



Title: Permit 22-503: 325 Blake Road North- “Regional Stormwater and Greenway Project”

Prepared by: Name: Abigail Ernst, Permitting Technician
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Purpose:

Present staff review of the 325 Blake Road North- “Regional Stormwater and Greenway Project” permit application for Board of Managers action.

Executive Summary:

Minnehaha Creek Watershed District (MCWD) has applied for a permit to construct regional stormwater and greenway improvements which is part of the overall 325 Blake Road North Regional Stormwater and Greenway Project. The permit is being brought before the Board of Managers because MCWD has a long-standing policy that its own projects should be subject to permit approval by the Board.

MCWD is proposing to construct a regional stormwater facility, pedestrian and biking trail, a Minnehaha Creek access point, a pedestrian bridge, and a nature-based play area (Project). The Project will trigger MCWD rules for Erosion Control, Waterbody Crossings and Structures, Floodplain Alteration, and Shoreline and Streambank Stabilization. The Project is exempt from the Stormwater Management rule as it will decrease existing impervious surface by more than 10%.

The Board will consider a decision on the permit application, including recommended conditions.

Project Summary:

Location:

325 Blake Road (Site) is located on the east side of the City of Hopkins next to Minnehaha Creek (Creek) and is part of the Minnehaha Creek Greenway. The construction of this project will link the upstream Greenway projects like Cottageville Park with the downstream projects like the Methodist Hospital Boardwalk. The Site is also next to the Southwest LRT METRO Green Line Extension and the Cedar Lake LRT Regional Trail.

History:

This Site is part of a former industrial parcel that sits along over 1,000 feet of Minnehaha Creek. The entire 16.84-acre parcel was purchased by MCWD in 2011. At that time, the site was identified as an opportunity for area wide stormwater improvement, ecological restoration of the Minnehaha Creek riparian zone and corridor linkage with upstream/downstream restoration projects.

Current Status:

MCWD is finalizing Project design and as such is seeking a permit and Board approval for the work.

Overall Site Description and Proposed Improvements Specific to the Project:

The Project Site encompasses five parcels at the corner of Lake Street and Blake Road North in the City of Hopkins, on either side of Minnehaha Creek. MCWD owns four of these (Outlots A and B, Mile 14; 1308 and 1312 Lake Street Northeast), and the City owns an outlot adjacent to 1308 Lake Street that does not have an address. Historically, the 325 Blake Road North tract of which Outlots A and B were a part of was the site of a cold storage facility, parking areas, and

residential structures. In 2018, MCWD demolished the impervious surface on that tract. Now, the parcel is made up of aggregate surfacing and vegetation.

The Site contains two small Creek-adjacent wetlands. The wetlands are hydrologically connected to the Creek but, unlike the Creek, are not designated as public waters subject to MN Department of Natural Resources (DNR) regulatory oversight. Because they are not public waters, regulatory decisions about wetland boundary, type, and impacts are regulated by MCWD as the Minnesota Wetland Conservation Act Local Government Unit (LGU). The boundary and type of each wetland were determined under File W21-076 which identified them both as Type 1, one being a floodplain wetland and the other a temporarily flooded wetland. No wetland impacts are proposed as a part of the Project.

The Project includes construction of a regional stormwater facility, pedestrian and biking trail, Creek access point, pedestrian bridge, and a nature-based play area, all which create a minimal amount of impervious surface, compared to existing conditions.

To determine the proposed change in site impervious surface, permitting staff has used, as the baseline for “existing surface,” the impervious area existing on the Site at the time MCWD acquired the property and commenced demolition. This rests on staff’s determination, based on the progress of events, that the site redevelopment, from demolition to the present proposal, has been considered by MCWD as a single, planned process and has proceeded with a level of continuity. This treatment is consistent with MCWD approach generally for redevelopment sites where there has been a passage of time between demolition and construction. On this basis, staff has determined that under the proposal, impervious surface area will decrease by 89% from the “existing” measure. Therefore, in accordance with paragraph 2(c)(1), the Stormwater Management rule does not apply to the Project.

Site Size (ac)	Existing Impervious (ac)	Proposed Impervious (ac)	% Change
3.78	1.37	0.15	-89%

For the purpose of permit review, this memo will consider the Project as composed of four areas:

- Area 1- Regional Stormwater Facility
 - The Regional stormwater facility is a two celled, 1.5-acre wet detention pond that provides 7.54 ac-ft of stormwater runoff storage, or equivalent to capturing the first 1.25” rainfall event from 270 acres. Regional stormwater will be delivered to the pond via the Powell Road and Lake Street Diversions, and by an installed conveyance from the adjacent private development. Two Nutrient Separating Baffle Boxes are also included in the design, near the outlet of each regional diversion, to provide pretreatment. The pond discharges to Minnehaha Creek by a multi-stage outlet structure that includes a low-flow orifice and a high-flow weir opening through a box culvert, with another box culvert located underneath the adjacent trail serving as an auxiliary emergency overflow device.
- Area 2- Streambank Recreation
 - Along the bank of Minnehaha Creek, an area called “The Landing” is proposed with a picnic area, kayak storage, seating, and direct Creek access. The area will be surfaced with sand/stone mix to replicate channel bank materials. This area also includes streambank plantings.
- Area 3- Recreational Trail Connection and Bridge
 - A bituminous trail alignment is proposed between Minnehaha Creek and the proposed stormwater ponds, providing connections between the Cedar Lake LRT Regional Trail, the Minnehaha Creek Greenway, and Cottageville Park. The trail consists of a 10-foot wide bituminous surface with 1 foot of aggregate shoulder on each side. The trail alignment is designed to fit the existing topography and conserve the Creek’s riparian corridor, including mature trees, by avoiding unnecessary tree removal.
 - The pedestrian bridge consists of a galvanized steel frame with a concrete deck. The 110-foot long bridge extends bank to bank with steel abutments coming into contact with the bank of the Creek, at or slightly below the ordinary high water level. Grading and bridge installation will not disturb the wetland that sits below the bridge.
- Area 4- Nature Play Area

- The play area features log stacks, landscape boulders and play mound, precast concrete acorns, benches, tables, and seating areas. The area is primarily wood fiber surfacing with short trails of crushed stone. Although it is not required, the area also includes construction of a bio-infiltration basin to provide stormwater treatment for the proposed trail.

MCWD Rule Analysis:

The proposed Project will trigger MCWD Erosion Control, Waterbody Crossings and Structures, Floodplain Alteration, and Shoreline and Streambank Stabilization rules. Based on review by MCWD staff and engineer, the Project meets all applicable criteria in those rules. Below is a summary of applicable rules and Project compliance.

Erosion Control

MCWD's Erosion Control rule requires a sediment and erosion control plan for land disturbance greater than 5,000 square feet or excavation, fill, or stockpiling of 50 cubic yards of material. The Project is proposing approximately 151,153 square feet (~3.47 acres) of land disturbance; therefore, the rule is triggered.

Per section 5(a) and 5(b) of the rule, an erosion and sediment control (ESC) plan has been provided and shows the required erosion and sediment control best practices. This plan limits the risk of sedimentation and off-site impact to nearby water resources.

Per section 6 of the rule, a geotechnical report and soil boring results have been provided. The geotechnical report confirms that there are no additional site concerns (such as increased erodibility concerns), that would require special terms in the ESC plan.

Section 7 of the rule does not apply as MCWD did not require any additional information or data to evaluate the application.

Section 8 of the rule and MCWD's Financial Assurance Schedule do not apply as MCWD is the permittee.

In summary, the Project meets the requirements of the Erosion Control rule.

Waterbody Crossings and Structures

MCWD's Waterbody Crossings and Structures rule applies when a structure or crossing is to be placed in contact with the bed or bank of a waterbody. The Project is proposing two outlet structures from the regional pond and a pedestrian bridge. The outlet structures come into contact with the bank of the creek while the low-cord of the pedestrian bridge sits below the top of bank; therefore, the rule is triggered.

Per section 3(a) both the outlet structure and pedestrian bridge demonstrate a public benefit because the Project is designed by a public agency for public purposes and public use.

Per section 3(b) the Project must retain adequate hydraulic capacity and may not result in upstream or downstream increase in flood stage. MCWD has modeled that none of these structures will impact the Creek flood profiles and has prepared a "No-Rise" certificate. The No-Rise certificate is a short document prepared by a certified engineer that affirms that there will be no increase in high-water elevation exceeding 0.0044 ft (which is the degree of modeling error accepted by the DNR). No-Rise certificates are prepared when there is work that may impact the water levels of public waters. MCWD worked with HDR (the design engineer) to prepare the certificate. The "No-Rise" certificate will be submitted to the City of Hopkins floodplain manager and to the DNR for record keeping when the final design is accepted by the MCWD Board of Managers.

Per section 3(c) the pedestrian bridge retains adequate navigational capacity by providing four feet of clearance between the 50-year flood elevation and the low bridge elevation at the Creek channel centerline. During non-storm events, the bridge provides eight feet of clearance from the centerline of the creek's normal water level. Because the Creek is a public water, MCWD also reviewed the proposed design against DNR standards. MCWD holds a General

Permit (GP) from the DNR which establishes criteria for when a permittee need not apply for or obtain a DNR individual permit. For bridge replacements/installations, the GP requires that a clearance of three feet must be provided above the 50-year flood stage event. This bridge design provides excess clearance above what is required to qualify for the GP.

Per section 3(d) the Project preserves aquatic and upland wildlife passage because the bridge is not within the stream channel and the abutments are set above the Creek bank to allow for unrestricted passage. The outlet structures are buried and do not extend far into the Creek, so passage is maintained.

Per section 3(e) an erosion and sediment control plan has been provided to protect the Creek during structure installation. Additionally, riprap for energy dissipation is placed to protect against stream channel erosion and scour.

Per section 3(f) MCWD has assessed other designs and determined that the bridge and outlet structures represent the minimal impact solutions. The bridge and outfall structures provide public benefit by providing access to a public water. The outlet structures are integral to the regional stormwater facility, which will provide water quality benefit to publicly accessed waterbodies. MCWD assessed two other design options- a no-build for both the bridge and outfalls and modifying the outlet design to a location at the center of the Creek, rather than the bank. Both of these options did not meet the project goals and failed to provide public benefit. In the case of the outfall design alternative, placing it closer to the centerline would have called for stream bottom excavation which could have caused scour and similar channel impacts.

Section 3(g) does not apply as the Project does not involve horizontal directional drilling.

Section 3(h) does not apply as the Project does not propose a sanitary crossing.

In summary, the Project meets the requirements of the Waterbody Crossings and Structures rule.

Floodplain Alteration

MCWD's Floodplain Alteration rule applies to grading, fill and excavation within the 100-year floodplain of waterbodies and requires no net loss of floodplain storage by requiring projects to provide compensatory flood storage to offset any fill. The Project proposes grading on the south side of the Creek below the 100-year high water elevation; therefore, the rule is triggered. The grading will prep the site for the installation of mulch trails and "The Landing" area.

Section 3(a) of the rule does not apply as the Project does not propose fill within the floodplain.

Section 3(b) of the rule does not apply as there is no fill proposed below the 100-year elevation of Minnehaha Creek.

Section 3(c) of the rule does not apply as MCWD is not proposing fill in a watercourse.

Section 3(d) does not apply because the 10-year floodplain extends more than 25 feet beyond the Creek centerline, and no new impervious surface is proposed within 25 ft of the centerline of the Creek.

Section 3(f) of the rule does not apply because no new structures are proposed within the floodplain.

In summary, the Project meets the requirements of the Floodplain Alteration rule.

Shoreline and Streambank Stabilization

MCWD's Shoreline and Streambank Stabilization rule applies to alteration or improvement of the bank of a watercourse. The Project proposes the addition of a sand blanket and shoreline plantings along Minnehaha Creek; therefore, the rule is triggered. The blanket is ~71 feet in length, running parallel to the Creek. At its widest, it is ~42 feet in width. Its total thickness is 27 inches, with nine inches being filter materials and the remaining 18 inches being the landing sand and gravel mixture. The sand blanket will be placed so that it follows the natural curvature of the Creek and will be stabilized through the use of materials that are similar to the existing Creek bed materials. Additionally, the ordinary high-water

level sits just at the edge of the blanket so that it is not normally inundated with water, which will further support stabilization.

Section 6(a)(1) of the rule does not apply as the project is not proposing a structural stabilization practice, it is only proposing a biological stabilization practice.

Section 6(a)(2) of the rule does not apply as the project is not proposing clear cutting along the streambank. Any native vegetation that is removed as part of the grading process will be replaced with native vegetation that promotes stabilization.

6(a)(3) requires that stabilization practices will be installed at 3:1 slope or flatter. The natural sloping stream bank will not be altered as a part of the biological stabilization installation and will be flatter than 3:1, as it is in existing conditions.

Section 6(a)(4) of the rule does not apply as hard armoring is not proposed.

Section 6(a)(5) of the rule does not apply because plantings do not have the ability to reduce cross sectional area of a water course.

Section 6(a)(6) requires that the stabilization technique conform to the natural alignment of the bank. This project does not propose altering the natural alignment, so it is in compliance with this section of the rule.

Section 6(a)(7) does not apply as the streambank plantings do not impact the open channel flow.

Section 6(a)(8) does not apply as a Department of Natural Resources permit is not required for shoreline plantings.

Section 6(a)(9) is met through the submission of an erosion and sediment control plan which shows the necessary techniques to prevent sediment flowing offsite.

Section 6(a)(10) is met through the submission of the required materials under section 7, except for the source of plantings, which is recommended as a condition of approval.

Section 6(b)(1) requires that plantings be native aquatic. MCWD staff have reviewed the proposed plantings and confirmed that they are native in origin and suitable for the semi-wet conditions.

Section 6(b)(2) requires that treatments be installed in accordance with the Natural Resource Conservation Service "Engineering Field Handbook Chapter 16." Staff have reviewed the handbook and have confirmed that the planned installation, through broad seeding, meets these standards.

Section 6(b)(3) does not apply as no wave barriers are proposed.

Section 6(b)(4) does not apply as no stabilization riprap is proposed.

Per section 8(a) the sand/gravel mixture is specified to be sourced to contain no toxins, heavy metals, weed infestation, or animal infestations.

Section 8(b) states that a sand blanket may not exceed six inches in thickness; is limited to 50 ft in width along the shoreline or one-half the width of the lot, whichever is less; and may extend no more than 10 ft waterward of the ordinary high-water mark. However, per section 8(d), these limits do not apply to a sand blanket owned by a public body and available to the public.

Section 8(c) does not apply as this sand blanket operation is not a repeat project.

Section 8(d) requires that beaches operated by governmental entities and available to the public be maintained in a manner that represents the minimal impact to the environment, relative to other reasonable alternatives, but are exempt from requirements of 8(b). The beach will be operated by MCWD, and MCWD has assessed other design options and determined this to be the minimal impact solution.

In summary, the Project meets the requirements of the Shoreline and Streambank Stabilization rule.

Conclusion:

At the May 11, 2023 Board Meeting, staff will present permit 22-503, for the construction of the Project, which is part of the 325 Blake Road North Restoration and Development project.

Staff recommends permit approval with the following conditions of permit issuance:

1. Submission of proof of NPDES permit
2. Provide source of plantings and sand/gravel mixture
3. MCWD shall maintain the bridge and outlet structures so that they continue to function in a way that does not create hydraulic or navigational obstruction or scour.

Supporting documents (list attachments):

1. Site plans



**MINNEHAHA CREEK
WATERSHED DISTRICT**



**DAMON FARBER
LANDSCAPE ARCHITECTS**

310 South 4th Avenue, Suite 7050
Minneapolis, MN 55415
p. 612.332.7522

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STANDARD DETAILS

SEE PACKAGE FOR DRAWING LIST



Contract Drawings For

325 BLAKE RD

**REGIONAL
STORMWATER
AND GREENWAY
PROJECT**

HDR Project No.
10268112

HOPKINS, MINNESOTA
SEPTEMBER, 2022

90% REVIEW
NOT FOR CONSTRUCTION



PROJECT AREA

0 500 1000 Feet



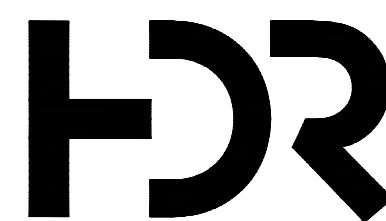
GENERAL CONSTRUCTION NOTES

1. LOCATE AND PROTECT ALL UTILITIES WHETHER OR NOT THEY ARE SHOWN IN THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING GOPHER ONE CALL FOR A UTILITY LOCATE AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF WORK.
2. THE CONTRACTOR IS RESPONSIBLE FOR APPLYING FOR THE MINNESOTA NPDES/SDS CONSTRUCTION STORMWATER PERMIT (SWPPP) AND MEETING ALL REQUIREMENTS OF THE PERMIT.
3. STAKE CONSTRUCTION LIMITS FOR OWNER'S REPRESENTATIVE TO REVIEW PRIOR TO STARTING CONSTRUCTION.
4. USE CAUTION WHEN WORKING AROUND ANY EXISTING STRUCTURE AND MINNEHAHA CREEK. ANY DAMAGE INCURRED IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL PRE-PROJECT DRAINAGE PATTERNS WILL BE MAINTAINED UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DRAWINGS.
6. RESTORE AREAS DISTURBED DURING CONSTRUCTION TO PRE-CONSTRUCTION CONDITIONS, UNLESS OTHERWISE NOTED.
7. DO NOT INTERRUPT OR BLOCK PUBLIC ROAD TRAFFIC.
8. ALLOW ACCESS TO OTHER AREAS OF CONSTRUCTION WITHIN THE PROPERTY BY OTHER CONTRACTORS. PROVIDE ACCESS FOR EMERGENCY PERSONNEL TO THE SITE FROM PUBLIC ROADS AND THE SWLRT TRAIL.
9. MINNEHAHA CREEK FLOWS AND WATER LEVELS WILL VARY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MONITOR CREEK LEVELS AND WEATHER FORECASTS AND PREPARE THE SITE FOR POTENTIAL HIGH WATER CONDITIONS.

D
C
B
A



**MINNEHAHA CREEK
WATERSHED DISTRICT**



ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112

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

DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

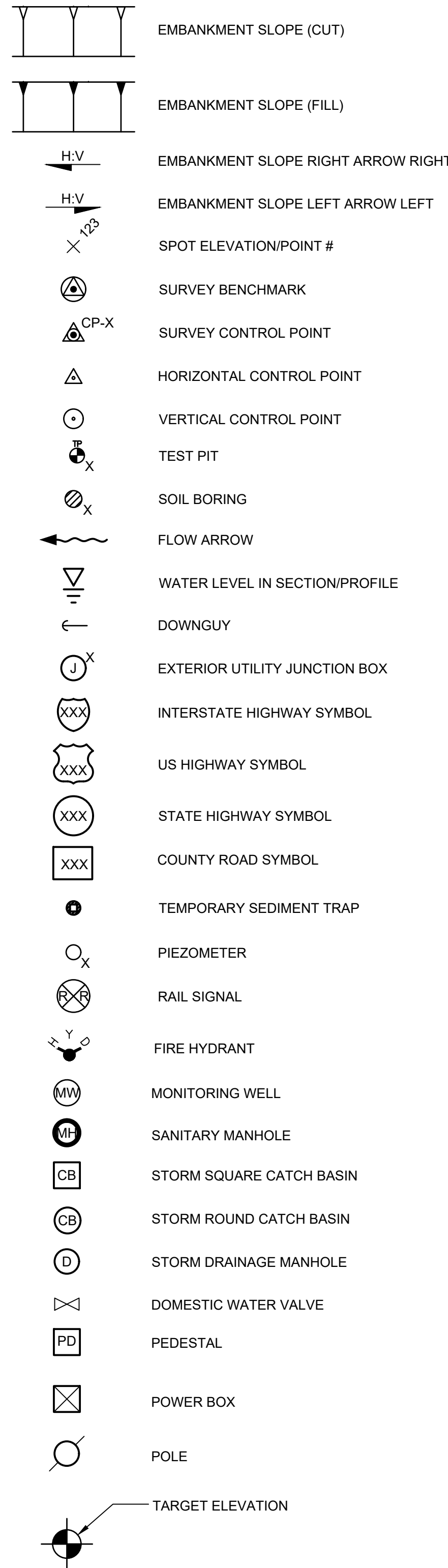
GENERAL NOTES



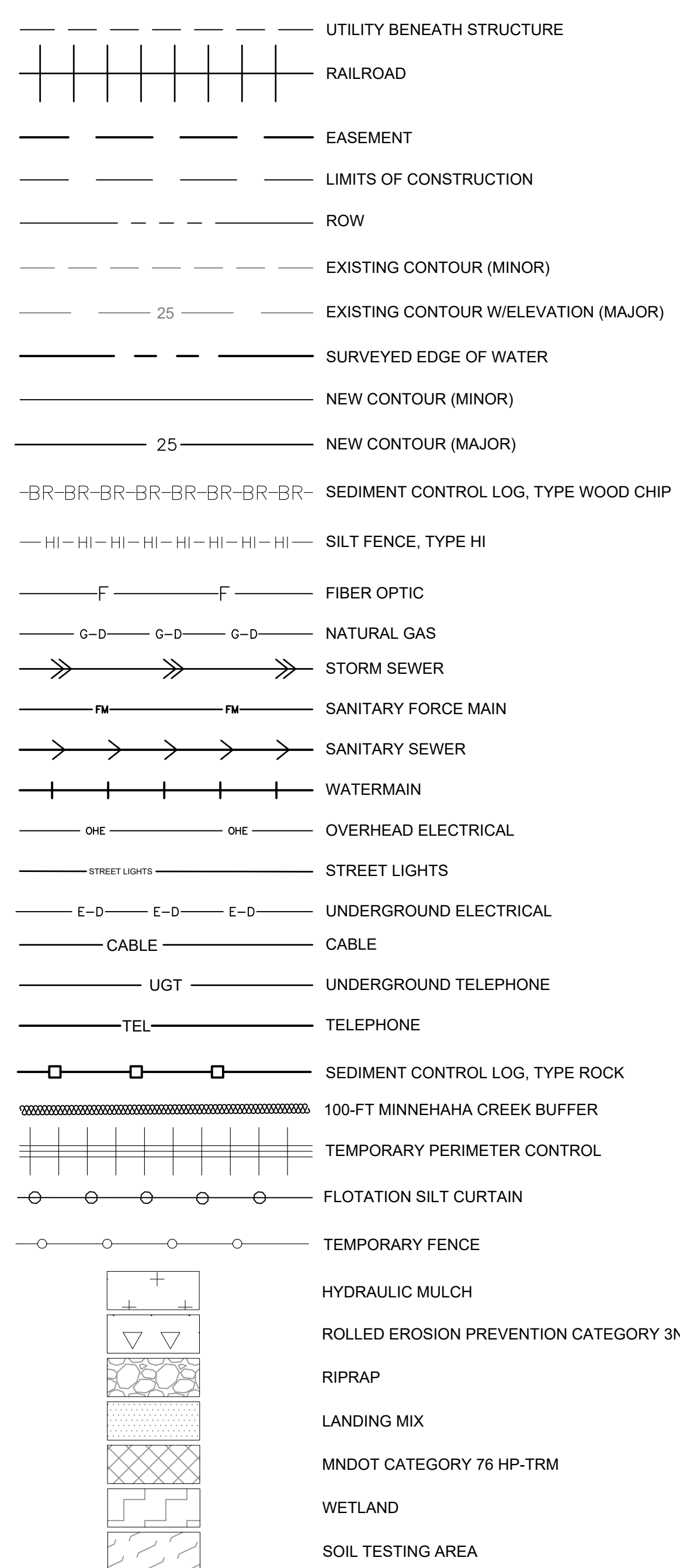
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SHEET
GC102

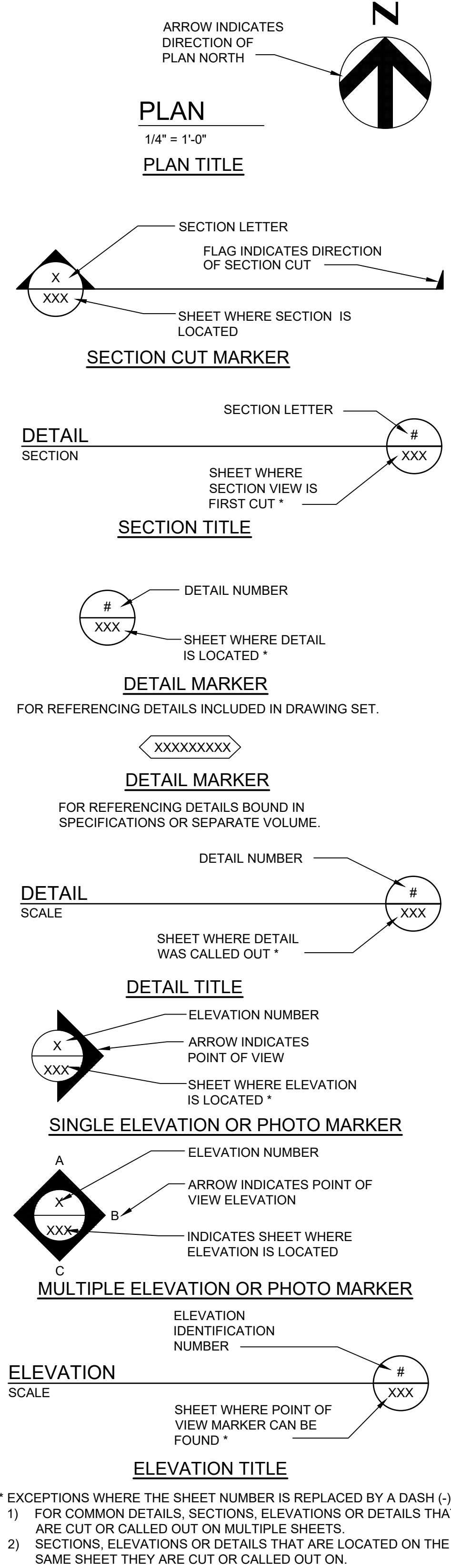
CIVIL MAPPING SYMBOLOGY



UTILITY/CIVIL LINE SYMBOLOGY



GENERAL SYMBOLOGY



SHEET NAMING CONVENTION

DISCIPLINE DESIGNATOR & DISCIPLINE ORDER

GC	GENERAL CIVIL
EC	EROSION CONTROL
CD	CIVIL DEMOLITION
CG	CIVIL GRADING
CT	CIVIL TRAIL
CP	CIVIL STORMWATER PLAN
ST	STRUCTURAL
L	LANDSCAPE ARCHITECT
E	ELECTRICAL

DRAWING TYPE DESIGNATOR

0	GENERAL (SCHEDULES, SYMBOLS, LEGENDS)
1	PLANS
2	PROFILES / ELEVATIONS
3	SECTIONS
4	LARGE SCALE VIEWS
5	DETAILS
6	DIAGRAMS
7	3D REPRESENTATIONS

EXAMPLE

PLAN AND PROFILE, SHEET 1

C	P			
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DISCIPLINE DESIGNATOR

		1		
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DRAWING TYPE DESIGNATOR

			0	1
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SHEET NUMBER

C	P	1	0	1
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SAMPLE SHEET NUMBER

GENERAL NOTES:

1. THIS IS A STANDARD CIVIL SYMBOLOGY SHEET. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
2. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.

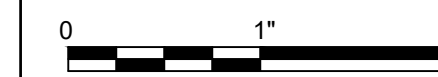
PROJECT MANAGER ANDREW F. JUDD

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

PROJECT SYMBOLOGY



FILENAME GC103.DWG
SCALE NA

SHEET
GC103

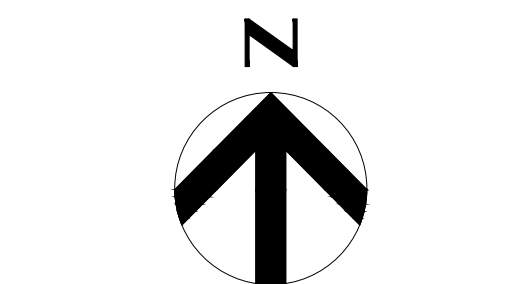
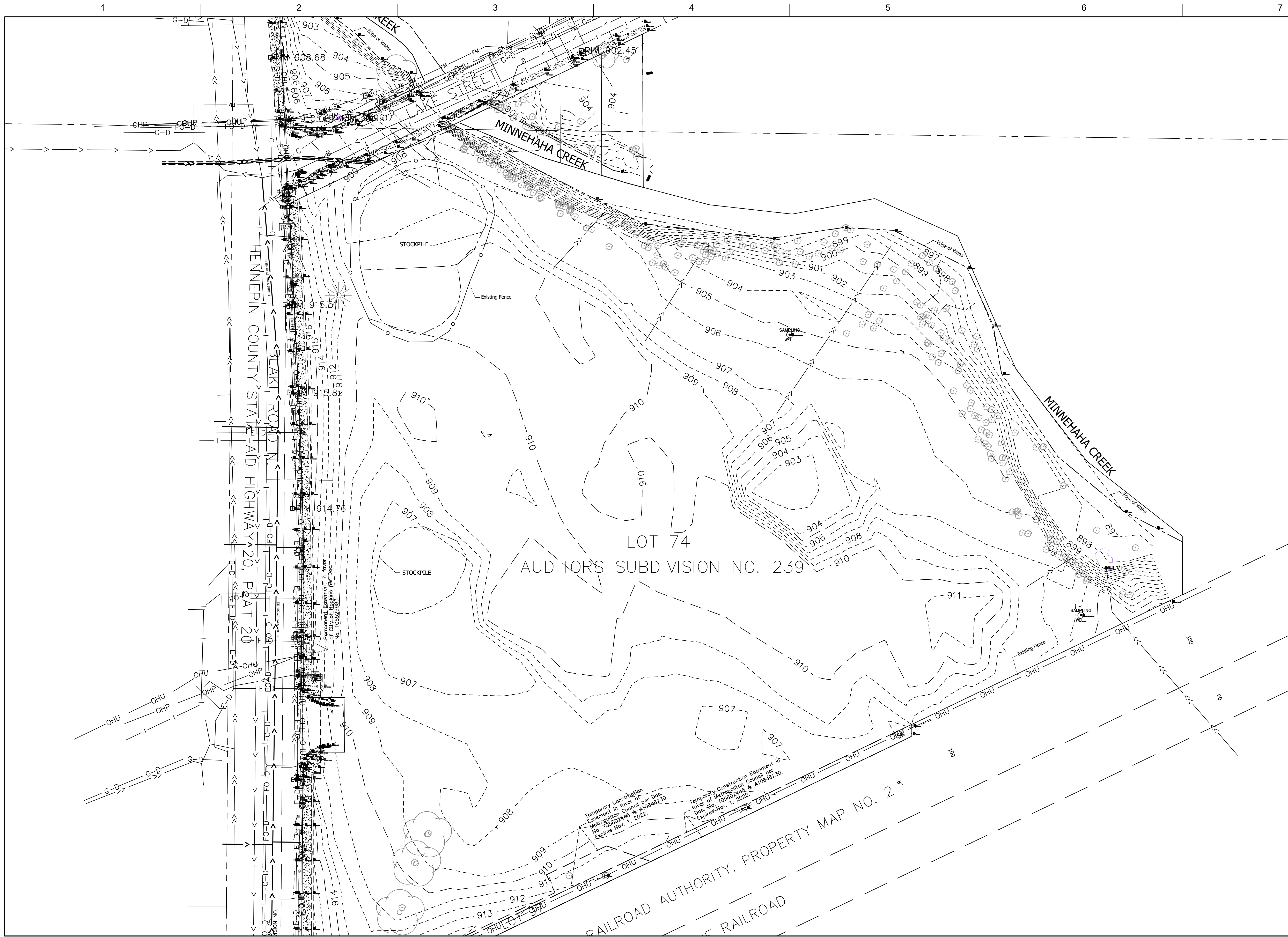


MINNEHAHA CREEK
WATERSHED DISTRICT

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PROJECT NUMBER	10268112
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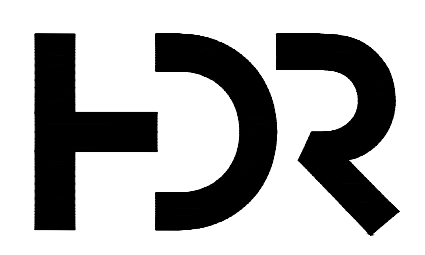
ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301



HORIZONTAL DATA
HENNEPIN COUNTY
COORDINATE SYSTEM, NAD83,
2011 ADJUSTMENT, U.S.
SURVEY FOOT

VERTICAL DATA
NAVD88
MNDOT MONUMENT SONYA
GSID STATION #95216
ELEVATION = 902.019'

- SURVEY NOTES**
1. SURVEY WAS COMPLETED JANUARY 2021 AND JUNE 2022 BY STANTEC
 2. VISIBLE FEATURES WERE SURVEYED. DUE TO SNOW COVER ON THE SITE, SOME FEATURES MAY NOT HAVE BEEN VISIBLE AT THE TIME OF SURVEY.
 3. THE UTILITIES SHOWN ON THE SURVEY BASEFILE HAVE BEEN LOCATED FROM ABOVE GROUND VISIBLE EVIDENCE AND UNDERGROUND UTILITY MARKINGS AT THE TIME OF SURVEY.
 4. PRIOR TO ANY SITE DISTURBANCE OR CONSTRUCTION CALL GOPHER STATE ONE-CALL 1-800-252-1166 AND VERIFY ALL UTILITIES WITHIN THE LIMITS OF CONSTRUCTION PRIOR TO STARTING WORK.



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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

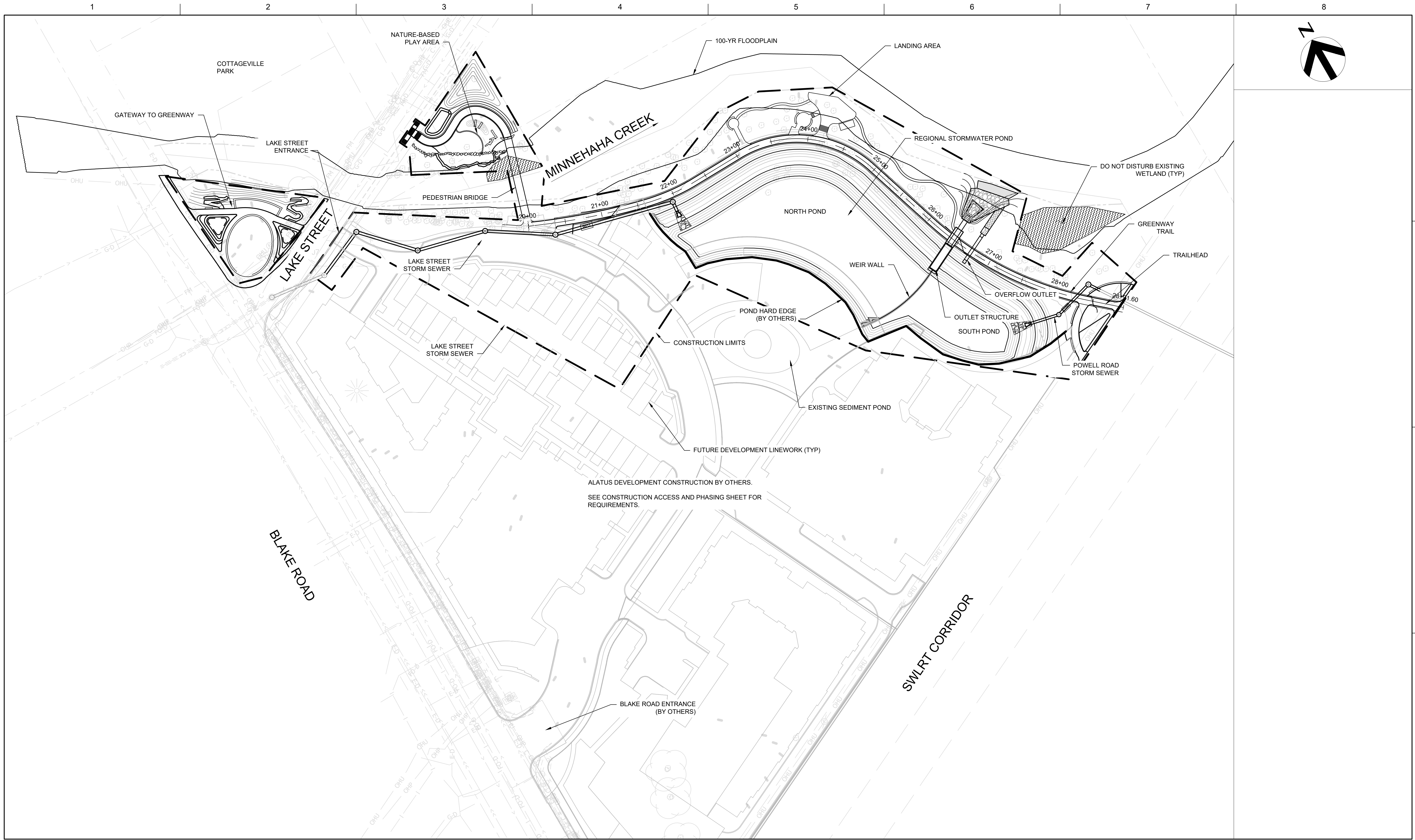
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SURVEY AND CONTROL

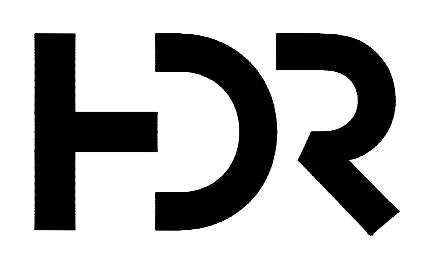
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FILENAME GC104.DWG
SCALE 1" = 60'

SHEET
GC104



ALATUS DEVELOPMENT CONSTRUCTION BY OTHERS.
SEE CONSTRUCTION ACCESS AND PHASING SHEET FOR REQUIREMENTS.



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PROJECT MANAGER ANDREW F. JUDD	
PROJECT NUMBER	10268112

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

ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

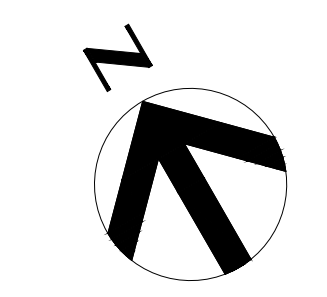
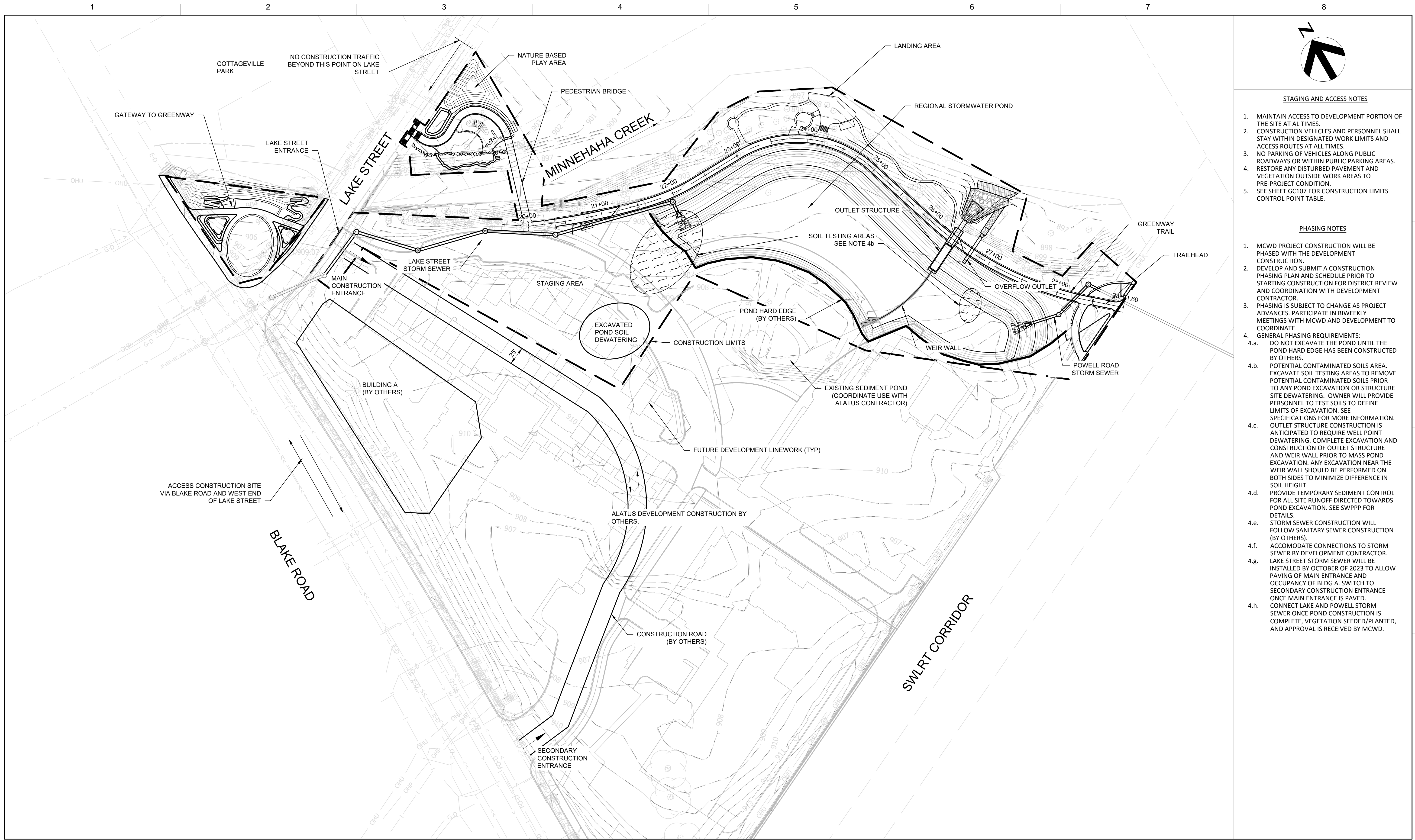
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SITE LAYOUT PLAN



FILENAME GC105-106.DWG
SCALE 1" = 60'

SHEET
GC105

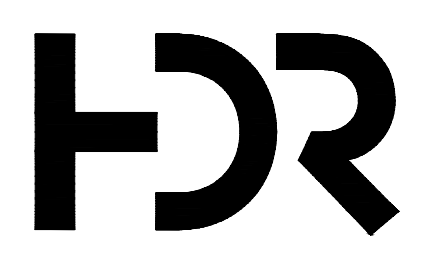


STAGING AND ACCESS NOTES

1. MAINTAIN ACCESS TO DEVELOPMENT PORTION OF THE SITE AT ALL TIMES.
2. CONSTRUCTION VEHICLES AND PERSONNEL SHALL STAY WITHIN DESIGNATED WORK LIMITS AND ACCESS ROUTES AT ALL TIMES.
3. NO PARKING OF VEHICLES ALONG PUBLIC ROADWAYS OR WITHIN PUBLIC PARKING AREAS.
4. RESTORE ANY DISTURBED PAVEMENT AND VEGETATION OUTSIDE WORK AREAS TO PRE-PROJECT CONDITION.
5. SEE SHEET GC107 FOR CONSTRUCTION LIMITS CONTROL POINT TABLE.

PHASING NOTES

1. MCWD PROJECT CONSTRUCTION WILL BE PHASED WITH THE DEVELOPMENT CONSTRUCTION.
2. DEVELOP AND SUBMIT A CONSTRUCTION PHASING PLAN AND SCHEDULE PRIOR TO STARTING CONSTRUCTION FOR DISTRICT REVIEW AND COORDINATION WITH DEVELOPMENT CONTRACTOR.
3. PHASING IS SUBJECT TO CHANGE AS PROJECT ADVANCES. PARTICIPATE IN BIWEEKLY MEETINGS WITH MCWD AND DEVELOPMENT TO COORDINATE.
4. GENERAL PHASING REQUIREMENTS:
 - 4.a. DO NOT EXCAVATE THE POND UNTIL THE POND HARD EDGE HAS BEEN CONSTRUCTED BY OTHERS.
 - 4.b. POTENTIAL CONTAMINATED SOILS AREA. EXCAVATE SOIL TESTING AREAS TO REMOVE POTENTIAL CONTAMINATED SOILS PRIOR TO ANY POND EXCAVATION OR STRUCTURE SITE DEWATERING. OWNER WILL PROVIDE PERSONNEL TO TEST SOILS TO DEFINE LIMITS OF EXCAVATION. SEE SPECIFICATIONS FOR MORE INFORMATION.
 - 4.c. OUTLET STRUCTURE CONSTRUCTION IS ANTICIPATED TO REQUIRE WELL POINT DEWATERING. COMPLETE EXCAVATION AND CONSTRUCTION OF OUTLET STRUCTURE AND WEIR WALL PRIOR TO MASS POND EXCAVATION. ANY EXCAVATION NEAR THE WEIR WALL SHOULD BE PERFORMED ON BOTH SIDES TO MINIMIZE DIFFERENCE IN SOIL HEIGHT.
 - 4.d. PROVIDE TEMPORARY SEDIMENT CONTROL FOR ALL SITE RUNOFF DIRECTED TOWARDS POND EXCAVATION. SEE SWPPP FOR DETAILS.
 - 4.e. STORM SEWER CONSTRUCTION WILL FOLLOW SANITARY SEWER CONSTRUCTION (BY OTHERS).
 - 4.f. ACCOMMODATE CONNECTIONS TO STORM SEWER BY DEVELOPMENT CONTRACTOR.
 - 4.g. LAKE STREET STORM SEWER WILL BE INSTALLED BY OCTOBER OF 2023 TO ALLOW PAVING OF MAIN ENTRANCE AND OCCUPANCY OF BLDG A. SWITCH TO SECONDARY CONSTRUCTION ENTRANCE ONCE MAIN ENTRANCE IS PAVED.
 - 4.h. CONNECT LAKE AND POWELL STORM SEWER ONCE POND CONSTRUCTION IS COMPLETE, VEGETATION SEEDED/PLANTED, AND APPROVAL IS RECEIVED BY MCWD.



ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

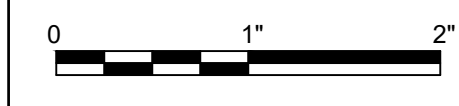
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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

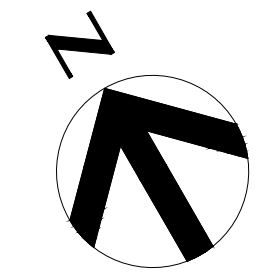
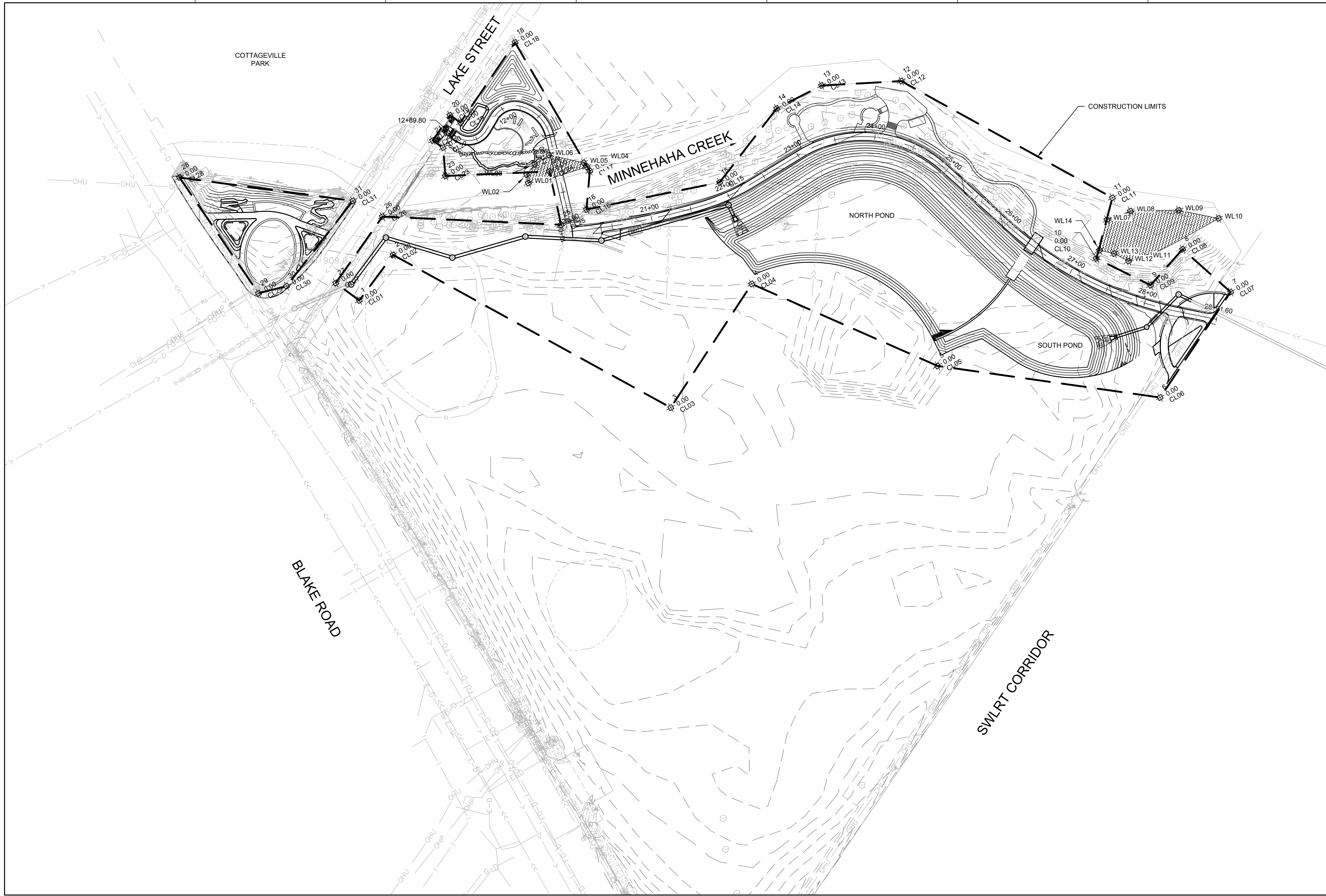
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

CONSTRUCTION ACCESS AND PHASING PLAN



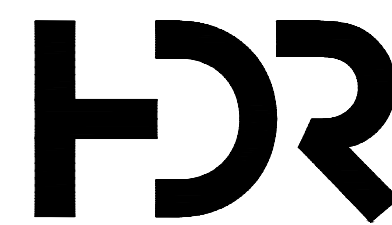
FILENAME GC105-106.DWG
SCALE 1" = 60'

SHEET
GC106



CL Point Table		
Point #	Northing	Easting
CL9	150630.156	500404.558
CL1	151105.693	499542.915
CL2	151133.734	499607.620
CL3	150796.547	499811.683
CL4	150879.497	499975.828
CL5	150675.662	500124.918
CL6	150503.155	500345.034
CL7	150572.987	500486.613
CL8	150648.841	500461.458
CL10	150692.597	500362.852
CL11	150748.011	500417.834
CL12	151005.013	500263.039
CL13	151049.838	500174.410
CL14	151052.940	500111.841
CL15	151008.870	500004.424
CL16	151062.461	499844.230
CL17	151101.870	499871.624
CL18	151286.775	499871.120
CL19	151234.575	499762.551
CL20	151248.776	499755.755
CL21	151232.360	499721.455
CL22	151218.236	499728.210
CL23	151186.272	499713.033
CL24	151126.462	499827.915
CL25	151061.782	499807.294
CL26	151181.699	499620.025
CL27	151139.148	499528.417
CL28	151349.920	499425.814
CL29	151176.139	499438.718
CL30	151166.384	499473.404
CL31	151217.015	499597.879

WL Point Table		
Point #	Northing	Easting
WL01	150693.265	500481.574
WL02	151127.183	499797.922
WL03	151137.087	499801.425
WL04	151143.425	499816.478
WL05	151108.119	499871.141
WL06	151114.569	499870.284
WL07	151144.396	499837.691
WL08	150727.719	500398.304
WL09	150722.375	500428.996
WL10	150659.816	500519.211
WL11	150662.499	500417.436
WL12	150669.791	500395.852
WL13	150686.806	500385.059
WL14	150699.567	500371.245



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ANDREW F. JUDD, PE
 DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

CONSTRUCTION LIMIT CONTROL POINTS

0 1" 2"

FILENAME GC107.DWG
 SCALE 1" = 60'

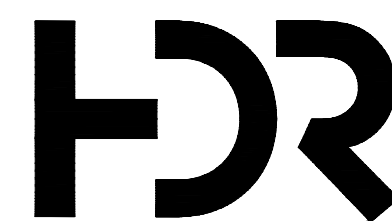
SHEET
GC107

PROVIDED AT 100%

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C
B
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MINNEHAHA CREEK
WATERSHED DISTRICT



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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

ALIGNMENT TABLES



FILENAME GC108.DWG
SCALE NA

SHEET
CG108

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

PROJECT DESCRIPTION/LOCATION

THE PROPOSED PROJECT IS LOCATED AT 325 BLAKE ROAD NORTH IN THE CITY OF HOPKINS, MN, INCLUDING ADJACENT PARCELS AS DESCRIBED IN THE PROJECT DESIGN PLANS.

THE PLANNED SCOPE OF THE PROJECT INCLUDES 1) PUBLIC REALM IMPROVEMENTS, AND 2) MIXED-USE DEVELOPMENT. THESE PROJECT SCOPES ARE INTENDED AS A COMMON PLAN OF DEVELOPMENT, EACH WITH A SEPARATE SET OF DESIGN AND CONSTRUCTION DRAWINGS, CALCULATIONS, AND ASSOCIATED REPORTS.

- 1) PUBLIC REALM IMPROVEMENTS GENERALLY CONSIST OF THE FOLLOWING ACTIVITIES: STORM SEWER CONSTRUCTION, REGIONAL STORMWATER POND EXCAVATION AND CONSTRUCTION, GREENWAY TRAIL GRADING AND CONSTRUCTION, CONSTRUCTION OF A PUBLIC PLAZA (GATEWAY TO GREENWAY), CONSTRUCTION OF A GREENWAY TRAILHEAD AND ASSOCIATED AMENITIES, CONSTRUCTION OF A PUBLIC LEISURE AREA ALONG MINNEHAHA CREEK (THE LANDING), AND CONSTRUCTION OF A NATURE-BASED PLAY AREA. CONSTRUCTION SUPPORT ACTIVITIES INCLUDE THE INSTALLATION OF A MULTI-STAGE STORMWATER POND OUTLET STRUCTURE, LANDSCAPING AND SITE RESTORATION, AND THE INSTALLATION OF TEMPORARY AND PERMANENT STORMWATER BEST MANAGEMENT PRACTICES (BMPs). REFER TO DESIGN PLANS, MODELS, AND REPORTS DEVELOPED BY HDR ENGINEERING, INC. FOR MORE INFORMATION.
- 2) MIXED-USE DEVELOPMENT CONSISTS OF THE CONSTRUCTION OF NEW RESIDENTIAL BUILDINGS, PRIVATE ROADS AND PARKING AREAS, RESTAURANTS, AND ASSOCIATED UTILITIES. CONSTRUCTION AND OPERATION SUPPORT ACTIVITIES INCLUDE THE INSTALLATION OF A WET WELL AND PUMP FOR STORMWATER RE-USE, INSTALLATION OF A STORMWATER CASCADE, INSTALLATION OF TEMPORARY AND PERMANENT STORMWATER BMPs, LANDSCAPING AND SITE RESTORATION. REFER TO DESIGN PLANS, MODELS, AND REPORTS DEVELOPED BY LOUCKS, INC., FOR MORE INFORMATION.

RECEIVING WATERS WITHIN 1-MILE AERIAL RADIUS OF PROJECT

RECEIVING WATER	LOCATION	SPECIAL WATER	IMPAIRED WATER	TROUT	TMDL	INVASIVE
UNNAMED WETLANDS	RIPARIAN EDGE OF MINNEHAHA CREEK	NO	NO	NO	NO	NO
MINNEHAHA CREEK	ADJACENT TO ALL CONSTRUCTION SITES	NO	YES*	NO	YES	YES**

* THIS REACH IS IMPAIRED FOR CHLORIDE, FECAL COLIFORM (E. COLI), DISSOLVED OXYGEN (DO), MACROINVERTEBRATES BIOASSESSMENTS, AND FISH BIOASSESSMENTS.

** MNDNR INVENTORY OF INFESTED WATERS LISTS THIS REACH FOR ZEBRA MUSSEL, FLOWERING RUSH, AND EURASIAN WATERMILFOIL.

THE RECEIVING WATERS LISTED IN THE TABLE ABOVE ARE LOCATED WITHIN ONE MILE (AERIAL RADIUS) OF THE PROJECT LIMITS AND RECEIVE RUNOFF FROM THE PROJECT SITE. THE PROXIMITY TO IMPAIRED WATERS REQUIRES ADDITIONAL STORMWATER BMPs AS OUTLINED IN APPENDIX A OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT.

AREAS OF ENVIRONMENTAL SENSITIVITY (AES)

IN ADDITION TO THE LIST OF SPECIAL AND IMPAIRED WATERS, THE CONTRACTOR SHALL BE AWARE THAT THERE ARE WETLANDS WITHIN AND NEAR THE PROJECT BOUNDARY, CONTAMINATED SOILS, AND POTENTIAL FOR WILDLIFE TO BE ON OR NEAR SITE REQUIRING PROTECTION.

SOIL TYPES

SOIL TYPES ON THE PROPERTY PRIMARILY CONSIST OF MEDIUM TO COARSE SAND AND GRAVEL, WITH TRACE AMOUNTS OF SILT AND CLAY. IN SOME LOCATIONS, SOILS NEAR THE GROUND SURFACE ARE COMPRISED OF FILL, CONSISTING OF TOPSOIL AND ORGANIC SANDY SILT. THE DOMINANT SAND AND GRAVEL SOIL TEXTURE IS TYPICALLY TO DEPTHS OF 3 TO 6 FEET OR DEEPER, WHICH IS TYPICALLY UNDERLAIN BY 2 TO 4 FEET OF SOFT CLAY BEFORE TRANSITIONING BACK TO SAND AND GRAVEL AT GREATER DEPTHS. THE GROUNDWATER TABLE IS TYPICALLY SIMILAR IN ELEVATION TO THE WATER SURFACE ELEVATION OF THE ADJACENT MINNEHAHA CREEK, WHICH IS SUBJECT TO SEASONAL WEATHER CONDITIONS. GROUNDWATER HAS BEEN REPORTED BETWEEN ELEVATIONS 889.0 AND 897.9 IN DIFFERENT LOCATIONS OF THE PROPERTY OVER MULTIPLE YEARS OF DATA COLLECTION.

LONG TERM MAINTENANCE AND OPERATION

MINNEHAHA CREEK WATERSHED DISTRICT AND ALATUS, LLC HAVE ENTERED INTO A COOPERATIVE AGREEMENT FOR LONG-TERM OPERATION AND MAINTENANCE OF VARIOUS PROJECT FEATURES, INCLUDING DEFINED RESPONSIBILITIES FOR VARIOUS PROJECT INFRASTRUCTURE. REFER TO THE PROJECT OPERATION, MAINTENANCE, AND MONITORING (OMM) PLAN FOR MORE INFORMATION.

PROJECT PERSONNEL AND TRAINING

THIS SWPPP WAS PREPARED BY PERSONNEL THAT ARE CERTIFIED IN THE DESIGN OF CONSTRUCTION SWPPPS. COPIES OF THE CERTIFICATIONS ARE AVAILABLE UPON REQUEST. REFER TO APPENDIX F OF THE PROJECT DESIGN MEMO FOR SCANNED COPIES OF CURRENT CERTIFICATIONS.

THE CONTRACTOR SHALL PROVIDE A CERTIFIED EROSION CONTROL SUPERVISOR IN GOOD STANDING WHO IS KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES. THE EROSION CONTROL SUPERVISOR SHALL WORK WITH THE PROJECT ENGINEER, AS NECESSARY, TO OVERSEE THE IMPLEMENTATION OF THE SWPPP AND THE INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPs BEFORE, DURING AND AFTER CONSTRUCTION UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA. THE CONTRACTOR SHALL MAINTAIN PROOF OF EROSION CONTROL TRAINING AND CERTIFICATION AND SHALL MAKE SUCH RECORDS AVAILABLE UPON REQUEST.

THE CONTRACTOR SHALL PROVIDE AT LEAST ONE CERTIFIED INSTALLER FOR EACH CONTRACTOR OR SUBCONTRACTOR THAT INSTALLS EROSION CONTROL PRODUCTS LISTED IN THE PROJECT DESIGN PLANS AND SPECIFICATIONS. PROOF OF TRAINING AND CERTIFICATION SHALL BE MADE AVAILABLE UPON REQUEST.

CHAIN OF RESPONSIBILITY

MINNEHAHA CREEK WATERSHED DISTRICT, ALATUS LLC, AND THE CONTRACTOR(S) ARE CO-PERMITTEES FOR THE NPDES CONSTRUCTION PERMIT. THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION PERMIT AT ALL TIMES UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA. THE CONTRACTOR SHALL DEVELOP A CHAIN OF COMMAND WITH ALL OPERATORS ON THE SITE TO ENSURE THAT THE SWPPP WILL BE IMPLEMENTED AND STAY IN EFFECT UNTIL THE CONSTRUCTION PROJECT IS COMPLETE, THE ENTIRE SITE HAS UNDERGONE FINAL STABILIZATION, AND AN NOT HAS BEEN SUBMITTED TO THE MPCA.

PROJECT CONTACTS

THE PROJECT ENGINEER AND CONTRACTOR ARE RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP AND INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPs BEFORE, DURING, AND AFTER CONSTRUCTION, UNTIL THE NOTICE OF TERMINATION HAS BEEN FILED.

ORGANIZATION	CONTACT NAME	PHONE
MINNEHAHA CREEK WATERSHED DISTRICT	GABE SHERMAN	952-641-4510
ALATUS, LLC	CHRIS OSMUNDSON	612-455-0712
HDR ENGINEERING, INC.	MICHAEL RYAN	763-591-5440
LOUCKS, INC.	MIKE ST. MARTIN	763-496-6713
CONTRACTOR (TBD)		
MPCA DUTY OFFICER 24-HOUR EMERGENCY NOTIFICATION: 651-649-5451 OR 800-422-0798		

LOCATION OF SWPPP REQUIREMENTS

THE REQUIRED SWPPP ELEMENTS MAY BE LOCATED IN MANY PLACES WITHIN THE PLAN SET, IN THE PROJECT SPECIFICATIONS AND SPECIAL PROVISIONS, OR ON FILE WITH MINNEHAHA CREEK WATERSHED DISTRICT AND HDR ENGINEERING, INC. THE NOTES AND TABLE BELOW ARE INTENDED TO BE A QUICK REFERENCE FOR THE CONTRACTOR AND PROJECT ENGINEER TO USE IN THE FIELD. THERE MAY BE ADDITIONAL REQUIRED SWPPP ELEMENTS INCLUDED ON THE PROJECT THAT ARE NOT LISTED ON THIS SHEET.

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

TEMPORARY EROSION CONTROL MEASURES	CONTRACT DRAWINGS
PERMANENT EROSION CONTROL MEASURES	CONTRACT DRAWINGS
DIRECTION OF FLOW	CONTRACT DRAWINGS
FINAL STABILIZATION	CONTRACT DRAWINGS
SOILS AND CONSTRUCTION NOTES	CONTRACT DRAWINGS
DRAINAGE STRUCTURES	CONTRACT DRAWINGS
DRAINAGE TABULATION	DESIGN REPORT
STORM SEWER PROFILES	CONTRACT DRAWINGS
STORM SEWER TABULATION	CONTRACT DRAWINGS
EROSION AND SEDIMENT CONTROL DETAILS	CONTRACT DRAWINGS
EROSION CONTROL TABULATION	CONTRACT DRAWINGS
TURF ESTABLISHMENT TABULATION	CONTRACT DRAWINGS
SITE MAP	CONTRACT DRAWINGS
STORMWATER CALCULATIONS	DESIGN REPORT AND APPENDICES
WATER RESOURCES NOTES	CONTRACT DRAWINGS



MINNEHAHA CREEK WATERSHED DISTRICT

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PROJECT MANAGER ANDREW F. JUDD

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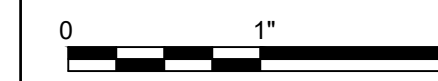
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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SWPPP PLAN



FILENAME EC101-103.DWG
SCALE NA

SHEET
EC101

SITE INSPECTION AND MAINTENANCE

INSPECT THE ENTIRE CONSTRUCTION SITE A MINIMUM OF ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. INSPECT ALL TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT, EROSION PREVENTION AND SEDIMENT CONTROL BMPs UNTIL THE SITE HAS UNDERGONE FINAL STABILIZATION AND THE NOT HAS BEEN SUBMITTED. INSPECT SURFACE WATER INCLUDING FLOW PATHS FOR SIGNS OF EROSION AND SEDIMENT DEPOSITION. INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS FOR EVIDENCE OF TRACKING ONTO PAVED SURFACES. INSPECT SURROUNDING PROPERTIES FOR EVIDENCE OF OFF SITE SEDIMENT ACCUMULATION. INSPECT STORMWATER BMPs FOR SIGNS OF SEDIMENT DEPOSITION, COMPACTION, CONSTRUCTION CONFORMANCE TO DESIGN, AND MATERIAL DEFECTS.

RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES IN WRITING WITHIN 24 HOURS. SUBMIT INSPECTION REPORTS IN A FORMAT THAT IS ACCEPTABLE TO THE PROJECT OWNER AND ENGINEER. INCLUDE THE FOLLOWING IN THE RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY:

- A. DATE AND TIME OF INSPECTIONS
- B. NAME OF PERSONS CONDUCTING INSPECTIONS
- C. FINDINGS OF INSPECTIONS, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS
- D. CORRECTIVE ACTIONS TAKEN, INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES
- E. DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 0.5 INCH IN 24 HOURS
- F. DOCUMENTS AND CHANGES MADE TO THE SWPPP

REPLACE, REPAIR OR SUPPLEMENT ALL NONFUNCTIONAL BMPs BY THE END OF THE NEXT BUSINESS DAY FOLLOWING DISCOVERY UNLESS LISTED DIFFERENTLY BELOW:

- A. REPAIR, REPLACE, OR SUPPLEMENT PERIMETER CONTROL DEVICES WHEN IT BECOMES NONFUNCTIONAL OR SEDIMENT REACHES 1/2 THE HEIGHT OF THE DEVICE. COMPLETE REPAIRS BY THE END OF THE NEXT BUSINESS DAY FOLLOWING DISCOVERY.
- B. REPAIR OR REPLACE INLET PROTECTION DEVICES WHEN THEY BECOME NONFUNCTIONAL OR SEDIMENT REACHES 1/2 THE HEIGHT AND/OR DEPTH OF THE DEVICE.
- C. DRAIN AND REMOVE SEDIMENT FROM TEMPORARY AND PERMANENT SEDIMENT BASINS ONCE THE SEDIMENT HAS REACHED 1/2 THE STORAGE VOLUME. COMPLETE WORK WITHIN 72 HOURS OF DISCOVERY.
- D. REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS. RESTABILIZE ANY AREAS THAT ARE DISTURBED BY SEDIMENT REMOVAL OPERATIONS. SEDIMENT REMOVAL AND STABILIZATION MUST BE COMPLETED WITHIN 7 DAYS OF DISCOVERY. PREPARE AND SUBMIT A SITE MANAGEMENT PLAN FOR WORKING IN SURFACE WATERS AS NECESSARY. CONTACT ALL APPROPRIATE AUTHORITIES PRIOR TO WORKING IN SURFACE WATERS.
- E. REMOVE TRACKED SEDIMENT FROM PAVED SURFACES BOTH ON AND OFF SITE WITHIN 24 HOURS OF DISCOVERY. STREET SWEEPING MAY HAVE TO OCCUR MORE OFTEN TO MINIMIZE OFF SITE IMPACTS. LIGHTLY WET THE PAVEMENT PRIOR TO SWEEPING.
- F. MAINTAIN ALL BMPs UNTIL WORK HAS BEEN COMPLETED, SITE HAS GONE UNDER FINAL STABILIZATION, AND THE NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED TO THE MPCA.

ENVIRONMENTAL REVIEW

STORMWATER IS PROHIBITED FROM MIXING WITH CONTAMINATED SOILS AS IDENTIFIED THROUGH STUDIES AND INVESTIGATIONS. THERE ARE NO FURTHER STORMWATER MITIGATION MEASURES REQUIRED AS A RESULT OF ENVIRONMENTAL, ARCHAEOLOGICAL, OR AGENCY REVIEW.

THE PROJECT IS NOT LOCATED IN A WELLHEAD PROTECTION AREA (WHPA) OR A DRINKING WATER SUPPLY MANAGEMENT AREA (DWSMA).

LAND FEATURE CHANGES

LAND FEATURE INFORMATION	PUBLIC REALM	MIXED-USE DEVELOPMENT
SIZE OF SITE	3.78	13.06
TOTAL DISTURBED AREA	3.47	13.06
TOTAL EXISTING IMPERVIOUS SURFACE AREA	1.37	10.63
TOTAL IMPERVIOUS SURFACE AREA	0.15	9.15
TOTAL PROPOSED NET CHANGE IN IMPERVIOUS AREA	(-) 1.22	(-) 1.48

STABILIZATION TIME FRAMES

AREA	TIME FRAME	NOTES
LAST 200 FEET OF DRAINAGE DITCH OR SWALE	WITHIN 24 HOURS OF CONNECTION TO SURFACE WATER OR PROPERTY EDGE	1, 2, 3
REMAINING PORTIONS OF DRAINAGE DITCH OR SWALE	7 DAYS	1, 3
PIPE AND CULVERT OUTLETS	24 HOURS	
EXPOSED SOILS AND STOCKPILES	7 DAYS	1
WITHIN 200 FEET OF A PUBLIC WATER	24 HOURS	7

1. INITIATE STABILIZATION IMMEDIATELY WHEN CONSTRUCTION HAS TEMPORARILY OR PERMANENTLY CEASED ON ANY PORTION OF THE SITE. COMPLETE STABILIZATION WITHIN THE TIME FRAME LISTED. IN MANY INSTANCES THIS WILL REQUIRE STABILIZATION TO OCCUR MORE THAN ONCE DURING THE COURSE OF THE PROJECT. TEMPORARY SOIL STOCKPILES WITHOUT SIGNIFICANT CLAY OR SILT AND STOCKPILED AND CONSTRUCTED ROAD BASE ARE EXEMPT FROM THE STABILIZATION REQUIREMENT.

2. STABILIZE WETTED PERIMETER OF DITCHES AND SWALES (I.E., WHERE THE DITCH GETS WET).

3. APPLICATION OF MULCH, HYDROMULCH, TACKIFIER AND POLYACRYLAMIDE ARE NOT ACCEPTABLE STABILIZATION METHODS IN THESE AREAS.

4. STABILIZE ALL AREAS OF THE SITE PRIOR TO THE ONSET OF WINTER WHERE CONSTRUCTION WILL NOT RESUME. ANY WORK STILL BEING PERFORMED SHALL BE SNOW MULCHED, SEEDED, AND BLANKETED UPON COMPLETION OF LAND DISTURBANCE WITHIN THE TIME FRAMES DESCRIBED IN THE NPDES PERMIT.

5. TOPSOIL BERMS MUST BE STABILIZED IN ORDER TO BE CONSIDERED PERIMETER CONTROL BMPs. USE RAPID STABILIZATION METHODS CONSISTENT WITH STATE OF MINNESOTA SPECIFICATIONS AND AS APPROVED BY THE ENGINEER.

6. KEEP DITCHES AND EXPOSED SOILS IN AN EVEN ROUGH GRADED CONDITION IN ORDER TO BE ABLE TO APPLY EROSION CONTROL MULCHES, HYDROMULCHES, AND EROSION CONTROL BLANKETS.

7. MNDNR LISTS PUBLIC WATER (I.E., MINNEHAHA CREEK) WORK-IN-WATER EXCLUSION DATES BETWEEN MARCH 15 AND JUNE 15. THE CONTRACTOR SHALL COMPLY WITH ALL MNDNR GENERAL PUBLIC WATERS WORK PERMIT REQUIREMENTS AS APPLICABLE. STABILIZE ALL EXPOSED SOILS WITHIN 200 FEET OF THE WATER'S EDGE WITHIN 24 HOURS DURING THE RESTRICTION PERIOD.

GENERAL SWPPP NOTES FOR CONSTRUCTION ACTIVITY

1. AMEND THE SWPPP AND DOCUMENT ANY AND ALL CHANGES TO THE SWPPP AND ASSOCIATED PLAN SHEETS IN A TIMELY MANNER. STORE THE SWPPP AND ALL AMENDMENTS ON SITE AT ALL TIMES.

2. PREPARE AND SUBMIT A SITE MANAGEMENT PLAN FOR THE ENGINEER'S ACCEPTANCE FOR CONCRETE MANAGEMENT, CONCRETE SLURRY APPLICATION AREAS, WORK IN AND NEAR AREAS OF ENVIRONMENTAL SENSITIVITY, AREAS IDENTIFIED IN THE PLANS AS "SITE MANAGEMENT PLAN AREA", ANY WORK THAT WILL REQUIRE DEWATERING, AND AS REQUESTED BY THE ENGINEER. SUBMIT ALL SITE MANAGEMENT PLANS TO THE ENGINEER IN WRITING. ALLOW A MINIMUM OF 7 DAYS FOR MNDOT TO REVIEW AND ACCEPT SITE MANAGEMENT PLAN SUBMITTALS. WORK WILL NOT BE ALLOWED TO COMMENCE IF A SITE MANAGEMENT PLAN IS REQUIRED UNTIL ACCEPTANCE HAS BEEN GRANTED BY THE ENGINEER. THERE WILL BE NO EXTRA TIME ADDED TO THE CONTRACT DUE TO THE UNTIMELY SUBMITTAL.

3. IT IS THE DESIGNER'S INTENT THAT THE CONTRACTOR CONSTRUCT PONDS AND SIMILAR BMPs AND PLACE EROSION CONTROL BMPs AND STABILIZATION MEASURES BEFORE PUTTING THEM INTO ACTIVE SERVICE TO THE MAXIMUM EXTENT PRACTICABLE.

4. BURNING OF ANY MATERIAL IS NOT ALLOWED WITHIN PROJECT BOUNDARY.

5. DO NOT DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMITS. DELINEATE AREAS NOT TO BE DISTURBED PRIOR TO STARTING GROUND DISTURBING ACTIVITIES. IF IT BECOMES NECESSARY TO DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMITS OBTAIN WRITTEN PERMISSION FROM THE PROJECT ENGINEER PRIOR TO PROCEEDING. PRESERVE ALL NATURAL BUFFERS SHOWN ON THE PLANS.

6. ROUTE STORMWATER AROUND UNSTABILIZED AREAS OF THE SITE WHENEVER FEASIBLE. PROVIDE EROSION CONTROL AND VELOCITY DISSIPATION DEVICES AS NEEDED TO KEEP CHANNELS FROM ERODING AND TO PREVENT NUISANCE CONDITIONS AT THE OUTLET.

7. DIRECT DISCHARGES FROM BMPs TO VEGETATED AREAS WHENEVER FEASIBLE. PROVIDE VELOCITY DISSIPATION DEVICES AS NEEDED TO PREVENT EROSION.

8. THE EROSION PREVENTION AND SEDIMENT CONTROL BMPs SHALL BE PLACED AS NECESSARY TO MINIMIZE EROSION FROM DISTURBED SURFACES AND TO CAPTURE SEDIMENT ON SITE. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF ANY REMOVAL WORK AND/OR GROUND DISTURBING ACTIVITIES COMMENCE.

9. ESTABLISH SEDIMENT CONTROL DEVICES ON ALL DOWN GRADIENT PERIMETERS AND UPGRADIENT OF ANY BUFFER ZONES BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITIES BEGIN. MAINTAIN SEDIMENT CONTROL DEVICES UNTIL CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

10. LOCATE PERIMETER CONTROLS ON THE CONTOUR TO CAPTURE OVERLAND, LOW-VELOCITY SHEET FLOWS DOWN-GRADIENT OF ALL EXPOSED SOILS AND PRIOR TO DISCHARGING TO SURFACE WATERS. PLACE J-HOOKS AT A MAXIMUM OF 100 FOOT INTERVALS.

11. PROVIDE PERIMETER CONTROL AROUND ALL STOCKPILES. PLACE BMP A MINIMUM 5 FEET FROM THE TOE OF SLOPE WHERE FEASIBLE. DO NOT PLACE STOCKPILES IN NATURAL BUFFER AREAS, SURFACE WATERS OR STORMWATER CONVEYANCES.

12. FLOATING SILT CURTAIN IS ALLOWED AS PERIMETER CONTROL FOR IN WATER WORK ONLY. PLACE THE FLOATING SILT CURTAIN AS CLOSE TO SHORE AS POSSIBLE. PLACE PERIMETER CONTROL BMP ON LAND IMMEDIATELY AFTER THE IN WATER WORK IS COMPLETED.

13. DITCH CHECKS AND SLOPE BREAKS SHALL BE PLACED AS INDICATED ON THE PLANS DURING ALL PHASES OF CONSTRUCTION.

PROJECT MANAGER ANDREW F. JUDD

ISSUE	DATE	DESCRIPTION	PROJECT NUMBER
			10268112
2	09/14/2022	90% DESIGN	
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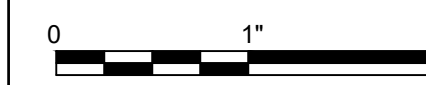
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

DATE XX/XX/XXXX LICENSE # 47301

SWPPP PLAN



FILENAME EC101-103.DWG
SCALE NA

SHEET EC102



MINNEHAHA CREEK WATERSHED DISTRICT

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C

B

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- 14. PROTECT STORM SEWER INLETS AT ALL TIMES WITH THE APPROPRIATE INLET PROTECTION FOR EACH SPECIFIC PHASE OF CONSTRUCTION. PROVIDE INLET PROTECTION DEVICES WITH EMERGENCY OVERFLOW CAPABILITIES. SILT FENCE PLACED IN THE INLET GRATE IS NOT AN ACCEPTABLE INLET PROTECTION BMP FOR GRADING OPERATIONS. SILT FENCE PLACED IN THE GRATE IS ONLY ALLOWED FOR SHORT INTERVALS DURING MILLING OR PAVING OPERATIONS. INLET PROTECTION DEVICES MAY NEED TO BE PLACED MULTIPLE TIMES IN THE SAME LOCATION OVER THE LIFE OF THE CONTRACT. INLET PROTECTION DEVICES WILL BE PAID FOR ONCE PER INLET REGARDLESS OF THE NUMBER OF TIMES THE BMP IS PLACED. KEEP ALL STORM SEWER INLET PROTECTION DEVICES IN GOOD FUNCTIONAL CONDITION AT ALL TIMES. REPLACE INLET PROTECTION DEVICE WITH A SUITABLE ALTERNATIVE IF THE PROJECT ENGINEER DEEMS AN INLET PROTECTION DEVICE TO BE NONFUNCTIONAL, IN POOR CONDITION, INEFFECTIVE, OR NOT APPROPRIATE FOR THE CURRENT CONSTRUCTION ACTIVITIES. THERE WILL BE NO COST TO MINNEHAHA CREEK WATERSHED DISTRICT FOR REPLACEMENT OF INLET PROTECTION DEVICES.
- 15. PLACE CONSTRUCTION EXITS, AS NECESSARY, TO PREVENT TRACKING OF SEDIMENT ONTO PAVED SURFACES BOTH ON AND OFF THE PROJECT SITE. PROVIDE CONSTRUCTION EXITS OF SUFFICIENT SIZE TO PREVENT TRACK OUT. MAINTAIN CONSTRUCTION EXITS WHEN EVIDENCE OF TRACKING IS DISCOVERED. REGULAR STREET SWEEPING IS NOT AN ACCEPTABLE ALTERNATIVE TO PROPER CONSTRUCTION EXIT INSTALLATION AND MAINTENANCE.
- 16. DISCHARGE TURBID OR SEDIMENT LADEN WATER TO TEMPORARY SEDIMENT BASINS WHENEVER FEASIBLE. IN THE EVENT THAT IT IS NOT FEASIBLE TO DISCHARGE THE SEDIMENT LADEN WATER TO A TEMPORARY SEDIMENT BASIN, THE WATER MUST BE TREATED SO THAT IT DOES NOT CAUSE A NUISANCE CONDITION IN THE RECEIVING WATERS OR TO DOWNSTREAM LANDOWNERS. CLEAN OUT ALL PERMANENT STORMWATER BASINS REGARDLESS OF WHETHER USED AS TEMPORARY SEDIMENT BASINS OR TEMPORARY SEDIMENT TRAPS TO THE DESIGN CAPACITY AFTER ALL UPGRADIENT LAND DISTURBING ACTIVITY IS COMPLETED.
- 17. PROVIDE SCOUR PROTECTION AT ANY OUTFALL OF DEWATERING ACTIVITIES.
- 18. PROVIDE STABILIZATION IN ANY TRENCHES CUT FOR DEWATERING OR SITE DRAINING PURPOSES.
- 19. REMOVE SEDIMENT FROM STORMWATER SYSTEMS AT THE END OF PROJECT.
- 20. PRESERVE A MINIMUM OF 100 FOOT NATURAL BUFFER OR (IF BUFFER IS INFEASIBLE) PROVIDE REDUNDANT SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 100 FEET OF LAND DISTURBANCE AND STORMWATER FLOWS TO THE SURFACE WATER.

POLLUTION PREVENTION

- 1. PROVIDE A SPILL KIT AT EACH WORK LOCATION ON THE SITE.
- 2. STORE ALL BUILDING MATERIALS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS, PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS, AND LANDSCAPE MATERIALS UNDER COVER AND WITH SECONDARY CONTAINMENT.
- 3. PROVIDE A SECURE STORAGE AREA WITH RESTRICTED ACCESS FOR ALL HAZARDOUS MATERIALS AND TOXIC WASTE. RETURN ALL HAZARDOUS MATERIALS AND TOXIC WASTE TO THE DESIGNATED STORAGE AREA AT THE END OF THE BUSINESS DAY UNLESS INFEASIBLE. STORE ALL HAZARDOUS MATERIALS AND TOXIC WASTE (INCLUDING BUT NOT LIMITED TO OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT, PETROLEUM BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS WITH SECONDARY CONTAINMENT. CLEAN UP SPILLS IMMEDIATELY.
- 4. STORE, COLLECT AND DISPOSE OF ALL SOLID WASTE.
- 5. POSITION ALL PORTABLE TOILETS SO THAT THEY ARE SECURE AND CANNOT BE TIPPED OR KNOCKED OVER. PROPERLY DISPOSE OF ALL SANITARY WASTE.
- 6. FUEL AND MAINTAIN VEHICLES IN A DESIGNATED CONTAINED AREA WHENEVER FEASIBLE. USE DRIP PANS OR ABSORBENT MATERIALS TO PREVENT SPILLS OR LEAKED CHEMICALS FROM DISCHARGING TO SURFACE WATER OR STORMWATER CONVEYANCES. PROVIDE A SPILL KIT AT EACH LOCATION THAT VEHICLES AND EQUIPMENT ARE FUELED OR MAINTAINED AT.
- 7. LIMIT VEHICLE AND EQUIPMENT WASHING TO A DEFINED AREA OF THE SITE. CONTAIN RUNOFF FROM THE WASHING AREA TO A TEMPORARY SEDIMENT BASIN OR OTHER EFFECTIVE CONTROL. PROPERLY DISPOSE OF ALL WASTE GENERATED BY VEHICLE AND EQUIPMENT WASHING. ENGINE DEGREASING IS NOT ALLOWED ON THE SITE.
- 8. PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS. LIQUID AND SOLID WASHOUT WASTES MUST NOT CONTACT THE GROUND. DESIGN THE CONTAINMENT SO THAT IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR CONTAINMENT AREA.
- 9. CREATE AND FOLLOW A WRITTEN DISPOSAL PLAN FOR ALL WASTE MATERIALS. INCLUDE IN THE PLAN HOW THE MATERIAL WILL BE DISPOSED OF AND THE LOCATION OF THE DISPOSAL SITE. SUBMIT PLAN TO THE ENGINEER.
- 10. USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT DISCHARGE OR PLACEMENT OF BITUMINOUS GRINDINGS, CUTTINGS, MILLINGS, AND OTHER BITUMINOUS WASTES FROM AREAS OF EXISTING OR FUTURE VEGETATED SOILS AND FROM ALL WATER CONVEYANCE SYSTEMS, INCLUDING INLETS, DITCHES AND CURB FLOW LINES.
- 11. USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT CONCRETE DUST, PARTICLES, CONCRETE WASH OUT, AND OTHER CONCRETE WASTES FROM LEAVING MNDOT RIGHT OF WAY, DEPOSITING IN EXISTING OR FUTURE VEGETATED AREAS, AND FROM ENTERING STORMWATER CONVEYANCE SYSTEMS, INCLUDING INLETS, DITCHES AND CURB FLOW LINES. USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT SAW CUT SLURRY AND PLANING WASTE FROM LEAVING MNDOT RIGHT OF WAY AND FROM ENTERING STORMWATER CONVEYANCE SYSTEMS INCLUDING DITCHES AND CULVERTS.

WATER RESOURCES AND SOIL NOTES

THESE NOTES, ALONG WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE, ARE INTENDED TO PROVIDE INFORMATION ON CRITICAL DRAINAGE FEATURES, NATURAL RESOURCES, AND CONTRACTOR OPERATIONS THAT MAY IMPACT DRAINAGE AND NATURAL RESOURCES.

- 1. THE SIZE AND ELEVATION OF CULVERTS, STORM SEWER PIPES, CATCH BASINS, PONDS, STORMWATER PONDS AND BMPs, PERMEABLE DITCH CHECKS AND SLOPE BREAKS, AND OVERFLOW DEVICES HAVE BEEN SPECIFICALLY DESIGNED TO CONFORM TO MINNEHAHA CREEK WATERSHED DISTRICT, MINNESOTA POLLUTION CONTROL AGENCY, AND CITY OF HOPKINS PERMIT REQUIREMENTS. THE DESIGN COMPUTATIONS ARE ON FILE WITH HDR ENGINEERING, INC. CHANGING THESE ITEMS OR THE DIRECTION OF FLOW FROM WHAT IS SHOWN ON THE PLANS MAY CAUSE PROBLEMS THAT RESULT IN THE PROJECT BECOMING OUT OF COMPLIANCE WITH APPROVED PERMITS. ANY CHANGES TO THE SIZE, ELEVATION, OR DIRECTION OF FLOW OF THE DRAINAGE SYSTEMS MUST BE APPROVED BY THE ENGINEER.
- 2. TILL SUBGRADE TO A MINIMUM DEPTH OF 4 INCHES. REMOVE STONES LARGER THAN 6 INCHES IN ANY DIMENSION, ALONG WITH STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEIOUS MATTER. APPLY AND MIX UNAMENDED SOIL AND AMENDMENTS (AS REQUIRED PER TESTING) CONSISTENT WITH SECTION 32.91.13 OF THE PROJECT SPECIFICATIONS. COMPACT EACH BLENDED LIFT OF PLANTING SOIL TO 75 TO 82 PERCENT OF MAXIMUM STANDARD PROCTOR DENSITY ACCORDING TO ASTM D 698 UNLESS OTHERWISE INDICATED. TEST COMPACTION AFTER PLACING EACH LIFT USING A DENSITOMETER OR SOIL-COMPACTING METER CALIBRATED TO A REFERENCED TEST VALUE IN ACCORDANCE WITH ASTM D 698. GRADE PLANTING SOIL TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET GRADE. PROTECT IN-PLACE AND GRADED SOIL FROM ADDITIONAL COMPACTION, EXCEPT AS REQUIRED TO PERFORM PLANTING OPERATIONS. IF PLANTING SOIL OR SUBGRADE IS OVERCOMPACTED, DISTURBED, OR CONTAMINATED, REMOVE THE SOIL AND RESTORE AS DIRECTED BY THE LANDSCAPE ARCHITECT. REPLACE AS NECESSARY.
- 3. PROVIDE TOPSOIL FOR ALL DISTURBED AREAS TO BE RESTORED TO VEGETATED SPACE IN ACCORDANCE WITH THE PROJECT DESIGN PLANS AND SPECIFICATIONS. STRIP EXISTING TOPSOIL TO DEPTHS ENCOUNTERED OR AS SPECIFIED WITHIN THE SOILS REPORT, TO A MINIMUM OF 4 INCHES. REMOVE HEAVY GROWTHS OF GRASS BEFORE STRIPPING. STOP TOPSOIL STRIPPING SUFFICIENT DISTANCE FROM TREES TO PREVENT DAMAGE TO ROOT SYSTEMS. SEPARATE TOPSOIL FROM UNDERLYING SUBSOIL OR OBJECTIONABLE MATERIAL. EXISTING TOPSOIL SHALL BE PRESERVED TO BE USED ON SITE, OR REPLACED OR SUPPLEMENTED AS NECESSARY, SUCH THAT A TOPSOIL DEPTH OF AT LEAST 4 INCHES IS PROVIDED IN ALL AREAS TO BE REVEGETATED. PLACE TOPSOIL IN A SINGLE UNCOMPACTED LAYER AND HAND-GRADE TO REQUIRED FINISH ELEVATIONS.
- 4. AMEND PLANTING SOIL BY BLENDING PRESERVED OR IMPORTED UNAMENDED SOILS WITH THE SOIL AMENDMENTS AND FERTILIZERS (PER TESTING) AS DESCRIBED IN SPECIFICATION SECTION 32.91.13.
- 5. PERFORM POST INSTALLATION MANDREL TESTING OF ALL PLASTIC PIPE.
- 6. ANY SUBSURFACE DRAINAGE SYSTEMS ENCOUNTERED DURING CONSTRUCTION SHALL BE MAINTAINED. IF DAMAGED, THEY SHALL BE REPAIRED, REPLACED OR REROUTED, AND CONNECTED TO A FUNCTIONING DRAINAGE SYSTEM OR DISCHARGED IN ACCORDANCE WITH ALL STATE AND LOCAL REQUIREMENTS. WORK SHALL BE COORDINATED WITH, AND IS SUBJECT TO APPROVAL FROM, THE ENGINEER.
- 7. THE FOLLOWING WATER RELATED PERMITS APPLY TO THIS PROJECT, AT A MINIMUM:

AGENCY	TYPE OF PERMIT
MINNESOTA POLLUTION CONTROL AGENCY	NPDES CONSTRUCTION PERMIT *
MINNESOTA DEPARTMENT OF NATURAL RESOURCES	PUBLIC WATERS WORK PERMIT
MINNESOTA DEPARTMENT OF NATURAL RESOURCES	WATER APPROPRIATIONS PERMIT **
U.S. ARMY CORPS OF ENGINEERS (USACE)	SECTION 404 (WETLANDS) PERMIT ***

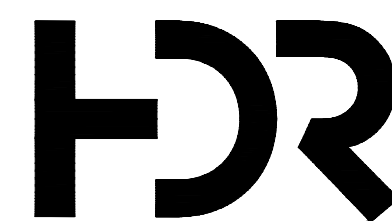
* THE PROPOSED STORMWATER POND WILL TREAT STORMWATER RUNOFF FROM REGIONAL SUBWATERSHEDS, THE PUBLIC REALM DEVELOPMENT, AND THE MIXED-USE DEVELOPMENT.
 ** TEMPORARY DEWATERING ACTIVITIES MAY BE REQUIRED DURING CONSTRUCTION. A PERMIT FOR THE TEMPORARY APPROPRIATION OF WATERS OF THE STATE, NON-IRRIGATION FROM MNDNR MAY BE REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THIS PERMIT PRIOR TO COMMENCING DEWATERING ACTIVITIES. ALL TEMPORARY DEWATERING SHALL BE DISCHARGED TO AN APPROVED LOCATION FOR TREATMENT PRIOR TO DISCHARGE TO RECEIVING WATERS. THE CONTRACTOR SHALL SUBMIT A SITE MANAGEMENT PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK.
 *** NO WETLAND IMPACTS ARE ANTICIPATED AT THIS TIME. IF WETLAND IMPACTS OCCUR, SECTION 404 PERMITTING WILL BE NECESSARY.

8. NON-TROUT STREAMS (I.E., MINNEHAHA CREEK) HAVE WORK IN WATER EXCLUSIONS. NO WORK IN THE WATER IS ALLOWED DURING THE EXCLUSION DATES BETWEEN MARCH 15 AND JUNE 15. SEE MNDNR GENERAL PUBLIC WATERS WORK PERMIT FOR MORE INFORMATION.

PERMIT TERMINATION CONDITIONS

THE FOLLOWING CONDITIONS MUST BE MET FOR NPDES PERMIT TERMINATION.

- 1. UNIFORM PERENNIAL VEGETATIVE COVER AT LEAST 70% DENSITY OF THE EXPECTED FINAL GROWTH HAS BEEN ESTABLISHED.
- 2. THE PERMANENT STORMWATER TREATMENT SYSTEM IS CONSTRUCTED, MEETS ALL REQUIREMENTS, AND IS OPERATING AS DESIGNED.
- 3. ALL TEMPORARY SYNTHETIC EROSION AND SEDIMENT CONTROL BMPs HAVE BEEN REMOVED FROM THE SITE.
- 4. ALL SEDIMENT HAS BEEN CLEANED OUT FROM CONVEYANCE SYSTEMS AND PERMANENT STORMWATER TREATMENT SYSTEMS.
- 5. A NOTICE OF TERMINATION HAS BEEN SUBMITTED TO MPCA.



MINNEHAHA CREEK WATERSHED DISTRICT

ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT NUMBER	10268112
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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

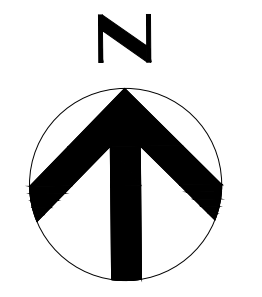
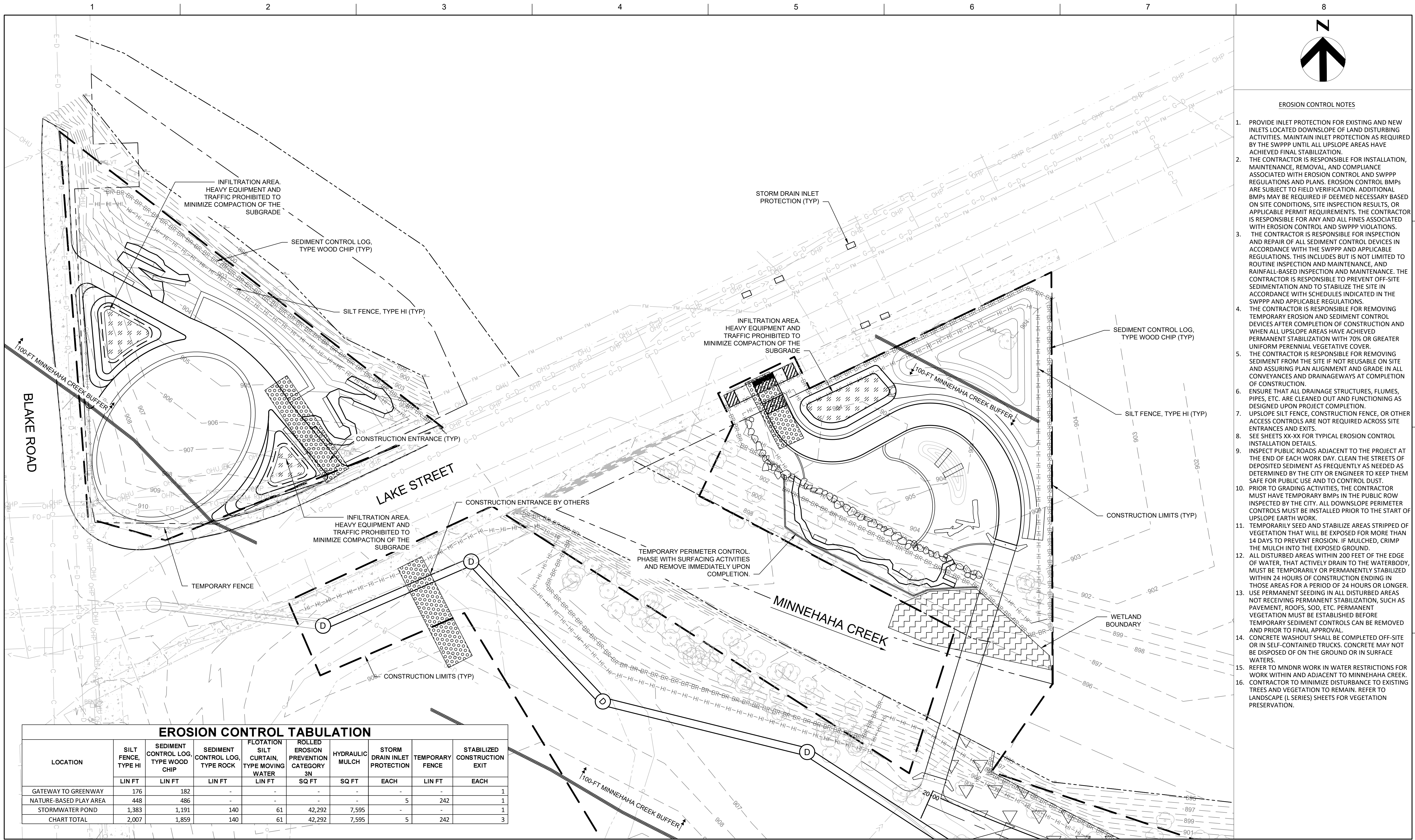
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

SWPPP PLAN



FILENAME | EC101-103.DWG
 SCALE | NA

SHEET
EC103



EROSION CONTROL NOTES

1. PROVIDE INLET PROTECTION FOR EXISTING AND NEW INLETS LOCATED DOWNSLOPE OF LAND DISTURBING ACTIVITIES. MAINTAIN INLET PROTECTION AS REQUIRED BY THE SWPPP UNTIL ALL UPSLOPE AREAS HAVE ACHIEVED FINAL STABILIZATION.
2. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION, MAINTENANCE, REMOVAL, AND COMPLIANCE ASSOCIATED WITH EROSION CONTROL AND SWPPP REGULATIONS AND PLANS. EROSION CONTROL BMPs ARE SUBJECT TO FIELD VERIFICATION. ADDITIONAL BMPs MAY BE REQUIRED IF DEEMED NECESSARY BASED ON SITE CONDITIONS, SITE INSPECTION RESULTS, OR APPLICABLE PERMIT REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL FINES ASSOCIATED WITH EROSION CONTROL AND SWPPP VIOLATIONS.
3. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTION AND REPAIR OF ALL SEDIMENT CONTROL DEVICES IN ACCORDANCE WITH THE SWPPP AND APPLICABLE REGULATIONS. THIS INCLUDES BUT IS NOT LIMITED TO ROUTINE INSPECTION AND MAINTENANCE, AND RAINFALL-BASED INSPECTION AND MAINTENANCE. THE CONTRACTOR IS RESPONSIBLE TO PREVENT OFF-SITE SEDIMENTATION AND TO STABILIZE THE SITE IN ACCORDANCE WITH SCHEDULES INDICATED IN THE SWPPP AND APPLICABLE REGULATIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND WHEN ALL UPSLOPE AREAS HAVE ACHIEVED PERMANENT STABILIZATION WITH 70% OR GREATER UNIFORM PERENNIAL VEGETATIVE COVER.
5. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SEDIMENT FROM THE SITE IF NOT REUSABLE ON SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL CONVEYANCES AND DRAINAGEWAYS AT COMPLETION OF CONSTRUCTION.
6. ENSURE THAT ALL DRAINAGE STRUCTURES, FLUMES, PIPES, ETC. ARE CLEANED OUT AND FUNCTIONING AS DESIGNED UPON PROJECT COMPLETION.
7. UPSLOPE SILT FENCE, CONSTRUCTION FENCE, OR OTHER ACCESS CONTROLS ARE NOT REQUIRED ACROSS SITE ENTRANCES AND EXITS.
8. SEE SHEETS XX-XX FOR TYPICAL EROSION CONTROL INSTALLATION DETAILS.
9. INSPECT PUBLIC ROADS ADJACENT TO THE PROJECT AT THE END OF EACH WORK DAY. CLEAN THE STREETS OF DEPOSITED SEDIMENT AS FREQUENTLY AS NEEDED AS DETERMINED BY THE CITY OR ENGINEER TO KEEP THEM SAFE FOR PUBLIC USE AND TO CONTROL DUST.
10. PRIOR TO GRADING ACTIVITIES, THE CONTRACTOR MUST HAVE TEMPORARY BMPs IN THE PUBLIC ROW INSPECTED BY THE CITY. ALL DOWNSLOPE PERIMETER CONTROLS MUST BE INSTALLED PRIOR TO THE START OF UPSLOPE EARTH WORK.
11. TEMPORARILY SEED AND STABILIZE AREAS STRIPPED OF VEGETATION THAT WILL BE EXPOSED FOR MORE THAN 14 DAYS TO PREVENT EROSION. IF MULCHED, CRIMP THE MULCH INTO THE EXPOSED GROUND.
12. ALL DISTURBED AREAS WITHIN 200 FEET OF THE EDGE OF WATER, THAT ACTIVELY DRAIN TO THE WATERBODY, MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 24 HOURS OF CONSTRUCTION ENDING IN THOSE AREAS FOR A PERIOD OF 24 HOURS OR LONGER.
13. USE PERMANENT SEEDING IN ALL DISTURBED AREAS NOT RECEIVING PERMANENT STABILIZATION, SUCH AS PAVEMENT, ROOFS, SOD, ETC. PERMANENT VEGETATION MUST BE ESTABLISHED BEFORE TEMPORARY SEDIMENT CONTROLS CAN BE REMOVED AND PRIOR TO FINAL APPROVAL.
14. CONCRETE WASHOUT SHALL BE COMPLETED OFF-SITE OR IN SELF-CONTAINED TRUCKS. CONCRETE MAY NOT BE DISPOSED OF ON THE GROUND OR IN SURFACE WATERS.
15. REFER TO MNDNR WORK IN WATER RESTRICTIONS FOR WORK WITHIN AND ADJACENT TO MINNEHAHA CREEK. CONTRACTOR TO MINIMIZE DISTURBANCE TO EXISTING TREES AND VEGETATION TO REMAIN. REFER TO LANDSCAPE (L-SERIES) SHEETS FOR VEGETATION PRESERVATION.
- 16.

EROSION CONTROL TABULATION

LOCATION	SILT FENCE, TYPE HI	SEDIMENT CONTROL LOG, TYPE WOOD CHIP	SEDIMENT CONTROL LOG, TYPE ROCK	FLOTATION SILT CURTAIN, TYPE MOVING WATER	ROLLED EROSION PREVENTION CATEGORY 3N	HYDRAULIC MULCH	STORM DRAIN INLET PROTECTION	TEMPORARY FENCE	STABILIZED CONSTRUCTION EXIT
	LIN FT	LIN FT	LIN FT	LIN FT	SQ FT	SQ FT	EACH	LIN FT	EACH
GATEWAY TO GREENWAY	176	182	-	-	-	-	-	-	1
NATURE-BASED PLAY AREA	448	486	-	-	-	-	5	242	1
STORMWATER POND	1,383	1,191	140	61	42,292	7,595	-	-	1
CHART TOTAL	2,007	1,859	140	61	42,292	7,595	5	242	3

PROJECT MANAGER ANDREW F. JUDD

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

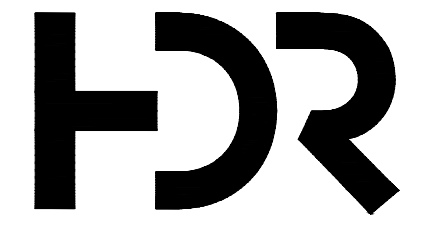
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**EROSION CONTROL PLAN
GATEWAY TO GREENWAY & NATURE-BASED PLAY AREA**



FILENAME EC104-105.DWG
SCALE 1" = 20'

SHEET
EC104

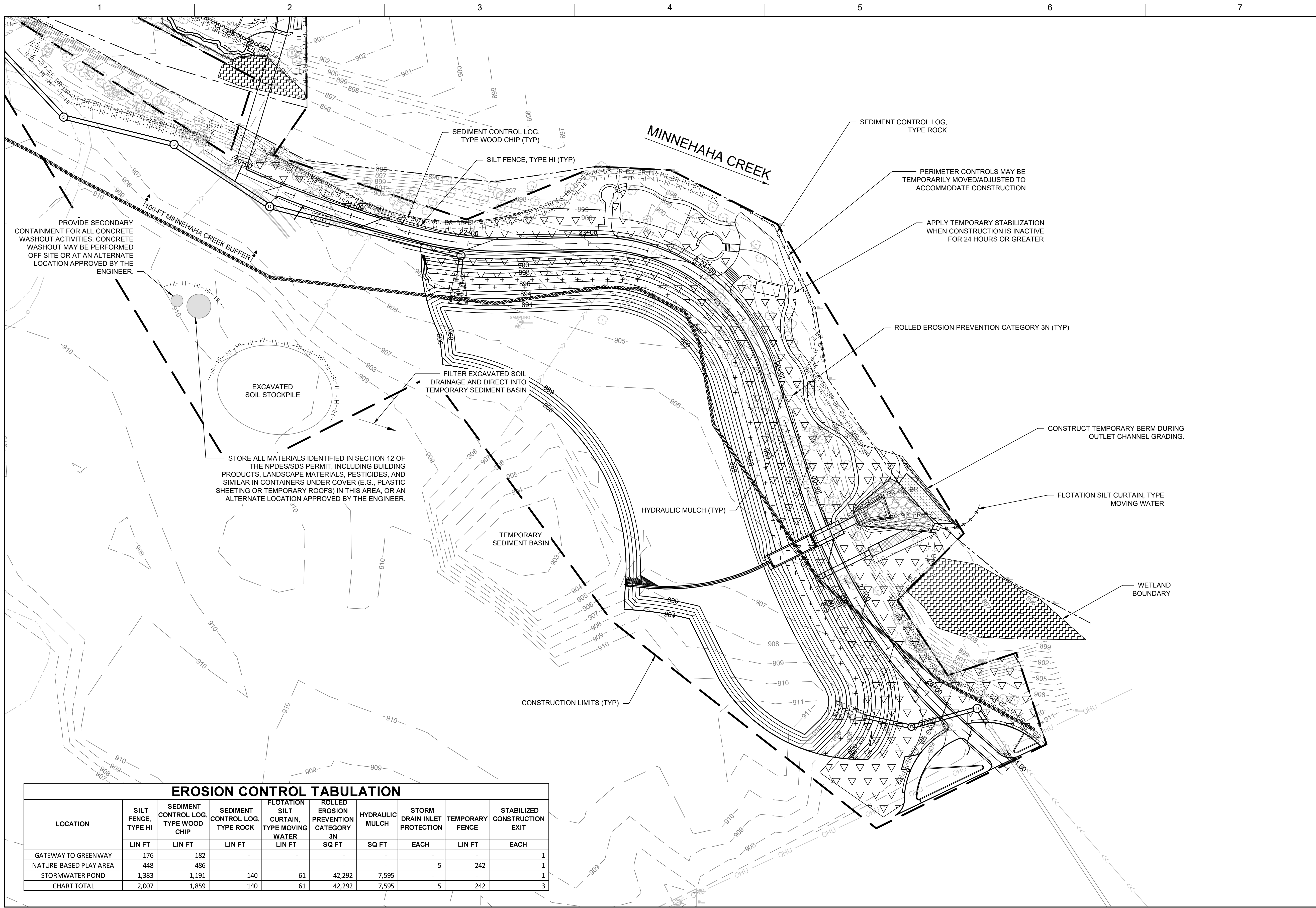


MINNEHAHA CREEK
WATERSHED DISTRICT

ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT NUMBER 10268112

ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301



EROSION CONTROL NOTES

1. PROVIDE INLET PROTECTION FOR EXISTING AND NEW INLETS LOCATED DOWNSLOPE OF LAND DISTURBING ACTIVITIES. MAINTAIN INLET PROTECTION AS REQUIRED BY THE SWPPP UNTIL ALL UPSLOPE AREAS HAVE ACHIEVED FINAL STABILIZATION.
2. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION, MAINTENANCE, REMOVAL, AND COMPLIANCE ASSOCIATED WITH EROSION CONTROL AND SWPPP REGULATIONS AND PLANS. EROSION CONTROL BMPs ARE SUBJECT TO FIELD VERIFICATION. ADDITIONAL BMPs MAY BE REQUIRED IF DEEMED NECESSARY BASED ON SITE CONDITIONS, SITE INSPECTION RESULTS, OR APPLICABLE PERMIT REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL FINES ASSOCIATED WITH EROSION CONTROL AND SWPPP VIOLATIONS.
3. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTION AND REPAIR OF ALL SEDIMENT CONTROL DEVICES IN ACCORDANCE WITH THE SWPPP AND APPLICABLE REGULATIONS. THIS INCLUDES BUT IS NOT LIMITED TO ROUTINE INSPECTION AND MAINTENANCE, AND RAINFALL-BASED INSPECTION AND MAINTENANCE. THE CONTRACTOR IS RESPONSIBLE TO PREVENT OFF-SITE SEDIMENTATION AND TO STABILIZE THE SITE IN ACCORDANCE WITH SCHEDULES INDICATED IN THE SWPPP AND APPLICABLE REGULATIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND WHEN ALL UPSLOPE AREAS HAVE ACHIEVED PERMANENT STABILIZATION WITH 70% OR GREATER UNIFORM PERENNIAL VEGETATIVE COVER.
5. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SEDIMENT FROM THE SITE IF NOT REUSABLE ON SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL CONVEYANCES AND DRAINAGEWAYS AT COMPLETION OF CONSTRUCTION.
6. ENSURE THAT ALL DRAINAGE STRUCTURES, FLUMES, PIPES, ETC. ARE CLEANED OUT AND FUNCTIONING AS DESIGNED UPON PROJECT COMPLETION.
7. UPSLOPE SILT FENCE, CONSTRUCTION FENCE, OR OTHER ACCESS CONTROLS ARE NOT REQUIRED ACROSS SITE ENTRANCES AND EXITS.
8. SEE SHEETS XX-XX FOR TYPICAL EROSION CONTROL INSTALLATION DETAILS.
9. INSPECT PUBLIC ROADS ADJACENT TO THE PROJECT AT THE END OF EACH WORK DAY. CLEAN THE STREETS OF DEPOSITED SEDIMENT AS FREQUENTLY AS NEEDED AS DETERMINED BY THE CITY OR ENGINEER TO KEEP THEM SAFE FOR PUBLIC USE AND TO CONTROL DUST.
10. PRIOR TO GRADING ACTIVITIES, THE CONTRACTOR MUST HAVE TEMPORARY BMPs IN THE PUBLIC ROW INSPECTED BY THE CITY. ALL DOWNSLOPE PERIMETER CONTROLS MUST BE INSTALLED PRIOR TO THE START OF UPSLOPE EARTH WORK.
11. TEMPORARILY SEED AND STABILIZE AREAS STRIPPED OF VEGETATION THAT WILL BE EXPOSED FOR MORE THAN 14 DAYS TO PREVENT EROSION. IF MULCHED, CRIMP THE MULCH INTO THE EXPOSED GROUND.
12. ALL DISTURBED AREAS WITHIN 200 FEET OF THE EDGE OF WATER, THAT ACTIVELY DRAIN TO THE WATERBODY, MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 24 HOURS OF CONSTRUCTION ENDING IN THOSE AREAS FOR A PERIOD OF 24 HOURS OR LONGER.
13. USE PERMANENT SEEDING IN ALL DISTURBED AREAS NOT RECEIVING PERMANENT STABILIZATION, SUCH AS PAVEMENT, ROOFS, SOD, ETC. PERMANENT VEGETATION MUST BE ESTABLISHED BEFORE TEMPORARY SEDIMENT CONTROLS CAN BE REMOVED AND PRIOR TO FINAL APPROVAL.
14. CONCRETE WASHOUT SHALL BE COMPLETED OFF-SITE OR IN SELF-CONTAINED TRUCKS. CONCRETE MAY NOT BE DISPOSED OF ON THE GROUND OR IN SURFACE WATERS.
15. REFER TO MNDNR WORK IN WATER RESTRICTIONS FOR WORK WITHIN AND ADJACENT TO MINNEHAHA CREEK. CONTRACTOR TO MINIMIZE DISTURBANCE TO EXISTING TREES AND VEGETATION TO REMAIN. REFER TO LANDSCAPE (L-SERIES) SHEETS FOR VEGETATION PRESERVATION.
- 16.

EROSION CONTROL TABULATION

LOCATION	SILT FENCE, TYPE HI LIN FT	SEDIMENT CONTROL LOG, TYPE WOOD CHIP LIN FT	SEDIMENT CONTROL LOG, TYPE ROCK LIN FT	FLOTATION SILT CURTAIN, TYPE MOVING WATER LIN FT	ROLLED EROSION PREVENTION CATEGORY 3N SQ FT	HYDRAULIC MULCH SQ FT	STORM DRAIN INLET PROTECTION EACH	TEMPORARY FENCE LIN FT	STABILIZED CONSTRUCTION EXIT EACH
GATEWAY TO GREENWAY	176	182	-	-	-	-	-	-	1
NATURE-BASED PLAY AREA	448	486	-	-	-	-	5	242	1
STORMWATER POND	1,383	1,191	140	61	42,292	7,595	-	-	1
CHART TOTAL	2,007	1,859	140	61	42,292	7,595	5	242	3

PROJECT MANAGER ANDREW F. JUDD

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

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

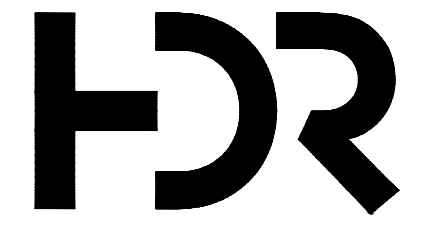
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**EROSION CONTROL PLAN
STORMWATER POND AND TRAILHEAD**



FILENAME EC104-105.DWG
SCALE 1" = 40'

SHEET
EC105

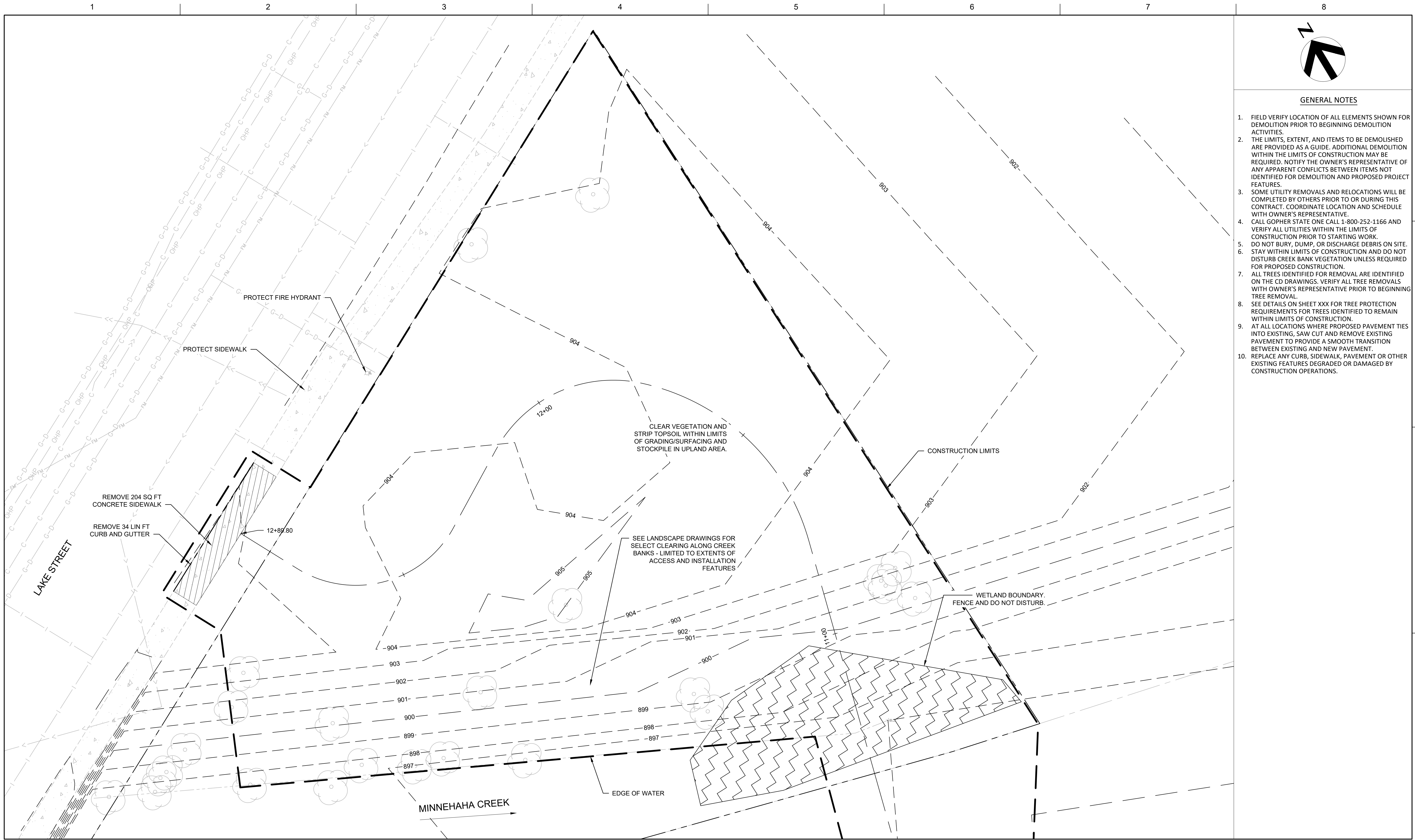


MINNEHAHA CREEK
WATERSHED DISTRICT

ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT NUMBER 10268112

ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

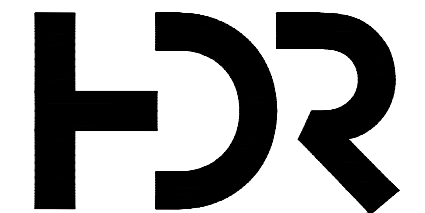


GENERAL NOTES

1. FIELD VERIFY LOCATION OF ALL ELEMENTS SHOWN FOR DEMOLITION PRIOR TO BEGINNING DEMOLITION ACTIVITIES.
2. THE LIMITS, EXTENT, AND ITEMS TO BE DEMOLISHED ARE PROVIDED AS A GUIDE. ADDITIONAL DEMOLITION WITHIN THE LIMITS OF CONSTRUCTION MAY BE REQUIRED. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY APPARENT CONFLICTS BETWEEN ITEMS NOT IDENTIFIED FOR DEMOLITION AND PROPOSED PROJECT FEATURES.
3. SOME UTILITY REMOVALS AND RELOCATIONS WILL BE COMPLETED BY OTHERS PRIOR TO OR DURING THIS CONTRACT. COORDINATE LOCATION AND SCHEDULE WITH OWNER'S REPRESENTATIVE.
4. CALL GOPHER STATE ONE CALL 1-800-252-1166 AND VERIFY ALL UTILITIES WITHIN THE LIMITS OF CONSTRUCTION PRIOR TO STARTING WORK.
5. DO NOT BURY, DUMP, OR DISCHARGE DEBRIS ON SITE.
6. STAY WITHIN LIMITS OF CONSTRUCTION AND DO NOT DISTURB CREEK BANK VEGETATION UNLESS REQUIRED FOR PROPOSED CONSTRUCTION.
7. ALL TREES IDENTIFIED FOR REMOVAL ARE IDENTIFIED ON THE CD DRAWINGS. VERIFY ALL TREE REMOVALS WITH OWNER'S REPRESENTATIVE PRIOR TO BEGINNING TREE REMOVAL.
8. SEE DETAILS ON SHEET XXX FOR TREE PROTECTION REQUIREMENTS FOR TREES IDENTIFIED TO REMAIN WITHIN LIMITS OF CONSTRUCTION.
9. AT ALL LOCATIONS WHERE PROPOSED PAVEMENT TIES INTO EXISTING, SAW CUT AND REMOVE EXISTING PAVEMENT TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW PAVEMENT.
10. REPLACE ANY CURB, SIDEWALK, PAVEMENT OR OTHER EXISTING FEATURES DEGRADED OR DAMAGED BY CONSTRUCTION OPERATIONS.



**MINNEHAHA CREEK
WATERSHED DISTRICT**



ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
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PROJECT MANAGER ANDREW F. JUDD	
PROJECT NUMBER	10268112

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ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

**325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY**

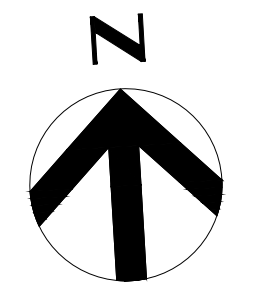
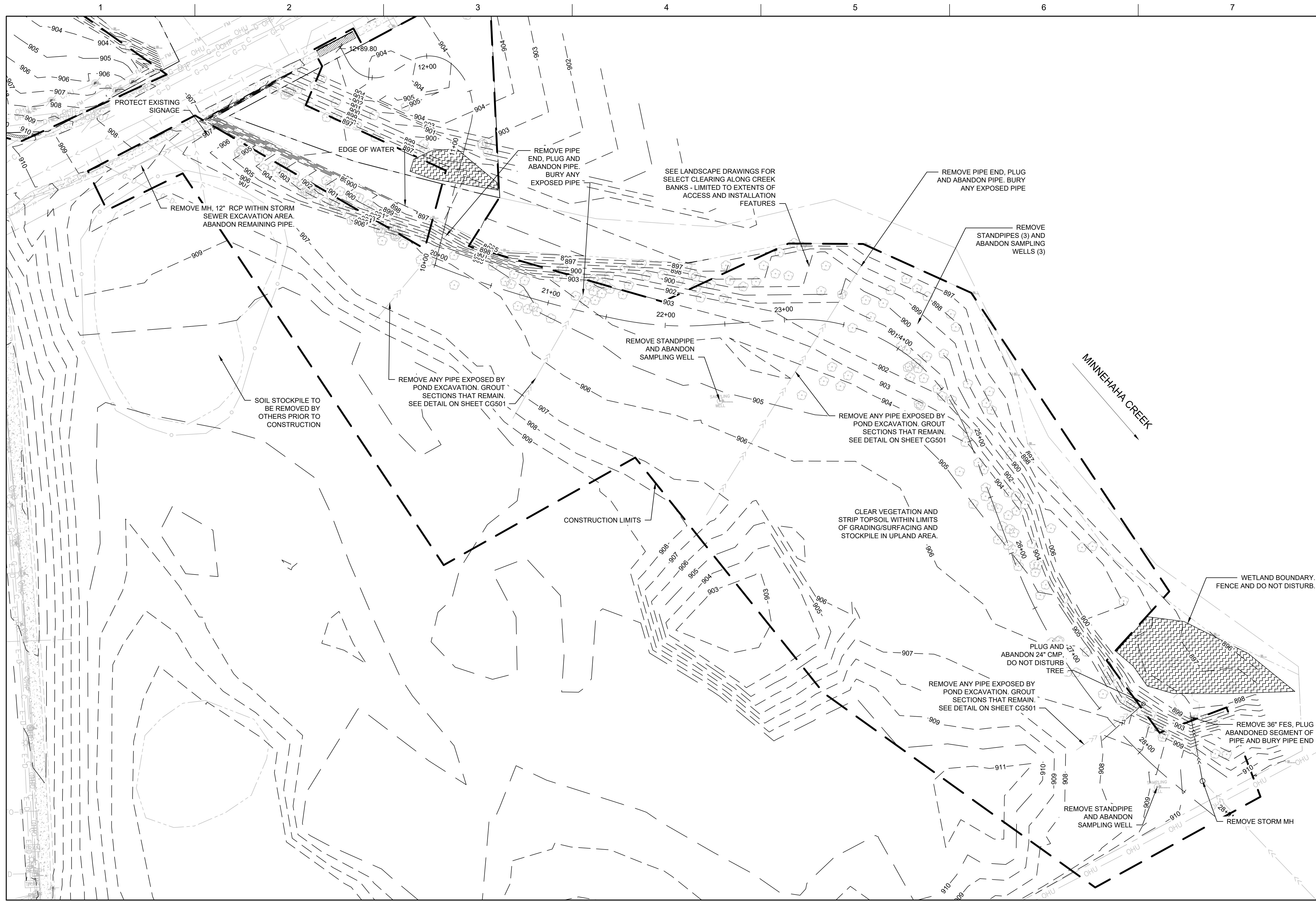
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**DEMOLITION PLAN
NATURE-BASED PLAY AREA**



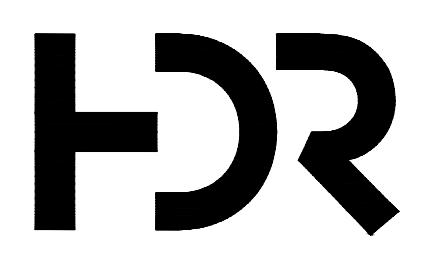
FILENAME CD101-103.DWG
SCALE 1" = 10'

SHEET
CD102



GENERAL NOTES

1. FIELD VERIFY LOCATION OF ALL ELEMENTS SHOWN FOR DEMOLITION PRIOR TO BEGINNING DEMOLITION ACTIVITIES.
2. THE LIMITS, EXTENT, AND ITEMS TO BE DEMOLISHED ARE PROVIDED AS A GUIDE. ADDITIONAL DEMOLITION WITHIN THE LIMITS OF CONSTRUCTION MAY BE REQUIRED. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY APPARENT CONFLICTS BETWEEN ITEMS NOT IDENTIFIED FOR DEMOLITION AND PROPOSED PROJECT FEATURES.
3. SOME UTILITY REMOVALS AND RELOCATIONS WILL BE COMPLETED BY OTHERS PRIOR TO OR DURING THIS CONTRACT. COORDINATE LOCATION AND SCHEDULE WITH OWNER'S REPRESENTATIVE.
4. CALL GOPHER STATE ONE CALL 1-800-252-1166 AND VERIFY ALL UTILITIES WITHIN THE LIMITS OF CONSTRUCTION PRIOR TO STARTING WORK.
5. DO NOT BURY, DUMP, OR DISCHARGE DEBRIS ON SITE.
6. STAY WITHIN LIMITS OF CONSTRUCTION AND DO NOT DISTURB CREEK BANK VEGETATION UNLESS REQUIRED FOR PROPOSED CONSTRUCTION.
7. ALL TREES IDENTIFIED FOR REMOVAL ARE IDENTIFIED ON THE CD DRAWINGS. VERIFY ALL TREE REMOVALS WITH OWNER'S REPRESENTATIVE PRIOR TO BEGINNING TREE REMOVAL.
8. SEE LANDSCAPE DRAWINGS FOR TREE PROTECTION AND REMOVAL REQUIREMENTS.
9. AT ALL LOCATIONS WHERE PROPOSED PAVEMENT TIES INTO EXISTING, SAW CUT AND REMOVE EXISTING PAVEMENT TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW PAVEMENT.
10. REPLACE ANY CURB, SIDEWALK, PAVEMENT OR OTHER EXISTING FEATURES DEGRADED OR DAMAGED BY CONSTRUCTION OPERATIONS.



**MINNEHAHA CREEK
WATERSHED DISTRICT**

ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD	
PROJECT NUMBER	10268112

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ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

**325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY**

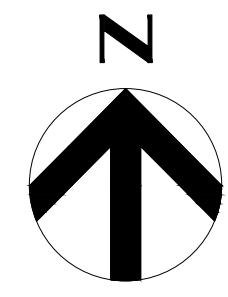
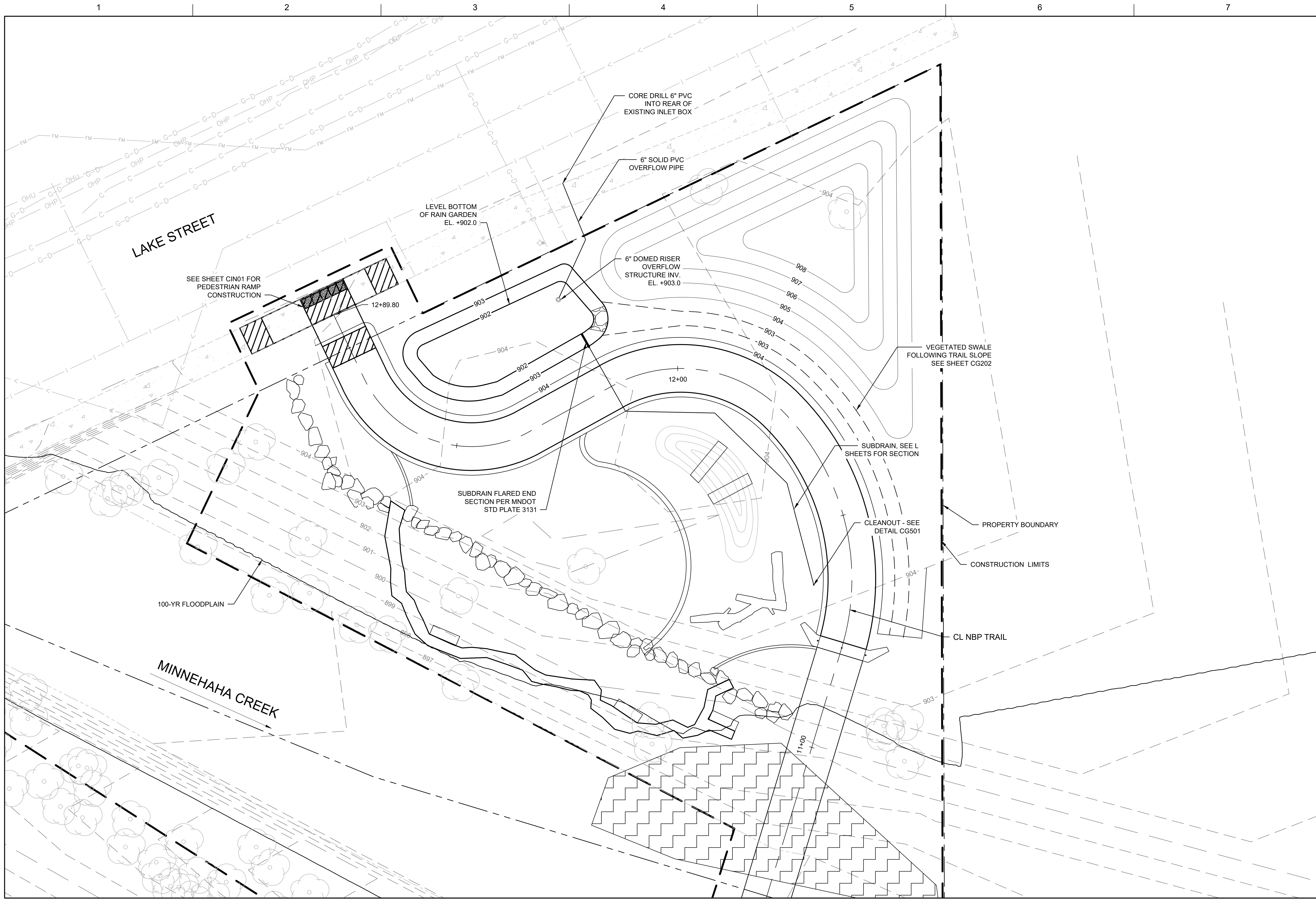
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**DEMOLITION PLAN
STORMWATER POND AND TRAILHEAD**



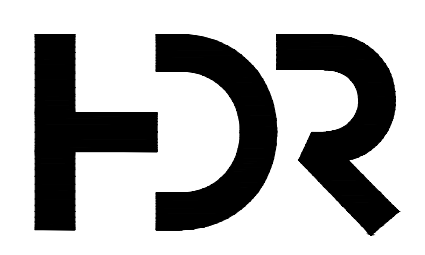
FILENAME CD101-103.DWG
SCALE 1" = 30'

SHEET
CD103



GENERAL NOTES

1. LAYOUT AND ALIGNMENT OF TRAILS, EMBANKMENTS, AND WALLS TO BE FIELD STAKED AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
2. MAXIMUM LONGITUDINAL AND CROSS SLOPES TO BE AS INDICATED. NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY CONFLICTS.
3. PROVIDE SMOOTH SLOPE TRANSITIONS IN PAVED AND VEGETATED AREAS THAT MINIMIZE IMPACTED AREA. NOTIFY OWNER'S REPRESENTATIVE OF ANY CONFLICTS IMMEDIATELY.
4. SEE CT SHEETS FOR TRAIL AND PEDESTRIAN BRIDGE PLAN AND PROFILE AND CP SHEETS FOR STORM SEWER, WEIR WALL, AUXILIARY OVERFLOW, AND OUTLET STRUCTURE.
5. SEE L SHEETS FOR SURFACING AND SITE FURNISHINGS.



ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
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PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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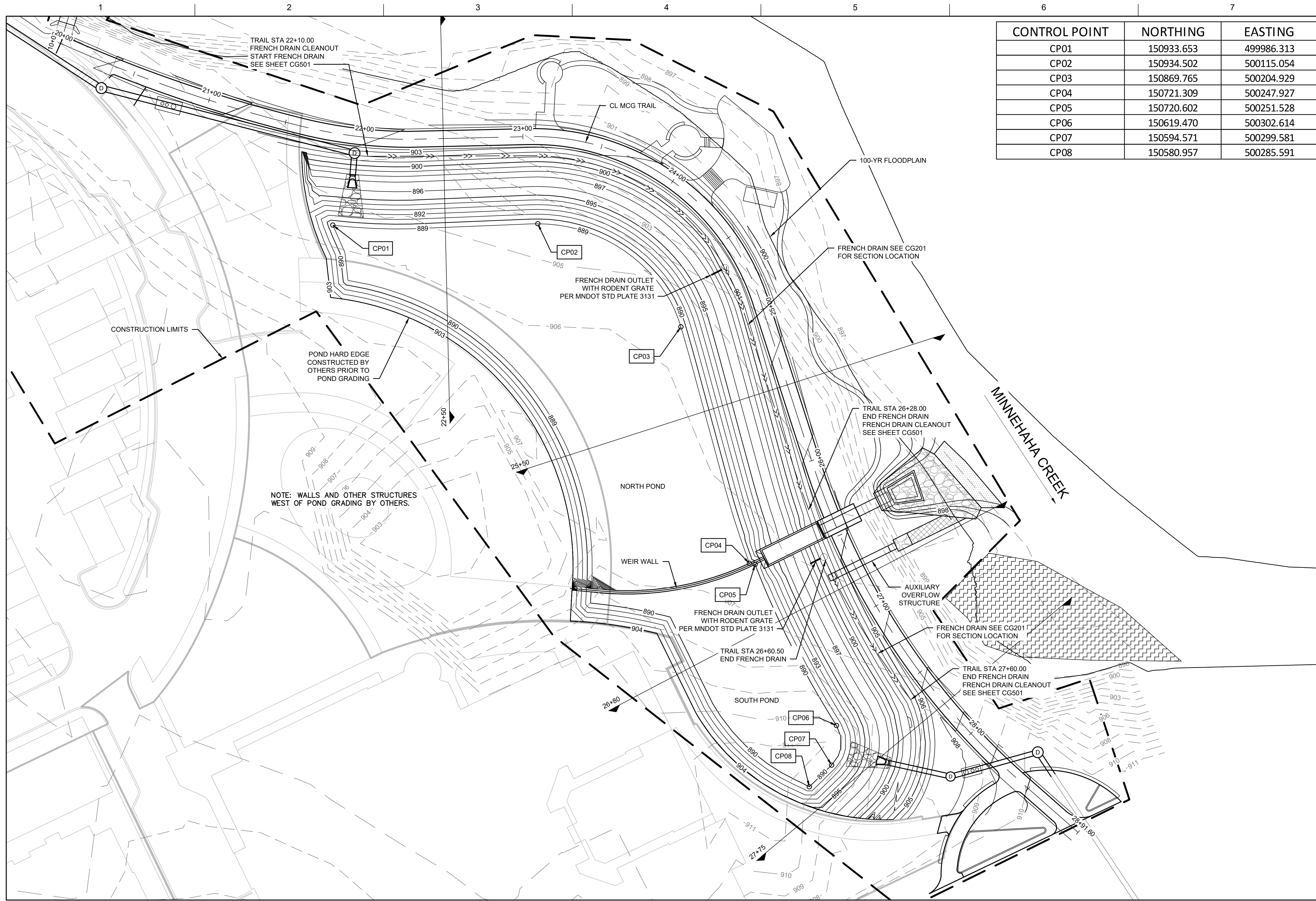
ANDREW F. JUDD, PE
 DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

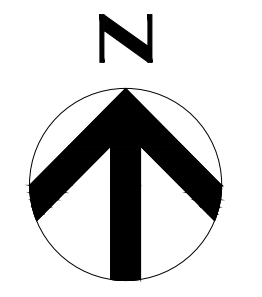
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

**SITE GRADING PLAN
 NATURE-BASED PLAY AREA**

0 1" 2"
 FILENAME CG101-105.DWG
 SCALE 1" = 10'
 SHEET
CG102



CONTROL POINT	NORTHING	EASTING
CP01	150933.653	499986.313
CP02	150934.502	500115.054
CP03	150869.765	500204.929
CP04	150721.309	500247.927
CP05	150720.602	500251.528
CP06	150619.470	500302.614
CP07	150594.571	500299.581
CP08	150580.957	500285.591



GENERAL NOTES

- LAYOUT AND ALIGNMENT OF TRAILS, EMBANKMENTS, AND WALLS TO BE FIELD STAKED AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- MAXIMUM LONGITUDINAL AND CROSS SLOPES TO BE AS INDICATED. NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY CONFLICTS.
- PROVIDE SMOOTH SLOPE TRANSITIONS IN PAVED AND VEGETATED AREAS THAT MINIMIZE IMPACTED AREA. NOTIFY OWNER'S REPRESENTATIVE OF ANY CONFLICTS IMMEDIATELY.
- SEE CT SHEETS FOR TRAIL AND PEDESTRIAN BRIDGE PLAN AND PROFILE AND CP SHEETS FOR STORM SEWER, WEIR WALL, AUXILIARY OVERFLOW, AND OUTLET STRUCTURE.
- SEE L SHEETS FOR SURFACING AND SITE FURNISHINGS.
- SEE CG201 FOR POND TYPICAL SECTIONS FOR SLOPES AND GRADE BREAK ELEVATIONS.

PROJECT MANAGER ANDREW F. JUDD

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**SITE GRADING PLAN
STORMWATER POND**

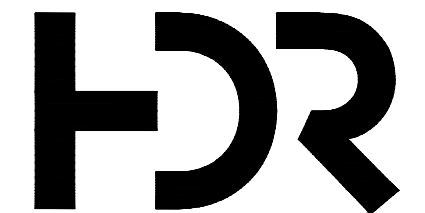


FILENAME CG103.DWG
SCALE 1" = 30'

SHEET
CG103



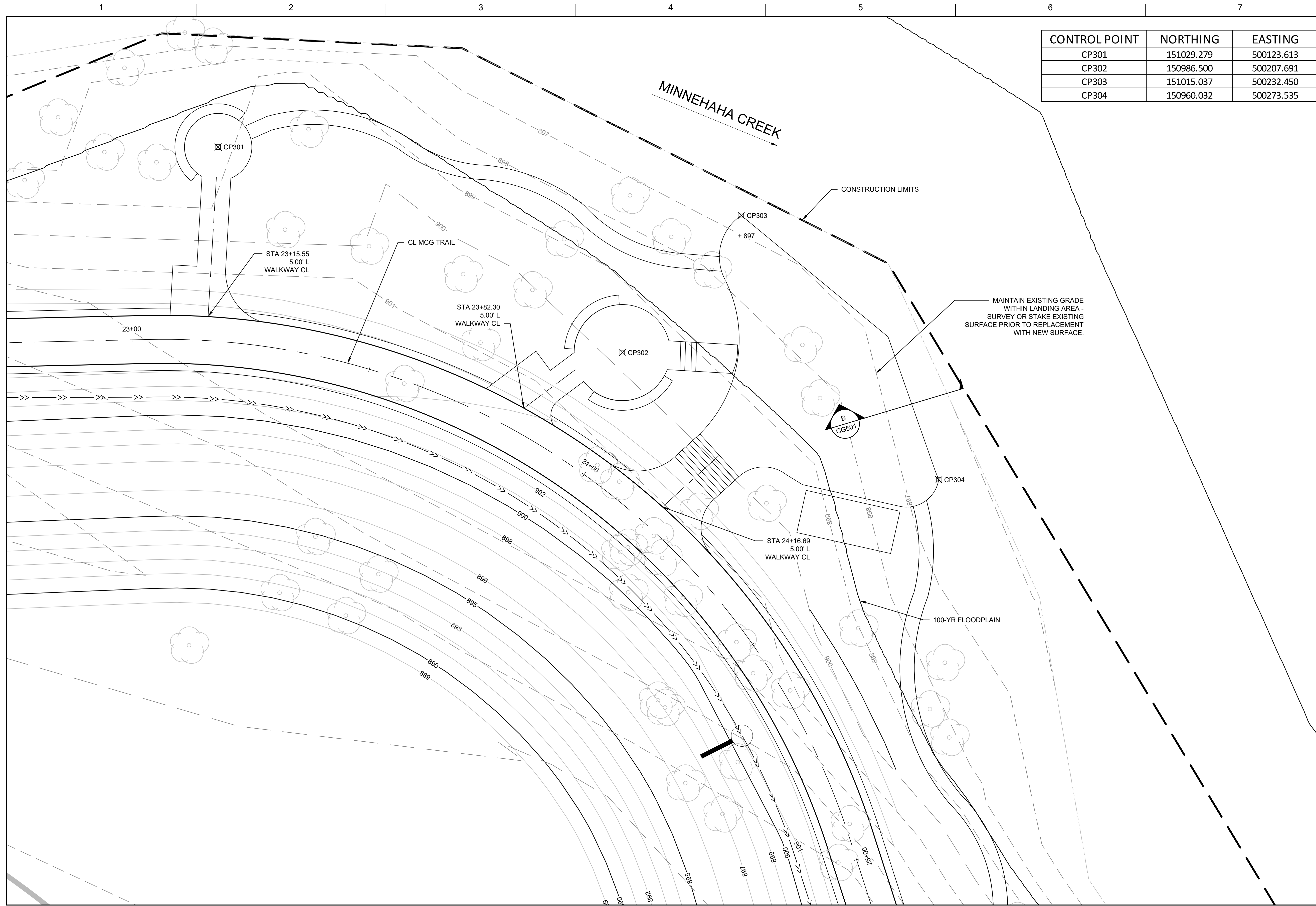
MINNEHAHA CREEK
WATERSHED DISTRICT



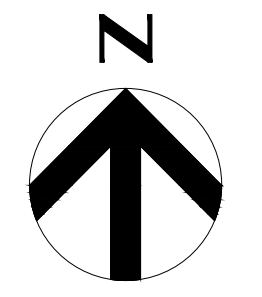
ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT NUMBER	10268112
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ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301



CONTROL POINT	NORTHING	EASTING
CP301	151029.279	500123.613
CP302	150986.500	500207.691
CP303	151015.037	500232.450
CP304	150960.032	500273.535



GENERAL NOTES

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- MAXIMUM LONGITUDINAL AND CROSS SLOPES TO BE AS INDICATED. NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY CONFLICTS.
- PROVIDE SMOOTH SLOPE TRANSITIONS IN PAVED AND VEGETATED AREAS THAT MINIMIZE IMPACTED AREA. NOTIFY OWNER'S REPRESENTATIVE OF ANY CONFLICTS IMMEDIATELY.
- SEE CT SHEETS FOR TRAIL AND PEDESTRIAN BRIDGE PLAN AND PROFILE AND CP SHEETS FOR STORM SEWER, WEIR WALL, AUXILIARY OVERFLOW, AND OUTLET STRUCTURE.
- SEE L SHEETS FOR SURFACING AND SITE FURNISHINGS.



**MINNEHAHA CREEK
WATERSHED DISTRICT**



ISSUE	DATE	DESCRIPTION
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PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

**325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY**

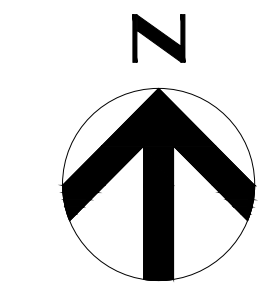
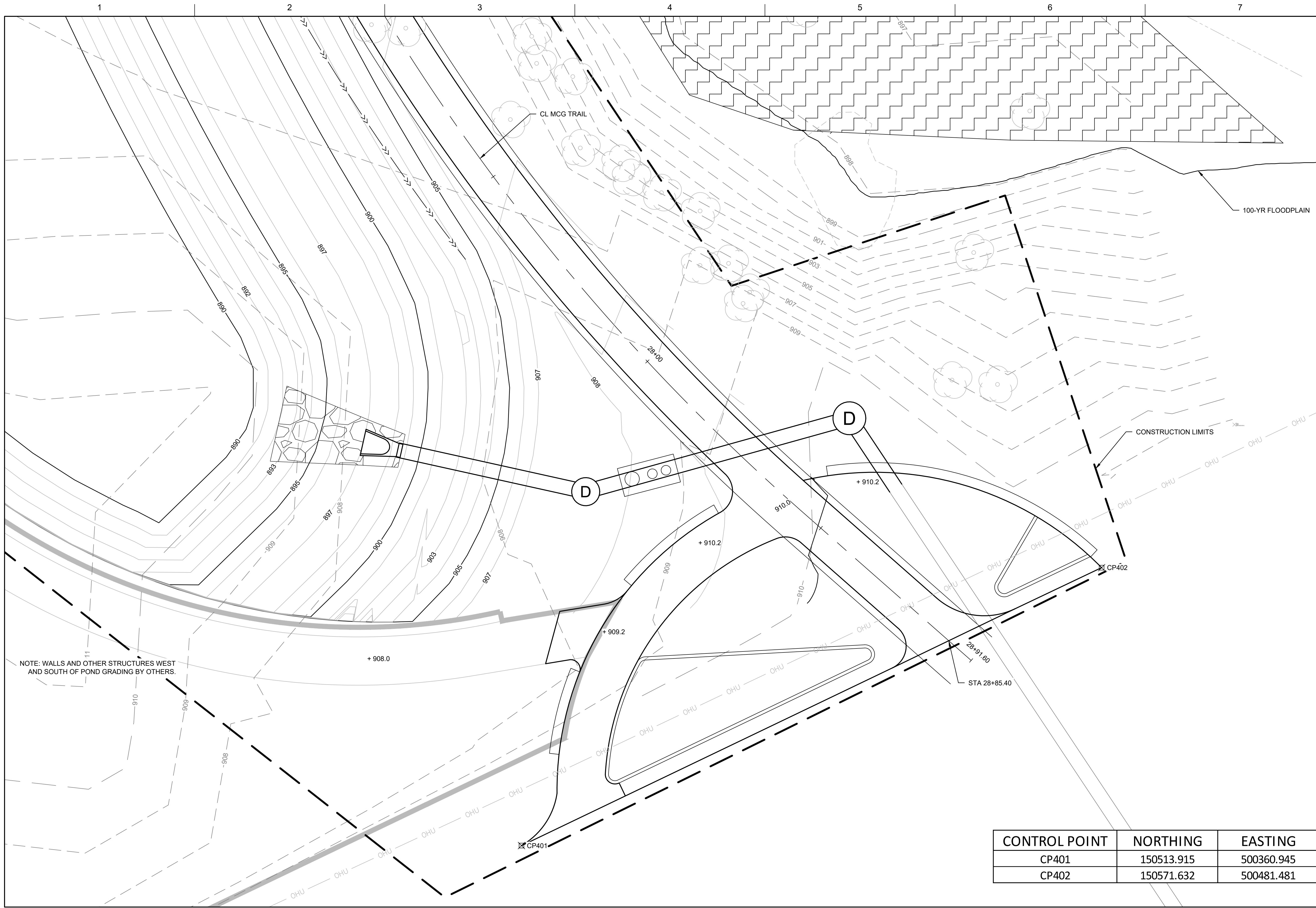
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**SITE GRADING PLAN
LANDING AREA**



FILENAME CG101-105.DWG
SCALE 1" = 10'

SHEET
CG104



GENERAL NOTES

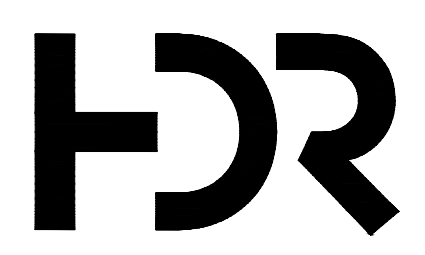
1. LAYOUT AND ALIGNMENT OF TRAILS, EMBANKMENTS, AND WALLS TO BE FIELD STAKED AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
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4. SEE CT SHEETS FOR TRAIL AND PEDESTRIAN BRIDGE PLAN AND PROFILE AND CP SHEETS FOR STORM SEWER, WEIR WALL, AUXILIARY OVERFLOW, AND OUTLET STRUCTURE.
5. SEE L SHEETS FOR SURFACING AND SITE FURNISHINGS.

NOTE: WALLS AND OTHER STRUCTURES WEST AND SOUTH OF POND GRADING BY OTHERS.

CONTROL POINT	NORTHING	EASTING
CP401	150513.915	500360.945
CP402	150571.632	500481.481



**MINNEHAHA CREEK
WATERSHED DISTRICT**



ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD	
PROJECT NUMBER	10268112

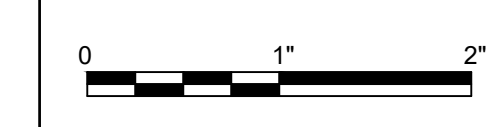
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ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

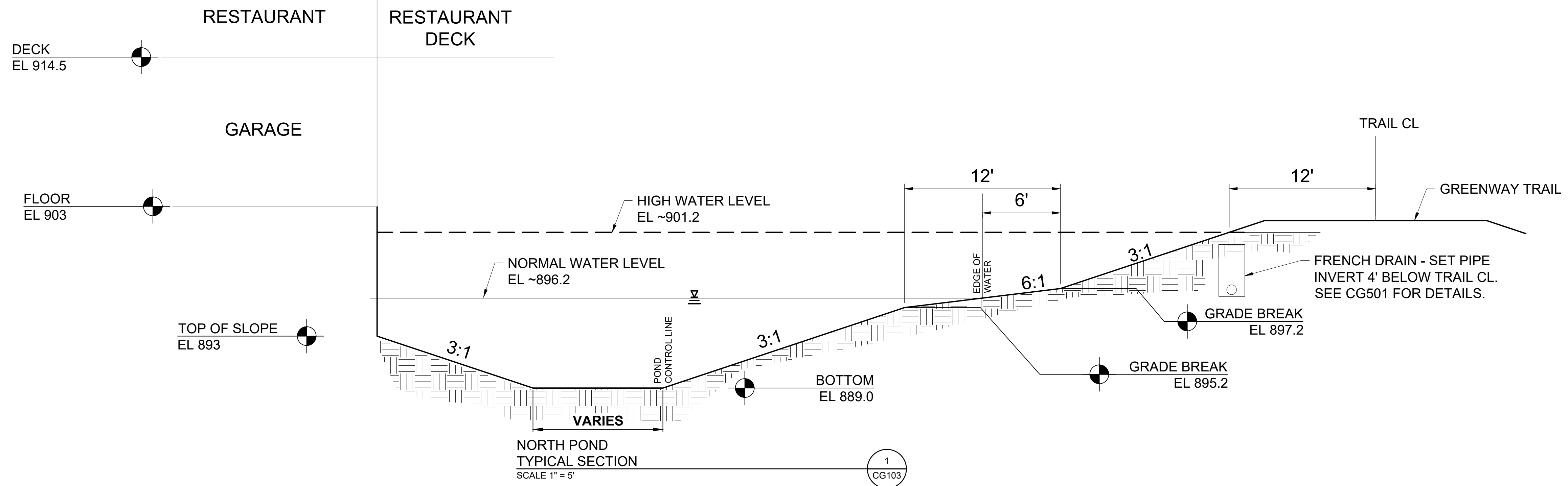
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**SITE GRADING PLAN
TRAILHEAD**



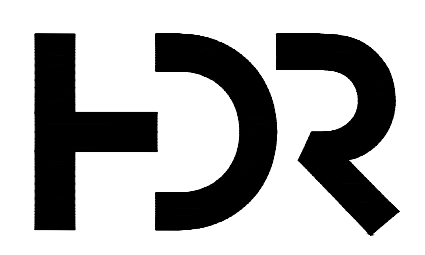
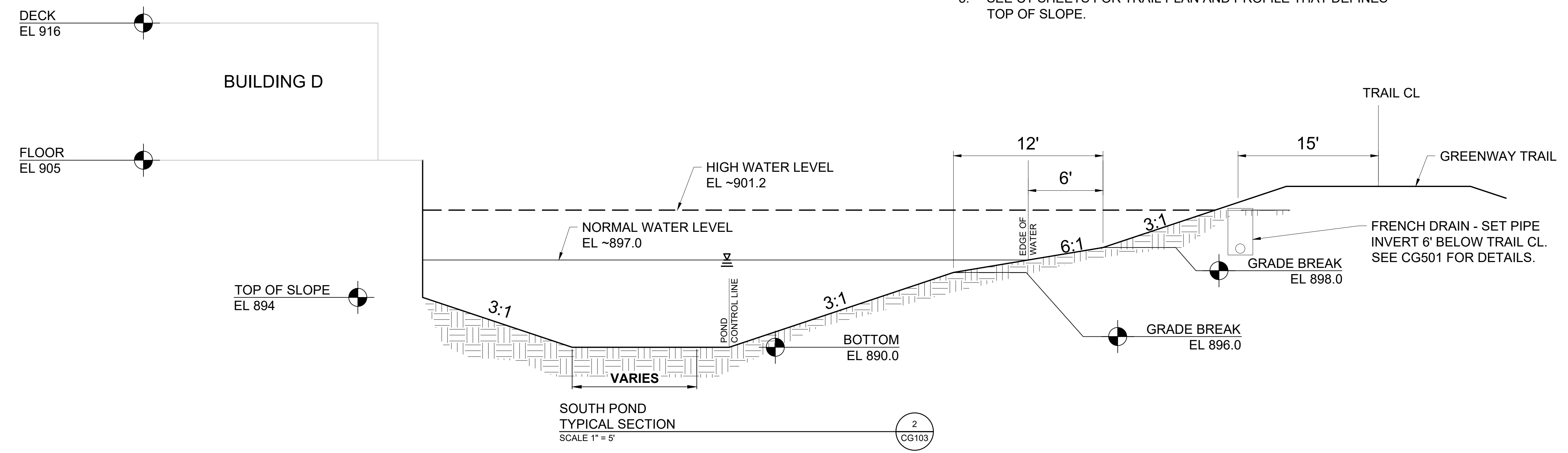
FILENAME CG101-105.DWG
SCALE 1" = 10'

SHEET
CG105



WALL AND OTHER STRUCTURES BY OTHERS

- NOTES:
1. SEE L SHEETS FOR SOIL IMPROVEMENTS AND SEEDING PLAN.
 2. GROUNDWATER WAS ENCOUNTERED NEAR EL ~896' DURING SOIL BORINGS. WET SOIL CONDITIONS SHOULD BE ANTICIPATED DURING POND EXCAVATION.
 3. SEE CT SHEETS FOR TRAIL PLAN AND PROFILE THAT DEFINES TOP OF SLOPE.



MINNEHAHA CREEK WATERSHED DISTRICT

ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
0	08/13/2022	60% DRAFT FOR CLIENT REVIEW

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

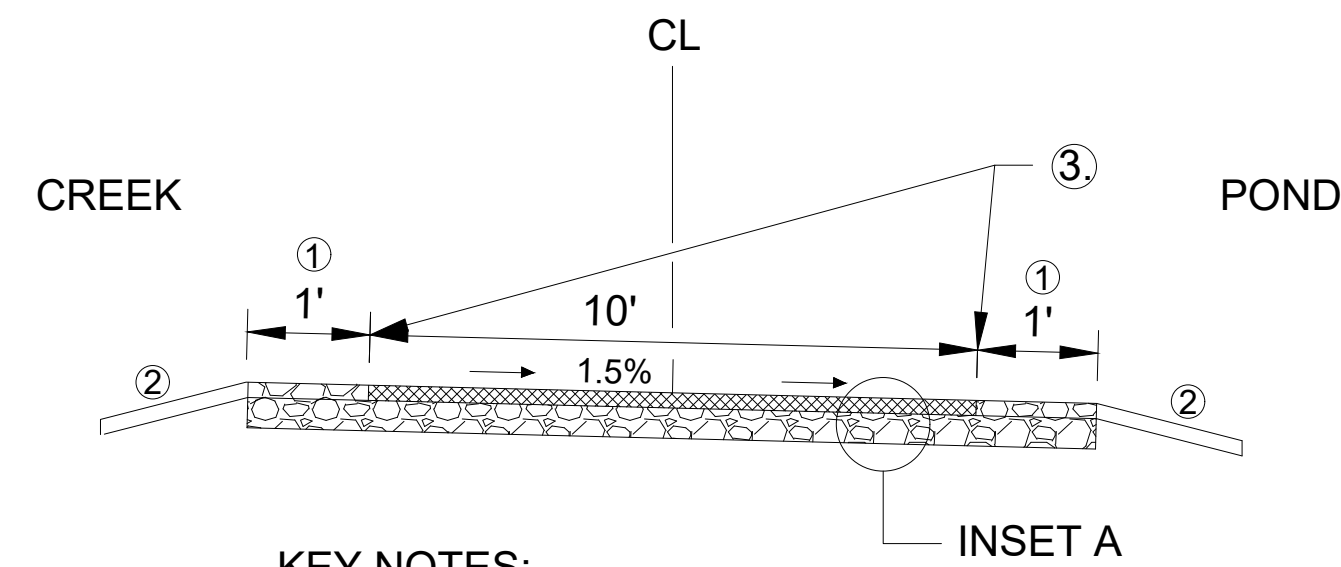
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TYPICAL SECTIONS POND

FILENAME | CG201.DWG
SCALE | 1" = 5'

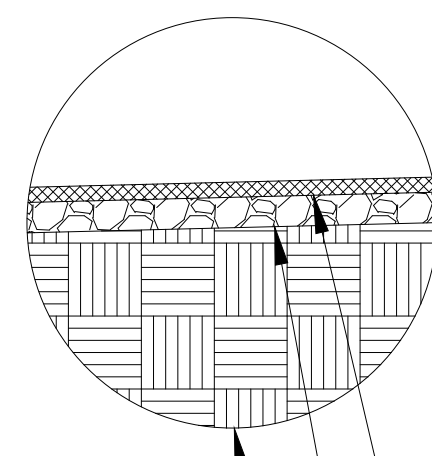
SHEET
CG201



KEY NOTES:

- ① 1' WIDE AGGREGATE (CLASS 5) SHOULDER. MINIMUM 6" THICKNESS.
- ② 3:1 MAXIMUM SLOPE (H:V) OUTSIDE OF 1' SHOULDER.
- ③ SEE INSET C FOR TRAIL SEGMENTS THAT ABUT TO CONCRETE PAVEMENT OR PAVERS.

INSET A



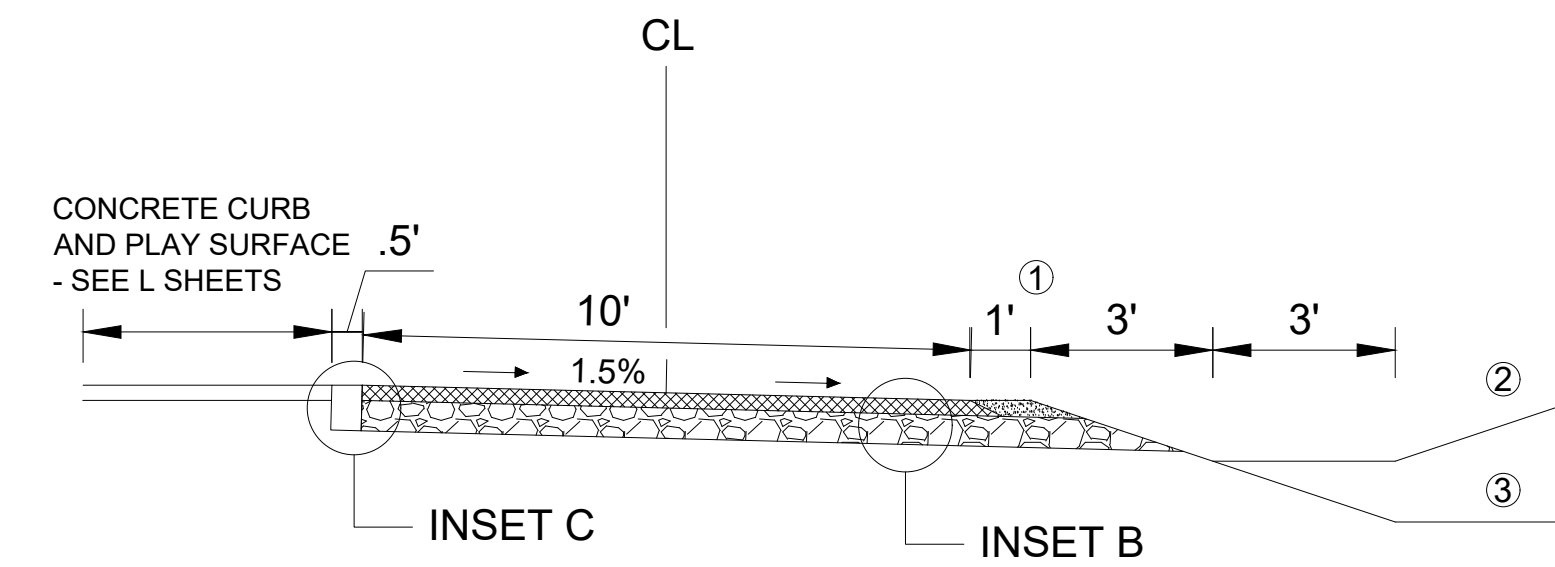
3" MNDOT SPEC 2360 SPWEA240C BITUMINOUS PAVEMENT
 6" CL. 5 AGGREGATE BASE
 12" SCARIFY, DRY, AND RE-COMPACT SUBGRADE MATERIAL FOLLOWING REVIEW BY OWNER.

GENERAL NOTES:

1. BITUMINOUS SHALL BE PLACED IN ONE LIFT.
2. CLASS 5 AGGREGATE BASE SHALL CONFORM TO MNDOT SPEC 3138.
3. SUBGRADE SHALL BE TEST ROLLED PRIOR TO AGGREGATE BASE INSTALLATION AND CONFORM TO MNDOT SPEC 2111.
4. SEE CT SHEETS FOR TRAIL PLAN AND PROFILE.
5. SEE L SHEETS FOR TOPSOIL REQUIREMENTS AND PLANTING/SEEDING PLAN FOR VEGETATED AREAS.

**MINNEHAHA CREEK GREENWAY TRAIL
 TYPICAL SECTION
 NOT TO SCALE**

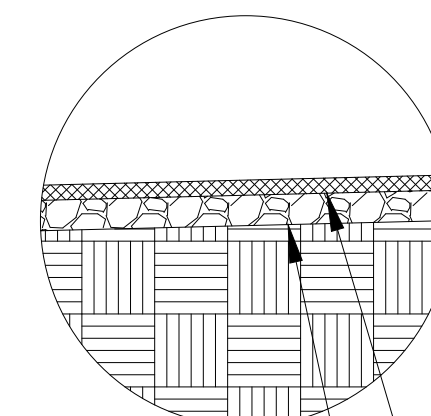
3
 CT103



KEY NOTES:

- ① 1' WIDE VEGETATED SHOULDER
- ② STA 11+21.80 TO STA 12+08.00 - 3' WIDE VEGETATED SWALE WITH 3:1 (H:V) SIDE SLOPES.
- ③ STA 12+08.00 TO STA 12+89.88 - 3:1 (H:V) SIDE SLOPE DOWN TO RAIN GARDEN, SEE CIVIL DETAILS FOR SECTION.

INSET B



3" MNDOT SPEC 2360 SPWEA240C BITUMINOUS PAVEMENT
 6" CL. 5 AGGREGATE BASE
 12" SCARIFY, DRY, AND RE-COMPACT SUBGRADE MATERIAL FOLLOWING REVIEW BY OWNER.

GENERAL NOTES:

1. BITUMINOUS SHALL BE PLACED IN ONE LIFT.
2. CLASS 5 AGGREGATE BASE SHALL CONFORM TO MNDOT SPEC 3138.
3. SUBGRADE SHALL BE TEST ROLLED PRIOR TO AGGREGATE BASE INSTALLATION AND CONFORM TO MNDOT SPEC 2111.
4. SEE CT SHEETS FOR TRAIL PLAN AND PROFILE.
5. SEE L SHEETS FOR TOPSOIL REQUIREMENTS AND PLANTING/SEEDING PLAN FOR VEGETATED AREAS.

**NATURE BASED PLAY TRAIL
 TYPICAL SECTION
 NOT TO SCALE**

4
 CT103



**MINNEHAHA CREEK
 WATERSHED DISTRICT**



ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
0	03/13/2022	60% DRAFT FOR CLIENT REVIEW

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
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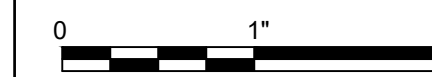
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ANDREW F. JUDD, PE
 DATE XX/XX/XXXX LICENSE # 47301

**325 BLAKE RD REGIONAL STORMWATER
 AND GREENWAY**

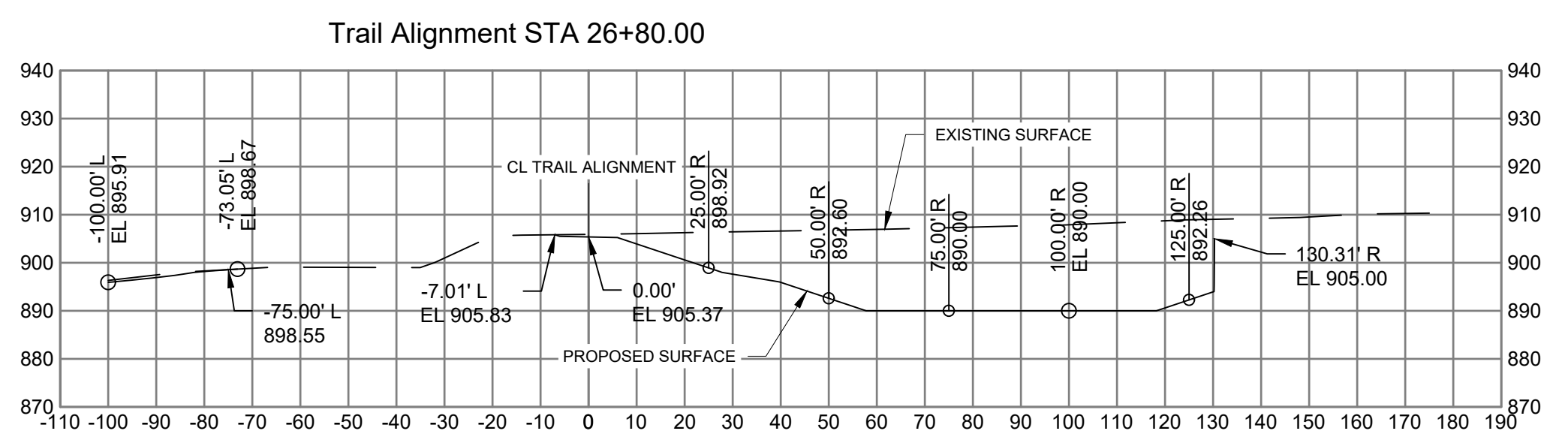
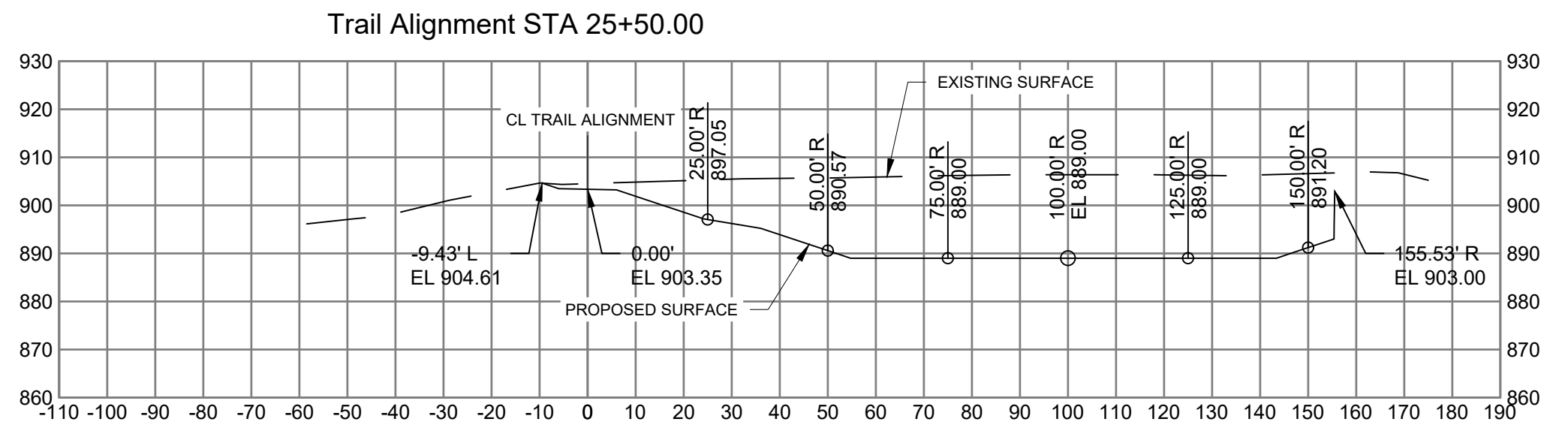
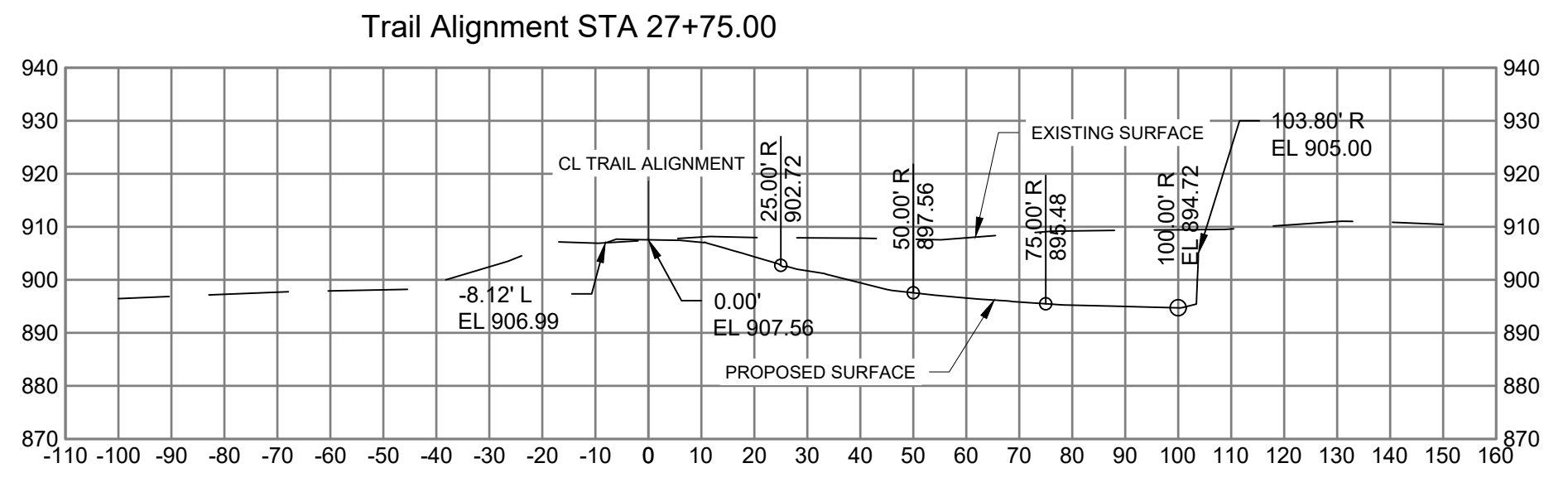
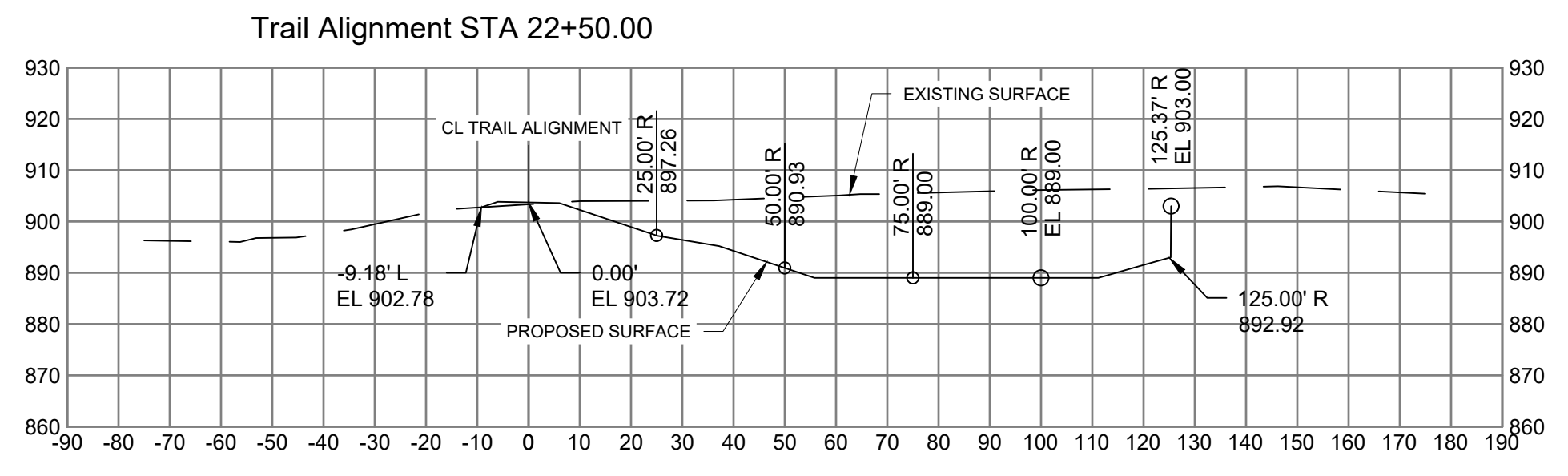
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

**TYPICAL SECTIONS
 TRAIL**

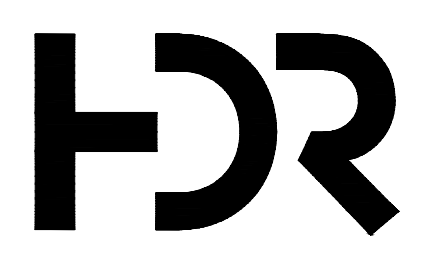


FILENAME CG202.DWG
 SCALE 1" = 10'

SHEET
CG202



D
C
B
A



MINNEHAHA CREEK
WATERSHED DISTRICT

ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

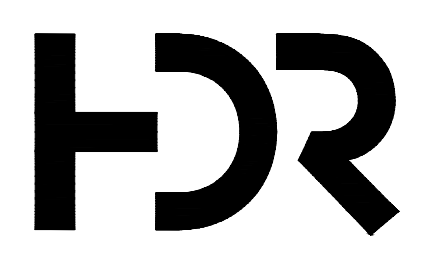
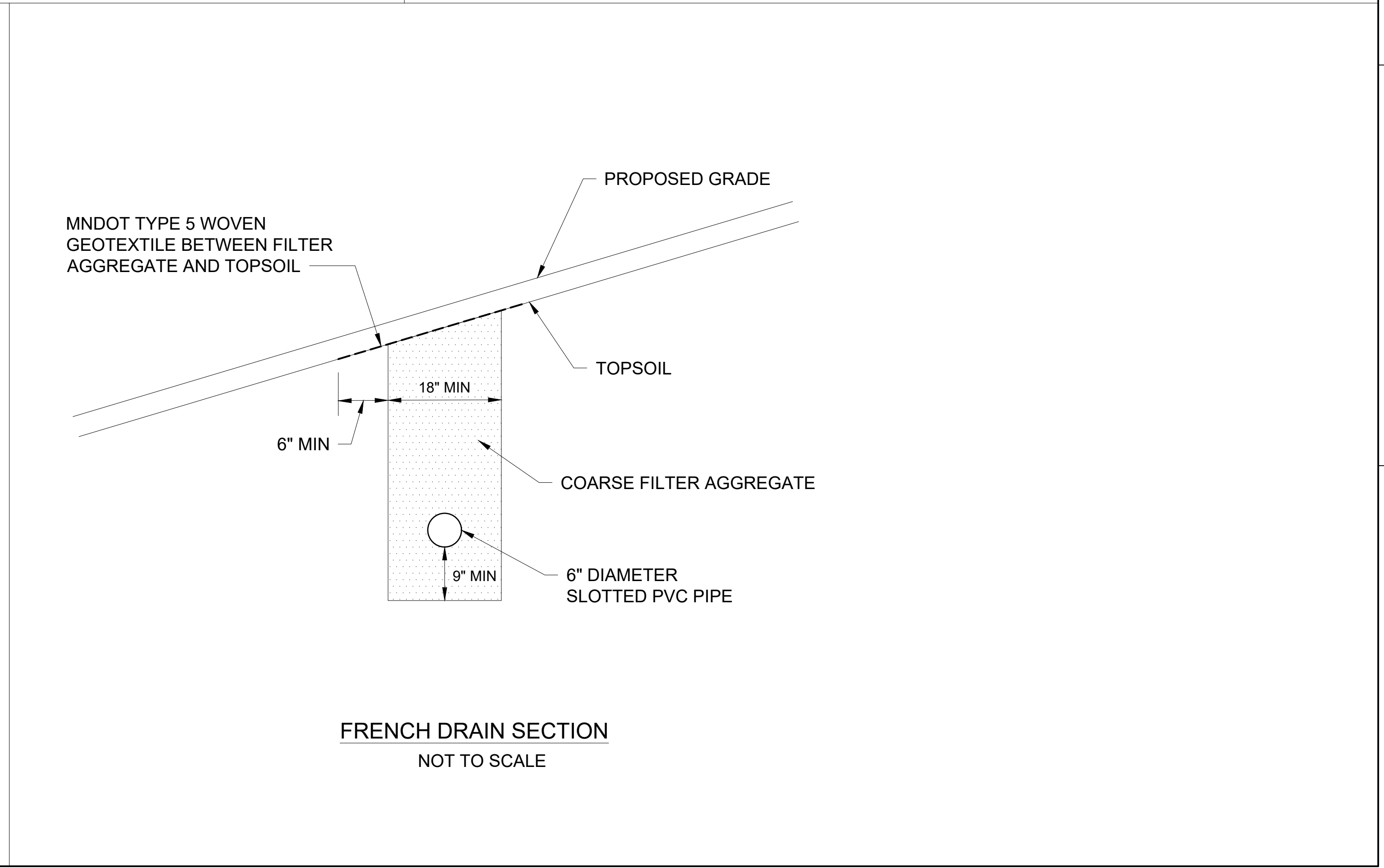
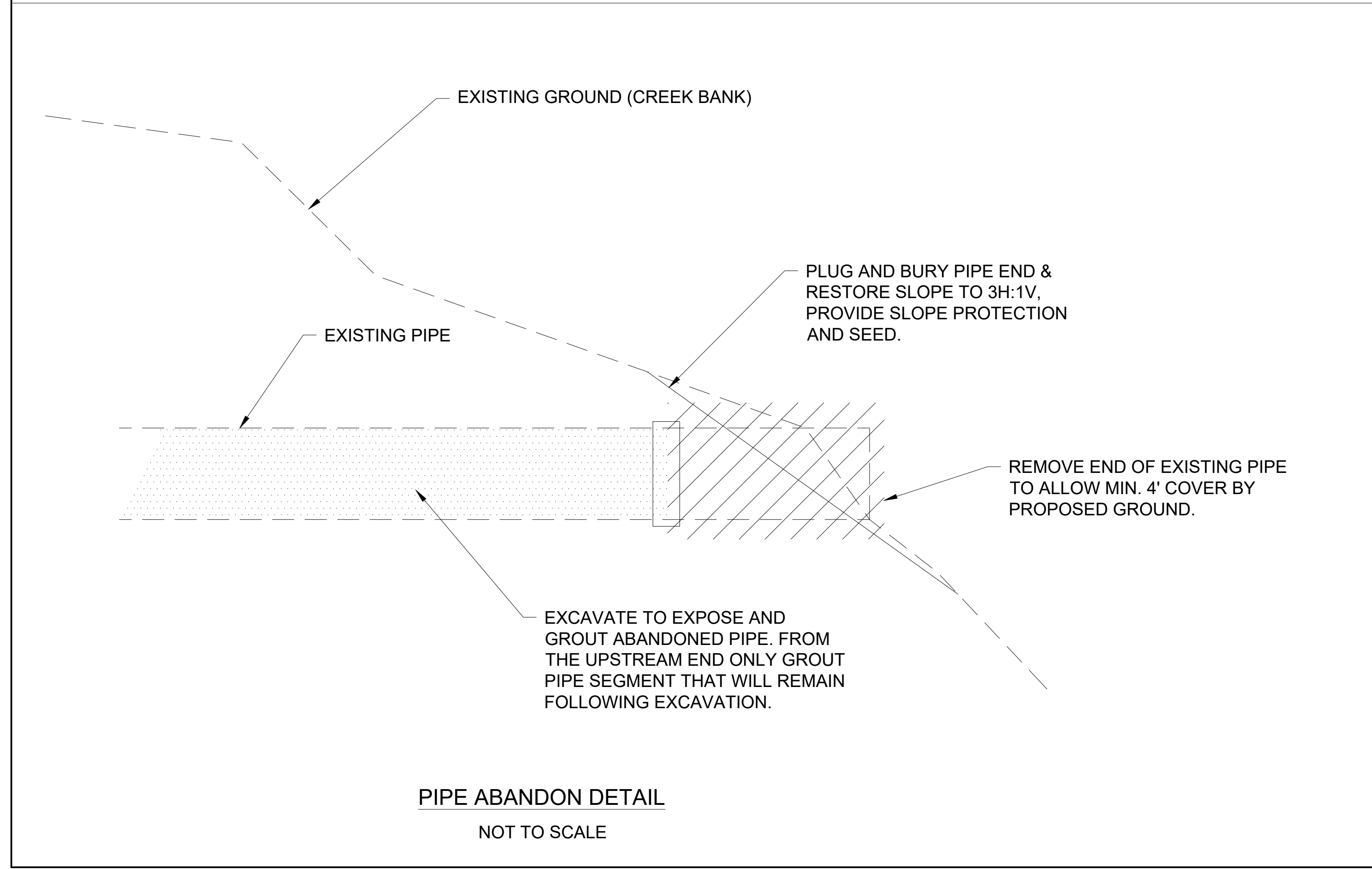
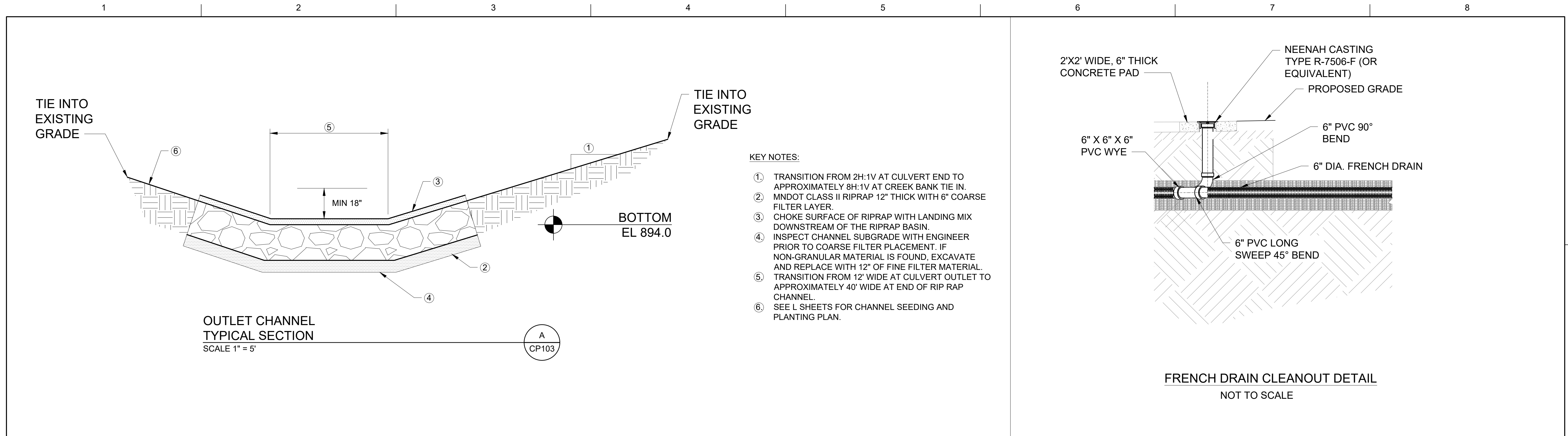
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

CROSS SECTIONS



FILENAME CG103.DWG
SCALE 1" = 30'

SHEET
CG301



ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

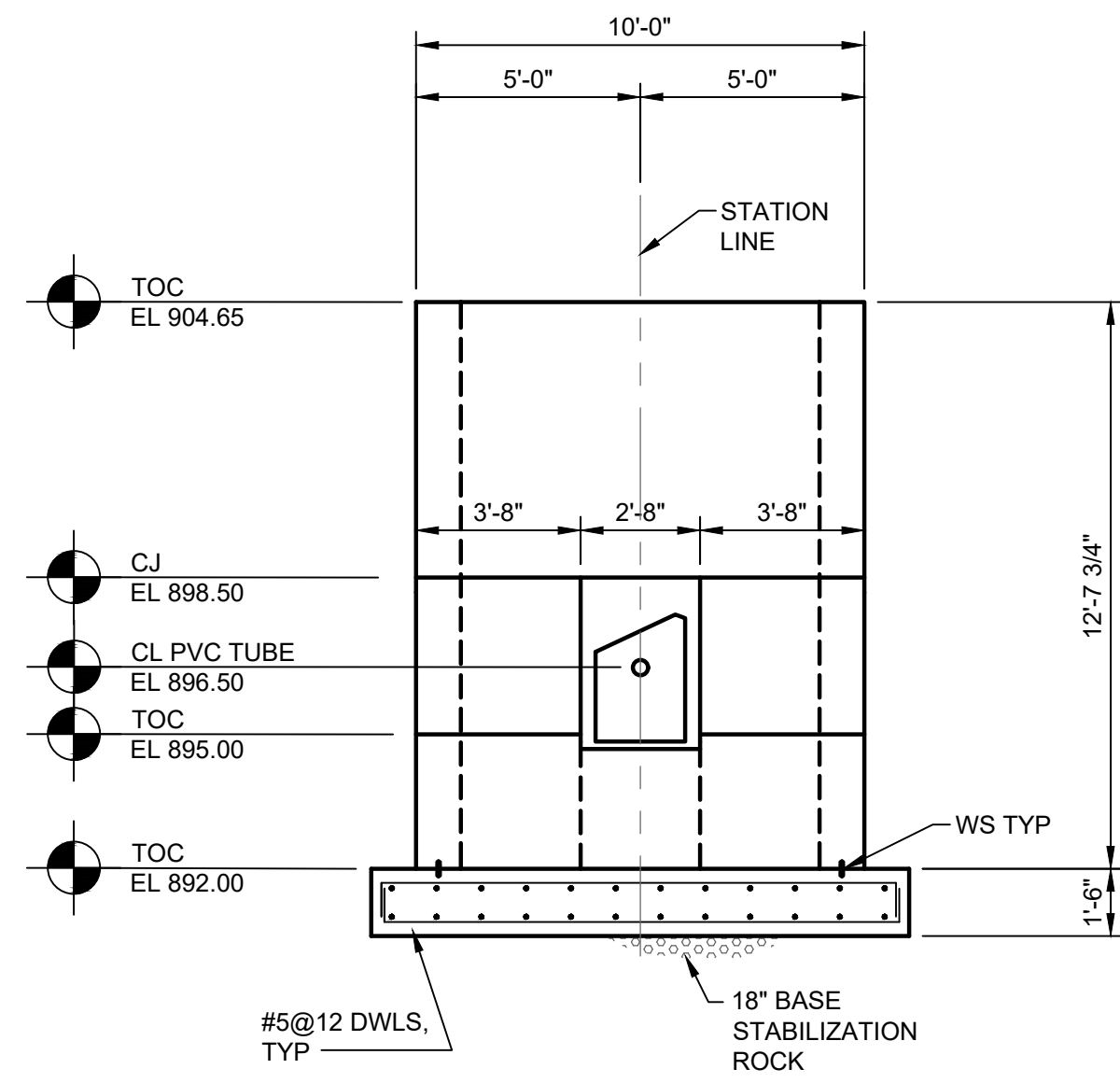
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

CIVIL DETAILS

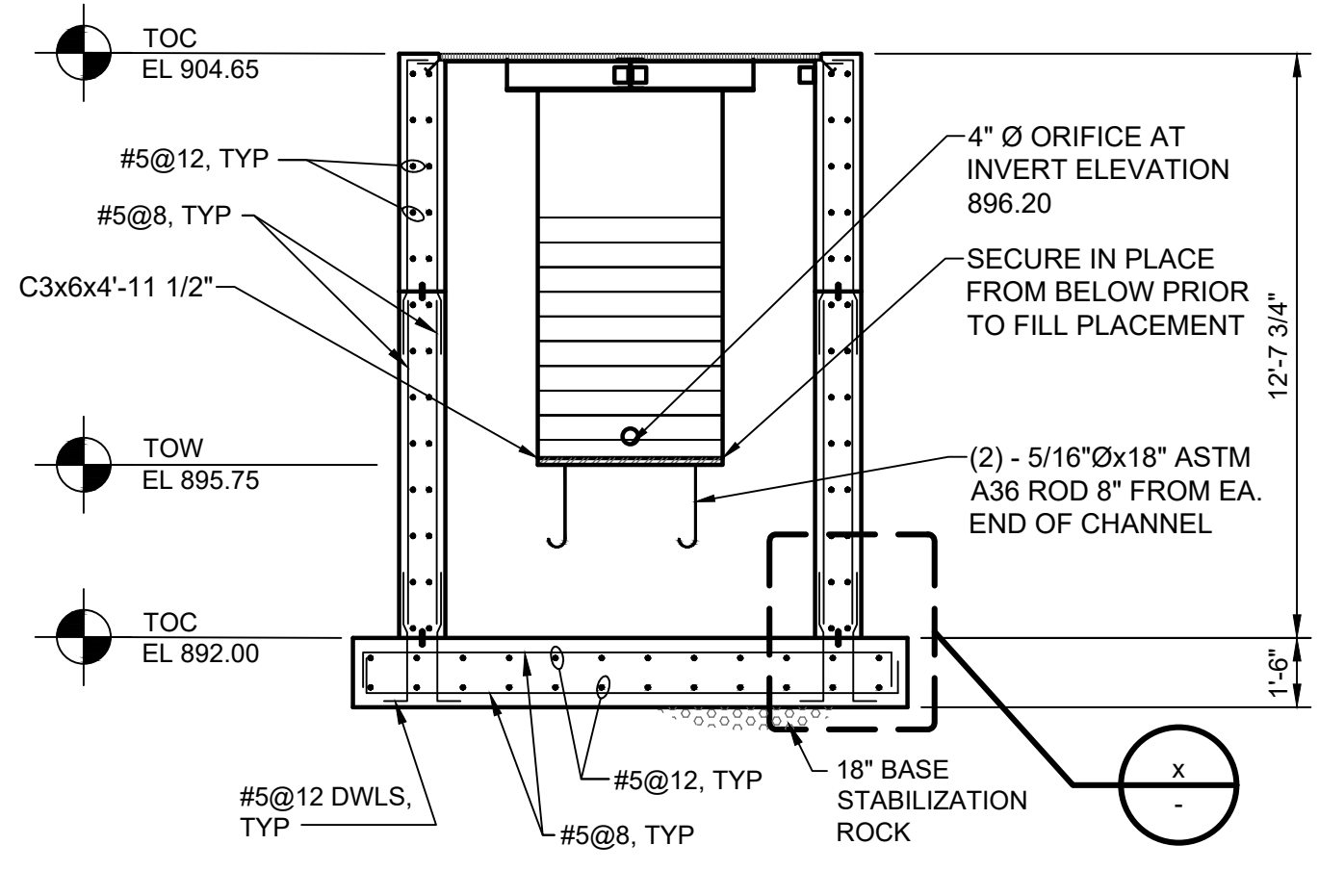
0 1" 2"

FILENAME CG501.DWG
SCALE NA

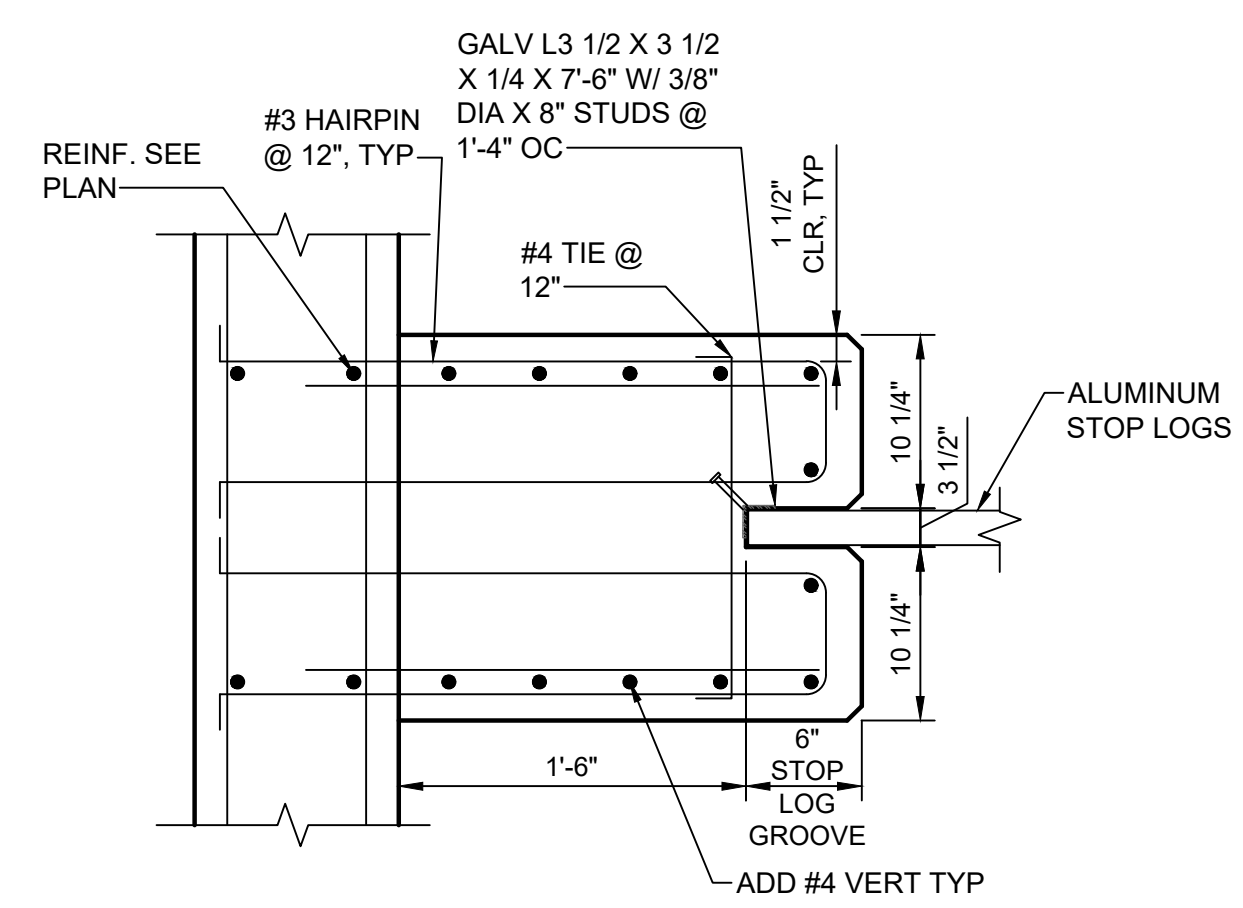
SHEET
CG501



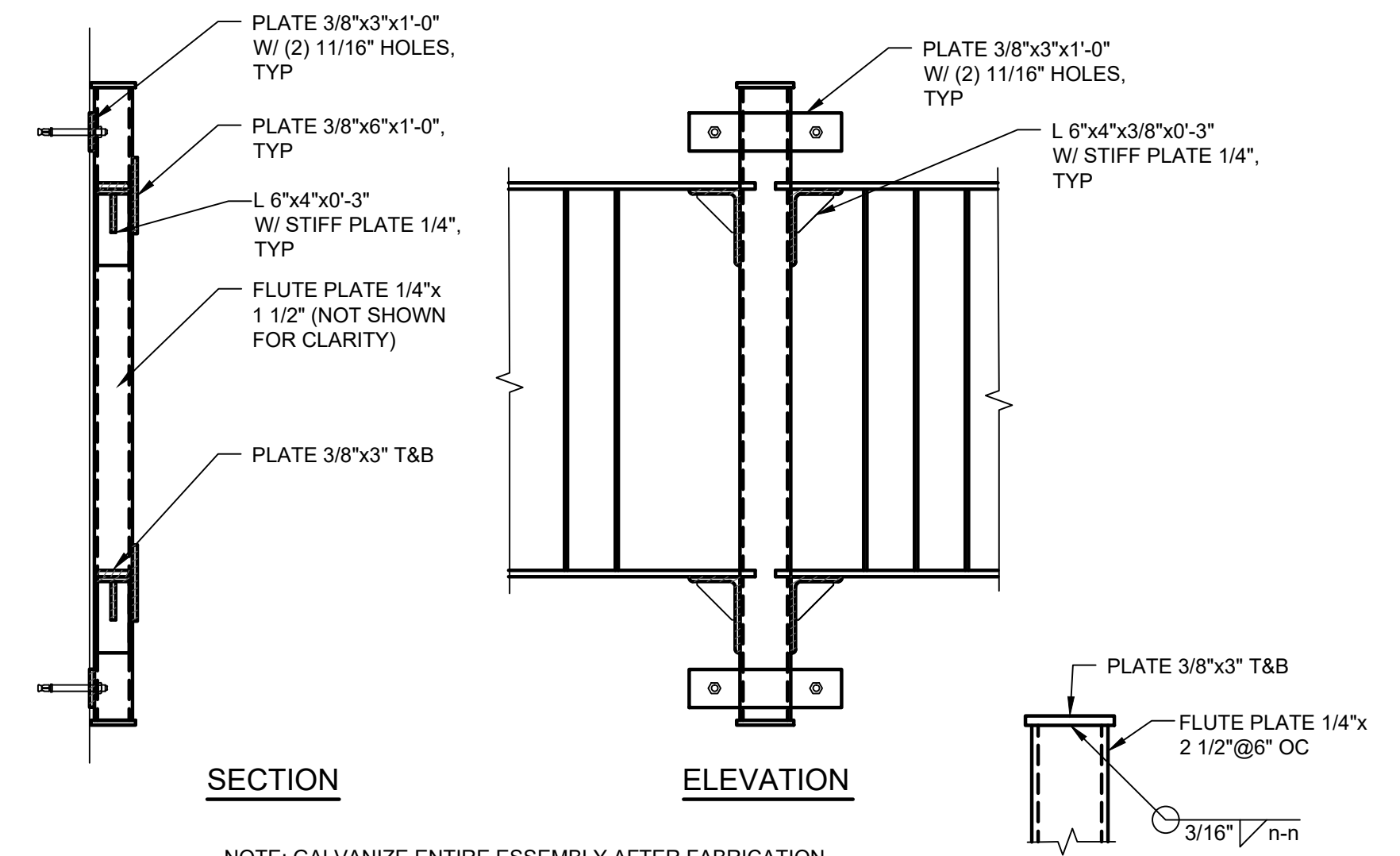
A SECTION
SA100 SCALE: 1/4" = 1'-0"



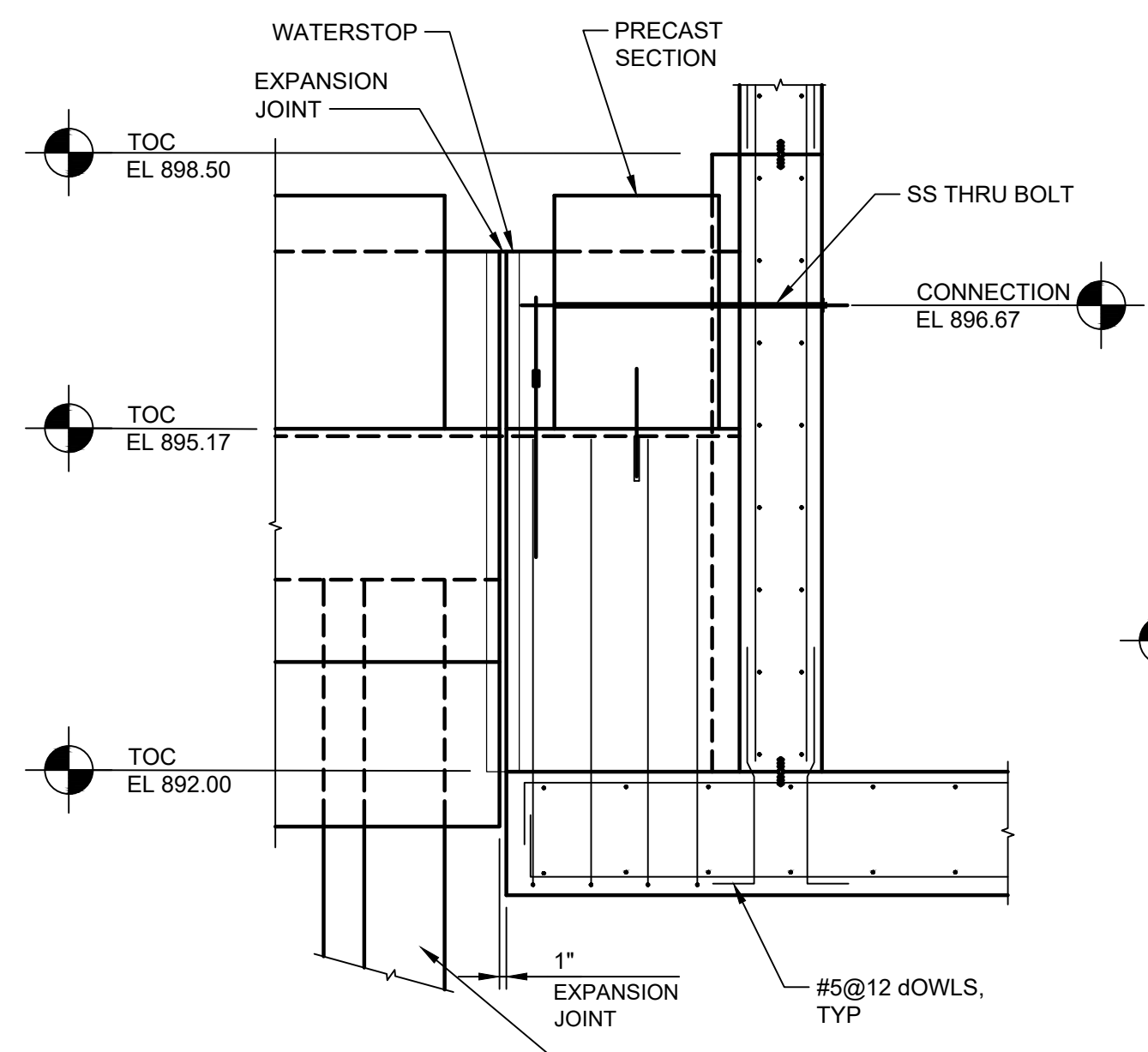
B SECTION
SA100 SCALE: 1/4" = 1'-0"



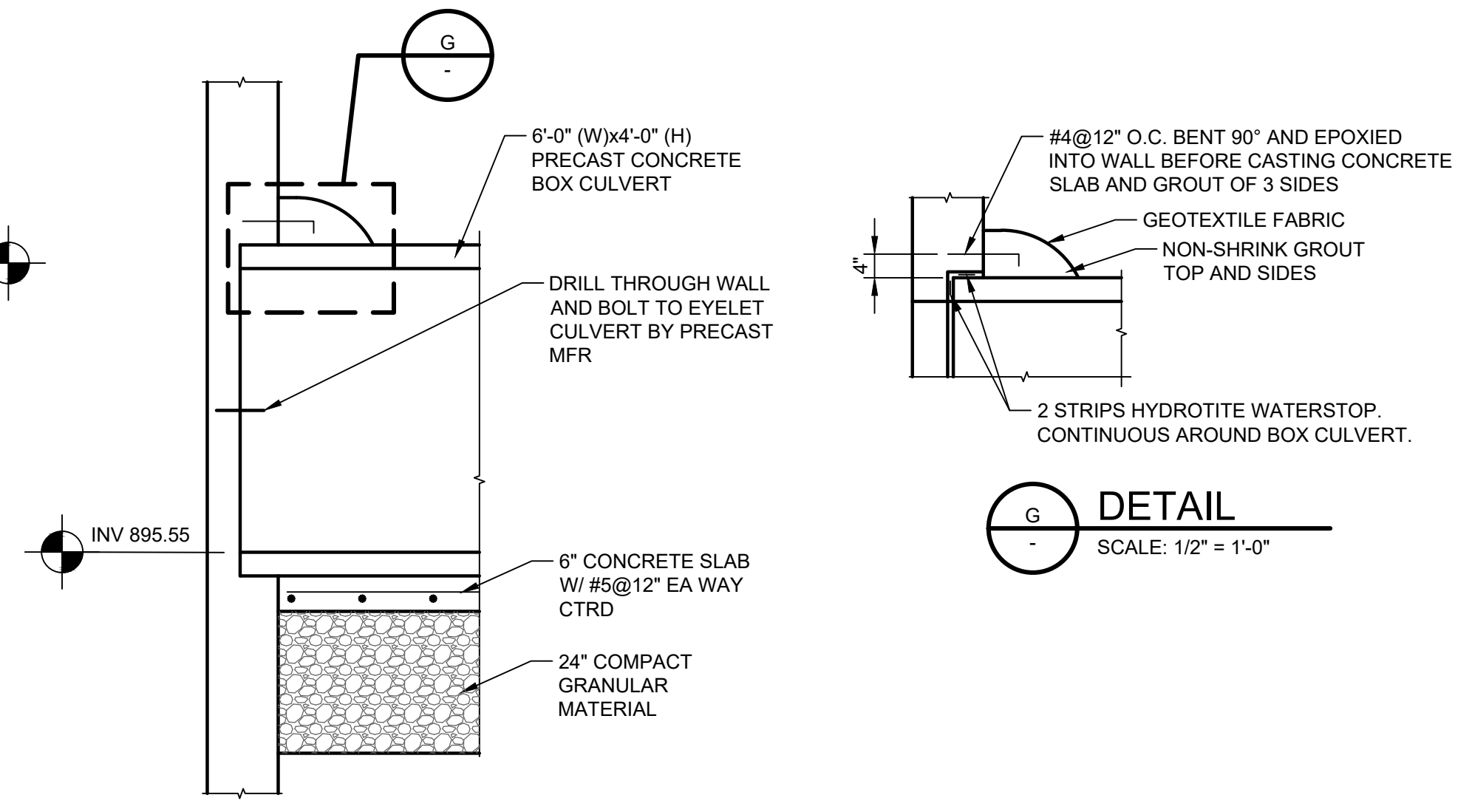
C STOP LOG DETAIL
SA100 NOT TO SCALE



D SECTION
SA100 SCALE: 1" = 1'-0"

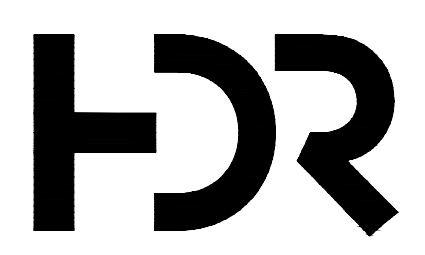


E SECTION
SA100 SCALE: 1/2" = 1'-0"



F DETAIL
SA100 SCALE: 1/2" = 1'-0"

G DETAIL
SCALE: 1/2" = 1'-0"



MINNEHAHA CREEK
WATERSHED DISTRICT

ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

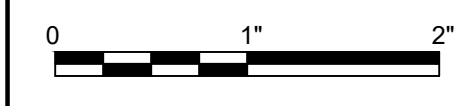
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
90% DRAFT
SUBMITTAL FOR CLIENT REVIEW

DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

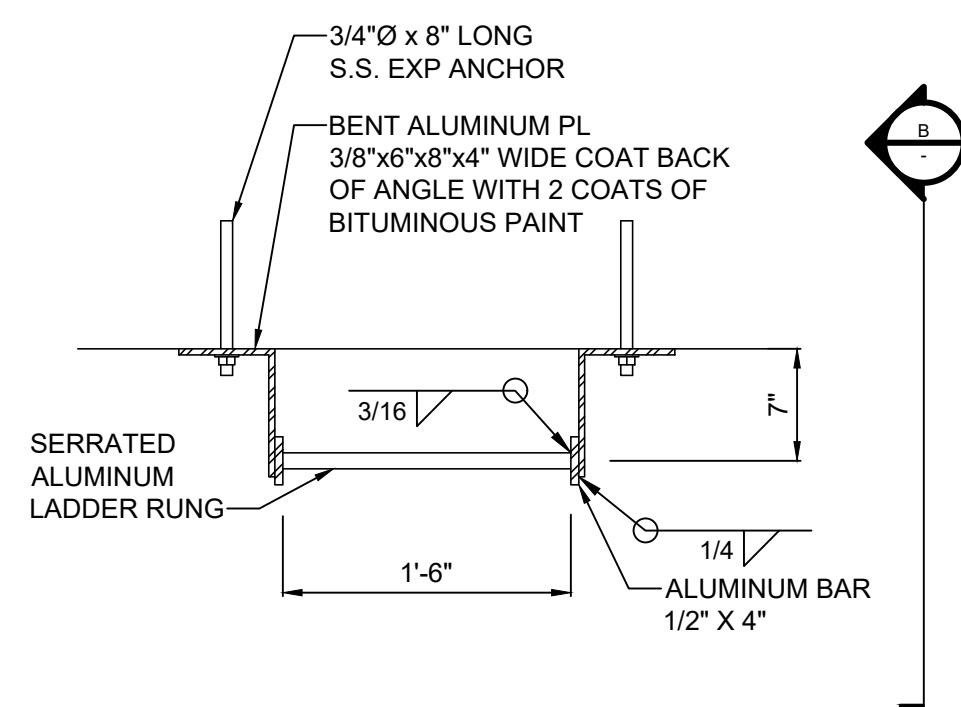
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

OUTLET STRUCTURE SECTIONS AND DETAILS

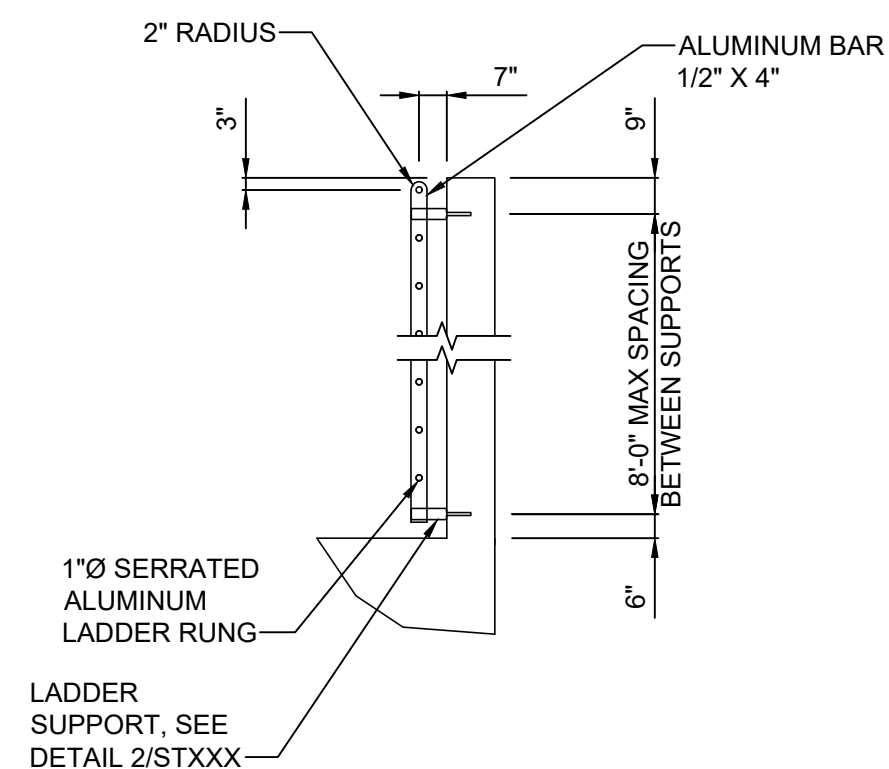


FILENAME SA301.DWG
SCALE AS NOTED

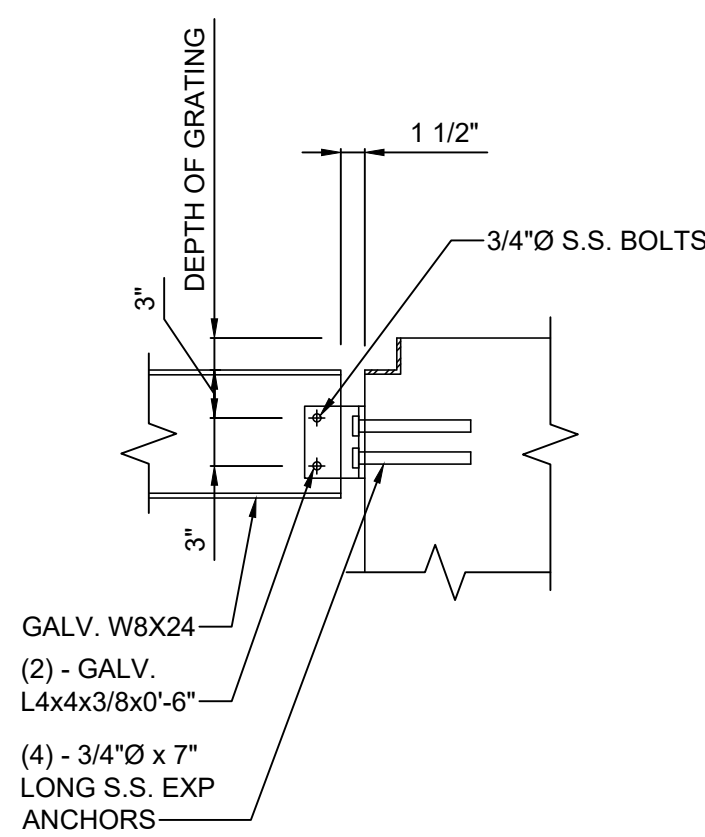
SHEET
SA301



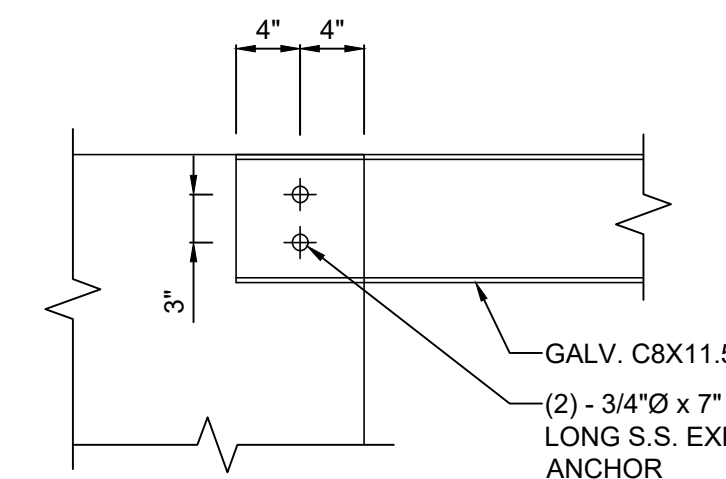
LADDER SUPPORT DETAIL
1" = 1'-0" SA100



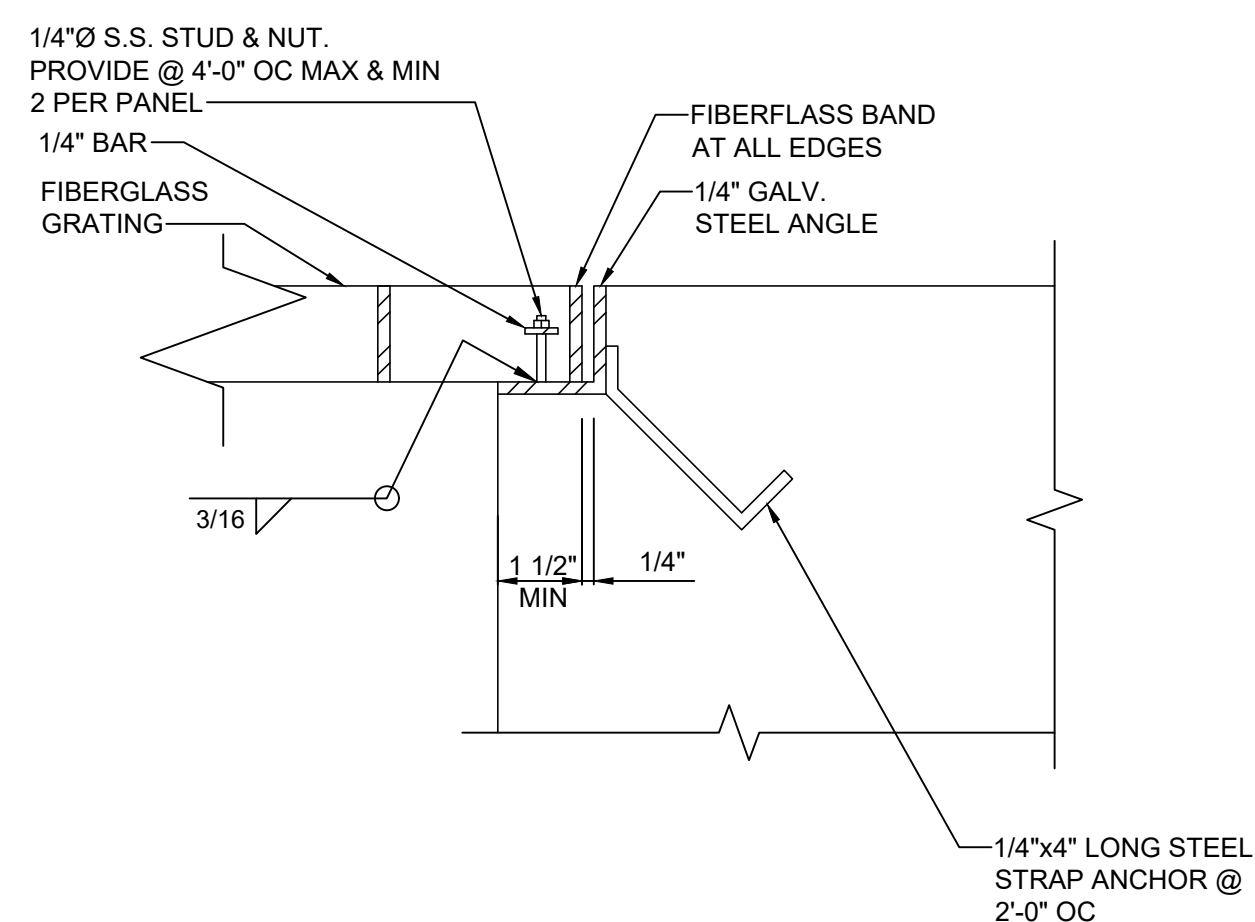
LADDER DETAIL
1/4" = 1'-0" SA100



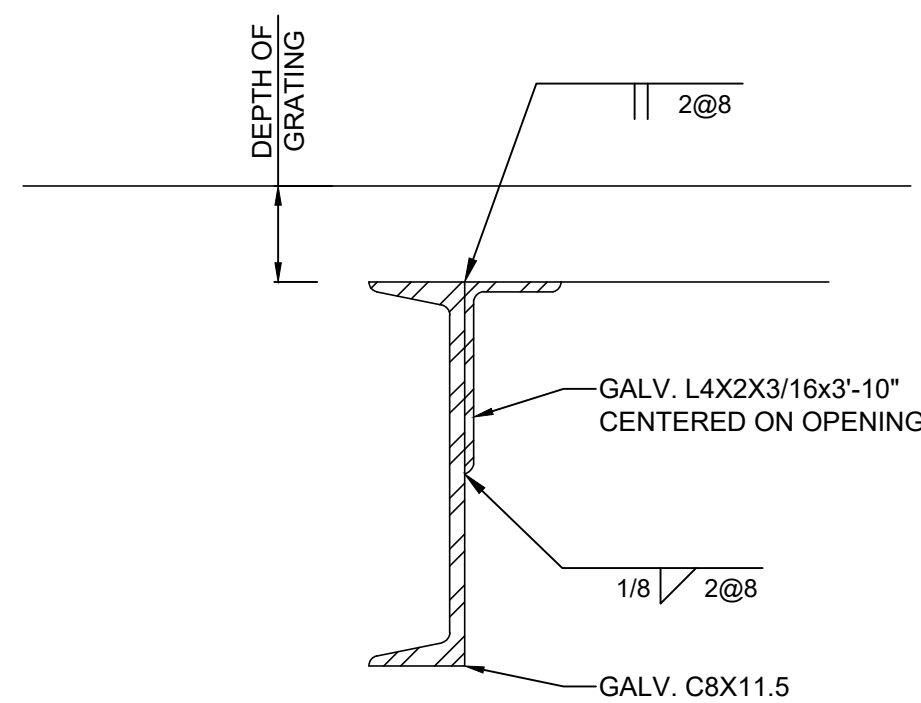
GRATING SUPPORT DETAIL
1" = 1'-0" SA100



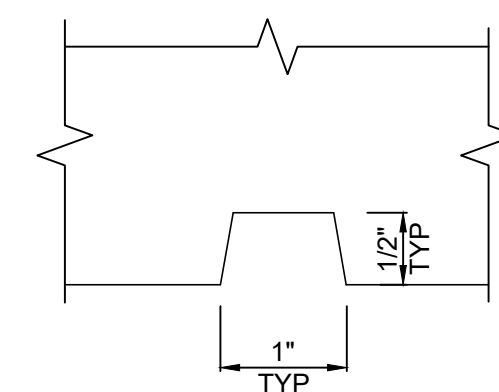
GRATING SUPPORT DETAIL
1" = 1'-0" SA100



GRATING EDGE DETAIL
3" = 1'-0" SA100



SECTION
3" = 1'-0" SA100

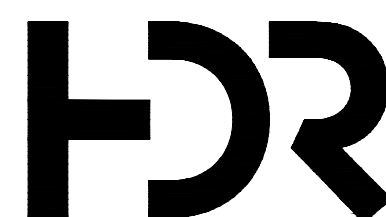


EXTERIOR REVEAL DETAIL
6" = 1'-0" SA100

NOTE:
1. HOT DIP ENTIRE ASSEMBLY AFTER FABRICATION.



MINNEHAHA CREEK
WATERSHED DISTRICT



ISSUE	DATE	DESCRIPTION
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PROJECT MANAGER: ANDREW F. JUDD

PROJECT NUMBER	10268112
----------------	----------

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DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

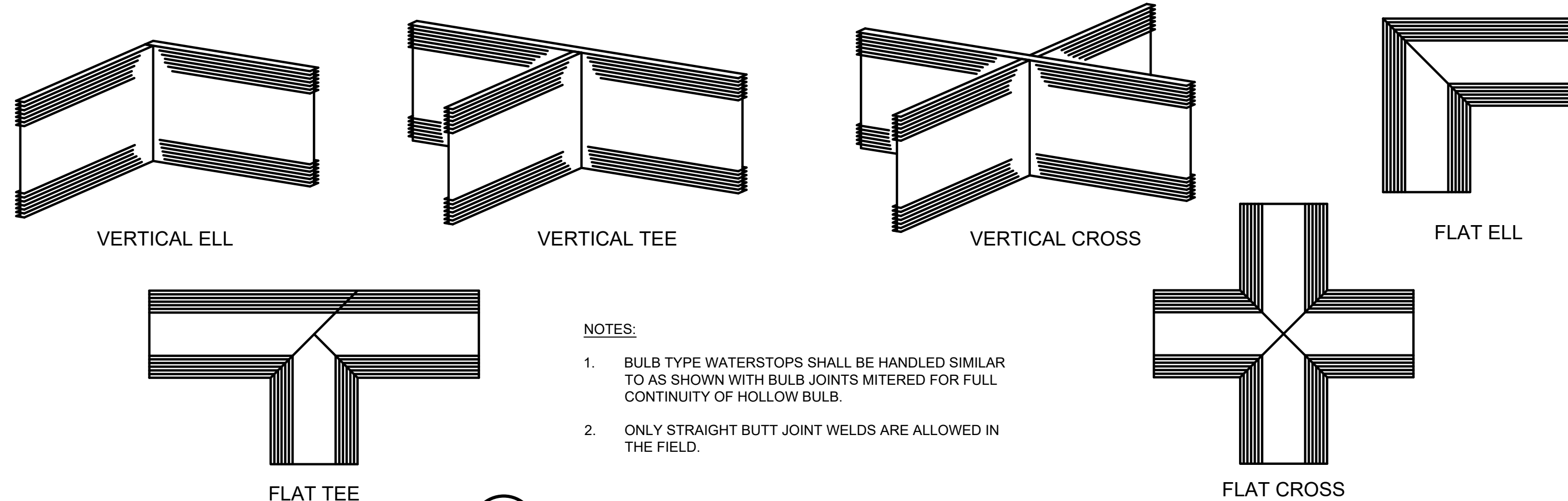
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

OUTLET STRUCTURE DETAILS



FILENAME SA501.DWG
SCALE AS NOTED

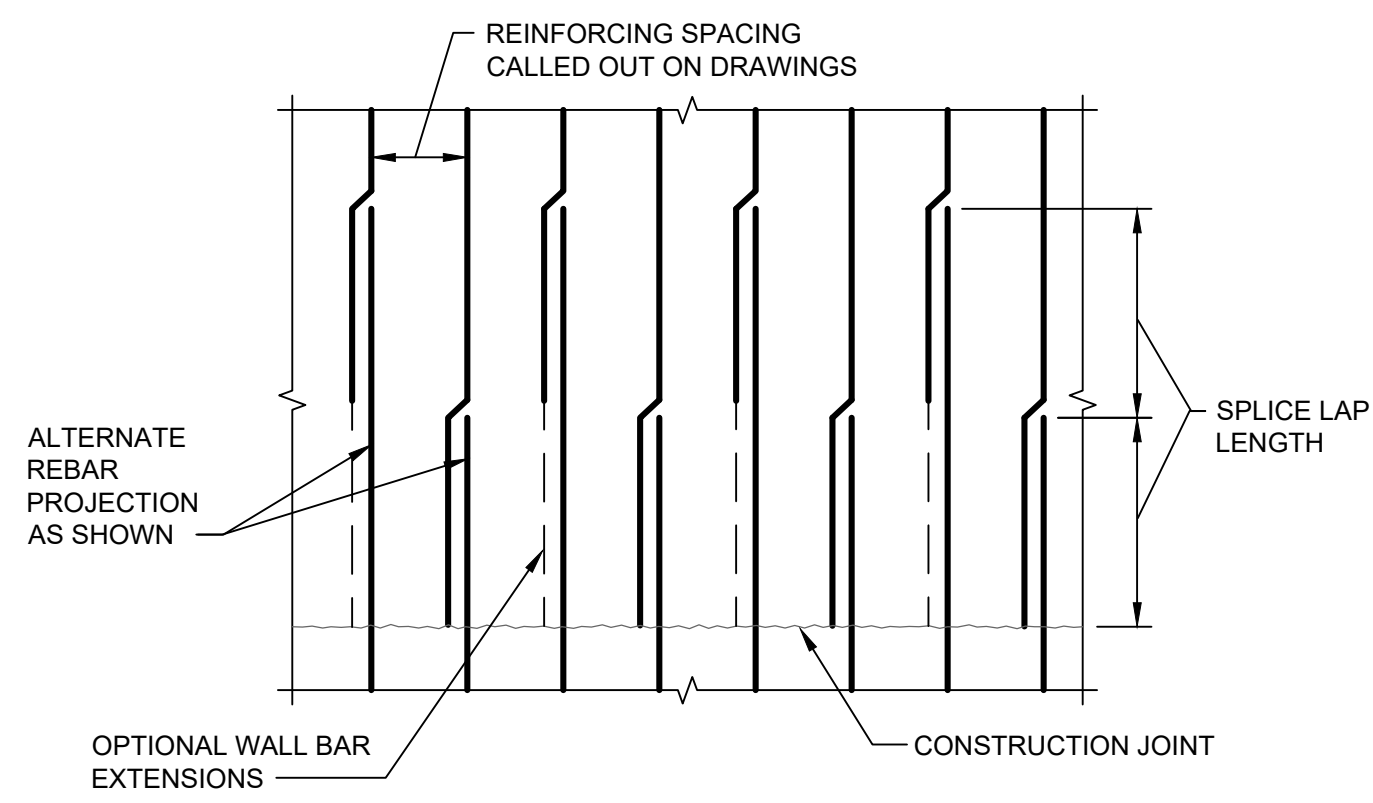
SHEET
SA501



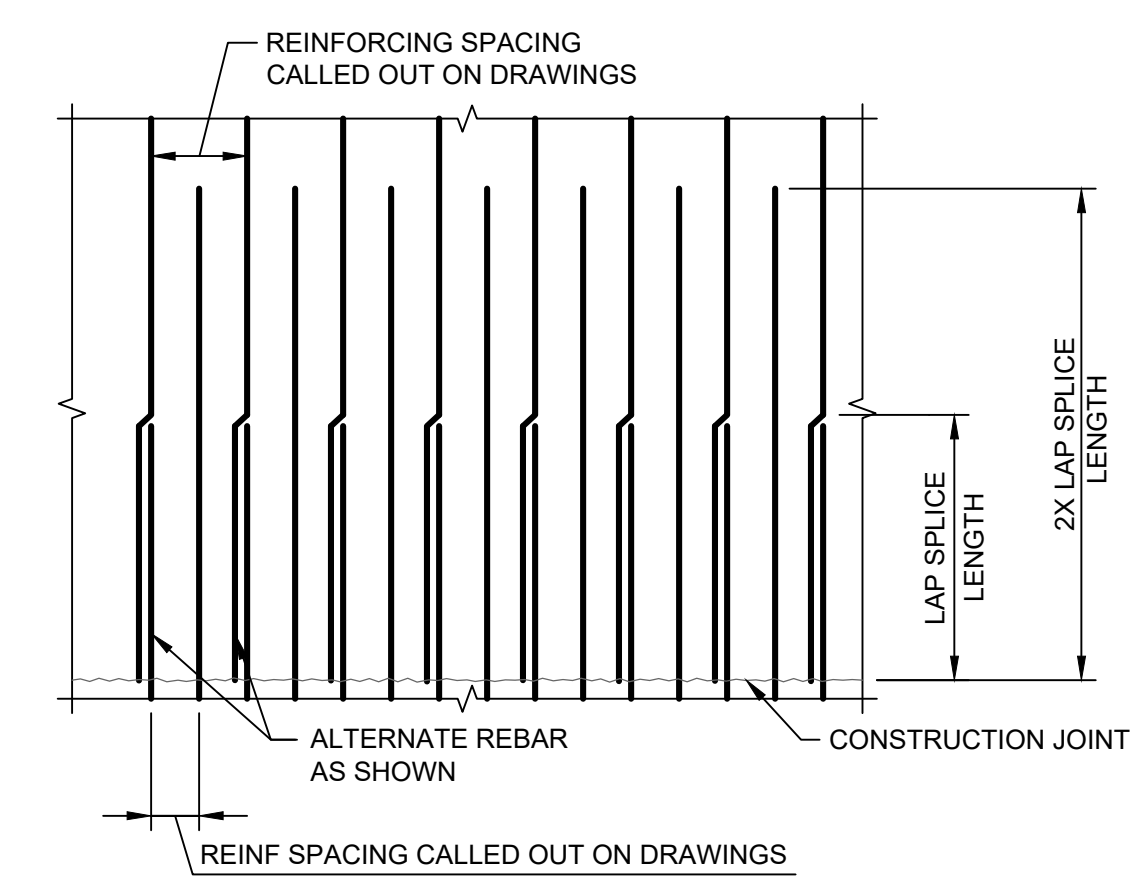
NOTES:

1. BULB TYPE WATERSTOPS SHALL BE HANDLED SIMILAR TO AS SHOWN WITH BULB JOINTS MITERED FOR FULL CONTINUITY OF HOLLOW BULB.
2. ONLY STRAIGHT BUTT JOINT WELDS ARE ALLOWED IN THE FIELD.

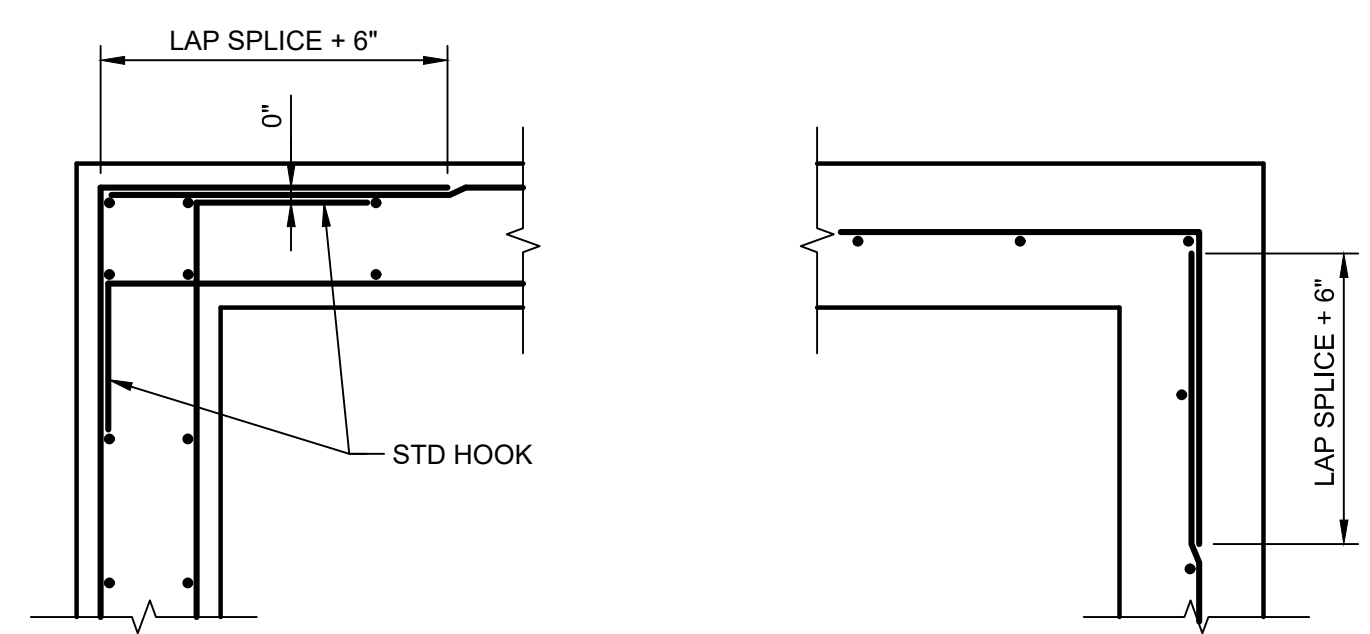
1 SHOP FABRICATED WATERSTOP
SA100 NOT TO SCALE



2 STAGGERED REINFORCING AT CONSTRUCTION JOINT
SA100 NOT TO SCALE



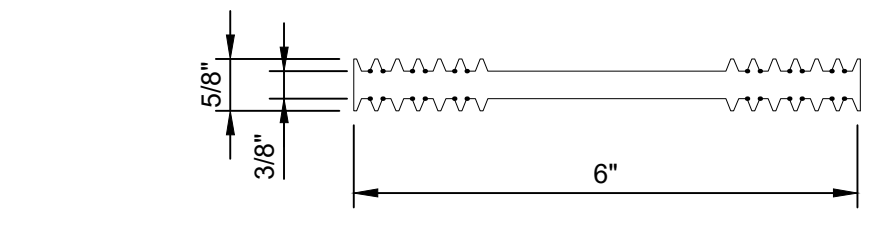
3 WALL VERTICAL REINFORCING AT CONSTRUCTION JOINT
SA100 NOT TO SCALE



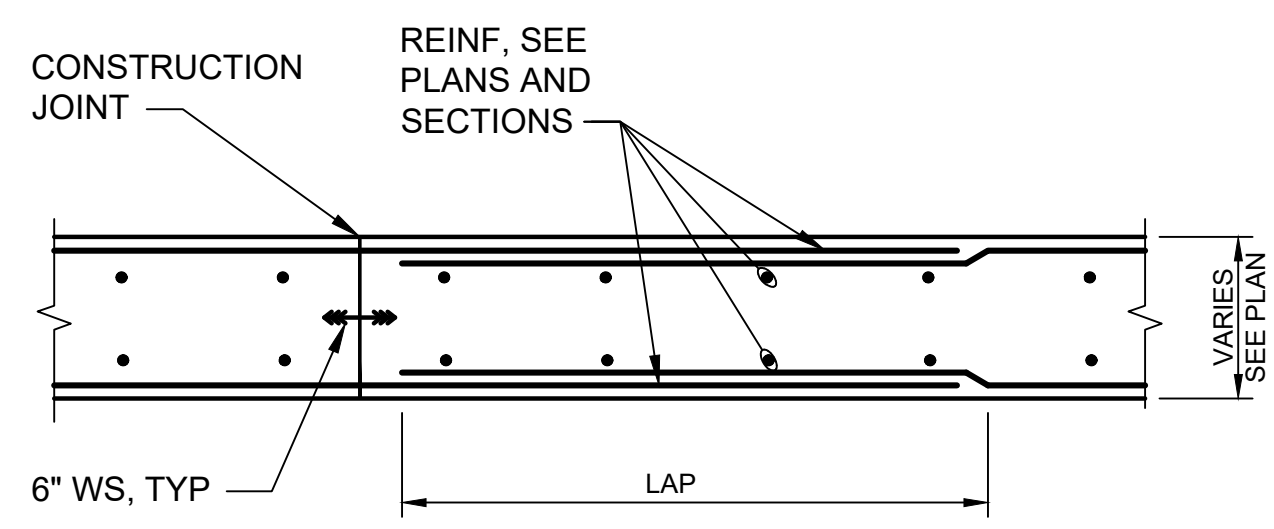
NOTES:

1. ALL HOOKS SHALL BE STD 90 DEGREE HOOKS.
2. SEE ADJACENT DETAIL FOR ADDITIONAL HORIZONTAL BARS. STAGGER BETWEEN TYPICAL REINF SPACING, EXTEND TO 1/5 OF DISTANCE TO NEAREST ADJACENT WALL IN EACH DIRECTION, UNO.
3. OPTIONAL LAP LOCATION. APPLIES TO BOTH DOUBLE AND SINGLE LAYER CONDITIONS TYP.

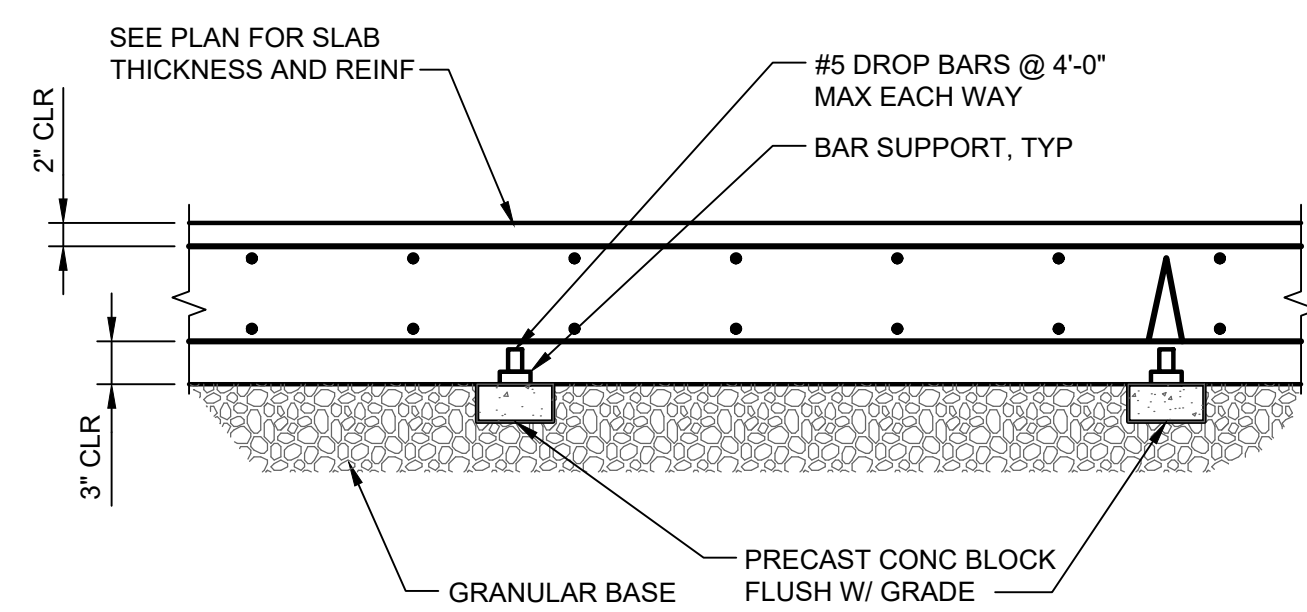
4 WALL REINFORCEMENT AT CORNERS
SA100 NOT TO SCALE



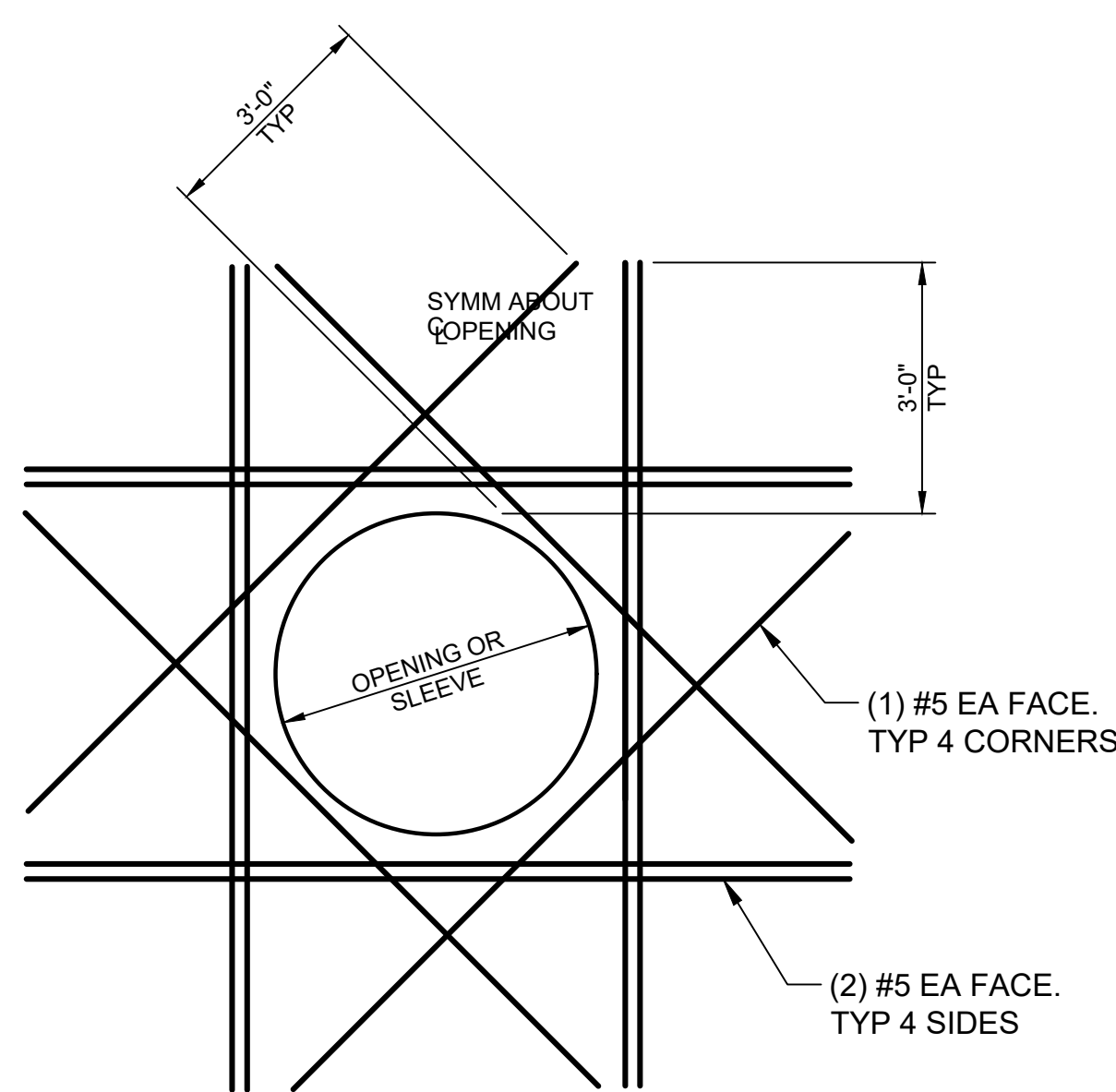
5 TYPICAL WATERSTOP DETAIL
SA100 NOT TO SCALE (OUTLET STRUCTURE)



6 CONSTRUCTION JOINT DETAIL
SA100 NOT TO SCALE



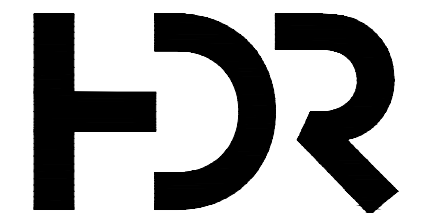
7 REINFORCING SUPPORT DETAIL
SA100 NOT TO SCALE



8 REINFORCING AROUND OPENINGS
SA100 NOT TO SCALE



MINNEHAHA CREEK WATERSHED DISTRICT



ISSUE	DATE	DESCRIPTION
2	09/09/2022	90% DESIGN
4	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

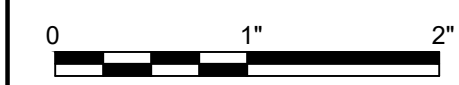
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
90% DRAFT
SUBMITTAL FOR CLIENT REVIEW

DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

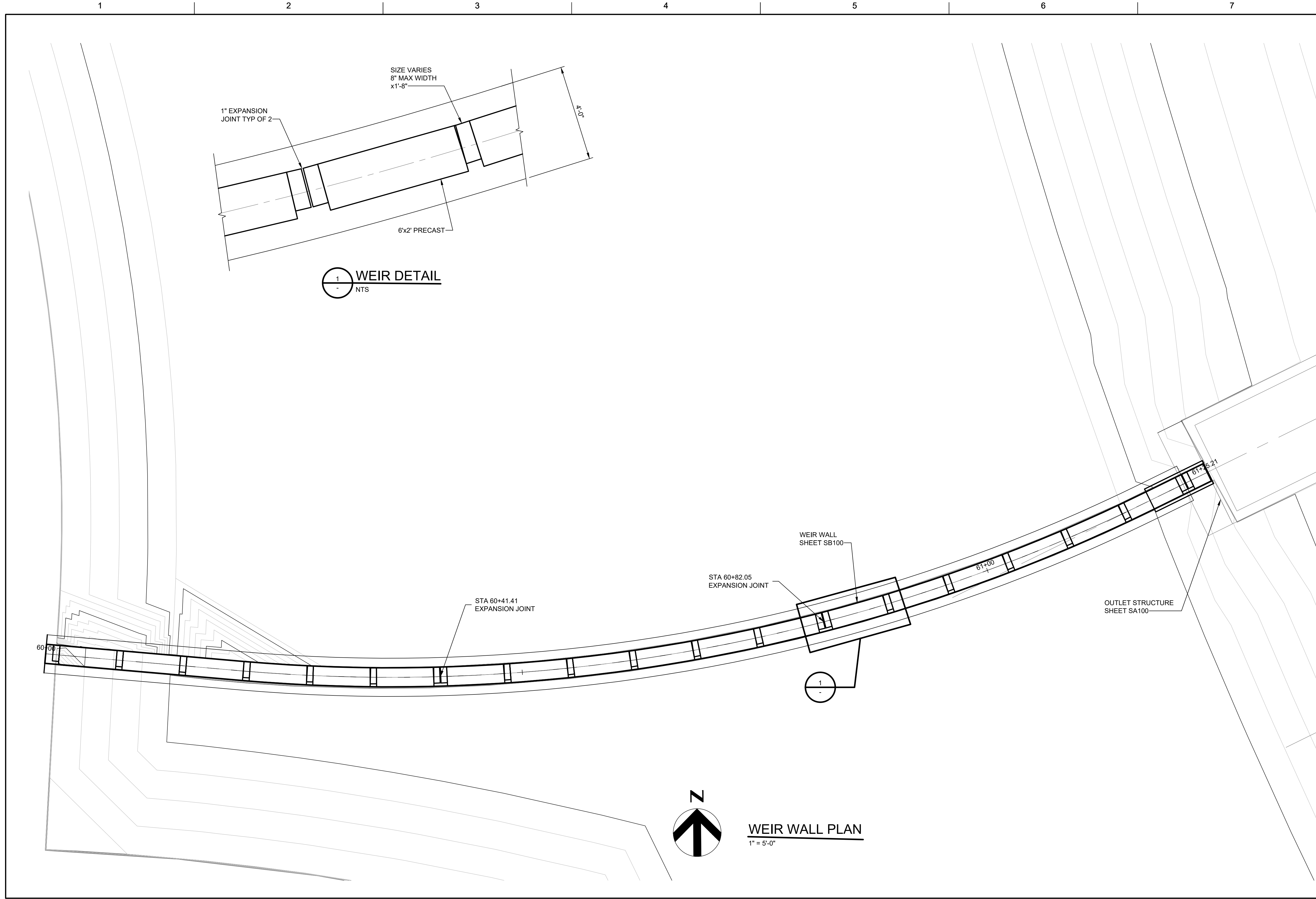
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

OUTLET STRUCTURE DETAILS

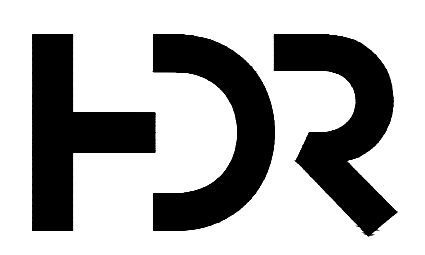


FILENAME SA502.DWG
SCALE AS NOTED

SHEET SA502



- GENERAL NOTES**
1. DRAWINGS SHALL NOT BE SCALED.
 2. CONTRACTOR SHALL VERIFY WEIR WALL LOCATION, INCLUDING STATIONING, WITH CIVIL DRAWINGS.
 3. THE SHEET PILE ESTIMATED TIP ELEVATIONS IS 832.00. IF DRIVING REFUSAL IS ENCOUNTERED ABOVE THIS ELEVATION, THE SHEET PILES CAN BE STOPPED AS LONG AS THEY DRIVEN AT LEAST 5 FEET INTO THE BEDROCK.
 4. THE SHEET PILES SHALL HAVE A MINIMUM SECTION MODULUS OF 30.2 IN³ PER LINEAL FOOT OF SHEET PILE.
 5. FOR ALL INTERLOCKS, SHEET PILES SHALL BE SEALED USING A PRODUCT THAT IS DESIGNED TO REDUCE SEEPAGE AND IS HYDROPHILIC.
 6. PROVIDE CONCRETE CONSTRUCTION JOINT DETAIL S AS SHOWN.



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PROJECT NUMBER	10268112

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 90% DRAFT
 SUBMITTAL FOR CLIENT REVIEW

JEROME W. MULVIHILL, PE
 DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

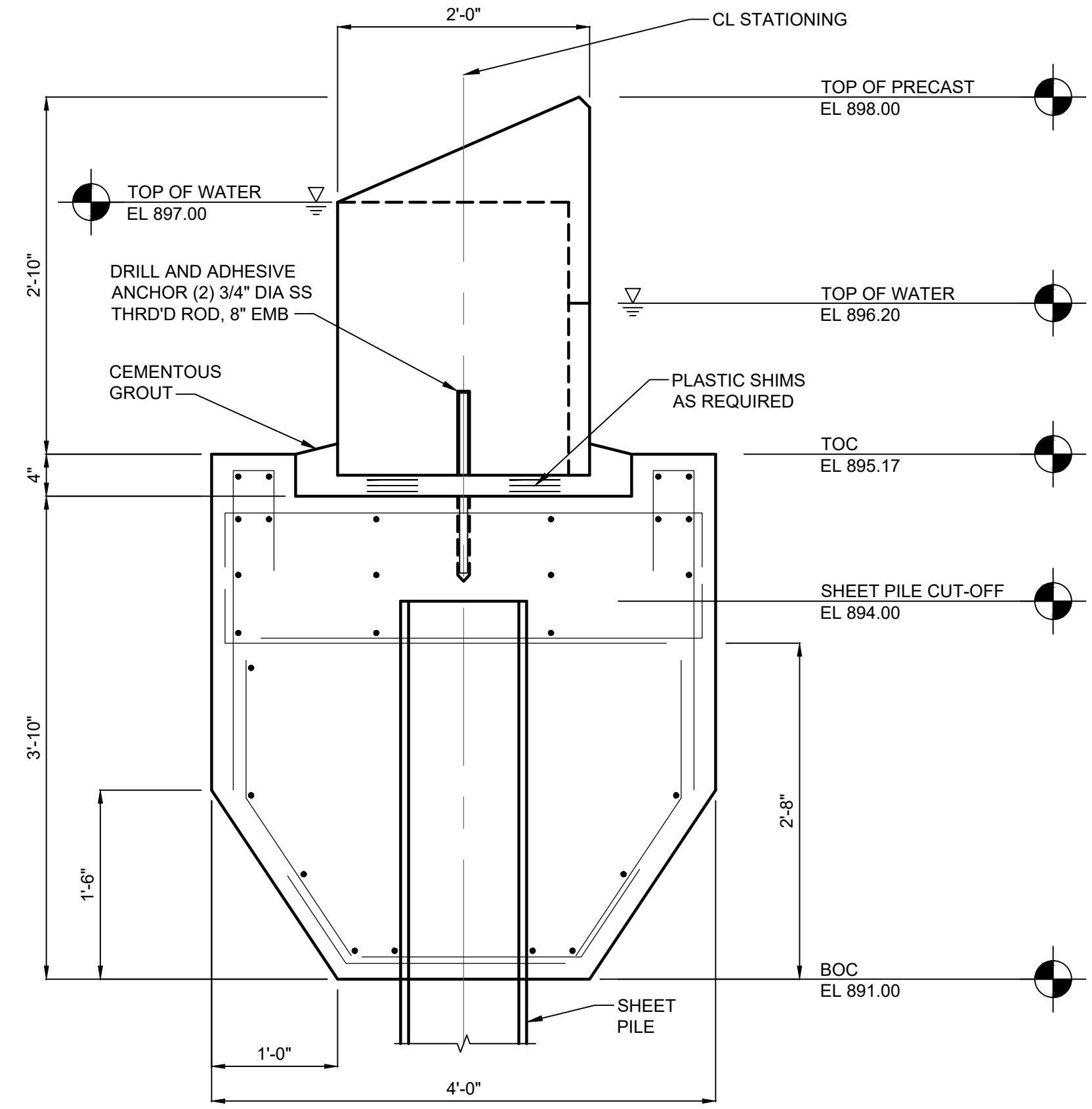
WEIR WALL PLAN

1" = 5'-0"

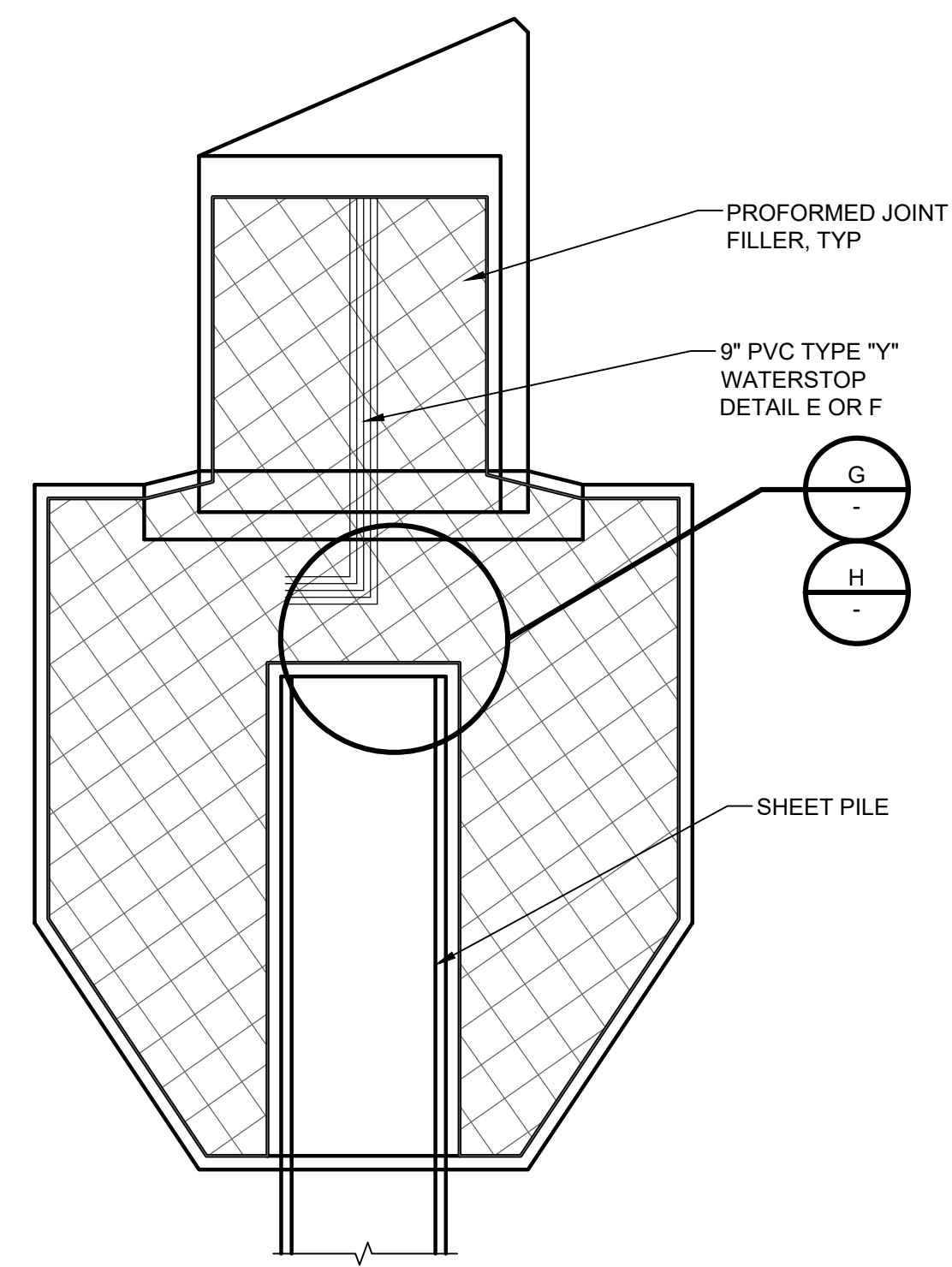
0 1" 2"

FILENAME | SB100.DWG
 SCALE | 1" = 5'

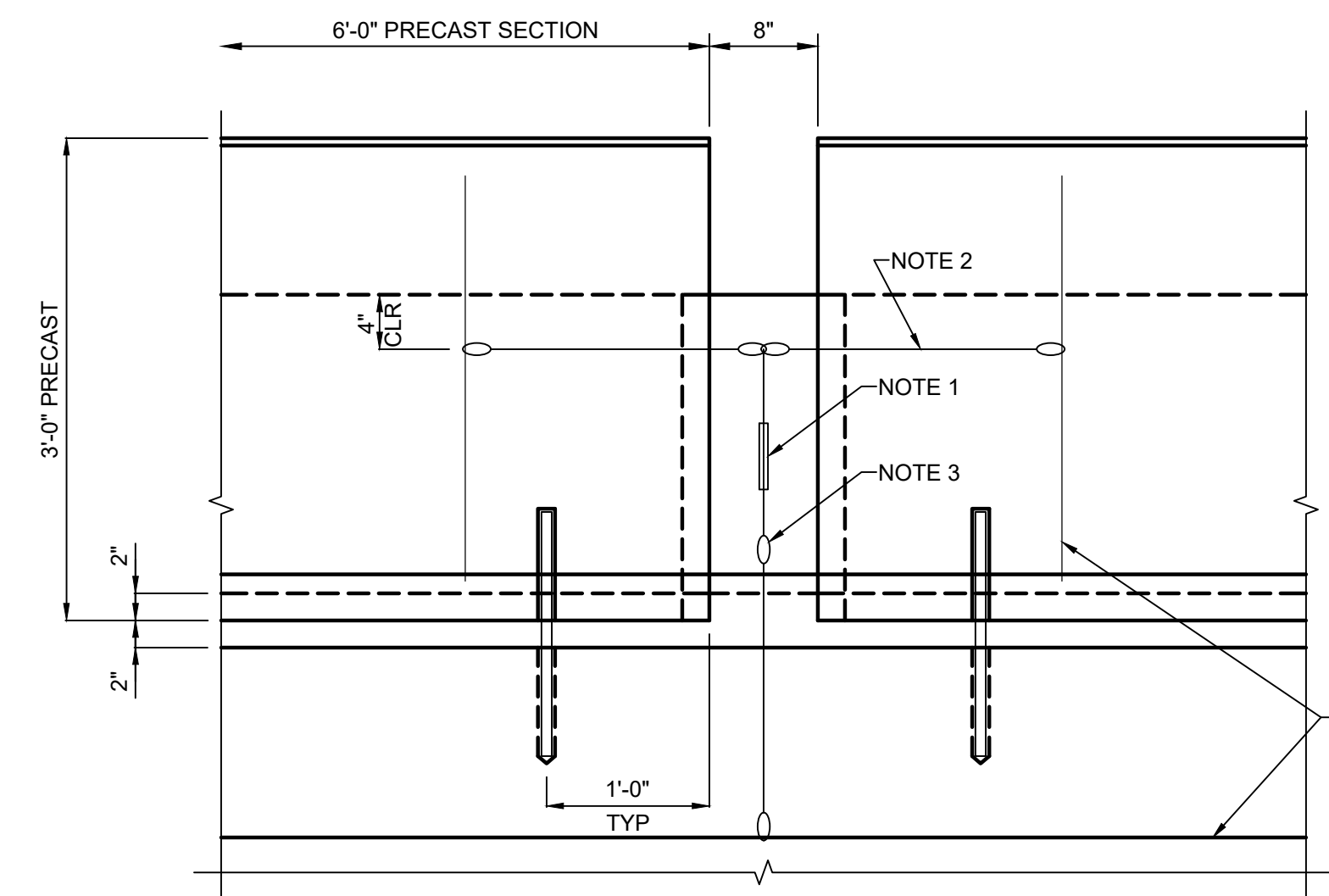
SHEET
SB100



A WEIR SECTION
SB100 SCALE: 1" = 1'-0"

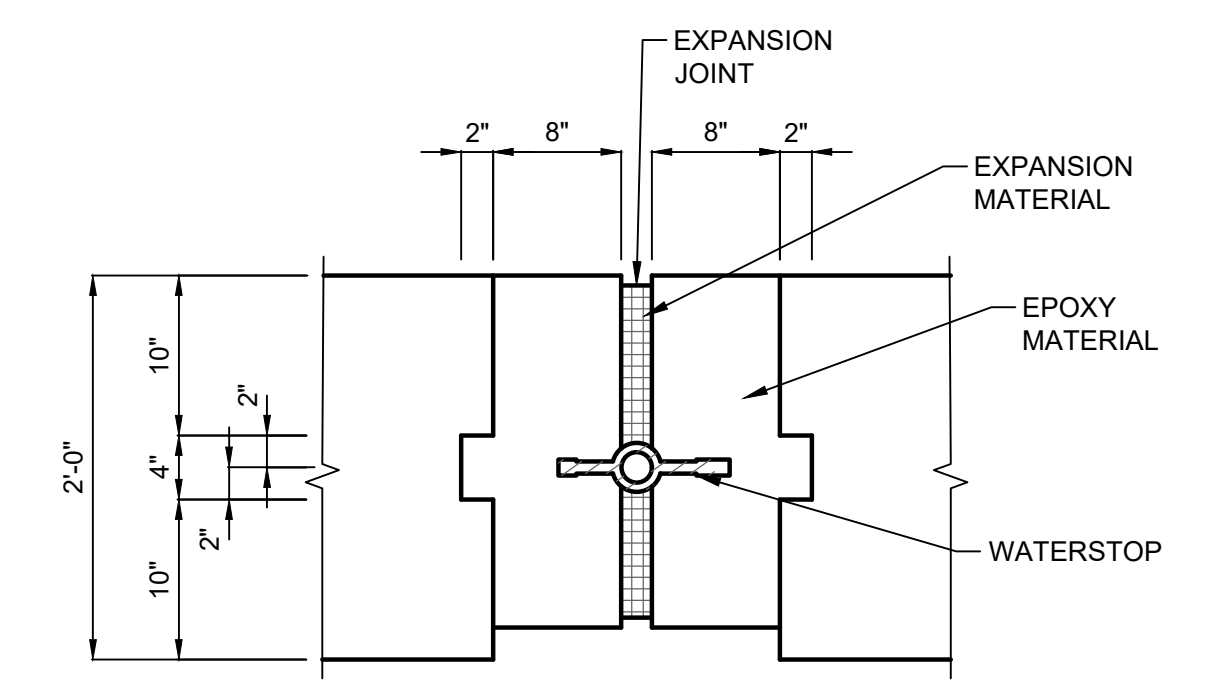


B TYPICAL EXPANSION JOINT
SB100 SCALE: 1" = 1'-0"

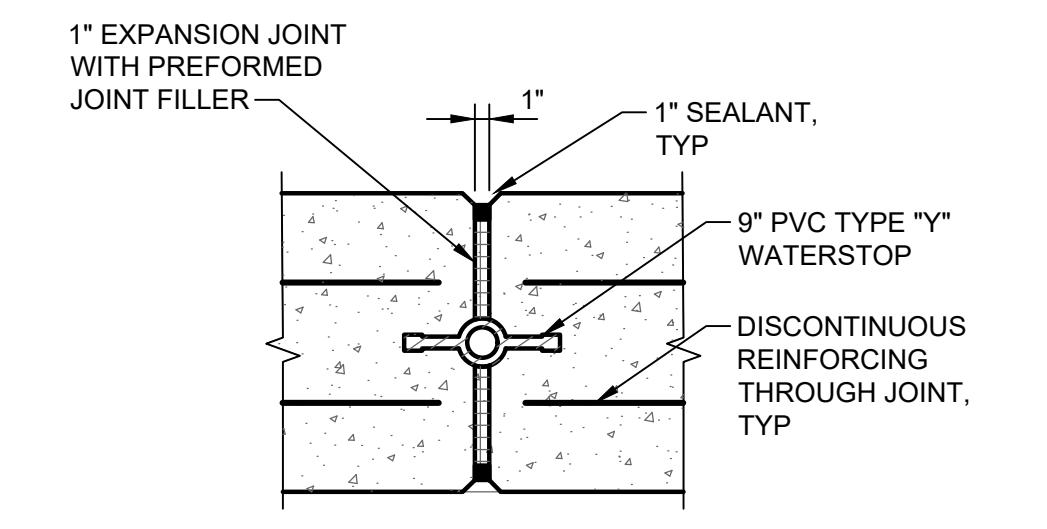


- NOTES:**
1. STAINLESS STEEL TURN-BUCKLE (SACRIFICIAL) HOLD-DOWN.
 2. WIRE ROPE: 1/2" DIA STRAND 3" LOOP EACH END X 2'-0" LONG, TYP 3 LOCATIONS
 3. EPOXY GROUT AFTER SECURE.
 4. CEMENTIOUS GROUT AFTER PRECAST SET.

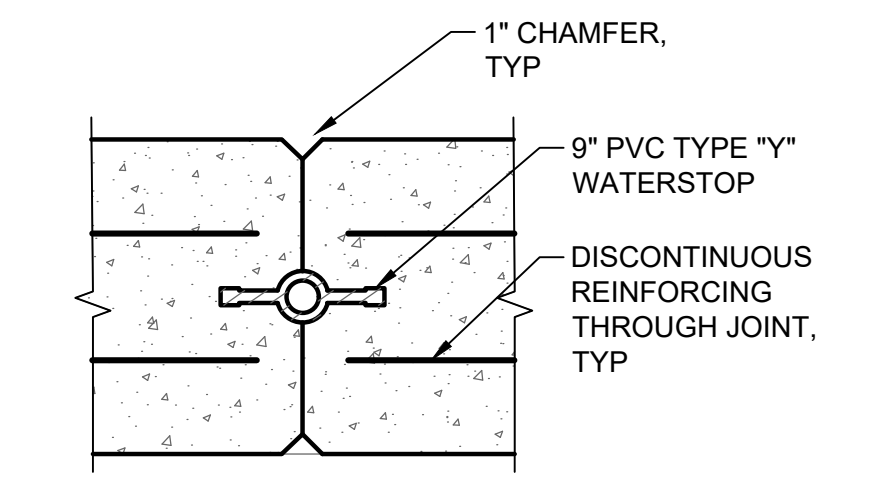
C WEIR ELEVATION
SB100 SCALE: 1" = 1'-0"



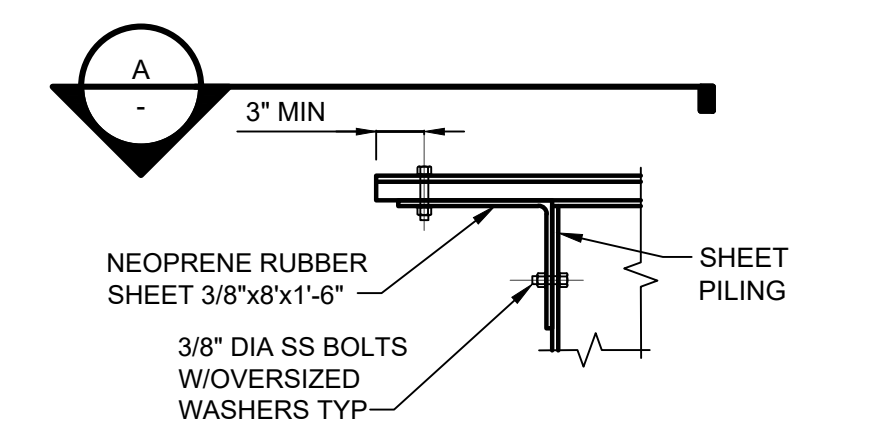
D PLAN
SB100 SCALE: 1" = 1'-0"



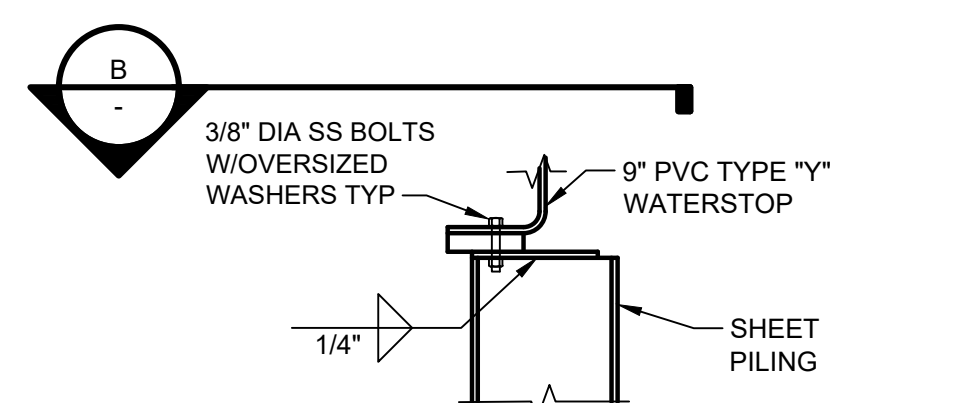
E WEIR WALL EXPANSION JOINT
SCALE: 1" = 1'-0"



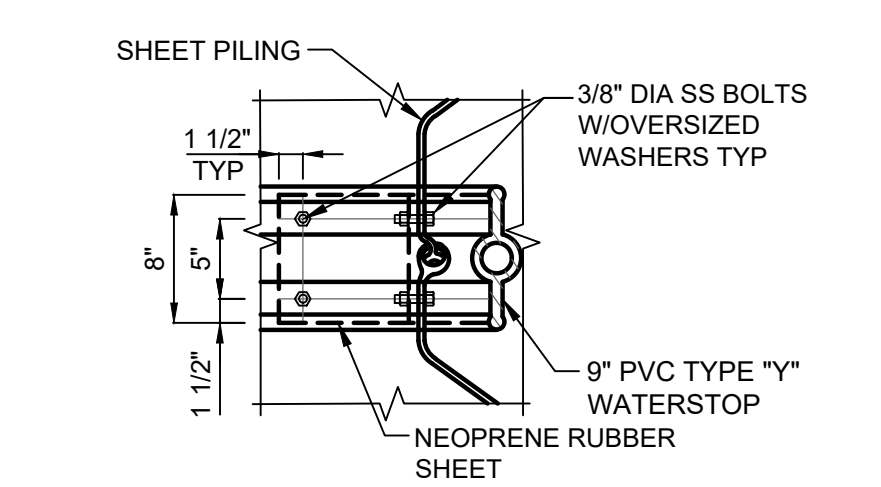
F WEIR WALL CONTRACTION JOINT
SCALE: 1" = 1'-0"



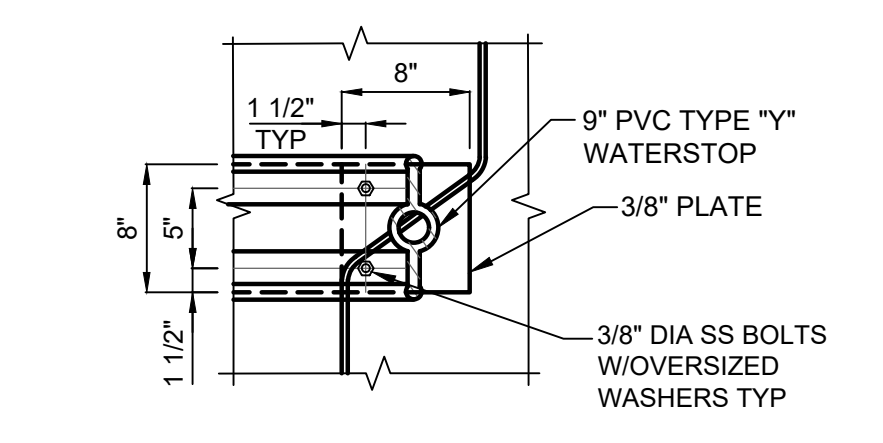
G SHEET PILE INTERLOCK ALIGNED WITH JOINT
NTS



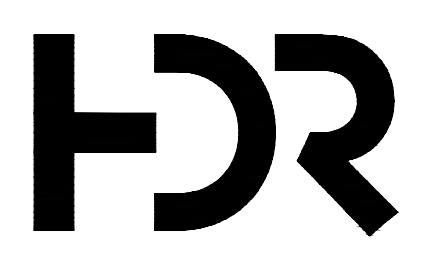
H SHEET PILE INTERLOCK MISALIGNED WITH JOINT
NTS



A SHEET PILE INTERLOCK ALIGNED WITH JOINT
NTS



B SHEET PILE INTERLOCK MISALIGNED WITH JOINT
NTS



MINNEHAHA CREEK
WATERSHED DISTRICT

ISSUE	DATE	DESCRIPTION	PROJECT NUMBER	10268112
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4	06/13/2022	PFA GRANT PACKAGE		

PROJECT MANAGER: ANDREW F. JUDD

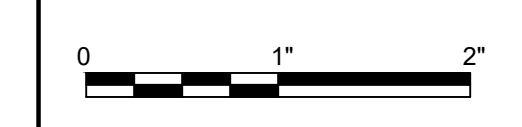
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90% DRAFT
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JEROME W. MULVIHILL, PE
DATE: XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

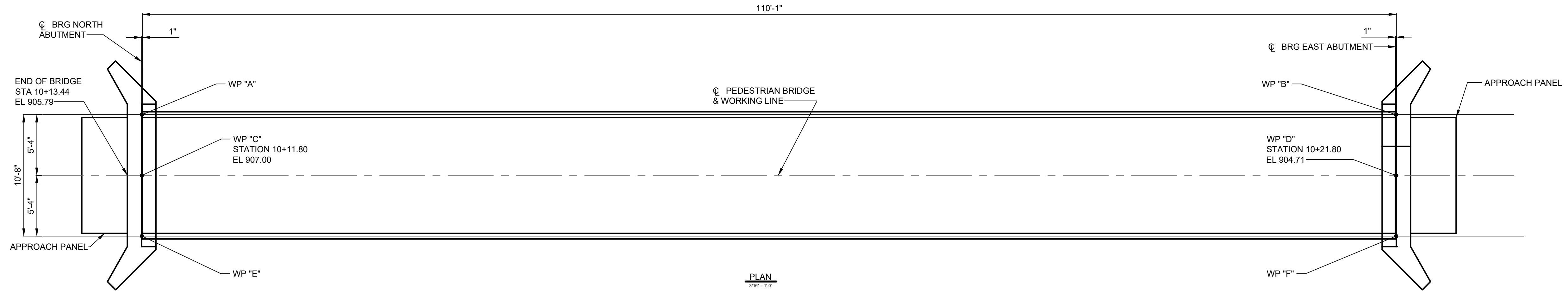
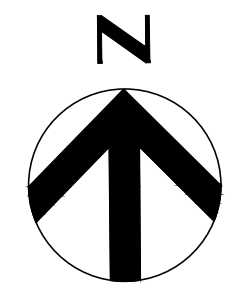
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

WEIR WALL SECTIONS AND DETAILS

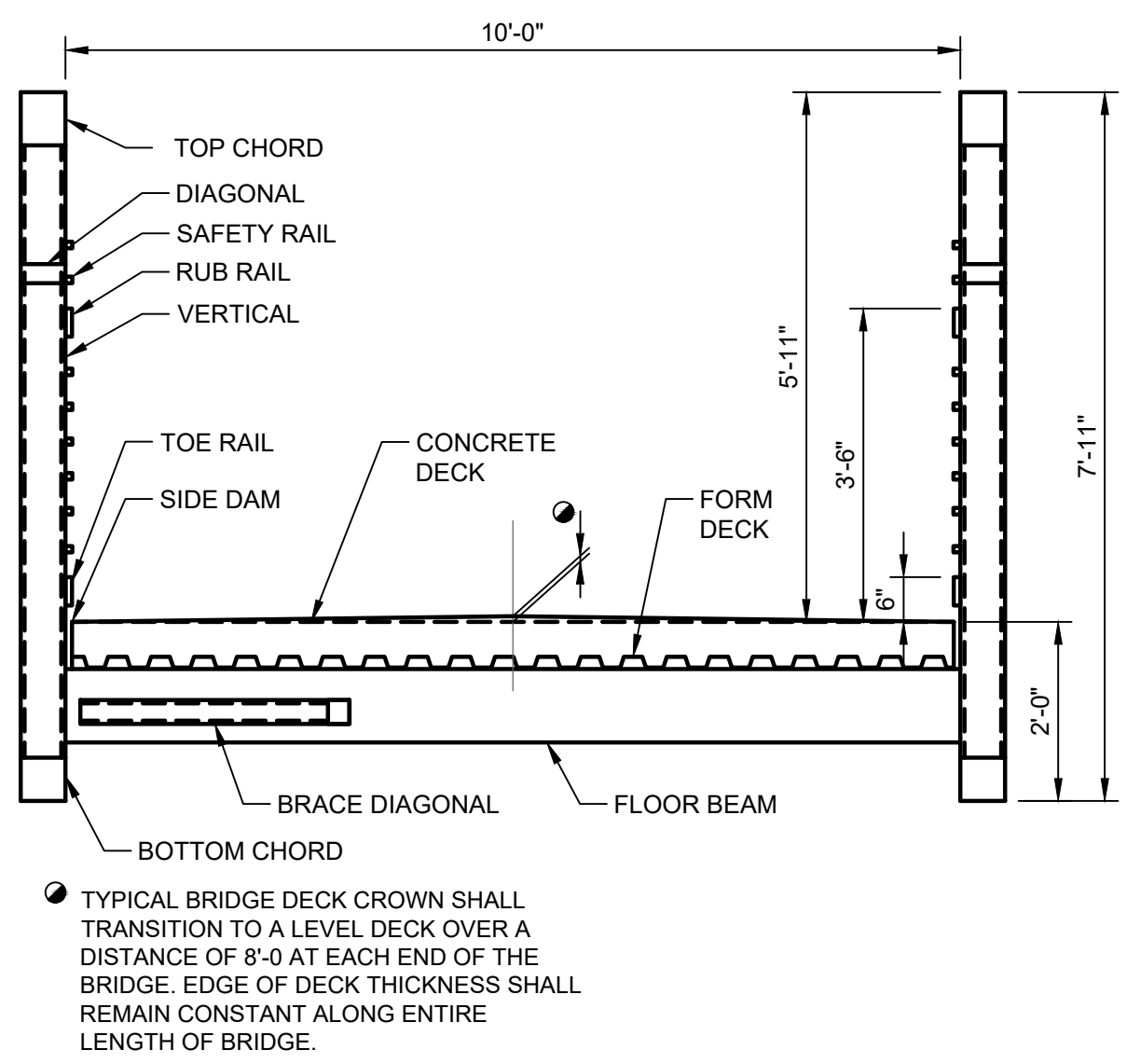
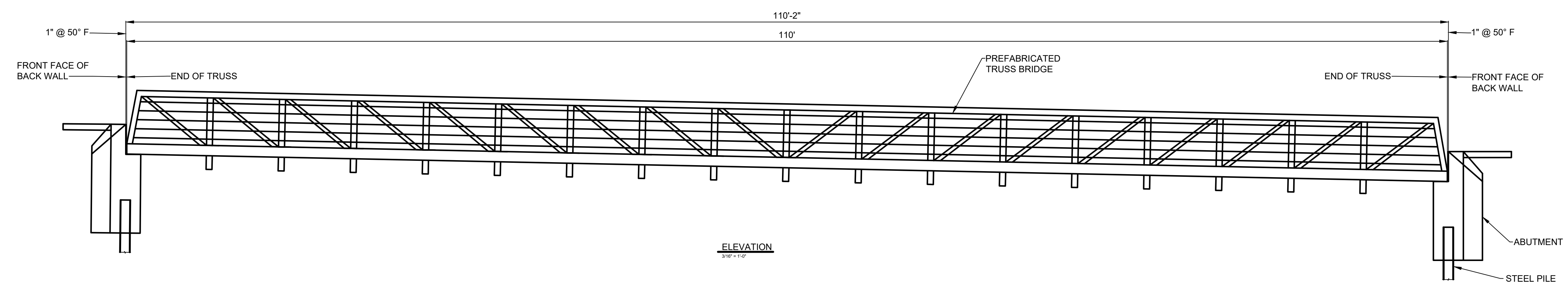


FILENAME: SB301.DWG
SCALE: AS NOTED

SHEET
SB301



- GENERAL NOTES:**
- DRAWINGS SHALL NOT BE SCALED
 - CONTRACTOR SHALL DRESS SLOPES AND PLACE FILTER MATERIALS AND RIPRAP IN AREAS SHOWN ON THIS SHEET AS DIRECTED BY THE ENGINEER.
 - EXCAVATE TO THE BOTTOM OF THE ELEVATION SHOWN FOR EACH SUBSTRUCTURE UNIT AS THE LOWER LIMIT AND THE PROPOSED FINISHED GRADE FOR THE UPPER LIMIT. THE EXTENT OF EXCAVATION INCLUDING BACK SLOPE ANGLE TO BE DETERMINED DURING CONSTRUCTION BY THE CONTRACTOR DEPENDING ON THE SOIL PROPERTIES AND OR SAFETY FACTORS.
 - VERIFY ENGINEERED BRIDGE DIMENSIONS BEFORE CONSTRUCTING SUBSTRUCTURE UNITS.
 - BACKFILL FRONT AND BACK SIDES OF ABUTMENT IN EQUAL LIFTS.
 - POLYVINYL CHLORIDE WATERSTOP TO EXTEND FULL WIDTH OF ABUTMENT SEAT & VERTICAL FROM SEAT TO TOP OF WINGWALL. PCW SHALL BE BUTT-SPICED AT ALL INTERSECTIONS BY USING A HEATED SPLICING IRON. HOLD FLUSH TO CONCRETE.
 - W-SHAPE PILING (3 PER ABUTMENT) ARE DESIGNED FOR AN ALLOWABLE COMPRESSION LOAD OF 30 TONS BEARING ON BEDROCK WHICH WILL REQUIRE THAT THE PILES ARE DRIVEN TO REFUSAL. REFUSAL IN BEDROCK IS CONSIDERED TO HAVE OCCURRED WHEN THE DRIVING PENETRATION RATE REACHES 10 BLOWS PER INCH AND THE PILE TIP IS NEAR THE ESTIMATED BEDROCK ELEVATION OF 832.00.



BRIDGE SECTION
SCALE: 1/2" = 1'-0"

PREFABRICATED PEDESTRIAN TRUSS SPAN NOTES:

DESIGN SPECIFICATIONS:
 PREFABRICATED PEDESTRIAN BRIDGE TRUSS SPAN SHALL BE IN ACCORDANCE WITH SECTION XXXX OF THE MINNEHAHA D.O.T. STANDARD SPECIFICATIONS AND BE DESIGNED TO CONFORM WITH THE AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, DECEMBER 2009 WITH INTERIMS AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEFLECTIONS:
 DEFLECTIONS DUE TO THE UNFACTORED PEDESTRIAN LIVE LOADING SHALL NOT EXCEED 1/360 OF THE SPAN LENGTH, IN ACCORDANCE WITH THE AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES.

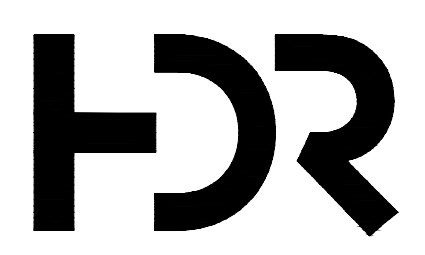
DESIGN LOADS:
 PEDESTRIAN LIVE LOAD: 90 PSF
 MAINTENANCE VEHICLE: VEHICLE (20,000 LBS.)

GENERAL:
 PREFABRICATED PEDESTRIAN BRIDGE TRUSS SPAN SHALL BE A LOW PROFILE HALF THROUGH THRUSS DESIGN WITH PRATT STYLE TRUSSES. PANEL LENGTHS SHALL BE APPROXIMATELY EQUAL. A SINGLE DIAGONAL SHALL BE UTILIZED PER PANEL EXCEPT IN THE CASE WHERE THERE IS AN ODD NUMBER OF PANELS, IN WHICH CASE THE CENTER PANEL SHALL HAVE TWO DIAGONALS.
 PREFABRICATED PEDESTRIAN BRIDGE TRUSS SPAN SHALL BE CAMBERED AS REQUIRED TO PROVIDE A LEVEL GRADE BETWEEN BEARING LINES IN THE FINAL CONDITION UNDER ALL SELF-WEIGHT LOADS.
 STRUCTURAL ELEMENTS CONTAINED WITHIN THESE PLANS HAVE BEEN DESIGNED ASSUMING MAXIMUM SERVICE LEVEL TRUSS REACTIONS PER BEARING OF 71 KIPS DEAD LOAD, 54 KIPS LIVE LOAD, AND 21 KIPS WIND LOAD. THE WIND LOAD REACTION WAS CONSIDERED IN BOTH THE UPWARD AND DOWNWARD DIRECTION. STRUCTURAL ELEMENTS WERE ALSO DESIGNED FOR A HORIZONTAL SERVICE LEVEL REACTION OF 25 KIPS FROM WIND (APPLIED PERPENDICULAR TO CL BRIDGE) AND 22 KIPS FROM THERMAL (APPLIED PARALLEL TO CL BRIDGE). IF ACTUAL VALUES EXCEED THOSE SHOWN HERE, THE TRUSS MANUFACTURER SHALL NOTIFY THE CONTRACTING OFFICER UPON SUBMITTAL OF THE SHOP DRAWINGS.

MATERIALS:
 ALL PRINCIPAL TRUSS MEMBERS, FLOOR BEAMS, LATERAL BRACING MEMBERS, BEARING PLATES, AND EDGE FORM PLATES FOR CONCRETE DECK SHALL UTILIZE WEATHERING STEEL.
 REINFORCING STEEL IN CONCRETE DECK SHALL BE IN ACCORDANCE WITH TRUSS MANUFACTURER'S RECOMMENDATIONS AND SHALL BE EPOXY COATED.

DIMENSIONAL CONSTRAINTS:
 PREFABRICATED PEDESTRIAN BRIDGE TRUSS SPAN SHALL PROVIDE A 10'-0" MINIMUM CLEAR WIDTH MEASURED BETWEEN INSIDE FACES OF RAILINGS.
 MEMBER SIZES FOR PRINCIPAL TRUSS MEMBERS (TOP CHORD, BOTTOM CHORD, VERTICALS AND DIAGONALS) SHALL BE UNIFORM THROUGHOUT THE SPAN. IF SMALLER MEMBER SIZES ARE DESIRED FOR DIAGONAL AND VERTICAL MEMBERS, THE SAME SIZE DIAGONALS AND VERTICALS SHALL BE USED THROUGHOUT THE SPAN (END POST VERTICALS EXCLUDED).
 THE MAXIMUM STRUCTURE DEPTH FROM TOP OF FINISHED CONCRETE DECK TO BOTTOM OF BEARING AT EACH END OF BRIDGE MAY NOT EXCEED 3'-3" WITHOUT APPROVAL BY THE CONTRACTING OFFICER.

APPROVED MANUFACTURERS:
 THE PREFABRICATED PEDESTRIAN BRIDGE TRUSS SPAN SHALL COMPLY WITH REQUIREMENTS OF MINNEHAHA D.O.T. MATERIALS I.M. 557, APPENDIX D.



MINNEHAHA CREEK
WATERSHED DISTRICT

ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
4	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

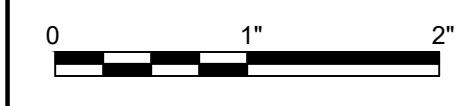
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 90% DRAFT
 SUBMITTAL FOR CLIENT REVIEW

JEROME W. MULVIHILL, PE
 DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

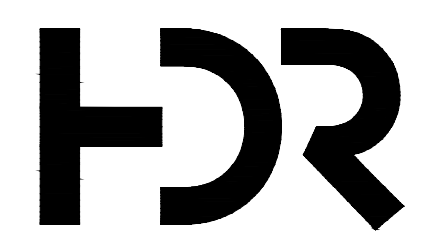
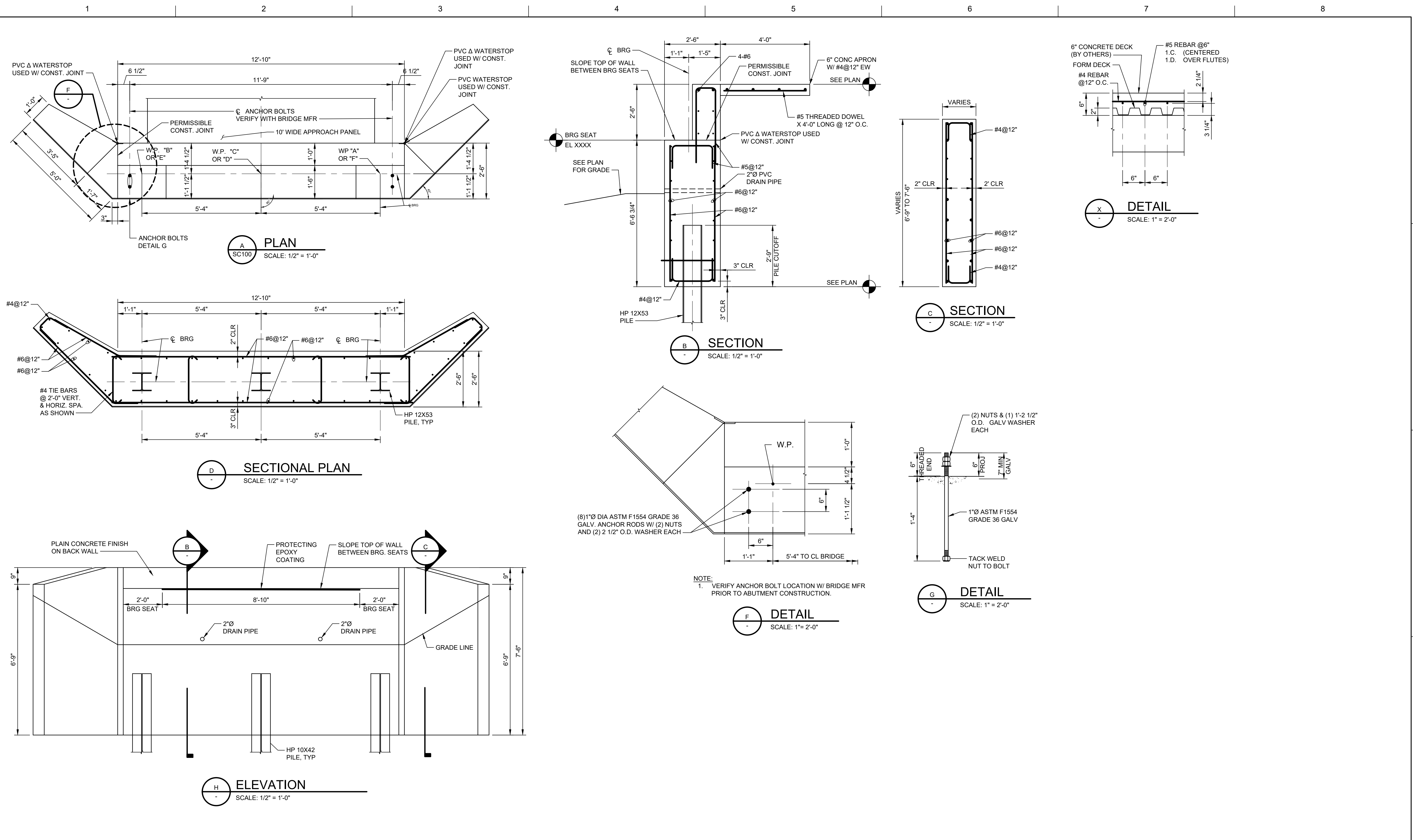
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

PEDESTRIAN BRIDGE PLAN, SECTION AND NOTES



FILENAME | SC100.DWG
 SCALE | AS NOTED

SHEET
SC100



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PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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JEROME W. MULVIHILL, PE
DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

PEDESTRIAN BRIDGE SECTION AND DETAILS

0 1" 2"

FILENAME | SC301.DWG
SCALE | AS NOTED

SHEET
SC301

ONE LINE, POWER AND LIGHTING SYMBOLOGY

SITE SYMBOLOGY

LOW VOLTAGE CIRCUIT BREAKER (CB). RATING AND NO. OF POLES AS SHOWN. WHEN SPECIFIC TYPE, OTHER THAN MCCB, IS REQUIRED, X INDICATES TYPE.

TYPES:
 MCCB - MOLDED CASE
 ICCB - INSULATED CASE
 LVP - LOW VOLTAGE POWER
 MCP - MOTOR CIRCUIT PROTECTOR (RATING PER CONNECTED LOAD)

TRIP UNIT:
 L - LONG TIME PICKUP
 S - SHORT TIME PICKUP
 I - INSTANTANEOUS PICKUP
 G - GROUND FAULT PICKUP
 A - ARC FLASH MAINTENANCE

TWO RECEPTACLES IN 2-GANG BOX UNDER COMMON COVER PLATE

DUPLEX RECEPTACLE

SIMPLEX RECEPTACLE

CONDUIT TURNING UP

CONDUIT TURNING DOWN

HOMERUN TO PANEL
 SINGLE PHASE: 2#12, 1#12G IN 3/4" C
 THREE PHASE: 3#12, 1#12G IN 3/4" C
 UNLESS OTHERWISE NOTED, CONDUCTOR SIZE IS FOR ENTIRE CIRCUIT

CONDUIT CONNECTION TO EQUIPMENT

CIRCUIT RUN BETWEEN DEVICES EXPOSED IN NON-ARCHITECTURALLY FINISHED AREAS; CONCEALED IN ARCHITECTURALLY FINISHED AREAS. CONDUIT AND CONDUCTOR SIZES SHALL BE THE SAME AS THE HOMERUN FOR THE CIRCUIT.

CONDUIT RUN BETWEEN DEVICES CONCEALED IN NON-ARCHITECTURALLY FINISHED AREAS OR UNDER FLOOR SLAB. CONDUIT AND CONDUCTOR SIZES SHALL BE THE SAME AS THE HOMERUN FOR THE CIRCUIT.

CIRCUIT HASH MARKS (WHEN INDICATED); LONG, SHORT, SINGLE DOT, AND DOUBLE DOT REPRESENT PHASE, NEUTRAL, EQUIPMENT GROUND, AND ISOLATED EQUIPMENT GROUND, RESPECTIVELY. #12 IN 3/4" CONDUIT UNLESS OTHERWISE INDICATED.

CIRCUIT CONTINUATION

CONDUIT STUBBED OUT AND CAPPED

POWER POLE

DOWNGUY

UNDERGROUND ELECTRICAL AND COMMUNICATIONS SYSTEMS PATHWAY

OVERHEAD ELECTRICAL AND COMMUNICATION SYSTEMS PATHWAY

CONTROL SYMBOLOGY

ELECTRICAL CONNECTION

NO ELECTRICAL CONNECTION

CONTROL/RELAY COIL; X INDICATES TYPE, Y INDICATES LOOP NO. WHEN USED

TYPES:
 CR - CONTROL RELAY
 DP - DEFINITE PURPOSE RELAY
 LC - LIGHTING CONTACTOR
 M - MOTOR STARTER

PC - PHOTOCELL
 TC - TIME CLOCK
 TR - TIMING RELAY

NORMALLY OPEN CONTACT (N.O.)

NORMALLY CLOSED CONTACT (N.C.)

GENERAL NOTES:

- THIS IS A STANDARD ELECTRICAL SYMBOLOGY SHEET. NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT.
- SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.

SWITCHBOARD OR PANELBOARD; NAME, VOLTAGE, PHASE, NUMBER OF WIRES WHEN INDICATED

NON-MOTOR LOAD WITH DESIGN KVA, KW, OR AMP

VOLTAGE TRANSFORMER (VT, PT, OR CPT)

CURRENT TRANSFORMER (CT)

UTILITY WATT-HOUR METER PER UTILITY REQUIREMENTS

GROUND

WALL MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED

CEILING/IN-GROUND UPLIGHT LUMINAIRE, LAMP TYPE AS SPECIFIED

POLE/STANCHION MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED

CEILING/PENDANT MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED

WALL MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED

LIGHTING FIXTURE SUBSCRIPTS:
 X - INDICATES LUMINAIRE TYPE PER LUMINAIRE SCHEDULE
 Y - INDICATES CIRCUIT NUMBER FROM PANELBOARD
 Z - INDICATES CONTROLLING SWITCH (IF REQUIRED)
 NL - NIGHT LIGHT UNSWITCHED

WALL SWITCH

SUBSCRIPTS:
 X - INDICATES TYPE
 NONE - SINGLE POLE
 2 - DOUBLE POLE
 3 - THREE-WAY
 4 - FOUR-WAY
 K - KEY SWITCH
 P - PILOT LIGHT
 L - LIGHTED HANDLE
 DM - DIMMING
 MC - MOMENTARY CONTACT
 T - TIMER

Y - INDICATES CONTROLLING SWITCH (IF REQUIRED)

PHOTOCELL

TIME CLOCK

LIGHTING CONTROL OCCUPANCY SENSOR, WALL MOUNTED, X INDICATES SPECIFIC TYPE AS SPECIFIED

PANELBOARD (LESS THAN 250V)



ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
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PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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60% DRAFT
 SUBMITTAL FOR
 CLIENT REVIEW

JAMES MURPHY, PE
 DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

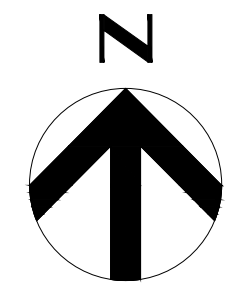
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

ELECTRICAL LEGEND



FILENAME | E001.DWG
 SCALE | NA

SHEET
E001



GENERAL NOTES

1. CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY. FIELD ADJUST CONDUIT ROUTING BASED ON FIELD CONDITIONS AND COORDINATION WITH OTHER EXISTING AND NEW UTILITIES, STRUCTURES, AND EQUIPMENT.

KEY NOTES

1. PROVIDE 2 #10, #10G IN 1" C.
2. ROUTE CONDUIT UNDERNEATH PEDESTRIAN BRIDGE
3. COORDINATE WITH XCEL ENERGY FOR METERED SUPPLY AND FINAL LOCATION.

PROJECT MANAGER ANDREW F. JUDD

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

ELECTRICAL SITE PLAN 01

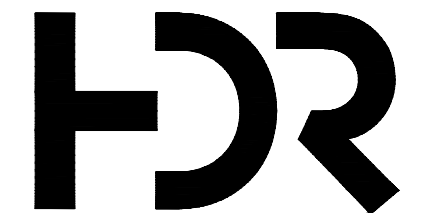


FILENAME | E101.DWG
 SCALE | 1" = 30'

SHEET
E101



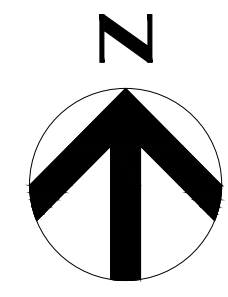
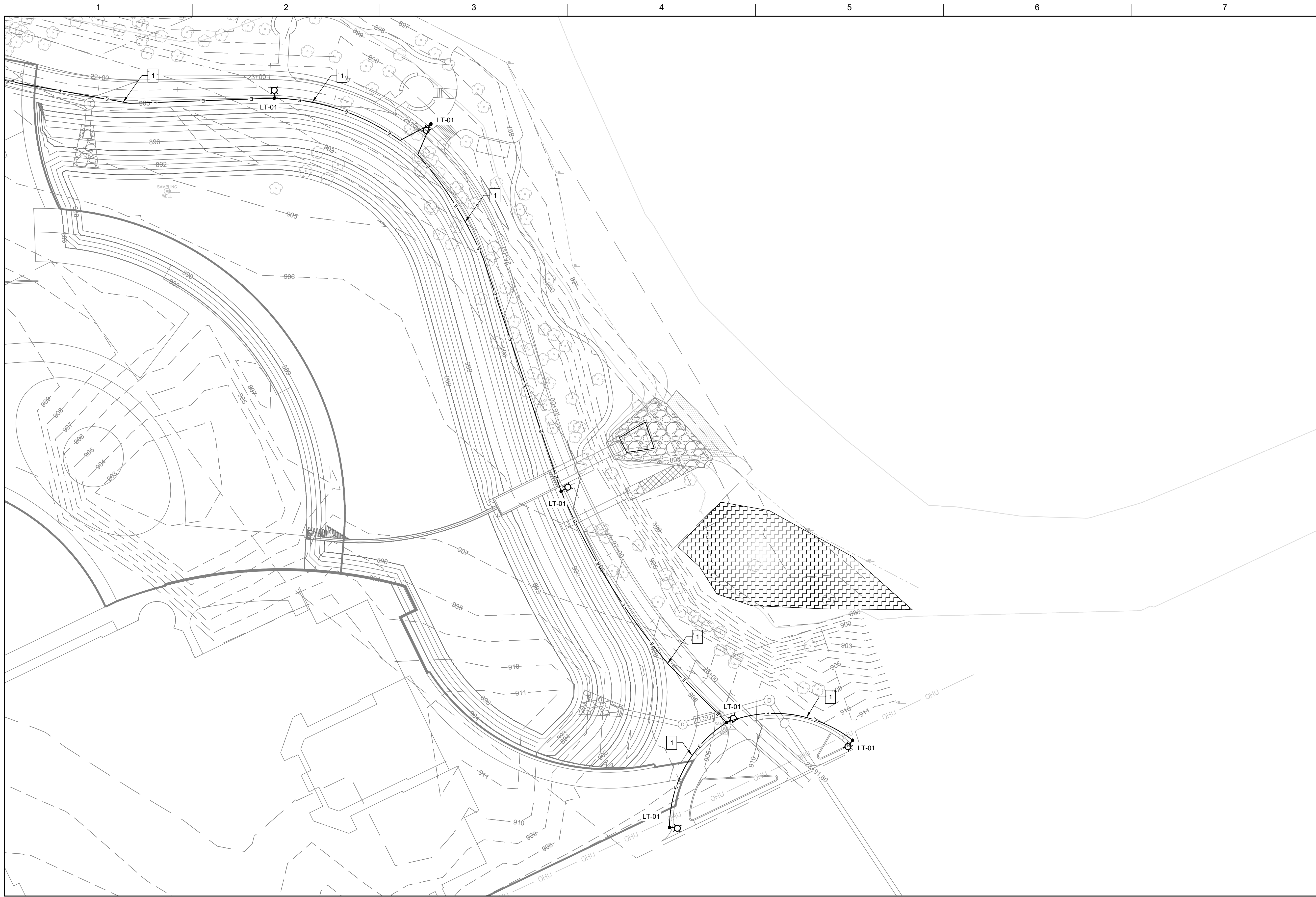
MINNEHAHA CREEK WATERSHED DISTRICT



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PROJECT NUMBER	10268112
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DATE XX/XX/XXXX LICENSE # XXXXX



GENERAL NOTES

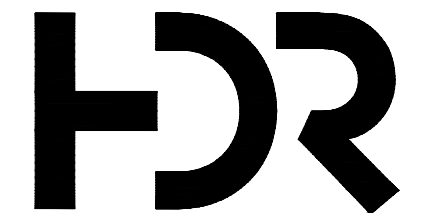
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KEY NOTES

1. PROVIDE 2 #10, #10G IN 1" C.



MINNEHAHA CREEK WATERSHED DISTRICT



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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

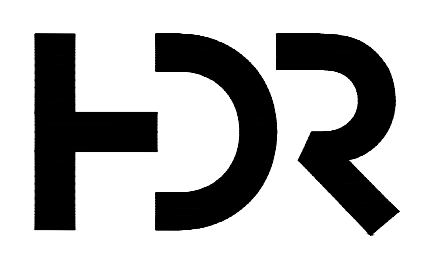
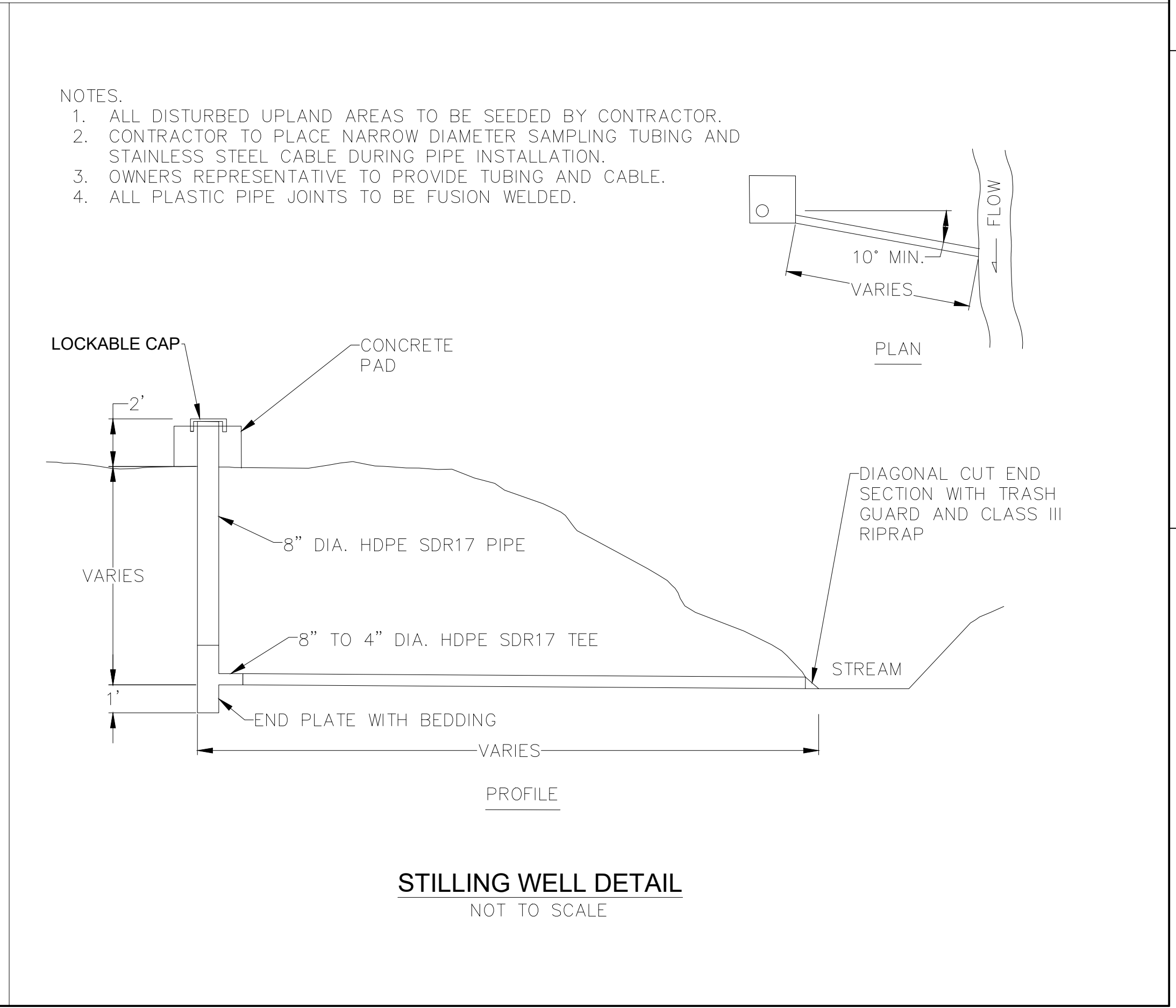
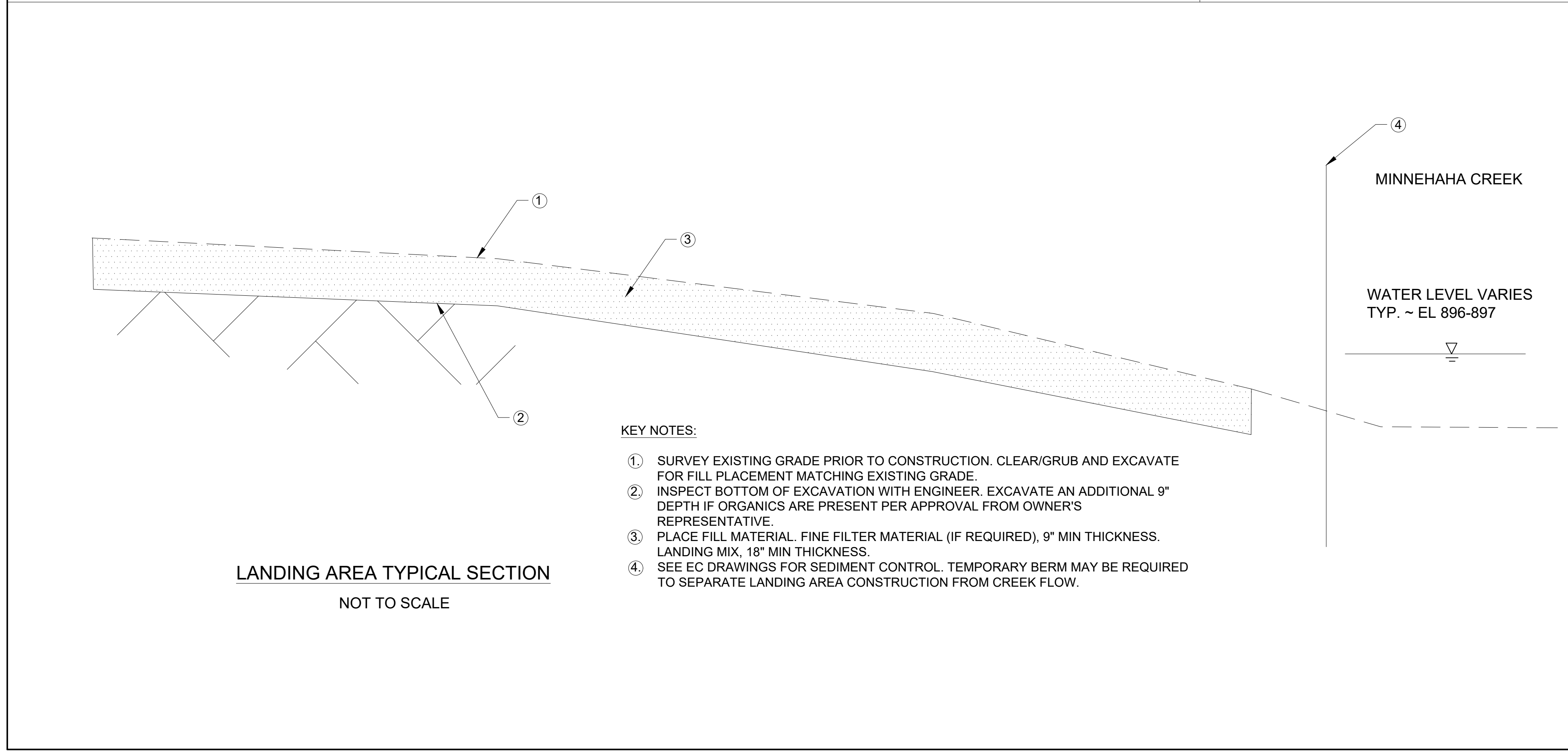
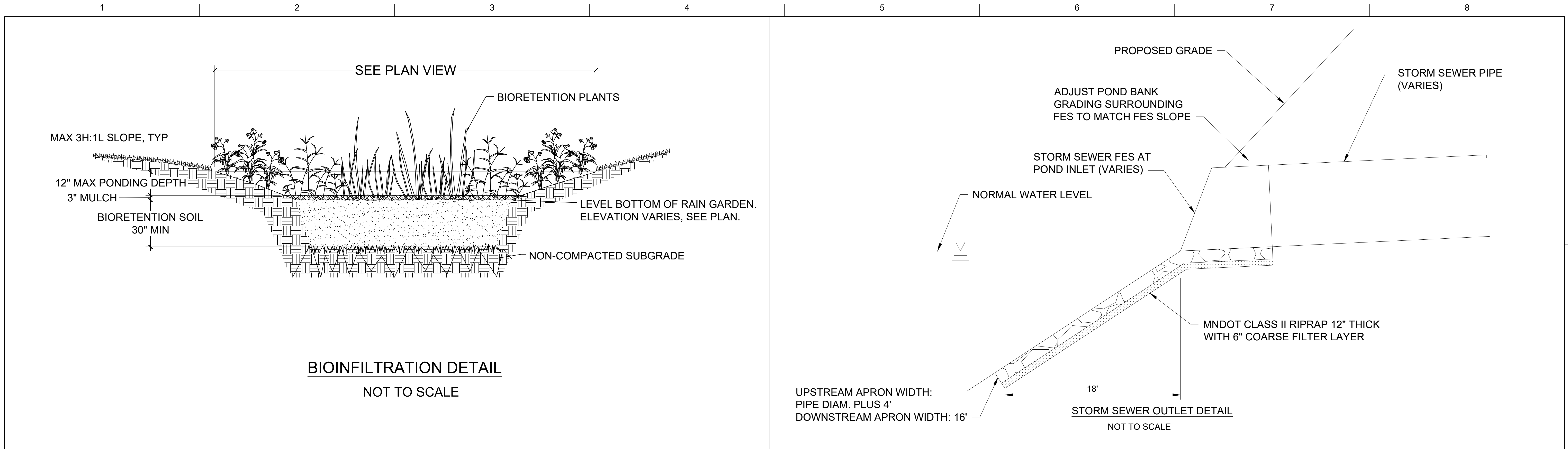
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

ELECTRICAL SITE PLAN 02



FILENAME E102.DWG
 SCALE 1" = 30'

SHEET
E102



ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
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PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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ANDREW F. JUDD, PE

DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

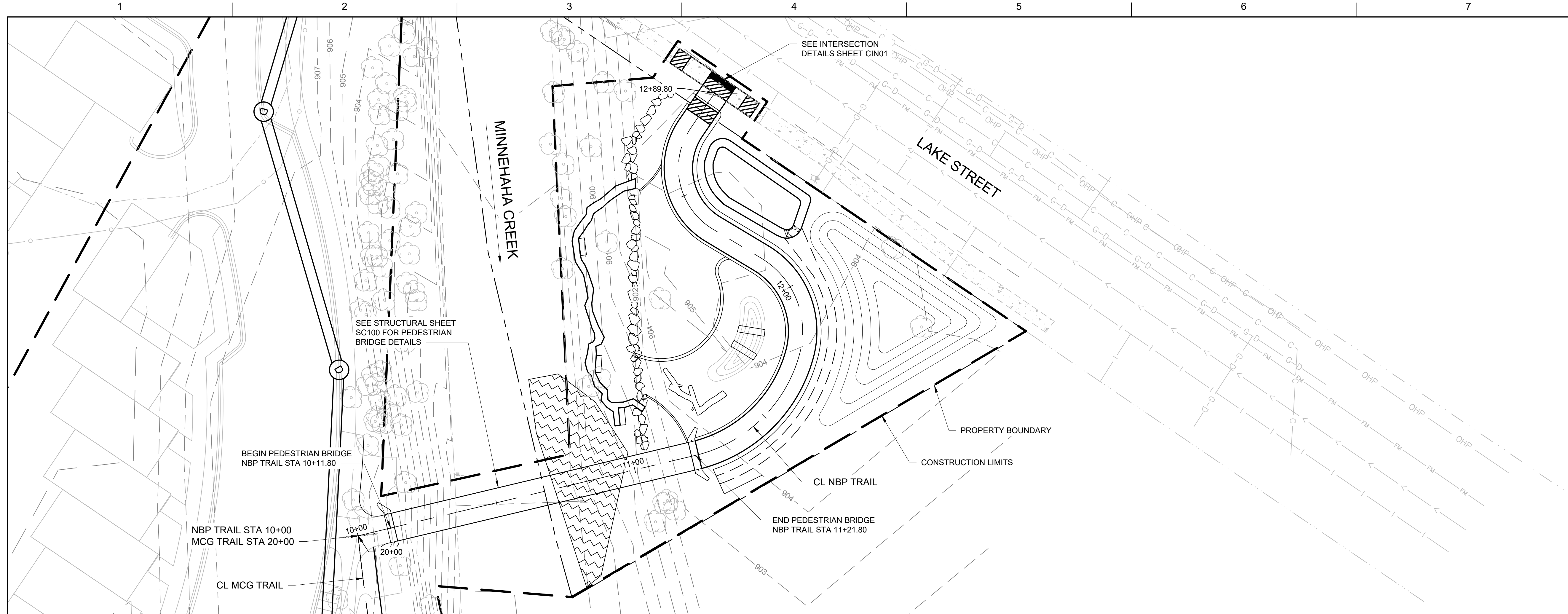
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

CIVIL DETAILS

FILENAME | CG501.DWG

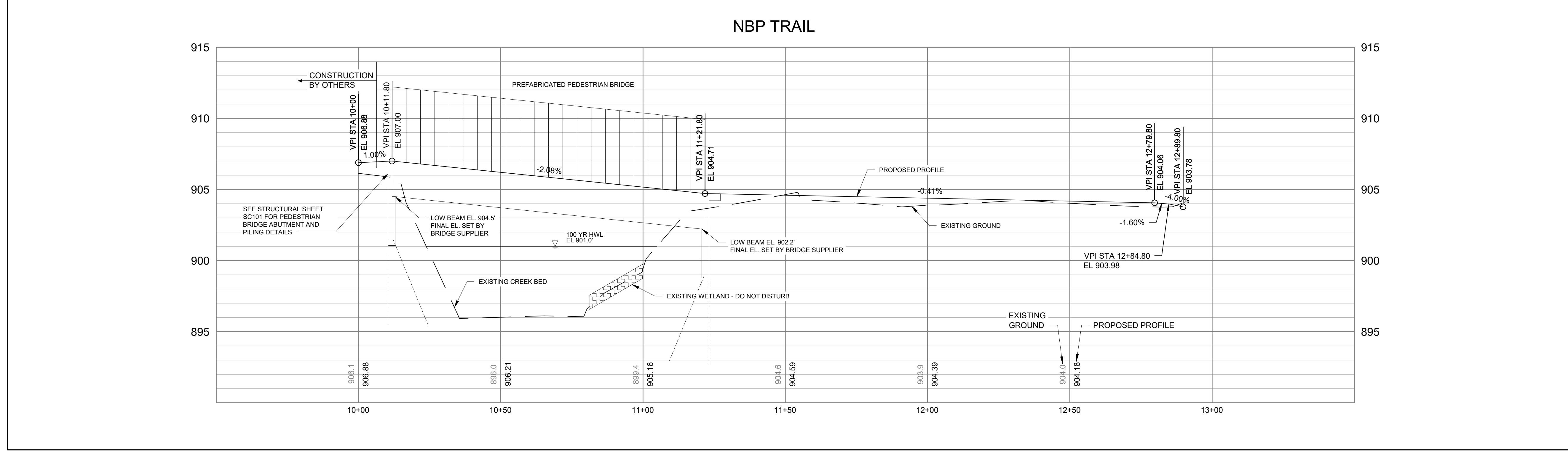
SCALE | NA

SHEET | CG502



GENERAL NOTES

1. SEE SHEET CG202 FOR TRAIL SECTION.
2. SEE SHEET CG108 FOR ALIGNMENT TABLES.



VERTICAL SCALE : 1" = 4'



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2	09/14/2022	90% DESIGN
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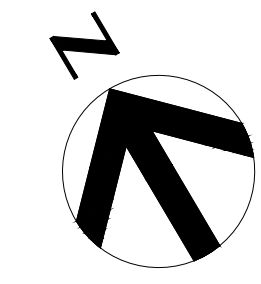
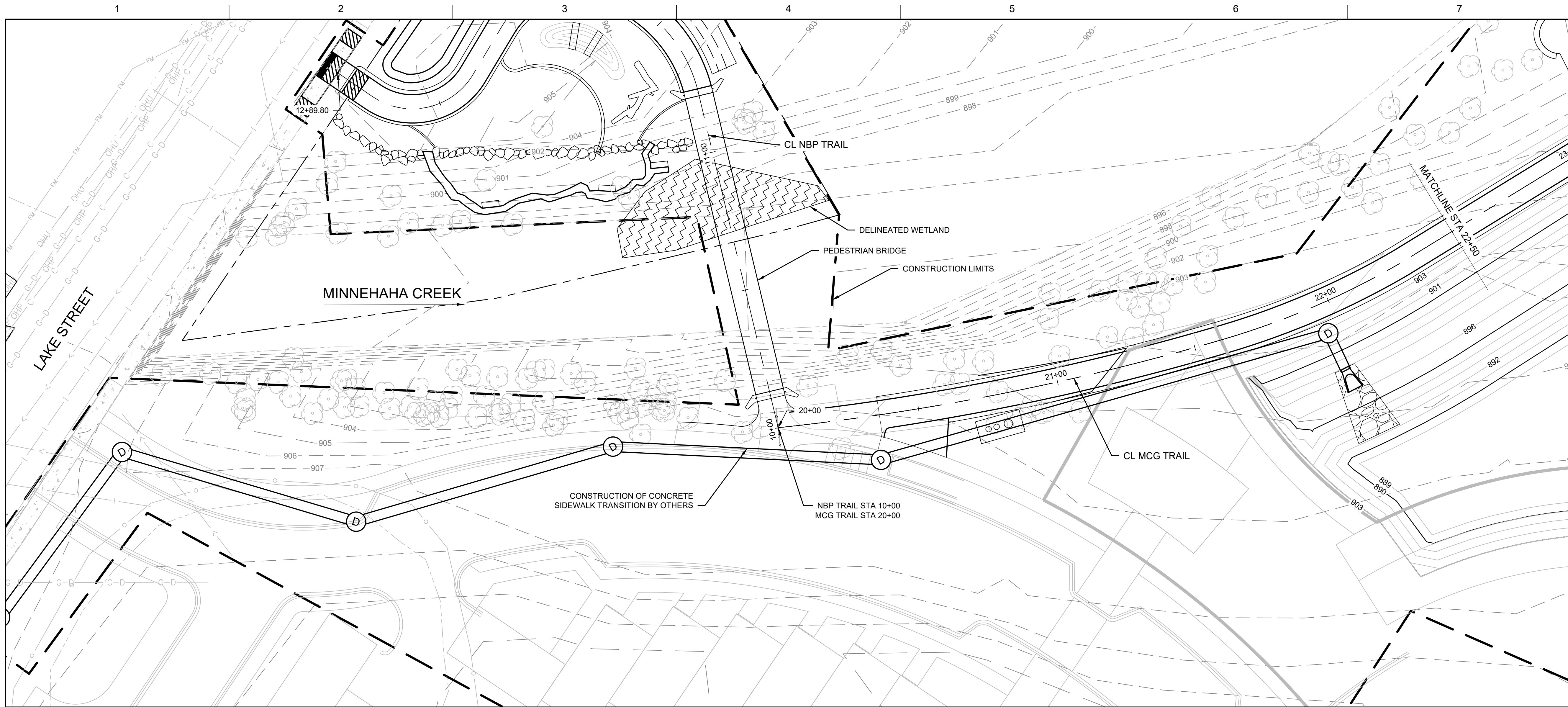
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TRAIL PLAN & PROFILE

SCALE 1" = 20'

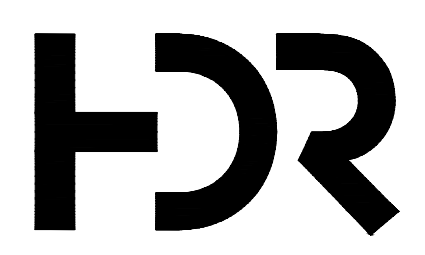
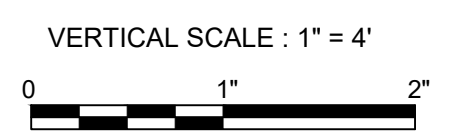
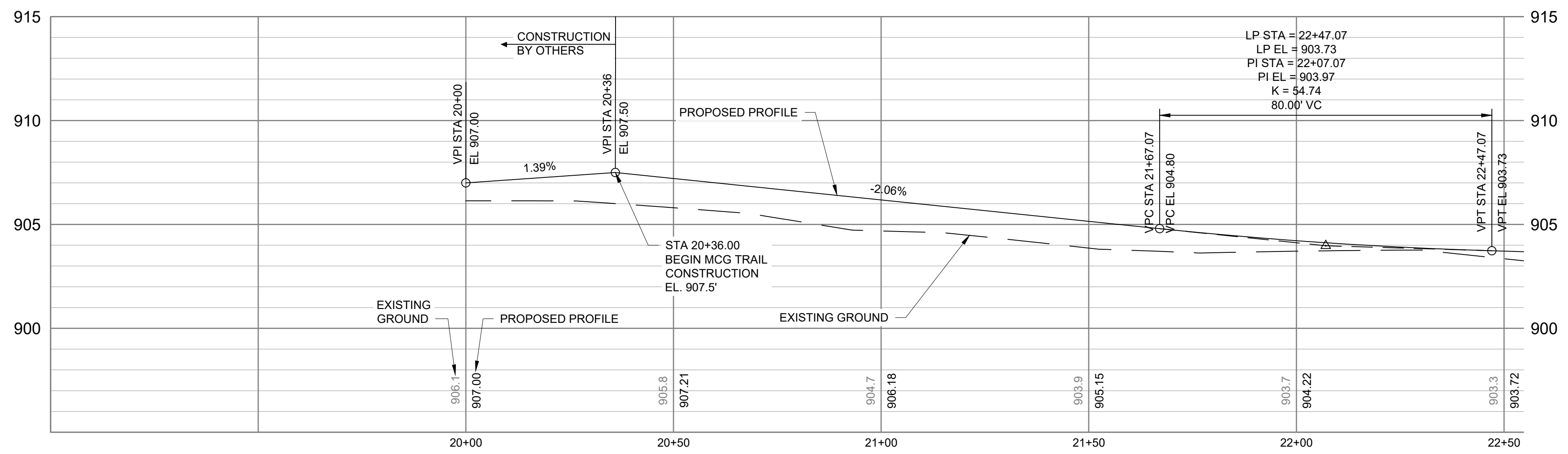
FILENAME CT101-104.DWG
SHEET CT101



GENERAL NOTES

1. SEE SHEET CG202 FOR TRAIL SECTION.
2. SEE SHEET CG108 FOR ALIGNMENT TABLES.

MCG TRAIL



**MINNEHAHA CREEK
WATERSHED DISTRICT**

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**325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY**

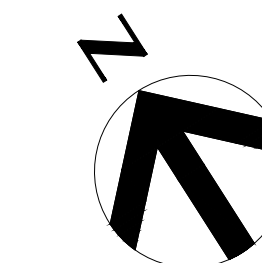
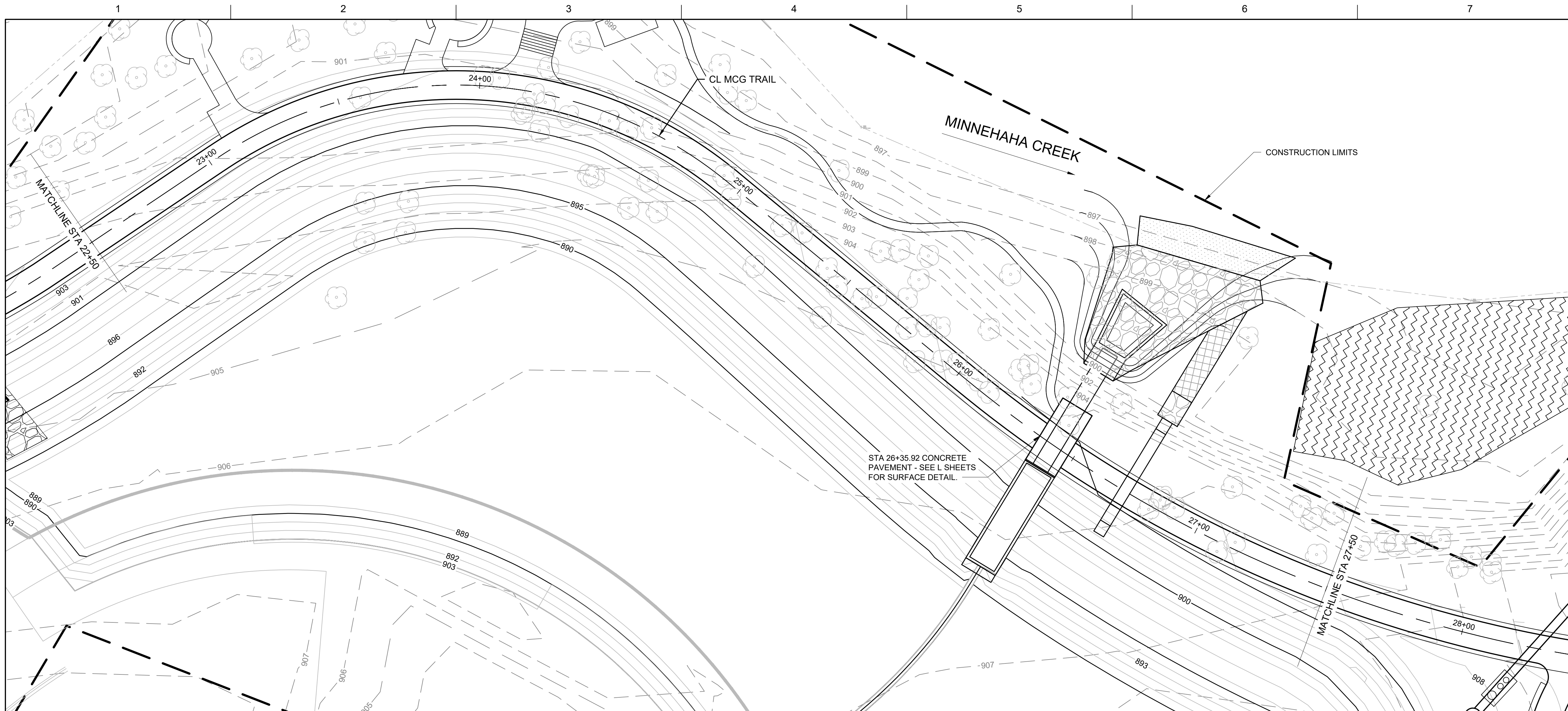
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TRAIL PLAN & PROFILE



FILENAME CT101-104.DWG
SCALE 1" = 20'

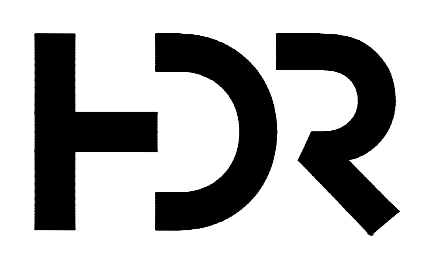
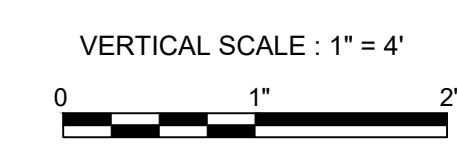
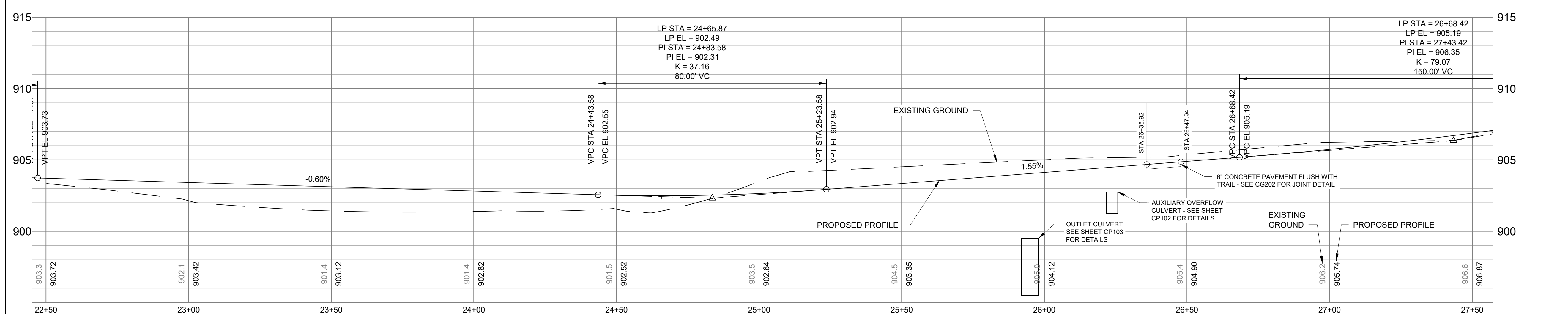
SHEET
CT102



GENERAL NOTES

1. SEE SHEET CG202 FOR TRAIL SECTION.
2. SEE SHEET CG108 FOR ALIGNMENT TABLES.

MCG TRAIL



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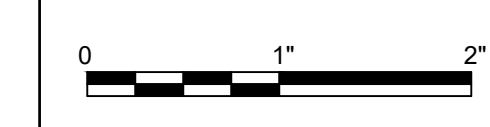
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ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

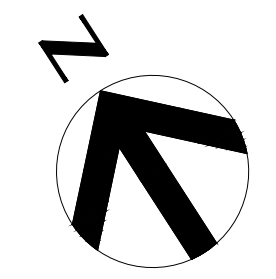
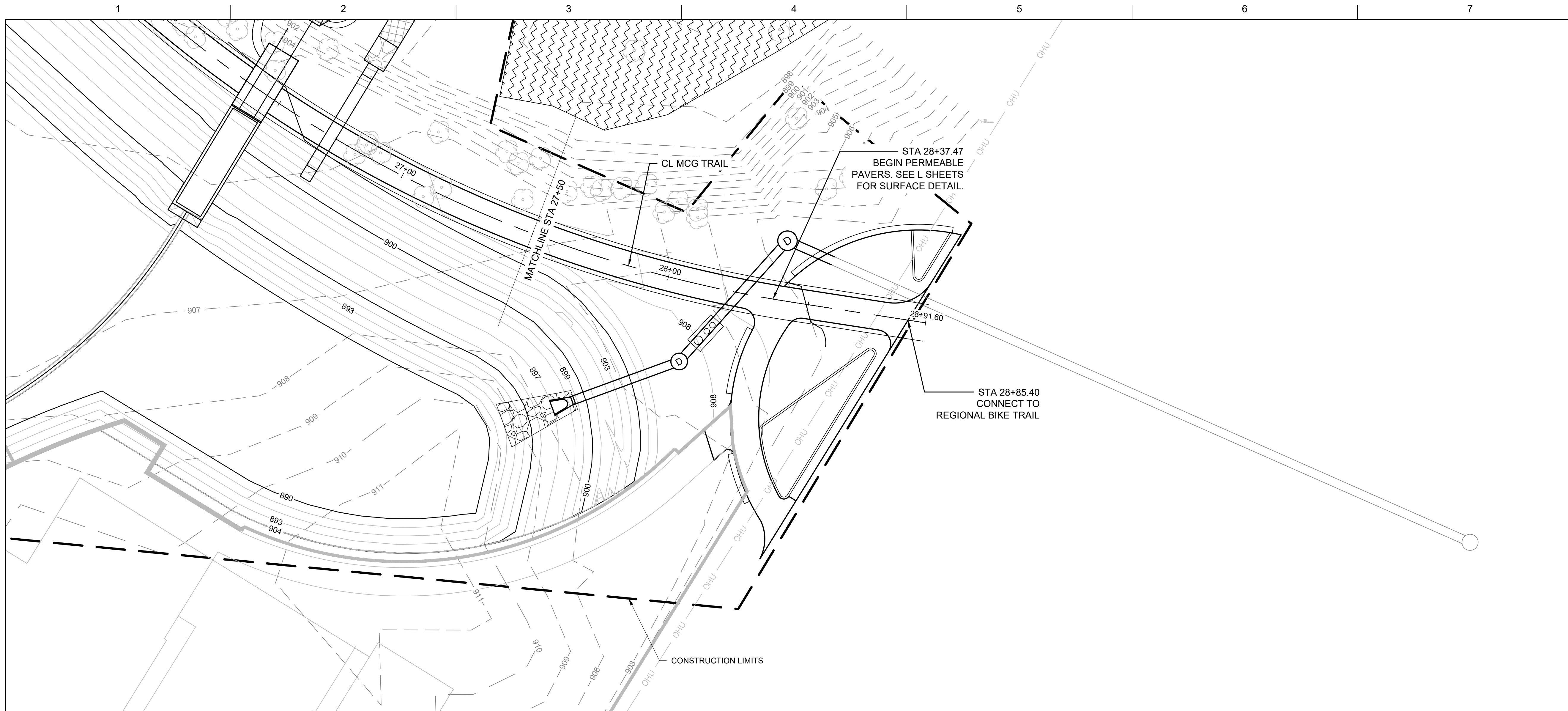
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TRAIL PLAN & PROFILE



FILENAME CT101-104.DWG
SCALE 1" = 20'

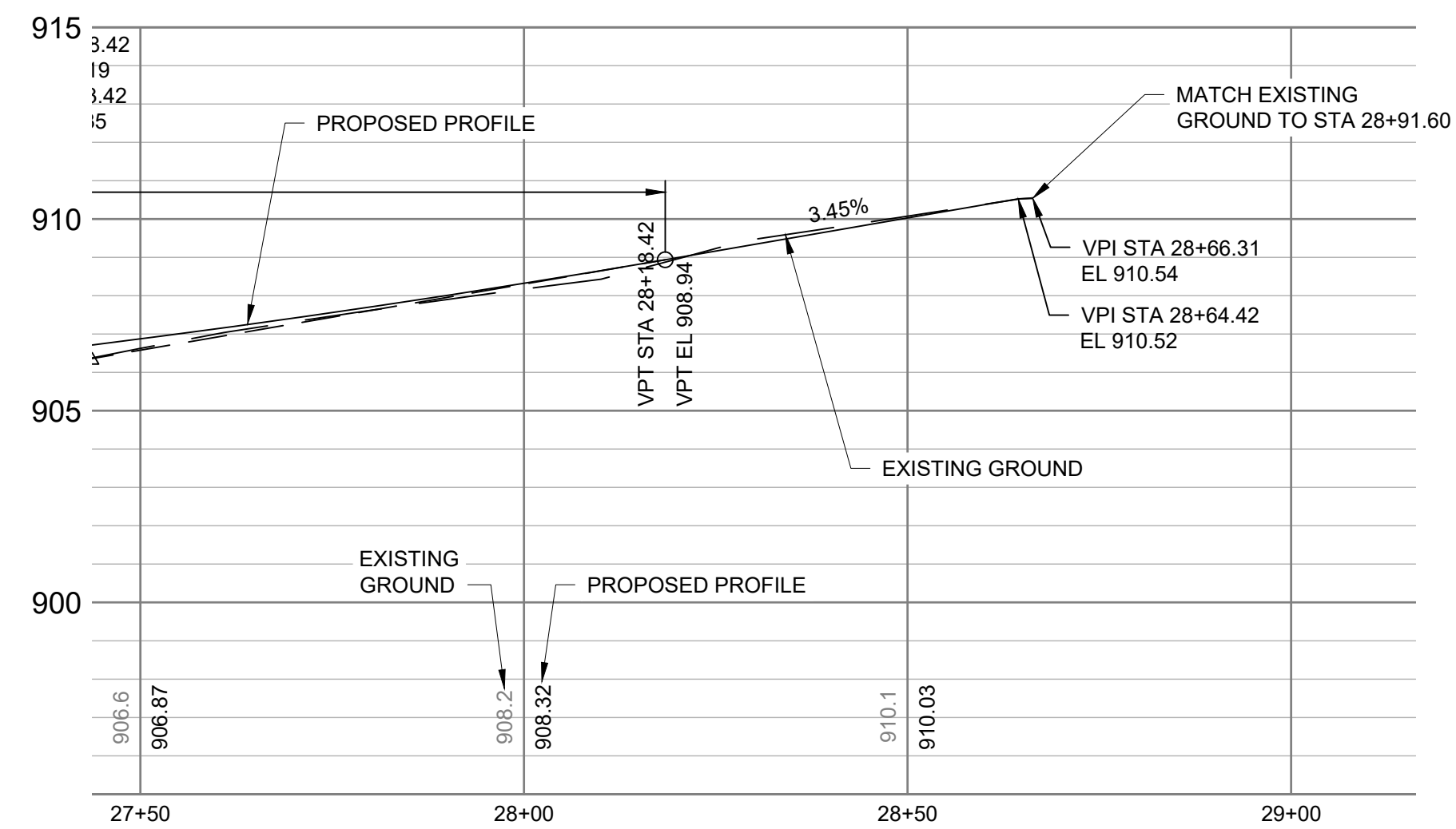
SHEET
CT103



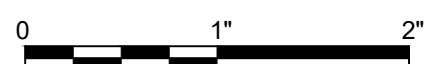
GENERAL NOTES

1. SEE SHEET CG202 FOR TRAIL SECTION.
2. SEE SHEET CG108 FOR ALIGNMENT TABLES.

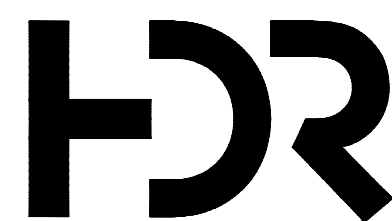
MCG TRAIL



VERTICAL SCALE : 1" = 4'



MINNEHAHA CREEK
WATERSHED DISTRICT



ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
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DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY

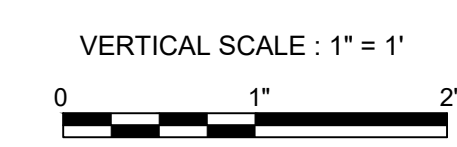
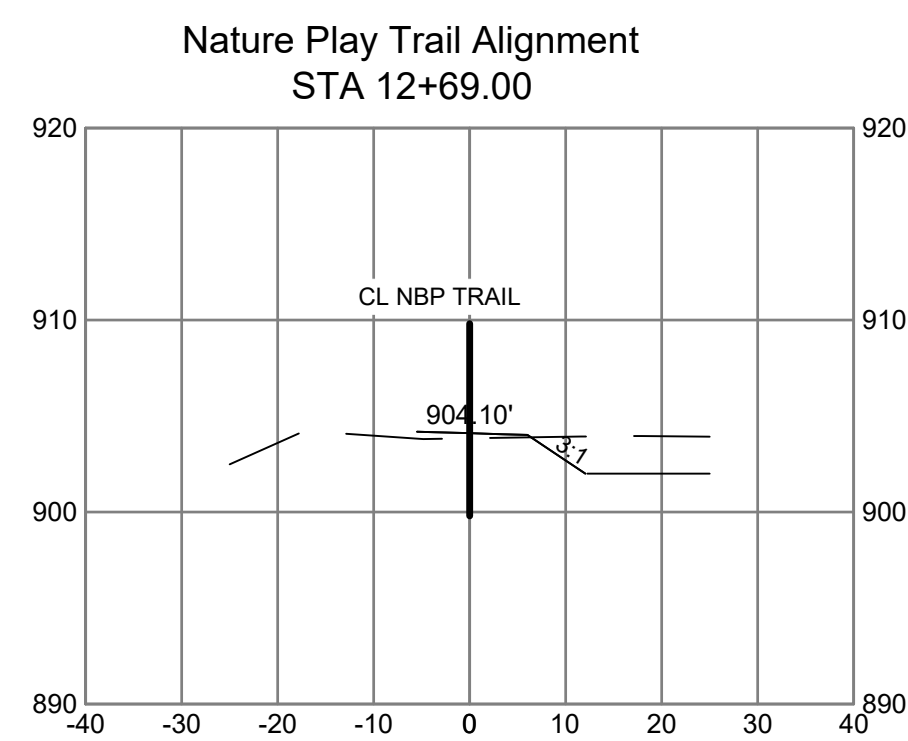
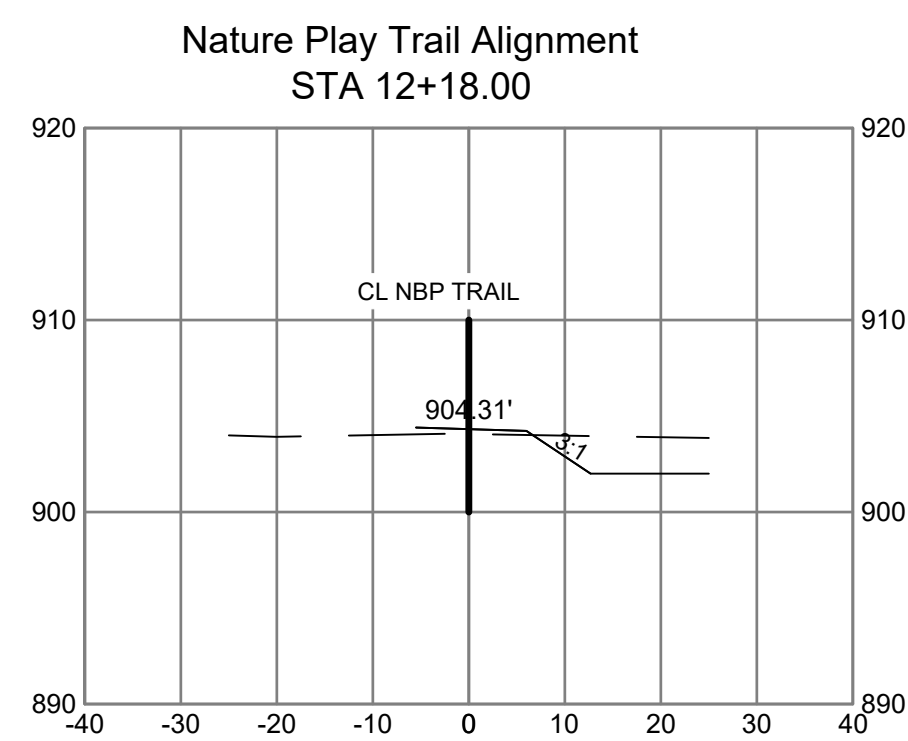
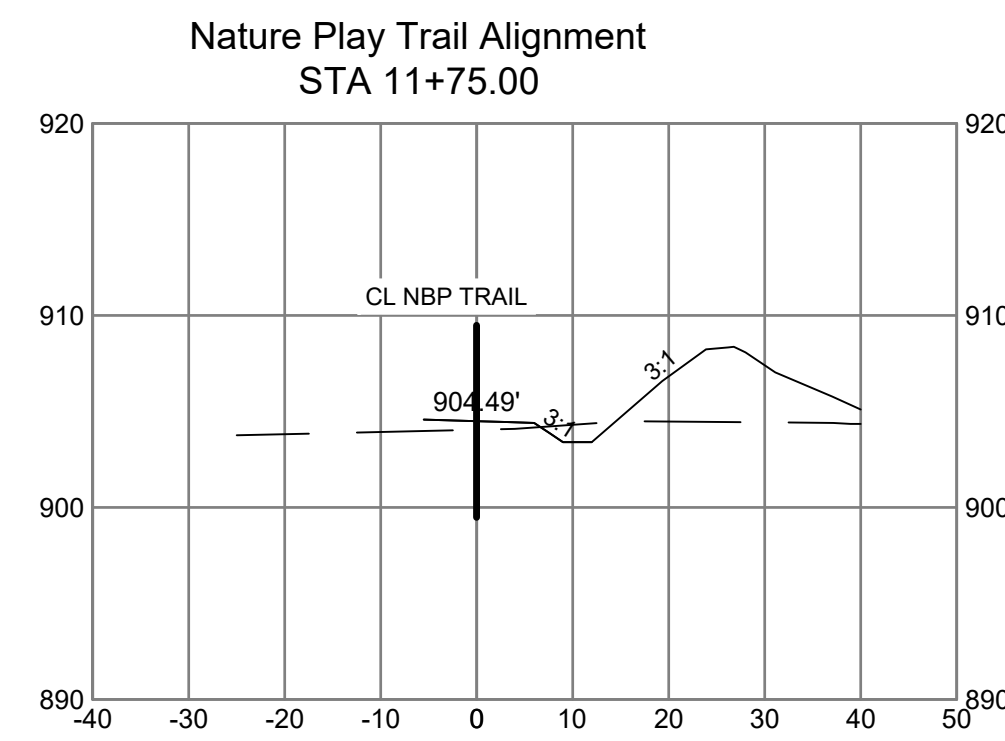
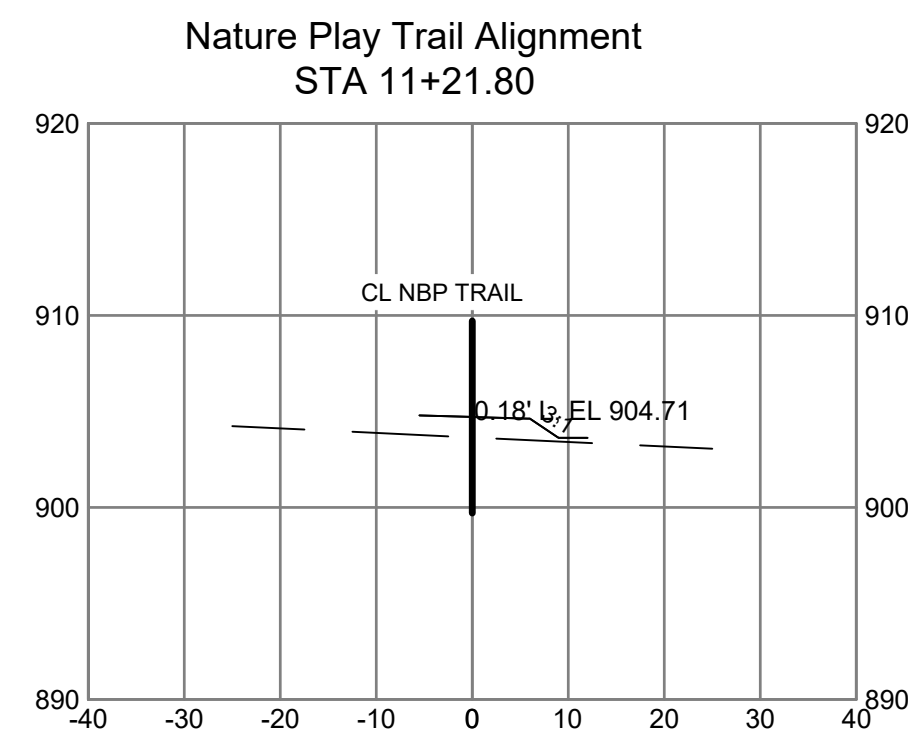
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TRAIL PLAN & PROFILE

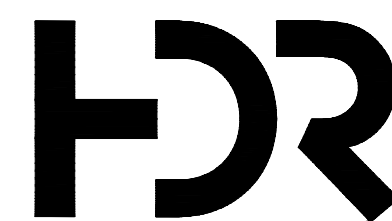


FILENAME CT101-104.DWG
SCALE 1" = XX'

SHEET
CT104



MINNEHAHA CREEK
WATERSHED DISTRICT



ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
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ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

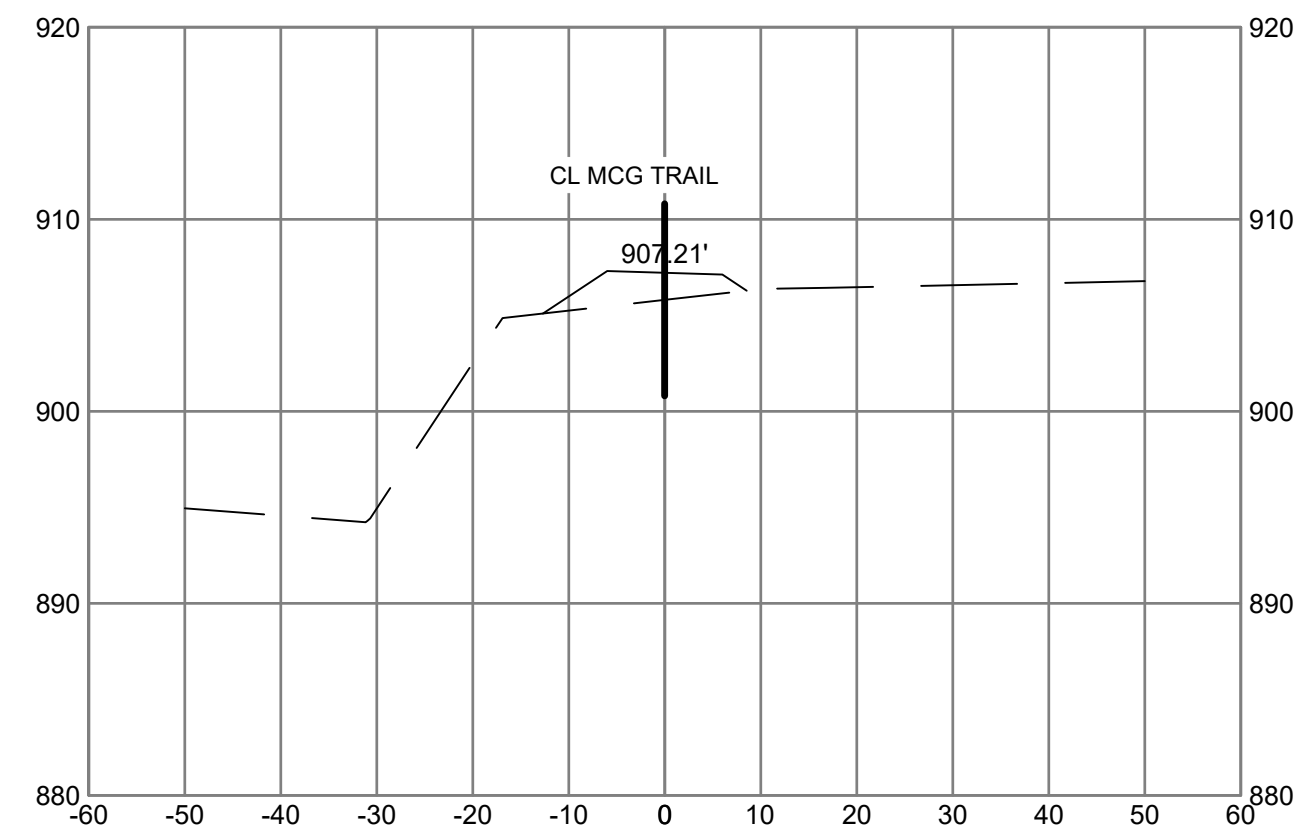
**TRAIL CROSS SECTIONS
NATURE BASED PLAY TRAIL**



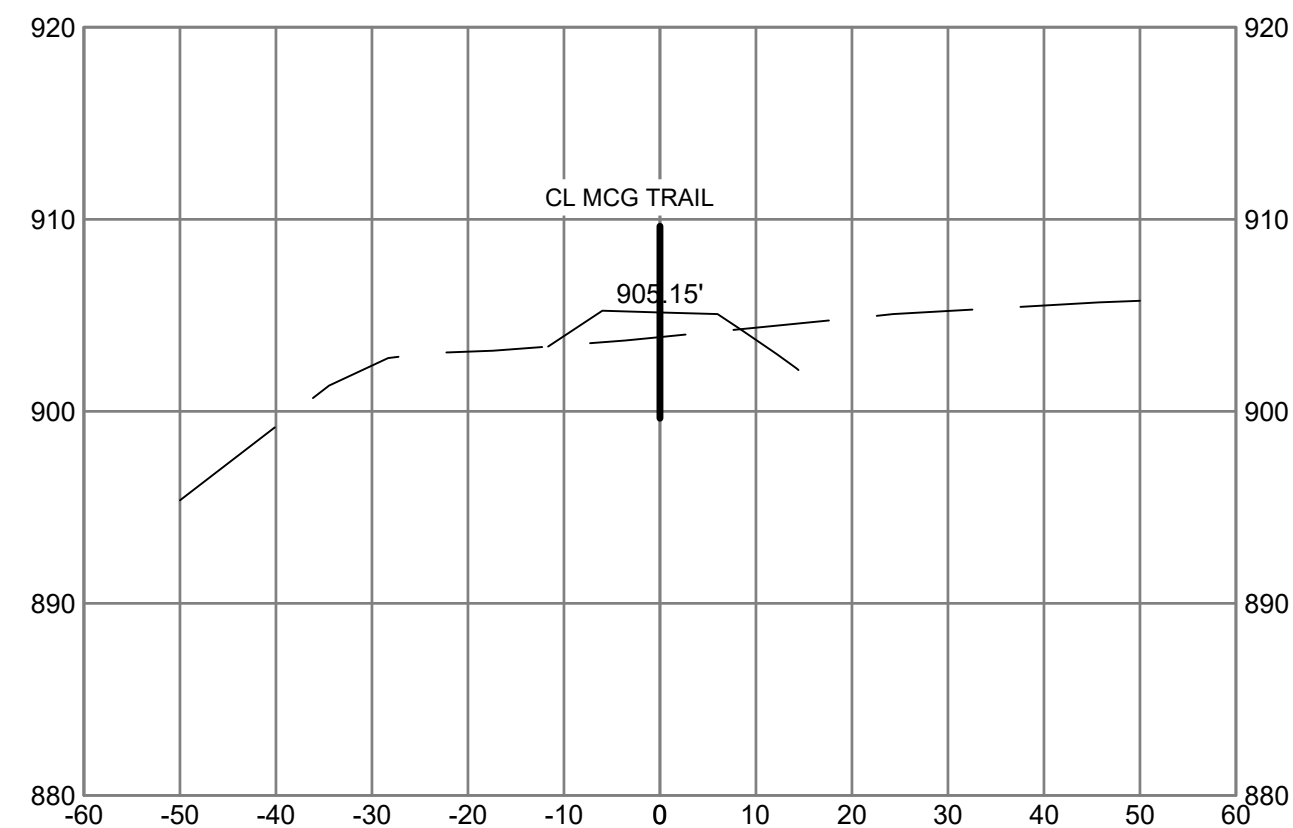
FILENAME CT201.DWG
SCALE HORIZONTAL: 1" = 20'

SHEET
CT201

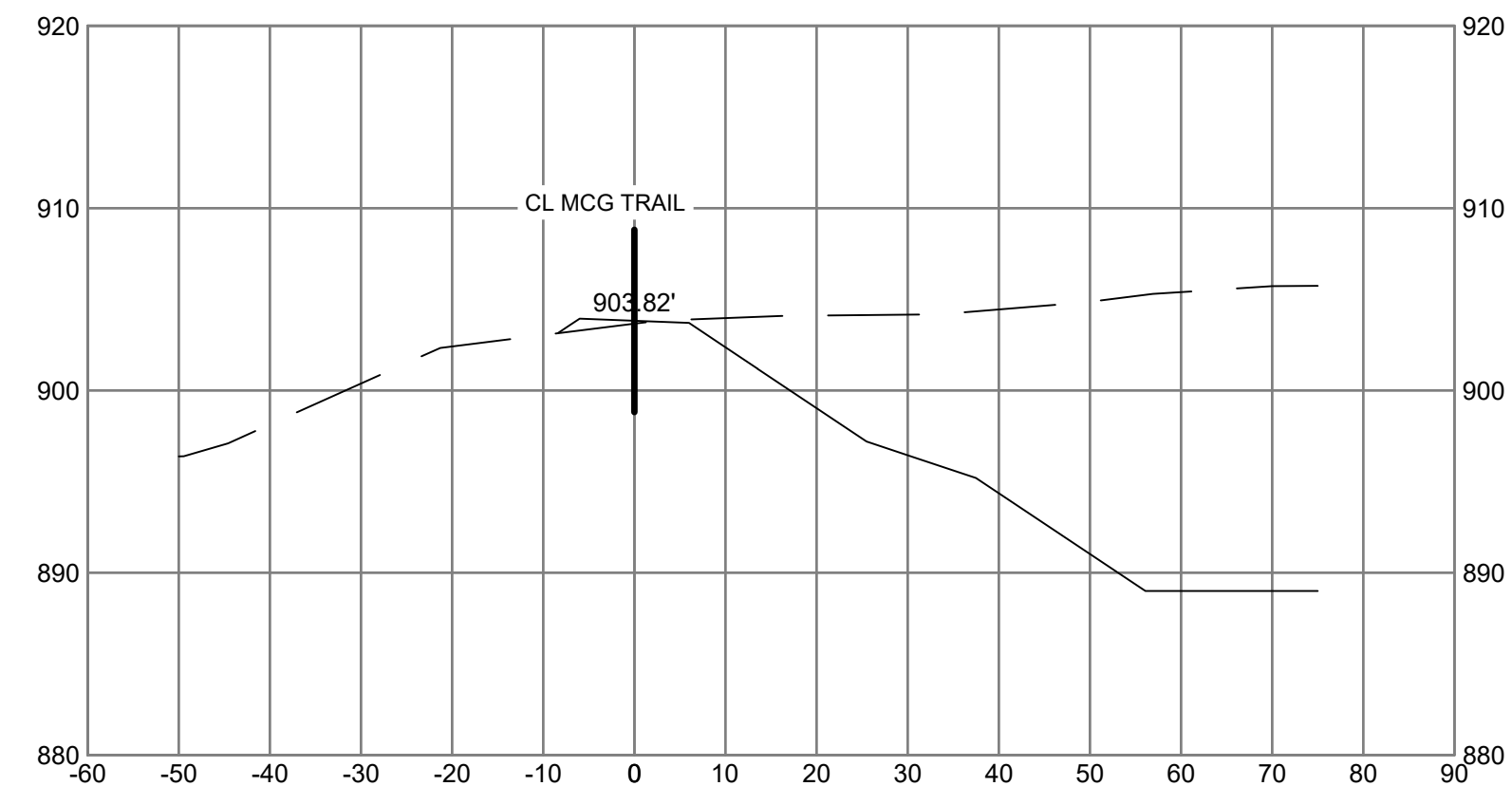
MCG Trail Alignment
STA 20+50.00



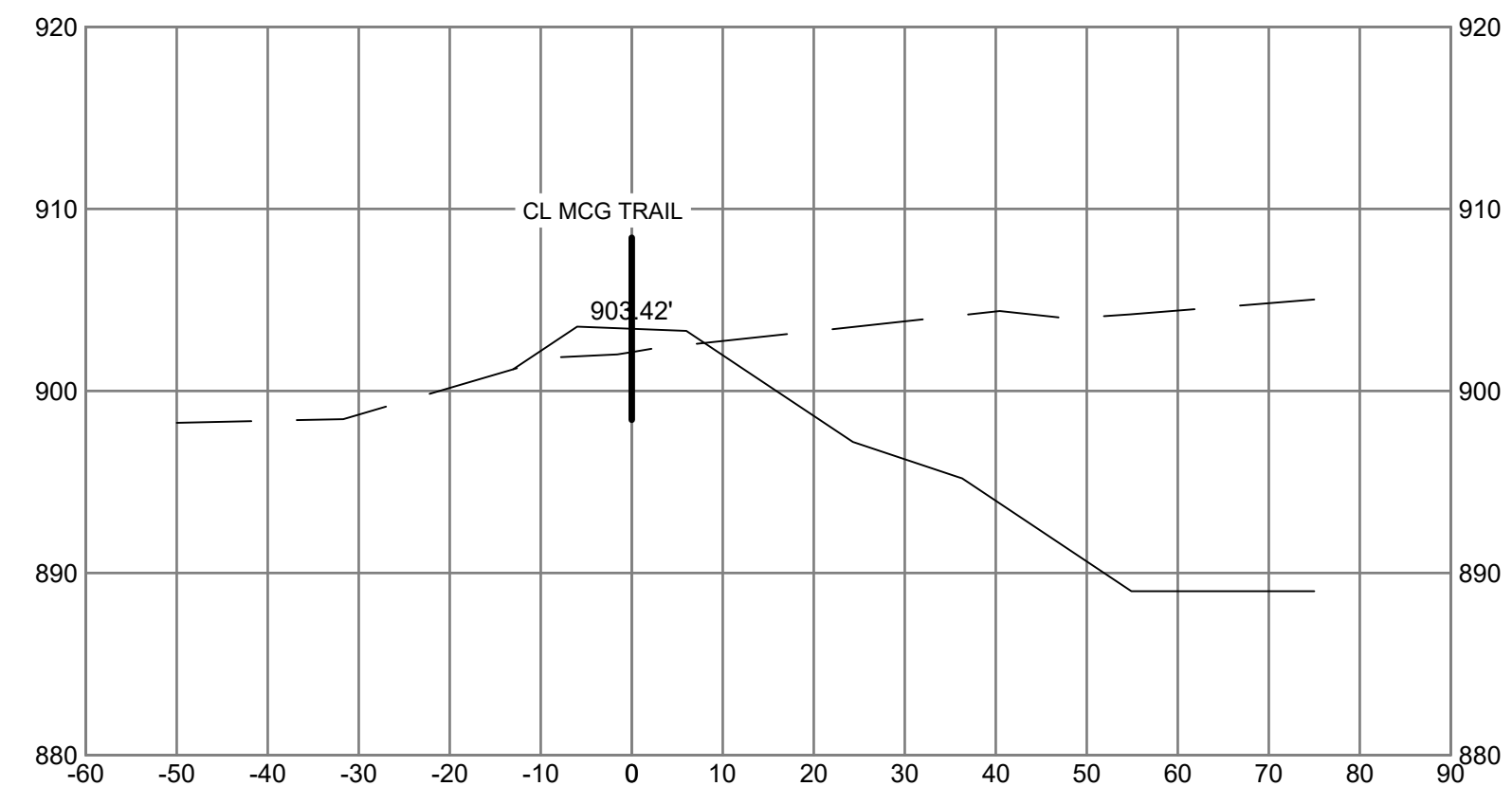
MCG Trail Alignment
STA 21+50.00



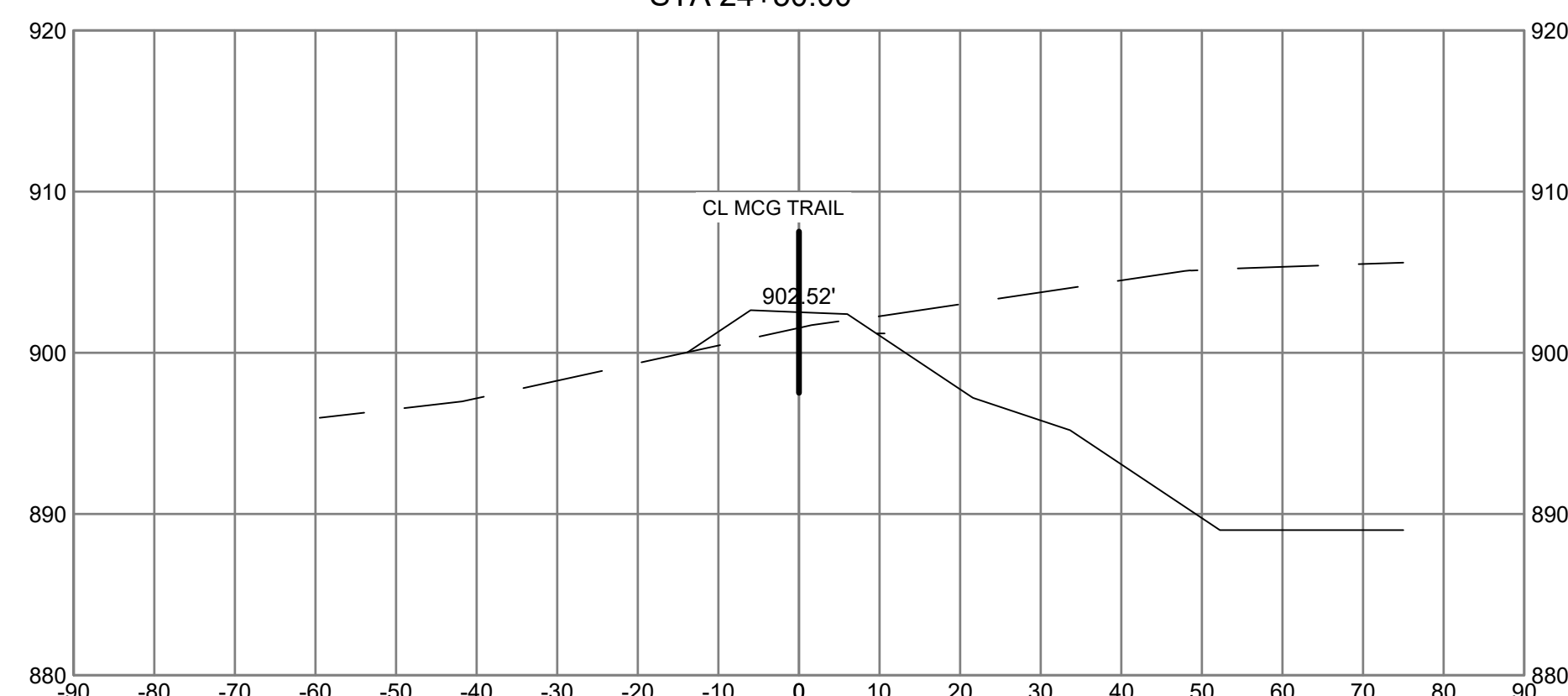
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STA 22+35.00



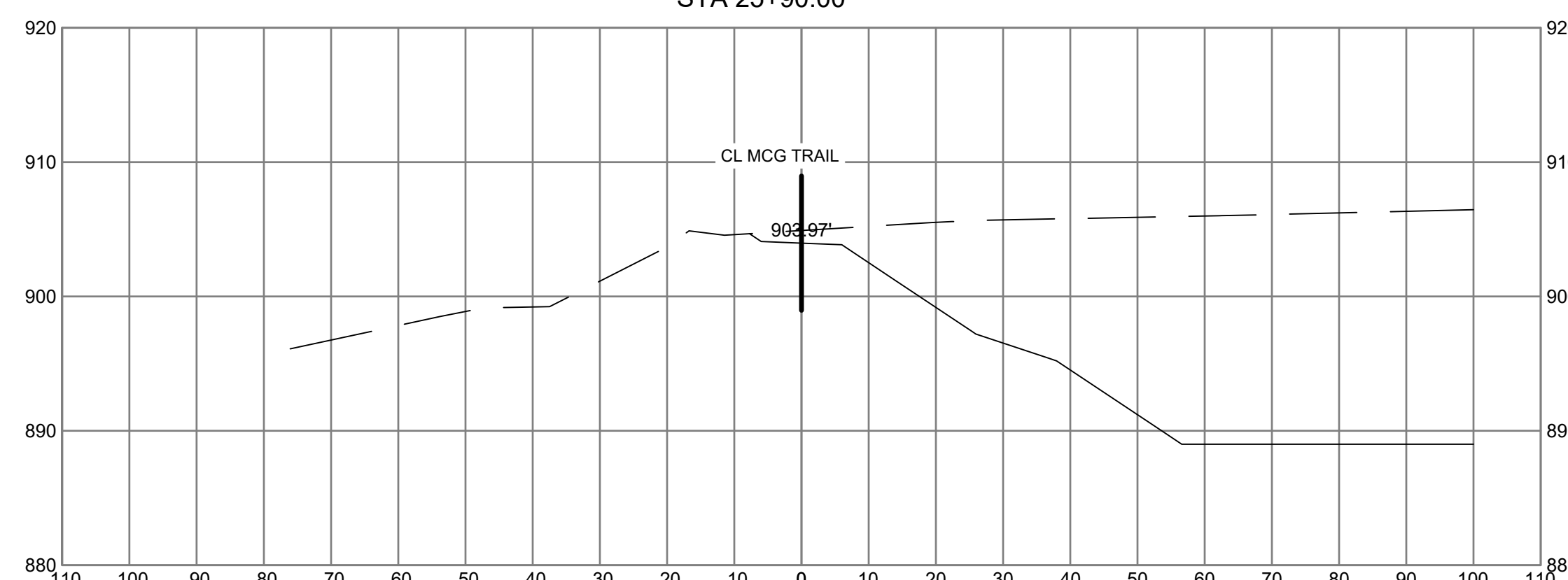
MCG Trail Alignment
STA 23+00.00



MCG Trail Alignment
STA 24+50.00



MCG Trail Alignment
STA 25+90.00



VERTICAL SCALE : 1" = 1'



MINNEHAHA CREEK
WATERSHED DISTRICT



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PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
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ANDREW F. JUDD, PE
 DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

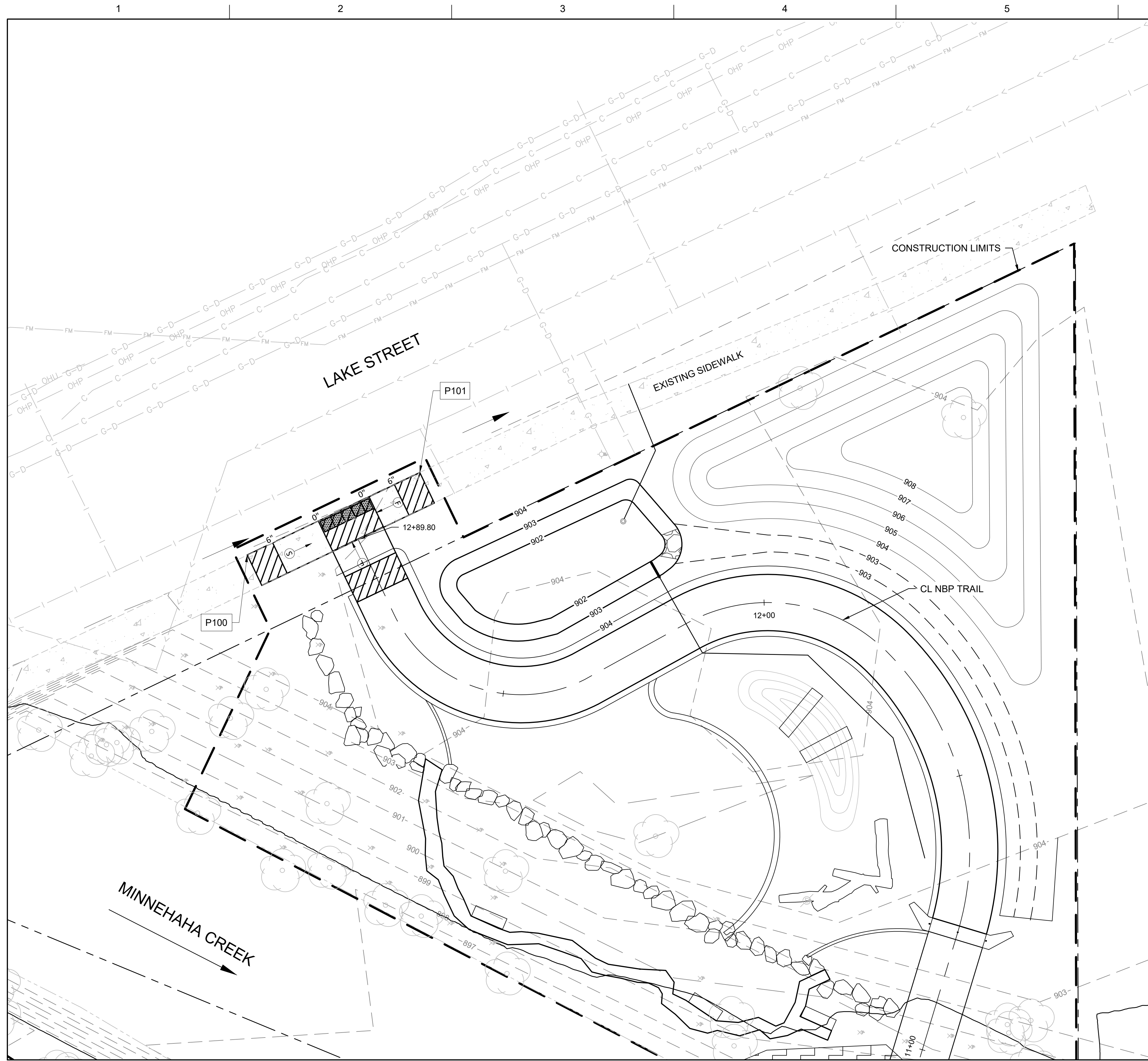
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

**TRAIL CROSS SECTIONS
 MINNEHAHA CREEK GREENWAY TRAIL**



FILENAME CT201.DWG
 SCALE HORIZONTAL: 1" = 20'

SHEET
CT202



LAKE STREET CONTROL POINTS			
POINT	NORTHING	EASTING	ELEVATION
P100	151231.447	499731.201	904.63
P101	151246.095	499745.762	903.86

LEGEND

- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PAR.
- CURB HEIGHT
- DRAINAGE FLOW ARROW
- INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
- INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
- CONTROL POINT



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ANDREW F. JUDD, PE

DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

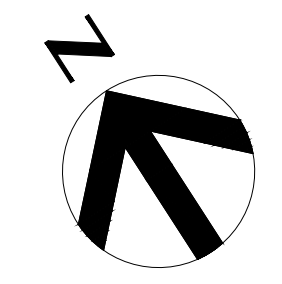
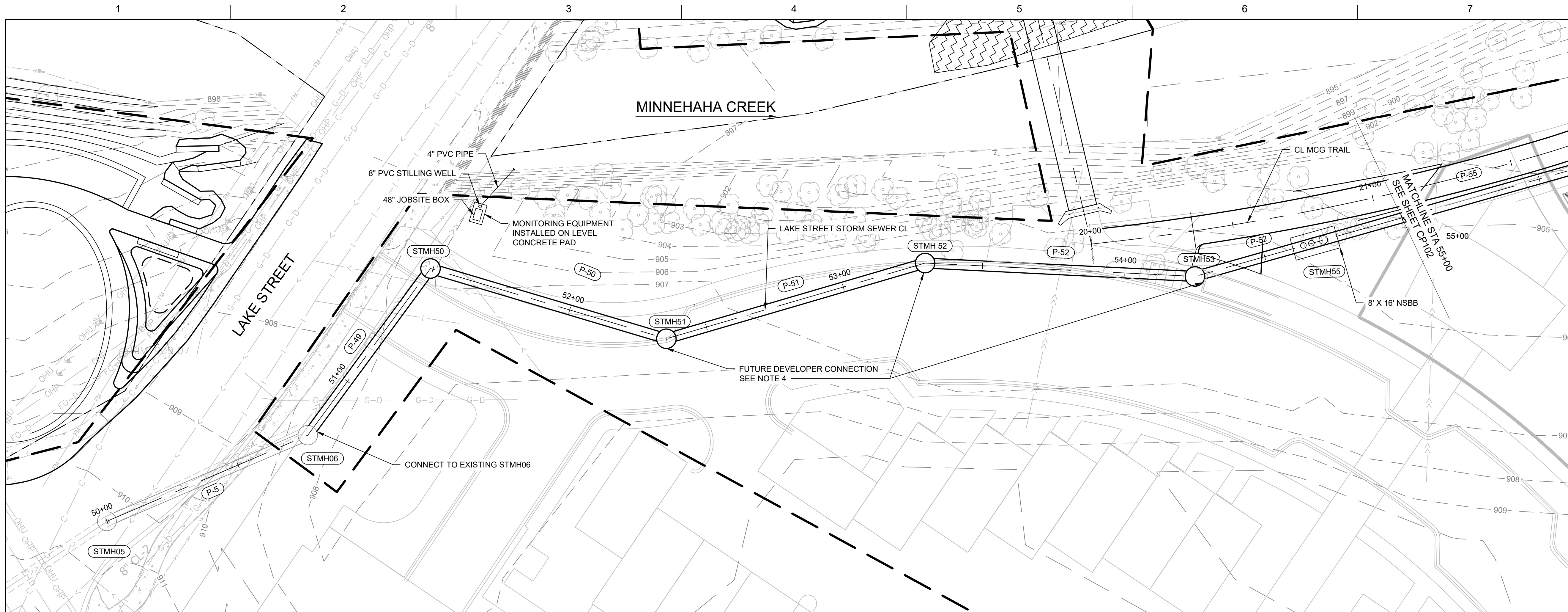
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**INTERSECTION DETAIL SHEET
LAKE STREET CROSSING**

FILENAME | CPED01.DWG

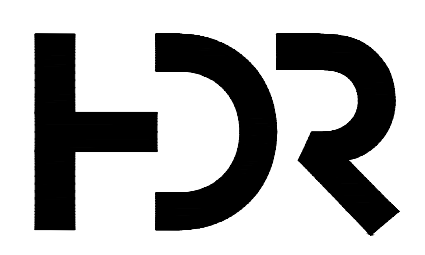
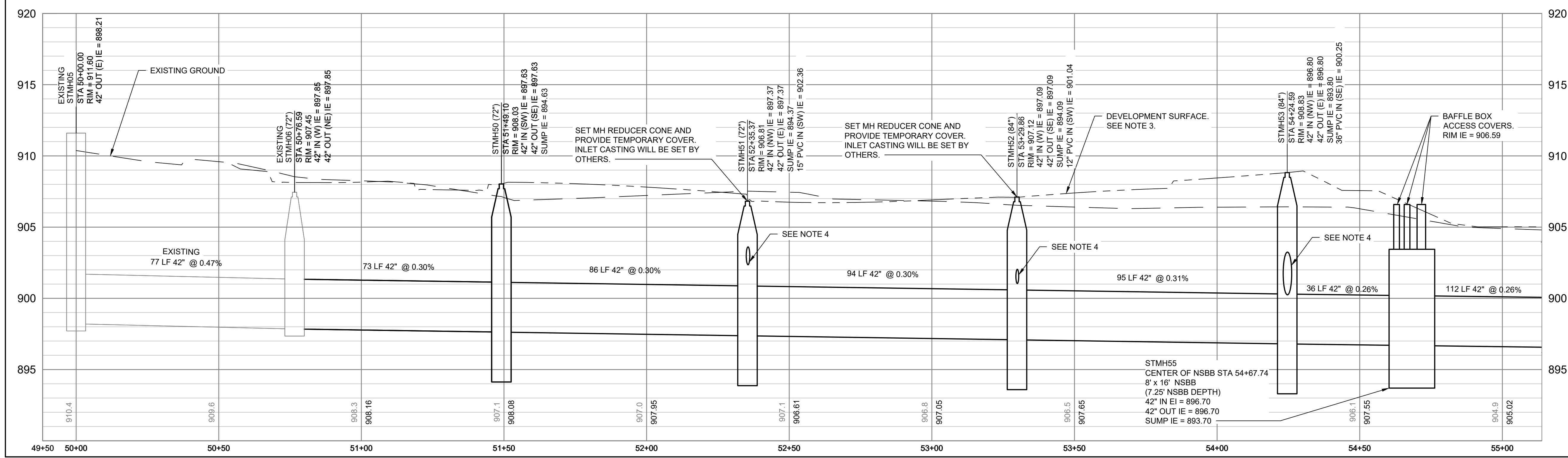
SCALE | 1" = 10'

SHEET
CIN01



GENERAL NOTES

- SEE SHEET CP501 FOR STORM SEWER TABULATIONS.
- SEE STANDARD DETAIL PACKAGE FOR STORM SEWER AND CULVERT CONSTRUCTION DETAILS.
- DEVELOPMENT SURFACE BY OTHERS. SET MH RIM TO TOP ELEVATION AND RESTORE GRADE TO MATCH SURROUNDING STRUCTURE.
- COORDINATE WITH OWNER'S REPRESENTATIVE BEFORE ORDERING MH'S TO CONFIRM SIZE AND INVERT OF DEVELOPER PIPE CONNECTION. DEVELOPER STORM SEWER WILL BE CONNECTED BY OTHERS INCLUDING ANY ASSOCIATED EXCAVATION OR BACKFILL.



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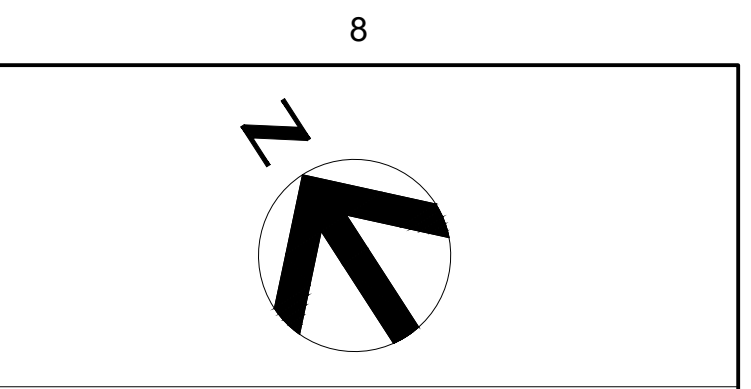
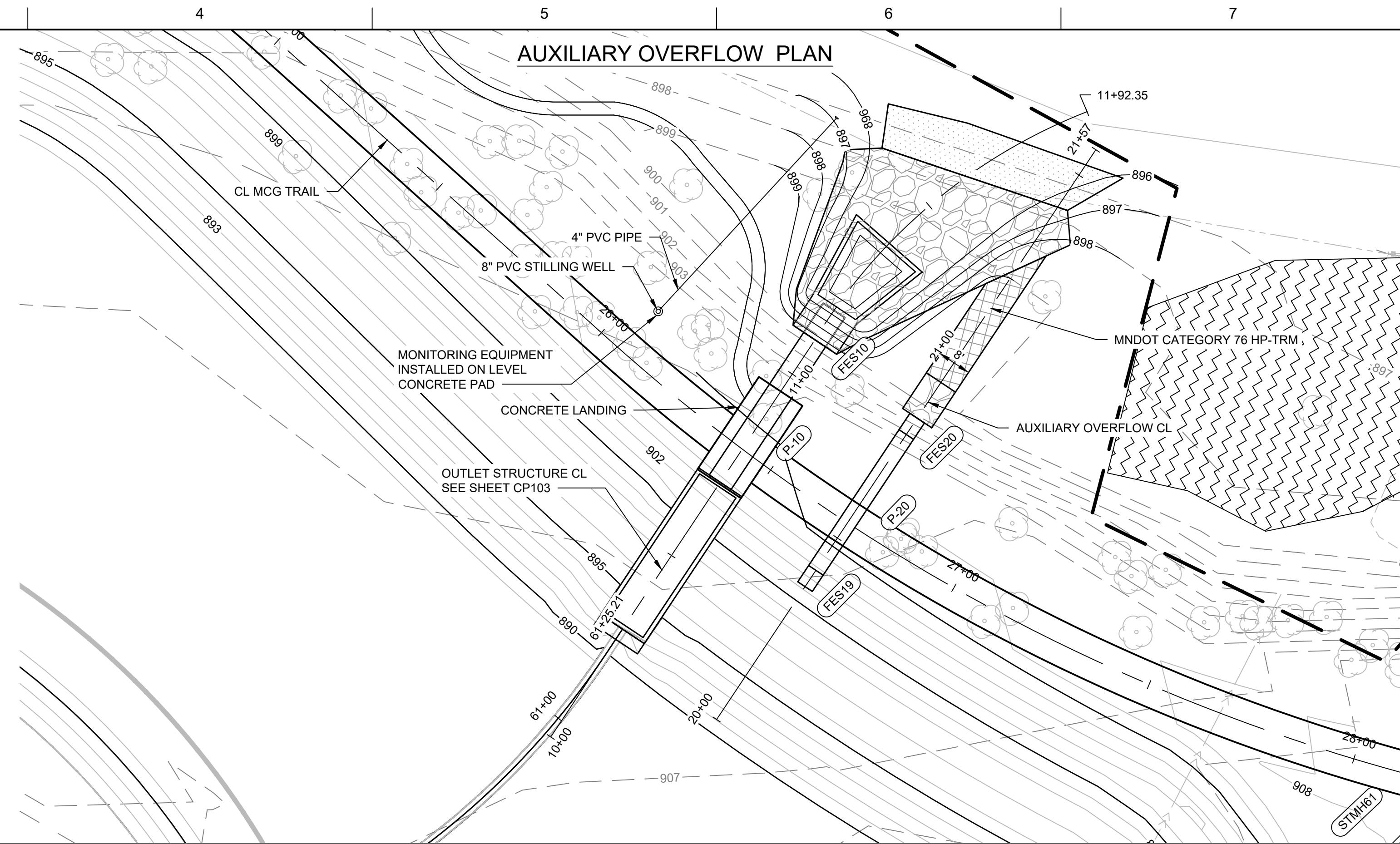
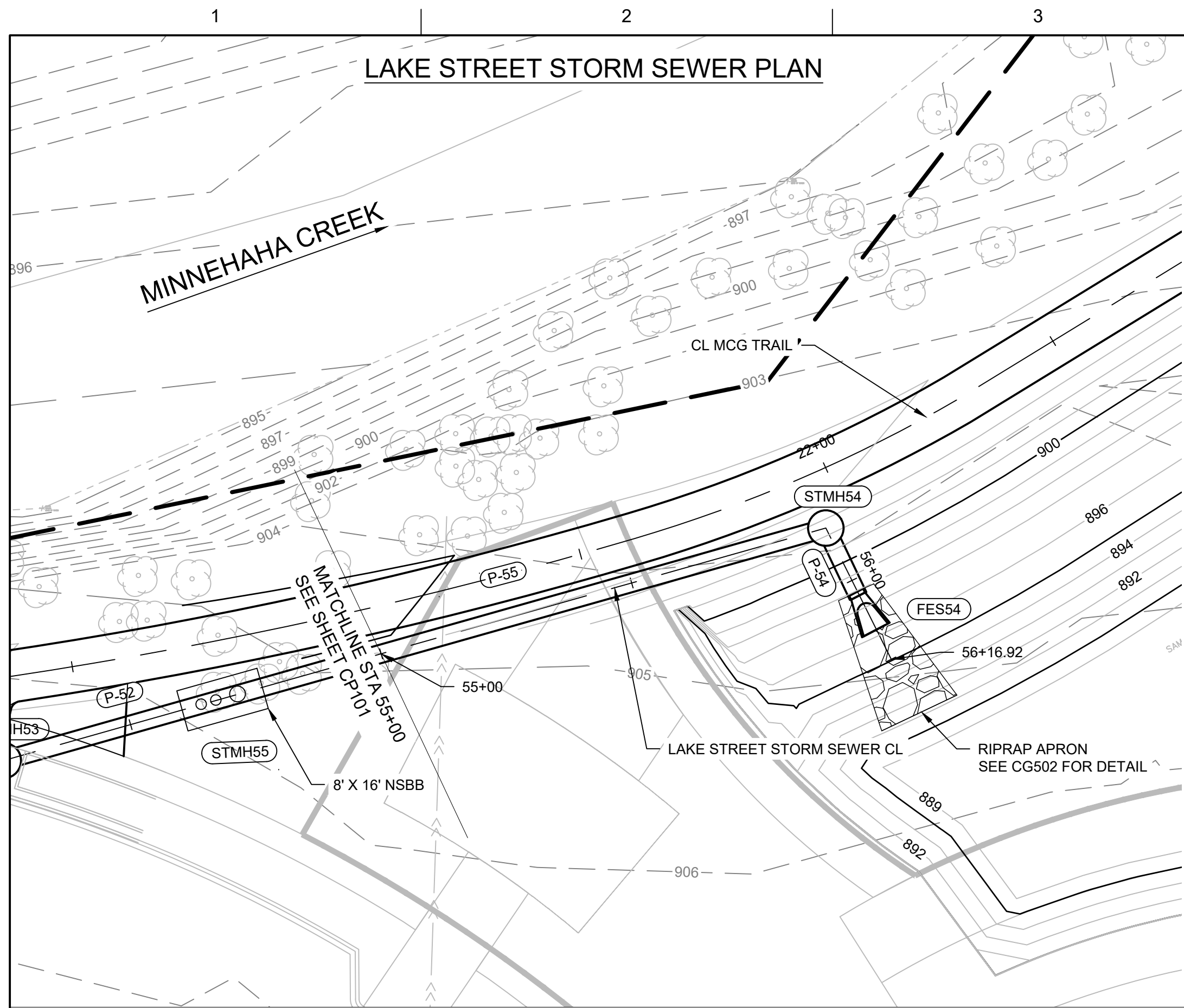
ANDREW F. JUDD, PE
 DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

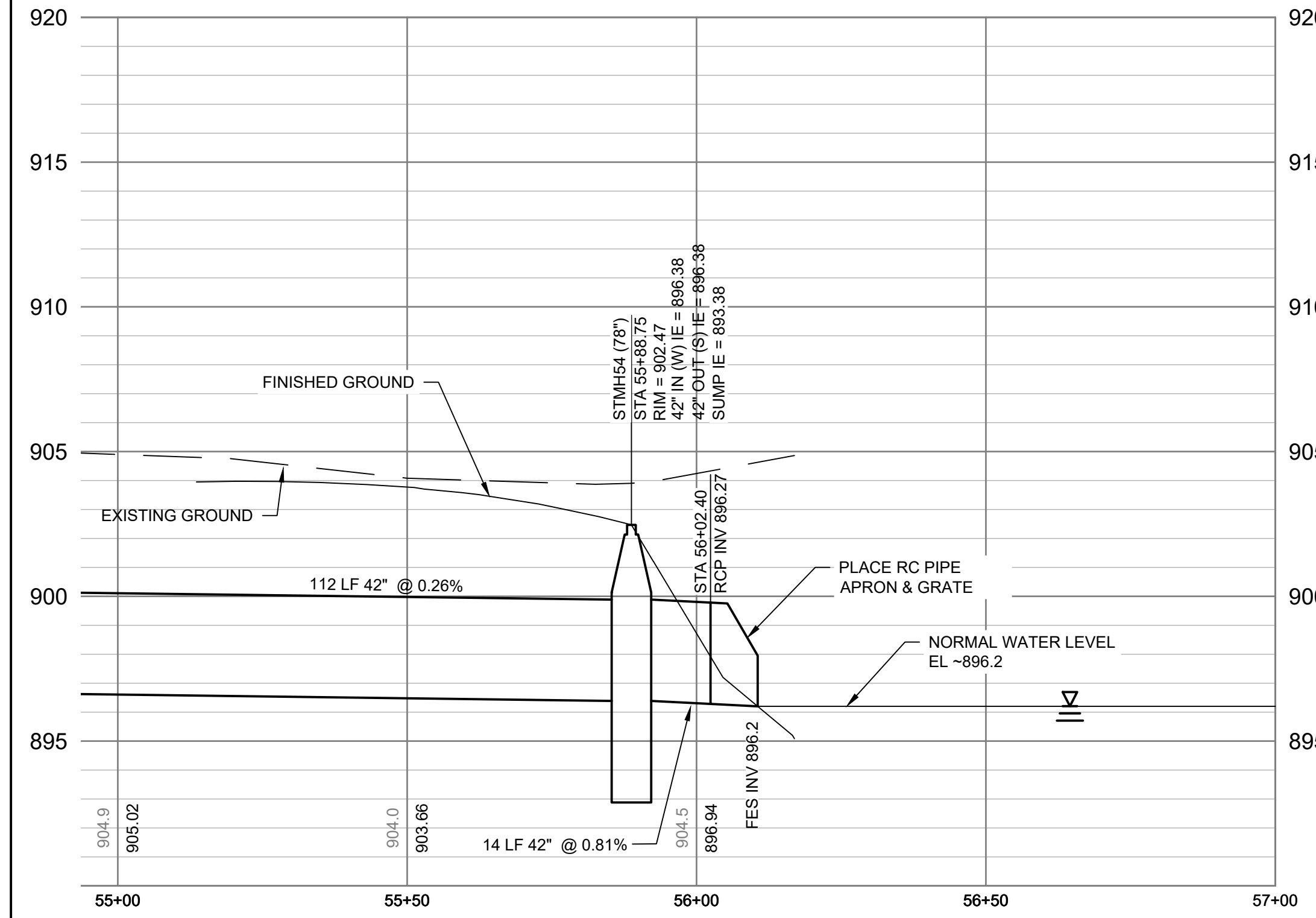
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

STORM SEWER PLAN & PROFILE

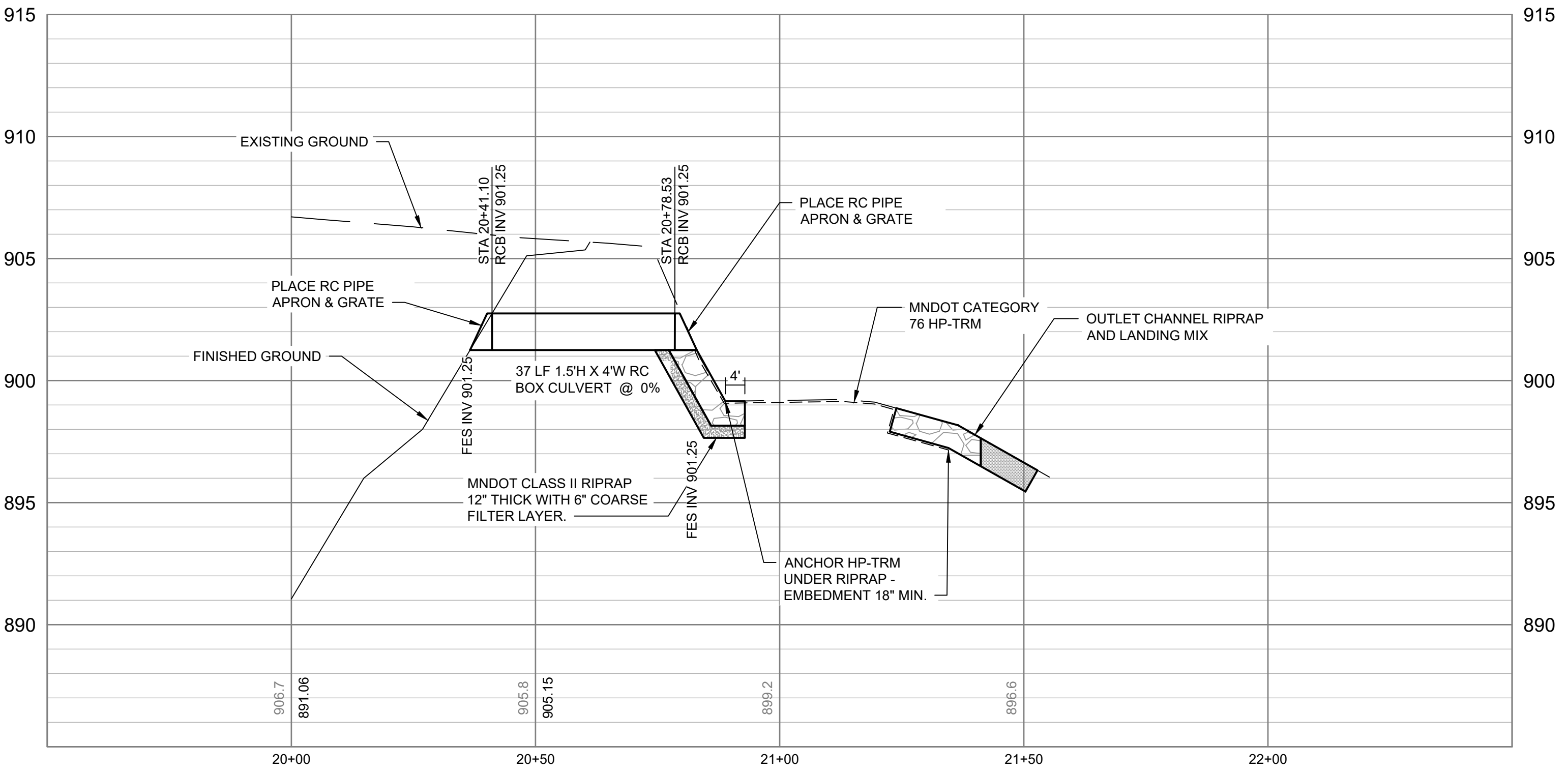
FILENAME | CP101-104.DWG
 SCALE | 1" = 20'
 SHEET | CP101



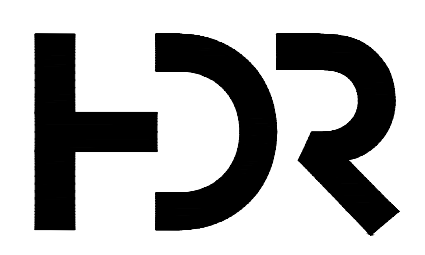
- GENERAL NOTES**
- SEE SHEET CP501 FOR STORM SEWER TABULATIONS.
 - SEE STANDARD DETAIL PACKAGE FOR STORM SEWER AND CULVERT CONSTRUCTION DETAILS.



LAKE STREET STORM SEWER PROFILE
H: 1"=20', V: 1"=4'



AUXILIARY OVERFLOW PROFILE
H: 1"=20', V: 1"=4'



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PROJECT NUMBER	10268112

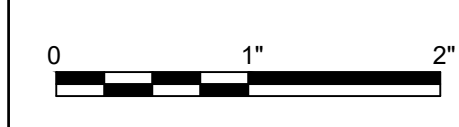
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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

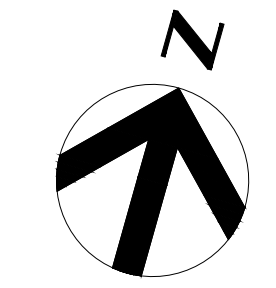
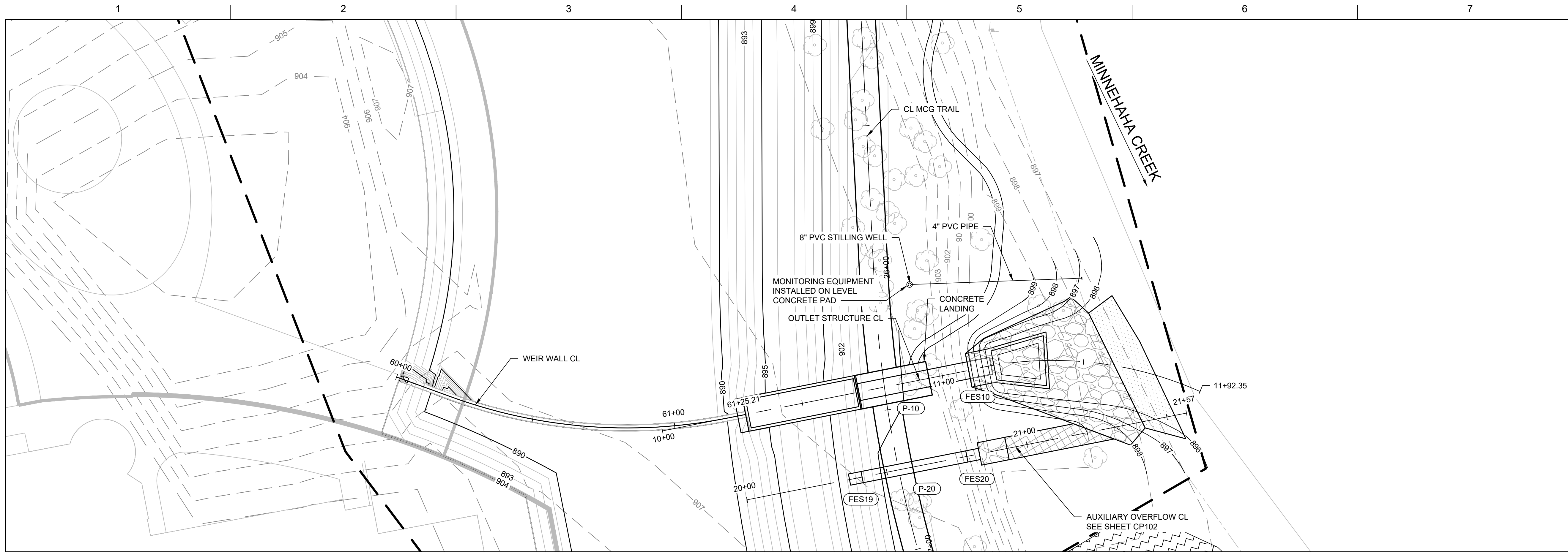
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

STORM SEWER PLAN & PROFILE



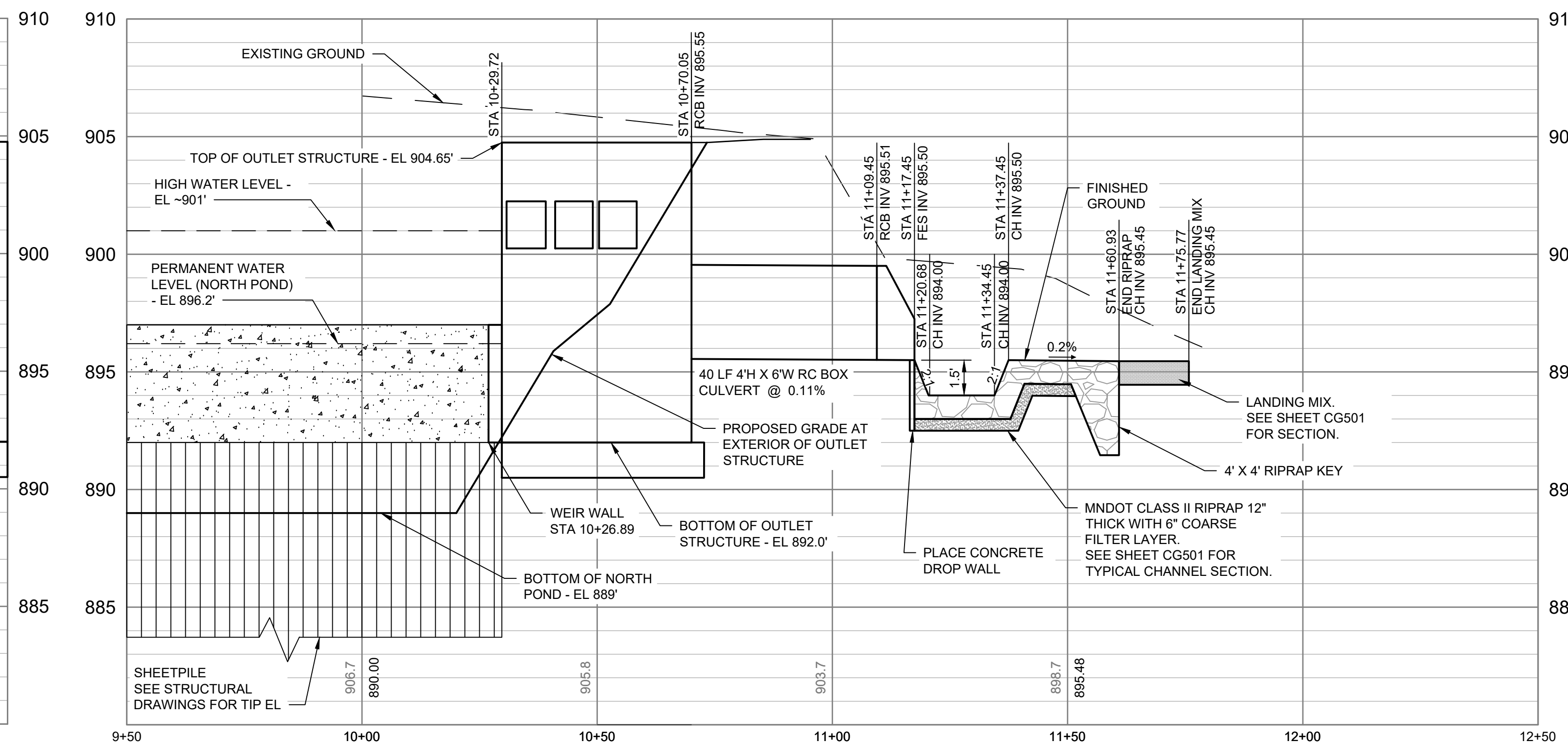
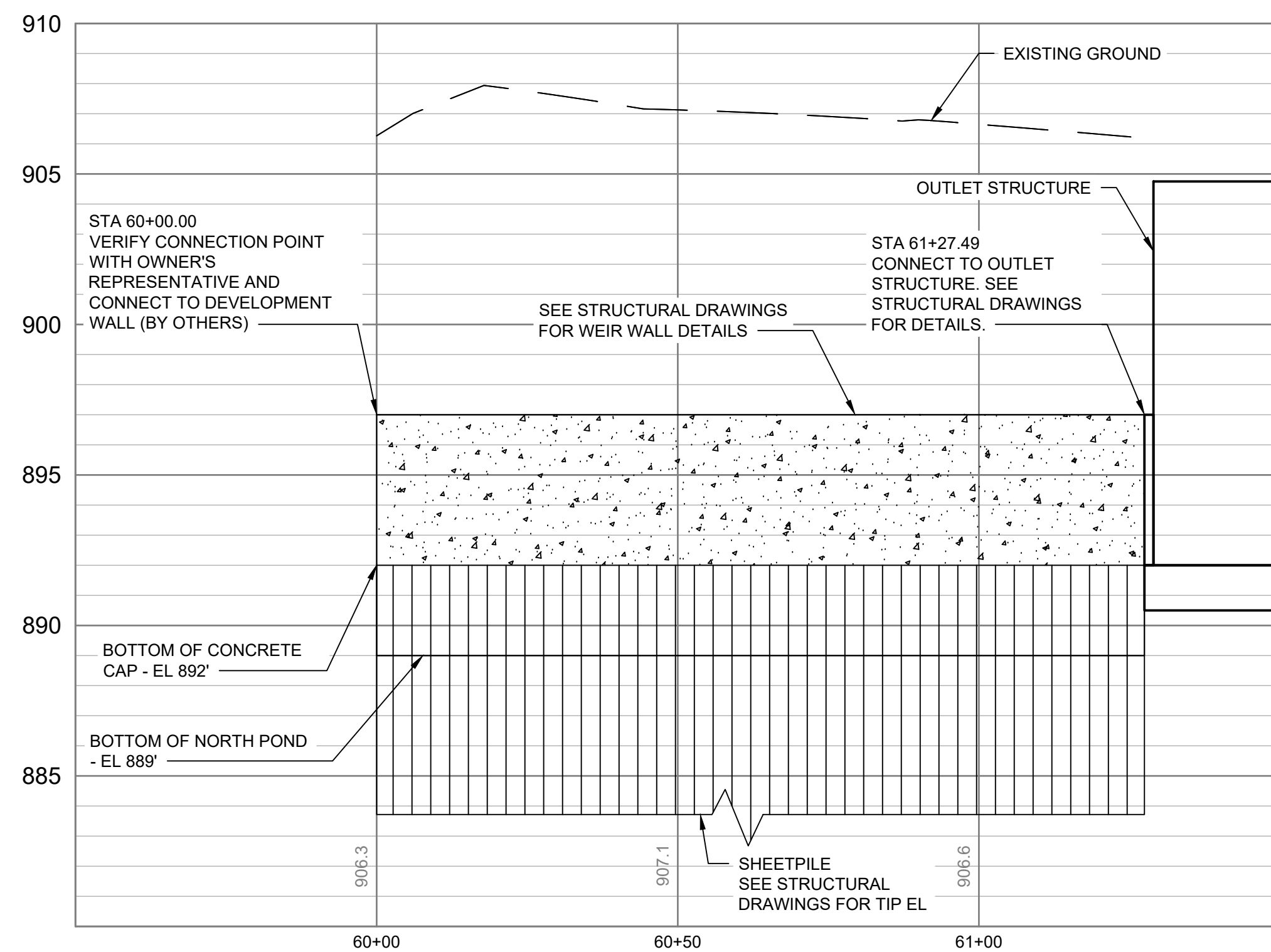
FILENAME | CP101-104.DWG
SCALE | 1" = 20'

SHEET
CP102

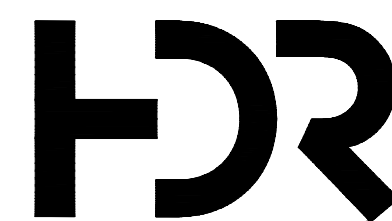


GENERAL NOTES

- SEE SHEET CP501 FOR STORM SEWER TABULATIONS.
- SEE STANDARD DETAIL PACKAGE FOR STORM SEWER AND CULVERT CONSTRUCTION DETAILS.



MINNEHAHA CREEK
WATERSHED DISTRICT



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PROJECT NUMBER	10268112

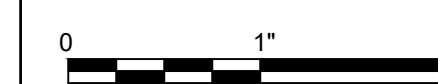
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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

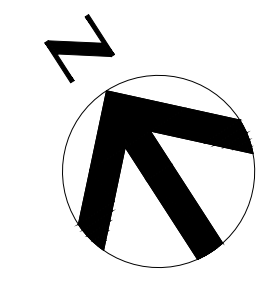
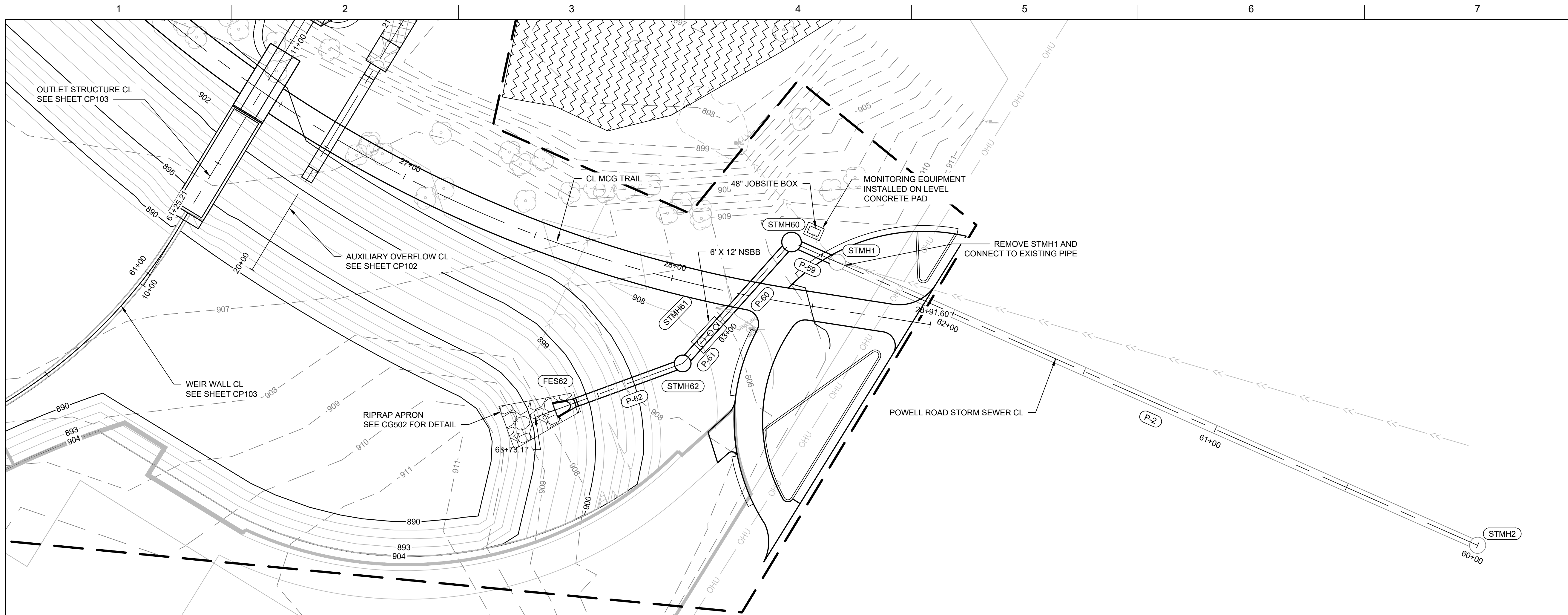
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

STORM SEWER PLAN & PROFILE



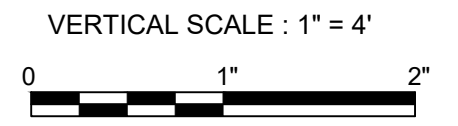
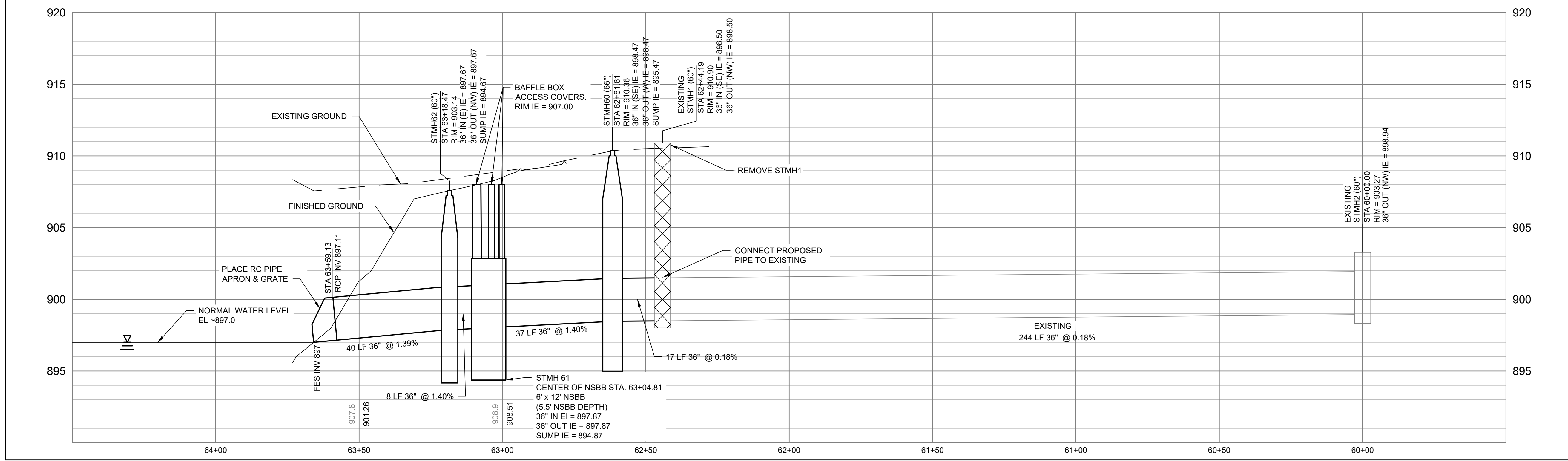
FILENAME | CP101-104.DWG
 SCALE | 1" = 20'

SHEET
CP103



GENERAL NOTES

- SEE SHEET CP501 FOR STORM SEWER TABULATIONS.
- SEE STANDARD DETAIL PACKAGE FOR STORM SEWER AND CULVERT CONSTRUCTION DETAILS.



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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

STORM SEWER PLAN & PROFILE

FILENAME | CP101-104.DWG
 SCALE | 1" = 20'
 SHEET | CP104

STORM SEWER TABULATION

STRUCTURE ID	DRAINAGE STRUCTURE								DOWNSTREAM PIPE										REMARKS		
	STRUCTURE LOCATION		TYPE	DESIGN	DEPTH ② LIN FT	CASTING ASSEMBLY ③ TYPE	TOP ELEV	STEPS REQ'D	UPSTREAM INVERT ELEV	DRAINS TO		36" RCP CL III LIN FT	42" RCP CL III LIN FT	36" RCP CL V LIN FT	42" RCP CL V LIN FT	DOWNSTREAM INVERT ELEV	CONNECT TO EXISTING STORM			APRON EACH	APRON TYPE
	ALIGN.	STATION ①								STRUCTURE ID	SLOPE (%)						EACH	EACH			
STMH06	LAKE STREET STORM SEWER	50+76.59	MH					907.45		STMH50	0.30					897.63	1			Existing structure	
STMH50	LAKE STREET STORM SEWER	51+49.10	MH	72-4020	13.67	A-7		908.30	Y	STMH51	0.30					897.37					
STMH51	LAKE STREET STORM SEWER	52+35.37	CB	72-4020	12.44	By Others		906.81	Y	STMH52	0.30					897.09				⑩	
STMH52	LAKE STREET STORM SEWER	53+29.86	CB	84-4020	13.03	By Others		907.12	Y	STMH53	0.31					896.80				⑩	
STMH53	LAKE STREET STORM SEWER	54+24.59	CB	84-4020	15.03	By Others		908.83	Y	STMH55	0.26					896.70				⑩	
STMH55	LAKE STREET STORM SEWER	54+67.74	NSBB	④	10.25			906.59 ⑥		STMH54	0.26					896.38					
STMH54	LAKE STREET STORM SEWER	55+88.75	MH	78-4020	9.09	A-7		902.47	Y	FES54 ⑦	0.81			14 ⑨		896.20 ⑧		1	RC APRON		
STMH1	POWELL ROAD STORM SEWER	62+44.19	MH					898.50		STMH60	0.18	17				898.47	1			Existing structure to be removed	
STMH60	POWELL ROAD STORM SEWER	62+61.61	MH	66-4020	14.89	A-7		910.36	Y	STMH61	1.40	37				897.87					
STMH61	POWELL ROAD STORM SEWER	63+04.81	NSBB	④	8.50			907.00 ⑥		STMH62	1.40	8				897.67					
STMH62	POWELL ROAD STORM SEWER	63+18.47	MH	60-4020	8.47	A-7		903.14	Y	FES62 ⑦	1.22			40 ⑨		897.00 ⑧		1	RC APRON		

GENERAL NOTES

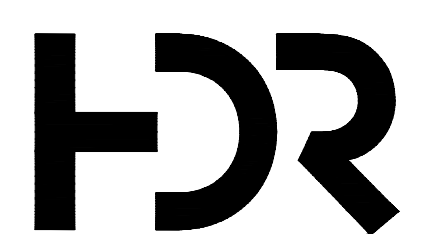
1. INVERT ELEVATIONS ARE GIVEN AT CENTER OF STRUCTURES.
2. PIPE LENGTHS ARE FROM CENTER TO CENTER OF STRUCTURE.
3. IF STEPS REQUIRED, STRUCTURE TO INCLUDE MANHOLE STEPS 16" ON CENTER. SEE MNDOT STANDARD PLATE 4180.
4. ALL PIPE JOINTS SHALL BE TIED FROM APRON TO THE FIRST STRUCTURE. PIPE TIES SHALL BE INCIDENTAL.
5. ALL CONCRETE PIPE SEWER DESIGN 3006 GASKET JOINT PIPE.
6. APRON STATIONS ARE GIVEN AT THE UPSTREAM END OF APRON.

OUTFALL PIPE TABULATION

STRUCTURE ID	ALIGN.	UPSTREAM INVERT ELEV	SLOPE (%)	DOWNSTREAM INVERT ELEV	4Hx6W RC BOX CULVERT	1.5Hx4W RC BOX CULVERT	APRON	APRON TYPE	REMARKS
					LIN FT	LIN FT	EACH		
P-10	OUTLET STRUCTURE CL	895.55	0.11	895.5 ⑧	40 ⑨		1	TYPE I SINGLE BARREL	
P-20	AUXILIARY OVERFLOW CL	901.25 ⑧	0	901.25 ⑧		37	2	TYPE I SINGLE BARREL	

SPECIFIC NOTES:

- ① CENTER OF CASTING (GRATE OR COVER).
- ② DEPTH CALCULATED AS RIM ELEVATION - STRUCTURE INVERT (INCLUDES SUMP).
- ③ FOR SPECIFIC CASTING ASSEMBLY SUMMARY SEE MNDOT STANDARD PLATES 4101 AND 4110.
- ④ SEE SPECIFICATIONS FOR NUTRIENT SEPARATING BAFFLE BOX (NSBB) DETAILS.
- ⑤ NSBB DEPTH REFERS TO STRUCTURE DEPTH WITH A 3' SUMP.
- ⑥ RIM ELEVATION FOR NSBB ACCESS COVERS.
- ⑦ FES54 LOCATED AT STATION 56+02.40. FES62 LOCATED AT STATION 63+59.13.
- ⑧ INVERT IS GIVEN AT THE END OF APRON.
- ⑨ TIE JOINTS IN THIS PIPE SEGMENT.
- ⑩ COORDINATE WITH OWNER'S REPRESENTATIVE FOR FUTURE DEVELOPER CONNECTION.



ISSUE	DATE	DESCRIPTION
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PROJECT MANAGER ANDREW F. JUDD	
PROJECT NUMBER	10268112

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ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

STORM SEWER TABULATION



FILENAME | CP105.DWG
SCALE | NA

SHEET
CP501

SPECIAL INSPECTIONS

ATTEND A PRE-CONSTRUCTION MEETING TO COORDINATE AND CLARIFY SPECIAL INSPECTION AND TESTING PROCEDURES AND REQUIREMENTS.

- A. THE MEETING IS TO BE ATTENDED BY:
1. OWNER
 2. ENGINEER OF RECORD OR HIS REPRESENTATIVE
 3. AUTHORITY HAVING JURISDICTION OFFICIAL OR BUILDING INSPECTION
 4. TESTING AGENCY AND SPECIAL INSPECTORS
 5. GENERAL CONTRACTOR
 6. APPROPRIATE SUB-CONTRACTORS

SPECIAL INSPECTIONS:

SPECIAL INSPECTIONS ARE REQUIRED IN ACCORDANCE WITH CHAPTER 1 AND CHAPTER 17 OF THE IBC. PAYMENT FOR THESE INSPECTIONS IS NOT THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE FOR FULL ACCESS TO THE WORK BY THE SPECIAL INSPECTOR AND SHALL PROVIDE FOR THESE INSPECTIONS IN HIS CONSTRUCTION SCHEDULE IN ACCORDANCE WITH THE SPECIFICATIONS.

REQUIRED STRUCTURAL TESTS AND SPECIAL INSPECTIONS						
STRUCTURAL TESTING AND SPECIAL INSPECTIONS ARE IN ACCORDANCE OF IBC CHAPTER 17.						
DESCRIPTION	TESTING		INSPECTING		N/A	COMMENTS
	YES	NO	YES	NO		
1. STEEL CONSTRUCTION						UNLESS VISUAL FAILURE
WELDING		*	*			UNLESS VISUAL FAILURE
DETAILS: BRACING, LOCATIONS, ETC.		*	*			UNLESS VISUAL FAILURE
HIGH-STRENGTH BOLTING		*	*			
2. CONCRETE CONSTRUCTION						
CONCRETE	*		*			
REINFORCEMENT: SIZE AND SPACING		*	*			
BOLTS INSTALLED IN CONCRETE		*	*			
DUCTILE MOMENT FRAMES				*		
3. MASONRY CONSTRUCTION						
REINFORCEMENT: SIZE AND SPACING				*		
PRISMS				*		
DETAILS: GROUTING, LINTELS, ETC.				*		
4. WOOD CONSTRUCTION					*	
5. GRADING, EXCAVATION AND FILLING	*		*			
6. PILING, PIERS AND CAISSONS		*	*			
7. SPRAY-APPLIED FIREPROOFING					*	
8. EXTERIOR INSULATION AND FINISH SYSTEM					*	
9. SPECIAL CASES					*	

GENERAL:

SCOPE:

THE NOTES ON THIS SHEET AND THE STANDARD STRUCTURAL DETAILS ARE GENERAL AND APPLY TO THE ENTIRE PROJECT WHETHER SPECIFICALLY CALLED OUT OR NOT, EXCEPT WHERE THERE ARE SPECIFIC INDICATIONS TO THE CONTRARY ON STRUCTURAL SHEETS. IF THERE ARE QUESTIONS, THEY SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER AND ANSWERED IN WRITING PRIOR TO CONSTRUCTION.

APPLICABLE SPECIFICATIONS AND CODES:

- 2020 MINNESOTA BUILDING CODE
- 2018 INTERNATIONAL BUILDING CODE
- ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- ACI 350-06 CODE REQUIREMENTS FOR ENVIRONMENTAL CONCRETE STRUCTURES
- ASCE7-16 MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS

STANDARD DETAILS:

THE STANDARD DETAILS DEPICT TYPICAL DETAILING TO BE USED ON THIS PROJECT. IF CONDITIONS ARE NOT EXPLICITLY SHOWN ON THE DRAWINGS THEY SHALL BE MADE SIMILAR TO THE STANDARD DETAILS. OBTAIN APPROVAL OF ENGINEER IN WRITING PRIOR TO CONSTRUCTION.

MATERIAL

DESIGN STRENGTHS:

CONCRETE 4000 PSI @ 28 DAYS
 REINFORCEMENT ASTM A615 GRADE 60
 CONCRETE FILL 3,000 PSI @ 28 DAYS

STEEL:

W-SHAPE & TEES ASTM A992 GRADE 50
 HSS ASTM A500 GRADE B
 SHEET PILING ASTM A328 GRADE 50
 PED BRIDGE SELF-WEATHERING STEEL
 ASTM A847 TUBING
 ASTM A588 PLATES & OTHER SHAPES GRADE 50
 WIRE ROPE ASTM A1023
 TURNBUCKLES ASTM A182, GRADE F316
 OTHER SHAPES ASTM A36

CONSTRUCTION NOTES:

EXCAVATION:

CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TEMPORARY SHEETING AND BRACING NECESSARY TO PROTECT PERSONNEL AND ADJACENT.

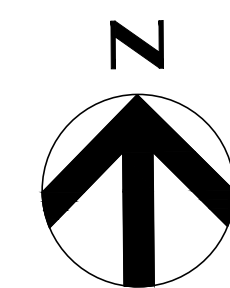
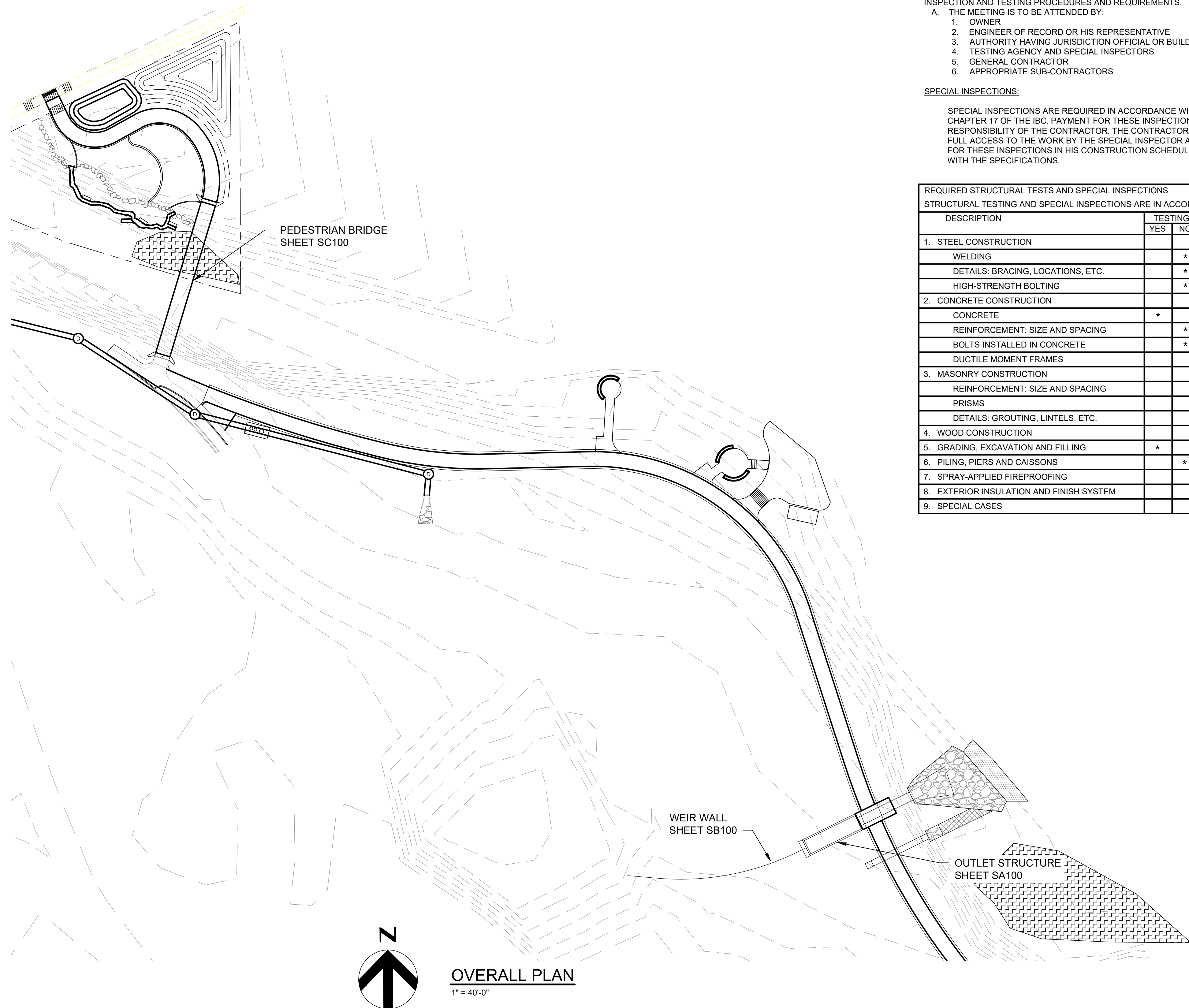
CONCRETE:

- A. LAP SPLICES AND 90 DEGREE HOOKS SHALL BE AS INDICATED BELOW

BAR SCHEDULE			
BAR SIZE	LAP	TOP*	90° HOOK
#3	19"	24"	6"
#4	25"	32"	8"
#5	31"	40"	10"
#6	37"	48"	12"
#7	47"	61"	15"
#8	53"	69"	19"

* DEMOTES TOP BAR SPLICES ARE HORIZONTAL REINFORCEMENT WITH 12" OR MORE OF CONCRETE CAST BELOW SPLICE.

- REINFORCING BARS SHALL HAVE THE FOLLOWING CONCRETE COVER UNO:
 - CONCRETE CAST AGAINST EARTH 3"
 - ALL OTHER CONCRETE 2"
- ALL DOWELS THROUGH FORMED SURFACES SHALL BE THREADED OR EQUIPPED WITH ADEQUATE LAP SPLICE
- CONCRETE SHALL BE PLACED WITHOUT CONSTRUCTION JOINTS EXCEPT WHERE SPECIFICALLY SHOWN ON THE DRAWINGS OR AS APPROVED BY THE EOR.
- BEVEL ALL EXPOSED CONCRETE 3/4" X 3/4" UNO.



OVERALL PLAN
1" = 40'-0"

PROJECT MANAGER ANDREW F. JUDD

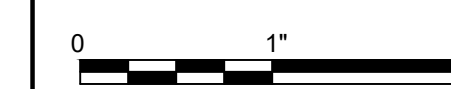
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 90% DRAFT
 SUBMITTAL FOR CLIENT REVIEW

DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

SITE PLAN AND STRUCTURAL NOTES

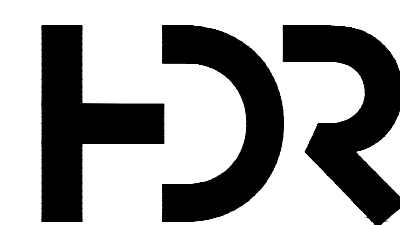


FILENAME S001.DWG
 SCALE 1" = 40'

SHEET
S001

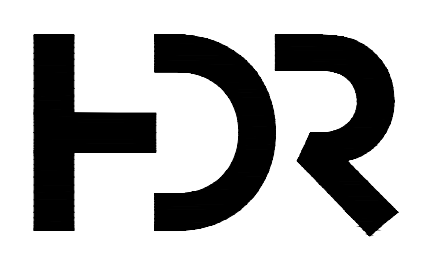
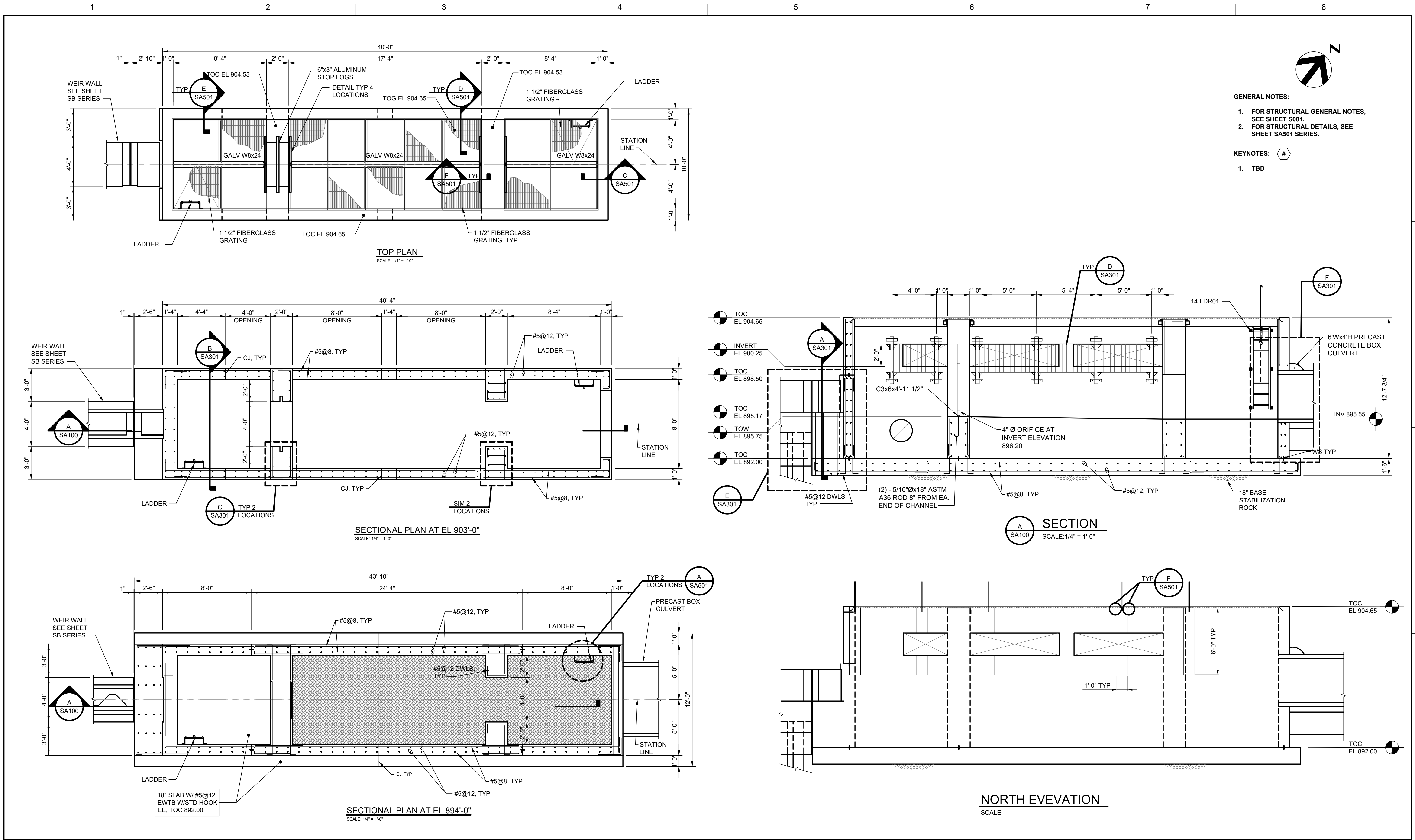


MINNEHAHA CREEK WATERSHED DISTRICT



ISSUE	DATE	DESCRIPTION
2	09/09/2022	90% DESIGN
4	06/13/2022	PFA GRANT PACKAGE

PROJECT NUMBER	DESCRIPTION
10268112	



ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
4	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER: ANDREW F. JUDD

PROJECT NUMBER	10268112
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90% DRAFT
SUBMITTAL FOR CLIENT REVIEW

JEROME W. MULVIHILL, PE
DATE: XX/XX/XXXX LICENSE # XXXXX

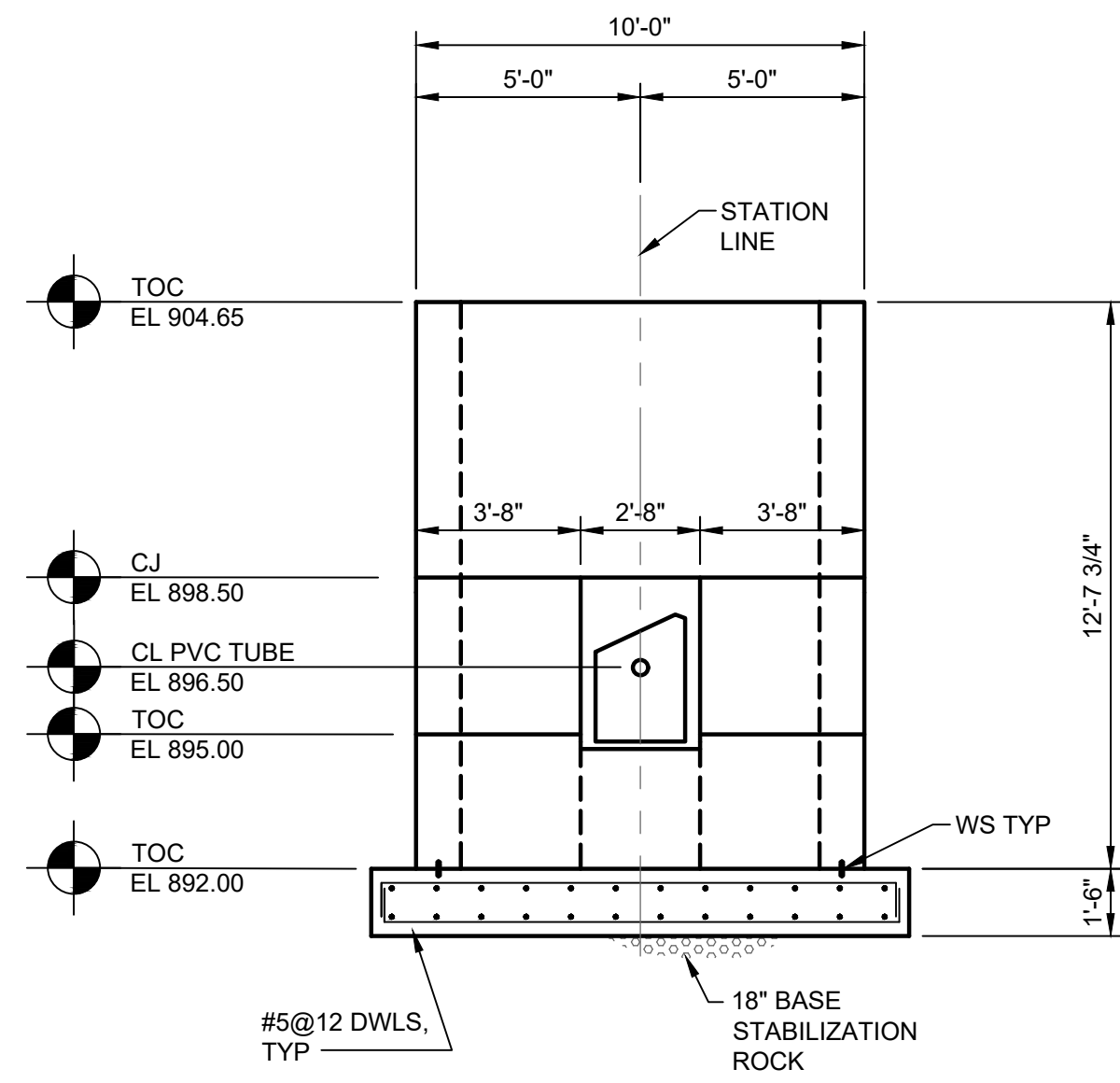
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

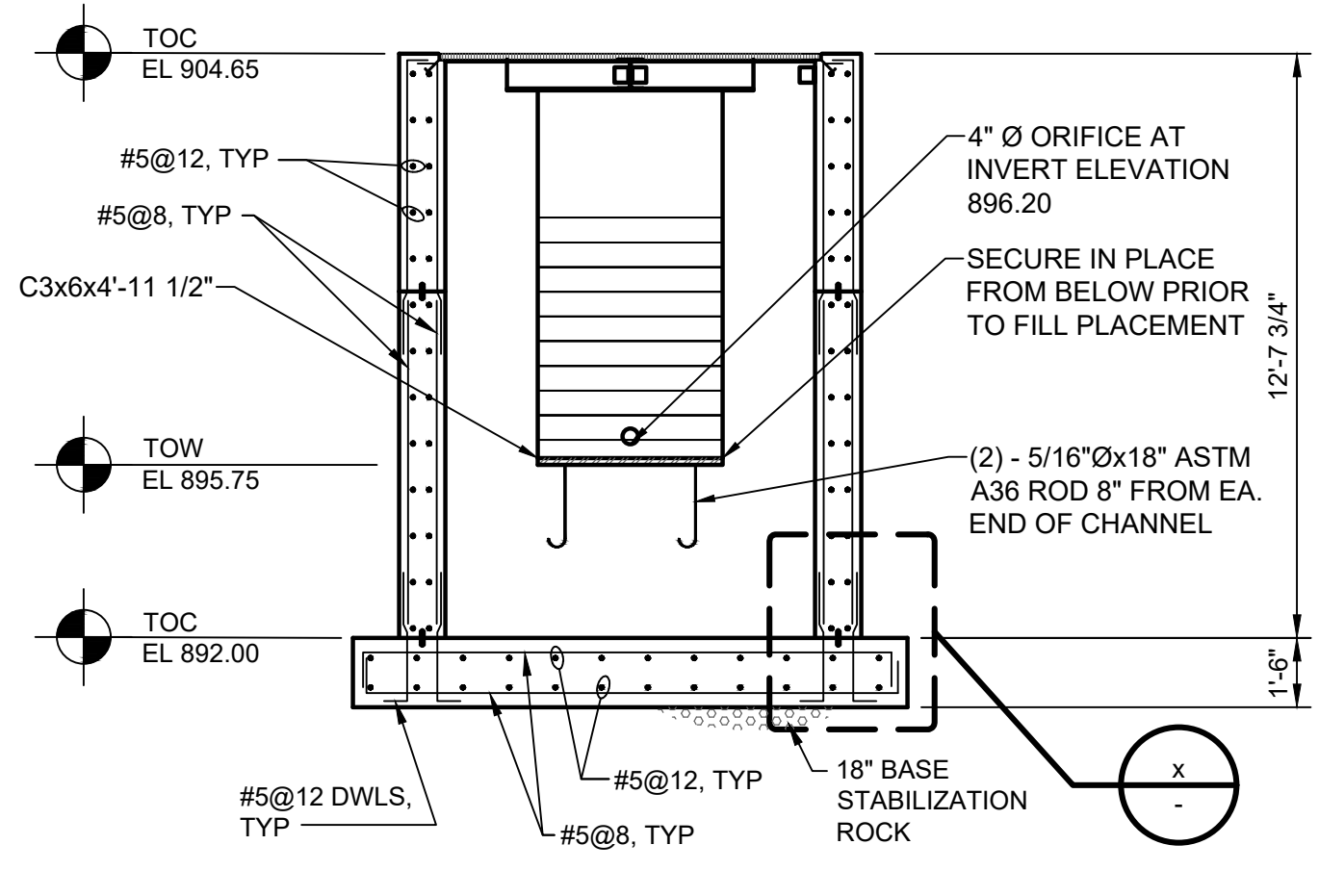
OUTLET STRUCTURE PLANS, SECTION AND ELEVATION

FILENAME: SA100.DWG
SCALE: 1/4" = 1'-0"

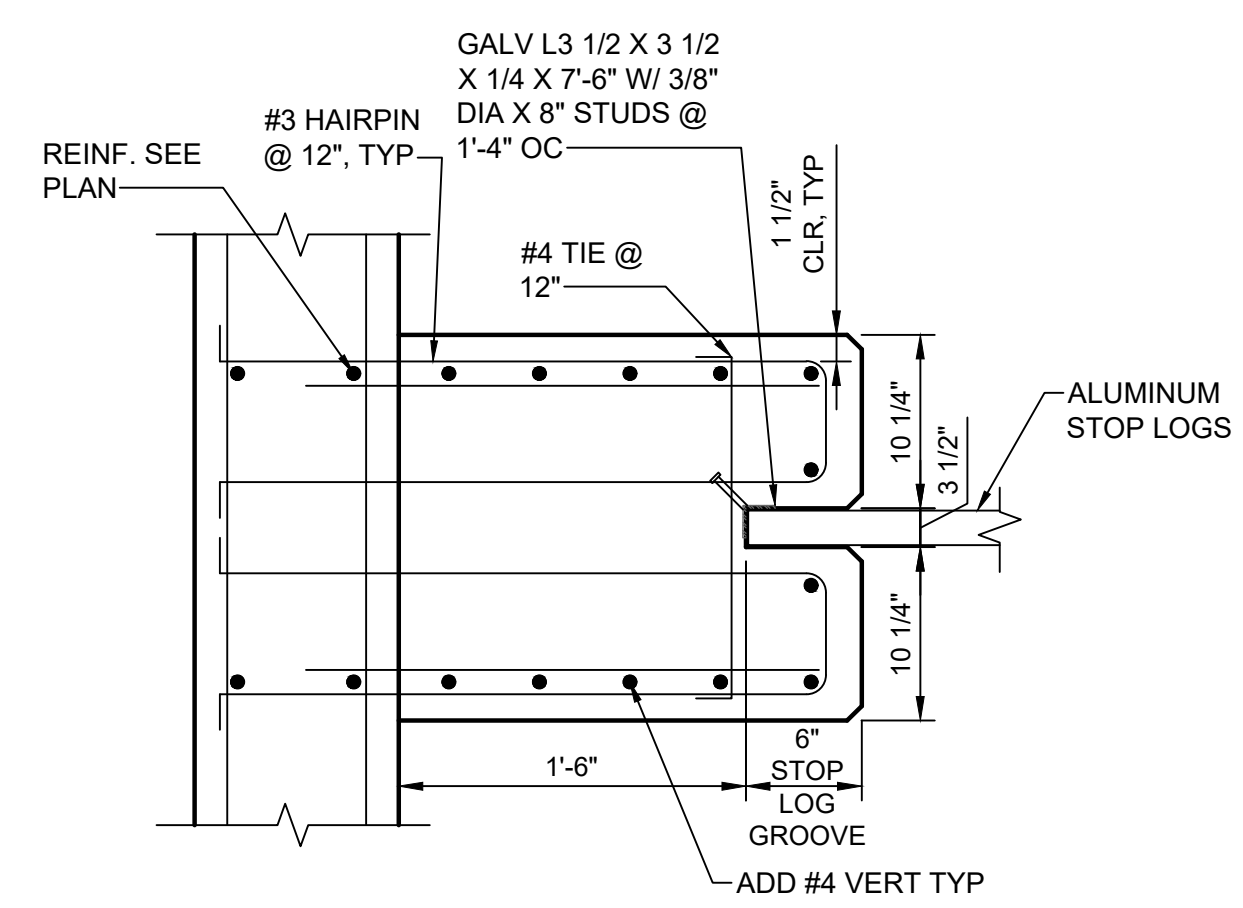
SHEET: SA100



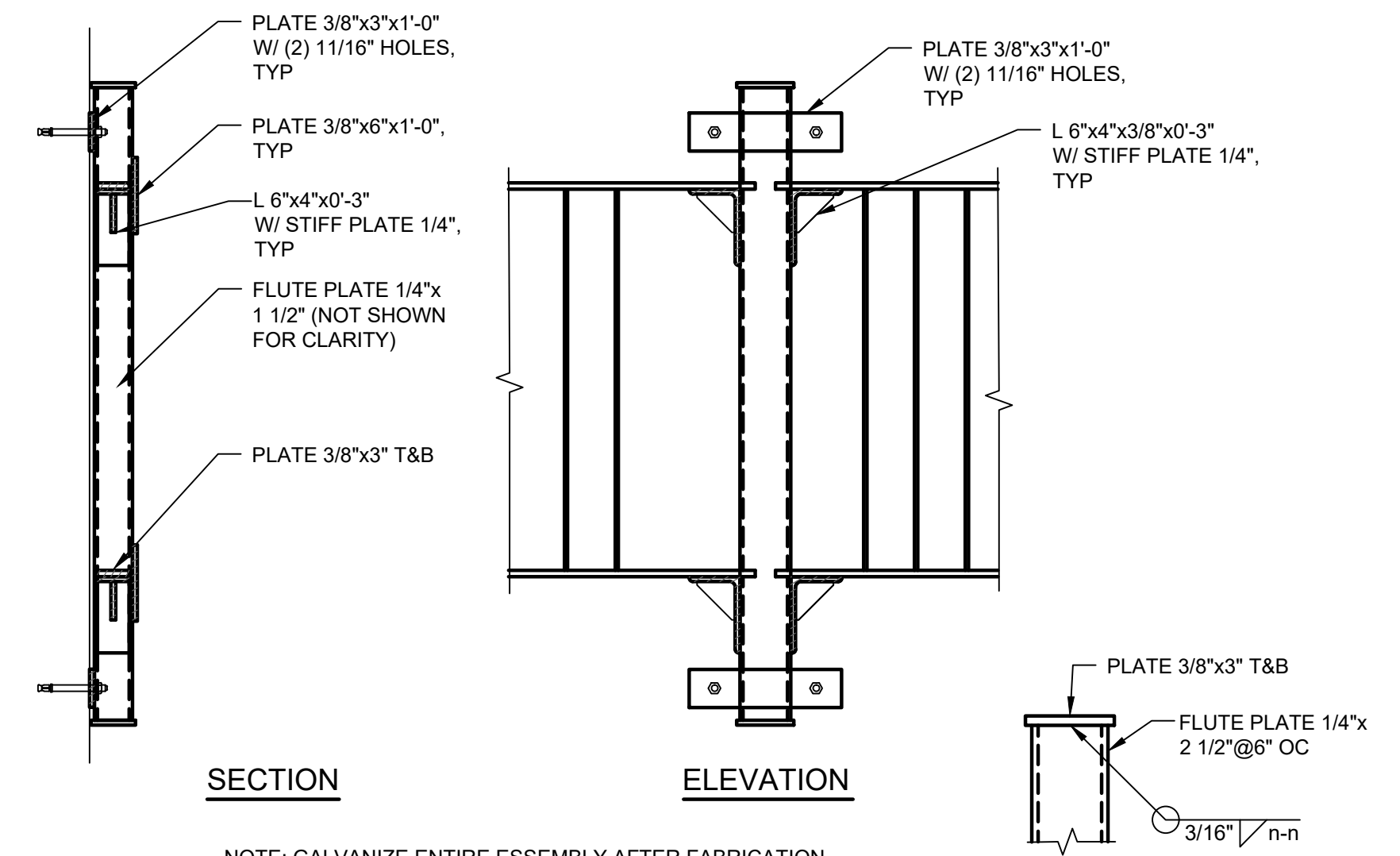
A SECTION
SA100 SCALE: 1/4" = 1'-0"



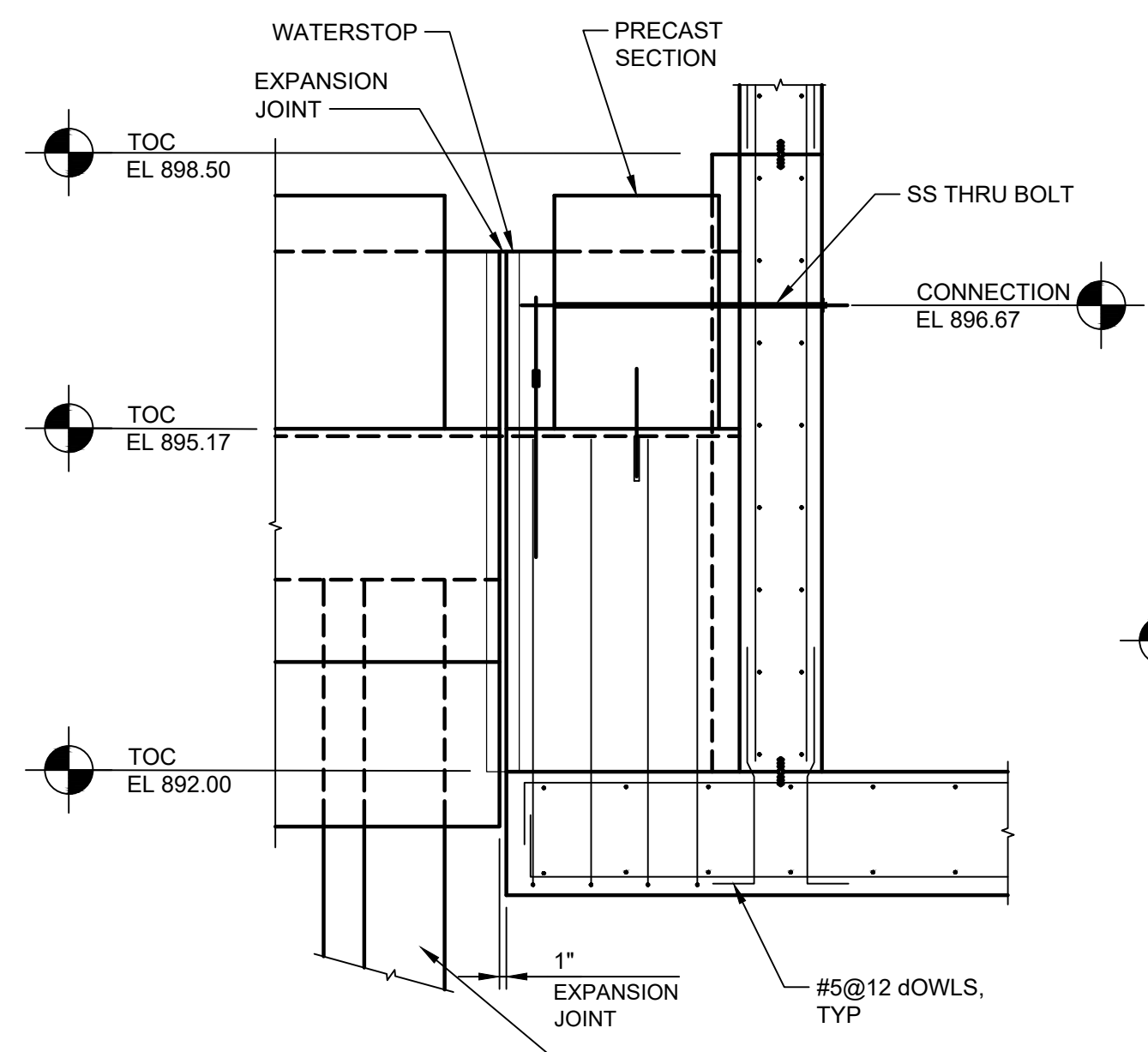
B SECTION
SA100 SCALE: 1/4" = 1'-0"



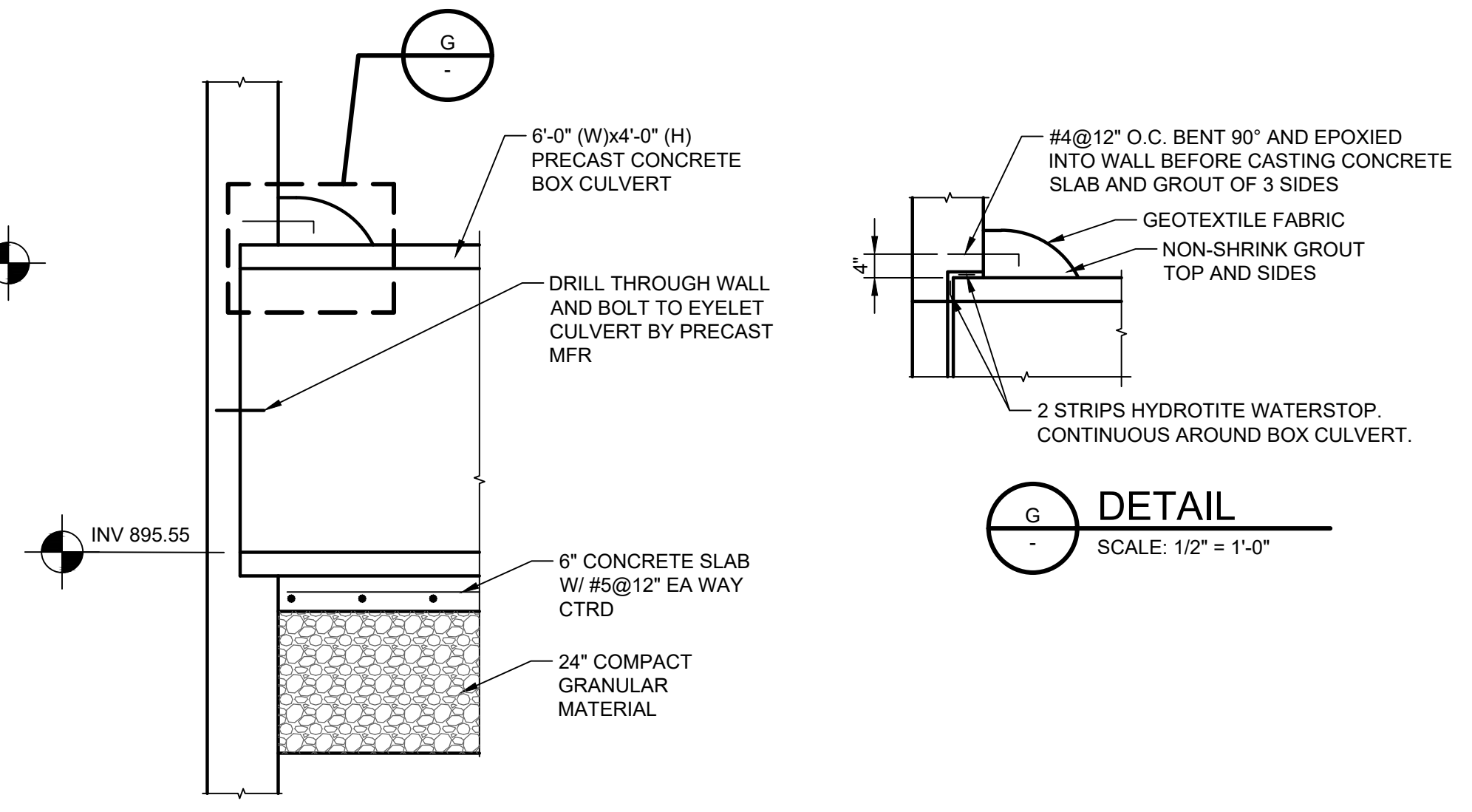
C STOP LOG DETAIL
SA100 NOT TO SCALE



D SECTION
SA100 SCALE: 1" = 1'-0"

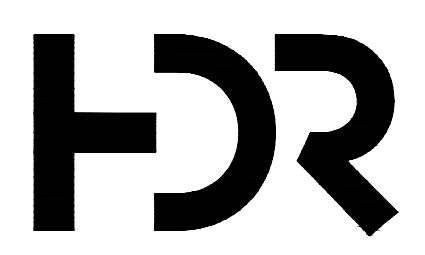


E SECTION
SA100 SCALE: 1/2" = 1'-0"



F DETAIL
SA100 SCALE: 1/2" = 1'-0"

G DETAIL
SCALE: 1/2" = 1'-0"



MINNEHAHA CREEK
WATERSHED DISTRICT

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2	09/14/2022	90% DESIGN
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PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

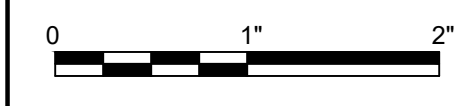
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
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DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

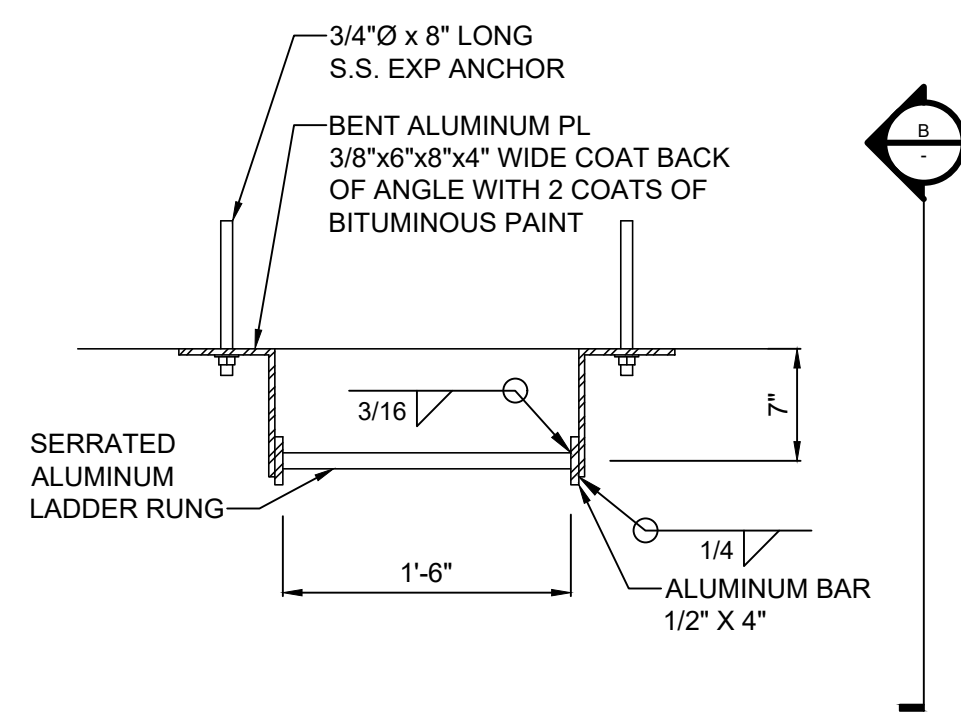
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

OUTLET STRUCTURE SECTIONS AND DETAILS

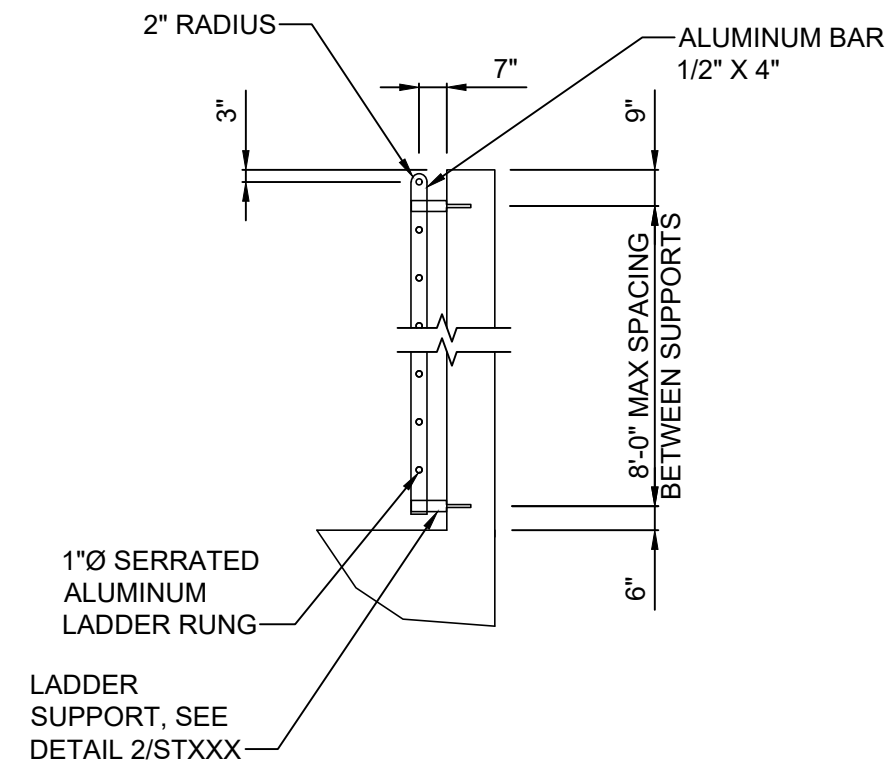


FILENAME SA301.DWG
SCALE AS NOTED

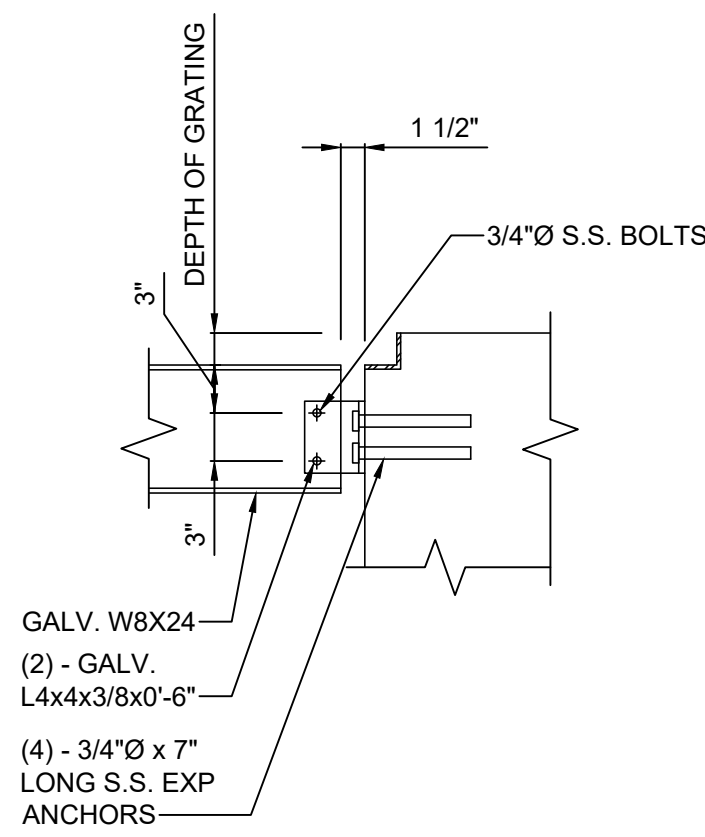
SHEET
SA301



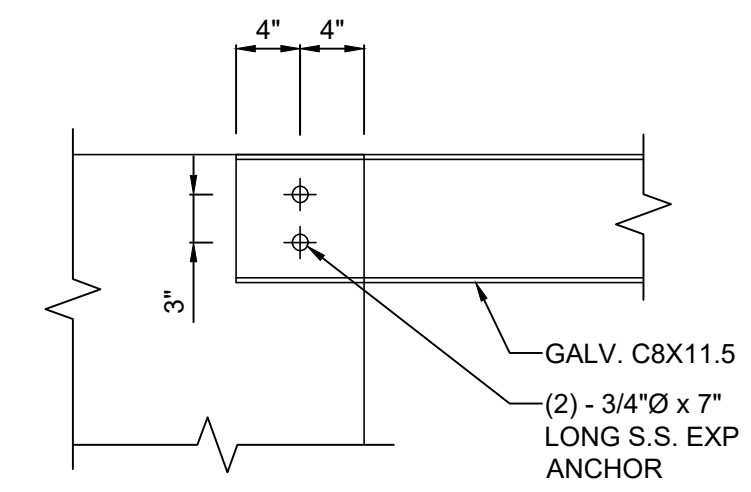
LADDER SUPPORT DETAIL
1" = 1'-0" A SA100



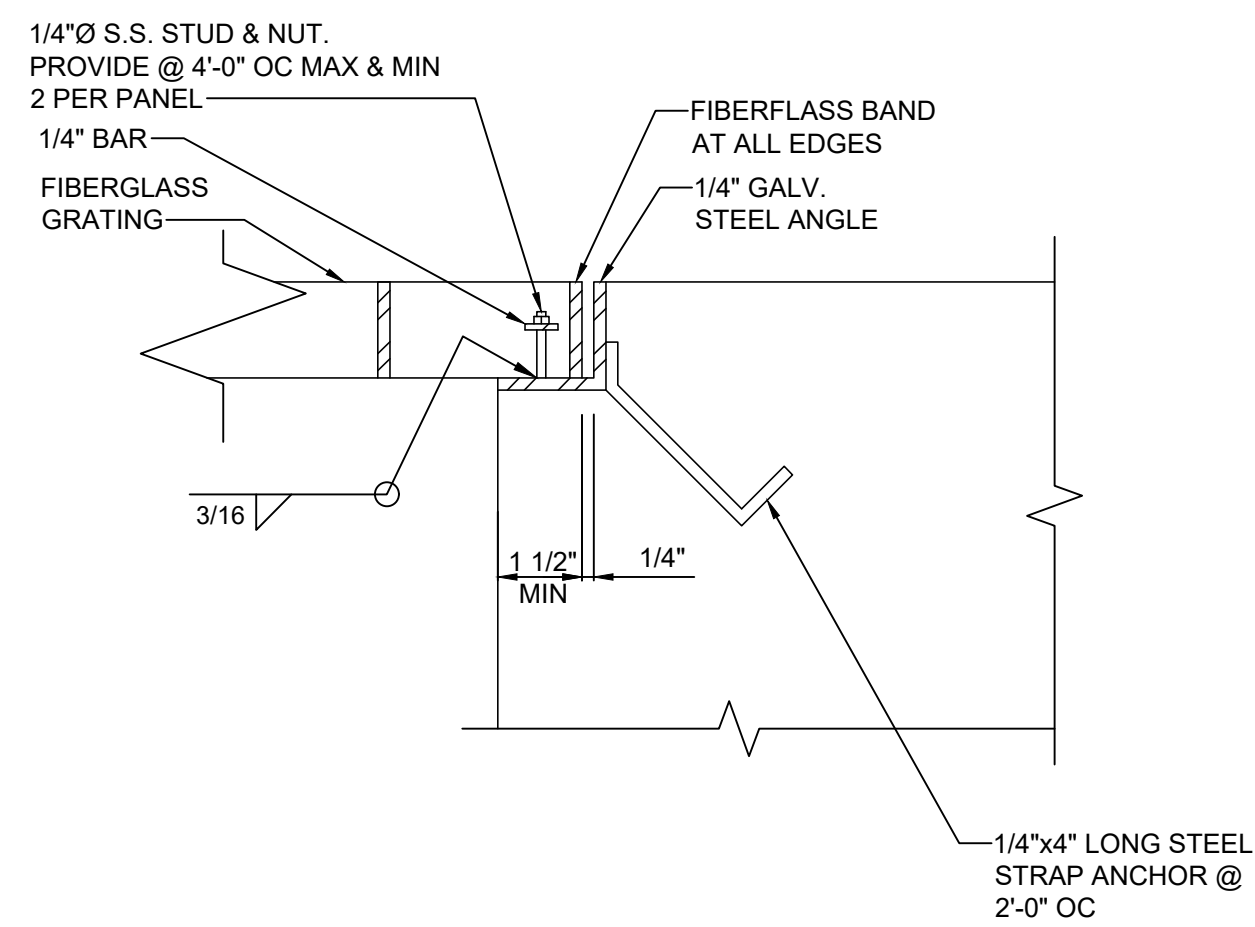
LADDER DETAIL
1/4" = 1'-0" B SA100



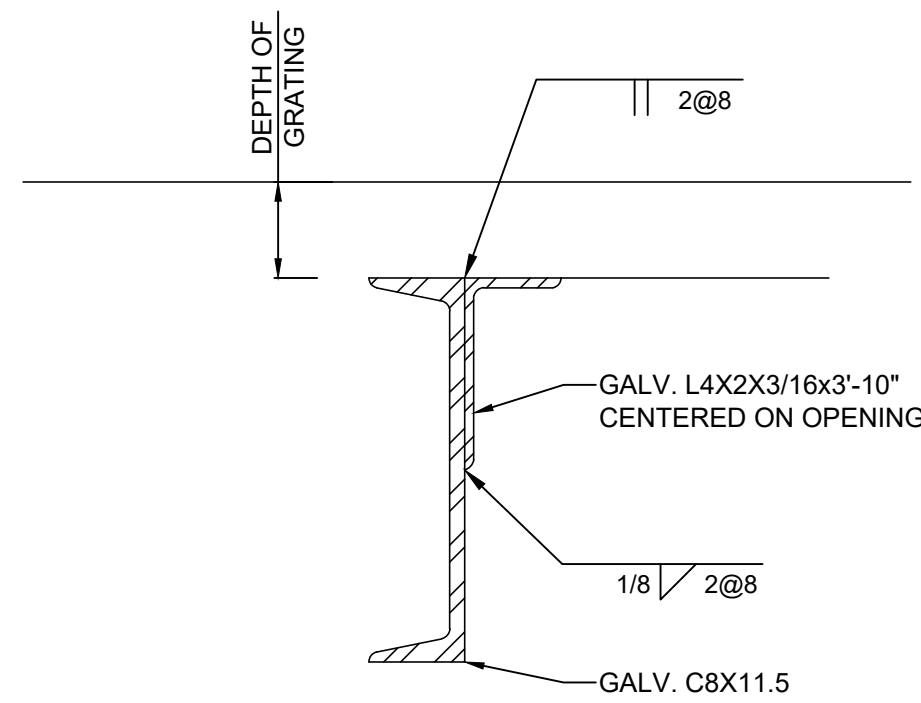
GRATING SUPPORT DETAIL
1" = 1'-0" C SA100



GRATING SUPPORT DETAIL
1" = 1'-0" D SA100

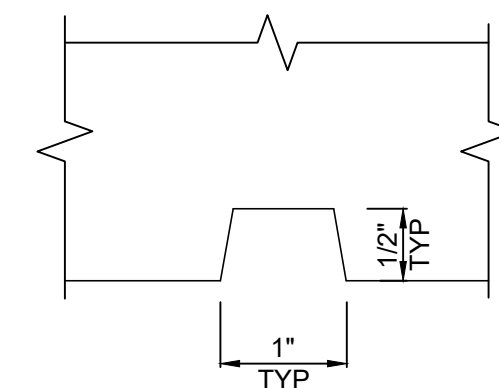


GRATING EDGE DETAIL
3" = 1'-0" E SA100



SECTION
3" = 1'-0" F SA100

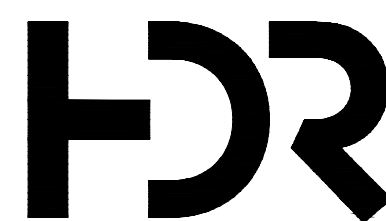
NOTE:
1. HOT DIP ENTIRE ASSEMBLY AFTER FABRICATION.



EXTERIOR REVEAL DETAIL
6" = 1'-0" G SA100



**MINNEHAHA CREEK
WATERSHED DISTRICT**



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PROJECT NUMBER	10268112
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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

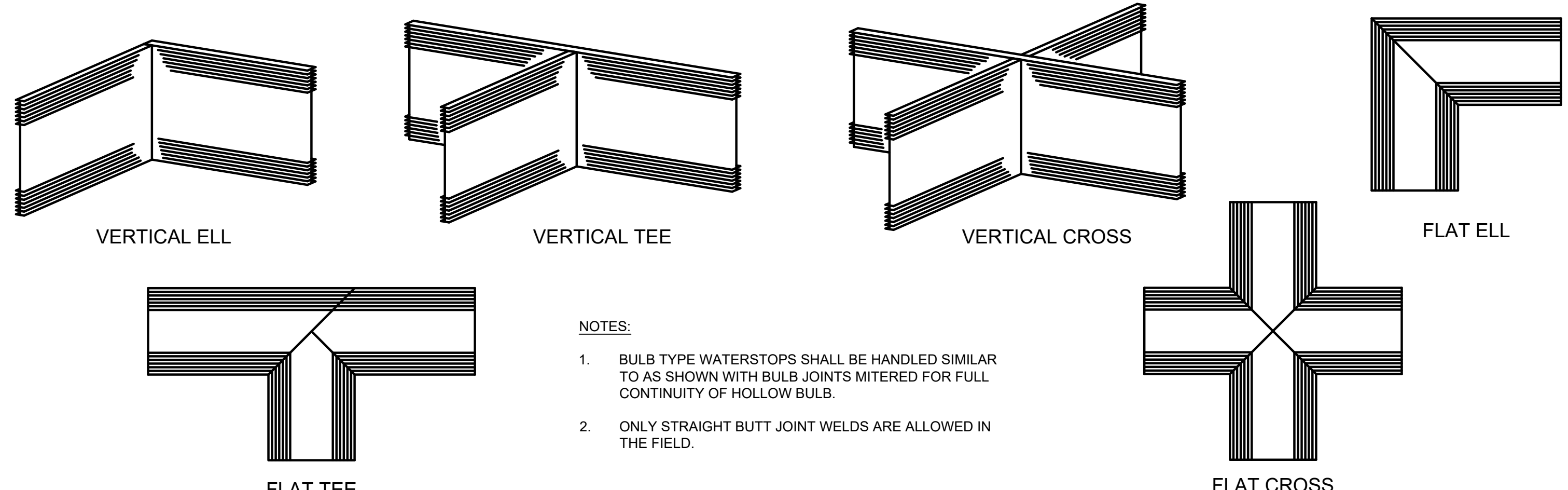
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

OUTLET STRUCTURE DETAILS



FILENAME SA501.DWG
SCALE AS NOTED

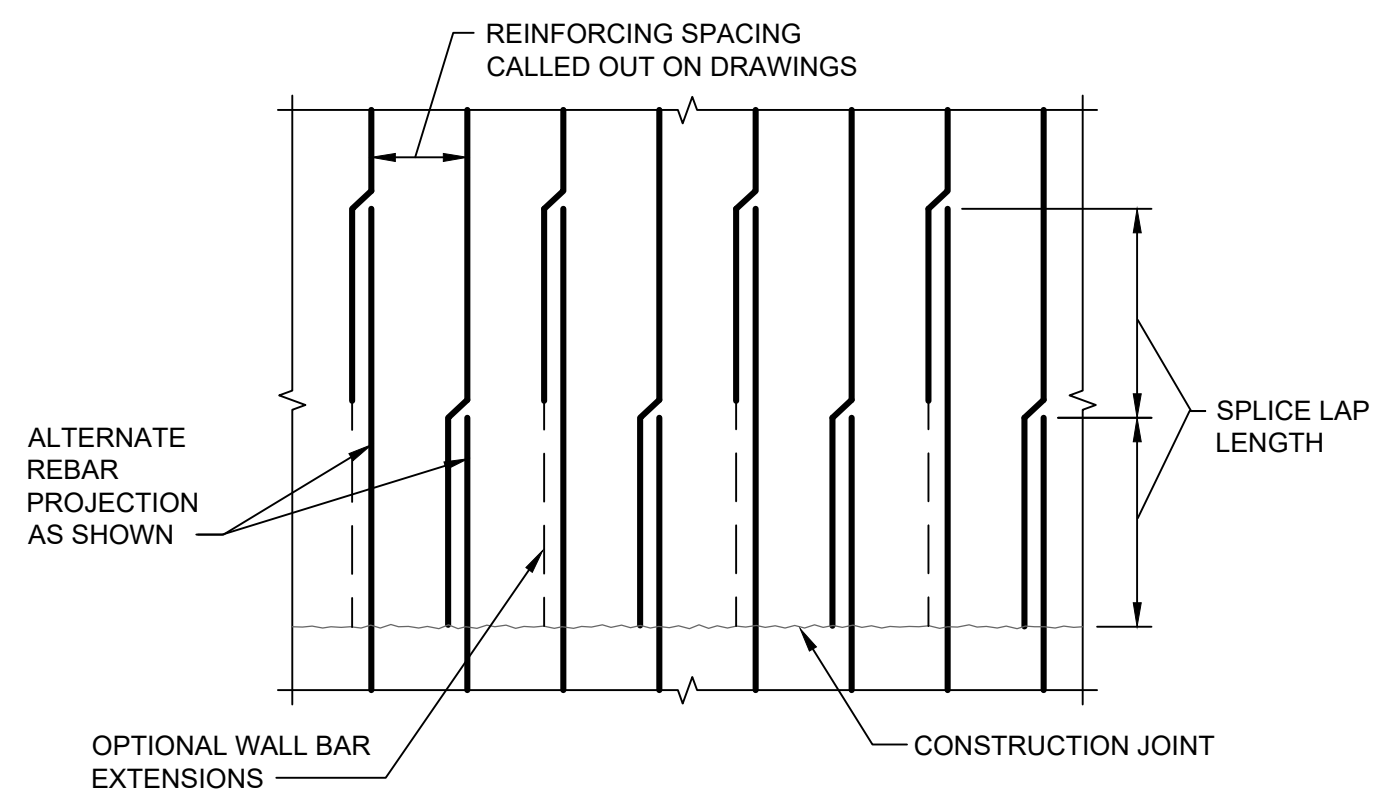
SHEET
SA501



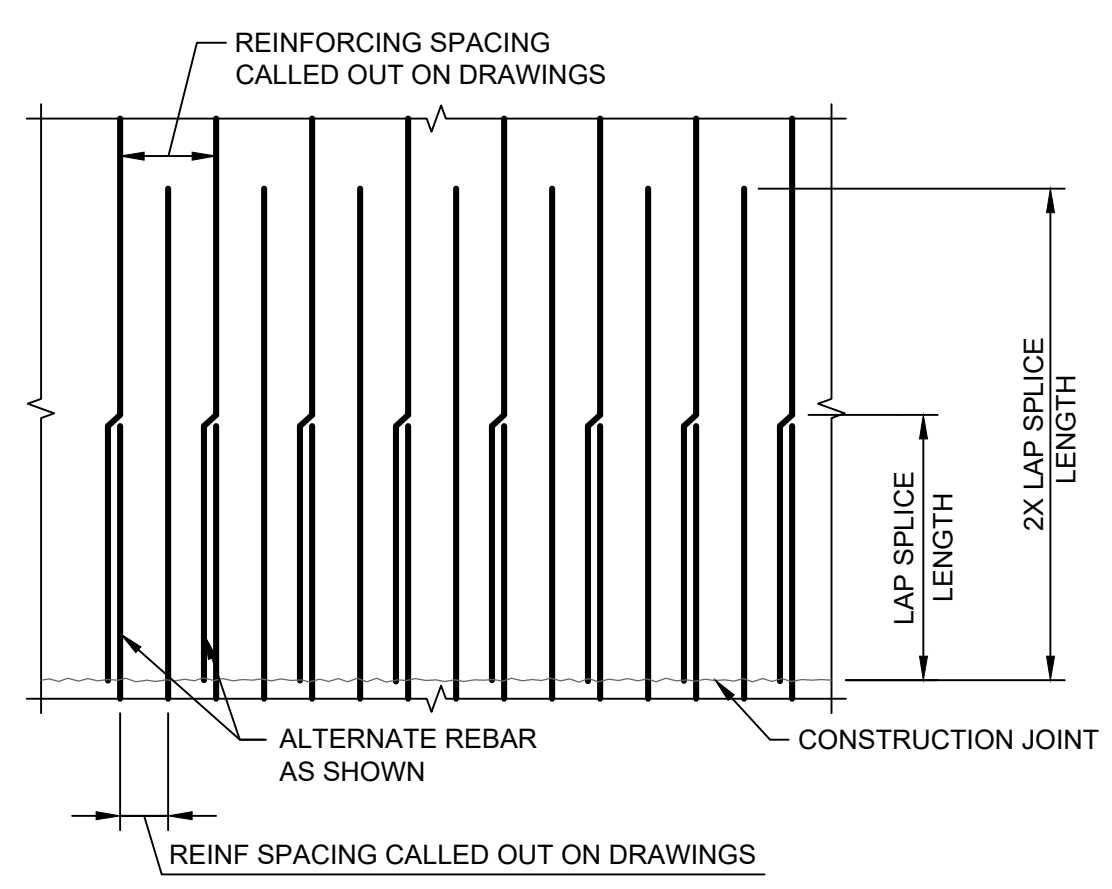
NOTES:

1. BULB TYPE WATERSTOPS SHALL BE HANDLED SIMILAR TO AS SHOWN WITH BULB JOINTS MITERED FOR FULL CONTINUITY OF HOLLOW BULB.
2. ONLY STRAIGHT BUTT JOINT WELDS ARE ALLOWED IN THE FIELD.

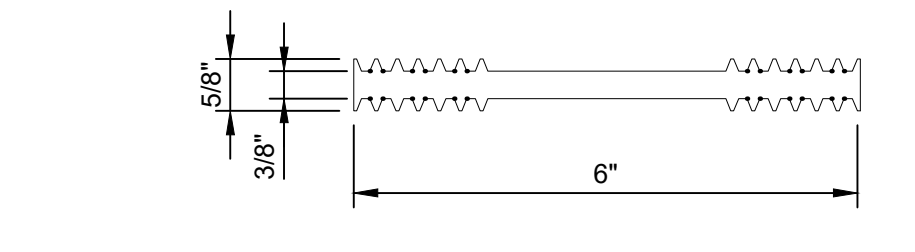
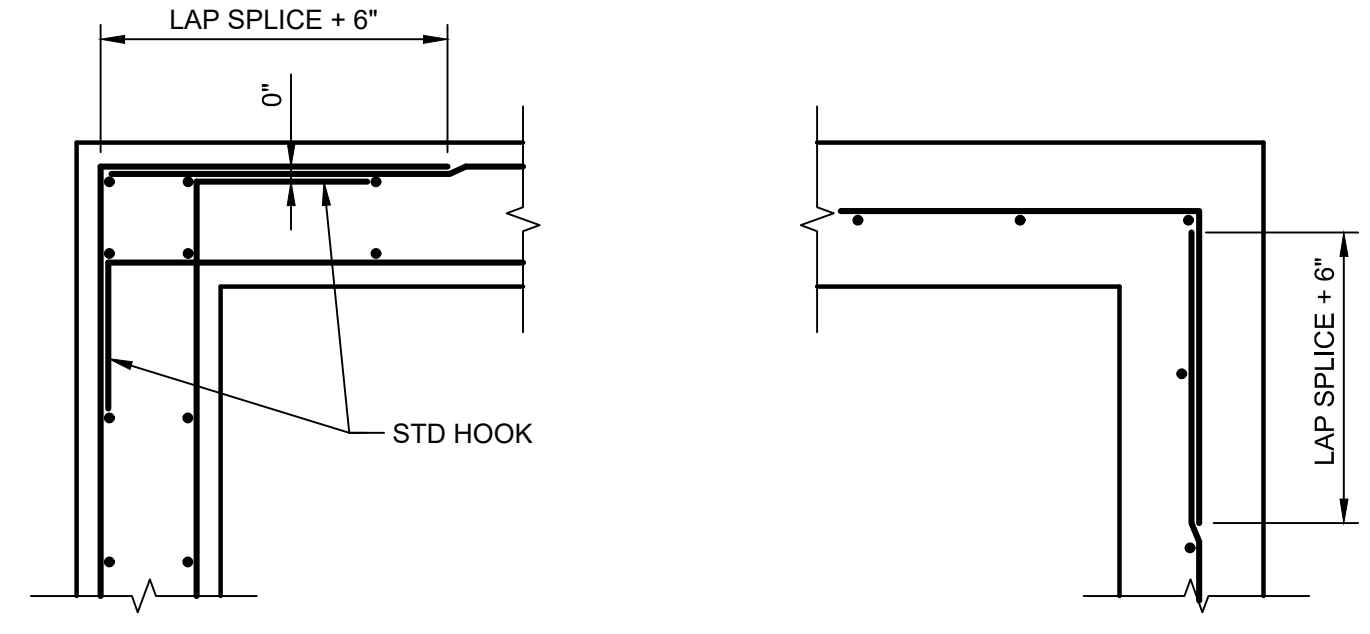
1 SHOP FABRICATED WATERSTOP
SA100 NOT TO SCALE



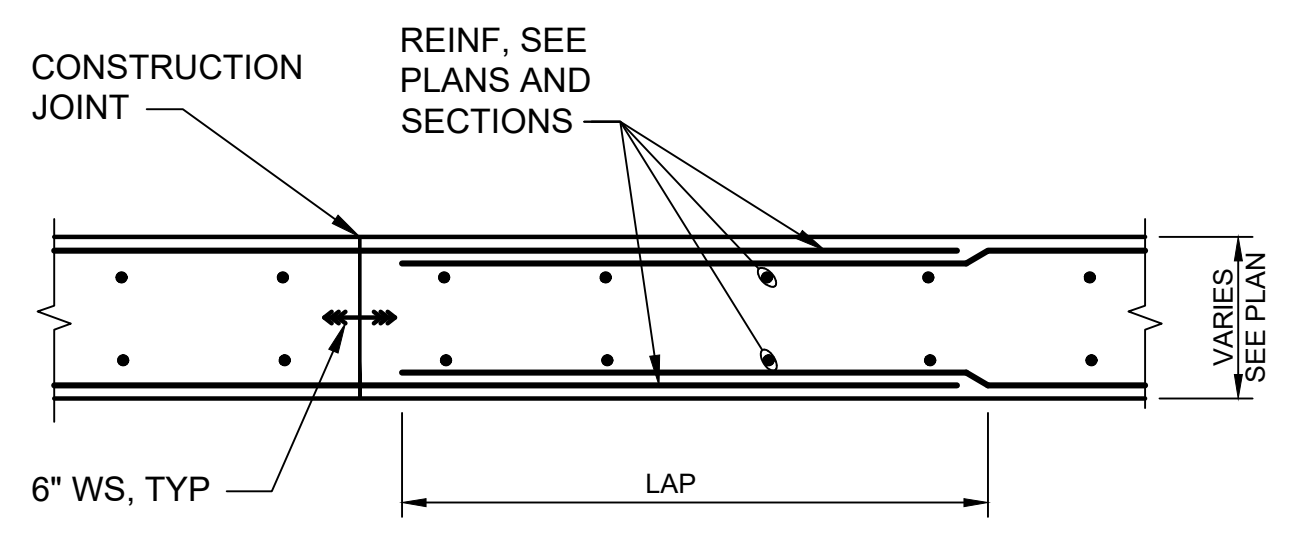
2 STAGGERED REINFORCING AT CONSTRUCTION JOINT
SA100 NOT TO SCALE



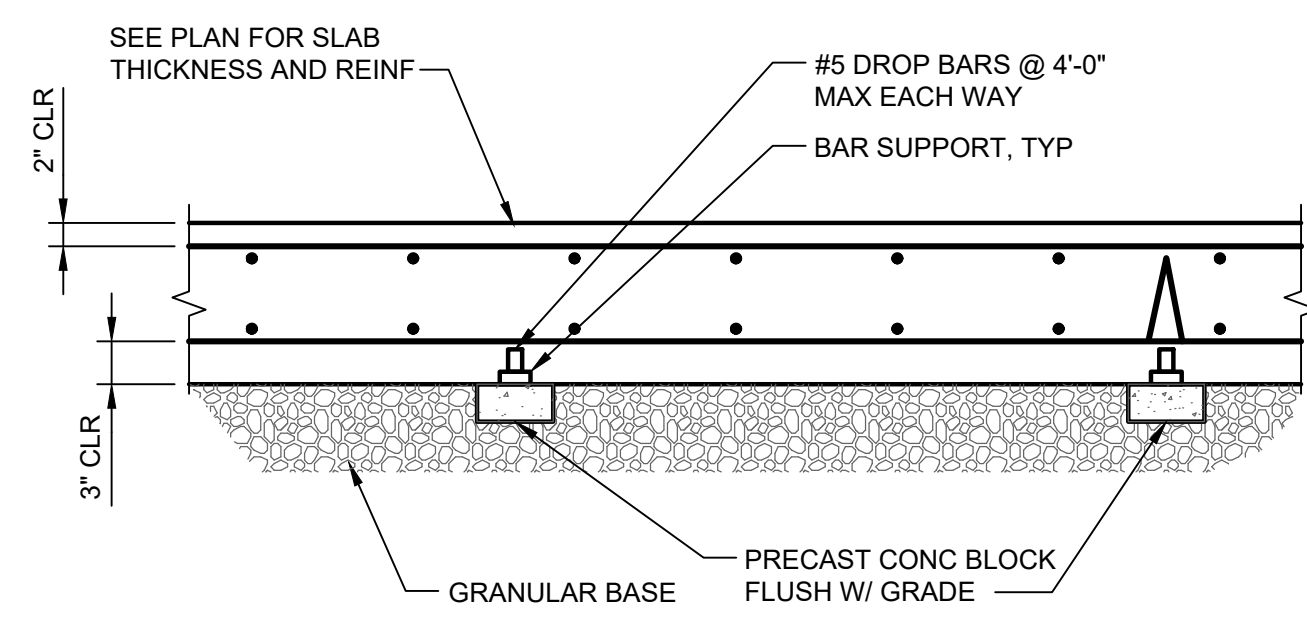
3 WALL VERTICAL REINFORCING AT CONSTRUCTION JOINT
SA100 NOT TO SCALE



5 TYPICAL WATERSTOP DETAIL
SA100 NOT TO SCALE (OUTLET STRUCTURE)



6 CONSTRUCTION JOINT DETAIL
SA100 NOT TO SCALE

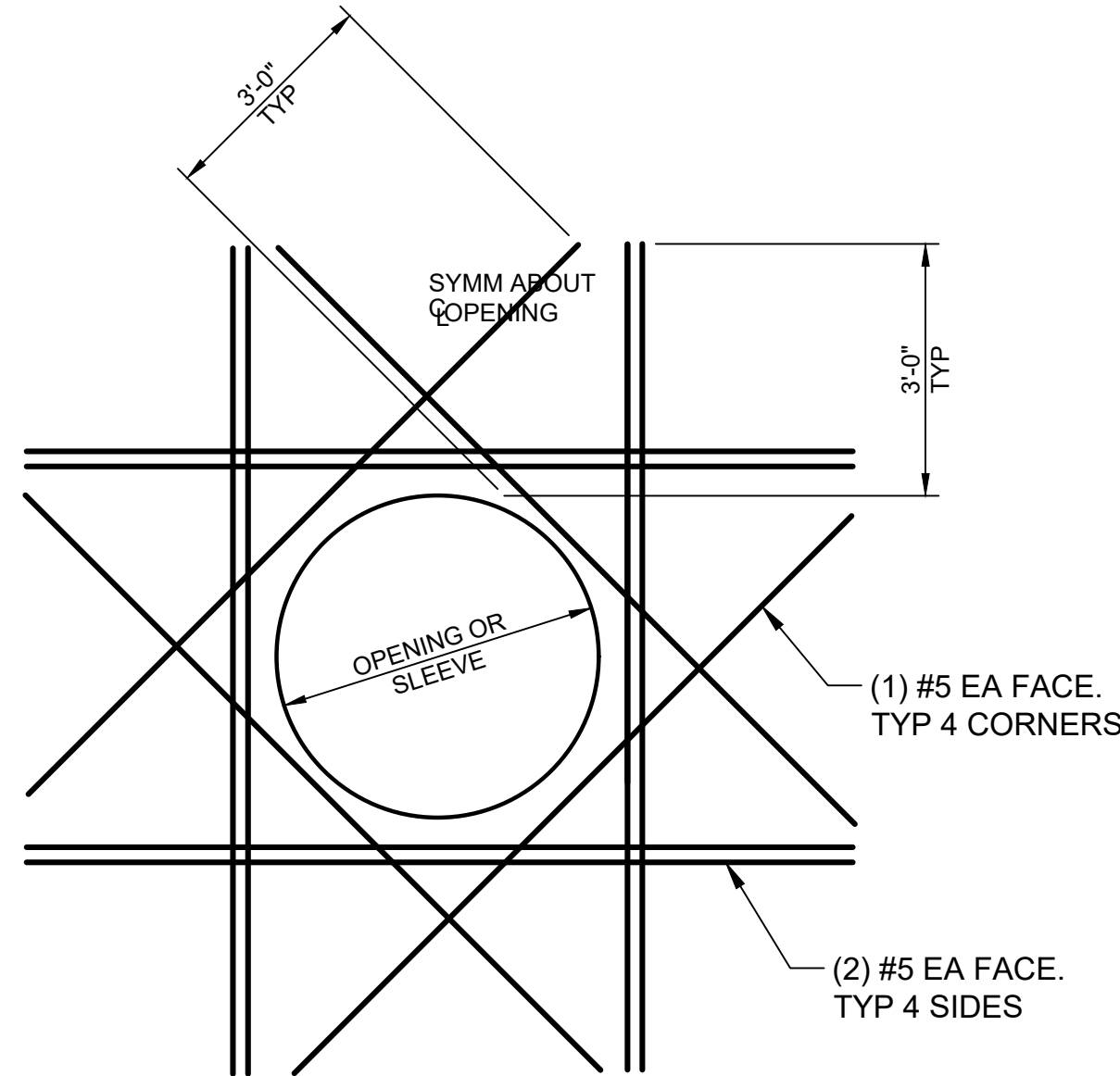


7 REINFORCING SUPPORT DETAIL
SA100 NOT TO SCALE

NOTES:

1. ALL HOOKS SHALL BE STD 90 DEGREE HOOKS.
2. SEE ADJACENT DETAIL FOR ADDITIONAL HORIZONTAL BARS. STAGGER BETWEEN TYPICAL REINF SPACING, EXTEND TO 1/5 OF DISTANCE TO NEAREST ADJACENT WALL IN EACH DIRECTION, UNO.
3. OPTIONAL LAP LOCATION. APPLIES TO BOTH DOUBLE AND SINGLE LAYER CONDITIONS TYP.

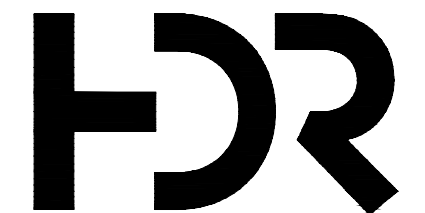
4 WALL REINFORCEMENT AT CORNERS
SA100 NOT TO SCALE



8 REINFORCING AROUND OPENINGS
SA100 NOT TO SCALE



MINNEHAHA CREEK WATERSHED DISTRICT



ISSUE	DATE	DESCRIPTION
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PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

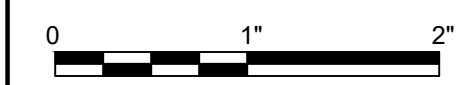
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90% DRAFT
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DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

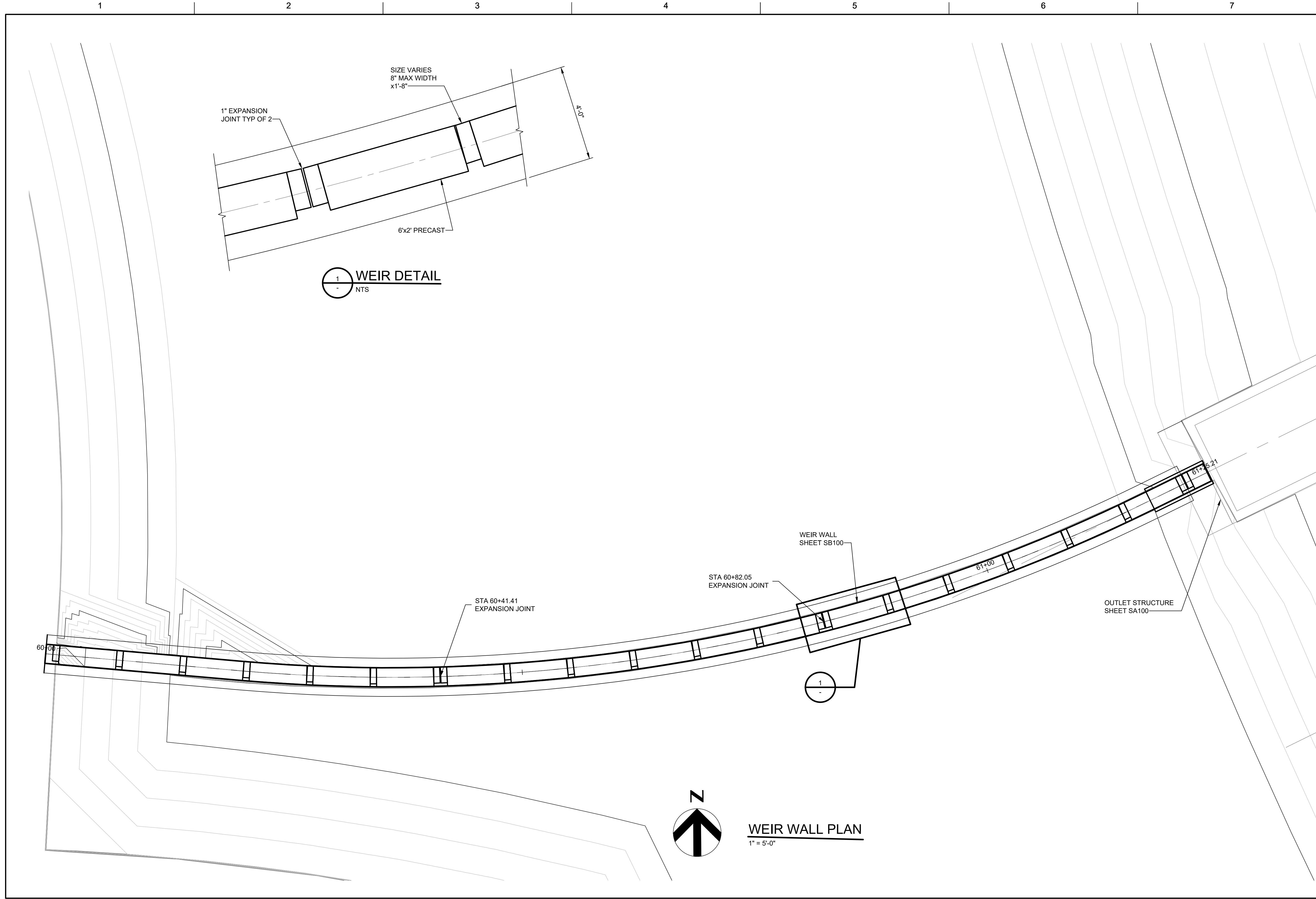
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

OUTLET STRUCTURE DETAILS

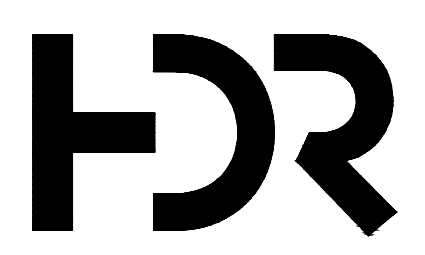


FILENAME SA502.DWG
SCALE AS NOTED

SHEET SA502



- GENERAL NOTES**
1. DRAWINGS SHALL NOT BE SCALED.
 2. CONTRACTOR SHALL VERIFY WEIR WALL LOCATION, INCLUDING STATIONING, WITH CIVIL DRAWINGS.
 3. THE SHEET PILE ESTIMATED TIP ELEVATIONS IS 832.00. IF DRIVING REFUSAL IS ENCOUNTERED ABOVE THIS ELEVATION, THE SHEET PILES CAN BE STOPPED AS LONG AS THEY DRIVEN AT LEAST 5 FEET INTO THE BEDROCK.
 4. THE SHEET PILES SHALL HAVE A MINIMUM SECTION MODULUS OF 30.2 IN³ PER LINEAL FOOT OF SHEET PILE.
 5. FOR ALL INTERLOCKS, SHEET PILES SHALL BE SEALED USING A PRODUCT THAT IS DESIGNED TO REDUCE SEEPAGE AND IS HYDROPHILIC.
 6. PROVIDE CONCRETE CONSTRUCTION JOINT DETAIL S AS SHOWN.



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PROJECT MANAGER ANDREW F. JUDD

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JEROME W. MULVIHILL, PE
DATE XX/XX/XXXX LICENSE # XXXXX

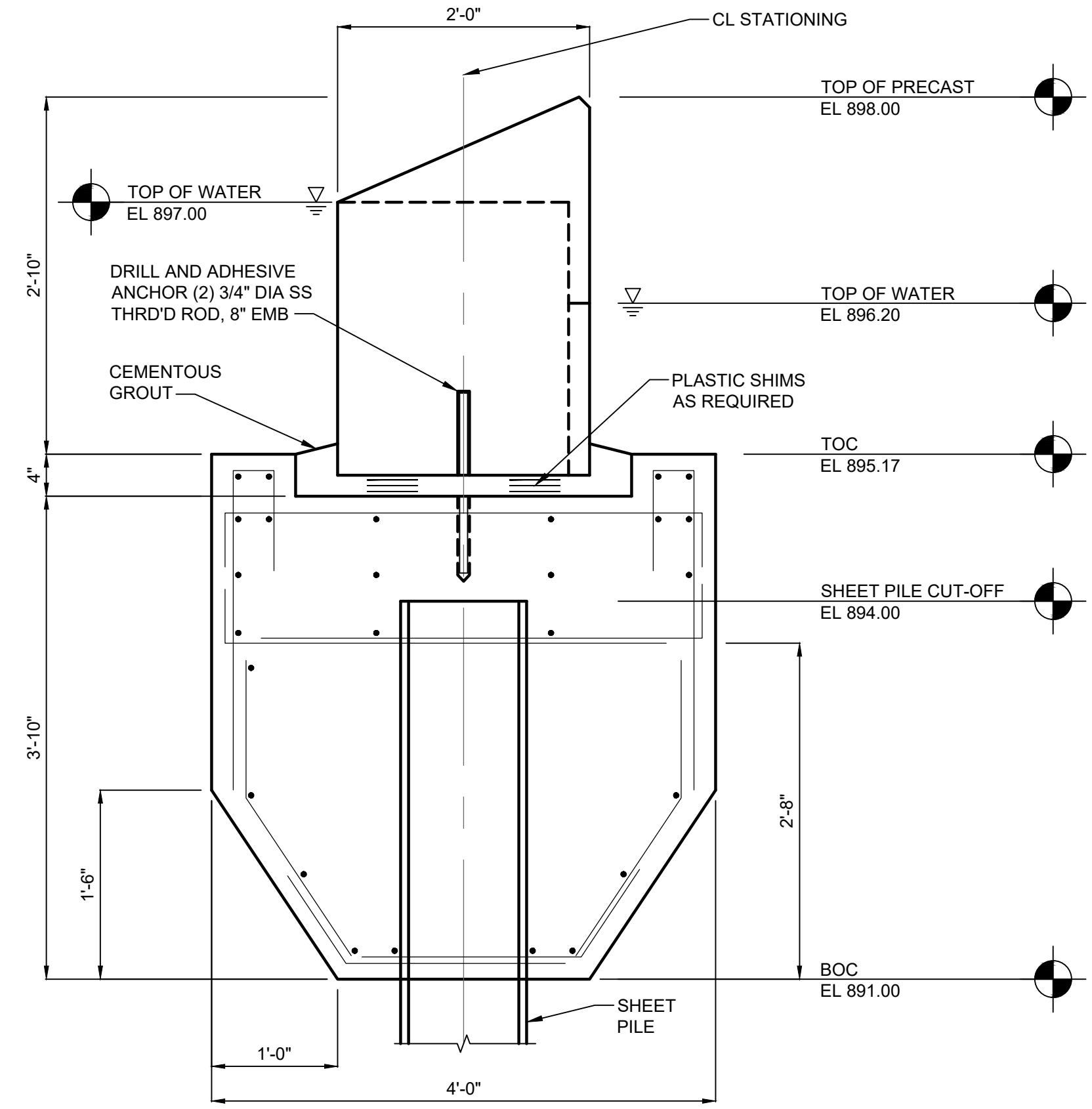
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

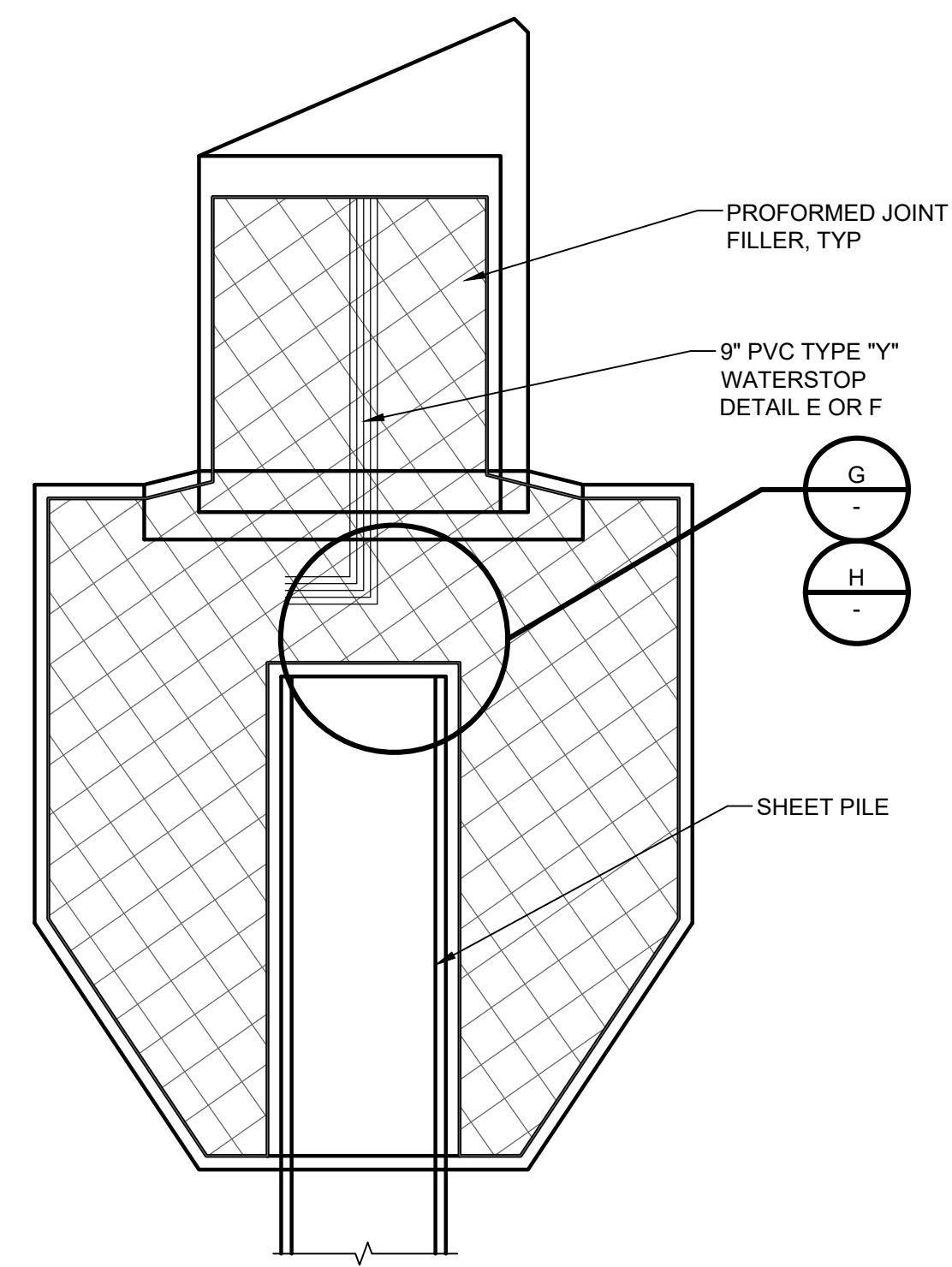
WEIR WALL PLAN

FILENAME SB100.DWG
SCALE 1" = 5'

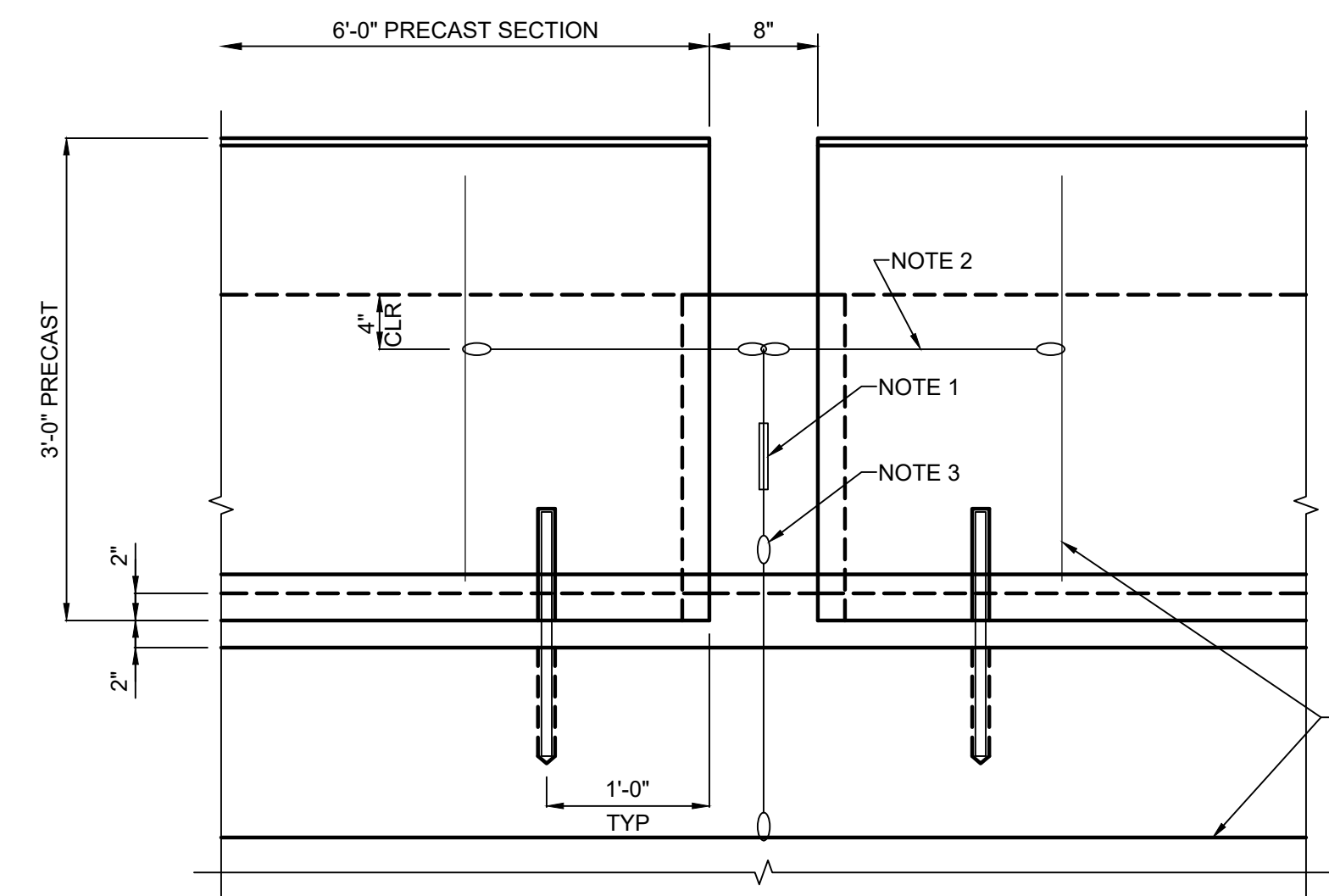
SHEET
SB100



A WEIR SECTION
SB100 SCALE: 1" = 1'-0"

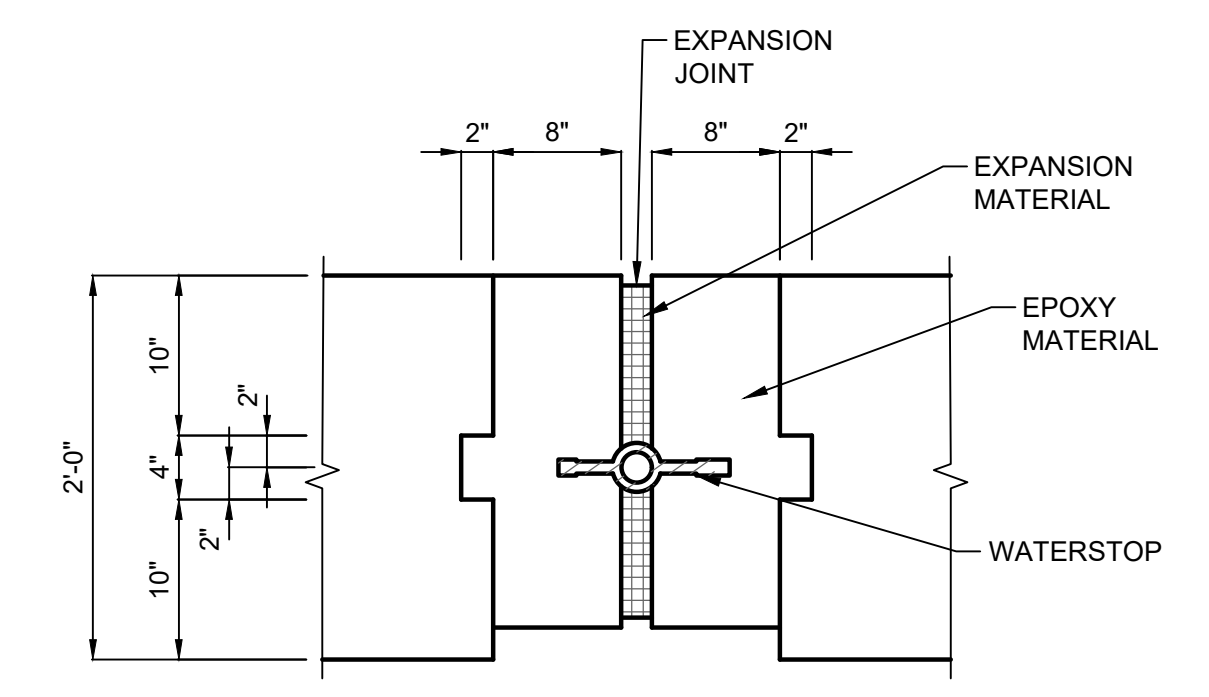


B TYPICAL EXPANSION JOINT
SB100 SCALE: 1" = 1'-0"

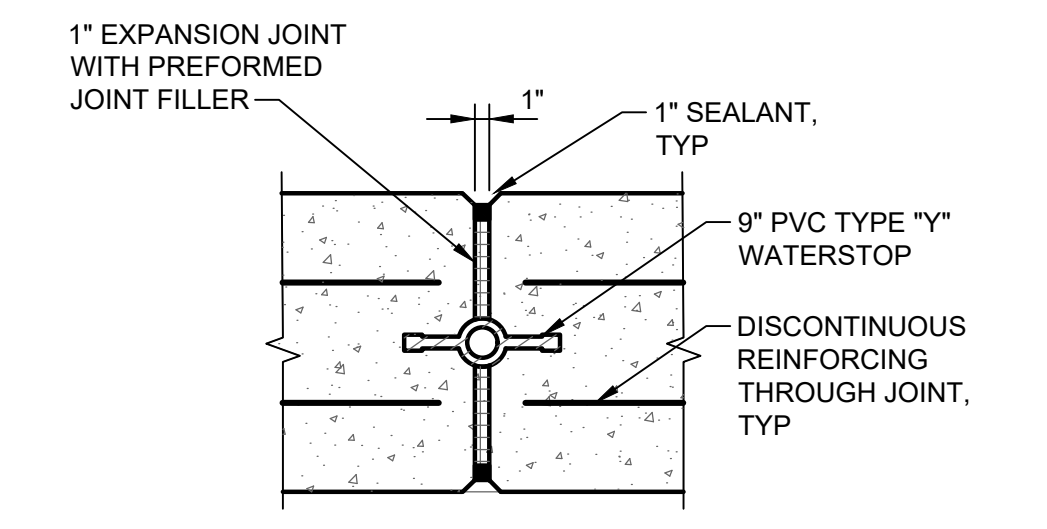


- NOTES:**
1. STAINLESS STEEL TURN-BUCKLE (SACRIFICIAL) HOLD-DOWN.
 2. WIRE ROPE: 1/2" DIA STRAND 3" LOOP EACH END X 2'-0" LONG, TYP 3 LOCATIONS
 3. EPOXY GROUT AFTER SECURE.
 4. CEMENTIOUS GROUT AFTER PRECAST SET.

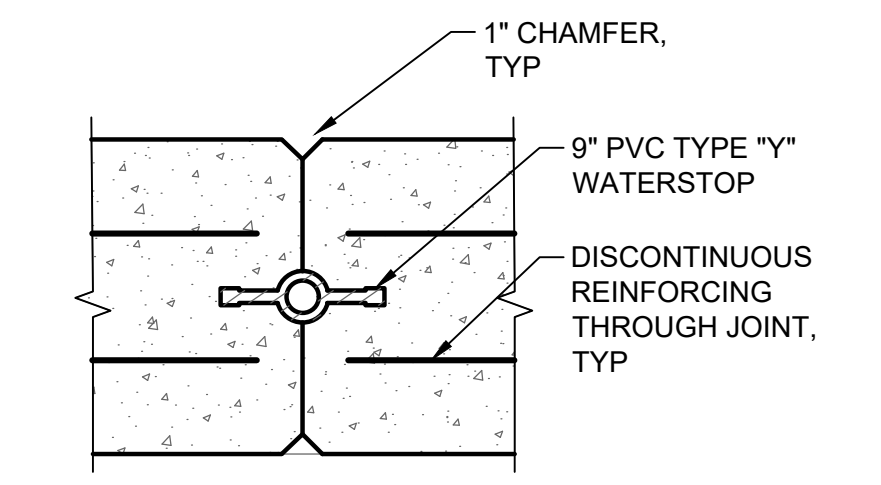
C WEIR ELEVATION
SB100 SCALE: 1" = 1'-0"



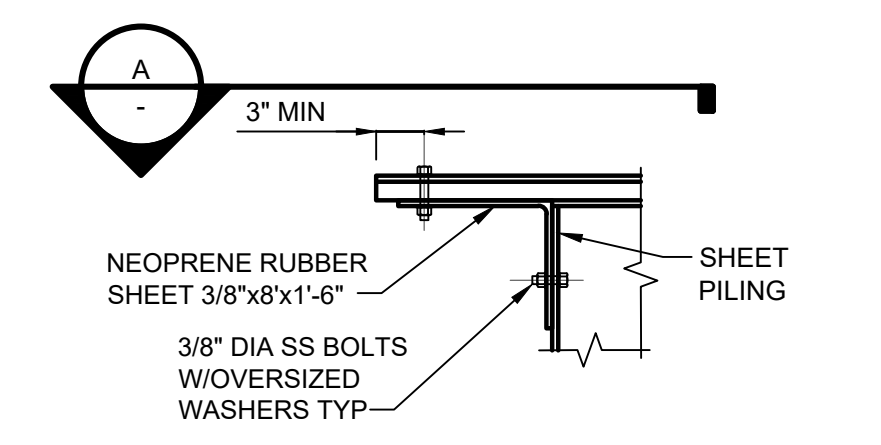
D PLAN
SB100 SCALE: 1" = 1'-0"



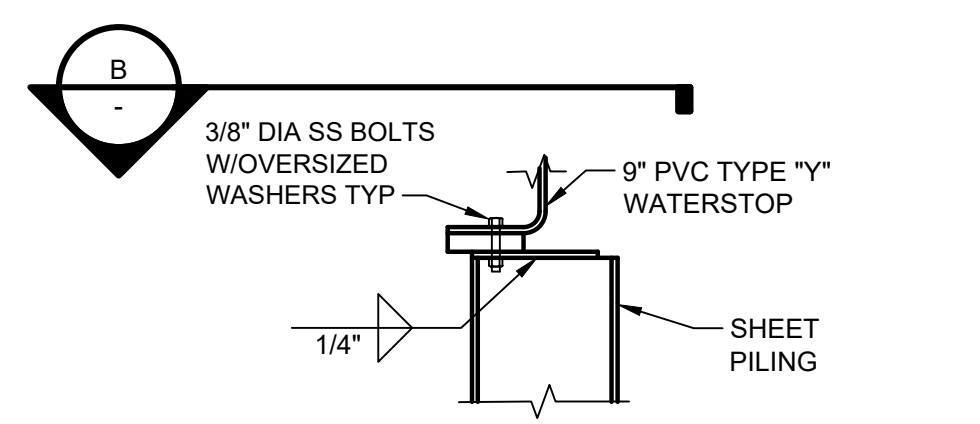
E WEIR WALL EXPANSION JOINT
SCALE: 1" = 1'-0"



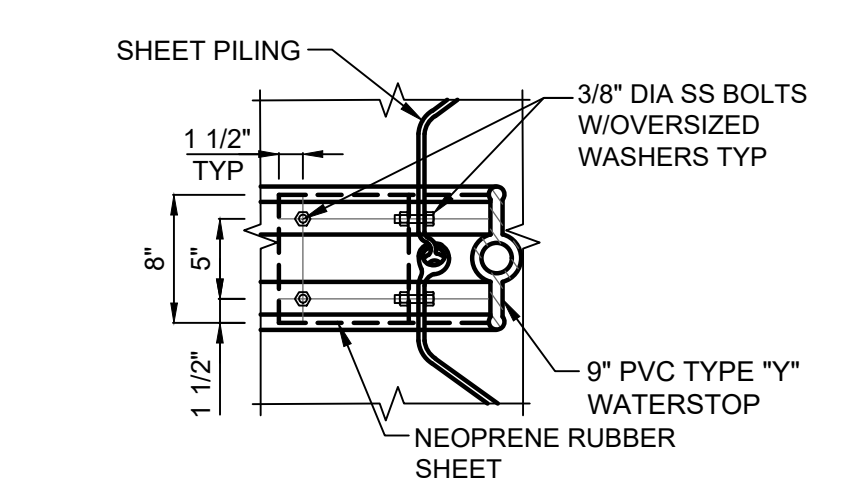
F WEIR WALL CONTRACTION JOINT
SCALE: 1" = 1'-0"



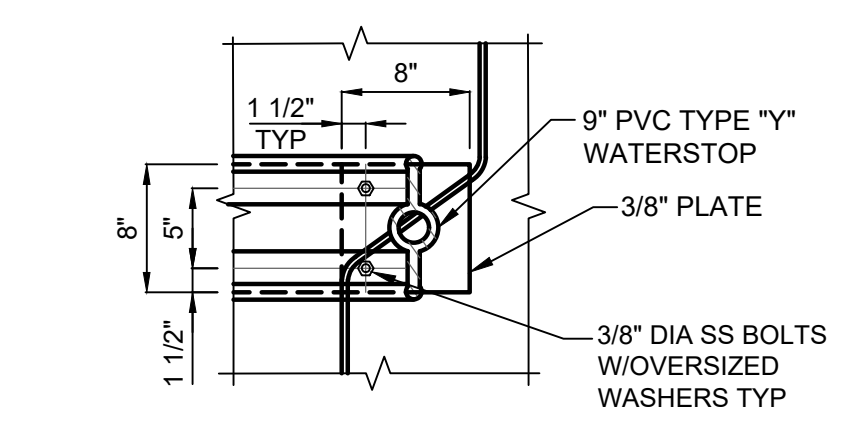
G SHEET PILE INTERLOCK ALIGNED WITH JOINT
NTS



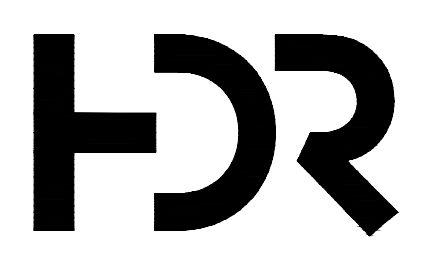
H SHEET PILE INTERLOCK MISALIGNED WITH JOINT
NTS



A SHEET PILE INTERLOCK ALIGNED WITH JOINT
NTS



B SHEET PILE INTERLOCK MISALIGNED WITH JOINT
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MINNEHAHA CREEK WATERSHED DISTRICT

ISSUE	DATE	DESCRIPTION	PROJECT NUMBER	10268112
2	09/14/2022	90% DESIGN		
4	06/13/2022	PFA GRANT PACKAGE		

PROJECT MANAGER ANDREW F. JUDD

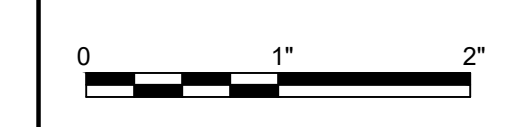
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
90% DRAFT
SUBMITTAL FOR CLIENT REVIEW

JEROME W. MULVIHILL, PE
DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

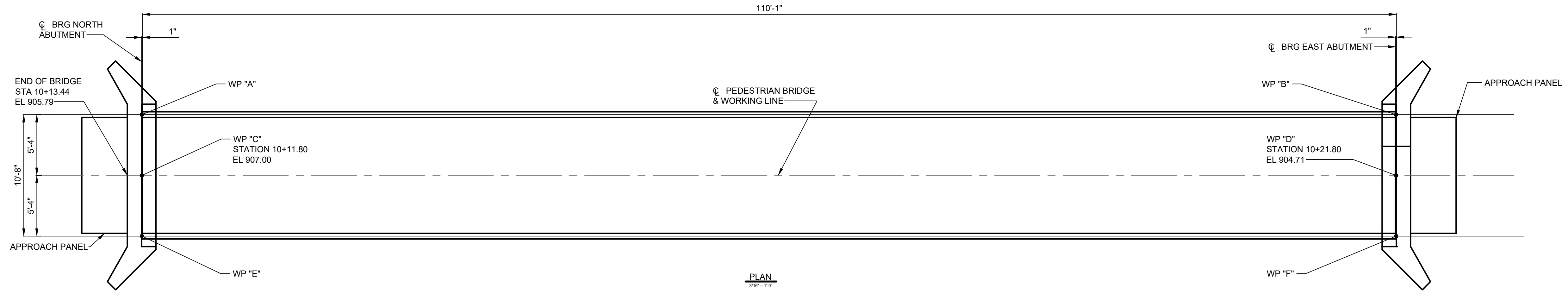
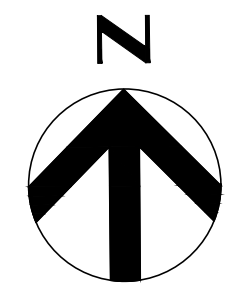
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

WEIR WALL SECTIONS AND DETAILS

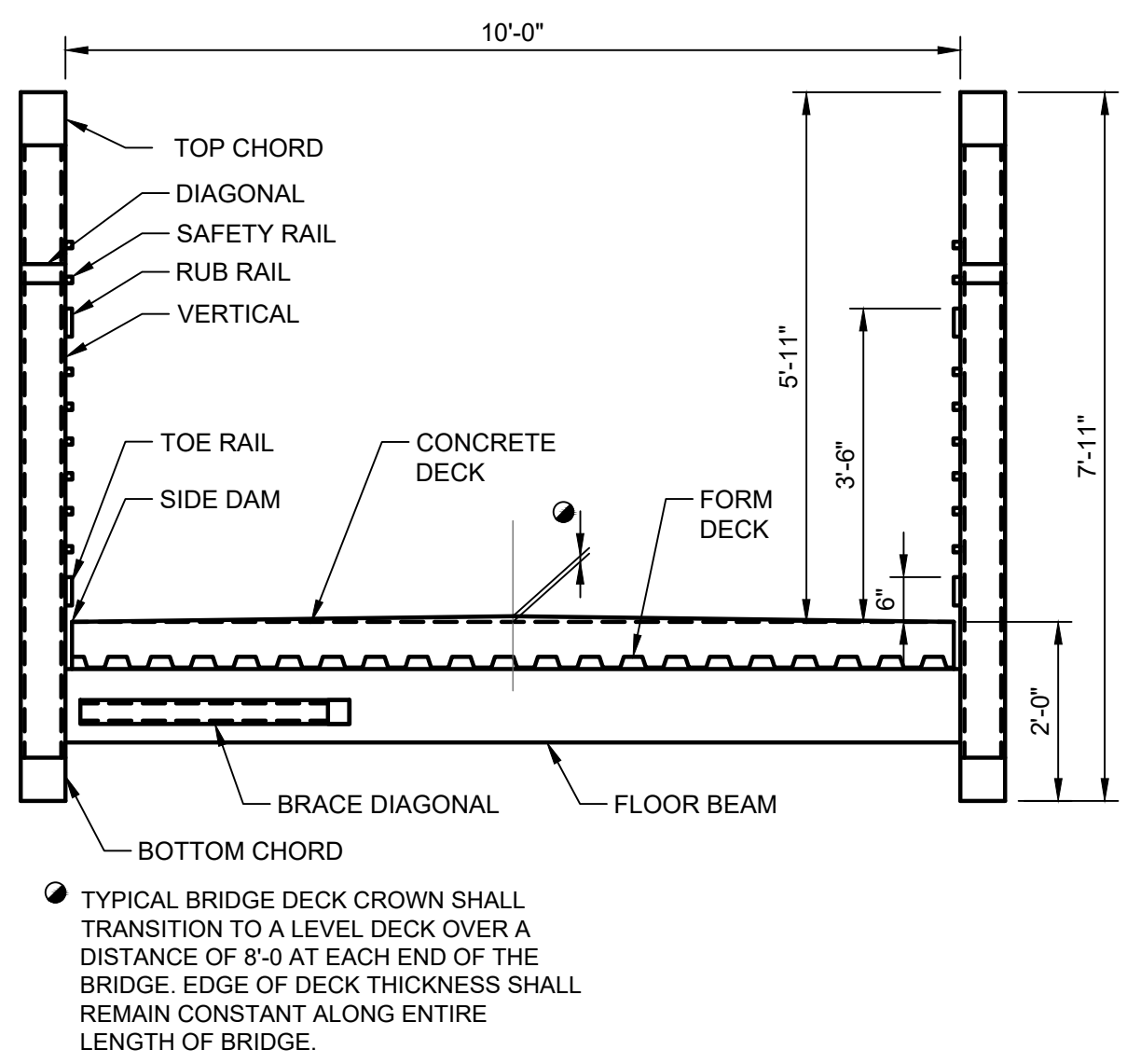
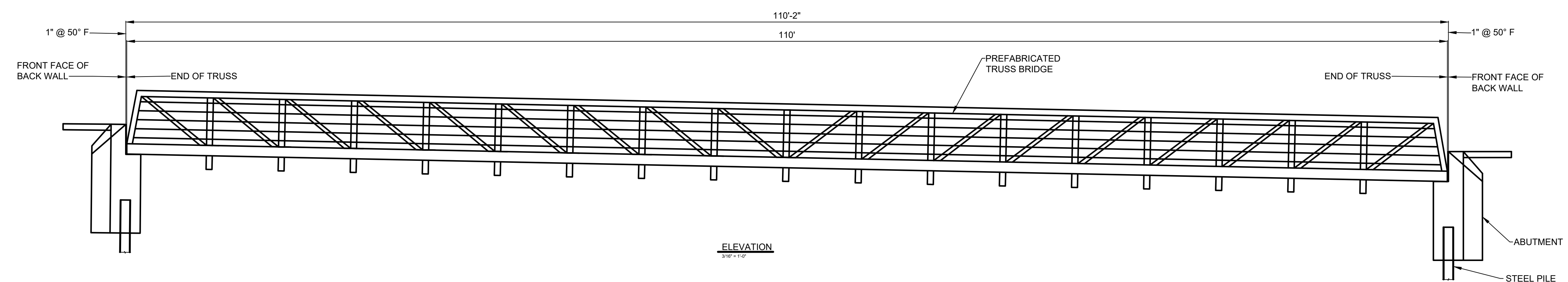


FILENAME SB301.DWG
SCALE AS NOTED

SHEET
SB301



- GENERAL NOTES:**
- DRAWINGS SHALL NOT BE SCALED
 - CONTRACTOR SHALL DRESS SLOPES AND PLACE FILTER MATERIALS AND RIPRAP IN AREAS SHOWN ON THIS SHEET AS DIRECTED BY THE ENGINEER.
 - EXCAVATE TO THE BOTTOM OF THE ELEVATION SHOWN FOR EACH SUBSTRUCTURE UNIT AS THE LOWER LIMIT AND THE PROPOSED FINISHED GRADE FOR THE UPPER LIMIT. THE EXTENT OF EXCAVATION INCLUDING BACK SLOPE ANGLE TO BE DETERMINED DURING CONSTRUCTION BY THE CONTRACTOR DEPENDING ON THE SOIL PROPERTIES AND OR SAFETY FACTORS.
 - VERIFY ENGINEERED BRIDGE DIMENSIONS BEFORE CONSTRUCTING SUBSTRUCTURE UNITS.
 - BACKFILL FRONT AND BACK SIDES OF ABUTMENT IN EQUAL LIFTS.
 - POLYVINYL CHLORIDE WATERSTOP TO EXTEND FULL WIDTH OF ABUTMENT SEAT & VERTICAL FROM SEAT TO TOP OF WINGWALL. PCW SHALL BE BUTT-SPICED AT ALL INTERSECTIONS BY USING A HEATED SPLICING IRON. HOLD FLUSH TO CONCRETE.
 - W-SHAPE PILING (3 PER ABUTMENT) ARE DESIGNED FOR AN ALLOWABLE COMPRESSION LOAD OF 30 TONS BEARING ON BEDROCK WHICH WILL REQUIRE THAT THE PILES ARE DRIVEN TO REFUSAL. REFUSAL IN BEDROCK IS CONSIDERED TO HAVE OCCURRED WHEN THE DRIVING PENETRATION RATE REACHES 10 BLOWS PER INCH AND THE PILE TIP IS NEAR THE ESTIMATED BEDROCK ELEVATION OF 832.00.



BRIDGE SECTION
SCALE: 1/2" = 1'-0"

PREFABRICATED PEDESTRIAN TRUSS SPAN NOTES:

DESIGN SPECIFICATIONS:
PREFABRICATED PEDESTRIAN BRIDGE TRUSS SPAN SHALL BE IN ACCORDANCE WITH SECTION XXXX OF THE MINNEHAHA D.O.T. STANDARD SPECIFICATIONS AND BE DESIGNED TO CONFORM WITH THE AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, DECEMBER 2009 WITH INTERIMS AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEFLECTIONS:
DEFLECTIONS DUE TO THE UNFACTORED PEDESTRIAN LIVE LOADING SHALL NOT EXCEED 1/360 OF THE SPAN LENGTH, IN ACCORDANCE WITH THE AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES.

DESIGN LOADS:
PEDESTRIAN LIVE LOAD: 90 PSF
MAINTENANCE VEHICLE: VEHICLE (20,000 LBS.)

GENERAL:
PREFABRICATED PEDESTRIAN BRIDGE TRUSS SPAN SHALL BE A LOW PROFILE HALF THROUGH THRUSS DESIGN WITH PRATT STYLE TRUSSES. PANEL LENGTHS SHALL BE APPROXIMATELY EQUAL. A SINGLE DIAGONAL SHALL BE UTILIZED PER PANEL EXCEPT IN THE CASE WHERE THERE IS AN ODD NUMBER OF PANELS, IN WHICH CASE THE CENTER PANEL SHALL HAVE TWO DIAGONALS.
PREFABRICATED PEDESTRIAN BRIDGE TRUSS SPAN SHALL BE CAMBERED AS REQUIRED TO PROVIDE A LEVEL GRADE BETWEEN BEARING LINES IN THE FINAL CONDITION UNDER ALL SELF-WEIGHT LOADS.
STRUCTURAL ELEMENTS CONTAINED WITHIN THESE PLANS HAVE BEEN DESIGNED ASSUMING MAXIMUM SERVICE LEVEL TRUSS REACTIONS PER BEARING OF 71 KIPS DEAD LOAD, 54 KIPS LIVE LOAD, AND 21 KIPS WIND LOAD. THE WIND LOAD REACTION WAS CONSIDERED IN BOTH THE UPWARD AND DOWNWARD DIRECTION. STRUCTURAL ELEMENTS WERE ALSO DESIGNED FOR A HORIZONTAL SERVICE LEVEL REACTION OF 25 KIPS FROM WIND (APPLIED PERPENDICULAR TO CL BRIDGE) AND 22 KIPS FROM THERMAL (APPLIED PARALLEL TO CL BRIDGE). IF ACTUAL VALUES EXCEED THOSE SHOWN HERE, THE TRUSS MANUFACTURER SHALL NOTIFY THE CONTRACTING OFFICER UPON SUBMITTAL OF THE SHOP DRAWINGS.

MATERIALS:
ALL PRINCIPAL TRUSS MEMBERS, FLOOR BEAMS, LATERAL BRACING MEMBERS, BEARING PLATES, AND EDGE FORM PLATES FOR CONCRETE DECK SHALL UTILIZE WEATHERING STEEL.
REINFORCING STEEL IN CONCRETE DECK SHALL BE IN ACCORDANCE WITH TRUSS MANUFACTURER'S RECOMMENDATIONS AND SHALL BE EPOXY COATED.

DIMENSIONAL CONSTRAINTS:
PREFABRICATED PEDESTRIAN BRIDGE TRUSS SPAN SHALL PROVIDE A 10'-0" MINIMUM CLEAR WIDTH MEASURED BETWEEN INSIDE FACES OF RAILINGS.
MEMBER SIZES FOR PRINCIPAL TRUSS MEMBERS (TOP CHORD, BOTTOM CHORD, VERTICALS AND DIAGONALS) SHALL BE UNIFORM THROUGHOUT THE SPAN. IF SMALLER MEMBER SIZES ARE DESIRED FOR DIAGONAL AND VERTICAL MEMBERS, THE SAME SIZE DIAGONALS AND VERTICALS SHALL BE USED THROUGHOUT THE SPAN (END POST VERTICALS EXCLUDED).
THE MAXIMUM STRUCTURE DEPTH FROM TOP OF FINISHED CONCRETE DECK TO BOTTOM OF BEARING AT EACH END OF BRIDGE MAY NOT EXCEED 3'-3" WITHOUT APPROVAL BY THE CONTRACTING OFFICER.

APPROVED MANUFACTURERS:
THE PREFABRICATED PEDESTRIAN BRIDGE TRUSS SPAN SHALL COMPLY WITH REQUIREMENTS OF MINNEHAHA D.O.T. MATERIALS I.M. 557, APPENDIX D.

PROJECT MANAGER ANDREW F. JUDD

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90% DRAFT
SUBMITTAL FOR CLIENT REVIEW

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

PEDESTRIAN BRIDGE PLAN, SECTION AND NOTES

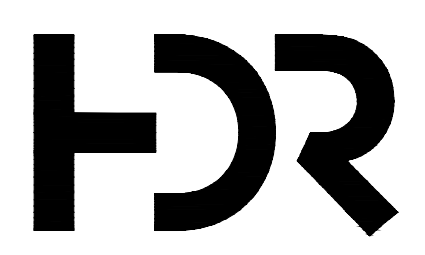


FILENAME | SC100.DWG
SCALE | AS NOTED

SHEET
SC100



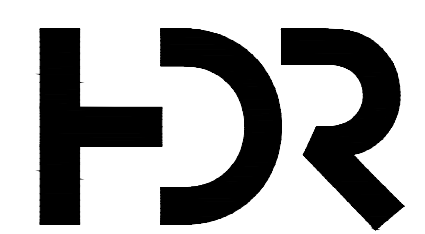
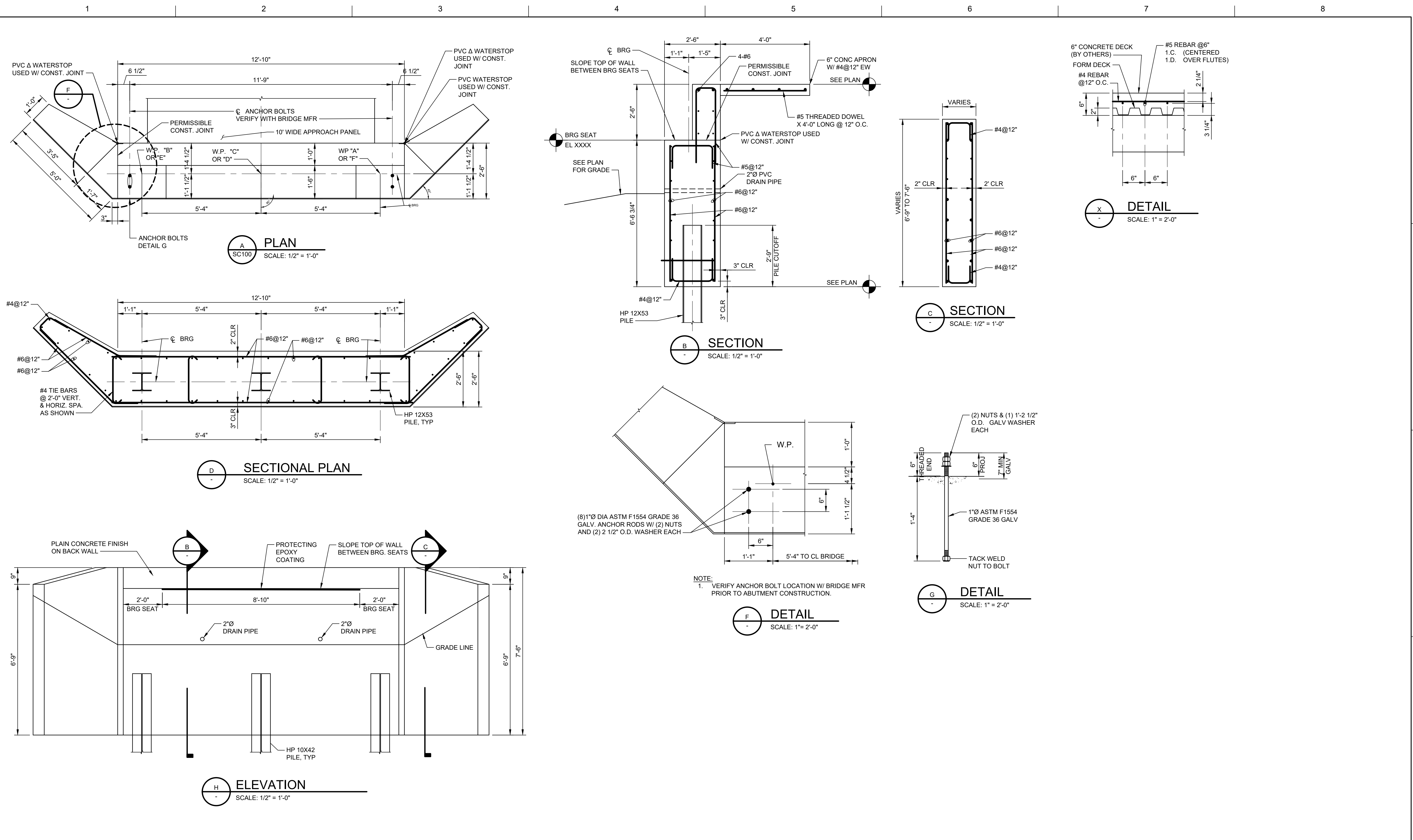
MINNEHAHA CREEK WATERSHED DISTRICT



ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
4	06/13/2022	PFA GRANT PACKAGE

PROJECT NUMBER	10268112
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PROJECT NUMBER	10268112

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JEROME W. MULVIHILL, PE
DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

PEDESTRIAN BRIDGE SECTION AND DETAILS

0 1" 2"

FILENAME | SC301.DWG
SCALE | AS NOTED

SHEET
SC301

ONE LINE, POWER AND LIGHTING SYMBOLOGY

SITE SYMBOLOGY

X 20A 3P OR X 100AF 80AT 3P LSIGA
 LOW VOLTAGE CIRCUIT BREAKER (CB). RATING AND NO. OF POLES AS SHOWN. WHEN SPECIFIC TYPE, OTHER THAN MCCB, IS REQUIRED, X INDICATES TYPE.
TYPES:
 MCCB - MOLDED CASE
 ICCB - INSULATED CASE
 LVP - LOW VOLTAGE POWER
 MCP - MOTOR CIRCUIT PROTECTOR (RATING PER CONNECTED LOAD)
TRIP UNIT:
 L - LONG TIME PICKUP
 S - SHORT TIME PICKUP
 I - INSTANTANEOUS PICKUP
 G - GROUND FAULT PICKUP
 A - ARC FLASH MAINTENANCE

TWO RECEPTACLES IN 2-GANG BOX UNDER COMMON COVER PLATE
 DUPLEX RECEPTACLE
 SIMPLEX RECEPTACLE
 CONDUIT TURNING UP
 CONDUIT TURNING DOWN
 HOMERUN TO PANEL
 SINGLE PHASE: 2#12, 1#12G IN 3/4" C
 THREE PHASE: 3#12, 1#12G IN 3/4" C
 UNLESS OTHERWISE NOTED, CONDUCTOR SIZE IS FOR ENTIRE CIRCUIT
 CONDUIT CONNECTION TO EQUIPMENT
 CIRCUIT RUN BETWEEN DEVICES EXPOSED IN NON-ARCHITECTURALLY FINISHED AREAS; CONCEALED IN ARCHITECTURALLY FINISHED AREAS. CONDUIT AND CONDUCTOR SIZES SHALL BE THE SAME AS THE HOMERUN FOR THE CIRCUIT.
 CONDUIT RUN BETWEEN DEVICES CONCEALED IN NON-ARCHITECTURALLY FINISHED AREAS OR UNDER FLOOR SLAB. CONDUIT AND CONDUCTOR SIZES SHALL BE THE SAME AS THE HOMERUN FOR THE CIRCUIT.
 CIRCUIT HASH MARKS (WHEN INDICATED); LONG, SHORT, SINGLE DOT, AND DOUBLE DOT REPRESENT PHASE, NEUTRAL, EQUIPMENT GROUND, AND ISOLATED EQUIPMENT GROUND, RESPECTIVELY. #12 IN 3/4" CONDUIT UNLESS OTHERWISE INDICATED.
 CIRCUIT CONTINUATION
 CONDUIT STUBBED OUT AND CAPPED

POWER POLE
 DOWNGUY
 UNDERGROUND ELECTRICAL AND COMMUNICATIONS SYSTEMS PATHWAY
 OVERHEAD ELECTRICAL AND COMMUNICATION SYSTEMS PATHWAY

CONTROL SYMBOLOGY

ELECTRICAL CONNECTION
 NO ELECTRICAL CONNECTION
 CONTROL/RELAY COIL; X INDICATES TYPE, Y INDICATES LOOP NO. WHEN USED
TYPES:
 CR - CONTROL RELAY
 DP - DEFINITE PURPOSE RELAY
 LC - LIGHTING CONTACTOR
 M - MOTOR STARTER
 PC - PHOTOCELL
 TC - TIME CLOCK
 TR - TIMING RELAY
 NORMALLY OPEN CONTACT (N.O.)
 NORMALLY CLOSED CONTACT (N.C.)

GENERAL NOTES:
 1. THIS IS A STANDARD ELECTRICAL SYMBOLOGY SHEET. NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT.
 2. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.

LP100 208/120V 3Ø, 4W SWITCHBOARD OR PANELBOARD; NAME, VOLTAGE, PHASE, NUMBER OF WIRES WHEN INDICATED
 100 KVA NON-MOTOR LOAD WITH DESIGN KVA, KW, OR AMP
 VOLTAGE TRANSFORMER (VT, PT, OR CPT)
 CURRENT TRANSFORMER (CT)
 UTILITY WATT-HOUR METER PER UTILITY REQUIREMENTS
 GROUND
 WALL MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED
 CEILING/IN-GROUND UPLIGHT LUMINAIRE, LAMP TYPE AS SPECIFIED
 POLE/STANCHION MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED
 CEILING/PENDANT MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED
 WALL MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED
LIGHTING FIXTURE SUBSCRIPTS:
 X - INDICATES LUMINAIRE TYPE PER LUMINAIRE SCHEDULE
 Y - INDICATES CIRCUIT NUMBER FROM PANELBOARD
 Z - INDICATES CONTROLLING SWITCH (IF REQUIRED)
 NL - NIGHT LIGHT UNSWITCHED
 WALL SWITCH
SUBSCRIPTS:
 X - INDICATES TYPE
 NONE - SINGLE POLE
 2 - DOUBLE POLE
 3 - THREE-WAY
 4 - FOUR-WAY
 K - KEY SWITCH
 P - PILOT LIGHT
 L - LIGHTED HANDLE
 DM - DIMMING
 MC - MOMENTARY CONTACT
 T - TIMER
 Y - INDICATES CONTROLLING SWITCH (IF REQUIRED)
 PHOTOCELL
 TIME CLOCK
 LIGHTING CONTROL OCCUPANCY SENSOR, WALL MOUNTED, X INDICATES SPECIFIC TYPE AS SPECIFIED
 PANELBOARD (LESS THAN 250V)



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 60% DRAFT
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 JAMES MURPHY, PE
 DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY
 MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
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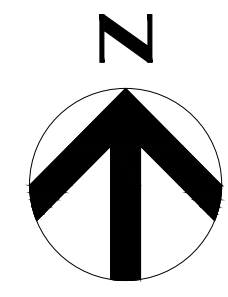
ELECTRICAL LEGEND

0 1" 2"

FILENAME | E001.DWG
 SCALE | NA

SHEET
E001

D
C
B
A



GENERAL NOTES

1. CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY. FIELD ADJUST CONDUIT ROUTING BASED ON FIELD CONDITIONS AND COORDINATION WITH OTHER EXISTING AND NEW UTILITIES, STRUCTURES, AND EQUIPMENT.

KEY NOTES

1. PROVIDE 2 #10, #10G IN 1" C.
2. ROUTE CONDUIT UNDERNEATH PEDESTRIAN BRIDGE
3. COORDINATE WITH XCEL ENERGY FOR METERED SUPPLY AND FINAL LOCATION.

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MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

ELECTRICAL SITE PLAN 01

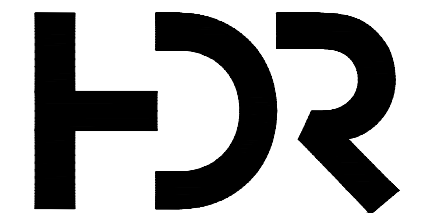


FILENAME | E101.DWG
 SCALE | 1" = 30'

SHEET
E101



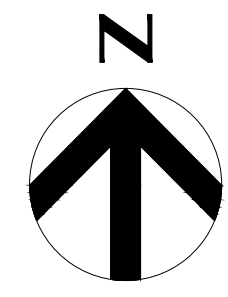
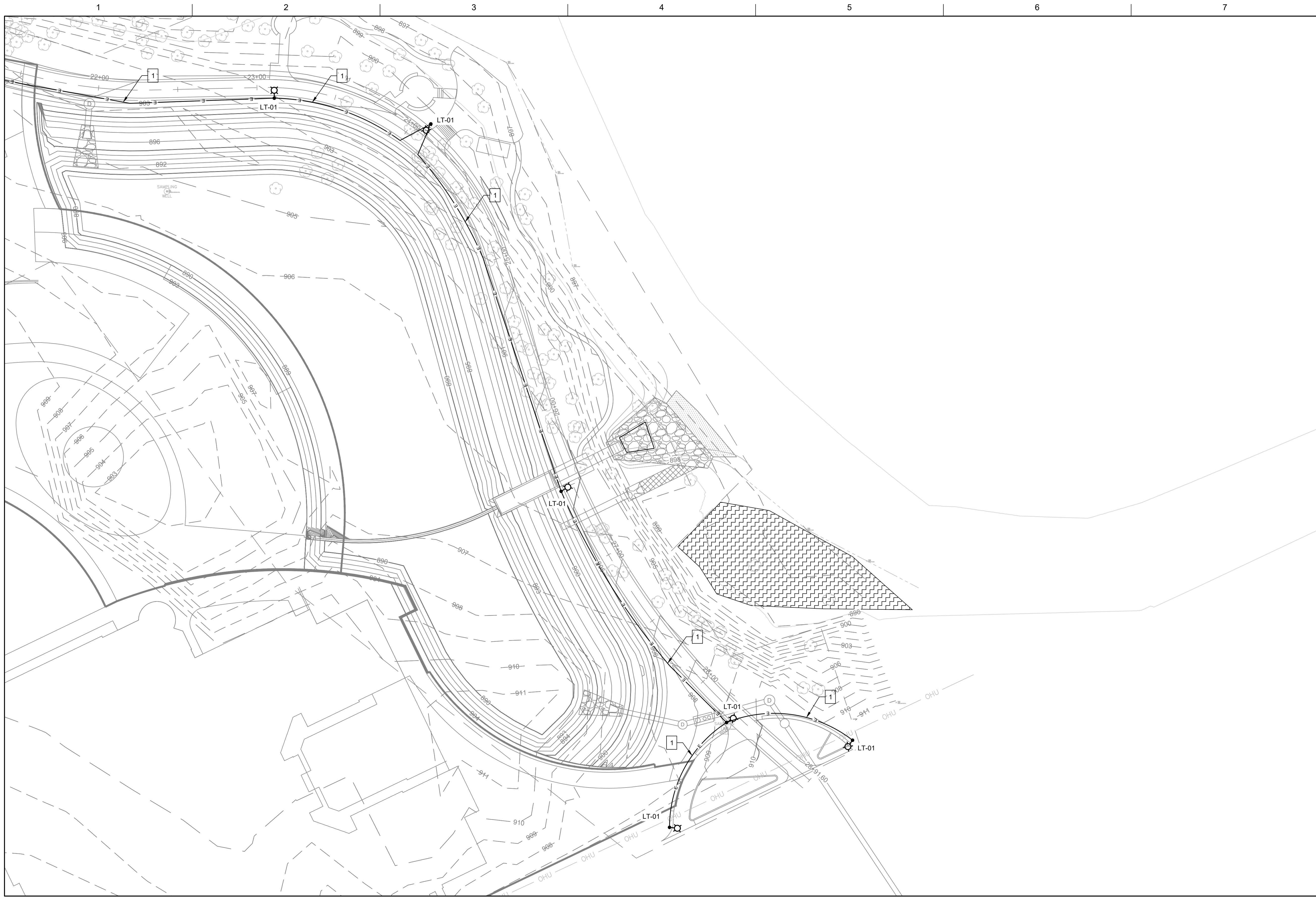
MINNEHAHA CREEK WATERSHED DISTRICT



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GENERAL NOTES

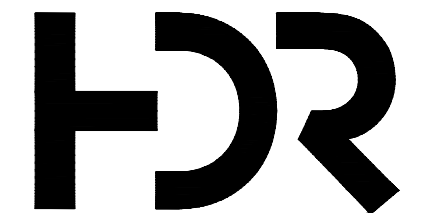
- CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY. FIELD ADJUST CONDUIT ROUTING BASED ON FIELD CONDITIONS AND COORDINATION WITH OTHER EXISTING AND NEW UTILITIES, STRUCTURES, AND EQUIPMENT.

KEY NOTES

- PROVIDE 2 #10, #10G IN 1" C.



**MINNEHAHA CREEK
WATERSHED DISTRICT**



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**325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY**

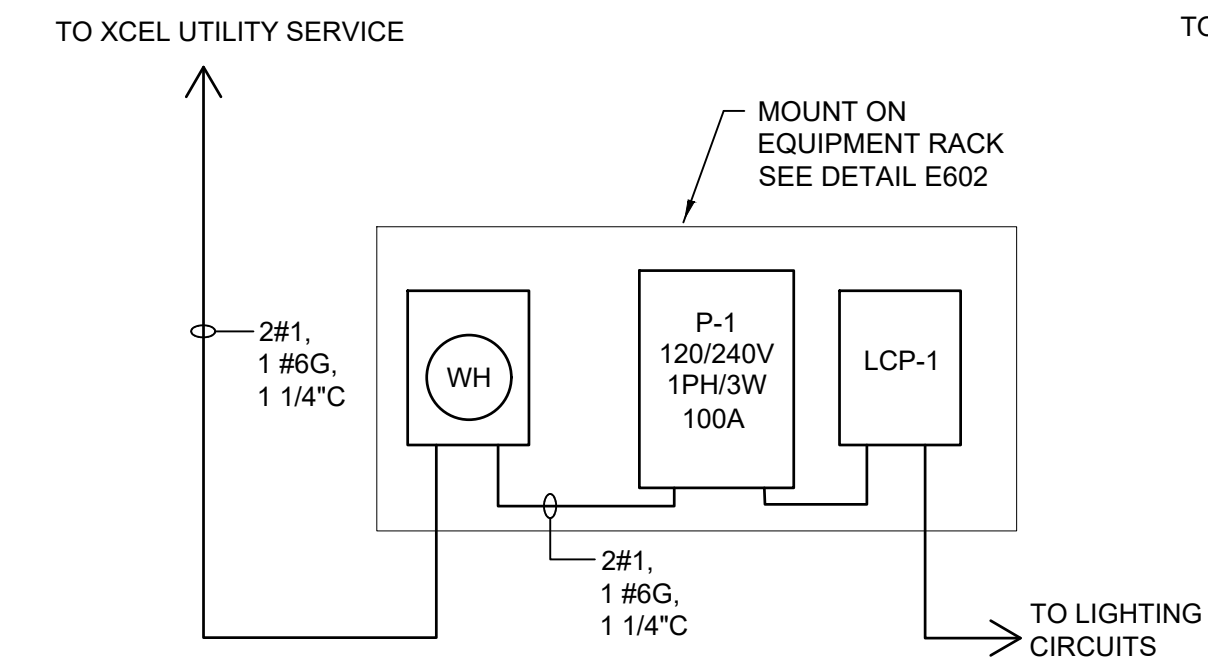
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

ELECTRICAL SITE PLAN 02



FILENAME E102.DWG
SCALE 1" = 30'

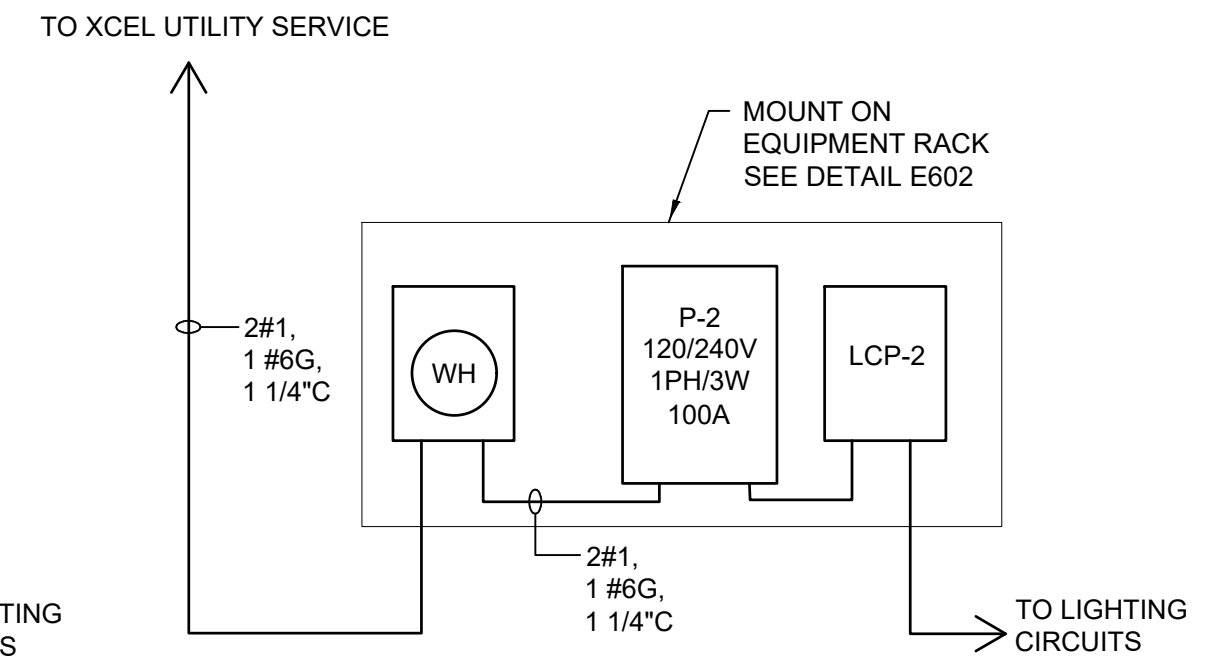
SHEET
E102



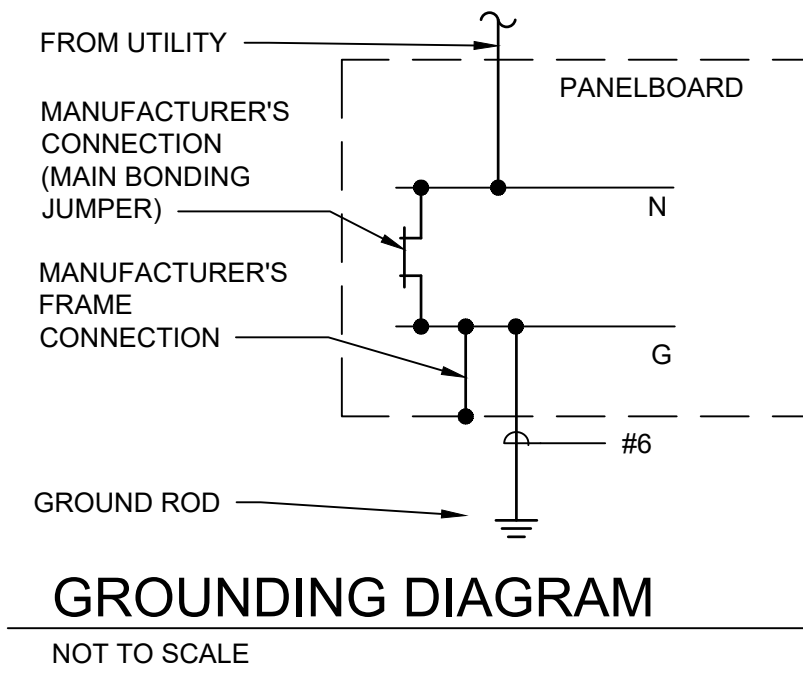
P-1 RISER DIAGRAM (GATEWAY PLAZA)

SERVICE ENTRANCE NOTES:

- COORDINATE METER LOCATION WITH XCEL ENERGY
- PROVIDE NRTL LISTED METER SOCKET CONFORMING TO XCEL STANDARDS, BILLING METER PROVIDED BY XCEL
- UNDERGROUND SERVICE CONDUIT SHALL BE GRAY SCHEDULE 80 PVC
- PROVIDE A SLIP SLEEVE/METER RISER SLEEVE TO XCEL STANDARDS.
- PROVIDE SERVICE ENTRANCE CONDUIT, CONDUCTOR AND OVERHEAD POINT OF ATTACHMENT
- INSTALL ELBOW AT POLE TO MAX 6" ABOVE GRADE AND COIL 32 FEET OF CABLE AT BASE OF XCEL POLE

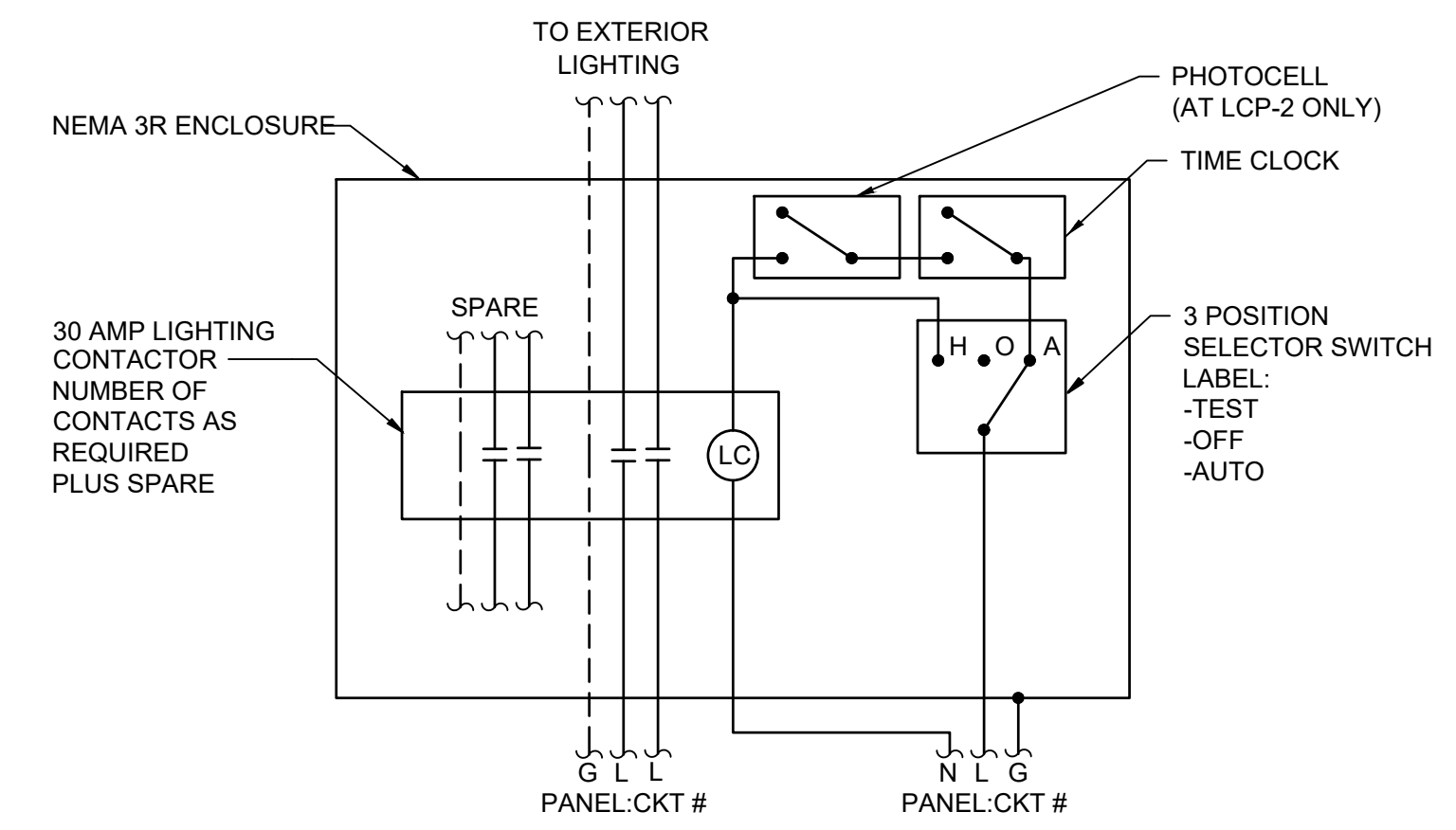


P-2 RISER DIAGRAM (NATURE PLAY AREA)



GROUNDING DIAGRAM

NOT TO SCALE



LCP-1 & LCP-2 LIGHTING CONTROL DIAGRAM

NOT TO SCALE

LIGHTING CONTROL NOTES:

- SET INITIAL TIME CLOCK CONTROLS TO SWITCH OFF LIGHTS BETWEEN THE HOURS OF 11PM TO 5AM.
- POLE MOUNT LIGHTS SUPPLIED FROM LCP-2 HAVE INTEGRAL PHOTOCELL

SERVICE PANEL: P-1

LOCATION: GATEWAY PLAZA VOLTS: 240/120 A.I.C. RATING: 10KA
 SUPPLY FROM: UTILITY METER PHASE: 1 MAINS TYPE: MCB
 MOUNTING: SURFACE WIRE: 3+GND MAINS RATING: 100A
 ENCLOSURE: NEMA 3R INTEGRAL SPD: YES SERVICE ENTRANCE LABEL: YES

CKT NO.	DESCRIPTION	CONNECTED LOAD (VA)				OCP		CONNECTED LOAD (VA)				DESCRIPTION	CKT NO.
		LTS	REC	MECH	MISC	AMPS	P	LTS	REC	MECH	MISC		
1	TREE PROJECTOR LIGHTS	72				20	1	120				RECESSED WALL LIGHTS	2
3	POLE LIGHTS	176				20	1	50				LIGHTING CONTROL	4
5	PERGOLA LIGHTS	300				20	1	50				IRRIGATION CONTROL	6
7	SIGN LIGHTING	300				20	1					SPARE	8
9	SPARE					20	1					SPARE	10
11	SPARE					20	1					SPARE	12

LOAD SUMMARY							PHASE BALANCE	
CONNECTED LOAD (KVA)	LTS	REC	MECH	MISC	SPARE	TOTAL	240	LINE-TO-LINE VOLTS
1.0	1.0	0.0	0.0	0.1	---	1.1	240	PHASE A (KVA)
1.25	1.25	0.0	1.00	1.00	20%	---	4	CONNECTED AMPS
1.2	1.2	0.0	0.0	0.1	0.2	1.5	6	DESIGN AMPS

SERVICE PANEL: P-2

LOCATION: NATURE PLAY AREA VOLTS: 240/120 A.I.C. RATING: 10KA
 SUPPLY FROM: UTILITY METER PHASE: 1 MAINS TYPE: MCB
 MOUNTING: SURFACE WIRE: 3+GND MAINS RATING: 100A
 ENCLOSURE: NEMA 3R INTEGRAL SPD: YES SERVICE ENTRANCE LABEL: YES

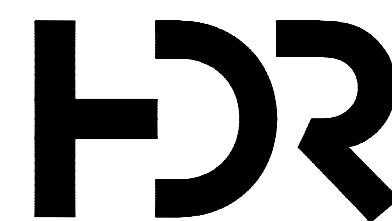
CKT NO.	DESCRIPTION	CONNECTED LOAD (VA)				OCP		CONNECTED LOAD (VA)				DESCRIPTION	CKT NO.
		LTS	REC	MECH	MISC	AMPS	P	LTS	REC	MECH	MISC		
1	POLE LIGHTS	880				20	2	50				LIGHTING CONTROL	2
3												SPARE	4
5	SPARE					20	1					SPARE	6
7	SPARE					20	1					SPARE	8
9	SPARE					20	1					SPARE	10
11	SPARE					20	1					SPARE	12

LOAD SUMMARY							PHASE BALANCE	
CONNECTED LOAD (KVA)	LTS	REC	MECH	MISC	SPARE	TOTAL	240	LINE-TO-LINE VOLTS
0.9	0.9	0.0	0.0	0.1	---	0.9	240	PHASE A (KVA)
1.25	1.25	0.0	1.00	1.00	20%	---	4	CONNECTED AMPS
1.1	1.1	0.0	0.0	0.1	0.2	1.3	6	DESIGN AMPS

LUMINAIRE SCHEDULE

DWG ID	MANUFACTURER AND SERIES	DESCRIPTION	WATTS (MAX)	VOLTAGE	COLOR TEMP (K)	CRI (MIN)	LUMENS	MOUNTING		NOTES
								TYPE	HEIGHT	
LT-01	SOLANA SL660 SERIES PT-SL660-24L30T3-MDL014-CA-R7-PE/___/USL	POST TOP LED AREA LIGHT. FOR INSTALLATION ALONG PEDESTRIAN PATHS. TYPE II DISTRIBUTION, CLEAR ACRYLIC LENS, ALUMINUM HOUSING. INTEGRAL TWIST LOCK PHOTOCONTROL. 10' - 0" POLE, ROUND ALUMINUM MANUFACTURER'S STANDARD, WITH MATTE SILVER FINISH. WET LOCATION RATED.	88	240	3000	70	8000	POLE	10' - 0"	1
LT-01A	SOLANA SL660 SERIES PT-SL660-24L30T3-MDL014-CA-R7-PE/BLOC/___/USL	POST TOP LED AREA LIGHT. FOR INSTALLATION ALONG PEDESTRIAN PATHS. TYPE II DISTRIBUTION, CLEAR ACRYLIC LENS, ALUMINUM HOUSING. INTEGRAL TWIST LOCK PHOTOCONTROL. 10' - 0" POLE, ROUND ALUMINUM MANUFACTURER'S STANDARD, WITH MATTE SILVER FINISH. BACK LIGHT OPTICAL CONTROL. WET LOCATION RATED.	88	240	3000	70	8000	POLE	10' - 0"	1
LT-02	SOLANA SL660 SERIES PT-SL660-24L30T3-MDL014-CA/___/USL	POST TOP AREA LIGHT. FOR INSTALLATION ALONG PEDESTRIAN PATHS. TYPE II DISTRIBUTION, CLEAR ACRYLIC LENS, ALUMINUM HOUSING. 10' - 0" POLE, ROUND ALUMINUM MANUFACTURER'S STANDARD, WITH MATTE SILVER FINISH. WET LOCATION RATED.	88	120	3000	70	8000	POLE	10' - 0"	1
LT-03	ERCO LIGHTSCAN	MINI PROJECTOR/FLOOD LED. SPOT BEAM DISTRIBUTION. WET LOCATION RATED. GRAPHITE FINISH.	12	120	3000	70	1650	CONCRETE ANCHOR	AT GRADE	2
LT-04	ERCO VISOR	RECESSED FAÇADE LED LIGHT. CIRCULAR SHAPE. WET LOCATION RATED. WIDE BEAM DISTRIBUTION. GRAPHITE FINISH.	6	120	3000	70	825	WALL RECESS	1' - 6"	
LT-05	TBA	FOR PERGOLA DOWNLIGHTING. WET LOCATION RATED.		120	3000	70		SURFACE		
LT-06	TBA	FOR PERGOLA SIGN LIGHTING. WET LOCATION RATED.		120	3000	70		SURFACE		

NOTES:
 1. PROVIDE COLOR MATERIAL SAMPLES TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO ORDER
 2. ANGLE PROJECTOR LIGHT AT 30 DEGREES TO ILLUMINATE TREE TRUNK AND CANOPY.



MINNEHAHA CREEK WATERSHED DISTRICT

ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 60% DRAFT
 SUBMITTAL FOR CLIENT REVIEW

DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

ELECTRICAL ONE LINE DIAGRAMS AND SCHEDULES



FILENAME E601.DWG
 SCALE NA

SHEET
E601

SITE AND LANDSCAPE NOTES

SITE PREPARATION NOTES

- CONTRACTOR SHALL INSPECT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS RELATING TO THE NATURE AND SCOPE OF WORK.
- CONTRACTOR SHALL VERIFY PLAN LAYOUT AND BRING TO THE ATTENTION OF THE LANDSCAPE ARCHITECT DISCREPANCIES WHICH MAY COMPROMISE THE DESIGN OR INTENT OF THE LAYOUT.
- CONTRACTOR SHALL ASSURE COMPLIANCE WITH APPLICABLE CODES AND REGULATIONS GOVERNING THE WORK AND MATERIALS SUPPLIED.
- CONTRACTOR SHALL PROTECT EXISTING ROADS, CURBS/GUTTERS, TRAILS, TREES, LAWNS AND SITE ELEMENTS DURING CONSTRUCTION OPERATIONS. DAMAGE TO SAME SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL VERIFY ALIGNMENT AND LOCATION OF UNDERGROUND AND ABOVE GRADE UTILITIES AND PROVIDE THE NECESSARY PROTECTION FOR SAME BEFORE CONSTRUCTION BEGINS (MINIMUM 10' CLEARANCE).
- CONTRACTOR SHALL COORDINATE THE PHASES OF CONSTRUCTION AND PLANTING INSTALLATION WITH OTHER CONTRACTORS WORKING ON SITE.
- UNDERGROUND UTILITIES SHALL BE INSTALLED SO THAT TRENCHES DO NOT CUT THROUGH ROOT SYSTEMS OF EXISTING TREES TO REMAIN.
- EXISTING CONTOURS, TRAILS, VEGETATION, CURB/GUTTER AND OTHER ELEMENTS ARE BASED UPON INFORMATION SUPPLIED TO THE LANDSCAPE ARCHITECT BY OTHERS. CONTRACTOR SHALL VERIFY DISCREPANCIES PRIOR TO CONSTRUCTION AND NOTIFY LANDSCAPE ARCHITECT OF SAME.
- HORIZONTAL AND VERTICAL ALIGNMENT OF PROPOSED WALKS, TRAILS OR ROADWAYS ARE SUBJECT TO FIELD ADJUSTMENT REQUIRED TO CONFORM TO LOCALIZED TOPOGRAPHIC CONDITIONS AND TO MINIMIZE TREE REMOVAL AND GRADING. CHANGES IN ALIGNMENT AND GRADES MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO IMPLEMENTATION.
- CONTRACTOR SHALL REVIEW THE SITE FOR DEFICIENCIES IN SITE CONDITIONS WHICH MIGHT NEGATIVELY AFFECT PLANT ESTABLISHMENT, SURVIVAL OR WARRANTY. UNDESIRABLE SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO COMMENCEMENT OF WORK.
- CONTRACTOR IS RESPONSIBLE FOR ONGOING MAINTENANCE OF NEWLY INSTALLED MATERIALS UNTIL TIME OF SUBSTANTIAL COMPLETION. REPAIR OF ACTS OF VANDALISM OR DAMAGE WHICH MAY OCCUR PRIOR TO SUBSTANTIAL COMPLETION SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- EXISTING TREES OR SIGNIFICANT SHRUB MASSINGS FOUND ON SITE SHALL BE PROTECTED AND SAVED UNLESS NOTED TO BE REMOVED OR ARE LOCATED IN AN AREA TO BE GRADED. QUESTIONS REGARDING EXISTING PLANT MATERIAL SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO REMOVAL.
- EXISTING TREES TO REMAIN, UPON DIRECTION OF LANDSCAPE ARCHITECT, SHALL BE FERTILIZED AND PRUNED TO REMOVE DEAD WOOD, DAMAGED AND RUBBING BRANCHES.
- CONTRACTOR SHALL PREPARE AND SUBMIT A WRITTEN REQUEST FOR THE SUBSTANTIAL COMPLETION INSPECTION OF LANDSCAPE AND SITE IMPROVEMENTS PRIOR TO SUBMITTING FINAL PAY REQUEST.
- CONTRACTOR SHALL PREPARE AND SUBMIT REPRODUCIBLE AS-BUILT DRAWING(S) OF LANDSCAPE INSTALLATION, IRRIGATION AND SITE IMPROVEMENTS UPON COMPLETION OF CONSTRUCTION INSTALLATION AND PRIOR TO SUBSTANTIAL COMPLETION.
- SYMBOLS ON PLAN DRAWING TAKE PRECEDENCE OVER SCHEDULES IF DISCREPANCIES IN QUANTITIES EXIST. SPECIFICATIONS AND DETAILS TAKE PRECEDENCE OVER NOTES.

SOIL TESTING

- CONTRACTOR SHALL OBTAIN A SOIL SAMPLE(S) FROM PROJECT SITE AND/OR SALVAGED TOPSOIL STOCKPILE AND SUBMIT TO INDEPENDENT TESTING AGENCY. ANALYSIS AND RECOMMENDATIONS FOR (INCLUDING BUT NOT LIMITED TO) MACRONUTRIENTS, MICRONUTRIENTS, COMPOSITION AND SOLUBLE SALTS SHALL BE PROVIDED.
- CONTRACTOR SHALL PROVIDE TWO SERIES OF TESTS: FIRST, PRIOR

TO CONSTRUCTION; SECOND, AFTER SOIL IS AMENDED, PRIOR TO PLANTING.

- CONTRACTOR SHALL PROVIDE ANALYSIS RESULTS AND RECOMMENDATIONS TO THE LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO SOIL AMENDMENT AND PRIOR TO PLANTING.

GRADING

- ROUGH GRADING AND FINISHED GRADING TO BE DONE BY OTHERS EXCEPT WHERE NOTED.
- GRADING LIMITS ARE DEFINED AS THE JUNCTURE OF PROPOSED GRADE WITH EXISTING GRADE UNLESS NOTED OTHERWISE.
- GRADING LIMITS AND LIMITS OF WORK SHOWN ON PLAN ARE ONLY APPROXIMATE AND MAY BE ADJUSTED IN FIELD BY LANDSCAPE ARCHITECT. WORK OUTSIDE OF THESE LIMITS WILL BE DONE AT LANDSCAPE CONTRACTORS EXPENSE UNLESS DIRECTED BY LANDSCAPE ARCHITECT OR OWNER IN WRITING.
- FILL/CUT AS NECESSARY TO PROVIDE A 1% MINIMUM GRADE AWAY FROM BUILDINGS WITHIN LIMITS OF CONSTRUCTION.
- SALVAGE TOPSOIL FROM THE EARTHWORK AREAS AS APPROPRIATE OR AS INDICATED ON PLANS AND STOCKPILE FOR REUSE.
- MAINTAIN A UNIFORM GRADE BETWEEN CONTOURS IN AREAS TO BE GRADED UNLESS NOTED OTHERWISE.
- ELEVATIONS, IF SHOWN ARE FINISHED ELEVATIONS. SPOT ELEVATIONS TAKE PRECEDENCE OVER CONTOURS.
- ADD EROSION CONTROL MEASURES IF GRADES GREATER THAN 3:1 OR IF CONDITIONS WARRANT. REFER TO MNDOT SPECIFICATIONS FOR EROSION CONTROL.
- CONTRACTOR SHALL CONTACT PUBLIC UTILITIES FOR LOCATION OF UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. LANDSCAPE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE IF DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL PROVIDE PROPER EROSION CONTROL MEASURES AS REQUIRED TO ENSURE THAT EROSION IS KEPT TO AN ABSOLUTE MINIMUM.
- PROVIDE TEMPORARY COVERING FOR CATCH BASINS AND MAN HOLES UNTIL FINISHED GRADING IS COMPLETE.
- CONTRACTOR SHALL CONSTRUCT DRAINAGE BASINS AS NEEDED.
- PERIMETER SILT FENCE AND ROCK CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO CONSTRUCTION. REFER TO STATE SPECIFICATIONS FOR AGGREGATE BASE AND SILT FENCE.
- CONTRACTOR SHALL INSTALL CATCH BASIN EROSION CONTROL MEASURES PER LOCAL POLLUTION CONTROL AGENCY AND SPECIFICATIONS.
- WITHIN TWO WEEKS OF FINISHED SITE GRADING, DISTURBED AREAS SHALL BE STABILIZED WITH SEED, SOD, MULCH OR ROCK BASE.
- CONTRACTOR SHALL MAINTAIN EROSION CONTROL MEASURES, INCLUDING THE REMOVAL OF ACCUMULATED SILT IN FRONT OF SILT FENCES AND EXCESS SEDIMENT IN PROPOSED CATCH BASINS, FOR THE DURATION OF CONSTRUCTION.
- CONTRACTOR SHALL REMOVE EROSION CONTROL MEASURES AFTER VEGETATION IS ESTABLISHED AND DISPOSE OF OFF SITE.
- CONTRACTOR SHALL ENSURE THAT SOIL CONDITIONS AND COMPACTION ARE ADEQUATE TO ALLOW FOR PROPER DRAINAGE AROUND THE CONSTRUCTION SITE. UNDESIRABLE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK. IT SHALL BE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER SURFACE AND SUBSURFACE DRAINAGE IN PLANTING AREAS.

PLANTING

- SPRING PLANT MATERIAL INSTALLATION IS FROM APRIL 15 TO JUNE 15.
- FALL CONIFEROUS PLANTING IS ACCEPTABLE FROM AUGUST 21 TO SEPTEMBER 30.
- FALL DECIDUOUS PLANTING IS ACCEPTABLE FROM AUGUST 15 UNTIL NOVEMBER 15.
- ADJUSTMENTS TO PLANTING DATES MUST BE APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.
- STAKE PROPOSED PLANTING LOCATIONS PER PLAN FOR REVIEW

- AND APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO INSTALL.
- PLANT MATERIAL SHALL COMPLY WITH THE CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1. UNLESS NOTED OTHERWISE, DECIDUOUS SHRUBS SHALL HAVE AT LEAST 5 CANES AT THE SPECIFIED HEIGHT. ORNAMENTAL TREES SHALL HAVE NO 'V' CROTCHES AND SHALL BEGIN BRANCHING NO LOWER THAN 3' FEET ABOVE THE ROOT BALL. STREET AND BOULEVARD TREES SHALL BEGIN BRANCHING NO LOWER THAN 6' ABOVE PAVED SURFACE.
 - INSTALL PLANT MATERIAL AFTER FINAL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
 - INSTALL PLANT MATERIALS PER PLANTING DETAILS.
 - SUBSTITUTION REQUESTS FOR PLANT MATERIAL TYPE & SIZE SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR CONSIDERATION PRIOR TO BIDDING. SUBSTITUTIONS AFTER BIDDING MUST BE APPROVED BY LANDSCAPE ARCHITECT AND ARE SUBJECT TO CONTRACT ADJUSTMENTS.
 - ADJUSTMENTS IN LOCATION OF PROPOSED PLANT MATERIALS MAY BE NEEDED IN FIELD. LANDSCAPE ARCHITECT MUST BE NOTIFIED PRIOR TO ADJUSTMENT OF PLANTS.
 - FERTILIZE PLANT MATERIALS IN ACCORDANCE WITH SOIL TEST RECOMMENDATIONS. INSTALL 18" DEPTH OF PLANTING SOIL IN AREAS RECEIVING GROUND COVER, PERENNIALS, AND ANNUALS. PLANTING SOIL SHALL CONSIST OF MNDOT 3877-B MODIFIED TO CONTAIN A MAXIMUM OF 30% SAND, A PH OF 7.1 MAX, OR AS OTHERWISE SPECIFIED IN THE PROJECT SPECIFICATIONS MANUAL.
 - [TREE WRAPPING MATERIAL SHALL BE PAPER APPLIED FROM TRUNK FLARE TO FIRST BRANCH. WRAP SMOOTH-BARKED DECIDUOUS TREES PLANTED IN THE FALL PRIOR TO DECEMBER 1 AND REMOVE WRAPPING AFTER MAY 1.] [DO NOT WRAP TREES.]

MULCHING

- INSTALL [4" DEEP FINELY SHREDDED HARDWOOD MULCH] RINGS AT CONIFEROUS & DECIDUOUS TREES WITH NO MULCH IN DIRECT CONTACT WITH TREE TRUNK. WHERE TREES ARE PLANTED IN NATURAL RIPARIAN AREA, INSTALL MULCH RINGS.
- INSTALL [3" DEEP FINELY SHREDDED HARDWOOD MULCH] RINGS AT SHRUB PLANTING AREAS WITH NO MULCH IN DIRECT CONTACT WITH SHRUB STEMS. WHERE MASSED SHRUBS ARE PLANTED IN NATURALIZED/SEEDED AREAS, MULCH AS A CONTINUOUS MASS.
- INSTALL [3" DEEP FINELY SHREDDED MULCH] IN PERENNIAL PLANTING BEDS. REMOVE ALL MULCH FROM STEMS OF PERENNIALS; PLANT STEMS SHOULD NOT BE IN DIRECT CONTACT WITH MULCH.
- WHERE PLUGS ARE PLANTED INTO SEEDED AREAS, NO SHREDDED HARDWOOD MULCH IS REQUIRED.

WATERING

- PLANTED MATERIALS SHALL BE WATERED BY TEMPORARY MEANS UNTIL PLANTS ARE ESTABLISHED.
- TEMPORARY WATERING MEANS, METHODS, AND SCHEDULING SHALL BE THE CONTRACTOR'S RESPONSIBILITY. REMOVE TEMPORARY WATERING EQUIPMENT UPON PLANT ESTABLISHMENT.
- PROVIDE AND FILL WATERING BAGS FOR TREE PLANTINGS.

WARRANTY

- WARRANTY NEW PLANT MATERIAL THROUGH THREE CALENDAR YEARS FROM THE DATE OF SUBSTANTIAL COMPLETION. NO PARTIAL ACCEPTANCE WILL BE CONSIDERED.
- PROVIDE ESTABLISHMENT MAINTENANCE (3 YEARS), MAINTENANCE REPORTING, AND WARRANTY TO NATIVE SEEDING AREAS. REFER TO SPECIFICATIONS.

IRRIGATION NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AN IRRIGATION LAYOUT PLAN AND SPECIFICATION THAT MEETS THE REQUIREMENTS OF THE PROVIDED PERFORMANCE SPECIFICATION AS PART OF THE SCOPE OF WORK. SUBMIT LAYOUT PLAN AND SPECIFICATIONS FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO ORDER AND/OR CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT SODDED/SEEDED AND PLANTED AREAS ARE IRRIGATED PROPERLY, INCLUDING THOSE AREAS DIRECTLY AROUND AND ABUTTING BUILDING FOUNDATION.
- CONTRACTOR SHALL FIELD VERIFY WATER SUPPLY, VOLUME, PRESSURE AND LOCATION FOR SYSTEM TAP PRIOR TO SYSTEM DESIGN.
- CONTRACTOR SHALL CONFIRM COMPLETE LIMITS OF IRRIGATION WITH LANDSCAPE ARCHITECT PRIOR TO SUPPLYING SHOP DRAWINGS.
- CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT FOR INSPECTION AND APPROVAL OF AREAS RECEIVING DRIP IRRIGATION PRIOR TO INSTALLATION OF MULCH.
- CONTRACTOR SHALL PROVIDE THE OWNER AND LANDSCAPE ARCHITECT WITH AS-BUILT DRAWINGS, DETAILED SYSTEM OPERATION INSTRUCTIONS AND AN IRRIGATION SCHEDULE APPROPRIATE TO THE PROJECT SITE CONDITIONS AND PLANTED MATERIAL GROWTH REQUIREMENTS.

PROJECT MANAGER ANDREW F. JUDD

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

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE GENERAL NOTES

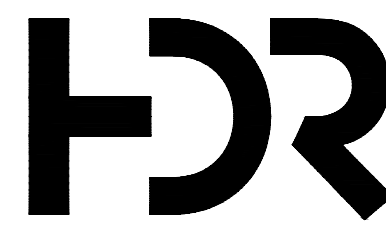


FILENAME
SCALE

SHEET
L000



MINNEHAHA CREEK WATERSHED DISTRICT

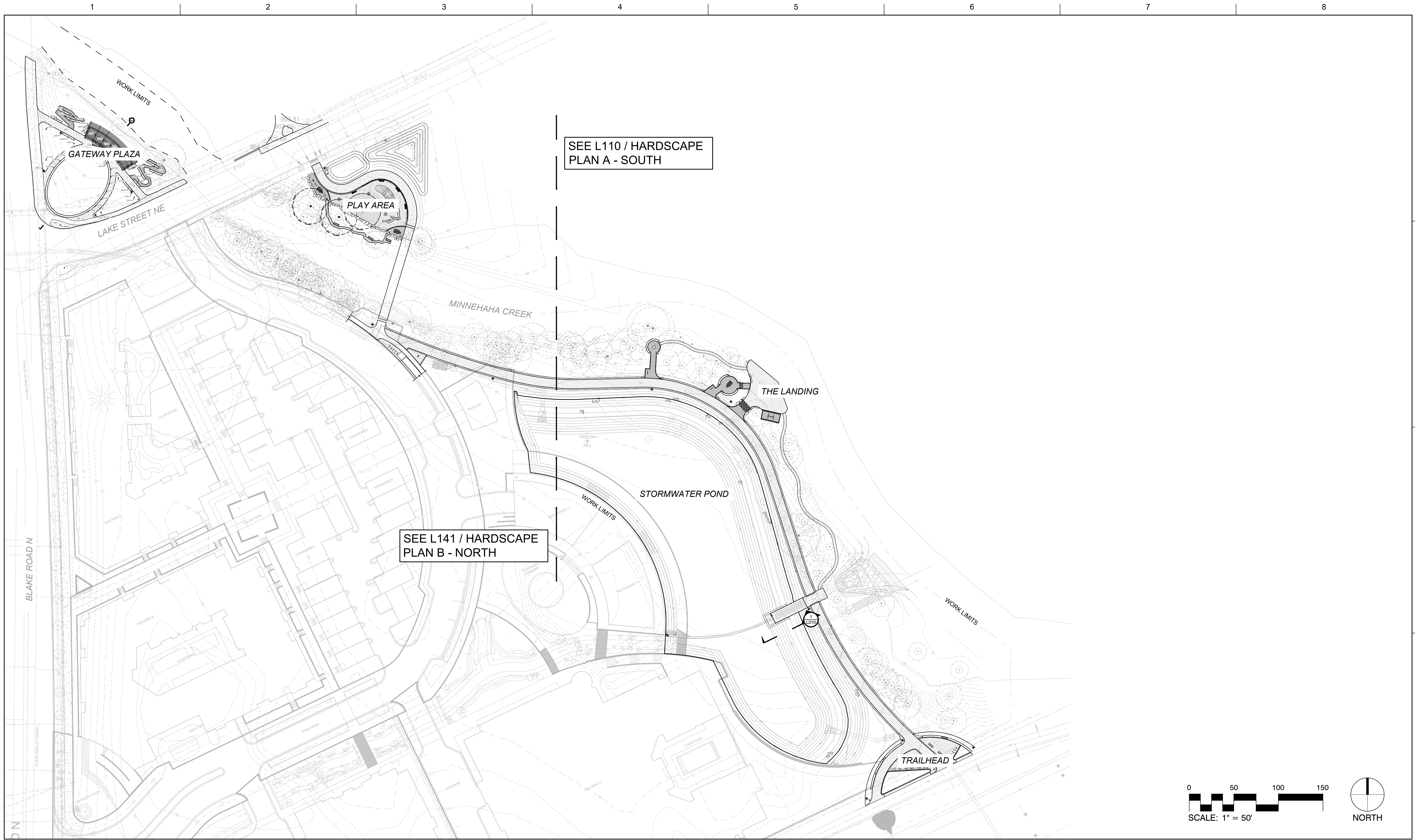


DF/ DAMON FARBER LANDSCAPE ARCHITECTS
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p. 612.332.7522

ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

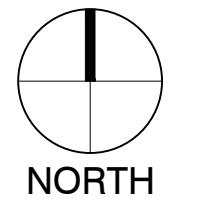
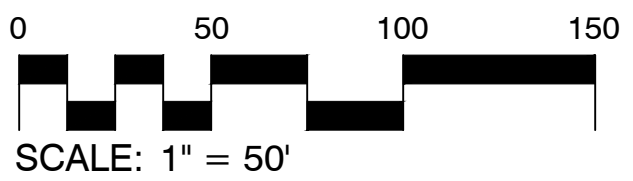
PROJECT NUMBER	10268112

THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292



SEE L110 / HARDSCAPE
PLAN A - SOUTH

SEE L141 / HARDSCAPE
PLAN B - NORTH



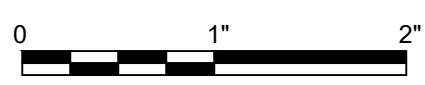
PROJECT MANAGER ANDREW F. JUDD

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

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SITE ORIENTATION PLAN

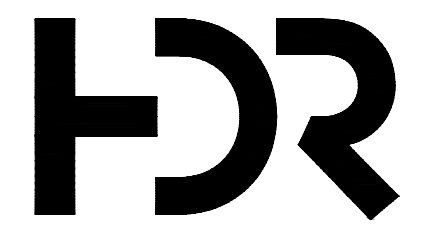


FILENAME
SCALE

SHEET
L001



MINNEHAHA CREEK WATERSHED DISTRICT



DF/ DAMON FARMER LANDSCAPE ARCHITECTS
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p. 612.332.7522

ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT NUMBER	10268112
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DATE XX/XX/XXXX LICENSE # 26292

TREE PRESERVATION SCHEDULE

SYMBOL	DESCRIPTION	SPECIES	CAL/SIZE	CONDITION
T-01	PRESERVE	QUERCUS MACROCARPA	4 DBH	HIGH
T-02	PRESERVE	FRAXINUS PENNSYLVANICA	10 DBH	HIGH
T-03	PRESERVE	ACER NEGUNDO	7 DBH	HIGH
T-04	PRESERVE	ACER NEGUNDO	6 DBH	HIGH
T-05	PRESERVE	ACER NEGUNDO	7 DBH	HIGH
T-06	PRESERVE	ACER NEGUNDO	10 DBH	MEDIUM
T-07	PRESERVE	ACER NEGUNDO	6 DBH	MEDIUM
T-08	PRESERVE	ACER NEGUNDO	6 DBH	LOW
T-09	PRESERVE	ACER NEGUNDO	18 DBH	MEDIUM
T-10	PRESERVE	ACER NEGUNDO	13 DBH	LOW
T-11	PRESERVE	ACER NEGUNDO	9 DBH	LOW
T-12	PRESERVE	ACER NEGUNDO	11 DBH	HIGH
T-13	PRESERVE	ACER NEGUNDO	16 DBH	MEDIUM
T-14	PRESERVE	FRAXINUS PENNSYLVANICA	8 DBH	MEDIUM
T-15	PRESERVE	ACER NEGUNDO	13 DBH	MEDIUM
T-16	PRESERVE	POPULUS GRANDIDENTATA	9 DBH	MEDIUM
T-17	PRESERVE	ACER NEGUNDO	11 DBH	MEDIUM
T-18	DEMO	POPULUS GRANDIDENTATA	9 DBH	LOW
T-19	PRESERVE	ACER NEGUNDO	22 DBH	MEDIUM
T-20	PRESERVE	JUGLANS NIGRA	20 DBH	MEDIUM
T-21	DEMO	POPULUS GRANDIDENTATA	4 DBH	LOW
T-22	DEMO	POPULUS GRANDIDENTATA	6 DBH	LOW
T-23	DEMO	POPULUS GRANDIDENTATA	5 DBH	MEDIUM
T-24	DEMO	POPULUS GRANDIDENTATA	5 DBH	MEDIUM
T-25	DEMO	POPULUS GRANDIDENTATA	6 DBH	MEDIUM
T-26	DEMO	POPULUS GRANDIDENTATA	5 DBH	MEDIUM
T-27	PRESERVE	ACER NEGUNDO	5 DBH	MEDIUM
T-28	DEMO	FRAXINUS PENNSYLVANICA	6 DBH	MEDIUM
T-29	PRESERVE	POPULUS DELTOIDES	25 DBH	MEDIUM
T-30	PRESERVE	POPULUS DELTOIDES	19 DBH	HIGH
T-31	DEMO	ACER NEGUNDO	4 DBH	HIGH
T-32	DEMO	ACER NEGUNDO	4 DBH	MEDIUM
T-33	DEMO	POPULUS DELTOIDES	22 DBH	MEDIUM
T-34	DEMO	POPULUS DELTOIDES	22 DBH	MEDIUM
T-35	PRESERVE	ACER NEGUNDO	8 DBH	MEDIUM
T-36	PRESERVE	PRUNUS SEROTINA	12 DBH	HIGH
T-37	DEMO	POPULUS DELTOIDES	13 DBH	MEDIUM
T-38	PRESERVE	POPULUS DELTOIDES	13 DBH	HIGH
T-39	DEMO	POPULUS DELTOIDES	17 DBH	MEDIUM
T-40	PRESERVE	ACER NEGUNDO	8 DBH	MEDIUM
T-41	DEMO	POPULUS DELTOIDES	25 DBH	MEDIUM
T-42	PRESERVE	POPULUS DELTOIDES	38 DBH	HIGH
T-43	DEMO	ULMUS AMERICANA	8 DBH	MEDIUM

TREE PRESERVATION SCHEDULE

SYMBOL	DESCRIPTION	SPECIES	CAL/SIZE	CONDITION
T-44	PRESERVE	ACER NEGUNDO	9 DBH	MEDIUM
T-45	PRESERVE	ACER NEGUNDO	5 DBH	MEDIUM
T-46	PRESERVE	ACER NEGUNDO	9 DBH	MEDIUM
T-47	DEMO	ULMUS AMERICANA	8 DBH	HIGH
T-48	DEMO	ULMUS AMERICANA	10 DBH	HIGH
T-49	PRESERVE	FRAXINUS PENNSYLVANICA	10 DBH	HIGH
T-50	DEMO	POPULUS GRANDIDENTATA	5 DBH	HIGH
T-51	DEMO	ULMUS PUMILA	7 DBH	MEDIUM
T-52	DEMO	ULMUS AMERICANA	8 DBH	HIGH
T-53	DEMO	ACER NEGUNDO	7 DBH	LOW
T-54	PRESERVE	ACER NEGUNDO	6 DBH	MEDIUM
T-55	DEMO	ACER NEGUNDO	13 DBH	HIGH
T-56	DEMO	FRAXINUS PENNSYLVANICA	5 DBH	MEDIUM
T-57	DEMO	POPULUS DELTOIDES	4 DBH	LOW
T-58	DEMO	ACER NEGUNDO	14 DBH	MEDIUM
T-59	PRESERVE	ACER NEGUNDO	9 DBH	LOW
T-60	PRESERVE	SALIX NIGRA	19 DBH	LOW
T-61	PRESERVE	ACER NEGUNDO	4 DBH	MEDIUM
T-62	PRESERVE	ACER NEGUNDO	13 DBH	HIGH
T-63	DEMO	ACER NEGUNDO	15 DBH	HIGH
T-64	DEMO	POPULUS DELTOIDES	6 DBH	MEDIUM
T-65	DEMO	ULMUS PUMILA	14 DBH	MEDIUM
T-66	DEMO	ULMUS PUMILA	17 DBH	MEDIUM
T-67	DEMO	FRAXINUS PENNSYLVANICA	6 DBH	HIGH
T-68	DEMO	ULMUS PUMILA	5 DBH	MEDIUM
T-69	DEMO	POPULUS GRANDIDENTATA	5 DBH	HIGH
T-70	DEMO	ACER NEGUNDO	7 DBH	MEDIUM
T-71	DEMO	ACER NEGUNDO	8 DBH	MEDIUM
T-72	PRESERVE	ACER NEGUNDO	13 DBH	MEDIUM
T-73	DEMO	ACER NEGUNDO	9 DBH	HIGH
T-74	DEMO	ACER NEGUNDO	11 DBH	MEDIUM
T-75	DEMO	ACER NEGUNDO	9 DBH	MEDIUM
T-76	DEMO	POPULUS GRANDIDENTATA	11 DBH	MEDIUM
T-77	DEMO	ACER NEGUNDO	8 DBH	LOW
T-78	DEMO	ACER NEGUNDO	19 DBH	HIGH
T-79	DEMO	POPULUS GRANDIDENTATA	10 DBH	MEDIUM
T-80	DEMO	ACER NEGUNDO	8 DBH	MEDIUM
T-81	DEMO	FRAXINUS PENNSYLVANICA	6 DBH	HIGH
T-82	DEMO	FRAXINUS PENNSYLVANICA	4 DBH	MEDIUM
T-83	DEMO	FRAXINUS PENNSYLVANICA	4 DBH	LOW
T-84	PRESERVE	FRAXINUS PENNSYLVANICA	5 DBH	HIGH
T-85	PRESERVE	FRAXINUS PENNSYLVANICA	5 DBH	HIGH
T-86	PRESERVE	PRUNUS SEROTINA	10 DBH	HIGH

TREE PRESERVATION SCHEDULE

SYMBOL	DESCRIPTION	SPECIES	CAL/SIZE	CONDITION
T-87	PRESERVE	ACER NEGUNDO	14 DBH	MEDIUM
T-88	PRESERVE	ACER NEGUNDO	4 DBH	MEDIUM
T-89	PRESERVE	JUNIPERUS VIRGINIANA	7 DBH	MEDIUM
T-90	DEMO	JUGLANS NIGRA	18 DBH	HIGH
T-91	DEMO	ULMUS PUMILA	11 DBH	LOW
T-92	DEMO	ACER NEGUNDO	14 DBH	LOW
T-93	DEMO	ACER NEGUNDO	12 DBH	MEDIUM
T-94	DEMO	ACER NEGUNDO	12 DBH	MEDIUM
T-95	DEMO	ACER NEGUNDO	13 DBH	LOW
T-96	PRESERVE	JUNIPERUS VIRGINIANA	11 DBH	HIGH
T-97	PRESERVE	JUNIPERUS VIRGINIANA	13 DBH	MEDIUM
T-98	PRESERVE	PICEA PUNGENS	15 DBH	HIGH
T-99	PRESERVE	PICEA PUNGENS	17 DBH	MEDIUM
T-100	PRESERVE	POPULUS DELTOIDES	41 DBH	MEDIUM
T-101	PRESERVE	POPULUS DELTOIDES	28 DBH	MEDIUM
T-102	PRESERVE	PRUNUS SEROTINA	6 DBH	LOW
T-103	PRESERVE	PICEA PUNGENS	18 DBH	MEDIUM
T-104	PRESERVE	PICEA PUNGENS	12 DBH	MEDIUM
T-105	PRESERVE	PICEA PUNGENS	15 DBH	LOW
T-106	PRESERVE	ULMUS AMERICANA	25 DBH	MEDIUM
T-107	PRESERVE	PICEA PUNGENS	16 DBH	HIGH
T-108	PRESERVE	JUGLANS NIGRA	8 DBH	MEDIUM
T-109	PRESERVE	ACER NEGUNDO	9 DBH	LOW
T-110	PRESERVE	PICEA PUNGENS	16 DBH	LOW
T-111	PRESERVE	MORUS ALBA	10 DBH	MEDIUM
T-112	PRESERVE	ACER NEGUNDO	14 DBH	MEDIUM
T-113	PRESERVE	ACER NEGUNDO	9 DBH	MEDIUM
T-114	PRESERVE	PICEA PUNGENS	17 DBH	LOW
T-115	PRESERVE	ACER NEGUNDO	5 DBH	MEDIUM
T-116	DEMO	ACER NEGUNDO	13 DBH	MEDIUM
T-117	PRESERVE	PICEA PUNGENS	16 DBH	MEDIUM
T-118	DEMO	ACER NEGUNDO	13 DBH	MEDIUM
T-119	PRESERVE	ACER NEGUNDO	14 DBH	MEDIUM
T-120	PRESERVE	ACER NEGUNDO	9 DBH	MEDIUM
T-121	PRESERVE	MORUS ALBA	5 DBH	LOW
T-122	PRESERVE	MORUS ALBA	17 DBH	MEDIUM

GENERAL NOTES

- TREE REMOVALS SUBJECT TO MNDNR BAT HIBERNACULA/ROOST AND OAK WILT REMOVAL TIMEFRAMES. WINTER TREE REMOVALS ON FROZEN GROUND IS RECOMMENDED TO PREVENT DISEASE, ROOT DAMAGE, AND HABITATE DAMAGE. DO NOT REMOVE TREES WITHIN THE FOLLOWING TIME FRAMES:
-JUNE 1- JULY 31 (NLEB REMOVAL RESTRICTION WINDOW), OR;
-APRIL 1- JULY 31 (OAK WILT RESTRICTION WINDOW)
- CONTRACTOR MAY ELECT TO MULCH (DOUBLE SHRED) & STOCKPILE ON SITE MULCHED LIMBS & BRANCHES SALVAGED FROM TREE REMOVALS. SALVAGED MULCH APPROVED FOR USE IN NATURAL AREAS AROUND TREE AND SHRUB PLANTINGS.
- REFER TO TREE PROTECTION PLANS AND DETAILS FOR TREE PROTECTION MEASURES & LOCATIONS.

PROJECT MANAGER ANDREW F. JUDD

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

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

TREE PROTECTION SCHEDULE

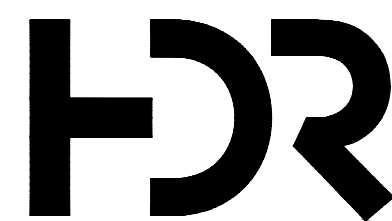


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MINNEHAHA CREEK WATERSHED DISTRICT



DF/ DAMON FARBER LANDSCAPE ARCHITECTS
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p: 612.332.7522

ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT NUMBER 10268112

TREE PRESERVATION SCHEDULE

Table with 5 columns: SYMBOL, DESCRIPTION, SPECIES, CAL/SIZE, CONDITION. Rows include T-124 to T-166 with details on tree types and conditions.

TREE PRESERVATION SCHEDULE

Table with 5 columns: SYMBOL, DESCRIPTION, SPECIES, CAL/SIZE, CONDITION. Rows include T-167 to T-209 with details on tree types and conditions.

TREE PRESERVATION SCHEDULE

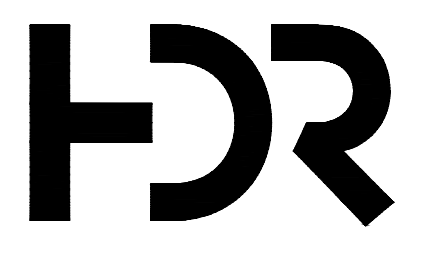
Table with 5 columns: SYMBOL, DESCRIPTION, SPECIES, CAL/SIZE, CONDITION. Rows include T-210 to T-248 with details on tree types and conditions.

GENERAL NOTES

- 1. TREE REMOVALS SUBJECT TO MNDNR BAT HIBERNACULA/ROOST AND OAK WILT REMOVAL TIMEFRAMES. WINTER TREE REMOVALS ON FROZEN GROUND IS RECOMMENDED TO PREVENT DISEASE, ROOT DAMAGE, AND HABITATE DAMAGE. DO NOT REMOVE TREES WITHIN THE FOLLOWING TIME FRAMES: -JUNE 1- JULY 31 (NLEB REMOVAL RESTRICTION WINDOW), OR; -APRIL 1- JULY 31 (OAK WILT RESTRICTION WINDOW)
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3. REFER TO TREE PROTECTION PLANS AND DETAILS FOR TREE PROTECTION MEASURES & LOCATIONS.



MINNEHAHA CREEK WATERSHED DISTRICT



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Table with 3 columns: ISSUE, DATE, DESCRIPTION. Row 1: 0, 09-14-2022, 90% DESIGN DEVELOPMENT DRAWINGS

Table with 2 columns: PROJECT NUMBER, 10268112

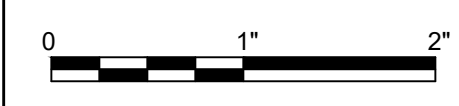
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THOMAS J WHITLOCK, PLA DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT 325 BLAKE RD HOPKINS, MN 55343

TREE PROTECTION SCHEDULE



FILENAME SCALE

SHEET L006

MATERIALS SCHEDULE

QUANTITIES DEPICTED BELOW ARE ESTIMATES AND REQUIRE CONTRACTOR VERIFICATION

AMENITY							
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	COLOR/FINISH	
AM-01	AMENITY TYPE 01 - TRAIL KIOSK	1	1/L580	THREE RIVERS PARK DISTRICT TRAIL KIOSK			
AM-02	AMENITY TYPE 02 - SYSTEM KIOSK	1	1/L581	THREE RIVERS PARK DISTRICT SYSTEM KIOSK			
AM-03A	AMENITY TYPE 03A - INTERPRETIVE FEATURE	1		TBD			
AM-03B	AMENITY TYPE 03B - INTERPRETIVE FEATURE	1		TBD			
AM-06	AMENITY TYPE 06 - CANOE RACK	1	1/L584	GALVANIZED STEEL STRUCTURE OVER CONCRETE FOOTINGS	CUSTOM		
AM-08	AMENITY TYPE 08 - DRINKING FOUNTAIN	1	2/L583				
AM-09	AMENITY TYPE 09 - BIKE FIX-IT STATION	1	3/L583	FIX IT STATION WITH AIR KIT 2, SURFACE MOUNT TO CONC. BELOW	DERO	TBD	
AM-10	AMENITY TYPE 10 - FIRE PIT	1					

CURB							
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	COLOR/FINISH	
CB-01	CURB TYPE 01 - CIP CONCRETE PLANTER CURB	176 LF	1/L520	8" W X 6" H REINFORCED CONCRETE CURB, OVER COMPACTED AGGREGATE, COMPACTED SUBGRADE			
CB-02	CURB TYPE 02 - CIP CONCRETE RIBBON CURB	258 LF	2/L520	8" WIDTH AT GRADE REINFORCED CONCRETE CURB OVER COMPACTED AGGREGATE BASE			
CB-03	CURB TYPE 03 - CIP CONCRETE PLAY AREA CURB	157 LF	3/L520	6" WIDTH AT GRADE REINFORCED CONCRETE CURB OVER COMPACTED AGGREGATE BASE			

EDGING							
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	COLOR/FINISH	
ED-01	EDGING TYPE 01 - STONE EDGING	292 LF	1/L530	LIMESTONE EDGING, 4" WIDTH X 8" LENGTHS, OVER COMPACTED AGGREGATE BASE		TBD	
ED-03	EDGING TYPE 03 - STEEL EDGING	162 LF	3/L530	3/16" GALVANIZED STEEL EDGING W/ 15"	SEE SPEC		

FENCE & GUARDRAIL							
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH
FE-01	GUARDRAIL TYPE 01 - OUTLET STRUCTURE GUARDRAIL	92 LF	1/L551	42" HEIGHT GALVANIZED STEEL	CUSTOM		HOT-DIPPED GALVANIZED
FE-02	FENCE TYPE 02 - WOOD POST & ROPE FENCE	82 LF	1/L582	8" TIMBER POSTS WITH 2" HEAVY DUTY POLYPROPYLENE ROPE	CUSTOM	PER CONTRACTOR	

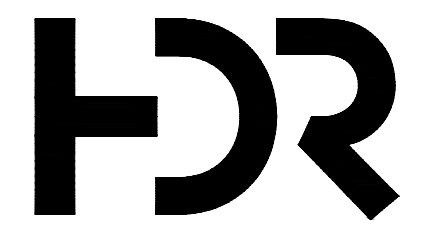
LIGHTING								
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS
LT-01	LIGHT TYPE 01 - PEDESTRIAN SCALE POLE LIGHT	11	3/L572	PEDESTRIAN SCALE POLE LIGHT	TBD			SEE ELECTRICAL PLANS
LT-02	LIGHT TYPE 02 - CITY OF HOPKINS POLE LIGHTS	2		PEDESTRIAN SCALE POLE LIGHT	CITY OF HOPKINS STANDARD			SEE ELECTRICAL
LT-03	LIGHT TYPE 03 - WALL PACK	28		RECESSED WALL LIGHT SET INTO CONCRETE CIP WALL	LIGMAN	UVI-40296		SUBMIT SAMPLES, IN GRAY FAMILY
LT-04	LIGHT TYPE 04 - TREE UPLIGHTS	16		FLOOD LIGHT SET ON GROUND SPIKE	ERCO	GRASSHOPPER		SUBMIT SAMPLES, IN GRAY FAMILY
LT-05	LIGHT TYPE 05 - PERGOLA DOWN LIGHT	49 LF		LED SURFACE MOUNT LIGHT TO BOTTOM OF PERGOLA BEAM	PRIMUS	EL3-FL-LED FLAT LENSE		SEE ELECTRICAL
LT-06	LIGHT TYPE 06 - PERGOLA LETTERING UPLIGHTS	14		MINI FLOOD LIGHT	LIGMAN	ULD-50001 LADOR 1 FLOODLIGHT		SUBMIT SAMPLES, WHITE

PAVING								
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS
P-01	PAVING TYPE 01 - BITUMINOUS PAVING	9,488 SF		SEE CIVIL				
P-02	PAVING TYPE 02 - PERMEABLE CONCRETE UNIT PAVERS	1,838 SF	1/L510	3" THK, 6" X 12" OVER COMPACTED AGGREGATE BASE, COMPACTED SUBGRADE	WAUSAU TILE / TECTURA DESIGNS	ECOPREMIER	HEP-60	
P-03	PAVING TYPE 03 - CONCRETE PAVING	9,144 SF	2/L510	SEE CIVIL			GRAY, MEDIUM BROOM FINISH	REFER TO LA DETAIL FOR TYP JOINTING, SEE CIVIL FOR DEPTH / BASE MATERIALS
P-04A	PAVING TYPE 04A - CRUSHED STONE SURFACING	14.84 CY	3/L510	3/8" AGGREGATE, 4" DEPTH				
P-05	PAVING TYPE 05 - LANDING MIX (SEE CIVIL)	1,697 SF		SEE CIVIL				
P-07	PAVING TYPE 07 - DECORATIVE CONCRETE PAVING	654 SF	2/L543	4" REINFORCED CONCRETE PAVING			SANDBLAST WITH PATTERN, PATTERN TBD	
P-08	PAVING TYPE 08 - METAL GRATING	288 SF		SEE STRUCTURAL				
P-09A	PAVING TYPE 09A - WOOD FIBER SURFACING (EWF)	1,695 SF	3/L511	ENGINEERED WOOD FIBER, 9" DEPTH WITH SUBSURFACE DRAINAGE SYSTEM				
P-09B	PAVING TYPE 09B - WOOD FIBER SURFACING	1,057 SF		ENGINEERED WOOD FIBER, 4" DEPTH WITH SUBSURFACE DRAINAGE SYSTEM				
P-10	PAVING TYPE 10 - AGGREGATE SHOULDER	2,298 SF						
P-11	PAVING TYPE 11 - HARDWOOD MULCH	17.49 CY	2/L511	HARDWOOD MULCH				

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MINNEHAHA CREEK WATERSHED DISTRICT



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0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	DESCRIPTION
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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SITE MATERIALS SCHEDULE



FILENAME
SCALE

SHEET
L010

MATERIALS SCHEDULE (CONT'D)

QUANTITIES DEPICTED BELOW ARE ESTIMATES AND REQUIRE CONTRACTOR VERIFICATION

PLAY EQUIPMENT					
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER
PE-02	PLAY EQUIPMENT TYPE 02 - PLAY MOUND	278 SF		PIP RUBBER SURFACING OVER SHOTCRETE BASE WITH TUNNEL	TBD
PE-03	PLAY EQUIPMENT TYPE 03 - LOG STACK	1	1/L587	LOG STACK ANCHORED IN PLACE OVER CONCRETE FOOTINGS	TBD
PE-07	PLAY EQUIPMENT TYPE 05 - PRECAST CONCRETE ACORN NUT	3	1/L582	PRECAST CONCRETE ACORNS OVER AGGREGATE BASE	CUSTOM

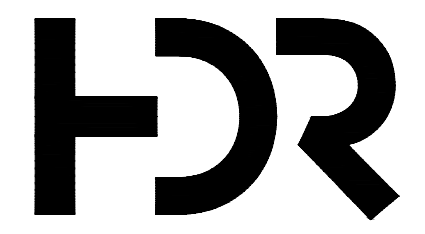
ROCK					
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER
RO-01	ROCK TYPE 01 - LANDSCAPE BOULDER	91	4/L510	DOLOMITIC LIMESTONE OUTCROPPING, 12"-48" SIZES	

SITE FURNITURE								
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS
SF-01	SITE FURNITURE TYPE 01 - LINEAR BENCH	5	1/L570	2' X 6' LINEAR BENCH	ANOVA	INF24L6T	THERMORY SLAT	SURFACE MOUNT
SF-02	SITE FURNITURE TYPE 02 - HAMMOCK POLE	4	2/L570	10" DIA. 5'-6" HEIGHT WOODEN POST, EMBEDDED IN WASHED AGGREGATE	SALVAGE FROM SITE			
SF-03	SITE FURNITURE TYPE 03 - ROLLING BIKE RACK	3	3/L570	BIKE RACK EMBEDDED IN CIP CONCRETE FOOTING	DERO	ROLLING RACK	GALVANIZED STEEL	
SF-04	SITE FURNITURE TYPE 04 - HOOP BIKE RACK	8	4/L570		DERO	HOOP RACK	GALVANIZED	
SF-05	SITE FURNITURE TYPE 04 - LOG BENCH	2	5/L570	6' LONG WOODEN BENCH WITH FLAT TOP OVER COMPACTED AGGREGATE BASE	SALVAGE FROM SITE			
SF-06	SITE FURNITURE TYPE 05 - PICNIC TABLE	3	1/L571	ACCESSIBLE PICNIC TABLE WITH SEATS	COLUMBIA CASCADE COMPANY	2165-6	GALVANIZED STEEL FRAME	
SF-07	SITE FURNITURE TYPE 07 - WASTE RECEPTACLE	3	1/L572	TBD				
SF-08	SITE FURNITURE TYPE 08 - BACKED BENCH	4		6' SURFACE MOUNTED BENCH	COLUMBIA CASCADE	2140 CONTOUR BENCH	WOOD SLATS SEATING, POWDER COATED STEEL FRAME	

SIGNAGE					
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	PRODUCT/MODEL
SN-01A	SIGN TYPE 01A - DIRECTIONAL	1	1/L573		
SN-01B	SIGN TYPE 01B - DIRECTIONAL	1	1/L573		
SN-01C	SIGN TYPE 01C - DIRECTIONAL	1	1/L573		
SN-01D	SIGN TYPE 01D - DIRECTIONAL	1	1/L573		
SN-01E	SIGN TYPE 01E - DIRECTIONAL	1	1/L573		
SN-02A	SIGN TYPE 02A - DIRECTIONAL + INFORMATIONAL KIOSK	1	3/L573		
SN-02B	SIGN TYPE 02B - DIRECTIONAL + INFORMATIONAL KIOSK	1	3/L573		
SN-03	SIGN TYPE 03 - STOP SIGN	3		STEEL POST SIGN OVER SONOTUBE FOOTING TO FROST	
SN-04	SIGN TYPE 04 - SHARE THE TRAIL	2	2/L573		
SN-05	SIGN TYPE 05 - THREE RIVERS DIRECTIONAL	1		SIGNAGE OVER SONOTUBE FOOTING TO FROST	THREE RIVERS PARK DISTRICT STANDARD
SN-06	SIGN TYPE 06 - BOAT STORAGE INFORMATION	1			
SN-07	SIGN TYPE 07 - FIRE PIT REGULATIONS	1			
SN-08	SIGN TYPE 08 - SLOW DOWN	2			

STAIRS						
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	PRODUCT/MODEL	COLOR/FINISH
ST-01	STAIR TYPE 01 - STONE STEPPER	18	1/L531	4' L X 1' W X 1' H STONE STEPPER OVER COMPACTED AGGREGATE BASE	DOLOMITIC LIMESTONE	CUT TOP AND BOTTOM, SPLIT FACES

WALL						
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	PRODUCT/MODEL	COLOR/FINISH
WL-01	WALL TYPE 01 - LIMESTONE SEATWALL @ TRAILHEAD	228 LF	1/L560	2' WIDTH X 1.5' HEIGHT X 5' LENGTHS, RADIAL LAYOUT PER PLAN	DOLOMITIC LIMESTONE	CUT TOP AND BUTT ENDS, SPLIT FACES
WL-02	WALL TYPE 02 - LIMESTONE SEATWALL @ PLAY AREA	128 LF	2/L560	1.5' HEIGHT X RANDOM WIDTHS & LENGTHS LIMESTONE OUTCROPPINGS OVER AGGREGATE BASE	DOLOMITIC LIMESTONE	NATURAL TOP AND FACES
WL-03	WALL TYPE 03 - LIMESTONE SEATWALL @ PICNIC AREA	58 LF	1/L561	1.5' HEIGHT X RANDOM WIDTHS & LENGTHS LIMESTONE OUTCROPPINGS OVER AGGREGATE BASE	DOLOMITIC LIMESTONE	SAWN TOP & ENDS, AND FRONT FACES
WL-04	WALL TYPE 04 - CIP CONCRETE WALL	204 LF	2/L562	8" WIDTH CIP CONCRETE WALL		
WL-05	WALL TYPE 05 - CIP CONCRETE SEATWALL WITH STONE VENEER	90 LF	1/L543	2' WIDTH, 1.5' HEIGHT CIP CONC WALL W INTEGRAL WOOD SEATING		



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PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
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DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SITE MATERIALS SCHEDULE



FILENAME
SCALE

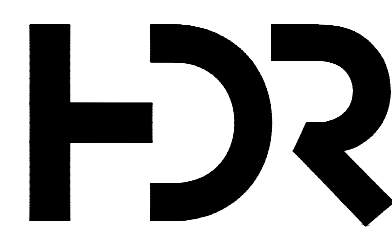
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SITE TREE PLANTING SCHEDULE							
DECIDUOUS TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONT.	REMARKS
	ACE AUT	5	ACER RUBRUM 'AUTUMN FLAME'	AUTUMN FLAME RED MAPLE	2.5" CAL.	B&B	
	AH	2	ACER SACCHARINUM	SILVER MAPLE	2" CAL.	B&B	
	BN	3	BETULA NIGRA 'CULLY' TM	HERITAGE RIVER BIRCH	8' HT. MULTI-STEM	B&B	
	CS	3	CATALPA SPECIOSA	NORTHERN CATALPA	2" CAL.	B&B	
	CO	2	CELTIS OCCIDENTALIS	COMMON HACKBERRY	2.5" CAL.	B&B	
	GD	3	GYMNOCLADUS DIOICA	KENTUCKY COFFEETREE	3.5" CAL.	B&B	
	OV	4	OSTRYA VIRGINIANA	AMERICAN HOPHORNBEAM	2.5" CAL.	B&B	
	PX	7	POPULUS DELTOIDES 'SIOUXLAND'	EASTERN COTTONWOOD SIOUXLAND	2" CAL.	B&B	
	PT2	21	POPULUS TREMULOIDES 'NE ARB'	PRAIRIE GOLD ASPEN	2.5" CAL.	B&B	
	PW	3	PRUNUS SEROTINA	BLACK CHERRY	2" CAL.	B&B	
	QB	10	QUERCUS BICOLOR	SWAMP WHITE OAK	2.5" CAL.	B&B	
	QS	1	QUERCUS ELLIPSOIDALIS 'MAJESTIC SKIES'	MAJESTIC SKIES NORTHERN PIN OAK	3" CAL.	B&B	
	QM	7	QUERCUS MACROCARPA	BUR OAK	2.5" CAL.	B&B	
	QH	1	QUERCUS X 'HERITAGE'	HERITAGE ENGLISH OAK	2.5" CAL.	B&B	
	UP	1	ULMUS AMERICANA 'PRINCETON'	AMERICAN ELM	2.5" CAL.	B&B	
	US	3	ULMUS AMERICANA 'ST. CROIX'	ST. CROIX AMERICAN ELM	2.5" CAL.	B&B	
ORNAMENTAL TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONT.	REMARKS
	AA	9	AMELANCHIER X GRANDIFLORA	APPLE SERVICEBERRY	8' HT. MULTI-STEM	B&B	
	CC	7	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	8' HT. MULTI-STEM	B&B	
	CA	1	CORNUS ALTERNIFOLIA	PAGODA DOGWOOD	8' HEIGHT CLUMP	B&B	

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MINNEHAHA CREEK WATERSHED DISTRICT



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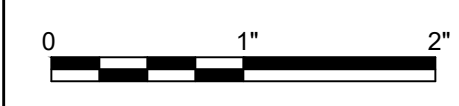
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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY






MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SITE TREE PLANTING SCHEDULE



FILENAME
SCALE

SHEET
L020

SITE UNDERSTORY PLANTING SCHEDULE								
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONT.	SPACING	REMARKS
		30	ORNAMENTAL SHRUB - TO BE SELECTED FROM:				48" o.c.	FORMAL PLANTING- 3-4' HGT
	AM	4	ARONIA MELANOCARPA 'MORTON' TM	IROQUOIS BEAUTY BLACK CHOKEBERRY	48" OC		12% @ 48" o.c.	
	CA4	4	CEANOTHUS AMERICANUS	NEW JERSEY TEA	48" OC		13% @ 48" o.c.	
	CA2	4	CORNUS SERICEA 'ALLEMANS COMPACT'	DWARF RED TWIG DOGWOOD	48" OC		12% @ 48" o.c.	
	DP	4	DIRCA PALUSTRIS	EASTERN LEATHERWOOD	48" OC		13% @ 48" o.c.	
	IV	4	ILEX VERTICILLATA 'JIM DANDY'	JIM DANDY WINTERBERRY	48" OC		12% @ 48" o.c.	
	PA	4	PHYSOCARPUS OPULIFOLIUS 'AMBER JUBILEE'	NINEBARK	48" OC		12% @ 48" o.c.	
	RA	4	RIBES AMERICANUM	AMERICAN BLACK CURRANT	48" OC		13% @ 48" o.c.	
	VB	4	VIBURNUM TRILOBUM 'BAILEY COMPACT'	BAILEY'S COMPACT AMERICAN CRANBERRY BUSH	48" OC		13% @ 48" o.c.	
		19	LARGE SHRUB - TO BE SELECTED FROM:				72" o.c.	6-8' + HIGHT. SELECT SPECIES FOR LIGHT/MOISTURE CONDITIONS
	CO2	4	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	60" O.C.		20% @ 48" o.c.	
	CA3	4	CORYLUS AMERICANA	AMERICAN HAZELNUT	60" O.C.		20% @ 48" o.c.	
	SE	4	SAMBUCUS CANADENSIS	AMERICAN ELDERBERRY	60" O.C.		20% @ 60" o.c.	
	SM	4	SPIRAEA ALBA	MEADOWSWEET	60" O.C.		20% @ 48" o.c.	
	VL	4	VIBURNUM LENTAGO	NANNYBERRY	60" O.C.		20% @ 48" o.c.	
		18	NATURE PLAY ORNAMENTAL SHRUB				48" o.c.	
	AR3	6	ARONIA MELANOCARPA 'MORTON' TM	IROQUOIS BEAUTY BLACK CHOKEBERRY	#5	CONT.	33% @ 48" o.c.	
	CO3	6	CORNUS RACEMOSA 'MUSZAM'	MUSKINGUM® GRAY DOGWOOD	#5	CONT.	34% @ 48" o.c.	
	SA2	6	SALIX CANDIDA 'JEFFBERG' TM	ICEBERG ALLEY SAGELEAF WILLOW	#5	CONT.	33% @ 48" o.c.	
	AR	3	AMELANCHIER ALNIFOLIA 'REGENT'	REGENT SERVICEBERRY	#10	CONT.	72" o.c.	
	BA2	50	BAPTISIA ALBA	WHITE WILD INDIGO	#1	CONT.	48" o.c.	
	RG	32	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	#5	CONT.	48" o.c.	
	RT	52	RHUS TYPHINA	STAGHORN SUMAC	#5		72" o.c.	
	SE	7	SAMBUCUS CANADENSIS	AMERICAN ELDERBERRY	60" O.C.		60" o.c.	
	ST	9	STAPHYLEA TRIFOLIA	AMERICAN BLADDERNUT	#5		72" o.c.	
	TT	11	THUJA OCCIDENTALIS 'TECHNY'	TECHNY ARBORVITAE	#15	CONT.	72" o.c.	
	VB	6	VIBURNUM TRILOBUM 'BAILEY COMPACT'	BAILEY'S COMPACT AMERICAN CRANBERRY BUSH	48" OC		48" o.c.	

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ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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

THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SITE UNDERSTORY PLANTING SCHEDULE



FILENAME
SCALE

SHEET
L021

SITE UNDERSTORY PLANTING SCHEDULE																	
SHRUB AREAS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONT.	SPACING	REMARKS	GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONT.	SPACING	REMARKS
		3,072 SF	FORB ENHANCEMENT					SPECIES TO BE SELECTED & DEFINED IN CDS			13,502 SF	SEED MIX - WET MEADOW					BWSR - 34-271 WET MEADOW SOUTH & WEST
	BA	142	BAPTISIA ALBA	WHITE WILD INDIGO	PLUG		10% @ 18" o.c.				13,502 SF	-					
	EC	142	ECHINACEA PALLIDA	PALE PURPLE CONEFLOWER	PLUG		10% @ 18" o.c.				7,762 SF	SEED MIX - WOODLAND EDGE					BWSR MIX 36-211 WOODLAND EDGE SOUTH & WEST
		4,609 SF	PERENNIAL BORDER					TRAIL EDGE FEATURE			7,762 SF	-					
	AM2	341	ACHILLEA X 'MOONSHINE'	MOONSHINE YARROW	1 GAL		16% @ 18" o.c.	PLANT IN MASSES OF 3-5. ALTERNATE SPECIES ALONG ROW.			23,301 SF	SEED MIX - MESIC PRAIRIE					BWSR PILOT MIXES: "LITTLE BLUESTEM URBAN PRAIRIE". PLANT EACH DRIFT IN MINIMUM 50SF MASSES FOR LEGIBILITY.
	CP2	362	COREOPSIS PALMATA	STIFF TICKSEED	1 GAL		17% @ 18" o.c.	PLANT IN MASSES OF 3-5. ALTERNATE SPECIES ALONG ROW.			23,301 SF	-					
	HEL WAU	362	HELENIUM AUTUMNALE SALUD YELLOW	SNEEZEWEED	1 GAL		17% @ 18" o.c.	PLANT IN MASSES OF 3-5. ALTERNATE SPECIES ALONG ROW.			3,724 SF	SEED MIX & PLUG- MEADOW					SEED & PLUG SEDGE & FESCUE MEADOW
	RG2	341	RUDBECKIA FULGIDA SULLIVANTII 'GOLDSTURM'	GOLDSTURM CONEFLOWER	1 GAL		16% @ 18" o.c.	PLANT IN MASSES OF 3-5. ALTERNATE SPECIES ALONG ROW.		AC2	186 SF	ALLIUM CERNUUM	NODDING ONION	PLUG			
	SS	362	SOLIDAGO SPECIOSA 'LITTLE LEMON'	SHOWY GOLDENROD	1 GAL		17% @ 18" o.c.	PLANT IN MASSES OF 3-5. ALTERNATE SPECIES ALONG ROW.		AU	298 SF	ANEMONE PATENS	PASQUEFLOWER	PLUG			
	ZA	362	ZIZIA AUREA	GOLDEN ALEXANDER	1 GAL		17% @ 18" o.c.	PLANT IN MASSES OF 3-5. ALTERNATE SPECIES ALONG ROW.		AC	74 SF	AQUILEGIA CANADENSIS	EASTERN COLUMBINE	PLUG			
		4,580 SF	ENTRY FEATURE PLANTING					NATIVE GRASS MASSES W/ INTERSPERSED SEASONAL NATIVE FORB FORMAL PLANTING		AV	186 SF	ASCLEPIAS VERTICILLATA	WHORLED MILKWEED	PLUG			
	AT	476	ASCLEPIAS TUBEROSA	BUTTERFLY MILKWEED	1 GAL	CONT.	10% @ 12" o.c.			CB	186 SF	CAREX BLANDA	WOODLAND SEDGE	PLUG			
	SCH LIT	686	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	1 GAL	CONT.	90% @ 30" o.c.			CP	186 SF	CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	PLUG			
		3,344 SF	LOW GROWING SHRUB							CS2	186 SF	CAREX SPRENGELII	SPRENGEL'S SEDGE	PLUG			
	AO	97	ARONIA MELANOCARPA 'UCONNAM165' TM	LOW SCAPE MOUND CHOKEBERRY	#2		25% @ 36" o.c.			TL	3,724 SF	TURF SEED NO MOW FESCUE MIX		SEED			
	DL	55	DIERVILLA LONICERA	DWARF BUSH HONEYSUCKLE	#5		25% @ 48" o.c.				417 SF	WOODLAND PERENNIAL MIX					
	JO	55	JUNIPERUS VIRGINIANA 'GREY OWL'	GREY OWL JUNIPER	#5		25% @ 48" o.c.			GER MAC	55	GERANIUM MACULATUM	SPOTTED GERANIUM	1 GAL	CONT.	50% @ 24" o.c.	
	RG	55	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	#5	CONT.	25% @ 48" o.c.			MAT STR	55	MATTEUCCIA STRUTHIOPTERIS	OSTRICH FERN	1 GAL	CONT.	50% @ 24" o.c.	
		588 SF	WET MEADOW ENHANCEMENT PLANTINGS							ALL GMS	77	ALLIUM GIGANTEUM 'GLOBEMASTER'	GLOBEMASTER GIANT ALLIUM	1 GAL	CONT.	18" o.c.	
	COR EFD	49	CORNUS SERICEA 'ARCTIC FIRE'	ARCTIC FIRE RED TWIG DOGWOOD	2 GAL	CONT.	50% @ 30" o.c.	MULCH IN MASS		IRI VER	42	IRIS VERSICOLOR	BLUE FLAG	PLUG	PLUG	18" o.c.	
	IRI VE2	77	IRIS VERSICOLOR	BLUE FLAG	1 GAL	CONT.	50% @ 24" o.c.	PLANT INTO SEEDED AREA									
		2,885 SF	RAIN GARDEN PLANTING														
	AST PUR	200	ASTER NOVAE-ANGLIAE 'PURPLE DOME'	PURPLE DOME NEW ENGLAND ASTER	1 GAL	CONT.	15% @ 18" o.c.										
	CAR VUL	225	CAREX VULPINOIDEA	FOX SEDGE	1 GAL	CONT.	30% @ 24" o.c.										
	LOB CAR	48	LOBELIA CARDINALIS	CARDINAL FLOWER	1 GAL	CONT.	10% @ 30" o.c.										
	LOB BIG	48	LOBELIA SIPHILITICA 'BIG BLUE'	BIG BLUE GREAT LOBELIA	1 GAL	CONT.	10% @ 30" o.c.										
	MON DID	75	MONARDA DIDYMA	BEE BALM	1 GAL	CONT.	10% @ 24" o.c.										
	RUD GO2	188	RUDBECKIA FULGIDA SULLIVANTII 'GOLDSTURM'	GOLDSTURM CONEFLOWER	1 GAL	CONT.	25% @ 24" o.c.										



ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT NUMBER	10268112
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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SITE UNDERSTORY PLANTING SCHEDULE (2)

SCALE: 1" = 2'

FILENAME: _____

SHEET: **L022**

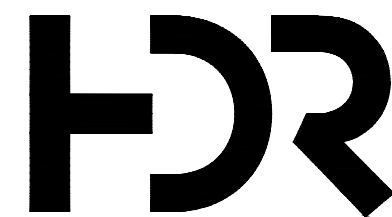
SOIL PROFILE SCHEDULE

SYMBOL	DESCRIPTION	QTY	DETAIL	DEPTH	COMPOSITION	IRRIGATION	NOTES	SUBGRADE PREPARATION	SPEC #
SP-01A	SOIL TYPE 01A - NATIVE SEEDING SOIL SPEC DF-	30,994 SF		4"-6"	INSITU/IMPORTED SOILS AMENDED TO MEET REQUIREMENTS OF MNDOT COMMON TOPSOIL BORROW	SPRAY/NONE	EROSION CONTROL BLANKET, HYDROMULCH, OR TYPE 3 WEED FREE STRAW, PROVIDE ECB ON SLOPES 3:1 OR STEEPER. WHERE SEEDING OCCURS BELOW DRIPLINE OF TREE, HAND RAKE SOIL SURFACE ONLY, DO NOT TILL. IF AREA BELOW A DRIPLINE HAS BEEN COMPACTED BY CONSTRUCTION, PREPARE SOIL USING AIR SPADE.	SEE SPECIFICATION S, TILL TO 4"	
SP-01B	SOIL TYPE 01B - AIR SPADE PREP BELOW EXISTING TREES SPEC DF-	6,293 SF		4"-6", 6"-8"	INSITU SOIL PREPARATION: ADD 1/2" LAYER OF COMPOST & BIOCHAR. LOOSEN SOIL AND ITEGRATE USING AIR SPADE	SRAY/NONE	SOIL PREP & PLANTING BY HAND MEANS ONLY. PLANTINGS WILL REQUIRE FIELD ADJUSTMENT TO WORK AROUND EXISTING ROOTS. DO NOT SEVER/CUT ROOTS. FOR SEEDING ZONES, LOOSEN ONLY TOP 4". FOR PLANTING, LOOSEN SOIL TO DEPTH OF 6"-8" TO RECIEVE ROOT BALL DEPTH. APPLY MULCH/EROSION CONTROL BY PLANTING TYPE.	AIR SPADE ONLY	
SP-01D	SOIL TYPE 01D - 24" WET CONDITION PLANTING SOIL SPEC DF-	71.25 CY		18"	MNDOT FILTER TOPSOIL (3877.2.G) 60-80% SAND, 20-40% COMPOST	DRIP	3" THK FINELY SHREDDDED HARDWOOD MULCH, JUTE ECB ON SLOPES 3:1 OR STEEPER	SEE SPECIFICATION S, TILL TO 4"	
SP-02A	SOIL TYPE 02A - 18" PLANTING SOIL PERENNIAL/SHRUB IMPORT SPEC DF-	571.22 CY		18"	IMPORTED SOILS MEETING REQUIREMENTS OF MNDOT LOAM TOPSOIL BORROW	DRIP	3" THICK FINELY SHREDDDED HARDWOOD MULCH. INSTALL MULCH OVER JUTE ECB ON SLOPES ON 3:1 OR STEEPER	SEE SPECIFICAITON S, TILL TO 4"	
SP-02B	SOIL TYPE 02B - 18" PLANTING SOIL (PERENNIAL/SHRUB) AMEND SPEC DF-	432.07 CY		18"	INSITU AMENDED TO MEET REQUIREMENTS OF MNDOT LOAM TOPSOIL BORROW	NONE	3" THICK FINELY SHREDDDED HARDWOOD MULCH, INSTALL MULCH OVER JUTE ECB ON SLOPES ON 3:1 OR STEEPER	SEE SPECIFICATION S, DEEP TILL	
SP-03	SOIL TYPE 03 - 24" RAIN GARDEN PLANTING SOIL SPEC DF-	186.61 CY		24"	IMPORTED SOILS MEETING REQUIREMENTS OF MNDOT FILTER TOPSOIL BORROW	DRIP/NONE	3" THICK FINELY SHREDDDED HARDWOOD MULCH. INSTALL MULCH OVER JUTE ECB ON SLOPES ON 3:1 OR STEEPER	SEE SPECIFICATION S,	
SP-04	SOIL TYPE 04 - 36" PLANTING SOIL (TREES) SPEC DF-	382.58 CY		36"	INSITU WITH AMENDED BACKFILL MEETING REQUIREMENTS OF LOAM TOPSOIL BORROW ENHANCED WITH BIOCHAR. FOR TREE PLANTING IN SEEDED AREAS (AMEND PREPARED SOILS WITH ADDITIONAL COMPOST)	DRIP/WATERING BAGS	3" THICK FINELY SHREDDDED HARDWOOD MULCH. INSTALL MULCH OVER JUTE ECB ON SLOPES ON 3:1 OR STEEPER. WHERE TREE PLANTING OCCURS WITHIN ROOT ZONE OF EXISTING TREES, HAND DIGGING WITH CAUTION AND ADJUST PLANTING AS NEEDED TO AVOID DAMAGE TO EXISTING ROOTS.	SEE SPECIFICATION S & TREE PLANTING DETAIL	

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MINNEHAHA CREEK WATERSHED DISTRICT



DF/ DAMON FARBER LANDSCAPE ARCHITECTS
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p: 612.332.7522

ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
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DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

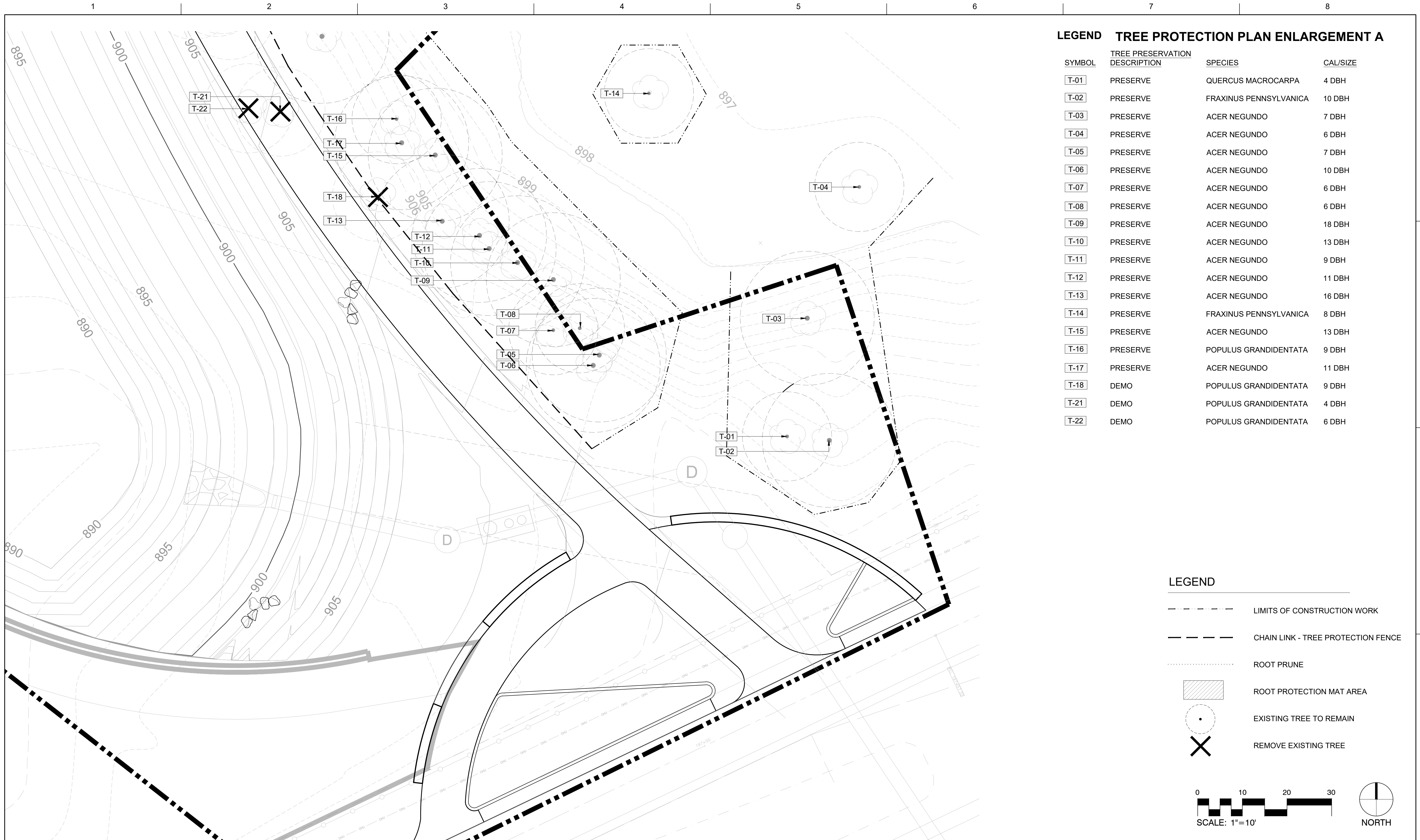
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SITE TREE PLANTING SCHEDULE



FILENAME
SCALE

SHEET
L020

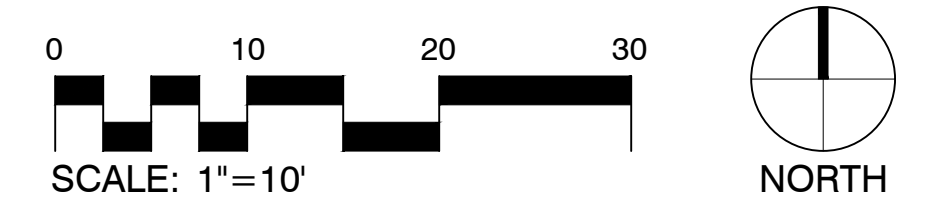


LEGEND TREE PROTECTION PLAN ENLARGEMENT A

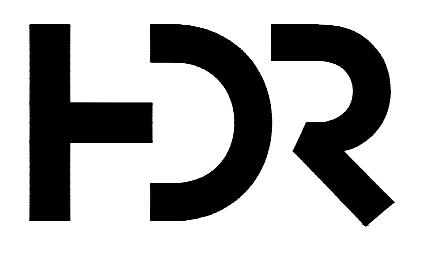
SYMBOL	TREE PRESERVATION DESCRIPTION	SPECIES	CAL/SIZE
T-01	PRESERVE	QUERCUS MACROCARPA	4 DBH
T-02	PRESERVE	FRAXINUS PENNSYLVANICA	10 DBH
T-03	PRESERVE	ACER NEGUNDO	7 DBH
T-04	PRESERVE	ACER NEGUNDO	6 DBH
T-05	PRESERVE	ACER NEGUNDO	7 DBH
T-06	PRESERVE	ACER NEGUNDO	10 DBH
T-07	PRESERVE	ACER NEGUNDO	6 DBH
T-08	PRESERVE	ACER NEGUNDO	6 DBH
T-09	PRESERVE	ACER NEGUNDO	18 DBH
T-10	PRESERVE	ACER NEGUNDO	13 DBH
T-11	PRESERVE	ACER NEGUNDO	9 DBH
T-12	PRESERVE	ACER NEGUNDO	11 DBH
T-13	PRESERVE	ACER NEGUNDO	16 DBH
T-14	PRESERVE	FRAXINUS PENNSYLVANICA	8 DBH
T-15	PRESERVE	ACER NEGUNDO	13 DBH
T-16	PRESERVE	POPULUS GRANDIDENTATA	9 DBH
T-17	PRESERVE	ACER NEGUNDO	11 DBH
T-18	DEMO	POPULUS GRANDIDENTATA	9 DBH
T-21	DEMO	POPULUS GRANDIDENTATA	4 DBH
T-22	DEMO	POPULUS GRANDIDENTATA	6 DBH

LEGEND

- LIMITS OF CONSTRUCTION WORK
- CHAIN LINK - TREE PROTECTION FENCE
- ROOT PRUNE
- ROOT PROTECTION MAT AREA
- EXISTING TREE TO REMAIN
- REMOVE EXISTING TREE



**MINNEHAHA CREEK
WATERSHED DISTRICT**



**DF/ DAMON FARBER
LANDSCAPE ARCHITECTS**
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p: 612.332.7522

ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
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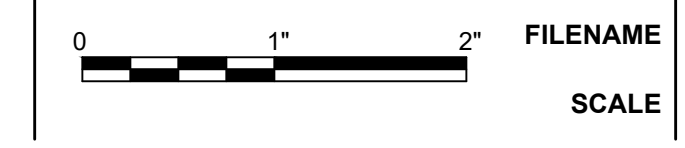
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DATE XX/XX/XXXX LICENSE # 26292

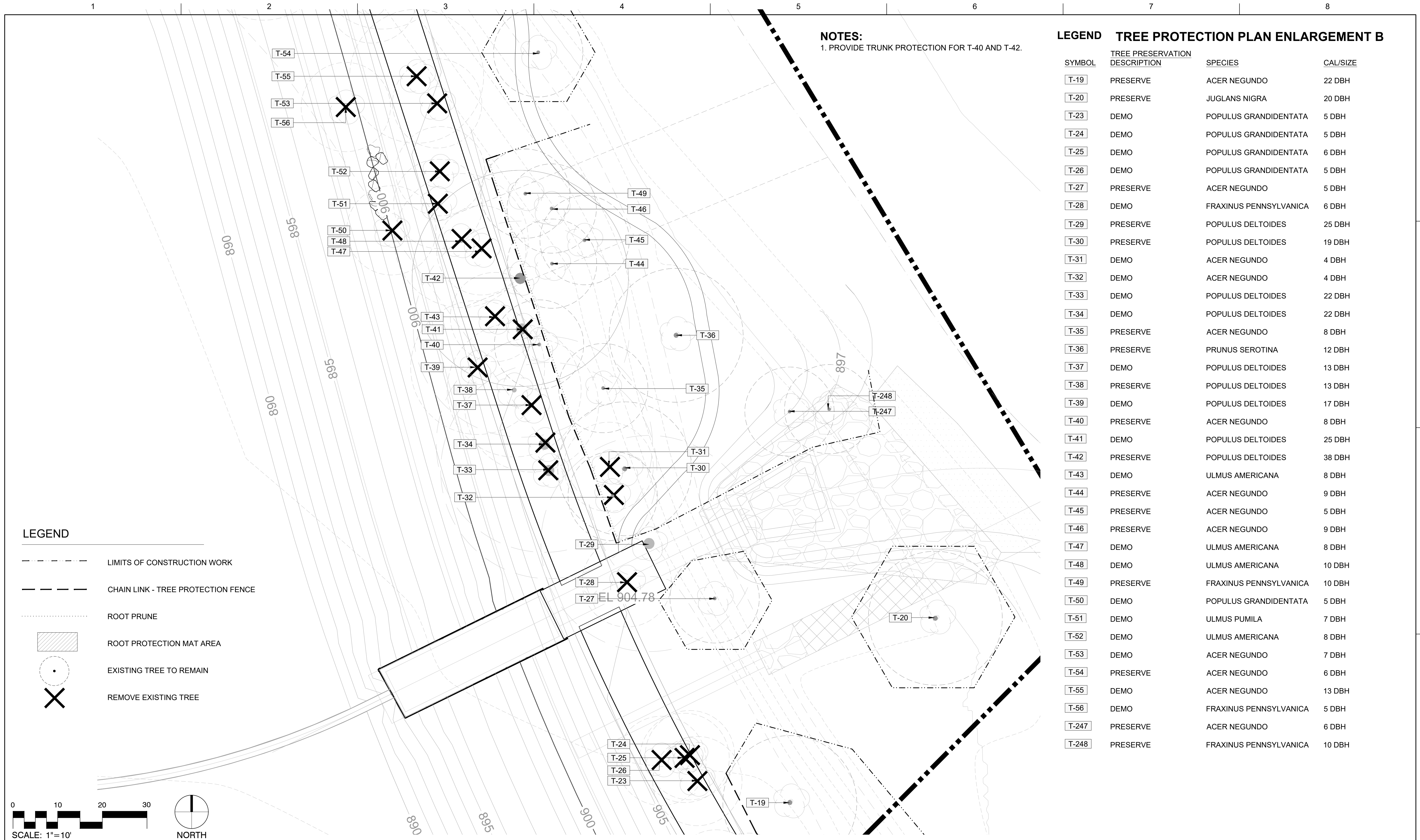
**325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY**

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TREE PROTECTION PLAN ENLARGEMENT A



SHEET
L050



NOTES:
1. PROVIDE TRUNK PROTECTION FOR T-40 AND T-42.

LEGEND TREE PROTECTION PLAN ENLARGEMENT B

SYMBOL	TREE PRESERVATION DESCRIPTION	SPECIES	CAL/SIZE
T-19	PRESERVE	ACER NEGUNDO	22 DBH
T-20	PRESERVE	JUGLANS NIGRA	20 DBH
T-23	DEMO	POPULUS GRANDIDENTATA	5 DBH
T-24	DEMO	POPULUS GRANDIDENTATA	5 DBH
T-25	DEMO	POPULUS GRANDIDENTATA	6 DBH
T-26	DEMO	POPULUS GRANDIDENTATA	5 DBH
T-27	PRESERVE	ACER NEGUNDO	5 DBH
T-28	DEMO	FRAXINUS PENNSYLVANICA	6 DBH
T-29	PRESERVE	POPULUS DELTOIDES	25 DBH
T-30	PRESERVE	POPULUS DELTOIDES	19 DBH
T-31	DEMO	ACER NEGUNDO	4 DBH
T-32	DEMO	ACER NEGUNDO	4 DBH
T-33	DEMO	POPULUS DELTOIDES	22 DBH
T-34	DEMO	POPULUS DELTOIDES	22 DBH
T-35	PRESERVE	ACER NEGUNDO	8 DBH
T-36	PRESERVE	PRUNUS SEROTINA	12 DBH
T-37	DEMO	POPULUS DELTOIDES	13 DBH
T-38	PRESERVE	POPULUS DELTOIDES	13 DBH
T-39	DEMO	POPULUS DELTOIDES	17 DBH
T-40	PRESERVE	ACER NEGUNDO	8 DBH
T-41	DEMO	POPULUS DELTOIDES	25 DBH
T-42	PRESERVE	POPULUS DELTOIDES	38 DBH
T-43	DEMO	ULMUS AMERICANA	8 DBH
T-44	PRESERVE	ACER NEGUNDO	9 DBH
T-45	PRESERVE	ACER NEGUNDO	5 DBH
T-46	PRESERVE	ACER NEGUNDO	9 DBH
T-47	DEMO	ULMUS AMERICANA	8 DBH
T-48	DEMO	ULMUS AMERICANA	10 DBH
T-49	PRESERVE	FRAXINUS PENNSYLVANICA	10 DBH
T-50	DEMO	POPULUS GRANDIDENTATA	5 DBH
T-51	DEMO	ULMUS PUMILA	7 DBH
T-52	DEMO	ULMUS AMERICANA	8 DBH
T-53	DEMO	ACER NEGUNDO	7 DBH
T-54	PRESERVE	ACER NEGUNDO	6 DBH
T-55	DEMO	ACER NEGUNDO	13 DBH
T-56	DEMO	FRAXINUS PENNSYLVANICA	5 DBH
T-247	PRESERVE	ACER NEGUNDO	6 DBH
T-248	PRESERVE	FRAXINUS PENNSYLVANICA	10 DBH

LEGEND

- LIMITS OF CONSTRUCTION WORK
- - - CHAIN LINK - TREE PROTECTION FENCE
- ROOT PRUNE
- [Hatched Box] ROOT PROTECTION MAT AREA
- (Circle with dot) EXISTING TREE TO REMAIN
- (X) REMOVE EXISTING TREE



PROJECT MANAGER ANDREW F. JUDD		
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS
ISSUE	DATE	DESCRIPTION
PROJECT NUMBER 10268112		

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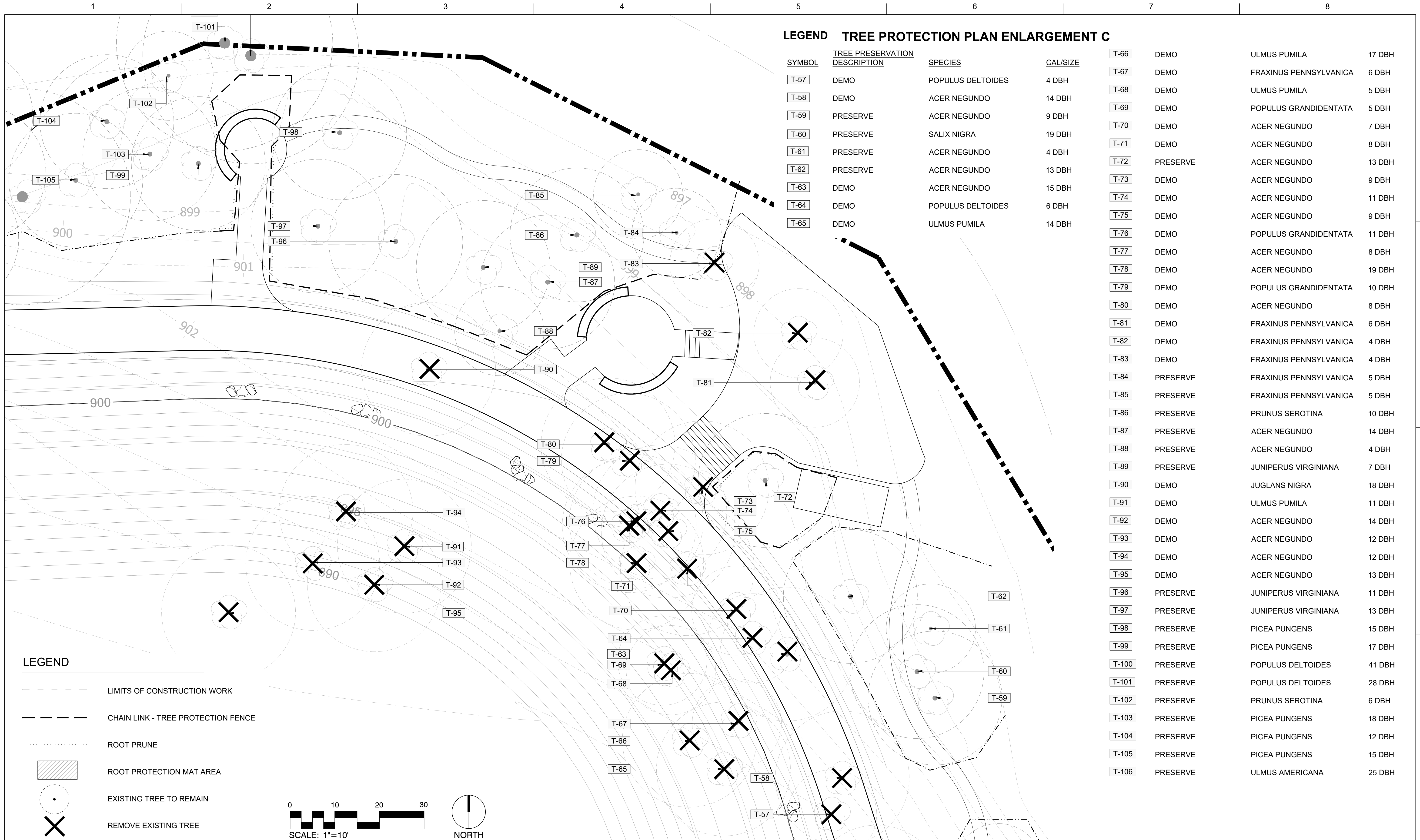
THOMAS J WHITLOCK, PLA
 DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

TREE PROTECTION PLAN ENLARGEMENT B

0 10 20	FILENAME	PLANTING PLAN A	SHEET
SCALE			L051

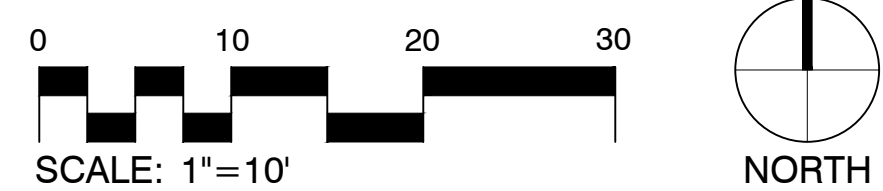


LEGEND TREE PROTECTION PLAN ENLARGEMENT C

SYMBOL	TREE PRESERVATION DESCRIPTION	SPECIES	CAL/SIZE				
T-57	DEMO	POPULUS DELTOIDES	4 DBH	T-66	DEMO	ULMUS PUMILA	17 DBH
T-58	DEMO	ACER NEGUNDO	14 DBH	T-67	DEMO	FRAXINUS PENNSYLVANICA	6 DBH
T-59	PRESERVE	ACER NEGUNDO	9 DBH	T-68	DEMO	ULMUS PUMILA	5 DBH
T-60	PRESERVE	SALIX NIGRA	19 DBH	T-69	DEMO	POPULUS GRANDIDENTATA	5 DBH
T-61	PRESERVE	ACER NEGUNDO	4 DBH	T-70	DEMO	ACER NEGUNDO	7 DBH
T-62	PRESERVE	ACER NEGUNDO	13 DBH	T-71	DEMO	ACER NEGUNDO	8 DBH
T-63	DEMO	ACER NEGUNDO	15 DBH	T-72	PRESERVE	ACER NEGUNDO	13 DBH
T-64	DEMO	POPULUS DELTOIDES	6 DBH	T-73	DEMO	ACER NEGUNDO	9 DBH
T-65	DEMO	ULMUS PUMILA	14 DBH	T-74	DEMO	ACER NEGUNDO	11 DBH
				T-75	DEMO	ACER NEGUNDO	9 DBH
				T-76	DEMO	POPULUS GRANDIDENTATA	11 DBH
				T-77	DEMO	ACER NEGUNDO	8 DBH
				T-78	DEMO	ACER NEGUNDO	19 DBH
				T-79	DEMO	POPULUS GRANDIDENTATA	10 DBH
				T-80	DEMO	ACER NEGUNDO	8 DBH
				T-81	DEMO	FRAXINUS PENNSYLVANICA	6 DBH
				T-82	DEMO	FRAXINUS PENNSYLVANICA	4 DBH
				T-83	DEMO	FRAXINUS PENNSYLVANICA	4 DBH
				T-84	PRESERVE	FRAXINUS PENNSYLVANICA	5 DBH
				T-85	PRESERVE	FRAXINUS PENNSYLVANICA	5 DBH
				T-86	PRESERVE	PRUNUS SEROTINA	10 DBH
				T-87	PRESERVE	ACER NEGUNDO	14 DBH
				T-88	PRESERVE	ACER NEGUNDO	4 DBH
				T-89	PRESERVE	JUNIPERUS VIRGINIANA	7 DBH
				T-90	DEMO	JUGLANS NIGRA	18 DBH
				T-91	DEMO	ULMUS PUMILA	11 DBH
				T-92	DEMO	ACER NEGUNDO	14 DBH
				T-93	DEMO	ACER NEGUNDO	12 DBH
				T-94	DEMO	ACER NEGUNDO	12 DBH
				T-95	DEMO	ACER NEGUNDO	13 DBH
				T-96	PRESERVE	JUNIPERUS VIRGINIANA	11 DBH
				T-97	PRESERVE	JUNIPERUS VIRGINIANA	13 DBH
				T-98	PRESERVE	PICEA PUNGENS	15 DBH
				T-99	PRESERVE	PICEA PUNGENS	17 DBH
				T-100	PRESERVE	POPULUS DELTOIDES	41 DBH
				T-101	PRESERVE	POPULUS DELTOIDES	28 DBH
				T-102	PRESERVE	PRUNUS SEROTINA	6 DBH
				T-103	PRESERVE	PICEA PUNGENS	18 DBH
				T-104	PRESERVE	PICEA PUNGENS	12 DBH
				T-105	PRESERVE	PICEA PUNGENS	15 DBH
				T-106	PRESERVE	ULMUS AMERICANA	25 DBH

LEGEND

- LIMITS OF CONSTRUCTION WORK
- - - CHAIN LINK - TREE PROTECTION FENCE
- ROOT PRUNE
- [Hatched Box] ROOT PROTECTION MAT AREA
- (Circle with Dot) EXISTING TREE TO REMAIN
- (Circle with X) REMOVE EXISTING TREE



PROJECT MANAGER ANDREW F. JUDD		
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS
ISSUE	DATE	DESCRIPTION
PROJECT NUMBER 10268112		

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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

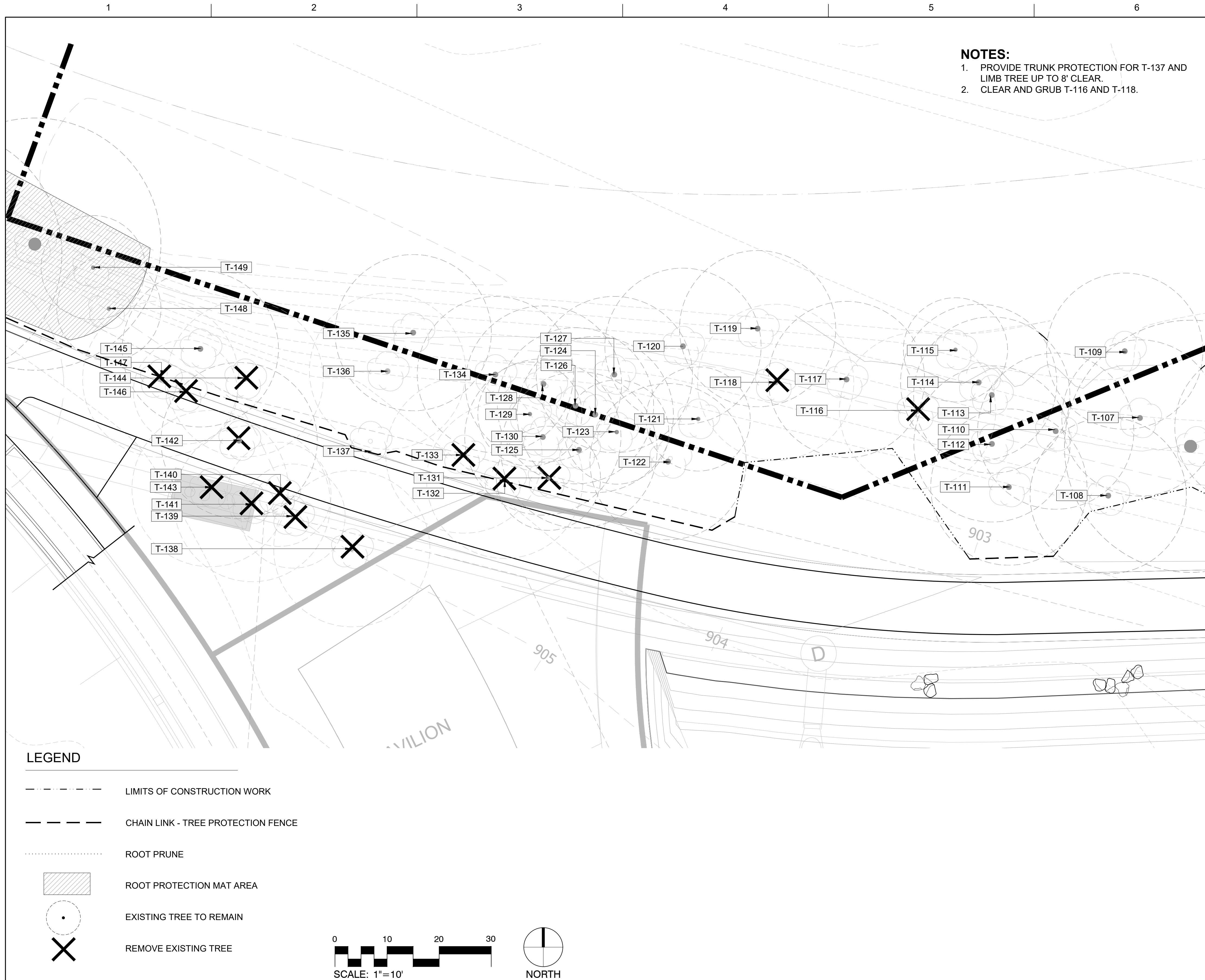
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TREE PROTECTION PLAN ENLARGEMENT C

FILENAME _____ SHEET **L052**

SCALE _____



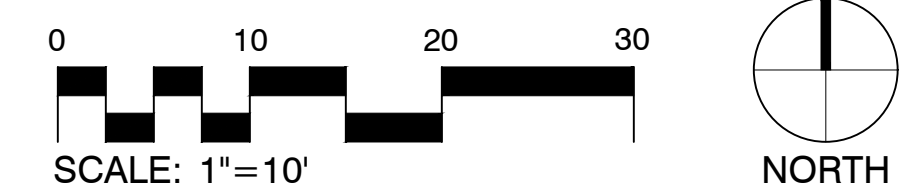
NOTES:
 1. PROVIDE TRUNK PROTECTION FOR T-137 AND LIMB TREE UP TO 8' CLEAR.
 2. CLEAR AND GRUB T-116 AND T-118.

LEGEND TREE PROTECTION PLAN ENLARGEMENT D

SYMBOL	TREE PRESERVATION DESCRIPTION	SPECIES	CAL/SIZE
T-107	PRESERVE	PICEA PUNGENS	16 DBH
T-108	PRESERVE	JUGLANS NIGRA	8 DBH
T-109	PRESERVE	ACER NEGUNDO	9 DBH
T-110	PRESERVE	PICEA PUNGENS	16 DBH
T-111	PRESERVE	MORUS ALBA	10 DBH
T-112	PRESERVE	ACER NEGUNDO	14 DBH
T-113	PRESERVE	ACER NEGUNDO	9 DBH
T-114	PRESERVE	PICEA PUNGENS	17 DBH
T-115	PRESERVE	ACER NEGUNDO	5 DBH
T-116	DEMO	ACER NEGUNDO	13 DBH
T-117	PRESERVE	PICEA PUNGENS	16 DBH
T-118	DEMO	ACER NEGUNDO	13 DBH
T-119	PRESERVE	ACER NEGUNDO	14 DBH
T-120	PRESERVE	ACER NEGUNDO	9 DBH
T-121	PRESERVE	MORUS ALBA	5 DBH
T-122	PRESERVE	MORUS ALBA	17 DBH
T-123	PRESERVE	MORUS ALBA	4 DBH
T-124	PRESERVE	MORUS ALBA	7 DBH
T-125	PRESERVE	ACER NEGUNDO	11 DBH
T-126	PRESERVE	MORUS ALBA	8 DBH
T-127	PRESERVE	CELTIS OCCIDENTALIS	8 DBH
T-128	PRESERVE	CELTIS OCCIDENTALIS	10 DBH
T-129	PRESERVE	ACER NEGUNDO	5 DBH
T-130	PRESERVE	ACER NEGUNDO	8 DBH
T-131	DEMO	ACER NEGUNDO	5 DBH
T-132	DEMO	MORUS ALBA	10 DBH
T-133	DEMO	JUNIPERUS VIRGINIANA	16 DBH
T-134	PRESERVE	FRAXINUS PENNSYLVANICA	11 DBH
T-135	PRESERVE	ACER NEGUNDO	8 DBH
T-136	PRESERVE	ACER NEGUNDO	12 DBH
T-137	PRESERVE	PICEA PUNGENS	16 DBH
T-138	DEMO	ULMUS AMERICANA	13 DBH
T-139	DEMO	ACER NEGUNDO	4 DBH
T-140	DEMO	ACER NEGUNDO	6 DBH
T-141	DEMO	ACER NEGUNDO	7 DBH
T-142	DEMO	PICEA PUNGENS	18 DBH
T-143	DEMO	ACER NEGUNDO	7 DBH
T-144	DEMO	CELTIS OCCIDENTALIS	7 DBH
T-145	PRESERVE	ACER NEGUNDO	10 DBH
T-146	DEMO	ACER NEGUNDO	5 DBH
T-147	PRESERVE	ULMUS AMERICANA	18 DBH
T-148	PRESERVE	FRAXINUS PENNSYLVANICA	4 DBH
T-149	PRESERVE	FRAXINUS PENNSYLVANICA	5 DBH

LEGEND

- LIMITS OF CONSTRUCTION WORK
- CHAIN LINK - TREE PROTECTION FENCE
- ROOT PRUNE
- ▨ ROOT PROTECTION MAT AREA
- EXISTING TREE TO REMAIN
- ⊗ REMOVE EXISTING TREE



PROJECT MANAGER ANDREW F. JUDD		
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS
ISSUE	DATE	DESCRIPTION
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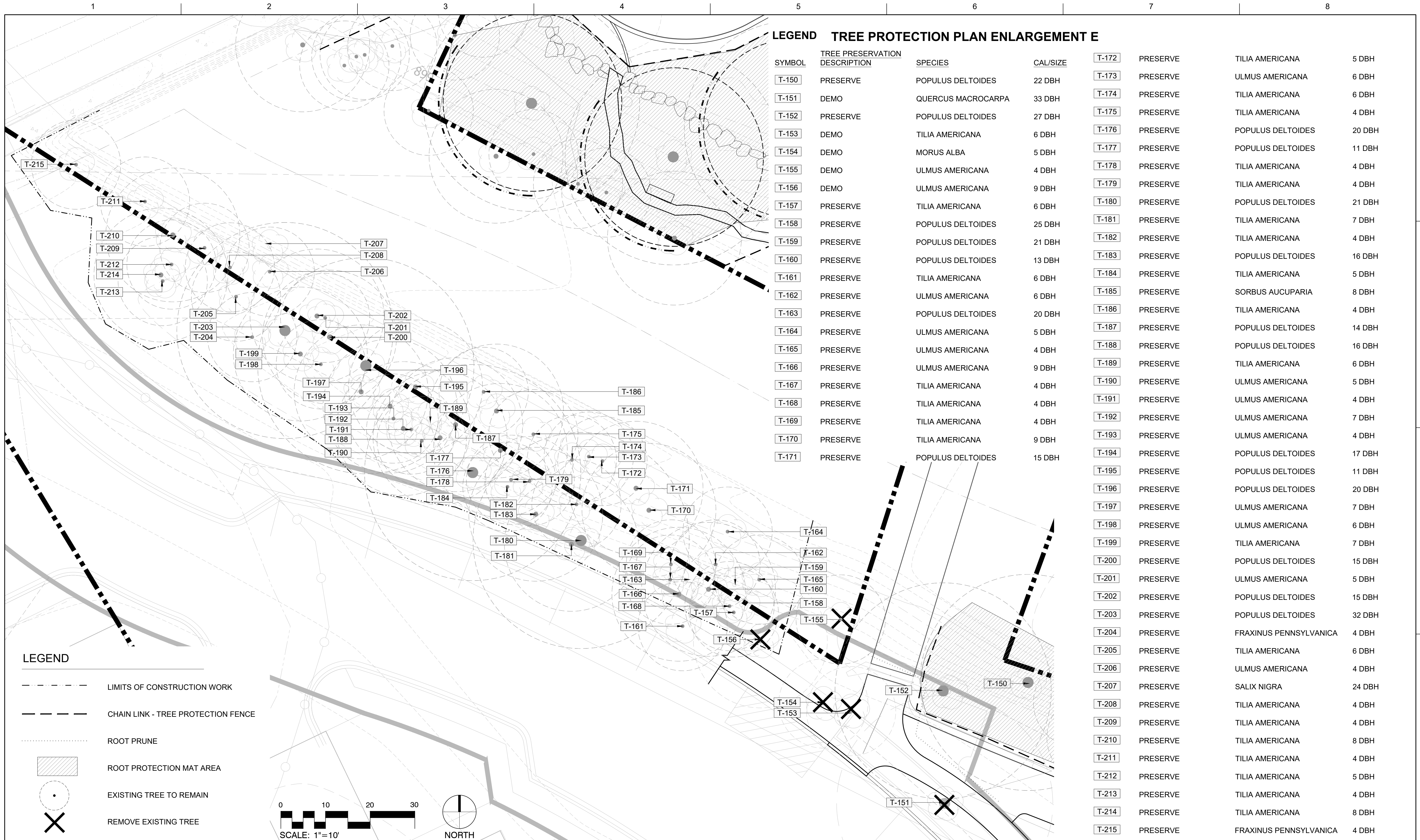
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

TREE PROTECTION PLAN ENLARGEMENT D



SHEET
L053

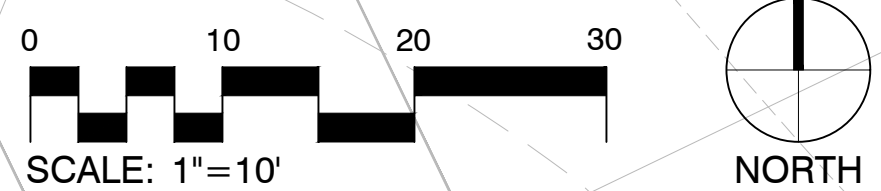


LEGEND TREE PROTECTION PLAN ENLARGEMENT E

SYMBOL	TREE PRESERVATION DESCRIPTION	SPECIES	CAL/SIZE	T-172	PRESERVE	TILIA AMERICANA	5 DBH
T-150	PRESERVE	POPULUS DELTOIDES	22 DBH	T-173	PRESERVE	ULMUS AMERICANA	6 DBH
T-151	DEMO	QUERCUS MACROCARPA	33 DBH	T-174	PRESERVE	TILIA AMERICANA	6 DBH
T-152	PRESERVE	POPULUS DELTOIDES	27 DBH	T-175	PRESERVE	TILIA AMERICANA	4 DBH
T-153	DEMO	TILIA AMERICANA	6 DBH	T-176	PRESERVE	POPULUS DELTOIDES	20 DBH
T-154	DEMO	MORUS ALBA	5 DBH	T-177	PRESERVE	POPULUS DELTOIDES	11 DBH
T-155	DEMO	ULMUS AMERICANA	4 DBH	T-178	PRESERVE	TILIA AMERICANA	4 DBH
T-156	DEMO	ULMUS AMERICANA	9 DBH	T-179	PRESERVE	TILIA AMERICANA	4 DBH
T-157	PRESERVE	TILIA AMERICANA	6 DBH	T-180	PRESERVE	POPULUS DELTOIDES	21 DBH
T-158	PRESERVE	POPULUS DELTOIDES	25 DBH	T-181	PRESERVE	TILIA AMERICANA	7 DBH
T-159	PRESERVE	POPULUS DELTOIDES	21 DBH	T-182	PRESERVE	TILIA AMERICANA	4 DBH
T-160	PRESERVE	POPULUS DELTOIDES	13 DBH	T-183	PRESERVE	POPULUS DELTOIDES	16 DBH
T-161	PRESERVE	TILIA AMERICANA	6 DBH	T-184	PRESERVE	TILIA AMERICANA	5 DBH
T-162	PRESERVE	ULMUS AMERICANA	6 DBH	T-185	PRESERVE	SORBUS AUCUPARIA	8 DBH
T-163	PRESERVE	POPULUS DELTOIDES	20 DBH	T-186	PRESERVE	TILIA AMERICANA	4 DBH
T-164	PRESERVE	ULMUS AMERICANA	5 DBH	T-187	PRESERVE	POPULUS DELTOIDES	14 DBH
T-165	PRESERVE	ULMUS AMERICANA	4 DBH	T-188	PRESERVE	POPULUS DELTOIDES	16 DBH
T-166	PRESERVE	ULMUS AMERICANA	9 DBH	T-189	PRESERVE	TILIA AMERICANA	6 DBH
T-167	PRESERVE	TILIA AMERICANA	4 DBH	T-190	PRESERVE	ULMUS AMERICANA	5 DBH
T-168	PRESERVE	TILIA AMERICANA	4 DBH	T-191	PRESERVE	ULMUS AMERICANA	4 DBH
T-169	PRESERVE	TILIA AMERICANA	4 DBH	T-192	PRESERVE	ULMUS AMERICANA	7 DBH
T-170	PRESERVE	TILIA AMERICANA	9 DBH	T-193	PRESERVE	ULMUS AMERICANA	4 DBH
T-171	PRESERVE	POPULUS DELTOIDES	15 DBH	T-194	PRESERVE	POPULUS DELTOIDES	17 DBH
				T-195	PRESERVE	POPULUS DELTOIDES	11 DBH
				T-196	PRESERVE	POPULUS DELTOIDES	20 DBH
				T-197	PRESERVE	ULMUS AMERICANA	7 DBH
				T-198	PRESERVE	ULMUS AMERICANA	6 DBH
				T-199	PRESERVE	TILIA AMERICANA	7 DBH
				T-200	PRESERVE	POPULUS DELTOIDES	15 DBH
				T-201	PRESERVE	ULMUS AMERICANA	5 DBH
				T-202	PRESERVE	POPULUS DELTOIDES	15 DBH
				T-203	PRESERVE	POPULUS DELTOIDES	32 DBH
				T-204	PRESERVE	FRAXINUS PENNSYLVANICA	4 DBH
				T-205	PRESERVE	TILIA AMERICANA	6 DBH
				T-206	PRESERVE	ULMUS AMERICANA	4 DBH
				T-207	PRESERVE	SALIX NIGRA	24 DBH
				T-208	PRESERVE	TILIA AMERICANA	4 DBH
				T-209	PRESERVE	TILIA AMERICANA	4 DBH
				T-210	PRESERVE	TILIA AMERICANA	8 DBH
				T-211	PRESERVE	TILIA AMERICANA	4 DBH
				T-212	PRESERVE	TILIA AMERICANA	5 DBH
				T-213	PRESERVE	TILIA AMERICANA	4 DBH
				T-214	PRESERVE	TILIA AMERICANA	8 DBH
				T-215	PRESERVE	FRAXINUS PENNSYLVANICA	4 DBH

LEGEND

- LIMITS OF CONSTRUCTION WORK
- - - CHAIN LINK - TREE PROTECTION FENCE
- ROOT PRUNE
- [Hatched Box] ROOT PROTECTION MAT AREA
- (Circle with Dot) EXISTING TREE TO REMAIN
- (X) REMOVE EXISTING TREE



PROJECT MANAGER ANDREW F. JUDD

ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT NUMBER 10268112

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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

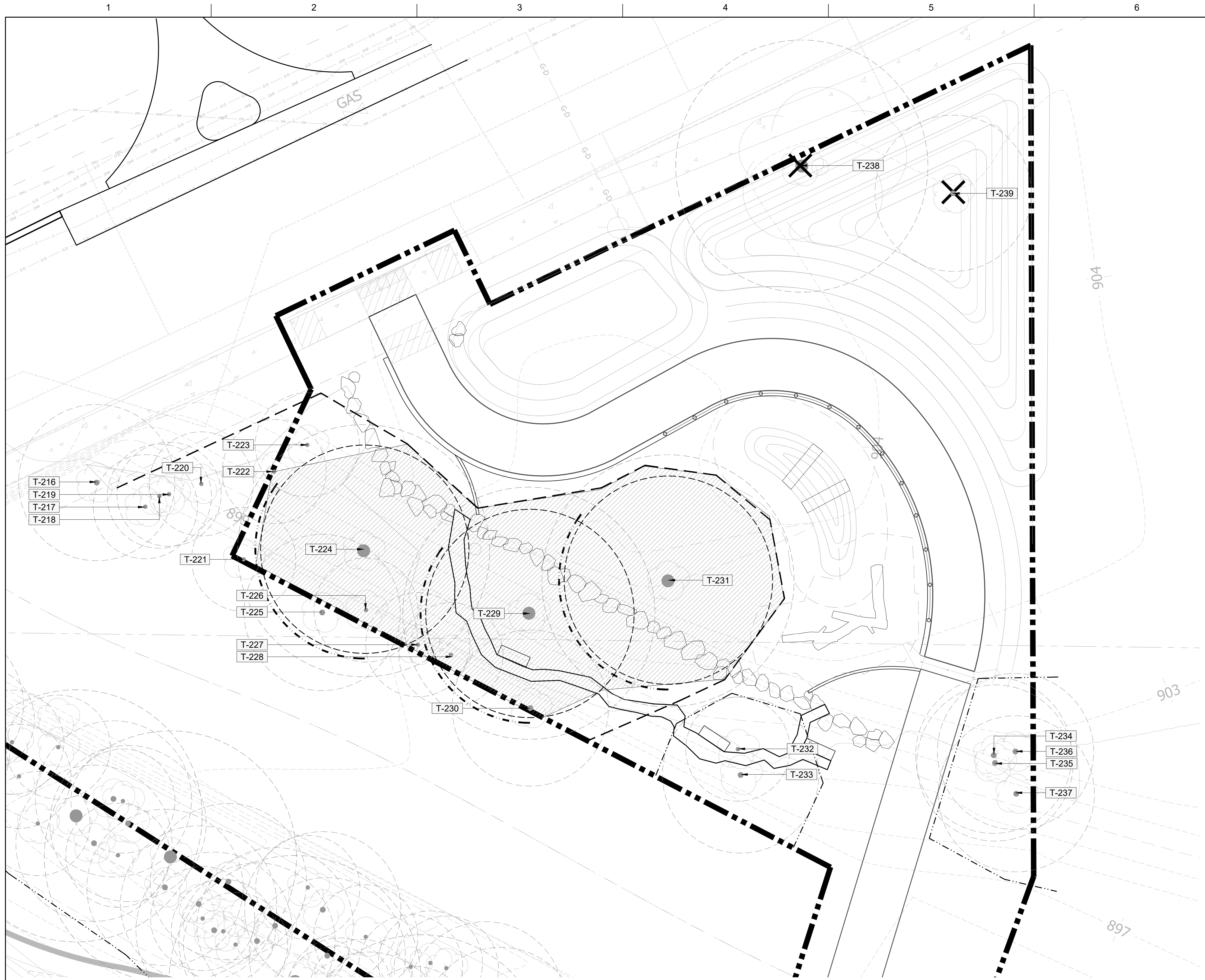
TREE PROTECTION PLAN ENLARGEMENT E

0 1" 2" SCALE

FILENAME

SHEET **L054**



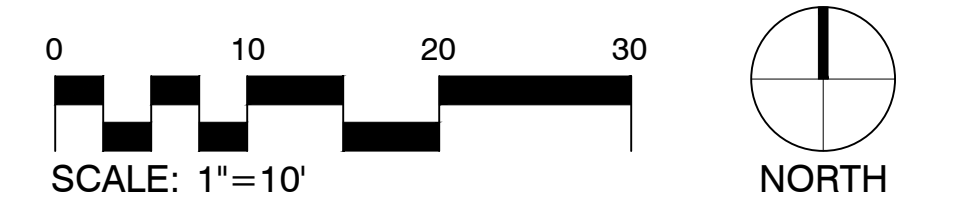


LEGEND TREE PROTECTION PLAN ENLARGEMENT F

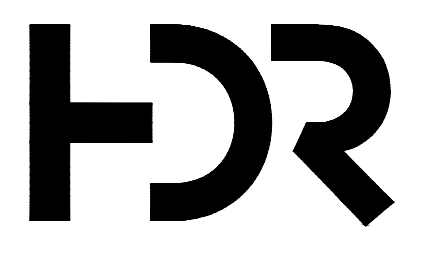
T-216	PRESERVE	FRAXINUS PENNSYLVANICA	9 DBH
T-217	PRESERVE	FRAXINUS PENNSYLVANICA	4 DBH
T-218	PRESERVE	FRAXINUS PENNSYLVANICA	4 DBH
T-219	PRESERVE	FRAXINUS PENNSYLVANICA	5 DBH
T-220	PRESERVE	FRAXINUS PENNSYLVANICA	6 DBH
T-221	PRESERVE	ULMUS AMERICANA	5 DBH
T-222	PRESERVE	MORUS ALBA	5 DBH
T-223	PRESERVE	MORUS ALBA	5 DBH
T-224	PRESERVE	MORUS ALBA	5 DBH
T-225	PRESERVE	QUERCUS MACROCARPA	31 DBH
T-226	PRESERVE	ACER NEGUNDO	7 DBH
T-227	PRESERVE	ULMUS AMERICANA	6 DBH
T-228	PRESERVE	ULMUS AMERICANA	6 DBH
T-229	PRESERVE	QUERCUS MACROCARPA	33 DBH
T-230	PRESERVE	ACER NEGUNDO	7 DBH
T-231	PRESERVE	ACER NEGUNDO	7 DBH
T-232	PRESERVE	QUERCUS MACROCARPA	30 DBH
T-233	PRESERVE	ULMUS AMERICANA	5 DBH
T-234	PRESERVE	ULMUS AMERICANA	7 DBH
T-235	PRESERVE	FRAXINUS PENNSYLVANICA	9 DBH
T-236	PRESERVE	ULMUS AMERICANA	15 DBH
T-237	PRESERVE	ACER NEGUNDO	15 DBH
T-238	PRESERVE	FRAXINUS PENNSYLVANICA	21 DBH
T-239	DEMO	BETULA PAPIRYFERA	11 DBH

LEGEND

- LIMITS OF CONSTRUCTION WORK
- CHAIN LINK - TREE PROTECTION FENCE
- ROOT PRUNE
- ROOT PROTECTION MAT AREA
- EXISTING TREE TO REMAIN
- REMOVE EXISTING TREE



MINNEHAHA CREEK WATERSHED DISTRICT



DF/ DAMON FARBER LANDSCAPE ARCHITECTS
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p: 612.332.7522

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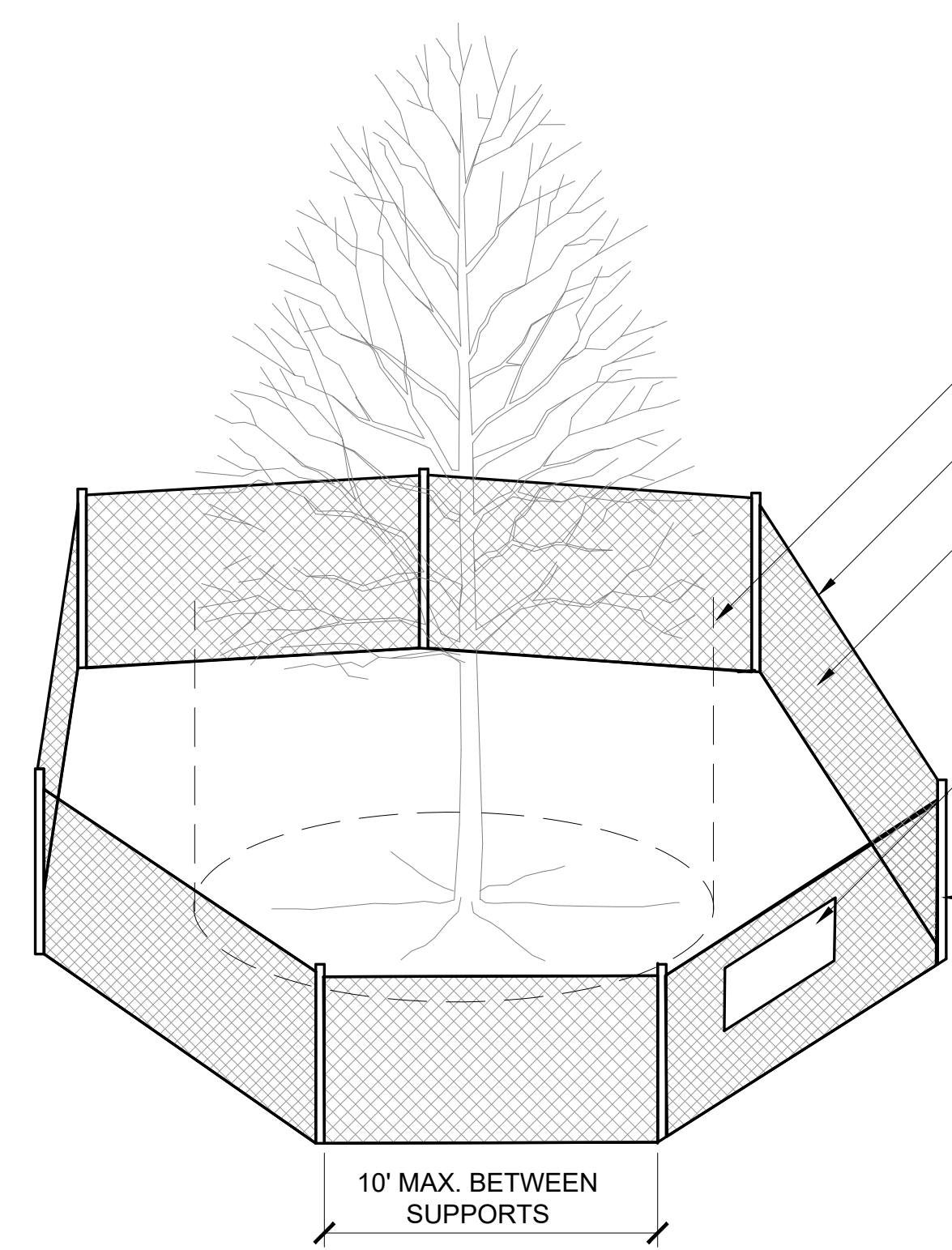
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TREE PROTECTION PLAN ENLARGEMENT F



SHEET
L055



DRIPLINE VARIES

TENSIONER: COATED WIRE OR NYLONE ROPE TO KEEP FENCE TAUGHT

TREE PROTECTION FENCING: 48" ORANGE SNOW FENCING OR CONSTRUCTION GRADE CHAIN LINK. FASTEN TO POSTS WITH GALVANIZED WIRE TIES. SEE PLAN FOR LOCATIONS OF CHAIN LINK VS SNOW FENCE.

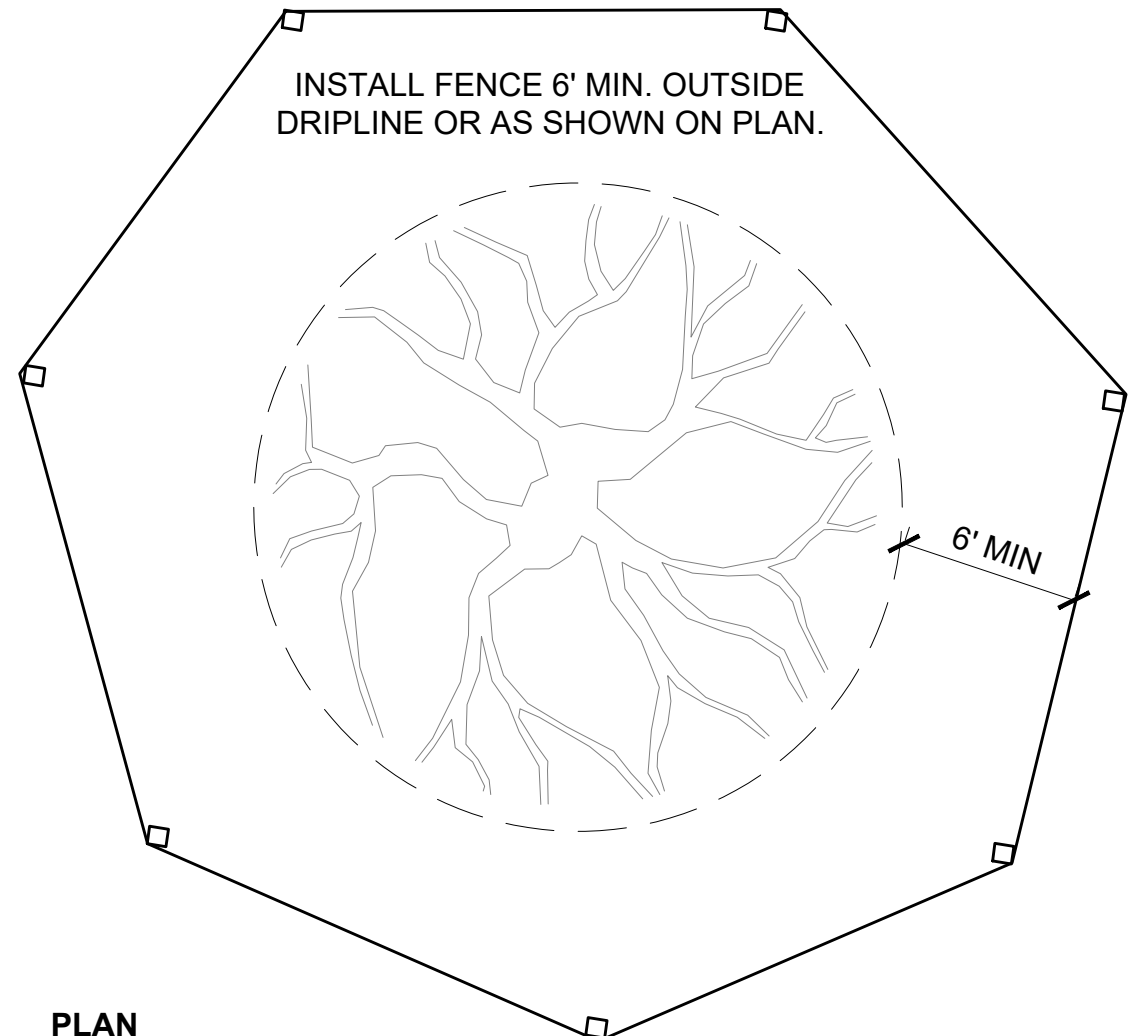
TREE PROTECTION SIGNAGE SPACED EVERY 50' ALONG FENCE. REFER TO SIGNAGE DETAIL

POSTS: 7" U-CHANNEL 1.12 LBS/FOOT STRENGTH PAINTED OR GALVANIZED

- NOTES:**
- TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO DEMOLITION IN LOCATIONS SHOWN ON PLANS AND SHALL BE MAINTAINED FOR THE DURATION OF THE CONSTRUCTION PERIOD. TREE PROTECTION FENCING MAY BE RELOCATED AS NECESSARY WITH APPROVAL FROM THE LANDSCAPE ARCHITECT.

10' MAX. BETWEEN SUPPORTS

PERSPECTIVE

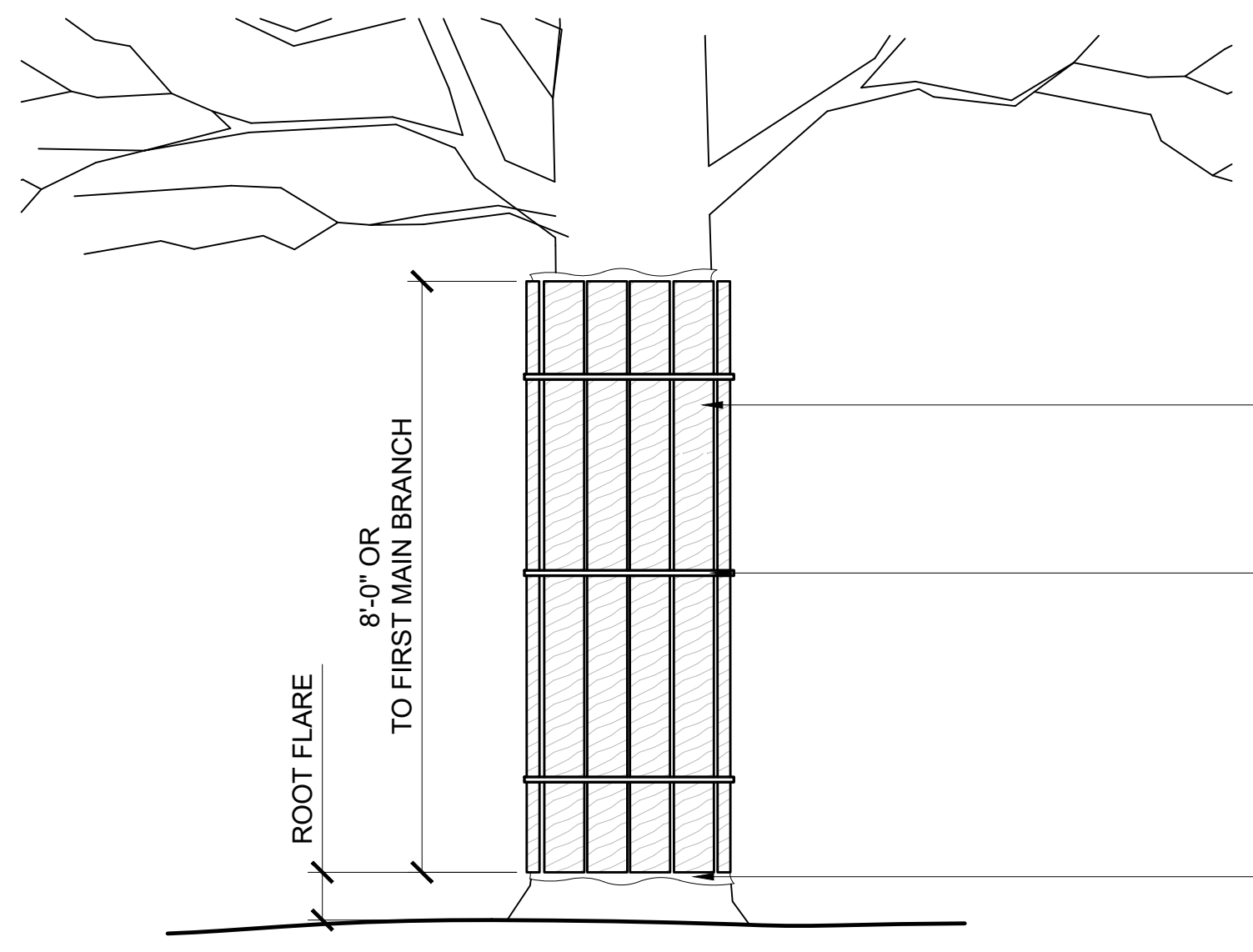


PLAN

4 DETAIL - TREE PROTECTION

1 1/2" = 1'-0"

P-20.199-45



- NOTES:**
- DO NOT FASTEN PLANKING DIRECTLY TO TREE TRUNK.
 - DO NOT INSTALL PLANKING ON ROOT FLARE.

PROTECTIVE PLANKING: 2x4x8 UNTREATED LUMBER, COMPLETELY AROUND TREE TRUNK.

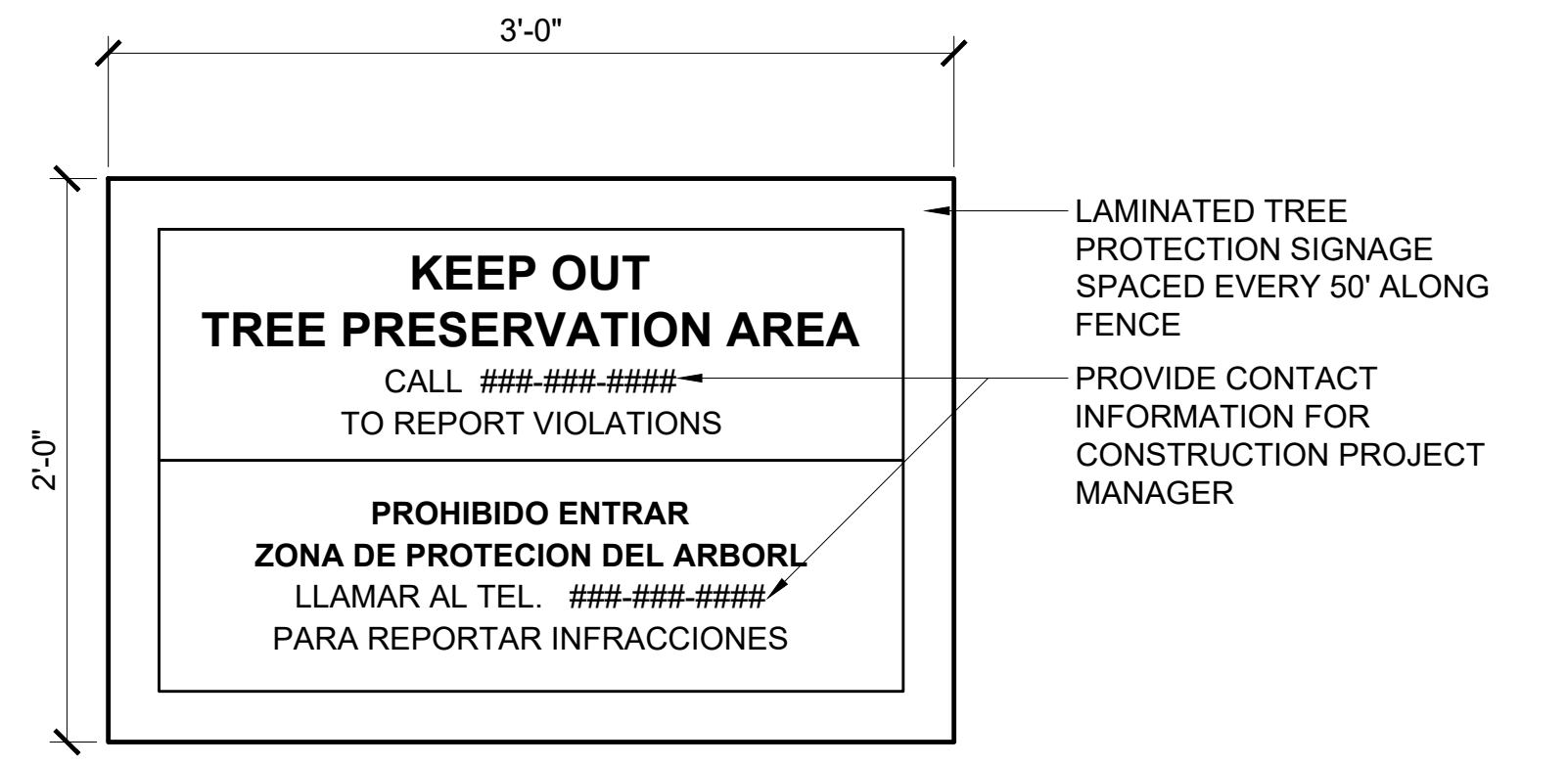
MIN. 1/2" DIAMETER NATURAL ROPE OR NYLON STRAPS, TIGHTENED AROUND BOARDS. STAPLE TO BOARDS TO PREVENT SLIPPAGE. 3 STRAPS PER TREE TRUNK.

WRAP TREE WITH 3-5 LAYERS BURLAP COMPLETELY UNDER TREE PROTECTION BOARDS. PROVIDE 5 LAYERS ON THIN-BARKED TREES (E.G. SUGAR MAPLES)

3 TRUNK PROTECTION

1" = 1'-0"

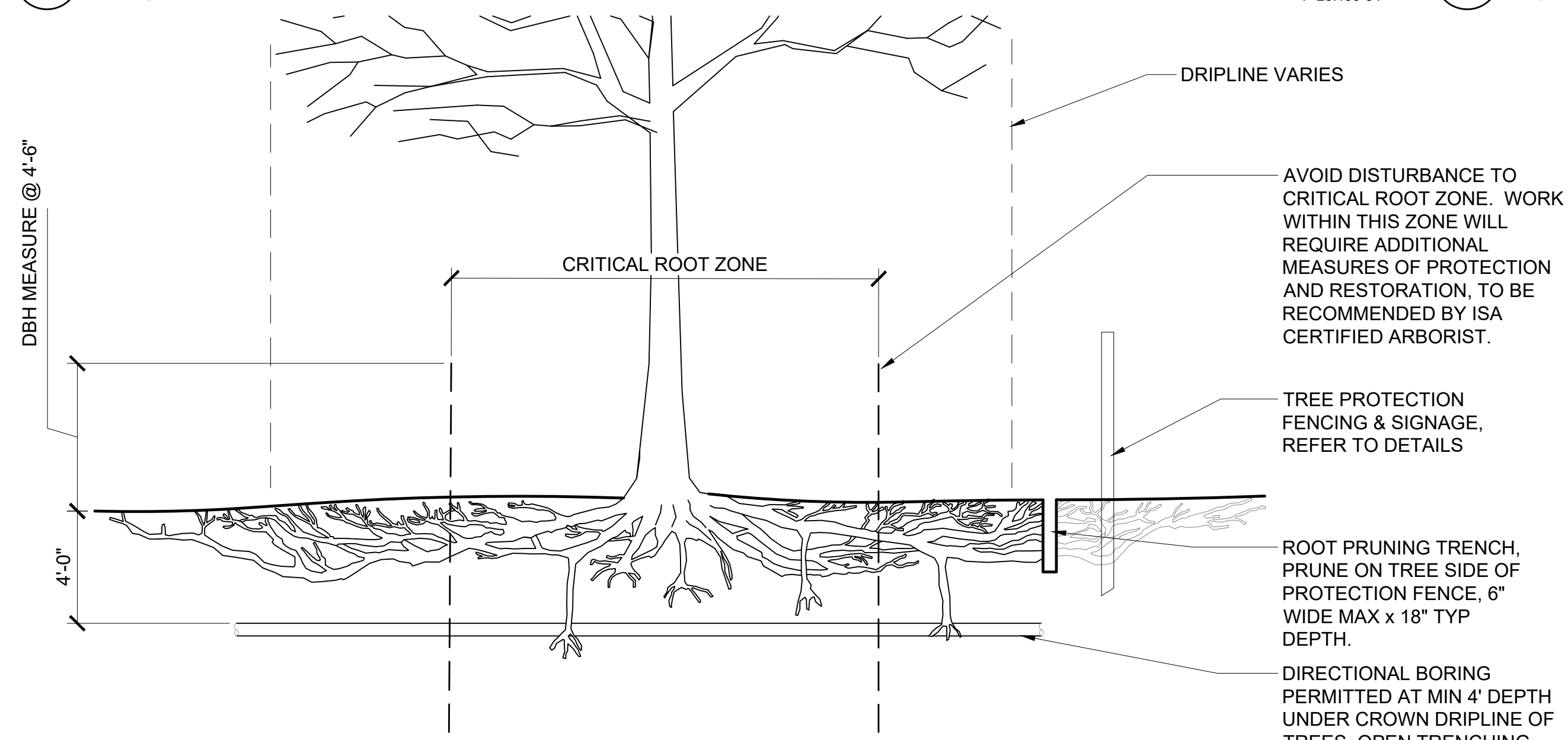
P-20.199-54



2 DETAIL - TREE PROTECTION SIGNAGE

1 1/2" = 1'-0"

P-20.199-50



1 ROOT PRUNING & DIRECTIONAL BORING DETAIL

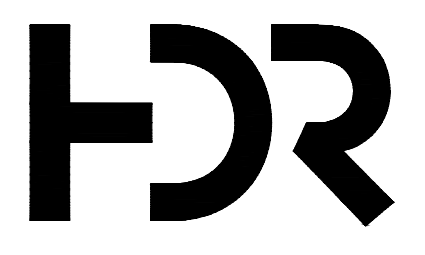
1 1/2" = 1'-0"

P-20.199-51

- NOTES:**
- WHERE WORK IS TO OCCUR WITHIN THE DRIPLINE OF A TREE, CONTRACTOR TO USE AIR EXCAVATOR, DIRECTIONAL BORING, ROOT PRUNING, AND PRECAUTIONARY MEASURES AS DETAILED. ROOT PRUNING TO BE PERFORMED BY ISA CERTIFIED ARBORIST.
 - ROOT PRUNING SHALL BE DONE WITH A TRENCHER OR VIBRATORY FLOW TO A DEPTH OF 18". ROOTS OVER 1.5" DIA SHALL HAVE A CLEAN CUT MADE BY A CLEAN SAW ON SURFACE OF THE ROOT. DO NOT PAINT CUT ROOT ENDS.
 - FOR INSTALLATION OF UTILITIES WITHIN DRIPLINE OF TREE, LEAVE ROOTS IN TACT AND UTILIZE DIRECTIONAL BORING TO THREAD UTILITY LINES BENEATH.
 - ROOT PRUNING SHALL TAKE PLACE PRIOR TO CLEARING AND GRADING. STAKE LOCATIONS OF TREE PROTECTION PRIOR TO TRENCHING.
 - BACKFILL ROOT PRUNING TRENCHES WITH EXCAVATED SOIL AND MULCH. MARK LOCATIONS WITH STAKES FOR FUTURE REFERENCE. SILT FENCE MAY BE INSTALLED IN TRENCH PRIOR TO BACKFILLING AS LONG AS TRENCH IS NOT OPEN LONGER THAN 48HRS WITHOUT WATERING.
 - DO NOT PERFORM ROOT PRUNING WHEN SOIL IS WET OR WHEN TOP 1" OR MORE OF SOIL IS FROZEN.
 - AVOID DISTURBANCE WITHIN CRITICAL ROOT ZONE. CRITICAL ROOT ZONE SHALL BE MEASURED FROM TRUNK OUTWARD AND CALCULATED AS FOLLOWS:
 - DBH < 29.9" USE 1 FOOT RADIUS PER 1 INCH DBH, MIN 3' RADIUS
 - DBH > 30" USE 1.5 FOOT RADIUS PER 1 INCH DBH



MINNEHAHA CREEK WATERSHED DISTRICT



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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

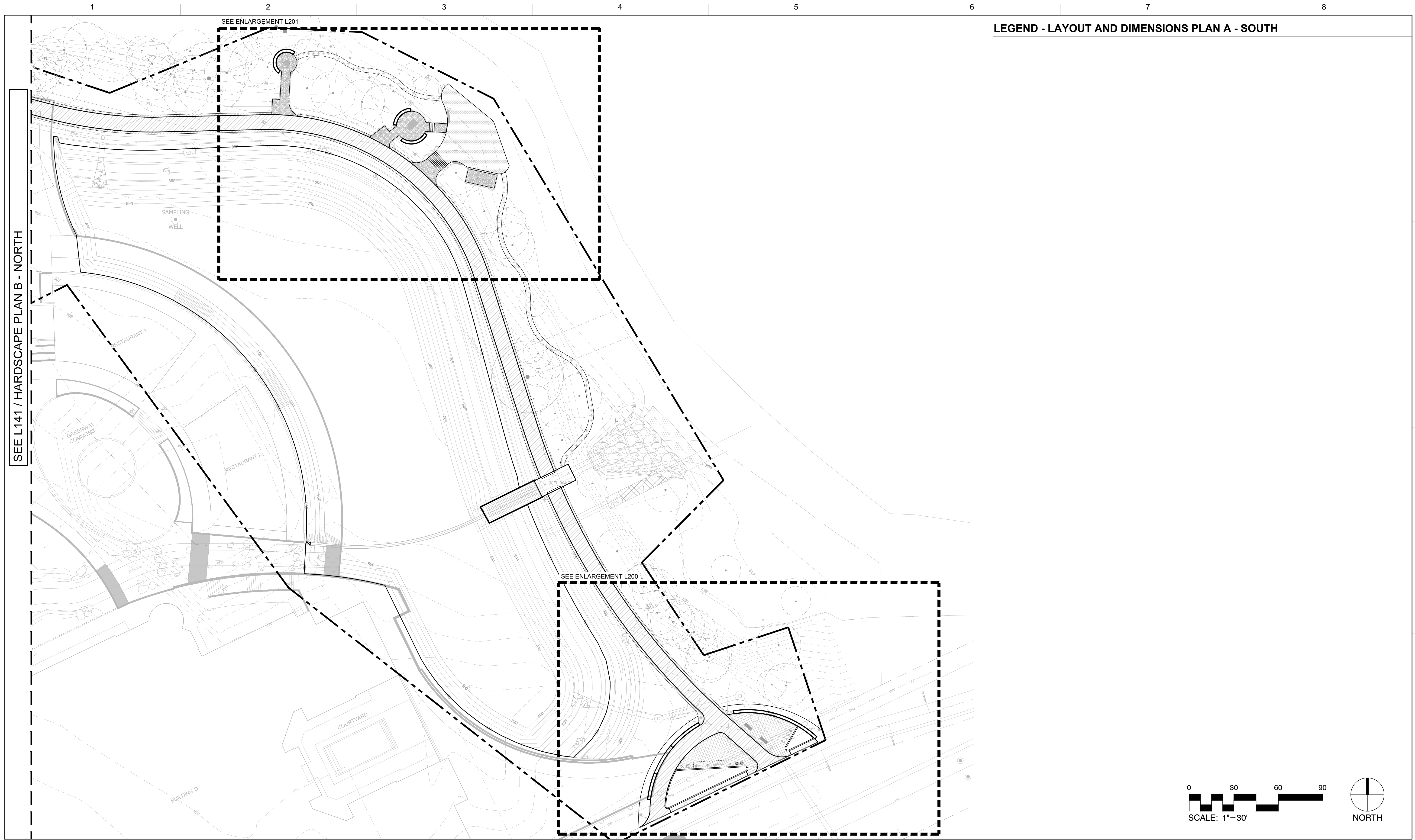
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TREE PROTECTION DETAILS



FILENAME
SCALE

SHEET
L057

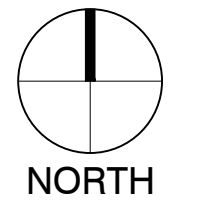
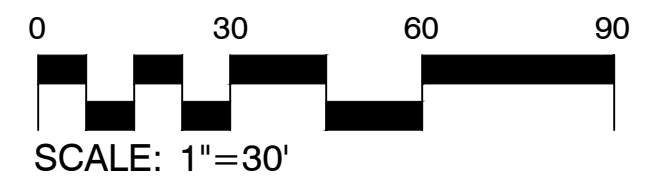


LEGEND - LAYOUT AND DIMENSIONS PLAN A - SOUTH

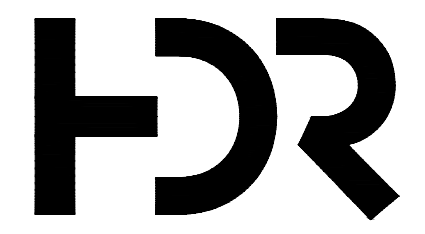
SEE L141 / HARDSCAPE PLAN B - NORTH

SEE ENLARGEMENT L201

SEE ENLARGEMENT L200



MINNEHAHA CREEK WATERSHED DISTRICT



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 Minneapolis, MN 55401 p. 612.332.7522

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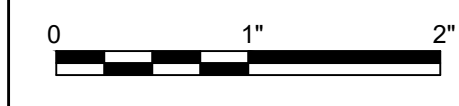
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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

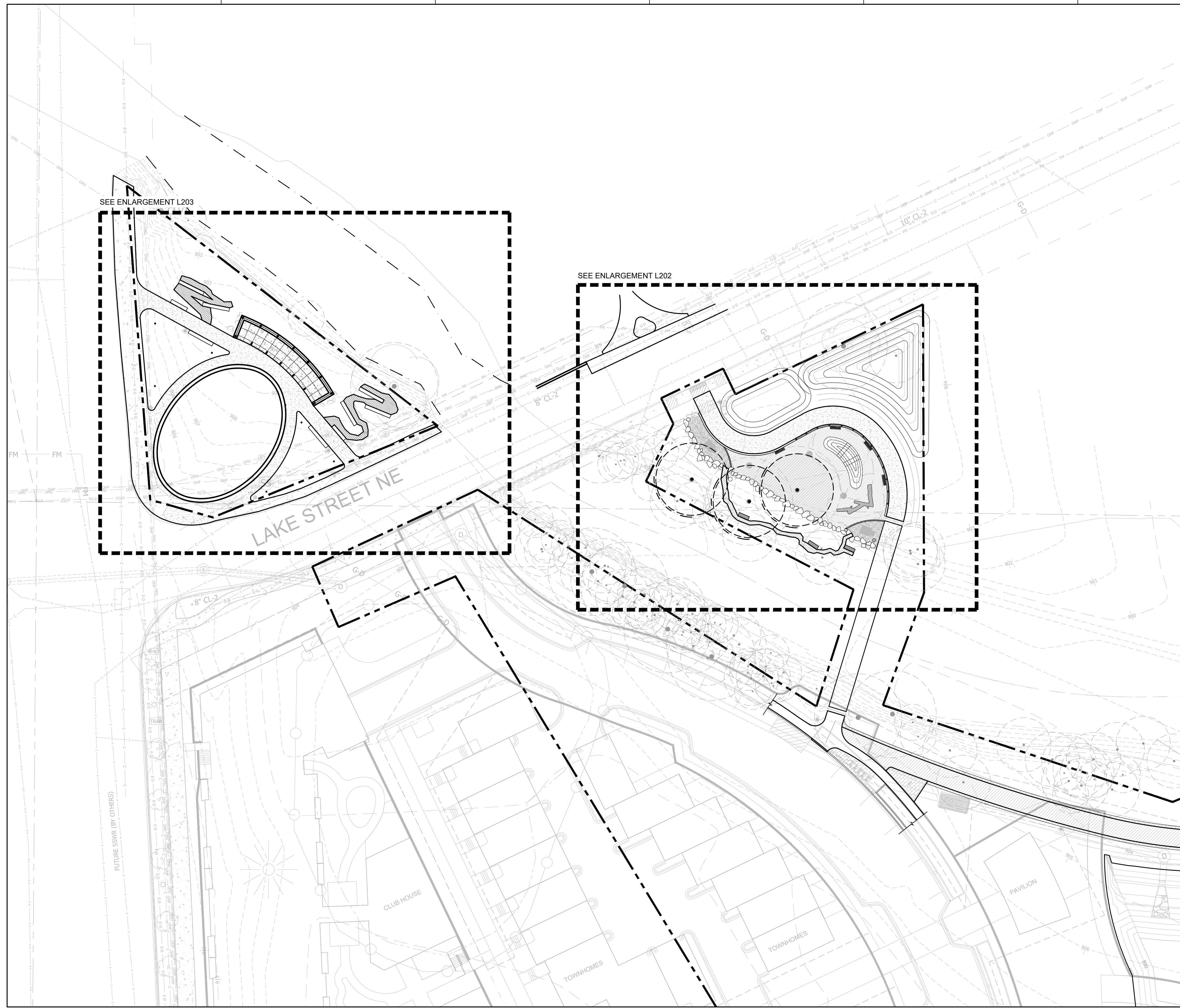
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

LAYOUT AND DIMENSIONS PLAN A - SOUTH

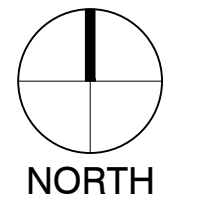
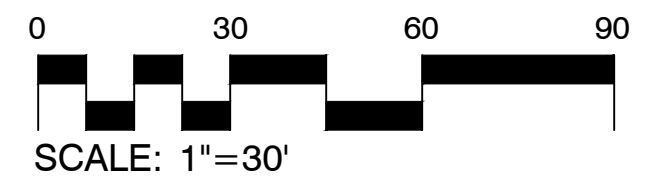


FILENAME
 SCALE

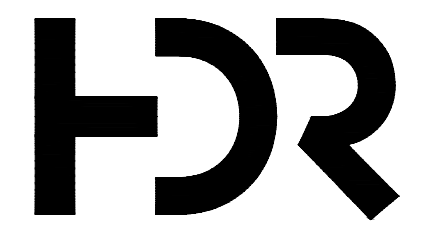
SHEET
L100



SEE L100 / LAYOUT AND DIMENSIONS PLAN A -



MINNEHAHA CREEK WATERSHED DISTRICT



DF/ DAMON FARBER LANDSCAPE ARCHITECTS
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p. 612.332.7522

ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

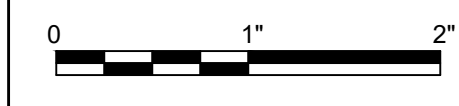
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

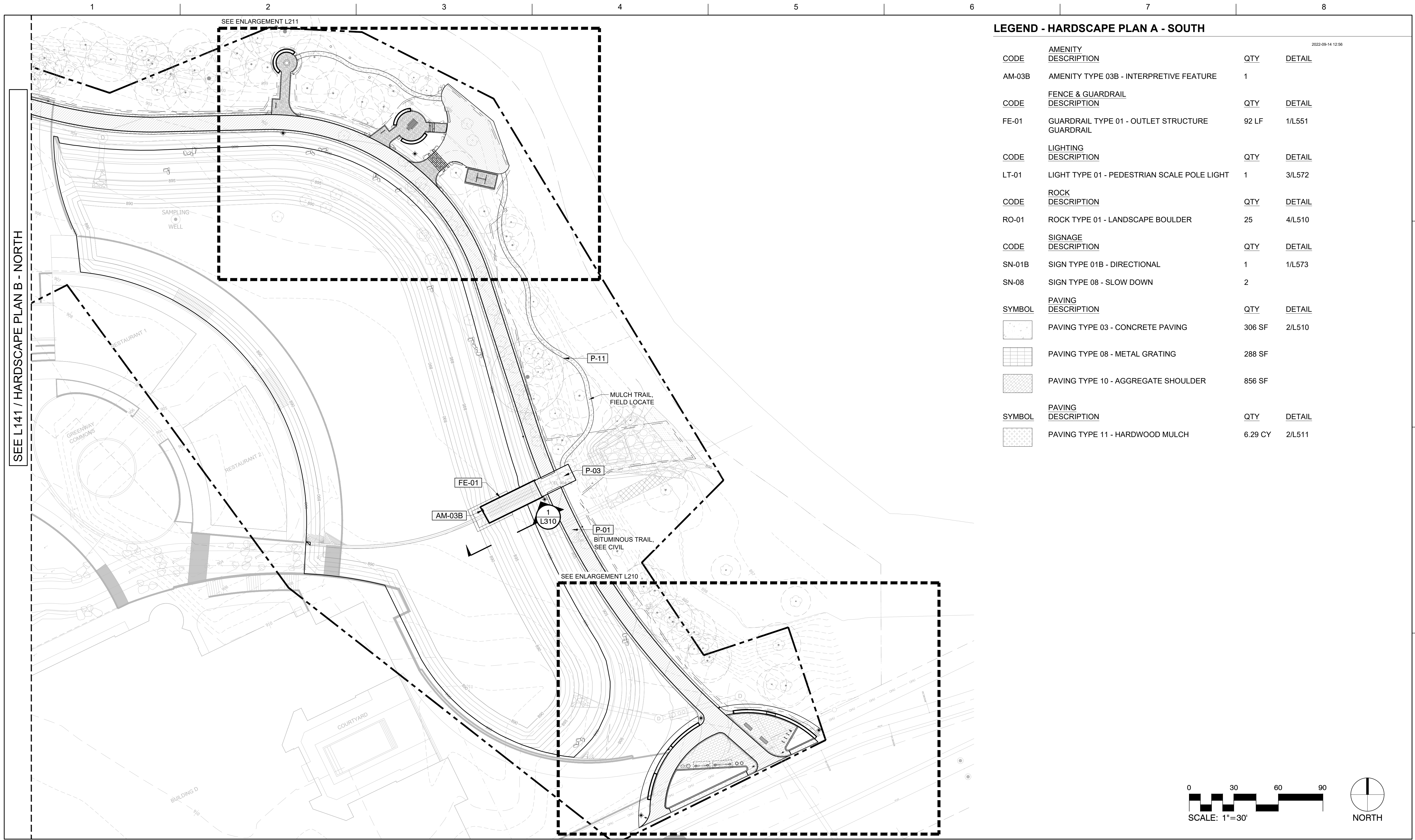
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LAYOUT AND DIMENSIONS PLAN B - NORTH



FILENAME
SCALE

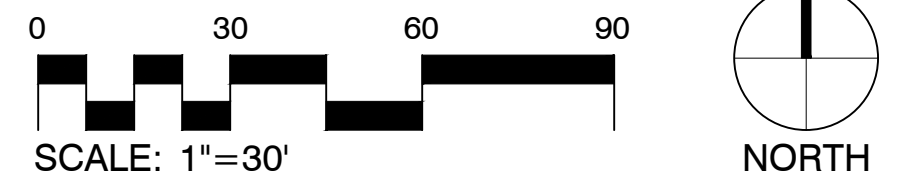
SHEET
L101



LEGEND - HARDSCAPE PLAN A - SOUTH

2022-09-14 12:56

CODE	AMENITY DESCRIPTION	QTY	DETAIL
AM-03B	AMENITY TYPE 03B - INTERPRETIVE FEATURE	1	
CODE	FENCE & GUARDRAIL DESCRIPTION	QTY	DETAIL
FE-01	GUARDRAIL TYPE 01 - OUTLET STRUCTURE GUARDRAIL	92 LF	1/L551
CODE	LIGHTING DESCRIPTION	QTY	DETAIL
LT-01	LIGHT TYPE 01 - PEDESTRIAN SCALE POLE LIGHT	1	3/L572
CODE	ROCK DESCRIPTION	QTY	DETAIL
RO-01	ROCK TYPE 01 - LANDSCAPE BOULDER	25	4/L510
CODE	SIGNAGE DESCRIPTION	QTY	DETAIL
SN-01B	SIGN TYPE 01B - DIRECTIONAL	1	1/L573
SN-08	SIGN TYPE 08 - SLOW DOWN	2	
SYMBOL	PAVING DESCRIPTION	QTY	DETAIL
	PAVING TYPE 03 - CONCRETE PAVING	306 SF	2/L510
	PAVING TYPE 08 - METAL GRATING	288 SF	
	PAVING TYPE 10 - AGGREGATE SHOULDER	856 SF	
SYMBOL	PAVING DESCRIPTION	QTY	DETAIL
	PAVING TYPE 11 - HARDWOOD MULCH	6.29 CY	2/L511



SEE L141 / HARDSCAPE PLAN B - NORTH

SEE ENLARGEMENT L211

SEE ENLARGEMENT L210

L310



ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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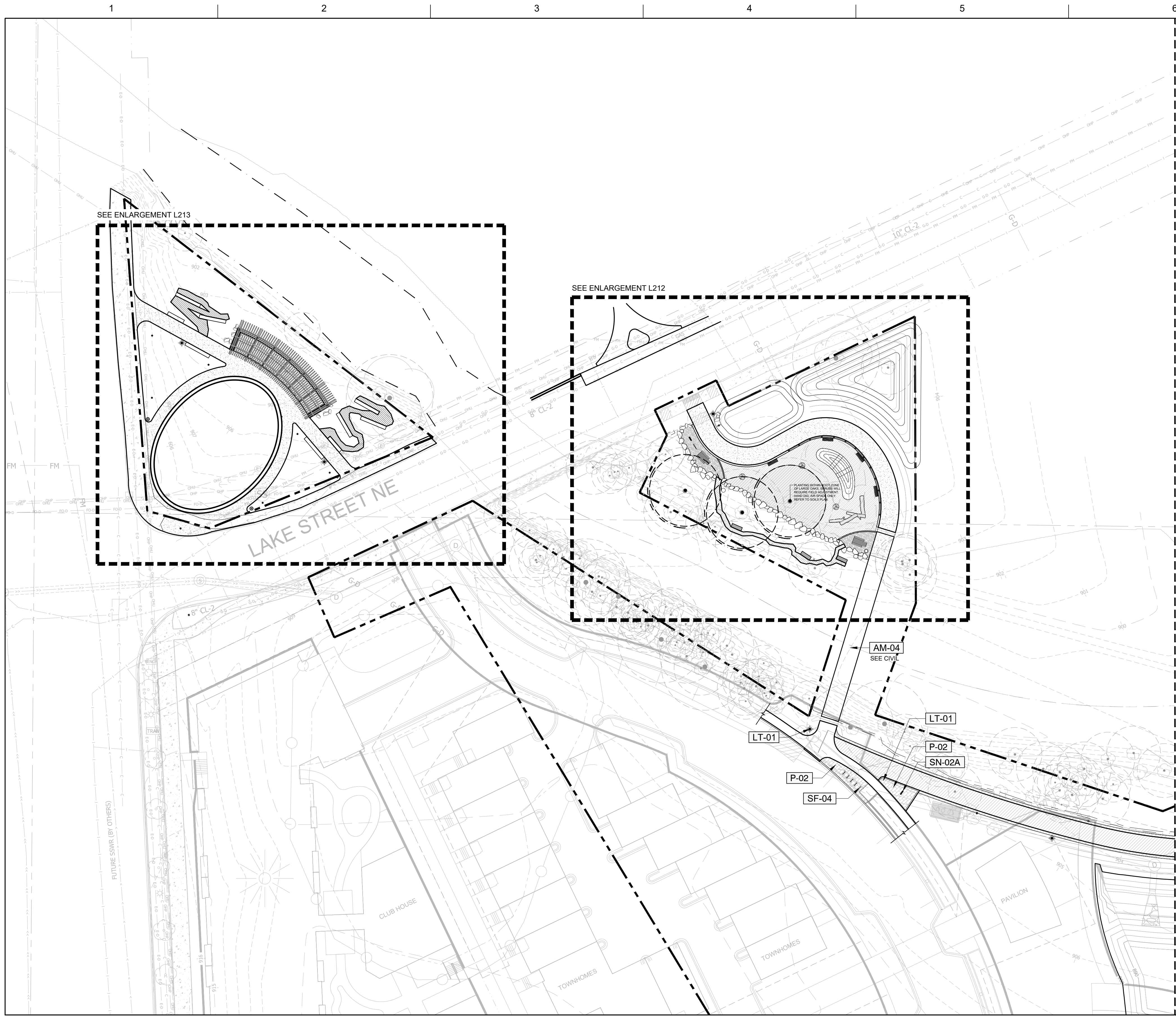
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

HARDSCAPE PLAN A - SOUTH

FILENAME	
SCALE	

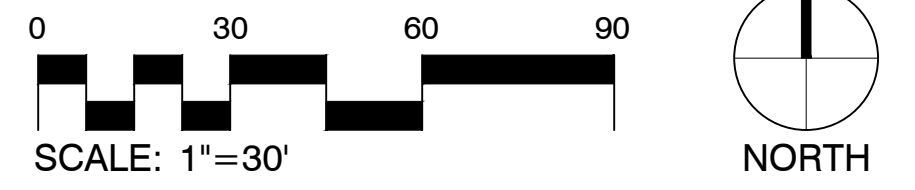
SHEET
L110



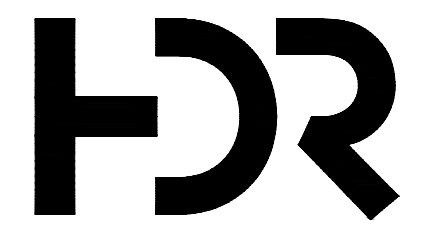
LEGEND - HARDSCAPE PLAN B - NORTH

CODE	ROCK DESCRIPTION	QTY	DETAIL
RO-01	ROCK TYPE 01 - LANDSCAPE BOULDER	4	4/L510
CODE	SITE FURNITURE DESCRIPTION	QTY	DETAIL
SF-04	SITE FURNITURE TYPE 04 - HOOP BIKE RACK	5	4/L570
CODE	SIGNAGE DESCRIPTION	QTY	DETAIL
SN-01B	SIGN TYPE 01B - DIRECTIONAL	1	1/L573
SN-02A	SIGN TYPE 02A - DIRECTIONAL + INFORMATIONAL KIOSK	1	3/L573
SN-04	SIGN TYPE 04 - SHARE THE TRAIL	1	2/L573
SYMBOL	PAVING DESCRIPTION	QTY	DETAIL
	PAVING TYPE 01 - BITUMINOUS PAVING	6,253 SF	
	PAVING TYPE 02 - PERMEABLE CONCRETE UNIT PAVERS	369 SF	1/L510
	PAVING TYPE 10 - AGGREGATE SHOULDER	455 SF	

SEE L110 / HARDSCAPE PLAN A - SOUTH



MINNEHAHA CREEK WATERSHED DISTRICT



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ISSUE	DATE	DESCRIPTION
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PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
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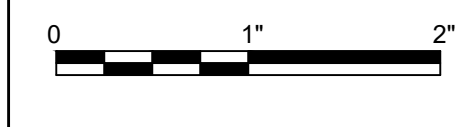
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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

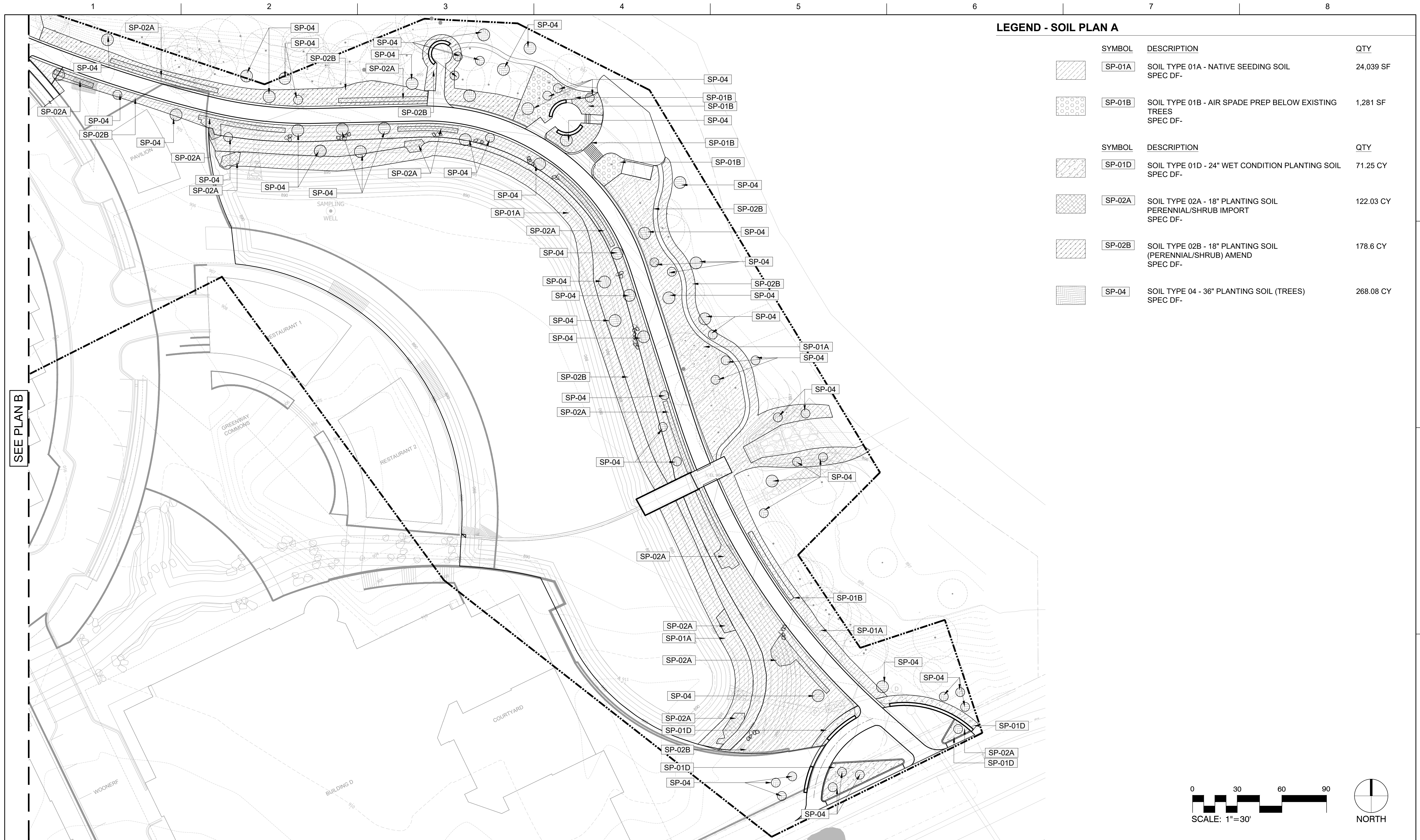
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

HARDSCAPE PLAN B - NORTH



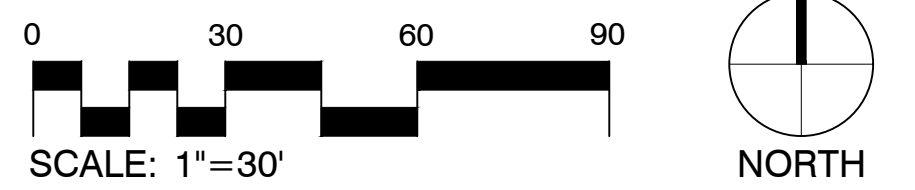
FILENAME
SCALE

SHEET
L111



LEGEND - SOIL PLAN A

SYMBOL	DESCRIPTION	QTY
	SP-01A SOIL TYPE 01A - NATIVE SEEDING SOIL SPEC DF-	24,039 SF
	SP-01B SOIL TYPE 01B - AIR SPADE PREP BELOW EXISTING TREES SPEC DF-	1,281 SF
SYMBOL	DESCRIPTION	QTY
	SP-01D SOIL TYPE 01D - 24" WET CONDITION PLANTING SOIL SPEC DF-	71.25 CY
	SP-02A SOIL TYPE 02A - 18" PLANTING SOIL PERENNIAL/SHRUB IMPORT SPEC DF-	122.03 CY
	SP-02B SOIL TYPE 02B - 18" PLANTING SOIL (PERENNIAL/SHRUB) AMEND SPEC DF-	178.6 CY
	SP-04 SOIL TYPE 04 - 36" PLANTING SOIL (TREES) SPEC DF-	268.08 CY



SEE PLAN B

PROJECT MANAGER ANDREW F. JUDD

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

SOIL PLAN A

FILENAME PLANTING PLAN A SHEET L130
SCALE



ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

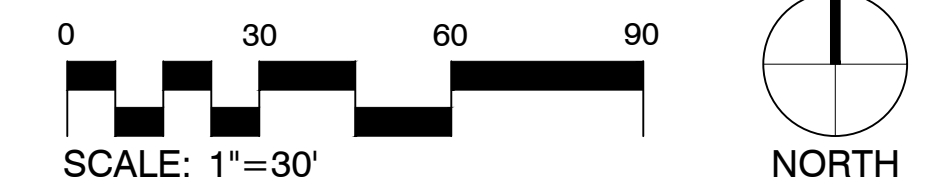
PROJECT NUMBER 10268112



LEGEND - SOIL PLAN A

SYMBOL	DESCRIPTION	QTY
	SP-01A SOIL TYPE 01A - NATIVE SEEDING SOIL SPEC DF-	6,955 SF
	SP-01B SOIL TYPE 01B - AIR SPADE PREP BELOW EXISTING TREES SPEC DF-	5,012 SF
	SP-02A SOIL TYPE 02A - 18" PLANTING SOIL PERENNIAL/SHRUB IMPORT SPEC DF-	449.19 CY
	SP-02B SOIL TYPE 02B - 18" PLANTING SOIL (PERENNIAL/SHRUB) AMEND SPEC DF-	375.87 CY
	SP-03 SOIL TYPE 03 - 24" RAIN GARDEN PLANTING SOIL SPEC DF-	186.61 CY
	SP-04 SOIL TYPE 04 - 36" PLANTING SOIL (TREES) SPEC DF-	120.08 CY

SEE PLAN A



ISSUE	DATE	DESCRIPTION
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PROJECT MANAGER ANDREW F. JUDD
PROJECT NUMBER 10268112

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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SOIL PLAN B



SHEET
L131

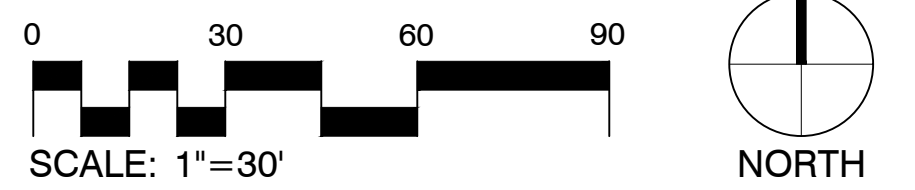


LEGEND - TREE PLANTING PLAN A

DECIDUOUS TREES	CODE	QTY	BOTANICAL / COMMON NAME
	ACE AUT	2	ACER RUBRUM 'AUTUMN FLAME' AUTUMN FLAME RED MAPLE
	BN	2	BETULA NIGRA 'CULLY' TM HERITAGE RIVER BIRCH
	CS	2	CATALPA SPECIOSA NORTHERN CATALPA
	OV	1	OSTRYA VIRGINIANA AMERICAN HOPHORNBEAM
	PX	4	POPULUS DELTOIDES 'SIOUXLAND' EASTERN COTTONWOOD SIOUXLAND
	PW	3	PRUNUS SEROTINA BLACK CHERRY
	QB	5	QUERCUS BICOLOR SWAMP WHITE OAK
	QM	2	QUERCUS MACROCARPA BUR OAK
	UP	1	ULMUS AMERICANA 'PRINCETON' AMERICAN ELM
	US	1	ULMUS AMERICANA 'ST. CROIX' ST. CROIX AMERICAN ELM

ORNAMENTAL TREES	CODE	QTY	BOTANICAL / COMMON NAME
	CC	2	CARPINUS CAROLINIANA AMERICAN HORNBEAM

SHRUB AREAS	CODE	QTY	BOTANICAL / COMMON NAME
		1,482 SF	FORB ENHANCEMENT
	BA	69	BAPTISIA ALBA WHITE WILD INDIGO
	EC	69	ECHINACEA PALLIDA PALE PURPLE CONEFLOWER
		1,378 SF	PERENNIAL BORDER
	AM2	102	ACHILLEA X 'MOONSHINE' MOONSHINE YARROW
	CP2	109	COREOPSIS PALMATA STIFF TICKSEED
	HEL WAU	109	HELENIUM AUTUMNALE SALUD YELLOW SNEEZEWEED
	RG2	102	RUDBECKIA FULGIDA SULLIVANTII 'GOLDSTURM' GOLDSTURM CONEFLOWER
	SS	109	SOLIDAGO SPECIOSA 'LITTLE LEMON' SHOWY GOLDENROD
	ZA	109	ZIZIA AUREA GOLDEN ALEXANDER



PROJECT MANAGER ANDREW F. JUDD		
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PROJECT NUMBER 10268112		

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

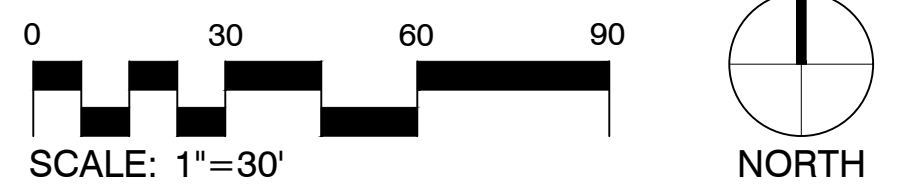
TREE PLANTING PLAN A

0 1" 2"	FILENAME	PLANTING PLAN A	SHEET
SCALE			L140



LEGEND - TREE PLANTING PLAN B

DECIDUOUS TREES	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
	ACE AUT	2	ACER RUBRUM 'AUTUMN FLAME' AUTUMN FLAME RED MAPLE	2.5'
	BN	1	BETULA NIGRA 'CULLY' TM HERITAGE RIVER BIRCH	8'
	CS	1	CATALPA SPECIOSA NORTHERN CATALPA	2"
	GD	1	GYMNOCLADUS DIOICA KENTUCKY COFFEETREE	3.5'
	QS	1	QUERCUS ELLIPSOIDALIS 'MAJESTIC SKIES' MAJESTIC SKIES NORTHERN PIN OAK	3"
	QM	1	QUERCUS MACROCARPA BUR OAK	2.5'
SHRUB AREAS	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
		483 SF	PERENNIAL BORDER	
	AM2	36	ACHILLEA X 'MOONSHINE' MOONSHINE YARROW	1 C
	CP2	38	COREOPSIS PALMATA STIFF TICKSEED	1 C
	HEL WAU	38	HELENIUM AUTUMNALE SALUD YELLOW SNEEZEWEED	1 C
	RG2	36	RUDBECKIA FULGIDA SULLIVANTII 'GOLDSTURM' GOLDSTURM CONEFLOWER	1 C
	SS	38	SOLIDAGO SPECIOSA 'LITTLE LEMON' SHOWY GOLDENROD	1 C
	ZA	38	ZIZIA AUREA GOLDEN ALEXANDER	1 C



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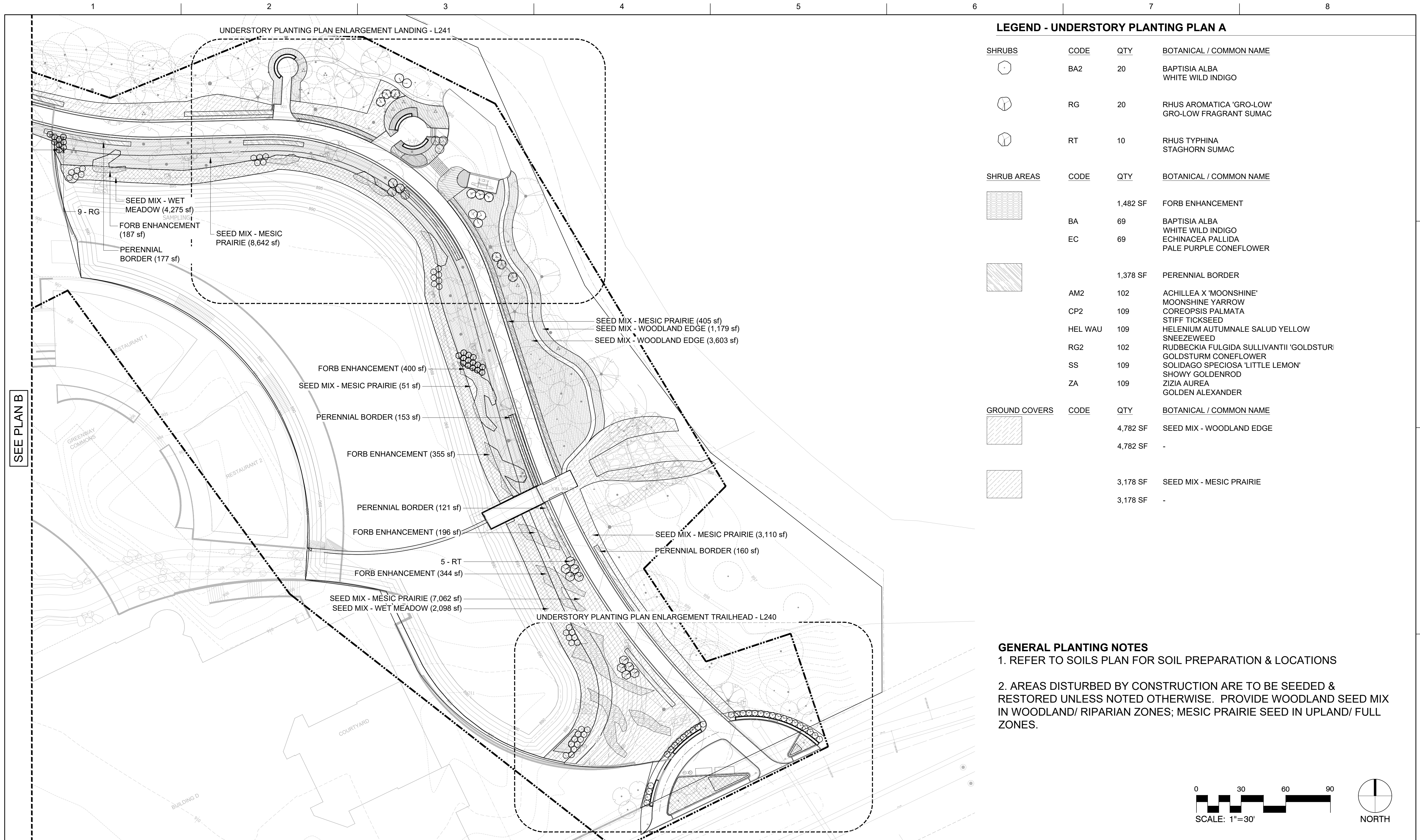
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TREE PLANTING PLAN B



SHEET
L141

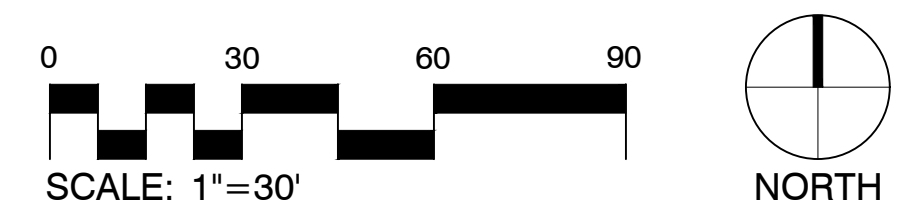


LEGEND - UNDERSTORY PLANTING PLAN A

SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME
	BA2	20	BAPTISIA ALBA WHITE WILD INDIGO
	RG	20	RHUS AROMATICA 'GRO-LOW' GRO-LOW FRAGRANT SUMAC
	RT	10	RHUS TYPHINA STAGHORN SUMAC
SHRUB AREAS	CODE	QTY	BOTANICAL / COMMON NAME
	BA	1,482 SF	FORB ENHANCEMENT
	EC	69	BAPTISIA ALBA WHITE WILD INDIGO ECHINACEA PALLIDA PALE PURPLE CONEFLOWER
	AM2	1,378 SF	PERENNIAL BORDER
	CP2	102	ACHILLEA X 'MOONSHINE' MOONSHINE YARROW COREOPSIS PALMATA STIFF TICKSEED
	HEL WAU	109	HELENIUM AUTUMNALE SALUD YELLOW SNEEZEWEED
	RG2	102	RUDBECKIA FULGIDA SULLIVANTII 'GOLDSTUR' GOLDSTURM CONEFLOWER
	SS	109	SOLIDAGO SPECIOSA 'LITTLE LEMON' SHOWY GOLDENROD
	ZA	109	ZIZIA AUREA GOLDEN ALEXANDER
GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME
		4,782 SF	SEED MIX - WOODLAND EDGE
		4,782 SF	-
		3,178 SF	SEED MIX - MESIC PRAIRIE
		3,178 SF	-

GENERAL PLANTING NOTES

- REFER TO SOILS PLAN FOR SOIL PREPARATION & LOCATIONS
- AREAS DISTURBED BY CONSTRUCTION ARE TO BE SEEDED & RESTORED UNLESS NOTED OTHERWISE. PROVIDE WOODLAND SEED MIX IN WOODLAND/ RIPARIAN ZONES; MESIC PRAIRIE SEED IN UPLAND/ FULL ZONES.



SEE PLAN B



PROJECT MANAGER ANDREW F. JUDD		
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THOMAS J WHITLOCK, PLA
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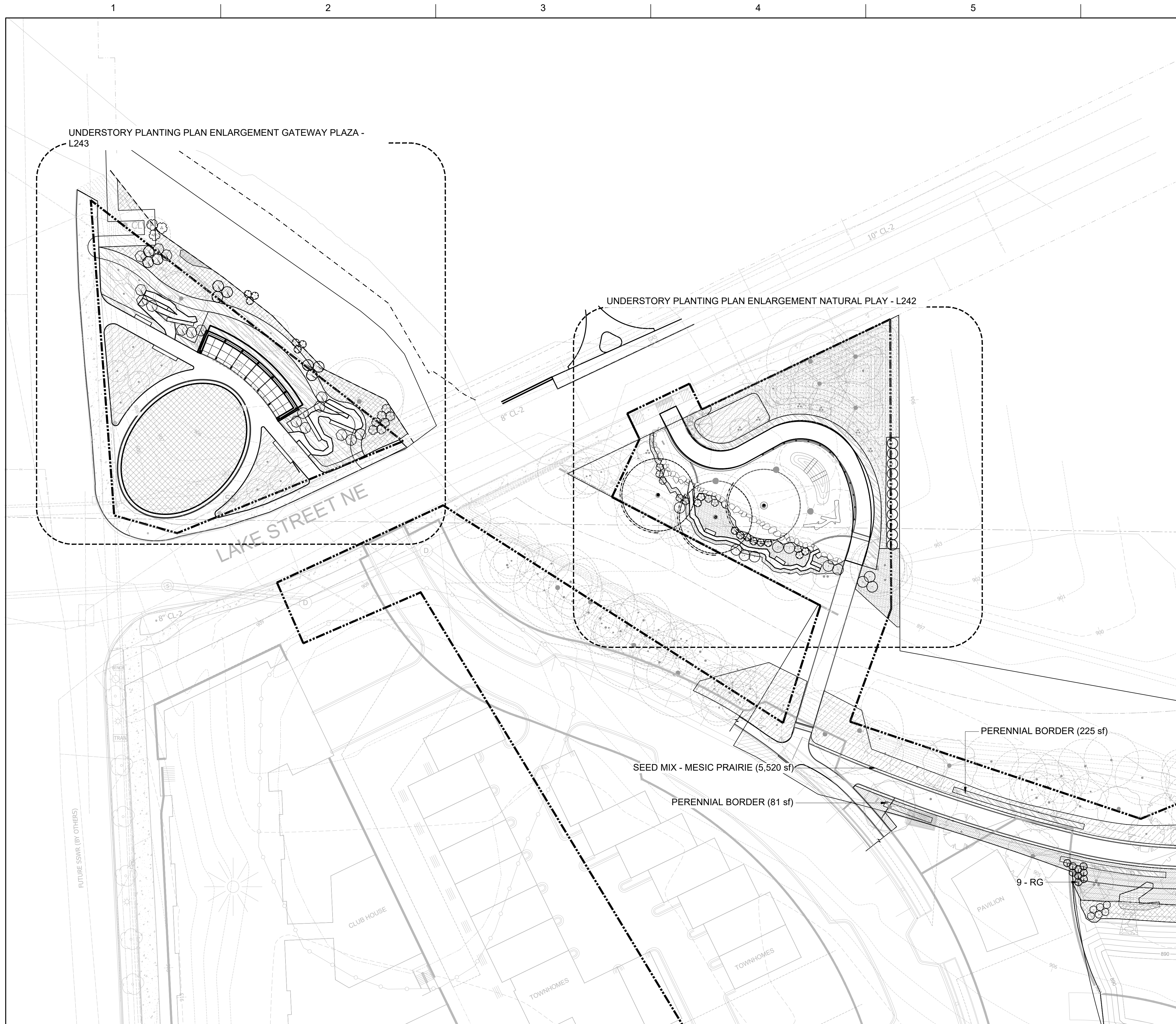
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

UNDERSTORY PLANTING PLAN A

FILENAME PLANTING PLAN A SHEET L150

SCALE 1"=30'



LEGEND - UNDERSTORY PLANTING PLAN B

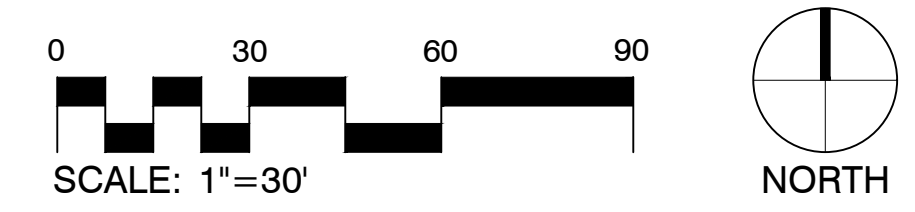
SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME
	BA2	20	BAPTISIA ALBA WHITE WILD INDIGO
	RG	20	RHUS AROMATICA 'GRO-LOW' GRO-LOW FRAGRANT SUMAC
	RT	10	RHUS TYPHINA STAGHORN SUMAC

SHRUB AREAS	CODE	QTY	BOTANICAL / COMMON NAME
		1,482 SF	FORB ENHANCEMENT
	BA	69	BAPTISIA ALBA WHITE WILD INDIGO
	EC	69	ECHINACEA PALLIDA PALE PURPLE CONEFLOWER
		1,378 SF	PERENNIAL BORDER
	AM2	102	ACHILLEA X 'MOONSHINE' MOONSHINE YARROW
	CP2	109	COREOPSIS PALMATA STIFF TICKSEED
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	SS	109	SOLIDAGO SPECIOSA 'LITTLE LEMON' SHOWY GOLDENROD
	ZA	109	ZIZIA AUREA GOLDEN ALEXANDER

GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME
		4,782 SF	SEED MIX - WOODLAND EDGE
		4,782 SF	-
		3,178 SF	SEED MIX - MESIC PRAIRIE
		3,178 SF	-

SEE PLAN A

GENERAL PLANTING NOTES
 1. REFER TO SOILS PLAN FOR SOIL PREPARATION & LOCATIONS
 2. AREAS DISTURBED BY CONSTRUCTION ARE TO BE SEEDED & RESTORED UNLESS NOTED OTHERWISE. PROVIDE WOODLAND SEED MIX IN WOODLAND/ RIPARIAN ZONES; MESIC PRAIRIE SEED IN UPLAND/ FULL ZONES.



PROJECT MANAGER ANDREW F. JUDD		
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THOMAS J WHITLOCK, PLA
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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

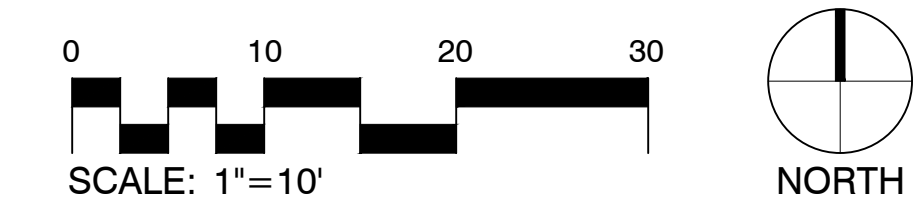
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

UNDERSTORY PLANTING PLAN B

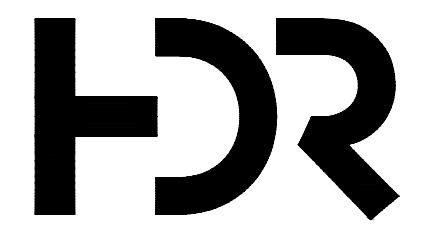
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FILENAME: _____

SHEET: **L151**



**MINNEHAHA CREEK
WATERSHED DISTRICT**



**DF/ DAMON FARBER
LANDSCAPE ARCHITECTS**
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p. 612.332.7522

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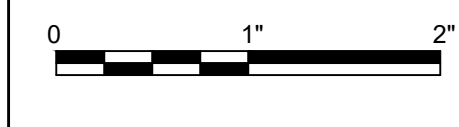
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THOMAS J WHITLOCK, PLA
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**325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY**

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**LAYOUT AND DIMENSIONS
ENLARGEMENT PLAN TRAILHEAD**



FILENAME
SCALE

SHEET
L200



PROJECT MANAGER ANDREW F. JUDD

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LAYOUT AND DIMENSIONS ENLARGEMENT PLAN LANDING

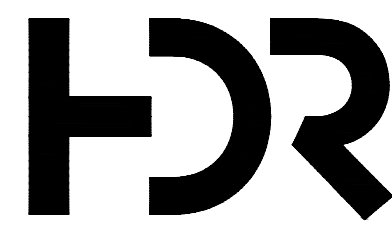


FILENAME
SCALE

SHEET
L201



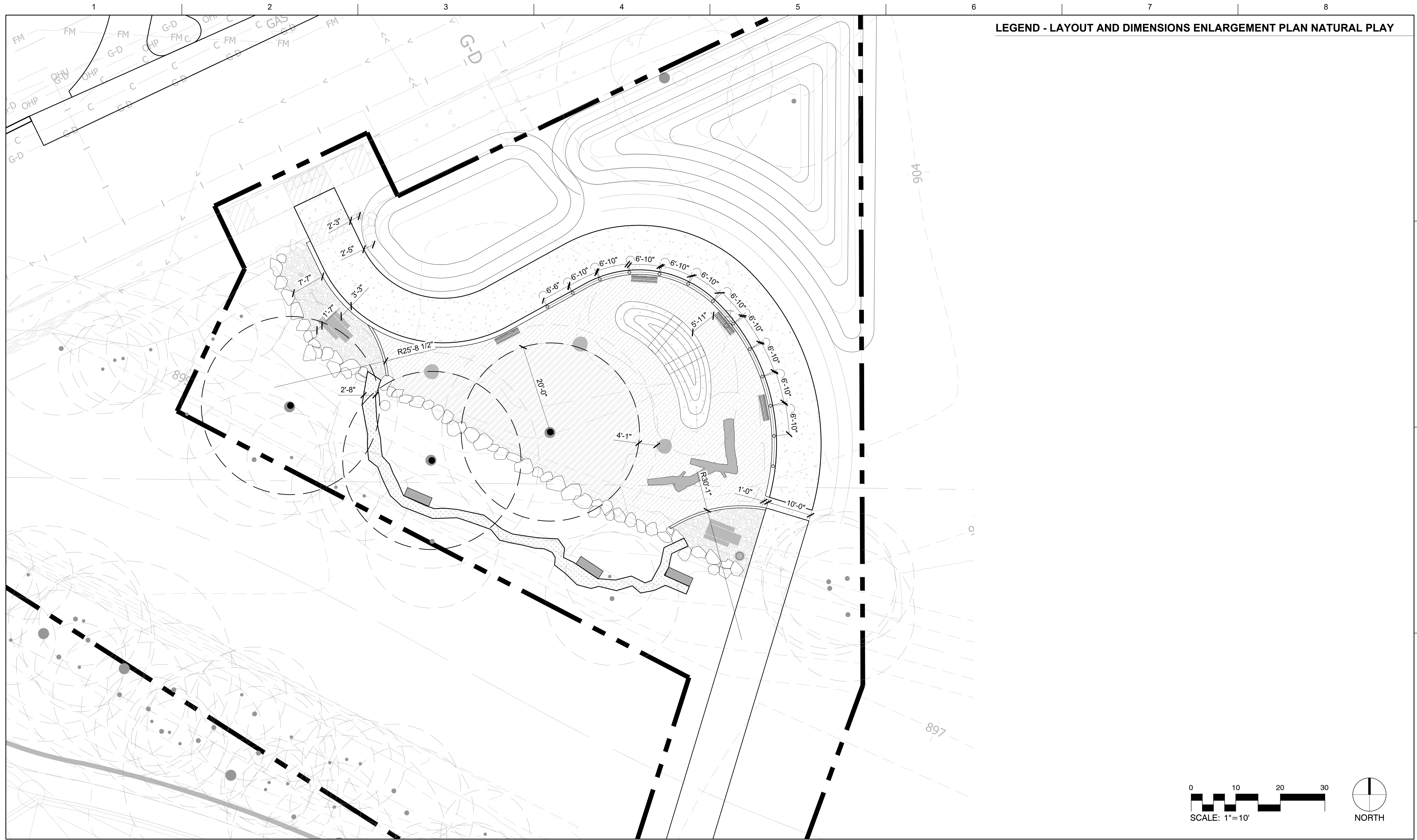
MINNEHAHA CREEK WATERSHED DISTRICT



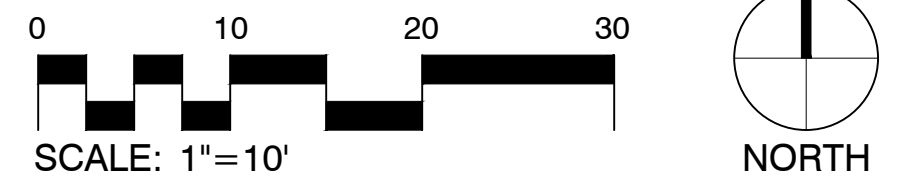
DF/ DAMON FARBER LANDSCAPE ARCHITECTS
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p. 612.332.7522

ISSUE	DATE	DESCRIPTION
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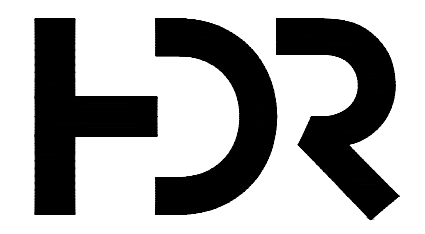
PROJECT NUMBER	10268112
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LEGEND - LAYOUT AND DIMENSIONS ENLARGEMENT PLAN NATURAL PLAY



MINNEHAHA CREEK
WATERSHED DISTRICT



DF/ DAMON FARBER
LANDSCAPE ARCHITECTS
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p. 612.332.7522

ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

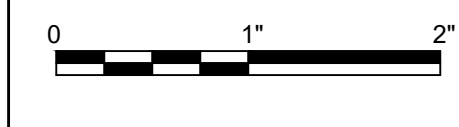
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

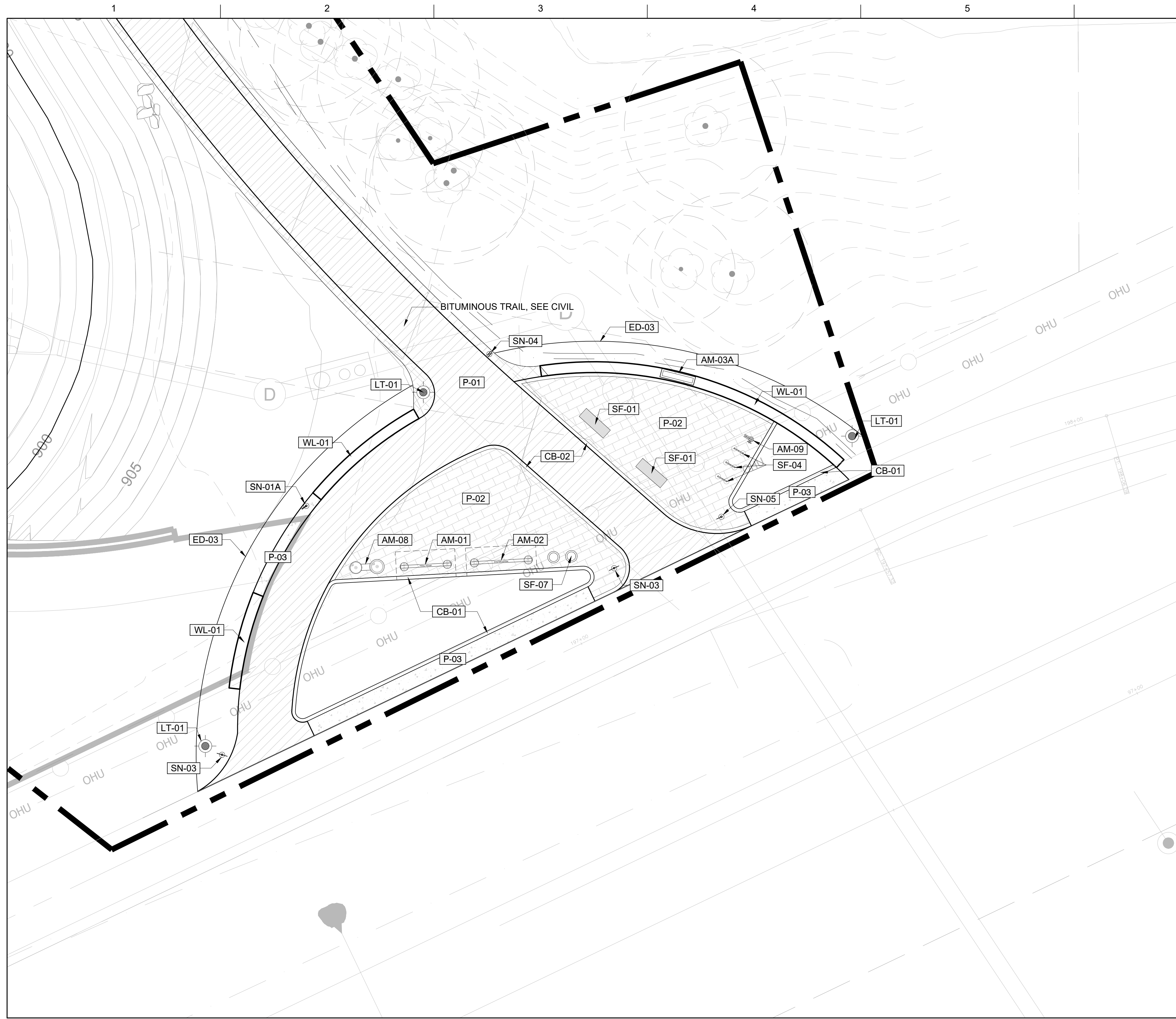
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LAYOUT AND DIMENSIONS ENLARGEMENT PLAN NATURAL PLAY



FILENAME
SCALE

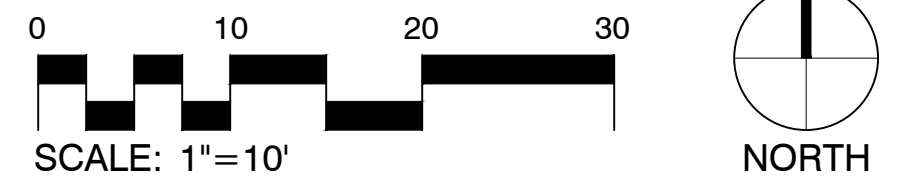
SHEET
L202



LEGEND - HARDSCAPE ENLARGEMENT PLAN TRAILHEAD

2022-09-14 12:56

CODE	AMENITY DESCRIPTION	QTY	DETAIL
AM-01	AMENITY TYPE 01 - TRAIL KIOSK	1	1/L580
AM-02	AMENITY TYPE 02 - SYSTEM KIOSK	1	1/L581
AM-03A	AMENITY TYPE 03A - INTERPRETIVE FEATURE	1	
AM-08	AMENITY TYPE 08 - DRINKING FOUNTAIN	1	2/L583
AM-09	AMENITY TYPE 09 - BIKE FIX-IT STATION	1	3/L583
CODE	CURB DESCRIPTION	QTY	DETAIL
CB-01	CURB TYPE 01 - CIP CONCRETE PLANTER CURB	176 LF	1/L520
CB-02	CURB TYPE 02 - CIP CONCRETE RIBBON CURB	185 LF	2/L520
CODE	EDGING DESCRIPTION	QTY	DETAIL
ED-01	EDGING TYPE 01 - STONE EDGING	35 LF	1/L530
ED-03	EDGING TYPE 03 - STEEL EDGING	162 LF	3/L530
CODE	LIGHTING DESCRIPTION	QTY	DETAIL
LT-01	LIGHT TYPE 01 - PEDESTRIAN SCALE POLE LIGHT	3	3/L572
CODE	SITE FURNITURE DESCRIPTION	QTY	DETAIL
SF-01	SITE FURNITURE TYPE 01 - LINEAR BENCH	2	1/L570
SF-04	SITE FURNITURE TYPE 04 - HOOP BIKE RACK	3	4/L570
SF-07	SITE FURNITURE TYPE 07 - WASTE RECEPTACLE	2	1/L572
CODE	SIGNAGE DESCRIPTION	QTY	DETAIL
SN-01A	SIGN TYPE 01A - DIRECTIONAL	1	1/L573
SN-03	SIGN TYPE 03 - STOP SIGN	2	
SN-04	SIGN TYPE 04 - SHARE THE TRAIL	1	2/L573
SN-05	SIGN TYPE 05 - THREE RIVERS DIRECTIONAL	1	
CODE	WALL DESCRIPTION	QTY	DETAIL
WL-01	WALL TYPE 01 - LIMESTONE SEATWALL @ TRAILHEAD	102 LF	1/L560
SYMBOL	PAVING DESCRIPTION	QTY	DETAIL
	PAVING TYPE 01 - BITUMINOUS PAVING	3,234 SF	
	PAVING TYPE 02 - PERMEABLE CONCRETE UNIT PAVERS	1,470 SF	1/L510
	PAVING TYPE 03 - CONCRETE PAVING	274 SF	2/L510
	PAVING TYPE 10 - AGGREGATE SHOULDER	598 SF	



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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

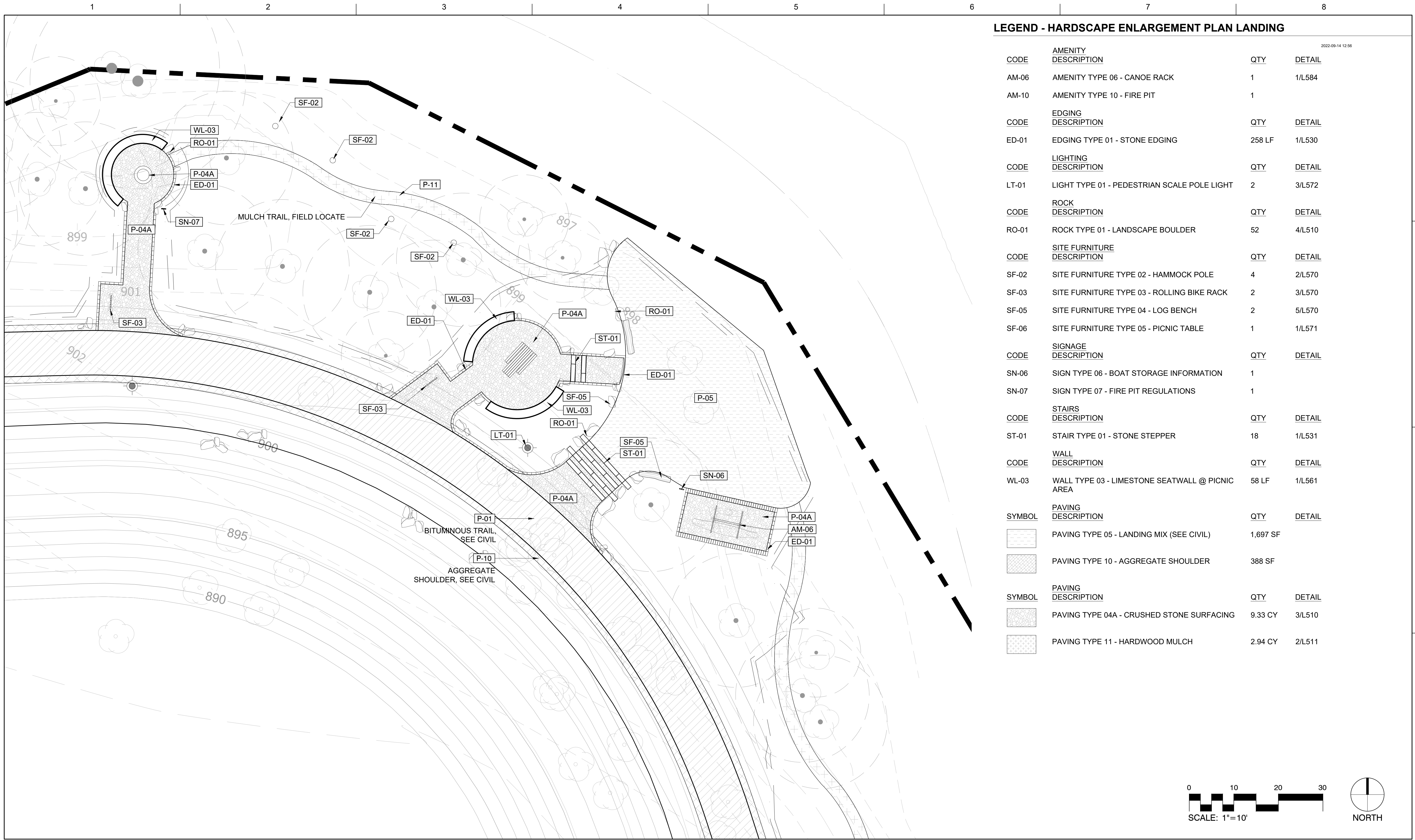
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

HARDSCAPE ENLARGEMENT PLAN TRAILHEAD

SCALE: 1"=10'

FILENAME
SCALE

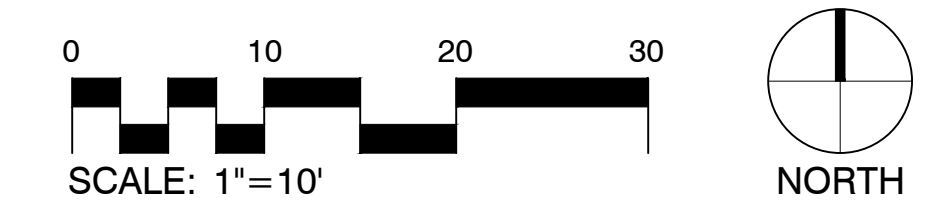
SHEET
L210



LEGEND - HARDSCAPE ENLARGEMENT PLAN LANDING

2022-09-14 12:56

CODE	AMENITY DESCRIPTION	QTY	DETAIL
AM-06	AMENITY TYPE 06 - CANOE RACK	1	1/L584
AM-10	AMENITY TYPE 10 - FIRE PIT	1	
CODE	EDGING DESCRIPTION	QTY	DETAIL
ED-01	EDGING TYPE 01 - STONE EDGING	258 LF	1/L530
CODE	LIGHTING DESCRIPTION	QTY	DETAIL
LT-01	LIGHT TYPE 01 - PEDESTRIAN SCALE POLE LIGHT	2	3/L572
CODE	ROCK DESCRIPTION	QTY	DETAIL
RO-01	ROCK TYPE 01 - LANDSCAPE BOULDER	52	4/L510
CODE	SITE FURNITURE DESCRIPTION	QTY	DETAIL
SF-02	SITE FURNITURE TYPE 02 - HAMMOCK POLE	4	2/L570
SF-03	SITE FURNITURE TYPE 03 - ROLLING BIKE RACK	2	3/L570
SF-05	SITE FURNITURE TYPE 04 - LOG BENCH	2	5/L570
SF-06	SITE FURNITURE TYPE 05 - PICNIC TABLE	1	1/L571
CODE	SIGNAGE DESCRIPTION	QTY	DETAIL
SN-06	SIGN TYPE 06 - BOAT STORAGE INFORMATION	1	
SN-07	SIGN TYPE 07 - FIRE PIT REGULATIONS	1	
CODE	STAIRS DESCRIPTION	QTY	DETAIL
ST-01	STAIR TYPE 01 - STONE STEPPER	18	1/L531
CODE	WALL DESCRIPTION	QTY	DETAIL
WL-03	WALL TYPE 03 - LIMESTONE SEATWALL @ PICNIC AREA	58 LF	1/L561
SYMBOL	PAVING DESCRIPTION	QTY	DETAIL
	PAVING TYPE 05 - LANDING MIX (SEE CIVIL)	1,697 SF	
	PAVING TYPE 10 - AGGREGATE SHOULDER	388 SF	
SYMBOL	PAVING DESCRIPTION	QTY	DETAIL
	PAVING TYPE 04A - CRUSHED STONE SURFACING	9.33 CY	3/L510
	PAVING TYPE 11 - HARDWOOD MULCH	2.94 CY	2/L511



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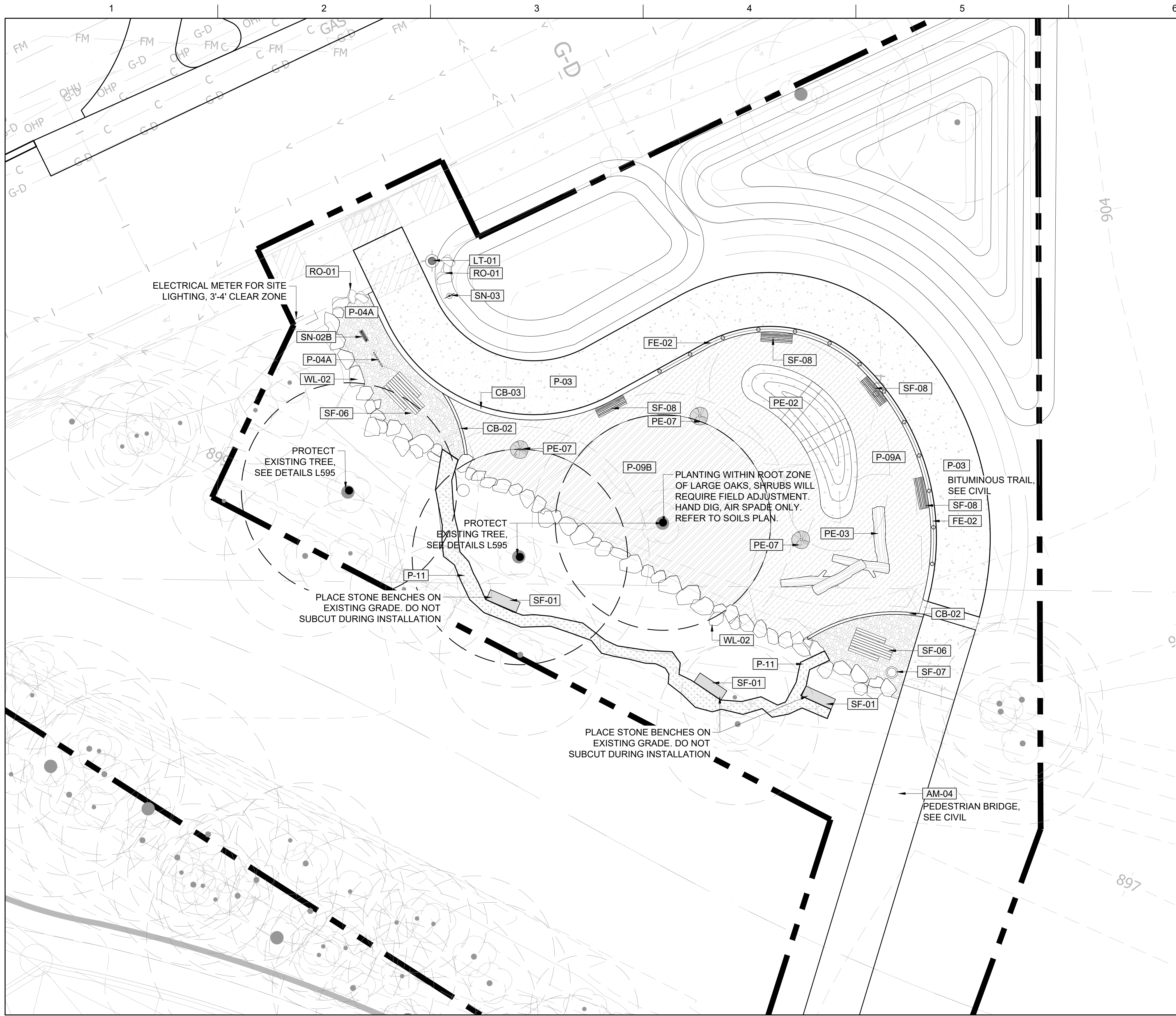
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

HARDSCAPE ENLARGEMENT PLAN LANDING



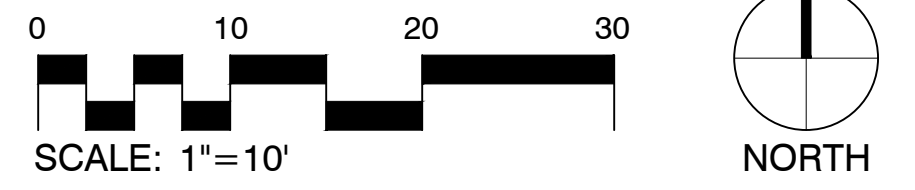
SHEET
L211



LEGEND - HARDSCAPE ENLARGEMENT PLAN NATURAL PLAY

2022-09-14 12:56

CODE	DESCRIPTION	QTY	DETAIL
CB-02	CURB TYPE 02 - CIP CONCRETE RIBBON CURB	35 LF	2/L520
CB-03	CURB TYPE 03 - CIP CONCRETE PLAY AREA CURB	157 LF	3/L520
FENCE & GUARDRAIL			
CODE	DESCRIPTION	QTY	DETAIL
FE-02	FENCE TYPE 02 - WOOD POST & ROPE FENCE	82 LF	1/L582
LIGHTING			
CODE	DESCRIPTION	QTY	DETAIL
LT-01	LIGHT TYPE 01 - PEDESTRIAN SCALE POLE LIGHT	1	3/L572
PLAY EQUIPMENT			
CODE	DESCRIPTION	QTY	DETAIL
PE-03	PLAY EQUIPMENT TYPE 03 - LOG STACK	1	1/L587
PE-07	PLAY EQUIPMENT TYPE 05 - PRECAST CONCRETE ACORN NUT	3	1/L582
ROCK			
CODE	DESCRIPTION	QTY	DETAIL
RO-01	ROCK TYPE 01 - LANDSCAPE BOULDER	6	4/L510
SITE FURNITURE			
CODE	DESCRIPTION	QTY	DETAIL
SF-01	SITE FURNITURE TYPE 01 - LINEAR BENCH	3	1/L570
SF-03	SITE FURNITURE TYPE 03 - ROLLING BIKE RACK	1	3/L570
SF-06	SITE FURNITURE TYPE 05 - PICNIC TABLE	2	1/L571
SF-07	SITE FURNITURE TYPE 07 - WASTE RECEPTACLE	1	1/L572
SF-08	SITE FURNITURE TYPE 08 - BACKED BENCH	4	
SIGNAGE			
CODE	DESCRIPTION	QTY	DETAIL
SN-02B	SIGN TYPE 02B - DIRECTIONAL + INFORMATIONAL KIOSK	1	3/L573
SN-03	SIGN TYPE 03 - STOP SIGN	1	
WALL			
CODE	DESCRIPTION	QTY	DETAIL
WL-02	WALL TYPE 02 - LIMESTONE SEATWALL @ PLAY AREA	128 LF	2/L560
PAVING			
SYMBOL	DESCRIPTION	QTY	DETAIL
[Symbol]	PAVING TYPE 03 - CONCRETE PAVING	1,830 SF	2/L510
[Symbol]	PAVING TYPE 09A - WOOD FIBER SURFACING (EWF)	1,695 SF	3/L511
[Symbol]	PAVING TYPE 09B - WOOD FIBER SURFACING	1,057 SF	
PLAY EQUIPMENT			
SYMBOL	DESCRIPTION	QTY	DETAIL
[Symbol]	PLAY EQUIPMENT TYPE 02 - PLAY MOUND	278 SF	
PAVING			
SYMBOL	DESCRIPTION	QTY	DETAIL
[Symbol]	PAVING TYPE 04A - CRUSHED STONE SURFACING	5.5 CY	3/L510
[Symbol]	PAVING TYPE 11 - HARDWOOD MULCH	2.52 CY	2/L511



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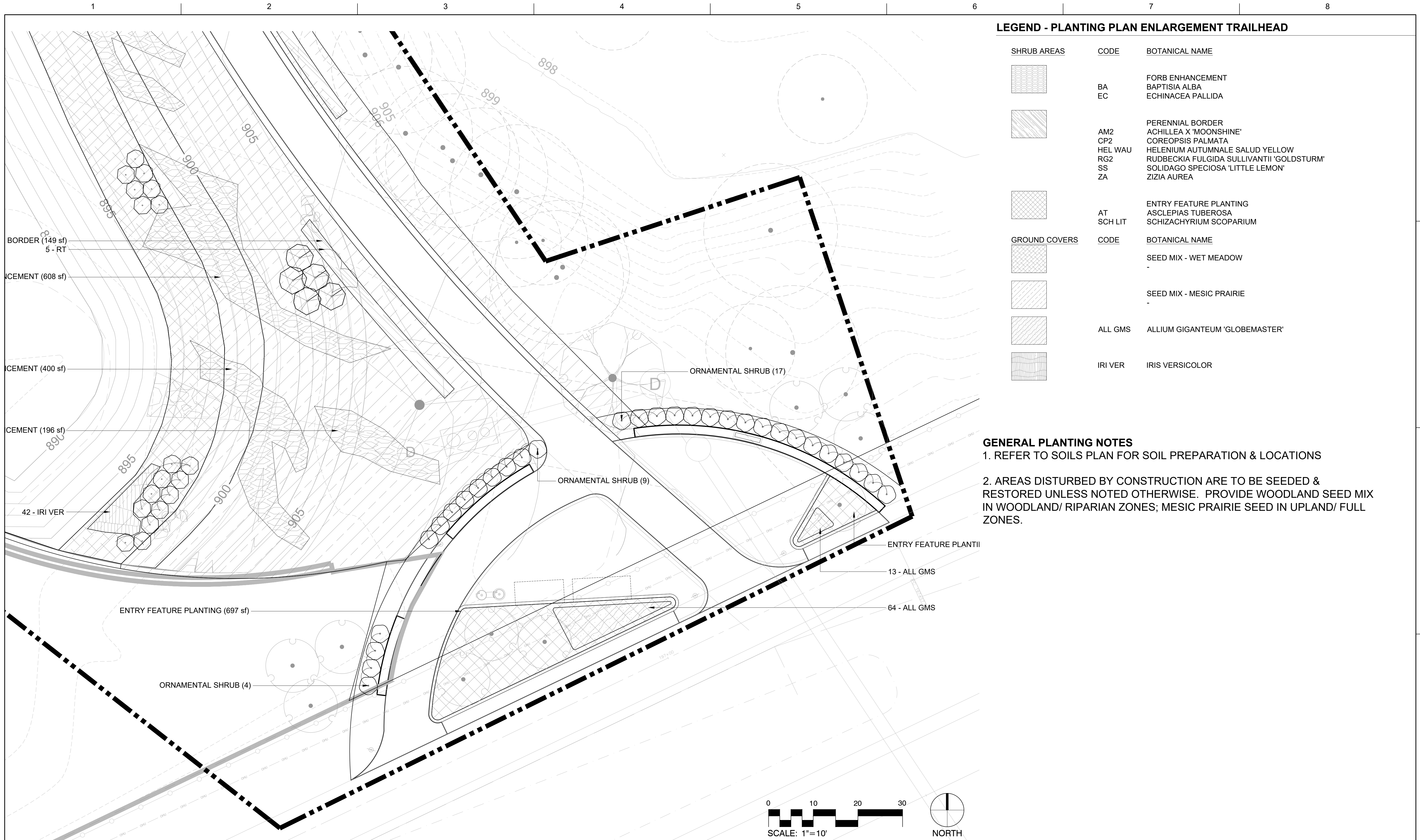
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

HARDSCAPE ENLARGEMENT PLAN NATURAL PLAY

FILENAME	
SCALE	

SHEET
L212

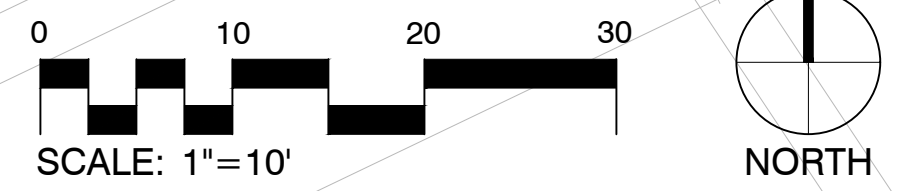


LEGEND - PLANTING PLAN ENLARGEMENT TRAILHEAD

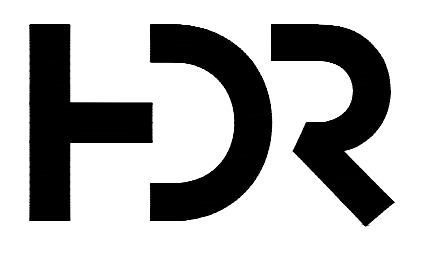
SHRUB AREAS	CODE	BOTANICAL NAME
[Hatched pattern]	BA EC	FORB ENHANCEMENT BAPTISIA ALBA ECHINACEA PALLIDA
[Diagonal hatched pattern]	AM2 CP2 HEL WAU RG2 SS ZA	PERENNIAL BORDER ACHILLEA X 'MOONSHINE' COREOPSIS PALMATA HELENIUM AUTUMNALE SALUD YELLOW RUDBECKIA FULGIDA SULLIVANTII 'GOLDSTURM' SOLIDAGO SPECIOSA 'LITTLE LEMON' ZIZIA AUREA
[Cross-hatched pattern]	AT SCH LIT	ENTRY FEATURE PLANTING ASCLEPIAS TUBEROSA SCHIZACHYRIUM SCOPARIUM
GROUND COVERS	CODE	BOTANICAL NAME
[Diagonal hatched pattern]	-	SEED MIX - WET MEADOW
[Diagonal hatched pattern]	-	SEED MIX - MESIC PRAIRIE
[Diagonal hatched pattern]	ALL GMS	ALLIUM GIGANTEUM 'GLOBEMASTER'
[Wavy hatched pattern]	IRI VER	IRIS VERSICOLOR

GENERAL PLANTING NOTES

- REFER TO SOILS PLAN FOR SOIL PREPARATION & LOCATIONS
- AREAS DISTURBED BY CONSTRUCTION ARE TO BE SEEDED & RESTORED UNLESS NOTED OTHERWISE. PROVIDE WOODLAND SEED MIX IN WOODLAND/ RIPARIAN ZONES; MESIC PRAIRIE SEED IN UPLAND/ FULL ZONES.



**MINNEHAHA CREEK
WATERSHED DISTRICT**



**DF/ DAMON FARBER
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**325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY**

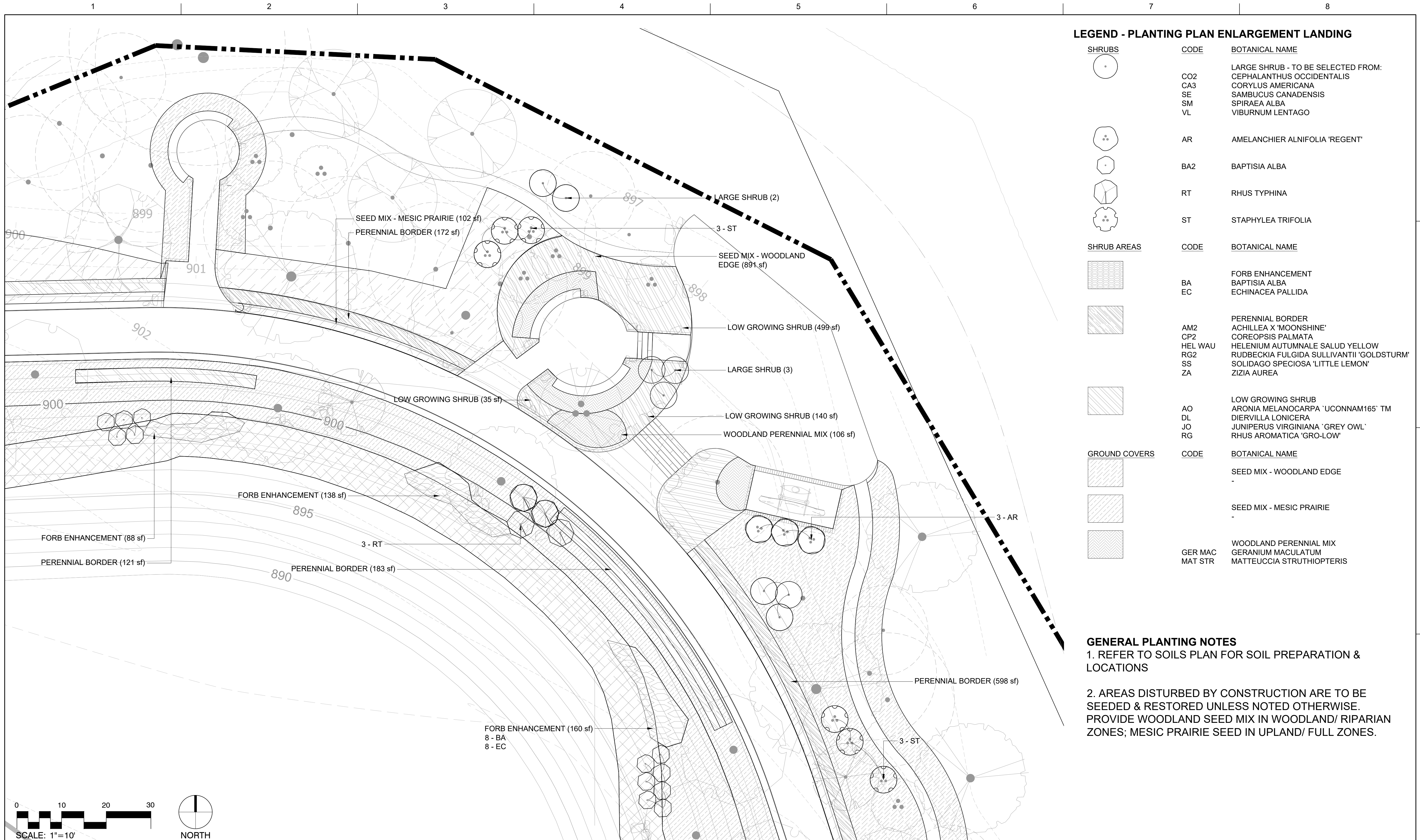
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**UNDERSTORY PLANTING PLAN
ENLARGEMENT TRAILHEAD**



FILENAME
SCALE

SHEET
L240



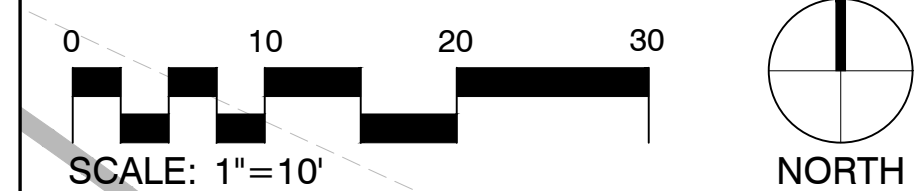
LEGEND - PLANTING PLAN ENLARGEMENT LANDING

SHRUBS	CODE	BOTANICAL NAME
(Circle with dot)	CO2	LARGE SHRUB - TO BE SELECTED FROM: CEPHALANTHUS OCCIDENTALIS
(Circle with dot)	CA3	CORYLUS AMERICANA
(Circle with dot)	SE	SAMBUCUS CANADENSIS
(Circle with dot)	SM	SPIRAEA ALBA
(Circle with dot)	VL	VIBURNUM LENTAGO
(Circle with 3 dots)	AR	AMELANCHIER ALNIFOLIA 'REGENT'
(Circle with 1 dot)	BA2	BAPTISIA ALBA
(Circle with 3 dots)	RT	RHUS TYPHINA
(Circle with 3 dots)	ST	STAPHYLEA TRIFOLIA

SHRUB AREAS	CODE	BOTANICAL NAME
(Wavy pattern)	BA	FORB ENHANCEMENT BAPTISIA ALBA
(Diagonal lines)	EC	FORB ENHANCEMENT ECHINACEA PALLIDA
(Diagonal lines)	AM2	PERENNIAL BORDER ACHILLEA X 'MOONSHINE'
(Diagonal lines)	CP2	PERENNIAL BORDER COREOPSIS PALMATA
(Diagonal lines)	HEL WAU	PERENNIAL BORDER HELENIUM AUTUMNALE SALUD YELLOW
(Diagonal lines)	RG2	PERENNIAL BORDER RUDBECKIA FULGIDA SULLIVANTII 'GOLDSTURM'
(Diagonal lines)	SS	PERENNIAL BORDER SOLIDAGO SPECIOSA 'LITTLE LEMON'
(Diagonal lines)	ZA	PERENNIAL BORDER ZIZIA AUREA
(Diagonal lines)	AO	LOW GROWING SHRUB ARONIA MELANOCARPA 'UCONNAM165' TM
(Diagonal lines)	DL	LOW GROWING SHRUB DIERVILLA LONICERA
(Diagonal lines)	JO	LOW GROWING SHRUB JUNIPERUS VIRGINIANA 'GREY OWL'
(Diagonal lines)	RG	LOW GROWING SHRUB RHUS AROMATICA 'GRO-LOW'

GROUND COVERS	CODE	BOTANICAL NAME
(Diagonal lines)	-	SEED MIX - WOODLAND EDGE
(Diagonal lines)	-	SEED MIX - MESIC PRAIRIE
(Diagonal lines)	GER MAC	WOODLAND PERENNIAL MIX GERANIUM MACULATUM
(Diagonal lines)	MAT STR	WOODLAND PERENNIAL MIX MATTEUCCIA STRUTHIOPTERIS

GENERAL PLANTING NOTES
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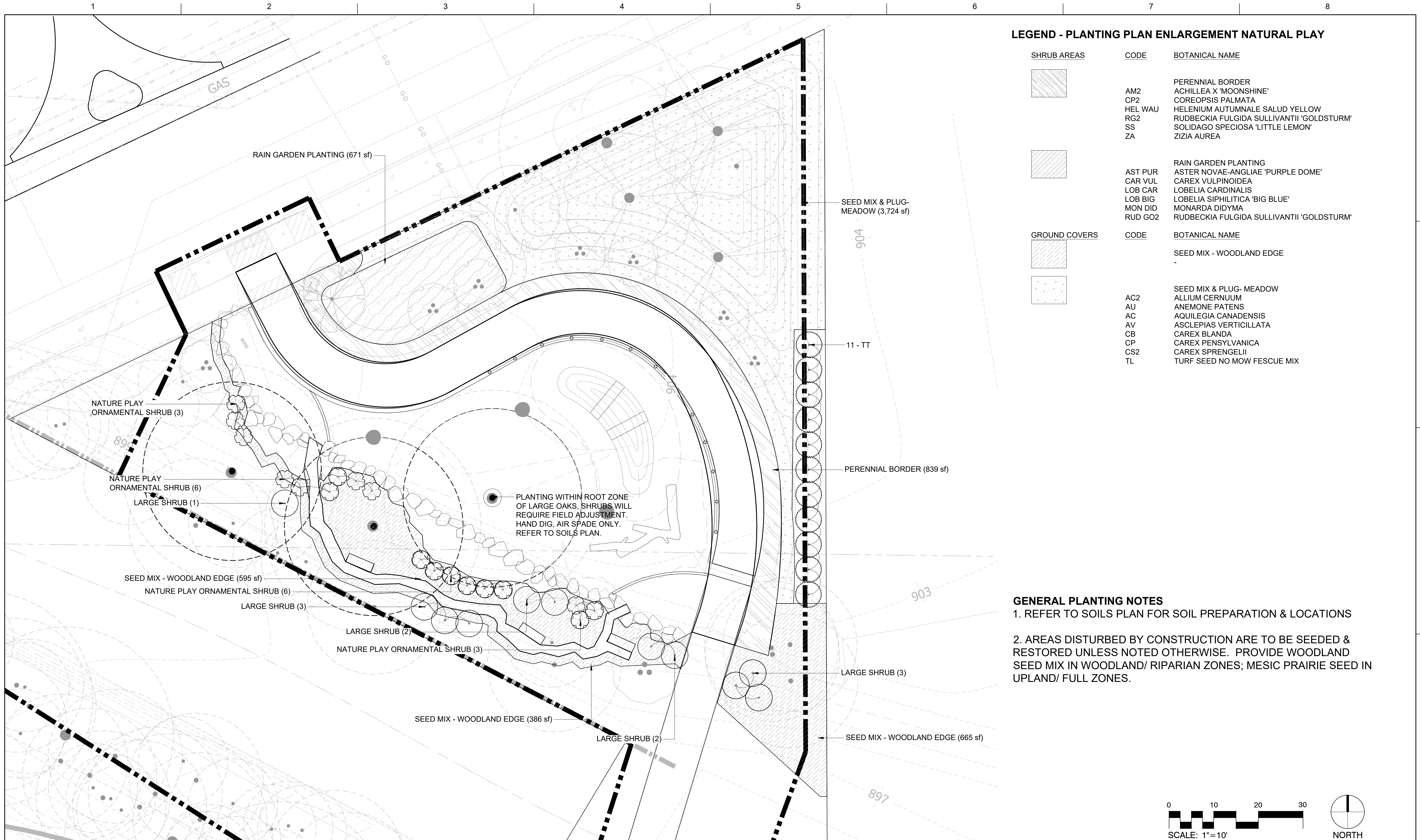
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

UNDERSTORY PLANTING PLAN ENLARGEMENT LANDING



SHEET
L241

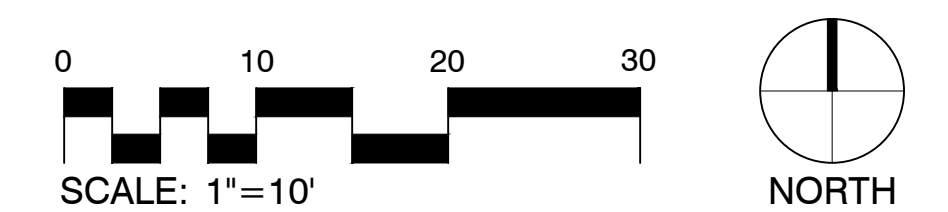


LEGEND - PLANTING PLAN ENLARGEMENT NATURAL PLAY

SHRUB AREAS	CODE	BOTANICAL NAME
[Hatched Pattern]	AM2	PERENNIAL BORDER
	CP2	ACHILLEA X 'MOONSHINE'
	HEL WAU	COREOPSIS PALMATA
	RG2	HELENIUM AUTUMNALE SALUD YELLOW
	SS	RUDBECKIA FULGIDA SULLIVANTII 'GOLDSTURM'
	ZA	SOLIDAGO SPECIOSA 'LITTLE LEMON'
[Diagonal Line Pattern]	AST PUR	RAIN GARDEN PLANTING
	CAR VUL	ASTER NOVAE-ANGLIAE 'PURPLE DOME'
	LOB CAR	CAREX VULPINOIDEA
	LOB BIG	LOBELIA CARDINALIS
	MON DID	LOBELIA SIPHILITICA 'BIG BLUE'
	RUD GO2	MONARDA DIDYMA
[Dotted Pattern]	SEED MIX - WOODLAND EDGE	RUDBECKIA FULGIDA SULLIVANTII 'GOLDSTURM'
GROUND COVERS	CODE	BOTANICAL NAME
[Hatched Pattern]		SEED MIX - WOODLAND EDGE
[Dotted Pattern]	AC2	SEED MIX & PLUG- MEADOW
	AU	ALLIUM CERNUUM
	AC	ANEMONE PATENS
	AV	AQUILEGIA CANADENSIS
	CB	ASCLEPIAS VERTICILLATA
	CP	CAREX BLANDA
	CS2	CAREX PENNSYLVANICA
	TL	CAREX SPRENGELII
		TURF SEED NO MOW FESCUE MIX

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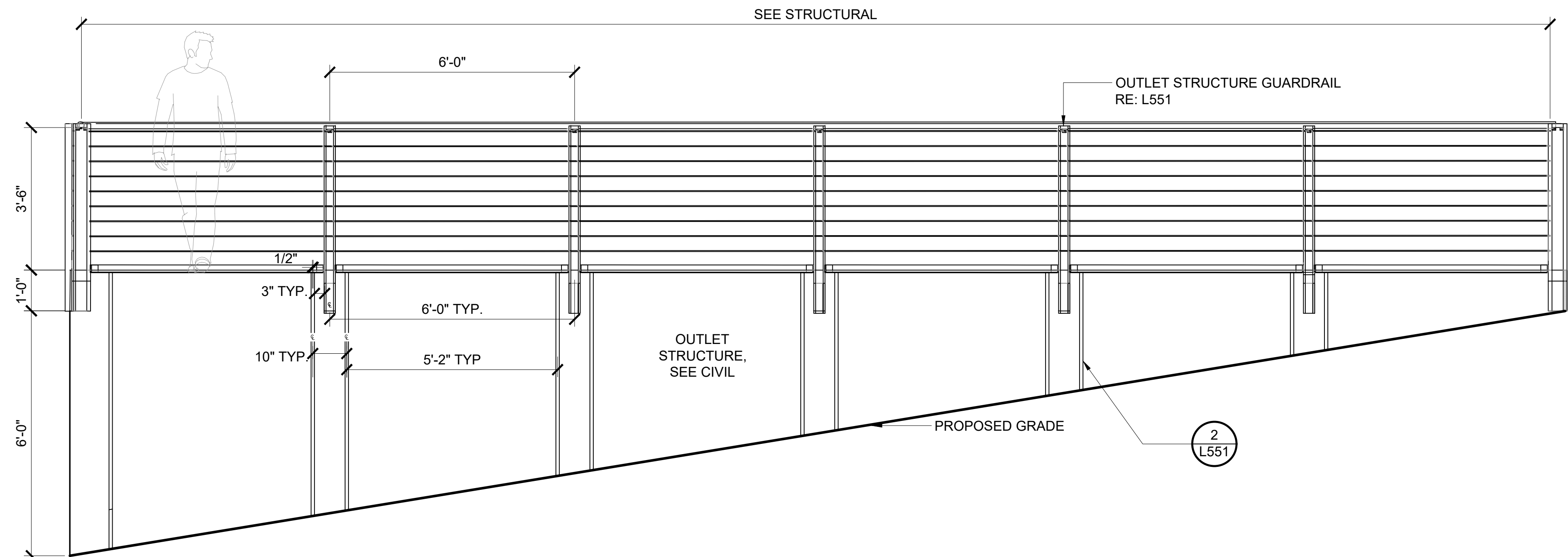
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

UNDERSTORY PLANTING PLAN ENLARGEMENT NATURAL PLAY



SHEET
L242

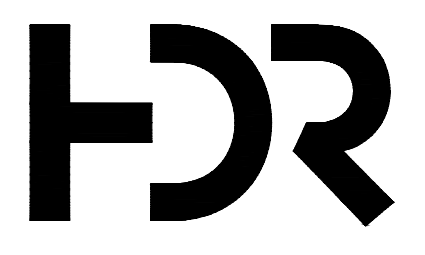


1 ELEVATION - OUTLET STRUCTURE
1/2" = 1'-0"

P-20.199-134



MINNEHAHA CREEK
WATERSHED DISTRICT



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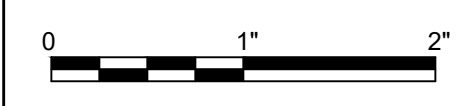
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325 BLAKE RD REGIONAL STORMWATER
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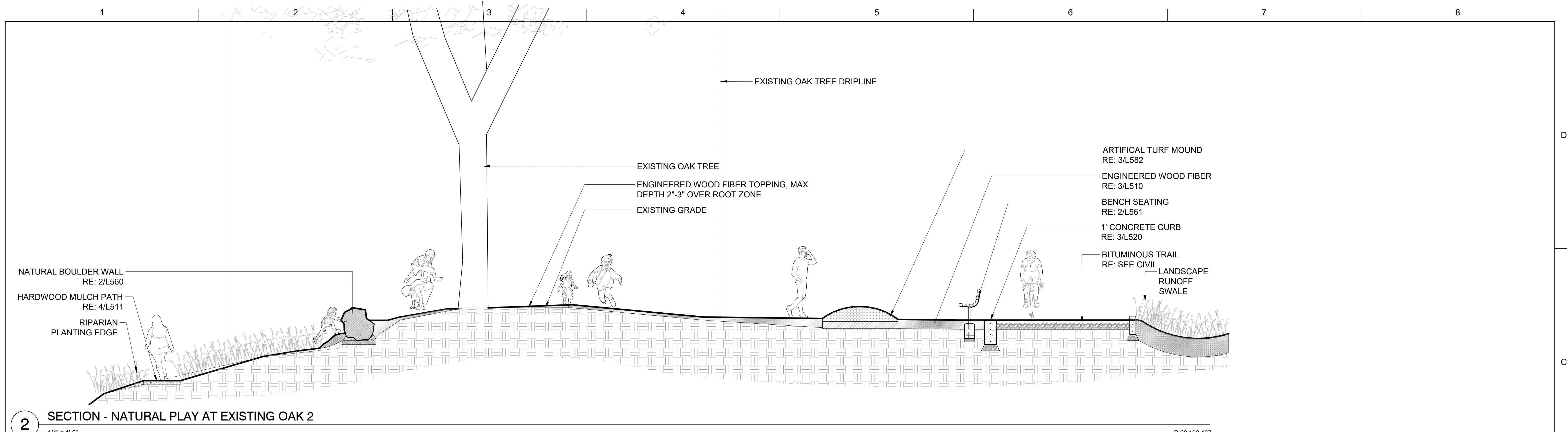
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SITE ELEVATION - OUTLET STRUCTURE



FILENAME
SCALE

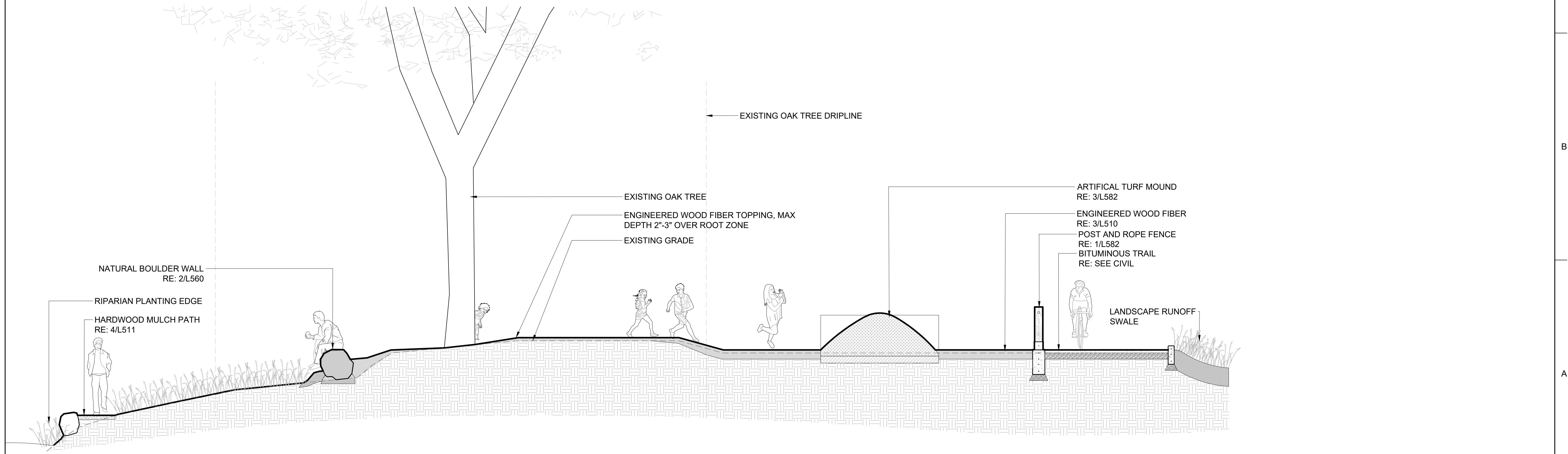
SHEET
L310



2 SECTION - NATURAL PLAY AT EXISTING OAK 2

1/4" = 1'-0"

P-20.199-137



1 SECTION - NATURAL PLAY AT EXISTING OAK

1/4" = 1'-0"

P-20.199-136



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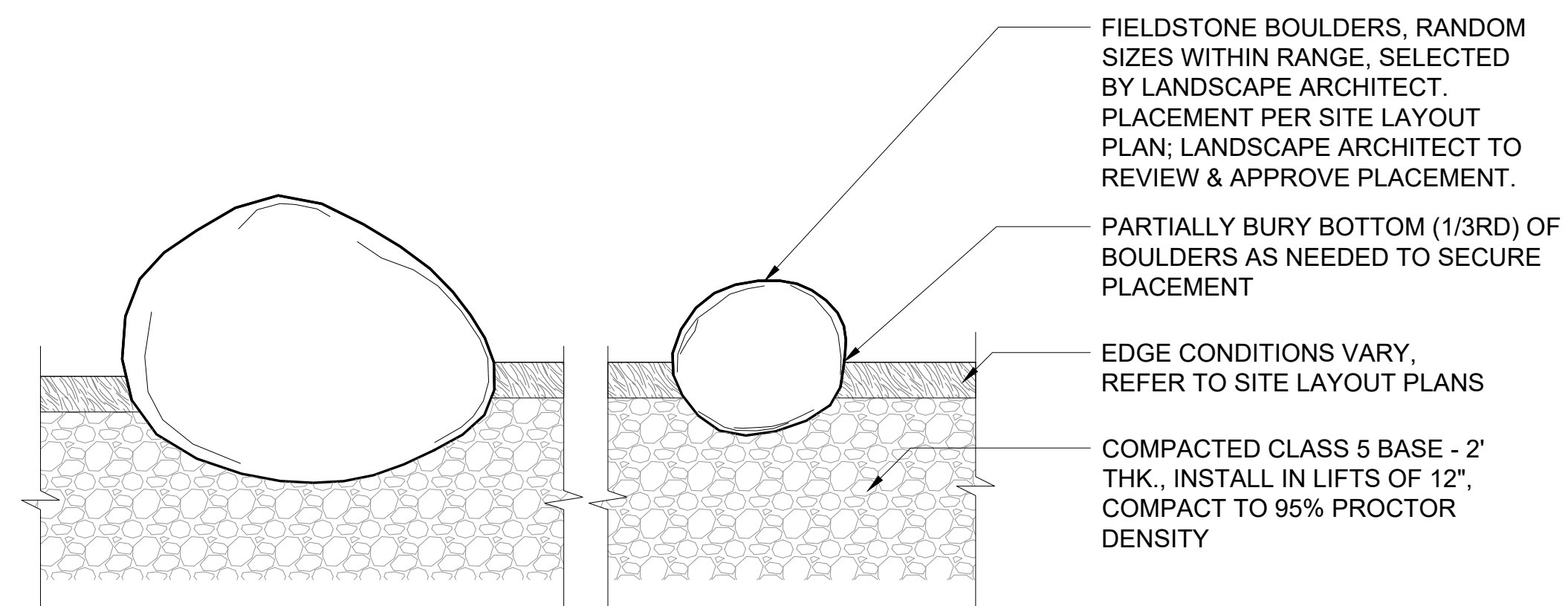
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

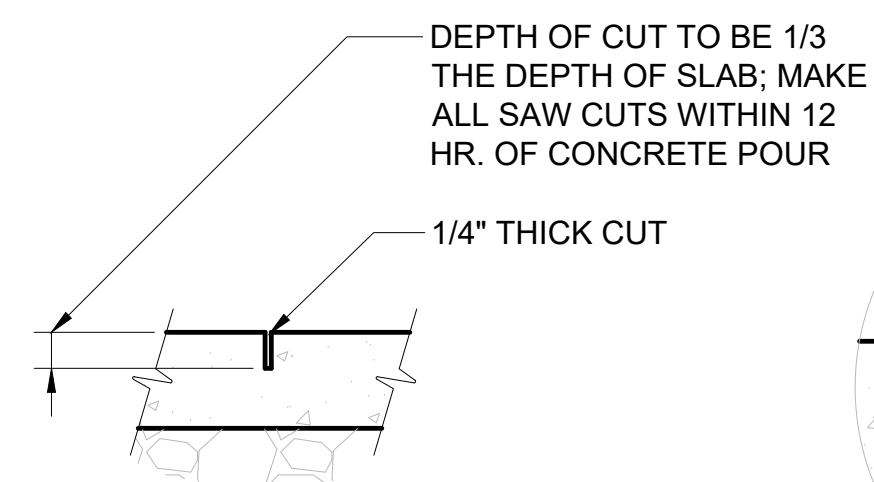
SITE SECTION - NATURAL PLAY @ EXISTING OAK TREE



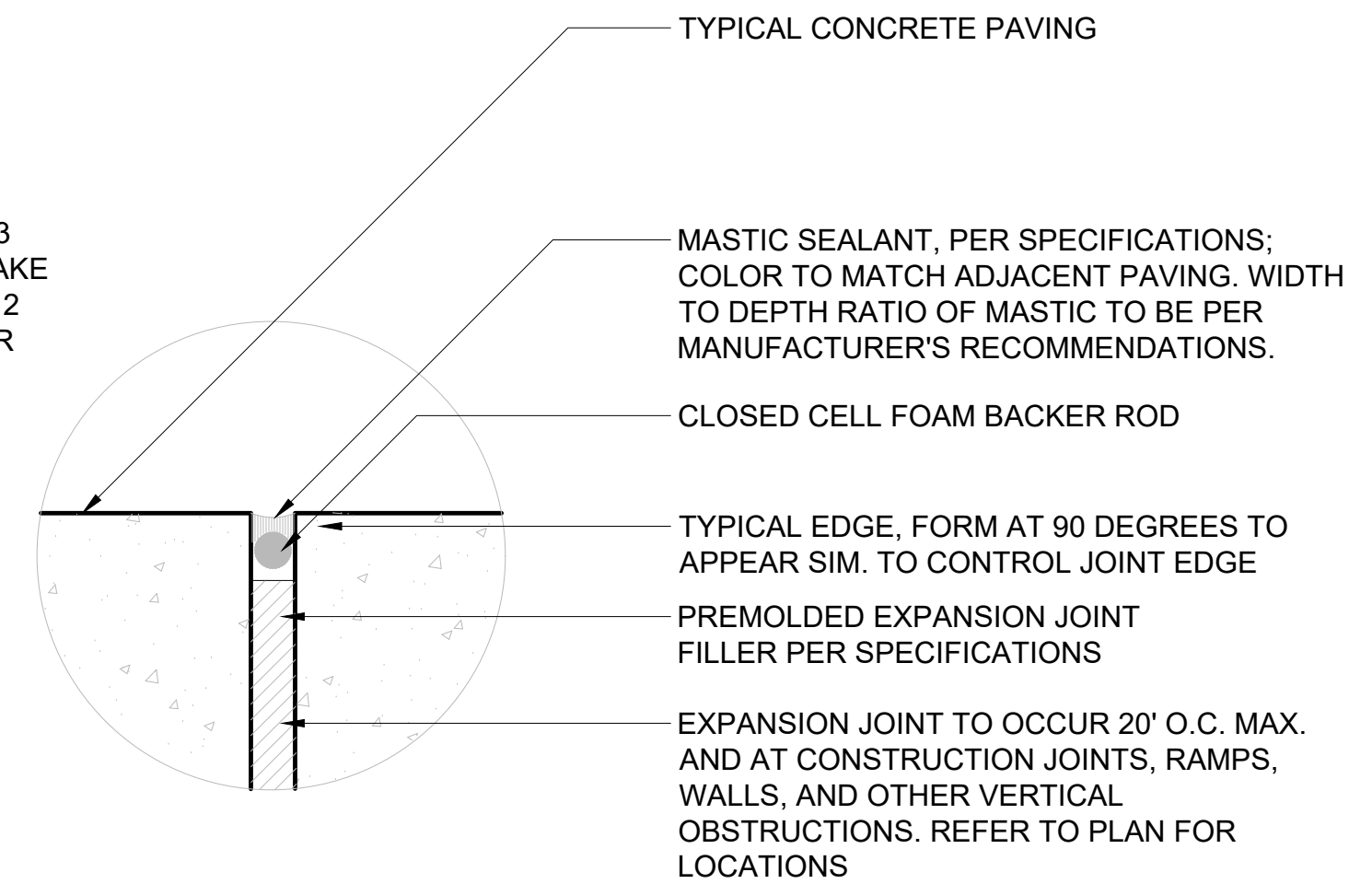
SHEET
L410



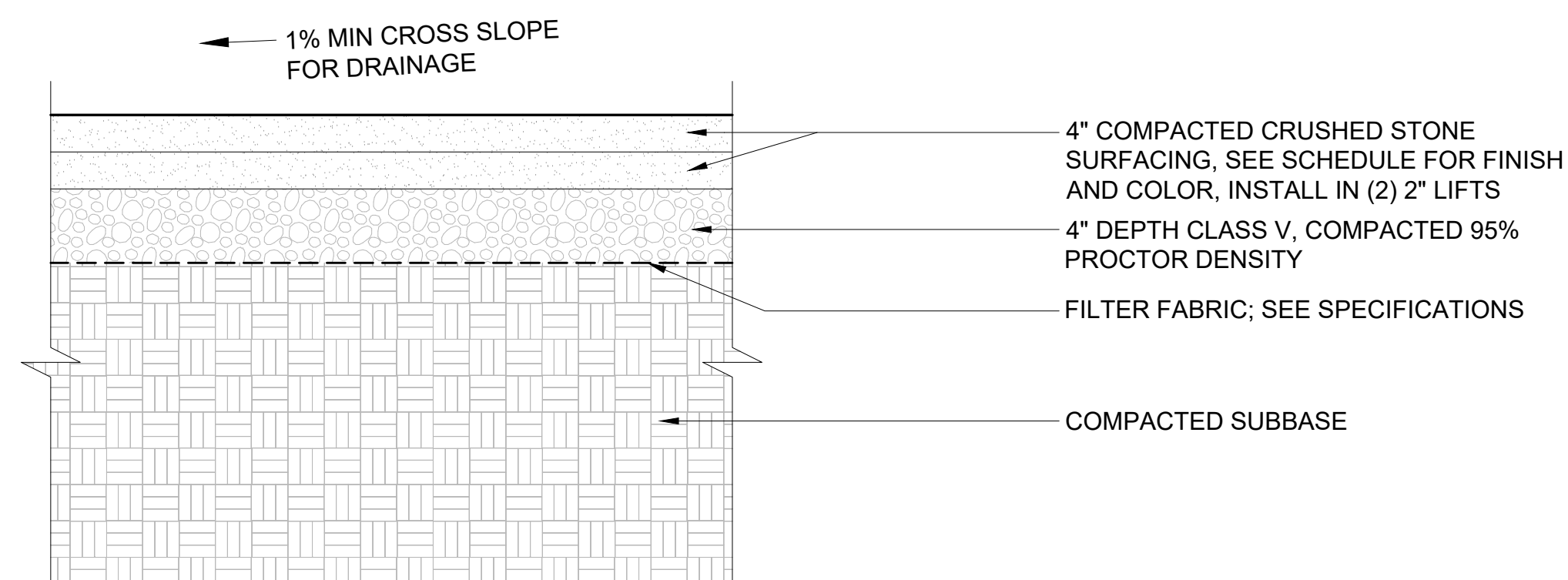
4 DETAIL - RO-01 LANDSCAPE BOULDER
NTS P-20.199-38



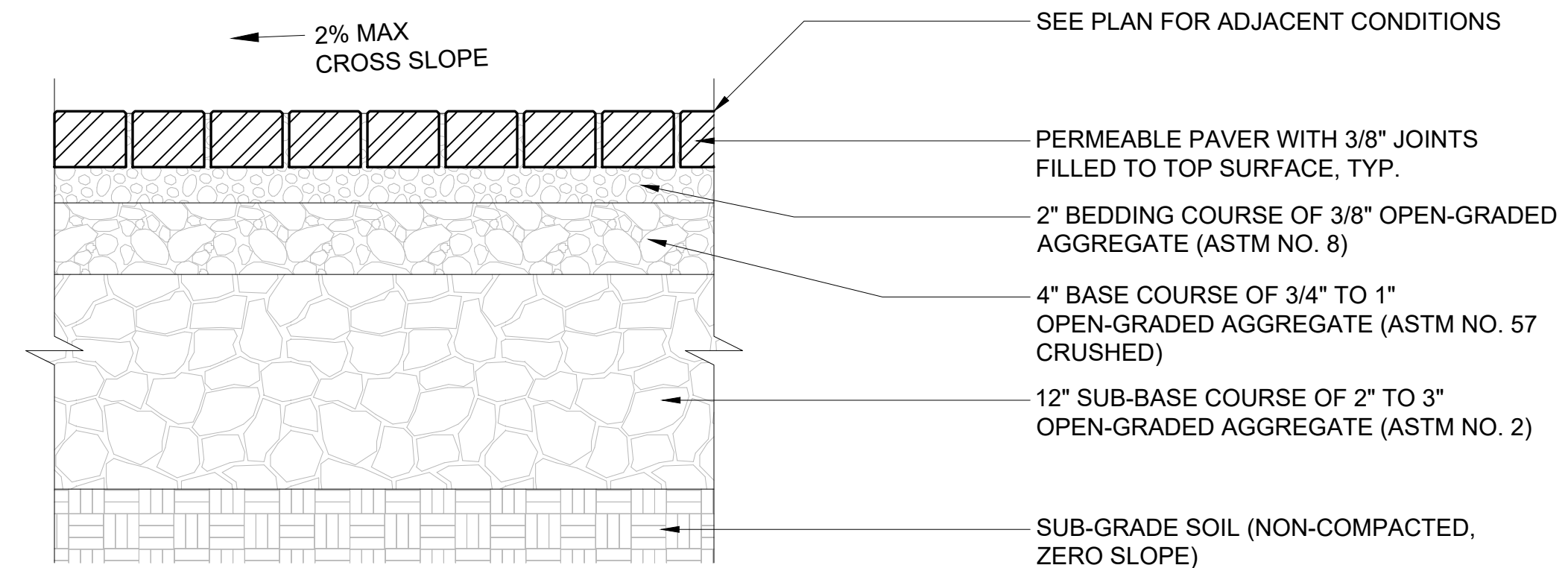
CONCRETE FINISH TO BE XXX
SEE CIVIL DETAILS FOR TYPICAL CONCRETE AND BASE MATERIAL PROFILES



2 DETAIL - P-03 CONCRETE PAVING TYPICAL JOINTING
NTS P-20.199-106



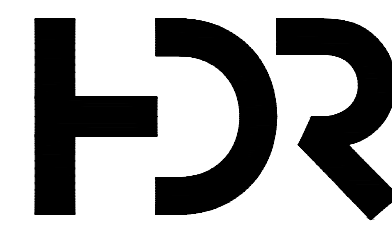
3 DETAIL - P-04 CRUSHED STONE SURFACING
1 1/2" = 1'-0" P-20.199-127



1 DETAIL - P-02 PERMEABLE CONCRETE UNIT PAVERS
1 1/2" = 1'-0" P-20.199-126



MINNEHAHA CREEK WATERSHED DISTRICT



401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p. 612.332.7522

ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
----------------	----------

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

THOMAS J. WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

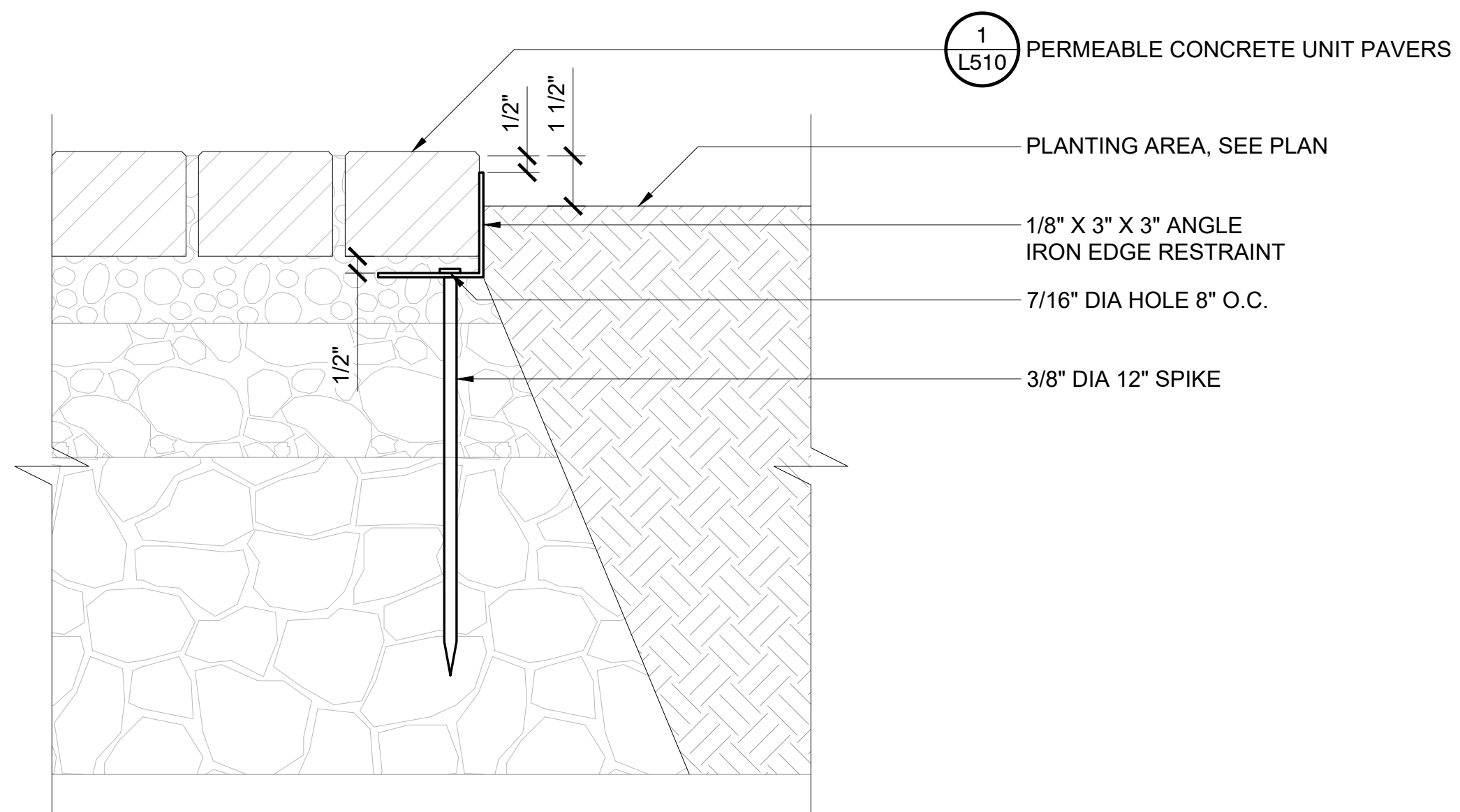
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - PAVING

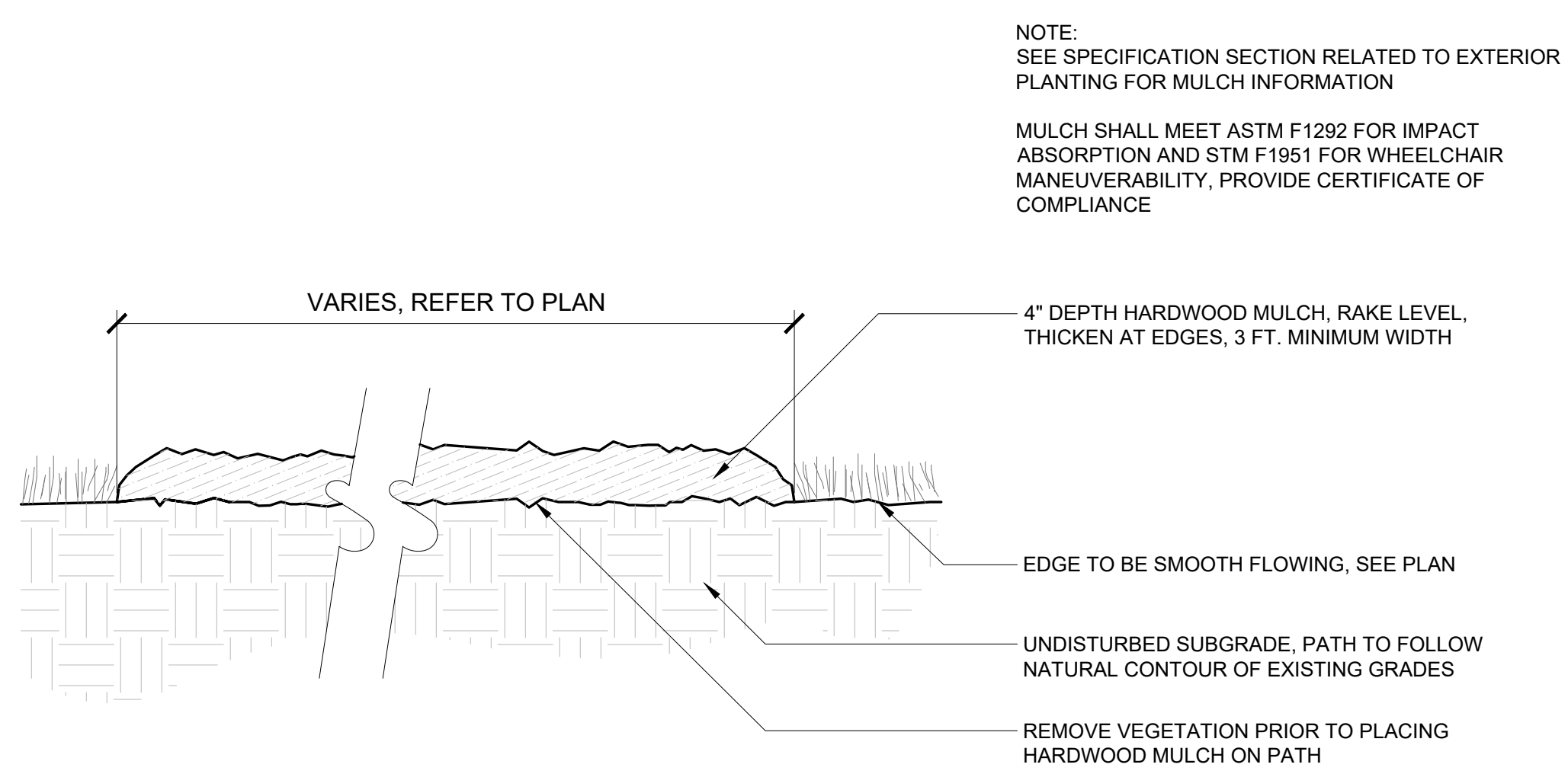


FILENAME
SCALE

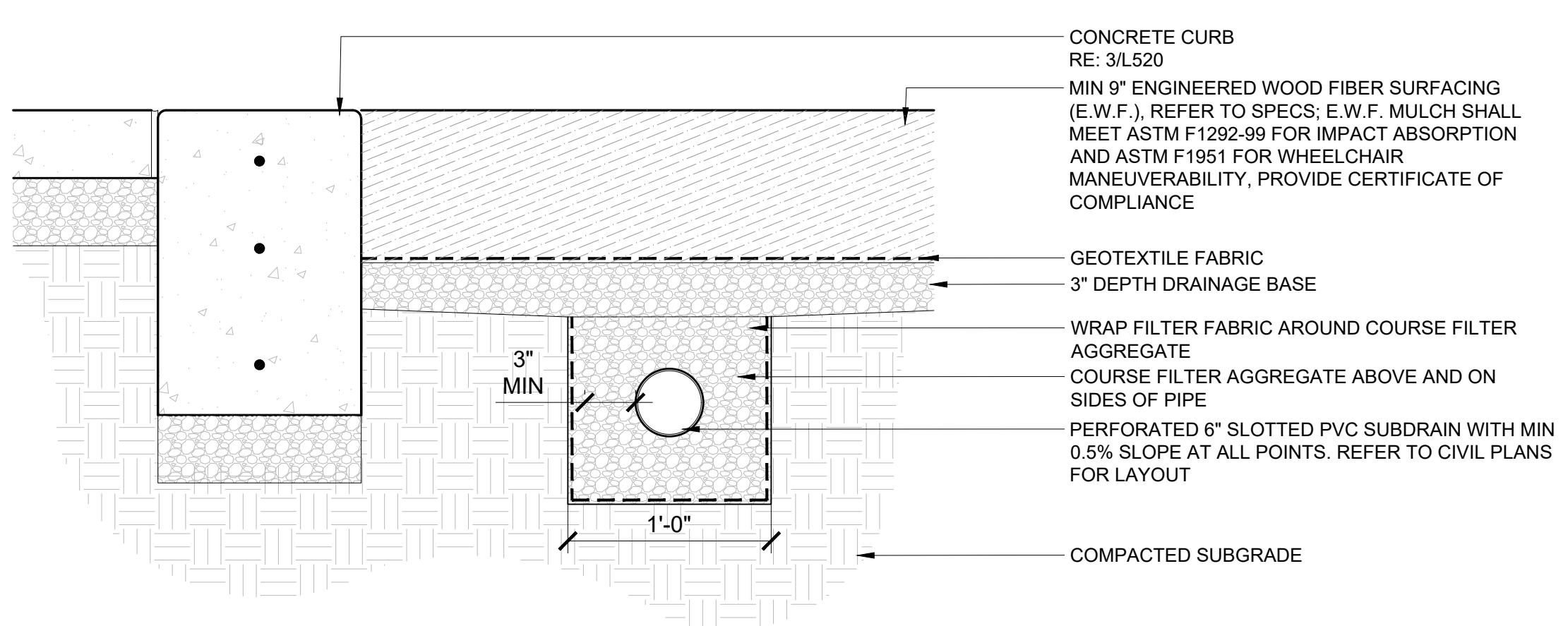
SHEET
L510



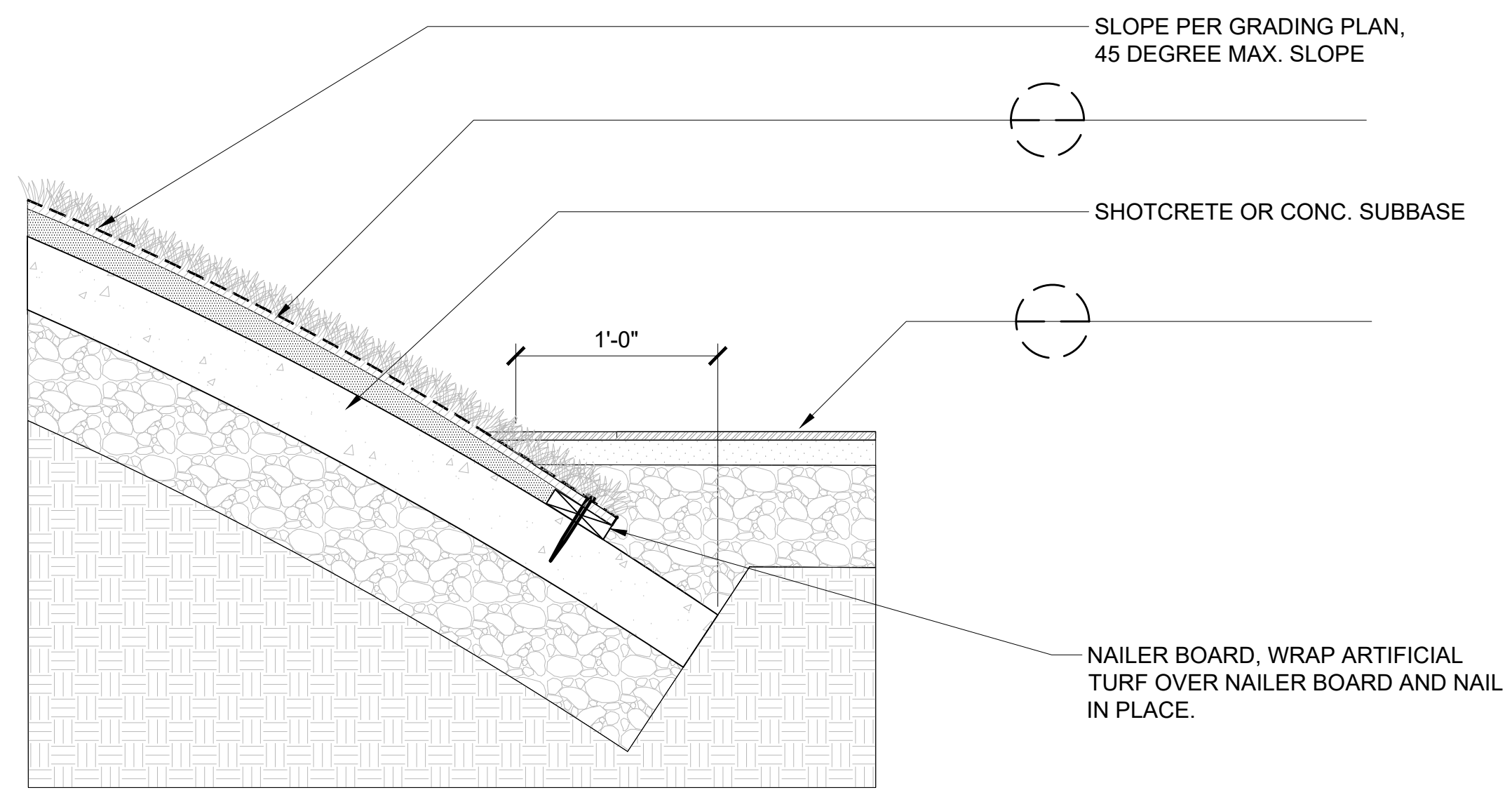
4 DETAIL - ED-02 PAVER RESTRAINT
3\"/>



2 DETAIL- HARDWOOD MULCH PATH
1 1/2\"/>



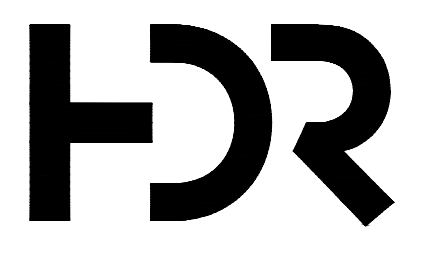
3 DETAIL- 4\"/>



1 TURF MOUND AT PIP RUBBER SURFACE
1 1/2\"/>



**MINNEHAHA CREEK
WATERSHED DISTRICT**



**DF/ DAMON FARBER
LANDSCAPE ARCHITECTS**
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p: 612.332.7522

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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

**325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY**

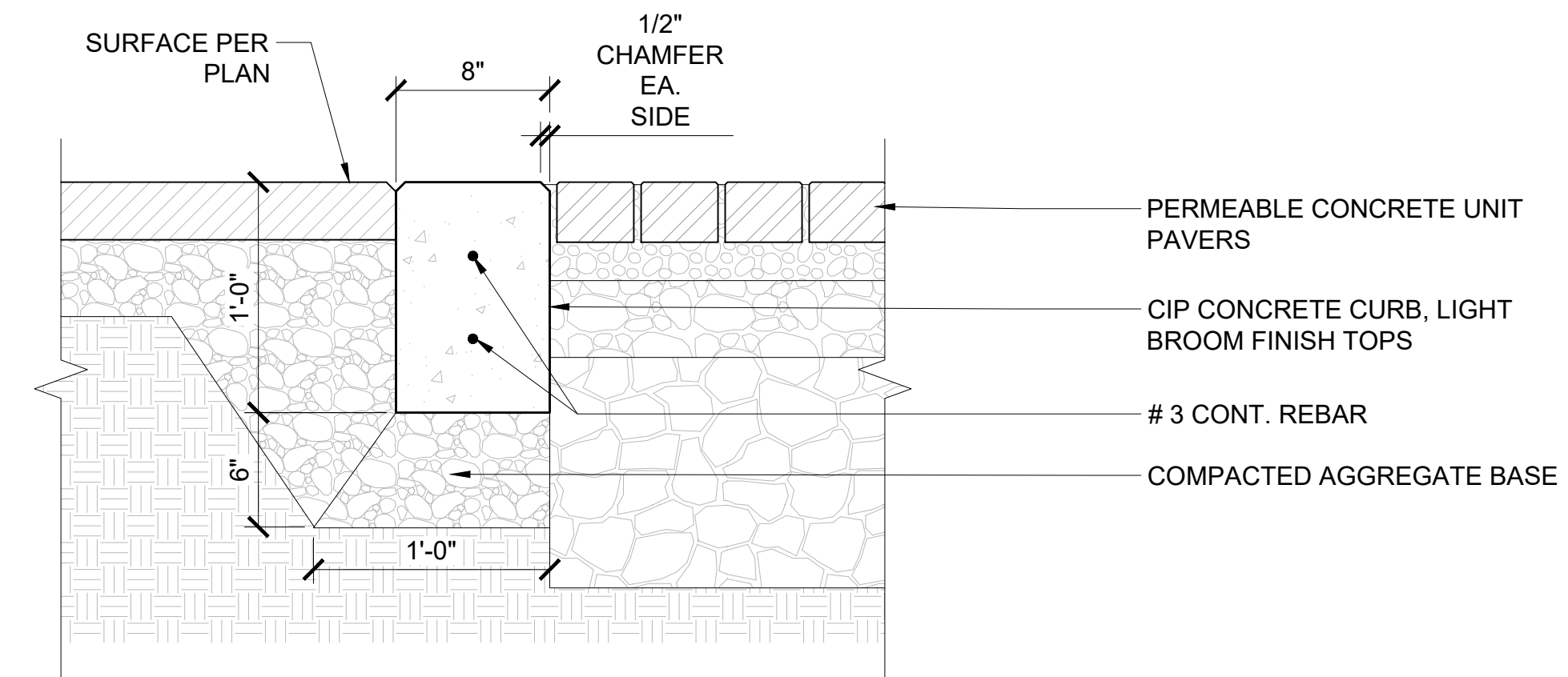
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - PAVING



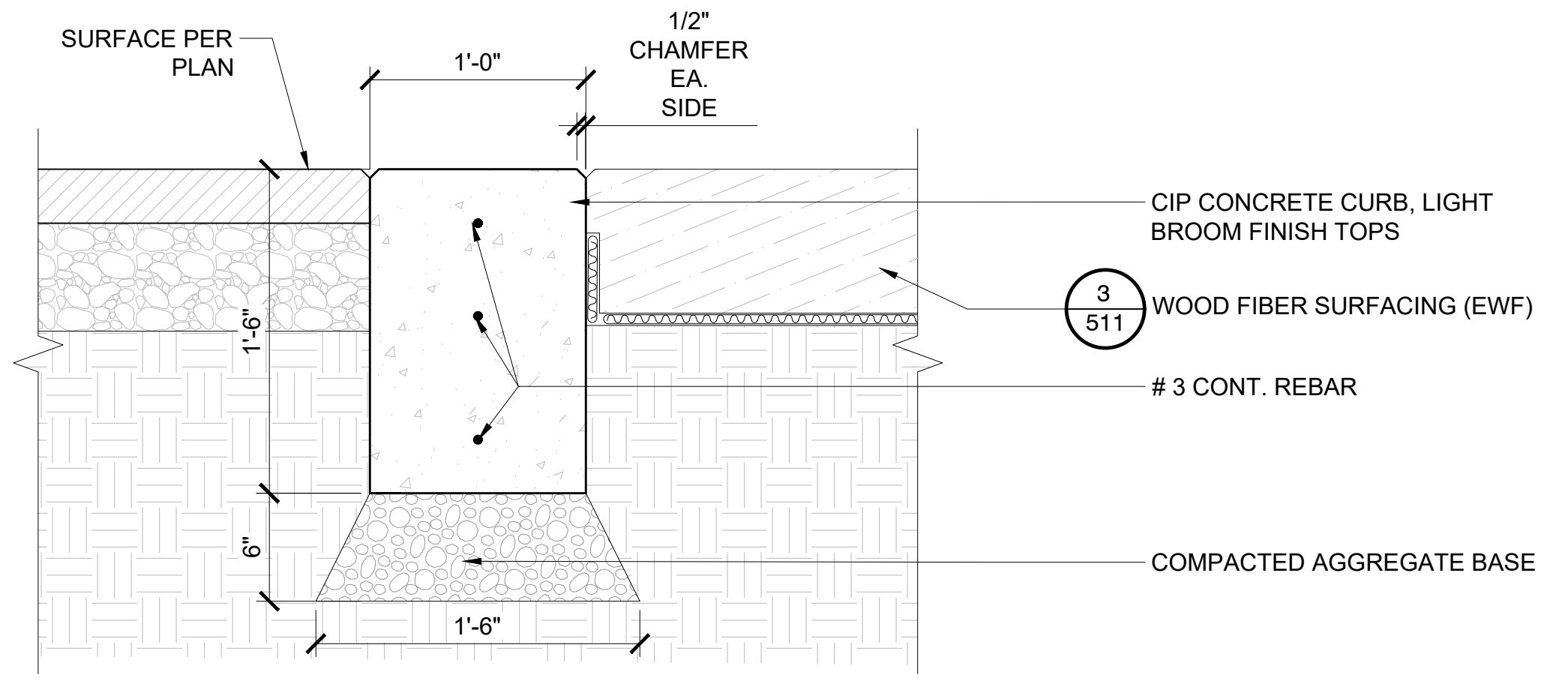
FILENAME
SCALE

SHEET
L511



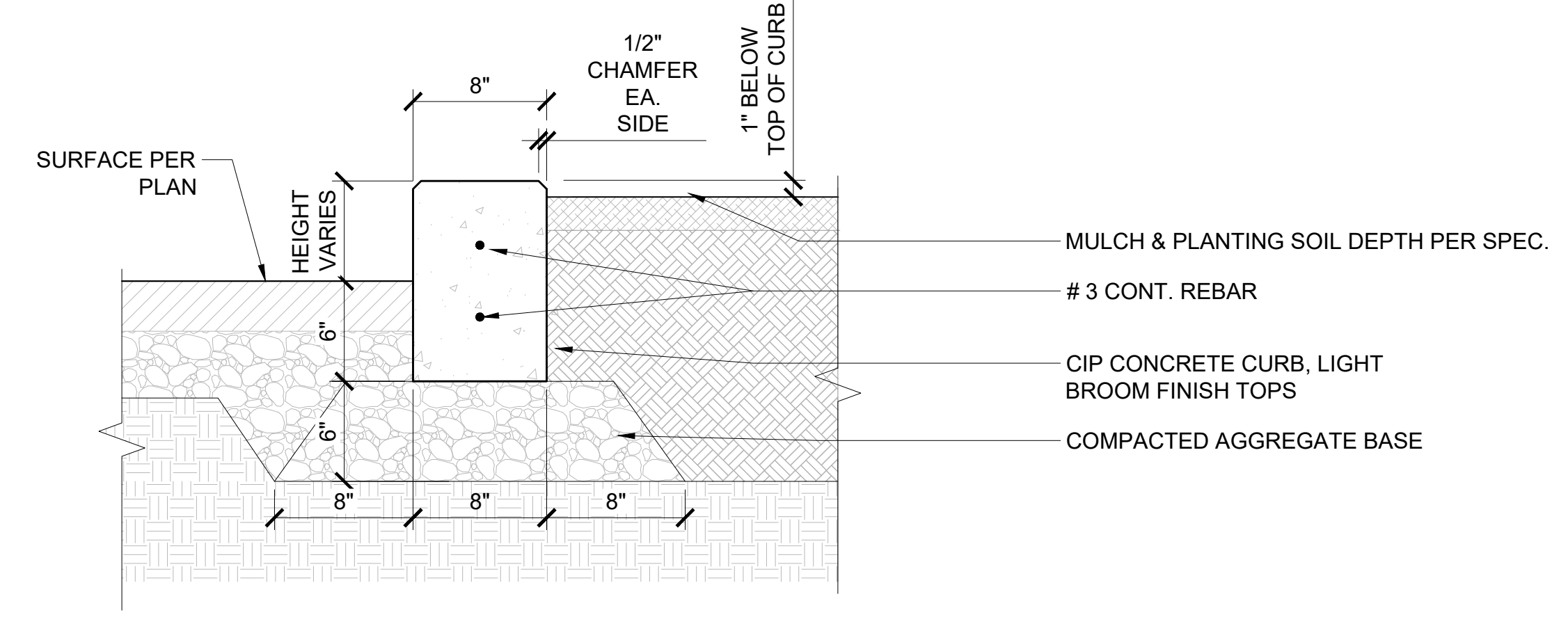
2 DETAIL - CB-02 CIP CONCRETE RIBBON CURB
1 1/2" = 1'-0"

P-20.199-111



3 DETAIL - CB-03 CIP CONCRETE PLAY AREA CURB
1 1/2" = 1'-0"

P-20.199-113

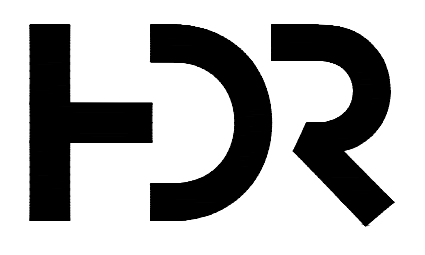


1 DETAIL - CB-01 CIP CONCRETE PLANTER CURB
1 1/2" = 1'-0"

P-20.199-110



MINNEHAHA CREEK
WATERSHED DISTRICT



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PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

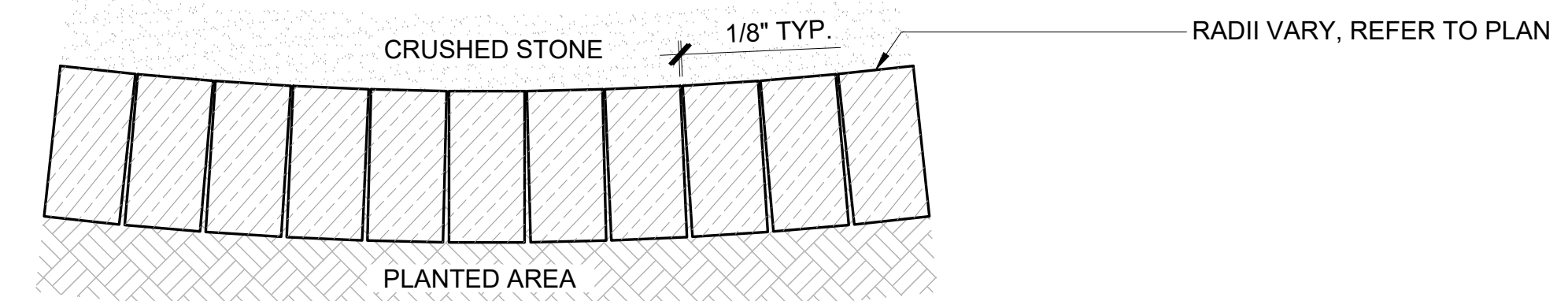
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - CURB

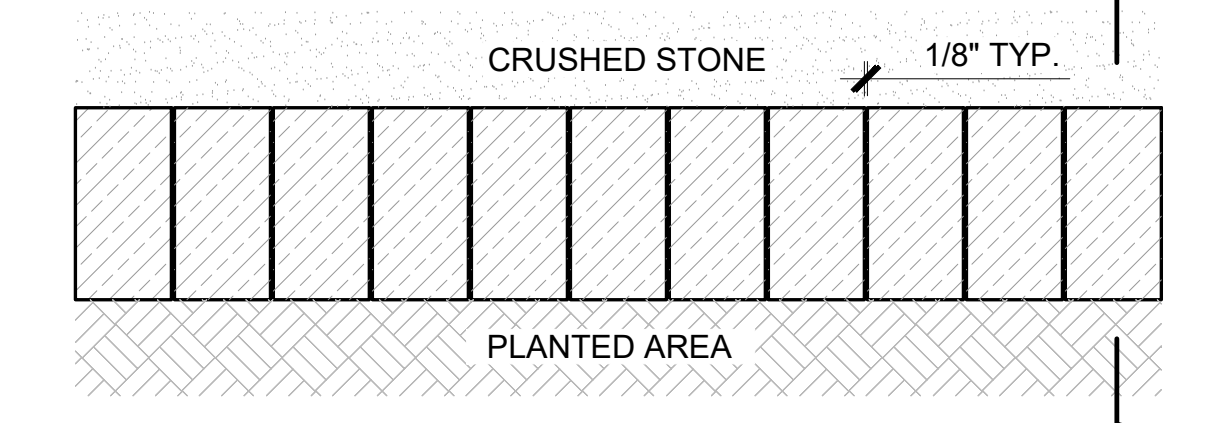


FILENAME
SCALE

SHEET
L520

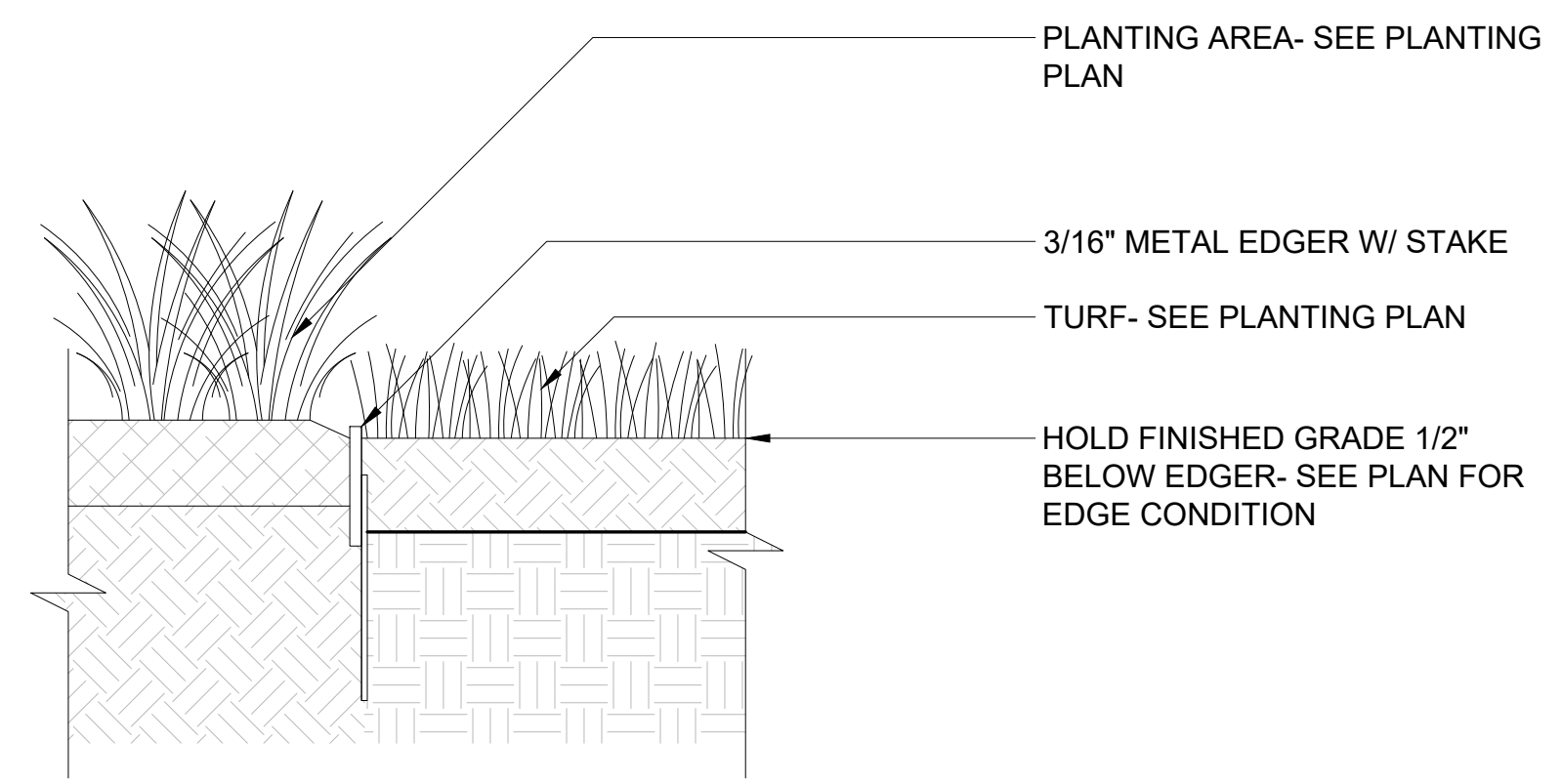


TYPICAL CURVED LAYOUT

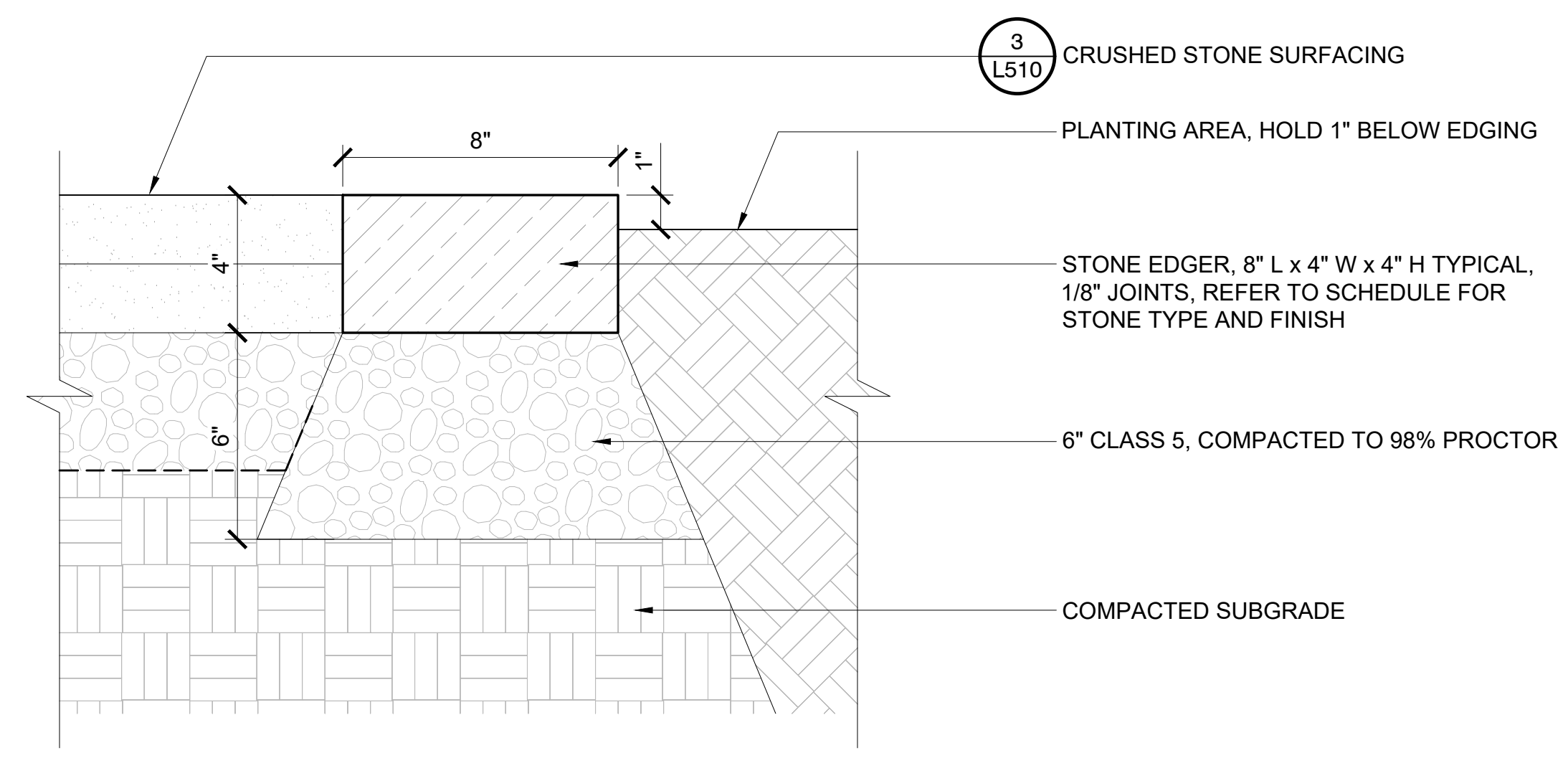


TYPICAL LINEAR LAYOUT

2 DETAIL - ED-01 STONE EDGING TYPICAL LAYOUTS
1 1/2" = 1'-0" P-20.199-131



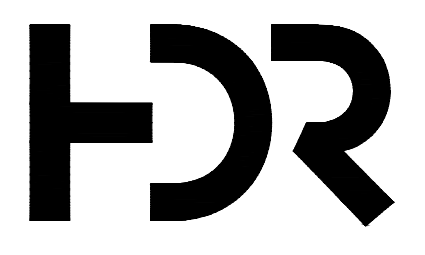
3 DETAIL - STEEL EDGER
1 1/2" = 1'-0" P-20.199-131



1 DETAIL - ED-01 STONE EDGING
3" = 1'-0" P-20.199-130



MINNEHAHA CREEK WATERSHED DISTRICT



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PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

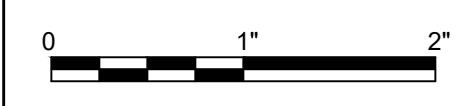
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

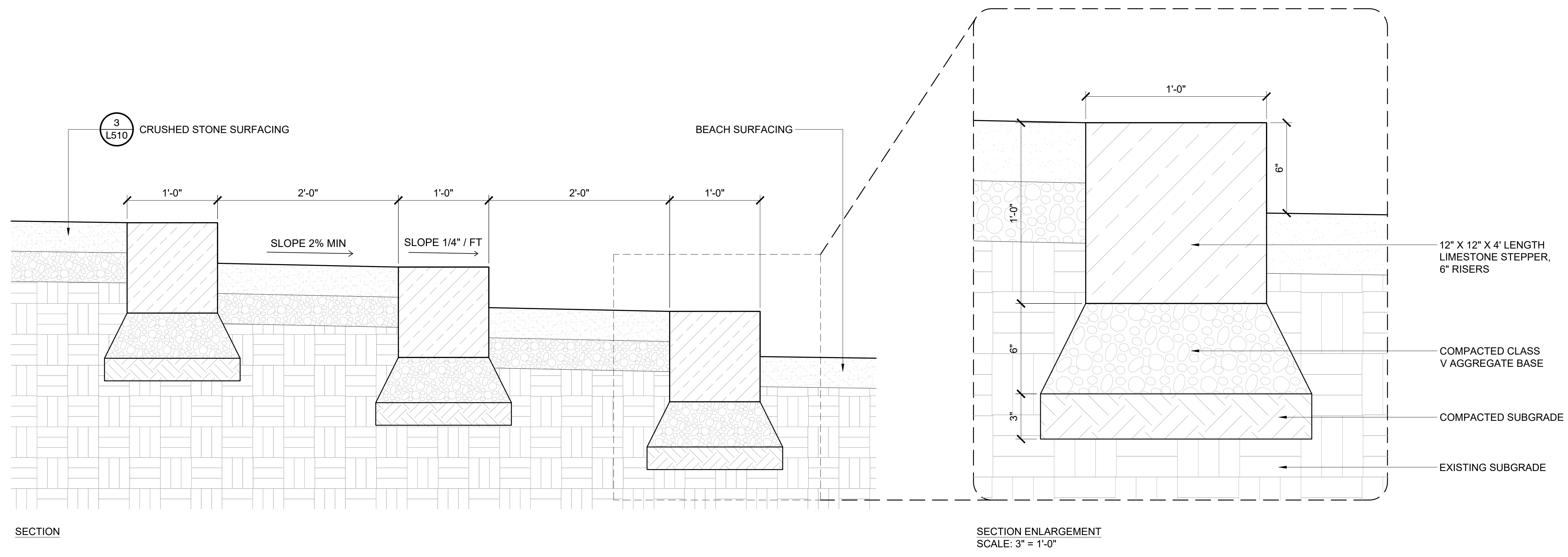
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - EDGING



FILENAME
SCALE

SHEET
L530

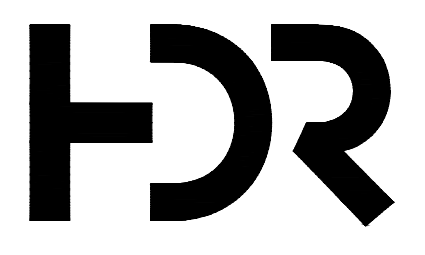


1 DETAIL - ST-01 STONE STEPPERS
1 1/2" = 1'-0"

P-20.199-138



MINNEHAHA CREEK
WATERSHED DISTRICT



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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

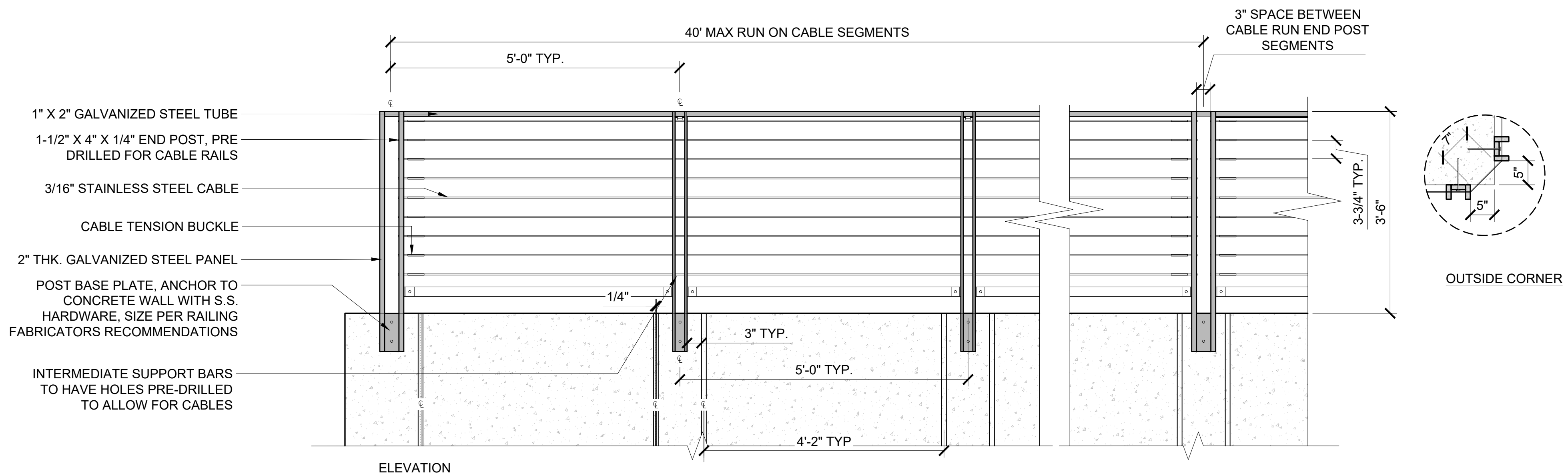
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - DIMENSIONAL STONE



FILENAME
SCALE

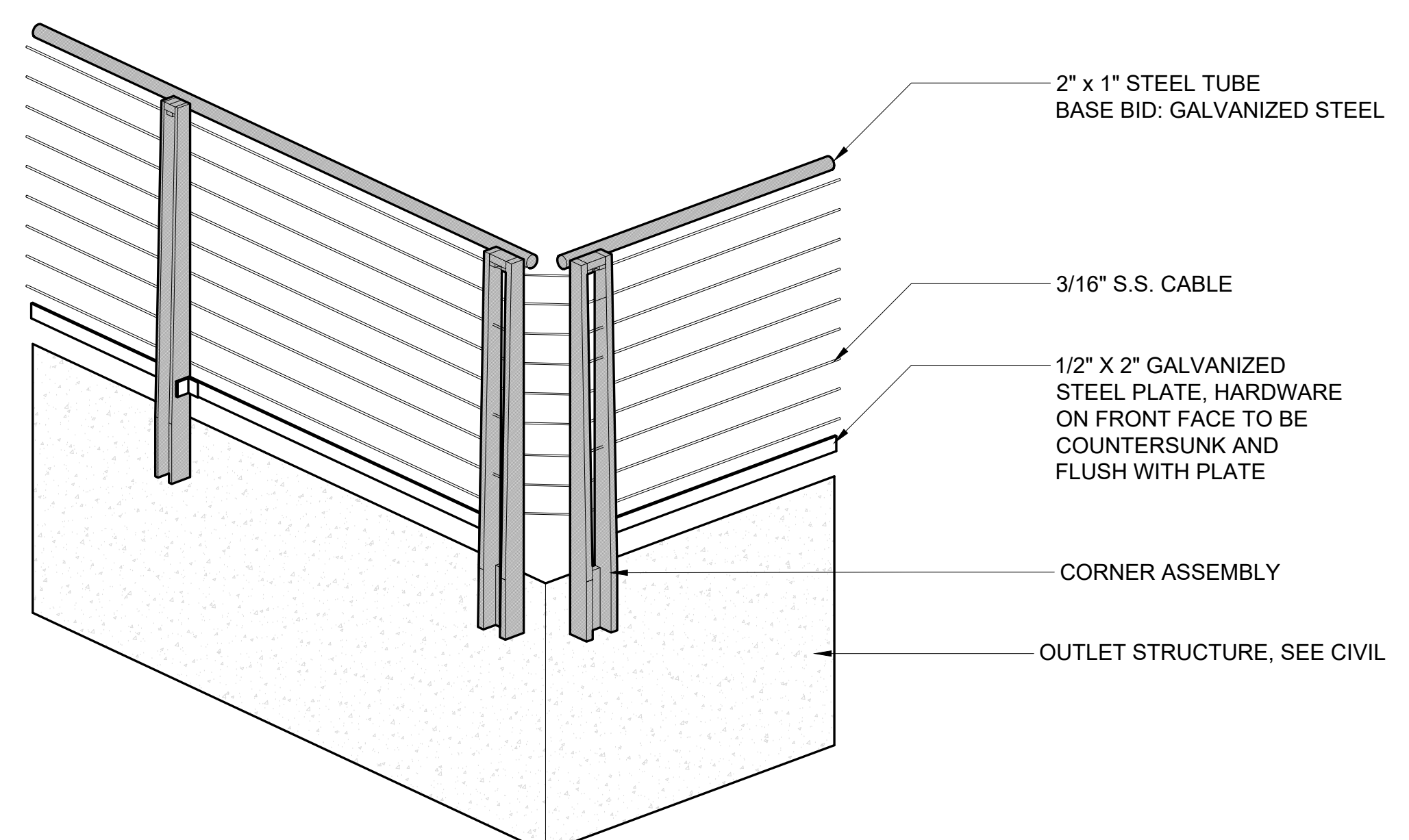
SHEET
L531



- NOTE:**
1. ALL METAL BARS & TUBES ARE TO BE GALVANIZED, WELDED PRIOR TO GALVANIZATION. SUBMIT SAMPLES FOR APPROVAL.
 2. JOINTS TO BE WELDED BETWEEN BARS & TUBES, CUSTOM CUT ANGLE OF POST TO TOP RAIL CONNECTIONS ON SLOPED WALLS.
 3. ALL POSTS TO BE SET PLUMB, WELDED TO BASE PLATE AND ANCHORED TO CONCRETE WALLS WITH FABRICATOR RECOMMENDED FASTENERS.
 4. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO APPROVING FABRICATION OF ANY GUARDRAIL COMPONENTS.
 5. TENSION & ANCHOR HARDWARE TO BE STAINLESS STEEL, SIZE PER FABRICATORS RECOMMENDATIONS.

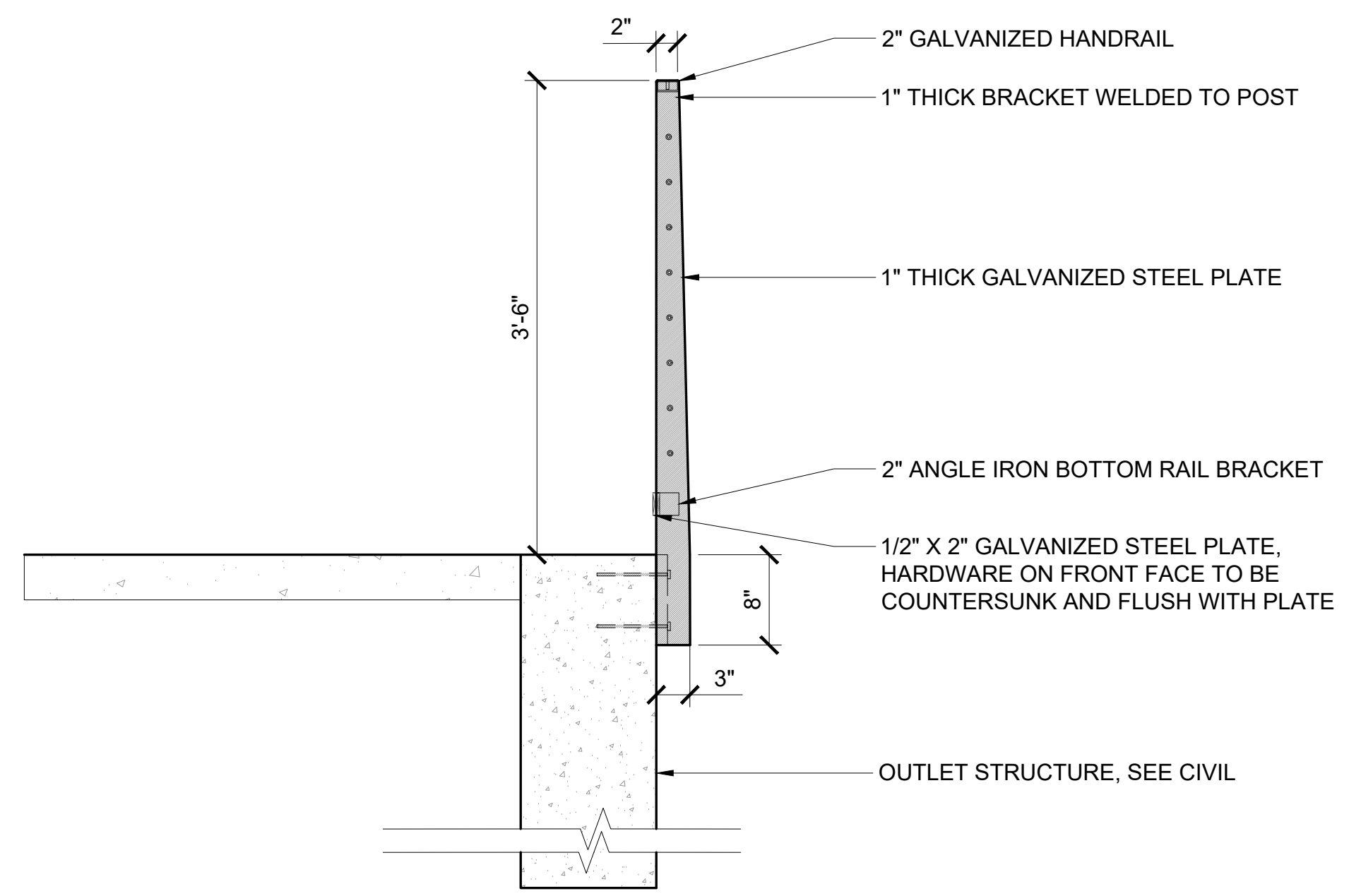
2 DETAIL - FE-01 OUTLET STRUCTURE GUARDRAIL CORNER ELEVATION
3/4" = 1'-0"

P-20.199-33



3 DETAIL - FE-01 OUTLET STRUCTURE GUARDRAIL CORNER ASSEMBLY
3/4" = 1'-0"

P-20.199-72

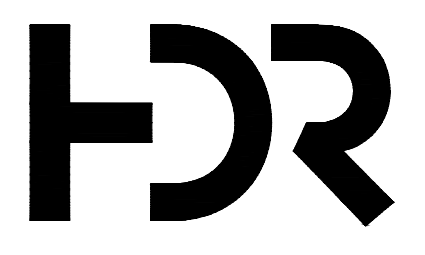


1 DETAIL - FE-01 OUTLET STRUCTURE GUARDRAIL SECTION
1" = 1'-0"

P-20.199-34



MINNEHAHA CREEK WATERSHED DISTRICT



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Minneapolis, MN 55401 p: 612.332.7522

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PROJECT MANAGER ANDREW F. JUDD

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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

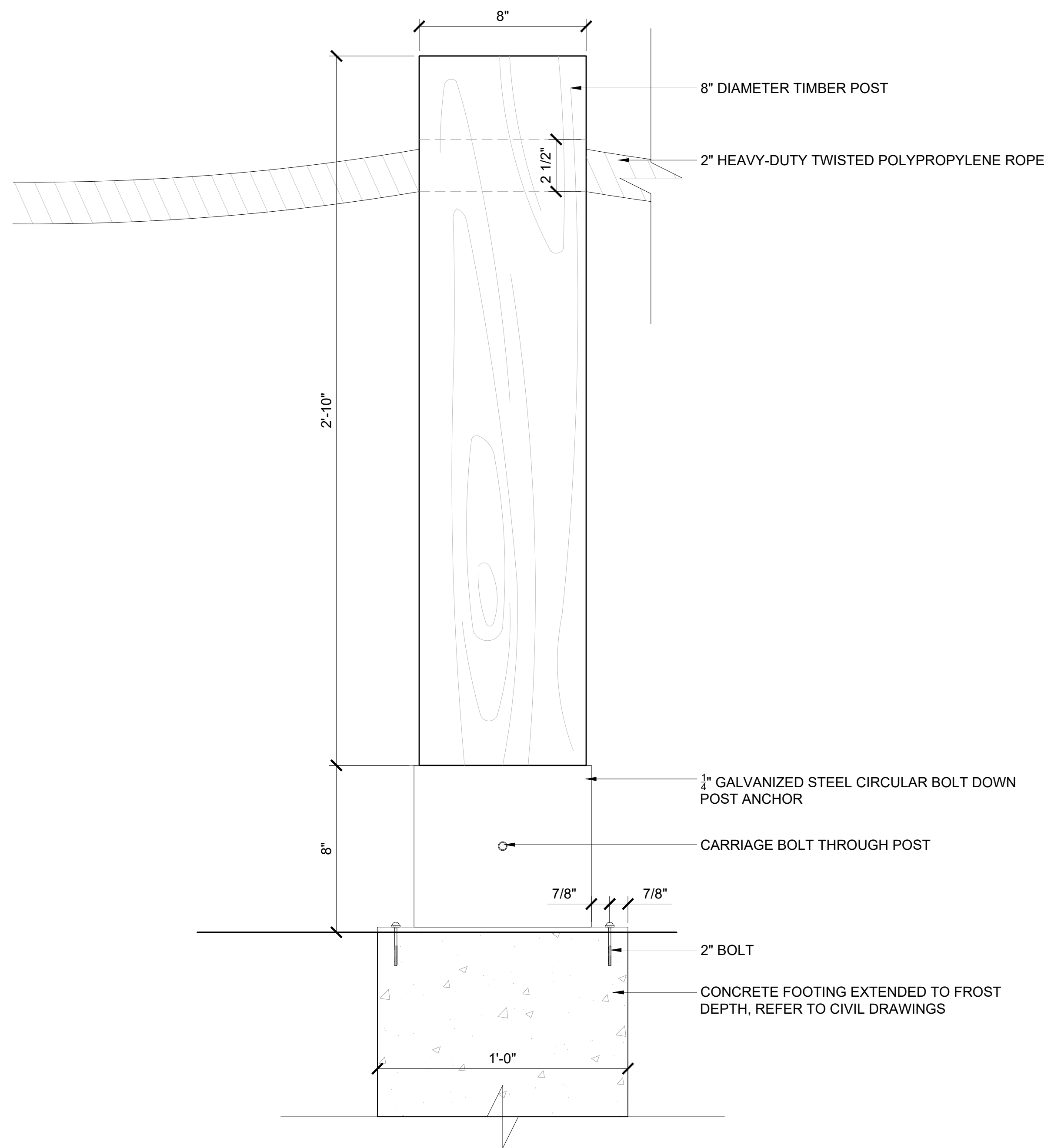
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - HANDRAIL & GUARDRAIL



FILENAME
SCALE

SHEET
L551

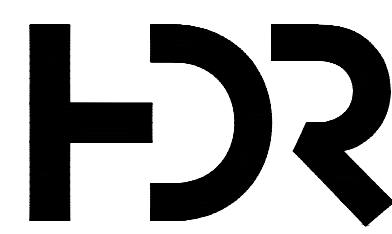


1 DETAIL- POST AND ROPE FENCE
3" = 1'-0"

P-20.199-148



MINNEHAHA CREEK
WATERSHED DISTRICT



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PROJECT MANAGER ANDREW F. JUDD	
PROJECT NUMBER	10268112

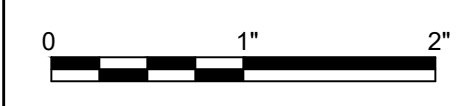
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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

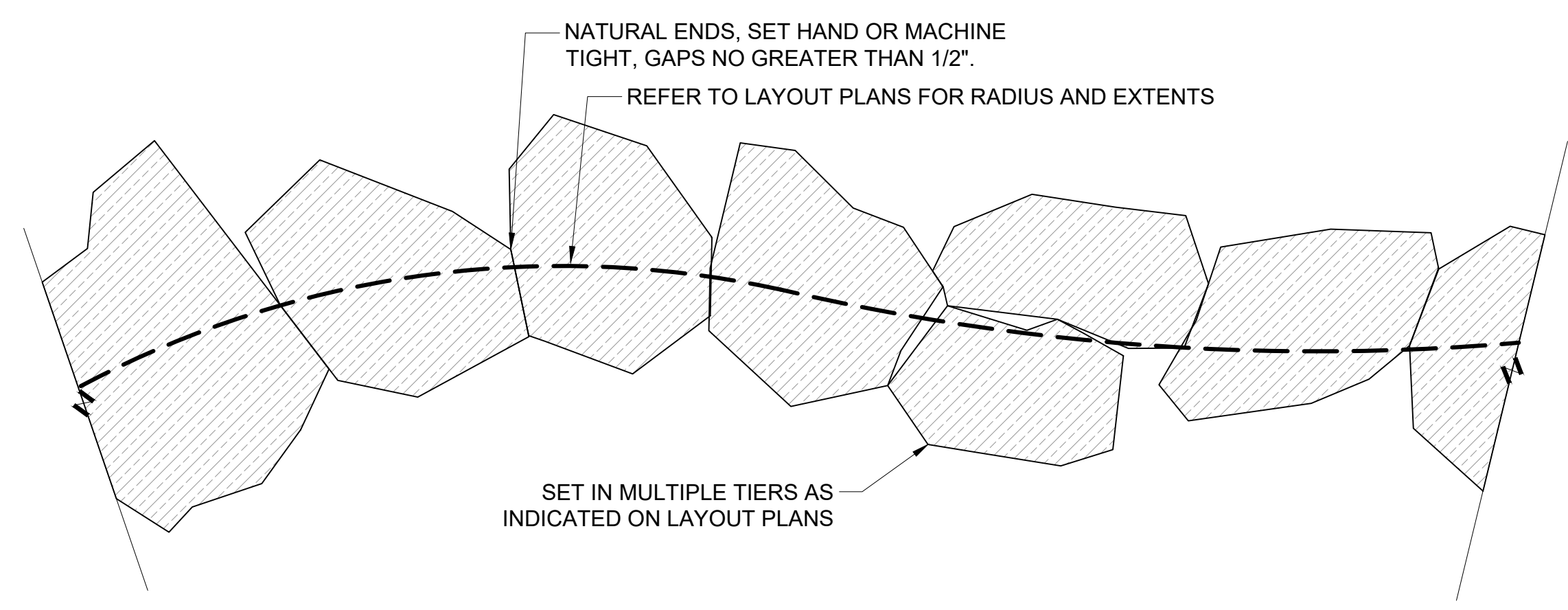
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - AMENITY

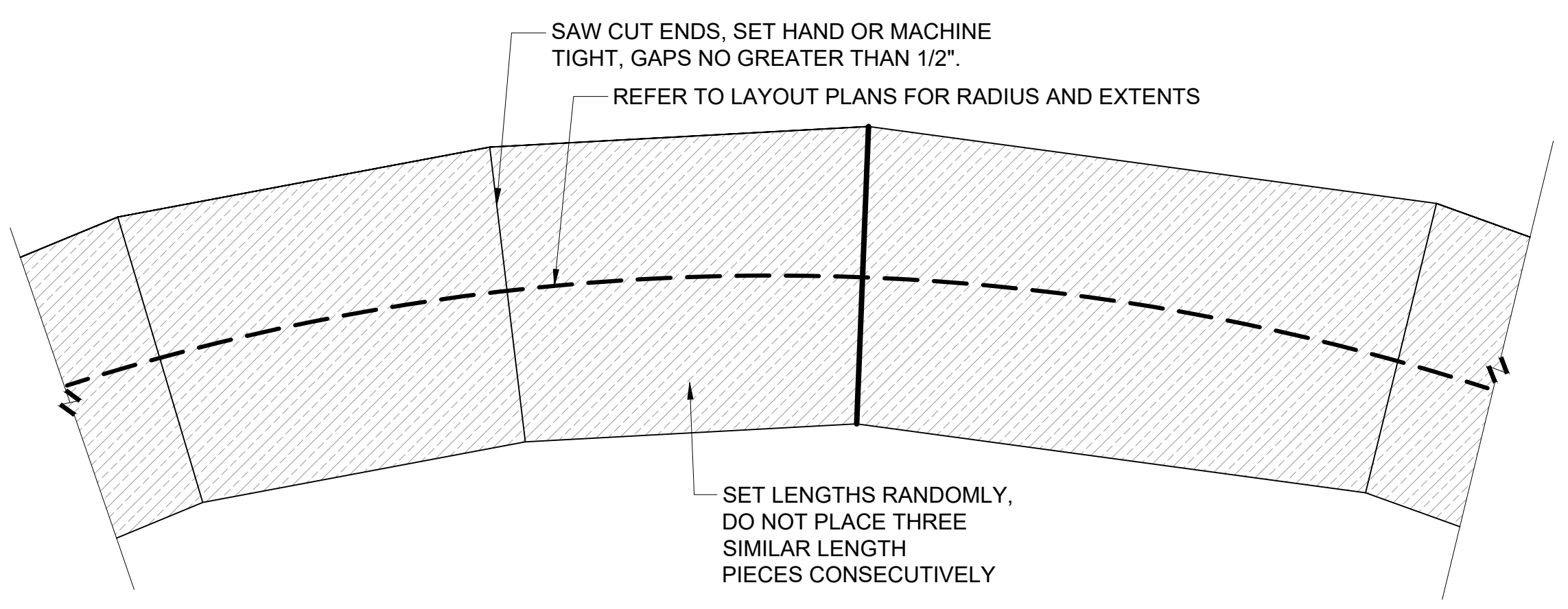


FILENAME
SCALE

SHEET
L582



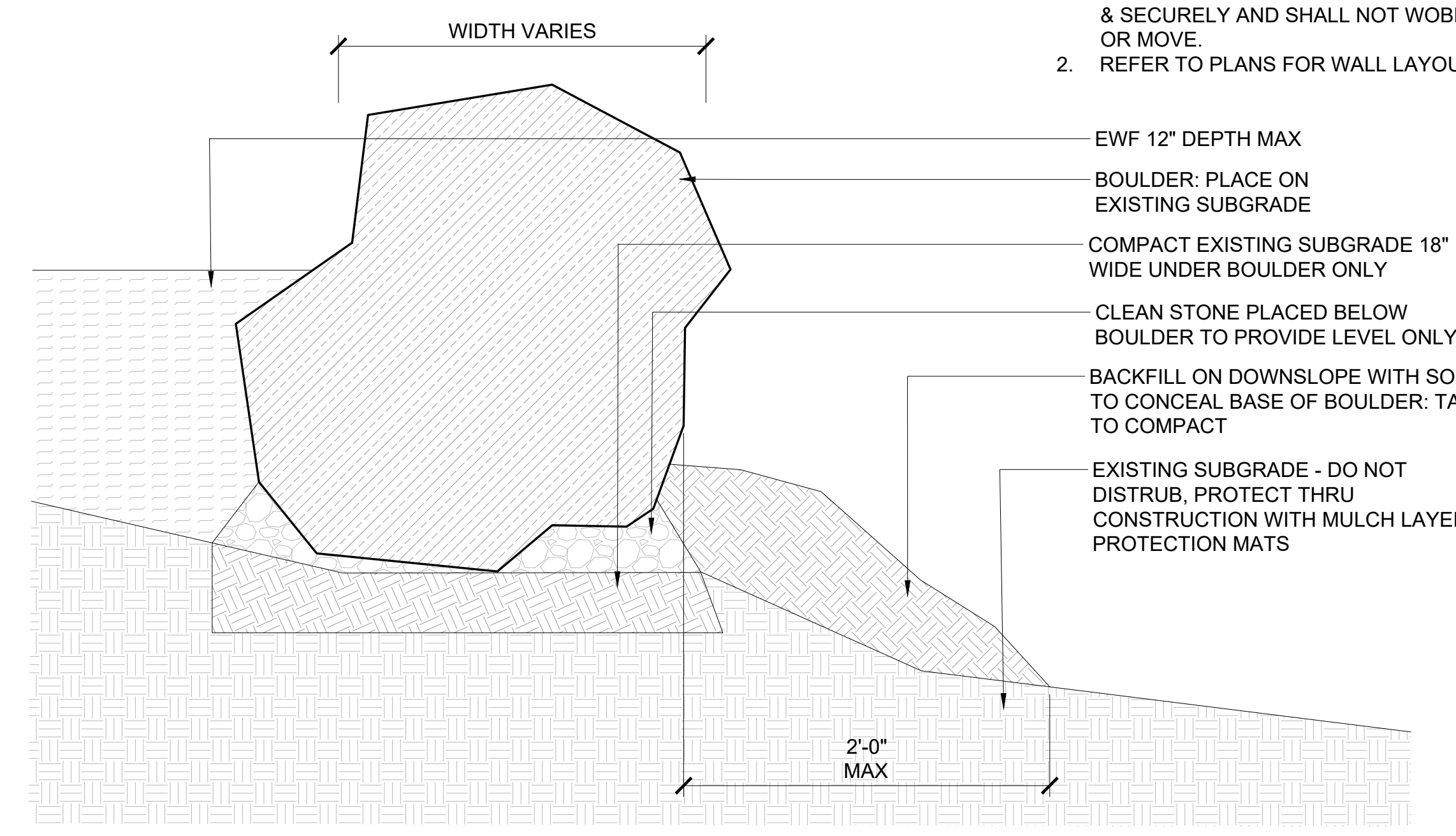
PLAN



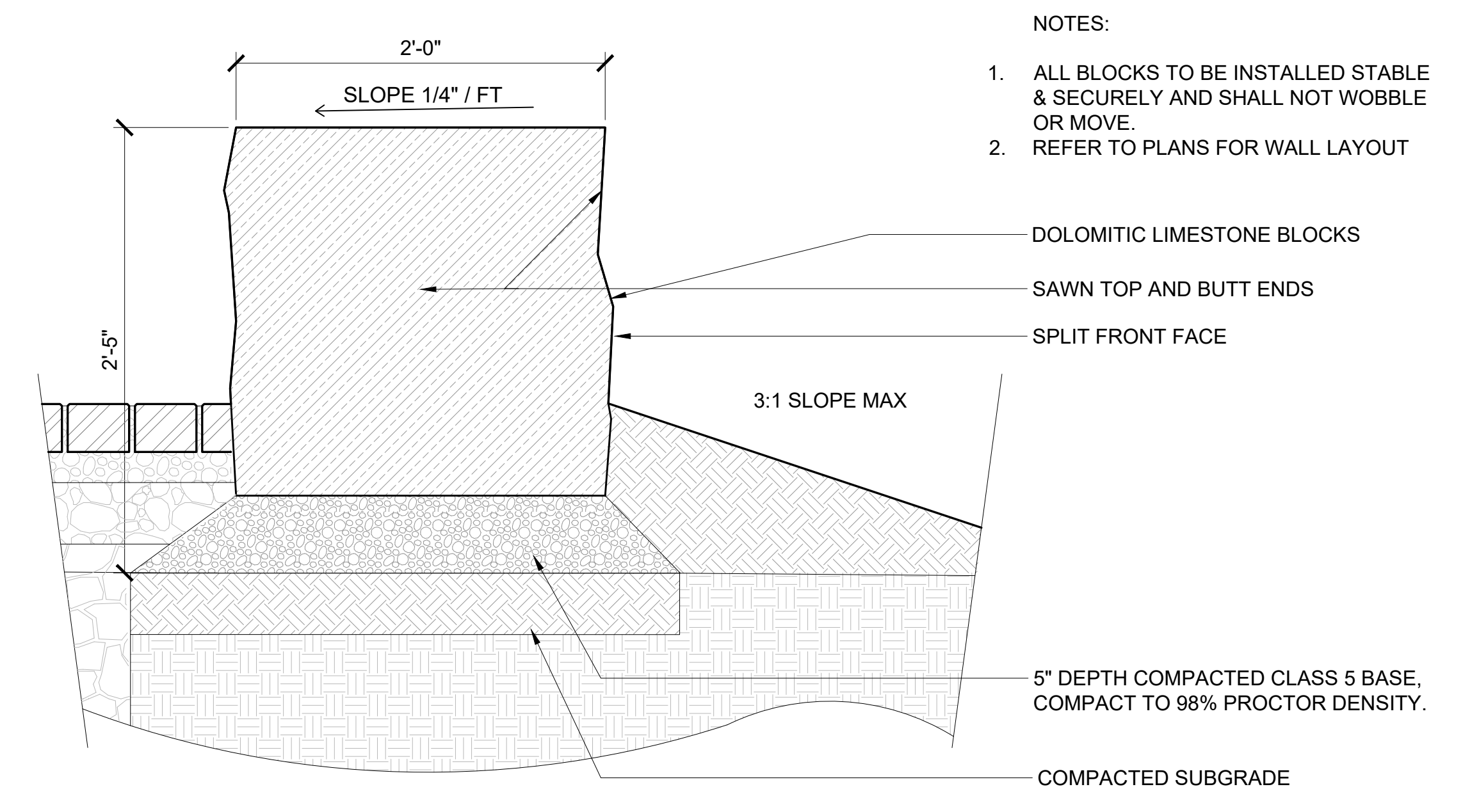
PLAN

NOTES:

1. ALL BLOCKS TO BE INSTALLED STABLE & SECURELY AND SHALL NOT WOBBLE OR MOVE.
2. REFER TO PLANS FOR WALL LAYOUT



2 DETAIL - WL-02 LIMESTONE WALL @ PLAY AREA
1 1/2" = 1'-0"



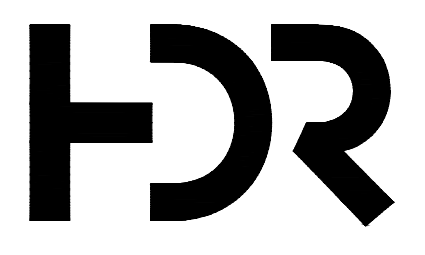
1 DETAIL - WL-01 LIMESTONE SEATWALL @ TRAILHEAD
1 1/2" = 1'-0"

NOTES:

1. ALL BLOCKS TO BE INSTALLED STABLE & SECURELY AND SHALL NOT WOBBLE OR MOVE.
2. REFER TO PLANS FOR WALL LAYOUT



MINNEHAHA CREEK WATERSHED DISTRICT



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Minneapolis, MN 55401 p: 612.332.7522

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PROJECT NUMBER	10268112

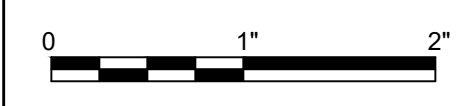
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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

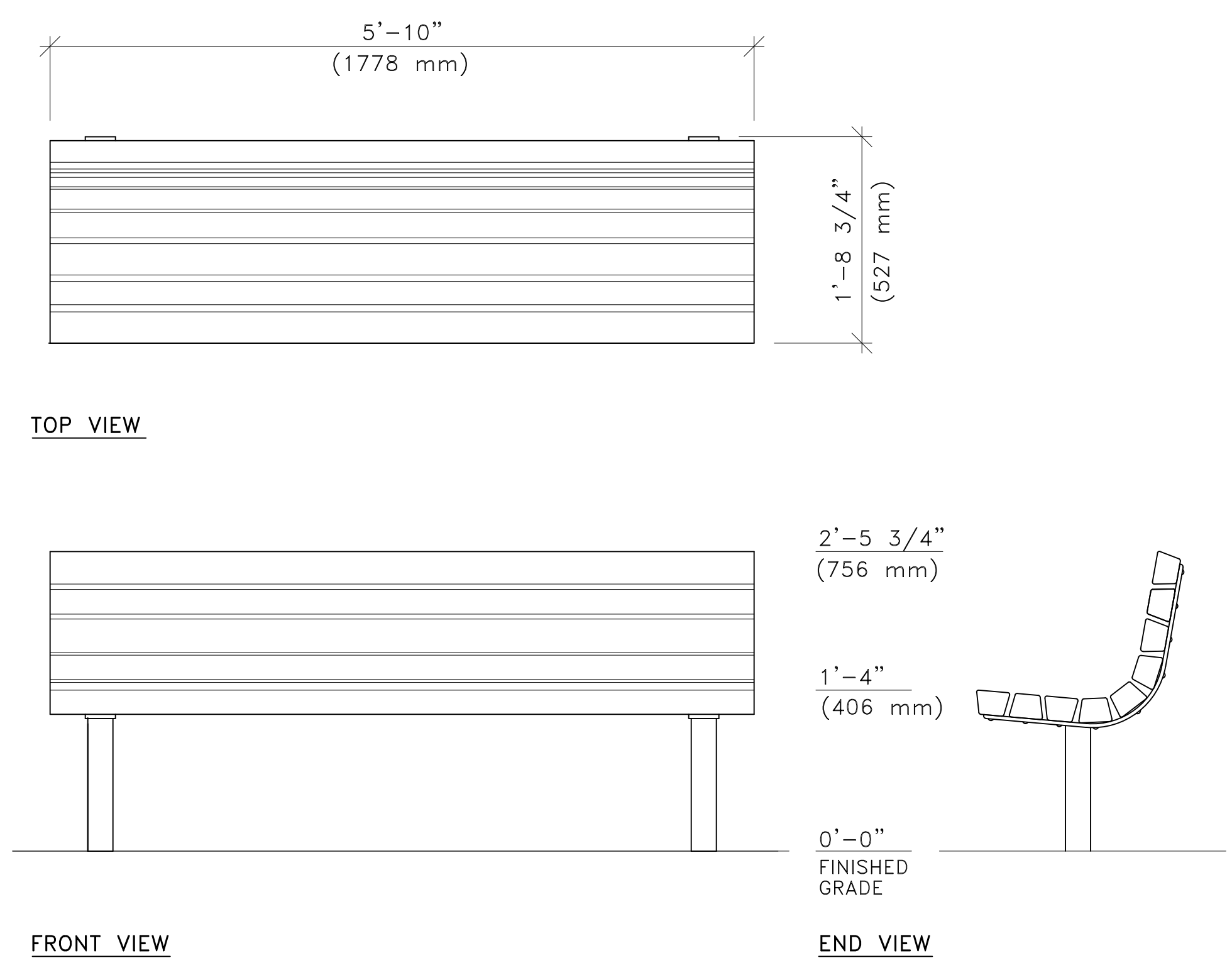
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - WALL

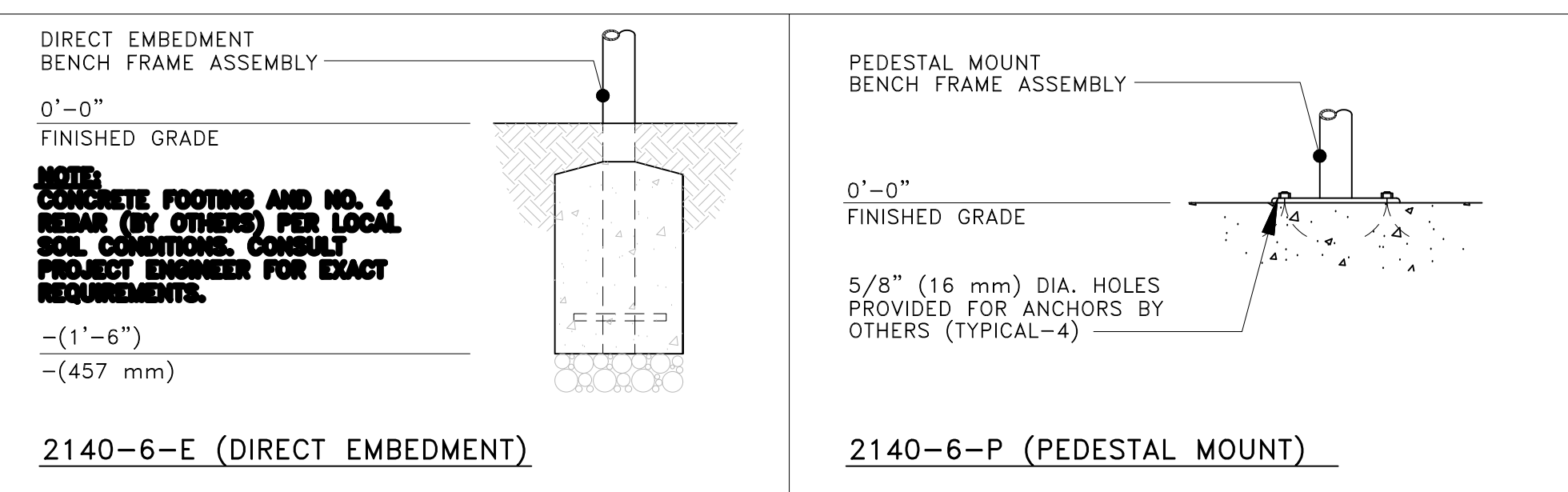


FILENAME
SCALE

SHEET
L560



AVAILABLE IN 3', 4', 6' (SHOWN), 7', 8', 10', 12', 13', & 14' NOMINAL LENGTHS. OTHER LENGTHS AVAILABLE UPON REQUEST.

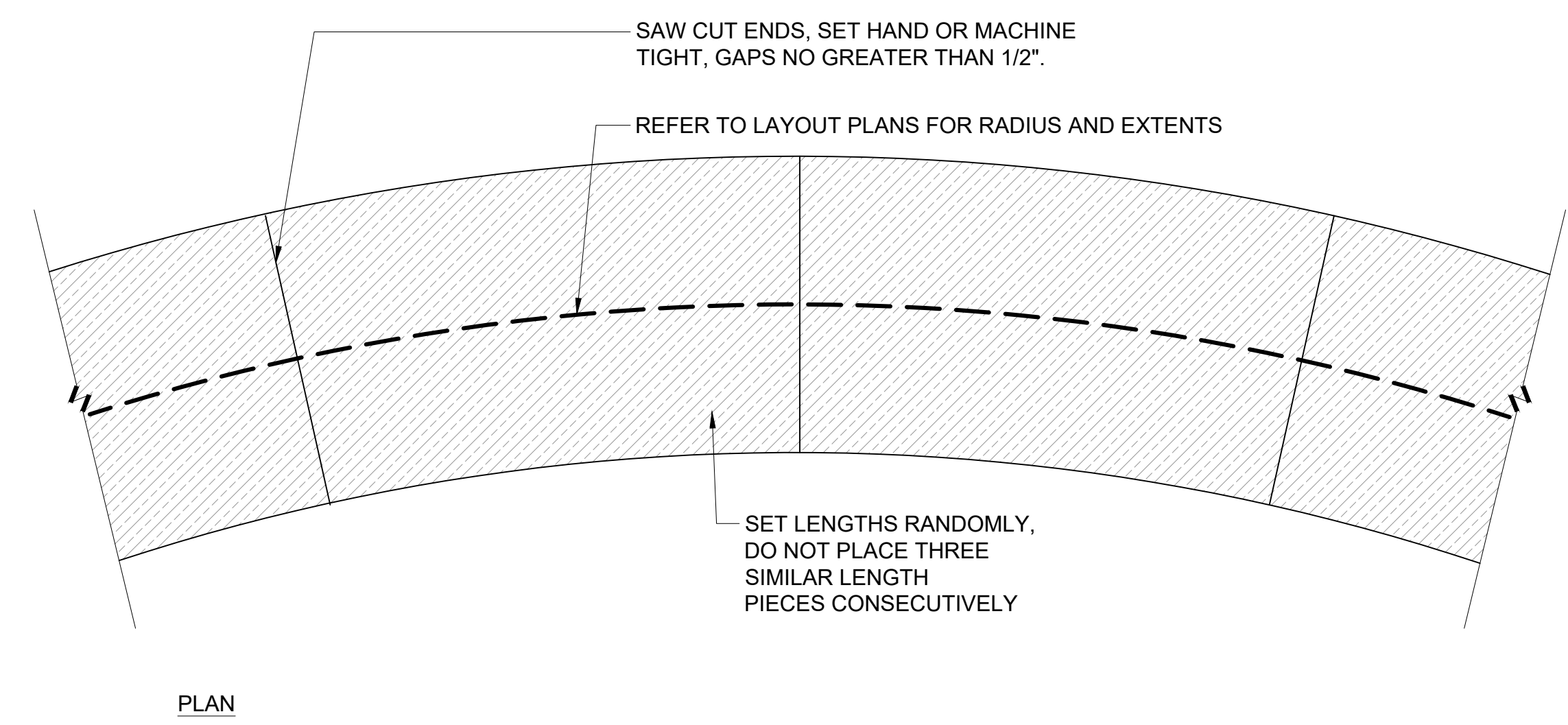


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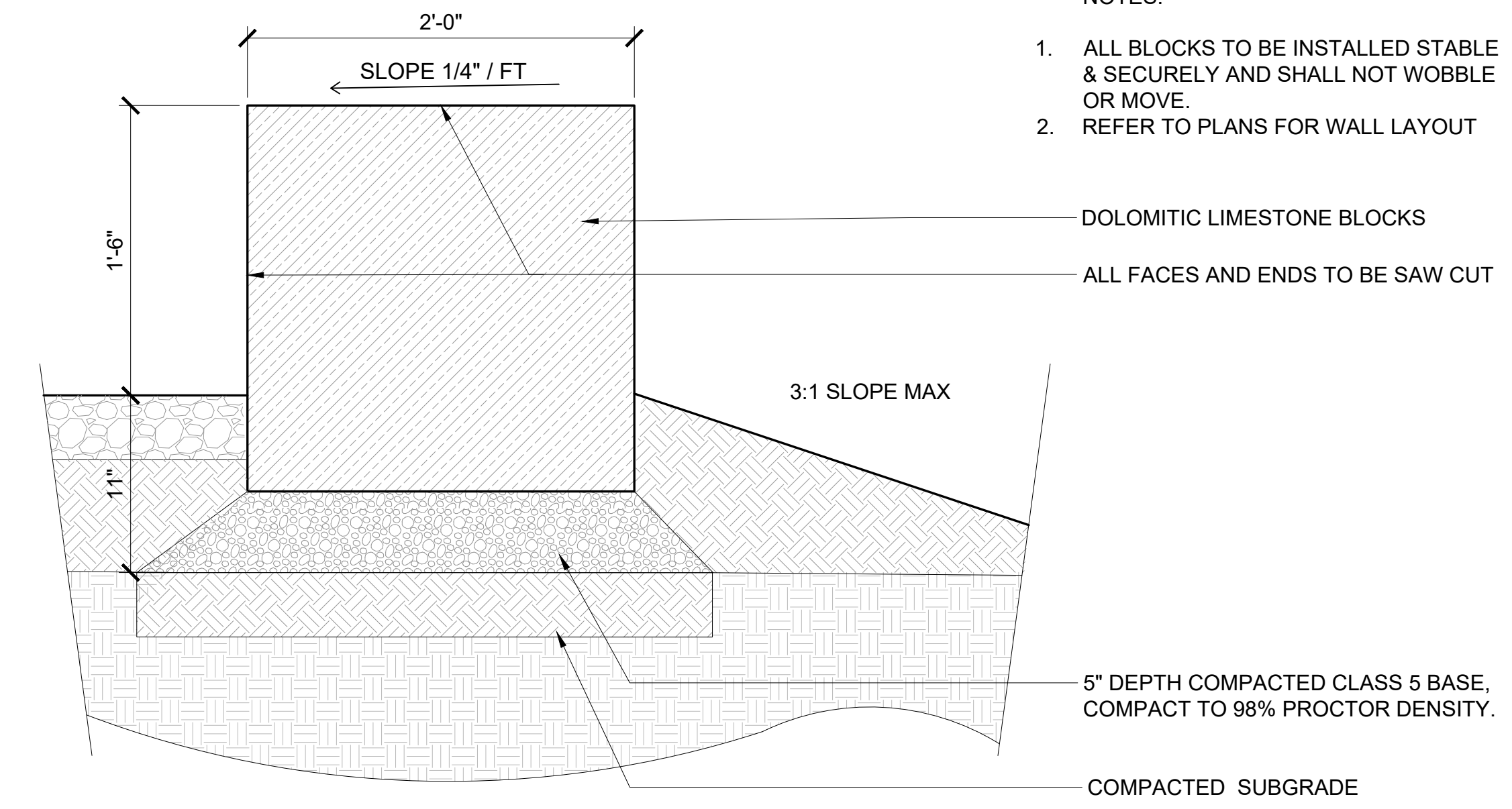
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Title: TIMBERFORM GREENWAY
MODEL NO. 2140-6
CONTOUR BENCH
Drawing No. W-2140-6
Sheet 1 of 1

2 DETAIL - NATURE PLAY BENCH
1" = 1'-0"



- NOTES:
- ALL BLOCKS TO BE INSTALLED STABLE & SECURELY AND SHALL NOT WOBBLE OR MOVE.
 - REFER TO PLANS FOR WALL LAYOUT



1 DETAIL - WL-03 LIMESTONE SEATWALL @ PICNIC AREA
1 1/2" = 1'-0"



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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

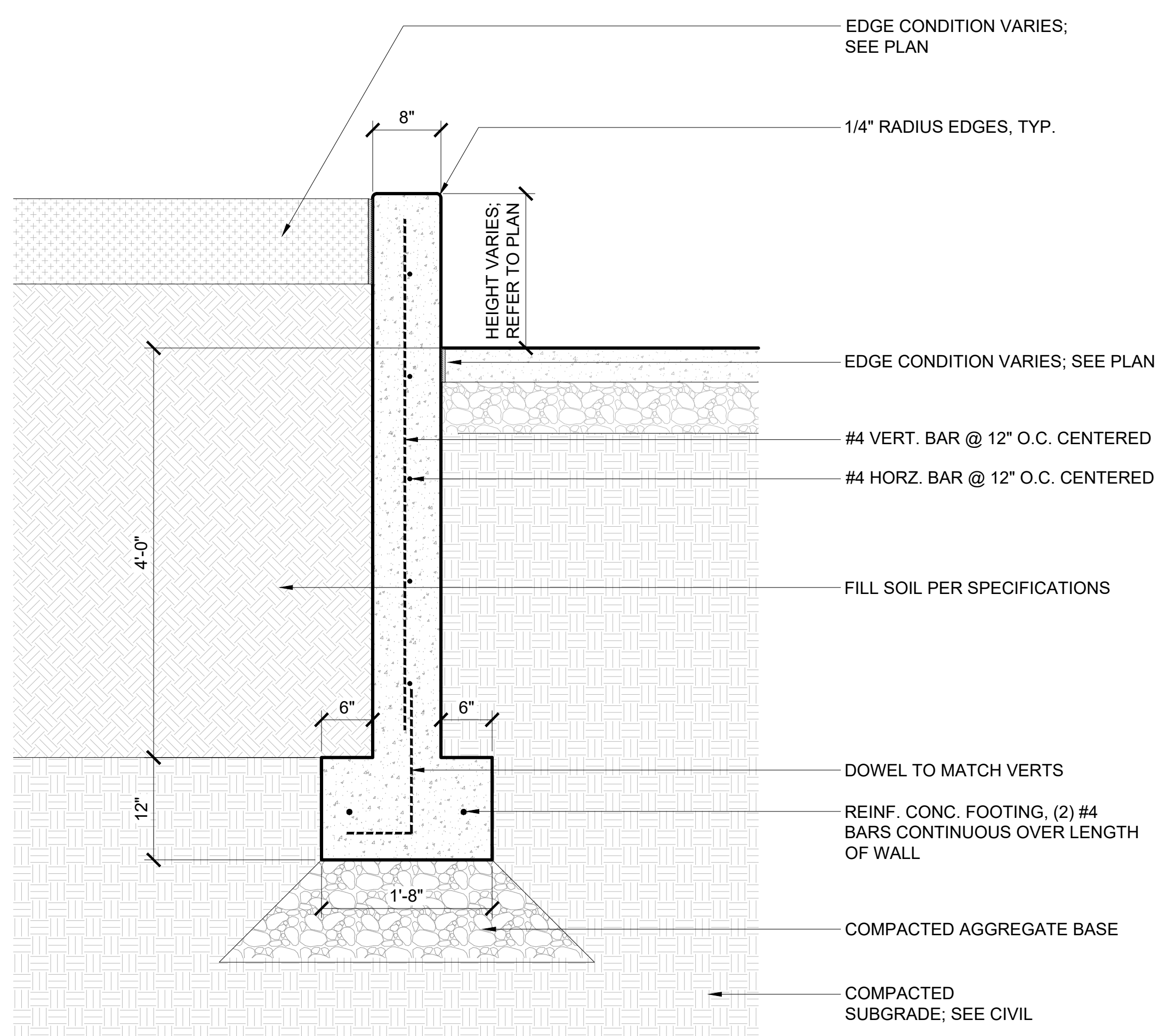
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - WALL



SHEET
L561



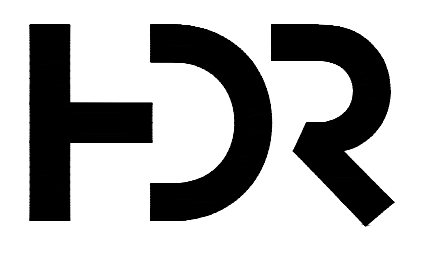
- NOTES:
 1. EPOXY REBAR TO BE SET 3" MIN. CLEAR FROM FACE OF CIP CONCRETE
 2. SEE PLAN FOR SURFACE FINISH

2 DETAIL - WL-04 CIP CONCRETE WALL
 1" = 1'-0"

P-20.199-15



MINNEHAHA CREEK WATERSHED DISTRICT



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PROJECT NUMBER	10268112

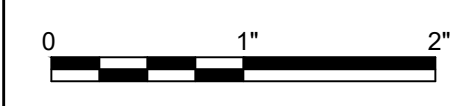
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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

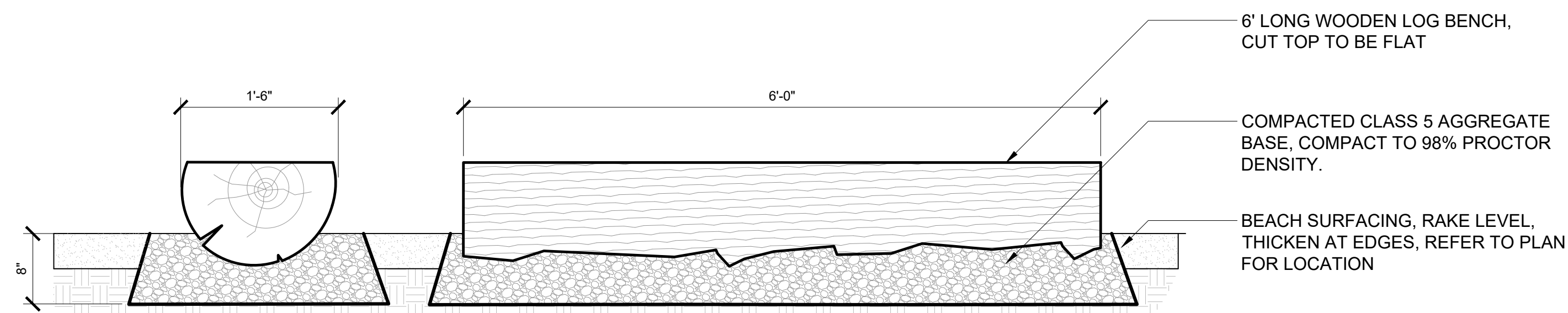
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

LANDSCAPE DETAILS - WALL



FILENAME
 SCALE

SHEET
 L562

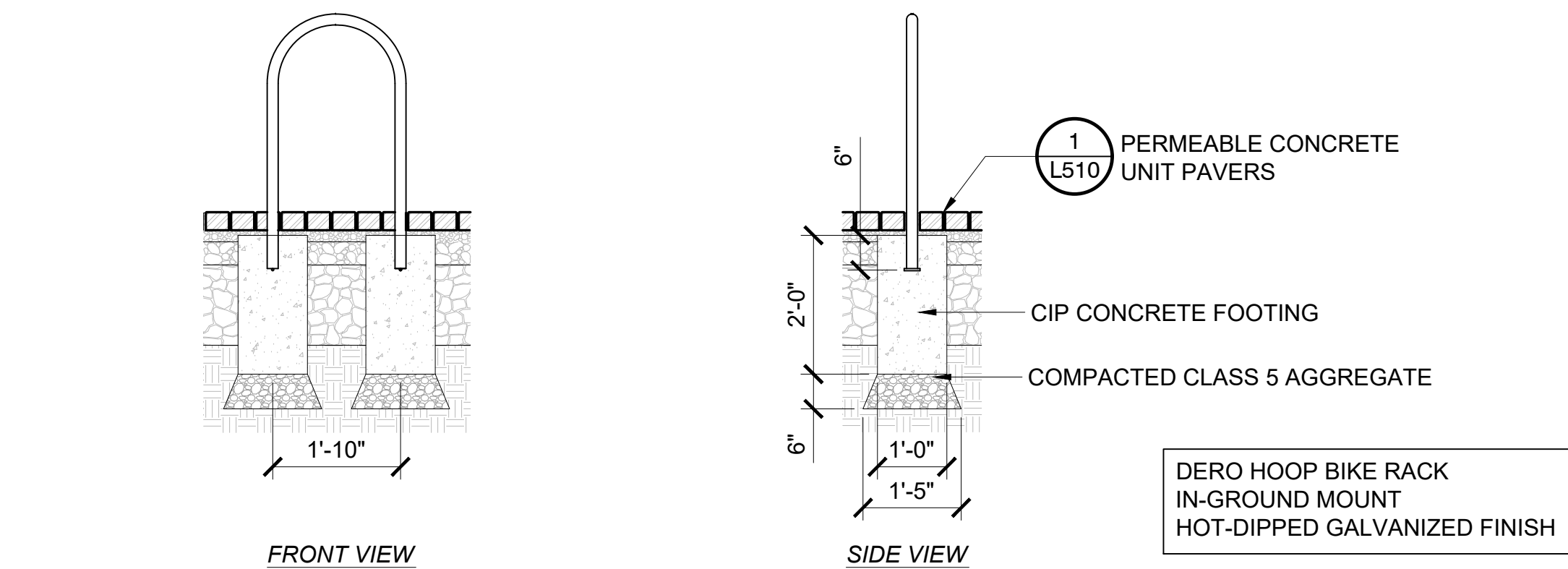


NOTE:
BURY COURSE AS NEEDED TO MEET PROPOSED GRADES. KEEP TOP OF BENCH RELATIVELY LEVEL.

5 DETAIL - SF-04 LOG BENCH

1" = 1'-0"

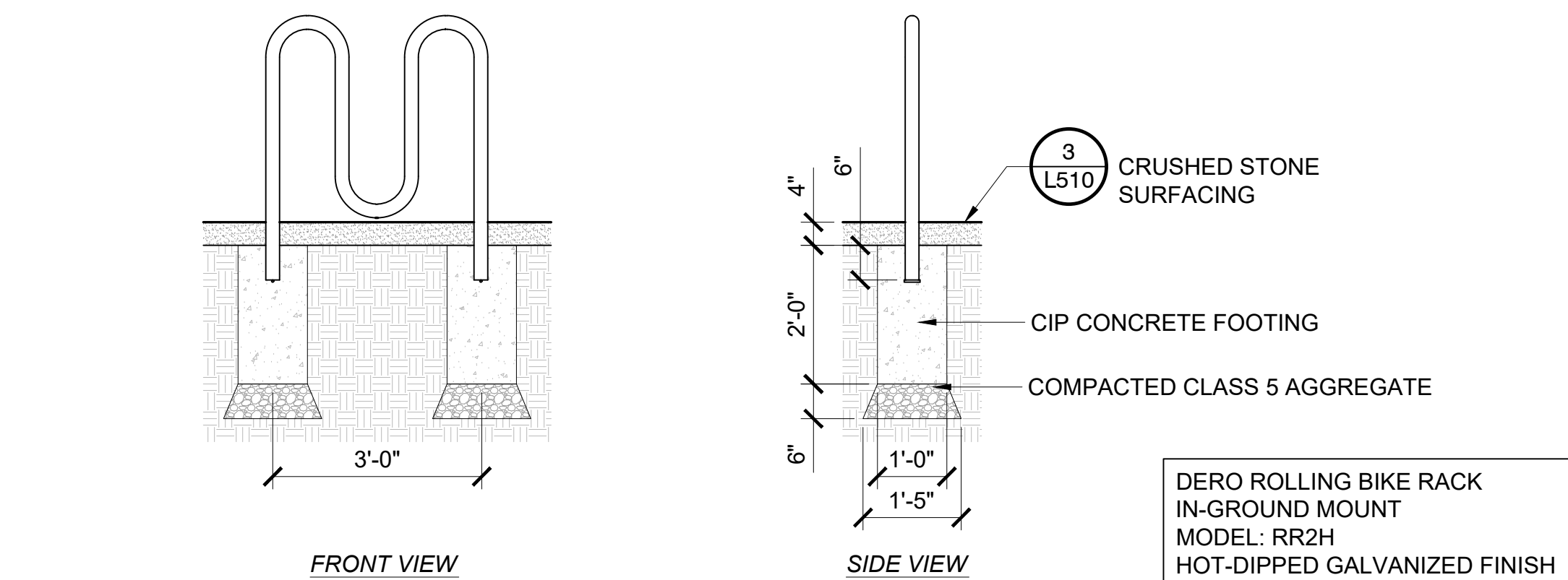
P-20.199-47



4 DETAIL - SF-04 HOOP BIKE RACK

1/2" = 1'-0"

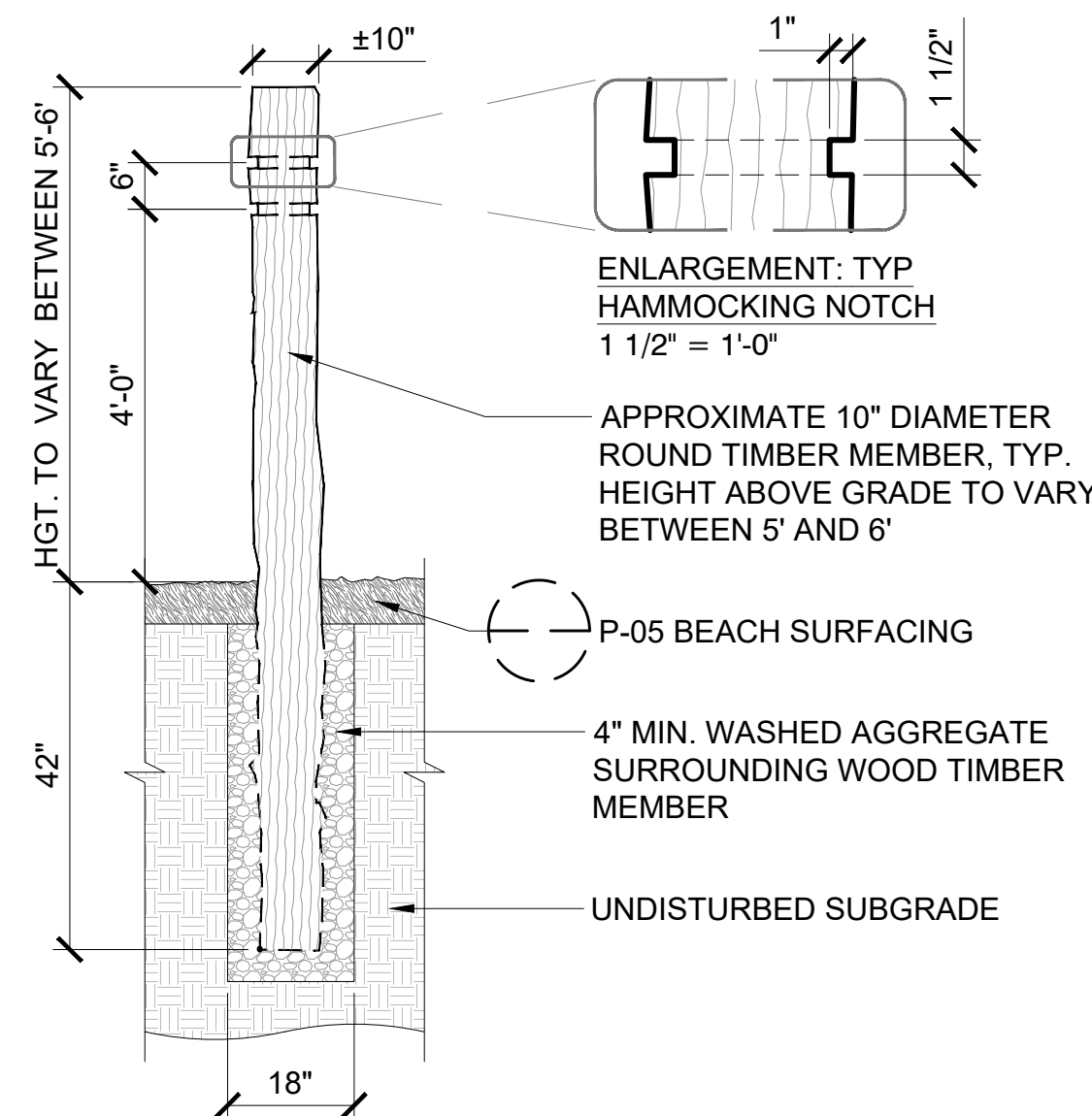
P-20.199-139



3 DETAIL - SF-03 ROLLING BIKE RACK

1/2" = 1'-0"

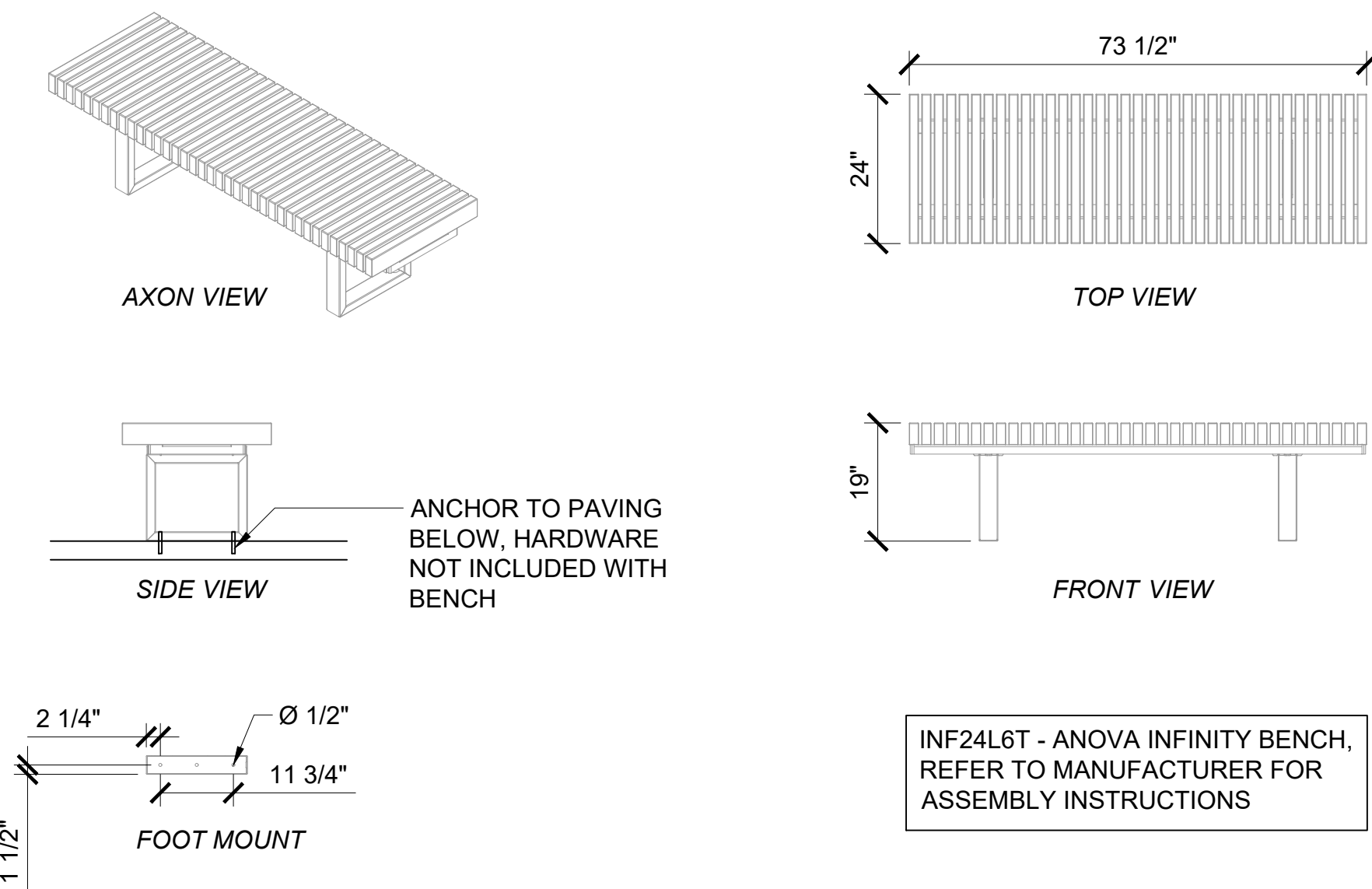
P-20.199-125



2 DETAIL - SF-02 HAMMOCK POLE

1/2" = 1'-0"

P-20.199-105



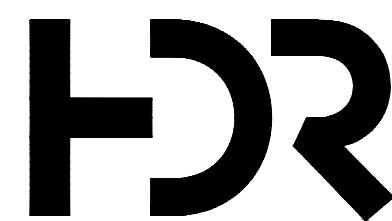
1 DETAIL - SF-01 LINEAR BENCH

1/2" = 1'-0"

P-20.199-99



MINNEHAHA CREEK
WATERSHED DISTRICT



DF/ DAMON FARBER
LANDSCAPE ARCHITECTS
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p: 612.332.7522

ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
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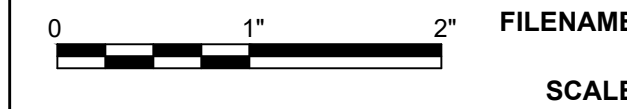
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY

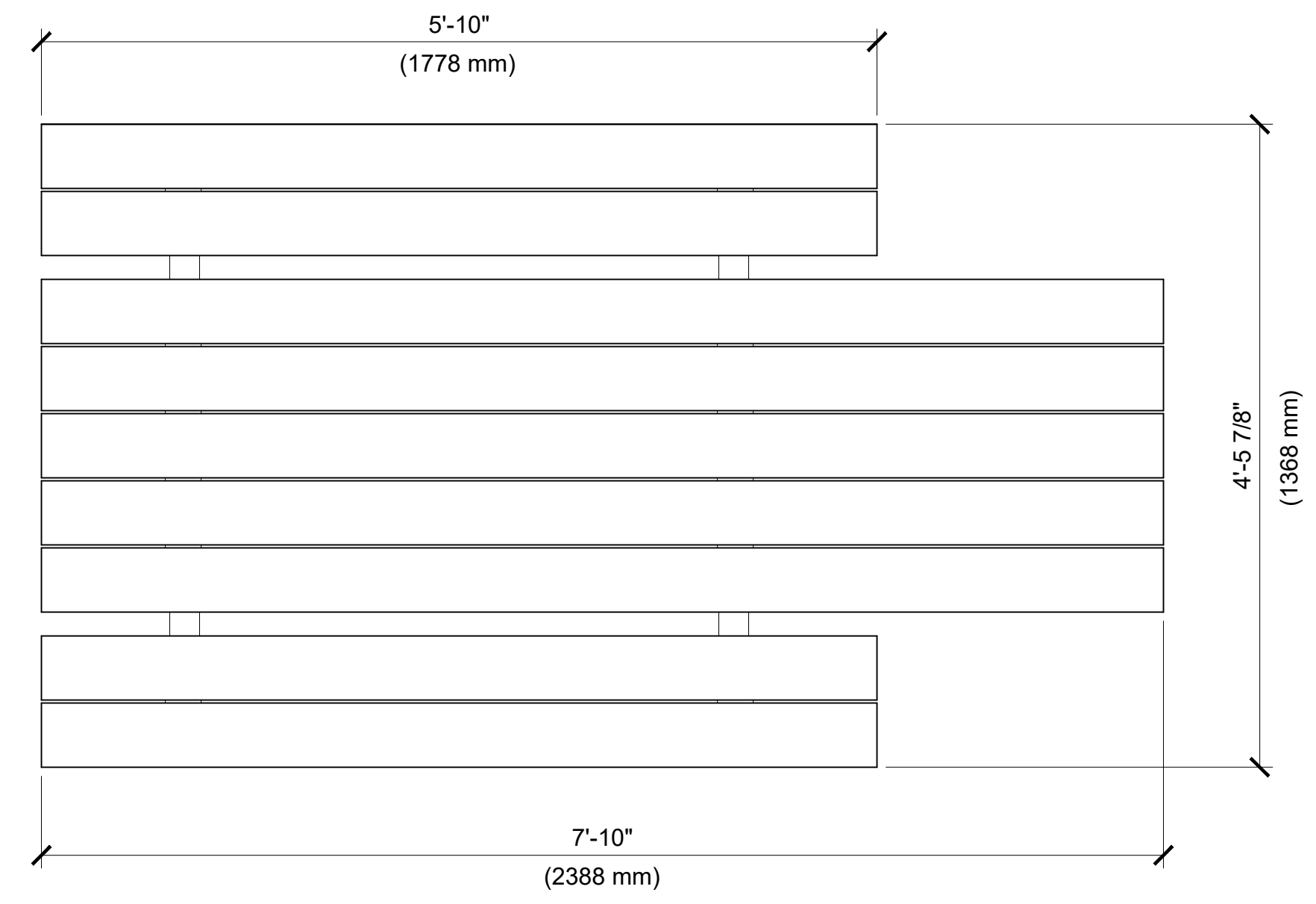
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - SITE FURNISHING



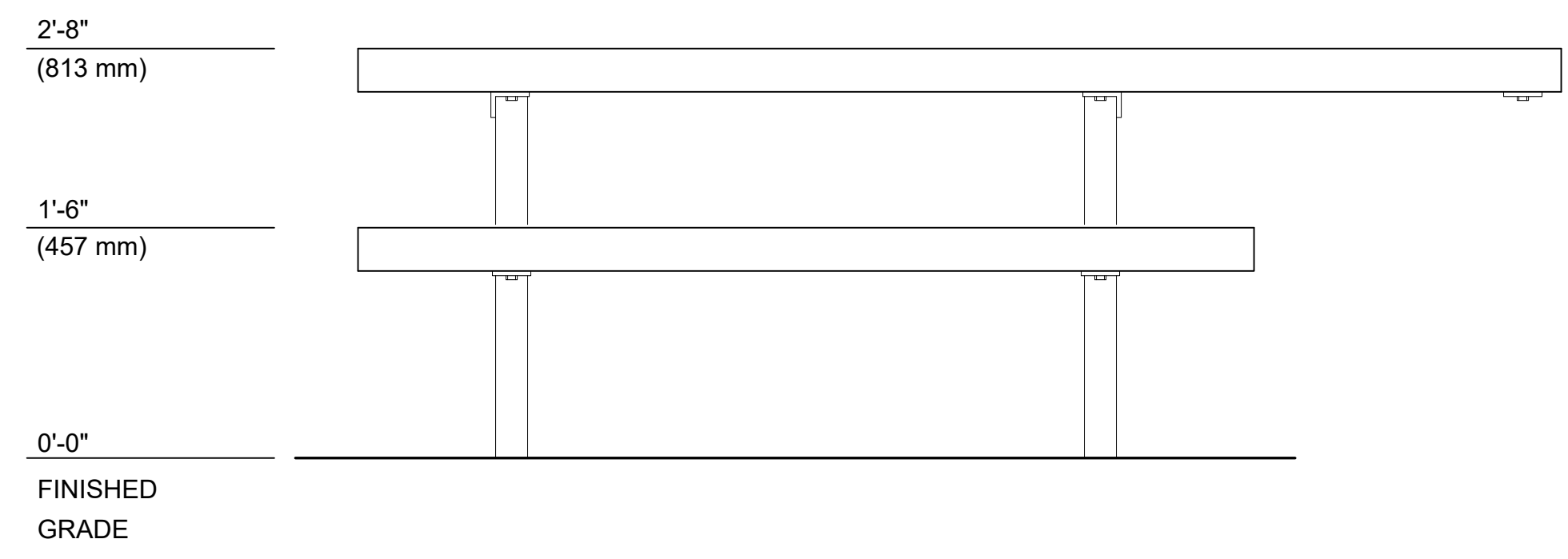
FILENAME
SCALE

SHEET
L570

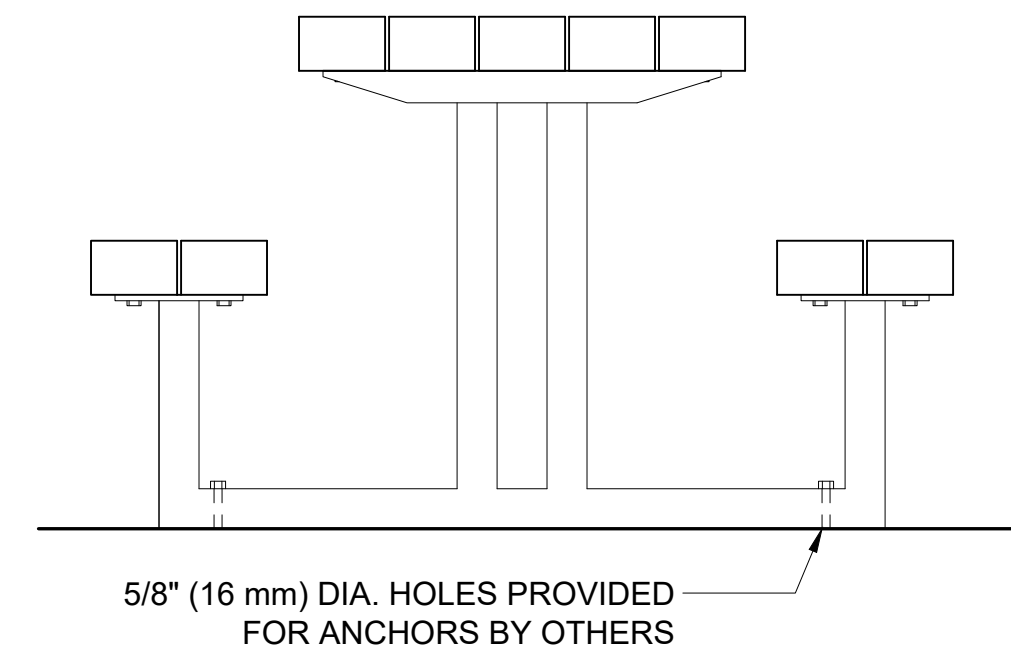


COLUMBIA CASCADE COMPANY
 TIMBERFORM GREENWAY TABLES
 MODEL NO. 2165-6
 ACCESSIBLE PICNIC TABLE WITH SEATS

TOP VIEW



FRONT VIEW



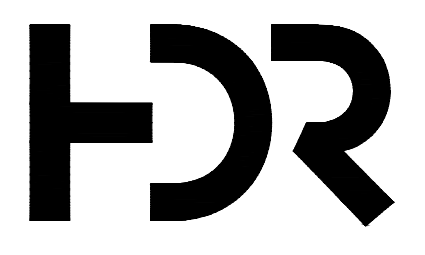
END VIEW

1 DETAIL - SF-05 PICNIC TABLE
 1" = 1'-0"

P-20.199-124



MINNEHAHA CREEK
 WATERSHED DISTRICT



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 LANDSCAPE ARCHITECTS
 401 North 2nd Avenue, Suite 410
 Minneapolis, MN 55401 p: 612.332.7522

ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT MANAGER ANDREW F. JUDD	
PROJECT NUMBER	10268112

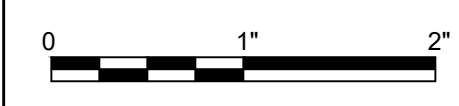
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

THOMAS J WHITLOCK, PLA
 DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER
 AND GREENWAY

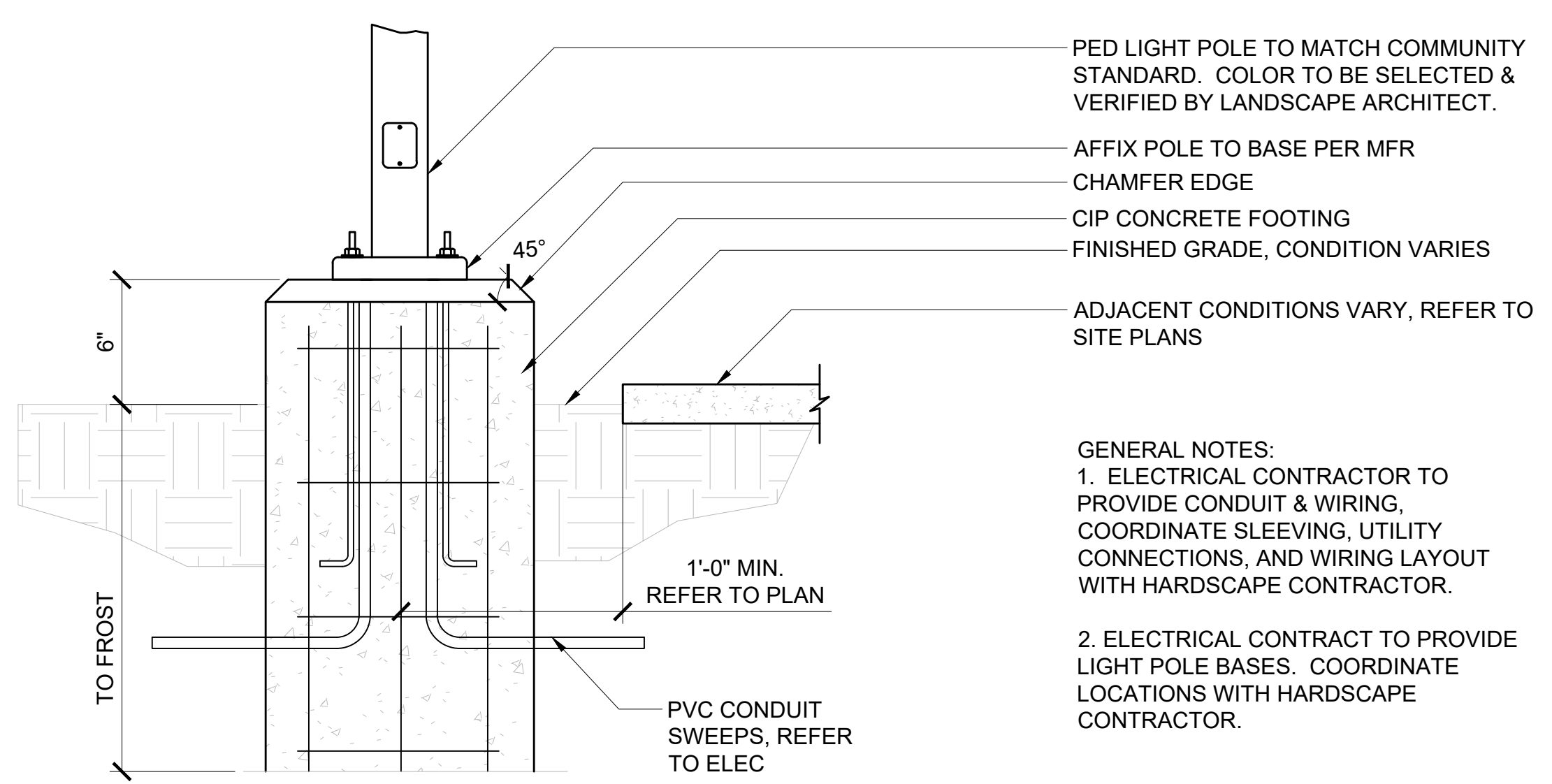
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

LANDSCAPE DETAILS - SITE FURNISHING



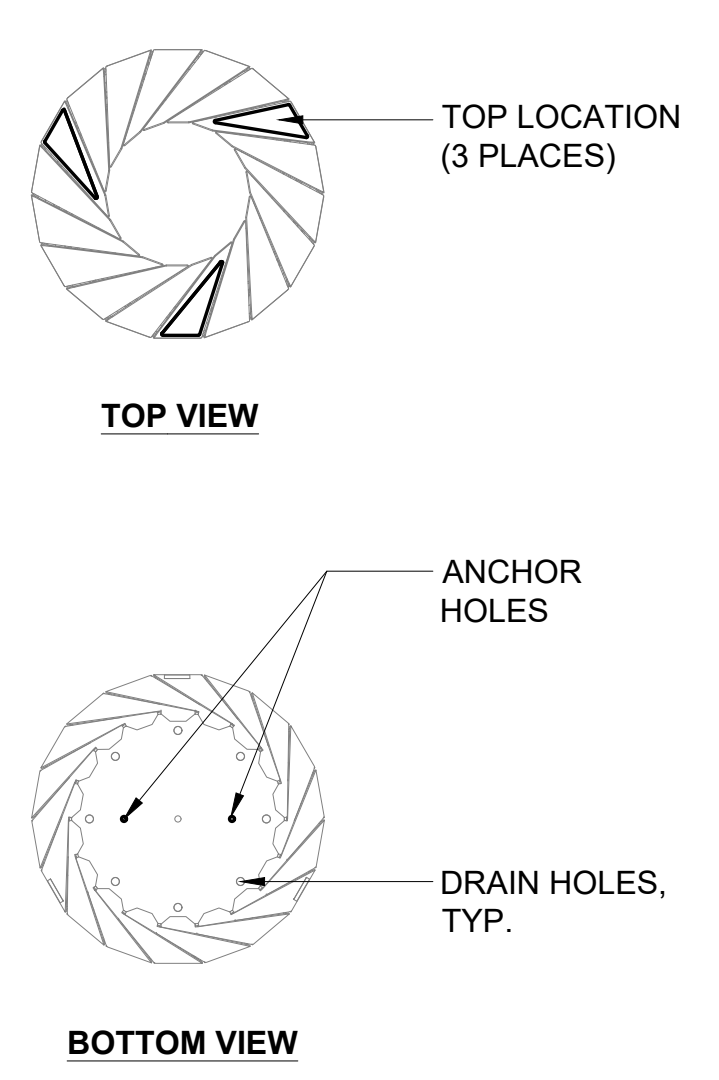
FILENAME
 SCALE

SHEET
 L571

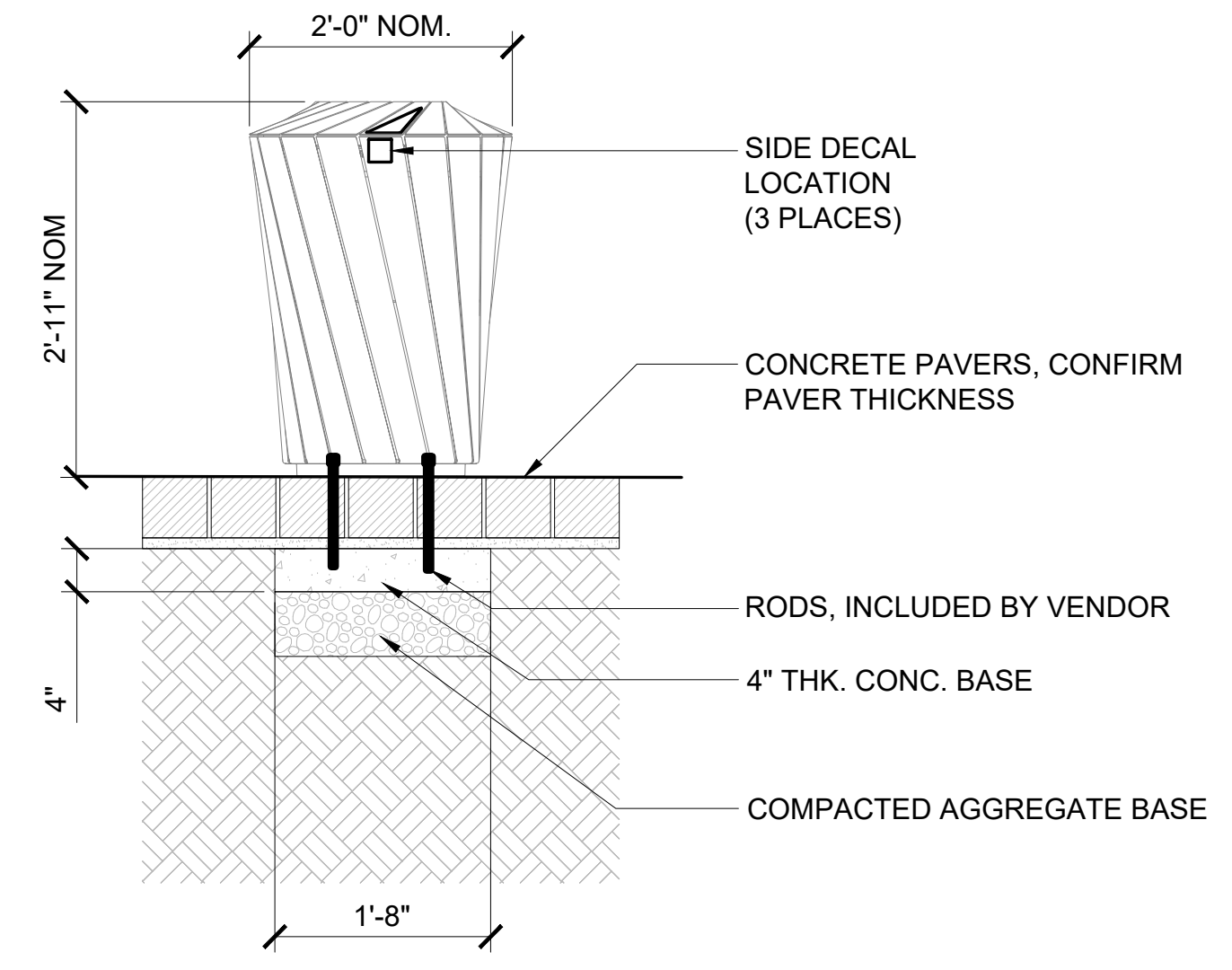


3 DETAIL - LT-01 PEDESTRIAN SCALE POLE LIGHT
1" = 1'-0"

P-20.199-95



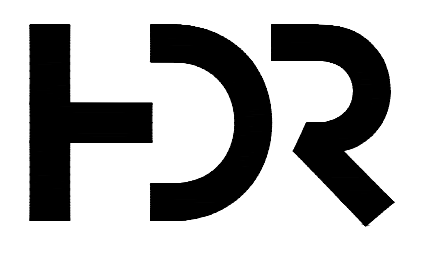
1 DETAIL - SF-06 WASTE RECEPTACLE
3/4" = 1'-0"



P-20.199-79



MINNEHAHA CREEK
WATERSHED DISTRICT



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LANDSCAPE ARCHITECTS
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PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

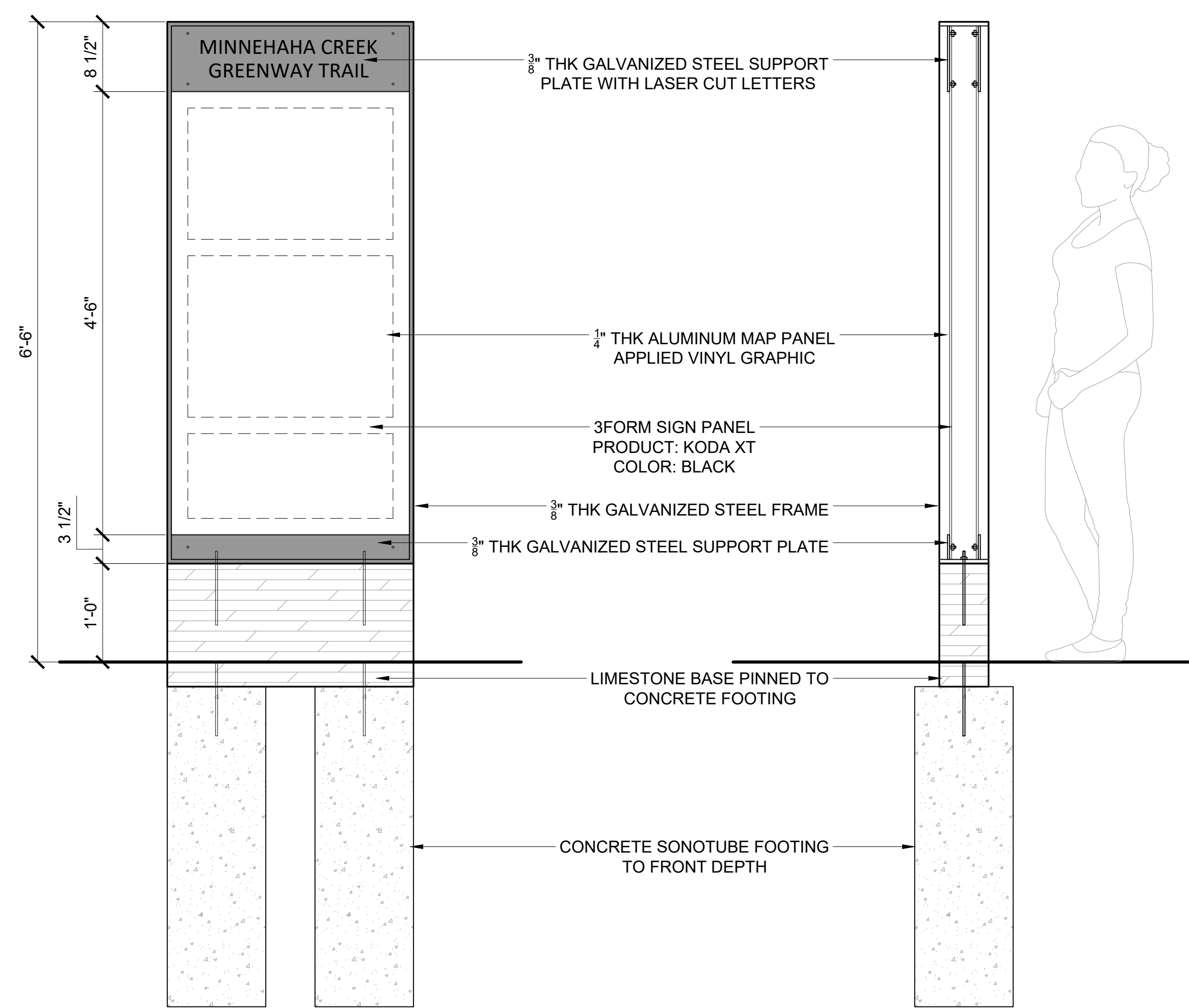
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - SITE FURNISHING

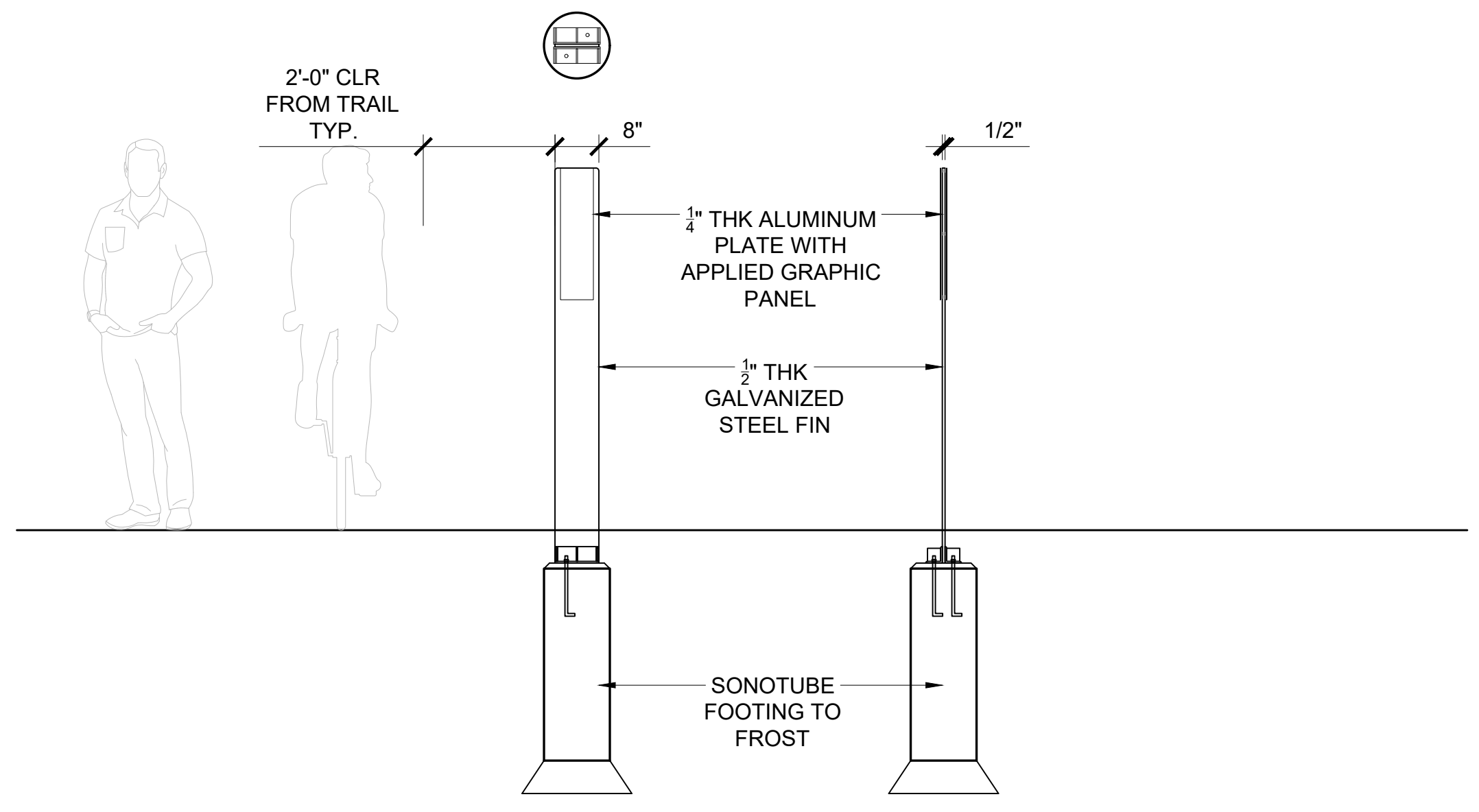


SHEET
L572

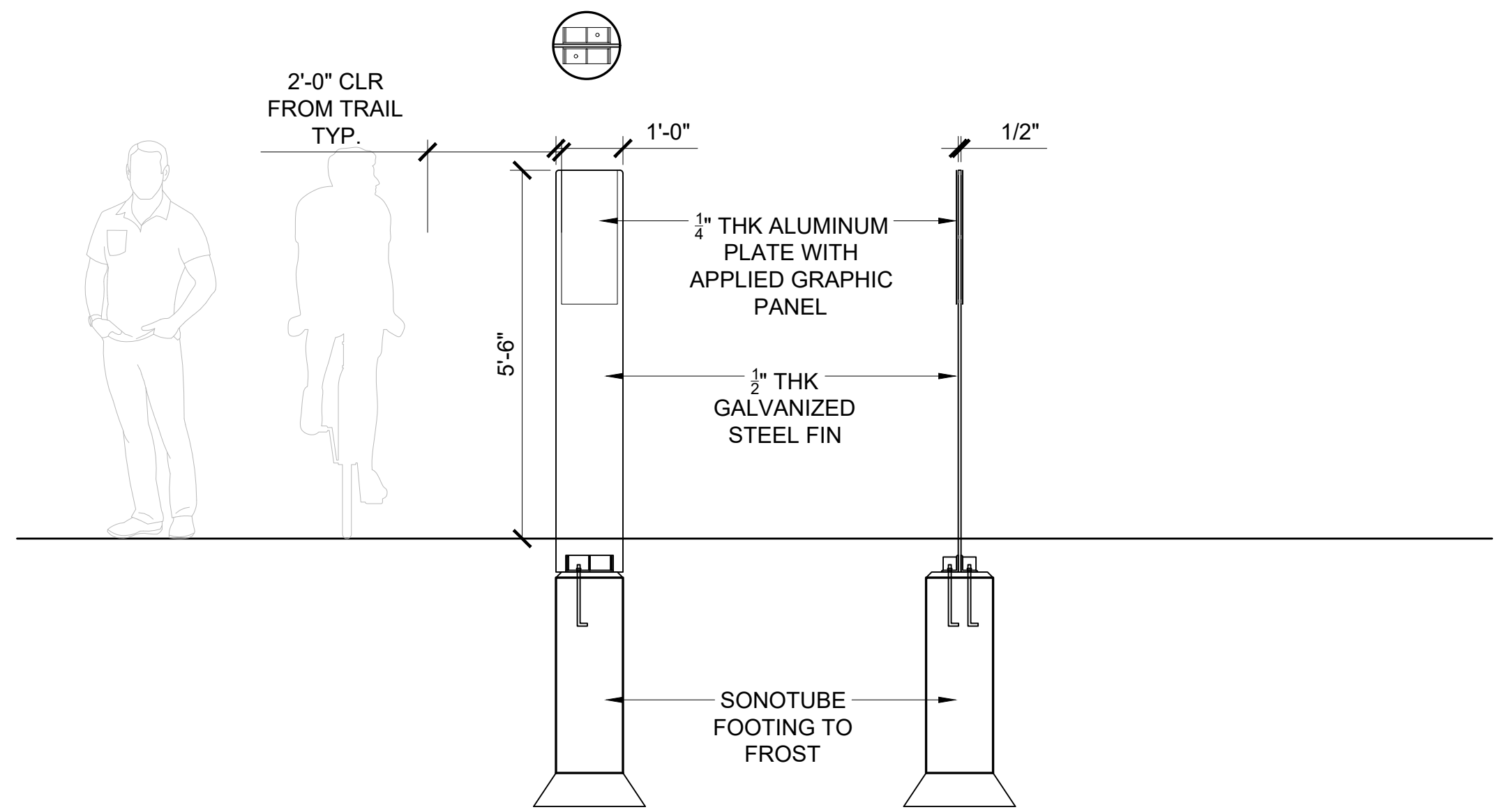


NOTE: CONTRACTOR TO SUBMIT ENGINEERED SHOP DRAWINGS, FINISH AND MATERIALS SAMPLES PRIOR TO FABRICATION.

3 DETAIL - SIGN TYPE 02 - INFORMATIONAL KIOSK SIGN
1" = 1'-0" P-20.199-154



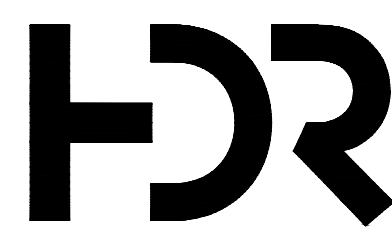
2 DETAIL - SN-04 SHARE THE TRAIL
1/2" = 1'-0" P-20.199-155



1 DETAIL - SN-01 DIRECTIONAL
1/2" = 1'-0" P-20.199-150



MINNEHAHA CREEK WATERSHED DISTRICT



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0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - SIGNAGE



FILENAME
SCALE

SHEET
L573

GENERAL NOTES

SIGNS SHALL HAVE NON-CORROSIVE, CONCEALED FASTENERS, CONCEALED CONTINUOUS WELDS WHERE PRACTICAL, GROUND SMOOTH, FILLED, PRIMED & FINISH PAINTED TO MATCH. NO VISIBLE ATTACHMENT METHODS UNLESS OTHERWISE NOTED.

SIGN TO MEET ALL LOCAL, STATE & NATIONAL CODES.

SIGN FABRICATOR TO PROVIDE SHOP DRAWINGS FOR REVIEW BY OWNER PRIOR TO FABRICATION. SIGN FABRICATOR TO ALLOW OWNER TO REVIEW ASSEMBLED KIOSK PRIOR TO PAINTING.

SIGN FABRICATOR TO PROVIDE COLOR SAMPLES TO OWNER FOR APPROVAL PRIOR TO FABRICATION.

ALL METAL FINISHES TO ACCEPT SPECIFIED FINISHES.

SEE STANDARD PLAN TR-1004 (SHEET L-XXX) FOR PLACEMENT OF STRUCTURES.

SIGN COMPONENTS

SIGN FRAME: 3" x 6" ALUMINUM TUBE CONSTRUCTION. 3/8" WALL, SOFTENED SQUARE CORNERS WITH 1/4" OUTSIDE RADIUS CORNERS, CONTINUOUS WELD ALL SEAMS, CAPPED ENDS, SEAMLESS, SMOOTH AND DEFECT FREE. HORIZONTAL MEMBERS TO BE NOTCHED, FITTED AND WELDED TO VERTICAL MEMBERS, CONTINUOUS WELD ALL MEMBERS, SEAMLESS, SMOOTH AND DEFECT FREE. FINISH ALL SURFACES WITH **FINISH "A"**.

DECORATIVE ARC/ROOF SUPPORT: 1/2" PLATE ALUMINUM, CUT WITH WATER JET - EDGES TO BE SMOOTH AND DEFECT FREE. FASTEN DECORATIVE ARC TO VERTICAL FRAME MEMBERS WITH TAMPER PROOF FLUSH/COUNTERSUNK BOLTS. MECHANICAL ATTACHMENT TO ROOF, 1/4" x 7" ALUMINUM PLATE WITH PRE-PUNCHED HOLES TO ATTACH ROOF, CONTINUOUS WELDED TO BASE. FINISH ALL SURFACES WITH **FINISH "A"**.

ROOF: 1/4" SHEET ALUMINUM, CURVE ROLL FORMED TO MATCH DECORATIVE ARC/ROOF SUPPORT. 1" x 1" x 1/8" ALUMINUM TUBE TO BE FASTENED FLUSH TO FRONT & REAR EDGES WITH FLATHEAD/FLUSH NUT BOLTS. FINISH ALL SURFACES WITH **FINISH "B"**.

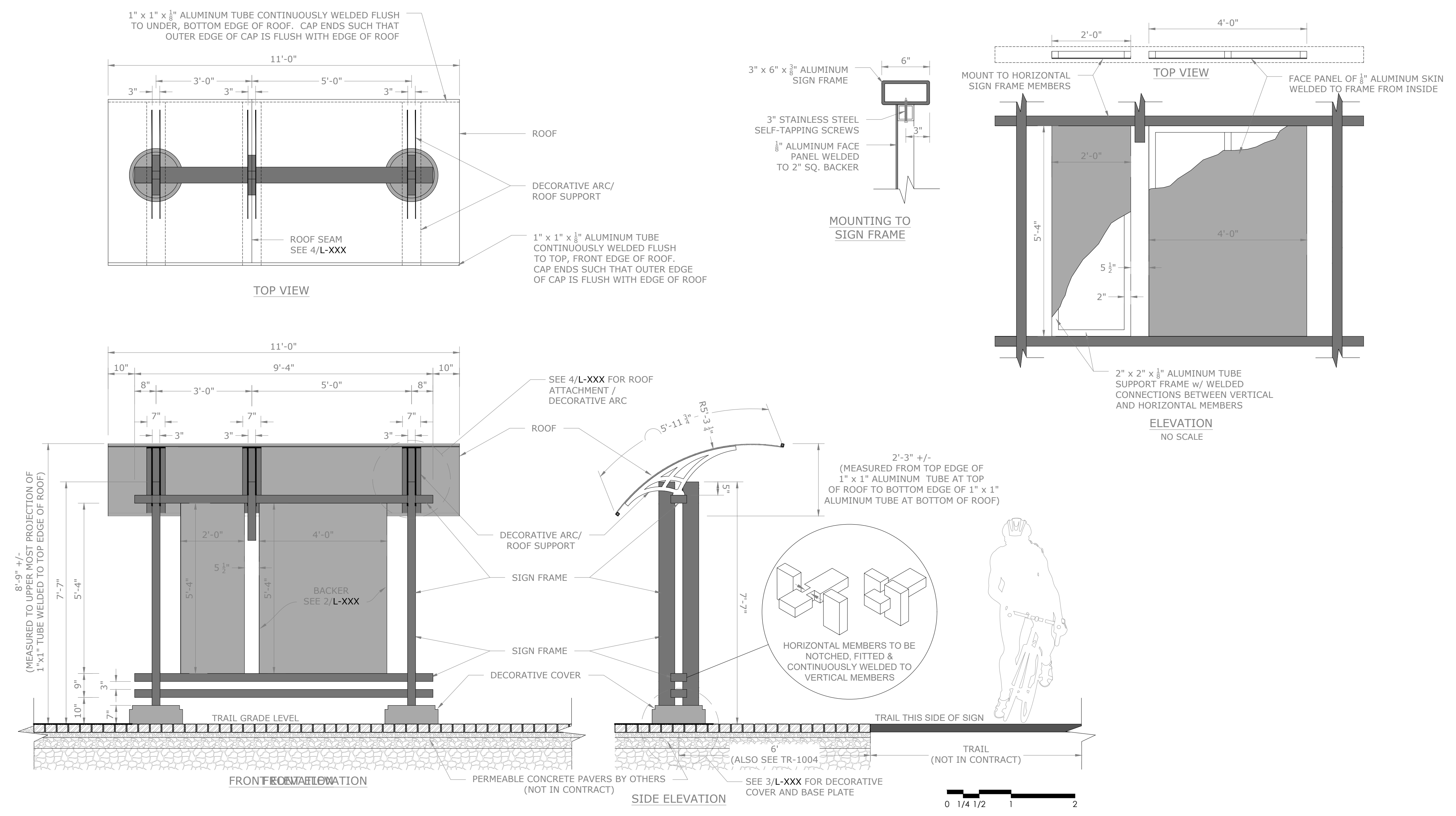
BACKER: 2" x 2" ALUMINUM TUBE CONSTRUCTION WITH 1/8" ALUMINUM SKIN FACE PANEL, SEAMLESS, SMOOTH AND DEFECT FREE. FINISH ALL SURFACES WITH **FINISH "A"**.

DECORATIVE COVER: 1/8" ALUMINUM, WELDS CONTINUOUS & SMOOTH, GROUND SMOOTH. PROVIDE FASTENING TABS AND STAINLESS STEEL TAMPER PROOF FASTENER ASSEMBLY. FINISH ALL SURFACES WITH **FINISH "A"**.

FINISH SCHEDULE

FINISH "A": DIRECT-TO-METAL (DTM) URETHANE MASTIC (PPG DURETHANE OR APPROVED EQUAL) TO MATCH PANTONE 7546C (DEEP GREY).

FINISH "B": DIRECT-TO-METAL (DTM) URETHANE MASTIC (PPG DURETHANE OR APPROVED EQUAL) TO MATCH MATTHEWS MP13362 (TO MATCH THE LOOK OF COR-TEN STEEL).



1 DETAIL - AM-01 TRAIL KIOSK

P-20.199-119



PROJECT MANAGER ANDREW F. JUDD		
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS
ISSUE	DATE	DESCRIPTION
PROJECT NUMBER 10268112		

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THOMAS J WHITLOCK, PLA

DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - AMENITY



SHEET L580

GENERAL NOTES

SIGNS SHALL HAVE NON-CORROSIVE, CONCEALED FASTENERS, CONCEALED CONTINUOUS WELDS WHERE PRACTICAL, GROUND SMOOTH, FILLED, PRIMED & FINISH PAINTED TO MATCH. NO VISIBLE ATTACHMENT METHODS UNLESS OTHERWISE NOTED.

SIGN TO MEET ALL LOCAL, STATE & NATIONAL CODES.

SIGN FABRICATOR TO PROVIDE SHOP DRAWINGS FOR REVIEW BY OWNER PRIOR TO FABRICATION. SIGN FABRICATOR TO ALLOW OWNER TO REVIEW ASSEMBLED KIOSK PRIOR TO PAINTING.

SIGN FABRICATOR TO PROVIDE COLOR SAMPLES TO OWNER FOR APPROVAL PRIOR TO FABRICATION.

ALL METAL FINISHES TO ACCEPT SPECIFIED FINISHES.

SEE STANDARD PLAN TR-1004 (SHEET L-XXX) FOR PLACEMENT OF STRUCTURES.

SIGN COMPONENTS

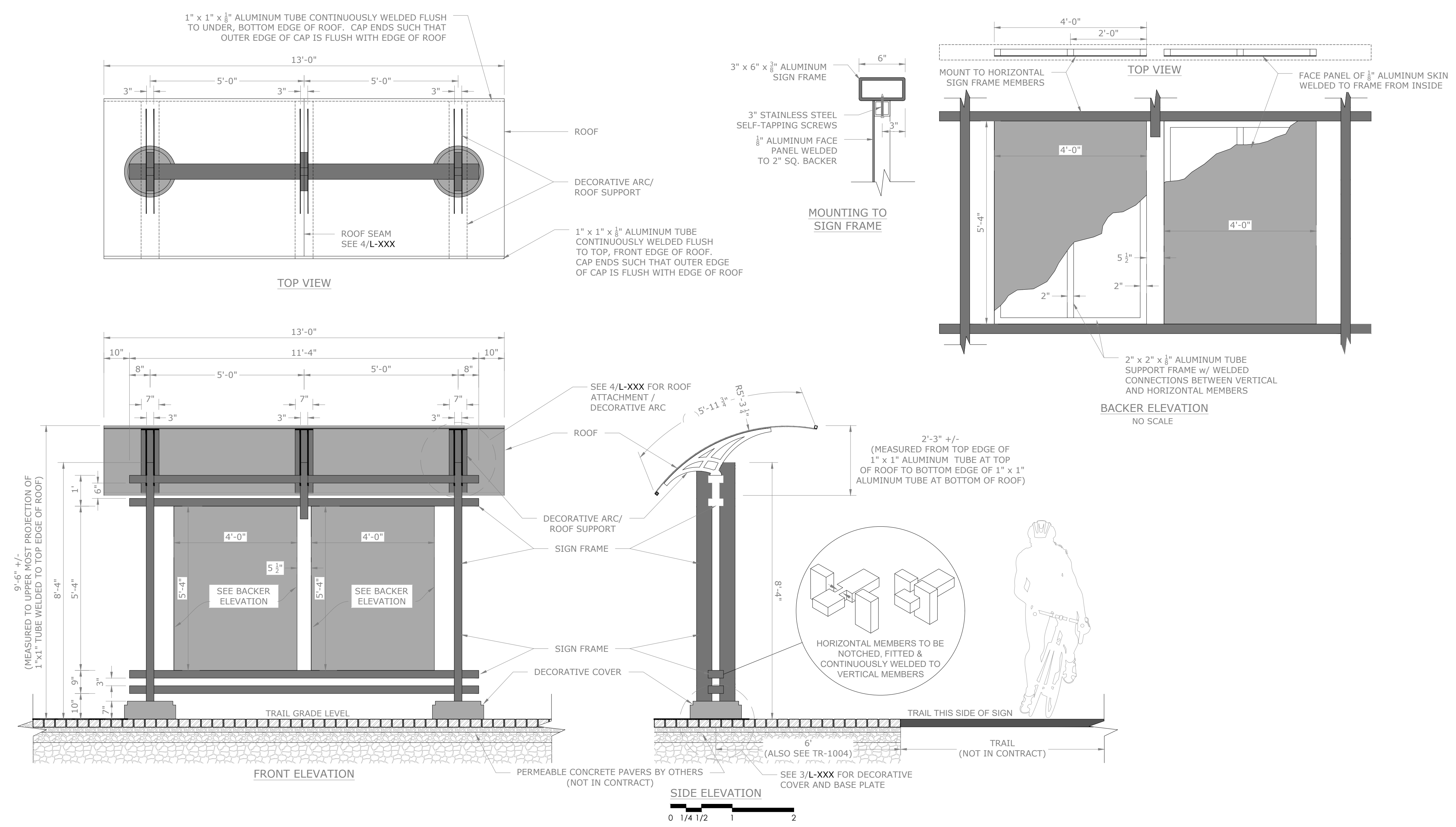
SIGN FRAME: 3" x 6" ALUMINUM TUBE CONSTRUCTION. 3/8" WALL, SOFTENED SQUARE CORNERS WITH 1/4" OUTSIDE RADIUS CORNERS, CONTINUOUS WELD ALL SEAMS, CAPPED ENDS, SEAMLESS, SMOOTH AND DEFECT FREE. HORIZONTAL MEMBERS TO BE NOTCHED, FITTED AND WELDED TO VERTICAL MEMBERS, CONTINUOUS WELD ALL MEMBERS, SEAMLESS, SMOOTH AND DEFECT FREE. FINISH ALL SURFACES WITH **FINISH "A"**.

DECORATIVE ARC/ROOF SUPPORT: 1/2" PLATE ALUMINUM, CUT WITH WATER JET - EDGES TO BE SMOOTH AND DEFECT FREE. FASTEN DECORATIVE ARC TO VERTICAL FRAME MEMBERS WITH TAMPER PROOF FLUSH/COUNTERSUNK BOLTS. MECHANICAL ATTACHMENT TO ROOF, 1/4" x 7" ALUMINUM PLATE WITH PRE-PUNCHED HOLES TO ATTACH ROOF, CONTINUOUS WELDED TO BASE. FINISH ALL SURFACES WITH **FINISH "A"**.

ROOF: 1/2" SHEET ALUMINUM, CURVE ROLL FORMED TO MATCH DECORATIVE ARC/ROOF SUPPORT. 1" x 1" x 1/2" ALUMINUM TUBE TO BE FASTENED FLUSH TO FRONT & REAR EDGES WITH FLATHEAD/FLUSH NUT BOLTS. FINISH ALL SURFACES WITH **FINISH "B"**.

BACKER: 2" x 2" ALUMINUM TUBE CONSTRUCTION WITH 1/2" ALUMINUM SKIN FACE PANEL, SEAMLESS, SMOOTH AND DEFECT FREE. FINISH ALL SURFACES WITH **FINISH "A"**.

DECORATIVE COVER: 1/2" ALUMINUM, WELDS CONTINUOUS & SMOOTH, GROUND SMOOTH. PROVIDE FASTENING TABS AND STAINLESS STEEL TAMPER PROOF FASTENER ASSEMBLY. FINISH ALL SURFACES WITH **FINISH "A"**.



1 DETAIL - AM-02 SYSTEM KIOSK

P-20.199-122



PROJECT MANAGER ANDREW F. JUDD

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0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

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THOMAS J WHITLOCK, PLA

DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

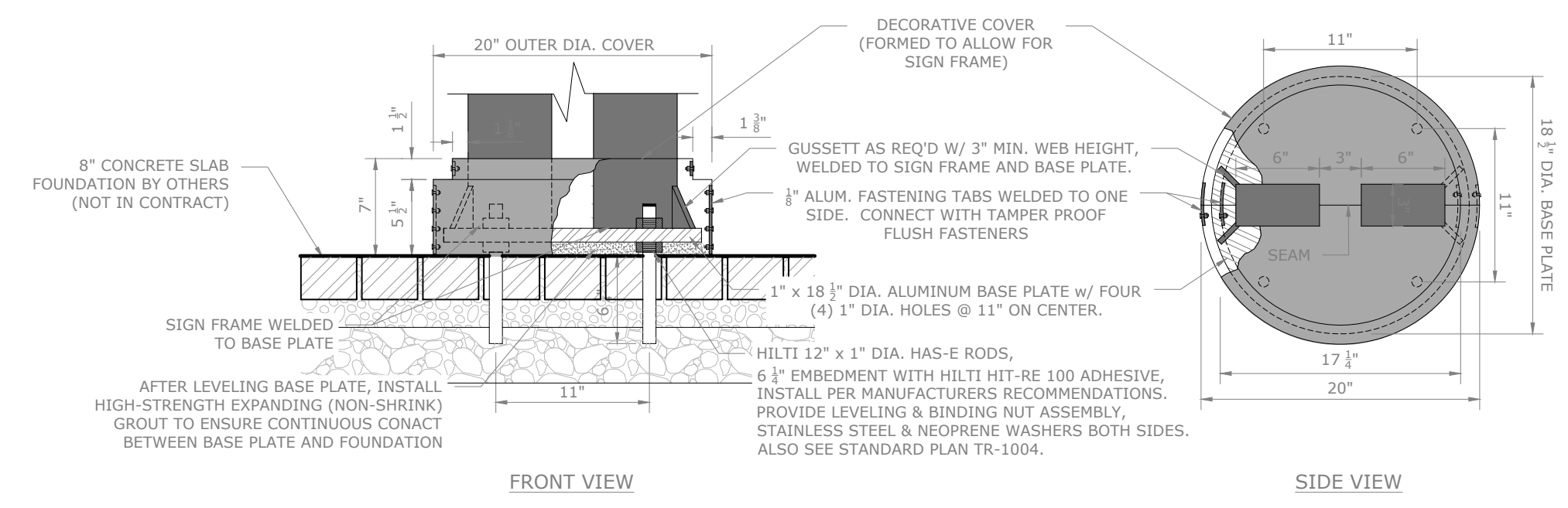
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - AMENITY

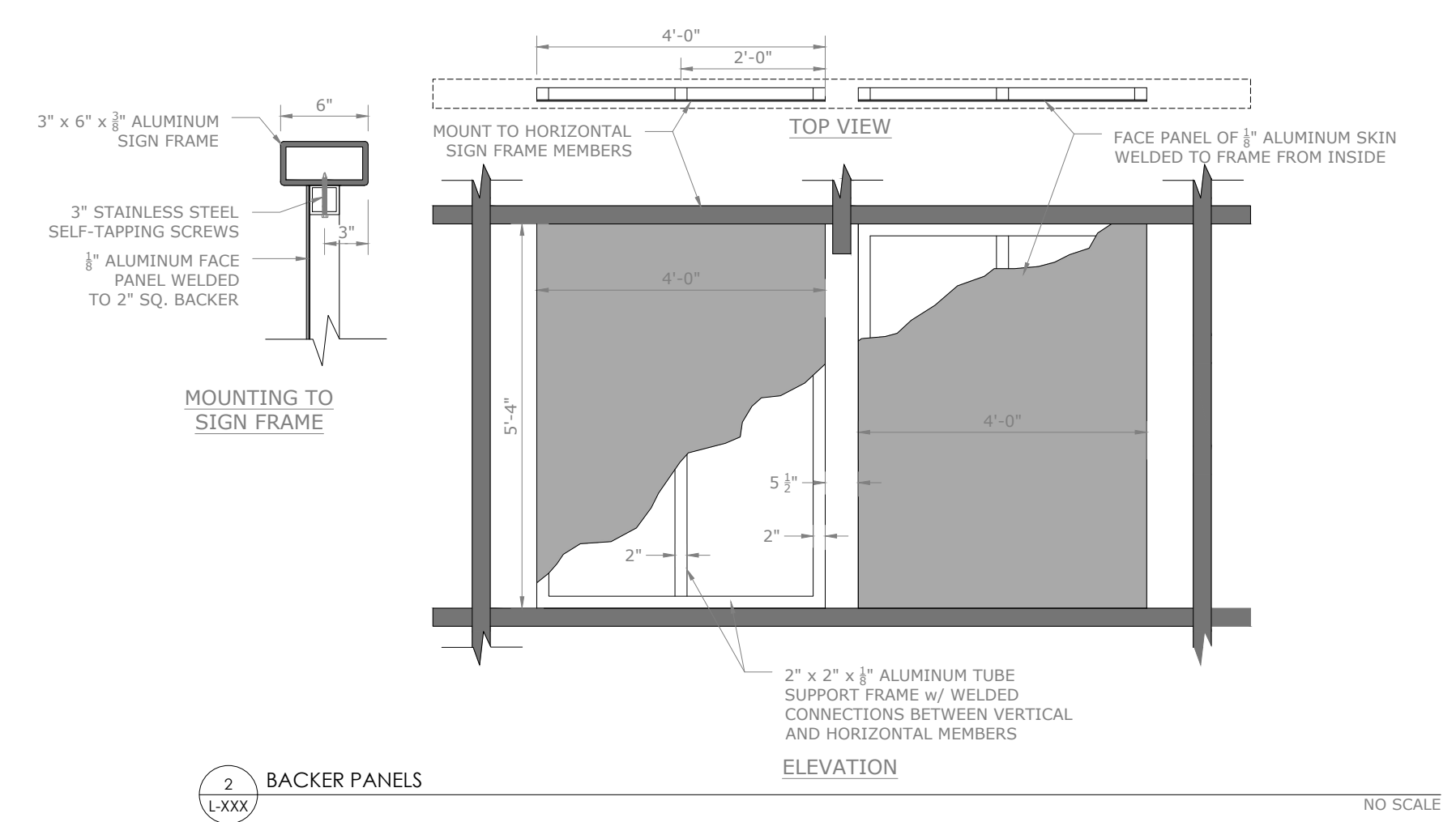
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FILENAME

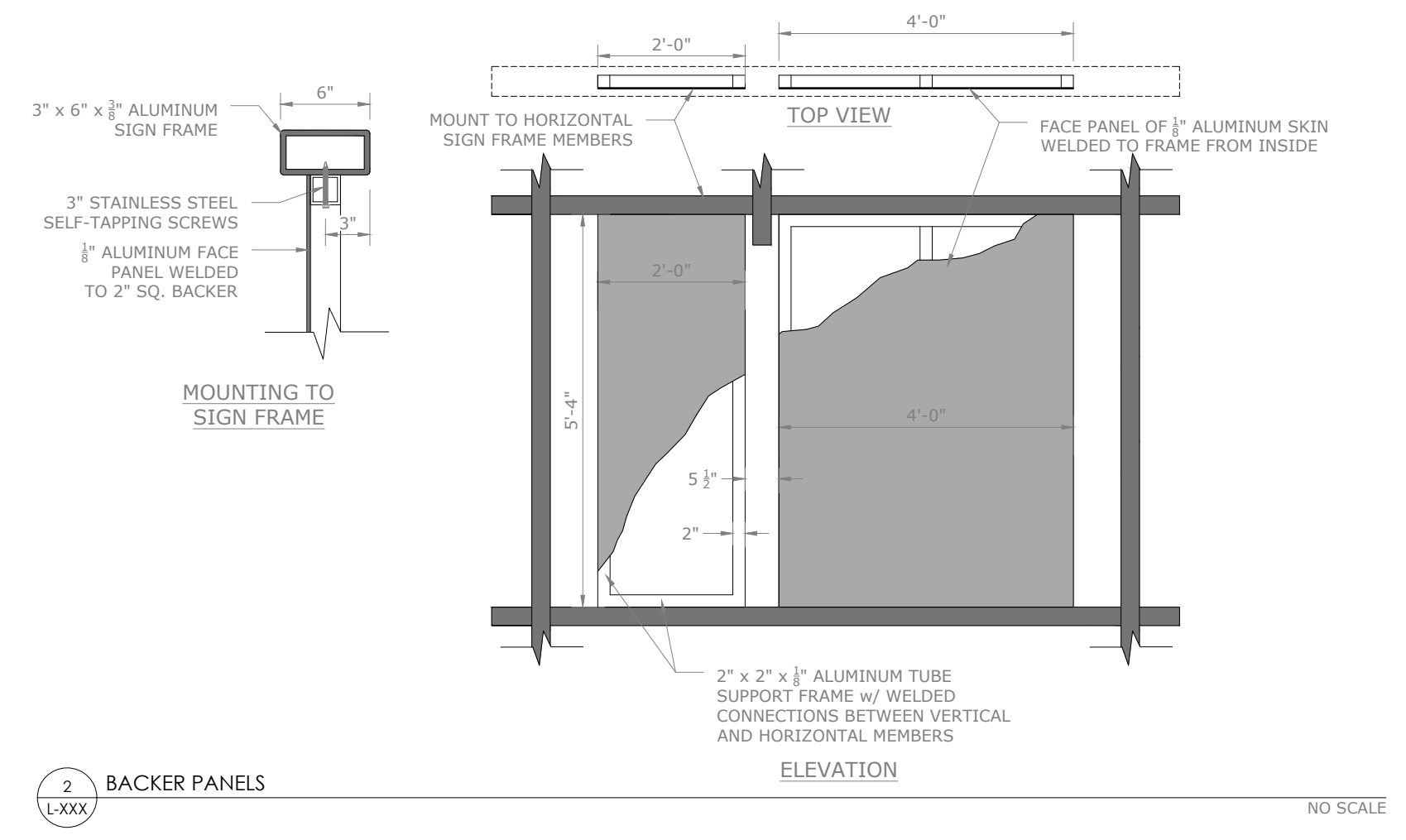
SHEET **L581**



3 DETAIL - AM-01 & AM-02 KIOSK DECORATIVE COVER AND BASE PLATE
NTS P-20.199-117



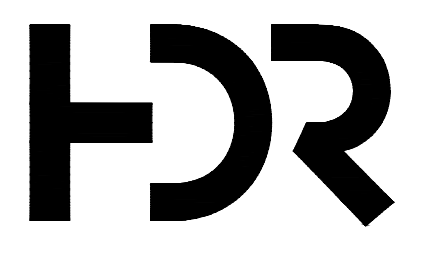
2 DETAIL - AM-02 SYSTEM KIOSK, BACKER PANELS
3/8" = 1'-0" P-20.199-120



1 DETAIL - AM-01 TRAIL KIOSK, BACKER PANELS
3/8" = 1'-0" P-20.199-121



MINNEHAHA CREEK WATERSHED DISTRICT



DF/ DAMON FARBER LANDSCAPE ARCHITECTS
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p: 612.332.7522

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PROJECT MANAGER ANDREW F. JUDD

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THOMAS J WHITLOCK, PLA
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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

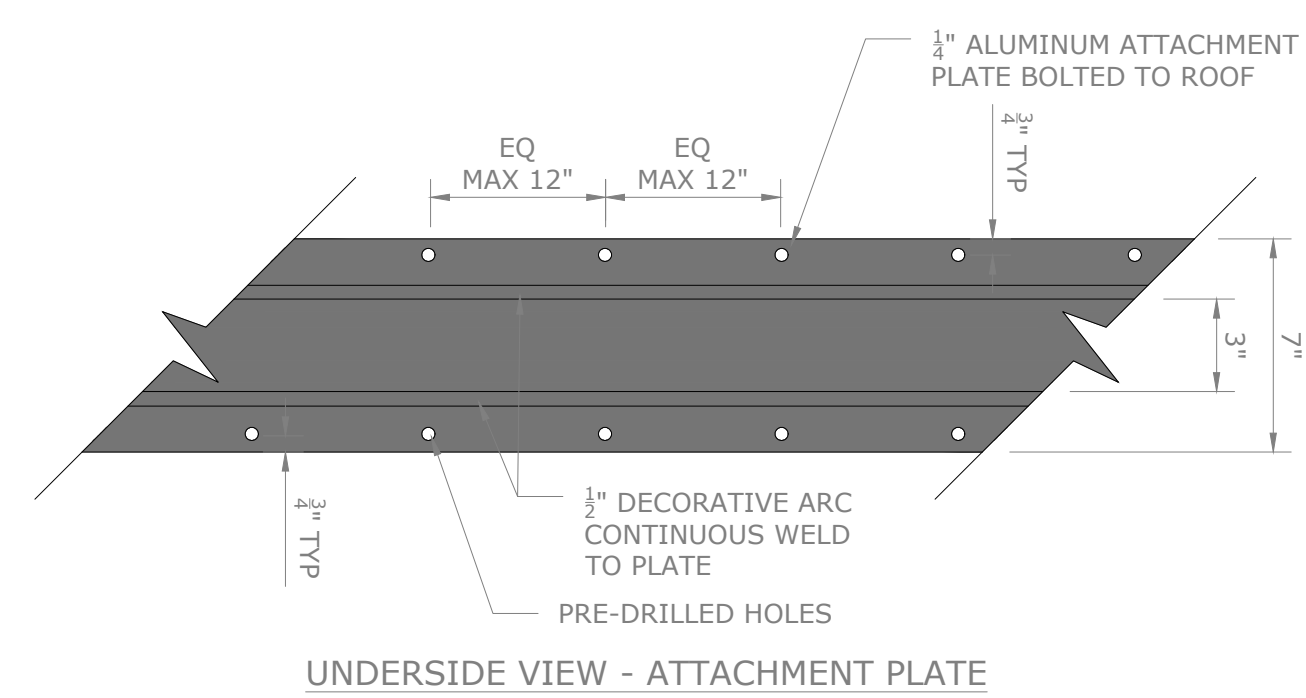
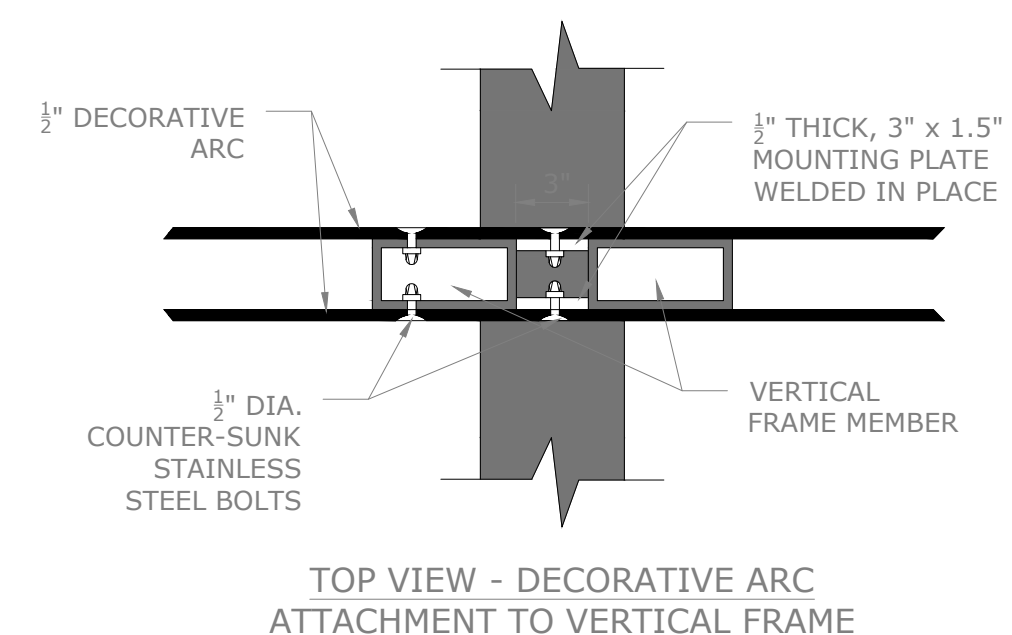
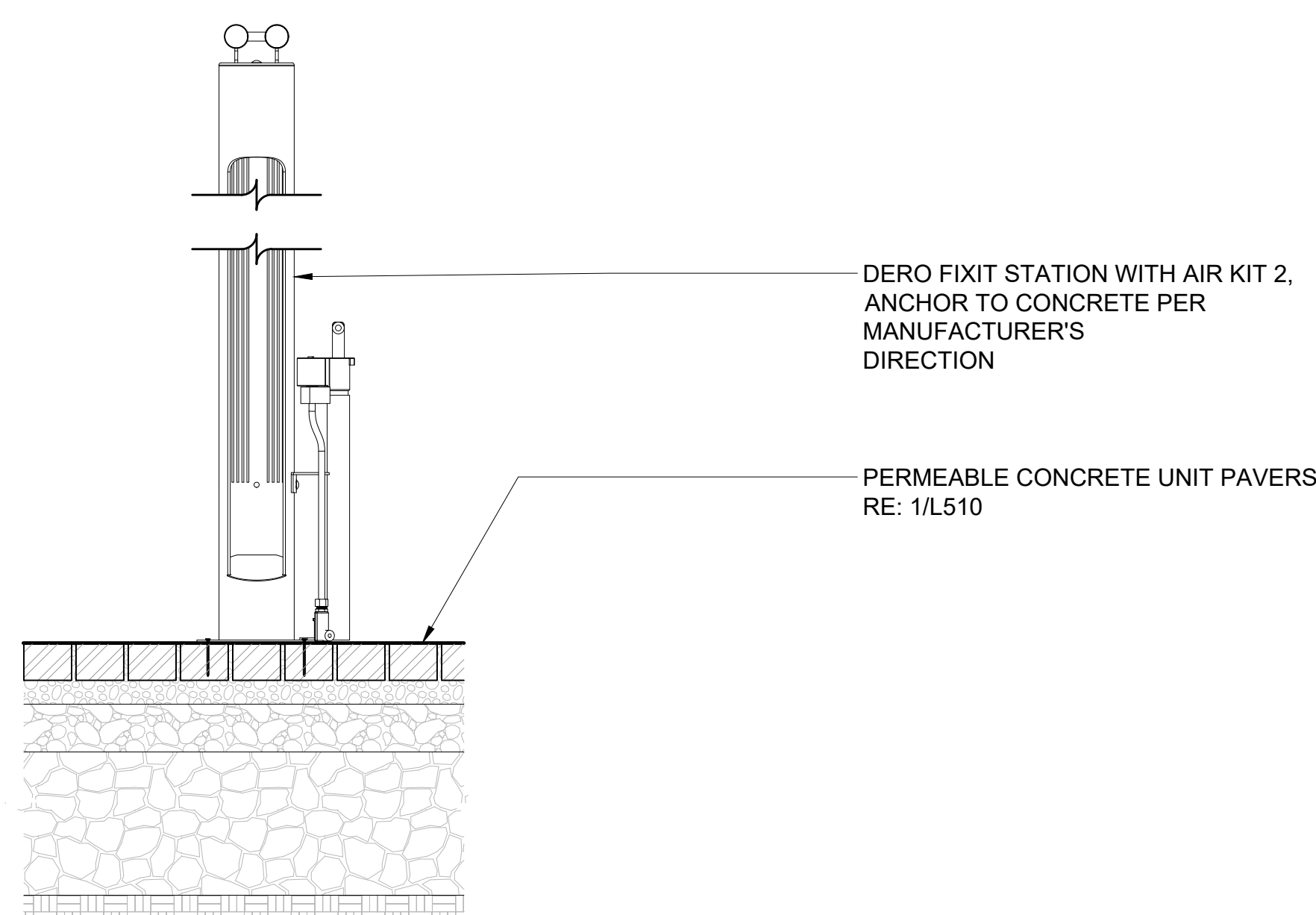
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - AMENITY



FILENAME SCALE

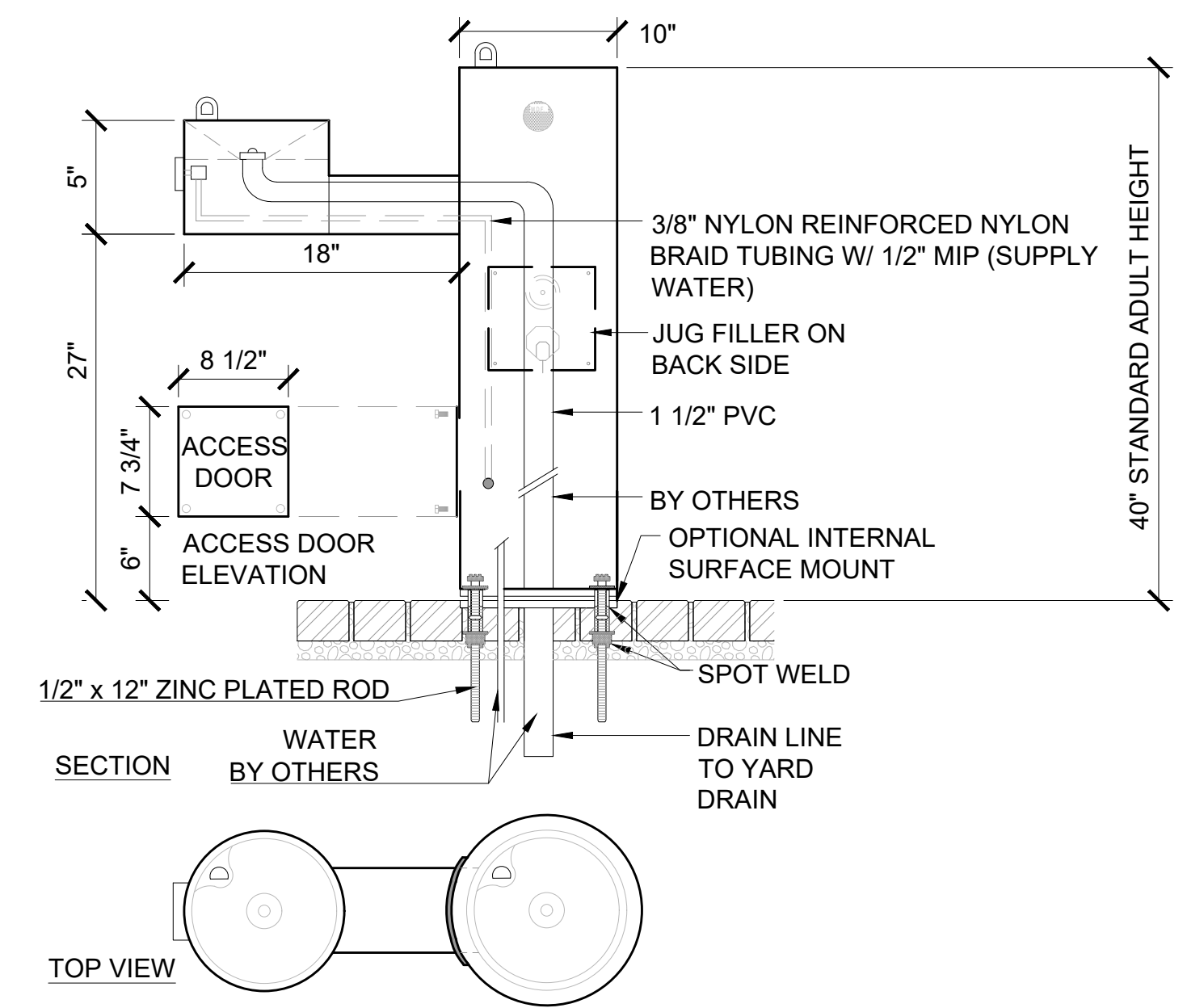
SHEET L582



3 DETAIL - AM-09 BIKE FIX-IT STATION

1" = 1'-0"

P-20.199-58

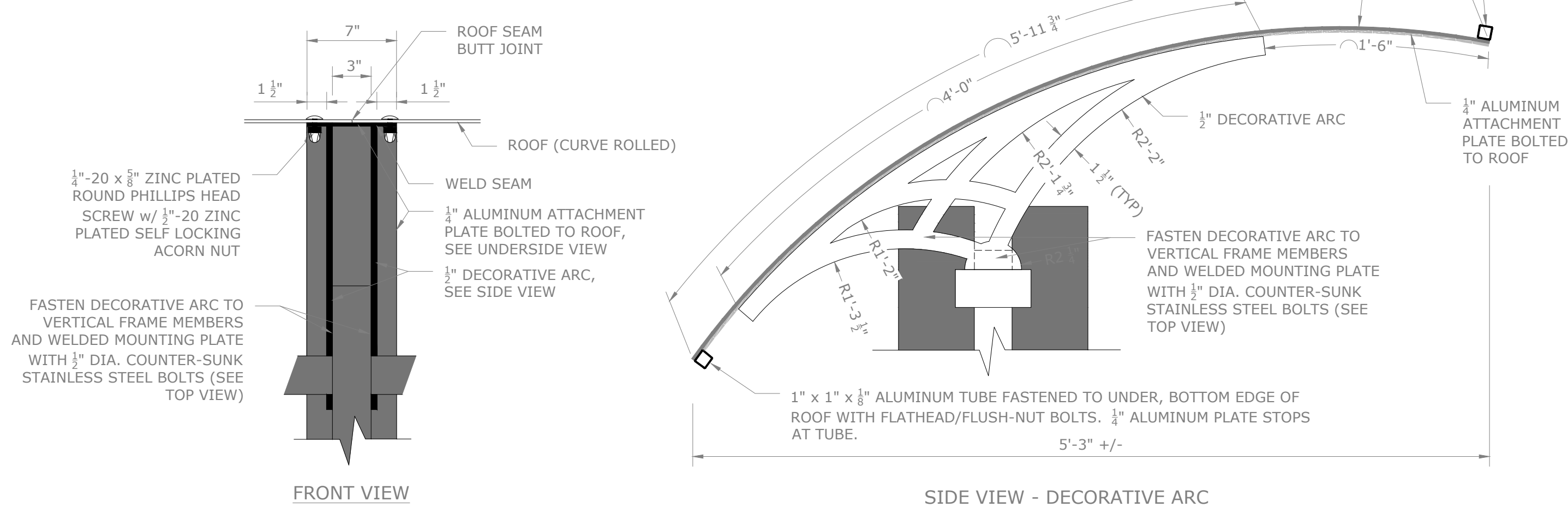


- NOTES:
1. MEETS ADA REGULATIONS.
 2. OPTIONAL STAINLESS STEEL SURFACE CARRIER RECOMMENDED.
 3. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 4. DO NOT SCALE DRAWING.
 5. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
 6. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

1 DETAIL - AM-01 & AM-02 KIOSK ROOF ATTACHMENT / DECORATIVE ARC

NTS

P-20.199-123



2 DETAIL - AM-08 DRINKING FOUNTAIN

1" = 1'-0"

P-20.199-115



ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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THOMAS J WHITLOCK, PLA

DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

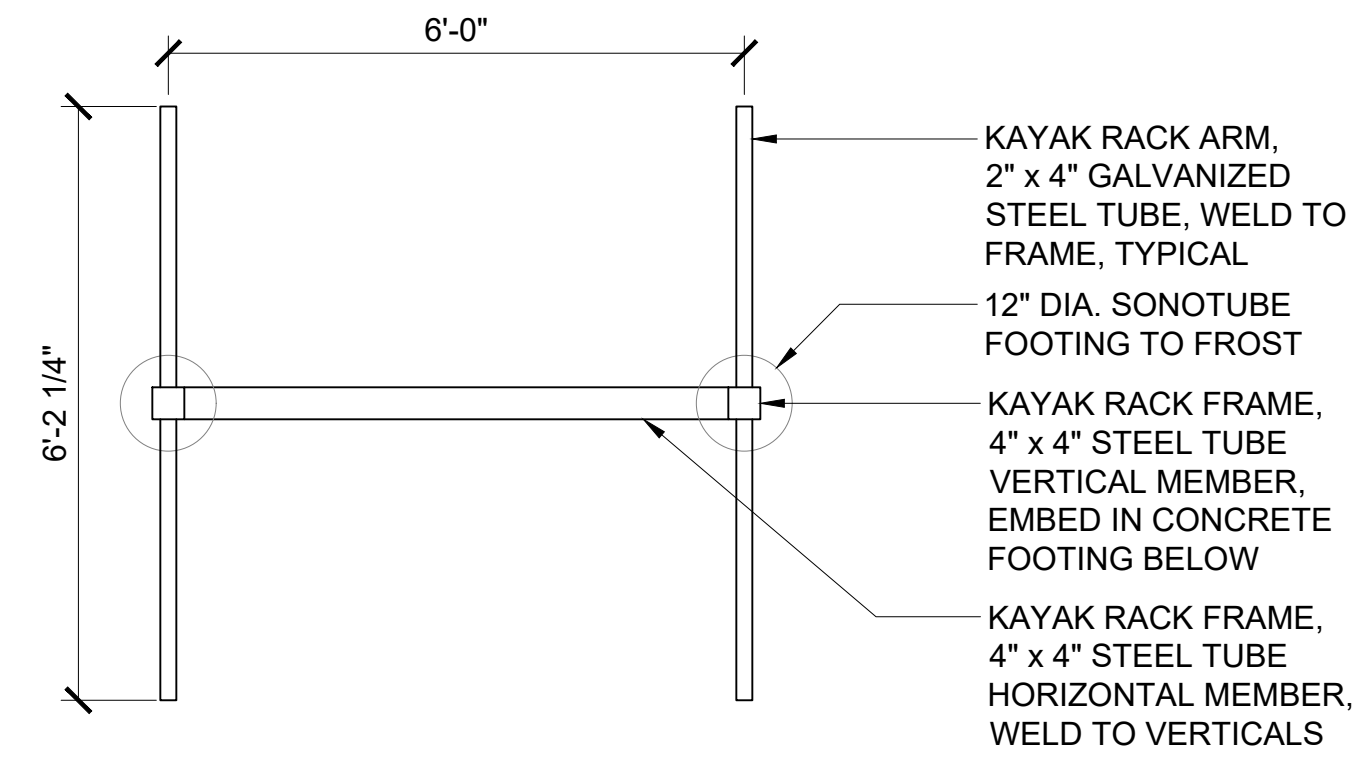
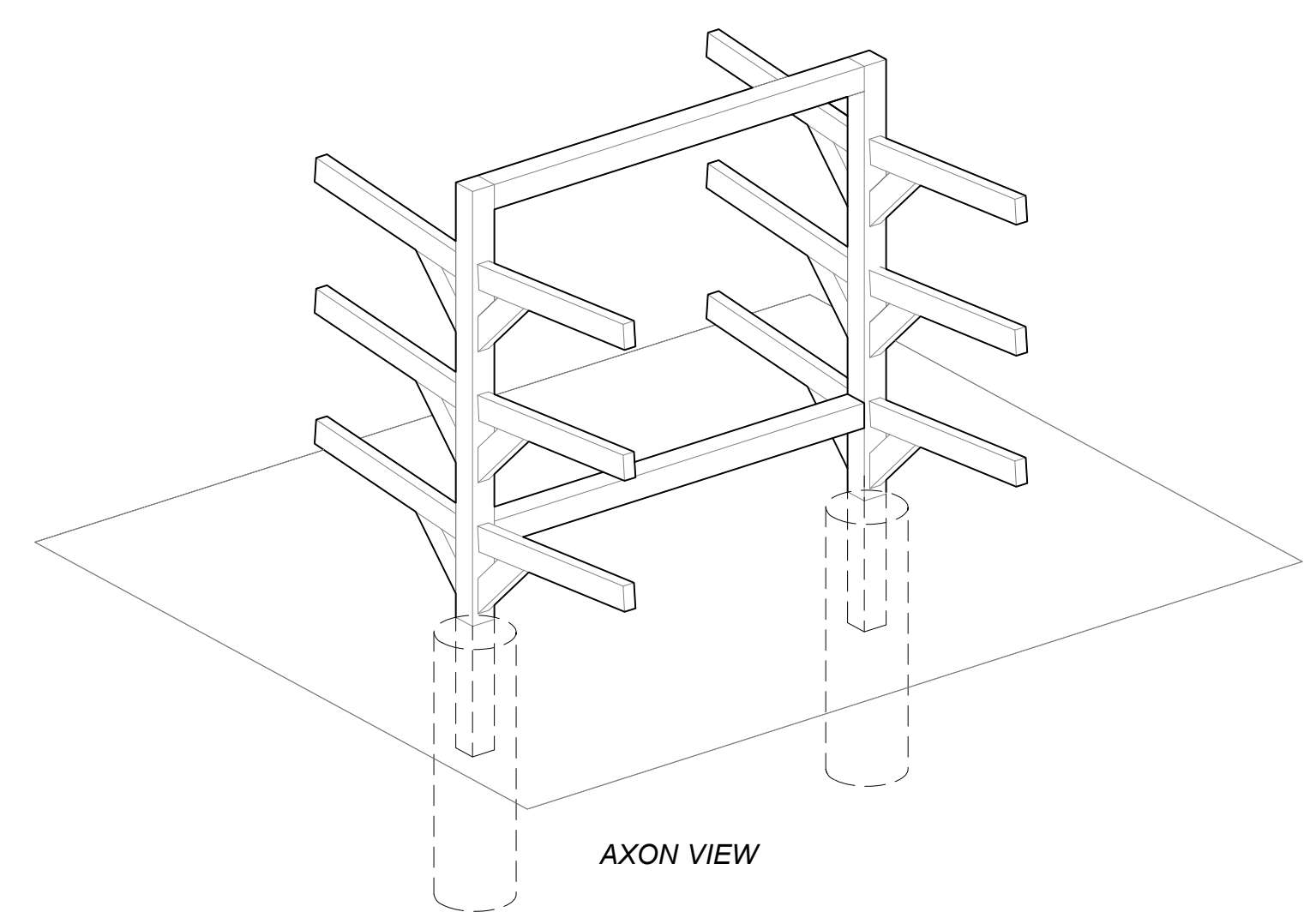
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - AMENITY

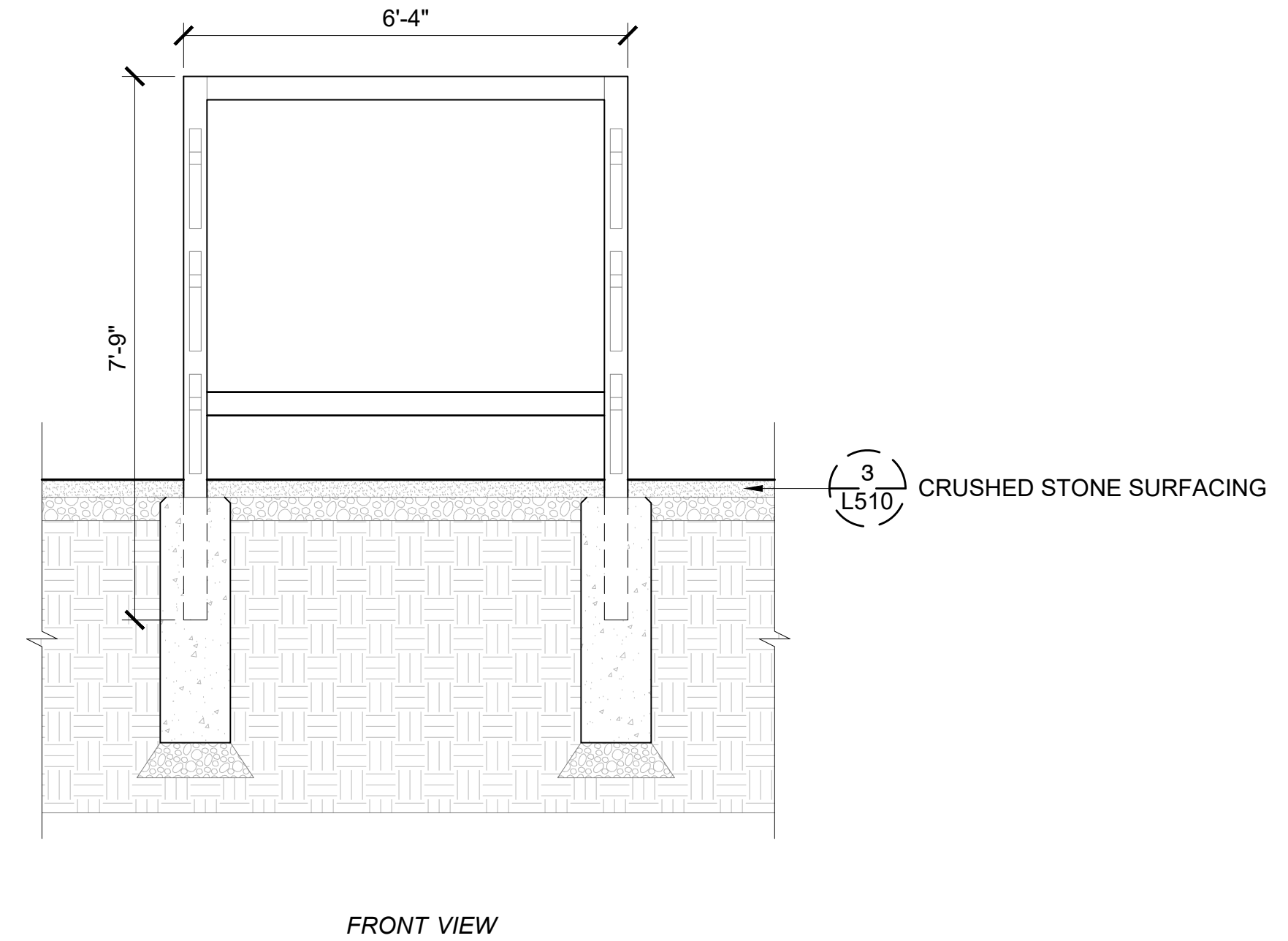
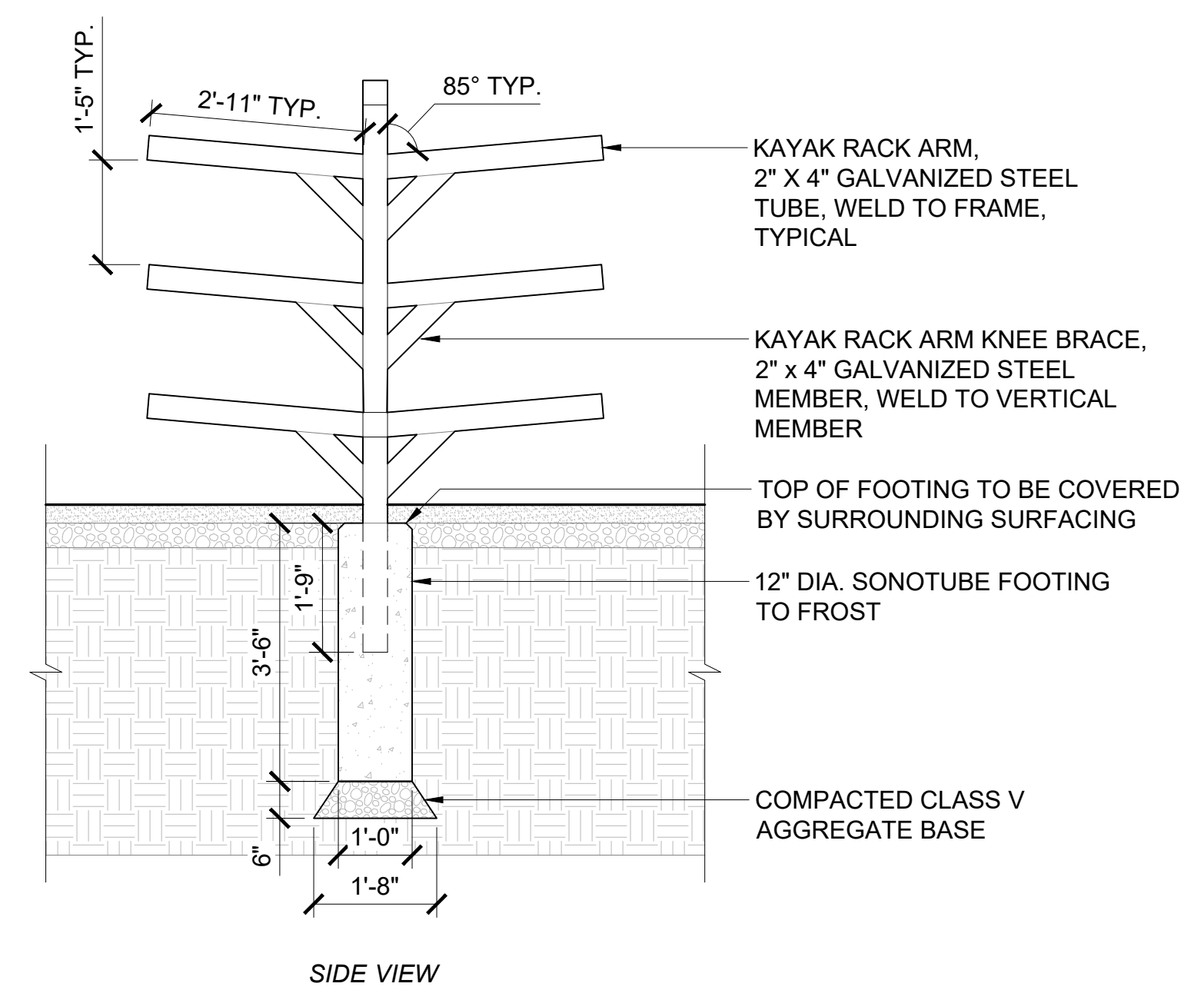


FILENAME
SCALE

SHEET
L583



CUSTOM STEEL KAYAK RACK, PROVIDE SHOP DRAWINGS FOR APPROVAL BY LANDSCAPE ARCHITECT



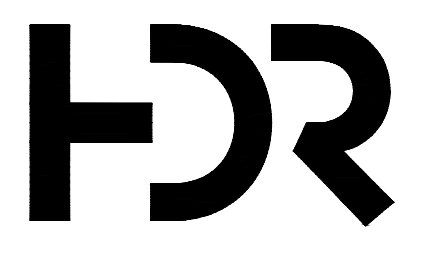
1 DETAIL - AM-06 KAYAK RACK

1/2" = 1'-0"

P-20.199-116



MINNEHAHA CREEK WATERSHED DISTRICT



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PROJECT MANAGER ANDREW F. JUDD

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

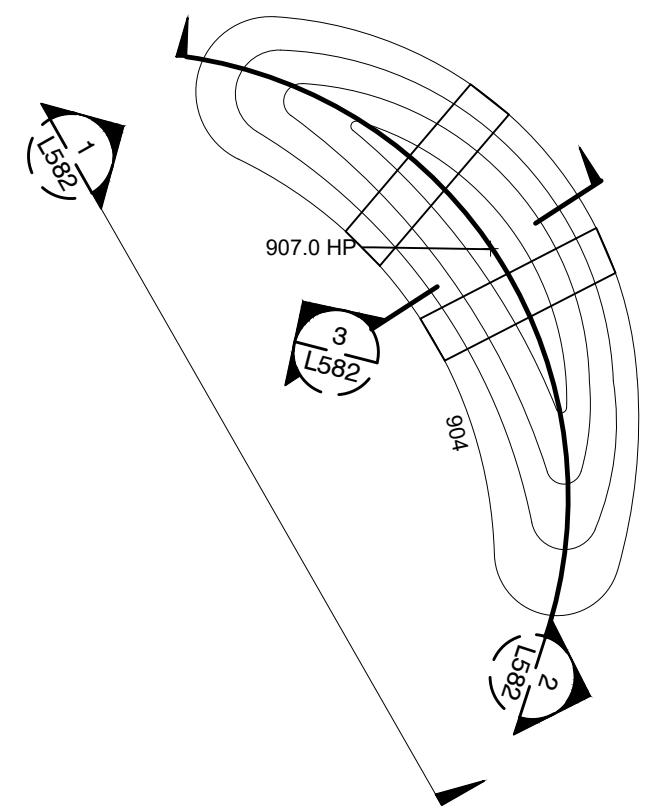
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - AMENITY

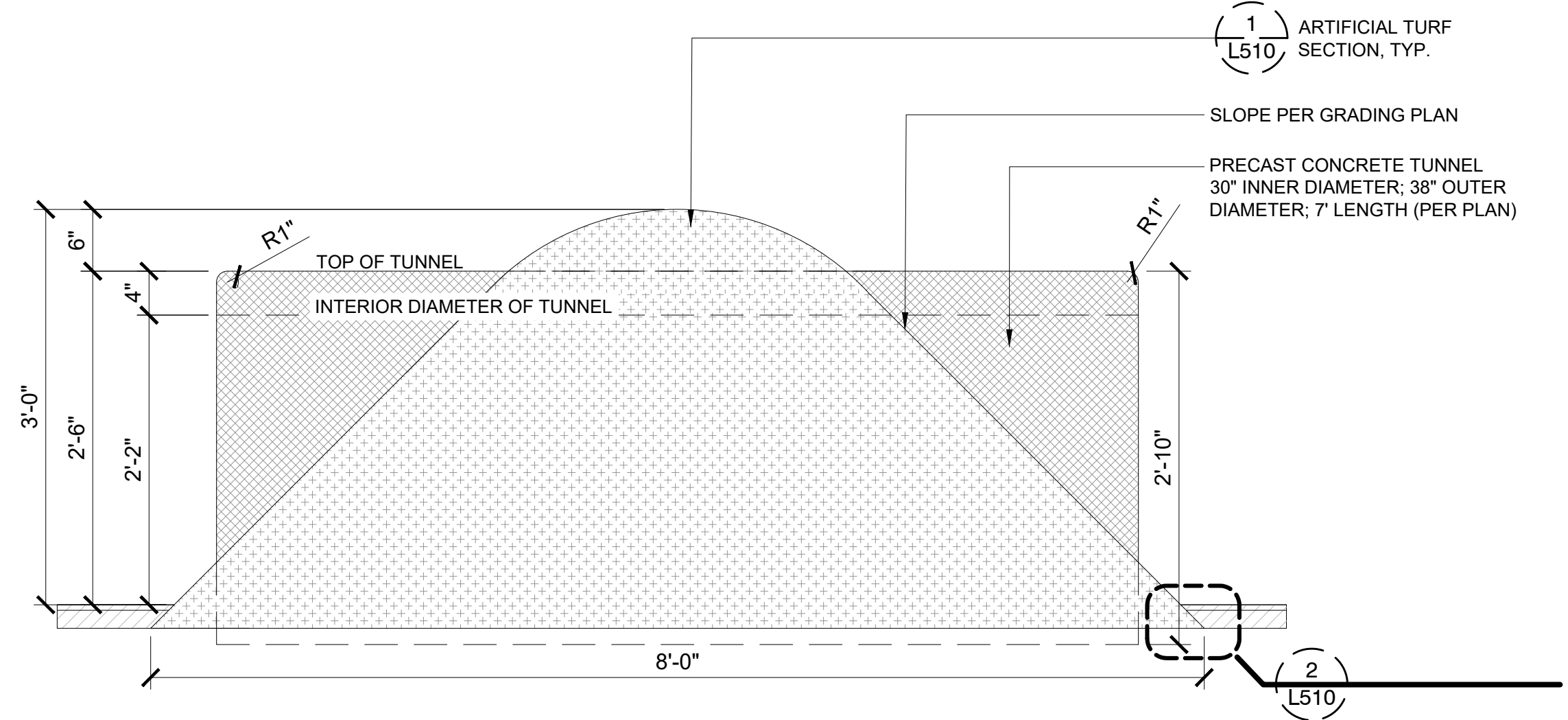


FILENAME

SHEET L584

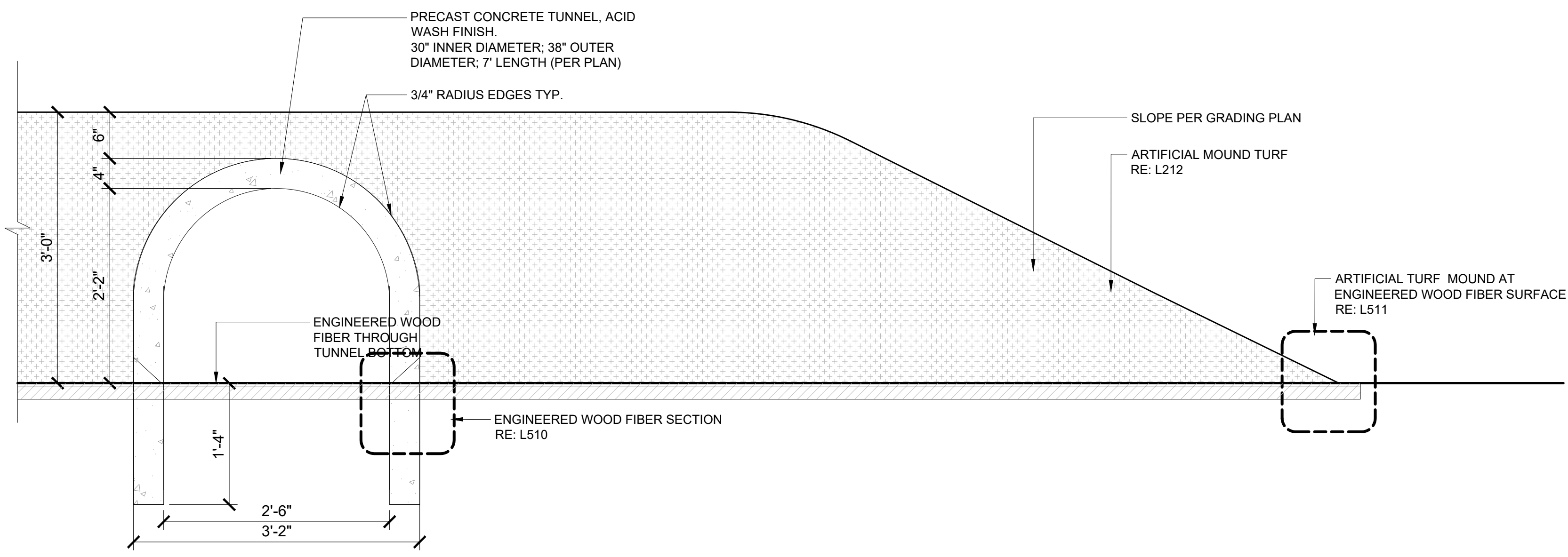


4 TURF MOUND LANDSCAPE FEATURE - PLAN VIEW
1" = 1" P-20.199-157

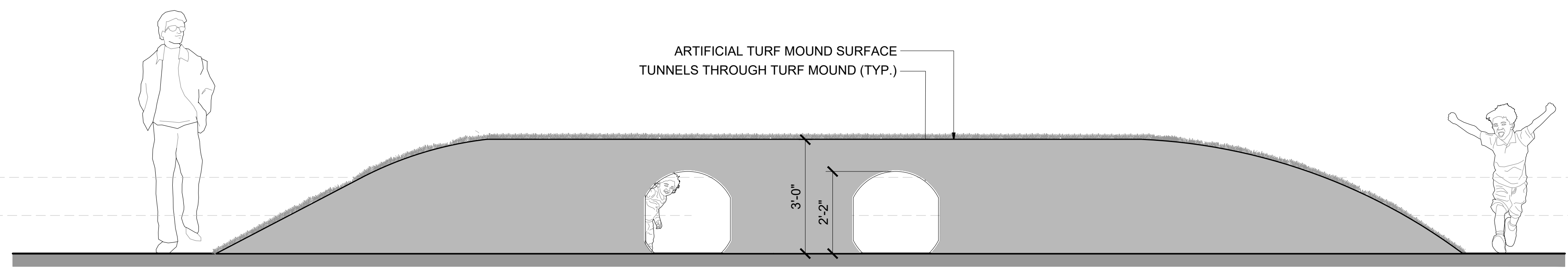


3 ARTIFICIAL TURF MOUND WITH TUNNEL - SECTION 2
1" = 1'-0" P-20.199-42

- GENERAL TURF MOUND FEATURE NOTES:**
1. TURF MOUND FEATURES SHALL BE REVIEWED FOR SHARP POINTS, PROTRUSIONS AND ENTRAPMENT AREAS. REFER TO ASTM F 1487-07a FOR INFORMATION.
 2. TURF MOUND FEATURE CONTRACTOR TO PROVIDE SHOP DRAWINGS OF PLAY FEATURE TO OWNER / LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
 3. TURF MOUND FEATURE LOCATION TO BE STAKED FOR REVIEW AND APPROVAL BY OWNER / LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
 4. FALL ZONE AREA SHALL EXTEND 6 FT IN ALL DIRECTIONS FROM TURF MOUND FEATURE.



2 ELEVATION - PLAY MOUND WITH TUNNELS
1" = 1'-0" P-20.199-39



1 ELEVATION - TURF MOUND WITH TUNNELS
1/2" = 1'-0" P-20.199-146



ISSUE	DATE	DESCRIPTION	PROJECT NUMBER
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS	10268112

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

THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - AMENITY

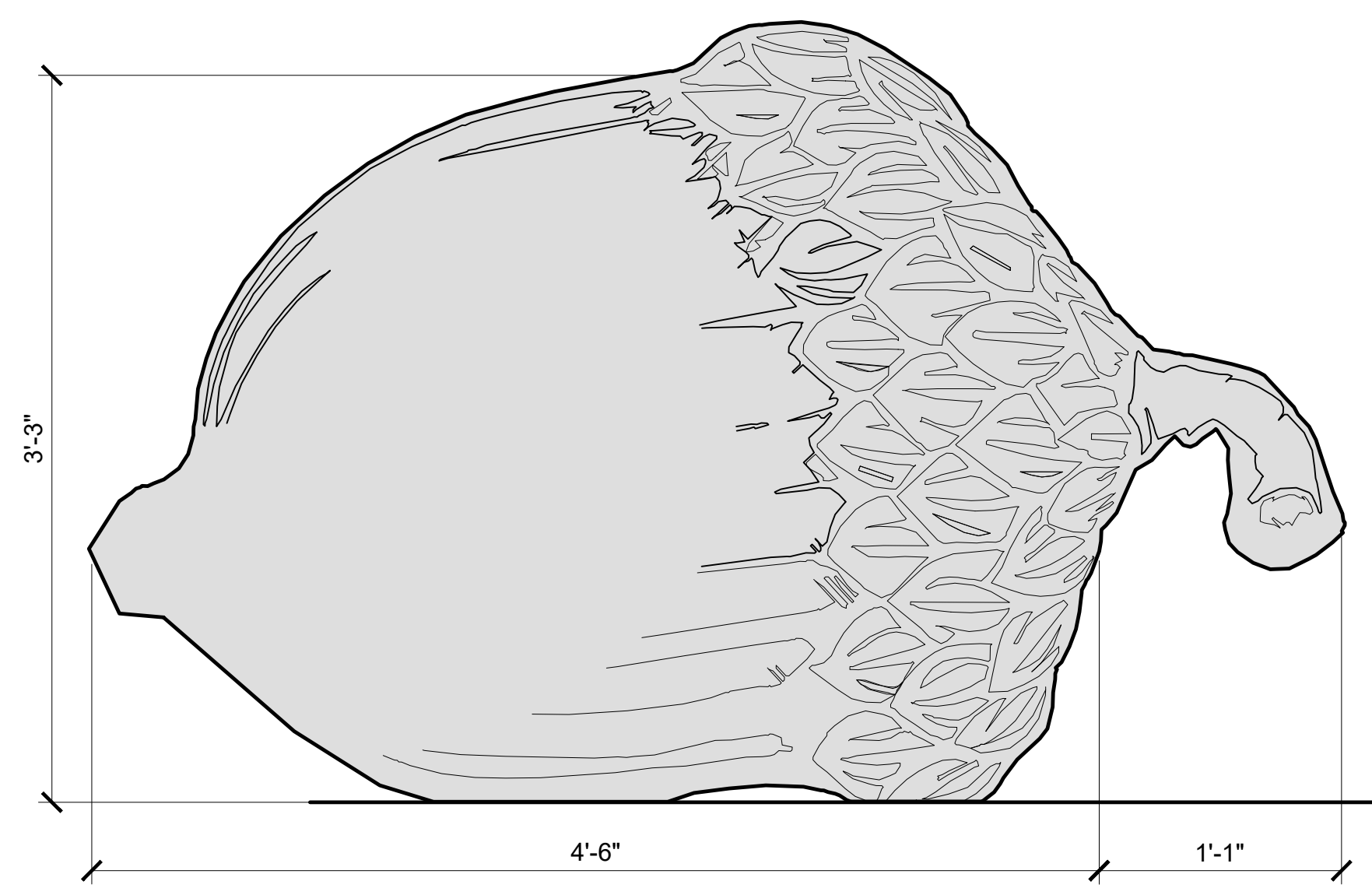


SHEET
L582

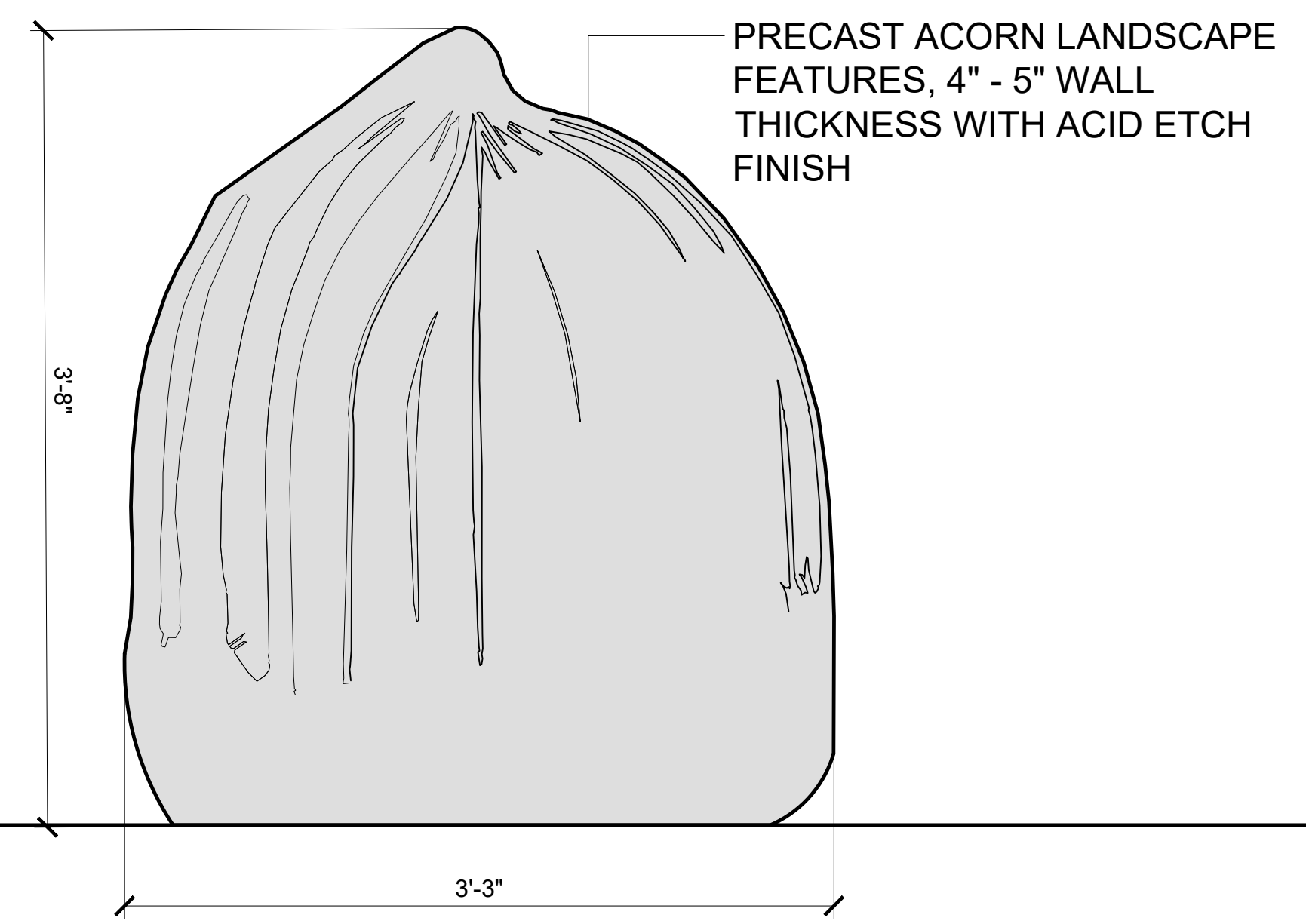
GENERAL ACORN FEATURE NOTES:

1. ACORN FEATURES SHALL BE REVIEWED FOR SHARP POINTS, PROTRUSIONS AND ENTRAPMENT AREAS. REFER TO ASTM F 1487-07a FOR INFORMATION.
2. ACORN FEATURE CONTRACTOR TO PROVIDE SHOP DRAWINGS OF PLAY FEATURE TO OWNER / LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
3. ACORN FEATURE LOCATION TO BE STAKED FOR REVIEW AND APPROVAL BY OWNER / LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
4. FALL ZONE AREA SHALL EXTEND 6 FT IN ALL DIRECTIONS FROM ACORN FEATURE.

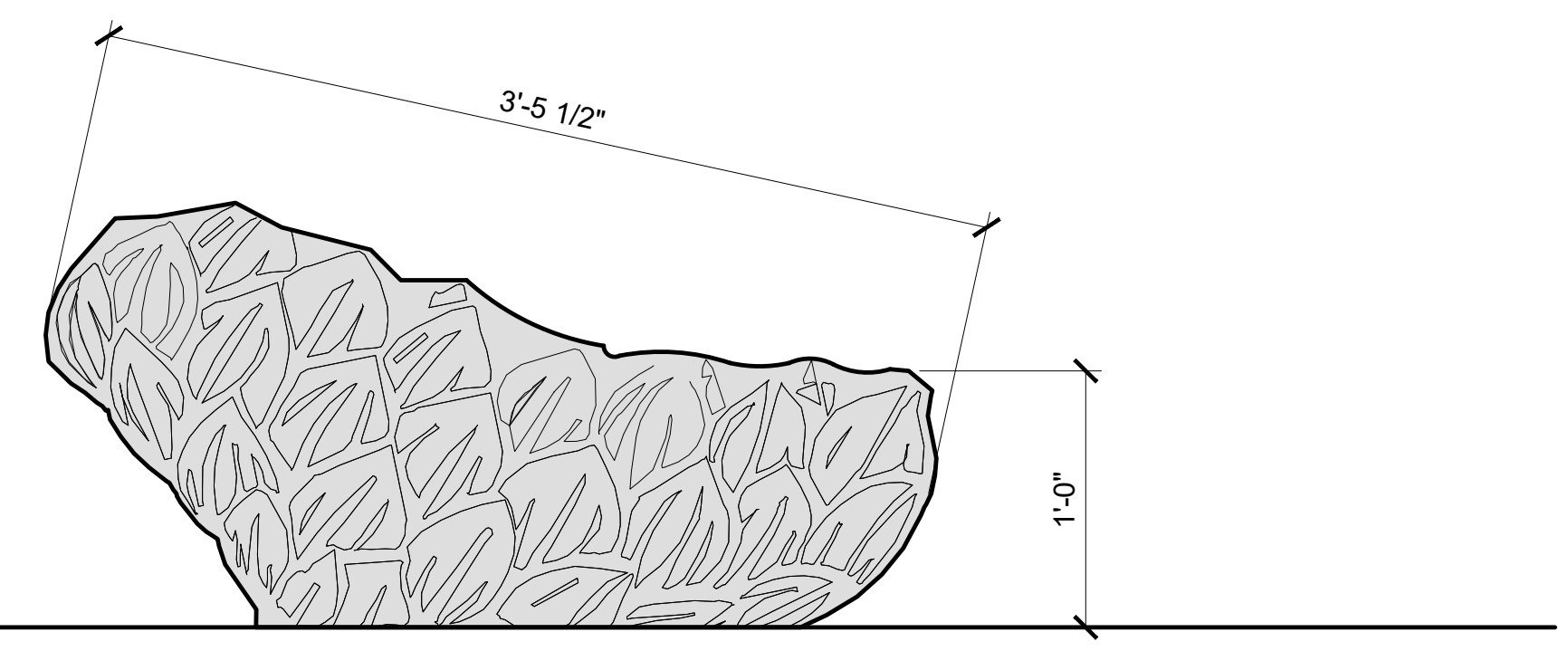
PRECAST ACORN LANDSCAPE FEATURE



PRECAST ACORN LANDSCAPE FEATURE



PRECAST ACORN LANDSCAPE FEATURE



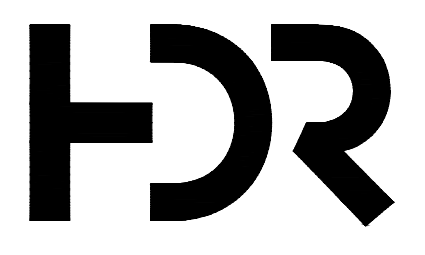
1 PRECAST ACORN LANDSCAPE FEATURE

1 1/2" = 1'-0"

P-20.199-147



MINNEHAHA CREEK WATERSHED DISTRICT



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401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p: 612.332.7522

ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

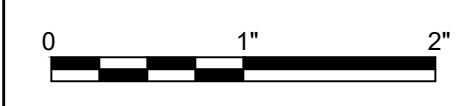
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

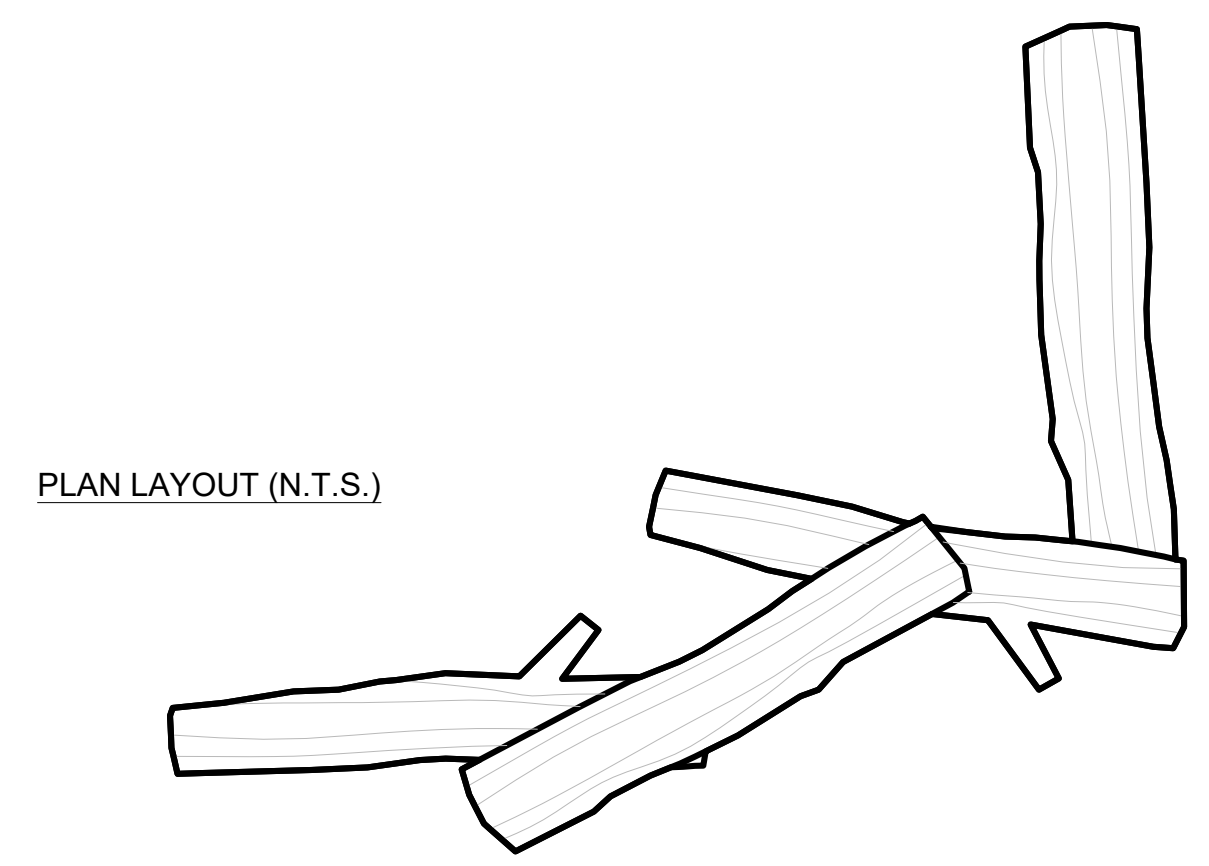
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - AMENITY



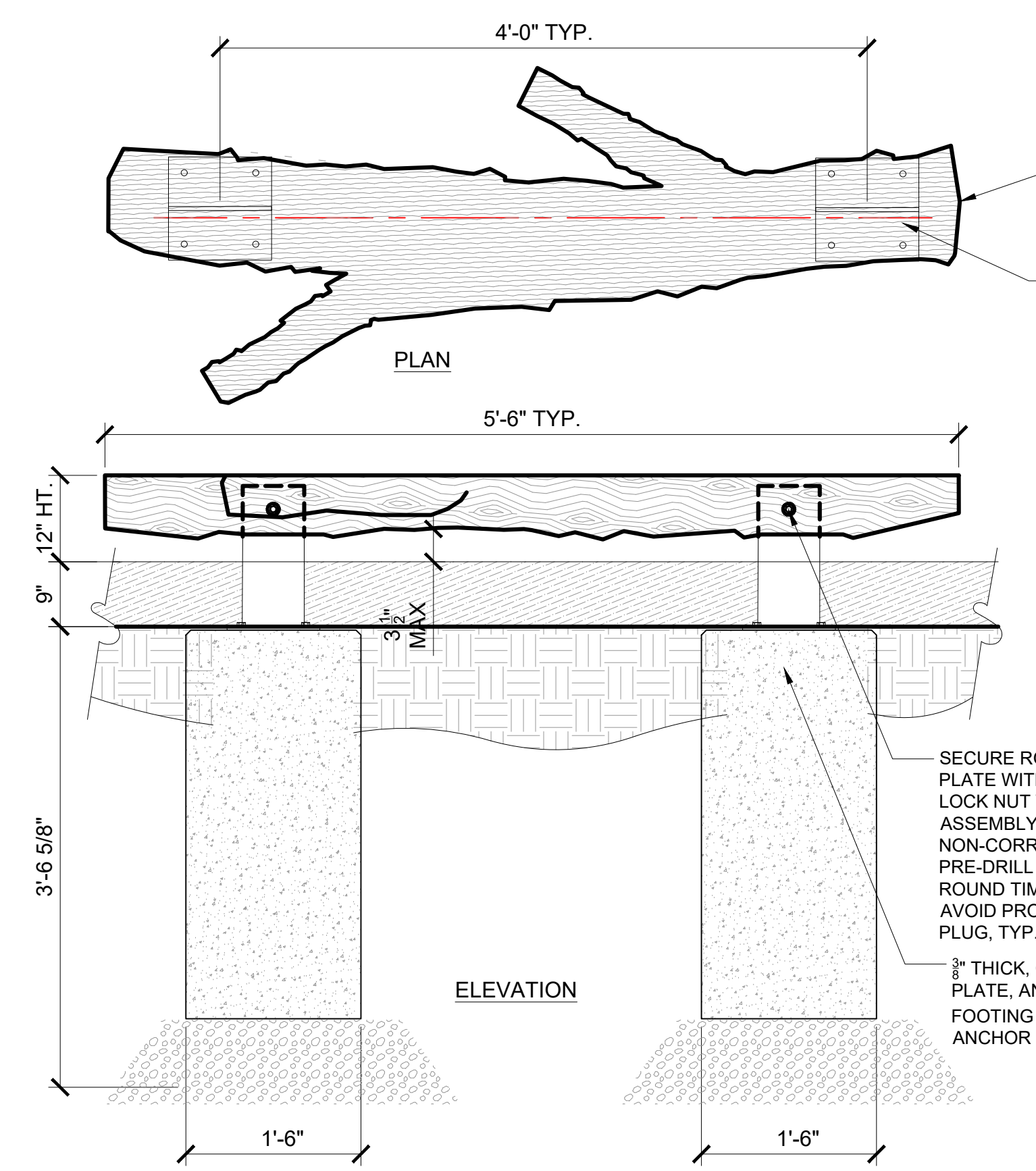
FILENAME
SCALE

SHEET
L582



PLAN LAYOUT (N.T.S.)

- GENERAL LOG FEATURE NOTES:**
1. ROUND TIMBER MEMBERS TO BE DE-BARKED, KILN DRIED, BLACK LOCUST SPECIES TREATED WITH INSECTICIDE AND SEALER. WOOD SURFACE TO BE SANDED SMOOTH WITH MINIMUM 80 GRIT. WOOD FORM TO BE SELECTED FOR INTENDED PLAY FEATURE PURPOSE. BRANCHES SMALLER THAN 3" DIA. TO BE REMOVED AND SANDED SMOOTH TO MAIN TRUNK. BRANCHES LARGER THAN 3" DIA. TO REMAIN AS "CHARACTER" AS SHOWN WITH VARIATIONS. CUT ENDS OF BRANCHES SO THAT THEY SHED WATER AND HAVE 1/2" CHAMFER AT THE END CUT. REFER TO SPECIFICATIONS.
 2. CONTRACTOR TO PROVIDE ENGINEER STAMPED SHOP DRAWINGS. STRUCTURES ARE TO BE DESIGNED TO WITHSTAND LOADS APPLIED, FOLLOWING ASTM F 1487, SECTION 12.6. LOADS SHALL BE CALCULATED USING SECTIONS 12.3.1 TO 12.5.2 AS APPROPRIATE. REDUCTION OF LOADS FROM ULTIMATE (TESTING) LOADS TO ALLOWABLE IS ACCEPTABLE.
 3. LOG FEATURE SHALL BE REVIEWED FOR SHARP POINTS, PROTRUSIONS AND ENTRAPMENT AREAS. REFER TO ASTM F 1487-07a FOR INFORMATION.
 4. LOG FEATURE CONTRACTOR TO PROVIDE SHOP DRAWINGS OF PLAY FEATURE TO OWNER / LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
 5. LOG FEATURE LOCATION TO BE STAKED FOR REVIEW AND APPROVAL BY OWNER / LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
 6. FALL ZONE AREA SHALL EXTEND 6 FT IN ALL DIRECTIONS FROM LOG FEATURE.



PLAN

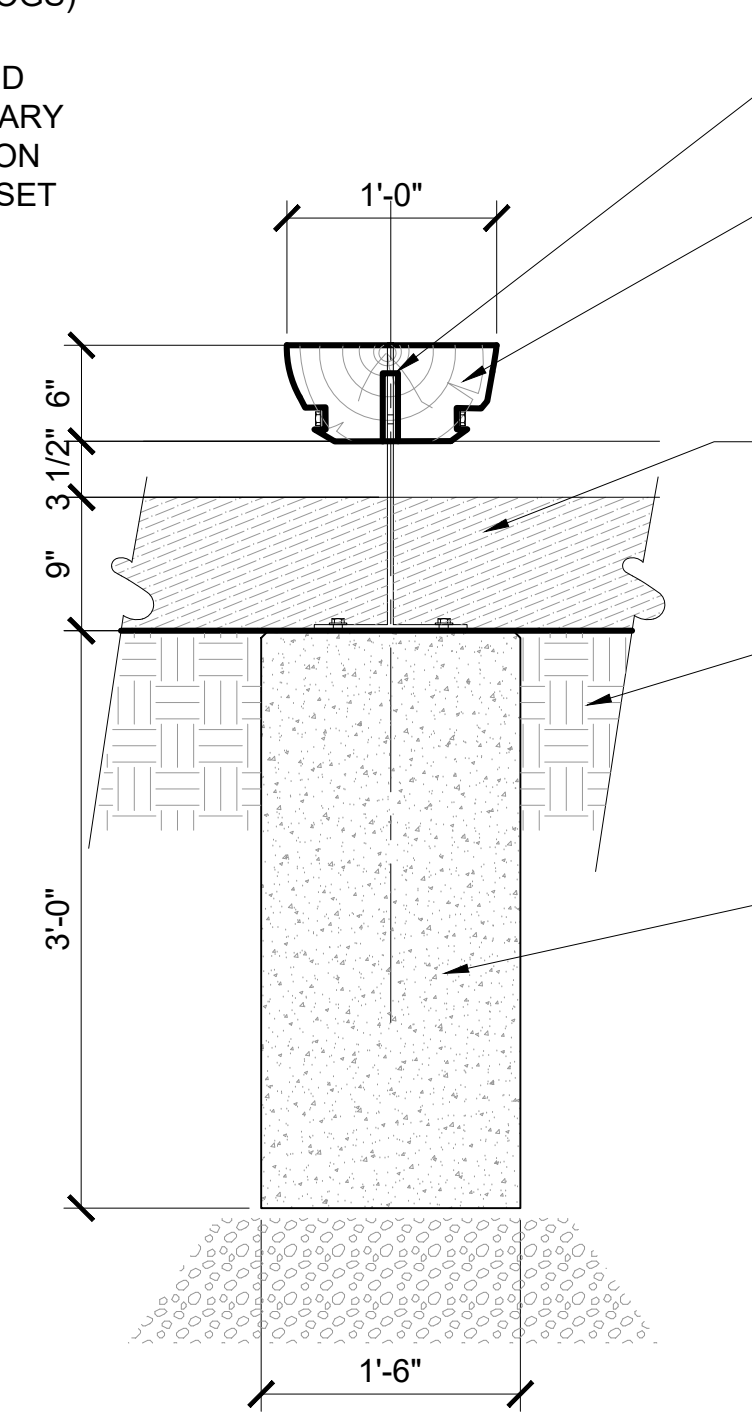
ELEVATION

APPROXIMATE 12" DIAMETER ROUND TIMBER MEMBER, TYP. (MIN. DIAMETER OF 10" FOR ALL LOGS)

NOTCH UNDERSIDE OF ROUND TIMBER MEMBER AS NECESSARY TO OBTAIN LEVEL CONNECTION TO POST, SECURE TO POST, SET FLUSH

SECURE ROUND TIMBER TO "T" PLATE WITH THRU BOLT AND LOCK NUT WITH WASHER ASSEMBLY, TYP., USE NON-CORROSIVE HARDWARE, PRE-DRILL AND COUNTER SINK ROUND TIMBER MEMBERS TO AVOID PROTRUSIONS, WOOD PLUG, TYP.

3/8" THICK, GALVANIZED "T" PLATE, ANCHOR TO FOOTING (X4) WITH 1/2" ANCHOR



SECTION

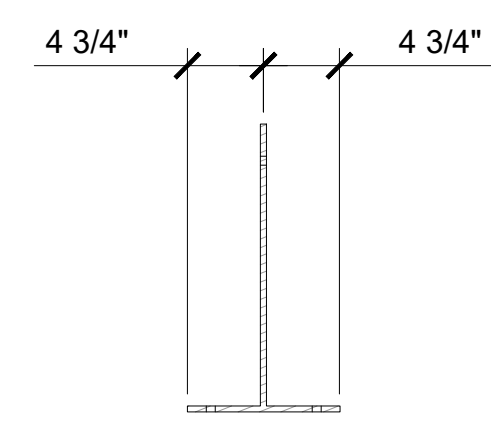
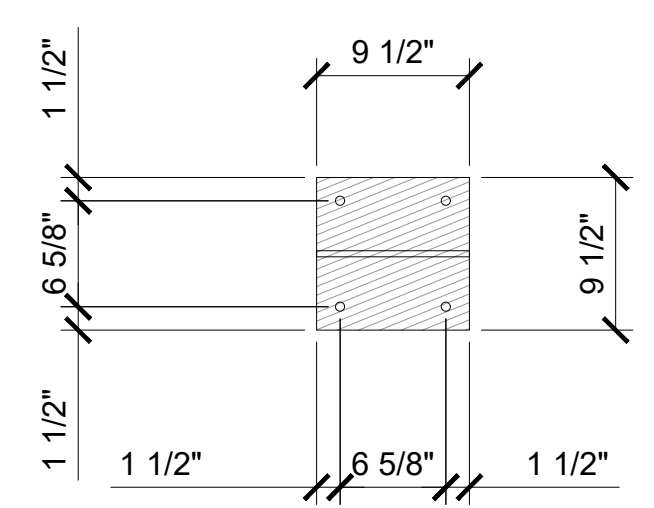
3/8" THICK, GALVANIZED "T" PLATE, ANCHOR TO FOOTING (X4) WITH 1/2" ANCHOR

SECURE ROUND TIMBER TO "T" PLATE WITH THRU BOLT AND LOCK NUT WITH WASHER ASSEMBLY, TYP., USE NON-CORROSIVE HARDWARE, PRE-DRILL AND COUNTER SINK ROUND TIMBER MEMBERS TO AVOID PROTRUSIONS, WOOD PLUG, TYP.

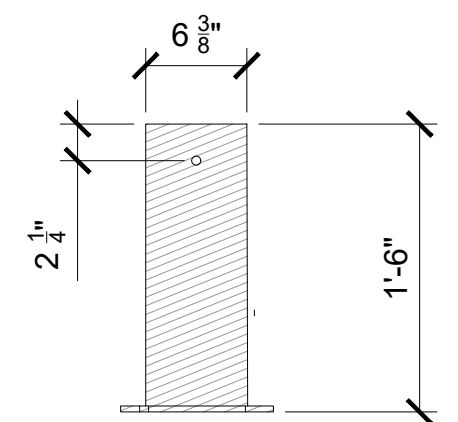
DETAIL - ENGINEERED WOOD FIBER MULCH, RAKE LEVEL, THICKEN AT EDGES, REFER TO PLAN FOR LOCATION

COMPACTED OR UNDISTURBED SUBGRADE

CONCRETE FOOTING, TYP.



"T" - PLATE



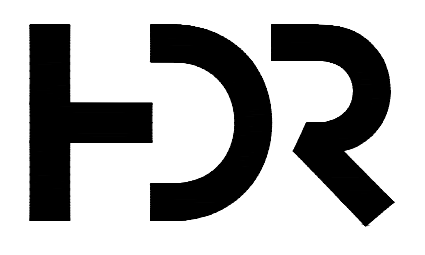
1 DETAIL - LOG RUN LANDSCAPE FEATURE

1" = 1'-0"

P-20.199-62



MINNEHAHA CREEK WATERSHED DISTRICT



DF/ DAMON FARBER LANDSCAPE ARCHITECTS
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ISSUE	DATE	DESCRIPTION
0	09-14-2022	90% DESIGN DEVELOPMENT DRAWINGS

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

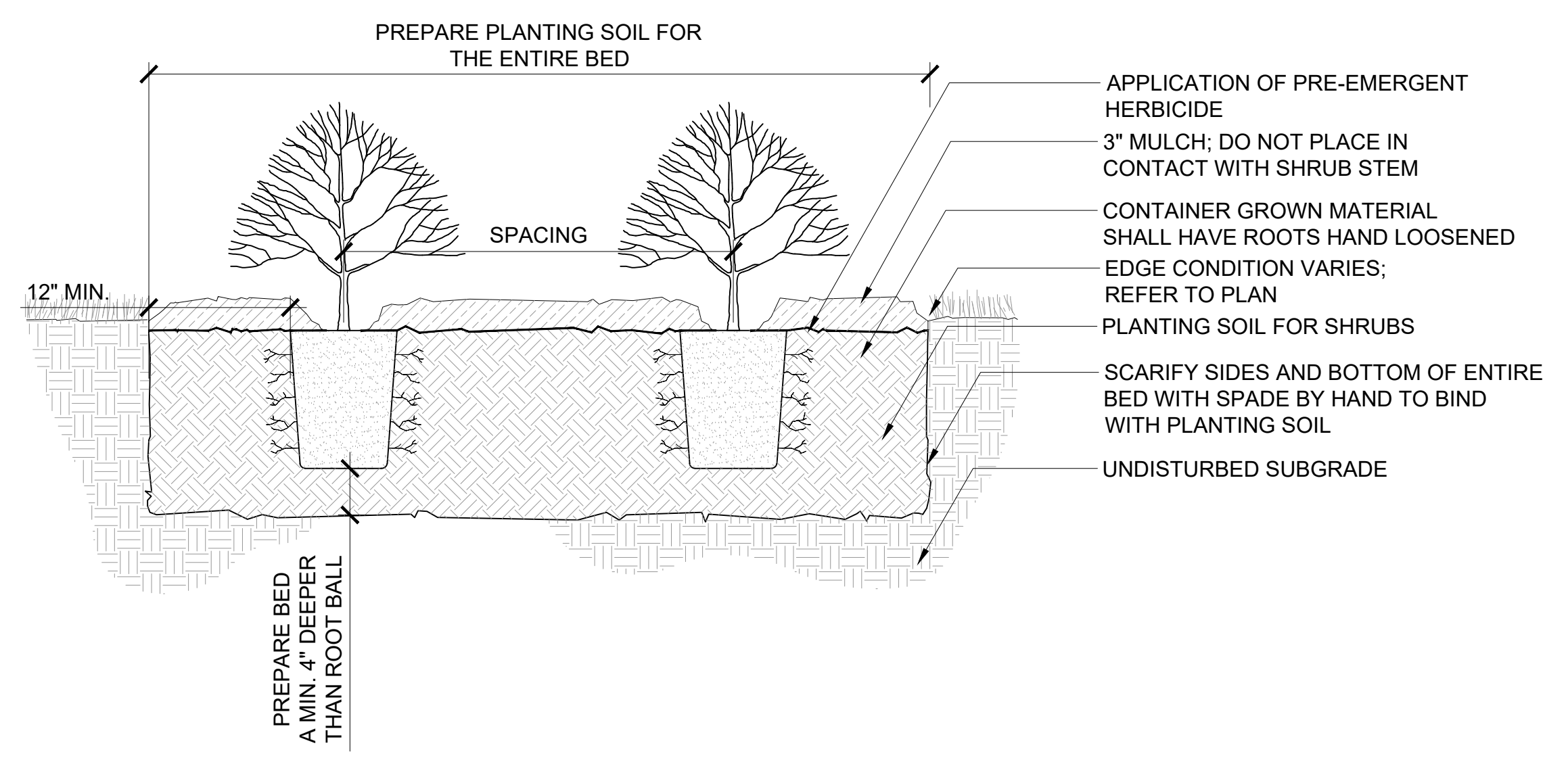
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - AMENITY

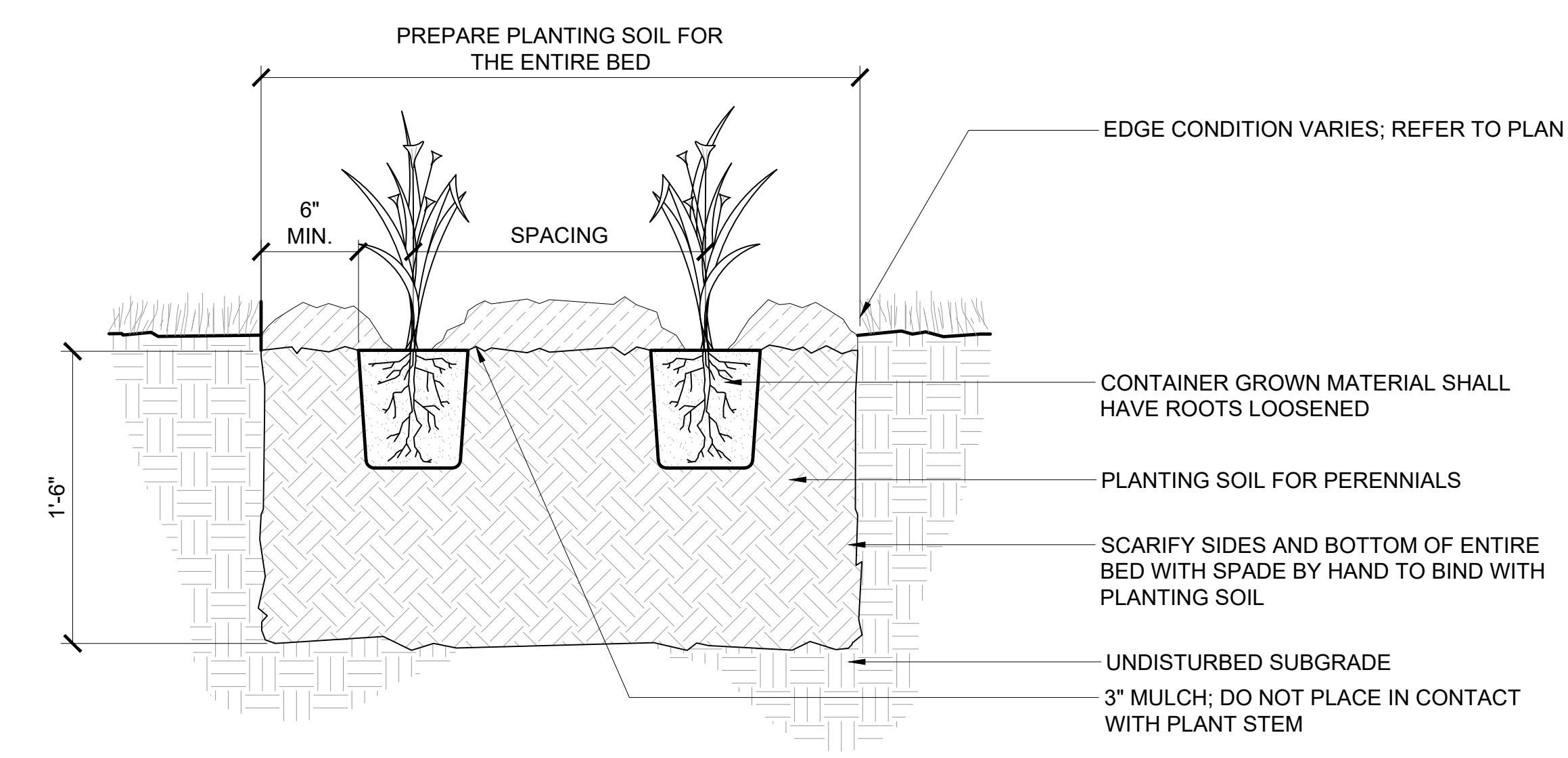


FILENAME
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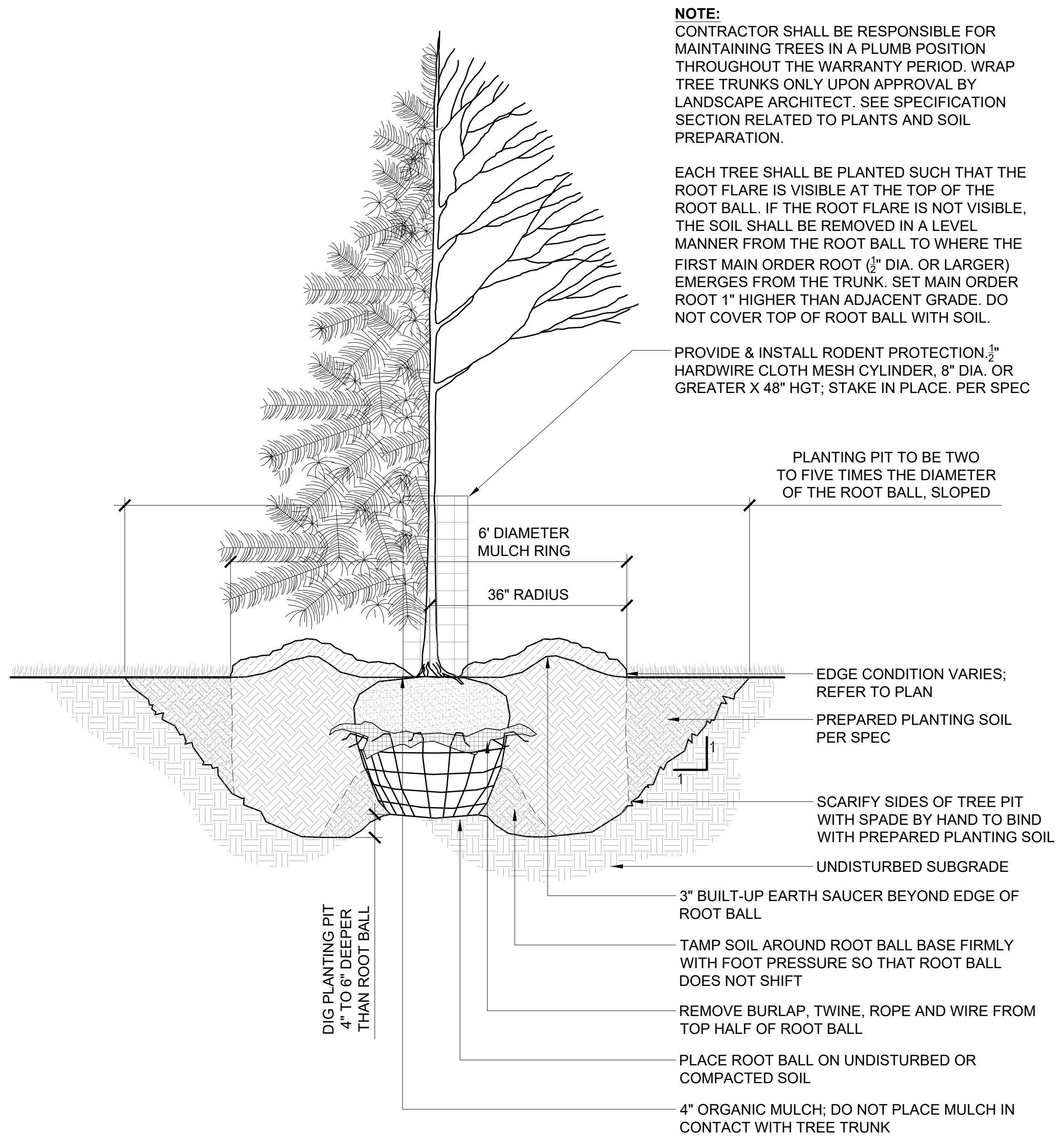
SHEET
L587



3 DETAIL - SHRUB PLANTING
1" = 1'-0" P-20.199-08



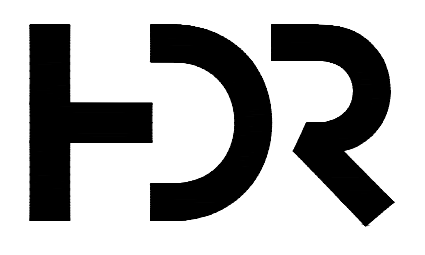
2 DETAIL - PERENNIAL PLANTING
1 1/2" = 1'-0" P-20.199-06



1 DETAIL - TREE PLANTING
3/4" = 1'-0" P-20.199-05



MINNEHAHA CREEK WATERSHED DISTRICT



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PROJECT MANAGER ANDREW F. JUDD

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE DETAILS - PLANTING



FILENAME
SCALE

SHEET
L590