

VILLAGE OF CALEDONIA UTILITY DISTRICT

NOTICE IS HEREBY GIVEN THAT the Commissioners of the Caledonia Utility District will meet on Wednesday, August 5, 2020, at 6:00 p.m. at the Caledonia Village Hall located at 5043 Chester Lane, Racine, Wisconsin for the purpose of the following:

- 1. Meeting Called to Order**
- 2. Roll Call**
- 3. Approval of Minutes**
 - a. Utility District Regular Meeting – July 1, 2020
- 4. Citizen Comments**
- 5. Communications and Announcements**
 - a. Racine Water Utility Agenda & Minutes
 - b. Racine Wastewater Utility Agenda & Minutes
- 6. Approval of O&M Bills**
 - a. O&M Bills related to the Sewer & Water Utility Districts
 - b. O&M Bills related to the Storm Water Utility District
- 7. Project Updates**
 - a. Construction Contract Status
 - b. Caddy Vista Improvements / Lift Station
 - c. Riverbend Drive Lift Station Safety Site
 - d. Lighthouse Drive Lift Station Upgrade Site
 - e. South Lane Sanitary Sewer
 - f. Rio Vista, Shorewood & Stonebridge Utility Improvements
 - g. DeBack Industrial Park Phase 3 Improvements
 - h. Annual Televising Program – Sanitary Sewer
 - i. Water Impact Fee / Sewer Connection Fee Update
 - j. EPA Risk & Resilience Assessment and Emergency Response Plan
 - k. Hoods Creek – Aldebaran Brushing Project
 - l. Tanglewood Avenue Storm Sewer Replacement Project
 - m. Wind Point West Subdivision Project
 - n. GIS Updates
 - o. Jolson Street – Franksville Area Drainage
 - p. Alcyn Drive – Drainage Complaint
 - q. Douglas Avenue OMG Ditch Project
- 8. Action Items**
 - a. Resolution 2020-01 – Approve the 2019 Compliance Maintenance Annual Report (CMAR)
 - b. Wind Dale & Wind Point West Storm Water Utility Improvements – Change Order #1
 - c. Central Storage Warehouse – CSW Addition - Driveway Encroachment on Storm Sewer & Watermain Easement Variance Request
 - d. Central Storage Warehouse – CSW Addition – Site Grading Plan Conditional Approval
 - e. Northterra Management Group - True North Commons – Storm Water Management Plan and Site Grading & Drainage Plan Conditional Approval
 - f. Recommendation for Sewer Rate Increase – 4th Quarter 2020
 - g. Racine Sewer Agreement – Sanitary Sewer Capacity
- 9. Adjournment**

Dated this July 31, 2020

Only committee members are expected to attend. However, attendance by all Board members (including non-members of the committee) is permitted. No action will be taken by those members.

**Village of Caledonia Utility District Meeting
July 1, 2020**

1. Meeting Called to Order – The Regular Meeting of the Village of Caledonia Utility District was held on Wednesday, July 1, 2020, at the Caledonia Village Hall, located at 5043 Chester Lane Racine, Wisconsin. The meeting was called to order by President Howard Stacey at 6:00 pm.

2. Roll Call – Those present were President Howard Stacey, Commissioners Michael Pirk, Dave Ruffalo, Nicholas Sullivan, Tony Minto, Mark Brigman and Trustee Lee Wishau. Also present were Utility Manager Robert Lui, and Utility Director Anthony Bunkelman.

DRAFT

3. Approval of Minutes

a. Upon a motion by Wishau and seconded by Pirk, the Commission approved the minutes from the Utility District's previous regular meeting held June 10, 2020. A copy of these minutes have been furnished to each Commissioner. **Motion Carried. (Brigman abstained)**

4. Citizen Comments – None

5. Communications and Announcements

a. Racine Water Utility Agenda & Minutes

The Commission looked over the March 17th and June 11th Minutes and the June 16th Agenda for the Racine Water Utility.

b. Racine Wastewater Utility Agenda & Minutes

The Commission looked over the March 17th and June 11th Minutes, and the June 16th Agenda for the Racine Wastewater Utility.

c. 2019 Racine Wastewater Utility Compliance Maintenance Annual Report

The Commission was provided a copy of the 2019 Racine Wastewater Utility CMAR.

d. 2019 Consumer Confidence Report – Caledonia Utility District

The Commission was provided a copy of the 2019 CCR.

e. Utility Newsletter & 2nd Quarter Billing

The Commission was provided a copy of the Summer 2020 newsletter. The Commission asked that the newsletter be placed on the Village website. The Commission was also informed that the newsletter was sent out with the 2nd Quarter bills.

6. Approval of O&M Bills

- a. Upon a motion by Brigman and seconded by Wishau, the Commission approved payment of O&M Bills, related to the Sewer & Water Utility Districts totaling \$447,938.79. **Motion Carried.**
- b. Upon a motion by Minto and seconded by Brigman, the Commission approved payment of O&M Bills related to the Storm Water District totaling \$287,207.53. **Motion Carried.**

7. Project Updates

DRAFT

a. Construction Contract Status

The current contract statuses were shared with the Commissioners.

b. Caddy Vista Improvements / Lift Station

Road Surface Course was completed on June 13th. Shouldering of road completed on June 19th. Landscaping of disturbed areas continues. Punchlist was created. Hogan has completed their punchlist items and Restoration items are anticipated to be completed by the end of the week.

c. Riverbend Drive Lift Station Safety Site

Design of project will commence around Fall of 2020.

d. Lighthouse Drive Lift Station Upgrade Site

All new components have been installed in the dry well. Wires are run from dry well to building. Electricians have been working on various items. Preparations are being made for the Cathodic protection. The Control Panel is now energized, and testing of components started today. Cummings will be coming out for startup on the generator.

e. South Lane Sanitary Sewer

Reesman's has been submitting shop drawings for the Project. Project start date has been pushed back. Indications have been that they will start mid to late July.

f. Rio Vista Shorewood & Stonebridge Utility Improvements

Preconstruction meeting tentatively set for July 9th. Contractor would like to start between July 13th to July 15th.

g. DeBack Industrial Park Phase 3 Improvements

Information has been sent to the owners and the Special Assessment meeting will be held when the Village Hall can host larger public meetings.

h. Annual Televising Program – Sanitary Sewer

Green Bay Pipe has started Phase 1 of the televising program.

i. Water Impact Fee / Sewer Connection Fee Update

Working on remaining numbers for TID Projects and then a draft of the Impact Fee and Connection Fee will be ready to review.

j. EPA Risk & Resilience Assessment and Emergency Response Plan

Foth awarded contract. Work to start in December 2020.

k. Hoods Creek – Aldebaran Brushing Project

Awaiting dry weather and will reassess the needs of the Hoods Creek along the Aldebaran Subdivision.

l. Tanglewood Avenue Storm Sewer Replacement Project

Project will be started when the Wind Point Project is completed.

DRAFT

m. Wind Point West Subdivision Project

Project underway. 24” Storm Sewer on Hialeah Drive completed. Working on 12” Storm Sewer on Hialeah Drive.

n. GIS Updates

Project has been worked on as time allows. Will be updating servers when information is received.

o. Jolson Street – Franksville Area Drainage

All materials have been delivered to the site. Scheduled to be installed the week of June 29th or July 6th pending weather.

p. Alcyn Drive – Drainage Complaint

Finish AutoCAD, QA/QC on gas main/laterals and then share with owners.

q. Douglas Avenue – OMG Ditch Project

TRC will be out June 24th or June 25th to perform an endangered species survey as required by DNR for permitting process.

8. Action Items

a. Caddy Vista Sanitary Sewer Improvements & Lift Station Replacement – Change Order #3

Director Bunkelman explained that a change order was needed because the surface course of asphalt was pushed to Spring, there were additional culverts that needed to be replaced and there were some additional connections necessary for the forcemain to the lift station.

Upon a motion by Minto and seconded by Brigman the Commission moved to approve Change Order #3 in the amount of \$24,328.00 for the Caddy Vista Sanitary Sewer Improvement & Lift Station Replacement. **Motion Carried.**

b. Turtle Creek Restoration Project

Director Bunkelman shared the concept plans for the Turtle Creek Restoration Project. If the Commission approves the concept plan a relocation order for Storm Water Easements will need to be completed. We would also hold a Public Informational meeting to gather input from residents. There was also discussion held about a walking trail for the project and the immediate area. The Commission would also like to see a cost estimate for the work.

DRAFT

Upon a motion by Sullivan and seconded by Wishau, the Commission moved to approve the concept plan for the Turtle Creek Restoration and proceed with a Relocation Order for Easements on the project. **Motion Carried.**

c. Racine Unified School District – Gifford School Parking Lot Addition – Storm Water Management Plan and Site Grading & Drainage Plan Approval

Director Bunkelman shared the summary of the Storm Water Management Plan and the Site Grading & Drainage Plan with the Commission.

Upon a motion by Minto and seconded by Ruffalo, the Commission moved to approve the Storm Water Management Plan and the Site Grading & Drainage Plan for the Racine Unified School District – Gifford School Parking Lot Addition subject to the Director’s June 25, 2020 memo. **Motion Carried.**

9. Adjournment

Upon a motion by Brigman and seconded by Minto, the Commission moved to adjourn the regular meeting at 6:45 pm. **Motion Carried.**

Respectively submitted,
Anthony A. Bunkelman P.E. Utility Director



City of Racine

City Hall
730 Washington Ave.
Racine, WI 53403
www.cityofracine.org

Meeting Minutes – Final Waterworks Commission

Tuesday, June 16, 2020

4:00 PM

City Hall Annex, Room 227

Roll Call

PRESENT: 6 - Terry McCarthy, Kathy DeMatthew, Thomas Bunker, Natalia Taft, Cory Mason and John Tate II

EXCUSED: 2 - James Spangenberg and James Palenick

Approval of Minutes for the March 2020 Meeting

A motion was made by McCarthy, seconded by President Taft, that this be to Approve the Minutes. The motion **PASSED** by the following vote:

AYES: 6 - McCarthy
DeMatthew
Bunker
Taft
Mason
Tate II

EXCUSED: 2 - Spangenberg
Palenick

0348-20

Subject: Approval of the Special Minutes of the Waterworks and Wastewater Commission Finance Committees

Recommendation: Approve

A motion was made by McCarthy, seconded by Bunker, that this Communication be Approved. The motion **PASSED** by the following vote:

AYES: 6 - McCarthy
DeMatthew
Bunker
Taft
Mason
Tate II

EXCUSED: 2 - Spangenberg
Palenick

0343-20

Subject: Budget Expenditures for April 2020 totaling \$ 1,648,239.59

Recommendation: Approve

Discussion ensued regarding the 2020 health insurance plan changes. A true reflection of health care impacts may be visible in a couple of months when deductibles are met, but 2020 medical practices and costs are unique due to pandemic influence.

A motion was made by Bunker, seconded by McCarthy, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 6 - McCarthy
DeMatthew
Bunker
Taft
Mason
Tate II

EXCUSED: 2 - Spangenberg
Palenick

0354-20

Subject: Presentation of the 2019 Audit from Clifton Larson Allen - Shannon Small invited to meeting

Recommendation: Approve the Audit Report and forward to the City Finance Director

Ms. Small of Clifton Larson Allen LLP summarized the year-end financial statements regarding the 2019 audit. It was noted that the Water Utility had no adjustments, good records and full cooperation from management and staff. Mr. Bunker requests a plan to rectify internal controls, which is an ongoing issue only because there is a small number of utility staff members to provide separation of duties.

A motion was made by McCarthy, seconded by Bunker, that this Communication be Recommended to be Received and Filed. The motion PASSED by the following vote:

AYES: 6 - McCarthy
DeMatthew
Bunker
Taft
Mason
Tate II

EXCUSED: 2 - Spangenberg
Palenick

0172-20

Subject: Proposal from Ruckert-Mielke to prepare the 2019 Diversion Report for the Des Plaines watershed diversion

Recommendation: Approve

The proposal is not to exceed \$ 20,000.

A motion was made by Secretary DeMatthew, seconded by McCarthy, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 6 - McCarthy
DeMatthew
Bunker
Taft
Mason
Tate II

EXCUSED: 2 - Spangenberg
Palenick

0251-20

Subject: Amendment to the Intergovernmental Agreement between the City of Racine, Racine Water Utility and Village of Mount Pleasant relating to REC fee debt reimbursement

Recommendation: Defer

Discussion was held regarding the proposal from Mt. Pleasant to upfront payment of all remaining debt to the utility.

A motion was made by Vice President Tate II, seconded by Mayor Mason, that this Communication be Deferred. The motion PASSED by the following vote:

AYES: 5 - McCarthy
DeMatthew
Taft
Mason
Tate II

NOES: 1 - Bunker

EXCUSED: 2 - Spangenberg
Palenick

0353-20

Subject: Approval of Quit Claim Deed for WisDot on CTH KR

Recommendation: Approve

The General Manager explained that the WisDOT would be allowed to operate within utility easements on the project site.

A motion was made by McCarthy, seconded by Vice President Tate II, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 6 - McCarthy
DeMatthew
Bunker
Taft
Mason
Tate II

EXCUSED: 2 - Spangenberg
Palenick

0261-20

Subject: Change Order No. 1 on Contract W-19-14, Emmertsen Road to Newman Road Wholesale Meter Modifications, Mid City Corporation

(Contractor)

Recommendation: Approve

The Chief of Operations submitted Change Order No. 1 on Contract W-19-14 in the amount of \$ 6,118.20 bringing the total contract amount to \$ 306,118.20 and recommended approval.

A motion was made by Vice President Tate II, seconded by Mayor Mason, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 6 - McCarthy
DeMatthew
Bunker
Taft
Mason
Tate II

EXCUSED: 2 - Spangenberg
Palenick

0276-20 **Subject:** Change Order No. 1 on Contract W-19-15, 933 Braun Rd Pumping Station, J.H. Hassinger, Inc. (Contractor)

Recommendation: Approve

The Chief of Operations submitted Change Order No. 1 on Contract W-19-15 in the amount of \$ 16,328.64 bringing the total contract amount to \$ 2,922,611.64 and recommended approval.

A motion was made by Vice President Tate II, seconded by Mayor Mason, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 6 - McCarthy
DeMatthew
Bunker
Taft
Mason
Tate II

EXCUSED: 2 - Spangenberg
Palenick

0211-20 **Subject:** Change Order No. 1 on Contract W-19-17, Pike River Corridor South Water Main, Super Excavators, Inc (contractor)

Recommendation: Approve

The Chief of Operations submitted Change Order No. 1 on Contract W-19-17 in the amount of \$ 5,345.42 bringing the total contract amount to \$ 6,982,895.42 and recommended approval.

A motion was made by Vice President Tate II, seconded by Mayor Mason, that

this Communication be Approved. The motion PASSED by the following vote:

AYES: 6 - McCarthy
DeMatthew
Bunker
Taft
Mason
Tate II

EXCUSED: 2 - Spangenberg
Palenick

0289-20

Subject: Change Order No. 3 on Contract W-19-19, Water Main Replacement - Phase 4, Willkomm Excavating & Grading, Inc. (Contractor)

Recommendation: Approve

The Chief of Operations submitted Change Order No. 3 on Contract W-19-19 in the amount of \$ 6,739.44 bringing the total contract amount to \$ 496,209.73 and recommended approval.

A motion was made by Vice President Tate II, seconded by Mayor Mason, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 6 - McCarthy
DeMatthew
Bunker
Taft
Mason
Tate II

EXCUSED: 2 - Spangenberg
Palenick

0285-20

Subject: Change Order No. 1 on Contract W-20-5, Lathrop Avenue Water Main Replacement, Reesman's Excavating & Grading, Inc. (Contractor)

Recommendation: Approve

The Chief of Operations submitted Change Order No. 1 on Contract W-20-5 in the amount of \$ 3,447.80 bringing the total contract amount to \$ 1,229,318.80 and recommended approval.

A motion was made by Vice President Tate II, seconded by Mayor Mason, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 6 - McCarthy
DeMatthew
Bunker
Taft
Mason
Tate II

EXCUSED: 2 - Spangenberg
Palenick

Adjournment

There being no further business, the meeting was adjourned at 5:28 p.m.



City of Racine

City Hall
730 Washington Ave.
Racine, WI 53403
www.cityofracine.org

Meeting Agenda - Final Waterworks Commission

Tuesday, July 21, 2020

4:00 PM

City Hall Annex, Room 227

Roll Call

1 Approval of Minutes for the June 2020 Meeting

- 2 **0463-20** **Subject:** Budget Expenditures for May and June totaling \$ 1,719,234.23
- 3 **0459-20** **Subject:** Presentation from Ruekert-Mielke to the Commission explaining the 2020 Water Rate Application to the PSC
- 4 **0405-20** **Subject:** Communication from General Manager providing interim financing for the Water Utility to be able to replace water main on the state Highway 20 (Washington Avenue) ahead of a Wisconsin Department of Transportation construction project.
- 5 **0390-20** **Subject:** Bid Opening Results on Contract W-20-9, Washington Avenue Water Main Replacement
- 6 **0351-20** **Subject:** Change Order No. 2 on Contract W-18-7, International Drive Water Main, A.W. Oakes & Son, Inc. (Contractor)
- 7 **0397-20** **Subject:** Change Order No. 2 on Contract W-19-7, Spring Street Transmission Water Main, S.J. Louis Construction (Contractor)
- 8 **0420-20** **Subject:** Change Order No. 1 on Contract W-19-11, 48" Perry to Newman Transmission Water Main, S.J. Louis Construction (Contractor)
- 9 **0462-20** **Subject:** Change Order No. 2 on Contract W-19-11, 48" Perry to Newman Transmission Water Main, S.J. Louis Construction (Contractor)
- 10 **0461-20** **Subject:** Change Order No. 3 on Contract W-19-12, Summit Elevated Storage Tank Pump Station, Staab Construction Corporation (Contractor)
- 11 **0460-20** **Subject:** Change Order No. 2 on Contract W-19-16, 42" Transmission Water Main - Phase 1, Dorner, Inc (Contractor)
- 12 **0444-20** **Subject:** Change Order No. 1 on Contract W-20-2, Transmission Water Main to Broadway Tank and CTH H Phase 2 Hydrant Alterations

- 13 0419-20 **Subject:** Final Pay Request on Contract W-18-7, International Drive Water Main

- 14 0467-20 **Subject:** Proposal from Dixon Engineering to prepare plans and specifications for the Perry Tank roof replacement project

Adjournment

If you are disabled and have accessibility needs or need information interpreted for you, please contact office of the General Manager at 636-9181 at least 48 hours prior to this meeting. For virtual access you may call 844-992-4726 access code: 126-396-8871



City of Racine

City Hall
730 Washington Ave.
Racine, WI 53403
www.cityofracine.org

Meeting Minutes – Final Wastewater Commission

Tuesday, June 16, 2020

4:30 PM

City Hall Annex, Room 227

Roll Call

PRESENT: 10 - Robert Lui, Kathy DeMatthew, Thomas Bunker, Terry McCarthy, Natalia Taft, Cory Mason, John Tate II, Robert Pucely, John Hewitt and Anthony Bunkelman

EXCUSED: 4 - James Spangenberg, Daryl Lynaugh, Dan Moore and Anthony Beyer

Approval of Minutes for the March 2020 Meeting

A motion was made by Lui, seconded by Hewitt, that this be to Approve the Minutes.
The motion **PASSED** by the following vote:

AYES: 9 - Lui
DeMatthew
Bunker
McCarthy
Taft
Mason
Tate II
Pucely
Hewitt

EXCUSED: 4 - Spangenberg
Lynaugh
Moore
Beyer

0346-20

Subject: Approval of the Special Minutes of the Waterworks and Wastewater Commission Finance Committees

Recommendation: Approve

A motion was made by Bunker, seconded by Vice President Taft, that this Communication be Approved. The motion **PASSED** by the following vote:

AYES: 9 - Lui
DeMatthew
Bunker
McCarthy
Taft
Mason
Tate II
Pucely
Hewitt

EXCUSED: 4 - Spangenberg
Lynaugh
Moore
Beyer

0347-20 **Subject:** Budget Expenditures for April 2020 totaling \$ 1,058,008.99

Recommendation: Approve

A motion was made by DeMatthew, seconded by Vice President Taft, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 9 - Lui
DeMatthew
Bunker
McCarthy
Taft
Mason
Tate II
Pucely
Hewitt

EXCUSED: 4 - Spangenberg
Lynaugh
Moore
Beyer

0355-20 **Subject:** Presentation of the 2019 Audit from Clifton Larson
Allen - Shannon Small invited to meeting

Recommendation: Approve the Audit Report and forward to the City
Finance Director

Ms. Small from Clifton Larson Allen LLP summarized the year-end financial statements regarding the 2019 audit. It was noted that the Wastewater Utility had no adjustments, good records, and full cooperation from management and staff.

A motion was made by Lui, seconded by DeMatthew, that this Communication be Recommended to be Received and Filed. The motion PASSED by the following vote:

AYES: 9 - Lui
DeMatthew
Bunker
McCarthy
Taft
Mason
Tate II
Pucely
Hewitt

EXCUSED: 4 - Spangenberg
Lynaugh
Moore
Beyer

0326-20 **Subject:** Compliance Maintenance Annual Report (CMAR) for 2019

Recommendation: Approve

The Wastewater Superintendent submitted the 2019 Racine Wastewater Utility Compliance Maintenance Annual Report (CMAR) in which the Utility received a Grade "A" in all categories. The Wastewater Commission authorized a Resolution that the CMAR was reviewed and approved.

A motion was made by Vice President Taft, seconded by DeMatthew, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 9 - Lui
DeMatthew
Bunker
McCarthy
Taft
Mason
Tate II
Pucely
Hewitt

EXCUSED: 4 - Spangenberg
Lynaugh
Moore
Beyer

0249-20 **Subject:** Amendments to the Household Hazardous Waste (HHW) Agreements to Reflect 2020 Rates

Recommendation: Approve

Staff Recommendation to the F & P Committee: That Mayor Mason and the City Clerk be authorized to sign the amendments to the Household Hazardous Waste Agreement with participating surrounding communities.

Fiscal Note: The Household Hazardous Waste rate has been changed from \$ 4.40 to \$ 3.00 for 2020

The General Manager presented to the commission the new rates for participants of the program. This item went to F&P under item #0248-20 and approved for City Clerk and Mayor to sign amendments.

A motion was made by Vice President Taft, seconded by DeMatthew, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 9 - Lui
DeMatthew
Bunker
McCarthy
Taft
Mason
Tate II
Pucely
Hewitt

EXCUSED: 4 - Spangenberg
Lynaugh
Moore
Beyer

0093-20

Subject: Approval of the draft Cost of Service Study for W. 6th St Interceptor

Recommendation: Approve

The General Manager explained that project cost will be shared amongst all the SSR parties based on treatment plant average day flow capacity, as provided in the Intergovernmental Sewer Agreement as an "Unplanned Upgrade" providing no additional party capacity.

A motion was made by Vice President Taft, seconded by Mayor Mason, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 9 - Lui
DeMatthew
Bunker
McCarthy
Taft
Mason
Tate II
Pucely
Hewitt

EXCUSED: 4 - Spangenberg
Lynaugh
Moore
Beyer

0252-20

Subject: Intergovernmental Agreement between the City and Racine

Wastewater Commission for design and construction of sewage lift station

Recommendation: Approve

The General Manager explained that the lift station is needed to serve the Convention Center/Hotel as well as existing wastewater discharge from Festival Hall and Lakeshore Towers. This item was taken to F & P under item 0297-20 and was approved.

A motion was made by Mayor Mason, seconded by Vice President Taft, that this Communication be Approved. The motion PASSED by the following vote:

- AYES:** 9 - Lui
- DeMatthew
- Bunker
- McCarthy
- Taft
- Mason
- Tate II
- Pucely
- Hewitt

- EXCUSED:** 4 - Spangenberg
- Lynaugh
- Moore
- Beyer

0250-20

Subject: Professional Services proposal from SEH for evaluation, design and construction services for Lift Station 4 and Convention Hotel

Recommendation: Approve

The General Manager explained that engineering consultant SEH provided a proposal for lift station design and construction related services not to exceed \$ 165,000 and recommended approval. This item was also sent to F&P under item # 0297-20 and approved.

A motion was made by Vice President Taft, seconded by Mayor Mason, that this Communication be Approved. The motion PASSED by the following vote:

- AYES:** 9 - Lui
- DeMatthew
- Bunker
- McCarthy
- Taft
- Mason
- Tate II
- Pucely
- Hewitt

EXCUSED: 4 - Spangenberg
Lynaugh
Moore
Beyer

0253-20

Subject: Professional Service proposal from SEH for air permitting work for wastewater facilities planning effort

Recommendation: Approve

The Chief of Operations explained that engineering consultant SEH has submitted a proposal to provide air permit review, study, and revision services due to upcoming plant energy modifications being developed in facilities planning. This proposal is not to exceed \$ 60,000 and recommended for approval.

A motion was made by Vice President Taft, seconded by Mayor Mason, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 9 - Lui
DeMatthew
Bunker
McCarthy
Taft
Mason
Tate II
Pucely
Hewitt

EXCUSED: 4 - Spangenberg
Lynaugh
Moore
Beyer

0338-20

Subject: Authorize the General Manager and Commission President to enter into the 6th Amendment for the Exclusivity Agreement with CNH

Recommendation: Approve

The General Manager explained the need for time extension and mentioned that this amendment will be good until December 7, 2020.

A motion was made by Vice President Taft, seconded by Mayor Mason, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 9 - Lui
DeMatthew
Bunker
McCarthy
Taft
Mason
Tate II
Pucely
Hewitt

EXCUSED: 4 - Spangenberg
Lynaugh
Moore
Beyer

0344-20

Subject: Communication from SSR party Mt. Pleasant expressing a need for the commission to evaluate performance of the Chicory Road Interceptor sewer and its performance under various scenarios

Recommendation: Approve

The General Manager received a letter from the Village of Mt. Pleasant on the need to evaluate the Chicory Road Interceptor along with the Village to rectify customer basement backup issues. Bryan Rogne from Brown and Caldwell has extensive experience modeling the local sanitary sewer interceptor system and is recommended to perform this evaluation. The estimated cost is not to exceed \$ 116,000.

A motion was made by Hewitt, seconded by Secretary Pucely, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 9 - Lui
DeMatthew
Bunker
McCarthy
Taft
Mason
Tate II
Pucely
Hewitt

EXCUSED: 4 - Spangenberg
Lynaugh
Moore
Beyer

0349-20

Subject: Change Order No. 3 for Racine Facilities Plan Study, AECOM (Consultant)

Recommendation: Approve

The General Manager submitted Change Order No. 3 in the amount of \$ 125,000.00.

A motion was made by Vice President Taft, seconded by Secretary Pucely, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 9 - Lui
DeMatthew
Bunker
McCarthy
Taft
Mason
Tate II
Pucely
Hewitt

EXCUSED: 4 - Spangenberg
Lynaugh
Moore
Beyer

0212-20

Subject: Sanitary Sewer Extension Request from Foth Consultants for TID#5 - Phase 6 in the Village of Mt. Pleasant

Recommendation: Approve

A motion was made by Hewitt, seconded by Secretary Pucely, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 9 - Lui
DeMatthew
Bunker
McCarthy
Taft
Mason
Tate II
Pucely
Hewitt

EXCUSED: 4 - Spangenberg
Lynaugh
Moore
Beyer

0239-20

Subject: Sanitary Sewer Extension Request from R.A. Smith for TID#4 - Phase 3 in the Village of Mt. Pleasant

Recommendation: Approve

A motion was made by Vice President Taft, seconded by Secretary Pucely, that this Communication be Approved. The motion PASSED by the following vote:

AYES: 9 - Lui
DeMatthew
Bunker
McCarthy
Taft
Mason
Tate II
Pucely
Hewitt

EXCUSED: 4 - Spangenberg
Lynaugh
Moore
Beyer

CLOSED SESSION

Taft made a motion, seconded by DeMatthew, to move the meeting into Closed Session at 6:37 p.m. The motion passed unanimously.

0345-20

Subject: Discussion of the Annual Performance of the General Manager

Recommendation: Defer

Discussion was held regarding the General Manager's performance for 2019 and his goals 2020

A motion was made by Mayor Mason, seconded by Vice President Taft, that this Communication be Deferred.

EXCUSED: 4 - Spangenberg
Lynaugh
Moore
Beyer

Adjournment

There being no further business, the meeting was adjourned at 7:00 p.m.



City of Racine

City Hall
730 Washington Ave.
Racine, WI 53403
www.cityofracine.org

Meeting Agenda - Final Wastewater Commission

Tuesday, July 21, 2020

4:30 PM

City Hall Annex, Room 227

Roll Call

1 Approval of Minutes for the June 2020 Meeting

- 2 **0469-20** **Subject:** Budget Expenditures for May totaling \$ 941,369.83
- 3 **0440-20** **Subject:** Project Reports:
- A) Chicory Road interceptor Update
 - B) Facility Plan Update
 - C) Site Acquisition Update
 - D) West 6th Street Interceptor Update
 - E) Edge of the River Update
- 4 **0473-20** **Subject:** Wastewater Commission Directors Insurance Policy Renewal
- 5 **0439-20** **Subject:** Communication from the Village of Caledonia with regard to peak flows
- 6 **0468-20** **Subject:** Communication from the Village of Mount Pleasant with regard to peak flows

Closed Session

It is the intent that the Wastewater Commission convene in closed session pursuant to Wis. Stat. Section 19.85(1)(c) for the purpose of considering employment, promotion, compensation or performance evaluation data of a utility employee. It is also the intent that open session will follow closed session.

- 7 **0345-20** **Subject:** Discussion of the Annual Performance of the General Manager
- Recommendation on June 16, 2020:** Defer

Adjournment

If you are disabled and have accessibility needs or need information interpreted for you, please contact the office of the General Manager at 636-9181 at least 48 hours prior to this meeting. For virtual access you may call 844-992-4726 access code: 126-396-8871



City of Racine

City Hall
730 Washington Ave.
Racine, WI 53403
www.cityofracine.org

Meeting Agenda - Final Wastewater Commission

Tuesday, July 28, 2020

4:00 PM

City Hall Annex, Room 227

Roll Call

0440-20

Subject: Project Reports:

- A) Chicory Road Interceptor Update
- B) Facility Plan Update
- C) Site Acquisition Update
- D) West 6th Street Interceptor Update
- E) Edge of the River Update

Recommendation on July 21, 2020: Defer

0439-20

Subject: Communication from the Village of Caledonia with regard to peak flows

Recommendation on July 21, 2020: Defer

0468-20

Subject: Communication from the Village of Mount Pleasant with regard to peak flows

Recommendation on July 21, 2020: Defer

Closed Session

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0345-20

Subject: Discussion of the Annual Performance of the General Manager

Recommendation on June 16, 2020: Defer

Recommendation on July 21, 2020: Defer

Adjournment

If you are disabled and have accessibility needs or need information interpreted for you, please contact the office of the General Manager at 262.636.9181 at least 48 hours prior to this meeting. For meeting access, you may call 1-844-992-4726 access code: 126-135-6445.

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
ACH - WE ENERGIES								
380	ACH - WE ENERGIES	9443_619_804	GAS & ELECTRIC SERVICE @ A	07/30/2020	15,886.32	.00		501-00-64140 Utilities
	Total ACH - WE ENERGIES:				15,886.32	.00		
BATTERIES PLUS LLC								
3791	BATTERIES PLUS LLC	P28825915	SCADA BATTERIES	07/14/2020	185.55	.00		501-00-64240 Building Repairs & Maintenance
	Total BATTERIES PLUS LLC:				185.55	.00		
D.W. DAVIES & CO								
437	D.W. DAVIES & CO	1596792	WET WELL DEODORIZER & WE	07/24/2020	707.10	.00		501-00-64240 Building Repairs & Maintenance
	Total D.W. DAVIES & CO:				707.10	.00		
KONICA MINOLTA								
1090	KONICA MINOLTA	9006932433	JUNE 2020 OFFICE COPIER OV	07/06/2020	105.51	.00		501-00-64030 Office Supplies
	Total KONICA MINOLTA:				105.51	.00		
KORTENDICK HARDWARE								
1096	KORTENDICK HARDWARE	135052	LIGHTHOUSE DRIVE L.S. SCAD	07/02/2020	47.45	.00		501-18707-000 CIP-Lighthouse Lift Station
1096	KORTENDICK HARDWARE	135053	LIGHTHOUSE DRIVE L.S. SCAD	07/02/2020	5.39	.00		501-18707-000 CIP-Lighthouse Lift Station
1096	KORTENDICK HARDWARE	135329	PARTS FOR GARAGE LIGHT	07/15/2020	12.58	.00		501-00-64240 Building Repairs & Maintenance
	Total KORTENDICK HARDWARE:				65.42	.00		
L.W. ALLEN, INC.								
1119	L.W. ALLEN, INC.	103488	4 MILE / HWY 31 L.S. REPAIRS	06/25/2020	7,994.00	.00		501-00-64240 Building Repairs & Maintenance
1119	L.W. ALLEN, INC.	103723	4 MILE / HWY 31 L.S. PUMP PAR	07/16/2020	1,980.76	.00		501-00-64240 Building Repairs & Maintenance
1119	L.W. ALLEN, INC.	103763	NEW VOLUTES 4 MILE / HWY 38	07/22/2020	4,740.10	.00		501-00-64240 Building Repairs & Maintenance
	Total L.W. ALLEN, INC.:				14,714.86	.00		
LIGHTHOUSE COMMUNICATIONS								
1170	LIGHTHOUSE COMMUNICATIO	1010720	2ND QTR. 2020 UTILITY BILLING	07/01/2020	4,014.49	.00		501-00-64040 Postage & Shipping
	Total LIGHTHOUSE COMMUNICATIONS:				4,014.49	.00		

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
MENARDS RACINE								
1281	MENARDS RACINE	4017	GARAGE DOOR ROLLERS	06/22/2020	14.21	.00		501-00-64030 Office Supplies
1281	MENARDS RACINE	76477	OVERHEAD GARAGE DOOR PA	03/04/2019	14.45	.00		501-00-64240 Building Repairs & Maintenance
Total MENARDS RACINE:								
					28.66	.00		
NETWORK SPECIALIST								
1390	NETWORK SPECIALIST	39616	SPECTRUM INTERNET SET UP	07/12/2020	175.00	.00		501-00-64320 IT Infrastructure
Total NETWORK SPECIALIST:								
					175.00	.00		
RACINE WATER & WASTEWATER UTILITIES								
1574	RACINE WATER & WASTEWATE	WWINV-08216	2ND QUARTER 2020 SEWER TR	07/21/2020	758,166.18	.00		501-00-62550 Sewer Treatment Charges
Total RACINE WATER & WASTEWATER UTILITIES:								
					758,166.18	.00		
REESMANS EXCAVATING & GRADING								
1610	REESMANS EXCAVATING & GR	20ECUD1	9015 N.W. AVENUE, SEWER LAT	06/26/2020	33,173.00	.00		501-00-64240 Building Repairs & Maintenance
Total REESMANS EXCAVATING & GRADING:								
					33,173.00	.00		
REVERE ELECTRIC								
1629	REVERE ELECTRIC	S4178127.001	LIGHTHOUSE DRIVE L.S. SCAD	07/02/2020	9.93	.00		501-18707-000 CIP-Lighthouse Lift Station
1629	REVERE ELECTRIC	S4183666.001	WEST JOHNSON L.S. REPAIRS	07/10/2020	12.31	.00		501-00-64240 Building Repairs & Maintenance
1629	REVERE ELECTRIC	S4183666.002	WEST JOHNSON L.S. PARTS	07/16/2020	270.00	.00		501-00-64240 Building Repairs & Maintenance
1629	REVERE ELECTRIC	S4188660.001	OFFICE LIGHT BALLAST	07/17/2020	24.51	.00		501-00-64030 Office Supplies
Total REVERE ELECTRIC:								
					316.75	.00		
SPECTRUM ENTERPRISE								
1832	SPECTRUM ENTERPRISE	710670101071	INTERNET SERVICE AT UTILITY	07/15/2020	29.51	.00		501-00-64150 Communication Services
Total SPECTRUM ENTERPRISE:								
					29.51	.00		
SUPERFLEET								
1909	SUPERFLEET	07/20/2020	FUEL FOR UTILITY DISTRICT V	07/20/2020	245.64	.00		501-00-63300 Vehicle Repairs & Maintenance
Total SUPERFLEET:								
					245.64	.00		

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
U. S. CELLULAR								
2026	U. S. CELLULAR	0383085816	UTILITY DISTRICT CELL PHONE	07/06/2020	134.08	.00		501-00-64150 Communication Services
Total U. S. CELLULAR:					134.08	.00		
WONDERWARE MIDWEST								
2199	WONDERWARE MIDWEST	Q22595	SCADA SOFTWARE 1 YEAR RE	05/13/2020	990.00	.00		501-00-64320 IT Infrastructure
Total WONDERWARE MIDWEST:					990.00	.00		
Grand Totals:					828,938.07	.00		

Dated: _____

Village President: _____

Village Board: _____

Village Clerk: _____

VILLAGE OF CALEDONIA
 Payment Approval Report - Water Utility
 Report dates: 6/29/2020-7/30/2020

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
ACH - WE ENERGIES								
380	ACH - WE ENERGIES	9443_619_804	GAS & ELECTRIC SERVICE @A	07/30/2020	752.45	.00		500-00-64140 Utilities
Total ACH - WE ENERGIES:								
					752.45	.00		
CALEDONIA FEED & SUPPLY								
276	CALEDONIA FEED & SUPPLY	52389	GRASS SEED FOR WATERBRE	07/13/2020	149.75	.00		500-00-64240 Building Repairs & Maintenance
Total CALEDONIA FEED & SUPPLY:								
					149.75	.00		
CORE & MAIN								
405	CORE & MAIN	M550247	6" REPAIR CLAMPS	06/23/2020	952.38	.00		500-00-64240 Building Repairs & Maintenance
Total CORE & MAIN:								
					952.38	.00		
D.W. DAVIES & CO								
437	D.W. DAVIES & CO	1596792	WEED KILLER	07/24/2020	240.60	.00		500-00-64240 Building Repairs & Maintenance
Total D.W. DAVIES & CO:								
					240.60	.00		
G & F EXCAVATING								
687	G & F EXCAVATING	34576	5615 COLLEGE PT. HYDT. REPL	06/24/2020	2,177.00	.00		500-00-64240 Building Repairs & Maintenance
687	G & F EXCAVATING	34577	9944 SARATOGA CURBSTOP R	06/24/2020	1,264.50	.00		500-00-64240 Building Repairs & Maintenance
687	G & F EXCAVATING	34589	TRUCK DIRT FROM SHOP TO D	07/07/2020	1,050.50	.00		500-00-64240 Building Repairs & Maintenance
687	G & F EXCAVATING	34599	INSTALL CURBSTOP 5133 BIRC	07/10/2020	2,706.50	.00		500-00-64240 Building Repairs & Maintenance
Total G & F EXCAVATING:								
					7,198.50	.00		
KARL H. SCHNABEL CO. INC.								
1033	KARL H. SCHNABEL CO. INC.	122150	500 - 2019 CCR REPORTS	06/29/2020	350.00	.00		500-00-64030 Office Supplies
Total KARL H. SCHNABEL CO. INC.:								
					350.00	.00		
KONICA MINOLTA								
1090	KONICA MINOLTA	9006932433	JUNE 2020 OFFICE COPIER OV	07/06/2020	105.50	.00		500-00-64030 Office Supplies
Total KONICA MINOLTA:								
					105.50	.00		
KORTENDICK HARDWARE								
1096	KORTENDICK HARDWARE	135329	PARTS FOR GARAGE LIGHT	07/15/2020	12.59	.00		500-00-64240 Building Repairs & Maintenance

Payment Approval Report - Water Utility
 Report dates: 6/29/2020-7/30/2020

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
1096	KORTENDICK HARDWARE	135371	PAINT BRUSH	07/16/2020	24.34	.00		500-00-64070 Work Supplies
Total KORTENDICK HARDWARE:								
					36.93	.00		
LIGHTHOUSE COMMUNICATIONS								
1170	LIGHTHOUSE COMMUNICATIO	1010720	2ND QTR. 2020 UTILITY BILLING	07/01/2020	4,014.50	.00		500-00-64040 Postage & Shipping
Total LIGHTHOUSE COMMUNICATIONS:								
					4,014.50	.00		
MENARDS RACINE								
1281	MENARDS RACINE	4017	GARAGE DOOR ROLLERS	06/22/2020	14.21	.00		500-00-64030 Office Supplies
1281	MENARDS RACINE	76477	OVERHEAD GARAGE DOOR PA	03/04/2019	14.46	.00		500-00-64240 Building Repairs & Maintenance
Total MENARDS RACINE:								
					28.67	.00		
NETWORK SPECIALIST								
1390	NETWORK SPECIALIST	39616	SPECTRUM INTERNET SET UP	07/12/2020	175.00	.00		500-00-64320 IT Infrastructure
Total NETWORK SPECIALIST:								
					175.00	.00		
OAK CREEK WATER UTILITY								
1423	OAK CREEK WATER UTILITY	4710	JUNE 2019 BAC "T" SAMPLES	06/23/2020	365.00	.00		500-00-62550 Purchased Water
1423	OAK CREEK WATER UTILITY	4722	JULY 2020 BAC "T" SAMPLES	07/10/2020	365.00	.00		500-00-62550 Purchased Water
1423	OAK CREEK WATER UTILITY	999.0001	2ND QTR. 2020 WATER PURCH	07/09/2020	97,462.84	.00		500-00-62550 Purchased Water
1423	OAK CREEK WATER UTILITY	999.0001	2ND QTR. 2020 WATER PURCH	07/09/2020	19,239.37	.00		500-00-64180 Public Fire Protection
1423	OAK CREEK WATER UTILITY	999.0002	2ND QTR. 2020 WATER PURCH	07/09/2020	9,307.24	.00		500-00-62550 Purchased Water
1423	OAK CREEK WATER UTILITY	999.0008	2ND QTR. 2020 WATER PURCH	07/09/2020	6,137.31	.00		500-00-62550 Purchased Water
Total OAK CREEK WATER UTILITY:								
					132,876.76	.00		
RACINE WATER & WASTEWATER UTILITIES								
1574	RACINE WATER & WASTEWATE	14959	APRIL, MAY & JUNE 2020 BAC "	07/10/2020	1,350.00	.00		500-00-62550 Purchased Water
1574	RACINE WATER & WASTEWATE	1971043	2ND QTR. 2020 WATER PURCH	07/09/2020	316,293.24	.00		500-00-62550 Purchased Water
1574	RACINE WATER & WASTEWATE	1971043	2ND QTR. 2020 PUBLIC FIRE P	07/09/2020	45,452.00	.00		500-00-64180 Public Fire Protection
Total RACINE WATER & WASTEWATER UTILITIES:								
					363,095.24	.00		
RAY HINTZ INC.								
1592	RAY HINTZ INC.	60857	TOP SOIL FOR WATERBREAKS	07/13/2020	264.00	.00		500-00-64240 Building Repairs & Maintenance

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
Total RAY HINTZ INC.:								
					264.00	.00		
REVERE ELECTRIC								
1629	REVERE ELECTRIC	S4188660.001	OFFICE LIGHT BALLAST	07/17/2020	24.51	.00		500-00-64030 Office Supplies
Total REVERE ELECTRIC:								
					24.51	.00		
ROHNER ASPHALT & GRADING, INC.								
1682	ROHNER ASPHALT & GRADING,	11452	6107 HWY 31 DRIVEWAY REPAI	07/15/2020	6,412.50	.00		500-00-64240 Building Repairs & Maintenance
1682	ROHNER ASPHALT & GRADING,	11453	6107 HWY 31 & 5207 VALLEY TR	07/15/2020	500.00	.00		500-00-64240 Building Repairs & Maintenance
Total ROHNER ASPHALT & GRADING, INC.:								
					6,912.50	.00		
SPECTRUM ENTERPRISE								
1832	SPECTRUM ENTERPRISE	710670101071	INTERNET SERVICE AT UTILITY	07/15/2020	29.51	.00		500-00-64150 Communication Services
Total SPECTRUM ENTERPRISE:								
					29.51	.00		
SUPERFLEET								
1909	SUPERFLEET	07/20/2020	FUEL FOR UTILITY DISTRICT V	07/20/2020	245.63	.00		500-00-63300 Vehicle Repairs & Maintenance
Total SUPERFLEET:								
					245.63	.00		
U. S. CELLULAR								
2026	U. S. CELLULAR	0383085616	UTILITY DISTRICT CELL PHONE	07/06/2020	134.07	.00		500-00-64150 Communication Services
Total U. S. CELLULAR:								
					134.07	.00		
WONDERWARE MIDWEST								
2199	WONDERWARE MIDWEST	Q22595	SCADA SOFTWARE 1 YEAR RE	05/13/2020	990.00	.00		500-00-64320 IT Infrastructure
Total WONDERWARE MIDWEST:								
					990.00	.00		
Grand Totals:								
					518,576.50	.00		

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
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Dated: _____

Village President: _____

Village Board: _____

Village Clerk: _____

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
BJELAJAC & KALLENBACH, LLC								
210	BJELAJAC & KALLENBACH, LL	20115-007D	WIND POINT WEST STORMSEW	06/30/2020	250.60	.00		502-00-65150 Storm Sewers
	Total BJELAJAC & KALLENBACH, LLC:							
					250.60	.00		
CONCRETE SPECIALTIES COMPANY								
395	CONCRETE SPECIALTIES COM	270019983	FRANKSVILLE DRAINAGE PROJ	06/17/2020	2,950.83	.00		502-00-64240 Building Repairs & Maintenance
	Total CONCRETE SPECIALTIES COMPANY:							
					2,950.83	.00		
G & F EXCAVATING								
687	G & F EXCAVATING	34578	ERIE STREET STORM SEWER	06/24/2020	2,774.00	.00		502-00-64240 Building Repairs & Maintenance
687	G & F EXCAVATING	34587	KRAUT ROAD MANHOLE INSTA	06/30/2020	23,984.40	.00		502-00-64240 Building Repairs & Maintenance
	Total G & F EXCAVATING:							
					26,758.40	.00		
NEENAH FOUNDRY COMPANY								
1382	NEENAH FOUNDRY COMPANY	375568	4 FRAMES & GRATES	07/02/2020	1,292.00	.00		502-00-64240 Building Repairs & Maintenance
	Total NEENAH FOUNDRY COMPANY:							
					1,292.00	.00		
RACINE COUNTY TREASURER								
1561	RACINE COUNTY TREASURER	6 Mile - back ta	BACK TAXES 6 MILE ROAD	07/08/2020	6,511.03	.00		502-00-64190 Miscellaneous Expenses
	Total RACINE COUNTY TREASURER:							
					6,511.03	.00		
REESMANS EXCAVATING & GRADING								
1610	REESMANS EXCAVATING & GR	20EWDPI-02	PAY APP. # 2 WIND DALE / WIND	07/28/2020	439,987.88	.00		502-00-65150 Storm Sewers
	Total REESMANS EXCAVATING & GRADING:							
					439,987.88	.00		
SME SEASONAL SERVICES LLC								
1813	SME SEASONAL SERVICES LL	5442	WEED CUTTING	06/27/2020	130.00	.00		502-00-64240 Building Repairs & Maintenance
1813	SME SEASONAL SERVICES LL	5447	WEED CUTTING	06/27/2020	2,000.00	.00		502-00-64260 Grounds Repairs & Maintenance
	Total SME SEASONAL SERVICES LLC:							
					2,130.00	.00		
WESTERN CULVERT & SUPPLY INC.								
2131	WESTERN CULVERT & SUPPLY	060777	WIND POINT WEST ROAD CULV	06/29/2020	7,242.40	.00		502-00-65150 Storm Sewers
2131	WESTERN CULVERT & SUPPLY	060813	ROAD CULVERTS	06/29/2020	159.60	.00		502-00-65150 Storm Sewers

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
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Total WESTERN CULVERT & SUPPLY INC.:

Grand Totals:

7,402.00	.00
487,282.74	.00

Dated: _____

Village President: _____

Village Board: _____

Village Clerk: _____

Caddy Vista Sanitary Sewer Improvements and Lift Station Replacement

Sewer & Water

Contractor

Super Excavators Inc.

Original Contract	\$	3,957,995.00	
Change Order #1 (11/6/2019)	\$	(51,563.50)	-1.30%
Change Order #2 (11/6/2019)	\$	6,633.70	0.17%
Change Order #3 (6/25/2020)	\$	24,328.00	0.61%
Percentage All Change Orders	\$	(20,601.80)	-0.52%
Current Contract	\$	3,937,393.20	
Pay Request #1	\$	315,313.55	5/30/2019
Retainage	\$	16,595.45	
Pay Request #2	\$	517,755.70	7/12/2019
Retainage	\$	27,250.30	
Pay Request #3	\$	394,665.15	8/1/2019
Retainage	\$	20,771.85	
Pay Request #4	\$	621,620.15	8/22/2019
Retainage	\$	32,716.85	
Pay Request #5	\$	615,018.03	9/26/2019
Retainage	\$	32,369.37	
Pay Request #6	\$	511,288.29	12/4/2019
Retainage	\$	26,909.91	
Pay Request #7	\$	409,821.47	1/2/2020
Retainage	\$	21,569.55	
Pay Request #8	\$	89,650.33	3/4/2020
Pay Request #9	\$	309,704.23	6/25/2020
Remaining on Contract (Including Retainage)	\$	152,556.30	3.9%
Owner Direct Purchase Usemc	\$	324,193.00	
Owner Direct Purchase Starnet	\$	55,225.00	
Engineering / Construction Services (12/22/2016 - 12/26/2019)	\$	734,435.12	
Total Project Cost	\$	5,026,918.32	
Budget 2018 Sewer	\$	3,200,000.00	
Budget 2019 Sewer	\$	4,100,000.00	
Revised 2019 CIP	\$	5,000,000.00	

STH 32 Utility Improvements DOT

Sewer & Water

Contractor	Payne and Dolan Inc.		
Original Contract	\$	266,043.63	
Change Order	\$	-	0.0%
Current Contract	\$	266,043.63	
Pay Request Retainage	\$	7,396.43	10/3/2019
Pay Request Retainage	\$	92,497.63	12/4/2019
Pay Request Retainage	\$	80,448.04	1/15/2020
Pay Request Retainage	\$	64,166.90	2/5/2020
Pay Request Retainage	\$	1,014.86	4/8/2020
Pay Request Retainage	\$	1,655.72	5/1/2020
Remaining on Contract (Including Retainage)	\$	18,864.05	7.1%
Engineering / Construction Services DOT 12/11/2018	\$	39,906.54	
Pay Request #1 Engineering Only	\$	868.07	6/4/2019
Pay Request #2 Engineering Only	\$	2,685.06	8/1/2019
Pay Request #3 Engineering Only	\$	2,766.76	9/4/2019
Remaining on Contract (Including Retainage)	\$	33,586.65	84.2%
Foth Engineering/Review (7/23/2019 - 12/26/2019)	\$	55,707.24	
Total Project Cost	\$	361,657.41	
Revised 2019 CIP	\$	350,000.00	

DeBack Industrial Park Phase 3 Improvements

Sewer & Water

Contractor	Globe Contractors Inc.		
Original Contract	\$	5,492,315.00	
Change Order #1 (3/15/2019)	\$	5,200.78	0.09%
Change Order #2 (5/7/2019)	\$	31,676.00	0.58%
Current Contract	\$	5,529,191.78	
Pay Request #1	\$	2,714,903.07	1/4/2019
Retainage	\$	142,889.64	
Pay Request #2	\$	989,536.31	1/31/2019
Retainage	\$	(5,581.76)	
Pay Request #3	\$	1,170,751.00	3/6/2019
Retainage			
Pay Request #4	\$	66,125.77	3/15/2019
Retainage			
Pay Request #5	\$	37,649.69	4/19/2019
Retainage			
Pay Request #6	\$	58,276.21	5/30/2019
Retainage			
Pay Request #7	\$	288,046.74	9/26/2019
Retainage			
Remaining on Contract (Including Retainage)	\$	203,902.99	3.7%
Engineering / Construction Services (12/22/2016 - 4/18/2019)	\$	515,957.79	
Total Project Cost	\$	6,045,149.57	
Oversizing Only (Utility District)			
Water	\$	104,890.20	
Sewer	\$	1,247,791.01	
Revised 2019 CIP	\$	1,352,681.21	

Lighthouse Drive Lift Station

Sewer

Contractor	QSP Utility		
Original Contract	\$	191,786.00	
Change Order	\$	-	
Current Contract	\$	191,786.00	
Pay Request #1	\$	51,021.65	5/21/2020
Retainage	\$	2,685.35	
Pay Request #2	\$	43,700.00	6/24/2020
Retainage	\$	2,300.00	
Remaining on Contract (Including Retainage)	\$	97,064.35	51%
Owner Direct Purchase LW Allen	\$	61,700.00	
Owner Direct Purchase Starnet	\$	159,850.00	
Explosion Proof Light	\$	1,148.50	
We Energies Gas & Electric	\$	11,586.75	
Wind Point Permits	\$	738.00	
Test Holes - Soils	\$	450.00	
Legal	\$	687.00	
Generator Connect	\$	3,177.09	
Can Metal Review	\$	185.81	
Design Engineering (12/22/2016 - 3/29/2020)	\$	84,134.72	
Construction Services (4/2020 to Current)	\$	20,330.45	
Total Project Cost	\$	535,774.32	
Revised Budget 2020 Sewer	\$	600,000.00	
Revised 2020 CIP	\$	600,000.00	

South Lane Sanitary Relay

Sewer

Contractor	Reesman's		
Original Contract	\$	690,585.24	
Change Order	\$	-	
Current Contract	\$	690,585.24	
Pay Request #1 Retainage			
Remaining on Contract (Including Retainage)	\$	690,585.24	100%
Televise Line	\$	3,862.50	
Design Engineering (2/19/2019 - 6/3/2020)	\$	58,014.00	
Construction Services (6/3/2020 to Current)	\$	4,977.18	
Total Project Cost	\$	757,438.92	
Budget 2020 Sewer	\$	905,000.00	
Revised 2020 CIP	\$	885,000.00	

Wind Dale / Wind Point West

Storm, Sewer

Contractor	Reesman's		
Original Contract	\$	1,566,307.81	
Change Order	\$	53,691.00	3.43%
Current Contract	\$	1,619,998.81	
Pay Request #1	\$	244,585.87	6/25/2020
Retainage	\$	12,872.94	
Pay Request #2	\$	439,987.88	7/28/2020
Retainage	\$	23,157.26	
Remaining on Contract (Including Retainage)	\$	935,425.06	58%
Design Engineering (1/26/2018 - 6/3/2020)	\$	153,485.98	
Construction Services (6/23/2020 to Current)	\$	20,847.28	
Total Project Cost	\$	1,794,332.07	
Budget 2020 Sewer	\$	-	
Budget 2020 Storm	\$	1,026,500.00	
Revised 2020 CIP Sewer	\$	140,000.00	
Revised 2020 CIP Storm	\$	1,650,000.00	

Rio Vista Shorewood Stonebridge

Water, Sewer

Contractor	PTS Contractors Inc		
Original Contract	\$	930,020.00	
Change Order	\$	-	
Current Contract	\$	930,020.00	
Pay Request #1 Retainage			
Remaining on Contract (Including Retainage)	\$	930,020.00	100%
Design Engineering (4/18/2019 - 6/22/2020)	\$	103,591.91	
Construction Services (7/2020 to Current)			
Total Project Cost	\$	1,033,611.91	
Budget 2020 Sewer	\$	265,000.00	
Budget 2020 Water	\$	1,626,000.00	
Revised 2020 CIP Sewer	\$	385,000.00	
Revised 2020 CIP Water	\$	825,000.00	

**CALEDONIA UTILITY DISTRICT
SEWER & WATER PROJECTS
PROJECT SUMMARY WORKSHEET**

Caddy Vista Improvements / Lift Station

- Project near completed. Awaiting final pay request.

Riverbend Drive Lift Station Safety Site

- Design of project has restarted due to Sewer Capacity Issues.

Lighthouse Drive Lift Station Upgrade Site

- Project near completion.

South Lane Sanitary Sewer

- Met onsite with Reesman's on July 31st. Discussed trees that needed to be trimmed. Tree work to begin on Tuesday August 4th. Pipe work to begin around August 10th.

Rio Vista Shorewood & Stonebridge Utility Improvements

- Contractor started Rio Vista and Shorewood project on July 13th. Progress has been good. Watermain nearly all installed. Projected to complete pipe work in the next couple of days. Will then move on to testing. Stonebridge portion to start August 17th.

DeBack Industrial Park Phase 3 Improvements

- Information has been sent to the owners and the Special Assessment meeting will be held when the Village Hall can host larger public meetings.

Annual Televising Program – Sanitary Sewer

- Progress continues on televising of this years scheduled televising.

Water Impact Fee / Sewer Connection Fee Update

- The sewer capacity issues have changed the CIP for the Sewer Utility and will change the information on the Connection Fee. Update to come soon.

EPA Risk & Resilience Assessment and Emergency Response Plan

- Work to start in December 2020.

**CALEDONIA UTILITY DISTRICT
STORM WATER PROJECTS
PROJECT SUMMARY WORKSHEET**

Hoods Creek – Aldebaran Brushing Project

- Awaiting dry weather and then will re-assess the needs of the Hoods Creek along the Aldebaran Subdivision

Tanglewood Avenue Storm Sewer Project

- All storm sewer pipe work is completed. Visu-Sewer will be lining Storm Sewer run next week. Discovered a hydrant that does not have a valve. Will be adding a hydrant valve the week of August 3rd. Restoration and Paving to start soon.

Wind Point West Subdivision Project

- Project underway. Reesman's anticipate having the storm sewer pipe complete by August 7th. Restoration crews have been working closely behind. Restoration on several areas has already been completed.

GIS Updates

- Project has been worked on as time allows. Will be updating servers when information is received.

Jolson Street – Franksville Area Drainage

- Tile Relay installed on June 30th and July 1st. Restoration completed the week of July 20th.

Alcyn Drive –Drainage Complaint

- Finish AutoCAD, QA/QC on gas main/laterals and then share with owners.

Douglas Avenue – OMG Ditch Project

- Met with owner to go over plans. Answered several of his questions and reached out to Foth on some changes that he would like to see. Working on revised plans then will schedule another meeting with both owners to make sure everything is covered.

RESOLUTION NO. 2020 – 01
RESOLUTION APPROVING THE
2019 COMPLIANCE MAINTENANCE ANNUAL REPORT FOR THE
CALEDONIA UTILITY DISTRICT

The Commissioners of the Caledonia Utility District Commission (“Commission”) do hereby resolve as follows:

WHEREAS, the Commission has had presented to it and has reviewed the 2019 Compliance Maintenance Annual Report for the Caledonia Utility District, which describes the physical conditions and the performance of the utility district’s sewage system during the prior calendar year, and which is required to be completed, approved and filed by the rules and regulations of the Department of Natural Resources (“DNR”); and

WHEREAS, the utility district’s system and operations continue to comply with DNR requirements;

BE IT FURTHER RESOLVED; That as required by the written directive of the DNR, the Caledonia Utility District Commission hereby confirms that action responses were properly and timely made by the Caledonia Utility District with respect to the following Sanitary Sewer Overflow. (SSO)

- 1) October 17, 2019, behind the resident at 10226 Rootriver Drive, a SSO was reported. The cause of the SSO was due to the high water level in the Rootriver and the river bank erosion, causing the sewermain pipe to fail.

NOW THEREFORE, BE IT RESOLVED: That the Commission hereby approves of the 2019 Compliance Maintenance Annual Report for the Caledonia Utility District and directs that it be signed and filed with the Department of Natural Resources. Adopted by the Utility District Commission at Caledonia, Wisconsin, this 5th day of August, 2020.

By: Howard Stacey, President

Attest: Michael Pirk, Secretary

Compliance Maintenance Annual Report

Caledonia Utility District

Last Updated: Reporting For:
7/23/2020 **2019**

Financial Management

<p>1. Provider of Financial Information</p> <p>Name: <input style="width: 300px;" type="text" value="Caledonia Utility District"/></p> <p>Telephone: <input style="width: 150px;" type="text" value="262-681-3900"/> (XXX) XXX-XXXX</p> <p>E-Mail Address (optional): <input style="width: 300px;" type="text" value="blui@caledoniawitility.com"/></p>													
<p>2. Treatment Works Operating Revenues</p> <p>2.1 Are User Charges or other revenues sufficient to cover O&M expenses for your wastewater treatment plant AND/OR collection system ?</p> <p>● Yes (0 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ No (40 points)</p> <p>If No, please explain:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>2.2 When was the User Charge System or other revenue source(s) last reviewed and/or revised?</p> <p>Year: <input style="width: 100px;" type="text" value="2019"/></p> <p>● 0-2 years ago (0 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ 3 or more years ago (20 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ N/A (private facility)</p> <p>2.3 Did you have a special account (e.g., CWFPP required segregated Replacement Fund, etc.) or financial resources available for repairing or replacing equipment for your wastewater treatment plant and/or collection system?</p> <p>● Yes (0 points)</p> <p>○ No (40 points)</p>	0												
<p>REPLACEMENT FUNDS [PUBLIC MUNICIPAL FACILITIES SHALL COMPLETE QUESTION 3]</p>													
<p>3. Equipment Replacement Funds</p> <p>3.1 When was the Equipment Replacement Fund last reviewed and/or revised?</p> <p>Year: <input style="width: 100px;" type="text" value="2019"/></p> <p>● 1-2 years ago (0 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ 3 or more years ago (20 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ N/A</p> <p>If N/A, please explain:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>3.2 Equipment Replacement Fund Activity</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">3.2.1 Ending Balance Reported on Last Year's CMAR</td> <td style="width: 5%; text-align: center;">\$</td> <td style="width: 35%; text-align: right;"><input style="width: 100%;" type="text" value="1,383,491.16"/></td> </tr> <tr> <td>3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.)</td> <td style="text-align: center;">\$</td> <td style="text-align: right;"><input style="width: 100%;" type="text" value="0.00"/></td> </tr> <tr> <td>3.2.3 Adjusted January 1st Beginning Balance</td> <td style="text-align: center;">\$</td> <td style="text-align: right;"><input style="width: 100%;" type="text" value="1,383,491.16"/></td> </tr> <tr> <td>3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)</td> <td style="text-align: center;">+</td> <td style="text-align: right;"><input style="width: 100%;" type="text" value="47,070.63"/></td> </tr> </table>	3.2.1 Ending Balance Reported on Last Year's CMAR	\$	<input style="width: 100%;" type="text" value="1,383,491.16"/>	3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.)	\$	<input style="width: 100%;" type="text" value="0.00"/>	3.2.3 Adjusted January 1st Beginning Balance	\$	<input style="width: 100%;" type="text" value="1,383,491.16"/>	3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)	+	<input style="width: 100%;" type="text" value="47,070.63"/>	
3.2.1 Ending Balance Reported on Last Year's CMAR	\$	<input style="width: 100%;" type="text" value="1,383,491.16"/>											
3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.)	\$	<input style="width: 100%;" type="text" value="0.00"/>											
3.2.3 Adjusted January 1st Beginning Balance	\$	<input style="width: 100%;" type="text" value="1,383,491.16"/>											
3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)	+	<input style="width: 100%;" type="text" value="47,070.63"/>											

Compliance Maintenance Annual Report

Caledonia Utility District

Last Updated: Reporting For:
7/23/2020 2019

3.2.5 Subtractions from Fund (e.g., equipment replacement, major repairs - use description box 3.2.6.1 below*) - \$ 0.00

3.2.6 Ending Balance as of December 31st for CMAR Reporting Year \$ 1,430,561.79

All Sources: This ending balance should include all Equipment Replacement Funds whether held in a bank account(s), certificate(s) of deposit, etc.

3.2.6.1 Indicate adjustments, equipment purchases, and/or major repairs from 3.2.5 above.

[Empty text box for adjustments]

3.3 What amount should be in your Replacement Fund? \$ 2,000,000.00

Please note: If you had a CWFPP loan, this amount was originally based on the Financial Assistance Agreement (FAA) and should be regularly updated as needed. Further calculation instructions and an example can be found by clicking the SectionInstructions link under Info header in the left-side menu.

3.3.1 Is the December 31 Ending Balance in your Replacement Fund above, (#3.2.6) equal to, or greater than the amount that should be in it (#3.3)?

- Yes
- No

If No, please explain.

Other amounts are placed in short term investments that produce a higher rate of return.

4. Future Planning

4.1 During the next ten years, will you be involved in formal planning for upgrading, rehabilitating, or new construction of your treatment facility or collection system?

- Yes - If Yes, please provide major project information, if not already listed below.
- No

Project #	Project Description	Estimated Cost	Approximate Construction Year
1	South Lane Sewer Relay Project	803,090	2020
2	Wind Point West Sewer Rehabilitation Project	142,800	2020
3	Rio Vista Road / Shorewood Drive Sewer Rehabilitation Project	340,185	2020

5. Financial Management General Comments

[Empty text box for financial management comments]

ENERGY EFFICIENCY AND USE

6. Collection System

6.1 Energy Usage

6.1.1 Enter the monthly energy usage from the different energy sources:

COLLECTION SYSTEM PUMPAGE: Total Power Consumed

Number of Municipally Owned Pump/Lift Stations:

Compliance Maintenance Annual Report

Caledonia Utility District

Last Updated: Reporting For:
7/23/2020 **2019**

	Electricity Consumed (kWh)	Natural Gas Consumed (therms)
January	74,861	730
February	82,040	1,097
March	144,200	970
April	100,907	578
May	71,976	307
June	114,347	115
July	35,984	50
August	65,567	78
September	45,960	94
October	82,283	73
November	91,081	136
December	70,120	623
Total	979,326	4,851
Average	81,611	404

6.1.2 Comments:

6.2 Energy Related Processes and Equipment

6.2.1 Indicate equipment and practices utilized at your pump/lift stations (Check all that apply):

- Comminution or Screening
- Extended Shaft Pumps
- Flow Metering and Recording
- Pneumatic Pumping
- SCADA System
- Self-Priming Pumps
- Submersible Pumps
- Variable Speed Drives
- Other:

6.2.2 Comments:

6.3 Has an Energy Study been performed for your pump/lift stations?

No

Yes

Year:

By Whom:

Describe and Comment:

Compliance Maintenance Annual Report

Caledonia Utility District

Last Updated: Reporting For:
7/23/2020 **2019**

6.4 Future Energy Related Equipment

6.4.1 What energy efficient equipment or practices do you have planned for the future for your pump/lift stations?

In facility upgrades or replacements, were installing VFD's and energy efficient motors.

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Caledonia Utility District

Last Updated: Reporting For:
7/23/2020 2019

Sanitary Sewer Collection Systems

1. Capacity, Management, Operation, and Maintenance (CMOM) Program

1.1 Do you have a CMOM program that is being implemented?

- Yes
- No

If No, explain:

1.2 Do you have a CMOM program that contains all the applicable components and items according to Wisc. Adm Code NR 210.23 (4)?

- Yes
- No (30 points)
- N/A

If No or N/A, explain:

1.3 Does your CMOM program contain the following components and items? (check the components and items that apply)

Goals [NR 210.23 (4)(a)]

Describe the major goals you had for your collection system last year:

I/I reduction, basement backups and SSO reductions, sewer repair & rehabilitation, system cleaning & monitoring and televising approximately 20% of the system each year.

Did you accomplish them?

- Yes
- No

If No, explain:

Organization [NR 210.23 (4) (b)]

Does this chapter of your CMOM include:

- Organizational structure and positions (eg. organizational chart and position descriptions)
- Internal and external lines of communication responsibilities
- Person(s) responsible for reporting overflow events to the department and the public

Legal Authority [NR 210.23 (4) (c)]

What is the legally binding document that regulates the use of your sewer system?

Title 9, Chapter 4 of Village Ordinance

If you have a Sewer Use Ordinance or other similar document, when was it last reviewed and revised? (MM/DD/YYYY) 05/17/2011

Does your sewer use ordinance or other legally binding document address the following:

- Private property inflow and infiltration
- New sewer and building sewer design, construction, installation, testing and inspection
- Rehabilitated sewer and lift station installation, testing and inspection
- Sewage flows satellite system and large private users are monitored and controlled, as necessary
- Fat, oil and grease control
- Enforcement procedures for sewer use non-compliance

Operation and Maintenance [NR 210.23 (4) (d)]

Does your operation and maintenance program and equipment include the following:

- Equipment and replacement part inventories
- Up-to-date sewer system map

Compliance Maintenance Annual Report

Caledonia Utility District

Last Updated: Reporting For:
7/23/2020 **2019**

- A management system (computer database and/or file system) for collection system information for O&M activities, investigation and rehabilitation
- A description of routine operation and maintenance activities (see question 2 below)
- Capacity assessment program
- Basement back assessment and correction
- Regular O&M training
- Design and Performance Provisions [NR 210.23 (4) (e)]

What standards and procedures are established for the design, construction, and inspection of the sewer collection system, including building sewers and interceptor sewers on private property?

- State Plumbing Code, DNR NR 110 Standards and/or local Municipal Code Requirements
- Construction, Inspection, and Testing
- Others:

Caledonia Utility District Standard Sewer & Water Main Specifications

- Overflow Emergency Response Plan [NR 210.23 (4) (f)]

Does your emergency response capability include:

- Responsible personnel communication procedures
- Response order, timing and clean-up
- Public notification protocols
- Training
- Emergency operation protocols and implementation procedures

- Annual Self-Auditing of your CMOM Program [NR 210.23 (5)]

- Special Studies Last Year (check only those that apply):

- Infiltration/Inflow (I/I) Analysis
- Sewer System Evaluation Survey (SSES)
- Sewer Evaluation and Capacity Management Plan (SECAP)
- Lift Station Evaluation Report
- Others:

Continued system wide modeling for capacity management.

2. Operation and Maintenance

2.1 Did your sanitary sewer collection system maintenance program include the following maintenance activities? Complete all that apply and indicate the amount maintained.

Cleaning	20	% of system/year
Root removal	.02	% of system/year
Flow monitoring	100	% of system/year
Smoke testing	0	% of system/year
Sewer line televising	19.8	% of system/year
Manhole inspections	20	% of system/year
Lift station O&M	100	# per L.S./year
Manhole rehabilitation	6.8	% of manholes rehabbed
Mainline rehabilitation	5.7	% of sewer lines rehabbed
Private sewer inspections	0	% of system/year

Compliance Maintenance Annual Report

Caledonia Utility District

Last Updated: Reporting For:
7/23/2020 2019

Private sewer I/I removal % of private services
 River or water crossings % of pipe crossings evaluated or maintained

Please include additional comments about your sanitary sewer collection system below:

3. Performance Indicators

3.1 Provide the following collection system and flow information for the past year.

<input type="text" value="46.6"/>	Total actual amount of precipitation last year in inches
<input type="text" value="35.8"/>	Annual average precipitation (for your location)
<input type="text" value="170.9"/>	Miles of sanitary sewer
<input type="text" value="17"/>	Number of lift stations
<input type="text" value="0"/>	Number of lift station failures
<input type="text" value="1"/>	Number of sewer pipe failures
<input type="text" value="19"/>	Number of basement backup occurrences
<input type="text" value="19"/>	Number of complaints
<input type="text" value="4698"/>	Average daily flow in MGD (if available)
<input type="text" value="206666"/>	Peak monthly flow in MGD (if available)
<input type="text"/>	Peak hourly flow in MGD (if available)

3.2 Performance ratios for the past year:

<input type="text" value="0.00"/>	Lift station failures (failures/year)
<input type="text" value="0.01"/>	Sewer pipe failures (pipe failures/sewer mile/yr)
<input type="text" value="0.01"/>	Sanitary sewer overflows (number/sewer mile/yr)
<input type="text" value="0.11"/>	Basement backups (number/sewer mile)
<input type="text" value="0.11"/>	Complaints (number/sewer mile)
<input type="text" value="44.0"/>	Peaking factor ratio (Peak Monthly:Annual Daily Avg)
<input type="text" value="0.0"/>	Peaking factor ratio (Peak Hourly:Annual Daily Avg)

4. Overflows

LIST OF SANITARY SEWER (SSO) AND TREATMENT FACILITY (TFO) OVERFLOWS REPORTED **

Date	Location	Cause	Estimated Volume (MG)
0 10/8/2019 12:00:00 AM - 10/8/2019 12:00:00 AM	The start date, duration, and volume of the SSO are all unknown.	Broken Sewer, Broken Sewer	0 - 0

** If there were any SSOs or TFOs that are not listed above, please contact the DNR and stop work on this section until corrected.

What actions were taken, or are underway, to reduce or eliminate SSO or TFO occurrences in the future?

Regularly inspect remote areas of the sewer system for prevent future SSO's

5. Infiltration / Inflow (I/I)

5.1 Was infiltration/inflow (I/I) significant in your community last year?

Yes

No

If Yes, please describe:

Compliance Maintenance Annual Report

Caledonia Utility District

Last Updated: Reporting For:
7/23/2020 **2019**

5.2 Has infiltration/inflow and resultant high flows affected performance or created problems in your collection system, lift stations, or treatment plant at any time in the past year?

Yes

No

If Yes, please describe:

5.3 Explain any infiltration/inflow (I/I) changes this year from previous years:

Manhole grouting, Inspect sump pump discharge lines when changing water meters..

5.4 What is being done to address infiltration/inflow in your collection system?

Continued effort to reline aged sewer mains. Work on upgrading / rehabilitating sewer mains prior to the Village road resurfacing schedule.

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Caledonia Utility District

Last Updated: Reporting For:
7/23/2020 2019

Grading Summary

WPDES No: 0047341

SECTIONS	LETTER GRADE	GRADE POINTS	WEIGHTING FACTORS	SECTION POINTS
Financial	A	4	1	4
Collection	A	4	3	12
TOTALS			4	16
GRADE POINT AVERAGE (GPA) = 4.00				

Notes:

- A = Voluntary Range (Response Optional)
- B = Voluntary Range (Response Optional)
- C = Recommendation Range (Response Required)
- D = Action Range (Response Required)
- F = Action Range (Response Required)

Compliance Maintenance Annual Report

Caledonia Utility District

Last Updated: Reporting For:
7/23/2020 **2019**

Resolution or Owner's Statement

Name of Governing
Body or Owner:

Village of Caledonia Utility District

Date of Resolution or
Action Taken:

07/22/2020

Resolution Number:

2020-01

Date of Submittal:

ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO SPECIFIC CMAR SECTIONS (Optional for grade A or B. Required for grade C, D, or F):

Financial Management: Grade = A

Collection Systems: Grade = A

(Regardless of grade, response required for Collection Systems if SSOs were reported)

ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO THE OVERALL GRADE POINT AVERAGE AND ANY GENERAL COMMENTS

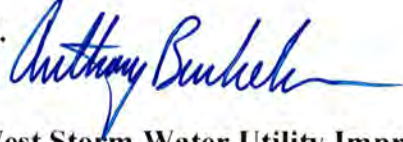
(Optional for G.P.A. greater than or equal to 3.00, required for G.P.A. less than 3.00)

G.P.A. = 4.00

MEMORANDUM

DATE: Thursday, July 30, 2020

TO: Caledonia Utility District

FROM: Anthony A. Bunkelman P.E.
Utility Director 

RE: Wind Dale & Wind Point West Storm Water Utility Improvements –
Change Order #1

BACKGROUND INFORMATION

During the Wind Point West portion of the Project, it was discovered that the water laterals for most of the homes are not at the typical 6' of depth. The water laterals varied from 4' to 6' in depth. To rectify the situation in the storm sewer trenches, it was agreed that the laterals either be insulated or offset to obtain the typical depth, depending on the existing depth.

In Change Order #1, 2 bid items would be added to the contract documents. 1 for offsetting laterals that have already had the storm sewer installed and 1 for offsetting laterals that do not have the storm sewer installed. It was anticipated that potentially all 69 homes would require some type of adjustment. To date there have been 22.

The cost of the change orders to date for this project is \$53,691.00. The original contract for this project was \$1,566,307.81. The percentage change for this change order so far for the project is 3.4%.

It is recommended that Change Order #1 be approved.

RECOMMENDATION

Move to approve Change Order #1 to add the additional line items for water lateral offsets for the Wind Dale & Wind Point West Storm Water Utility Improvements Project.



CHANGE ORDER

Project: _____

Wind Dale & Wind Point West Storm Water

Original PO Number:	
Change Order #	
Change Order Date	6.30.2020
Payment Terms	
Retainage	
Req Number	

Seller: _____

Reesman's Excavating & Grading
 28815 Bushnell Rd.
 Burlington, WI
 53105

Buyer: _____

Village of Caledonia

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	ITEM TOTAL
10	1" HDPE Water Service offset (while installing Storm sewer)	1	EA	\$1,974.00	\$1,974.00
20	1" HDPE Water Service offset (after new storm has been installed)	1	EA	\$2,907.00	\$2,907.00
Pricing is based on the Village granting us a 3 week contract extension on South Lane Sanitary Sewer due to the additional time required for this work.					
Total					\$4,881.00

<i>Original Purchase Order/ Contract Sum</i>	\$ 1,508,807.81
<i>Net Change by Previous Change Orders</i>	\$ -
<i>Purchase Order/Contract Sum prior to this Change Order</i>	\$1,508,807.81
<i>Purchase Order/Contract Sum will be increased by this Change Order</i>	\$4,881.00
<i>Purchase Order/Contract Sum including this Change Order</i>	\$1,513,688.81

Accepted by SELLER: _____

Reesman's Excavating & Grading
 28815 Bushnell Rd.
 Burlington, WI
 53105

Accepted by BUYER: _____

Village of Caledonia

Signature: _____ Date: _____

Signature: _____ Date: _____

Name: _____ Title: _____

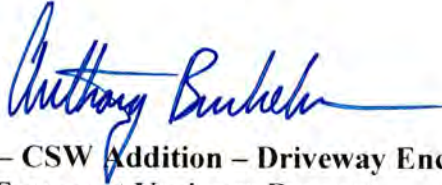
Name: _____ Title: _____

MEMORANDUM

DATE: Thursday, July 30, 2020

TO: Caledonia Utility District

FROM: Anthony A. Bunkelman P.E.
Utility Director



RE: Central Storage Warehouse – CSW Addition – Driveway Encroachment on Storm Sewer & Watermain Easement Variance Request

BACKGROUND INFORMATION

Tracy Brown P.E. of JSD Professional Services has submitted a Site Grading Plan for the Central Storage Warehouse Addition. Central Storage Warehouse is located at 12725 4 Mile Road and the proposed addition is located immediately South of the existing building. The project involves the construction of a 51,750 square foot building addition with loading docks and driveway expansion.

In early discussions with CSW and JSD, it was identified that in order to make this project viable for CSW, the building addition would need to have a minimum of 8 loading docks. The addition is currently proposed to have 7 loading docks on the West side of the addition and 1 loading dock on the East side of the addition. CSW made the addition fit close (1.2') to the building setback line, which is 40' from the South property line. In order to access the facility by means of a second access from Road B, the driveway was proposed to encroach on the Storm Sewer & Watermain Easement. Currently there is a Storm Sewer and a Watermain stub located in the Easement.

It is not anticipated that there will be a conflict with the driveway encroaching over the storm sewer and the watermain is not installed and can be shifted to the South with an expanded Watermain Easement from WisPark. So the District is aware, the Village has been in discussion with WisPark on a Watermain Easement and is currently working on a revised Watermain Easement for this area and a watermain loop from DeBack Lane.

It is recommended that the Utility District allow this encroachment of the CSW driveway in the Storm Sewer & Watermain Easement subject to the following conditions.

Included in this packet is a copy of the Site Plan for the Project.

RECOMMENDATION

Move to approve a driveway encroachment in the Storm Sewer & Watermain Easement for Central Storage Warehouse – CSW Addition subject to the following:

- 1. The Village Board approves the driveway encroachment.**

2. Central Storage Warehouse enters into a Driveway Encroachment Agreement with the Caledonia Utility District and the Village of Caledonia.

PLAN MODIFICATIONS

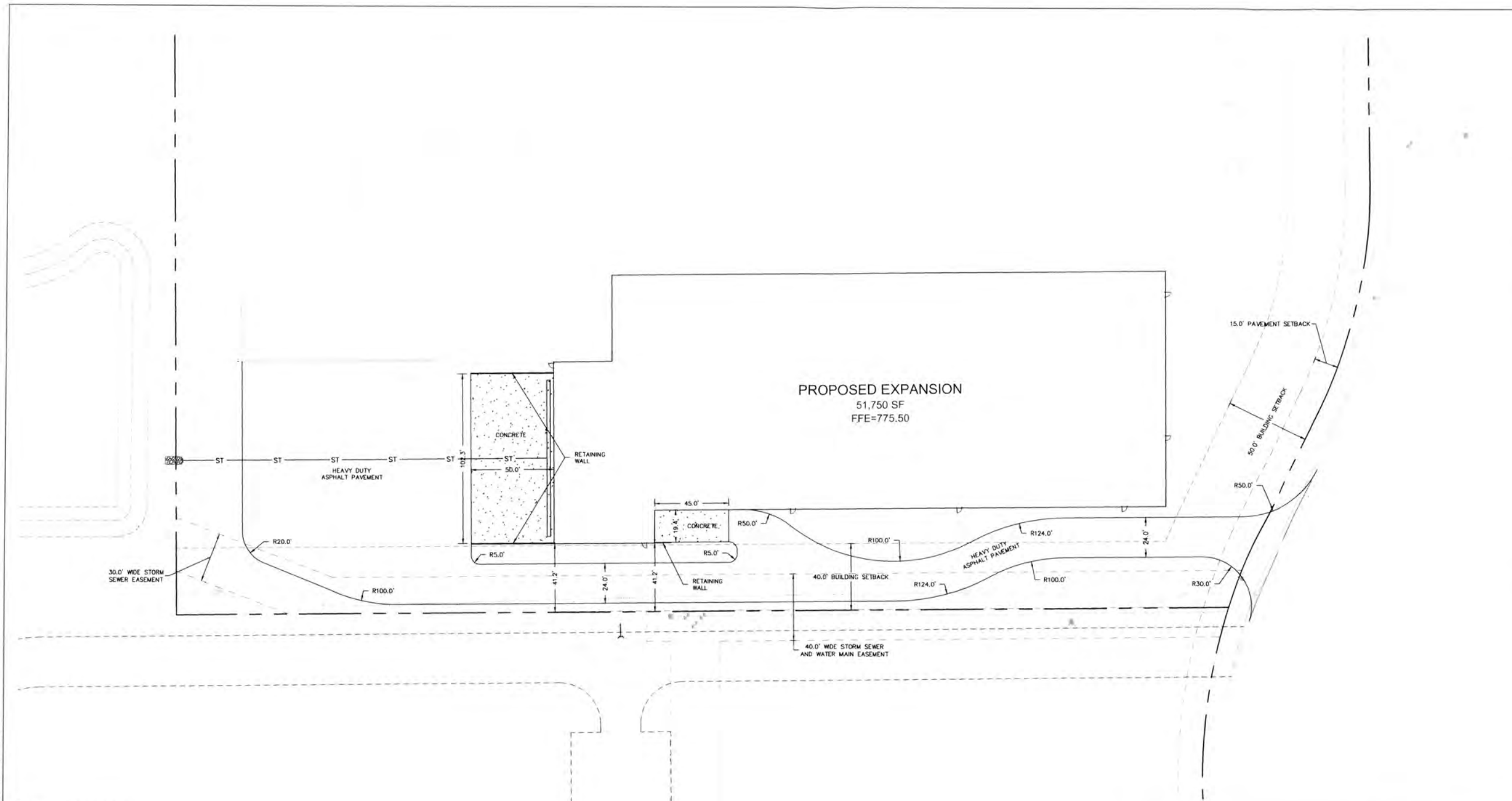
#	Date	Description
1	06/29/2020	BSD APPLICATION PLANS
2	07/01/2020	VILLAGE RESUBMITTAL
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Design/Drawn: JJS
Approved: TJB

SHEET TITLE
DIMENSIONED SITE & PAVING PLAN

SHEET NUMBER
C100

JSD PROJECT NO. 16-85378



LEGEND

- PROPERTY LINE
- EASEMENT LINE
- BUILDING SETBACK LINE
- PAVEMENT SETBACK LINE
- BUILDING OUTLINE
- EDGE OF PAVEMENT
- RETAINING WALL
- HEAVY DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- GRADE BREAK
- 770 --- PROPOSED 5 FOOT CONTOUR
- 771 --- PROPOSED 1 FOOT CONTOUR
- EXISTING 5 FOOT CONTOUR
- EXISTING 1 FOOT CONTOUR
- * XXX.XX SPOT ELEVATION
TW - TOP OF WALL
BW - BOTTOM OF WALL
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING STORM SEWER
- EXISTING STORM SEWER
- SILT FENCE
- CONSTRUCTION ENTRANCE
- EROSION MATTING
- INLET PROTECTION

SHEET INDEX

C100	DIMENSIONED SITE & PAVING PLAN
C200	GRADING & DRAINAGE PLAN
C300	EROSION CONTROL PLAN
C400	NOTES & DETAILS
C401	NOTES & DETAILS

north

SCALE IN FEET

30' 0 30'

DIGGERS **NOTLINE**

Toll Free (800) 242-8511

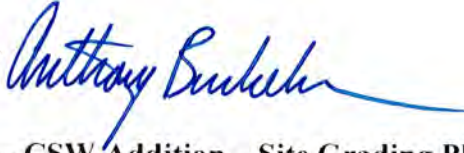
File: P:\2017\16-85378 Central Storage - Warehouse\16-85378-BSD-ET-Paving-Plan.dwg Layout: C100 User: jason Philed: J.M.21.2020 - 4:58pm Xref:

MEMORANDUM

DATE: Thursday, July 30, 2020

TO: Caledonia Utility District

FROM: Anthony A. Bunkelman P.E.
Utility Director



RE: Central Storage Warehouse – CSW Addition – Site Grading Plan Conditional Approval

BACKGROUND INFORMATION

Tracy Brown P.E. of JSD Professional Services has submitted a Site Grading Plan for the Central Storage Warehouse Addition. Central Storage Warehouse is located at 12725 4 Mile Road and the proposed addition is located immediately South of the existing building. The project involves the construction of a 51,750 square foot building addition with loading docks and driveway expansion.

The Storm Water Management for the site will be handled by the DeBack Farms storm water management plan and various drainage facilities installed with the Business Park. More specifically, the runoff for the addition and driveway is proposed to drain to storm water pond #7 in DeBack Farms. The storm water pond will accept runoff from the parking lot and meets the current storm water runoff regulations.

The Site Grading Plan that has been submitted has been reviewed by the Utility Director. The plans show how the addition, loading docks and driveway extension will drain to the storm water pond. The comments that remain from the original review letter are that the proposed driveway is located within a Storm Water & Watermain Easement, which will require a variance by the Utility District and the Village Board, also due to the encroachment CSW will need to grade and perform work on the abutting property to the South. CSW will need to obtain written permission from WisPark to perform work on the abutting property. At this time, if the variance for the driveway is approved and the permission to grade on the abutting property is received, the plans are ready for approval. At this time, it is recommended that conditional approval is granted based on the conditions below.

Included in this packet is a copy of the Site Grading Plan for the Project.

RECOMMENDATION

Move to conditionally approve the Site Grading for Central Storage Warehouse – CSW Addition subject to the following:

- 1. A variance is granted by the Caledonia Utility District and the Village Board to allow the driveway to encroach on the Storm Sewer & Watermain Easement.**

- 2. Central Storage Warehouse obtains written permission from WisPark to perform work on the abutting property to the South.**
- 3. The Design Engineer determines that the plans approved by the Caledonia Utility District are technically adequate and are stamped by the Design Engineer.**
- 4. Will need to obtain a Land Disturbance Permit from the Engineering Department.**
- 5. Submit an NOI and any other necessary permits from the Wisconsin DNR.**

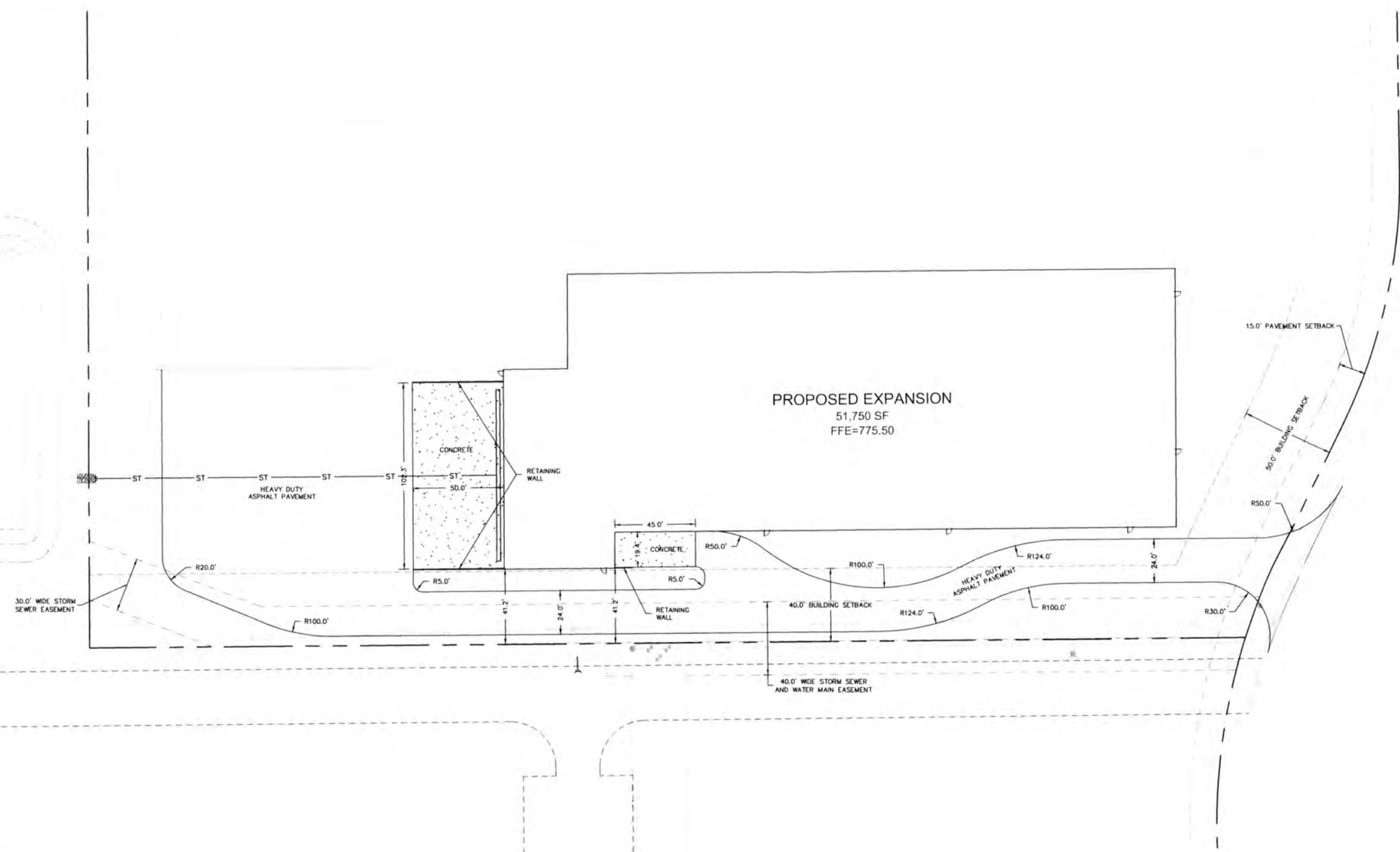
PLAN MODIFICATIONS

#	Date	Description
1	06/29/2020	BSD APPLICATION PLANS
2	07/21/2020	VILLAGE RESUBMITTAL
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Design/Drawn: JJS
Approved: TJB

SHEET TITLE
DIMENSIONED SITE & PAVING PLAN

SHEET NUMBER
C100



LEGEND

- PROPERTY LINE
- - - EASEMENT LINE
- - - BUILDING SETBACK LINE
- - - PAVEMENT SETBACK LINE
- BUILDING OUTLINE
- EDGE OF PAVEMENT
- RETAINING WALL
- HEAVY DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- GRADE BREAK
- 770 — PROPOSED 5 FOOT CONTOUR
- 771 — PROPOSED 1 FOOT CONTOUR
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- * XXX.XX SPOT ELEVATION
TW - TOP OF WALL
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- EXISTING WATERMAIN
- EXISTING STORM SEWER
- SILT FENCE
- CONSTRUCTION ENTRANCE
- EROSION MATTING
- INLET PROTECTION

SHEET INDEX

C100	DIMENSIONED SITE & PAVING PLAN
C200	GRADING & DRAINAGE PLAN
C300	EROSION CONTROL PLAN
C400	NOTES & DETAILS
C401	NOTES & DETAILS

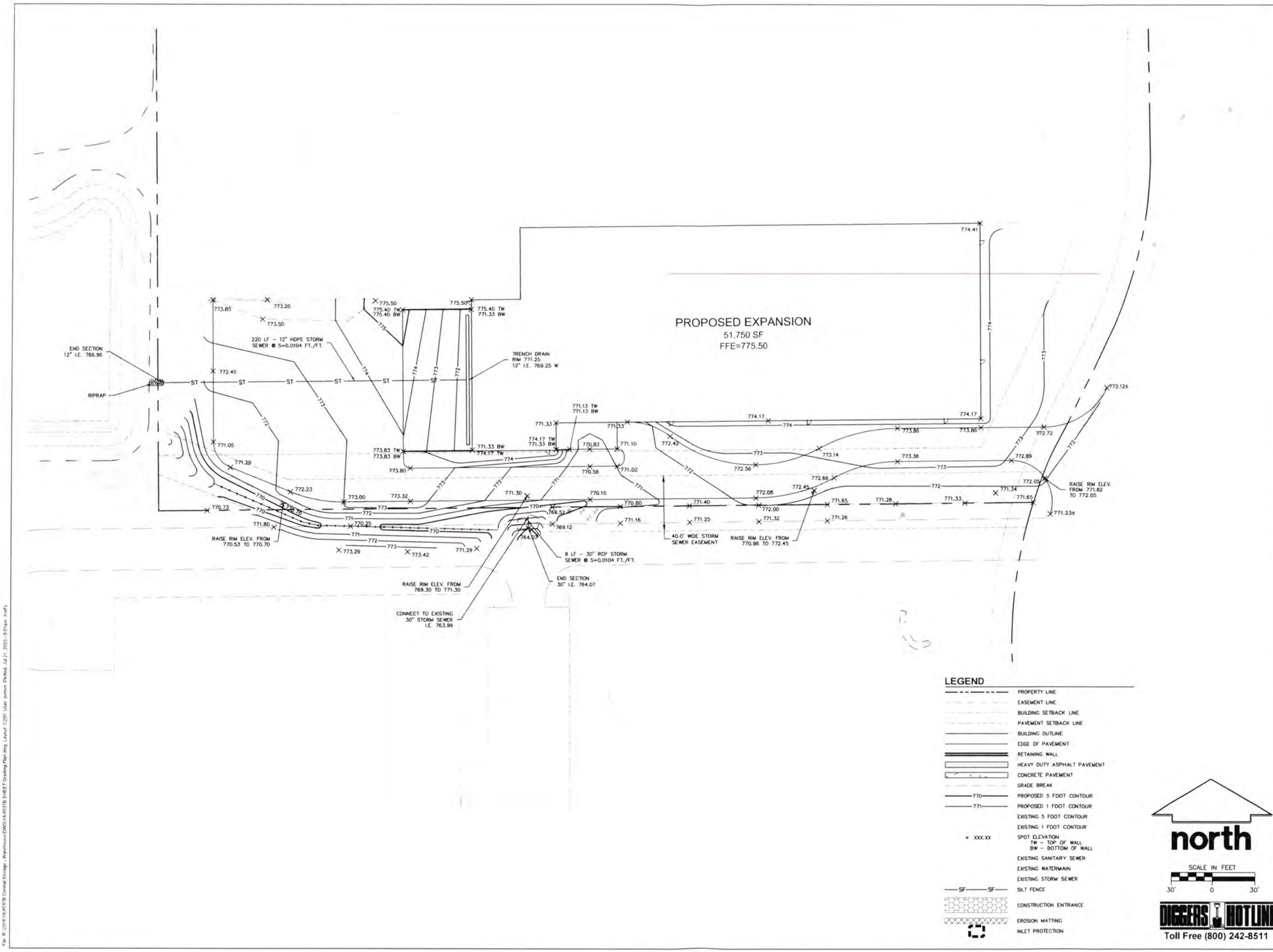
north

SCALE IN FEET

DIGGERS **NOTLINE**

Toll Free (800) 242-8511

#	Date	Description
1	06/28/2020	ISO APPLICATION PLANS
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LEGEND

- PROPERTY LINE
- - - EASEMENT LINE
- BUILDING SETBACK LINE
- - - PAVEMENT SETBACK LINE
- BUILDING OUTLINE
- EDGE OF PAVEMENT
- RETAINING WALL
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TW - TOP OF WALL
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- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING STORM SEWER
- SALT FENCE
- SF --- SF CONSTRUCTION ENTRANCE
- EROSION MATTING
- INLET PROTECTION

north

SCALE IN FEET
30' 0 30'

DIGGERS HOTLINE
Toll Free (800) 242-8511

File: R:\2018\18-85378 Central Storage - Warehouse\DWG\18-85378 SHEET GRADING PLAN.dwg Layer: C200 User: jms Date: 06/21/2020 9:07am 1/1/20

PLAN MODIFICATIONS

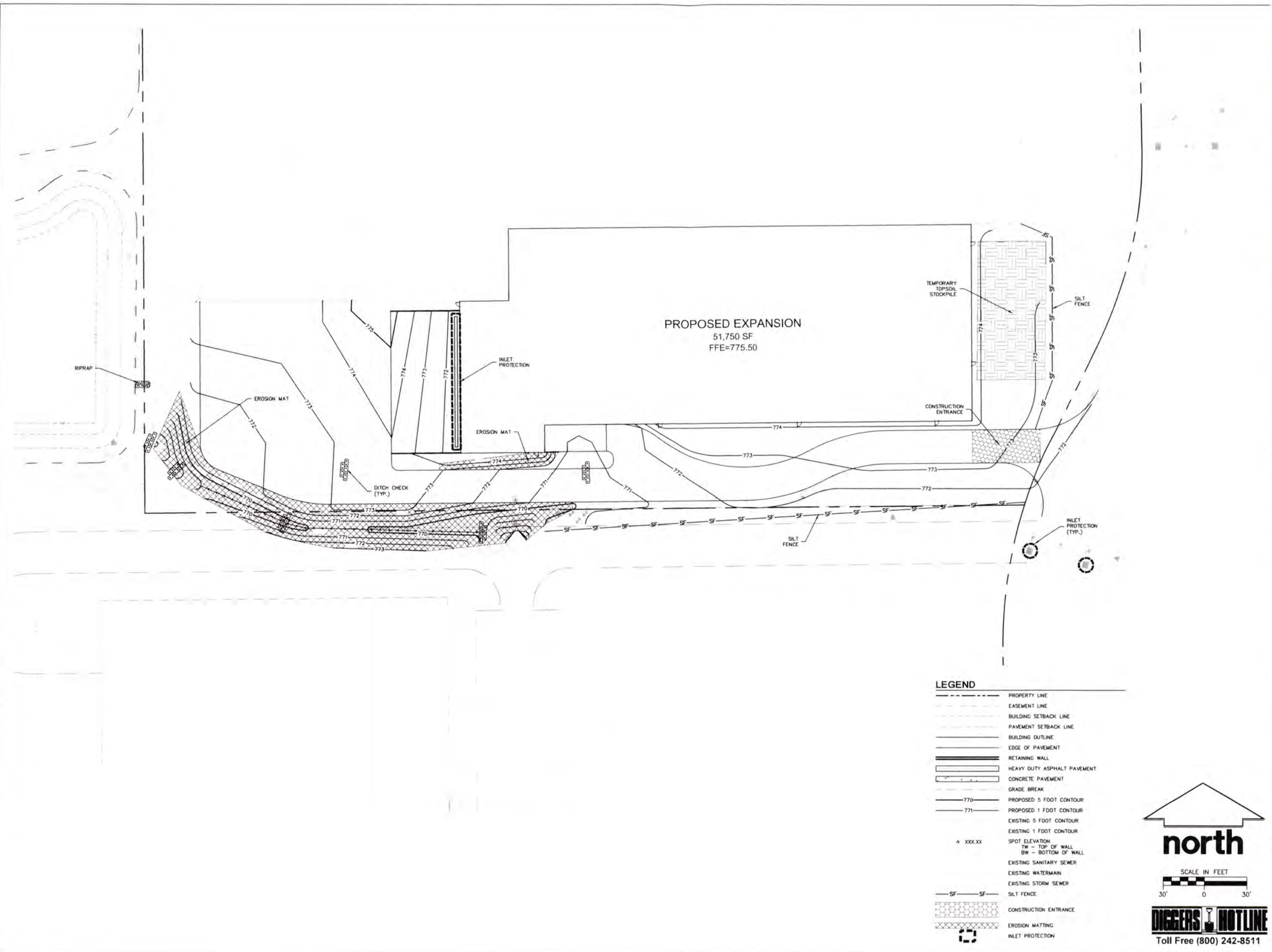
#	Date	Description
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Design/Drawn: JJS
Approved: TJB

SHEET TITLE
**EROSION CONTROL
PLAN**

SHEET NUMBER
C300

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LEGEND

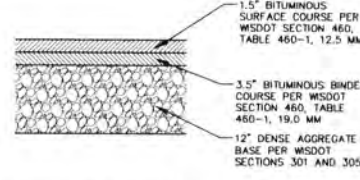
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	EASEMENT LINE
	BUILDING SETBACK LINE
	PAVEMENT SETBACK LINE
	BUILDING OUTLINE
	EDGE OF PAVEMENT
	RETAINING WALL
	HEAVY DUTY ASPHALT PAVEMENT
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	EXISTING WATERMAIN
	EXISTING STORM SEWER
	SILT FENCE
	CONSTRUCTION ENTRANCE
	EROSION MATTING
	INLET PROTECTION

north

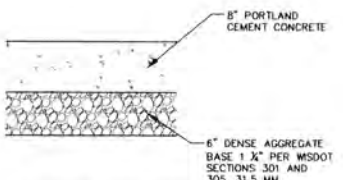
SCALE IN FEET
30' 0 30'

DIGGERS **NOTLINE**
Toll Free (800) 242-8511

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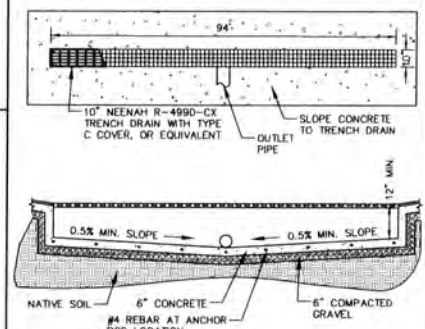
HEAVY DUTY ASPHALT PAVEMENT SECTION
N.T.S.



CONCRETE SECTION
N.T.S.

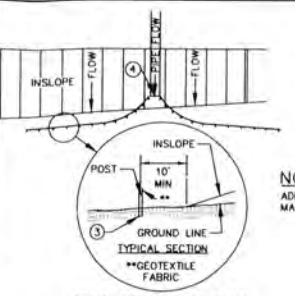
GENERAL NOTES:
1. MSDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, INCLUDING SUPPLEMENTAL SPECIFICATIONS, COMPACTION REQUIREMENTS.
- BITUMINOUS CONCRETE: REFER TO SECTION 460-3.
- BASE COURSE: REFER TO SECTION 301.3.4.2, STANDARD COMPACTION.

PAVEMENT SECTIONS
N.T.S.



NOTE:
FOR FURTHER DETAILS AND INFORMATION, REFER TO NEENAH FOUNDRY FORMING PROCEDURES FOR INSTALLING NEENAH DRAINAGE STRUCTURES.

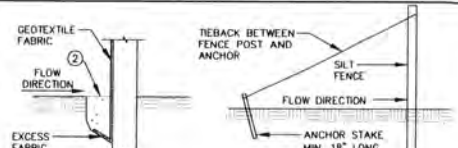
TRENCH DRAIN (CAST-IN-PLACE)
N.T.S.



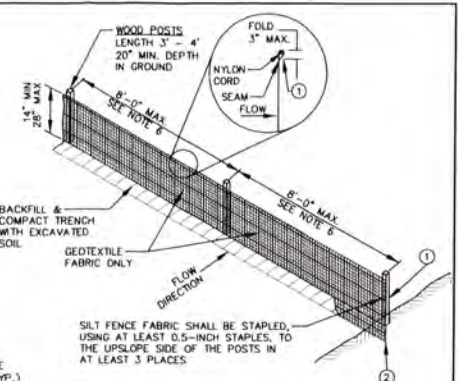
GENERAL NOTES:

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 8-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 WQNR TECHNICAL STANDARD 1056.
6. POST SPACING SHALL BE SELECTED BASED ON GEOTEXTILE FABRIC (8- FEET FOR WOVEN & 3- FEET FOR NON-WOVEN).

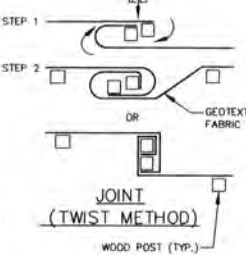
SILT FENCE ALONG SLOPES & OUTFALLS
N.T.S.



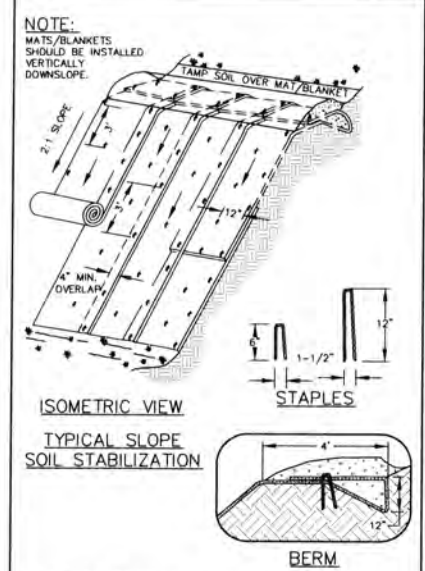
SILT FENCE TIE BACK (WHEN ADDITIONAL SUPPORT REQUIRED)
N.T.S.



SILT FENCE JOINT (HOOK METHOD)
N.T.S.



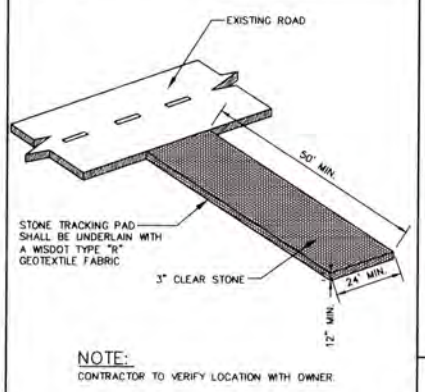
SILT FENCE JOINT (TWIST METHOD)
N.T.S.



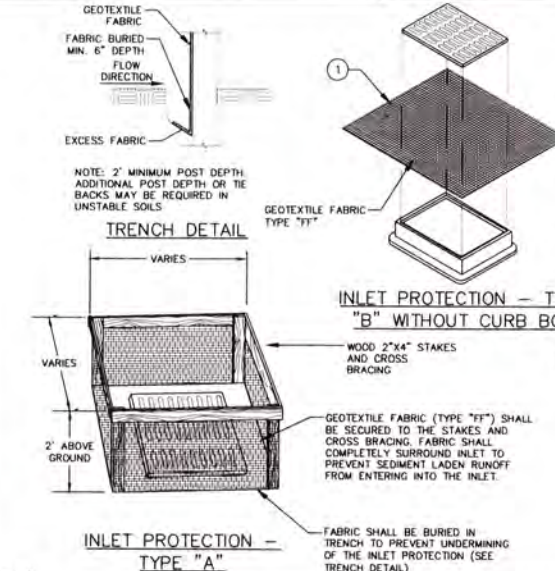
ISOMETRIC VIEW TYPICAL SLOPE SOIL STABILIZATION
N.T.S.

- NOTE:**
MATS/BLANKETS SHOULD BE INSTALLED VERTICALLY DOWNSLOPE.
- GENERAL NOTES:**
1. EROSION MAT INSTALLATION SHALL BE IN ACCORDANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1052 "NON-CHANNEL EROSION MAT".
 2. ONLY MSDOT 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.

EROSION MATTING
N.T.S.



CONSTRUCTION ENTRANCE
N.T.S.



INLET PROTECTION - TYPE "A"
N.T.S.

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 FACILITY 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.

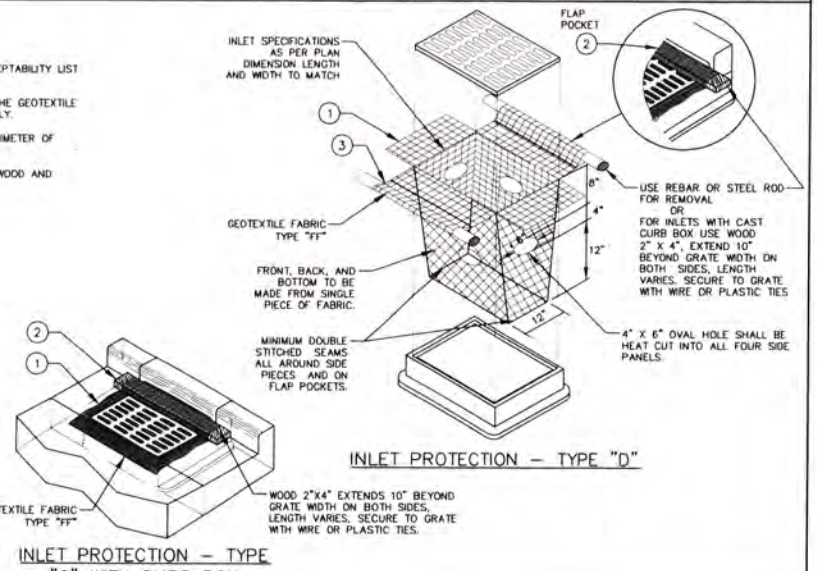
INSTALLATION NOTES:

- 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.

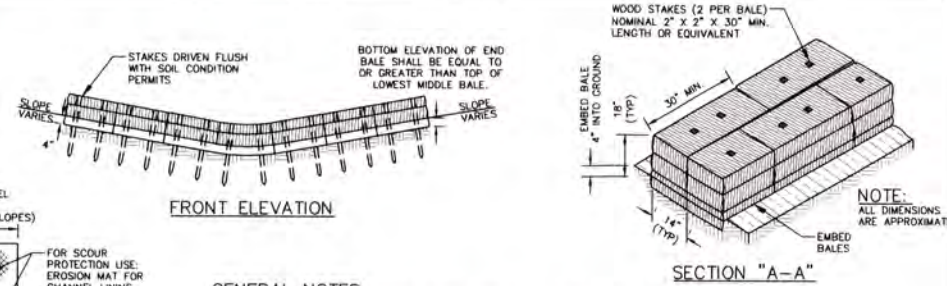
INSTALLATION NOTES:

- 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 CATCH 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" "C" WITH CURB BOX
N.T.S.



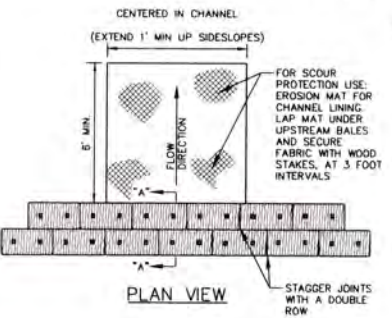
FRONT ELEVATION

SECTION "A-A"

GENERAL NOTES:

1. INSTALLED, THE MINIMUM HEIGHT OF DITCH CHECKS SHALL BE 10-INCHES AND SHALL NOT EXCEED A MAXIMUM HEIGHT OF 16-INCHES FOR MANUFACTURED OR BIODEGRADABLE MATERIALS.
2. DITCH CHECKS MUST BE INSTALLED WITH THE CENTER LOWER THAN THE SIDES FORMING A WEIR.
3. AT A MINIMUM, INSTALL ONE DITCH CHECK FOR EVERY TWO- FEET OF DROP IN THE CHANNEL.
4. DITCH CHECK SHALL, AT A MINIMUM, BE INSPECTED WEEKLY AND WITHIN 24- HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5-INCHES OF RAIN OR MORE DURING A 24-HOUR PERIOD.
5. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN DEPOSITS REACH HALF OF THE HEIGHT OF THE LOWEST BALE.
6. DITCH CHECKS SHALL BE UTILIZED DURING ROUGH GRADING AND SHALL BE REMOVED ONCE FINAL GRADING AND CHANNEL STABILIZATION IS APPLIED.
7. DITCH CHECK CONSTRUCTION AND MAINTENANCE SHALL BE IN ACCORDANCE WITH WQNR TECHNICAL STANDARD (1052). EROSION MATTING SCOUR PROTECTION SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH WQNR TECHNICAL STANDARD (1053).

DITCH CHECK (STRAW BALES)
N.T.S.



PLAN VIEW



CREATE THE VISION TELL THE STORY

MADISON | MILWAUKEE | WAUSAU
APPLETON | KENOSHA | CHICAGO
COEUR D'ALENE

MILWAUKEE REGIONAL OFFICE
W238 N1610 BLUZE ROAD, SUITE 100
WALKERSVILLE, WISCONSIN 53188
P. 262.513.0666



CLIENT ADDRESS:

PROJECT
CENTRAL STORAGE & WAREHOUSE CALEDONIA

PROJECT LOCATION
VILLAGE OF CALEDONIA RACINE COUNTY, WI

#	Date	Description
1	06/28/2020	BSO APPLICATION PLANS
2	07/21/2020	VILLAGE RESUBMITTAL
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Design/Drawn: JSD
Approved: T.B.

NOTES & DETAILS

SHEET NUMBER:

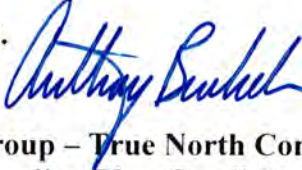
C401

JSD PROJECT NO: 16-85378

MEMORANDUM

DATE: Thursday, July 30, 2020

TO: Caledonia Utility District

FROM: Anthony A. Bunkelman P.E.
Utility Director 

RE: Northterra Management Group – True North Commons – Storm Water Management Plan & Site Grading Plan Conditional Approval

BACKGROUND INFORMATION

Jeremy Hinds P.E. of Graef has prepared a Storm Water Management Plans and Site Grading Plan for the True North Commons development. True North Commons is located on the East side of Douglas Avenue just South of 4 Mile Road (immediately South of Johnson Bank). The project involves the construction of a 5,328 square foot multi-tenant building with a drive-thru, parking lot and underground storm water storage.

This development falls under Base Storm Water Regulations. Base Storm Water Regulations are that the 100 yr. post development peak runoff must be reduced to or below the 10 yr. predevelopment peak runoff and the 10 yr. post development peak runoff must be reduced to or below the 2 yr. predevelopment peak runoff. The site must also achieve 80% Total Suspended Solids removal.

The runoff from the development will drain into an underground storage basin then discharge to the existing storm sewer within Douglas Avenue. The Storm Water Management Plan that was submitted on July 6th and reviewed by the Utility Director does show conformance with the Ordinance but there are several changes that need to be made to the Storm Water Model to conform to Caledonia Standards. The review letter dated July 16th outlines these changes that need to be made to the model. So the District is aware, a design review meeting was held on July 21st to discuss the comments with the Design Engineer. The Design Engineer is working on changes and will be submitting them when completed.

The Site Grading Plan that has been submitted has also been reviewed by the Utility Director. The plans show how the majority of the site and the multi-tenant building will drain to the underground storage. There are a few areas that improvements to the grading plans are needed to ensure proper drainage. These improvements have been identified in the review letter. After the July 21st meeting the Design Engineer was working on revisions to the plans. As of the date of the memo the revised plans have not been received.

If the District is willing to grant conditional approval based on the original plans, the project can continue moving forward. With this conditional approval the Developer will be informed that all of the conditions in this memo will need to be satisfied prior to receiving any permits.

Included in this packet is the original submitted Storm Water Management Plan summary, the Site Grading Plan, and the July 16 2020 review letter.

RECOMMENDATION

Move to conditionally approve the Storm Water Management Plan and Site Grading Plan for Northterra Management Group – True North Commons subject to the following:

- 1. All comments on the Utility Director’s review letter dated July 16th, 2020 are addressed as necessary.**
- 2. The Design Engineer determines that the plans approved by the Caledonia Utility District are technically adequate and are stamped by the Design Engineer.**
- 3. A Storm Water Easement/Maintenance Agreement will need to be granted by the Owners to encompass the Underground Storage and Outlet Structure. The Design Engineer shall provide the following: An Exhibit of the entire property, a Legal Description of the entire property, an Exhibit of the Storm Water Easement, a Legal Description of the Storm Water Easement, and a maintenance plan for the facility. (Facility and Outlet).**
- 4. A Financial Guarantee will need to be made and a Deposit Agreement will need to be executed by the owners to ensure that the Underground Storage and Outlet structure are installed, asbuilt and certified by the Design Engineer. This is to ensure that the Underground Storage is constructed in accordance with the approved plans.**
- 5. A Sanitary Sewer Easement will need to be granted by the Owners to encompass the Sanitary Sewer Monitoring/Sampling Manhole. The Design Engineer shall provide the following: An Exhibit of the entire property, a Legal Description of the entire property, an Exhibit of the Sanitary Sewer Easement, and a Legal Description of the Sanitary Sewer Easement.**
- 6. Will need to obtain a Land Disturbance Permit from the Engineering Department.**
- 7. Submit an NOI and any other necessary permits from the Wisconsin DNR.**

Thursday, July 16, 2020

Graef
c/o Jeremy Hinds
275 West Wisconsin Avenue
Milwaukee, WI 53203

RE: True Commons North – Storm Water Management Plan & Site Grading Plan Review

Dear Mr. Hinds:

The Caledonia Utility District has performed a review of the Storm Water Management Plan dated June 27, 2020 and the Site Grading Plan dated June 26, 2020, both received July 6, 2020 for True Commons North Development on Douglas Avenue.

I offer the following comments.

Storm Water Management Plan

- Will need to use the rainfall events for Caledonia. 1yr = 2.35", 2yr = 2.67, 10yr = 3.77" and 100yr = 5.92".
- The time interval setting for HydroCAD should be 0.05 hours.
- The minimum Time of Concentration allowed is 10 minutes.
- The shallow concentrated flow component of the Time of Concentration shall use either paved or unpaved.
- The Pre-Development Curve number of 77 is too high per Ordinance. Will need to use either 70 or 71 pending the ground cover.
- In the Post Development Condition, soil types were changed from C soils to D soils. Use C soils.
- In the Post Development Condition, the Time Span was changed from 0 to 24 hours to 0 to 36 hours. Use 0 to 24 hours.
- The Areas in the Post Development Condition do not match the drainage areas that are on the Site Grading Plan. These areas shall match in the Storm Water Management Plan and the Site Grading Plan. This is evident along the North side of the building and in the South parking lot.
- There is an area to the South of the property that drains to the proposed swale and through the underground storage. It is understood that the site will need to meet the Ordinance with the internal drainage, but there is no analysis that shows what occurs with the actual drainage area.

- The Underground storage ADS Stormtech Design does not match the in the Storm Water Management Plan and on the Site Grading Plan. Storage modeled and design to match.
- After all changes are done to the Storm Water Management Plan, the site will still need to meet the Ordinance for Storm Water Quantity and Quality if applicable.
- Update all text in the summary of the Storm Water Management Report as necessary.
- In regard to infiltration, provide the infiltration rates of the soils on the site related to the minimum allowable infiltration rate from the DNR.
- On the pond node for the Swale will need to include the 12" RCP as the overall outlet. All weirs will need to be treated as secondary outlets.
- The Manning's n factor for RCP shall be 0.013.
- A 100-year plugged outlet condition analysis shall be provided.

Site Grading Plan

- There are significant wetlands shown on the site. Will need to provide all filling/mitigation approvals to the Caledonia Engineering Department.
- There are 3 distinct areas of the site that are proposed to drain offsite to abutting properties (2 on the North side and the entire East side). Due to runoff not currently draining offsite and now proposed to, the plan will need to show where and how runoff will discharge and not cause problems with abutting properties. One of these areas includes a portion of the parking lot. Will need to minimize the amount of impervious surface that is draining offsite undetained.
- Will need to provide sizing and areas for all storm sewer and catch basins. (Provide an exhibit)
- The roof runoff from the proposed building, how is it handled? Recommend that it is directly connected to the Storm Sewer System. Will need to show where connections and/or where downspouts are.
- Along the North side of the building there is a proposed storm sewer in the center of the driving lane with a swale. Recommend moving the storm sewer to the North edge of the proposed drive and installing curb and gutter with catch basins to collect the storm water. This will also allow an adequate slope away from the building. Recommend a minimum 2% cross slope on the driveway.
- Review slopes on the parking lot to make sure there is appropriate slope.
- Minimum slope allowed on curb and gutter is 0.5%. There are a few areas that are less than the minimum slope.
- Review catch basin rim in island in parking lot. Rim grade appears to be higher than proposed curb grade.
- Review area to the West of the parking lot just North of the proposed access. The area has proposed contours lower than the back of curb and does not appear to drain.

- On the storm sewer system, will need to provide information on the existing storm sewer catch basin that is proposed to be connected to. Review all storm sewer runs to ensure that there are rims and inverts proposed.
- The storm sewer outlet that connects to the exiting storm sewer shall come in as perpendicular to the structure as possible. Recommend moving the 48" manhole further to the North to achieve this.
- Will need to provide details for the following. Storm Sewer Manhole (existing detail is not applicable). Storm Sewer manholes shall be precast and minimum 48" diameter. Storm Sewer Catch Basin (2 different types/sizes are called out on the plans). Storm Sewer catch basins shall be precast and no less than 2' x 3' box. Rip Rap for end of curbs as flumes. Emergency Overflow weir for the swale / basin.
- The ADS StormTech detail page shall note or show how the 2 other catch basins are connected to the system. Will also need to have the detail on this page shown as proposed on the site plan. It appears that the manholes for the inlet and outlet are mirrored.
- Will need to provide a detail for the Outlet structure for the Stormtech basin. Will also have to provide a detail for the Swale Outlet structure.
- On the sanitary sewer system, will need to provide a 48" monitoring/sampling manhole at/near the Right of Way line over the lateral. This will need to have an easement granted over it for access for the Utility District. This will also allow the sanitary lateral to be perpendicular to the sanitary sewer main.
- The Water and Sanitary Sewer plans will need to be further reviewed to ensure conformance with Ordinances. Further comments may be coming.
- The Design Engineer shall provide the size of the water meter desired for the building/tenants. The water meter shall be a meter that is acceptable to the Utility District. The site is subject to the Water Impact Fee and Sewer Connection Fee.
- All details for sanitary sewer and water shall follow the Caledonia Utility District Specifications.

General Comments

- The Utility District retains the right to additional review comments until the plans are approved.
- The Storm Water Management Plan will need to match the Site Grading Plan for the disturbed area. If adjustments are made to the Site Grading Plan, then the corresponding changes will need to be made to this Storm Water Management Plan.
- The Storm Water Management Plan and Site Grading Plan for the Development will need to be approved by the Caledonia Utility District.
- Once approved by the Caledonia Utility District, 2 stamped hard copies, 1 stamped electronic (pdf) copy, and the Storm Water Model file are to be submitted for the Storm

Water Management Plan. 5 stamped hard copies and 1 stamped electronic (pdf) copy are to be submitted for the Site Grading Plan.

- A Storm Water Easement/Maintenance Agreement will need to be granted by the Owners to encompass the Underground Storage, Swale/Detention area and Outlet Structure. The Design Engineer shall provide the following: An Exhibit of the entire property, a Legal Description of the entire property, an Exhibit of the Storm Water Easement, a Legal Description of the Storm Water Easement, and a maintenance plan for each facility. (Basins and Outlets).
- A Sanitary Sewer Easement Agreement will need to be granted by the Owners to encompass a Sanitary Sewer monitoring/sampling manhole. The Design Engineer shall provide the following: An Exhibit of the entire property, a Legal Description of the entire property, an Exhibit of the Sanitary Sewer Easement, and a Legal Description of the Sanitary Sewer Easement.
- A Financial Guarantee will need to be made and a Deposit Agreement will need to be executed by the owners to ensure that the Storm Water Basins and Outlet structures are installed, asbuilt and certified by the Design Engineer. This is to ensure that the Storm Water Facilities are constructed in accordance with the approved plans.
- Will need to obtain a Land Disturbance Permit from the Engineering Department.
- Submit an NOI and any other necessary permits from the Wisconsin DNR.

If there are any questions on this review, please contact me to discuss. It is recommended that due to the number of comments that a meeting be held to discuss them.

Sincerely;



Anthony A. Bunkelman P.E.
Utility Director
Village of Caledonia

STORMWATER MANAGEMENT PLAN

for

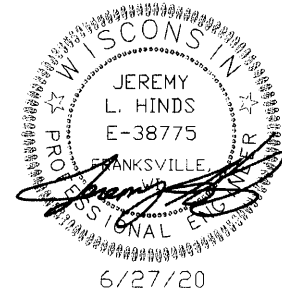
CALEDONIA “TRUE COMMONS NORTH” DEVELOPMENT

4935 DOUGLAS AVENUE
RACINE, WI 53402

Prepared for:

Mr. Lee Jaramillo
Northterra Real Estate Group, LLC
2300 Washington Avenue, Suite 200
Racine, WI 53405
Telephone: 262.308.4925

June 2020



Prepared by:

GRAEF
275 West Wisconsin Avenue, Suite 300,
Milwaukee, WI 53203
Telephone: (414) 259-1500

Project No. 2020-0118

Caledonia QSR Development Stormwater Management Plan

May 2020

INTRODUCTION

Caledonia True Commons North (Development) is a plan to develop the site with a Quick Serve Restaurant with a second tenant nextdoor. The project is located at 4935 Douglas Avenue, Racine, WI 53402. The proposed structure will occupy a footprint of approximately 6,700 square feet and associated parking of 29,400 square feet. The proposed development will also include the installation of an underground storage structure to address storm water runoff associated with all aspects of the proposed development.

The purpose of this report is to present the stormwater management plan that satisfies the requirements of the Village of Caledonia and the Wisconsin Department of Natural Resources (WDNR).

BACKGROUND

The United States Department of Agriculture Web Soil Survey shows the soil type within the project site is Matherton loam and Aztalan loam which is categorized in hydrologic soil group 'C'. The NRCS Soil Survey is included in Appendix A.

FEMA flood mapping and floodplain delineation show that this site is not subject to inundation in the 100-year average recurrence interval (ARI) rainfall event.

REGULATORY REQUIREMENTS

Title 9, Chapter 2 of the Village of Caledonia Municipal Code of Ordinances, *Storm Water Utility District Regulations and Rates* lists the criteria for post-construction stormwater management for new development within the Village. The requirements are:

- Base Level Standards for Total Suspended Solids (TSS): Reduce, to the maximum extent practicable, total suspended solids (TSS) loads by 80% based on average annual rainfall, as compared to no runoff management controls. This site is under one acre and does not have to provide water quality treatment.
- Stream Protection Standards for Total Suspended Solids: This site is exempt because it is a development less than 15 acres.
- Base Level Standards for Discharge Rates: The 100-year post-development peak runoff discharge shall not exceed the most restrictive of the following standards:
 - a. 10-year predevelopment peak runoff discharge or maximum hydraulic capacity of existing downstream conveyance facilities as determined by the Village.
 - b. The post-development runoff discharges for storms up to and including the 10-year shall not exceed the 2-year predevelopment peak runoff discharge.
- Stream Protection Standards for Discharge Rates: This site is exempt because it is a development less than 15 acres.
- Infiltration: Moderate Imperviousness: For development with more than 40 percent and up to 80 percent connected imperviousness, such as medium and high density residential, multi-family development, industrial and institutional development, and office parks, infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 75 percent of the pre-development infiltration volume, based on an average annual rainfall. However, when designing appropriate infiltration systems to meet this requirement, no more than 2 percent of the post-construction site is required as an effective infiltration area

Wisconsin Department of Natural Resources (WDNR) code NR 151 – *Runoff Management* lists the requirements for post-construction stormwater management for new development and redevelopment. The requirements are:

- Total Suspended Solids: 80% TSS for new development sites; this is the same as the requirements of the Village of Caledonia if we are over one acre, which we are not.
- Peak discharge for the 2-yr, 24-hour design storm: Maintain or reduce the 1-year, 24-hour and the 2-year, 24-hour post- construction peak runoff discharge rates to the 1-year, 24-hour and the 2-year, 24-hour pre-development peak runoff discharge rates respectively, or to the maximum extent practicable.
- Infiltration: Moderate Imperviousness: For development with more than 40 percent and up to 80 percent connected imperviousness, such as medium and high density residential, multi-family development, industrial and institutional development, and office parks, infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 75 percent of the pre-development infiltration volume, based on an average annual rainfall. However, when designing appropriate infiltration systems to meet this requirement, no more than 2 percent of the post-construction site is required as an effective infiltration area.

The WDNR does not introduce any requirements exceeding those of the Village of Caledonia.

METHODOLOGY

Peak runoff rates and volumes were computed using NRCS's TR-55 and TR-20 methodologies, as implemented by HydroCAD Version 10.00-25 software by HydroCAD Software Solutions.

Stormwater quality was analyzed using WinSLAMM Version 10.4.1 software, developed by Robert Pitt and John Voorhees.

Rainfall depths were taken from the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Precipitation Frequency Estimates for precipitation depth. Rainfall depths are listed in Table 1. An MSE 4 24-hour rainfall distribution is utilized in accordance with recommendations from NOAA Atlas 14, Volume 8.

**TABLE 1
Design Rainfall Values**

Storm Recurrence Interval (ARI)	24-hour Rainfall Volume
1-year	2.36 inches
2-year	2.66 inches
10-year	3.71 inches
100-year	5.83 inches

EXISTING CONDITIONS

The project site is currently an empty, lightly wooded lot. Surface drainage of the site is generally to the southeast towards off-site residential development where it ultimately discharges. Land cover types and drainage are shown on Figure SW-EX. Time of concentration was assumed to be 6 minutes, the minimum recommended value in TR-55, unless otherwise calculated to be greater. The site drainage areas were determined using 1-foot topographic mapping generated from a field survey. The land cover was determined using the topographic mapping and aerial photography. Table 2 presents the results of the hydrological analysis for existing conditions. A schematic plan of the hydrological analysis and detailed hydrological computations for pre-settlement conditions are included in Appendix B.

**Table 2
Existing Site Conditions**

HydroCAD Subarea	Description	Area (ac)	Runoff Curve Number	Time of Concentration	Peak Flow Rate (cfs)			
					1-year	2-year	10-year	100-year
10S	Existing	0.999	77	17.3 min	0.73	0.97	1.90	4.02

PROPOSED CONDITIONS

The proposed project site is a Quick Serve Restaurant, one or two other tenant spaces, and a parking lot. Surface drainage from sections of lawn and pavement will drain to a dry detention pond. Other portions will drain to an underground storage where all of the captured water ultimately flows through. The detention pond, roof, and parking lot will drain to an underground storage. Remaining sections of lawn and the driveway aprons or pavement will drain to the adjacent property.

Land cover types and drainage subareas are shown on Figure SW-PR. Time of concentration was assumed to be 6 minutes, the minimum recommended value in TR-55, unless calculated to be greater. The site drainage areas were determined using 1-foot topographic mapping generated from a field survey. Table 3 presents the results of the hydrological analysis for proposed conditions. A schematic plan of the hydrological analysis and detailed hydrological computations for pre-settlement conditions are included in Appendix C.

**Table 3
Proposed Site Conditions**

HydroCAD Subarea	Description	Area (ac)	Runoff Curve Number	Time of Concentration	Peak Flow Rate (cfs)			
					1-year	2-year	10-year	100-year
100S	Undetained to Adjacent Property	0.073	83	6.5 min	0.13	0.16	0.27	0.50
200S	To Underground Storage	0.545	96	6.9 min	2.36	2.66	2.81	4.49
300S	To Dry Pond	0.381	89	6.0 min	0.92	1.10	1.72	2.98

The dry pond and underground storage were designed to reduce peak flows and will be constructed with an outlet structure and emergency overflow. Details of best management practice (BMP) are included in Appendix E. Table 4A & 4B summarize the routing analysis of the BMP under the proposed conditions.

**Table 4A
Detention System Routing Analysis Summary**

	Normal Water Level	Overflow Elevation	1-Year	2-Year	10-Year	100-Year
16P – Dry Pond	-	634.50	-	-	-	-
Peak Inflow	-	-	0.92 cfs	1.10 cfs	1.72 cfs	12.98 cfs
Peak Outflow	-	-	0.74 cfs	0.82 cfs	1.04 cfs	1.33 cfs
Max Water Surface Elevation	-	-	633.26	633.34	633.59	634.03
Maximum Storage Volume	-	-	0.002 ac-ft	0.003 ac-ft	0.008 ac-ft	0.024 ac-ft

**Table 4B
Storage System Routing Analysis Summary**

	Normal Water Level	Overflow Elevation	1-Year	2-Year	10-Year	100-Year
401P – ADS Vault	-	634.00	-	-	-	-
Peak Inflow	-	-	2.43 cfs	2.74 cfs	3.78 cfs	5.72 cfs
Peak Outflow	-	-	0.14 cfs	0.15 cfs	0.17 cfs	1.75 cfs
Max Water Surface Elevation	-	-	631.20	631.42	632.22	633.24
Maximum Storage Volume	-	-	0.075 ac-ft	0.089 ac-ft	0.143 ac-ft	0.204 ac-ft

PEAK DISCHARGE COMPARISON

The stormwater management system will reduce peak runoff rates relative to the existing condition for the 2-year, 10-year, and 100-year recurrence interval event in accordance with the Village of Caledonia stormwater ordinance. Table 5 compares the results of the analyses from a peak discharge standpoint.

	HydroCAD Subarea	HydroCAD Description	Peak Flow Rate (cfs)			
			1-year	2-year	10-year	100-year
Existing Conditions	2L	Existing	0.73	0.97	1.90	4.02
Proposed Conditions	400L	Proposed	0.24	0.28	0.40	1.82

INFILTRATION

The stormwater management system has the ability to infiltrate in excess of the 2 percent of the site area in accordance with the Village of Caledonia stormwater ordinance. The area of the underground is 8.7% of the total site area. However, due to the elevated water level during drilling of 629.8 (Boring B-1) as compared to the vault / stone invert of 629.50, infiltration would be difficult. Based on this data, the project is exempt from infiltration.

MAINTENANCE

Maintenance is required on all storm sewer and stormwater features found on site. The dry pond (south side swale) shall be inspected bi-annually for erosion and trash. Clean the dry pond and repair any eroding areas. The storm sewers shall inspected annually for failing materials, infiltration, and trash. Clean the storm sewer when trash or unwanted materials exist within the system. The underground vault requires a 6 month inspection cycle during the 1st year, and then annually after that. The underground system has an isolator row that captures the first flush from your storm sewer system. This is where your cleaning will be required. The isolator row is cleaned through a JetVac / Vacuuming process. The SWMP has information on the Isolator Row Maintenance, see the sheets at the back of the Appendices.

CONCLUSIONS

The project site can satisfy the applicable stormwater requirements using a dry pond and underground storage. The site is exempt from quality requirements given the size of the land disturbance (< 1 acre). We request your approval of this stormwater management plan for construction of the Caledonia QSR Development.

TRUE NORTH COMMONS

4959 DOUGLAS AVENUE
CALEDONIA, WI 53402

06/29/2020

BSO SUBMITTAL



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CAP PROJECT #: 200206

**OWNER:
NORTHTERRA MANAGEMENT GROUP**

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TEL: (414) 220-9640

**CONSULTING STRUCTURAL ENGINEER:
BARBER ENGINEERING**

325 W VINE ST
MILWAUKEE, WI 53202
TEL: (414) 263-6500

**CONSULTING LANDSCAPE ARCHITECT:
NEW EDEN**

131 W SEEBOTH ST - SUITE 240
MILWAUKEE, WI 53204
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**INDEPENDENT CONSULTANT CIVIL ENGINEER:
GRAEF**

275 WEST WISCONSIN AVENUE - SUITE 300
MILWAUKEE, WI 53202
TEL: (414) 259-1500

CIVIL DRAWINGS INCLUDED FOR INFORMATION ONLY

**INDEPENDENT SURVEYOR:
METROPOLITAN SURVEY SERVICE, INC.**

8415 WEST FOREST HOME AVENUE, SUITE 202
HALES CORNERS, WI 53130
TEL: (414) 529-5380

LAND SURVEY INCLUDED FOR INFORMATION ONLY

SHEET INDEX:

A1 TITLE SHEET

SURVEY

ALTA SITE SURVEY - INCLUDED FOR INFORMATION ONLY

ARCHITECTURAL

A2 ARCHITECTURAL SITE PLAN

A3 ELEVATIONS

LANDSCAPE

L100 SITE PLANTING PLAN

L101 SITE PLANT INSTALLATION DETAILS & NOTES

CIVIL

C001 COVER SHEET - INCLUDED FOR INFORMATION ONLY

C100 EXISTING CONDITIONS - INCLUDED FOR INFORMATION ONLY

C200 DEMO & EROSION CONTROL PLAN - INCLUDED FOR INFORMATION ONLY

C300 SITE LAYOUT PLAN - INCLUDED FOR INFORMATION ONLY

C400 SITE GRADING PLAN - INCLUDED FOR INFORMATION ONLY

C500 SITE STORM SEWER PLAN - INCLUDED FOR INFORMATION ONLY

C510 SITE SANITARY & WATER MANAGEMENT - INCLUDED FOR INFORMATION ONLY

C900 CONSTRUCTION NOTES - INCLUDED FOR INFORMATION ONLY

C901 CONSTRUCTION DETAILS - INCLUDED FOR INFORMATION ONLY

C902 CONSTRUCTION DETAILS - INCLUDED FOR INFORMATION ONLY

C903 CONSTRUCTION DETAILS - INCLUDED FOR INFORMATION ONLY

C904 CONSTRUCTION DETAILS - INCLUDED FOR INFORMATION ONLY

E100 SITE LIGHTING PLAN - INCLUDED FOR INFORMATION ONLY

E101 LIGHTING PLANS - INCLUDED FOR INFORMATION ONLY

E200 LIGHT FIXTURE DETAILS, SCHEDULE, AND FIXTURE CUTSHEET - INCLUDED FOR INFORMATION ONLY

FIRE-Exh FIRE EXHIBIT - INCLUDED FOR INFORMATION ONLY

1 STORMTECH - TITLE SHEET - INCLUDED FOR INFORMATION ONLY

2 STORMTECH - PROPOSED LAYOUT - INCLUDED FOR INFORMATION ONLY

3 STORMTECH - ACCEPTABLE FILL MATERIALS - INCLUDED FOR INFORMATION ONLY

4 STORMTECH - ISOLATOR ROW DETAIL - INCLUDED FOR INFORMATION ONLY

5 STORMTECH - DETAILS AND TECHNICAL SPECIFICATIONS - INCLUDED FOR INFORMATION ONLY

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Sustainable Design
Historic Preservation/
Renovation
Project Management

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TRUE NORTH COMMONS

4959 DOUGLAS AVENUE
CALEDONIA, WI 53402

SHEET TITLE
TITLE SHEET

REVISIONS

SCALE	VARIABLES
PROJECT NUMBER	200206
SET TYPE	BSO SUBMITTAL
DATE ISSUED	06/29/2020
SHEET NUMBER	A1

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TRUE COMMONS NORTH

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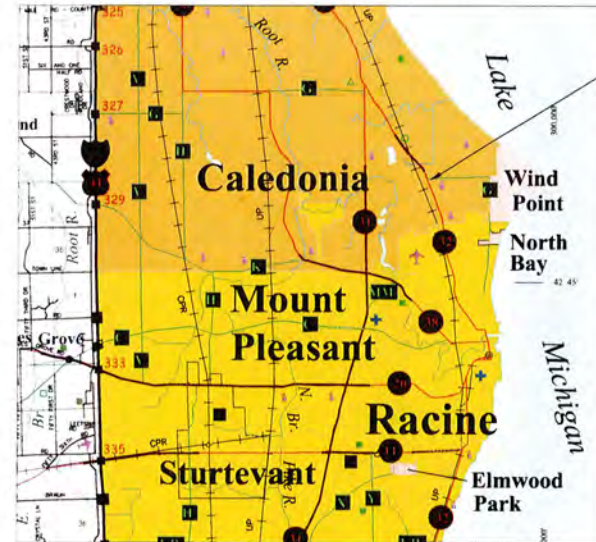
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CONSULTANTS

PROJECT TITLE
TRUE COMMONS NORTH

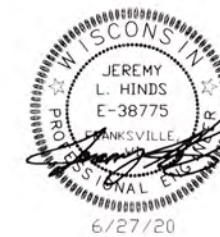
4935 DOUGLAS AVENUE
RACINE, WI 53402

ISSUE
NO. DATE REVISIONS BY



PROJECT LOCATION

Sheet List Table	
Sheet Number	Sheet Title
C001	COVER SHEET
C100	EXISTING CONDITIONS
C200	DEMO & EROSION CONTROL PLAN
C300	SITE LAYOUT PLAN
C400	SITE GRADING PLAN
C500	SITE STORM SEWER PLAN
C510	SITE SANITARY & WATER MAIN PLAN
E100	LIGHTING PLAN
E101	LIGHTING PHOTOMETRICS
E200	LIGHTING DETAILS
C900	CONSTRUCTION NOTES
C901	CONSTRUCTION DETAILS
C902	CONSTRUCTION DETAILS
C903	CONSTRUCTION DETAILS
C904	CONSTRUCTION DETAILS
ADS UNDERGROUND VAULT DETAILS	



SITE ADDRESS: 4935 DOUGLAS AVE.
TAX PARCEL NUMBERS:

PROJECT INFORMATION

PROJECT NUMBER: 2020-0118
DATE: 06/26/2020
DRAWN BY: MDS
CHECKED BY: DAS
APPROVED BY: JLH
SCALE: AS SHOWN

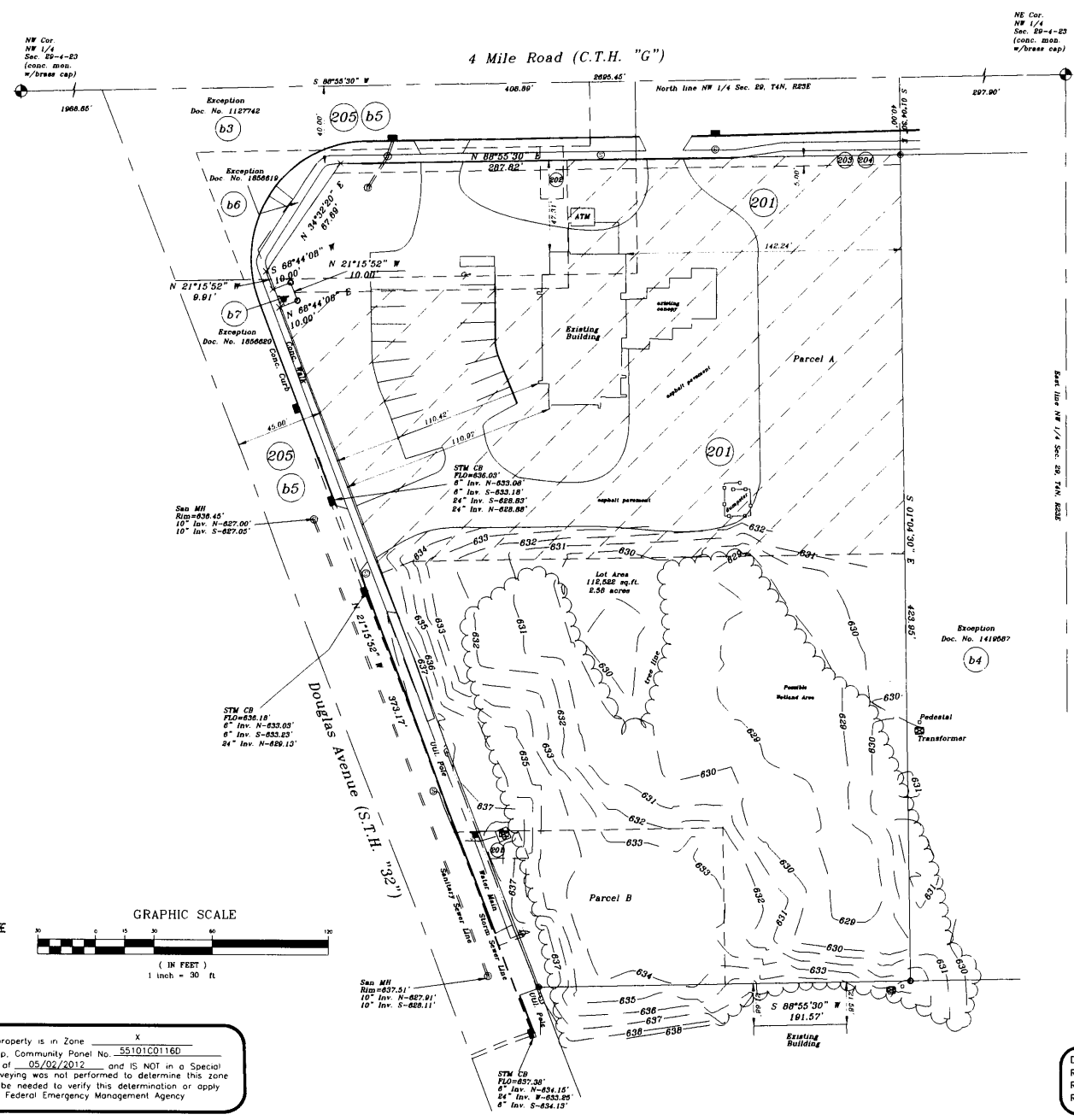
SHEET TITLE
COVER SHEET

SHEET NUMBER

C001

NOTICE
In accordance with Wisconsin statute 193.07(5), damage to transmission facilities, excavator work or other responsibility to provide advance notice to the designated "ONE CALL" SYSTEM has been taken working days prior to commencement of any excavation required to perform work contained on this drawing, and further, excavator shall comply with all other requirements of this statute relative to excavator's work.

DISCLAIMER
The underground utilities shown have been located from field survey information and existing drawings. GRAEF makes no guarantee that the underground utilities shown compare to actual utilities in the area, either in service or abandoned. GRAEF further does not warrant that the underground utilities shown are in the exact location indicated. GRAEF has not physically located the underground utilities.



Notes Related to Table A Items 14, 17 and 18
 (14) DURING OUR FIELD SITE VISIT, THERE WAS NOT OBSERVABLE EVIDENCE OF BATTERY MOVING FROM BUILDING CONSTRUCTION OR FIELD LOCATING FROM BATTERY BATTERIES.
 (17) THERE WAS NOT ANY CHANGES IN STREET RIGHT-OF-WAY LINES EITHER COMPLETED OR PROPOSED AND AVAILABLE FROM CONTROLLING JURISDICTION OR EVIDENCE OF RECENT STREET OR UTILITY CONSTRUCTION REPAIRS.
 (18) DURING OUR FIELD SITE VISIT, THERE WAS NOT OBSERVABLE EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, BOND, OR HAZARDOUS LANDFILL.

○ IRON PIPE FOUND	○ POWER POLE	— SS — SAN SEWER LINE
⊗ IRON ROD FOUND	○ CITY WIRE	○ SEWER MANHOLE
⊕ P x NAIL SET	○ LIGHT POLE	○ CLEAN OUT
⊗ FNE x MARK	○ STREET LIGHT POLE	— SD — STORM DRAIN LINE
⊗ SET x MARK	○ ELEC. TRANSFORMER	○ STORM DRAIN MANHOLE
⊕ R x R SPIKE FOUND	○ BURIED ELECTRIC	○ STORM INLET
⊕ R x R SPIKE SET	○ ELEC. MANHOLE	○ CURB INLET
⊕ BENCHMARK	○ OVERHEAD ELECTRIC	○ TELEPHONE BOX
⊕ CONC. P/W MARKER	○ WATER LINE	○ TELEPHONE MANHOLE
(M) RECORD DATA	○ WATER MANHOLE	○ TELEPHONE POLE
(C) CALCULATED DATA	○ WATER METER	— 1 — TELEPHONE LINE
R/W RIGHT OF WAY	○ HYDRANT	○/H 1 OVERHEAD TELEPHONE
BSL BACK SET LINE	○ GAS LINE	○ CABLE TELEVISION
RFW REINFORCED CONC. PIPE	○ GAS VALVE	○/H C OVERHEAD CABLE
CMF CORRUGATED METAL PIPE	○ GAS METER	○ TRAFFIC POLES
PVC PLASTIC PIPE	○ GAS MANHOLE	○ TRAFFIC SIGNAL
M/L METAL	○ BORE HOLE	○ TRAFFIC MANHOLE
L/L LANDSCAPING	○ MONITORING WELL	○ TRAFFIC SIGNAL BOX
○ TREE	○ MAIL BOX	○ STOP SIGN
⊕ BRICK PILLAR	○ UNKNOWN MANHOLE	○ SIGN

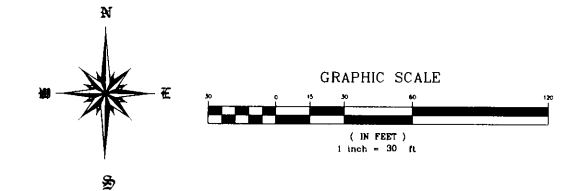
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 1-800-242-8511
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 WE SCHEDULE 182-0375 (1074)
 REQUIRES MIN. 3 WORK DAYS
 NOTICE BEFORE YOU EXCAVATE
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DATE OF ORIGINAL: March 30, 2020
 REVISION: _____ DATE: _____, 2020
 REVISION: _____ DATE: _____, 2020
 REVISION: _____ DATE: _____, 2020

Dennis C. Sauer
 Registered Land Surveyor S-2421
METROPOLITAN SURVEY SERVICE, INC.
 REGISTERED LAND SURVEYORS AND CIVIL ENGINEERS
 9415 West Forest Home Avenue, Suite 202
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 PH. (414) 529-5380 FAX (414) 529-9787
 email address: survey@metropolitansurvey.com

PREPARED FOR: Northern Management, LLC, a Wisconsin limited liability company and Knight Barry Title, Inc.	PROJECT LOCATION: Racine County, Wisconsin
JOB NUMBER: 111279 File Number: 1098067	PROJECT NAME: ALTA/NSPS LAND TITLE SURVEY



FLOOD DATA This property is in Zone X
 the Flood Insurance Rate Map, Community Panel No. 55101C01160
 which has an effective date of 05/02/2012 and IS NOT in a Special
 Flood Hazard Area. Field surveying was not performed to determine this zone.
 An elevation certificate may be needed to verify this determination or apply
 for an amendment from the Federal Emergency Management Agency.

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 5/25/2020 4:05 AM

NOTES:
 In accordance with Wisconsin statute 182.0175, damage to
 transmission facilities, excavator shall be solely responsible to
 provide advance notice to the designated "DUG CALL CENTER"
 not less than three working days prior to commencement of
 any excavation required to perform work outlined on this
 drawing and further, excavator shall comply with all other
 requirements of this statute relative to excavator's work.
 DCS: AMER
 The underground utilities shown have been located from field
 survey information and existing drawings. GRAEF makes no
 guarantee that the underground utilities shown comprise a
 full utility in the area, either in service or abandoned.
 GRAEF further does not warrant that the underground utilities
 shown are in the exact location indicated. GRAEF may not
 physically locate the underground utilities.

LEGEND

	-ASPHALT PAVEMENT REMOVAL
	-CONCRETE PAVEMENT REMOVAL
	-SAWCUT
	-CURB AND GUTTER REMOVAL
	-TREE AND BOLLARD REMOVAL
	-SITE LIGHT REMOVAL
	-STONE CONSTRUCTION ENTRANCE
	-EROSION MATTING
	-SILT FENCE
	-INLET PROTECTION
	-EROSION BALES
	-RIPRAP SMALL (UNLESS OTHERWISE NOTED)

GENERAL NOTES

1. SEE SHEET C900 FOR GENERAL NOTES.

EROSION CONTROL NOTES

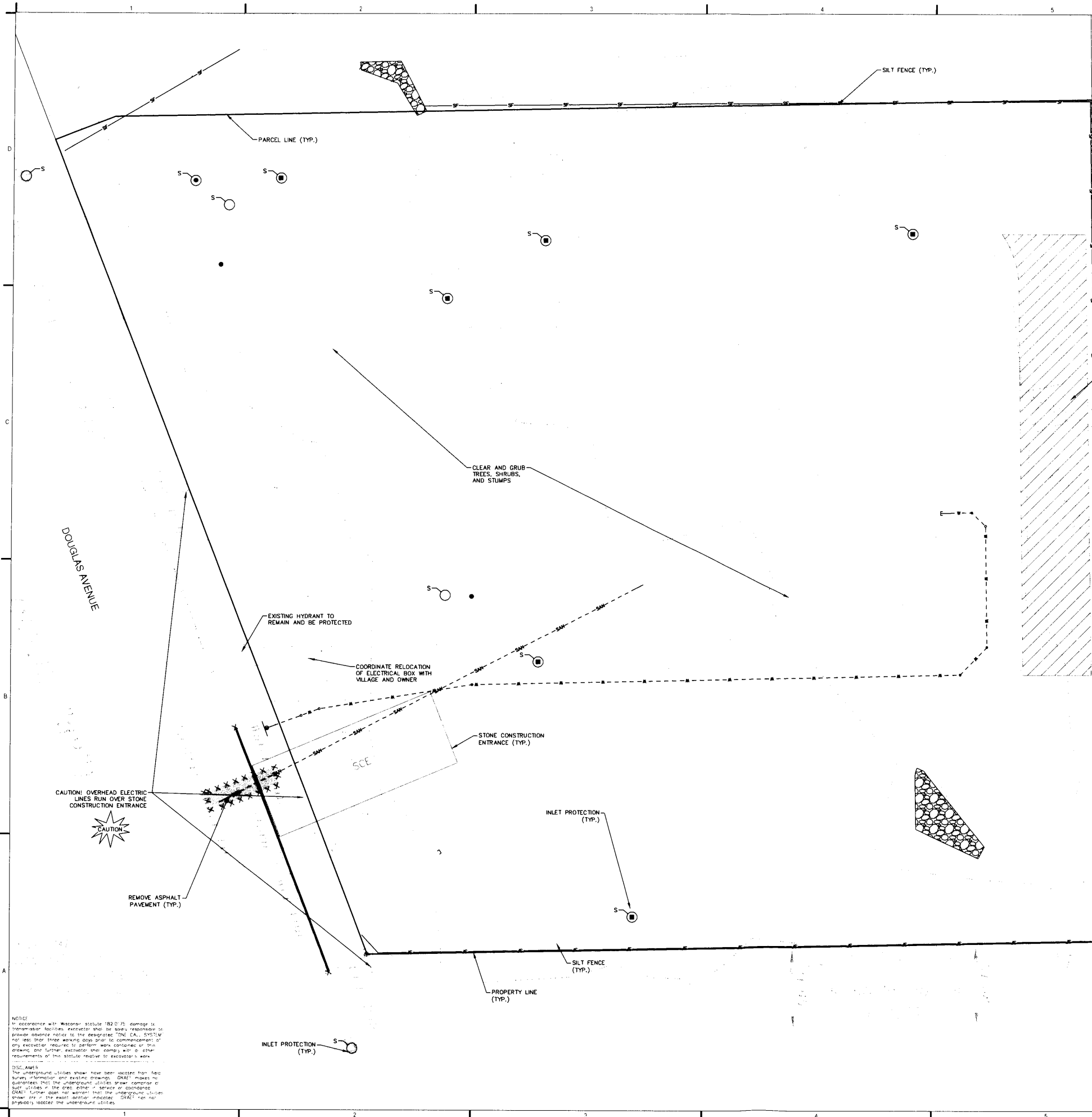
1. SEE SHEET C900 FOR EROSION CONTROL NOTES.

REMOVAL NOTES

1. SEE SHEET C900 FOR REMOVAL NOTES.

DISTURBANCE AREA

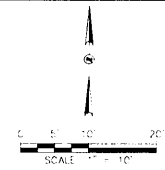
1. TOTAL DISTURBANCE AREA: 50,710 S.F. (1.164 AC)



NOTES:
 In accordance with Wisconsin statute 182.075 damage to transmission facilities, excavator shall be solely responsible to provide advance notice to the designated "ONE CALL" (888) 367-8327 not less than three working days prior to commencement of any excavation required to perform work contained on the drawing and further, excavator shall comply with all other requirements of this statute relative to excavator work.

DISCLAIMER:
 The underground utilities shown have been located from field surveys, information and existing drawings. GRAEF makes no guarantee that the underground utilities shown comprise all buried utilities in the area, either in private or public ownership. GRAEF further does not warrant that the underground utilities shown are in the exact location indicated. GRAEF can not be held responsible for the underground utilities.

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 5/29/2020 4:07 AM



LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- CONCRETE CURB AND GUTTER
- FLUSH CONCRETE CURB AND GUTTER
- HIGHSIDE CONCRETE CURB AND GUTTER
- FLUSH HIGHSIDE CONCRETE CURB AND GUTTER
- CURB TAPER

GENERAL NOTES

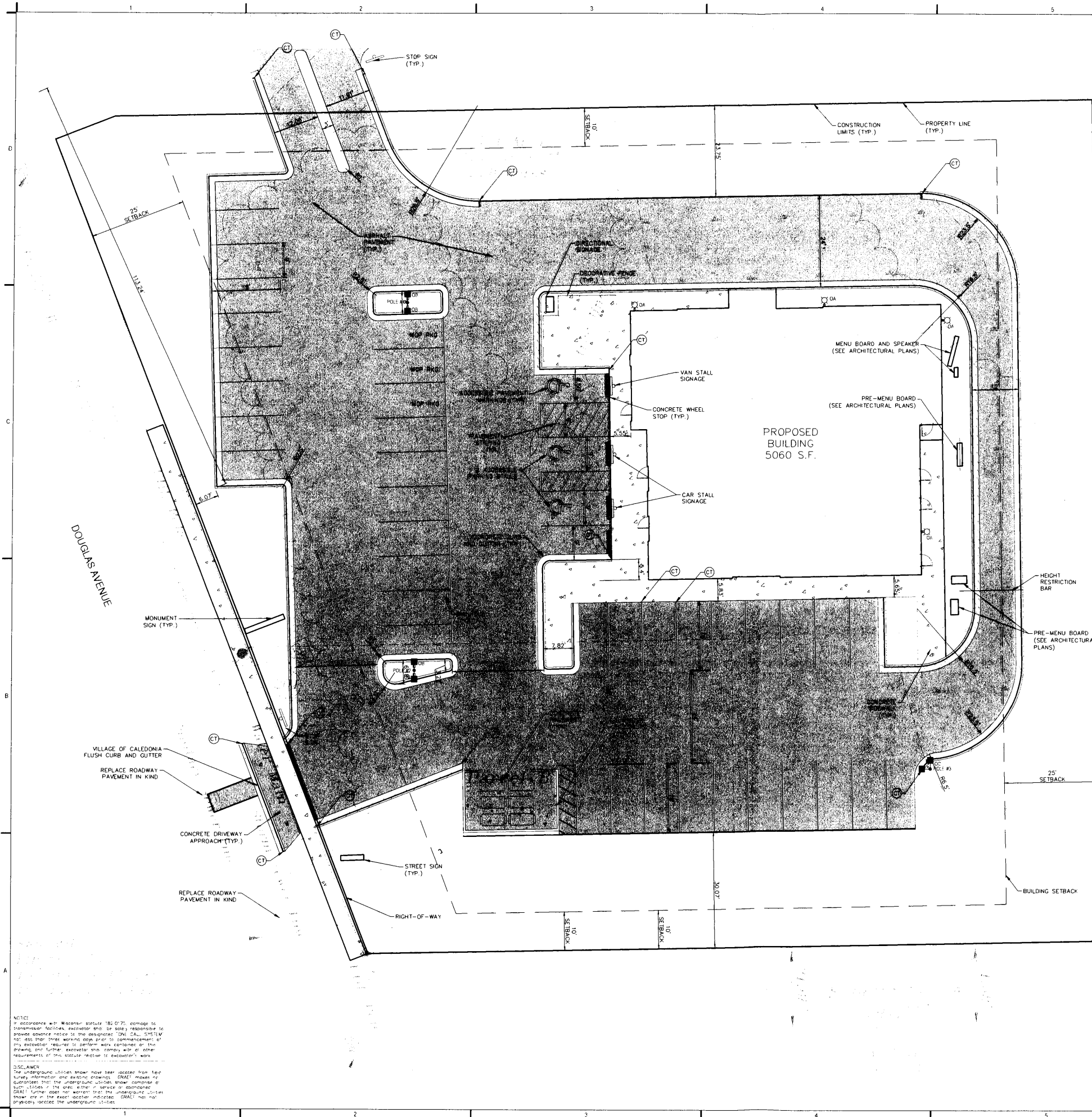
1. SEE SHEET C900 FOR GENERAL NOTES

LAYOUT NOTES

1. SEE SHEET C900 FOR LAYOUT NOTES

SITE DATA TABLE

EXISTING PERVIOUS AREA 50,710 S.F. (1.164 AC)
 EXISTING IMPERVIOUS AREA N/A
 PROPOSED PERVIOUS AREA 20,481 S.F. (0.470 AC)
 PROPOSED IMPERVIOUS AREA 30,235 (0.694 AC)
 TOTAL DISTURBED AREA 50,710 (1.164 AC)



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 5/29/2020 5:06 AM

NOTICE:
 In accordance with Wisconsin statute 78.075, coverage to
 transmission facilities, excavator and by solely responsible to
 provide advance notice to the designated "ON CALL" SERVICE
 not less than three working days prior to commencement of
 any excavation required to perform work depicted on the
 drawing and further excavator shall comply with all other
 requirements of this statute relative to excavation work.

DISCLAIMER:
 The underground utilities shown have been located from field
 survey information and existing drawings. GRAEF makes no
 guarantee that the underground utilities shown comprise all
 utilities in the area or that a service is disrupted.
 GRAEF further does not warrant that the underground utilities
 shown are in the exact location indicated. GRAEF has not
 physically located the underground utilities.

DD SET

LEGEND

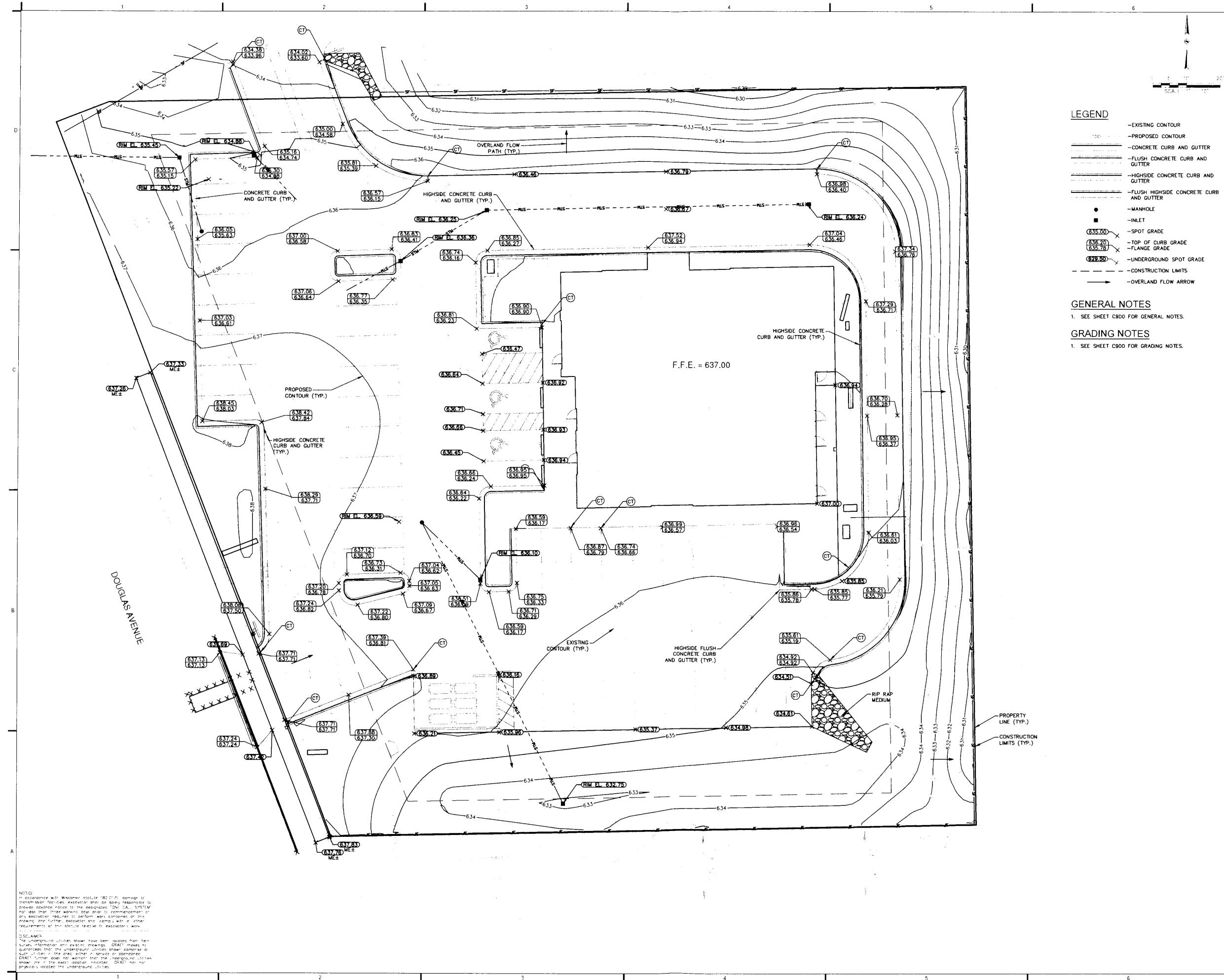
- EXISTING CONTOUR
- PROPOSED CONTOUR
- CONCRETE CURB AND GUTTER
- FLUSH CONCRETE CURB AND GUTTER
- HIGHSIDE CONCRETE CURB AND GUTTER
- FLUSH HIGHSIDE CONCRETE CURB AND GUTTER
- MANHOLE
- INLET
- SPOT GRADE
- TOP OF CURB GRADE
- FLANGE GRADE
- UNDERGROUND SPOT GRADE
- CONSTRUCTION LIMITS
- OVERLAND FLOW ARROW

GENERAL NOTES

- SEE SHEET C900 FOR GENERAL NOTES.

GRADING NOTES

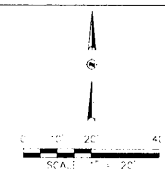
- SEE SHEET C900 FOR GRADING NOTES.



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5/29/2020 4:13 AM

NOTES:
In accordance with Wisconsin statute 70.01, engineer is responsible for the design and construction of the site grading plan. The contractor shall be responsible for the construction of the site grading plan. The contractor shall be responsible for the construction of the site grading plan. The contractor shall be responsible for the construction of the site grading plan.

DISCLAIMER:
The information shown here has been derived from field data and information provided by the client. GRAEF makes no guarantee that the information shown here is accurate or complete. GRAEF is not responsible for any errors or omissions in this drawing. GRAEF is not responsible for any errors or omissions in this drawing. GRAEF is not responsible for any errors or omissions in this drawing.



LEGEND

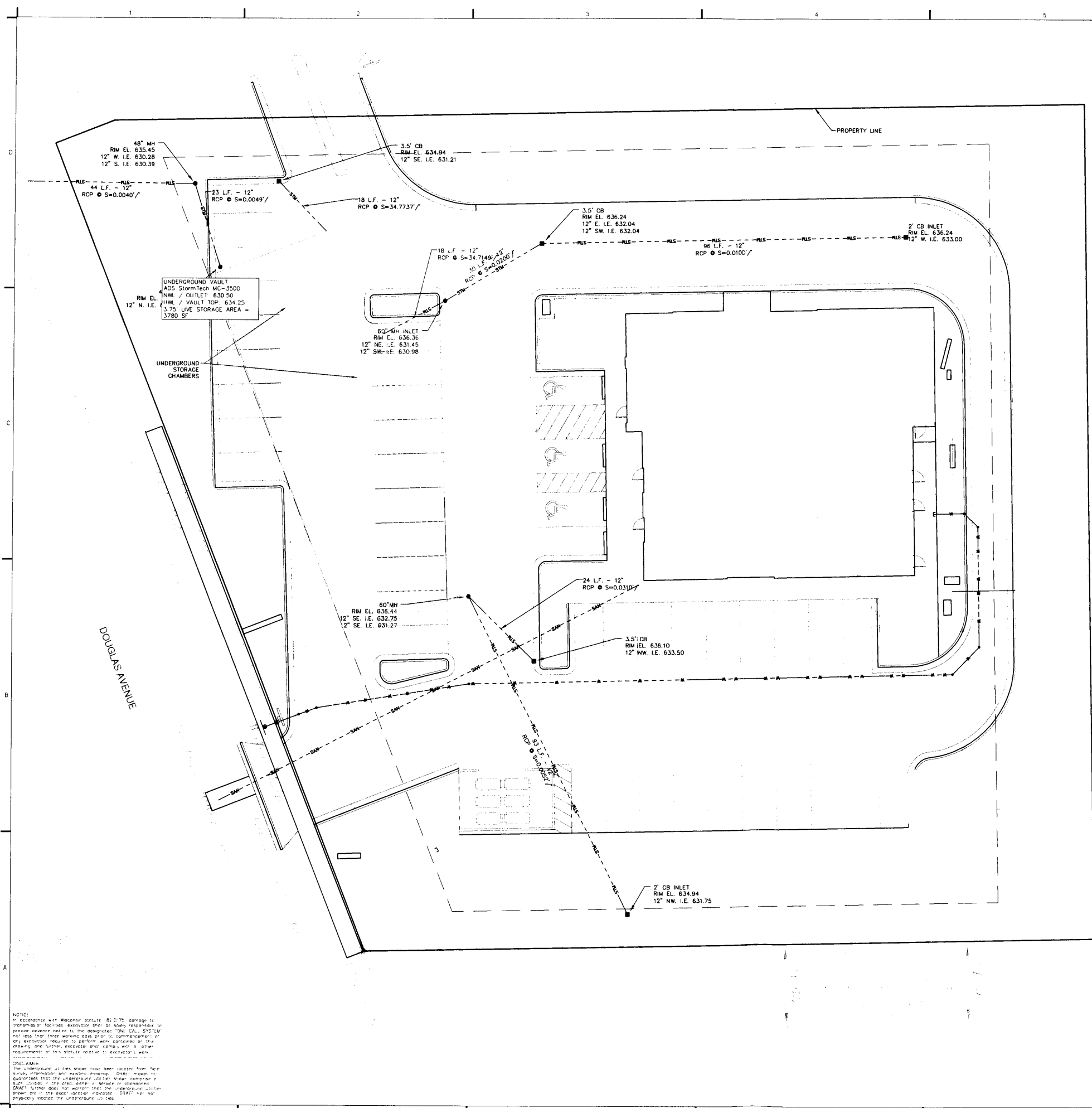
- STM--- PROPOSED STORM SEWER
- SAN--- PROPOSED SANITARY SEWER
- W--- PROPOSED WATER MAIN
- DRAIN--- PROPOSED DRAIN TILE
- EASEMENT--- PROPOSED UTILITY EASEMENT
- PROPOSED MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED GATE VALVE
- ⊥ PROPOSED HYDRANT
- ⌈ PROPOSED UTILITY PLUG

GENERAL NOTES

- SEE SHEET C900 FOR GENERAL NOTES.

UTILITY NOTES

- SEE SHEET C900 FOR UTILITY NOTES.



NOTICE
 In accordance with Wisconsin statute 78.07(2) damage to transmission facilities, excavator shall be solely responsible to provide adequate notice to the dispatcher "ONE CALL" not less than three working days prior to commencement of any excavation required to perform work contained on the drawing and further, excavator shall comply with all other requirements of this statute relative to excavator's work.

DISCLAIMER
 The underground utilities shown have been located from field surveys, information and existing drawings. GRAEF does not guarantee that the underground utilities shown comprise a full and complete list of all utilities in service or abandoned. GRAEF further does not warrant that the underground utilities shown are in the exact location indicated. GRAEF has not physically located the underground utilities.

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DD SET

DD SET

PROJECT INFORMATION:

PROJECT NUMBER 2020-0118
 DATE 06/26/2020
 DRAWN BY: MDS
 CHECKED BY: DAS
 APPROVED BY: JLH
 SCALE AS SHOWN

SHEET TITLE

SITE SANITARY & WATER MAIN PLAN

SHEET NUMBER

C510

LEGEND

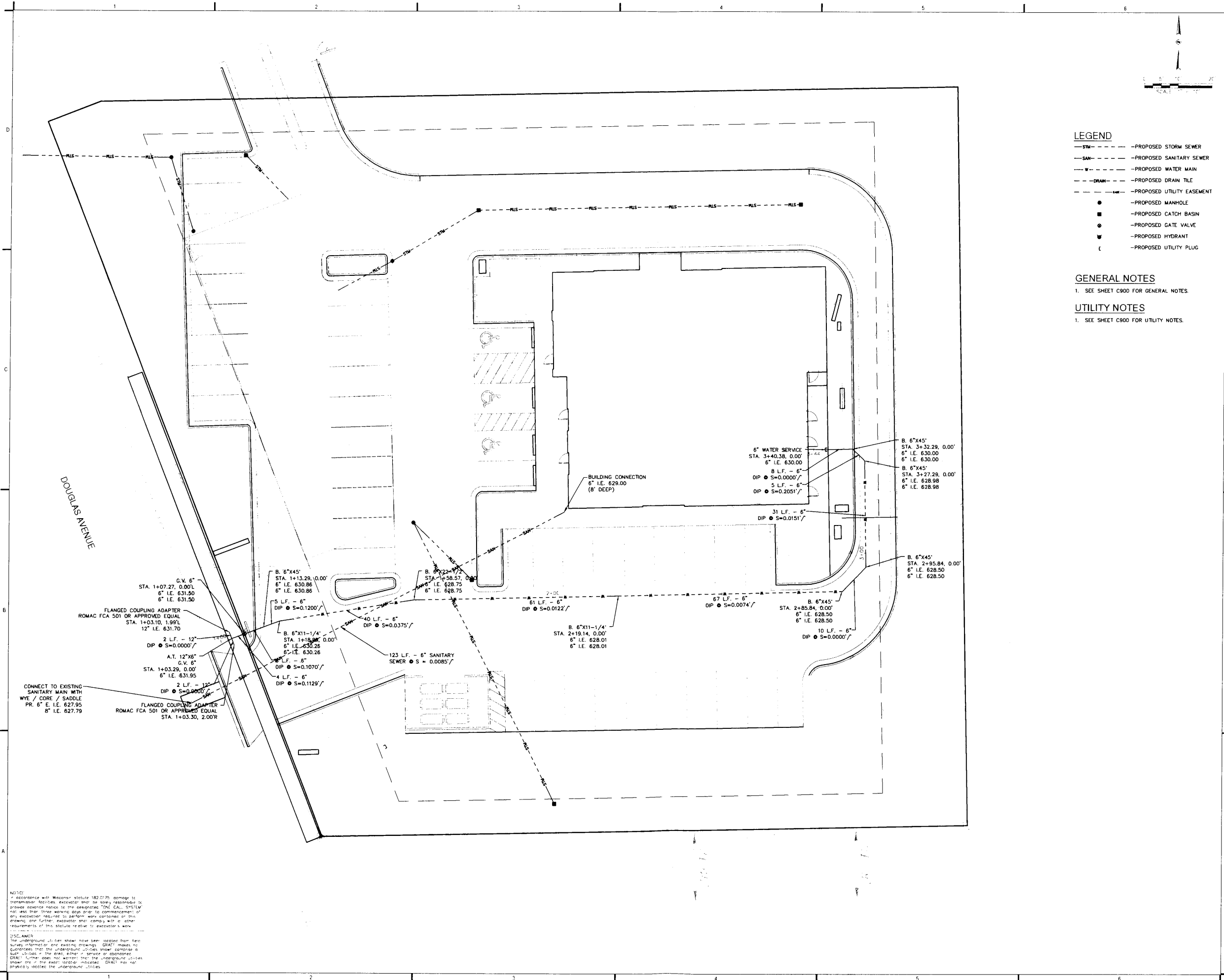
- STM--- PROPOSED STORM SEWER
- SAN--- PROPOSED SANITARY SEWER
- W--- PROPOSED WATER MAIN
- DRAIN--- PROPOSED DRAIN TILE
- UTILITY EASEMENT--- PROPOSED UTILITY EASEMENT
- PROPOSED MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED GATE VALVE
- ⊥ PROPOSED HYDRANT
- ⊥ PROPOSED UTILITY PLUG

GENERAL NOTES

1. SEE SHEET C900 FOR GENERAL NOTES.

UTILITY NOTES

1. SEE SHEET C900 FOR UTILITY NOTES.



NOTES:
 1. In accordance with Wisconsin statute 182.0175, damage to transmission facilities, excavator shall be solely responsible to provide advance notice to the appropriate "ONE CALL" SYSTEM not less than three working days prior to commencement of any excavation required to perform work contained on this drawing and further, excavator shall comply with all other requirements of the statute relative to excavator work.

DISCLAIMER:
 The underground utilities shown have been located from field survey information and existing drawings. GRAEF makes no guarantee that the underground utilities shown comprise a full utility in the area, either in service or abandoned. GRAEF further does not warrant that the underground utilities shown are in the exact location indicated. GRAEF has not physically located the underground utilities.

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GENERAL NOTES

1. THE BASE SURVEY WAS PREPARED BY METROPOLITAN SURVEY SERVICE, INC. IN MARCH OF 2020. ALL UNDERGROUND UTILITIES AND STRUCTURES HAVE BEEN SHOWN TO REASONABLE DEGREE OF ACCURACY AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION AND TO AVOID DAMAGE THERETO.
2. REFER TO SHEET C100 FOR BENCHMARKS, DATUM, AND TOPOGRAPHIC ELEMENTS.
3. CONTRACTOR SHALL VERIFY LOCATION OF WORK AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCING WORK.

REMOVAL NOTES

1. EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AND DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER PRIOR TO COMMENCING WORK.
2. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITY LINES NOTED FOR ABANDONMENT OR REMOVAL. EXISTING UTILITIES THAT ARE TO BE ABANDONED OR REMOVED SHALL BE RESPECTIVELY ABANDONED OR REMOVED TO THE LOCATIONS INDICATED ON THIS PLAN. ALL UTILITY STRUCTURES LOCATED ALONG REMOVED UTILITY LINES SHALL BE REMOVED IN THEIR ENTIRETY.
3. ASPHALT PAVEMENT NOTED FOR REMOVAL SHALL BE SAW CUT TO FULL DEPTH PRIOR TO REMOVAL.
4. CONCRETE CURB AND GUTTER AND SIDEWALK NOTED FOR REMOVAL SHALL BE REMOVED AT THE NEAREST JOINT.
5. ITEMS SCHEDULED FOR REMOVAL AND EXCESS EXCAVATED MATERIALS SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ANY APPLICABLE REGULATIONS.
6. CONTRACTOR IS RESPONSIBLE FOR SECURING THE JOB SITE TO PROTECT THE PUBLIC.
7. CONTRACTOR SHALL COMPLY WITH LOCAL, STATE, AND FEDERAL CODES, RULES AND REGULATIONS APPLICABLE TO DEMOLITION WORK INCLUDING BUT NOT LIMITED TO EROSION CONTROL, AIR POLLUTION, NOISE POLLUTION, AND WASTE DISPOSAL.
8. CONTRACTOR SHALL REPLACE PAVEMENT, CURB AND GUTTER, TREES, LAWN AREA, ANY ABOVE GROUND APPURTENANCES, OR ANY OTHER ITEM THAT WAS DAMAGED AS A RESULT OF CONSTRUCTION RELATED ACTIVITIES AS DETERMINED BY OWNERS REPRESENTATIVE THAT WAS NOT CALLED OUT FOR REMOVAL OR REPLACEMENT. CONTRACTOR SHALL REPLACE/REPAIR DAMAGED ITEM TO THE SATISFACTION OF OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
9. TREE PROTECTION FENCING LOCATIONS SHOWN ARE APPROXIMATE. ALL EXISTING TREES OUTSIDE OF GRADING LIMITS ARE INTENDED TO REMAIN. FINAL LOCATIONS OF FENCING SHALL BE DETERMINED IN THE FIELD AND AS IDENTIFIED ON CONSTRUCTION DETAILS. ADDITIONAL FENCING MAY BE REQUIRED. COORDINATE WITH OWNER'S REPRESENTATIVE. TREE PROTECTION FENCE SHALL REMAIN IN PLACE THROUGHOUT CONSTRUCTION.

LAYOUT NOTES

1. THE BUILDING OUTLINES SHOWN ARE FOR REFERENCE PURPOSES ONLY AND SHALL NOT BE USED FOR STAKING PURPOSES. THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT AND STRUCTURAL ENGINEER ON THE STAKING OF THE BUILDING.
2. SITE LIGHTS ARE SHOWN FOR REFERENCE PURPOSES ONLY AND THE CONTRACTOR SHALL REFER TO THE ELECTRICAL PLANS FOR DETAIL DESIGN INFORMATION. CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL ENGINEER ON STAKING OF THE SITE LIGHTS.
3. ALL DIMENSIONS SHOWN ARE TO THE EDGE OF PAVEMENT OR FACE OF CURB WHERE CONCRETE CURB IS SHOWN.
4. STANDARD CURB RADIUS IS 3' UNLESS INDICATED OTHERWISE.
5. ALL PAVEMENT STRIPING SHALL BE WHITE IN COLOR.
6. REFER TO LANDSCAPING PLANS FOR SITE RESTORATION INFORMATION AND DETAILS.
7. HANDICAP PARKING STALLS SHALL BE FURNISHED WITH A CONCRETE WHEEL STOP WHEN ADJACENT TO FLUSH CONCRETE CURB AND GUTTER.
8. CONTRACTOR SHALL SUBMIT A CONCRETE JOINTING PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO COMMENCING CONSTRUCTION. JOINTING PLAN SHALL INDICATE: POUR SEQUENCE, LOCATION OF CONSTRUCTION ISOLATION, CONTRACTION JOINTS, AND TYPE OF REINFORCEMENT.

UTILITY NOTES

1. CONTRACTOR SHALL VERIFY ELEVATION OF EXISTING INVERTS PRIOR TO INSTALLATION OF PROPOSED UTILITIES.
2. BUILDING LATERALS SHALL BE CONSTRUCTED IN ACCORDANCE WITH LOCAL AND STATE PLUMBING CODES. SITE UTILITY CONTRACTOR SHALL STUB LATERAL TO 5 FEET OUTSIDE BUILDING. SEE INTERIOR PLUMBING PLANS FOR CONTINUATION OF PIPING INTO BUILDING BY BUILDING PLUMBING CONTRACTOR IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
3. CONTRACTOR SHALL CENTER ONE FULL LENGTH OF WATER PIPE ON SEWER AT WATER MAIN CROSSINGS, THAT BOTH JOINTS WILL BE AS FAR FROM SEWER AS POSSIBLE.
4. GENERAL CONTRACTOR SHALL COORDINATE WITH LOCAL GAS, TELEPHONE, AND ELECTRICAL UTILITIES FOR EXACT LOCATION, SIZE AND DEPTH OF NEW SERVICE.
5. SANITARY SEWER SHALL BE PVC, ASTM D3034, SDR 35 UNLESS INDICATED OTHERWISE.
6. WATER MAIN SHALL BE AWWA C900, CLASS 150, DR-18 PVC UNLESS INDICATED OTHERWISE.
7. ALL SANITARY PRECAST MANHOLES SHALL CONFORM TO ASTM C-478 AND SHALL BE A MINIMUM OF 48-INCH DIAMETER WITH ECCENTRIC CONE TYPE PRECAST TOPS AND SHALL BE FITTED WITH AN EXTERNAL SEAL. FLAT TOP SLABS SHALL BE USED ONLY WITH APPROVAL OF THE VILLAGE ENGINEER.
8. CONTRACTOR SHALL PROVIDE DRAIN TILE AT ALL PROPOSED CATCH BASINS. SEE PLAN VIEW FOR DETAIL DESIGN INFORMATION.
9. BUILDING ROOF DRAINS SHALL BE SDR-35, ASTM D3034, PVC, UNLESS OTHERWISE NOTED.
10. RIM ELEVATIONS IN CURB AND GUTTER ARE FLANGE GRADES.
11. PIPE LENGTHS AND INVERTS ARE TO CENTER OF STRUCTURES.
12. CRUSHED STONE BACKFILL SHALL BE USED UNDER AND WITHIN 5' OF ALL PAVED AREAS.

EROSION CONTROL NOTES

1. CONSTRUCTION SITE EROSION CONTROL AND SEDIMENTATION CONTROL SHALL COMPLY WITH THE REQUIREMENTS OF THE VILLAGE OF CALEDONIA, AND SHALL EMPLOY EROSION CONTROL METHODS AS SHOWN AND SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) "CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL TECHNICAL STANDARDS".
2. ALL EROSION CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED FOR STABILITY AND OPERATION AFTER A RAINFALL OF 0.5 INCHES OR MORE, BUT NO LESS THAN ONCE EVERY WEEK. MAINTENANCE OF ALL EROSION CONTROL STRUCTURES SHALL BE PROVIDED TO INSURE INTENDED PURPOSE IS ACCOMPLISHED. REPAIRS AND MAINTENANCE SHALL BE COMPLETED WITHIN 24 HOURS OF INSPECTION. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP AND REMOVAL OF ALL SEDIMENT WHEN LEAVING PROPERTY. EROSION CONTROL MEASURES MUST BE IN WORKING CONDITION AT END OF EACH WORK DAY.
4. SILT FENCE SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS. SEDIMENT DEPOSITS WILL BE REMOVED FROM BEHIND THE SILT FENCE WHEN DEPOSITS REACH A DEPTH OF 6 INCHES. THE SILT FENCE WILL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
5. FILTER FABRIC SHALL BE INSTALLED BENEATH INLET COVERS TO TRAP SEDIMENT AS PER INLET PROTECTION DETAIL IN THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS.
6. CRUSHED STONE ENTRANCE SHALL BE MAINTAINED BY TURNING OVER THE STONE OR BY PLACING NEW STONE ONCE THE SURFACE BECOMES CLOGGED WITH SEDIMENT.
7. EROSION CONTROL MEASURES SHALL BE MAINTAINED ON A CONTINUING BASIS UNTIL SITE IS FULLY STABILIZED.
8. PERIODIC STREET SWEEPING SHALL BE COMPLETED TO MAINTAIN THE PUBLIC STREET FREE OF DUST AND DIRT.
9. SILT FENCE SHALL BE INSTALLED IN HORSESHOE FASHION AROUND ALL TOPSOIL AND FILL STOCKPILES. NOTIFY VILLAGE OF CALEDONIA OF ANY NEW STOCKPILE LOCATIONS.
10. CONSTRUCTION SEQUENCE FOR EROSION CONTROL INCLUDES:
 1. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
 2. INSTALL SILT FENCE AND INLET PROTECTION.
 3. STRIP TOPSOIL, PERFORM ROUGH GRADING AND BUILDING EXCAVATION, ADJUST DIVERSION DITCHES AS NEEDED TO MAINTAIN DRAINAGE TO SEDIMENT BASIN.
 4. INSTALL UTILITIES, INSTALL INLET PROTECTION ON NEW INLETS, INSTALL RIPRAP AT NEW OUTFALLS.
 5. CONSTRUCT BUILDING.
 6. INSTALL PAVEMENTS.
 7. INSTALL LANDSCAPING ON COMPLETED SITE WITHIN 7 DAYS OF COMPLETING CONSTRUCTION.
 8. REMOVE TEMPORARY SEDIMENTATION BASIN
 9. REMOVE EROSION CONTROL MEASURES ONLY WHEN SITE IS FULLY STABILIZED.
11. SITE DEWATERING. WATER PUMPED FROM THE SITE SHALL BE TREATED BY SEDIMENT BASINS OR OTHER APPROPRIATE BEST MANAGEMENT PRACTICES SPECIFIED IN THE WDNR "CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL TECHNICAL STANDARDS". WATER SHALL NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION OF THE SITE, ADJACENT SITES, OR RECEIVING CHANNELS.
12. WASTE AND MATERIAL DISPOSAL. ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, WASTEWATER, TOXIC MATERIALS, OR HAZARDOUS MATERIALS) SHALL BE PROPERLY DISPOSED AND NOT ALLOWED TO BE CARRIED OFF-SITE BY RUNOFF OR WIND.
13. TRACKING. EACH SITE SHALL HAVE GRAVELLED ROADS, ACCESS DRIVES AND PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH TO PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BY STREET CLEANING, TO THE SATISFACTION OF THE VILLAGE, BEFORE THE END OF EACH WORKDAY. FLUSHING MAY NOT BE USED UNLESS SEDIMENT WILL BE CONTROLLED BY A SEDIMENT BASIN OR OTHER APPROPRIATE BEST MANAGEMENT PRACTICE SPECIFIED IN THE WDNR "CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL TECHNICAL STANDARDS". NOTIFY VILLAGE OF CALEDONIA FOR CHANGES IN STABILIZED CONSTRUCTION ENTRANCE LOCATION.
14. SEDIMENT CLEANUP. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF A STORM EVENT SHALL BE CLEANED UP BY THE END OF THE NEXT WORK DAY. ALL OTHER OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE CLEANED UP BY THE END OF THE WORK DAY.
15. ALL DISTURBED GROUND LEFT INACTIVE FOR SEVEN OR MORE DAYS SHALL BE STABILIZED BY TEMPORARY OR PERMANENT SEEDING, AND MULCHING SODDING, COVERING WITH TARPS, OR EQUIVALENT BEST MANAGEMENT PRACTICES. IF TEMPORARY SEEDING IS USED, A PERMANENT COVER SHALL ALSO BE REQUIRED AS PART OF THE FINAL SITE STABILIZATION. SEEDING OR SODDING SHALL BE REQUIRED AS PART OF THE FINAL SITE STABILIZATION.
16. PERMANENT SEEDING SHALL BE ESTABLISHED NO LATER THAN SEPTEMBER 15TH. IF PERMANENT SEEDING IS NOT ESTABLISHED, TEMPORARY SEEDING SHALL BE ESTABLISHED NO LATER THAN OCTOBER 15TH. ALL SEEDING AREAS MUST BE MULCHED AT A RATE OF 1.5 TO 2 TONS PER ACRE AND ANCHORED BY EITHER CRIMPING OR BY APPLYING A TACKIFIER.
17. PERMANENT SEED MIX SHALL BE WSDOT SEED MIX NO. 40 AT 7 POUNDS PER 1000 SQUARE FEET.
18. USE ANNUAL RYE SEED MIX AT 100 POUNDS PER ACRE AS A TEMPORARY SEED MIX. PERMANENT SEEDING SHALL FOLLOW WITHIN ONE YEAR. IF TEMPORARY SEEDING IS NOT ESTABLISHED BY OCTOBER 15TH, USE CLASS I TYPE B MATTING ON ALL SLOPES 4:1 OR STEEPER.
19. SOIL OR DIRT STORAGE PILES SHALL BE LOCATED A MINIMUM OF TWENTY-FIVE FEET FROM ANY DOWNSLOPE ROAD, LAKE, STREAM, WETLAND, OR DRAINAGE CHANNEL. STRAW BALE OR FILTER FABRIC FENCES SHALL BE PLACED ON THE DOWN SLOPE SIDE OF THE PILE. IF REMAINING FOR MORE THAN THIRTY DAYS, PILES SHALL BE STABILIZED BY MULCHING, VEGETATIVE COVER, TARPS, OR OTHER MEANS.
20. WHEN THE DISTURBED AREA HAS BEEN STABILIZED BY PERMANENT VEGETATION OR OTHER MEANS, TEMPORARY BEST MANAGEMENT PRACTICES SUCH AS FILTER FABRIC FENCES, STRAW BALES, SEDIMENT AND SEDIMENT TRAPS SHALL BE REMOVED.
21. NOTIFY THE VILLAGE WITHIN TWO WORKING DAYS OF COMMENCING ANY LAND DEVELOPMENT OR LAND DISTURBING ACTIVITY.
22. NOTIFY THE VILLAGE OF COMPLETION OF ANY BEST MANAGEMENT PRACTICES WITHIN THE NEXT WORKING DAY AFTER THEIR INSTALLATION.
23. OBTAIN PERMISSION IN WRITING FROM THE VILLAGE OF CALEDONIA ENGINEERING DEPARTMENT PRIOR TO MODIFYING THE EROSION CONTROL PLAN. NOTIFY WDNR AT LEAST FIVE WORKING DAYS PRIOR TO IMPLEMENTING CHANGES TO THE EROSION CONTROL PLAN.
24. REPAIR ANY SILTATION OR EROSION DAMAGE TO ADJOINING SURFACES AND DRAINAGE WAYS RESULTING FROM LAND DEVELOPMENT OR LAND DISTURBING ACTIVITIES.
25. KEEP A COPY OF THE EROSION CONTROL PLAN ON SITE, INTERSECTING DIRECTIONS.

GRADING NOTES

1. ADA REGULATIONS REQUIRE A MAXIMUM SLOPE OF 1:20 (5%) ALONG THE LENGTH OF THE ACCESSIBLE ROUTE AND A MAXIMUM SLOPE OF 1:50 (2%) ACROSS THE WIDTH OF THE ACCESSIBLE ROUTE. ADA REGULATIONS REQUIRE A MAXIMUM SLOPE OF 1:50 (2%) IN ALL DIRECTIONS WITHIN AN ADA PARKING STALL AND ADJACENT UNLOADING ZONE.
2. RIM ELEVATIONS IN CURB AND GUTTER ARE FLANGE GRADES.



275 West Wisconsin Avenue, Suite 300
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 414 / 259-1500
 414 / 259-0037 fax

www.graef-usa.com

CONSULTANTS

PROJECT TITLE

TRUE COMMONS NORTH

4935 DOUGLAS AVENUE
 RACINE, WI 53402

ISSUE

NO. DATE REVISIONS BY

DD SET

PROJECT INFORMATION

PROJECT NUMBER 2020-0118
 DATE 06/26/2020
 DRAWN BY: MDS
 CHECKED BY: DAS
 APPROVED BY: JLH
 SCALE AS SHOWN

SHEET TITLE

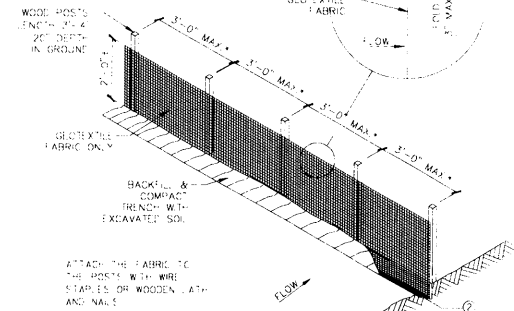
CONSTRUCTION NOTES

SHEET NUMBER

C900

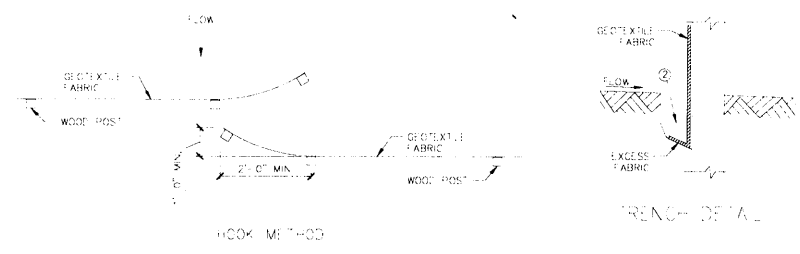
- 2. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- 3. CONSTRUCT SILT FENCE FROM 7' CONTIGUOUS ROLLS IF POSSIBLE BY CUTTING FENCE TO AVOID JOINTS. IF A JOINT IS NECESSARY, USE ONE OF THE FOLLOWING TWO METHODS: A. OVERLAP THE END POSTS AND "W" OF ONE ROLL AT LEAST 180 DEGREES. B. HOOK THE END OF EACH SILT FENCE LENGTH.

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

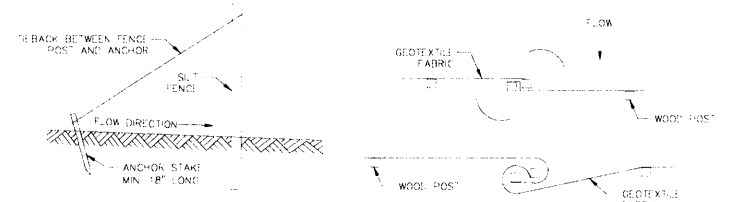


ATTACH THE FABRIC TO THE POSTS WITH WIRE STAPLES OR WOODEN LATH AND NAILS

* NOTE: 8'-0\"/>



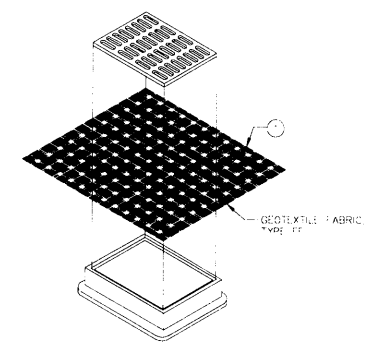
JOINING TWO LENGTHS OF SILT FENCE



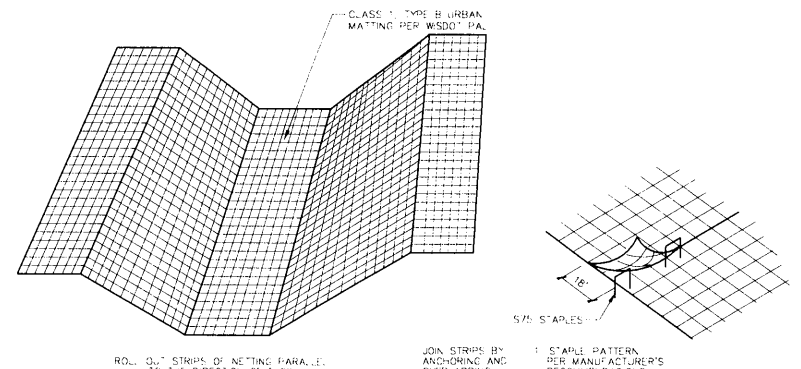
SILT FENCE TIE BACK WHEN ADDITIONAL SUPPORT REQUIRED

TWIST METHOD

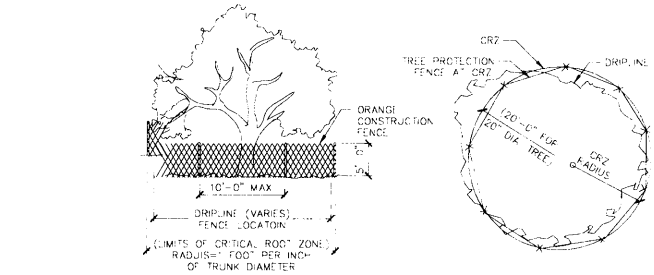
01 SILT FENCE SCALE N.T.S.



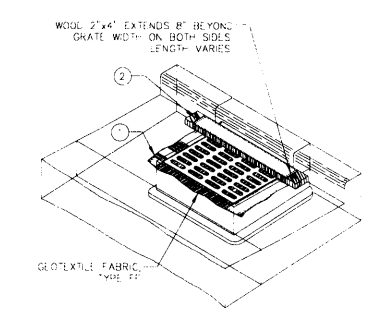
05 INLET PROTECTION, TYPE B (WITHOUT CURB BOX) SCALE N.T.S.



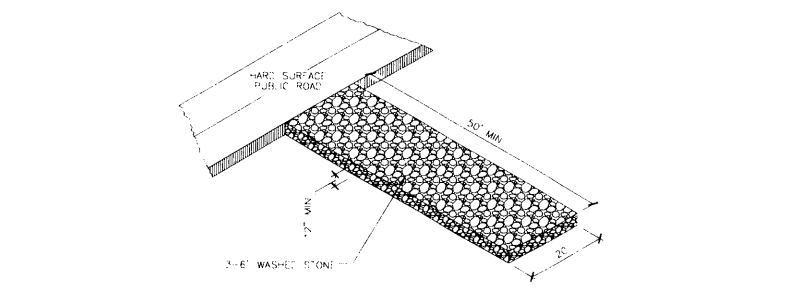
03 EROSION MATTING SCALE N.T.S.



TREE PROTECTION FENCE - ORANGE CONSTRUCTION FENCE



06 INLET PROTECTION, TYPE C (WITH CURB BOX) SCALE N.T.S.



04 STONE CONSTRUCTION ENTRANCE SCALE N.T.S.

1. ALL TREES SHOWN TO BE RETAINED WITHIN THE LIMITS OF CONSTRUCTION ON THE PLANS, SHALL BE PROTECTED DURING CONSTRUCTION WITH FENCING.
2. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR GRADING).
3. EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP WITHIN TREE DRIPLINES.
4. FENCES SHALL COMPLETELY SURROUND THE TREE OR CLUSTERS OF TREES, LOCATED AT THE OUTERMOST LIMITS OF THE TREE BRANCHES (DRIPLINE) OR CRITICAL ROOT ZONE (CRZ), WHICHEVER IS GREATER, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT.
5. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL AND BACKFILLED WITH GOOD QUALITY TOP SOIL WITHIN TWO DAYS. IF EXPOSED ROOT AREAS CANNOT BE BACKFILLED WITHIN 2 DAYS, AN ORGANIC MATERIAL WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION SHALL BE PLACED TO COVER THE ROOTS UNTIL BACKFILL CAN OCCUR.
6. PRIOR TO EXCAVATION OR GRADE CUTTING WITHIN TREE DRIPLINES, A CLEAN CUT SHALL BE MADE WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE DAMAGE TO REMAINING ROOTS.
7. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN FOUR (4) INCHES SHALL BE PERMITTED WITHIN THE DRIPLINE OR CRZ OF TREES, WHICHEVER IS GREATER. NO TOPSOIL IS PERMITTED ON ROOT FLARES OF ANY TREES.
8. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND CONSTRUCTION EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS. ALL PRUNING MUST BE DONE AS OUTLINED IN LITERATURE PROVIDED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA PRUNING TECHNIQUES).

02 TREE PROTECTION DETAIL SCALE N.T.S.

DD SET

PROJECT INFORMATION

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 DATE: 06/25/2020
 DRAWN BY: MDS
 CHECKED BY: DAS
 APPROVED BY: JLH
 SCALE: AS SHOWN

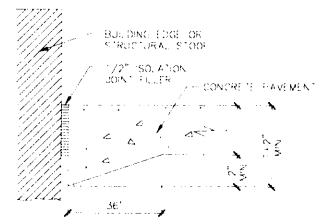
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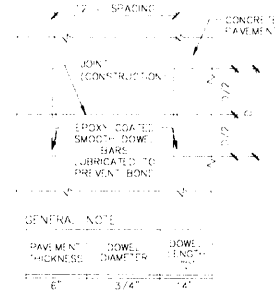
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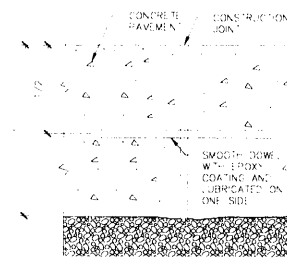
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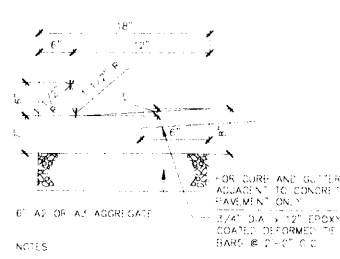
14 ISOLATION JOINT
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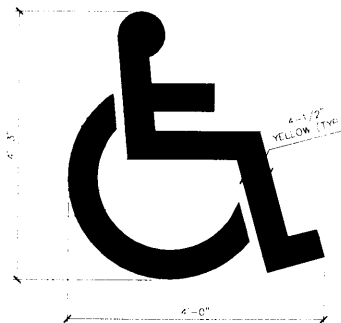
09 CONSTRUCTION JOINT
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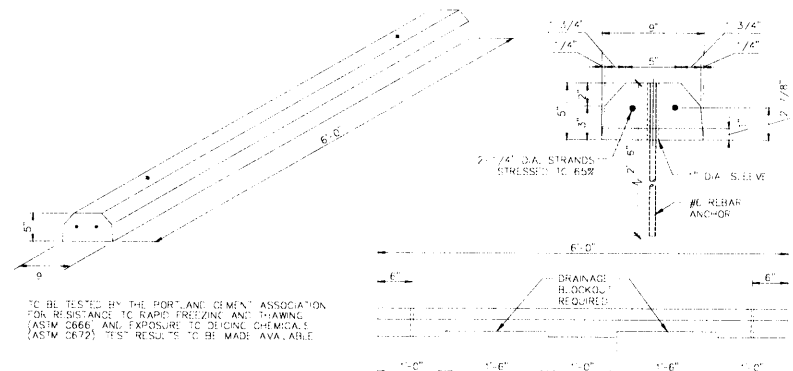
06 HIGHSIDE CONCRETE CURB AND GUTTER
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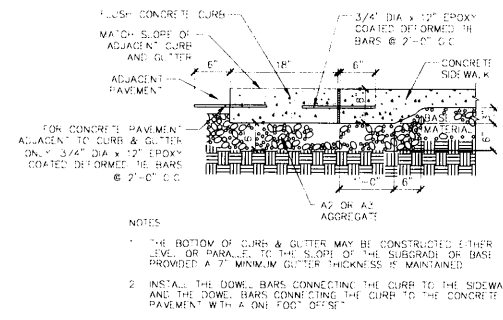
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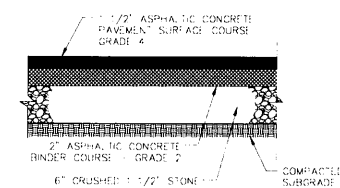
15 PAVEMENT MARKING HANDICAP SYMBOL
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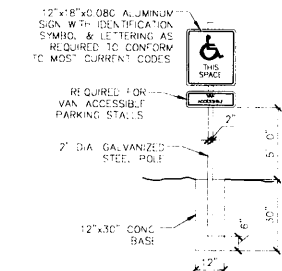
10 TYPICAL CONCRETE WHEEL STOP
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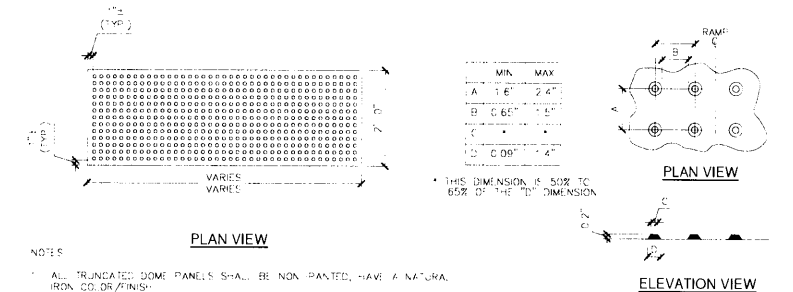
07 FLUSH CONCRETE CURB AND GUTTER
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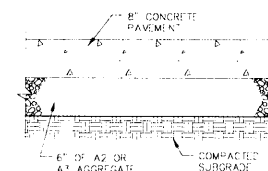
02 ASPHALT PAVEMENT
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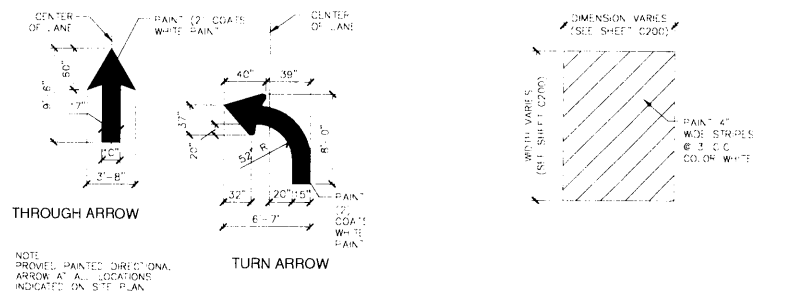
16 WHEELCHAIR ACCESSIBLE SIGN
 SCALE N.T.S.



11 TRUNCATED DOMES
 SCALE N.T.S.



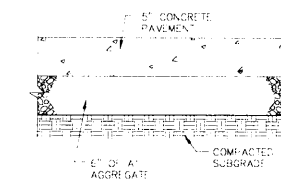
03 CONCRETE PAVEMENT
 SCALE N.T.S.



13 PAVEMENT ARROW
 SCALE N.T.S.

12 CROSS STRIPING
 SCALE N.T.S.

08 5' CURB TAPER SECTION
 SCALE N.T.S.



04 CONCRETE SIDEWALK
 SCALE N.T.S.

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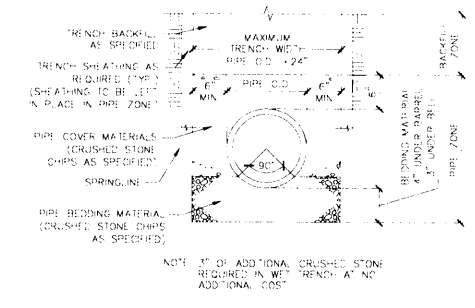
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 CHECKED BY: DAS
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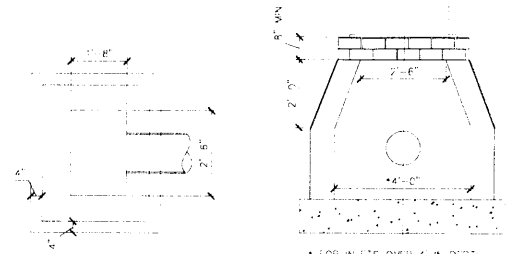
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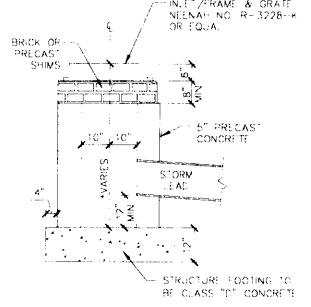
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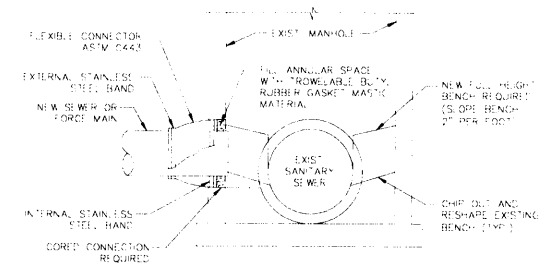
00 CLASS "C" BEDDING DETAIL FOR STORM SEWER
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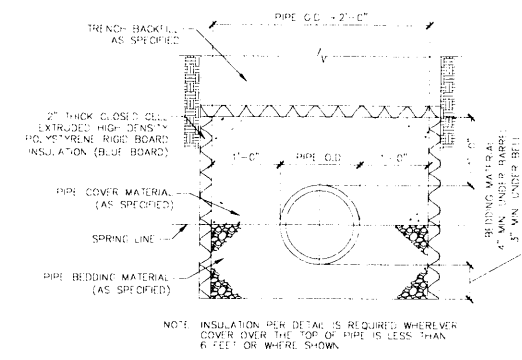
00 MANHOLE #3 DETAIL
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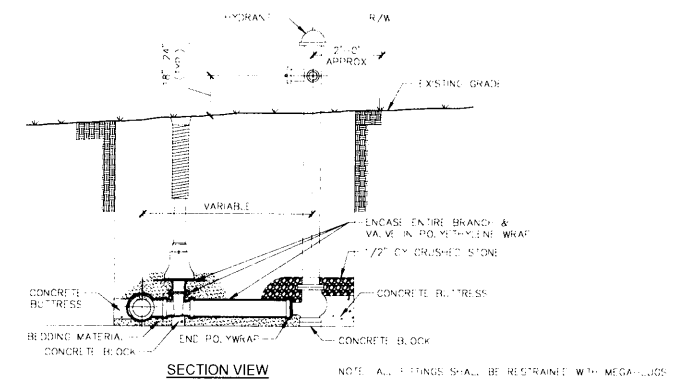
00 STANDARD CATCH BASIN
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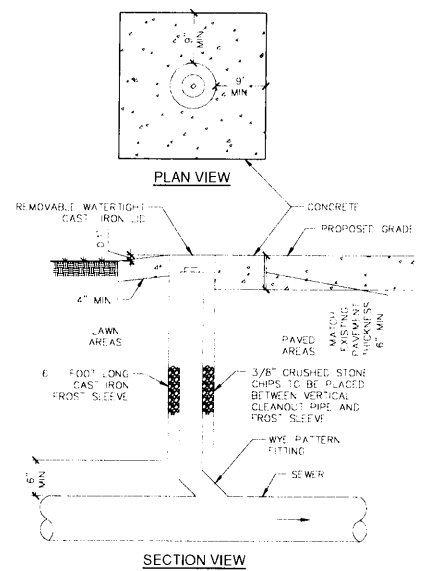
00 NEW CONNECTION TO EXISTING MANHOLE
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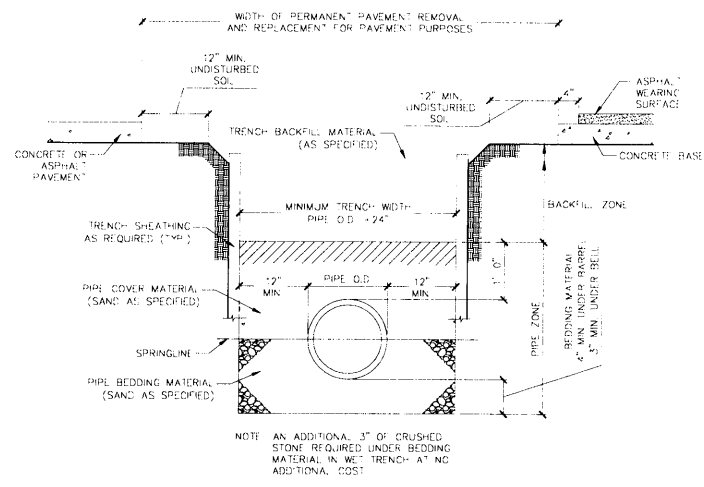
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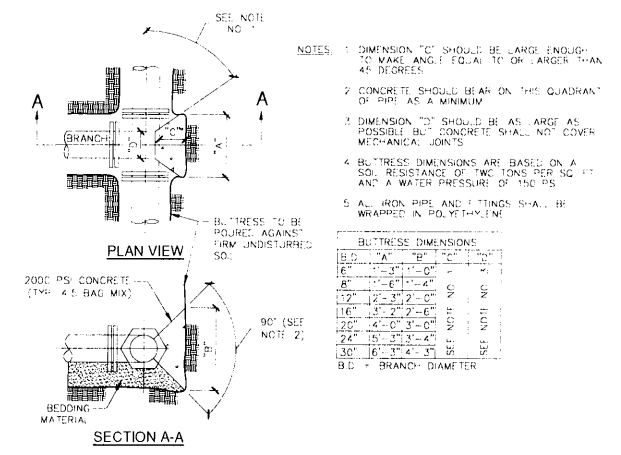
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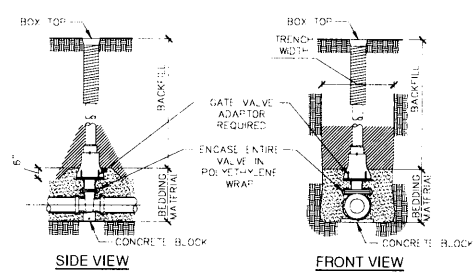
00 CLEANOUT DETAIL
 SCALE N.T.S.



00 WATER MAIN TRENCH DETAIL
 SCALE N.T.S.



00 CONCRETE BUTTRESS FOR TEES
 SCALE N.T.S.



00 STANDARD GATE VALVE BOX SETTING DETAIL
 SCALE N.T.S.

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PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER	
ADS SALES REP	
PROJECT NO.	



ADVANCED DRAINAGE SYSTEMS, INC.

TRUE COMMONS NORTH

CALEDONIA, WI

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by StormTech
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MC-3500 STORMTECH CHAMBER SPECIFICATIONS

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

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

- STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONESHOOTER LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
- INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
- STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

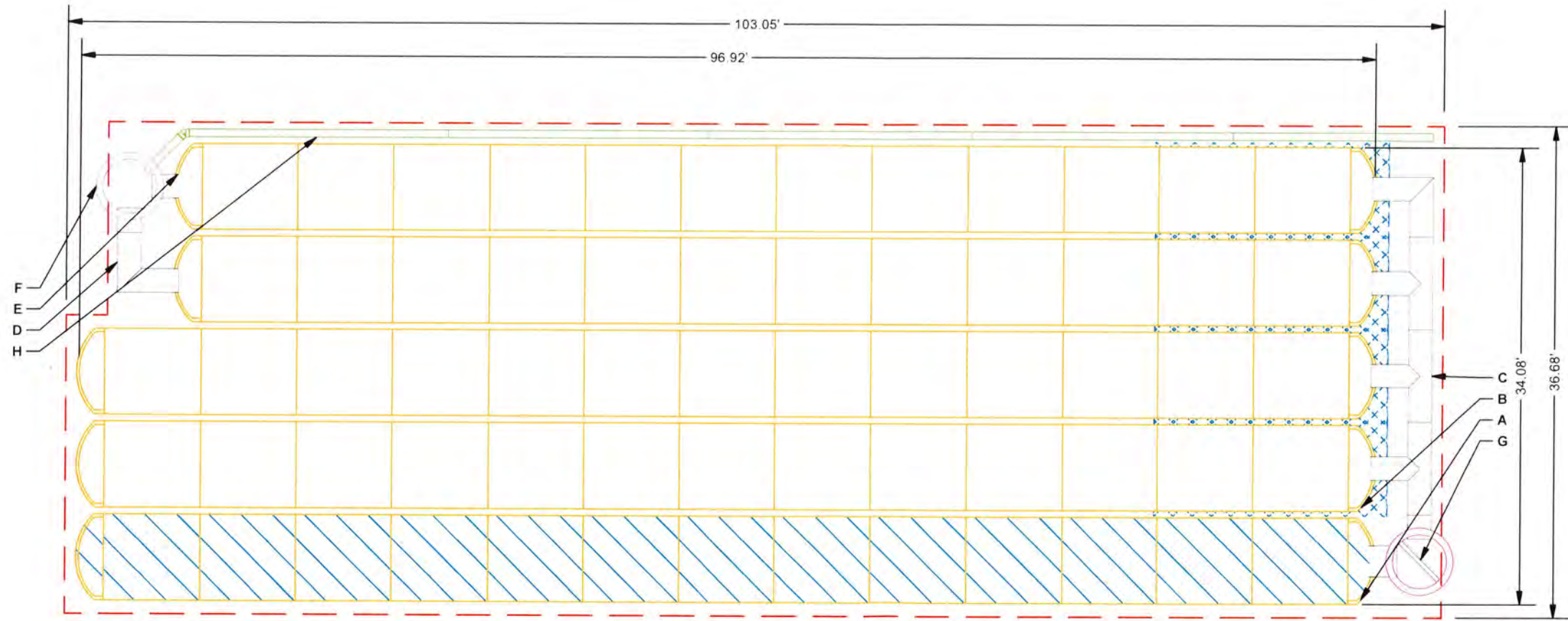
NOTES FOR CONSTRUCTION EQUIPMENT

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

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

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

PROPOSED LAYOUT		PROPOSED ELEVATIONS		PART TYPE			ITEM ON LAYOUT		DESCRIPTION		*INVERT ABOVE BASE OF CHAMBER	
										INVERT*	MAX FLOW	
63	STORMTECH MC-3500 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	642.25	PREFABRICATED END CAP	A	24" BOTTOM CORED END CAP/TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR ROWS				2.06"		
10	STORMTECH MC-3500 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	636.75	PREFABRICATED END CAP	B	18" BOTTOM CORED END CAP/TYP OF ALL 18" BOTTOM CONNECTIONS				1.78"		
12	STONE ABOVE (in)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	635.75	PREFABRICATED END CAP	C	18" x 18" BOTTOM MANIFOLD, ADS N-12				1.77"		
9	STONE BELOW (in)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	635.75	MANIFOLD	D	18" x 18" BOTTOM MANIFOLD, ADS N-12				1.77"		
40	STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	635.25	PIPE CONNECTION	E	18" BOTTOM CONNECTION				1.77"		
	INSTALLED SYSTEM VOLUME (CF)	TOP OF STONE:	634.25	CONCRETE STRUCTURE	F	OCS (DESIGN BY ENGINEER / PROVIDED BY OTHERS)					8.0 CFS OUT	
12466	(PERIMETER STONE INCLUDED)	TOP OF MC-3500 CHAMBER:	630.67	CONCRETE STRUCTURE	G	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)					20.8 CFS IN	
	(COVER STONE INCLUDED)	24" ISOLATOR ROW INVERT:	630.65	UNDERDRAIN	H	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN						
	(BASE STONE INCLUDED)	18" x 18" BOTTOM MANIFOLD INVERT:	630.50									
3736	SYSTEM AREA (SF)	18" x 18" BOTTOM MANIFOLD INVERT:	630.50									
279.5	SYSTEM PERIMETER (ft)	18" BOTTOM CONNECTION INVERT:	629.75									
		BOTTOM OF MC-3500 CHAMBER:	629.75									
		UNDERDRAIN INVERT:	629.75									
		BOTTOM OF STONE:	629.75									



- ISOLATOR ROW (SEE DETAIL)
- PLACE MINIMUM 17.50' OF ADS GEOSYNTHETICS 315WTM WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS
- BED LIMITS

- NOTES**
- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
 - DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
 - THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
 - THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
 - **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

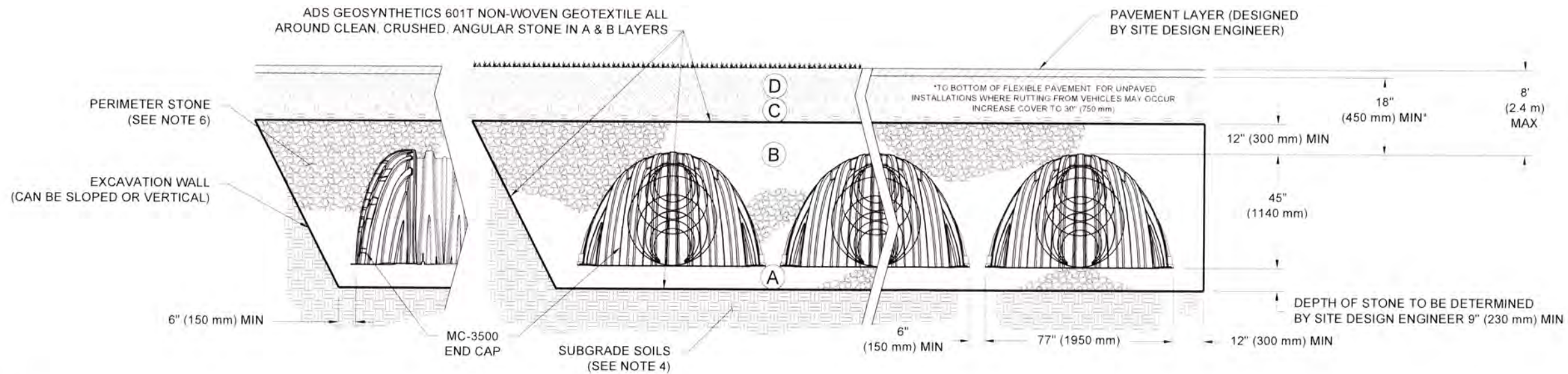
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DESCRIPTION	REV	DRW	CHK
520 CROWNELL AVENUE ROCKY HILL, CT 06867 860-528-6188 856-892-5684	StormTech <small>Generation - Retention - Water Quality</small>		
4640 TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473	ADS <small>ADVANCED DRAINAGE SYSTEMS, INC.</small>		
SHEET 2 OF 5	<small>THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.</small>		

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

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

PLEASE NOTE:

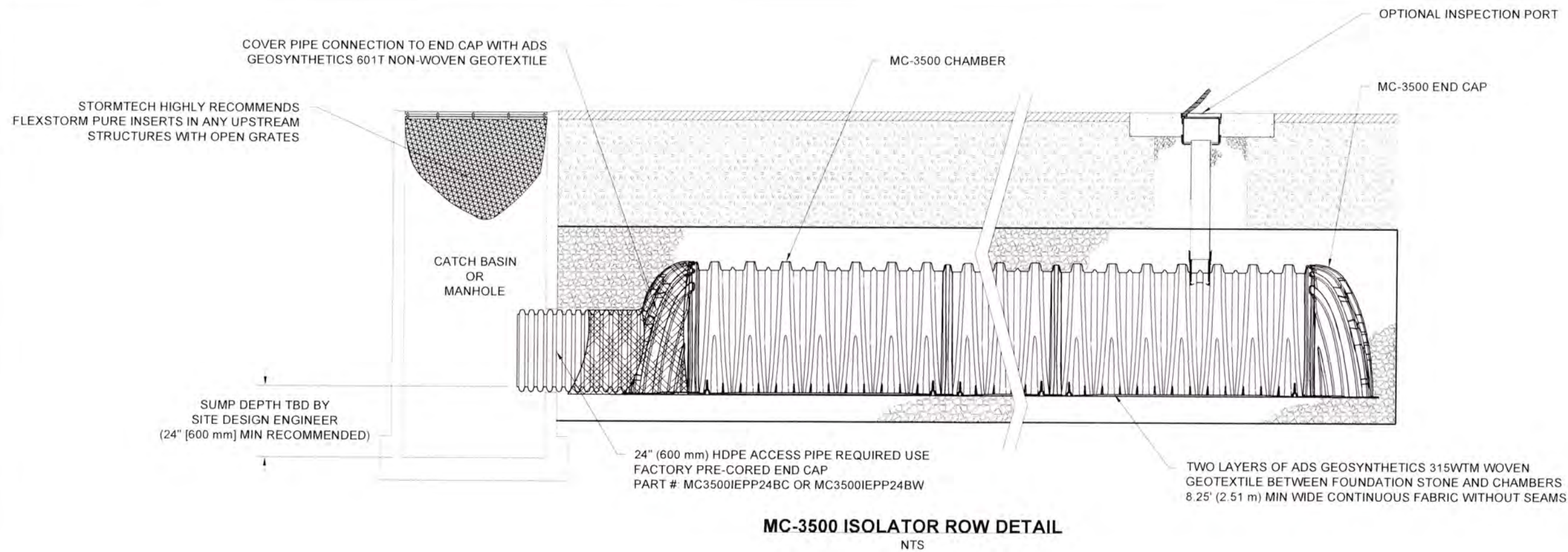
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE"
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND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



NOTES:

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

TRUE COMMONS NORTH	CALEDONIA, WI	DRAWN: JH	CHECKED: N/A
DESCRIPTION		DATE:	PROJECT #:
REV	DRW	CHK	
<p style="font-size: small; margin: 0;">520 CROMWELL AVENUE ROCKY HILL, CT 06867 860-576-8188 888-892-3634 WWW.STORMTECH.COM</p>			
<p style="font-size: small; margin: 0;">4640 TRUENMAN BLVD HILLIARD, OH 43026 1-800-733-7473</p>			
THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.			
SHEET			
3 OF 5			





MC-3500 ISOLATOR ROW DETAIL
NTS

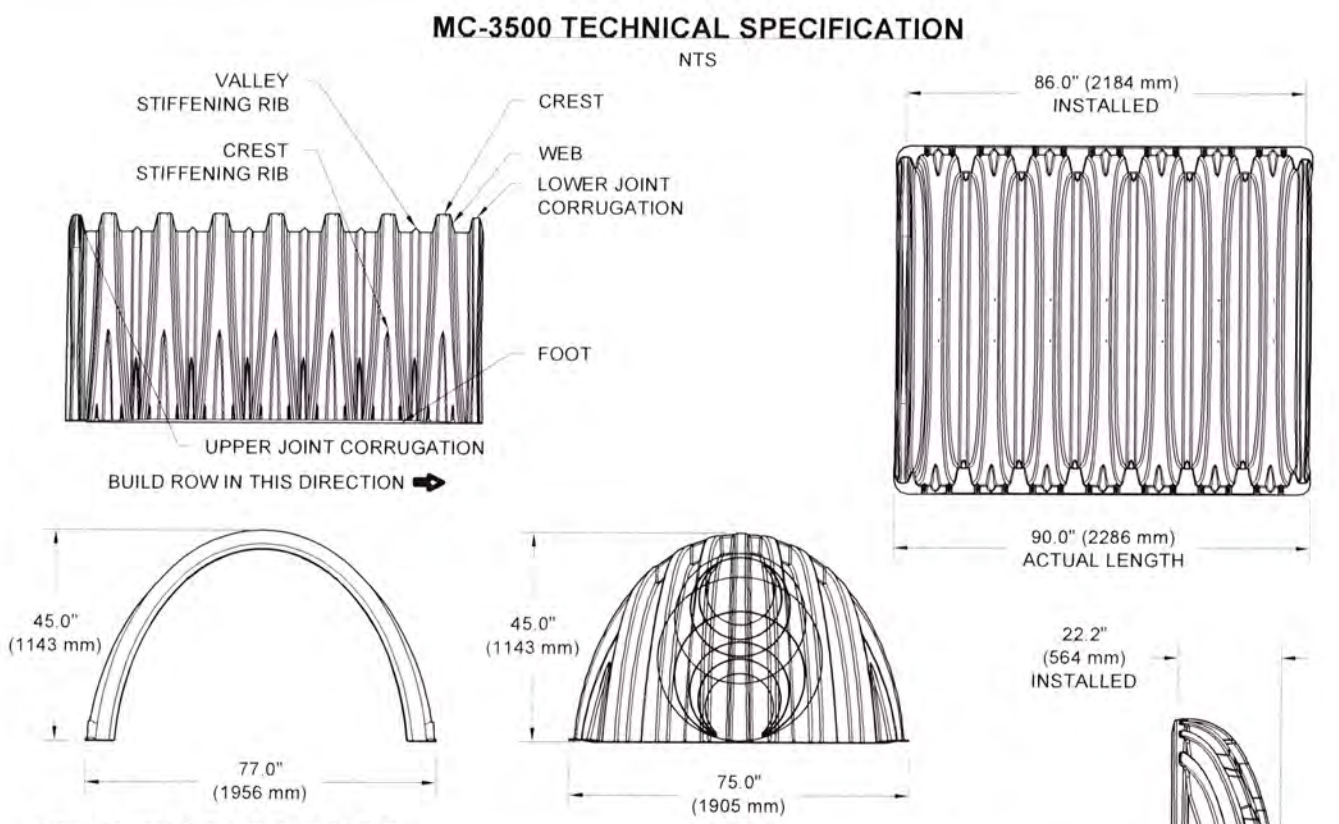
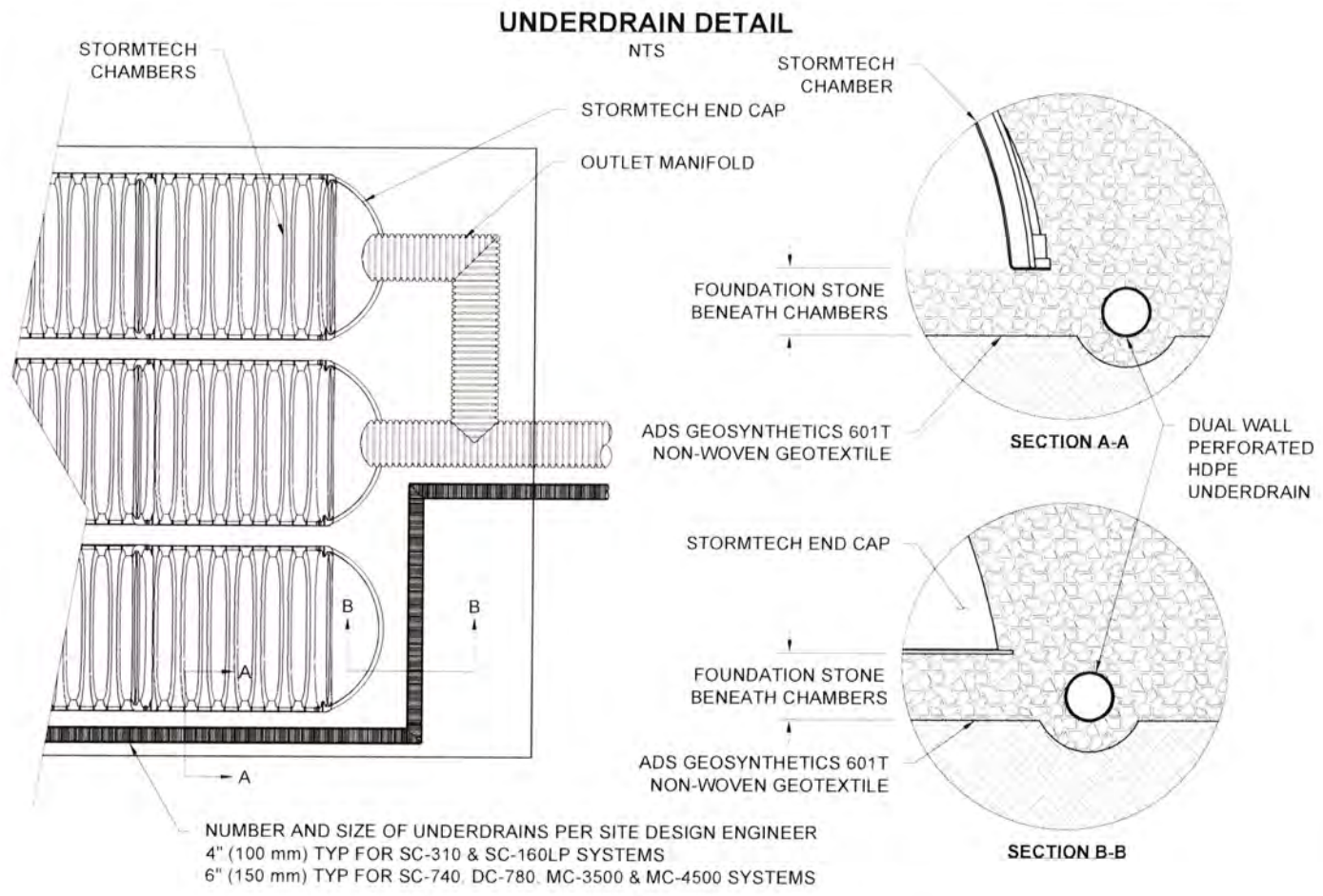
INSPECTION & MAINTENANCE

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

NOTES

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

REV	DRW	CHK	DESCRIPTION	TRUE COMMONS NORTH
				CALEDONIA, WI
				DATE:
				PROJECT #:
				DRAWN: JH
				CHECKED: N/A
 <p>StormTech 520 CROMWELL AVENUE ROCKY HILL, CT 06067 860.520.8100 888.892.2694 WWW.STORMTECH.COM</p>				
 <p>ADS ADVANCED DRAINAGE SYSTEMS, INC. 4640 TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473</p>				
<p>THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.</p>				
<p align="center">SHEET 4 OF 5</p>				



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 86.0"	(1956 mm X 1143 mm X 2184 mm)
CHAMBER STORAGE	109.9 CUBIC FEET	(3.11 m ³)
MINIMUM INSTALLED STORAGE*	175.0 CUBIC FEET	(4.96 m ³)
WEIGHT	134 lbs.	(60.8 kg)

NOMINAL END CAP SPECIFICATIONS

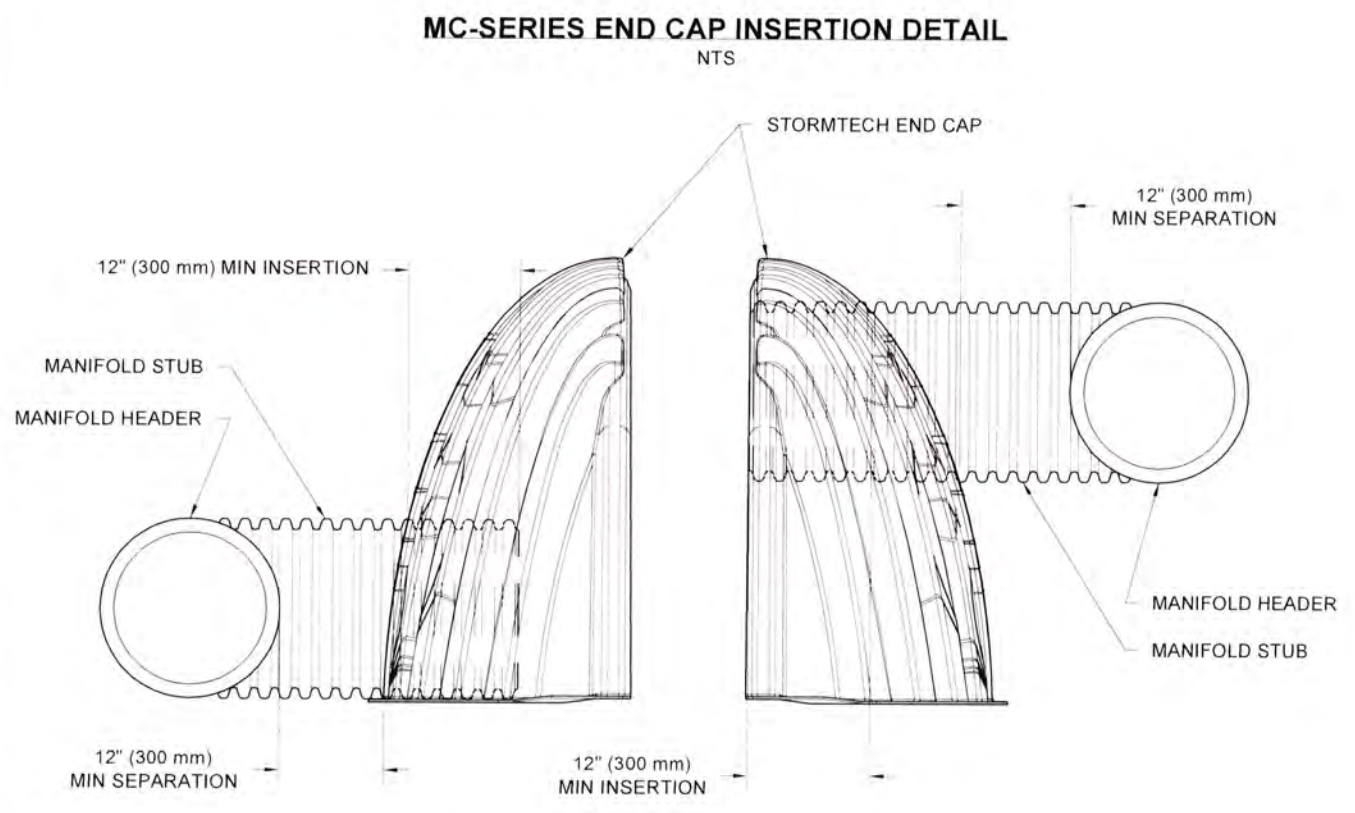
SIZE (W X H X INSTALLED LENGTH)	75.0" X 45.0" X 22.2"	(1905 mm X 1143 mm X 564 mm)
END CAP STORAGE	14.9 CUBIC FEET	(0.42 m ³)
MINIMUM INSTALLED STORAGE*	45.1 CUBIC FEET	(1.28 m ³)
WEIGHT	49 lbs.	(22.2 kg)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION, 6" SPACING BETWEEN CHAMBERS, 6" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY

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

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

NOTE: ALL DIMENSIONS ARE NOMINAL



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

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

TRUE COMMONS NORTH	DESCRIPTION	REV	DRW	CHK
CALEDONIA, WI				
DATE: DRAWN: JH				
PROJECT #: CHECKED: N/A				

StormTech
 520 CROWNELL AVENUE | ROCKY HILL | CT | 06067
 860-528-8188 | 888-892-2684

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

ADS
 ADVANCED DRAINAGE SYSTEMS, INC.


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SHEET
 5 OF 5

MEMORANDUM

DATE: Thursday, July 30, 2020

TO: Caledonia Utility District

FROM: Anthony A. Bunkelman P.E.
Utility Director 

RE: Sewer Rate Increase 4th Quarter 2020

BACKGROUND INFORMATION

The Caledonia Utility District - Sewer Utility currently has a 6-year Capital Improvement Plan (CIP) of approximately \$37.85 Million dollars (2020 – 2025). Of that total, the Sewer Utility has approximately \$3.56 Million dollars currently under contract which is anticipated to be paid out by the end of 2020. The Village's TID #5 has contributed \$9.1 Million dollars to the CIP in 2019, but due to the recent weather, the Utility will need to move these projects forward and provide for additional storage basins to hopefully avoid being placed on a Sewer Moratorium.

The Sewer Utility will need to Bond in 2021 to pay for the CIP projects scheduled for 2021. The Financial Plan put together by Dave Wagner of the Village has Sewer Utility borrowing every year for the next 3 years to finance the CIP projects. The Sewer Utility is projected to borrow approximately \$16.25 Million dollars in 2021, \$12.73 Million dollars in 2022, and \$3.8 Million dollars in 2023. So the District is aware, the Village has received preliminary numbers on the Mount Pleasant TID # 5 Wastewater Conveyance Cost Share. These numbers are not included in the borrowing at this time.

In order to complete the CIP and Bond for the projects, the Sewer Rates will need to increase. The 2019 Financial Plan projected an overall increase of the Sewer Rate from 2020 to 2026 at 17.1%. An updated Financial Plan has not yet been completed, but the increase recommended at this time is a minimum 10%. It is anticipated that significant increases in will be needed in the future as well.

To provide a better Bonding position for 2020, it has been suggested that the Sewer Rate Increase be approved prior to the Village Board approving the borrowing. It was also recommended to be put in effect for the 4th Quarter of 2020.

At this time, it is recommended that the Sewer Utility Rate be raised \$14.00, which is the equivalent of 11.1%. This will raise the Sewer Rate from \$126.00 to \$140.00.


RECOMMENDATION

Move to recommend that the Village Board adopt a Resolution to raise the Sewer Rate \$14.00 (11.1%) starting the 4th Quarter of 2020.

MEMORANDUM

DATE: Thursday, July 30, 2020

TO: Caledonia Utility District

FROM: Anthony A. Bunkelman P.E.
Utility Director 

RE: Racine Sewer Agreement – Sanitary Sewer Capacity

BACKGROUND INFORMATION

Currently the Village receives Sanitary Sewer Service from the Racine Wastewater Utility through an Intergovernmental Agreement (Racine Sewer Agreement). The Village of Caledonia is considered a Sewer Service Recipient (SSR) in the Racine Sewer Agreement. As part of the Agreement, Caledonia is allocated a certain amount of Sewer Capacity. Also, in the agreement, there are 3 triggers for utilizing Sewer Capacity, based on how much is utilized. The trigger information from the Sewer Agreement (part of Keith Haas' June 5th letter to Caledonia) is attached.

On May 17th of this year, the region experienced a high intensity rain event. The area received anywhere from 4" to 5" depending on location, in just a few hours. These high intensity rain events cause flooding problems with Storm Sewer and infiltration and inflow problems with Sanitary Sewer facilities. In this storm event, the Utility utilized all its assets and managed to get through the event. We had numerous high alarms, several plugged pumps that required immediate repair, and filled the attenuation basin in a few hours. Luckily, we had no reported basement backups. In most situations this is quite the feat. Unfortunately, just a few weeks later, we received the attached letter from Keith Haas of the Racine Wastewater Utility informing Caledonia that we had several exceedances. Caledonia had Peak Day, Peak Hour and Point of Entry Exceedances. Per the attached information from Mike Gitter from Racine Wastewater, Caledonia had 124.5% exceedance on Peak Day, 101.7% exceedance on Peak Hour and 104.9%(Central) & 109.2%(Riverbend) exceedances for Point of Entry.

According to the Racine Sewer Agreement, an exceedance of this magnitude (exceeding 95% and 100%) would constitute a sewer moratorium. Based on the exceedances at the connection points we would have a full Village Sewer Moratorium (We might be able to argue about the Highway V & K connection point). When this letter was received, we immediately contacted Keith Haas to find out if the Village was indeed under a sewer moratorium. He discussed with us that it is a self-imposed moratorium and that we should prepare a response to the Racine Wastewater Commission on what we are going to do moving forward to mitigate flows. Some ideas that were discussed were safety sites at Riverbend and Central and bypass pumping to stay within the contract limits. Since that meeting, we have been evaluating our lift stations, the contract limits and operations of the various pumps to see if this is something that we can physically perform.

As requested by Keith and ultimately by the Sewer Agreement, we prepared a response letter which explained what Caledonia was going to do to mitigate flows. That response letter, which is dated July 9th is attached. The very same day the response letter was forwarded to Keith Haas, a second-high intensity rain event occurred. This event was a little less intensive than the May event, but still

dropped anywhere from 3” to 4” of rain over the region. Unfortunately within a few days, we were informed (via email) that Caledonia again had exceedances. An 80.1% on Peak Day, 101.3% and 105% on Peak Hour and 113.2% (Central) & 105.9% (Riverbend) exceedances for Point of Entry. A formal letter will be provided soon.

When this second event occurred and the exceedance information was given, knowing that several of the improvements needed to mitigate the flows (2 Additional Cells (3 MGD) at the Hoods Creek Attenuation Basin and the construction of the Central Attenuation Basin (2.5 MGD)) cannot be constructed for 1 to 2 years, we began to focus on what we can do in the interim to stay out of a Sewer Moratorium and not halt development.

First, we had to find out if the Racine Wastewater Commission was going to enforce the Sewer Moratorium. Our response letter was placed on the July 21st agenda for the Racine Wastewater Utility Meeting, then deferred to a special July 28th Racine Wastewater Utility Meeting. At the July 28th meeting, the Racine Wastewater Utility discussed the rain event that the entire region experienced, discussing that Caledonia, Mount Pleasant and Racine all had exceedances that would constitute Sewer Moratoriums. They also discussed that Caledonia’s response letter had a defined plan on what Caledonia was proposing to do to mitigate flows. Ultimately on a split vote, the Racine Wastewater Utility approved Caledonia’s response letter as an acceptable plan to mitigate flows. Our interpretation of this approval by the Racine Wastewater Utility is that Caledonia is not under a Sewer Moratorium. Although, I do not think that Caledonia will be able to obtain this approval again, especially if there is another exceedance in the future and prior to the major improvements listed above.

In addition, we began reviewing the pumps in the stations, seeing what they can pump versus the various capacity triggers. Based on the limited testing we performed, it appears that the pumps at Central can far exceed the capacity limits. We will be performing similar tests at Riverbend, but it is anticipated that the same situation will be there as well. Spreadsheets were created (attached) that identified the various flows that would create an exceedance. Spreadsheets were also created (attached) that provide maximum pumping flows based on multiple combinations of Peak Hour Flow and Peak Day Flow to prevent an exceedance from occurring. Since those were created, we have been discussing ideas and formulating a strategy of what can be done. We are aware at this time, that due to the pump starter at Central, any changes in the number of pumps running will need to be done manually. We are exploring the costs for control panel changes to have the 3 large pumps have individual starters instead of 1 starter. We also are anticipating that we will need to have personnel onsite during an event to monitor the levels in the wet wells so that we do not back up into any basements. While we are taking these steps to prevent an exceedance, we will do everything in our power, utilizing all our assets to prevent an exceedance and protect the residents from basement backups. If it comes down to protecting basements or having an exceedance, we will protect the basements. In the interim, we cannot guarantee that Caledonia will not have an exceedance or a Sewer Moratorium prior to major infrastructure improvements being in place.

**Racine Water and
Wastewater Utilities**

Keith E. Haas, P.E.
General Manager



Michael L. Gitter, P.E.
Chief of Operations
Kenneth M. Scolaro, C.P.A.
Administrative Manager
Chad W. Regalia, P.E.
Chief Engineer

June 5, 2020

Mr. Tom Christensen
Village Administrator
Village of Caledonia
5043 Chester Lane
Racine, WI 53402

Dear Mr. Christensen:

This letter is being sent to you in accordance with the Racine Area Intergovernmental Sanitary Sewer Service, Revenue-Sharing, Cooperation and Settlement Agreement (Agreement) dated April 25, 2002. Section 5.5 of the Agreement covers thresholds of allocated capacity and what they may mean to your community. This section requires that the Wastewater Commission notify Parties when they exceed 80%, 90% and 95% of its allocated and purchased capacity. Community capacity is that as established in the July 31, 2018 revision to the Agreement Exhibit F1(a). Please consider this letter as having the purpose to notify you of having reached a critical threshold of the Agreement.

The Wastewater Utility recorded significant rainfall on April 29th (1.33"), April 30th (1.51"), May 17th (1.18"), and May 18th (2.69").

- Caledonia peak day flow exceedances were recorded as follows:

Peak Day	Capacity Allocation MGD	4/30/2020 Flow MGD	5/1/2020 Flow MGD	5/17/2020 Flow MGD	5/18/2020 Flow MGD	5/19/2020 Flow MGD	5/20/2020 Flow MGD
Cal Total	18.324	> 95%	> 95%	> 90%	> 95%	> 95%	> 95%

- Caledonia peak hour flow exceedances were recorded as follows:

Peak Hour	Capacity Allocation MGD	4/30/2020 Flow MGD	5/17/2020 Flow MGD	5/18/2020 Flow MGD
Cal Total	24.716	> 80%	> 95%	> 95%

- Caledonia point-of-entry peak hour flow exceedances were recorded as follows:

Meter Point-of-Entry	Capacity Allocation MGD	4/29/2020 Flow MGD	4/30/2020 Flow MGD	5/17/2020 Flow MGD	5/18/2020 Flow MGD	5/19/2020 Flow MGD
Cal West	10.542	> 80%	> 95%	> 95%	> 95%	> 80%
Cal East	13.074			> 95%	> 95%	

The Agreement has provisions whereby:

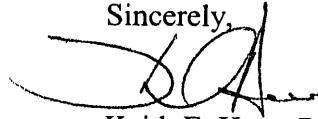
- No new customer connections are permitted at the 95% exceedance level.
- No sewer extensions are permitted at the 90% exceedance level.

Such moratoriums continue until the Party can demonstrate to the Commission that modifications have been made or sufficient allocated conveyance capacity is procured to accomplish the same result so full use of the extension will not result in capacity exceedance.

Attached with this letter is Section 5.5 of the sewer agreement for your information as you review the exceedances above.

At this time, as a minimum, you need to provide a written response to the Commission indicating that you acknowledge receipt of this information. Let me know if there are questions.

Sincerely,



Keith E. Haas, P.E.
General Manager

c: T. Ludwig (Foth)
B. Lui
~~T. Dunkelmann~~
M. Gitter

upon jointly submitted information, the Wastewater Commission shall be free to rely upon the Metered Wastewater flow data and sampling data.

5.4 Utilization of Allocated Capacity/Limitations.

Subject to all applicable provisions of this Agreement, each Party possessing allocated capacity shall have the right to use such capacity in accordance with this Agreement. Without limitation, however, the exercise of such right shall be conditioned on the fact that such Party does not have an uncured default under Section 12.16 of this Agreement or is otherwise conforming with All Applicable Laws. Racine, the Racine Utility and the Wastewater Commission shall have no responsibility for arrangements necessary for the conveyance of any Party's Wastewater to the Sewer Service Facilities.

5.5 Limitations on Capacity Allocation Utilization Above Certain Thresholds.

a. 80% of Allocated Capacity. Whenever any Party has actually utilized 80% or more of any class of capacity allocation under this Agreement (or of any associated flow or loading limitation set out in Section 5.1 of this Agreement or in any associated exhibit), the Wastewater Commission shall promptly notify such Party in writing. At such time, the discharging Party shall have the option of engaging with the Wastewater Commission in a joint planning project, at the cost of the discharging Party, to determine whether and under what circumstances there is any reasonable possibility that the Wastewater discharged by such Party will exceed such Party's capacity allocation, and if so what actions can reasonably be taken by such Party to eliminate any such reasonable possibility. The principal burden of formulating the plan shall be on the discharging Party, but the Wastewater Commission shall fully cooperate with and assist such Party. In the event that the discharging Party and Wastewater Commission agree upon a plan which will eliminate any such reasonable possibility of exceeding the Party's allocated capacity (e.g. the elimination of excess Infiltration and Inflow, or the construction of an appropriately-sized equalization basin, or the purchase of additional allocated capacity), and the discharging Party satisfactorily implements such plan, the Wastewater Commission shall waive any restrictions imposed under the following subsections unless and until the metered discharge data subsequently demonstrates that the plan is not working as anticipated or that there are unanticipated problems.

b. 90% of Allocated Capacity. Whenever a Party has actually utilized 90% or more of any class of capacity allocation under this Agreement (or of any associated flow or loading limitation set out in Section 5.1 of this Agreement or in any associated exhibit), the Wastewater Commission shall promptly notify the discharging Party in writing. From and after that time, additional Sewer Extensions tributary to the particular facility in which the discharging Party has the capacity allocation in question shall not be permitted until such time as the discharging Party has satisfactorily demonstrated to the Wastewater Commission that full use of any proposed Sewer Extension will not exceed the Party's allocated capacity (or any associated flow or loadings limitation set out in Section 5.1 of this Agreement or in any associated exhibit) using the methodology set out in Subsection 5.3b of this Agreement. Upon reasonable written notice, at any time after a SSR Party has discharged Wastewater to the Sewer Service Facilities at a level at or above 90% of such Party's allocated capacity (or of any associated loading or

flow limit), the Wastewater Commission may survey or test the Collection Facilities of such Party for excess Infiltration and Inflow, and such Party shall grant to the Racine Utility access to all locations in such Party's collection system deemed appropriate by the Racine Utility for such purpose. ~~Such Party shall pay the Wastewater Commission the cost of any such survey or testing within 60 days of written notice of such cost.~~

c. 95% of Allocated Capacity Whenever a Party has actually utilized 95% or more of any class of capacity allocation under this Agreement (or of any associated flow or loading limitation set out in Section 5.1 of this Agreement or in any associated exhibit), the Wastewater Commission shall promptly notify the discharging Party in writing. From and after that time, no additional Sewer Extensions tributary to the facility in which the discharging Party has the capacity allocation in question shall be permitted by the Wastewater Commission, and no additional customer connections tributary to the particular facility in which the discharging Party has the capacity allocation in question shall be permitted by the discharging Party, until such time as the discharging Party has satisfactorily demonstrated to the Wastewater Commission that full use of any proposed customer connection or Sewer Extension will not exceed the Party's allocated capacity (or any associated flow or loadings limitation set out in Section 5.1 of this Agreement or in any associated exhibit) using the methodology set out in Subsection 5.3b of this Agreement, including without limitation consideration of future connections of sewered properties that are currently vacant or underutilized. The Wastewater Commission shall expeditiously consider any proposed demonstration by a Party that additional customer connections will not exceed the Party's allocated capacity or any associated flow or loadings limitation.

d. Exceeding Allocated Capacity Whenever a Party has actually exceeded any capacity allocation under this Agreement (or any associated flow or loadings limitation set out in Section 5.1 of this Agreement or in any associated exhibit), the Racine Utility shall notify the Party in writing. From and after that time, no additional Sewer Extensions or customer connections tributary to the particular facility in which the discharging Party has the capacity allocation in question shall be allowed under any circumstances until such time as (1) modifications have been made to such Party's sewerage system and/or operations, and the results of such modifications have been in effect for a sufficient period of time to demonstrate satisfactorily that any reasonable possibility of exceeding the Party's capacity allocation in the future has been eliminated, using the methodology set out in Subsection 5.3b of this Agreement, or (2) until such time as the Party has acquired sufficient additional allocated capacity to accomplish the same result.

e. Wastewater Commission May Formulate and Require Implementation of Its Own Plan. If the discharging Party has not, within 90 days after notice that it has exceeded its capacity allocation, formulated and made substantial progress toward the implementation of a plan, which is satisfactory to the Wastewater Commission, to eliminate any reasonable possibility of further exceeding such Party's capacity allocation, the Wastewater Commission may, in addition to any other remedy, formulate its own plan to achieve such goal and require the Party to implement such plan.

f. Costs Incurred Under This Section 5.5. The Wastewater Commission shall charge all costs incurred by it or the Racine Utility in connection with the performance of its duties pursuant to Subsections 5.5b-e, above, including without limitation actual reasonable and ~~itemized engineering and attorneys' fees against the SSR Party or Parties causing it to incur such~~ costs. Such Party or Parties shall pay such costs within 60 days of receiving an invoice.

g. Annual Notice of Allocated Capacity Usage. Annually, at a convenient time reasonably promptly after January 1 of each year, the Wastewater Commission shall cause the Racine Utility to notify each SSR Party in writing of how much of such Party's allocated capacity (of each class of such capacity), and how much of each associated flow or loadings limitation, it is actually using, based on the maximum historical recorded data, or any adjustment of that data that the Wastewater Commission has approved.

5.6 Prohibitions/Metering Bypasses.

Except as otherwise provided in Section 5.7 of this Agreement, and except in the case of an Upset, no Party may discharge to the Sewer Service Facilities or to sewerage facilities that are tributary to the Wastewater Treatment Facility: (1) any Net Discharge of Wastewater flows or loadings in excess of the treatment capacity allocated to such Party in Section 5.1 of this Agreement (or in excess of any associated flow or loadings limitations set out in Section 5.1 of this Agreement); or (2) in excess of any conveyance capacity allocated to such Party in Section 5.2 of this Agreement; or (3) in excess of the unused available capacity of any conveyance facility of the Sewer Service Facilities where capacity is not allocated by this Agreement. No Party shall avoid discharging Wastewater to the Sewer Service Facilities by Bypassing Wastewater except under circumstances and to the extent permitted by applicable DNR and/or EPA regulations and/or an Upset. All Bypasses shall be metered by the SSR Party, and any SSR Party that Bypasses Wastewater shall give written notice to the Wastewater Commission within 48 hours stating the date, duration and quantity of any Bypass and whether it was authorized by applicable DNR and EPA regulations.

5.7 Racine Utility Authorization and Acceptance of Discharges in Excess of Capacity Allocation.

The Racine Utility may authorize and accept a specific discharge from a SSR Party in excess of such Party's allocated capacity under circumstances where the Racine Utility reasonably believes that no serious harm or adverse effects will result. Such authorization and acceptance shall be promptly reported to the Wastewater Commission in writing and shall not have the effect of waiving or avoiding a breach of this Agreement (other than possibly avoiding a breach because of unauthorized Bypassing), and shall not be a defense to any remedy available to the Wastewater Commission, or any aggrieved Party other than mitigation of damages. Any discharge in excess of a Party's allocated capacity must be authorized from the Racine Utility in advance of such discharge, but such authorization may be requested orally. Any such oral authorization shall promptly be confirmed in writing by the Racine Utility.

5.8 Costs of Exceeding Capacity Allocations.

Whenever a SSR Party discharges Wastewater to the Sewer Service Facilities in ~~excess of the capacity allocated to such Party, the Wastewater Commission shall charge such~~ Party for any fine, penalty or forfeiture incurred by Racine, the Racine Utility or the Wastewater Commission and may assess any costs incurred by any of them (including without limitation, for employees, equipment and materials) as a result of such discharge. The discharging Party shall pay any such charges within 60 days of receipt of a fully itemized invoice.

5.9 Enforcement by the Wastewater Commission.

The Wastewater Commission shall enforce the provisions of Article V of this Agreement fairly and equitably for the mutual benefit of all of the Parties.

5.10 Flow Measurement And Sampling.

a. Metering Flows/Related Equipment. The actual flow of Wastewater from each SSR Party shall be measured at metering stations which shall be installed to measure accurately the total volume and peak flows of Wastewater discharged to the Sewer Service Facilities of the Racine Utility by such SSR Party and to transmit the flow information to the Racine Utility; provided, however, that appropriate correction shall be made for remote flow equalization pre- and post-equalization. Each SSR Party shall furnish, install, and maintain appropriate flowmeter equipment, at appropriate locations and at its cost, after written approval by the Racine Utility of the proposed equipment and the location and manner of its installation, which approval shall not be unreasonably withheld. The Racine Utility shall furnish, install and maintain a SCADA system and related telemetry equipment to communicate with the Wastewater Treatment Facility control center. The cost of such SCADA and telemetry equipment shall be treated as an OMR expense. Additionally, each SSR Party shall furnish, install and maintain appropriate flowmeter equipment to measure accurately the volume of Wastewater Bypassed by such Party, after review and approval in writing by the Racine Utility of the proposed equipment and the location and manner of its installation. Such approval shall not be unreasonably withheld. Thereafter, such Party may Bypass wastewater only at such metered location(s).

b. Grab Samples and Monitoring. Upon reasonable oral notice to any SSR Party, the Racine Utility may from time to time take such grab samples of Wastewater and conduct such monitoring at any of the metering stations as it deems appropriate, in its reasonable discretion, to determine the waste loadings or waste characteristics of such Party's Wastewater or to verify the flow rate of such Wastewater. Upon reasonable oral notice to any SSR Party, the Racine Utility may take such samples or conduct such monitoring as it deems appropriate, in its reasonable discretion, at any locations in such Party's Collection Facilities deemed appropriate by the Racine Utility, to identify sources of potentially toxic or hazardous Wastewater discharges or other discharges not in compliance with federal, state or local pretreatment requirements, or not in compliance with applicable permits or agreements, or Wastewater discharges that are otherwise not compatible with the Sewer Service Facilities.

	Riverbend	4 1/2 Mile	Total
	Peak Day	Peak Day	
	Flow (gal)	Flow (gal)	Flow (gal)
29-Apr-20	7,151,037	7,281,043	14,432,080
30-Apr-20	8,907,564	9,025,009	17,932,573
1-May-20	8,907,564	9,025,009	17,932,573
17-May-20	7,628,332	8,906,161	16,534,493
18-May-20	10,831,100	11,979,765	22,810,865
19-May-20	10,831,100	11,979,765	22,810,865
20-May-20	9,289,156	9,088,951	18,378,107
10-Jul-20	6,175,107	8,500,423	14,675,530

Peak Day														
Allocated	29-Apr	Utilized	30-Apr	Utilized	1-May	Utilized	17-May	Utilized	18-May	Utilized	19-May	Utilized	20-May	Utilized
mgd	mgd	%	mgd	%	mgd	%	mgd	%	mgd	%	mgd	%	mgd	%
18.324	14.478	79.0	17.978	98.1	17.933	97.9	16.534	90.2	22.811	124.5	22.811	124.5	18.378	100.3

Allocated	10-Jul	Utilized
mgd	mgd	%
18.324	14.676	80.1

Peak Hour														
Allocated	29-Apr	Utilized	30-Apr	Utilized	1-May	Utilized	17-May	Utilized	18-May	Utilized	19-May	Utilized	20-May	Utilized
mgd	mgd	%	mgd	%	mgd	%	mgd	%	mgd	%	mgd	%	mgd	%
24.716	18.335	74.2	20.320	82.2	13.169	53.3	25.131	101.7	25.146	101.7	16.801	68.0	13.106	53.0

Allocated	9-Jul	Utilized	10-Jul	Utilized
mgd	mgd	%	mgd	%
24.716	25.030	101.3	25.958	105.0

Point-of-Entry	Allocated	4/29/2020		4/30/2020		5/17/2020		5/18/2020		5/19/2020		7/9/2020		7/10/2020	
		Point of Entry Flows MGD	Point of Entry Flows %	Point of Entry Flows MGD	Point of Entry Flows %	Point of Entry Flows MGD	Point of Entry Flows %	Point of Entry Flows MGD	Point of Entry Flows %	Point of Entry Flows MGD	Point of Entry Flows %	Point of Entry Flows MGD	Point of Entry Flows %	Point of Entry Flows MGD	Point of Entry Flows %
Riverbend	10.542	8.714	82.7%	10.170	96.5%	11.418	108.3%	11.511	109.2%	9.060	85.9%	11.159	105.9%	11.160	105.9%
4 1/2 Mile	13.074	9.575	73.2%	10.310	78.9%	13.713	104.9%	13.644	104.4%	7.780	59.5%	13.871	106.1%	14.798	113.2%



July 9, 2020

Mr. Keith Haas
General Manager
Racine Water & Wastewater Utilities
800 Center Street, Room 227
Racine, WI 53403

RE: Response to Notification of Exceedance of Allocated Wastewater Capacity for the Village of Caledonia

Dear Keith,

On behalf of the Village of Caledonia (Village), we are responding to your letter of June 5, 2020, which notified the Village that they have recently exceeded various thresholds for their wastewater capacity allocation to the Racine Wastewater Utility (Racine) pursuant to the Racine Area Intergovernmental Sanitary Sewer Service, Revenue-Sharing, Cooperation and Settlement Agreement (Agreement). These exceedances occurred during periods of high rainfall in late April and mid-May 2020. Peak hour allocations were exceeded at the 95% threshold for both Cal East and Cal West. Both peak day and peak hour allocations were exceeded at the 95% threshold with regard to total flow from the Village. This letter serves to acknowledge that the Village is in receipt of this information, as requested by your June 5 letter, and to outline the steps the Village intends to take, both short-term and long-term, to prevent further exceedances.

The two points-of-entry from the Village to Racine are Cal West (Riverbend Lift Station) and Cal East (Central Lift Station). The current peak hour flow allocation for Cal West is 10.5 MGD and the current peak hour flow allocation for Cal East is 13.7 MGD. An attenuation basin was constructed in the Cal West Basin (Hoods Creek Attenuation Basin) and is capable of 1.5 MG of storage, expandable to 4.5 MG of storage. In the Cal East Basin, a facilities plan is currently being prepared for an attenuation basin at the Central Lift Station site capable of a build-out capacity of 6.0 MG.

Data from the exceedance events shows that on May 17 and 18, 2020, the peak hour total flow to Racine reached approximately 25.1 MGD. This exceeds the allocated peak hour flow of 24.7 MGD and the 90% allocation threshold of 22.2 MGD. On April 30 and May 1, 2020 the peak day total flow to Racine reached approximately 18.0 MGD, and on May 18, 19, and 20, 2020 the peak day total flow to Racine ranged from 18.4 – 22.8 MGD. This exceeds the 90% allocation threshold of 16.5 MGD and at times the allocated peak day flow of 18.3 MGD. The peak hour events did not greatly exceed the allocation, nor did they likely amount to a large volume of wastewater. The peak day events exceeded the 90% allocation by as much as 34.5% and account for a larger volume of wastewater.

To prevent future exceedance events, the Village proposes the following short-term actions:

- ◆ Village staff will monitor wastewater flows at the Riverbend Lift Station and manually bypass flows to the Root River via existing safety site infrastructure.
- ◆ Village staff will monitor wastewater flows at the Central Lift Station and manually bypass flows to an existing storm sewer adjacent to the site.
- ◆ Foth and Village staff will work together to optimize the performance of the Hoods Creek Attenuation Basin in order to reduce flows at the Cal West point-of-entry.

X:\ML\IE\Client Data\Caledonia Village OPL-Haas Capacity Exceedance (June 2020).docx

Mr. Keith Haas
Racine Water & Wastewater Utilities
July 9, 2020
Page 2

- ◆ Foth will complete the Central Lift Station and Attenuation Basin Facilities Plan and submit to the WDNR for approval.

Additionally, the Village proposes the following long-term actions to prevent future exceedance events:

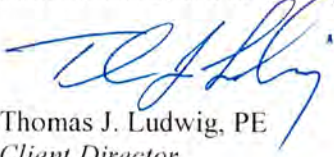
- ◆ The Village will install an attenuation basin at the Central Lift Station – Cal East point-of-entry. The preliminary attenuation capacity is 2.5 MG, expandable to 6.0 MG.
- ◆ Foth and Village staff will evaluate expanding the Hoods Creek Attenuation Basin from 1.5 MG of storage to 4.5 MG of storage. If this is expected to relieve capacity issues at the Cal West point-of-entry, the basin will be expanded.
- ◆ The Village will evaluate safety sites at both the Riverbend and Central Lift Station sites, and install if appropriate. These facilities will be used to protect customers from extreme storm events that exceed the attenuation basin design capacities.
- ◆ Foth and Village staff will evaluate the condition of the existing collection system and rehabilitate any infrastructure found to contribute significantly to I/I.
- ◆ The Village will continue to coordinate system improvements with Racine in accordance with the recommendations of the upcoming Racine Wastewater Treatment Plant Facilities Plan.

In order to proceed with the above-mentioned storage and safety site actions, we will need the level of protection determined by the Racine Wastewater Treatment Plant Facilities Plan and associated 2040 flow allocations at the Village's points-of-entry.

We trust that the above measures address your concerns regarding the Village's future management of their capacity allocations to Racine. We look forward to working with you to implement the above actions, and please call with any questions in the meantime.

Sincerely,

Foth Infrastructure & Environment, LLC



Thomas J. Ludwig, PE
Client Director

cc: Tom Christensen, Administrator, Village of Caledonia
Jim Dobbs, President, Village of Caledonia
Howard Stacey, President, Village of Caledonia Utility District
Tony Bunkelman, P.E., Village of Caledonia Utility District Director
Bob Lui, Manager, Village of Caledonia Utility District

CALEDONIA UTILITY DISTRICT SANITARY SEWER CAPACITIES

	Caledonia (Whole Village) Capacities		Riverbend Capacities		Central Capacities		I 94 Area Capacities		Totals	
	MGD		MGD		MGD		MGD		MGD	
Peak Hour	24.716		10.542	13.074	1.100	13.074	1.100	13.074	24.716	MGD
			7321	9079	764	9079	764	9079	17164	GPM
			36604	45396	3819	45396	3819	45396		5 Minutes
Peak Day	18.324		7.502	9.799	1.041	9.799	1.041	9.799	18.342	MGD
			312583	408292	43375	408292	43375	408292	764250	GPH
			5210	6805	723	6805	723	6805	12738	GPM
			26049	34024	3615	34024	3615	34024		5 Minutes
Peak Month	6.97		2.951	3.73	0.296	3.73	0.296	3.73	6.977	
Average Day	5.13		2.129	2.783	0.218	2.783	0.218	2.783	5.13	

	Caledonia (Whole Village) Capacities		Riverbend Capacities		Central Capacities		I 94 Area Capacities		Totals	
	MGD		MGD		MGD		MGD		MGD	
Peak Hour	23.4802		10.0149	12.4203	1.045	12.4203	1.045	12.4203	23.4802	MGD
			6955	8625	728	8625	728	8625	16306	GPM
			34774	43126	3628	43126	3628	43126		5 Minutes
Peak Day	17.4078		7.1269	9.30905	0.98895	9.30905	0.98895	9.30905	17.4249	MGD
			296954	387877	41205	387877	41205	387877	726038	GPH
			4949	6465	687	6465	687	6465	12101	GPM
			24746	32323	3434	32323	3434	32323		5 Minutes
Peak Month	6.6215		2.80345	3.5435	0.2812	3.5435	0.2812	3.5435	6.62815	
Average Day	4.8735		2.02255	2.64385	0.2071	2.64385	0.2071	2.64385	4.8735	

	Caledonia (Whole Village) Capacities		Riverbend Capacities		Central Capacities		I 94 Area Capacities		Totals	
	MGD		MGD		MGD		MGD		MGD	
Peak Hour	22.2444		9.4878	11.7666	0.990	11.7666	0.990	11.7666	22.2444	MGD
			6589	8171	688	8171	688	8171	15448	GPM
			32944	40856	3438	40856	3438	40856		5 Minutes
Peak Day	16.4916		6.7518	8.8191	0.9369	8.8191	0.9369	8.8191	16.5078	MGD
			281325	367463	39038	367463	39038	367463	687825	GPH
			4689	6124	651	6124	651	6124	11464	GPM
			23444	30622	3253	30622	3253	30622		5 Minutes
Peak Month	6.273		2.6559	3.357	0.2664	3.357	0.2664	3.357	6.2793	
Average Day	4.617		1.9161	2.5047	0.1962	2.5047	0.1962	2.5047	4.617	

	Caledonia (Whole Village) Capacities		Riverbend Capacities		Central Capacities		I 94 Area Capacities		Totals	
	MGD		MGD		MGD		MGD		MGD	
Peak Hour	19.7728		8.4336	10.4592	0.880	10.4592	0.880	10.4592	19.7728	MGD
			5857	7263	611	7263	611	7263	13731	GPM
			29283	36317	3056	36317	3056	36317		5 Minutes
Peak Day	14.6592		6.0016	7.8392	0.8328	7.8392	0.8328	7.8392	14.6736	MGD
			250067	326633	34700	326633	34700	326633	611400	GPH
			4168	5444	578	5444	578	5444	10190	GPM
			20839	27219	2892	27219	2892	27219		5 Minutes
Peak Month	5.576		2.3608	2.984	0.2368	2.984	0.2368	2.984	5.5816	
Average Day	4.104		1.7032	2.2264	0.1744	2.2264	0.1744	2.2264	4.104	

80% Trigger Notice in writing from Wastewater Commission. Acknowledgement of trigger and plan to eliminate any such reasonable possibility of exceeding the allocated capacity.

90% Trigger Notice in writing from Wastewater Commission. Acknowledgement of trigger and no sewer extension tributary to the particular facility unless it is demonstrated that full use of the sewer extension will not exceed the parties allocated capacity.

95% Trigger Notice in writing from Wastewater Commission. Acknowledgement of trigger. No additional sewer extensions tributary to the particular facility and No additional customer connections until it is demonstrated that full use of the sewer extension or customer connection will not exceed the parties allocated capacity.

100% Exceedence Notice in writing from Wastewater Commission. No sewer extensions or customer connections tributary to the particular facility until (1) modifications are made to the parties system or operations and results of the modifications have been in effect for a sufficient period of time to demonstrate that any reasonable possibility of exceeding the parties capacity allocation in the future has been eliminated.
 (2) until such time as the party has acquired sufficient additional capacity to accomplish the same result.

	2020	2021	2022	2023	2024	2025	Total
Collection System							
Hwy 32, 5-6 Mile Road Recon Project Sewer Relay (DOT)	\$ 200,000						\$ 200,000
Caddy Vista Improvements-West	\$ 1,000,000						\$ 1,000,000
System Wide Sewer Capacity Modeling & Annual Sewer Televising	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 600,000
South Lane Replacement	\$ 900,000						\$ 900,000
Hood's Creek Attenuation Basin Second & Third Cell		\$ 10,300,000					\$ 10,300,000
Central Lift Station Attenuation Basin			\$ 13,110,000				\$ 13,110,000
Caddy Vista Improvements-East				\$ 625,000			\$ 625,000
Annual Sewer Replacement Program	\$ 2,200,000	\$ 10,400,000	\$ 13,210,000	\$ 1,225,000	\$ 300,000	\$ 500,000	\$ 1,700,000
	\$ 2,200,000	\$ 10,400,000	\$ 13,210,000	\$ 1,225,000	\$ 300,000	\$ 600,000	\$ 28,435,000
Lift Station							
Lighthouse Drive Lift Station	\$ 600,000						\$ 600,000
Dominican Lift Station Replacement (TID #5) District Portion		\$ 634,500					\$ 634,500
Central Lift Station Safety Site		\$ 800,000					\$ 800,000
Riverbend Lift Station Safety Site		\$ 1,700,000					\$ 1,700,000
Annual Lift Station Improvements	\$ 600,000	\$ 3,134,500			\$ 250,000	\$ 250,000	\$ 500,000
	\$ 600,000	\$ 3,134,500		\$ -	\$ 250,000	\$ 250,000	\$ 4,234,500
I & I Improvements							
Wind Point Sewer Rehabilitation	\$ 195,000						\$ 195,000
Village Resurfacing Projects Utility Rehabilitations (Rio Vista Shorewood)	\$ 400,000						\$ 400,000
Village Resurfacing Projects Utility Rehabilitations (Wind Dale / Wind Point West)	\$ 150,000						\$ 150,000
4 1/2 Mile Road Sanitary Sewer Rehabilitation (TID #5)				\$ 201,100			\$ 201,100
Erie Street Sanitary Sewer Rehabilitation (TID #5)						\$ 313,600	\$ 313,600
Annual I & I Improvements	\$ 745,000			\$ 200,000	\$ 200,000	\$ 200,000	\$ 600,000
	\$ 745,000			\$ 401,100	\$ 200,000	\$ 513,600	\$ 1,859,700
Vehicles **							
Vehicle Replacement	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 120,000
	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 120,000
Force Mains							
Riverbend Forcemain	\$ 3,200,000						\$ 3,200,000
North Main Street Resurfacing Utility Rehabilitation							
	\$ -	\$ 3,200,000					\$ 3,200,000
	\$ 3,565,000	\$ 16,754,500	\$ 13,230,000	\$ 1,646,100	\$ 770,000	\$ 1,383,600	\$ 37,849,200
Total Cost							
Sources of Funding							
Utility Cash	\$ 5,888,863						\$ 5,888,863
Utility Net Revenue	\$ 500,000	\$ 500,000	\$ 500,000				\$ 1,500,000
Developer Contribution	\$ 258,500						\$ 258,500
Bonding							
	\$ 2,045,428	\$ 1,030,000	\$ 12,730,000		\$ 2023 W&S Bond	\$ 53,799,700.00	\$ 16,254,500
	\$ 7,934,291	\$ 1,823,500	\$ 12,730,000		\$ 2021 W&S Bond	\$ 16,254,500	\$ 20,737,791
					\$ 2022 W&S Bond	\$ 12,730,000	\$ 12,730,000
					\$ 2023 W&S Bond	\$ 53,799,700.00	\$ 53,799,700.00
Total	\$ 7,934,291	\$ 1,823,500	\$ 12,730,000		\$ 2021 W&S Bond	\$ 16,254,500	\$ 20,737,791
					\$ 2022 W&S Bond	\$ 12,730,000	\$ 12,730,000
					\$ 2023 W&S Bond	\$ 53,799,700.00	\$ 53,799,700.00