

Agenda

Natural Features Protection Review Board



City of Kalamazoo

Tuesday, October 28, 2025

4:00 PM

City Commission Chambers at City Hall - 241 W. South Street

A. CALL TO ORDER/ROLL CALL

1. Excuse Absent Board Members (**Action: Motion to Excuse Absent Board Members**)

B. ADOPTION OF AGENDA

(Action: Motion to approve the agenda)

1. Agenda Approval (**Action: Motion to Approve Agenda**)

C. APPROVAL OF MINUTES

1. Approval of the minutes from the Natural Features Protection Review Board meeting on September 23rd, 2025 (**Action: Motion to Approve the meeting minutes from the Natural Features Protection Review Board Meeting on September 23rd, 2025 as presented.**)

D. PUBLIC COMMENTS

E. BOARD MEMBER COMMENTS

F. NEW BUSINESS

1. 433 Reed Court / Reed Avenue Stormwater Restoration Project
2. 3317 & 3329 South Burdick Street - Cold Storage Facility

G. UNFINISHED BUSINESS

- 1.

H. STAFF REPORTS AND UPDATES

I. COMMUNICATIONS AND ANNOUNCEMENTS

J. ADJOURNMENT



**Natural Features
Protection Review
Board
Minutes
September 23rd, 2025
Held at City Hall
Commission Chambers 4:00 p.m.**

A. Call to Order: Director Martin called the meeting to order at 4:00 p.m.

Members absent: Director Rowe and Director Murgia

1. Excuse Absent Board Members: The motion to excuse absent board members was made by Director Bassett and supported by Director Hollander, and the motion passed unanimously.

B. Adoption of Agenda

Motion to adopt the agenda made by Director Bassett supported by Director Hollander, motion passed unanimously.

C. Approval of the Meeting Minutes

Motion to approve the minutes from August 26th, 2025, NFP Review Board Meeting made by Director Stemple, supported by Director Hollander, motion passed unanimously with correction of absences.

D. General Citizen Comments

No in-person public comments. No public call-in comments. Board gave a minute to ensure no call-in comments were missed. A 90-second delay was identified by staff and the board between the broadcast of the meeting.

E. Board Comments

No comments



F. New Business – 3050 Oakland Drive – 7 Eleven; Slide Show Presentation

Ms. Jamie McCarthy (filling in for NFP Board Liaison Mr. Nolan Bergstrom) provided an overview of the project scope and NFP Staff Report. Following this overview, representatives for the project provided their overview of the project details and field questions from NFP Board Members.

Director Stemple asked if the curbed area on the north side of the property close to the transition between paved area and steep slopes and woodlands would remain.

The project representative confirmed that this will remain.

Director Stemple asked if the existing stormwater drain would remain just outside that Northside boundary.

The project representative stated that the stormwater pipe would be abandoned but remain without disturbing the pipe.

Director Bassett asked if the current stormwater pipe is being abandoned then does that mean stormwater will be redirected elsewhere?

The project representative stated that stormwater runoff would be directly tied to the stormwater system [City]. They will also be adding new storm structures.

Director Bassett stated that his main concern is protecting against erosion on the slopes and the health of the existing trees which help hold the integrity of the slopes. Has the applicant considered this?

The project representative described that there is another raised paved area just beyond the primary edge on the north line of the project area and the intent is to place protection fence right against these existing features.

Director Martin asked why Honeylocust was the species chosen for that site.

Project Representative explained that the city recommended Honeylocust at that the site and asked if the NFP Board had alternatives.

Director Bassett stated that Honeylocust is native and the proposed species is a Nativar or Cultivated variety of a native species.

Director Stemple stated he has no issues with the tree, but consideration should be taken for the mature size of the tree and its proposed location and how it could affect overhead utility lines. It may be better to find a native species that is columnar and won't grow as wide of a crown.

Director Fredrickson also pointed out that a gas line is near the planting site, which is something else to consider as a potential future conflict.

Project Representative would investigate Director Stemples and Frederickson's recommendations and comments.

Director Stemple asked if the North line of trees would be pruned given how much overhang there is from existing canopy. Particularly, the area near the new dumpster enclosure has a 'weeping' Mulberry Tree that could be tricky to maneuver around.

Project Representatives explained that the Mulberry Tree near the proposed dumpster enclosure would most likely be pruned to provide greater clearance.

Director Hollander asked if the site has any leaking underground storage tanks.

Project Representative explained they had been told there had been issues with the existing tanks leaking which is one of the primary reasons for the project. Product piping is being replaced for this reason as well.

Director Stemple asked if there is a long-term management plan for the new tree plantings. Stated that the guywires shown on the planting plans are not his first choice for stabilizing the new planting vs vertical stakes, but they are acceptable. Director Stemple asked if the guywires would be coming down in a few years.

Project representatives stated they could make a note in the plans outlining action related to this longer-term management of the planted trees.

Motion by Director Martin to recommend that the Natural Features Protection (NFP) Board approve the NFP site Plan application for 3050 Oakland Drive conditioned upon completion of MNFI Rare Species On-Site Review and Full Approval by the Site Plan Review Committee. Supported by Director Bassett with unanimous support.

Question?

Public Comments: No in-person public comments. No public call-in comments. Board gave a minute to ensure no call-in comments were missed. A 90-second delay was identified by staff and the board between the broadcast of the meeting.

Unfinished Business

Staff Reports and Update

None

Communications and Announcements:

1. Leaf pickup begins in November and continues through December. For more information, please see “View from the Curb” or the City of Kalamazoo website.

Adjourn Meeting

Director Martin adjourned the meeting at 4:33 pm



NFP Review Board Staff Report

City of Kalamazoo

TO: The Natural Features Protection Review Board

FROM: Nolan Bergstrom, NFP Board Liaison

DATE: October 28, 2025

SUBJECT: 433 Reed Court / Reed Avenue Stormwater Restoration Project

RECOMMENDATION:

It is recommended the Natural Features Protection (NFP) Review Board approve the NFP Site Plan for the Stormwater Restoration Project located at 433 Reed Court / Avenue.

The project is in alignment with the intent of the NFP by advancing restoration activities related to stormwater on an environmentally sensitive site. This project is also in alignment with:

- The Portage and Arcadia Creek sub-watershed plans
- City of Kalamazoo Community Sustainability Plan (Page 113)
- Michigan Department of Environment, Great Lakes, and Energy goals around managing pollutants and stormwater systems
- MI Healthy Climate Plan
- Imagine Kalamazoo 2025 Strategic Vision:
 - Environmental Responsibility
 - Safe Community
 - Complete Neighborhood

BACKGROUND:

433 Reed Court / 433 Reed Avenue is a former Kalamazoo Brownfield Redevelopment site that was transferred to City of Kalamazoo ownership. The parcel is zoned RM-15 zone district.

The goal of the project is to improve the site by adding new Stormwater BMPs (Best Management Practices) focused on restoring and enhancing the existing wetlands, and taking restorative actions near Portage Creek. New stormwater infrastructure, pedestrian boardwalk and viewing deck, and habitat restoration are included in the scope of the project.

This project is before the NFP Board seeking Full NFP Site Plan Approval.

Stormwater BMPs are defined in the City of Kalamazoo Zoning Code (Chapter 50) ([§ 50-1.3 Definitions](#)) as *Tools used to prevent or reduce stormwater runoff and/or associated pollutants as determined by professional associations, [State of Michigan](#), or federal government, such as the [Michigan Low Impact Development Manual](#).*

FINDINGS:

The Kalamazoo River Watershed Council, in partnership with the City of Kalamazoo and Kaiser & Associates, identified sites in the [Portage and Arcadia Creek Watershed](#) that could be worked on to improve the health of the watershed. One of the identified areas in this sub-watershed plan was the parcel located at 433 Reed Court.

The site is within the NFP Overlay District due to the presence of Portage Creek and a wetland area adjacent to Portage Creek. The site also requires Rare Species Review. The parcel is undeveloped.

Since the project is located within the NFP Overlay District, the site requires the following NFP Site Development Standards:

- **Water Resources Standard ([§ 50-6.2D](#))**– New Stormwater BMPs are prohibited within the water resource setback ([§ 50-6.2D\(2\)\(b\)](#)). The applicant required a variance from the NFP Standards in order to move forward with the project.
- **Wetland Standard ([§ 50-6.2C](#))** – New Stormwater BMPs are prohibited within the wetland setback ([§ 50-6.2C\(3\)\(b\)](#)). The applicant required a variance from the NFP Standards in order to move forward with the project. Wetland and floodplain work includes a mix of Stormwater BMPs including bio-swales, sediment traps, raised berms, micro-pools, stormwater diversion and stream bank enhancements, as well as some wetland habitat restoration.
- **Woodland Protection Standard ([§ 50-6.2G](#))** – The site does contain contiguous areas of woodland and so the Woodland standard would apply. The Protected Tree Standard does not apply to a woodland area. 3.57 acres of woodland are delineated with 165 trees surveyed with a DBH of greater than 10" diameter. 6 trees are slated to be removed for the project and reincorporated with the improvements on-site. The 6 trees to be removed were identified as being dead.
- **Rare Species Review** – This site required Rare Species Review to be completed by the [Michigan State University Extension](#). This review was completed and submitted to city staff.
- **Plant Selection** – Plantings are dictated by multiple NFP Standards and will be reviewed more fully during the Site Plan Review process.
- **Stormwater Management ([§ 50-6.2J\(6\)](#))** – Stormwater requirements on NFP sites are stricter and are dictated by the City of Kalamazoo Performance Standards for Groundwater Protection within Wellhead Protection Capture Zones.

The applicant has also submitted materials to EGLE (Michigan Department of Environment, Great Lakes, and Energy) which will be required. This project went before the Zoning Board of Appeals in May and Site Plan Review occurred on October 8th, 2025.



Public Services

415 E Stockbridge Ave
Kalamazoo, MI 49001
Phone: (269) 337-8047
311 (269) 337-8000
www.kalamazoo.org

October 10, 2025

**Notice of Natural Features Protection Review
for the
Reed Court Floodplain and Stormwater Improvement Project**

Dear Resident,

On April 22, 2025, I presented the proposed Reed Court Floodplain and Stormwater Improvement Project to the Natural Features Protection (NFP) Review Board for an initial review and variance recommendation. Since that time, the project has received approvals from the Zoning Board of Appeals and the Site Plan Review Committee.

The project now will return to the NFP Board once more for final approval of the overall plan. This meeting will take place **Tuesday, October 28 at 4:00 PM at City Hall** (241 W South St) in the Commission Chambers. This meeting is open to the public and time will be allocated for public comments.

The project will greatly improve the environment along the creek. Features include engineered stormwater swales, hibernaculums for wildlife habitat, a boardwalk open to the public for recreation, and a sand pile for turtle nesting. The project is supported by funds from the Kalamazoo River Natural Resources Damage Assessment as administered by NRDA Trustees. Construction is expected to begin in 2026.

The location is on west bank of Portage Creek, north (downstream) of Reed Avenue on land owned by the City Brownfield Authority, bounded by Stockbridge to the north, Reed Court to the east and Grand Elk rail to the west. The property address is 433 Reed Ave (parcel ID 06-22-467-002) with a land area of 4.2 acres.

Plans are attached and can also be viewed online at the link shown below. If you have comments, please email palumbot@kalamazoo.org. (If you don't have email, you can send via mail Attn: Tom Palumbo to the address at the top of this letter.)

<https://drive.google.com/file/d/1X7ijui7-AnGcgOtKNafs67LfSif1Zb7/view?usp=sharing>



Thank you,

Tom Palumbo, PE
Senior Civil Engineer
Public Works Division
City of Kalamazoo



SITE PLAN

STREET DETAIL

NOTE:
 SOME BANK RESHAPING MAY BE NECESSARY AT THE FLOOD PLAIN ENTRANCES, EXIT AND WETLAND ENHANCEMENTS TO SUPPORT FLOW OUT OF THE CREEK

WETLAND ENHANCEMENT MICRO-POLS
 BRUSH FILE WOODY HABITAT (TYPICAL, 3 LOCATIONS)
 ASSESSOR'S PLAT OF SOUTH SIDE ANNEX
 EXISTING OVERLAND FLOW PATHS
 EXISTING SHEET FLOW AREA WITH RIVULETS FROM CREEK
 WETLAND ENHANCEMENT MICRO-POLS
 IN-FLOW FROM PORTAGE CREEK
 RAISED OVERLOOK W/ 6' STONE PATH
 APPROXIMATE PROPERTY LINE
 BIO-SWALES THROUGH SITE
 FENCING ALONG BIO-SWALE WORK AREA
 SANDY PILE FOR TURTLE NESTING
 EXPECTED 100 YEAR FLOOD ELEVATION
 FENCING ALONG FLOOD ELEVATION
 STORMWATER DIVERSION
 SEDIMENT TRAP (MTD)

STORM WATER DIVERSION TO BIO-SWALE
 6' STONE PATH TO OVERLOOK
 PORTAGE CREEK
 SEDIMENT TRAP (MTD)
 ACCESS TO STORM TRAP
 EXISTING 12" STORM SEWER
 CONNECT TO (E) STORM MANHOLE. MODIFY W/ DIVERSION WEIR
 REED CT (66' FT ROW)
 #441 R 06-22 (LOT 1)
 ELEVATION MARKERS: 768.74, 769.42, 769.60, 769.65, 769.38, 769.5



CONCEPT REORDERINGS OF VIEWING DECK

SUPPLEMENTAL SITE PLAN REVIEW APPLICATION FOR NATURAL FEATURES PROTECTION

For projects located within the Natural Features Protection (NFP) Overlay District, separate site plan approval is required before the full site plan can be approved. This review is done either by the NFP Review Board or administratively by staff to verify conformance with NFP Overlay District zoning code ([Chapter 50, NFP](#)). The NFP Overlay District map can be found on the [City's GIS mapping website](#) (select "Planning & Zoning" layer and make sure "NFP Overlay" is clicked on).

The NFP Supplemental Application must be completed and submitted with the regular Site Plan Review Application and checklists. The NFP Review Board meets monthly to review and approve applications. City staff can assist in scheduling a project at an upcoming NFP Review Board meeting. While the review process offers some flexibility, projects often seek NFP approval between the Pre-Application meeting and regular Site Plan Review meeting.

Section I. Project & Applicant Information

All projects must complete Section I. If the project will not impact any natural features on the site, and does not trigger additional stormwater controls or treatment, applicants should sign and submit Section I only. Staff will review and determine if the application can be approved administratively.

Section II. Natural Features Checklist & Attachments

For projects proposing improvements or changes to the site that impact natural features, change grading, or involve work in or near NFP setbacks, Sections II and III must be completed. Section II identifies which natural features are present and standards apply. Section III will assist you in determining what documentation and additional plan sets are needed for a complete application. Once a complete application is submitted to the City, the project will be scheduled for the next available NFP Review Board meeting and an application fee of \$110 will apply.

QUESTIONS

Contact the NFP staff liaison with any questions about your NFP Supplemental Application at (269) 337-8045 or development@kalamazoo.org.

SECTION I. PROJECT AND APPLICANT INFORMATION

Please provide all of the project and applicant information requested below. Include the date of your regular site plan review meeting, if one has been scheduled or already taken place.

APPLICANT NAME:	(first) _____ (last) _____		
APPLICANT ADDRESS:	(number) _____		(street name) _____
	(city) _____	(state) _____	(Zip) _____
APPLICANT EMAIL:		PHONE:	
PARCEL ADDRESS/PIN:			
PROJECT DESCRIPTION:			
OWNER NAME: <i>(if different)</i>	(first) _____ (last) _____		
HAS REGULAR SITE PLAN REVIEW MEETING OCCURRED?	<input type="checkbox"/> Yes <input type="checkbox"/> No	DATE OF SITE PLAN REVIEW MEETING:	

NFP APPLICATION REQUIRED?

Is the project limited to interior work <u>only</u> with no exterior ground changes or increase in impervious coverage?	
YES	If YES , Sections II & III of this application are not needed. Sign below & submit only this page with your site plan review or permit application.
NO	If NO , proceed to Sections II & III. Do NOT sign below.

By signing below, the applicant certifies that no natural features will be disturbed as part of this project.

Print name: _____

Signature: _____

Date: _____

SECTION II. NFP SITE PLAN CHECKLIST & ATTACHMENTS

Use the checklist to determine what documentation and additional plans sets must be prepared for this application. All plan sets, maps, and additional information must be attached to this application to be considered complete. If you checked “no” to certain NFP items in questions 1-7 in Section II, record “N/A” on the checklist.

REQUIRED: NFP SITE PLAN SET

All applications must include separate sheets in the plan set showing the following:

1. Existing conditions map showing an inventory of all protected natural features and any associated natural features setbacks with distances (use checklist below)
2. Future development plan overlaid onto the existing conditions and natural features inventory; indicate where and to what extent protected natural features will be disturbed, removed, altered, or impacted in any way and which natural features will be protected during and after construction

Future development plan must include:

- **Boundary with extent of re-grading**, construction, or site preparation activities
 - **All existing and new building footprints** (mark whether existing buildings will be removed or maintained)
 - **New and existing parking** surfaces or structures, sidewalks, trails, and other impervious or semi-impervious surfaces including decks, patios, viewing platforms, etc. (list proposed surface materials and whether existing surfaces will be maintained or removed)
 - **Proposed location of fencing and screening**, whether permanent, natural, or construction silt fencing and/or natural feature protection fencing (with specifications)
 - **Stormwater facilities** showing boundary of ground disturbance, grading or construction activities, if located near natural features
 - **New utilities** and/or relocation of existing utilities showing corridors that could impact natural features
3. Landscape plan detailing the minimum elements needed to meet zoning code requirements and all proposed additional landscaping elements or features (include table with species name)
 4. Any additional plans or tables detailing which natural features will be restored or replaced after construction, if required (e.g., riparian buffer installation or slope restoration plan may be required under certain circumstances when the ordinance allows changes within these protected areas)

WETLANDS	Present:	Included on page #:	Notes:
<p>Mark existing wetland boundaries with notes about wetland conditions. <i>Attach a copy of EGLE permit or permit application for work impacting Part 303 wetlands regulated by the State.</i></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No		
WATER RESOURCES	Present:	Included on page #:	Notes:
<p>Mark the location of all water resources on the parcel and those within 25 feet of the parcel boundaries. <i>Attach a copy of EGLE permit or permit application for work impacting Part 301 waters regulated by the State.</i></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No		
<p>Show required setbacks with dimensions; describe existing or future ground cover within riparian setbacks.</p>			
TREES	Present:	Included on page #:	Notes:
<p>Mark the location of all “protected” trees that are proposed to be removed and those that will remain and require protection fencing.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No		
<p>Include a table with species name, size (DBH and height), and condition of “protected” trees that are proposed to be removed and list replacement tree information.</p>			
<p>Provide a note with justification for removal.</p>			
WOODLANDS	Present:	Included on page #:	Notes:
<p>Delineate the boundary of all woodlands on the parcel noting where woodlands likely extend onto adjacent parcels.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No		
<p>Mark all areas of woodland that will be retained and removed (i.e., cleared).</p>			
<p>Include a table or note with the required preservation ratio (based on existing woodland coverage), percentage proposed to be removed, and rationale for selecting area for removal.</p>			
SLOPES	Present:	Included on page #:	Notes:
<p>Provide a slope analysis that shows the boundaries of all “protected” slopes and mark the required setback(s).</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No		
<p>Include a note with co-existing feature that triggers “protected” slope status (e.g., wooded, within 500 ft of water resource).</p>			

NATURAL HERITAGE AREAS	Present:	
<p>Is an MNFI* rare species review required? <i>Parcels can be pre-screened using the City's GIS website, click on the "Planning & Zoning" layer and "NFP Overlay" layer; then click on parcel and see MNFI status.</i></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	
<p>If an MNFI rare species review is required, attach the resulting report.</p>		

*Michigan Natural Features Inventory (MNFI) Rare Species Reviews can be requested at:

<https://mnfi.anr.msu.edu/services/rare-species-reviews>

ACCEPTED DATA SOURCES & ANALYSIS

All data sources, analysis, and professionals are subject to approval by the City Planner according to Chapter 50-6.2. The following guidance may be useful when selecting a professional or methodology for inventorying natural features.

1. WETLANDS

- Wetland delineation report performed by a qualified consultant including a map denoting delineated boundary of all wetlands, OR
- Most recent US Fish & Wildlife Service's National Wetlands Inventory boundary (State of Michigan mapper: <https://www.michigan.gov/egle/about/organization/water-resources/wetlands/inventory-maps>)

2. PROTECTED TREE IDENTIFICATION

- May be performed by an qualified professional (including ISA Certified Arborist or similar); a full tree inventory is not required if all necessary information can be obtained and communicated using another survey, inventory, or site assessment methodology

3. WOODLANDS

- A qualified professional, such as an ISA Certified Arborist, landscape architect, or license engineer may perform a desktop analysis or field survey to delineate woodlands
- When a variances is being requests to remove more woodland cover than is allowed under the preservation ration, the following is required
 - Woodland assessment report with determination that the Trees per Area (TPA) meets the NFP definition of a woodland and mapped delineation of woodland
 - Woodland assessment report with a determination that Basal Area is equivalent to the TPA in the NFP definition and meets definition of a woodland and mapped delineation of woodland
 - In addition to determination of whether stand of trees meets NFP definition of a woodland, assessment must include information on general species diversity,
 -

composition of species, any notable trees (either notable species or size), invasive species composition, and general health and age observations of tree stand

4. PROTECTED SLOPES

- Topographic survey performed in the field by a qualified consultant to delineate areas of a slope with grade of 20% or greater
- Desktop analysis performed using U.S. Geological Survey digital topographic maps, LIDAR, digital elevation map, or equivalent data showing 2' intervals or finer resolution, performed by a qualified consultant or engineer

SHEET LIST:

- 1 TITLE SHEET
- 2 TOPOGRAPHIC SURVEY
- 3 DEMOLITION PLAN & TREE PROTECTION
- 4 SITE PLAN
- 5 PLAN DETAILS
- 6 SECTIONS
- 7 LANDSCAPE CONCEPTS
- 8 LANDSCAPE DETAILS
- 9 SOIL EROSION AND SEDIMENT CONTROL PLAN
- 10 WETLAND DELINEATION AND PROTECTION DETAILS
- 10-A WETLAND IMPACTS PLAN
- 11 PCB HISTORICAL LOCATIONS AND SAMPLING PLAN

Site Plan Review
 Received: 09/05/2025
 City of Kalamazoo
 E.Szymanski



LOCATION MAP

The City of Kalamazoo



REED COURT FLOODPLAIN AND STORMWATER IMPROVEMENT PROJECT

FUNDING: NOAA Restoration Center On Behalf of the Kalamazoo River NRDA Trustees	CONSULTANTS: Prein&Newhof Engineering Services	KIESER & ASSOCIATES, LLC Environmental Science and Engineering Services	O'Boyle, Cowell, Blalock, & Associates, Inc. Landscape Architects	Merchant Environmental and Regulatory Consulting Services
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KIESER & ASSOCIATES
 ENVIRONMENTAL SCIENCE & ENGINEERING
 536 E. MICHIGAN AVENUE, SUITE 300, KALAMAZOO, MICHIGAN 49007
 ph: (269) 344-7117 fax: (269) 344-2493 www.kieser-associates.com

AND

Prein&Newhof

DRAWN BY:
 CHECKED BY:

revisions

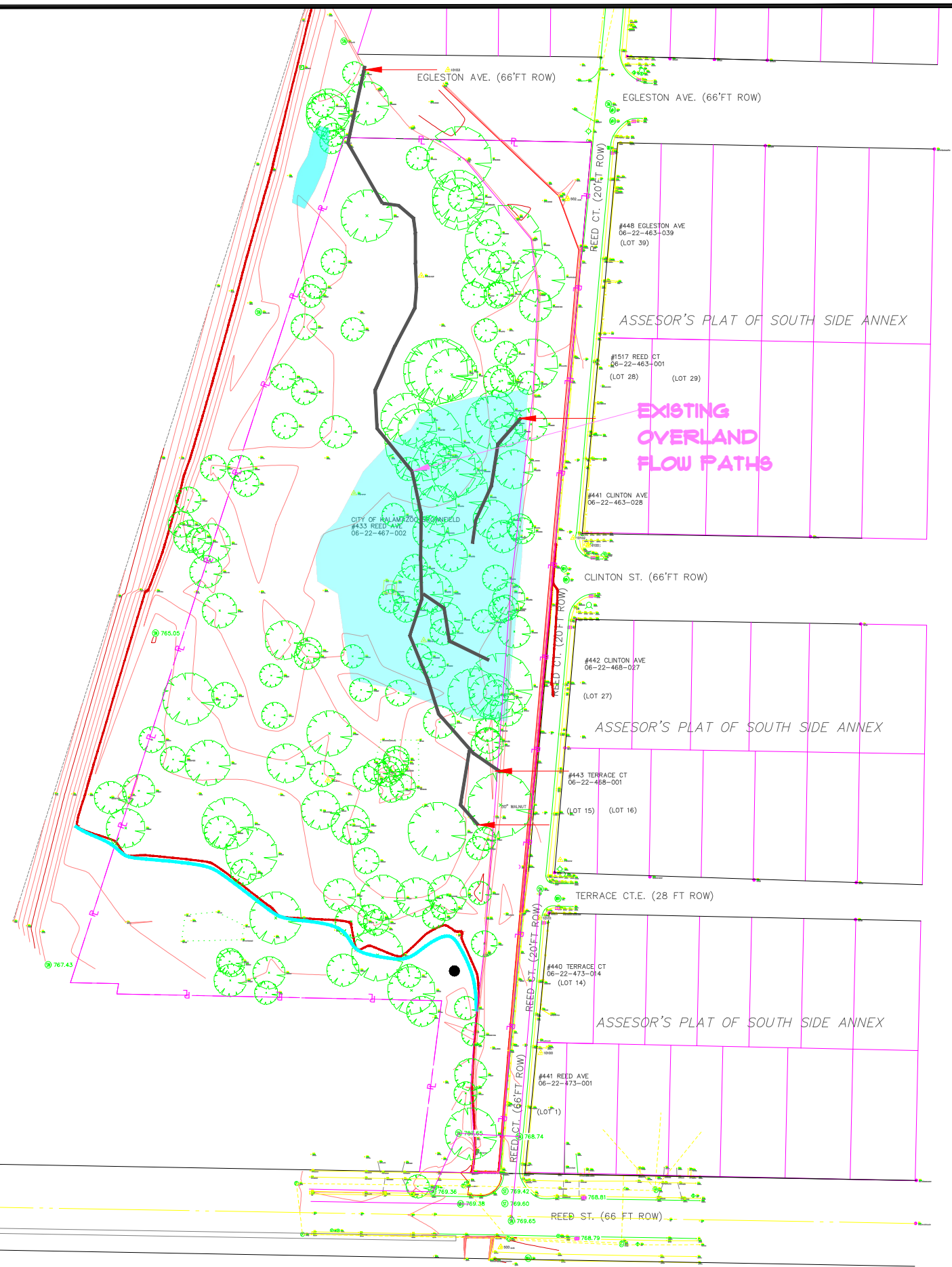
EGLE RESUBMISSION -7-31-2025



**REED COURT
 FLOODPLAIN
 AND
 STORMWATER
 IMPROVEMENT
 PROJECT**

**TITLE
 SHEET**

DRAWING
1



TOPOGRAPHIC SURVEY

1"=50'

KIESER ASSOCIATES
 ENVIRONMENTAL SCIENCE & ENGINEERING
 536 E. MICHIGAN AVENUE, SUITE 300, KALAMAZOO, MICHIGAN 49007
 ph: (269) 344-7117 fax: (269) 344-2493 www.kieser-associates.com

AND

Prein & Newhof

DRAWN BY:
 CHECKED BY:

revisions

EGLE RESUBMISSION -7-31-2025



REED COURT FLOODPLAIN AND STORMWATER IMPROVEMENT PROJECT

TOPOGRAPHIC SURVEY

DRAWING
2

Description	Diam	Species	xcoord	ycoord	Description	Diam	Species	xcoord	ycoord
24" Dead	24	Dead	-85.5769	42.27468	10" Walnut	10	Walnut	-85.5768	42.27419
12" Dead	12	Dead	-85.5767	42.27478	15" Walnut	15	Walnut	-85.5766	42.27443
12" Dead	12	Dead	-85.5768	42.27523	10" Walnut	10	Walnut	-85.5766	42.27439
30" Dead	30	Dead	-85.5765	42.27525	24" Walnut	24	Walnut	-85.5766	42.27431
24" Dead	24	Dead	-85.5768	42.27581	10" Hackberry Triple	10	Hackberry	-85.5766	42.27452
18" Dead Twin	18	Dead	-85.5768	42.27579	10" Maple	10	Maple	-85.5766	42.27457
30" Dead	30	Dead	-85.5767	42.27591	14" Maple	14	Maple	-85.5767	42.27456
30" Dead	30	Dead	-85.5767	42.27591	22" Maple	22	Maple	-85.5768	42.27461
24" Dead	24	Dead	-85.5767	42.27591	10" Maple	10	Maple	-85.5768	42.27464
10" Maple	10	Maple	-85.577	42.27654	12" Maple	12	Maple	-85.5766	42.27471
20" Basswood	20	Catalpa	-85.5769	42.27648	10" Hackberry	10	Hackberry	-85.5766	42.27481
10" Maple	10	Maple	-85.577	42.27641	18" Maple	18	Maple	-85.5767	42.27481
10" Maple Twin	10	Maple	-85.577	42.27639	10" Maple	10	Maple	-85.5767	42.27476
10" Poplar	10	Poplar	-85.5771	42.27642	18" Walnut	18	Walnut	-85.5768	42.2748
20" Poplar	20	Poplar	-85.5771	42.27645	21" Walnut	21	Walnut	-85.5769	42.2748
20" Poplar Twin	20	Poplar	-85.5771	42.27646	15" Walnut	15	Walnut	-85.577	42.27475
10" Basswood Triple	10	Catalpa	-85.5771	42.27647	12" Walnut	12	Walnut	-85.5769	42.27476
10" Basswood	10	Catalpa	-85.5768	42.27636	12" Walnut	12	Walnut	-85.5769	42.27475
30" Oak Triple	30	Oak	-85.5767	42.27636	15" Walnut	15	Walnut	-85.577	42.27465
24" Basswood	24	Catalpa	-85.5767	42.27628	15" Walnut	15	Walnut	-85.5772	42.27464
24" Basswood Twin	24	Catalpa	-85.5767	42.27627	10" Elm	10	Elm	-85.5772	42.2746
12" Basswood	12	Catalpa	-85.5767	42.27628	15" Walnut	15	Walnut	-85.5773	42.27462
12" Basswood	12	Catalpa	-85.5766	42.27621	12" Walnut	12	Walnut	-85.5773	42.27466
36" Basswood	36	Catalpa	-85.5765	42.27618	12" Walnut	12	Walnut	-85.5773	42.27466
24" Basswood Quad	24	Catalpa	-85.5764	42.27612	24" Walnut	24	Walnut	-85.5772	42.27476
15" Basswood Quad	15	Catalpa	-85.5765	42.27606	12" Walnut	12	Walnut	-85.5773	42.27485
10" Basswood	10	Catalpa	-85.5766	42.27615	24" Walnut	24	Walnut	-85.5772	42.27489
18" Basswood	18	Catalpa	-85.5766	42.27613	15" Hickory	15	Hickory	-85.5773	42.27493
12" Basswood	12	Catalpa	-85.5766	42.27608	24" Walnut	24	Walnut	-85.5773	42.27495
12" Maple	12	Maple	-85.5766	42.27608	21" Walnut	21	Walnut	-85.5774	42.27508
12" Basswood	12	Catalpa	-85.5766	42.27608	12" Cherry Triple	12	Cherry	-85.5775	42.27509
10" Basswood	10	Catalpa	-85.5766	42.276	15" Walnut	15	Walnut	-85.5776	42.27502
10" Basswood	10	Catalpa	-85.5765	42.27596	15" Walnut	15	Walnut	-85.5776	42.275
24" Maple Twin	24	Maple	-85.5765	42.27593	18" Walnut	18	Walnut	-85.5776	42.27494
10" Basswood	10	Catalpa	-85.5765	42.27589	12" Walnut	12	Walnut	-85.5775	42.27513
10" Basswood	10	Catalpa	-85.5765	42.2759	24" Walnut	24	Walnut	-85.5774	42.27522
15" Basswood	15	Catalpa	-85.5766	42.27589	12" Walnut	12	Walnut	-85.5773	42.27522
15" Basswood	15	basswood	-85.5765	42.2758	10" Walnut	10	Walnut	-85.5772	42.27527
15" Basswood	15	Catalpa	-85.5765	42.27579	12" Walnut	12	Walnut	-85.5772	42.27518
24" Basswood	24	Catalpa	-85.5766	42.27581	18" Walnut	18	Walnut	-85.5772	42.27534
18" Basswood	18	Catalpa	-85.5766	42.27583	12" Walnut	12	Walnut	-85.5771	42.27531
18" Basswood	18	Catalpa	-85.5765	42.27571	12" Walnut	12	Walnut	-85.5771	42.27532
18" Basswood	18	Catalpa	-85.5766	42.2756	10" Walnut	10	Walnut	-85.577	42.27531
12" Basswood	12	Catalpa	-85.5765	42.27558	10" Walnut	10	Walnut	-85.5769	42.27524
12" Basswood	12	Catalpa	-85.5765	42.27559	21" Walnut	21	Walnut	-85.577	42.27515
24" Basswood	24	Catalpa	-85.5767	42.2757	12" Walnut	12	Walnut	-85.577	42.27506
30" Basswood	30	Catalpa	-85.5767	42.27571	18" Walnut	18	Walnut	-85.577	42.27498
36" Basswood	36	Catalpa	-85.5768	42.27576	18" Locust X6	18	Locust	-85.5771	42.27508
12" Basswood	12	Catalpa	-85.5767	42.27574	24" Willow	24	Willow	-85.5766	42.27523
12" Basswood	12	Dead	-85.5767	42.27574	21" Hackberry	21	Hackberry	-85.5766	42.27523
12" Basswood	12	Catalpa	-85.5768	42.27531	12" Walnut	12	Walnut	-85.5766	42.27524
12" Basswood	12	Catalpa	-85.5767	42.27529	10" Walnut Twin	10	Walnut	-85.5766	42.27516
15" Basswood	15	Catalpa	-85.5765	42.27537	15" Walnut	15	Walnut	-85.5766	42.27513
12" Basswood	12	Catalpa	-85.5765	42.27542	12" Elm	12	Elm	-85.5769	42.27507
12" Basswood Quad	12	Catalpa	-85.5765	42.27541	12" Elm	12	Elm	-85.5769	42.27505
15" Basswood	15	Catalpa	-85.5765	42.27544	12" Walnut	12	Walnut	-85.5768	42.27503
10" Basswood	10	Catalpa	-85.5766	42.27539	12" Walnut	12	Walnut	-85.5768	42.27504
15" Basswood	15	Catalpa	-85.5767	42.27539	12" Dead	12	Dead	-85.5768	42.27509
12" Basswood	12	Catalpa	-85.5767	42.27536	12" Dead	12	Dead	-85.5768	42.27509
12" Basswood	12	Catalpa	-85.5768	42.27541	12" Walnut	12	Walnut	-85.5769	42.27494
10" Basswood	10	Catalpa	-85.5769	42.27543	12" Walnut	12	Walnut	-85.5769	42.27488
24" Basswood	24	Catalpa	-85.5768	42.27545	18" Walnut	18	Walnut	-85.577	42.27495
18" Basswood	18	Catalpa	-85.5767	42.27545	15" Walnut	15	Walnut	-85.577	42.27481
12" Basswood	12	Catalpa	-85.5768	42.2755	27" Walnut	27	Walnut	-85.5767	42.27494
15" Basswood	15	Catalpa	-85.5767	42.27553	10" Walnut	10	Walnut	-85.5766	42.27491
12" Basswood	12	Catalpa	-85.5766	42.27548	10" Walnut	10	Walnut	-85.5766	42.27493
15" Basswood	15	Catalpa	-85.5765	42.27557	30" Walnut	30	Walnut	-85.5765	42.275
15" Maple Triple	15	Maple	-85.5767	42.27557	16" Walnut	16	Walnut	-85.5773	42.2754
18" Basswood	18	Catalpa	-85.5767	42.27563	16" Catalpa	16	Catalpa	-85.5774	42.27554
36" Basswood	36	Catalpa	-85.5767	42.27565	12" Dead	12	Dead	-85.5775	42.27558
10" Basswood	10	Catalpa	-85.5768	42.27561	12" Walnut	12	Walnut	-85.5774	42.27564
10" Basswood	10	Catalpa	-85.5768	42.27571	12" Walnut	12	Walnut	-85.5774	42.2757
15" Walnut	15	Walnut	-85.5767	42.27517	12" Walnut	12	Walnut	-85.5773	42.2757
15" Walnut	15	Walnut	-85.5765	42.2752	12" Dead	12	Dead	-85.5773	42.27567
12" Walnut Twin	12	Walnut	-85.5766	42.27514	12" Walnut	12	Walnut	-85.5772	42.27579
12" Elm	12	Elm	-85.5769	42.27506	12" Walnut	12	Walnut	-85.5771	42.27587
12" Dead Cluster	12	Dead	-85.5768	42.27507	12" Walnut	12	Walnut	-85.5772	42.2759
15" Dead Twin	15	Dead	-85.5774	42.27548	12" Walnut	12	Walnut	-85.5771	42.276
15" Dead	15	Dead	-85.5774	42.27556	10" Walnut	10	Walnut	-85.5771	42.27607
12" Walnut	12	Walnut	-85.5774	42.27555	10" Dead	10	Dead	-85.5771	42.27609
15" Maple	15	Maple	-85.577	42.27578	12" Dead	12	Dead	-85.577	42.27614
10" Elm	10	Elm	-85.577	42.276	24" Maple	24	Maple	-85.5769	42.27624

LIST OF TREES GREATER THAN 10" DIA.

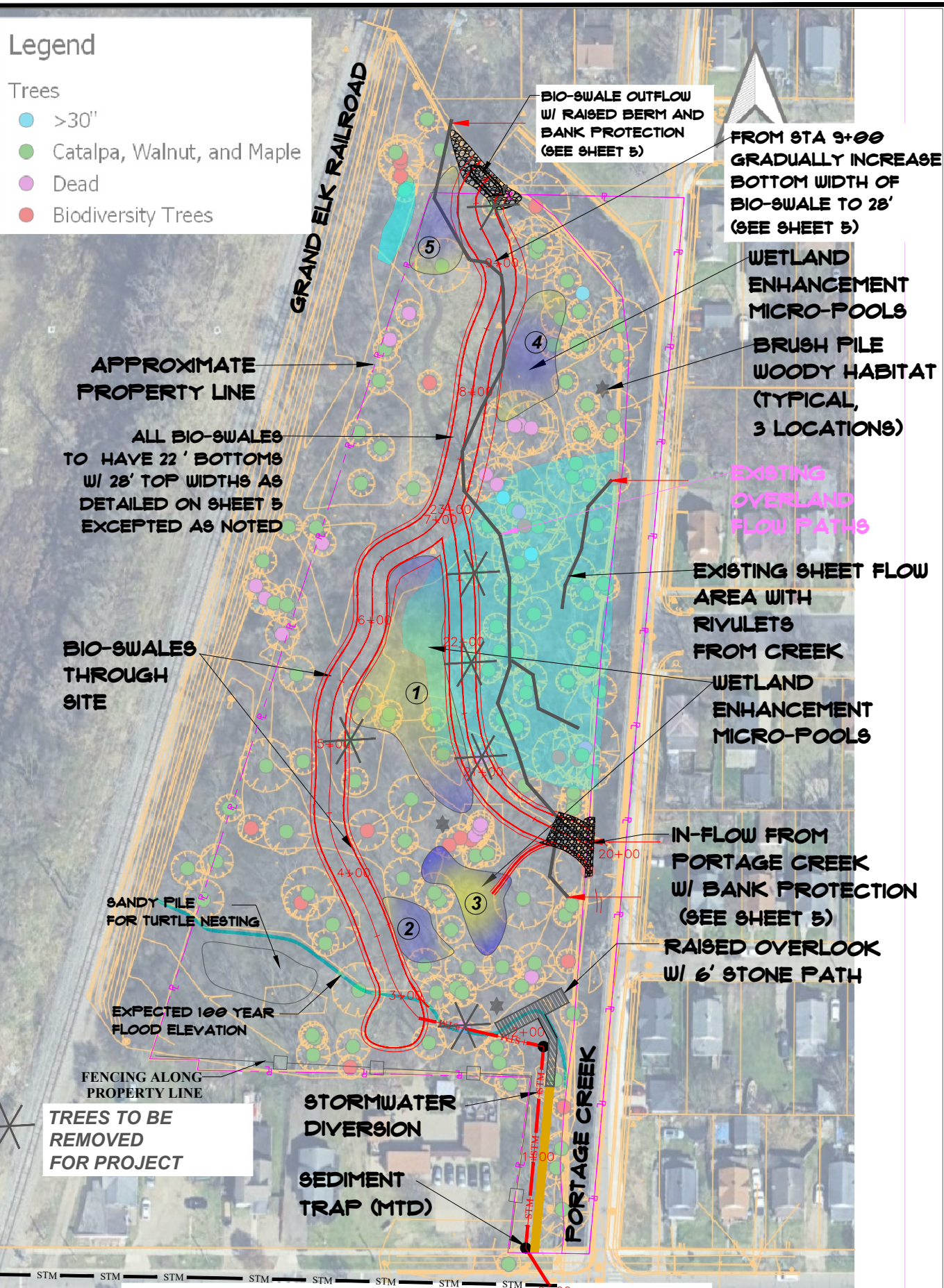
PARCEL AREA = 4.23 ACRES

PORTAGE CREEK = 0.65 ACRES

WOODLANDS = 3.57 ACRES

SURVEYED TREES 165 TREES > 10" DIA.

TREES REMOVED FOR PROJECT 6



DEMOLITION & TREE PROTECTION

SCALE 1"=50'

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Prein & Newhof

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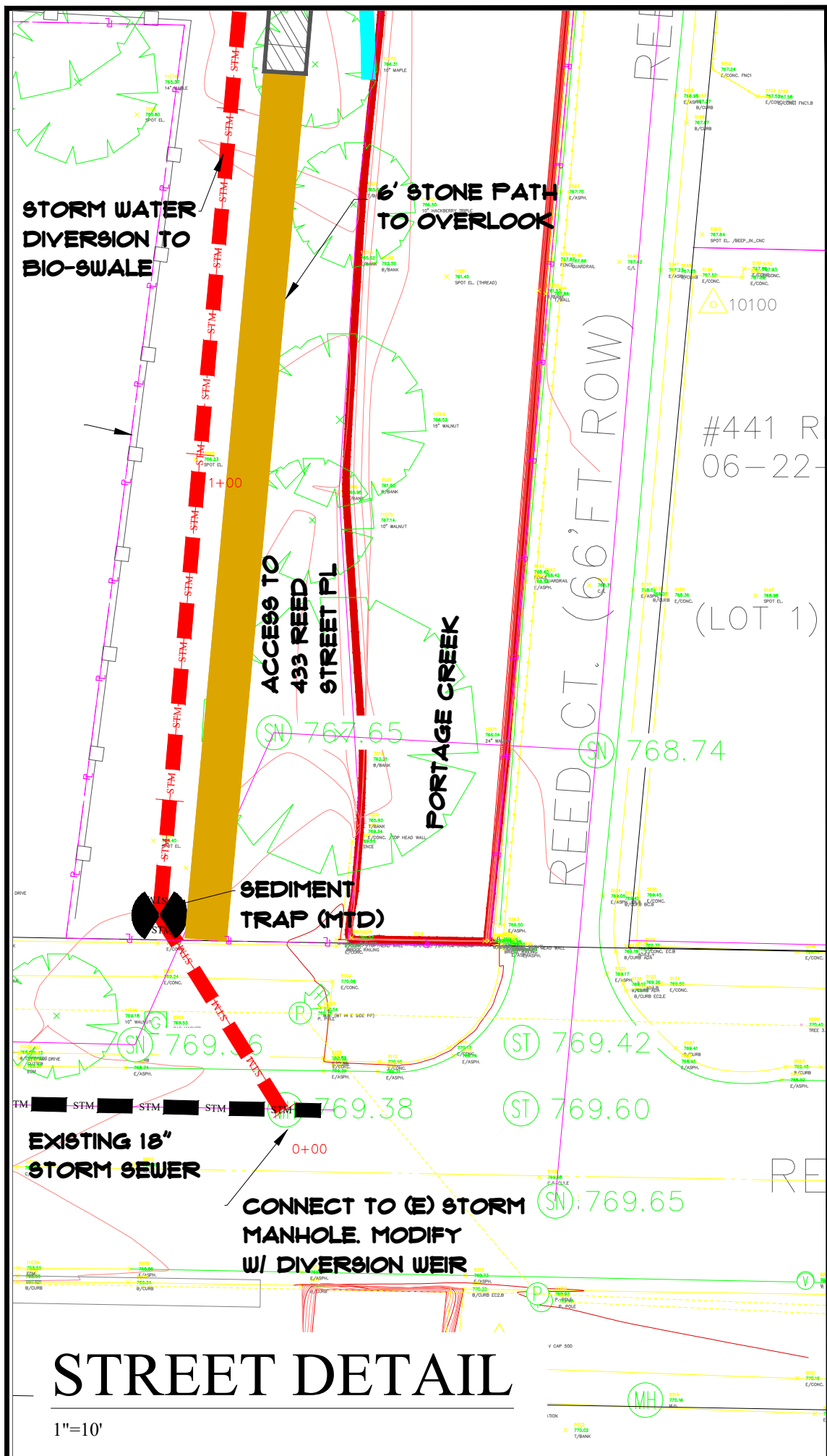
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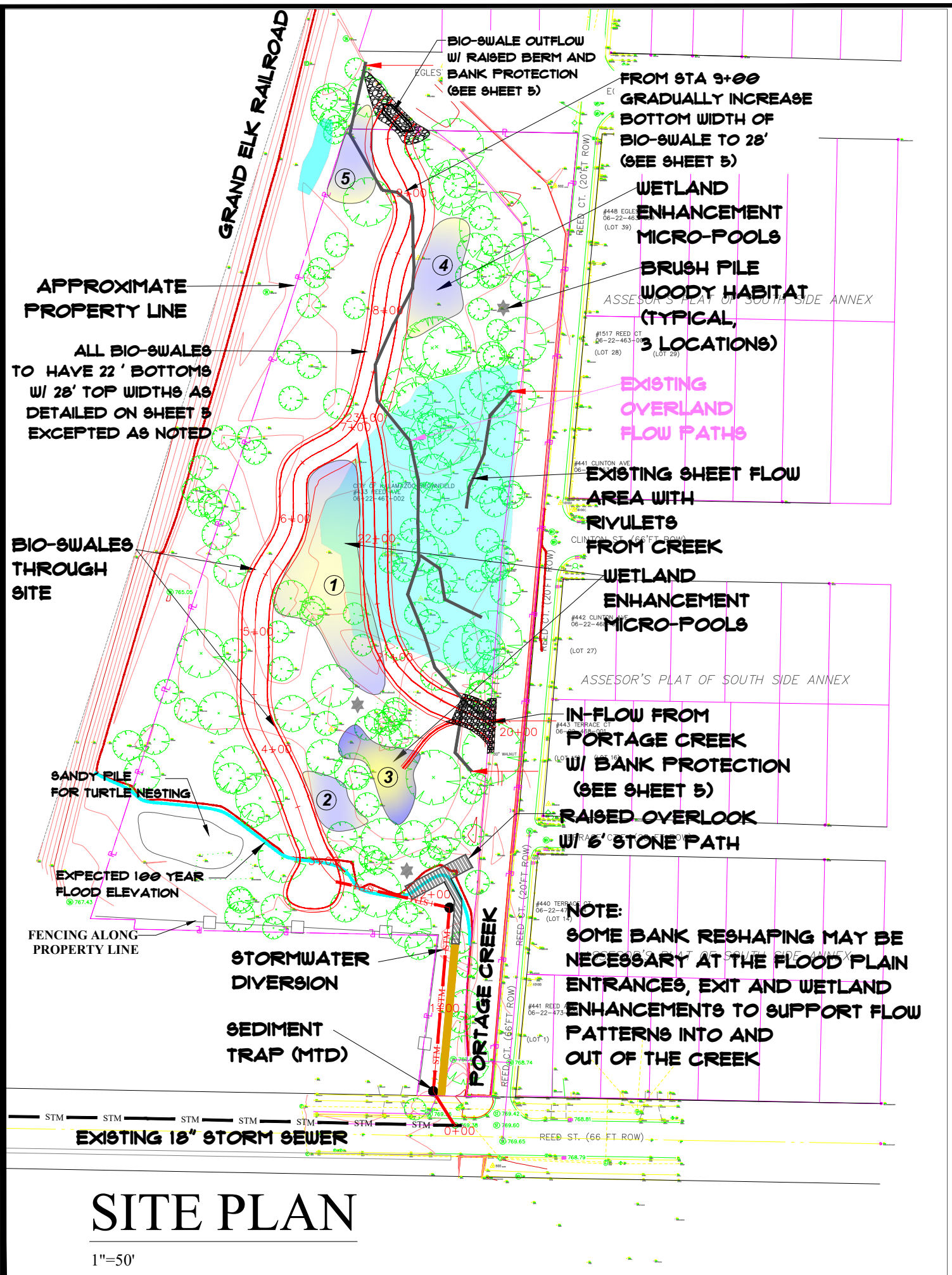
DEMOLITION & TREE PROTECTION

DRAWING
3



STREET DETAIL

1"=10'



SITE PLAN

1"=50'

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 AND

DRAWN BY:
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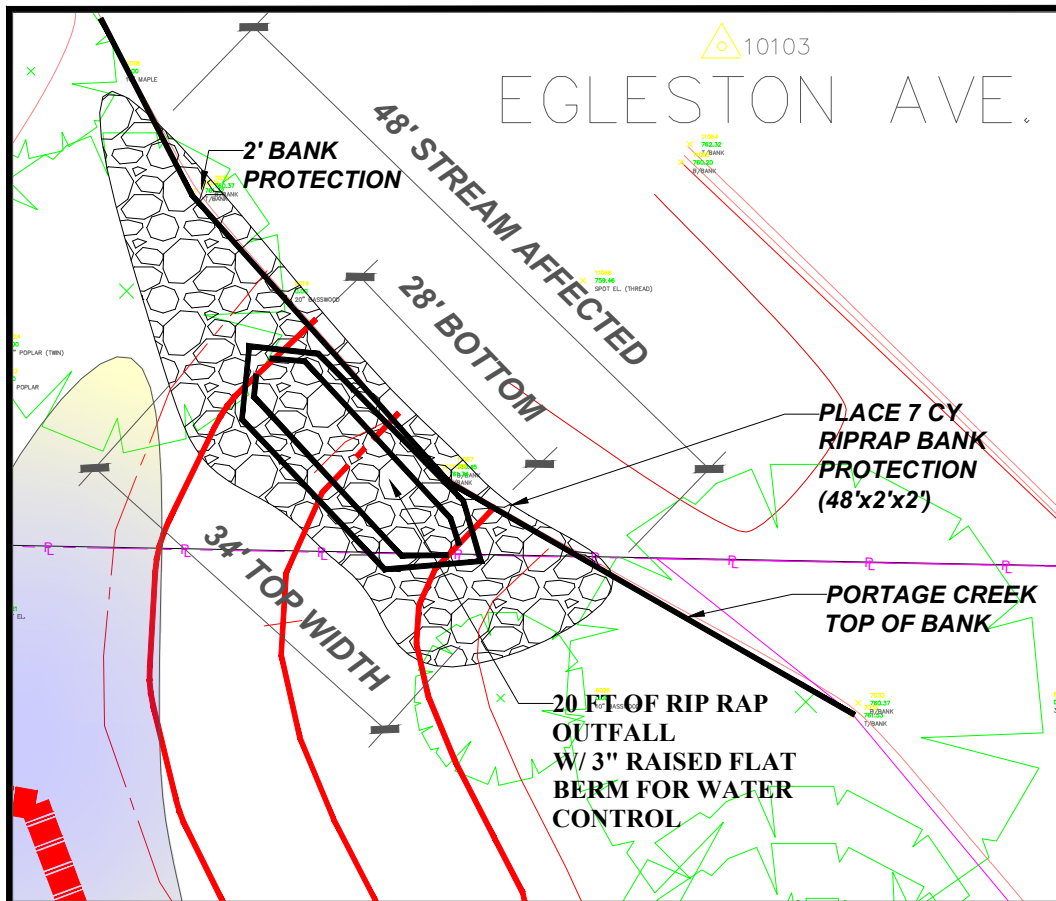
Revisions
EGLE RESUBMISSION -7-31-2025



REED COURT FLOODPLAIN AND STORMWATER IMPROVEMENT PROJECT

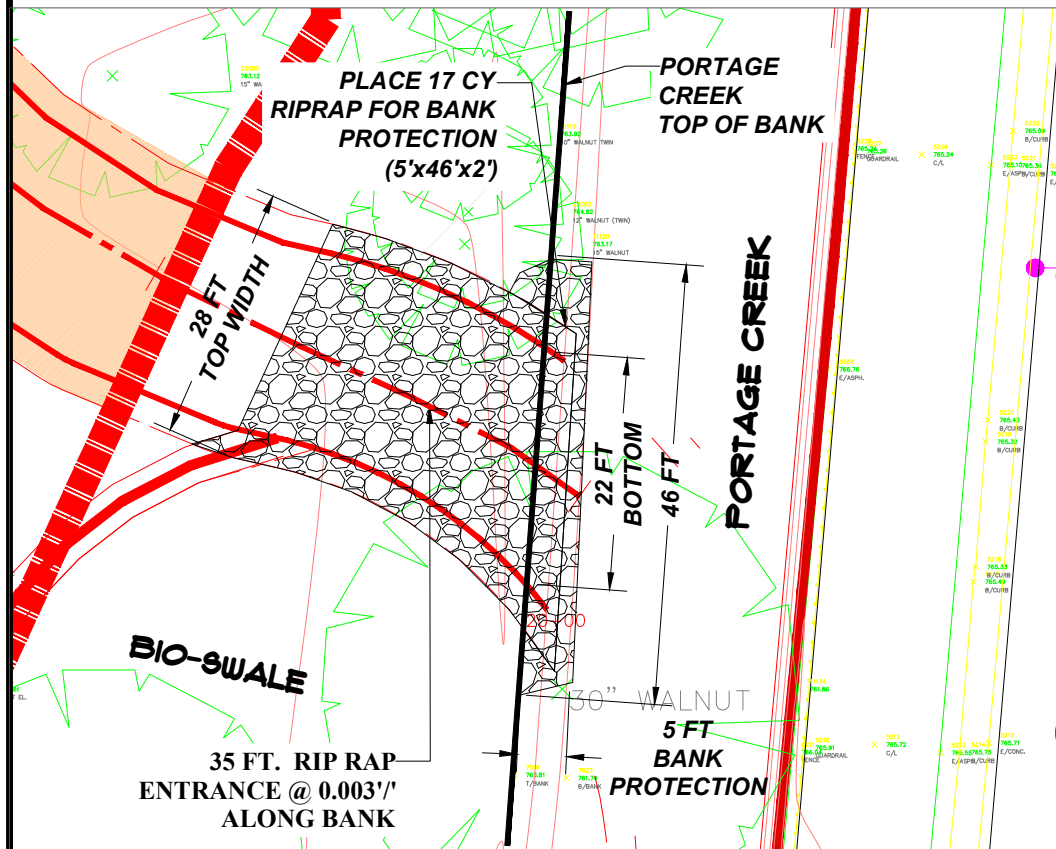
SITE PLAN

DRAWING
4



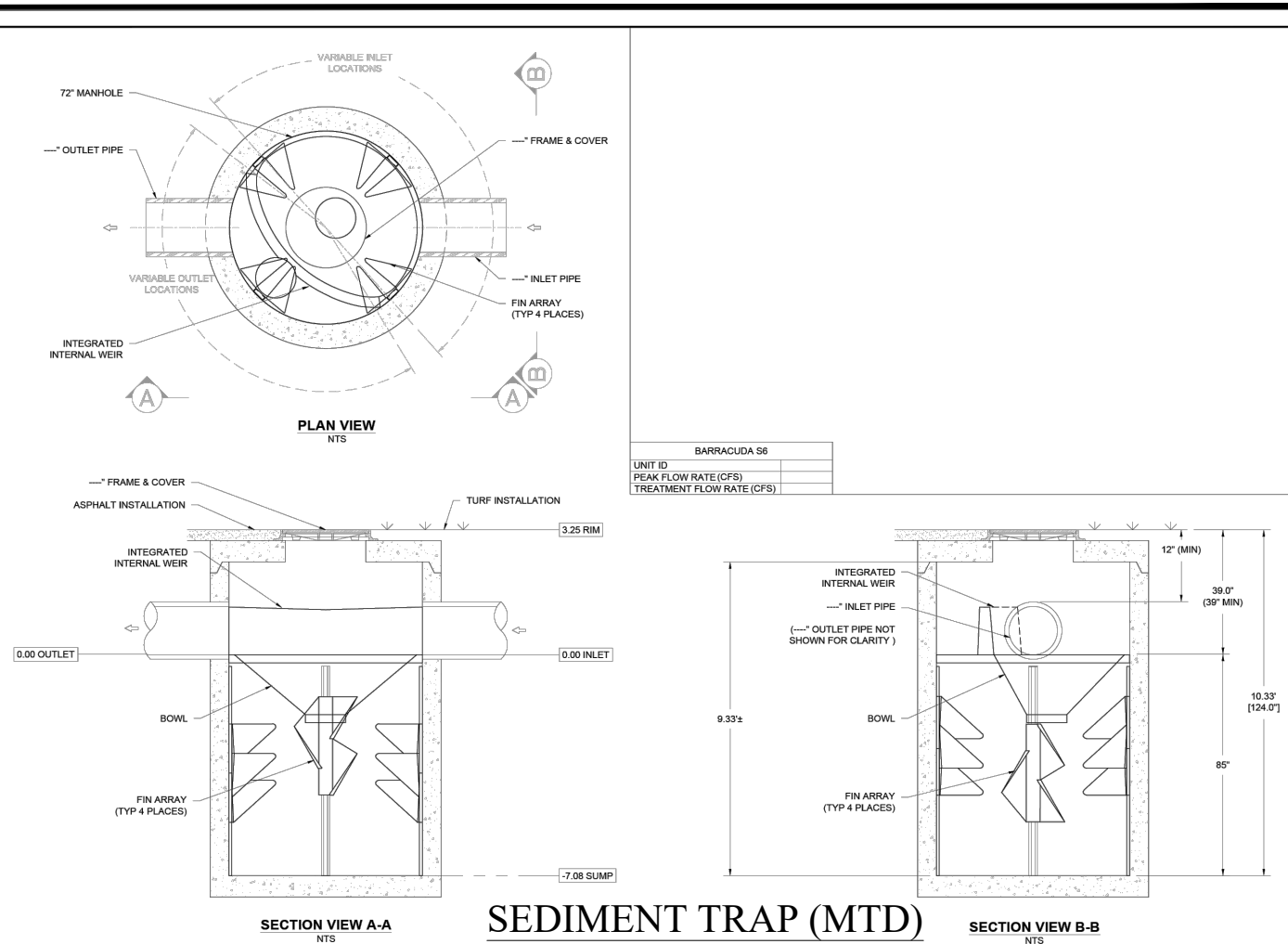
FLOOD PLAIN OUT-FLOW

1"=10'



FLOOD PLAIN IN-FLOW

1"=10'



BARRACUDA S6
UNIT ID
PEAK FLOW RATE (CFS)
TREATMENT FLOW RATE (CFS)

REV	DATE	DESCRIPTION

BARRACUDA S6

BARRACUDA S6

DATE: 5/10/18

PROJECT # 8

DRAWN: PR

CHECKED: ERH

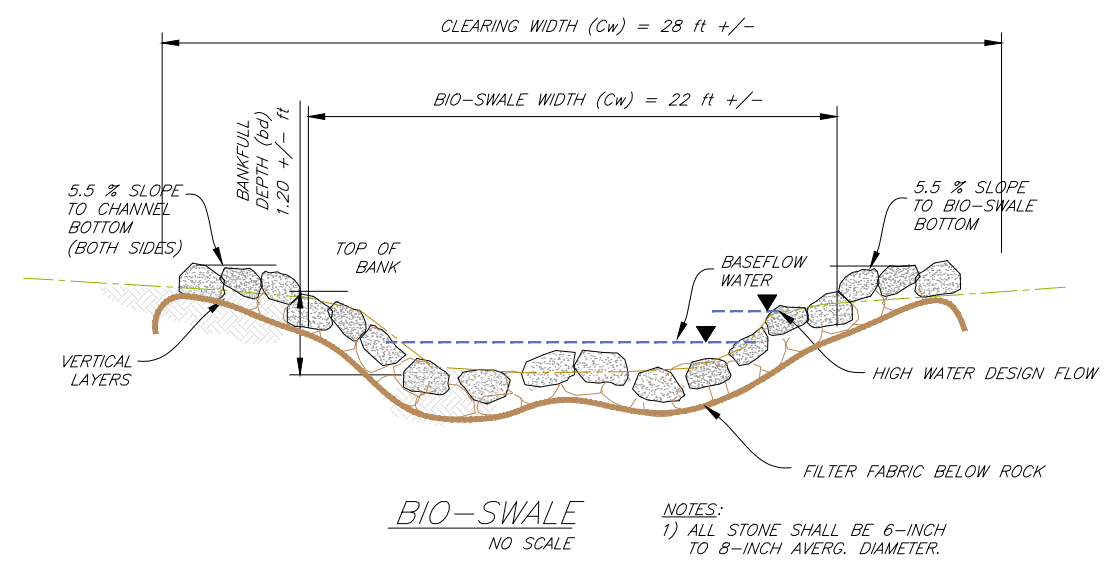
NOT TO SCALE

1 SHEET OF 1

4640 TRUBMAN BLVD HILLIAND, OH 43026

NOT TO SCALE

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



TYPICAL BIO-SWALE

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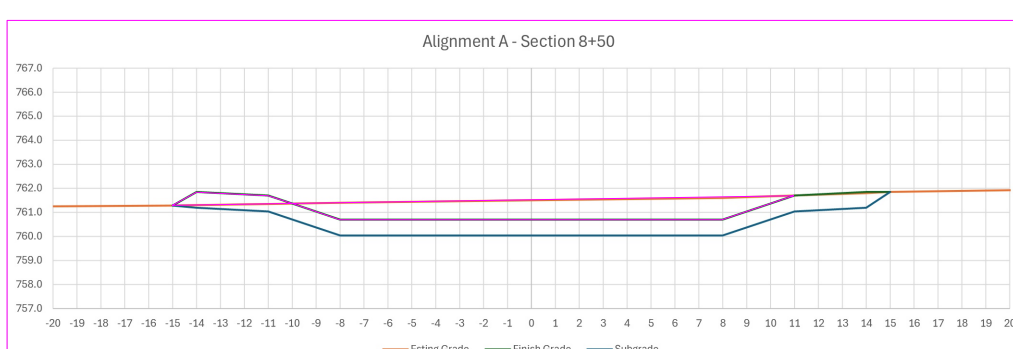
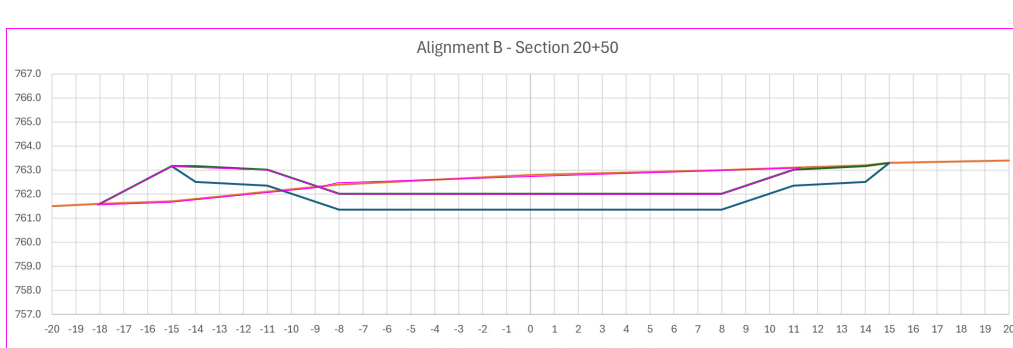
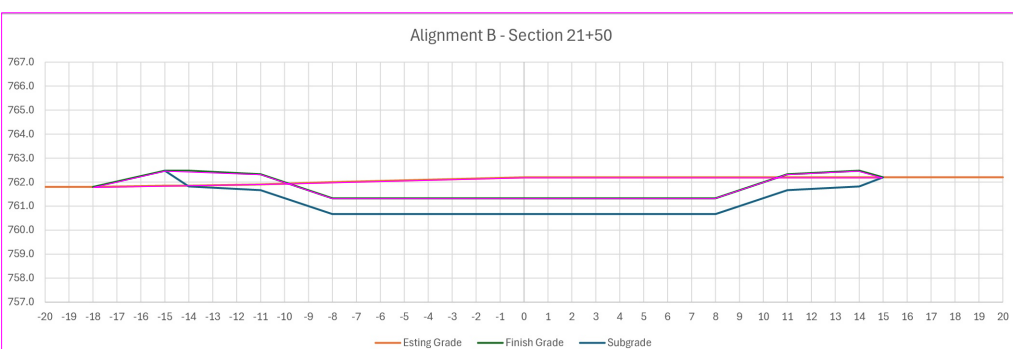
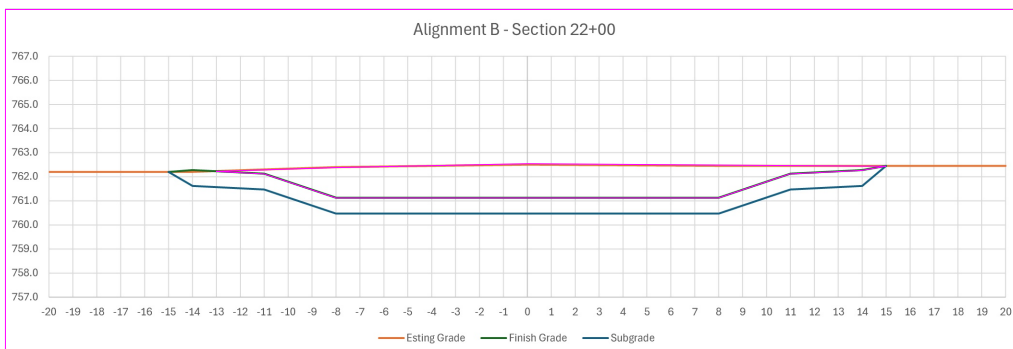
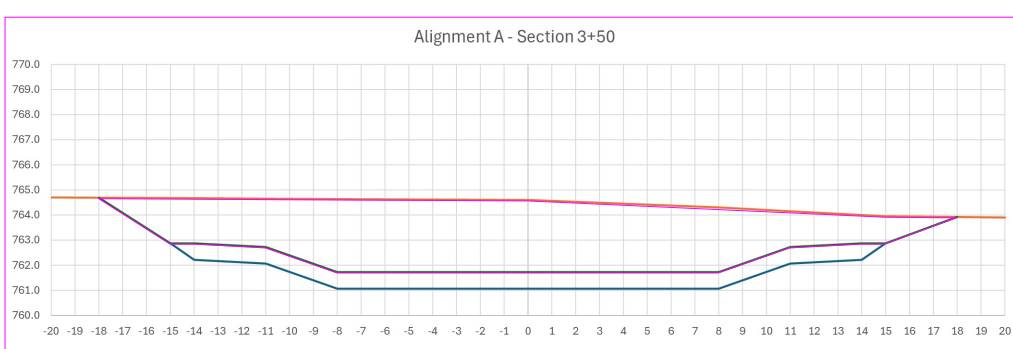
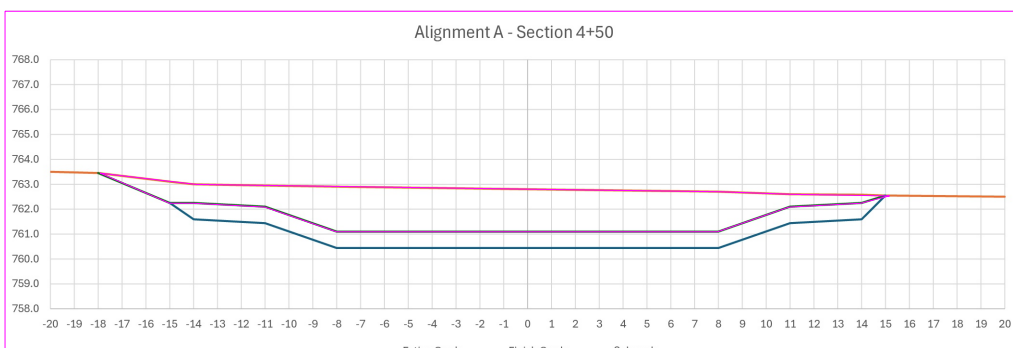
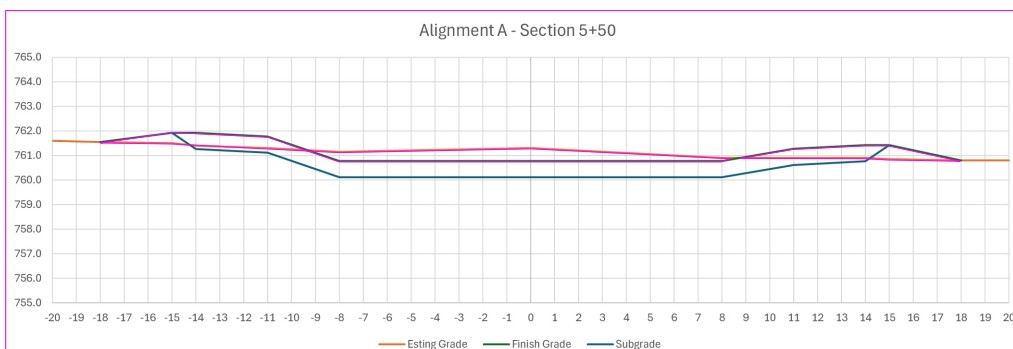
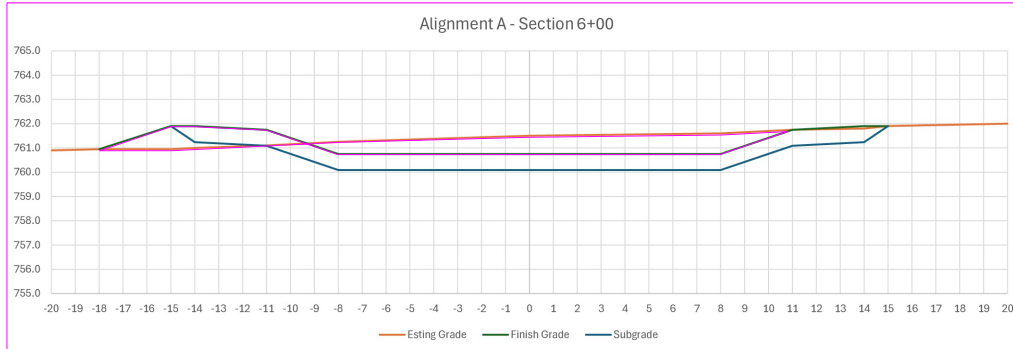
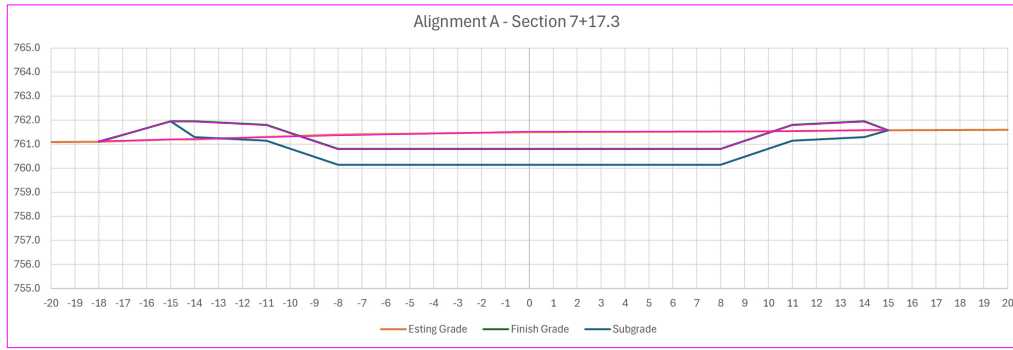
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THE CITY OF Kalamazoo

PORTAGE CREEK RENAISSANCE: REED COURT RESTORATION PROJECT

PLAN DETAILS

DRAWING
5



SECTIONS

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**PORTAGE
 CREEK
 RENAISSANCE:
 REED COURT
 RESTORATION
 PROJECT**

SECTIONS

DRAWING
6



CONCEPT REDERINGS OF VIEWING DECK.

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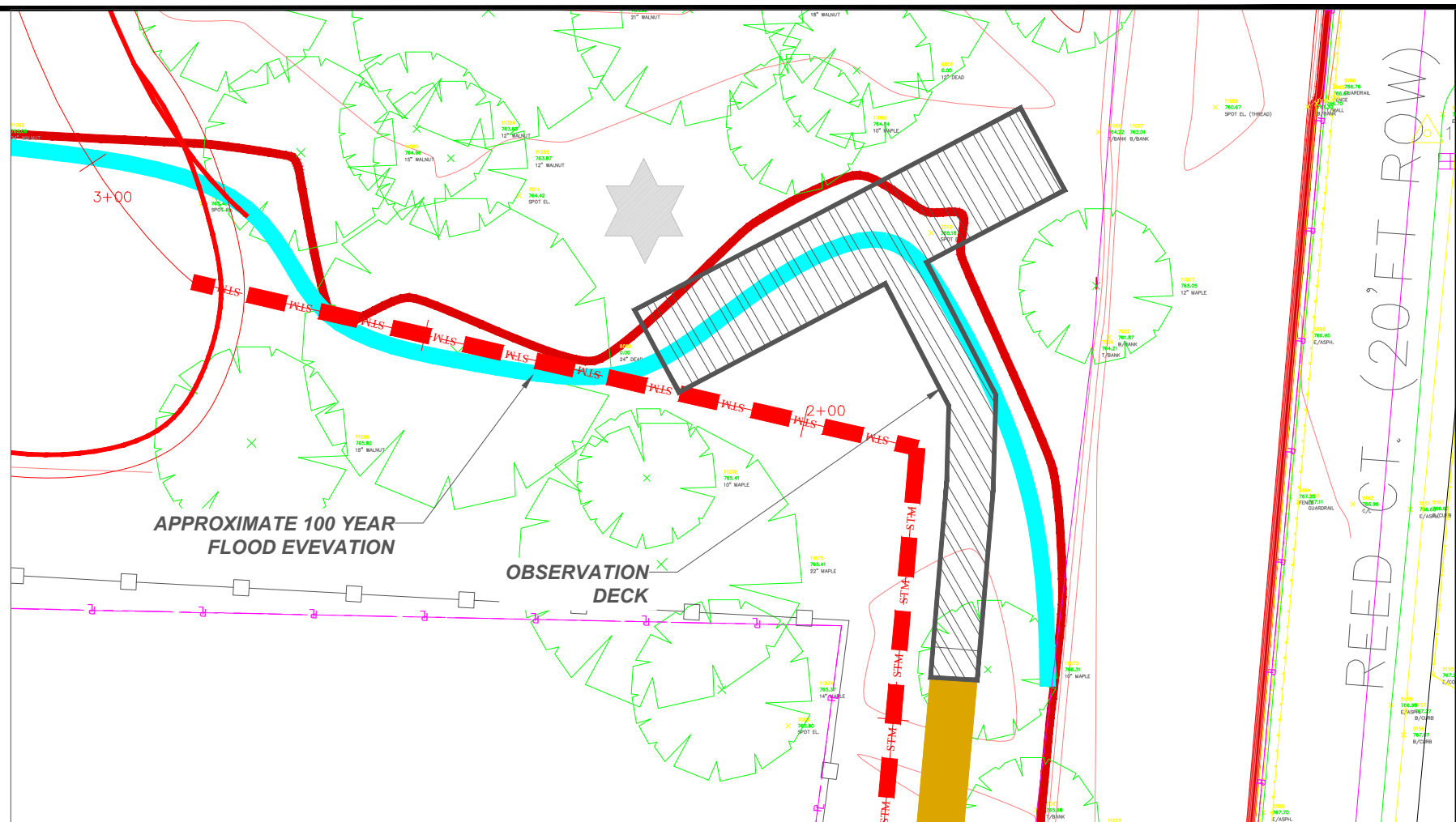
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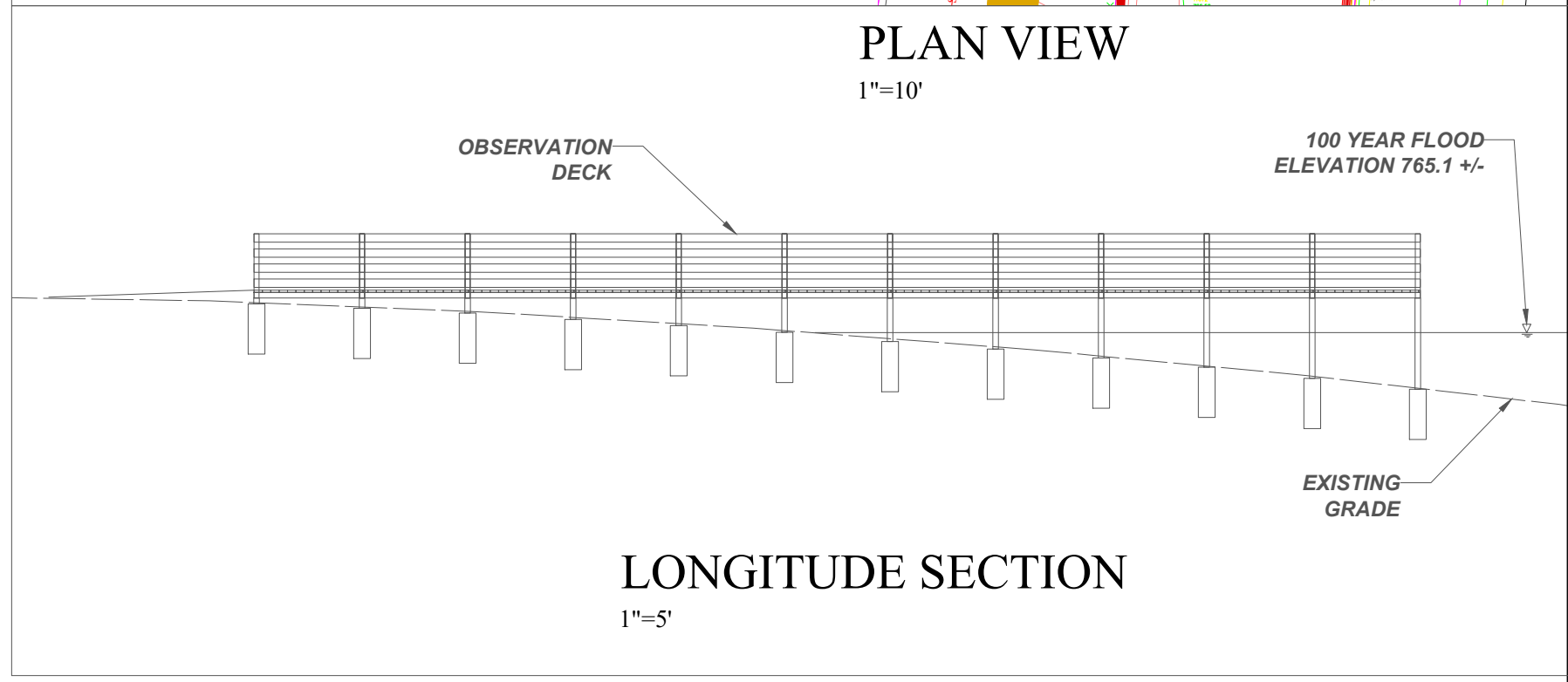
**REED COURT
 FLOODPLAIN
 AND
 STORMWATER
 IMPROVEMENT
 PROJECT**

**LANDSCAPE
 CONCEPTS**

DRAWING
7



PLAN VIEW
1"=10'



LONGITUDE SECTION
1"=5'

CONCEPT DETAILS OF VIEWING DECK.

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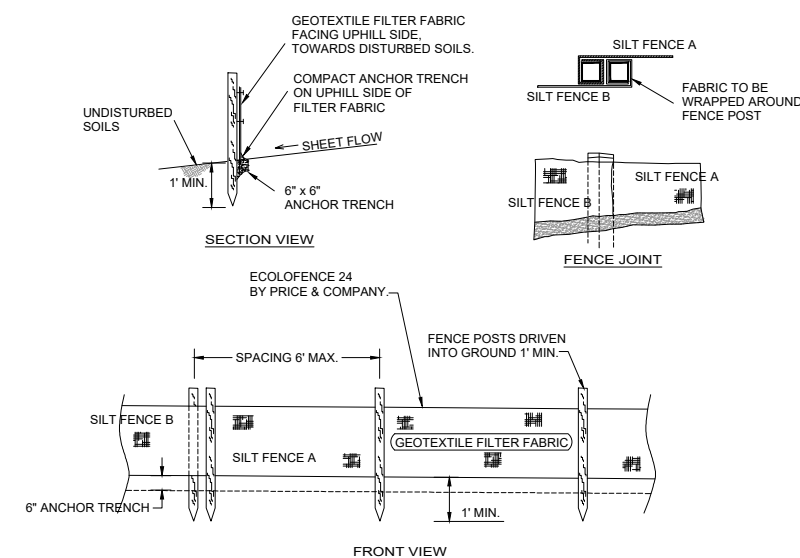
EGLE RESUBMISSION - 7-31-2025



**REED COURT
 FLOODPLAIN
 AND
 STORMWATER
 IMPROVEMENT
 PROJECT**

**LANDSCAPE
 DETAILS**

DRAWING
8



SOIL EROSION CONTROL
GEOTEXTILE SILT FENCE
NO SCALE

WORK SEQUENCE:

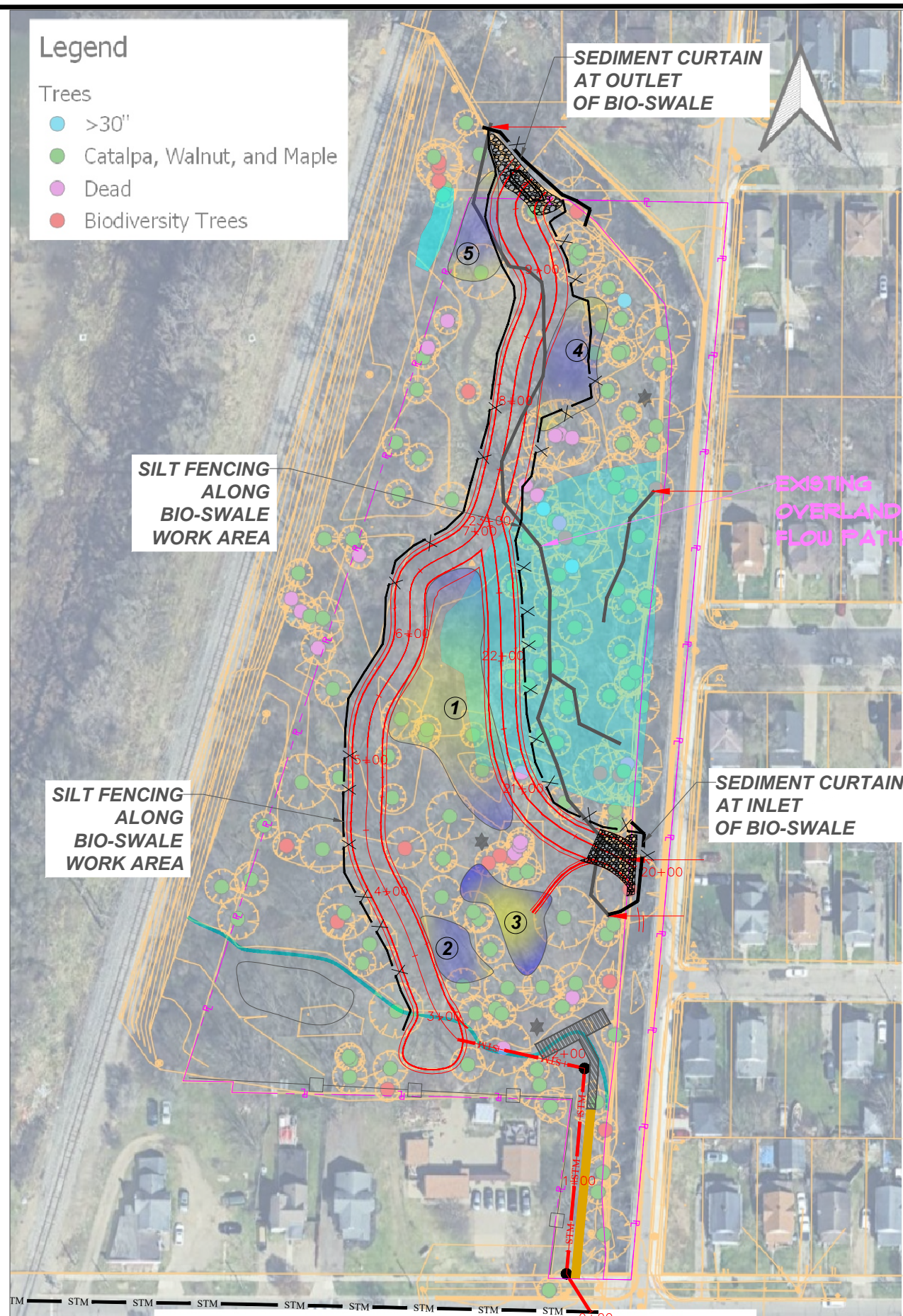
PROJECT IS THE RECLAMATION OF A BROWNFIELD SITE, THE PROJECT WILL BE UNDER FULL SOIL EROSION AND SEDIMENT CONTROL (SESC) MEASURES PRIOR TO CONSTRUCTION THROUGH COMPLETION.

- SILT FENCING AND SEDIMENT CURTAINS SHALL BE INSTALLED PRIOR TO ANY WORK.
- ONCE SESC MEASURES ARE IN PLACE, ALL WORK SHALL PROGRESS ALONG THE BIO-SWALE CORRIDOR TO MINIMIZE ANY DISTURBANCE OUTSIDE OF CONTROLLED AREAS. ALL EXCAVATION AND PLACEMENT OF MATERIAL SHALL STAY INSIDE OF A 30' WIDE WORK AREA, AND ALL THE EXCAVATED SOILS MUST BE REMOVED FROM THE SITE EXCEPT FOR CLEAN SAND USED FOR FILL TO SHAPE GRADE.
- THE EXCAVATION AND THE BIO-SWALE PLACEMENT SHALL TAKE PLACE SIMULTANEOUSLY. FIRST, CLEARING OF THE 30' WORK AREA, THEN EXCAVATION AND INSTALLATION OF THE BIO-SWALE STARTING ON THE MOST NORTHERN END AND PROGRESSING SOUTH TO REED STREET WITH THE SECOND BIO-SWALE TO PORTAGE CREEK INCLUDED IN THAT PROGRESSION.
- EACH 50' SECTION OF BIO-SWALE SHALL BE EXCAVATED AND INSTALLED BEFORE THE NEXT SECTION IS BEGUN. THIS WILL ENSURE THAT THE PROTECTION OF PORTAGE CREEK WHICH IS PARAMOUNT AT ALL TIMES. ALSO, THE MICRO-POOLS AND WETLAND ENHANCEMENTS SHALL BE COMPLETED SIMULTANEOUSLY ALONG WITH THE BIO-SWALES AS THE BIO-SWALE CORRIDOR WILL BE THE ONLY ALLOWABLE ACCESS FOR THE WORK.
- THE CONSTRUCTION OF THE OUTLET OF THE BIO-SWALE SHALL BE COMPLETED FIRST, AS IT WILL BE THE CONTROL STRUCTURE TO ANY SOIL EROSION AND SEDIMENT CONTROL.. A 10-FOOT WIDE AREA EXCAVATED IN FRONT OF EACH 50 FOOT AREA SHALL ACT AS A TEMPORARY SEDIMENT BASIN. THE BIO-SWALE ITSELF SHALL BE PART OF THE SOIL EROSION AND SEDIMENT CONTROL MEASURES. PLANTINGS AND FINISHING OF THE WORK ALONG THE BIO-SWALE SHALL BE COMPLETE IN EACH 50-FOOT SECTION SO AS TO FINISH THAT SECTION COMPLETELY.

Legend

Trees

- >30'
- Catalpa, Walnut, and Maple
- Dead
- Biodiversity Trees



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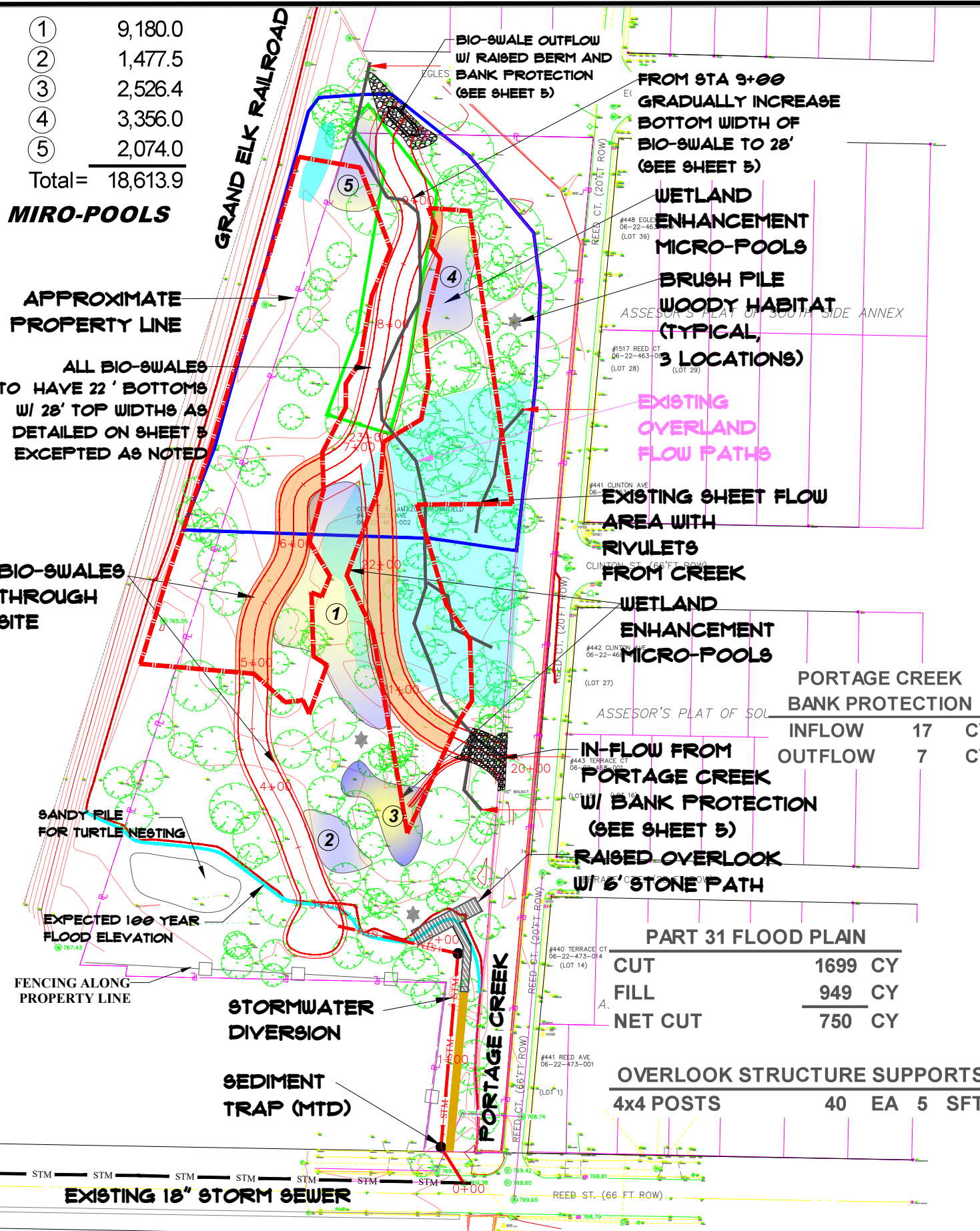
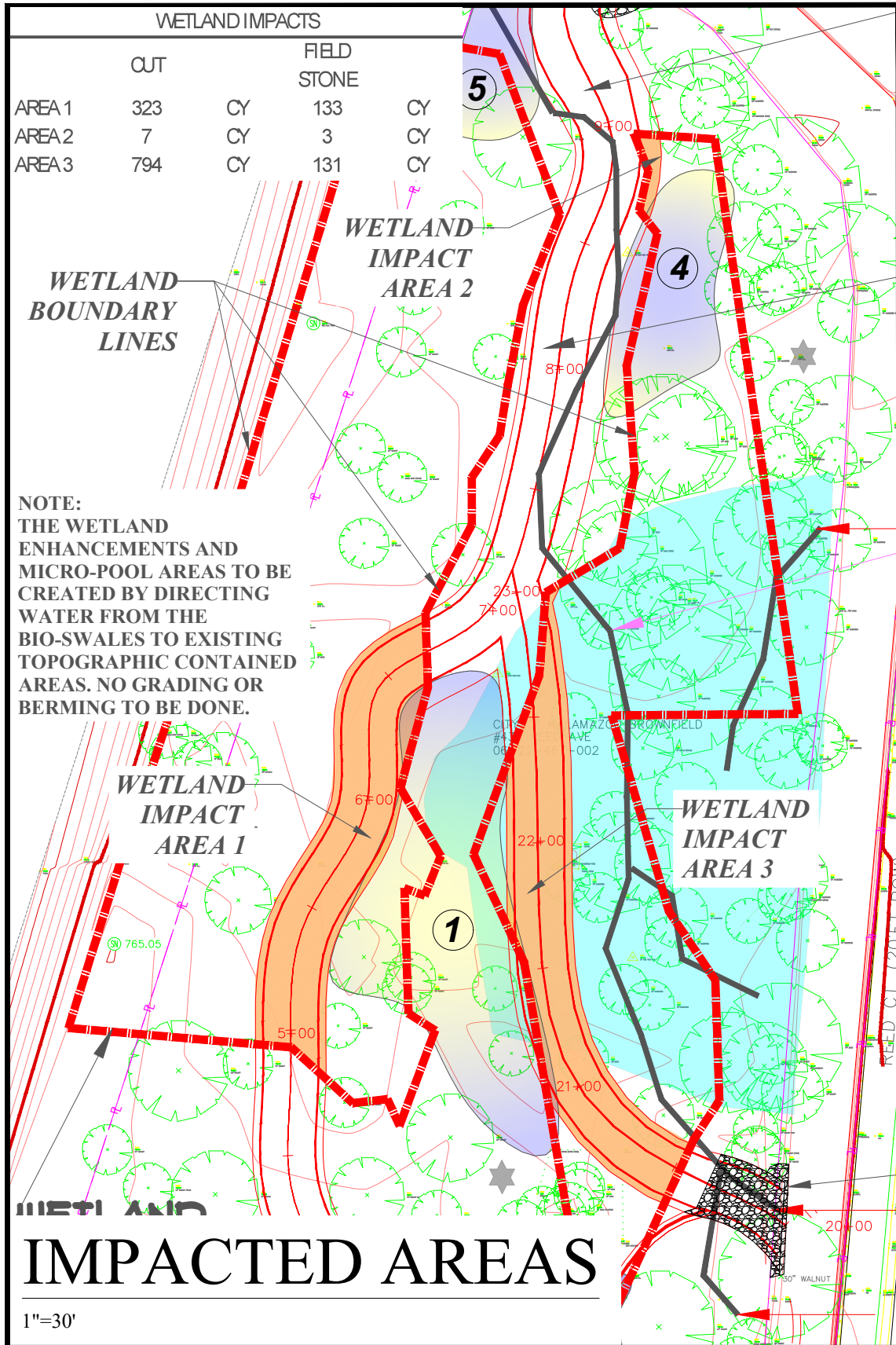
**REED COURT
FLOODPLAIN
AND
STORMWATER
IMPROVEMENT
PROJECT**

**SOIL
EROSION &
SEDIMENT
CONTROL**

DRAWING
9

SOIL EROSION & SEDIMENT CONTROL

SCALE 1"=50'



1"=30'

THE WETLAND ENHANCEMENTS AND MICRO-POOL AREAS ARE NOT INCLUDED IN THE WETLAND IMPACT AREAS.

THE WETLAND ENHANCEMENT AREAS TOTAL APPROXIMATELY 18,600 SQUARE FEET

WETLAND IMPACT AREAS

Area 1	5,087	ft ²
Area 2	206	ft ²
Area 3	5,308	ft ²
Total	10,601	ft²

WETLAND IMPACTS PLAN

1"=50'

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THE CITY OF
Kalamazoo

REED COURT FLOODPLAIN AND STORMWATER IMPROVEMENT PROJECT

WETLAND DELINEATION & PROTECTION

DRAWING
10

WETLAND IMPACTS

	CUT		FIELD STONE	
AREA1	323	CY	133	CY
AREA2	7	CY	3	CY
AREA3	794	CY	131	CY

**PORTAGE CREEK
BANK PROTECTION**

INFLOW	17	CY
OUTFLOW	7	CY

PART 31 FLOOD PLAIN

CUT	1699	CY
FILL	949	CY
NET CUT	750	CY

OVERLOOK STRUCTURE SUPPORTS

4x4 POSTS	40	EA	5	SFT
-----------	----	----	---	-----

- ① 9,180.0
- ② 1,477.5
- ③ 2,526.4
- ④ 3,356.0
- ⑤ 2,074.0
- Total= 18,613.9

MIRO-POOLS

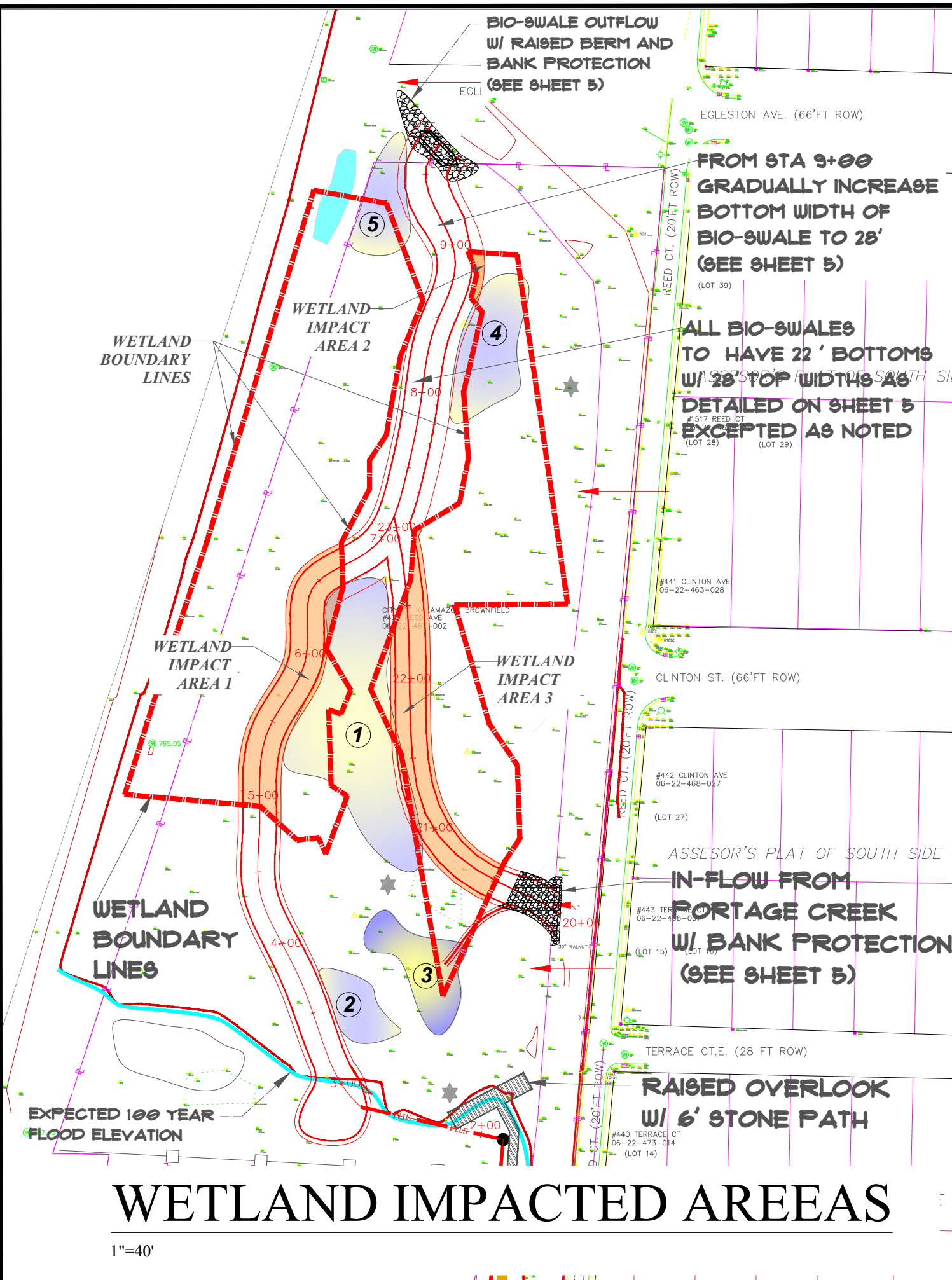
THE WETLAND ENHANCEMENTS AND MICRO-POOL AREAS ARE NOT INCLUDED IN THE WETLAND IMPACT AREAS.

THE WETLAND ENHANCEMENT AREAS TOTAL APPROXIMATELY 18,600 SQUARE FEET

NOTE:
THE WETLAND ENHANCEMENTS AND MICRO-POOL AREAS TO BE CREATED BY DIRECTING WATER FROM THE BIO-SWALES TO EXISTING TOPOGRAPHIC CONTAINED AREAS. NO GRADING OR BERMING TO BE DONE.

WETLAND IMPACT AREAS

	AREA		LENGTH		WIDTH	
Area 1	5,087	ft ²	182	ft	28	ft
Area 2	206	ft ²	34	ft	6	ft
Area 3	5,308	ft ²	190	ft	28	ft
	<u>10,601</u>	ft ²				



WETLAND IMPACTED AREEAS

1"=40'

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FLOODPLAIN
AND
STORMWATER
IMPROVEMENT
PROJECT**

**WETLAND
IMPACTS
PLAN**

DRAWING
10-A



2. Site Plan Review Application

Site Plan Review is an administrative process through the Site Plan Review Committee (SPRC). The Committee is comprised of members of many City Departments, including Public Safety, Public Services, Building and Trades, Community Planning and Economic Development (CPED). For Site Plan Approval, an applicant must attend two meetings: **Checklist Meeting** and **Site Plan Review**. The SPRC will approve plans once a proposed project has gone through both meetings and complies with all City of Kalamazoo standards.

Site Plan Review Meeting

Site Plan Review meetings are designed for projects that have attended a Checklist Meeting and are permitted by zoning (by-right or through additional approvals, such as ZBA and Planning Commission). Applicants applying for Site Plan Review are required to provide a completed Site Plan Checklist (pages 2-8 below), and additional information, as stated by the SPRC in the Checklist Meeting. Welcome to the final stage of the site plan review process!

Ready for Site Plan Review?

Review the following items to ensure you get the most out of the Checklist Meeting:

1.

Attend a Checklist Meeting

Receive feedback and Code references from the SPRC at a Checklist Meeting to help you prepare final plans for Site Plan Review.

2.

Submit a complete Site Plan Review Application, final plans, and additional information

For an Application to be complete:

- Page 1 of this Application is filled out in its entirety.
- You've referenced sheet numbers where the SPRC can find each specific Checklist item (pages 2-8 of this Application).
- Final plans have been provided to the Planner I.
- All applicable forms/documents (environmental reports, CSI Form, SPC, SW calculations, SWA) have been provided to the Planner I.

Final plans are required for Site Plan Review

Fees:

Reference the Fee Schedule at:
kalamazoo-city.org/CPEDFeeSchedule

Questions:

✉ siteplan@kalamazoo-city.org
☎ 311 or (269) 337-8000

Accommodations:

✉ 311@kalamazoo-city.org
☎ 311 or (269) 337-8000

Learn More:

More Site Plan information is at:
kalamazoo-city.org/SitePlanReview

Site Plan Review Application

Project Details

Community Planning & Economic Development

245 N Rose St, Suite 100
Kalamazoo, MI 49007
www.kalamazoocity.org



SITE INFORMATION

Property Address / Addresses: 433 Reed Ave

Parcel Identification Numbers (PINs): 06-22-467-002

DESCRIPTION OF PROJECT

Restoration of floodplain and stormwater functions along Reed Court through excavation and grading to water quality of Portage Creek. Project includes native vegetation to be planted to stabilize soils, filter runoff, and enhance habitat for fish and wildlife; as well as stormwater infrastructure upgrades to reduce localized flooding and improve water quality.

APPLICANT SIGNATURE

Name: Tom Palumbo, PE

Signature:

Date: 9/5/2025

Applicant / Owner & Details

APPLICANT INFORMATION

Name: Tom Palumbo, PE - City of Kalamazoo, Department of Public Services

Address: 415 E Stockbridge Ave

City: Kalamazoo

State: MI

Zip: 49001

Phone: 269-337-8697

Preferred Contact: Email Phone

Email: palumbot@kalamazoocity.org

PROPERTY OWNER INFORMATION

Name: Jamie McCarthy - City of Kalamazoo Brownfield Redevelopment Authority

Address: 245 N Rose St

City: Kalamazoo

State: MI

Zip: 49007

Phone: 269-337-8789

Preferred Contact: Email Phone

Email: mccarthyja@kalamazoocity.org



Site Plan Review Application

Site Plan Review Checklist

EXISTING CONDITIONS	Applicant Information Found on (Sheet #):
Vicinity Maps - Illustrating adjacent streets and existing structures (within 200'), zoning, land use, and 2025 Master Plan Land Development designation of adjacent parcels.	SHEET 1
Note Presence of Special District or Designation:	
• Historic District	N/A
• Brownfield Redevelopment Authority	YES
• State/Federal List for Soil/Groundwater Contamination – If yes, also contact MEGLE	YES
• Endangered/rare species or habitat area – If yes, also contact MDNR	YES
• Required reporting for RCRA/US EPA Hazardous Waste Handler site (note site type: small quantity generator, large quantity generator, transporter, treatment/storage/disposal, notifier, other)	N/A
• Solid Waste Facility	N/A
• Baseline Environmental Assessment (BEA), Environmental Site Assessments (ESA's), Due Care plans (DCP), or other environmental info or reports as applicable	YES
• Tax capture or deferment area (such as CIA, TIF, NEZ, etc.)	YES
• Natural Features Protection – 2025 Master Plan	YES
• Wellhead Protection Area	YES
Location and Type of Existing Features on the Subject property and on Adjacent Properties - Woods, wetlands, streams, rivers, lake, drains, 100-year flood plains, floodway, wetland, soil contamination, groundwater contamination etc. Also required are:	SHEET 2
• Topography (2' contour lines labeled with USGS datum)	MULTIPLE
• Tree Inventory (note all trees 10" or greater at diameter breast height or dbh on the site with species type, condition, and remain/ remove status)	SHEET 3
If Project Disturbs an Area Greater than 1 Acre within 500' of a Lake or Stream, EGLE Permit Required.	YES
Location, Dimensions, and/or Capacities of - Existing lots; recorded and unrecorded easements (including County drains); all utilities, including water, sewer, electric, gas, phone, cable, internet, wells and cisterns, hydrants; Fire Department Connections, rights-of-way (including sidewalk, trails, landscaping, lighting, pavement, notes on vacation, etc. within it); and points of access.	SHEET 2



Site Plan Review Application

Applicant

PLANNING / ZONING	Information Found on (Sheet #):
Alignment with 2025 Master Plan.	RM15 - NFP
Zoning Table to Include:	
• Building Location - Distance from property lines, zone district, impervious coverage (pre and post development)	N/A
• Parking (Vehicle and Bicycle) and Loading - Location, quantity, dimensions, barrier-free, signage, driveway width and location	N/A
• Building Elevations - Number of stories, window and door locations, facade materials, and lighting	N/A
• All On-Site Lighting - Location, height, type, wattage	N/A
• Signage Details - Type, location, and size	N/A
• Site Access for All Modes (Vehicle, Pedestrian, Bicycle, Transit) - Location, dimension, radii, materials, signage	SHEET 8
• Refuse Location & Screening	N/A
• Landscape Plan - Include location / type of fencing, walls, plant schedule (number, size, species), and number of existing / proposed trees, vegetation, and tree canopy	SHEET 4
If LW1, LW2, D1, D2, D3 - Identify the Following Form Standards:	
• Lot Type	/
• Entry Type	
• Number of Entrances	
• Setbacks/BTZ	
• Transparency	
• Number and Location of Driveways	

Applicant

BUILDING / TRADES	Information Found on (Sheet #):
Soil Erosion Control Measures.	SHEET 9
Final Site Grading/Topography - 2' contour lines labeled with USGS datum.	MULTIPLE
USGS First Floor Elevation of Buildings.	N/A
Locations, Dimensions, Area, Use and Construction Type of All Buildings.	N/A
ADA Compliance - Parking, routes, accessible dwellings, fixtures, etc.	SHEET 8
Occupant Egress Path from All Structures.	N/A
Fire Separation Distance.	N/A



Site Plan Review Application

KDPS - FIRE MARSHAL	Applicant Information Found on (Sheet #):
Emergency Entry:	
<ul style="list-style-type: none"> A Knox key vault box 3200 series or larger is required at the entry to a building. Multiple may be required. 	
<ul style="list-style-type: none"> Emergency egress cannot cross the roof and needs to be protected and illuminated. 	
<ul style="list-style-type: none"> A Knox elevator key box shall be installed adjacent to any elevator. 	
Fire Lane:	
<ul style="list-style-type: none"> Fire access lanes, when required, shall be a minimum of 24' wide and provide 13' 6" height clearance. Signage shall be erected to prohibit parking in this designation 	
<ul style="list-style-type: none"> Turning radius of parking lots and fire access lanes shall be constructed to allow turning and full operation of fire apparatus during an emergency 	
<ul style="list-style-type: none"> Dead-end access roads and parking lots in excess of 150 feet in length shall be provided with approved provisions for the fire apparatus to turn around 	
<ul style="list-style-type: none"> Overhangs, sky walks, bridges or other similar structures shall be approved by the Fire Marshal's Office. Engineered specs shall be provided 	
<ul style="list-style-type: none"> Security gates restricting access shall be approved pursuant to Code. Approved fences, gates or other barriers shall be accessed through Knox padlocks or access switches 	
<ul style="list-style-type: none"> Parking lots, driveways and service & access drives shall be designed and constructed to allow the maneuverability and weight of fire service aerial devices 	
Fire Hydrants:	
<ul style="list-style-type: none"> Hydrants not publicly owned cannot be considered for use for SPR. 	
<ul style="list-style-type: none"> Placement shall be approved by the Fire Marshal's Office. 	
<ul style="list-style-type: none"> Shall not be more than 300 feet from the site 	
<ul style="list-style-type: none"> Fire hydrant spacing shall not exceed 300 feet from each hydrant. 	
Addressing:	
<ul style="list-style-type: none"> Building identification shall be placed in a position that is plainly legible and visible from any street or road fronting the property 	
<ul style="list-style-type: none"> Those properties fronting more than one street or road shall identify the address by both number and street name on each side of road frontage 	
<ul style="list-style-type: none"> The address numbers and street name shall contrast with their background 	
<ul style="list-style-type: none"> Commercial structures shall have address numbers at least 12" to 24" high, as determined by the Fire Marshal 	
<ul style="list-style-type: none"> Address letters indicating street names shall be 6" to 24", height to be approved by the Fire Marshal 	



Site Plan Review Application

Applicant

KDPS - FIRE MARSHAL - continued	Information Found on (Sheet #):
Fire Department Connections (FDC):	
<ul style="list-style-type: none"> • Immediate access to FDC shall be maintained in clear view without obstruction by parked vehicles, fences, bushes, trees, walls, dumpsters or any other object 	
<ul style="list-style-type: none"> • The FDC shall be located in a location approved by the Fire Marshall's office. 	
<ul style="list-style-type: none"> • The FDC shall be within 100' of a fire hydrant. 	
<ul style="list-style-type: none"> • The Fire Department Connections (FDC) shall have Knox 5" Locking storz FDC Plugs Model 5002. 	
<ul style="list-style-type: none"> • The FDC shall be accessible by hard surfaced pavement which is maintained during all-weather environments. Hard surface shall be cement or asphalt. The width shall allow a vehicle or hose line to be advanced or connected 	
<ul style="list-style-type: none"> • FDC shall be so located so that fire apparatus and hydrant lines connected to supply the system will not obstruct access to the buildings for other fire apparatus. 	
<ul style="list-style-type: none"> • FDC shall have an exterior rated horn and strobe device above the FDC at a minimum 10' above grade in height. Device shall be in clear view to approaching fire apparatus. The horn and strobe shall remain active until manually reset. 	
FDC Placement:	
<ul style="list-style-type: none"> • Fire department connections not remotely located shall be located on the street side of the building 	
<ul style="list-style-type: none"> • FDC's not remotely located shall be fully visible and recognizable from the street 	
<ul style="list-style-type: none"> • The FDC shall be identifiable to approaching fire apparatus. 	
FDC Signage:	
<ul style="list-style-type: none"> • The FDC shall be indicated by an approved sign mounted on the street, front, side of the building or adjacent to a remotely located FDC 	
<ul style="list-style-type: none"> • FDC signage shall have the letters "FDC" at least 6 inches high. The letters shall be a Arabic or Helvetica style font 	
<ul style="list-style-type: none"> • FDC Signage shall be installed at a minimum 10' above grade or above obstructions above the connection. The signage shall be mounted directly above the exterior horn and strobe that is tied to the fire alarm and fire suppression systems. 	
<ul style="list-style-type: none"> • FDC signage shall be reflective with white letters with a red background. All such signs shall be subject to the approval by the Fire Marshal. 	



Site Plan Review Application

	<i>Applicant</i>
PUBLIC SERVICES - TRANSPORTATION & UTILITIES	Information Found on (Sheet #):
Location and Dimensions of New Rights-of-Way.	N/A
Site Access for All Modes (Vehicle, Pedestrian, Bicycle, Transit) - Location, approach type, dimension, radii, materials, signage.	SHEET 8
Access & Circulation of Site or Proposed Street Network.	N/A
Improvements to Existing Off-Site Rights-of-Way for All Modes (Vehicle, Pedestrian, Bicycle, Transit).	N/A
Timeline of Proposed Right-of-Way Work, Street Closures, Lane Restrictions, or Sidewalk Closures.	N/A
Location and Dimension of Proposed Traffic Control Measures - Acceleration, deceleration, passing lanes, traffic signals or signs.	N/A
Location and Dimension of Utilities & Easements - Gas, electric, phone, cable, etc.	SHEET 2
Provide a Sheet to Demonstrate Turning Radius and Clearance for - City Kalamazoo Fire Apparatus, garbage trucks, delivery trucks, etc.	N/A

	<i>Applicant</i>
PUBLIC SERVICES - SANITARY SEWER	Information Found on (Sheet #):
Sanitary Sewer Service Lateral Location and Sizing:	/
<ul style="list-style-type: none"> All existing & proposed new, including identification & depth of underground utility crossings 	
<ul style="list-style-type: none"> Invert elevation of existing lateral at ROW/easement lines which will continue to be active 	
<ul style="list-style-type: none"> Invert Elevation of proposed new lateral at ROW/easement line 	
<ul style="list-style-type: none"> Sanitary main U.S. invert elevation 	
<ul style="list-style-type: none"> Sanitary main D.S. invert elevation 	
Compliance with Chapter 28 of the City of Kalamazoo Ordinances & Engineering Best Practices.	
Discharge Basis of Design Flow Rate, Per Connection: Residential – Multi-Family 3+; Commercial – Restaurant, Laundry Facility, Manufacturing, Hotel/Motel, Medical, and others, as required.	
<ul style="list-style-type: none"> Contribution Per REU (gpd) 	
<ul style="list-style-type: none"> Total REU's with justification/calculation 	
<ul style="list-style-type: none"> Average Flow Rate (gpm) 	
<ul style="list-style-type: none"> Peaking Factor with justification/calculation 	
<ul style="list-style-type: none"> Peak Flow Rate (gpm) 	

If a new connection is proposed, a Sanitary Sewer Connection Application Form is required



Site Plan Review Application

Applicant

PUBLIC SERVICES - WATER	Information Found on (Sheet #):
Location & Capacity of Water Main, Water Service, and Hydrants.	/
For New Water Service, Also Detail:	
• Size of line required	
• Use for fire service	
• Domestic meter size required	
• Irrigation meter size required	
For New Public Water Mains:	
• Located in public right-of-way -or - Located in easement dedicated to CoK	
• MDEQ PA399 Permit Application	
Number of New Hydrants _____	
Fire Service (Note: Existing Systems May Require Inspection & Upgrade):	
• Locate cross-connections	
• Backflow prevention devices	

Applicant

PUBLIC SERVICES - STORMWATER	Information Found on (Sheet #):
SW Structures, Pipes, and Other Drainage System Components - Shown on plans and on detail sheets.	MULTIPLE
Site Size (Small 1/2 acre or less, medium up to 1 acre, large over 1 acre) Determined.	LARGE
Provide Stormwater Worksheets (from City of Kalamazoo templates):	
• Stormwater Calculations	YES
• Water Quality Treatment (Uniform Standard 1)	YES
• Channel Protection Volume (Uniform Standard 2)	YES
If Discharging to County Drain or MDOT System - Contact appropriate authority for more information, additional standards, and permitting.	N/A
Provide Permit Documentation Required by MEGLE for Floodplain, Wetlands, and Discharge to Surface Waters.	YES
Feasibility of Runoff Infiltration - Depends on soil type, groundwater depth, capture zone, existing environmental contamination, and/or proposed use of regulated substances. If infiltration will be restricted, basins/other infiltrative surfaces shall be lined with impervious material with minimum 60-mill (0.060 or 1/16-inch) thickness.	YES
Buffer Adjacent to Water Features On/Near Site.	MULTIPLE
Existing or Planned Manufactured Treatment Devices (MTDs), Retention/Detention Basins, Rain Gardens & Swales - Will require a recorded Stormwater Operation and Maintenance Agreement with the City of Kalamazoo.	MULTIPLE



Site Plan Review Application

Applicant

PUBLIC SERVICES - ENVIRONMENTAL / WELLHEAD PROTECTION	Information Found on (Sheet #):
Compliance with Wellhead Protection & Stormwater Management Performance Standards. Include the following information within the plan set:	
<ul style="list-style-type: none"> Note whether de-watering is or is not anticipated. 	N/A
<ul style="list-style-type: none"> Management of abandoned wells, cisterns, dry wells, generators and above or underground storage tanks, including information on installation, operation, capping, or removing. 	N/A
<ul style="list-style-type: none"> Installation of new well (temporary, permanent or geothermal) with or without a Reduced Principle Backflow Prevention Assembly. 	N/A
<ul style="list-style-type: none"> Property/site/floor drains or sump pumps present? Detail connection to sanitary or storm sewer, on-site holding tank with pumping/disposal plan, or other. 	N/A
<ul style="list-style-type: none"> Detail direct or indirect discharge into or toward a storm sewer, drain, wetland, pond, lagoon, or other surface water feature? 	MULTIPLE
<ul style="list-style-type: none"> Detail all grade changes, cutting, and fill, including management of existing vegetation and soil erosion and/or sedimentation. 	MULTIPLE
<ul style="list-style-type: none"> Note whether an existing snow melt system is present or whether one is proposed. 	N/A
Submit Environmental Reports (ESA, BEA, DCP, or other). Refer to the Performance Standards on Infiltration.	TBD
Provide completed Chemical Inventory & Storage (CSI) Forms 1 & 2. If no chemicals used/stored on site, write 'N/a' in all applicable boxes.	N/A
A Spill Containment Plan (SCP) is required if - Chemicals used/stored on-Site exceed the quantities stated on the CSI Form.	N/A

Site Plan Review Forms / Documents & CoK Code Standards can be found on the Site Plan Review Webpage, by visiting:

kalamazoo.org/SitePlanResources



NFP Review Board Staff Report

City of Kalamazoo

TO: The Natural Features Protection Review Board

FROM: Nolan Bergstrom, NFP Board Liaison

DATE: October 28, 2025

SUBJECT: 3317 & 3329 South Burdick Street - Cold Storage Facility

RECOMMENDATION:

It is recommended the Natural Features Protection (NFP) Review Board approve the NFP Site Plan application for 3317 and 3329 South Burdick conditioned upon:

- Landscaping is either native species or any species approved by the NFP Review Board that do not cause environmental impacts.
- The Addition of tree protection fencing for preserved woodlands.
- Full Approval by the Site Plan Review Committee

BACKGROUND:

The subject parcel is owned by Stafford Smith, LLC in the South Westledge Neighborhood at 3317 South Burdick Street. The parcel is zoned Industrial or M-1 and is within an area near Cork Street and Burdick Street that includes more industrial uses. The proposed work is to build a new cold storage building with asphalt paved equipment maneuvering areas, concrete sidewalk, concrete curb and gutter, and storm water management infrastructure. The project area cuts across 3317 South Burdick and 3329 South Burdick, which are adjacent to each other.

Site Plan Review is scheduled for November 5th. The project is looking for NFP Board Approval.

FINDINGS:

The site was placed in the NFP Overlay District due to proximity to Portage Creek and established wetland areas. The parcels are also wooded.

The property is within the NFP Overlay District due to:

Primary Natural Feature: Hydrology Adjacent to Hydrology

Secondary Natural Feature: Adjacent to Hydrology (Proximity to Portage Creek)

Tertiary Natural Feature: Woodlands & potentially protected trees.

MNFI Rare Species Review: No.

The property is also within 5-, and 10-year [wellhead capture zones](#).

The following NFP Site Development Standards Apply to this project:

- **Water Resources Standard** – The water resources setback (25 ft) is not shown on the plans but no new structures shown within the setback areas and all work is outside of the MDEQ Wetland Conservation Easement, placing the buffer between the project area and the water resource (Portage Creek) beyond the required 25ft setback.
- **Wetland Standard** – Similar standards to Water Resources. Permits from State or Federal Agencies are required to be on-file, if needed. No work is to occur within the boundaries of the MDEQ Wetland Conservation Easement.
- **Woodland Protection Standard** – 0.3 Acres of Woodland is proposed to be removed preserving 89% of the Woodland Coverage where 25% is the minimum woodland coverage to be preserved.
- **Natural Heritage Areas Standard** – MNFI Rare Species IS NOT required for this project.
- **Plant Selection** – Plant selection needs to adhere to [§ 50-6.2J\(4\)](#) and tree plantings will come from the Tree Replacement List ([Table 6.2-5](#)) IF Required. Landscaping requirements along the frontage is required by the Zoning Code. The Dense Yew is a non-native hybrid and Snowdrift crabapple is a non-native cultivar. Per [§ 50-6.2J\(4\)\(b\)](#) the NFP Review Board may allow the use of nonnative, noninvasive species which have been determined not to cause adverse environmental impacts otherwise native species are required.
- **Stormwater Management** – A Soil Erosion and Soil Control Plan is required and shown in the plans and stormwater management will adhere to NFP Guidelines per [§ 50-6.2J\(6\)](#). The project is also located within multiple wellhead capture zones.

After staff review, the plan appears to meet NFP standards and qualifies for conditional approval based upon the following:

- Landscaping is either native species or any species approved by the NFP Review Board that do not cause environmental impacts.
- The Addition of tree protection fencing for preserved woodlands.
- Full Approval by the Site Plan Review Committee.

SUPPLEMENTAL SITE PLAN REVIEW APPLICATION FOR NATURAL FEATURES PROTECTION

For projects located within the Natural Features Protection (NFP) Overlay District, separate site plan approval is required before the full site plan can be approved. This review is done either by the NFP Review Board or administratively by staff to verify conformance with NFP Overlay District zoning code ([Chapter 50, NFP](#)). The NFP Overlay District map can be found on the [City's GIS mapping website](#) (select "Planning & Zoning" layer and make sure "NFP Overlay" is clicked on).

The NFP Supplemental Application must be completed and submitted with the regular Site Plan Review Application and checklists. The NFP Review Board meets monthly to review and approve applications. City staff can assist in scheduling a project at an upcoming NFP Review Board meeting. While the review process offers some flexibility, projects often seek NFP approval between the Pre-Application meeting and regular Site Plan Review meeting.

Section I. Project & Applicant Information

All projects must complete Section I. If the project will not impact any natural features on the site, and does not trigger additional stormwater controls or treatment, applicants should sign and submit Section I only. Staff will review and determine if the application can be approved administratively.

Section II. Natural Features Checklist & Attachments

For projects proposing improvements or changes to the site that impact natural features, change grading, or involve work in or near NFP setbacks, Sections II and III must be completed. Section II identifies which natural features are present and standards apply. Section III will assist you in determining what documentation and additional plan sets are needed for a complete application. Once a complete application is submitted to the City, the project will be scheduled for the next available NFP Review Board meeting and an application fee of \$110 will apply.

QUESTIONS

Contact the NFP staff liaison with any questions about your NFP Supplemental Application at (269) 337-8045 or development@kalamazoo.org.

SECTION I. PROJECT AND APPLICANT INFORMATION

Please provide all of the project and applicant information requested below. Include the date of your regular site plan review meeting, if one has been scheduled or already taken place.

APPLICANT NAME:	(first) _____ (last) _____		
APPLICANT ADDRESS:	(number) _____		(street name) _____
	(city) _____	(state) _____	(Zip) _____
APPLICANT EMAIL:		PHONE:	
PARCEL ADDRESS/PIN:			
PROJECT DESCRIPTION:			
OWNER NAME: <i>(if different)</i>	(first) _____ (last) _____		
HAS REGULAR SITE PLAN REVIEW MEETING OCCURRED?	<input type="checkbox"/> Yes <input type="checkbox"/> No	DATE OF SITE PLAN REVIEW MEETING:	

NFP APPLICATION REQUIRED?

Is the project limited to interior work <u>only</u> with no exterior ground changes or increase in impervious coverage?	
YES	If YES , Sections II & III of this application are not needed. Sign below & submit only this page with your site plan review or permit application.
NO	If NO , proceed to Sections II & III. Do NOT sign below.

By signing below, the applicant certifies that no natural features will be disturbed as part of this project.

Print name: _____

Signature: _____

Date: _____

SECTION II. NFP SITE PLAN CHECKLIST & ATTACHMENTS

Use the checklist to determine what documentation and additional plans sets must be prepared for this application. All plan sets, maps, and additional information must be attached to this application to be considered complete. If you checked “no” to certain NFP items in questions 1-7 in Section II, record “N/A” on the checklist.

REQUIRED: NFP SITE PLAN SET

All applications must include separate sheets in the plan set showing the following:

1. Existing conditions map showing an inventory of all protected natural features and any associated natural features setbacks with distances (use checklist below)
2. Future development plan overlaid onto the existing conditions and natural features inventory; indicate where and to what extent protected natural features will be disturbed, removed, altered, or impacted in any way and which natural features will be protected during and after construction

Future development plan must include:

- **Boundary with extent of re-grading**, construction, or site preparation activities
 - **All existing and new building footprints** (mark whether existing buildings will be removed or maintained)
 - **New and existing parking** surfaces or structures, sidewalks, trails, and other impervious or semi-impervious surfaces including decks, patios, viewing platforms, etc. (list proposed surface materials and whether existing surfaces will be maintained or removed)
 - **Proposed location of fencing and screening**, whether permanent, natural, or construction silt fencing and/or natural feature protection fencing (with specifications)
 - **Stormwater facilities** showing boundary of ground disturbance, grading or construction activities, if located near natural features
 - **New utilities** and/or relocation of existing utilities showing corridors that could impact natural features
3. Landscape plan detailing the minimum elements needed to meet zoning code requirements and all proposed additional landscaping elements or features (include table with species name)
 4. Any additional plans or tables detailing which natural features will be restored or replaced after construction, if required (e.g., riparian buffer installation or slope restoration plan may be required under certain circumstances when the ordinance allows changes within these protected areas)

WETLANDS	Present:	Included on page #:	Notes:
Mark existing wetland boundaries with notes about wetland conditions. <i>Attach a copy of EGLE permit or permit application for work impacting Part 303 wetlands regulated by the State.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No		
WATER RESOURCES	Present:	Included on page #:	Notes:
Mark the location of all water resources on the parcel and those within 25 feet of the parcel boundaries. <i>Attach a copy of EGLE permit or permit application for work impacting Part 301 waters regulated by the State.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Show required setbacks with dimensions; describe existing or future ground cover within riparian setbacks.			
TREES	Present:	Included on page #:	Notes:
Mark the location of all “protected” trees that are proposed to be removed and those that will remain and require protection fencing.	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Include a table with species name, size (DBH and height), and condition of “protected” trees that are proposed to be removed and list replacement tree information.			
Provide a note with justification for removal.			
WOODLANDS	Present:	Included on page #:	Notes:
Delineate the boundary of all woodlands on the parcel noting where woodlands likely extend onto adjacent parcels.	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Mark all areas of woodland that will be retained and removed (i.e., cleared).			
Include a table or note with the required preservation ratio (based on existing woodland coverage), percentage proposed to be removed, and rationale for selecting area for removal.			
SLOPES	Present:	Included on page #:	Notes:
Provide a slope analysis that shows the boundaries of all “protected” slopes and mark the required setback(s).	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Include a note with co-existing feature that triggers “protected” slope status (e.g., wooded, within 500 ft of water resource).			

NATURAL HERITAGE AREAS	Present:	
<p>Is an MNFI* rare species review required? <i>Parcels can be pre-screened using the City's GIS website, click on the "Planning & Zoning" layer and "NFP Overlay" layer; then click on parcel and see MNFI status.</i></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	
<p>If an MNFI rare species review is required, attach the resulting report.</p>		

*Michigan Natural Features Inventory (MNFI) Rare Species Reviews can be requested at:

<https://mnfi.anr.msu.edu/services/rare-species-reviews>

ACCEPTED DATA SOURCES & ANALYSIS

All data sources, analysis, and professionals are subject to approval by the City Planner according to Chapter 50-6.2. The following guidance may be useful when selecting a professional or methodology for inventorying natural features.

1. WETLANDS

- Wetland delineation report performed by a qualified consultant including a map denoting delineated boundary of all wetlands, OR
- Most recent US Fish & Wildlife Service's National Wetlands Inventory boundary (State of Michigan mapper: <https://www.michigan.gov/egle/about/organization/water-resources/wetlands/inventory-maps>)

2. PROTECTED TREE IDENTIFICATION

- May be performed by an qualified professional (including ISA Certified Arborist or similar); a full tree inventory is not required if all necessary information can be obtained and communicated using another survey, inventory, or site assessment methodology

3. WOODLANDS

- A qualified professional, such as an ISA Certified Arborist, landscape architect, or license engineer may perform a desktop analysis or field survey to delineate woodlands
- When a variances is being requests to remove more woodland cover than is allowed under the preservation ration, the following is required
 - Woodland assessment report with determination that the Trees per Area (TPA) meets the NFP definition of a woodland and mapped delineation of woodland
 - Woodland assessment report with a determination that Basal Area is equivalent to the TPA in the NFP definition and meets definition of a woodland and mapped delineation of woodland
 - In addition to determination of whether stand of trees meets NFP definition of a woodland, assessment must include information on general species diversity,
 -

composition of species, any notable trees (either notable species or size), invasive species composition, and general health and age observations of tree stand

4. PROTECTED SLOPES

- Topographic survey performed in the field by a qualified consultant to delineate areas of a slope with grade of 20% or greater
- Desktop analysis performed using U.S. Geological Survey digital topographic maps, LIDAR, digital elevation map, or equivalent data showing 2' intervals or finer resolution, performed by a qualified consultant or engineer



2. Site Plan Review Application

Site Plan Review is an administrative process through the Site Plan Review Committee (SPRC). The Committee is comprised of members of many City Departments, including Public Safety, Public Services, Building and Trades, Community Planning and Economic Development (CPED). For Site Plan Approval, an applicant must attend two meetings: **Checklist Meeting** and **Site Plan Review**. The SPRC will approve plans once a proposed project has gone through both meetings and complies with all City of Kalamazoo standards.

Site Plan Review Meeting

Site Plan Review meetings are designed for projects that have attended a Checklist Meeting and are permitted by zoning (by-right or through additional approvals, such as ZBA and Planning Commission). Applicants applying for Site Plan Review are required to provide a completed Site Plan Checklist (pages 2-8 below), and additional information, as stated by the SPRC in the Checklist Meeting. Welcome to the final stage of the site plan review process!

Ready for Site Plan Review?

Review the following items to ensure you get the most out of the Checklist Meeting:

1.

Attend a Checklist Meeting

Receive feedback and Code references from the SPRC at a Checklist Meeting to help you prepare final plans for Site Plan Review.

2.

Submit a complete Site Plan Review Application, final plans, and additional information

For an Application to be complete:

- Page 1 of this Application is filled out in its entirety.
- You've referenced sheet numbers where the SPRC can find each specific Checklist item (pages 2-8 of this Application).
- Final plans have been provided to the Planner I.
- All applicable forms/documents (environmental reports, CSI Form, SPC, SW calculations, SWA) have been provided to the Planner I.

Final plans are required for Site Plan Review

Fees: Reference the Fee Schedule at: kalamazoo.org/CPEDFeeSchedule	Questions: ✉ siteplan@kalamazoo.org ☎ 311 or (269) 337-8000	Accommodations: ✉ 311@kalamazoo.org ☎ 311 or (269) 337-8000	Learn More: More Site Plan information is at: kalamazoo.org/SitePlanReview
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Site Plan Review Application

Project Details

Community Planning &
Economic Development

245 N Rose St, Suite 100
Kalamazoo, MI 49007
www.kalamazooocity.org



SITE INFORMATION

Property Address / Addresses: 3414 S. Burdick Street, Kalamazoo, MI, 49001

Parcel Identification Numbers (PINs): 06-34-211-002 / 06-34-206-001 / 06-34-206-003

DESCRIPTION OF PROJECT

Addition of storage facility and associated access drive and stormwater management facilities.

APPLICANT SIGNATURE

Name: Stafford-Smith

Signature:

Date:

Applicant / Owner & Details

APPLICANT INFORMATION

Name: Stafford - Smith (Dave Kudwa, P.E. from SME will be the agent for Stafford-Smith)

Address: 3414 S. Burdick Street

City: Kalamazoo

State: MI

Zip: 48879

Phone: 517-643-5751 (agent)

Preferred Contact: Email Phone

Email: dave.kudwa@sme-usa.com

PROPERTY OWNER INFORMATION

Name: Same as above

Address:

City:

State:

Zip:

Phone:

Preferred Contact: Email Phone

Email:



Site Plan Review Application

Site Plan Review Checklist

EXISTING CONDITIONS	Applicant Information Found on (Sheet #):
Vicinity Maps - Illustrating adjacent streets and existing structures (within 200'), zoning, land use, and 2025 Master Plan Land Development designation of adjacent parcels.	C100
Note Presence of Special District or Designation:	
• Historic District	N/A
• Brownfield Redevelopment Authority	N/A
• State/Federal List for Soil/Groundwater Contamination – If yes, also contact MEGLE	N/A
• Endangered/rare species or habitat area – If yes, also contact MDNR	N/A
• Required reporting for RCRA/US EPA Hazardous Waste Handler site (note site type: small quantity generator, large quantity generator, transporter, treatment/storage/disposal, notifier, other)	N/A
• Solid Waste Facility	N/A
• Baseline Environmental Assessment (BEA), Environmental Site Assessments (ESA's), Due Care plans (DCP), or other environmental info or reports as applicable	N/A
• Tax capture or deferment area (such as CIA, TIF, NEZ, etc.)	N/A
• Natural Features Protection – 2025 Master Plan	C100
• Wellhead Protection Area	C100
Location and Type of Existing Features on the Subject property and on Adjacent Properties - Woods, wetlands, streams, rivers, lake, drains, 100-year flood plains, floodway, wetland, soil contamination, groundwater contamination etc. Also required are:	
• Topography (2' contour lines labeled with USGS datum)	C200
• Tree Inventory (note all trees 10" or greater at diameter breast height or dbh on the site with species type, condition, and remain/ remove status)	N/A
If Project Disturbs an Area Greater than 1 Acre within 500' of a Lake or Stream, EGLE Permit Required.	N/A
Location, Dimensions, and/or Capacities of - Existing lots; recorded and unrecorded easements (including County drains); all utilities, including water, sewer, electric, gas, phone, cable, internet, wells and cisterns, hydrants; Fire Department Connections, rights-of-way (including sidewalk, trails, landscaping, lighting, pavement, notes on vacation, etc. within it); and points of access.	C200



Site Plan Review Application

Applicant

PLANNING / ZONING	Information Found on (Sheet #):
Alignment with 2025 Master Plan.	C100
Zoning Table to Include:	
• Building Location - Distance from property lines, zone district, impervious coverage (pre and post development)	C500
• Parking (Vehicle and Bicycle) and Loading - Location, quantity, dimensions, barrier-free, signage, driveway width and location	N/A
• Building Elevations - Number of stories, window and door locations, facade materials, and lighting	S4
• All On-Site Lighting - Location, height, type, wattage	N/A
• Signage Details - Type, location, and size	N/A
• Site Access for All Modes (Vehicle, Pedestrian, Bicycle, Transit) - Location, dimension, radii, materials, signage	C500
• Refuse Location & Screening	N/A
• Landscape Plan - Include location / type of fencing, walls, plant schedule (number, size, species), and number of existing / proposed trees, vegetation, and tree canopy	L100
If LW1, LW2, D1, D2, D3 - Identify the Following Form Standards:	
• Lot Type	N/A
• Entry Type	N/A
• Number of Entrances	N/A
• Setbacks/BTZ	N/A
• Transparency	N/A
• Number and Location of Driveways	N/A

Applicant

BUILDING / TRADES	Information Found on (Sheet #):
Soil Erosion Control Measures.	C300
Final Site Grading/Topography - 2' contour lines labeled with USGS datum.	C600
USGS First Floor Elevation of Buildings.	C600
Locations, Dimensions, Area, Use and Construction Type of All Buildings.	C500 & GS1
ADA Compliance - Parking, routes, accessible dwellings, fixtures, etc.	C600
Occupant Egress Path from All Structures.	C600
Fire Separation Distance.	C600



Site Plan Review Application

KDPS - FIRE MARSHAL	<i>Applicant</i> Information Found on (Sheet #):
Emergency Entry:	
<ul style="list-style-type: none"> A Knox key vault box 3200 series or larger is required at the entry to a building. Multiple may be required. 	C500
<ul style="list-style-type: none"> Emergency egress cannot cross the roof and needs to be protected and illuminated. 	N/A
<ul style="list-style-type: none"> A Knox elevator key box shall be installed adjacent to any elevator. 	N/A
Fire Lane:	
<ul style="list-style-type: none"> Fire access lanes, when required, shall be a minimum of 24' wide and provide 13' 6" height clearance. Signage shall be erected to prohibit parking in this designation 	C500
<ul style="list-style-type: none"> Turning radius of parking lots and fire access lanes shall be constructed to allow turning and full operation of fire apparatus during an emergency 	C500
<ul style="list-style-type: none"> Dead-end access roads and parking lots in excess of 150 feet in length shall be provided with approved provisions for the fire apparatus to turn around 	N/A
<ul style="list-style-type: none"> Overhangs, sky walks, bridges or other similar structures shall be approved by the Fire Marshal's Office. Engineered specs shall be provided 	N/A
<ul style="list-style-type: none"> Security gates restricting access shall be approved pursuant to Code. Approved fences, gates or other barriers shall be accessed through Knox padlocks or access switches 	N/A
<ul style="list-style-type: none"> Parking lots, driveways and service & access drives shall be designed and constructed to allow the maneuverability and weight of fire service aerial devices 	C100
Fire Hydrants:	
<ul style="list-style-type: none"> Hydrants not publicly owned cannot be considered for use for SPR. 	N/A
<ul style="list-style-type: none"> Placement shall be approved by the Fire Marshal's Office. 	N/A
<ul style="list-style-type: none"> Shall not be more than 300 feet from the site 	C200
<ul style="list-style-type: none"> Fire hydrant spacing shall not exceed 300 feet from each hydrant. 	N/A
Addressing:	
<ul style="list-style-type: none"> Building identification shall be placed in a position that is plainly legible and visible from any street or road fronting the property 	C500
<ul style="list-style-type: none"> Those properties fronting more than one street or road shall identify the address by both number and street name on each side of road frontage 	N/A
<ul style="list-style-type: none"> The address numbers and street name shall contrast with their background 	C500
<ul style="list-style-type: none"> Commercial structures shall have address numbers at least 12" to 24" high, as determined by the Fire Marshal 	C500
<ul style="list-style-type: none"> Address letters indicating street names shall be 6" to 24", height to be approved by the Fire Marshal 	C500



Site Plan Review Application

<i>Applicant</i>	
KDPS - FIRE MARSHAL - continued	Information Found on (Sheet #):
Fire Department Connections (FDC):	
<ul style="list-style-type: none"> • Immediate access to FDC shall be maintained in clear view without obstruction by parked vehicles, fences, bushes, trees, walls, dumpsters or any other object 	N/A
<ul style="list-style-type: none"> • The FDC shall be located in a location approved by the Fire Marshall's office. 	N/A
<ul style="list-style-type: none"> • The FDC shall be within 100' of a fire hydrant. 	N/A
<ul style="list-style-type: none"> • The Fire Department Connections (FDC) shall have Knox 5" Locking storz FDC Plugs Model 5002. 	N/A
<ul style="list-style-type: none"> • The FDC shall be accessible by hard surfaced pavement which is maintained during all-weather environments. Hard surface shall be cement or asphalt. The width shall allow a vehicle or hose line to be advanced or connected 	N/A
<ul style="list-style-type: none"> • FDC shall be so located so that fire apparatus and hydrant lines connected to supply the system will not obstruct access to the buildings for other fire apparatus. 	N/A
<ul style="list-style-type: none"> • FDC shall have an exterior rated horn and strobe device above the FDC at a minimum 10' above grade in height. Device shall be in clear view to approaching fire apparatus. The horn and strobe shall remain active until manually reset. 	N/A
FDC Placement:	
<ul style="list-style-type: none"> • Fire department connections not remotely located shall be located on the street side of the building 	N/A
<ul style="list-style-type: none"> • FDC's not remotely located shall be fully visible and recognizable from the street 	N/A
<ul style="list-style-type: none"> • The FDC shall be identifiable to approaching fire apparatus. 	N/A
FDC Signage:	
<ul style="list-style-type: none"> • The FDC shall be indicated by an approved sign mounted on the street, front, side of the building or adjacent to a remotely located FDC 	N/A
<ul style="list-style-type: none"> • FDC signage shall have the letters "FDC" at least 6 inches high. The letters shall be a Arabic or Helvetica style font 	N/A
<ul style="list-style-type: none"> • FDC Signage shall be installed at a minimum 10' above grade or above obstructions above the connection. The signage shall be mounted directly above the exterior horn and strobe that is tied to the fire alarm and fire suppression systems. 	N/A
<ul style="list-style-type: none"> • FDC signage shall be reflective with white letters with a red background. All such signs shall be subject to the approval by the Fire Marshal. 	N/A



Site Plan Review Application

	<i>Applicant</i>
PUBLIC SERVICES - TRANSPORTATION & UTILITIES	Information Found on (Sheet #):
Location and Dimensions of New Rights-of-Way.	C200
Site Access for All Modes (Vehicle, Pedestrian, Bicycle, Transit) - Location, approach type, dimension, radii, materials, signage.	C500
Access & Circulation of Site or Proposed Street Network.	C500
Improvements to Existing Off-Site Rights-of-Way for All Modes (Vehicle, Pedestrian, Bicycle, Transit).	C500
Timeline of Proposed Right-of-Way Work, Street Closures, Lane Restrictions, or Sidewalk Closures.	N/A
Location and Dimension of Proposed Traffic Control Measures - Acceleration, deceleration, passing lanes, traffic signals or signs.	N/A
Location and Dimension of Utilities & Easements - Gas, electric, phone, cable, etc.	C200
Provide a Sheet to Demonstrate Turning Radius and Clearance for - City Kalamazoo Fire Apparatus, garbage trucks, delivery trucks, etc.	N/A

	<i>Applicant</i>
PUBLIC SERVICES - SANITARY SEWER	Information Found on (Sheet #):
Sanitary Sewer Service Lateral Location and Sizing:	
<ul style="list-style-type: none"> All existing & proposed new, including identification & depth of underground utility crossings 	N/A
<ul style="list-style-type: none"> Invert elevation of existing lateral at ROW/easement lines which will continue to be active 	N/A
<ul style="list-style-type: none"> Invert Elevation of proposed new lateral at ROW/easement line 	N/A
<ul style="list-style-type: none"> Sanitary main U.S. invert elevation 	N/A
<ul style="list-style-type: none"> Sanitary main D.S. invert elevation 	N/A
Compliance with Chapter 28 of the City of Kalamazoo Ordinances & Engineering Best Practices.	N/A
Discharge Basis of Design Flow Rate, Per Connection: Residential – Multi-Family 3+; Commercial – Restaurant, Laundry Facility, Manufacturing, Hotel/Motel, Medical, and others, as required.	
<ul style="list-style-type: none"> Contribution Per REU (gpd) 	N/A
<ul style="list-style-type: none"> Total REU's with justification/calculation 	N/A
<ul style="list-style-type: none"> Average Flow Rate (gpm) 	N/A
<ul style="list-style-type: none"> Peaking Factor with justification/calculation 	N/A
<ul style="list-style-type: none"> Peak Flow Rate (gpm) 	N/A

If a new connection is proposed, a Sanitary Sewer Connection Application Form is required



Site Plan Review Application

Applicant

PUBLIC SERVICES - WATER	Information Found on (Sheet #):
Location & Capacity of Water Main, Water Service, and Hydrants.	N/A
For New Water Service, Also Detail:	
• Size of line required	N/A
• Use for fire service	N/A
• Domestic meter size required	N/A
• Irrigation meter size required	N/A
For New Public Water Mains:	
• Located in public right-of-way -or - Located in easement dedicated to CoK	N/A
• MDEQ PA399 Permit Application	N/A
Number of New Hydrants _____	
Fire Service (Note: Existing Systems May Require Inspection & Upgrade):	
• Locate cross-connections	N/A
• Backflow prevention devices	N/A

Applicant

PUBLIC SERVICES - STORMWATER	Information Found on (Sheet #):
SW Structures, Pipes, and Other Drainage System Components - Shown on plans and on detail sheets.	C700/D100/D200
Site Size (Small 1/2 acre or less, medium up to 1 acre, large over 1 acre) Determined.	C201
Provide Stormwater Worksheets (from City of Kalamazoo templates):	
• Stormwater Calculations	C703
• Water Quality Treatment (Uniform Standard 1)	C703
• Channel Protection Volume (Uniform Standard 2)	C703
If Discharging to County Drain or MDOT System - Contact appropriate authority for more information, additional standards, and permitting.	N/A
Provide Permit Documentation Required by MEGLE for Floodplain, Wetlands, and Discharge to Surface Waters.	N/A
Feasibility of Runoff Infiltration - Depends on soil type, groundwater depth, capture zone, existing environmental contamination, and/or proposed use of regulated substances. If infiltration will be restricted, basins/other infiltrative surfaces shall be lined with impervious material with minimum 60-mill (0.060 or 1/16-inch) thickness.	C703
Buffer Adjacent to Water Features On/Near Site.	C702
Existing or Planned Manufactured Treatment Devices (MTDs), Retention/Detention Basins, Rain Gardens & Swales - Will require a recorded Stormwater Operation and Maintenance Agreement with the City of Kalamazoo.	C700



Site Plan Review Application

Applicant

PUBLIC SERVICES - ENVIRONMENTAL / WELLHEAD PROTECTION	Information Found on (Sheet #):
Compliance with Wellhead Protection & Stormwater Management Performance Standards. Include the following information within the plan set:	
<ul style="list-style-type: none"> Note whether de-watering is or is not anticipated. 	N/A
<ul style="list-style-type: none"> Management of abandoned wells, cisterns, dry wells, generators and above or underground storage tanks, including information on installation, operation, capping, or removing. 	N/A
<ul style="list-style-type: none"> Installation of new well (temporary, permanent or geothermal) with or without a Reduced Principle Backflow Prevention Assembly. 	N/A
<ul style="list-style-type: none"> Property/site/floor drains or sump pumps present? Detail connection to sanitary or storm sewer, on-site holding tank with pumping/disposal plan, or other. 	N/A
<ul style="list-style-type: none"> Detail direct or indirect discharge into or toward a storm sewer, drain, wetland, pond, lagoon, or other surface water feature? 	C700
<ul style="list-style-type: none"> Detail all grade changes, cutting, and fill, including management of existing vegetation and soil erosion and/or sedimentation. 	C600
<ul style="list-style-type: none"> Note whether an existing snow melt system is present or whether one is proposed. 	N/A
Submit Environmental Reports (ESA, BEA, DCP, or other). Refer to the Performance Standards on Infiltration.	N/A
Provide completed Chemical Inventory & Storage (CSI) Forms 1 & 2. If no chemicals used/stored on site, write 'N/a' in all applicable boxes.	N/A
A Spill Containment Plan (SCP) is required if - Chemicals used/stored on-Site exceed the quantities stated on the CSI Form.	N/A

Site Plan Review Forms / Documents & CoK Code Standards can be found on the Site Plan Review Webpage, by visiting:

kalamazoo.org/SitePlanResources


Site Plan Review Application

Community Planning &
Economic Development

245 N Rose St, Suite 100
Kalamazoo, MI 49007
www.kalamazoocity.org



Project Details

SITE INFORMATION	
Property Address / Addresses:	3414 S. Burdick Street, Kalamazoo, MI, 49001
Parcel Identification Numbers (PINs):	06-34-211-002 / 06-34-206-001 / 06-34-206-003
DESCRIPTION OF PROJECT	
Addition of storage facility and associated access drive and stormwater management facilities.	
APPLICANT SIGNATURE	
Name:	Stafford-Smith
Signature:	
Date:	9/5/25

Applicant / Owner & Details

APPLICANT INFORMATION			
Name: Stafford - Smith (Dave Kudwa, P.E. from SME will be the agent for Stafford-Smith)			
Address: 3414 S. Burdick Street			
City: Kalamazoo	State: MI	Zip: 48879	
Phone: 517-643-5751 (agent)	Preferred Contact:	<input type="checkbox"/> Email	<input type="checkbox"/> Phone
Email: dave.kudwa@sme-usa.com			
PROPERTY OWNER INFORMATION			
Name: Same as above			
Address:			
City:	State:	Zip:	
Phone:	Preferred Contact:	<input type="checkbox"/> Email	<input type="checkbox"/> Phone
Email:			



CHEMICAL INVENTORY AND STORAGE FORM PART 1

KALAMAZOO DEPARTMENT OF PUBLIC SAFETY RIGHT TO KNOW QUESTIONNAIRE

DATE COMPLETED:			
NAME OF PREMISES:			
SITE ADDRESS:			
SITE TELEPHONE:			
EMERGENCY TELEPHONE:	(Numbers should be direct to facility representatives and available 24 hrs. Number should by-pass automated phone trees)		
QUESTIONNAIRE COMPLETED BY:			
PHONE:			
EMAIL ADDRESS:			
SITE USE: Please check most appropriate box	<input type="checkbox"/>	CHEMICAL USER (Chemicals used in activities on site)	
	<input type="checkbox"/>	CHEMICAL PRODUCER (Chemicals manufactured at this site, includes packaging)	
	<input type="checkbox"/>	OTHER (Chemicals are stored on site, but not used or produced. Such as service stations, retail store, storage facility)	

Emergency Contacts: (Include Private Alarm / Security Companies, Maintenance Staff)				
NAME	TITLE	BUSINESS PHONE	HOME PHONE	CELL PHONE

EMERGENCY VENDORS	
SPILL CLEAN UP COMPANY	
ADDRESS:	
PHONE NUMBERS REGULAR and AFTER HOURS NUMBERS:	

**KALAMAZOO DEPARTMENT OF PUBLIC SAFETY
RIGHT TO KNOW QUESTIONNAIRE**

CHEMICAL TYPE SURVEY				
Check 1 Box for Each Category				
CHEMICAL TYPE	SPECIFIED QUANTITY	HAVE AT OR ABOVE SPECIFIED QUANTITY	HAVE BUT BELOW SPECIFIED QUANTITY	DO NOT HAVE
CLASS 1				
Explosives & Blasting Agents (Not including Class C Explosives)	Any Quantity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CLASS 2				
Poison Gas	Any Quantity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flammable Gas	100 gal. Water Capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-Flammable Gas	100 gal. water capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CLASS 3				
Flammable Liquid	1000 gallons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Combustible Liquid	10,000 gallons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CLASS 4				
Flammable Solid (Dangerous when wet)	100 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flammable solid	500 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spontaneously Combustible Material	100 lbs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CLASS 5				
Oxidizer	500 lbs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organic Peroxide	250 lbs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CLASS 6				
Poison	500 lbs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Irritating Material: Liquid	1000 gallons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Irritating Material: Solid	500 lbs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CLASS 7				
Radioactive Material (Yellow III Label)	Any Quantity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CLASS 8				
Corrosives: Liquid	1000 gallons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corrosives: Solid	500 lbs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO DOT CATEGORY				
Known Human Carcinogen	Any Category	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Michigan Occupational Safety and Health Act (MIOSHA) requires that the Department of Public Safety prepare and disseminate to our Officers a plan for executing the department's responsibilities with respect to each site within the City of Kalamazoo where hazardous chemicals are used or produced. There are no exemptions based on the quantity of chemicals at the site. The purpose of the act is to ensure firefighter safety.

KALAMAZOO DEPARTMENT OF PUBLIC SAFETY RIGHT TO KNOW QUESTIONNAIRE

HAZARDOUS CHEMICAL DEFINITIONS

Carcinogen – A chemical is considered to be a carcinogen if: 1) it has been evaluated by the International Agency for Research on Cancer (IARC) and found to be a carcinogen or potential carcinogen; or 2) it is listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP) (latest edition), or 3) it is regulated by OSHA as a carcinogen.

Combustible liquid – Any liquid having a flashpoint at or above 100 degrees F (37.8 degrees C), but below 300 degrees F (93.3 degrees C), or higher, the total volume of which make up 99 percent or more of the volume of the mixture.

Corrosive (liquid and solid) – Any liquid or solid that causes visible destruction or irreversible damage to human skin tissue. Also, it may be a liquid that has a severe corrosion rate on steel.

Explosives and blasting agent (not including Class C explosives) – “Explosive” means a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high pressure. “Blasting Agent” means a material designed for blasting. It must be insensitive that there is very little probability of: 1) accidental explosion, or 2) going from burning to detonation.

Flammable liquid – Any liquid having a flashpoint below 100 degrees F (37.8 C), except any mixture having components with flashpoints of 100 degrees F (37.8 C) or higher, the total of which makes up 99 percent or more of the total volume of the mixture.

Flammable gas – A gas that can burn with the evolution of heat and a flame. Flammable compressed gas is any compressed gas of which: 1) a mixture of 13 percent or less (by volume) with air is flammable, or 2) the flammable range with air is under 12 percent.

Flammable solid – A solid, other than a blasting agent, or explosive, that is liable to cause fire through friction, absorption or moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard.

Flammable solid (dangerous when wet) – - Water Reactive Material (Solid) - Any solid substance (including sludges and pastes) which react with water by igniting or giving off dangerous quantities of flammable or toxic gases. (Sec.171.8).

Irritating material - liquid and solid - A liquid or solid substance which, upon contact with fire or air, gives off dangerous or intensely irritating fumes.

Non-flammable gas - Any compressed gas other than a flammable compressed gas.

Organic peroxide - An organic compound that contains the bivalent -O-O structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Oxidizer - A chemical that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases. Example being: chlorate, permanganate, inorganic peroxide, or a nitrate, that yields oxygen readily.

Poison (Less dangerous poisons, toxic) - substances, liquid or solids (including pastes and semi- solids) so toxic to man that they are a hazard to health during transportation.

Poison gas (Extremely dangerous poisons, highly toxic) - poisonous gases or liquids) - a very small amount of the gas, or vapor of the liquid, mixed with air is dangerous to life.

Radioactive material (yellow 111 label) - Any material, or combination of materials, that spontaneously gives off ionizing radiation.

Spontaneously combustible material (Solid) - A solid substance (including sludge's and pastes) which may undergo spontaneous heating or self-burning under normal transportation conditions. These materials may increase in temperature and ignite when exposed to air.



CHEMICAL INVENTORY AND STORAGE FORM PART 2

DRINKING WATER PROTECTION QUESTIONNAIRE

Please summarize the activities at this site, including principal products or services provided:

Please check the corresponding box if your facility has prepared any of the following:
<input type="checkbox"/> Pollution Incident Pollution Plan (PIPP)
<input type="checkbox"/> Risk Management Program/Plan (RMP)
<input type="checkbox"/> Spill Prevention Control and Countermeasures Plan (SPCC)
<input type="checkbox"/> Storm Water Pollution Prevention Plan (SWPPP)
<input type="checkbox"/> Hazardous Waste Contingency Plan (HWCP)
<input type="checkbox"/> Other Spill Contingency Plan, please explain.

Please check the corresponding box if your facility has prepared or is designated as any of the following:
<input type="checkbox"/> Listed as a Part 201 Site under Act 451
<input type="checkbox"/> Listed as a Part 213, Leaking Underground Storage Tank, Site under Act 451
<input type="checkbox"/> Baseline Environmental Assessment
<input type="checkbox"/> Due Care Plan
<input type="checkbox"/> Other known release of a regulated substance or ongoing contamination, please explain.

Kalamazoo’s wellhead protection ordinance (No. 1825) defines the following as Regulated Substances:

1. Substances for which there is a materials safety data sheet (MSDS), and the MSDS cites possible health hazards
2. Hazardous Waste, as defined by the Resource Conservation and Recovery Act (RCRA) of 1976
3. Hazardous Substance, as defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
4. Radiological materials
5. Biohazards

EXAMPLES OF REGULATED SUBSTANCES INCLUDE

A. PETROLEUM PRODUCTS Examples: Gasoline, Motor Oil, Heating Oil, Diesel, Used Oil
B. RADIOLOGICAL MATERIALS Common Uses: Gas Chromatography, Scientific Research, Gauges, Manufacturing, Medicine
C. INORGANIC COMPOUNDS (Metals, Metal Compounds and certain Acids and Bases) Examples: Chromium, Arsenic, Cyanide, Nitrate, Hydrochloric Acid, Sodium Hydroxide
D. FERTILIZERS, PESTICIDES, AND OTHER SYNTHETIC ORGANIC COMPOUNDS Examples: 10-10-10, Ammonium nitrate, Atrazine, Carbofuran, Simazine, Bone Meal
E. VOLATILE ORGANIC COMPOUNDS (VOCs) <u>Examples:</u> Paints, Varnish, Solvents, Thinners, Adhesives,
F. SALT Examples: Calcium Chloride, Sodium Chloride, Sand/Salt Mixtures

Do you use or store regulated substances onsite?

- Yes No

If you answered “no” to this question, you do not need to complete page 5 of the questionnaire.

DRINKING WATER PROTECTION QUESTIONNAIRE

Please check any boxes that describe the activities that occur at your property.

Commercial

- Analytical and clinical laboratories
- Animal feedlots
- Auto washes
- Boat builders/refinishers
- Car rental and service stations/automotive repair
- Commercial establishments with fleets of trucks and cars
- Concrete/asphalt/coal/tar companies
- Drum recycling and cleaning
- Dry cleaners and laundries
- Equipment repair
- Food processors/meat packers/slaughter houses
- Fuel oil distributors/stores
- Furniture stripping or refinishing
- Gas stations
- Junk and salvage yards
- Motor vehicle repair/service shops
- Pesticide application services/pesticide stores/retailers
- Petroleum bulk storage (wholesale)
- Photographic development
- Printing
- Salvage yards/impoundment lots
- Truck or rail tanker cleaning
- Wood preserving and treatment

Manufacturing

- Chemical, paint, and plastics manufacturing
- Furniture manufacturing
- Metal manufacturing (including metal plating)
- Mining operations/injection wells
- Other manufacturing (textiles, rubber, glass, etc.)
- Pulp and paper industry

Transportation

- Airport maintenance/fueling areas
- Governmental agencies with fleets of trucks and cars
- Salt piles/sand-salt piles
- Trucking/bus terminals
- Vehicle maintenance operations (transportation/trucking, contractors/construction, auto dealers)

Utilities

- Aboveground oil pipelines
- Electric power generation substations

Waste Disposal

- Landfills/dumps/transfer stations

If you store regulated substances onsite, please summarize the security measures at this site, including fencing, lighting, and flow valves (are they locked when not in use?):

DRINKING WATER PROTECTION QUESTIONNAIRE

REGULATED SUBSTANCES INVENTORY – INDOOR STORAGE AREAS

Our priority is to inventory materials stored in aggregate quantities greater than 55 gallons or 440 pounds. Aggregate quantity means the total storage amount of each material onsite, regardless of container size.

If your facility stores any regulated substances in INDOOR storage areas onsite, please list the specific types of materials below.

Material Name (Chemical or Brand)	Material Use	Container Type ¹	Container Material	Max. Quantity Stored Onsite (with Units)	Are floor drains present in storage area? If yes, are they connected to sanitary sewer, storm sewer, or other?		Containers properly labeled?	How often is the area inspected?	Are walls and floors impervious? Please list material.
					<input type="checkbox"/> Yes	<input type="checkbox"/> No			
<i>Example: Hydraulic oil</i>	Lubricant	Drum	Steel	55 Gallons	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Yes	Weekly	Yes, concrete
					<input type="checkbox"/> Yes	<input type="checkbox"/> No			
					<input type="checkbox"/> Yes	<input type="checkbox"/> No			
					<input type="checkbox"/> Yes	<input type="checkbox"/> No			
					<input type="checkbox"/> Yes	<input type="checkbox"/> No			
					<input type="checkbox"/> Yes	<input type="checkbox"/> No			
					<input type="checkbox"/> Yes	<input type="checkbox"/> No			
					<input type="checkbox"/> Yes	<input type="checkbox"/> No			

¹ Examples: aboveground storage tank (AST), underground storage tank (UST), drum, bags, bottles, pails.

DRINKING WATER PROTECTION QUESTIONNAIRE

REGULATED SUBSTANCES INVENTORY – OUTDOOR STORAGE AREAS

Our priority is to inventory materials stored in aggregate quantities greater than 55 gallons or 440 pounds. Aggregate quantity means the total storage amount of each material onsite, regardless of container size.

If your facility stores any regulates substances in OUTDOOR storage areas onsite, please list the specific types of materials below.

Material Name (Chemical or Brand)	Material Use	Storage Container Type ¹	Storage Container Material	Max. Quantity Stored Onsite (with Units)	Secondary containment structure present? If yes, describe containment, including material and size.		How often is the area inspected?	Is the storage area covered?
					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
<i>Example: Diesel</i>	Truck Fuel	AST	Steel	500 Gallons	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Concrete dike, 750 gallons	Weekly	Yes
					<input type="checkbox"/> Yes <input type="checkbox"/> No			
					<input type="checkbox"/> Yes <input type="checkbox"/> No			
					<input type="checkbox"/> Yes <input type="checkbox"/> No			
					<input type="checkbox"/> Yes <input type="checkbox"/> No			
					<input type="checkbox"/> Yes <input type="checkbox"/> No			
					<input type="checkbox"/> Yes <input type="checkbox"/> No			
					<input type="checkbox"/> Yes <input type="checkbox"/> No			
					<input type="checkbox"/> Yes <input type="checkbox"/> No			

¹ Examples: aboveground storage tank (AST), underground storage tank (UST), drum, bags, bottles, pails.



COMPLETING THE STORMWATER AGREEMENT

Please follow these specific instructions to complete your Stormwater Agreement and Exhibits A, B and C.

This agreement must be printed single-sided when sending in the original wet-ink document. There is an example Stormwater Agreement, with Exhibits, attached for your reference.

1. Page 1, first paragraph:
 - a. Leave the effective date blank.
 - b. Add name and status of landowner (i.e. individual(s) or companies) and add the landowner's address.
2. Page 1, third paragraph (Recital B.):
 - a. Add the address of the landowner's real estate including zip code. If the address has been changed, indicate both the newest/final address that has been approved by the City Assessor, and the previously known address(es). *Example: 210 Main Street (previously 200 Main Street and 100 Mill Street)*
 - b. Add the parcel number(s) of the real estate.
3. Page 1, fourth paragraph (Recital C.): Do not change this paragraph; it includes all generic landowner uses and does not have to be specific to the real estate.
4. Page 5: Notarized landowner's signature:
 - a. Add landowner's signature(s). Do not sign the document unless notary is present. An electronic signature, such as DocuSign, will not be accepted. Below the signature line, add the landowner's printed name(s) and their company title if applicable.
 - b. In the "Forgoing Instrument" section, add date of signing, landowner's printed name, and landowner's title.
 - c. Add notary signature, printed notary name, stamp, expiration date, and raised seal.
5. Attach Exhibits: **Exhibits must be simple and readable when printed in black and white on 8.5"x 11" paper.**
 - a. Exhibit A – Legal description of the real estate for which this Agreement applies.
 - b. Exhibit B – Map(s) with location of Property and accurate location of each stormwater BMP. These simple maps are for the City to locate and inspect the BMPs when needed. *Engineered design prints generally are too detailed and not readable or recordable in this format.*
 - c. Exhibit C – List all stormwater BMPs (manufacturer, model, total count) and reference their location on Exhibit B.
6. Submit a draft to: Jean Talanda, Environmental Programs Manager, talandaj@kalamazoo.org.
7. After approval of the draft agreement, **provide the signed original agreement (wet-ink) with all exhibits and this form via mail or hand delivery to:**

Jean Talanda, Environmental Programs Manager, 1415 N. Harrison, Kalamazoo, MI 49007-2565
8. The City's Director of Public Services will sign page 6 of the agreement and notarize. The City will then have the document recorded and will return a digital copy of the recorded document to the owner once received.
9. Provide the "Return Agreement Information" in the spaces below for the City to return a copy of the recorded Stormwater Agreement:

Site Plan Name & address(s) _____

_____ Contact _____

Email _____ Phone number _____

Mail address _____

ANNUAL STORMWATER TREATMENT UNIT INSPECTION REPORT CONTACT

This Agreement requires an annual submittal of a Stormwater Treatment Inspection Report to the City. We will provide you with instructions and forms upon the recording of your Stormwater Agreement. Please provide contact information for the Annual Inspection Report submittal below:

Contact _____

Email _____ Phone number _____

Mail address _____

STORMWATER AGREEMENT

THIS AGREEMENT, effective _____, 20____, between the City of Kalamazoo, a Michigan municipal corporation, whose address is 241 West South Street, Kalamazoo, Michigan 49007 (City) and _____, _____ whose address is _____ (Landowner).

Recitals:

- A. The City is regulated under the U.S. Environmental Protection Agency's (EPA) Phase II Stormwater Program since it has a municipal separate storm sewer system (identified in the Performance Standards as MS4). Therefore, the City is required to have a National Pollutant Discharge Elimination System (NPDES) Permit for its discharge of stormwater. The Michigan Department of Environment, Great Lakes, and Energy (EGLE) administers the NPDES permit program for the State of Michigan (33 U.S.C. 1251 et seq., P.L. 92-500, 95-217) under Part 31, Water Resources Protection, of Michigan's "Natural Resources and Environmental Protection Act", 1994 PA 451 (NREPA).
- B. Landowner owns real estate in the City at _____, Kalamazoo, MI 490____ - Parcel _____ - and which is more specifically described in Exhibit A (Property).
- C. Landowner uses the Property for multi-family residential, commercial, and industrial purposes, or a combination of those uses. Landowner is making improvements to the Property that require approval under the City's Site Plan Review process, or is modifying the existing stormwater discharge system on the Property that either impacts the City's system or the retention of stormwater on the Property. As a result of those uses, improvements or modifications, Landowner agrees: (i) to install and maintain stormwater best management practices (BMPs) on the Property in accordance with approved plans and conditions; and (ii) to ensure that the BMPs continue serving the intended function in perpetuity.
- D. Before signing this Agreement the Landowner, including its representatives, contractors or agents, has reviewed or had the opportunity to review the Performance Standards, work sheets or other documents maintained by the City relating to the City's regulation of its Stormwater Program and this Agreement.

THEREFORE, in consideration of the above recitals and the covenants, conditions, and restrictions stated below, the parties agree as follows:

1. Recitals. The above recitals are acknowledged as true and correct, and are incorporated by reference into this paragraph.
2. Installation and Maintenance. Landowner is solely responsible for the installation, maintenance and repair of the stormwater BMPs.
3. Inspections and Repairs. Landowner shall regularly inspect, maintain, repair or replace the private stormwater BMPs consistent with the Manufactured Treatment Device (identified in the Performance Standards as MTD) as recommended by the manufacturer, and those recommendations provided in the “Low Impact Development Manual for Michigan – A Design Guide for Implementers and Reviewers” (Southeast Michigan Council of Governments and MDEQ, 2008), and “Michigan Nonpoint Source Best Management Practices Manual” (MDEQ, 2017).
4. Submittal of Reports. Landowner shall annually submit a report to the City – on the form provided by the City – regarding stormwater BMPs Operation & Maintenance for each of the MTDs and other BMPs. Landowner shall deliver the report to the City’s Water Programs Manager either by mail to 1415 N. Harrison Street, Kalamazoo, MI 49007 or via e-mail to the current manager, talandaj@kalamazoocity.org, within 30 calendar days of the inspection date.
5. Modifications to the Stormwater System. Landowner shall contact the City for approval prior to any design modifications to the stormwater treatment and/or conveyance system on the Property.
6. City’s Access to the Property. Landowner, its successors and assigns, hereby grants the City, its authorized agents and employees, the right to enter upon the Property to inspect the stormwater BMPs whenever the City reasonably considers an inspection necessary in carrying out the intent and purpose of this Agreement. For example, an inspection may occur: (i) to follow-up on reported deficiencies in Landowner’s exercise of stormwater BMPs; or (ii) to address lack of submitted documentation Landlord is required to submit to the City; or (iii) to respond to citizen complaints. The City shall provide Landowner with copies of the inspection findings, including any directive to perform maintenance, repairs or replacements, if necessary, to the stormwater conveyance system on the Property.
7. Default by Landowner/Remedies. If Landowner fails to maintain the stormwater BMPs and associated stormwater conveyance system in good working condition acceptable to the City, the City may enter upon the Property and take whatever steps necessary to correct deficiencies, including those identified in the inspection report. Landowner is responsible to pay the costs the City incurred for those repairs. The City will provide an itemized list of the repairs in an invoice to

Landowner, which is due within 30 days of the date on the invoice. To secure any amount owed by Landowner to the City under this Paragraph, the City has the right to place a lien against the Property in the same manner as delinquent taxes, including accruing interest, penalties and administrative expenses until the lien is fully satisfied.

It is expressly understood and agreed that the City is under no obligation to routinely inspect, maintain or repair the stormwater BMPs or stormwater conveyance system; and in no event shall this Agreement be construed to impose those obligations on the City.

8. No Liability of the City. This Agreement imposes no liability of any kind whatsoever on the City and the Landowner agrees to hold the City harmless from any liability if the stormwater BMPs and/or stormwater conveyance system failure to operate properly.
9. Compliance with other Laws. This Agreement does not replace or change the requirements of the Landowner to comply with all other applicable federal, state and local laws, rules and regulations; specifically including, without limitation and not limited to, Ordinance Nos. 1826 (Performance Standards for Groundwater Protection Within Wellhead Protection Capture Zones and Stormwater Quality Management) and 2057 (Wellhead Protection); and Chapters 29 and 39 of the Kalamazoo City Code, as amended.
10. Binding Effect/Third Parties. This Agreement is binding on and shall inure to the benefit of the parties to this Agreement and their respective successors. Neither party may assign this Agreement without the prior written consent of the other party. The parties do not intend to confer any benefits on any person, firm, corporation, or other entity which is not party to this Agreement.
11. Governing Law. This Agreement is governed under applicable Michigan law. Both parties had the assistance of or the opportunity to seek legal counsel regarding the signing of this Agreement. Therefore, no construction or ambiguity of this Agreement is resolved against either party.
12. Waiver. A party does not waive any of its rights under this Agreement if that party fails to complain about an act or omission by the other party, no matter the duration of that act or omission. And a waiver by either party, whether expressed or implied, of any breach of a provision in this Agreement is not considered a waiver or consent to any subsequent breach of this same or other provision.

13. Exhibits. This Agreement includes the following exhibits Landowner agrees to provide:

Exhibit A: Legal description of the real estate for which this Agreement applies (“Property”).

Exhibit B: Location map(s) showing a location of the Property and an accurate location of each stormwater BMP affected by this Agreement.

Exhibit C: A List of all stormwater BMPs, including Manufacturer, Model, and locational reference to Exhibit B.

14. Headings. Headings in this Agreement are for convenience only and are not intended to interpret or construe its provisions.
15. Entire Agreement/Counterparts. This Agreement supersedes all agreements previously made between the parties relating to the subject matter. There are no other understandings or agreements between them. The parties may sign this Agreement in counterparts, which together shall comprise a single agreement, and the effective date for which is the date it is signed by both parties.
16. Authorization. Each of the parties represents and warrants to the other that this Agreement and its execution by the individual(s) on its behalf are authorized by the city commission, the board of directors or other governing body or organizational agreement of that party.
17. Definitions. The terms set forth in this Agreement shall have the same meaning as commonly used, except any term that is defined under statutes, ordinances or laws identified above, or any other applicable state statute shall have the meaning set forth under that ordinance, statute or law, including any subsequent amendments.
18. Recording. The City reserves the right to file a memorandum reflecting the existence of this Agreement with the Kalamazoo County Register of Deeds.

By:
Its:

STATE OF MICHIGAN }
 } ss.
COUNTY OF KALAMAZOO }

The foregoing instrument was acknowledged before me on _____,
20 ____, by _____.

Notary Public
Kalamazoo County, Michigan
My commission expires: _____

CITY OF KALAMAZOO

By: James J. Baker, P.E.
Its: Director of Public Services

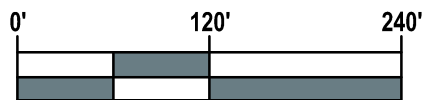
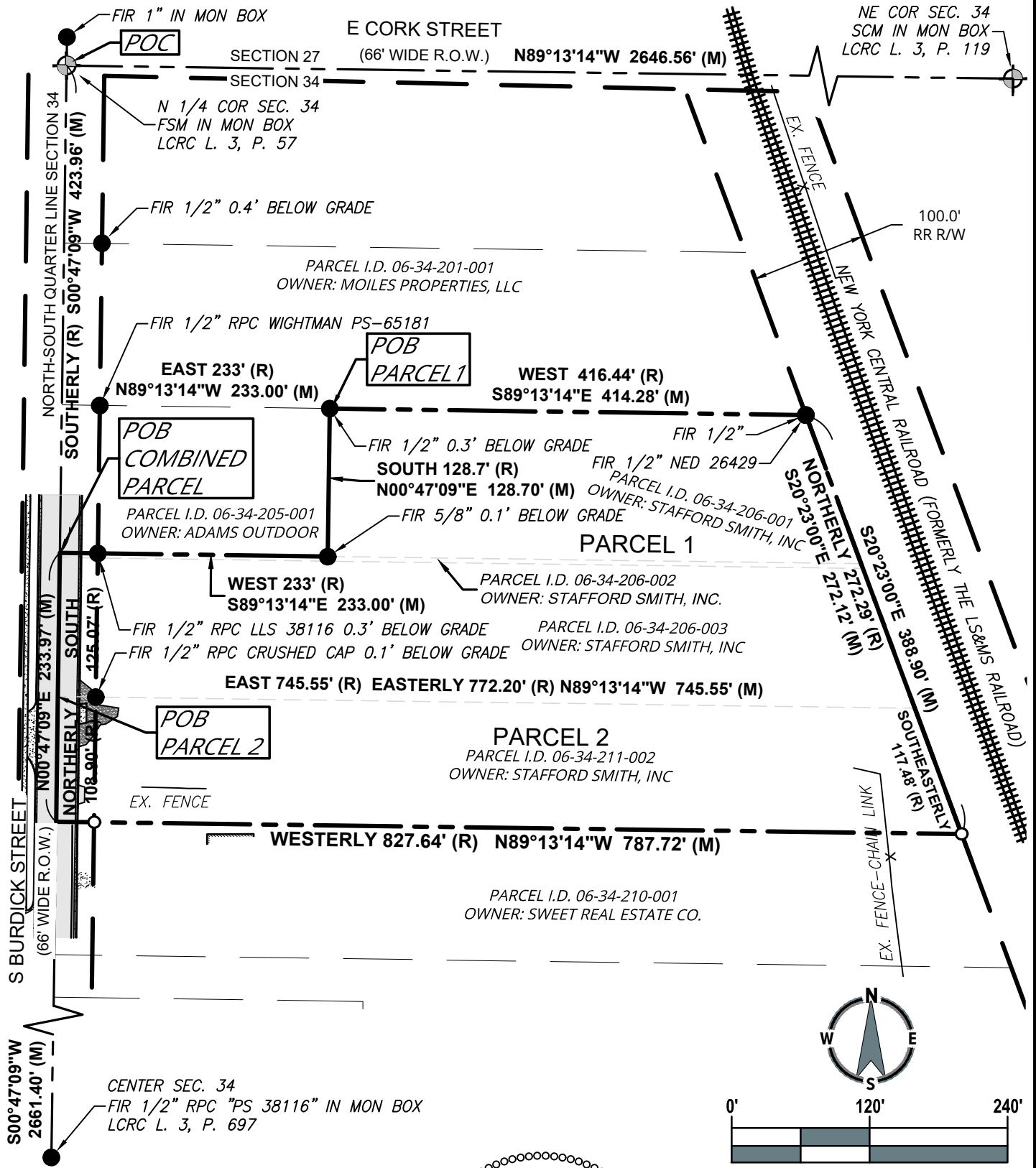
STATE OF MICHIGAN }
 } ss.
COUNTY OF KALAMAZOO }

The foregoing instrument was acknowledged before me on _____,
20___, by James J. Baker, Director of Public Services, City of Kalamazoo.

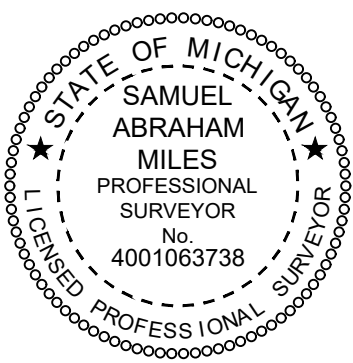
Notary Public
Kalamazoo County, Michigan
My commission expires: _____

Prepared By & After Recording Return To:
The Office of City Attorney - Aaron Leal, City Attorney
241 West South Street
Kalamazoo, MI 49007
(269) 337-8185

CERTIFICATE OF SURVEY



GRAPHIC SCALE: 1" = 120'



LEGEND

- SECTION CORNER
- PARCEL BOUNDARY
- FENCE
- SET IRON ROD
- FOUND IRON ROD/PIPE

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE PARCEL(S) HEREON DESCRIBED AND THAT THE RELATIVE POSITIONAL PRECISION OF EACH CORNER IS WITHIN THE LIMITS ACCEPTED BY THE PRACTICE OF PROFESSIONAL SURVEYING AND THAT ALL THE REQUIREMENTS OF P.A. 132 OF 1970, AS AMENDED, HAVE BEEN COMPLIED WITH.

No.	Revision Date	Date	09/11/2025
		Drawn By	M. K.
		Reviewed By	S. W.
		Scale	1" = 120'
		Project	097987.00

STAFFORD-SMITH, INC.
3317 & 3329 S. BURDICK ST
KALAMAZOO, MI 49001
 EXHIBIT A



LEGAL DESCRIPTION - CURRENT PARCELS

(PER CHICAGO TITLE INSURANCE COMPANY, COMMITMENT NO. 2537280177, DATED JULY 18, 2025 AT 8:00 AM)

LAND SITUATED IN THE STATE OF MICHIGAN, COUNTY OF KALAMAZOO, CITY OF KALAMAZOO.

PARCEL 1:

BEGINNING AT A POINT IN THE NORTH AND SOUTH QUARTER LINE OF SECTION 34, TOWN 2 SOUTH, RANGE 11 WEST, 295 FEET SOUTH AND 233 EAST OF THE NORTH QUARTER POST, FOR THE PLACE OF BEGINNING; THENCE SOUTH, PARALLEL TO THE NORTH AND SOUTH QUARTER LINE OF SAID SECTION, 128.7 FEET; THENCE WEST, PARALLEL TO THE NORTH LINE OF SAID SECTION, 233 FEET, TO THE NORTH AND SOUTH QUARTER LINE; THENCE SOUTH THEREON 125.07 FEET; THENCE EAST, PARALLEL TO THE NORTH LINE OF SAID SECTION 34, 745.55 FEET, TO THE WESTERLY LINE OF THE NEW YORK CENTRAL RAILROAD RIGHT-OF-WAY (FORMERLY THE LS & MS RAILROAD); THENCE NORTHERLY, ALONG THE WESTERLY LINE OF SAID RAILROAD RIGHT-OF-WAY, 272.29 FEET; THENCE WEST, PARALLEL TO THE NORTH LINE OF SAID SECTION, 416.44 FEET, TO THE PLACE OF BEGINNING. EXCEPT THE WEST 33 FEET FOR HIGHWAY PURPOSES.

ALSO DESCRIBED FOR TAX PURPOSES AS THE FOLLOWING THREE PARCELS:

SEC 34-2-11 BEG ON N&S 1/4 LI SEC 34 AT PT 6.485 CHS S OF N 1/4 POST TH S ALG SD 1/4 L11.835 CHS TH E 11.7 CHS TO WLY LI LS & MS RR ROW TH N 22 DEG 04 MIN W ALG WLY LI SD ROW 1.98 CHS TH W 10.64 CHS TO BEG

SEC 34-2-11 BEG ON N&S 1/4 LI SEC 34 AT PT 6.425 CHS S OF N 1/4 POST TH S ALG SD 1/4 LI .06 CH 13.96 FT/TH E 10.64 CH TO WLY LI LS & MS RR ROW TH NWLY ALG SD ROW TO A PT 10.64 CH E OF BEG TH W 10.64 CH TO BEG

SEC 34-2-11 BEG ON THE N&S 1/4 LI OF SEC 34 AT A PT 4.475 CHS S OF THE N 1/4 POST THEREOF TH S ALG SD 1/4 LI 1.95 CHS TH E 10.64 CHS TO THE WLY LI OF THE LS & MS RR ROW TH NWLY ALG THE SD ROW TO A PT 9.84 CHS E FROM THE PL OF BEG TH W 9.84 CHS TO THE PL OF BEG EXC W 233 FT

PARCEL 2:

COMMENCING AT THE NORTH 1/4 CORNER OF SECTION 34, TOWN 2 SOUTH, RANGE 11 WEST; THENCE SOUTHERLY ALONG THE NORTH-SOUTH 1/4 LINE OF SAID SECTION, 549.12 FEET TO THE PLACE OF BEGINNING; THENCE EASTERLY 772.20 FEET TO THE WESTERLY LINE OF THE CONSOLIDATED RAIL CORPORATION; THENCE SOUTHEASTERLY ALONG SAID WESTERLY LINE 117.48 FEET; THENCE WESTERLY 827.64 FEET TO THE NORTH-SOUTH 1/4 LINE OF SECTION 34; THENCE NORTHERLY ALONG SAID 1/4 LINE 108.90 FEET TO THE PLACE OF BEGINNING.

LEGAL DESCRIPTION - COMBINED PARCEL

THAT PART OF THE NORTHEAST 1/4 OF SECTION 34, TOWNSHIP 2 SOUTH, RANGE 11 WEST, CITY OF KALAMAZOO, KALAMAZOO COUNTY, MICHIGAN DESCRIBED AS:

COMMENCING AT THE NORTH 1/4 CORNER OF SAID SECTION 34 THENCE SOUTH 00°47'09" WEST 423.96 FEET ALONG THE NORTH-SOUTH 1/4 LINE OF SAID SECTION TO THE PLACE OF BEGINNING OF THIS DESCRIPTION; THENCE SOUTH 89°13'14" EAST 233.00 FEET PARALLEL WITH THE NORTH LINE OF SAID SECTION TO A FOUND 5/8-INCH IRON; THENCE NORTH 00°47'09" EAST 128.70 FEET PARALLEL TO THE NORTH-SOUTH 1/4 LINE OF SAID SECTION TO A FOUND 1/2-INCH IRON; THENCE SOUTH 89°13'14" EAST 414.28 FEET (PREVIOUSLY RECORDED AS 416.44 FEET) PARALLEL TO THE NORTH LINE OF SAID SECTION TO A FOUND 1/2-INCH CAPPED IRON NUMBER 26429 ON THE WESTERLY LINE OF THE NEW YORK CENTRAL RAILROAD RIGHT OF WAY (FORMERLY THE LS & MS RAILROAD); THENCE SOUTH 20°23'00" EAST 388.90 FEET ALONG SAID RIGHT OF WAY; THENCE NORTH 89°13'14" WEST 787.72 FEET (PREVIOUSLY RECORDED AS 827.64 FEET) TO THE NORTH-SOUTH 1/4 LINE OF SAID SECTION; THENCE NORTH 00°47'09" EAST 233.97 FEET ALONG SAID NORTH-SOUTH 1/4 LINE TO THE PLACE OF BEGINNING OF THIS DESCRIPTION.

CONTAINING 5.28 ACRES (230,229 SQ. FT) MORE OR LESS.

SUBJECT TO EASEMENTS, RESTRICTIONS, AND RIGHT-OF-WAY OF RECORD.

No.	Revision Date	Date	09/11/2025
		Drawn By	M.K.
		Reviewed By	S.W.
		Scale	1" = 120'
		Project	097987.00

STAFFORD-SMITH, INC.
3317 & 3329 S. BURDICK ST
KALAMAZOO, MI 49001



EXHIBIT B

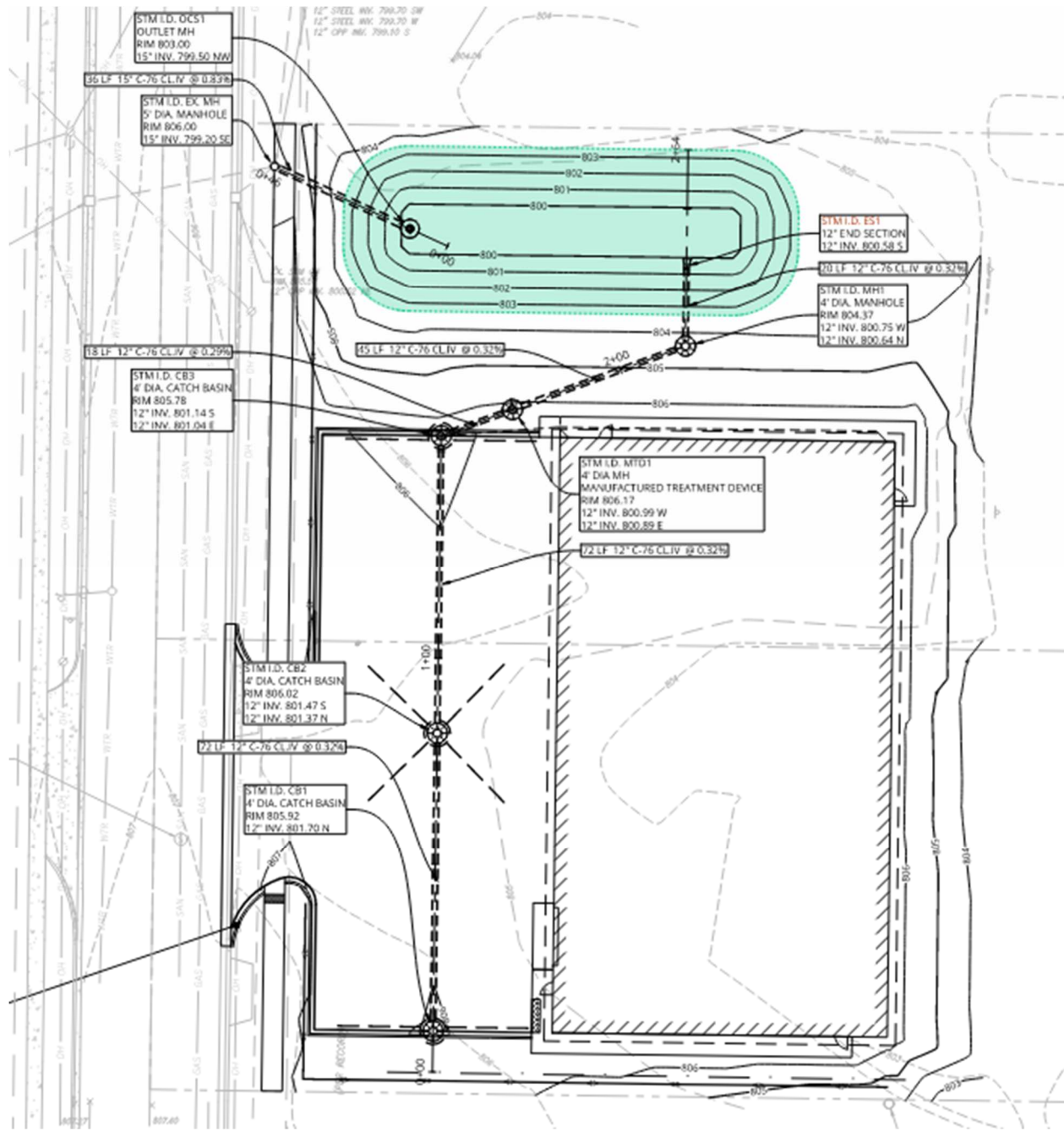


EXHIBIT C

MANUFACTURED TREATMENT DEVICES

1. CONTECH CASCADE SEPARATOR – CS4
(LOCATED AS SHOWN ON EXHIBIT B)

GENERAL NOTES

- MATERIAL AND CONSTRUCTION METHODS SHALL FOLLOW THE PRACTICE DEFINED BY THE LATEST EDITION OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND APPLICABLE SPECIAL PROVISIONS UNLESS OTHERWISE MODIFIED HEREWITHIN OR IN THE PROJECT SPECIFICATIONS.
- THE LOCATION OF ALL UTILITIES SHOWN ON THESE PLANS IS TAKEN FROM AVAILABLE DATA. OWNER WILL NOT BE RESPONSIBLE FOR ANY OMISSION OR VARIATIONS FROM THE LOCATIONS SHOWN. PURSUANT TO ACT 174 OF THE PA OF 2013 AS A CONDITION OF THIS CONTRACT NOTICE SHALL BE GIVEN TO MISS DIG PRIOR TO UNDERGROUND WORK TO BE PERFORMED IN ACCORDANCE WITH THIS CONTRACT. CALL 811.
- FOR PRIVATE UTILITIES, CONTRACTOR SHALL RETAIN THE SERVICES OF A PRIVATE UTILITY LOCATOR TO LOCATE ALL PRIVATE UTILITIES OWNED BY OWNER.
- CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE A MINIMUM OF 72 HOURS PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES OR DISRUPTION OF ANY UTILITY.
- THE CONTRACTOR SHALL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK AND SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED. CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR UTILITIES DAMAGED DURING CONSTRUCTION. SPRINKLER SYSTEMS SHALL BE REPAIRED BY CONTRACTOR AT NO COST TO OWNER.
- THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER TO COMPLY WITH ALL FEDERAL, STATE, AND LOCAL CODES FOR NOISE LEVELS, VIBRATIONS, OR ANY OTHER RESTRICTIONS WHILE REMOVING PAVEMENT OR FOR ANY OTHER CONSTRUCTION OPERATIONS WITHIN THIS CONTRACT TO BE INCLUDED IN THE RESPECTIVE ITEM OF WORK.
- CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROTECTION OF PROPERTY.
- THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS. ALL TRAFFIC CONTROL ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST VERSION OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND SHALL SUBMIT ALL REQUESTS TO OWNER'S REPRESENTATIVE AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO THE ANTICIPATED NEED TO CLOSE AREAS.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND CONFORMING TO ALL APPLICABLE PERMIT REQUIREMENTS.
- CONTRACTOR SHALL SUBMIT ALL MATERIAL SUBMITTALS REQUIRED BY THE PROJECT SPECIFICATIONS INCLUDING ASPHALT CONCRETE AND PORTLAND CEMENT CONCRETE MIX DESIGNS TO ENGINEER A MINIMUM OF 14 DAYS PRIOR TO BEGINNING FIELD WORK.
- CONTRACTOR IS RESPONSIBLE FOR LAYOUT AND FIELD VERIFICATION, ADJUST CATCHBASINS AS REQUIRED, CONTRACTOR IS RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE. DRAINAGE ISSUES SHALL BE BROUGHT TO THE ATTENTION OF SME PRIOR TO PLACEMENT OF ANY PAVEMENT STRUCTURE LAYERS. AREAS OF PONDING WATER SHALL BE REPAIRED BY FULL DEPTH PATCHING AT NO ADDITIONAL COST TO OWNER. CONTRACTOR SHALL PERFORM WALKTHROUGH WITH OWNER AND SME BEFORE PLACEMENT OF ASPHALT CONCRETE LEVELING COURSE TO REVIEW PROPOSED GRADES.
- OBJECTS DESIGNATED TO REMAIN INCLUDING SIDEWALKS, PAVEMENT, CURB, LIGHT POLES, TRAFFIC SIGNS, LANDSCAPE AREAS, ETC. SHALL BE PROTECTED. IF DAMAGED BY THE CONTRACTOR, IT SHALL BE REPAIRED TO OWNER SATISFACTION AT NO ADDITIONAL COST TO THE OWNER.
- UPON COMPLETION OF EACH DAY OF WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LEAVING THE WORK AREA FREE OF HAZARDS AND SHALL PROVIDE ALL NECESSARY TEMPORARY SIGNS, WARNING DEVICES, AND BARRICADES.
- THE CONTRACTOR SHALL HAVE AN APPROVED SET OF FINAL PLANS MARKED "ISSUED FOR CONSTRUCTION" ON THE JOB SITE AT ALL TIMES. THE CONTRACTOR SHALL KEEP ACCURATE AND LEGIBLE RECORDS OF ALL CHANGES OF WORK THAT OCCUR DURING CONSTRUCTION AND INFORMATION ON "AS-BUILT" CONDITIONS. DOCUMENTATION OF CHANGES AND AS-BUILT INFORMATION SHALL BE RECORDED ON AN APPROVED SET OF FINAL PROJECT PLANS AND DELIVERED TO SME AFTER COMPLETION OF WORK.
- THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTING THAT RESULT FROM THE CONSTRUCTION BY APPROPRIATE MEANS UNTIL SUCH TIME THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY OWNER.

SURVEY NOTE

- THE SITE PLANS WERE DEVELOPED BASED ON DRAWINGS PROVIDED BY THE OWNER AND A TOPOGRAPHICAL SURVEY BY SME. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF EXISTING STRUCTURES AND VERIFYING QUANTITIES. THE CONTRACTOR IS RESPONSIBLE FOR FINAL LAYOUT AND PROVIDING POSITIVE DRAINAGE.

EARTHWORK NOTES

- ALL NATURAL SOIL LEFT IN PLACE, IN CUT SECTIONS, SHALL BE COMPACTED TO NOT LESS THAN 95 PERCENT OF MAXIMUM DRY DENSITY OF THE MATERIAL AS DETERMINED BY THE MODIFIED PROCTOR TO A MINIMUM DEPTH OF 12 INCHES.
- THE LIMIT OF EARTH DISTURBANCE SHALL BE THE SLOPE STAKE LINE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- ALL SLOPES SHALL BE CLASS A SLOPES.
- AREAS DISTURBED BY THE CONTRACTOR OR SUBCONTRACTOR SHALL BE RESTORED AS SPECIFIED IN THE SOIL EROSION AND SEDIMENTATION CONTROL PLAN, RESTORATION PLAN OR DIRECTED BY THE ENGINEER. NO ADDITIONAL PAYMENT OR COMPENSATION WILL BE ALLOWED FOR AREAS DISTURBED OUTSIDE THE SLOPE STAKE LINE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY BEYOND THE GRADING LIMITS, INCLUDING EXISTING FENCING, LAWN, TREES, SHRUBBERY, AND SIDEWALKS.

EARTH EXCAVATION NOTES

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE TEMPORARY STORAGE AREAS FOR EXCAVATED MATERIAL WHICH MAY BE USED AS EMBANKMENT MATERIAL IN OTHER AREAS IF IT IS SUITABLE MATERIAL AS DETERMINED BY THE ENGINEER, ANY EXTRA HANDLING OF EXCAVATED MATERIAL IS CONSIDERED INCLUDED IN THESE PAY ITEMS.
- EXCAVATION DROP-OFFS GREATER THAN 8 INCHES SHALL BE PROTECTED BY 4 FT TALL ORANGE PLASTIC SAFETY FENCE (SAFETY FENCE) SECURELY ATTACHED TO GROUND DRIVEN STAKES WHEN LEFT OVERNIGHT. SAFETY FENCING SHALL BE MAINTAINED UNTIL AREA IS WITHIN 8 INCHES OF ADJACENT GRADE. PAYMENT FOR THIS WORK IS INCLUDED IN TRAFFIC CONTROL LUMP SUM UNIT PRICE.

SOIL BORING NOTES

- THE SOIL BORINGS LOGS DEPICT POINT LOCATIONS AND DO NOT INFER THAT THE SURFACE CONDITIONS ARE THE SAME IN OTHER AREAS. BORING LOCATIONS ARE SHOWN ON THE PLANS, SOIL BORING LOGS ARE INCLUDED WITH THE PROJECT MANUAL.

SITE GRADING NOTES

- PROPOSED ELEVATIONS ARE SHOWN WHERE SIGNIFICANT GRADE CHANGES ARE ANTICIPATED. IF PROPOSED GRADES ARE NOT SHOWN THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE WITH MIN. SLOPE OF 1.5%. LONGITUDINAL SLOPE ALONG GUTTER LINES SHALL BE 0.5% MIN.
- PRIOR TO INSTALLING ANY PAVEMENT LAYERS, THE CONTRACTOR SHALL REVIEW THE PROPOSED SITE GRADES WITH THE ENGINEER TO IDENTIFY AND RECTIFY ANY COMPLICATIONS.
- PROPOSED SIDEWALKS SHALL HAVE MIN. 1.0% AND MAX. 2.0% CROSS SLOPE.
- CONTRACTOR SHALL ADJUST ALL UTILITY RIMS LOCATED WITHIN THE WORK LIMITS AS NECESSARY TO BE FLUSH WITH THE PROPOSED FINISHED SURFACE. THIS INCLUDES ALL STORM MANHOLES, CATCH BASINS, CLEANOUTS, SANITARY MANHOLES AND CLEANOUTS, WATER MAIN MANHOLES, GATE VALVES, AND BOXES OR ANY OTHER UTILITY RIMS OR BOXES.
- WHERE PROPOSED PAVEMENT ABUTS EXISTING PAVEMENT DESIGNATED TO REMAIN, MATCH ELEVATIONS UNLESS INDICATED OTHERWISE ON THE PLANS.
- ADJUST GUTTER PAN FROM SPILL IN TO SPILL OUT AS REQUIRED TO ACHIEVE POSITIVE DRAINAGE.
- ADJUST ELEVATION OF CURB REPAIRS AS REQUIRED TO ACHIEVE POSITIVE DRAINAGE.
- TAPER CURB HEIGHT TO 0" IN 10' WHEN ABUTTING TO EX. PAVEMENT WITHOUT CURB.

GENERAL PAVING NOTES

- NEW PAVEMENT SHALL BE OF THE TYPE, THICKNESS AND CROSS-SECTION INDICATED ON THE PLANS.
- MATCH EXISTING ELEVATIONS WHERE NEW PAVEMENT ABUTS EXISTING PAVEMENTS OR OTHER FIXED OBJECTS.
- CONTRACTOR SHALL MATCH EXISTING STRIPING PATTERNS UNLESS OTHERWISE SHOWN ON THE PLANS. CONTRACTOR SHALL DOCUMENT EXISTING STRIPING PATTERN PRIOR TO REMOVAL OF ANY PAVEMENT.
- CONTRACTOR IS RESPONSIBLE FOR LAYOUT TO PROVIDE POSITIVE SITE DRAINAGE. WATER PONDING AND BIRD BATHS SHALL BE CORRECTED AS DIRECTED BY THE BEGINNER AT NO ADDITIONAL COST TO THE OWNER.
- NEW AGGREGATE BASE REQUIRED SHALL BE MDOT 21AA CRUSHED LIMESTONE MATERIAL.
- SUBGRADE SOIL FOUND TO BE UNSUITABLE SHALL BE RECONDITIONED OR REPLACED AS DIRECTED BY THE ENGINEER, INCLUDING THE NECESSARY FINE GRADING TO ENSURE THAT MINIMUM SPECIFIED PAVEMENT THICKNESS IS ACHIEVED.

TRAFFIC CONTROL NOTES

- OBTAIN WRITTEN PERMISSION FROM OWNER'S REPRESENTATIVE WHEN ROADS, SIDEWALKS AND PARKING LOTS NEED TO BE CLOSED PRIOR TO CLOSING ANY PAVED AREA.
- SUBMIT ALL REQUESTS TO OWNER'S REPRESENTATIVE AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO THE ANTICIPATED NEED TO CLOSE ANY PAVED AREA.
- PROVIDE ALTERNATE TRAFFIC ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC ROUTES AS NECESSARY OR REQUIRED BY OWNER'S REPRESENTATIVE.
- THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING, PLACING AND MAINTAINING ALL TRAFFIC CONTROL DEVICES ACCORDING TO THE LATEST EDITION OF THE "MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."

DEMOLITION/REMOVAL NOTES

- SAWCUT FULL DEPTH THE PAVEMENT, SIDEWALK AND CURB DESIGNATED TO BE REMOVED AT THE LIMITS OF WORK SHOWN ON THE PLANS OR MARKED IN THE FIELD.
- REMOVE ONLY THE STRUCTURES AND PAVEMENTS WITHIN THE LIMITS OF WORK AS DETAILED ON THE PLANS AND CROSS SECTIONS. ALL OTHER STRUCTURES AND PAVEMENT SHALL BE PROTECTED AS REQUIRED.
- ALL EXISTING UNDERGROUND UTILITIES WITHIN THE AREA OF WORK SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION, UNLESS, OTHERWISE DESIGNATED TO BE REMOVED. CONTRACTOR SHALL VERIFY EXACT LOCATION AND DEPTHS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF DEMOLITION OPERATIONS.
- CONTRACTOR SHALL DISPOSE OF ALL CONCRETE, ASPHALT, AGGREGATE BASE AND SUBGRADE SPOILS AT LEGAL DISPOSAL SITE. CONTRACTOR SHALL PAY FOR ALL TRUCKING AND DISPOSAL COSTS.
- MATERIAL AND SITE FEATURES HAVING SALVAGE VALUE SHALL BECOME THE PROPERTY OF THE OWNER UNLESS SPECIFIED OTHERWISE. ALL OTHER MATERIAL AND DEBRIS ACCUMULATED AS A RESULT OF DEMOLITION/REMOVAL/REPAIR ACTIVITIES SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF IN A LEGAL MANNER.
- EXISTING WIRING AND ELECTRICAL OUTLETS SHALL BE CONSIDERED INCIDENTAL TO ELECTRICAL FEATURE DEMOLITION/REMOVAL.

CURB REPAIR NOTES

- SAWCUT THE CURB AREAS DESIGNATED FOR REPAIR AT THE LIMITS MARKED IN THE FIELD BY OWNER'S REPRESENTATIVE.
- REMOVE EXISTING CONCRETE WITHOUT CAUSING DAMAGE OR SPALLING TO ADJACENT SIDEWALK OR CURBS WHICH ARE DESIGNATED TO REMAIN. DAMAGED AREAS SHALL BE REMOVED AND REPLACED TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST.
- DRILL AND EPOXY GROUT TWO (2) #5 (18 INCH LONG EPOXY COATED) DEFORMED BARS A MINIMUM OF 6 INCHES INTO EXISTING CONCRETE CURBS (TWO FACES) WHICH ARE DESIGNATED TO REMAIN.
- MATCH EXISTING CURB GEOMETRY.
- PLACE AND CONSOLIDATE CONCRETE IN THE REPAIR AREA TO MATCH THE ELEVATION OF ADJACENT CURB AND SIDEWALK AREAS TO MAINTAIN POSITIVE DRAINAGE. FINISH CURBS TO MATCH FINISH OF ADJACENT AREAS WHICH ARE DESIGNATED TO REMAIN.
- VOID/HOLES (HONEYCOMB AREAS) ON THE CURB BACK/FACE SHALL BE REPAIRED WITH CEMENT MORTAR PASTE TO THE SATISFACTION OF THE OWNER.

CLEANUP AND RESTORATION NOTES

- PROTECT ADJACENT AREAS OUTSIDE OF PROJECT LIMITS DURING CONSTRUCTION. RESTORE ALL DISTURBED AREAS TO MATCH EXISTING CONDITIONS UNLESS OTHERWISE NOTED ON THE PROJECT PLANS. RESTORE GRASS AREAS WITH MINIMUM 4" OF TOPSOIL AND SOD UNLESS OTHERWISE NOTED ON THE PLANS. HYDRO SEED MAY BE USED WITH ENGINEERS APPROVAL. INSTALL SLOPE RESTORATION TYPE AS INDICATED ON PLAN.
- UPON COMPLETION OF WORK, THE ENTIRE SITE SHALL BE CLEARED OF EQUIPMENT, UNUSED MATERIALS, AND RUBBISH AND ANY DISTURBED AREAS RESTORED TO THE SATISFACTION OF THE OWNER.
- FINAL PAYMENT WILL NOT BE MADE UNTIL THE SITE IS CLEARED, RESTORED AND CLEANED PER THE PROJECT SPECIFICATIONS.

ABBREVIATIONS USED IN DRAWINGS

THE FOLLOWING ABBREVIATIONS ARE USED ON THESE PLANS:

@	AT (RATE OF)
&	AND
"	INCH
'	FOOT
#	NUMBER
AC	ASPHALT CONCRETE = ASPHALT PAVEMENT/HOT MIX ASPHALT PAVEMENT
ADA	AMERICANS WITH DISABILITIES ACT (BARRIER FREE ACCESS)
AGG	AGGREGATE BASE
ALT	ALTERNATE
APPROX.	APPROXIMATE/APPROXIMATELY
ARCH.	ARCHITECT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AVG	AVERAGE
B	BORING
BDY	BOUNDARY
BIT	BITUMINOUS
BF	BARRIER FREE
BFF	BANK FULL FLOOD
BLDG	BUILDING
BM	BENCHMARK
BOLL	BOLLARD
BOT	BOTTOM
BRG	BEARING
BSMT	BASEMENT
BOW	BOTTOM OF WALL
C	CORE
CAP	CAPACITY
CB	CATCH BASIN
CENTL	CENTERLINE
CF	CUBIC FEET
CHANN.	CHANNEL
CI	CONTROL JOINT
CLS	CRUSHED LIMESTONE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COEF	COEFFICIENT
COL	COLUMN
COMM/COMM.	COMMUNICATIONS
CONC.	CONCRETE
CONN.	CONNECTION
COV.	COVER
CULV.	CULVERT
CPP	CORRUGATED PLASTIC PIPE
CY	CUBIC YARD
DIA/DIA.	DIAMETER
DI	DUCTILE IRON
DIM/DIM.	DIMENSION
DEG/DEG.	DEGREE
DEMO/DEMO.	DEMOLITION
DEPT.	DEPARTMENT
DMH	DROP MANHOLE
DS	DOWNSPOUT
EA	EACH
E	EAST
EE	EACH END
EG	EDGE OF GRAVEL
EHH	ELECTRICAL HAND HOLE
ELEV.	ELEVATION
EM	EDGE OF METAL
ENG/ENG.	ENGINEER
ENT.	ENTRANCE
EQUIP.	EQUIPMENT
ES	END SECTION
EXCAV/EXCAV.	EXCAVATE
EX/EX.	EXISTING
EXPN	EXPANSION
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDN	FOUNDATION
FDR	FULL DEPTH RECLAMATION
FF	FINISH FLOOR
FG	FINISH GRADE
FURN.	FURNISH
FP	FLOOD PLAIN
FT	FEET/FOOT
FTG	FOOTING
ELEV.	ELEVATION
EQUIP.	EQUIPMENT
GAL/GAL.	GALLON
GEN.	GENERAL
GIS	GEOGRAPHIC INFORMATION SYSTEM
GU	GUTTER
GV/GVA	GATE VALVE
GVL	GRAVEL
HD	HEAVY DUTY
HDPPE	HIGH DENSITY POLYETHYLENE
HH	HANDHOLE
HP	HIGH POINT
HGL	HYDRAULIC GRADE LINE
HMA	HOT MIX ASPHALT PAVEMENT
HORIZ/HORIZ.	HORIZONTAL
HYD	HYDRANT
INT	INSTALL
LD	LIGHT DUTY
LF	LINEAR FEET
LP	LOW POINT
LX/MX/MAX.	MAXIMUM
ME	MATCH EXISTING
MDOT	MICHIGAN DEPARTMENT OF TRANSPORTATION
MH	MANHOLE
MIN/MIN.	MINIMUM
N	NORTH
NIC	NOT IN CONTRACT
NO	NUMBER
NFV	NOT FIELD VERIFIED
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
PCC	PORTLAND CEMENT CONCRETE = CONCRETE
PVC	POLYVINYL CHLORIDE
PR	PROPOSED
RCP	REINFORCED CONCRETE PIPE
RY	REAR YARD
S	SOUTH
SAN	SANITARY SEWER
SEBC	STABILIZED BASE COURSE
SESC	SOIL EROSION AND SEDIMENT CONTROL
SF	SQUARE FEET
SG	SUBGRADE
STM	STORM SEWER
SY	SQUARE YARD
TA	TOP OF HMA PAVEMENT ELEVATION
TC	TOP OF PROPOSED CURB
TERS	TEMPORARY EARTH RETENTION SYSTEM
TOP	TOP OF PAD (CONCRETE)
TOW	TOP OF WALL
TP	TEST PIT
TYP/TYP.	TYPICAL
TW	TOP OF SIDEWALK
VB	VAPOR BARRIER
VCP	VITRIFIED CLAY PIPE
VERT/VERT.	VERTICAL
VIF	VERIFY IN FIELD
VLT	VAULT
VOL	VOLUME
W	WEST
WM	WATER MAIN
WTR	WATER
WWF	WELDED WIRE FABRIC

DEFINITIONS USED IN DRAWINGS

THE FOLLOWING DEFINITIONS ARE USED ON THESE PLANS:

ENGINEER	SME
CITY	KALAMAZOO
COUNTY	KALAMAZOO
OWNER	STAFFORD-SMITH



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Orientation	Scale
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Project	3317 & 3329 S BURDICK ST STORAGE BUILDING
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Project Location	SOUTH BURDICK STREET KALAMAZOO, MI 49001
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Engineer's Seal	
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PRELIMINARY - NOT FOR CONSTRUCTION

REV	ISSUED FOR	DATE	BY
0	CLIENT REVIEW	05/22/2025	DJK
1	SCHEMATIC DESIGN	07/16/2025	DJK
2	SCHEMATIC DESIGN	08/05/2025	DJK
3	DESIGN DEVELOPMENT	09/09/2025	DJK
4	NFP REVIEW COMMENTS	10/23/2025	DJK

Date	5/22/2025
SME Project No.	097987.00

Project Manager:	D. KUDWA
Designer:	K. WILSON

CADD:	K. WILSON
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Checked By:	S. PARADISE
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Reviewed By:	D. KUDWA
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Sheet Name:	GENERAL PROJECT NOTES
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Sheet No.	C-101
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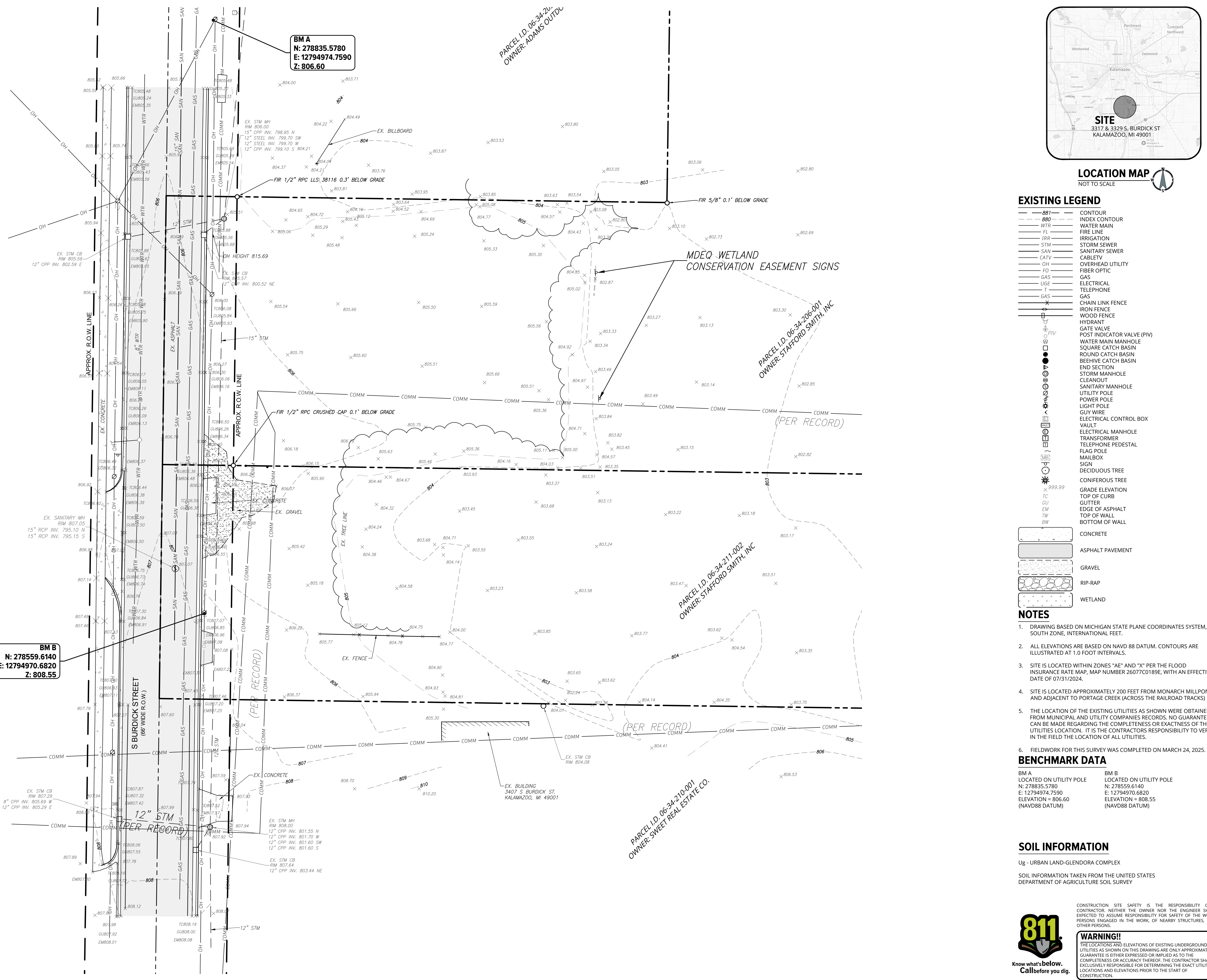


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WARNING!!
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DRAWING TITLE SCALE ORIENTED TO BEARINGS TO 4" BY 8" AND WILL SCALE INCORRECTLY IF PRINTED ON ANY OTHER SIZE MEDIA
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BM A
 N: 278835.5780
 E: 12794974.7590
 Z: 806.60

PARCEL I.D. 06-34-20-001
 OWNER: ADAMS OUTDOOR

BM B
 N: 278559.6140
 E: 12794970.6820
 Z: 808.55



LOCATION MAP
 NOT TO SCALE

EXISTING LEGEND

- 881 --- CONTOUR
- 880 --- INDEX CONTOUR
- WTR --- WATER MAIN
- FL --- FIRE LINE
- IRR --- IRRIGATION
- STM --- STORM SEWER
- SAN --- SANITARY SEWER
- CATV --- CABLETV
- OH --- OVERHEAD UTILITY
- FO --- FIBER OPTIC
- GAS --- GAS
- UGE --- ELECTRICAL
- T --- TELEPHONE
- GAS --- GAS
- X --- CHAIN LINK FENCE
- IRON FENCE
- WOOD FENCE
- HYDRANT
- GATE VALVE
- POST INDICATOR VALVE (PIV)
- WATER MAIN MANHOLE
- SQUARE CATCH BASIN
- ROUND CATCH BASIN
- BEEHIVE CATCH BASIN
- END SECTION
- STORM MANHOLE
- CLEANOUT
- SANITARY MANHOLE
- UTILITY POLE
- POWER POLE
- LIGHT POLE
- GUY WIRE
- ELECTRICAL CONTROL BOX
- VAULT
- ELECTRICAL MANHOLE
- TRANSFORMER
- TELEPHONE PEDESTAL
- FLAG POLE
- MAIL BOX
- SIGN
- DECIDUOUS TREE
- CONIFEROUS TREE
- 999.99 --- GRADE ELEVATION
- TC --- TOP OF CURB
- GU --- GUTTER
- EM --- EDGE OF ASPHALT
- TW --- TOP OF WALL
- EW --- BOTTOM OF WALL

NOTES

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- SITE IS LOCATED WITHIN ZONES "AE" AND "X" PER THE FLOOD INSURANCE RATE MAP, MAP NUMBER 26077C0189E, WITH AN EFFECTIVE DATE OF 07/31/2024.
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- FIELDWORK FOR THIS SURVEY WAS COMPLETED ON MARCH 24, 2025.

BENCHMARK DATA

BM A
 LOCATED ON UTILITY POLE
 N: 278835.5780
 E: 12794974.7590
 ELEVATION = 806.60
 (NAVD88 DATUM)

BM B
 LOCATED ON UTILITY POLE
 N: 278559.6140
 E: 12794970.6820
 ELEVATION = 808.55
 (NAVD88 DATUM)

SOIL INFORMATION

Ug - URBAN LAND-GLENDORA COMPLEX
 SOIL INFORMATION TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE SOIL SURVEY

811
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Orientation: N
 Scale: 0' 20' 40'
 GRAPHIC SCALE: 1" = 20'

Project
 3317 & 3329 S BURDICK ST
 STORAGE BUILDING

Project Location
 SOUTH BURDICK STREET
 KALAMAZOO, MI 49001

Engineer's Seal

PRELIMINARY - NOT FOR CONSTRUCTION

Revisions

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Date
 5/22/2025

SME Project No.
 097987.00

Project Manager:
 D. KUDWA

Designer:
 K. WILSON

CADD:
 K. WILSON

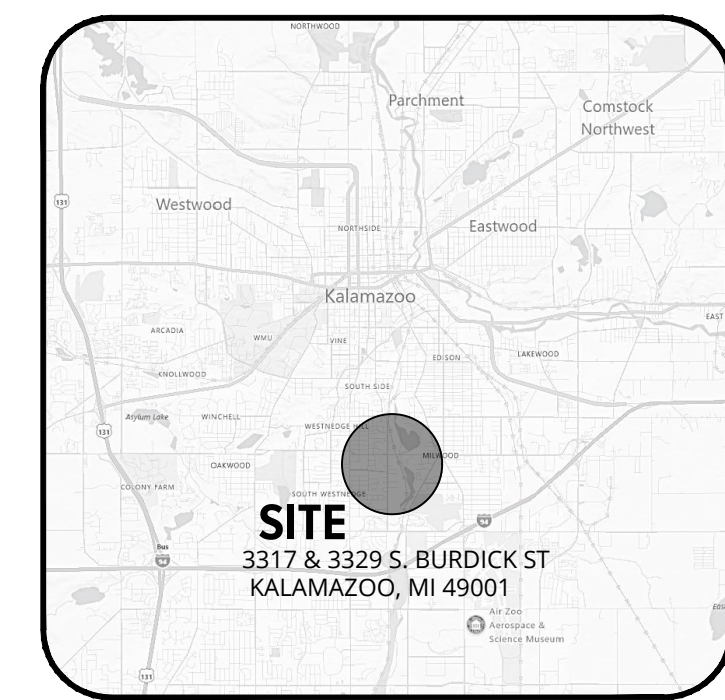
Checked By:
 S. PARADISE

Reviewed By:
 D. KUDWA

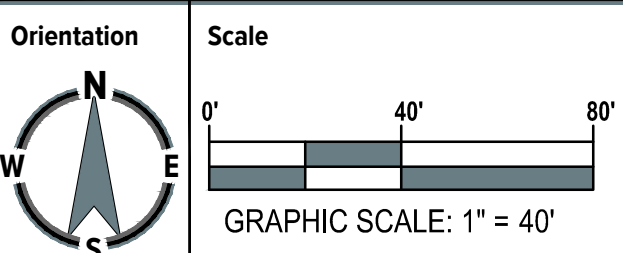
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Sheet No.
 C-200

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LOCATION MAP
NOT TO SCALE



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3317 & 3329 S BURDICK ST
STORAGE BUILDING

Project Location
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KALAMAZOO, MI 49001

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SME Project No.: 097987.00

Project Manager: D. KUDWA

Designer: K. WILSON

CADD: K. WILSON

Checked By: S. PARADISE

Reviewed By: D. KUDWA

Sheet Name: EXISTING SITE BOUNDARIES

Sheet No.: C-201

EXISTING LEGEND

- 881 CONTOUR
- 880 INDEX CONTOUR
- WIR WATER MAIN
- FL FIRE LINE
- IRR IRRIGATION
- STM STORM SEWER
- SAN SANITARY SEWER
- CATV CABLETV
- OH OVERHEAD UTILITY
- FO FIBER OPTIC
- GAS GAS
- UGE ELECTRICAL
- T TELEPHONE
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- TOP OF WALL
- BOTTOM OF WALL

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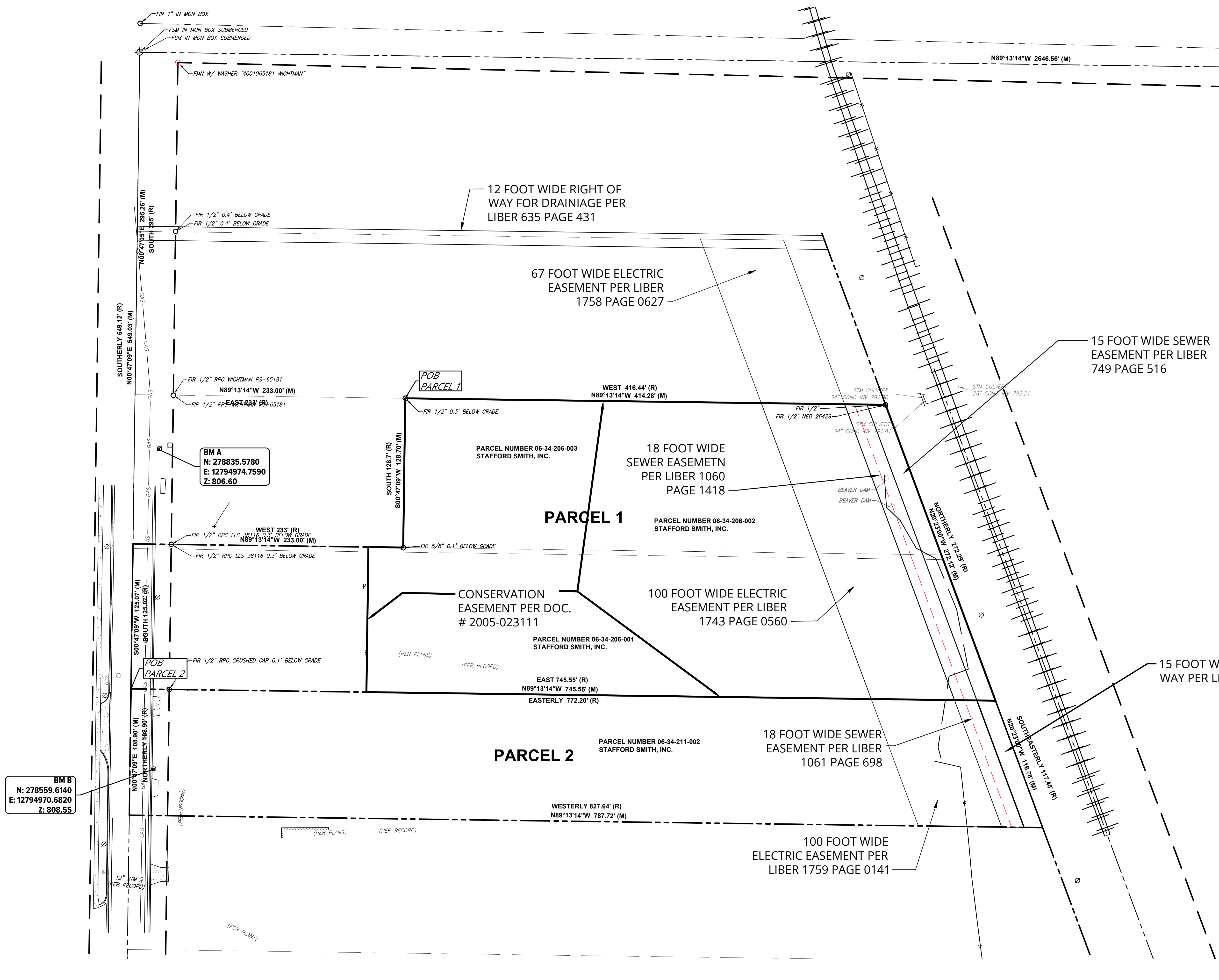
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SOIL INFORMATION TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE SOIL SURVEY

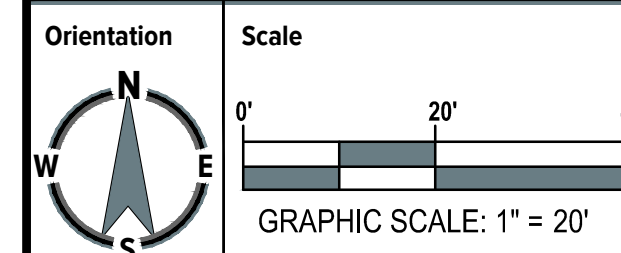
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E: 12794970.6820
Z: 808.55

BM A
N: 278835.5780
E: 12794974.7590
Z: 806.60

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Project
**3317 & 3329 S BURDICK ST
STORAGE BUILDING**

Project Location
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KALAMAZOO, MI 49001**

Engineer's Seal

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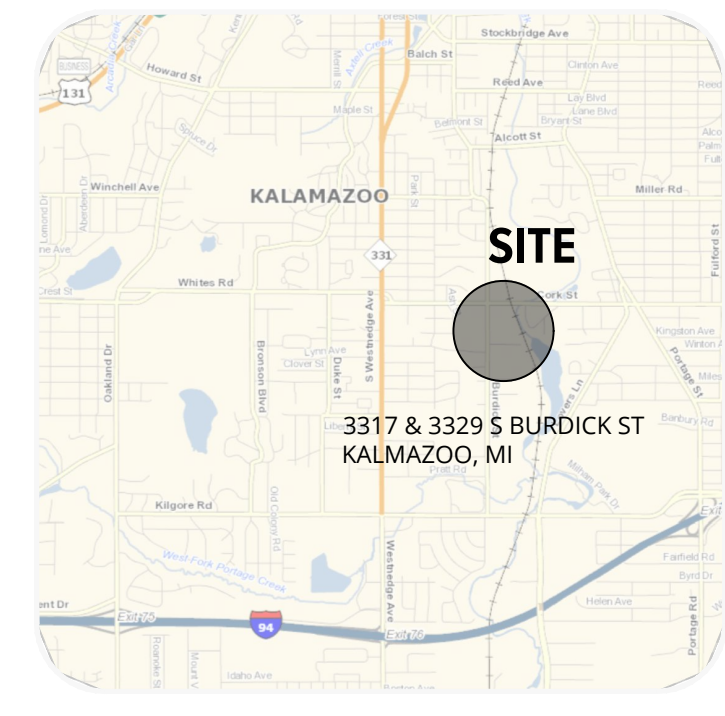
D. KUDWA

Sheet Name:

**SESC AND SITE PREPARATION
PLAN**

Sheet No.

C-300



LOCATION MAP
NOT TO SCALE

EXISTING LEGEND

- 801--- CONTOUR
- 800--- INDEX CONTOUR
- WTR--- WATER MAIN
- FL--- FIRE LINE
- IRR--- IRRIGATION
- STM--- SANITARY SEWER
- S&W--- SANITARY SEWER
- CATV--- CABLETV
- OH--- OVERHEAD UTILITY
- FO--- FIBER OPTIC
- GAS--- GAS
- UGS--- ELECTRICAL
- GAS--- GAS
- X--- CHAIN LINK FENCE
- X--- IRON FENCE
- X--- WOOD FENCE
- X--- HYDRANT
- X--- GATE VALVE
- X--- POST INDICATOR VALVE (PIV)
- X--- WATER MAIN MANHOLE
- X--- SQUARE CATCH BASIN
- X--- ROUND CATCH BASIN
- X--- BEEHIVE CATCH BASIN
- X--- END SECTION
- X--- STORM MANHOLE
- X--- CLEANOUT
- X--- SANITARY MANHOLE
- X--- UTILITY POLE
- X--- POWER POLE
- X--- LIGHT POLE
- X--- GUY WIRE
- X--- ELECTRICAL CONTROL BOX
- X--- VAULT
- X--- ELECTRICAL MANHOLE
- X--- TRANSFORMER
- X--- TELEPHONE PEDESTAL
- X--- FLAG POLE
- X--- MAILBOX
- X--- SIGN
- X--- DECIDUOUS TREE
- X--- CONIFEROUS TREE
- X--- GRADE ELEVATION
- X--- TOP OF CURB
- X--- GUTTER
- X--- EDGE OF ASPHALT
- X--- TOP OF WALL
- X--- BOTTOM OF WALL

I.D. PROPOSED SOIL EROSION CONTROL LEGEND

- SE-1 FURNISH AND INSTALL INLET PROTECTION FILTER PER GOVERNING AGENCIES STANDARDS AND SPECIFICATIONS
- SE-2 FURNISH AND INSTALL SILT FENCE PER GOVERNING AGENCIES STANDARDS AND SPECIFICATIONS
- SE-3 FURNISH AND INSTALL STABILIZED CONSTRUCTION ENTRANCE PER GOVERNING AGENCIES STANDARDS AND SPECIFICATIONS
- SE-4 RESTORE AREA PER GOVERNING AGENCY STANDARD AND SPECIFICATIONS
- SE-5 FURNISH AND INSTALL TREE PROTECTIVE FENCING PER GOVERNING AGENCIES STANDARDS AND SPECIFICATIONS
- DISTURBED AREA - 0.95 ACRES

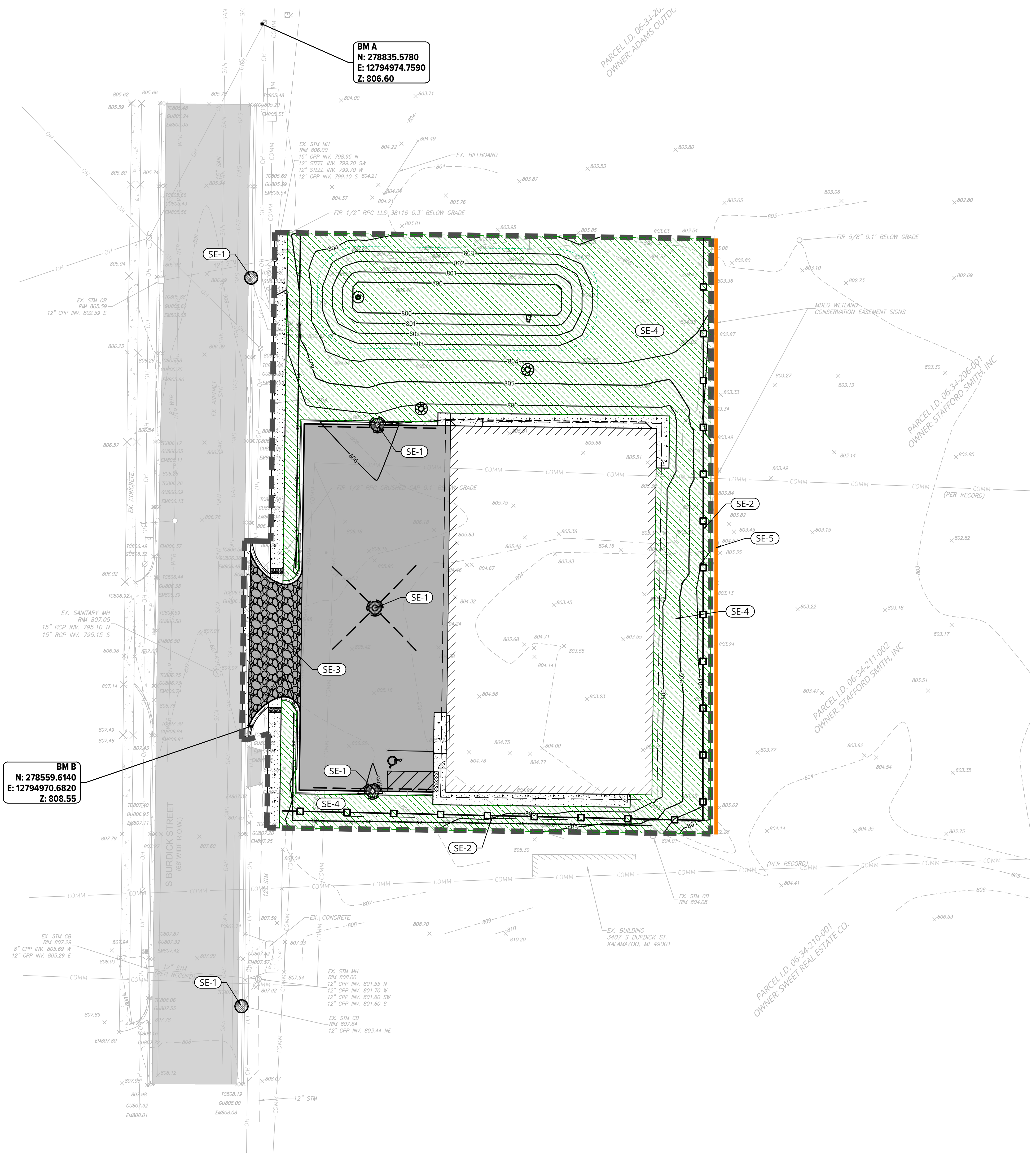
**SEE SHEET C-301 FOR SESC
NOTES AND DETAILS**

BENCHMARK DATA

BM A LOCATED ON UTILITY POLE N: 278835.5780 E: 12794974.7590 ELEVATION = 806.60 (NAVD88 DATUM)	BM B LOCATED ON UTILITY POLE N: 278559.6140 E: 12794970.6820 ELEVATION = 808.55 (NAVD88 DATUM)
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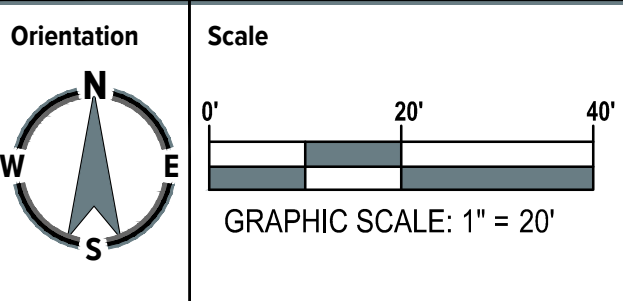


WARNING!!
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BM A
N: 278835.5780
E: 12794974.7590
Z: 806.60

BM B
N: 278559.6140
E: 12794970.6820
Z: 808.55



Project
3317 & 3329 S BURDICK ST
STORAGE BUILDING

Project Location
SOUTH BURDICK STREET
KALAMAZOO, MI 49001

Engineer's Seal

PRELIMINARY - NOT FOR CONSTRUCTION

Revisions			
REV	ISSUED FOR	DATE	BY
0	CLIENT REVIEW	05/22/2025	DJK
1	SCHEMATIC DESIGN	07/16/2025	DJK
2	SCHEMATIC DESIGN	08/05/2025	DJK
3	DESIGN DEVELOPMENT	09/09/2025	DJK
4	NFP REVIEW COMMENTS	10/23/2025	DJK

Date: **5/22/2025**

SME Project No.: **097987.00**

Project Manager: **D. KUDWA**

Designer: **K. WILSON**

CADD: **K. WILSON**

Checked By: **S. PARADISE**

Reviewed By: **D. KUDWA**

Sheet Name: **REMOVAL AND EXCAVATION PLAN**

Sheet No.: **C-400**

REMOVAL LEGEND

- SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT
- SAWCUT AND REMOVE EXISTING PAVEMENT TO ACCOMMODATE PROPOSED GREENBELT
- REMOVE/EXCAVATE EXISTING GRAVEL AREA TO ACCOMMODATE PROPOSED IMPROVEMENTS
- REMOVE AND CLEAR EXISTING WOODLAND/VEGETATION TO ACCOMMODATE PROPOSED SITE IMPROVEMENTS
- AREA OF GRADING/EARTHWORK
- CLEAR/GRUB/EXCAVATE TO ACCOMMODATE PROPOSED IMPROVEMENTS
- REMOVE CURB AND GUTTER
- REMOVE EXISTING FENCE
- REMOVE EXISTING WALL
- REMOVE EXISTING UTILITY
- CAUTION!!!! EXISTING UTILITY IN AREA (SEE EXISTING/RECORD UTILITIES NOTE, THIS SHEET)
- REMOVE AND DISPOSE OF EXISTING TREE.

EXISTING LEGEND

- 881 CONTOUR
- 880 INDEX CONTOUR
- WTR WATER MAIN
- FL FIRE LINE
- IRR IRRIGATION
- STM STORM SEWER
- SAN SANITARY SEWER
- CATV CABLETV
- OH OVERHEAD UTILITY
- FO FIBER OPTIC
- GAS GAS
- LGE ELECTRICAL
- T TELEPHONE
- X CHAIN LINK FENCE
- IRON FENCE
- WOOD FENCE
- HYDRANT
- GATE VALVE
- PIV POST INDICATOR VALVE (PIV)
- WATER MAIN MANHOLE
- SQUARE CATCH BASIN
- ROUND CATCH BASIN
- BEEHIVE CATCH BASIN
- END SECTION
- STORM MANHOLE
- CLEANOUT
- SANITARY MANHOLE
- UTILITY POLE
- LIGHT POLE
- GLW WIRE
- ELECTRICAL CONTROL BOX
- VAULT
- ELECTRICAL MANHOLE
- TRANSFORMER
- TELEPHONE PEDESTAL
- FLAG POLE
- MAILBOX
- SIGN
- DECIDUOUS TREE
- CONIFEROUS TREE
- GRADE ELEVATION
- TC TOP OF CURB
- GU GUTTER
- EM EDGE OF ASPHALT
- CW TOP OF WALL
- TW BOTTOM OF WALL
- CONCRETE
- ASPHALT PAVEMENT
- GRAVEL
- RIP-RAP
- WETLAND

NFP OVERLAY - WOODLAND PRESERVATION NOTE

MIN. 25% OF EXISTING PARENT PARCEL WOODLAND COVERAGE TO REMAIN

APPROX. EX. SITE WOODLAND COVERAGE = 2.75 ACRES
 APPROX. PR. WOODLAND REMOVAL = 0.3 ACRES
 APPROX. REMAINING WOODLAND = 2.45 ACRES
 APPROX. REMAINING WOODLAND COVERAGE = 89%

EXISTING/RECORD UTILITIES NOTE

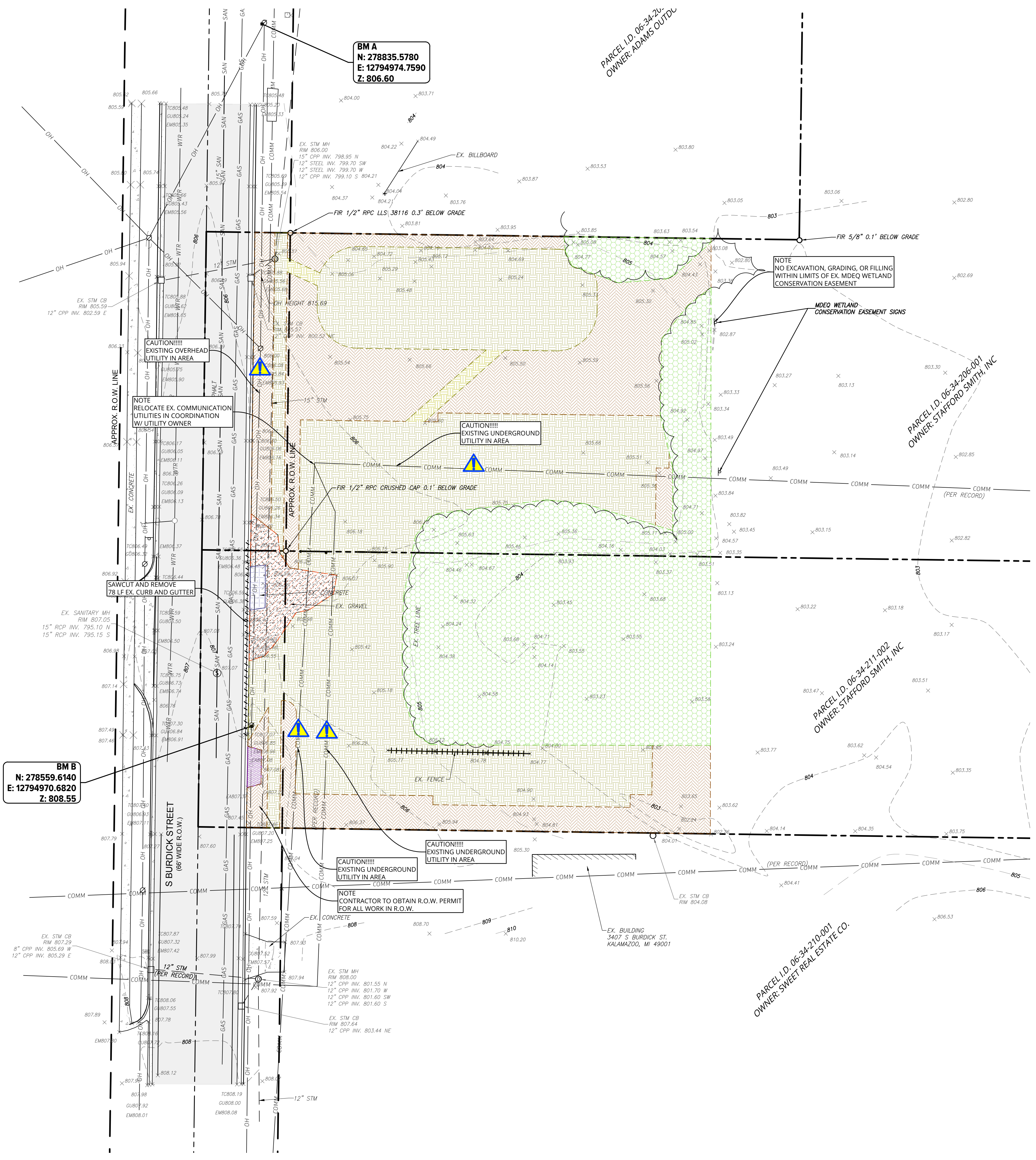
THE LOCATION OF THE EXISTING UTILITIES AS SHOWN WERE OBTAINED FROM MUNICIPAL AND UTILITY COMPANY RECORDS, FIELD OBSERVATIONS AND OWNER PROVIDED DRAWINGS. NO GUARANTEE CAN BE MADE REGARDING THE COMPLETENESS OR EXACTNESS OF THE UTILITIES LOCATION. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY IN THE FIELD THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES SHOWN, REFERENCED OR MARKED IN THE FIELD. CONTRACTOR TO REPORT ANY CONFLICTS IN THE FIELD TO THE ENGINEER. CONTRACTOR METHODS FOR UTILITY LOCATING SHALL AT A MINIMUM INCLUDE UTILIZING A UTILITY LOCATING COMPANY, HYDRO EXCAVATION, SOFT DIGS AND POT HOLING.



CONSTRUCTION SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF NEARBY STRUCTURES, NOR OF OTHER PERSONS.

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BM A
 N: 278835.5780
 E: 12794974.7590
 Z: 806.60

BM B
 N: 278559.6140
 E: 12794970.6820
 Z: 808.55

PARCEL I.D. 06-34-20-001
 OWNER: ADAMS OUTDO.

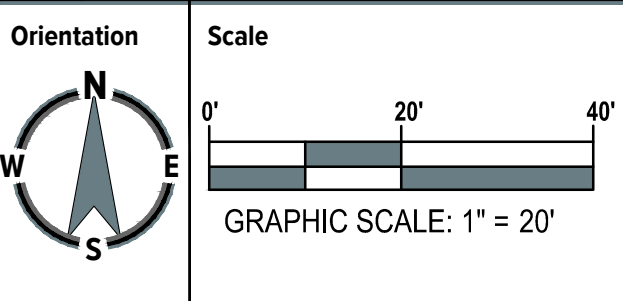
PARCEL I.D. 06-34-206-001
 OWNER: STAFFORD SMITH, INC

PARCEL I.D. 06-34-211-002
 OWNER: STAFFORD SMITH, INC

PARCEL I.D. 06-34-710-001
 OWNER: SWEET REAL ESTATE CO.

EX. BUILDING
 3407 S BURDICK ST.
 KALAMAZOO, MI 49001

FILE LOCATION: I:\Users\kgilpin\OneDrive\Documents\Projects\811\811-097987-00\811-097987-00-Removal.dwg



Project
3317 & 3329 S BURDICK ST
STORAGE BUILDING

Project Location
SOUTH BURDICK STREET
KALAMAZOO, MI 49001

Engineer's Seal

PRELIMINARY - NOT FOR CONSTRUCTION

Revisions

REV	ISSUED FOR	DATE	BY
0	CLIENT REVIEW	05/22/2025	DJK
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4	NFP REVIEW COMMENTS	10/23/2025	DJK

Date
5/22/2025

SME Project No.
097987.00

Project Manager:
D. KUDWA

Designer:
K. WILSON

CADD:
K. WILSON

Checked By:
S. PARADISE

Reviewed By:
D. KUDWA

Sheet Name:
INSTALL, PAVING, AND GRADING PLAN

Sheet No.
C-600

I.D. PAVING/INSTALLATION LEGEND

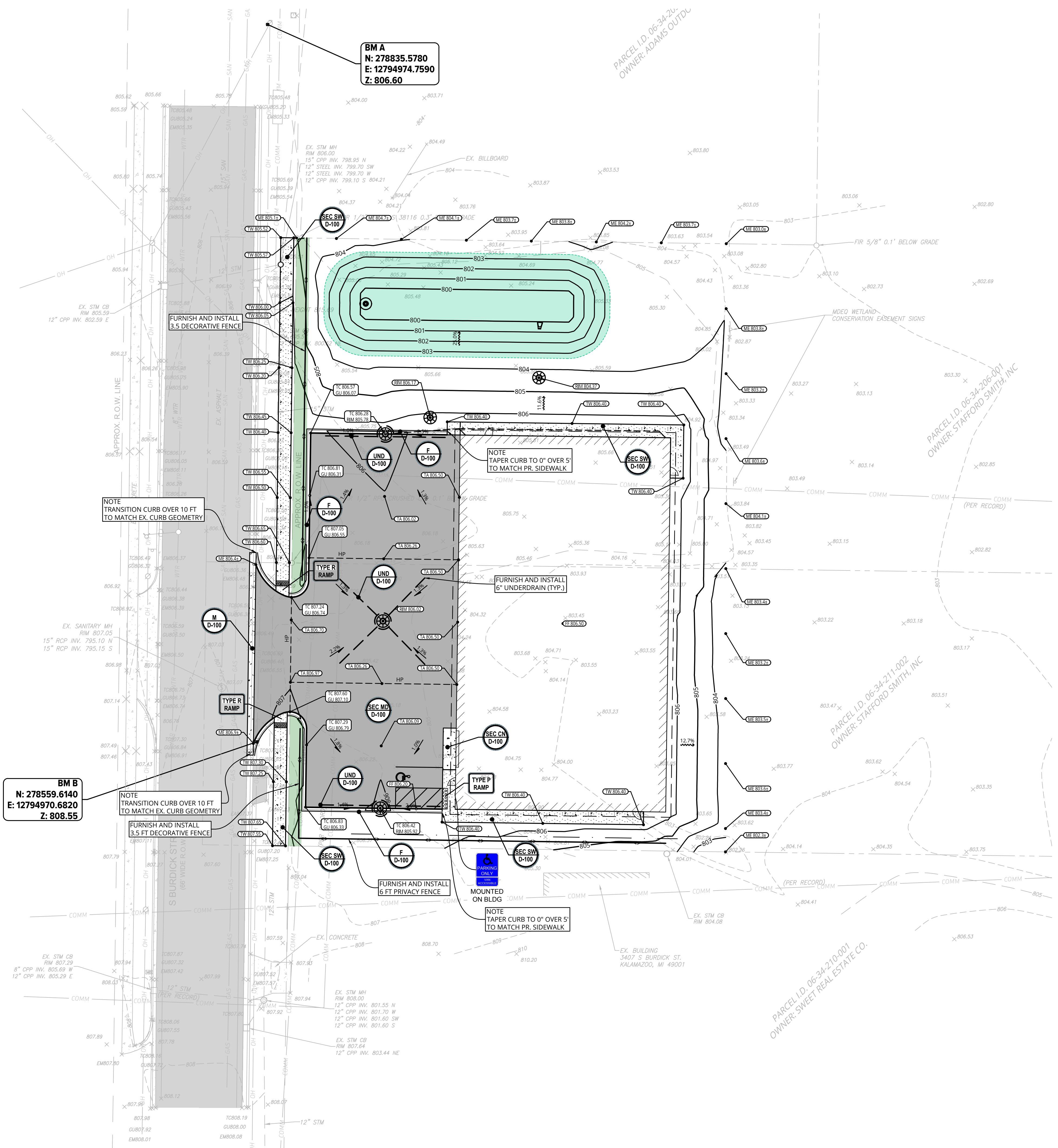
- FURNISH AND INSTALL MD HMA PAVEMENT SECTION
- FURNISH AND INSTALL CONCRETE PAVEMENT SECTION
- FURNISH AND INSTALL CONCRETE SIDEWALK
- FURNISH AND INSTALL THICKENED EDGE CONCRETE SIDEWALK
- FURNISH AND INSTALL ADA RAMP (TYPE SPECIFIED PER PLAN) WITH TRUNCATED DOME WARNING MAT
- FURNISH AND INSTALL CONCRETE CURB AND GUTTER (STANDARD)
- FURNISH AND INSTALL CONCRETE CURB AND GUTTER (REVERSE/FILL-OUT)
- FURNISH AND INSTALL RIP RAP
- FURNISH AND INSTALL 6" UNDERDRAIN/EDGEDRAIN
- FURNISH AND INSTALL DETENTION BASIN/BIO-RETENTION/BIOSWALE AREA
- FURNISH AND INSTALL BOLLARD
- FURNISH AND INSTALL WHEEL STOP
- FURNISH AND INSTALL ADA TRUNCATED DOME
- FURNISH AND INSTALL WROUGHT IRON FENCE
- PROPOSED ADA PAINT HATCHING
- PROPOSED ADA PAINT SYMBOL

GRADING LEGEND

- PROPOSED SPOT ELEVATION
- FINISH FLOOR
- FINISH GRADE
- GUTTER ELEVATION
- HIGH POINT
- MATCH EX. ELEVATION
- RIM ELEVATION
- TOP OF PR AC PAVEMENT
- TOP OF CURB ELEVATION
- TOP OF WALK
- BOTTOM OF WALL
- TOP OF WALL
- SLOPE DIRECTION (PAVEMENT)
- SLOPE DIRECTION (GREENBELT)
- PROPOSED CONTOUR (MINOR)
- PROPOSED CONTOUR (INDEX)

BENCHMARK DATA

- BM A**
 LOCATED ON UTILITY POLE
 N: 278835.5780
 E: 12794974.7590
 ELEVATION = 806.60
 (NAVD88 DATUM)
- BM B**
 LOCATED ON UTILITY POLE
 N: 278559.6140
 E: 12794970.6820
 ELEVATION = 808.55
 (NAVD88 DATUM)



BM A
N: 278835.5780
E: 12794974.7590
Z: 806.60

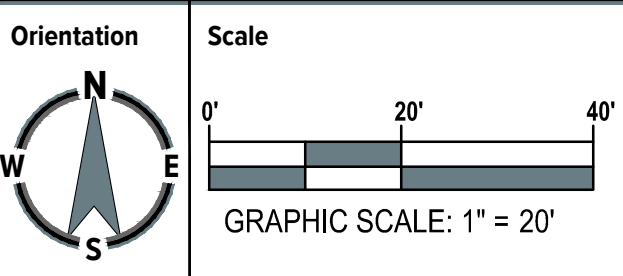
BM B
N: 278559.6140
E: 12794970.6820
Z: 808.55



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FILE LOCATION: \\sme-usa\proj\097987\097987.dwg
 PLOT DATE: March 18, 2025 - 09:57 AM - 84949488
 Page 84 of 91



Project
3317 & 3329 S BURDICK ST
STORAGE BUILDING

Project Location
SOUTH BURDICK STREET
KALAMAZOO, MI 49001

Engineer's Seal

PRELIMINARY - NOT FOR CONSTRUCTION

REV	ISSUED FOR	DATE	BY
0	CLIENT REVIEW	05/22/2025	DJK
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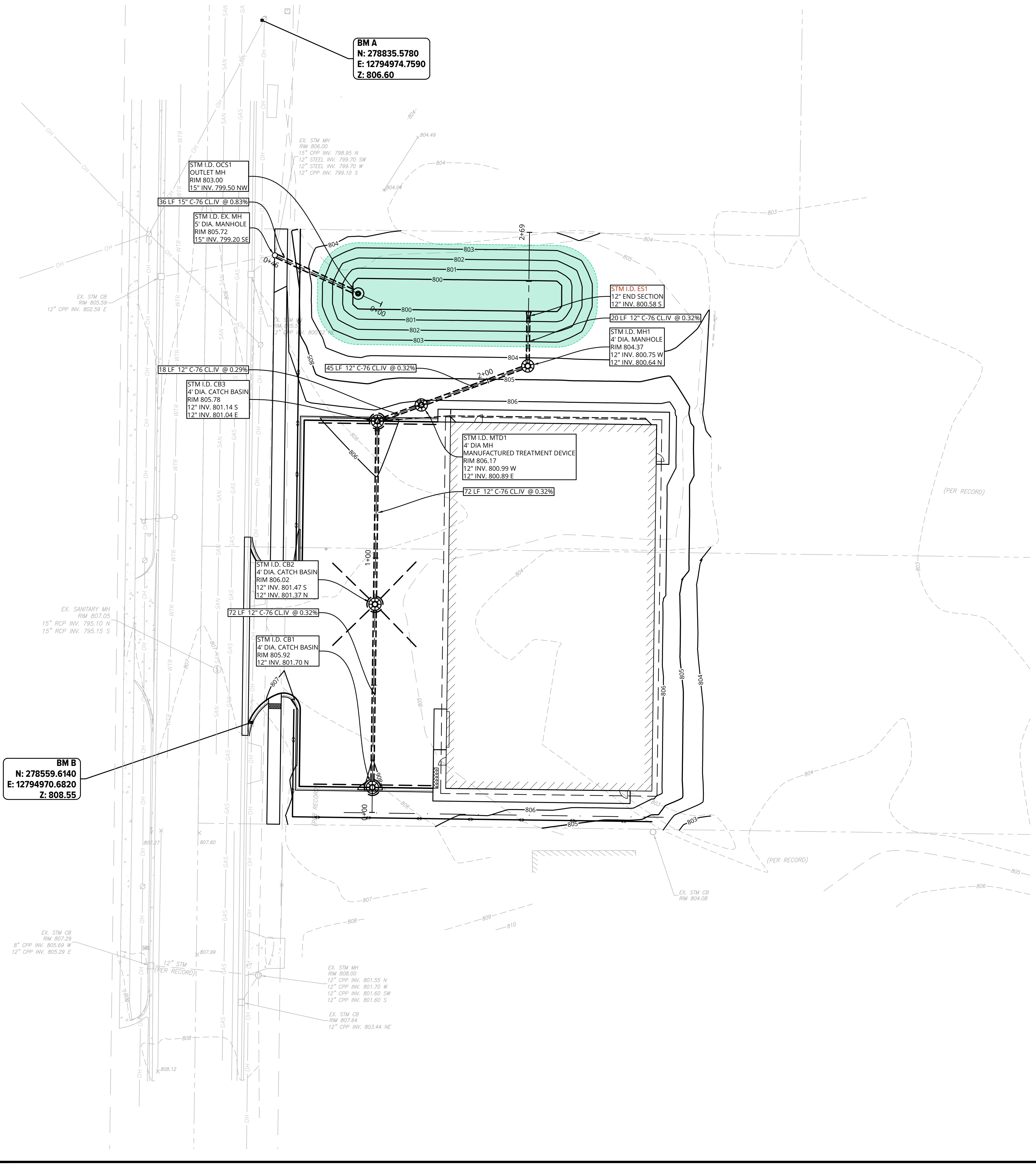
Date	5/22/2025
SME Project No.	097987.00
Project Manager:	D. KUDWA
Designer:	K. WILSON
CADD:	K. WILSON
Checked By:	S. PARADISE
Reviewed By:	D. KUDWA
Sheet Name:	UTILITY PLAN
Sheet No.	C-700

- UTILITY LEGEND**
- PROPOSED 6" UNDERDRAIN/EDGEDRAIN
 - PROPOSED STORM SEWER PIPE
 - PROPOSED END SECTION
 - PROPOSED SQUARE CATCH BASIN
 - PROPOSED ROUND CATCH BASIN
 - PROPOSED REAR YARD CATCH BASIN
 - PROPOSED STORM MANHOLE
 - PROPOSED STORM CLEANOUT
 - PROPOSED DOWNSPOUT

BENCHMARK DATA

BM A
 LOCATED ON UTILITY POLE
 N: 278835.5780
 E: 12794974.7590
 ELEVATION = 806.60
 (NAVD88 DATUM)

BM B
 LOCATED ON UTILITY POLE
 N: 278559.6140
 E: 12794970.6820
 ELEVATION = 808.55
 (NAVD88 DATUM)



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 PLOT DATE: March 10, 2025 1:06:26 PM System Administrator
 Page 85 of 91

Revisions

REV	ISSUED FOR	DATE	BY
0	CLIENT REVIEW	05/22/2025	DJK
1	SCHEMATIC DESIGN	07/16/2025	DJK
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Date: 5/22/2025

SME Project No.: 097987.00

Project Manager: D. KUDWA

Designer: K. WILSON

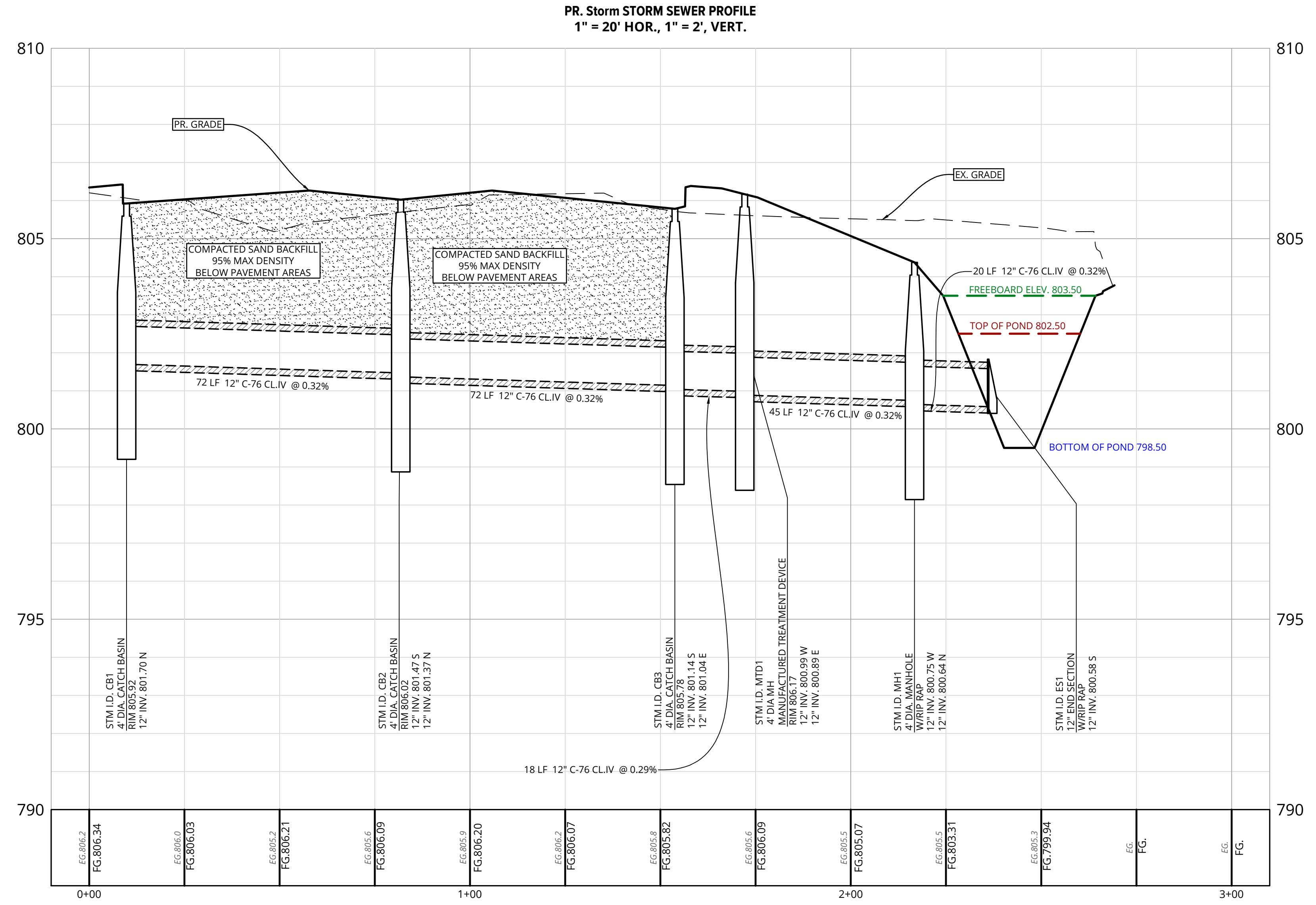
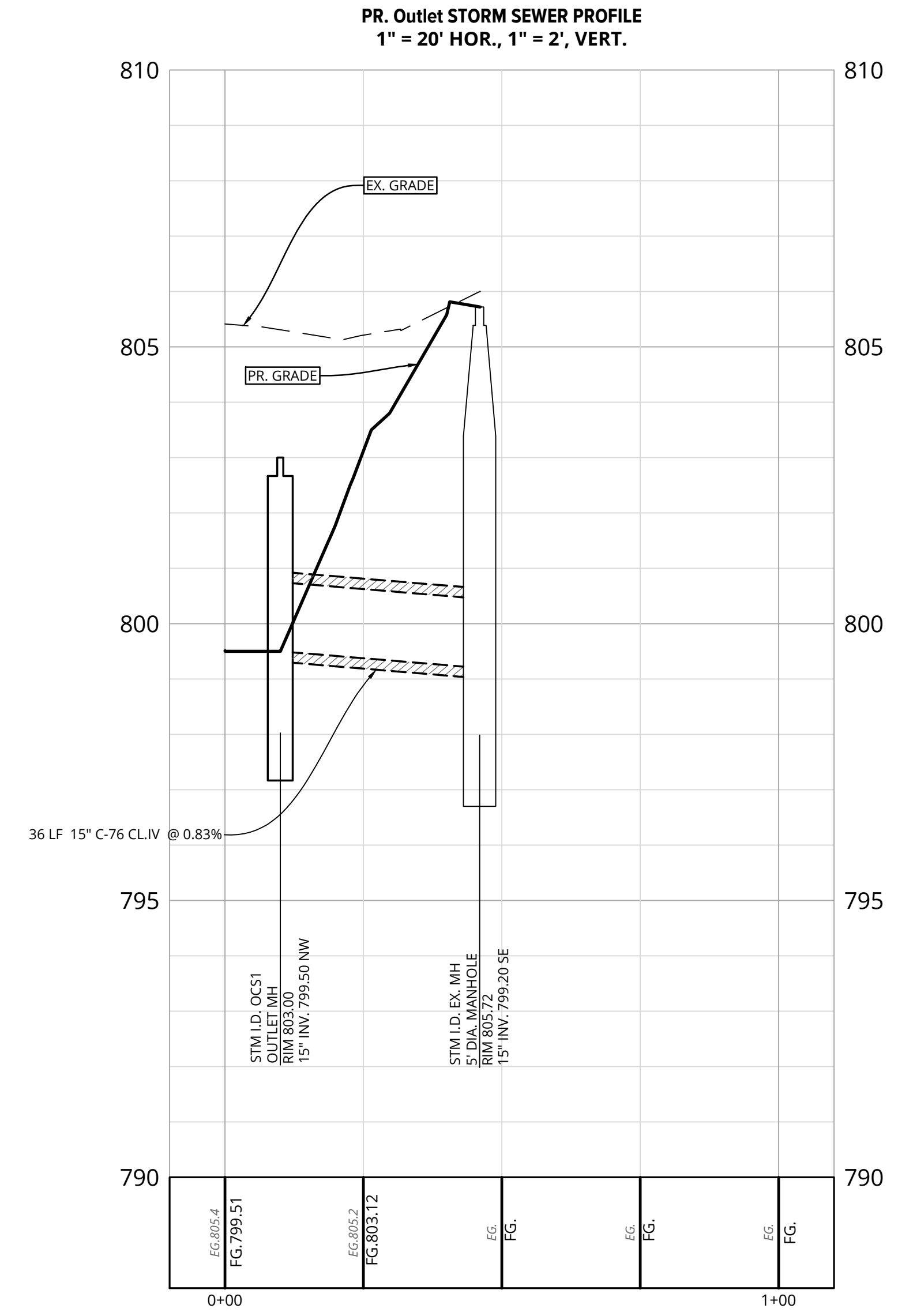

CADD: K. WILSON

Checked By: S. PARADISE

Reviewed By: D. KUDWA

Sheet Name: UTILITY PROFILES

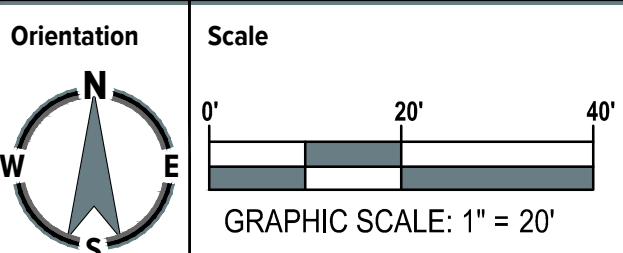
Sheet No.: C-701

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

WARNING!!
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FILE LOCATION: \\sme-hq1\proj\097987\proj\097987.dwg; NFP COMMENTS: NFP COMMENTS



Project
3317 & 3329 S BURDICK ST
STORAGE BUILDING

Project Location
SOUTH BURDICK STREET
KALAMAZOO, MI 49001

Engineer's Seal

PRELIMINARY - NOT FOR CONSTRUCTION

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Date: **5/22/2025**

SME Project No.: **097987.00**

Project Manager: **D. KUDWA**

Designer: **K. WILSON**

CADD: **K. WILSON**

Checked By: **S. PARADISE**

Reviewed By: **D. KUDWA**

Sheet Name: **DRAINAGE AREA MAP**

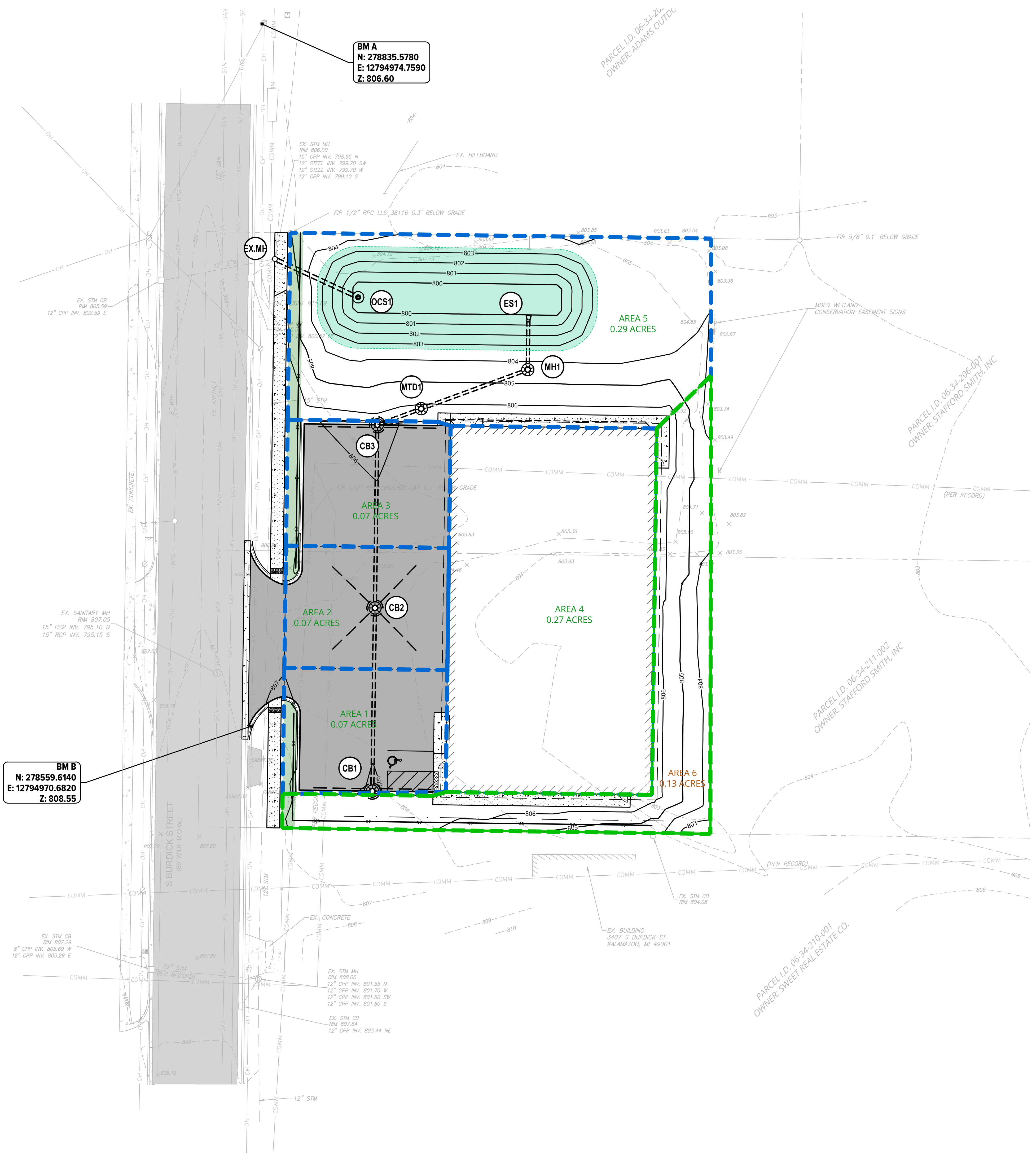
Sheet No.: **C-702**

D.A.M. LEGEND

- DRAINAGE AREA
- AREA X
X.XX AC. DRAINAGE AREA I.D.
- DRAINAGE AREA - UNDETAILED
- AREA X
X.XX AC. DRAINAGE AREA I.D.
- X PR STORM STRUCTURE IDENTIFICATION TAG

BENCHMARK DATA

- BM A
LOCATED ON UTILITY POLE
N: 278835.5780
E: 12794974.7590
ELEVATION = 806.60
(NAVD88 DATUM)
- BM B
LOCATED ON UTILITY POLE
N: 278559.6140
E: 12794970.6820
ELEVATION = 808.55
(NAVD88 DATUM)



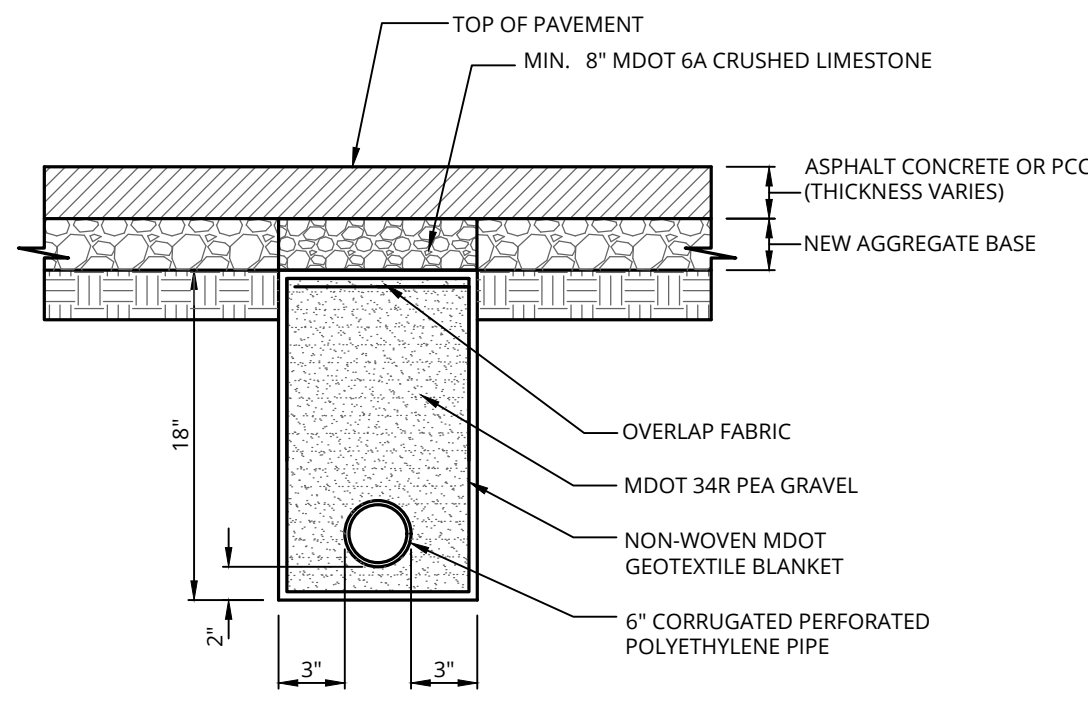
BM A
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E: 12794974.7590
Z: 806.60

BM B
N: 278559.6140
E: 12794970.6820
Z: 808.55

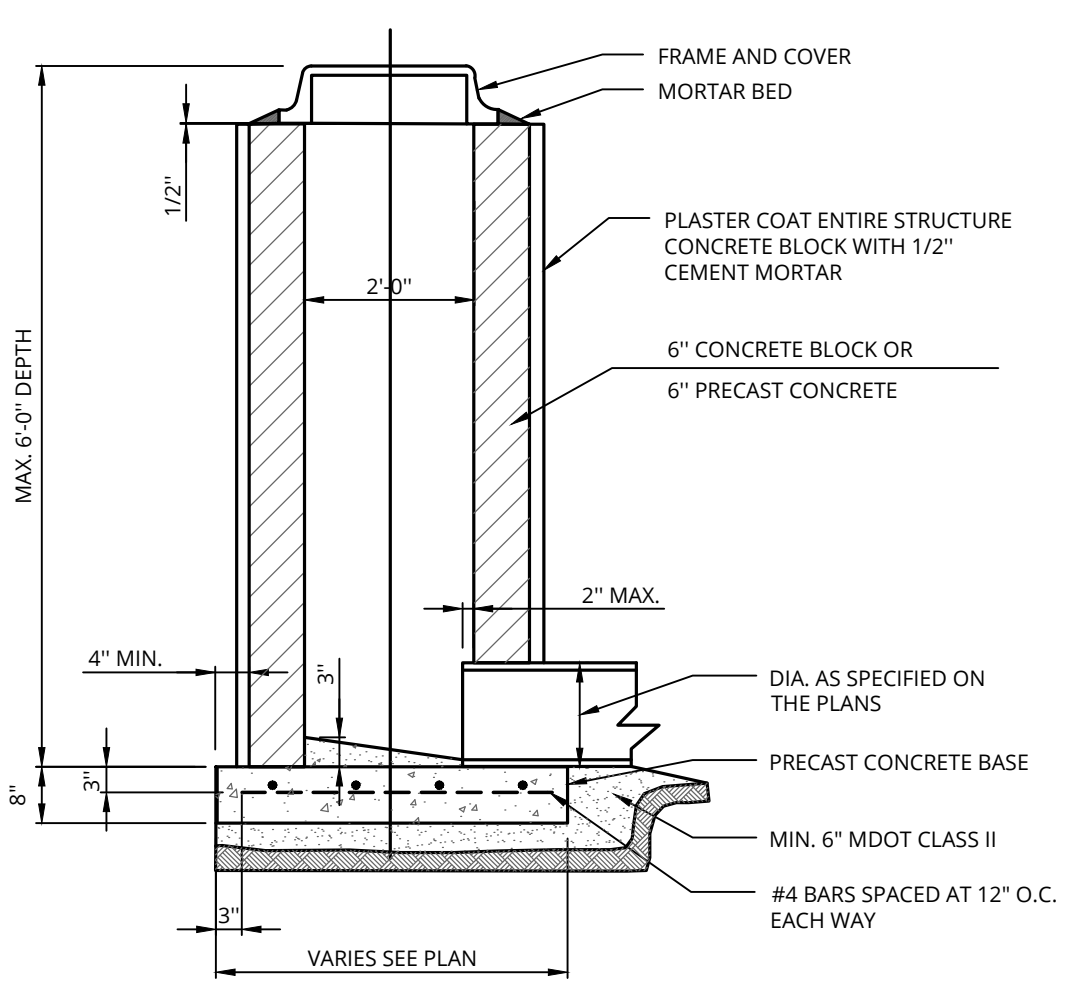


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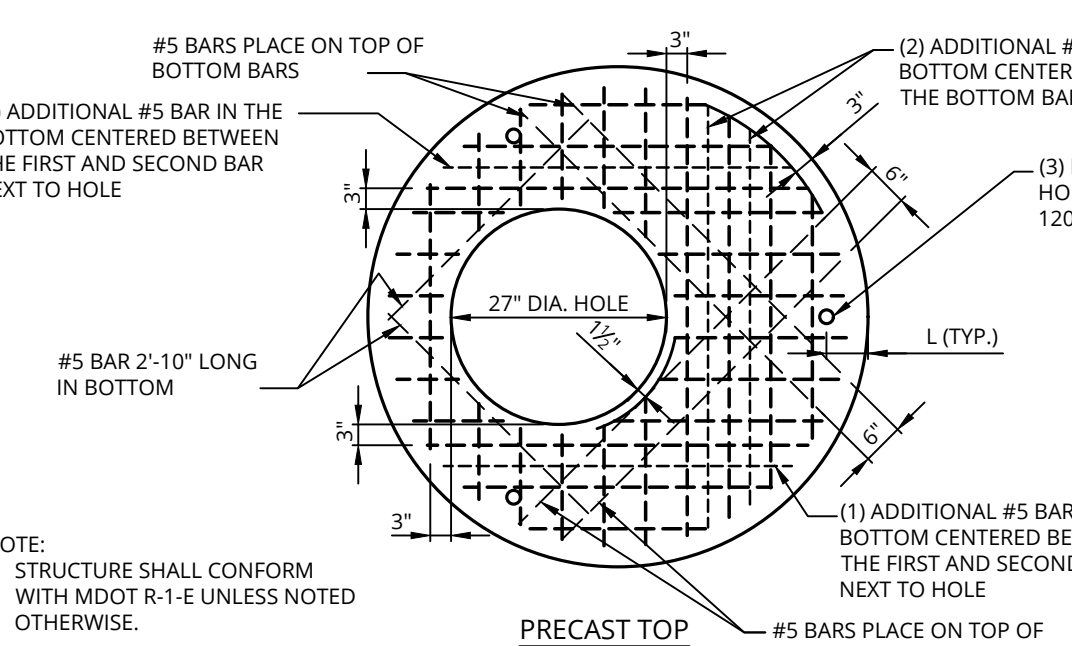
FILE LOCATION: \\sme-hq\proj\097987\097987.dwg; PROJECT: 097987; SHEET: C-702; DATE: 5/22/2025; TIME: 10:00 AM; USER: dkudwa



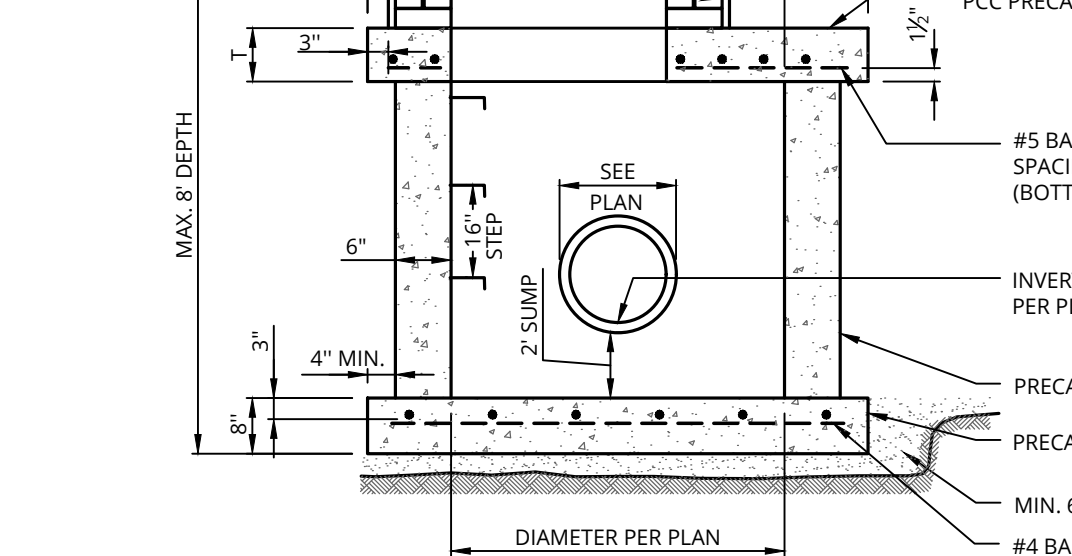
UND UNDERDRAIN / EDGEDRAIN - DETAIL
 NOT TO SCALE
 NOTES:
 1. SLOPE UNDERDRAIN PIPES TOWARD EXISTING DRAINAGE STRUCTURES (MIN. 1.0%)
 2. AT CATCH BASIN, INSTALL RING AROUND CATCH BASIN AND TAP STRUCTURE AT ONE LOCATION.
 3. AT CURB INLETS, INSTALL HALF RING AROUND INLET AND TAP AT ONE LOCATION
 4. IN CEMENT TREATED BASE AREAS, INSTALL UNDERDRAIN AFTER CEMENT TREATMENT.



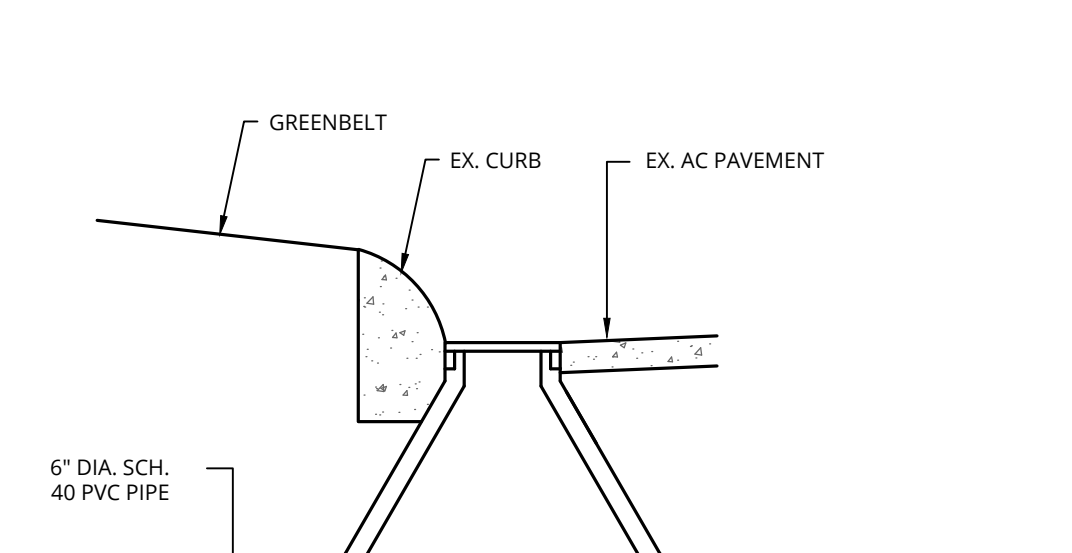
STANDARD INLET - DETAIL
 NOT TO SCALE
 NOTE:
 STRUCTURE SHALL CONFORM WITH MDOT R-1-E UNLESS NOTED OTHERWISE



4' CATCH BASIN (CURB INLET) - DETAIL
 NOT TO SCALE



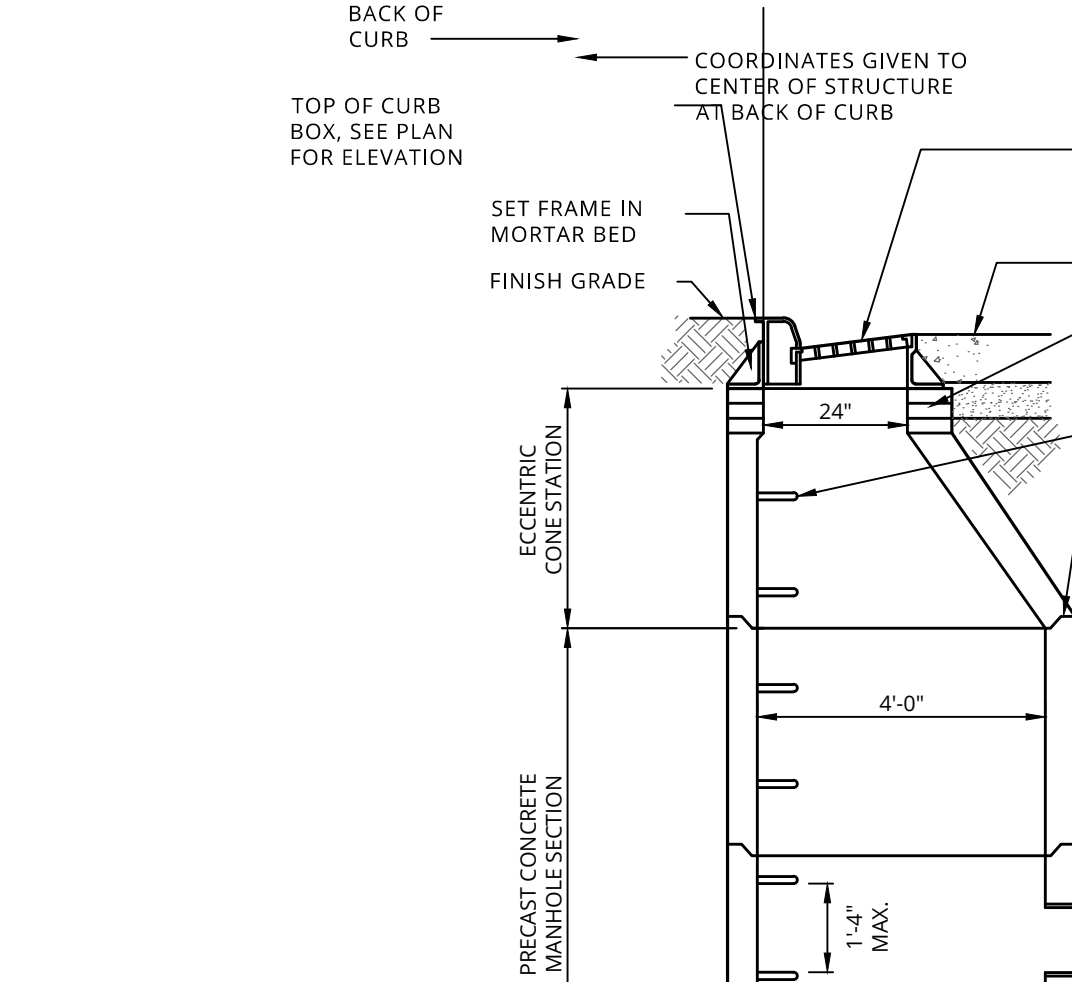
STORM SEWER TRENCH - DETAIL
 NOT TO SCALE



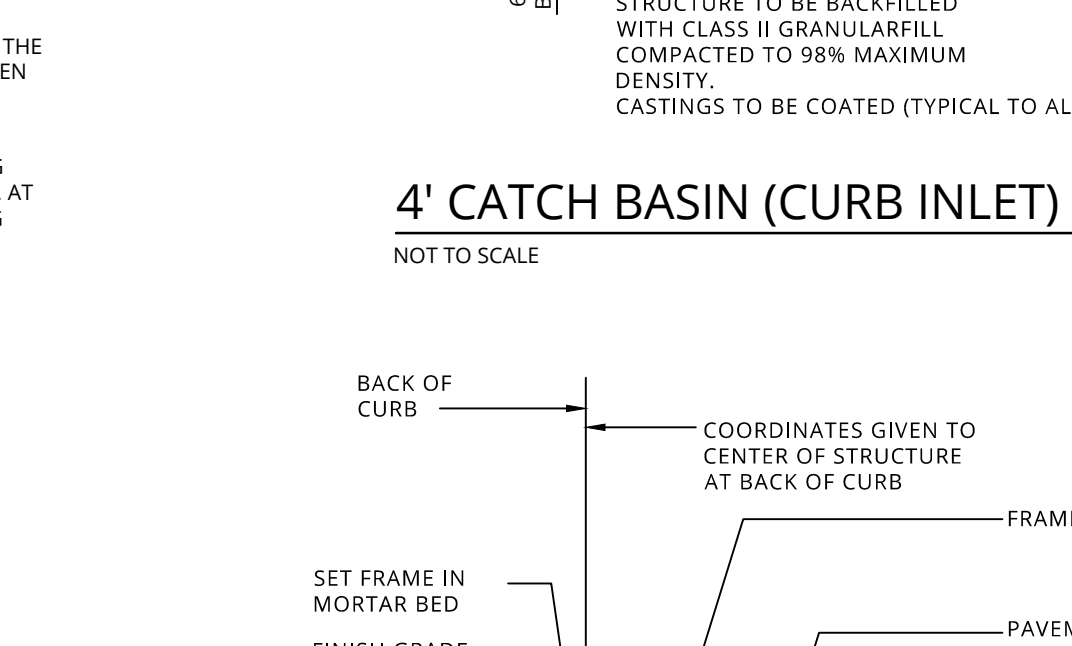
DOWN SPOUT CONNECTION - DETAIL
 NOT TO SCALE



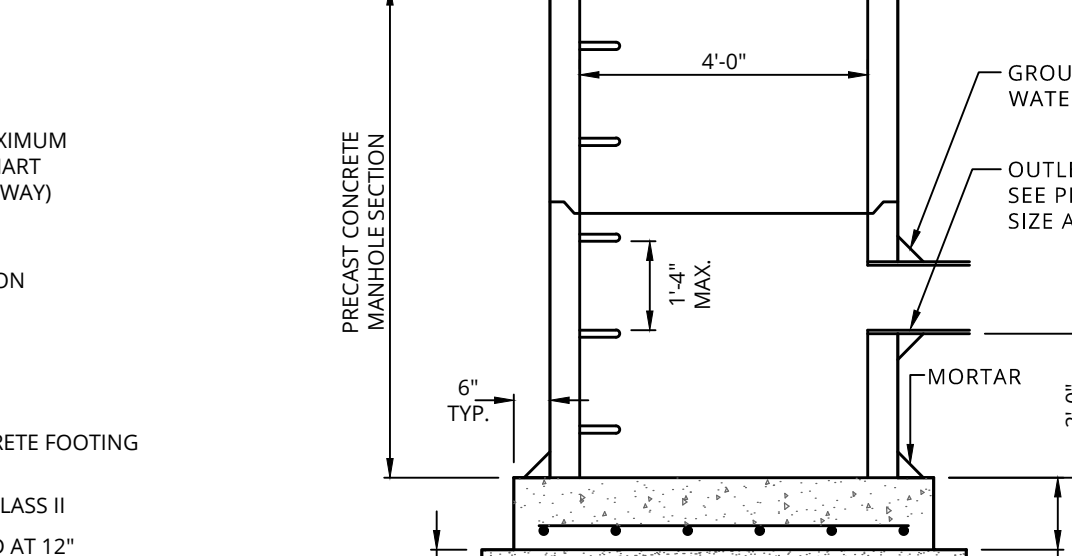
CLEANOUT CONNECTION - DETAIL
 NOT TO SCALE



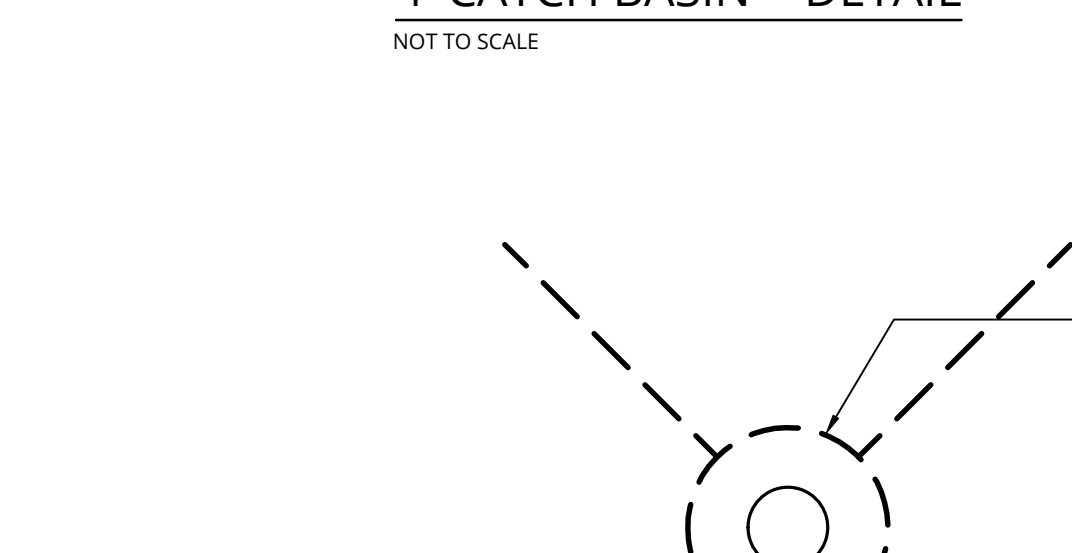
PRECAST LOWHEAD CATCHBASIN - DETAIL
 NOT TO SCALE



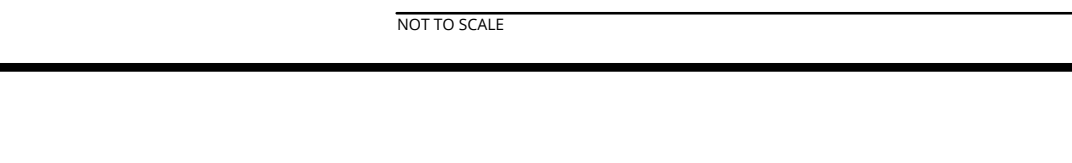
4' CATCH BASIN - DETAIL
 NOT TO SCALE



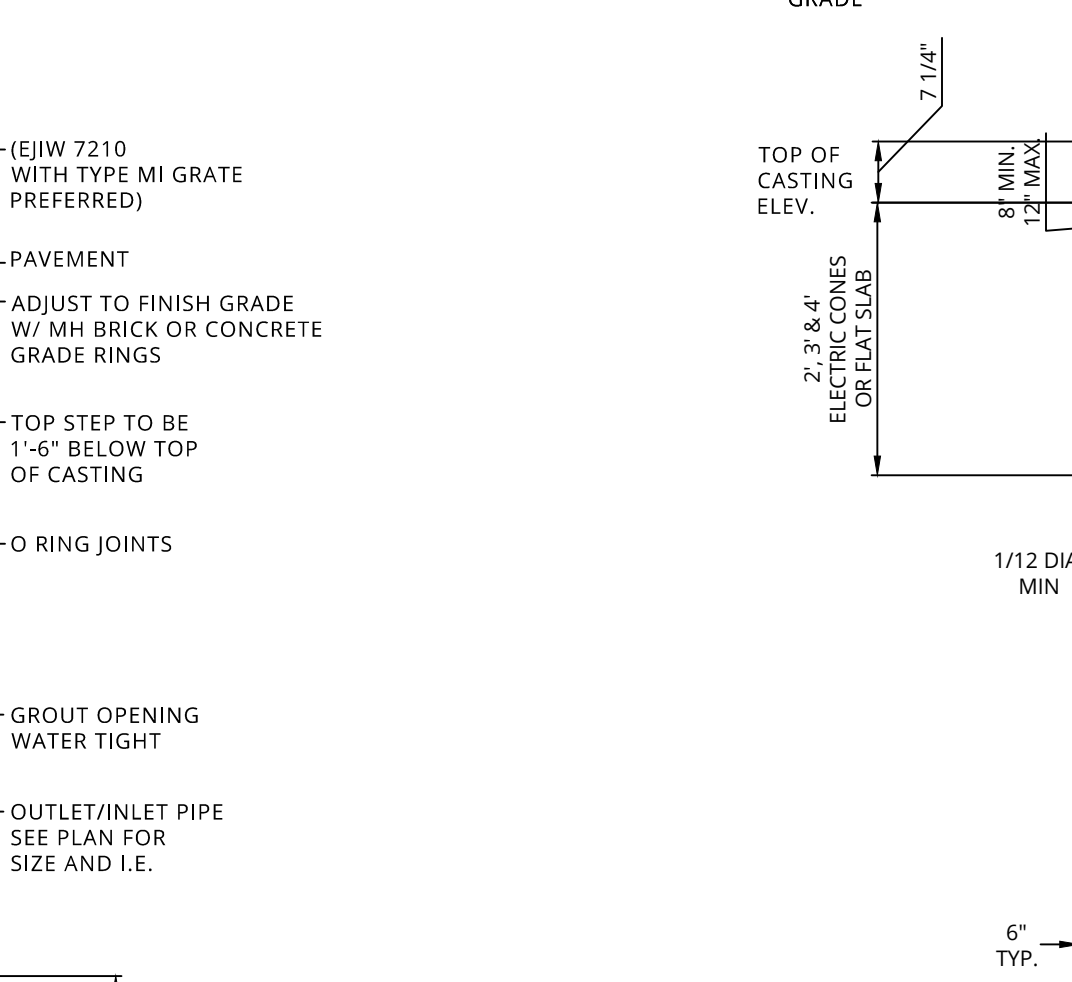
TYPICAL LAYOUT - UNDER DRAIN AT CATCH BASIN
 NOT TO SCALE



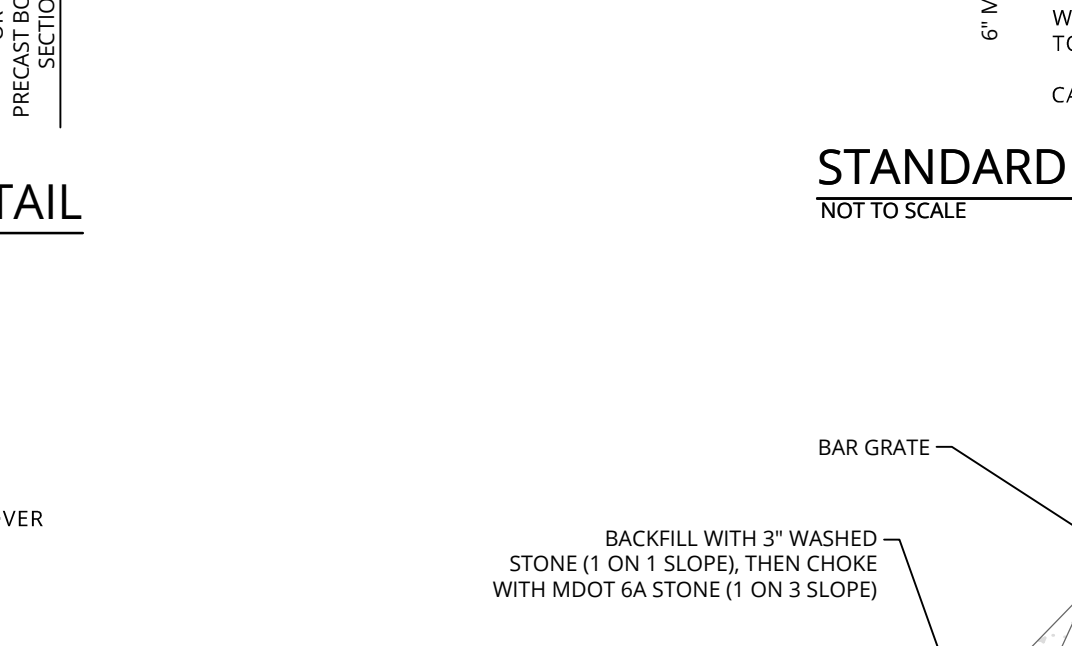
CATCH BASIN TAP - DETAIL
 NOT TO SCALE



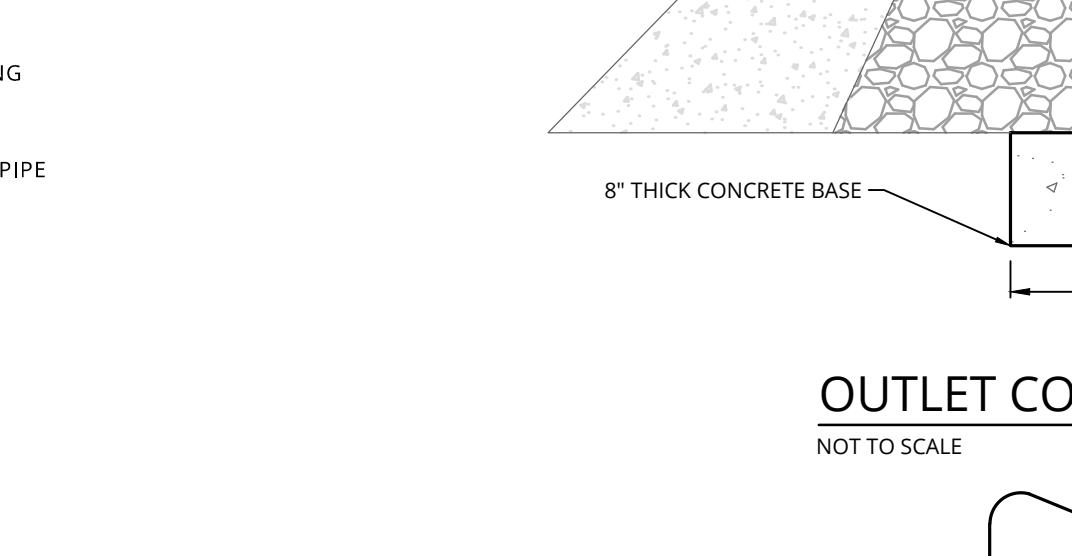
CULVERT - END SECTION W/ RIP RAP
 NOT TO SCALE



STANDARD STORM MANHOLE - DETAIL
 NOT TO SCALE



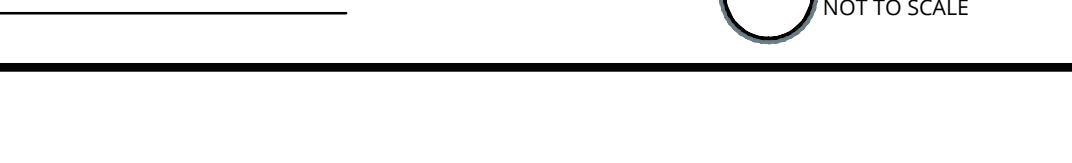
OUTLET CONTROL STRUCTURE - DETAIL
 NOT TO SCALE



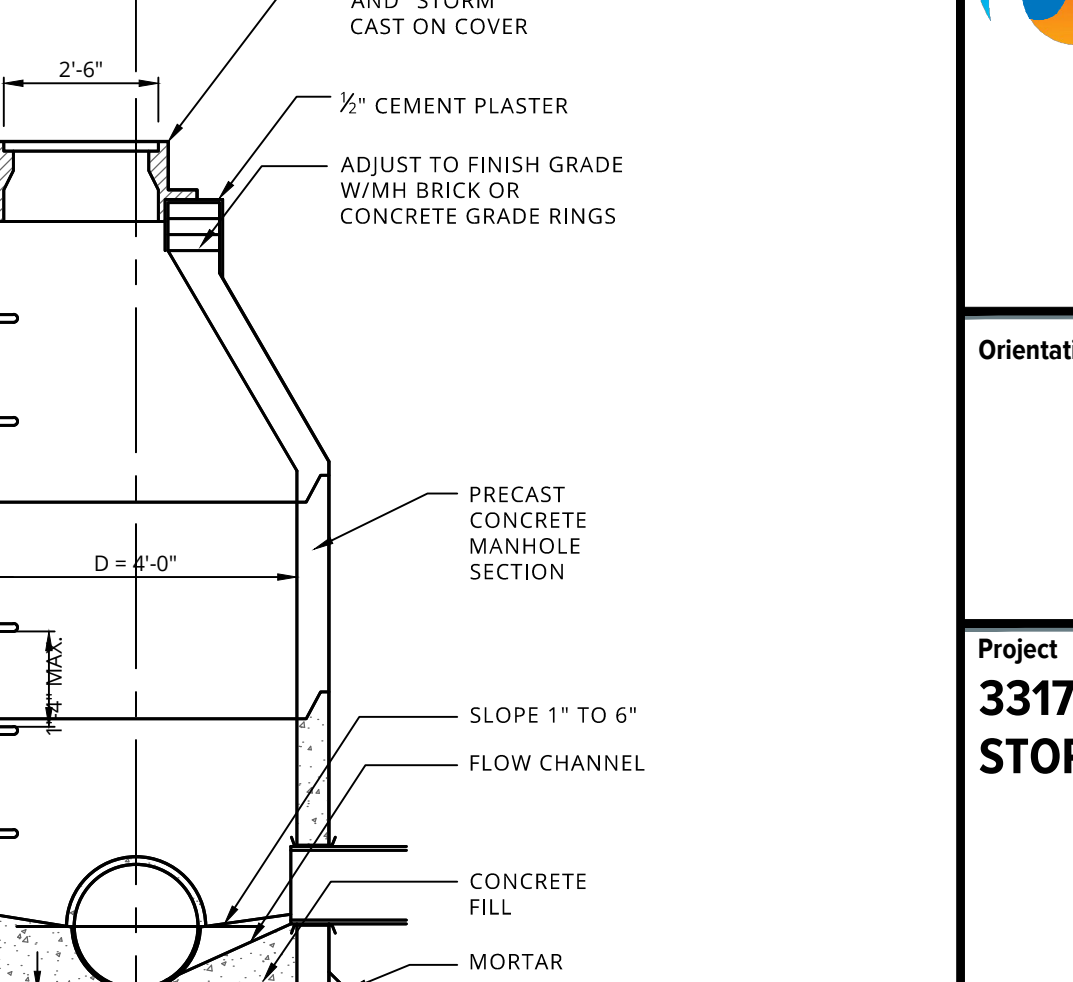
4' CATCH BASIN (CURB INLET) - DETAIL
 NOT TO SCALE



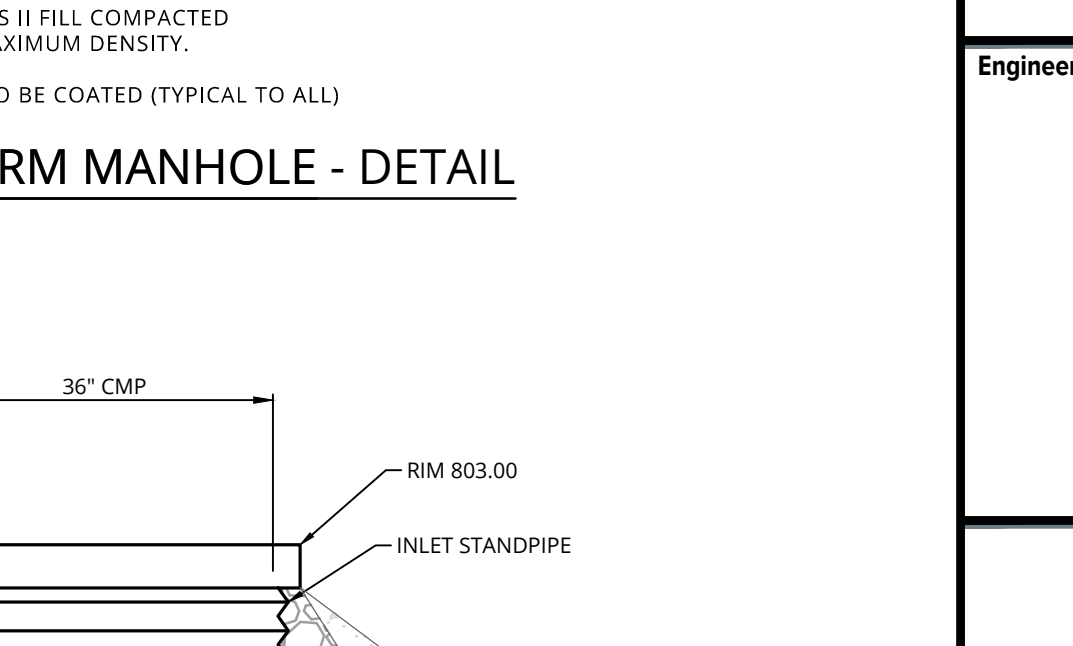
STANDARD STORM MANHOLE - DETAIL
 NOT TO SCALE



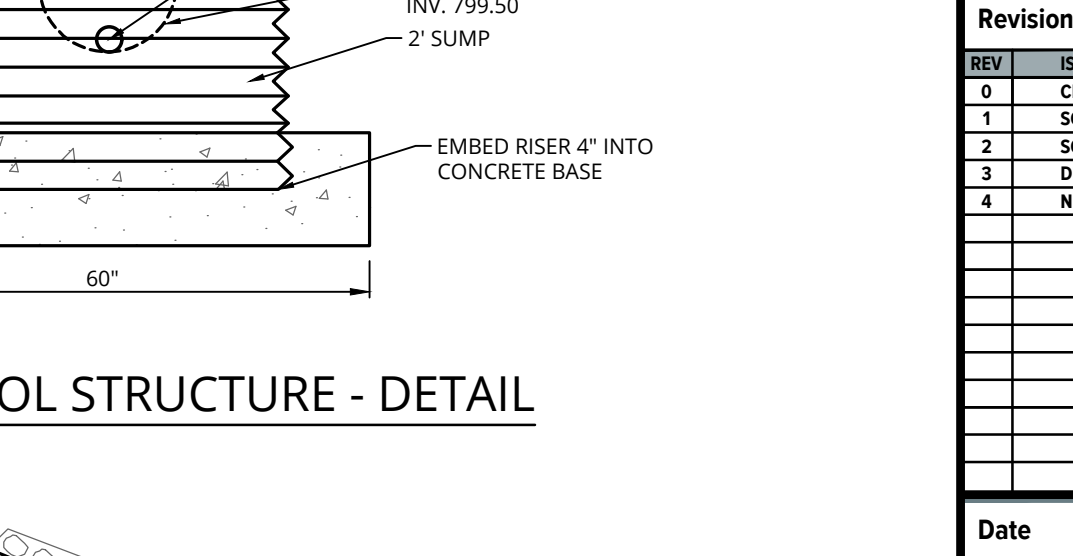
OUTLET CONTROL STRUCTURE - DETAIL
 NOT TO SCALE



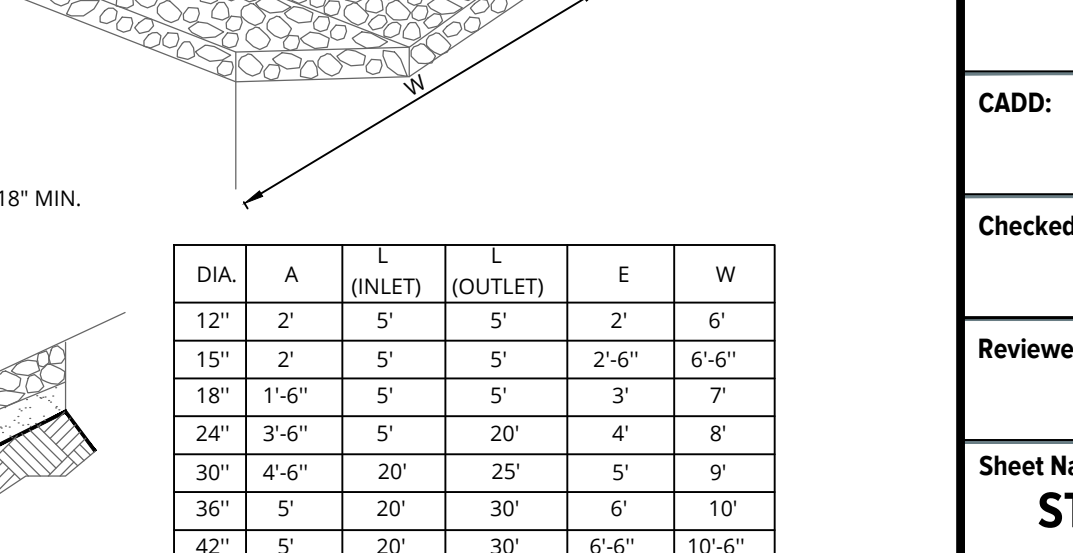
4' CATCH BASIN (CURB INLET) - DETAIL
 NOT TO SCALE



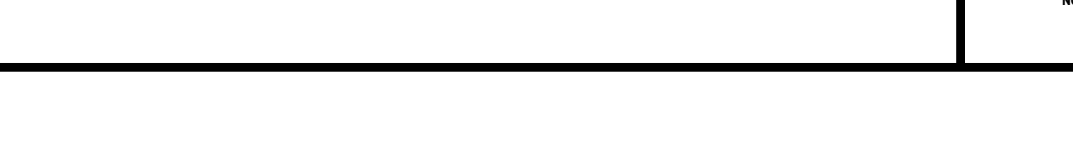
STANDARD STORM MANHOLE - DETAIL
 NOT TO SCALE



OUTLET CONTROL STRUCTURE - DETAIL
 NOT TO SCALE



CULVERT - END SECTION W/ RIP RAP
 NOT TO SCALE



CATCH BASIN TAP - DETAIL
 NOT TO SCALE



Orientation Scale

Project
3317 & 3329 S BURDICK ST STORAGE BUILDING

Project Location
SOUTH BURDICK STREET KALAMAZOO, MI 49001

Engineer's Seal

PRELIMINARY - NOT FOR CONSTRUCTION

Revisions

REV	ISSUED FOR	DATE	BY
0	CLIENT REVIEW	05/22/2025	DJK
1	SCHEMATIC DESIGN	07/16/2025	DJK
2	SCHEMATIC DESIGN	08/05/2025	DJK
3	DESIGN DEVELOPMENT	09/09/2025	DJK
4	NFP REVIEW COMMENTS	10/23/2025	DJK

Date
5/22/2025

SME Project No.
097987.00

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Reviewed By:
D. KUDWA

Sheet Name:
STORM SEWER DETAILS

Sheet No.
D-101

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