



Title: Permit 21-496: Six Mile Marsh Prairie, Minnetrista

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Recommendation:

Approval of MCWD permit application on the following stipulations:

1. Submission of NPDES permit number and responsible contractor
2. Board of Managers approval of Stormwater Management rule exception request

Summary:

The Minnehaha Creek Watershed District (Applicant) has applied for a Minnehaha Creek Watershed District (MCWD) permit for the construction of trail and interpretive elements on their property at 7701, 7709, and 8015 Halstead Drive, Minnetrista. The project triggers Erosion Control, Stormwater Management, and Wetland Protection rules. The project meets the requirements for all applicable rules, with the exception of the Stormwater Management Rule. The Applicant has requested an exception to the Stormwater Management rule in order to use enhancement of pervious areas for treatment which provides for more treatment than the installation of a new stormwater treatment facility, which would be a detriment to the restoration. In accordance with the established policy, the Board of Managers is asked to consider the application and exception request. The rule analysis summarizes the applicable rules being met, as well as the exception request.

Background:

Location:

The Six Mile Marsh Prairie is a 210-acre former farmstead that the Applicant has restored to tallgrass prairie and wetland. It sits in the southwest corner of Minnetrista, in the Six Mile Creek-Halsted Bay subwatershed. The property borders the Dakota Rail Regional Trail, and the proposed project will provide pedestrian access to and educational interpretation of approximately 40 acres of the site.

The property sits directly north of the Six Mile Marsh which surrounds Six Mile Creek as it flows into Halsted Bay—the most degraded bay in Lake Minnetonka.

Project History:

The property was acquired by MCWD in 2011 and 2012 with the intention of restoring the farmland to native prairie and wetland conditions in an effort to reduce phosphorus loading to Halsted Bay. The Six Mile Creek-Halsted Bay sub-watershed is the most rapidly developing area in MCWD with many farms being converted to residential properties. Due to the agricultural history of the landscape, Six Mile Creek is a major carrier of phosphorus and sediment into Halsted Bay and is a major cause of its poor water quality. The Six Mile Marsh

Prairie property drains into Six Mile Marsh before it enters Halsted Bay. By reducing erosion and runoff from the property, water quality can be positively impacted in Lake Minnetonka.

The project is occurring in two phases. Beginning in 2012, the first phase included restoration of row-cropped uplands and drained low areas into tallgrass prairie and open water wetlands. The historic barn on the property was also preserved. The restoration included drain tile removal which revealed several pocket wetlands which were improved with native plantings. Upland areas were restored with native tallgrass prairie vegetation, and an oak savanna above the Marsh was expanded. A mowed trail connecting a portion of the property to the Dakota Rail Regional Trail has been maintained since 2015.

The second phase of the project, regulated under Permit 21-496, includes construction of a permanent pedestrian trail and interpretive elements that will lead from the Dakota Rail Regional Trail and allow trail users to experience the restored prairie and wetlands.

Proposed Improvements and Rule Triggers:

The Applicant is proposing construction of compacted aggregate trail along with various interpretive elements and rest areas. The entirety of the trail will fall under the Stormwater Management Rule Linear Transportation exemption which allows, “for the construction of sidewalk and trail that will not exceed 12 feet in width and will be bordered on the downgradient side(s) by a pervious buffer averaging at least one-half the width of the sidewalk or trail.” The short, bituminous trail section immediately adjacent to the regional trail is ten feet in width, and the one-mile aggregate trail is six-feet in width and provides, at a minimum, 75 foot-width buffers on either side.

The interpretive elements, such as signage and picnic and rest areas, are not included in that exemption and equate to 915 square feet of new impervious surface and are required to be treated.

District Rule Analysis:

Erosion Control Rule

MCWD’s Erosion Control rule is applied to projects proposing 5,000 square feet of disturbance or 50 cubic yards of excavation, fill, or stockpiling on-site. The Applicant is proposing 1.9 acres of disturbance; therefore, the rule is triggered.

Per section 5(a) and 5(b) of the rule, an erosion and sediment control plan has been submitted and displays erosion and sediment control best management practices. These include a rock construction entrance, silt fence down gradient of disturbed areas, and permanent stabilization for disturbed areas.

Per section 6 of the rule, a geotechnical report and soil boring results have been provided. It was determined that the soils are conducive to infiltration.

Section 7 of the rule does not apply, no additional information was requested.

Section 8 of the rule does not apply, as the District does not require financial assurance for its own projects.

In summary, the project meets the requirements of the Erosion Control Rule.

Wetland Protection Rule

The Buffer provision of the Wetland Protection rule is required if the work needs a permit under the Stormwater Management or Waterbody Crossings & Structures rule. The Stormwater Management rule is triggered; therefore, the buffer requirement is triggered.

Per section 5(a) of the Wetland Protection rule, buffers must be provided on wetland edges downgradient of disturbance. The applicant has provided plans that include wetland buffers on each of the wetlands downgradient of disturbance.

Per section 5(b) of the rule, buffers are required, and have been analyzed under section 6, below.

Section 5(c) of the rule does not apply because the District cannot enter into an agreement with itself or record a declaration obligating itself to itself. The District could only convey a protection interest in the buffer to a third party. Instead, submission of a long-term management and protection plan is listed as a recommended condition of approval to satisfy this requirement.

Section 5(d) of the rule requires a permanent wetland buffer monument to be installed at each lot line where it intersects the buffer, and where needed to indicate the contour of the buffer, with a maximum spacing of 100 feet. A buffer monumentation plan has been submitted.

Per section 6(a) of the rule, buffer width requirements are determined by the management class of the wetland. A delineation and MNRAM classified the wetlands downgradient of disturbance in the Preserve management class, which corresponds to a 75-foot buffer.

Section 6(b) of the rule does not apply because there are no proposed reductions in buffer width due to beneficial slope or soil conditions.

Section 6(c) of the rule does not apply because no buffer averaging was proposed.

Section 6(d) of the rule does not apply, as the Applicant has not requested a reduction in Applied Buffer Width.

Section 6(e) of the rule does not apply because the proposed project is not reconstruction and increases the area of impervious surface; therefore, a buffer is required.

Section 6(f) of this rule does not apply as this project is not a New Principal Residential Structure.

Sections 7(a) and 7(b) of the Wetland Protection rule will be met by means of a protection and management plan, as noted under section 5(c), above.

Section 7(c) of the rule does not apply because all buffers are vegetated and will not be disturbed during construction.

In summary, upon satisfaction of the recommended conditions, the project meets the requirements of the Wetland Protection Rule.

Stormwater Management Rule

The District's Stormwater Management Rule is applied to projects that propose to create or replace impervious surface. The proposed project's new impervious surface includes trail construction and interpretive areas. The entirety of the trail will fall under the Stormwater Management Rule Linear Transportation exemption which allows, "for the construction of sidewalk and trail that will not exceed 12 feet in width and will be bordered on

the downgradient side(s) by a pervious buffer averaging at least one-half the width of the sidewalk or trail.” The trail is between six feet and ten feet in width and provides, at a minimum, 75 foot-width buffers.

The new impervious areas that will be treated totals to 915 square feet. The project proposes redevelopment of a site greater than one acre; less than 40% of the site will be disturbed; less than 50% increase in impervious surface; and therefore, phosphorus, rate, and volume control will be required for the site’s new impervious surface.

The Applicant has applied for an exception to subsection 3(c) of the Stormwater Management rule under the provision that the restoration provides, “a greater degree of water resource protection than would strict compliance.” To clarify, the proposed project meets all rate, volume, and water quality standards by using enhanced pervious areas (i.e., existing restored upland prairie areas). The Exception request has been analyzed under the ‘Exception’ heading below.

<i>Site Size (ac)</i>	<i>Existing Drainage</i>	<i>Proposed Drainage</i>	<i>Existing Impervious (ac)</i>	<i>Proposed Impervious without trail (ac)</i>
210	Six Mile Marsh	Six Mile Marsh	0.8333569 (38,768 sf)	.0021 (915 sf)

Per section 3(a) of the rule, the phosphorus control requirement is satisfied by meeting the abstraction requirement as outlined in section 3(c) through the requested exception. If Applicant is deemed to have demonstrated conformance with the volume control requirement through an approved exception, the phosphorus control requirement has been met

Per section 3(b) of the rule, there shall be no net increase in peak runoff rates for the 1-, 10-, and 100-year storm events. The District Engineer has reviewed the proposed plans, stormwater models, and stormwater calculations and determined that the project will not increase peak rates during the 1-, 10-, and 100-year storm events. The project as proposed is in conformance with the rate requirements of the rule.

	<i>Pre-Restoration Discharge Rate West (CFS)</i>	<i>Post-Restoration Discharge Rate West (CFS)</i>	<i>Pre-Restoration Discharge Rate Southeast (CFS)</i>	<i>Post-Restoration Discharge Rate Southeast (CFS)</i>	<i>Pre-Restoration Discharge Rate Northwest (CFS)</i>	<i>Post-Restoration Discharge Rate Northwest (CFS)</i>
<i>1-year</i>	8.53	1.83	19.72	3.20	17.03	3.12
<i>10-year</i>	18.88	6.87	55.62	13.36	35.45	11.85
<i>100-year</i>	37.34	17.81	126.71	53.91	67.52	30.86

Per Section 3(c), the Applicant has proposed to provide for the first 1” of abstraction through enhancement of pervious areas and has calculated the new impervious surface to be 915 square feet. The Volume Abstraction Credit Schedule states that enhanced pervious areas receive 50% volume abstraction credit. Therefore, the enhanced pervious areas will need to treat for twice the amount.

$$\text{Net increase in impervious area} \times 1.0''/12 = \text{Required treatment volume}$$

$$915 \text{ sf} \times 1.0''/12 = 76 \text{ cf}$$

Section 3(d) of the rule does not apply because a best management practice is not proposed to meet required treatment.

Section 3(e) of the rule does not apply because there is no best management practice proposed.

Section 7 of the rule does not apply as the Applicant does not propose using a regional stormwater facility for treatment.

Per section 8(a) of the rule, the impacts to downstream waterbodies section of the rule regulates new point source discharges and impacts to the bounce, inundation, and runout control elevations of waterbodies. The project does not propose a new point source or a change in the runout control elevation of any waterbody.

Per section 8(b) of the rule, no activity subject of this rule may alter a site in a manner that results in an increase in the bounce in water level for any downstream lake or wetland. The District Engineer has reviewed the proposed plans, stormwater models, and stormwater calculations and determined that the project will not cause bounce or inundation of the surrounding wetlands. The project as proposed is in conformance with the rate requirements of the rule.

	<i>3W</i>	<i>5W</i>	<i>7W</i>	<i>8w</i>
<i>Existing</i>	1.45'	1.76'	2.21'	2.15'
<i>Proposed</i>	1.33'	1.37'	1.54'	1.61'

Section 9 of the rule, imposing a financial assurance requirement, does not apply as the District is the permittee.

The project as proposed, upon fulfillment of the recommended condition, meets the requirements of the Stormwater Management Rule.

Variances and Exceptions

The Applicant is requesting an exception to the stormwater management rule, specifically section 3(c)- "The Stormwater management Plan must provide for abstraction of the first one inch of rainfall from the site's impervious surface." The Exception framework states that, "The Board of Managers may grant an exception from a provision of these rules requiring a particular treatment or management method, or setting forth a design specification of such a method, on a determination that the proposed application, with such further conditions as the Board may impose, will achieve a greater degree of water resource protection than would strict compliance with the provision."

The project must provide for abstraction of the first one inch of rainfall which equates to 76 cubic feet of abstraction which is met through 1,824 sf of the enhanced pervious areas. The applicant has requested an exception to this requirement on the basis that the existing native-vegetated pervious land created through the prior upland prairie restoration, would need to be disturbed and displaced to site a BMP. The construction of a stormwater facility would cause disturbance, potential erosion, and loss of habitat. The existing land, as protected, "will achieve a greater degree of water resource protection than would strict compliance with the provision."

To exceed the 76 cf of required abstraction, the applicant needs to provide in excess of 1,824 sf for treatment. The Applicant has provided around 1,178,392 sf of restored prairie, which provides 49,100 cf of abstraction which is far above what is required.

Staff finds there is adequate technical basis and justification to grant the requested exception.

Conclusion:

The Applicant has applied for an MCWD permit under the Erosion Control, Wetland Protection, and Stormwater Management rules and requested an exception from subsection 3(c) of the Stormwater Management rule. Staff find that the Applicant has provided a satisfactory analysis for the Board Managers to consider the exception request for the use of existing, enhanced pervious areas for volume abstraction. The proposed project exceeds the required stormwater treatment. Staff have found that the proposed project meets the applicable rule requirements and recommends approval on the condition that the Board approves the exception request and subject to the recommended conditions of approval.

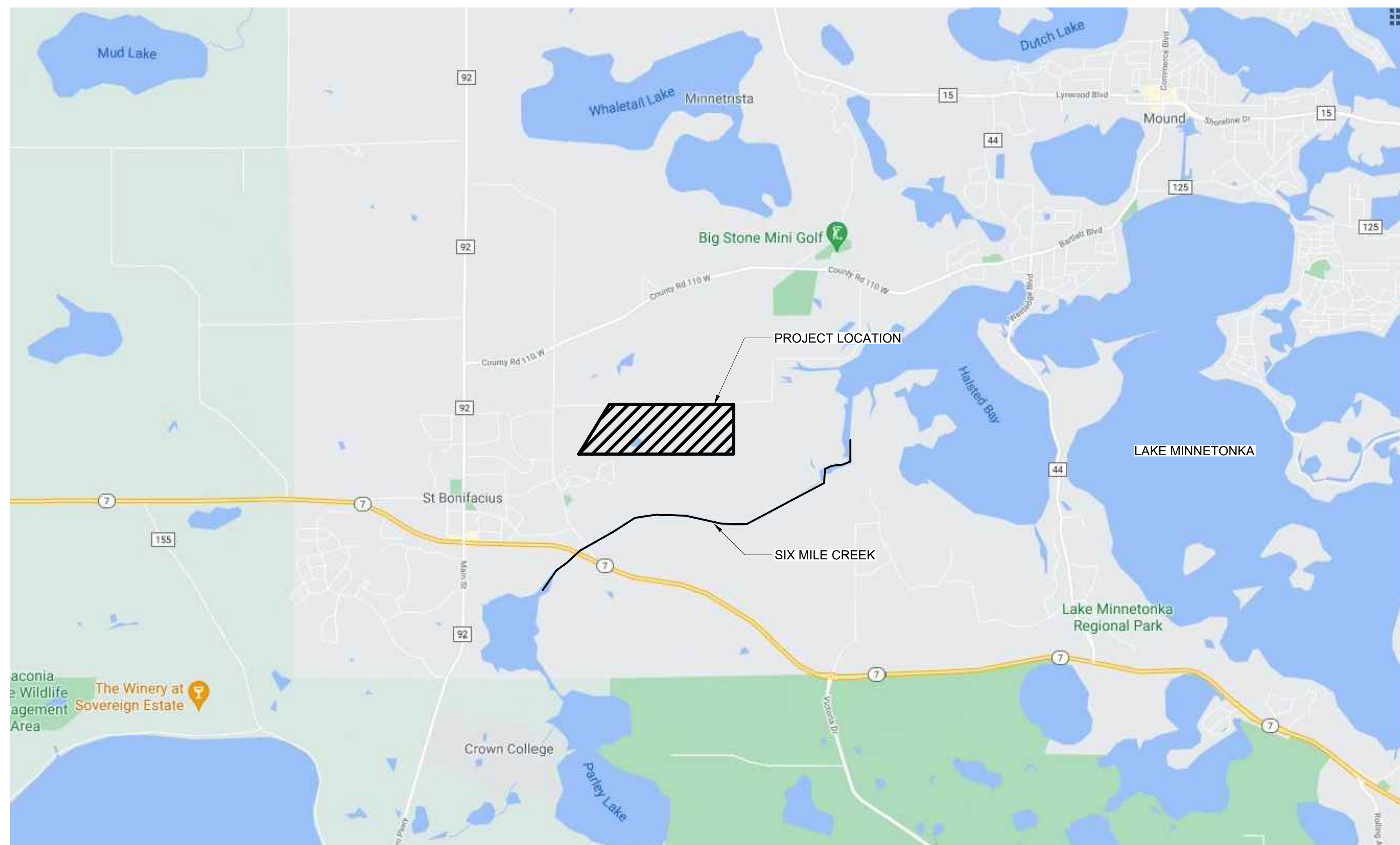
Supporting documents:

1. Civil Plans
2. Exception Request form

NOT FOR
 CONSTRUCTION

SIX MILE MARSH PRAIRIE TRAIL

Landscape Architecture, Engineering, and Site Interpretation Design



PROJECT INFORMATION
 SIX MILE MARSH PRAIRIE TRAIL
 DF PROJECT # 21-131

PROJECT ADDRESS:
 7701, 7901, 8015 HALSTEAD DRIVE,
 MINNETRISTA, MN 55364

PROJECT DIRECTORY

OWNER:
 MINNEHAHA CREEK WATERSHED DISTRICT
 15320 MINNETONKA BLVD, MINNETONKA, MN 44345

CONTACT: LAURA DOMYANCICH-LEE,
 PLANNER-PROJECT MANAGER, (952)641-4582

LANDSCAPE ARCHITECT:
 DAMON FARBER LANDSCAPE ARCHITECTS
 310 SOUTH 4TH AVENUE STE. 7050
 MINNEAPOLIS, MN 55415
 CONTACT: JEAN GARBARINI
 PHONE: (612) 332-7522

SHEET INDEX

SHEET	DESCRIPTION
L-001	COVERSHEET
L-002	GENERAL NOTES
L-003	EXISTING CONDITIONS SURVEY
L-004	TREE PRESERVATION PLAN
L-005	TREE PRESERVATION DETAILS
L-006	SWPPP
L-007	SWPPP NOTES & DETAILS
L-010	LANDSCAPE NOTES AND SCHEDULES
L-100	SITE PLAN
L-101	GRADING AND DRAINAGE PLAN
L-120	PLANTING PLAN
L-201	INTERPRETIVE AREA ENLARGEMENTS
L-500	LANDSCAPE DETAILS
L-501	LANDSCAPE DETAILS
L-502	LANDSCAPE DETAILS
L-503	LANDSCAPE DETAILS

ALTERNATES:

1. ADD ALTERNATE #1: PROVIDE TRANSECT INTERPRETIVE FEATURE IN ITS ENTIRETY.
2. ADD ALTERNATE #2: PROVIDE BARN INTERPRETIVE FEATURE IN ITS ENTIRETY.
3. ADD ALTERNATE #3: PROVIDE WATERSHED LOUNGERS & PATH EXTENSION IN ITS ENTIRETY.
4. ADD ALTERNATE #4: PROVIDE WATERSHED MAP INTERPRETIVE FEATURE IN ITS ENTIRETY.

60% CD- 8/5/21
 PERMITTING REVIEW-8/18/21
 90% CD- 09/07/21

**SIX MILE
 MARSH
 PRAIRIE TRAIL**

MINNETRISTA, MN

I hereby certify that this document was prepared by me or under my direct supervision and that I am a duly licensed Landscape Architect under the laws of the State of Minnesota.

Name _____
 Registration# _____

Signature _____ Date _____

Date 8/18/2021

DF/ Project # 21-131

Scale VARIES

Drawn/Checked JR, JH / JG

REVISION _____

COVER PAGE

L-001

GENERAL PROJECT NOTES

CONTRACT DOCUMENTS

- 1. THE WORK SHALL CONFORM TO THE CONTRACT DOCUMENTS.
2. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY. READ THE DRAWINGS IN CONJUNCTION WITH THE SPECIFICATIONS AND EXECUTE THE WORK.
3. THE WORK IS DEPENDENT ON SEVERAL DISCIPLINES. READ THE DRAWINGS BY CROSS-REFERENCING BETWEEN DISCIPLINES.
4. REPORT DISCREPANCIES IMMEDIATELY TO THE OWNER'S REPRESENTATIVE FOR DIRECTION BEFORE PROCEEDING WITH THE WORK.

SITE ACCESS & PROTECTION

- 1. STAGING AREA IS WITHIN THE CONTRACT LIMIT AS INDICATED ON DRAWINGS. STAGING AREA DOES NOT INCLUDE ACCESS ROUTES TO THE SITE. THE CONSTRUCTION (AND REMOVAL) OF TEMPORARY STAGING AREAS AND/OR ACCESS ROUTES SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY AND EXPENSE.
2. CONSTRUCTION RELATED VEHICLES REQUIRED FOR THE WORK EXITING AND/OR ENTERING THE SITE SHALL NOT DEPOSIT DIRT, MUD, OR OTHER DELETERIOUS MATERIALS THAT WOULD PRESENT A NUISANCE OR HAZARD TO THE PUBLIC TRAVELING ON RIGHT OF WAYS. PREVENTION AND CLEANING SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY AND EXPENSE.
3. NO WORK, EQUIPMENT OR STAGING IS PERMITTED OUTSIDE THE LIMIT LINES UNLESS THE CONTRACTOR HAS APPROVAL FROM AUTHORITIES. COORDINATION PERMITS AND TRAFFIC CONTROL REQUIRED SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY AND EXPENSE.
4. THE DOCUMENTS DO NOT SPECIFY SAFETY MATERIALS, EQUIPMENT, METHODS OR SEQUENCING TO PROTECT PERSONS AND PROPERTY. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY AND EXPENSE TO DIRECT AND IMPLEMENT SAFETY OPERATIONS TO PROTECT PERSONS AND PROPERTY.

QUALITY ASSURANCE

- 1. EXECUTE THE WORK AND SCHEDULE INSPECTIONS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL STANDARDS, LAWS AND REGULATIONS.
2. ENSURE SUBCONTRACTORS, MANUFACTURERS AND SUPPLIERS HAVE THE LATEST CONTRACT DOCUMENTS PRIOR TO THE SUBMITTAL OF THEIR SHOP DRAWINGS AND/OR DELEGATED DESIGN DRAWINGS.
3. REFER TO THE SPECIFICATIONS FOR REQUIRED SUBMITTALS, INSPECTIONS AND NOTICE TO PROCEED.

EXISTING CONDITIONS SURVEY

- 1. THE DOCUMENTS ARE BASED ON THE FOLLOWING TOPOGRAPHIC AND UTILITY SURVEY:
- TOPOGRAPHIC SURVEY BY OTTO ASSOCIATES DATED JULY 19, 2021.
- WETLAND DELINEATION REPORT BY STANTEC, DATED JULY 9TH, 2021.
2. SURVEYED UNDERGROUND UTILITIES ARE PROVIDED FOR INFORMATION ONLY AS THEY ARE INFERRED BY SURFACE MARKINGS AND FEATURES AND AS SUCH MAY NOT BE ACCURATE OR COMPLETE.

GEOTECHNICAL REPORT

- 1. THE GEOTECHNICAL REPORTS ARE MADE AVAILABLE FOR INFORMATION ONLY AS SOME RECOMMENDATIONS IN THE REPORT MAY NOT BE RELEVANT OR USED IN THE DOCUMENTS.

UTILITIES

- 1. THE LOCATIONS AND SIZES OF EXISTING UTILITIES (IF SHOWN) ARE APPROXIMATE ONLY. IDENTIFY, LOCATE AND PROTECT UNDERGROUND AND OVERHEAD UTILITIES TO REMAIN.
2. COORDINATE WITH THE LOCAL UTILITY COMPANIES AND/OR AGENCIES. CALL LOCAL '811' OR REQUEST LOCATES ONLINE NO LESS THAN 48 HOURS PRIOR TO DIGGING TO LOCATE UNDERGROUND UTILITIES OR AS REQUIRED BY LOCAL REGULATIONS.
- FIBER OPTIC LINES MAY BE PRESENT IN HENNEPIN COUNTY REGIONAL RAIL AUTHORITY DAKOTA TRAIL COORIDOR.
- NORTHERN NATURAL GAS (NNG) EASEMENT EXISTS ON SITE. AN NNG REPRESENTATIVE BE PRESENT AT ALL TIMES WHEN EXCAVATION WORK IS BEING PERFORMED WITHIN 25 FEET AROUND THE PIPELINE. WORK WITHIN NNG EASEMENT SHALL BE SUBJECT TO THE FOLLOWING CONDITIONS:

ENGINEERING NOTES

- A. MAINTAIN AT LEAST 36" OF COVER OVER THE PIPELINE AFTER CONSTRUCTION.

ENCROACHMENT GUIDELINES

- B. REPRESENTATION: NNG REPRESENTATIVE MUST BE PRESENT WHEN EXCAVATION WORK IS BEING PERFORMED WITHIN 25' OF NNG'S PIPELINE. CONTRACTOR MUST PROVIDE NNG A MINNESOTA UTILITY ONE CALL TICKET AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THE AREA.
C. EXCAVATION: MECHANICAL EXCAVATION IS ALLOWED WITHIN 24" OF THE PIPELINE. HAND EXCAVATION OR HYDROVAC EXCAVATION IS REQUIRED WHEN EXCAVATING 24" OR CLOSER TO NNG'S PIPELINE.
D. APPURTENANCES: ALL ABOVE GRADE APPURTENANCES SHALL NOT INTERFERE WITH GROUND PATROLS OR LEAK SURVEYS. ALL SIGNS, TREES, AND SHRUBS MUST BE PLACED A RECOMMENDED OFFSET DISTANCE OF 30' FROM NNG FACILITIES.
E. GRADE MODIFICATIONS: EARTHWORK AND OTHER GRADE MODIFICATION MUST MAINTAIN A MINIMUM OF 36" OF COVER (OR EXISTING COVER OF LESS THAN 36") OVER NNG'S PIPELINE IN ALL LOCATIONS AFTER CONSTRUCTION.
F. PAVED CROSSINGS: ALL PAVED CROSSINGS MUST CROSS THE NNG PIPELINE AT OR NEAR A RIGHT ANGLE AND MAINTAIN A MINIMUM OF 4' OF COVER OVER THE PIPELINE. PAVEMENT RUNNING PARALLEL TO NNG'S FACILITIES MUST BE OUTSIDE THE EASEMENT AND OFFSET A RECOMMENDED DISTANCE OF 25' FROM NNG FACILITIES.
G. HEAVY VEHICLE CROSSINGS: AS A GUIDELINE, ALL VEHICULAR CROSSINGS OVER THIS PARTICULAR NNG PIPELINE, MOUND BRANCHLINE, HAVE THE FOLLOWING LOAD RESTRICTIONS (PER AXEL) WITHOUT ADDITIONAL PROTECTION: ≥36" COVER - 20,000 LBS.
H. CROSSING PROTECTION: NNG ENGINEERING REQUESTS VEHICLE SPECIFICATIONS FOR ALL CONSTRUCTION EQUIPMENT EXCEEDING 80,000 LBS. GROSS VEHICLE WEIGHT

- OR EXCEEDING THE SPECIFIED LOAD RESTRICTIONS THAT WILL BE ANTICIPATED TO CROSS NNG FACILITIES. NNG ENGINEERING SHALL RECOMMEND APPROPRIATE CROSSING PROTECTION METHODS, IF REQUIRED. POTENTIAL CROSSING PROTECTION METHODS INCLUDE USE OF TIMBER/STEEL/COMPOSITE PLATE MATTING, TEMPORARY BRIDGE STRUCTURES, OR PIPELINE REINFORCEMENT.
I. DAMAGES: ANY DAMAGES OR MODIFICATIONS TO NNG'S FACILITIES SHALL BE REPAIRED OR MODIFIED AT THE EXPENSE OF THE ENCRDACHMENT PARTY.
J. NNG REQUIRES THAT THE ENCRDACHMENT CONDITIONS ARE MET TO ENSURE PIPELINE INTEGRITY AND SAFETY DURING AND AFTER CONSTRUCTION. NNG ENGINEERING WILL CONTINUE TO REVIEW ANY REVISED CONSTRUCTION PLANS AND NEW PROPOSALS AS THEY ARE DEVELOPED.

LAYOUT

- 1. THE VERTICAL CONTROL FOR THE PROJECT IS: NORTH AMERICAN VERTICAL DATUM (NAV88) UNLESS OTHERWISE NOTED.
2. VERIFY THE LOCATION OF EXISTING FEATURES TO REMAIN THAT CONNECT TO NEW WORK. DIMENSIONAL CLEARANCES, SETBACKS AND OFFSETS AND VERTICAL DATUM. REPORT DISCREPANCIES IMMEDIATELY TO THE OWNER'S REPRESENTATIVE FOR DIRECTION BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
3. VERIFY PREVIOUS UNDERLYING TRADEWORK CONFORMS TO THE DOCUMENTS PRIOR TO PROCEEDING WITH OVERLYING TRADEWORK. REPORT DISCREPANCIES IMMEDIATELY TO THE OWNER'S REPRESENTATIVE FOR DIRECTION BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
4. GENERAL CONTRACTOR SHALL RETAIN SURVEY CONTROL FOR LAYOUT OF THE WORKS AND AS-BUILT SURVEYS.
5. COORDINATE AND COLLATE SUBCONTRACTOR'S SURVEYS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY EXISTING SITE CONDITIONS AND EVOLVING SITE CONDITIONS PRIOR TO THE START OF SITE WORK. DISCREPANCY AND/OR UNFORESEEN CONDITIONS FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO STARTING THE SITE WORK. DO NOT BEGIN WORK IN SUCH AFFECTED AREA UNTIL THE DISCREPANCY HAS BEEN RESOLVED.
6. ERECT AND INSTALL ALL WORK LEVEL, PLUMB, SQUARE, TRUE, STRAIGHT AND IN PROPER ALIGNMENT.
7. DO NOT SCALE FROM DRAWINGS. USE DIMENSIONS SHOWN AND/OR SUPPLIED CAD DRAWING FILE AND SURVEY INTERPOLATION.
8. DIMENSIONS NOTED "CLR" OR "CLEAR" MUST BE STRICTLY MAINTAINED ALLOWING FOR THICKNESS OF FINISHES. FIELD VERIFY PRIOR TO CONSTRUCTION.
9. ANGLES ARE 90 DEGREES UNLESS NOTED OTHERWISE.
10. CURVES FOR PAVING, BANDS, PATHS, EDGING AND HEADER BOARDS SHALL BE SMOOTH AND CONTINUOUS WITHOUT ABRUPT CHANGES, OBVIOUS TANGENTS OR BENDS.
11. PITCH EVENLY BETWEEN SPOT GRADES AND CONTOUR LINES UNLESS GRADE BREAKS, RIDGELINES, SWALES ARE INDICATED OR OTHERWISE NOTED. PAVED AREAS SHALL PITCH AT A MINIMUM OF 1% UNLESS OTHERWISE NOTED ON DRAWINGS. DISCREPANCIES OR CONDITIONS NOT ALLOWING THIS TO OCCUR SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE FOR RESOLUTIONS PRIOR TO CONTINUING WORK.
12. PEDESTRIAN SIDEWALKS AND PAVING SHALL HAVE A CROSS PITCH LESS THAN 2% UNLESS OTHERWISE NOTED TO MEET ADA REQUIREMENTS.
13. REQUEST A FIELD REVIEW BY THE LANDSCAPE ARCHITECT OF THE LAYOUT OF ELEMENTS AS SHOWN. OBTAIN LANDSCAPE ARCHITECT'S APPROVAL OF LAYOUT BEFORE INSTALLING THE FOLLOWING:
- FIRST TYPICAL SITE LIGHTING FIXTURES, JUNCTION BOXES, TRANSFORMERS.
- FIRST TYPICAL SITE UTILITY FIXTURES, INCLUDING BUT NOT LIMITED TO BOXES, VAULTS, PULL BOXES, MAN HOLES, AIR RELEASE VALVES, VENTS, BFP, AND OTHER CIVIL, MECHANICAL, ELECTRICAL, PLUMBING, TELECOM, HEATING/COOLING, AND IRRIGATION STRUCTURES.
- FIRST TYPICAL FORMWORK OF WALLS.
- TREE LOCATIONS. STAKE ALL TREE LOCATIONS. OBTAIN APPROVAL OF LANDSCAPE ARCHITECT BEFORE PLANTING TREES.
- FIRST TYPICAL CURVED EDGING AND CUTTING.
- FIRST TYPICAL EXPANSION JOINTS IN CONCRETE PAVING.

WORK BY OTHERS

- 1. COOPERATE AND COORDINATE WITH OTHER CONTRACTORS WORKING CONCURRENTLY SO AS TO NOT VIOLATE EACH OTHER'S PERMITS AND TO AVOID DAMAGE TO EACH OTHER'S WORK.
2. EACH CONTRACTOR SHALL PROTECT AND MAINTAIN THEIR OWN WORK FOR THE DURATION OF THEIR CONTRACTS.

CODE COMPLIANCE

- 1. WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LAWS, CODES AND REQUIREMENTS OF REGULATORY AGENCIES HAVING JURISDICTION.
2. NOTIFY THE OWNER'S REPRESENTATIVE OF DISCREPANCIES BETWEEN THE WORK AND APPLICABLE CODES. DO NOT WORK IN AN AFFECTED AREA UNTIL THE DISCREPANCY HAS BEEN RESOLVED.
3. VERIFY CODES IN EFFECT AT THE TIME OF THE NOTICE TO PROCEED AND STAY CURRENT WITH CODE CHANGES WHICH AFFECT THE WORK UNTIL SUBSTANTIAL COMPLETION.
4. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AND PAY FOR CONSTRUCTION RELATED PERMITS.

CODES IN EFFECT

- 1. THE FOLLOWING CODES ARE APPLICABLE AND IN EFFECT:
- MN BUILDING CODE 2021
2. REVISIONS TO THE APPROVED AND PERMITTED DRAWINGS OR DOCUMENTS SHALL BE SUBMITTED TO THE CODE AUTHORITIES FOR REVIEW. NOTIFY THE OWNER'S REPRESENTATIVE OF THE PROCESSING TIME FOR EACH REVISION SUBMITTED FOR PLAN CHECK.

COPYRIGHT AND REPRODUCTION

- 1. THE USE OF REPRODUCTIONS OF THE CONTRACT DOCUMENTS OR ELECTRONIC FILES AS SHOP DRAWING DOCUMENTS BY THE CONTRACTOR IS AT THEIR OWN RISK. THE DESIGN CONSULTANTS ASSUME NO LIABILITY AS A RESULT OF THE USE OF REPRODUCTIONS OF THE CONTRACT DOCUMENTS FOR SHOP DRAWINGS AND/OR

DELEGATED DESIGN DRAWINGS.

- 2. THE ENTIRE CONTRACT DOCUMENT PACKAGE HEREIN IS THE ORIGINAL AND UNPUBLISHED PROPERTY OF THE OWNER AND MAY NOT BE DUPLICATED, USED OR DISCLOSED WITHOUT THE PRIOR EXPLICIT WRITTEN CONSENT.
3. THE USE OF DIGITAL DESIGN FILES SHALL REQUIRE THE CONTRACTOR TO AGREE TO PRIME CONSULTANT'S LICENSE CONDITIONS BEFORE USE.

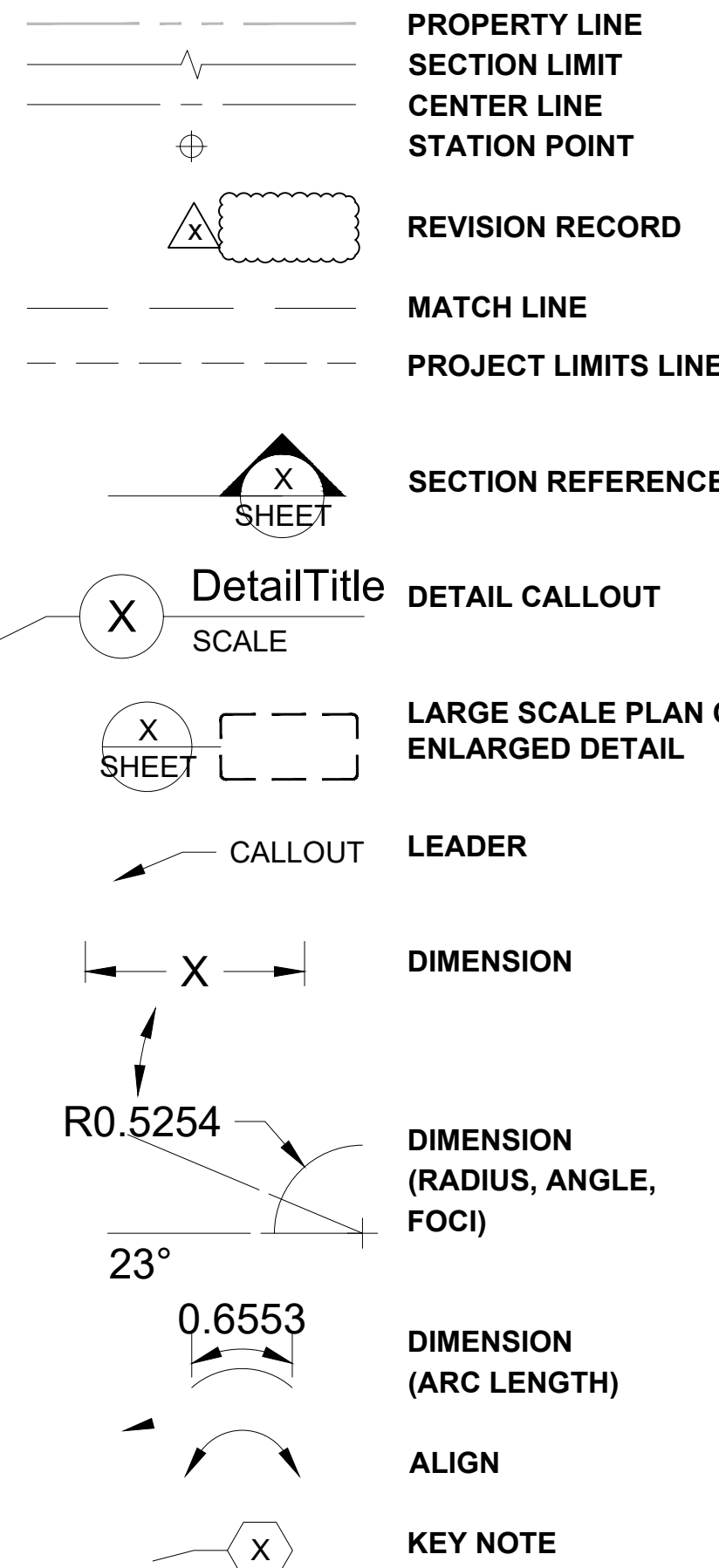
CONSTRUCTION LOADS, DAMAGES & REPAIRS

- 1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SLOPE STABILITY AND DE-WATERING DURING THE WORKS UNLESS UNKNOWN CONDITIONS ARE ENCOUNTERED.
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROTECTING THE WORKS FROM CONSTRUCTION LOADS AND DAMAGES TO EXISTING STRUCTURES TO REMAIN, NEW STRUCTURES AND NEW PAVEMENTS DURING THE WORKS.
3. BE FULLY RESPONSIBLE FOR THE COST OF DAMAGES WHICH OCCUR AS A RESULT OF A FAILURE TO MITIGATE CONSTRUCTION LOADS AND/OR PROTECT THE WORKS FROM CONSTRUCTION RELATED IMPACTS. REPAIRS SHALL BE TO A NEW OR BETTER CONDITION COMPARED TO THE EXISTING CONDITION BEFORE DAMAGE, AND AS APPROVED BY THE OWNER'S REPRESENTATIVE.
4. CONFIRM ON-STRUCTURE UNIFORM AND POINT LOAD LIMITS WITH ENGINEER PRIOR TO IMPORTING AND HANDLING LANDSCAPE MATERIALS OVER VAULTS, AND/OR TUNNELS, INCLUDING UTILITY STRUCTURES, AND FLOOD CONTROL STRUCTURES.

CONSTRUCTION WASTE MANAGEMENT

- 1. REMOVE FROM THE SITE EXCESS MATERIAL AND/OR DEBRIS. DISPOSAL OF MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR. EXCESS MATERIAL AND/OR DEBRIS TO ABLE TO BE RECYCLED OR REUSED SHALL BE DISPOSED OF OFF THE PROJECT SITE IN A PERMITTED LANDFILL.

SYMBOLS



ABBREVIATIONS

Table listing abbreviations such as APPROX, AVG, BLDG, BM, BOS, BOT, C, CB, CIP, CJ, CL, CLR, CLL, CMU, CONC, CTR, DAT, DEG, DIA, DIM, DIST, DIV, DWG, E, EA, EJ, EL, EP, EQ, EQSP, EQUIV, EX, F, FC, FFE, FF&E, FG, FOC, FOW, FV, GALV, GDR, H, HB, HDPE, HH, HOR, HORIZ, HT, HV, ID, INV.EL, KW, LDPE, LED, LF, LPT, LTD, LV, LW, MAX, MFR.REC, MH, MID, MIN, N, NA, NIC, NO, NOM, NTS, OC, OD, OH, PB, PC, PCC, PERF, PERP, pH, PH, PI, PKG, PL, PLBG, PRCST, PREFAB, PROV, PVC, PWR, QTR, QTY, R, RCP, RECIRC, RECP, REINF, REQD, REV, RLG, ROW, S, SALV, SEG, SHT, SIM, SPEC, SQ, SSD, SST, STA, STD, SUCT, T, TAN, TBD, TB-XX, TD, TEMP, THK, THRU, TO, TOC, TOL, TOS, TOW, TR, TS, TYP, UGND, UNIF, UP, UV, VAR, VERT, VRFY, W, W/, W/O, WL, WLD, WT.EL, XFMR, YR, @, &, -/+ , IJ, HW, NP, GB, AT, AND, DIMENSION TOLERANCE, ISOLATION JOINT, HIGH WATER, NORMAL POOL, GRADE BREAK.

POINT OF CURVE
PRECAST CONCRETE
PERFORATED
PERPENDICULAR
ACID/ALKALINE SCALE
PHASE
POINT OF INTERSECTION
PACKAGE
PROPERTY LINE
PLUMBING
PRECAST
PREFABRICATE
PROVISIONAL
POLYVINYL CHLORIDE
POWER

QUARTER
QUANTITY

RADIUS
REINFORCED CONCRETE PIPE
RECIRCULATE
RECEPTACLE
REINFORCE
REQUIRED
REVISION
RAILING
RIGHT OF WAY

SOUTH
SALVAGE
SEGMENT
SHEET
SIMILAR
SPECIFICATION
SQUARE
SUBSOIL DRAIN
STAINLESS STEEL
STATION
STANDARD
SUCTION

TRANSFORMER
TANGENT
TO BE DETERMINED
TEST BORING
TRENCH DRAIN
TEMPORARY
THICKNESS
THROUGH
TOP OF
TOP OF CURB
TOLERANCE
TOP OF SLOPE
TOP OF WALL
TRASH
TOP OF STAIR
TYPICAL

UNDERGROUND
UNIFORM
UTILITY POLE
ULTRAVIOLET

VARIES
VERTICAL
VERIFY
WEST
WITH
WITHOUT
WATERLINE
WELDED
WATER ELEVATION

TRANSFORMER

YEAR
AT
AND
DIMENSION TOLERANCE
ISOLATION JOINT
HIGH WATER
NORMAL POOL
GRADE BREAK

DF/
DAMON FARBER
LANDSCAPE ARCHITECTS

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

NOT FOR
CONSTRUCTION

60% CD- 8/5/21
PERMITTING REVIEW-8/18/21
90% CD- 09/07/21

SIX MILE
MARSH
PRAIRIE TRAIL

MINNETRISTA, MN

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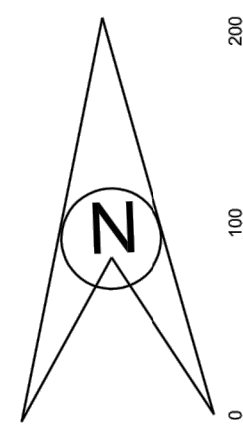
Name
Registration#
Signature
Date
Date 8/18/2021
DF/ Project # 21-131
Scale VARIES
Drawn/Checked JR, JH / JG

REVISION

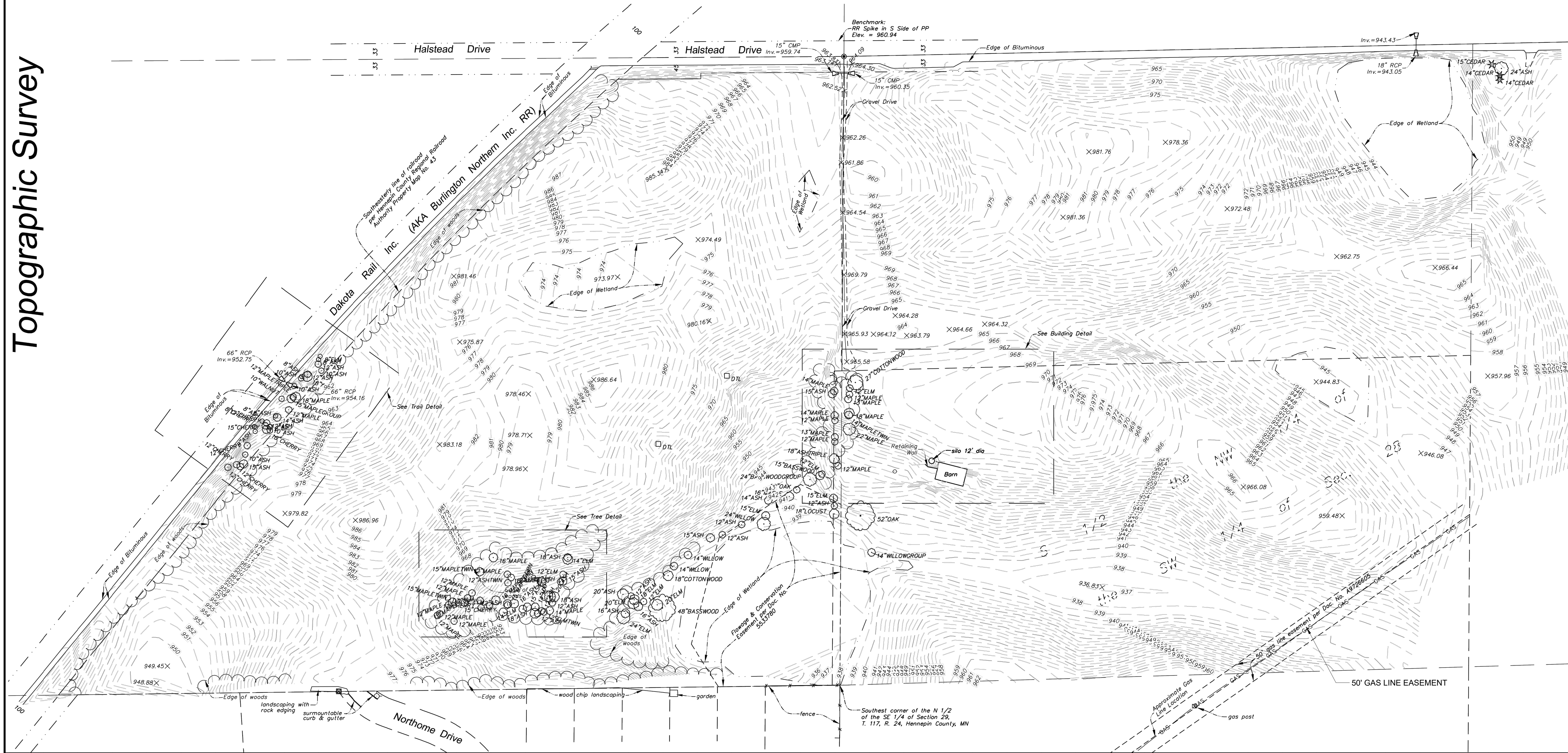
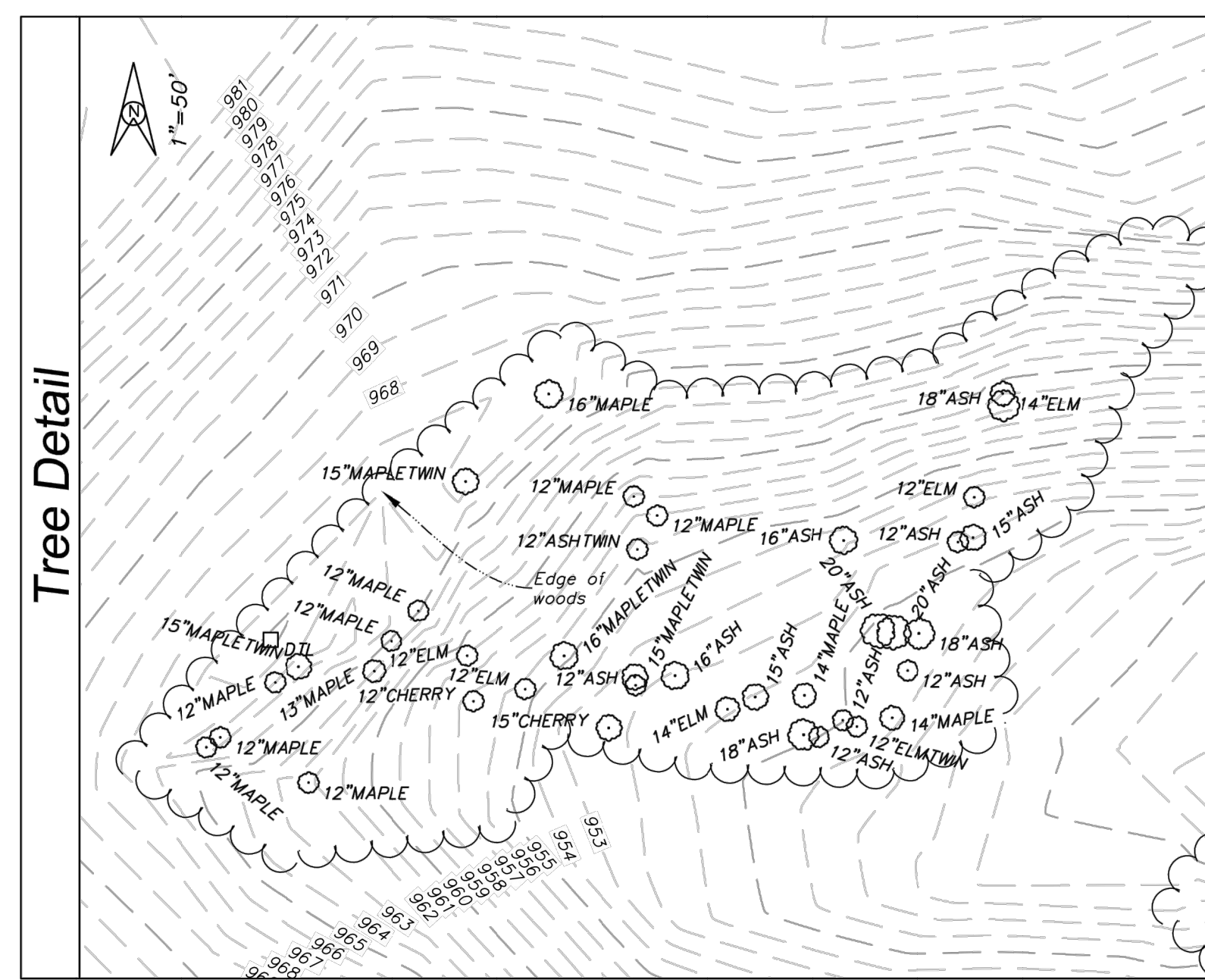
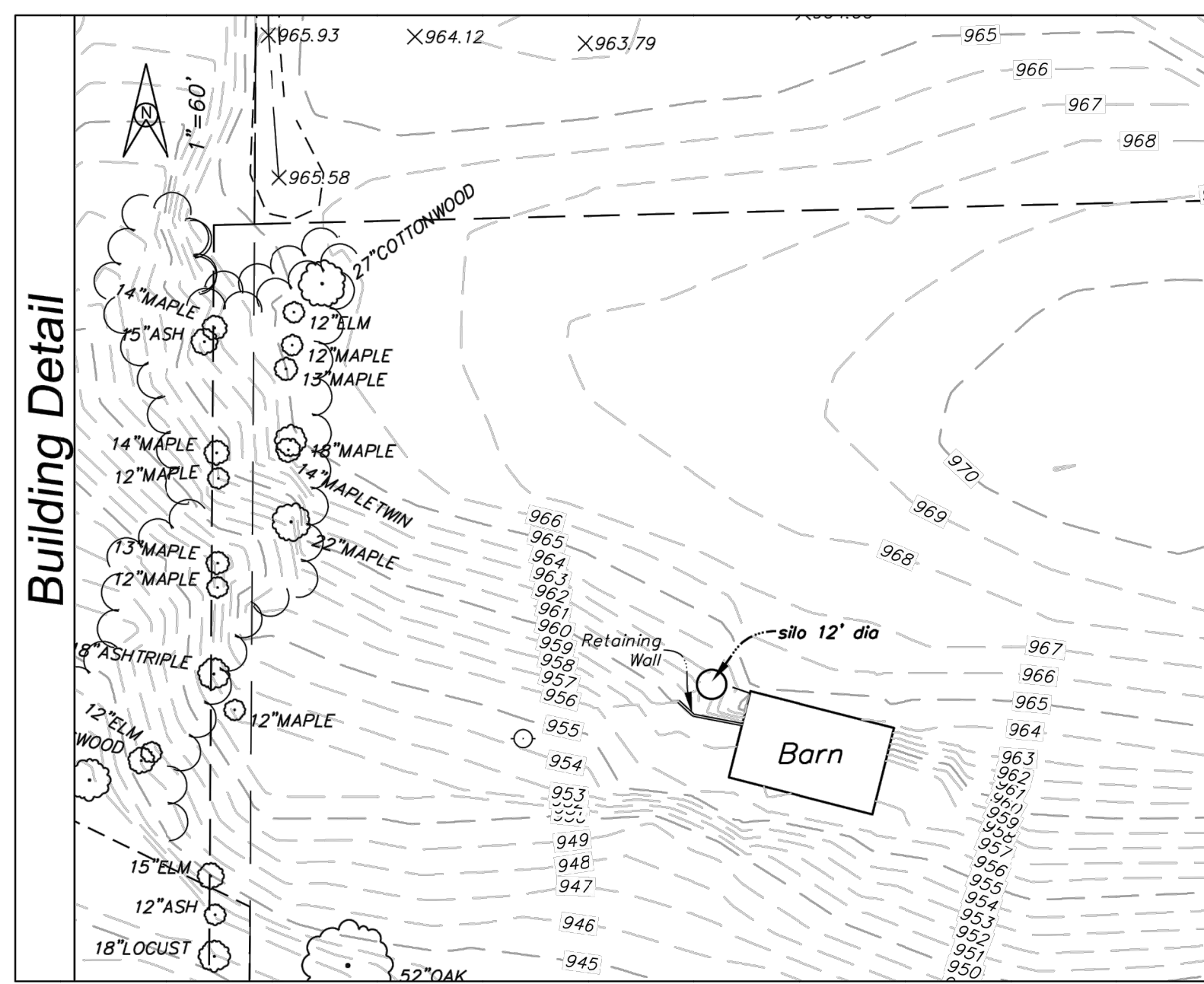
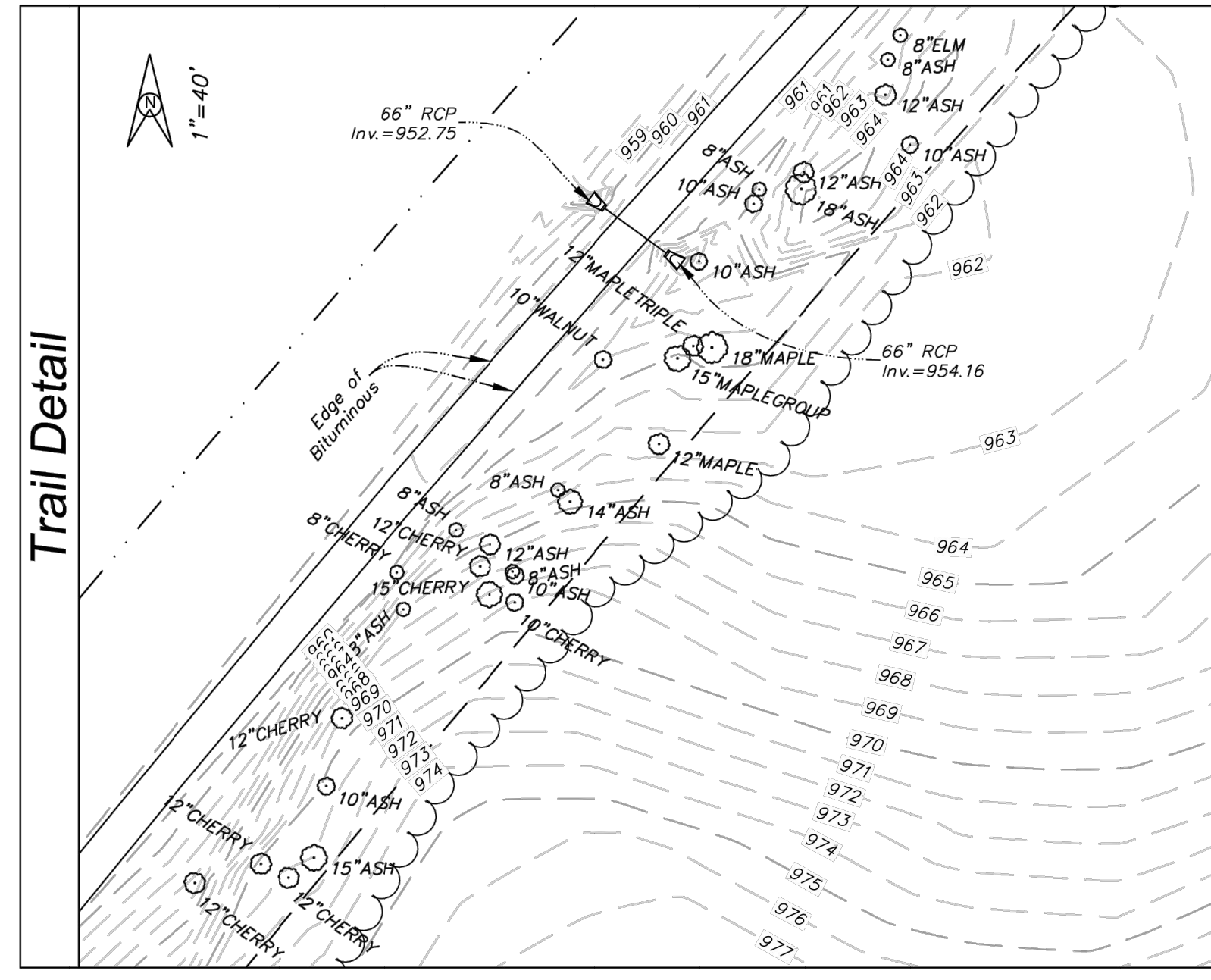
GENERAL
NOTES AND
SCHEDULES

L-002

Topographic Survey



- LEGEND**
- 988 --- denotes Existing Contour
 - 988.00 X --- denotes Existing Spot Elevation
 - denotes Deciduous Tree
 - denotes Coniferous Tree
 - denotes Wetland
 - denotes Existing Culvert
 - denotes Drainage and Utility Easement
 - denotes Gas Line



www.otbassociates.com
 9 West Division Street
 Buffalo, MN 55313
 (763) 682-1727
 Fax: (763) 682-3622



Requested By: **Minnehaha Creek Watershed District**
 Date: **7-2-21**
 Drawn By: **M.L.O.**
 Scale: **1" = 100'**
 Checked By: **P.E.O.**

I hereby certify that this survey, plan, or report was prepared by me or under my direct supervision and that I am a duly licensed Land Surveyor under the laws of the State of Minnesota.
 Paul E. Otto
 License #40062 Date: 7-19-21

Requested By: **Minnehaha Creek Watershed District**
 Date: **7-2-21**
 Drawn By: **M.L.O.**
 Scale: **1" = 100'**
 Checked By: **P.E.O.**

NOTES

1. SURVEY BY OTHERS. INCLUDED FOR REFERENCE ONLY.
2. EXISTING SITE INCLUDES GAS LINE & EASEMENT- SEE NOTES AND GRADING PLAN FOR REQUIREMENTS WHEN WORKING WITHIN 25' OF GASLINE EASEMENT.
3. FIBER OPTIC LINES MAY BE PRESENT IN DAKOTA RAIL TRAIL COORIDOR.

NOT FOR CONSTRUCTION

60% CD- 8/5/21
 PERMITTING REVIEW-8/18/21
 90% CD- 09/07/21

SIX MILE MARSH PRAIRIE TRAIL

MINNETRISTA, MN

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Name _____
 Registration# _____

Signature _____ Date _____

Date 8/18/2021

DF/ Project # 21-131

Scale VARIES

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REVISION _____

EXISTING CONDITIONS SURVEY

L-003

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CONSTRUCTION

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PERMITTING REVIEW-8/18/21
90% CD- 09/07/21

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Registration# _____

Signature _____ Date _____

Date 8/18/2021

DF/ Project # 21-131

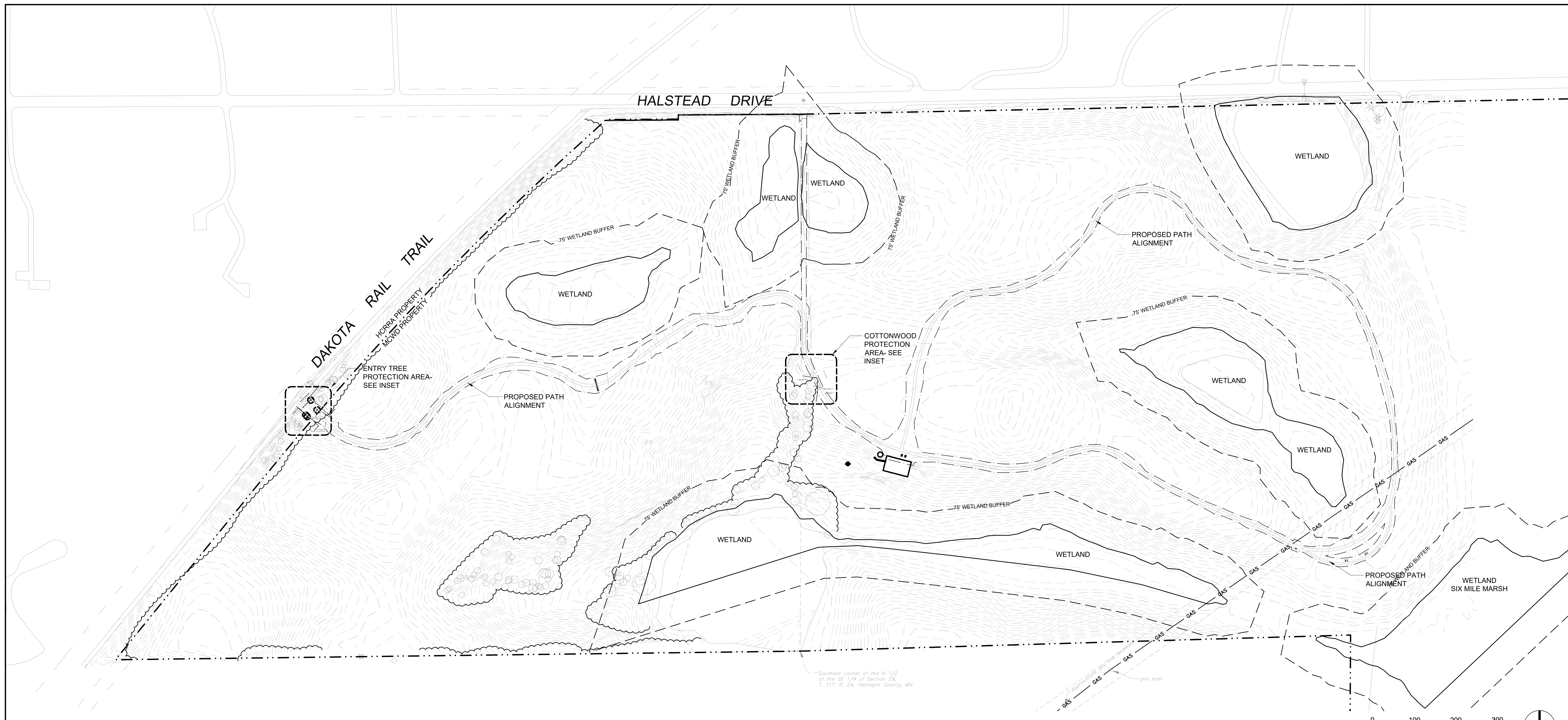
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Drawn/Checked JR, JH / JG

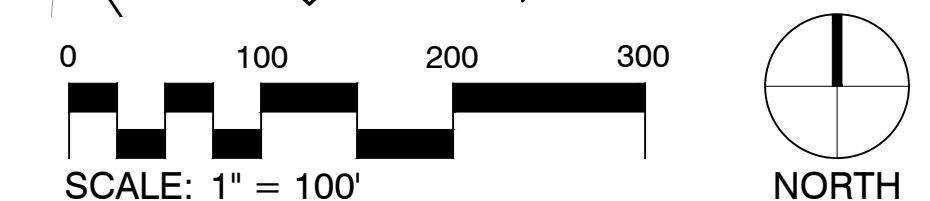
REVISION

TREE PRESERVATION PLAN

L-004

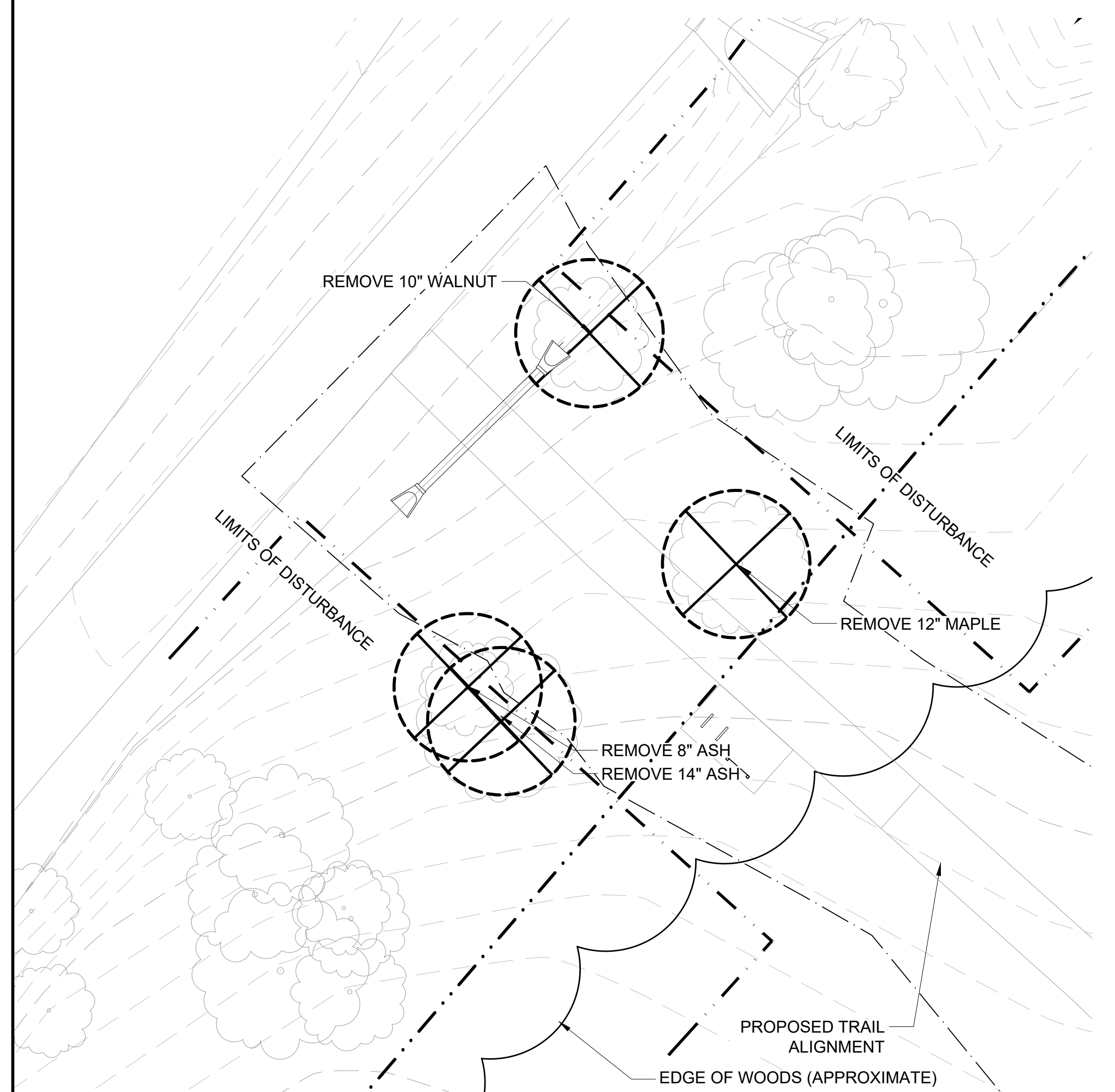


Southwest corner of the N 1/2 of the SE 1/4 of Section 25, T. 117, R. 24, Hennepin County, MN

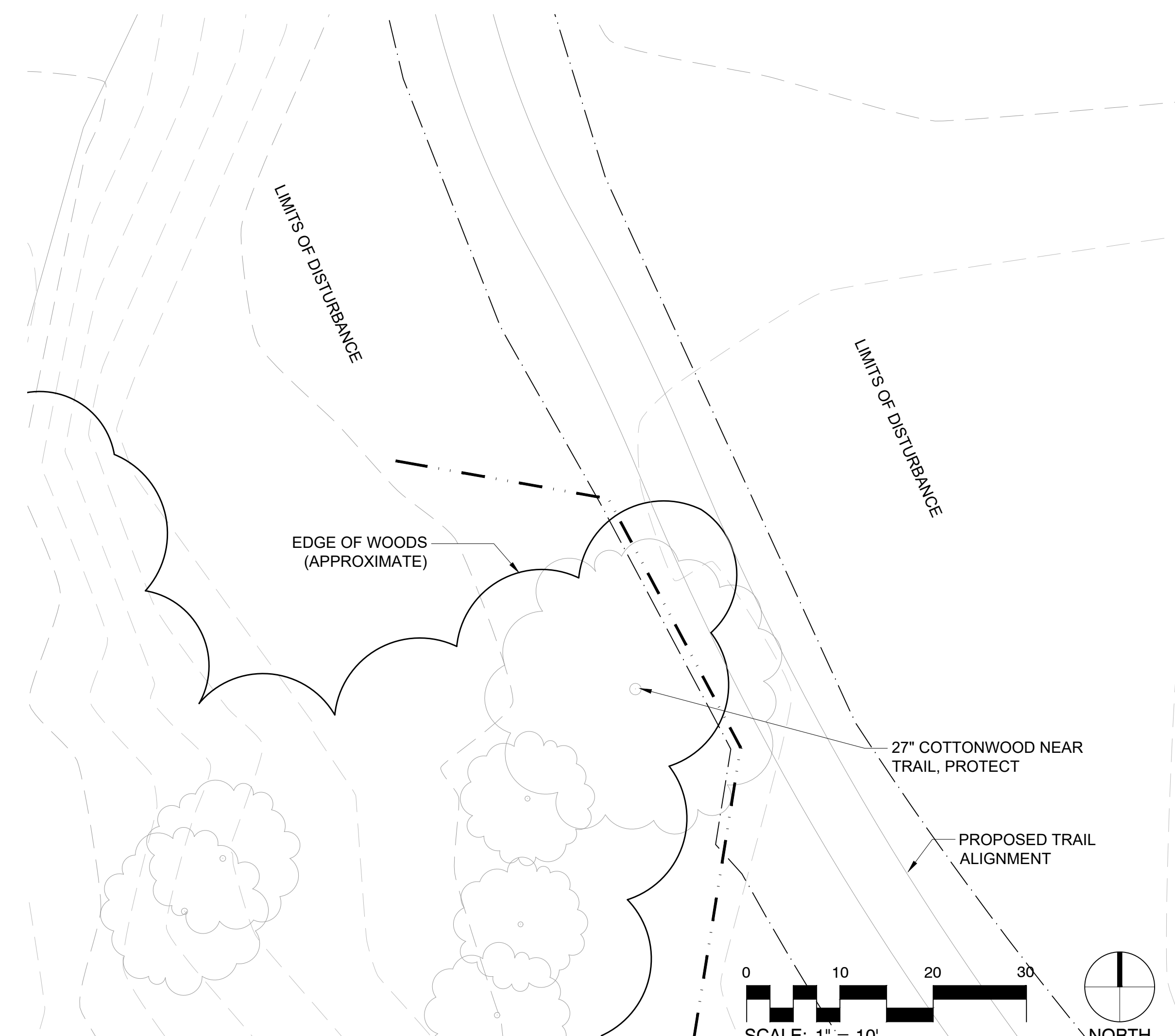


LEGEND

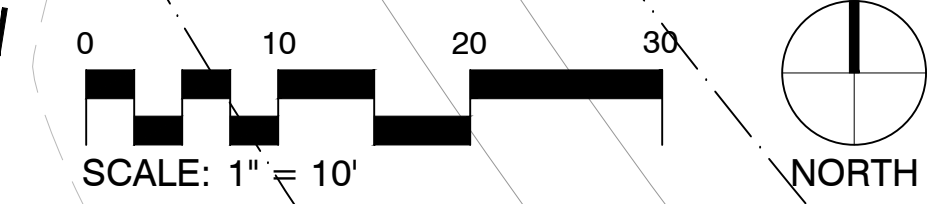
- PROPERTY LINE
- - - TREE PROTECTION FENCE
- EXISTING TREE
- ⊗ REMOVE EXISTING TREE
- - - LIMITS OF DISTURBANCE & LOCATION OF SILT FENCE



TRAIL ENTRY PROTECTION AREA



COTTONWOOD PROTECTION AREA



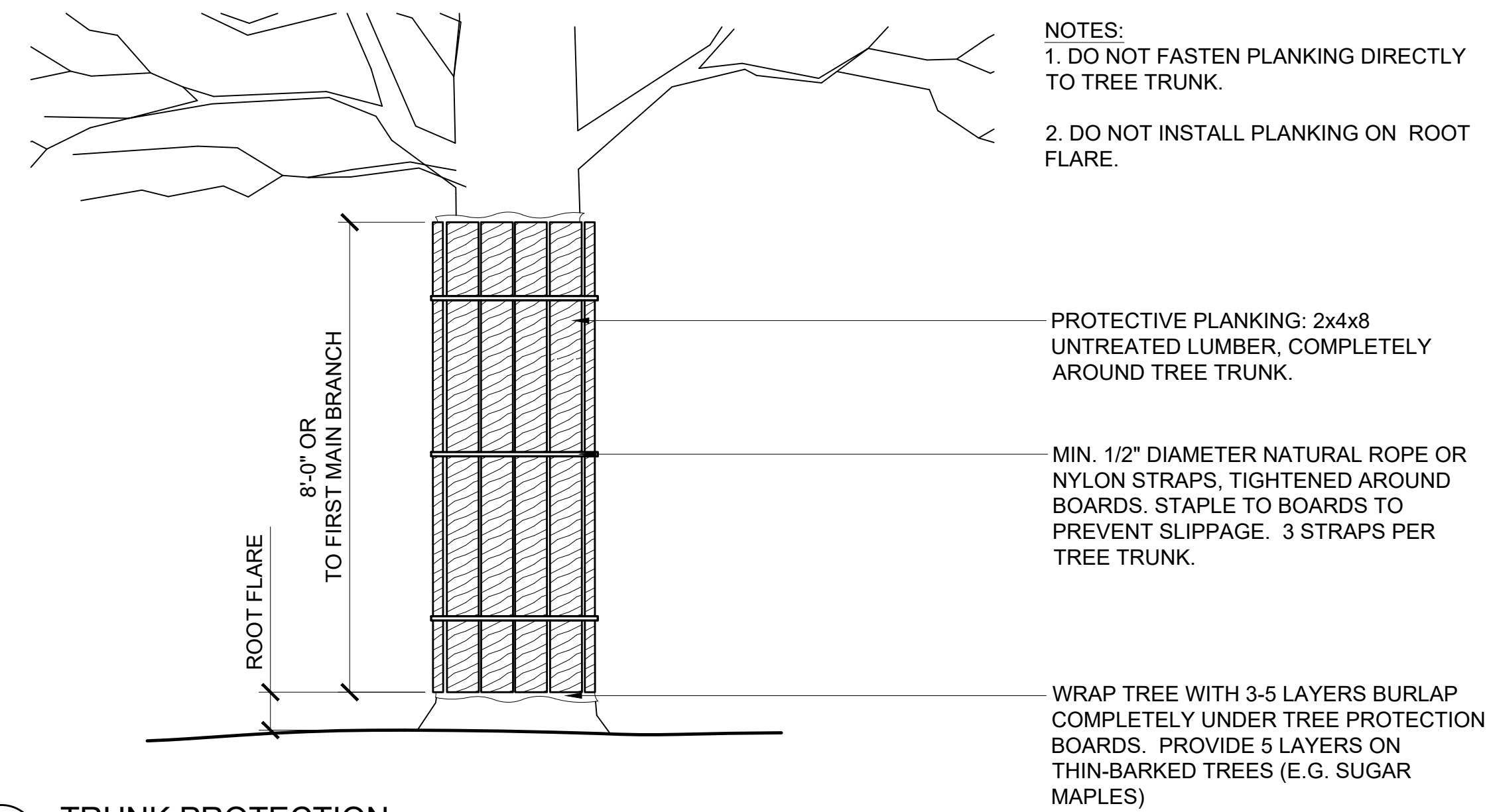
TREE PRESERVATION NOTES

SITE SPECIFIC NOTES

1. PROVIDE LIMBING OF EXISTING TREES AS REQ'D FOR CONSTRUCTION ACCESS, CLEARANCE FOR PROJECT PATHWAYS, AND AS DIRECTED BY LANDSCAPE ARCHITECT. PRUNING & REMOVALS TO BE APPROVED BY LA PRIOR TO REMOVAL.

TREE PROTECTION

1. CONTRACTOR SHALL PRESERVE TREES SHOWN IN THE DRAWINGS TO BE PROTECTED AND PRESERVED. INSTALL TREE PROTECTION MEASURES PER DETAILS.
2. TREE PROTECTION MEASURES ARE TO BE INSTALLED PRIOR TO DEMOLITION AND SHALL BE MAINTAINED FOR THE DURATION OF THE CONSTRUCTION PERIOD.
3. NO WORK SHALL OCCUR IN TREE PROTECTION ZONES UNLESS APPROVED BY LANDSCAPE ARCHITECT.
4. CONTRACTOR SHALL TAKE EXTRA PRECAUTIONS TO MINIMIZE DAMAGE TO TREES WHERE WORK IS DESIGNATED TO OCCUR WITHIN AND ADJACENT TO THE DRIPLINE OF TREES. REFER TO TREE PROTECTION DETAILS FOR TREE PROTECTION FENCE, TRUNK PROTECTION, AND PRUNING PRACTICES.
 - 4.1. EXCAVATION WORK WITHIN DRIPLINE OF TREES SHALL BE LIMITED TO HAND REMOVAL, DIRECTIONAL BORING, AND AIR KNIFE ONLY TO MINIMIZE DAMAGE TO ROOT SYSTEMS. SEE SPECIFICATIONS FOR DIRECTIONAL BORING DEPTHS WITHIN DRIPLINE OF TREES.
 - 4.2. WHERE WORK IS TO OCCUR WITHIN DRIPLINE OF TREES OR TREE PROTECTION ZONES, PROVIDE ROOT PRUNING. REFER TO PLANS FOR LOCATION.
 - 4.3. PROTECT TRUNK AND BRANCHES FROM DAMAGE WHERE WORK IS DESIGNATED TO OCCUR WITHIN THE DRIPLINE OF TREES.



4 TRUNK PROTECTION

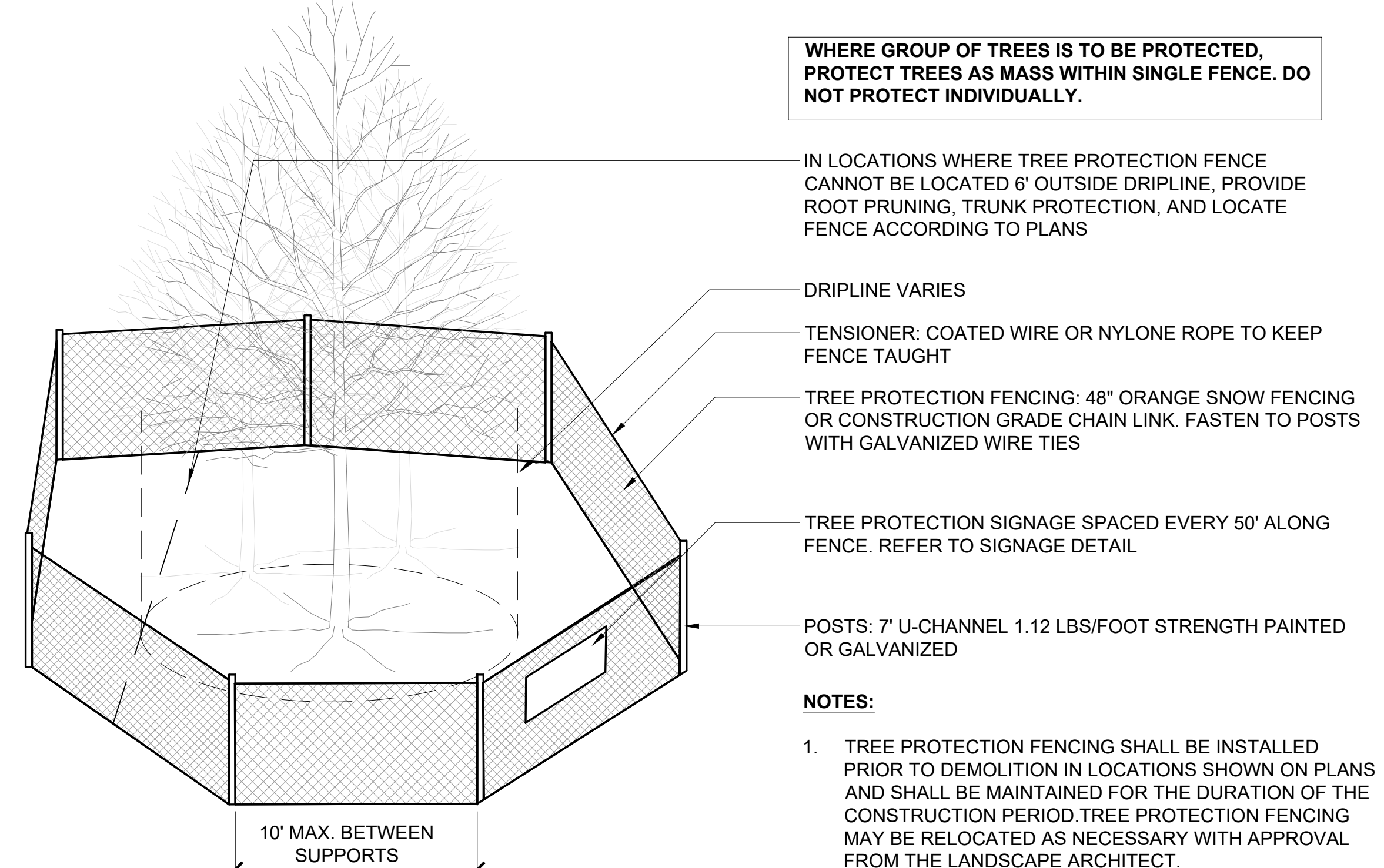
1" = 1'-0"

P-21.131-71

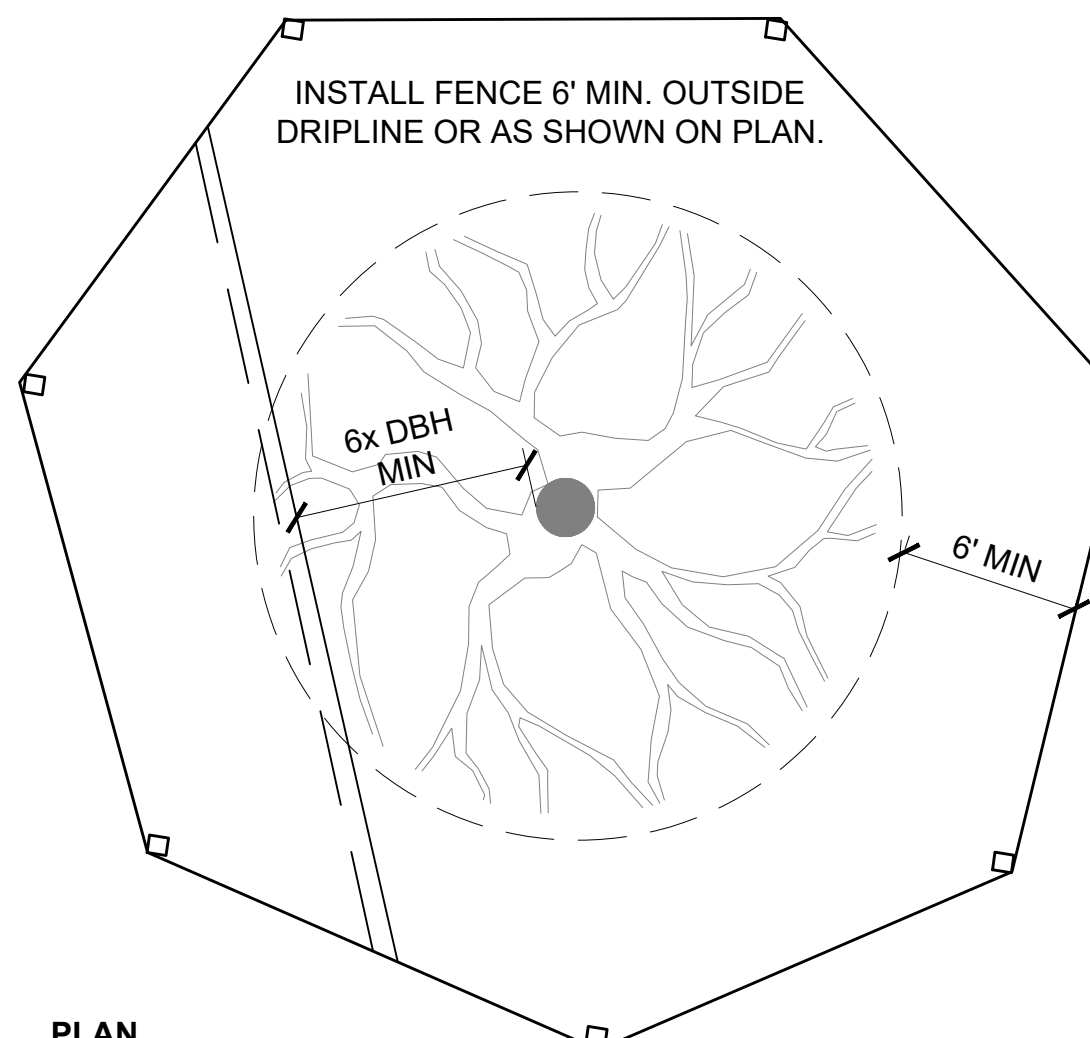
5. CONTRACTOR SHALL NOT PLACE TEMPORARY STRUCTURES OR STORE MATERIALS IN TREE PROTECTION ZONES OR WITHIN THE DRIPLINE OF TREES. TREE PROTECTION FENCE SHALL PREVENT TRAFFIC MOVEMENT AND THE PLACEMENT OF TEMPORARY FACILITIES, EQUIPMENT, STOCKPILE, AND SUPPLIES FROM HARMING VEGETATION WITHIN LIMITS OF PROTECTION.

ROOT PROTECTION

1. IN AREAS WHERE WORK OCCURS WITHIN DRIPLINE OF TREES AND IDENTIFIED AS ROOT PROTECTION ZONES ON PLANS, CONTRACTOR SHALL USE EXTRA PRECAUTION TO MINIMIZE DISTURBANCE TO ROOTS DURING CONSTRUCTION ACTIVITIES.
2. PROVIDE PROTECTIVE 4" ORGANIC WOOD MULCH LAYER BENEATH AND AROUND CONSTRUCTION AREAS. CLEAN ROOT CUTTING BY ISA CERTIFIED ARBORIST, AND LOW-IMPACT EXCAVATION MEASURES. REFER TO PROJECT NOTES AND SPECIFICATIONS
3. CONTRACTOR SHALL NOT STORE MATERIALS, EQUIPMENT, OR PARK VEHICLES IN ROOT PROTECTION ZONES.
4. TEMPORARY ACCESS AND MOVEMENT ACROSS ROOT PROTECTION ZONES AND OVER PROTECTIVE MULCH LAYER TO FACILITATE THE WORK SHALL BE PERMITTED. REPAIR TO PROTECTIVE MULCH LAYER DISTURBED BY CONSTRUCTION ACTIVITIES DURING THE DURATION OF THE WORK.



PERSPECTIVE

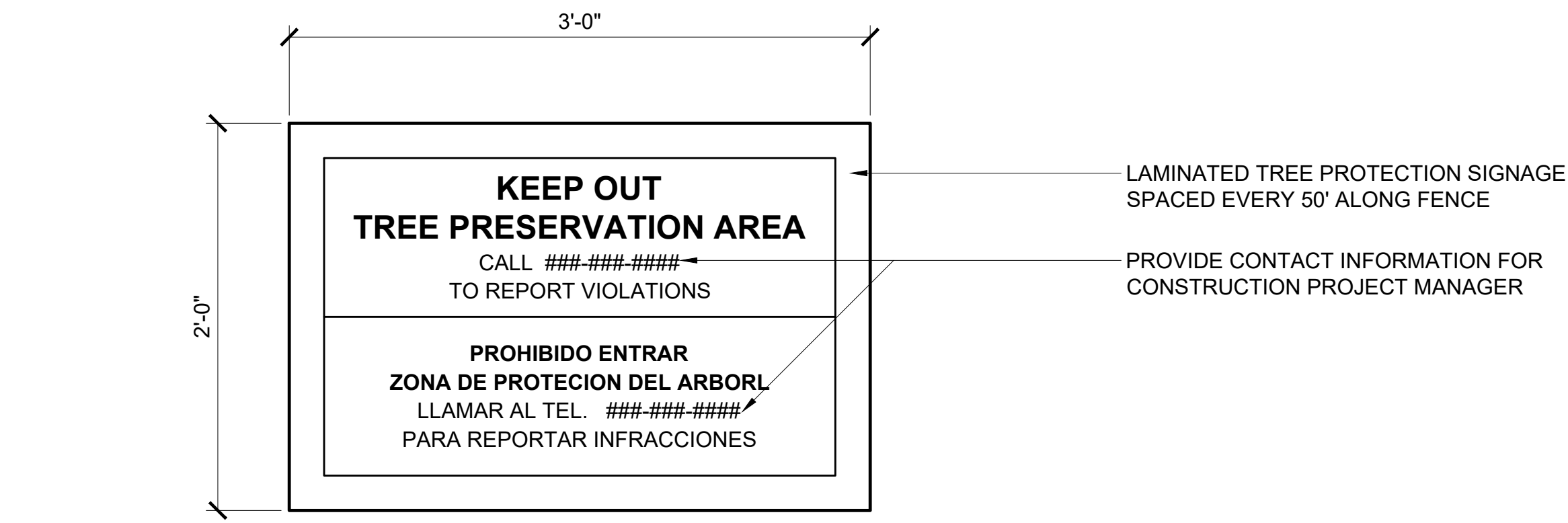


PLAN

2 DETAIL - TREE PROTECTION

1 1/2" = 1'-0"

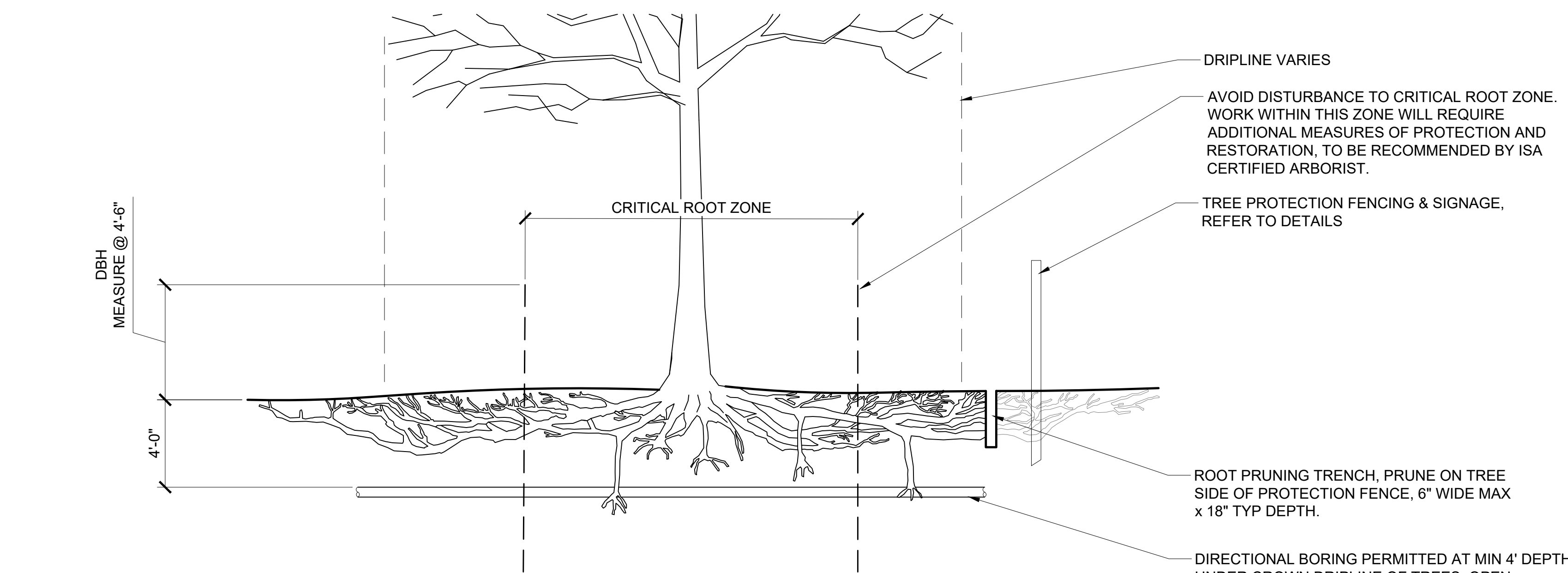
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3 DETAIL - TREE PROTECTION SIGNAGE

1 1/2" = 1'-0"

P-21.131-69



1 ROOT PRUNING & DIRECTIONAL BORING DETAIL

1 1/2" = 1'-0"

P-21.131-70

NOTES:

1. 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.
2. ROOT PRUNING SHALL BE DONE WITH A TRENCHER OR VIBRATORY PLOW 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.
3. FOR INSTALLATION OF UTILITIES WITHIN DRIPLINE OF TREE, LEAVE ROOTS IN TACT AND UTILIZE DIRECTIONAL BORING TO THREAD UTILITY LINES BENEATH.
4. ROOT PRUNING SHALL TAKE PLACE PRIOR TO CLEARING AND GRADING. STAKE LOCATIONS OF TREE PROTECTION PRIOR TO TRENCHING.
5. 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.
6. DO NOT PERFORM ROOT PRUNING WHEN SOIL IS WET OR WHEN TOP 1" OR MORE OF SOIL IS FROZEN.
7. 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

NOT FOR
CONSTRUCTION

SIX MILE MARSH PRAIRIE TRAIL

MINNETRISTA, MN

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Name _____
Registration# _____
Signature _____ Date _____

Date 8/18/2021
DF/ Project # 21-131
Scale VARIES
Drawn/Checked JR, JH / JG

REVISION _____

TREE PRESERVATION DETAILS

L-005

AREA SUMMARY

MAXIMUM DISTURBED AREA	3.00 AC
------------------------	---------

(DISTURBED AREA INCLUDES AREA WITHIN WORK LIMITS)

	EXISTING	PROPOSED
IMPERVIOUS SURFACE	8947 SF	41,936 SF

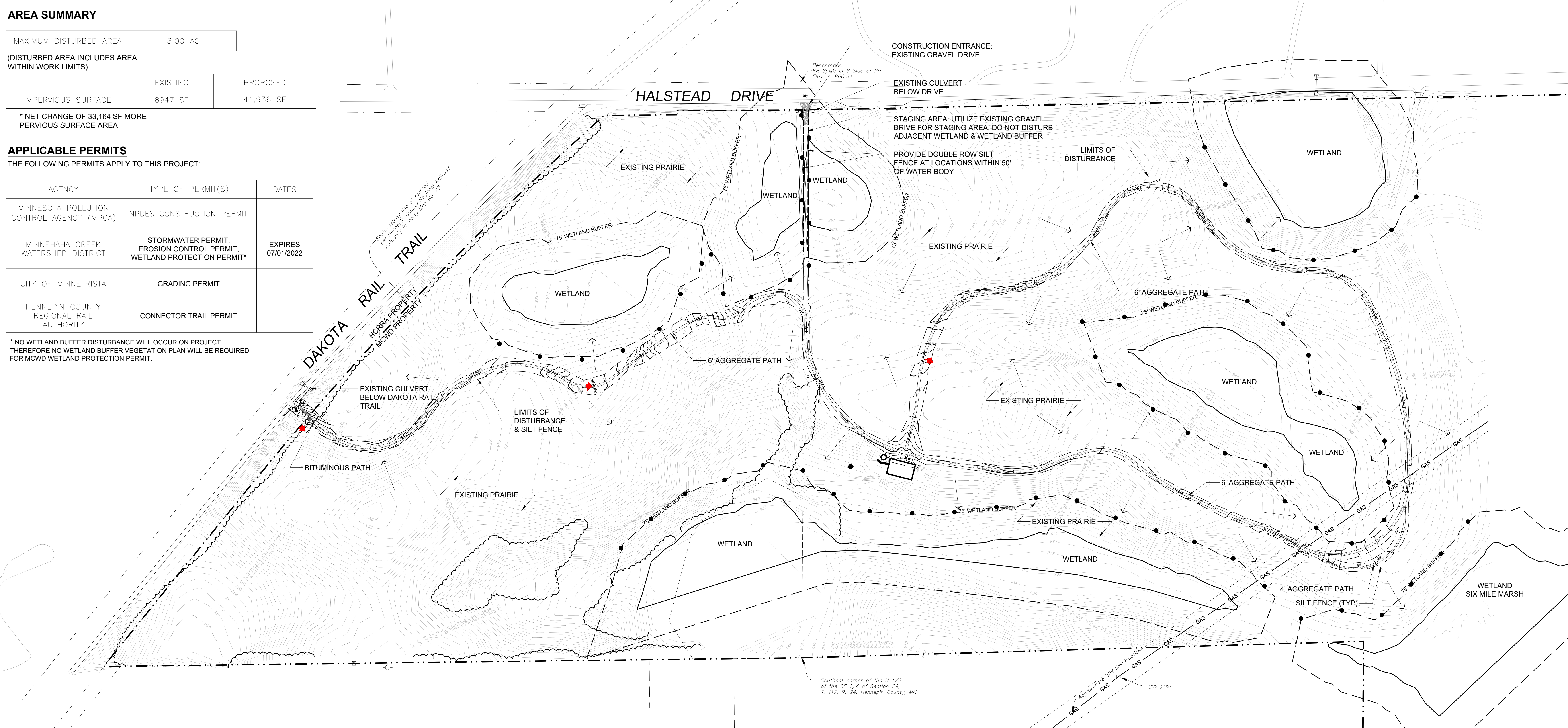
* NET CHANGE OF 33,164 SF MORE PVIOUS SURFACE AREA

APPLICABLE PERMITS

THE FOLLOWING PERMITS APPLY TO THIS PROJECT:

AGENCY	TYPE OF PERMIT(S)	DATES
MINNESOTA POLLUTION CONTROL AGENCY (MPCA)	NPDES CONSTRUCTION PERMIT	
MINNEHAHA CREEK WATERSHED DISTRICT	STORMWATER PERMIT, EROSION CONTROL PERMIT, WETLAND PROTECTION PERMIT*	EXPIRES 07/01/2022
CITY OF MINNETRISTA	GRADING PERMIT	
HENNEPIN COUNTY REGIONAL RAIL AUTHORITY	CONNECTOR TRAIL PERMIT	

* NO WETLAND BUFFER DISTURBANCE WILL OCCUR ON PROJECT THEREFORE NO WETLAND BUFFER VEGETATION PLAN WILL BE REQUIRED FOR MCWD WETLAND PROTECTION PERMIT.

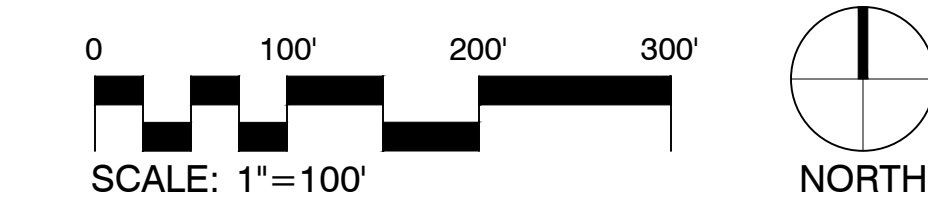


SWPPP NOTES

- SEE SHEET L007 FOR PROJECT SPECIFIC SWPPP NOTES.
- STORMWATER: CONTRACTOR WILL PLACE TEMPORARY FENCE AND SEDIMENT CONTROL LOG PRIOR TO ANY WORK ON SITE. THE SEDIMENT CONTROL LOG WILL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ARE STABILIZED.
- STOCKPILED MATERIALS SHALL BE LOCATED AS DIRECTED BY LANDSCAPE ARCHITECT/ENGINEER AND WITH PERIMETER PROTECTION, AS NEEDED (INCIDENTAL).
- CLEAN SITE AND MAINTAIN CLEAN SITE CONDITIONS DAILY (INCIDENTAL).
- ALL DISTURBED SOILS MUST BE STABILIZED IMMEDIATELY IF SOILS ARE NOT TO BE WORKED WITHIN 24 HOURS (INCLUDING WEEKENDS AND HOLIDAYS) (INCIDENTAL).
- FINAL RESTORATION SHALL BE AS PER PRE-CONSTRUCTION CONDITION.
- ALL TEMPORARY BMP'S MUST BE REMOVED AS PART OF THE FINAL STABILIZATION, UNLESS DIRECTED OTHERWISE BY THE LANDSCAPE ARCHITECT.
- REMOVE AND DISPOSE OF ALL DEBRIS OFF SITE.
- CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING HISTORIC ELEMENTS DURING CONSTRUCTION.
- SEED DISTURBED AREAS ALONG CONSTRUCTION; MINIMIZE AREA OF DISTURBANCE.
- SEE SHEET L007 FOR FINAL STABILIZATION NOTES.
- SEE GRADING AND DRAINAGE PLAN FOR CONTOURS AND SPOT ELEVATION, AND DRAINAGE ARROWS INDICATING DIRECTION OF FLOW.

LEGEND

- PROPERTY LINE
- TREE PROTECTION FENCE
- LIMITS OF DISTURBANCE & LOCATION OF SILT FENCE
- ◆ GEOTECH BORING LOCATION
- ← EXISTING SITE DRAINAGE
- ← PROPOSED TRAIL DRAINAGE
- WETLAND BUFFER SIGN-SPACED 100' ALONG BUFFER EDGE



NOT FOR CONSTRUCTION

60% CD- 8/5/21
 PERMITTING REVIEW-8/18/21
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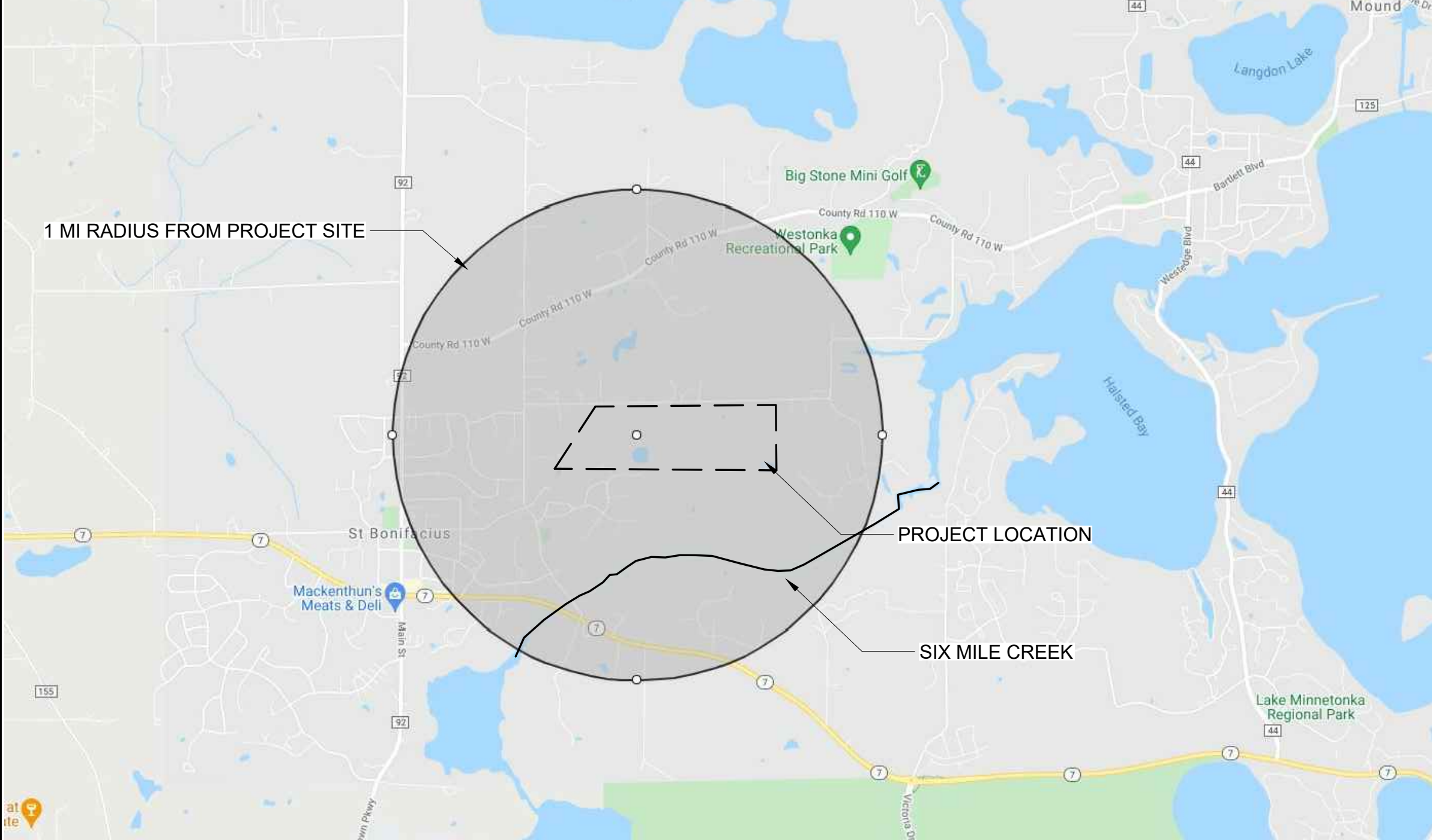
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Signature _____ Date _____

Date 8/18/2021
 DF/ Project # 21-131
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REVISION

SWPPP



2 SILT FENCE- HAND INSTALLED

1 1/2" = 1'-0"

PLAN FOR 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.

LOCATION OF SWPPP REQUIREMENTS
 THE REQUIRED SWPPP ELEMENTS MAY BE LOCATED IN MANY PLACES WITHIN THE PLAN SET.

TIMING OF BMP INSTALLATION:
 DISTURBED, EXPOSED SOILS MUST BE STABILIZED IMMEDIATELY BY SEEDING AND MULCHING AND/OR RIPRAP WITH FILTER FABRIC IF THE SOILS ARE NOT TO BE WORKED WITHIN 24 HOURS (INCLUDING WEEKENDS AND HOLIDAYS).

A SITE PLAN DETAILING PROPOSED EROSION CONTROL AND SEDIMENT CONTROL MEASURES AND A SCHEDULE INDICATING STARTING AND COMPLETION TIMES FOR CONSTRUCTION OPERATIONS SHALL BY SUBMITTED TO LANDSCAPE ARCHITECT BY THE CONTRACTOR. THE CONTRACTOR SHALL NOT START WORK UNTIL THE SCHEDULE AND SITE PLAN HAVE BEEN ACCEPTED.

GENERAL SWPPP NOTES FOR CONSTRUCTION ACTIVITY

- CONTRACTOR SHALL AMEND THE SWPPP AND DOCUMENT ANY AND ALL CHANGES TO THE SWPPP AND ASSOCIATED PLAN SHEETS WITHIN 7 DAYS UPON IMPLEMENTATION. STORE THE SWPPP AND ALL AMENDMENTS ON SITE AT ALL TIMES.
- 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 ALL MINIMUM OF 7 DAYS FOR THE ENGINEER 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.
- IT IS THE DESIGNER'S INTENT THAT THE CONTRACTOR BUILD PONDS AND INSTALL EROSION CONTROL BMPs BEFORE PUTTING THEM INTO ACTIVE SERVICE TO THE MAXIMUM EXTENT PRACTICABLE.
- BURNING OF ANY MATERIAL IS NOT ALLOWED WITHIN PROJECT BOUNDARY.
- 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 DISTURBED AREAS OUTSIDE OF THE CONSTRUCTION LIMITS OBTAIN WRITTEN PERMISSION FROM THE PROJECT ENGINEER PRIOR TO PROCEEDING. PRESERVE ALL NATURAL BUFFERS SHOWN ON THE PLANS.
- 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.
- DIRECT DISCHARGES FROM BMPs TO VEGETATED AREA WHENEVER FEASIBLE. PROVIDE VELOCITY DISSIPATION DEVICES AS NEEDED TO PREVENT EROSION.
- 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.
- ESTABLISH SEDIMENT CONTROL DEVICES ON ALL DOWN GRADIENT PERIMETERS AND UP GRADIENT OF ANY BUFFER ZONES BEFORE AND UP GRADIENT AND DISTURBING ACTIVITIES BEGIN. MAINTAIN SEDIMENT CONTROL DEVICES UNTIL CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
- LOCATE PERIMETER CONTROL 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.
- 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.
- FLOATING SILT CURTAIN IS ALLOWED AS PERIMETER CONTROL FOR IN WATER WORK ONLY. INSTALL THE FLOATING SILT CURTAIN AS CLOSE TO SHORE AS POSSIBLE. PLACE PERIMETER CONTROL BMP ON LAND IMMEDIATELY AFTER THE IN WATER WORK IS COMPLETED.
- DITCH CHECKS WILL BE PLACED AS INDICATED ON THE PLANS DURING ALL PHASES OF CONSTRUCTION.
- 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. CONSTRUCTION EXITS ARE INCIDENTAL.
- 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 UP GRADIENT LAND DISTURBING ACTIVITY IS COMPLETED.
- PROVIDE SCOUR PROTECTION AT ANY OUTFALL OF DEWATERING ACTIVITIES.
- PROVIDE STABILIZATION IN ANY TRENCHES CUT FOR DEWATERING OR SITE DRAINING PURPOSES.

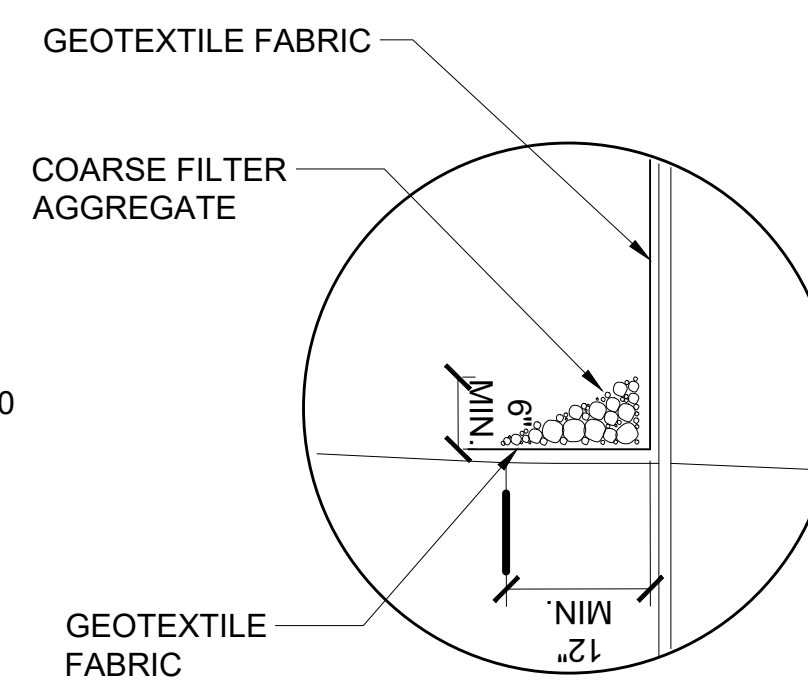
EROSION CONTROL MEASURES:
 THE CONTRACTOR IS RESPONSIBLE FOR MINIMIZING SOIL EROSION AND PREVENTING DAMAGE TO ADJACENT RIVER FROM SEDIMENTATION OVER THE VARIOUS STAGES OF CONSTRUCTION AT SEASONAL TIMES DURING THE YEAR FOR THE DURATION OF THE CONTRACT.

THE CONTRACTOR SHALL PROVIDE APPROPRIATE EROSION CONTROL DEVICES FOR STOCKPILE AREAS (INCIDENTAL).

TURF, CONVEYANCE, AND OUTFALLS MUST BE PROTECTED FROM CEMENTITIOUS MATERIALS, SEDIMENTS, AND CHEMICAL CLEANING AGENTS BY AVOIDANCE, USE OF PLASTIC SHEETING, COMPOST FILTER LOGS OR OTHER PROJECT ENGINEER APPROVED METHODS. THE CONTRACTOR SHALL PREVENT DISCHARGE TO SURFACE AND GROUND WATERS BY VACUUM OR SWEEP COLLECTION OF CEMENTITIOUS MATERIALS, CLEANING AGENTS FROM PLASTIC GROUND COVERS, MATS, OR OTHER PROJECT ENGINEER APPROVED METHOD.

RUTS OR DAMAGED TURF THAT COULD CREATE SEDIMENT DISCHARGE TO ADJACENT RIVER AND CONVEYANCE SYSTEMS MUST BE REPAIRED WITHIN 24 HOURS WITH SHAPING, SEEDING AND CERTIFIED WEED FREE STRAW MULCH MATERIALS. EFFORT MUST BE MADE TO PREVENT REOCCURRENCE OF SOIL DISTURBANCE BY PROTECTIVE SOIL COVERS.

TEMPORARY SHORT TERM WORK GENERATING CONCRETE, MORTAR, OR STONE DEBRIS MAY USE GEOTEXTILE INLET FILTER STOPS. FILTER STOPS MUST BE REPLACED WITH CURB AND GUTTER INLET SACKS WITH EMERGENCY OVERFLOW, AS NEEDED, TO PROTECT INLETS AND ADJACENT LAKE OVER THE LIFE OF THE CONTRACT WHEN EXPOSED SOILS WITH THE POTENTIAL TO



- NOTES:**
- COARSE FILTER AGGREGATE (MNDOT SPEC. 3149) SHALL BE INCIDENTAL.
 - TO PROTECT AREAS FROM SHEET FLOW, MAXIMUM CONTRIBUTING AREA: 1 ACRE.

1 SEDIMENT CONTROL LOG- TYPE COMPOST

3" = 1'-0"

DISCHARGE ARE UPGRADIENT TO THE INLET, OR DURING ACCESS AND TRACK-OUT OPERATIONS. PICKUP (ENCLOSED SKIDSTEER BROOM) SWEEPING OF PAVED SURFACES WILL BE REQUIRED, AS NECESSARY TO KEEP SEDIMENTS, MUD, DIRT, ROCK, OR OTHER MATERIALS FROM LEAVING THE PAVED SURFACE DUE TO RAIN OR VEHICLE TRACKING.

CULVERT ENDS AND STORM DRAINS WILL BE PROTECTED FROM SEDIMENT DISCHARGE USING INLET PROTECTION.

SLOPED GRADES MUST BE PROTECTED. SOIL IN DISTURBED AREAS SHALL BE KEPT IN A PERPETUALLY STABILIZED CONDITION.

SOFT SOIL CROSSING WILL REQUIRE DRIVABLE MATS CAPABLE OF MINIMIZING SOIL DISTURBANCE FOR THE CONTRACTORS' EQUIPMENT. THIS MAY BE ACCOMPLISHED BY USE OF PLYWOOD, MUD MATS, OR STRUCTURAL PLASTIC BASE UNITS.

PERIMETER CONTROL BMPs SHALL BE KEPT IN A FUNCTIONAL CONDITION, REGARDLESS OF NUMBER OF MOVEMENTS TO ACCOMMODATE THE CONTRACTORS OPERATIONS.

TRASH AND CONSTRUCTION DEBRIS SHALL BE PICKED UP AT THE END OF EACH DAY AND PLACED IN DUMPSTER OR OTHER SUITABLE CONTAINERS, AND REMOVED AS NECESSARY TO REMAIN FUNCTIONAL.

POLLUTION PREVENTION:
 HAZARDOUS MATERIALS SUCH AS OIL AND FUEL MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT, TO PREVENT SPILLS, LEAKS, OR OTHER DISCHARGE FROM ENTERING RECEIVING WATERS. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MPCA REGULATIONS. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A SITE PLAN FOR REFUELING METHODS. REFUELING AREAS MUST BE ON LEVEL GRADE AND LOCATED AT LEAST 45 FEET FROM ADJACENT RIVER. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SUPPLIES OF ABSORBENT SPILL CLEAN-UP MATERIALS AND SPILL KITS IN FUELING AREAS AND ON MOBILE FUELING EQUIPMENT.

CHEMICAL SPILLS SHALL BE IMMEDIATELY PICKED UP, INCLUDING FERTILIZERS AND PORTABLE URINALS. SPILLED MATERIALS SHALL BE PROPERLY DISPOSED OF OR, IN THE CASE OF FERTILIZER, SPREAD ACCORDING TO MANUFACTURERS' RECOMMENDATIONS FOR NPK, OR AS INDICATED IN THE TURF RESTORATION PLAN. THERE SHALL BE NO EQUIPMENT WASHING ON SITE UNLESS IN A PREAPPROVED BY THE PROJECT ENGINEER, AND IN A DESIGNATED SITE WITH TOTAL POLLUTION MANAGEMENT PROGRAM THAT PREVENTS AIR, LAND AND WATER POLLUTION.

MORTAR AND CHEMICAL MIXING, SAWING, AND CUTTING OPERATIONS SHALL HAVE SECONDARY CONTAINMENT TO PREVENT CEMENTITIOUS LIQUIDS, SOLIDS AND DUSTS FROM INFILTRATING INTO THE GROUND, ADJACENT RIVER, OR TRANSPORT BY MEANS TO THE GUTTER, SIDEWALK OR ROAD SURFACE.

BITUMINOUS ASPHALT, CONCRETE, OR STONE SAW CUTTING SHALL BE PREVENTED FROM ENTERING STORM WATER CONVEYANCE SYSTEMS AND RECEIVING WATERS BY USE OF SEDIMENT CONTROL LOG TYPE COMPOST, AND REPLACE AS OFTEN AS NECESSARY TO REMAIN FUNCTIONAL TO FILTER/REMOVE FINE CEMENTITIOUS DISCHARGE.

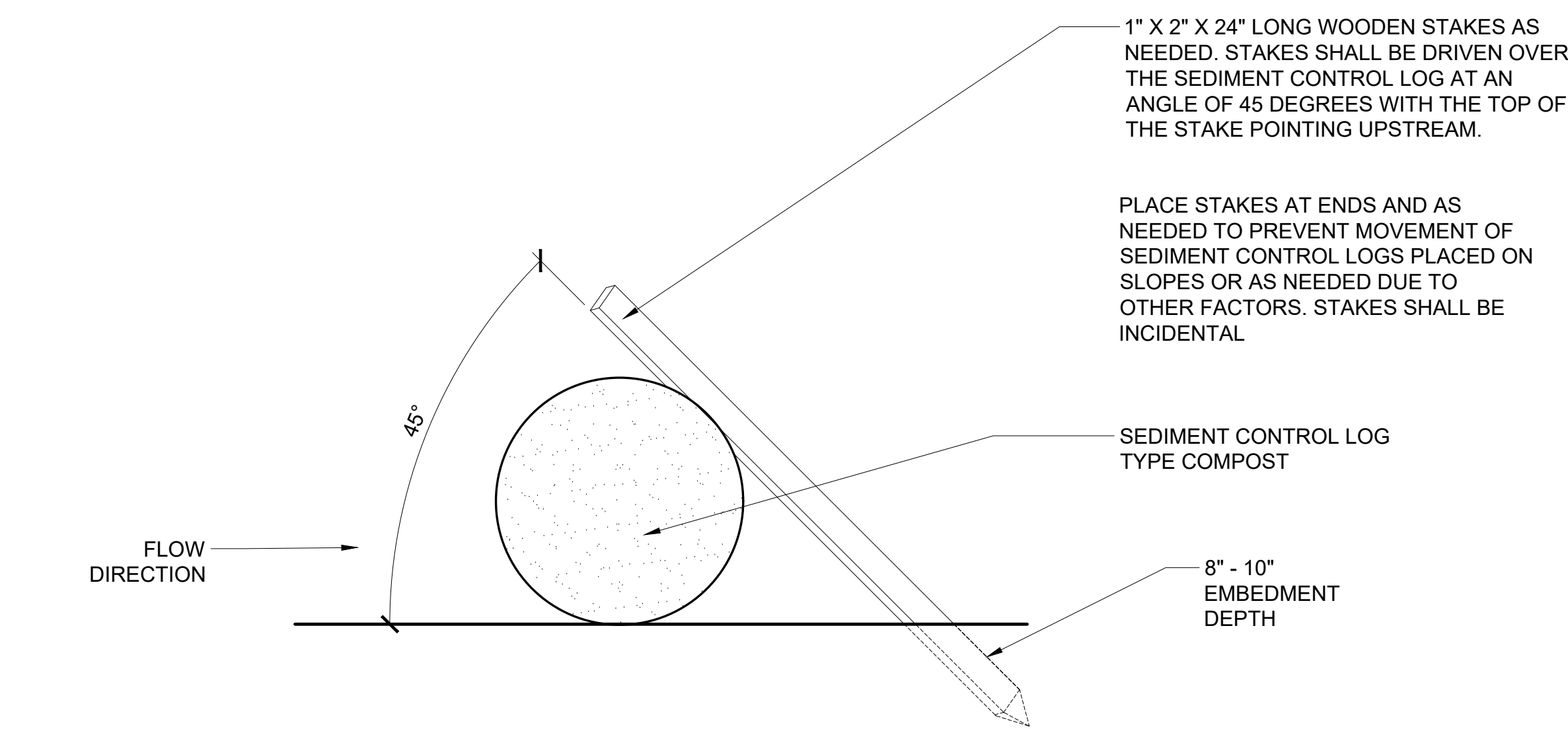
FINAL STABILIZATION:
 FINAL STABILIZATION WILL OCCUR WHEN SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND SOILS ARE STABILIZED BY A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH DENSITY OVER THE ENTIRE PVIOUS SURFACE AREA, OR OTHER EQUIVALENT MEANS NECESSARY TO PREVENT SOIL FAILURE UNDER EROSION CONDITIONS; AND

TEMPORARY SYNTHETIC AND STRUCTURAL EROSION PREVENTION AND SEDIMENT CONTROL BMPs (SUCH AS SILT FENCE) HAVE BEEN REMOVED ON THE PORTIONS OF THE SITE FOR WHICH THE CONTRACTOR IS RESPONSIBLE. BMPs DESIGNED TO DECOMPOSE ON SITE (SUCH AS SOME COMPOST LOGS) SHALL BE SPLIT AND THE FABRIC REMOVED.

- INITIATE INLET 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 NOT APPROPRIATE AND THEREFORE EXEMPT FROM THE STABILIZATION REQUIREMENT.
- APPLICATION OF MULCH, HYDROMULCH, TACKIFIER AND POLYACRYLAMIDE ARE NOT ACCEPTABLE STABILIZATION METHODS IN THESE AREAS.
- STABILIZE ALL AREAS OF THE SITE PRIOR TO THE ONSET OF WINTER. ANY WORK STILL BEING PERFORMED WILL BE SNOW MULCHED, SEEDED, AND BLANKETED WITHIN THE TIME FRAMES IN THE NPDES PERMIT.
- KEEP DITCHES AND EXPOSED SOILS IN AN EVEN ROUGH GRADED CONDITION IN ORDER TO BE ABLE TO APPLY EROSION CONTROL MULCHES, HYDROMULCHES AND BLANKETS

DESCRIPTION OF PERMANENT STORMWATER TREATMENT SYSTEMS
 RESTORED PRAIRIE AND EXISTING NATIVE VEGETATION SHALL SERVE AS PERMANENT STORMWATER TREATMENT.

RECORD RETENTION
 THE SWPPP, ALL CHANGES TO IT AND INSPECTION AND MAINTENANCE RECORDS MUST BE KEPT ON-SITE DURING CONSTRUCTION. THE OWNER MUST RETAIN A COPY OF THE SWPPP ALONG WITH THE FOLLOWING RECORDS FOR THREE (3) YEARS AFTER SUBMITTAL OF THE NOTICE OF TERMINATION (NOT).
 1. ANY OTHER PERMITS REQUIRED FOR THE PROJECT.
 2. RECORDS OF ALL INSPECTION AND MAINTENANCE CONDUCTED DURING CONSTRUCTION
 3. ALL PERMANENT OPERATIONS AND MAINTENANCE AGREEMENT THAT HAVE BEEN IMPLEMENTED INCLUDING ALL RIGHT OF WAY, CONTRACTS, COVENANTS AND OTHER BINDING REQUIREMENTS REGARDING PERPETUAL MAINTENANCE; AND ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORMWATER MANAGEMENT SYSTEMS.



1" X 2" X 24" LONG WOODEN STAKES AS NEEDED. STAKES SHALL BE DRIVEN OVER THE SEDIMENT CONTROL LOG AT AN ANGLE OF 45 DEGREES WITH THE TOP OF THE STAKE POINTING UPSTREAM.

PLACE STAKES AT ENDS AND AS NEEDED TO PREVENT MOVEMENT OF SEDIMENT CONTROL LOGS PLACED ON SLOPES OR AS NEEDED DUE TO OTHER FACTORS. STAKES SHALL BE INCIDENTAL

SEDIMENT CONTROL LOG TYPE COMPOST

8" - 10" EMBEDMENT DEPTH

NOT FOR CONSTRUCTION

SIX MILE MARSH PRAIRIE TRAIL

MINNETRISTA, MN

I hereby certify that this document was prepared by me or under my direct supervision and that I am a duly licensed Landscape Architect under the laws of the State of Minnesota.

Name _____
 Registration# _____

Signature _____ Date _____

Date 8/18/2021

DF/ Project # 21-131

Scale VARIES

Drawn/Checked JR, JH / JG

REVISION

SWPPP NOTES & DETAILS

L-007

MATERIALS SCHEDULE

SYMBOL	DESCRIPTION	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS	SPEC #
AM-01	BOULDER	4/L-500	36-48" DIA + BOULDER	REGIONAL SOURCE	GLACIAL BOULDER	NATURAL	INSTALL TO BLOCK VEHICULAR ACCESS	
PAVING								
SYMBOL	DESCRIPTION	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	LOCATION	COMMENTS	SPEC #
P-01	PAVING TYPE 1- AGGREGATE	1/L-500	2" THK 3/8" DECOMPOSED GRANITE OVER 4" THK COMPACTED AGGREGATE BASE OVER COMPACTED SUBGRADE	REGIONAL SOURCE	ST. CLOUD GRANITE			32 15 46
P-02	PAVING TYPE 2- BITUMINOUS	2/L-500	3" THK BITUMINOUS PAVING OVER 6" THK CLASS 5 BASE, OVER 12" SAND SUBBASE OVER COMPACTED SUBGRADE			HORRA TRAIL CONNECTION		32 12 00
SITE FURNITURE								
SYMBOL	DESCRIPTION	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS	SPEC #
SF-01	PICNIC TABLE	5/L-500	8' HEAVY DUTY TABLE, TREATED WOOD TOP & METAL FRAME	BELSON	PARK MASTER- UNIVERSAL ACCESS	TREATED WOOD TOP, GALVANIZED STEEL FRAME	SECURE WITH CHAIN ANCHOR POST, SEE SPECS	32 23 00
SF-02	BIKE RACK		HOOP BIKE RACK, EMBEDDED	DERO	HOOP	STAINLESS STEEL	EMBEDDED W/ EPOXY GROUT PER MFR	32 23 00

PLANT SCHEDULE

GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME	REMARKS
		1,801 SF	WOODLAND EDGE NATIVE SEED MIX: MNDOT 36-211/ BWSR U7 AT 34.5 LBS/ACRE	PROVIDE COVER CROP -SPRING SEEDING: OATS AT 25 LBS/AC -FALL SEEDING (AUG 1 - OCT 15): WINTER WHEAT AT 25 LBS/ACRE
		76,017 SF	MESIC PRAIRIE SEED MIX: MNDOT 35-241 AT 36.35 LBS/AC	PROVIDE COVER CROP -SPRING SEEDING: OATS AT 25 LBS/AC -FALL SEEDING (AUG 1 - OCT 15): WINTER WHEAT AT 25 LBS/ACRE
		737 SF	COMPACTED TRAIL SEED MIX: BWSR PILOT MIX- COMPACTED TRAIL GENERAL, SEED AT 38.93 LBS/ACRE	PROVIDE COVER CROP -SPRING SEEDING: OATS AT 36 LBS/AC -FALL SEEDING (AUG 1 - OCT 15): WINTER WHEAT AT 25 LBS/ACRE

EXISTING CONDITIONS & SITE REMOVAL NOTES

SITE SPECIFIC NOTES

- GASLINE EASEMENT ON SITE. REFER TO GENERAL NOTES AND GRADING PLAN FOR REQUIREMENTS.**

SITE REMOVAL NOTES

- EXISTING SITE INFORMATION WAS PROVIDED BY OTHERS. ACTUAL FIELD CONDITIONS MAY VARY. FIELD VERIFY UTILITY LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.
- THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE LANDSCAPE ARCHITECT ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT EXISTING UTILITIES OR STRUCTURES LOCATED AT THE WORK SITE.
- CONTRACTOR TO VERIFY THE LOCATION OF UNDERGROUND UTILITIES PRIOR TO BEGINNING ANY CONSTRUCTION BY CALLING GOPHER STATE ONE-CALL AT 651-454-0002 (METRO) OR 1-800-252-1166 (OUT-STATE).
- THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY UTILITY COMPANY'S FORCES AND FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING FEES AND CHARGES.
- ALWAYS VERIFY BENCHMARK ELEVATIONS BETWEEN TWO BENCHMARKS.
- REMOVAL ITEMS BECOME THE PROPERTY OF THE CONTRACTOR UNLESS SPECIFIED OTHERWISE. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER PER LOCAL GOVERNING AGENCIES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL. FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS.
- PRIOR TO DEMOLITION, EROSION CONTROL DEVICES ARE TO BE INSTALLED WHERE NECESSARY AND OBTAIN AN NPDES STORM WATER PERMIT. REFER TO CIVIL FOR EROSION CONTROL.
- DAMAGE TO REMAINING EXISTING CONDITIONS WILL BE REPLACED AT CONTRACTOR'S EXPENSE AND SHALL BE EQUAL TO OR EXCEED THE QUALITY OF CONSTRUCTION PRIOR TO DAMAGE.
- CONCRETE PAVEMENT, SIDEWALKS, CURB AND GUTTER, AND OTHER POURED CONCRETE ITEMS ARE TO BE REMOVED TO AN EXISTING EXPANSION OR CONTRACTION JOINT.
- CONTRACTOR SHALL LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE CONSTRUCTION PLANS. IF DAMAGE IS INCURRED ON THE SURROUNDING PAVEMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR AT NO ADDITIONAL COST TO THE OWNER. BITUMINOUS PAVEMENT REMOVALS ARE TO BE MADE WITH A VERTICAL SAW CUT OR TO A NEAT MILLED EDGE.
- CONTRACTOR SHALL PRESERVE VEGETATION NOT TO BE REMOVED BY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR RE-SEEDING OR SODDING AREAS DISTURBED BY CONSTRUCTION.
- LOCATION AND ELEVATIONS OF IMPROVEMENTS TO BE MET (OR AVOIDED) SHALL BE CONFIRMED BY THE CONTRACTOR THROUGH FIELD EXPLORATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPORT TO THE LANDSCAPE ARCHITECT DISCREPANCIES BETWEEN THEIR MEASUREMENTS AND THESE PLANS. CONTRACTOR SHALL ALSO MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES. CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
- EXISTING UTILITIES TO REMAIN IN PLACE UNLESS SPECIFICALLY MARKED ON THIS SHEET.

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.

GRADING

- 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

- COMPLY WITH MNDOT SEEDING DATES FOR APPROPRIATE SEEDING WINDOWS. 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.
- PREPARE SOILS IN-SITU ACCORDING TO SEEDING SPECIFICATIONS. IMPORTED SOIL NOT REQUIRED.

WARRANTY & ESTABLISHMENT MAINTENANCE.

- WARRANTY AND PROVIDE ESTABLISHMENT MAINTENANCE OF NATIVE SEEDING THROUGH **THREE CALENDAR YEARS** FROM THE DATE OF SUBSTANTIAL COMPLETION. NO PARTIAL ACCEPTANCE WILL BE CONSIDERED. REFER TO SPECIFICATIONS FOR COVERAGE AND PERFORMANCE REQUIREMENTS.
- PROVIDE MONTHLY MAINTENANCE REPORTING DURING GROWING SEASON TO OWNER FOR RECORD.

TURF NOTES

- NONE. PROVIDE NATIVE SEEDING ONLY; REFER TO SPECIFICATIONS.

IRRIGATION NOTES

- NONE. PROVIDE NATIVE SEEDING ONLY. IRRIGATION NOT REQUIRED.

60% CD- 8/5/21
PERMITTING REVIEW-8/18/21
90% CD- 09/07/21

SIX MILE MARSH PRAIRIE TRAIL

MINNETRISTA, MN

I hereby certify that this document was prepared by me or under my direct supervision and that I am a duly licensed Landscape Architect under the laws of the State of Minnesota.

Name _____
Registration# _____

Signature _____ Date _____

Date 8/18/2021

DF/ Project # 21-131

Scale VARIES

Drawn/Checked JR, JH / JG

REVISION

SCHEDULES AND LANDSCAPE NOTES

L-010

NOT FOR
CONSTRUCTION

60% CD- 8/5/21
PERMITTING REVIEW-8/18/21
90% CD- 09/07/21

SIX MILE MARSH PRAIRIE TRAIL

MINNETRISTA, MN

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Name _____
Registration# _____

Signature _____ Date _____

Date 8/18/2021

DF/ Project # 21-131

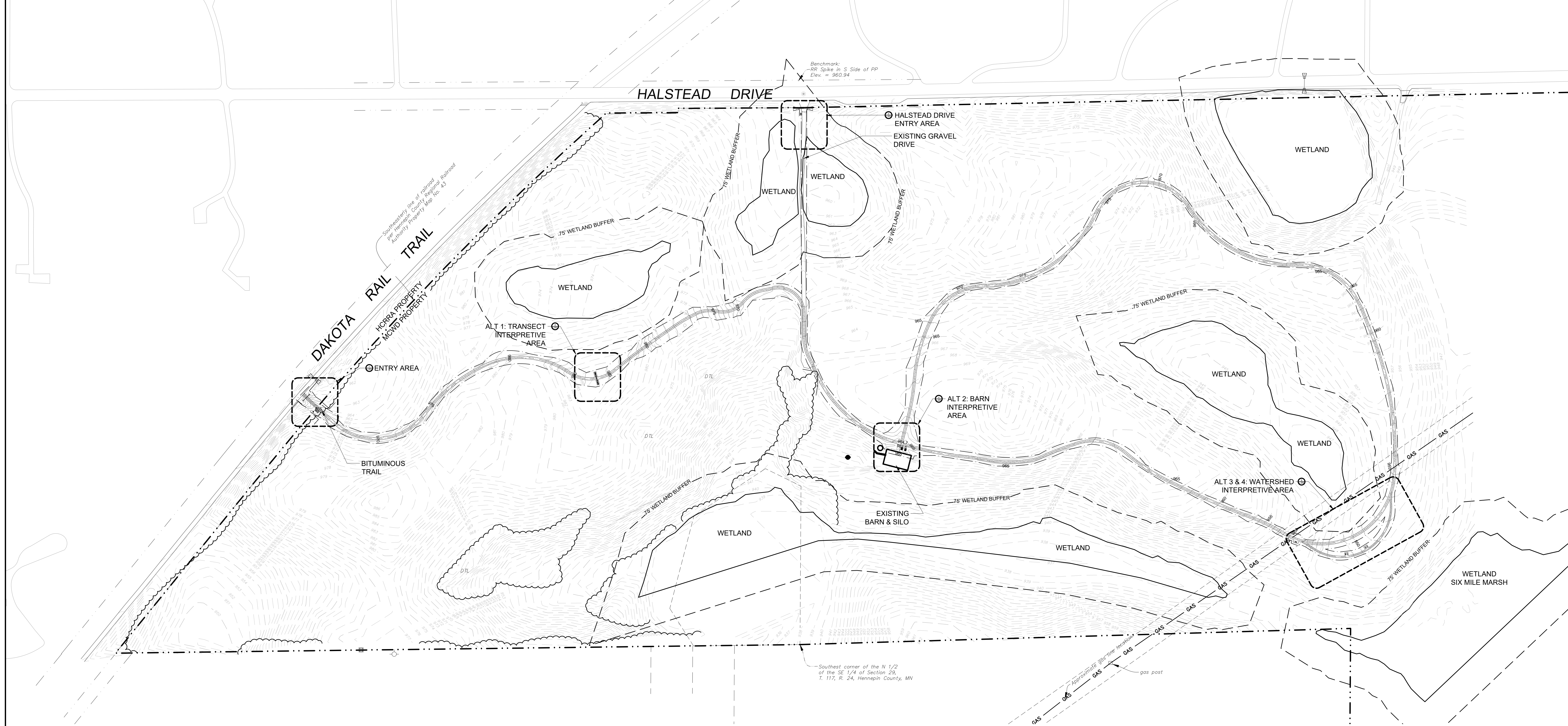
Scale VARIES

Drawn/Checked JR, JH / JG

REVISION _____

SITE PLAN

L-100



Benchmark:
-RR Spike in S Side of PP
Elev. = 960.94

Southeast corner of the N 1/2
of the SE 1/4 of Section 29,
T. 117, R. 24, Hennepin County, MN

NOTES

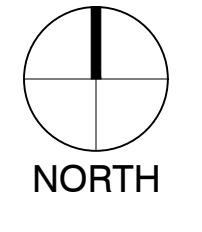
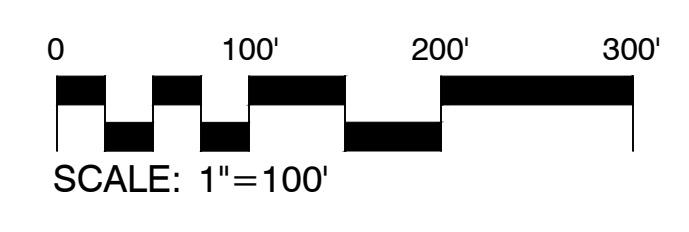
1. CONTRACTOR TO SURVEY-LOCATE PATH ALIGNMENT IN FIELD. DIGITAL FILE TO BE PROVIDED FOR USE.
2. REFER TO GENERAL NOTES & GRADING PLAN FOR REQUIREMENTS OF WORK NEAR GAS LINE EASEMENT.

LEGEND

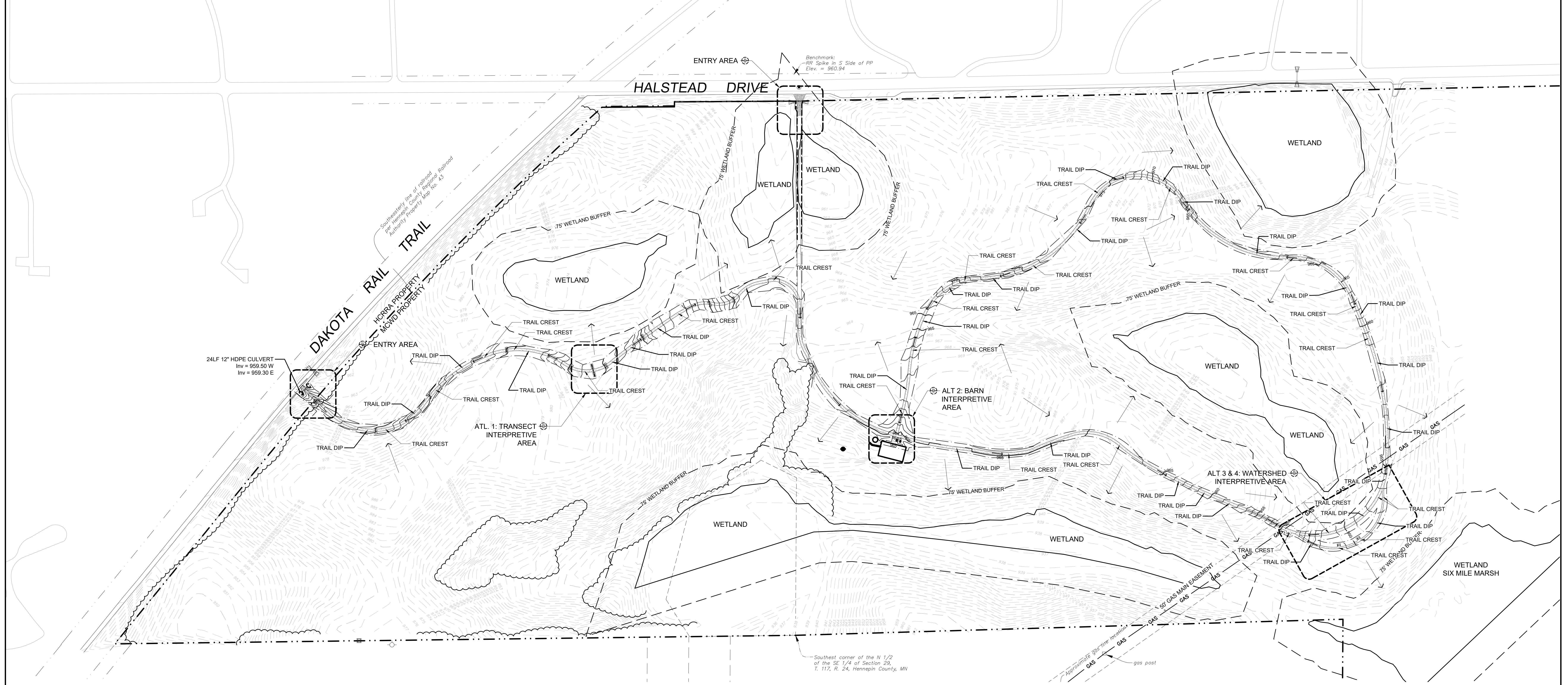
- · · — PROPERTY LINE
- · · · — TREE PROTECTION FENCE
- - - - - LIMITS OF DISTURBANCE & LOCATION OF SILT FENCE

ALTERNATES:

1. ADD ALTERNATE #1: PROVIDE TRANSECT INTERPRETIVE FEATURE IN ITS ENTIRETY.
2. ADD ALTERNATE #2: PROVIDE BARN INTERPRETIVE FEATURE IN ITS ENTIRETY.
3. ADD ALTERNATE #3: PROVIDE WATERSHED LOUNGERS & PATH EXTENSION IN ITS ENTIRETY.
4. ADD ALTERNATE #4: PROVIDE WATERSHED MAP INTERPRETIVE FEATURE IN ITS ENTIRETY.



NOT FOR
CONSTRUCTION



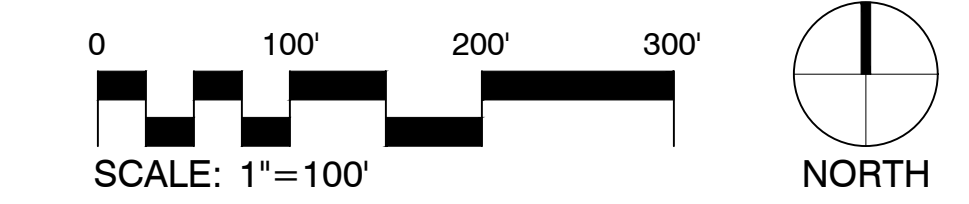
Southwest corner of the N 1/2 of the SE 1/4 of Section 29, T. 117, R. 24, Hennepin County, MN

NOTES

1. TRAIL CROSS SLOPE SHALL NOT EXCEED 2%.
2. **DIPS AND CRESTS:** TRAIL ROUTE SHALL CONSIST OF UNDULATING TRAIL WITH TRAIL DIP & CREST TO SUPPORT DRAINAGE & DIVERT WATER OFF TRAIL. DIP & CREST SHALL NOT EXCEED 2% CROSS SLOPE OR 8% MAX. DIPS SHALL NOT HOLD WATER OR BE WET AREAS. REFER TO DETAILS.
3. **WORK NEAR GAS LINE EASEMENT:**
 - 3.1. **NORTHERN NATURAL GAS (NNG) REPRESENTATIVE TO BE PRESENT AT ALL TIMES WHEN EXCAVATION WORK IS BEING PERFORMED WITHIN 25 FEET AROUND THE PIPELINE.**
 - 3.2. **CONTRACTOR TO CONTACT ANTONIO GAALSWYK (507.676.7451) MIN 48HRS PRIOR TO WORK WITHIN 25' OF GAS LINE AND TO REQUEST REPRESENTATIVE TO BE ON SITE.**

LEGEND

- — — — — PROPERTY LINE
- — — — — TREE PROTECTION FENCE
- - - - - LIMITS OF DISTURBANCE & LOCATION OF SILT FENCE
- 58.0 — PROPOSED SPOT ELEVATION (ALL ELEVATIONS FROM 9XX)
- ← EXISTING SITE DRAINAGE
- ← PROPOSED TRAIL DRAINAGE



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DF/ Project # 21-131

Scale VARIES

Drawn/Checked JR, JH / JG

REVISION

GRADING & DRAINAGE PLAN

NOT FOR
CONSTRUCTION

60% CD- 8/5/21
PERMITTING REVIEW-8/18/21
90% CD- 09/07/21

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Date 8/18/2021

DF/ Project # 21-131

Scale VARIES

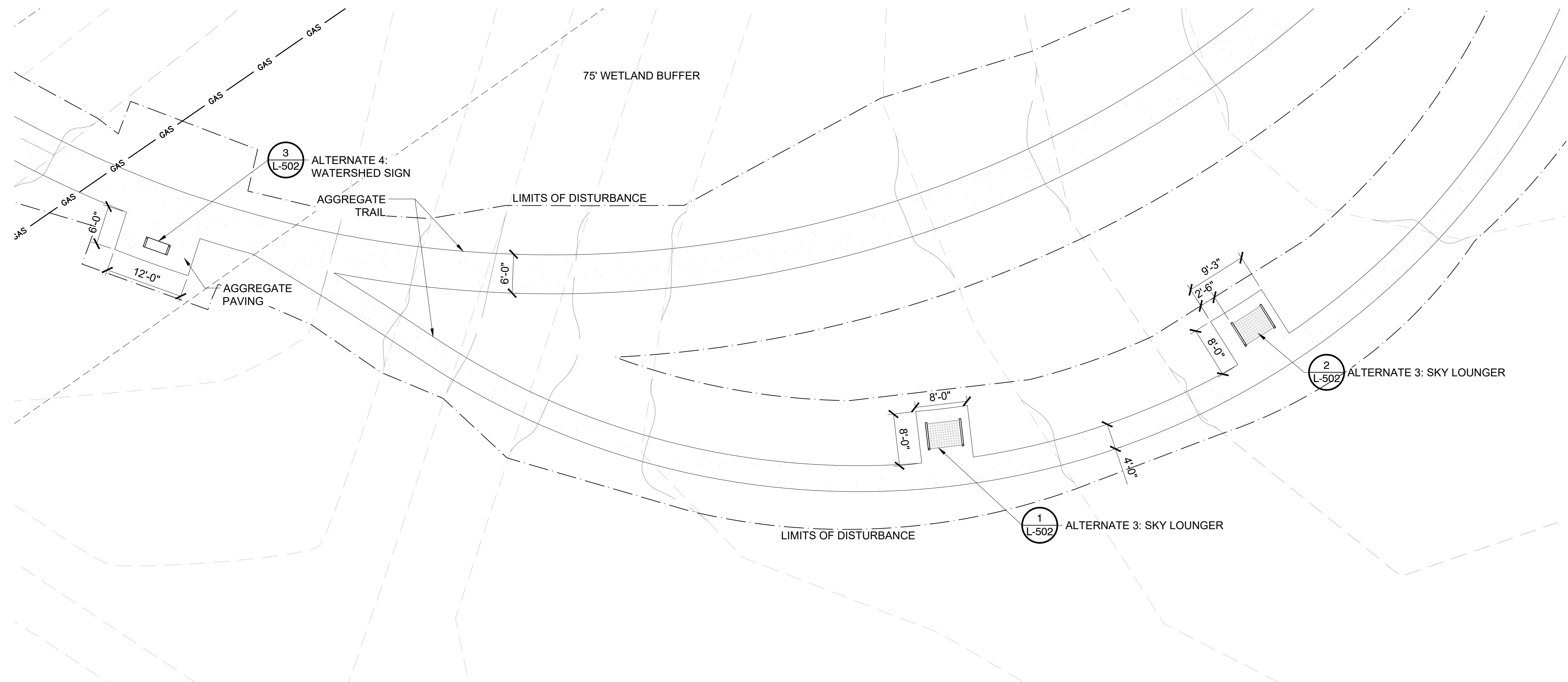
Drawn/Checked JR, JH / JG

REVISION _____

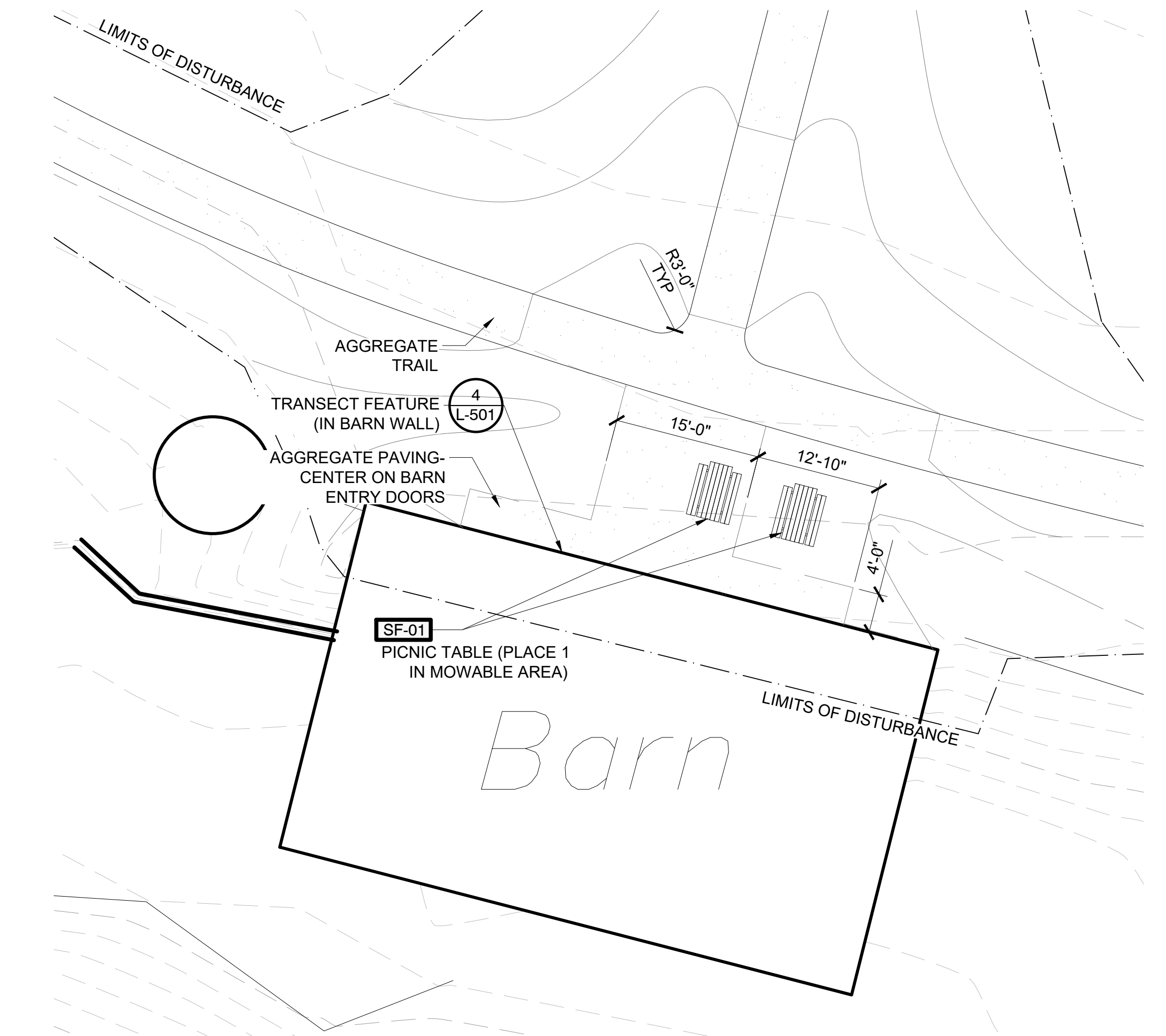
**INTERPRETIVE
AREA
ENLARGEMENT**

L-201

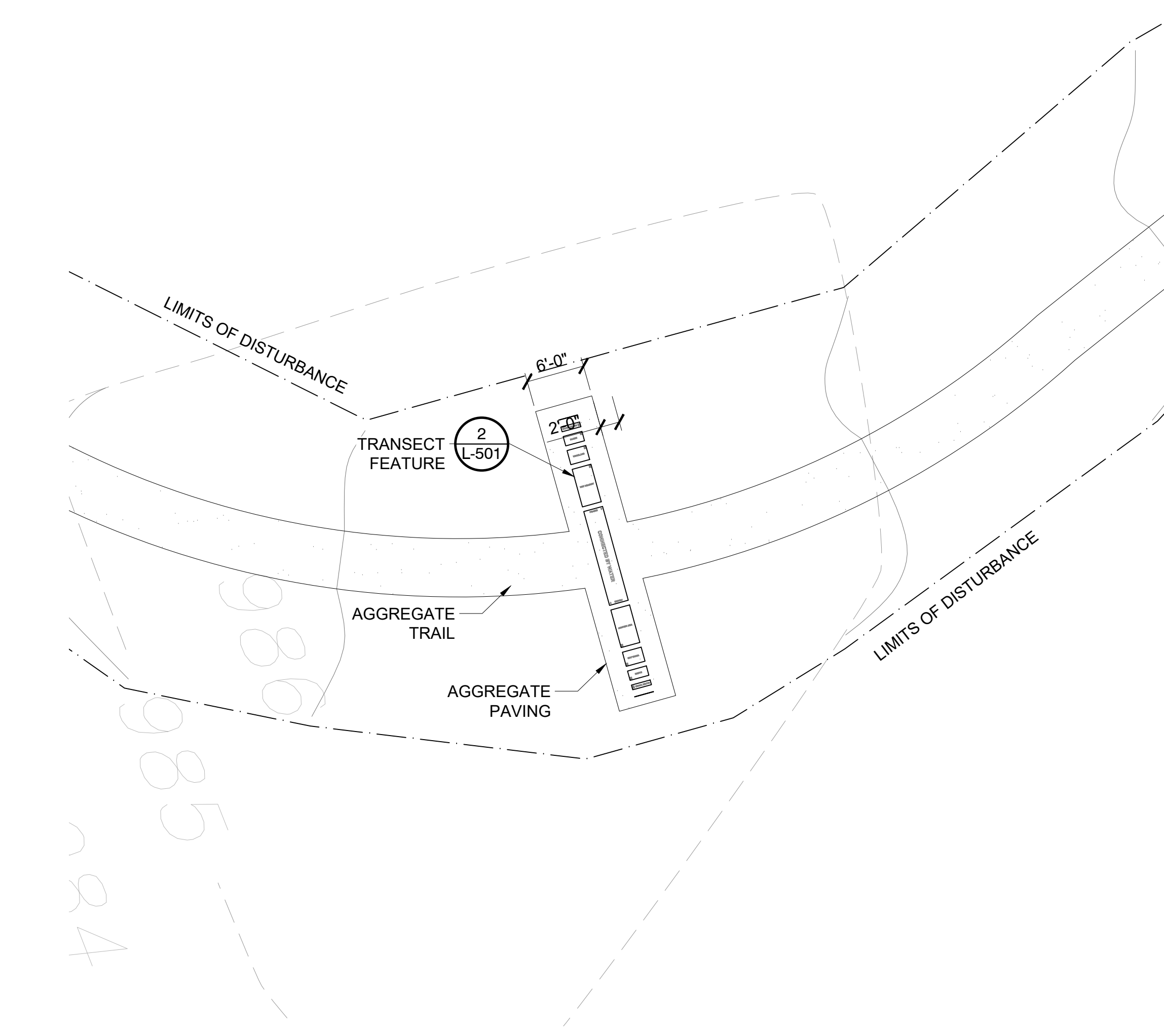
SYMBOL		PAVING DESCRIPTION	DETAIL	
---		PROPERTY LINE		
---		TREE PROTECTION FENCE		
○		EXISTING TREE		
---		LIMITS OF DISTURBANCE & LOCATION OF SILT FENCE		
SYMBOL	AMENITY DESCRIPTION	SYMBOL	SITE FURNITURE DESCRIPTION	DETAIL
AM-01	BOULDER	SF-01	PICNIC TABLE	
		SF-02	BIKE RACK	
		P-01	PAVING TYPE 1- AGGREGATE	1/L-500
		P-02	PAVING TYPE 2- BITUMINOUS	2/L-500



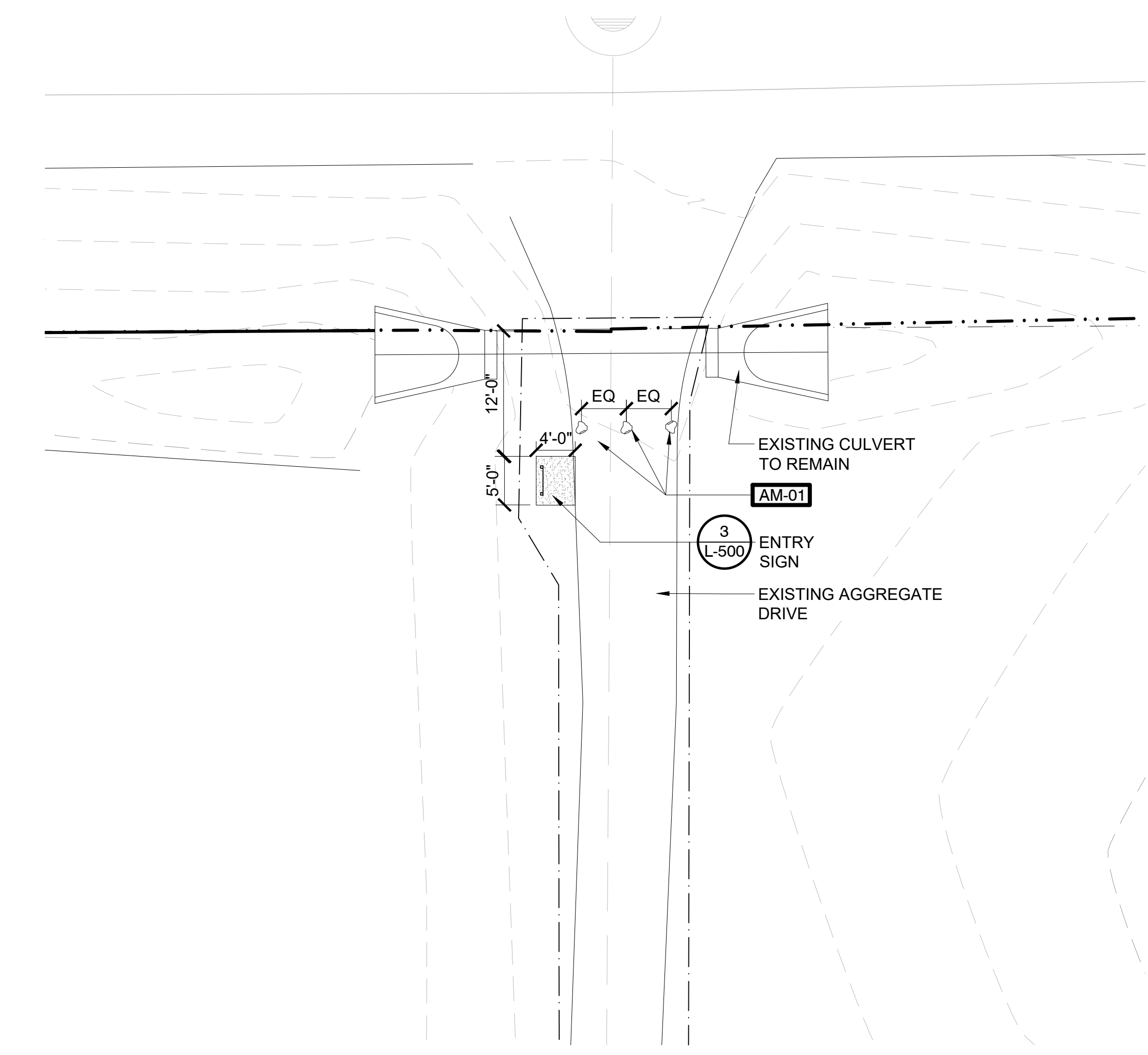
5 ALTERNATE 3 & 4: WATERSHED INTERPRETIVE AREA- ENLARGEMENT



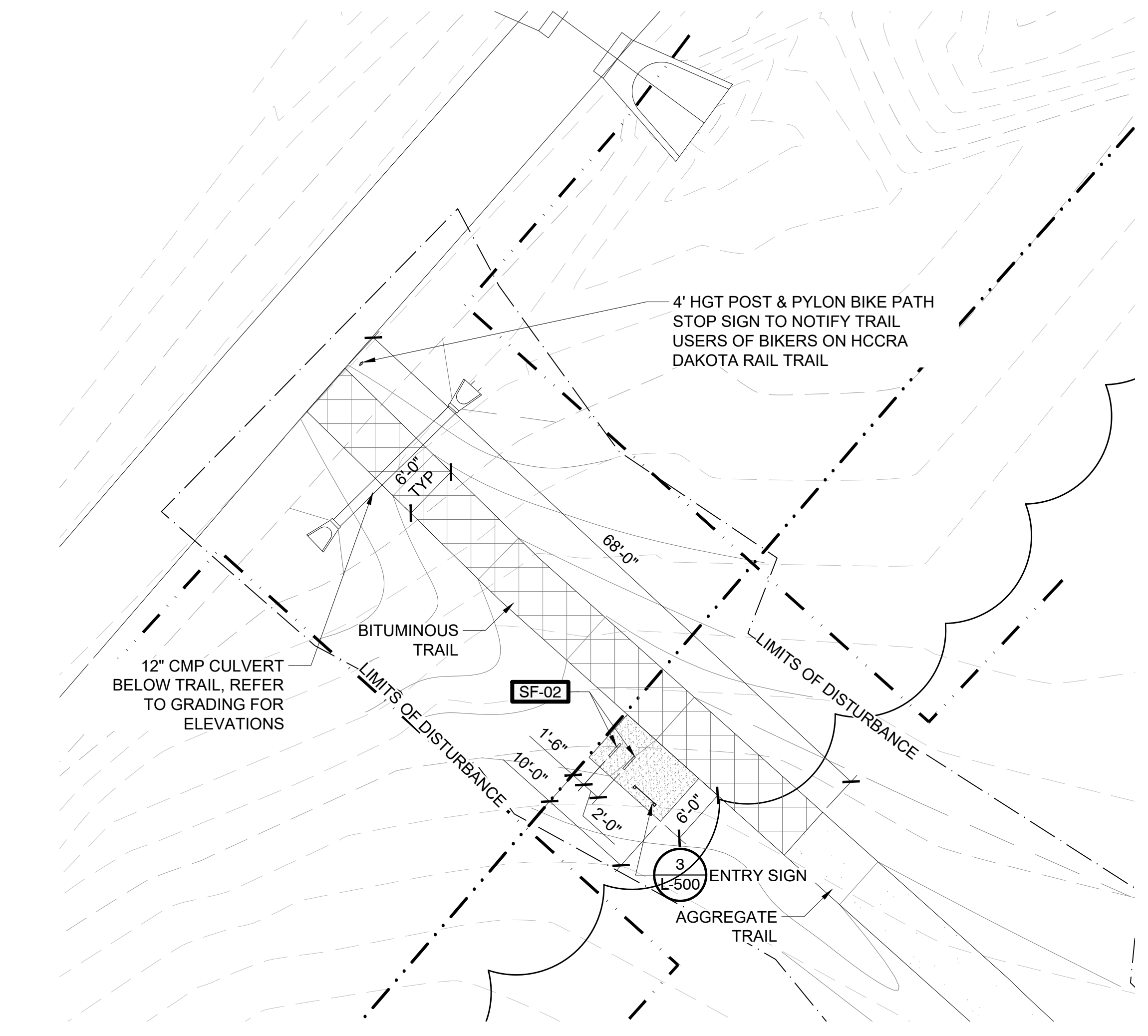
4 ALTERNATE 2: BARN INTERPRETIVE AREA- ENLARGEMENT



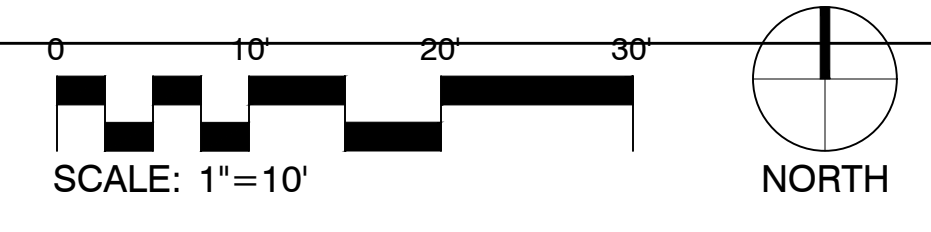
3 ALTERNATE 1: TRANSECT INTERPRETIVE AREA- ENLARGEMENT



2 HALSTEAD DRIVE ENTRY AREA- ENLARGEMENT



1 HCRA TRAIL ENTRY AREA- ENLARGEMENT



NOT FOR
CONSTRUCTION

60% CD- 8/5/21
PERMITTING REVIEW-8/18/21
90% CD- 09/07/21

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Date 8/18/2021

DF/ Project # 21-131

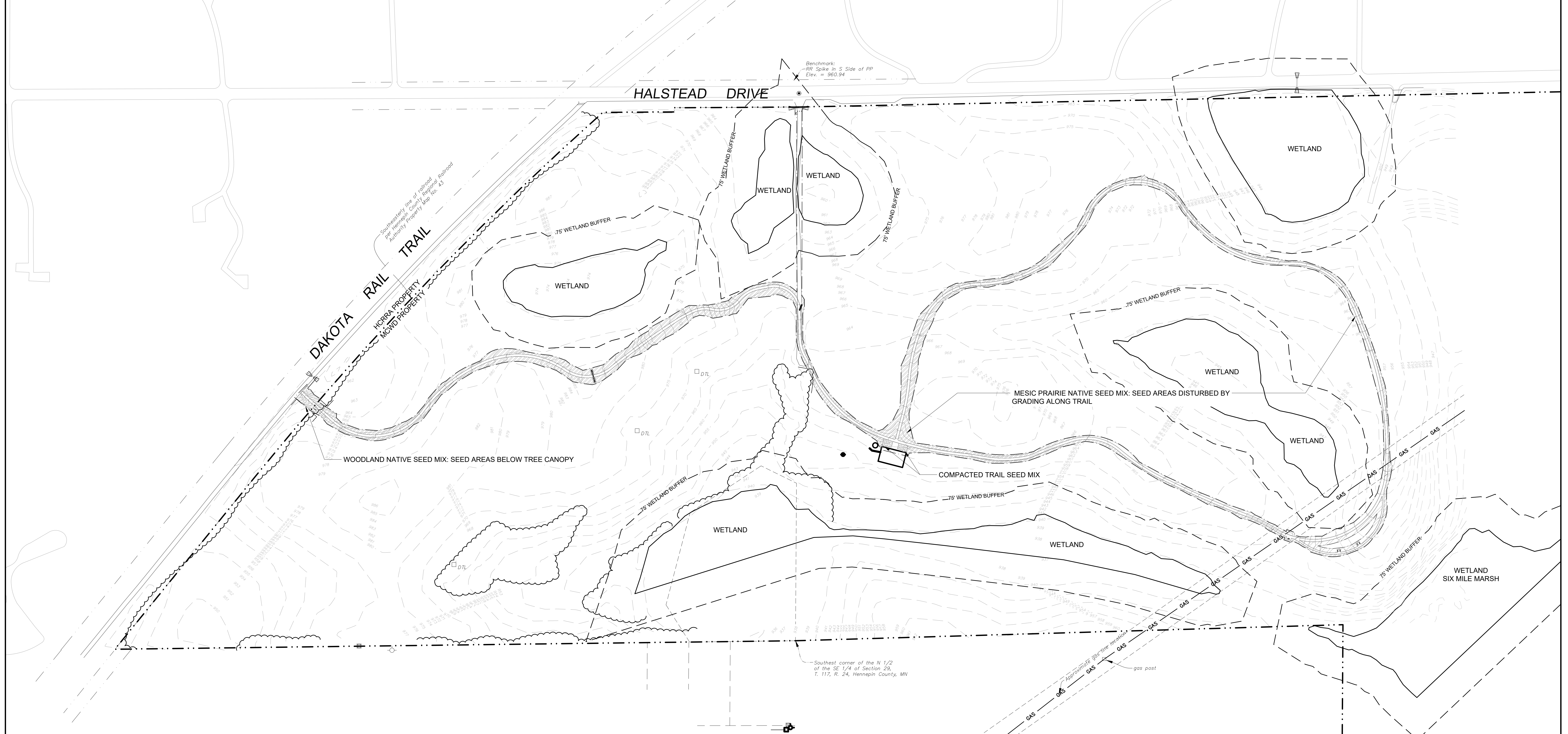
Scale VARIES

Drawn/Checked JR, JH / JG

REVISION _____

PLANTING PLAN

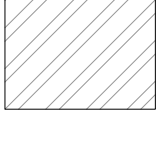
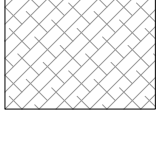
L-120






NOTES

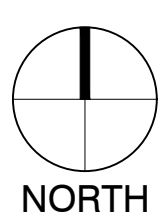
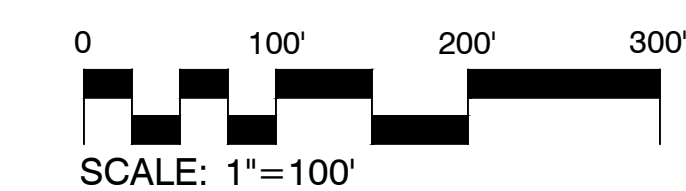
1. PREPARE SOIL AND PROTECT SEEDED AREAS WITH CERTIFIED WEED FREE, MNDOT TYPE 3 STRAW, MNDOT TYPE 8 NATIVE HAY MULCH OR CATEGORY 3, NATURAL-NET EROSION CONTROL BLANKET (SLOPES 3:1+). REFER TO SPECIFICATIONS.
2. SEED MIX TO MATCH EXISTING PRAIRIE VEGETATION

PLANTING LEGEND

-  WOODLAND EDGE NATIVE SEED MIX
MNDOT 35-211/ BWSR U7 AT 34.5 LBS/ACRE
PROVIDE COVER CROP
-SPRING SEEDING: OATS AT 25 LBS/AC
-FALL SEEDING (AUG 1 - OCT 15): WINTER WHEAT AT 25 LBS/ACRE
-  MESIC PRAIRIE SEED MIX
MNDOT 35-241 AT 36.35 LBS/AC
PROVIDE COVER CROP
-SPRING SEEDING: OATS AT 25 LBS/AC
-FALL SEEDING (AUG 1 - OCT 15): WINTER WHEAT AT 25 LBS/ACRE
-  COMPACTED TRAIL SEED MIX
BWSR PILOT MIX- COMPACTED TRAIL GENERAL, SEED AT 38.93 LBS/ACRE
PROVIDE COVER CROP
-SPRING SEEDING: OATS AT 36 LBS/AC
-FALL SEEDING (AUG 1 - OCT 15): WINTER WHEAT AT 25 LBS/ACRE

LEGEND

-  PROPERTY LINE
-  TREE PROTECTION FENCE
-  LIMITS OF DISTURBANCE & LOCATION OF SILT FENCE



NOT FOR
CONSTRUCTION

ENTRY AND INTERPRETIVE SIGNAGE FEATURE GENERAL NOTES:

SIGN CONSTRUCTION:

1. EXPOSED FASTENERS SHALL BE 1/2" DIA SS BUTTON, SOCKET HEAD CAP SCREWS UNLESS NOTED OTHERWISE.
2. FOOTING SHALL BE SONOTUBE, SIZE AS INDICATED, MIN 2" COVER AROUND EMBEDDED POSTS.

TEXT:

3. ADHERED STAINLESS STEEL LETTERING SHALL BE 1/8" THICK, 1-5/8" HEIGHT UNLESS NOTED OTHERWISE. ADHERE W/ WEATHER-RESISTANT EPOXY BONDING AGENT, SUITABLE FOR BONDING TO STAINLESS STEEL AND WEATHERING STEEL METALS.
4. FINAL MESSAGING AND FONT TO BE PROVIDED BY LANDSCAPE ARCHITECT

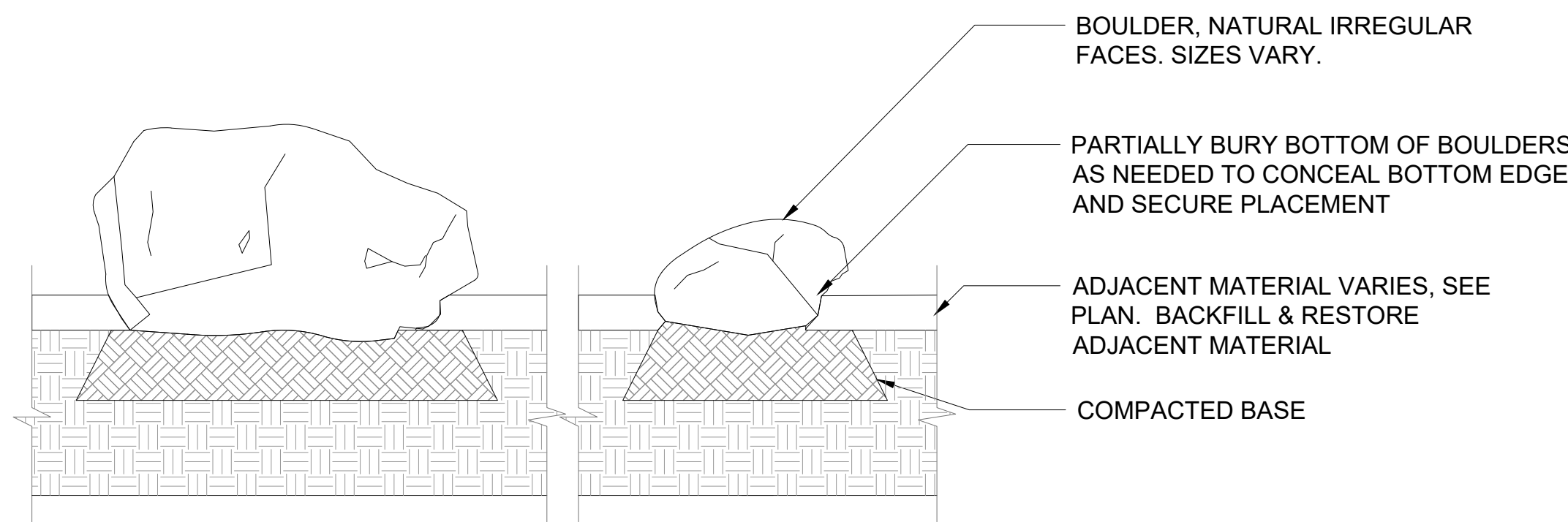
IMAGES/GRAPHICS:

5. FINAL ARTWORK TO BE PROVIDED BY LANDSCAPE ARCHITECT



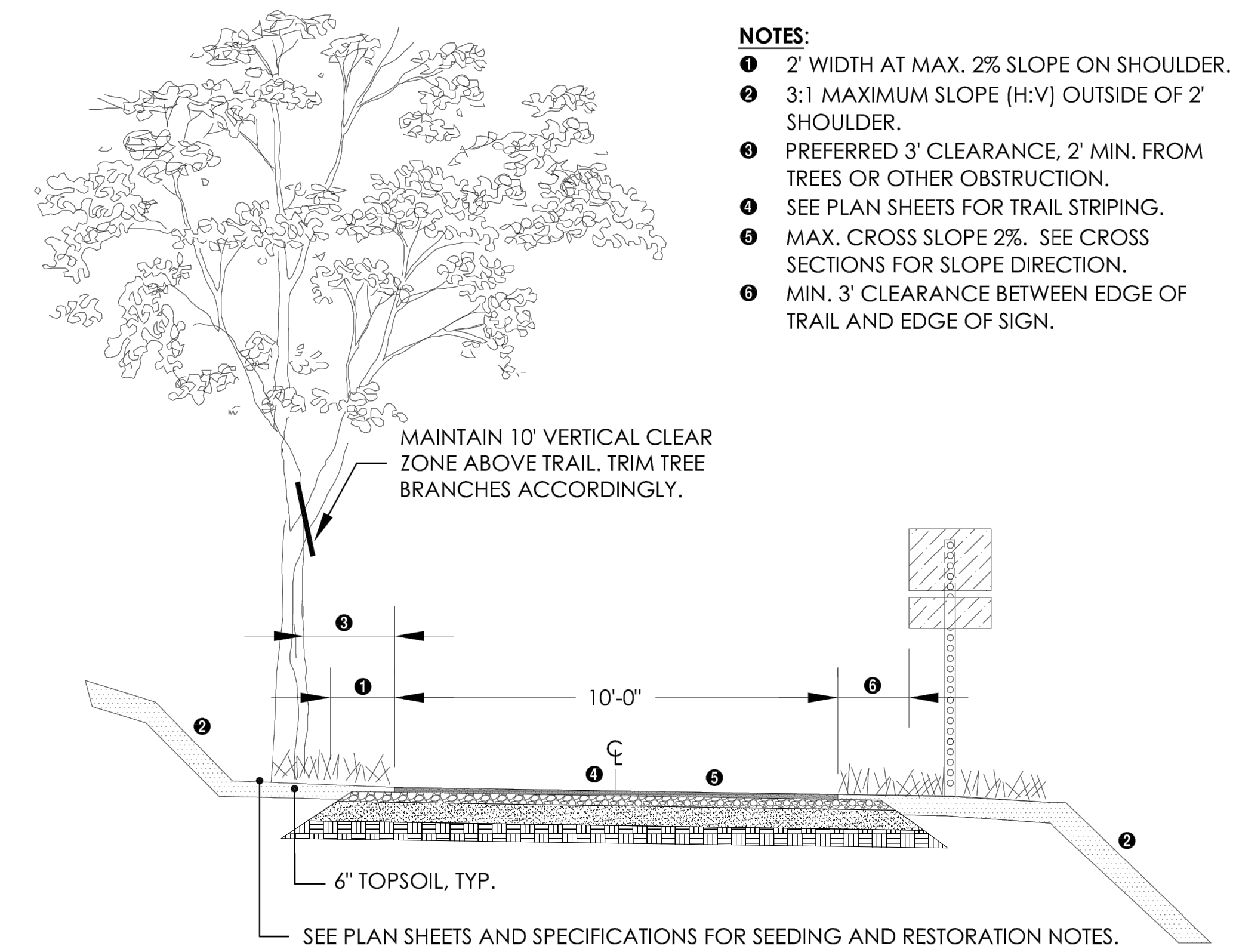
5 PICNIC TABLE ANCHOR
1" = 1'-0"

P-21.131-100



4 LANDSCAPE BOULDERS
1" = 1'-0"

P-21.131-03



- NOTES:**
1. 2' WIDTH AT MAX. 2% SLOPE ON SHOULDER.
 2. 3:1 MAXIMUM SLOPE (H:V) OUTSIDE OF 2' SHOULDER.
 3. PREFERRED 3' CLEARANCE, 2' MIN. FROM TREES OR OTHER OBSTRUCTION.
 4. SEE PLAN SHEETS FOR TRAIL STRIPING.
 5. MAX. CROSS SLOPE 2%. SEE CROSS SECTIONS FOR SLOPE DIRECTION.
 6. MIN. 3' CLEARANCE BETWEEN EDGE OF TRAIL AND EDGE OF SIGN.

60% CD- 8/5/21
PERMITTING REVIEW-8/18/21
90% CD- 09/07/21

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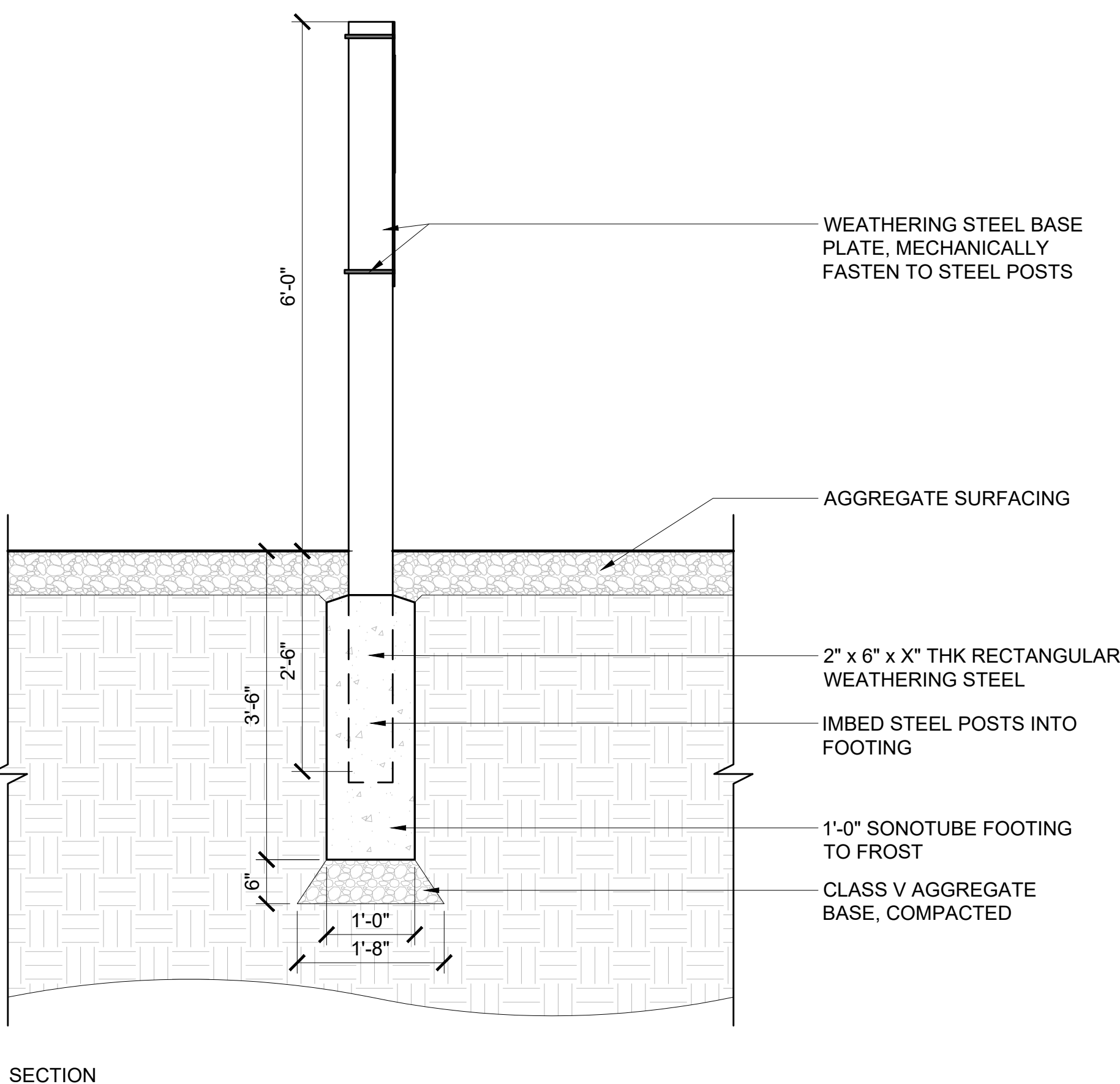
Date 8/18/2021
DF/ Project # 21-131
Scale VARIES
Drawn/Checked JR, JH / JG

REVISION _____

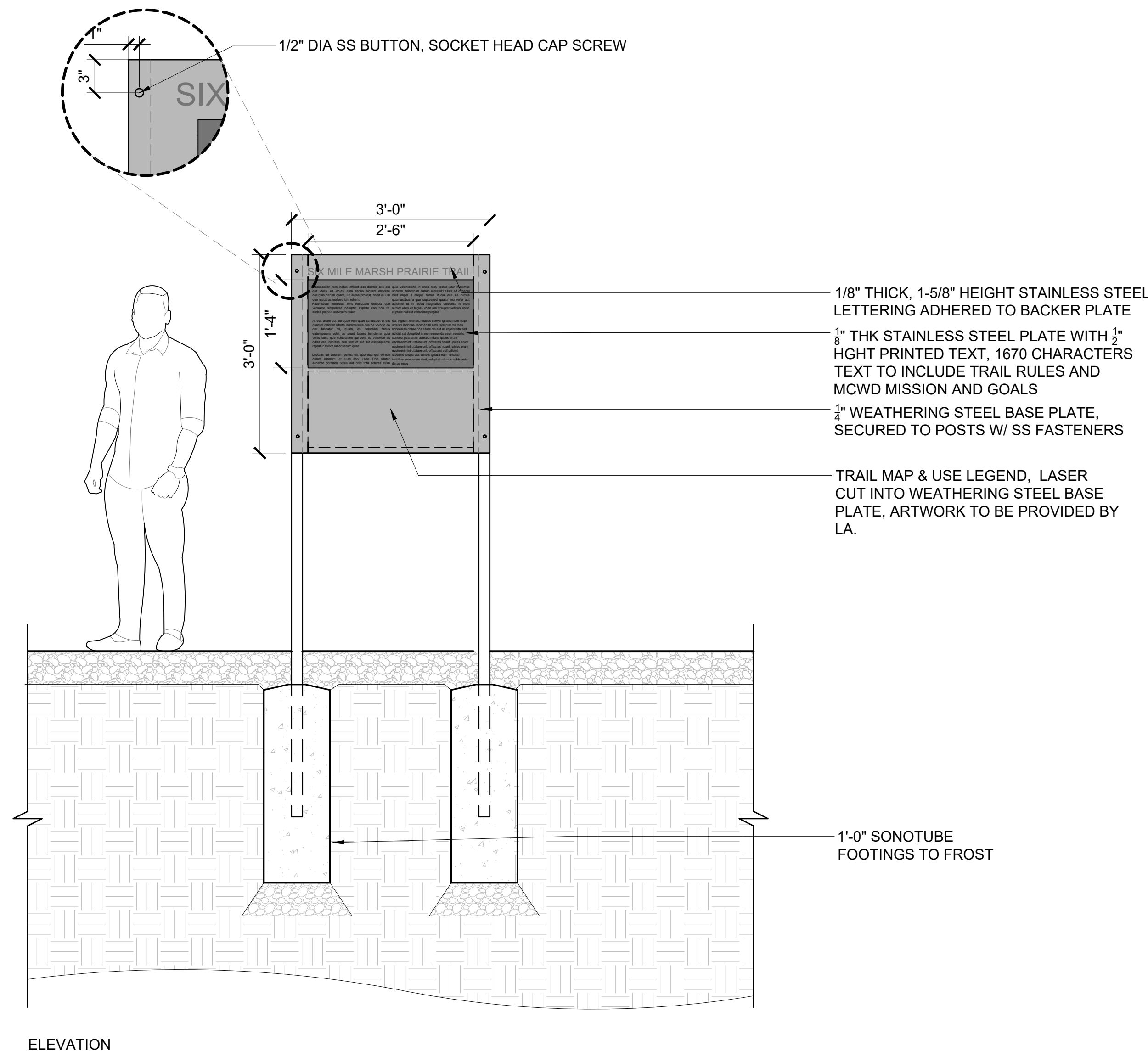
LANDSCAPE DETAILS

L-500

- NOTES:**
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF SIGNAGE & ARTWORK FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO FABRICATION.
 2. ARTWORK TO BE PROVIDED BY LANDSCAPE ARCHITECT/ OWNER.
 3. FINAL MESSAGING AND CHARACTER FONT TO BE PROVIDED BY LANDSCAPE ARCHITECT.

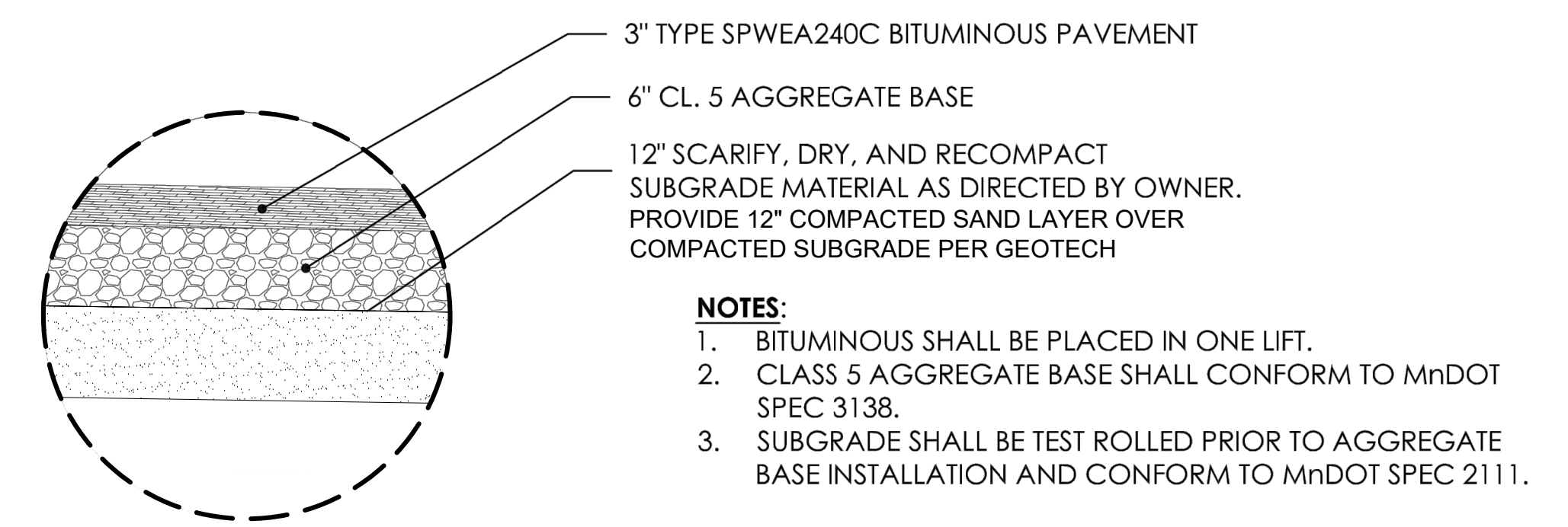


3 DETAIL - ENTRY SIGNAGE
3/4" = 1'-0"



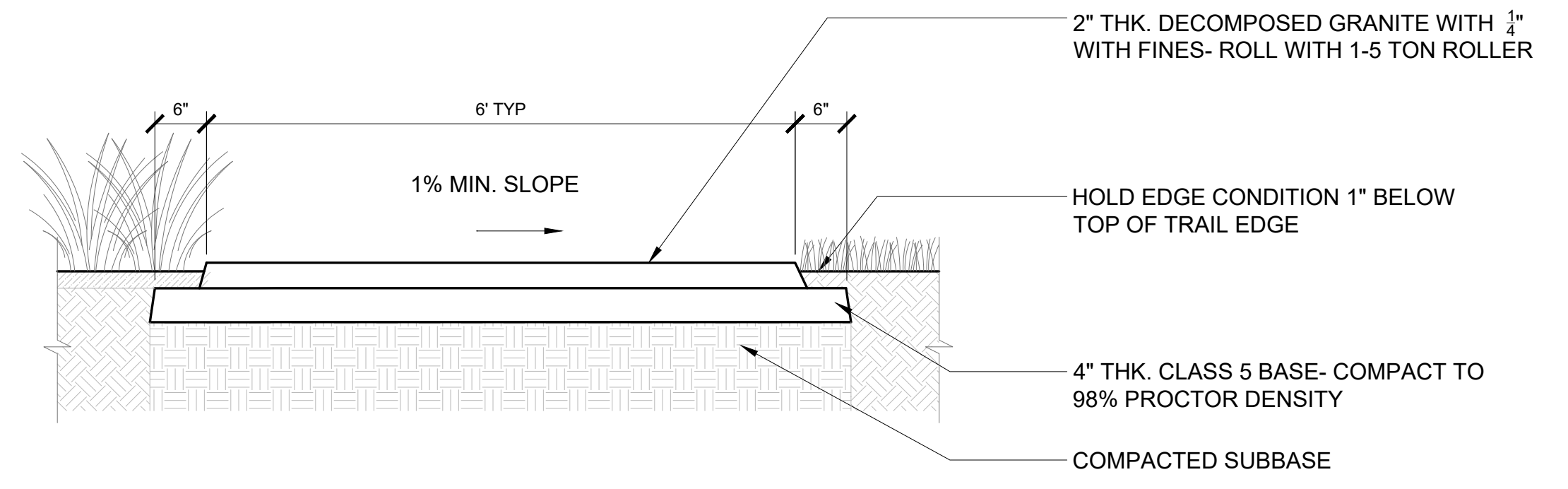
2 DETAIL - TYPICAL BITUMINOUS TRAIL
1 1/2" = 1'-0"

P-21.131-89

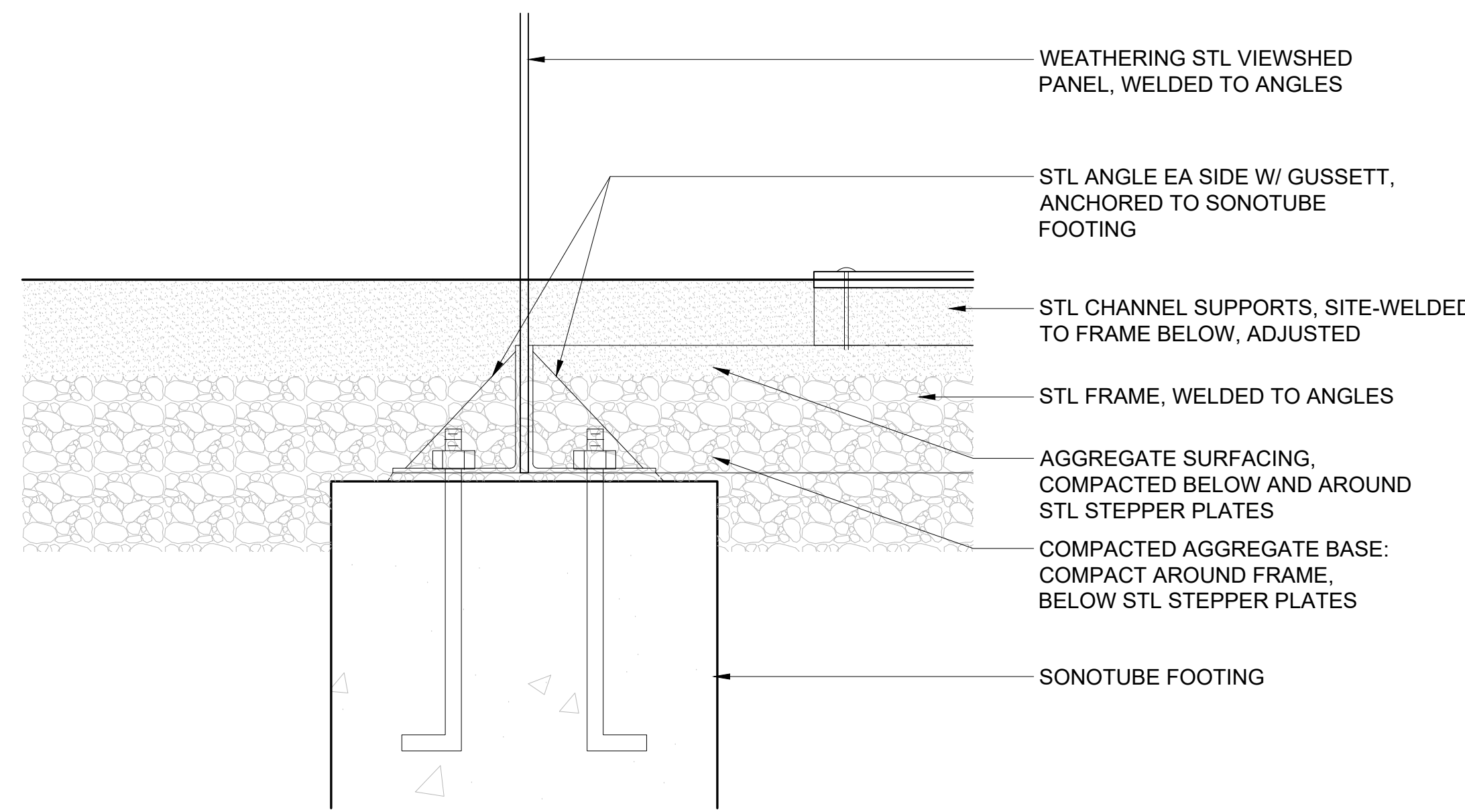


1 DETAIL - DECOMPOSED GRANITE PATH
3/4" = 1'-0"

P-21.131-02



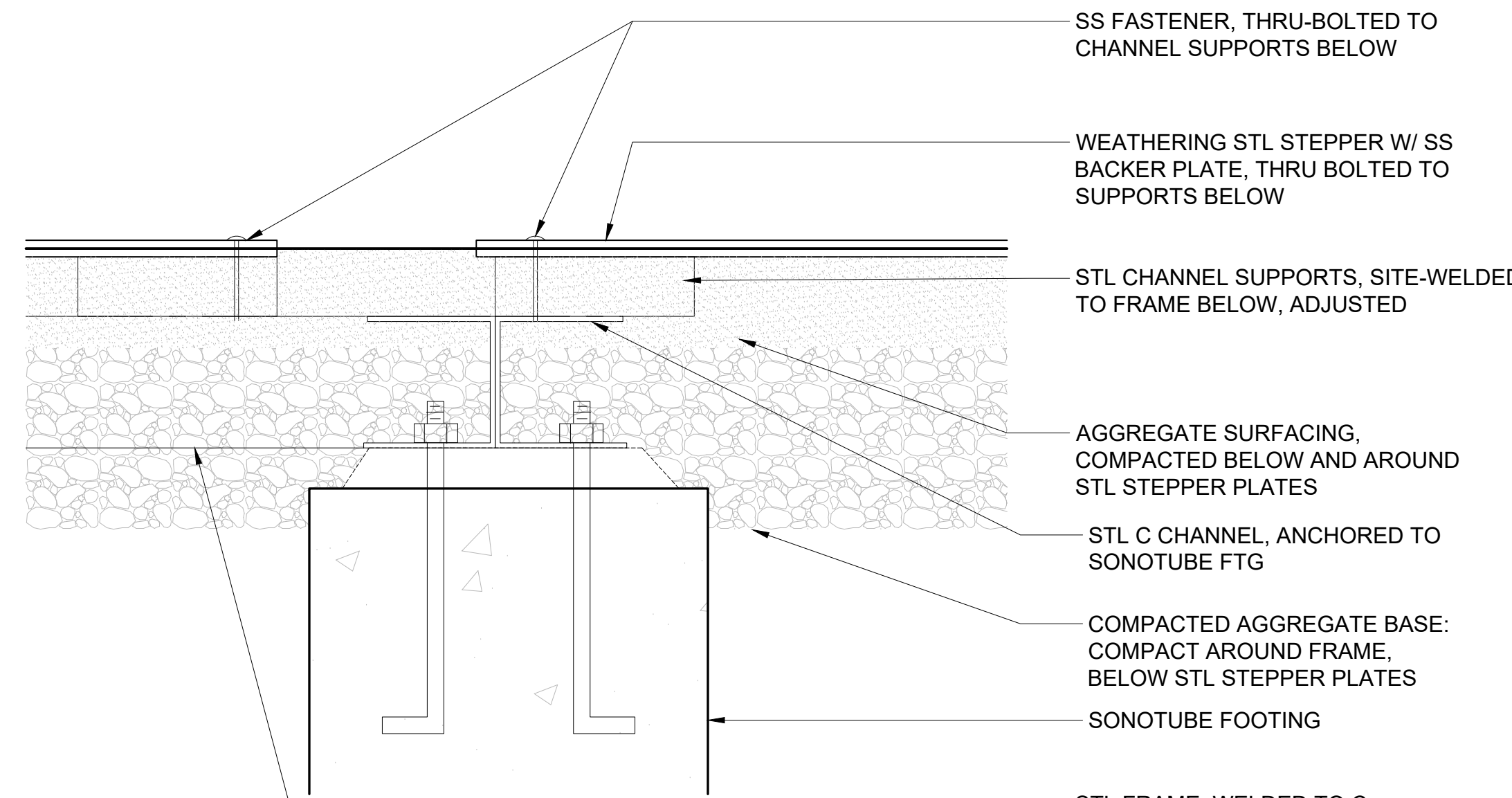
NOT FOR
CONSTRUCTION



6 DETAIL-VIEWSHED PANEL @ FTG

3" = 1'-0"

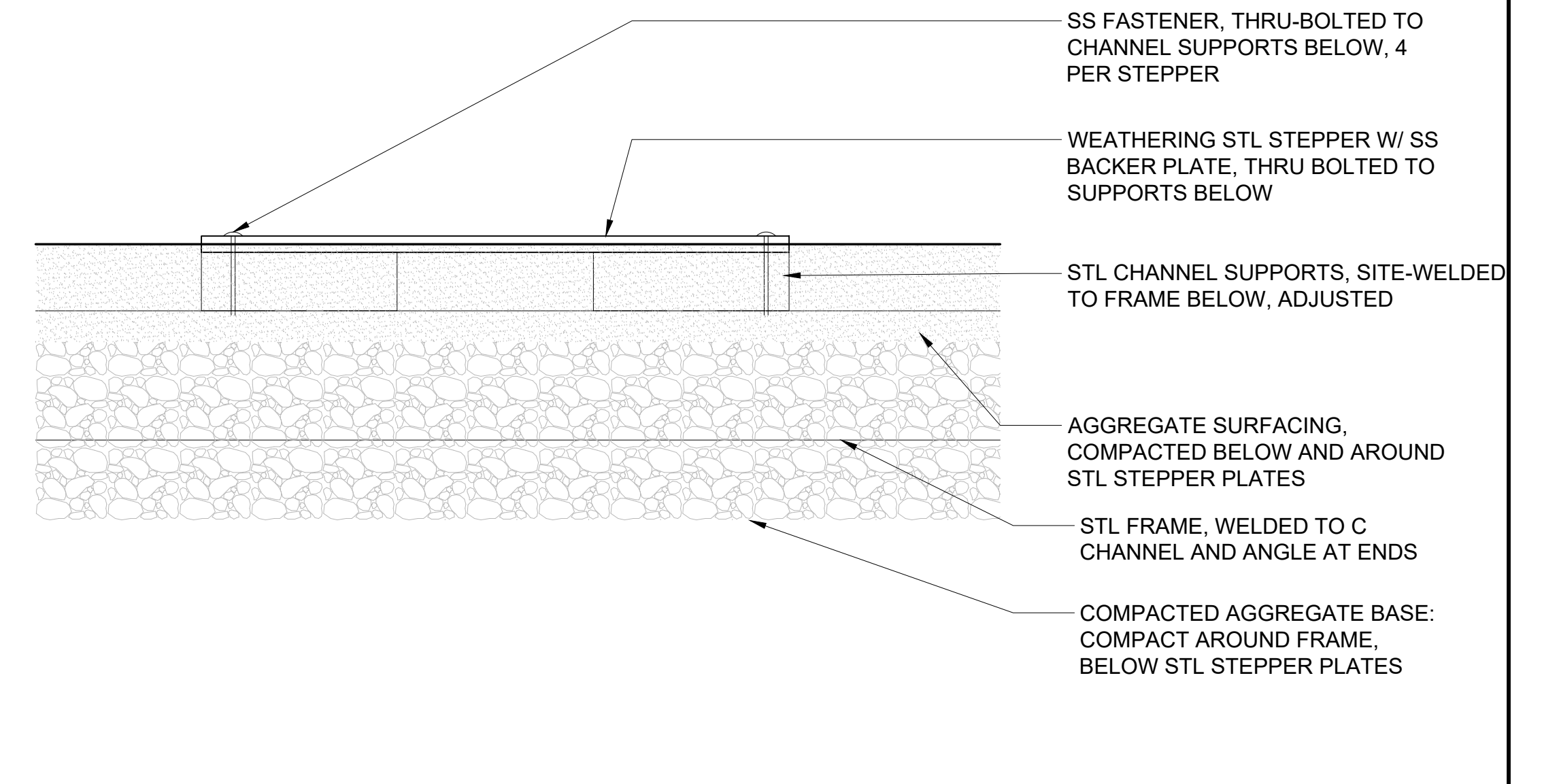
P-21.131-105



5 DETAIL- STL STEPPER @ FTG

3" = 1'-0"

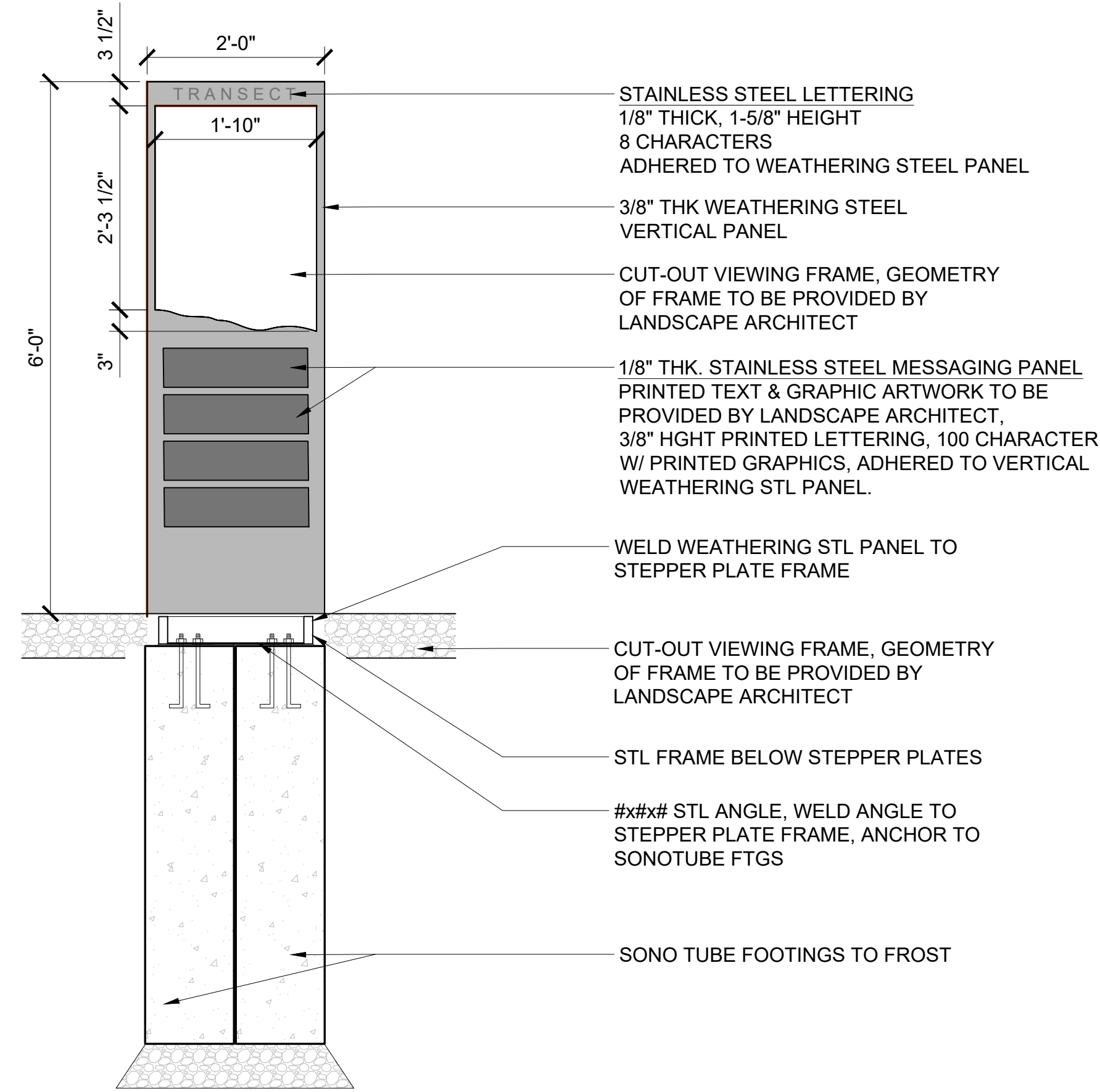
P-21.131-106



4 DETAIL-STL STEPPER @ FRAME

3" = 1'-0"

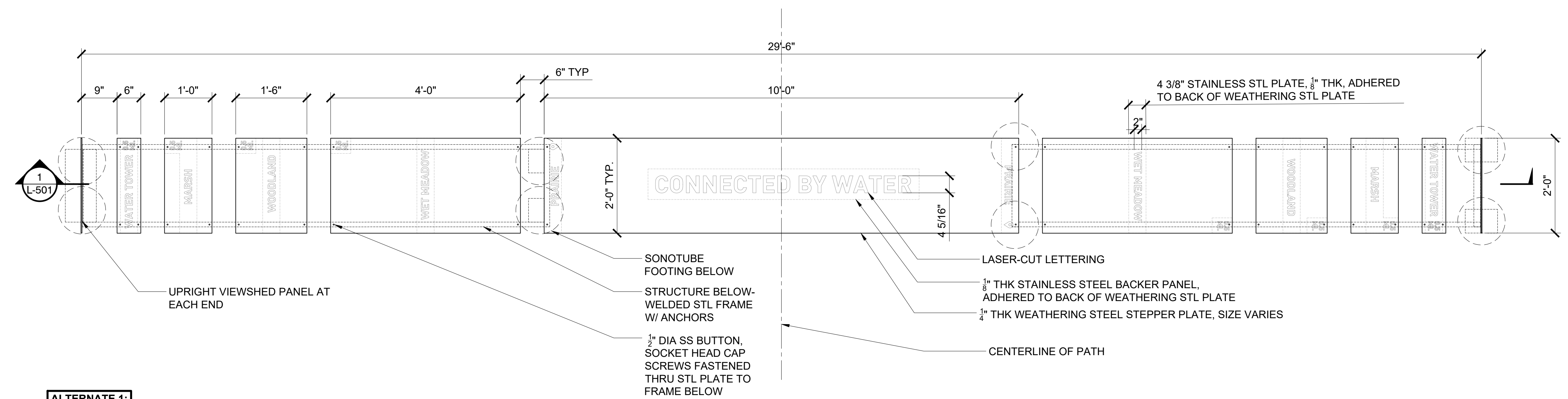
P-21.131-107



3 DETAIL - UPRIGHT VIEWSHED PANEL

3/4" = 1'-0"

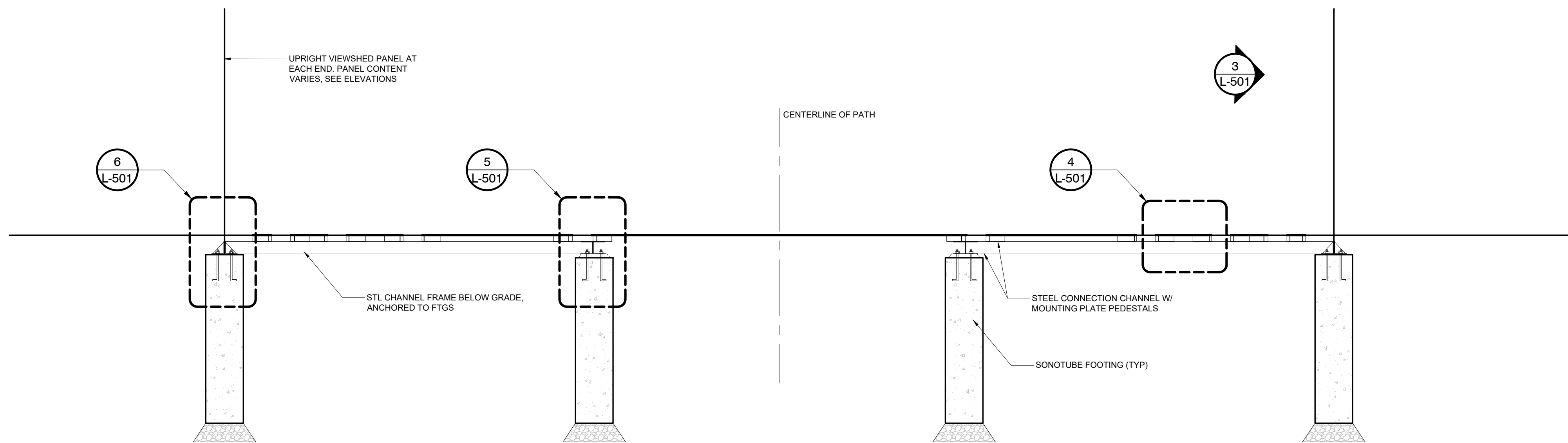
P-21.131-103



2 DETAIL-TRANSECT PLAN

3/4" = 1'-0"

P-21.131-91



1 DETAIL-TRANSECT SECTION

1/2" = 1'-0"

P-21.131-92

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MINNETRISTA, MN

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Date 8/18/2021
DF/ Project # 21-131
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REVISION _____

LANDSCAPE
DETAILS

L-501

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CONSTRUCTION

60% CD- 8/5/21
PERMITTING REVIEW-8/18/21
90% CD- 09/07/21

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DF/ Project # 21-131

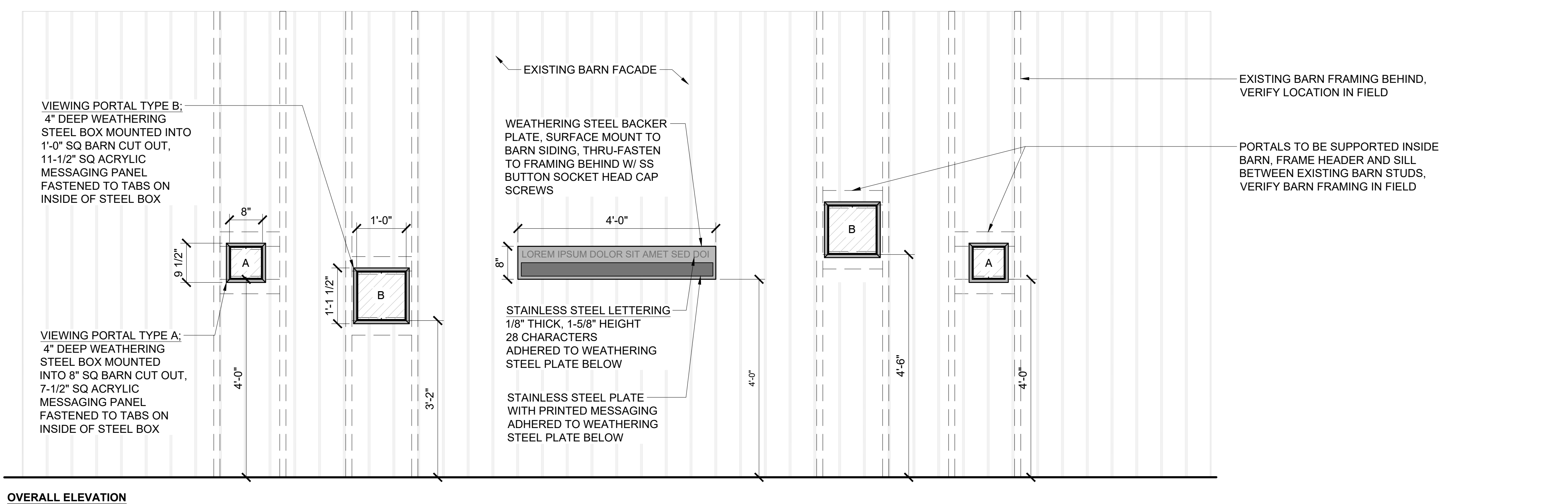
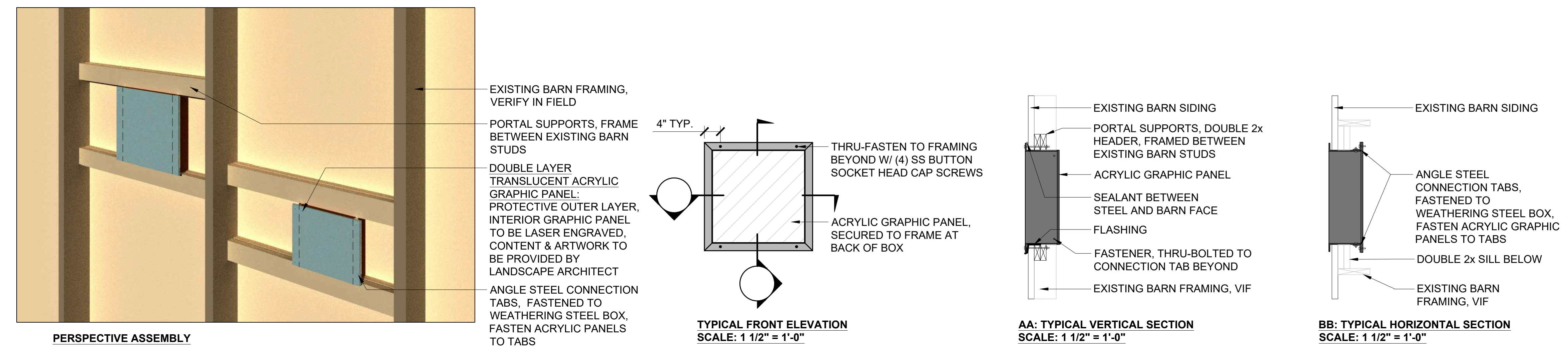
Scale VARIES

Drawn/Checked JR, JH / JG

REVISION _____

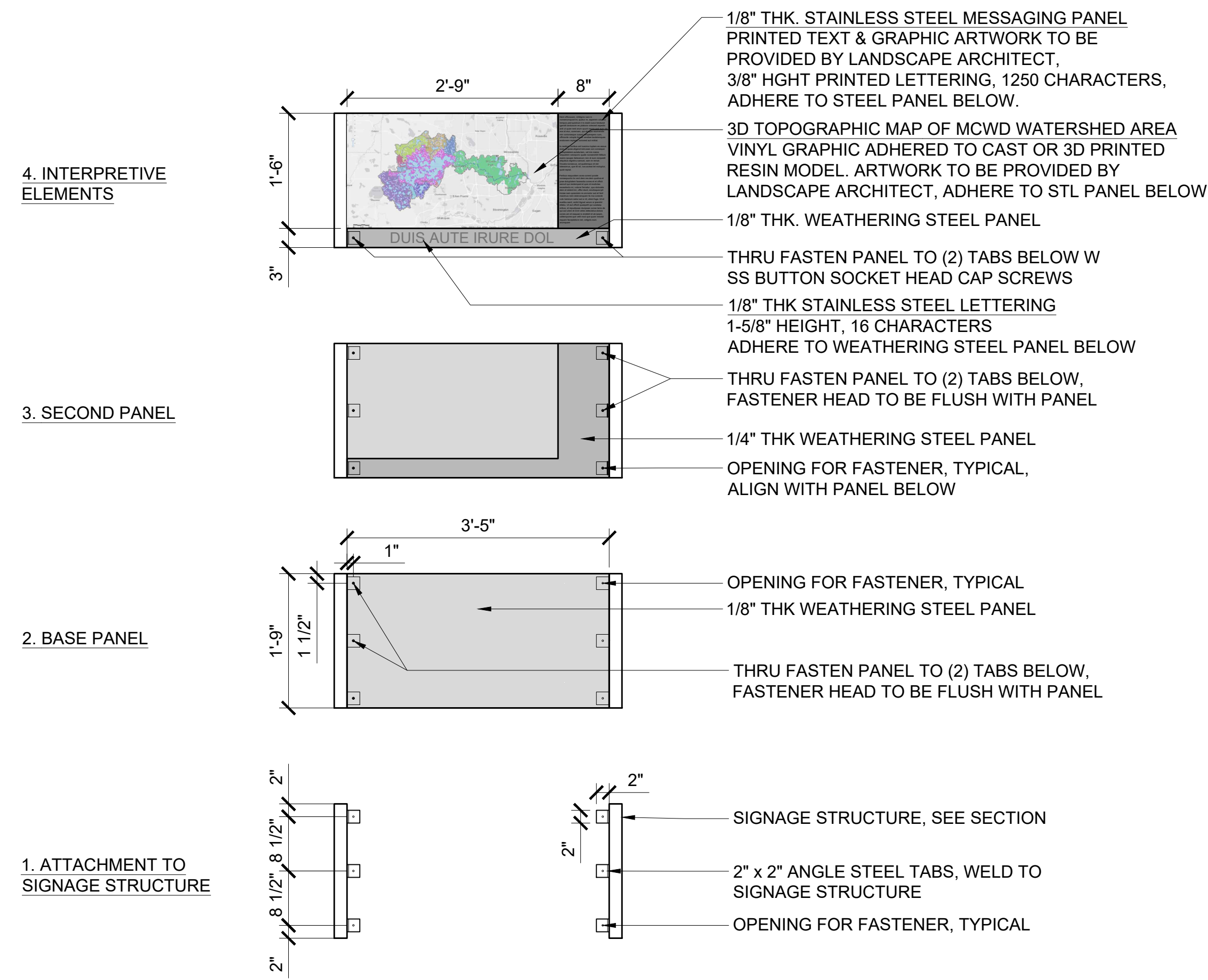
LANDSCAPE
DETAILS

L-502



ALTERNATE 2:
1 DETAIL - VIEWING PORTALS
3/4" = 1'-0"

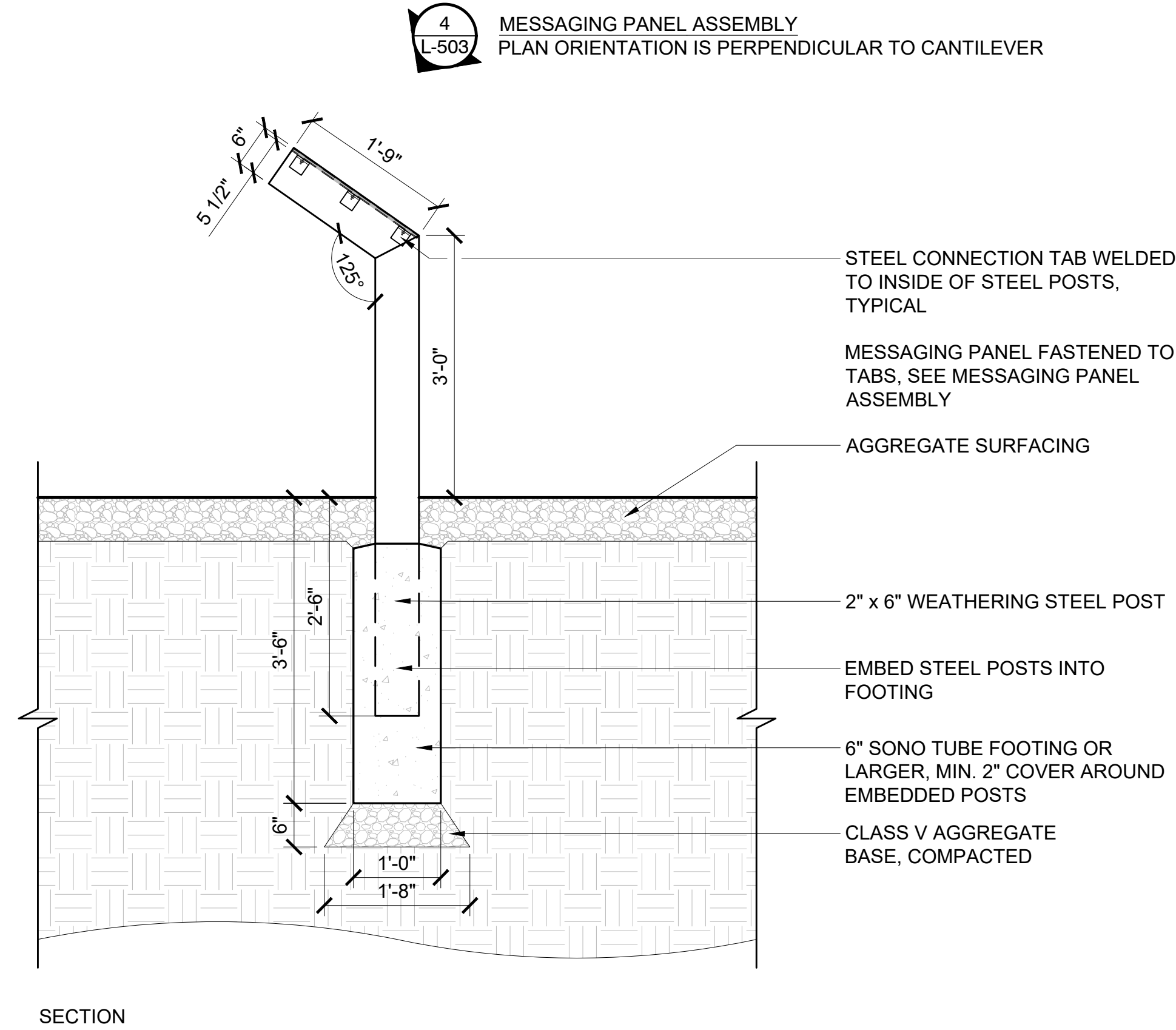
NOT FOR
CONSTRUCTION



ALTERNATE 4:
4 DETAIL - MESSAGING PANEL ASSEMBLY

3/4" = 1'-0"

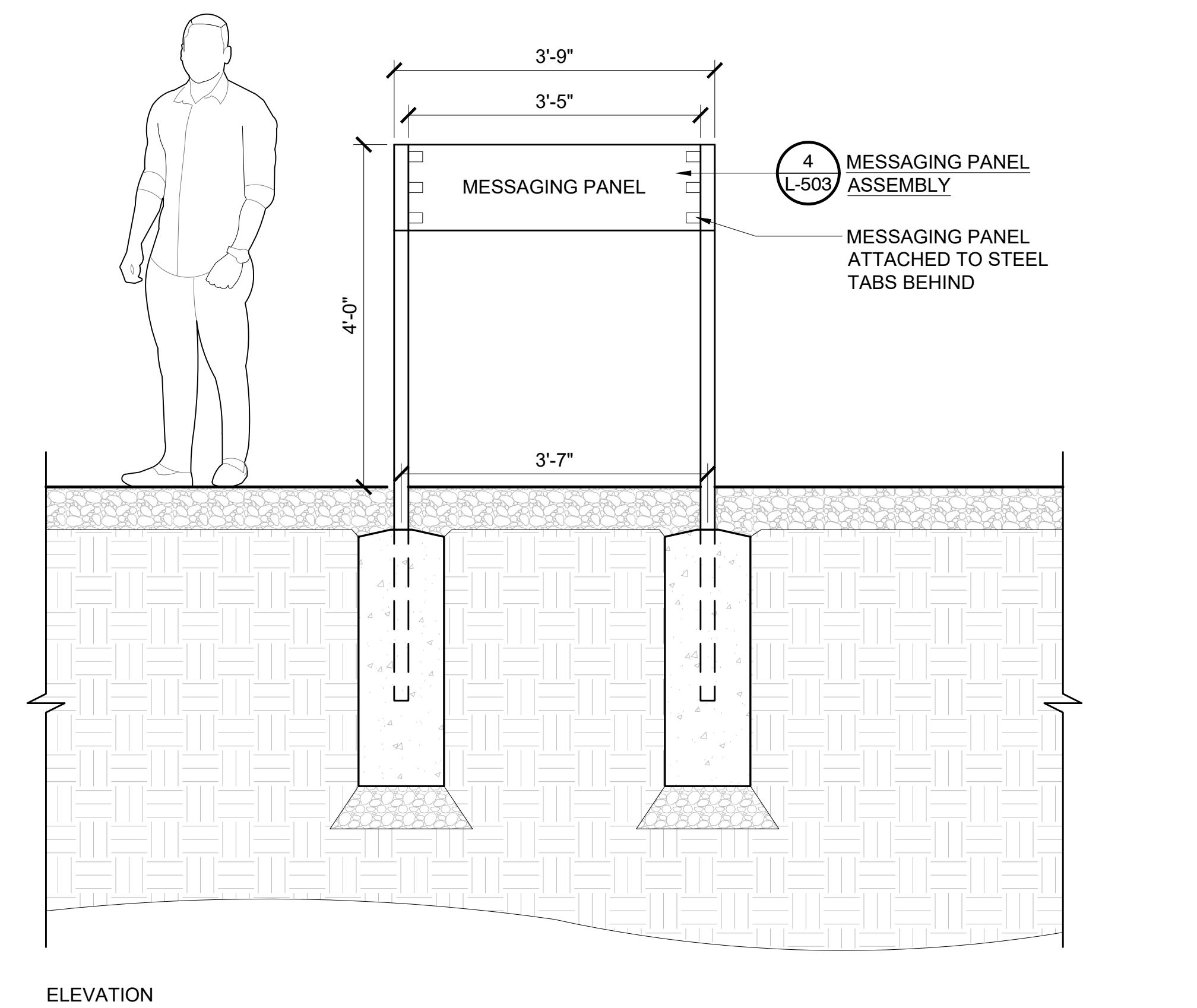
P-21.131-84



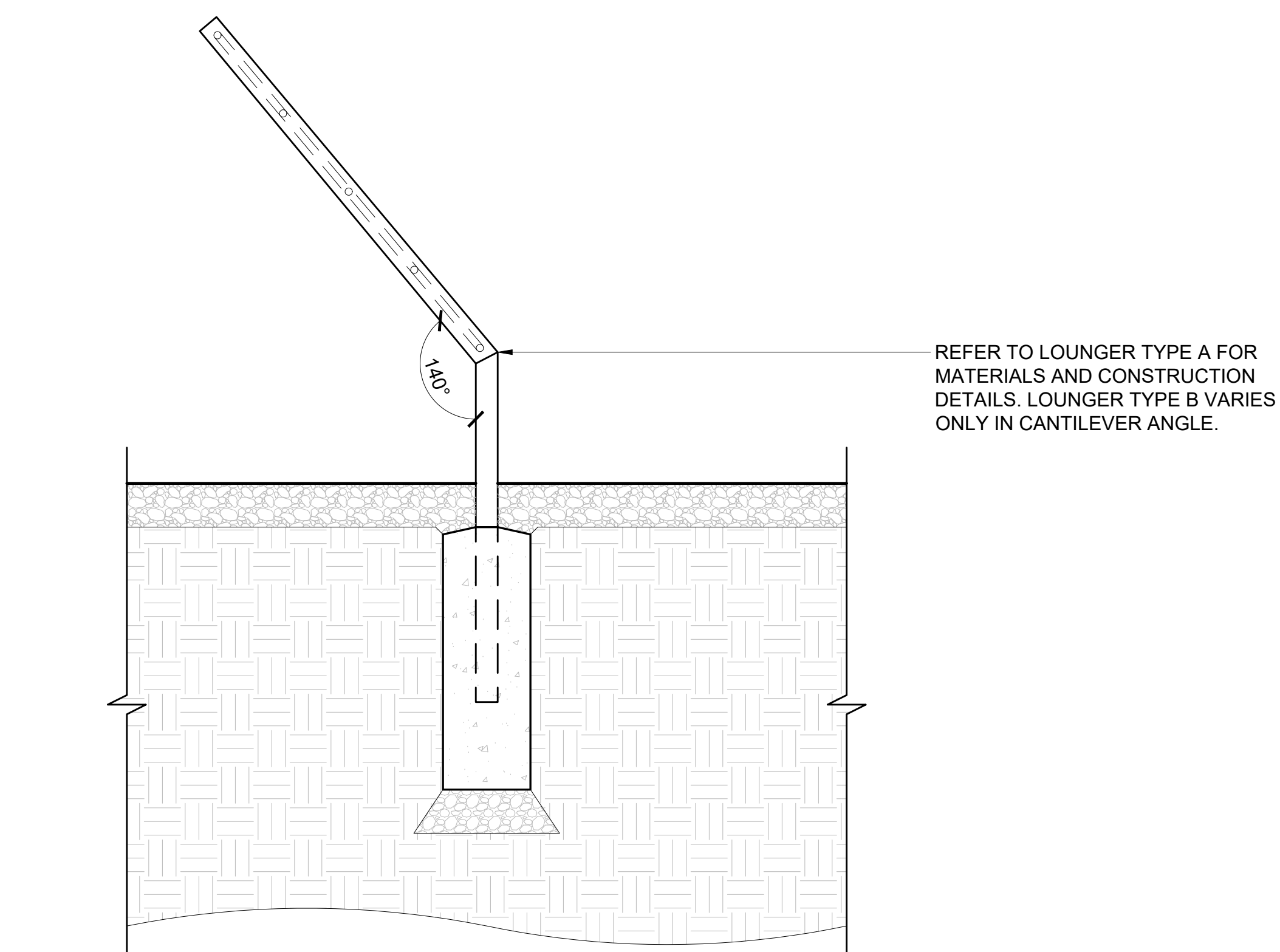
SECTION

ALTERNATE 4:
3 DETAIL - WATERSHED SIGNAGE

3/4" = 1'-0"



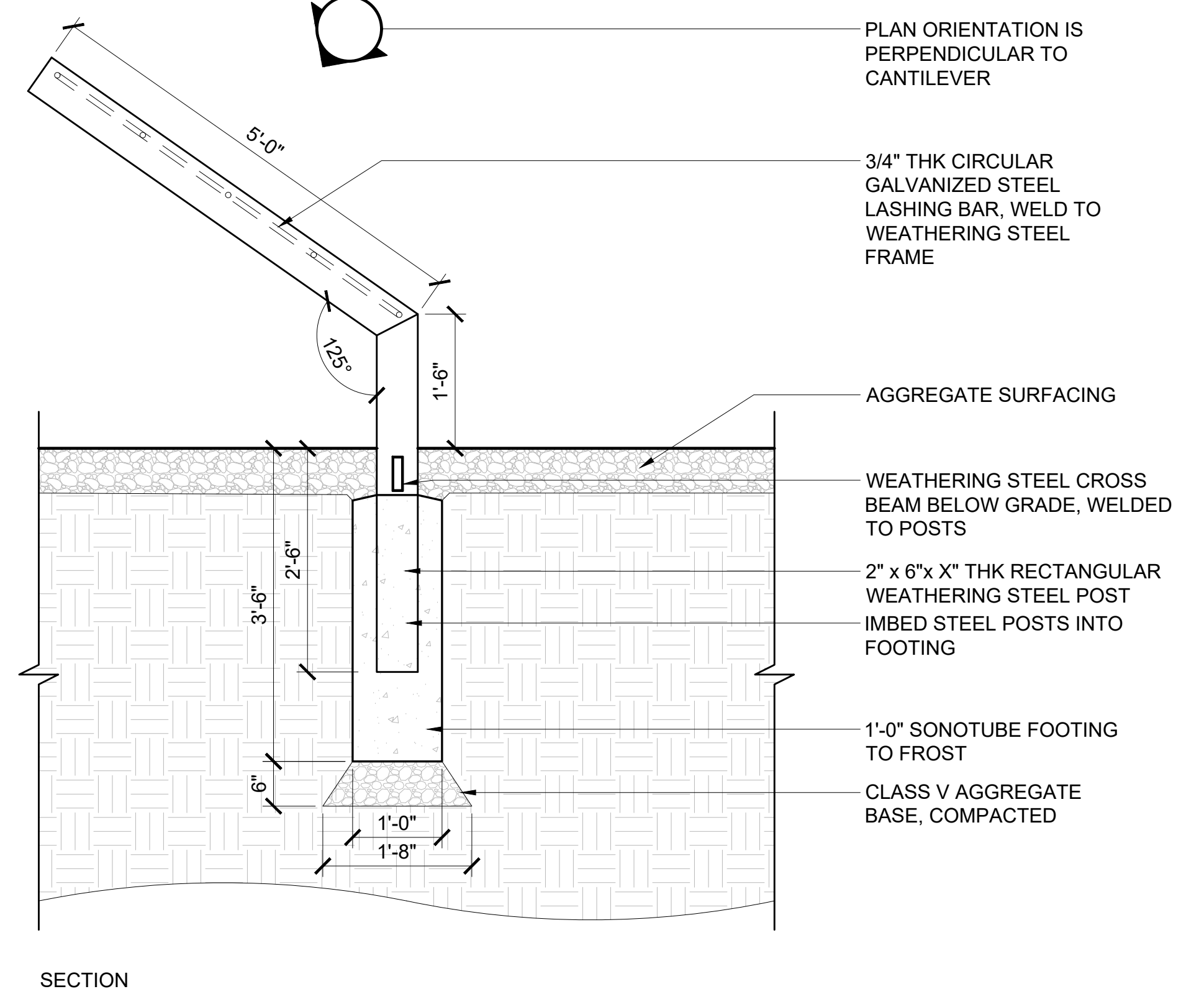
ELEVATION



ALTERNATE 3:
2 DETAIL - LOUNGER TYPE B

3/4" = 1'-0"

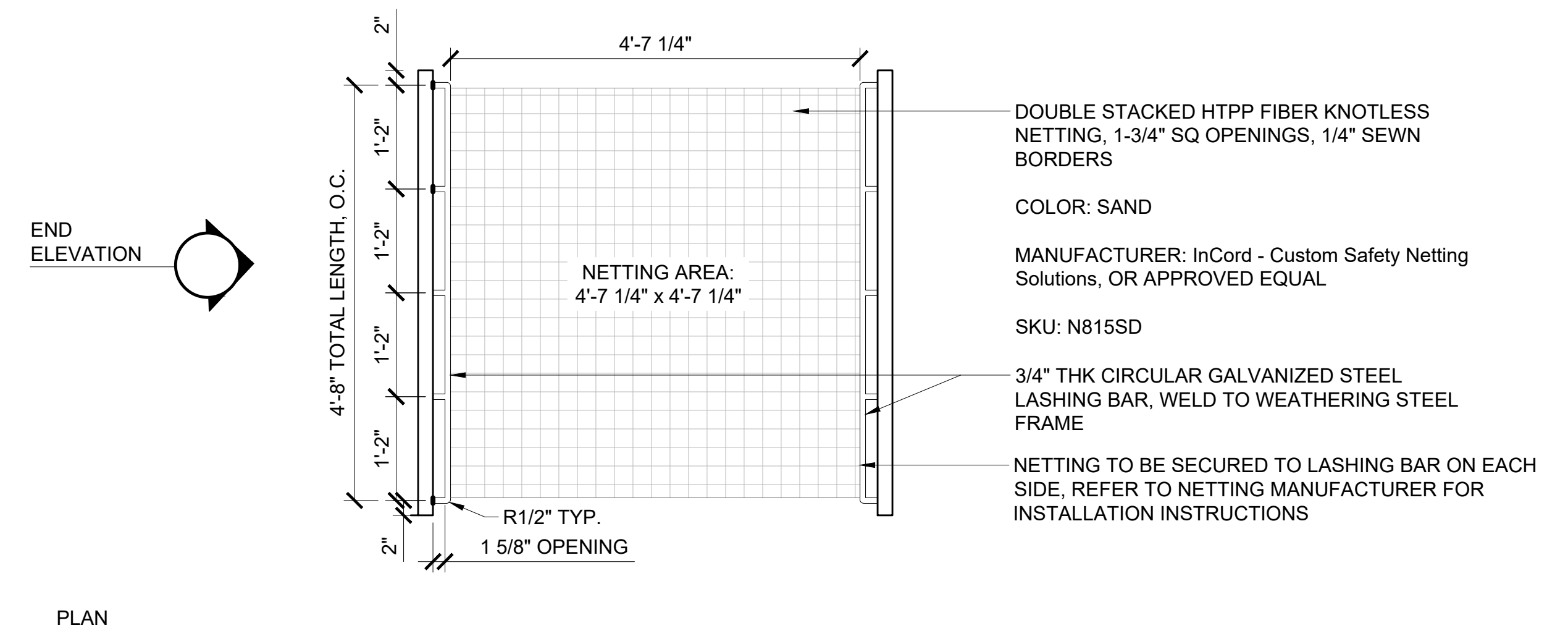
P-21.131-84



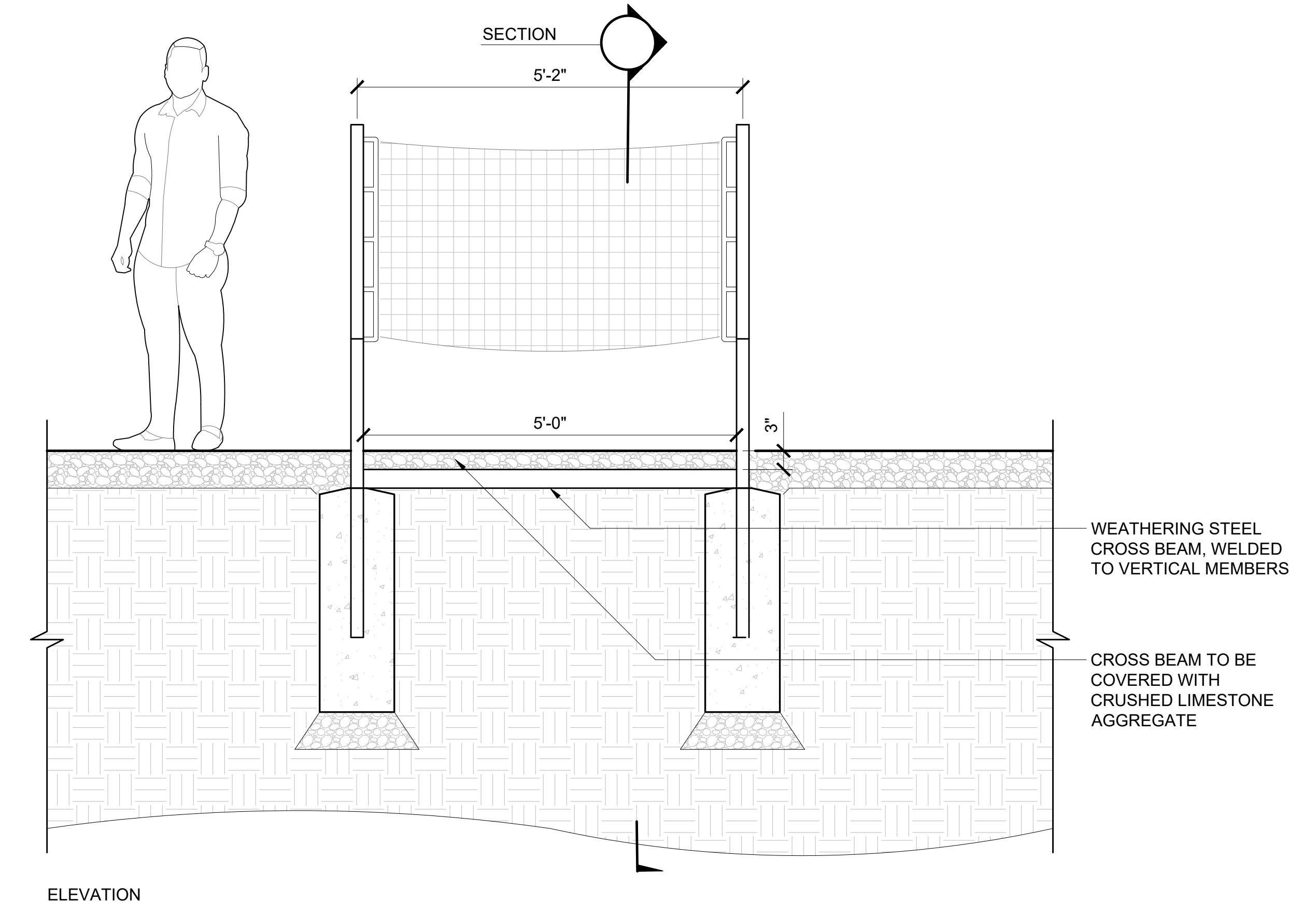
SECTION

ALTERNATE 3:
1 DETAIL - LOUNGER TYPE A

3/4" = 1'-0"



PLAN



ELEVATION

60% CD- 8/5/21
PERMITTING REVIEW-8/18/21
90% CD- 09/07/21

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DF/ Project # 21-131
Scale VARIES
Drawn/Checked JR, JH / JG

REVISION _____

**LANDSCAPE
DETAILS**

L-503

P-21.131-86

REQUEST FOR EXCEPTION FROM A RULE PROVISION

MINNEHAHA CREEK WATERSHED DISTRICT (MCWD)
15320 MINNETONKA BLVD.
MINNETONKA, MN 55345

Phone: 952-471-0590
Fax: 952-471-0682

A request for an exception must be accompanied by a MCWD Water Resources Application

Project Details:

Project address: _____ City: _____ State: _____ Zip: _____

County: _____ Property ID number (PID): _____

The Board of Managers may grant an exception from a provision of the rules on a determination that the proposed application will achieve a greater degree of water resource protection than would strict compliance with the provision. An exception must be approved by a two-thirds majority of managers voting.

Exception Requested From MCWD Rule(s):

- | | |
|---|---|
| <input type="checkbox"/> Erosion Control | <input type="checkbox"/> Waterbody Crossings & Structures |
| <input type="checkbox"/> Floodplain Alteration | <input type="checkbox"/> Stormwater Management |
| <input type="checkbox"/> Wetland Protection | <input type="checkbox"/> Appropriations |
| <input type="checkbox"/> Shoreline & Streambank Stabilization | <input type="checkbox"/> Illicit Discharge |

Provision(s) and Requirement(s) of the Rule(s):

Requested Exception:

Describe how the proposed design will achieve a greater degree of water resource protection than strict compliance with the provision, referring to the impacts on water quality, water quantity, and ecological integrity. Quantify water resource protection as much as possible (pounds of pollutant removal, acres of habitat creation, etc).