

Applicant: Zuleyka Marquez; City of Edina  
Consultant: Clark Lohr; Stantec, Inc.  
Project: City of Edina Fire Station #2 Redevelopment  
Location: 4401 West 76<sup>th</sup> Street, Edina, MN  
Applicable Rule(s): 2, 3, 4, and 5  
Reviewer(s): Gabrielle Campagnola and Louise Heffernan; Barr Engineering Co.

### **General Background & Comments**

The applicant, the City of Edina (City), proposes the redevelopment of the City's Fire Station #2 property located at 4401 West 76<sup>th</sup> Street in Edina. The project proposes to construct a Community Health and Safety Center building with associated site improvements. The work for the demolition and removal of the existing site elements, including the existing building and foundation, and concrete and bituminous pavement was approved and issued under NMCWD Permit #2023-116. The proposed work under the current application includes the construction of the community building, construction of an access drive and surface parking, and site improvements including concrete sidewalks, landscaping, and utilities. The project proposes the construction of ten stormwater management facilities.

Review of the proposed project in conformance with the current NMCWD stormwater management requirements necessitate review with regard to the "last major use" of the site. The existing conditions, or "last major use" of the site, includes previous site elements (i.e. building and parking lot) prior to the recent demolition and removal of materials.

Relevant project site information, considered in aggregate with the demolition activities (Permit #2023-116) subject to Rule 4.2.5, result in the following:

- Total Site Area: 348,916 square feet (8.01 acres)
- Disturbed Area: 314,686 square feet (7.22 acres)
- Existing Site Impervious Area: 255,037 square feet (5.85 acres)
- Proposed Site Impervious Area: 110,071 square feet (2.53 acres)
- 56.9% decrease in the site impervious area: 144,966 square feet (3.33 acres)
- 100% disturbance of the existing impervious surface

#### **Exhibits Reviewed:**

1. Permit Application dated September 7, 2023, received September 19, 2023. Email correspondence dated October 11, 2023, identifying seventeen items required to complete the application. Email correspondence dated November 21, 2023, outlining four items required to complete the application.

2. Wetland Delineation report for 4401 West 76<sup>th</sup> Street dated November 2022, received September 19, 2023, prepared by Stantec, Inc.
3. Wetland MnRAM report dated September 15, 2023 (received September 19, 2023), prepared by Stantec, Inc.
4. Construction plans dated September 15, 2023 (received September 19, 2023), revised October 27, 2023, and December 6, 2023 (received December 7, 2023), prepared by Stantec, Inc.
5. Demolition plans dated October 6, 2023 (received October 27, 2023), prepared by Stantec, Inc.
6. Geotechnical Evaluation Report dated September 7, 2023, prepared by American Engineering Testing, Inc.
7. Stormwater Management Narrative dated September 8, 2023 (received September 19, 2023), revised October 27, 2023, and December 6, 2023 (received December 7, 2023), prepared by Stantec, Inc.
8. Electronic HydroCAD models received on September 19, 2023, revised October 27, 2023, and December 7, 2023, prepared by Stantec, Inc.
9. MIDS Calculator models received on September 19, 2023, revised October 27, 2023, and December 7, 2023, prepared by Stantec, Inc.

The application with the submittal items above is complete.

## **2.0 Floodplain Management and Drainage Alterations**

The applicant proposes land-altering activities below the NMCWD Atlas 14 model 100-year frequency flood management elevation, 823.7 M.S.L., of the onsite wetland located along the southwestern boundary of the site. The proposed work below the 100-year flood elevation of the wetland includes pavement removal and construction of a 10-foot-wide trail. Because grading and land-altering activities are proposed below the 100-year flood management elevation, 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 structures must be constructed in accordance with the NMCWD Stormwater Rule, subsection 4.3.3*

The 100-year frequency flood elevation of the onsite wetland is 823.7 M.S.L. The project includes the construction of a building with a low floor elevation of 831.0 M.S.L.

Compliance with Rule 2.3.1 criteria is addressed in the subsection 4.3.3 discourse within the Rule 4.0 Stormwater Management section of this report.

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

- 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 activities include the removal of existing bituminous pavement and construction of a path below the 100-year flood elevation of the wetland. The plans indicate the proposed restoration work following the removal of the bituminous pavement, and the proposed path, will match the existing topography of the site, resulting in no cut or fill in the 100-year floodplain. Because no placement of fill is proposed below the flood elevation, the project is in conformance with subsection 2.3.2.

*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.*

The applicant must demonstrate that the proposed work for the removal of the pavement and construction of the path are not reasonably likely to have a significant adverse impact on any upstream or downstream landowner(s), flood risk, basin or channel stability, groundwater hydrology, stream base-flow, water quality or aquatic or riparian habitat.

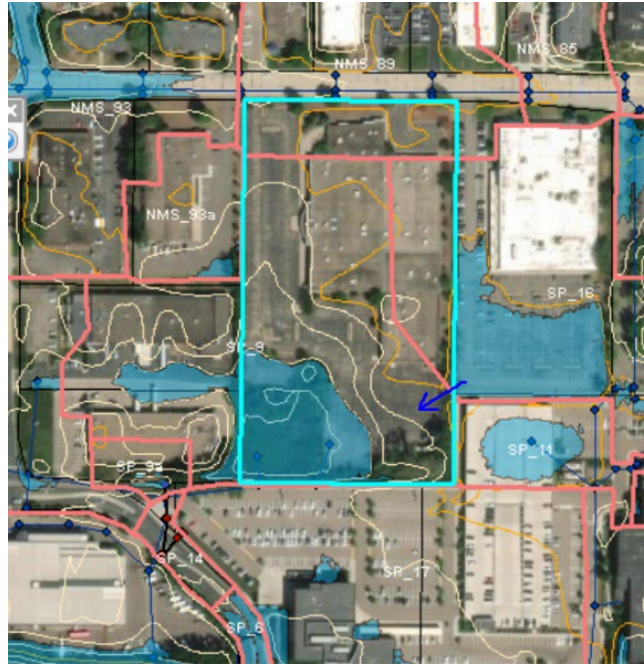
To demonstrate the project is not reasonably likely to have significant adverse offsite impacts, peak discharges leaving the site were evaluated for the 2-, 10- and 100-year, 24-hour events. The results of the modeling, as demonstrated in the Stormwater Management section of this report, indicate that peak discharges leaving the collection points from the site are reduced in proposed conditions. The project proposes a 56.9% decrease in the site impervious area (3.33 acres) and no fill is proposed below the 100-year flood elevation, thereby not increasing the 100-year flood elevation or flood risk associated with flood elevation changes. The applicant provided pre- and post-project water quality modeling to demonstrate the project is not reasonably likely to have an adverse impact to water quality, as demonstrated in the Stormwater Management section of this report.

The project is not likely to deter wildlife (such as waterfowl, amphibians, reptiles) from using the site area, if currently used. Revegetation plans provided by the applicant propose native vegetation at the lift station site to enhance ecological benefit. 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 is in compliance with subsection 2.3.3 criteria.

Groundwater hydrology will not be changed and/or altered as a result of the project because the project does not propose water basin alterations (e.g. pumping, establishment of new normal water levels, or physical characteristic changes such as depth of water or bed permeability) that would result in surface water inflow to groundwater interaction changes or restriction of seepage out of the bottom of the waterbodies. The NMCWD engineer finds that the project is not reasonably likely to have significant adverse impacts in conformance with Rule 2.3.3 criteria.

Additionally, under existing conditions, the property east of the site (4175 West 76<sup>th</sup> Street) becomes inundated during the 100-year flood event, and the overflow along the property boundary conveys stormwater runoff toward the project site, as shown by the blue arrow in Figure 1 below. The 100-year flood elevation on the adjacent site is not managed by NMCWD, however, the applicant has submitted information to support compliance with subsection 2.3.3 criteria and the proposed project plans note the existing overflow will be

maintained and identify that the no obstruction or fill is allowed. Grading changes to the overflow and along the eastern border of the property will not result in surface overflow alterations, therefore, the project is not likely to adversely impact the conveyance capacity or direction of flow.



**Figure 1.** 100-year flood inundation extents at the site (highlighted in blue) and the adjacent 4175 West 76<sup>th</sup> Street property east of site.

*2.3.4 No structure may be placed, constructed, or reconstructed and no surface may be paved 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.*

There is no water course within 50 feet of the proposed land-disturbing activities.

### **3.0 Wetlands Management**

The NMCWD's Wetland Management Rule 3.0 applies to the project because a wetland is located downgradient from the site land-disturbing activities and a district permit is required under Rule 4.0 (Rule 3.4). NMCWD is the Local Governing Unit (LGU) responsible for administering the requirements of the Wetland Conservation Act (WCA) in Edina. No wetland impacts are proposed by the project.

A wetland delineation report dated November 2022 was prepared by Stantec and submitted to NMCWD. A MnRAM assessment dated September 15, 2023, was completed for the onsite wetland downgradient of project activities. Based on the comparison of the function and values presented in Appendix 3b of the District's Rules, the wetland is classified as medium value,

requiring a 40-foot average, 20-foot minimum buffer width, Rule 3.4.1b. The NMCWD engineer agrees with the MnRAM results.

In accordance with Rule 3.4, a 40-foot average buffer of 20,640 square foot buffer is required on the edge of the wetland downgradient from land-disturbing activities. The plans dated December 6, 2023, include a 21,236 square foot buffer on the site upgradient of the wetland's edge. In addition, the required 20-foot minimum buffer with is provided for the wetland. The submittal demonstrates and the engineer finds the project in conformance with subsection 3.4.1b criteria.

In accordance with Rule 3.4.5, buffer markers at the edges of the buffer area are required. In accordance with the requirements of subsection 3.4.7 for the maintenance of the wetland buffer, a maintenance plan is required and must be recorded on the title to the property.

Rule 3.4.6 requires buffer areas planted with native vegetation and maintained to retain natural resources and ecological value, with buffer areas not to be cultivated, cropped, mowed or fertilized, except for periodic cutting to promote the health of the buffer. The applicant proposes to provide a native buffer composition and a pedestrian trail. In accordance with the requirements of subsection 3.4.7 for the maintenance of the wetland buffer, a plan is required to identify maintenance activities.

#### **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.

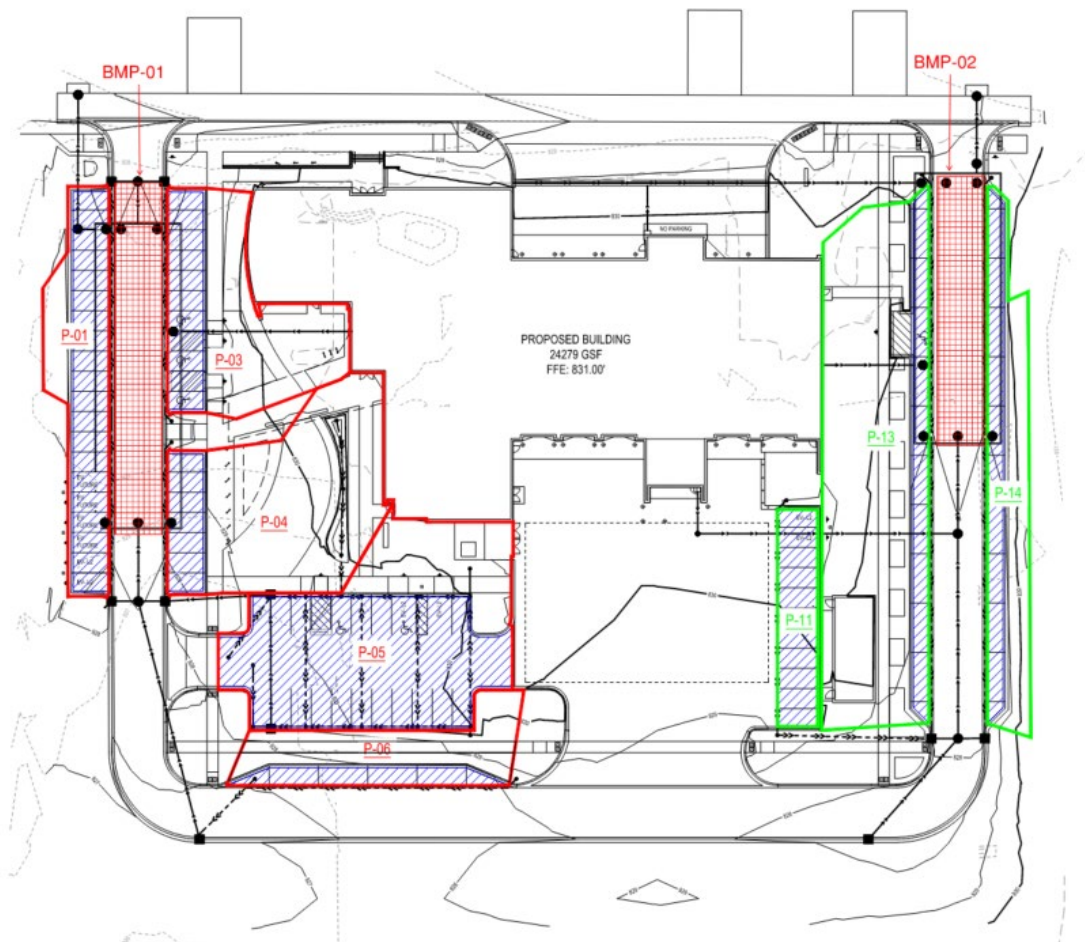
The NMCWD's Rule for Redevelopment, Rule 4.2.3, states, if the proposed activity will increase total impervious surface by 50 percent or more or will disturb 50 percent or more of the existing impervious surface on the site, the stormwater criteria will apply to the entire site. Otherwise, the criteria of section 4.3 will apply only to the disturbed areas, replaced, and net additional impervious surface on the project site. Because demolition work under Permit #2023-116 was approved since Rule 4.2.5 became effective in 2008, the proposed work under the current application (Permit #2023-117) is considered in aggregate with activities subject to Rule 4.2.5 Common Scheme of Development.

The project activities under the current application, considered in aggregate with the previous project permitted at the site, will decrease the total impervious surface of the site by 56.9% (144,966 square feet) and will disturb 100% of the existing site impervious area. Therefore, the district's stormwater management criteria will apply to the entire site, including the 105,558 square feet of regulated impervious surface (excludes exempt paths). The proposed walking path adjacent to the wetland is exempt from the stormwater requirements, because the path does not exceed 10-feet in width and is bordered downgradient by pervious surface at least half the width of the path.

Stormwater management for compliance with Rule 4.3.1 criteria will be provided by ten stormwater management facilities, including two underground stormwater management facilities (UGSWMFs) and eight permeable pavement systems to provide rate control, volume retention and water quality management for the site. The stormwater management facilities' locations, relative to the site, are shown in Figure 2 below. Generally, the majority of stormwater runoff generated by the site is captured by the permeable pavement systems and

routed to the UGSWMFs. The permeable pavement systems collect stormwater runoff from the proposed parking areas, building roof, and adjacent landscaping.

The Minnesota Stormwater Manual states that the drainage area to permeable pavement area ratio should not exceed 2:1. The ratio may be increased to 5:1 if the permeable pavement is receiving roof runoff or has sufficient pre-treatment. The proposed permeable pavement systems were designed to meet the ratio guidance from the Minnesota Stormwater Manual. As mentioned, the UGSWMFs receive runoff from the permeable pavement systems, however, each UGSWMF receives runoff from parking lot areas that are not directed to the permeable pavement systems.



**Figure 2.** Stormwater Management Facility Locations. Areas hatched in blue represent permeable pavement systems and areas hatched in red represent the underground stormwater management facilities.

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 at the two

collection points where stormwater discharge leaves the site. The existing and proposed 2-, 10- and 100-year frequency discharge rates from the site are summarized in the tables below.

| Existing Conditions                        |                     |                      |                       |
|--|---------------------|----------------------|-----------------------|
| Location                                   | 2- year<br>(c.f.s.) | 10- year<br>(c.f.s.) | 100- year<br>(c.f.s.) |
| To Wetland (to South)                      | 19.3                | 29.9                 | 53.4                  |
| To West 76 <sup>th</sup> Street (to North) | 5.5                 | 8.7                  | 15.8                  |
| To 4175 West 76th Street (to East)         | 4.5                 | 7.1                  | 13.0                  |
| Total                                      | 29.3                | 45.7                 | 82.2                  |

| Proposed Conditions                        |                     |                      |                       |
|--|---------------------|----------------------|-----------------------|
| Drainage Area                              | 2- year<br>(c.f.s.) | 10- year<br>(c.f.s.) | 100- year<br>(c.f.s.) |
| To Wetland (to South)                      | 4.4                 | 9.9                  | 23.9                  |
| To West 76 <sup>th</sup> Street (to North) | <1.0                | 1.2                  | 4.3                   |
| To 4175 West 76th Street (to East)         | 0                   | 0                    | 0                     |
| Total                                      | 5.1                 | 11.1                 | 28.2                  |

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 retention volume of 9,676 cubic feet is required from the 105,558 square feet (2.42 acres) of regulated impervious surface, with a required area of 3,024 square feet. Boring B-1 and B-2 in the geotechnical report by American Engineering Testing, Inc identifies the soil within the area of the proposed UGSWMF and permeable pavement as primarily poorly graded sand (SP) from a depth of 2 feet below the surface to 40 feet below the surface. A design infiltration rate of 0.8 inches per hour has been used for the rain garden and infiltration basin, conforming with infiltration rates identified in the Minnesota Stormwater Manual.

The table below summarizes the volume retention required and volume retention achieved. The proposed project is in conformance with subsection 4.3.1a.

#### Volume Retention Summary

| Proposed Stormwater Management Facility | Required Volume Retention (cubic feet) | Provided Volume Retention (cubic feet) | Provided Infiltration Depth (feet) |
|---|--|--|------------------------------------|
| BMP-01 (UGSWMF)                         | -                                      | 11,278                                 | 2.4                                |
| BMP-02 (UGSWMF)                         | -                                      | 10,419                                 | 1.5                                |
| PP-01                                   | -                                      | 2,401                                  | 3.0                                |
| PP-03                                   | -                                      | 1,235                                  | 3.0                                |
| PP-04                                   | -                                      | 1,269                                  | 4.0                                |
| PP-05                                   | -                                      | 7,696                                  | 3.0                                |
| PP-06                                   | -                                      | 1,025                                  | 3.0                                |

|       |       |        |     |
|-------|-------|--------|-----|
| PP-11 | -     | 1,981  | 3.0 |
| PP-13 | -     | 1,346  | 4.0 |
| PP-14 | -     | 1,037  | 3.0 |
| Total | 9,676 | 39,687 | -   |

With the infiltration depths achieved for the stormwater management facilities, the systems draw down within the required 48-hours, complying with Rule 4.3.1a (ii).

Rule 4.5.4d (i) requires three feet of separation between the bottom of an infiltration facility and groundwater. Five soil borings were completed onsite by American Engineering Testing, Inc. The highest groundwater elevation encountered onsite was 818.4 M.S.L., identified within SB-3 documentation. The following table provides a comparison of the bottom elevation of the infiltration facilities relative to the highest elevation where groundwater was encountered onsite.

| Proposed Stormwater Management Facility | Bottom Elevation of Facility M.S.L. | Groundwater Elevation M.S.L. | Separation Provided (feet) |
|---|-------------------------------------|------------------------------|----------------------------|
| BMP-01                                  | 822.0                               | 818.4                        | 3.6                        |
| BMP-02                                  | 823.0                               | 818.4                        | 4.6                        |
| PP-01                                   | 823.0                               | 818.4                        | 4.6                        |
| PP-03                                   | 823.0                               | 818.4                        | 4.6                        |
| PP-04                                   | 822.0                               | 818.4                        | 3.6                        |
| PP-05                                   | 824.3                               | 818.4                        | 5.9                        |
| PP-06                                   | 822.5                               | 818.4                        | 4.1                        |
| PP-11                                   | 825.0                               | 818.4                        | 6.6                        |
| PP-13                                   | 823.0                               | 818.4                        | 4.6                        |
| PP-14                                   | 824.0                               | 818.4                        | 5.6                        |

The required three (3) feet of separation is provided between the bottom of the infiltration area and groundwater.

The district's water quality criterion requires 60% annual removal efficiency for total phosphorus (TP) and 90% annual removal efficiency for total suspended solids (TSS) from site runoff. A MIDS model was used to evaluate the annual removal efficiencies of TP and TSS provided by the proposed stormwater facilities. The results of this modeling are summarized in table below showing the annual TSS and TP removal requirements are achieved. The 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) | 1,169                              | 1,052 (90%)                       | 1,083 (93%)                         |
| Total Phosphorus (TP)        | 6.43                               | 3.86 (60%)                        | 4.98 (77%)                          |

Rule 4.3.3 states 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, Rule 4.3.3 states that 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. Rule 4.3.3 also states that a stormwater management facility must be constructed at an elevation that ensures no adjacent habitable building will be brought into noncompliance with a standard in subsection 4.3.3.

The low floor and low opening elevation of the proposed building in relation to the wetland and stormwater management facilities' 100-year high-water elevations are summarized in the table below.

### Low Floor Elevation Summary

| Stormwater Management Facility or Water Body | Low Floor and Low Opening Elevation of Proposed Building (M.S.L.) | 100-year Frequency Flood Elevation of Proposed Facility or Water Body (M.S.L.) | Low Floor and Low Opening Elevation Freeboard (feet) |
|--|---|--|--|
| BMP-01                                       | 831   | 824.7  | 6.3  |
| BMP-02                                       | 831   | 825.9  | 5.1  |
| PP-01  | 831   | 824.5  | 6.5  |
| PP-03  | 831   | 826.3  | 4.7  |
| PP-04  | 831   | 827.0  | 4.0  |
| PP-05  | 831   | 825.2  | 5.8  |
| PP-06  | 831   | 825.3  | 5.7  |
| PP-11  | 831   | 825.6  | 5.4  |
| PP-13  | 831   | 828.5  | 2.5  |
| PP-14  | 831   | 827.1  | 3.9  |
| Onsite Wetland                               | 831   | 823.7  | 7.3  |

In accordance with Rule 4.3.1a (i), where infiltration or filtration facilities, practices or systems are proposed, pre-treatment of runoff must be provided. Pretreatment for the UGSWMFs will be provided with sump manholes. Pretreatment of runoff will for the permeable pavement systems will primarily be provided by grass filter strips and sweeping and maintenance activities proposed to ensure the functionality of the system. The proposed project pretreatment methods comply with Rule 4.3.1a (i).

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 and properly maintained in perpetuity to assure that they continue to function as designed. The applicant must provide a receipt showing recordation of a maintenance declaration for the operation and maintenance of the stormwater management facilities.

### **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 Stantec, Inc. includes installation of perimeter control (silt fence), stabilized rock construction entrances, and 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, 3.0, 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 3.0, 4.0 and 5.0 with the fulfilment of the conditions identified below.
3. In accordance with NMCWD Rule 3.4.7, the wetland buffer must be documented by a declaration or other document approved by the district.
4. The proposed stormwater management facilities will provide volume retention, rate control, and water quality management in accordance with subsections 4.3.1a-c criteria.
5. 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 facilities, and record the plan in a declaration on the property title.



## **Recommendation**

*Approval, contingent upon:*

Compliance with the General Provisions (attached).

The applicant providing 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.

Per Rule 3.4.7 and 4.3.5, submit a draft maintenance agreement for the operation and maintenance of the stormwater management facilities and wetland buffer. A draft of the agreement must be approved by the NMCWD.

The system invert elevation of BMP-2 identified on the utility plan does not appear to match the invert elevation identified on the utility plan table, HydroCAD modeling, and system detail. The utility plan callout for BMP-2 must be revised for consistency.

*By accepting the permit, when issued, the applicant agrees to the following stipulations for closeout of the permit and release of the financial assurance after the project:*

The work associated with the redevelopment of the site located at 4401 West 76<sup>th</sup> Street under the terms of Permit #2023-117 must have an impervious surface area and configuration materially 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.

In accordance with Rule 3.4.5, the buffer monumentations with the design and text approved by NMCWD are required at the limits of the wetland buffer on the site.

Per Rules 3.4.7 and 4.3.5, it is required to execute an agreement for the operation and maintenance of the proposed stormwater management facilities and wetland buffer. A public entity assuming the maintenance obligation may do so by filing with the district a document signed by an official with authority.

Per Rule 4.5.6, an as-built drawing of the stormwater management facilities conforming to the design specifications based on relevant surveyed information (e.g., system outlet, bottom of system, etc.) must be provided. A stage volume relationship in tabular form for the infiltration facilities, as approved by the district, must also be provided.

Per Rule 12.4.1b, demonstration and confirmation that the stormwater management facilities for volume retention have been constructed or installed and is functioning as designed and permitted. Verification, through daily observation logs and photographs, must be provided showing the stormwater management facilities used for volume retention have drawn down within 48 hours from the completion of two 1.0-inch (approximate) separate rainfall events for each of the stormwater management facilities.

EDINA FIRE STATION 2  
SITE CONSTRUCTION PLANS  
HENNEPIN COUNTY, MINNESOTA 55435  
DECEMBER 2023

BKV  
GROUP

Architecture  
Interior Design  
Landscape Architecture  
Engineering

222 North Second Street  
Long & Kees Bldg  
Suite 101  
Minneapolis, MN  
55401  
612.339.3752

www.bkvgroup.com

CONSULTANTS



PROJECT TITLE

EDINA FIRE  
STATION 2

| ISSUE # | DATE       | DESCRIPTION           |
|---------|------------|-----------------------|
|         | 11/16/2023 | 100% CD               |
|         | 12/06/2023 | WATERSHED RESUBMITTAL |
|         |            |                       |
|         |            |                       |
|         |            |                       |
|         |            |                       |

CERTIFICATION

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.

*Jared T. Ward*

NAME: JARED T. WARD, P.E.

LICENSE NUMBER: 48677

11/16/2023

|                   |           |
|-------------------|-----------|
| DRAWN BY          | YWK       |
| CHECKED BY        | CDL       |
| COMMISSION NUMBER | 193806025 |

SHEET TITLE

COVER SHEET

SHEET NUMBER

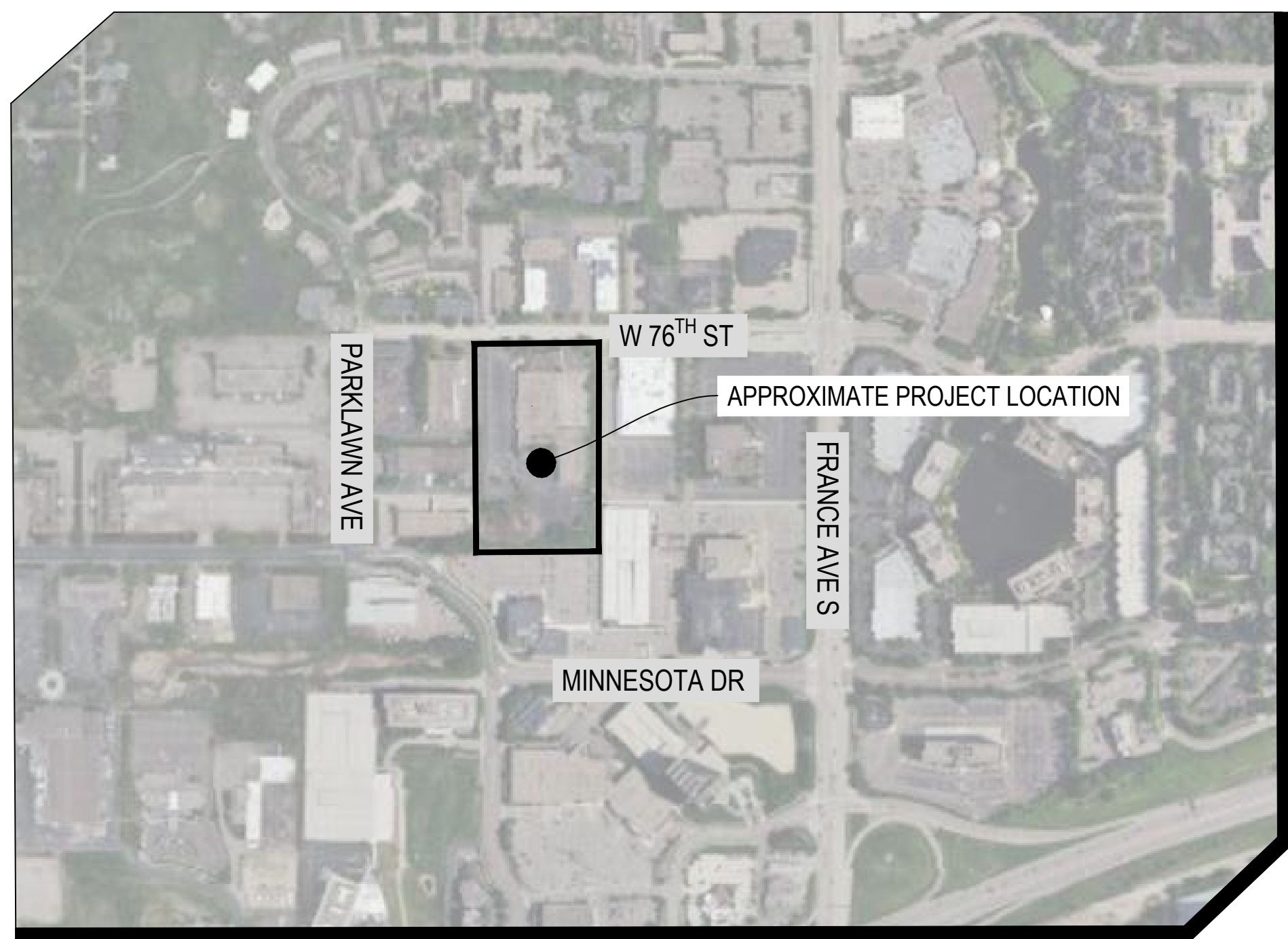
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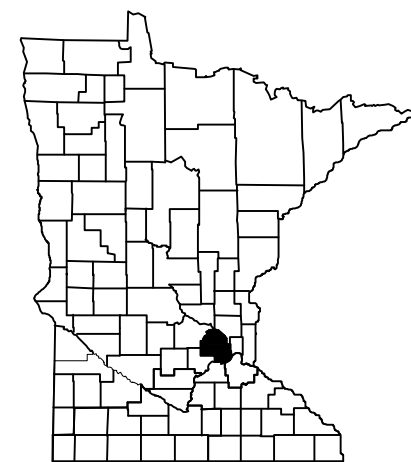
ENGINEER



STANTEC CONSULTING SERVICES, INC.  
ENGINEER OF RECORD. JARED WARD, PE  
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PROJECT MANAGER. CLARK LOHR, CDT  
CLARK.LOHR@STANTEC.COM | 763-252-6839  
PROJECT SURVEYOR. STEVEN HOUGH, PLS  
STEVE.HOUGH@STANTEC.COM | 763-479-4214



VICINITY MAP  
NOT TO SCALE



PROJECT LOCATION

CITY: EDINA  
COUNTY: HENNEPIN

THIS PLANSET CONTAINS 26 SHEETS

| SHEET INDEX  |   |
|--------------|---|
| SHEET NUMBER | SHEET TITLE                                   |
| G-001        | COVER SHEET                                   |
| G-002        | GENERAL NOTES                                 |
| C-001        | EXISTING CONDITIONS                           |
| C-002        | REMOVALS AND PRECONSTRUCTION EC PLAN          |
| C-003        | TREE PRESERVATION PLAN                        |
| C-004        | TREE PRESERVATION PLAN                        |
| C-101        | OVERALL SITE PLAN                             |
| C-102        | SITE PLAN                                     |
| C-201        | OVERALL POST-CONSTRUCTION STABILIZATION PLAN  |
| C-202        | ENLARGED POST-CONSTRUCTION STABILIZATION PLAN |
| C-203        | SWPPP   |
| C-301        | ENLARGED GRADING PLAN                         |
| C-302        | OVERALL GRADING PLAN                          |
| C-401        | UTILITY PLAN                                  |
| C-501        | STORM SEWER PLAN                              |
| C-801        | DETAILS                                       |
| C-802        | DETAILS                                       |
| C-803        | DETAILS                                       |
| C-804        | DETAILS                                       |
| C-805        | DETAILS                                       |
| C-806        | DETAILS                                       |
| C-807        | DETAILS                                       |
| C-808        | DETAILS                                       |
| C-809        | DETAILS                                       |
| C-810        | DETAILS                                       |
| C-811        | DETAILS                                       |

WARNING:

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THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL AT 651-454-0002 AT LEAST 48 HOURS IN ADVANCE FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

GOPHER STATE ONE CALL

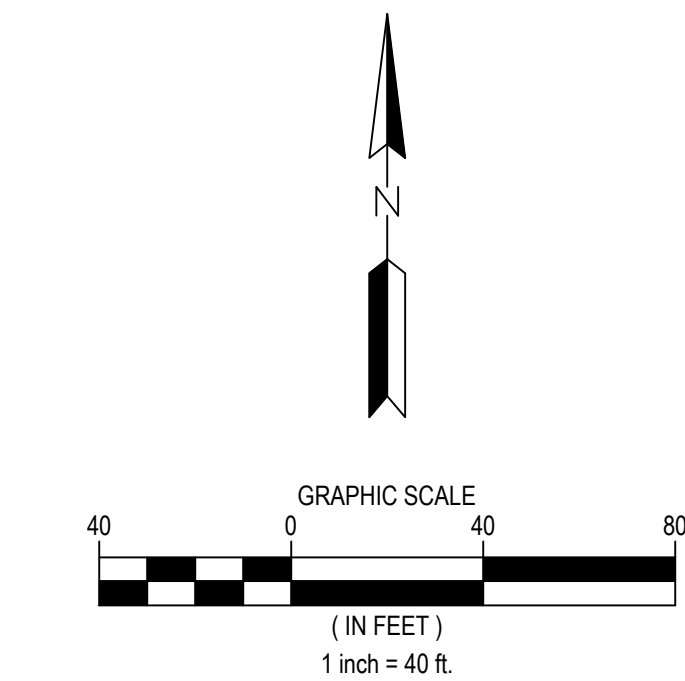
TWIN CITY AREA: 651-454-0002  
TOLL FREE 1-800-252-1166







| ISSUE # | DATE       | DESCRIPTION           |
|---------|------------|-----------------------|
|         | 11/16/2023 | 100% CD               |
|         | 12/06/2023 | WATERSHED RESUBMITTAL |
|         |            |                       |
|         |            |                       |
|         |            |                       |
|         |            |                       |



LEGEND

|     |                         |
|-----|-------------------------|
| --- | PROPERTY BOUNDARY       |
| --- | LOT LINE                |
| --- | EASEMENT LINE           |
| --- | SETBACK LINE            |
| --- | RIGHT OF WAY LINE       |
| --- | SECTION LINE            |
| --- | QUARTER LINE            |
| --- | EXISTING EASEMENT LINE  |
| --- | EXISTING PROPERTY LINE  |
| --- | EXISTING MINOR CONTOUR  |
| --- | EXISTING MAJOR CONTOUR  |
| --- | PROPOSED MINOR CONTOUR  |
| --- | PROPOSED MAJOR CONTOUR  |
| --- | GRADING LIMITS          |
| --- | CONSTRUCTION LIMITS     |
| --- | ROCK CONSTRUCTION EXIT  |
| --- | PERMANENT STABILIZATION |
| --- | RIPRAP                  |
| --- | SILT FENCE              |
| --- | INLET PROTECTION        |
| --- | CULVERT PROTECTION      |
| --- | TREE PROTECTION         |

NOTES

- SEE SHEET G-002 FOR ADDITIONAL PROJECT NOTES AND PROJECT MANUAL FOR ADDITIONAL SPECIFICATIONS.
- SEE EXISTING STORMWATER POLLUTION PREVENTION PLAN (SWPPP) ISSUED WITH SITE DEMOLITION CONTRACT DOCUMENTS. CONTRACTOR SHALL ASSUME RESPONSIBILITY OF EXISTING SWPPP AND COORDINATE TRANSFER OF THE NPDES CONSTRUCTION STORMWATER PERMIT PRIOR TO COMMENCING WORK.
- CONSTRUCTION SITE SHALL HAVE STABILIZED EXIT AT ALL TIME THROUGHOUT THE DURATION OF THE PROJECT. CONTRACTOR IS ULTIMATELY RESPONSIBLE TO PROTECT DOWNSTREAM WATERS FROM CONSTRUCTION RUNOFF.
- CONSTRUCTION LIMITS AND SILT FENCE SHOWN OFF SET FROM PROPERTY LINE FOR CLARITY WHEN APPLICABLE.
- SOD SHALL BE INSTALLED IN THE BOULEVARD ADJACENT TO CURB AND GUTTER - SEE LANDSCAPE ARCHITECT PLAN.

KEYNOTES

- INLET PROTECTION - SEE DETAIL 4/C-803
- SILT FENCE - SEE DETAIL 1/C-803
- ROCK CONSTRUCTION ENTRANCE - SEE DETAIL 3/C-803
- EROSION CONTROL BLANKET - SEE DETAIL 2/C-803
- BIOROLL - SEE DETAIL 5/C-803

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GOPHER STATE ONE CALL

TWIN CITY AREA: 651-454-0002  
TOLL FREE 1-800-252-1166

CERTIFICATION

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.

*Jared T. Ward*

NAME: JARED T. WARD, P.E.

LICENSE NUMBER: 48677

11/16/2023

DRAWN BY: YMK

CHECKED BY: CDL

COMMISSION NUMBER: 193806025

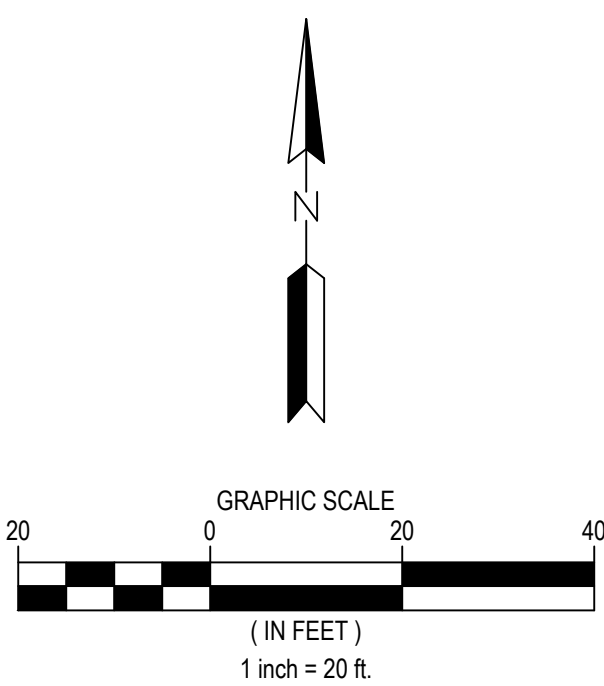
SHEET TITLE

OVERALL  
POST-CONSTRUCTION  
STABILIZATION PLAN

SHEET NUMBER

C-201

| ISSUE # | DATE       | DESCRIPTION           |
|---------|------------|-----------------------|
|         | 11/16/2023 | 100% CD               |
|         | 12/06/2023 | WATERSHED RESUBMITTAL |
|         |            |                       |
|         |            |                       |
|         |            |                       |
|         |            |                       |



LEGEND

|  |                         |
|--|-------------------------|
|  | PROPERTY BOUNDARY       |
|  | LOT LINE                |
|  | EASEMENT LINE           |
|  | SETBACK LINE            |
|  | RIGHT OF WAY LINE       |
|  | SECTION LINE            |
|  | QUARTER LINE            |
|  | EXISTING EASEMENT LINE  |
|  | EXISTING PROPERTY LINE  |
|  | EXISTING MINOR CONTOUR  |
|  | EXISTING MAJOR CONTOUR  |
|  | PROPOSED MAJOR CONTOUR  |
|  | PROPOSED MINOR CONTOUR  |
|  | GRADING LIMITS          |
|  | CONSTRUCTION LIMITS     |
|  | ROCK CONSTRUCTION EXIT  |
|  | PERMANENT STABILIZATION |
|  | RIPRAP                  |
|  | SILT FENCE              |
|  | INLET PROTECTION        |
|  | CULVERT PROTECTION      |
|  | TREE PROTECTION         |

NOTES

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KEYNOTES

- INLET PROTECTION - SEE DETAIL 4/C-803
- SILT FENCE - SEE DETAIL 1/C-803
- ROCK CONSTRUCTION EXIT - SEE DETAIL 3/C-803
- PERMANENT STABILIZATION

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GOPHER STATE ONE CALL

TWIN CITY AREA: 651-454-0002  
TOLL FREE 1-800-252-1166

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NAME: JARED T. WARD, P.E.

LICENSE NUMBER: 48677

11/16/2023

DRAWN BY

YMK

CHECKED BY

CDL

COMMISSION NUMBER

193806025

SHEET TITLE

ENLARGED  
POST-CONSTRUCTION  
STABILIZATION PLAN

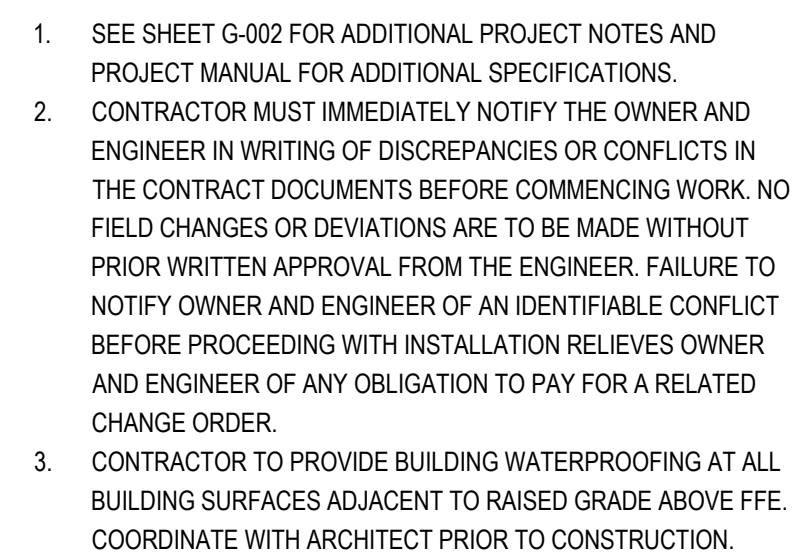
SHEET NUMBER

C-202

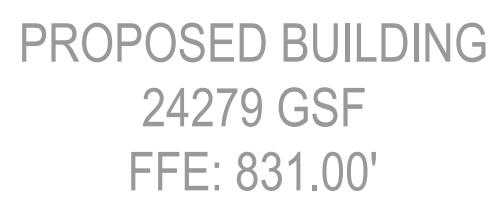
WEST 76TH STREET

PROPOSED BUILDING  
24279 GSF  
FFE: 831.00'





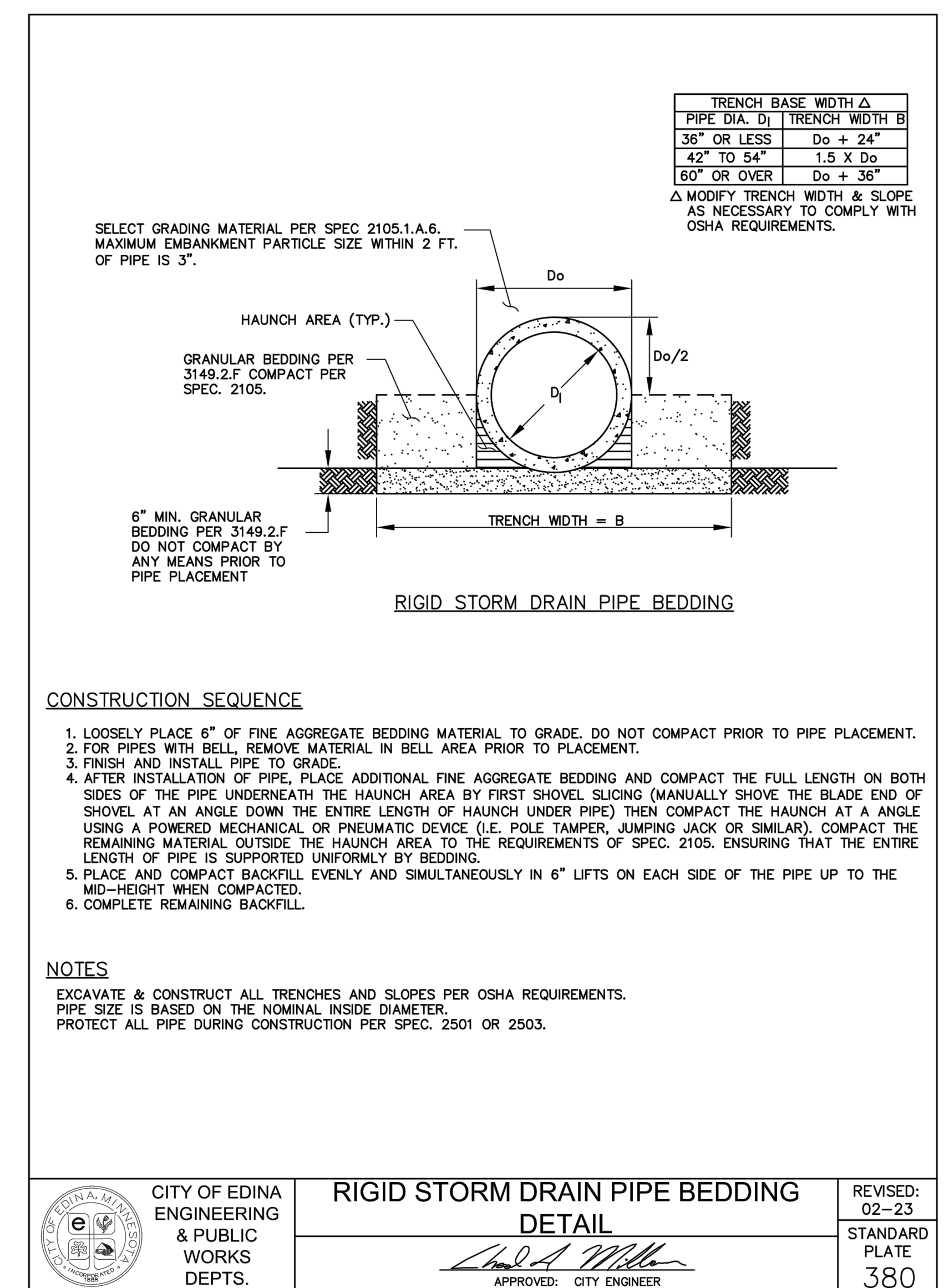
TWIN CITY AREA: 651-454-0002  
TOLL FREE 1-800-252-1166





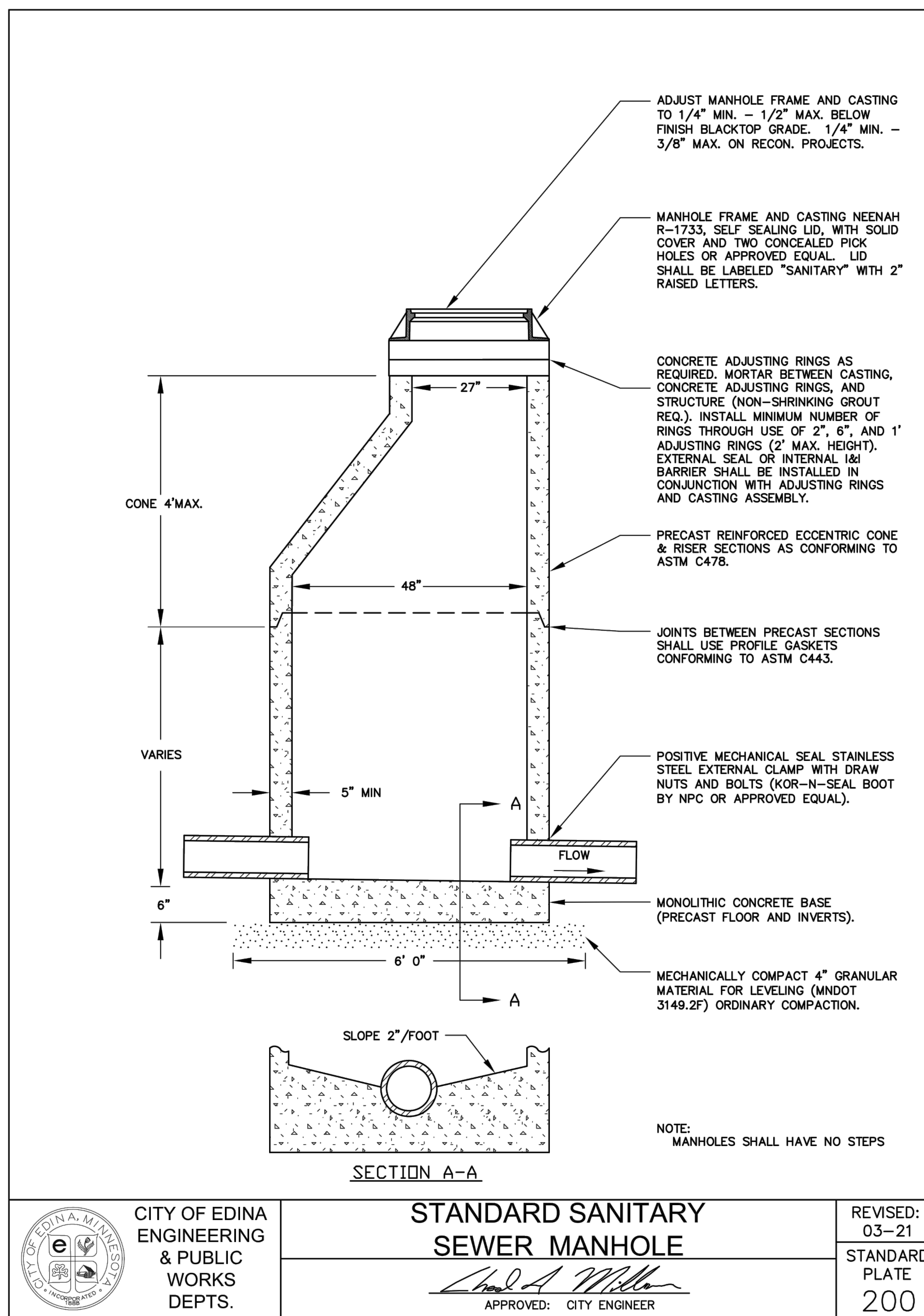




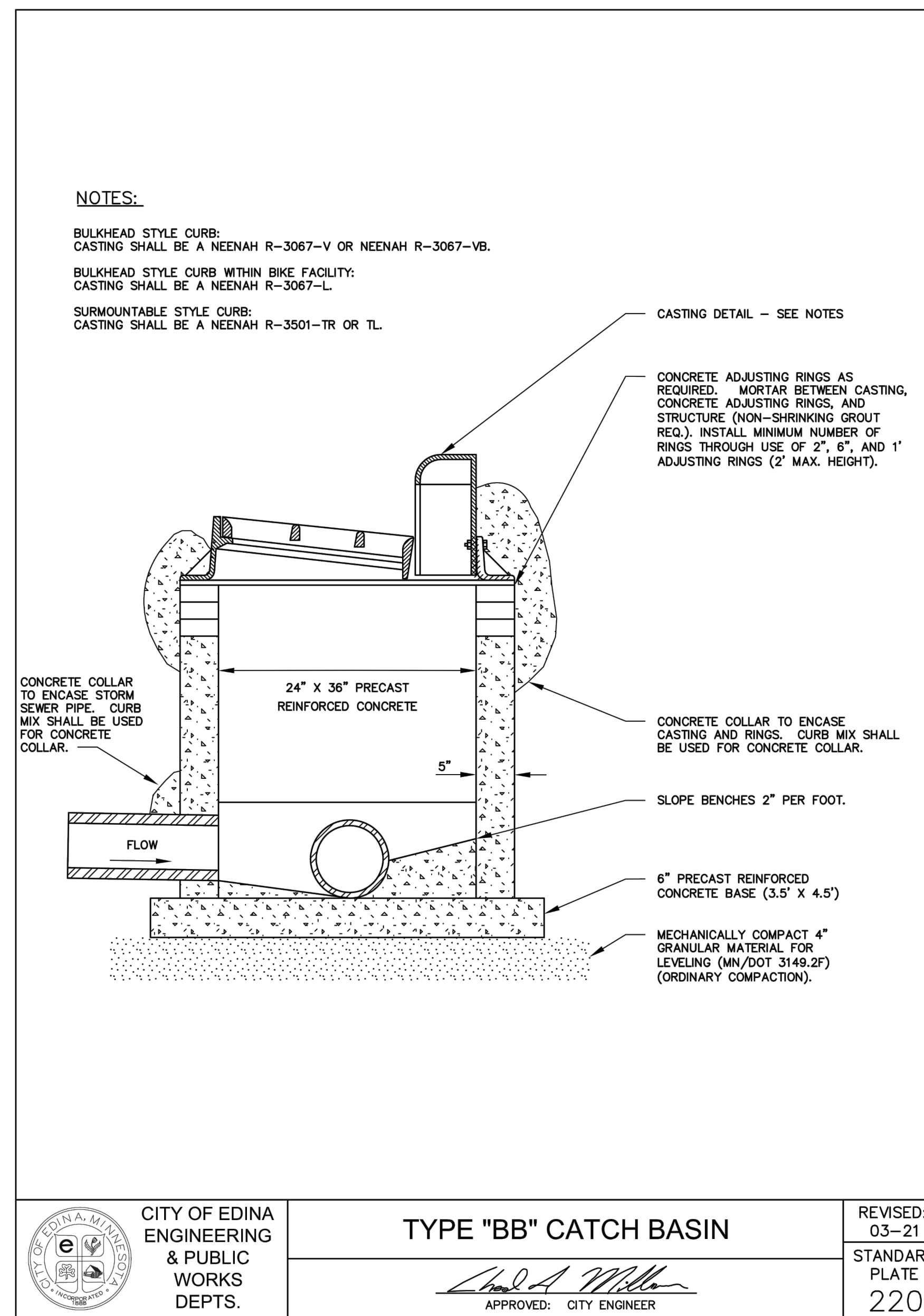




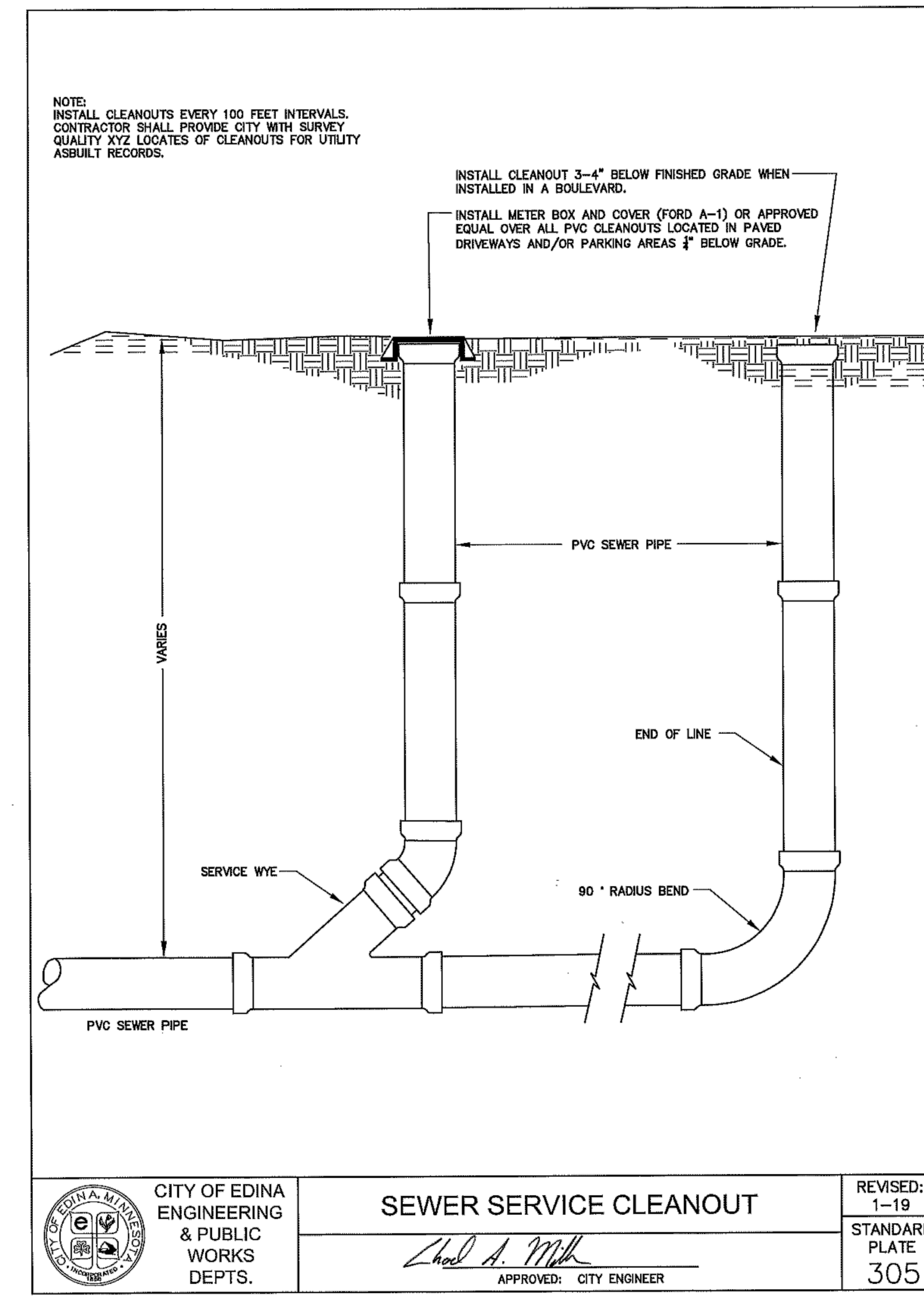
| ISSUE # | DATE       | DESCRIPTION           |
|---------|------------|-----------------------|
| 1       | 11/16/2023 | 100% CD               |
| 2       | 12/06/2023 | WATERSHED RESUBMITTAL |
|         |            |                       |
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|         |            |                       |



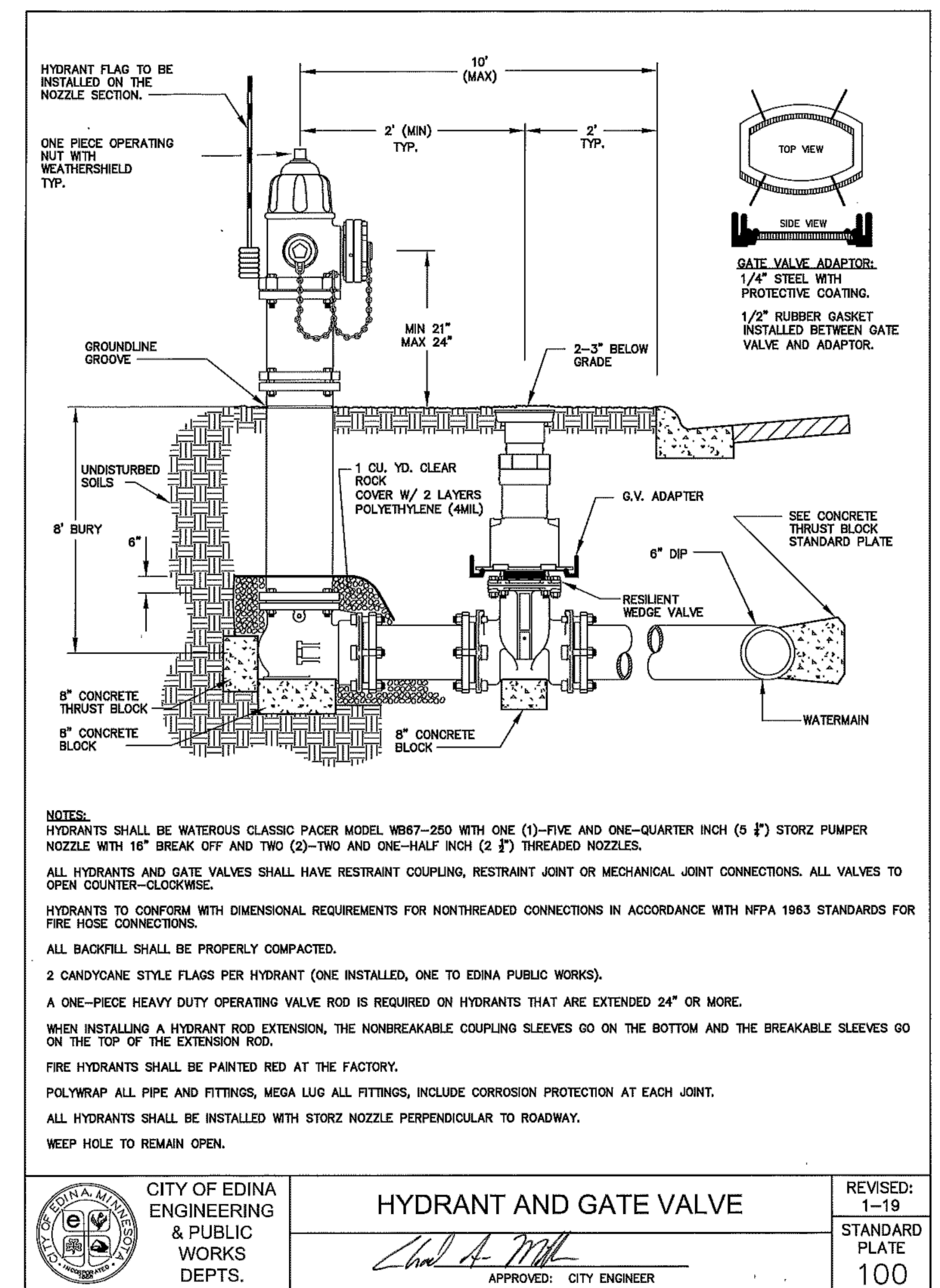
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| CITY OF EDINA<br>ENGINEERING<br>& PUBLIC<br>WORKS<br>DEPTS. | <b>STANDARD SANITARY<br/>SEWER MANHOLE</b> | REVISED:<br>03-21 |
|   |  | STANDARD<br>PLATE |
|   |  | 200               |



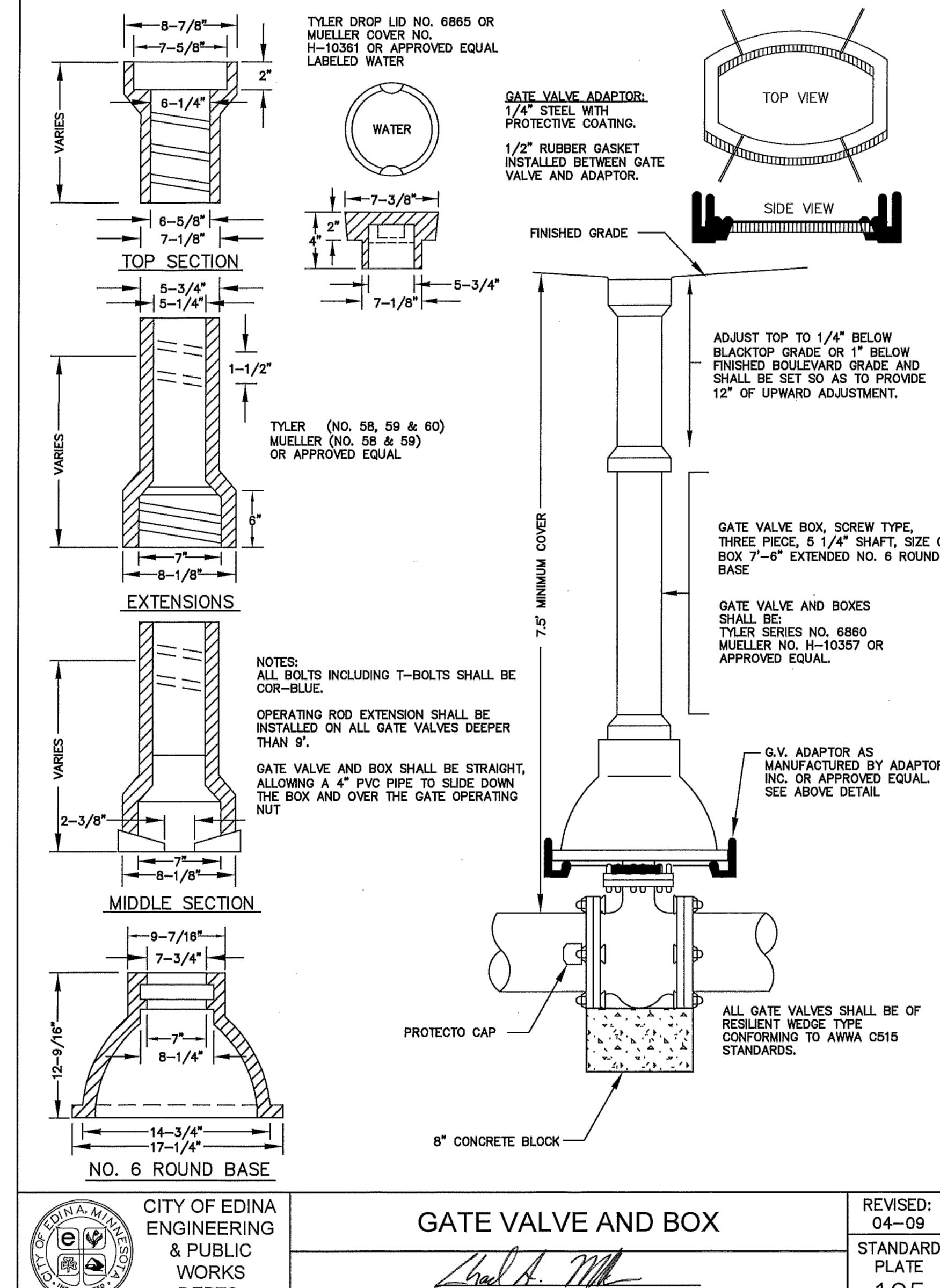
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| CITY OF EDINA<br>ENGINEERING<br>& PUBLIC<br>WORKS<br>DEPTS. | <b>TYPE "BB" CATCH BASIN</b> | REVISED:<br>03-21 |
|   |                              | STANDARD<br>PLATE |
|   |                              | 220               |



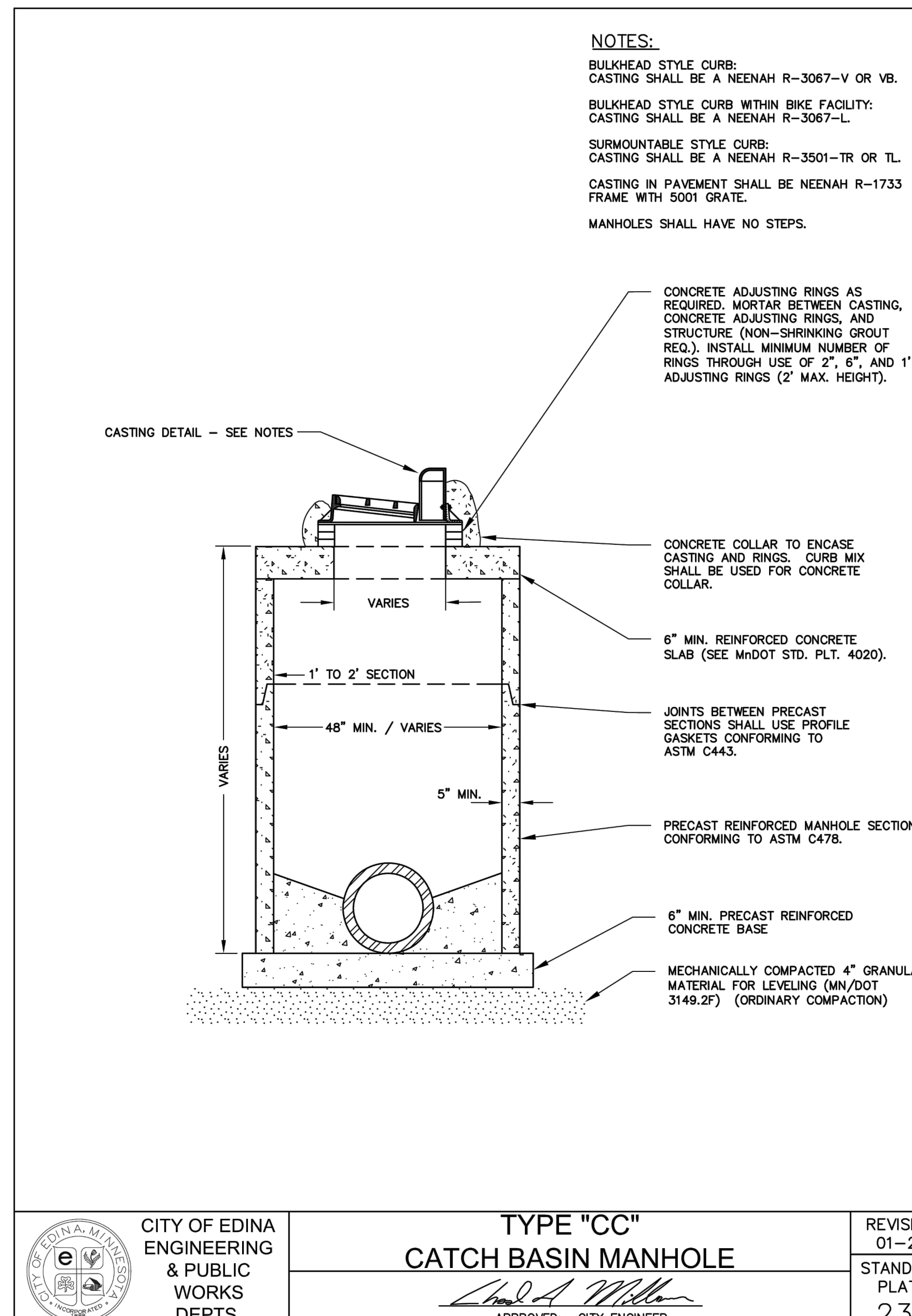
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| CITY OF EDINA<br>ENGINEERING<br>& PUBLIC<br>WORKS<br>DEPTS. | <b>SEWER SERVICE CLEANOUT</b> | REVISED:<br>1-19  |
|   |                               | STANDARD<br>PLATE |
|   |                               | 305               |



|   |                               |                   |
|---|-------------------------------|-------------------|
| CITY OF EDINA<br>ENGINEERING<br>& PUBLIC<br>WORKS<br>DEPTS. | <b>HYDRANT AND GATE VALVE</b> | REVISED:<br>1-19  |
|   |                               | STANDARD<br>PLATE |
|   |                               | 100               |



|   |                           |                   |
|---|---------------------------|-------------------|
| CITY OF EDINA<br>ENGINEERING<br>& PUBLIC<br>WORKS<br>DEPTS. | <b>GATE VALVE AND BOX</b> | REVISED:<br>04-09 |
|   |                           | STANDARD<br>PLATE |
|   |                           | 105               |



|   |  |                   |
|---|--|-------------------|
| CITY OF EDINA<br>ENGINEERING<br>& PUBLIC<br>WORKS<br>DEPTS. | <b>TYPE "CC"<br/>CATCH BASIN MANHOLE</b> | REVISED:<br>01-22 |
|   |  | STANDARD<br>PLATE |
|   |  | 230               |

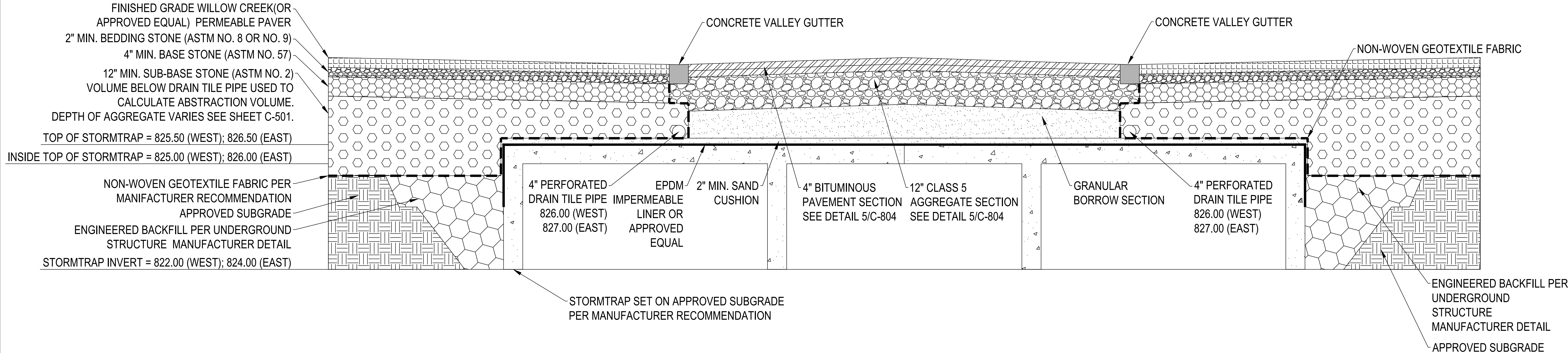
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NAME: JARED T. WARD, P.E.  
LICENSE NUMBER: 48677  
11/16/2023

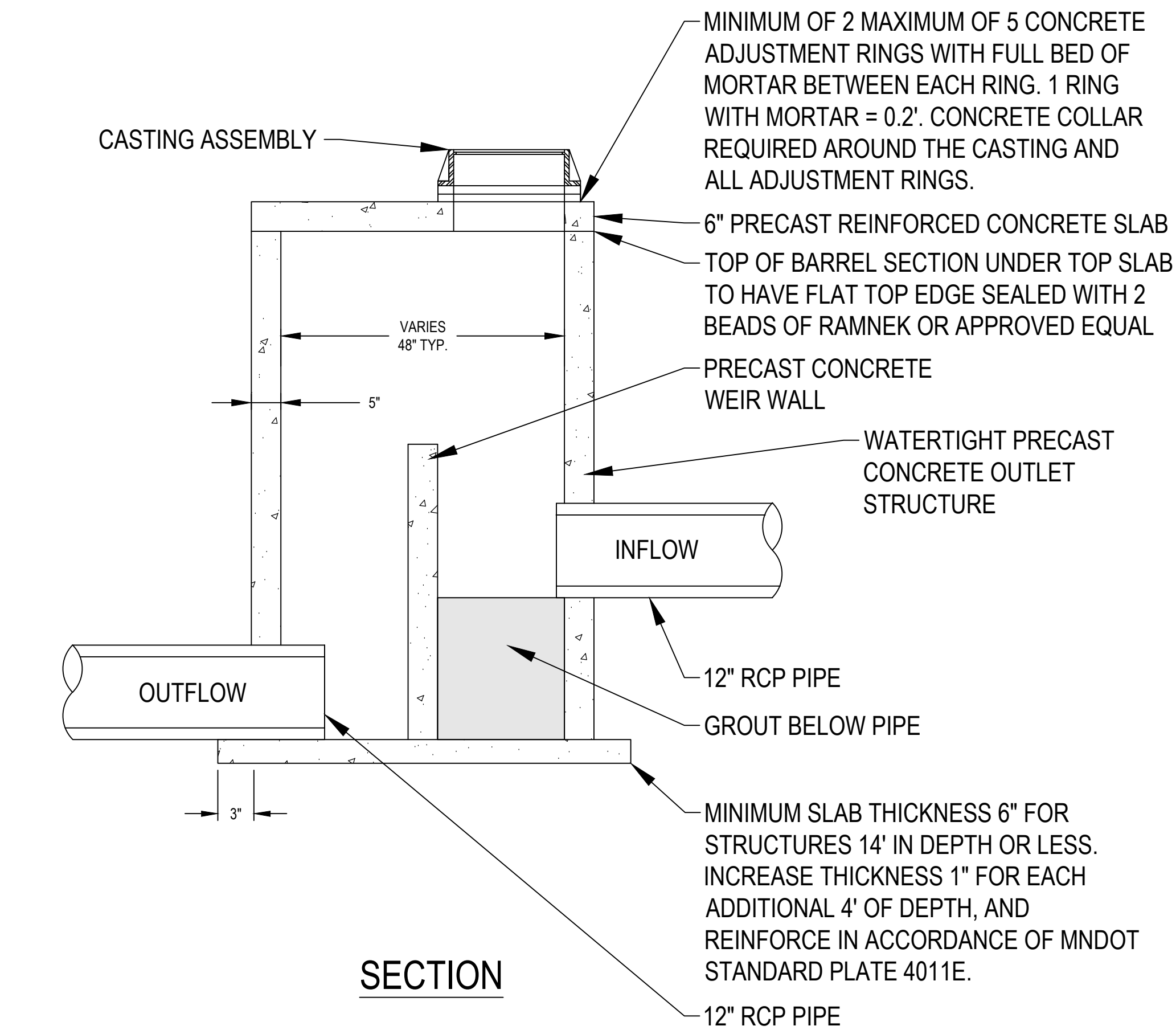
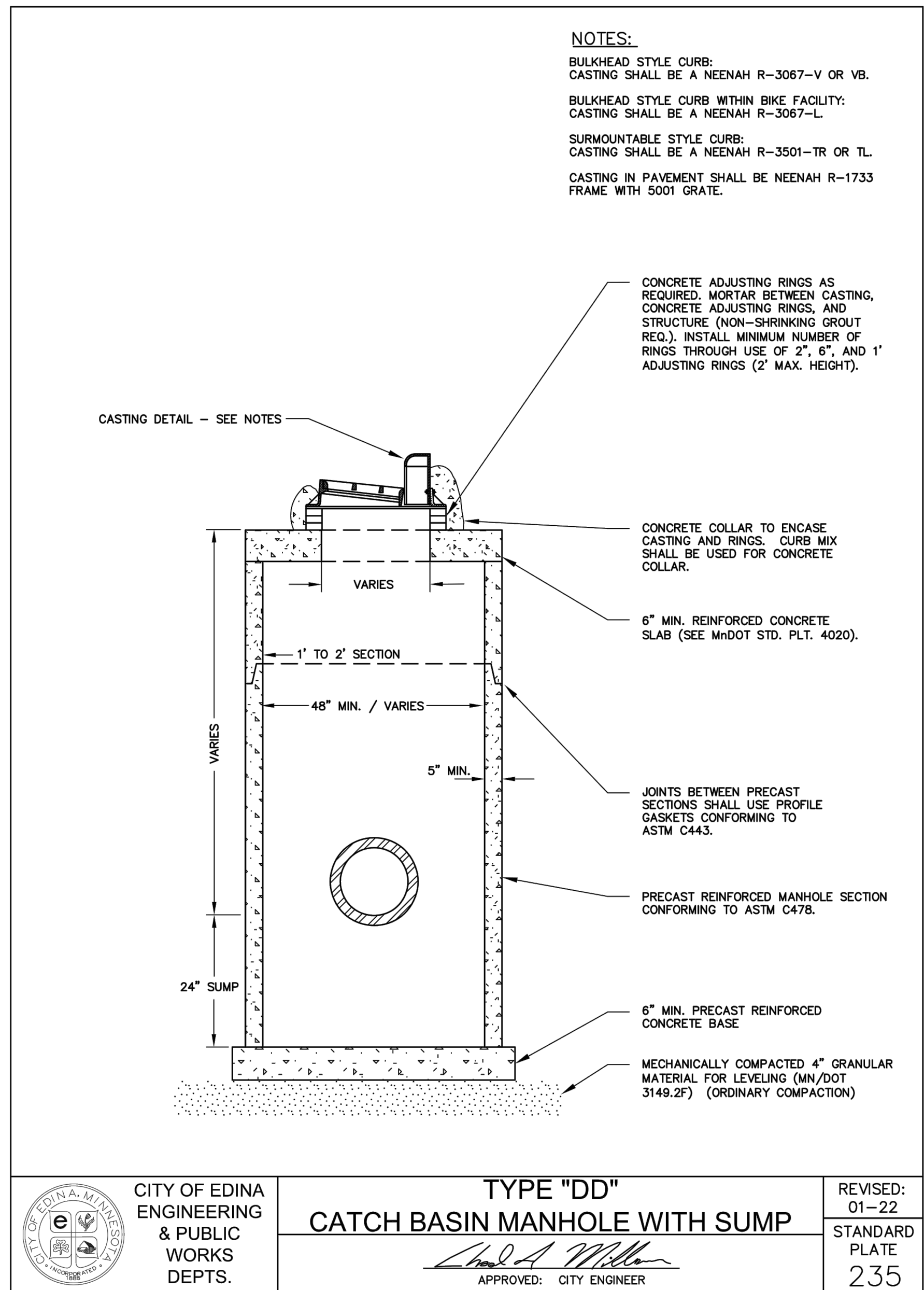
DRAWN BY: YMK  
CHECKED BY: CDL  
COMMISSION NUMBER: 19386025





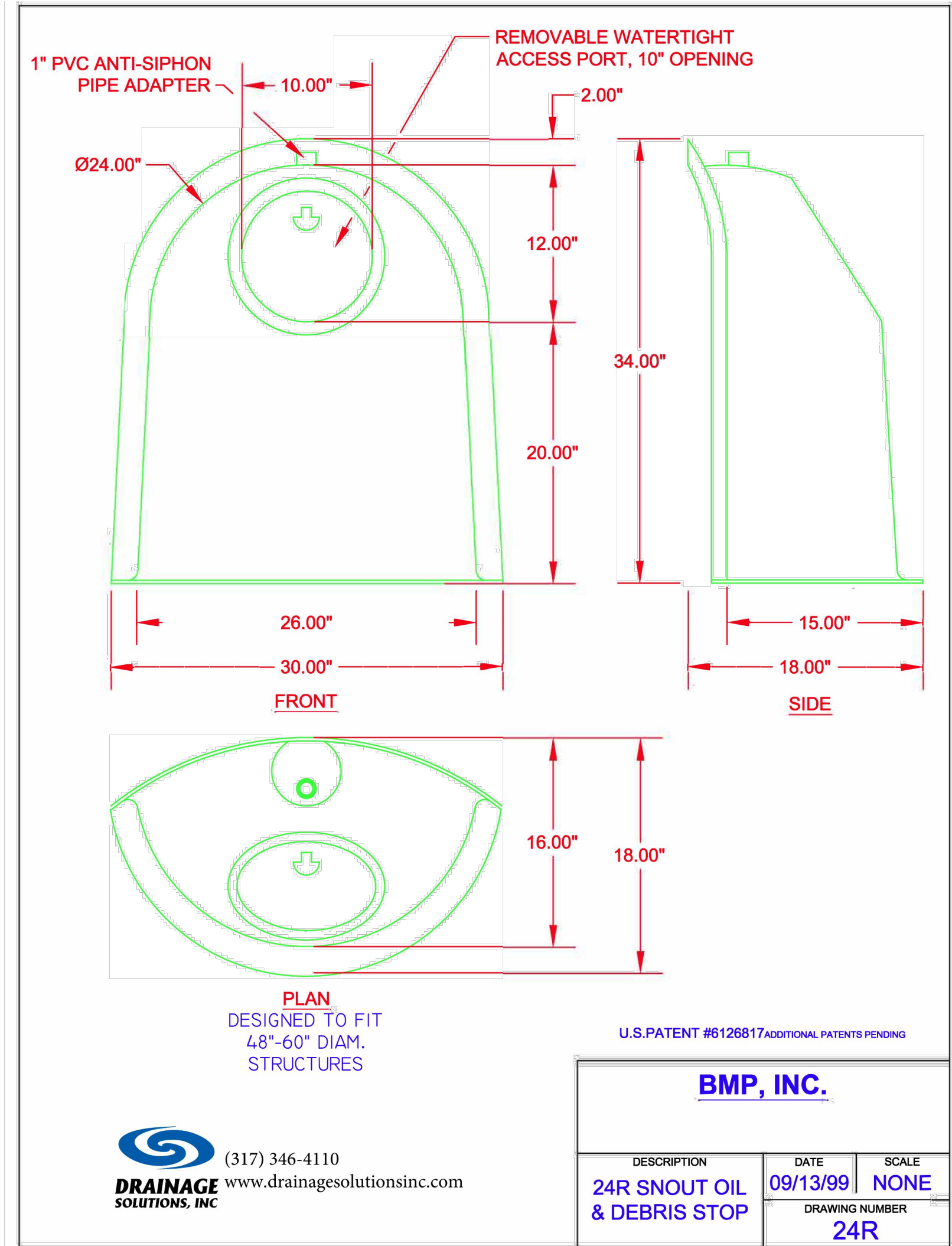


1 CROSS-SECTION OF PERMEABLE PAVEMENT AND STORMTRAP SYSTEMS  
C-805 NOT TO SCALE



- NOTES
- DOG HOUSES MUST BE GROUTED BOTH INSIDE AND OUTSIDE OF STRUCTURE. WASTERSTOP GROUT RING (RCP) OR WATERTIGHT BOOT (PVC) REQUIRED
  - PIPE INVERT, WEIR, AND RIM ELEVATIONS VARY, SEE STORM SEWER PLAN FOR RELEVANT STRUCTURE ELEVATIONS

2 OUTLET CONTROL STRUCTURE  
C-805 NOT TO SCALE



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LICENSE NUMBER: 48677  
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COMMISSION NUMBER: 193806025

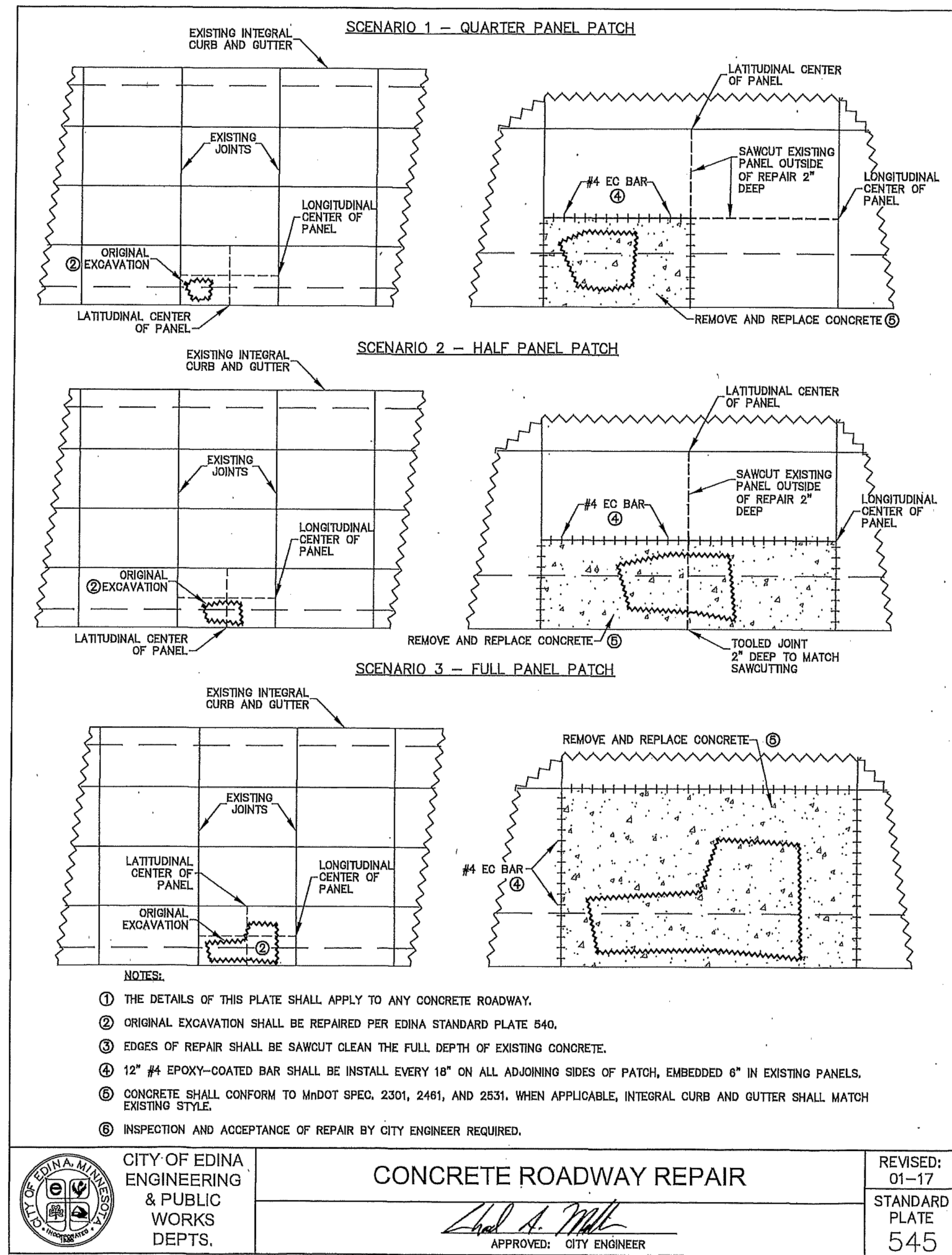
SHEET TITLE

DETAILS

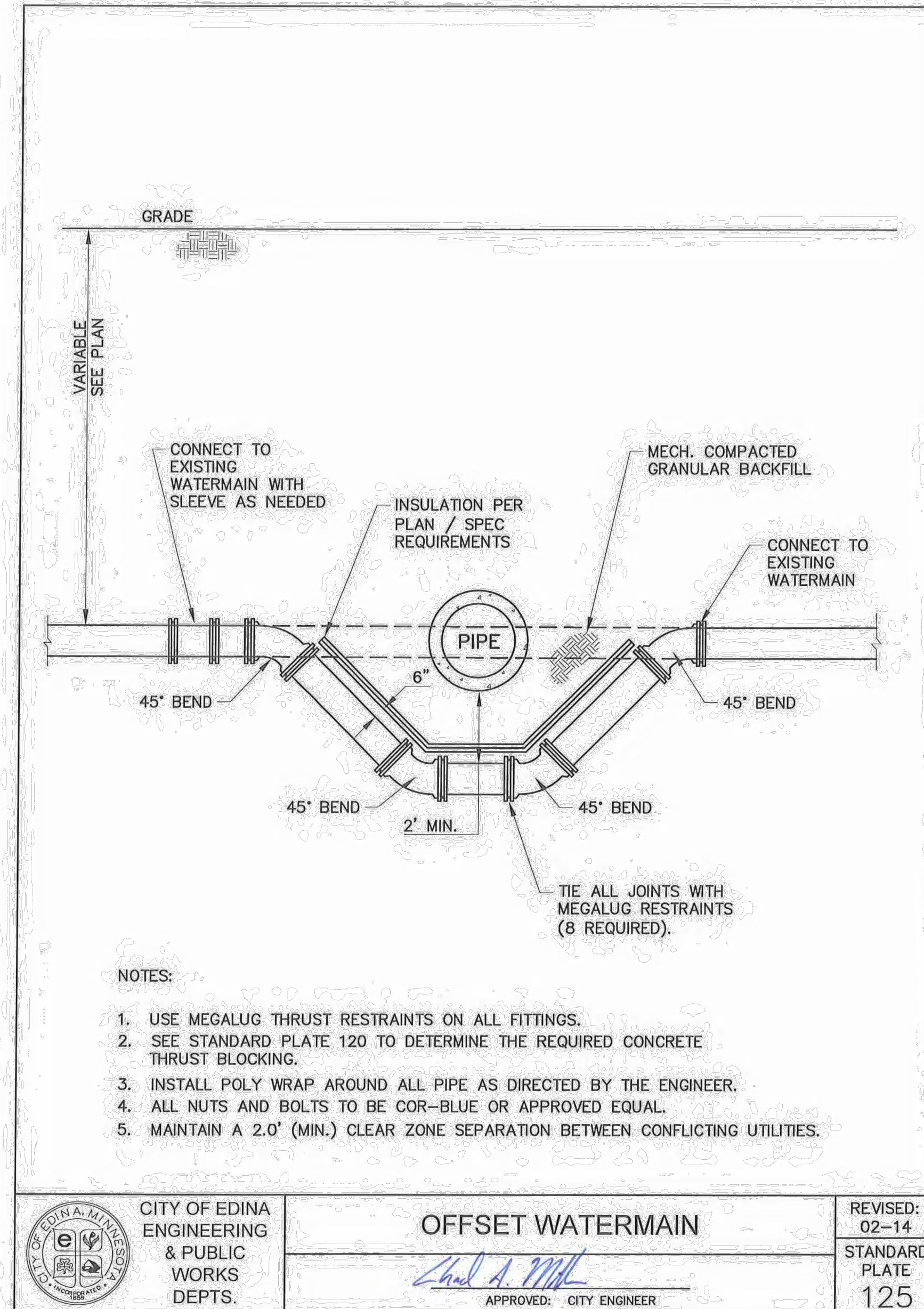
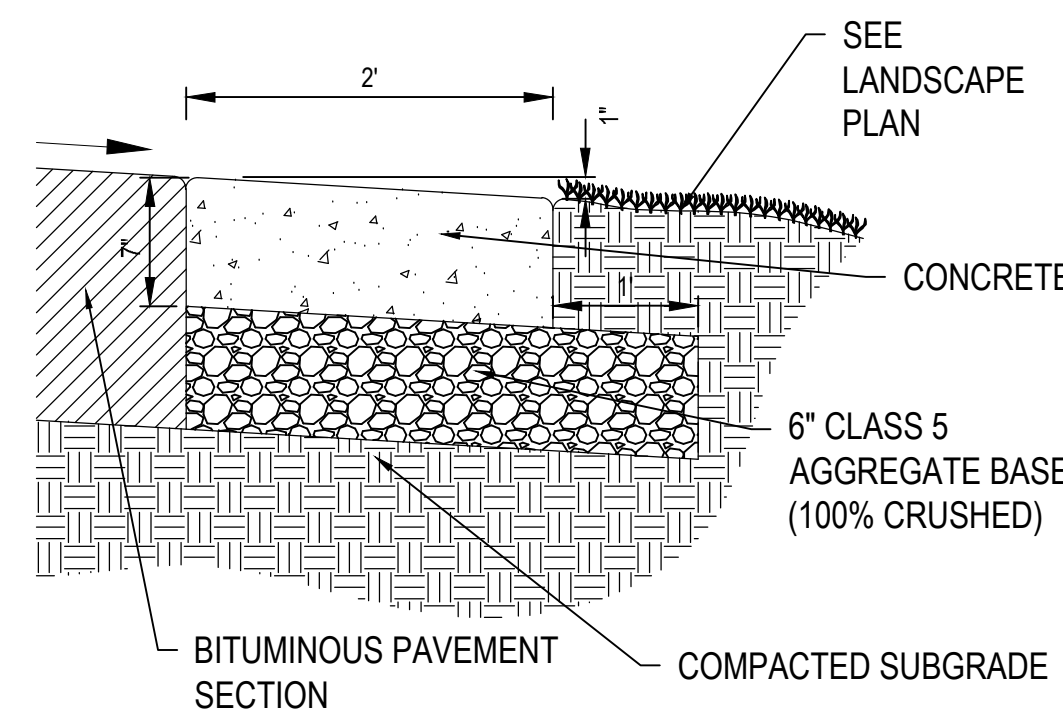
SHEET NUMBER

C-805

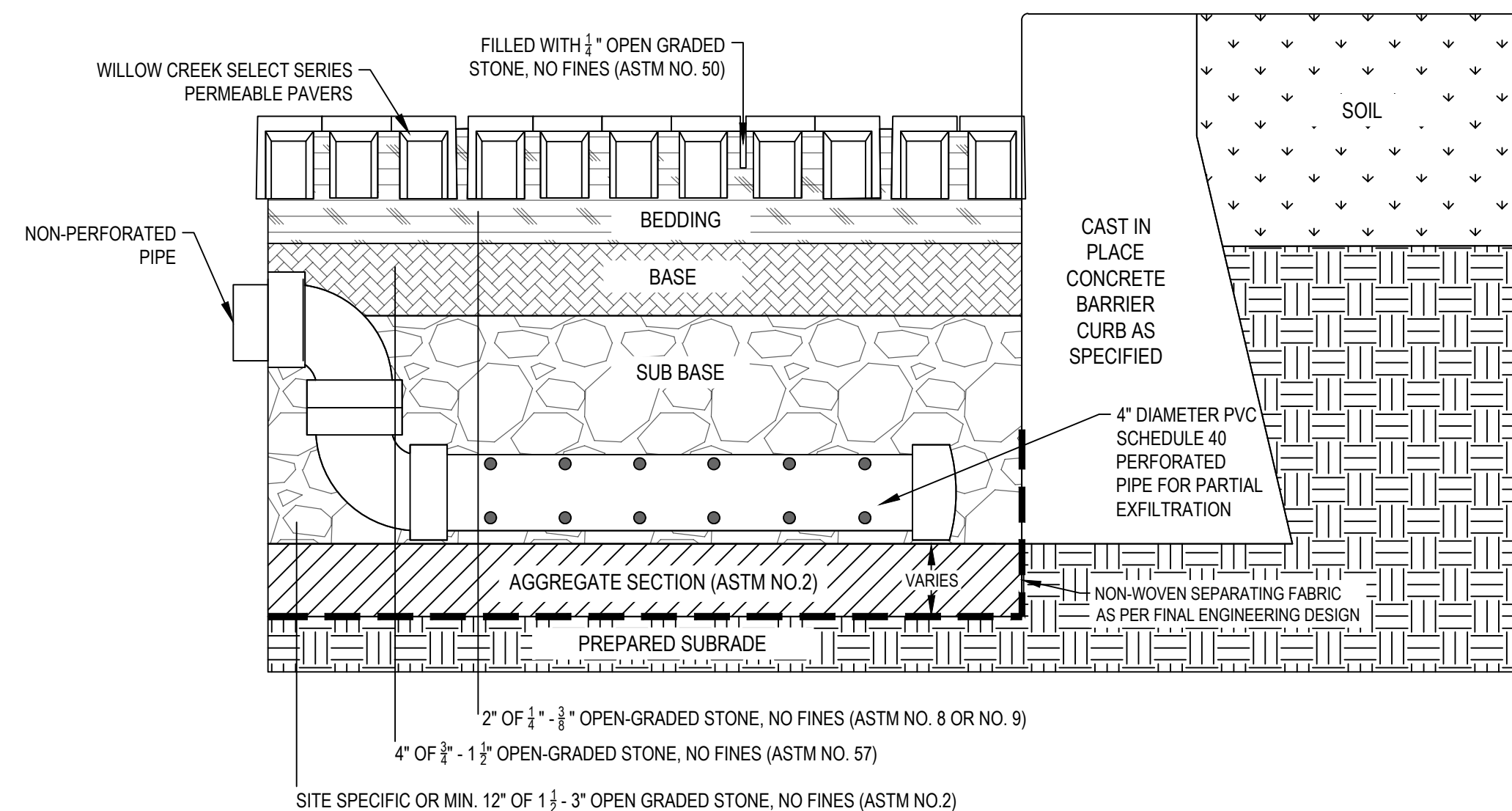
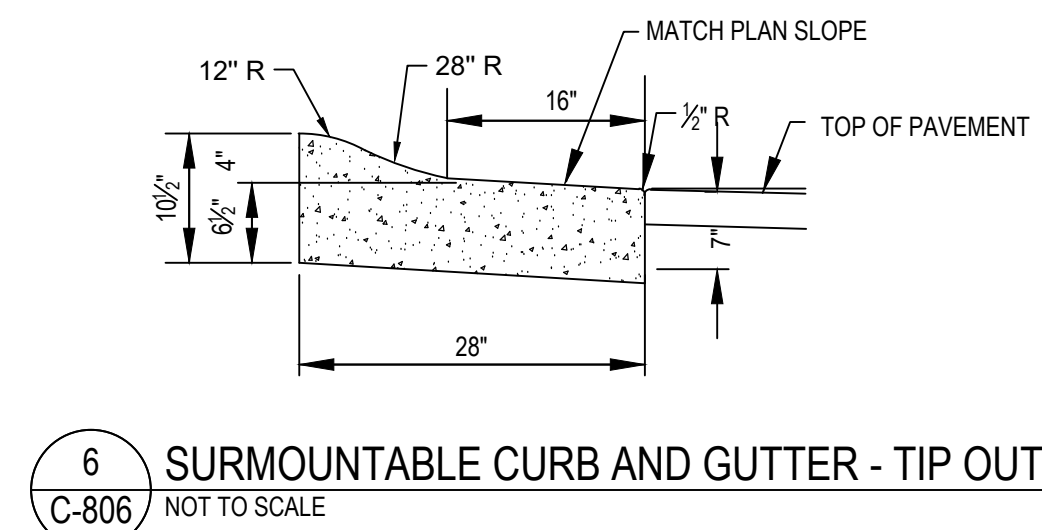
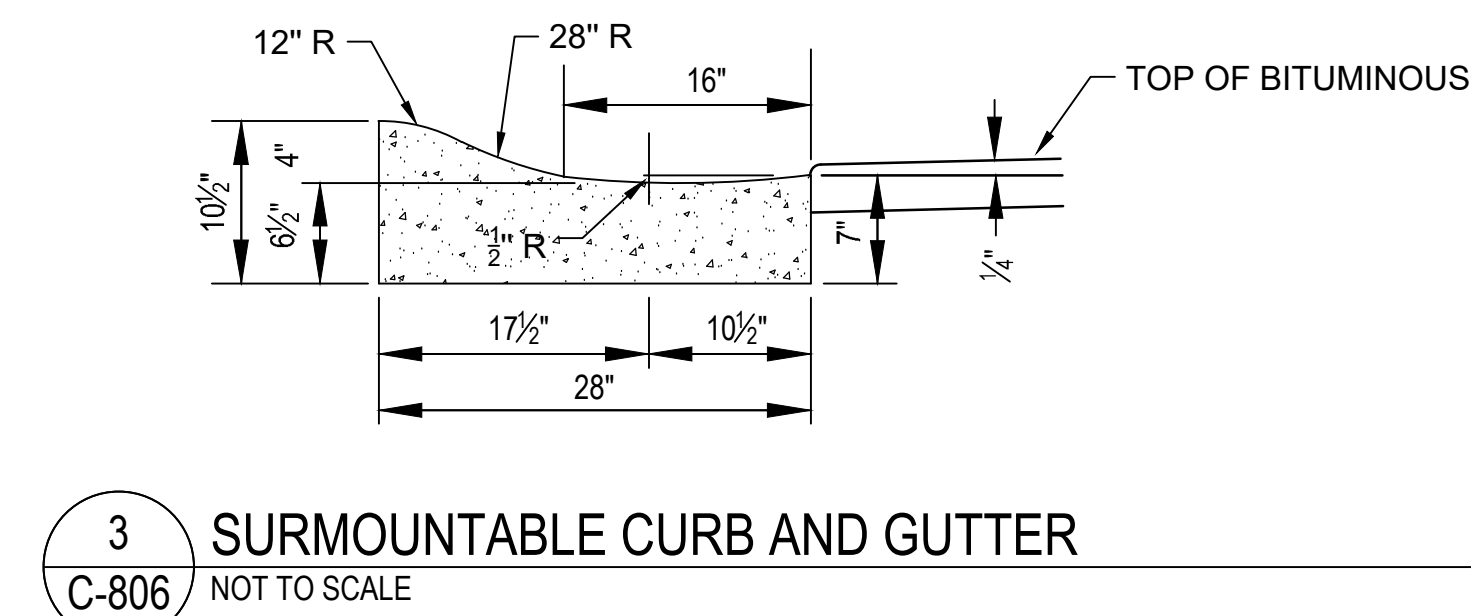
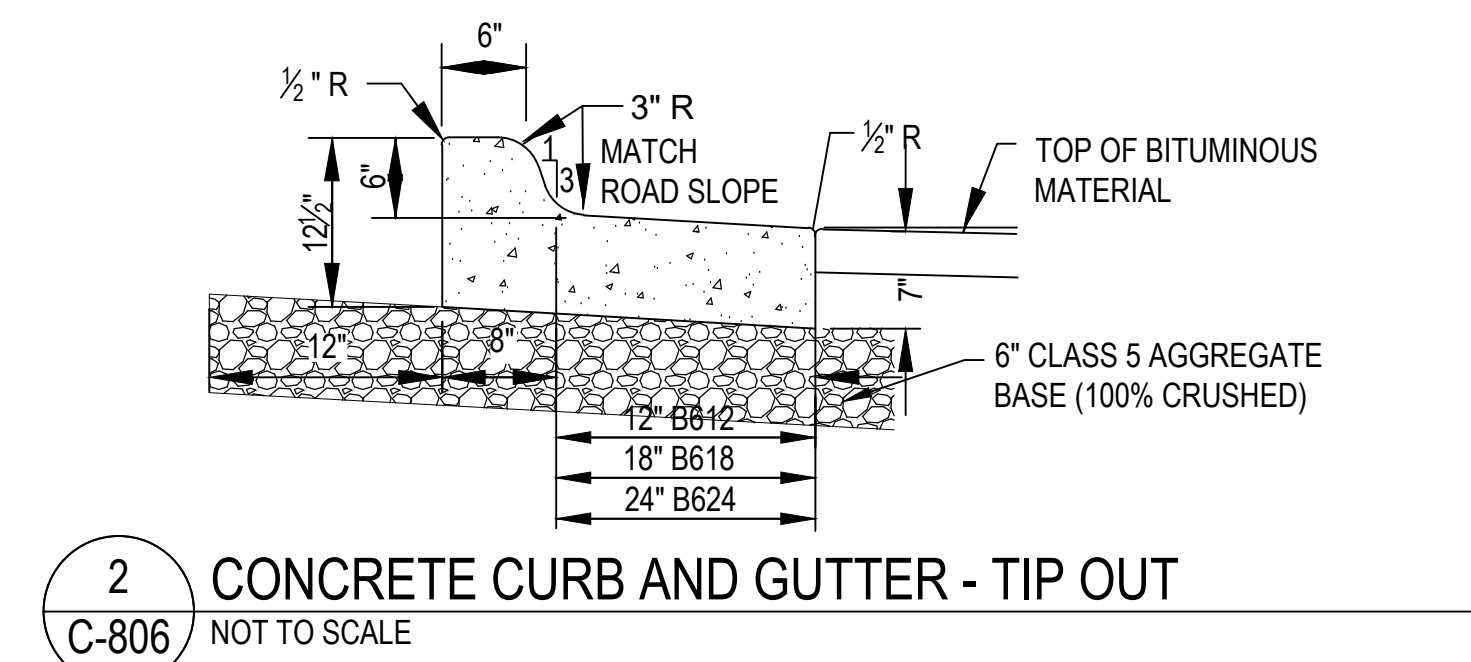
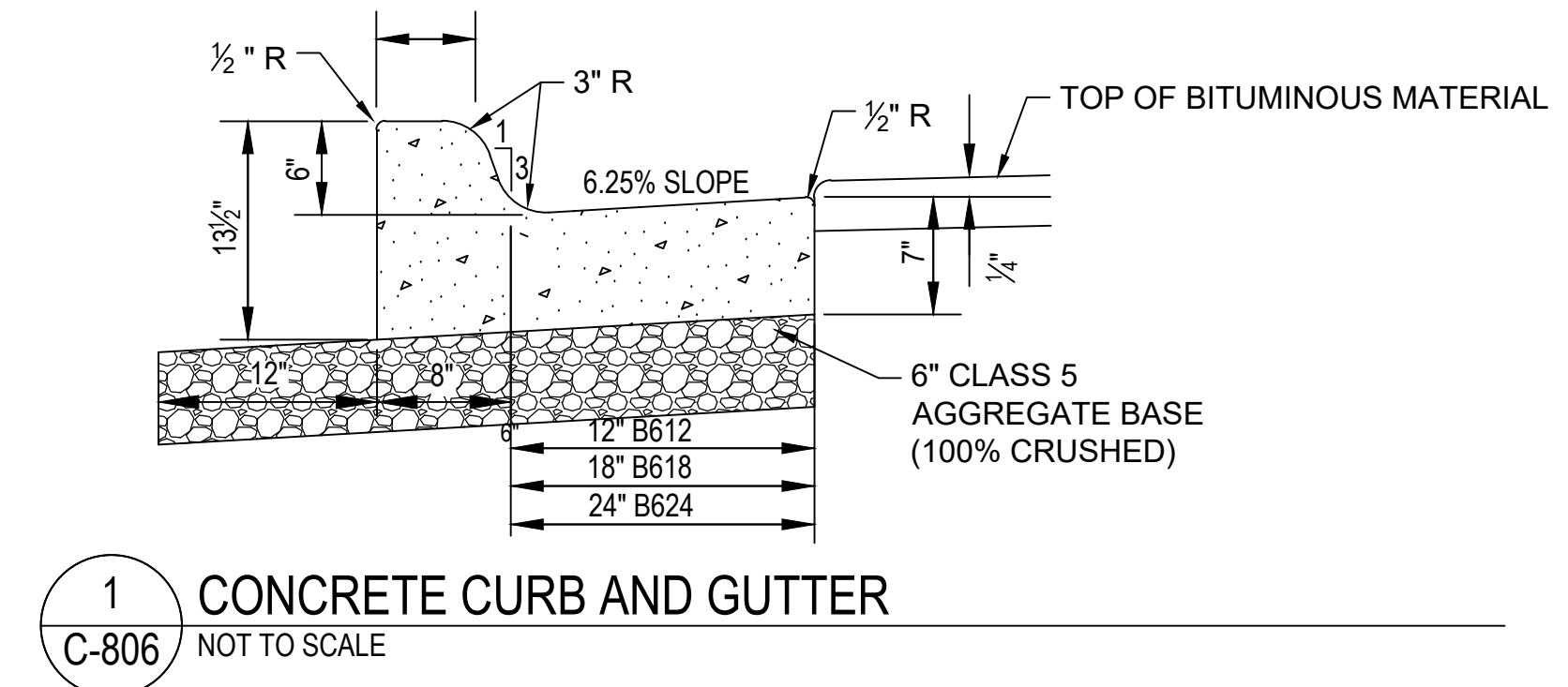
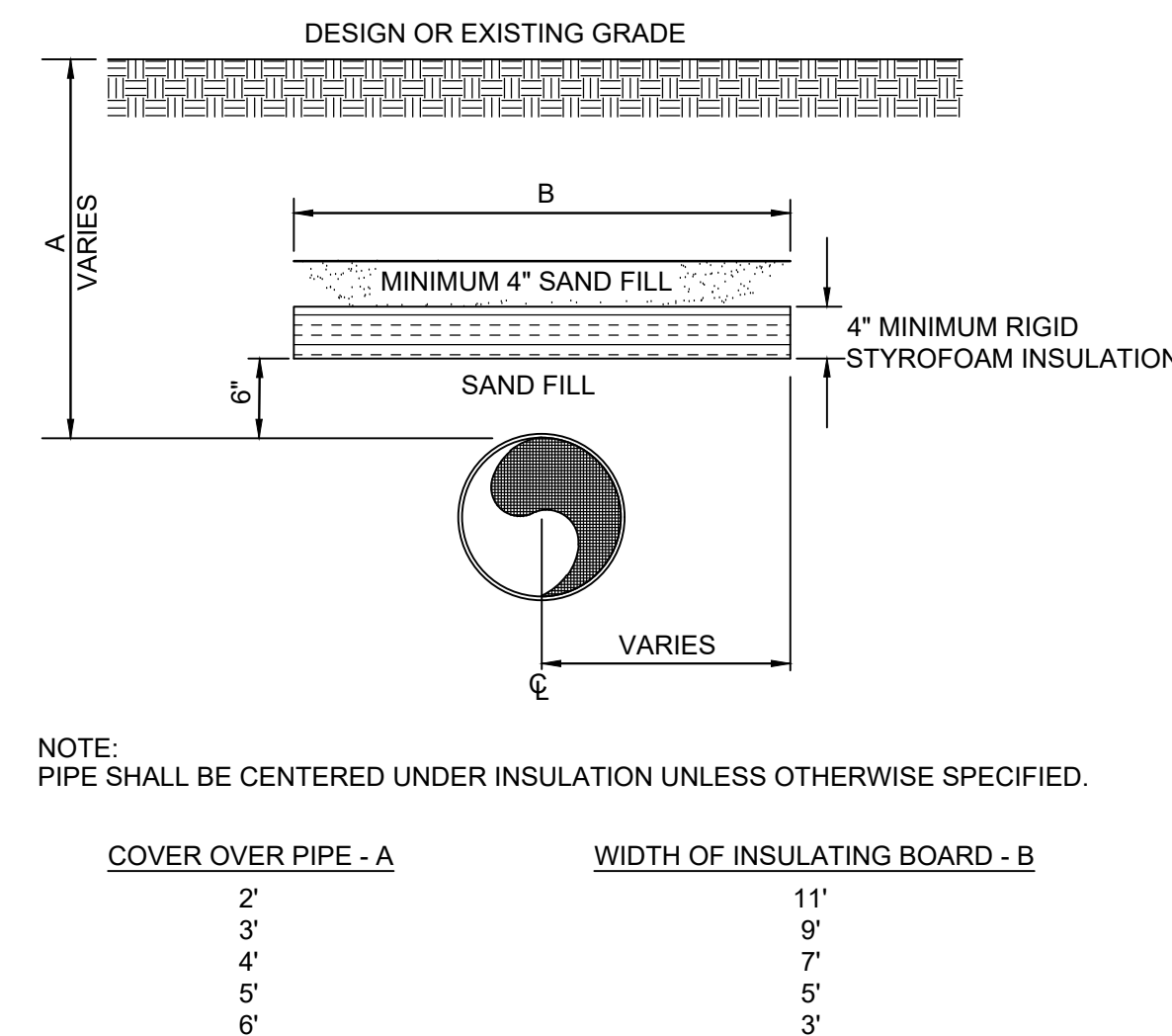




4 RIBBON CURB  
C-806 NOT TO SCALE



5 PIPE INSULATION  
C-806 NOT TO SCALE



6 WILLOW CREEK SELECT PERMEABLE PAVERS OR APPROVED EQUAL  
C-806 NOT TO SCALE

| ISSUE # | DATE       | DESCRIPTION           |
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LICENSE NUMBER: 48677  
11/16/2023

DRAWN BY: YMK  
CHECKED BY: CDL  
COMMISSION NUMBER: 193866025

SHEET TITLE

DETAILS

SHEET NUMBER

C-806

