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**Title:** Auburn Carp Barrier Construction

**Resolution number:** Resolution 20-095: Approval of Plans for Auburn Barrier Construction  
Resolution 20-096: Approval of Agreement with Three Rivers Park District for Auburn Barrier

**Prepared by:** Name: Anna Brown  
Phone: (952) 641-4522  
abrown@minnehahacreek.org

**Reviewed by:** Name/Title: Michael Hayman, Project Planning Manager

**Recommended action:** Approve the final plans for the Auburn Barrier and authorize staff to solicit quotes for construction  
Approve the agreement with TRPD providing for construction of the barrier in Carver Park Reserve and the development of a maintenance agreement

**Schedule:** January 2021: Contract award for construction  
May 2021: Barrier construction complete

**Budget considerations:** Fund name and code: SMCHB Habitat Restoration Program (5-5007)  
Fund budget: \$567,000  
Expenditures to date: \$395,195  
Requested amount of funding: N/A

**Past Board action:** Res # 17-036 Authorization to request funding from the Lessard Sams Outdoor Heritage Council  
Res # 18-021 Contract award for carp barrier design  
Res # 19-102 Approval of plans and authorization to solicit quotes for carp barrier construction  
Res # 20-079 Approval of design scope for West Auburn barrier design

**Summary:**

In September 2017, the Lessard Sams Outdoor Heritage Council recommended the Six Mile Creek-Halsted Bay (SMCHB) Habitat Restoration Project for \$567,000 to the Minnesota State Legislature. The funding bill was approved by the legislature and the grant period began on July 1, 2018.

Consistent with the accomplishment plan approved by the Lessard Sams Outdoor Heritage Council, the grant funds will be used to pay for the capital cost of barrier installation, utility installation for aeration, and the fish removal contracts. The District match includes equipment for removal and monitoring, the aeration units, and design services.

In March 2018, the MCWD Board of Managers awarded a contract with Wenck Associates to design barriers at four locations. The first three barriers – Wassermann, Crown College, and Highland Road – were designed in 2018 and constructed in the winter of 2019.

The design for the fourth barrier, at the outlet of West Auburn Lake, was first completed in December 2019 and quotes were competitively solicited. The barrier location presented some construction challenges, including sediment

accumulation requiring channel dredging and difficult construction access. Furthermore, the relatively warm weather and high water conditions last winter created further uncertainty for construction. As such, the quote submitted by Blackstone Contractors exceeded the project budget, and staff determined that evaluating relocation of the barrier was prudent.

After examining alternative barrier locations, staff recommended moving the barrier upstream to co-locate it with a culvert under Carver Park Road. In October 2020, the Board approved a design scope for the redesign of the barrier at that location.

**Resolution 20-095: Approval of Plans and Specs for Auburn Barrier Construction**

At the December 17, 2020 Board Meeting, staff is seeking approval of the plans and specifications for the Auburn barrier. The barrier follows MCWD's standard design, which has been retrofitted for this new location. Staff will also seek authorization to solicit quotes for contract award in January.

The opinion of probable cost for this design is \$43,000, which exceeds the \$30,000 LSOHC budget. Staff and the design engineers continue to look for design modifications to reduce costs. If submitted quotes exceed the \$30,000 budget, staff recommends pursuing a grant amendment that will reallocate dollars from the removal budget towards this barrier.

**Resolution 20-096: Approval of Agreement with Three Rivers Park District for Auburn Barrier**

In order to facilitate the construction of this barrier within Carver Park Reserve, staff are seeking approval of a cooperative agreement with Three Rivers Park District (TRPD). The agreement primarily provides for construction of the barrier, as well as for the development of a maintenance agreement between the two agencies. Prior to development and approval of said maintenance agreement, all maintenance responsibilities will fall on MCWD.

The attached agreement was approved by the TRPD Board in January 2020, however, when MCWD opted to not award a construction contract, MCWD Board approval was postponed until a decision could be made on the best alternative for barrier installation. Now, with the project advancing towards construction, staff are seeking approval of the cooperative agreement.

**Supporting documents (list attachments):**

- Auburn Barrier Plans and Specifications
- Cooperative Agreement – Lake Auburn Carp Barrier



**RESOLUTION**

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**Resolution number:** 20-095

**Title:** Approval of Plans for Auburn Barrier Construction

WHEREAS, beginning in 2016, MCWD led in the development of a comprehensive restoration strategy for the SMCHB subwatershed to achieve the District’s goals of protecting and improving water quality, water quantity, ecological integrity, and thriving communities through land use and water integration, and includes rough fish management as a principle strategy for restoration;

WHEREAS, in September 2017, the Lessard Sams Outdoor Heritage Council recommended the SMCHB Habitat Restoration project for \$567,000 in funding, and in May of 2018 the funding was approved by the Minnesota Legislature;

WHEREAS, in March 2018, the MCWD Board of Managers authorized a contract with Wenck Associates to complete barrier design, including the development of plans and specification, and facilitation of the quote process for construction services for four carp barriers;

WHEREAS, in winter 2018-2019 the first three carp barriers were installed at Highland Road, Crown College, and the Lake Wassermann outlet, and the construction of the fourth barrier will follow the standard design established through that design and construction process;

WHEREAS, in December 2019, the MCWD Board of Managers approved plans for the Auburn Carp Barrier, and authorized staff to solicit quotes for its construction; and in January 2020 opted to not award a contract at staff’s recommendation due to budget shortfalls;

WHEREAS, In October 2020, the MCWD Board of Managers approved a design scope for the relocation and redesign of the Auburn carp barrier, and that design is now complete.

NOW, THEREFORE, BE IT RESOLVED, that the Minnehaha Creek Watershed District Board of Managers approves the plans for barrier construction at the outlet of West Auburn Lake; and

BE IT FURTHER RESOLVED that the MCWD Board of Managers authorizes staff to solicit quotes for construction.

Resolution Number 20- 095 was moved by Manager \_\_\_\_\_, seconded by Manager \_\_\_\_\_. Motion to adopt the resolution \_\_\_ ayes, \_\_\_ nays, \_\_\_ abstentions. Date: 12/17/2020

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



**RESOLUTION**

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**Resolution number:** 20-096

**Title:** Approval of Agreement with Three Rivers Park District for Auburn Barrier

- WHEREAS, beginning in 2016, MCWD led in the development of a comprehensive restoration strategy for the SMCHB subwatershed to achieve the District’s goals of protecting and improving water quality, water quantity, ecological integrity, and thriving communities through land use and water integration, and includes rough fish management as a principle strategy for restoration;
- WHEREAS, in September 2017, the Lessard Sams Outdoor Heritage Council recommended the SMCHB Habitat Restoration project for \$567,000 in funding, and in May of 2018 the funding was approved by the Minnesota Legislature;
- WHEREAS, in March 2018, the MCWD Board of Managers authorized a contract with Wenck Associates to complete barrier design, including the development of plans and specification, and facilitation of the quote process for construction services, for four carp barriers;
- WHEREAS, in winter 2018-2019, the first three carp barriers were installed at Highland Road, Crown College, and the Lake Wassermann outlet, and the construction of the fourth barrier will follow the standard design established through that design and construction process;
- WHEREAS, in December 2019, the MCWD Board of Managers approved plans for the Auburn Carp Barrier, and authorized staff to solicit quotes for its construction; and in January 2020 opted to not award a contract at staff’s recommendation due to budget shortfalls;
- WHEREAS, in October 2020, the MCWD board of Managers approved a design scope for the relocation and redesign of the Auburn carp barrier, and that design is now complete;
- WHEREAS, the Auburn carp barrier is to be located at the outlet of West Auburn Lake in Carver Park Reserve, which is owned and operated by Three Rivers Park District (TRPD);
- WHEREAS, staff and legal counsel have developed a cooperative agreement to provide for the construction of the carp barrier and development of a maintenance agreement with TRPD, which was approved the TRPD Board in January 2020.

NOW, THEREFORE, BE IT RESOLVED, that the Minnehaha Creek Watershed District Board of Managers authorizes the Board President, on advice of Counsel, to execute a cooperative agreement with Three Rivers Park District for the construction of the Auburn carp barrier.

Resolution Number 20- 096 was moved by Manager \_\_\_\_\_, seconded by Manager \_\_\_\_\_. Motion to adopt the resolution \_\_\_ ayes, \_\_\_ nays, \_\_\_ abstentions. Date: 12/17/2020

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

12/8/2020 2:50:50 PM

### OWNER



MINNEHAHA CREEK WATERSHED DISTRICT  
15320 MINNETONKA BLVD  
MINNETONKA, MN 55345  
(P) - 952-471-0590  
CONTACT: ANNA BROWN

### ENGINEER



WENCK ASSOCIATES, INC.  
7500 OLSON MEMORIAL HWY  
SUITE 300  
GOLDEN VALLEY, MN 55427  
(P) - 763-252-6800  
CONTACT: CHRIS MEEHAN, P.E.

# SITE CONSTRUCTION PLANS FOR LAKE AUBURN CARP BARRIER

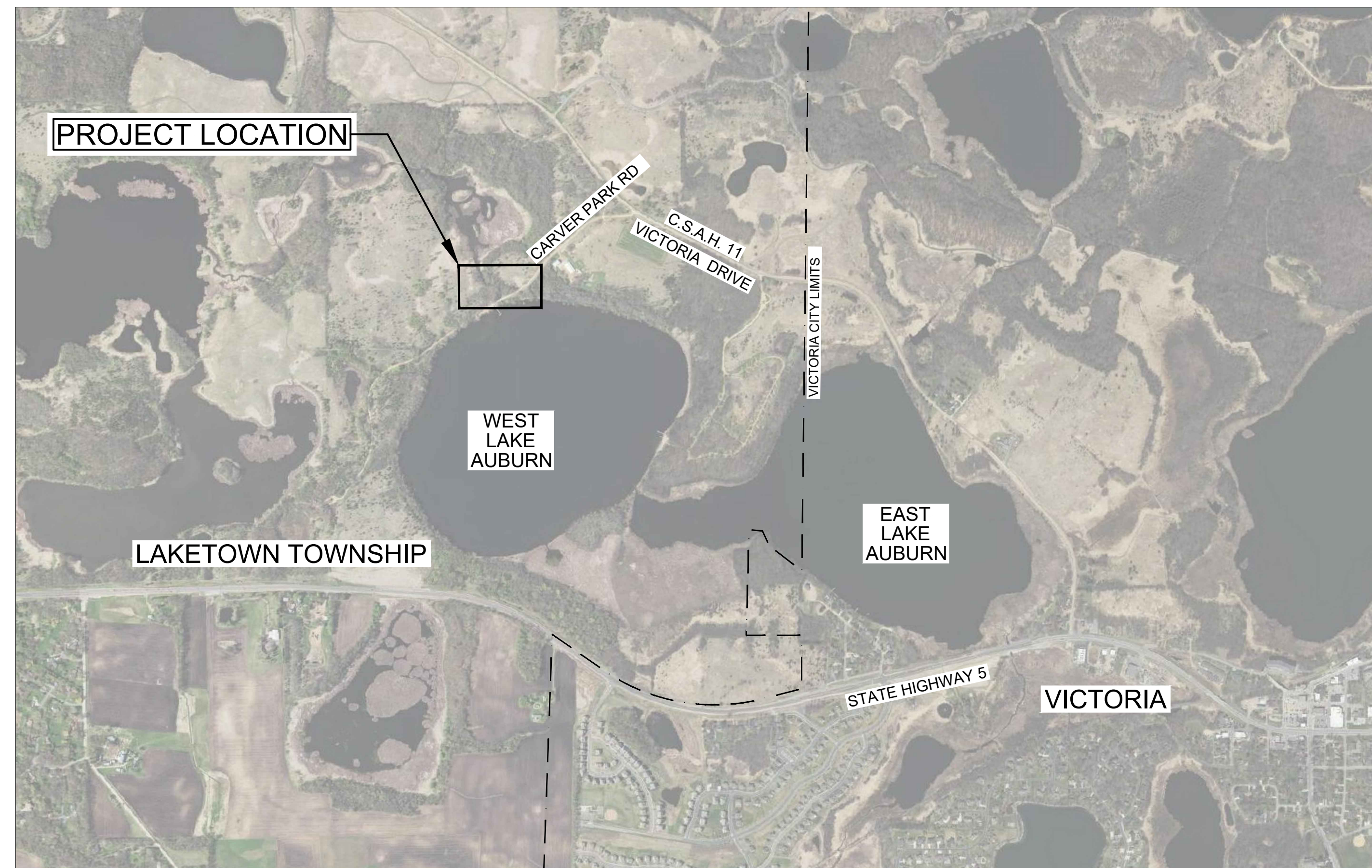
## PREPARED FOR MINNEHAHA CREEK WATERSHED DISTRICT NOVEMBER 2020



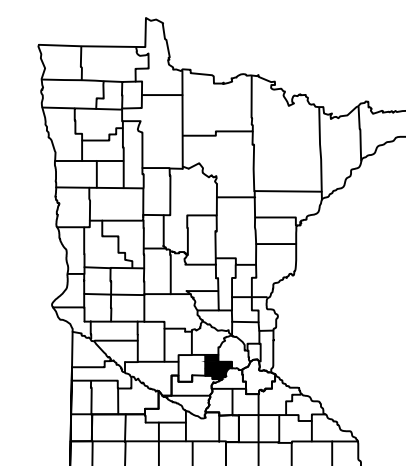
MINNEHAHA CREEK WATERSHED DISTRICT  
QUALITY OF WATER, QUALITY OF LIFE



LAKE AUBURN  
CARP BARRIER  
VICTORIA, MN



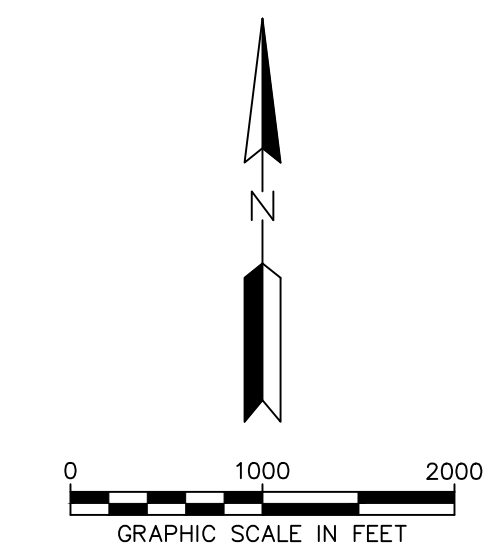
VICINITY MAP



PROJECT LOCATION  
NEAREST CITY: VICTORIA, MN  
COUNTY: CARVER

THIS PLAN SET CONTAINS 7 SHEETS

SHEET INDEX	
SHEET NUMBER	SHEET TITLE
G-100	COVER SHEET
C-100	EXISTING CONDITIONS
C-101	SITE PLAN
C-800	DETAILS
C-801	DETAILS
S-100	BARRIER PLAN AND ISO VIEW
S-101	BARRIER DETAILS



PROJECT TITLE:

ISSUE NO.:

DESCRIPTION:

DATE:

CERTIFICATION:

LICENSE NO.:

PROJECT NO.:

DWN BY:

CHKD BY:

ISSUE DATE:

ISSUE NO.:

SHEET TITLE:

SHEET NO.:

G-100

#### WARNING:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND/OR RELOCATION OF LINES.

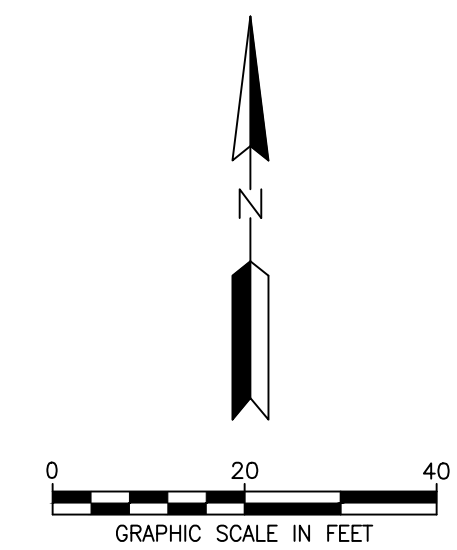
THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL AT 651-454-0002 AT LEAST 48 HOURS IN ADVANCE FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION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

CALL BEFORE YOU DIG

**GOPHER STATE ONE CALL**

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

M:\01869123\5\_DESIGN\1\_CADD\3\_PLANS\01869123-G-100\_Cover\_Sheet.dwg



### LEGEND

- EASEMENT LINE
- EXISTING PROPERTY LINE
- GUARD RAIL
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING EDGE OF GRAVEL
- EXISTING TREE LINE
- EXISTING DECIDUOUS TREE
- EXISTING CONCRETE SURFACE

### GENERAL NOTES

1. EXISTING CONDITIONS SHOWN ARE FROM A TOPOGRAPHIC SURVEY'S COMPLETED BY WENCK ASSOCIATES DATED OCTOBER 9, 2019, JUNE 18, 2020, AND NOVEMBER 10, 2020. EXISTING FEATURES MAY NOT BE EXACT TO THEIR LOCATION. CONTRACTOR RESPONSIBLE FOR VERIFYING THE CONDITIONS OF THE SITE AND MUST IMMEDIATELY NOTIFY THE ENGINEER OF DISCREPANCIES OR VARIATIONS FROM THE DRAWINGS.
2. SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-2 ENTITLED 'STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA'. EXACT LOCATION/DEPTH OF SUBSURFACE UTILITIES SUCH AS GAS, TELEPHONE, FIBER OPTIC, SEWER, WATER, PIPELINES, ELECTRICAL, AND CABLE TV ARE UNKNOWN AND THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE.
3. CONTRACTOR RESPONSIBLE FOR CONTACTING GOPHER STATE ONE CALL (1-800-252-1166) A MINIMUM OF 48 HOURS IN ADVANCE (EXCLUDING HOLIDAYS AND WEEKENDS) BEFORE STARTING WORK FOR LOCATIONS OF UNDERGROUND UTILITIES.
4. QUANTITIES ARE APPROXIMATE, AND MAY VARY TO ALLOW COMPLETION OF WORK.
5. WORK AND MATERIALS MUST COMPLY WITH CITY, COUNTY, STATE, AND FEDERAL (INCLUDING OSHA) REGULATIONS AND CODES.
6. CONTRACTOR SHALL COORDINATE AND MAINTAIN STORMWATER DRAINAGE CONVEYANCE THROUGHOUT CONSTRUCTION (BOTH PIPED AND OVERLAND FLOW). CONTRACTOR TO ENSURE ALL AREAS RECEIVING CONSTRUCTION STORMWATER RUNOFF TO BE PROTECTED PER NPDES PERMIT.
7. CONTRACTOR SHALL COORDINATE CONSTRUCTION STAGING, ON OR OFFSITE, AS NECESSARY TO COMPLETE THE WORK. IF OFFSITE STAGING AREA IS REQUIRED, CONTRACTOR IS RESPONSIBLE TO FIND, OBTAIN, AND PAY FOR NECESSARY STAGING AREA AT NO ADDITIONAL COST TO THE OWNER. SUBMIT A STAGING PLAN TO THE ENGINEER FOR REVIEW BEFORE STARTING WORK. (INCIDENTAL)
8. CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC CONTROL. TRAFFIC CONTROL MUST BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MN MUTCD, INCLUDING LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS. SUBMIT TRAFFIC CONTROL PLAN TO OWNER, TRPD, AND ENGINEER FOR REVIEW BEFORE CONSTRUCTION RELATED ACTIVITIES. PLANS MUST COMPLY WITH APPLICABLE PERMIT REQUIREMENTS. (INCIDENTAL)
9. CONTRACTOR SHALL PRESERVE AND PROTECT EXISTING PAVEMENT, SITE FEATURES, UTILITIES, TREES, ETC., UNLESS NOTED OR SHOWN OTHERWISE.
10. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING CONSTRUCTION AND WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES.
11. CONTRACTOR MUST IMMEDIATELY NOTIFY THE OWNER AND ENGINEER OF DISCREPANCIES OR CONFLICTS IN THE CONTRACT DOCUMENTS BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS ARE TO BE MADE WITHOUT PRIOR APPROVAL FROM THE OWNER AND ENGINEER. FAILURE TO NOTIFY OWNER AND ENGINEER OF AN IDENTIFIABLE CONFLICT BEFORE PROCEEDING WITH INSTALLATION RELIEVES OWNER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.
12. CONTRACTOR SHALL HAVE ONE COPY OF EACH REQUIRED CONSTRUCTION PERMIT AND ONE COPY OF THE MOST CURRENT AND COMPLETE SET OF CONSTRUCTION DOCUMENTS (INCLUDING PLANS, SPECIFICATIONS, GEOTECHNICAL REPORT AND SPECIAL CONDITIONS AND PROVISIONS) AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
13. CONTRACTOR SHALL PLAN FOR AND ENSURE PERSONNEL COMPLY WITH BASIC PROVISIONS OF OSHA SAFETY AND HEALTH STANDARDS (29 CFR 1910) AND GENERAL CONSTRUCTION STANDARDS (29 CFR 1926) AS APPROPRIATE.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH WORK. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS FOR SAFETY OF EMPLOYEES ON PROJECT SITE AND OTHER PERSONS AND ORGANIZATIONS WHO MAY BE AFFECTED BY THE PROJECT. CONTRACTOR'S DUTIES AND RESPONSIBILITIES FOR SAFETY IN CONNECTION WITH WORK SHALL CONTINUE UNTIL SUCH TIME AS ALL WORK IS COMPLETED, AND ENGINEER HAS ISSUED NOTICE TO CONTRACTOR THAT WORK IS COMPLETE.
15. PROTECT EXISTING TREES THAT ARE NOT REMOVED. INSTALL ORANGE MESH FENCING, 4 FEET HIGH, WITH STAKES EVERY 10 FEET, 5 FEET OUTSIDE OF THE DRIPLINE OF ALL PRESERVED TREES. DO NOT PERFORM ACTIONS WITHIN THE PROTECTED AREA THAT MAY HARM THE TREE AND COMPACT THE SOIL, INCLUDING, BUT NOT LIMITED TO, EXCAVATION, STORING MATERIALS, PARKING AND TRAFFIC DURING CONSTRUCTION, WHERE CONSTRUCTION REQUIRES DISTURBANCE WITHIN THE PROTECTED AREAS, DISTURB THE ROOT ZONE AS LITTLE AS POSSIBLE. ALL TREE PROTECTION MEASURES SHALL BE DIRECTED AND VERIFIED BY OWNER AND ENGINEER PRIOR TO STARTING CONSTRUCTION.
16. ALL TREE PROTECTION FENCING MUST BE IN PLACE PRIOR TO BEGINNING CONSTRUCTION AND TREE REMOVALS.
17. OAK TREES SHALL BE PROTECTED WITH CONSTRUCTION FENCING A MINIMUM DISTANCE EQUAL TO 1.5 TIMES TIMES THE TREE DIAMETER IN INCHES AT 4.5 FEET ABOVE GROUND (I.E. 12 INCH DIAMETER OAK TREE WOULD HAVE FENCING PLACED A MINIMUM OF 18 FOOT RADIUS AROUND THE TREE).
18. WHEN TREE ROOTS ARE ENCOUNTERED THAT MUST BE REMOVED, CUT ROOTS CLEANLY AS FAR FROM THE TREE AS POSSIBLE AND IMMEDIATELY WATER AND BACKFILL OVER THE ROOTS TO PREVENT DRYING.

### HORIZONTAL AND VERTICAL CONTROL NOTES

1. HORIZONTAL DATUM: CARVER COUNTY COORDINATE SYSTEM NAD83(11)
2. VERTICAL DATUM: NAVD88
3. BENCHMARK: MNDOT CONTROL STATION "SERV" - ELEVATION=954.06' - LOCATED IN FRONT OF THE DAIRY QUEEN AT THE INTERSECTION OF TH5 AND CR11

### WARNING:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND/OR RELOCATION OF LINES.

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

### GOPHER STATE ONE CALL

CALL BEFORE YOU DIG  
TWIN CITY AREA: 651-454-0002  
TOLL FREE 1-800-252-1166

7500 OLSON MEMORIAL HWY  
SUITE 300  
GOLDEN VALLEY, MN 55427  
PHONE: 763-252-6800  
FAX: 952-831-1268  
WWW.WENCK.COM

**MINNEHAHA CREEK**  
WATERSHED DISTRICT  
QUALITY OF WATER, QUALITY OF LIFE

**LAKE AUBURN**  
**CARP BARRIER**  
VICTORIA, MN

DATE	DESCRIPTION	ISSUE NO.
11/20/2020	CONSTRUCTION PLANS	1
01/17/2020	CONSTRUCTION PLANS 1/2	2
11/11/2020	CONCEPT UPSTREAM	3

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

FOR CONSTRUCTION

LICENSE NO.: 43066  
DATE: 11/11/2020

PROJECT NO.: 0185-0123

OWN BY: MJK  
CHKD BY: ERM  
APPD BY: CJM

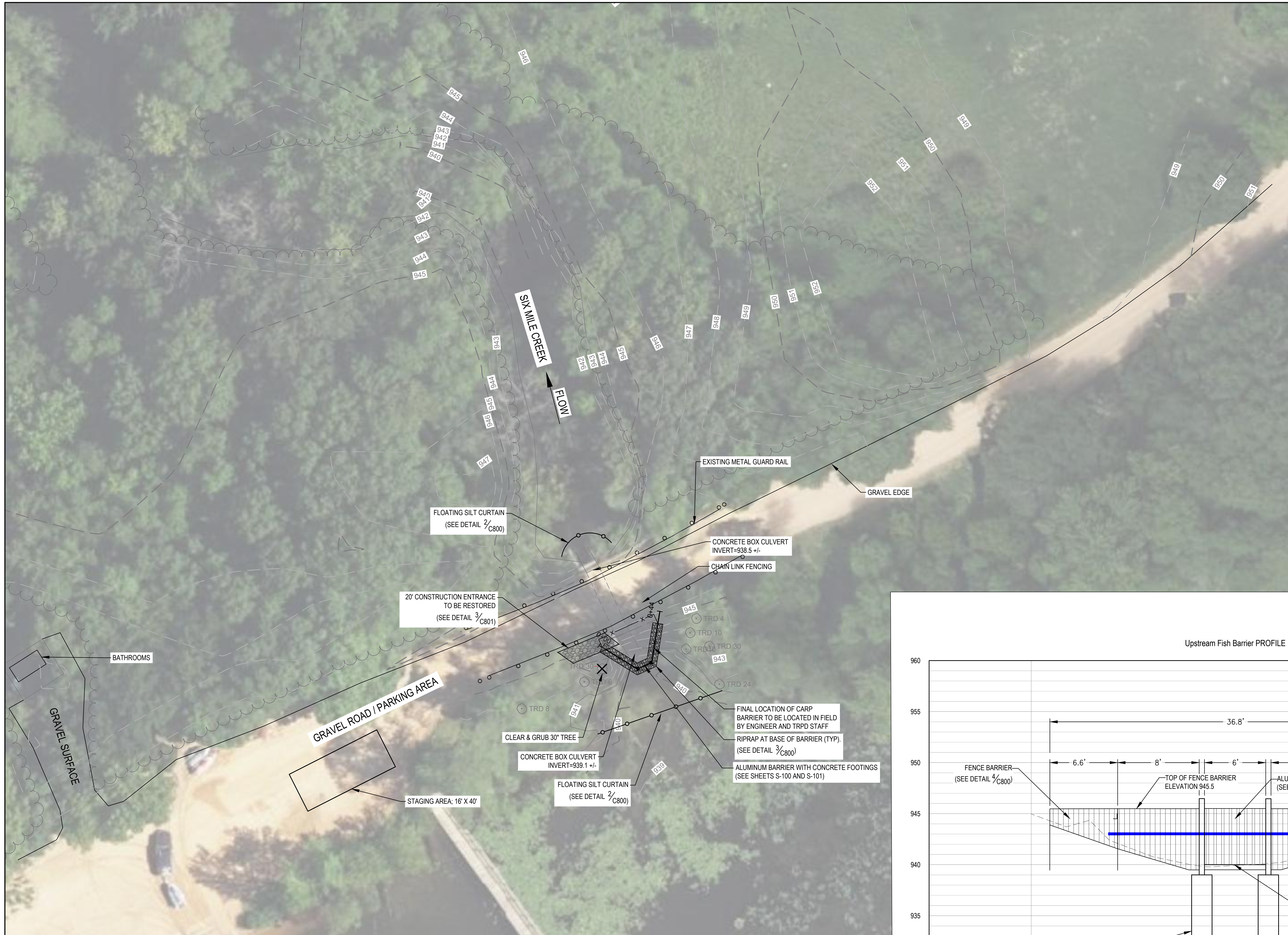
ISSUE DATE: 11/11/2020

ISSUE NO.: 3

SHEET TITLE:  
EXISTING CONDITIONS

SHEET NO.:  
**C-100**

12/8/2020 2:51:00 PM



### LEGEND

- EXISTING METAL GUARD RAIL
- MINDOT SEED MIX 36-211 W/ EROSION CONTROL BLANKET CATEGORY 3N STRAW 2S (NO POLY NETTING)
- RIPRAP
- FLOTATION SILT CURTAIN
- SILT FENCE
- ROCK CONSTRUCTION ENTRANCE
- CHAIN LINK FENCE

### SITE PLAN NOTES

1. CLEAR AND GRUB BRUSH AS REQUIRED.
2. COORDINATE ANY TREE REMOVAL WITH ENGINEER/OWNER PRIOR TO REMOVAL.
3. PROTECT ALL EXISTING SIGNS OR SALVAGE AND REINSTALL (INCIDENTAL)



PROJECT TITLE

ISSUE NO.:

1
2
3

DATE:

1/2/2020
8/17/2020
11/11/2020

CERTIFICATION:

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

LICENSE NO.:

PROJECT NO.:

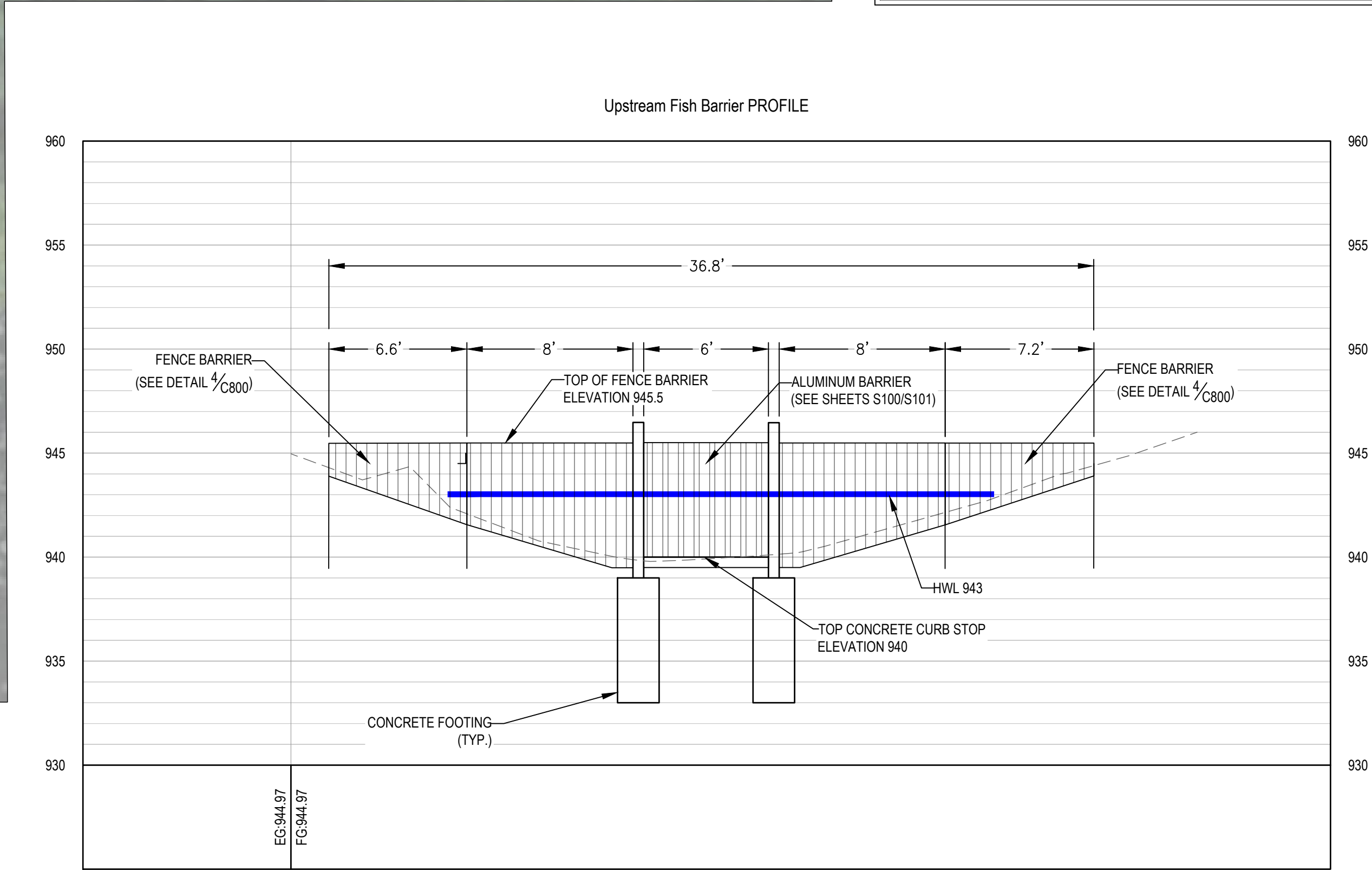
ISSUE DATE:

ISSUE NO.:

SHEET TITLE:

SHEET NO.:

C-101



**WARNING:**  
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND/OR RELOCATION OF LINES.

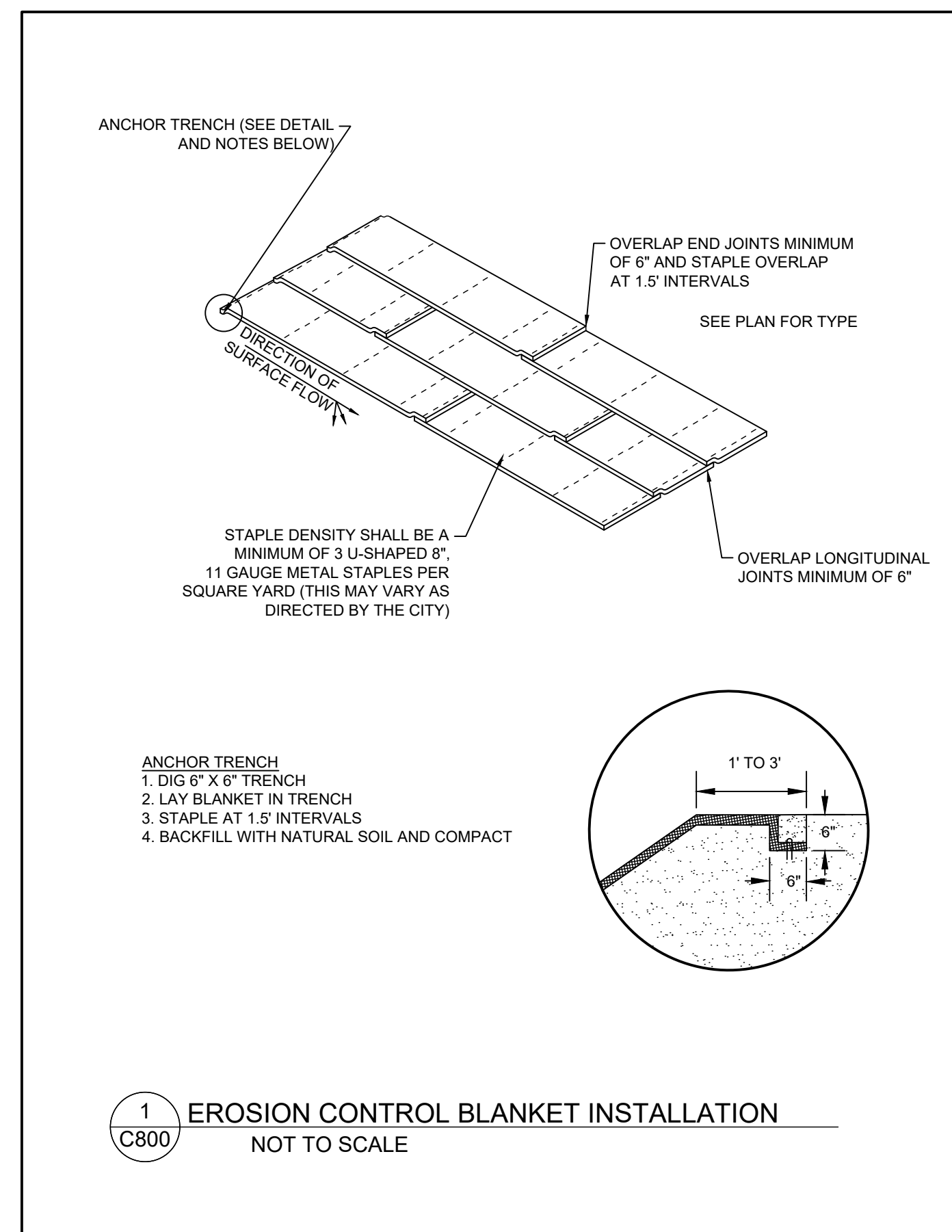
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**GOPHER STATE ONE CALL**  
 TWIN CITY AREA: 651-454-0002  
 TOLL FREE: 1-800-252-1166

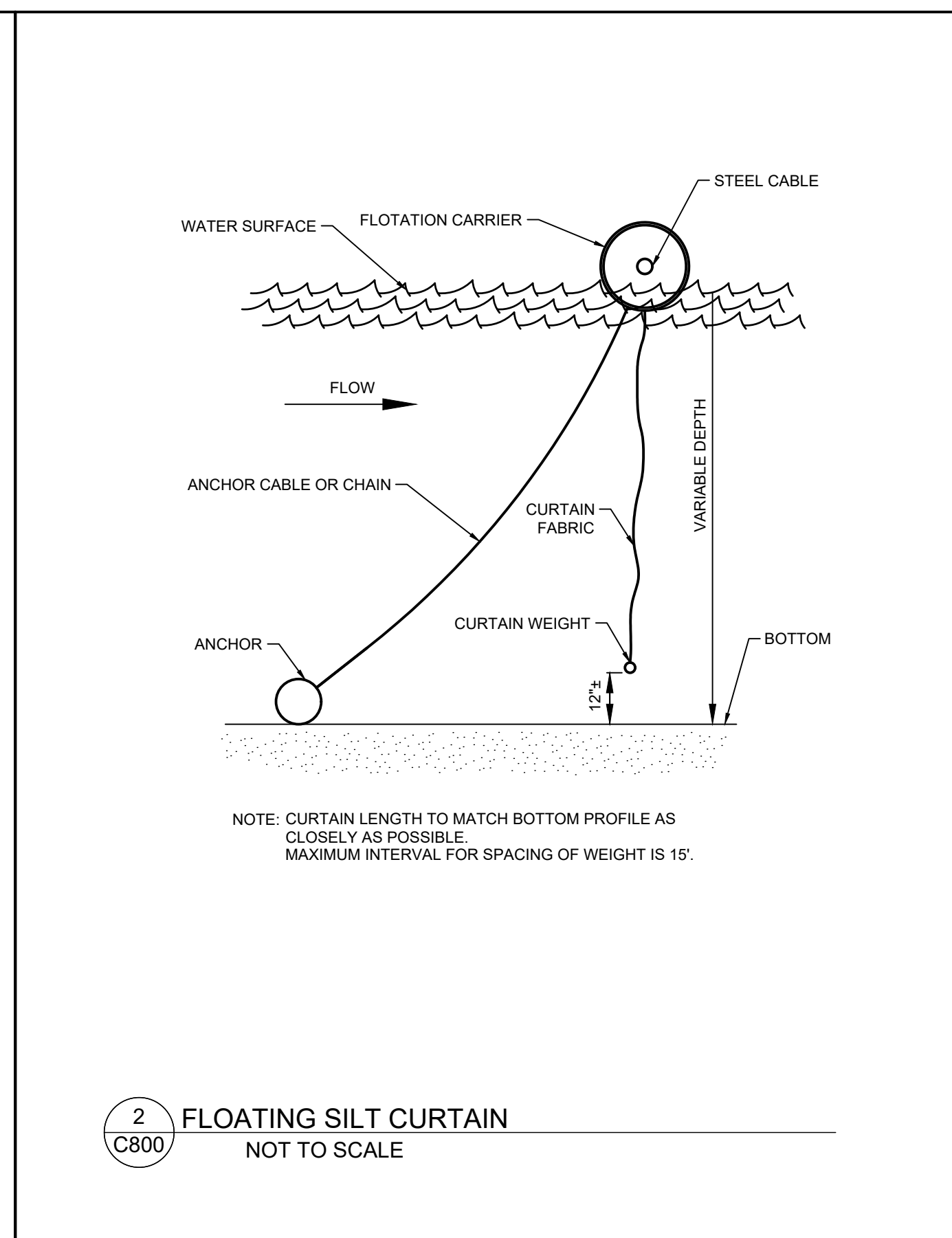
M:\01850\2315\DESIGN\1\_CADD\PLANS\1850-01 SITE PLAN.dwg

12/8/2020 2:51:06 PM

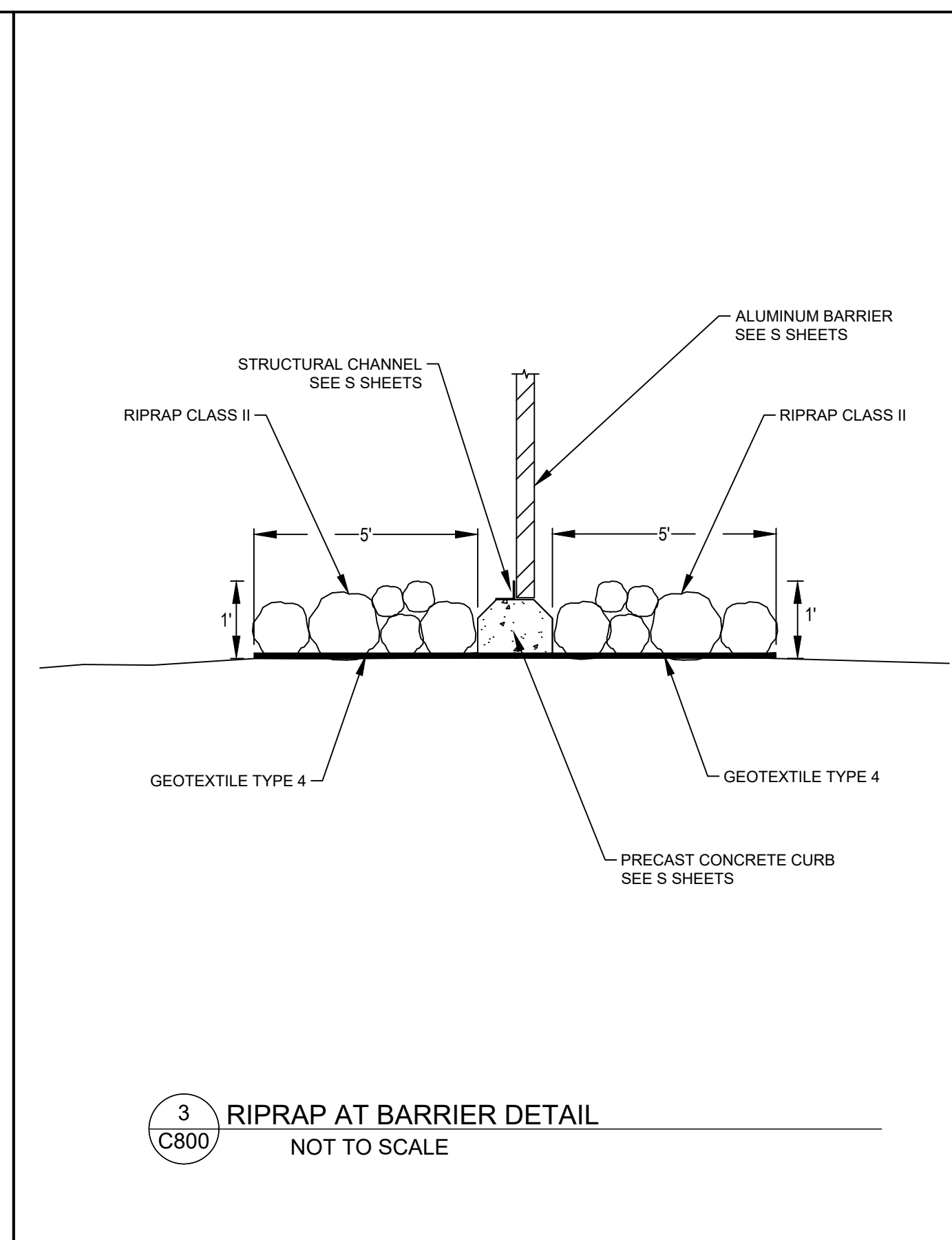
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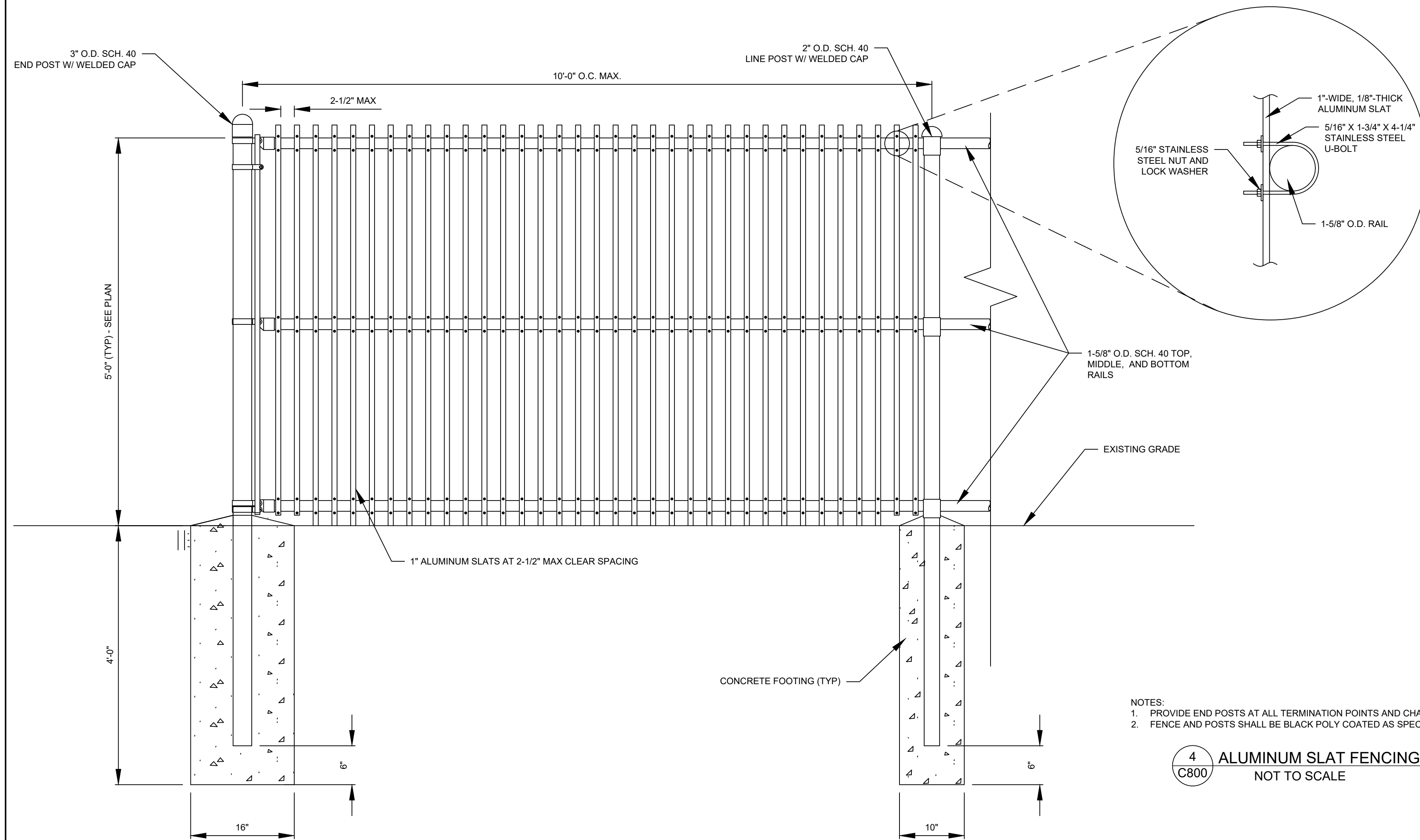
1 EROSION CONTROL BLANKET INSTALLATION  
NOT TO SCALE



2 FLOATING SILT CURTAIN  
NOT TO SCALE

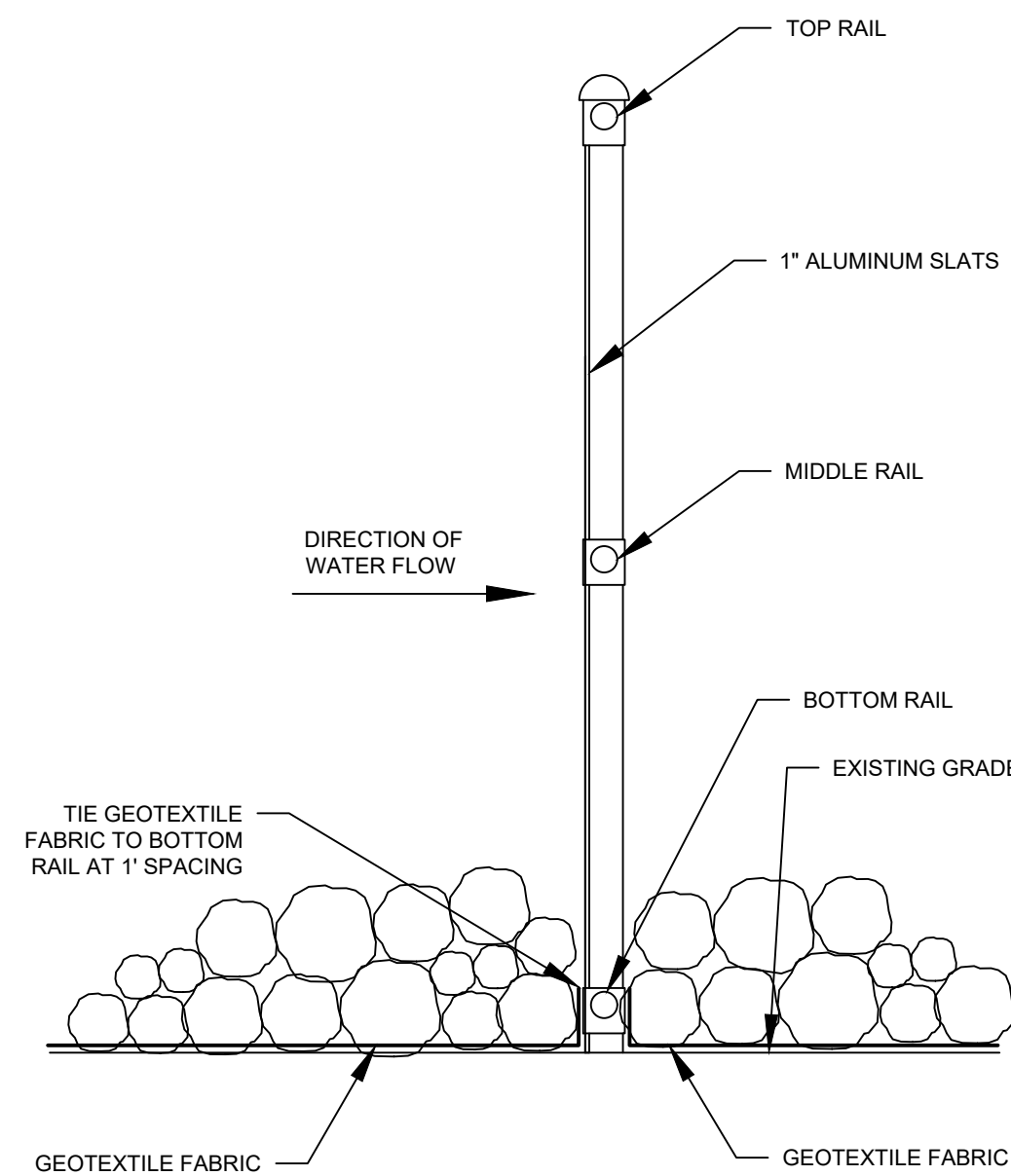


3 RIPRAP AT BARRIER DETAIL  
NOT TO SCALE



NOTES:  
1. PROVIDE END POSTS AT ALL TERMINATION POINTS AND CHANGES IN DIRECTION.  
2. FENCE AND POSTS SHALL BE BLACK POLY COATED AS SPECIFIED.

4 ALUMINUM SLAT FENCING  
NOT TO SCALE



SECTION VIEW



PROJECT TITLE:

ISSUE NO.:

DESCRIPTION:

DATE:

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

LICENSE NO.: 43066  
 DATE: 11/12/2020

PROJECT NO.: 0185-0123

DWN BY: MJK  
 CHKD BY: ERM  
 APPD BY: CJM

ISSUE DATE: 11/11/2020

ISSUE NO.: 3

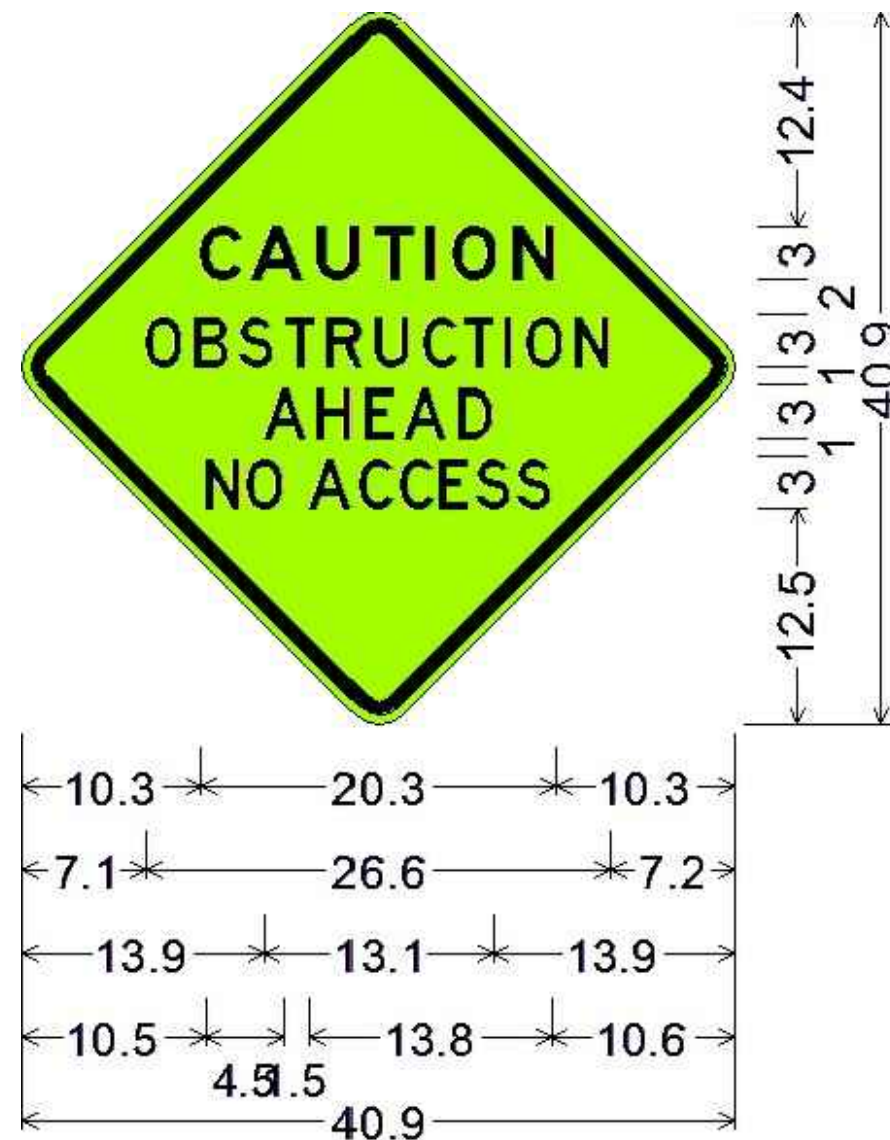
SHEET TITLE:

DETAILS

SHEET NO.:

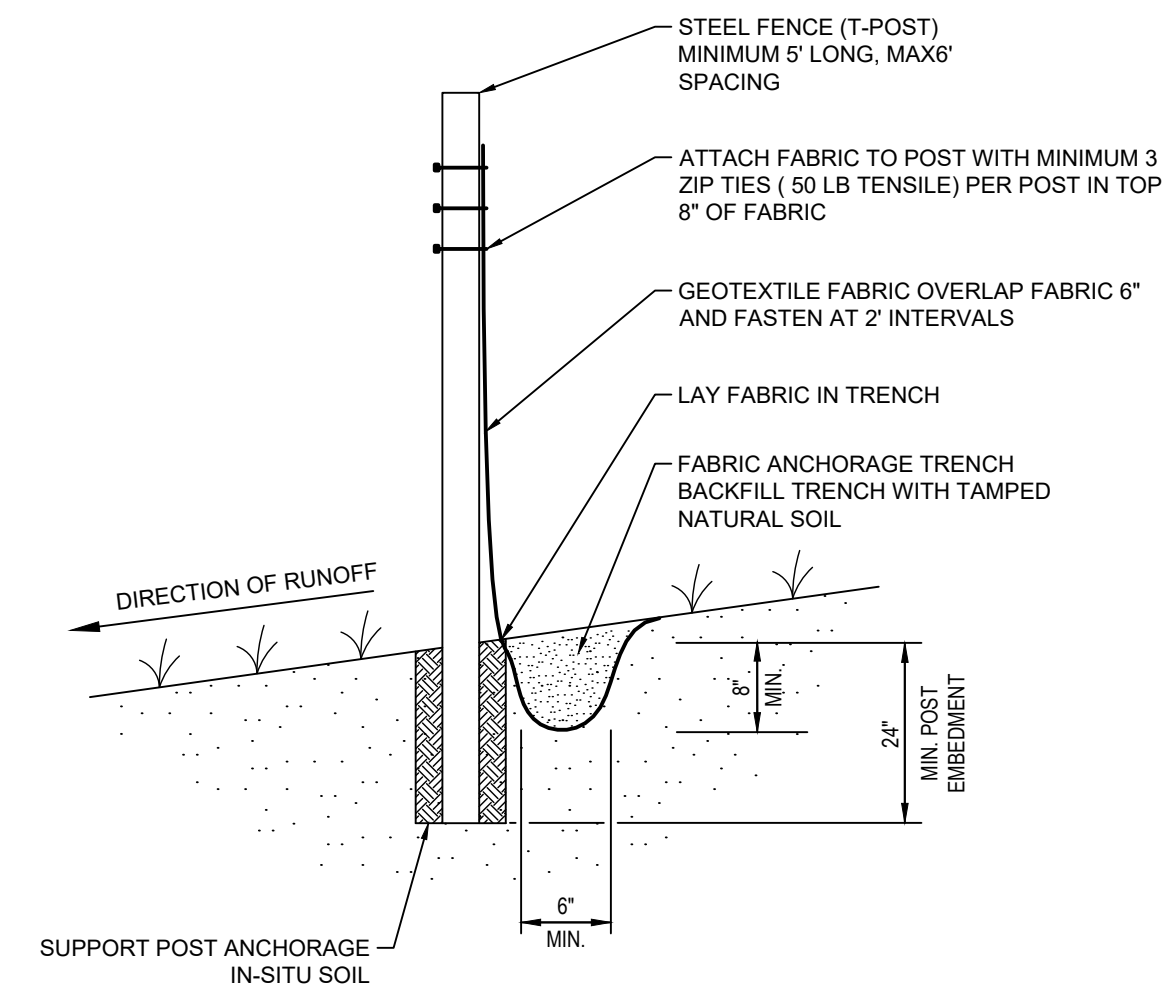
**C-800**



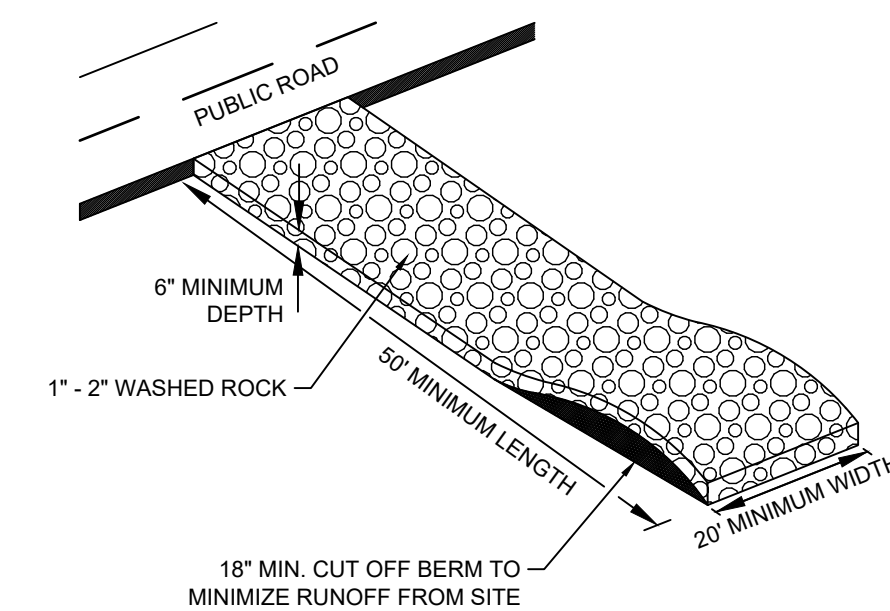


30.0" across sides 1.9" Radius, 0.8" Border, 0.5" Indent, Black on Bright yellow green;  
 "CAUTION" E Mod;  
 "OBSTRUCTION" D;  
 "AHEAD" D;  
 "NO ACCESS" D 50% spacing;

1 WARNING SIGN DETAIL (NOT USED)  
 C801 NOT TO SCALE



2 SILT FENCE MACHINE SLICED  
 C801 NOT TO SCALE



NOTE:  
 1. FILTER FABRIC SHALL BE PLACED UNDER ROCK TO STOP MUD MIGRATION THROUGH ROCK.  
 2. ENTRANCE MUST BE MAINTAINED TO PREVENT SEDIMENTATION ON PUBLIC ROADWAYS. FUGITIVE ROCKS WILL BE REMOVED FROM ADJACENT ROADWAYS DAILY OR MORE FREQUENTLY AS NECESSARY.

3 CONSTRUCTION ENTRANCE  
 C801 NOT TO SCALE



PROJECT TITLE:

ISSUE NO.:

1

2

3

DESCRIPTION:

CONSTRUCTION PLANS

CONSTRUCTION PLANS 1/2

CONCEPT UPSTREAM

DATE:

1/2/2020

6/17/2020

11/11/2020

CERTIFICATION:

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LICENSE NO.:

43066

11/12/2020

PROJECT NO.:

0185-0123

DWN BY:

MJK

CHKD BY:

ERM

APP'D BY:

CJM

ISSUE DATE:

11/11/2020

ISSUE NO.:

3

SHEET TITLE:

DETAILS

SHEET NO.:

C-801

NO FOR CONSTRUCTION

12/8/2020 2:51:20 PM

**APPROXIMATE WEIGHTS - 6' LONG w/ TUBES**

- 2-6' LONG CHORDS = 12' x 3.5 LBS/FT = 42 LBS
- 18-5.5' LONG SPINDALS = 99' x 0.63 LBS/FT = 62.5 LBS
- TOTAL WEIGHT = 105 LBS

**CONCRETE:**

- $f'_c = 4,000$  PSI
- AIR CONTENT = 5% - 7%

**REINFORCEMENT:**

- ASTM A615 GRADE 60
- $f_y = 60,000$  PSI
- CLEAR COVER = 3"

**ALUMINUM SECTIONS:**

- 6061-T6

**STEEL SECTIONS:**

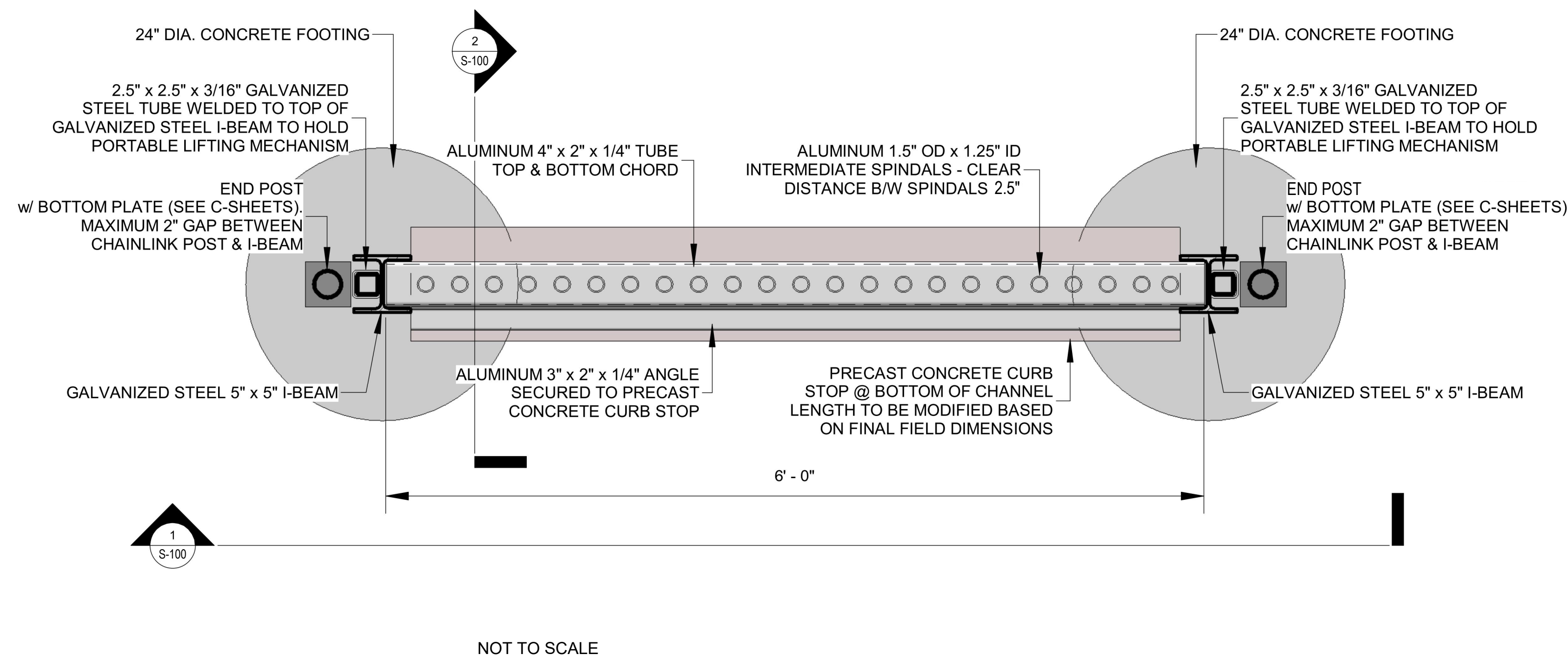
- HOT DIPPED GALVANIZED
- YIELD STRENGTH 50 KSI

**LIFTING MECHANISM:**

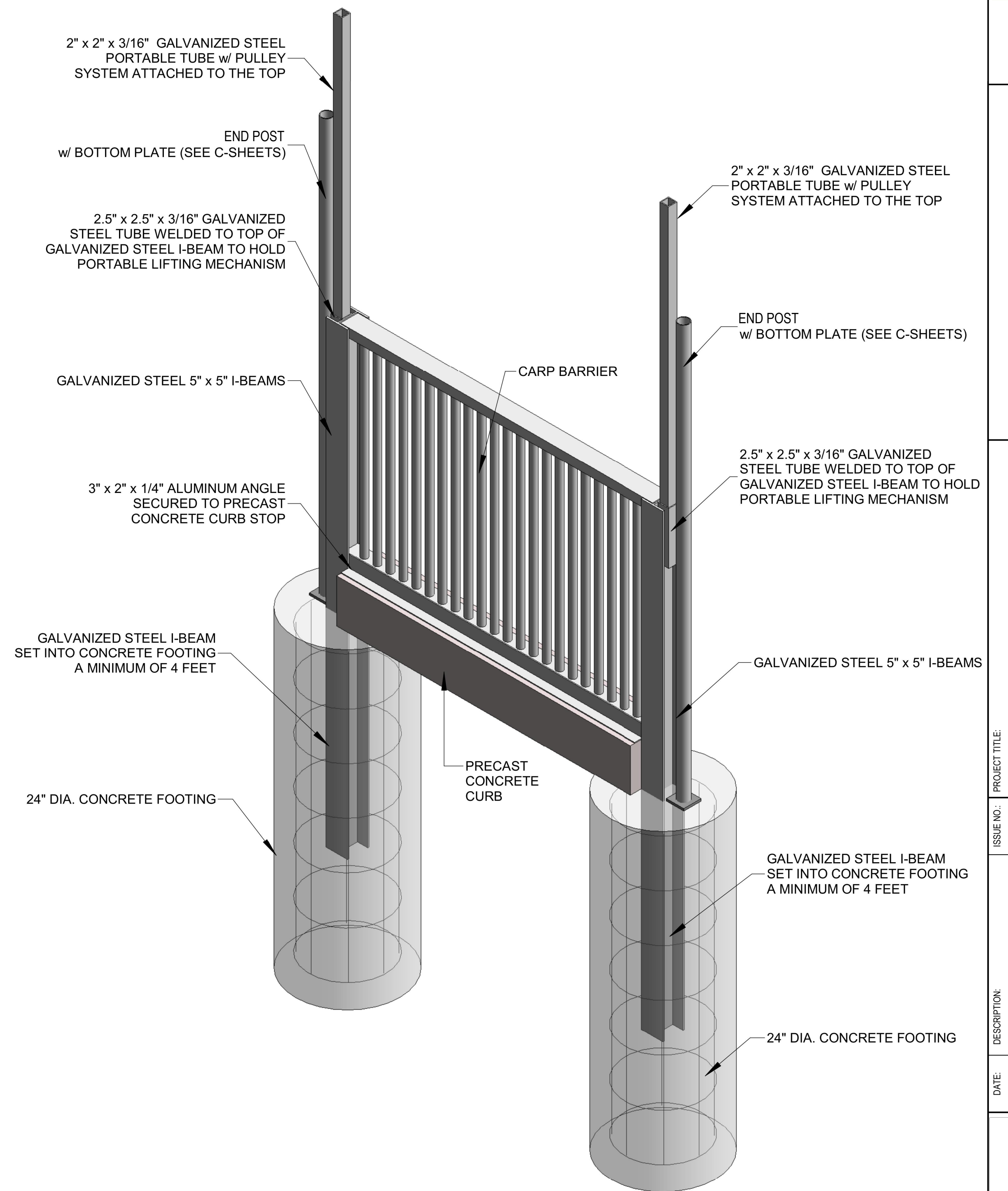
- MECHANISM IS TO CONSIST OF A PULLEY SYSTEM
- MECHANISM IS TO HAVE A 210 LBS LIFTING WEIGHT CAPACITY
- MECHANISM IS TO BE ABLE TO LOCK IN PLACE AT VARIOUS LIFTING HEIGHTS

**BARRIER & LIFTING MECHANISM SECURITY:**

- BARRIERS ARE TO HAVE THE CAPABILITY TO BE SECURELY LOCKED IN-PLACE TO PREVENT STEALING AND VANDALISM IN BOTH DOWN AND UP POSITIONS.
- LIFTING MECHANISM IS TO HAVE THE CAPABILITY TO BE SECURELY LOCKED IN-PLACE TO PREVENT STEALING AND VANDALISM.



**1 PLAN VIEW - LAKE AUBURN CARP BARRIER**  
NOT TO SCALE



NOT TO SCALE

**2 ISOMETRIC VIEW - LAKE AUBURN CARP BARRIER**  
NOT TO SCALE



PROJECT TITLE:

ISSUE NO.:

1

2

3

DESCRIPTION:

CONSTRUCTION PLANS

CONSTRUCTION PLANS V2

CONCEPT UPSTREAM

DATE:

1/2/2020

6/17/2020

11/11/2020

PROJECT NO.: 0185-0123

DWN BY: MJK

CHKD BY: ERM

APPD BY: CJM

ISSUE DATE: 11/11/2020

ISSUE NO.: 3

SHEET TITLE:

BARRIER PLAN AND ISO VIEW

SHEET NO.:

S-100

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**LAKE AUBURN**  
**CARP BARRIER**  
 VICTORIA, MN

PROJECT TITLE:

ISSUE NO.:

DESCRIPTION:

DATE:

PROJECT NO.: 0185-0123

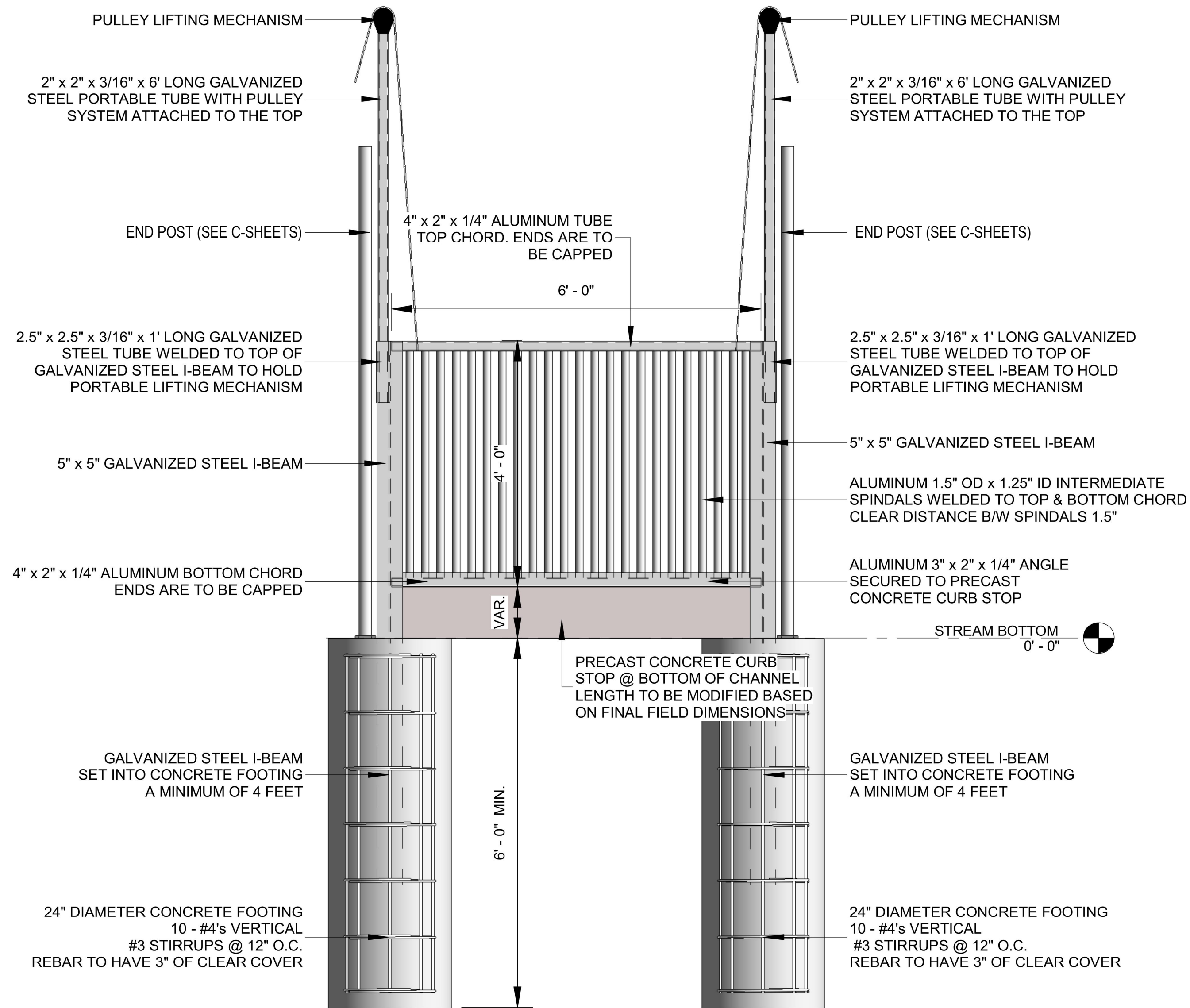
DWN BY: MJK    CHKD BY: ERM    APP'D BY: CJM

ISSUE DATE: 11/11/2020

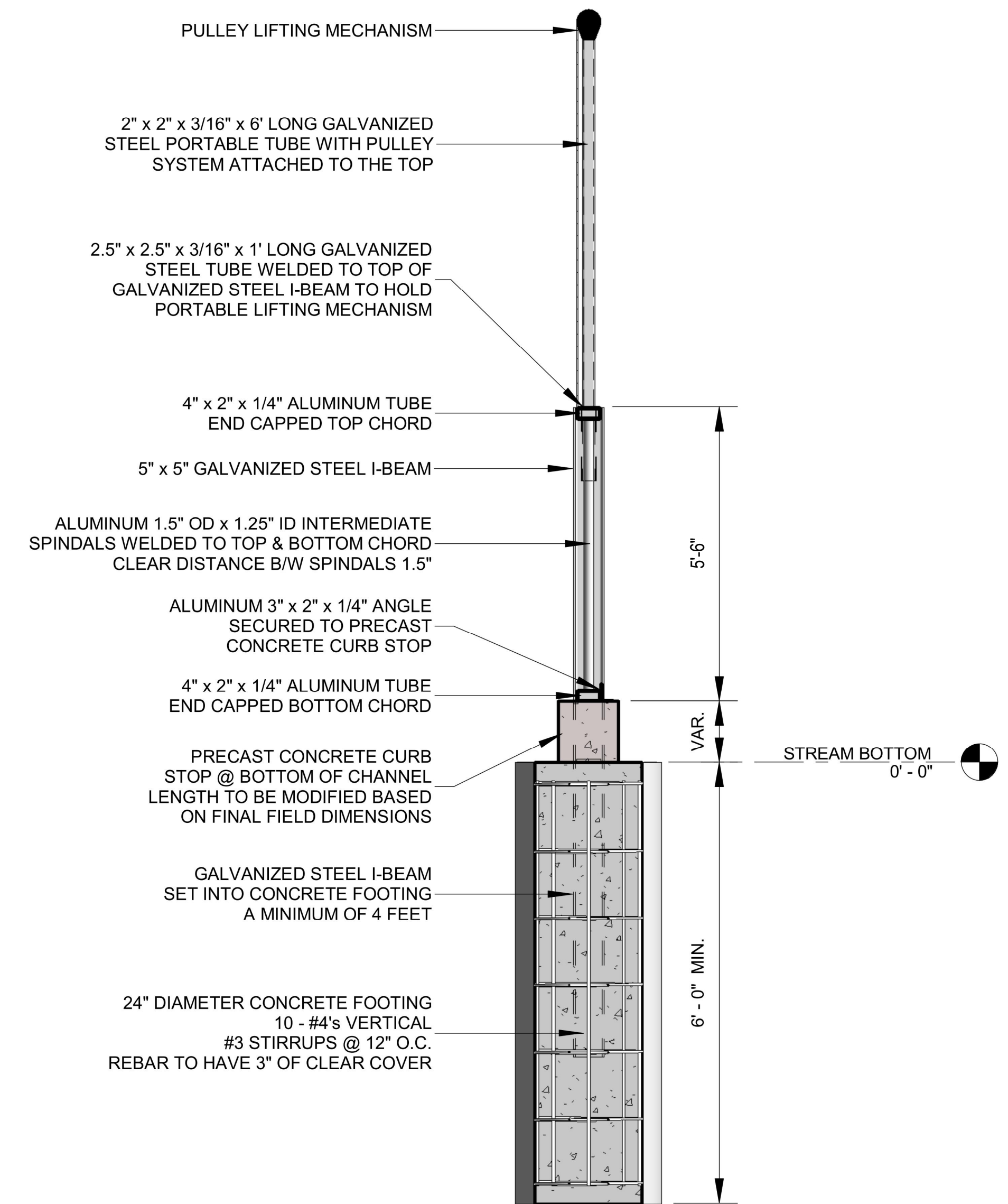
ISSUE NO.: 3

SHEET TITLE:  
**BARRIER DETAILS**

SHEET NO.:  
**S-101**



**1** ELEVATION - LAKE AUBURN CARP BARRIER  
 S-101 NOT TO SCALE



**2** SECTION - LAKE AUBURN CARP BARRIER  
 S-101 NOT TO SCALE

**COOPERATIVE AGREEMENT**  
**Three Rivers Park District and Minnehaha Creek Watershed District**

**Lake Auburn Carp Barrier, Carver County**

**THIS COOPERATIVE AGREEMENT** ("Agreement") is between the Three Rivers Park District (TRPD) and the Minnehaha Creek Watershed District (MCWD), political subdivisions of the State of Minnesota.

**WHEREAS** the TRPD owns and manages lands for conservation and recreation purposes, including the lands constituting the Carver Park Reserve, which contains West Auburn Lake (the "Lake") and the channel that outlets from it;

**WHEREAS** the MCWD, with funding support from the State of Minnesota Lessard-Sams Outdoor Heritage Council, has undertaken a multi-year program to improve water quality and habitat within the Six Mile Creek subwatershed by means that include systematic management of rough fish populations, and as a part of this program wishes to install, maintain and operate a physical barrier within the Lake outlet channel to manage the movement and activity of rough fish populations; and

**WHEREAS** the TRPD shares the MCWD's water resource and habitat goals and recognizes the benefit of this program to its mission, and the TRPD and MCWD wish to cooperate in installing, maintaining and operating the barrier.

**THEREFORE** the TRPD and MCWD enter into this Agreement for mutual consideration, intending to be legally bound.

1. The MCWD, its employees and contractors may enter TRPD lands:

- a. To install, inspect, clean, maintain, operate and remove a barrier and related appurtenances within and adjacent to the Lake outlet channel, within the area shown on Exhibit A, attached hereto and incorporated herein; and
- b. To undertake fish removals and other rough fish management activities at the barrier location.

To perform these activities, the MCWD may enter on foot, by motor vehicle and with motorized equipment; stage activities and stockpile materials; install and maintain erosion and sediment control measures; and engage in other activities necessary or convenient for those purposes. The MCWD may place and maintain rock materials in accordance with Exhibit A to provide a stable route of access to the barrier location.

2. Before entering for inspection, repair or other work, the MCWD will notify the TRPD by electronic mail to the following, or to such other person or address as the TRPD communicates to the MCWD:

Pete Hill/Park Supervisor/Pete.Hill@threeriversparks.org  
Angie Smith/Director of Natural Resources/ Angie.Smith@threeriversparks.org  
Brian Vlach/Senior Water Resources Manager/Brian.Vlach@threeriversparks.org

3. On request, the TRPD will give the MCWD any information in its possession regarding subsurface structures or utilities in the installation area. Before any installation, the MCWD will transmit the system design to the TRPD and obtain TRPD staff concurrence, not to be unreasonably withheld. The TRPD may impose conditions on installation activity in the interest of public use, safety or conservation, but will work with the MCWD so that any cost or inconvenience to the MCWD is no more than necessary and does not make the installation impractical. The TRPD must concur in any tree removal or disturbance of any existing structure.

4. The MCWD will obtain all permits and approvals required to install, maintain, operate and remove the barrier, will obtain and install all required signage, and will bear the cost of design, permitting and installation. The TRPD will cooperate with the MCWD in securing permits and approvals in its status as landowner.

5. The parties will cooperate to develop a barrier operation and maintenance plan, under which the parties, each at its cost, will assume operation and maintenance responsibilities as the plan may provide. Until a mutually approved plan is in place, the MCWD may operate and maintain the barrier at its own cost and in cooperation with TRPD. The plan is adaptive and may be revised with the concurrence of the parties.

6. The MCWD will repair any damage to TRPD land from its activity under this Agreement. The MCWD will indemnify the TRPD, its officials and its employees, and hold the TRPD, its officials and its employees harmless, from any and all actions, costs, damages and liabilities of any nature to the degree they are the result of any negligent or willful act or omission of the MCWD, its officials or its employees pursuant to this Agreement. The TRPD will indemnify the MCWD, its officials and its employees, and hold the MCWD, its officials and its employees harmless, from any and all actions, costs, damages and liabilities of any nature to the degree they are the result of any negligent or willful act or omission of the TRPD, its officials or its employees pursuant to this Agreement.

7. Notwithstanding any other term of this Agreement, neither party waives any applicable immunity in tort. This Agreement creates no right in and waives no immunity, defense or liability limit with respect to any third party. Nothing hereunder constitutes the intent for one party to be responsible for the acts or omissions of the other pursuant to Minnesota Statutes §471.59, subdivision 1a.

8. In approving this Agreement, the governing body of each of the parties delegates to its chief executive officer the authority to receive all notices, take all actions and confer all approvals for which the Agreement explicitly provides.

9. This Agreement is effective when fully signed by the parties. The term of the Agreement is five years, after which it will renew automatically for successive five-year terms. Notwithstanding the foregoing, either party may terminate the Agreement by written notice to the other party at least 90 days prior to the end of a term, effective the end of the term. Upon termination of the Agreement, the MCWD shall have one year to remove the barrier, appurtenances and access surfaces; seed disturbed areas in accordance with Exhibit A; and return the site reasonably to its preexisting condition.

*Approved as to form and execution:*

\_\_\_\_\_  
MCWD Attorney

**THREE RIVERS PARK DISTRICT**

  
\_\_\_\_\_  
John Gunyou  
Chair, Board of Commissioners

Date:

  
\_\_\_\_\_  
Boe Carlson  
Superintendent

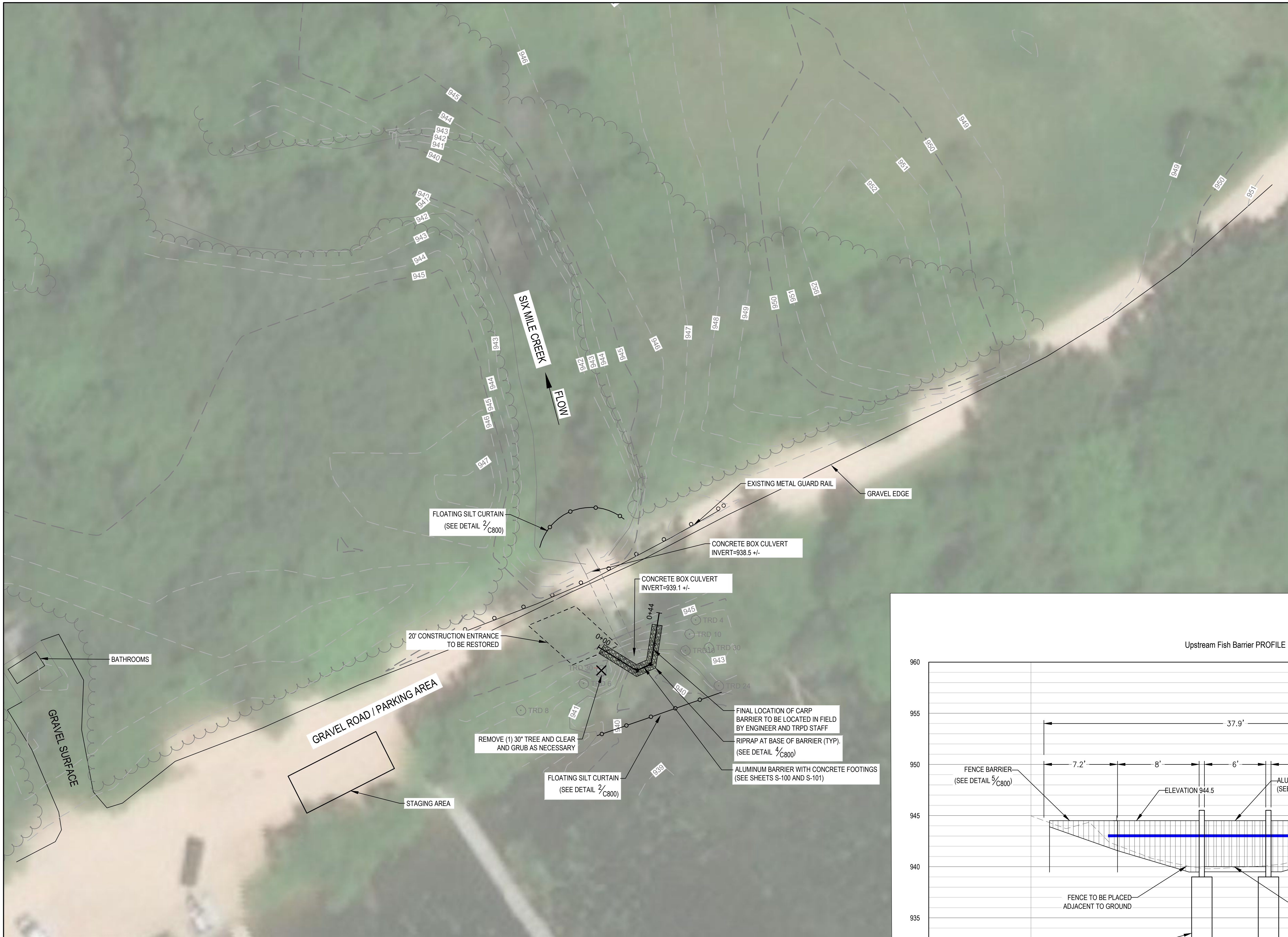
Date:

**MINNEHAHA CREEK WATERSHED DISTRICT**

\_\_\_\_\_  
Sherry White  
President, Board of Managers

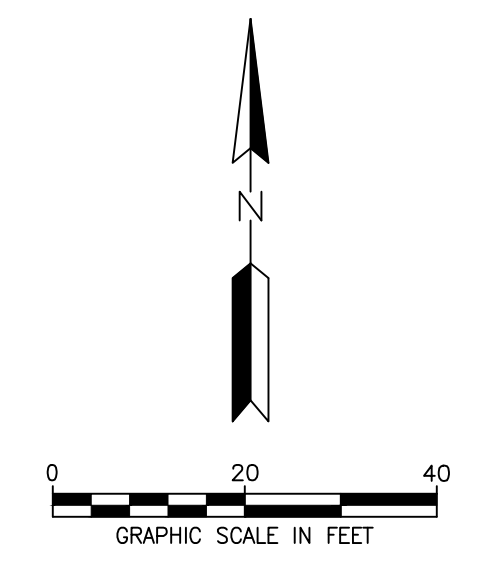
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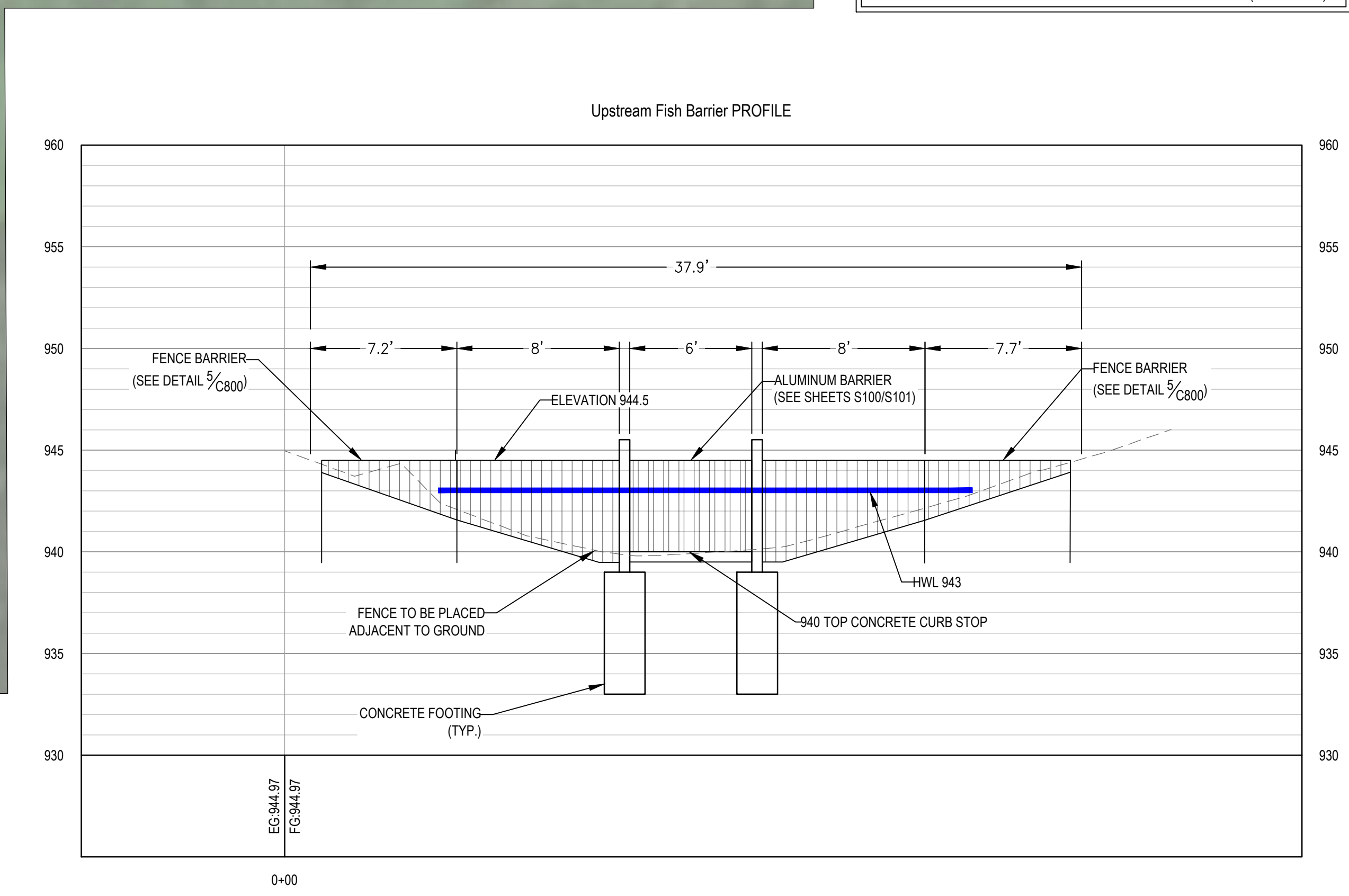
### LEGEND

- GUARD RAIL
- EXTENTS OF CHANNEL EXCAVATION
- MNDOT SEED MIX 36-211 W/ EROSION CONTROL BLANKET
- RIPRAP
- FLOTATION SILT CURTAIN
- SILT FENCE
- ROCK CONSTRUCTION ENTRANCE



### SITE PLAN NOTES

1. CLEAR AND GRUB BRUSH AS REQUIRED.
2. COORDINATE ANY TREE REMOVAL WITH ENGINEER/OWNER PRIOR TO REMOVAL.
3. PROTECT ALL EXISTING SIGNS OR SALVAGE AND REINSTALL (INCIDENTAL)



**WARNING:**  
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND/OR RELOCATION OF LINES.  
 THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL AT 651-454-0002 AT LEAST 48 HOURS IN ADVANCE FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

**GOPHER STATE ONE CALL**  
 TWIN CITY AREA: 651-454-0002  
 TOLL FREE 1-800-252-1166

PROJECT TITLE:	LAKE AUBURN CARP BARRIER		
ISSUE NO.:	1	2	3
DATE:	1/2/2020	8/17/2020	11/11/2020
DESCRIPTION:	CONSTRUCTION PLANS	CONSTRUCTION PLANS 02	CONCEPT UPSTREAM
CERTIFICATION:	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.		
LICENSE NO.:	43066		
DATE:	11/12/2020		
PROJECT NO.:	0185-0123		
DWN BY:	MJK	CHKD BY:	ERM
APP'D BY:	CJM		
ISSUE DATE:	11/11/2020		
ISSUE NO.:	3		
SHEET TITLE:	SITE PLAN		
SHEET NO.:	C-101		

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