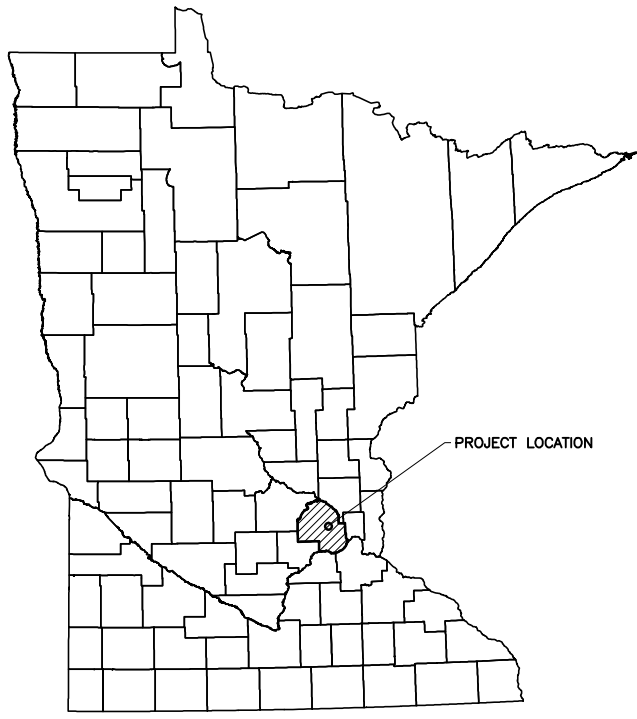
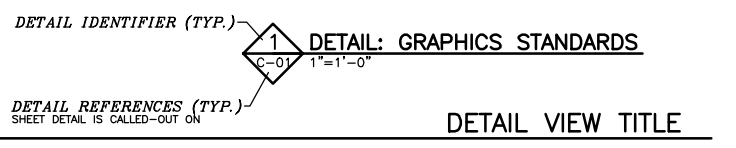
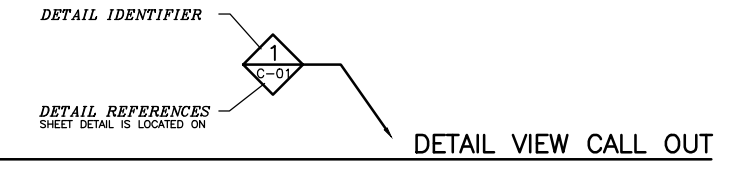
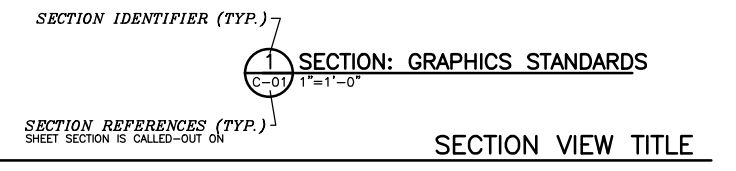
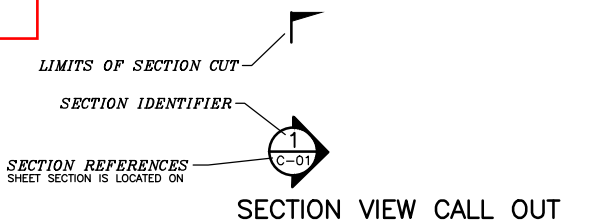


SURVEY DATUM
HENNEPIN COUNTY COORDINATE SYSTEM,
NAD 83, NGVD 29

Item 6B.
BCWMC 2-19-15

CITY OF GOLDEN VALLEY SCHAPER POND IMPROVEMENTS GOLDEN VALLEY, MN



LEGEND

- ◆ BOREHOLE LOCATION
- △ BENCHMARK
- LIGHT POLE
- POWER POLE
- GUY WIRE
- SANITARY MANHOLE
- ⊕ STORM MANHOLE
- ▽ WATER SURFACE
- EDGE OF WATER
- DELINEATED WETLAND BOUNDARY
- TREE
- SAN — SANITARY SEWER
- SS — STORM SEWER
- OE — OVERHEAD ELECTRIC
- GAS — UNDERGROUND GAS LINE
- UT — UNDERGROUND TELECOMMUNICATIONS
- TRAIL
- ROAD
- 890 --- EXISTING CONTOURS
- x — x — SILT FENCE
- ~ ~ ~ SEDIMENT LOG
- EASEMENT/LOT LINE
- CONSTRUCTION LIMITS
- STRUCTURE CENTERLINE
- EXISTING STRUCTURES
- LIMITS OF RIPRAP

ABBREVIATIONS

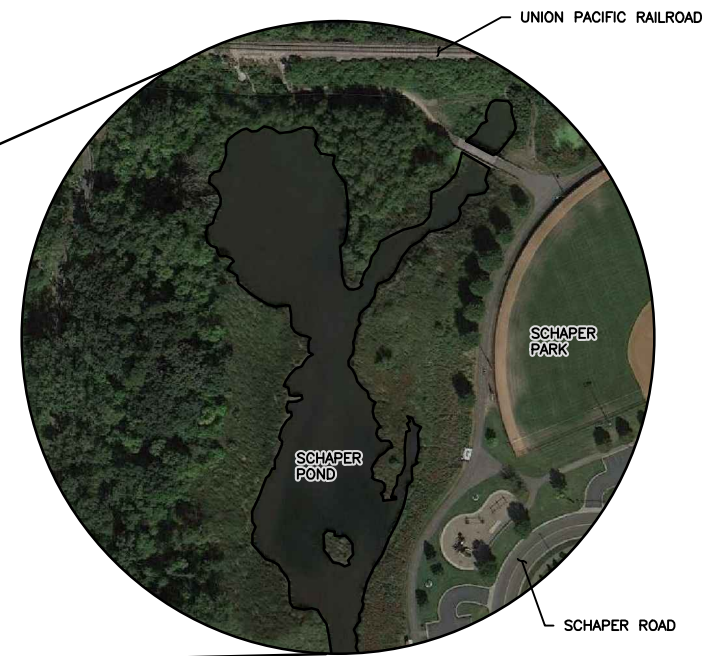
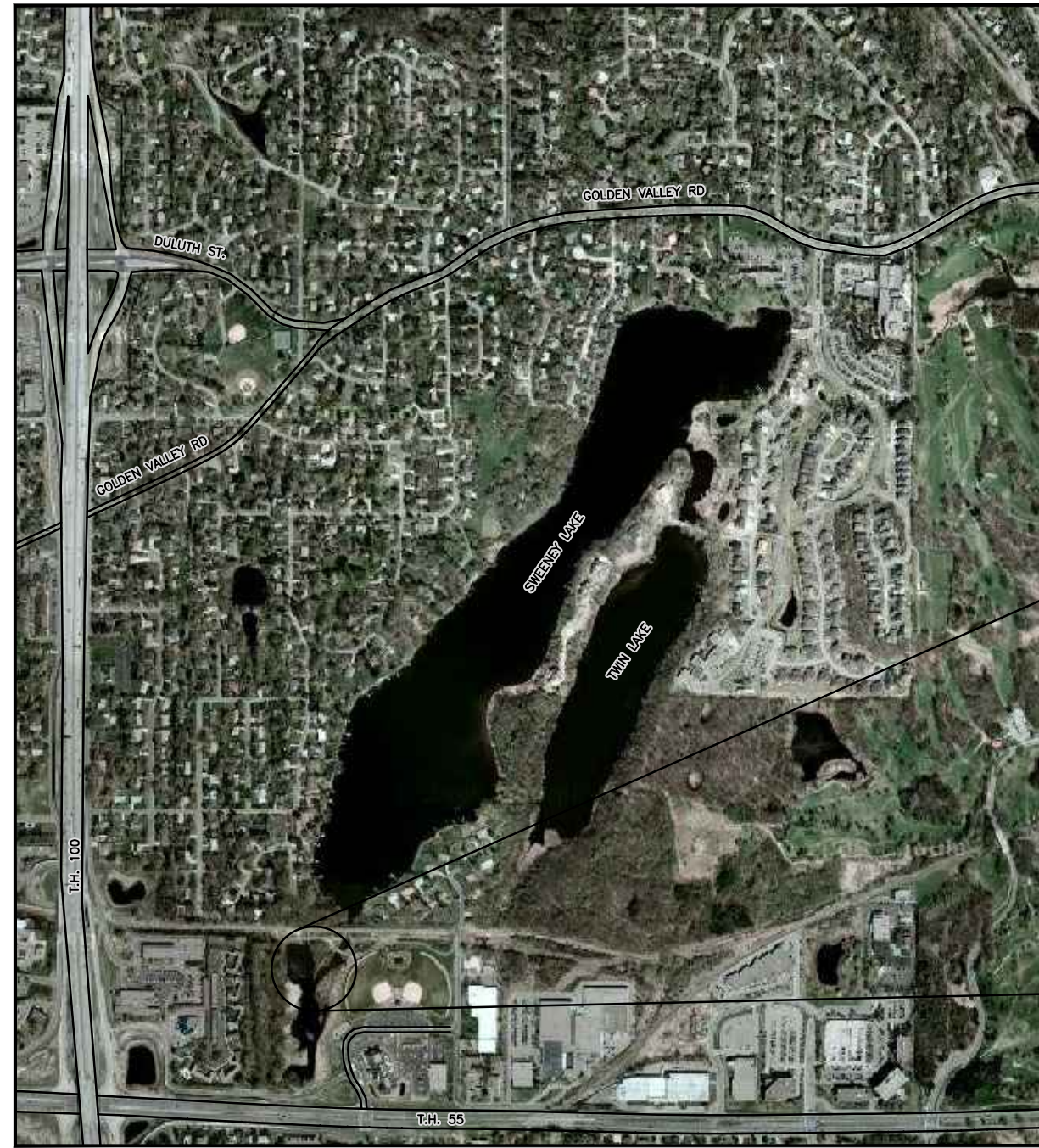
- APPROX. APPROXIMATE
- C.C.C CLEAR CONCRETE COVER
- CL CENTERLINE
- E.F. EACH FACE
- EL. ELEVATION
- E.W. EACH WAY
- EX. EXISTING
- FT. FEET
- MAX. MAXIMUM
- MIN. MINIMUM
- N.W. NORMAL POOL
- O.C. ON CENTER
- T.O.C. TOP OF CONCRETE
- T.O.S. TOP OF STEEL
- TYP. TYPICAL
- T&B TOP AND BOTTOM
- UNO UNLESS NOTED OTHERWISE

NOTES:

- THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED STANDARD FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

WARNING

LOCATION OF UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR GOPHER STATE ONE CALL CALL BEFORE DIGGING, 1-800-252-1166 REQUIRED BY LAW



SHEET INDEX

SHEET NO.	TITLE
C-01	TITLE SHEET, INDEX, AND SITE LOCATION MAP
C-02	EXISTING CONDITIONS, EROSION CONTROL, AND SITE PLAN
C-03	PROPOSED CONDITIONS PLAN
C-04	WATER BAFFLE PROFILE
C-05	WATER BAFFLE DETAILS
C-06	SECTIONS AND DETAILS
D-01	EROSION CONTROL AND RESTORATION DETAILS

90% DRAFT
NOT FOR CONSTRUCTION
2/6/2015

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
D	CMB2	KLC	MRH3	2/6/15	ISSUED FOR COMMISSION REVIEW
C	CMB2	KLC	MRH3	1/30/15	ISSUED FOR PERMITTING
B	MRH3	KLC	MRH3	12/5/14	ISSUED FOR COMMISSION REVIEW
A	MRH3	KLC	MRH3	12/3/14	ISSUED FOR CLIENT REVIEW

CLIENT	12/3/14	12/5/14	2/6/15			
BID						
CONSTRUCTION						
PERMITTING			1/30/15			
RECORD						
RELEASED TO/FOR	A	B	C	D	1	2
DATE RELEASED						

Project Office:
BARR ENGINEERING CO.
4700 WEST 77TH STREET
MINNEAPOLIS, MN.
55435-4803

Corporate Headquarters:
Minneapolis, Minnesota
Ph: 1-800-632-2277
Fax: (952) 832-2601
www.barr.com

Scale	AS SHOWN
Date	10/15/14
Drawn	MRH3
Checked	KLC
Designed	MRH3
Approved	MRH3



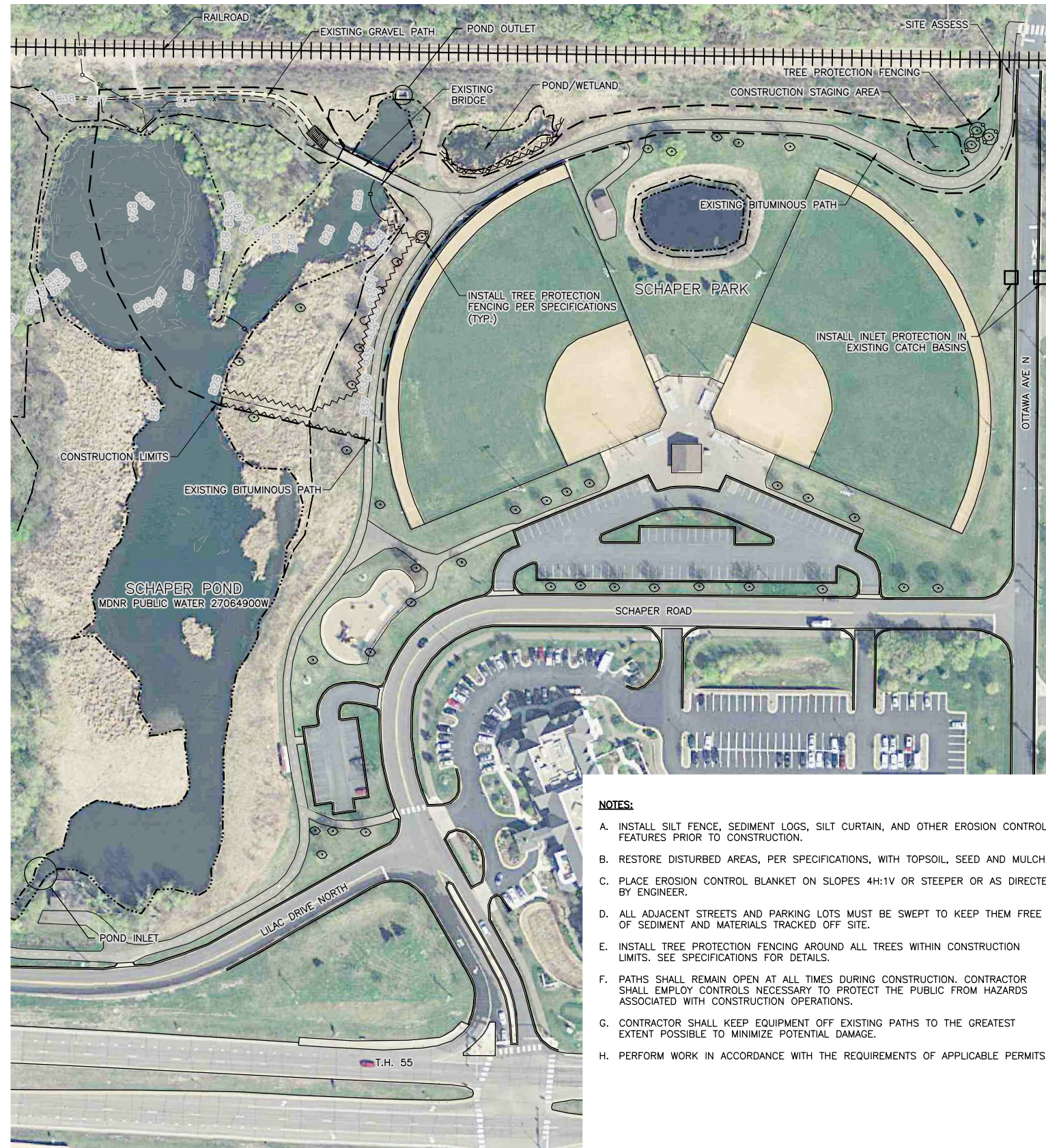
SCHAPER POND IMPROVEMENTS
GOLDEN VALLEY, MN

TITLE SHEET, INDEX, AND LOCATION MAP

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CLIENT PROJECT No.	13-28
DWG. No.	C-01
REV. No.	D

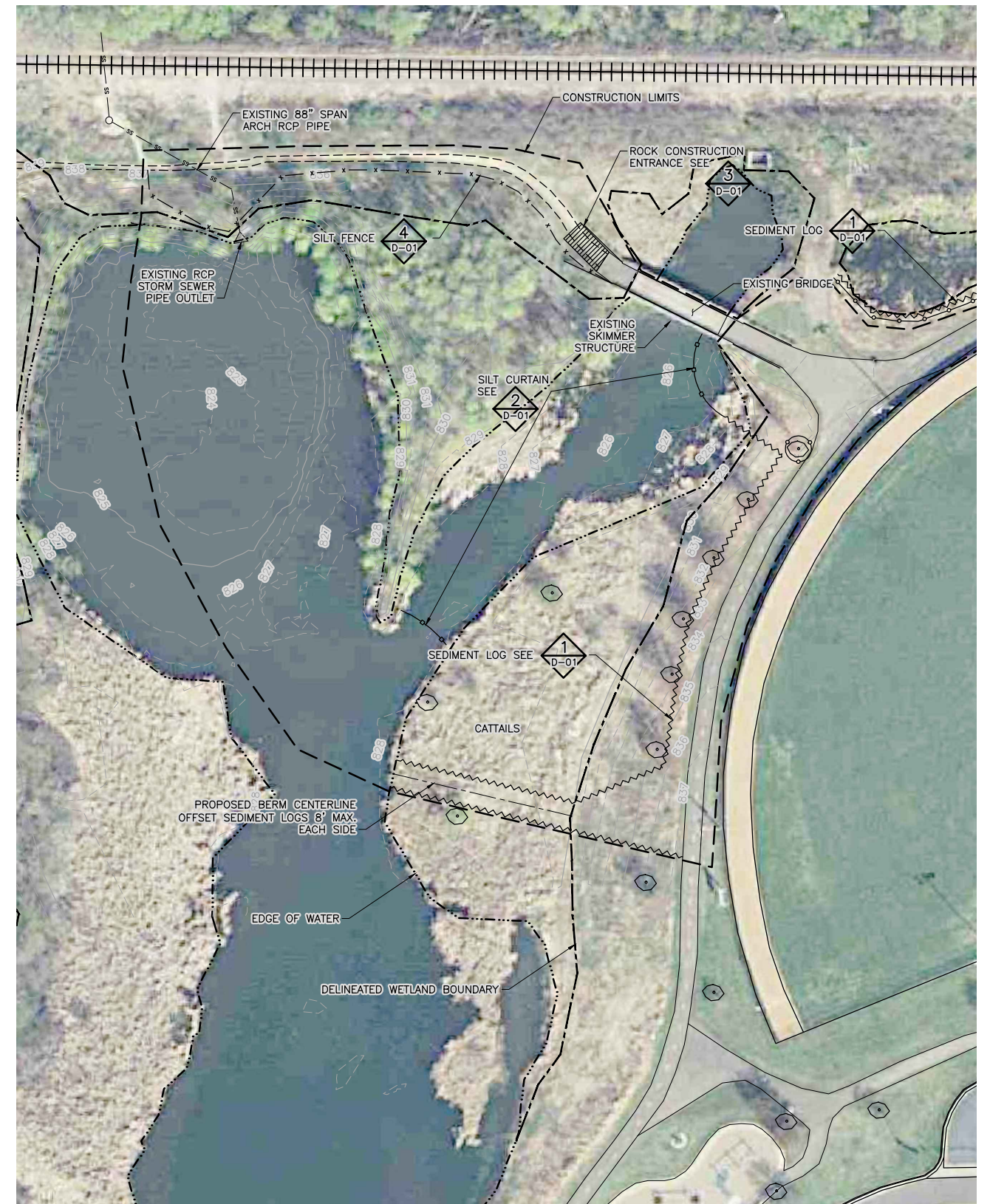
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- NOTES:**
- INSTALL SILT FENCE, SEDIMENT LOGS, SILT CURTAIN, AND OTHER EROSION CONTROL FEATURES PRIOR TO CONSTRUCTION.
 - RESTORE DISTURBED AREAS, PER SPECIFICATIONS, WITH TOPSOIL, SEED AND MULCH.
 - PLACE EROSION CONTROL BLANKET ON SLOPES 4H:1V OR STEEPER OR AS DIRECTED BY ENGINEER.
 - ALL ADJACENT STREETS AND PARKING LOTS MUST BE SWEEPED TO KEEP THEM FREE OF SEDIMENT AND MATERIALS TRACKED OFF SITE.
 - INSTALL TREE PROTECTION FENCING AROUND ALL TREES WITHIN CONSTRUCTION LIMITS. SEE SPECIFICATIONS FOR DETAILS.
 - PATHS SHALL REMAIN OPEN AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR SHALL EMPLOY CONTROLS NECESSARY TO PROTECT THE PUBLIC FROM HAZARDS ASSOCIATED WITH CONSTRUCTION OPERATIONS.
 - CONTRACTOR SHALL KEEP EQUIPMENT OFF EXISTING PATHS TO THE GREATEST EXTENT POSSIBLE TO MINIMIZE POTENTIAL DAMAGE.
 - PERFORM WORK IN ACCORDANCE WITH THE REQUIREMENTS OF APPLICABLE PERMITS.

1 PLAN: SITE OVERVIEW
 0 75 150
 SCALE IN FEET



2 PLAN: EROSION CONTROL PLAN
 0 40 80
 SCALE IN FEET

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A	MRH3	KLC	MRH3	12/3/14	ISSUED FOR CLIENT REVIEW

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.
 PRINTED NAME: MICHAEL R. HOEFS
 SIGNATURE: _____
 DATE: _____ REG. NO. 47971

CLIENT	12/3/14	12/5/14	2/6/15			
BID						
CONSTRUCTION						
PERMITTING		1/30/15				
RECORD						
RELEASED TO/FOR	A	B	C	D	1	2
DATE RELEASED						

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Scale	AS SHOWN
Date	10/21/14
Drawn	MRH3
Checked	KLC
Designed	MRH3
Approved	MRH3

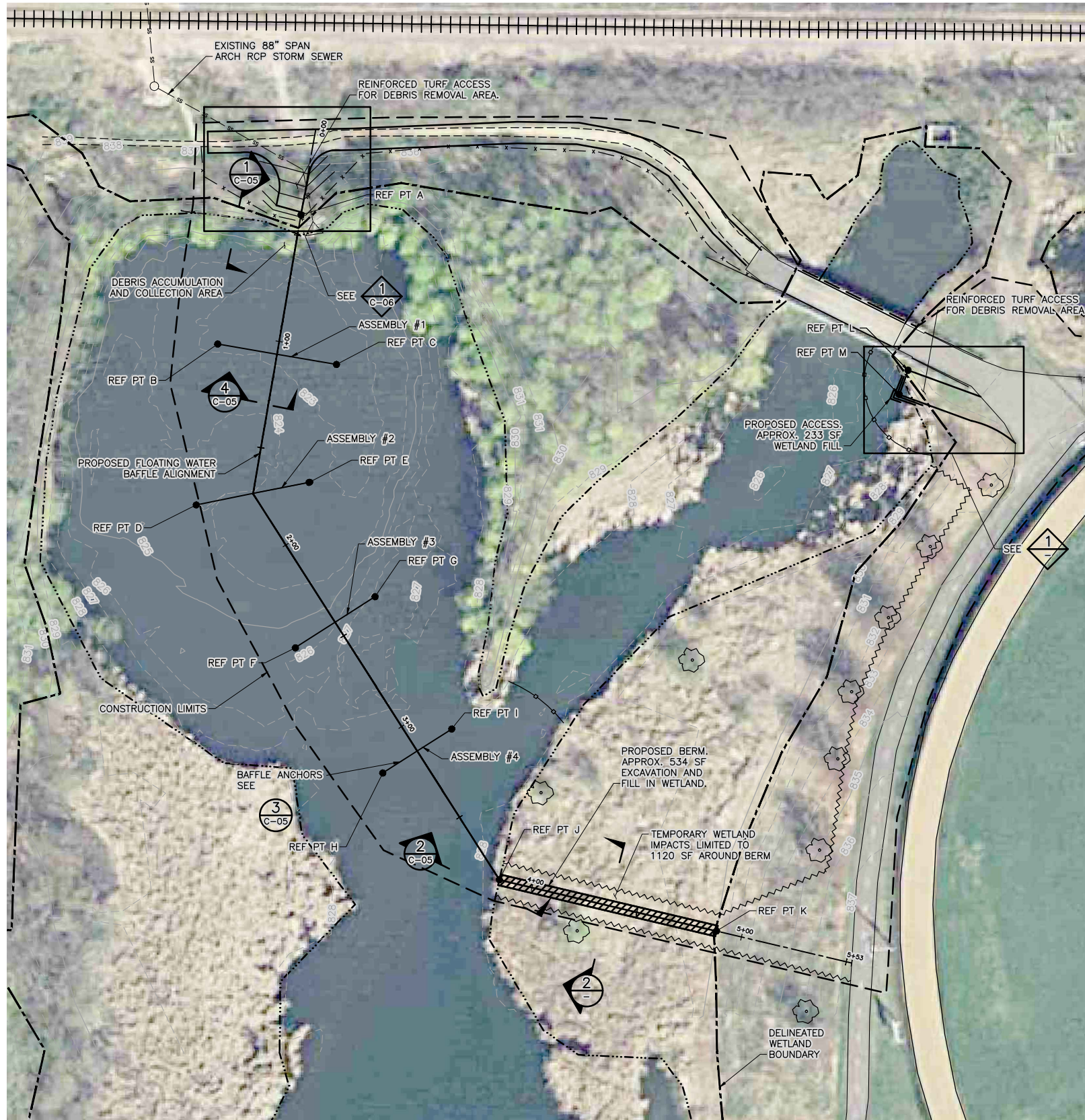


SCHAPER POND IMPROVEMENTS
 GOLDEN VALLEY, MN
EXISTING CONDITIONS, EROSION CONTROL AND SITE USE PLAN

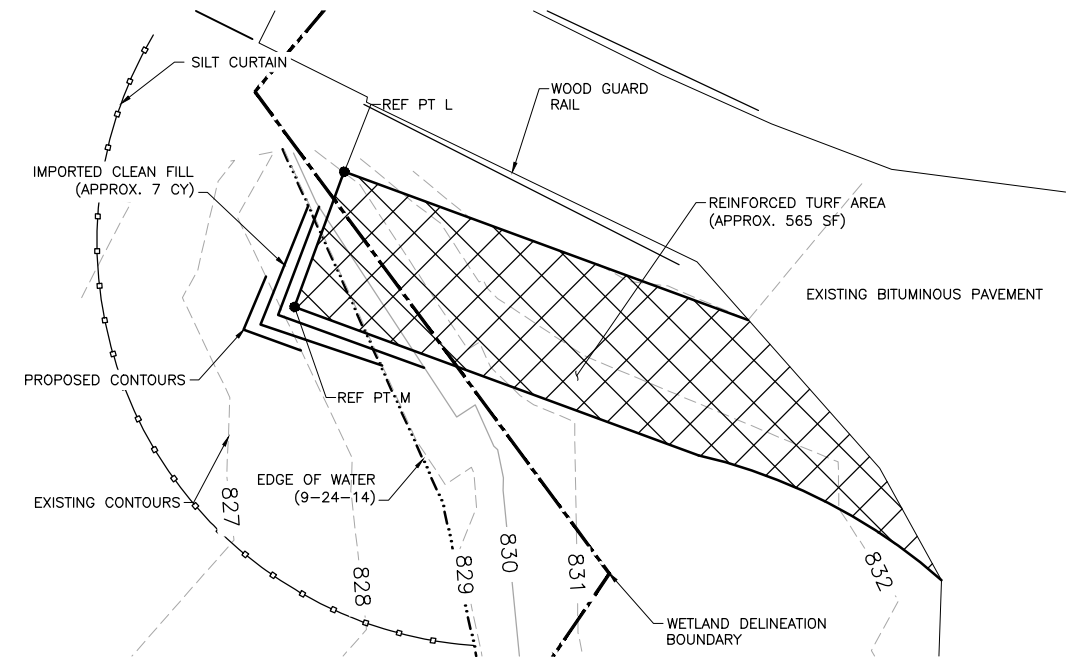
BARR PROJECT No.	23271399.00
CLIENT PROJECT No.	13-28
DWG. No.	C-02
REV. No.	D

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 2/6/2015

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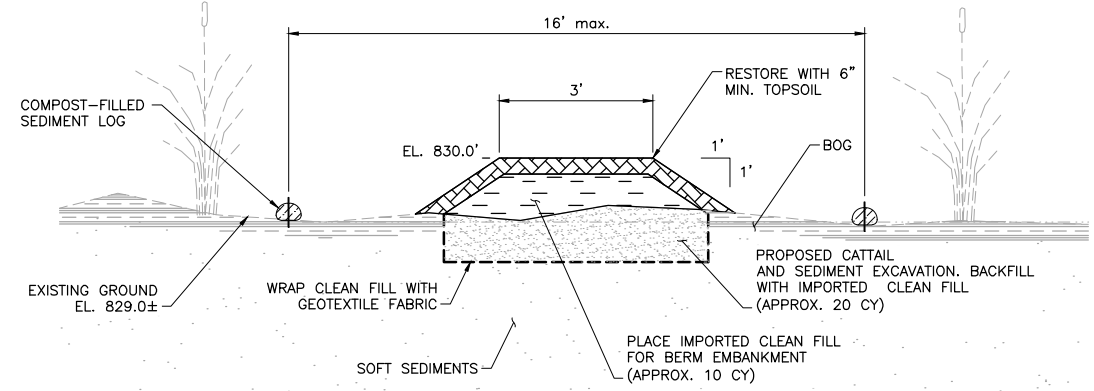


1 PLAN: PROPOSED IMPROVEMENTS
 0 30 60
 SCALE IN FEET



1 DETAIL: DEBRIS REMOVAL AREA AT BRIDGE
 0 4 8 12 16
 SCALE IN FEET

- NOTES:**
1. STRIP AND SALVAGE EXISTING TOPSOIL MATERIALS.
 2. REMOVE EXISTING CATTAILS AND SOFT SEDIMENT IN FILL AREA.
 3. PLACE GEOTEXTILE FABRIC ON SUBGRADE.
 4. PLACE AND COMPACT CLEAN FILL.
 5. INSTALL REINFORCED TURF MATERIALS.



2 SECTION: CATTAIL REMOVAL AND BERM DETAIL
 0 1 2 3 4
 SCALE IN FEET

- NOTES:**
1. CAREFULLY REMOVE CATTAIL AND UNDERLYING ORGANIC MATERIALS AS SHOWN. MATERIALS SHALL BE HAULED OFF SITE AND DISPOSED PER THE REQUIREMENTS OF APPLICABLE PERMITS. CONTRACTOR SHALL MINIMIZE AMOUNT OF DISTURBANCE TO ADJACENT AREAS WHILE CONDUCTING WORK.

REF PT	NORTHING	EASTING	POINT ELEVATION	DESCRIPTION
A	171552.43	510209.63	834.9	TOP OF NORTH ANCHOR POST
B	171492.43	510170.90	822.9	TOP OF ANCHOR
C	171482.93	510226.09	822.9	TOP OF ANCHOR
D	171417.66	510160.91	823.9	TOP OF ANCHOR
E	171428.28	510213.86	823.9	TOP OF ANCHOR
F	171351.39	510206.89	825.7	TOP OF ANCHOR
G	171375.04	510243.99	825.7	TOP OF ANCHOR
H	171293.13	510247.60	827.2	TOP OF ANCHOR
I	171313.57	510279.64	827.2	TOP OF ANCHOR
J	171243.54	510301.76	830.0	ANCHOR POST, WEST END OF BERM
K	171222.15	510403.23	830.0	EAST END OF BERM
L	171480.26	510491.66	833.0	CORNER OF DEBRIS REMOVAL AREA
M	171468.99	510487.53	833.0	CORNER OF DEBRIS REMOVAL AREA

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D	CMB2	KLC	MRH3	2/6/15	ISSUED FOR COMMISSION REVIEW
C	CMB2	KLC	MRH3	1/30/15	ISSUED FOR PERMITTING
B	MRH3	KLC	MRH3	12/5/14	ISSUED FOR COMMISSION REVIEW
A	MRH3	KLC	MRH3	12/3/14	ISSUED FOR CLIENT REVIEW

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 PRINTED NAME: MICHAEL R. HOEFS
 SIGNATURE: _____
 DATE: _____ REG. NO. 47971

CLIENT	12/3/14	12/5/14	2/6/15
BID			
CONSTRUCTION			
PERMITTING		1/30/15	
RECORD			
RELEASED TO/FOR	A	B	C
DATE RELEASED	1	2	3

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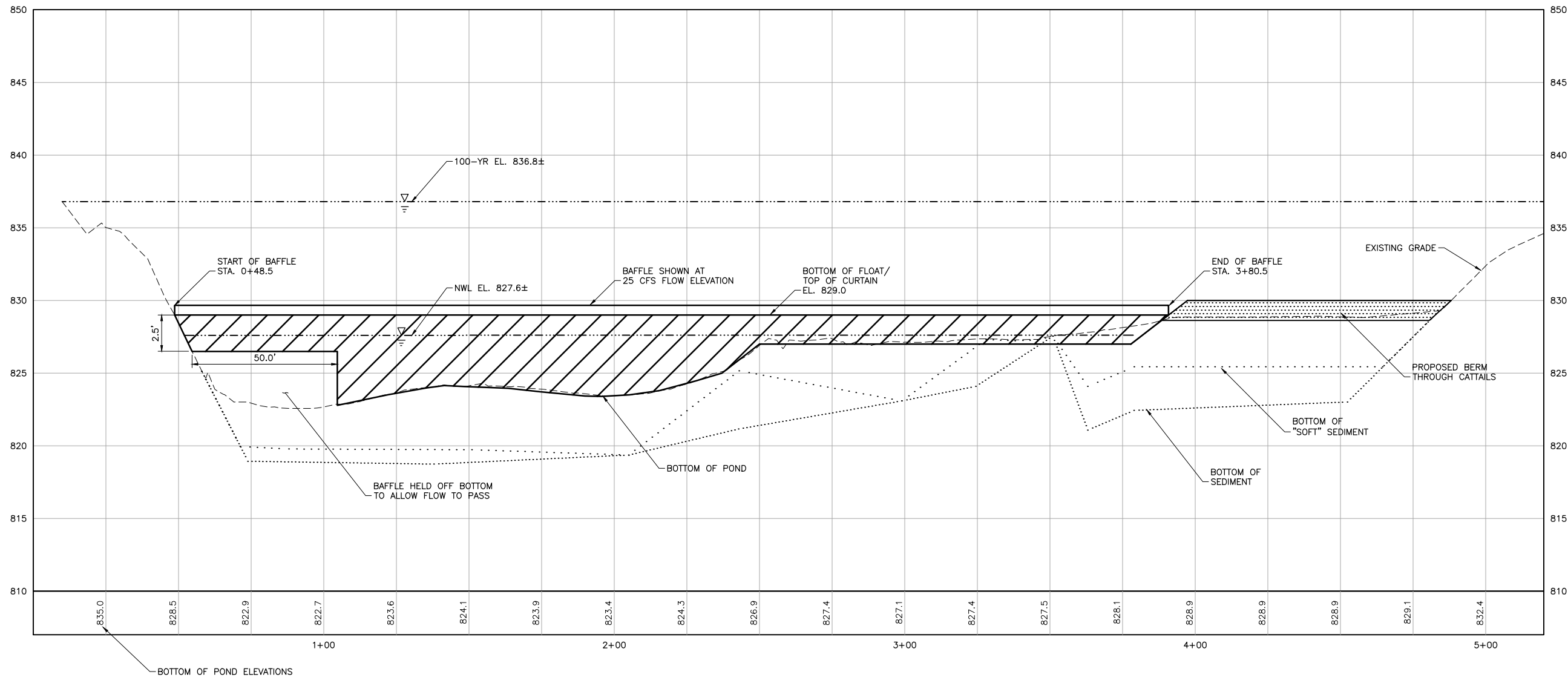
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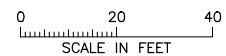
SCHAPER POND IMPROVEMENTS
 GOLDEN VALLEY, MN
 PROPOSED PLAN
 CONDITIONS

BARR PROJECT No.	23271399.00
CLIENT PROJECT No.	13-28
DWG. No.	C-03
REV. No.	D

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1 PROFILE: FLOATING WATER BAFFLE ALIGNMENT



5X VERTICAL EXAGGERATION

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 2/6/2015

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
D	CMB2	KLC	MRH3	2/6/15	ISSUED FOR COMMISSION REVIEW
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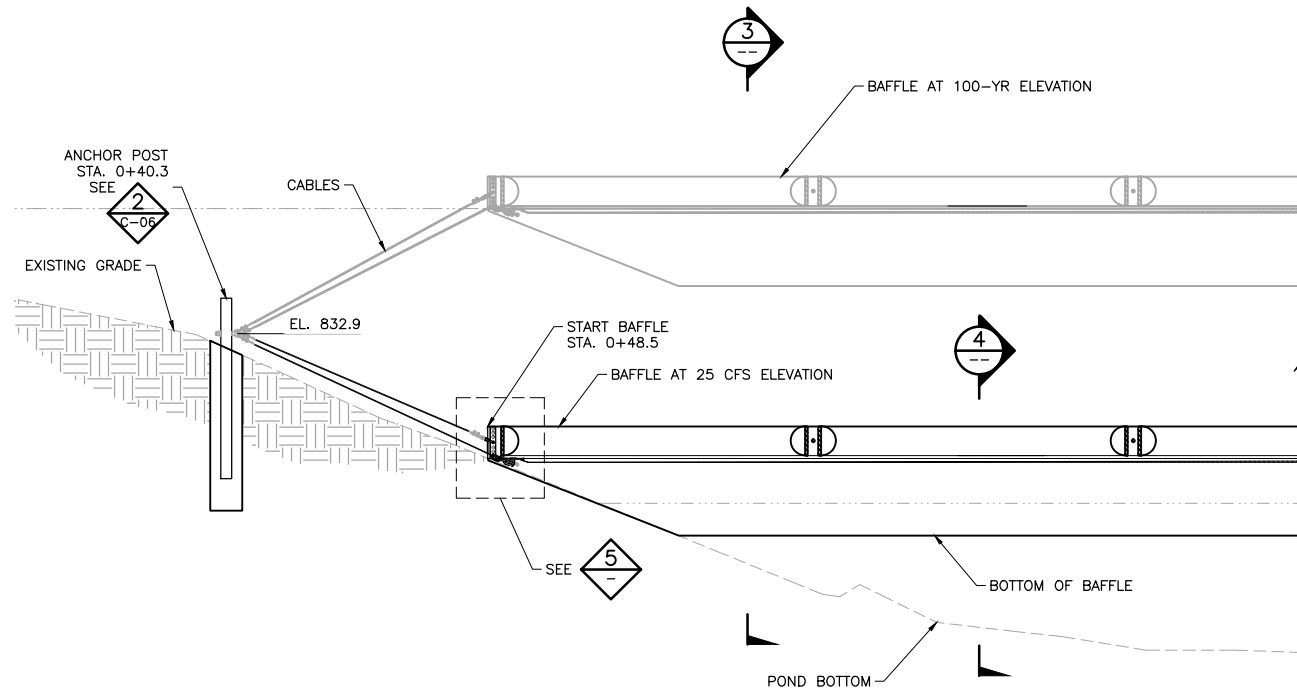
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CONSTRUCTION						
PERMITTING			1/30/15			
RECORD						
RELEASED TO/FOR	A	B	C	D	1	2
DATE RELEASED						

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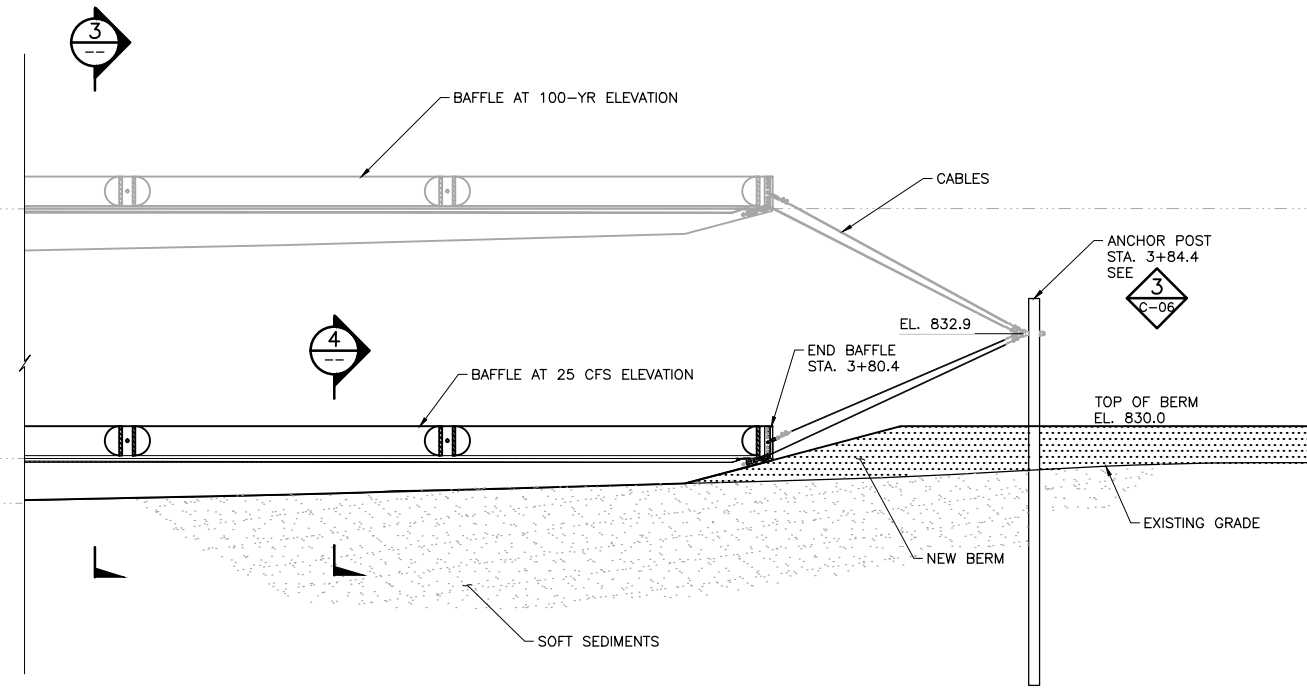
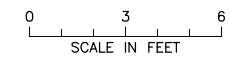
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Approved	MRH3



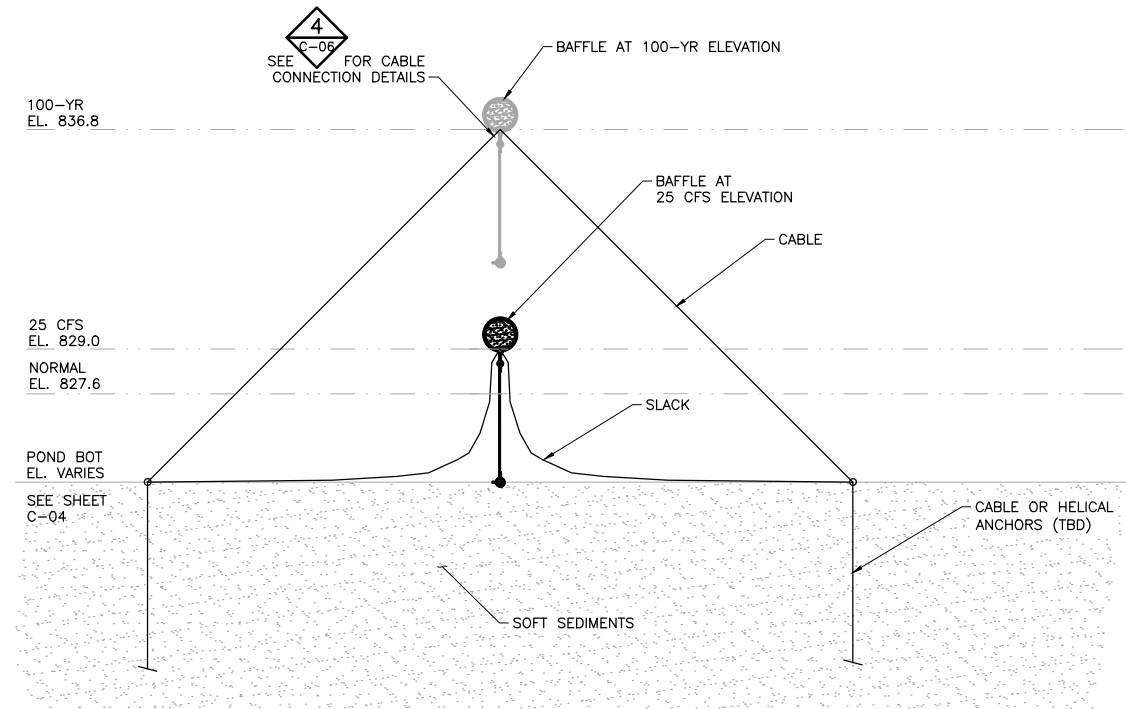
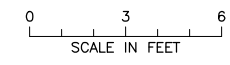
SCHAPER POND IMPROVEMENTS GOLDEN VALLEY, MN		BARR PROJECT No. 23271399.00
WATER BAFFLE PROFILE		CLIENT PROJECT No. 13-28
DWG. No. C-04	REV. No. D	



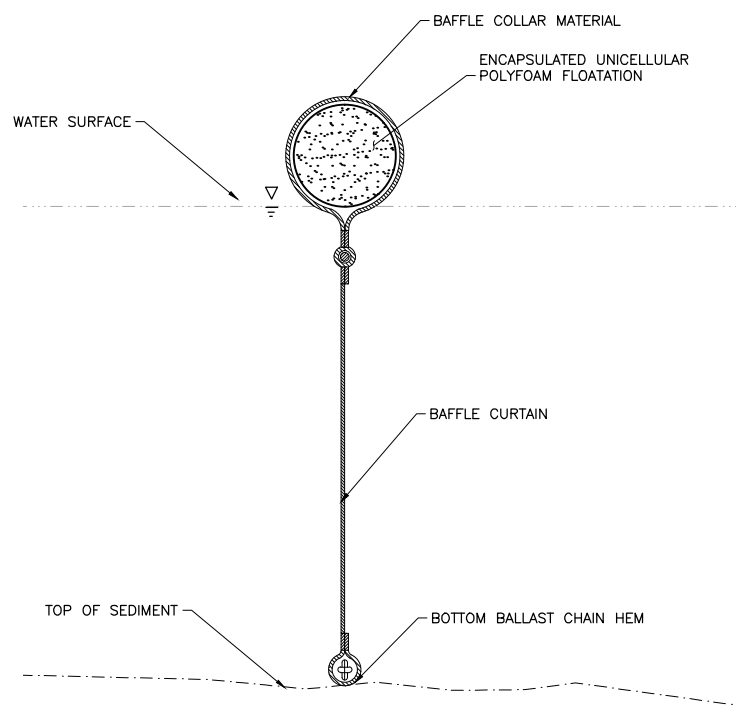
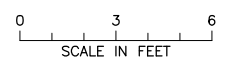
1 PROFILE: WATER BAFFLE TERMINATION AT NORTH END



2 PROFILE: WATER BAFFLE TERMINATION AT SOUTH END

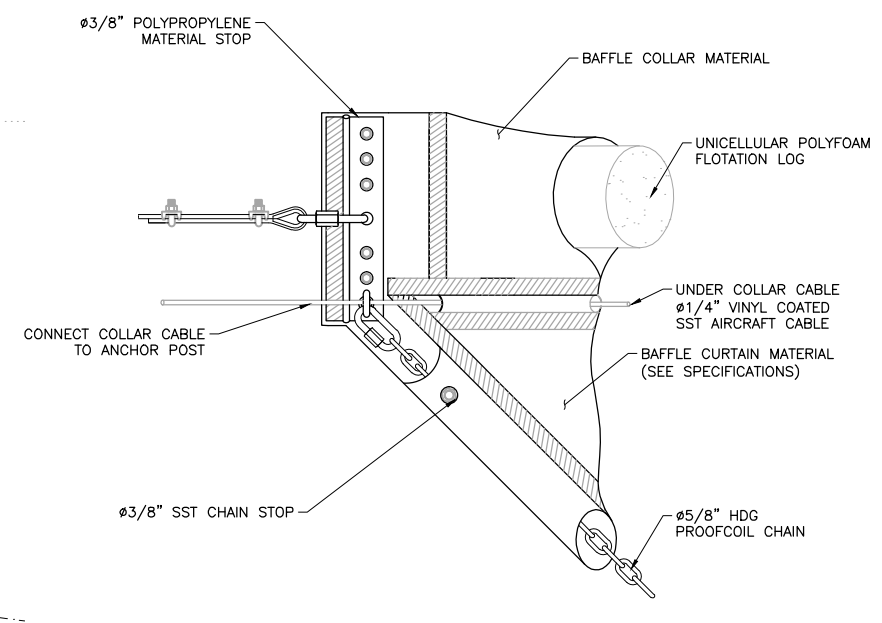


3 SECTION: WATER BAFFLE VERTICAL MOVEMENT AND ANCHORING



4 SECTION: WATER BAFFLE

NO SCALE



5 DETAIL: BAFFLE END CONNECTION

NO SCALE

CADD USER: Mike R. Hoefs FILE: O:\DESIGN\23271399\00\23271399\00_C-05.DWG PLOT SCALE: 1:2 PLOT DATE: 2/19/2015 11:20 AM
 MRH3 C:\Users\mhoefs\OneDrive\Documents\23271399\00\23271399\00_C-05.dwg Plot of C 12/02/2014 16:03:57

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
D	CMB2	KLC	MRH3	2/6/15	ISSUED FOR COMMISSION REVIEW
C	CMB2	KLC	MRH3	1/30/15	ISSUED FOR PERMITTING
B	MRH3	KLC	MRH3	12/5/14	ISSUED FOR COMMISSION REVIEW
A	MRH3	KLC	MRH3	12/3/14	ISSUED FOR CLIENT REVIEW

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.
 PRINTED NAME: MICHAEL R. HOEFS
 SIGNATURE: _____
 DATE: _____ REG. NO. 47971

CLIENT	12/3/14	12/5/14	2/6/15			
BID						
CONSTRUCTION						
PERMITTING			1/30/15			
RECORD						
RELEASED TO/FOR	A	B	C	D	1	2
DATE RELEASED						

BARR
 Project Office:
 BARR ENGINEERING CO.
 4700 WEST 77TH STREET
 MINNEAPOLIS, MN.
 55435-4803
 Corporate Headquarters:
 Minneapolis, Minnesota
 Ph: 1-800-632-2277

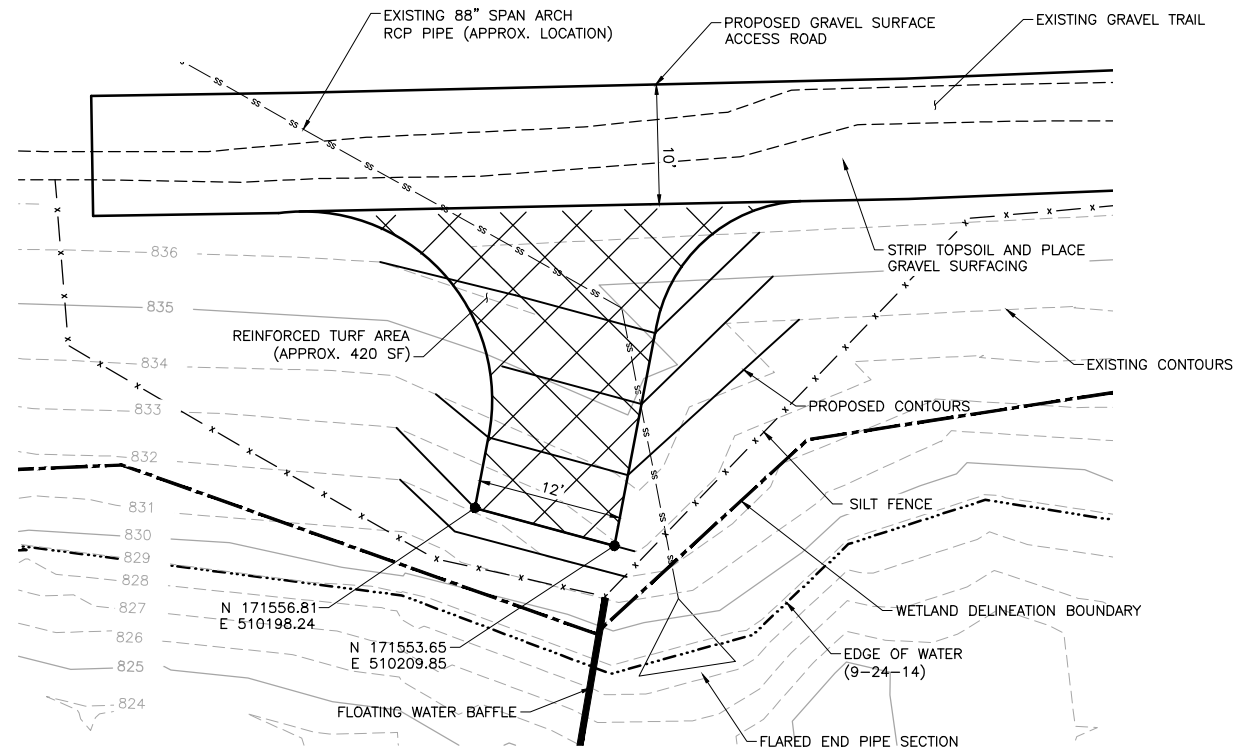
Scale	AS SHOWN
Date	11/25/14
Drawn	MRH3
Checked	KLC
Designed	MRH3
Approved	MRH3



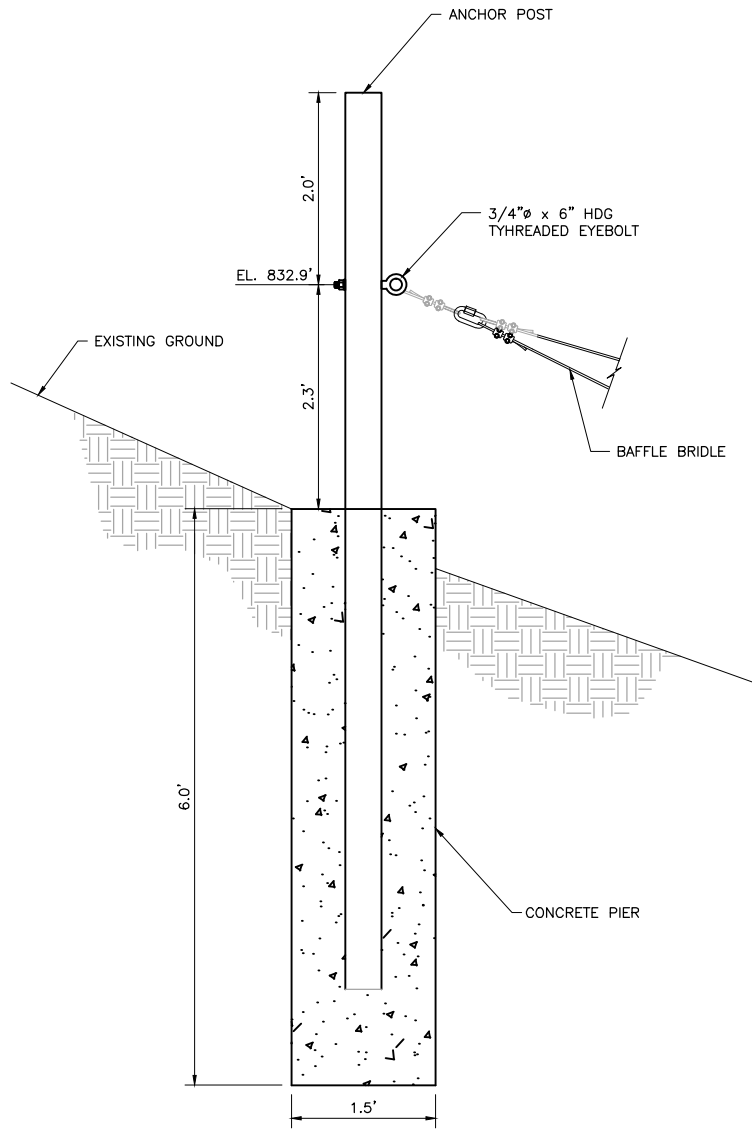
SCHAPER POND IMPROVEMENTS
 GOLDEN VALLEY, MN
WATER BAFFLE DETAILS

BARR PROJECT No.	23271399.00
CLIENT PROJECT No.	13-28
DWG. No.	C-05
REV. No.	D

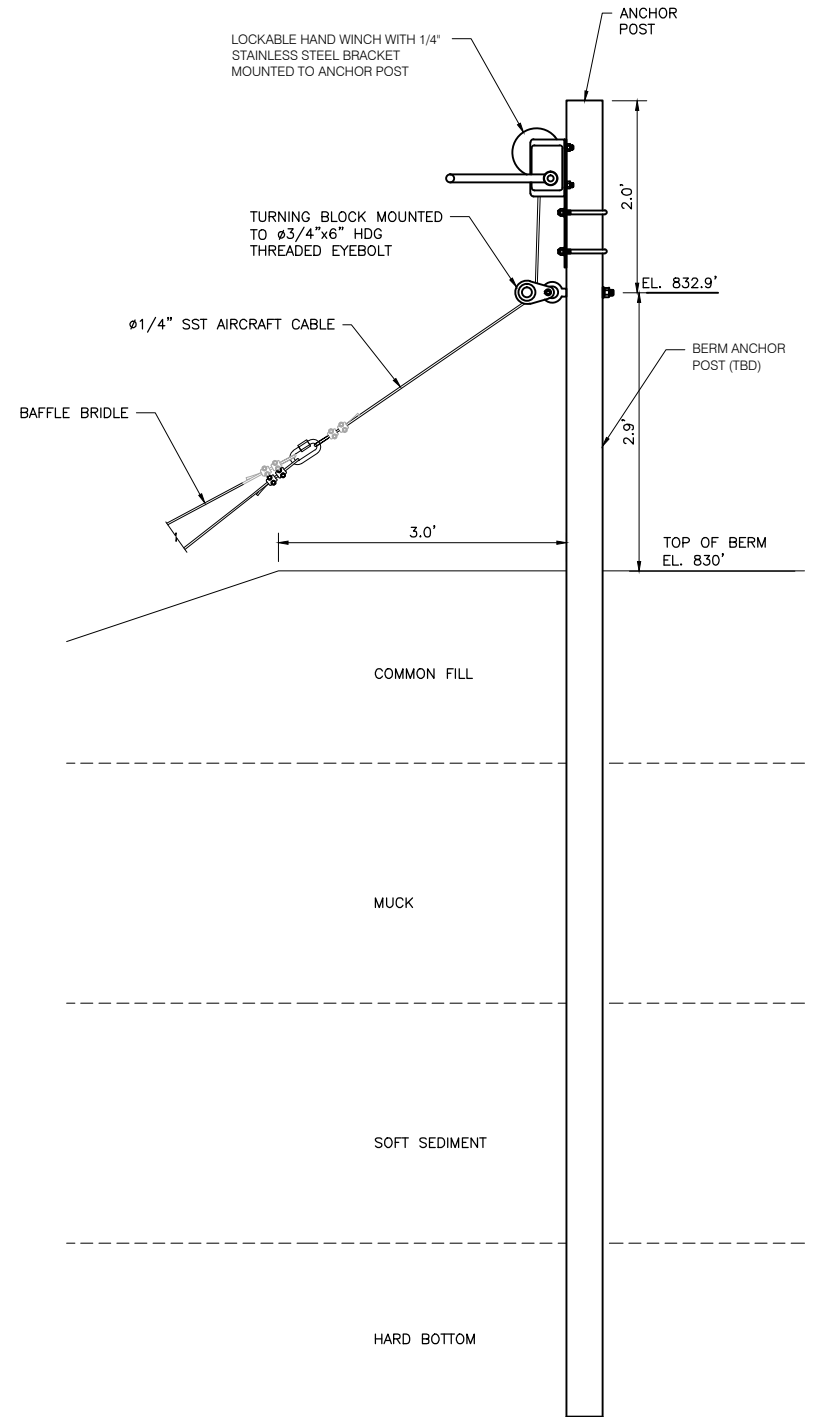
90% DRAFT
 NOT FOR CONSTRUCTION
 2/6/2015



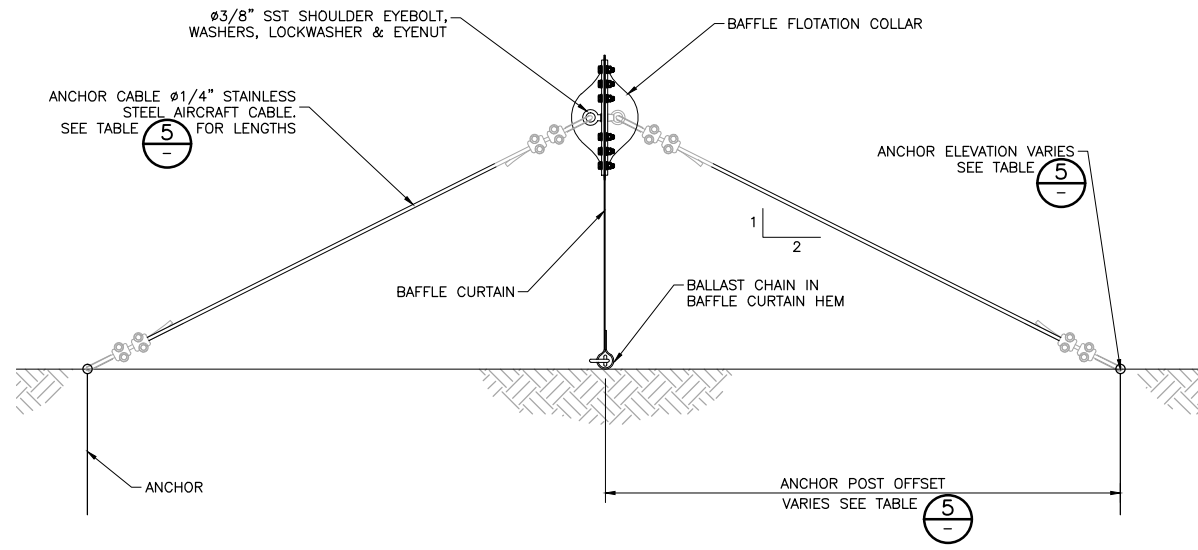
1 DETAIL: BAFFLE DEBRIS REMOVAL AREA



2 DETAIL: NORTH END ANCHOR POST
N.T.S.



3 DETAIL: SOUTH END ANCHOR POST
N.T.S.



4 DETAIL: BAFFLE CONNECTION
N.T.S.

TABLE 1

ASSEMBLY	CABLE LENGTH	ANCHOR POST OFFSET	ANCHOR POST ELEVATION
1	32.0'	28.0'	822.9
2	31.0'	27.0'	823.9
3	25.0'	22.0'	825.7
4	22.0'	19.0'	827.2

5 TABLE: CABLE SCHEDULE

CADD USER: Mike R. Hoefs FILE: O:\DESIGN\23271399\00\23271399\00_C-06.DWG PLOT SCALE: 1:2 PLOT DATE: 2/9/2015 11:20 AM
 Xrefs in Drawing - O:\Design\23271399\00\23271399\00_Base_Existing_C3D.dwg
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NO.	BY	CHK	APP.	DATE	REVISION DESCRIPTION
D	CMB2	KLC	MRH3	2/6/15	ISSUED FOR COMMISSION REVIEW
C	CMB2	KLC	MRH3	1/30/15	ISSUED FOR PERMITTING
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A	MRH3	KLC	MRH3	12/3/14	ISSUED FOR CLIENT REVIEW

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SIGNATURE: _____

DATE: _____ REG. NO. 47971

CLIENT	12/3/14	12/5/14	2/6/15			
BID						
CONSTRUCTION						
PERMITTING			1/30/15			
RECORD						
RELEASED TO/FOR	A	B	C	D	1	2
DATE RELEASED						

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Scale	AS SHOWN
Date	10/31/14
Drawn	MRH3
Checked	KLC
Designed	MRH3
Approved	MRH3

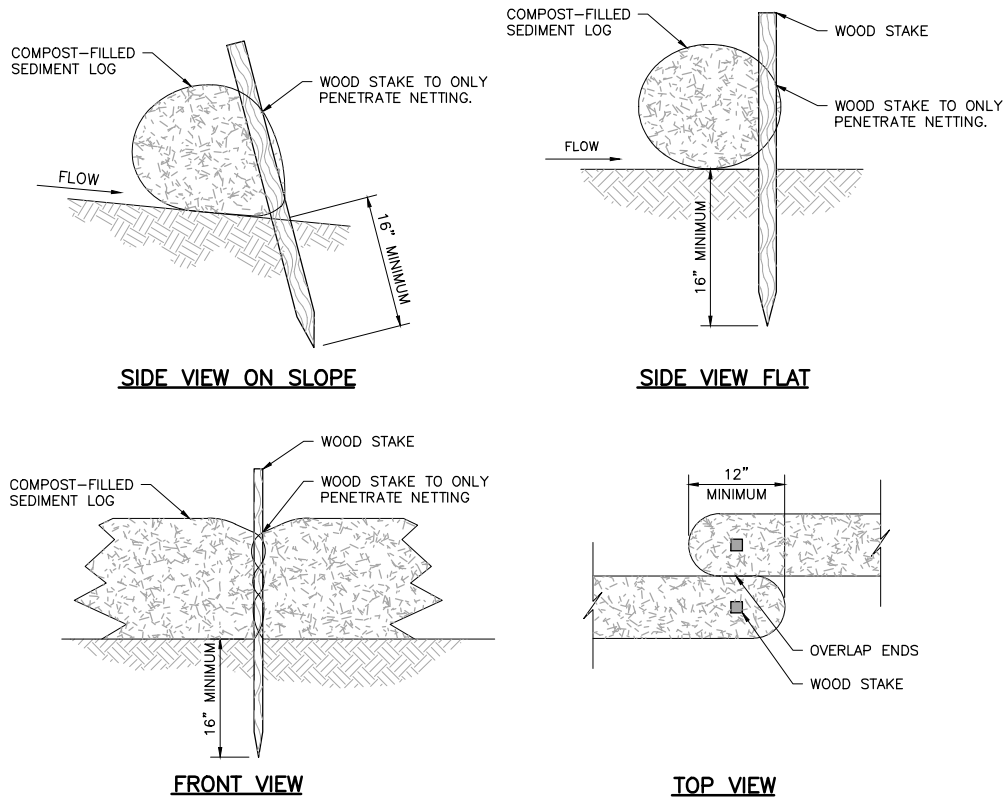


SCHAPER POND IMPROVEMENTS
GOLDEN VALLEY, MN

SECTIONS AND DETAILS

BARR PROJECT No.	23271399.00
CLIENT PROJECT No.	13-28
DWG. No.	C-06
REV. No.	D

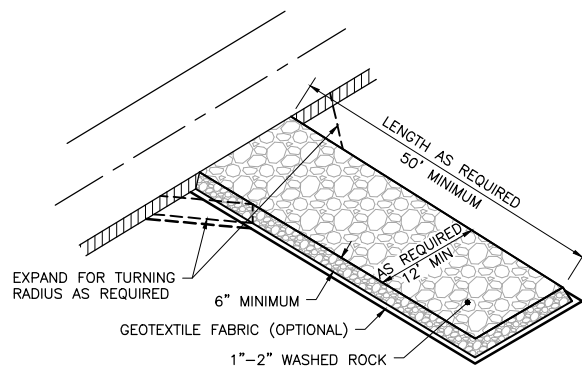
90% DRAFT
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2/6/2015



NOTES:

1. SEDIMENT LOG SHOULD BE INSTALLED ALONG CONTOURS (CONSTANT ELEVATION).
2. NO GAPS SHALL BE PRESENT UNDER SEDIMENT LOG. PREPARE AREA AS NEEDED TO SMOOTH SURFACE OR REMOVE DEBRIS.
3. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN REACHING 1/2 OF LOG HEIGHT.
4. SEDIMENT LOG SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND REPAIRED OR REPLACED AS REQUIRED.

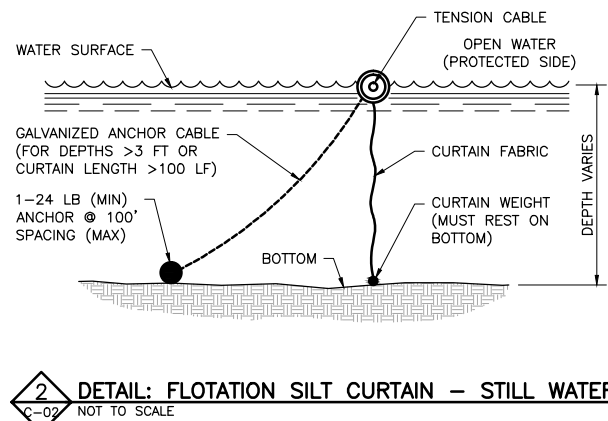
1 **DETAIL: SEDIMENT LOG - STAKING**
C-02 NOT TO SCALE



NOTES:

1. ENTRANCE SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND REPAIRED OR REPLACED AS REQUIRED TO PREVENT TRACKING OFFSITE.
2. ENTRANCE SHALL BE REMOVED IN CONJUNCTION WITH FINAL GRADING AND SITE STABILIZATION.

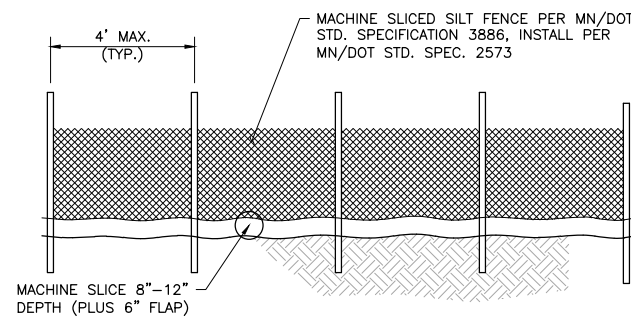
3 **DETAIL: CONSTRUCTION ENTRANCE - ROCK**
C-02 NOT TO SCALE



NOTES:

1. SILT CURTAIN SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITIES IN AREAS DRAINING TO OPEN WATER.
2. ANCHOR TENSION CABLE AT SHORE AT BOTH ENDS WITH STEEL POSTS OF DIAMETER AND LENGTH SUFFICIENT TO PREVENT BENDING AND PULL-OUT.
3. ELIMINATE ANCHOR AND CABLE FOR WATER DEPTHS LESS THAN 3'-0" OR DISTANCE BETWEEN SHORE ANCHORS FOR TENSION CABLE OF LESS THAN 100'
4. CURTAIN WEIGHT SHALL BE HEAVY ENOUGH TO HOLD CURTAIN VERTICAL IN CURRENT AND WAVES TYPICAL FOR THE SITE.
5. SILT CURTAIN MATERIALS SHALL CONFORM TO MN/DOT SPECIFICATION 3887.
6. SILT CURTAIN SHALL BE MAINTAINED AND REPAIRED OR REPLACED AS REQUIRED TO PREVENT DISCHARGE OF SEDIMENT.
7. ACCUMULATED SEDIMENT SHALL BE REMOVED PRIOR TO REMOVAL OF SILT CURTAIN.
8. SILT CURTAIN SHALL BE REMOVED FOLLOWING SITE STABILIZATION OR AS DIRECTED BY ENGINEER.

2 **DETAIL: FLOTATION SILT CURTAIN - STILL WATER**
C-02 NOT TO SCALE

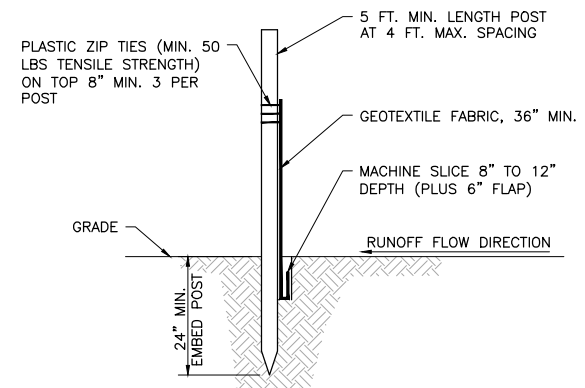


DOWNSTREAM VIEW

NOTES:

1. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. SILT FENCE AND ANY ACCUMULATED SEDIMENT SHALL BE REMOVED IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.
2. SILT FENCE INSTALLATION AND MATERIALS SHALL MEET THE REQUIREMENTS OF MN/DOT SPECIFICATIONS 2573 AND 3886.
3. NO HOLES OR GAPS SHALL BE PRESENT IN/UNDER SILT FENCE. PREPARE AREA AS NEEDED TO SMOOTH SURFACE OR REMOVE DEBRIS.
4. WHEN SEDIMENT BUILD UP REACHES 1/3 OF FENCE HEIGHT, THE SILT FENCE SHOULD BE REMOVED OR A SECOND SILT FENCE INSTALLED UPSTREAM OF THE EXISTING FENCE AT A SUITABLE DISTANCE.
5. WHEN SPLICES ARE NECESSARY MAKE SPLICE AT POST ACCORDING TO SPLICE DETAIL. PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE. ROTATE BOTH POSTS TOGETHER AT LEAST 180 DEGREES TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL. CUT THE FABRIC NEAR THE BOTTOM OF THE POSTS TO ACCOMMODATE THE 6 INCH FLAP. THEN DRIVE BOTH POSTS AND BURY THE FLAP. COMPACT BACKFILL.

4 **DETAIL: SILT FENCE - MACHINE SLICED**
C-02 NOT TO SCALE



SECTION VIEW

CADD USER: Corios Ballinas FILE: M:\DESIGN\232713990\2327139900_D-01.DWG PLOT SCALE: 1:2 PLOT DATE: 2/6/2015 4:14 PM

MRH3 C:\Design\232713990\2327139900_D-01.dwg Plot at 0 11/26/2014 12:06:11

NO.	BY	CHK	APP.	DATE	REVISION DESCRIPTION
D	CMB2	KLC	MRH3	2/6/15	ISSUED FOR COMMISSION REVIEW
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A	MRH3	KLC	MRH3	12/3/14	ISSUED FOR CLIENT REVIEW

CLIENT	12/3/14	12/5/14	2/6/15				
BID							
CONSTRUCTION							
PERMITTING			1/30/15				
RECORD							
RELEASED TO/FOR	A	B	C	0	1	2	3
DATE RELEASED							

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Scale	AS SHOWN
Date	10/31/14
Drawn	MRH3
Checked	KLC
Designed	MRH3
Approved	MRH3



SCHAPER POND IMPROVEMENTS GOLDEN VALLEY, MN		BARR PROJECT No.	
		23271399.00	
EROSION CONTROL AND RESTORATION DETAILS		CLIENT PROJECT No.	
		13-28	
DWG. No.	REV. No.		
D-01	D		

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