80'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#7	Secondary	814.90'	**20.0' 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

Discarded OutFlow Max=0.01 cfs @ 12.36 hrs HW=814.90' (Free Discharge)
└**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=1.98 cfs @ 12.36 hrs HW=814.90' (Free Discharge)
└**2=Culvert** (Passes 1.98 cfs of 2.32 cfs potential flow)
  └**3=Culvert** (Passes 0.13 cfs of 0.13 cfs potential flow)
    └**4=Exfiltration** (Controls 0.13 cfs)
  └**5=Orifice/Grate** (Orifice Controls 1.21 cfs @ 6.18 fps)
  └**6=Orifice/Grate** (Weir Controls 0.64 cfs @ 1.03 fps)

Secondary OutFlow Max=0.00 cfs @ 12.35 hrs HW=814.90' (Free Discharge)
└**7=Broad-Crested Rectangular Weir**(Weir Controls 0.00 cfs @ 0.04 fps)

Pond 1P: BIO BASIN

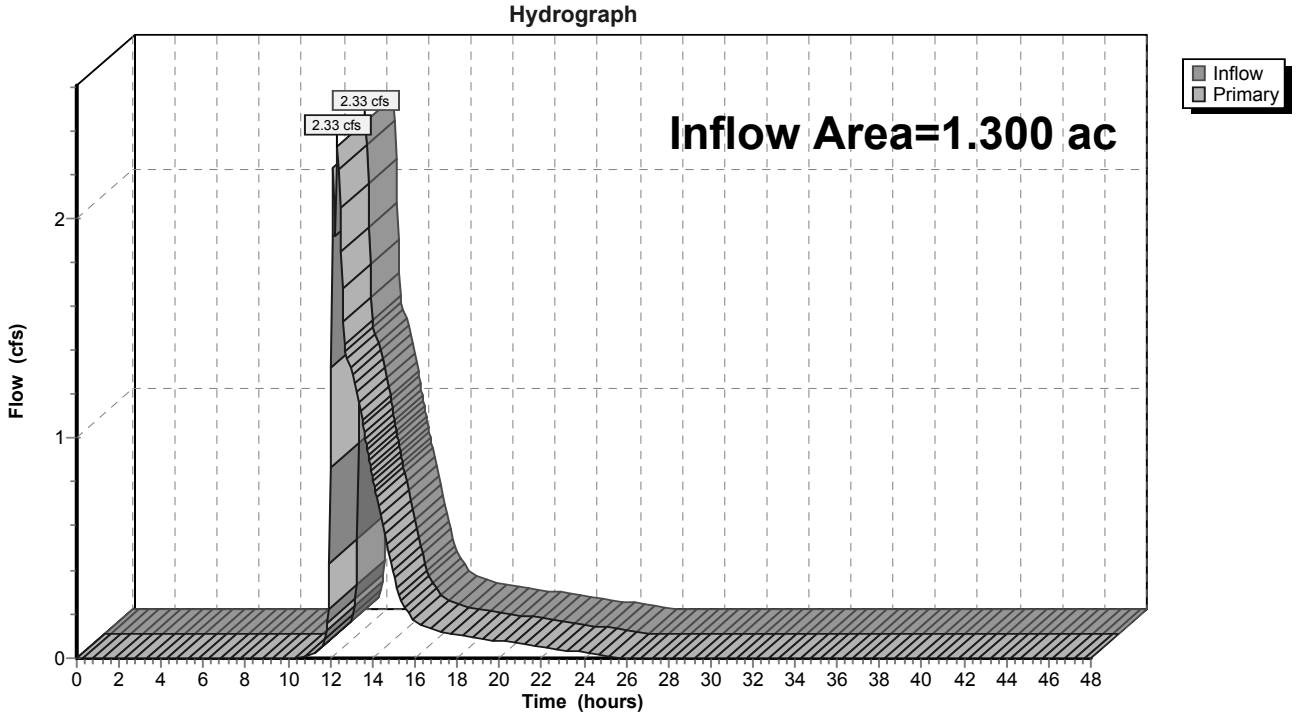


Summary for Link O: OUTLET

Inflow Area = 1.300 ac, 54.48% Impervious, Inflow Depth = 3.36" for 100 Year event
Inflow = 2.33 cfs @ 12.35 hrs, Volume= 0.364 af
Primary = 2.33 cfs @ 12.35 hrs, Volume= 0.364 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link O: OUTLET

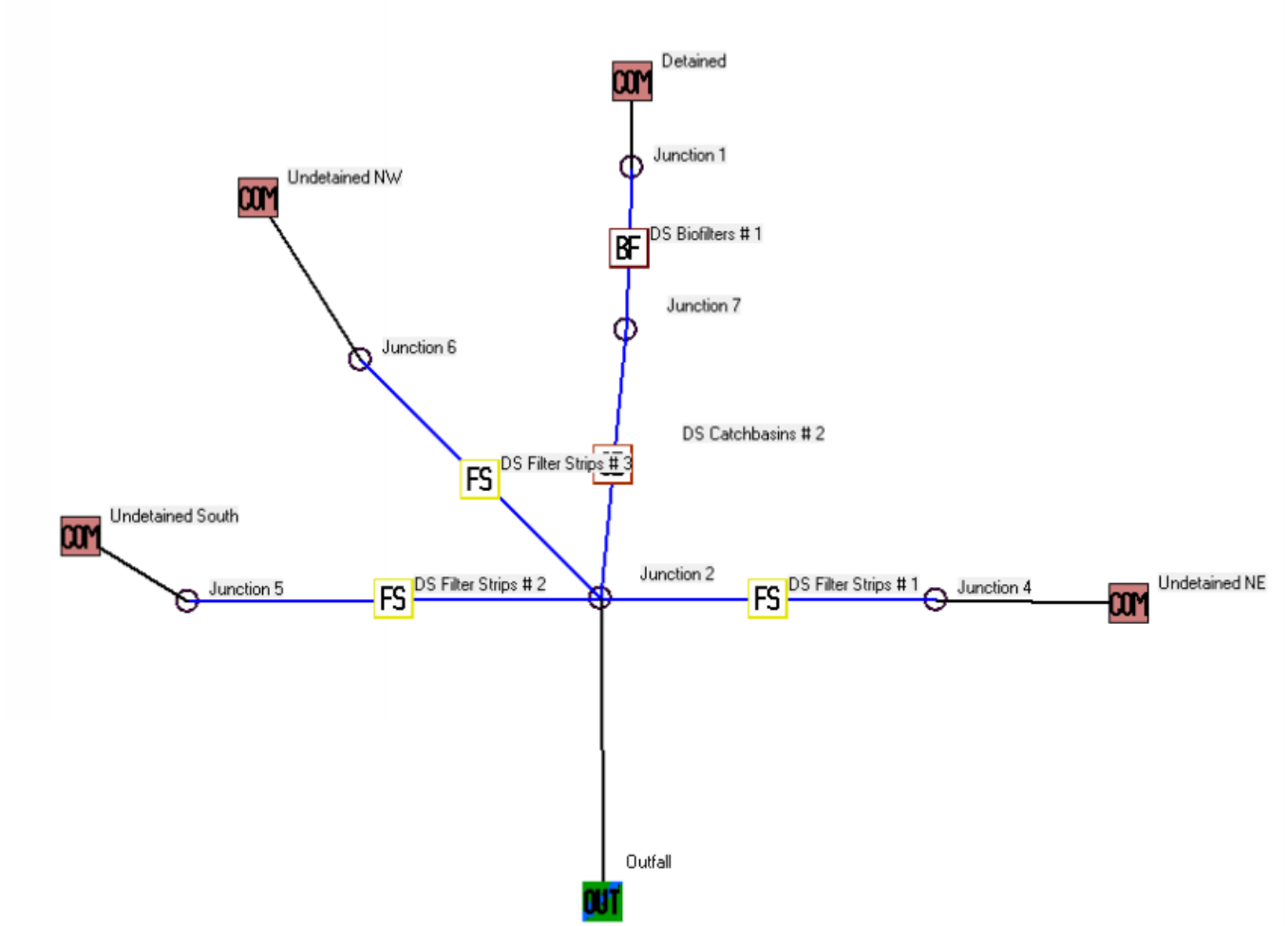


APPENDIX 5

Water Quality Calculations

- Post-Development Input Summary
- Post-Development Output Summary

SLAMM MODELING



INPUT SUMMARY

```
Data file name:  R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\04 Civil\SWMP\Modeling\Winslamm\19-
9231Castle Senior Living.mdb
WinSLAMM Version 10.4.1
Rain file name:  C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name:  C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name:  C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name:  C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name:  C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name:  C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance:  False
Pollutant Relative Concentration file name:  C:\WinSLAMM Files\WI_GEO03.ppdx
Source Area PSD and Peak to Average Flow Ratio File:  C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
Seed for random number generator:  -42
Study period starting date:  03/28/69       Study period ending date:  12/06/69
Date:  11-06-2019                           Time:  09:30:49
Site information:

LU# 1 - Commercial:  Detained     Total area (ac):  1.064
     1 - Roofs 1:  0.362 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     13 - Paved Parking 1:  0.260 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.039 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.006 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  0.397 ac.    Normal Silty    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz


LU# 2 - Commercial:  Undetained South     Total area (ac):  0.036
     25 - Driveways 1:  0.012 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  0.024 ac.    Normal Silty    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz


LU# 3 - Commercial:  Undetained NE     Total area (ac):  0.184
     25 - Driveways 1:  0.002 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.014 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  0.031 ac.    Normal Silty    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     52 - Small Landscaped Areas 2:  0.137 ac.    Normal Silty    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
```

```
LU# 4 - Commercial:  Undetained NW     Total area (ac):  0.016
     1 - Roofs 1:  0.011 ac.    Flat    Disconnected    Normal Silty    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     31 - Sidewalks 1:  0.003 ac.    Disconnected    Normal Silty    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  0.002 ac.    Normal Silty    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz



      Control Practice 1:  Biofilter CP# 1 (DS) - DS Biofilters # 1
         1.  Top area (square feet) =  4239
         2.  Bottom aea (square feet) =  2289
         3.  Depth (ft):   6.86
         4.  Biofilter width (ft) - for Cost Purposes Only:   23
         5.  Infiltration rate (in/hr) =  0.15
         6.  Random infiltration rate generation?  No
         7.  Infiltration rate fraction (side):   1
         8.  Infiltration rate fraction (bottom):   1
         9.  Depth of biofilter that is rock filled (ft) 2.5
         10.  Porosity of rock filled volume =  0.33
         11.  Engineered soil infiltration rate:   3.6
         12.  Engineered soil depth (ft) =  1.5
         13.  Engineered soil porosity =  0.27
         14. Percent solids reduction due to flow through engineered soil =  0
         15. Biofilter peak to average flow ratio =  3.8
         16. Number of biofiltration control devices =  1
         17. Particle size distribution file:  Not needed - calculated by program
         18. Initial water surface elevation (ft):   0
         Soil Data                        Soil Type Fraction in Eng. Soil
         Biofilter Outlet/Discharge Characteristics:
             Outlet type:  Broad Crested Weir
                     1.  Weir crest length (ft):   20
                     2.  Weir crest width (ft):   10
                     3.  Height of datum to bottom of weir opening:   5.86
             Outlet type:  Vertical Stand Pipe
                     1.  Stand pipe diameter (ft):   3
                     2.  Stand pipe height above datum (ft):   5.7
             Outlet type:  Surface Discharge Pipe
                     1.  Surface discharge pipe outlet diameter (ft):   0.5
                     2.  Pipe invert elevation above datum (ft):   4
                     3.  Number of surface pipe outlets:   1
             Outlet type:  Drain Tile/Underdrain
                     1.  Underdrain outlet diameter (ft):   0.5
```

2. Invert elevation above datum (ft): 2.5
3. Number of underdrain outlets: 1

Control Practice 2: Filter Strip CP# 1 (DS) - DS Filter Strips # 1
Total drainage area (acres)= 0.184
Fraction of drainage area served by filter strips (ac) = 1.00
Total filter strip width (ft) = 150.0
Effective flow length (ft) = 15
Infiltration rate (in/hr)= 0.150
Typical longitudinal slope (ft.H/ft.V) = 0.015
Typical grass height (in) = 6.0
Swale retardance factor = C
Use stochastic analysis to determine infiltration rate: False
Infiltration rate coeficient of variation (COV) = 0.00
Particle size distribution file name: Not needed - calculated by program
Surface Clogging Load (lbs/sf) = 3.50

Control Practice 3: Catchbasin Cleaning CP# 1 (DS) - DS Catchbasins # 2
1. Fraction of area served by catchbasins = 1.00
2. Number of catchbasins = 1
3. Average sump depth below catchbasin outlet invert (feet) = 2
4. Depth of sediment in catchbasin sump at beginning of study period (ft) = 0
5. Typical outlet pipe diameter (ft) = 0.67
6. Typical outlet pipe Mannings n = 0.01
7. Typical outlet pipe slope (ft/ft) = 0.016
8. Typical catchbasin sump surface area (square feet) = 7.1
9. Total catchbasin depth (feet) = 5
10. Inflow hydrograph peak to average flow ratio = 3.8
11. Leakage rate through sump bottom (in/hr) = 0
12. Catchbasin Critical Particle Size File Name:
13. Catchbasin cleaning frequency: Once every two years

OUTPUT SUMMARY

SLAMM for Windows Version 10.4.1
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Data file name: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\04 Civil\SWMP\Modeling\Winslamm\19-9231Castle Senior Living.mdb
Data file description:
Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx
Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
Seed for random number generator: -42
Model Run Start Date: 03/28/69   Model Run End Date: 12/06/69
Date of run: 11-06-2019   Time of run: 09:31:36
Total Area Modeled (acres): 1.300
Years in Model Run: 0.67

	Runoff Volume (cu ft)	Percent Runoff Volume Reduction	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of all Land Uses without Controls:	63825	-	81.52	324.8	-
Outfall Total with Controls:	27187	57.40%	47.94	81.37	74.95%
Annualized Total After Outfall Controls:	40837			122.2	

APPENDIX 6

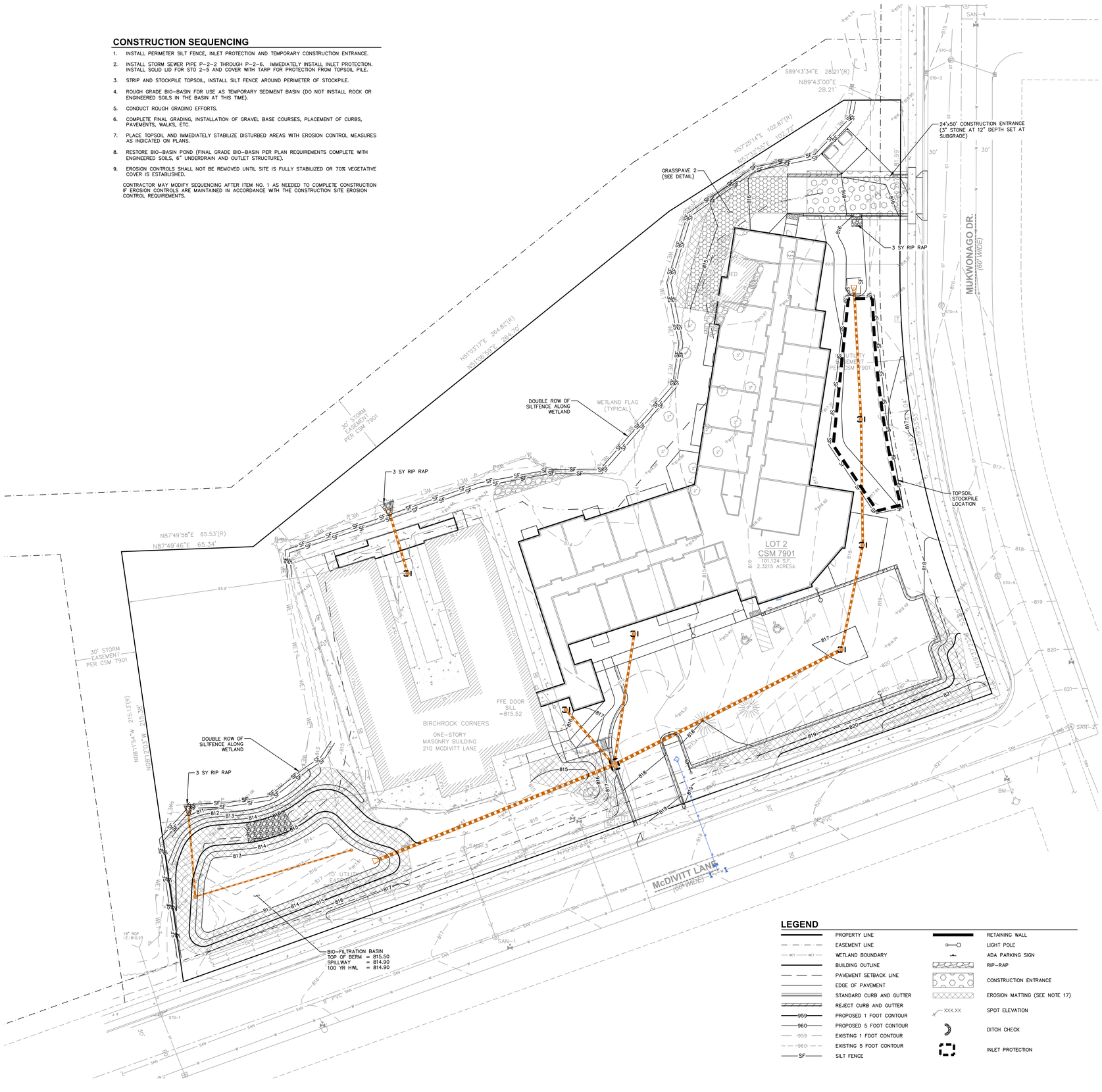
Design Details

- Proposed Grading, Erosion Control, & Utility Plan
- Proposed Bioretention Basin Detail
- Storm Sewer Sizing Calculations
- Anti-Seep Collar Design

CONSTRUCTION SEQUENCING

1. INSTALL PERIMETER SILT FENCE, INLET PROTECTION AND TEMPORARY CONSTRUCTION ENTRANCE.
2. INSTALL STORM SEWER PIPE P–2–2 THROUGH P–2–6. IMMEDIATELY INSTALL INLET PROTECTION. INSTALL SOLID LID FOR STO 2–5 AND COVER WITH TARP FOR PROTECTION FROM TOPSOIL PILE.
3. STRIP AND STOCKPILE TOPSOIL, INSTALL SILT FENCE AROUND PERIMETER OF STOCKPILE.
4. ROUGH GRADE BIO–BASIN FOR USE AS TEMPORARY SEDIMENT BASIN (DO NOT INSTALL ROCK OR ENGINEERED SOILS IN THE BASIN AT THIS TIME).
5. CONDUCT ROUGH GRADING EFFORTS.
6. COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
7. PLACE TOPSOIL AND IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROL MEASURES AS INDICATED ON PLANS.
8. RESTORE BIO–BASIN POND (FINAL GRADE BIO–BASIN PER PLAN REQUIREMENTS COMPLETE WITH ENGINEERED SOILS, 6" UNDERDRAIN AND OUTLET STRUCTURE).
9. EROSION CONTROLS SHALL NOT BE REMOVED UNTIL SITE IS FULLY STABILIZED OR 70% VEGETATIVE COVER IS ESTABLISHED.

CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM NO. 1 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS.



LEGEND

PROPERTY LINE	RETAINING WALL
EASEMENT LINE	LIGHT POLE
WETLAND BOUNDARY	ADA PARKING SIGN
BUILDING OUTLINE	RIP–RAP
PAVEMENT SETBACK LINE	CONSTRUCTION ENTRANCE
EDGE OF PAVEMENT	EROSION MATTING (SEE NOTE 17)
STANDARD CURB AND GUTTER	SPOT ELEVATION
REJECT CURB AND GUTTER	DITCH CHECK
959 PROPOSED 1 FOOT CONTOUR	INLET PROTECTION
960 PROPOSED 5 FOOT CONTOUR	
959 EXISTING 1 FOOT CONTOUR	
960 EXISTING 5 FOOT CONTOUR	
SF SILT FENCE	

EROSION CONTROL NOTES

1. ALL CONSTRUCTION SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN WISCONSIN'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT FOR CONSTRUCTION SITE LAND DISTURBANCE ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) TECHNICAL STANDARDS AND VILLAGE OF MUKWONAGO ORDINANCES. IT IS THE RESPONSIBILITY OF ALL CONTRACTORS ASSOCIATED WITH THE PROJECT TO OBTAIN A COPY OF, AND UNDERSTAND, THESE STANDARDS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
2. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL CONTROL MEASURES AS DIRECTED BY JSD PROFESSIONAL SERVICES, INC. (JSD) OR AUTHORITY HAVING JURISDICTION SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
3. MODIFICATIONS TO THE APPROVED EROSION CONTROL PLAN IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS ARE ALLOWED IF MODIFICATIONS CONFORM TO WDNR TECHNICAL STANDARDS. CONTRACTOR IS RESPONSIBLE TO NOTIFY JSD AND AUTHORITY HAVING JURISDICTION OF ANY CHANGES TO THE EROSION CONTROL AND STORMWATER MANAGEMENT PLANS. ALL MODIFICATIONS MUST BE APPROVED BY JSD/AUTHORITY HAVING JURISDICTION PRIOR TO DEVIATION FROM THE APPROVED PLAN.
4. INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCE(S), SILT FENCE AND EXISTING INLET PROTECTION) PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN IN ORDER TO PROTECT ADJACENT PROPERTIES/STORM SEWER SYSTEMS FROM SEDIMENT TRANSPORT.
5. CONSTRUCTION ENTRANCE(S) SHALL BE INSTALLED AT THE LOCATION OF VEHICLE INGRESS/EGRESS POINT(S) AS SHOWN ON THE PLAN. CONTRACTOR IS RESPONSIBLE TO COORDINATE LOCATION(S) WITH THE PROPER AUTHORITY HAVING JURISDICTION, PROVIDE NECESSARY FEES AND OBTAIN ALL REQUIRED APPROVALS OR PERMITS. ADDITIONAL CONSTRUCTION ENTRANCES OTHER THAN AS SHOWN ON THE PLANS MUST BE PRIOR APPROVED BY THE APPLICABLE AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. CONSTRUCTION ENTRANCES SHALL BE MAINTAINED BY THE CONTRACTOR IN A CONDITION WHICH WILL PREVENT THE TRACKING OF MUD OR DRY SEDIMENT ONTO ADJACENT PUBLIC STREETS AFTER EACH WORKING DAY OR MORE FREQUENTLY AS REQUIRED.
6. PAVED SURFACES ADJACENT TO CONSTRUCTION ENTRANCES SHALL BE SWEPT AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST AFTER THE END OF EACH WORK DAY AND AS REQUESTED BY THE AUTHORITY HAVING JURISDICTION.
7. THE ADJACENT INLETS THAT WILL COLLECT RUNOFF FROM DISTURBED AREAS SHALL BE PROTECTED TO PREVENT SEDIMENT DEPOSITION. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER. ALL INLETS, STRUCTURES, PIPES, AND SWALES SHALL BE KEPT CLEAN AND FREE OF SEDIMENTATION AND DEBRIS.
8. AT A MINIMUM, SEDIMENT TRAPS AND NECESSARY TEMPORARY DRAINAGE PROVISIONS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE BEGINNING OF SIGNIFICANT MASS GRADING OPERATIONS TO PREVENT OFFSITE DISCHARGE OF UNTREATED RUNOFF.
9. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE OWNER WILL BE RESPONSIBLE IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT.
10. DITCH CHECKS AND APPLICABLE EROSION NETTING/MATTING SHALL BE INSTALLED IMMEDIATELY AFTER COMPLETION OF GRADING EFFORTS WITHIN DITCHES/SWALES TO PREVENT SOIL TRANSPORTATION.
11. EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, SANITARY SEWER, WATER MAIN, ETC.) OUTSIDE OF THE PERIMETER CONTROLS SHALL INCORPORATE THE FOLLOWING:
    - PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
    - BACKFILL, COMPACT, AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
    - DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH THE DEWATERING TECHNICAL STANDARD NO. 1061 PRIOR TO RELEASE INTO THE STORM SEWER, RECEIVING STREAM, OR DRAINAGE DITCH.
12. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER AND DITCH CHECKS SHALL BE IMMEDIATELY FITTED AT ALL INSTALLED CULVERT INLETS TO PREVENT SEDIMENT DEPOSITION WITHIN STORM SEWER SYSTEMS.
13. TOPSOIL STOCKPILE SHALL BE LOCATED GENERALLY AS SHOWN. CONTRACTOR MAY SUBMIT AN ALTERNATE PLAN FOR LOCATION OF TEMPORARY TOPSOIL STOCKPILE TO ENGINEER FOR APPROVAL. INSTALL EROSION CONTROLS ON THE DOWNSTREAM SIDE OF STOCKPILES. IF STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS IS REQUIRED. IF DISTURBANCE OCCURS BETWEEN NOVEMBER 15TH AND MAY 15TH, THE MULCHING SHALL BE PERFORMED BY HYDRO–MULCHING WITH A "TACKIFIER."
14. EROSION CONTROL MEASURES TEMPORARILY REMOVED FOR UNAVOIDABLE CONSTRUCTION ACTIVITIES SHALL BE IN WORKING ORDER PRIOR TO THE COMPLETION OF EACH WORK DAY.
15. PUMPS MAY BE USED AS BYPASS DEVICES. IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS.
16. GRADING EFFORTS SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. EROSION AND SEDIMENT CONTROL MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY OR PERMANENT MEASURES. ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR A PERIOD OF FOURTEEN (14) DAYS REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS.
17. ALL DISTURBED SLOPES EXCEEDING 4:1 YET LESS THAN 3:1, SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S75BN EROSION MATTING (OR APPROVED EQUAL) AND DISTURBED SLOPES EXCEEDING 3:1 YET LESS THAN 2:1 SHALL BE STABILIZED WITH NORTH AMERICAN GREEN C125BN (OR APPROVED EQUAL) OR APPLICATION OF AN APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED WITHIN 7 DAYS OF REACHING FINAL GRADE AND/OR AS SOON AS CONDITIONS ALLOW. DRAINAGE SWALES SHALL BE STABILIZED WITH CLASS II, TYPE B EROSION MATTING. EROSION MATTING AND/OR NETTING USED ONSITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND WDNR TECHNICAL STANDARDS 1052 AND 1053.
18. STABILIZATION PRACTICES:
    - 18.1. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. NO MORE THAN SEVEN (7) DAYS SHALL PASS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS CEASED UNLESS:
    - 18.2. THE INITIATION STABILIZATION MEASURES BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS CEASED IS PRECLUDED BY SNOW COVER. IN THAT EVENT, STABILIZATION SHALL BE INITIATED AS SOON AS PRACTICABLE.
    - 18.3. CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN FOURTEEN (14) DAYS FROM WHEN ACTIVITY CEASED, (I.E. THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN FOURTEEN (14) DAYS. IN THAT EVENT, STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED.
    - 18.4. STABILIZATION MEASURES SHALL BE DETERMINED BASED ON SITE CONDITIONS AT THE TIME OF CONSTRUCTION ACTIVITY HAS CEASED, INCLUDING BUT NOT LIMITED TO WEATHER CONDITIONS AND LENGTH OF TIME MEASURE MUST BE EFFECTIVE. THE FOLLOWING ARE ACCEPTABLE STABILIZATION MEASURES:
        - PERMANENT SEEDING; IN ACCORDANCE WITH APPROVED CONSTRUCTION SPECIFICATION
        - TEMPORARY SEEDING; MAY CONSIST OF SPRING OATS(100LBS/ACRE) AND/OR WHEAT OR CEREAL RYE (150LB/ACRE)
        - HYDRO–MULCHING WITH A TACKIFIER
        - GEOTEXTILE EROSION MATTING
        - SODDING
19. DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL KEEP A WATER TRUCK ON SITE FOR THE PURPOSE OF WATERING DOWN SOILS WHICH MAY OTHERWISE BECOME AIRBORNE. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING WIND EROSION (DUST) DURING CONSTRUCTION AT THEIR EXPENSE. REFER TO WDNR TECHNICAL STANDARD 1068.
20. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE VISUALLY INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM ON A DAILY BASIS.
21. MAINTAIN SOIL EROSION CONTROL DEVICES THROUGH THE DURATION OF THIS PROJECT. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL LAND DISTURBING CONSTRUCTION ACTIVITY AT THE SITE HAS BEEN COMPLETED AND THAT A UNIFORM PERENNIAL VEGETATIVE COVER HAS BEEN ESTABLISHED WITH A DENSITY OF AT LEAST 70% FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES OR THAT EMPLOY EQUIVALENT PERMANENT STABILIZATION MEASURES. DISTURBANCE ASSOCIATED WITH EROSION CONTROL REMOVAL SHALL BE IMMEDIATELY STABILIZED.
22. QUALIFIED PERSONNEL (PROVIDED BY THE GENERAL/PRIME CONTRACTOR) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AND EROSION AND SEDIMENT CONTROLS WITHIN 24 HOURS OF ALL 0.5–INCH, OR MORE, PRECIPITATION EVENTS WITH A MINIMUM INSPECTION INTERVAL OF ONCE EVERY SEVEN (7) CALENDAR DAYS IN THE ABSENCE OF A QUALIFYING RAIN OR SNOWFALL EVENT. REPORTING SHALL BE IN ACCORDANCE WITH PART IV D.4. (a–f). OF THE NPDES GENERAL PERMIT. CONTRACTOR SHALL IMMEDIATELY ARRANGE TO HAVE ANY DEFICIENT ITEMS REVEALED DURING INSPECTIONS REPAIRED/REPLACED.
23. THE FOLLOWING MAINTENANCE PRACTICES SHALL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES, AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN. UPON IDENTIFICATION, DEFICIENCIES IN STORMWATER CONTROLS SHALL BE ADDRESSED IMMEDIATELY. THE MAINTENANCE PROCEDURES FOR THIS DEVELOPMENT SHALL INCLUDE, BUT NOT BE LIMITED TO THOSE LISTED BELOW:
    - SILT FENCE – REPAIR OR REPLACE ANY DAMAGED FILTER FABRIC AND/OR STAKES. REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE–HALF THE ABOVE GROUND HEIGHT OF THE FENCE.
    - CONSTRUCTION ENTRANCE – AS NEEDED, ADD STONE TO MAINTAIN CONSTRUCTION ENTRANCE DIMENSIONS AND EFFECTIVENESS.
    - EROSION CONTROL MATTING – REPAIR MATTING IMMEDIATELY IF INSPECTION REVEALS BREACHED OR FAILED CONDITIONS. REPAIR AND RE–GRADE SOIL WHERE CHANNELIZATION HAS OCCURRED.
    - DIVERSION BERM/SWALE – REPLACE OR RE–COMPACT THE CONSTRUCTION MATERIALS AS NECESSARY.
    - INLET PROTECTION – CLEAN, REPAIR OR REPLACE FILTER FABRIC AND/OR STONE WHEN CONTROL MEASURE IS CLOGGED. INLET FILTER BAGS SHALL BE REPLACED ONCE BAG BECOMES ONE–HALF FULL OF SEDIMENT.

ADDITIONAL POLLUTANT CONTROL MEASURES TO BE IMPLEMENTED DURING CONSTRUCTION ACTIVITIES SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

- CONSTRUCTION WASTE SHALL BE PROPERLY DISPOSED OF. THIS INCLUDES ALL CONSTRUCTION SITE WASTE MATERIAL, SANITARY WASTE, AND WASTE FROM VEHICLE TRACKING OF SEDIMENTS. THE CONTRACTOR SHALL ENSURE THAT NO MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, BURNED, OR DISCHARGED TO THE WATERS OF THE STATE. VEHICLES HAULING MATERIAL AWAY FROM THE SITE SHALL BE COVERED WITH A TARPAULIN TO PREVENT BLOWING DEBRIS.
- DUST CONTROL SHALL BE ACCOMPLISHED BY ONE OR MORE OF THE FOLLOWING METHODS:
- COVERING 30% OR MORE OF THE SOIL SURFACE WITH A NON–ERODIBLE MATERIAL.
- ROUGHENING THE SOIL TO PRODUCE RIDGES PERPENDICULAR TO THE PREVAILING WIND. RIDGES SHALL BE AT LEAST SIX (6) INCHES IN HEIGHT.
- FREQUENT WATERING OF EXCAVATION AND FILL AREAS.
- PROVIDING GRAVEL OR PAVING AT ENTRANCE/EXIT DRIVES, PARKING AREAS AND TRANSIT PATHS.
- STREET SWEEPING SHALL BE PERFORMED TO IMMEDIATELY REMOVE ANY SEDIMENT TRACKED ON PAVEMENTS.

24. CONTRACTOR/OWNER SHALL FILE A NOTICE OF TERMINATION UPON COMPLETION OF THE PROJECT IN ACCORDANCE WITH WDNR REQUIREMENTS AND/OR PROPERTY SALE IN ACCORDANCE WITH WDNR REQUIREMENTS.

north
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P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1		
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15		

Design/Drawn:	CAP
Approved:	DSR
Date:	11/06/2019

SHEET TITLE:
EROSION CONTROL PLAN

SHEET NUMBER:
C4.0

JSD PROJECT NO: 19-9231

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File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWGS\Civil Sheets\19-9231 C4 - Erosion Control Plan.dwg Layout: 4.0 Grading Plan User: cpeterson Plotted: Nov 06, 2019 - 9:09am XrefTc

UTILITY NOTES

1. ALL EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATIONS OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR/OWNER SHALL CALL "DIGGER'S HOTLINE" PRIOR TO ANY CONSTRUCTION.
2. PRIOR TO CONSTRUCTION, THE PRIME CONTRACTOR IS RESPONSIBLE FOR:
   - EXAMINING ALL SITE CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
   - OBTAINING ALL PERMITS INCLUDING PERMIT COSTS, TAP FEES, METER DEPOSITS, BONDS, AND ALL OTHER FEES REQUIRED FOR PROPOSED WORK TO OBTAIN OCCUPANCY.
   - VERIFYING ALL ELEVATIONS, LOCATIONS AND SIZES OF SANITARY, WATER AND STORM LATERALS AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS. NOTIFY ENGINEER OF ANY DISCREPANCY. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS RESOLVED.
   - NOTIFYING ALL UTILITIES PRIOR TO INSTALLATION OF ANY UNDERGROUND IMPROVEMENTS.
   - NOTIFYING THE DESIGN ENGINEER AND MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION OBSERVATION.
   - COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
3. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN HEREIN REFERRED TO AS THE "STANDARD SPECIFICATIONS" AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.
4. SPECIFICATIONS SHALL COMPLY WITH THE VILLAGE OF MUKWONAGO SPECIFICATIONS AND WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES DSPS 382.
5. TRACER WIRES SHALL BE INSTALLED AS NECESSARY IN ACCORD WITH 182.0715(2R) OF THE STATE STATUTES AND THE VILLAGE OF MUKWONAGO REQUIREMENTS.
6. LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS ARE SHOWN FOR CONTRACTOR CONVENIENCE ONLY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPUTATIONS OF MATERIALS REQUIRED TO COMPLETE WORK. LENGTHS SHALL BE FIELD VERIFIED DURING CONSTRUCTION.
7. CONTRACTOR SHALL FIELD VERIFY LOCATIONS, ELEVATIONS, AND SIZES OF PROPOSED UTILITIES AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS PRIOR TO ATTEMPTING CONNECTIONS AND BEGINNING UTILITY CONSTRUCTION.
8. CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONSTRUCTION OF IMPROVEMENTS.
9. CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT ALL UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH THE FINISHED GRADES OF THE AREAS EFFECTED BY THE CONSTRUCTION.
10. THE PRIME CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
11. ANY SANITARY SEWER, SANITARY SEWER SERVICES, WATER MAIN, WATER SERVICES, STORM SEWER, OR OTHER UTILITIES, WHICH ARE TO REMAIN, THAT ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
12. SANITARY AND WATER SERVICES TO BE INTERNALLY FED FROM EXISTING BUILDING. SEE ARCHITECTURAL PLANS FOR DETAILS.
13. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING UTILITY AS-BUILT PLANS. DRAWINGS PREPARED TO MUNICIPALITY STANDARDS ARE REQUIRED PRIOR TO OCCUPANCY PERMIT ISSUANCE. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING AND REPORTING ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS TO THE ENGINEER AS WORK PROGRESSES.
14. SEE TABLE FOR STORM SEWER STRUCTURE INFORMATION.
15. STORM SEWER SPECIFICATIONS –

    PIPE – ALL STORM SEWER USED ON THIS PROJECT SHALL BE HIGH DENSITY POLYETHYLENE UNLESS OTHERWISE NOTED.

    HIGH DENSITY POLYETHYLENE SMOOTH-WALLED INTERIOR CORRUGATED PIPE SHALL BE AS MANUFACTURED BY ADS OR EQUAL, WITH WATER TIGHT JOINTS, MANNING "N" VALUE OF 0.010 AND SHALL MEET THE REQUIREMENTS OF AASHTO DESIGNATION M-294 TYPE S. MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D3350, D2412, AND D2321 WITH ELASTOMERIC GASKETS CONFORMING TO ASTM F477.

    INLETS AND FRAMES

    INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES SPS 382.36(9)a.3.

    FRAMES AND GRATES SHALL BE GRAY IRON MATERIAL (PER ASTM A-48) OF STYLES / NEENAH CATALOG NUMBERS AS INDICATED ON THESE CONSTRUCTION DRAWINGS.

    MANHOLES AND FRAMES

    MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF SPS 382.35(8)a.b.

    FRAMES AND LIDS SHALL BE GRAY IRON MATERIAL (PER ASTM A-48) OF STYLES/NEENAH CATALOG NUMBERS AS INDICATED ON THESE CONSTRUCTION DRAWINGS. INTERNAL CHIMNEY SEALS SHALL BE ORETEX SPECIALTY PRODUCTS, OR EQUAL.

    CLEANOUTS – CLEANOUTS SHALL BE EQUIPPED WITH FROST SLEEVES IN ACCORDANCE WITH SPS 382.35(5)(A)2. (REFER TO DETAIL)

    BACKFILL AND BEDDING – STORM SEWER SHALL BE CONSTRUCTED WITH GRAVEL BACKFILL AND CLASS "B" BEDDING IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".

    ROOF LEADER/STORM DRAIN LINES – ALL ROOF LEADERS/STORM DRAIN LINES ENCOUNTERED WHICH ARE NOT SHOWN ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF JSD PRIOR TO ABANDONMENT, REMOVAL, OR CONNECTION TO THE PROPOSED STORM SEWER SYSTEM.

16. WATER MAIN SPECIFICATIONS –

    PIPE – ALL WATERMAIN PIPE USED ON THIS PROJECT SHALL BE POLYVINYL CHLORIDE UNLESS OTHERWISE NOTED.

    POLYVINYL CHLORIDE (PVC) PIPE SHALL MEET THE REQUIREMENTS OF AWWA STANDARD C-900, CLASS 150, DR-18, WITH CAST IRON O.D. AND INTEGRAL ELASTOMERIC BELL AND SPIGOT JOINTS. NON-METALLIC WATER MAINS SHALL BE INSTALLED WITH BLUE INSULATION TRACER WIRE AND CONFORM WITH SPS 382.30(11)(h).

    VALVES AND VALVE BOXES – GATE VALVES SHALL BE AWWA GATE VALVES MEETING THE REQUIREMENTS OF AWWA C-500 AND CHAPTER 8.27.0 OF THE "STANDARD SPECIFICATIONS". GATE VALVES AND VALVE BOXES SHALL CONFORM TO LOCAL PLUMBING ORDINANCES.

    HYDRANTS – HYDRANTS SHALL CONFORM TO THE SPECIFICATIONS OF THE VILLAGE OF MUKWONAGO. THE DISTANCE FROM THE GROUND LINE TO THE CENTERLINE OF THE LOWEST NOZZLE AND THE LOWEST CONNECTION OF THE FIRE DEPARTMENT SHALL BE NO LESS THAN 18-INCHES AND NO GREATER THAN 23-INCHES (SEE DETAIL).

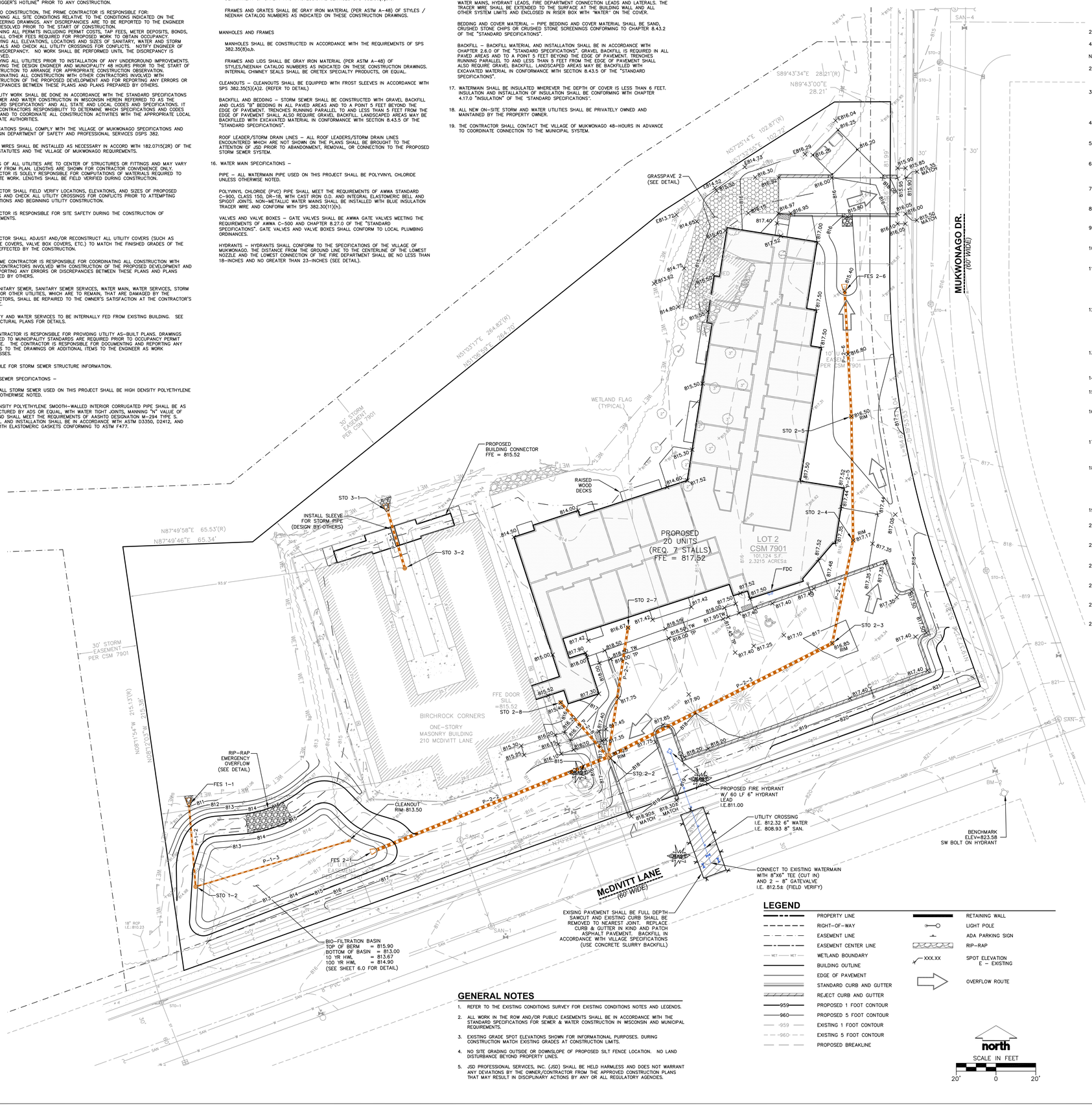
    THRUST BLOCKS SHOULD BE USED WHEREVER NECESSARY TO PREVENT SEPARATION OF JOINTS AND PIPE MOVEMENT. JOINT RESTRAINTS MAY ALSO BE USED AS APPLICABLE.

    10-GAUGE TRACER WIRE SHALL BE INSTALLED ALONG THE ENTIRE LENGTH OF ALL PRIVATE WATER MAINS. HYDRANT LEADS, FIRE DEPARTMENT CONNECTION LEADS AND LATERALS. THE TRACER WIRE SHALL BE EXTENDED TO THE SURFACE AT THE BUILDING WALL AND ALL OTHER SYSTEM LIMITS AND ENCLOSED IN RISER BOX WITH "WATER" ON THE COVER.

    BEDDING AND COVER MATERIAL – PIPE BEDDING AND COVER MATERIAL SHALL BE SAND, CRUSHED STONE CHIPS OR CRUSHED STONE SCREENINGS CONFORMING TO CHAPTER 8.43.2 OF THE "STANDARD SPECIFICATIONS".

    BACKFILL – BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS". GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".

17. WATERMAIN SHALL BE INSULATED WHEREVER THE DEPTH OF COVER IS LESS THAN 6 FEET. INSULATION AND INSTALLATION OF INSULATION SHALL BE CONFORMING WITH CHAPTER 4.17.0 "INSULATION" OF THE "STANDARD SPECIFICATIONS".
18. ALL NEW ON-SITE STORM AND WATER UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER.
19. THE CONTRACTOR SHALL CONTACT THE VILLAGE OF MUKWONAGO 48-HOURS IN ADVANCE TO COORDINATE CONNECTION TO THE MUNICIPAL SYSTEM.



LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY
- EASEMENT LINE
- EASEMENT CENTER LINE
- WETLAND BOUNDARY
- BUILDING OUTLINE
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- 959 PROPOSED 1 FOOT CONTOUR
- 960 PROPOSED 5 FOOT CONTOUR
- 959 EXISTING 1 FOOT CONTOUR
- 960 EXISTING 5 FOOT CONTOUR
- PROPOSED BREAKLINE
- RETAINING WALL
- LIGHT POLE
- ADA PARKING SIGN
- RIP-RAP
- XXX.XX SPOT ELEVATION E – EXISTING
- OVERFLOW ROUTE

north

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GENERAL NOTES

1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGENDS.
2. ALL WORK IN THE ROW AND/OR PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN AND MUNICIPAL REQUIREMENTS.
3. EXISTING GRADE SPOT ELEVATIONS SHOWN FOR INFORMATIONAL PURPOSES. DURING CONSTRUCTION MATCH EXISTING GRADES AT CONSTRUCTION LIMITS.
4. NO SITE GRADING OUTSIDE OR DOWNSLOPE OF PROPOSED SILT FENCE LOCATION. NO LAND DISTURBANCE BEYOND PROPERTY LINES.
5. JSD PROFESSIONAL SERVICES, INC. (JSD) SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.

GRADING AND SEEDING NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY THE FOLLOWING:
   A. ELEVATIONS OF THE BENCHMARKS PRIOR TO COMMENCING WORK.
   B. LOCATION AND ELEVATION OF:
      1. EXISTING PIPE INVERTS
2. FLOOR ELEVATIONS
   3. CURB OR PAVEMENT WHERE MATCHING INTO EXISTING WORK
4. HORIZONTAL CONTROL BY REFERENCING SHOWN COORDINATES TO KNOWN PROPERTY LINES.

NOTIFY ENGINEER OF DISCREPANCIES IN EITHER VERTICAL OR HORIZONTAL CONTROL PRIOR TO PROCEEDING WITH WORK.

2. ALL PROPOSED GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR SHALL VERIFY ALL GRADES, MAKE SURE ALL AREAS DRAIN PROPERLY AND SHALL REPORT ANY DISCREPANCIES TO THE JSD PROFESSIONAL SERVICES, INC. (JSD) PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
3. CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR COMPUTATIONS OF ALL GRADING QUANTITIES. WHILE JSD ATTEMPTS TO PROVIDE A COST- EFFECTIVE APPROACH TO BALANCE EARTHWORK, GRADING DESIGN IS BASED ON MANY FACTORS, INCLUDING SAFETY, AESTHETICS, AND COMMON ENGINEERING STANDARDS OF CARE. THEREFORE, NO GUARANTEE CAN BE MADE FOR A BALANCED SITE.
4. THE CONTRACTOR MAY SOLICIT APPROVAL FROM JSD/OWNER TO ADJUST FINAL GRADES FROM DESIGN GRADES TO PROVIDE AN OVERALL SITE BALANCE AS A RESULT OF FIELD CONDITIONS.
5. ALL UNSURFACED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL AND BE SEEDED, MULCHED AND WATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
6. THIS GRADING PLAN IS BASED ON A TOPOGRAPHIC SURVEY. SOME FIELD ADJUSTMENTS MAY BE NECESSARY AT POINTS WHERE PROPOSED GRADES MEET EXISTING. REVIEW ANY REQUIRED CHANGES WITH JSD PRIOR TO CONSTRUCTION OF WORK.
7. PROPERTY CORNER MARKERS SHALL BE CAREFULLY PROTECTED. MONUMENTS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
8. PROPOSED CONTOURS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. ALL CONSTRUCTION SHALL BE BASED UPON PROPOSED SPOT ELEVATIONS WHERE PROVIDED.
9. PARKING LOT AND DRIVEWAY ELEVATIONS ARE PAVEMENT GRADES LOCATED ALONG THE FLANGE LINE, NOT TOP OF CURB GRADES, UNLESS OTHERWISE NOTED.
10. ALL EXCAVATIONS AND MATERIAL PLACEMENT SHALL BE COMPLETED TO DESIGN ELEVATIONS AS DEPICTED IN THE PLANS.
11. GRADING ACTIVITIES SHALL BE IN A MANNER TO ALLOW POSITIVE DRAINAGE ACROSS DISTURBED SOILS, WHICH MAY INCLUDE EXCAVATION OF TEMPORARY DITCHES TO PREVENT PONDING, AND IF NECESSARY, PUMPING TO ALLEVIATE PONDING. CONTRACTOR SHALL PREVENT SURFACE WATER FROM ENTERING INTO EXCAVATIONS. IN NO WAY SHALL OWNER BE RESPONSIBLE FOR REMEDIATION OF UNSUITABLE SOILS CREATED/ORIGINATED AS A RESULT OF IMPROPER SITE GRADING OR SEQUENONG. CONTRACTOR SHALL SEQUENCE GRADING ACTIVITIES TO LIMIT EXPOSURE OF DISTURBED SOILS DUE TO WEATHER.
12. THE CONTRACTOR IS RESPONSIBLE FOR MEETING MINIMUM COMPACTION STANDARDS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. CONTRACTORS SHALL REFER TO THE GEOTECHNICAL ENGINEERING REPORT FOR SITE COMPACTION REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY ENGINEER/OWNER IF PROPER COMPACTION CANNOT BE OBTAINED. THE PROJECT'S GEOTECHNICAL CONSULTANT SHALL DETERMINE WHICH IN-SITU SOILS ARE TO BE CONSIDERED UNSUITABLE SOILS. THE ENGINEER/OWNER AND GEOTECHNICAL TESTING CONSULTANT WILL DETERMINE IF REMEDIAL MEASURES WILL BE NECESSARY.
13. IN THE EVENT THAT ANY MOISTURE-DENSITY TEST(S) FAIL TO MEET SPECIFICATION REQUIREMENTS, THE CONTRACTOR SHALL PERFORM CORRECTIVE WORK AS NECESSARY TO BRING THE MATERIAL INTO COMPLIANCE AND RETEST THE FAILED AREA AT NO COST TO THE OWNER.
14. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY JSD/OWNER IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION.
15. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ADEQUATE AND SAFE TEMPORARY SHORING, BRACING, RETENTION STRUCTURES, AND EXCAVATIONS.
16. THE SITE SHALL BE COMPLETED TO WITHIN 0.10-FT (+/-) OF THE PROPOSED GRADES AS INDICATED WITHIN THE PLANS PRIOR TO PLACEMENT OF TOPSOIL OR STONE. CONTRACTOR IS ENCOURAGED TO SEQUENCE CONSTRUCTION SUCH THAT THE SITE IS DIVIDED INTO SMALLER AREAS TO ALLOW STABILIZATION OF DISTURBED SOILS IMMEDIATELY UPON COMPLETION OF INDIVIDUAL SMALLER AREAS.
17. CONTRACTOR SHALL CONTACT "DIGGER'S HOTLINE" FOR LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR PROTECTING SAID UTILITIES FROM ANY DAMAGE DURING CONSTRUCTION.
18. WORK WITHIN ANY ROADWAY RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE AUTHORITY HAVING JURISDICTION PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FEES. GRADING WITHIN RIGHT-OF-WAY IS SUBJECT TO APPROVAL BY SAID AUTHORITY. RESTORATION OF RIGHT-OF-WAY IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF GRADING. RESTORATION SHALL INCLUDE ALL ITEMS NECESSARY TO RESTORE RIGHT-OF-WAY IN-KIND INCLUDING LANDSCAPING.
19. CONTRACTOR SHALL COMPLY WITH ALL CITY AND/OR STATE CONSTRUCTION STANDARDS/ORDINANCES.
20. CONTRACTOR SHALL PROVIDE NOTICE TO THE MUNICIPAUITY IN ADVANCE OF ANY SOIL DISTURBING ACTIVITIES, IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS.
21. ALL DISTURBED AREAS SHALL BE SODDED AND/OR SEEDED AND MULCHED IMMEDIATELY FOLLOWING GRADING ACTIVITIES. SOD/SEED MIX TO BE IN ACCORDANCE WITH LANDSCAPE PLAN.
22. CONTRACTOR SHALL WATER ALL NEWLY SODDED/SEEDED AREAS DURING THE SUMMER MONTHS WHENEVER THERE IS A 7 DAY LAPSE WITH NO SIGNIFICANT RAINFALL.
23. CONTRACTOR TO DEEP TILL ALL COMPACTED PERVIOUS SURFACES PRIOR TO SODDING AND/OR SEEDING AND MULCHING.
24. ALL SLOPES 20% OR GREATER SHALL BE TEMPORARY SEEDED, MULCHED, OR OTHER MEANS OF COVER PLACED ON THEM WITHIN 2 WEEKS OF DISTURBANCE.
25. ALL EXPOSED SOIL AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 30 DAYS AND REQUIRE VEGETATIVE COVER FOR LESS THAN 1 YEAR, REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1059 AND VILLAGE OF MUKWONAGO ORDINANCES.

PROPOSED STRUCTURES TABLE

LABEL	RIM EL. (FT)	INVERT EL. (FT)	DEPTH (FT)	STRUCTURE DESC.	FRAME & GRATE
FES 1-1		S INV: 810.83 (8")		8 IN HDPE FES	
FES 2-1		E INV: 813.00 (18")		18 IN HDPE FES	
FES 2-6		S INV: 815.40 (12")		12 IN HDPE FES	
STO 1-2	814.50	N INV: 811.50 (8") E INV: 811.50 (6")	3.0	36 IN MH (FLAT)	R-2370 TYPE G
STO 2-2	817.25	W INV: 813.25 (18") NE INV: 813.25 (18") NW INV: 813.25 (12") N INV: 813.25 (12")	4.0	72 IN MH (FLAT)	R-1550 SOLID LID
STO 2-3	816.85	SW INV: 813.50 (18") N INV: 813.50 (12")	3.4	48 IN MH (FLAT)	R-2501 TYPE D
STO 2-4	817.17	S INV: 813.71 (12") N INV: 813.71 (12")	3.5	12 IN DB	12 IN FLAT GRATE
STO 2-5	816.50	S INV: 813.83 (12") N INV: 813.83 (12")	2.7	12 IN DB	12 IN DOME GRATE
STO 2-7	816.67	S INV: 813.38 (12")	3.3	12 IN DB	12 IN DOME GRATE
STO 2-8	815.40	SE INV: 813.32 (12")	2.1	12 IN DB	12 IN DOME GRATE
STO 3-1		S INV: 812.50 (12")		12 IN HDPE FES	
STO 3-2	815.00	N INV: 812.65 (12")	1.9	12 IN DB	12 IN DOME GRATE

PROPOSED PIPES TABLE

LABEL	FROM	TO	LENGTH	INVERT EL. (FT)	DISCHARGE EL. (FT)	SLOPE	SIZE & MATERIAL
P-1-2	STO 1-2	FES 1-1	41'	811.50	810.83	1.62%	8 IN HDPE
P-1-3		STO 1-2	81'	811.90	811.50	0.50%	6 IN HDPE
P-2-2	STO 2-2	FES 2-1	125'	813.25	813.00	0.20%	18 IN HDPE (HP)
P-2-3	STO 2-3	STO 2-2	126'	813.50	813.25	0.20%	18 IN HDPE (HP)
P-2-4	STO 2-4	STO 2-3	53'	813.71	813.50	0.40%	12 IN HDPE (HP)
P-2-5	STO 2-5	STO 2-4	62'	813.83	813.71	0.20%	12 IN HDPE (HP)
P-2-6	FES 2-6	STO 2-5	63'	815.40	813.83	2.49%	12 IN HDPE
P-2-7	STO 2-7	STO 2-2	66'	813.38	813.25	0.20%	12 IN HDPE
P-2-8	STO 2-8	STO 2-2	36'	813.32	813.25	0.20%	12 IN HDPE
P-3-1	STO 3-1	STO 3-2	30'	812.50	812.65	0.50%	12 IN HDPE (HP)

DIGGERS HOTLINE
Toll Free (800) 242-8511

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WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1		
2		
3		
4		
5		
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Design/Drawn: CAP
Approved: DSR
Date: 11/06/2019

SHEET TITLE:
GRADING AND UTILITY PLAN

SHEET NUMBER:
C5.0

JSD PROJECT NO: 19-9231

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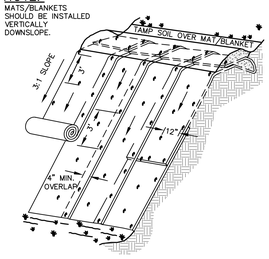
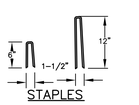
File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago, WI)\DWG\Civil\Cad Sheets\19-9231 C5 - Grading and Utility Plan.dwg Layout: 5.0 Grading Plan User: cpeterson Plotted: Nov 06, 2019 - 8:16am XrefFs:

NOTE:
MATS/BLANKETS SHOULD BE INSTALLED VERTICALLY DOWNSLOPE.

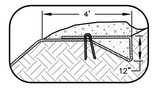


ISOMETRIC VIEW

TYPICAL SLOPE SOIL STABILIZATION



STAPLES

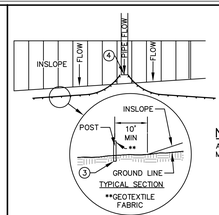


BERM

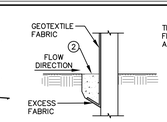
GENERAL NOTES:

1. EROSION MAT CONSTRUCTION SHALL BE IN ACCORDANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1052 "NON-CHANNEL EROSION MAT".
2. ONLY WisDOT EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) APPROVED MATS SHALL BE ALLOWED. REFER TO EROSION CONTROL PLAN FOR EXACT MAT CLASSIFICATION.
3. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
4. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
5. ONLY WisDOT EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) APPROVED MATS SHALL BE ALLOWED. REFER TO EROSION CONTROL PLAN FOR EXACT MAT CLASSIFICATION.

EROSION MATTING

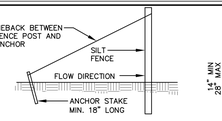


SILT FENCE ALONG SLOPES & OUTFALLS

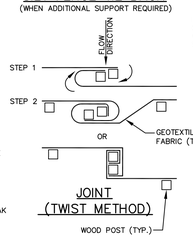


NOTE:
ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS.

TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN ADDITIONAL SUPPORT REQUIRED)



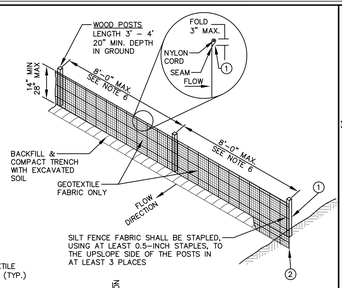
JOINT (TWIST METHOD)

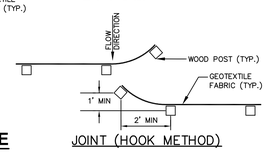
GENERAL NOTES:

1. SILT FENCE SHALL BE ANCHORED BY SPREADING AT LEAST 8-INCHES OF FABRIC IN A 4-INCH WIDE AND 6-INCH DEEP TRENCH OR 6-INCH DEEP V-TRENCH ON THE UPSLOPE SIDE OF THE FENCE. TRENCHES SHALL NOT BE EXCAVATED WIDER OR DEEPER THAN NECESSARY FOR PROPER INSTALLATION.
2. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1.125-INCHES x 1.125-INCHES OF DRIED OAK OR HICKORY.
4. SILT FENCE TO EXTEND ABOVE THE TOP OF PIPE.
5. SILT FENCE CONSTRUCTION AND GEOTEXTILE FABRIC SHALL CONFORM TO WDNR TECHNICAL STANDARD 1056.
6. POST SPACING SHALL BE SELECTED BASED ON GEOTEXTILE FABRIC (8-FEET FOR WOVEN & 3-FEET FOR NON-WOVEN)

SILT FENCE

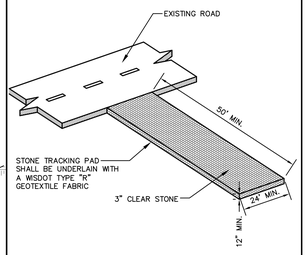
N.T.S.





JOINT (HOOK METHOD)

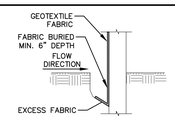
REV. 7-30-2018



NOTE:
CONTRACTOR TO VERIFY LOCATION WITH OWNER.

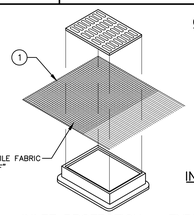
CONSTRUCTION ENTRANCE

N.T.S.

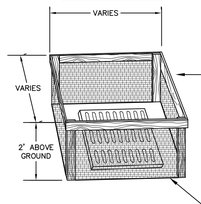


NOTE: 2' MINIMUM POST DEPTH. ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

TRENCH DETAIL



INLET PROTECTION – TYPE "B" WITHOUT CURB BOX



INLET PROTECTION – TYPE "A"

REV. 11-19-2018

GENERAL NOTES:

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

1. FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER OF FACILITATE MAINTENANCE OR REMOVAL.
2. FOR INLET PROTECTION, TYPE "C" (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
3. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT A WOOD 2X4

INSTALLATION NOTES:

TYPE "B" & "C"

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHODS TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

INSTALLATION NOTES:

TYPE "D"

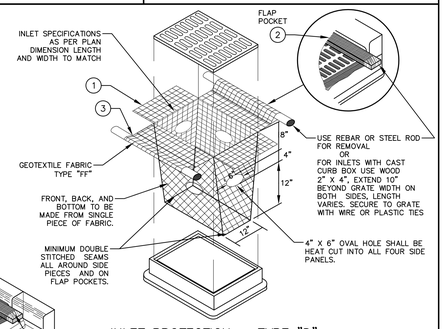
DO NOT INSTALL INLET PROTECTION TYPE "D" IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

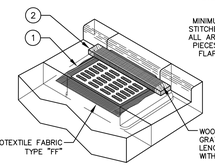
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3 INCHES. WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCHES CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4 INCHES FROM THE BOTTOM OF THE BAG.

INLET PROTECTION

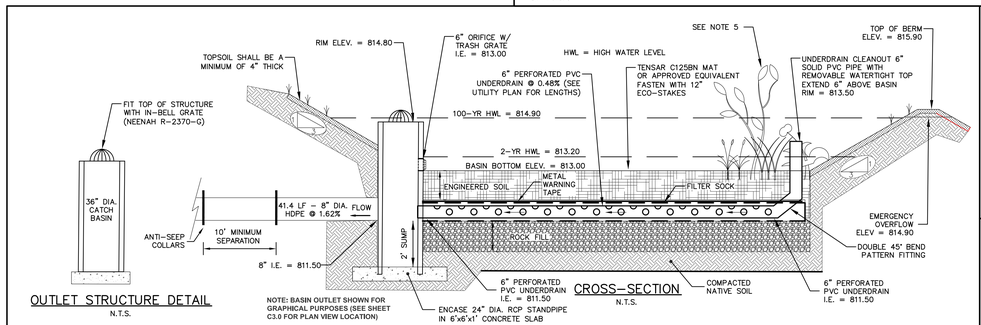
N.T.S.



INLET PROTECTION – TYPE "D"



INLET PROTECTION – TYPE "C" WITH CURB BOX



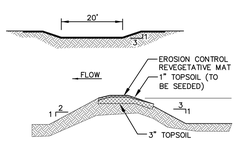
OUTLET STRUCTURE DETAIL

N.T.S.

NOTE: BASIN OUTLET SHOWN FOR GRAPHICAL PURPOSES (SEE SHEET C3.0 FOR PLAN VIEW LOCATION)

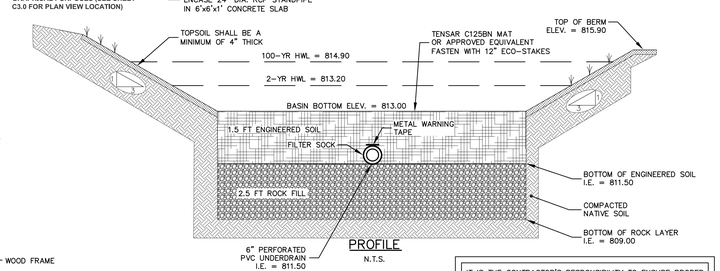
CROSS-SECTION

N.T.S.



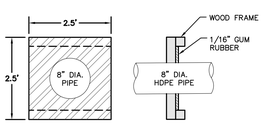
BIORETENTION BASIN EMERGENCY OVERFLOW WEIR DETAIL

N.T.S.



PROFILE

N.T.S.



NOTE: ANTI-SEEP COLLAR TO BE AGRI DRAIN ASC05 OR EQUAL

GUM RUBBER ANTI-SEEP COLLAR

N.T.S.

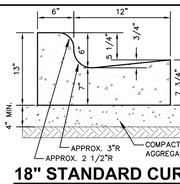
GENERAL NOTES

1. ALL CONSTRUCTION SHALL MEET THE SPECIFICATIONS OF WDNR "BIORETENTION FOR INFILTRATION" TECHNICAL STANDARD 1004.
2. ENGINEERED SOIL SHALL BE A 70% SAND AND 30% COMPOST MIXTURE.
3. RUNOFF MUST INFILTRATE WITHIN 24-HOURS. IF THE BASIN IS UNABLE TO MAINTAIN THESE RATES, IT MUST BE DEEP TILLED, REGRADED, AND IF NECESSARY REPLANTED BY OWNER TO RESTORE ORIGINAL INFILTRATION RATES.
4. ALL WORK TO BE CONDUCTED IN CONFORMANCE WITH THE STORMWATER MANAGEMENT PLAN FOR THE PROJECT SITE AS APPROVED BY THE REGULATORY ENGINEER OF RECORD.
5. SEE LANDSCAPING PLANS FOR PLANTING SCHEDULE AND CONFIGURATION.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER CONSTRUCTION PRACTICES HAVE BEEN UTILIZED AND THAT STORMWATER MANAGEMENT FEATURES HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH APPROVED DESIGN PLANS. JSD, INC. SHALL NOT BE LIABLE FOR ANY CONSTRUCTION PRACTICES OR INSTALLATION WHICH DEVIATES FROM THE APPROVED PLAN SET. ONCE THE OWNER HAS PROVIDED FINAL APPROVAL TO THE WORK PERFORMED BY THE CONTRACTOR AND ENSURED COMPLIANCE WITH THE PLAN, IT IS THE OWNER'S RESPONSIBILITY TO MAINTAIN STORMWATER MANAGEMENT FEATURES IN ACCORDANCE WITH THE RECORDED MAINTENANCE AGREEMENT. PROPER OPERATION IS DEPENDENT ON A MULTITUDE OF VARIABLES INCLUDING WEATHER. THESE COMPONENTS REQUIRE ONGOING MAINTENANCE FOR WHICH THE OWNER IS RESPONSIBLE. JSD TAKES NO RESPONSIBILITY FOR PROPER OPERATION OF THE WATER QUALITY COMPONENTS.

STORMWATER BIO BASIN DETAIL

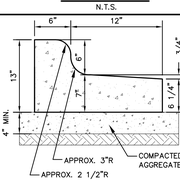
N.T.S.



18" STANDARD CURB & GUTTER

N.T.S.

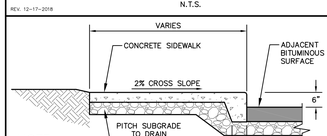
REV. 12-17-2018



18" REJECT CURB & GUTTER

N.T.S.

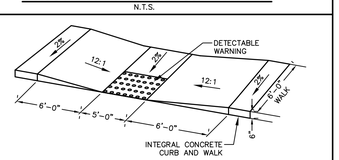
REV. 12-17-2018



NOTE:
REFER TO SITE PLAN FOR CONSTRUCTION AND CONTROL JOINT LOCATIONS

THICKENED EDGE SIDEWALK

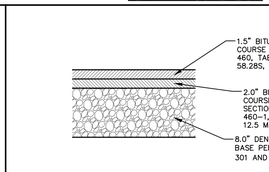
N.T.S.



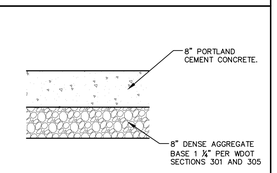
ADA ACCESSIBLE RAMP

N.T.S.

REV. 11-20-2018



STANDARD ASPHALT PAVEMENT SECTION



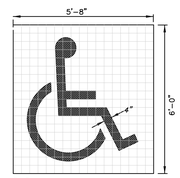
CONCRETE PAVEMENT SECTION

GENERAL NOTES:

1. REFER TO PAVEMENT RECOMMENDATIONS IN THE GEOTECHNICAL INVESTIGATION REPORT. IF THERE ARE ANY DISCREPANCIES BETWEEN THIS DETAIL AND THE PAVEMENT RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL INVESTIGATION REPORT, THE GEOTECHNICAL REPORT SHALL GOVERN.
2. WSDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, INCLUDING SUPPLEMENTAL SPECIFICATIONS, COMPACTION REQUIREMENTS:
   - BITUMINOUS CONCRETE: REFER TO SECTION 460-3.
   - BASE COURSE: REFER TO SECTION 301.3.4.2, STANDARD COMPACTION.
3. CONCRETE EQUIPMENT PADS SHALL HAVE A MINIMUM 6" THICK PORTLAND CEMENTER CONCRETE OVER COMPACTED 6" THICK DENSE GRADED BASE WITH REINFORCEMENT FOR CRACK CONTROL.

PAVEMENT SECTIONS

N.T.S.

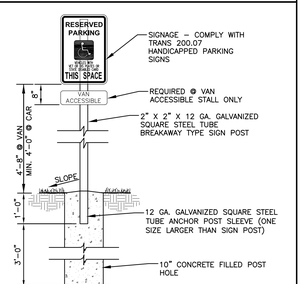


NOTE:
SYMBOL DETAILS ARE SHOWN FOR INTENT ONLY. CONTRACTOR SHALL VERIFY EXACT REQUIREMENTS PRIOR TO CONSTRUCTION.

PAINTED SYMBOL

N.T.S.

REV. 11-26-2018



NOTE:
OPTION: DRIVEN POST MAY BE UTILIZED IN LIEU OF CONCRETE BASE. PROVIDE MIN. 3'-0" LONG ANCHOR POST SLEEVE.

ADA SIGN

N.T.S.

REV. 11-26-2018

JSD Professional Services, Inc.
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CREATE THE VISION TELL THE STORY

MADISON | MILWAUKEE | WAUSAU
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COEUR D'ALENE

MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:

Castle Senior Living

CLIENT ADDRESS:
210 McDIVITT LANE
MUKWONAGO, WI 53149

PROJECT:
BIRCHROCK CASTLE ADDITION

PROJECT LOCATION:
VILLAGE OF MUKWONAGO
WAUKESHA COUNTY, WISCONSIN

PLAN MODIFICATIONS:

#	Date:	Description:
1		
2		
3		
4		
5		
6		
7		
8		
9		
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13		
14		
15		

Design/Drawn:	CAP
Approved:	DSR
Date:	11/06/2019

SHEET TITLE:
DETAILS

SHEET NUMBER:
C6.0

JSD PROJECT NO: 19-9231

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File: R:\2019\19-9231 Mukwonago RCAC (Mukwonago WI)\DWG\Civil\Civil Sheets\19-9231 C6 - Details.dwg Layout: C6.0 Details User: cpeterson Plotted: Nov 06, 2019 - 9:14am XrefPath:

RATIONAL METHOD STORM SEWER CALCULATIONS

Project Name: **CASTLE SENIOR LIVING**

Project Location: New Berlin, WI
JSD Project Number: 19-9231
#NUM!

Performed by: IRN
Date: 10/21/2019

MILWAUKEE REGIONAL OFFICE
N22 W22931 Nancy Court, Suite 3
Waukesha, Wisconsin 53186
Ph: (262) 513-0666 Fax: (262) 513-1232

MADISON REGIONAL OFFICE
161 Horizon Drive, Suite 101
Verona, Wisconsin 53593
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Structure abbreviations are as follows: ES - End Section, MH - Manhole, FI - Field Inlet, TD - Trench Drain, BC - Building Connection, RD - Roof Drain, STB - Stub

PIPE LOCATION		STRUCTURE CONTRIBUTING AREA					PIPE FLOW				PIPE DATA				PIPE CAPACITY INFORMATION							DROP	ELEVATIONS			COVER TO CROWN (FT)
															ACTUAL FLOW											
UP STRUCT	DOWN STRUCT	ROOF C = 0.95 (SQ FT)	PAVED C = 0.95 (SQ FT)	GRASS C = 0.20 (SQ FT)	INDIVID AREA (ACRES)	INDIV COMP C VALUE (UNITLESS)	STORM EVENT 2,5,10,25,50,100	INTENSITY I (IN/HR)	INDIV RUNOFF (CFS)	TOTAL FLOW (CFS)	LENGTH (FT)	DIA. (IN)	SLOPE (FT/FT)	Manning's n RCP=0.013 HDPE=0.012 PVC=0.011	REQD DROP	ACTUAL DROP	PARTS FULL	VEL (FPS)	FULL FLOW (CFS)	TIME TO STRUCT. (MIN)	TIME IN SEWER (MIN)	THRU STRUCT (FT)	RIM/(F/L) UP	INVERT UP	INVERT DOWN	
STO 2-6	**STO 2-5**	2,550	1,717	2,976	0.17	0.64	100	7.29	0.78	0.78	**63**	**6**	**2.48%**	**0.012**	1.04	1.57	0.77	5.49	0.96	10.00	10.19	0.00	**815.40**	**815.40**	**813.84**	
STO 2-5	**STO 2-4**	3,825	0	2,910	0.15	0.63	100	7.25	0.70	1.48	**62**	**12**	**0.20%**	**0.012**	0.09	0.12	0.77	2.47	1.73	10.19	10.61	0.00	**816.50**	**813.84**	**813.71**	1.56
STO 2-4	**STO 2-3**	3,635	665	1,370	0.13	0.77	100	7.14	0.71	2.19	**53**	**12**	**0.40%**	**0.012**	0.17	0.21	0.82	3.53	2.44	10.61	10.86	0.00	**817.05**	**813.71**	**813.50**	2.24
STO 2-3	**STO 2-2**	0	7,595	3,075	0.24	0.73	100	7.08	1.27	3.47	**127**	**18**	**0.20%**	**0.012**	0.12	0.25	0.64	3.11	5.09	10.86	11.54	0.00	**816.90**	**813.50**	**813.25**	1.75
STO 2-2	**FES 2-1**	5,760	3,045	545	0.21	0.91	100	6.93	1.35	4.93	**123**	**18**	**0.20%**	**0.012**	0.23	0.25	0.87	3.28	5.09	11.54	12.16	0.00	**817.35**	**813.25**	**813.00**	2.45
STO 2-7	**STO 2-2**	0	140	840	0.02	0.31	100	11.05	0.08	0.08	**66**	**4**	**0.20%**	**0.012**	0.09	0.13	0.77	1.19	0.09	0.00	0.92	0.00	**817.20**	**813.38**	**813.25**	3.46
STO 2-8	**STO 2-2**	0	100	260	0.01	0.41	100	11.05	0.04	0.04	**36**	**4**	**0.20%**	**0.012**	0.01	0.07	0.47	1.04	0.09	0.00	0.58	0.00	**815.40**	**813.32**	**813.25**	1.71

Anti-Seep Collar Design

Project: **MUKWONAGO CBRF**
Project Location: MUKWONAGO, WI
JSD Project # : 19-9231

Performed By: IRN Date: 10/24/2019

MADISON REGIONAL OFFICE
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Waukesha, Wisconsin 53188
Ph: (262) 513-0666 Fax: (262) 513-1232

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SOUTH BIORETENTION

Discharge Pipe Diameter =	0.67	ft
Discharge Pipe Slope =	0.0162	ft/ft
100yr Pond Water Surface Elev. =	814.90	
Pond Discharge Pipe Elev. =	811.50	
Embankment Side Slope (H:1) =	3.00	

Notes:

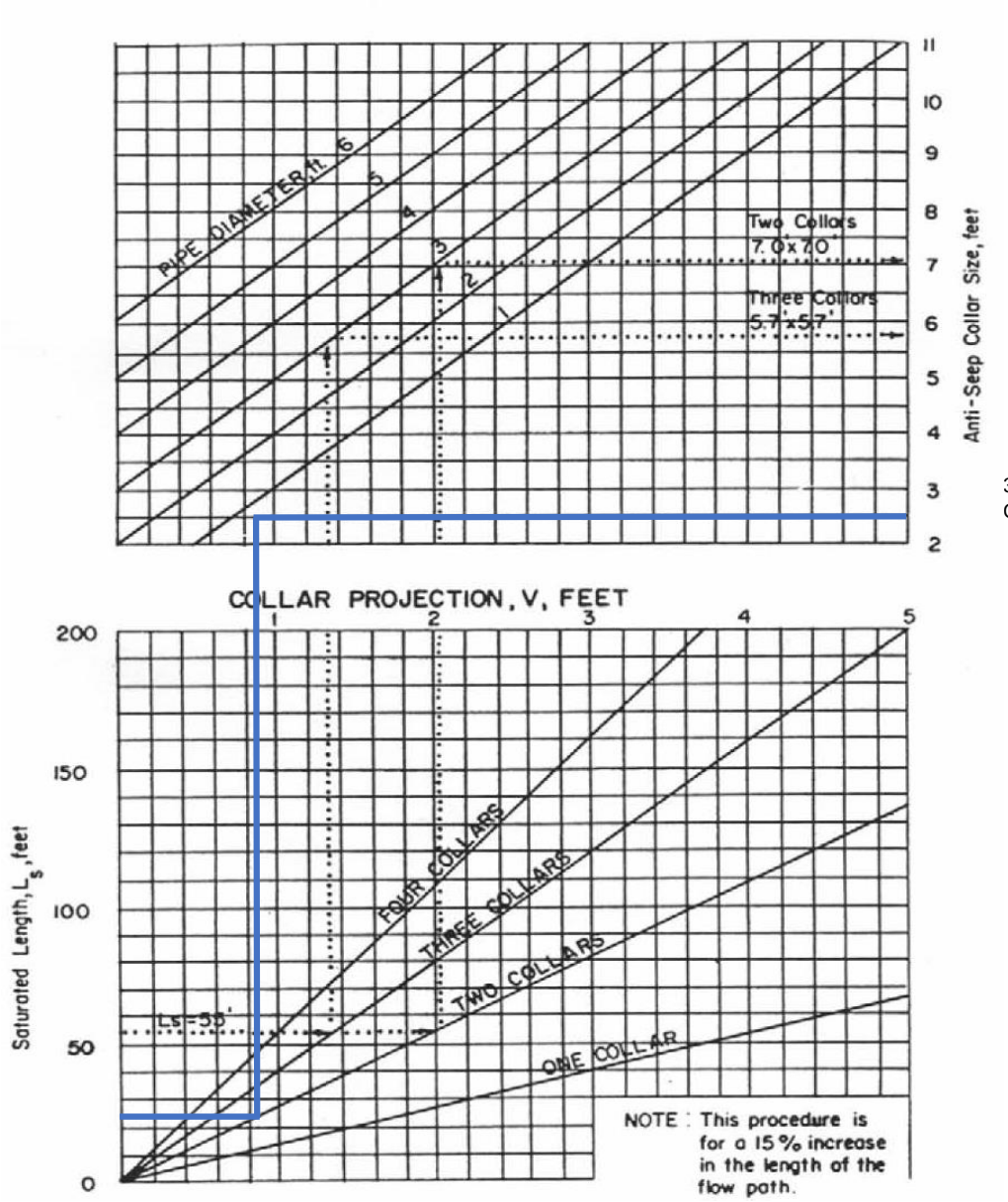
Ls - Length of Discharge Pipe in Saturated Zone
y - Headwater Acting on Discharge Pipe
z - Embankment Side Slope

$$Ls = y(z+4)\left[1+\frac{PipeSlope}{0.25-PipeSlope}\right]$$

$$Ls = (814.90 - 811.50)\ (3.00 + 4)\left|1 + \frac{0.0162}{(0.25 - 0.1620)}\right|$$

Ls = **25.45 ft**

Figure 5A.31(2)
Anti-Seep Collar Design Charts (USDA - NRCS)



30"x30"
One Collar

APPENDIX 7

Operation and Maintenance Plan

STORM WATER MANAGEMENT PRACTICES
MAINTENANCE AGREEMENT

THIS AGREEMENT, made and entered into this_____day of_____, 20___, by and between CASTLE SENIOR LIVING hereinafter called the "Owner", and the City of Mukwonago, hereinafter called the "City".

WITNESSETH:

WHEREAS, the Owner is the owner of the following described lands situated in the City of Mukwonago, Waukesha County, State of Wisconsin, to-wit:

PART OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 35, TOWNSHIP 05

NORTH, RANGE 18 EAST, IN THE CITY OF MUKWONAGO, WAUKESHA COUNTY,

WISCONSIN

hereinafter called the "Property".

WHEREAS, the Owner is developing the property; and

WHEREAS, the Site Plan/Subdivision Plan known as MUKWONAGO CBRF BUILDING hereinafter called the "Plan", which is expressly made a part hereof, as approved or to be approved by the City, provides for on-site storm water management practices within the confines of the Property; and

WHEREAS, the City and the Owner, its successors and assigns, including any homeowners association, agree that the health, safety and welfare of the residents of the City of Pewaukee, require that on-site storm water management practices as defined in Chapter 19 of the Pewaukee Municipal Code be constructed and maintained on the Property; and

WHEREAS, the City requires that on-site storm water management practices as shown on the Plan be constructed and adequately maintained by the Owner, its successors and assigns, including any homeowners association.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. The on-site storm water management practices shall be constructed by the Owner, its successors and assigns, including any homeowners association, in accordance with the plans and specifications indicated in the Plan and applicable statutes, ordinances and rules. The storm water management practices shall serve the drainage area designated in the Plan.

2. The Owner, its successors and assigns including but not limited to any homeowners association, shall regularly inspect the storm water management practices and specifically the function of the approved storm water management system as often as conditions require, but in any event at least once each year. The standard Operation and Maintenance Report attached to this agreement as

Exhibit D and by this reference made a part hereof shall be used for the purpose of the regular inspections of the storm water management practices. The Owner, its successors and assigns shall keep the Operation and Maintenance Reports from past inspections as well as a log of maintenance activity indicating the date and type of maintenance completed. The Reports and maintenance log shall be made available to the City for review. The purpose of the inspections is to assure safe and proper functioning of the facilities. The inspections shall cover all facilities including but not limited to berms, outlet structures, pond areas and access roads. Deficiencies shall be noted in the Operation and Maintenance Report.

3. The Owner, its successors and assigns, including any homeowners association, shall adequately maintain the storm water management practices, including but not limited to all pipes and channels built to convey storm water to the facility, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the storm water. Adequate maintenance is herein defined as keeping the storm water management facilities in good working condition so that these facilities are performing to their design functions and are in accordance with the Operations and Maintenance Standards attached to this agreement as Exhibit D and by this reference made a part hereof.

4. The Owner, its successors and assigns, including any homeowners association, hereby grant permission to the City, its authorized agents and employees, to enter upon the Property and to inspect the storm water management practices whenever the City deems necessary. The purpose of inspection is to investigate reported deficiencies and/or to respond to citizen complaints. The City shall provide the Owner, its successors and assigns, including any homeowners association, copies of the inspection findings and a directive to commence with the repairs if necessary. Corrective actions shall be taken within a reasonable time frame as established by the City Engineer.

5. If the Owner, its successors and assigns, including any homeowners association, fails to maintain the storm water management practices in good working condition, consistent with the terms of the approved plans and specifications approved by the City and does not perform the required corrective actions and inspections in the specified time, the City may:

    a. Issue a citation to the Owner, its successors and assigns. Each day that the violation exists shall constitute a separate offense, and shall be considered a continuing violation.

    b. Perform the corrective actions identified in the inspection report and assess the Owner, its successors and assigns for the cost of such work. The cost of such work may be specially assessed against the property pursuant to Wisconsin Statutes Section 66.0703. If the facilities are located on an outlot owned collectively by homeowners association, the City may assess each

member of the homeowners association according to the ownership interest in the facilities located on the property. This provision shall not be construed to allow the City to erect any structure of permanent nature on the land of the Owner outside of the easement for the storm water management practices, and in no event shall this Agreement be construed to impose any such obligation on the City.

6. The Owner, its successors and assigns, including any homeowners association, will perform the work necessary to keep these facilities in good working order as appropriate. In the event a maintenance schedule for the storm water management practices (including sediment removal) is outlined on the approved plans, the schedule will be followed. The minimum amount of maintenance on the storm water management practices shall be in accordance with the Maintenance Standards (Exhibit D).

7. In the event the City pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Owner, its successors and assigns, including any homeowners association, shall reimburse the City upon demand, within thirty (30) days of receipt for all actual costs incurred by the City hereunder.

8. This Agreement imposes no liability of any kind whatsoever on the City, its officers, agents and employees, and the owner agrees to indemnify and hold the City harmless as and against any and all claims, actions, causes of action, demands, including attorney fees which the City may incur as a result of the failure of the storm water management system and/or actions taken or not taken by the City to enforce the terms of this agreement including, but not limited to, the performance of maintenance activities.

9. This Agreement shall be attached as an exhibit to any document which creates a homeowners association that is responsible for maintenance of the storm water management practices and be recorded at the Waukesha County Register of Deeds, and shall constitute covenant running with the land, and shall be binding on the Owner, its administrators, executors, assigns, heirs and any other successors in interests, including any homeowners association. The owner shall provide the City with a copy of any document which creates a homeowners association that is responsible for the storm water management practices.

10. Notwithstanding anything in this Agreement to the contrary, in the event the Owner, or the Owner's successors and assigns, sell or otherwise transfer ownership in the Property, the Owner and the Owners successors and assigns, are hereby released from any and all liabilities and obligations under the terms of this Agreement.

WITNESS the following signatures and seals:

_____
Company/Corporation/Partnership Name (Seal)

_____
(Type Name), (Type Title)

The foregoing Agreement was acknowledged before me this_____day of _____ 20 ,by_____.

_____
NOTARY PUBLIC

My Commission Expires: _____

Exhibit A – Legal Description

The following description and reduced copy map identifies the land parcel(s) affected by this Agreement. For a larger scale view of the referenced document, contact the Waukesha County Register of Deeds office.

Project Identifier: Mukwonago CBRF building

Date of Recording: 11/6/95

Map Produced By: Gary Schaefer

Legal Description: Lot 2 of Certified Survey Map No. 7901, recorded on December 22. 1995 in Volume 68 of Certified Survey Maps on Pages 140 to 146, as Document No. 2089198, being a redivision of Outlet 1, Mukwonago Estates East, being a resubdivision of Lots 43 and 44, 56 to 61 inclusive, 78 to 82 inclusive, 103 and 104, 157 to 200 inclusive, Outlet 1, Part of outlot 2, and all of Outlots 3, 4, 7 and 8 in "Mukwonago Estates", being a subdivision of part of the Northwest l /4 of the Southeast I1/4 of Section 35, Township 5 North, Range l8 East, in the Village of Mukwonago, County of Waukesha, State of Wisconsin

Exhibit B - Location Map
Storm Water Management Practices Covered by this Agreement

The storm water management practices covered by this Agreement are depicted in the reduced copy of the construction plans, as shown below. The practices include the **Biofiltration Basin, Catch basins and storm sewer system.**

All of the noted storm water management practices are located in Lot 2 of CSM 7901, as noted in Exhibit A.

Subdivision Name**: N/A**

Storm water Practices**: Biofiltration Basin, Catch Basin and Storm Sewer System**

Location of Practices**: The Biofiltration Basin is located in the SW corner of site, the catch basin and storm sewer are located within the parking lot and landscape areas in front of the building**

Owners: **Castle Senior Living**

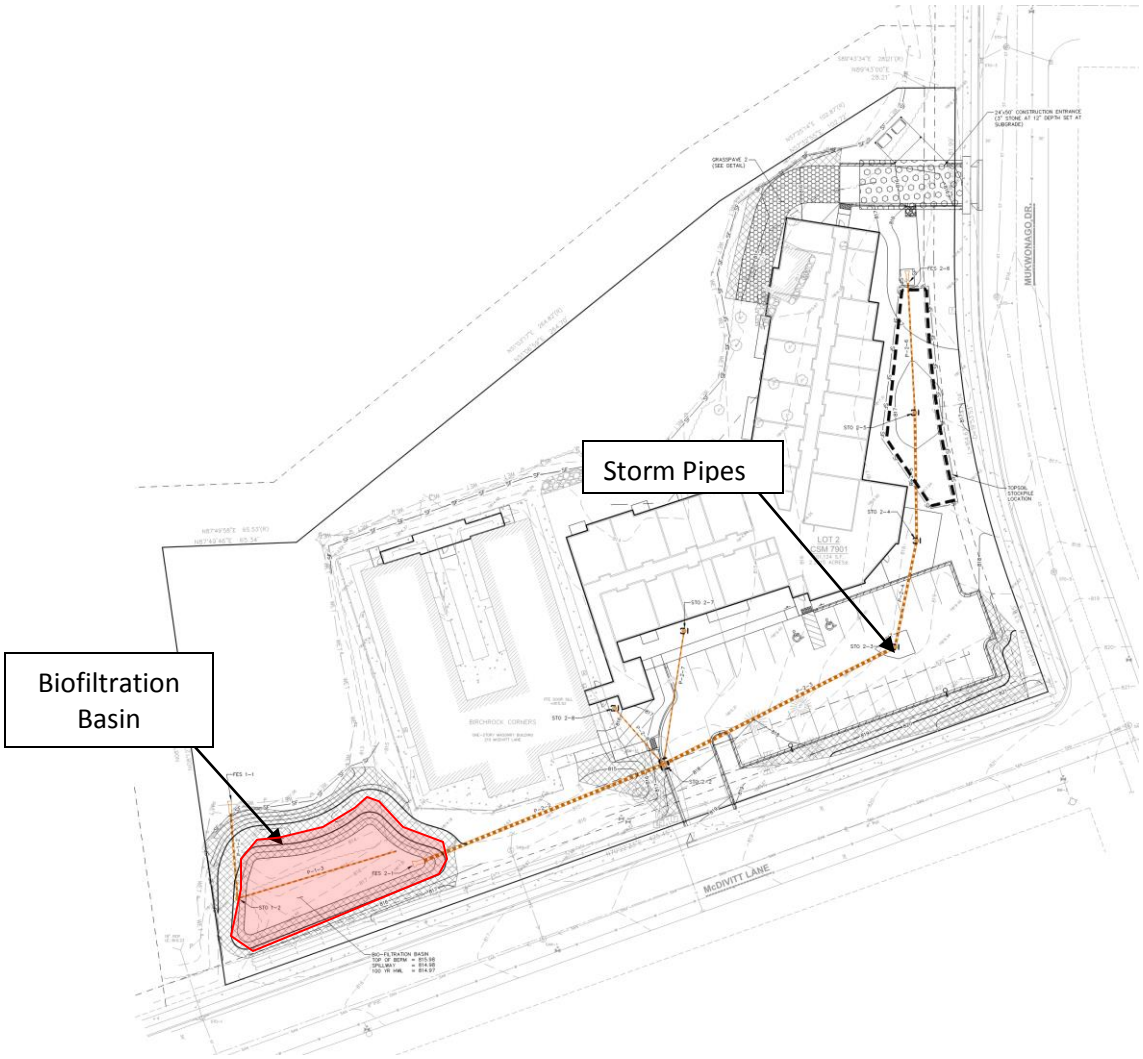


Exhibit C
Minimum Storm Water Practice Maintenance Requirements

This exhibit explains the basic function of each of the storm water practices listed in Exhibit B and prescribes the maintenance requirements beyond the minimum requirements in Exhibit D to remain compliant with this Agreement. The maintenance activities listed below are aimed to ensure these practices continue serving their intended functions in perpetuity. The list of activities is not all inclusive, but rather indicates the minimum type of maintenance that can be expected for this particular site. Access to the storm water practices for maintenance vehicles is shown in Exhibit B. Any failure of a storm water practice that is caused by a lack of maintenance will subject the Responsible Party to enforcement of the provisions of this Agreement by the City of Mukwonago.

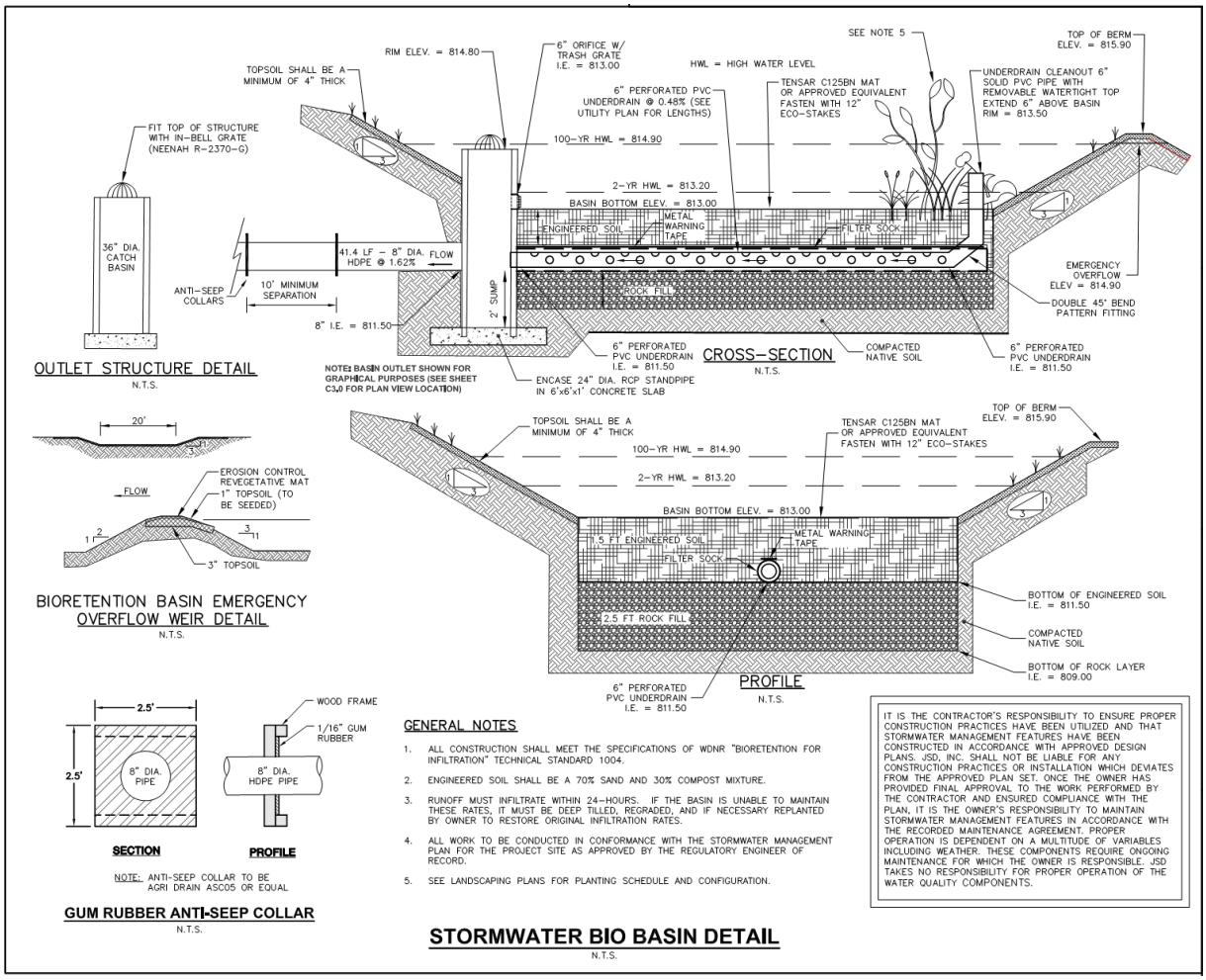


Exhibit D
Minimum Operation and Maintenance Requirements

BIOFILTRATION
OPERATIONS AND MAINTENANCE

I. ROUTINE MAINTENANCE

A. Inspection

1. Performance of the bioretention should be inspected monthly and after every major storm event, following the initial construction to evaluate if the basin is draining within the design time limits.
    a. Water plants should be watered as necessary the first year to establish plants.
2. If performance does not meet the design goals, complete repairs to the facility to meet the design requirements.
3. Following the initial year of monthly inspections, quarterly inspections of the facility should be made. Inspect the facility for:
    a. Differential settlement
    b. Cracking
    c. Erosion
    d. Leakage
    e. Tree and woody plant growth on the embankments and plant health
    f. Condition of the inlets and outlets and level spreaders
    g. Sediment accumulation
    h. Vigor and density of vegetation on the floor of the basin and buffer strips
    i. pH testing of the soil
    j. Observation wells and/or under drains

B. Mowing – Native Vegetation

1. During establishment of vegetation, the first mowing shall occur once it reaches a height of 10 to 12 inches.
2. Control woody plant invasion by mowing once a year. The vegetation height shall be 5 to 6 inches after mowing.
3. Mow once per year in the fall after November 1st.
4. Remove trash and debris at the time of mowing.

C. Erosion Control

1. Inspect quarterly for erosion. Inspection after major storm events for erosion problems is also recommended if practical
2. Repair all eroded areas immediately. Temporary erosion controls may be necessary to facilitate repairs.

D. Tilling

1. If the basin is located on marginally permeable soils, annual or semi-annual tilling may be needed to maintain infiltration capacity.
2. Tilled areas should be immediately re-vegetated to prevent erosion.

E. Pre-Treatment Systems

1. Maintenance of the pre-treatment system should include sediment removal, oil and grease skimming, and grass filter strip maintenance.
2. Inspect the structural elements of the pre-treatment system and repair if needed.

F. Mulch
1. Re-mulch void areas as needed.
2. Add additional mulch once per year.

II. NON-ROUTINE MAINTENANCE

A. Structural Maintenance
1. Inspect pipe systems quarterly.
2. Remove and replace pipe systems that have eroded or rusted.
3. Earthen structures should be inspected annually. Erosion should be repaired immediately upon discovery.

B. Restoration of Infiltration Capacity
1. Over time the original infiltration capacity of the basin will be diminished.
2. Deep tilling can be done to restore the infiltration capacity of the basin. The basin will be drained and the soils dried to a depth of 8 inches.
3. The top 2 to 3 inches of topsoil, chisel plowing, and adding topsoil and compost can be done.
4. The basin must be restored with native plantings.

C. Watering
1. Water plants need to be watered as necessary during the first growing season.
2. After the first growing season, water as necessary during dry periods.

STORM SEWER SYSTEM
OPERATIONS AND MAINTENANCE

I. INSPECTION

A. Frequency

a. Inspect catch basins, inlets and manholes at least once per year.
b. Inspect storm sewer end sections at least twice per year and after major rainfall events.

B. Inspection

a. Catch Basins, Inlets and Manholes
   i. Inspect for sediment deposition in the bottom of structures.
   ii. Check frames and lids for cracks and wear such as rocking lids or lids moved by traffic and for shifted frames.
   iii. Check chimneys for cracked mortar, cracked lift rings and spalling.
   iv. Check for leaks at joints.
   v. Check surrounding areas for pollutants such as leaks from dumpsters, minor spills and oil dumping.
b. Storm Sewer End sections
   i. Observe for obstructions, accumulation of sediment and trash, undermining and joint separation.
   ii. Inspect end treatment for settlement, scour and displaced armoring.

II. STANDARD MAINTENANCE

A. Catch Basins, Inlets and Manholes

a. Repair any deterioration threatening structural integrity immediately.
b. Replace worn or cracked frames and lids. Frames that have shifted should be re-centered and re-set on the structure.
c. Repair any spalled or cracked mortar. Cracked rings should be repaired or replaced.
d. Repair leaking joints.
e. Clean manhole and storm inlet inverts of deposited material. Catch basins should be cleaned before the sump is 40 percent full or every 2-years, whichever comes first.
f. Remove potential sources of contamination away from catch basins, inlets and manholes.

B. Storm Sewer End sections

a. End sections should be free flowing; trash, debris and obstructions should be removed to prevent backups.
b. End sections which have separated from the storm sewer pipe shall be reset on firm bedding and reconnected to the existing storm sewer pipe. Restrain joints if necessary.
c. Scour areas shall be repaired immediately. Replace missing soil with clean fill and replace/install end treatment. Missing armoring will require additional stone, typically one class larger.
d. Excessive material deposited at the storm sewer outfall is indicative of: a disturbed area upstream draining to the system or a potential failure of a system component. Disturbed areas draining to the system should be stabilized immediately or diverted to drain to a BMP. Potential system failures require non-standard maintenance.

III. NON-STANDARD MAINTENANCE

A. Non-standard maintenance includes inspection, repair or replacement of buried structures.

a. Televising of buried structures (pipes) should occur when excessive material is

found within the system or at an outfall with no apparent source area visible at the surface, or the system experiences frequent backups.

b. Follow the recommendations for the repair and/or replacement of system components televised by a firm specializing in this work.

April 20, 2021

Mr. John Fellows, Assoc. AIA, CPM, AICP
Village Planner
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Re: 210 McDivitt Lane
Resubmittal Review

Dear Mr. Fellows:

We have completed our review of the resubmittal for 210 McDivitt Lane. The documents that were sent to us were primarily architectural with one plan sheet from civil site plans that were approved in 2020. These documents were received in our office on April 15, 2021. We offer the following comments:

1. The civil site plan, storm water management plan (SWMP), and storm water maintenance agreement (SWMA) were approved in January 2020. The proposed changes to the site are minimal in nature and do not affect storm water management calculations and therefore, we do not see a need to revise the SWMP or SWMA that were already approved.

2. To our knowledge, the previously approved SWMA was never recorded. The SWMA must be recorded prior to construction beginning.

3. We are okay with the wetland setback variance that they are requesting given that the impervious area located within the setback lines is very minimal.

4. A new complete civil plan set should be sent to us for review showing update grades on the access drive and how it will blend into the wetlands as well as updated erosion control measures as applicable.

5. Since the access driveway that is being moved is composed of a permeable surface, it's proximity to the wetlands in regard to discharge of pollutants is not a concern since the drive acts as a filter strip anyway.

6. We are concerned about how the grades of the new location of the access drive will blend in with grades to the wetland. It was tight on the originally approved plans and it has now been moved several feet closer. If the slope remains steep, it will be impossible to grade the slope and stabilize it without filling or eroding the soils into the adjacent wetlands. A grading plan submittal would help clarify this concern. If the slope is steep, we recommend that the developer's engineer revised the grades, move the driveway, or request a wetland fill permit from the DNR as filling of the wetlands in this area is inevitable.

7. The previously approved erosion control plans show a double row of silt fence adjacent to the wetlands. Given the close proximity of the new driveway, we find it impossible to be able to trench in two rows of silt fence, construct the driveway, and stabilize steep side slope without impacting the wetlands and we are requesting more details regarding this before we approve of the layout change.

8. The developer will need to schedule a preconstruction meeting with the Village prior to any work occurring on the site, after staff approval has been received.

9. The developer will need to post a letter of credit for all storm water improvements, erosion control, and restoration on the site prior to construction beginning, after staff approval. The proposed letter of credit breakdown should be submitted to R&M for review and approval.

Please note that these plans appear to be for the purpose of submittal to the Planning Commission showing the planned change to what was originally approved. If the Planning Commission wishes to approve the change, we ask that their approval be contingent on our final review of a resubmitted full civil plan set showing all changes and additions, specifically how the new drive area will blend into the slopes to the wetlands, for compliance with the Village Ordinances and requirements of the Department Heads.

If you or any staff member should have any questions regarding this, please feel free to contact me at (262) 542-5733.

Respectfully,

RUEKERT & MIELKE, INC.

Peter W. Gesch, E.I.T.
Project Engineer
pgesch@ruekertmielke.com

PWG:pwg

cc: Diana Dykstra, Village of Mukwonago
Mark G. Blum, Village of Mukwonago
Bob Harley, Village of Mukwonago
Tim Rutenbeck, Village of Mukwonago
Dave Brown, Village of Mukwonago
Ron Bittner, Village of Mukwonago
Jerad J. Wegner, P.E., Ruekert & Mielke, Inc.

December 3, 2019

Mr. Ben Kohout
Village Planner
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Re: 210 McDivitt Lane RCAC Addn
Storm Water Review Comments

Dear Mr. Kohout:

We have reviewed the submittal for the proposed addition at 210 McDivitt Lane. A submittal package was sent to our office on November 7, 2019. The submittal contained a civil plan set dated November 7, 2019 and a Storm Water Management Plan, Storm Water Maintenance Agreement, Wetland Delineation and Existing Conditions Survey, all dated November 6, 2019. We offer the following comments:

1. A storm water maintenance agreement (SWMA) was submitted for review for this development. The SWMA shall follow the Village's standard format for maintenance agreements. Please resubmit a SWMA that follows the standard format. The template that is being sent as an attachment to the email in which this letter is being transmitted can be used. All applicable exhibits should be included.

2. A storm water management plan (SWMP) was submitted for review for this development. The SWMP contains all applicable sections as detailed in the Village Storm Water Ordinance. All performance standards detailed in the ordinance are being met. The site is exempt from infiltration due to soils with poor infiltration rates on-site. The performance standard for total suspended solids (TSS) for a new development site is 80% TSS reduction. The SWMP details a composite approach of the little bit of redevelopment on-site (40% TSS reduction performance standard) and the new development. This composite approach details a target removal rate of 72.8%. Per the submitted SWMP, the site will achieve nearly 75% TSS reduction. Due to site constraints (adjacent wetlands and existing building) we are satisfied with the composite approach outlined in the storm water management plan.

3. While phosphorus reduction is not a requirement of the Village's ordinance at this time, the Village requires that the phosphorus reduction results be submitted for their use in the SWMP and subsequently, in a water quality summary of the Design Summary exhibit of the SWMA.

4. The proposed development of impervious area is located within the 50-foot protective area of the adjacent delineated wetlands as defined by Village Ordinance Sect. 34-110(d)(4)a.4. Per the submitted SWMP, all of the new impervious area will not enter the wetlands without first being treated by the proposed biofilter on-site and meets the TSS reduction and peak discharge reduction performance standards set forth in the Village Ordinance. Therefore, the site meets the protective area exemption defined in Village Ordinance Sec 34-110(d)(4)c.3. **Please include a narrative in the SWMP discussing this.**

5. Sheet C4.0 – The two storm inlets within Mukwonago Drive, just north of the proposed tracking pad should have inlet protection.

6. Sheet C4.0 – The construction of the building should be added into the "Construction Sequencing" notes.

7. Sheet C4.0 – The final note of the “Construction Sequencing” states that the contractor can modify the sequence after Item No. 1 as needed as long as erosion controls are maintained. The sediment basin is one of those erosion control measures that must be maintained, but is not listed to be constructed in the sequence until Item No. 4. The final note or the sequence should be modified such that it is clear that the sediment basin should be constructed prior to site grading and building construction and that that part of the sequence may not be modified. The final note should also state that modifications to the construction sequence require submittal to and approval by the Village of Mukwonago.

8. Sheet C4.0 – The outfall structures should have ditch checks on the downstream side as added protection prior to discharging into the wetland areas.

9. Sheet C4.0 – Type of inlet protection should be called out on each inlet such that it is evident which type of protection is intended to be installed at each location.

10. What year storm event was the storm sewer on-site modeled for? If the storm sewer was not designed to carry the 100-year storm event, it appears that there may be several complications during large storm events that cause structures to become inundated, due to grades on-site. Comments that follow, shed more light on this.

11. Sheet C5.0 – What is the discharge elevation of FES 1-1 and how does it relate to the HWL of the adjacent wetlands? Was any tailwater taken into account and modeled in the storm sewer calculations to ensure that during peak flows and water levels in the wetlands, the biofilter and storm sewer on-site will not be affected?

12. Sheet C5.0 – At storm structure STO 2-4, the rim elevation is 817.17. If this structure becomes clogged, blocked, or overwhelmed, it appears that the adjacent elevation of relief is 817.35. Elevation 817.35 is also the adjacent building corner grade. Other adjacent elevations of relief to the overland flow path are 817.44, which is subsequently also the elevation of another adjacent building corner. The FFE of the building is at an elevation of 817.52. Ideally, there should be at least 6-inches of freeboard between any occupied structure or electrical pedestal and the highest water level, and it appears that this will not be achieved at this location.

13. Sheet C5.0 – At storm structure STO 2-7 the sidewalk adjacent to the parking lot is located nearly 2-feet higher at 818.50 than the structure’s rim elevation at 816.67. If this structure becomes clogged, blocked, or overwhelmed, it appears that the adjacent elevation of relief is through the building with a FFE of 817.52. Again, there does not appear to be 6-inches of freeboard between the building and the highest water level and the building will become flooded.

14. Sheet C5.0 – At storm structure STO 2-8, the rim elevation is 815.40. If this structure becomes clogged, blocked, or overwhelmed, the highest elevation that overland flow must overcome, away from the building, is 816.20. It appears that the adjacent elevation of relief is through the building at an elevation of 815.52. The overland flow route should not be through any occupied structure.

15. Sheet C5.0 – At storm structure STO 2-2, the rim elevation is 817.25. Assuming that this grade is the flange elevation, the back of curb, which also happens to be the elevation that must be overcome for the overland flow route, would be at an elevation of 817.69. If this structure becomes clogged, blocked, or overwhelmed, it appears that the overland flow route will flow down the handicap ramp and sidewalk before gaining relief.

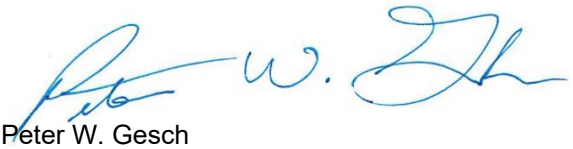
16. Sheet C5.0 – There appears to be high point in the parking lot along the overland flow path of 817.90. Assuming that the elevation at the far northeast corner of the parking lot, along the overland flow path in that direction is the flange elevation, the elevation of relief that that location is 817.79. It is recommended adjusting the high point in the parking lot to provide a greater flow of relief to the west if the parking lot around storm structure STO 2-3 should flood. In the event that water cannot escape at the exact northeast corner of the parking lot, water may begin to overtop the curb near the ADA accessible parking stalls which would result in flows towards the building.

17. Sheet C5.0 – Is storm structure STO 3-2 capable of capturing and conveying all flows within the existing building courtyard? If this structure becomes clogged or inundated, at what elevation will storm water pond within the courtyard? There does not appear to be any overland relief for this area, and it's pertinent that the addition of the building connector does not cause the courtyard to trap storm water resulting in building flooding. Does the tailwater in the adjacent wetland affect flow through this storm pipe?

If you or any staff member should have any questions regarding this, please feel free to contact me at (262) 542-5733.

Respectfully,

RUEKERT & MIELKE, INC.



Peter W. Gesch
Project Engineer
pgesch@ruekertmielke.com

PWG:pwg

cc: John Weidl, Village of Mukwonago
Diana Dkystra, Village of Mukwonago
Bob Harley, Village of Mukwonago
Mark G. Blum, Village of Mukwonago
Dave Brown, Village of Mukwonago
Ron Bittner, Village of Mukwonago
Chief Jeff Stien, Village of Mukwonago
Chief Kevin Schmidt, Village of Mukwonago
David Roberts, P.E., JSD Professional Services, Inc.
Kris Kiefer, RN, Castle Senior Living
Jerad J. Wegner, P.E., Ruekert & Mielke, Inc.

RESOLUTION 2021-36

CONDITIONAL USE FOR PLANNED UNIT OVERLAY DISTRICT (PUD) FOR BIRCHROCK PROPERTIES, LLC; 210 MCDIVITT LN; PARCEL MUKV 2012-215-002; BIRCHROCK PROPERTIES, LLC

WHEREAS, BIRCHROCK PROPERTIES, LLC (hereinafter "property owner") owns the property identified as 210 McDivitt LN (hereinafter "subject property") in the Village of Mukwonago, more particularly described as follows:

LOT 2 CERT SURV 7901 VOL 68/140 REC AS DOC# 2089198 OUTLOT 1 MUKWONAGO ESTATES EAST PT SE1/4 SEC 35 T5N R18E :: DOC# 4331918

WHEREAS, upon receipt of the petition submitted by the property owner and future purchaser, the Village Clerk properly referred such petition to the Plan Commission; and

WHEREAS, allowing for required public notice, the Plan Commission conducted a public hearing on May 11, 2021 to consider the petitioner's request; and

WHEREAS, members of the public in attendance were given ample opportunity to provide comment regarding the petitioner's request; and

Return to:
Diana Dykstra, Clerk-Treasurer
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Parcel Number: MUKV 2012-215-002

WHEREAS, the Plan Commission passed a motion recommending to the Village Board that the conditional use be approved subject to certain conditions; and

WHEREAS, pursuant to Section 100-53 of the Zoning Code, an application for a Conditional Use Permit has been filed to approve a site plan and architectural review as a conditional use for planned unit overlay district (PUD) for property located at 210 McDivitt Ln; Parcel MUKV 2012-215-002; Birchrock Properties, LLC; Applicant, and

WHEREAS, the existing parking surface area being removed, and a new parking lot being situated along the southern portion of the property. The new single-story structure is being positioned to the East of the existing structure and being connected with a walkway. There is also a proposed new walkway at the terminus and north end of the existing structure, to connect the hallways with a corridor; and

WHEREAS, applicant submitted application and plans to take existing parking surface area being removed, and a new parking lot being situated along the southern portion of the property; and

WHEREAS, Section 100-53 allows modifications to certain standards of the Zoning Code and other Municipal Code requirements as a Planned Unit Development Overlay approved as a Conditional Use; and

WHEREAS, Section 100-53 requires with submittal of a request for modifications as a Planned Unit Development that a General Development Plan be approved prior to submittal of final and detailed development construction plans; and

WHEREAS, the Village Board grans modifications to the zoning code as follows:

1. Modification to the R-10 Zoning standards as follows:
2. The rear yard building setback shall be permitted to be amended from the required 40 feet to the shown 24.4 feet,
3. The parking lot setback standards, shall be amended from the required 20 feet to the shown 15 feet with landscaping between the surface and the roadway, and
4. The total amount of impervious coverage shall be permitted to be amended from the required 40% to the proposed percentage of 52%, as calculated, and
5. As shown on the plans submitted by the applicants dated December 12, 2019 and February 6, 2020.

WHEREAS, the Board of Building and Zoning Appeals, on January 30, 2020, approved the following:

a. Variance of 18.2 feet to allow a proposed pervious concrete drive to be 1.8 feet from the mapped wetland.
b. Variance of 17.5 feet to allow a proposed concrete pad to house a dumpster enclosure to be 2.5 feet from the mapped wetland.
c. Variance of 6.7 feet to allow a proposed building addition to be 13.3 feet from the mapped wetland, instead of the required 20-foot setback from a mapped an delineated wetland, pursuant to Section 100-283(f)(1)a. of the Village of Mukwonago Municipal Code.

WHEREAS, the Board of Building and Zoning Appeals, on May 27, 2021, approved the following:

a. Variance of 11 feet to allow a proposed building addition to be 9 feet from the mapped wetland, instead of the required 20-foot setback from a mapped an delineated wetland, pursuant to Section 100-283(f)(1)a. of the Village of Mukwonago Municipal Code

WHEREAS, the request for site plan and architectural review as a conditional use for planned unit overlay district (PUD) or property located at 210 McDivitt Ln; Parcel MUKV 2012-215-002; Birchrock Properties, LLC as submitted has been reviewed and recommended by the Village Plan Commission on May 11, 2021;

NOW, THEREFORE, BE IT RESOLVED by the Village Board of the Village of Mukwonago, Wisconsin hereby approves the Conditional Use Permit for a planned unit overlay district (PUD), for a property located at 210 McDivitt Ln; Parcel MUKV 2012-215-002; Birchrock Properties, LLC; Applicant, subject to the following conditions:

WHEREAS, the Plan Commission, in passing on the matter, has made the following determinations consistent with Section 100-354 of Mukwonago's zoning regulations:

1. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.

2. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.

3. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.

4. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.

5. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

In addition, the property owner and future purchaser has shown compliance with the requirements set forth in the Village's zoning regulations for the specified use.

WHEREAS, the Village Board has carefully reviewed the recommendation of the Plan Commission and concurs with the Plan Commission's findings set forth above, provided the conditional use is operated pursuant to the conditions of approval set forth in this order.

NOW THEREFORE, IT IS HEREBY DETERMINED AND ORDERED AS FOLLOWS:

1. **Authorized uses**. Subject to the terms and conditions of this approval and the sections of the zoning code that apply, the property owner is authorized to operate a secondhand store as set forth herein and as specified in the Village's zoning code.

2. **Issuance of permit required**. The zoning administrator is authorized to issue the property owner a conditional use permit when all conditions enumerated in section 3 have been satisfied to his or her satisfaction. Such permit is the last approval before the property owner/tenant can begin to establish the use as authorized herein.

3. **Initial conditions of approval.** The following conditions shall be satisfied prior to the issuance of the conditional use permit:

a. The property owner must accept the terms and conditions of this conditional use order in its entirety in writing within 6 months of the date of this decision. Prior to such expiration, the property owner may request an extension to this time period and the Village Clerk may approve an extension with good cause.

b. This order must be recorded against the subject property in the Waukesha County register of deeds office (only if subsections 3(a) through 3(b) have been satisfied).

In the event the requirements enumerated in subsections 3(a) and 3(b) above are not satisfied, this order shall automatically be null and void without any further action by the Village of Mukwonago on the aforementioned date.

4. **Ongoing conditions of approval**. The following conditions shall constitute an ongoing obligation:

a. The authorized use shall not be conducted in such a way so as to exceed on-site parking.
b. The authorized use shall not be conducted in such a way so as to violate fire-related building capacity standards established by the local fire department or the state of Wisconsin.
c. The authorized use shall not be conducted in such a way so as to constitute a public or private nuisance as determined by the Plan Commission.
d. Potable water and sanitation must be provided and maintained.
e. The Plan Commission may unilaterally amend an approved site plan/plan of operation by revising existing provisions or adding new provisions. Such amendment shall be limited in scope to address negative impacts the use is having on surrounding properties and/or the public health, safety, and welfare.

f. The use of the subject property shall at all times be in compliance with all applicable laws, rules, regulations or orders, and ordinances of the federal government, State of Wisconsin, Waukesha County, and Village of Mukwonago.
g. All buildings on the subject property shall comply with all applicable building requirements as may be adopted by the Village of Mukwonago or the state of Wisconsin.
h. The subject property must be in a clean and neat appearance as determined by the Plan Commission.
i. The property owner shall obtain and maintain all licenses for the operation of this facility, as may be required by the Village or the State of Wisconsin.
j. Modification to the R-10 Zoning standards as follows:
    i. The rear yard building setback shall be permitted to be amended from the required 40 feet to the shown 24.4 feet,
    ii. The parking lot setback standards, shall be amended from the required 20 feet to the shown 15 feet with landscaping between the surface and the roadway, and
    iii. The total amount of impervious coverage shall be permitted to be amended from the required 40% to the proposed percentage of 52%, as calculated, and
    iv. As shown on the plans submitted by the applicants dated December 12, 2019 and February 6, 2020.
k. Site Plan and Architectural Review approval for the new single story 20 unit RCAC structure and associated parking lot, building additions, storm water pond, shall be subject to all plans and information submitted for the application by the applicant, Castle Senior Living, and dated February 6, 2020, and February 28, 2020 with all plans and information on file in the office of the Zoning Administrator. The plans may be further modified to conform to other conditions of approval; the building and floor plans may be modified with the approval of the Zoning Administrator and Supervisor of Inspections to conform to the Building and Fire Safety Codes and all plans may be further modified to conform to Village design standards. However, the basic layout and design of the site shall remain unchanged. The existing building shall be remodeled on the exterior subject to the plans and information submitted for the applications by the applicant, Castle Senior Living, and Dated February 5, 2021.
l. Approval shall be valid for one (1) year from date of approval by the Village Board and will be unique to the applicant and this proposal only.
m. Prior to the start of any site construction or issuance of a building permit, whichever occurs first, the following shall occur:
    1. All final site development plans shall be consistent with the plans noted in Condition No 1 and all calculations verified or as modified.
    2. Approval of the site construction and building plans by the Fire Chief, which may include, but are not limited to, Knox box and notification requirements, internal fire suppression, external fire department connection location and hydrant locations.
    3. Approval of building plans by the Building Inspector after receipt of approval of building plans by the State of Wisconsin.
    4. The Village Engineer, the Utilities Director and the Public Works Director shall approve all updated revised site engineering and utility plans and documents, including a complete Erosion Control Plan, and Stormwater Management Plan. Items specified in the letter from the Village Engineer dated January 6, 2020 and April 20,2021 and any further review comments shall be satisfied with the consent of the Village Engineer prior to permit issuance.
    5. The issuance of this permit is contingent upon the approval of a storm water management plan and storm water maintenance agreement by the Village Board.

6. Approval of building plans shall include appropriate locations of the external mechanical equipment (if applicable) to be placed hidden from view from neighboring properties, as approved by the Zoning Administrator.
7. Approval of dumpster construction plan specification showing block construction and shielded metal gates to ensure the Zoning standards are met, as approved by the Zoning Administrator.
8. A pre-construction meeting shall occur with Village Staff to ensure all applicable items mentioned above have been remedied.

n. Prior to temporary occupancy issuance, and if needed prior to final occupancy permit, the following shall occur:
1. Completion of all site grading in accordance with submitted and approved plans.
2. Completion of the storm water management basin for the overall development.
3. Completion of the building and additions in accordance with approved plans and all applicable codes.
4. Completion of paving of driveways and parking lots, including parking signage, space pavement markings and all other pavement markings.

5. Prior to final occupancy permit, which shall be issued no later than 120 days after any temporary occupancy permit, the following shall occur:
6. Completion of all items required in Condition No 7.
7. Installation of all Zoning Administrator approved site landscaping as shown on approved plans.

5. **Expansion or changes.** The conditional use hereby authorized shall be confined to the subject property without extension or expansion. Any expansion or change in use shall require issuance of a new conditional use approval pursuant to the requirements in effect at the time of application.

6. **Modification of property boundary lines**. The property owner shall not change the size and/or shape of the subject property by any means without the approval of the Village Board. If the Village Board determines that a proposed change is substantial with regard to the overall size of the parcel and/or configuration, such change shall require issuance of a new conditional use approval pursuant to the requirements in effect at the time of application.

7. **Plans and related matters**. Unless otherwise expressly stated herein, plans that are specifically required by this conditional use order may be amended upon the prior approval of the Plan Commission if the Plan Commission finds the amendment to be minor and consistent with the conditional use order and permit. Any change in any plan that the Plan Commission feels, in its sole discretion to be substantial, shall require a new conditional use approval and all procedures in place at the time must be followed.

8. **Inspection**. The property owner shall allow Village of Mukwonago staff, officials, and other authorized agents to inspect the subject property, at any reasonable time and for any proper purpose related to compliance with this conditional use order.

9. **Discontinuance**. Should the conditional use be discontinued in use for 365 consecutive days the use shall be terminated as set forth in the Village of Mukwonago's zoning regulations.

10. **Private rights**. This approval is given under the Village of Mukwonago's zoning regulations and is not to be interpreted to abrogate any private rights other property owners may have pursuant to deed restrictions or restrictive covenants.

11. **Interpretation**. If any aspect of this conditional use order is in conflict with any other aspect of the conditional use order, the more restrictive provisions shall be controlling, as determined by the Plan Commission.

12. **Other permits**. This order shall not be deemed to constitute a building permit, or constitute any other license or permit required by Village ordinance, or other local, state, or federal law.

13. **Severability**. In the event a court of competent jurisdiction determines that a paragraph or phrase of this conditional use order is unlawful, illegal, or unconstitutional, said determination as to the particular phrase or paragraph shall not void the rest of the conditional use order and the remainder shall continue in full force and effect.

14. **Heirs, successors, and assigns**. This conditional use order shall be binding upon the property owner and their heirs, successors, and assigns. Upon a change in ownership, the property owner shall notify the Village Clerk.

15. **Ongoing review**. This conditional use may be reviewed by the Plan Commission with notice to the property owner at any time upon complaint or upon Plan Commission initiative. If it is determined that the authorized use is no longer compatible, or that the provisions of this approval have not been complied with, the Village Board may revoke or amend this order after recommendation by the Plan Commission and holding of a public hearing.

16. **Amendment**. The property owner may propose an amendment to this conditional use order at anytime by submitting a written petition to the Village Clerk, which shall be reviewed pursuant to the requirements in effect at the time of application.

17. **Violation**. Any violation of this order may be treated as a violation of Mukwonago's zoning regulations and each day of each violation of each condition herein shall be treated as a separate violation.

Approved this 19th day of May, 2021

BY THE VILLAGE BOARD OF THE VILLAGE OF MUKWONAGO

_____

Fred H. Winchowky, Village President

Attest:

_____

Diana Dykstra, Village Clerk-Treasurer

STATE OF WISCONSIN, WAUKESHA/WALWORTH COUNTY

Personally came before me this ____ day of _____ 2021, the persons described above, Fred Winchowky, Village President, and Diana Dykstra, Village Clerk, to me known to be the persons who executed the foregoing instrument and to me known to be such Village President and Village Clerk of the Village of Mukwonago and acknowledged that they executed the foregoing instrument as such officers of said municipal corporation by its authority and pursuant to the authorization by the Village Board from their meeting on the 19th day of May, 2021.

_____
NOTARY PUBLIC

_____
My Commission Expires:

The remainder of this page left intentionally blank

Acceptance by Property Owner

I, Kristopher Kiefer verify that I am an authorized agent for **Birchrock Properties, LLC** accepts the terms stated herein.

Dated this _____ day of _____, 2021

_____
Kristopher Kiefer, agent

STATE OF WISCONSIN, WAUKESHA/WALWORTH COUNTY

Personally, came before me this ____ day of _____, 2021, the above-named person, Kristopher Kiefer to me known to be the person who executed the foregoing instrument and acknowledged the same.

_____
NOTARY PUBLIC

_____
My Commission Expires:

Drafted by John S. Fellows, AICP, Planner, at the direction of the Mukwonago Village Board.

RESOLUTION 2021- 37

RESOLUTION APPROVING SITE PLAN AND ARCHITECTURAL REVIEW FOR BIRCHROCK PROPERTIES, LLC; 210 MCDIVITT LN; PARCEL MUKV 2012-215-002 THE VILLAGE OF MUKWONAGO

WHEREAS, pursuant to Section 100-601, and 100-153 of the Zoning Code, an application for a site plan and architectural review has been filed for the approval for multifamily structures, which application was filed in the office of the Village Clerk, Village of Mukwonago, Wisconsin, and

WHEREAS, the application has been submitted by the VILLAGE OF MUKWONAGO

WHEREAS, RCAC are within the R-10 Multi-Family Residential District in which the subject property is located, and

WHEREAS, the plan of operation and plans have been reviewed and recommended by the Village Plan Commission.

NOW, THEREFORE, BE IT RESOLVED by the Village Board of the Village of Mukwonago, Wisconsin hereby approves the site plan and architectural review for structures at 210 McDivitt Ln, based upon the plan of operation and plans submitted to the Village.

NOW, THEREFORE, BE IT FURTHER RESOLVED this site plan and architectural review approval shall be subject to the following conditions:

1. Prior to any land disturbing activity, the applicant must submit a complete and final set of plans to the Village planner. All Village department heads must verify in writing whether they have approved the final plans within their purview. Any outstanding matters must be resolved to staff's satisfaction.
2. Prior to any land-disturbing activity, a pre-construction meeting must be held with the applicant's representatives and primary contractors, and Village department heads and representatives.
3. Prior to any land-disturbing activity, the applicant must reimburse the Village for any outstanding charges and establish an escrow account with the Village as may be required.
4. The applicant must obtain all required building permits within nine months of this date, and start construction within six months of the date of building permit issuance and continue in good faith to completion.
5. All work related to this project must comply with all project plans approved by the Village.
6. The developer must comply with all requirements related to impact fees imposed by the Village.
7. The developer shall comply with all parts of the Municipal Code as it relates to this project.

8. The developer shall comply with comments from Ruekert-Mielke letters regarding stormwater and utilities as well as comment regarding future reviews.
9. A tree survey is required prior to any disturbance on the property. Such plan shall be reviewed and approved by the Director of Public Works.
10. A stormwater management maintenance agreement shall be prepared and executed prior to any disturbance of land. A copy of the recorded document shall be provided to the Village.
11. If the approved plans need to be revised to address any of the conditions of approval or to conform to Building and Fire Safety Codes, the Zoning Administrator and the Supervisor of Inspections are authorized to approve minor modifications so long as the overall project elements remain unchanged. If they determine that the revision is substantial, the plans must be submitted to the Plan Commission for review and approval.
12. Plans must allow for a WB-50 vehicle to access the site as required by the fire department.
13. A dedicated hydrant for FDC and suppression system must be provided as required by the fire department.
14. All lighting within the parking lot and building lighting shall be full cut of lighting and meet municipal standards. Building lighting shall not direct light or the appearance of light towards adjoining properties. The Police Department or Zoning Administrator, after completion or any modification to the lighting in the future, may request adjustments.
15. The applicant applies for and receiving approval for all new signage.
16. Trash dumpster enclosure shall be constructed per village standards and plans submitted.
17. Landscaping Plans shall be updated:
    a. The R-10 zoning code requires 1 shade or evergreen tree per unit on the property. The plans submitted in 2019 indicating 36 such trees. The total number of units on the property is 40. McDivitt Ln shall have an additional 4 trees planted to line the right of way similar to those on Mukwonago Drive.
18. Any future modification to the site such as modification of parking, lighting, grading, retaining walls, fences, etc. shall require Site Plan and Architectural Review.

NOW, THEREFORE, BE IT FURTHER RESOLVED the applicant, upon the approval of this site plan and architectural review shall agree to accept the same in writing.

Passed and dated this 19st day of May 2021.

VILLAGE OF MUKWONAGO

By: _____
Fred Winchowky, Village President

Attest: _____
Diana Dykstra, Village Clerk-Treasurer

PLANNING COMMISSION

May 11, 2021 at 6:30pm
Mukwonago, WI

SITE PLAN AND ARCHITECTURAL REVIEW AND CONDITIONAL USE PERMIT

301 Main Street
Parcel Number: MUKV1976128

Case Summary

Parcel Data

Proposal:	Coffee shop and Drive-Thru (1st floor), two apartments (2nd floor)
Applicant:	David A. and Tracy A. Stockwell Espresso Love Coffee
Request:	Site Plan and Architectural Review Conditional Use Permit for a restaurant with drive thru and Apartments
Staff Recommendation:	Approve with Conditions

Parcel Characteristics / Conditions

Acreage:	0.3806
Current Use:	Abandoned Gas Station
Proposed Use:	Mixed use commercial/apartments
Reason for Request:	New Construction
Land Use Classification:	Low Intensity Commercial / Business with Village Center Overlay
Zoning Classification:	B-2 General Business District / Village Center Retail Center Overlay District
Census Tract:	2039.01

Public Notice

A public hearing notice was published two times in the Waukesha Freeman, and letters were mailed to surrounding property owners. Public comment as of this date, staff has not received any comments or other communications regarding this proposal.

Site Plan and Architectural Review Request

Architectural/ Site Review

Express Love Coffee is proposing a two-story structure located at the intersection of Main Street and Henry Street. The first floor will be a retail space with drive thru window, while the second floor will contain two 2-bedroom apartments.

The building architecture is designed to blend in with the historical charter of the area with a transitional storefront on the first floor wrapping onto the side elevations. The main feature of the storefront will be windows with a transom detail and a sign band located above the windows and doors. The main entry will have a vestibule. The primary material of the building is vertical siding.

The second story will feature clapboard style siding. The window fenestration patters of the second-floor use groupings of single, double, and triple double hung windows with a four over one pattern. The building will feature a cornice detail with a slight gable highlighting the main façade. The Cornice will wrap onto the side elevations and end at a point of alignment of the end of the storefront design.

The rear of the building will continue the same building materials and will have an open parapet design.

Site Modifications

The site design will position the building in the northeast corner of the property near the intersection. Allowing the building to "hold" the corner and provide for contextual site design with the surrounding downtown development patterns. The site design will also provide for a 12-foot patio along Main Street and a smaller 5ft patio on Henry which will allow for outdoor dining adjacent to the street but one private property. This outdoor dining area will allow for active uses on the street. This patio will be scored concrete. The site will be organized with a one-way circulation flow for the parking lot from Henry Street to Main Street. In addition, the drive through will have a one-way pattern that will have the entry on Henry and the exit on Main. The Drive thru will accommodate approximately three spaces for cars in queue. The drive through will be separated from the parking area with a landscaped island.

Building Materials are proposed to be LB Smart side. The first floor will be painted in Summit Blue, the second floor Rapid Blue, and the trim Snowscape White. The windows will be 1" clear insulated glass with black anodized windows and door frames.

Utilities	All Utilities will be underground, sewer and water are available. Final plans will be required to be submitted, reviewed and approved prior to building permitting.
Stormwater Management	Stormwater plans have been submitted and reviewed by the Engineer. Revised plans prior to construction will need to be approved prior to building permitting.
Wetlands	None
Signage	Will be reviewed by staff per ordinance. Signage on plans is for illustrative purposes and has not been reviewed for compliance.
Parking Lot and Drives	The site provides 24 parking spaces. The Driveway on to Henry Street is currently show as 31 feet wide. The maximum allowed width is 24 feet. The exists onto main street are 19 and 20 feet meeting the standards of the code. The Henry Street driveway will need to be modified to 24 feet to meet village standards. Staff recommends these revisions occur prior to submission of any permits, Revisions will be required to be reviewed and approved by Fire, Public Works, Engineering, and Planning. An agreement will need to be executed by the village board to create an easement for six parking spaces of public parking. This agreement will need to be prepared, approved, and executed following approval of a Conditional use and Site plan and architectural approval. The agreement must be completed and recorded prior to any permits being issued.
Landscaping	The applicant has provided a landscaping plan showing two ornamental trees and a variety of shrubs and perennials (day lilies). The commercial district required 1 tree per 20 ft of street frontage. This calculation requires 12 trees for the development. Staff recommends that two additional trees be planted on site within the panting islands adjacent to main street. Such shade trees shall have a columnar upright pattern to allow for visibility under the trees for turning movements out of the drives. In addition, staff recommends one additional shade tree to be planted at the rear of the building between the drive and the sidewalk. This will bring the total number of on-site trees to five. Staff recommends that the additional seven trees be planted within the right of way of Henry and Main. Staff also request modification of the landscaping plan along Main Street to provide for better screening year round while being maintained no higher than three feet in height from the pavement surface. A revised landscaping plan will be required to be submitted and plans reviewed and approved by the Director of Public Works and Community Planner.

Trash Enclosure	A trash enclosure is proposed within the site plan. Details with regard to the trash enclosure have not been provided at this time. Staff recommends that the trash enclosure be reviewed and approved by the village planner prior to permitting. The enclosure shall meet the requirements of section 100-152 (g). Since the building is not proposed to have masonry staff recommends that the enclosure have an standard brick veneer for the outward facing walls of the structure.
Fencing	The west and south property lines are proposed to have a fence. The applicant intends to keep the exiting fence. The fence is currently in disrepair. Staff recommends this fence be repaired and maintained and recommends that both sides of the fence be stained a natural color to allow for existing and new wood to blend together.
Outdoor Lighting	The applicant is proposing two poles with a total of three lighting fixtures. The applicant has asked staff to provide the preferred type of ornamental lighting the village would like. Staff has evaluated the site conditions and at this time there currently are no ornamental lighting – both private or public that is visible from this location. Until a standard has been decided upon for the Village Center area staff recommend that a simple pole and thin LED fixture should be provided as to not attract attention away from the building and blend away. Staff recommends that the poles be as short as possible to minimize lighting concerns. Staff recommends that all lighting specifications and plans be submitted, reviewed, and approved prior to permitting.
Misc. Performance Standards	None
Ordinance Exceptions Requested:	Building Materials: The base zoning district requires that 25% of the building facades facing a public street to be brick. The Village Center Overlay District referenced the base district however the overlay district states: "However, the plan commission may adopt architectural design guidelines to further implement the intent and purposes of the Village center overlay zoning district and its sub-districts, which may be amended from time to time." However, the Village has not yet adopted architectural guidelines. In absence of guidelines the intent of the district is to accommodate pedestrian orated retails business … recognize the unique character of the village center, … and further intended to supersede the standards of the base zoning district that is unique to the Village Center. Because Main Street and most of the Village Center has wood framed structures it is staff's recommendation that the Planning Commission allow for 0% of masonry to allow for this building to blend into the unique context of the Village Center area. Parking Lot (Driveways) Section 100-403 (3) b. states that a maximum of two driveways are permitted unless planning commission approval is received. The applicant has one entry off Henry and two exists on to Main the Planning Commission will have to grant approval of a third

access point. Staff recommends Planning Commission grant approval for a third drive.

Staff Review

Engineering	Approve with Conditions – See attached letters. Final plans for Stormwater, Water, Sewer, Hydrants, and erosion control must be submitted, reviewed, and approved by the Village Engineer prior to submission of any building permits.
Public Works	No Comment
Utilities	The existing water serviced they are using was a new 1¼" HPDE water service into the property line about 4 years ago and is good to use. The sanitary sewer lateral will have to be supplied to Utilities to prove its condition before it can be reused. Any utilities not being reused will have to be capped at main.
Police	It appear there will be one-way traffic, entering only off Henry street and exiting only on main street. They probably are planning on it, but I did not see anything on the plans, they will need entrance only/exit only signs at the entrance and exit. I would recommend a sign on each side of the drive, facing the street. Two entrance only signs at Henry Street and two exit only signs at Main Street. They should also have exit only signs at the drive through exit on Main Street.
Fire	Need WB-50 template run. State to determine if suppression is needed by occupancy number. KNOX Box.
Building Inspection	No Comment
Planning	1. The Henry Street driveway will need to be modified to 24 feet to meet village standards. Staff recommends these revisions occur prior to submission of any permits, Revisions will be required to be reviewed and approved by Fire, Public Works, Engineering, and Planning. 2. An agreement will need to be executed by the village board to create an easement for six parking spaces of public parking. This agreement will need to be prepared, approved, and executed following approval of a Conditional Use and site plan and architectural approval. The agreement must be completed and recorded prior to any permits being issued. 3. Two additional trees be planted on site within the panting islands adjacent to main street. Such shade trees shall have a columnar upright pattern to allow for visibility under the trees for turning movements out of the drives. In addition, one additional shade tree to be planted at the rear of the building between the drive and the sidewalk. This will bring the total number of on-site trees to five. The additional seven trees be planted within the right of way of Henry and Main. A revised landscaping plan will be required to be submitted and plans reviewed and approved by the Director of Public Works and Community Planner. 4. Revisions to the landscaping plan along Main Street shall occur to provide for better screening year round while being maintained no higher than three feet in height from the pavement surface. A revised landscaping plan will be required to be submitted and plans reviewed and approved by the Director of Public Works and Community Planner.

5. Details with regard to the trash enclosure shall be provided prior to submission of permits. The enclosure shall meet the requirements of section 100-152 (g). Since the building is not proposed to have masonry staff the enclosure shall have an standard brick veneer for the outward facing walls of the structure.

6.. The exiting fence shall be repaired and maintained and both sides of the fence shall be stained a natural color to allow for existing and new wood to blend together.

7. Staff recommends that the poles be as short as possible to minimize lighting concerns. Staff recommend that the finish of the poles and lights be black or other dark color. Staff recommends that all lighting specifications and plans be submitted, reviewed, and approved prior to permitting.

8. Staff recommends a bike rack be provided along the grassy area along Henry Street.

9. Staff's recommendation that the Planning Commission allow for 0% of masonry to allow for this building to blend into the unique context of the Village Center area.

10. Staff recommends Planning Commission grant approval for a third drive.

Conditional Use Request

Plan of Operation

Espresso Love Coffee (ELC} plans to operate on the first floor or 301 Main Street, Mukwonago, WI, 53149, beginning in December of 2021. ELC will maintain similar operation to its current location - the sale of coffee, coffee related drinks, bakery, breakfast and lunch food items, and small gift items (ex. coffee mugs; t-shirts; books from local authors; etc ....) The coffee shop is a cafe-style business model, where people come to meet or work. It is our intent to have the following hours of operation - Mondays-Fridays, 5 a.m. - 5 p.m. and 6 a.m. - 4 p.m. on weekends. Our plan is to operate the drive through within the scope of those hours. The second floor of 301 Main Street will contain two, one-bedroom apartments (one 860 square feet; one 770 square feet.) The site provides twenty-four parking spaces. ELG has an agreement that the Village of Mukwonago has a parking easement of six parking spaces.

Harmony with Village policies, ordinances, and programs

This is an existing business that is moving from 105 N. Rochester Street. The new building will offer drive thru coffee service. It is anticipated that no mor than 3-4 cards would be in the drive through at any given time. Most service will be walk-in. Environmental impacts will be far less than the previous gas station and C-Mart.

Specific Location within harmony with Village polices, ordinances and programs

Single retail establish on the first floor with two apartments on the second floor.

Potential Adverse Impact on surrounding:

Anticipate traffic volume will be less than pervious gas station and C-Mart. Total approaches from main street and Henry will be one less than pervious owners. North and west portions of the development offer pedestrian friendly patio areas accessible from the public sidewalk.

Maintaining consistency within the environs of the property:

Proposed development offers retail services to the community in a clean very attractive environment very low environmental impact to the community and surrounding properties.

Adequate Services

We do not anticipate imposing any additional burden on improvements, facilities, utilities or services.

Benefits of the use outweigh adverse impacts.

Our customers have asked for the convenience of drive thru serves which we can not offer at our current location. This service offers customers quick grab and go convenience with no adverse impact to surrounding properties.

Hours of Operation:

Mondays-Fridays, 5 a.m. - 5 p.m. and 6 a.m. - 4 p.m. on weekends. Our plan is to operate the drive through within the scope of those hours.

Conditional Use Process / Findings

Review procedures The Plan Commission holds the public hearing and makes a recommendation to the Village Board which makes the final decision.

Following the close of the public hearing, the Plan Commission may recommend (1) approval, (2) approval with conditions, or (3) denial.

If approval is recommended, the Plan Commission can recommend conditions deemed necessary to protect the public health, safety, and welfare. The Plan Commission, in passing on the matter, will need to make the following determinations consistent with Section 100-354 of Mukwonago's zoning regulations:

1. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.

2. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.

3. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.

4. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.

5. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

In addition, the property owner / tenant has shown compliance with the requirements set forth in the Village's zoning regulations for the specified use.

The Village Board will carefully review the recommendation of the Plan Commission and concurs with the Plan Commission's findings set forth above, provided the conditional use is operated pursuant to the conditions of approval set forth in this order.

These findings are incorporated into the draft conditional use order which is attached.

The Plan Commission shall approve a conditional use application if the terms and conditions of the zoning regulations are met. However, in the event the terms and conditions of the ordinance are not consented to and complied with by the applicant, the Commission may deny the application. In addition, the Commission may deny the application or place conditions on it if substantial evidence, as defined in §62.23(7) Wis. Stats. is presented. That evidence must demonstrate the inability of the applicant to comply with or meet the conditions of the zoning regulations or that the conditions to be applied by the Plan Commission are necessary to protect the public health, safety or welfare of the community based upon the presentation of substantial evidence. Potential motion for approval Recommend to the Village Board approval of the project as a conditional use as set forth in the attached conditional use order as drafted, provided the Village Attorney approves the final form of the conditional use order.

Recommendation

Site Plan and Architectural Review

Staff recommends the Planning Commission Approve a resolution for the Site Plan and Architectural Review, as set forth in the attached resolution.

1. Prior to any land disturbing activity, the applicant must submit a complete and final set of plans to the Village. All Village department heads must verify in writing whether they have approved the final plans within their purview. Any outstanding matters must be resolved to staff's satisfaction.
2. Prior to any land-disturbing activity, a pre-construction meeting must be held with the applicant's representatives and primary contractors, and Village department heads and representatives.
3. Prior to any land-disturbing activity, the applicant must reimburse the Village for any outstanding charges and establish an escrow account with the Village as may be required.
4. The applicant must obtain all required building permits within nine months of this date, and start construction within six months of the date of building permit issuance and continue in good faith to completion.
5. All work related to this project must comply with all project plans approved by the Village.
6. The developer must comply with all requirements related to impact fees imposed by the Village.
7. The developer shall comply with all parts of the Municipal Code as it relates to this project.
8. The developer shall comply with comments from Ruekert-Mielke letters regarding stormwater and utilities. Final Plans shall be submitted, reviewed, and approved by Ruekert-Mielke prior to the pre-construction meeting.
9. If the approved plans need to be revised to address any of the conditions of approval or to conform to Building and Fire Safety Codes, the Zoning Administrator and the Supervisor of Inspections are authorized to approve minor modifications so long as the overall project elements remain

unchanged. If they determine that the revision is substantial, the plans must be submitted to the Plan Commission for review and approval.

10. Plans must allow for a WB-50 vehicle to access the site.
11. A dedicated hydrant for FDC and suppression system must be provided.
12. All lighting within the parking lot and building lighting shall be full cut of lighting. The Police Department or Zoning Administrator, after completion or any modification to the lighting in the future, may request adjustments.
13. The applicant shall apply for and receiving approval for all new signage.
14. Final plans for Stormwater, Water, Sewer, Hydrants, and erosion control must be submitted, reviewed, and approved by the Village Engineer prior to submission of any building permits and preconstruction meeting.
15. The existing water serviced they are using was a new 1¼" HPDE water service into the property line about 4 years ago and is good to use. The sanitary sewer lateral will have to be supplied to Utilities to prove its condition before it can be reused. Any utilities not being reused will have to be capped at main.
16. Entrance only/exit only signs at the entrance and exit shall be provided. A sign on each side of the drive, facing the street. Two entrance only signs at Henry Street and two exit only signs at Main Street. They should also have exit only signs at the drive through exit on Main Street. All signs shall be reviewed and approved and permits issued by staff prior to installation.
17. Fire Need WB-50 template run. State to determine if suppression is needed by occupancy number. KNOX Box.
18. The Henry Street driveway will need to be modified to 24 feet to meet village standards. Staff recommends these revisions occur prior to submission of any permits, Revisions will be required to be reviewed and approved by Fire, Public Works, Engineering, and Planning.
19. An agreement will need to be executed by the village board to create an easement for six parking spaces of public parking. This agreement will need to be prepared, approved, and executed following approval of a Conditional Use and site plan and architectural approval. The agreement must be completed and recorded prior to any permits being issued.
20. Two additional trees be planted on site within the panting islands adjacent to main street. Such shade trees shall have a columnar upright pattern to allow for visibility under the trees for turning movements out of the drives. In addition, one additional shade tree to be planted at the rear of the building between the drive and the sidewalk. This will bring the total number of on-site trees to five. The additional seven trees be planted within the right of way of Henry and Main. A revised landscaping plan will be required to be submitted and plans reviewed and approved by the Director of Public Works and Community Planner.
21. Revisions to the landscaping plan along Main Street shall occur to provide for better screening year-round while being maintained no higher than three feet in height from the pavement surface. A revised landscaping plan will be required to be submitted and plans reviewed and approved by the Director of Public Works and Community Planner.
22. Details with regard to the trash enclosure shall be provided prior to submission of permits. The enclosure shall meet the requirements of section 100-152 (g). Since the building is not proposed to have masonry staff the enclosure shall have an standard brick veneer for the outward facing walls of the structure.
23. The exiting fence shall be repaired and maintained and both sides of the fence shall be stained a natural color to allow for existing and new wood to blend together.
24. The lighting poles shall be as short as possible to minimize lighting concerns. Staff recommend that the finish of the poles and lights be black or other dark color. Staff recommends that all lighting specifications and plans be submitted, reviewed, and approved prior to permitting.

25. A bike rack shall be provided on the property near Henry Street.
26. The Planning Commission grants approval to allow for 0% of masonry to allow for this building to blend into the unique context of the Village Center area.
27. The Planning Commission grants approval for a third drive.
28. Any future modification to the site such as modification of parking, lighting, grading, retaining walls, fences, etc. shall require Site Plan and Architectural Review.

Conditional Use

Staff Recommends the Planning Commission recommend to the Village Board approval of a conditional use permit as set forth in the resolution.

To – Grant a Conditional Use permit for an Espresso Love Coffee, subject to the following on going conditions deemed necessary to protect the health, safety, and welfare

1. **Ongoing conditions of approval**. The following conditions shall constitute an ongoing obligation:
    a. The authorized use shall not be conducted in such a way so as to exceed on-site parking.
    b. The authorized use shall not be conducted in such a way so as to violate fire-related building capacity standards established by the local fire department or the state of Wisconsin.
    c. The authorized use shall not be conducted in such a way so as to constitute a public or private nuisance as determined by the Plan Commission.
    d. Potable water and sanitation must be provided and maintained.
    e. The Plan Commission may unilaterally amend an approved site plan/plan of operation by revising existing provisions or adding new provisions. Such amendment shall be limited in scope to address negative impacts the use is having on surrounding properties and/or the public health, safety, and welfare.
    f. The use of the subject property shall at all times be in compliance with all applicable laws, rules, regulations or orders, and ordinances of the federal government, State of Wisconsin, Waukesha County, and Village of Mukwonago.
    g. All buildings on the subject property shall comply with all applicable building requirements as may be adopted by the Village of Mukwonago or the state of Wisconsin.
    h. The subject property must be in a clean and neat appearance as determined by the Plan Commission.
    i. The property owner shall obtain and maintain all licenses for the operation of this facility, as may be required by the Village or the State of Wisconsin.
    j. The front of the dumpster enclosure shall not be blocked by vehicles or other items.
    k. No vehicles shall block the sidewalks at entrances or exists at any time.
    l. The drive thru area shall be cleaned as needed and cleaned upon any spill from drive thru service.
    m. Compliance with all conditions with the Site Plan and Architectural Review (SPAR) resolution.
    n. Mondays-Fridays, 5 a.m. - 5 p.m. and 6 a.m. - 4 p.m. on weekends. Our plan is to operate the drive through within the scope of those hours.

and determining that the conditions are consistent with Section 100-354 of Mukwonago's zoning regulations:

1. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.
2. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.
3. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.
4. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.
5. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

Attachments

1. Maps
2. Plans
3. Resolution 2021-XX for approval of a Conditional Use
4. Resolution 2021-XX for approval of the Site Plan and Architectural Review

Village of Mukwonago GIS

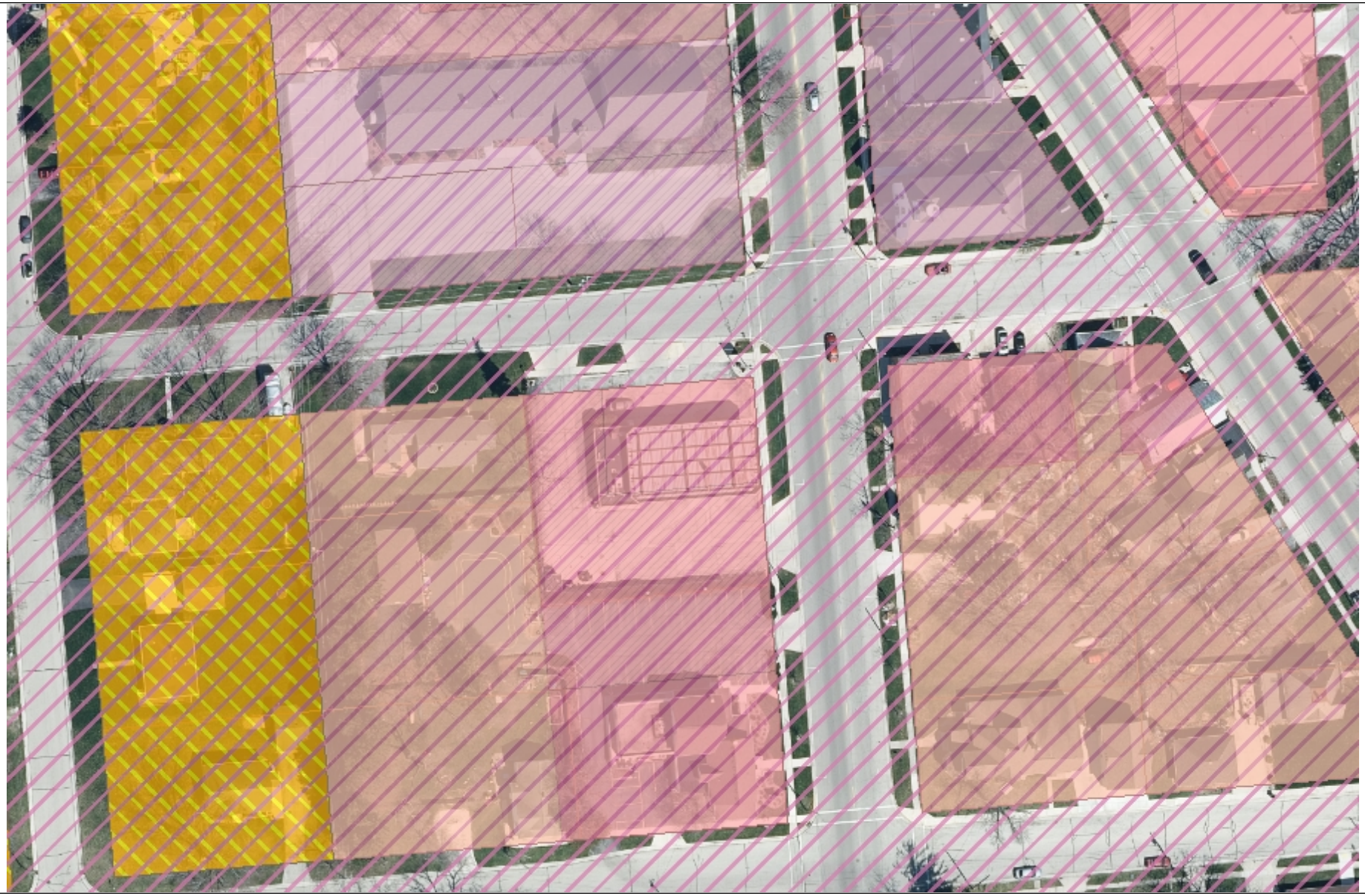
Espresso Love - Aerial

DISCLAIMER: The Village of Mukwonago does not guarantee the accuracy of the material contained here in and is not responsible for any misuse or misrepresentation of this information or its derivatives.

SCALE: 1" = 83 '

VILLAGE OF MUKWONAGO
440 River Crest Court
PO Box 206
Mukwonago, WI 53149
262-363-6420

Print Date: 5/6/2021



Village of Mukwonago GIS

Espresso Love - Land Use Map

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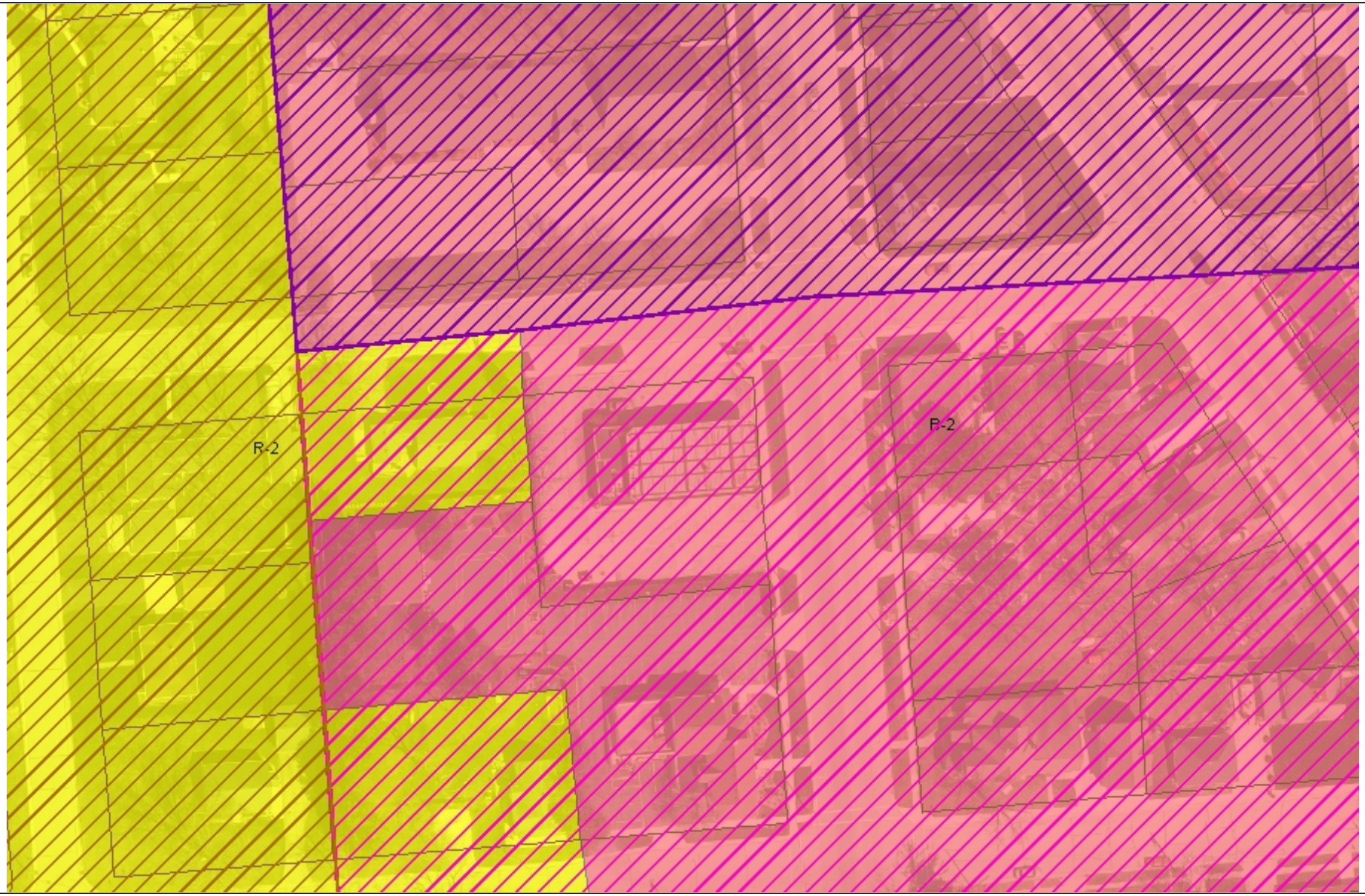
SCALE: 1" = 83 '

VILLAGE OF MUKWONAGO
440 River Crest Court
PO Box 206
Mukwonago, WI 53149
262-363-6420

Print Date: 5/6/2021



Village of Mukwonago GIS

Espresso Love - Zoning Map

DISCLAIMER: The Village of Mukwonago does not guarantee the accuracy of the material contained here in and is not responsible for any misuse or misrepresentation of this information or its derivatives.

SCALE: 1" = 83 '

VILLAGE OF MUKWONAGO
440 River Crest Court
PO Box 206
Mukwonago, WI 53149
262-363-6420

Print Date: 5/5/2021

April 20, 2021

Mr. John Fellows, Assoc. AIA, CPM, AICP
Village Planner
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Re: Espresso Love
Plan Submittal Review

Dear Mr. Fellows:

We have completed our initial review of the new Espresso Love site at the location of the old Clark Gas Station on the southwest corner of Henry Street and Main Street (CTH ES). The Village has provided us with all documents that were submitted to the Planning Commission. The civil plan set is dated March 15, 2021 and the documents were received in our office on April 15, 2021. We offer the following comments:

1. The redevelopment site is less than one-acre in size, is nearly 100% impervious as existing, and will not be adding more than 0.5 acres of impervious area. Therefore, the site is exempt from storm water management requirements. Given the already extremely impervious nature of the site, we do not believe that there will be an adverse impact on the surrounding area with this site's redevelopment and therefore, do not see a need for any storm water management requirements beyond the exemptions noted in the Village Ordinance.

2. The Water Main on Henry Street is an 8-inch water main, please adjust on the plans.

3. There is an existing water valve box in the northwest drive approach that is not shown on the plans.

4. The comment on the northwest drive approach that says "Removals to be determined by City" should be updated to "Village". All references to "City" on the plans should be updated to "Village".

5. The plans do not call for removals of the two existing site accesses on the north side of the site. Are they to remain or will they be removed and full head curb and gutter poured in?

6. Any site entrance adjustments made on CTH "ES" will require a permit from Waukesha County.

7. Please add inlet protection to the inlet/catch basin on the northwest corner of Henry Street and Main Street.

8. What are the developer's plans to limit ingress/egress to only the area where the tracking pad is identified? With multiple site entrances existing, we foresee contractors taking advantage of any in/out option they can find which will lead to increased tracking on public streets if not properly managed. Will the other entrances be blocked off?

9. Silt fence or straw wattles should be added to the areas by the dumpster and on the northwest side of the site where the existing curb will be added, and restoration will be provided to prevent sediment runoff to the adjacent parcels.

10. An inlet protection detail should be added to the plan set.

11. The plans reference a “stone splash pad” at the southeast corner of the site but not detail is provided.

12. We are concerned with a large portion of the site runoff being concentrated to a small point of discharge on the southeast side of the site where the curb cut, and stone splash pad are identified. If not properly installed, there is a risk for erosion and undermining of the public sidewalk. We recommend that an alternative solution be developed such as removing the curb and gutter on the southeast island and adjusting the grades to allow sheet flow across the southern portion of the parking lot directly out to CTH “ES” rather than directed at one single point on the southeast corner. A grass landscaped area and/or the combination of a stone buffer strip at this location would slow and spread the flow of water to reduce the high concentrated flows during larger storm events. The stone buffer strip will also help collect parking lot pollutants before flowing to the Village’s storm sewer system. Adjusting the grades to flow more easterly towards CTH “ES” will also prevent direct flow during larger storm events from overtopping the curb and gutter on the south side of the property and flowing through the adjacent site.

13. Please add a note to the construction sequence stating that any modifications to the sequence must be submitted to and approved by the Village of Mukwonago.

14. A note should be added that states that all sediment and erosion control devices shall remain in place until the site has reached 70% vegetation and the Village Engineer has approved the removal of the devices.

15. The note on the plans stating that the grading plan must be reviewed and approved by the Village Engineer should either be removed or clarified by adding “prior to construction beginning”. This is part of the approval process, but we will not be reviewing the site grades and approving them as they are constructed. That is the responsibility of the contractor/developer and we do not want the note to be mistaken for who holds that responsibility.

Please note that these plans appear to be preliminary in nature for the purpose of submittal to the Planning Commission. If the Planning Commission wishes to approve the site, we ask that their approval be contingent on our final review of resubmitted plans for compliance with the Village Ordinances and requirements of the Department Heads addressing our comments above and any other comments that may be forthcoming with a resubmittal of the civil site plans.

If you or any staff member should have any questions regarding this, please feel free to contact me at (262) 542-5733.

Respectfully,

RUEKERT & MIELKE, INC.

Peter W. Gesch, E.I.T.
Project Engineer
pgesch@ruekertmielke.com

PWG:pwg

cc: Diana Dykstra, Village of Mukwonago
Mark G. Blum, Village of Mukwonago
Bob Harley, Village of Mukwonago
Tim Rutenbeck, Village of Mukwonago
Dave Brown, Village of Mukwonago
Ron Bittner, Village of Mukwonago
Jerad J. Wegner, P.E., Ruekert & Mielke, Inc.

May 4, 2021

Mr. John Fellows, Assoc. AIA, CPM, AICP
Village Planner
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Re: Espresso Love
Resubmittal Review

Dear Mr. Fellows:

We have completed our review of the resubmitted documents for the proposed Espresso Love site located at the southwest corner of Henry Street and CTH “ES” where the old Clark Gas Station was located. The plan resubmittal is in response to our letter dated April 20, 2021 as well as other staff comments around the same time. The resubmittal plan documents are dated with a revision of April 29, 2021 and were received in our office on May 3, 2021. A great deal of our comments were adequately addressed in this resubmittal, however a few remain. We offer the following comments:

1. The curb cut and proposed stone splash pad were removed on the south east side of the site however the note remains. The note should be removed.

2. The developer has stated that the general contractor is responsible for obtaining the Waukesha County permits for this project. We request that no site work occurs until all permits from all agencies have been received and copies have been supplied to the Village.

3. The developer will need to obtain an erosion control permit from the Village.

4. It should be noted in the construction notes that the erosion control measures shown are a minimum and that, depending on site activities or conditions, the Village may require more erosion control measures to be implemented.

Should the Plan Commission choose to approve this project, we ask that the approval be made contingent upon the above noted comments as well as a final review of updated construction drawings by our office and the other department heads and that all permits for construction are withheld until all department heads have approved of the site and architectural plans.

If you or any staff member should have any questions regarding this, please feel free to contact me at (262) 542-5733.

Respectfully,

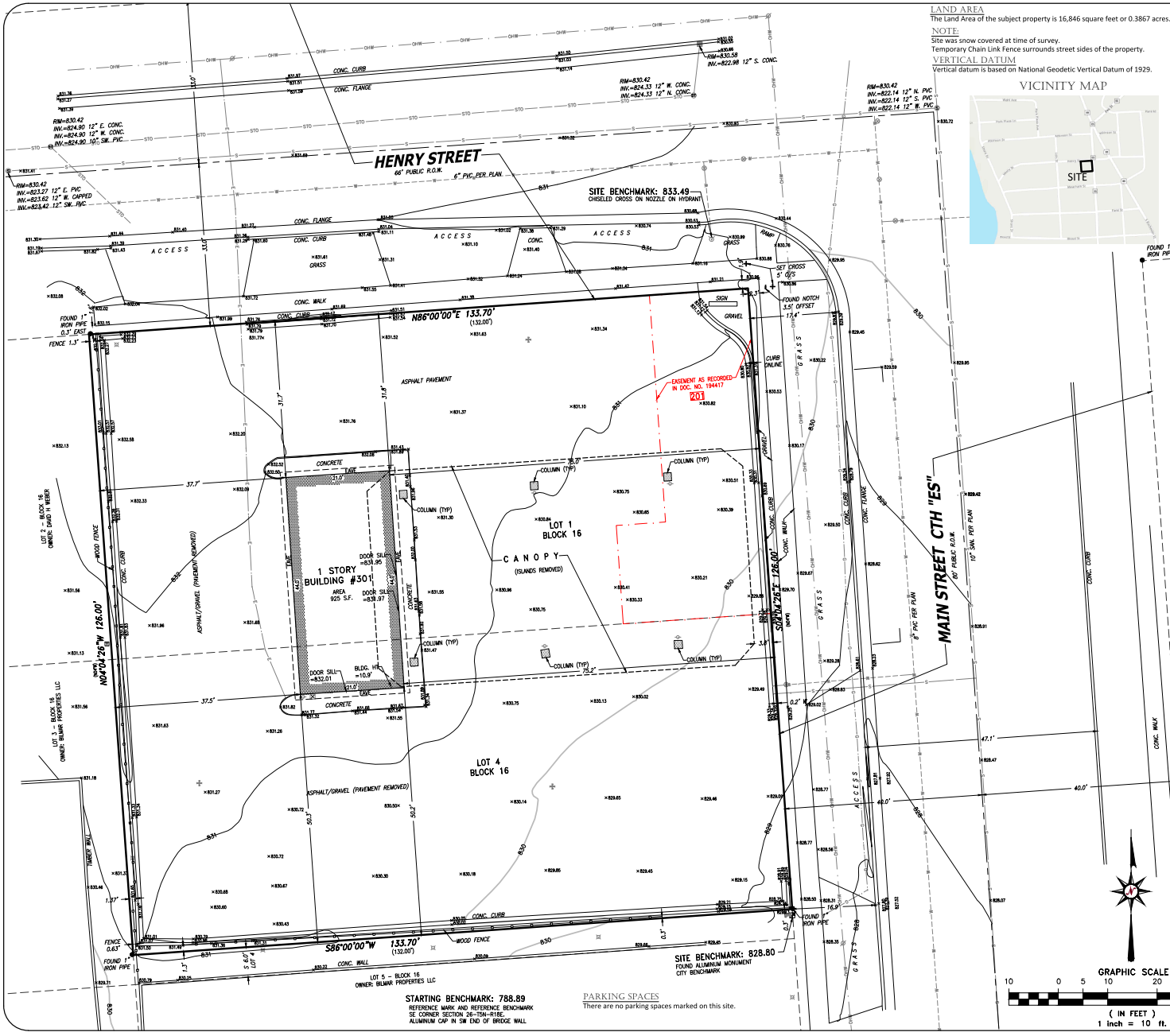
RUEKERT & MIELKE, INC.

Peter W. Gesch, E.I.T.
Project Engineer
pgesch@ruekertmielke.com

PWG:pwg

cc: Diana Dykstra, Village of Mukwonago
Mark G. Blum, Village of Mukwonago
Bob Harley, Village of Mukwonago
Tim Rutenbeck, Village of Mukwonago
Dave Brown, Village of Mukwonago
Ron Bittner, Village of Mukwonago
Chief Jeff Stien, Village of Mukwonago
Chief Kevin Schmidt, Village of Mukwonago
Jerad J. Wegner, P.E., Ruekert & Mielke, Inc.

ALTA/NSPS
LAND TITLE SURVEY



LAND AREA
The Land Area of the subject property is 16,846 square feet or 0.3867 acres.

NOTE:
Site was snow covered at time of survey.
Temporary Chain Link Fence surrounds street sides of the property.

VERTICAL DATUM
Vertical datum is based on National Geodetic Vertical Datum of 1929.

VICINITY MAP

LEGEND

- INDICATES FOUND 1" IRON PIPE
- INDICATES SET 1" IRON PIPE
- INDICATES FOUND CHISELED CROSS
- SANITARY MANHOLE
- SANITARY CLEANOUT OR VENT
- SEPTIC TANK ACCESS COVER
- M.I.S. MANHOLE
- UNKNOWN MANHOLE
- STORM MANHOLE
- INLET (ROUND)
- INLET (SQUARE)
- CURB INLET
- STORM SEWER END SECTION
- GAS VALVE
- GAS METER
- WATER VALVE
- HYDRANT
- WATER MANHOLE
- WATER SERVICE CURB STOP
- WELL HEAD
- STAND PIPE
- WALL INDICATOR VALVE
- POST INDICATOR VALVE
- LIGHT POLE
- SPOT/YARD LIGHT
- UTILITY POLE
- GUY POLE
- GUY WIRE
- ELECTRIC MANHOLE
- ELECTRIC PEDESTAL
- ELECTRIC METER
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- CABLE PEDESTAL
- CONTROL BOX
- FIBER OPTIC PEDESTAL/SIGN
- TRAFFIC LIGHT
- COMMUNICATION MANHOLE
- BOLLARD
- SOIL BORING/MONITORING WELL
- WATER SURFACE
- WETLANDS FLAG
- MARSH
- FLAGPOLE
- PARKING METER
- SIGN
- MAILBOX
- RAILROAD CROSSING SIGNAL
- HANDICAP SPACE
- CONIFEROUS TREE
- DECIDUOUS TREE
- SANITARY SEWER
- STORM SEWER
- WATERLINE
- MARKED GAS MAIN
- MARKED ELECTRIC
- OVERHEAD WIRES
- MARKED TELEPHONE
- MARKED CABLE TV LINE
- MARKED FIBER OPTIC
- BURIED ELECTRIC SERVICE
- BOARD FENCE
- CHAIN LINK FENCE
- WIRE FENCE

PARKING SPACES
There are no parking spaces marked on this site.

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

CLIENT
Stier Construction, Inc.

SITE ADDRESS
301 Main St., Village of Mukwonago, Waukesha County, Wisconsin.

LEGAL DESCRIPTION
Lot 4, excepting the Southerly 6 feet thereof, and lot 1, Block 16, in the Original Plat of the Village of Mukwonago, Waukesha County, Wisconsin

BASIS OF BEARINGS
Bearings are referenced to the South line of Henry Street which is assumed to bear N86°00'00"E.

TITLE COMMITMENT
This survey was prepared based on Knight Barry Title Group Commitment No. July 23, 2020 last Revised August 10, 2020, effective date of February 3, 2011 which lists the following easements and/or restrictions from schedule B-II:

1, 5, 6, 7 & 8 visible evidence shown, if any.

2, 3, 4, 5, 100 & 400 not survey related.

200. Easements, Restrictions and other matters contained in the instrument recorded April 9, 2003 as Document No. 2965610. Affects property by location.

201. Easement and other matters contained in the instrument recorded February 16, 1934 as Document No. 194417. Affects property by location, shown.

202. Repurchase options, restrictions, rights of first refusal and other matters contained in the instrument recorded April 9, 2003 as Document No. 2965611. Affects property by location, general in nature, blanket type.

203. Consequences, if any, due to the fact that DC Properties, LLP, pursuant to the Memorandum of Repurchase Option, Restriction on Use and Right of First Refusal recorded April 9, 2003 as Document No. 2965611, failed to record in the public land records a restriction running with the land prohibiting for ten (10) years the sale of any motor fuel other than Clark or such other permitted branded fuel, as approved by Lakeside Oil Company, Inc., in writing and requiring the primary continued use of the property as a retail motor fuel dealer and further requiring the supply of all motor fuel product for the property from Lakeside Oil Company, Inc., when DC Properties, LLP conveyed the property to 301 Main Street Real Estate, LLC under the Warranty Deed dated December 6, 2019, recorded December 11, 2019 as Document No. 4441295. Affects property by location, general in nature, blanket type.

FLOOD NOTE
According to the flood insurance rate map of the County of Waukesha, Community Panel No. 55133C0427G, effective date of November 5, 2014, this site falls in Zone X (Areas determined to be outside the 0.2% annual chance floodplain).

TABLE "A" ITEMS
11(a). Evidence of underground utilities existing on or serving the surveyed property as determined by plans and/or reports provided by client. No plans were provided.

20(a). Location of utilities existing on or serving the surveyed property as determined by markings requested by the surveyor pursuant to a Diggers Hotline One-call center utility locate. Ticket Number 20210703157. However, lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. Client understands only utility lines with imbedded electric tracer wires or utilities made of materials capable of electric connectivity can be marked at the surface and located. Depth of utilities may prohibit their location even with electric connectivity.

20(b). List the current zoning classification, setback requirements, the height and floor space area restrictions, and parking requirements, if any. Identify the date and source of the zoning information.

The zoning information noted below is taken from the municipal code ordinance. It does not reflect all zoning restrictions that may apply. It is not intended to be used in lieu of a comprehensive zoning report as stated in ALTA Table A item 6(a) nor to be relied on for site development purposes.
Municipal Code: Sec. 100-152.
Site is zoned: B-2 (General Business District
Street setback: 10 feet
Side setback: 10 feet
Rear setback: 30 feet
Maximum building height: 2 stories or 35 feet

20(c). Engineering design topography and utility survey: Vertical datum, elevations with 1 foot contour intervals and spot elevations on paved surfaces. Sewer lines will be depicted by location and depths where accessible without confined entry safety procedures and where traffic lanes do not pose a safety hazard accessing sewer data. Pipe sizes will be shown from plans, if available. Watermain and water services will be depicted from surface evidence and available plans. The limits of topography will extend to the centerline of the adjacent streets and 25' onto adjacent properties unless otherwise agreed upon.

TO: Elovecoffee, LLC, a Wisconsin limited liability company d/b/a Espresso Love Coffee
Knight Barry Title Group
First American Title Insurance Company

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 3, 4, 7(a), 7(b)(1), 7(c), 8, 9, 11(a), 19, 20(a), 20(b) and 20(c) of Table A thereof. The field work was completed on March 1, 2021.

Date of Map: March 4, 2021

DONALD C. CHAPUT S-1316 MILWAUKEE WI LAND SURVEYOR

Donald C. Chaput
Professional Land Surveyor
Registration Number S-1316

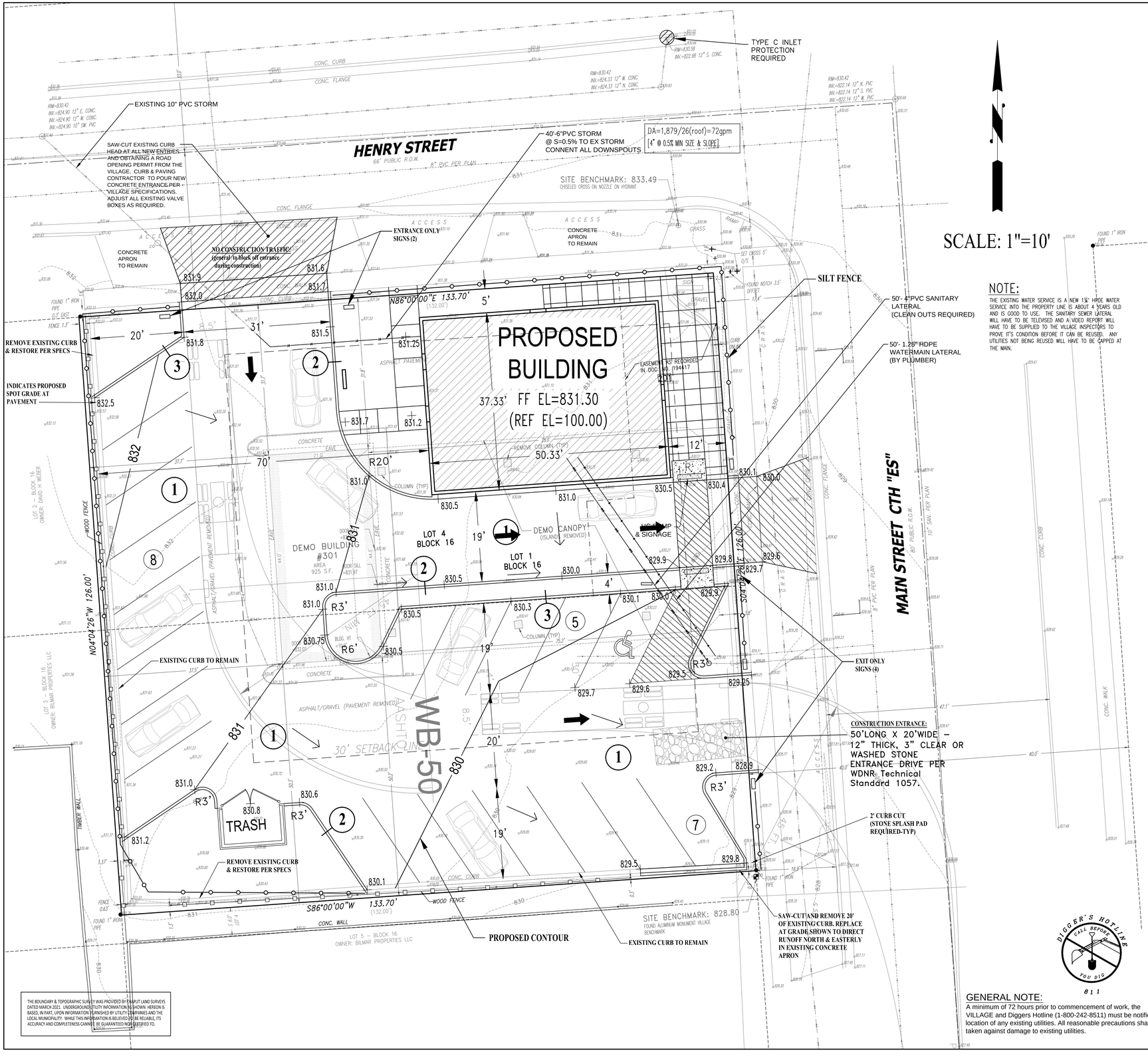
Date	Revision description

CHAPUT LAND SURVEYS
234 W. Florida Street Milwaukee, WI 53204
414-224-8068 www.chaputlandsurveys.com

This document is an instrument of professional service, and may be protected by the surveyors work product doctrine or surveyor / client privilege. The information shown hereon is intended solely for the use of the client named in the title block.

Drawing No. 20210304ALT3719-far

CHAPUT LAND SURVEYS



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1. All work shall be in accordance with the Standard Specifications for Highway and Structure Construction, State of Wisconsin, Latest Edition; the State of Wisconsin Plumbing Code AND the VILLAGE of Mukwonago Ordinances, unless otherwise called for on the plans, specifications or special provisions.
2. Contractor shall obtain all permits prior to commencing any construction on the site. Any Work within the right of way will require additional permits from the State, County or VILLAGE. Contractor is required to contact all agencies for applicable permits.
3. All erosion control measures specified on this plan shall meet the design criteria, standards and specifications as set forth in the Department of Natural Resources Wisconsin Technical Standards.
4. All erosion control devices (i.e., silt fence, etc.), shall be installed prior to commencing any site work on the property.
5. All activities on the site shall be conducted in a logical sequence to minimize the area of bare soil exposed at any one time.
6. The owner will provide all surveying and construction staking for this contract. The contractor shall exercise care and diligence in protecting the same.
7. The contractor shall notify Diggers Hotline, all utilities VILLAGE Departments, and government units whose property may be affected by the contractor's operations at least three (3) days before breaking ground. Diggers Hotline number is 811.
8. Public roads shall not be closed to traffic at any time. All ingress and egress traffic to the project shall be limited to the TRACKING PAD entrance to the property.
9. Contractor shall be responsible for maintaining the Streets. The Streets shall be kept free of silt or dirt tracked from areas under construction by sweeping within 24hrs.
10. Upon completion of the work as specified, respread four (4") inches of salvaged topsoil over all disturbed areas and provide seed, fertilizer and erosion control fabric per the WDNR Technical Standards.
11. Stabilization of all disturbed areas must follow NR151 erosion control prescriptive standards which require immediate temporary stabilization of disturbed areas which remain inactive longer than 14 working days and within 7 days of final stabilization. Highway mix #40 shall be used for permanent seeding with an application rate of 4.0 lbs/1000 sf.
12. All erosion control devices shall be routinely inspected every seven days or within 24 hours of a rainfall greater than 0.5 inches. INSPECTION BY GENERAL CONTRACTOR.
13. IF PERMANENT SEEDING (WisDOT#40) IS NOT COMPLETED BY SEPTEMBER 15, APPLY TEMPORARY SEEDING (SEE BELOW). IF TEMPORARY SEEDING IS NOT COMPLETED BY OCTOBER 15, DORMANT SEED WITH EROSION CONTROL MATTING OR HYDROMULCH SHALL BE APPLIED TO INACTIVE DISTURBED SOILS BETWEEN OCTOBER 15TH AND MAY 1ST AS A TEMPORARY SOIL STABILIZATION MEASURE DURING THE NON-GROWING SEASON.

WisDOT Temporary Seed Mix:
Temporary seed shall be a seed mixture conforming to WisDOT 630.2.1.5.1.4.
Use winter wheat or rye for fall plantings started after September 1.

NOTE:

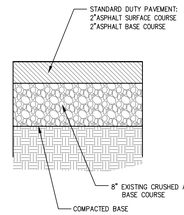
THE EXISTING WATER SERVICE IS A NEW 1¼" HDPE WATER SERVICE INTO THE PROPERTY LINE IS ABOUT 4 YEARS OLD AND IS GOOD TO USE. THE SANITARY SEWER LATERAL WILL HAVE TO BE TELEVISED AND A VIDEO REPORT WILL HAVE TO BE SUPPLIED TO THE VILLAGE INSPECTORS TO PROVE IT'S CONDITION BEFORE IT CAN BE REUSED. ANY UTILITIES NOT BEING REUSED WILL HAVE TO BE CAPPED AT THE MAIN.

CONSTRUCTION PHASING SEQUENCING:

THE GRADING AND UNDERGROUND CONTRACTORS MUST FOLLOW THIS CONSTRUCTION SEQUENCE AS REQUIRED BY THE WDNR AND THE VILLAGE:
1. INSTALL SILT FENCE AND GRAVEL ENTRANCE.
2. DEMO THE CONSTRUCTION AREA & HAUL OFFSITE.
3. LOCATE EXISTING ONSITE STORM FOR NEW BUILDING HOOKUP AND INSTALL LATERALS.
4. CONSTRUCT BUILDING, TRASH AREA, PARKING LOT AND WALKS.
5. RESTORE ALL AREAS WITH TOPSOIL, SEED AND EROSION CONTROL MATTING.
6. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL THE SITE HAS REACHED 70% VEGETATION AND THE VILLAGE ENGINEER HAS APPROVED THE REMOVAL OF THE DEVICES.
7. FOLLOWING COMPLETE SITE STABILIZATION AND VILLAGE APPROVAL, REMOVE ALL EROSION CONTROL MEASURES.
8. ANY MODIFICATIONS TO THE SEQUENCE MUST BE SUBMITTED TO AND APPROVED BY THE VILLAGE OF MUKWONAGO.

LEGEND

- WOOD FENCE
- SILT FENCE
- S — SANITARY SEWER
- ST — STORM SEWER
- W — WATERMAIN
- OHW — OVERHEAD POWER/UTILITY
- G — UNDERGROUND GAS
- E — UNDERGROUND ELECTRIC
- C — UNDERGROUND CABLE
- × 100.0 — EXISTING SPOT ELEVATION
- 100 — EXISTING CONTOUR
- ×100.00 — PROPOSED SPOT ELEVATION
- 100 — PROPOSED CONTOUR
- PROPOSED DRAINAGE DIRECTION



1 STANDARD DUTY PAVEMENT

SITE DATA TABLE	
TOTAL SITE AREA :	16,846 S.F. (0.387 Ac)
NEW BUILDING AREA:	1,879 S.F.
NEW PARKING LOT AREA:	11,020 S.F.
NEW WALK AREAS:	870 S.F.
TOTAL IMPERVIOUS SURFACE AREA RATIO:	13,769 S.F./ 16,846 S.F. = 81.7%
TOTAL GREEN SPACE AREA RATIO:	18.3%

GENERAL NOTE:

A minimum of 72 hours prior to commencement of work, the VILLAGE and Diggers Hotline (1-800-242-8511) must be notified for location of any existing utilities. All reasonable precautions shall be taken against damage to existing utilities.

DIGGER'S HOTLINE CALL BEFORE YOU DIG 811

REVISIONS	
DATE	DESC.
04-29-21	REV1

ELLENA ENGINEERING CONSULTANTS, LLC
SITE CIVIL ENGINEERING & STORMWATER MANAGEMENT
Ellena Engineering Consultants, LLC • 700 Pilgrim Parkway - Suite 100 • Elm Grove, WI 53122
Phone: 262-719-6183 • Fax: 866-457-2584 • Email: mellena@eeceng.com

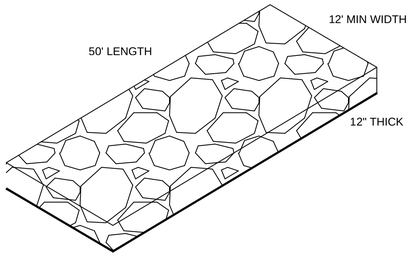
ESPRESSO LOVE COFFEE
301 Main Street ▪ VILLAGE of Mukwonago ▪ Wisconsin

WISCONSIN MARK R. ELLENA E-24090 WALES, WI PROFESSIONAL ENGINEER

SITE GRADING, PAVING & DRAINAGE PLAN

SCALE: 1" = 10'	JOB NO.:	DATE: 03-15-2021
		CHECKED BY:

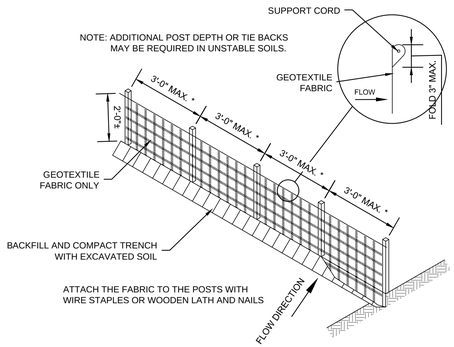
C100



STONE TRACKING PAD

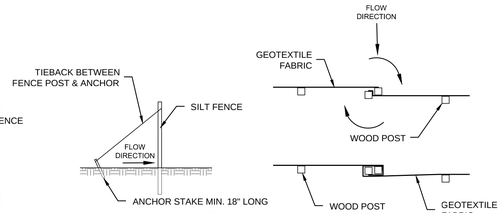
PER WDNR TECH STANDARD 1057
Note 1: Use hard, durable, angular No. 3" stone or recycled concrete meeting the gradation in Wisconsin Department of Transportation (DOT) 2018 Standard Specification, Section 312, Select Crushed Material.
Note 2: Slope the stone tracking pad in a manner to direct runoff to an approved treatment practice.
Note 3: Select fabric type based on soil conditions and vehicles loading.
Note 4: Install tracking pad across full width of the access point, or restrict existing traffic to a dedicated egress lane at least 12 feet wide across the top of the pad.
Note 5: If a 50' pad length is not possible due to site geometry, install the maximum length practicable and supplement with additional practices as needed.

GENERAL NOTES
1. TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
2. WOOD POSTS SHALL BE A MINIMUM OF 1 ½" x 1 ½" OF OAK OR HICKORY.
3. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING METHODS: A) TWIST METHOD -- OVERLAPTHE END POSTS AND TWIST , OR ROTATE, AT LEAST 180 DEGREES. B) HOOK METHOD -- HOOK THE END OF EACH SILT FENCE LENGTH.

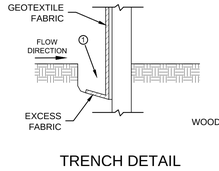


* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

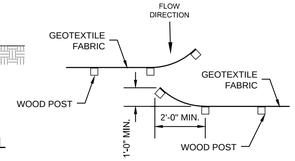


SILT FENCE TIE BACK
(WHEN ADDITIONAL SUPPORT REQUIRED)



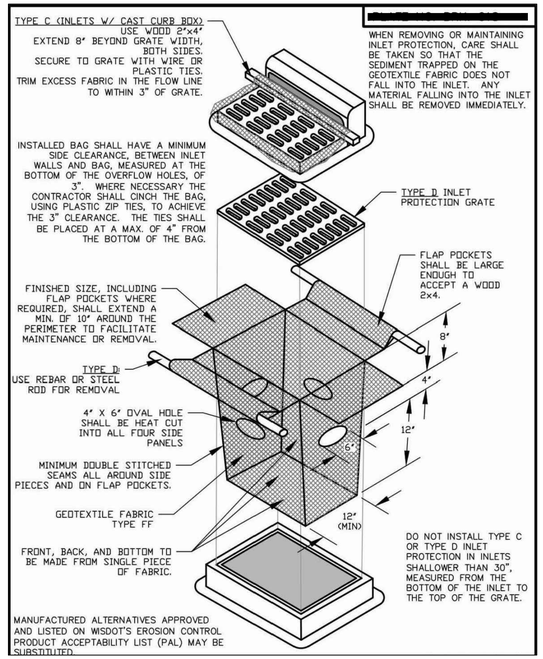
TRENCH DETAIL

TWIST METHOD

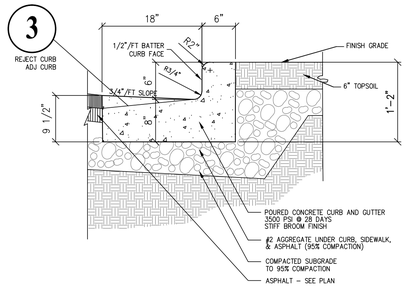


HOOK METHOD
JOINING TWO LENGTHS OF SILT FENCE 4

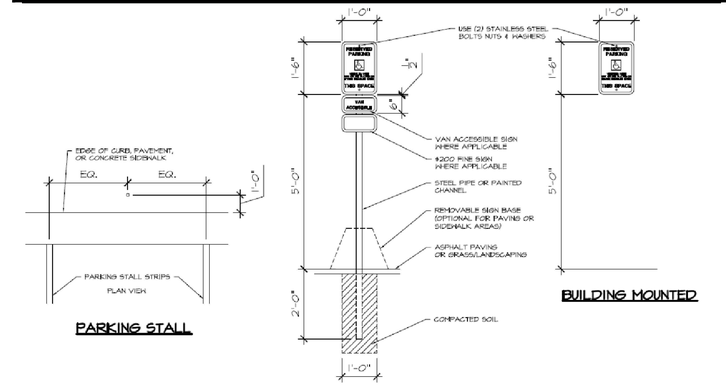
THIS DRAWING BASED ON WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD DETAIL DRAWING 8 E 9-6.



INLET PROTECTION



24" CONCRETE CURB & GUTTER 2
NO SCALE

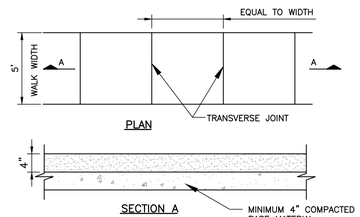


PARKING STALL — BUILDING MOUNTED — POLE MOUNTED

NOTE: SIGN SHALL COMPLY WITH CURRENT STATE & ADA GUIDELINES

HANDICAP PARKING SIGNS

REVISION	2.9.1
6/1/2012	



NOTES:
1. TRANSVERSE JOINTS SHALL BE CUT WITH A JOINTER HAVING A RADIUS OF 1/4" AT SPACING AS INDICATED OR AS DIRECTED BY THE ENGINEER.

CONCRETE WALK DETAIL

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DIGGER'S HOTLINE — CALL BEFORE YOU DIG — 811

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REVISIONS	
DATE	DESC.
04-29-21	REV1

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Ellena Engineering Consultants, LLC • 700 Pilgrim Parkway - Suite 100 • Elm Grove, WI 53122
Phone: 262-719-6183 • Fax: 866-457-2584 • Email: mellena@eeceng.com

ESPRESSO LOVE COFFEE
301 Main Street ▪ VILLAGE of Mukwonago ▪ Wisconsin

WISCONSIN — MARK R. ELLENA E-24090 WALES, WI — PROFESSIONAL ENGINEER

DETAILS

SCALE: 1" = 10'	JOB NO.:	DATE: 03-15-2021
		CHECKED BY:

C200

HENRY STREET

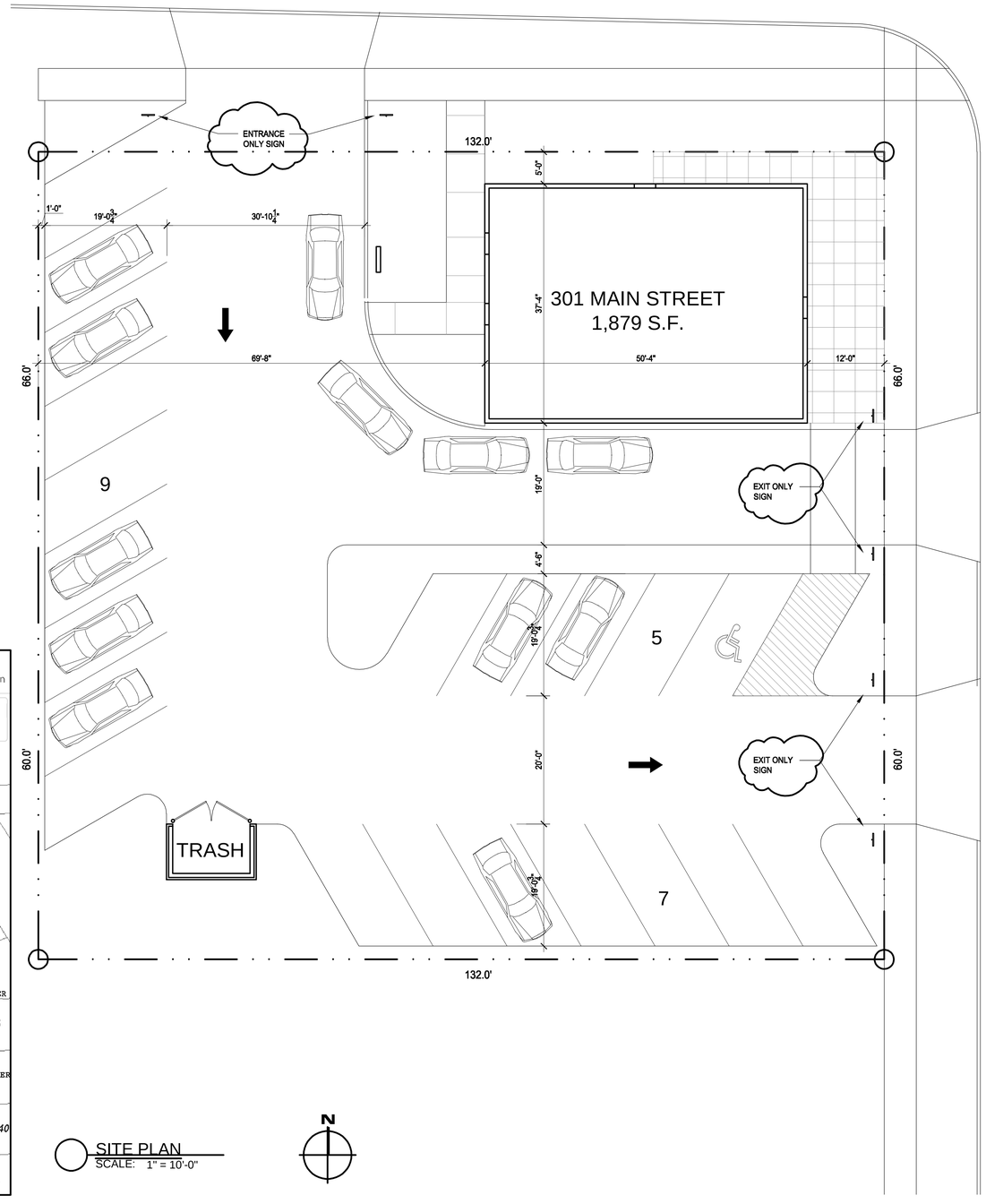
SITE AREA:
- APPROX. 16,632 S.F. (+/- VERIFY)

MAIN FLOOR:
- 1,727 S.F. Coffee Shop
- 152 S.F. Stair
- 1,879 S.F. Footprint

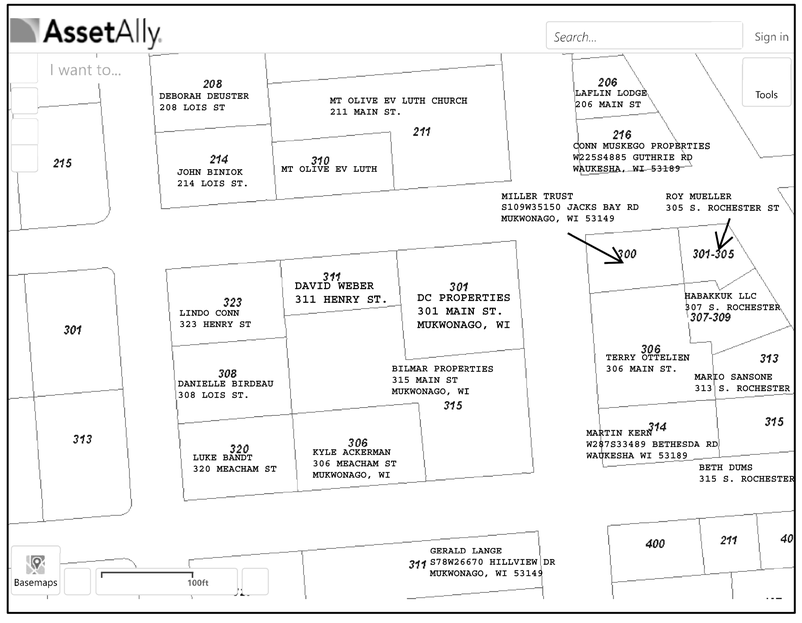
APARTMENTS:
- (1) 780 S.F. +/- 1-Bedroom Unit
- (1) 867 S.F. +/- 1-Bedroom Unit

PARKING:

- COFFEE SHOP 1/3 SEATS =	11 SPACES
1/EMPLOYEE=	3
APARTMENT 2 SPACES PER UNIT=	4
REQUIRED:	18 SPACES
PROVIDED:	21 SPACES



MAIN STREET



SITE PLAN
SCALE: 1" = 10'-0"

N

PURE architecture studio, llc
735 N Water Street, Suite 1228
Milwaukee, WI 53202
www.pure-arch.com

PROJECT

ESPRESSO LOVE
COFFEE

301 MAIN STREET
MUKWONAGO, WI 53149

OWNER

This drawing, its design concept, and its detail are the sole property of PURE architecture studio, llc and shall not be copied in any form or manner, or used on any other projects, without written authorization of its designer/creator.

REVISIONS

NO.	DESCRIPTION	DATE

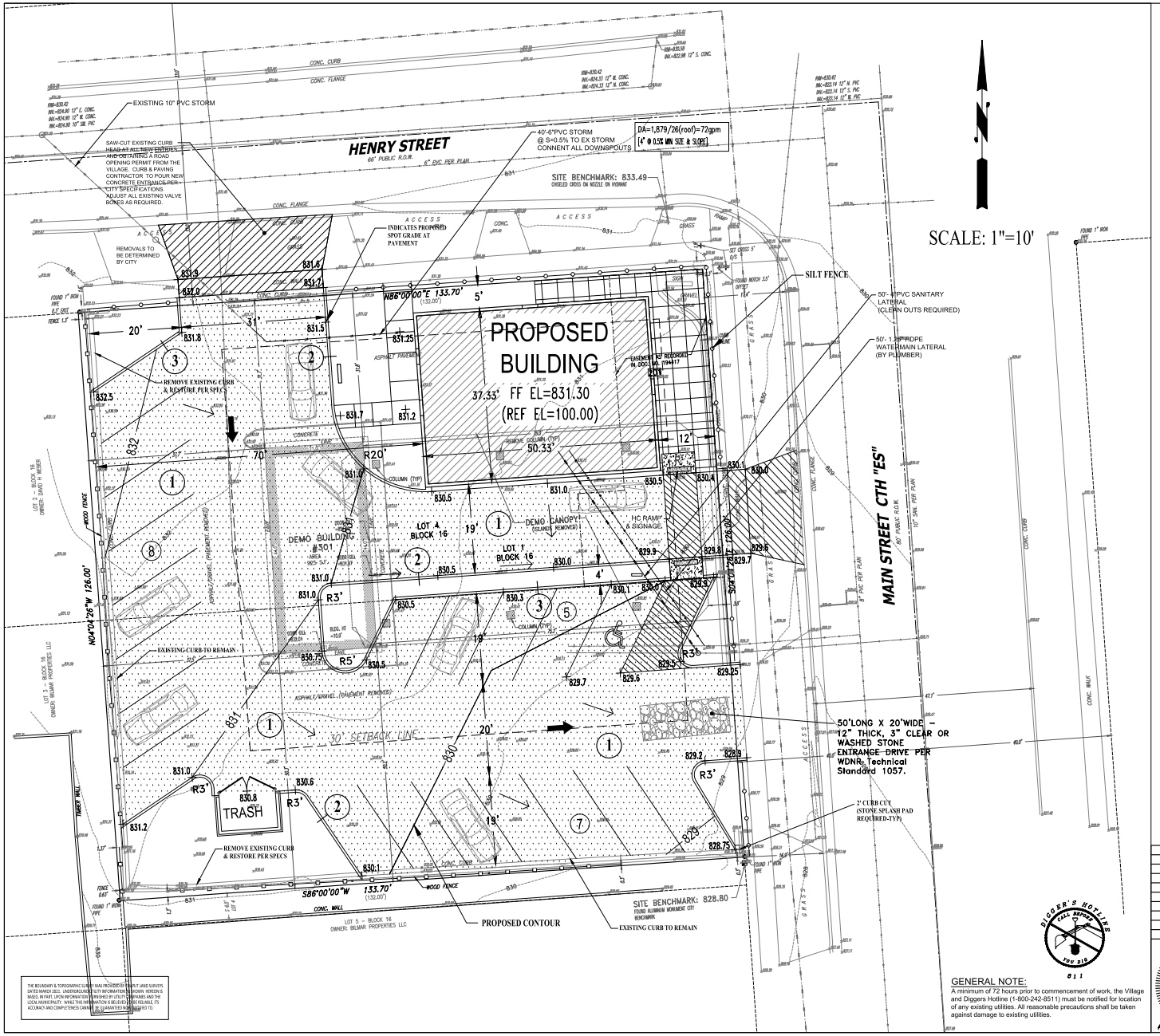
INFORMATION

PROJECT ARCHITECT	Bob Rowe
PROJECT MANAGER	X
PROJECT NUMBER	X
ISSUED FOR	REVIEW
DATE	04.29.2021

SHEET

SITE PLAN

A100



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9. Contractor shall be responsible for maintaining the Streets. The Streets shall be kept free of silt or dirt tracked from areas under construction by sweeping within 24hrs.
10. Upon completion of the work as specified, respread four (4") inches of salvaged topsoil over all disturbed areas and provide seed, fertilizer and erosion control fabric per the WDNR Technical Standards.
11. Stabilization of all disturbed areas must follow NR151 erosion control prescriptive standards which require immediate temporary stabilization of disturbed areas which remain inactive longer than 14 working days and within 7 days of final stabilization. Highway mix #40 shall be used for permanent seeding with an application rate of 4.0 lbs/1000 sf.
12. All erosion control devices shall be routinely inspected every seven days or within 24 hours of a rainfall greater than 0.5 inches. INSPECTION BY GENERAL CONTRACTOR.
13. IF PERMANENT SEEDING (WisDOT#40) IS NOT COMPLETED BY SEPTEMBER 15, APPLY TEMPORARY SEEDING (SEE BELOW). IF TEMPORARY SEEDING IS NOT COMPLETED BY OCTOBER 15, DORMANT SEED WITH EROSION CONTROL MATTING OR HYDROMULCH SHALL BE APPLIED TO INACTIVE DISTURBED SOILS BETWEEN OCTOBER 15TH AND MAY 1ST AS A TEMPORARY SOIL STABILIZATION MEASURE DURING THE NON-GROWING SEASON.

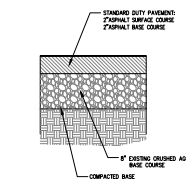
WisDOT Temporary Seed Mix:
Temporary seed shall be a seed mixture conforming to WisDOT 630.2.1.5.1.4.
Use winter wheat or rye for fall plantings started after September 1.

CONSTRUCTION PHASING SEQUENCING:

THE GRADING AND UNDERGROUND CONTRACTORS MUST FOLLOW THIS CONSTRUCTION SEQUENCE AS REQUIRED BY THE WDNR AND THE VILLAGE:
1. INSTALL SILT FENCE AND GRAVEL ENTRANCE.
2. DEMO THE CONSTRUCTION AREA & HAUL OFFSITE.
3. LOCATE EXISTING ONSITE STORM FOR NEW BUILDING HOOKUP AND INSTALL LATERALS.
4. CONSTRUCT BUILDING, TRASH AREA, PARKING LOT AND WALKS.
5. RESTORE ALL AREAS WITH TOPSOIL, SEED AND EROSION CONTROL MATTING.
6. FOLLOWING COMPLETE SITE STABILIZATION AND VILLAGE APPROVAL, REMOVE ALL EROSION CONTROL MEASURES.

LEGEND

- WOOD FENCE
- SILT FENCE
- S — SANITARY SEWER
- ST — STORM SEWER
- W — WATERMAIN
- OHW — OVERHEAD POWER/UTILITY
- G — UNDERGROUND GAS
- E — UNDERGROUND ELECTRIC
- C — UNDERGROUND CABLE
- × 100.0 — EXISTING SPOT ELEVATION
- 100 — EXISTING CONTOUR
- ×100.00 — PROPOSED SPOT ELEVATION
- 100 — PROPOSED CONTOUR
- PROPOSED DRAINAGE DIRECTION



STANDARD DUTY PAVEMENT
1

SITE DATA TABLE	
TOTAL SITE AREA :	16,846 S.F. (0.387 Ac)
NEW BUILDING AREA:	1,879 S.F.
NEW PARKING LOT AREA:	11,020 S.F.
NEW WALK AREAS:	870 S.F.
TOTAL IMPERVIOUS SURFACE AREA RATIO:	13,769 S.F./ 16,846 S.F. = 81.7%
TOTAL GREEN SPACE AREA RATIO:	18.3%

NOTE:
THIS GRADING PLAN MUST BE REVIEWED AND APPROVED BY THE VILLAGE ENGINEER.

REVISIONS	
DATE	DESC.

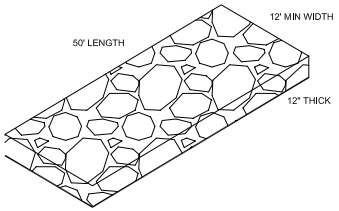
ELLENA ENGINEERING CONSULTANTS, LLC
Ellena Engineering Consultants, LLC • 700 Pilgrim Parkway - Suite 100 • Elm Grove, WI 53122
Phone: 262-719-4183 • Fax: 866-457-2584 • Email: mellena@seceng.com

ESPRESSO LOVE COFFEE
301 Main Street • Village of Mukwonago • Wisconsin

WISCONSIN
MARK R. ELLENA
E-24090
WALES, WI
PROFESSIONAL ENGINEER

SITE GRADING, PAVING & DRAINAGE PLAN

SCALE: 1" = 10' | JOB NO.: | DATE: 03-15-2021
CHECKED BY:
C100

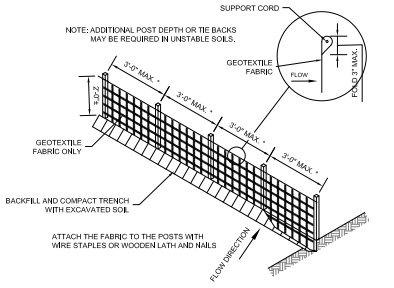


STONE TRACKING PAD

PER WDNR TECH STANDARD 1057
Note 1: Use hard, durable, angular No. 3" stone or recycled concrete meeting the gradation in Wisconsin Department of Transportation (DOT) 2018 Standard Specification, Section 312, Select Crushed Material.
Note 2: Slope the stone tracking pad in a manner to direct runoff to an approved treatment practice.
Note 3: Select fabric type based on soil conditions and vehicles loading.
Note 4: Install tracking pad across full width of the access point, or restrict existing traffic to a dedicated egress lane at least 12 feet wide across the top of the pad.
Note 5: If a 50' pad length is not possible due to site geometry, install the maximum length practicable and supplement with additional practices as needed.

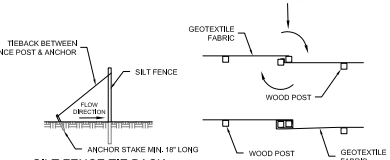
GENERAL NOTES

1. TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC, FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
2. WOOD POSTS SHALL BE A MINIMUM OF 1 ½" x 1 ½" OF OAK OR HICKORY.
3. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING METHODS: A) TWIST METHOD – OVERLAP THE END POSTS AND TWIST , OR ROTATE, AT LEAST 180 DEGREES. B) HOOK METHOD – HOOK THE END OF EACH SILT FENCE LENGTH.



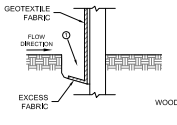
SILT FENCE

* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

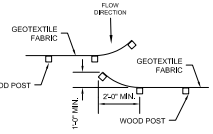


SILT FENCE TIE BACK
(WHEN ADDITIONAL SUPPORT REQUIRED)

TWIST METHOD

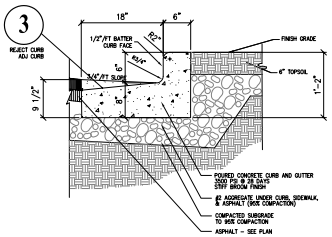


TRENCH DETAIL

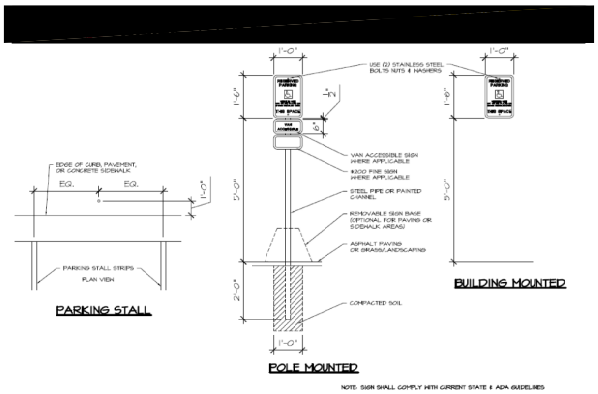


HOOK METHOD
JOINING TWO LENGTHS OF SILT FENCE ④

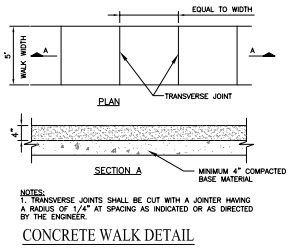
THIS DRAWING BASED ON WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD DETAIL DRAWING S E 540.



24" CONCRETE CURB & GUTTER 2
NO SCALE



HANDICAP PARKING SIGNS	REVISION 6/1/2012	2.9.1



NOTES:
1. TRANSVERSE JOINTS SHALL BE CUT WITH A JOINTER HAVING A RADIUS OF 1/4" AT SPACING AS INDICATED OR AS DIRECTED BY THE ENGINEER.

CONCRETE WALK DETAIL

THE BOUNDARY & TOPOGRAPHIC SURVEY WAS PROVIDED BY CHAPUT LAND SURVEYS DATED MARCH 2021. UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.

DIGGER'S HOTLINE CALL BEFORE YOU DIG 811

GENERAL NOTE:
A minimum of 72 hours prior to commencement of work, the Village and Diggers Hotline (1-800-242-8511) must be notified for location of any existing utilities. All reasonable precautions shall be taken against damage to existing utilities.

REVISIONS	
DATE	DESC.

ELLENA ENGINEERING CONSULTANTS, LLC
CIVIL ENGINEERING & CONSTRUCTION MANAGEMENT
Ellena Engineering Consultants, LLC • 700 Pilgrim Parkway - Suite 100 • Elm Grove, WI 53122
Phone: 262-719-8183 • Fax: 866-457-2584 • Email: mellena@eeceng.com

ESPRESSO LOVE COFFEE
301 Main Street ▪ Village of Mukwonago ▪ Wisconsin

WISCONSIN MARK R. ELLENA E-24090 WALES, WI PROFESSIONAL ENGINEER

DETAILS

SCALE: 1" = 10'	JOB NO.:	DATE: 03-15-2021
		CHECKED BY:

C200

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735 N Water Street, Suite 1228
Milwaukee, WI 53202
www.pure-arch.com

PROJECT

ESPRESSO LOVE COFFEE

301 MAIN STREET
MUKWONAGO, WI 53149

OWNER

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REVISIONS

NO.	DESCRIPTION	DATE

INFORMATION

PROJECT ARCHITECT	PA
PROJECT MANAGER	
PROJECT NUMBER	20109
ISSUED FOR	NOT FOR CONSTRUCTION
DATE	03.15.2021

SHEET

TITLE PAGE

G000

HENRY STREET

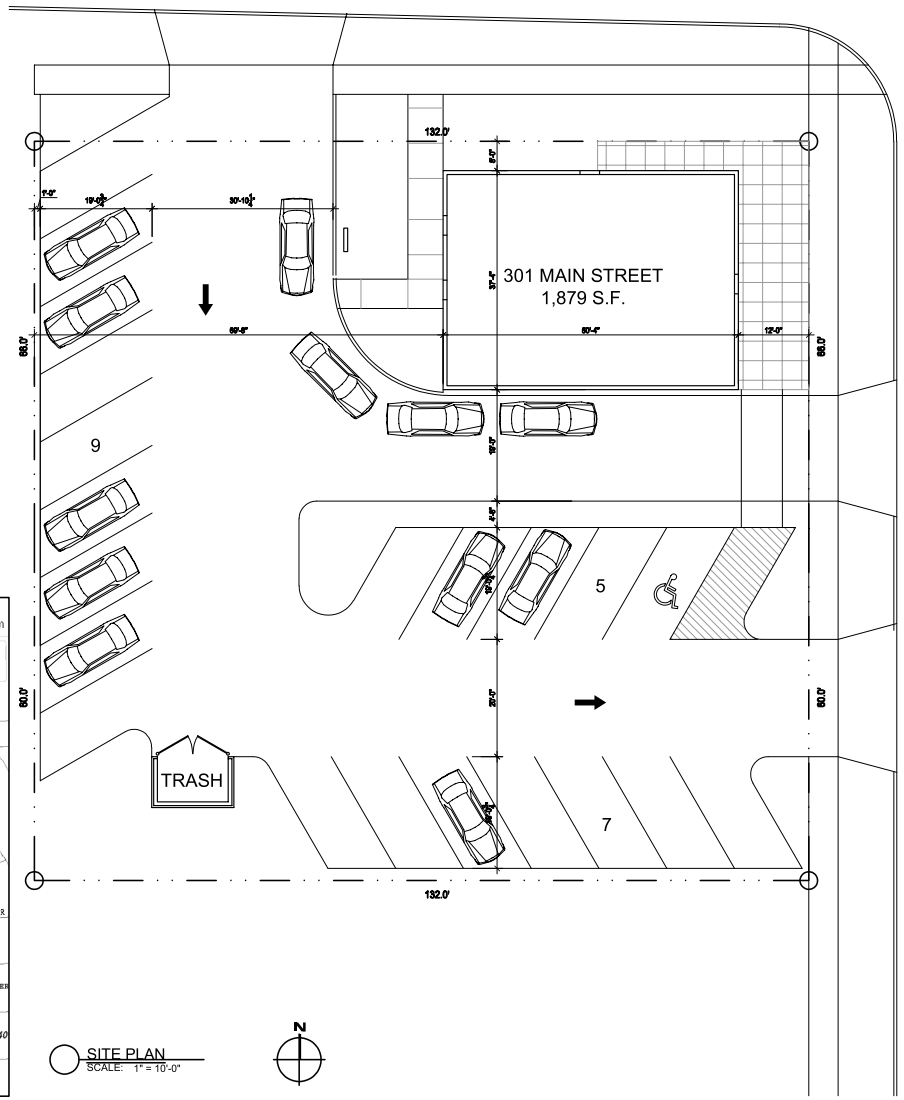
SITE AREA:
- APPROX. 16,632 S.F. (+/- VERIFY)

MAIN FLOOR:
- 1,727 S.F. Coffee Shop
- 152 S.F. Stair
- 1,879 S.F. Footprint

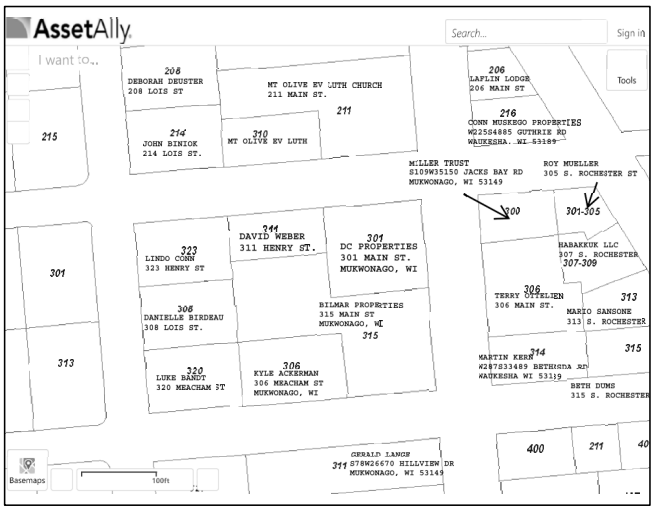
APARTMENTS:
- (1) 780 S.F. +/- 1-Bedroom Unit
- (1) 867 S.F. +/- 1-Bedroom Unit

PARKING:

COFFEE SHOP 1/3 SEATS =	11 SPACES
1/EMPLOYEE=	3
APARTMENT 2 SPACES PER UNIT=	4
REQUIRED:	18 SPACES
PROVIDED:	21 SPACES



MAIN STREET



SITE PLAN
SCALE: 1" = 10'-0"

N

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REVISIONS

NO.	DESCRIPTION	DATE

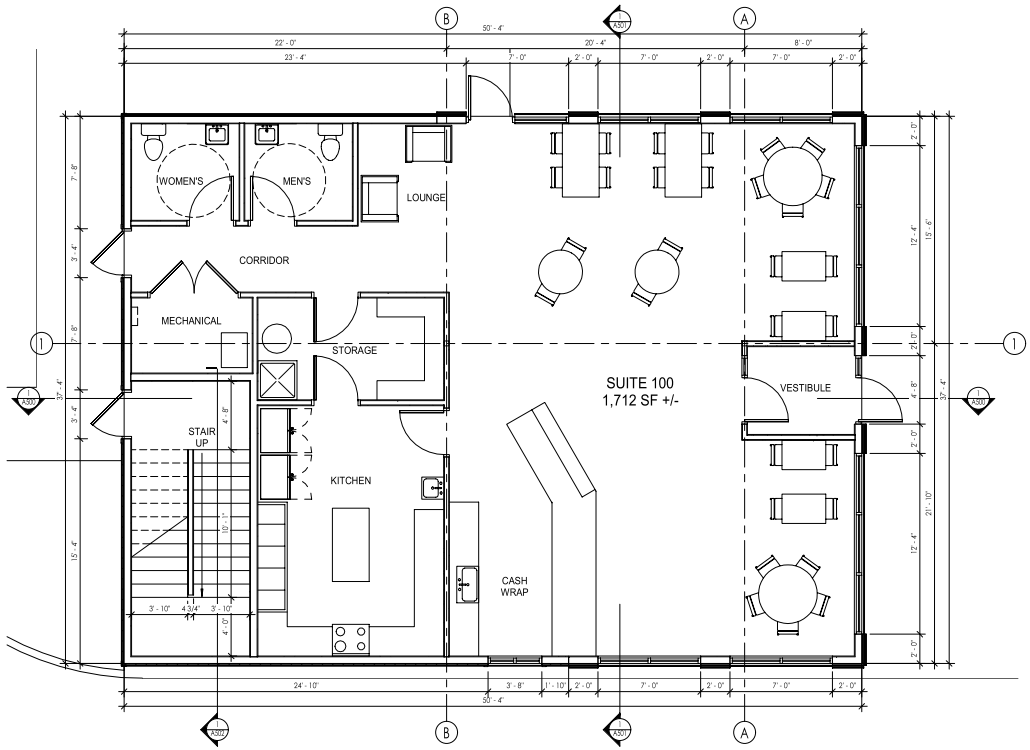
INFORMATION

PROJECT ARCHITECT	Bob Rowe
PROJECT MANAGER	X
PROJECT NUMBER	X
ISSUED FOR	REVIEW
DATE	03.30.2021

SHEET

SITE PLAN

A100



1 1ST FLOOR PLAN
SCALE: 1/4" = 1'-0"

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REVISIONS

NO.	DESCRIPTION	DATE

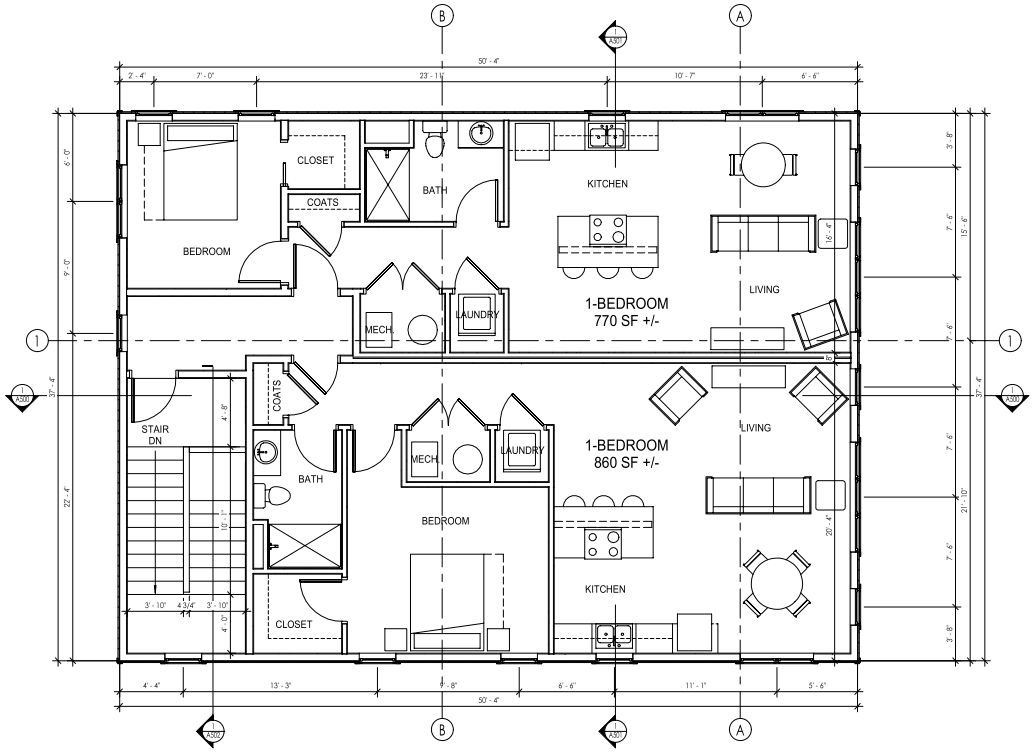
INFORMATION

PROJECT ARCHITECT	PA
PROJECT MANAGER	
PROJECT NUMBER	20109
ISSUED FOR	NOT FOR CONSTRUCTION
DATE	03.15.2021

SHEET

1ST FLOOR PLAN

A101



1 **2ND FLOOR PLAN**
SCALE: 1/4" = 1'-0"

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REVISIONS

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INFORMATION

PROJECT ARCHITECT	PA
PROJECT MANAGER	
PROJECT NUMBER	20109
ISSUED FOR	NOT FOR CONSTRUCTION
DATE	03.15.2021

SHEET

2ND FLOOR PLAN

A102

2 **EAST ELEVATION**
SCALE: 1/4" = 1'-0"

1 **SOUTH ELEVATION**
SCALE: 1/4" = 1'-0"

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INFORMATION

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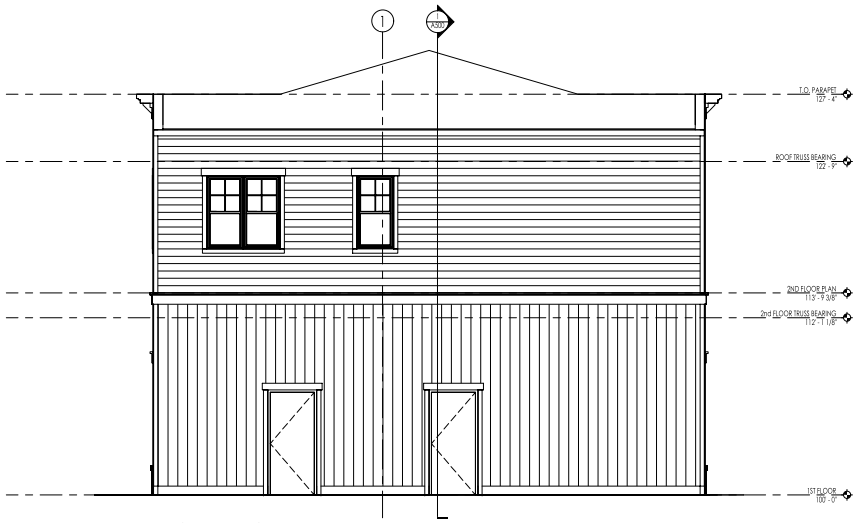
PROJECT MANAGER	
PROJECT NUMBER	20109
ISSUED FOR	NOT FOR CONSTRUCTION
DATE	03.15.2021

SHEET

BUILDING ELEVATIONS

A401



2 **WEST ELEVATION**
SCALE: 1/4" = 1'-0"

1 **NORTH ELEVATION**
SCALE: 1/4" = 1'-0"

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REVISIONS

NO.	DESCRIPTION	DATE

INFORMATION

PROJECT ARCHITECT	PA
PROJECT MANAGER	
PROJECT NUMBER	20109
ISSUED FOR	NOT FOR CONSTRUCTION
DATE	03.15.2021

SHEET

BUILDING ELEVATIONS

A402

1 SOUTHEAST PERSPECTIVE
SCALE:

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REVISIONS

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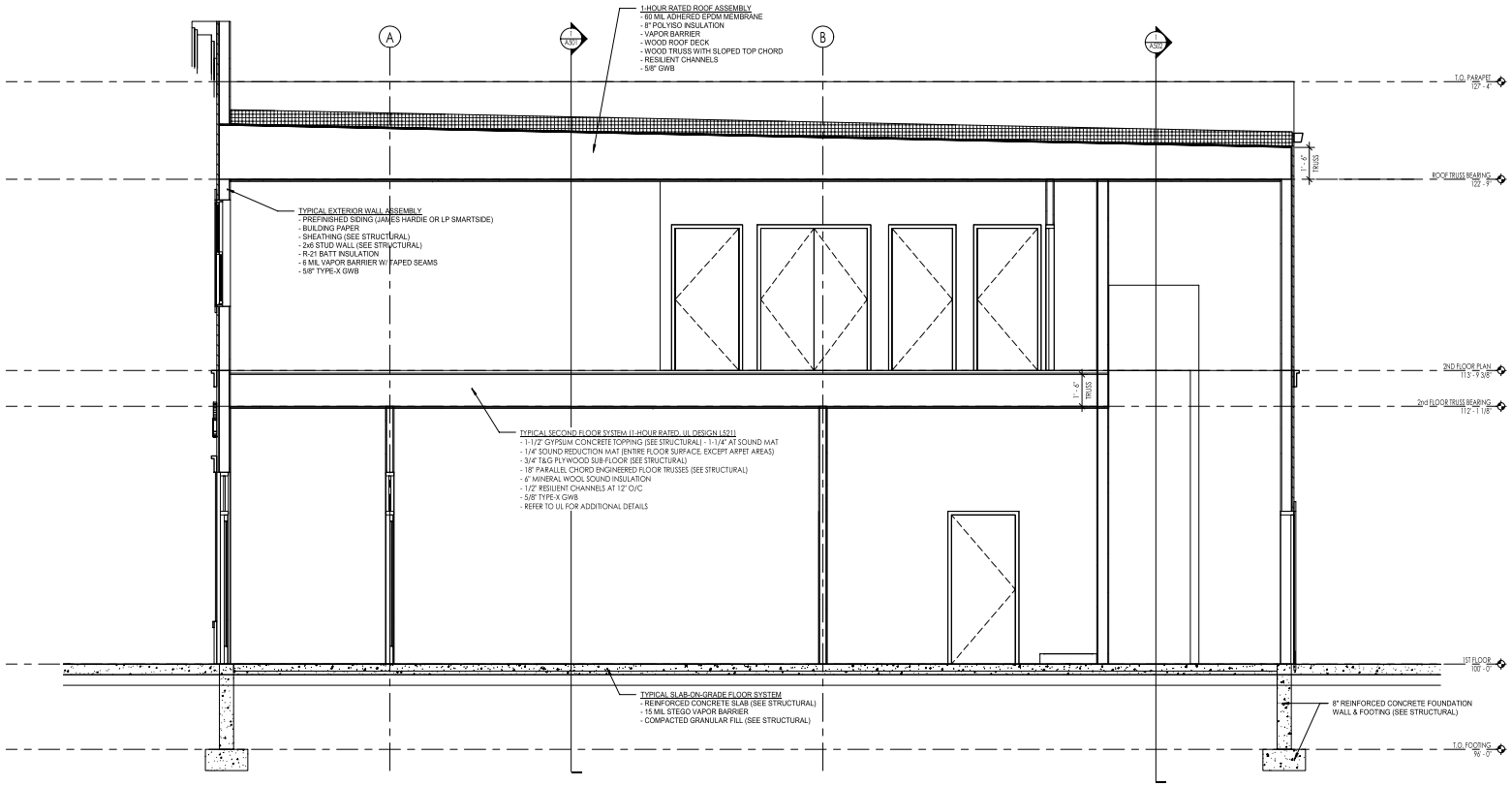
INFORMATION

PROJECT ARCHITECT	PA
PROJECT MANAGER	
PROJECT NUMBER	20109
ISSUED FOR	NOT FOR CONSTRUCTION
DATE	03.15.2021

SHEET

RENDERING

A403



1 **SECTION A**
SCALE: 3/8" = 1'-0"

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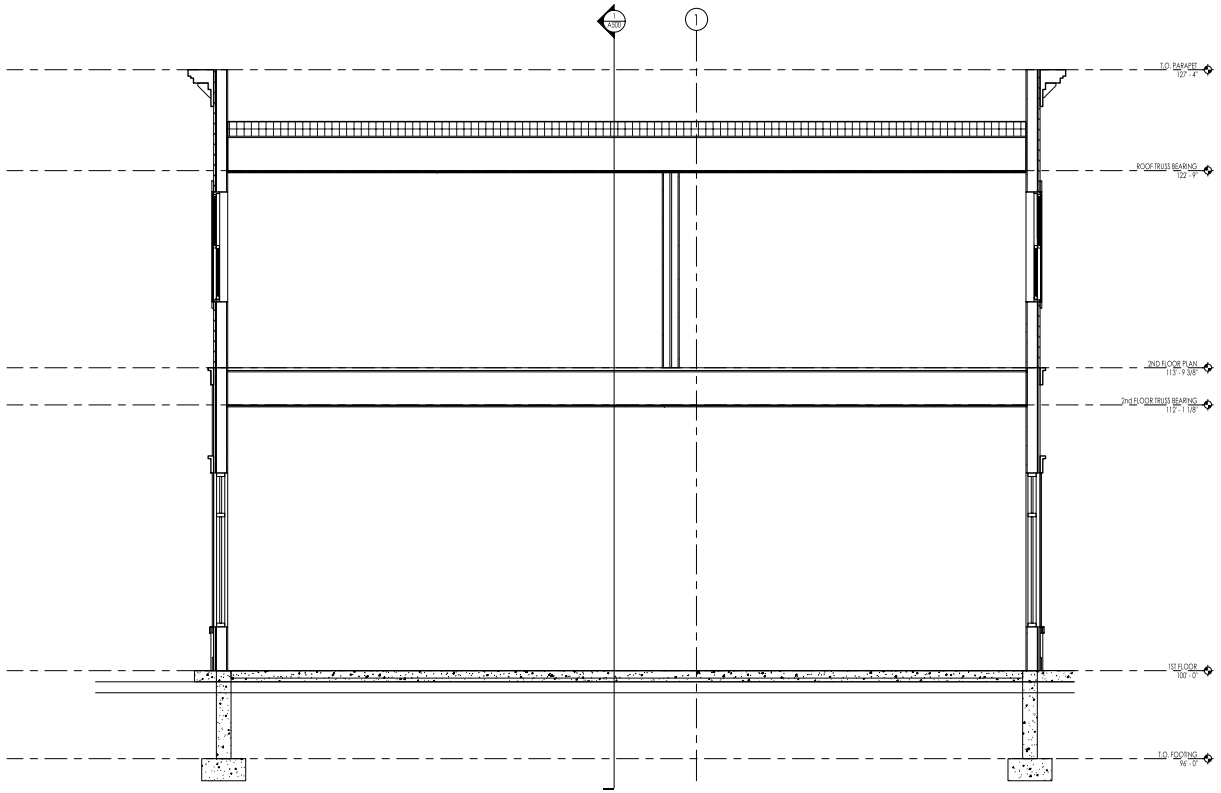
INFORMATION

PROJECT ARCHITECT	PA
PROJECT MANAGER	
PROJECT NUMBER	20109
ISSUED FOR	NOT FOR CONSTRUCTION
DATE	03.15.2021

SHEET

BUILDING SECTIONS

A500



1 **SECTION B**
SCALE: 3/8" = 1'-0"

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REVISIONS

NO.	DESCRIPTION	DATE

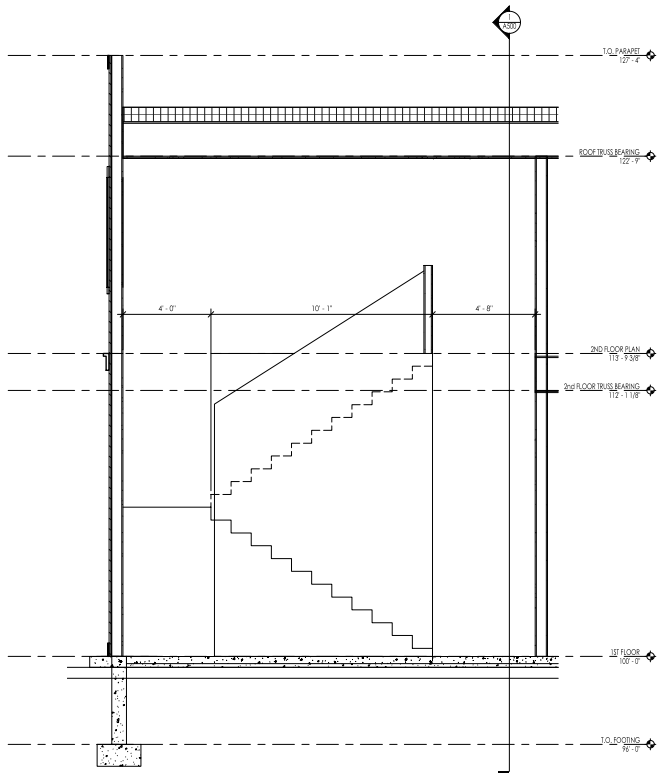
INFORMATION

PROJECT ARCHITECT	PA
PROJECT MANAGER	
PROJECT NUMBER	20109
ISSUED FOR	NOT FOR CONSTRUCTION
DATE	03.15.2021

SHEET

BUILDING SECTIONS

A501



1 **STAIR SECTION**
SCALE: 3/8" = 1'-0"

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REVISIONS

NO.	DESCRIPTION	DATE

INFORMATION

PROJECT ARCHITECT	PA
PROJECT MANAGER	
PROJECT NUMBER	20109
ISSUED FOR	NOT FOR CONSTRUCTION
DATE	03.15.2021

SHEET

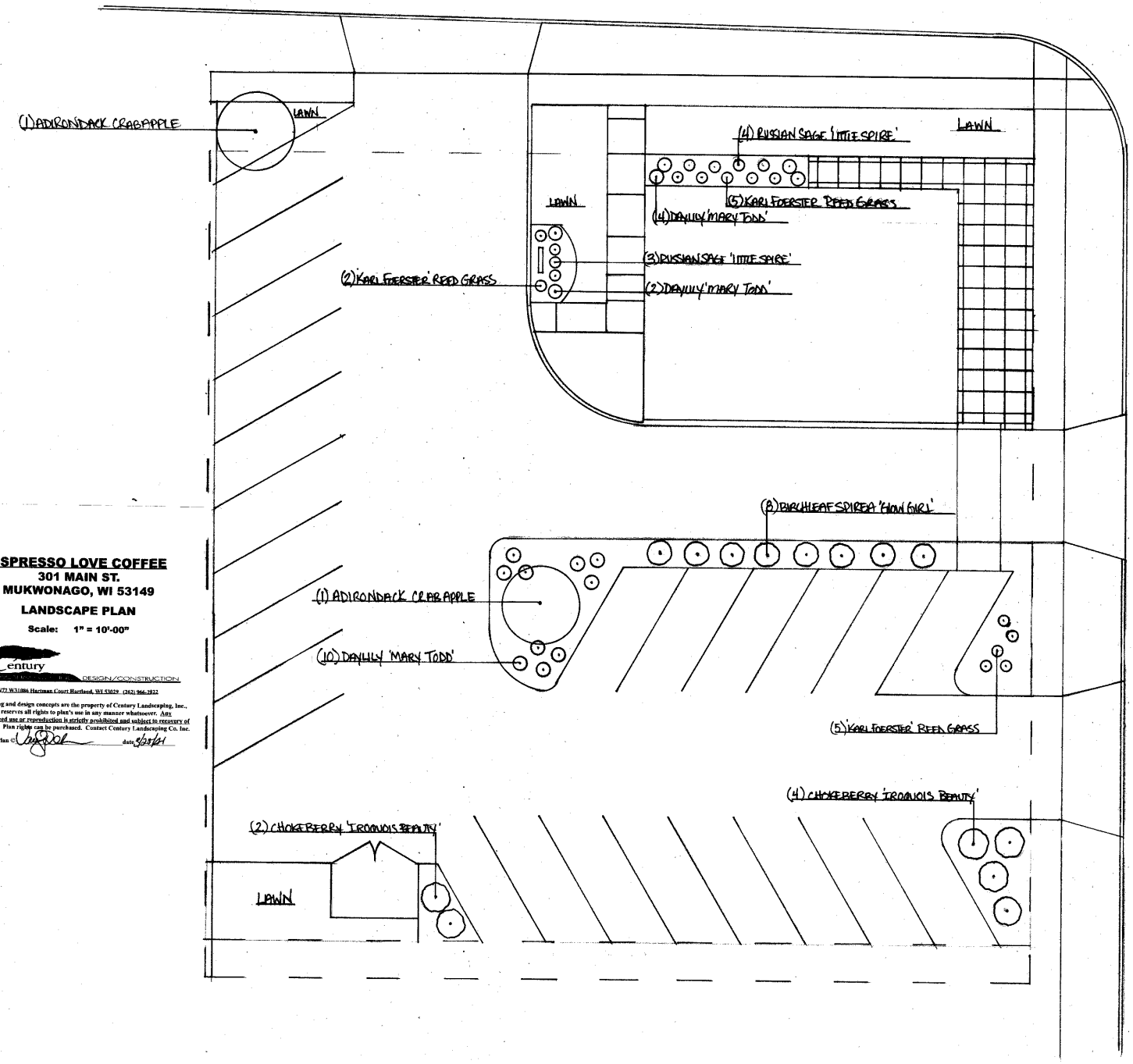
BUILDING SECTIONS

A502

Espresso Love Coffee

Building Material Sample Board

1. LP Smartside – Rapid Blue – second floor siding
2. LP Smartside – Summit Blue – first floor siding
3. LP Smargside – Snowscape White – Trims
4. 1" clear insulated glass
5. Black anodized window and door frames.



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301 MAIN ST.
MUKWONAGO, WI 53149

LANDSCAPE PLAN

Scale: 1" = 10'-00"

Century DESIGN/CONSTRUCTION
N72 W31086 Hartman Court Hartland, WI 53029 (262) 966-3922

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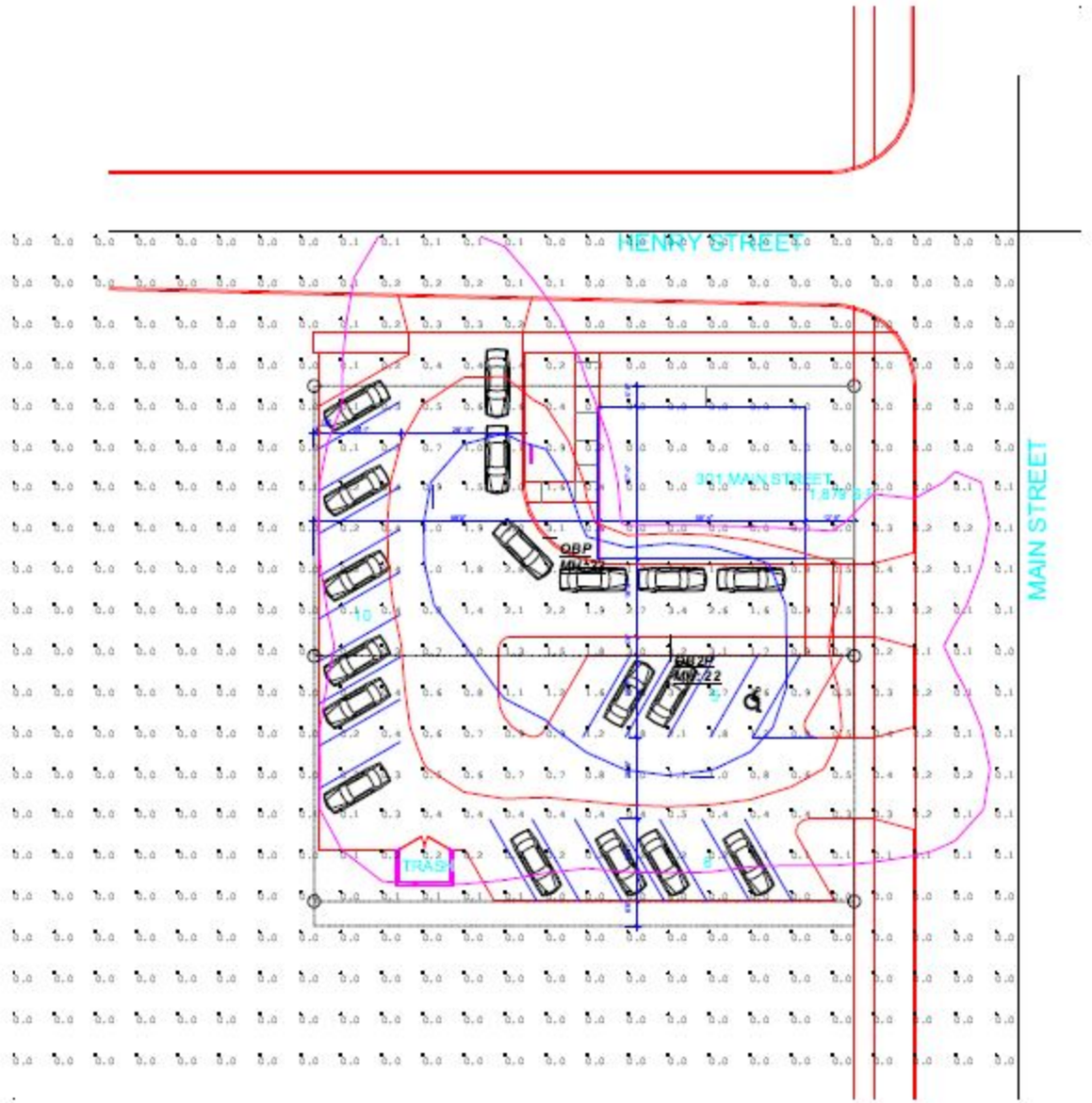
Design Plan © date 8/23/24



Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts_1	Illuminance	Fc	0.27	4.2	0.0	N.A.	N.A.

Luminaire Schedule							
Symbol	Qty	Label	Description	Arrangement	Lum. Lumens	Lum. Watts	LLF
	1	OB2P	DMG x- W4ASLED30K-T-LE3F	BA K-BA K	30	3.6	1.000
	1	OBP	DMG x- W4ASLED30K-T-LE3F	SINGLE	30	3.6	1.000

1. Standard reflectance of 80/ 0/20 unless noted otherwise
2. Not construction Document, for Design purposes only
3. Standard indoor calc points @ 30" A.F.F. unless noted otherwise
4. Standard outdoor calc points @ Grade unless noted otherwise
. Mizgar Associates assumes no responsibility for installed light levels due to field conditions, etc.

Revisions		
No.	Date	Comments

RAMA Project # 107007
Drawn By:MB
Date:3/29/2021
Scale:1"=15'-0"

PHOTOMETRIC SITE PLAN

ESPRESSO LOVE
MUKWONAGO, WI

RESOLUTION 2021-38
Village of Mukwonago Order Granting a Conditional Use and Prescribing Conditions for a Coffee shop and apartments for Espresso Love Coffee for 301 Main Street

WHEREAS, Elovecoffee LLC DBA Espresso Love Coffee (hereinafter "property owner") owns the property identified as 301 Main Street (hereinafter "subject property") in the Village of Mukwonago, more particularly described as follows:

LOT 1 & PT LOT 4 EX SLY 6 FT BLK 16 ORIGINAL PLAT PT SE1/4 SEC 26 T5N R18E

WHEREAS, the property owner and future purchaser has, consistent with the Village of Mukwonago's zoning regulations, submitted a conditional use application for a drive-through coffee shop with two apartments, with a permitted or conditional use,

WHEREAS, upon receipt of the petition submitted by the property owner and future purchaser, the Village Clerk properly referred such petition to the Plan Commission; and

WHEREAS, allowing for required public notice, the Plan Commission conducted a public hearing on May 19th, 2021 to consider the petitioner's request; and

WHEREAS, members of the public in attendance were given ample opportunity to provide comment regarding the petitioner's request; and

WHEREAS, the Plan Commission passed a motion recommending to the Village Board that the conditional use be approved subject to certain conditions; and

Return to:
Diana Dykstra, Clerk-Treasurer
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Parcel Number: MUKV 1976-128

WHEREAS, the Plan Commission, in passing on the matter, has made the following determinations consistent with Section 100-354 of Mukwonago's zoning regulations:

1. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.

2. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.

3. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.

4. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.

5. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

In addition, the property owner and future purchaser has shown compliance with the requirements set forth in the Village's zoning regulations for the specified use.

WHEREAS, the Village Board has carefully reviewed the recommendation of the Plan Commission and concurs with the Plan Commission's findings set forth above, provided the conditional use is operated pursuant to the conditions of approval set forth in this order.

NOW THEREFORE, IT IS HEREBY DETERMINED AND ORDERED AS FOLLOWS:

1. **Authorized uses**. Subject to the terms and conditions of this approval and the sections of the zoning code that apply, the property owner is authorized to operate a secondhand store as set forth herein and as specified in the Village's zoning code.

2. **Issuance of permit required**. The zoning administrator is authorized to issue the property owner a conditional use permit when all conditions enumerated in section 3 have been satisfied to his or her satisfaction. Such permit is the last approval before the property owner/tenant can begin to establish the use as authorized herein.

3. **Initial conditions of approval.** The following conditions shall be satisfied prior to the issuance of the conditional use permit:

a. The property owner must submit site/architectural plans to the Village for review and obtain approval of the same within 9 months of the date of this decision.

b. The property owner must accept the terms and conditions of this conditional use order in its entirety in writing within 6 months of the date of this decision. Prior to such expiration, the property owner may request an extension to this time period and the Village Clerk may approve an extension with good cause.

c. This order must be recorded against the subject property in the Waukesha County register of deeds office (only if subsections 3(a) through 3(b) have been satisfied).

In the event the requirements enumerated in subsections 3(a) and 3(b) above are not satisfied, this order shall automatically be null and void without any further action by the Village of Mukwonago on the aforementioned date.

4. **Ongoing conditions of approval**. The following conditions shall constitute an ongoing obligation:

a. The authorized use shall not be conducted in such a way so as to exceed on-site parking.

b. The authorized use shall not be conducted in such a way so as to violate fire-related building capacity standards established by the local fire department or the state of Wisconsin.

c. The authorized use shall not be conducted in such a way so as to constitute a public or private nuisance as determined by the Plan Commission.

d. Potable water and sanitation must be provided and maintained.

e. The Plan Commission may unilaterally amend an approved site plan/plan of operation by revising existing provisions or adding new provisions. Such amendment shall be limited in scope to address negative impacts the use is having on surrounding properties and/or the public health, safety, and welfare.

f. The use of the subject property shall at all times be in compliance with all applicable laws, rules, regulations or orders, and ordinances of the federal government, State of Wisconsin, Waukesha County, and Village of Mukwonago.

g. All buildings on the subject property shall comply with all applicable building requirements as may be adopted by the Village of Mukwonago or the state of

Wisconsin.

h. The subject property must be in a clean and neat appearance as determined by the Plan Commission.

i. The property owner shall obtain and maintain all licenses for the operation of this facility, as may be required by the Village or the State of Wisconsin.

j. The front of the dumpster enclosure shall not be blocked by vehicles or other items.

k. No vehicles shall block the sidewalks at entrances or exists at any time.

l. The drive-thru area shall be cleaned as needed and cleaned upon any spill from drive thru service.

m. Compliance with all conditions with the Site Plan and Architectural Review (SPAR) resolution.

n. Mondays-Fridays, 5 a.m. - 5 p.m. and 6 a.m. - 4 p.m. on weekends. Our plan is to operate the drive through within the scope of those hours.

5. **Expansion or changes.** The conditional use hereby authorized shall be confined to the subject property without extension or expansion. Any expansion or change in use shall require issuance of a new conditional use approval pursuant to the requirements in effect at the time of application.

6. **Modification of property boundary lines**. The property owner shall not change the size and/or shape of the subject property by any means without the approval of the Village Board. If the Village Board determines that a proposed change is substantial with regard to the overall size of the parcel and/or configuration, such change shall require issuance of a new conditional use approval pursuant to the requirements in effect at the time of application.

7. **Plans and related matters**. Unless otherwise expressly stated herein, plans that are specifically required by this conditional use order may be amended upon the prior approval of the Plan Commission if the Plan Commission finds the amendment to be minor and consistent with the conditional use order and permit. Any change in any plan that the Plan Commission feels, in its sole discretion to be substantial, shall require a new conditional use approval and all procedures in place at the time must be followed.

8. **Inspection**. The property owner shall allow Village of Mukwonago staff, officials, and other authorized agents to inspect the subject property, at any reasonable time and for any proper purpose related to compliance with this conditional use order.

9. **Discontinuance**. Should the conditional use be discontinued in use for 365 consecutive days the use shall be terminated as set forth in the Village of Mukwonago's zoning regulations.

10. **Private rights**. This approval is given under the Village of Mukwonago's zoning regulations and is not to be interpreted to abrogate any private rights other property owners may have pursuant to deed restrictions or restrictive covenants.

11. **Interpretation**. If any aspect of this conditional use order is in conflict with any other aspect of the conditional use order, the more restrictive provisions shall be controlling, as determined by the Plan Commission.

12. **Other permits**. This order shall not be deemed to constitute a building permit, or constitute any other license or permit required by Village ordinance, or other local, state, or federal law.

13. **Severability**. In the event a court of competent jurisdiction determines that a paragraph or phrase of this conditional use order is unlawful, illegal, or unconstitutional, said determination as to the particular phrase or paragraph shall not void the rest of the conditional use order and the remainder shall continue in full force and

effect.

14. **Heirs, successors, and assigns**. This conditional use order shall be binding upon the property owner and their heirs, successors, and assigns. Upon a change in ownership, the property owner shall notify the Village Clerk.

15. **Ongoing review**. This conditional use may be reviewed by the Plan Commission with notice to the property owner at any time upon complaint or upon Plan Commission initiative. If it is determined that the authorized use is no longer compatible, or that the provisions of this approval have not been complied with, the Village Board may revoke or amend this order after recommendation by the Plan Commission and holding of a public hearing.

16. **Amendment**. The property owner may propose an amendment to this conditional use order at anytime by submitting a written petition to the Village Clerk, which shall be reviewed pursuant to the requirements in effect at the time of application.

17. **Violation**. Any violation of this order may be treated as a violation of Mukwonago's zoning regulations and each day of each violation of each condition herein shall be treated as a separate violation.

Approved this 19th day of May, 2021

BY THE VILLAGE BOARD OF THE VILLAGE OF MUKWONAGO

_____

Fred Winchowky, Village President

Attest:

_____

Diana Dykstra, Village Clerk

STATE OF WISCONSIN, WAUKESHA/WALWORTH COUNTY

Personally came before me this ____ day of _____ 2021, the persons described above, Fred Winchowky, Village President, and Diana Dykstra, Village Clerk, to me known to be the persons who executed the foregoing instrument and to me known to be such Village President and Village Clerk of the Village of Mukwonago and acknowledged that they executed the foregoing instrument as such officers of said municipal corporation by its authority and pursuant to the authorization by the Village Board from their meeting on the 19th day of May, 2021.

_____

NOTARY PUBLIC

_____

My Commission Expires:

The remainder of this page left intentionally blank

Acceptance by Property Owner

I, David A. Stockwell, verify that I am an authorized agent for **Elovecoffee LLC DBA Espresso Love Coffee** accepts the terms stated herein.

Dated this _____ day of _____, 2021

_____
David A. Stockwell, agent

STATE OF WISCONSIN, WAUKESHA/WALWORTH COUNTY

Personally, came before me this ____ day of _____, 2021, the above-named person, David A. Stockwell to me known to be the person who executed the foregoing instrument and acknowledged the same.

_____
NOTARY PUBLIC

_____
My Commission Expires:

Drafted by John S. Fellows, AICP, Planner, at the direction of the Mukwonago Village Board.

RESOLUTION 2021- 39

RESOLUTION APPROVING SITE PLAN AND ARCHITECTURAL REVIEW FOR ESPRESSO LOVE COFFEE, APPLICANT at 301 Main Street, MUKV 1976-128

WHEREAS, pursuant to Section 100-601, and 100-153 of the Zoning Code, an application for a site plan and architectural review has been filed for the approval for a drive-through facility, which application was filed in the office of the Village Clerk, Village of Mukwonago, Wisconsin, and

WHEREAS, the application has been submitted by the VILLAGE OF MUKWONAGO

WHEREAS, Restaurants with drive thru facilities are within the B-2/ Village Center Multi-Purpose Overlay in which the subject property is located, and

WHEREAS, the plan of operation and plans have been reviewed and recommended by the Village Plan Commission.

NOW, THEREFORE, BE IT RESOLVED by the Village Board of the Village of Mukwonago, Wisconsin hereby approves the site plan and architectural review for structures within a public park at 301 Main Street, based upon the plan of operation and plans submitted to the Village.

NOW, THEREFORE, BE IT FURTHER RESOLVED this site plan and architectural review approval shall be subject to the following conditions:

1. Prior to any land disturbing activity, the applicant must submit a complete and final set of plans to the Village. All Village department heads must verify in writing whether they have approved the final plans within their purview. Any outstanding matters must be resolved to staff's satisfaction.
2. Prior to any land-disturbing activity, a pre-construction meeting must be held with the applicant's representatives and primary contractors, and Village department heads and representatives.
3. Prior to any land-disturbing activity, the applicant must reimburse the Village for any outstanding charges and establish an escrow account with the Village as may be required.
4. The applicant must obtain all required building permits within nine months of this date and start construction within six months of the date of building permit issuance and continue in good faith to completion.
5. All work related to this project must comply with all project plans approved by the Village.
6. The developer must comply with all requirements related to impact fees imposed by the Village.
7. The developer shall comply with all parts of the Municipal Code as it relates to this project.
8. The developer shall comply with comments from Ruekert-Mielke letters regarding stormwater and utilities. Final Plans shall be submitted, reviewed, and approved by Ruekert-Mielke prior to the pre-construction meeting.
9. If the approved plans need to be revised to address any of the conditions of approval or to conform to Building and Fire Safety Codes, the Zoning Administrator and the Supervisor of Inspections are authorized to approve minor modifications so long as the overall project elements remain

unchanged. If they determine that the revision is substantial, the plans must be submitted to the Plan Commission for review and approval.

10. Plans must allow for a WB-50 vehicle to access the site.
11. A dedicated hydrant for FDC and suppression system must be provided.
12. All lighting within the parking lot and building lighting shall be full cut of lighting. The Police Department or Zoning Administrator, after completion or any modification to the lighting in the future, may request adjustments.
13. The applicant shall apply for and receiving approval for all new signage.
14. Final plans for Stormwater, Water, Sewer, Hydrants, and erosion control must be submitted, reviewed, and approved by the Village Engineer prior to submission of any building permits and preconstruction meeting.
15. The existing water serviced they are using was a new 1¼" HPDE water service into the property line about 4 years ago and is good to use. The sanitary sewer lateral will have to be supplied to Utilities to prove its condition before it can be reused. Any utilities not being reused will have to be capped at main.
16. Entrance only/exit only signs at the entrance and exit shall be provided. A sign on each side of the drive, facing the street. Two entrance only signs at Henry Street and two exit only signs at Main Street. They should also have exit only signs at the drive through exit on Main Street. All signs shall be reviewed and approved, and permits issued by staff prior to installation.
17. Fire Need WB-50 template run. State to determine if suppression is needed by occupancy number. KNOX Box.
18. The Henry Street driveway will need to be modified to 24 feet to meet village standards. Staff recommends these revisions occur prior to submission of any permits, Revisions will be required to be reviewed and approved by Fire, Public Works, Engineering, and Planning.
19. An agreement will need to be executed by the village board to create an easement for six parking spaces of public parking. This agreement will need to be prepared, approved, and executed following approval of a Conditional Use and site plan and architectural approval. The agreement must be completed and recorded prior to any permits being issued.
20. Two additional trees be planted on site within the panting islands adjacent to main street. Such shade trees shall have a columnar upright pattern to allow for visibility under the trees for turning movements out of the drives. In addition, one additional shade tree to be planted at the rear of the building between the drive and the sidewalk. This will bring the total number of on-site trees to five. The additional seven trees be planted within the right of way of Henry and Main. A revised landscaping plan will be required to be submitted and plans reviewed and approved by the Director of Public Works and Community Planner.
21. Revisions to the landscaping plan along Main Street shall occur to provide for better screening year-round while being maintained no higher than three feet in height from the pavement surface. A revised landscaping plan will be required to be submitted and plans reviewed and approved by the Director of Public Works and Community Planner.
22. Details with regard to the trash enclosure shall be provided prior to submission of permits. The enclosure shall meet the requirements of section 100-152 (g). Since the building is not proposed to have masonry staff the enclosure shall have a standard brick veneer for the outward facing walls of the structure.
23. The exiting fence shall be repaired and maintained and both sides of the fence shall be stained a natural color to allow for existing and new wood to blend together.
24. The lighting poles shall be as short as possible to minimize lighting concerns. Staff recommend that the finish of the poles and lights be black or other dark color. Staff recommends that all lighting specifications and plans be submitted, reviewed, and approved prior to permitting.
25. A bike rack shall be provided on the property near Henry Street.

26. The Planning Commission grants approval to allow for 0% of masonry to allow for this building to blend into the unique context of the Village Center area.
27. The Planning Commission grants approval for a third drive.
28. Any future modification to the site such as modification of parking, lighting, grading, retaining walls, fences, etc. shall require Site Plan and Architectural Review.

NOW, THEREFORE, BE IT FURTHER RESOLVED the applicant, upon the approval of this site plan and architectural review shall agree to accept the same in writing.

Passed and dated this 19th day of May 2021.

VILLAGE OF MUKWONAGO

By: _____
Fred Winchowky, Village President

Attest: _____
Diana Dykstra, Village Clerk-Treasurer

PLANNING COMMISSION

May 11, 2021 at 6:30pm
Mukwonago, WI

SITE PLAN AND ARCHITECTURAL REVIEW AND CONDITIONAL USE PERMIT

827 S Rochester Street
Parcel Number: MUKV 2009-998-003

Case Summary

Parcel Data

Proposal:	Restaurant with Drive Through
Applicant:	Mark Sykes / Sykes Foods, LLC
Request:	Site Plan and Architectural Review Conditional Use Permit for drive through
Staff Recommendation:	Approve with Conditions
Planning Commission Recommendation:	Pending

Parcel Characteristics / Conditions

Acreage:	1.4798
Current Use:	Vacant Commercial Tenant Space
Proposed Use:	Restaurant with Drive Through
Reason for Request:	Drive Through / Building Modifications
Land Use Classification:	Low Intensity Commercial / Business
Zoning Classification:	B-2 General Business District
Census Tract:	2039.01

Public Notice

A public hearing notice was published two times in the Waukesha Freeman, and letters were mailed to surrounding property owners. Public comment as of this date, staff has not received any comments or other communications regarding this proposal.

Site Plan and Architectural Review Request

Architectural/ Site Review Sykes Foods, LLC is requesting approval for building modifications and a conditional use related to a proposed restaurant with drive through. The exterior modifications will consist of replacing one window element within the exiting window system of the old bank to be a slide window to accommodate a drive through facility. The restaurant will use the lane closest to the building while the other lanes will remain unused.

	The modifications to the window will match with regard to material and color.
Site Modifications	No site modifications will be made at this time. A circulation diagram showing the circulation of the site with regard to the new drive through is attached as an exhibit.
Utilities	No modifications at this time.
Stormwater Management	No modifications at this time.
Wetlands	None
Signage	Will be reviewed by staff per ordinance. Signage on plans is for illustrative purposes and has not been reviewed for compliance.
Parking	No modifications at this time.
Landscaping	No modifications at this time.
Trash Enclosure	No modifications at this time.
Fencing	No modifications at this time.
Outdoor Lighting	No modifications at this time.
Misc. Performance Standards	None

Staff Review

Engineering	Approve
Public Works	Approve
Utilities	Approve
Police	Approve
Fire	Approve
Building Inspection	Approve
Planning	Approve

Conditional Use Request

About the Business:

Sykes Foods, LLC is a family owned business with Subway restaurants in Wales, Mukwonago and Waukesha (Delafield Street) Our current location at 103 Lake Street does not have the ability for a drive-thru facility. We are seeking to relocate to the vacant bank location on S. Rochester.

Harmony with Village policies, ordinances, and programs

Subway has been operating restaurant in Mukwonago for decades, providing a quality fresh food alternative to the community. Additionally, it has been and will be an employment

opportunity for local youth and adults. Skykes foods, subway has supported local charity and fund-raising events and the Chamber of Commerce.

Specific Location within harmony with Village polices, ordinances and programs

Our subway drive thru location is a relocation to a more accessible faculty including easy on off from both Hwy 83 and interstate 43. The location is historically a drive through business situated in a contiguous retail outlet area.

Potential Adverse Impact on surrounding:

The current facility footprint is already developed as a drive thru business. Subways buildout will only rebrand the business location and not change the physical structure other than one window. This should not cause adverse impact on traffic flow, parking, environment, and neighborhood character.

Maintaining consistency within the environs of the property:

Subway's Operation in this location will revitalize the business environment and have little to no affect on the surrounding environs.

Adequate Services

The business location is already developed with all supporting utilities and services. There will be no anticipated additions of services to support this location.

Benefits of the use outweigh adverse impacts.

Yes, the benefits will outweigh the adverse impacts in light of the COVICD pandemic, having a contextless Drive -through operation will provide customers additional safe option for dinning out.

Hours of Operation:

Hours of operation would be 9am to 9pm daily

Conditional Use Process / Findings

Review procedures The Plan Commission holds the public hearing and makes a recommendation to the Village Board which makes the final decision.

Following the close of the public hearing, the Plan Commission may recommend (1) approval, (2) approval with conditions, or (3) denial.

If approval is recommended, the Plan Commission can recommend conditions deemed necessary to protect the public health, safety, and welfare. The Plan Commission, in passing on the matter, will need to make the following determinations consistent with Section 100-354 of Mukwonago's zoning regulations:

1. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.

2. The uses, values and enjoyment of other property in the surrounding neighborhood that are

already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.

3. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.

4. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.

5. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

In addition, the property owner / tenant has shown compliance with the requirements set forth in the Village's zoning regulations for the specified use.

The Village Board will carefully review the recommendation of the Plan Commission and concurs with the Plan Commission's findings set forth above, provided the conditional use is operated pursuant to the conditions of approval set forth in this order.

These findings are incorporated into the draft conditional use order which is attached.

The Plan Commission shall approve a conditional use application if the terms and conditions of the zoning regulations are met. However, in the event the terms and conditions of the ordinance are not consented to and complied with by the applicant, the Commission may deny the application. In addition, the Commission may deny the application or place conditions on it if substantial evidence, as defined in §62.23(7) Wis. Stats. is presented. That evidence must demonstrate the inability of the applicant to comply with or meet the conditions of the zoning regulations or that the conditions to be applied by the Plan Commission are necessary to protect the public health, safety or welfare of the community based upon the presentation of substantial evidence. Potential motion for approval Recommend to the Village Board approval of the project as a conditional use as set forth in the attached conditional use order as drafted, provided the Village Attorney approves the final form of the conditional use order.

Recommendation

Site Plan and Architectural Review

Staff recommends the Planning Commission Approve a resolution for the Site Plan and Architectural Review, as set forth in the attached resolution.

1. Prior to any land disturbing activity, the applicant must submit a complete and final set of plans to the Village planner. All Village department heads must verify in writing whether they have approved the final plans within their purview. Any outstanding matters must be resolved to staff's satisfaction.
2. Prior to any land-disturbing activity, a pre-construction meeting must be held with the applicant's representatives and primary contractors, and Village department heads and representatives.
3. Prior to any land-disturbing activity, the applicant must reimburse the Village for any outstanding charges and establish an escrow account with the Village as may be required.
4. The applicant must obtain all required building permits within nine months of this date, and start construction within six months of the date of building permit issuance and continue in good faith to completion.

5. All work related to this project must comply with all project plans approved by the Village.
6. The developer must comply with all requirements related to impact fees imposed by the Village.
7. The developer shall comply with all parts of the Municipal Code as it relates to this project.
8. If the approved plans need to be revised to address any of the conditions of approval or to conform to Building and Fire Safety Codes, the Zoning Administrator and the Supervisor of Inspections are authorized to approve minor modifications so long as the overall project elements remain unchanged. If they determine that the revision is substantial, the plans must be submitted to the Plan Commission for review and approval.
9. The applicant applies for and receiving approval for all new signage.
10. The only exterior modification to the structure at this time shall be removing one window section to create a sliding window for the drive-thru.
11. Any future modification to the site such as modification of parking, lighting, grading, retaining walls, fences, etc. shall require Site Plan and Architectural Review.

Conditional Use

Staff Recommends the Planning Commission recommend to the Village Board approval of a conditional use permit as set forth in Resolution 2021-XX

To – Grant a Conditional Use permit for a Restaurant with drive-thru to the following on going conditions deemed necessary to protect the health, safety, and welfare

1. **Ongoing conditions of approval**. The following conditions shall constitute an ongoing obligation:
    a. The authorized use shall not be conducted in such a way so as to exceed on-site parking.
    b. The authorized use shall not be conducted in such a way so as to violate fire-related building capacity standards established by the local fire department or the state of Wisconsin.
    c. The authorized use shall not be conducted in such a way so as to constitute a public or private nuisance as determined by the Plan Commission.
    d. Potable water and sanitation must be provided and maintained.
    e. The Plan Commission may unilaterally amend an approved site plan/plan of operation by revising existing provisions or adding new provisions. Such amendment shall be limited in scope to address negative impacts the use is having on surrounding properties and/or the public health, safety, and welfare.
    f. The use of the subject property shall at all times be in compliance with all applicable laws, rules, regulations or orders, and ordinances of the federal government, State of Wisconsin, Waukesha County, and Village of Mukwonago.
    g. All buildings on the subject property shall comply with all applicable building requirements as may be adopted by the Village of Mukwonago or the state of Wisconsin.
    h. The subject property must be in a clean and neat appearance as determined by the Plan Commission.
    i. The property owner shall obtain and maintain all licenses for the operation of this facility, as may be required by the Village or the State of Wisconsin.
    j. Signage shall be applied for and approved by the Village prior to installation.
    k. The drive-thru shall be maintaining in a neat and orderly manner at all times.
    l. Drive-thru and restaurant hours shall be from 9am to 9pm daily.

and determining that the conditions are consistent with Section 100-354 of Mukwonago's zoning regulations:

1. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.
2. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.
3. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.
4. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.
5. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

Attachments

1. Maps
2. Plans
3. Resolution 2021-XX for approval of a Conditional Use
4. Resolution 2021-XX for approval of the Site Plan and Architectural Review

Village of Mukwonago GIS

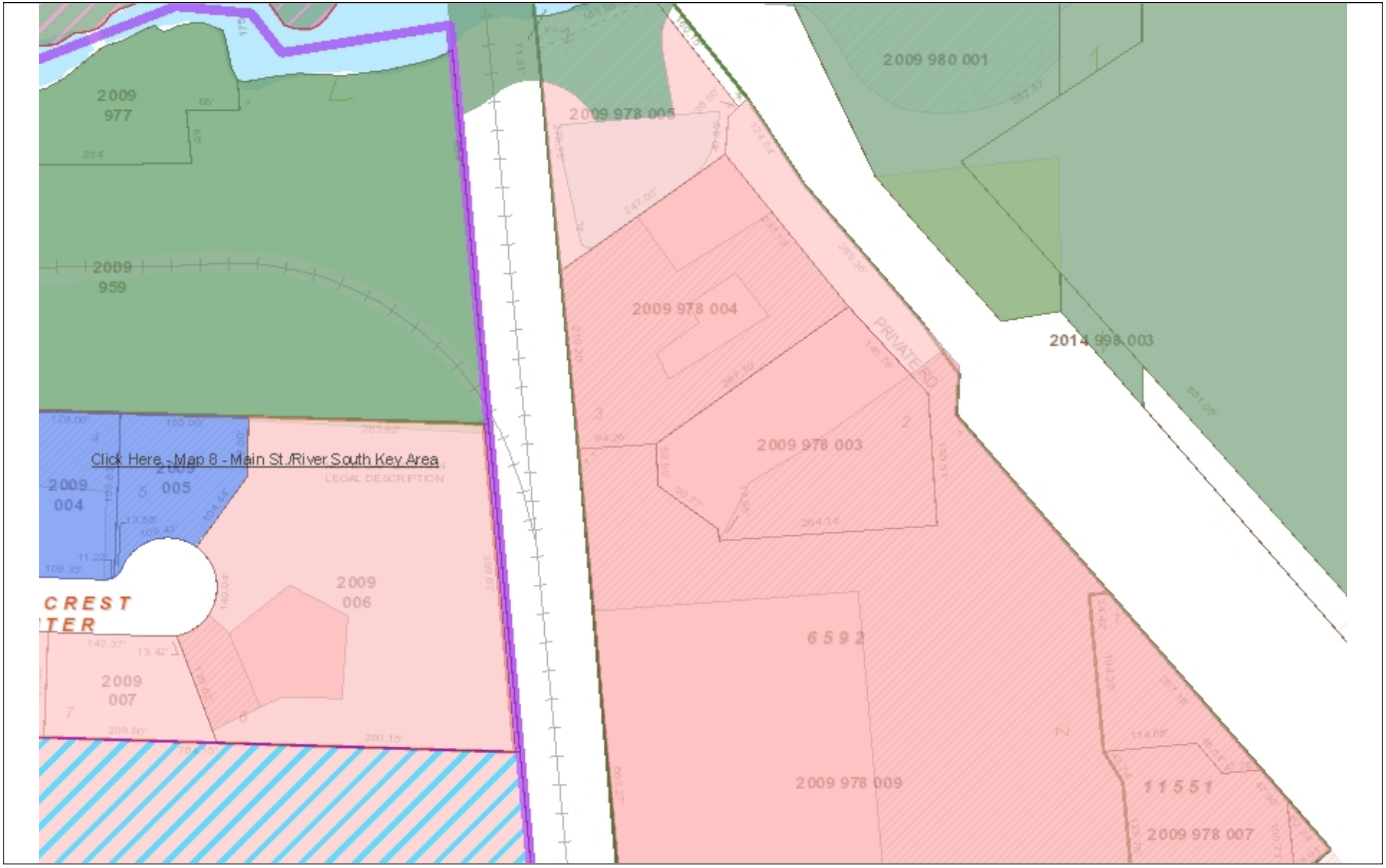
Subway - CU - SPAR -Aerial Photograph

DISCLAIMER: The Village of Mukwonago does not guarantee the accuracy of the material contained here in and is not responsible for any misuse or misrepresentation of this information or its derivatives.

SCALE: 1" = 167 '

VILLAGE OF MUKWONAGO
440 River Crest Court
PO Box 206
Mukwonago, WI 53149
262-363-6420

Print Date: 5/4/2021



Village of Mukwonago GIS

Subway - CU - SPAR - Land Use

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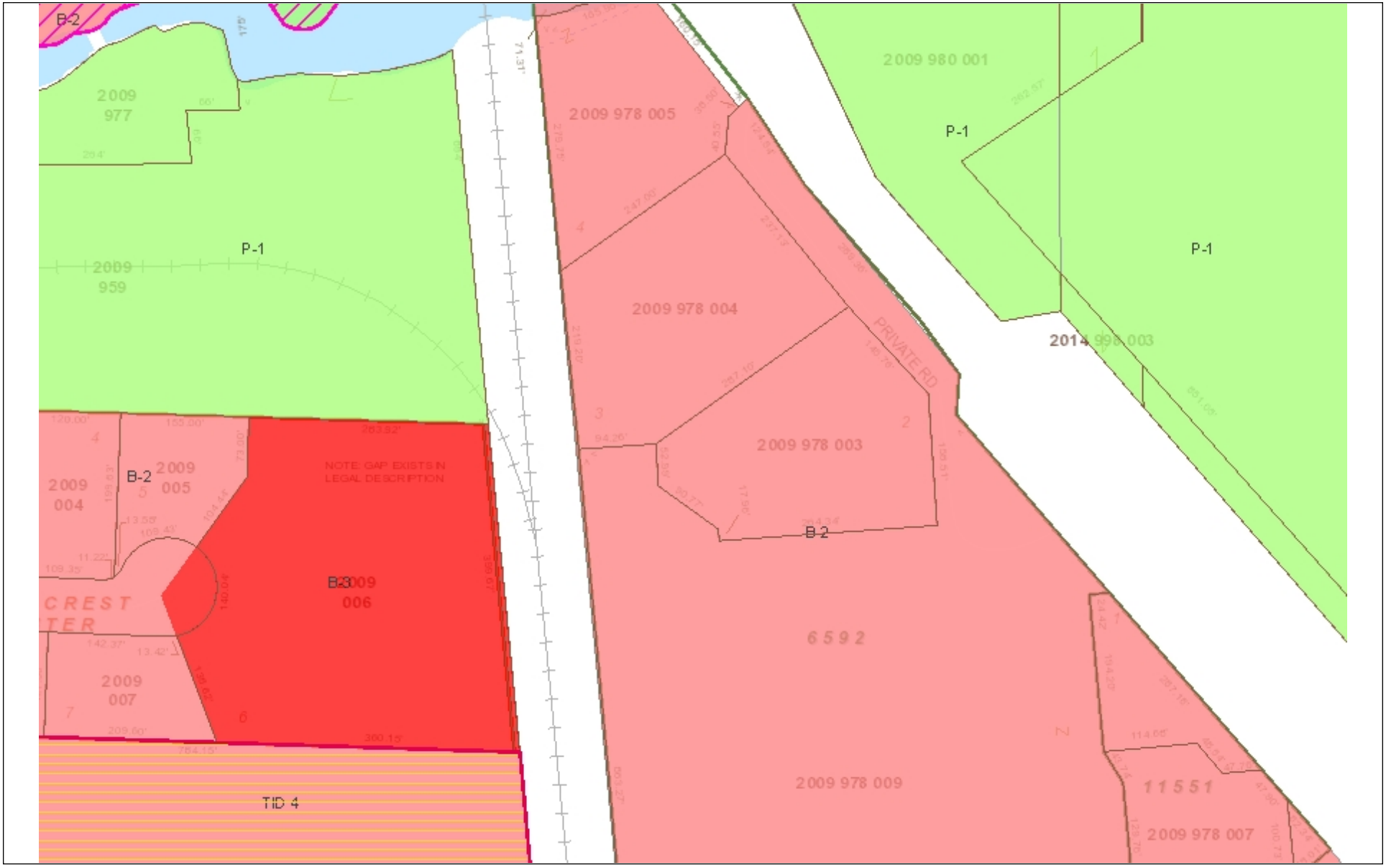

Village of Mukwonago GIS

Subway - CU - SPAR - Zoning

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SCALE: 1" = 167 '

VILLAGE OF MUKWONAGO
440 River Crest Court
PO Box 206
Mukwonago, WI 53149
262-363-6420

Print Date: 5/4/2021

SYKES FOODS LLC

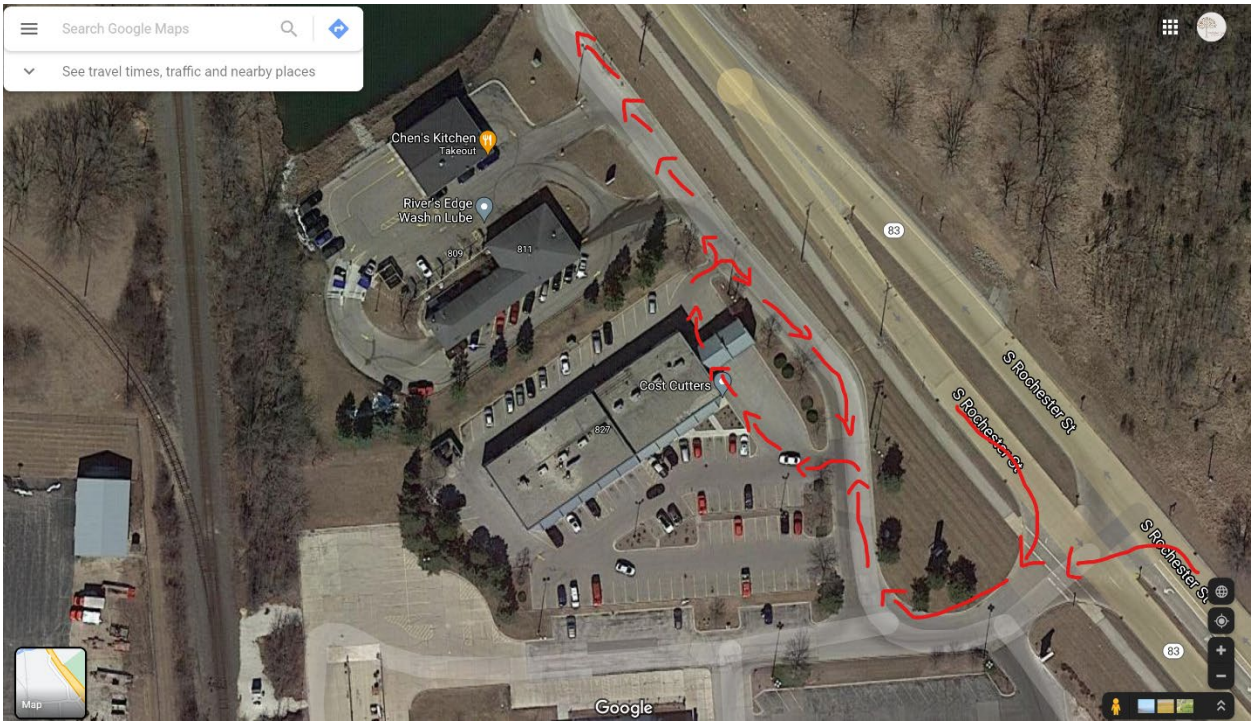
1504 David Lane
Waukesha, WI 53189

Tuesday, May 4, 2021

To Whom it Concerns.

Please note below the drive thru flow and plan for the new Subway location at 827 S. Rochester Street, Suite 104, Mukwonago, WI 53183. The diagram indicates the flow of traffic into and out of the drive thru location off the main thorough fare on South Rochester Street. The traffic flows into the parking lot at the east end of the strip mall and exits out the north side of the structure and follows the traffic patterns of the frontage road immediately to the east of the drive thru window lane.

There will be only one lane utilized for the drive thru business and the measurement of the distance from the pickup window to the edge of the parking lot indicates that 8 cars could stack in the lane.



Please consider this diagram and plan for the new location at 827 S. Rochester Street. Let me know if there are any questions.

Respectfully,

Mark Sykes, President
Sykes Foods

BAUER Sign & Lighting COMPANY

2500 South 170th
New Berlin, Wisconsin

Proudly Made in the USA!

Web: www.bauersignusa.com
Phone: 262-784-0500
Fax: 262-787-6675

File	Subway
Location	Mukwonago, S. Rochester St.
Client	Mark Sykes
Sales rep	Paul Butler
Date	cb 05/03/21
Revision	

Square Footage: 11.3 sq ft.

3/4″ scale

"®" to be 3630-156 Vivid Green vinyl decal on clear polycarbonate placard attached to letter back

Existing Channels (103 Lake St.)

Subway *MUKWONAGO, Rochester St.*
channel letters
take down from existing location
repaint raceway to match new facade and install

Moved to new location (827 S. Rochester St. Suite 104)

Printed artwork colors are not always representative of final product colors. Please refer to specifications for call out or salesman for samples.

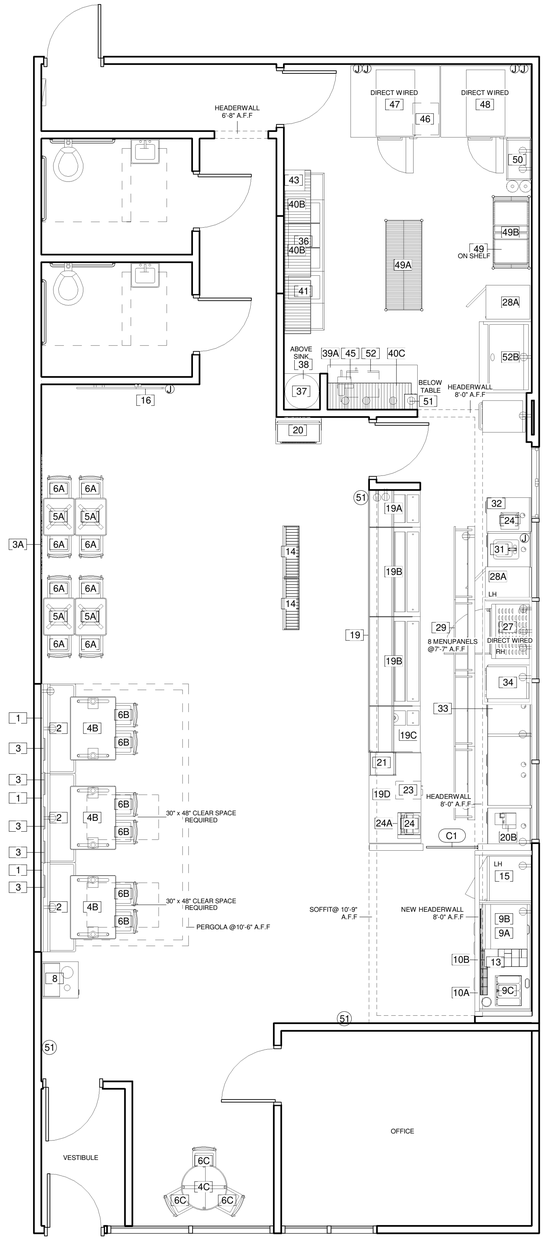
These drawings are the exclusive property of Bauer Sign Company. Not to be duplicated in any way without expressed written permission!

FINAL ELECTRICAL CONNECTION IS CLIENT'S RESPONSIBILITY

our products are certified by: Underwriters Laboratories, Inc.

This sign shall be manufactured in accordance with the Article 600 of the National Electrical Code and/or the applicable local codes. This includes proper grounding and bonding of the sign. Sign shall bear correct UL Labels.

Scale: 3/4" -


HEADERWALL
6'-8" A.F.F
DIRECT WIRED
47
46
DIRECT WIRED
48
50
43
40B
36
40B
41
49A
49B
49
ON SHELF
28A
ABOVE
SINK
38
37
39A
45
52
40C
BELOW
TABLE
51
HEADERWALL
8'-0" A.F.F
52B
16
20
6A
5A
3A
14
19A
19B
19
19B
51
32
24
31
28A
LH
29
8 MENUPANELS
@7'-7" A.F.F
27
DIRECT WIRED
RH
34
33
19C
21
19D
23
24A
24
C1
HEADERWALL
8'-0" A.F.F
20B
LH
15
1
2
4B
6B
3
30" x 48" CLEAR SPACE
REQUIRED
PERGOLA @10'-6" A.F.F
SOFFIT@ 10'-9"
A.F.F
NEW HEADERWALL
8'-0" A.F.F
9B
9A
10B
13
10A
9C
8
51
OFFICE
VESTIBULE
6C
4C

WINDOW
OPENS
LEFT

RESOLUTION 2021-40

Village of Mukwonago Order Granting a Conditional Use and Prescribing Conditions for a Drive-Thru Restaurant for Mark Sykes / Sykes Foods, LLC for 827 S Rochester Street, Mukwonago, WI

WHEREAS, **JENTZSCH-BARRETTE PROPERTIES** (hereinafter "property owner") owns the property identified as 827 S Rochester Street, (hereinafter "subject property") in the Village of Mukwonago, more particularly described as follows:

PARCEL 2 CERT SURV 6592 VOL 55/1 REC AS DOC# 1683246 PT NE1/4 SEC 35 & NW1/4 SEC 36 T5N R18E :: INCLUDING ACCESS EASEMENT TO STH 83 AS SHOWN ON CERT SURV 6592 :: R1410/346

WHEREAS, **MARK SYKES / SYKES FOODS, LLC** (hereinafter "future purchaser") plans to purchase the property identified as 827 S Rochester Street (hereinafter "subject property") in the Village of Mukwonago, more particularly described as follows:

PARCEL 2 CERT SURV 6592 VOL 55/1 REC AS DOC# 1683246 PT NE1/4 SEC 35 & NW1/4 SEC 36 T5N R18E :: INCLUDING ACCESS EASEMENT TO STH 83 AS SHOWN ON CERT SURV 6592 :: R1410/346

Return to:
Diana Dykstra, Clerk-Treasurer
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Parcel Number: MUKV 2009-998-003

WHEREAS, the property owner and future purchaser has, consistent with the Village of Mukwonago's zoning regulations, submitted a conditional use application for a drive-thru, and

WHEREAS, upon receipt of the petition submitted by the property owner and future purchaser, the Village Clerk properly referred such petition to the Plan Commission; and

WHEREAS, allowing for required public notice, the Plan Commission conducted a public hearing on April 13, 2021 to consider the petitioner's request; and

WHEREAS, members of the public in attendance were given ample opportunity to provide comment regarding the petitioner's request; and

WHEREAS, the Plan Commission passed a motion recommending to the Village Board that the conditional use be approved subject to certain conditions; and

WHEREAS, the Plan Commission, in passing on the matter, has made the following determinations consistent with Section 100-354 of Mukwonago's zoning regulations:

1. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.

2. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.

3. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.

4. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.

5. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

In addition, the property owner and future purchaser has shown compliance with the requirements set forth in the Village's zoning regulations for the specified use.

WHEREAS, the Village Board has carefully reviewed the recommendation of the Plan Commission and concurs with the Plan Commission's findings set forth above, provided the conditional use is operated pursuant to the conditions of approval set forth in this order.

NOW THEREFORE, IT IS HEREBY DETERMINED AND ORDERED AS FOLLOWS:

1. **Authorized uses**. Subject to the terms and conditions of this approval and the sections of the zoning code that apply, the property owner is authorized to operate a secondhand store as set forth herein and as specified in the Village's zoning code.

2. **Issuance of permit required**. The zoning administrator is authorized to issue the property owner a conditional use permit when all conditions enumerated in section 3 have been satisfied to his or her satisfaction. Such permit is the last approval before the property owner/tenant can begin to establish the use as authorized herein.

3. **Initial conditions of approval.** The following conditions shall be satisfied prior to the issuance of the conditional use permit:

a. The property owner must submit site/architectural plans to the Village for review and obtain approval of the same within 9 months of the date of this decision.

b. The property owner must accept the terms and conditions of this conditional use order in its entirety in writing within 6 months of the date of this decision. Prior to such expiration, the property owner may request an extension to this time period and the Village Clerk may approve an extension with good cause.

c. This order must be recorded against the subject property in the Waukesha County register of deeds office (only if subsections 3(a) through 3(b) have been satisfied).

In the event the requirements enumerated in subsections 3(a) and 3(b) above are not satisfied, this order shall automatically be null and void without any further action by the Village of Mukwonago on the aforementioned date.

4. **Ongoing conditions of approval**. The following conditions shall constitute an ongoing obligation:

a) The authorized use shall not be conducted in such a way so as to exceed on-site parking.

b) The authorized use shall not be conducted in such a way so as to violate fire-related building capacity standards established by the local fire department or the state of Wisconsin.

c) The authorized use shall not be conducted in such a way so as to constitute a public or private nuisance as determined by the Plan Commission.

d) Potable water and sanitation must be provided and maintained.

e) The Plan Commission may unilaterally amend an approved site plan/plan of operation by revising

existing provisions or adding new provisions. Such amendment shall be limited in scope to address negative impacts the use is having on surrounding properties and/or the public health, safety, and welfare.

f) The use of the subject property shall at all times be in compliance with all applicable laws, rules, regulations or orders, and ordinances of the federal government, State of Wisconsin, Waukesha County and Village of Mukwonago.

g) All buildings on the subject property shall comply with all applicable building requirements as may be adopted by the Village of Mukwonago or the state of Wisconsin.

h) The subject property must be in a clean and neat appearance as determined by the Plan Commission.

i) The property owner shall obtain and maintain all licenses for the operation of this facility, as may be required by the Village or the State of Wisconsin.

j) Signage shall be applied for and approved by the Village prior to installation.

k) The drive-thru shall be maintaining in a neat and orderly manner at all times.

l) Drive-thru and restaurant hours shall be from 9am to 9pm daily.

5. **Expansion or changes.** The conditional use hereby authorized shall be confined to the subject property without extension or expansion. Any expansion or change in use shall require issuance of a new conditional use approval pursuant to the requirements in effect at the time of application.

6. **Modification of property boundary lines**. The property owner shall not change the size and/or shape of the subject property by any means without the approval of the Village Board. If the Village Board determines that a proposed change is substantial with regard to the overall size of the parcel and/or configuration, such change shall require issuance of a new conditional use approval pursuant to the requirements in effect at the time of application.

7. **Plans and related matters**. Unless otherwise expressly stated herein, plans that are specifically required by this conditional use order may be amended upon the prior approval of the Plan Commission if the Plan Commission finds the amendment to be minor and consistent with the conditional use order and permit. Any change in any plan that the Plan Commission feels, in its sole discretion to be substantial, shall require a new conditional use approval and all procedures in place at the time must be followed.

8. **Inspection**. The property owner shall allow Village of Mukwonago staff, officials, and other authorized agents to inspect the subject property, at any reasonable time and for any proper purpose related to compliance with this conditional use order.

9. **Discontinuance**. Should the conditional use be discontinued in use for 365 consecutive days the use shall be terminated as set forth in the Village of Mukwonago's zoning regulations.

10. **Private rights**. This approval is given under the Village of Mukwonago's zoning regulations and is not to be interpreted to abrogate any private rights other property owners may have pursuant to deed restrictions or restrictive covenants.

11. **Interpretation**. If any aspect of this conditional use order is in conflict with any other aspect of the conditional use order, the more restrictive provisions shall be controlling, as determined by the Plan Commission.

12. **Other permits**. This order shall not be deemed to constitute a building permit, or constitute any other license or permit required by Village ordinance, or other local, state, or federal law.

13. **Severability**. In the event a court of competent jurisdiction determines that a paragraph or phrase of this conditional use order is unlawful, illegal, or unconstitutional, said determination as to the particular phrase or paragraph shall not void the rest of the conditional use order and the remainder shall continue in full force and effect.

14. **Heirs, successors, and assigns**. This conditional use order shall be binding upon the property owner and their heirs, successors, and assigns. Upon a change in ownership, the property owner shall notify the Village Clerk.

15. **Ongoing review**. This conditional use may be reviewed by the Plan Commission with notice to the property owner at any time upon complaint or upon Plan Commission initiative. If it is determined that the authorized use is no longer compatible, or that the provisions of this approval have not been complied with, the Village Board may revoke or amend this order after recommendation by the Plan Commission and holding of a public hearing.

16. **Amendment**. The property owner may propose an amendment to this conditional use order at anytime by submitting a written petition to the Village Clerk, which shall be reviewed pursuant to the requirements in effect at the time of application.

17. **Violation**. Any violation of this order may be treated as a violation of Mukwonago's zoning regulations and each day of each violation of each condition herein shall be treated as a separate violation.

Approved this 19th day of May, 2021

BY THE VILLAGE BOARD OF THE VILLAGE OF MUKWONAGO

_____

Fred Winchowky, Village President

Attest:

_____

Diana Dykstra, Village Clerk

STATE OF WISCONSIN, WAUKESHA/WALWORTH COUNTY

Personally came before me this ____ day of _____ 2021, the persons described above, Fred Winchowky, Village President, and Diana Dykstra, Village Clerk, to me known to be the persons who executed the foregoing instrument and to me known to be such Village President and Village Clerk of the Village of Mukwonago and acknowledged that they executed the foregoing instrument as such officers of said municipal corporation by its authority and pursuant to the authorization by the Village Board from their meeting on the 19th day of May, 2021.

_____

NOTARY PUBLIC

_____

My Commission Expires:

The remainder of this page left intentionally blank

Acceptance by Property Owner

I, Ulrich Jentzsch verify that I am an authorized agent for **JENTZSCH-BARRETTE PROPERTIES** accepts the terms stated herein.

Dated this _____ day of _____, 2021

_____
Ulrich Jentzsch, agent

STATE OF WISCONSIN, WAUKESHA/WALWORTH COUNTY

Personally, came before me this ____ day of _____, 2021, the above-named person, Ulrich Jentzsch to me known to be the person who executed the foregoing instrument and acknowledged the same.

_____
NOTARY PUBLIC

_____
My Commission Expires:

Acceptance by Future Purchaser

I, Mark Sykes verify that I am an authorized agent for Sykes Foods, LLC accepts the terms stated herein.

Dated this _____ day of _____, 2021

_____
Mark Sykes, agent

STATE OF WISCONSIN, WAUKESHA/WALWORTH COUNTY

Personally, came before me this ____ day of _____, 2021, the above-named person, Mark Sykes to me known to be the person who executed the foregoing instrument and acknowledged the same.

_____
NOTARY PUBLIC

_____
My Commission Expires:

Drafted by John S. Fellows, AICP, Planner, at the direction of the Mukwonago Village Board.

RESOLUTION 2021- 41

RESOLUTION APPROVING SITE PLAN AND ARCHITECTURAL REVIEW FOR MARK SYKES / SYKES FOODS, LLC, APPLICANT; 827 S ROCHESTER STREET MUKV 2009-998-003

WHEREAS, pursuant to Section 100-601, and 100-153 of the Zoning Code, an application for a site plan and architectural review has been filed for the approval for building modifications which application was filed in the office of the Village Clerk, Village of Mukwonago, Wisconsin, and

WHEREAS, the application has been submitted by the Mark Sykes / Sykes Foods, LLC

WHEREAS, Drive-thru restaurants are permitted within the B-2 General Business District with a conditional use in which the subject property is located, and

WHEREAS, the plan of operation and plans have been reviewed and recommended by the Village Plan Commission.

NOW, THEREFORE, BE IT RESOLVED by the Village Board of the Village of Mukwonago, Wisconsin hereby approves the site plan and architectural review for a structure located at 827 S Rochester Street, based upon the plan of operation and plans submitted to the Village.

NOW, THEREFORE, BE IT FURTHER RESOLVED this site plan and architectural review approval shall be subject to the following conditions:

1. Prior to any land disturbing activity, the applicant must submit a complete and final set of plans to the Village planner. All Village department heads must verify in writing whether they have approved the final plans within their purview. Any outstanding matters must be resolved to staff's satisfaction.
2. Prior to any land-disturbing activity, a pre-construction meeting must be held with the applicant's representatives and primary contractors, and Village department heads and representatives.
3. Prior to any land-disturbing activity, the applicant must reimburse the Village for any outstanding charges and establish an escrow account with the Village as may be required.
4. The applicant must obtain all required building permits within nine months of this date and start construction within six months of the date of building permit issuance and continue in good faith to completion.
5. All work related to this project must comply with all project plans approved by the Village.
6. The developer must comply with all requirements related to impact fees imposed by the Village.
7. The developer shall comply with all parts of the Municipal Code as it relates to this project.
8. If the approved plans need to be revised to address any of the conditions of approval or to conform to Building and Fire Safety Codes, the Zoning Administrator and the Supervisor of Inspections are authorized to approve minor modifications so long as the overall project elements remain unchanged. If they determine that the revision is substantial, the plans must be submitted to the Plan Commission for review and approval.
9. The applicant applies for and receiving approval for all new signage.
10. The only exterior modification to the structure at this time shall be removing one window section to create a sliding window for the drive-thru.

11. Any future modification to the site such as modification of parking, lighting, grading, retaining walls, fences, etc. shall require Site Plan and Architectural Review.

NOW, THEREFORE, BE IT FURTHER RESOLVED the applicant, upon the approval of this site plan and architectural review shall agree to accept the same in writing.

Passed and dated this 19th day of May 2021.

VILLAGE OF MUKWONAGO

By: _____
Fred Winchowky, Village President

Attest: _____
Diana Dykstra, Village Clerk-Treasurer

PLANNING COMMISSION

May 11, 2021 at 6:30pm
Mukwonago, WI

SITE PLAN AND ARCHITECTURAL REVIEW

211 Fox Street
Parcel Number: MUKV 1973-951-001

Case Summary

Parcel Data

Proposal:	Roof, Paint, Railing
Applicant:	Robert G Kokott / Lakeland Property Management
Request:	Site Plan and Architectural Review
Staff Recommendation:	Approve with Conditions
Planning Commission Recommendation:	Pending

Parcel Characteristics / Conditions

Acreage:	0.145
Current Use:	Triplex
Proposed Use:	Triplex
Reason for Request:	New Roof, New Paint, New Porch Railing
Land Use Classification:	Historic Residential
Zoning Classification:	R-3 Single Family / Duplex Residential District / Village Center Overlay
Census Tract:	2039.02

Architectural/ Site Review

The applicant is requesting to re-roof the structure with an architectural asphalt shingle in a Brownwood color. The applicant is requesting to paint the building Sanderling with white trim. In addition, the applicant is requesting to install a new wood railing with square spindles.

Site Modifications No Modifications proposed at this time

Staff Review

Engineering	Recommend Approval
Public Works	Recommend Approval
Utilities	Recommend Approval
Police	Recommend Approval
Fire	Recommend Approval
Building Inspection	Recommend Approval
Planning	Recommend Approval

Recommendation

Site Plan and Architectural Review

Staff recommends the Planning Commission Approve a resolution for the Site Plan and Architectural Review, as set forth in the attached resolution.

1. Prior to any land disturbing activity, the applicant must submit a complete and final set of plans to the Village Planner. All Village department heads must verify in writing whether they have approved the final plans within their purview. Any outstanding matters must be resolved to staff's satisfaction.
2. Prior to any land-disturbing activity, a pre-construction meeting must be held with the applicant's representatives and primary contractors, and Village department heads and representatives.
3. Prior to any land-disturbing activity, the applicant must reimburse the Village for any outstanding charges and establish an escrow account with the Village as may be required.
4. The applicant must obtain all required building permits within nine months of this date, and start construction within six months of the date of building permit issuance and continue in good faith to completion.
5. All work related to this project must comply with all project plans approved by the Village.
6. The developer shall comply with all parts of the Municipal Code as it relates to this project.
7. Any future modification to the site such as modification of parking, lighting, grading, retaining walls, fences, etc. shall require Site Plan and Architectural Review.

Attachments

1. Maps
2. Plans
3. Resolution 2021-XX for approval of a Conditional Use
4. Resolution 2021-XX for approval of the Site Plan and Architectural Review

Village of Mukwonago GIS

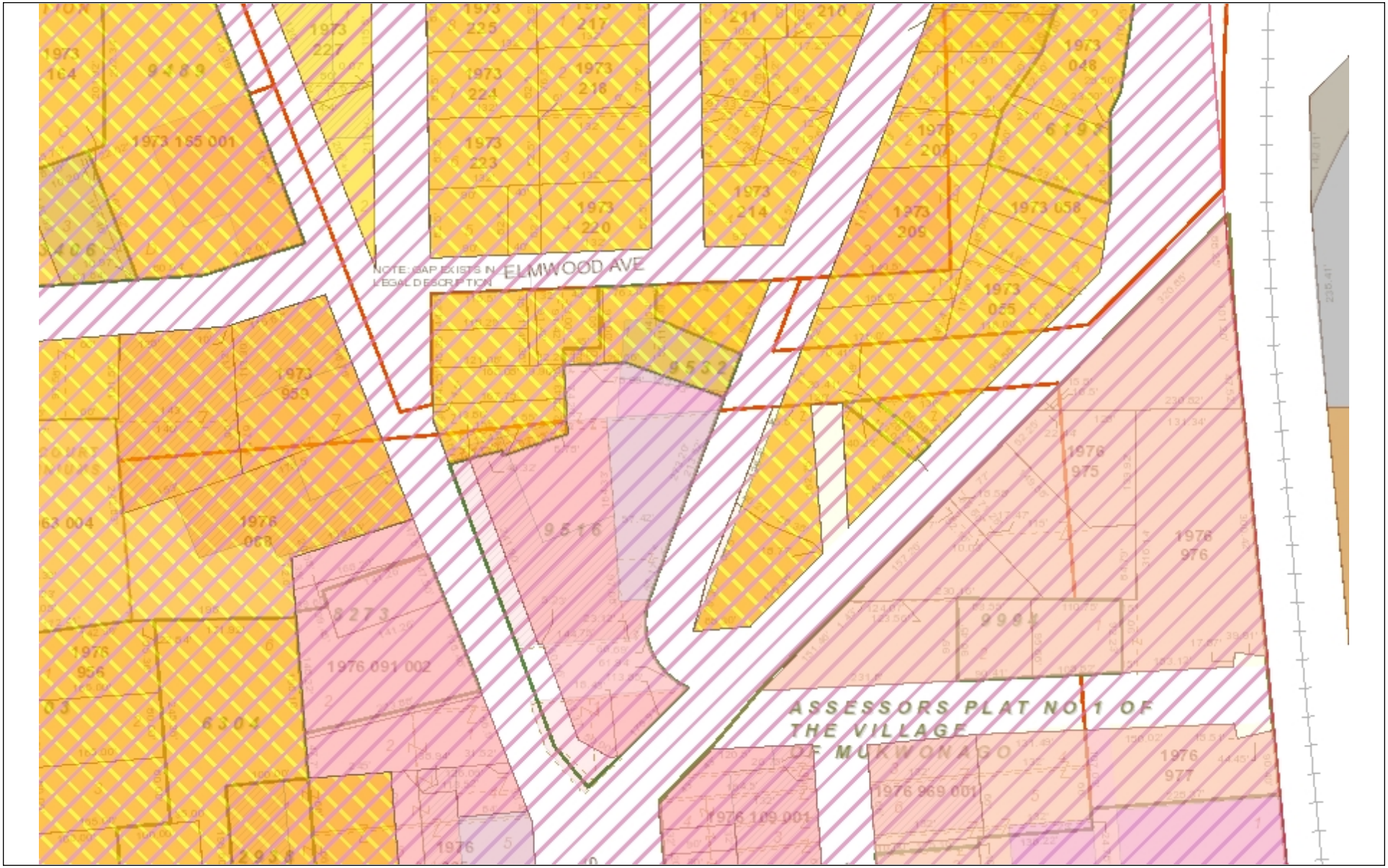
Lakeland Property Management - Aerial Map

DISCLAIMER: The Village of Mukwonago does not guarantee the accuracy of the material contained here in and is not responsible for any misuse or misrepresentation of this information or its derivatives.

SCALE: 1" = 167 '

VILLAGE OF MUKWONAGO
440 River Crest Court
PO Box 206
Mukwonago, WI 53149
262-363-6420

Print Date: 5/4/2021



Village of Mukwonago GIS

Lakeland Property Management - Land Use

DISCLAIMER: The Village of Mukwonago does not guarantee the accuracy of the material contained here in and is not responsible for any misuse or misrepresentation of this information or its derivatives.

SCALE: 1" = 167 '

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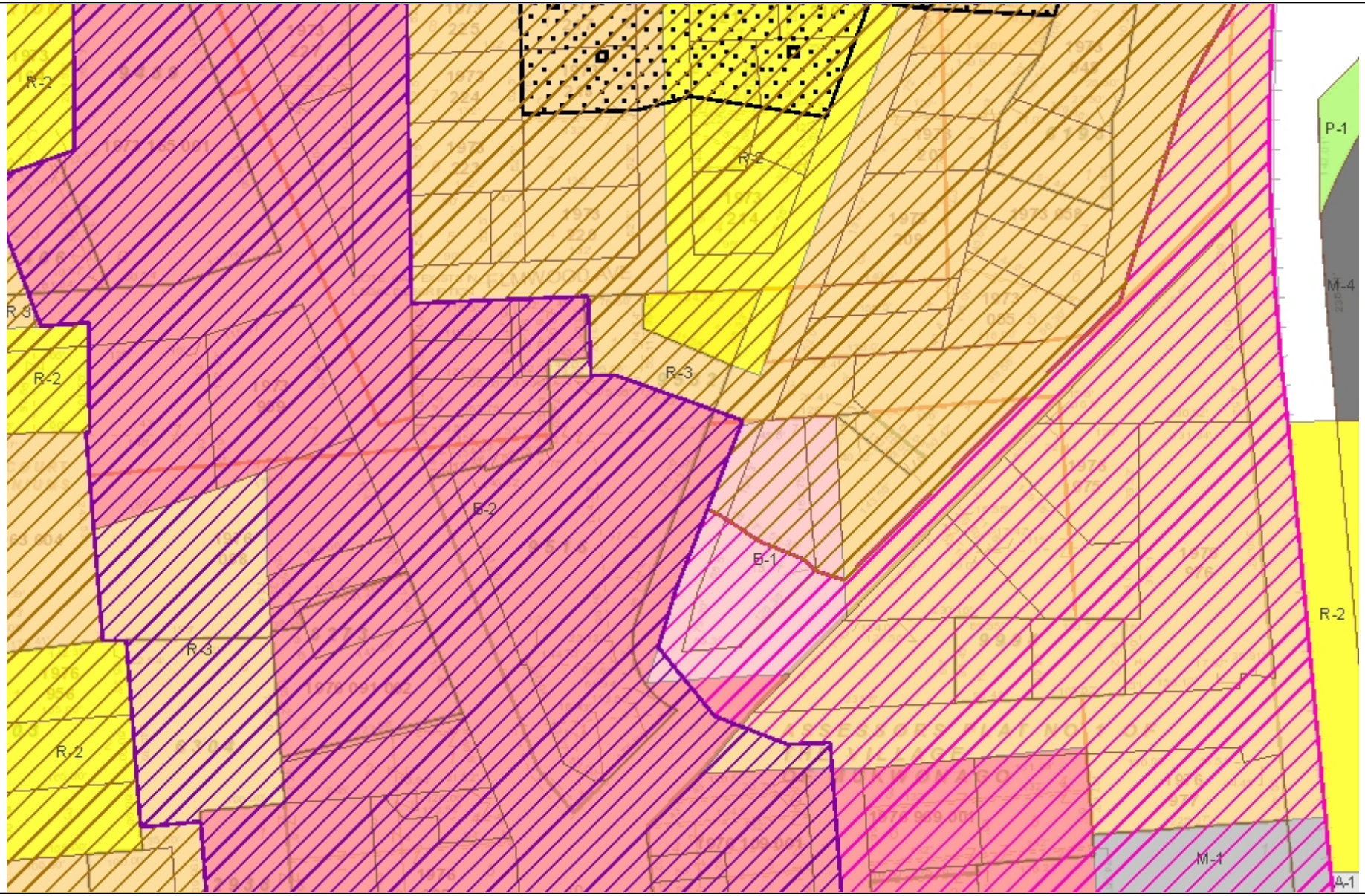

Village of Mukwonago GIS

Lakeland Property Management - Zoning

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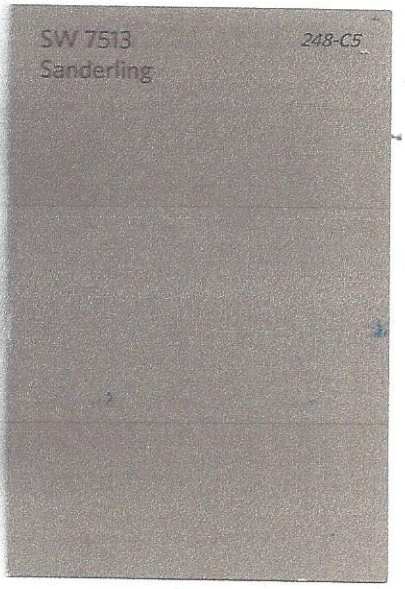
SCALE: 1" = 167 '

VILLAGE OF MUKWONAGO
440 River Crest Court
PO Box 206
Mukwonago, WI 53149
262-363-6420

Print Date: 5/4/2021

Brown wood



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RESOLUTION 2021- 42

RESOLUTION APPROVING SITE PLAN AND ARCHITECTURAL REVIEW FOR ROBERT G KOKOTT/ LAKELAND PROPERTY MANAGEMENT, APPLICANT; 211 FOX STREET, PARCEL MUKV 1973-951-001

WHEREAS, pursuant to Section 100-601, and 100-153 of the Zoning Code, an application for a site plan and architectural review has been filed for the approval for building modifications which application was filed in the office of the Village Clerk, Village of Mukwonago, Wisconsin, and

WHEREAS, the application has been submitted by the ROBERT G KOKOTT/ LAKELAND PROPERTY MANAGEMENT

WHEREAS, Multi Family structures are within the R-3 Single Family/Duplex Residential District and Village Center Overlay Multi-Purpose perimeter in which the subject property is located, and

WHEREAS, the plan of operation and plans have been reviewed and recommended by the Village Plan Commission.

NOW, THEREFORE, BE IT RESOLVED by the Village Board of the Village of Mukwonago, Wisconsin hereby approves the site plan and architectural review for a structure located at 211 Fox Street, based upon the plan of operation and plans submitted to the Village.

NOW, THEREFORE, BE IT FURTHER RESOLVED this site plan and architectural review approval shall be subject to the following conditions:

1. Prior to any land disturbing activity, the applicant must submit a complete and final set of plans to the Village Planner. All Village department heads must verify in writing whether they have approved the final plans within their purview. Any outstanding matters must be resolved to staff's satisfaction.
2. Prior to any land-disturbing activity, a pre-construction meeting must be held with the applicant's representatives and primary contractors, and Village department heads and representatives.
3. Prior to any land-disturbing activity, the applicant must reimburse the Village for any outstanding charges and establish an escrow account with the Village as may be required.
4. The applicant must obtain all required building permits within nine months of this date, and start construction within six months of the date of building permit issuance and continue in good faith to completion.
5. All work related to this project must comply with all project plans approved by the Village.
6. The developer shall comply with all parts of the Municipal Code as it relates to this project.
7. Any future modification to the site such as modification of parking, lighting, grading, retaining walls, fences, etc. shall require Site Plan and Architectural Review.

NOW, THEREFORE, BE IT FURTHER RESOLVED the applicant, upon the approval of this site plan and architectural review shall agree to accept the same in writing.

Passed and dated this 19th day of May 2021.

VILLAGE OF MUKWONAGO

By: _____
Fred Winchowky, Village President

Attest: _____
Diana Dykstra, Village Clerk-Treasurer