



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

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2024-038

Considered at Board of Managers Meeting: July 10, 2024

Received complete: June 21, 2024

Applicant: Lund Food Holdings, Inc, Scott Reagles

Consultant: SHE, Brian Hare

Project: Lunds & Byerlys Food Holdings Improvements – The applicant proposes the expansion of an existing building, improvements to onsite utilities and an infiltration basin to provide volume control, water quality, and rate control.

Location: 4100 West 50th St, Eden Prairie, Minnesota

Reviewer: Scott Sobiech P.E.

Board Action

Manager _____ moved and Manager _____ seconded adoption of the following resolution based on the permit report that follows and the presentation of the matter at the July 10, 2024 meeting of the managers:

Resolved that the application for Permit 2024-038 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 have been affirmatively resolved, the RPBCWD president or administrator is authorized and directed to sign and deliver Permit 2024-038 to the applicant on behalf of RPBCWD.

Upon roll call vote, the resolutions were adopted, _____.

Applicable Rule Conformance Summary

Rule	Issue	Conforms to RBPCWD Rules?	Comments	
C	Erosion Control Plan	Yes		
J	Stormwater Management	Rate	Yes	
		Volume	See comments	See stipulation #5 related to verifying the infiltration capacity of the soils.
		Water Quality	Yes	
		Low Floor Elev.	Yes	
		Maintenance	See comment	See rule-specific permit condition J1 related to recordation of stormwater facility maintenance declaration.
		Chloride Management	See comment	See stipulation #6 related to providing an executed chloride management plan prior to permit close-out.
		Wetland Protection	Yes	
L	Permit Fee Deposit	Yes	\$3,000 deposit fee received June 12, 2024. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. As of June 28, 2024 the amount due is \$1,231.	
M	Financial Assurance	See Comment	The financial assurance is calculated at \$34,992.	

Background

The proposed redevelopment will include the expansion of an existing building, improvements to onsite utilities, and the addition of a stormwater infiltration basin to provide water quality treatment, rate control, and volume abstraction on the site in Eden Prairie, Minnesota. Runoff from the property drains to an off-site, medium-value wetland.

The project site information is summarized in Table 1.

Table 1. Project site information

Site Information	Project Area
Total Site Area (acres)	8.23
Existing Site Impervious Area (acres)	6.63
Post Construction Site Impervious (acres)	6.64
New (increase) in Site Impervious Area (acres)	0.01
Percent increase in Impervious Surface	0.1%
Disturbed Site Impervious Area (acres)	0.22
Percent Disturbance of Existing Impervious Surface	3.3%
Total Disturbed Area (acres)	0.39

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

1. Permit Application received May 21, 2024 (Notified applicant on June 14, 2024 that submittal was incomplete; materials completing the application were received on June 21, 2024).
2. Stormwater Management Report dated May 31, 2024 (revised June 21, 2024)
3. Project Plan Set (12 sheets) dated May 31, 2024
4. Electronic HydroCAD models received on May 31, 2024 (revised June 21, 2024)
5. Draft soil boring data from Braun Intertec dated May 20, 2024
6. Engineer's Preliminary Estimate of Construction Costs dated June 21, 2024
7. Draft Maintenance Declaration received May 31, 2024 (revised June 21, 2024)
8. Engineer's Response to Comments received June 21, 2024
9. Infiltration test dated June 6, 2024

Rule Specific Permit Conditions

Rule C: Erosion Prevention and Sediment Control

Because the applicant proposes to alter 0.39 acres of land-surface area, the project must conform to the requirements in the RPBCWD Erosion Prevention and Sediment Control rule (Rule C, Subsection 2.1).

The erosion and sediment control plans prepared by SEH include installation of silt fence, rock construction entrance, erosion control blanket, placement of a minimum of 6 inches of topsoil with at least 5% organic matter, construction sequencing, decompaction of pervious areas compacted during construction, and retention of native topsoil onsite. The applicant identified Nate Steffens with Carlson-Lavine Inc (nates@carlsonlavine.com; PH. 651.303.8614) as the person responsible for erosion prevention and sediment control during construction.

The proposed project conforms to the erosion and sediment control requirements of Rule C.

Rule J: Stormwater Management

Because the applicant proposes to disturb 0.39 acres of land-surface area, the project must meet the criteria of RPBCWD's Stormwater Management rule (Rule J, Subsection 2.1). The criteria listed in Subsection 3.1 apply to only runoff from the new and reconstructed impervious areas on the project parcel because the impervious disturbance (3.3 percent) and imperviousness increase (0.1 percent), do not amount to a disturbance of more than 50 percent of the impervious surface of the parcel nor will the imperviousness be increased by more than 50 percent (Rule J, Subsection 2.3).

The applicant is proposing construction of an infiltration basin to provide the rate control, volume abstraction and water quality management for the disturbed and replaced impervious area. Pretreatment for runoff entering the infiltration basin is being provided by a vegetated filter strip

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 table below.

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
Maten Drive	5.7	4.2	9.0	7.6	15.0	13.2	0.3	0.2

The proposed stormwater management plan will provide rate control in compliance with the RPBCWD requirements for the 2-, 10-, and 100-year events. Thus, the proposed project meets the rate control requirements in Rule J, Subsection 3.1a.

Volume Abstraction

Subsection 3.1.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from the new and disturbed impervious surface of the parcel. An abstraction volume of 918 cubic feet is required from the 0.23 acres (10,019 square feet) of regulated impervious area. Plans indicate pretreatment for runoff entering the infiltration basin is provided by a vegetated filter strip, thus the proposed project conforms with RPBCWD Rule J, Subsection 3.1b.1.

Soil borings performed by Bruan Interec show that soils in the project area contain poorly graded sands, silty sands, and clayey sands. Groundwater was observed in three of the four borings. The subsurface investigation information summarized in the table below shows that groundwater is at least 3 feet below the bottom of the proposed infiltration basin (Rule J, Subsection 3.1.b.2.a).

Proposed BMP	Nearest Subsurface Investigation	Boring is within footprint?	Groundwater Elevation (feet)	BMP Bottom Elevation (feet)	Separation (feet)
Infiltration Basin	ST-4	No	Groundwater observed at 15 ft (approx. el 837.4 ft)	856.28	18.88

Based on the infiltrometer testing conducted by SEH, Inc. on June 6, 2024, the infiltration rate within the basin area is 2.0 in/hr. The applicant used a design infiltration rate of 0.75 in/hr to size the infiltration basin. The engineer concurs with the applicant’s design infiltration rate, which is lower than the measured rate to provide a factor of safety. The engineer concurs that the infiltration basin will draw down within 48 hours (Rule J, subsection 3.1b.3)

The applicant must submit documentation verifying the at least three (3) feet of separation between groundwater and the bottom elevation of the proposed infiltration basin (subsection 3.1.b.2.a). If 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 required and the volume abstraction achieved by the proposed stormwater management facilities on site. With the stipulation noted above regarding verification of separation to groundwater, the engineer concurs with the submitted information and finds that the proposed project will conform with Rule J, Subsection 3.1.b.

Required Abstraction Depth (inches)	Required Abstraction Volume (cubic feet)	Provided Abstraction Depth (inches)	Provided Abstraction Volume (cubic feet)
1.1	918	1.25	1,046

Water Quality Management

Subsection 3.1.c of Rule J requires the Applicant provide for at 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.

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 volume abstraction meeting the standard in 3.1b and the engineer concurs with the modeling, under paragraph 3.1c.i, the engineer finds that the proposed project provides the required stormwater-quality protection.

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. In addition, a stormwater-management facility must be constructed

at an elevation that ensures that no adjacent habitable building will be brought into noncompliance with this requirement according to Rule J, Subsection 3.6b.

The low floor elevation of the existing building and building expansion, and the 100-year flood elevation in the s infiltration facility on the site, are summarized below. Because the low floor elevation is one foot above the proposed emergency overflow elevation, the proposed project is in conformance with Rule J, Subsection 3.6.

Structure Address	Stormwater Facility	100-year Event Flood Elevation of Feature (feet)	Lowest Floor Elevation of Building (feet)	Freeboard Provided (feet)	Emergency Overflow Elevation (ft)	Separation to EOF (ft)
Building	Infiltration Basin	856.93	857.5	0.52	856.5	1.0

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. Permit applicant provided a draft maintenance and inspection plan for review and approval by RPBCWD. While the applicant provided a draft maintenance declaration for review, the following revisions are needed:

- J1. The applicant must complete the legal description, and consent and subordination (if applicable), then – after RPBCWD approval – record the document and provide RPBCWD proof of recordation.

Wetland Protection

Because runoff from the redeveloped site is tributary to off-site, medium value wetland, the project must comply with RPBCWD’s wetland protection criteria in Rule J, subsection 3.10. In accordance with Rule J, subsection 3.10a, the proposed land-disturbing activities will not increase the bounce in water level, duration of inundation, or change the runout elevation in the subwatershed, for the receiving wetland. Because the applicant’s HydroCAD model results demonstrate, and the engineer concurs, that the proposed flow rate and volumes flowing toward the wetlands are less than the under existing conditions, the bounce and inundation will not increase, the project meets the bounce and inundation criteria.

Rule J, Subsection 3.10b requires that treatment of runoff to medium value wetland meet the water quality treatment criteria in Rule J, subsection 3.1c. Because runoff from the project site is routed to the proposed infiltration basin and the basin provides the water quality treatment required in accordance with 3.1c.i, the engineer finds that the proposed project is in conformance with Rule J, Subsection 3.10b.

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 and release the \$5,000 in financial assurance held for the purpose of chloride management, 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.

Rule L: Permit Fee Deposit:

The RPBCWD permit fee schedule adopted in February 2020 requires permit applicants to deposit \$3,000 to be held in escrow and applied to cover the \$10 permit-processing fee and reimburse RPBCWD for permit review and inspection-related costs and when a permit application is approved, the deposit must be replenished to the applicable deposit amount by the applicant before the permit will be issued to cover actual costs incurred to monitor compliance with permit conditions and the RPBCWD Rules. A permit fee deposit of \$3,000 was received on June 12, 2024. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. Subsequently, if the costs of review, administration, inspections and closeout-related or other regulatory activities exceed the fee deposit amount, the applicant will be required to replenish the deposit to the original amount or such lesser amount as the RPBCWD administrator deems sufficient within 30 days of receiving notice that such deposit is due. The administrator will close out the relevant application or permit and revoke prior approvals, if any, if the permit-fee deposit is not timely replenished.

- L1. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. As of June 28, 2024 the amount due is \$1,231.

Rule M: Financial Assurance:

	Unit	Unit Cost	# of Units	Total
Rule C: Erosion Control				
Perimeter Control	LF	\$2.50	805	\$2,013
Inlet Protection	EA	\$100	4	\$400
Rock Entrance	EA	\$250	1	\$250
Restoration	Ac	\$2,500	0.21	\$525
Rule J: Chloride Management	LS	\$5,000	1	\$5,000
Rule J: Stormwater Management infiltration basin: 125% of engineer's opinion of cost (\$18,898)	EA	125% OPC	1	\$23,623
Contingency (10%)		10%		\$3,181
Total Financial Assurance				\$34,992

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, contingent upon:

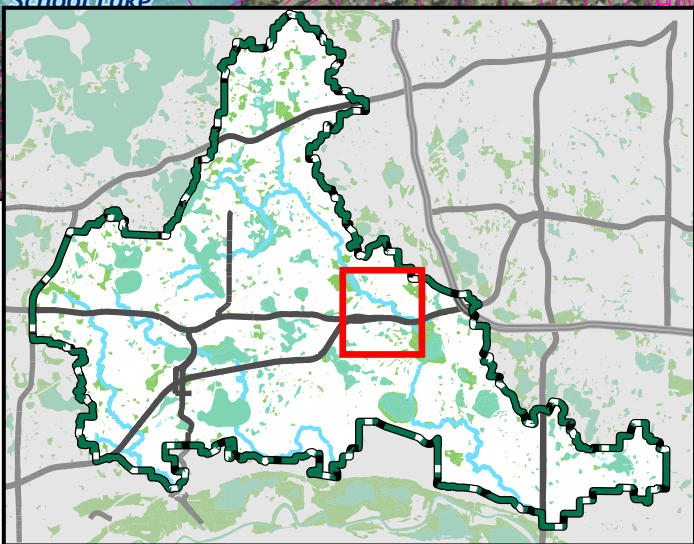
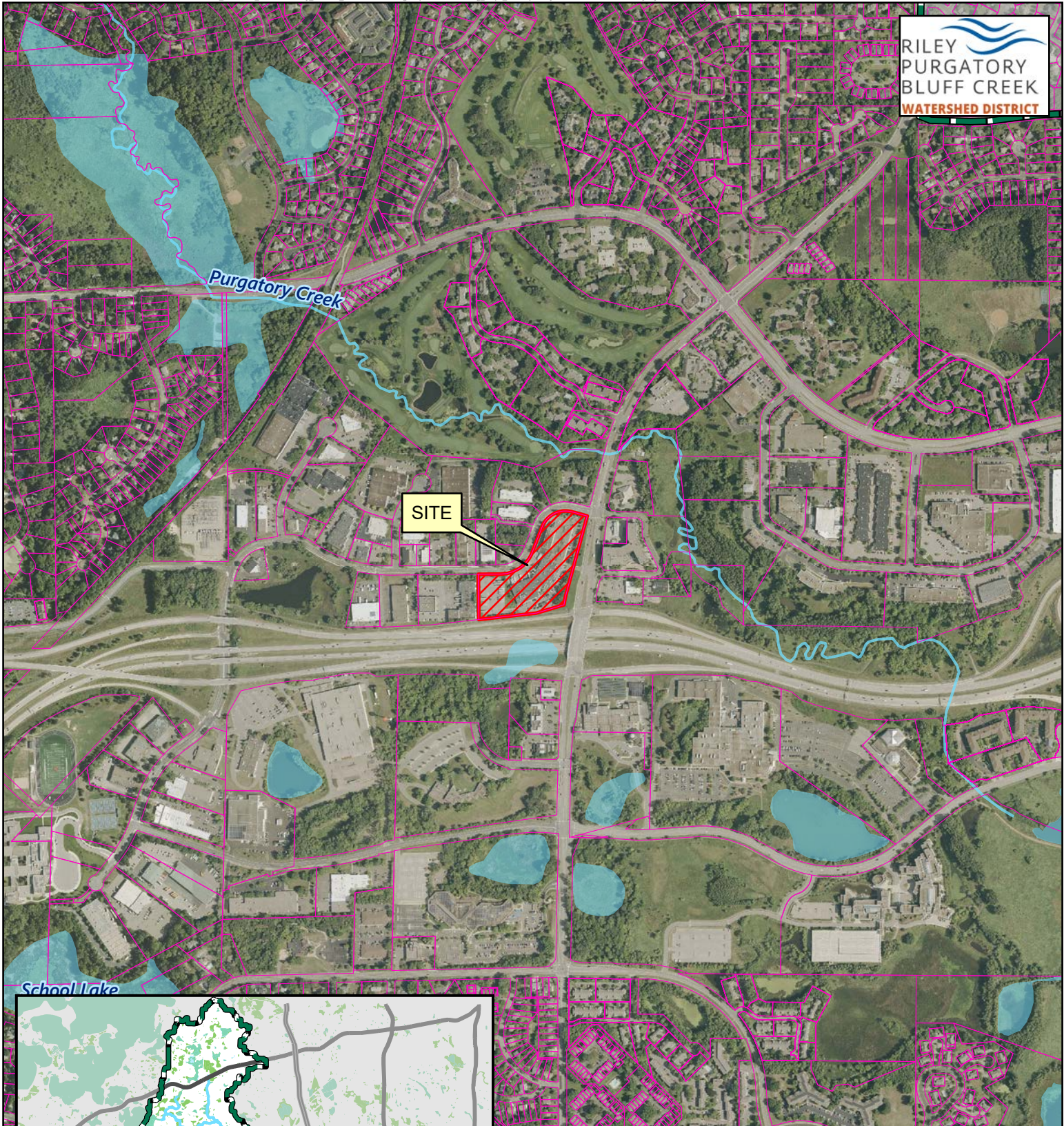
1. Financial Assurance in the amount of \$34,992.
2. Applicant providing the name and contact information of the individual responsible for erosion and sediment control at the site.

3. Receipt in recordation a maintenance declaration for the operation and maintenance all stormwater management facilities. Drafts of all documents to be recorded must be approved by the District prior to recordation and proof of recordation must be provided to RPBCWD.
4. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. As of June 28, 2024 the amount due is \$1,231.

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

1. Continued compliance with General Requirements
2. Per Rule J Subsection 4.5, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization, all the stormwater facilities conform to design specifications and function 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;
3. Providing the following additional close-out materials:
 - a. Documentation that disturbed pervious areas remaining pervious have been decompacted per Rule C.2c criteria
 - b. Documentation that constructed infiltration facilities perform as designed. This may include infiltration testing, flood testing, or other with prior approval from RPBCWD.
4. The work on the Lunds & Byerlys Food Holdings Improvements redevelopment under the terms of permit 2024-038, if issued, must have an impervious surface area and configuration materially consistent with the approved plans. Design that differs materially from the approved plans (e.g., in terms of total impervious area) will need to be the subject of a request for a permit modification or new permit, which will be subject to review for compliance with all applicable regulatory requirements.
5. Per Rule J, Subsection 3.1.b.2.a there must be at least 3 feet of separation to groundwater. Because a soil boring was not collected at the infiltration basin during design, additional subsurface investigation is required. If 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).
6. To close out the permit and release the \$5,000 in financial assurance held for the purpose of the chloride management, 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.
7. Replenish the permit fee deposit to the original amount or such lesser amount as the RPBCWD administrator determines sufficient within 45 days of receiving notice that such deposit is due in

order to cover continued actual costs incurred to monitor compliance with permit conditions and the RPBCWD Rules.



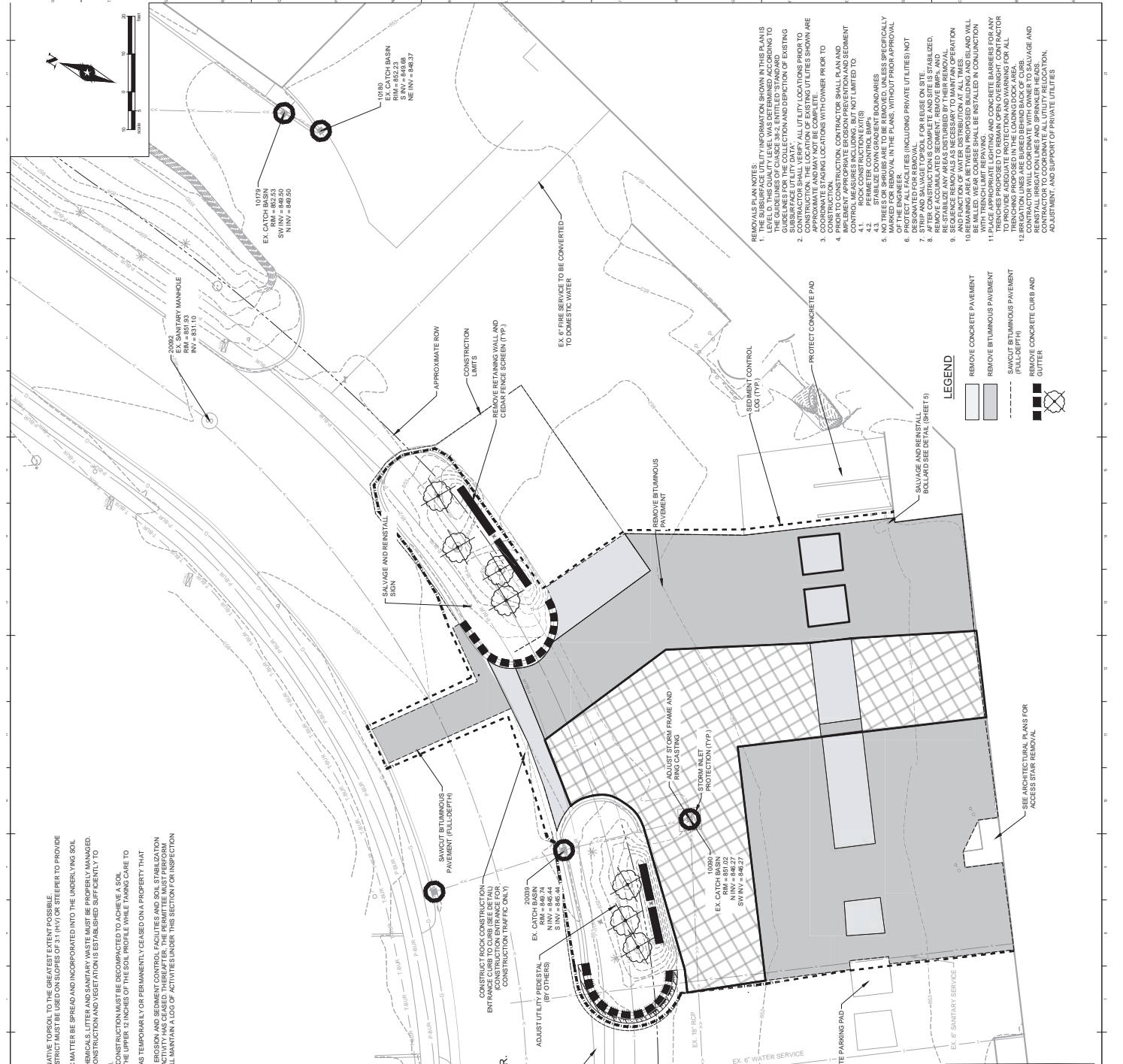
Feet



Permit Location Map

LUNDS & BYERLYS
Permit 2024-038

Riley Purgatory Bluff Creek
Watershed District

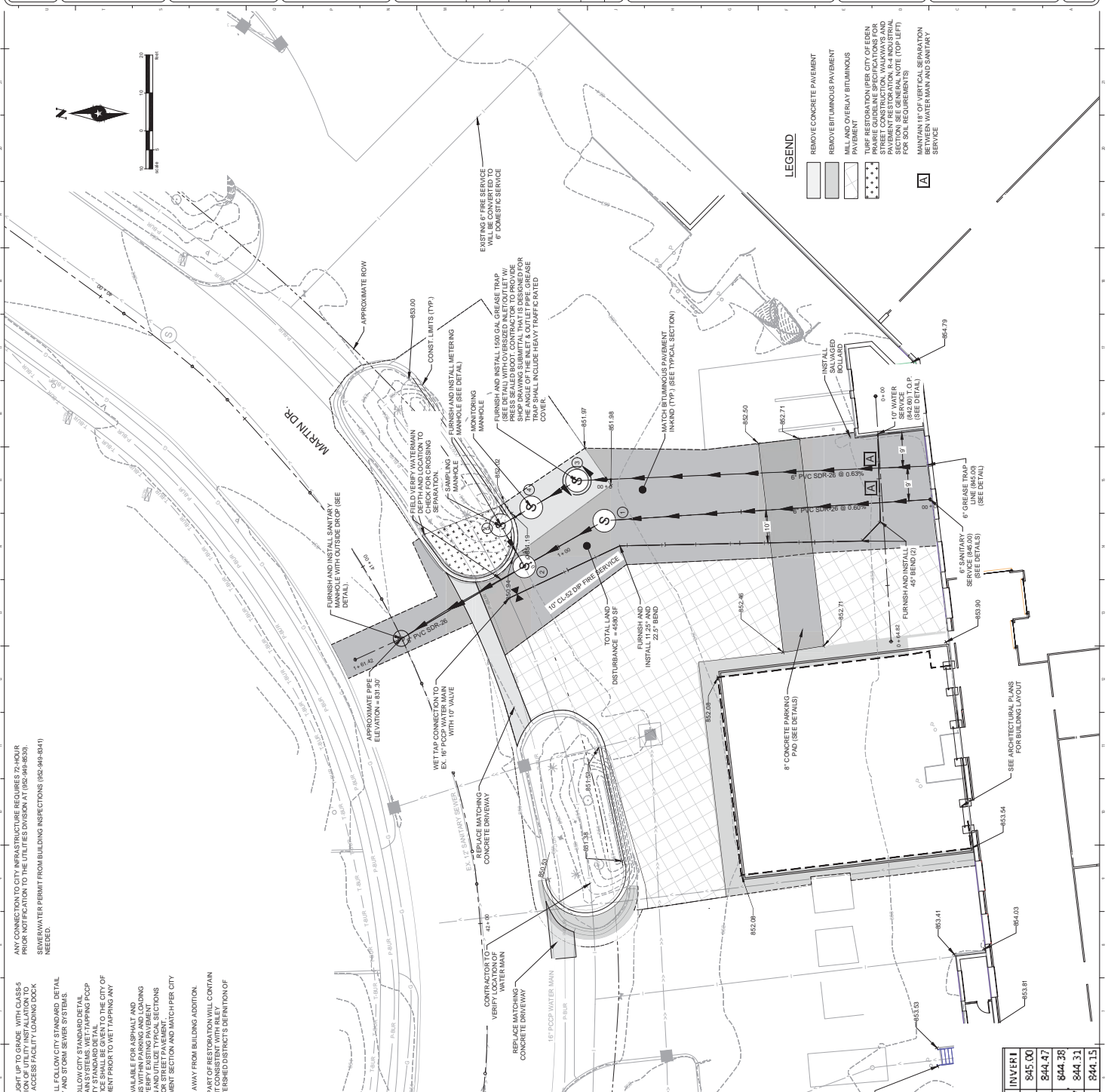


KNOWLEDGEABLE PERSONS: STATE OF RESPONSIBILITY

THE CONTRACTOR SHALL ESTABLISH THE CHAIN OF RESPONSIBILITY FOR ALL CONTRACTORS AND SUBS CONTRACTORS ON SITE TO ENSURE THE BMPs ARE BEING PROPERLY IMPLEMENTED AND MAINTAINED. THE CONTRACTOR SHALL PROVIDE THE CHAIN OF RESPONSIBILITY TO THE OWNER PRIOR TO ANY CONSTRUCTION ACTIVITY.

CONTRACTOR	CARLSON LAURE INC
CONTACT	MATE STEFFENS
PHONE	603.330.8614
EMAIL	mate@carlsonlaure.com

REMOVALS PLAN NOTES:
 1. THIS PLAN SHOWS THE LOCATION AND DEPTH OF EXISTING UTILITIES TO BE REMOVED. THE QUALITY LEVEL WAS DETERMINED ACCORDING TO THE CONSTRUCTION AND REMOVALS PLAN SPECIFICATIONS AND THE GUIDELINES FOR THE COLLECTION AND DEPOSITION OF EXISTING SURFACE UTILITY DATA. ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION, THE LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE AND MAY NOT BE COMPLETE.
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EXPLANATIONS: ALL UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR TO VERIFY & COORDINATE WITH UTILITY COMPANY. NOTIFY ENGINEER OF SIGNIFICANT DISCREPANCIES. CONTRACTOR TO UTILIZE BARRIERS DURING ANY TRENCH DIGGING. IS REQUIRED TO HAVE BARRIERS AND LIGHTING PLAN SUBMITTED TO OWNER ENGINEER FOR REVIEW AND APPROVAL. MAINTAIN 10 FOOT HORIZONTAL SEPARATION OUTSIDE OF PIPE TO OUTSIDE OF PIPE BETWEEN WATER AND SANITARY. CONTRACTOR TO LOCATE PROPERTY LINE PRIOR TO ANY WORK DONE ON SITE. BARRIERS TO BE USED DURING EXCAVATION, OVERNIGHT WORK, OR PERIOD OF TIME. CONTRACTOR TO WORK WITH CLIENT/OWNER TO DETERMINE PHASING OF EXCAVATION AND BARRIERS TO COINCIDE WITH PHASING OF THE SEWER. CONTRACTOR TO VERIFY THE LOCATION DOWNSTREAM OF SANITARY SERVICE AND GREASE TRAP WYE. LOCATION SHALL BE 8' SDR 26 PVC.

ANY CONNECTION TO CITY INFRASTRUCTURE REQUIRES 72-HOUR PRIOR NOTIFICATION TO THE UTILITIES DIVISION AT (955-949-8538). SEWER/WATER PERMIT FROM BUILDING INSPECTIONS (952-949-8341) NEEDED.

EXCAVATIONS SHOULD BE BROUGHT UP TO GRADE WITH CLASS-4 ALLIANCE OF THE CITY OF DENVER UTILITY INSTALLATION CODES. ALLOW FOR TRUCK TRAFFIC TO ACCESS FREIGHT LOADING DOCKS AND DOORS.

ALL SANITARY SEWER WORK WILL FOLLOW CITY STANDARD DETAIL SPECIFICATIONS FOR SANITARY AND STORM SEWER SYSTEMS.

ALL WATER MAIN WORK WILL FOLLOW CITY STANDARD DETAIL SPECIFICATIONS FOR WATER MAIN SYSTEMS, WET TAPPING PCOP SPECIFICATIONS. 24-HOUR NOTICE SHALL BE GIVEN TO THE CITY OF DENVER WATER MAIN DEPARTMENT PRIOR TO WET TAPPING ANY WATER MAIN.

NO ASBESTOS INFORMATION IS AVAILABLE FOR EXISTING AND CONCRETE PAVEMENT SECTIONS WITHIN PARKING AND LOADING DOCK AREA. CONTRACTOR TO VERIFY EXISTING PAVEMENT SECTIONS AND PROVIDE IN DETAIL SHEETS FOR STREET PAVEMENT SECTIONS. CONTRACTOR TO VERIFY PAVEMENT SECTION AND MATCH PER CITY STANDARDS.

PAVEMENT SHOULD BE SLOPED AWAY FROM BUILDING ADDITION. TOP SOIL TO BE INSTALLED AS PART OF RESTORATION WILL CONTAIN PARQUETARY BUFF CREEK WATERSHED DISTRICTS DEFINITION OF TOPSOIL.

CONTRACTOR TO VERIFY WATER MAIN.

REPLACE MATCHING CONCRETE DRIVEWAY.

18" POOP WATER MAIN.

CONTRACTOR TO VERIFY WATER MAIN.

WET TAP CONDUIT FOR 18" POOP WATER MAIN WITH 10' VALVE.

APPROXIMATE PIPE ELEVATION = 851.30'

10' CL 452 DRIP PIPE SERVICE.

APPROXIMATE ROW.

CONST. LIMITS (TYP).

FURNISH AND INSTALL 1800 GAL GREASE TRAP PRESS SEALED BOOT. CONTRACTOR TO PROVIDE THE ANGLE OF THE INLET & OUTLET PIPE. GREASE TRAP SHALL INCLUDE HEAVY TRAFFIC RATED COVER.

EXISTING 6" FIRE SERVICE WILL BE CONVERTED TO 6" DOMESTIC SERVICE.

FURNISH AND INSTALL 1800 GAL GREASE TRAP PRESS SEALED BOOT. CONTRACTOR TO PROVIDE THE ANGLE OF THE INLET & OUTLET PIPE. GREASE TRAP SHALL INCLUDE HEAVY TRAFFIC RATED COVER.

MONITORING MANHOLE (SEE DETAIL).

FURNISH AND INSTALL METERING MANHOLE (SEE DETAIL).

MATCH EXISTING PAVEMENT IN KIND (TYP) (SEE TYPICAL SECTION).

INSTALL 18" DIAMETER BOLLARD.

6" GREASE TRAP SERVICE (846.00) LINE (845.00) (SEE DETAIL).

6" SANITARY SERVICE (846.00) LINE (845.00) (SEE DETAILS).

6" WATER SERVICE (842.80) T.O.P. (842.80) (SEE DETAIL).

6" GREASE TRAP SERVICE (846.00) LINE (845.00) (SEE DETAIL).

6" SANITARY SERVICE (846.00) LINE (845.00) (SEE DETAILS).

6" WATER SERVICE (842.80) T.O.P. (842.80) (SEE DETAIL).

8" CONCRETE PARKING PAD (SEE DETAILS).

SEE ARCHITECTURAL PLANS FOR BUILDING LAYOUT.

SANITARY SERVICE LINE		GREASE TRAP LINE	
STRUCTURE	RIM	INVERT	RIM
BUILDING CONNECTION	-	845.00	845.00
MH 1	851.89	844.49	844.47
GREASE LINE WYE	-	844.15	844.38
RISER	-	844.06	844.31
WYE CONNECTION	-	831.30	844.15

ANY CONNECTION TO CITY INFRASTRUCTURE REQUIRES 72-HOUR PRIOR NOTIFICATION TO THE UTILITIES DIVISION AT (952-949-8838). SEWER/WATER PERMIT FROM BUILDING INSPECTORS (952-949-8341) NEEDED.

EXCAVATIONS SHOULD BE BROUGHT UP TO GRADE WITH CLASS-4 MATERIAL TO THE CITY OF MINNEAPOLIS. ALL UTILITIES SHALL BE LOCATED AND MARKED PRIOR TO ANY EXCAVATION WORK. ALL EXCAVATIONS SHALL BE PROTECTED WITH SAFETY FENCING AND LIGHTING. ALL EXCAVATIONS SHALL BE PROTECTED WITH SAFETY FENCING AND LIGHTING. ALL EXCAVATIONS SHALL BE PROTECTED WITH SAFETY FENCING AND LIGHTING. ALL EXCAVATIONS SHALL BE PROTECTED WITH SAFETY FENCING AND LIGHTING.

ALL SANITARY SEWER WORK WILL FOLLOW CITY STANDARD DETAIL SPECIFICATIONS FOR SANITARY AND STORM SEWER SYSTEMS. ALL WATER MAIN WORK WILL FOLLOW CITY STANDARD DETAIL SPECIFICATIONS FOR WATER MAIN SYSTEMS. WET TAPPING PCOP SPECIFICATIONS. 24-HOUR NOTICE SHALL BE GIVEN TO THE CITY OF MINNEAPOLIS UTILITIES DEPARTMENT PRIOR TO WET TAPPING ANY WATER MAIN.

NO ASBESTOS INFORMATION IS AVAILABLE FOR LEAD AND CEMENT. CONTRACTOR TO VERIFY EXISTING PAVEMENT CONCRETE PAVEMENT SECTIONS WITHIN PARKING AND LOADING DOCK AREA. CONTRACTOR TO VERIFY EXISTING PAVEMENT CONCRETE PAVEMENT SECTIONS WITHIN PARKING AND LOADING DOCK AREA. CONTRACTOR TO VERIFY EXISTING PAVEMENT CONCRETE PAVEMENT SECTIONS WITHIN PARKING AND LOADING DOCK AREA. CONTRACTOR TO VERIFY EXISTING PAVEMENT CONCRETE PAVEMENT SECTIONS WITHIN PARKING AND LOADING DOCK AREA.

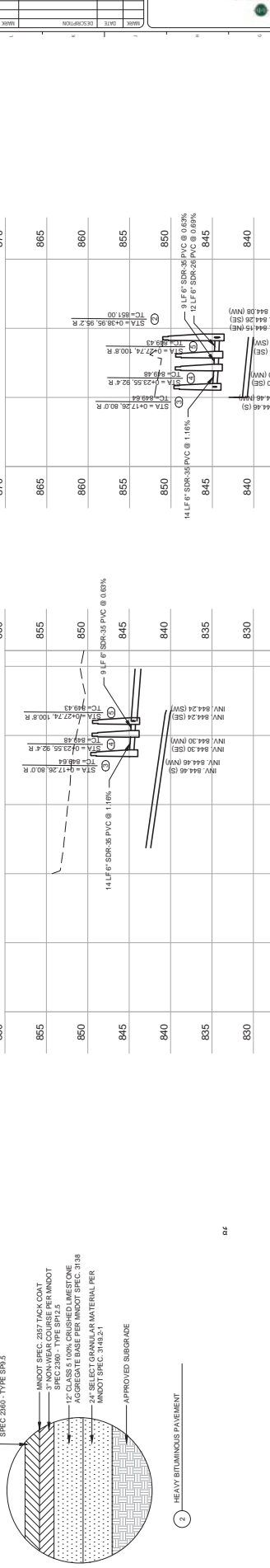
PAVEMENT SHOULD BE SLOPED AWAY FROM BUILDING ADDITION. TOP SOIL TO BE INSTALLED AS PART OF RESTORATION WILL CONTAIN PARAGRAPHY BLUFF CREEK WATERSHED DISTRICT'S DEFINITION OF TOPSOIL.

ALL UTILITY RESTORATIONS ARE APPROXIMATE CONTRACTOR TO VERIFY & COORDINATE WITH UTILITY COMPANY. NOTIFY ENGINEER OF SIGNIFICANT DISCREPANCIES. CONTRACTOR TO UTILIZE BARRIERS DURING ANY TRENCH RESTORATION. CONTRACTOR TO HAVE BARRIERS AND LIGHTING PLAN SUBMITTED TO OWNER/ENGINEER FOR REVIEW AND APPROVAL. MAINTAIN 10 FOOT HORIZONTAL SEPARATION OUTSIDE OF PIPE TO OUTSIDE OF PIPE BETWEEN WATER AND SANITARY.

CONTRACTOR TO LOCATE PROPERTY LINE PRIOR TO ANY WORK DONE ON SITE. BARRIERS TO BE USED DURING EXCAVATION, OVERNIGHT WORK, OR RESTORATION. CONTRACTOR TO VERIFY EXISTING PAVEMENT CONCRETE PAVEMENT SECTIONS WITHIN PARKING AND LOADING DOCK AREA. CONTRACTOR TO VERIFY EXISTING PAVEMENT CONCRETE PAVEMENT SECTIONS WITHIN PARKING AND LOADING DOCK AREA.

CONTRACTOR TO VERIFY EXISTING PAVEMENT CONCRETE PAVEMENT SECTIONS WITHIN PARKING AND LOADING DOCK AREA. CONTRACTOR TO VERIFY EXISTING PAVEMENT CONCRETE PAVEMENT SECTIONS WITHIN PARKING AND LOADING DOCK AREA.

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SANITARY SERVICE LINE		GREASE TRAP LINE	
STRUCTURE	RIM	INVERT	RIM
BUILDING CONNECTION	-	845.00	845.00
MH 1	851.89	844.49	844.47
GREASE LINE WYE	-	844.15	844.38
RISE	-	844.06	844.31
WYE CONNECTION	-	831.30	844.15



SHORT EIGHT HARDIKSON INC.
 651 490 2000 main | 651 490 1510 fax
 1800 222 2222 | www.seh.com

DATE: _____
 SHEET NO: _____
 PROJECT NO: _____
 DRAWING NO: _____

REVISIONS

NO.	DATE	DESCRIPTION

DATE: _____
 SHEET NO: _____
 PROJECT NO: _____
 DRAWING NO: _____

DATE: _____
 SHEET NO: _____
 PROJECT NO: _____
 DRAWING NO: _____

DATE: _____
 SHEET NO: _____
 PROJECT NO: _____
 DRAWING NO: _____

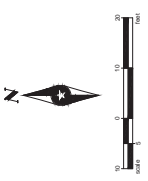
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 PROJECT NO: _____
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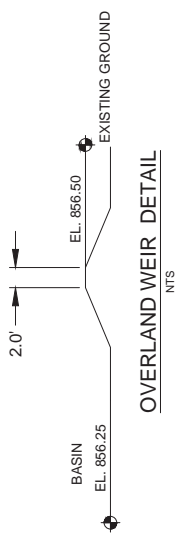
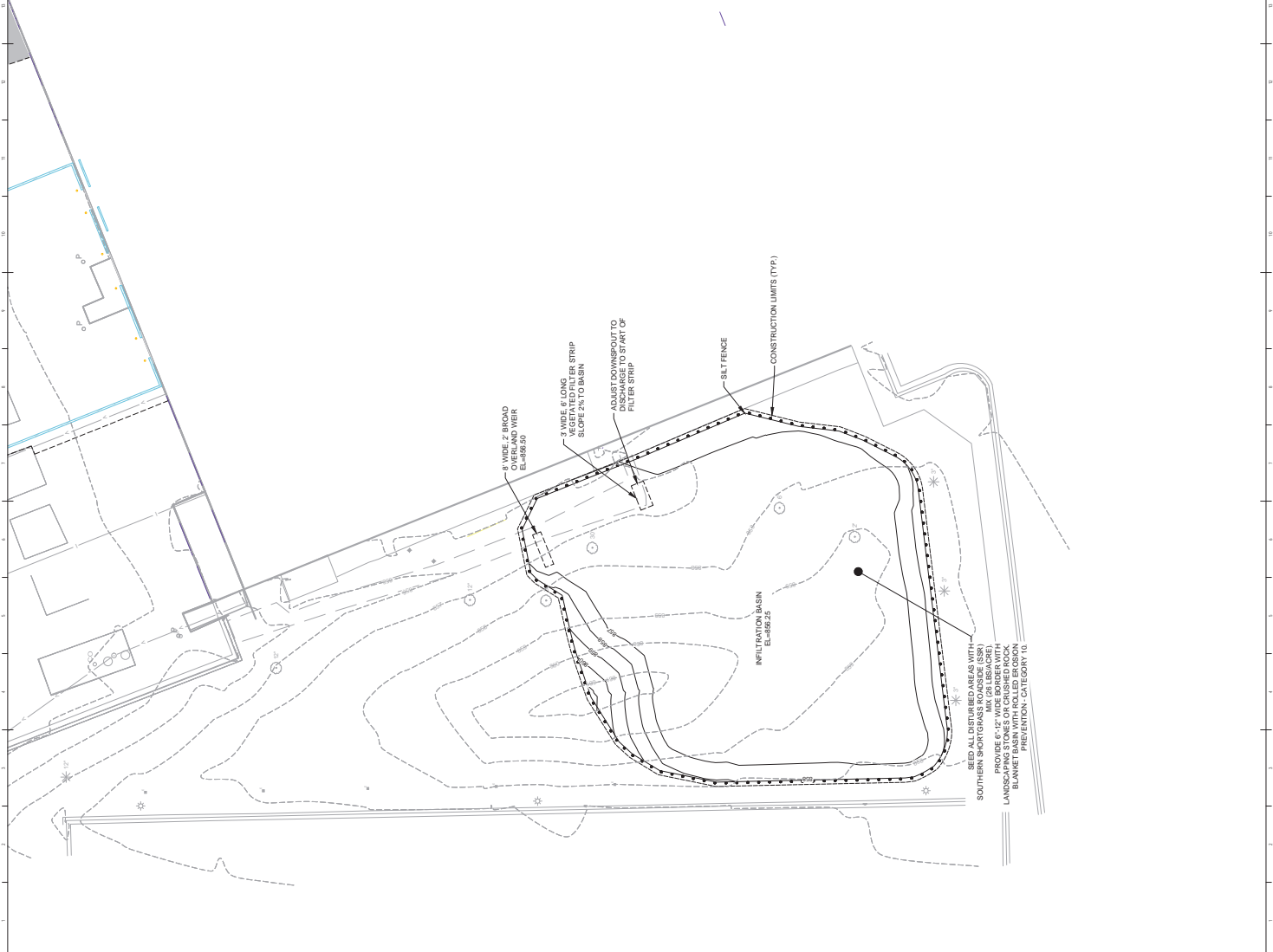
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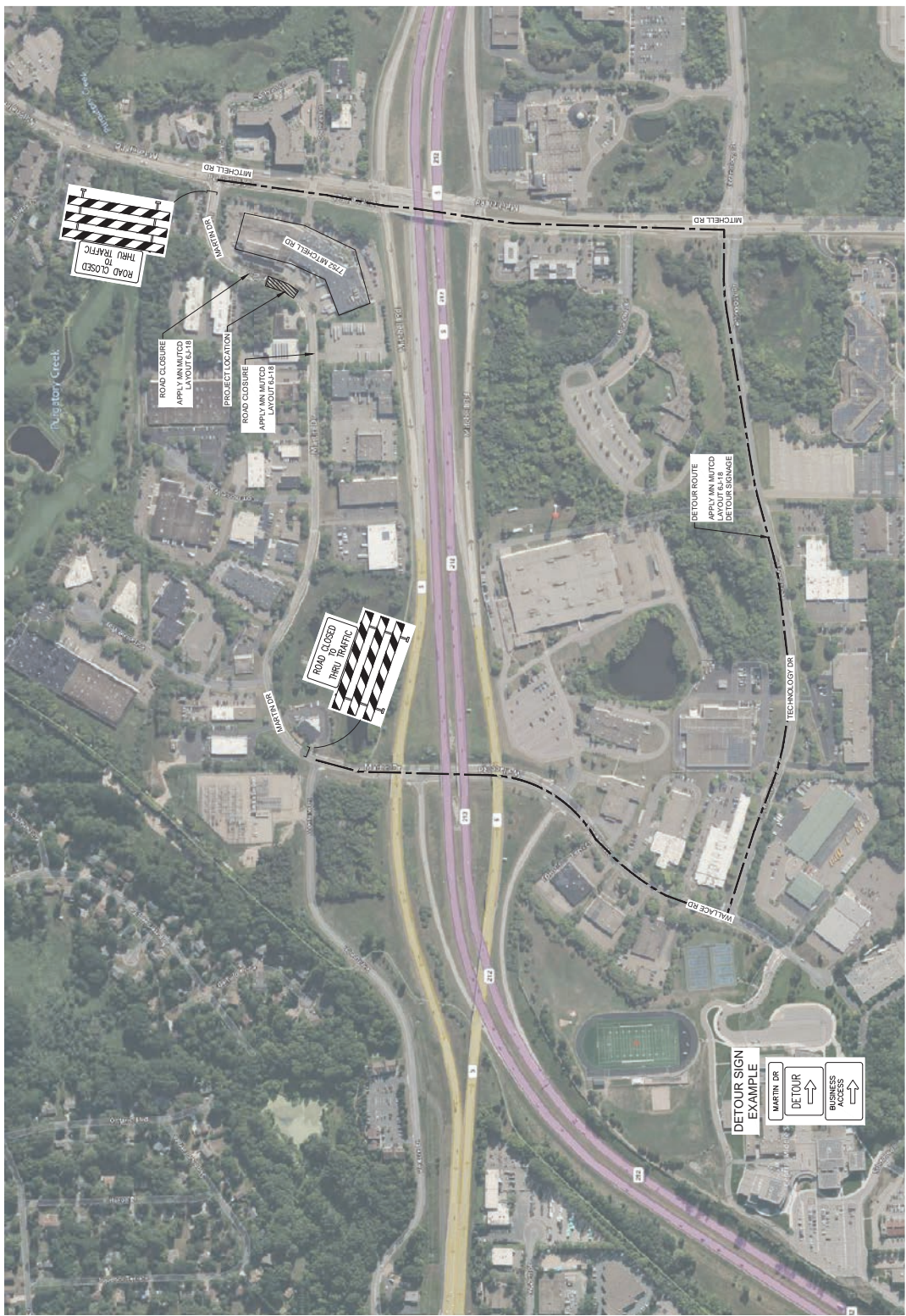
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 PROJECT NO: _____
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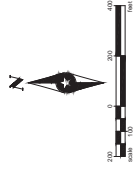
INFILTRATION BASIN CONSTRUCTION:

1. THE CONTRACTOR SHALL MAINTAIN PERIMETER SEDIMENT CONTROL MEASURES (I.E. SILT FENCE, SEDIMENT CONTROL LOGS) AROUND THE INFILTRATION BASIN THROUGHOUT THE CONSTRUCTION PROCESS. MATERIALS MUST BE STORED OFF AND AWAY TO PREVENT CONSTRUCTION TRAPPALE, EQUIPMENT, AND MATERIAL STOCKPILES OUT OF THE PROPOSED INFILTRATION AREA.
2. THE CONTRACTOR SHALL ENSURE THAT THE INFILTRATION BASIN IS NOT USED AS A SEDIMENT TRAP DURING CONSTRUCTION AND THAT NO RUNOFF ENTERS THE BASIN PRIOR TO THE COMPLETION OF CONSTRUCTION AND COMPLETE STABILIZATION OF SURROUNDING AREAS DRAINING TO THE BASIN. ALL UP-AND-DRAINAGE MUST BE DIVERTED TO PREVENT RUNOFF FROM ENTERING THE INFILTRATION BASIN WORK AREA.
3. NO EQUIPMENT SHALL BE DRIVEN IN THE AREA OF THE BASIN PRIOR TO ITS CONSTRUCTION, AND WHEN IT IS CONSTRUCTED ONLY LIGHT EARTHMOVING EQUIPMENT WITH TIRES SHALL BE USED.
4. AFTER THE BASIN IS CONSTRUCTED, THE SOFT GROUND SURFACE SHALL BE LIFTED TO PROVIDE AN UNSETTLED, UNDISTURBED SURFACE. SMEARING OF THE SOIL THROUGH THE BASIN SHALL BE AVOIDED. THE BASIN SHALL BE COVERED WITH AN 18" MINIMUM THICKNESS OF 1/2" RADIUS RIFLED STONE OR EQUIVALENT. THE BASIN SHALL BE COVERED WITH AN 18" MINIMUM THICKNESS OF 1/2" RADIUS RIFLED STONE OR EQUIVALENT.
5. IMMEDIATELY FOLLOWING THE INFILTRATION BASIN CONSTRUCTION, THE SOIL SURFACE SHALL BE SEEDED AND STABILIZED AS INDICATED IN THE PLANS. THE BASIN MUST BE FULLY STABILIZED PRIOR TO ANY UPSTREAM RUNOFF BEING DIRECT TO THE BASIN.
6. INFILTRATION FACILITIES SHALL NOT BE SCAVATED WITHIN 3 FEET OF FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED. ANY ACCUMULATED SEDIMENT MUST BE REMOVED IN A MANNER THAT PREVENTS COMPACTION OF THE BOTTOM.
7. IF LARGER COBBLES OR STONES ARE ENCOUNTERED DURING BASIN CONSTRUCTION, THEY SHOULD BE REMOVED.

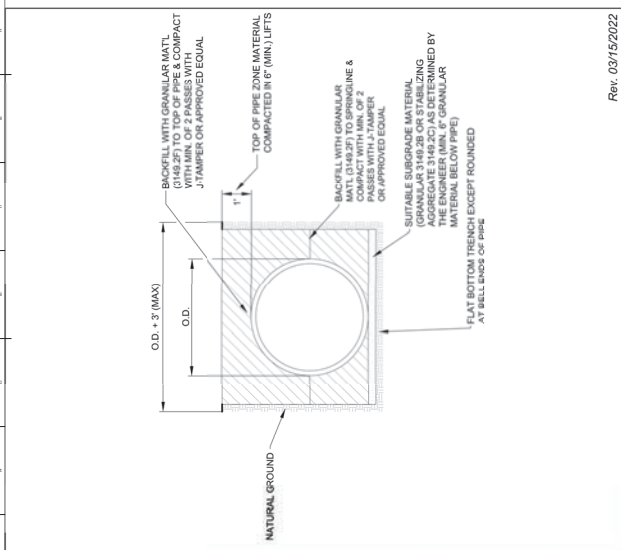




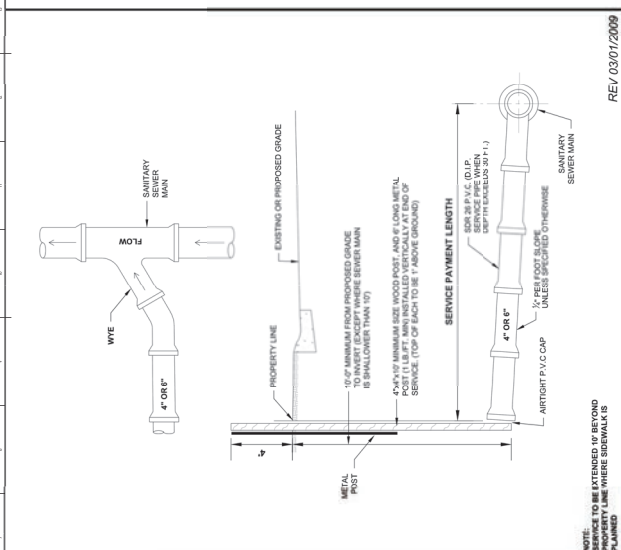
NOTE: CONTRACTOR SHALL SUBMIT DETAILED TRAFFIC CONTROL PLAN TO CITY FOR REVIEW AND APPROVAL. THE PLAN MUST INCLUDE ADDITIONAL WALK-THROUGH SIGNAGE MUST INCLUDE ADDITIONAL WALK-THROUGH BUSINESS ACCESS SIGNAGE.



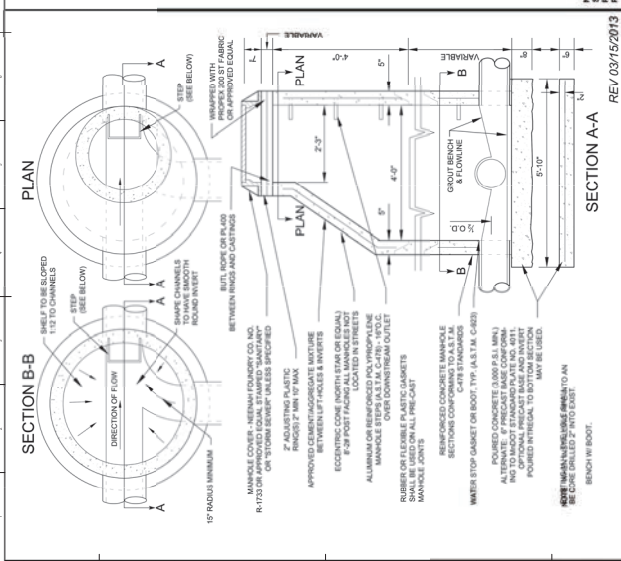
DATE	DESCRIPTION	BY	CHKD	APPD



Rev. 03/15/2022
 DETAIL NO. **S-12**
BEDDING FOR PVC, HDPE (ALL SIZES), AND RCP / DIP (8" AND LARGER)
 CITY OF EDEN PRAIRIE
 DEPARTMENT OF ENGINEERING



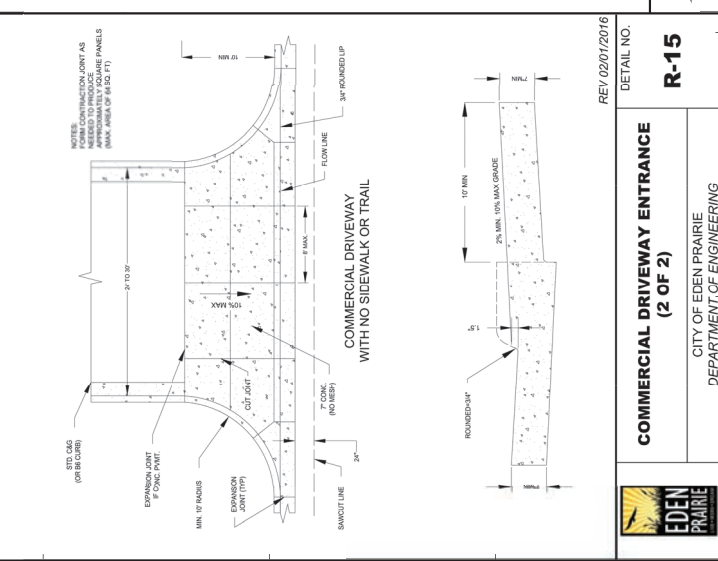
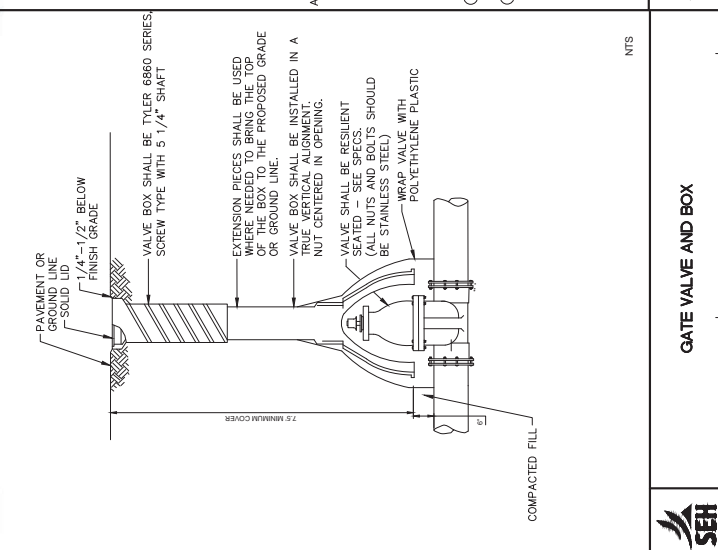
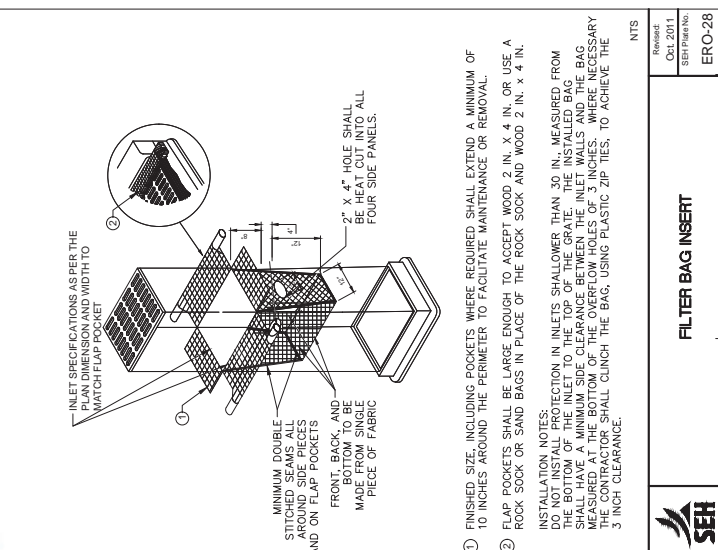
Rev. 03/01/2009
 DETAIL NO. **S-8**
TYPICAL BUILDING SERVICE
 CITY OF EDEN PRAIRIE
 DEPARTMENT OF ENGINEERING



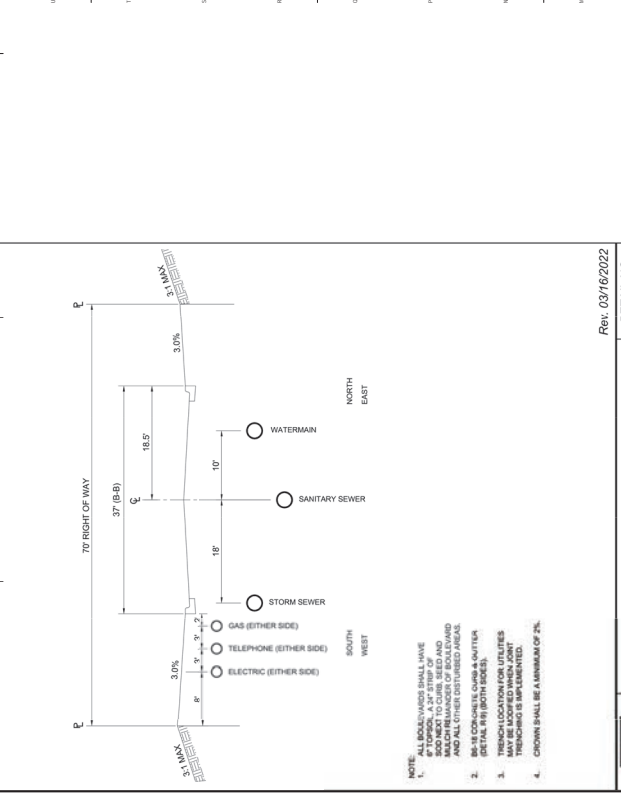
Rev. 03/15/2013
 DETAIL NO. **S-1**
STANDARD MANHOLE DETAIL
 CITY OF EDEN PRAIRIE
 DEPARTMENT OF ENGINEERING

DATE	DESCRIPTION	BY	CHKD	APPD

Rev. 02/07/2016
 DETAIL NO. **R-15**
COMMERCIAL DRIVEWAY ENTRANCE (2 OF 2)
 CITY OF EDEN PRAIRIE
 DEPARTMENT OF ENGINEERING



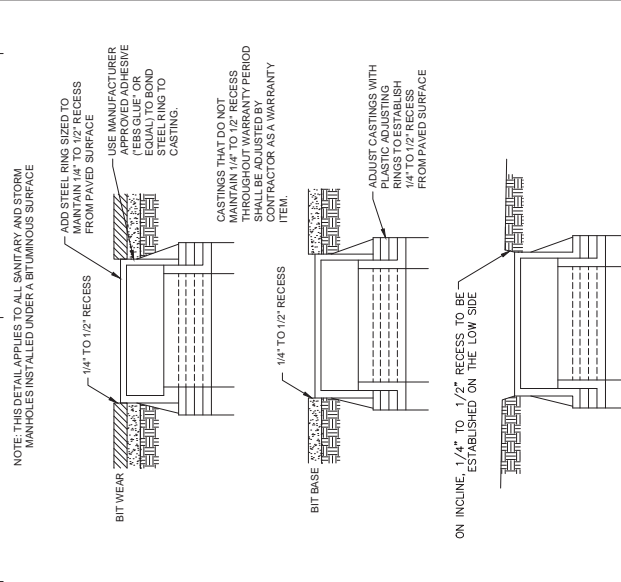
Rev. 02/07/2016
 DETAIL NO. **R-15**
COMMERCIAL DRIVEWAY ENTRANCE (2 OF 2)
 CITY OF EDEN PRAIRIE
 DEPARTMENT OF ENGINEERING



INDUSTRIAL SECTION

CITY OF EDEN PRAIRIE
DEPARTMENT OF ENGINEERING

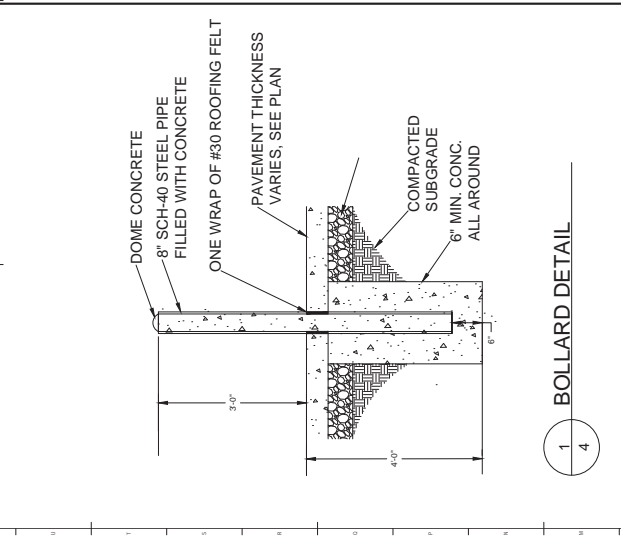
Rev. 03/16/2022
DETAIL NO. R-4



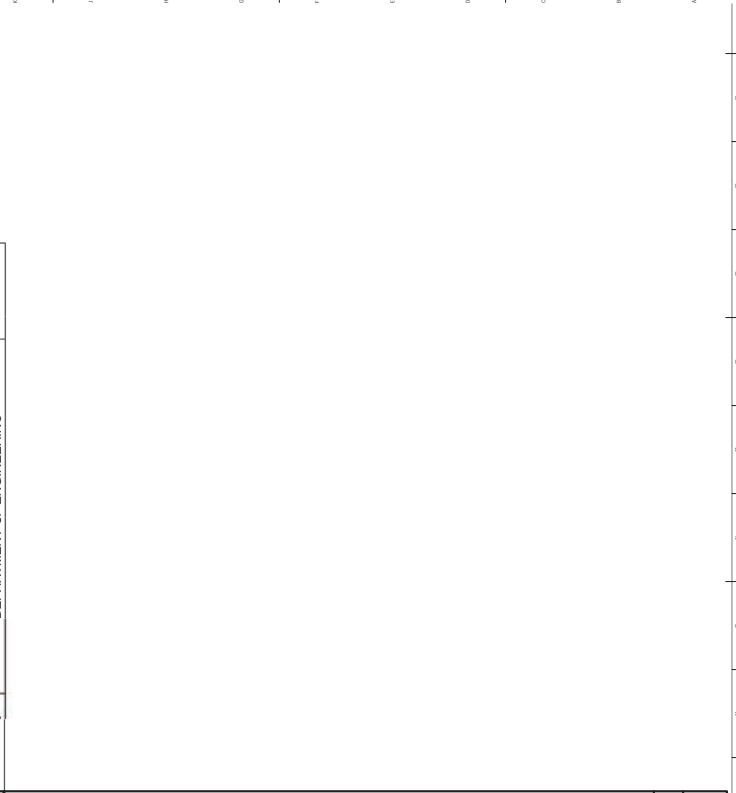
MANHOLE CASTING ADJUSTMENT

NTS

Revised: Oct. 2011
SEH Plan No. SAN-16



SEH logo

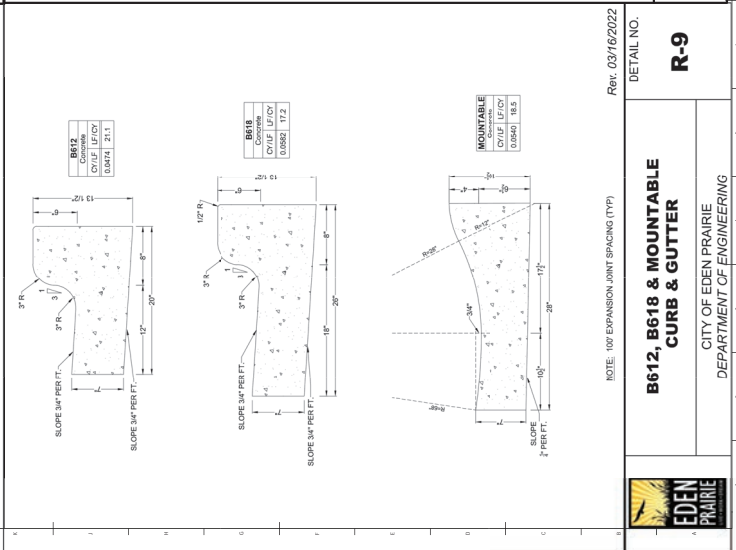


ROCK CONSTRUCTION ENTRANCE

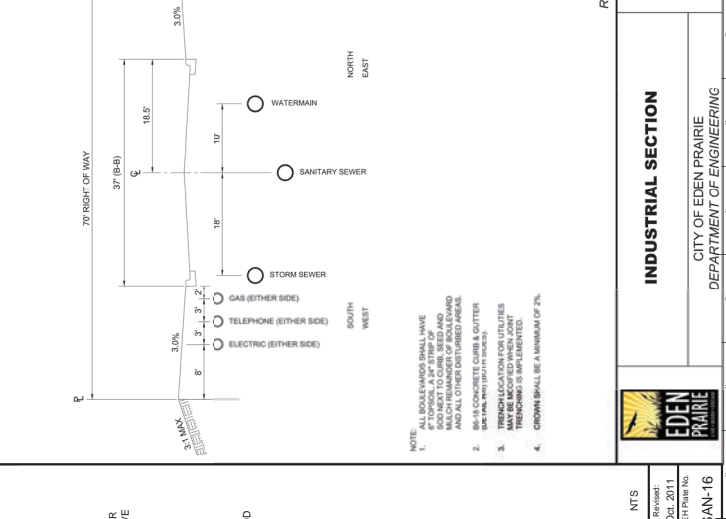
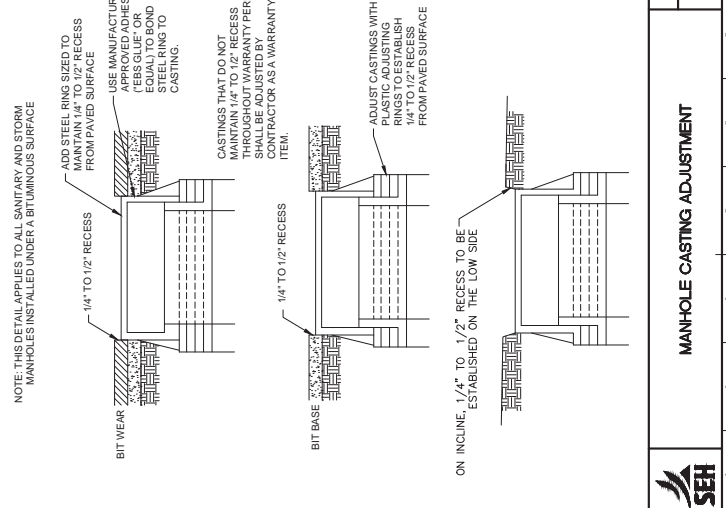
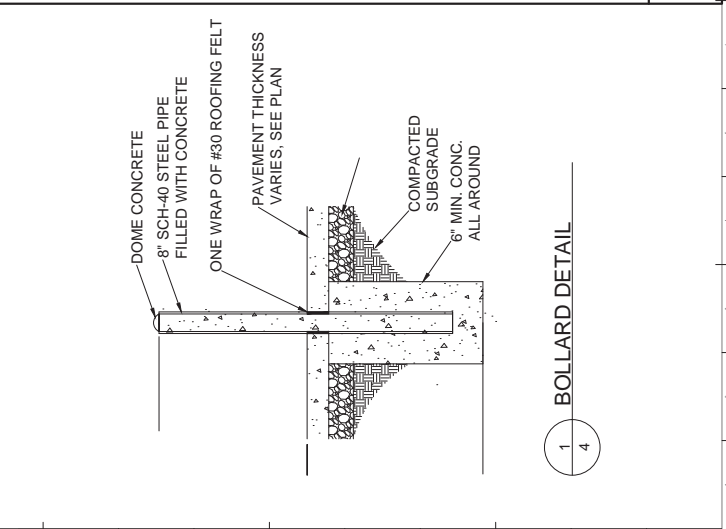
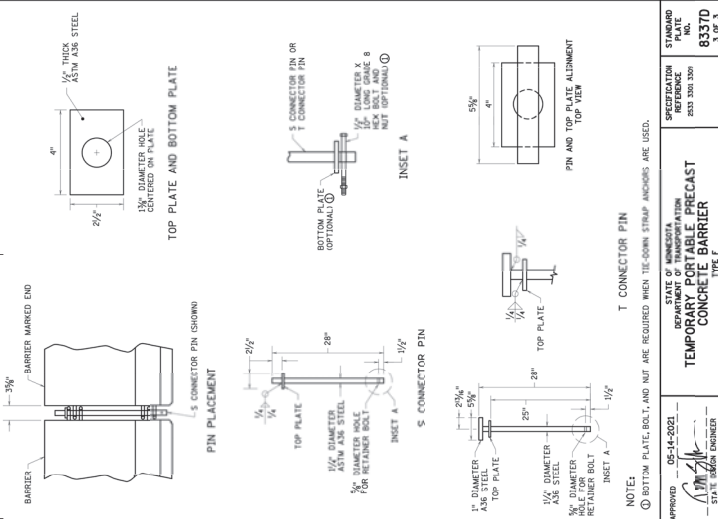
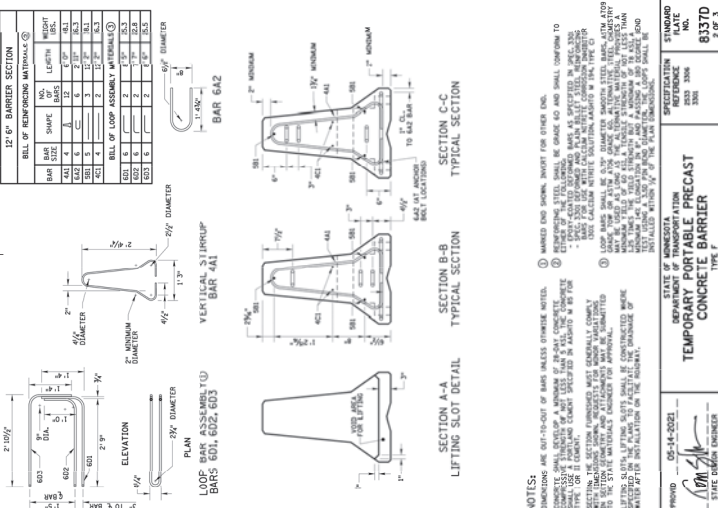
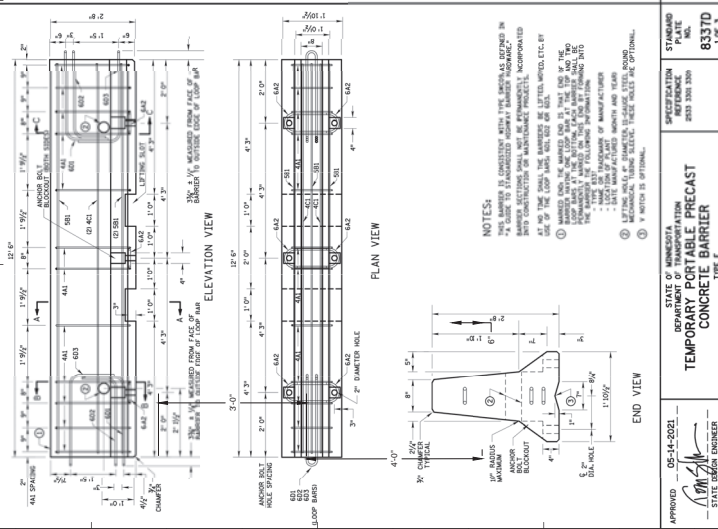
NTS

Revised: Oct. 2011
SEH Plan No. ERO-35

NOTE: TO PREVENT TRACKING OF MUD ONTO PAVED ROADS, INSTALL ADDITIONAL ROCK OR REMOVE AND REPLACE THE PAD AS REQUIRED



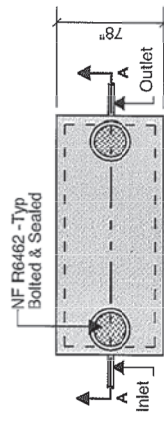
	SHEET NO. 17118 DATE: 08/15/2011 PROJECT: EDEN PRAIRIE DRAWN BY: J. GARDNER CHECKED BY: J. GARDNER PROJECT NO.: 03162022	SHEET CONTENTS 1. BOLLARD DETAIL 2. MANHOLE CASTING ADJUSTMENT 3. INDUSTRIAL SECTION 4. R-4



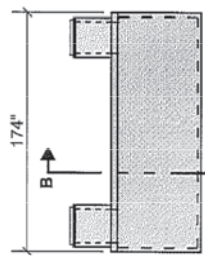
APPROVED: 05-14-2021 STATE ENGINEER	APPROVED: 05-14-2021 STATE ENGINEER	APPROVED: 05-14-2021 STATE ENGINEER
STANDARD SPECIFICATION NO. 8337D SECTION 2903 300 300	STANDARD SPECIFICATION NO. 8337D SECTION 2903 300 300	STANDARD SPECIFICATION NO. 8337D SECTION 2903 300 300
STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION TEMPORARY PORTABLE PRECAST CONCRETE BARRIER TYPE F	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION TEMPORARY PORTABLE PRECAST CONCRETE BARRIER TYPE F	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION TEMPORARY PORTABLE PRECAST CONCRETE BARRIER TYPE F

**2000 SL GALLON
GREASE
43" LL
48" INLET**

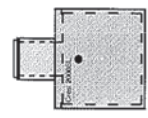
2 Compartment



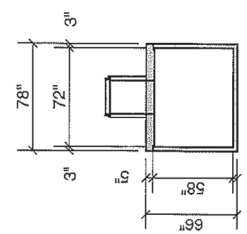
Top View



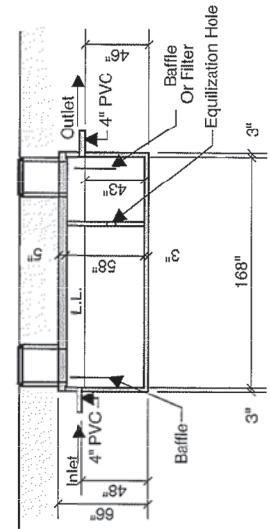
Side View



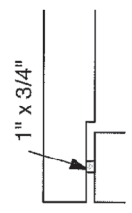
End View



Section B-B



Section A-A

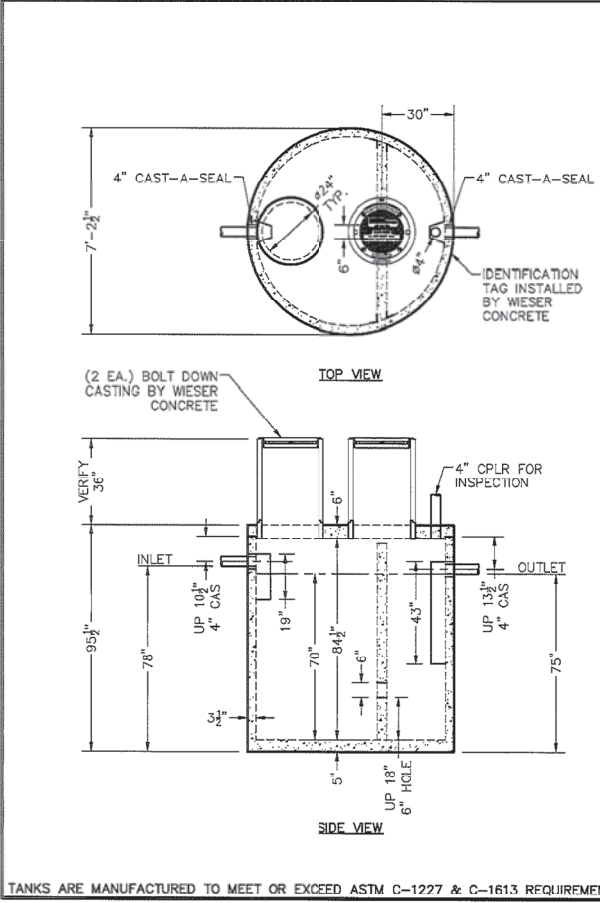


**Typical Cover
Detail**

Notes:
 Concrete - 5000 PSI
 Joint Sealant - High Grade EZ-Slick
 Labels - Warning signs located on all manholes
 Installation - See separate installation guide
 Baffles Installed
 Rubber Gaskets - Press Seal
 Tank Designed To ASTM C-1227-90 and ASTM 1613-06

Crest Precast, Inc.
La Crescent, MN & Barneveld, WI
 800-668-9045

Date: 5-1-08 Quantity: KGT
 Project: **2000 Gal. Grease Interceptor**
 Contractor: **MODEL 2000-GSL-2**

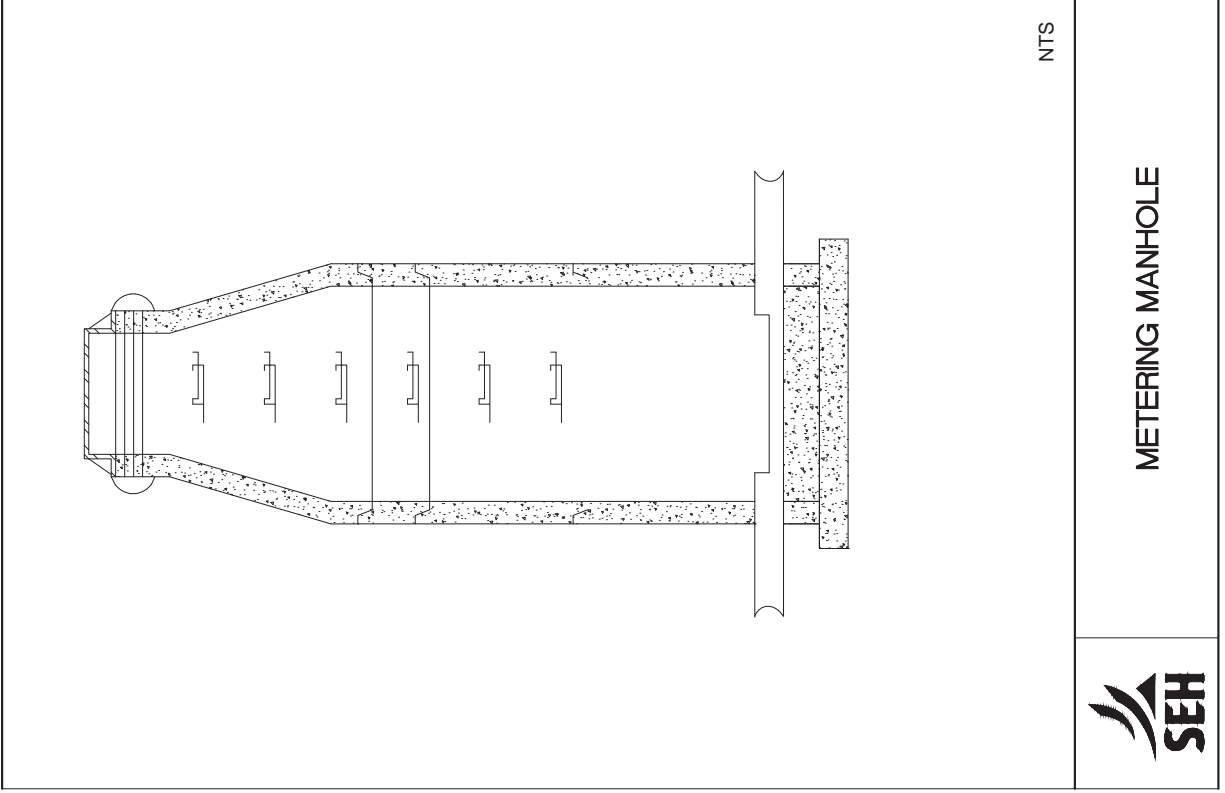


NORTHERN MECHANICAL CONTRACTORS STARTING GATE – SHAKOPEE, MN (1 EA.) WEHD1500 – 2 COMPARTMENT GREASE INTERCEPTOR TANK SPECIFICATIONS

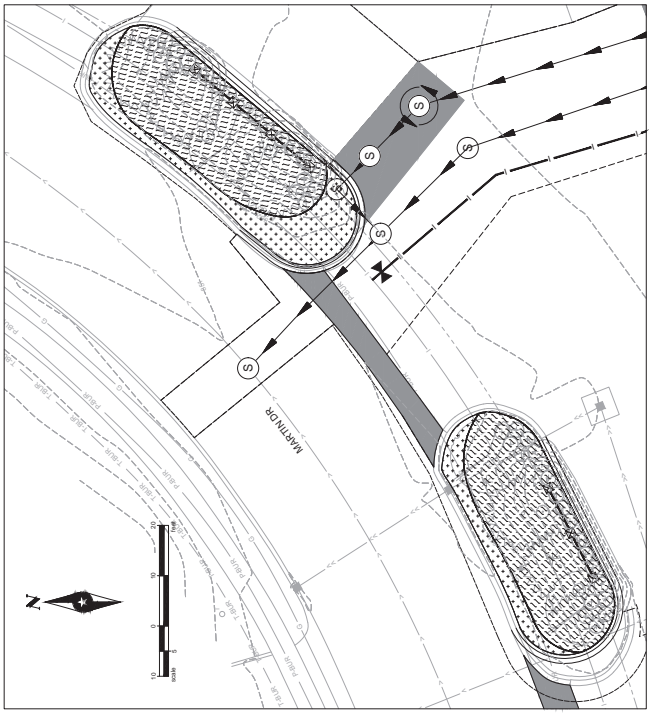
- DIMENSIONS:**
 WALL: 3 1/2"
 BOTTOM: 5"
 COVER: 6"
 MANHOLE: 24" I.D. PRECAST CONCRETE RISER W/ CASTING
 HEIGHT: 95 1/2" O.D.
 OUTSIDE DIAMETER: 7'-2 1/2"
 BELOW INLET: 78" O.D.
 LIQUID LEVEL: 70"
 WEIGHT: TANK 11,700 LBS.
 WEIGHT: COVER 3,000 LBS.
- INLET AND OUTLET:**
 4" CAST-A-SEAL BOOT OR EQUAL GASKET
- INLET AND OUTLET BAFFLES:**
 AS SHOWN
- LIQUID CAPACITY:** 21.48 GAL/IN
- LOADING DESIGN:** 12'-0" UNSATURATED SOIL / HS-20
- COVER:** MIX DESIGN #8 (NO FIBER)
TANK: MIX DESIGN #8 (NO FIBER)

REVIEWED BY: _____	DATE: _____
REVIEW DATE: _____	DATE: _____
DRAWINGS SUBMITTED FOR APPROVAL	
APPROVED BY: _____	DATE: _____
APPROVAL DATE: _____	DATE: _____
PRODUCTS NEEDED BY: _____	DATE: _____

SCALE: 1/4" = 1'-0"	REV.	DATE:	PRE-FOUR:	POST-FOUR:
WIESER CONCRETE				
W3716 US HWY 10, MARSHEN ROCK, WI 54750 800-325-8436				
NORTHERN MECHANICAL CONTRACTORS PROJECT: STARTING GATE SHAKOPEE, MN WESIER JOB# 24-xxxxT				
SHEET NO. 1 OF 1				



- NOTES:
1. PROTECT EXISTING CONIFER TREES TO REMAIN. CONTRACT SHALL INCLUDE PRUNING AND TREE MAINTENANCE FOR EXISTING CONIFER TREES UNDER A CERTIFIED ARBORIST.
 2. MINIMIZE DISTURBANCE OF EXISTING CONIFER TREE CRITICAL ROOT ZONES AS FEASIBLE. CONTRACTOR SHALL PROVIDE ROOT CUTTING TECHNIQUES AS NEEDED TO MINIMIZE NEGATIVE IMPACTS TO EXISTING TREES AND OTHER CONSTRUCTION ACTIVITIES AS DETERMINED BY A CERTIFIED ARBORIST.
 3. SEE PLANTING DETAILS ON SHEET L3 FOR ADDITIONAL REQUIREMENTS.



REV. 1 DOUBLE-SHREDED WOOD MULCH
 TURF RESTORATION (PRECEDENCE OF ERM PRAXIS GUIDELINE SPECIFICATIONS FOR STREET CONSTRUCTION, WALKWAYS AND PAVEMENT RESTORATION, R-4 INDUSTRIAL SECTION)

PLANTING BED MULCH & TURF RESTORATION AREAS

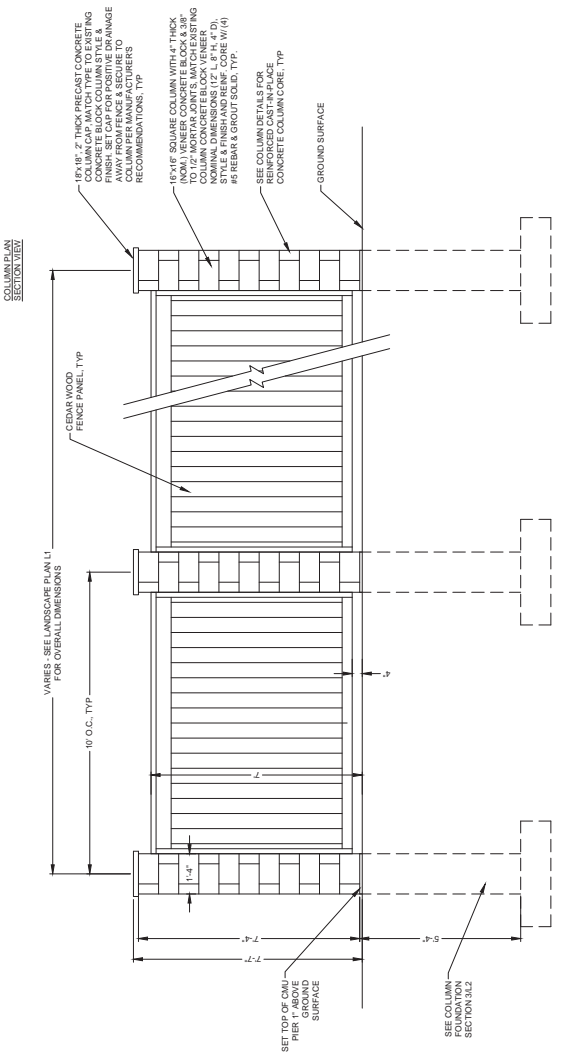
QUANTITY	COMMON NAME	SCIENTIFIC NAME	SIZE	SPACING (O.C.)	COMMENTS
3	INHERITORY LILIES		5" x 6"	SEE PLAN	U.L. 15' x 15' x 15' P.C. 1/4"
3	3" x 6" x 12" L.P. 1/4" x 1/4" x 1/4"		3" x 6"	SEE PLAN	
5	CONIFER TREES		9" x 12"	SEE PLAN	
45	SPRUCES		9" x 12"	SEE PLAN	
4	Maple P. 2 1/2" x 1 1/2" x 1 1/2"		1 1/2"	SEE PLAN	

TREE & SHRUB PLANTING SCHEDULE

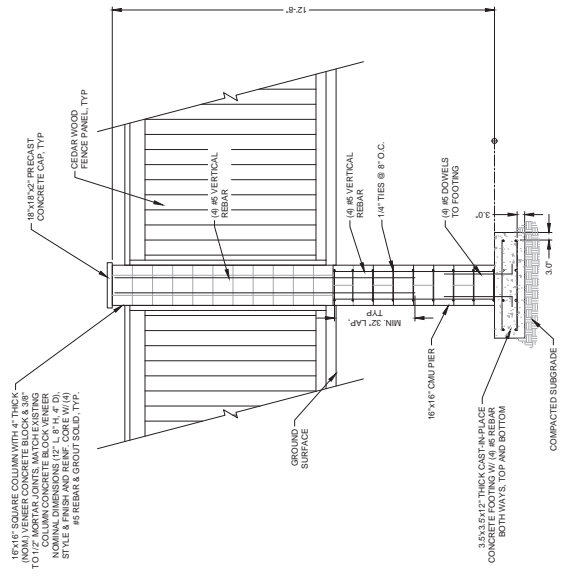


LANDSCAPE PLAN

NOTES:
 1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF FENCE COLUMNS AND FOOTINGS FOR APPROVAL BY ENGINEER PRIOR TO CONSTRUCTION.
 2. VERIFY ALL DIMENSIONS AND MATERIALS WITH SUPPLIER AND OBTAIN APPROVAL FOR COLUMNS IN THE FIELD PRIOR TO FABRICATION.

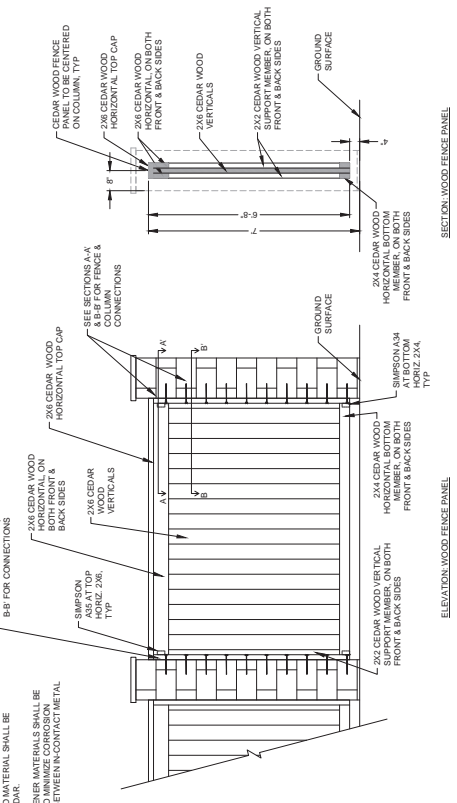


1. ELEVATION: FENCE & COLUMNS

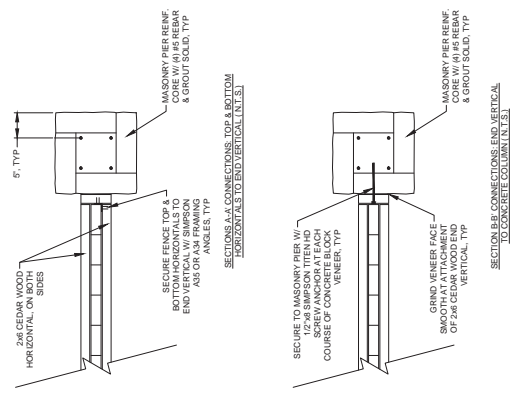


2. SECTION: COLUMN FOUNDATION

NOTES:
 1. ALL LUMBER SIZES ARE NOMINAL.
 2. FENCE WOOD MATERIAL SHALL BE NATURAL CEDAR.
 3. METAL FASTENER MATERIALS SHALL BE SELECTED TO MINIMIZE CORROSION BETWEEN IN-CONTACT METAL SURFACES.



2. ELEVATION & SECTION: CEDAR WOOD FENCE



SECTION B-B CONNECTIONS: END VERTICAL TO CONCRETE COLUMN (L.S.)



