

Applicant: Timothy Rybak; Bloomington Public Schools
Consultant: Bill Diede; Bolton & Menk, Inc.
Project: Bloomington Public Schools Transportation Facility Site Improvements
Location: 8801 Lyndale Avenue South, Bloomington, MN
Applicable Rule(s): 2, 4, 5
Reviewer(s): Azeemuddin Ahmed and Louise Heffernan; Barr Engineering Co.

General Background & Comments

The applicant proposes parking lot and site improvements at the Bloomington Schools Transportation Building in Bloomington. The proposed work includes site improvements near the building entrance, bituminous parking area reclamation along the eastern edge of the parking lot, full depth bituminous replacement near the Harriet Avenue South access drive entrance, utility improvements, and the construction of a stormwater management facility for compliance with the NMCWD stormwater requirements. The 6.5-acre site is located at 8801 Lyndale Avenue South in Bloomington.

Based on a review of issued NMCWD permits, no previous permits requiring stormwater management were identified for this site.

The project site information includes the following:

- Total Site Area: 283,328 square feet (6.50 acres)
- Disturbed Area: 30,400 square feet (0.70 acres)
- Existing Site Impervious Area: 250,034 square feet (5.74 acres)
- Proposed Site Impervious Area: 250,034 square feet (5.74 acres)
- Disturbed and Reconstructed Impervious Area: 3,500 square feet (0.08 acres)
- 0% increase in the site impervious area (0 square feet)
- 1.4% of the existing impervious surface will be disturbed and replaced

Rule 2.0 Floodplain Management and Drainage Alterations applies to the project because the project will involve land-altering activities below the NMCWD 100-year frequency flood elevation of a waterbody onsite (823.9 M.S.L.).

Rule 3.0 Wetlands Management does not apply to the project because the proposed activities do not result in the draining, excavating, or filling of a wetland regulated by the Wetland Conservation Act (WCA). Additionally, the buffer provisions of section 3.4 do not apply because no WCA-regulated wetlands are located downgradient or disturbed by land-disturbing activities. The City of Bloomington is the Local Government Unit (LGU) administering the

requirements of the WCA. A Bolton & Menk, Inc. Wetland Delineation Report dated October 17, 2022, identified a wetland along the eastern boundary of the project site, however, because the existing curb will remain in-place along the edge of the parking area, the wetland is not located downgradient or disturbed by land-disturbing activities.

NMCWD's requirements for both stormwater management and erosion and sediment control apply to the project because more than 50 cubic yards of material will be disturbed and 5,000 square feet or more of surface area is altered, Rules 4.2.1a and b and 5.2.1a and b.

Exhibits Reviewed:

1. Permit Application dated July 11, 2022 (received July 12, 2022). Email correspondence dated July 18, 2022, September 13, 2022, September 14, 2022, September 23, 2022, July 20, 2023, August 7, 2023, outlining review comments and items required to complete the application. The application with the submittal items above is complete.
2. Plans dated June 11, 2021 (received July 12, 2022), revised August 22, 2022, June 29, 2023, August 2, 2023, and August 8, 2023, prepared by Bolton & Menk, Inc.
3. Stormwater Management Report dated August 22, 2022 (received August 22, 2022), revised June 29, 2023, prepared by Bolton & Menk, Inc.
4. Geotechnical Evaluation dated December 20, 2022, prepared by Braun Intertec.
5. Electronic HydroCAD modeling received on August 23, 2022, revised June 29, 2023, August 2, 2023, and August 8, 2023, prepared by Bolton & Menk, Inc.
6. Electronic MIDS Calculator files received August 23, 2022, June 29, 2023, and August 2, 2023, prepared by Bolton & Menk, Inc.
7. Soil and Groundwater Evaluation dated June 16, 2023 (received June 28, 2023), prepared by Braun Intertec.
8. Wetland Delineation Report dated October 17, 2022, prepared by Bolton & Menk, Inc.
9. Wetland Conservation Act Notice of Decision Issued on November 21, 2022, by the City of Bloomington (LGU) Approving the Wetland Boundary and Type.
10. NMCWD Comment Responses received June 29, 2023, and August 4, 2023, prepared by Bolton & Menk, Inc.

2.0 Floodplain Management and Drainage Alterations

Proposed earth work and grading for surface parking improvements, site improvements, and stormwater management facility and associated storm sewer infrastructure will take place below the 823.9 M.S.L. 100-year frequency flood elevation of the series of water basins partially onsite. Because the project will involve land-altering activities below the NMCWD 100-year frequency flood elevation (823.9 M.S.L.), the project must conform to the requirements of the District's Floodplain Management and Drainage Alterations Rule 2.0.

Rule 2 criteria for floodplain and drainage alterations includes the following:

2.3.1: The low floor elevation of all new and reconstructed buildings, bridges and boardwalks must be constructed in accordance with the freeboard standards in NMCWD Stormwater Rule, subsection 4.3.3.

While the project does not propose new or reconstructed buildings, bridges or boardwalks, subsection 4.3.3 requires that any new stormwater management facility must ensure that no adjacent habitable building will be brought into noncompliance with a standard in subsection 4.3.3.

The district's low floor criteria, Rule 4.3.3, requires that all new and reconstructed buildings must be constructed such that the low floor is at least two feet above the 100-year high water elevation or one foot above the emergency overflow of a constructed facility. Additionally, all new and reconstructed buildings must be constructed such that no opening where surface flow can enter the structure is less than two feet above the 100-year high water elevation of an adjacent facility or waterbody.

The low floor elevation of the existing building (824.2 M.S.L.) is 4.9 feet above the 100-year high water elevation of the proposed infiltration basin (819.3 M.S.L.) and 5.1 feet above the 100-year high water elevation of the existing infiltration basin (819.1 M.S.L.). The low opening elevation of the existing building (823.9 M.S.L.) is 4.6 feet above the 100-year high water elevation of the proposed infiltration basin (819.3 M.S.L.) and 4.8 feet above the 100-year high water elevation of the existing infiltration basin (819.1 M.S.L.). The project is in conformance with subsection 2.3.1 criteria.

2.3.2: Placement of fill below the 100-year flood elevation is prohibited unless fully compensatory flood storage is provided within the floodplain:

- a. at the same elevation +/- 1 foot for fill in the floodplain; or*
- b. at or below the same elevation for fill in the floodplain of a water basin or constructed stormwater facility.*

The project will result in grading below the 100-year frequency flood elevation (823.9 M.S.L.). The grading below the 100-year frequency flood elevation will include net removal of material, creating 223 cubic yards of additional flood storage below the 100-year frequency flood elevation. No net fill will be placed below the 100-year frequency flood elevation of the site. The submittal demonstrates and the engineer finds the project is in conformance with subsection 2.3.2 criteria.

2.3.3. The District will issue a permit to alter surface flows only if it finds that the alteration is not reasonably likely to have a significant adverse impact on any upstream or downstream landowner and is not reasonably likely to have a significant adverse effect on flood risk, basin

or channel stability, groundwater hydrology, stream base-flow, water quality or aquatic or riparian habitat.

As stated in the subsection 2.3.2 analysis, the project will result in an increase in flood storage volume of 223 cubic yards below the 100-year frequency flood elevation. The project will not result in an alteration of surface flows from the site. **Section 4.0 Stormwater Management** of this report demonstrates that the 2-, 10- and 100-year frequency discharge rates from the site will be maintained, and the project does not result in an increase in impervious surface, thereby not adversely affecting flood risk or transferring flood risk to upstream or downstream landowners, in compliance with subsection 2.3.3 criteria.

Stream base flow will not be changed and/or altered because stream baseflow conditions will not be implicated by the project. Because the wetland located partially onsite is not downgradient or disturbed from the project, the project is not reasonably likely to adversely impact basin stability. As discussed in **Section 4.0 Stormwater Management**, the project is in compliance with the district's water quality criterion requiring 60% annual removal efficiency for total phosphorus (TP) and 90% annual removal efficiency for total suspended solids (TSS) from site runoff, in compliance with subsection 2.3.3 criteria for water quality. The project is not likely to deter wildlife (such as waterfowl, amphibians, reptiles) from using the area adjacent to the wetland, if currently used, because the project does not propose to remove or deteriorate habitat conditions adjacent to the wetland either temporarily during the course of construction, or permanently for the establishment of buffer areas. Because wildlife native to the area will be able to continue using the native vegetated area at the site, the NMCWD engineer concurs that the proposed project complies with subsection 2.3.3 criteria. Infiltration of runoff is proposed to be provided, however, because the project will not result in an increase in impervious surface (e.g., stormwater runoff volume will generally be maintained) and drainage patterns will generally be maintained, groundwater hydrology is not reasonably likely to be altered as a result of the project.

Erosion prevention and sediment control measures are to be installed to prevent material from the disturbed surfaces and capture sediment onsite to maintain the water quality of the wetland onsite and downstream waterbodies. With the temporary erosion control measures the project is not reasonably likely to have a significant adverse impact on water quality in accordance with Rule 2.3.3 criteria.

The applicant demonstrates and the NMCWD engineer finds that the project is not reasonably likely to have significant adverse impacts in conformance with Rule 2.3.3 criteria.

2.3.4 *No structure may be placed, constructed, or reconstructed and no new impervious surface may be constructed within 50 feet of the centerline of any water course, except that this provision does not apply to:*

a. Bridges, culverts, and other structures and associated impervious surface regulated under Rule 6.0;

b. Trails 10 feet wide or less, designed primarily for nonmotorized use.

No structure is proposed to be placed, constructed, or reconstructed as part of the project and no new impervious surface will be constructed within 50 feet of the centerline of a water course. The engineer finds that the project is in conformance with Rule 2.3.4 criteria.

4.0 Stormwater Management

NMCWD's requirements for stormwater management apply to the project because more than 50 cubic yards of material will be disturbed and 5,000 square feet or more of surface area is altered, Rules 4.2.1a and b.

The NMCWD's Rule for Redevelopment, Rule 4.2.3, states, if a proposed activity will disturb more than 50% of the existing impervious surface on the site or will increase the imperviousness of the site by more than 50%, stormwater management will apply to the entire project site. Otherwise, the stormwater requirements will apply only to the disturbed, replaced, and net additional impervious surface on the project site.

The proposed project activities, result in a 1.4% disturbance of the existing impervious surface, less than 50% of the existing impervious at the site, and will not increase the imperviousness at the site by more than 50% (0% increase). Therefore, stormwater management is required only for the net new impervious area (0 acres) and newly disturbed and reconstructed areas (0.08 acres), amounting to 0.08 acres (3,500 square feet) of regulated impervious surface. No previous projects requiring stormwater management have been permitted by NMCWD at the site.

Stormwater management for compliance with subsection 4.3.1 for the project will be provided by an existing depression (infiltration basin) and proposed infiltration basin. The existing depression/infiltration basin was not constructed to meet criteria as part of previous NMCWD permit applications.

Rule 4.3.1b requires the 2-, 10-, and 100-year post development peak runoff rates be equal to or less than the existing discharge rates for all collection points where stormwater leaves the site. The applicant used a HydroCAD hydrologic model to simulate runoff rates for the collection points where stormwater discharge leaves the site. The existing and proposed 2-, 10- and 100-year frequency discharge rates are summarized in the tables below.

Existing Conditions			
Discharge Location	2- year (c.f.s.)	10- year (c.f.s.)	100- year (c.f.s.)
To City Right of Way: Southeast	6.0	7.6	25.2
To Lyndale Avenue South: West	10.9	16.6	29.7

Proposed Conditions			
Discharge Location	2- year (c.f.s.)	10- year (c.f.s.)	100- year (c.f.s.)
To City Right of Way: Southeast	5.2	6.8	21.3
To Lyndale Avenue South: West	10.9	16.6	29.7

The proposed stormwater management plan provides rate control in compliance with the NMCWD requirements for the 2-, 10-, and 100-year events. Rule 4.3.1b is met.

A soil and groundwater evaluation was completed by Braun Intertec to assess potential soil and groundwater contamination onsite. Based on the findings of the report dated June 16, 2023, including site observations, soil borings, groundwater and soil sampling, and comparison of levels to MPCA regulatory information, the applicant determined that no additional evaluation is needed at the site, and infiltration is feasible. The NMCWD engineer has reviewed the findings of the report, which conclude the following:

- Surface soils in the proposed infiltration basin area exceeded the Residential/Recreational Soil Reference Value (SRV) and require management as regulated soils.
- No field indications of contamination were observed in the soils evaluated.
- No Volatile Organic Compound (VOC) exceedances were identified within soil or groundwater evaluated.
- Diesel Range Organics (DRO) was reported at slightly greater than its unregulated fill criterion within soil proposed to remain at the site. Note: MPCA does not provide a Screening Soil Leaching Value (SLV) or SRV for DRO. Braun Intertec concluded that the slight exceedance does not represent a significant concern for local or regional groundwater quality given the absence of field indications of contamination.
- The site is not located within the Lyndale Avenue Corridor Superfund area of contamination.
- Runoff from the bus fueling station is not directed to the proposed infiltration basin.

The NMCWD engineer agrees that the applicant has demonstrated infiltration is feasible at the site. Soils to be removed for reconstruction should be disposed of at a licensed landfill.

The geotechnical evaluation by Braun Intertec identifies the underlying soil within the area of the bottom of the proposed infiltration basin (elevation 816.0 M.S.L.) as silty sand (SM) and poorly graded sand (SP). An infiltration rate of 0.45 inches per hour has been used for design, as identified in the Minnesota Stormwater Manual for SM soils.

A retention volume of 320 cubic feet is required to abstract 1.1-inches of runoff from the 3,500 square feet of regulated impervious area. A retention volume of 3,820 cubic feet is provided by the proposed infiltration basin. The table below summarizes the volume retention provided. The proposed project is in conformance with subsection 4.3.1a.

Volume Retention Summary

Stormwater Management Facility	Volume Provided (Cubic feet)	Maximum Infiltration Depth Allowable* (feet)	Provided Infiltration Depth (feet)
Proposed Infiltration Basin	3,820	1.8	1.2

*Maximum inundation depth allowable for the basin to draw down within 48-hours based on an infiltration rate of 0.45 inches/hour.

With a maximum infiltration depth of 1.2 feet provided, the volume below the outlet is drawn down within the required 48-hours, complying with Rule 4.3.1a (ii).

In accordance with Rule 4.3.1a (i), where infiltration or filtration facilities, practices or systems are proposed, pretreatment of runoff must be provided. Pretreatment will be provided by stormwater pretreatment structures, complying with Rule 4.3.1a (i).

Rule 4.5.4d (i) requires a minimum of three feet of separation between the bottom of an infiltration facility and groundwater. The borings taken by Braun Intertec near the existing and proposed facilities identify the highest groundwater elevation at 807.8 M.S.L. The bottom of each infiltration basin is elevation 816.0 M.S.L., providing a separation of 8.2 feet. Rule 4.5.4d (i) is met.

NMCWD's water quality criterion requires 60% annual removal efficiency for total phosphorus (TP) and 90% annual removal efficiency for total suspended solids (TSS) from the regulated site runoff. A MIDS model was used to evaluate the annual removal efficiency at the site. The results of the MIDS modeling are summarized in table below. The NMCWD engineer agrees with the modeling results and the project is in conformance with Rule 4.3.1c criteria.

Annual TSS and TP Removal Summary

Pollutant of Interest	Regulated Site Loading (lbs./year)	Required Load Removal (lbs./year)	Provided Load Reduction (lbs./year)
Total Suspended Solids (TSS)	38.2	34.4 (90%)	623.3 (>100%)
Total Phosphorus (TP)	0.2	0.1 (60%)	3.4 (>100%)

The project is in conformance with low floor criteria of Rule 4.3.3, as described in the earlier section for ***Rule 2.0 Floodplain Management and Drainage Alterations***.

If not previously submitted in the calendar year of closeout, in accordance with Rule 4.3.4, a post-project chloride management plan must be provided that will, 1) designate an individual authorized to implement the chloride-use plan and 2) designate a MPCA certified salt applicator engaged in the implementation of the chloride-use plan for the site.

Subsection 4.3.5 requires the submission of a maintenance plan. All stormwater management structures and facilities must be designed for maintenance access. The applicant being a public entity must provide a written document to the district signed by an official with authority stating the stormwater management facilities as proposed will be properly maintained in perpetuity to assure that they continue to function as designed.

5.0 Erosion and Sediment Control

The district's requirements for erosion and sediment control apply to the project because more than 50 cubic yards of material will be disturbed and 5,000 square feet or more of surface area is altered, Rules 5.2.1a and b.

The erosion control plan prepared by Bolton & Menk, Inc. includes installation of silt fence and storm sewer inlet protection. The contractor for the project will need to designate a contact who will remain liable to the district for performance under the District's Erosion and Sediment Control Rule 5.0 from the time the permitted activities commence until vegetative cover is

established, in accordance with subsection 5.4.1e. NMCWD must be notified if the responsible individual changes during the permit term.

11.0 Fees

Because the property owner is a public entity, no fees are charged.

Rules 2.0, 4.0 and 5.0 \$0

12.0 Financial Assurances

Because the property owner is a public entity, the district's financial assurance requirements do not apply.

Sureties for the project are: \$0

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 4 and 5 with the fulfillment of the conditions identified below. The project conforms to Rule 2.
3. The proposed stormwater management facility will provide volume retention, rate control, and water quality management in accordance with subsections 4.3.1a-c criteria.
4. In accordance with NMCWD Rule 4.3.5, the applicant must provide a maintenance and inspection plan that identifies and protects the design, capacity, and functionality of the stormwater management facility, and record the plans in a declaration on the property title.

Recommendation

Approval, contingent upon:

Compliance with the General Provisions (attached).

The applicant provides a name and contact information for the individual responsible for the erosion and sediment control at the site. NMCWD must be notified if the responsible individual changes during the permit term.

Submit a draft maintenance declaration for the operation and maintenance of the stormwater management facility. A draft of the declaration must be approved by NMCWD.

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

The work for the Bloomington Schools Transportation Building Site Improvements project under the terms of Permit 2022-097, if issued, must have an impervious surface area, stormwater infrastructure design, and grading plans consistent with the approved plans. Design that differs materially from the approved plans 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.

Per Rule 4.3.5, it is required to execute an agreement for the operation and maintenance of the proposed stormwater management facility. A draft of the agreement must be approved by

the district. A public entity assuming the maintenance obligation may do so by filing with the district a document signed by an official with authority.

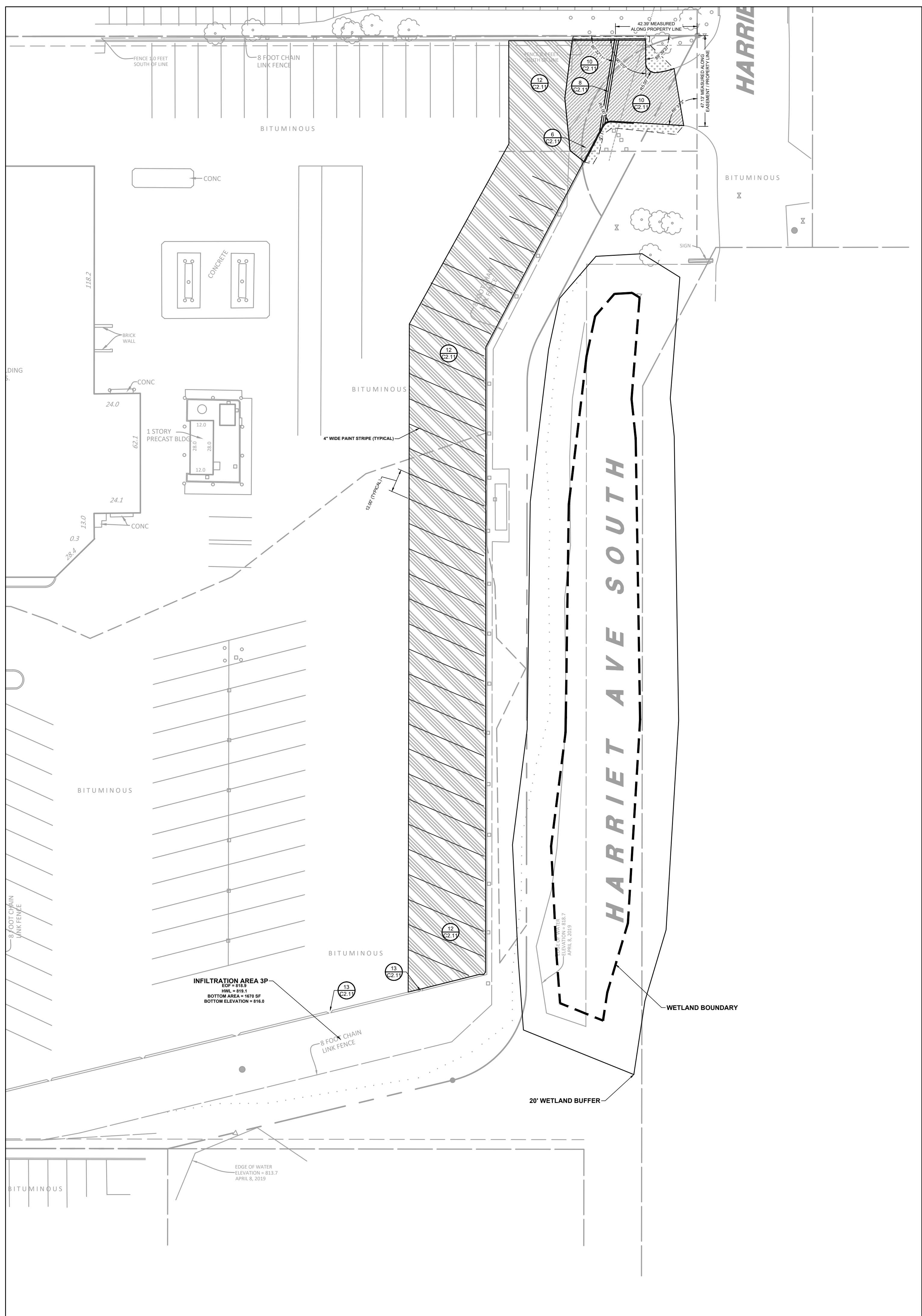
If not previously submitted in the calendar year of closeout, submission of a plan for post-project management of Chloride use on the site. The plan must include 1) the designation of an individual authorized to implement the chloride use plan and 2) the designation of a Minnesota Pollution Control Agency certified salt applicator engaged in the implementation of the chloride-use plan for the site.

Per Rule 4.5.6, an as-built drawing of the stormwater management facility conforming to the design specifications based on surveyed as-built information, including a stage volume relationship in tabular form for the stormwater management facility, as approved by the district, must be provided.

Per Rule 12.4.1b, demonstration and confirmation that the stormwater management facility has been constructed or installed and functioning as designed and permitted. Verification, through daily observation logs and photographs, must be provided showing the stormwater management facility used for volume retention has drawn down within 48 hours from the completion of two 1-inch (approximate) separate rainfall events.

As recommended in the soil and groundwater evaluation by Braun Intertec, soils to be removed for reconstruction must be disposed of at a licensed landfill.

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EAST SIDE
SCALE: 1" = 30'

NOTES:

1. REFER TO SHEET C1.31, GRADING AND DRAINAGE PLAN, FOR GENERAL NOTES.
2. CHECK ALL PLAN AND DETAIL DIMENSIONS AND VERIFY SAME BEFORE FIELD LAYOUT.
3. SIGNAGE SHALL GENERALLY BE INSTALLED 18" BEHIND THE BACK OF CURB.
4. ALL DISTURBED AREAS OUTSIDE THE BUILDING PAD WHICH ARE NOT DESIGNATED TO BE PAVED SHALL RECEIVE AT LEAST 6" OF TOPSOIL AND SHALL BE SODDED.
5. WHERE NEW SOD MEETS EXISTING TURF, EXISTING TURF EDGE SHALL BE CUT TO ALLOW FOR A CONSISTENT, UNIFORM STRAIGHT EDGE. JAGGED OR UNEVEN EDGES WILL NOT BE ACCEPTABLE. REMOVE TOPSOIL AT JOINT BETWEEN EXISTING AND NEW AS REQUIRED TO ALLOW NEW SOD SURFACE TO BE FLUSH WITH EXISTING.
6. FAILURE OF TURF DEVELOPMENT: IN THE EVENT THE CONTRACTOR FAILS TO PROVIDE AN ACCEPTABLE TURF, THE CONTRACTOR SHALL BE RESPONSIBLE FOR APPLICABLE AREAS, AT NO ADDITIONAL COST TO THE OWNER, TO THE SATISFACTION OF THE ENGINEER.

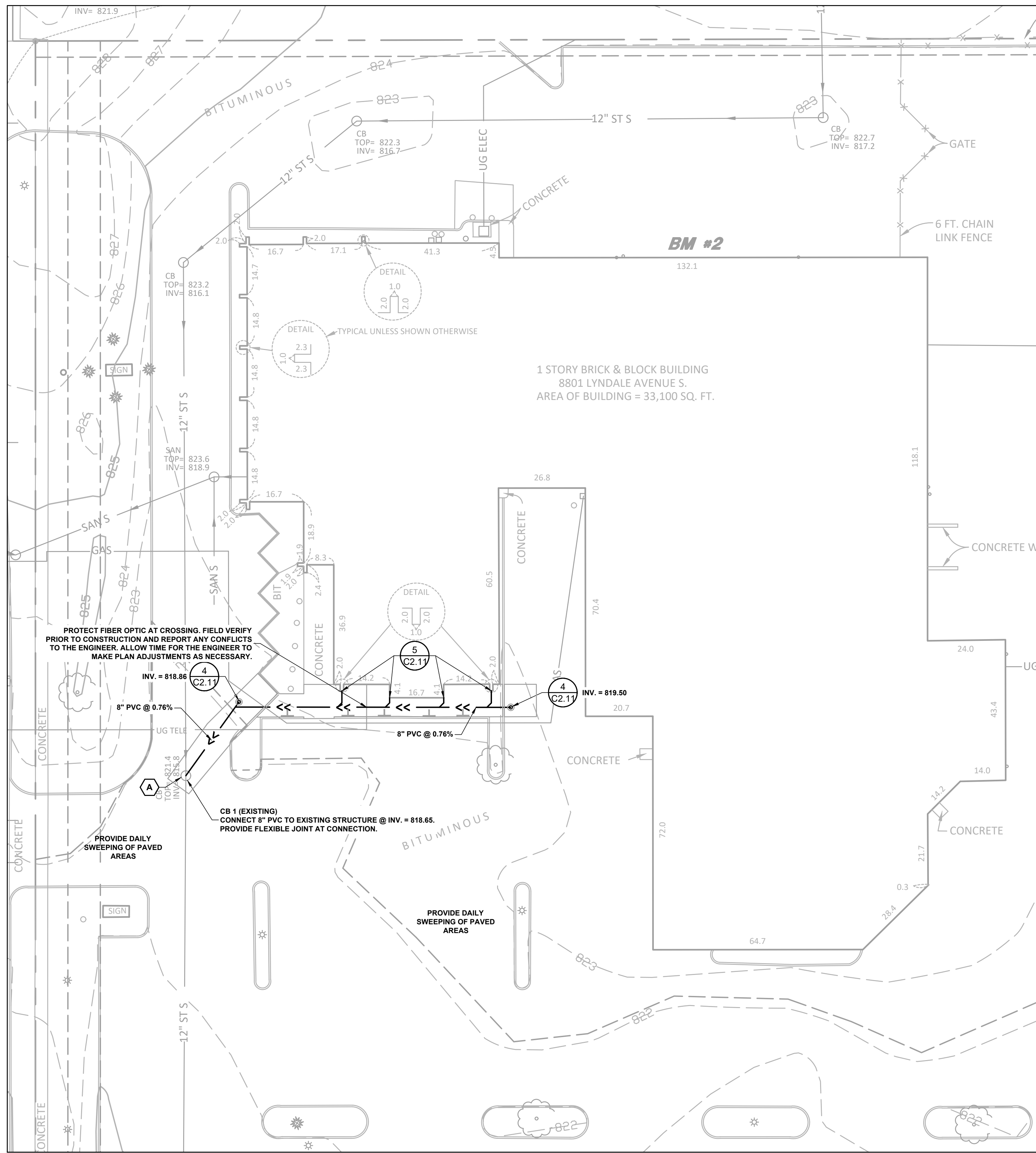


AJA
ANDERSON - JOHNSON ASSOCIATES, INC.
A BOLTON & MENK COMPANY

C1.21

MN

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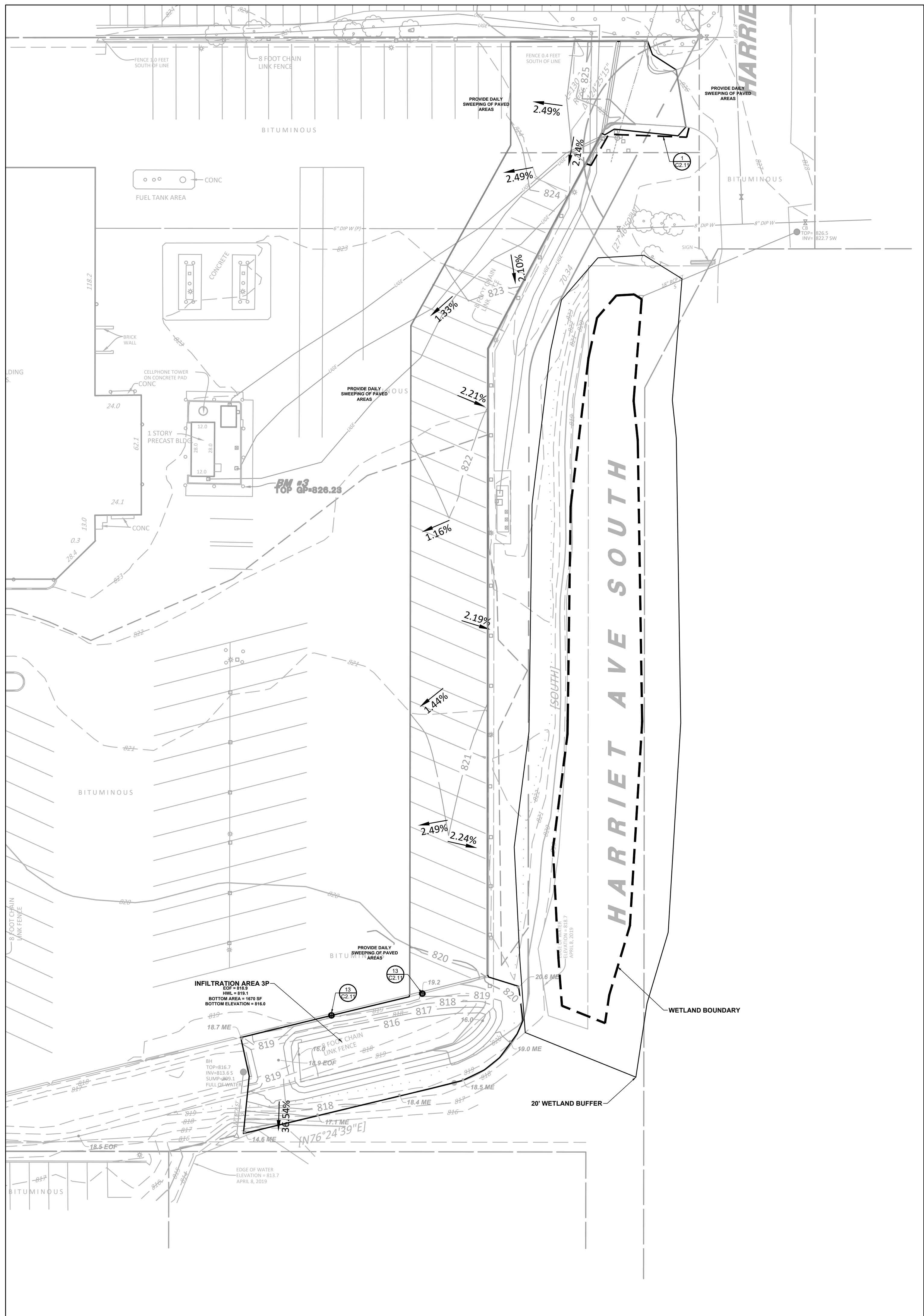
1
C1.41 **WEST SIDE**
SCALE: 1" = 20'

LEGEND

- REFERENCE KEY TO SITE DETAILS
DETAIL I.D. NUMBER (TOP)
DETAIL SHEET NUMBER (BOTTOM)
- EXISTING CONTOUR
PROPOSED CONTOUR
PROPOSED SPOT ELEVATION
ME = MATCH EXISTING
PROPOSED GRADING LIMITS
PROPOSED STORM SEWER
PROPOSED SILT FENCE
INLET PROTECTION DEVICE AT STORM SEWER INLET
PROPERTY LINE

NOTES

- REFER TO SHEET C1.31, GRADING AND DRAINAGE PLAN, FOR GENERAL NOTES.
- ALL STORM SEWER PIPE SHALL BE RCP, CLASS III (MIN.), WITH FLEXIBLE WATER-TIGHT JOINTS IN ACCORDANCE WITH ASTM C-361 OR PVC PIPE (ASTM D3034, SDR 35) INSTALLED IN ACCORDANCE WITH ASTM D2321, UNLESS OTHERWISE NOTED.
- FLEXIBLE JOINTS AT STORM SEWER PIPE CONNECTIONS TO STRUCTURES:
 - IN ACCORDANCE WITH MINNESOTA PLUMBING CODE, PROVIDE FLEXIBLE JOINTS AT ALL PIPE CONNECTIONS TO ALL STORM SEWER STRUCTURES.
 - ACCEPTABLE MANUFACTURERS / PRODUCTS:
 - FERNCO, "CONCRETE MANHOLE ADAPTORS" OR "LARGE-DIAMETER WATERSTOPS"
 - PRESS-SEAL, "WATERSTOP GROUTING RINGS"
 - OR APPROVED EQUAL.
- ANY STORM SEWER, DRAIN TILE OR OTHER POTENTIAL SOURCE FOR CONTAMINATION SHALL BE INSTALLED AT LEAST 10 FEET HORIZONTALLY FROM ANY WATERMAIN PER MINNESOTA PLUMBING CODE. THIS ISOLATION DISTANCE SHALL BE MEASURED FROM THE OUTER EDGE OF THE PIPE TO THE OUTER EDGE OF THE CONTAMINATION SOURCE (OUTER EDGE OF STRUCTURES OR PIPING OR SIMILAR).
- LOCATE ALL EXISTING UTILITIES, VERIFY LOCATION, SIZE AND INVERT ELEVATION OF ALL EXISTING UTILITIES. VERIFY LOCATIONS, SIZES AND ELEVATIONS OF SAME BEFORE BEGINNING CONSTRUCTION.
- MAINTAIN ADJACENT PROPERTY AND PUBLIC STREETS CLEAN FROM CONSTRUCTION CAUSED DIRT AND DEBRIS ON A DAILY BASIS. PROTECT DRAINAGE SYSTEMS FROM SEDIMENTATION AS A RESULT OF CONSTRUCTION RELATED DIRT AND DEBRIS.
- MAINTAIN DUST CONTROL DURING GRADING OPERATIONS.
- ALL EROSION CONTROL METHODS SHALL COMPLY WITH MPCA AND OTHER LOCAL REGULATIONS.
- IF EROSION AND SEDIMENT CONTROL MEASURES TAKEN ARE NOT ADEQUATE AND RESULT IN DOWNSTREAM SEDIMENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING OUT DOWNSTREAM STORM SEWERS AS NECESSARY, INCLUDING ASSOCIATED RESTORATION.
- INLET PROTECTION DEVICE AT STORM SEWER INLETS. AT THE INLETS TO ALL STORM SEWER STRUCTURES, PROVIDE A PRODUCT FROM THE FOLLOWING LIST. APPROVED PRODUCTS:
 - ROAD DRAIN "TOP SLAB", MANUFACTURED BY WIMCO
 - ROAD DRAIN "CURB & GUTTER", MANUFACTURED BY WIMCO
 - INFRASAFE "SEDIMENT CONTROL BARRIER", MANUFACTURED BY ROYAL ENVIRONMENTAL SYSTEMS, INC.
 - INFRASAFE "DEBRIS COLLECTION DEVICE", MANUFACTURED BY ROYAL ENVIRONMENTAL SYSTEMS, INC.
 - INFRASAFE "CULVERT INLET PROTECTOR", MANUFACTURED BY ROYAL ENVIRONMENTAL SYSTEMS, INC.
 - DANDY SACK, MANUFACTURED BY DANDY PRODUCTS, INC.
 - DANDY CURB SACK, MANUFACTURED BY DANDY PRODUCTS, INC.
 - OR APPROVED EQUAL.
- PRIOR TO CONSTRUCTION, DELINEATE TURF AND VEGETATED AREAS NOT TO BE DISTURBED WITH ORANGE SNOW FENCE. NO CONSTRUCTION TRAFFIC, EQUIPMENT OR MATERIALS SHALL BE PERMITTED TO UTILIZE, ACCESS, OR OTHERWISE ENTER THE AREAS DESIGNATED NOT TO BE DISTURBED. MINIMIZE SOIL COMPACTION AND DISRUPTION OF TOPSOIL IN AREAS OUTSIDE THE CONSTRUCTION LIMITS TO COMPLY WITH MN CONSTRUCTION STORMWATER GENERAL PERMIT.



2
C1.41 **EAST SIDE**
SCALE: 1" = 30'

**BLOOMINGTON
SCHOOLS
TRANSPORTATION
BUILDING**

8801 Lyndale Ave S
Bloomington, MN 55420

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DISTRICT 271**
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Bloomington, MN 55431



**WOLD ARCHITECTS
AND ENGINEERS**
332 Minnesota Street, Suite W2000
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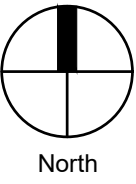


I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

DAVID A. REY
Registration Number **40180** Date **06/11/2021**

Description	Revisions	
	Date	Num

Comm: **212146**
Date: **06/11/2021**
Drawn: **MET**
Check: **DAR**



**UTILITY AND
EROSION
CONTROL
PLANS**

Scale: **VARIES**

C1.41

