



18681 Lake Drive East
Chanhassen, MN 55317
952-607-6512
www.rpbcwd.org

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2022-017

Considered at Board of Managers Meeting: June 1, 2022

Received complete: May 13, 2022

Applicant: Eden Prairie Schools, Kyle Fisher,

Representative: Design Tree Engineering, Michael Gerber, PE

Project: Oak Point Elementary Circulation Upgrades - The applicant proposes the reconstruction of the existing driveway, including the addition of a turn lane, and the removal of a paved, overflow parking lot. The project includes a detention basin and infiltration basin to achieve rate control, volume control, and water quality requirements.

Location: 13400 Staring Lake Parkway, Eden Prairie, Minnesota 55347

Reviewer: Leslie DellAngelo, PE; and Scott Sobiech, PE; Barr Engineering Co.

Proposed Board Action

Manager _____ moved and Manager _____ seconded adoption of the following resolutions based on the permit report that follows and the presentation of the matter at the June 1, 2022 meeting of the managers:

Resolved that the application for Permit 2022-017 is approved, subject to the conditions and stipulations set forth in the Recommendations section of the attached report;

Resolved that on determination by the RPBCWD administrator that the conditions of approval of the permit have been affirmatively resolved, the RPBCWD president or administrator is authorized and directed to sign and deliver Permit 2022-017 to the applicant on behalf of RPBCWD.

Upon vote, the resolutions were adopted, _____ [VOTE TALLY].

Applicable Rule Conformance Summary

Rule	Issue		Conforms to RBPCWD Rules?	Comments
C	Erosion Control Plan		See comment.	See rule-specific permit condition C1 related to name of individual responsible for on-site erosion control.
J	Stormwater Management	Rate	Yes	
		Volume	See Comment	See rule-specific permit condition J1 related to pretreatment of runoff and stipulation 4 related to verifying the infiltration capacity of the soils and that the volume control capacity is calculated using the measured infiltration rate.
		Water Quality	Yes	
		Low Floor Elev.	See comment.	See rule-specific permit condition J2 related to adequate separation to groundwater for existing habitable structures.
		Maintenance	See Comment	See rule-specific permit condition J3 related to maintenance agreement for the stormwater facilities maintenance.
		Chloride Management	Yes	See stipulation 5 related to providing a chloride management plan prior to project close-out.
		Wetland Protection	Yes	
L	Permit Fee Deposit		NA	Governmental entity
M	Financial Assurance		NA	Governmental entity

Background

Eden Prairie School District (ISD 272) proposes the reconstruction of the existing driveway at the Oak Point Elementary School to include another lane for turning to improve traffic circulation and the removal of overflow parking south of Staring Lake Parkway. Because the project includes the removal of the existing paved parking lot south of Staring Lake Parkway on property owned by the City of Eden Prairie, the site is defined as the ISD 272 parcel (PID 2211622130004) plus the city owned property (PID 2211622130062). The project includes a detention basin and infiltration basin to achieve rate control, volume control, and water quality requirements. Because the property owner has undertaken a prior redevelopment project triggering the RPBCWD stormwater requirements since January 1, 2015 (i.e., when RPBCWD reinstituted a regulatory program) on the site, the presently proposed redevelopment will be considered in aggregate with prior changes under the common scheme of development provision of Rule J.

There are no on-site or adjacent Wetland Conservation Act protected wetlands downgradient from the land disturbing activities for which wetland buffers would be required and the treated runoff leaving the site from the stormwater facilities is conveyed via storm sewer to an off-site stormwater pond.

Project site information

Site Information	Permit 2018-028	Permit 2022-017 (Current)			School Property Aggregate Total	Site Aggregate Total ¹
		City Property	School Property	Total ¹		
Total Site Area (acres) ²	23.05	6.53	23.05	29.58	23.05	29.58
Existing Site Impervious Area (acres) ²	7.96	0.39	7.96	8.35	7.96	8.35
Existing Impervious Area to be Disturbed and replaced: (acres)	0.20 2.5%	0.01 3%	0.10 1.3%	0.11 1.4%	0.30 3.8%	0.31 3.7%
Post Construction Site Impervious (acres)	8.64	0.01	7.99	8.38	8.67	8.29
New (Increase) in Site Impervious Area (acres)	0.68 8.4%	-0.38 -97.4%	0.03 0.4%	0.03 0.4%	0.71 8.9%	0.71 8.5%
Exempt Impervious Triangles and Sidewalk (acres)	0	0.01	0	0.01	0	0.01
Regulated Impervious area (acre)	0.87	0.00	0.13	0.13	1.0	1.0
Total Disturbed Area (acres)	2.2	0.57	0.48	1.05	2.68	3.25

¹The site includes the Oak Point Elementary property and the City of Eden Prairie parcel on which the school district has overflow parking south of Staring Lake Drive.

²Pre-2015 site conditions

The following materials were reviewed in support of the permit request:

1. Permit application received on March 7, 2022 (Incomplete notice was sent on March 16, 2022; materials submitted to complete application on May 13, 2022)
2. Oak Point Elementary Circulation Upgrades Project Plan Set (16 sheets) dated January 27, 2022 (revised May 9, 2022)
3. Oak Point Elementary School Circulation Upgrades Final Stormwater Management Study dated March 3, 2022 (revised April 29, 2022)
4. HydroCAD model received May 13, 2022
5. Double-Ring Infiltrometer Test Results from American Engineering Testing dated April 12, 2022

Rule Specific Permit Conditions

Rule A: Procedural Requirements

A complete permit application includes all required information, exhibits, and fees and must be authorized by all property owners (Rule A, Subsection 2.3). Because the project includes the removal of the existing paved parking lot south of Staring Lake Parkway on property owned by the City of Eden Prairie, the following revisions are needed to conform to RPBCWD Rule A requirements:

- A1. Please provide written documentation demonstrating the necessary property rights to perform the proposed work on the property owned by the City of Eden Prairie.

Rule C: Erosion Prevention and Sediment Control

Because the project will involve 1.05 acres of land-disturbing activities, the project must conform to the erosion prevention and sediment control requirements established in Rule C.

The erosion control plan prepared by Design Tree Engineering includes installation of perimeter control (silt fence and bio-rolls), two stabilized construction entrances, inlet protection, Category III erosion control blanket on disturbed slopes, daily inspection, placement of a minimum of 6 inches of topsoil (at 5% organic matter), decompaction of areas compacted during construction, and retention of native topsoil onsite to the greatest extent possible. To conform to RPBCWD Rule C requirements, the following revisions are needed:

- C1. The Applicant must provide the name, address and phone number of the individual who will remain liable to the District for performance under this rule and maintenance of erosion and sediment-control measures from the time the permitted activities commence until vegetative cover is established.

Rule J: Stormwater Management

Because the project will disturb 1.05 acres of land-surface area, the project must meet the criteria of RPBCWD's Stormwater Management rule (Rule J, Subsection 2.1). Under paragraph 2.5 of Rule J, Common Scheme of Development, activities subject to Rule J on a parcel or adjacent parcels under common or related ownership will be considered in the aggregate, and the requirements applicable to the activity under this rule will be determined with respect to all development that has occurred on the site or on adjacent sites under common or related ownership since the date this rule took effect (January 1, 2015). Because another project been permitted since the rules took effect (RPBCWD Permit 2018-028), the current activities proposed must be considered in aggregate with the activities proposed under this application, Permit 2022-017.

The criteria listed in Subsection 3.1 will only apply to the disturbed areas on the project site because the project, when considered in aggregate with the other permitted activities at the site, increases the imperviousness by 8.9 percent and disturbs a combined 3.8 percent of the existing impervious surface on the school property site (Rule J, Subsection 2.3) (See table above). The site aggregate extent of disturbance and imperviousness on the combined school and city properties increase are less than the 50 percent disturbed or expanded impervious area threshold for applicability of stormwater management requirements to the entire site.

The applicant is proposing construction of a detention basin and infiltration basin to achieve rate control, volume control, and water quality requirements. The proposed stormwater management facilities are separate from the facilities provided as part of the prior permit approval.

Rate Control

In order to meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. The applicant used a HydroCAD hydrologic model to simulate runoff rates for pre- and post-development conditions for the 2-, 10-, and 100-year frequency storm events using a nested rainfall distribution, and a 100-year frequency, 10-day snowmelt event. The existing and proposed 2-, 10-, and 100-year frequency discharges from the site are summarized in the below table. The proposed project is in conformance with RPBCWD Rule J, Subsection 3.1.a.

Existing and Proposed Peak Runoff Rates

Modeled Discharge Location	2-Year Discharge (cfs)		10-Year Discharge (cfs)		100-Year Discharge (cfs)		10-Day Snowmelt (cfs)	
	Ex	Prop	Ex	Prop	Ex	Prop	Ex	Prop
North of Staring Lake Parkway	2.2	2.1	3.9	2.7	7.9	6.0	1.2	1.2
South of Staring Lake Parkway	1.7	1.0	2.7	2.0	5.1	4.4	0.7	0.7

Volume Abstraction

Subsection 3.1.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from the regulated impervious surface of the site. An abstraction volume of 551 cubic feet is required from the 6,002 square feet of regulated impervious area. The proposed infiltration basin provides 558 cubic feet of abstraction. The applicant proposed pretreatment for runoff entering the infiltration basin using a riprap apron. Because the use of a riprap apron as pretreatment for an infiltration basin is not provided in accordance guidance in the Minnesota Stormwater Manual as required by Rule J, Subsection 3.1.b.1, the following revision is needed:

- J1. The Applicant must modify the design of the infiltration basin to include pretreatment of runoff in the form a filter strip, propriety pretreatment device, stilling basin, etc.

Because a double-ring infiltrometer test was performed by American Engineering Testing, Inc. adjacent to the proposed driveway reconstruction shows that soils in the project area do not allow infiltration (0.0 in/hr), the engineer concurs with the applicant's evaluation of the site to discover an area with soil condition more conducive to infiltration. The proposed infiltration basin location is in the same subwatershed and on the portion of the site owned by ISD 272, but in a location where the Web Soil Survey has identified HSG C, very fine sandy loam. The engineer concurs with the applicant's design infiltration rate of 0.2 inches per hour for HSC C, very vine sandy loam based on the guidelines provided in the Mn Stormwater Manual. Based on the design infiltration rate, the engineer concurs that the basin will draw down within 48 hours (Rule J, subsection 3.1b.3). Per Rule J, Subsection 3.1.b.2.c measured infiltration

capacity of the soils at the bottom of the infiltration system must be provided. The applicant must submit documentation verifying the infiltration capacity of the soils and the separation to groundwater. If infiltration capacity is less than needed to conform with the volume abstraction requirement in subsection 3.1b or there is inadequate separation to groundwater, design modifications to achieve compliance with RPBCWD requirements will need to be submitted (in the form of an application for a permit modification or new permit).

The table below summarizes the volume abstraction for the site based on the design infiltration capacity of the infiltration basin. With the conditions noted above regarding verification of subsurface conditions, the engineer concurs with the submitted information and finds that the proposed project will conform with Rule J, Subsection 3.1.b.

Table 4. Volume Abstraction Summary

Required Abstraction Depth (inches)	Required Abstraction Volume (cubic feet)	Provided Abstraction Depth (inches)	Provided Abstraction Volume (cubic feet)
1.1	551	1.1	558

Water Quality Management

Subsection 3.1.c of Rule J requires the Applicant to provide volume abstraction in accordance with 3.1b or least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff, and no net increase in TSS or TP loading leaving the site from existing conditions. Because the infiltration basin proposed by the applicant provides the abstraction volume required by 3.1b and the engineer concurs with the modeling, the engineer finds that the proposed project is in conformance with Rule J, Subsection 3.1.c.

Low floor Elevation

All new buildings must be constructed such that the lowest floor is at least two feet above the 100-year high-water elevation or one foot above the emergency overflow of a stormwater-management facility according to Rule J, Subsection 3.6a. Because no new structures with low floors will be constructed as part of the proposed work, subsection 3.6a does not impose requirements on the project.

Stormwater management facilities must be constructed at an elevation and location that ensure no habitable structure will be brought into noncompliance with the low floor criteria according to Rule J, subsection 3.6b. The low floor elevation of the school building and the adjacent stormwater management features is summarized below. Because the separation between the existing low floor elevation and the emergency overflow of the detention basin is 13.1 feet, which is greater than the required 1 foot separation, the location of the detention basin is in conformance with Rule J, Subsection 3.6b.

Structure	Low Floor Elevation of Building (feet)	100-year Event Flood Elevation of Adjacent Stormwater Facility (feet)	Freeboard to 100-year (feet)	Emergency Overflow Elevation of the Stormwater Facility (feet)	Vertical Separation Distance to Emergency Overflow (feet)
School Building	854.1	841.3 (detention basin)	12.8	841	13.1

The downgradient topography and emergency overflow of the proposed infiltration basin are such that the 100-year flow elevation will not be able to inundate areas above elevation 876.5 feet (ie, the basins emergency overflow elevation, and high water flows will be directed away from the existing school building. Because the low floor elevation of the school building to the west of the proposed biofiltration basin is below the emergency overflow of the infiltration basin, the applicant must provide an analysis using *Appendix J1 Plot 1: Minimum Depth to Water Table for No Further Evaluation*, to determine compliance with RPBCWD Rule J, subsection 3.6.b requirements:

- J2. The applicant must submit supporting documentation demonstrating there is adequate separation to groundwater to achieve the low floor criteria with respect to the infiltration basin. If inadequate separation is not provided to conform with the low floor requirement in subsection 3.6b, design modifications to achieve compliance with RPBCWD requirements will need to be submitted (in the form of an application for a permit modification or new permit).

Maintenance

Subsection 3.7 of Rule J requires the submission of maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed. Maintenance of the infiltration basin and the detention basin facilities must be documented in the maintenance agreement after review and approval by RPBCWD. To conform to the RPBCWD Rule J the following revisions are needed:

- J3. The applicant must prepare a draft maintenance and inspection agreement and execute the agreement after review and approval by RPBCWD.

Chloride Management

Subsection 3.8 of Rule J requires the submission of chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan. To close out the permit, the permit applicant must provide a chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan at the site.

Applicable General Requirements:

1. The RPBCWD Administrator and Engineer shall be notified at least three days prior to commencement of work.

2. Construction must be consistent with the plans, specifications, and models that were submitted by the applicant that were the basis of permit approval. The date(s) of the approved plans, specifications, and modeling are listed on the permit. The grant of the permit does not in any way relieve the permittee, its engineer, or other professional consultants of responsibility for the permitted work.
3. The grant of the permit does not relieve the permittee of any responsibility to obtain approval of any other regulatory body with authority.
4. The issuance of this permit does not convey any rights to either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
5. In all cases where the doing by the permittee of anything authorized by this permit involves the taking, using or damaging of any property, rights or interests of any other person or persons, or of any publicly owned lands or improvements or interests, the permittee, before proceeding therewith, must acquire all necessary property rights and interest.
6. RPBCWD's determination to issue this permit was made in reliance on the information provided by the applicant. Any substantive change in the work affecting the nature and extent of applicability of RPBCWD regulatory requirements or substantive changes in the methods or means of compliance with RPBCWD regulatory requirements must be the subject of an application for a permit modification to the RPBCWD.
7. If the conditions herein are met and the permit is issued by RPBCWD, the applicant, by accepting the permit, grants access to the site of the work at all reasonable times during and after construction to authorized representatives of the RPBCWD for inspection of the work.

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project will conform to Rules C and J if the Rule Specific Permit Conditions listed above are met.

Recommendation:

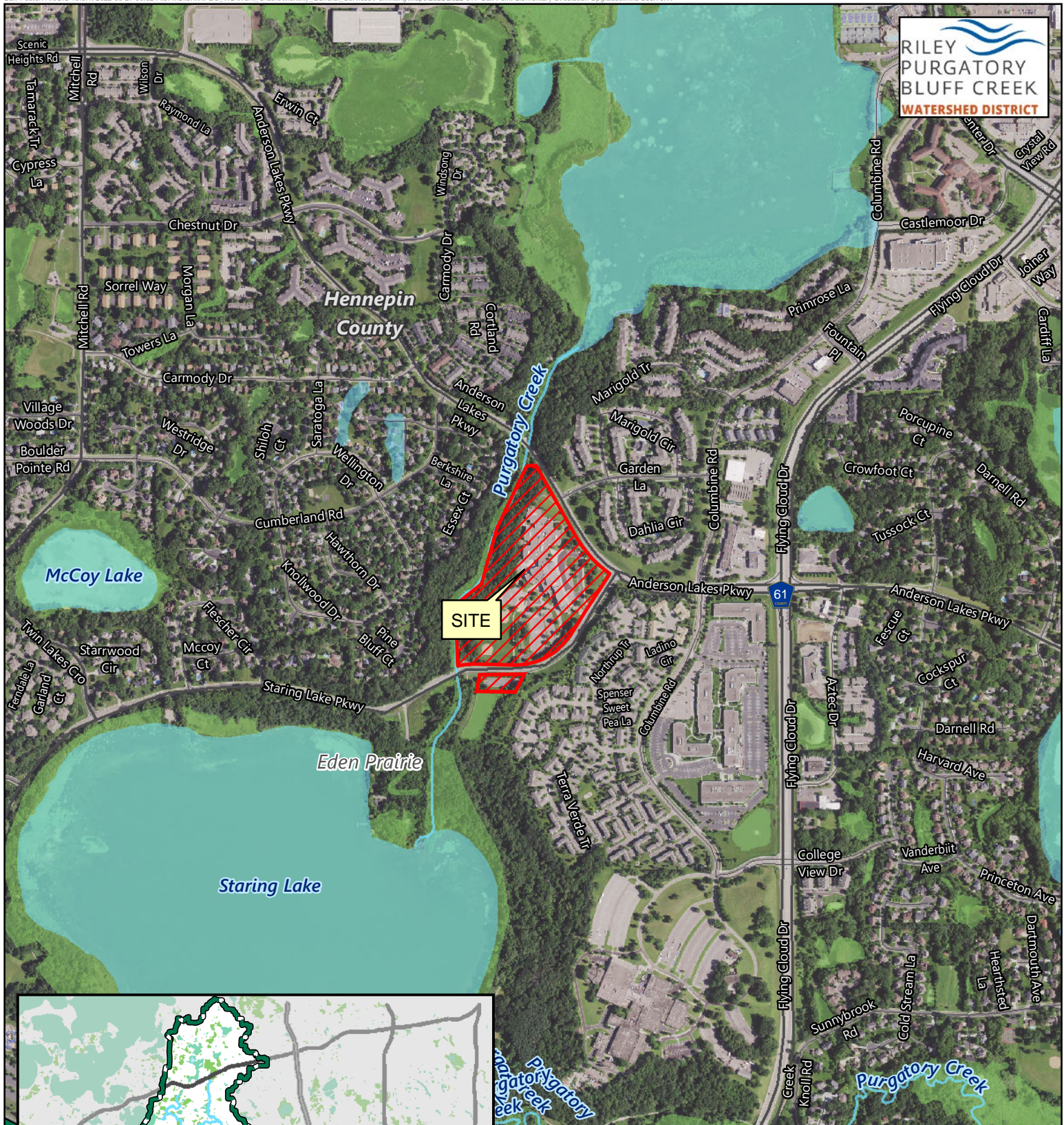
Approval of the permit contingent upon:

1. Permit applicant providing written documentation demonstrating the necessary property rights to perform the proposed work on the property owned by the City of Eden Prairie.
2. Permit applicant must provide the name and contact information of the general contractor responsible for erosion and sediment control at the site. RPBCWD must be notified if the responsible party changes during the permit term. The applicant must modify the design of the infiltration basin to include pretreatment of runoff in the form a filter strip, propriety pretreatment device, stilling basin, etc. as reviewed and approved by RPBCWD.

3. The applicant must submit supporting documentation demonstrating there is adequate separation to groundwater to achieve the low floor criteria with respect to the infiltration basin. If inadequate separation is not provided to conform with the low floor requirement in subsection 3.6b, design modifications to achieve compliance with RPBCWD requirements will need to be submitted (in the form of an application for a permit modification or new permit).
4. The applicant submit a draft maintenance and inspection agreement to be submitted to RPBCWD for review and approval prior to execution. The applicant must execute the agreement after approval by RPBCWD.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Continued compliance with General Requirements.
2. Per Rule J Subsection 5.6, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization the stormwater management facilities conform to design specifications and functions as intended and approved by the District. As-built/record drawings must be signed by a professional engineer licensed in Minnesota and include, but not limited to:
 - a) the surveyed bottom elevations, water levels, and general topography of all facilities;
 - b) the size, type, and surveyed invert elevations of all stormwater facility inlets and outlets;
 - c) the surveyed elevations of all emergency overflows including stormwater facility, street, and other;
 - d) other important features to show that the project was constructed as approved by the Managers and protects the public health, welfare, and safety.
3. Providing the following additional close-out materials:
 - a) Documentation that constructed stormwater facilities perform as designed. This may include infiltration testing, flood testing, or other with prior approval from RPBCWD
 - b) Documentation that disturbed pervious areas remaining pervious have been decompacted per Rule C Subsection 3.2c criteria
4. Per Rule J, Subsection 3.1.b.ii measured infiltration capacity of the soils at the bottom of the infiltration basin must be provided. The applicant must submit documentation verifying the infiltration capacity of the soils and that the volume control capacity is calculated using the measured infiltration rate. In addition, subsurface soil investigation is needed to verify adequate separation to groundwater (Rule J subsection 3.1.b.2). If infiltration capacity is less than needed to conform with the volume abstraction requirement in subsection 3.1b or there is inadequate separation to groundwater, design modifications to achieve compliance with RPBCWD requirements will need to be submitted (in the form of an application for a permit modification or new permit).
5. To close out the permit, the permit applicant must provide a chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan at the site.



RILEY
PURGATORY
BLUFF CREEK
WATERSHED DISTRICT

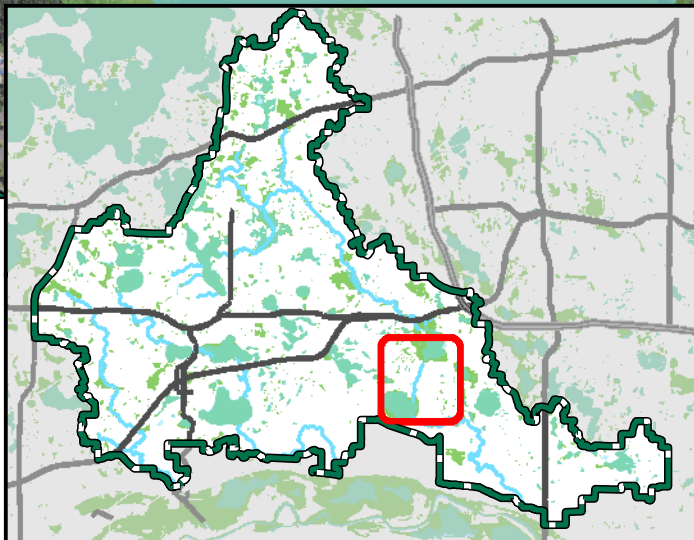
SITE

Eden Prairie

Staring Lake

Purgatory Creek

Purgatory Creek



Permit Location Map

OAK POINT ELEMENTARY
Permit 2022-017
Riley Purgatory Bluff Creek
Watershed District



Feet



OAK POINT ELEMENTARY CIRCULATION UPGRADES

13400 STARING LAKE PARKWAY
EDEN PRAIRIE, MN 55347



St. Cloud / Moorhead / Sagan
JAN 27, 2022

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION,
OR CONTRACT DOCUMENTS WERE PREPARED BY ME OR
UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A duly
LICENSED PROFESSIONAL ENGINEER UNDER THE
LAWS OF THE STATE OF MINNESOTA.

Daniel J. Tolson
PRINTED NAME: DANIEL J. TOLSON
DATE: 01/27/22 LICENSE #: 23897

OAK POINT ELEMENTARY CIRCULATION UPGRADES

13400 STARING LAKE PKWY
EDEN PRAIRIE, MN

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COVER SHEET

DRAWING NO.

C001



INDEX OF SHEETS:

	COVER SHEET
	EXISTING CONDITIONS / SHEET INDEX
C001	EXISTING CONDITIONS / SHEET INDEX
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C201	SITE PLAN NORTH
C301	GRADING PLAN
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C401	UTILITY PLAN
C501	EROSION CONTROL PLAN
C502	EROSION CONTROL PLAN NORTH
C601	CIVIL DETAILS
C602	CIVIL DETAILS
C603	EROSION CONTROL DETAILS
C506	EROSION CONTROL DETAILS
C507	SWPPP NARRATIVE

GENERAL NOTES:

1. TOPOGRAPHIC SURVEY, INCLUDING PROPERTY LINES, LEGAL DESCRIPTION, EXISTING UTILITIES, TOPOGRAPHY WITH SPOT ELEVATIONS AND PHYSICAL FEATURES WAS PROVIDED BY:
DESIGN TREE ENGINEERING & LAND SURVEYING
3339 W. ST. GERMAIN ST.
ST. CLOUD, MN 56301

2. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION OF THIS PROJECT

PROJECT CONTACTS

OWNER
EDEN PRAIRIE SCHOOL DISTRICT
8100 SCHOOL ROAD
EDEN PRAIRIE, MN 55344
TEL: 952-975-7124
EMAIL: www.edeps.org

CIVIL ENGINEER
DESIGN TREE ENGINEERING AND
LAND SURVEYING, INC.
DANIEL TOLSON, PE
3339 W ST. GERMAIN, SUITE 250
ST. CLOUD, MN 56301
TEL: 320-217-5557
EMAIL: dte@dt-engineers.com



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, CONTRACT, AND ANY OTHER INSTRUMENTS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINTED NAME: DANIEL J. NELSON
DATE: 01/27/22 LICENSE #: 23897

OAK POINT
ELEMENTARY
CIRCULATION
UPGRADES

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EDEN PRAIRIE, MN

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EXISTING
CONDITIONS/
SHEET INDEX

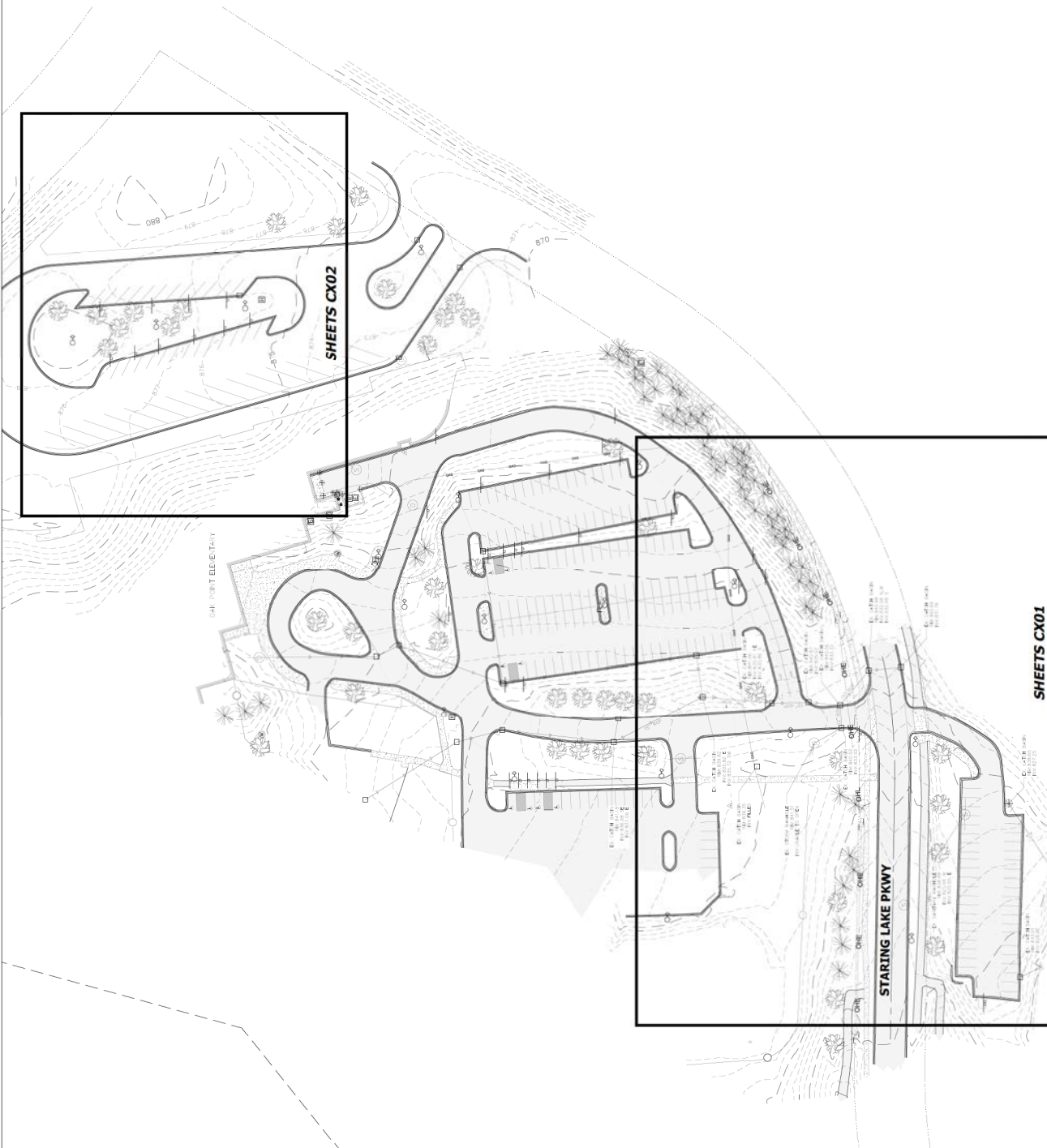
DRAWING NO.
C002

NOTES:

- EXISTING CONDITIONS & TOPOGRAPHIC INFORMATION PROVIDED BY: DESIGN TREE ENGINEERING, INC. 130 17TH AVENUE W ALEXANDRIA, MN 55008
- CONTRACTOR SHALL FIELD VERIFY ALL BUILDING DIMENSIONS AND REMOVAL LIMITS PRIOR TO ANY CONSTRUCTION.
- THE LOCATIONS AND ELEVATIONS OF THE EXISTING UTILITIES SHOWN HEREON ARE BASED ON THE FIELD SURVEY AND RECORDS. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING THE LOCATION AND ELEVATION TO ENSURE THAT ANY EXISTING UTILITIES (SHOWN OR NOT SHOWN) ARE NOT DAMAGED DURING CONSTRUCTION.
- CONTRACTOR SHALL FIELD VERIFY ALL BUILDING DIMENSIONS AND REMOVAL LIMITS PRIOR TO ANY CONSTRUCTION.

LEGEND

- HYDANT
- SANITARY MANHOLE
- GATE VALVE
- POWER POLE
- LIGHT POLE
- CATCH BASIN
- SEWER
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- PEDISTAL
- GUY WIRE
- ROLLUP
- POWER BOX
- ELECTRIC METER
- MONITORING WELL
- SANITARY SEWER CLEANOUT
- WOOD FENCE
- CHAINLINK FENCE
- WIRE FENCE
- STORM SEWER LINE
- SANITARY SEWER LINE
- WATERMAIN
- OVERHEAD ELECTRIC
- UNDERGROUND TELEPHONE
- UNDERGROUND FIBER
- UNDERGROUND ELECTRIC
- UNDERGROUND GAS LINE
- CONCRETE PAVEMENT
- BITUMINOUS PAVEMENT
- AGGREGATE SURFACING
- LANDSCAPING
- BUILDING



OAK POINT
ELEMENTARY
CIRCULATION
UPGRADES

13400 STARING LAKE PKWY
EDEN PRAIRIE, MN

REMOVALS PLAN

DRAWING NO.

C101

KEY NOTES:

1. SAWCUT EXISTING BITUMINOUS PAVEMENT
2. SAWCUT EXISTING CONCRETE OR REMOVE AT NEAREST EXPANSION JOINT
3. SAWCUT EXISTING CURB & GUTTER OR REMOVE AT NEAREST EXPANSION JOINT
4. REMOVE EXISTING BITUMINOUS PAVEMENT AT TOP OF GUTTER (CURB & GUTTER TO REMAIN)
5. REMOVE EXISTING CONCRETE
6. REMOVE EXISTING CURB & GUTTER
7. REMOVE EXISTING CURB & GUTTER
8. REMOVE EXISTING CURB & GUTTER
9. REMOVE EXISTING CURB & GUTTER
10. REMOVE EXISTING RETAINING WALL
11. REMOVE EXISTING CATCH BASIN
12. REMOVE CATCH BASIN, 12" POP, AND ANCHOR
13. ADJUST CASTING (SEE GRADING PLAN)
14. REMOVE AND SALVAGE EXISTING STOP SIGN
15. REMOVE AND SALVAGE EXISTING LIGHT POLE AND SIGNS

REMOVALS LEGEND

- CURB REMOVAL
- BITUMINOUS PAVEMENT REMOVAL
- CONCRETE REMOVAL
- REMOVAL ITEM

NOTES:

1. EXISTING CONDITIONS & TOPOGRAPHIC INFORMATION PROVIDED BY: 120 17TH AVENUE W, ALEXANDRIA, MN 55306
2. CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLAN AND SUBMIT TO CITY FOR APPROVAL PRIOR TO COMMENCING CONSTRUCTION.
3. CONTRACTOR SHALL FIELD VERIFY ALL BUILDING DIMENSIONS AND REMOVAL LIMITS PRIOR TO ANY CONSTRUCTION.
4. SAWCUT CURB AND GUTTER AND SIDEWALK, OR REMOVE AT NEAREST EXPANSION JOINT.
5. SAWCUT BITUMINOUS PAVEMENT FULL DEPTH AT ALL TIE-IN LOCATIONS.
6. CONTRACTOR SHALL PLACE ALL NECESSARY EROSION CONTROL MEASURES PRIOR TO CONSTRUCTION TO MAINTAIN SITE STABILITY PRIOR TO EXCUTTING ANY SITE REMOVALS.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH UTILITY PROVIDERS FOR REMOVAL AND/OR RELOCATION OF EXISTING UTILITIES AFFECTED BY SITE DEVELOPMENT. ALL PERMITS, APPLICATIONS, AND FEES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
8. ALL EXCESS OR WASTE MATERIAL GENERATED AS PART OF CONSTRUCTION SHALL BE PROPERLY STORED AND DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS.
9. CONTRACTOR SHALL MAINTAIN FULL ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION AND TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES.
10. THE LOCATIONS AND ELEVATIONS OF THE EXISTING UTILITIES SHOWN HEREIN ARE APPROXIMATE. THEY HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND/ OR RECORD DRAWINGS. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION TO ENSURE THAT ANY EXISTING UTILITIES (SHOWN OR NOT SHOWN) ARE NOT DAMAGED DURING CONSTRUCTION.
11. GOMPHIS STATE ONE CALL DAMAGE PREVENTION SYSTEM FOR BURIED UTILITIES. 1-800-252-1166.



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, CONTRACT, AGREEMENT, OR ANY OTHER INSTRUMENT OF SERVICE WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINTED NAME: DANIEL J. NELSON
DATE: 01/27/22 LICENSE #: 13897

OAK POINT ELEMENTARY CIRCULATION UPGRADES

13400 STARING LAKE PKWY
EDEN PRAIRIE, MN

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DRAWN BY: BH
CHECKED BY: BA
PROJECT NO.: 13121003
NO. DATE DESCRIPTION

REMOVALS PLAN NORTH

DRAWING NO.

C102

NOTES:

- EXISTING CONDITIONS & TOPOGRAPHIC INFORMATION PROVIDED BY: DESIGN TREE ENGINEERING, INC. 120 17TH AVENUE NW ALEXANDRIA, MN 56308
- CONTRACTOR SHALL FIELD VERIFY ALL BUILDING DIMENSIONS AND REMOVAL LIMITS PRIOR TO ANY CONSTRUCTION.
- SAWOUT CURB AND GUTTER AND SIDEWALK, OR REMOVE AT NEAREST EXPANSION JOINTS.
- SAWOUT BITUMINOUS PAVEMENT FULL DEPTH AT ALL TIE IN LOCATIONS.
- CONTRACTOR SHALL PLACE ALL NECESSARY EROSION CONTROL MEASURES REQUIRED TO MAINTAIN SITE STABILITY PRIOR TO DECUTTING ANY SITE REMOVAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH UTILITY LOCATIONS AND PROVIDING ALL NECESSARY EROSION CONTROL MEASURES TO MAINTAIN SITE STABILITY PRIOR TO DECUTTING ANY SITE REMOVAL. THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL EXCESS OR WASTE MATERIAL GENERATED AS PART OF CONSTRUCTION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS.
- CONTRACTOR SHALL MAINTAIN FULL ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION. ANY OBSTRUCTIONS NECESSARY TO ADJACENT PROPERTY DAMAGE TO ADJACENT PROPERTIES.
- THE LOCATIONS AND ELEVATIONS OF THE EXISTING UTILITIES SHOWN HEREIN ARE APPROXIMATE. THEY HAVE BEEN PLOTTED FROM AVAILABLE SURVEY AND/OR RECORDS. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING (OR NOT SHOWN) ARE NOT DAMAGED DURING CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN FULL ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION. ANY OBSTRUCTIONS NECESSARY TO ADJACENT PROPERTY DAMAGE TO ADJACENT PROPERTIES.
- CONTRACTOR SHALL MAINTAIN FULL ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION. ANY OBSTRUCTIONS NECESSARY TO ADJACENT PROPERTY DAMAGE TO ADJACENT PROPERTIES.

KEY NOTES:

- SAWOUT EXISTING BITUMINOUS PAVEMENT
- SAWOUT EXISTING CURB & GUTTER OR REMOVE AT NEAREST EXPANSION JOINT
- REMOVE EXISTING BITUMINOUS PAVEMENT
- REMOVE EXISTING CURB & GUTTER
- REMOVE AND SALVAGE EXISTING SEW

REMOVALS LEGEND

- CURB REMOVAL
- BITUMINOUS PAVEMENT REMOVAL



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, CONTRACT, AND ANY OTHER INSTRUMENTS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Daniel J. Nelson
PRINTED NAME: DANIEL J. NELSON
DATE: 01/27/22 LICENSE #: 23897

**OAK POINT
ELEMENTARY
CIRCULATION
UPGRADES**

13400 STARLING LAKE PKWY
EDEN PRAIRIE, MN

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DRAWN BY:	RJK	
CHECKED BY:	J/A	
PROJECT NO.:	11321003	
S. NO.	DATE	DESCRIPTION

SITE PLAN NORTH

DRAWING NO.
C202

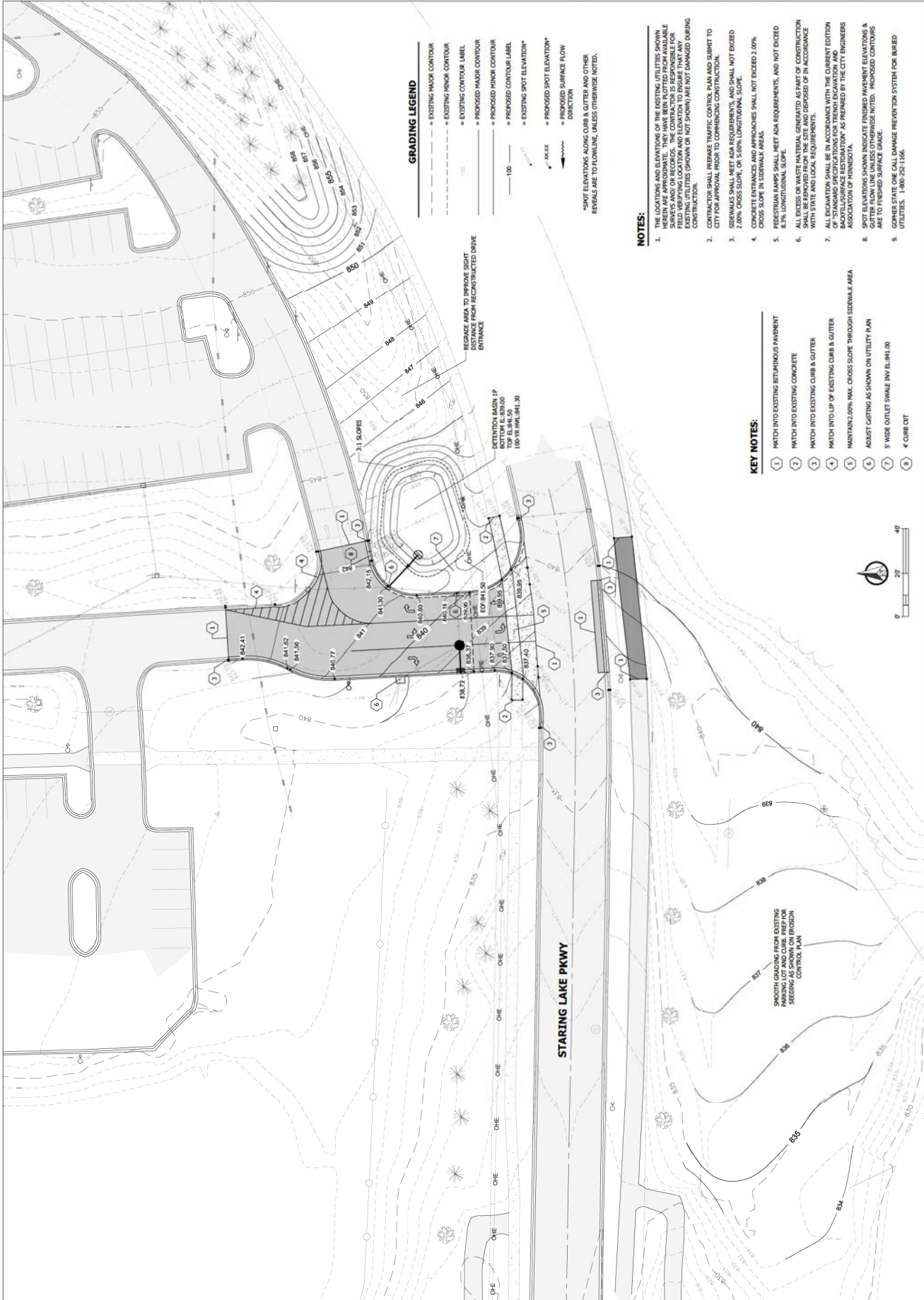
NOTES:
1. ALL DIMENSIONS SHOWN ARE TO FLOW LINE, CENTERLINE OF FENCE, EDGE OF PAVEMENT, OR EXTERIOR FACE OF BUILDING, UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL VERIFY ALL PLAN AND DETAIL DIMENSIONS PRIOR TO CONSTRUCTION.
3. ALL STRIPING, AND PAVEMENT MARKINGS SHALL BE 4" AND WHITE IN COLOR.
4. OWNER STATE ONE OIL DAMAGE PREVENTION SYSTEM FOR BURIED UTILITIES: 1505-130-1116.

- KEY NOTES:**
- 1 4" CURB CUT
 - 2 BITUMINOUS STREET REPAIR
 - 3 INSTALL SALVAGED SIGN
 - 4 NEW 4" STRIPING
 - 5 INFILTRATION BASIN

PROPOSED SITE LEGEND

- TYPICAL BITUMINOUS PAVEMENT SECTION
- CURB AND GUTTER
- TRAFFIC CONTROL SIGNAGE





I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINTED NAME: DANIEL J. NELSON
DATE: 01/27/22
LICENSE #: 23897

OAK POINT ELEMENTARY CIRCULATION UPGRADES

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EDEN PRAIRIE, MN

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PROJECT NO. 1312003	NO. DATE DESCRIPTION

GRADING PLAN NORTH

DRAWING NO.

C302

NOTES:

1. THE LOCATIONS AND ELEVATIONS OF THE EXISTING UTILITIES SHOWN HEREIN ARE APPROXIMATE. THEY HAVE BEEN PLOTTED FROM AVAILABLE RECORDS AND FIELD SURVEYING. LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES (SHOWN OR NOT SHOWN) ARE NOT DAMAGED DURING CONSTRUCTION.
2. ALL EXISTING UTILITIES SHOWN HEREIN ARE TO BE REMOVED OR DELETED IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS.
3. ALL EXCAVATION SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF STANDARD SPECIFICATIONS FOR TRUCK EXCAVATION AND BACKFILLING AND COMPACTION AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA.
4. SPOT ELEVATIONS SHOWN INDICATE FINISHED PAVEMENT ELEVATIONS & GUTTER FLOW LINE UNLESS OTHERWISE NOTED. PROPOSED CONTOURS ARE TO FINISHED SURFACE GRADE.
5. CORNER STATE ONE CALL DAMAGE PREVENTION SYSTEM FOR BURIED UTILITIES. 1-800-252-1166.

KEY NOTES:

- 1 MATCH INTO EXISTING BITUMINOUS PAVEMENT
- 2 MATCH INTO EXISTING CURB & GUTTER
- 3 4" CURE CUT

GRADING LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING CONTOUR LABEL
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED CONTOUR LABEL
- EXISTING SPOT ELEVATION*
- PROPOSED SPOT ELEVATION*
- PROPOSED SURFACE FLOW DIRECTION

*SPOT ELEVATIONS ALONG CURB & GUTTER AND OTHER RIGGERS ARE TO LOCALLINE, UNLESS OTHERWISE NOTED.



OAK POINT
ELEMENTARY
CIRCULATION
UPGRADES

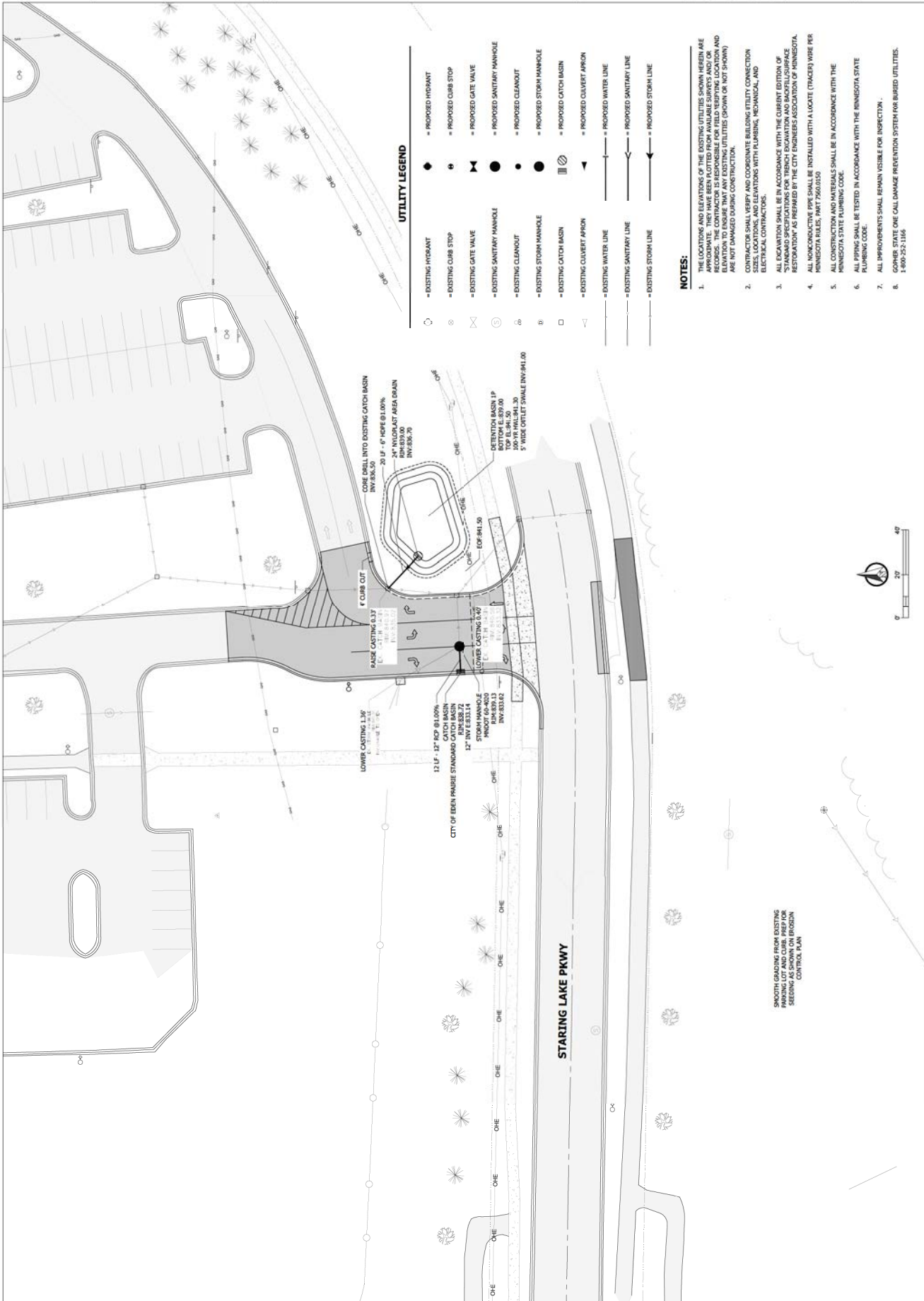
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EDEN PRAIRIE, MN

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UTILITY PLAN

DRAWING NO.
C401



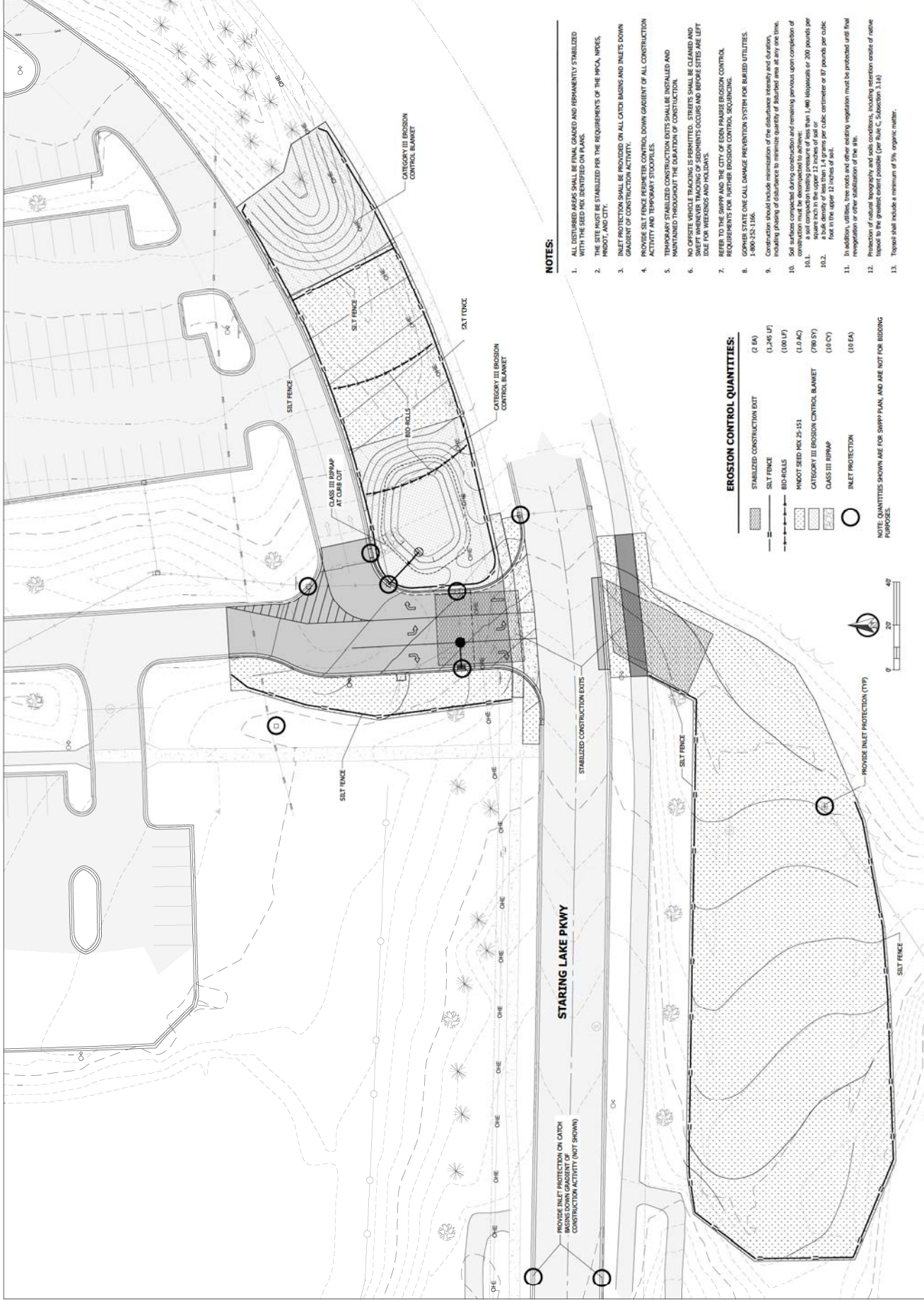
OAK POINT
ELEMENTARY
CIRCULATION
UPGRADES

13400 STARLING LAKE PKWY
EDEN PRAIRIE, MN

EROSION
CONTROL PLAN

DRAWING NO.

C501



OAK POINT
ELEMENTARY
CIRCULATION
UPGRADES

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EDEN PRAIRIE, MN

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PROJECT NO: 13121003	
NO.	DATE
	DESCRIPTION

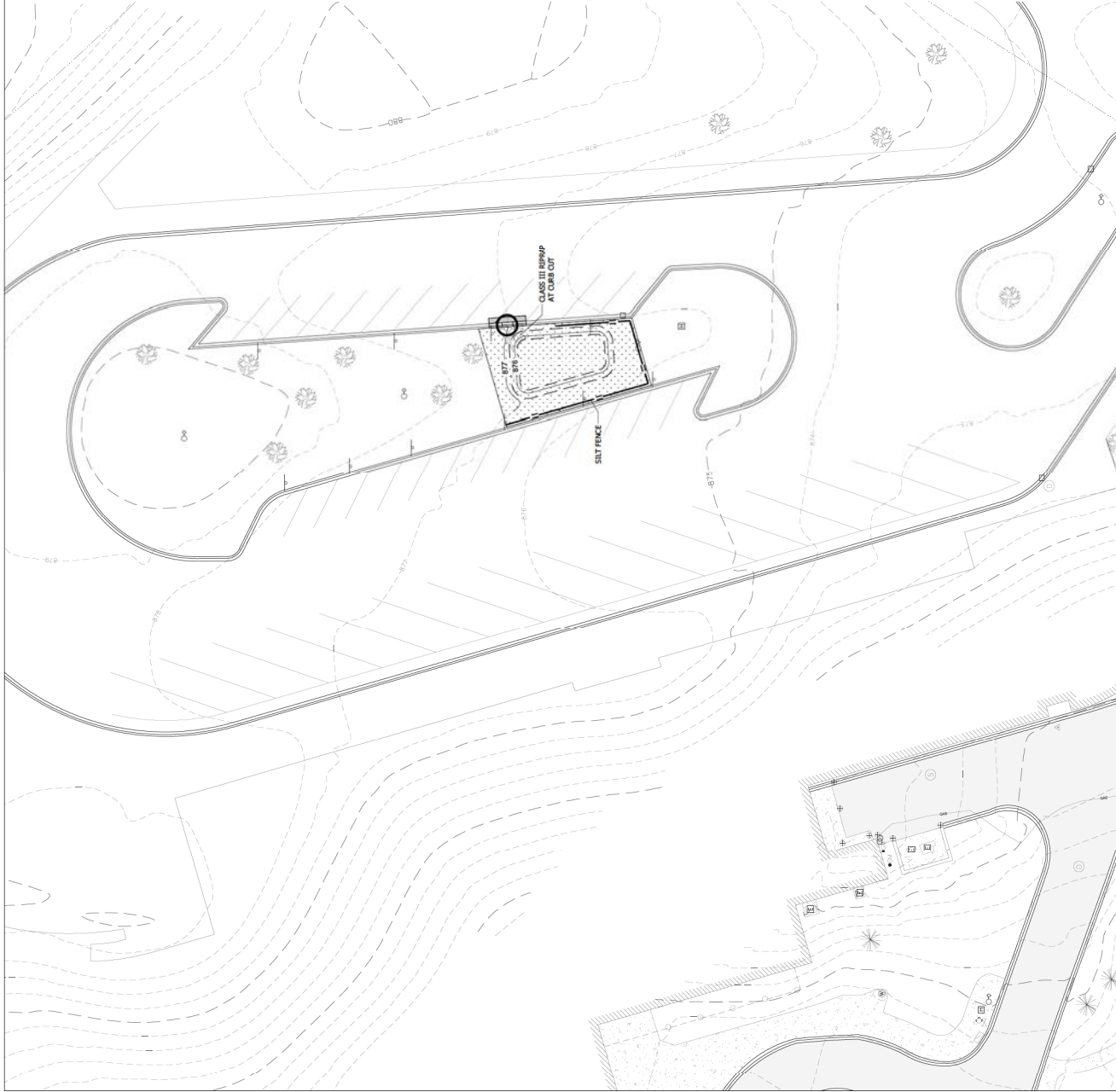
EROSION
CONTROL PLAN
NORTH

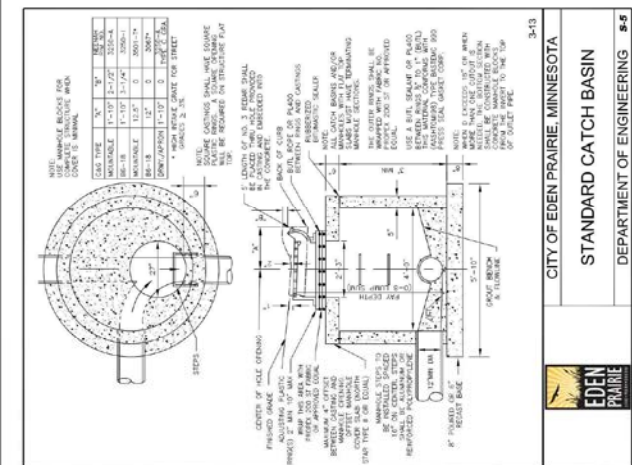
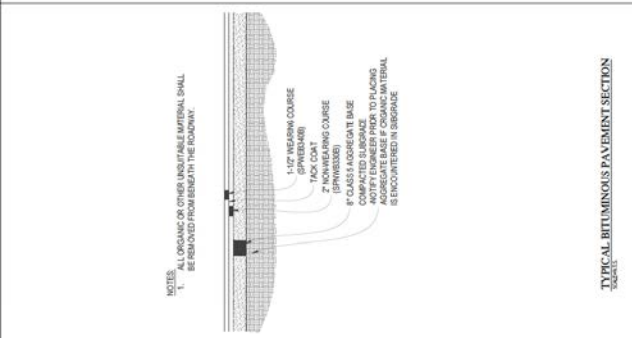
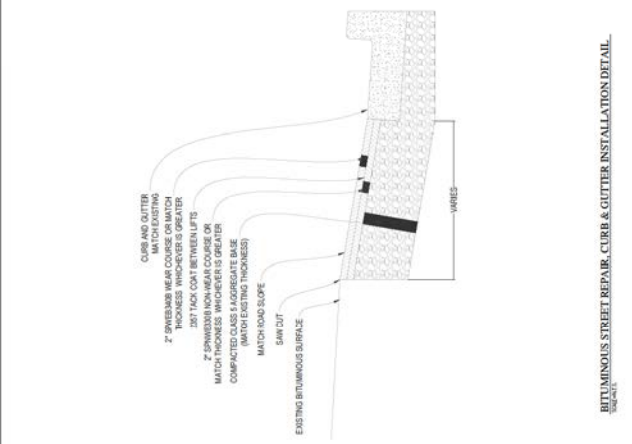
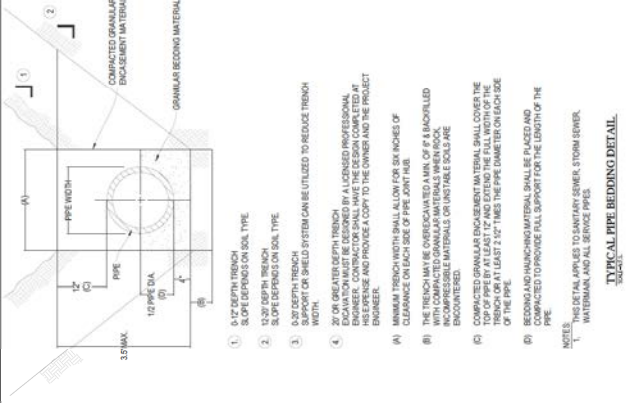
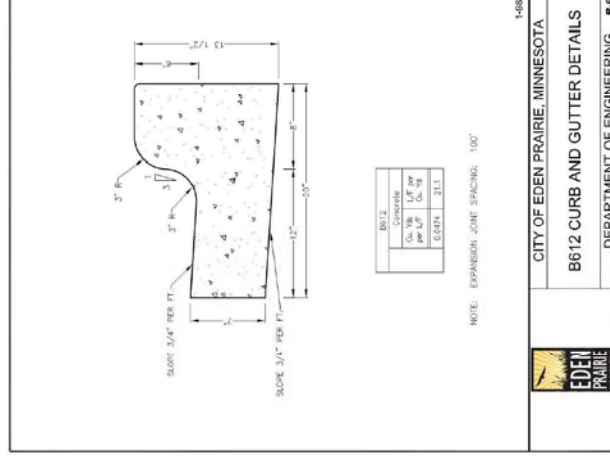
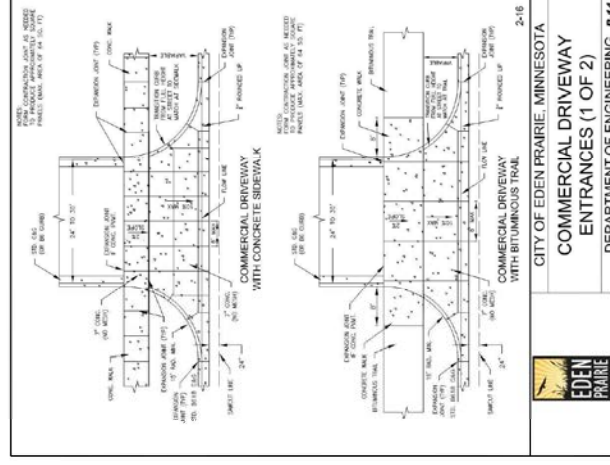
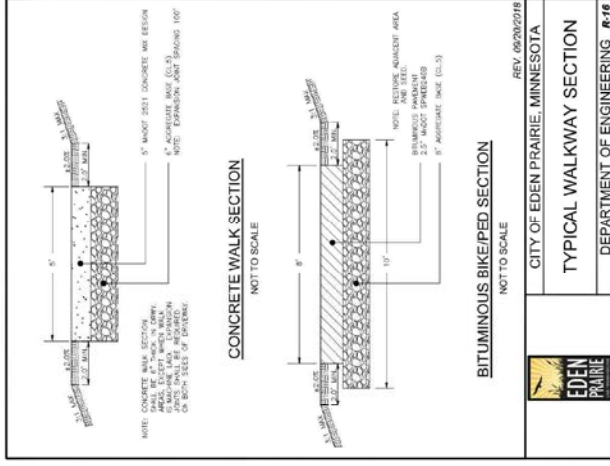
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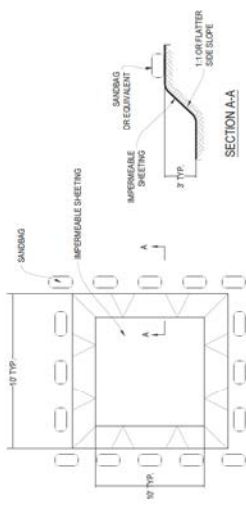
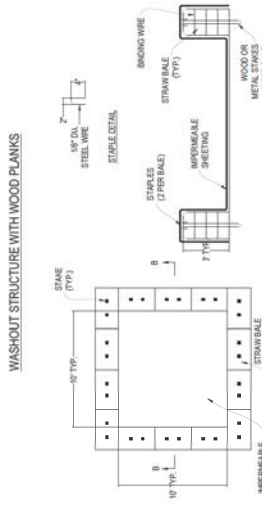
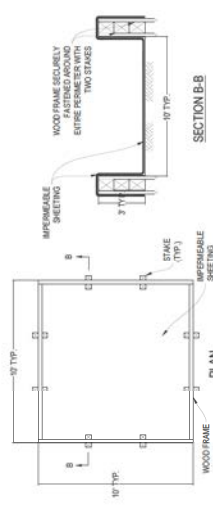
C502

NOTES:

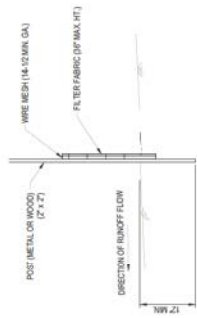
1. SEE SHEET C501 FOR EROSION CONTROL QUANTITIES.
2. ALL DISTURBED AREAS SHALL BE FINAL GRADED AND PERMANENTLY STABILIZED WITH THE SEED MIX IDENTIFIED ON PLANS.
3. THE SITE MUST BE STABILIZED PER THE REQUIREMENTS OF THE MPCA, NPDES, FRODO, AND CITY.
4. INLET PROTECTION SHALL BE PROVIDED ON ALL CATCH BASINS AND INLETS DOWN GRADIENT OF CONSTRUCTION ACTIVITY.
5. PROVIDE SILT FENCE PERIMETER CONTROL DOWN GRADIENT OF ALL CONSTRUCTION ACTIVITY AND TEMPORARY STOOPILES.
6. TEMPORARY STABILIZED CONSTRUCTION EMBANKMENTS SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.
7. NO OFFSITE VEHICLE TRACKING IS PERMITTED. STREETS SHALL BE CLEANED AND SHEET WHENEVER TRACKING OF SEDIMENTS OCCURS AND BEFORE SITES ARE LEFT IDLE FOR WEEKENDS AND HOLIDAYS.
8. REFER TO THE SWPPP AND THE CITY OF EDEN PRAIRIE EROSION CONTROL REQUIREMENTS FOR FURTHER EROSION CONTROL, SEQUENCING.
9. GOWDER STATE ONE CALL DAMAGE PREVENTION SYSTEM FOR BURIED UTILITIES. 1-800-252-1160.
10. Construction should include minimization of the disturbance intensity and duration, including planning of disturbance to minimize quantity of disturbed area at any one time.
11. Soil surfaces compacted during construction and remaining pervious upon completion of construction must be decompacted to achieve:
 - 11.1. a bulk density of less than 1,400 (pounds per cubic foot) for soils with a liquid limit of less than 40 and a plasticity index of less than 12; and
 - 11.2. a bulk density of less than 1,400 (pounds per cubic foot) for soils with a liquid limit of less than 40 and a plasticity index of 12 or greater.
12. In addition, utilities, tree roots and other existing vegetation must be protected until final revegetation or other stabilization of the site.
13. Protection of natural topography and soils conditions, including retention of native topsoil to the greatest extent possible (per Rule C, Subsection 3.14).
14. Topsoil shall include a minimum of 5% organic matter.



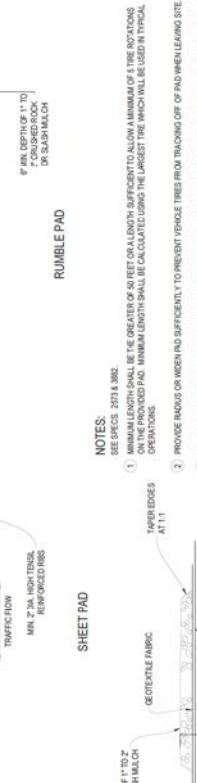
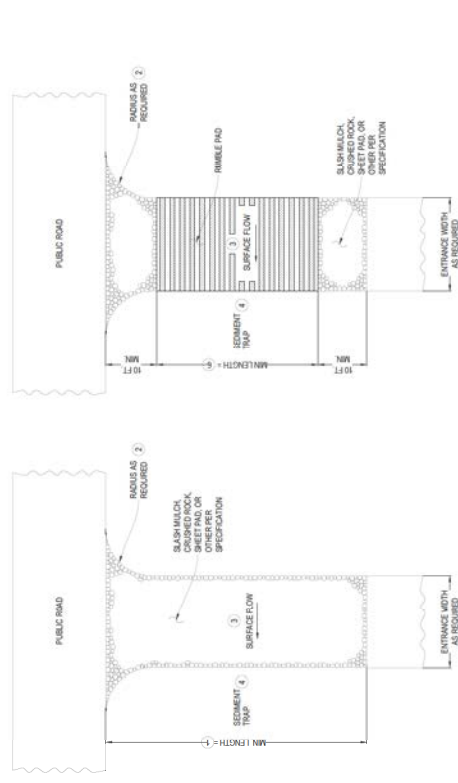




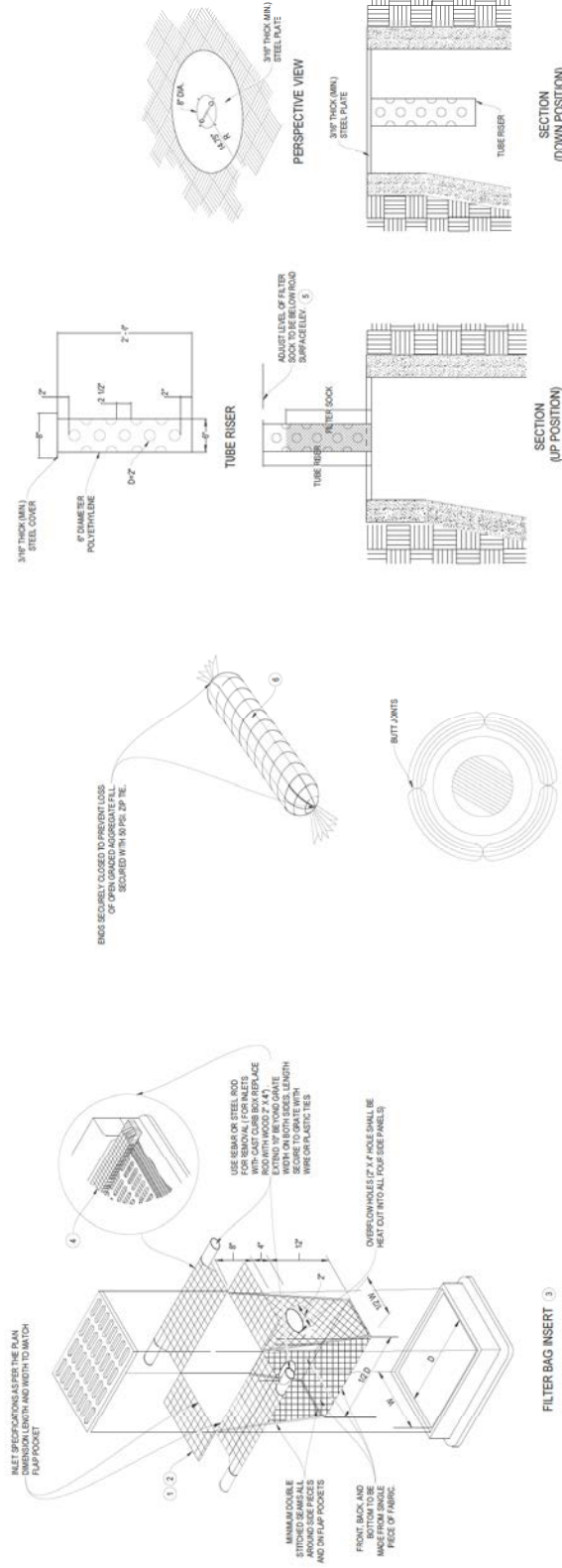
EXCAVATED WASHOUT STRUCTURE



- NOTES
1. TYPE OF FENCING TO BE USED SHALL COMPLY WITH MNCOT 3664.1 UNLESS INDICATED OTHERWISE ON PLANS.
2. DIG 46" 14" FRENCH ALONG THE INTENDED FENCE LINE.
3. DRIVE ALL POSTS INTO THE GROUND AT THE CORNER AND MID OF FENCE.
4. WIRE ENDS PER 100' OF CIRC. WIRE SHALL BE A MINIMUM OF 2' INTO THE GROUND AND NO MORE THAN 3' ABOVE THE ORIGINAL SURFACE OF THE GROUND.
5. FUTURE BRANCHING OFF POINTS SHALL BE SQUARE RIGID CORNERS. SIZE SHALL BE 2" IN ALL AREAS OF COARSE GRAINED SOIL, AND 4" IN AREAS OF FINE GRAINED SOIL.
6. LAY OUT BUT FENCE ON THE UPHILL SIDE ALONG THE FENCE LINE AND BACKFILL.
7. WOOD POSTS MAY BE SPACED UP TO 4 FEET APART. WIRE MESH IS NOT REQUIRED. STEEL POSTS MAY BE SPACED UP TO 4 FEET APART.

STABILIZED CONSTRUCTION EXIT DETAILS
 12th Feb 11

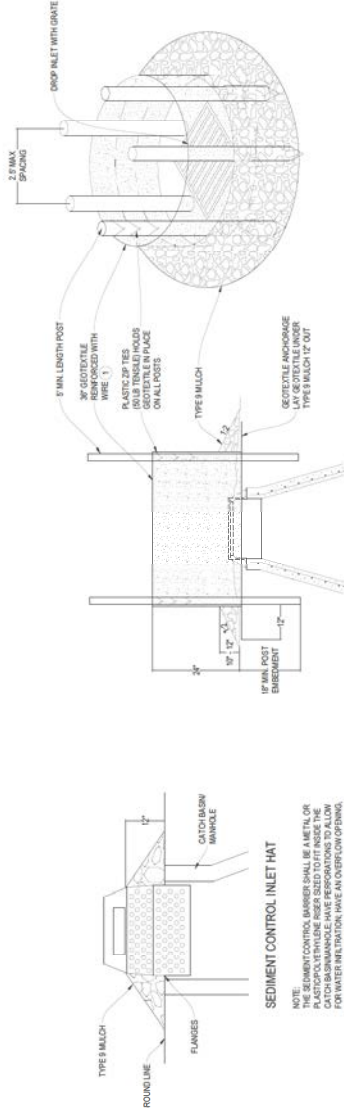
CONCRETE WASHOUT DETAILS



NOTES

NOTES:
SEE SPECS. 2573, 3137 3636.
DEVICES MUST BE ADJUSTED ACCORDINGLY AS TO NOT CAUSE FLOODING ON
ROADWAY THAT WOULD INCREASE TRAFFIC FLOW.

- ALL OBJECTS USED FOR PROTECTION SHALL BE NON-DANGEROUS TO BOTH OPERATING PERSONNEL AND THE PUBLIC.
- FIGURES SHOWING PROTECTIVE REQUIREMENTS SHALL BE PLACED AT A MINIMUM OF 10' AWAY FROM THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- INSTALLATION NOTES:
 - DO NOT INSTALL FILT BAGS OR FILT IN AREAS SHALLOWER THAN 18 INCHES. MEASURE THE DEPTH OF THE HOLE AND ADD 18 INCHES TO THE MEASUREMENT TO OBTAIN THE MINIMUM SAFE DEPTH OF THE FILT BAG.
 - DO NOT ALLOW ANY MINIMUM SAFE DEPTH OF THE TRENCH FROM THE FILT BAGS TO THE BOTTOM OF THE TRENCH FILLER. WHEN NECESSARY, THE FILT BAG SHALL BE PLACED ON A 4" X 8" OR 6" X 8" BOARD OR OTHER STIFF SURFACE TO MAINTAIN THE MINIMUM SAFE DEPTH.
 - FLUMP POTS SHALL BE PLACED UNDER TO ACCEPT FLOODING WATER TO A ROCK HOLE OR SAND BAG IN PLACE OF THE FILT BAG TO ALLOW WATER TO CAUSE FLOODING OF THE ROADWAY.
 - SOOT HIGHT OR MUST BE 30 INCHES TO 40 INCHES TO ALLOW WATER FILT BAG TO CAUSE FLOODING OF THE ROADWAY.
 - GEOTEXTILE SOOT BETWEEN 44 INCHES AND 46 INCH DIAMETER. SEAM TO BE 10 INCHES WIDE AND STITCHED WITH 10 INCHES WIDE STITCHES.
 - SOOT SHALL BE MADE OF STIFF MATERIAL AND BE 10 INCHES WIDE OR GREATER. AGGREGATE CONSIST OF SAND OR GRAVEL PARTICLES OF CARBOHYDRATE.



SILT FENCE RING AND ROCK FILTER BERM
USE WHERE INLET DRAINS IN AN AREA WITH SLOPES AT 1:3 OR LESS

STORM DRAIN INLET PROTECTION DETAILS

