



# LOWER MINNESOTA RIVER WATERSHED DISTRICT

## Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting  
Wednesday, December 20, 2023

### Agenda Item

### **Item 6. C. – Authorize Execution of Maintenance Agreement between the LMRWD and the Metropolitan Airport Commission**

#### Prepared By

Linda Loomis, Administrator

#### Summary

The LMRWD issued a permit for the Perimeter Gate Security Improvements (LMRWD No. 2021-058) at the January 2022 Board of Managers meeting. The project included construction of a stormwater pond. In conversations between the Metropolitan Airport Commission and to LMRWD to close out permits, the LMRWD determined that an agreement for maintenance of the stormwater pond was necessary. The agreement is attached for the Board review and authorization to execute the agreement. This agreement is like other agreements that the LMRWD has entered into for maintenance of stormwater management features.

#### Attachments

- Technical Memorandum – 2022 Perimeter Gate Security Improvements (LMRWD No. 2021-058) dated January 12, 2022
- Maintenance Agreement – Stormwater Management Facilities Between the Lower Minnesota River Watershed District and the Metropolitan Airport Commission

#### Recommended Action

Motion to approve the Maintenance Agreement – Stormwater Management Facilities Between the Lower Minnesota River Watershed District and the Metropolitan Airport Commission and authorize execution

# Technical Memorandum

**To:** Linda Loomis, Administrator  
Lower Minnesota River Watershed District

**From:** Kaci Fisher, Environmental Scientist  
Katy Thompson, PE, CFM

**Date:** January 12, 2022

**Re:** 2022 Perimeter Gate Security Improvements (LMRWD No. 2021-058)

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Metropolitan Airports Commission (MAC, the applicant) has applied for an individual project permit from the Lower Minnesota River Watershed District (LMRWD) for an improvement project within the Minneapolis–Saint Paul Airport, as shown in Figure 1. The applicant’s engineer, TKDA, has provided site plans for the 2022 Perimeter Gate Security Improvements Project (Project) along with the permit application.

The proposed Project consists of constructing paved parking, a paved access roadway, utilities, a security gate building, and a stormwater basin. The Project would disturb approximately 4.89 acres and create 2.55 acres of new paved impervious surfaces while removing 2.68 acres of existing impervious and compacted surfaces. The Project is not located within the High Value Resource Area, Steep Slopes Overlay District, or 100-year floodplain.

Because it is located in an unincorporated area, this Project requires an LMRWD individual permit and, as such, is subject to an LMRWD permitting review.

## Summary

|                      |   |
|----------------------|---|
| <u>Project Name:</u> | 2022 Perimeter Gate Security Improvements   |
| <u>Purpose:</u>      | Security gate building, parking, road, and utility improvements                         |
| <u>Project Size:</u> | 4.89 acres disturbed; 2.68 acres existing impervious;<br>2.55 acres proposed impervious |

|                                  |   |
|----------------------------------|---|
| <u>Location:</u>                 | Southwest quadrant of Minneapolis–Saint Paul Airport                |
| <u>LMRWD Rules:</u>              | Rule B—Erosion and Sediment Control<br>Rule D—Stormwater Management |
| <u>Recommended Board Action:</u> | Conditional approval  |

## Discussion

The District received the following documents for review:

- LMRWD individual project permit application; dated December 2, 2021; received December 15, 2021
- Memorandum by TKDA; dated December 3, 2021; received December 15, 2021
- Location map; received December 15, 2021
- Proposed and existing drainage areas by TKDA; dated November 1, 2021; received December 15, 2021
- Hydrologic soil group map; dated November 23, 2021; received December 15, 2021
- Geotechnical Exploration Services by Element Materials Technology St. Paul Inc.; dated August 23, 2021; received December 15, 2021
- HydroCAD; dated December 2, 2021; received December 15, 2021
- MIDS; dated December 2, 2021; received December 15, 2021
- Ninety percent design plans by TKDA; dated November 1, 2021; received December 15, 2021

The application was deemed complete on January 10, 2022, and the documents received provide the minimum information necessary for permit review.

### *Rule B—Erosion and Sediment Control*

The District regulates land-disturbing activities that affect one acre or more under Rule B. The proposed project would disturb approximately 4.89 acres within the LMRWD boundary. The applicant has provided an erosion and sediment control plan and generally complies with Rule B. However, before a final permit can be issued, a copy of the NPDES permit (either stormwater construction or individual) and contact information for the contractor and person(s) responsible for all erosion and sediment control are needed.

### *Rule D—Stormwater Management*

The District regulates land-disturbing activities that create new impervious areas greater

than one acre. The Project proposes 2.55 acres of new impervious surfaces. The existing site consists of a paved parking lot; a paved access roadway; and a contractor laydown area for construction staging, which consists of compacted gravel, bare soil, pavement, and vegetation. Most of the contractor laydown area and existing access road will be removed, as will a portion of the existing parking lot. A screening facility/security gate building and a new access road will be constructed, and the existing parking lot will be expanded to the west. A filtration basin is also proposed to treat the stormwater.

Section 4.4.1. of Rule D requires that applicants demonstrate no increase in proposed runoff rates. The applicant submitted a HydroCAD analysis demonstrating the proposed infiltration basin will provide rate control for the new impervious surfaces. Pretreatment for the infiltration basin will include a rock weeper at the storm sewer inlet, and the basin will also include an underdrain system to prevent water from ponding in case the soils become clogged. The infiltration basin has a one-foot ponded depth with an overflow structure and orifice plate for rate control. The existing and proposed rates are provided in Table 1 and meet the District’s rate control requirements.

*Table 1. Rate Control Summary*

| Design Event     | Existing Rates (cfs) | Proposed Rates (cfs) | Change (cfs) |
|------------------|----------------------|----------------------|--------------|
| 2-year/24-hour   | 10.3                 | 7.2                  | 3.1          |
| 10-year/24-hour  | 22.7                 | 12.9                 | 9.8          |
| 100-year/24-hour | 46.0                 | 24.7                 | 21.3         |

Section 4.4.2. of Rule D requires stormwater runoff volume retention on-site to be equivalent to one inch of runoff from impervious surfaces. For this Project, the required volume retention is 9,276 cubic feet, and the applicant is proposing 12,200 cubic feet of volume retention. The Project meets the volume reduction requirement.

Section 4.4.3. of Rule D requires a no net increase from existing conditions in total phosphorus (TP) and total suspended solids (TSS) to receiving water bodies. The applicant provided MIDS calculations, which are summarized in Table 2. The Project meets the water quality requirements.

*Table 2. Water Quality MIDS Summary*

| Parameter | Existing Load (lb/yr) | Proposed Load (lb/yr) | Change (lb/yr) |
|-----------|-----------------------|-----------------------|----------------|
| TP        | 10.3                  | 5.8                   | 4.5            |
| TSS       | 1,869                 | 1,056                 | 813            |

The Project meets all of Rule D’s requirements.

## **Recommendations**

Staff recommends conditional approval of the Project, conditioned on the receipt of the following:

- A copy of the NPDES permit
- Contact information for the contractor
- Contact information for the person(s) responsible for erosion and sediment control

## **Attachments**

- Figure 1—2022 Perimeter Gate Security Improvements Location Map



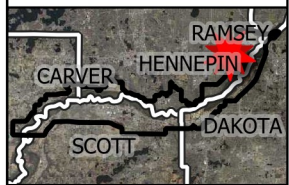
Figure I: 2022 Perimeter Gate Security Improvements Location



**LEGEND**

- |  |                    |  |                               |  |                   |
|--|--------------------|--|-------------------------------|--|-------------------|
|  | Project Location   |  | Stormwater Basin              |  | Floodway          |
|  | Perimeter Gate     |  | Public Waterways              |  | 100-yr Floodplain |
|  | Access Road        |  | Public Waterbodies            |  | 500-yr Floodplain |
|  | Paved Parking      |  | High Value Resource Area      |  | Parcel Boundaries |
|  | Screening Facility |  | Calcareous Fens               |  | County Boundaries |
|  |                    |  | Trout Streams                 |  | LMRWD Boundary    |
|  |                    |  | Steep Slopes Overlay District |  |                   |

**LMRWD Watershed Location Map**



**MAINTENANCE AGREEMENT**  
**Stormwater Management Facilities**

**Between the Lower Minnesota River Watershed District**  
**and the Metropolitan Airports Commission**

This Maintenance Agreement (Agreement) is made by and between the Lower Minnesota River Watershed District (LMRWD), a watershed district with purposes and powers set forth at Minnesota Statutes chapters 103B and 103D, and the Metropolitan Airports Commission (MAC), a Minnesota public corporation.

**Recitals and Statement of Purpose**

WHEREAS pursuant to Minnesota Statutes section 103D.345, the LMRWD has adopted and implements standards, including a Stormwater Management Standard;

WHEREAS under the Stormwater Management Standard, certain land development activity triggers the requirement to implement stormwater management structures and/or facilities that require ongoing maintenance;

WHEREAS in each case, a public landowner, as an alternative to a recorded instrument, may meet the maintenance requirement by documenting its obligations in an unrecorded written agreement with the LMRWD;

WHEREAS in accordance with the LMRWD rules and as a condition of Permit 2021-058 (MSP Airport Security Gate 269), the MAC's obligation to maintain stormwater facilities must be memorialized by a recorded maintenance declaration or, alternatively, a maintenance agreement establishing the MAC's perpetual maintenance obligation;

WHEREAS MAC and the LMRWD execute this Agreement to fulfill the condition of Permit 2021-058 and concur that it is binding and rests on mutual valuable consideration;

THEREFORE MAC and LMRWD agree as follows:

1. MAC, at its cost, will inspect and maintain the stormwater facilities as shown in the site plan attached to and incorporated into this Agreement as Exhibit A in perpetuity as follows:

1. **STORMWATER FACILITIES**

- i. **Raingardens, infiltration basins and filtration basins.** Raingardens, infiltration basins and filtration basins will be inspected annually to ensure continued live storage capacity at or above the design volume. Invasive vegetation, excess sediment and debris will be removed as needed and healthy plant growth will be maintained to ensure that the facilities continue to perform per design.
- ii. **Vegetated swales.** Vegetated swales may mowed for public safety, but otherwise must remain free from vegetative disturbance, fertilizer application, yard or other waste disposal, the placement of structures unless approved within the permit, or any other alteration that impedes function.

iii. **Reporting.** The MAC will submit to the LMRWD annually a brief written report that describes stormwater facility maintenance activities performed under this agreement, including dates, locations of inspections and the maintenance activities performed.

2. If MAC conveys into private ownership a fee interest in the property that is the subject of this Agreement, it shall require as a condition of sale, and enforce: (a) that the purchaser record a declaration on the property incorporating the maintenance requirements of this Agreement; and (b) that recordation occur either before any other encumbrance is recorded on the property or, if after, only as accompanied by a subordination and consent executed by the encumbrance holder ensuring that the declaration will run with the land in perpetuity. If MAC conveys into public ownership a fee interest in any property that has become subject to this Agreement, it shall require as a condition of the purchase and sale agreement that the purchaser accept an assignment of all obligations vested under this Agreement.

3. This Agreement may be amended only in a writing signed by the parties.

4. The recitals are incorporated as a part of this Agreement.

(SIGNATURE PAGE FOLLOWS)



IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

**LOWER MINNESOTA RIVER WATERSHED DISTRICT**

By \_\_\_\_\_  
President, Board of Managers

Date: \_\_\_\_\_

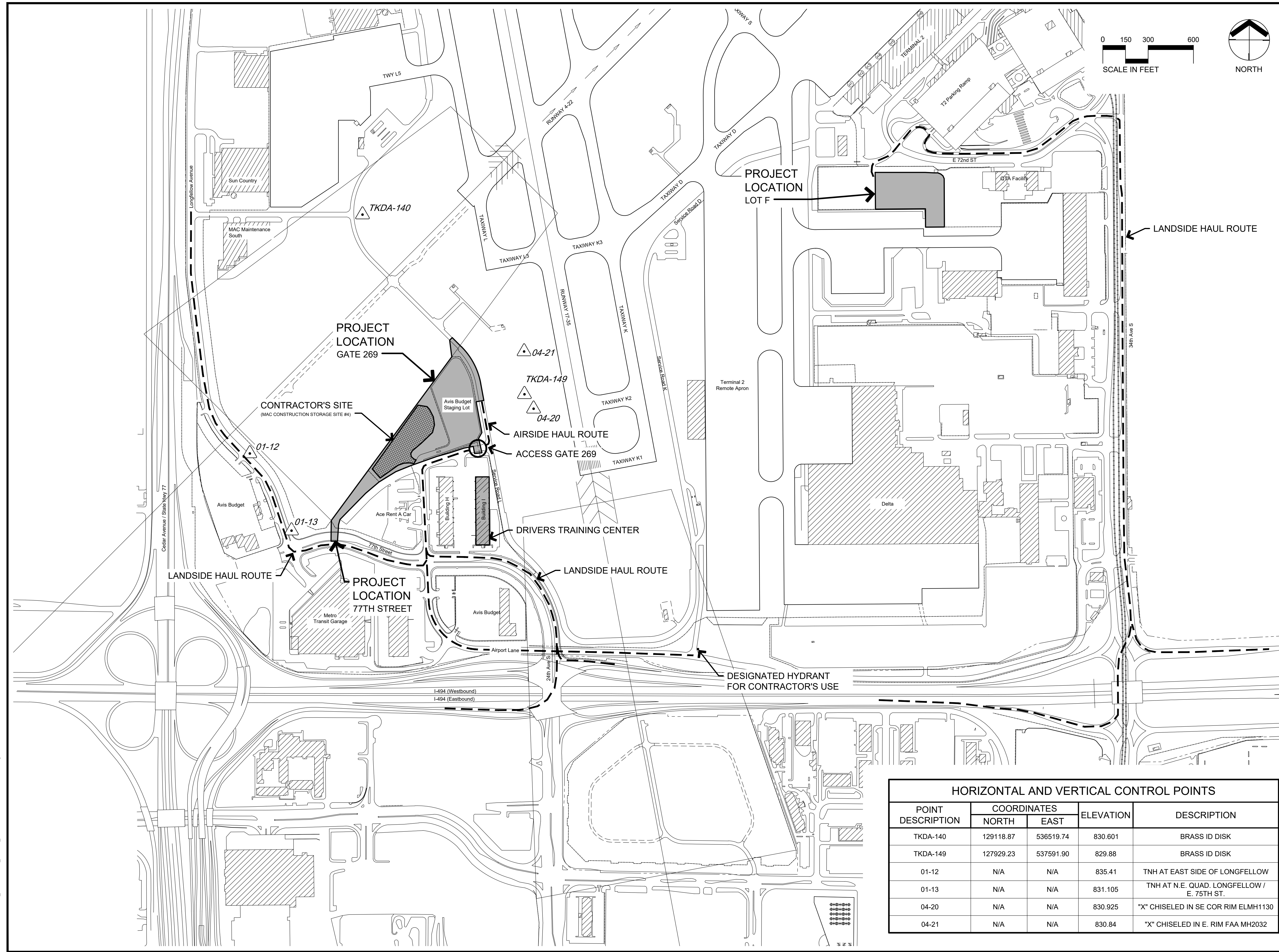
**METROPOLITAN AIRPORTS COMMISSION**

By: *Bridget Rief*

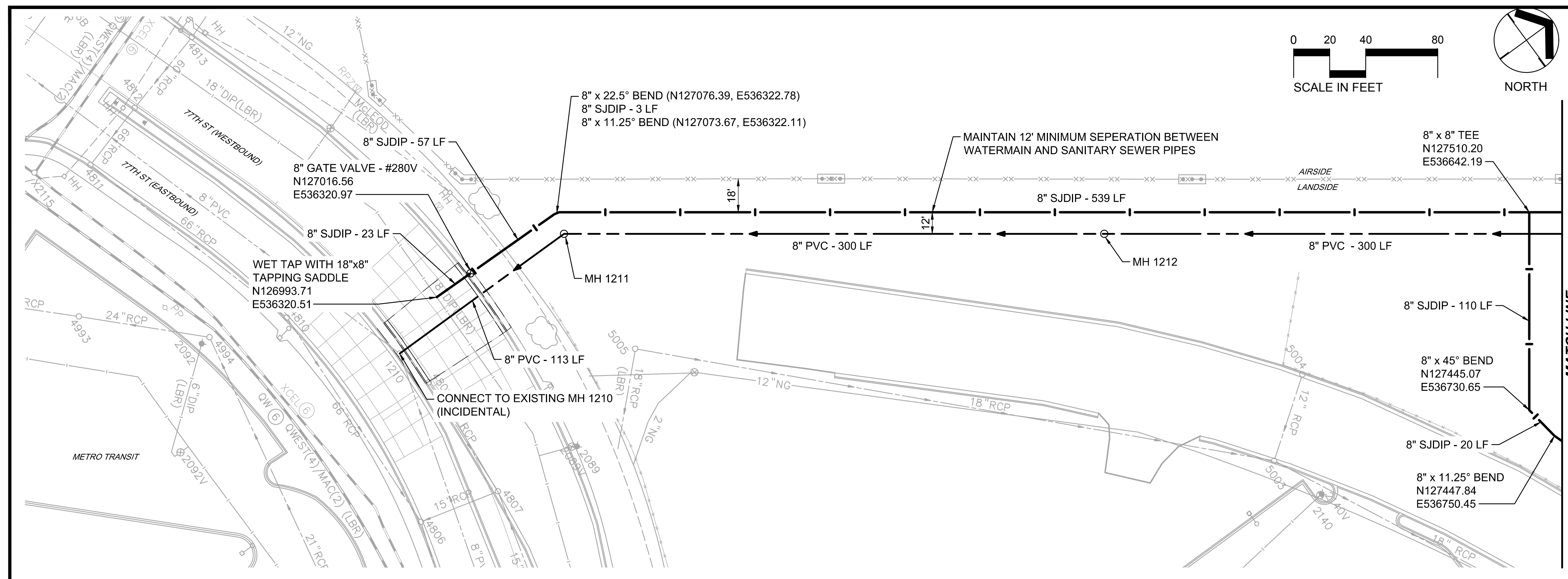
Date: 11/30/2023

Title: Vice President - Planning and Development

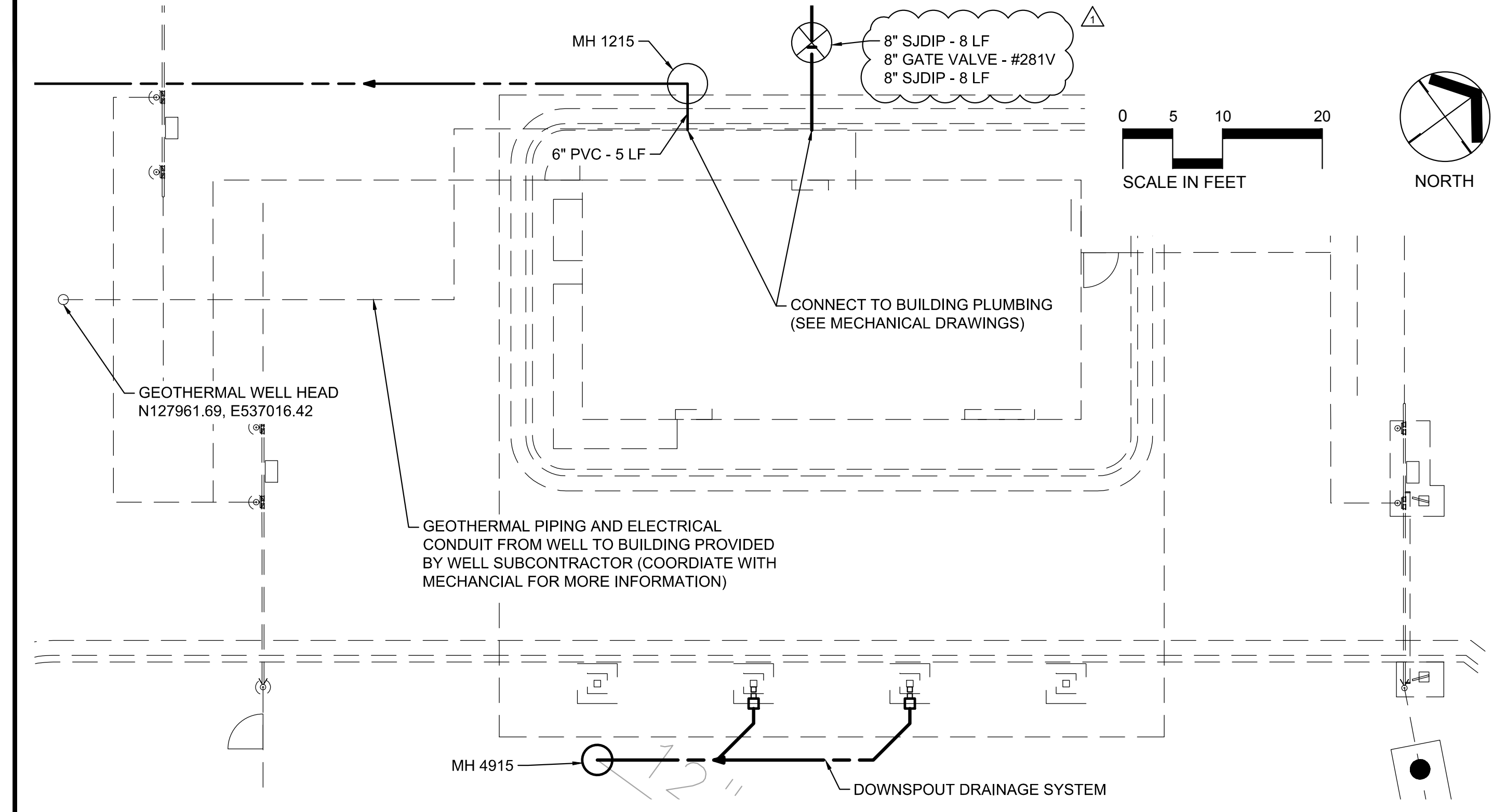
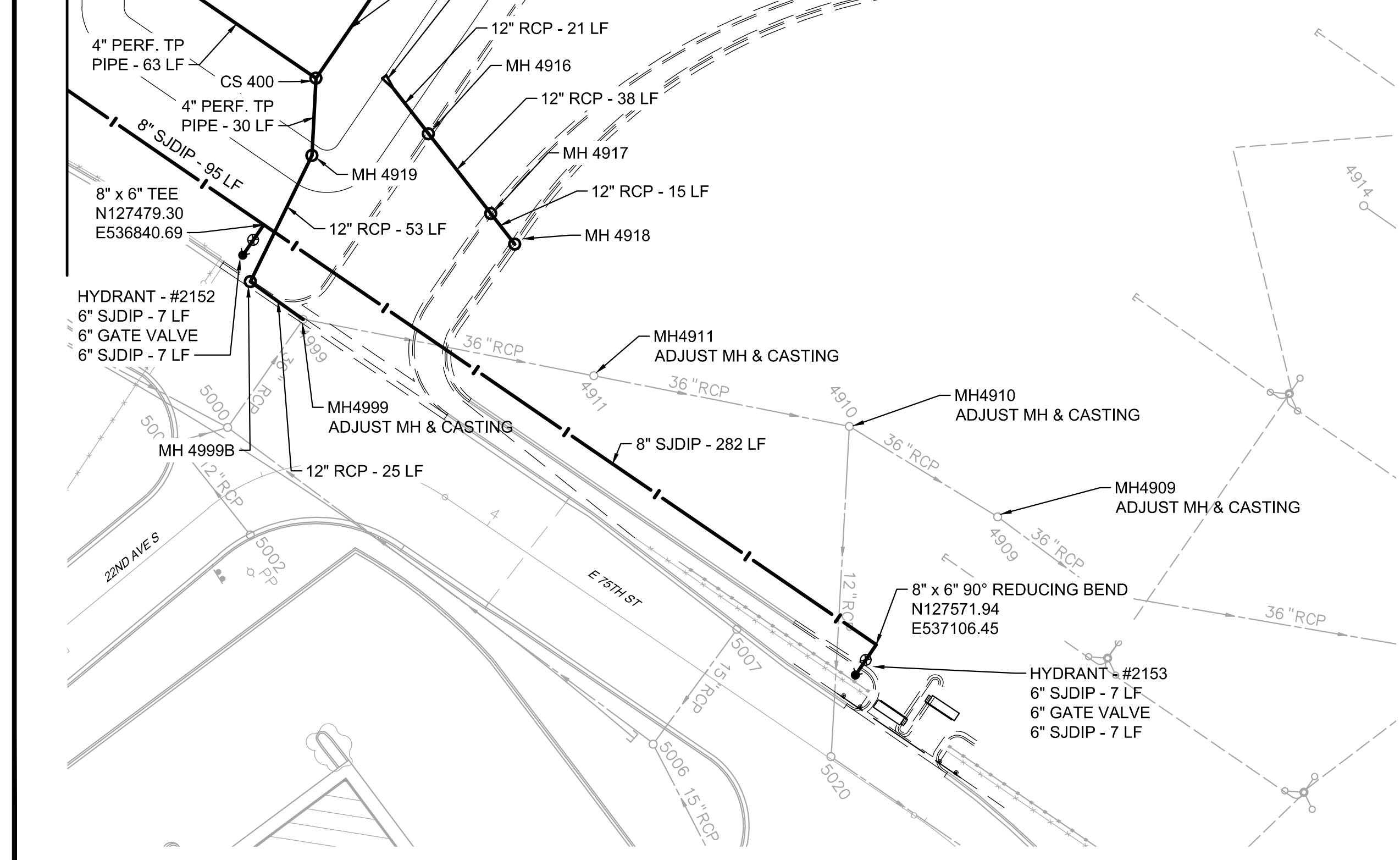
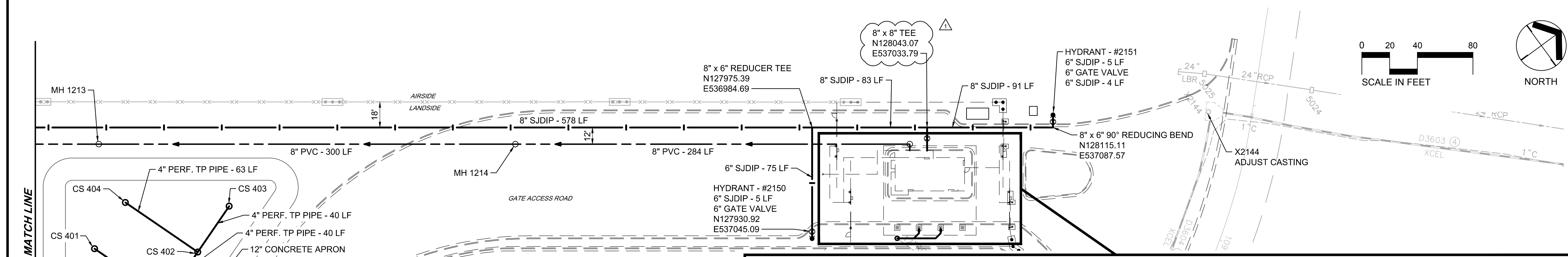
# EXHIBIT A



| POINT DESCRIPTION | COORDINATES |           | ELEVATION | DESCRIPTION                                |
|-------------------|-------------|-----------|-----------|--|
|                   | NORTH       | EAST      |           |  |
| TKDA-140          | 129118.87   | 536519.74 | 830.601   | BRASS ID DISK                              |
| TKDA-149          | 127929.23   | 537591.90 | 829.88    | BRASS ID DISK                              |
| 01-12             | N/A         | N/A       | 835.41    | TNH AT EAST SIDE OF LONGFELLOW             |
| 01-13             | N/A         | N/A       | 831.105   | TNH AT N.E. QUAD. LONGFELLOW / E. 75TH ST. |
| 04-20             | N/A         | N/A       | 830.925   | "X" CHISELED IN SE COR RIM ELMH1130        |
| 04-21             | N/A         | N/A       | 830.84    | "X" CHISELED IN E. RIM FAA MH2032          |



- UTILITY PLAN NOTES:**
1. WATERMAIN SHALL BE CLASS 52 SJDIP.
  2. ALL FITTINGS, HYDRANTS AND VALVES SHALL BE MECHANICAL JOINT ON ALL ENDS.
  3. SANITARY SEWER SHALL BE PVC SDR 26.
  4. STORM SEWER SHALL BE CLASS 5 REINFORCED CONCRETE PIPE.
  5. VERIFY EXISTING INVERT ELEVATIONS WHERE NEW UTILITY CONNECTS TO EXISTING UTILITY PRIOR TO CONSTRUCTION.
  6. VERIFY LOCATION AND ELEVATION OF UTILITY CROSSINGS PRIOR TO CONSTRUCTION.
  7. CONNECTIONS TO EXISTING MANHOLES SHALL BE CONSIDERED INCIDENTAL.



CURRENT: Feb 09, 2022 - 11:40am  
 DIR: K:\MAC\17511\17511\Production\0\_CAD\02\_Sheets\c3.01\_UTILITY PLAN.dwg

I HEREBY CERTIFY THAT THIS PLAN 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.  
 FOR TKDA

*Daniel W. Palmer*

Name DANIEL W. PALMER  
 Date 01/24/22 Reg. No. 54167

| Issued for  | Date          |
|-------------|---------------|
| BID SET     | JAN. 24, 2022 |
| ADDENDUM #1 | FEB. 3, 2022  |
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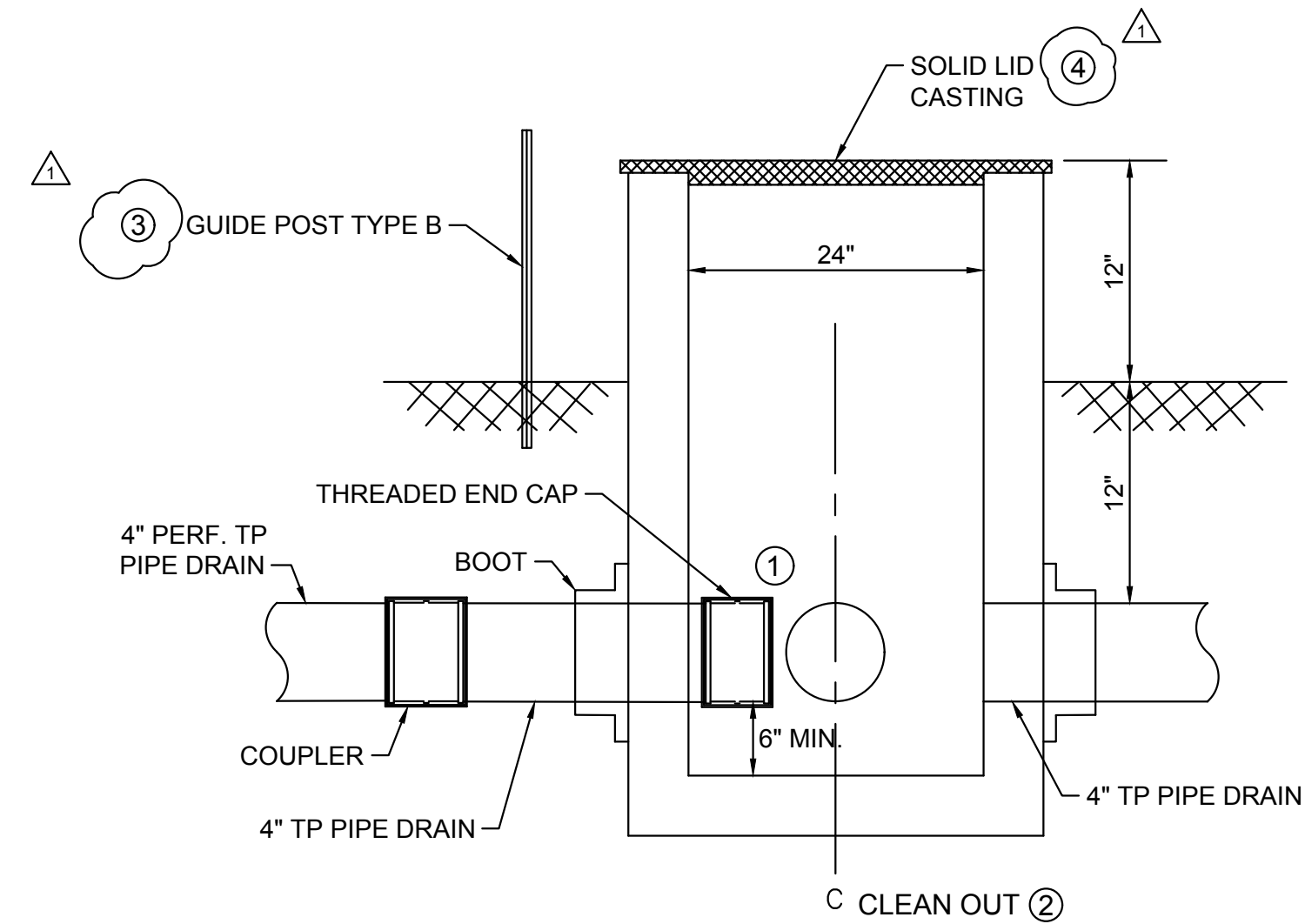
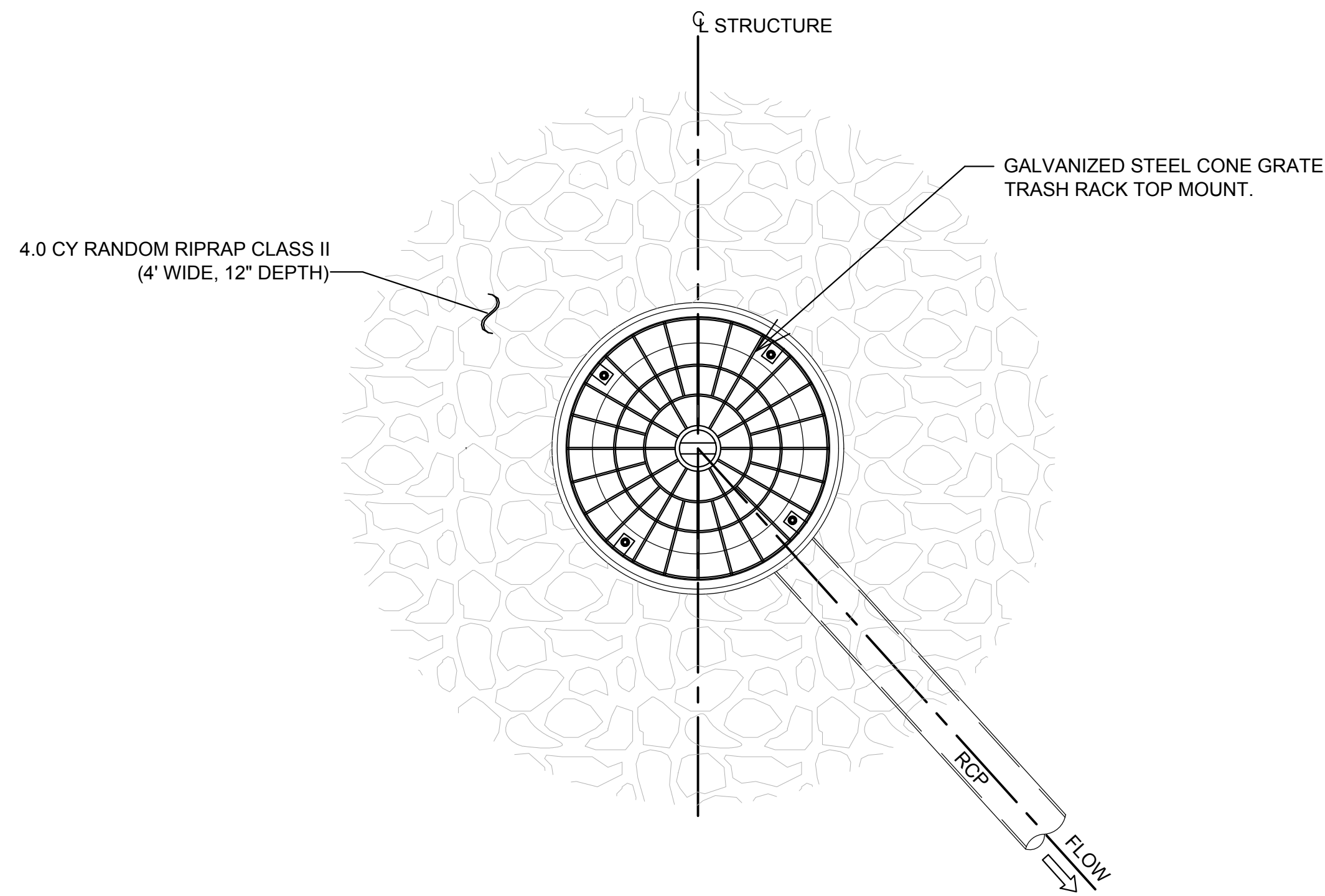
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 Checked DWP  
 Date JANUARY 24, 2022

Project Title  
**2022 PERIMETER GATE SECURITY IMPROVEMENTS - GATE 269**

MINNEAPOLIS - ST PAUL INTERNATIONAL AIRPORT  
 MAC CONTRACT # 106-1-329

Drawing Title  
**INFILTRATION BASIN DETAILS**

c3.06

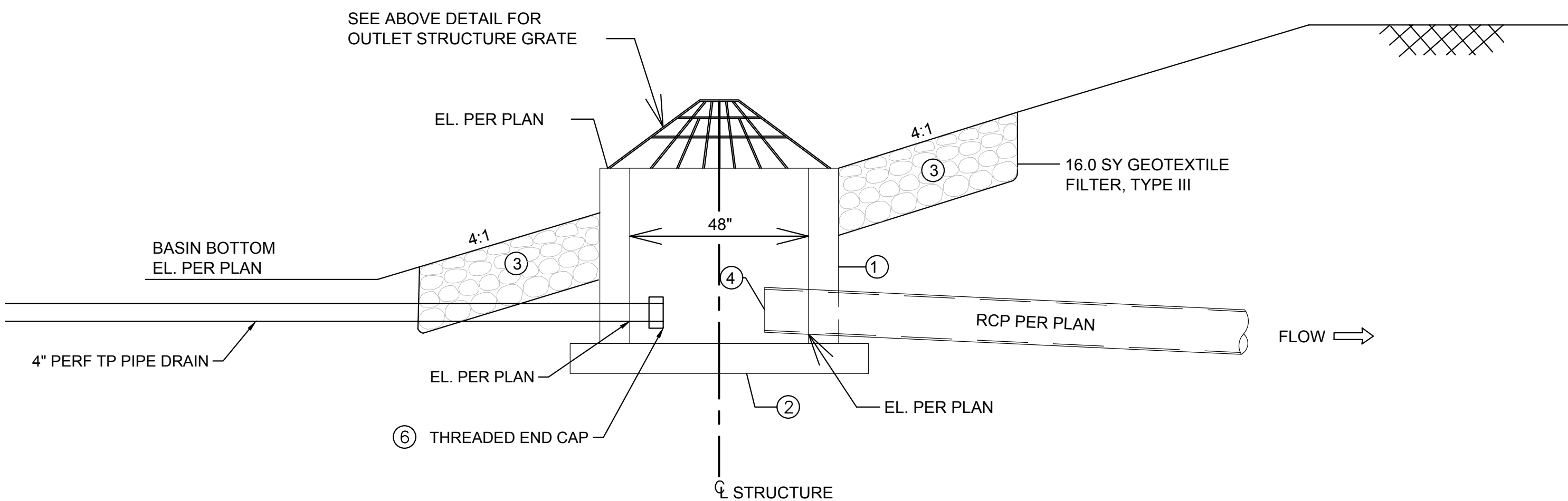


24" PVC PIPE DRAIN CLEANOUT

NO SCALE

SPECIFIC NOTES:

- ① EXTEND 4" TP PIPES THAT OUTLET TO CLEAN OUT A MINIMUM OF 2" BEYOND INSIDE OF STRUCTURE WALL TO ALLOW FOR THREADED END CAP.
- ② CLEAN OUT SHALL BE PVC DRAIN BASIN.
- ③ GUIDE POST TYPE B SHALL BE MNDOT STANDARD PLATE 8150.
- ④ SOLID LID CASTING FURNISHED BY MANUFACTURER.
- ⑤ CLEANOUT STRUCTURE PAY ITEM CONSISTS OF THE 24" PVC PIPE RISER, ADHESIVES, PIPE FITTINGS, BOOT SEALS, CASTING ASSEMBLY, HARDWARE, AND GUIDE POST TYPE B.

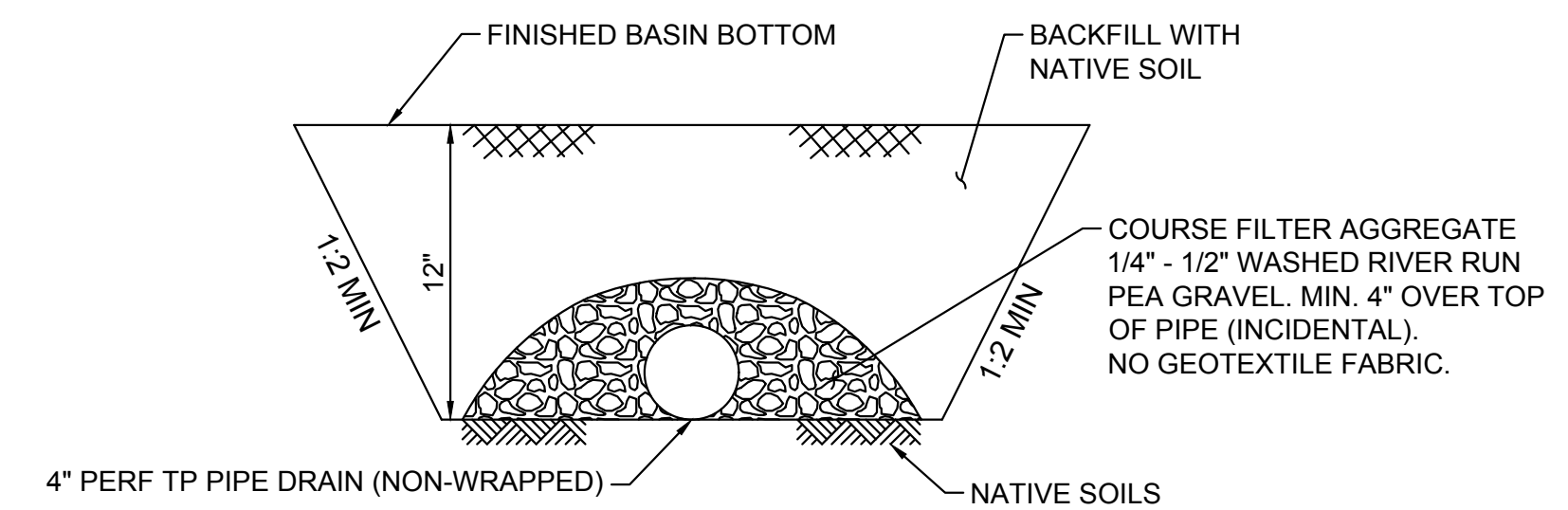


DRAINAGE STRUCTURE DESIGN SPECIAL

NO SCALE

SPECIFIC NOTES:

- ① PRECAST MANHOLE STRUCTURE TYPE PER STANDARD PLATE 4020.
- ② CONCRETE BASE PER STANDARD PLATE 4011.
- ③ RIPRAP PLACED AROUND THE PERIMETER OF GRATE MUST BE FLUSH WITH FINISHED SOIL GRADE AS SHOWN IN DETAIL.
- ④ EXTEND RCP A MINIMUM OF 6" INTO STRUCTURE. FLUSH CUT END OF RCP. PLACE ORIFICE PLATE ON FLUSH END OF RCP WITH MINIMUM OF FOUR STAINLESS STEEL BOLTS AND POST INSTALLED ANCHORS. ORIFICE SHALL BE STEEL PLATE (5/16" THICKNESS) AND CUT TO DIAMETER OF RCP. ORIFICE DIAMETER SHALL BE 4".
- ⑤ CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL PAY ITEM CONSISTS OF CONCRETE STRUCTURE AND BASE, GRATE, ORIFICE PLATE, AND ALL HARDWARE REQUIRED FOR A COMPLETE PLACEMENT. PAY ITEM DOES NOT INCLUDE OUTLET PIPE, RANDOM RIPRAP, OR GEOTEXTILE FILTER.
- ⑥ EXTEND 4" PERF TP PIPE DRAIN A MINIMUM OF 6" BEYOND INSIDE OF STRUCTURE WALL TO ALLOW FOR THREADED END CAP.



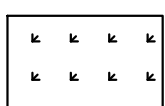

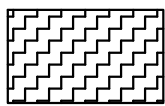
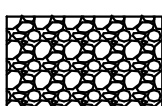
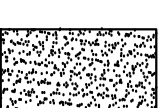
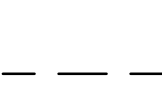
4" PERF TP PIPE DRAIN SECTION

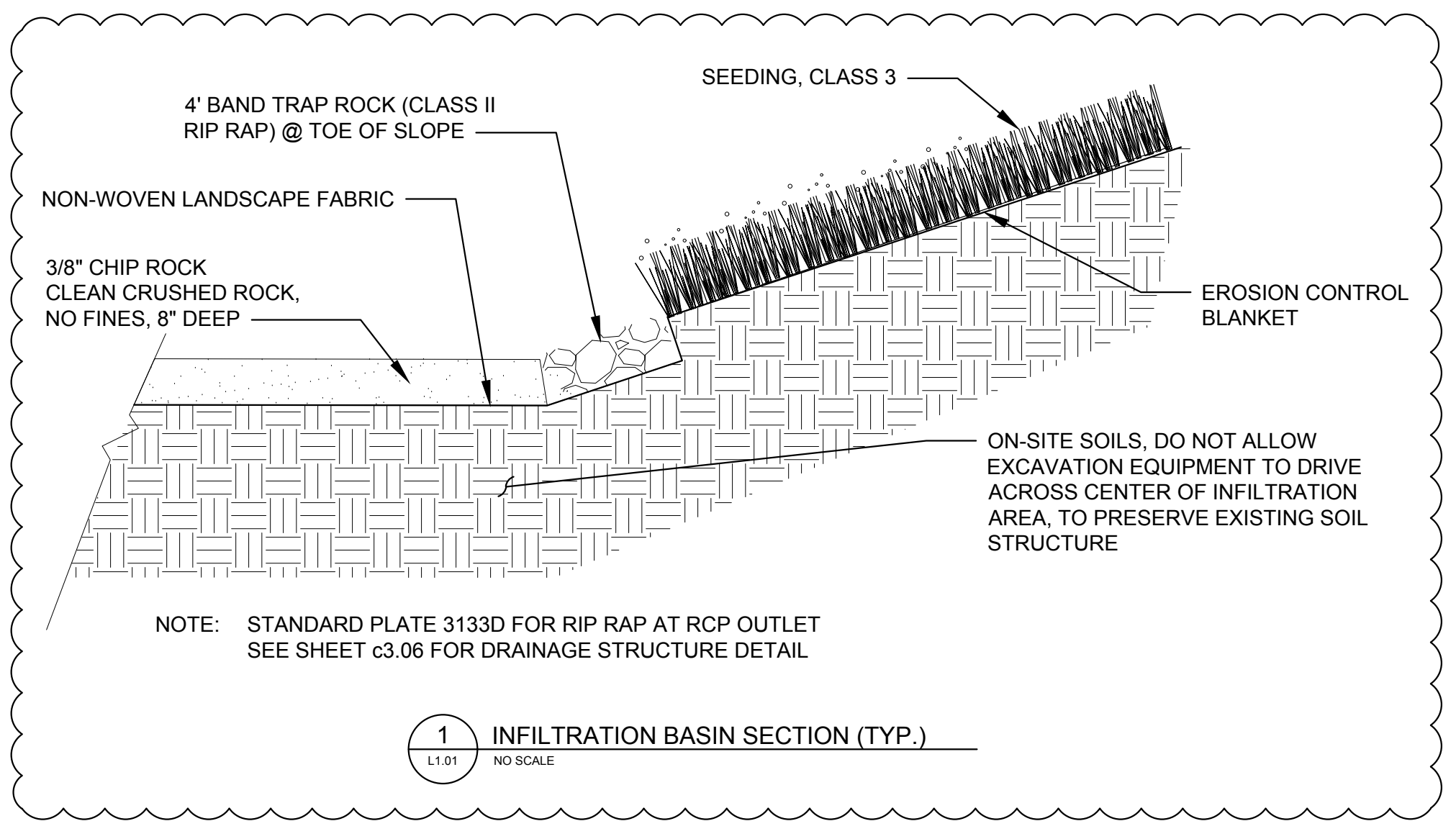
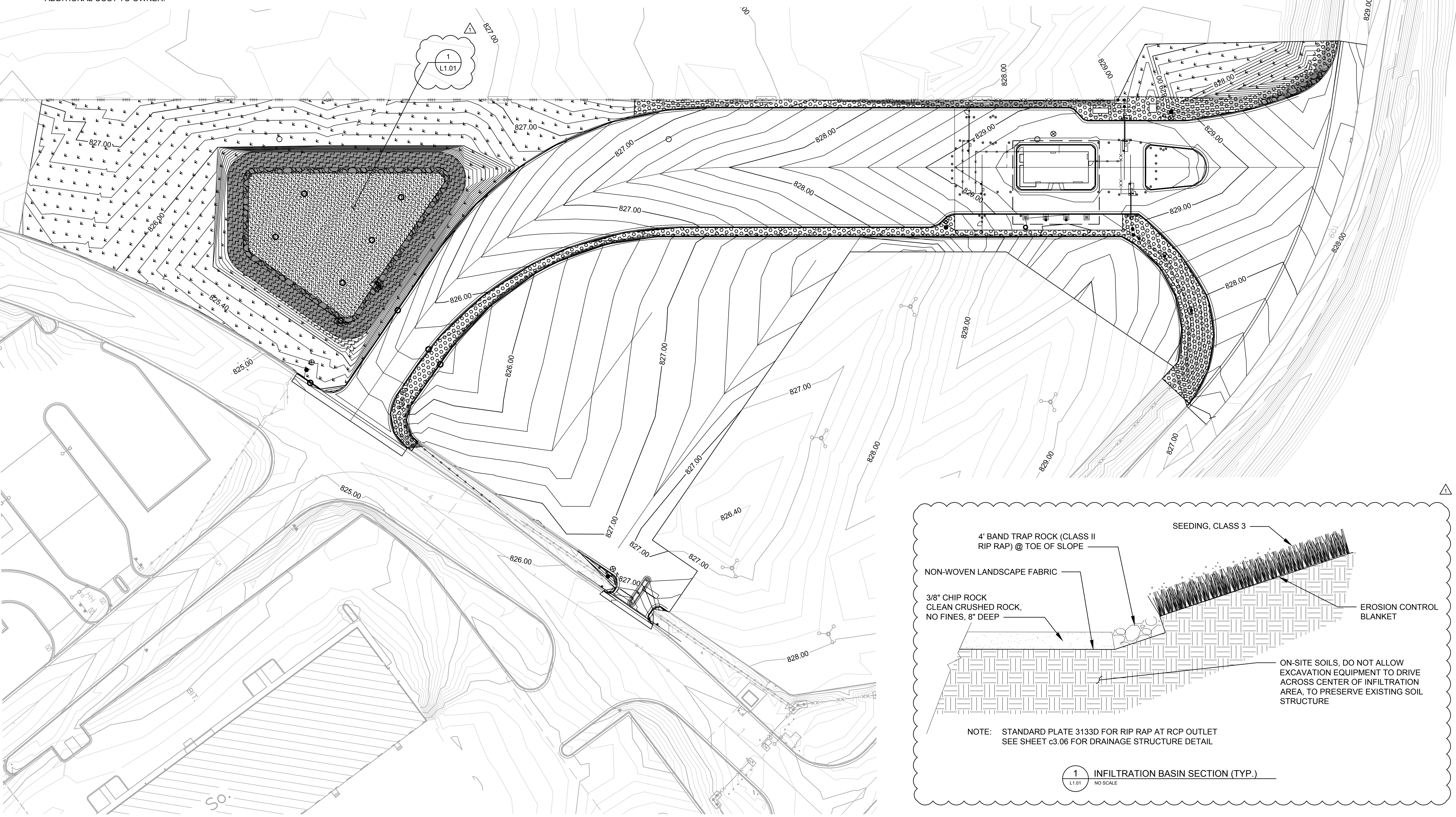
NO SCALE



**LANDSCAPE PLAN NOTES:**

- 1. ALL PLANTING BED OUTLINES AND TREES TO BE STAKED BY CONTRACTOR AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- 2. CONTRACTOR RESPONSIBLE FOR LOCATING UTILITIES PRIOR TO PLANTING. EXISTING UTILITY VAULT DEPTHS VARY. VERIFY PRIOR TO DIGGING.
- 3. STEEL EDGER TO BE PLACED AROUND ALL PLANTING BED BORDERS THAT DIRECTLY ADJUT LAWN SOD AREAS. SEE DETAIL FOR EDGER INSTALLATION.
- 4. ANY LANDSCAPE AREAS DISTURBED BY CONSTRUCTION NOT INDICATED ON REMOVAL PLANS SHALL BE REPLACED WITH IN-KIND LANDSCAPE MATERIAL AT THE DIRECTION OF THE LANDSCAPE ARCHITECT.
- 5. PLACE 6" TOPSOIL IN AREAS TO RECEIVE SEED. SEE SPECS FOR SEEDING TYPES AND REQUIREMENTS.
- 6. ALL PLANTING BEDS EXCLUDING INFILTRATIONS AREAS TO RECEIVE 3" OF DOUBLE SHREDDED HARDWOOD BARK MULCH OVER PREEN. MULCH AND PREEN TO BE INCIDENTAL TO PLANTING.
- 7. ALL INFILTRATION BASINS SEEDED WITH NATIVE SEED TO BE COVERED BY 100% COCONUT EROSION CONTROL BLANKET WITH 36 MONTH FUNCTIONAL LONGEVITY. EROSION CONTROL BLANKET TO BE INCIDENTAL TO PLANTING.
- 8. CONTRACTOR TO ADJUST AND REPAIR ALL EXISTING IRRIGATION LINES AND HEADS AT NO ADDITIONAL COST TO OWNER.

| LEGEND  |  |   |                        |
|---|--|---|------------------------|
|  | SEEDING, CLASS 1                                 |  | 2-1/2" TRAP ROCK       |
|  | SEEDING, CLASS 3 (INCL. EROSION CONTROL BLANKET) |  | 6-12" CLASS II RIP RAP |
|  | 3/8" CHIP ROCK                                   |  | METAL EDGER            |



**Metropolitan Airports Commission**  
GENERAL OFFICES  
6040 - 28TH AVENUE SOUTH  
MINNEAPOLIS, MINNESOTA 55450

**TKDA** 444 Cedar Street, Suite 1500  
Saint Paul, MN 55101  
651.292.4400  
tkda.com

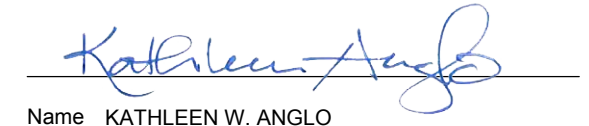
ARCHITECT  
**Miller Dunwiddie**  
100 Washington Avenue South  
Suite 500  
Minneapolis, MN 55401  
612-337-0000

BUILDING ELECTRICAL/MECHANICAL  
**Michaud Cooley Erickson**  
333 South Seventh Street  
Suite 1200  
Minneapolis, MN 55402  
612-339-4941

STRUCTURAL  
**Meyer Borgman Johnson**  
510 Marquette Avenue South  
Suite 900  
Minneapolis, MN 55402  
612-338-0713

INFORMATION SYSTEMS CONSULTANT  
**Faith Group, LLC**  
6625 Lyndale Avenue South  
Suite 510  
Richfield, MN 55423  
612-869-1878

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA. FOR TKDA

  
Name KATHLEEN W. ANGLIO  
Date 01/24/22 Reg. No. 43242

| Issued for  | Date          |
|-------------|---------------|
| BID SET     | JAN. 24, 2022 |
| ADDENDUM #2 | FEB. 9, 2022  |
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Checked KWA  
Date JANUARY 24, 2022

Project Title  
**2022 PERIMETER GATE SECURITY IMPROVEMENTS - GATE 269**

MINNEAPOLIS - ST PAUL INTERNATIONAL AIRPORT  
MAC CONTRACT # 106-1-329

Drawing Title  
**LANDSCAPING PLAN - GATE 269**

# L1.01

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