



## **VILLAGE OF CALEDONIA UTILITY DISTRICT MEETING AGENDA**

**Wednesday, January 12, 2022 at 6:00 p.m.  
Caledonia Utility District Office - 333 4 ½ Mile Road**

**THIS WILL BE AN IN-PERSON MEETING**

- 1. Meeting Called to Order**
- 2. Roll Call**
- 3. Approval of Minutes**
  - a. Utility District Regular Meeting – December 1, 2021
- 4. Citizen Comments**
- 5. Communications and Announcements**
  - a. Operator & Operator Apprentice Update
- 6. Approval of O&M Bills**
  - a. O&M Bills related to the Sewer Utility District
  - b. O&M Bills related to the Water Utility District
  - c. O&M Bills related to the Storm Water Utility District
- 7. Project Updates**
  - a. Construction Contract Status
  - b. Riverbend Drive Lift Station Safety Site
  - c. Riverbend Lift Station & Forcemain Upgrade
  - d. DeBack Industrial Park Phase 3 Improvements
  - e. Annual Televising Program – Sanitary Sewer
  - f. Water Impact Fee / Sewer Connection Fee Update
  - g. EPA Risk & Resilience Assessment and Emergency Response Plan
  - h. Hoods Creek Attenuation Basin Expansion
  - i. Central Lift Station Safety Site & Attenuation Basin
  - j. North Kremer Watermain Project
  - k. Dominican Lift Station Rehab Project
  - l. Erie Street Sanitary Sewer Improvements Project
  - m. Concord Apartments Meter Vault
  - n. Hoods Creek – Aldebaran Brushing Project
  - o. Alcyn Drive
  - p. Douglas Avenue OMG Ditch Project
  - q. Turtle Creek Restoration
  - r. Westview Village Storm Improvements
- 8. Action Items**
  - a. O'Malley Site (Highway 31 / Highway 38) Storm Water Management Plan / Site Grading Plan Conditional Approval
  - b. Faithbridge Church Storm Water Management Plan Conditional Approval
  - c. Prairie Pathways – Button Bush Drive (Phase IV) Engineering Improvements Plan Conditional Approval
  - d. Brairwood of Caledonia – Subdivision System Acceptance
  - e. Dominican Lift Station Improvements – Contract Award
  - f. Kiriaki/Bodenbach CSM - Easement Request
  - g. Kadow Drainage Easement Variance Request
  - h. Smoke Testing Plan
- 9. Adjournment**

**Village of Caledonia Utility District Meeting  
December 1, 2021**

**1. Meeting Called to Order** – The Regular Meeting of the Village of Caledonia Utility District was held on Wednesday, December 1, 2021. 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, Tony Minto, Dave Ruffalo, and Trustee Lee Wishau. Commissioners John Strack and Nick Sullivan were excused. Also, present were Utility Manager Robert Lui, and Public Services Director Anthony Bunkelman.

**3. Approval of Minutes**

- a. Upon a motion by Minto and seconded by Wishau, the Commission approved the minutes from the Utility District's previous regular meeting held November 3, 2021. A copy of the minutes has been furnished to each Commissioner. **Motion carried.**

**4. Citizen Comments – None**

**DRAFT**

**5. Communications and Announcements**

**a. Racine Water Utility Agenda & Minutes**

The Commission looked over the agenda and minutes from the November 16<sup>th</sup> meeting of the Racine Water Utility.

**b. Racine Wastewater Utility Agenda & Minutes**

The Commission looked over the agenda from the November 16<sup>th</sup> meeting and minutes from the October 26<sup>th</sup> and November 16<sup>th</sup> meetings of the Racine Wastewater Utility.

**c. Operator, Operator Apprentice & Utility Technician Position Update**

The Operator and Operator Apprentice positions have not been filled yet. We received a few applications which are being reviewed.

**6. Approval of O&M Bills**

- a. Upon a motion by Minto and seconded by Wishau, the Commission approved payment of O&M Bills, related to the Sewer Utility District totaling \$29,919.77. **Motion carried.**
- b. Upon a motion by Minto and seconded by Wishau, the Commission approved payment of O&M Bills, related to the Water Utility District totaling \$88,328.88. **Motion carried.**
- c. Upon a motion by Minto and seconded by Wishau, the Commission approved payment of O&M Bills related to the Storm Water Utility District totaling \$65,738.43. **Motion carried.**

## **7. Project Updates**

### **a. Construction Contract Status**

The current contract statuses were shared with the Commissioners.

### **b. Riverbend Lift Station Safety Site**

Working on finalizing the Facilities Plan. To be completed shortly and submitted for review. Once reviewed will be submitted to the DNR.

### **c. Riverbend Lift Station & Forcemain Upgrade**

Working on Facilities Plan. To be completed shortly and submitted to the DNR.

### **d. DeBack Industrial Park Phase 3 Improvements**

Currently in Attorney review. Once done then will be scheduling Public Hearing.

### **e. Annual Televising Program – Sanitary Sewer**

Continuing to perform repairs that staff can perform.

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### **f. Water Impact Fee / Sewer Connection Fee Update**

Reached out to Mount Pleasant staff for per acre fee. Awaiting information. Received acreage for study area. Working on alternatives.

### **g. EPA Risk & Resilience Assessment and Emergency Response Plan**

Will work on Sewer plan as time allows. Emergency Response Plan for Water will be completed shortly and submitted.

### **h. Hoods Creek Attenuation Basin Expansion**

Will be attending Plan Commission with Fill Plan and to inform them of the 2 additional lots. Proposed to bid project upon obtaining DNR Permitting.

### **i. Central Lift Station Safety Site & Attenuation Basin**

Making minor adjustments to the Facility Plan based on comments from the DNR. Preliminary Design being worked on. Proposed to be bid in April 2023 with Construction May 2023 – July 2024.

### **j. North Kremer Watermain Project**

Project is progressing. PTS is installing watermain and having sections tested as installation progresses. Disturbed asphalt areas have been patched for the Winter.

### **k. Dominican Lift Station Rehab Project**

Lift Station Project will be bid closer to direct purchase item availability.

### **l. Erie Street Sanitary Sewer Improvements**

Village Board approved Award of Contract on November 15<sup>th</sup>. Have been in discussions with Reesman's, they plan to perform project in Spring. Will be coordinating a Preconstruction Meeting at that time.

**m. Concord Apartments Meter Vault**

Southern Wisconsin Appraisal working on appraisal and obtaining easement from Concord Apartments.

**n. Hoods Creek – Aldebaran Brushing Project**

Working with contractor to have log jams removed.

**o. GIS Updates**

Utility Technician is compiling information that we have for GIS and creating a map.

**p. Alcyn Drive – Drainage Complaint**

Waiting for contractor pricing. Then will respond to owners.

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**q. Douglas Avenue – OMG Ditch Project**

Awaiting redesign per DNR recommendations. Once completed will be permitting and bidding out. Potentially will be performing as Winter work.

**r. Turtle Creek Restoration**

Working toward having Southern Wisconsin Appraisal begin the appraisals on the properties.

**s. Westview Village Storm Improvements**

Received preliminary plans and reviewing plans for project.

**8. Action Items**

**a. Sewer Mitigation Discussion**

President Stacey and the Commission discussed the future of Sanitary Sewer Service in Caledonia.

**b. Erno Storm Water Management Plan/Site Grading Plan Conditional Approval**

Upon a motion by Minto and seconded by Wishau, the Commission moved to conditionally approve the Storm Water Management Plan and Pond Grading Plan for the Erno Property on 7 Mile Road subject to the conditions in the Public Services Director's November 22, 2021 memo. **Motion carried.**

**c. MS4 Permit Information & Education Program Contract**

Upon a motion by Minto and seconded by Pirk, the Commission moved to approve the Professional Services Contract with the Root Pike Watershed Initiative Network for the Respect Our Waters Storm Water Education and Outreach Program for 2 years with the not to exceed amount of \$8,910 and authorize the Public Services Director to execute the Contract. **Motion carried.**

**d. Smoke Testing Discussion**

The Commission asked that a Plan be put together to provide the biggest bang for the buck. The plan should be prepared to be presented in January.

**9. Adjournment**

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

Respectively submitted,  
Anthony A. Bunkelman P.E.  
Public Services Director

**DRAFT**

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
<b>ACH - SUPERFLEET</b>								
1730	ACH - SUPERFLEET	EJ 974 12/3/20	FUEL FOR UTILITY DISTRICT V	12/03/2021	92.57	.00		501-00-63200 Fuel, Oil, Fluids
1730	ACH - SUPERFLEET	EJ974 122021	FUEL FOR DISTRICT VEHICLES	12/20/2021	14.28	.00		501-00-63200 Fuel, Oil, Fluids
Total ACH - SUPERFLEET:					106.85	.00		
<b>ACH - WE ENERGIES</b>								
380	ACH - WE ENERGIES	071177293100	GAS & ELECTRIC SERVICE AT	12/01/2021	644.10	.00		501-00-64140 Utilities
Total ACH - WE ENERGIES:					644.10	.00		
<b>BATTERIES PLUS</b>								
176	BATTERIES PLUS	P47138269	WIND POINT L.S. / SCADA PART	12/21/2021	74.99	.00		501-00-64240 Building Repairs & Maintenance
Total BATTERIES PLUS:					74.99	.00		
<b>BUY RIGHT, INC.</b>								
273	BUY RIGHT, INC.	14873-345942	VEHICLE SUPPLIES	11/24/2021	9.44	.00		501-00-63300 Vehicle Repairs & Maintenance
273	BUY RIGHT, INC.	14873-345943	VEHICLE SUPPLIES	11/24/2021	67.66	.00		501-00-63300 Vehicle Repairs & Maintenance
273	BUY RIGHT, INC.	14873-346603	VEHICLE SUPPLIES	12/01/2021	35.82	.00		501-00-63300 Vehicle Repairs & Maintenance
Total BUY RIGHT, INC.:					112.92	.00		
<b>FOTH INFRASTRUCTURE &amp; ENVIRO, LLC</b>								
666	FOTH INFRASTRUCTURE & EN	75496	RIVERBEND SAFETY SITE	12/13/2021	5,176.50	.00		501-18709-000 CIP-Riverbend
666	FOTH INFRASTRUCTURE & EN	75497	CADDY VISTA LIFT STATION PU	12/13/2021	165.00	.00		501-18729-000 Caddy Vista Lift Stations
666	FOTH INFRASTRUCTURE & EN	75502	HOODS CREEK BASIN	12/13/2021	6,987.50	.00		501-18736-000 CIP-Hoods Creek Attenuation
666	FOTH INFRASTRUCTURE & EN	75504	CMOM REPORT	12/13/2021	1,156.00	.00		501-00-61340 Engineering Design Charges
Total FOTH INFRASTRUCTURE & ENVIRO, LLC:					13,485.00	.00		
<b>FRANKSVILLE AUTOMOTIVE LLC</b>								
679	FRANKSVILLE AUTOMOTIVE LL	12120	TRUCK # 4 TIRES	12/28/2021	546.47	.00		501-00-63300 Vehicle Repairs & Maintenance
Total FRANKSVILLE AUTOMOTIVE LLC:					546.47	.00		
<b>G &amp; F EXCAVATING</b>								
687	G & F EXCAVATING	35217	1706 JOHNSON AVE. LAT. REPAI	12/10/2021	3,032.50	.00		501-00-64240 Building Repairs & Maintenance

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
Total G & F EXCAVATING:					3,032.50	.00		
<b>GROVE FARMS</b>								
762	GROVE FARMS	2673	STRAW FOR RESTORATION	12/17/2021	31.25	.00		501-00-64240 Building Repairs & Maintenance
Total GROVE FARMS:					31.25	.00		
<b>JOHNSON CONTROLS SECURITY SOLUTIONS</b>								
969	JOHNSON CONTROLS SECURI	36745697	1ST QTR. 2022 OFFICE ALARM	12/11/2021	290.15	.00		501-16200-000 Prepaid Expenses
Total JOHNSON CONTROLS SECURITY SOLUTIONS:					290.15	.00		
<b>KEN SAGAL</b>								
1060	KEN SAGAL	12/29/2021	2021 LIFT STATION RIGHT OF R	12/29/2021	1,720.00	.00		501-18705-000 CIP-River Meadows
Total KEN SAGAL:					1,720.00	.00		
<b>KONICA MINOLTA</b>								
1090	KONICA MINOLTA	9008242535	NOVEMBER 2021 COPIER OVE	12/06/2021	100.94	.00		501-00-64030 Office Supplies
Total KONICA MINOLTA:					100.94	.00		
<b>KORTENDICK HARDWARE</b>								
1096	KORTENDICK HARDWARE	145456	VEH # 1 PARTS	10/13/2021	39.46	.00		501-00-63300 Vehicle Repairs & Maintenance
1096	KORTENDICK HARDWARE	145463	GMC DUMP TRUCK PARTS	10/13/2021	7.72	.00		501-00-63300 Vehicle Repairs & Maintenance
1096	KORTENDICK HARDWARE	145516	GMC DUMP TRUCK PARTS	10/15/2021	12.59	.00		501-00-63300 Vehicle Repairs & Maintenance
1096	KORTENDICK HARDWARE	146930	OFFICE ALARM BATTERIES	12/13/2021	13.99	.00		501-00-64030 Office Supplies
1096	KORTENDICK HARDWARE	147424	OFFICE WALL CLOCK	01/04/2022	8.99	.00		501-00-64030 Office Supplies
Total KORTENDICK HARDWARE:					82.75	.00		
<b>MILWAUKEE METROPOLITAN SEWAGE DISTRICT</b>								
1338	MILWAUKEE METROPOLITAN S	12/16/2021	4TH QTR. 2021 TREATMENT CH	12/20/2021	9,140.50	.00		501-00-62550 Sewer Treatment Charges
Total MILWAUKEE METROPOLITAN SEWAGE DISTRICT:					9,140.50	.00		
<b>NASSCO, INC.</b>								
1371	NASSCO, INC.	608167	MISC. OFFICE SUPPLIES	11/29/2021	70.95	.00		501-00-64030 Office Supplies
1371	NASSCO, INC.	6087931	MISC. OFFICE SUPPLIES	11/23/2021	130.98	.00		501-00-64030 Office Supplies

Report dates: 1/1/2021-1/6/2022

Jan 06, 2022 11:41AM

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
1371	NASSCO, INC.	6089670	MISC. OFFICE SUPPLIES	11/30/2021	42.16	.00		501-00-64030 Office Supplies
	Total NASSCO, INC.:				244.09	.00		
<b>NETWORK SPECIALIST OF RACINE, INC.</b>								
1390	NETWORK SPECIALIST OF RAC	41737	REMOTE SERVER BACKUP	12/17/2021	125.00	.00		501-00-64320 IT Infrastructure
1390	NETWORK SPECIALIST OF RAC	41753	1ST QUARTER 2022 SERVER M	12/17/2021	100.00	.00		501-16200-000 Prepaid Expenses
	Total NETWORK SPECIALIST OF RACINE, INC.:				225.00	.00		
<b>RAY HINTZ INC.</b>								
1592	RAY HINTZ INC.	62671	2721 ARROWHEAD SWR. LATE	09/03/2021	72.00	.00		501-00-64240 Building Repairs & Maintenance
	Total RAY HINTZ INC.:				72.00	.00		
<b>SHERWIN INDUSTRIES</b>								
1795	SHERWIN INDUSTRIES	SC047951	COLD PATCH FOR JOHNSON A	12/08/2021	262.50	.00		501-00-64240 Building Repairs & Maintenance
	Total SHERWIN INDUSTRIES:				262.50	.00		
<b>SPECTRUM ENTERPRISE</b>								
1832	SPECTRUM ENTERPRISE	015536912142	OFFICE INTERNET SERVICE	12/14/2021	79.99	.00		501-00-64150 Communication Services
	Total SPECTRUM ENTERPRISE:				79.99	.00		
<b>STARNET TECHNOLOGIES</b>								
1855	STARNET TECHNOLOGIES	0091902-IN	STARTER DRIVE, RIVERBEND L	11/23/2021	8,130.00	.00		501-00-64240 Building Repairs & Maintenance
	Total STARNET TECHNOLOGIES:				8,130.00	.00		
<b>U. S. CELLULAR</b>								
2026	U. S. CELLULAR	0478382302	ALL UTILITY DISTRICT CELL PH	12/06/2021	140.22	.00		501-00-64150 Communication Services
2026	U. S. CELLULAR	0478981938	HOODS CREEK BASIN REPEAT	12/10/2021	7.02	.00		501-00-64150 Communication Services
	Total U. S. CELLULAR:				147.24	.00		
<b>VERIZON WIRELESS</b>								
2068	VERIZON WIRELESS	9894058573	SCADA ALARM SYSTEM	12/01/2021	20.01	.00		501-00-64150 Communication Services



Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
Total VERIZON WIRELESS:					20.01	.00		
<b>WASTE MANAGEMENT</b>								
2101	WASTE MANAGEMENT	0689943-2811-	SEWER GRIT DISPOSAL	11/16/2021	1,352.06	.00		501-00-64240 Building Repairs & Maintenance
Total WASTE MANAGEMENT:					1,352.06	.00		
<b>WORKHORSE SOFTWARE</b>								
2201	WORKHORSE SOFTWARE	4587	2022 UTILITY SOFTWARE SUPP	12/01/2021	1,250.00	.00		501-16200-000 Prepaid Expenses
Total WORKHORSE SOFTWARE:					1,250.00	.00		
Grand Totals:					41,151.31	.00		

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
<b>PTS CONTRACTORS, INC.</b>								
9106	PTS CONTRACTORS, INC.	11/24/2021	PAY APP. # 1 N. KREMER WATE	11/24/2021	573,596.56	.00		500-18735-107 CIP - North Kremer Watermain
Total PTS CONTRACTORS, INC.:					573,596.56	.00		
Grand Totals:					573,596.56	.00		

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
<b>ACH - SUPERFLEET</b>								
1730	ACH - SUPERFLEET	EJ 974 12/3/20	FUEL FOR UTILITY DISTRICT V	12/03/2021	92.58	.00		500-00-63200 Fuel, Oil, Fluids
1730	ACH - SUPERFLEET	EJ974 122021	FUEL FOR DISTRICT VEHICLES	12/20/2021	14.27	.00		500-00-63200 Fuel, Oil, Fluids
Total ACH - SUPERFLEET:					106.85	.00		
<b>ACH - WE ENERGIES</b>								
380	ACH - WE ENERGIES	071177293100	GAS & ELECTRIC SERVICE AT	12/01/2021	8,709.82	.00		500-00-64140 Utilities
Total ACH - WE ENERGIES:					8,709.82	.00		
<b>AMERICAN WATER WORKS</b>								
80	AMERICAN WATER WORKS	7001972463	1 YEAR UTILITY DISTRICT MEM	10/26/2021	259.00	.00		500-00-51300 Education/Training/Conferences
Total AMERICAN WATER WORKS:					259.00	.00		
<b>BADGER METER INC.</b>								
163	BADGER METER INC.	1475493	2" CULVERS METER	12/07/2021	708.20	.00		500-18701-107 CIP - Meters
163	BADGER METER INC.	1477630	BEACON METER UPGRADES	12/17/2021	6,105.00	.00		500-18701-107 CIP - Meters
163	BADGER METER INC.	1479450	NEW BEACON METER REGIST	12/29/2021	7,619.04	.00		500-18701-107 CIP - Meters
Total BADGER METER INC.:					14,432.24	.00		
<b>BJELAJAC &amp; KALLENBACH, LLC</b>								
210	BJELAJAC & KALLENBACH, LL	21115-046D4	WIND POINT APARTMENTS	11/30/2021	300.20	.00		500-00-61100 Legal Fees
Total BJELAJAC & KALLENBACH, LLC:					300.20	.00		
<b>BUY RIGHT, INC.</b>								
273	BUY RIGHT, INC.	14873-345942	VEHICLE SUPPLIES	11/24/2021	9.44	.00		500-00-63300 Vehicle Repairs & Maintenance
273	BUY RIGHT, INC.	14873-345943	VEHICLE SUPPLIES	11/24/2021	67.66	.00		500-00-63300 Vehicle Repairs & Maintenance
273	BUY RIGHT, INC.	14873-346603	VEHICLE SUPPLIES	12/01/2021	35.82	.00		500-00-63300 Vehicle Repairs & Maintenance
Total BUY RIGHT, INC.:					112.92	.00		
<b>CORE &amp; MAIN LP</b>								
405	CORE & MAIN LP	Q024587	MISC. WATERMAIN REPAIR PAR	12/08/2021	4,186.51	.00		500-00-64240 Building Repairs & Maintenance
Total CORE & MAIN LP:					4,186.51	.00		

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
<b>FOTH INFRASTRUCTURE &amp; ENVIRO, LLC</b>								
666	FOTH INFRASTRUCTURE & EN	75501	RISK & RESILIENCE REPORT	12/13/2021	1,713.50	.00		500-00-61010 EPA Risk Resilience
666	FOTH INFRASTRUCTURE & EN	75503	N. KREMER WATERMAIN RELA	12/13/2021	46,731.69	.00		500-18735-107 CIP - North Kremer Watermain
666	FOTH INFRASTRUCTURE & EN	75505	2021 BLACKTOP PATCHES	12/13/2021	2,038.64	.00		500-18736-107 CIP - 2021 WATER MAIN REPAVING
Total FOTH INFRASTRUCTURE & ENVIRO. LLC:					50,483.83	.00		
<b>FRANKSVILLE AUTOMOTIVE LLC</b>								
679	FRANKSVILLE AUTOMOTIVE LL	12120	TRUCK # 4 TIRES	12/28/2021	546.48	.00		500-00-63300 Vehicle Repairs & Maintenance
Total FRANKSVILLE AUTOMOTIVE LLC:					546.48	.00		
<b>G &amp; F EXCAVATING</b>								
687	G & F EXCAVATING	35201	WATERBREAK 1305 JOHNSON	11/26/2021	2,818.50	.00		500-00-64240 Building Repairs & Maintenance
687	G & F EXCAVATING	35236	2319 6 MILE WATERBREAK	12/28/2021	5,743.00	.00		500-00-64240 Building Repairs & Maintenance
Total G & F EXCAVATING:					8,561.50	.00		
<b>GROVE FARMS</b>								
762	GROVE FARMS	2673	STRAW FOR RESTORATION	12/17/2021	93.75	.00		500-00-64240 Building Repairs & Maintenance
Total GROVE FARMS:					93.75	.00		
<b>JOHNSON CONTROLS SECURITY SOLUTIONS</b>								
969	JOHNSON CONTROLS SECURI	36745697	1ST QTR. 2022 OFFICE ALARM	12/11/2021	290.16	.00		500-16200-000 Prepaid Expenses
Total JOHNSON CONTROLS SECURITY SOLUTIONS:					290.16	.00		
<b>KONICA MINOLTA</b>								
1090	KONICA MINOLTA	9008242535	NOVEMBER 2021 COPIER OVE	12/06/2021	100.94	.00		500-00-64030 Office Supplies
Total KONICA MINOLTA:					100.94	.00		
<b>KORTENDICK HARDWARE</b>								
1096	KORTENDICK HARDWARE	145456	VEH # 1 PARTS	10/13/2021	39.47	.00		500-00-63300 Vehicle Repairs & Maintenance
1096	KORTENDICK HARDWARE	145463	GMC DUMP TRUCK PARTS	10/13/2021	7.72	.00		500-00-63300 Vehicle Repairs & Maintenance
1096	KORTENDICK HARDWARE	145516	GMC DUMP TRUCK PARTS	10/15/2021	12.59	.00		500-00-63300 Vehicle Repairs & Maintenance
1096	KORTENDICK HARDWARE	146930	OFFICE ALARM BATTERIES	12/13/2021	13.99	.00		500-00-64030 Office Supplies
1096	KORTENDICK HARDWARE	147424	OFFICE WALL CLOCK	01/04/2022	8.99	.00		500-00-64030 Office Supplies
1096	KORTENDICK HARDWARE	147424	COUNTY LINE METER PIT HEAT	01/04/2022	32.39	.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 KORTENDICK HARDWARE:					115.15	.00		
<b>NASSCO, INC.</b>								
1371	NASSCO. INC.	608167	MISC. OFFICE SUPPLIES	11/29/2021	70.95	.00		500-00-64030 Office Supplies
1371	NASSCO. INC.	6087931	MISC. OFFICE SUPPLIES	11/23/2021	130.98	.00		500-00-64030 Office Supplies
1371	NASSCO. INC.	6089670	MISC. OFFICE SUPPLIES	11/30/2021	42.15	.00		500-00-64030 Office Supplies
Total NASSCO. INC.:					244.08	.00		
<b>NETWORK SPECIALIST OF RACINE, INC.</b>								
1390	NETWORK SPECIALIST OF RAC	41737	REMOTE SERVER BACKUP	12/17/2021	125.00	.00		500-00-64320 IT Infrastructure
1390	NETWORK SPECIALIST OF RAC	41753	1ST QUARTER 2022 SERVER M	12/17/2021	100.00	.00		500-16200-000 Prepaid Expenses
Total NETWORK SPECIALIST OF RACINE. INC.:					225.00	.00		
<b>OAK CREEK WATER UTILITY</b>								
1423	OAK CREEK WATER UTILITY	4957	NOVEMBER 2021 WATER SAMP	11/23/2021	365.00	.00		500-00-62560 Water Sampling and Testing
1423	OAK CREEK WATER UTILITY	4968	DEC. 2021 BAC "T" SAMPLES	12/06/2021	365.00	.00		500-00-62560 Water Sampling and Testing
1423	OAK CREEK WATER UTILITY	4970	DECEMBER 2021 BAC "T" SAMP	12/20/2021	365.00	.00		500-00-62560 Water Sampling and Testing
1423	OAK CREEK WATER UTILITY	Duane Ct.	2021 4TH QTR. WATER PURCH	01/05/2022	8,976.52	.00		500-00-62550 Purchased Water
1423	OAK CREEK WATER UTILITY	Hwy 32	2021 4TH QTR. WATER PURCH	01/05/2022	19,239.37	.00		500-00-64180 Public Fire Protection
1423	OAK CREEK WATER UTILITY	Hwy 32	2021 4TH QTR. WATER PURCH	01/05/2022	96,230.44	.00		500-00-62550 Purchased Water
1423	OAK CREEK WATER UTILITY	Nicholson Roa	2021 4TH QTR. WATER PURCH	01/05/2022	7,088.91	.00		500-00-62550 Purchased Water
Total OAK CREEK WATER UTILITY:					132,630.24	.00		
<b>SPECTRUM ENTERPRISE</b>								
1832	SPECTRUM ENTERPRISE	015536912142	OFFICE INTERNET SERVICE	12/14/2021	79.99	.00		500-00-64150 Communication Services
Total SPECTRUM ENTERPRISE:					79.99	.00		
<b>TERRY &amp; NUNDO, LLC</b>								
1934	TERRY & NUNDO, LLC	16388	ACCOUNT #16212.0002 10/14/20	11/23/2021	3,420.00	.00		500-00-61100 Legal Fees
Total TERRY & NUNDO, LLC:					3,420.00	.00		
<b>U. S. CELLULAR</b>								
2026	U. S. CELLULAR	0478382302	ALL UTILITY DISTRICT CELL PH	12/06/2021	140.22	.00		500-00-64150 Communication Services

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
			Total U. S. CELLULAR:		140.22	.00		
	<b>VERIZON WIRELESS</b>							
2068	VERIZON WIRELESS	9894058573	SCADA ALARM SYSTEM	12/01/2021	20.00	.00		500-00-64150 Communication Services
			Total VERIZON WIRELESS:		20.00	.00		
	<b>WORKHORSE SOFTWARE</b>							
2201	WORKHORSE SOFTWARE	4587	2022 UTILITY SOFTWARE SUPP	12/01/2021	1,250.00	.00		500-16200-000 Prepaid Expenses
			Total WORKHORSE SOFTWARE:		1,250.00	.00		
			Grand Totals:		226,308.88	.00		

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
<b>ACH - WE ENERGIES</b>								
380	ACH - WE ENERGIES	071177293100	GAS & ELECTRIC SERVICE AT	12/01/2021	187.71	.00		502-00-64140 Utilities
Total ACH - WE ENERGIES:					187.71	.00		
<b>BJELAJAC &amp; KALLENBACH, LLC</b>								
210	BJELAJAC & KALLENBACH, LL	21115-054D	DEAN EMO/STORMWATER AGR	11/30/2021	63.20	.00		502-00-61100 Legal Fees
Total BJELAJAC & KALLENBACH, LLC:					63.20	.00		
<b>FOTH INFRASTRUCTURE &amp; ENVIRO, LLC</b>								
666	FOTH INFRASTRUCTURE & EN	75494	PROJECT #0019C035.01 STH 32	12/13/2021	10,708.00	.00		502-00-65154 HWY 32 Stream Restoration
666	FOTH INFRASTRUCTURE & EN	75495	PROJECT #0020C030.11 WESTV	12/13/2021	1,225.00	.00		502-00-65156 Westview Village Storm
Total FOTH INFRASTRUCTURE & ENVIRO, LLC:					11,933.00	.00		
<b>G &amp; F EXCAVATING</b>								
687	G & F EXCAVATING	35199	ASPHALT ROAD REPAIR AFTER	11/24/2021	8,700.00	.00		502-00-65151 Culvert Replacements
687	G & F EXCAVATING	35206	TRUCK EXCESS FILL DUMPED	12/01/2021	1,078.00	.00		502-00-65151 Culvert Replacements
Total G & F EXCAVATING:					9,778.00	.00		
<b>GARY PROHASKA</b>								
3292	GARY PROHASKA	265	HUSHER CREEK BRUSHING	01/04/2022	6,400.00	.00		502-00-64240 Building Repairs & Maintenance
Total GARY PROHASKA:					6,400.00	.00		
<b>LINCOLN CONTRACTORS SUPPLY</b>								
1172	LINCOLN CONTRACTORS SUP	N74551	WORK SUPPLIES	12/20/2021	938.13	.00		502-00-64070 Work Supplies
Total LINCOLN CONTRACTORS SUPPLY:					938.13	.00		
<b>STRAND ASSOCIATES INC.</b>								
1893	STRAND ASSOCIATES INC.	0177382	PROFESSIONAL SERVICES-EN	11/12/2021	1,725.57	.00		502-00-62101 MS4 - ILLICIT DISCHARGE
1893	STRAND ASSOCIATES INC.	0178534	ILLICIT DISCHARGE DETECTIO	12/14/2021	1,794.39	.00		502-00-62101 MS4 - ILLICIT DISCHARGE
Total STRAND ASSOCIATES INC.:					3,519.96	.00		
<b>TOPCON SOLUTIONS INC</b>								
9145	TOPCON SOLUTIONS INC	SO171489	STAKES, LATHE & NAILS	12/21/2021	192.57	.00		502-00-64070 Work Supplies

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid	GL Account and Title
Total TOPCON SOLUTIONS INC:					192.57	.00		
<b>WI DEPT OF TRANSPORTATION</b>								
2168	WI DEPT OF TRANSPORTATION	1FTEW1EF4H	12/9/21 TRANSFER TITLE TO VI	12/09/2021	103.00	.00		502-00-65040 Equipment-Vehicles
Total WI DEPT OF TRANSPORTATION:					103.00	.00		
Grand Totals:					33,115.57	.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	\$	3.12	12/11/2018
Pay Request	\$	2,645.08	8/1/2019
Pay Request	\$	7,396.43	10/3/2019
Pay Request	\$	92,497.63	12/4/2019
Pay Request	\$	80,448.04	12/2/2019
Pay Request	\$	64,166.90	1/2/2020
Pay Request	\$	1,014.86	3/2/2020
Pay Request	\$	1,655.72	4/1/2020
Pay Request	\$	405.27	6/1/2020
Pay Request	\$	1,500.29	9/2/2020
Pay Request	\$	268.21	12/1/2020
Remaining on Contract (Including Retainage)	\$	14,042.08	5.3%
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 - 6/3/2020)	\$	61,034.29	
Total Project Cost	\$	366,984.46	
Revised 2019 CIP	\$	350,000.00	

## DeBack Industrial Park Phase 3 Improvements

Sewer & Water

Contractor

**Globe Contractors Inc.**

Original Contract	\$	<b>5,492,315.00</b>	
Change Order #1 (3/15/2019)	\$	5,200.78	0.09%
Change Order #2 (5/7/2019)	\$	31,676.00	0.58%
Change Order #3 (12/2/2020)	\$	8,642.92	0.16%
Change Order #4 (12/2/2020)	\$	(54,347.35)	-0.99%
Total All Change Orders	\$	(8,827.65)	-0.16%
Current Contract	\$	<b>5,483,487.35</b>	
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
Pay Request #4	\$	66,125.77	3/15/2019
Pay Request #5	\$	37,649.69	4/19/2019
Pay Request #6	\$	58,276.21	5/30/2019
Pay Request #7	\$	288,046.74	9/26/2019
Pay Request #8	\$	158,198.56	10/27/2020
Remaining on Contract (Including Retainage)	\$	0.00	0.0%
Engineering / Construction Services (12/22/2016 - 4/27/2021)	\$	<b>640,053.93</b>	
Total Project Cost	\$	<b>6,169,245.71</b>	
Oversizing Only (Utility District)			
Water	\$	104,890.20	
Sewer	\$	1,247,791.01	
Revised 2019 CIP	\$	<b>1,352,681.21</b>	

## North Kremer Watermain

Water

Contractor	PTS Contractors Inc		
Original Contract	\$	2,681,000.00	
Change Order #1	\$	-	0.00%
Current Contract	\$	2,681,000.00	
Pay Request #1	\$	573,596.56	
Retainage	\$	30,189.29	
Remaining on Contract (Including Retainage)	\$	2,107,403.44	79%
Design Engineering (2020 - 8/23/2021)	\$	206,069.12	7.69%
Construction Services (7/28/2021 to 11/16/2021)	\$	98,024.74	3.66%
G & F Excavating (Charles Street	\$	2,535.00	
Ray Hintz (Top Soil Charles Stree	\$	24.00	
Racine County (Pavement Repair Charles Street)			
Total Project Cost	\$	2,987,652.86	

Sewer

## Reesman's

**\$ 842,759.00**

\$	-	0.00%
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**\$ 842,759.00**

## Retainage

\$	842,759.00	100%
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\$	117,471.95	13.94%
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0.00%

**\$ 960,230.95**

**Dominican Lift Station Improvements**

Sewer

Contractor	<b>August Winter &amp; Sons, Inc</b>		
Original Contract	\$	<b>718,500.00</b>	
Change Order #1	\$	-	0.00%
Current Contract	\$	<b>718,500.00</b>	
Pay Request #1			
Retainage			
Remaining on Contract (Including Retainage)	\$	718,500.00	100%
Design Engineering (3/29/2020 - 10/18/2021)	\$	<b>234,943.90</b>	32.70%
Construction Services			0.00%
Total Project Cost	\$	<b>953,443.90</b>	

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

**Riverbend Drive Lift Station Safety Site**

- Working on finalizing Facilities Plan. Looking to submit for Review approximately January 15. Once reviewed will be submitted to the DNR. Will be looking into the videos and looking to inspect the Root River Interceptor to see if there are issues that can be repaired. High I & I in this area.

**Riverbend Drive Lift Station & Forcemain Upgrade**

- Working on Facilities Plan. Same as above.

**DeBack Industrial Park Phase 3 Improvements**

- Currently in Attorney review. Once done then will be scheduling Public Hearing.

**Annual Televising Program – Sanitary Sewer**

- Continuing to perform repairs that staff can perform. Have had a conversation with Green Bay Pipe about services for this year. They will be providing information.

**Water Impact Fee / Sewer Connection Fee Update**

- Reached out to Mount Pleasant staff for per acre fee. Awaiting information. Received acreage for study area. Working on alternatives.

**EPA Risk & Resilience Assessment and Emergency Response Plan**

- Emergency Response Plan for Water completed and submitted.

**Hoods Creek Attenuation Basin Expansion**

- Received permit from the DNR. Will be advertising the project on January 13<sup>th</sup> & 20<sup>th</sup>. Bid Opening scheduled for February 10<sup>th</sup>.

**Central Lift Station Safety Site & Attenuation Basin**

- Updated Facilities Plan based on comments from the DNR. Awaiting final approval. Preliminary Design being worked on. Proposed to be bid in April 2023 with Construction May 2023 – July 2024.

## **North Kremer Watermain Project**

- Project is progressing.

## **Dominican Lift Station Rehab Project**

- Opened bids on December 21<sup>st</sup>. On agenda this evening for Contract Award. Will be forwarded to the Village Board for January 17<sup>th</sup>.

## **Erie Street Sanitary Sewer Improvements**

- Reesman's have indicated they may want to start in February. Will be coordinating a Preconstruction Meeting prior to construction.

## **Concord Apartments Meter Vault**

- Spoke with Gene Bock on the Easement. They have not had the Easement signed at this time. They are reaching out to the owner this week to see if he will sign. Timeframe has elapsed on offer but will extend to January 17<sup>th</sup>. If not signed by January 17<sup>th</sup> will consider condemnation procedure which takes 30 days.

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

**Hoods Creek – Aldebaran Brushing Project**

- Looking for contractor to have log jams removed.

**Alcyn Drive – Drainage Complaint**

- Waiting for contractor pricing. Then will respond to owners.

**Douglas Avenue – OMG Ditch Project**

- Plans have been revised and submitted. Working on obtaining permits from DNR and Army Corps of Engineers. Will be scheduling a meeting with the owner in the next 2 weeks to go over revisions.

**Turtle Creek Restoration**

- Discussed project with Southern Wisconsin Appraisal. They are looking to begin the appraisals on the properties in February.

**Westview Village Storm Improvements**

- Reviewing storm sewer plans and will be getting comments back to Design Engineer.

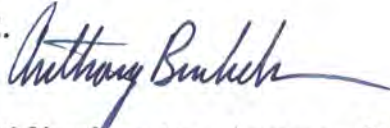


## MEMORANDUM

**DATE:** Tuesday, January 4, 2022

**TO:** Caledonia Utility District

**FROM:** Anthony A. Bunkelman P.E.  
Public Services Director



**RE:** O'Malley Investments – 4526 Northwestern Avenue – Storm Water  
Management Plan & Grading Plan for Land Disturbance Permit Conditional  
Approval

### BACKGROUND INFORMATION

Joshua Murray P.E. of Nielsen, Madsen & Barber S.C. has prepared a Storm Water Management Plan and a Site Grading Plan for the O'Malley Investments Land Disturbance Permit located at the Northeast corner of Highway 31 & Highway 38. The O'Malley Investments property is proposed for future commercial development. There are no users at this time. The project involves the preparation of the site by filling and the creation of a Storm Water Management Pond.

This project 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 the storm water pond to be constructed on the site, then discharge offsite to the East to a drainage way to the Root River. The Storm Water Management Plan that was submitted on October 7 has been reviewed by the Public Services Director and is in conformance with the Ordinance.

The Site Grading Plan and the Storm Water Pond Plan that has been submitted has also been reviewed by the Public Services Director and it too is in conformance with the Ordinance.

It is recommended that conditional approval be granted by the Utility District for this project based on the conditions below.

Included in this packet is the Storm Water Management Plan summary, the Pond Grading Plan, and the December 13, 2021 approval letter with conditions.

### RECOMMENDATION

**Move to conditionally approve the Storm Water Management Plan and the Site Grading Plan for the Land Disturbance Permit for the O'Malley Investments property located at the Northeast corner of Highway 31 & Highway 38 subject to the following:**

- 1. All comments on the Public Services Director's letter dated December 13<sup>th</sup>, 2021 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 Owner to encompass the Storm Water Pond. 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 Owner to ensure that the Storm Water Pond is installed, asbuilt and certified by the Design Engineer. This is to ensure that the Storm Water Pond is constructed in accordance with the approved plans.**
- 5. Will need to obtain a Land Disturbance Permit from the Engineering Department.**
- 6. Submit an NOI and any other necessary permits from the Wisconsin DNR.**
- 7. Meeting all conditions of the Village of Mount Pleasant.**

Monday, December 13, 2021

O'Malley Investments  
c/o Wendy Swenarski  
5200 West Loomis Road  
Greendale, WI 53129

RE: O'Malley Investments – 4526 Northwestern Avenue - Grading Plan for Land Disturbance Permit

Dear Ms. Swenarski:

The Caledonia Utility District has performed a plan review of the Site Grading Plan dated September 29, 2021 and submitted October 7, 2021. The Site Grading Plan is hereby conditionally approved subject to the following conditions.

- Provide a copy of the WDNR WRAPP (NOI).
- Complete a Village of Mount Pleasant Storm Water Permit.
- Obtain WisDOT access Permits as necessary.
- Adjust the 100-year High water elevation on the pond profile (Sheet C-8).
- Meeting all conditions of approval from the Village of Mount Pleasant.
- A Storm Water Easement/Maintenance Agreement will need to be granted by the Owner to encompass the Storm Water Pond and the Outlet structure.
- A Financial Guarantee will need to be made and a Deposit Agreement will need to be executed by the Owner to ensure that the Storm Water Pond is constructed and asbuilt in accordance with the plans.
- Design Engineer to Submit to the Village of Caledonia
  - 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.
  - 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
  - A maintenance plan for each facility (Basin and Outlet).
- Will need to obtain a Land Disturbance Permit from both the Village of Mount Pleasant and the Village of Caledonia.

Sincerely,



Anthony A. Bunkelman P.E.  
Public Services Director  
Village of Caledonia



# **PRELIMINARY STORM WATER MANAGEMENT PLAN**

FOR

## **O'MALLY COMMERCIAL DEVELOPMENT / CULVERS RACINE**

Villages of Caledonia & Mount Pleasant, Racine County, Wisconsin

July 13, 2020  
September 14, 2020



*Joshua A. Murray*  
9-14-20

PREPARED FOR:  
John O'Malley  
O'Malley Investments, LLC.  
5200 West Loomis Road  
Greendale, WI 53129  
Ph: (414) 421-1010

PREPARED BY:  
Joshua A. Murray, P.E.  
Nielsen Madsen & Barber, S.C.  
1458 Horizon Boulevard  
Suite 200  
Racine, WI 53406  
Ph: (262) 634-5588  
Email: [jmurray@nmbssc.net](mailto:jmurray@nmbssc.net)

**PRELIMINARY STORM WATER MANAGEMENT PLAN**  
**FOR**  
**O'MALLY COMMERCIAL DEVELOPMENT / CULVERS RACINE**

**TABLE OF CONTENTS**

1. Introduction
2. Methods of Analysis
3. Existing Conditions
4. Post-Developed Conditions
5. Storm Water Quality and Quantity
6. Routing Data
7. Conclusion

Appendix A

- Soils Map

Appendix B

- WinSLAMM Water Quality Analysis

Appendix C

- HydroCAD Routing Details

Appendix D

- Existing Conditions Map (EX-1)
- Post-Developed Conditions Map (DEV-1)

## INTRODUCTION

Nielsen Madsen & Barber was retained by O'Malley Investments to prepare a site grading, drainage, and Storm Water Management Plan for the proposed commercial development located northeast of the intersection of STH 31 (Green Bay Road) and STH 38 (Northwestern Avenue) in the Villages of Caledonia and Mount Pleasant.

The 10-acre site consists predominately of woods and grassland. The development is expected to include a Culvers restaurant, a possible gas station, and other developments as space allows. The proposed development will be required to follow the storm water management standards established by the Village of Caledonia in addition to the Wisconsin Department of Natural Resources (WDNR).

WDNR Chapter NR 151 of the State of Wisconsin Administrative Code and the Village of Caledonia Post Construction Storm Water Management Ordinance require a minimum 80% reduction of the Total Suspended Solids (TSS) load for new development sites. The Village of Caledonia Post Construction Storm Water Management Ordinance requires that the peak discharge rate for the post-developed 10-year and 100-year, 24-hour rainfall events do not exceed the pre-developed peak discharge rates for the 2-year and 10-year, 24-hour events, respectively.

To address these requirements, a wet retention basin has been designed to control the peak rates of runoff and achieve the TSS load reduction.

## METHOD OF ANALYSIS

The method used for this storm water analysis was the United States Department of Agriculture, Natural Resources Conservation Service, Urban Hydrology for Small Watersheds, Technical Release No. 55 (TR-55). The specific software is HydroCAD V10, as produced by HydroCAD Software Solutions, LLC. In running this model, NMB determined runoff curve numbers (CN) and times of concentration (Tc) for the individual drainage areas. This information was then used to generate storm hydrographs and peak discharge rates. In addition, WinSLAMM V10.4, as produced by PV and Associates, LLC., was utilized to analyze the water quality of the Post-Developed runoff.

## EXISTING CONDITIONS

Existing conditions at the site consist of predominately woods and grassland. An Existing Conditions Map can be found in Appendix "D" of this report.

The existing conditions drainage area has been divided into three sub-basins as follows:

EX-1 (Area tributary to the North side of the site)

Sub-basin EX-1 contains 3.52 acres and consists of woods and grassland. The Tc travel path starts on the south side of the basin and continues northeast until it exits on the north side of the site.

**EX-2 (Area tributary to the East side of the site)**

Sub-basin EX-2 contains 1.19 acres and consists of woods and grassland. The Tc travel path starts near the west side of the basin and continues southeast until it exits on the east side of the site.

**EX-3 (Area tributary to the wetland/drainage way)**

Sub-basin EX-3 contains 5.70 acres and consists of woods and grassland. The Tc travel path starts on the west side of the basin and continues southeast until it reaches the wetland/drainageway near the southeast corner of the site. The wetland/drainage way conveys the runoff northeast until it exits the site through a culvert/storm sewer on the east side of the site.

**POST - DEVELOPED CONDITIONS**

The preliminary post-developed conditions considers the site fully developed for commercial uses by assuming impervious surfaces are in place for 80% of the "developable" area. A Post-Developed Conditions Map can be found in Appendix "D" of this report.

The post-developed drainage area has been divided into three sub-basins as follows:

**DEV-1 (Commercial development area tributary to the proposed retention basin)**

Sub-basin Dev-1 totals 7.77 acres. Besides the water surface area of the retention basin, the sub-basin is assumed to be comprised of 80% impervious surfaces and 20% grass or pervious surfaces. The runoff from any areas not draining directly overland to the retention basin will drain to an onsite storm sewer system connected directly to the retention basin.

**DEV-2 (Area tributary to the wetland/drainage way)**

Sub-basin Dev-2 totals 2.08 acres and consists of woods and grassed areas that will remain tributary to the existing wetland/drainageway. The runoff from the west and south edge of the site will be conveyed in a grassed swale to the wetland. The remaining area, whether developed grassed sloped areas or undisturbed areas, will drain directly overland to the wetland. As under existing conditions, the wetland/drainage way conveys the runoff northeast until it exits the site through a culvert/storm sewer on the east side of the site.

**DEV-3 (Undetained area along the north and east edge of the site)**

Sub-basin Dev-3 totals 0.56 acres and consists of woods and grassed areas along the edge of the site that will not be able to be directed to the retention basin. The runoff from these areas will drain overland offsite.

## STORM WATER QUALITY AND QUANTITY

Storm water quality and quantity standards have been established by the WDNR through the "NR 151 Runoff Management" regulation. This regulation establishes runoff pollution performance standards for post-construction development sites consisting of one acre or more of land disturbing construction activity. The Villages of Caledonia and Mount Pleasant have also established their own storm water quality and quantity standards in their Post-construction Storm Water Management Ordinances.

The proposed O'Malley commercial development will be required to follow the storm water management standards established by the Village of Caledonia in addition to the WDNR which apply as follows:

**Infiltration:** The regulation states that "Best Management Practices" (BMPs) shall be designed, installed, and maintained to infiltrate a sufficient volume of runoff depending on the degree of site imperviousness.

Exemptions from the Village of Caledonia and NR 151 infiltration requirements include the following:

- Areas where the infiltration rate of the soil at the proposed basin site is less than 0.6 inches per hour.
- Parking areas and access roads less than 5,000 S.F. for commercial and industrial developments.
- Redevelopment post-construction sites and
- In-fill development less than 5 acres.

Existing soils have been reviewed using the Web Soil Survey developed by the U.S. department of Agriculture (USDA) Natural Resource Conservation Service (NRCS). The Web Soil Survey indicates Ozaukee silt loam and Blount silt loam throughout the site. From the WDNR Technical Standard 1002, "Site Evaluation for Storm Water Infiltration", Silt Loam is listed with a design infiltration rate of 0.13 inches/hour. This infiltration rate is less than the 0.6 inches/hour exemption threshold rate. A map of the existing soils on site is included in Appendix "A".

**Total Suspended Solids Load Reduction** : As stated before, NR 151 and the Village of Caledonia require a minimum of 80% reduction of the TSS load for new development sites. A WinSLAMM model has been prepared for the post-developed drainage area which includes land usage and treatment methods. A wet retention basin with a 5' deep permanent pool has been designed to treat runoff from the site.

When this parameter was analyzed in WinSLAMM, the wet retention basin was found to provide a TSS reduction of 87.37% for the 10.41-acre drainage area (DEV-1, 2, and 3) which includes onsite undetained areas. The proposed treatment system, as designed, exceeds the NR 151 and Village of Caledonia's treatment goals of 80% TSS reduction. A copy of the WinSLAMM input data and the output summary can be found in Appendix "B" of this report.



**Peak Discharge Management:** The Village of Caledonia's Post Construction Storm Water Management Ordinance requires that the peak discharge rate for the post-developed 10-year and 100-year, 24-hour rainfall events do not exceed the pre-developed peak discharge rates for the 2-year and 10-year, 24-hour events, respectively. This requirement has been achieved through storage within the proposed wet retention basin and the basin outlet control structure. Detailed sub-basin and routing information can be found in Appendix "C" of this report.

A summary of the proposed wet retention basin design is as follows:

#### **Proposed Retention Basin**

Contributory Watershed:	7.77 Acres (Dev-1)
Design Surface Area:	21,118 Square Feet (0.485 Acres)
Normal Water Level (NWL):	678.00
Maximum side slope grade:	4:1
High Water Mark (100-year):	681.75
High Water Mark (10-year):	680.58
High Water Mark (2-year):	679.94
Top of Berm:	683.00
Free Board provided:	1.25 Feet
Safety Shelf:	10' Wide (10:1 slope)
Emergency Spillway:	10' Wide at 682.00
	100-yr HWM (plugged conditions):
	782.23 @ 2.70 cfs

#### **PROPOSED RETENTION BASIN STAGE-STORAGE DATA**

<b>Elevation</b>	<b>Area (acres)</b>	<b>Inc. Volume (ac-ft)</b>	<b>Cum. Volume (ac-ft)</b>
678.00	0.485	0.000	0.000
679.00	0.550	0.517	0.517
680.00	0.617	0.584	1.101
681.00	0.687	0.652	1.753
682.00	0.759	0.723	2.476
683.00	0.834	0.796	3.273

#### **OUTLET CONTROL STRUCTURE**

Proposed Primary Outlet:	Multi-Stage Outlet 50'-12" RCP @1.00%, IE @ 678.00 3" Orifice @ 678.00 11" Orifice @ 680.00
Emergency Overflow:	10' wide grass-lined weir with 10:1 side slopes Crest Elevation at 682.00

## ROUTING DATA

RETENTION BASIN	Basin NWL	Peak Inflow	Peak Outflow	HWM	Storage (Ac-ft)
2-Yr. 24-Hour Storm	678.00	19.55 cfs	0.32 cfs	679.94	1.066
10-Yr. 24-Hour Storm	678.00	29.14 cfs	1.52 cfs	680.58	1.473
100-Yr. 24-Hour Storm	678.00	47.62 cfs	4.06 cfs	681.75	2.290

## CONCLUSION

The total allowable peak discharges from the site were compared to the post-developed peak discharge rates as follows:

	Pre-Developed Peak Discharge	Total Allowable Discharge	Post-Developed Peak Discharge
Q <sub>2</sub>	4.83 cfs	4.83 cfs	2.12 cfs
Q <sub>10</sub>	11.99 cfs	4.83 cfs	4.82 cfs
Q <sub>100</sub>	29.36 cfs	11.99 cfs	11.57 cfs

After comparing the post-developed peak discharges to the allowable peak discharges, we conclude that the proposed retention basin meets the Village of Caledonia and WDNR NR 151 design standards. By utilizing the proposed retention basin, the water quality goals have been met reducing the total suspended solids loading by more than 80%, on an average annual basis.



FILLING PERMIT PLANS  
for  
**4526 NORTHWESTERN AVENUE**  
SITE GRADING & EROSION CONTROL IMPROVEMENTS  
4526 NORTHWESTERN, LLC  
Villages of Caledonia & Mount Pleasant, Racine County, Wisconsin

**mb**  
Nielsen Madsen + Barber  
CIVIL ENGINEERS AND LAND SURVEYORS  
1458 Horizon Blvd. Suite 200, Racine, WI 53406  
Tele: (262) 634-5588 Website: www.nmbc.net

LEGEND

Description	Existing	Proposed	Description	Existing	Proposed
EDGE OF WOODS			SOIL BORING		
DECIDUOUS TREE			WATER SHUT OFF		
DECIDUOUS TREE REMOVAL			WATER MAIN VALVE		
CONIFEROUS TREE			HYDRANT		
CONIFEROUS TREE REMOVAL			WATER MAIN REDUCER		
BUSH			SANITARY MANHOLE		
STORM SEWER			SANITARY CLEAN OUT		
SANITARY SEWER			STORM MANHOLE		
WATERMAIN			CATCH BASIN		
CONTOURS			TELEPHONE BOX		
UNDERGROUND CABLE, ELECTRIC			GUY WIRE		
UNDERGROUND, GAS MAIN			UTILITY POLE		
UNDERGROUND COMMUNICATIONS			GAS VALVE		
SILT FENCE			GAS METER		
OVERHEAD ELECTRIC			LIGHT POLE		
FORCE MAIN			ENDWALL		
FIRE PROTECTION			CULVERT		
UTILITY CROSSING			RAILROAD TRACKS		
SEPTIC VENT			FENCE		
ELECTRIC MANHOLE			NO VEHICULAR ACCESS		
COMMUNICATION MANHOLE			DITCH OR SWALE		
WATER MANHOLE			STREET SIGN		
HVAC UNIT			ELECTRIC PEDESTAL		
UNDERGROUND VAULT			ELECTRIC METER		
SECTION CORNER			PAD MOUNT TRANSFORMER		
MAIL BOX			FOUND IRON PIPE		
GUARD POST			SET IRON PIPE		

ABBREVIATIONS

BASE LINE	BL	INVERT ELEVATION	IE
LONG CORD OF CURVE	CHD	LENGTH OF CURVE	ARC
CURB AND GUTTER	C&G	MANHOLE	MH
CATCH BASIN	CB	NORMAL WATER LEVEL	NWL
CENTERLINE	CL	POINT OF CURVATURE	PC
EDGE OF PAVEMENT	EOP	POINT OF TANGENCY	PT
FINISHED FIRST FLOOR	FFF	TANGENCY OF CURVE	TAN
FINISHED GRADE	FG	POINT OF VERTICAL INTERSECTION	PVI
FLOW LINE	FL	RADIUS	R
FLOODPLAIN	FP	RIGHT OF WAY	ROW
ORDINARY HIGH WATER MARK	OHWM	SANITARY SEWER	SAN
TOP OF BANK	TOB	STORM SEWER	STM
TOP OF CURB	TOC	TOP OF FOUNDATION	TOF
TOP OF WALK	TOW	WATER MAIN	WM

UTILITY NOTE

EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE TYPE, LOCATION, SIZE AND ELEVATION OF UNDERGROUND UTILITIES AS THEY DEEM NECESSARY FOR PROPOSED UTILITY CONNECTIONS AND / OR TO AVOID DAMAGE THERETO. CONTRACTOR SHALL CALL "DIGGER'S HOTLINE" PRIOR TO ANY CONSTRUCTION



SHEET INDEX

Plan Sheet	Sheet No.
TITLE SHEET	C-1
EXISTING CONDITIONS	C-2
DEMOLITION PLAN	C-3
DIMENSIONED SITE PLAN	C-4
SITE GRADING PLAN	C-5
EROSION CONTROL PLAN	C-6
TYPICAL SECTIONS & CONSTRUCTION DETAILS	C-7 THRU C-9
CROSS SECTIONS	C-10 THRU C-15

GOVERNING AGENCY CONTACTS

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VILLAGE ENGINEER  
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EMAIL: abunkleman@caledoniawis.com

VILLAGE OF MOUNT PLEASANT  
TONY BEYER, P.E.  
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VILLAGE ENGINEER  
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EMAIL: TBeyer@MTPLEASANTWI.GOV

DEPARTMENT OF NATURAL RESOURCES  
PETER C. WOOD, P.E.  
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PUBLIC UTILITY CONTACTS

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UTILITY COORDINATOR  
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WE-ENERGIES  
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VILLAGE OF CALEDONIA  
OFFICE: (262) 552-3223  
EMAIL: Tom.Schultz@we-energies.com

NATURAL GAS EMERGENCY: (800) 261-5325  
ELECTRICAL EMERGENCY: (800) 662-4797

AT&T  
MIKE TOYEK  
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EMAIL: mt1734@att.com

AMERICAN TRANSMISSION COMPANY  
BRIAN MCGEE  
OFFICE: 262-506-6895  
EMAIL: bmcgee@atccl.com  
EMERGENCY NUMBER: (800) 972-5341

TDS TELECOM  
SOUTHEAST WISCONSIN  
OFFICE: 877-483-7142

**4526 NORTHWESTERN AVENUE**  
FOR  
FILL PERMIT PLANS  
**4526 NORTHWESTERN, LLC**  
VILLAGES OF MT. PLEASANT & CALEDONIA, RACINE COUNTY, WISCONSIN

DATE	
BY	
REVISION	
NO	
PROJ. MGR.	MRM
DRAFTED	ALJ
DATE	07-23-2021
CHECKED	MRM
DATE	09-28-2021
2019.0131.01	
SHEET	
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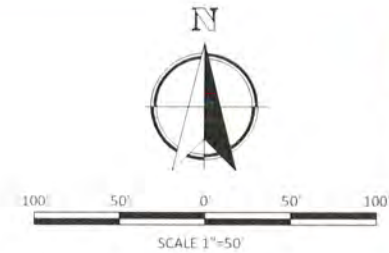
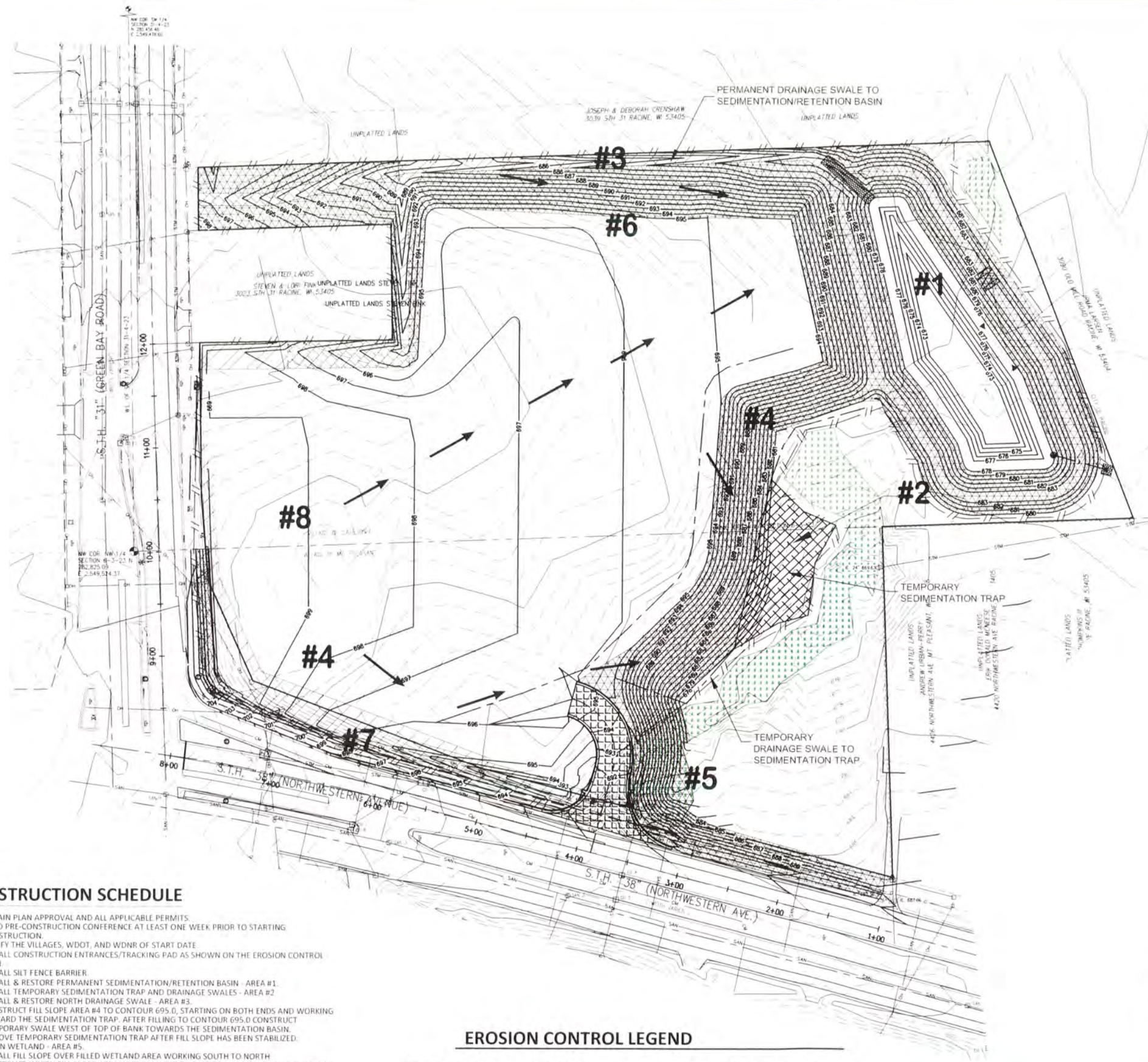


## CONSTRUCTION SCHEDULE

1. OBTAIN PLAN APPROVAL AND ALL APPLICABLE PERMITS.
2. HOLD PRE-CONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION.
3. NOTIFY THE VILLAGES, WDOT, AND WDNR OF START DATE.
4. INSTALL CONSTRUCTION ENTRANCES/TRACKING PAD AS SHOWN ON THE EROSION CONTROL PLAN.
5. INSTALL SILT FENCE BARRIER.
6. INSTALL & RESTORE PERMANENT SEDIMENTATION/RETENTION BASIN - AREA #1.
7. INSTALL TEMPORARY SEDIMENTATION TRAP AND DRAINAGE SWALES - AREA #2.
8. INSTALL & RESTORE NORTH DRAINAGE SWALE - AREA #3.
9. CONSTRUCT FILL SLOPE AREA #4 TO CONTOUR 695.0, STARTING ON BOTH ENDS AND WORKING TOWARD THE SEDIMENTATION TRAP. AFTER FILLING TO CONTOUR 695.0 CONSTRUCT TEMPORARY SWALE WEST OF TOP OF BANK TOWARDS THE SEDIMENTATION BASIN.
10. REMOVE TEMPORARY SEDIMENTATION TRAP AFTER FILL SLOPE HAS BEEN STABILIZED.
11. FILL IN WETLAND - AREA #5.
12. INSTALL FILL SLOPE OVER FILLED WETLAND AREA WORKING SOUTH TO NORTH.
13. CONSTRUCT NORTH FILL SLOPE AREA #6 FROM WEST TO EAST TOWARDS THE SEDIMENTATION BASIN.
14. ALL FILL SLOPES TO BE RESTORED AFTER EACH 5000 SQUARE FEET CONSTRUCTED BEFORE PROCEEDING ONTO THE NEXT PORTION.
15. INSTALL BERM AND SWALE ALONG SOUTHERN R.O.W. - AREA #7.
16. STRIP AND STOCK PILE REMAINDER OF SITE AREA #8 AS NEEDED FOR FILLING OPERATIONS FROM SOUTHWEST TO NORTHEAST TOWARD THE SEDIMENTATION BASIN.
17. FINAL GRADE SITE AND RESTORE PER THE VILLAGE OF CALEDONIA AND MOUNT PLEASANT SPECIFICATIONS.

## EROSION CONTROL LEGEND

	EROSION MAT CLASS 1, TYPE A		STAKED SOD
	EROSION MAT CLASS 1, TYPE B		TRACKING PAD
	EROSION MAT CLASS III, TYPE B		SILT FENCE



## GENERAL NOTES

EROSION CONTROL, EARTHWORK, AND SITE GRADING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "STATE OF WISCONSIN, STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION," CURRENT EDITION, HEREIN REFERRED TO AS THE "STATE SPECIFICATIONS"

## EROSION CONTROL

ALL EROSION AND SEDIMENT CONTROL MEASURES AND DEVICES SHALL BE INSPECTED BY THE CONTRACTOR AS REQUIRED IN THE WISCONSIN ADMINISTRATIVE CODE (SPS 360.21) AND MAINTAINED PER SPS 360.22.

1. THE CONTRACTOR SHALL CHECK THE EROSION AND SEDIMENT CONTROL PRACTICES FOR MAINTENANCE NEEDS AT ALL THE FOLLOWING INTERVALS UNTIL THE SITE IS STABILIZED.
  - (A) AT LEAST WEEKLY.
  - (B) WITHIN 24 HOURS AFTER A RAINFALL EVENT OF 0.5 INCHES OR GREATER. A RAINFALL EVENT SHALL BE CONSIDERED TO BE THE TOTAL AMOUNT OF RAINFALL RECORDED IN ANY CONTINUOUS 24-HOUR PERIOD.
2. THE CONTRACTOR SHALL MAINTAIN A MONITORING RECORD WHEN THE LAND DISTURBING CONSTRUCTION ACTIVITY INVOLVES ONE OR MORE ACRES. THE MONITORING RECORD SHALL CONTAIN AT LEAST THE FOLLOWING INFORMATION:
  - (A) THE CONDITION OF THE EROSION AND SEDIMENT CONTROL PRACTICES AT THE INTERVALS SPECIFIED ABOVE.
  - (B) A DESCRIPTION OF THE MAINTENANCE CONDUCTED TO REPAIR OR REPLACE EROSION AND SEDIMENT CONTROL PRACTICES.

EROSION AND SEDIMENT CONTROL INSPECTIONS AND ENFORCEMENT ACTIONS MAY BE CONDUCTED BY THE DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES AND AUTHORIZED AGENTS DURING AND AFTER THE CONSTRUCTION OF THIS PROJECT.

ALL EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO COMMENCING EARTH DISTURBING ACTIVITIES. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES UNTIL THE SITE HAS ESTABLISHED A VEGETATIVE COVER AND IS STABILIZED. ADDITIONAL EROSION CONTROL MAY BE REQUIRED BY THE OWNER, ENGINEER OR MUNICIPALITY TO MEET FIELD CONDITIONS.

INSTALL SILT FENCE PER SECTION 628 OF THE "STATE SPECIFICATIONS" AND WDNR TECHNICAL STANDARD 1056 AT THE LOCATIONS SHOWN ON THE PLAN. ERECT SILT FENCE PRIOR TO STARTING A CONSTRUCTION OPERATION THAT MIGHT CAUSE SEDIMENTATION OR SILTATION AT THE SITE OF THE PROPOSED SILT FENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION, MAINTENANCE AND REMOVAL OF ALL REQUIRED SILT FENCE MATERIAL.

A MINIMUM 24" WIDE X 50' LONG TRACKING PAD (3-6 INCH STONE) SHALL BE INSTALLED AT THE ENTRANCE TO THE SITE (AS SHOWN) TO PREVENT SOIL FROM BEING TRACKED ONTO ADJACENT PAVEMENTS AND PUBLIC ROADS. INSTALLATION AND MAINTENANCE OF THE TRACKING PAD SHALL BE PERFORMED ACCORDING TO WDNR TECHNICAL STANDARD 1057. ALL TRACKED SOIL FROM THE CONSTRUCTION SITE SHALL BE COLLECTED FROM PAVED STREETS AT THE END OF EACH WORKING DAY. PERIODIC STREET SWEEPING SHALL BE CONDUCTED BY THE CONTRACTOR TO KEEP THE PUBLIC AND/OR PRIVATE ROADWAYS FREE OF DUST AND DIRT.

THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING WIND EROSION (DUST) DURING CONSTRUCTION AT HIS/HER EXPENSE (WHEN NECESSARY OR AS REQUIRED BY LOCAL INSPECTORS).

## SEDIMENT & EROSION CONTROL PRACTICES

1. A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED AT THE PROJECT DRIVE PRIOR TO ANY FURTHER CONSTRUCTION ACTIVITY. THE TRACKING PAD SHALL BE SUFFICIENT LENGTH TO PREVENT SOIL FROM BEING TRACKED ONTO VILLAGE ROADS.
2. SILT FENCE SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE PLANS. SILT FENCE LOCATIONS WILL BE STAKED IN THE FIELD BY THE ENGINEER.
3. EROSION MAT SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. ALL SWALES AND RETENTION BASIN SIDE SLOPES SHALL RECEIVE EROSION MAT STABILIZATION.
4. ANY SLOPES OVER 2% ON SWALES WILL NEED TO BE SODDED.

## MAINTENANCE PLAN

1. CONTRACTOR SHALL PERFORM EROSION CONTROL INSPECTIONS THROUGHOUT THE DURATION OF THE PROJECT BUILD-OUT.
2. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION WITHIN 24 HOURS FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL EVENT OF MORE THAN 0.5 INCHES OR MORE BUT IN NO CASE LESS THAN EVERY 7 DAYS. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
3. SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCE AND BOTH SEDIMENT BASIN AND TRAP WHEN IT BECOMES ABOUT 0.5 FEET DEEP. THE SILT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.
4. ALL SEEDING AREAS WILL BE FERTILIZED, RE-SEEDING AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.



**Nielsen Madsen + Barber**  
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Tele: (262) 634-5588 Website: www.nmbasc.net

**4526 NORTHWESTERN AVENUE**  
FILL PERMIT - EROSION CONTROL PLAN  
FOR  
**4526 NORTHWESTERN, LLC**  
VILLAGES OF MT. PLEASANT & CALEDONIA, RACINE COUNTY, WISCONSIN

NO.	REVISION	BY	DATE

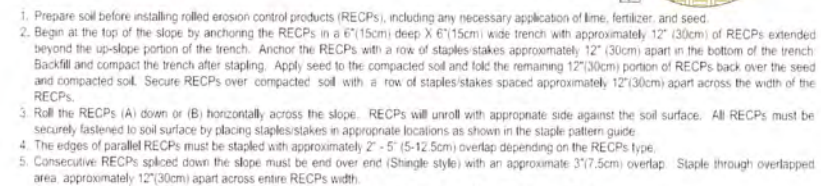
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DRAFTED: ALJ  
DATE: 07-23-2021  
CHECKED: MRM  
DATE: 09-28-2021

2019.0131.01

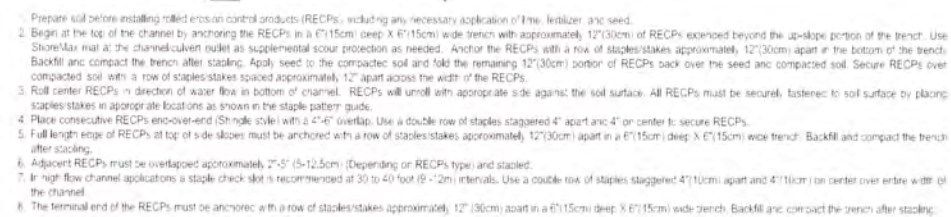
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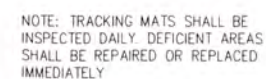




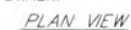
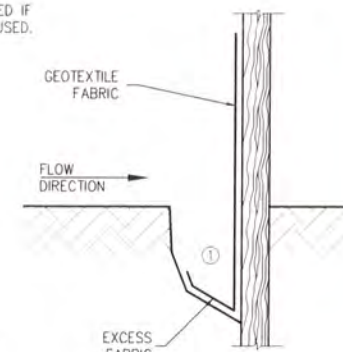
NOT TO SCALE



CHANNEL INSTALLATION OF  
EROSION MAT  
*NOT TO SCALE*



- ① TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ② WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" x 1½" OF OAK OR HICKORY.
- ③ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS: A) TWIST METHOD -- OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK METHOD -- HOOK THE END OF EACH SILT FENCE LENGTH.



TRACKING PAD DETAIL  
NOT TO SCALE

**4526 NORTHWESTERN AVENUE**  
CONSTRUCTION DETAILS  
AND TYPICAL SECTIONS  
**4526 NORTHWESTERN, LLC**  
VILLAGES OF MT. PLEASANT & CALEDONIA, RACINE COUNTY, WISCONSIN

VILLAGES OF MT. PLEASANT &amp; CALEDONIA, RACINE COUNTY, WISCONSIN

NO	REVISION	BY	DATE
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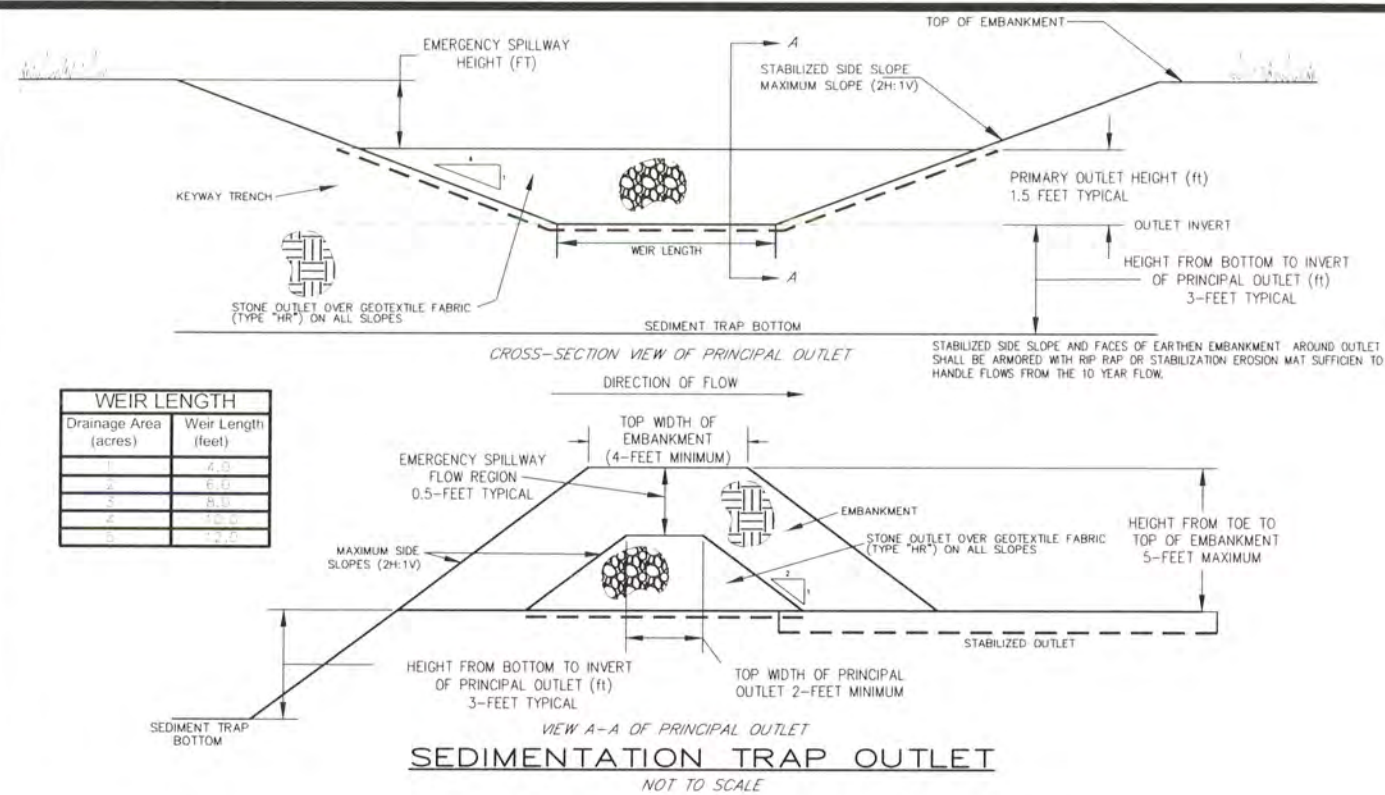
4526 NORTHWESTERN AVENUE  
CONSTRUCTION DETAILS  
AND TYPICAL SECTIONS  
FOR  
4526 NORTHWESTERN, LLC  
VILLAGES OF MT. PLEASANT & CALEDONIA, RACINE COUNTY, WISCONSIN

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PROJ. MGR. MRM  
DRAFTED: ALJ  
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DATE: 09-28-2021

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ISSUE FOR APPROVAL - 9-29-2021



#### SEDIMENTATION TRAP

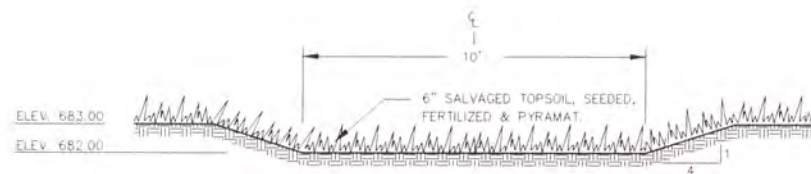
$$A(s) = 1560 \times A(dr)$$

$$A(s) = 1560 \times 5.78 \text{ ac}$$

$$A(s) = 7457 \text{ S.F.}$$

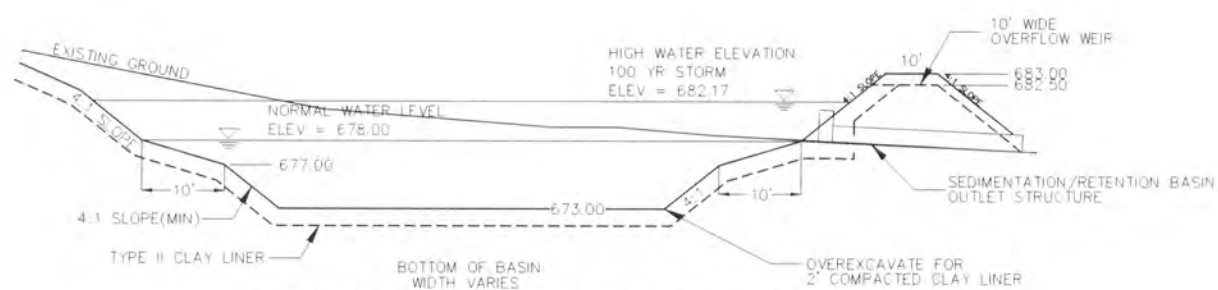
PROPOSED TRAP SURFACE AREA 7500 S.F.

Sediment Trap	Trap Footprint	Weir Length	Top of Embankment	Top of Weir	Bottom of Basin
1.0	7500 sf	12	691.00	687.50	683.00

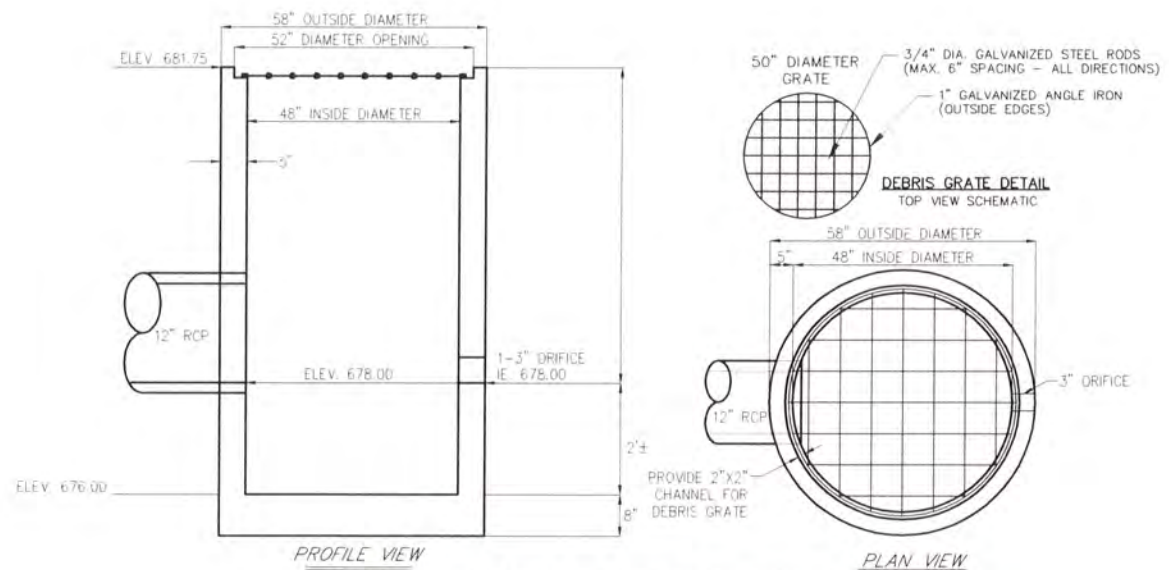


#### RETENTION BASIN EMERGENCY SPILLWAY

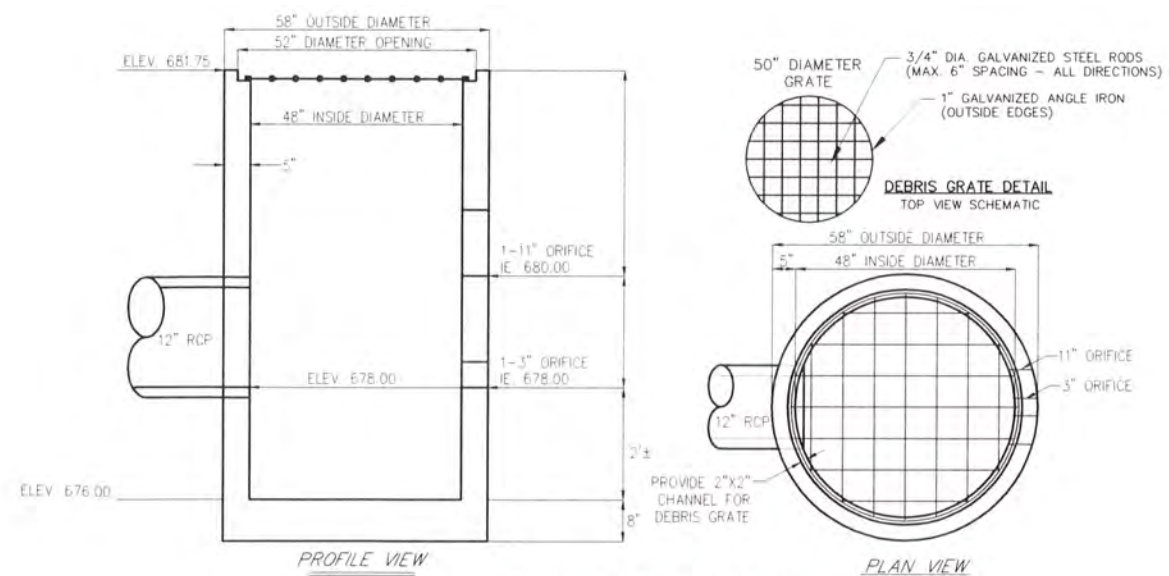
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#### RETENTION BASIN CROSS SECTION

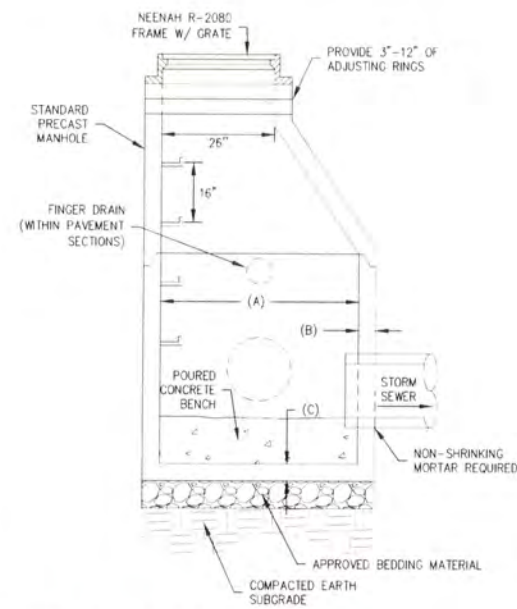


#### SEDIMENTATION BASIN OUTLET STRUCTURE



#### RETENTION BASIN OUTLET STRUCTURE

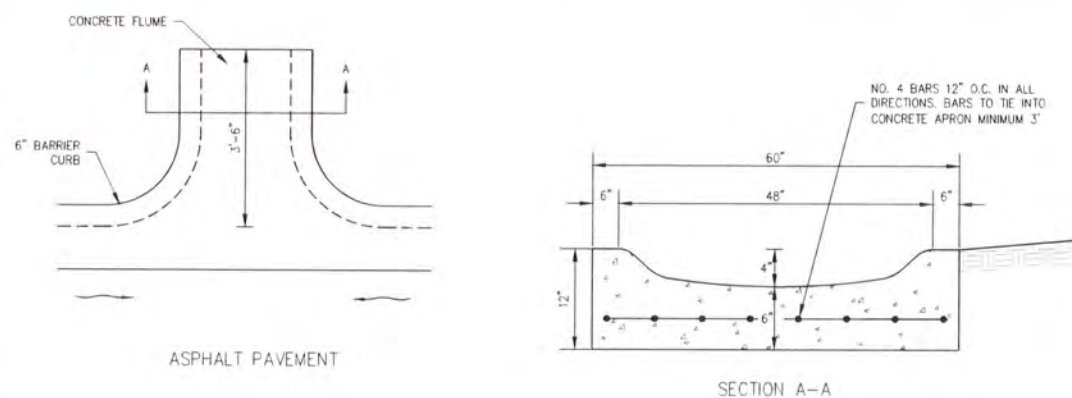




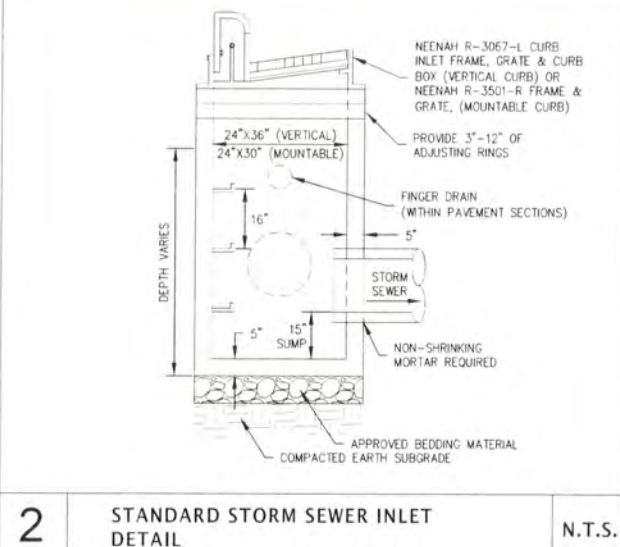
STRUCTURE DIAMETER (A)*	MINIMUM WALL THICKNESS (B)**	MINIMUM BASE AND TOP THICKNESS (C)**
4'	5"	6"
5'	6"	8"
6'	7"	8"
7'	8"	8"
8'	9"	8"

\*STRUCTURE DIAMETER SHALL BE STANDARD 48" UNLESS OTHERWISE NOTED ON PLAN  
 \*\*MINIMUM THICKNESS SHALL NOT BE LESS THAN THAT REQUIRED TO MEET AASHTO H-20 LOADINGS

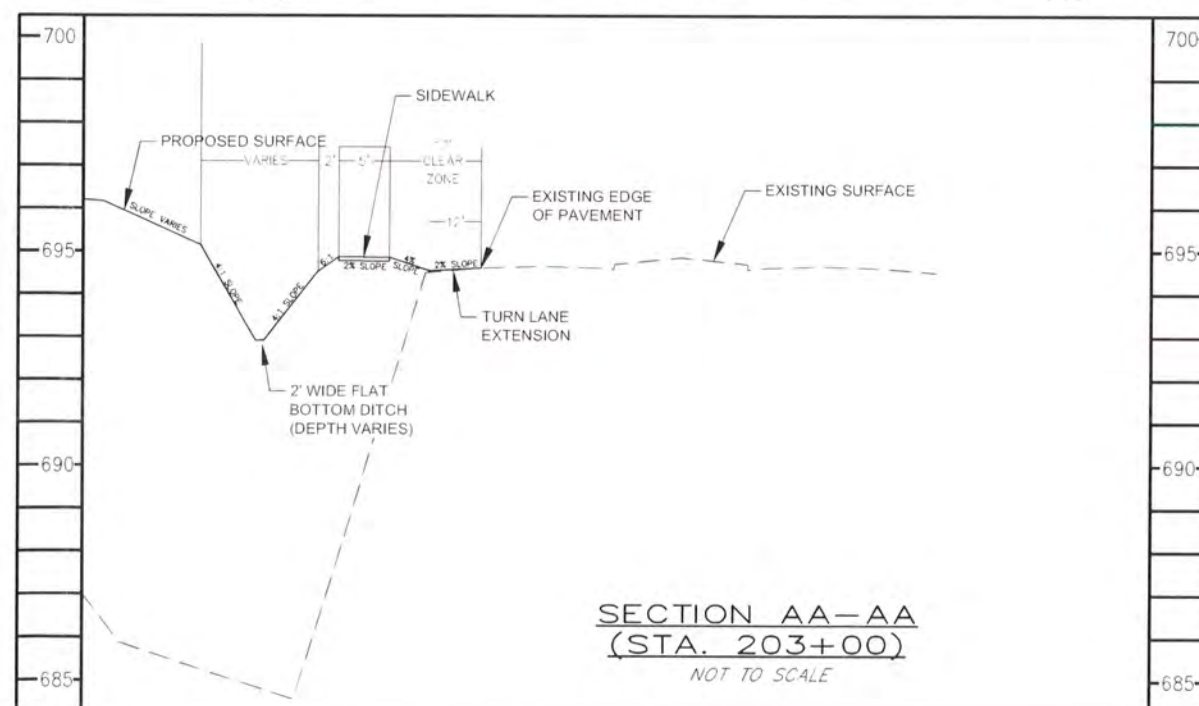
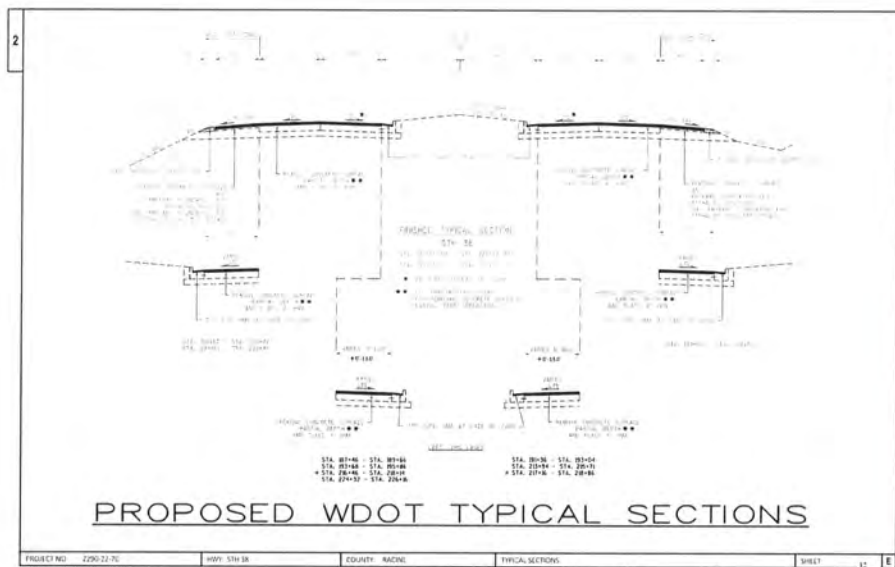
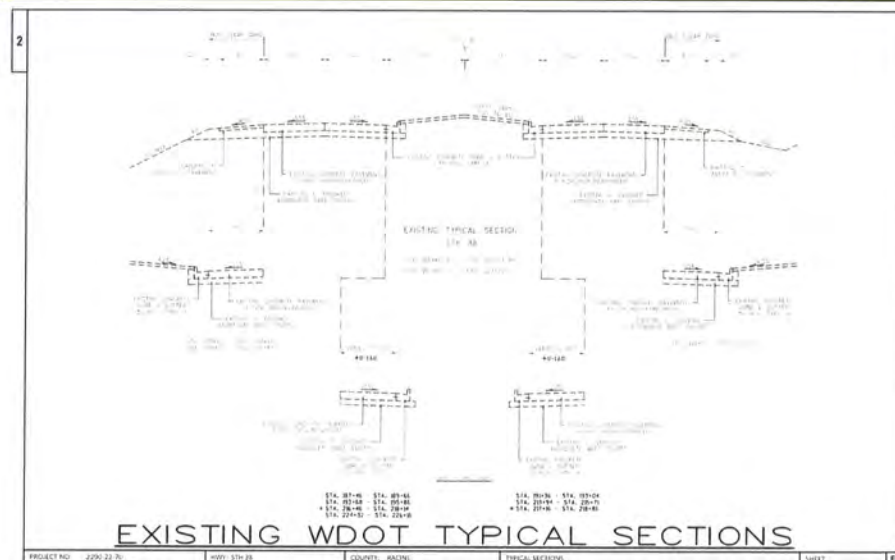
1 STANDARD STORM SEWER MANHOLE DETAIL N.T.S.



3 TYPICAL CONCRETE FLUME DETAIL N.T.S.



2 STANDARD STORM SEWER INLET DETAIL N.T.S.



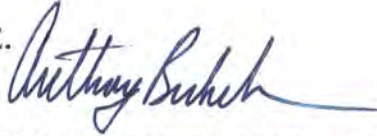


## MEMORANDUM

**DATE:** Tuesday, January 4, 2022

**TO:** Caledonia Utility District

**FROM:** Anthony A. Bunkelman P.E.  
Public Services Director



**RE:** Faithbridge Church – 10402 Northwestern Avenue – Storm Water Management Plan Conditional Approval

### BACKGROUND INFORMATION

Kevin Lord P.E. of MSA Professional Services Inc. has prepared a Storm Water Management Plan for a proposed addition at Faithbridge Church. Faithbridge Church is located at 10402 Northwestern Avenue. The project involves the removal of an existing home, removal of an existing garage, the construction of approximately a 9,700 sq ft addition, and some minor storm water pond adjustments.

This project 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 proposed addition will be discharged to a proposed storm sewer that will discharge to the minorly adjusted storm water pond. The Storm Water Management Plan was submitted on November 17<sup>th</sup>, 2021 and has been reviewed by the Public Services Director. The Storm Water Management Plan is in conformance with the Ordinance.

The Design Engineer has been informed that a Site Grading Plan will need to be submitted, reviewed, and approved. When the Site Grading Plan is provided and reviewed, it will be brought to the Commission for approval.

At this time, it is recommended that conditional approval be granted by the Utility District for the Storm Water Management Plan based on the conditions below.

Included in this packet is the Storm Water Management Plan summary.

### RECOMMENDATION

**Move to conditionally approve the Storm Water Management Plan for Faithbridge Church located at 10402 Northwestern Avenue subject to the following:**

- 1. The Design Engineer determines that the Storm Water Management Plan approved by the Caledonia Utility District is technically adequate and is stamped by the Design Engineer.**

2. The following adjustment is made to the HydroCAD model.
  - Change the weir on the Pond node to a Secondary Outlet.
3. A Financial Guarantee will need to be made and a Deposit Agreement will need to be executed by the Owner to ensure that the Storm Water Pond is adjusted, asbuilt and certified by the Design Engineer. This is to ensure that the Storm Water Pond is constructed in accordance with the approved plans.
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.

# **Storm Water Management & Erosion Control Report**

## **Faithbridge Church Campus Expansion**

Village of Caledonia  
Racine County, Wisconsin

**MSA Project No. 20426077**

**November 2021**

**Prepared by:**

MSA Professional Services  
1230 South Boulevard  
Baraboo, WI 53913  
Phone: (608) 356-2771  
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## TABLE OF CONTENTS

	<u>Page</u>
1.0 GENERAL INFORMATION .....	1
1.1. Introduction.....	1
1.2. Project Location .....	1
1.3. Project Development.....	1
2.0 STORMWATER RUNOFF INFORMATION .....	1
2.1. Existing Drainage Conditions .....	1
A. Pre-2009 .....	1
B. 2009 Development .....	1
2.2. Proposed Drainage Conditions .....	2
2.3. Soil Types .....	2
2.4. Runoff Curve Number (RCN) .....	2
3.0 STORMWATER ANALYSIS .....	3
3.1. Description .....	3
3.2. Design Standards .....	3
3.3. Total Suspended Solids Reduction .....	3
3.4. Peak Discharge Rates.....	3
3.5. Infiltration .....	5
3.6. Wetland Analysis .....	5
4.0 CONSTRUCTION PHASE EROSION CONTROL .....	5
4.1. Erosion Control Devices .....	5
A. Stone Tracking Pad .....	6
B. Erosion Mat.....	6
C. Silt Fence .....	6
D. Seeding and Mulching .....	6
E. Wet Ponds .....	6
4.2. Construction Schedule .....	7
4.3. Construction Costs .....	7
5.0 REPORTING .....	8
5.1. Erosion Control Inspection .....	8
5.2. Minimum Maintenance Requirements.....	8

## LIST OF APPENDICES

- APPENDIX A Project Maps
- APPENDIX B Peak Flow Calculations – Existing (Revised from 2008 plan)
- APPENDIX C Peak Flow Calculations – Proposed (Based on proposed 2021 development)
- APPENDIX D TSS Calculations
- APPENDIX E Erosion Control Technical Standards
- APPENDIX F Construction Site Inspection Forms
- APPENDIX G MSA Seeding Specifications

## **1.0 GENERAL INFORMATION**

### **1.1. Introduction**

This report provides the conclusions reached as part of the stormwater management study for the Faithbridge Church campus expansion located in Caledonia, WI. This report is intended to meet the requirements of Wisconsin Administrative Code NR 151 and Village of Caledonia storm water and development ordinances, and demonstrate that the proposed construction will incorporate stormwater management and erosion control practices that will satisfy all applicable state and local standards.

### **1.2. Project Location**

The project is located at the intersection of CTH K (Northwestern Avenue) and Morris Street in the Village of Caledonia, WI. This project is located in the NW  $\frac{1}{4}$  and SW  $\frac{1}{4}$ , SW  $\frac{1}{4}$ , Section 33, T04N, R22E, Racine County, Wisconsin, (**Appendix A**). The total site area is 3.9 acres, with approximately 0.7 acres disturbed for the current project.

The site is located in west central Racine County. Generally, the topography in this area is gently sloping. The immediate site is very flat along with the surrounding properties and roadways.

### **1.3. Project Development**

The proposed project includes removal of an existing driveway and two structures, the construction of a building that will be connected to main church, and storm water improvements to contain the flows from the development. Various temporary and permanent erosion control measures will also be included as part of the project.

## **2.0 STORMWATER RUNOFF INFORMATION**

### **2.1. Existing Drainage Conditions**

#### **A. Pre-2009**

The site has been developed in stages over the past decades. In 2008, the site contained the main church building, two driveways and a small parking lot. The site also contained another separate house with a driveway. There was no storm water management on the site. See **Appendix B** for calculations.

#### **B. 2009 Development**

The 2009 development included an expansion to the north that was connected to the main church. The driveways into the site and the parking lot were altered and expanded. A storm water pond (wet pond) was added to the east side of the parking lot along with a small rain garden to contain storm water flows. The rain garden

was designed but was more for aesthetics as none of the storm water calculations from the 2009 storm water plan accounted for the rain garden. The pond outlet was controlled by a 4" orifice that connected to an outlet structure with an open top. There was also a broad-crested weir. The flows from the pond were conveyed to the east to a storm sewer system that was installed and maintained by the Racine Area Soccer Association. The original house and connected driveway were not disturbed with this development.

## 2.2. Proposed Drainage Conditions

The proposed drainage conditions will not change greatly after the proposed project is complete. There will be a new storm sewer pipe that will discharge at the existing pond and will collect storm water from the new building addition and the two future parking lots that may be constructed in the future. Some storm water will be diverted from the ditch along Morris Street and over to the storm water pond. The remaining site will continue to flow toward the existing pond for the most part. Minor alterations will be required at the existing pond and outlet structure. See **Appendix C** for Calculations.

## 2.3. Soil Types

Four main soil categories, known as Hydrologic Soil Groups (HSG), are considered when using the TR-55 method of runoff analysis. These are based partially on the soils minimum infiltration rates and range from a well-drained HSG A soil to a poorly drained HSG D soil. A map showing the existing soil types can be found in **Appendix A**, and the following table summarizes these soils:

**Table 1: Racine County Soil Data for Project Limits**

Soil Type	Description	Soil Code	Hydrologic Soil Group	Infiltration Rate (in/hr)
<i>Elliott</i>	<i>Silty Clay Loam</i>	<i>EtB</i>	<i>C</i>	<i>0.07</i>

Infiltration rates in this table were determined according to information summarized in WDNR Conservation Practice Standard 1002. Soil borings were completed in a previous phase and it was determined that tight clayey soils had infiltration rates below 0.60"/hr and the site is therefore exempt from infiltration standards.

## 2.4. Runoff Curve Number (RCN)

A runoff curve number (RCN) is roughly defined as the percentage of water that can be anticipated to run off the surface without infiltrating. These numbers are assigned based on the land use, soil type, and ground cover conditions, according to the conditions published by the NRCS under TR-55 (June 1986).

The project curve numbers were based on soil conditions consisting of HSG Type C soils. *Impervious* asphalt roadways, driveways, and building/roof areas were assigned an RCN of 98. Pervious surfaces that consist of *turf grass* were assigned an RCN of 74 (Type C soils). All pervious surfaces were assumed to be soils in good condition.

The post-development percent of impervious areas for the site's disturbed areas will increase from 51.2% to 63.6%.

### **3.0 STORMWATER ANALYSIS**

#### **3.1. Description**

HydroCAD 10.0, utilizing methodology from TR-55, was used to calculate flows for the site to size the storm water conveyance system and the wet detention basin. The developed site was required to satisfy a combination of existing site, new development, and redevelopment post-construction standards. The time of concentration, runoff curve number, land use, and soil groups were all used as inputs in this model. Storm Load and Management Model (SLAMM) 10.3.4 was also utilized to calculate the TSS removal from the proposed wet detention basin.

#### **3.2. Design Standards**

##### ***NR 151 (State Standards)***

- Redeveloped impervious – 40% TSS Reduction (NR 151.121)
- New Development – 80% TSS Reduction (NR 151.121)
- Peak Flow Control – 1yr and 2yr (NR 151.123)
- Infiltration – Exempt (NR 151.124)

##### ***Village of Caledonia (Local Standards)***

- Reduce peak flow for proposed 100-yr to existing 10-yr runoff rate
- Reduce peak flow for proposed 10-yr, 5-yr, and 2-yr peak flow to existing 2-yr runoff rate

#### **3.3. Total Suspended Solids Reduction**

Total suspended solids will be removed by the existing revised wet detention pond through settlement. Storm Load and Management Model (SLAMM) was utilized to calculate total TSS generated from different areas onsite and for the removal calculations. After inputting the data into SLAMM, the TSS reduction for the disturbed site that flows to the pond and is directly affected by the project, approximately 2.6 acres, utilizing the wet detention basin, meets the required standards. The results are shown in **Appendix D**.

#### **3.4. Peak Discharge Rates**

The project is a combination of new development and a reconstruction project. The majority of the new development and also some of the redeveloped areas will flow

to the wet detention basin at the northeast part of the site. The discharge from this pond can satisfy Village of Caledonia requirements to reduce 100-yr peak flows to the existing (2008 site) 10-yr storm and reduce proposed 10-yr, 5-yr, and 2-yr storms to the existing (2008 site) 2-yr storm rates.

Table 2 below shows the existing (2008 pre-construction) peak flow rates based TP-40 rainfall intensities and a Type II rainfall distribution. These are the exact rates from the 2008 report.

**Table 2. Peak Discharge Rates – 2008 Report (Original)**

Event	Existing (2008 Calculations) Discharge Rate	Post Construction (2008 Calculations) Discharge Rate
1-year, 24-hour	---	---
2-year, 24-hour	4.2 cfs	2.6 cfs
5-year, 24-hour	6.2 cfs	3.5 cfs
10-year, 24-hour	7.9 cfs	4.3 cfs
25-year, 24-hour	10.8 cfs	5.6 cfs
50-year, 24-hour	13.4 cfs	6.7 cfs
100-year, 24-hour	16.3 cfs	8.0 cfs

The 1-yr discharge rates were not originally included in the 2008 report.

Table 3 below shows the existing (2008 pre-construction) peak flow rates based revised NOAA-14 rainfall intensities and an MSE Type 3 rainfall distribution. These rates are different only because of the revised data inputs for rainfall rates and intensities.

**Table 3. Peak Discharge Rates - Revised**

Event	Existing (2008 Calculations*) Discharge Rate	Post Construction (2008 Calculations*) Discharge Rate
1-year, 24-hour	3.7 cfs	2.4 cfs
2-year, 24-hour	4.7 cfs	2.9 cfs
5-year, 24-hour	6.8 cfs	3.9 cfs
10-year, 24-hour	8.7 cfs	4.8 cfs
25-year, 24-hour	11.7 cfs	6.2 cfs
50-year, 24-hour	14.3 cfs	7.3 cfs
100-year, 24-hour	17.2 cfs	8.5 cfs



Table 4 below includes the revised inputs for rainfall intensities and distribution. The table also takes into account the actual dimensions of the pond and elevations of the outlet device and pond overflow which was actually constructed larger than the 2008 plan required. A small portion of the pond will need to be expanded at the northwest corner along with changing the orifice diameter in the outlet structure from 4.0-inch diameter to 3.5-inch diameter. The post discharge rate column also takes into account the proposed building expansion and the two future parking lots.

**Table 4. Peak Discharge Rates – 2022 Construction Expansion**

Event	Existing (2008 Calculations*) Discharge Rate	Post Construction Discharge Rate (2022)
1-year, 24-hour	3.7 cfs	2.0 cfs
2-year, 24-hour	4.7 cfs	2.5 cfs
5-year, 24-hour	6.8 cfs	3.3 cfs
10-year, 24-hour	8.7 cfs	4.0 cfs
25-year, 24-hour	11.7 cfs	5.0 cfs
50-year, 24-hour	14.3 cfs	6.0 cfs
100-year, 24-hour	17.2 cfs	6.9 cfs

### 3.5. Infiltration

The soils on this site are clay to silty clay loams. The clay soils exempt the site from infiltration requirements.

### 3.6. Wetland Analysis

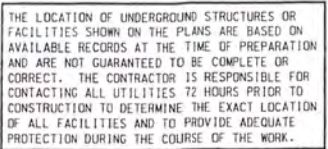
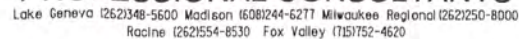
There are no wetland areas. A soil and wetland map is included in **Appendix A**.

## 4.0 CONSTRUCTION PHASE EROSION CONTROL

### 4.1. Erosion Control Devices

The Contractor shall install and maintain all proposed erosion control measures listed below in accordance with the corresponding Wisconsin DNR technical standards attached in **Appendix F**. Inspections during construction shall be performed weekly, and following a rain event ( $>0.5''$ ), and documented on DNR Form 3400-187, "Construction Site Inspection Report."

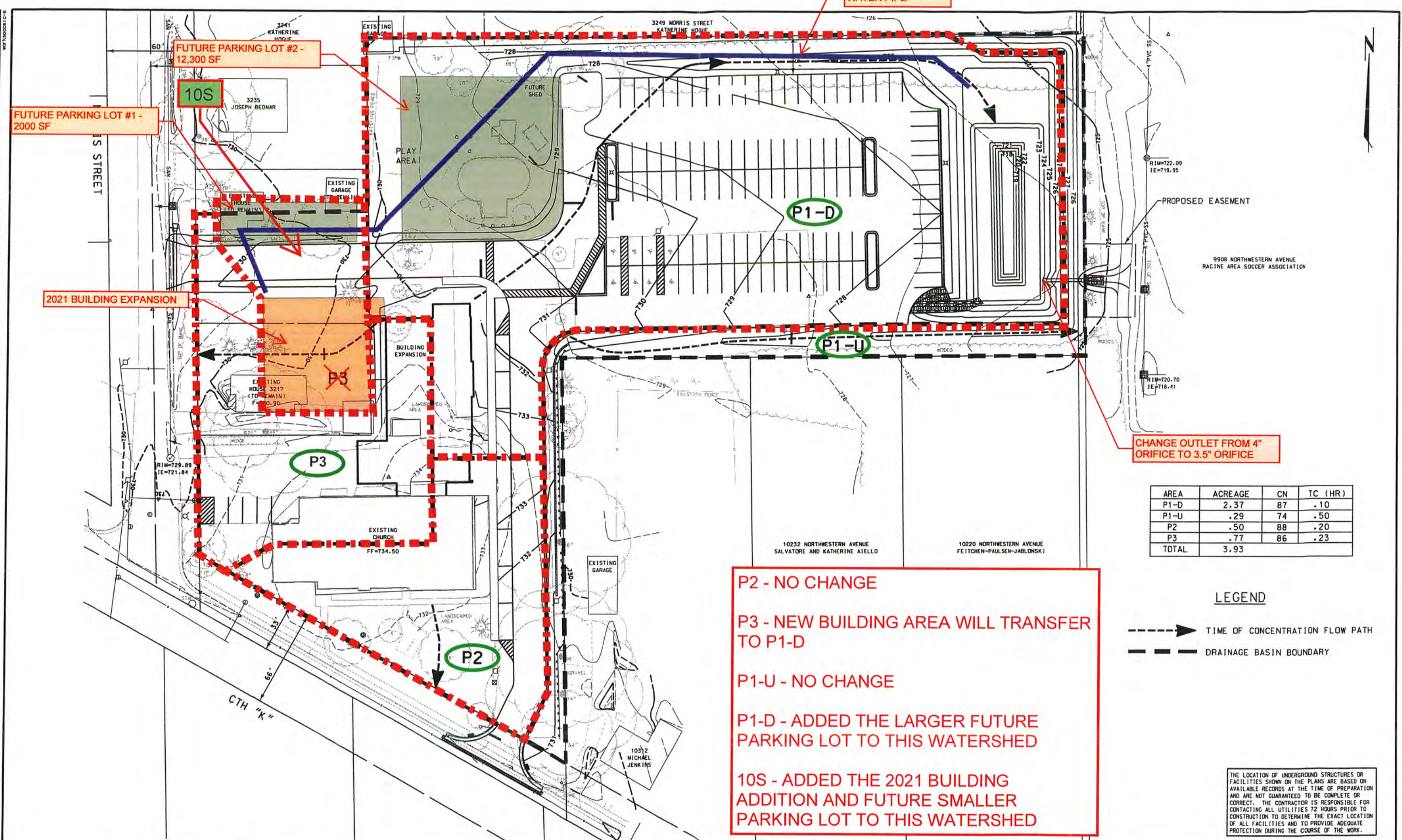
Erosion control on the site will consist of conventional BMPs to control sediment during construction, and aid in turf restoration after construction is complete. The first erosion control items to be installed will be a small stone tracking pad adjacent to the new building. Prior to grading, silt fence is required as shown per the plans and specifications to the north and west of the building. Silt fence will also be used

REVISÉD TO CONFORM TO  
CONSTRUCTION RECORDS

RACINE COUNTY WISCONSIN

OF





NO.	REVISIONS	BY	DATE	VERIFY SCALES	DRAWN BY:	DESIGNED BY
				BAR IS ONE INCH ON ORIGINAL DRAWING.	PRELIM B.F.	M. FINEOUR
				IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	FINAL B.F. C.E.	CHECKED BY
					DATE MARCH, 2008	SCALE 1"=30'



## MEMORANDUM

**DATE:** Tuesday, January 4, 2022

**TO:** Caledonia Utility District

**FROM:** Anthony A. Bunkelman P.E.  
Public Services Director



**RE:** Prairie Pathways Phase IV Utility & Grading Plan Conditional Approval

### BACKGROUND INFORMATION

Aaron Koch P.E. of Pinnacle Engineering Group has submitted a set of Engineering Improvement Plans for Prairie Pathways – Button Bush Drive (Phase IV). Prairie Pathways Phase IV is a proposed residential subdivision located North of Dunkelow Road, South of Prairie Pathways Drive, off of the recently constructed portion of Morris Street. This plan involves the construction of Button Bush Drive. This Phase of the subdivision is located within the sanitary sewer service area and is for the creation of 19 lots.

This Phase of the development was included in the Storm Water Management Plan for the previous phase. This development falls under the 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 achieve 80% Total Suspended Solids removal. The Storm Water Management Plan dated February 7, 2019, meets the Ordinance.

The runoff from the proposed lots and the proposed road Right of Way will drain to 2 storm water ponds. Both of the storm water ponds will accept runoff from Phase IV and meet the current storm water runoff regulations. The Storm Water Management Plan has been previously approved.

The Site Grading & Drainage Plan included in the submittal has been reviewed by the Engineering Department and the Public Services Director. These plans show how each of the lots are to be graded. The plans provide the proposed FYG's for the individual homes and most grades meet the Ordinance for proper drainage away from the homes. There are a few minor changes that have been requested in the attached review letter. The Site Grading & Drainage Plan is ready for conditional approval.

The Utility Plans included in the Construction Plan have also been reviewed and recommended for approval by the Utility District's Consultant and the Public Services Director. This includes the Sanitary Sewer, Watermain and Storm Sewer. The Racine Wastewater Commission will be reviewing the sanitary sewer extension at their January Meeting. The watermain plans are also ready for approval. The storm sewer plans for the site require some minor modifications but again are ready for conditional approval pending revisions listed in the attached review letter.

Included in this packet are the review letter, the Utility District consultant review letter, the sanitary sewer request letter, and a copy of the reviewed plans.

## **RECOMMENDATION**

**Move to conditionally approve the Engineering Improvements Plan for Prairie Pathways – Button Bush Drive (Phase IV) subject to the following:**

- 1. All comments on the Public Services Director’s letter for the Engineering Improvements Plan dated December 16, 2021, are addressed as necessary.**
- 2. The Sanitary Sewer Extension is approved by the Racine Wastewater Utility.**
- 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. A Developers Agreement be executed and acceptable financial guarantees are made with the Village to ensure that the Sanitary Sewer, Watermain, Storm Sewer and roads are installed (properly), asbuilt, and certified by the Design Engineer.**
- 5. Storm Water Easements are granted as listed in the review letter.**

Thursday, December 16, 2021

Pinnacle Engineering Group  
c/o Bryan Pokos P.E.  
20725 W. Watertown Road Suite 100  
Brookfield, WI 53186

RE: Prairie Pathways Phase IV Button Bush Drive – Subdivision Review

Dear Mr. Pokos:

The Caledonia Utility District and the Village of Caledonia have performed a review of the Subdivision Plan sheets for the proposed Button Bush Drive expansion (Phase IV) in Prairie Pathways. The Engineering Improvement Plan is dated October 18, 2021 and was received on October 19, 2021. Below is a summary of the review comments.

### Site/Utility Plans

- **Sanitary Sewer**
  - On Sheet 12 of 13 Sanitary Sewer Manhole Detail. Will need to reference that the exterior of the sanitary sewer manhole shall have 2 coats of coal tar epoxy coating.
- **Watermain**
  - On Sheet 12 of 13 Tracer Wire at Gate & Butterfly Valve. The PVC conduit can be reduced to a ½" PVC line.
- **Storm Sewer**
  - Sheet 12 of 13 Remove the Anti Seep Collar Detail.
  - Sheet 12 of 13 Clarify the diameter of the storm clean out pipes and frost sleeves.
  - Sheet 12 of 13 Clarify the diameter of the sump cleanouts pipes and frost sleeves.
  - Sheet 12 of 13 Change casting on the 2' x 3' Catch Basin Detail back to Neenah Foundry R-3501-TB. I apologize for the confusion the 3501-R will not work.
  - On Sheet 9 of 13, the sump collection line out of CB01 will need to have a manhole added behind the back of curb for the change in direction OR will need to split the lines that run East and West, then install a sweeping curve with double 45° bends on both similar to what is done out of CB06.
  - Review profiles for the sump collection system. Sheet 9 of 13. The profile for the line out of CB01 is shown lower than the downstream outlet. The profile for the line to the East is not shown.
- **Grading Plan**
  - Rear Yard Swale for Lots 191-196. What is currently proposed moves the swale outside of the easement. What is recommended is that the rear yard swale centerline be centered in the Drainage Easement. Recommend coming out of the Storm Sewer in the rear yard of 196 and have the swale at 0.8%. Then create a 1.5' berm in the rear 12' to contain the



runoff, then the centerline of the swale is placed at 12' off of the property line. From the centerline, bring the grade up toward the FYG's at 4:1. When this is done, the rear yard swale will be able to capture all of the rear yard of Lot 191 to drain within the subdivision and not to the road ditch.

- Correct the Typo on the contour in the Right of Way of Highway H behind Lot 189.
- Rear Yard Swale on Lot 179, 183 & 185 do not have the minimum centerline slope of 0.8%.
- Will need to grant a Drainage Easement on Lots 179 & 180 for the rear yard swale that drains across the lots.
- The side yard swale between Lot 185 & 186 does not have the minimum centerline slope of 0.8%.
- On the common lot line between 178 & 179 the swale shall have the following grades. At 81' from the Right of Way the grade shall be 725.83. (It is currently at 77') This will then match what was issued with the Building Permit for Lot 178.
- On the common lot line between 196, 197 & 198 the swale shall have the following grades. At 53' from the Right of Way 726.90 (currently at 61'), at 77' from the Right of Way 726.30 (currently at 80') and at 103' from the Right of Way 725.70 (currently at 110'). This will then match what was issued with the Building Permit for Lot 198.
- **General Comments**
  - Will need to obtain a permit/approval from Racine County for the work in the County Trunk Highway H Right of Way. Copy of the County Permit shall be supplied to the Engineering Department.
  - On Sheets 5, 7 & 11 will need to label lots as necessary.
  - Sheets 5 & 7 label 179,180, 181, 190 & 191.
  - Sheet 11 label 185 & 186.
  - On Sheet 13 of 13 The base course of the road shall extend beyond the back of curb by a minimum of 18".
  - The Caledonia Utility District and the Village of Caledonia retain the right to additional review comments until the plans are approved.
  - Once approved by the Caledonia Utility District, 5 stamped hard copies and 1 stamped electronic (pdf) copy are to be submitted for the Engineering Improvement Plans.

If there are any questions on this review, please contact me to discuss.

Sincerely,



Anthony A. Bunkelman P.E.  
Village Public Services Director  
Village of Caledonia



Monday, December 13, 2021

Racine Wastewater Utility  
c/o Michael Gitter, Interim General Manager  
City Hall Annex Room 227  
800 Center Street  
Racine, WI 53403

RE: Approval of Caledonia Utility District Sanitary Sewer Extension – Prairie Pathways  
Phase IV Sanitary Sewer Extension – Button Bush Drive

Dear Mr. Gitter:

The Caledonia Utility District has received, reviewed, and approved Sanitary Sewer plans for the Prairie Pathways Phase IV Sanitary Sewer Extension. The Prairie Pathways Phase IV Sanitary Sewer Extension Project will serve a proposed single family home subdivision phase located in the Northwest ¼ of Section 33 of Range 22 East, Town 4 North in the Village of Caledonia.

Prairie Pathways Phase IV is more specifically located at the West end of Prairie Pathways Subdivision and will extend Button Bush Drive. The development proposes the creation of 19 single family homes. All 19 single family homes will be served by the municipal sanitary sewer extension. The proposed extension is 8" PVC and total 1,152.5' in length.

The Caledonia Utility District is hereby requesting approval from the Racine Wastewater Utility at their January 18, 2022 meeting for the construction of the 1,152.5' Sanitary Sewer Extension for the Prairie Pathways Phase IV Sanitary Sewer Extension.

If there are any questions about this request please contact me directly at 262-835-6416 or [abunkelman@caledonia-wi.gov](mailto:abunkelman@caledonia-wi.gov)

Sincerely,

A handwritten signature in blue ink that reads "Anthony Bunkelman".

Anthony A. Bunkelman P.E.  
Public Services Director

Village of Caledonia  
5043 Chester Lane  
Racine, WI 53402



## Tony Bunkelman

---

**From:** Schultz, Andy <Andy.Schultz@foth.com>  
**Sent:** Thursday, December 9, 2021 10:42 PM  
**To:** Tony Bunkelman  
**Cc:** Utility- Bob Lui  
**Subject:** RE: [External] Prairie Pathways

Tony,

In looking at the plans, here are my comments based on Caledonia's comments and Pinnacles responses:

- General Utility Comments
  - The laterals for Lot 184 look like they could be moved more to the center by slightly shortening the sump line.
  - The laterals for Lot 185 look like they could be moved more to the center by slightly lengthening the sump line.
  - The laterals for Lot 186 look well placed.
  - The laterals for Lots 189 look like they could be moved more to the center by slightly lengthening the sanitary main.
  - The laterals for Lots 191 look like they could easily be moved more to the center without changing any other utilities.
- Sanitary Sewer
  - All comments have been addressed.
- Watermain
  - The watermain and sanitary sewer are close in elevation from STA 17+00 to 23+25. They added two notes to the plan view on Sheet 8 regarding the insulation you requested. I would recommend they make that note say "(TYP)" for all water services shown on Sheet 8 of 13.
- Storm Sewer
  - All comments have been addressed.
- Stormwater Management
  - Deferred to Village review.

New comments:

- There are several lot numbers not labeled on Sheets 5, 7, and 11.
- The Storm Cleanout and Sump Pump Lateral details should reference pipe sizes for the cleanouts and a threaded PVC cap. They show frost sleeves on both and a Neenah cover on the Storm Cleanout, but not on the Sump Pump Lateral. They should add the Neenah cover to the top of the frost sleeve on the Sump Pump Lateral detail.
- The Sanitary Manhole detail should also reference that the exterior of the manhole should have two coats of Coal Tar Epoxy coating.
- The conduit in the Tracer Wire at Gate & Butterfly Valves detail can be a ½" conduit.
- They include an Anti-Seep Collar detail, but I could not find any locations on the plan and profile pages where they call this out.

Call with any questions.

Thanks,  
Andy

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## LEGEND

	EXISTING	PROPOSED
SANITARY SEWER MANHOLE		
STORM SEWER MANHOLE		
STORM SEWER CATCH BASIN (ROUND CASTING)		
STORM SEWER CATCH BASIN (RECTANGULAR CASTING)		
PRECAST FLARED END SECTION		
CONCRETE HEADWALL		
VALVE BOX		
FIRE HYDRANT		
CLEANOUT		
SANITARY SEWER		
FORCE MAIN		
STORM SEWER		
DRAIN TILE		
WATER MAIN		
FIRE PROTECTION		
ELECTRICAL CABLE		
OVERHEAD WIRES		
GAS MAIN		
TELEPHONE LINE		
UTILITY CROSSING		
CAUTION EXISTING UTILITIES NEARBY		
GRANULAR TRENCH BACKFILL		
LIGHTING		
ELECTRICAL TRANSFORMER OR PEDESTAL		
POWER POLE		
POWER POLE WITH LIGHT		
GUY WIRE		
STREET SIGN		
CONTOUR		
SPOT ELEVATION		
WETLANDS		
PRIMARY ENVIRONMENTAL CORRIDOR		
FLOODWAY		
FLOODPLAIN		
HIGH WATER LEVEL (HWL)		
NORMAL WATER LEVEL (NWL)		
DIRECTION OF SURFACE FLOW		
DITCH OR SWALE		
DIVERSION SWALE		
OVERFLOW RELIEF ROUTING		
TREE WITH TRUNK SIZE		
SOIL BORING		
TOPSOIL PROBE		
FENCE LINE, TEMPORARY SILT		
FENCE LINE, WIRE		
FENCE LINE, CHAIN LINK OR IRON		
FENCE LINE, WOOD OR PLASTIC		
CONCRETE SIDEWALK		
CURB AND GUTTER		
DEPRESSED CURB		
REVERSE PITCH CURB & GUTTER		
EASEMENT LINE		

## ABBREVIATIONS

BL	BASE LINE	MH	MANHOLE
BP	BOTTOM OF PIPE	NWL	NORMAL WATER LEVEL
C	LONG CHORD OF CURVE	PC	POINT OF CURVATURE
C & G	CURB AND GUTTER	PT	POINT OF TANGENCY
CB	CATCH BASIN	PVI	POINT OF VERTICAL INTERSECTION
CL	CENTERLINE	R	RADIUS
C	DEGREE OF CURVE	ROW	RIGHT-OF-WAY
EP	EDGE OF PAVEMENT	SAW	SANITARY SEWER
FES	FLARED END SECTION	ST	STORM SEWER
FF	FINISHED FLOOR	T	TANGENCY OF CURVE
FG	FINISHED GRADE	TB	TOP OF BANK
FL	FLOW LINE	TC	TOP OF CURB
FP	FLOODPLAIN	TF	TOP OF FOUNDATION
FR	FRAME	TP	TOP OF PIPE
FW	FLOODWAY	TS	TOP OF SIDEWALK
FVG	FINISHED YARD GRADE	TW	TOP OF FOUNDATION WALL
HWL	HIGH WATER LEVEL	WM	WATER MAIN
INV	INVERT	Δ	INTERSECTION ANGLE
L	LENGTH OF CURVE		

# ENGINEERING IMPROVEMENT PLANS

FOR

# PRAIRIE PATHWAYS - BUTTON BUSH DRIVE

## CALEDONIA, WISCONSIN

PLANS PREPARED FOR

## THE NEWPORT GROUP, LTD

8338 CORPORATE DRIVE #300  
MOUNT PLEASANT, WI 53406



PROJECT  
LOCATION

## INDEX OF SHEETS

1	COVER SHEET
2	EXISTING CONDITIONS
3	MASTER GRADING PLAN
4	EROSION CONTROL PLAN
5 - 6	SANITARY SEWER PLAN & PROFILE
7 - 8	WATER MAIN PLAN & PROFILE
9 - 11	STORM SEWER & PAVEMENT PLAN & PROFILE
12 - 13	CONSTRUCTION DETAILS & SPECIFICATIONS

## GENERAL NOTES

- THE INTENTION OF THE PLANS AND SPECIFICATIONS IS TO SET FORTH PERFORMANCE AND CONSTRUCTION MATERIAL STANDARDS FOR THE PROPER EXECUTION OF WORK. ALL WORKS CONTAINED WITHIN THE PLANS AND SPECIFICATIONS SHALL BE COMPLETED IN ACCORDANCE WITH ALL REQUIREMENTS FROM LOCAL, STATE, FEDERAL OR OTHER GOVERNING AGENCY'S LAWS, REGULATIONS, JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., AND THE OWNER'S DIRECTION.
- NO GEOTECHNICAL REPORT HAS FOR THE PROJECT SITE. THE DATA ON SUB-SURFACE SOIL CONDITIONS IS NOT INTENDED AS A REPRESENTATION OR WARRANTY OF THE CONTINUITY OF SUCH CONDITIONS BETWEEN BORINGS. OR INDICATED SAMPLING LOCATIONS. IT SHALL BE EXPRESSLY UNDERSTOOD THAT OWNER WILL NOT BE RESPONSIBLE FOR ANY INTERPRETATIONS OR CONCLUSIONS DRAWN THERE FROM BY THE CONTRACTOR. DATA IS MADE AVAILABLE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ANY ADDITIONAL SOILS INVESTIGATIONS THEY FEEL IS NECESSARY FOR THE PROPER EVALUATION OF THE SITE FOR PURPOSES OF PLANNING, BIDDING, OR CONSTRUCTING THE PROJECT AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE TO REVIEW AND UNDERSTAND ALL COMPONENTS OF THE PLANS AND SPECIFICATIONS, INCLUDING FIELD VERIFYING SOIL CONDITIONS, PRIOR TO SUBMISSION OF A BID PROPOSAL.
- THE CONTRACTOR SHALL PROMPTLY REPORT ANY ERRORS OR AMBIGUITIES LEARNED AS PART OF THEIR REVIEW OF PLANS, SPECIFICATIONS, REPORTS AND FIELD INVESTIGATIONS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE COMPUTATION OF QUANTITIES AND WORK REQUIRED TO COMPLETE THIS PROJECT. THE CONTRACTOR'S BID SHALL BE BASED ON ITS OWN COMPUTATIONS AND IN NO SUCH INSTANCE RELY ON THE ENGINEER'S ESTIMATE.
- QUESTIONS/CLARIFICATIONS WILL BE INTERPRETED BY ENGINEER/OWNER PRIOR TO THE AWARD OF CONTRACT. ENGINEER/OWNER WILL SUBMIT OFFICIAL RESPONSES IN WRITING. INTERPRETATIONS PRESENTED IN OFFICIAL RESPONSES SHALL BE BINDING ON ALL PARTIES ASSOCIATED WITH THE CONTRACT. IN NO WAY SHALL WORD-OF-MOUTH DIALOG CONSTITUTE AN OFFICIAL RESPONSE.
- PRIOR TO START OF WORK, CONTRACTOR SHALL BE COMPLETELY FAMILIAR WITH ALL CONDITIONS OF THE SITE, AND SHALL ACCOUNT FOR CONDITIONS THAT AFFECT, OR MAY AFFECT CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, LIMITATIONS OF WORK ACCESS, SPACE LIMITATIONS, OVERHEAD OBSTRUCTIONS, TRAFFIC PATTERNS, LOCAL REQUIREMENTS, ADJACENT ACTIVITIES, ETC. FAILURE TO CONSIDER SITE CONDITIONS SHALL NOT BE CAUSE FOR CLAIM OF JOB EXTRAS.
- COMMENCEMENT OF CONSTRUCTION SHALL EXPLICITLY CONFIRM THAT THE CONTRACTOR HAS REVIEWED THE PLANS AND SPECIFICATIONS IN ENTIRETY AND CERTIFIES THAT THEIR SUBMITTED BID PROPOSAL CONTAINS PROVISIONS TO COMPLETE THE PROJECT, WITH THE EXCEPTION OF UNFORESEEN FIELD CONDITIONS. ALL APPLICABLE PERMITS HAVE BEEN OBTAINED, AND CONTRACTOR UNDERSTANDS ALL OF THE REQUIREMENTS OF THE PROJECT.
- SHOULD ANY DISCREPANCIES OR CONFLICTS IN THE PLANS OR SPECIFICATIONS BE DISCOVERED AFTER THE AWARD OF CONTRACT, ENGINEER SHALL BE NOTIFIED IN WRITING IMMEDIATELY AND CONSTRUCTION OF ITEMS AFFECTED BY THE DISCREPANCIES/CONFLICTS SHALL NOT COMMENCE, OR CONTINUE, UNTIL A WRITTEN RESPONSE FROM ENGINEER/OWNER IS DISTRIBUTED. IN THE EVENT OF A CONFLICT BETWEEN REFERENCED CODES, STANDARDS, SPECIFICATIONS AND PLANS, THE ONE ESTABLISHING THE MOST STRINGENT REQUIREMENTS SHALL BE FOLLOWED.
- THE CONTRACTOR SHALL, AT ITS OWN EXPENSE, OBTAIN ALL NECESSARY PERMITS AND LICENSES TO COMPLETE THE PROJECT. OBTAINING PERMITS, OR DELAYS, IS NOT CAUSE FOR DELAY OF THE CONTRACT OR SCHEDULE. CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS.
- THE CONTRACTOR SHALL NOTIFY ALL INTERESTED GOVERNING AGENCIES, UTILITY COMPANIES AFFECTED BY THIS CONSTRUCTION PROJECT, AND DIGGERS' HOTLINE IN ADVANCE OF CONSTRUCTION TO COMPLY WITH ALL JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., PERMIT STIPULATIONS, AND OTHER APPLICABLE STANDARDS.
- SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE TO INITIATE, INSTITUTE, ENFORCE, MAINTAIN, AND SUPERVISE ALL SAFETY PRECAUTIONS AND JOB SITE SAFETY PROGRAMS IN CONNECTION WITH THE WORK.
- CONTRACTOR SHALL KEEP THE JOBSITE CLEAN AND ORDERLY AT ALL TIMES. ALL LOCATIONS OF THE SITE SHALL BE KEPT IN A WORKING MANNER SUCH THAT DEBRIS IS REMOVED CONTINUOUSLY AND ALL RESPECTIVE CONTRACTORS OPERATE UNDER GENERAL "GOOD HOUSEKEEPING."
- THE CONTRACTOR SHALL INDEMNIFY THE OWNER, ENGINEER, AND THEIR AGENTS FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.

## PROJECT CONTACTS

<b>DESIGNER CONTACT</b> AARON KACH 20725 WATERTOWN ROAD, SUITE 100 BROOKFIELD, WI 53186 (262) 754-8888	<b>DEVELOPER CONTACT</b> NANCY WASHBURN 7450 COUNTY LINE ROAD MOUNT PLEASANT, WI 53403 (262) 818-1836
--	---



Toll Free (800) 242-8511  
Milwaukee Area (414) 258-1181  
Hearing Impaired TDD (800) 542-3289  
www.DiggersHotline.com

## PINNACLE ENGINEERING GROUP, LLC ENGINEER'S LIMITATION

PINNACLE ENGINEERING GROUP, LLC AND THEIR CONSULTANTS DO NOT WARRANT OR GUARANTEE THE ACCURACY AND COMPLETENESS OF THE DELIVERABLES HEREIN BEYOND A REASONABLE DILIGENCE. IF ANY MISTAKES, OMISSIONS, OR DISCREPANCIES ARE FOUND TO EXIST WITHIN THE DELIVERABLES, THE ENGINEER SHALL BE PROMPTLY NOTIFIED PRIOR TO BID SO THAT HE MAY HAVE THE OPPORTUNITY TO TAKE WHATEVER STEPS NECESSARY TO RESOLVE THEM. FAILURE TO PROMPTLY NOTIFY THE ENGINEER OF SUCH CONDITIONS SHALL ABSOLVE THE ENGINEER FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES OF SUCH FAILURE. ACTIONS TAKEN WITHOUT THE KNOWLEDGE AND CONSENT OF THE ENGINEER, OR IN CONTRADICTION TO THE ENGINEER'S DELIVERABLES OR RECOMMENDATIONS, SHALL BECOME THE RESPONSIBILITY NOT OF THE ENGINEER BUT OF THE PARTIES RESPONSIBLE FOR TAKING SUCH ACTION.

FURTHERMORE, PINNACLE ENGINEERING GROUP, LLC IS NOT RESPONSIBLE FOR CONSTRUCTION SAFETY OR THE MEANS AND METHODS OF CONSTRUCTION.

## REVISIONS

1	PER VILLAGE COMMENTS	10/16/21	

PROJECT NO.	95110
DATE	10/16/20
BY	MLT
CHECKED BY	

SHEET	1
OF	13

COVER SHEET

PLAN | DESIGN | DELIVER  
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PINNACLE ENGINEERING GROUP

ENGINEERING | NATURAL RESOURCES | SURVEYING

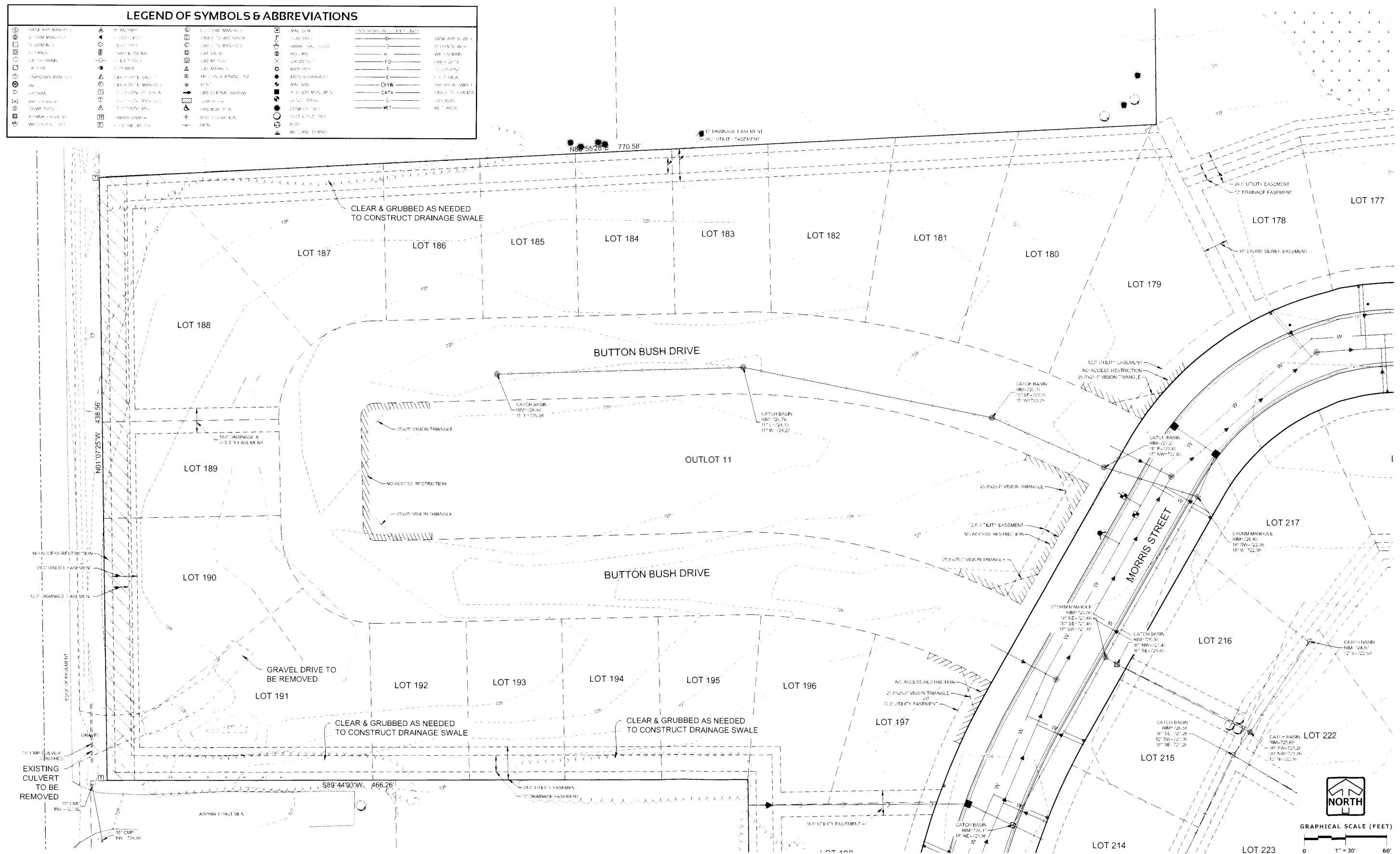
WISCONSIN OFFICE  
20725 WATERTOWN ROAD  
BROOKFIELD, WI 53186  
(262) 754-8888

PRAIRIE PATHWAYS

BUTTON BUSH DRIVE

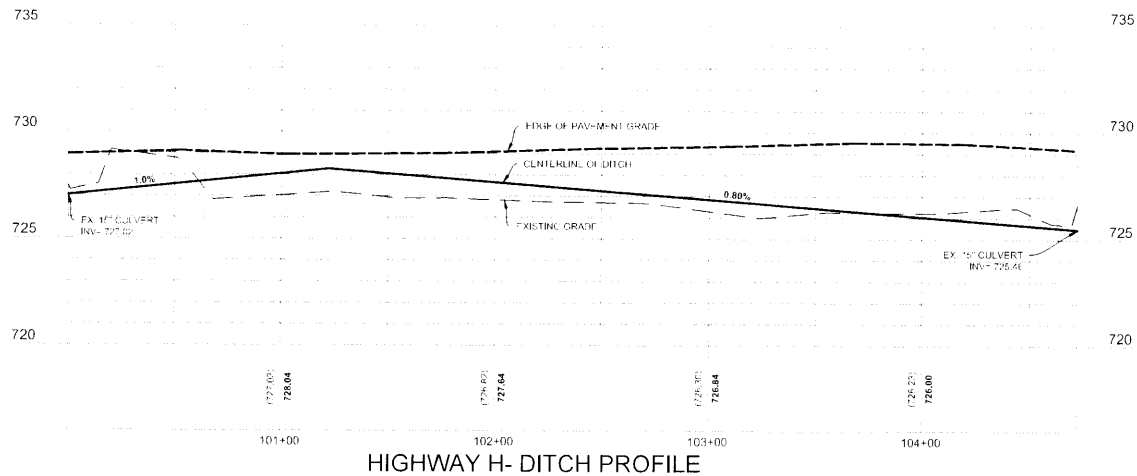
CALEDONIA, WI

COVER SHEET





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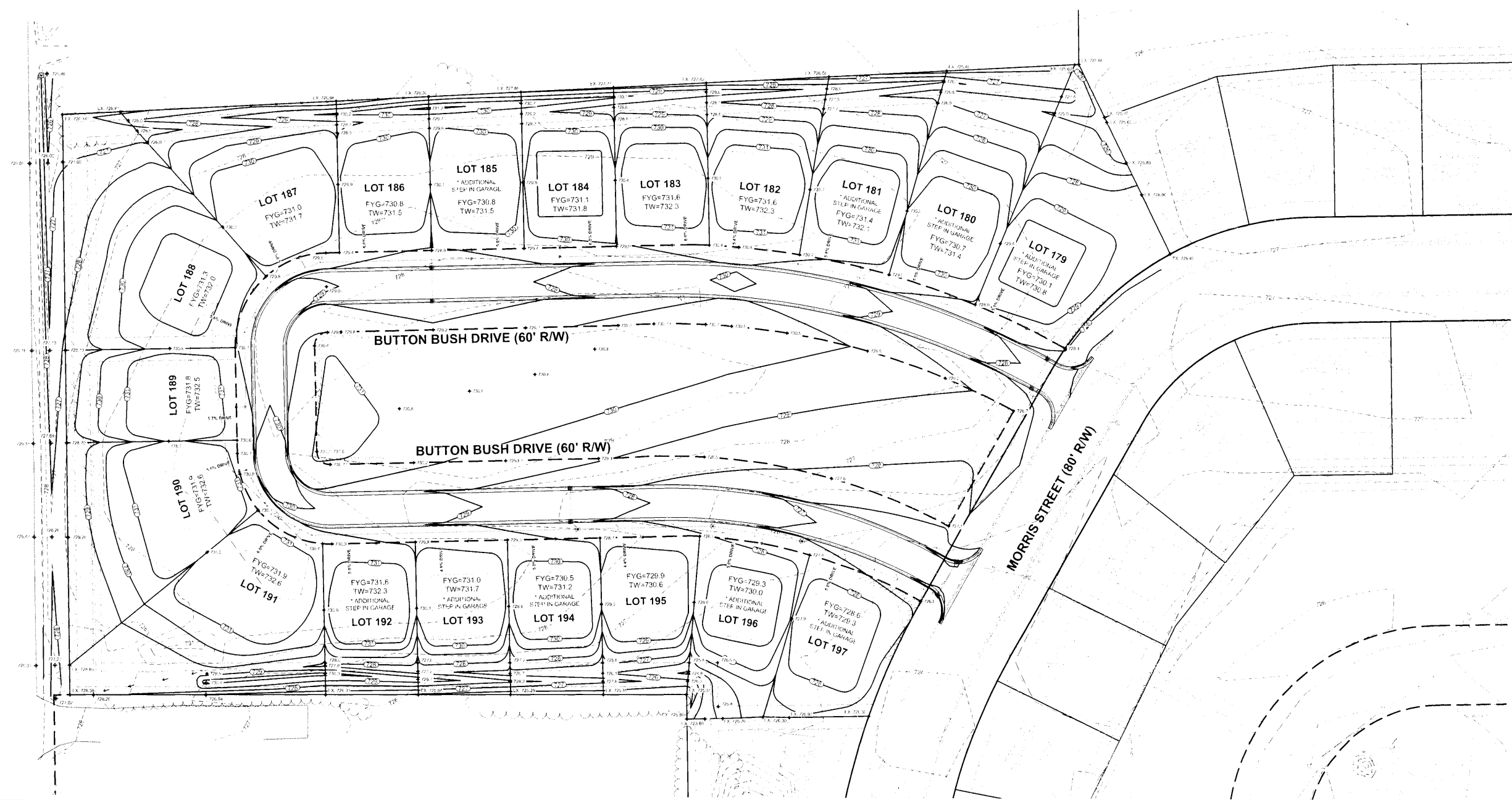


LOTS TO BE LEFT 1.5' TO 2' LOW  
AND PADS SHALL HAVE POSITIVE  
DRAINAGE AND SHALL NOT HAVE  
PONDING WATER

REAR & SIDE YARD SWALES  
TO BE BUILT TO FINISHED GRADE

ALL LOTS 4" TOPSOIL & HYDROSEED

LEGEND	
	STORM SEWER MANHOLE
	STORM SEWER CATCH BASIN- ROUND CASTING
	STORM SEWER CATCH BASIN- RECTANGULAR CASTING
	PROPOSED CONCRETE FLARED END SECTION
	PROPOSED CONTOUR
	SPOT ELEVATION
	DIRECTION OF SURFACE FLOW
	TOP OF WALL
	YARD GRADE



PINNACLE ENGINEERING GROUP

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CHICAGO, MILWAUKEE, NATIONWIDE

PRAIRIE PATHWAYS  
BUTTON BUSH DRIVE  
CALEDONIA, WI

MASTER GRADING PLAN

REVISIONS

1. PEE VILLAGE COMMENTS 10/18/21



GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

951.10  
AKK  
10/16/20  
1" = 40'

SHEET  
3  
OF  
13

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CONSTRUCTION SITE SEQUENCING

1. INSTALL PERIMETER SILT FENCE, INLET PROTECTION AND TEMPORARY CONSTRUCTION ENTRANCE.

2. STRIP AND STOCKPILE TOPSOIL. INSTALL SILT FENCE AROUND PERIMETER OF STOCKPILE.

3. CONDUCT ROUGH GRADING EFFORTS AND INSTALL CHECK DAMS AND SEDIMENT TRAP BASINS AS NEEDED.

4. INSTALL UTILITY PIPING AND STRUCTURES. IMMEDIATELY INSTALL INLET PROTECTION.

5. COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.

6. PLACE TOPSOIL AND IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROLS.

7. EROSION CONTROL MEASURES SHALL BE REMOVED ONLY AFTER SITE CONSTRUCTION IS COMPLETE WITH ALL SOIL SURFACES HAVING AN ESTABLISHED VEGETATIVE COVER.

CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM 1 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROL ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS.

LOTS TO BE LEFT 1.5' TO 2' LOW AND PADS SHALL HAVE POSITIVE DRAINAGE AND SHALL NOT HAVE PONDING WATER

REAR & SIDE YARD SWALES TO BE BUILT TO FINISHED GRADE

ALL LOTS 4" TOPSOIL & HYDROSEED

LEGEND

●

STORM SEWER MANHOLE

●

STORM CATCH BASIN (ROUND CASTING)

■

STORM CATCH BASIN (RECTANGULAR CASTING)

—

PRECAST FLARED END SECTION

—

PROPOSED CONTOUR

+

PROPOSED SPOT ELEVATION

—

WETLANDS

—

NORMAL WATER LEVEL (ML)

—

DIRECTION OF SURFACE FLOW

SF

SILT FENCE

—

INLET PROTECTION

—

CONSTRUCTION ENTRANCE

—

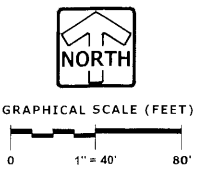
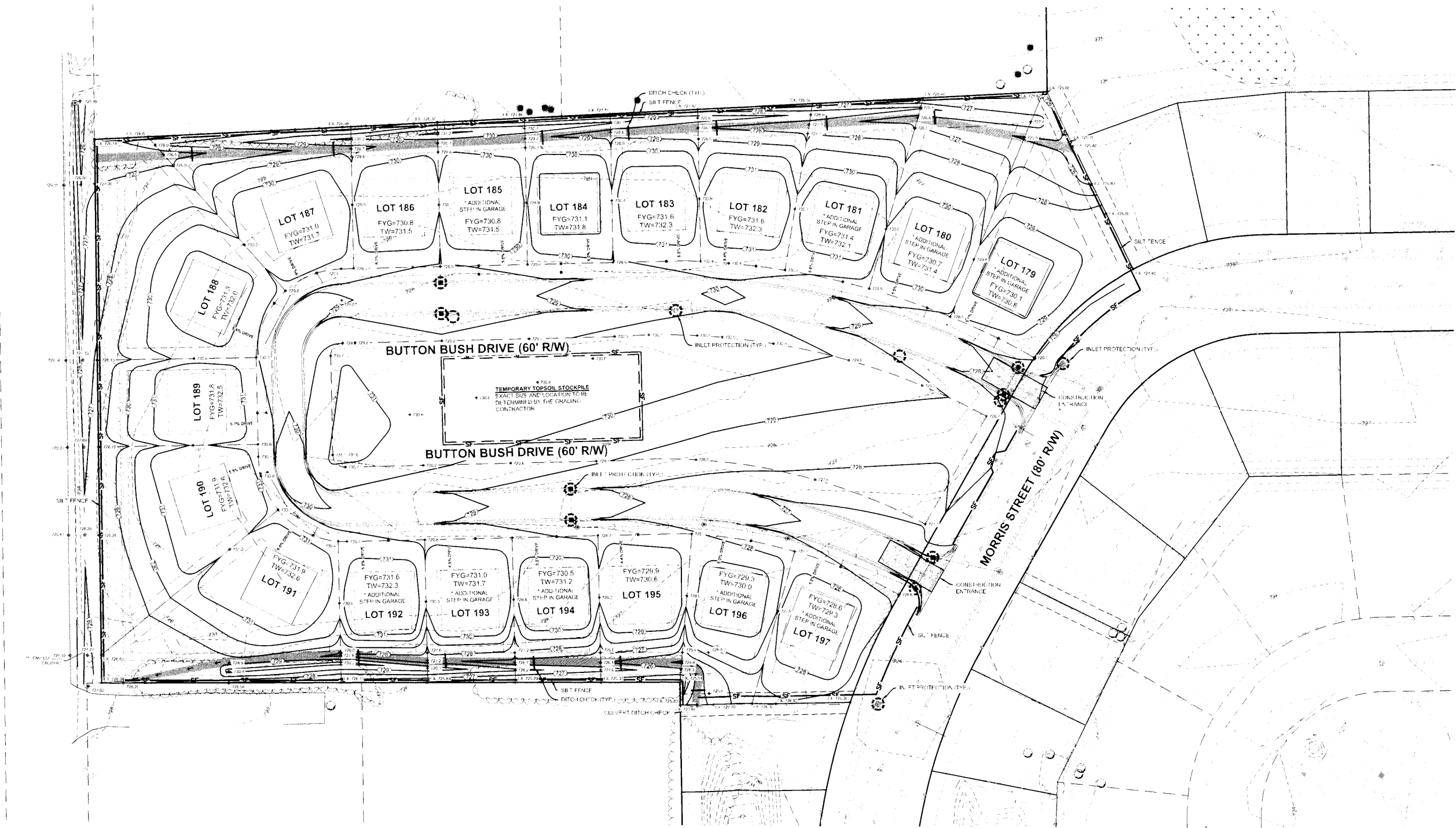
EROSION CONTROL BLANKET

—

CULVERT PIPE

—

DITCH CHECK



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(262) 784-8888

PRAIRIE PATHWAYS

BUTTON BUSH DRIVE

CALEDONIA, WI

EROSION CONTROL PLAN

REVISIONS

1. PER VILLAGE COMMENTS

10/16/21

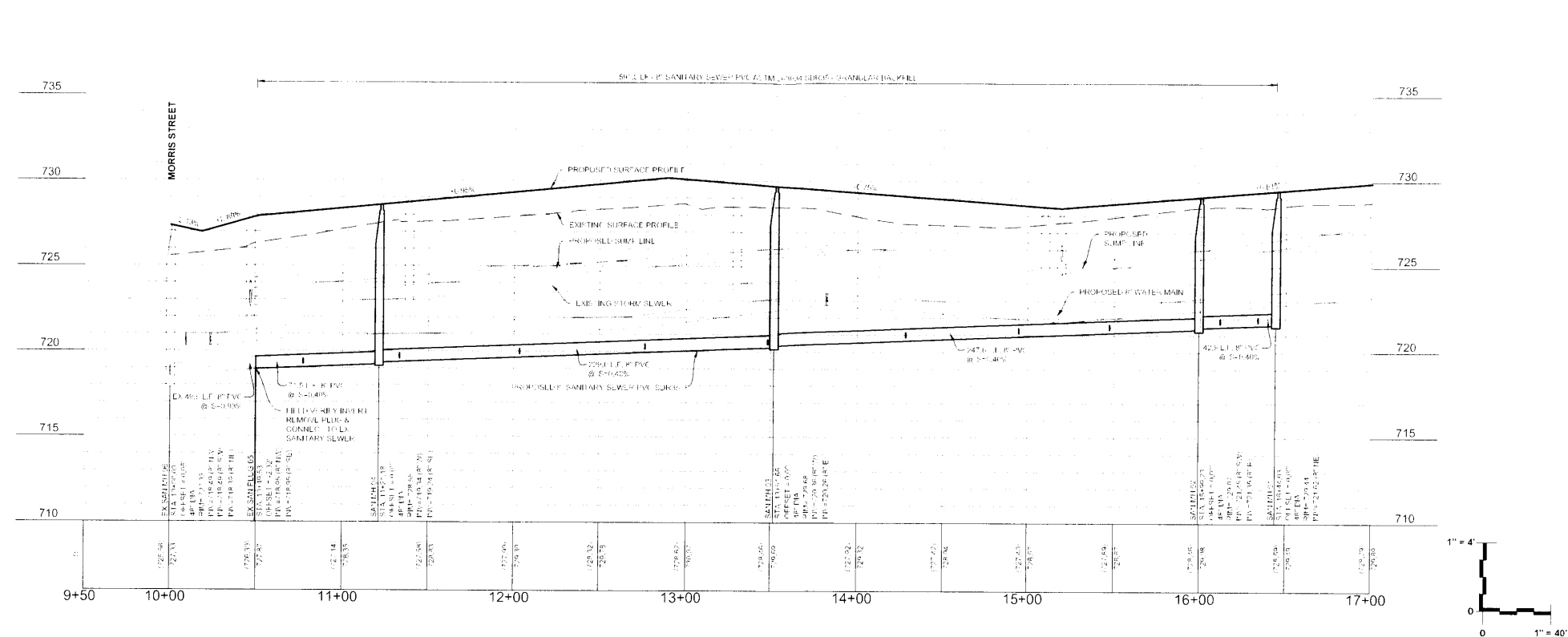
95110

AKK

10/16/20

SCALE: 1" = 40'

SHEET 4 OF 13



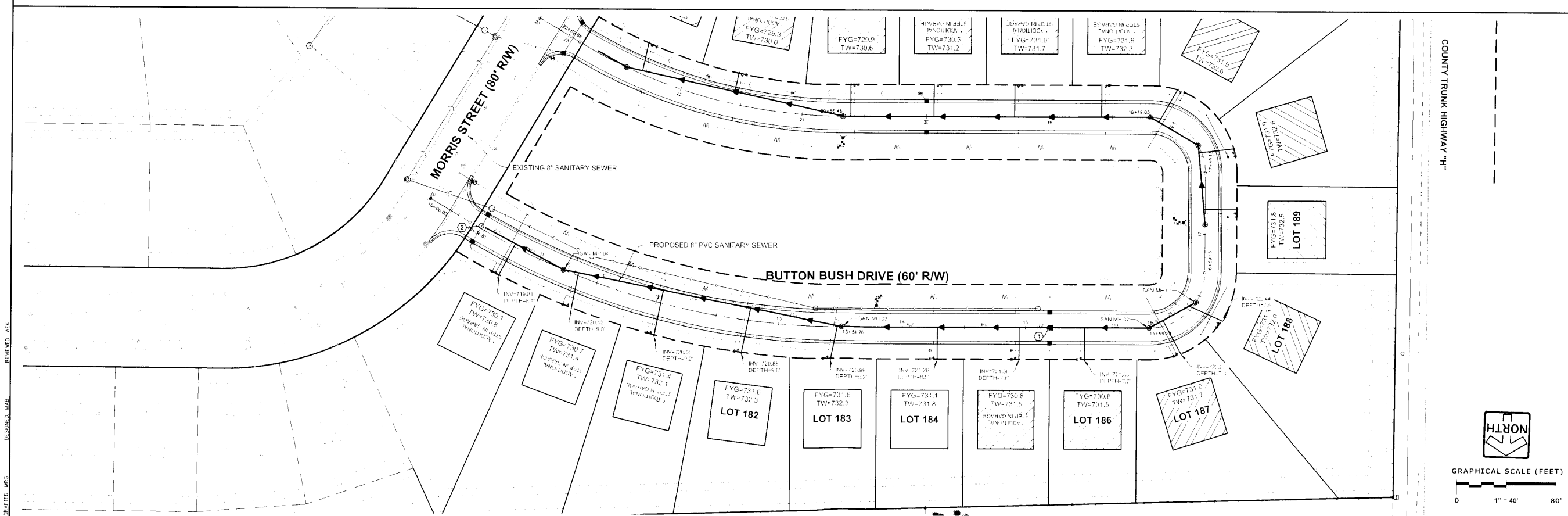
 **PROPOSED LOTS  
WITH HUNG PLUMBING**

**ALL SANITARY SEWER  
LATERALS ARE 4" PVC &  
MINIMUM SLOPE FOR LATERALS  
SHALL BE 1/4" PER LINEAR FOOT**

**TRACER WIRE IS REQUIRED FOR  
SANITARY SEWER & SANITARY  
LATERALS**

ALL LOTS HAVE GRAVITY FED  
LATERALS UNLESS OTHERWISE  
NOTED

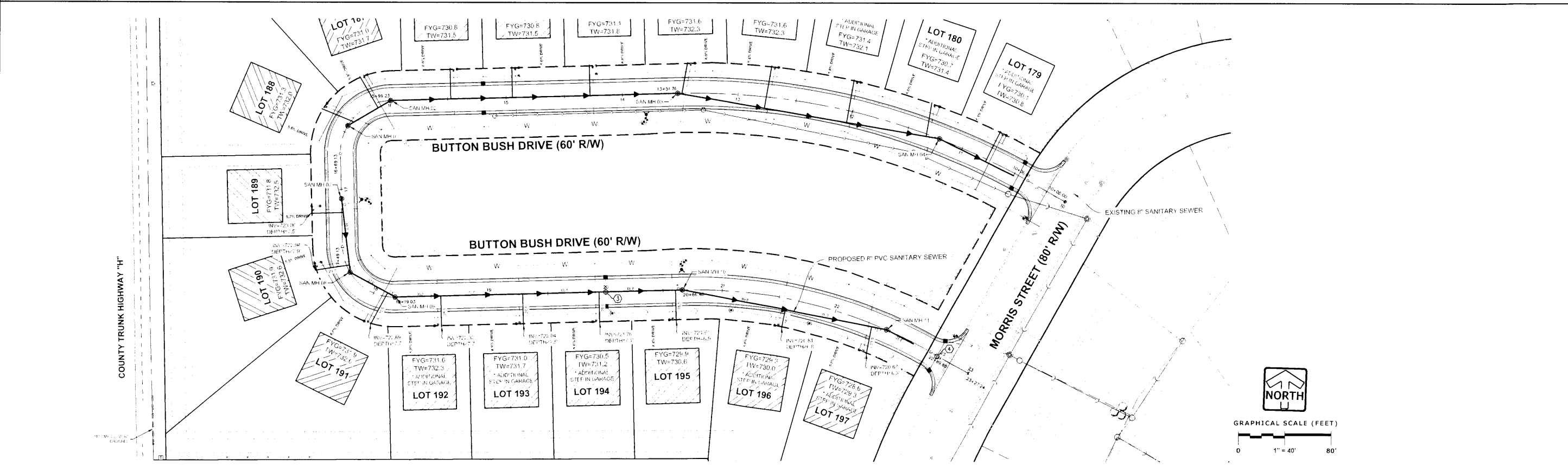
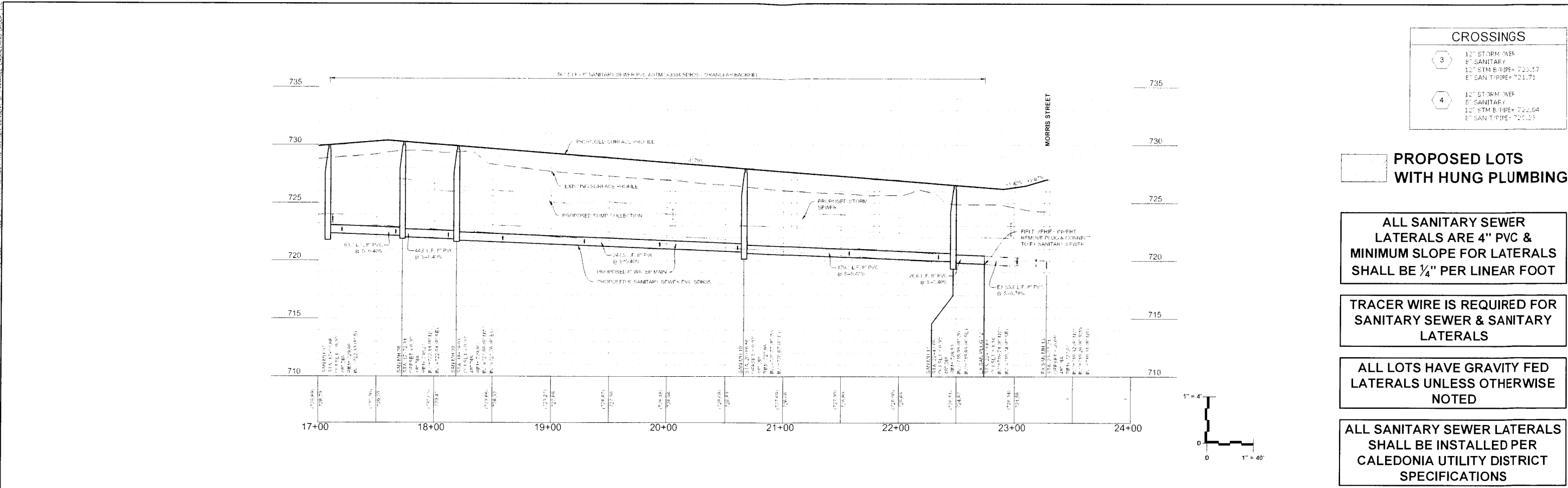
**ALL SANITARY SEWER LATERALS  
SHALL BE INSTALLED PER  
CALEDONIA UTILITY DISTRICT  
SPECIFICATIONS**



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DESIGNED: MAB  
CHECKED: AVE  
DATE: 10/16/20

PROJECT: 101001001  
SHEET: 06 OF 13  
DATE: 10/16/20



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2020 W. WISCONSIN AVE.  
CALEDONIA, WI 53601  
(262) 794-8888

**PRAIRIE PATHWAYS**

**BUTTON BUSH DRIVE**

**CALEDONIA, WI**

**SANITARY SEWER PLAN & PROFILE**

REVISIONS	
1	PER VILLAGE COMMENTS 10/16/20

**SHEET**

**6**

**OF**

**13**





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DRAFTED: MRS. DESIGNED: MRS. REVIEWED: AEC



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BLOOMSBURY, WI 53010-1800  
(262) 794-8888  
CHICAGO OFFICE: 3140 N. WILSON  
(773) 344-8888

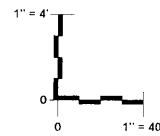
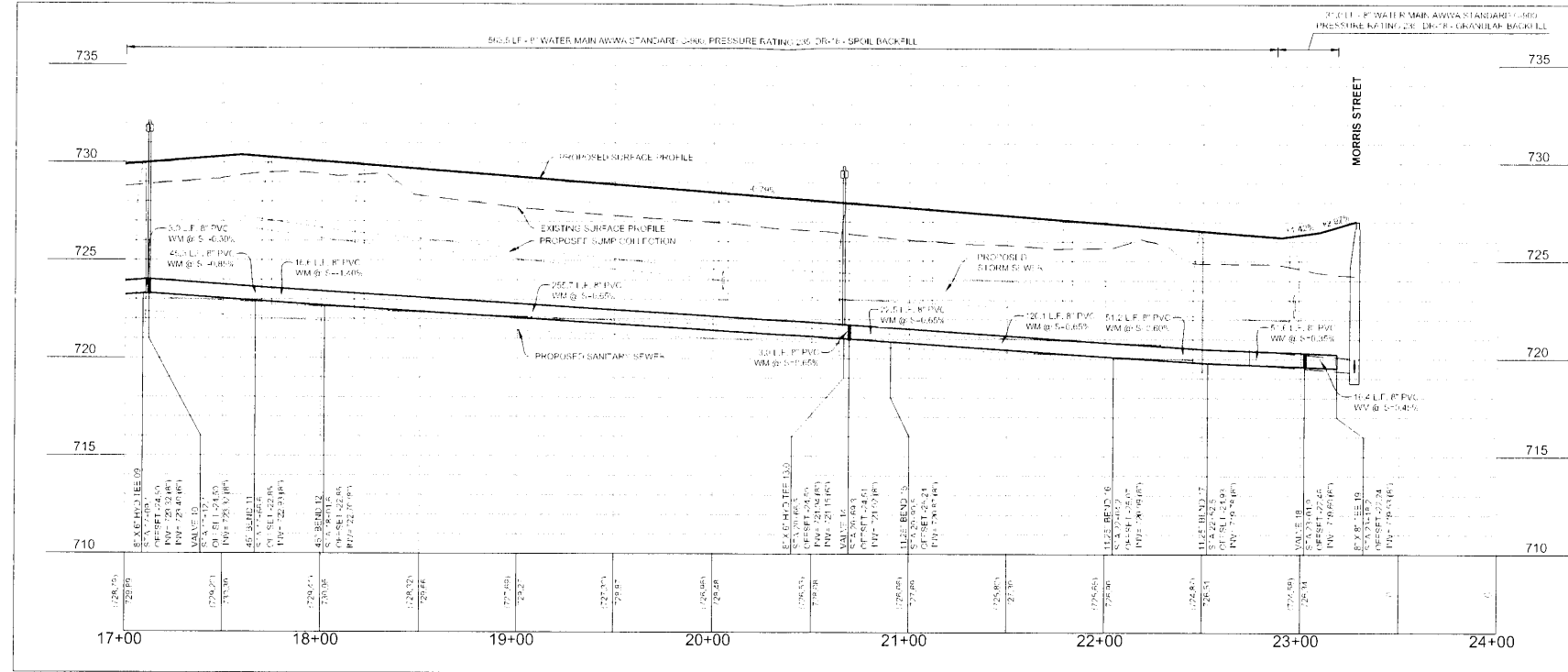
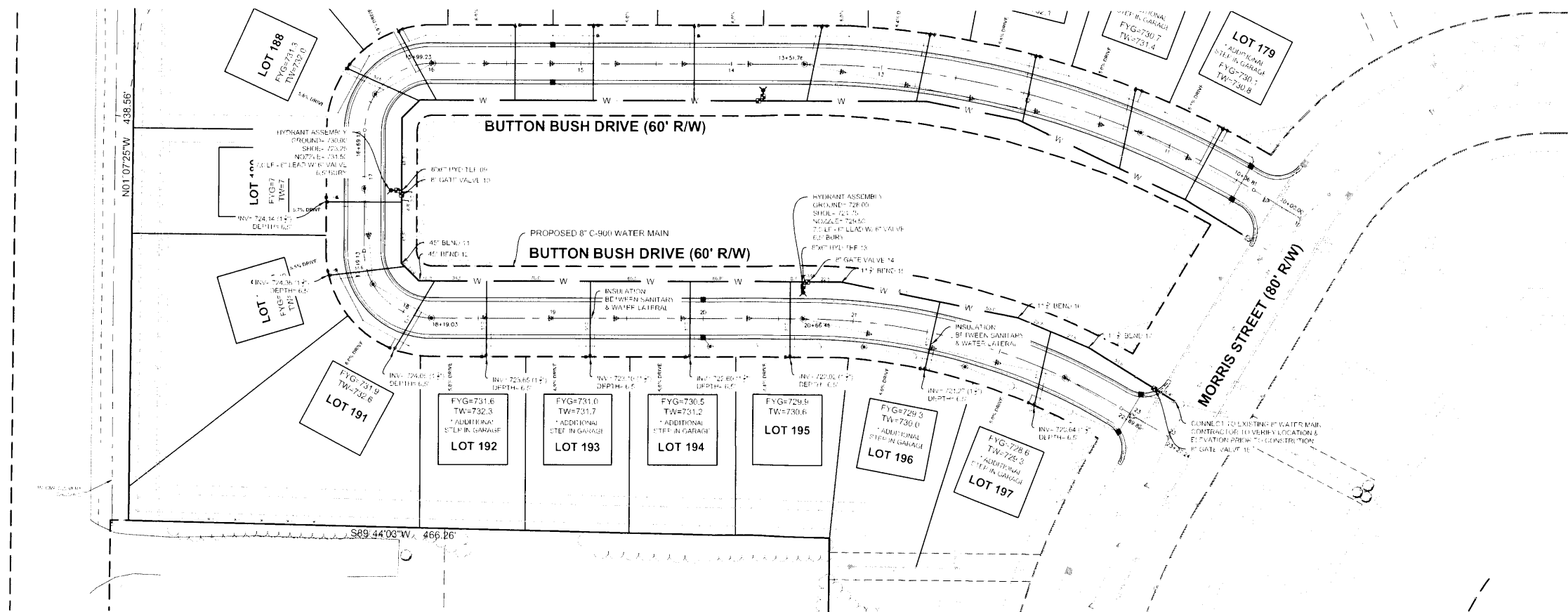
**PRAIRIE PATHWAYS**  
**BUTTON BUSH DRIVE**  
**CALEDONIA, WI**

**WATER MAIN PLAN &  
PROFILE**

REVISIONS		SHEET
NO.	DESCRIPTION	
1	PER VILLAGE COMMENTS 12.18.21	8
		OF
		13

95110  
PROJECT  
AEC  
10/16/20  
BY: AEC  
1" = 40'

PROJECT: 2021070111- WACADSHSHEET: WATER MAIN PLAN & PROFILE DWG



TRACER WIRE TO BE  
INSTALLED PER UTILITY  
DISTRICT STANDARD  
SPECIFICATIONS

ALL WATER LATERALS  
SHALL BE 1 1/4" HDPE CTS  
TUBING

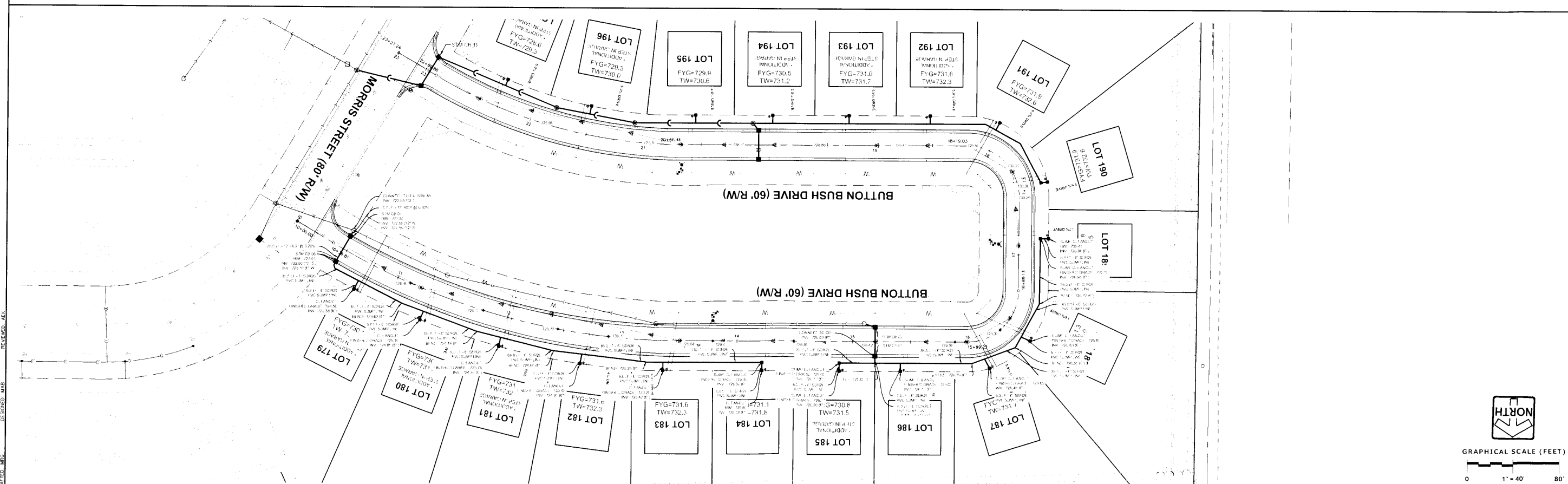
CURB BOX TO BE  
INSTALLED 1.0' OFF R.O.W.

ALL WATER LATERALS  
SHALL BE INSTALLED TO  
CALEDONIA UTILITY  
DISTRICT SPECIFICATIONS

WATER LATERALS TO BE  
INSULATED FROM  
SANITARY SEWER MAIN TO  
PREVENT ANY FREEZING  
OF WATER LATERALS

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STORM SEWER & SUMP  
COLLECTION SYSTEM SHALL HAVE  
TRACER WIRE OVER THE LINE.  
SUMP COLLECTION LINE, TRACER  
WIRE SHALL BE TAPED TO THE  
TOP OF PIPE EVERY 10'.



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DRAFTED: MRS. JESSICA M. BROWN  
DESIGNED: MRS. JESSICA M. BROWN  
REVIEWED: MRS. JESSICA M. BROWN



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2107 S. KOSCIUSKO STREET, SUITE 200  
BROOKFIELD, WI 53005  
(262) 781-8880  
WWW.PINNACLE-ENG.COM

# **PRAIRIE PATHWAYS**

## **BUTTON BUSH DRIVE**

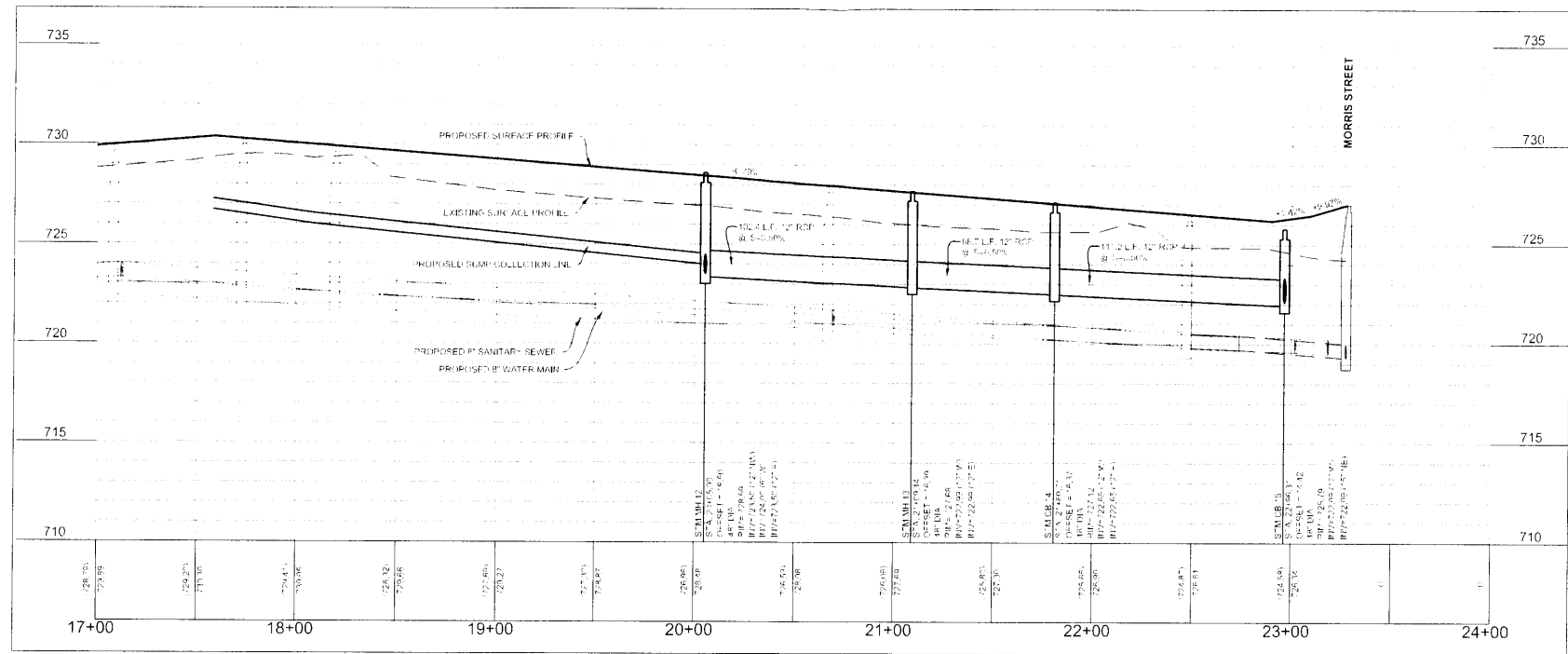
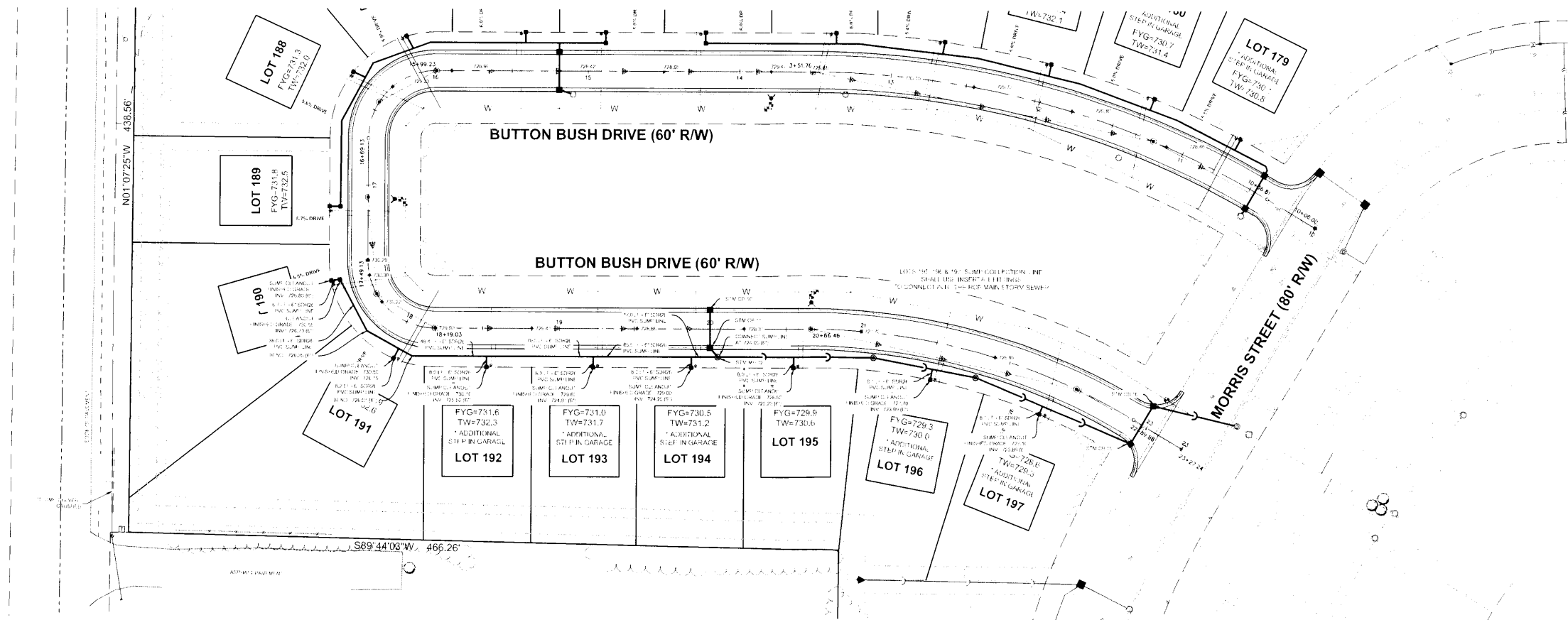
### **CALEDONIA, WI**

## **STORM SEWER & PAVEMENT PLAN & PROFILE**

REVISIONS		SHEET
NO.	DESCRIPTION	
1	PER VILLAGE COMMENTS 10.16.21	10
2		OF
3		13

DESIGNED BY: 951.10  
CHECKED BY: A.E.K.  
DATE: 10/16/2021  
SCALE: 1" = 40'

PROJECT: 2017095110-WI-CALEDONIA-SHEET 111 (STORM SEWER & PAVEMENT PLAN & PROFILE.DWG)



RCP PIPE CLASSIFICATION	
HEIGHT OF COVER (IN FT)	MIN. CL. OF PIPE
0-2	IV
2-3	III
3-6	III
6-15	III
15-25	IV
25-35	V

STORM SEWER & SUMP COLLECTION SYSTEM SHALL HAVE TRACER WIRE OVER THE LINE. SUMP COLLECTION LINE, TRACER WIRE SHALL BE TAPED TO THE TOP OF PIPE EVERY 10'.

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STORM SEWER & PAVEMENT PLAN & PROFILE

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DRAWN: MRS. DESIGNED: MAB. REVIEWED: AAK.

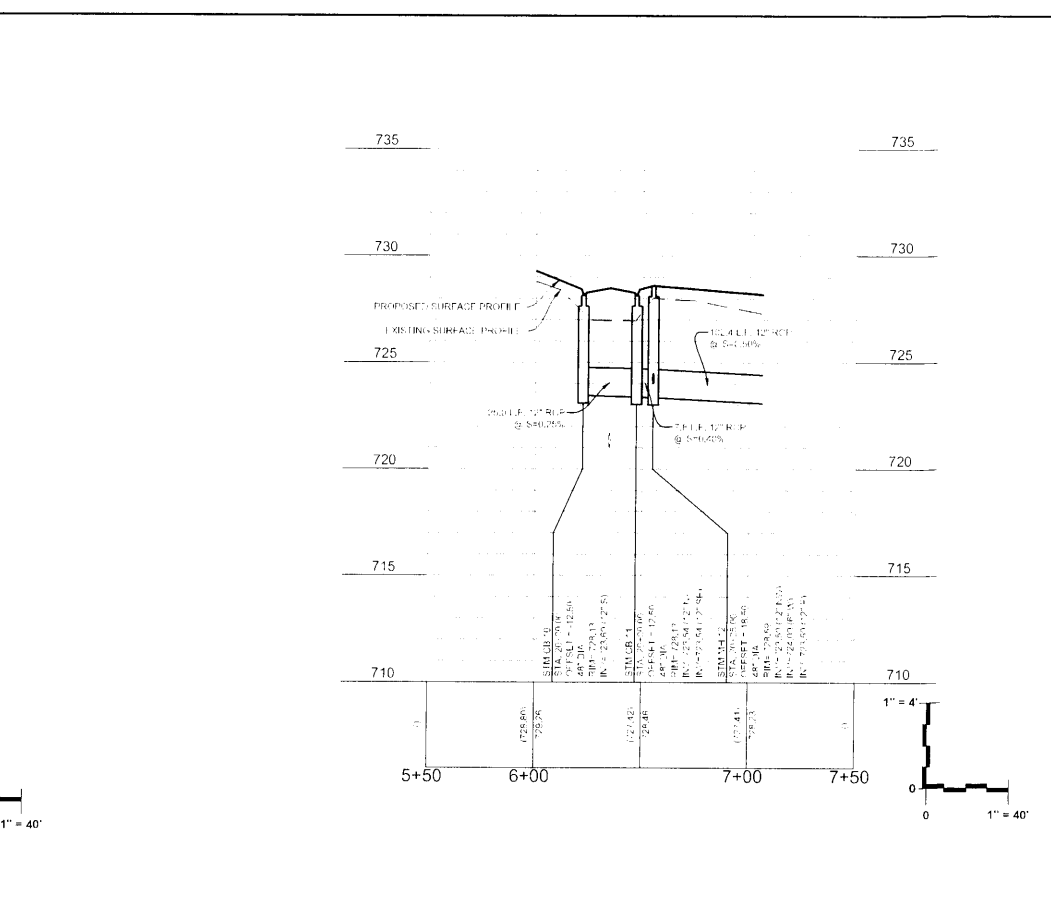
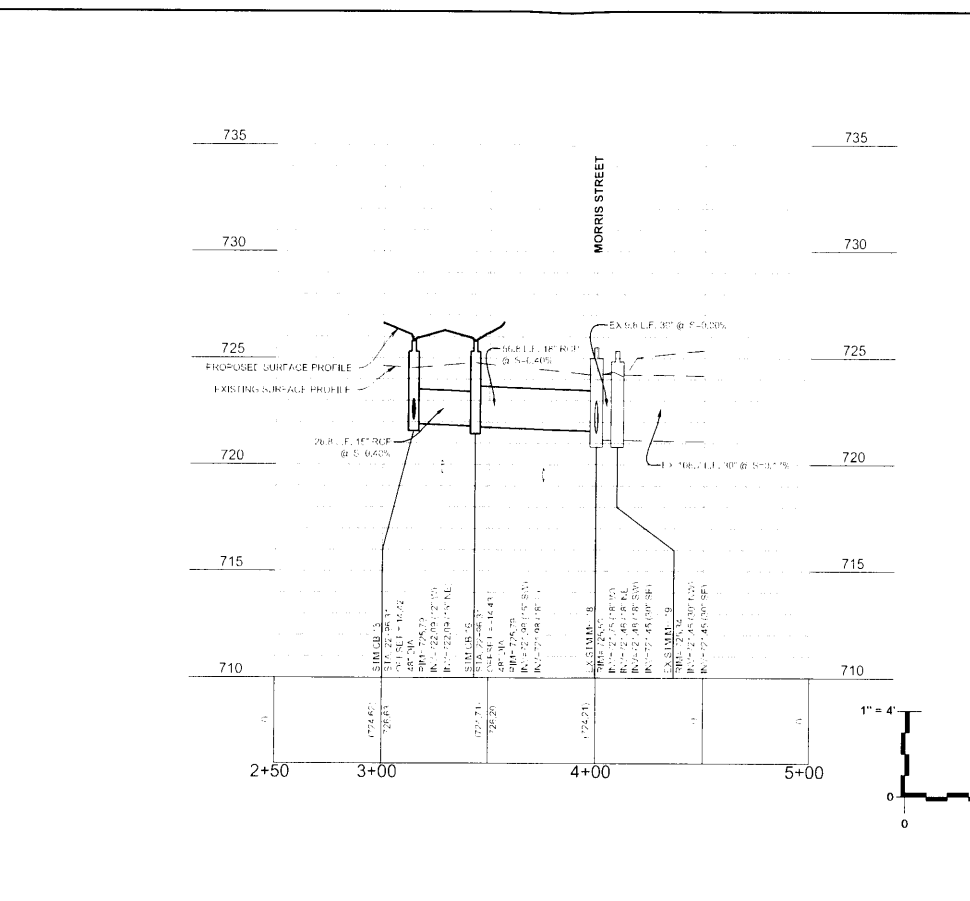
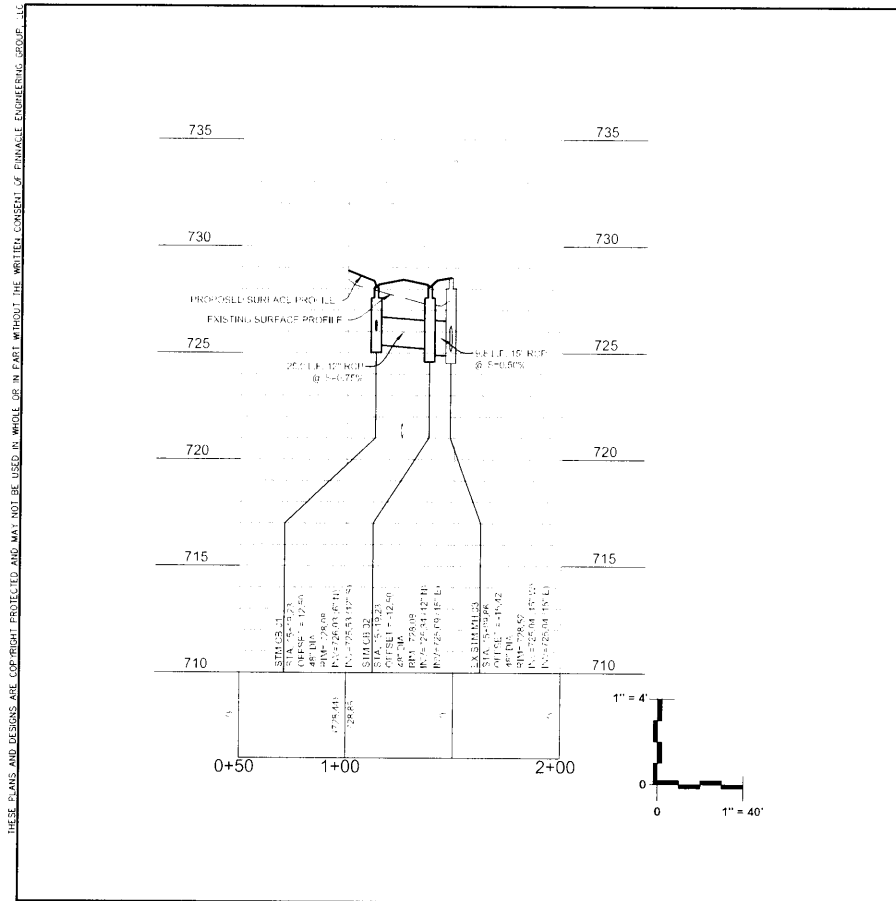
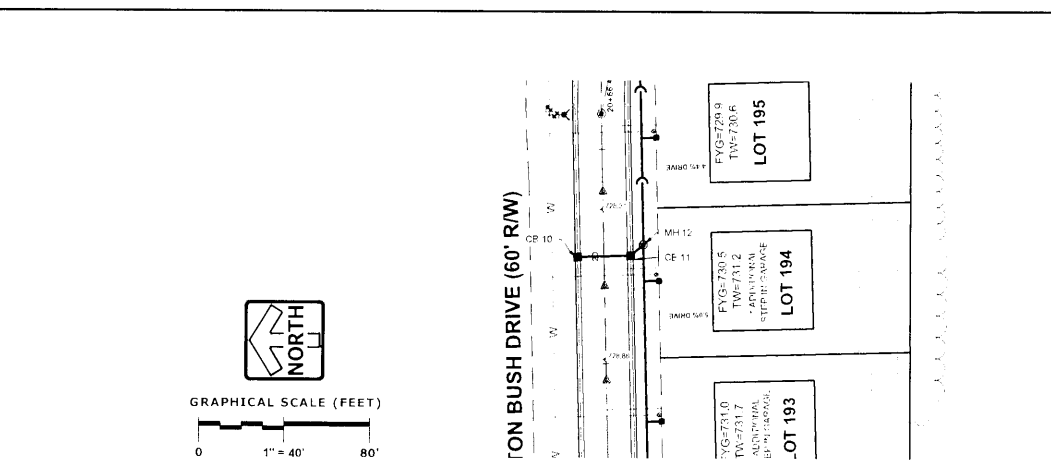
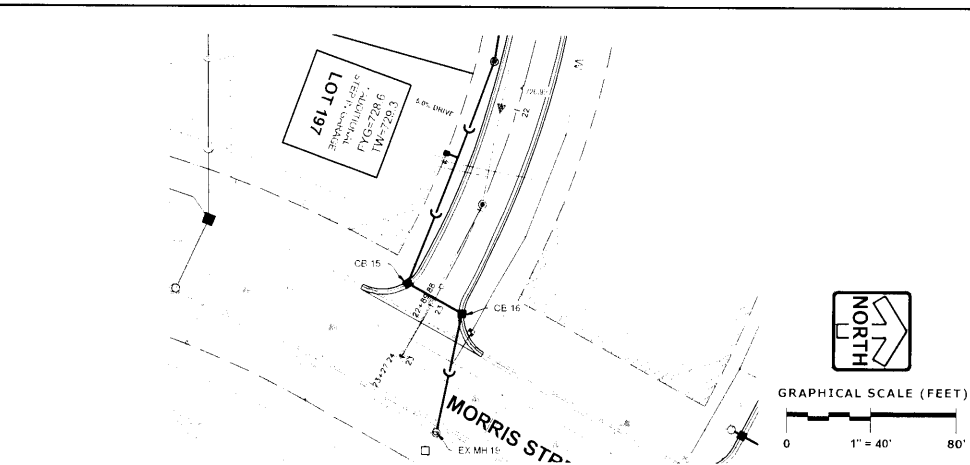
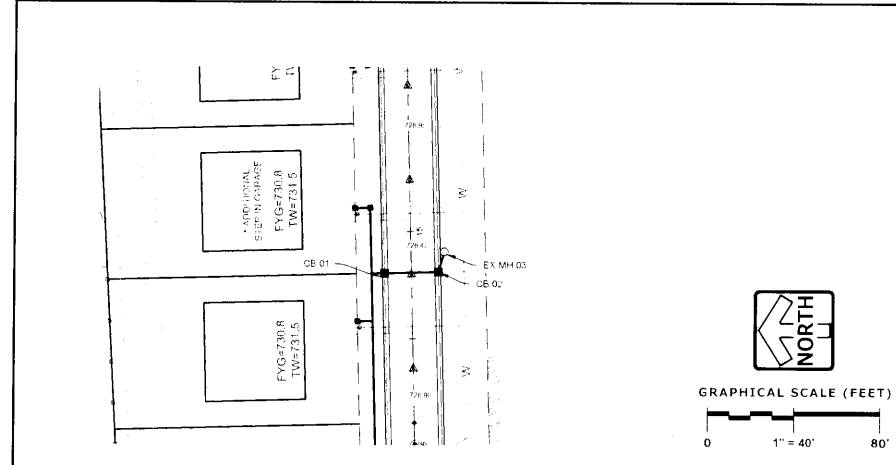


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**PRAIRIE PATHWAYS**  
**BUTTON BUSH DRIVE**  
**CALEDONIA, WI**

**STORM SEWER & PAVEMENT PLAN & PROFILE**

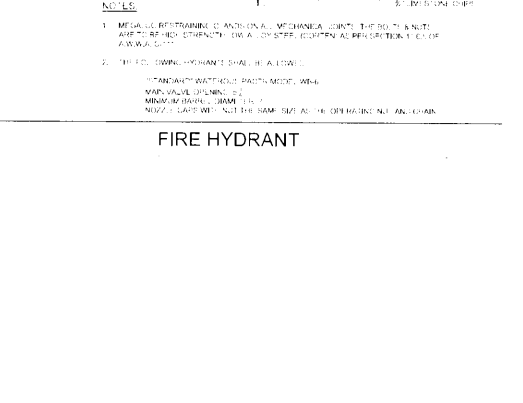
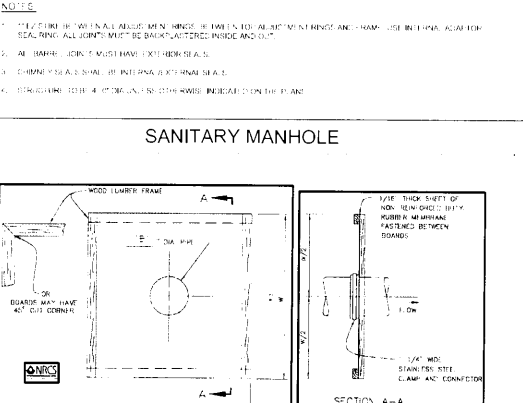
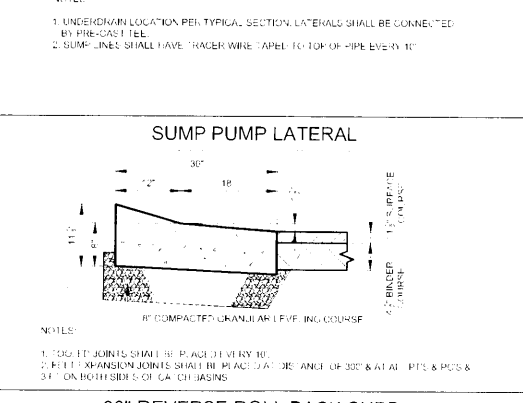
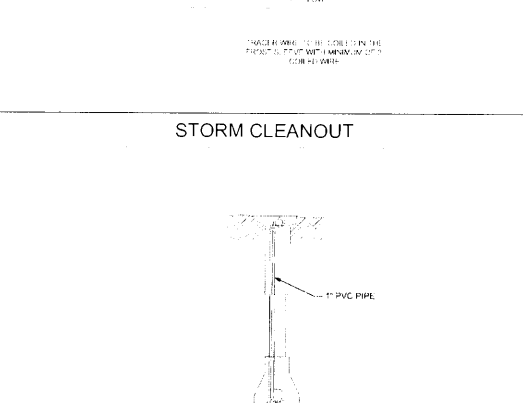
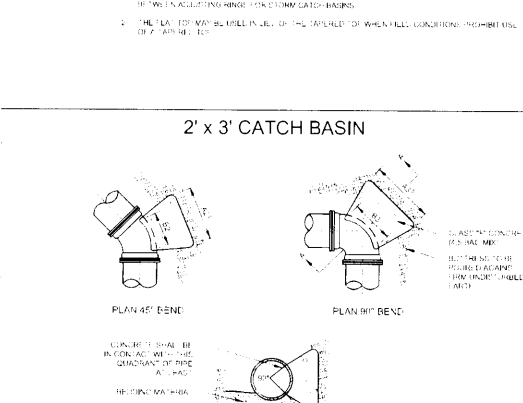
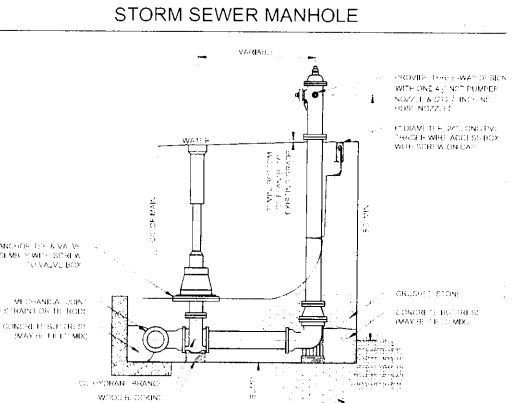
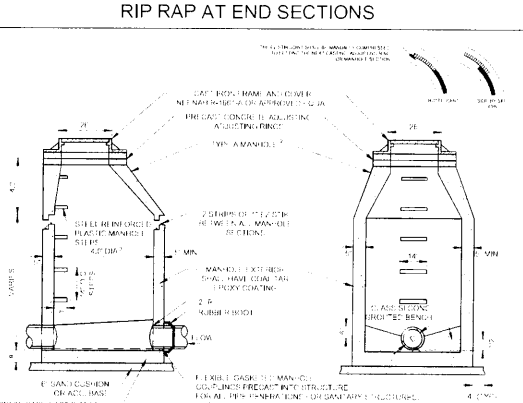
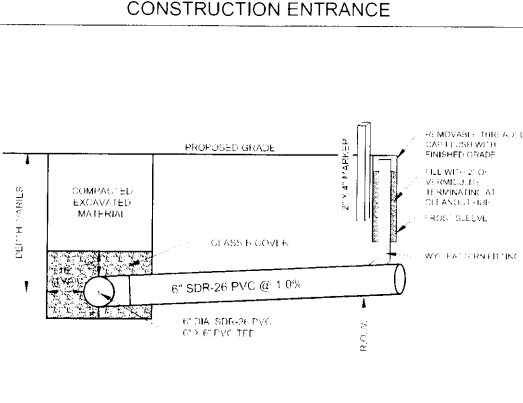
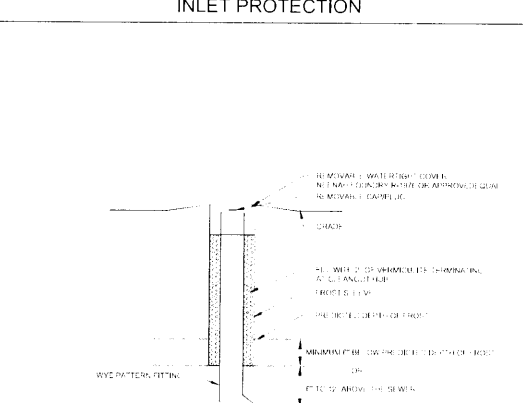
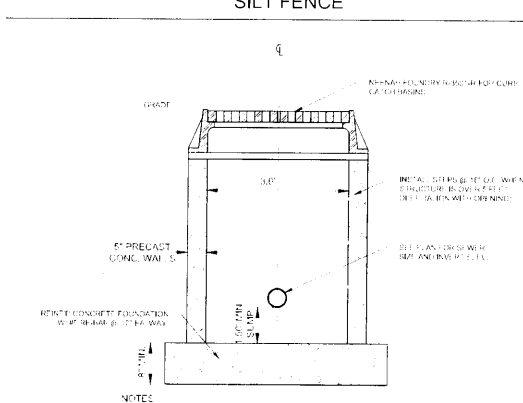
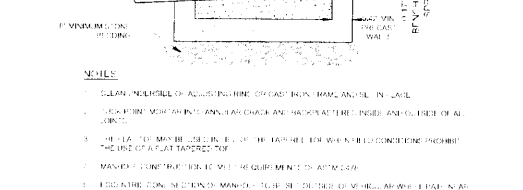
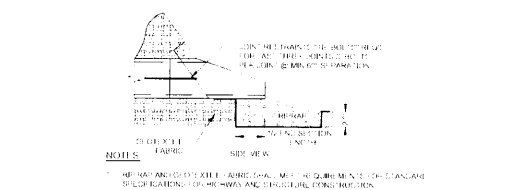
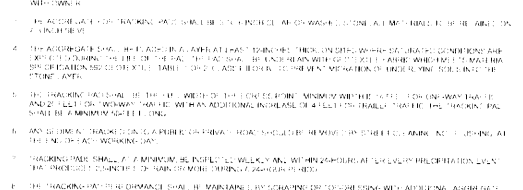
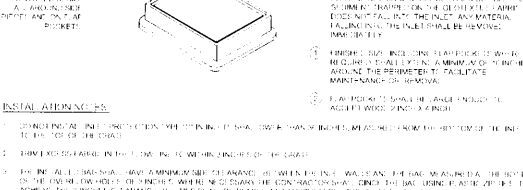
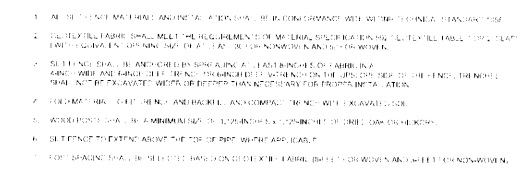
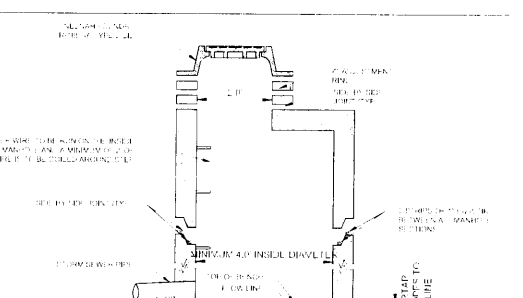
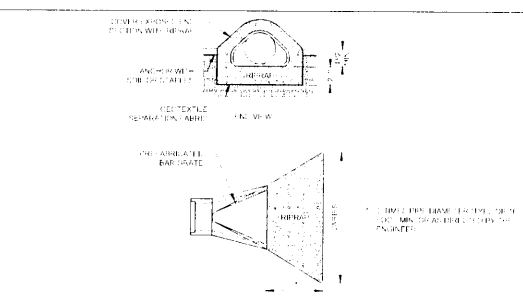
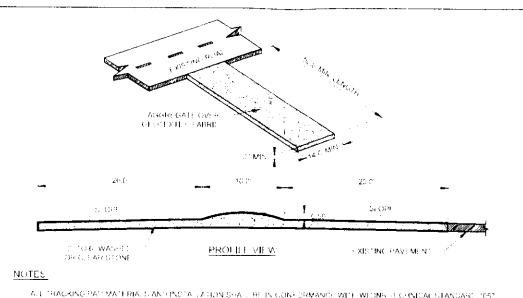
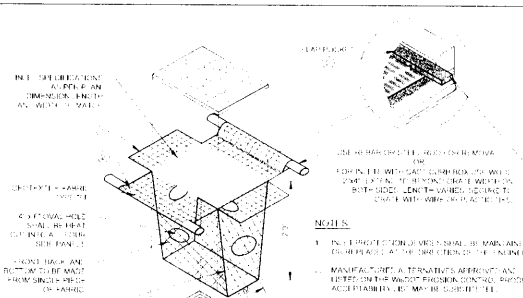
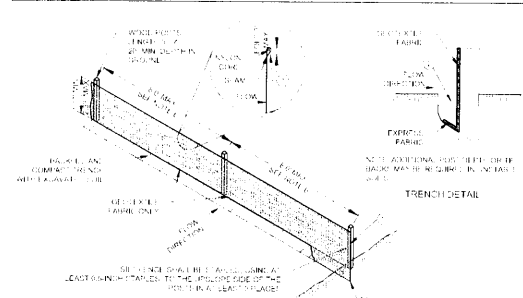
REVISIONS		SHEET
1. PER VILLAGE COMMENTS	10.16.23	
95110	AKK	11
10/16/20		OF
1" = 40'		13



WWW.PINNACLE-ENG.COM

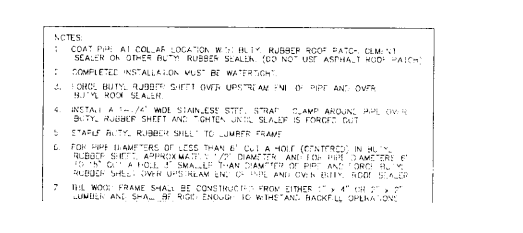
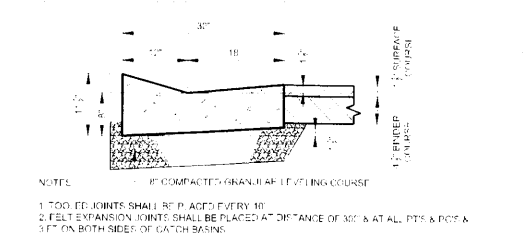
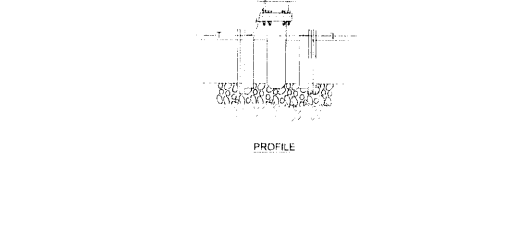
THESE PLANS AND SPECIFICATIONS ARE CONSIDERED PRELIMINARY AND MAY NOT BE USED TO OBTAIN PERMITS OR FOR THE CONSTRUCTION OF ANY PROJECTS WITHOUT THE WRITTEN CONSENT OF PRAIRIE PATHWAYS, LLC. ANY CHANGES TO THESE PLANS AND SPECIFICATIONS SHALL BE MADE BY A WRITTEN CHANGE ORDER.

WWW.PRAIRIEPATHWAYS.COM



**2' x 3' CATCH BASIN**

PIPE	2' x 3' BASIN	2' x 3' BASIN	2' x 3' BASIN	2' x 3' BASIN	2' x 3' BASIN	2' x 3' BASIN
12"	1.00	1.00	1.00	1.00	1.00	1.00
18"	1.50	1.50	1.50	1.50	1.50	1.50
24"	2.00	2.00	2.00	2.00	2.00	2.00
30"	2.50	2.50	2.50	2.50	2.50	2.50
36"	3.00	3.00	3.00	3.00	3.00	3.00
42"	3.50	3.50	3.50	3.50	3.50	3.50
48"	4.00	4.00	4.00	4.00	4.00	4.00
54"	4.50	4.50	4.50	4.50	4.50	4.50
60"	5.00	5.00	5.00	5.00	5.00	5.00



**PINNACLE ENGINEERING GROUP**

ENGINEERING | NATURAL RESOURCES | SURVEYING

WISCONSIN OFFICE  
2000 N. WISCONSIN AVE.  
MILWAUKEE, WI 53212  
(414) 224-8888

**PRAIRIE PATHWAYS**

BUTTON BUSH DRIVE  
CALEDONIA, WI

**CONSTRUCTION DETAILS & SPECIFICATIONS**

**REVISIONS**

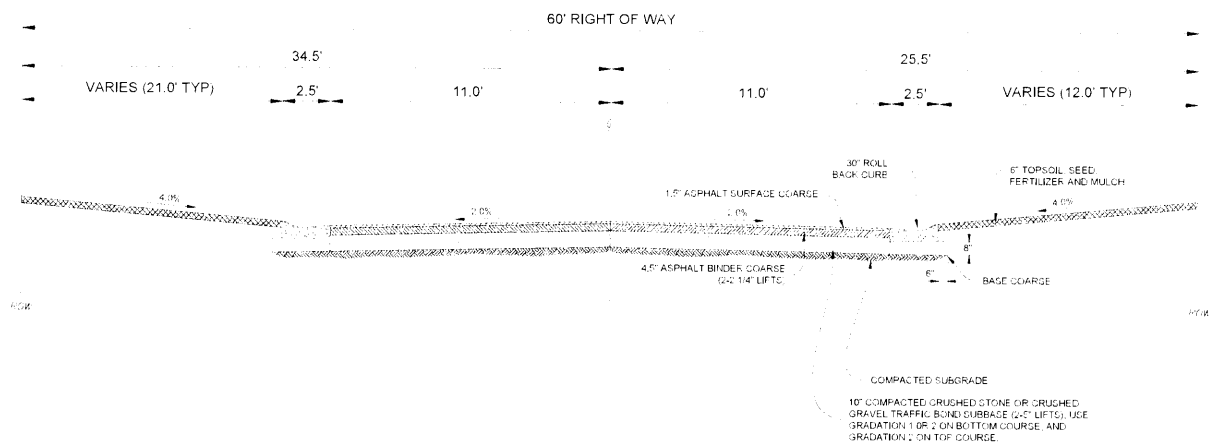
NO.	DESCRIPTION	DATE
1	PER VILLAGE COMMENTS	10.10.21

**SHEET**

12 OF 13

## EROSION CONTROL SPECIFICATIONS & REQUIREMENTS

- [illegible]



60' RIGHT OF WAY RESIDENTIAL STREET- URBAN LOCAL ROAD (BUTTON BUSH DRIVE)



# PINNACLE ENGINEERING GROUP

ENGINEERING | NATURAL RESOURCES | SURVEYING

PLAN | DESIGN | DELIVER

WISCONSIN OFFICE  
2172 W. WALTON ST. ROOM 104  
MILWAUKEE, WI 53233  
(708) 754-1888  
AGGREGATE WAIVER: NA

**PRAIRIE PATHWAYS**  
**BUTTON BUSH DRIVE**  
**CALEDONIA, WI**

## CONSTRUCTION DETAILS & SPECIFICATIONS

## REVISIONS

1	PER VILLAGE COMMENTS	10, 16, 21

951.10  
AEK  
10/16/20

SHEET  
13  
OF  
13

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT YOUR PERMISSION. ALL RIGHTS RESERVED.

DRAFTED: MRC DESIGNED: MAB REVIEWED: AEK

Z:\PROJECTS\2017\951-10-W\CAD\SHEETS\12 CONSTRUCTION DETAILS & SPECIFICATIONS.DWG

## CONSTRUCTION DETAILS & SPECIFICATIONS

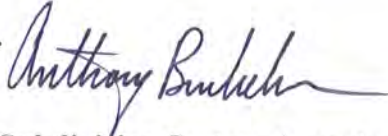
www.pinnacle-enr.com

## MEMORANDUM

**DATE:** Tuesday, January 4, 2022

**TO:** Caledonia Utility District

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



**RE:** Briarwood Condominium – Subdivision System Acceptance

### BACKGROUND INFORMATION

The Village, Utility District, and Briarwood of Caledonia, LLC have entered into a Development Agreement for the residential condominium subdivision of Briarwood Condominium. Briarwood Condominium requires public improvements such as the subdivision system to be made. The subdivision system includes the sanitary sewerage system, watermain, and storm water utilities.

The work for the Briarwood Condominium, including the subdivision system, has been completed and inspected for compliance with the approved plans and specifications. Asbuilt plans have been prepared and submitted for review. The final review of the asbuilts is in process. At first glance the asbuilts appear to be acceptable.

It is hereby recommended that the subdivision system of Briarwood Condominium be accepted by the Utility District.

### RECOMMENDATION

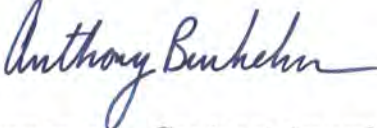
**Move to accept the Subdivision System for Briarwood Condominium.**



## MEMORANDUM

**DATE:** Monday, January 3, 2022

**TO:** Caledonia Utility District

**FROM:** Anthony A. Bunkelman P.E.  
Public Services Director 

**RE:** Dominican Lift Station Improvements - Contract Award

### BACKGROUND INFORMATION

The Dominican Lift Station Improvements Project has been designed, reviewed, and publicly advertised as required. The bid opening for the project was held on December 21, 2021. The Caledonia Utility District has received prequalification statements from 6 contractors for the project and received 3 bids on the project. The low bid was from August Winter & Sons, Inc in the amount of \$718,500.00. This bid is approximately \$43,800 or 5.75% below the engineers estimate of \$762,300.00.

Foth Infrastructure & Environment LLC and Caledonia Utility District staff have reviewed the bids and have provided a recommendation for award to August Winter & Sons Inc.

### RECOMMENDATION

**Move to authorize the Caledonia Utility District to issue the Notice of Award to August Winter & Sons, Inc for the Dominican Lift Station Improvements Project in the amount of \$718,500.00.**

**Move to authorize the Utility District President and Secretary to execute any contract documents as necessary.**



**Caledonia Utility District  
Dominican Lift Station Improvements  
Bid Summary  
10:00 AM, December 21, 2021**

Company Name	Bid Bond	Bid Total	Apparent Low Bidder
Staabs Construction	✓	\$ 910,500.00	
Lee Plumbing Mechanical Contractors	✓	\$ 982,855.00	
August Winter & Sons Inc	✓	\$ 718,500.00	✓
Engineers Estimate		\$ 762,300.00	



Ballpark Commons Office Building  
7044 S. Ballpark Drive, Suite 200  
Franklin, WI 53132  
(414) 336-7900  
foth.com

December 21, 2021

Tony Bunkelman, PE  
Caledonia Utility District  
333 4 ½ Mile Road  
Racine, WI 53402

RE: Dominican Lift Station Improvements

Dear Tony: We have reviewed the bids received on December 21, 2021, for the above referenced project. A summary of the bid is as follows:

Bidder	Total Bid Amount
August Winter & Sons, Inc	\$ 718,500.00
Staab Construction Corporation	\$ 910,500.00
Lee Plumbing Mechanical Contractors, Inc.	\$ 982,855.00

Utility counsel has reviewed the prequalification statements for the bidders and has determined that the bidders have met the prequalification requirements.

We recommend awarding the project to August Winter & Sons, Inc. for the total bid amount of \$718,500.00. Their bid is complete and contains all required documentation. The engineer's estimate for the project was \$762,300.00.

Please contact me if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Genevieve Schnell".

Genevieve Schnell, PE, PTOE

Project Manager

cc: Bob Lui – Caledonia Utility District  
Andy Schultz - Foth

Dominican Lift Station Improvements (#8072109)  
Owner: Caledonia Utility District  
Solicitor: Foth - Milwaukee  
12/21/2021 10:00 AM CST

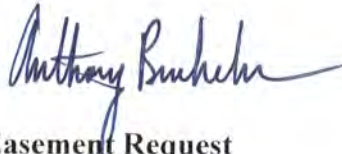
						August Winter & Sons, Inc		Staab Construction Corporation		Lee Plumbing Mechanical Contractors, Inc.	
Section Title	Line Item	Item Code	Item Description	UofM	Quantity	Unit Price	Extension	Unit Price	Extension	Unit Price	Extension
LUMP SUM							\$552,068.00		\$670,640.00		\$752,388.70
	1	1	Lift Station Project Work - Electrical, Structural, Mechanical, Process, and Temporary Conveyance	LS	1	\$552,068.00	\$552,068.00	\$670,640.00	\$670,640.00	\$752,388.70	\$752,388.70
GENERAL ITEMS							\$166,432.00		\$239,860.00		\$230,466.30
	2	2	Mobilization/Demobilization	LS	1	\$25,000.00	\$25,000.00	\$70,000.00	\$70,000.00	\$45,360.00	\$45,360.00
	3	3	Traffic Control	LS	1	\$2,500.00	\$2,500.00	\$3,000.00	\$3,000.00	\$1,200.00	\$1,200.00
	4	4	Clearing and Grubbing	LS	1	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00	\$3,700.00	\$3,700.00
	5	5	Erosion Control	LS	1	\$1,000.00	\$1,000.00	\$7,000.00	\$7,000.00	\$1,800.00	\$1,800.00
	6	6	Silt Fence	LF	1030	\$2.10	\$2,163.00	\$5.00	\$5,150.00	\$2.75	\$2,832.50
	7	7	Stripping, Stockpiling and Respreading Topsoil	LS	1	\$3,500.00	\$3,500.00	\$9,000.00	\$9,000.00	\$32,000.00	\$32,000.00
	8	8	Seed, Fertilizer, and Erosion Matting	SY	2020	\$3.80	\$7,676.00	\$3.00	\$6,060.00	\$4.89	\$9,877.80
	9	9	Rock Filled Filter Bags	EA	36	\$16.50	\$594.00	\$120.00	\$4,320.00	\$13.00	\$468.00
	10	10	Trackout Control Pad	EA	1	\$1,500.00	\$1,500.00	\$3,000.00	\$3,000.00	\$3,200.00	\$3,200.00
	11	11	Decorative Fence	LF	140	\$141.00	\$19,740.00	\$140.00	\$19,600.00	\$128.00	\$17,920.00
	12	12	Chainlink Fence	LF	110	\$15.40	\$1,694.00	\$15.00	\$1,650.00	\$14.00	\$1,540.00
	13	13	Sliding Gate - 20LF	EA	1	\$11,050.00	\$11,050.00	\$11,000.00	\$11,000.00	\$10,043.00	\$10,043.00
	14	14	Bollards	EA	6	\$800.00	\$4,800.00	\$1,000.00	\$6,000.00	\$500.00	\$3,000.00
	15	15	Force Main Abandonment	LS	1	\$500.00	\$500.00	\$2,000.00	\$2,000.00	\$9,200.00	\$9,200.00
	16	16	Dual 10-inch HDPE Force Main, Spoil Backfill	LF	30	\$125.00	\$3,750.00	\$300.00	\$9,000.00	\$355.00	\$10,650.00
	17	17	Dual 8-inch Ductile Iron Force Main, Spoil Backfill	LF	10	\$120.00	\$1,200.00	\$1,000.00	\$10,000.00	\$500.00	\$5,000.00
	18	18	Connect to Existing Force Main Sewerage System	EA	4	\$500.00	\$2,000.00	\$1,000.00	\$4,000.00	\$2,500.00	\$10,000.00
	19	19	12" CMP Storm Sewer	LF	81	\$45.00	\$3,645.00	\$60.00	\$4,860.00	\$85.00	\$6,885.00
	20	20	CMP Flared End Sections - 12" Diameter	EA	2	\$300.00	\$600.00	\$4,000.00	\$8,000.00	\$205.00	\$410.00
	21	21	Storm Manhole	EA	1	\$2,500.00	\$2,500.00	\$2,000.00	\$2,000.00	\$2,900.00	\$2,900.00
	22	22	Driveway Common Excavation	CY	570	\$30.00	\$17,100.00	\$20.00	\$11,400.00	\$32.00	\$18,240.00
	23	23	Bituminous Tack Coat	GAL	60	\$5.50	\$330.00	\$5.00	\$300.00	\$5.00	\$300.00
	24	24	Sawcut Pavement, Full Depth	LF	230	\$3.00	\$690.00	\$4.00	\$920.00	\$4.00	\$920.00
	25	25	3/4" Dense Graded Base (HMA Base, Driveway, & Shoulder Restoration)	TON	340	\$75.00	\$25,500.00	\$40.00	\$13,600.00	\$32.00	\$10,880.00
	26	26	HMA Binder Course	TON	160	\$109.00	\$17,440.00	\$100.00	\$16,000.00	\$99.00	\$15,840.00
	27	27	HMA Surface Course	TON	60	\$116.00	\$6,960.00	\$150.00	\$9,000.00	\$105.00	\$6,300.00
ALLOWANCE							\$2,500.00		\$2,500.00		\$2,500.00
	A01	A01	Facility Signs	LS	1	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00
Base Bid Total:							\$718,500.00		\$910,500.00		\$982,855.00

## MEMORANDUM

**DATE:** Tuesday, January 4, 2022

**TO:** Caledonia Utility District

**FROM:** Anthony A. Bunkelman P.E.  
Public Services Director



**RE:** Kiriaki / Bodenbach CSM – Easement Request

### BACKGROUND INFORMATION

On December 6, 2021, the Utility District received a letter from Steve Wamser of Synergy Homes. In this letter (attached) Mr. Wamser is requesting that an Easement be utilized for sanitary sewer and water laterals for the Northern parcel of a recently performed CSM to service the Northern lot of the CSM.

During the CSM process and as a condition of approval, the applicant was informed that the sanitary sewer and the watermain would need to be extended to service the Northern lot of the CSM. At this time, Mr. Wamser the builder for the Northern lot, is requesting that the sanitary sewer and watermain not be extended and laterals be installed off of the existing mains across the Southern lot of the CSM to service the Northern lot. This is not Utility District Policy.

At this time the sanitary sewer is approximately 178' across the 240' of frontage on the Southern lot. The minimum that would be recommended for an extension is 72' to have the sanitary sewer approximately 10' North of the South lot line for the Northern lot. The current manhole has a depth of 9.75'. The sanitary sewer if installed at the minimum slope of 0.4% and if the road is at approximately 2.8%, the resulting sanitary manhole would have a depth of approximately 7.45'.

At this time the watermain is approximately 206' across the 240' of frontage on the Southern lot. The minimum that would be recommended for an extension is 48' to have the watermain approximately 14' North of the South lot line for the Northern lot. Pending condition, the existing hydrant may be able to be relocated to the end of the extended watermain.

Based on Utility District Policy and that the applicant of the CSM was notified of the extensions multiple times, it is recommended that this request to utilize an Easement for Sanitary Sewer and Water laterals be denied.

### RECOMMENDATION

**Move to deny the request for utilizing an Easement for Sanitary Sewer and Water laterals for Lot 1 of CSM 3429 based on the following:**

- Utilizing an Easement for Sanitary Sewer and Water laterals across another parcel does not meet Utility District Policy.
- Conditions of approval of the CSM indicated that the Sanitary Sewer and Watermain would require extensions.
- Based on preliminary information, the sanitary sewer would be of an acceptable depth to provide sanitary sewer service for Lot 1 of the CSM.





December 6, 2021

Anthony A. Bunkelman, P.E.  
Director of Public Services

Dear Mr. Bunkelman,

My name is Steve Wamser with Synergy Homes WI, LLC.

I'm writing you in regards to Newman Road Parcel Bodenbach Tax ID [104042225063100](#)

Kiriaki Tax ID [104042225063200](#).

Over the past couple of years two families purchased the property on Newman Road and split it into two properties after many meeting with The Village of Caledonia. The split and CSM was completed with the guidance of Nielsen Madsen & Barber. The two lots were split and approved with the proposed utility easement on a small portion of Greg Kiriaki's property to get sewer/water to Bodenbach's property.

The easement is necessary since the sewer, when installed was not extended any further down Newman Road as there was not enough pitch to do so.

Both property owners agree to this utility easement and your approval of this is necessary for The Bodenbach family to proceed with their new home build on their lot in 2022.

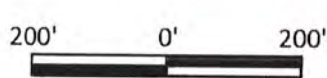
We are requesting a motion to approve this utility easement at your next Utility District Commission meeting in January.

Thank You,  
Steve Wamser  
Synergy Homes WI, LLC  
[www.synergyhomeswi.com](http://www.synergyhomeswi.com)

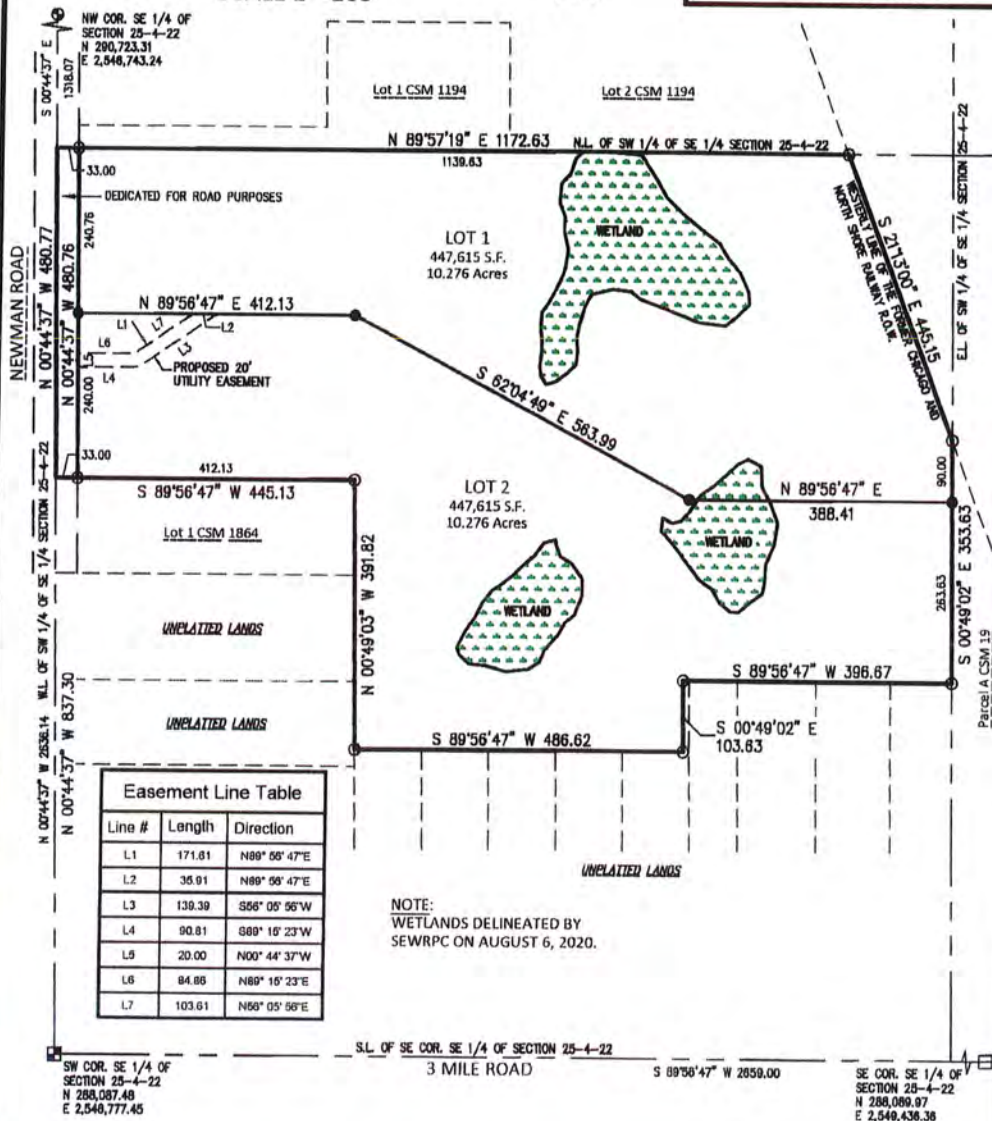
Synergy Homes WI, LLC.  
PO Box 321486, Franklin, WI 53132  
[steve@synergyhomeswi.com](mailto:steve@synergyhomeswi.com)  
414 690 2533

# CERTIFIED SURVEY MAP NO. \_\_\_\_\_

PART OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF  
SECTION 25, TOWNSHIP 4 NORTH, RANGE 22 EAST, IN THE  
VILLAGE OF CALEDONIA, RACINE COUNTY, WISCONSIN.



RECORDING DATA



**Nielsen Madsen + Barber**  
CIVIL ENGINEERS AND LAND SURVEYORS  
1458 Horizon Blvd. Suite 200, Racine, WI. 53406  
Tele: (262)634-5588 Website: [www.nmbasc.net](http://www.nmbasc.net)


This Instrument was drafted by Mark R. Madsen August 28, 2020

2020.0055.01.DWG  
SHEET 1 OF 5 SHEETS

# MEMORANDUM

Date: September 24, 2020

To: Plan Commission  
Village Board

From: Tom Lazcano P.E.   
Public Works Director

Re: Newman Road – Certified Survey Map  
Parcel ID's: 104-04-22-25-063-000

---

The Engineering Department has received a Certified Survey Map (CSM) from Gregory Kiriaki. The CSM is for a property located on Newman Road, approximately 1,000 feet north of 3 Mile Road in the Village of Caledonia. The existing property is approximately 21 acres in size. There is approximately 480 feet of frontage along Newman Road.

The existing parcel currently contains a pond, a farm field, two small areas of wetlands and a wooded area.

This CSM is for the creation of two lots on the parcel. Lot 1 would be ~10.3 acres and the owner's plan is to build a single family home with an outbuilding. Lot 2 will be ~10.3 acres in size and the owners plan to build a single family home with an outbuilding as well.

The property is located within the Sanitary Sewer & Water Service Area. Both lots would need to connect to sewer and water services. Extension of facilities will be required and is the responsibility of the property owner.

The property currently has an R-3 Zoning Classification. R-3 Zoning requires 100 feet of frontage and 20,000 square feet size. The Village's 2035 Land Use Plan shows that the recommend use for the land as Low Density Residential (19,000 SF to 1.49 Acres per dwelling unit). Both of the Lots on the CSM follow the existing Zoning but do not follow the Comprehensive Land Use Plan.

A Concept Plan for this CSM went before the Plan Commission in April and was approved by the Plan Commission.

With this submittal there are 2 Waiver/Modification requests that needs to be considered/reviewed on behalf of the CSM. These Wavier/Modifications are for:

1. Approving a flag lot.
2. Approving lots that exceed the 2.5 to 1 Length to Width ratio

In regards to Waiver/Modification request #1, the CSM is proposing the creation of 2 flag lots. The existing property is oddly shaped so the only way to avoid this would be to make this property a subdivision which would allow for pie shaped and rectangular lots.

In regards to Waiver/Modification request #2, the CSM is proposing the creation of 2 lots that exceed the 2.5 to 1 max length to width ratio. Again, this property is oddly shaped so the only way to avoid this would be to make this property a subdivision which would allow for pie shaped and rectangular lots that fall within the 2.5 to 1 ratio.

If the Plan Commission **is willing** to support the CSM the following motion is recommended.

**Move to approve the CSM subject to the following:**


- **The Final CSM is subject to the Land Division per Lot fee.**
- **Address any comments and technical corrections from Village Staff.**
- **The approval of Wavier/Modification Requests #1 & 2.**
- **An approved grading plan will be needed prior to approval of the final CSM and storm water management plan may be needed if land disturbance thresholds are met.**
- **Extending and connecting to sanitary sewer and water will be required for both Lots.**
- **The Final CSM must conform to all Ordinances in Titles 9, 14, & 18 as necessary.**



# MEMORANDUM

Date: April 23, 2020

To: Plan Commission  
Village Board

From: Tom Lazcano P.E.   
Public Works Director

Re: Newman Road – Concept Plan  
Parcel ID's: 104-04-22-25-063-000

---

The Engineering Department has received a Concept Plan for a Certified Survey Map (CSM) from Gregory Kiriaki. The Concept Plan is for a property located on Newman Road, approximately 1,000 feet north of 3 Mile Road in the Village of Caledonia. The existing property is approximately 21 acres in size. There is approximately 480 feet of frontage along Newman Road.

The existing parcel currently contains a pond, a farm field, two small areas of wetlands and a wooded area.

This Concept Plan is for the creation of two lots on the parcel. Lot 1 would be ~10.3 acres and the owner's plan is to build a single family home with an outbuilding. Lot 2 will be ~10.3 acres in size and the owners plan to build a single family home with an outbuilding as well.

The property is located within the Sanitary Sewer & Water Service Area. Both lots would need to connect to sewer and water services. Extension of facilities will be required and is the responsibility of the property owner.

The property currently has an R-3 Zoning Classification. R-3 Zoning requires 100 feet of frontage and 20,000 square feet size. The Village's 2035 Land Use Plan shows that the recommend use for the land as Low Density Residential (19,000 SF to 1.49 Acres per dwelling unit). Both of the Lots on the Concept Plan follow the existing Zoning but do not follow the Comprehensive Land Use Plan.

The Concept Plan does not follow the Neighborhood Plan for the property. The Neighborhood Plan called for a future road to divide this property which would allow for additional lots on both sides of the proposed road that would meet the Comprehensive Land Use Plan. The Sewer and Water facilities were sized for additional lots, not just the 2 that are proposed. For these reasons, the Engineering Department does not support the Concept Plan

With this submittal there are 2 Waiver/Modification requests that needs to be considered/reviewed on behalf of the Concept Plan. These Wavier/Modifications are for:

1. Approving a flag lot.

2. Approving lots that exceed the 2.5 to 1 Length to Width ratio

In regards to Waiver/Modification request #1, the Concept Plan is proposing the creation of 2 flag lots. The existing property is oddly shaped so the only way to avoid this would be to make this property a subdivision which would allow for pie shaped and rectangular lots.

In regards to Waiver/Modification request #2, the Concept Plan is proposing the creation of 2 lots that exceed the 2.5 to 1 max length to width ratio. Again, this property is oddly shaped so the only way to avoid this would be to make this property a subdivision which would allow for pie shaped and rectangular lots that fall within the 2.5 to 1 ratio.

If the Plan Commission is **not willing** to support the Concept Plan the following motion is recommended.

**Move to deny the Concept Plan for the following:**

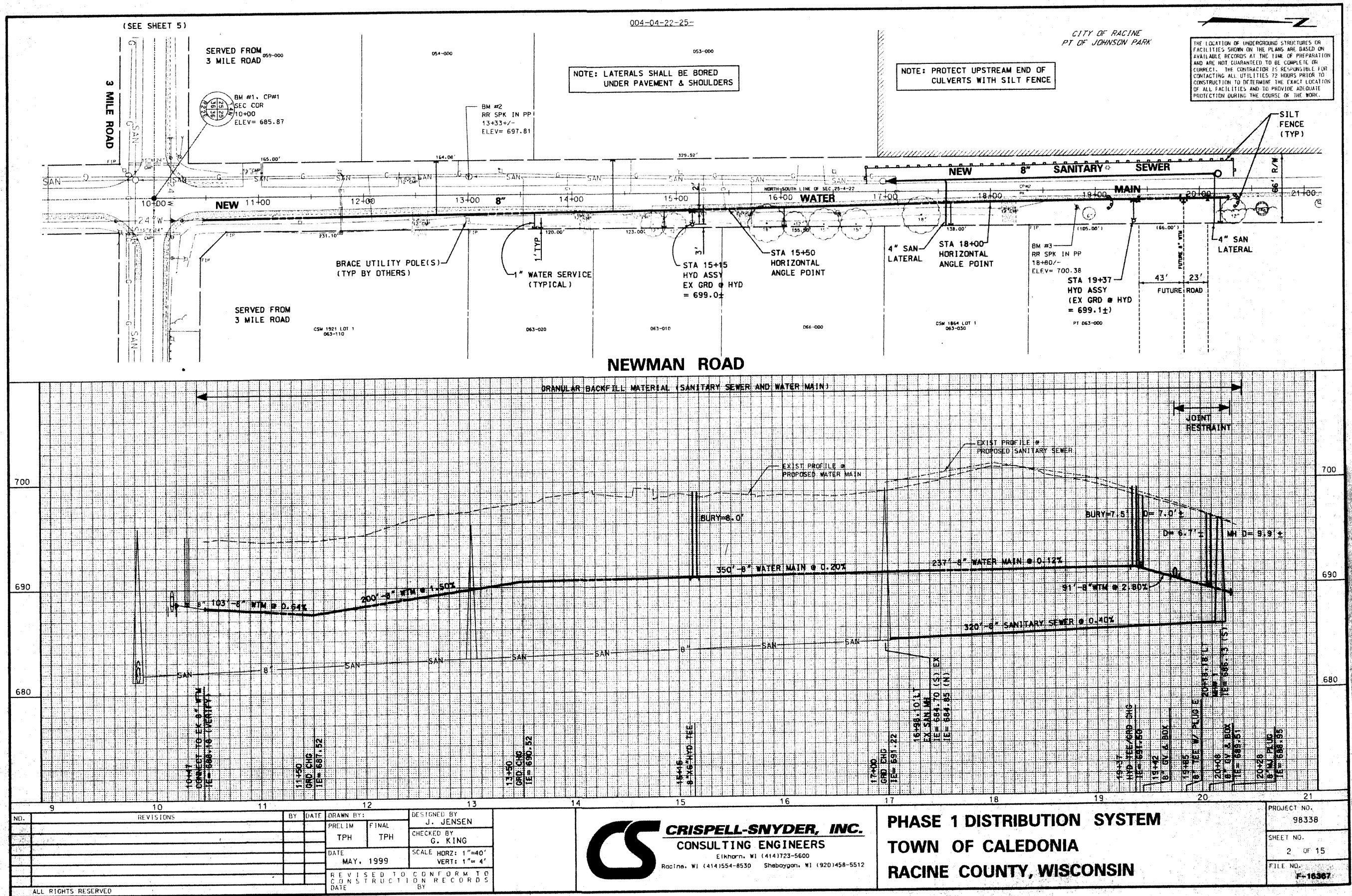
- **The proposed Lots do not conform to Village standards and require multiple Waivers/Modifications.**
- **The Lots do not follow the Village's 2035 Comprehensive Plan.**
- **The Concept plan does not follow the neighborhood plan for the property which was planned to have many more residential lots. The Village installed an 8" sanitary sewer and 8" watermain and stubbed out future connections at the location of a proposed road that was planned for this property.**

If the Plan Commission is **willing** to support the Concept Plan the following motion is recommended.

**Move to approve the Concept Plan subject to the following:**

- **The Final CSM is subject to the Land Division per Lot fee.**
- **The approval of Wavier/Modification Requests #1 & 2.**
- **A Pre-Development Agreement for a CSM will need to be entered into for review and approval of the final CSM.**
- **An approved grading plan will be needed prior to approval of the final CSM and storm water management plan may be needed if land disturbance thresholds are met.**
- **Extending and connecting to sanitary sewer and water will be required for both Lots.**
- **A wetland delineation will need to be performed on the entire property.**
- **The Final CSM must conform to all Ordinances in Titles 9, 14, & 18 as necessary.**

REVISION/PLOT DATE SHT. DON 5/25/99 TPH



RELEASED FOR CONSTRUCTION 6-1-99

85

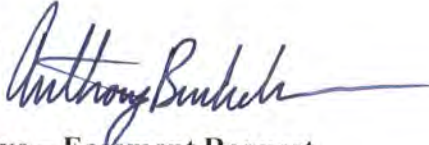


## MEMORANDUM

**DATE:** Tuesday, January 4, 2022

**TO:** Caledonia Utility District

**FROM:** Anthony A. Bunkelman P.E.  
Public Services Director



**RE:** Kadow – 3261 Bergamot Drive – Easement Request

### BACKGROUND INFORMATION

On December 20, 2021, the Utility District received an email from Michael Kadow, owner of 3261 Bergamot Drive. In this email (attached) Mr. Kadow is requesting that he be allowed to install 20 Blue Arrow Juniper trees and brown bark mulch in the 30' Drainage Easement for the rear yard swale on his property.

The proposed blue juniper trees and brown bark mulch would be installed along the East side of the lot along the Eastern 4' of the property. The request to perform this installation would be to screen the scrub brush on the abutting property to the East.

The Site Grading Instruction Sheet issued with the Building Permit strictly prohibits trees/plantings within the 30' Drainage Easement.

In looking at the grading for the 30' Drainage Easement and the rear yard swale, the entire Easement area to the East of the centerline of the rear yard swale is not required to maintain the side slope of the rear yard swale. If the Commission is willing to grant this encroachment for the screening there is not an engineering objection to doing so, but this would be precedent setting and additional requests may come in from other property owners in this area. If the Utility District does grant this encroachment, then the owner would also need to obtain approval from the Auburn Hills Homeowners Association.

Based on the Village's policy of not allowing trees within easements, that the Site Grading Instruction Sheet informed the owner/applicant of this requirement, and that this would be precedent setting in this subdivision it is not recommended to be granted.

### RECOMMENDATION

**Move to deny the request for installing 20 Blue Arrow Juniper Trees and brown bark mulch in Eastern 4' of the 30' Drainage Easement based on the following:**

- The Site Grading Instruction Sheet issued with the Building Permit informed the owner that trees are not allowed in the 30' Drainage Easement.
- The granting of this request in the 30' Drainage Easement would be precedent setting in the Auburn Hills subdivision.
- The installation of trees within a Drainage Easement does not follow Village Policy for Easements.

**If the Commission is willing to approve the request**

**Move to allow the owner at 3261 Bergamot Drive to install 20 Blue Arrow Juniper Trees and brown bark mulch in Eastern 4' of the 30' Drainage Easement based on the following:**



- **The installation of the 20 Blue Arrow Juniper Trees does not interfere with the rear yard swale side slopes.**
- **The installation of the 20 Blue Arrow Juniper Trees would provide screening of the scrub brush on the abutting property.**
- **The owner would be required to obtain approval from the Auburn Hills Homeowners Association.**
- **The owner may be requested to enter into an Easement Encroachment Agreement for the 20 Blue Arrow Juniper Trees and brown bark mulch to protect the Village & Utility District rights within the 30' Drainage Easement.**

## Tony Bunkelman

---

**From:** Michael Kadow <mkadow8578@gmail.com>  
**Sent:** Monday, December 20, 2021 2:56 PM  
**To:** Tony Bunkelman  
**Cc:** Lynn Kadow  
**Subject:** Drainage Easement Petition for Variance  
**Attachments:** Caledonia Home Landscaping Plan.pdf

Greetings Tony,

Attached you will find a proposed landscaping plan and related cut sheets for our Caledonia home currently under construction on Lot 79 of Auburn Hills.

We would like to pursue a petition for variance which would allow us to plant a vegetative screen on the extreme eastern rear of our property.

The rationale for this request is to screen from view the scrub brush on the adjoining property to the east, and make a pleasant visual backdrop to our rear yard,

The proposed vegetative screen would consist of approximately twenty (20) Blue Arrow Junipers on a bed of 4' wide brown bark chips. This species of Juniper has a mature spread of about 24" and a height of 10' after 10 years. It is deer and disease resistant. We do not feel this linear planting will adversely affect the future function of, or access to, the drainage easement.

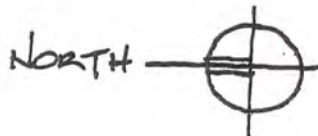
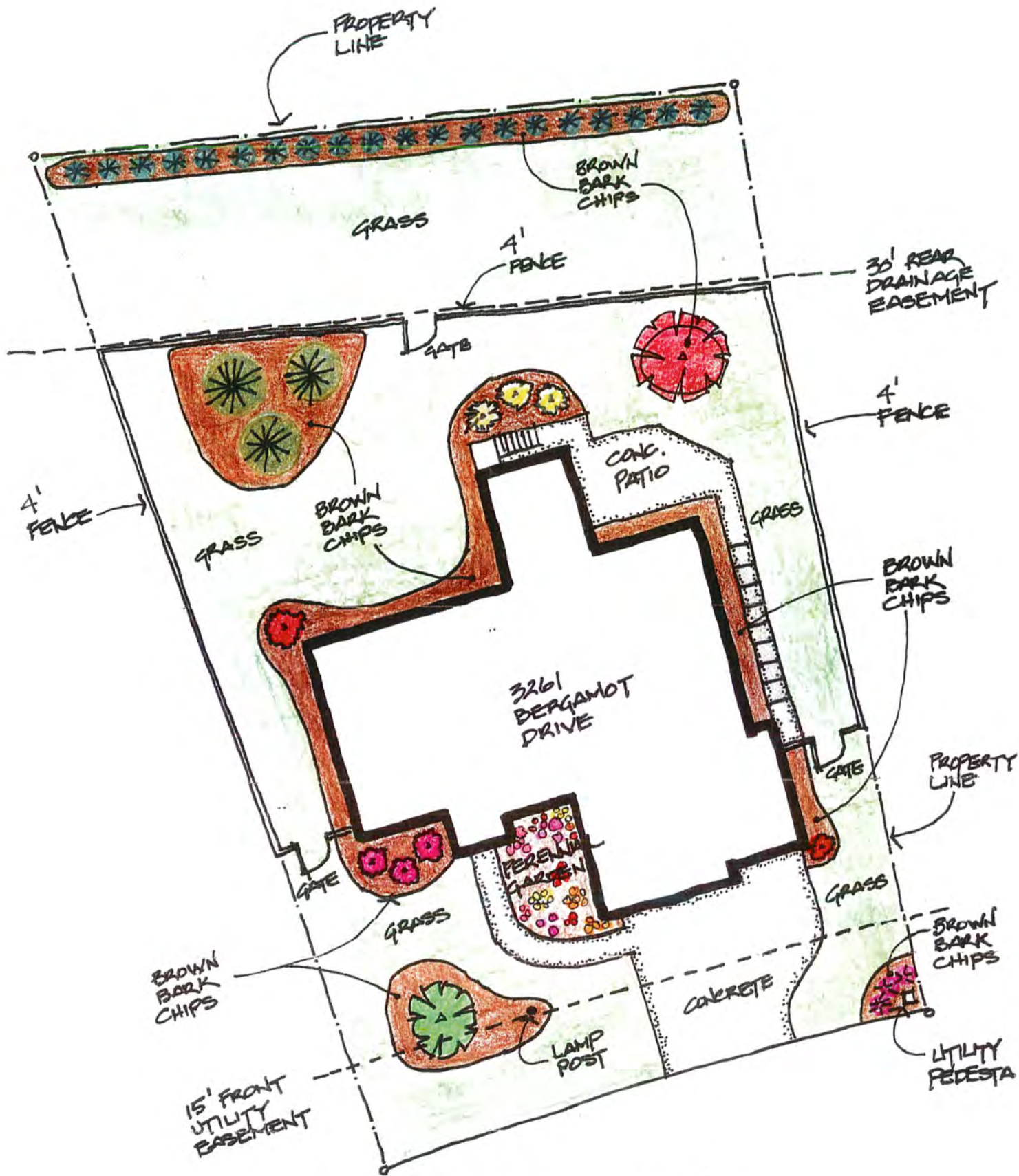
Let me know the formal process for this petition for variance and any associated fee and paperwork necessary.

You will also see that we are proposing a 4' fence on our property, but this fence would comply with all zoning requirements and NOT encroach into the drainage easement.

If the petition for variance for this vegetative screen is approved, we will then submit this landscaping plan to the Auburn Hills HOA for their approval as well.

Thanks for your guidance, Tony.

Michael and Lynn Kadow  
(920) 680-9128 cell



LANDSCAPING PLAN  
 3261 BERGAMOT DRIVE  
 CALEDONIA, WI  
 SCALE: 1" = 20'



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Wishlist



My Account

Home > Evergreen Trees > Junipers > **Blue Arrow Juniper**



# Blue Arrow Juniper

★★★★★ 4 reviews

## Gorgeous Blue Upright Columnar Tree!

- Narrow, fastigate tree fits in tight spaces
- Native evergreen
- Light blue color stands out in the landscape
- Easy to grow - deer, pest, and disease resistant

**\$59.95**

[Buy More, Save More](#)



4'-0" HIGH FENCE STYLE DESIRED



**DRIVEWAY WITH NEW ROAD ACCESS PERMIT** (21-ROW-159)**3261 BERGAMOT DRIVE****LOT 79, AUBURN HILLS SUBDIVISION PHASE III A&B****PARCEL # 104-04-22-36-060-079**Name of Applicant: **Korndoerfer Homes – Jeanine** Phone: H: 262-898-0273 W: 262-898-0273Address of Applicant: **7900 Durand Avenue, Building 10, Sturtevant, WI, 53177- Jeaninel@korndoerferhomes.com**Name of Owner: **Mike & Lynn Kadow** Phone: H: 920-680-9128; E-mail: **mkadow8578@gmail.com**Address of Owner: **179 N. Bedford Road, Green Bay, WI, 54311**Gravel Driveway With New Road Access Permit Fee----- **\$100.00**Payment Received: **CK# 2319** Date: **11/18/2021** By: **Colleen**Culvert Required ☐ Yes ☒ No Driveway width (minimum) **18** FT.Culvert Diameter and Type: **No cmp needed. Curb and gutter.**Culvert Elevation (Flow Line) . FT. ☒ North, ☐ WestCulvert Elevation (Flow Line) . FT. ☒ South, ☐ East**Note: CONTACT THE VILLAGE PRIOR TO PAVING THE DRIVEWAY FOR PERMIT, INSTALLATION AND INSPECTION INSTRUCTIONS.**

Note: Flared end Sections will be required on all driveway culverts unless waived in writing by the Utility Director. Culvert must be installed and driveway built before construction begins, unless temporarily waived in writing by the Utility Director.

Remarks: **Curb & gutter. Reshape and revegetate the road Right of Way to ensure proper drainage to the back of curb. The builder will be responsible to install the driveway, reshape and revegetate the road right of way, and install, monitor, and maintain erosion control per the attached Village approved revised survey/grading and erosion control plan dated 10-18-21. The driveway, possible retaining walls, and any future sidewalks must be located a minimum of 5' South of the North lot line and lot line extended, 5' North of the South lot line and lot line extended (outside of all easements and to ensure side yard swales can be installed and maintained). No portion of the driveway shall exceed a centerline slope of 6%. This will require installing the driveway at an even grade from the garage slab to the back of curb to achieve. Driveway shall be a minimum of 30' deep opposite any double wide overhead garage doors and a minimum of 20' deep opposite any single wide overhead garage doors. Swales shall provide a minimum of 8" of positive pitch away from the FYG's and shall drain with a minimum centerline slope of no less than .8% slope. Side slopes off of the driveway & swales are not to exceed 4:1. This may require the installation of retaining walls to achieve. The driveway must be installed so as to ensure water drains away from the home, that runoff does not flow out into the road, onto abutting properties, or create an icing problem in the road Right of Way. Note: Beware of shallow storm sewer/sump collection system with lateral and cleanouts located in the road Right of Way along the west side of the lot (crossing under the drive). Sanitary sewer and water laterals may also be located in/near the driveway. Care must be taken not to crush or damage these systems. If systems are crushed, damaged or in need of adjustment contact the Utility Director @ 262 -835-6416 for repair and inspection instructions. Construction operations shall not restrict traffic flows.**

Signature of Applicant: **[Signature]** Date: **11-18-21**Permit Granted: **[Signature]** Date: **10-22-2021**

# SITE GRADING INSTRUCTION SHEET (21-Site-026)

**3261 BERGAMOT DRIVE**

**LOT 79, AUBURN HILLS SUBDIVISION PHASE III A&B**

**PARCEL # 104-04-22-36-060-079**

Name of Applicant: **Korndoerfer Homes – Jeanine** Phone: H: 262-898-0273 W: 262-898-0273

Address of Applicant: **7900 Durand Avenue, Building 10, Sturtevant, WI, 53177- Jeaninel@korndoerferhomes.com**

Name of Owner: **Mike & Lynn Kadow** Phone: H: 920-680-9128; E-mail: mkadow8578@gmail.com

Address of Owner: **179 N. Bedford Road, Green Bay, WI, 54311**

Site Grading Plan Review Fee: ----- \$ **225.00**

Payment Received: CK # 2311 Date: 11/18/2021 By: Allen

## SITE GRADING AND FINISHED YARD GRADE INSTRUCTIONS

Proposed Finished Yard Elevation: **742.10 Upper FYG (9' walls). The garage slab elevation shall be 742.43. The FYG of the new home will be stepped down for a 4' exposure with side slopes not to exceed 4:1 to no lower than 738.10.**

**NOTE: LOTS MAY HAVE IN EXCESS OF 3' OF FILL. CONSULT GEO-TECHNICAL REPORT FOR SOIL COMPACTION RESULTS OF THIS SITE. THIS INFORMATION IS ATTAINABLE FROM THE DEVELOPER. THE VILLAGE WILL NOT BE HELD LIABLE FOR ANY FOUNDATION/STRUCTURAL PROBLEMS THAT MAY RESULT FROM PLACEMENT OF BUILDING / STRUCTURES ON FILL SOILS.**

Note: The Finished Yard Elevation shall be the finished elevation around the immediate perimeter of the building and is 8" below the top of foundation. The contractor shall be responsible to calculate the depth of footing excavation, which will provide for the above assigned Finished Yard Elevation.

Signature of Applicant: [Signature] Date: 11-18-21

Approval: [Signature] Date: 10-23-2021  
Utility Director

Remarks: **Grade the lot and install, monitor, and maintain erosion control per the subdivision master grading plans and the attached Village approved revised survey/grading and erosion control plans dated 10-18-21. Lot shall drain front to back of curb and rear to the rear yard drainage swale which drains south per the attached revised survey / grading plans and the subdivision master grading plans. Grade and swale around the home to ensure proper drainage away from all buildings is maintained. The swales shall be a minimum of 8" below the FYG opposite the home and shall be installed per the approved survey / grading plans. A minimum of 8" of positive pitch away from the buildings shall be maintained. Side slopes on the swales and lot are not to exceed 4:1. Retaining walls may be necessary to achieve and shall be located out of all easement areas. Swales shall be "V" shaped with a minimum centerline slope of .8%. Grading past the lot lines may be required to conform to the approved grading plans. Work with abutting lot owners to achieve. Side and rear yard swales and side slopes may need to be excelsior matted or sodded if erosion begins to occur.**

**Outlet the downspouts and the sump pump so as to ensure that runoff does not create a problem with abutting properties or icing of the road Right of Way. NOTE: The sump pump will need to be tiled to**

the sump pump collection lateral provided for this lot (located in the road Right of Way). Contact the Plumbing Inspector @ 262-836-6406 for installation and inspection for making this connection. Erosion control will need to be installed and maintained at the sump pump until the connection to the storm sewer system is completed. Downspouts be connected to the sump collection system and shall be discharged to ensure that runoff does not create a drainage or icing problems (a minimum of 10' from the lot lines). Beware of possible farm main tiles. If hit or damaged, contact the Engineering Department @ 262-835-6428 for repair and inspection instructions.

NOTE: There is a 15' Utility Easement located along the West side of the lot and a 30' Drainage and Utility Easement located along the East side of the lot. Surveyor shall correctly show the 30' Drainage and Utility Easement located in the rear of the lot on the survey/grading plans Do not install driveways, fences, berms, air conditioners, decks, patios, retaining walls, sidewalks, trees/plantings, egress window wells, or any other permanent structures in any easement areas.

A recertification of the finished grading shall be supplied by the Surveyor providing as-built elevations at all the proposed elevation locations as shown on the Village revised survey/grading and erosion control plans dated 10-18-21. Surveyor shall make the Village 10-18-21 revised grading plan changes to their files and will be expected to utilize these revisions for the recertification and Building Permit process. The recertification is to be reviewed, approved and accepted, and street trees shall have been installed (if required pursuant to Village Ordinances & Subdivision requirements) prior to the release of the Site Restoration Bond. The recertification of the lot will be at the cost of the builder/homeowner and will need to be completed as many times as necessary to confirm that the lot has been graded pursuant to these approved grading plans. It is recommended that the surveyor/engineer install final grade stakes in the field at the locations shown on the Village revised proposed grading plans prior to the final grading of the site. This will indicate if the lot has been rough graded correctly and will also give the finished grader elevations to grade to. NOTE: Lot may have been filled in excess of 3'. May need to install extra courses in foundation to reach suitable soils.

Builder believes that the site will balance however if more than 150 cubic feet of material needs to be imported/exported from the site the contractors shall follow all conditions set forth in the Land Disturbance/Erosion Control Permit #21-FP-74. Care must be taken not to damage any Village road Right of Ways. All tracking must be cleaned up immediately.

P:\ENGINEER\BUILDING PERMITS\2021\BergamotDrive3261NewHome104042236010079-Lot79AuburnHillsSubdivisionPhaseIIIA&B-Bldr-KorndoerferHomes-Owner-Kadow.doc



#3261 Bergamot Drive

denotes  
pipe

15' Easement per WE  
Energies Master Plan

— 25' Rear Setback Line  
per Approved Amendment

Drive  
Bergamot  
€

sanitary manhole  
rim el. = 739.79 ———  
inv N = 724.60 (per plan)

Garage Slab elev. = 742.43

Stepping Down F4G-4's slope Not to exceed 44' - Lower F4G-738.10

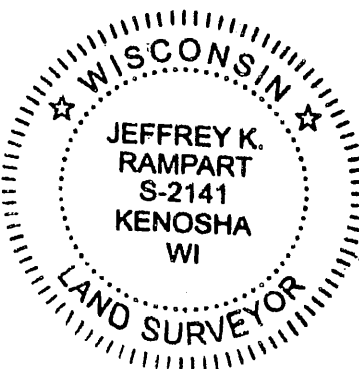
outside finish grade = EL 742.10 *advisory only*  
(advisory only) - top of foundation = EL 742.77 (advisory only) unless otherwise determined in writing by Village Engineering Department

XXX.X - existing grade  
(XXX.X) - proposed grade

\*  
Verify exact number with  
Village Engineering Department

*Proposed building field staked true size. Contractor to verify all dimensions before building by same and adhere to drainage plan in effect for this subdivision. Refer to a current title report for easements or restrictions which may affect the use of this site that are not shown on the recorded subdivision plat.*

*J.K.R. SURVEYING, INC.  
8121 22ND AVENUE  
KENOSHA, WI 53143*



I hereby certify that  
this property was  
surveyed under my  
direction and this  
plat is a true re-  
presentation thereof.

Reg. Land Surveyor

October 7, 2021

Village Approved Revision 10-18-21

#3261 Bergant Drive

# Plat of Survey of

LOT 79 IN

*AUBURN HILLS*

in SW1/4 Section 36-4-22

*VILLAGE OF CALEDONIA  
RACINE COUNTY, WIS.*

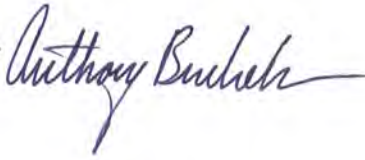
-for-  
Korndorfer Development  
(AHCA-0-079)

## MEMORANDUM

**DATE:** Friday, January 7, 2022

**TO:** Caledonia Utility District

**FROM:** Anthony A. Bunkelman P.E.  
Public Services Director



**RE:** Smoke Testing Map

### BACKGROUND INFORMATION

At the last Utility District Meeting it was determined that staff should prepare a map of areas for Smoke Testing. To create this map the GIS system was used. The Sanitary Sewer layer was reviewed to highlight all of the sanitary sewer that was installed from the beginning of the District (1956) to 1965. This 9 year period has the sanitary sewer installed on it in light blue and yellow. From there, staff reviewed the selected sanitary sewer to identify areas where the Utility has already performed sanitary lining or relays on the sanitary sewer main. 3 distinct areas identified themselves as possible areas to perform smoke testing. Caddy Vista, Wind Dale, & the Riverbend – Shorewood area. It is anticipated that the Caddy Vista area would be submitted as part of the MMSD work plan and the remainder would be out of the Utility District budget. If the Utility District would like to proceed with these areas, the staff will prepare mailings and information for the residents in the effected areas. Prior to the mailings being sent out it is recommended that the Village Board is informed of the program one final time.

As an alternative to smoke testing, staff has had conversation with Green Bay Pipe, a televising company. They informed staff that Appleton does a lateral televising program and then if the lateral is bad they perform pipe bursting on the lateral from the Right of Way line to the foundation of the home to repair/replace the lateral. Green Bay Pipe was going to provide staff with some information on the process prior to the District Meeting to share with the Commissioners.

### RECOMMENDATION



CALEDONIA UTILITY DISTRICT SANITARY SEWER 1956-1965

