PROPOSED WATERSHED IMPROVEMENTS CLEAR CREEK WATERSHED IN IOWA AND JOHNSON COUNTIES

BID PACKAGE 6, JOHNSON COUNTY CC-162 TO CC-164 (CORALVILLE)

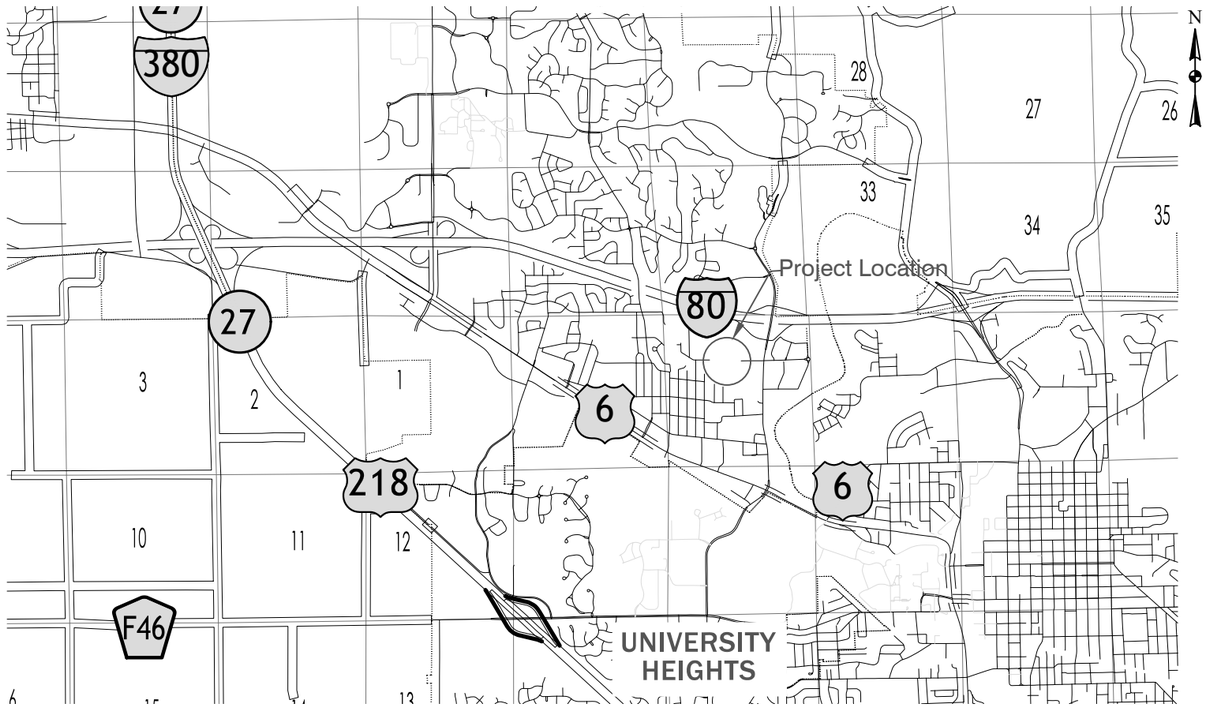
2021

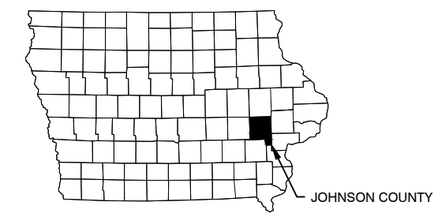
CLEAR CREEK WATERSHED:
JOHN RATHBUN, COORDINATOR
51 ESCORT LANE
IOWA CITY, IA 52240
319-499-4835

JOHNSON COUNTY BOARD OF SUPERVISORS:
913 S. DUBUQUE STREET, SUITE 201
IOWA CITY, IA 52240

Sheet List Table

Sheet Number	Sheet Title
01	TITLE SHEET
02	LEGEND
03	TYPICAL SECTIONS
04	GENERAL NOTES
05	EPQ
06	EXISTING CONDITIONS AND REMOVALS KEY PLAN CC-162 TO CC-164
07	EXISTING CONDITIONS AND REMOVALS PLAN (1) CC-162
08	EXISTING CONDITIONS AND REMOVALS PLAN (2) CC-162 & CC-163
09	EXISTING CONDITIONS AND REMOVALS PLAN (3) CC-163
10	EXISTING CONDITIONS AND REMOVALS PLAN (4) CC-163
11	EXISTING CONDITIONS AND REMOVALS PARK PLAN CC-164
12	BISCUIT CREEK ALIGNMENT CC-162 TO CC-164
13	GRADING PLAN (1) CC-162
14	GRADING PLAN (2) CC-162
15	GRADING PLAN (3) CC-163
16	GRADING PLAN (4)
17	GRADING PLAN (5) CC-164
18	PLAN AND PROFILE (WEST TRIBUTARY) CC-163
19	PLAN AND PROFILE (MAIN REACH) CC-162
20	PLAN AND PROFILE (CENTRAL PARK) CC-164
21	EROSION AND SEDIMENT CONTROL KEY PLAN CC-162 TO CC-164
22	EROSION CONTROL PLAN (1) CC-162
23	EROSION CONTROL PLAN (2) CC-162
24	EROSION CONTROL PLAN (3) CC-163
25	EROSION CONTROL PLAN (4) CC-163
26	EROSION CONTROL PARK PLAN CC-164
27	EASEMENT PLAN OVERVIEW CC-162 TO CC-163
28	TRAFFIC PLAN CC-162 TO CC-164
29	RESTORATION PLAN (1) CC-162
30	RESTORATION PLAN (2) CC-162
31	RESTORATION PLAN (3) CC-163
32	RESTORATION PLAN (4) CC-163
33	RESTORATION PLAN (5) CC-164
34	RESTORATION NOTES AND MIXES
35	DETAIL SHEET 1
36	DETAIL SHEET 2
37	DETAIL SHEET 3
38	DETAIL SHEET 4
39	DETAIL SHEET 5
40	DETAIL SHEET 6
41	DETAIL SHEET 7
42	DETAIL SHEET 8
43	DETAIL SHEET 9
44	DETAIL SHEET 10
45	DETAIL SHEET 11
46	SOIL BORING LOCATION MAP 1
47	SOIL BORING DATA SHEET 4 & 6
48	SOIL BORING DATA SHEET 7
49	CROSS SECTIONS 1
50	CROSS SECTIONS 2
51	CROSS SECTIONS 3
52	CROSS SECTIONS 4





DIVISION 21 – CLEAR CREEK WATERSHED
CC–162 CITY OF CORALVILLE FLOODPLAIN RESTORATION (NRCS 582)
CC–163 CITY OF CORALVILLE FLOODPLAIN RESTORATION (NRCS 582)
CC–164 CITY OF CORALVILLE FLOODPLAIN RESTORATION (NRCS 582)

VICINITY MAP - JOHNSON COUNTY (All Bid Package #6 Sites are located in Johnson County)

NOT TO SCALE

PERMIT SUMMARY
US ARMY CORPS OF ENGINEERS
REGIONAL GERNAL PERMIT 33
CEMVR–OD–P–2014–0871

NPDES GENERAL PERMIT #2
TBD

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com
water ecology community

Clapsaddle-Garber Associates, Inc
16 East Main Street, P.O. Box 754
Marshalltown, Iowa 50158
Phone 641-752-6701
www.cgaconsultants.com

TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, JUDGEMENT, AND BELIEF, THIS DESIGN, CONSTRUCTION DRAWINGS, AND SPECIFICATIONS MEET APPLICABLE NRCS STANDARDS AND SPECIFICATIONS.

SIGNATURE 10/13/2021 DATE

LICENSED PROFESSIONAL ENGINEER
AARON L GWINNUP
22558
IOWA

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

10/13/2021
AARON L GWINNUP, P.E. DATE
License Number: 22558
My license renewal date is December 31, 2021.
Pages or sheets covered by this seal:
All Sheets

NOTES:
1. THE CONTRACTOR SHALL CONTACT ONE-CALL, 800-292-8989, FOR UTILITY LOCATES AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION.
2. IF CULTURAL RESOURCES ARE FOUND DURING CONSTRUCTION, WORK SHALL STOP IMMEDIATELY. CONTACT THE WATERSHED COORDINATOR, JOHN RATHBUN.
3. SEE SEPARATELY BOUND SPECIFICATIONS.

PLAN PRINTED DATE : 10/14/2021

CDBG #13-NDRI-007 CGA PROJECT NO. 8725

X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\Title Sheet.dwg - TITLE SHEET - 10-14-21 - 10:30am - rkakalia

LEGEND

FEATURE	EXISTING	PROPOSED
OVERHEAD ELECTRIC LINES	OHE	
BURIED ELECTRIC LINES	UGE	
FIBER OPTIC LINES	FO	
GAS LINES	G	
BURIED TELEPHONE	UGT	
BURIED CABLE TV		
CHAIN LINK FENCE		
SANITARY SEWER LINE	San	
SANITARY SEWER FORCEMAIN	FM	
SANITARY SEWER MANHOLE	S	
STORM SEWER LINE	StS	StS
STORM SEWER MANHOLE	D	
WATERMAIN		
PARK BOUNDARY		
UTILITY POLE		
ORANGE CONST FENCE		
EASEMENT/ PROJECT LIMITS		
GRADING LIMITS		
SILT FENCE / TREE PROTECTION	SF	SF
WATTLE		
EXISTING MAJOR CONTOUR LINES	1410	
EXISTING MINOR CONTOUR LINES	1407	
PROPOSED MAJOR CONTOUR LINES		1410
PROPOSED MINOR CONTOUR LINES		1407
SLOPE ARROW	4:1	
SPOT ELEVATION	1410.0	1405.75
UTILITY CAUTION	CAUTION SEWER	
GRILL		
SIGN	SIGN	

LEGEND

FEATURE	EXISTING	PROPOSED
EROSION CONTROL BLANKET ROLLED EROSION CONTROL TYPE 4		
TEMPORARY SEED AND BONDED FIBER MATRIX		
TURF REINFORCEMENT MAT PRODUCT, TYPE 2		
PERMANENT EASEMENT		
TEMPORARY EASEMENT		
CONSTRUCTION ENTRANCE		
NATIVE SEED MIX		
WETLAND SEED MIX		
TURF MIX		
INLET PROTECTION		
SOIL BORING LOCATION		SB-1
TREES	EXISTING	PROPOSED
SHRUBS		

Resources List

(M41G) MIDAMER-GAS
Contact Name : Carson Hemphill
Contact Phone: 3193414461
Contact Email: crhemphill@midamerican.com

(AT2) AT&T TRANSMISSION
Contact Name : Lenny Vohs
Contact Phone: 8162754014
Contact Email: lv2121@att.com

(CTLIA01) CENTURYLINK
Contact Name : Tom Sturmer
Contact Phone: 3034539927
Contact Email: Thomas.sturmer@centurylink.com

(CVL) CITY OF CORALVILLE WATER
Contact Name : Kevin Callahan
Contact Phone: 3193511830
Contact Email: kcallahan@ci.coralville.ia.us

(CVL2) CITY OF CORALVILLE WASTEWATER
Contact Name : Anyone Who Answers
Contact Phone: 3195306224
Contact Email: wastewatermb@coralville.org

(M41E) MIDAMER-ELEC
Contact Name : JASON WARREN
Contact Phone: 3193414425
Contact Email: jlwarren@midamerican.com

(SSC) SOUTH SLOPE TELEPHONE
Contact Name : Brian Frese
Contact Phone: 3192277111
Contact Email: brian@southslope.com

(T13) MEDIACOM IOWA CITY
Contact Name : Carl Norton
Contact Phone: 3195946201
Contact Email: cnorton@mediacomcc.com

(WINIA) WINDSTREAM COMMUNICATIONS
Contact Name : LOCATE DESK
Contact Phone: 8002891901
Contact Email: LOCATE.DESK@WINDSTREAM.COM

(MC1) VERIZON
Contact Name : John Bachelder
Contact Phone: 9727297000
Contact Email: john.bachelder@verizon.com

(ONK) ONEOK NORTH SYSTEM L.L.C.
Contact Name : SARAYA OYLER
Contact Phone: 4054331046
Contact Email: SARAYA.OYLER@ONEOK.COM

(UOI) UNIVERSITY OF IOWA
Contact Name : Chris Hatland
Contact Phone:
Contact Email: chris-hatland@uiowa.edu

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.
IOWA ONE CALL 1-800-292-8989 www.iowaonecall.com

SUBMISSION DATE: 06-30-2021
DESIGN BY AG | DRAWN BY RK
EOR PROJECT NO. 01670 - 0001

EOR water ecology community
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

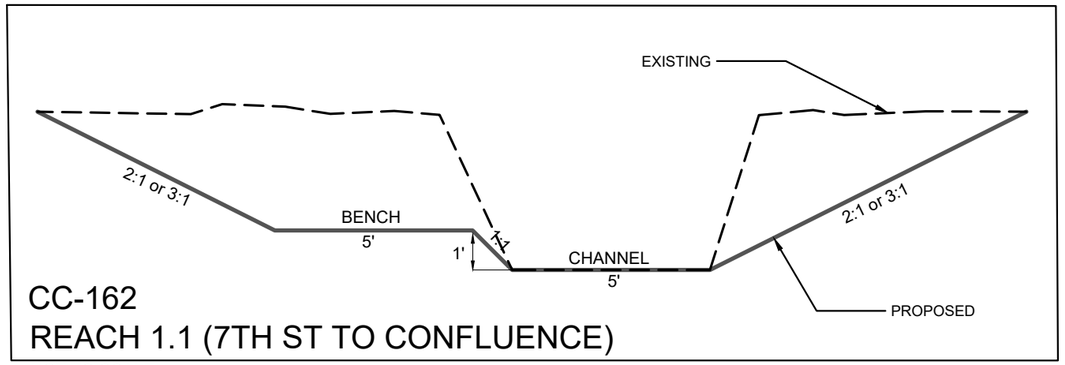
BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. ---
CITY PROJECT NO. ###

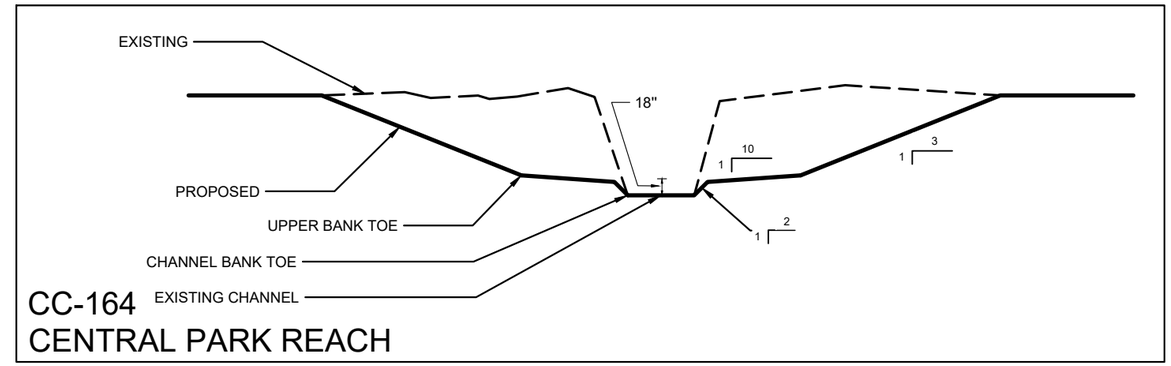
LEGEND

SHEET 02 OF 52 SHEETS

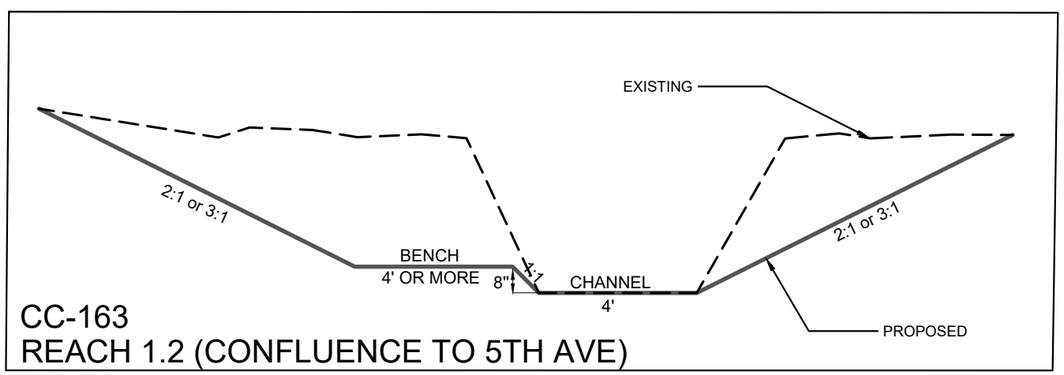
Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2, 28312\ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base



NOT TO SCALE



NOT TO SCALE



NOT TO SCALE

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

Know what's below. Call before you dig. 811 IOWA ONE CALL 1-800-292-8989

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670 - 0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com
water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

TYPICAL SECTIONS

SHEET 03 OF 52 SHEETS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2, 28312\ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

GRADING & EROSION CONTROL NOTES

1. CONTRACTOR TO VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING ANY CONSTRUCTION BY CALLING IOWA ONE CALL AT 1-800-292-8989.
2. CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR VARIATIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL.
4. ACCEPTANCE OF INSTALLED PERIMETER EROSION CONTROL, AND CONSTRUCTION ENTRANCE MUST BE MADE BEFORE BEGINNING SITE GRADING ACTIVITIES. SOME TEMPORARY EROSION CONTROL MEASURES MAY BE INSTALLED AS GRADING OCCURS IN THE SPECIFIC AREA. MAINTAIN EROSION CONTROLS THROUGHOUT THE GRADING PROCESS AND REMOVE UPON APPROVAL OF ENGINEER.
5. CONTRACTOR TO ADHERE TO ALL REQUIREMENTS OF CITY, COUNTY, STATE AND N.P.D.E.S PERMITS.
6. ALL EXPOSED SOIL AREAS WITHIN 100 FEET OF A WATER OF THE STATE OR ANY STORMWATER CONVEYANCE SYSTEM WHICH IS CONNECTED TO A WATER OF THE STATE MUST BE STABILIZED WITHIN 24 HOURS OF COMPLETION OF GRADING ACTIVITIES.
7. ALL CONSTRUCTION ENTRANCES SHALL BE SURFACED WITH CRUSHED ROCK ACROSS FULL WIDTH FROM ENTRANCE POINT INTO THE CONSTRUCTION ZONE PER SUDAS.
8. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH CITY, COUNTY, STATE AND N.P.D.E.S. PERMITS.
9. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES, INCLUDING THE REMOVAL OF ACCUMULATED SILT IN FRONT OF TEMPORARY EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION.
10. MAINTAIN EXISTING EROSION CONTROL. RE-ESTABLISH ANY EXISTING EROSION CONTROL DISTURBED BY CONSTRUCTION.
11. CONTRACTOR SHALL PROVIDE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES AS REQUIRED FOR CONSTRUCTION OR AS REQUIRED BY ENGINEER.
12. REMOVE ALL EROSION CONTROL MEASURES UPON APPROVAL OF ENGINEER.
13. THE CONTRACTOR SHALL REMOVE ALL SOILS AND SEDIMENT TRACKED ONTO EXISTING STREETS AND PAVED AREAS WITHIN 24 HOURS OF DISCOVERY OR REQUESTED BY ENGINEER.
14. IF BLOWING DUST IS DEEMED A NUISANCE BY ENGINEER, OWNER, PERMITTING AUTHORITIES, OR ADAJCENT LAND OWNERS, THE CONTRACTOR SHALL APPLY WATER FROM A TANK TRUCK OR APPROVED EQUAL TO ALL ACTIVE CONSTRUCTION AREAS IMMEDIATELY.
15. SWEEP ADJACENT STREETS WITH SWEEPER AND PICK-UP BROOM IN ACCORDANCE WITH CITY AND STATE REQUIREMENTS.
16. INSPECT EROSION CONTROL DEVICES AFTER EACH RAINFALL. IMMEDIATELY REPAIR FAILED OR FAILING EROSION CONTROL DEVICES.
19. SEE SUDAS SECTION 2010, EARTHWORK, SUBGRADE, AND SUBBASE FOR ALL EXCAVATION RELATED WORK AND QUALITY CONTROL.
20. SEE SUDAS SECTION 4020, STORM SEWER AND STANDARD DETAILS FOR STORM SEWER INSTALLATION AND QUALITY CONTROL.
21. REVIEW SPECIAL PROVISIONS FOR MODIFICATIONS TO NRCS OR SUDAS SPECIFICATIONS.
22. EARTHWORK ASSUMPTIONS
    - A. SEE CONTRACT DOCUMENTS FOR INCLUSIONS, INCLUDING BUT NOT LIMITED TO MEASUREMENT & PAYMENT.
    - B. ALL QUANTITIES ARE PLAN (P) QUANTITIES, NO BULKING FACTORS ARE INCLUDED, QUANTITIES ARE "IN PLACE" ONLY.
    - C. TOPSOIL SHALL BE SALVAGED AND RE-USED ON SITE - 6" MIN.
    - D. EARTHWORK DOES NOT BALANCE ON SITE, EXCESS CLEAN SOIL IS TO BE STOCKPILED ON CITY PROPERTY ALONG HUGHES ST (ABOUT 1 MILE AWAY)
    - E. DEBRIS AND UNSUITABLE FILL IS TO BE HAULED OFFSITE AND DISPOSED OF PROPERLY

REMOVAL NOTES

1. CONTRACTOR TO VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING ANY CONSTRUCTION BY CALLING IOWA ONE CALL AT 1-800-292-8989.
2. SEE REMOVALS PLAN SHEET FOR ADDITIONAL REMOVAL NOTES.

SPOIL SITE NOTE

1. ADD SILT FENCE THAT ENCIRCLES THE STOCKPILE AT THE SPOIL SITE

EXCAVATION SPOIL SITE

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

Know what's below. Call before you dig. 811 IOWA ONE CALL 1-800-292-8989

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670 - 0001

Emmons & Olivier Resources, Inc.
water ecology community
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

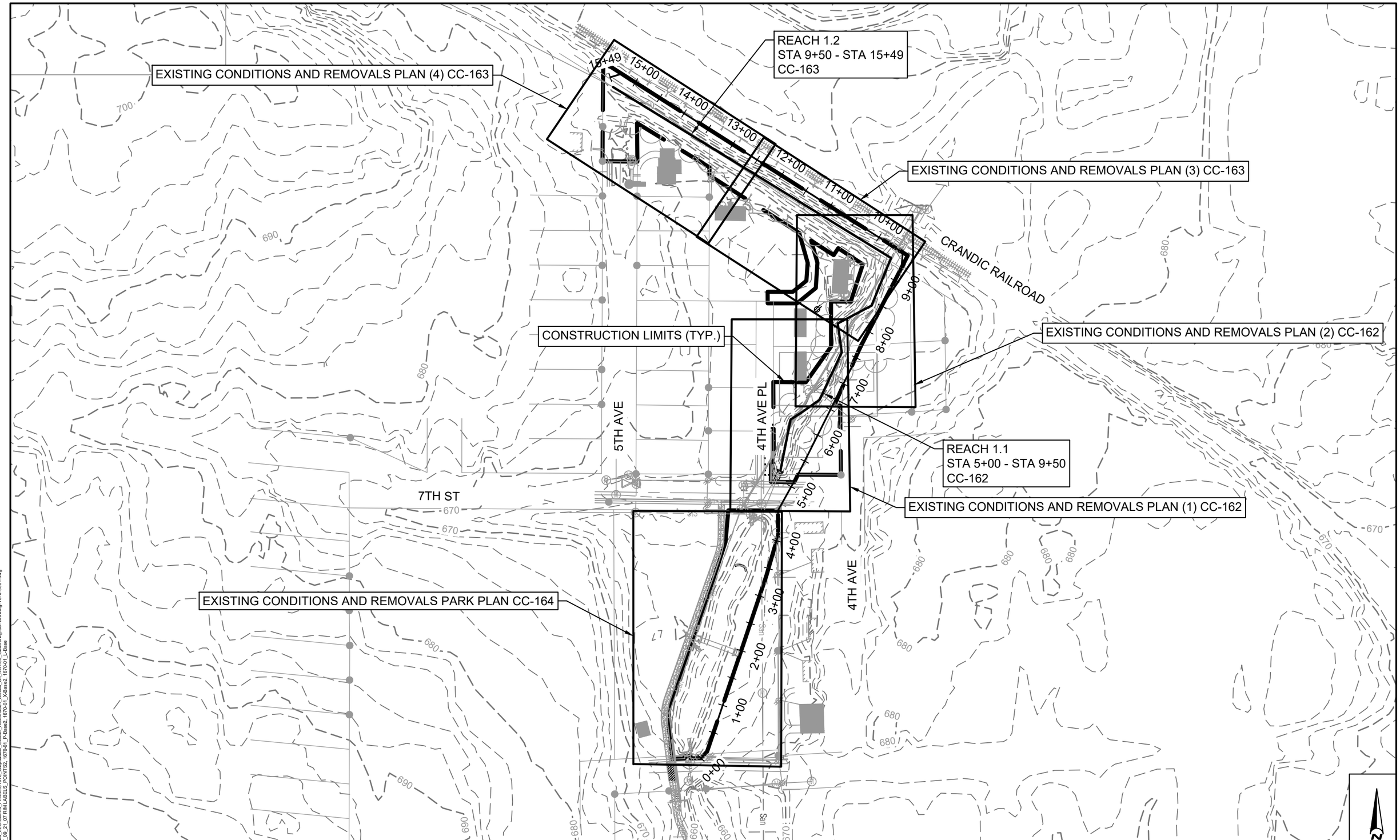
BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

GENERAL NOTES

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2, 283123ASBUILT_06_21_07 RIM LABELS, POINTS2, 1670-01, P-Base2, 1670-01, X-Base2, 1670-01_L-Base

OVERALL QUANTITIES OF WORK						
			CC-162 (MAIN CHANNEL)	CC-163 (WEST TRIBUTARY)	CC-164 (CENTRAL PARK)	TOTAL
Item No.	Description	Unit	Quantity	Quantity	Quantity	Quantity
21.01	General Clearing and Grubbing	LS	0.45	0.45	0.10	1
21.02	On-site Topsoil (Strip, Salvage, and Respread)	CY	0	0	250	250
21.03	Off-site Topsoil	CY	192	355	403	950
21.04	Excavation Class 10, Haul Offsite	CY	210	1552	1000	2800
21.05	Misc. Debris Removal from Stream Channel	CY	40.5	75	85	200
21.06	Excavation Class 10, Balanced Onsite	CY	201	205	85	500
21.07	Temporary Stream Diversion / Crossings	LS	0	0	0	1
21.08	Storm Sewer, Class III RCAP, 72"	LF	8	0	0	8
21.09	Remove, Salvage, Reinstall RCAP FES, 72"	LS	1	0	0	1
21.10	PCC Sidewalk, 5" (Remove and Replace)	SY	14	0	26	40
21.11	Temporary Traffic Control, Basic	LS	0.30	0.30	0.30	1
21.12	Conventional seeding: seeding, Fertilizing and conventional mulching, type 1 seed mixture (Permanent Lawn Mixture)	ACRE	0.35	0.17	0.24	1.0
21.13	Conventional seeding: G. Wetland Seeding (Wetland Grass Seed Mixture)	ACRE	0.08	0.08	0.18	0.4
21.14	Conventional seeding: H Native Grass and Forbs (Wildflower) Seeding Mixture	ACRE	0.29	0.59	0.40	1.7
21.15	Hydraulic seeding: seeding and mulching, type 4 seed mixture (Urban Temporary Erosion Control Mixture)	ACRE	0.61	1.12	1.27	3.00
21.16	Hydromulch: Bonded Fiber Matrix	ACRE	0.61	1.12	1.27	3.00
21.17	SWPPP Management	LS	0.20	0.37	0.37	1
21.18	Filter Sock, 9", Install	LF	710	700	990	2400
21.19	Filter Sock, 9", Removal	LF	710	700	990	2400
21.20	Temporary Rolled Erosion Control Products (RECP), Type 4	SY	1518	2799	3183	7500
21.21	Rip Rap, Class D Revetment	TON	120	53	27	200
21.22	Rip Rap, Erosion Stone	TON	0	52	13	65
21.23	Silt Fence, install	LF	330	330	330	1000
21.24	Silt Fence, removal (no removal at offsite stockpile)	LF	250	0	250	500
21.25	Stabilized Construction Entrance	EA	1	1	2	4
21.26	Mobilization	LS	0.20	0.4	0.4	1
21.27	Concrete Washout - Small Job	EA	1	0	0	1
21.28	Limestone Blocks (18"x18"x18")	EA	0	0	8	8
21.29	Construction Perimeter Fencing - Orange Plastic	LF	0	0	1000	1000
21.30	Macadam Crushed Stone	TON	0	0	13	13
21.31	Safety Railing - Custom Aluminum	LF	40	0	0	40



NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 50 100 200

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
water ecology community
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

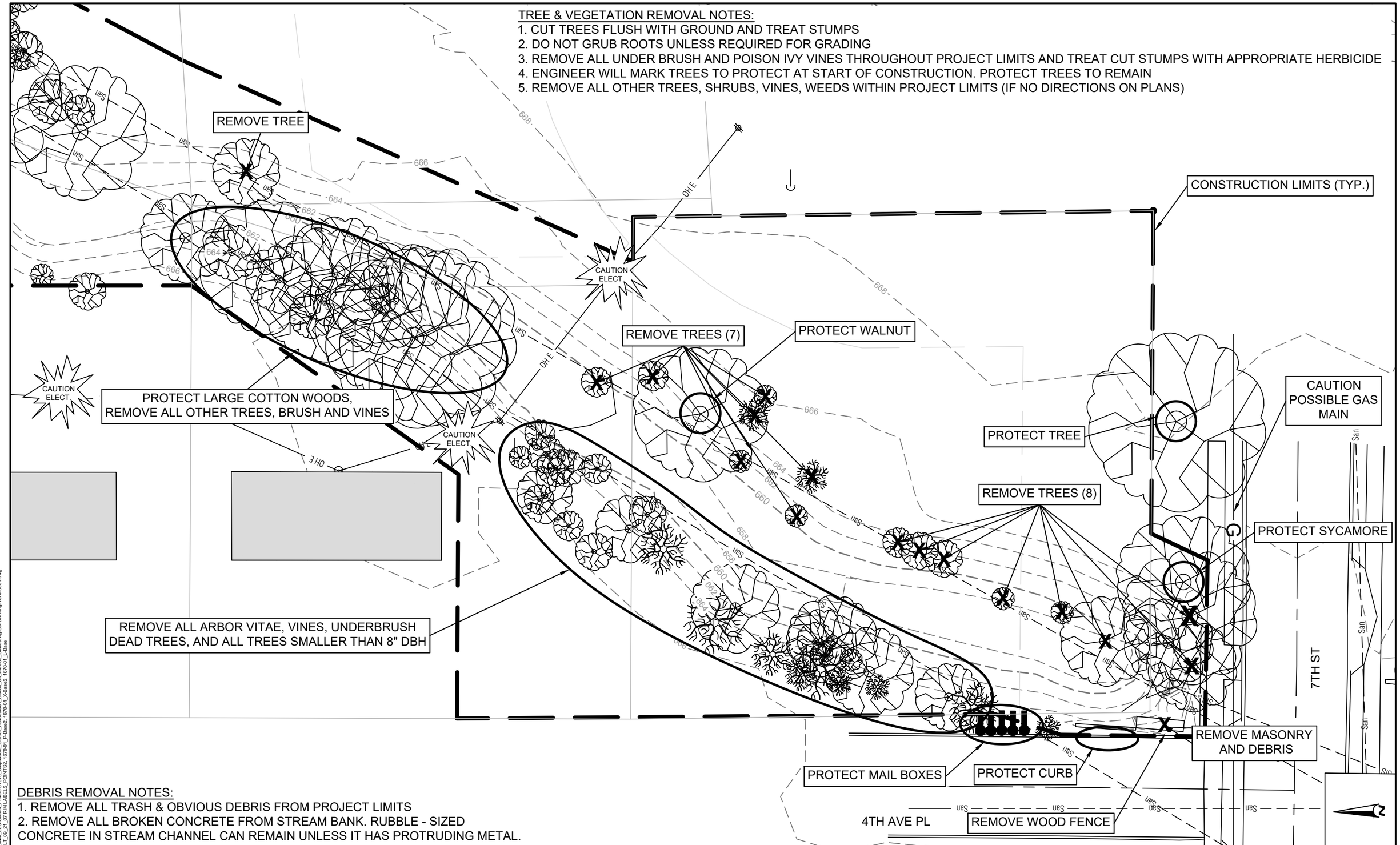
STATE PROJECT NO. --- | CITY PROJECT NO. ###

EXISTING CONDITIONS AND REMOVALS KEY PLAN CC-162 TO CC-164

SHEET 06 OF 52 SHEETS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Gather_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: ,X-Base2, 28312\ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

TREE & VEGETATION REMOVAL NOTES:
1. CUT TREES FLUSH WITH GROUND AND TREAT STUMPS
2. DO NOT GRUB ROOTS UNLESS REQUIRED FOR GRADING
3. REMOVE ALL UNDER BRUSH AND POISON IVY VINES THROUGHOUT PROJECT LIMITS AND TREAT CUT STUMPS WITH APPROPRIATE HERBICIDE
4. ENGINEER WILL MARK TREES TO PROTECT AT START OF CONSTRUCTION. PROTECT TREES TO REMAIN
5. REMOVE ALL OTHER TREES, SHRUBS, VINES, WEEDS WITHIN PROJECT LIMITS (IF NO DIRECTIONS ON PLANS)



DEBRIS REMOVAL NOTES:
1. REMOVE ALL TRASH & OBVIOUS DEBRIS FROM PROJECT LIMITS
2. REMOVE ALL BROKEN CONCRETE FROM STREAM BANK. RUBBLE - SIZED CONCRETE IN STREAM CHANNEL CAN REMAIN UNLESS IT HAS PROTRUDING METAL.

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.
IOWA ONE CALL 1-800-292-8989

SCALE IN FEET
0 10 20 40

SUBMISSION DATE: 10-14-2021
DESIGN BY AG
DRAWN BY RK
EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com
water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. ---
CITY PROJECT NO. ###

EXISTING CONDITIONS AND REMOVALS PLAN (1) CC-162

SHEET 07 OF 52 SHEETS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2, 283123ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

REMOVE TREES (8)

REMOVE TREES (14)

CONSTRUCTION LIMITS (TYP.)

PROTECT 4" BLACK CHERRY

PROTECT TREES (2)

CONSTRUCTION LIMITS (TYP.)

PROTECT TREES (7)

REMOVE TREES (18)

REMOVE TREES (4)

PROTECT TREES (3)

CAUTION ELECT

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 10 20 40

SUBMISSION DATE: 10-14-2021

DESIGN BY AG DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. ---

CITY PROJECT NO. ###

EXISTING CONDITIONS AND REMOVALS PLAN (2) CC-162 & CC-163

SHEET 08 OF 52 SHEETS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: _XBase2, 283123ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_XBase2, 1670-01_L-Base

CONSTRUCTION LIMITS (TYP.)

REMOVE TREES (5)

REMOVE TREES (11)

SEE EXISTING CONDITIONS AND REMOVAL PLAN 2

PROTECT TREES (3)

PROTECT TREES (3)

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 10 20 40

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com
water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

EXISTING CONDITIONS AND REMOVALS PLAN (3) CC-163

SHEET 09 OF 52 SHEETS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Olapaddle_Garber_Assoc\0001_Biscuit_CK_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2, 283123ASBUILT_09_21_07 RIMLABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

PROJECT LIMITS

REMOVE TREES (9)

REMOVE TREES (8)

REMOVE TREES (9)

PROTECT TREES (9)

PROTECT LIVE TREES,
REMOVE DEAD TREES

REMOVE SUMP PUMP
AND ASSOCIATING PIPING

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 10 20 40

SUBMISSION DATE: 10-14-2021

DESIGN BY AG

DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. ---

CITY PROJECT NO. ###

EXISTING CONDITIONS AND REMOVALS PLAN (4) CC-163

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2; 283123ASBUILT_09_21_07 RIM LABELS_POINTS2; 1670-01_P-Base2; 1670-01_X-Base2; 1670-01_L-Base

PROTECT TREE

REMOVE CONCRETE REVETMENT, DO NOT DISTURB STORM SEWER FLARED END SECTIONS

REMOVE GEOTEXTILE FABRIC, SALVAGE AND REINSTALL ROCK APRON, SEE DETAIL 1/44

01
44

PROTECT EXISTING BIKE RACK, BENCH AND PLANTINGS AROUND THEM

REMOVE ALL STONE MASONRY DEBRIS, DO NOT DISTURB HEADWALL

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989 www.iowaonecall.com

SCALE IN FEET

0 15 30 60

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

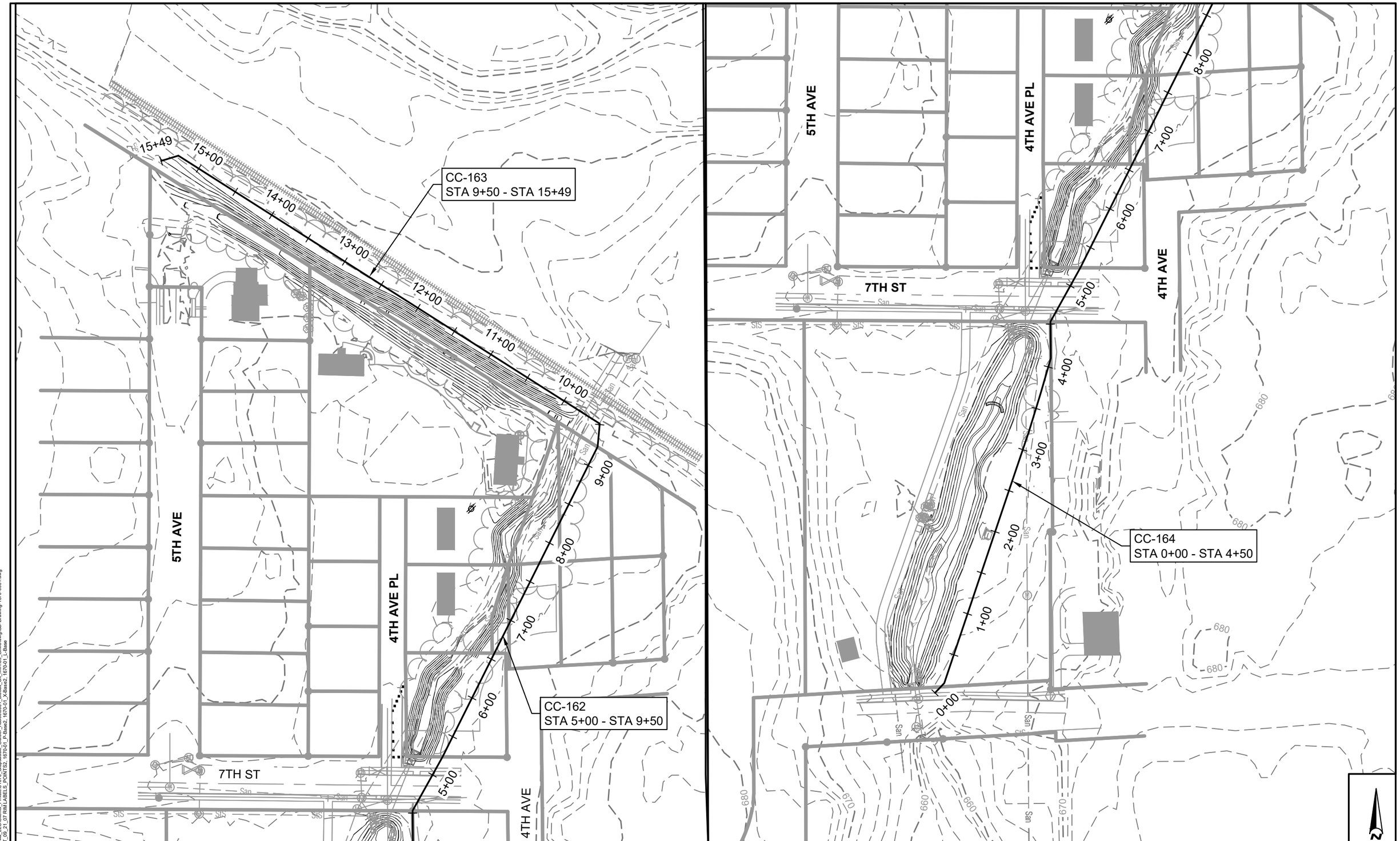
STATE PROJECT NO. ---

CITY PROJECT NO. ###

EXISTING CONDITIONS AND REMOVALS
PARK PLAN CC-164

SHEET 11 OF 52 SHEETS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Gaber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2, 28312SASBUILT_08_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base



NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: _XBase2, 283123ASBUILT_09_21, 07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_XBase2, 1670-01_L-Base

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989 www.iowaonecall.com

SCALE IN FEET

0 50 100 200

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

EOR
water ecology community
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

BISCUIT CREEK ALIGNMENT CC-162 TO CC-164

CROSS SECTION (TYP.)

PROPERTY LINE (TYP.)

CONSTRUCTION LIMITS (TYP.)

FLOODWAY BOUNDARY (TYP.)

GRADING LIMITS (TYP.)

CONSTRUCTION LIMITS (TYP.)

REMOVE AND REINSTALL
ARCHED FLARED END SECTION

1/41 ADD ONE 8 FOOT SECTION OF CONCRETE
ARCH PIPE TO MATCH. SEAL JOINTS
WITH "FIELD COLLAR" PER SUDAS 4020.11, TYPE PC2, SEE DETAIL 1/41

7+00.00 7+50.00 8+00.00 8+50.00 9+00.00 9+50.00 10+00.00

7TH ST

4TH AVE PL

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

Know what's below. Call before you dig. 811

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 10 20 40

SUBMISSION DATE: 10-14-2021

DESIGN BY AG DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- CITY PROJECT NO. ###

GRADING PLAN (1) CC-162

SHEET 13 OF 52 SHEETS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Gaber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawings-1670-0001.dwg
Xrefs: X-Base2, 283123ASBUILT_06_21_07 RIM LABELS, PONTS2, 1670-01, P-Base2, 1670-01, X-Base2, 1670-01_L-Base

PROPERTY LINE (TYP.)

CONSTRUCTION LIMITS (TYP.)

FLOODWAY BOUNDARY (TYP.)

CROSS SECTION (TYP.)

GRADING LIMITS (TYP.)

6+50.00

7+00.00

7+50.00

8+00.00

8+50.00

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989 www.iowaonecall.com

SCALE IN FEET

0 10 20 40

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
water ecology community
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

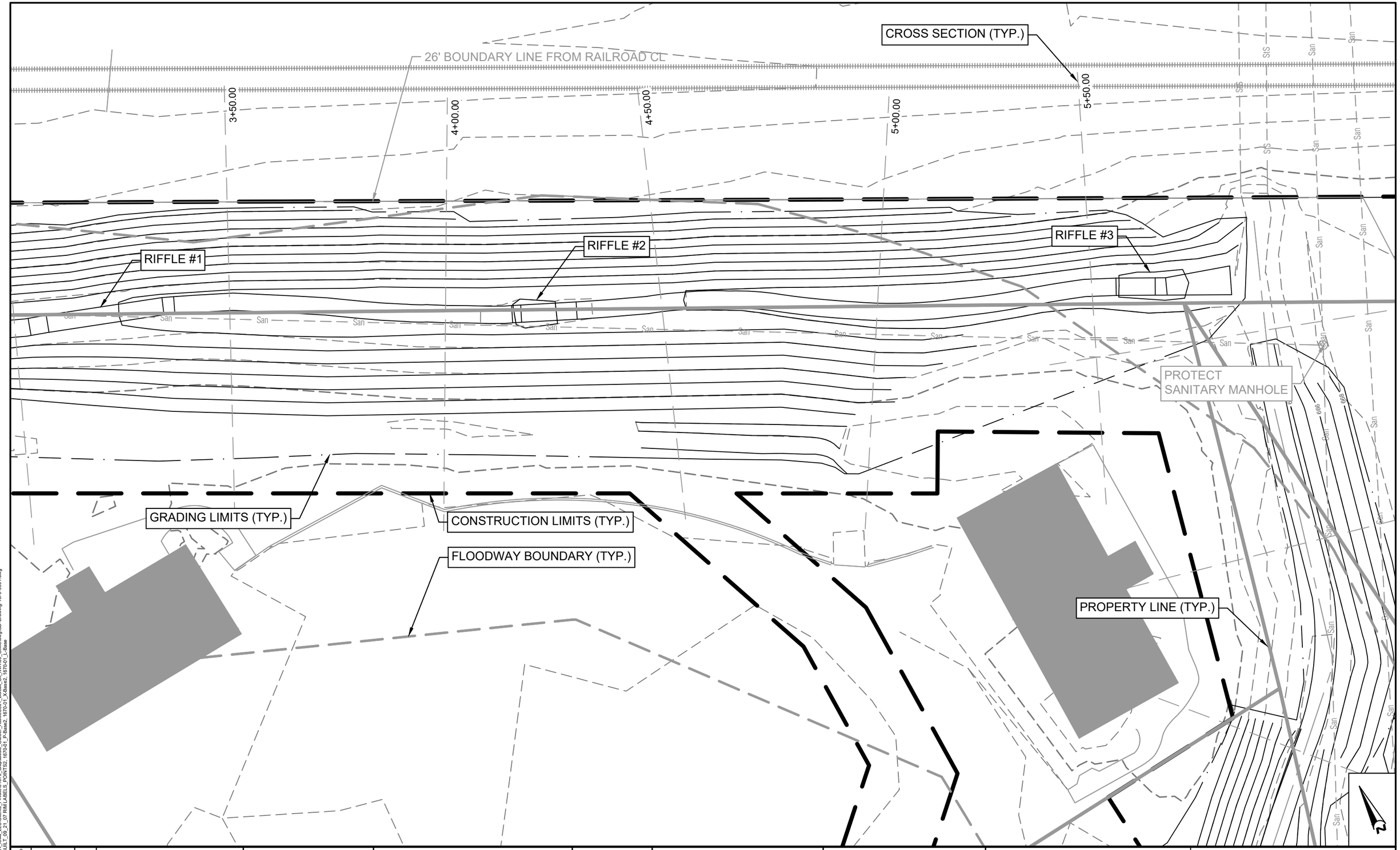
BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. ---

CITY PROJECT NO. ###

GRADING PLAN (2) CC-162

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: _Xbase2, 283123ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base



Plot Date: 10/14/2021
Drawing name: X:\Clients_Private\01670_Clappaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawings-1670-0001.dwg
Xrefs: X-Base2, 283123A\BUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 10 20 40

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

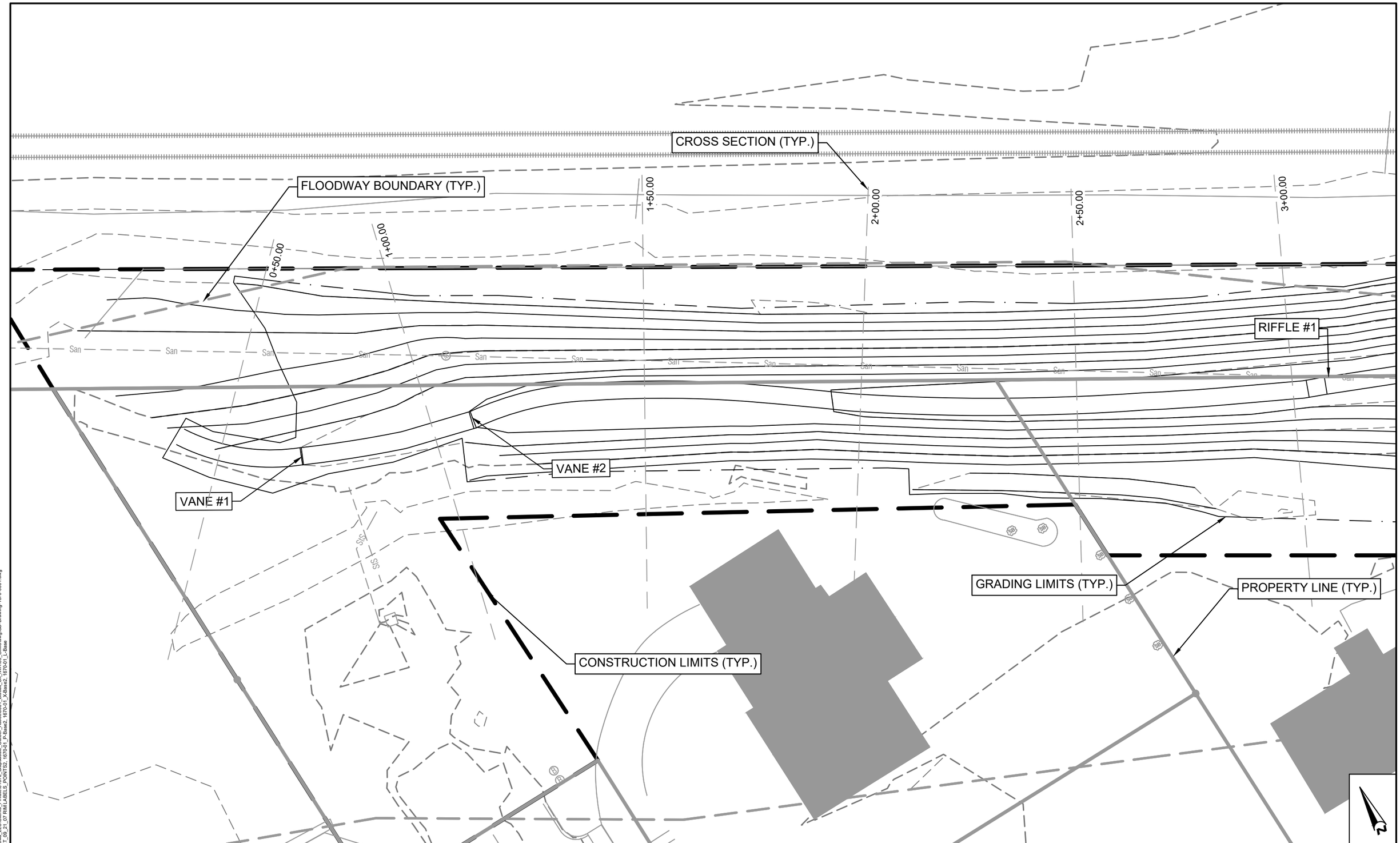
water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

GRADING PLAN (3) CC-163

SHEET 15 OF 52 SHEETS



NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989 www.iowaonecall.com

SCALE IN FEET

0 10 20 40

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

water ecology community

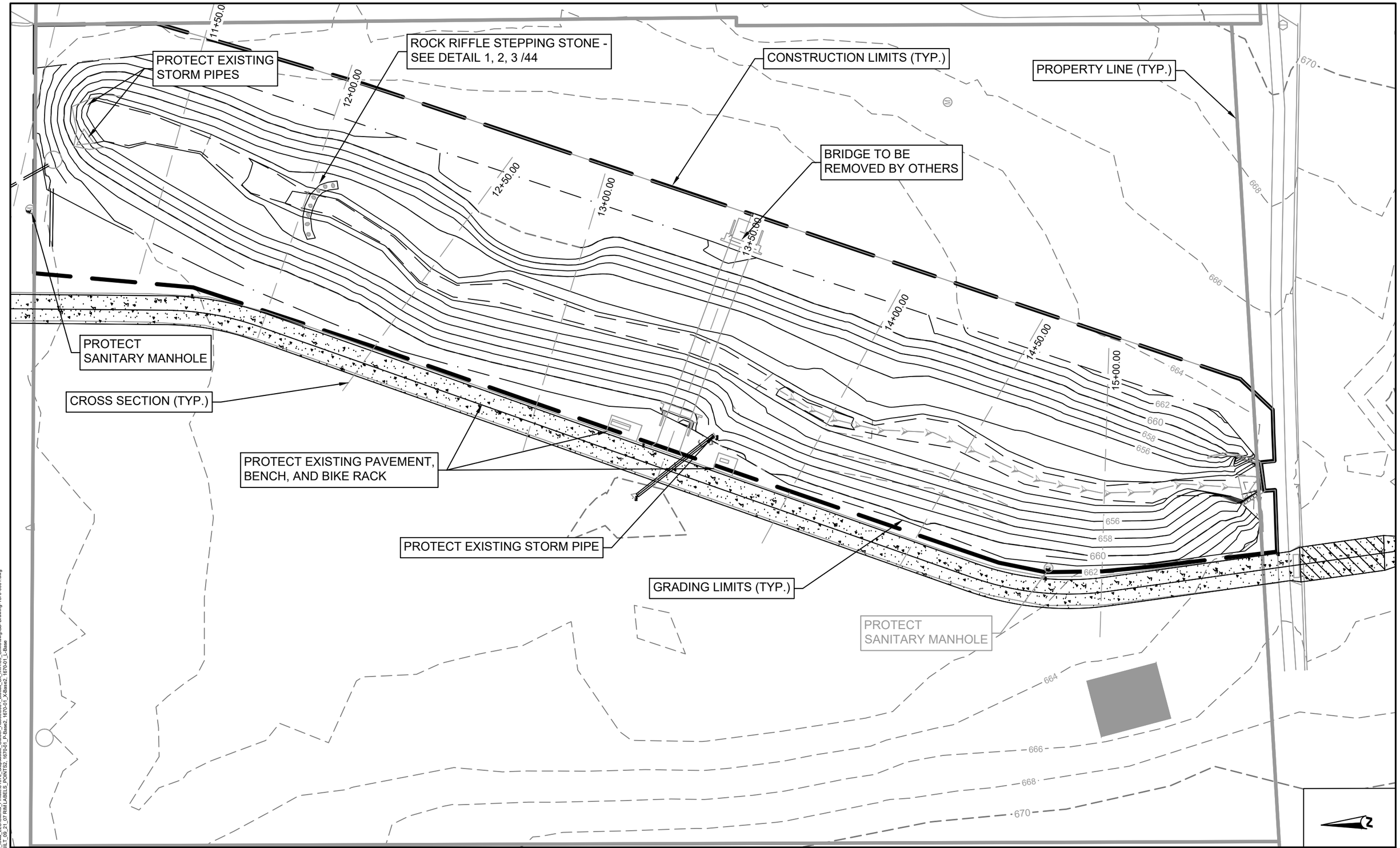
BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

GRADING PLAN (4)

SHEET 16 OF 52 SHEETS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: _XBase2, 283123ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base



Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: - X-Base2, 28323ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 15 30 60

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

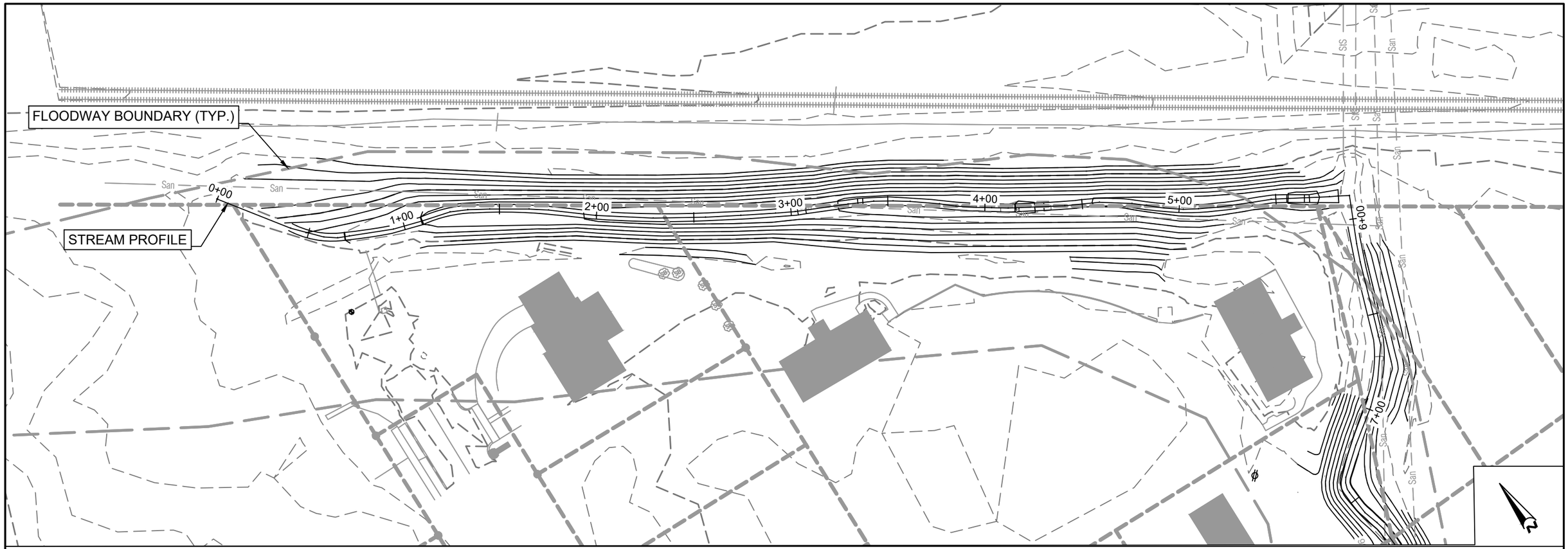
water ecology community

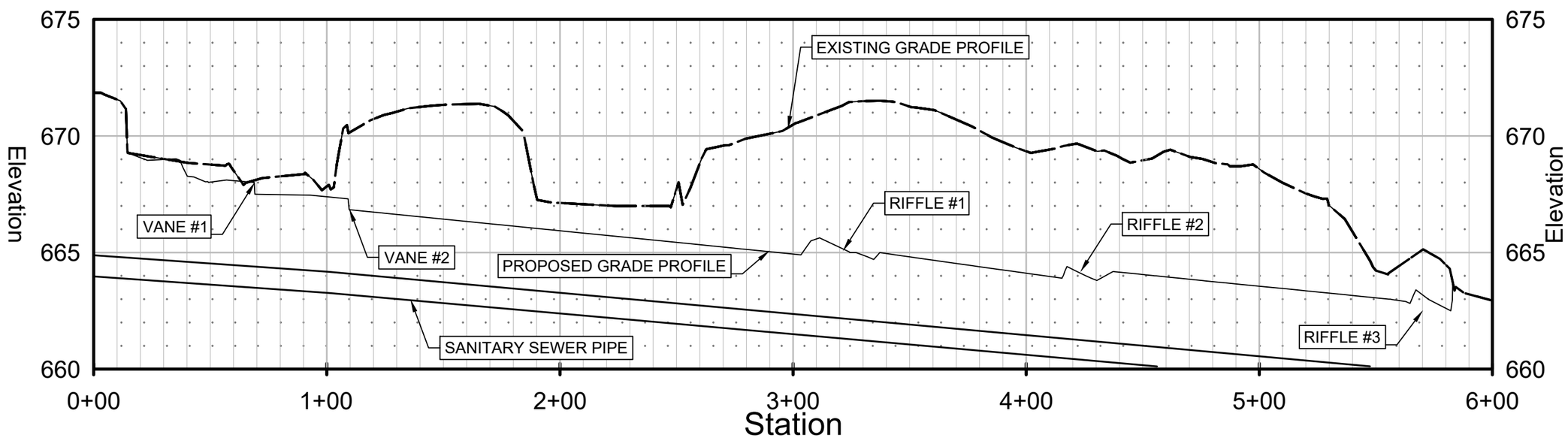
BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

GRADING PLAN (5) CC-164

SHEET 17 OF 52 SHEETS





NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

Know what's below. Call before you dig. 811

IOWA ONE CALL 1-800-292-8989 www.iowaonecall.com

SCALE IN FEET

0 25 50 100

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com
water ecology community

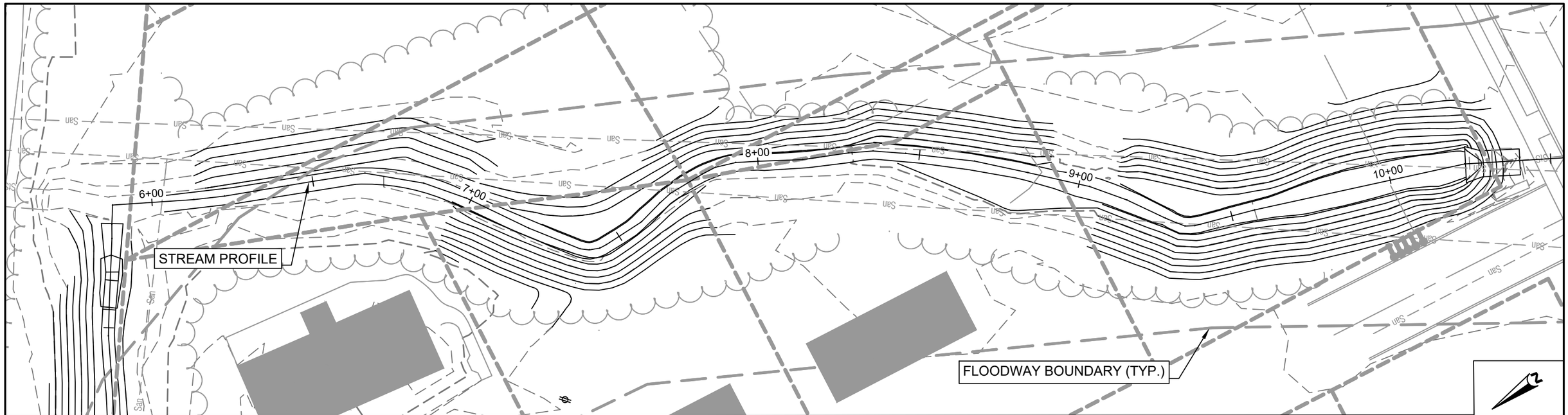
BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

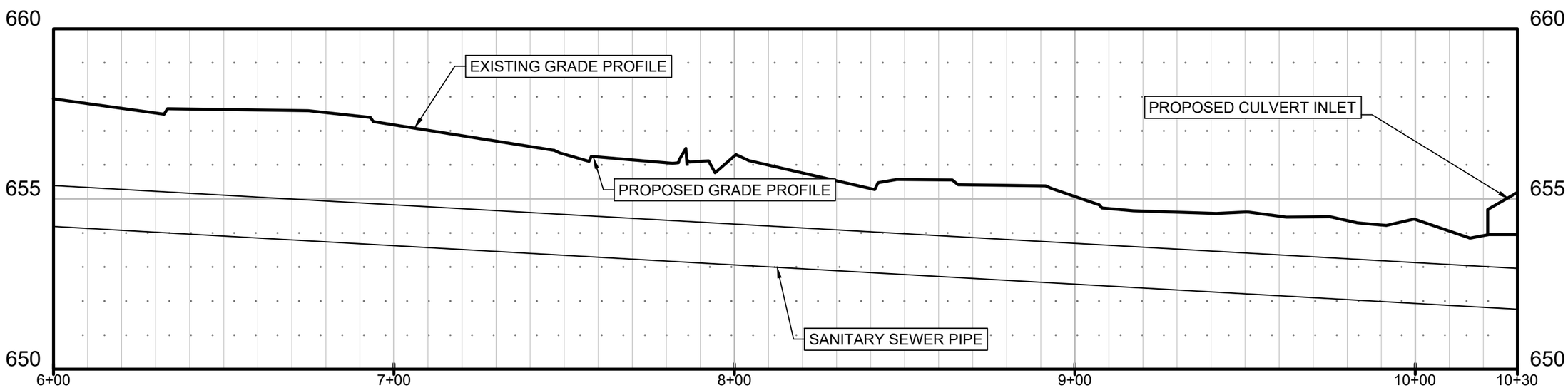
STATE PROJECT NO. --- | CITY PROJECT NO. ###

PLAN AND PROFILE (WEST TRIBUTARY)
CC-163

SHEET 18 OF 52 SHEETS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: _XBase2, 283123ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_XBase2, 1670-01_L-Base





NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 15 30 60

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

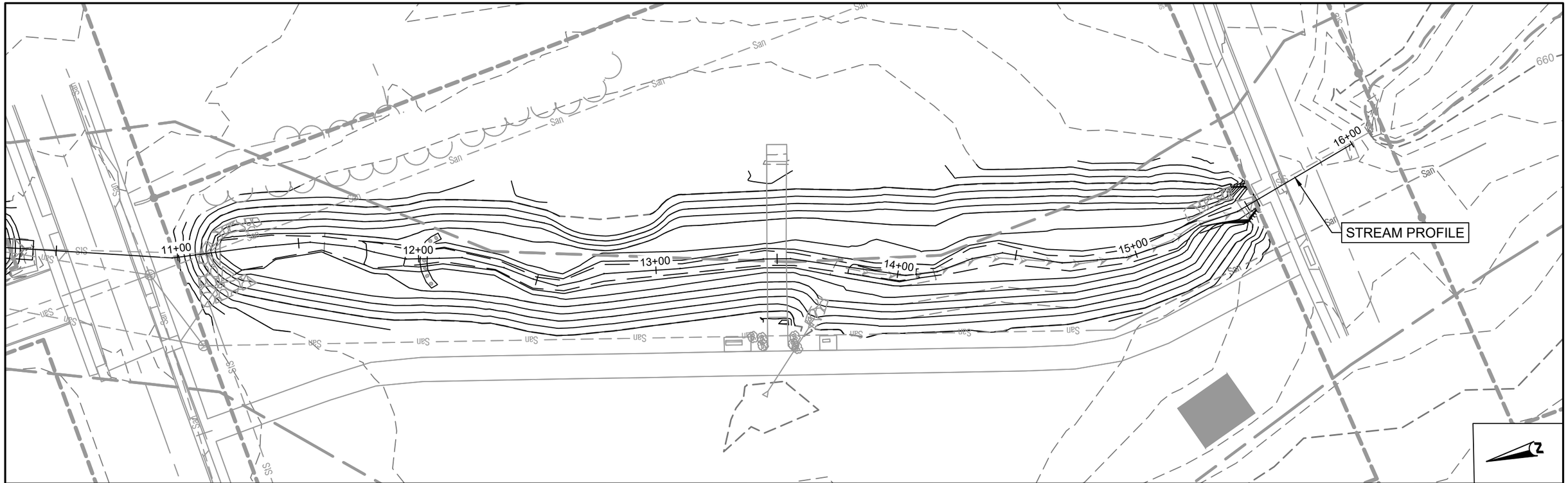
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

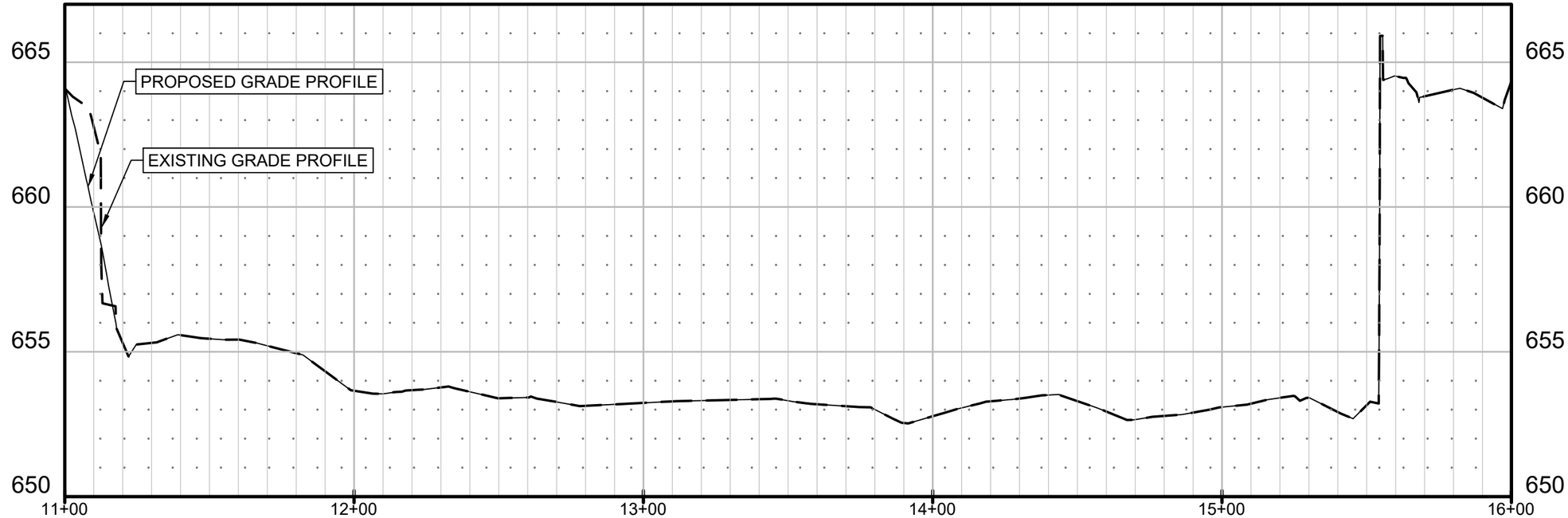
BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

PLAN AND PROFILE (MAIN REACH) CC-162

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawings-1670-0001.dwg
Xrefs: X-Base2, 28312\ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base





NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 15 30 60

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

EOR water ecology community

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

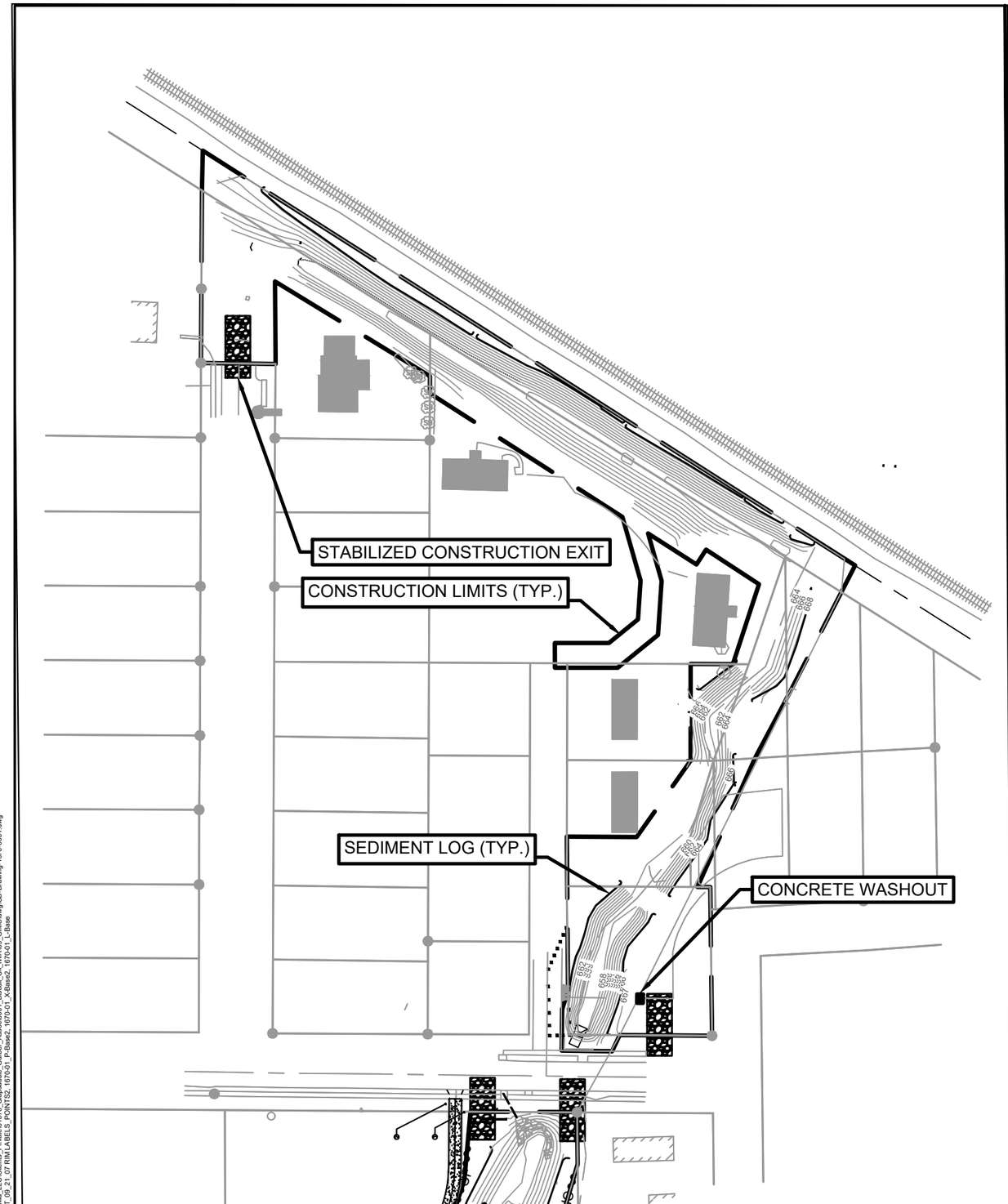
STATE PROJECT NO. --- | CITY PROJECT NO. ###

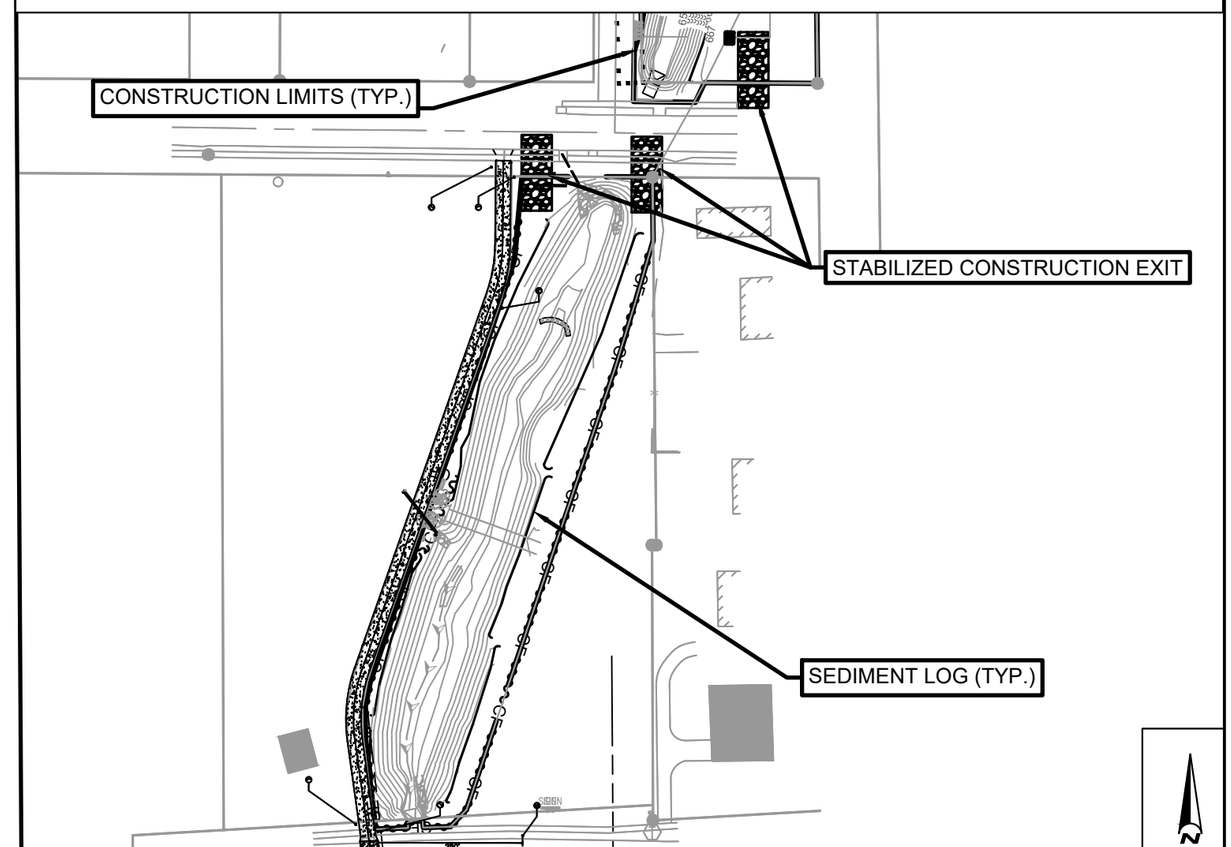
PLAN AND PROFILE (CENTRAL PARK)
CC-164

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Olapaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2, 28312\ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

EROSION AND SEDIMENT CONTROL NOTES:

1. REFERENCE SWPPP FOR MORE INFORMATION REGARDING EROSION CONTROL
2. PREVENT OR CLEAN UP “TRACK-OUT” IMMEDIATELY, MUD MUST BE REMOVED FROM PUBLIC STREETS AND SIDEWALKS AS SOON AS IT IS NOTICED. STREETS MUST BE SWEPT DAILY IF TRACKOUT IS OCCURRING
3. TRASH MUST BE PICKED UP DAILY
4. DISTURBED EARTHEN SURFACES MUST BE STABILIZED (TEMPORARY EROSION CONTROL SEED AND BFM HYDROMULCH) AS SOON AS GRADING ACTIVITIES ARE COMPLETE, OR NOT EXPECTED TO RESUME WITHIN 14 CALENDAR DAYS.
5. TYPE 4 ROLLED EROSION CONTROL PRODUCT (RECP) TO BE “700 WEIGHT” PURE COIR FIBER, OPEN WEAVE BLANKET, SUCH AS NORTH AMERICAN GREEN C700BN, BELTON INDUSTRIES GEOCOIR 700, OR APPROVED EQUAL
6. TYPE 4 RECP TO BE INSTALLED ON ALL STREAM BANK SLOPES FROM THE TOP OF BANK, WHERE IT SHALL BE BURIED IN A KEY TRENCH AND PLACED UNDER THE 9” EROSION SOCK, DOWN TO THE TOE OF THE LOWER BANK. SUCCESSIVE COURSES SHALL BE INSTALLED FROM DOWNSTREAM TO UPSTREAM.
7. BANKS ARE TO BE FINISHED AS FOLLOWS:
   a. DEBRIS REMOVAL AND GRADING TO PLAN SHAPE
   b. FINISH GRADED WITH TOPSOIL, INCLUDING SEEDBED PREPARATION (PLACEMENT, SMOOTHING, LOOSE COMPACTION, AND HORIZONTAL TRACKING)
   c. NATIVE SEED BROADCAST SPREADING
   d. EROSION CONTROL SEED APPLICATION WITH BFM HYDROMULCH (NO FERTILIZER)
   e. RECP INSTALLATION
   f. EROSION SOCK INSTALLATION AT TOP OF BANK
8. PURPOSE OF EROSION SOCK AT THE TOP OF SLOPES IS TO PREVENT CONCENTRATED RUNOFF FROM FORMING GULLIES, INSTALL THE SOCK TO PREVENT CONCENTRATED FLOW.





NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 25 50 100

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com
water ecology community

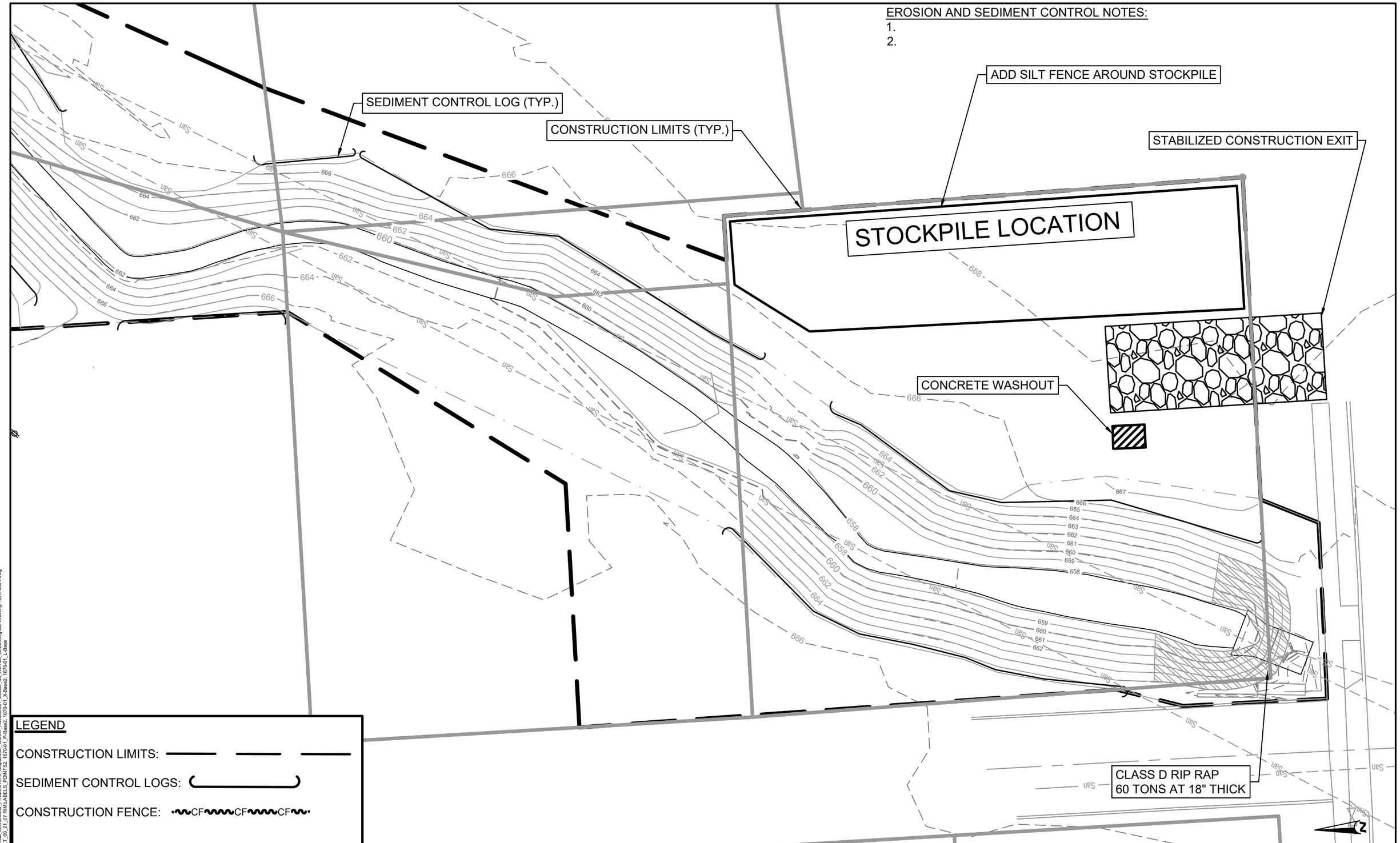
BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

EROSION AND SEDIMENT CONTROL KEY PLAN CC-162 TO CC-164

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2; 28312\ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

EROSION AND SEDIMENT CONTROL NOTES:
1.
2.



LEGEND

CONSTRUCTION LIMITS:

SEDIMENT CONTROL LOGS:

CONSTRUCTION FENCE: CF CF CF

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 10 20 40

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

EROSION CONTROL PLAN (1) CC-162

SHEET 22 OF 52 SHEETS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2, 283123ASBUILT_06_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

CONSTRUCTION LIMITS (TYP.)

SEDIMENT CONTROL LOG (TYP.)

LEGEND

CONSTRUCTION LIMITS:

SEDIMENT CONTROL LOGS:

CONSTRUCTION FENCE: CF CF CF

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 10 20 40

SUBMISSION DATE: 10-14-2021

DESIGN BY AG DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- CITY PROJECT NO. ###

EROSION CONTROL PLAN (2) CC-162

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Cr._IWA\09_GIMS\dwg\CD-Drawings-1670-0001.dwg
Xrefs: _X-Base2, 283123ASBUILT_09_21_07 RIM LABELS, POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

SEDIMENT CONTROL LOG (TYP.)

CONSTRUCTION LIMITS (TYP.)

LEGEND

CONSTRUCTION LIMITS:

SEDIMENT CONTROL LOGS:

CONSTRUCTION FENCE: CF CF CF

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 10 20 40

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com
water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

EROSION CONTROL PLAN (3) CC-163

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clappaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawings-1670-0001.dwg
Xrefs: X-Base2, 28312\A\BUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

LEGEND

CONSTRUCTION LIMITS:

SEDIMENT CONTROL LOGS:

CONSTRUCTION FENCE: CF CF CF

CONSTRUCTION LIMITS (TYP.)

STABILIZED CONSTRUCTION EXIT

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989 www.iowaonecall.com

SCALE IN FEET

0 10 20 40

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
water ecology community
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

EROSION CONTROL PLAN (4) CC-163

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Cr_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: _XBase2, 283123ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

CLASS D RIP RAP
60 TONS AT 18" THICK

CLASS D RIP RAP
SEE DETAIL 1, 2, 3 / 45

1,2,3
45

ENCIRCLE STOCKPILE
WITH SILT FENCE

CITY MAY ELECT TO KEEP
A STOCKPILE OF FILL SOIL
ONSITE, QUANTITY TBD
(UP TO 100 CY)

STABILIZED CONSTRUCTION EXIT

PROTECT BENCH AND BIKE RACK AREA FROM
CONSTRUCTION WITH SAFETY FENCING

CONSTRUCTION FENCE

LEGEND

CONSTRUCTION LIMITS:

SEDIMENT CONTROL LOGS:

CONSTRUCTION FENCE: CF CF CF

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 15 30 60

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

EROSION CONTROL PARK PLAN CC-164

SHEET 26 OF 52 SHEETS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: _XBase2, 283123ASBUILT_09_21, 07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_XBase2, 1670-01_L-Base

EASEMENT AREA FOR PARCEL
TEMPORARY CONSTRUCTION = 940 SF
PERMANENT = 1631 SF
OWNER: MARK RICHTER

PROJECT AREA FOR PARCEL
PERMANENT = 15989 SF
OWNER: CRANDIC RAILROAD

EASEMENT AREA FOR PARCEL
TEMPORARY CONSTRUCTION = 6960 SF
PERMANENT = 9092 SF
OWNER: 4TH AVENUE CO-OP

EASEMENT AREA FOR PARCEL
TEMPORARY CONSTRUCTION = 8015 SF
PERMANENT = 5253 SF
OWNER: BIC RENTALS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Olapaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2, 283123ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET
0 30 60 120

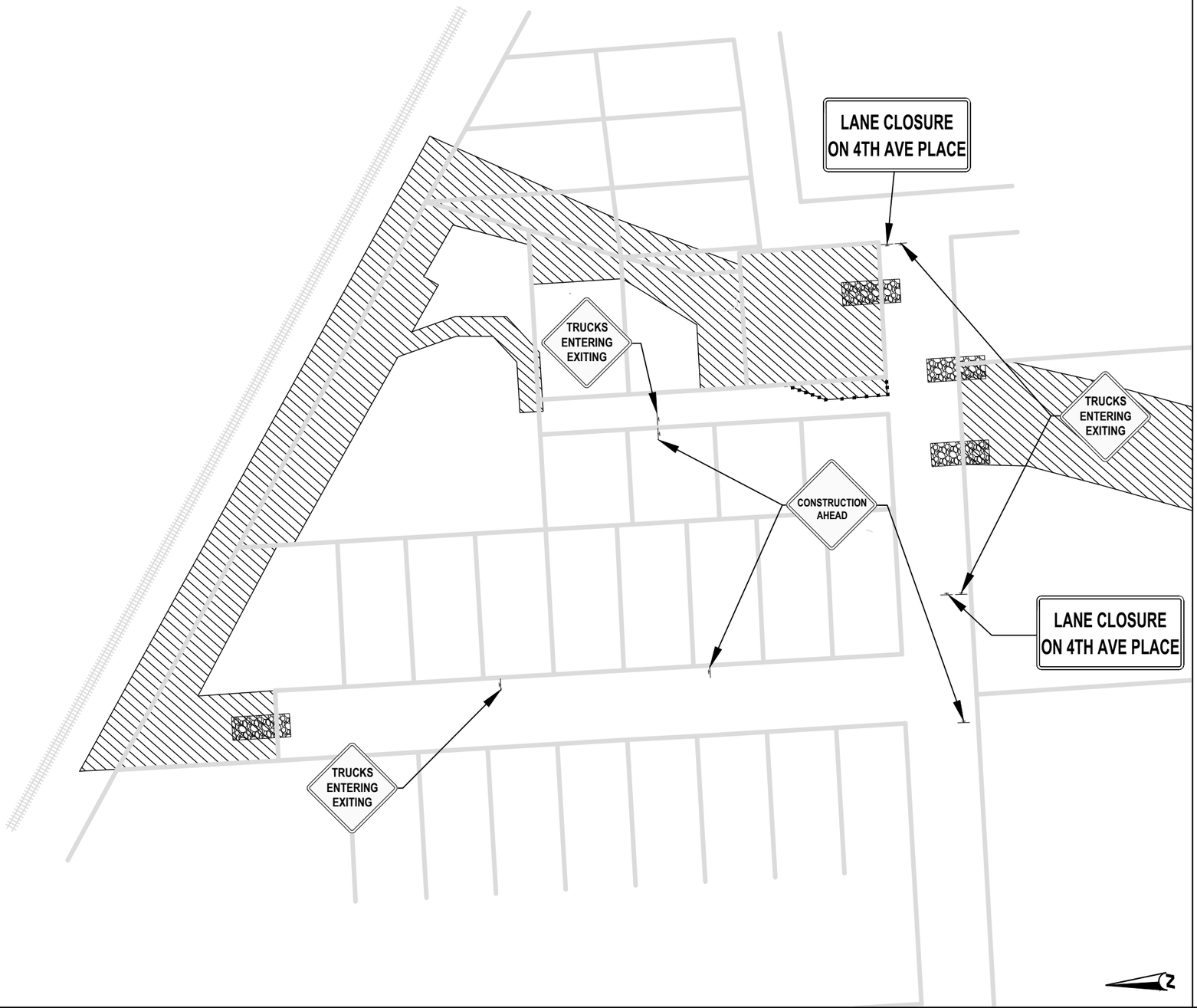
SUBMISSION DATE: 10-14-2021
DESIGN BY AG
DRAWN BY RK
EOR PROJECT NO. 01670-0001

EOR
water ecology community
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. ---
CITY PROJECT NO. ###

EASEMENT PLAN OVERVIEW CC-162 TO CC-163



LEGEND

	SIGN WITH TEMPORARY SUPPORT
	WORK AREA
	TRAFFIC CONE
	CONSTRUCTION ENTRANCE
TRUCKS ENTERING EXITING	36"X36"
CONSTRUCTION AHEAD	36"X36"
LANE CLOSURE ON 4TH AVE PLACE	60"X30"

NOTES:

1. REFER TO DETAIL #1/43 FOR SIDEWALK CLOSURE.
2. SIDEWALK CLOSURE SHOULD BE MINIMIZED AS MUCH AS POSSIBLE.

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989 www.iowaonecall.com

SCALE IN FEET

0 50 100 200

SUB-ISSION DATE: 09-24-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

EOR water ecology community
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

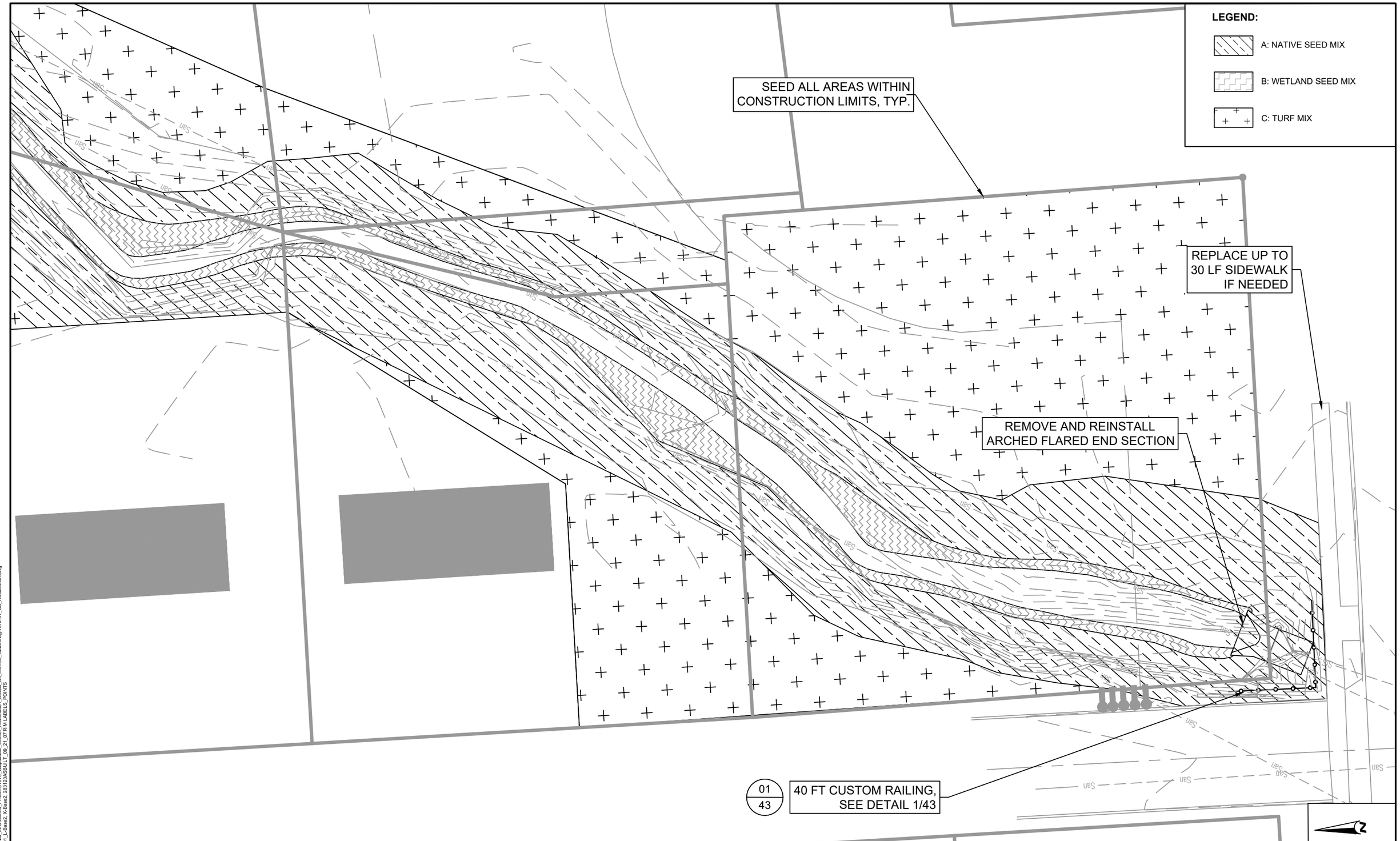
BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

TRAFFIC PLAN CC-162 TO CC-164

SHEET 28 OF 52 SHEETS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Cr._IWA\09_GIMS\dwg\CD-Drawing\-1670-0001.dwg
Xrefs:_X-Base2, 283123ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base



NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 10 20 40

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

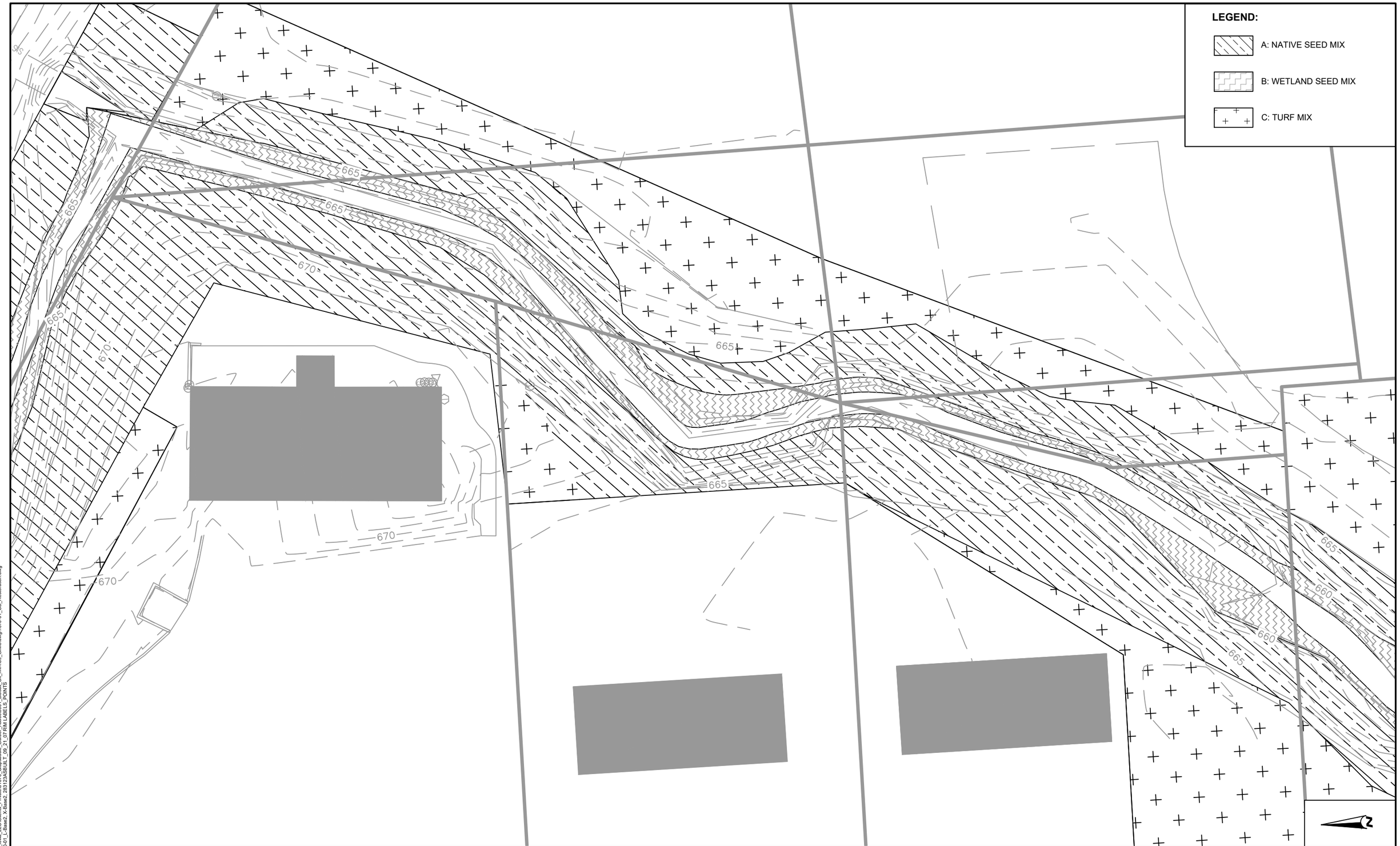
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com
water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ---

RESTORATION PLAN (1) CC-162

Plot Date: 10/14/2021
Drawing name: X:\Clients_EOR_Iowa_LLC\Clients_Private\01670_Cappaddia_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\1670-01_CD_Restoration.dwg
Xrefs: 1670-01_P-Base2, 1670-01_L-Base2, X-Base2, 283123ASBUILT_09_21_07 RIM LABELS_POINTS



Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Olapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\1670-01_CD_Restoration.dwg
Xrefs: 1670-01_P-Base2, 1670-01_L-Base2, 283123ASBUILT_09_21_07FRM LABELS_POINTS

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 10 20 40

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

EOR
water ecology community
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ---

RESTORATION PLAN (2) CC-162

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 15 30 60

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

EOR
water ecology community
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

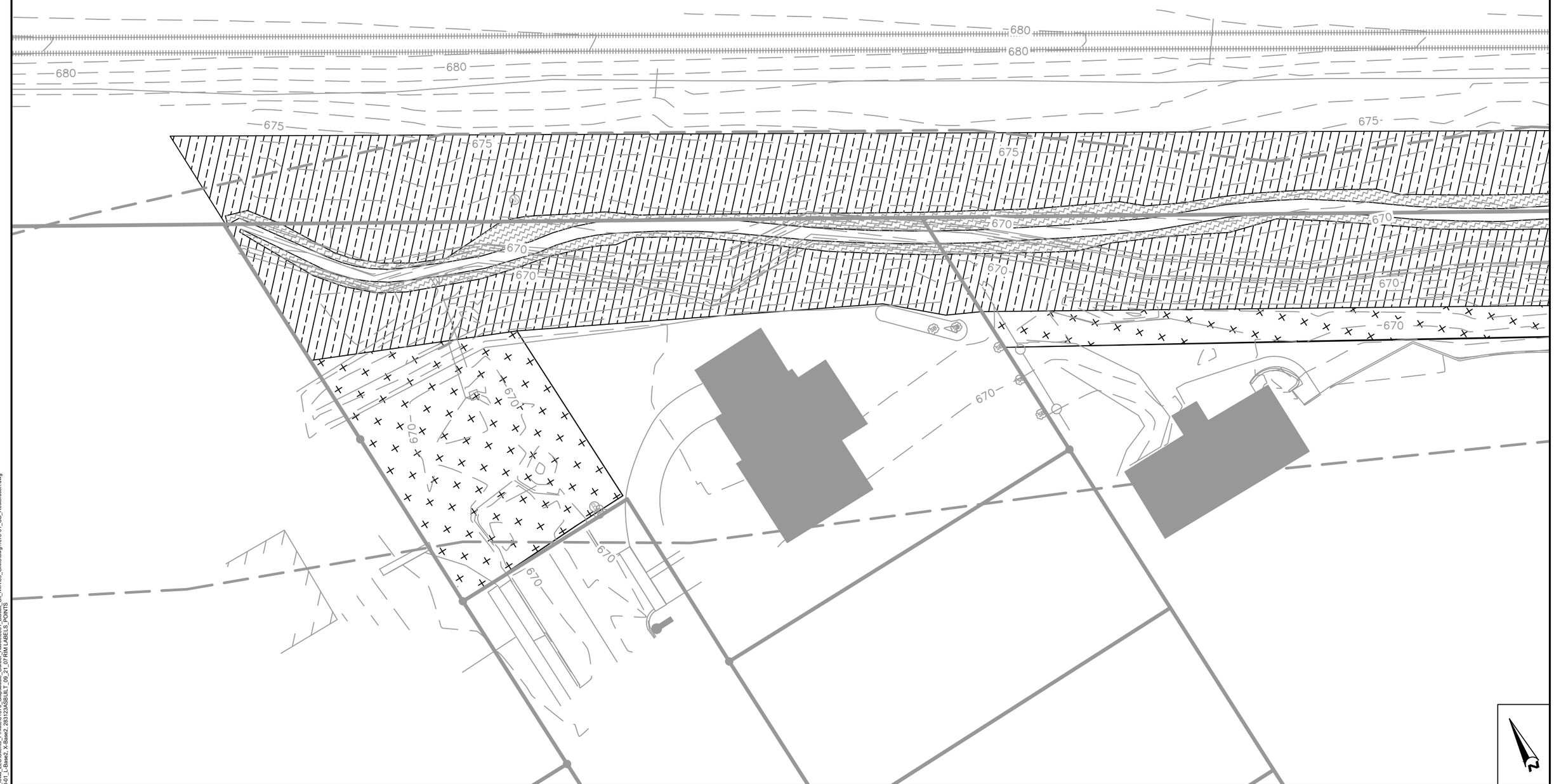
STATE PROJECT NO. --- | CITY PROJECT NO. ---

RESTORATION PLAN (3) CC-163

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Cappaddie_Gather_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\1670-01_CD_Restoration.dwg
Xrefs: 1670-01_P-Base2, 1670-01_L-Base2, X-Base2, 283123ASBUILT_09_21_07RIM LABELS_POINTS

LEGEND:

- A: NATIVE SEED MIX
- B: WETLAND SEED MIX
- C: LAWN MIX



NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 15 30 60

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
water ecology community
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ---

RESTORATION PLAN (4) CC-163

SHEET 32 OF 52 SHEETS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Cappaddie_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\1670-01_CD_Restoration.dwg
Xrefs: 1670-01_P-Base2, 1670-01_L-Base2, X-Base2, 283123ASBUILT_09_21_07 RIM LABELS_POINTS

REPLACE UP TO 30 LF SIDEWALK IF NEEDED

BENCH AND BIKE PADS TO REMAIN

6' TURF BORDER ALONG PATH, TYP.

LEGEND:

A: NATIVE SEED MIX

B: WETLAND SEED MIX

C: LAWN MIX

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989 www.iowaonecall.com

SCALE IN FEET

0 15 30 60

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

EOR
water ecology community
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ---

RESTORATION PLAN (5) CC-164

SHEET 33 OF 52 SHEETS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\1670-01_CD_Restoration.dwg
Xrefs: 1670-01_P-Base2, 1670-01_L-Base2, X:\Base2_283123\ASBUILT_09_21_07\RIM LABELS_POINTS

NATIVE SEED MIX

Prairie Moon Nursery Shortgrass Echinacea Prairie Seed Mix

Type	Scientific Name	Common Name	% by weight
Grass	*Bouteloua curtipendula*	Side-Oats Grama	17.11
	Carex brevior	Plains Oval Sedge	5.36
	Juncus dudleyi	Dudley's Rush	0.53
	Muhlenbergia racemosa	Upland Wild Timothy	0.71
	Schyzachyrium scoparium	Little Bluestem	17.11
	Sporobolus compositus	Rough Dropseed	2.14
		Total Guild	42.96
			% by weight
Forbes	*Agastache foeniculum*	Anise Hyssop	1.07
	Allium canadense	Wild Garlic	2.14
	Allium cernuum	Nodding Onion	2.67
	Aquilegia canadensis	Columbine	0.53
	Asclepias tuberosa	Butterfly Weed	3.21
	Baptisia alba	White Wild Indigo	1.07
	Baptisia australis	Blue Wild Indigo	1.07
	Baptisia sphaerocarpa	Lg Yellow Wild Indigo	1.07
	Callirhoe involucrata	Purple Poppy Mallow	1.07
	Coreopsis lanceolata	Lance-Leaf Coreopsis	4.28
	Dalea purpurea	Purple Prairie Clover	3.21
	Echinacea angustifolia	Narrow-Leaved Coneflower	3.74
	Echinacea pallida	Pale Purple Coneflower	6.41
	Echinacea purpurea	Purple Coneflower	4.28
	Eryngium yuccifolium	Rattlesnake Master	2.14
	Gentiana flavida	Cream Gentian	0.8
	Liatris ligulistylis	Meadow Blazing Star	1.07
	Penstemon digitalis	Foxglove Beardtongue	1.07
	Penstemon hirsutus	Hairy Beardtongue	3.21
	Phlox pilosa	Prairie Phlox	0.36
	Rudbeckia fulgida	Orange Coneflower	0.29
	Rudbeckia hirta	Black-Eyed Susan	3.21
	Ruellia humilis	Wild Petunia	2.14
	Solidago speciosa	Showy Goldenrod	0.53
	Symphyotrichum oolentangiense	Sky Blue Aster	1.6
	Tephrosia virginiana	Goat's Rue	1.07
	Thaspium trifoliatum glavum	Meadow Parsnip	0.53
	Tradescantia ohiensis	Ohio Spiderwort	3.21
		Total Guild	57.05
		SEED RATE (lb/ac)	11.69

G. Wetland Seeding: Between April 1 and June 30 and between August 1 and August 31, use the following seed mixture for wetland grass seeding areas.

Table 9010.12: Wetland Grass Seed Mixture

Common Name	Scientific Name	PLS (per ac)
Blue vervain	Verbena Hastata	1 oz.
Boneset	Eupatorium perfoliatum	1 oz.
Nodding bur marigold	Bidens cernua	8 oz.
Swamp milkweed	Asclepias incarnata	1 lb.
Sneezeweed	Helenium autumnale	2 oz.
Water plantain	Alisma plantago-aquatica	4 oz.
Arrowhead	Sagittaria latifolia	4 oz.
New England aster	Symphyotrichum novae-angliae	2 oz.
Big Bluestem	Andropogon gerardii	1 lb.
Switchgrass	Panicum virgatum	8 oz.
Prairie cordgrass	Spartina pectinata	1 lb.
Virginia wild-rye	Elymus virginicus	5 lbs.
Bluejoint grass	Calamagrostis	1 oz.
Rice cutgrass	Leersia oryzoides	4 oz.
Dark Green bulrush	Scirpus atrovirens	1 oz.
Fox sedge	Carex vulpinoidea	4 oz.
Softstem bulrush	Schoenoplectus tabernaemontani	8 oz.
Spike rush	Eleocharis palustris	4 oz.
Porcupine sedge	Carex hystericina	8 oz.
Broom sedge	Carex scoparia	2 oz.
Tussock sedge	Carex stricta	2 oz.

A. Type 1 (Permanent Lawn Mixture): Used for residential and commercial turf site, fertilized, and typically mowed. Use between March 1 and May 31 and between August 10 and September 30.

Table 9010.06: Type 1 Seed Mixture[1]

Common Name	Application Rate lb/acre
Kentucky bluegrass cultivar[2]	65
Kentucky bluegrass cultivar[2]	65
Kentucky bluegrass cultivar[2]	65
Creeping red fescue	25
Fine-leafed perennial ryegrass[3]	20
Fine-leafed perennial ryegrass[3]	20
Annual ryegrass	40

[1] A commercial mixture may be used if it contains a high percentage of similar bluegrasses; it may or may not contain Creeping Red Fescue.
[2] Choose three different cultivars of Kentucky Bluegrass.
[3] Choose two different cultivars of Fine-Leafed Perennial Ryegrass, at 20 pounds/acre each.

GENERAL NOTES

1. LANDSCAPE CONTRACTOR SHALL INSPECT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS RELATING TO THE NATURE AND SCOPE OF WORK.
2. LANDSCAPE 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.
3. LANDSCAPE CONTRACTOR SHALL ASSURE COMPLIANCE WITH APPLICABLE CODES AND REGULATIONS GOVERNING THE WORK AND MATERIALS SUPPLIED.
4. LANDSCAPE CONTRACTOR SHALL VERIFY ALIGNMENT AND LOCATION OF UNDERGROUND AND ABOVE GRADE UTILITIES AND PROVIDE THE NECESSARY PROTECTION FOR SAME BEFORE CONSTRUCTION BEGINS.
5. LANDSCAPE 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 BEGINNING OF WORK.
6. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ONGOING MAINTENANCE OF NEWLY INSTALLED MATERIALS UNTIL TIME OF FINAL ACCEPTANCE BY LANDSCAPE ARCHITECT. REPAIR OF ACTS OF VANDALISM OR DAMAGE WHICH MAY OCCUR PRIOR TO FINAL ACCEPTANCE SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.

SEEDING NOTES

7. NATIVE SEED SHALL BE LOCAL ORIGIN AND WILD ECOTYPE. LOCAL ORIGIN SHALL MEAN WITHIN 200 MILES OF PROJECT SITE. PROVIDE DOCUMENTATION TO LANDSCAPE ARCHITECT PRIOR TO SEEDING.
8. NATIVE SEED MIX AND WETLAND SEED MIX TO INCLUDE RHIZOBIUM SEED INOCULANT AT RECOMMENDED RATE (INCIDENTAL TO SEEDING BID ITEM).
9. SOW SEED MIXES ON DISTURBED AREAS AFTER ALL GRADING ACTIVITIES HAVE BEEN COMPLETED.
10. ACCEPTABLE SEEDING DATES ARE APRIL 1 - JUNE 30 IN THE SPRING, OR AUGUST 1 - AUGUST 31 IN THE FALL. WRITTEN PERMISSION MUST BE GRANTED BY THE LANDSCAPE ARCHITECT TO PERFORM SEEDING OPERATIONS ON ANY OTHER DATES OF THE YEAR.
11. PREPARE SEED BED PRIOR TO SEEDING. SOW SEED IN ACCORDANCE WITH SUDAS SPECIFICATIONS.
12. STABILIZE SEED MIXES WITH BONDED FIBER MATRIX AT 3,500 LB/ACRE, EXCEPT WHERE EROSION CONTROL BLANKET IS INDICATED ON EROSION CONTROL PLAN.
13. USE TEMPORARY EROSION CONTROL DEVICES (SEDIMENT LOGS, SILT FENCE) AS NEEDED TO PREVENT EROSION PRIOR TO AND DURING SEED ESTABLISHMENT.
14. INCLUDE A COVER CROP OF OATS WITHIN NATIVE AND WETLAND SEED MIXES (@ RATE OF 32 LB/ACRE) IF SEEDING BETWEEN OCTOBER 15TH AND AUGUST 1ST. IF SEEDING BETWEEN AUGUST 1ST AND OCTOBER 15TH, SUBSTITUTE WINTER WHEAT FOR OATS AT THE SAME RATE.

SEED ESTABLISHMENT NOTES

15. ESTABLISHMENT PERIOD COMMENCES UPON ACCEPTANCE OF SEEDING (ADEQUATE COVER CROP GERMINATION AND COVERAGE) AND RUNS FOR THREE YEARS FROM THIS DATE.
16. MONITOR THE SITE MONTHLY DURING THIS PERIOD TO DETECT AREAS OF WEED COLONIZATION. CUT OR TREAT ALL NOXIOUS WEEDS WITH GLYPHOSATE HERBICIDE AS SOON AS DETECTED.
17. DURING THE FIRST GROWING SEASON MOW OR CUT THE ENTIRE SEEDED AREA EVERY 30 DAYS UNTIL SEPTEMBER 30TH AT A HEIGHT OF 5-8".
18. DURING THE SECOND GROWING SEASON MOW OR CUT THE ENTIRE SEEDED AREA ONCE IN MID-JUNE AND ONCE IN MID-AUGUST AT A HEIGHT OF 5-8".
19. IF AREAS OF BARE GROUND PERSIST AFTER FIRST GROWING SEASON RESEED PER PLAN.
20. AFTER THE FIRST TWO GROWING SEASONS MOW OR CUT NATIVE SEED AREAS IN LATE FALL OR EARLY SPRING (EACH YEAR). RAKE OUT AND REMOVE DOWNED VEGETATION.

SEEDING SCHEDULE

SYMBOL	SEED TYPE	SEEDING RATE (lb/acre)	TOTAL AREA (acre)
A	Native Seed Mix + Cover Crop	11.69	1.27
B	SUDAS Wetland Seed Mixture + Cover Crop	4.5	0.34
C	SUDAS Type 1 Permanent Lawn Mixture	300	0.79
		TOTAL	2.4

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

Know what's below. Call before you dig. 811 IOWA ONE CALL 1-800-292-8989

SUBMISSION DATE: 10-14-2021
DESIGN BY AG DRAWN BY RK
EOR PROJECT NO. 01670-0001

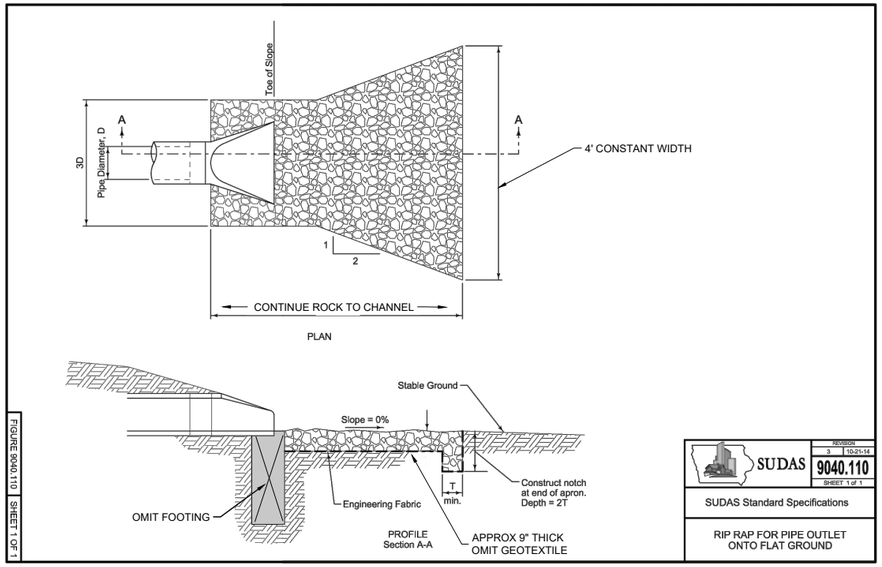
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com
water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- CITY PROJECT NO. ---

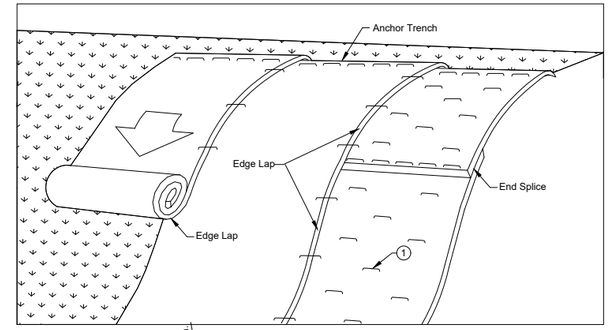
K6 - RESTORATION NOTES AND MIXES

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Cappaddle_Gather_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\1670-01_CD_Restoration.dwg
Xrefs: 1670-01_P-Base2, 1670-01_L-Base2, X-Base2, 283123ASBUILT_09_21_07RIM LABELS_POINTS



01 / 35 RIP RAP AT PIPE OUTLET

*NOT TO SCALE



1 Secure blanket to ground according to manufacturer's recommended anchoring pattern and minimum shown in Table 1.

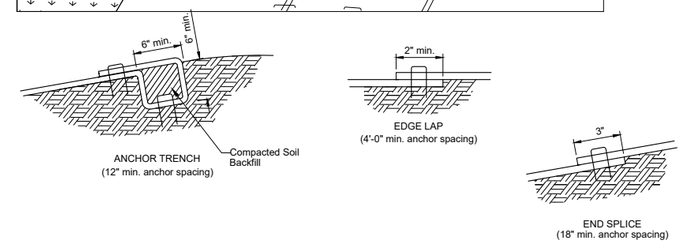


TABLE 1

Max. slope	Min. anchors
≤ 3:1	1.5/yd²
2:1	2/yd²
1:1	2.5/yd²

REVISION 2 10-21-14
9040.103
SHEET 1 of 1

ROLLED EROSION CONTROL PRODUCT (RECP) INSTALLATION ON SLOPES

02 / 35 ROLLED EROSION CONTROL PRODUCT (RECP)

*NOT TO SCALE

03 / 35 INTENTIONALLY LEFT BLANK

*NOT TO SCALE

04 / 35 INTENTIONALLY LEFT BLANK

*NOT TO SCALE

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989 www.iowaonecall.com

SCALE IN FEET

0 50 100 200

SUBMISSION DATE: 10-14-2021

DESIGN BY AG DRAWN BY: RK

EOR PROJECT NO. 01670-0001

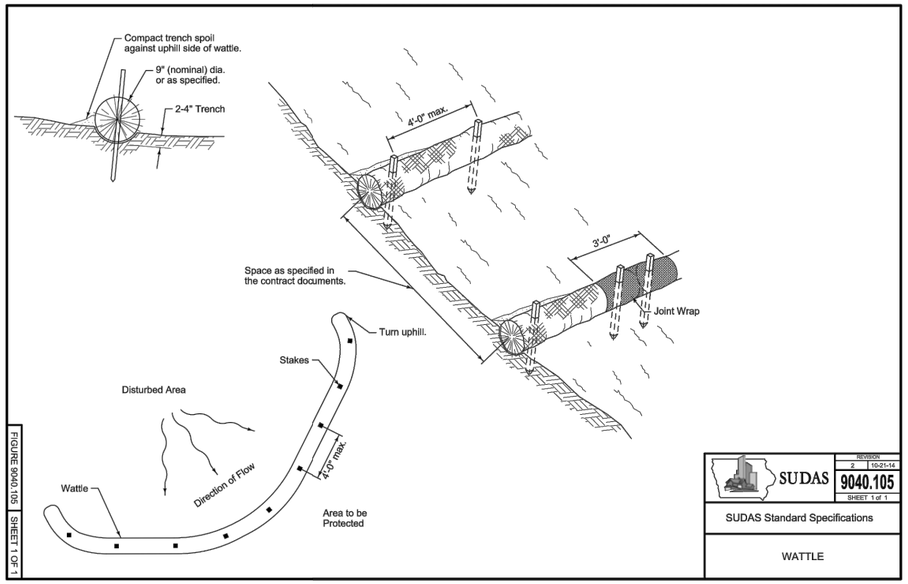
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com
water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- CITY PROJECT NO. ###

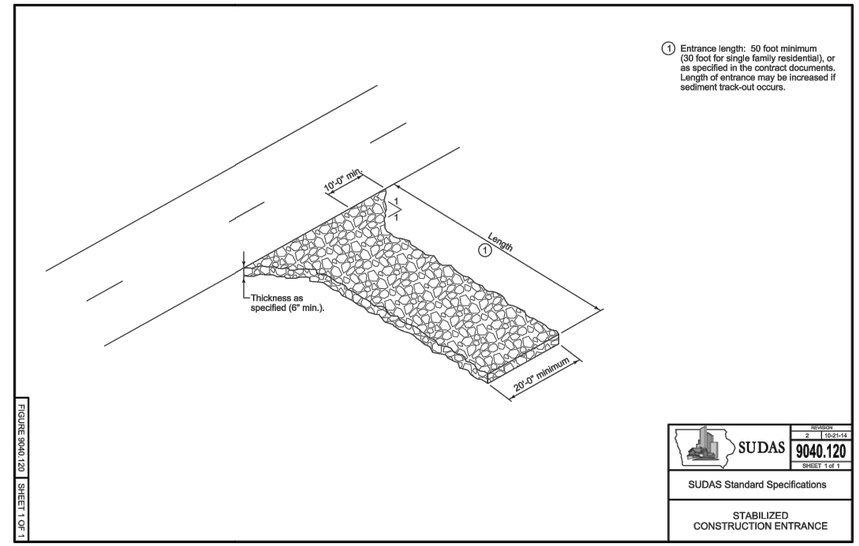
DETAIL SHEET 1

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\1670-01_Detail Drawings.dwg
Xrefs: 8030_1112; SUDAS Logo2



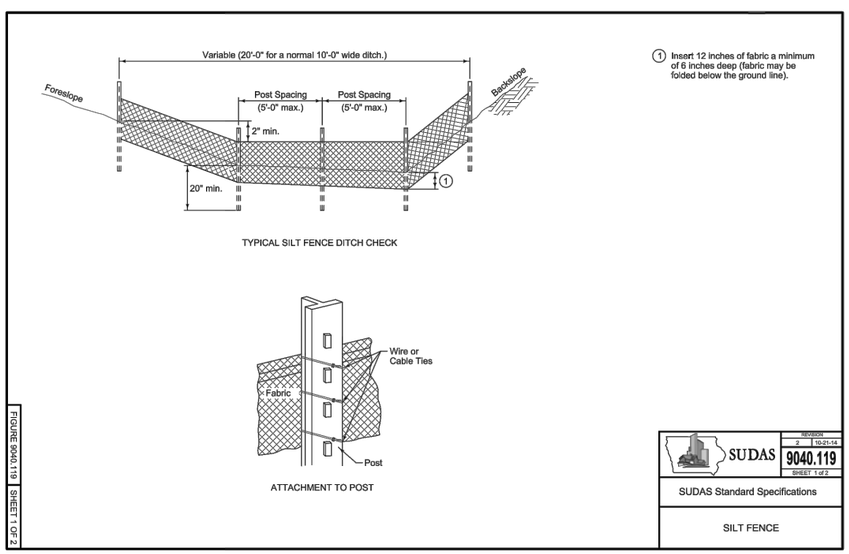
01 / 36 WATTLE

*NOT TO SCALE



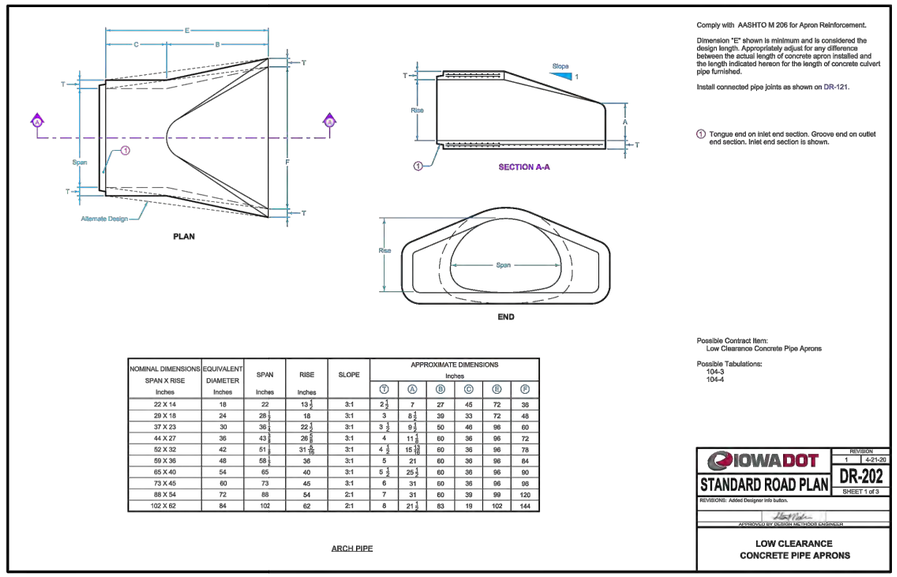
02 / 36 STABILIZED CONSTRUCTION ENTRANCE

*NOT TO SCALE



03 / 36 SILT FENCE

*NOT TO SCALE



NOMINAL DIMENSIONS SPAN X RISE Inches	EQUIVALENT DIAMETER Inches	SPAN Inches	RISE Inches	SLOPE	APPROXIMATE DIMENSIONS Inches (T)	(A)	(B)	(C)	(D)	(P)
23 X 14	18	22	13 1/2	3:1	2 1/2	7	27	45	72	36
29 X 18	24	28 1/2	18	3:1	3	8 1/2	39	33	72	48
37 X 23	30	36 1/2	22 1/2	3:1	3 1/2	9 1/2	50	48	96	60
44 X 27	36	43 1/2	26 1/2	3:1	4	11 1/2	60	36	96	72
52 X 32	42	51	31 1/2	3:1	4 1/2	15 1/2	60	36	96	78
59 X 36	48	58 1/2	36	3:1	5	21	60	36	96	84
65 X 40	54	65	40	3:1	5 1/2	25 1/2	60	36	96	90
73 X 45	60	73	45	3:1	6	31	60	36	96	96
88 X 54	72	88	54	2:1	7	31	60	39	99	120
102 X 62	84	102	62	2:1	8	21 1/2	63	19	102	144

ARCH PIPE

04 / 36 CONCRETE ARCH PIPE

*NOT TO SCALE

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989 www.iowaonecall.com

SCALE IN FEET

0 50 100 200

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

EOR water ecology community

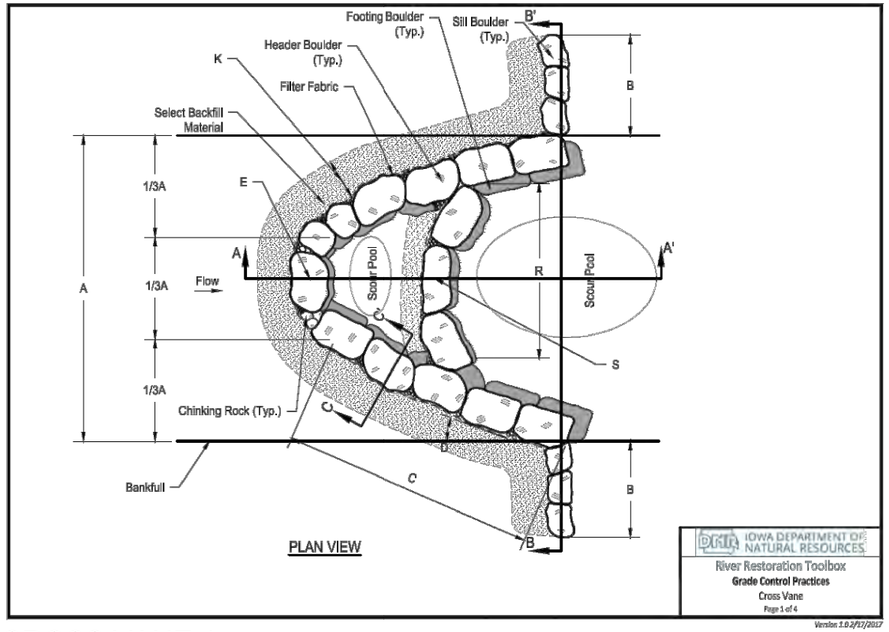
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

DETAIL SHEET 2

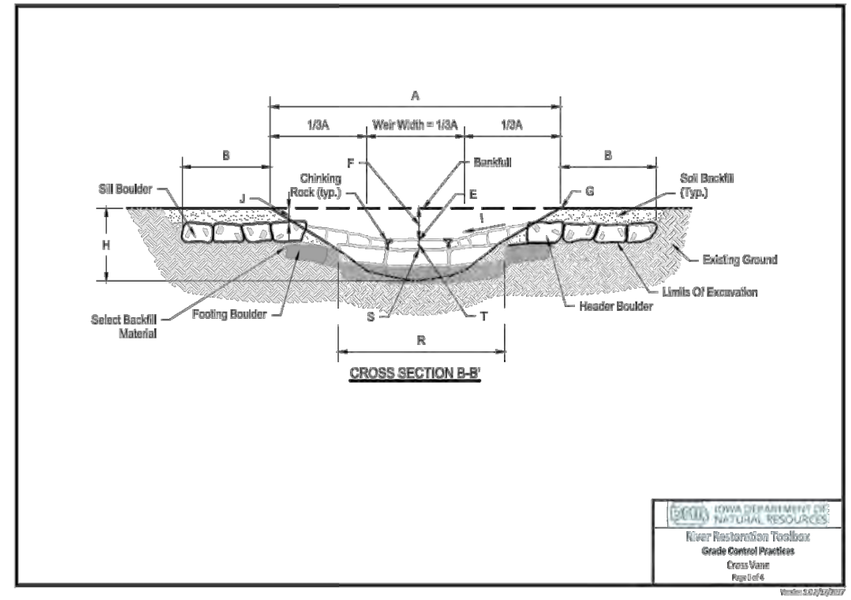
Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\1670-01_Detail Drawings.dwg
Xrefs: 8030_1112; SUDAS Logo2



01
37

CROSS VANE 1

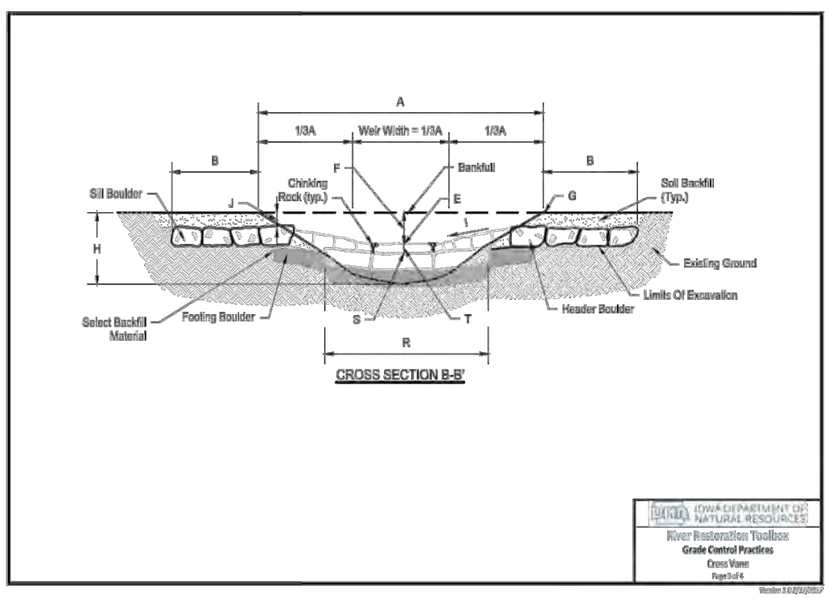
*NOT TO SCALE



02
37

CROSS VANE 2

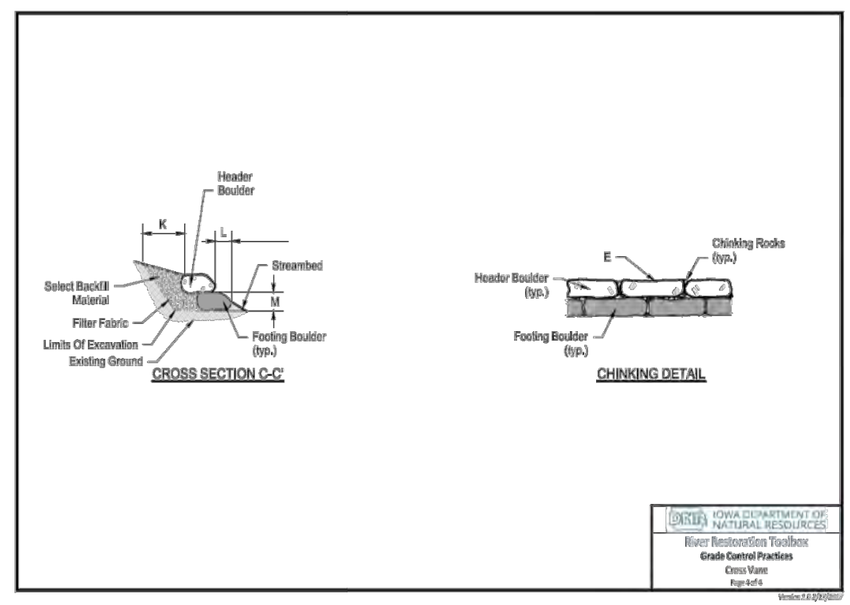
*NOT TO SCALE



03
37

CROSS VANE 3

*NOT TO SCALE



04
37

CROSS VANE 4

*NOT TO SCALE

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\1670-01_Detail Drawings.dwg
Xrefs: 8630_1112; SUDAS Logo2

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989 www.iowaonecall.com

SCALE IN FEET

0 50 100 200

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

water ecology community

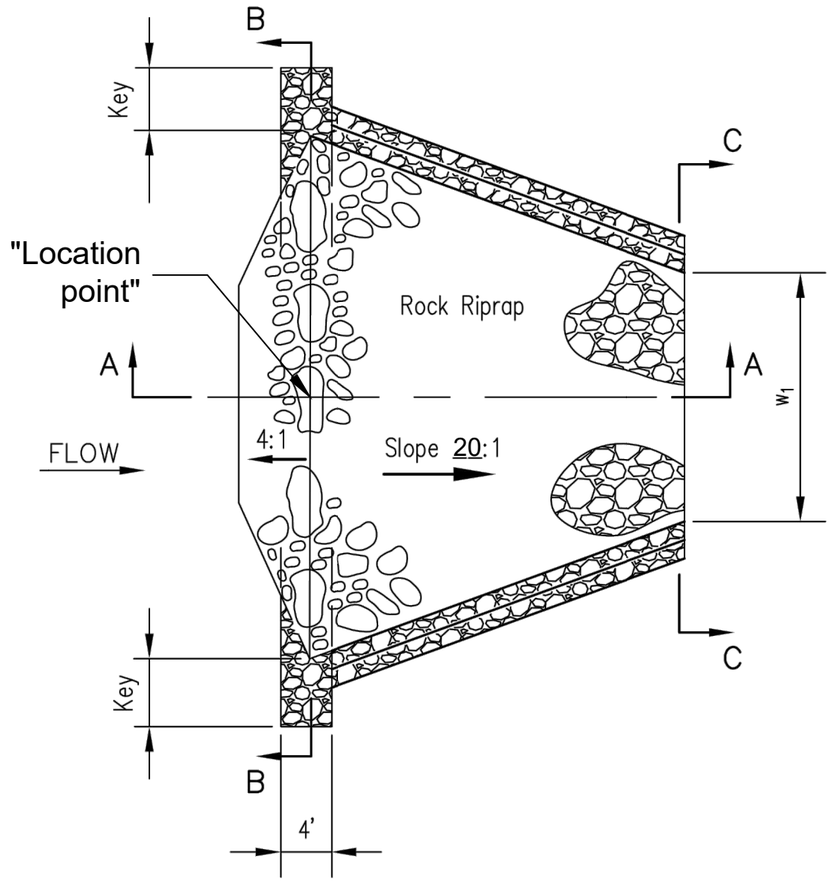
BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

DETAIL SHEET 3

($h_2 = h_1 + 0.3'$)

Riffle No.	Sta.	Control Elev.	h_1	h_2	h_3	h_4	W_1	Estimated Rock (Tons)
1	3+15	665.5 ft	0.7'	1.0'	2.5'	2'	4'	26
2	4+17	664.4 ft	0.5'	0.8'	2.5'	2'	4'	13
3	5+68	663.4 ft	0.6'	0.9'	2.5'	2'	4'	13



PLAN

NOTES:
1. Rock gradation shall meet IDOT requirement for erosion stone riprap, quality designation "A", or as designated by engineer.
2. Use largest individual stones From available material as shown for the emergent boulders and crest stone.
3. Riffle slope shall be 20:1 or flatter where fish passage is required.

01
38
ROCK RIFFLE 1
*NOT TO SCALE

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.
IOWA ONE CALL 1-800-292-8989

SCALE IN FEET
0 50 100 200

SUBMISSION DATE: 10-14-2021
DESIGN BY AG
DRAWN BY RK
EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com
water ecology community

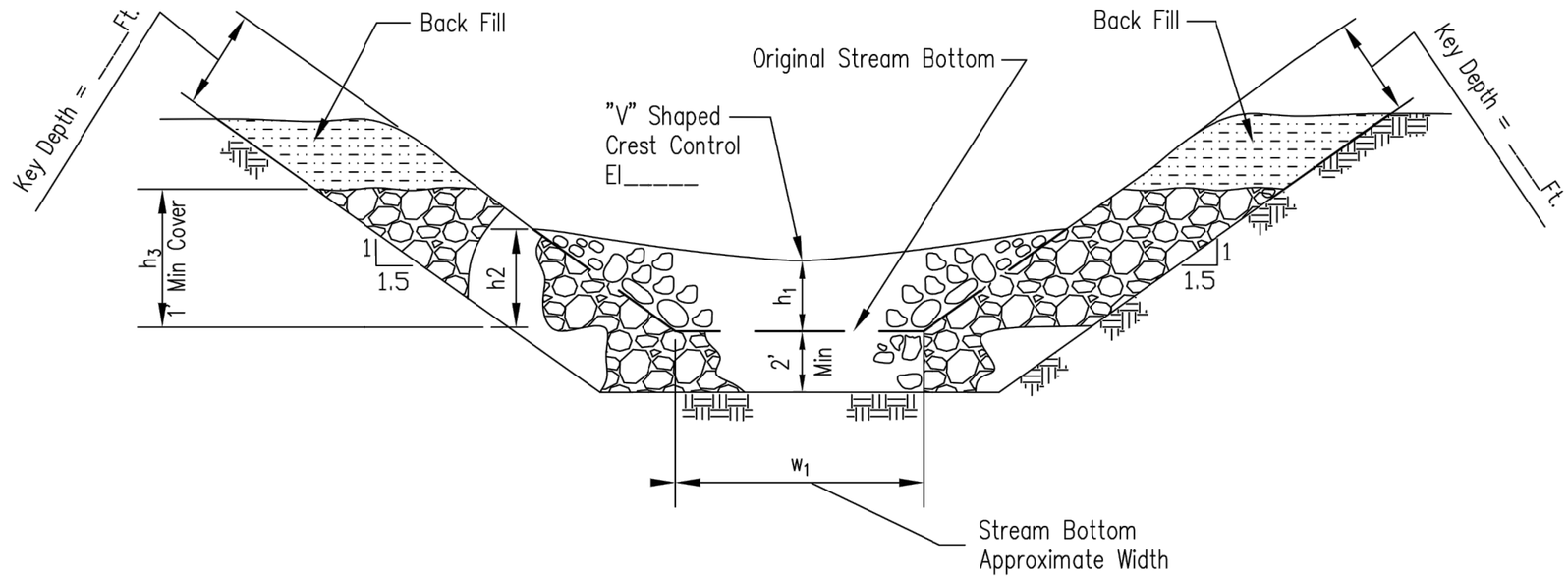
BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. ---
CITY PROJECT NO. ###

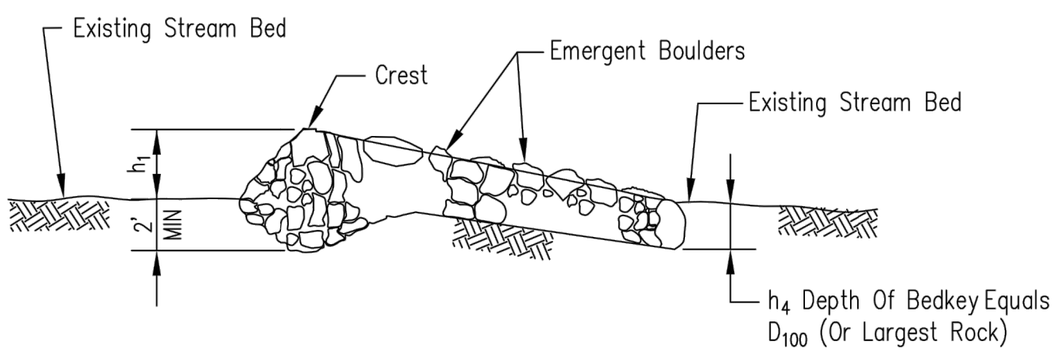
DETAIL SHEET 4

SHEET 38 OF 52 SHEETS

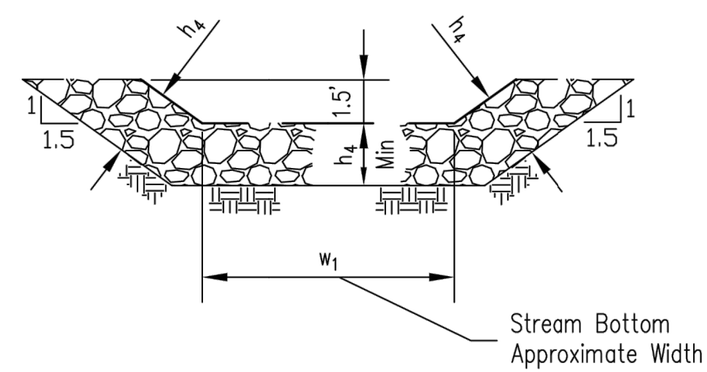
Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\1670-01_Detail Drawings.dwg
Xrefs:, 8030_1112_SUDAS Logo2



SECTION B–B



SECTION A–A



SECTION C–C

01
39

ROCK RIFFLE 2

*NOT TO SCALE

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 50 100 200

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

water ecology community

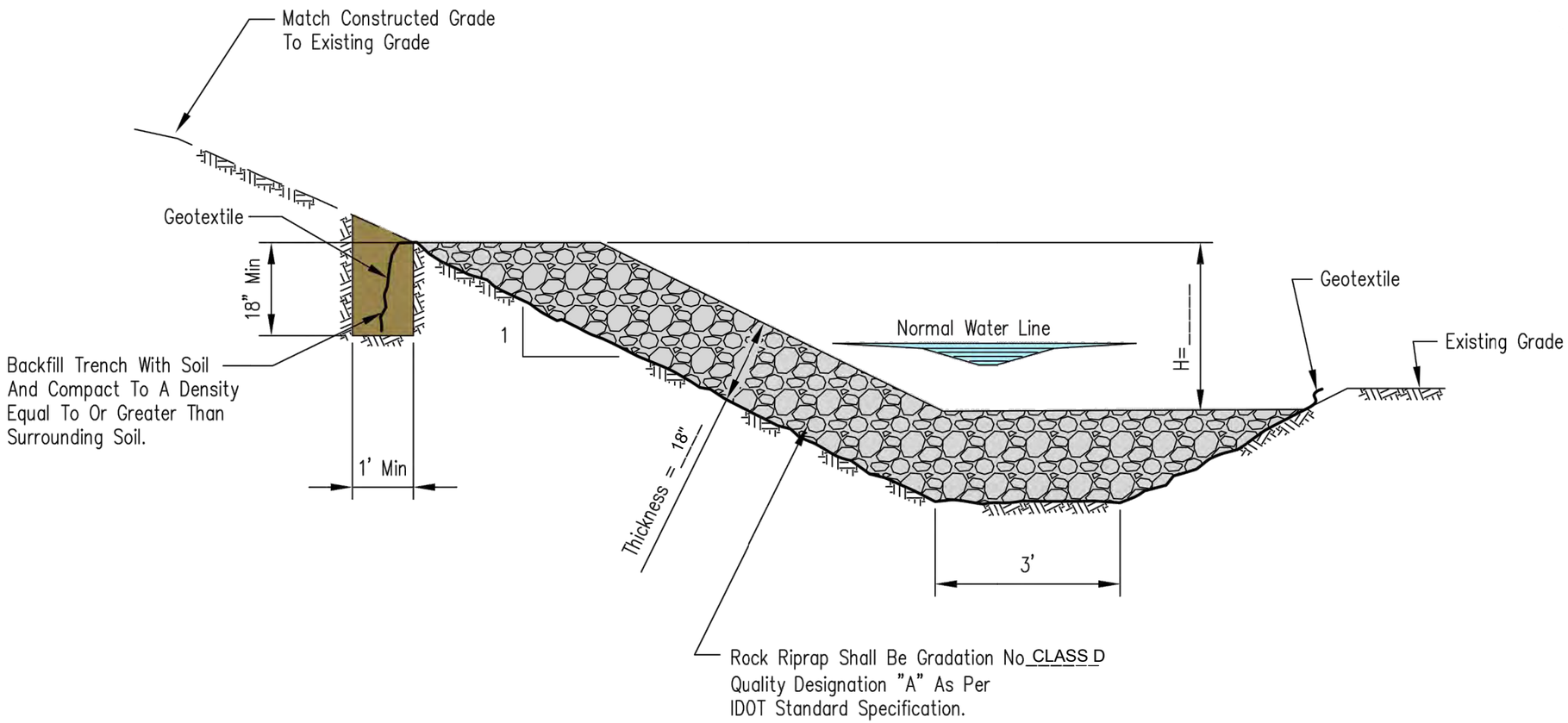
BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

DETAIL SHEET 5

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\1670-01_Detail Drawings.dwg
Xrefs:, 8030_1112, SUDAS Logo2

NOTES:
1. BRING ROCK UP TO TOP OF BANK SLOPE
2. OMIT GEOTEXTILE. PLACE 3" MACADAM STONE UNDER CLASS D REVETMENT



SECTION

01
40

BANK REVETMENT (BOTH SIDES OF 7TH ST)

*NOT TO SCALE

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig

IOWA ONE CALL 1-800-292-8989 www.iowaonecall.com

SCALE IN FEET
0 50 100 200

SUBMISSION DATE: 10-14-2021
DESIGN BY AG
DRAWN BY RK
EOR PROJECT NO. 01670-0001

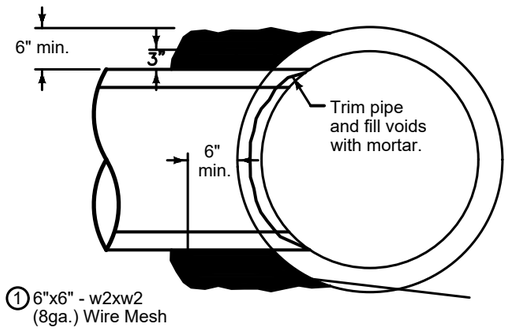
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com
water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

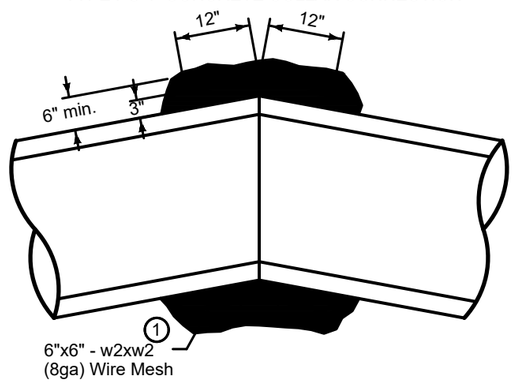
STATE PROJECT NO. ---
CITY PROJECT NO. ###

DETAIL SHEET 6

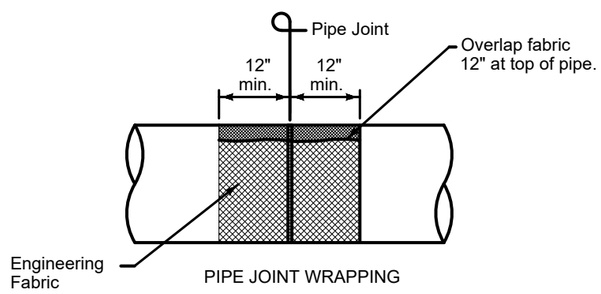
Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\1670-01_Detail Drawings.dwg
Xrefs: 8030_1112_S\DAS Logo2



TYPE PC-1 CONCRETE COLLAR CONNECTION

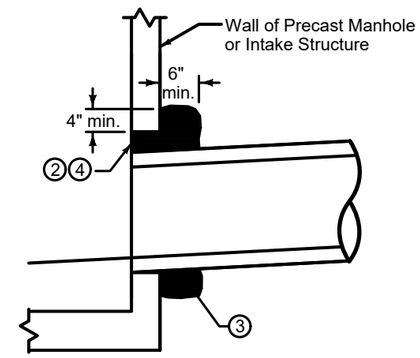


TYPE PC-2 CONCRETE COLLAR CONNECTION

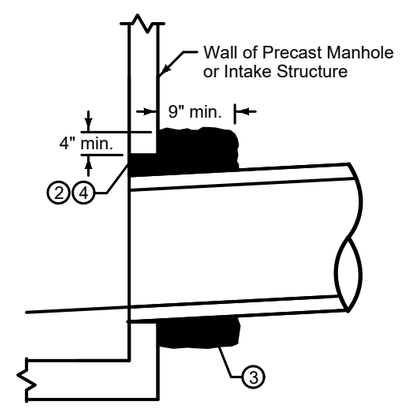


PIPE JOINT WRAPPING

PIPE TO PIPE CONNECTION



CONCRETE COLLAR FOR PIPES 12" AND SMALLER



CONCRETE COLLAR FOR PIPES GREATER THAN 12"

PIPE TO STRUCTURE CONNECTION

1. Lap ends of wire mesh a minimum of 6 inches.
2. Concrete collar is required when annular space between the outside of the pipe and the wall of the structure is 2 inches or greater.
3. Provide two #4 hoop bars in concrete collar. Lap bars a minimum of 6 inches.
4. Trowel concrete flush with inside wall of structure.

FIGURE 4020.211 | SHEET 1 OF 1

		REVISION
		2 04-17-18
FIGURE 4020.211	STANDARDROADPLAN	SW-211
		SHEET 1 of 1

REVISIONS: Removed 'Invert' callout on Pipe to Structure View. Retitled and replaced old Iowa DOT and SUDAS logos with new logos.

SUDAS DIRECTOR | DESIGN METHODS ENGINEER

STORM SEWER PIPE CONNECTIONS

01/41

STORM SEWER PIPE CONNECTIONS

*NOT TO SCALE

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 50 100 200

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

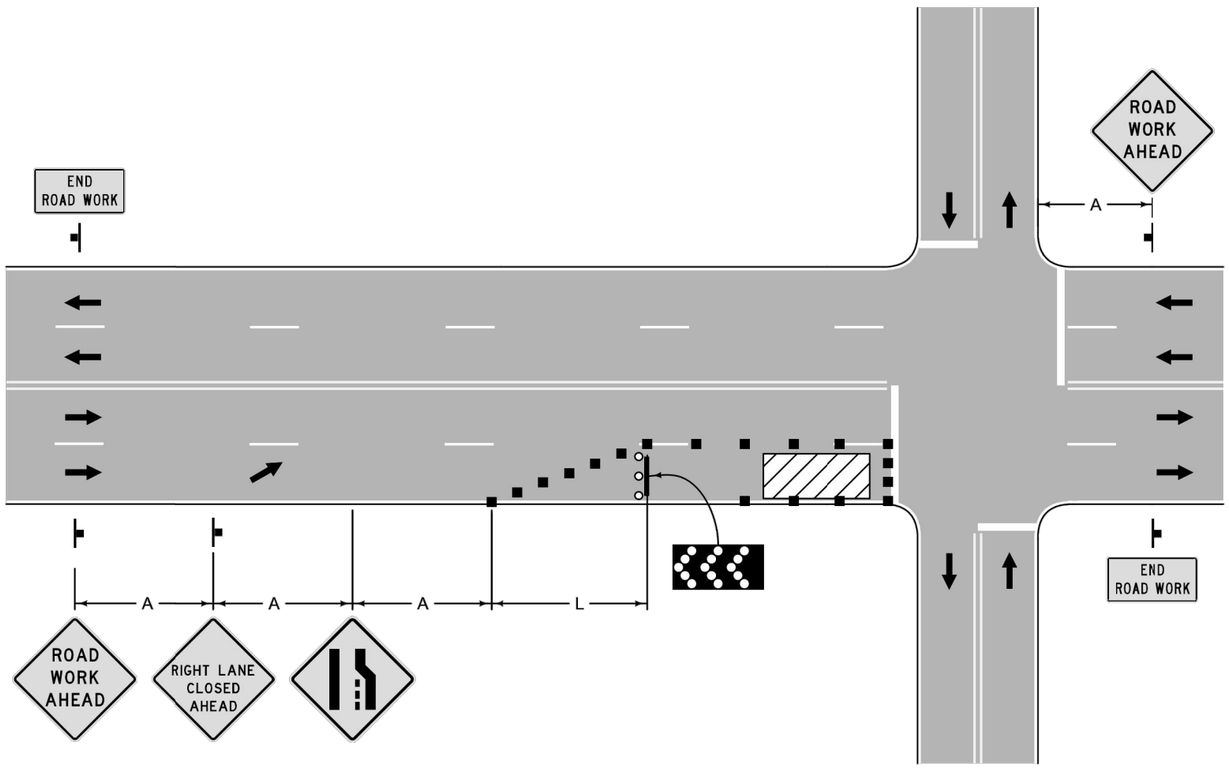
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

DETAIL SHEET 7

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\1670-01_Detail Drawings.dwg
Xrefs:, 8030_1112, SUDAS Logo2



Place arrow board within the closed lane behind the channelizing devices and as close to the beginning of the taper as practical, while keeping it on the paved surface.

If the work area extends across the crosswalk, the crosswalk should be closed using appropriate information and devices.

For traffic signal maintenance, consider using law enforcement and/or a shadow vehicle.

For intersection approaches reduced to a single lane, left-turning movements may be prohibited to maintain capacity for through motor vehicle traffic.

Right lane closure shown; for left lane closure, modify sign messages and arrow board.

Refer to Figure 8030.101 for symbol key and sign spacing.

FIGURE 8030.111 | SHEET 1 OF 1

SUDAS

REVISION	
New	10-17-17

8030.111

SHEET 1 of 1

SUDAS Standard Specifications

LANE CLOSURE AT
AN INTERSECTION

01
42

LANE CLOSURE AT AN INTERSECTION

*NOT TO SCALE

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 50 100 200

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

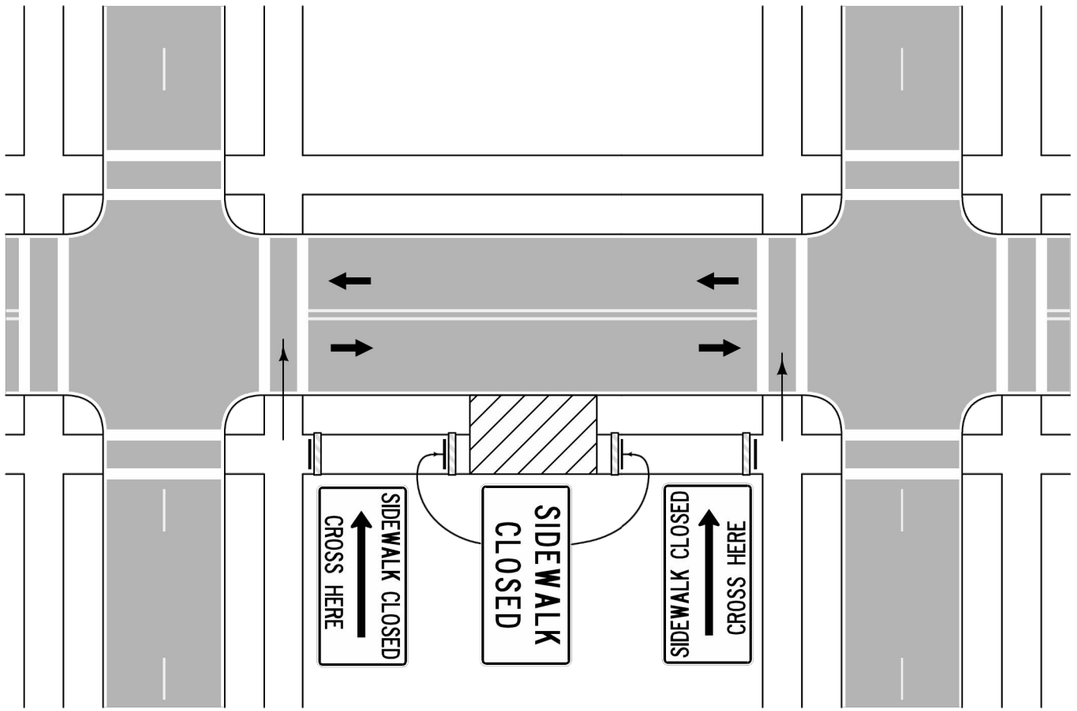
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com
water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

DETAIL SHEET 8

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clipsaddle_Garber_Associ\0001_Biscuit_Ck_IWA\09_GIMS\dwg\1670-01_Detail Drawings.dwg
Xrefs: 8030_1112, SUDAS Logo2



Use when crosswalks, sidewalks, or other pedestrian facilities are closed or relocated. Ensure temporary facilities are detectable and include accessibility features consistent with the features present in the existing pedestrian facility.

Signs such as KEEP RIGHT (LEFT) may be placed to guide or direct pedestrians.

Provide continuous barriers or fencing complying with the requirements of PROWAG to secure work areas from pedestrians.

When required in the contract documents, provide auxiliary lighting or audible information devices to assist pedestrians with visual disabilities.

Only the temporary traffic control devices related to pedestrians are shown. Other devices related to control of vehicular traffic may be necessary.

Refer to Figure 8030.101 for symbol key and sign spacing.

FIGURE 8030.117

SHEET 1 OF 1

SUDAS

REVISION	
New	10-17-17

8030.117

SHEET 1 of 1

SUDAS Standard Specifications

SIDEWALK DETOUR

01
43

SIDEWALK DETOUR

*NOT TO SCALE

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig

IOWA ONE CALL 1-800-292-8989 www.iowaonecall.com

SCALE IN FEET

0 50 100 200

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

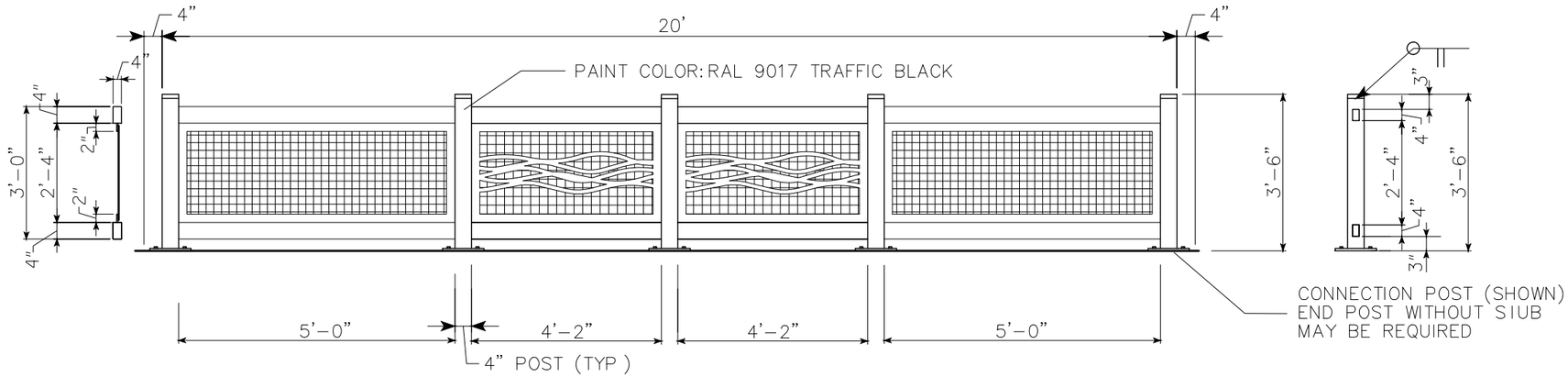
EOR water ecology community
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

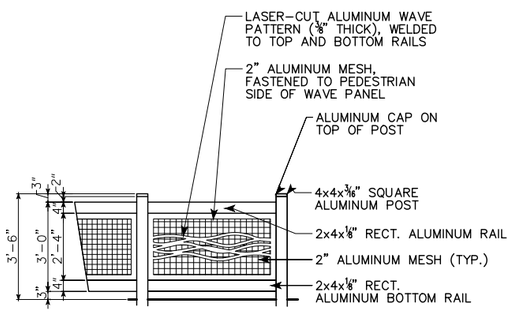
STATE PROJECT NO. --- | CITY PROJECT NO. ###

DETAIL SHEET 9

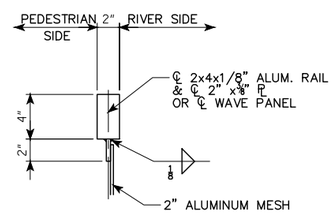
Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GMS\dwg\1670-01_Detail Drawings.dwg
Xrefs: 8030_1112, SUDAS Logo2



TYPICAL PANEL SECTION

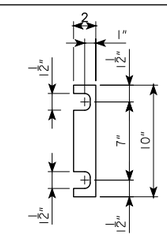


TYPICAL RAILING DETAIL

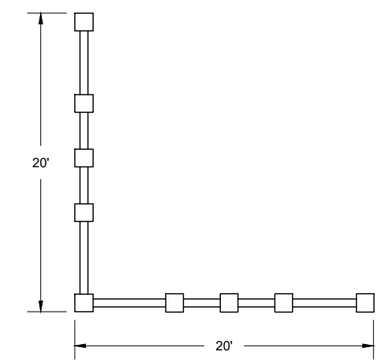


HORIZONTAL FRAME DETAIL

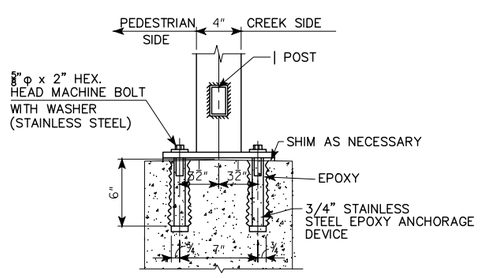
PROVIDE 2 – 1/16" POST SHIMS PER POST



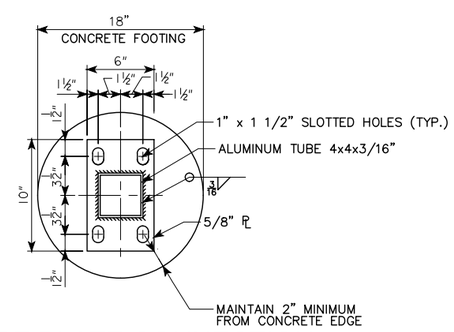
SHIM DETAIL



PLAN VIEW

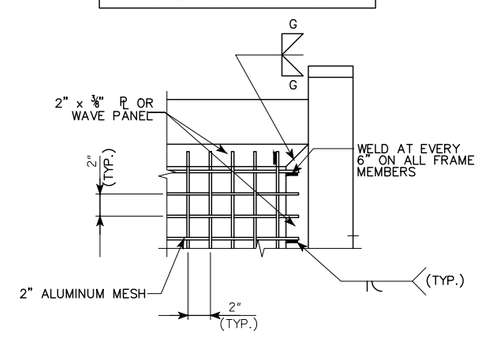


POST DETAIL

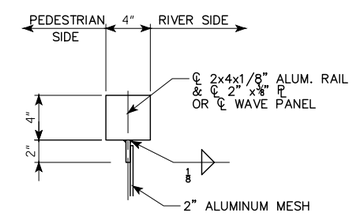


BASE PLATE CONNECTION

NOTE: DO NOT WELD BOTH ENDS OF THE SAME WIRE TO THE FRAME.



FRAME DETAIL



VERTICAL FRAME DETAIL

01
44

RAILING DETAIL

*NOT TO SCALE

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989 www.iowaonecall.com

SCALE IN FEET

0 50 100 200

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

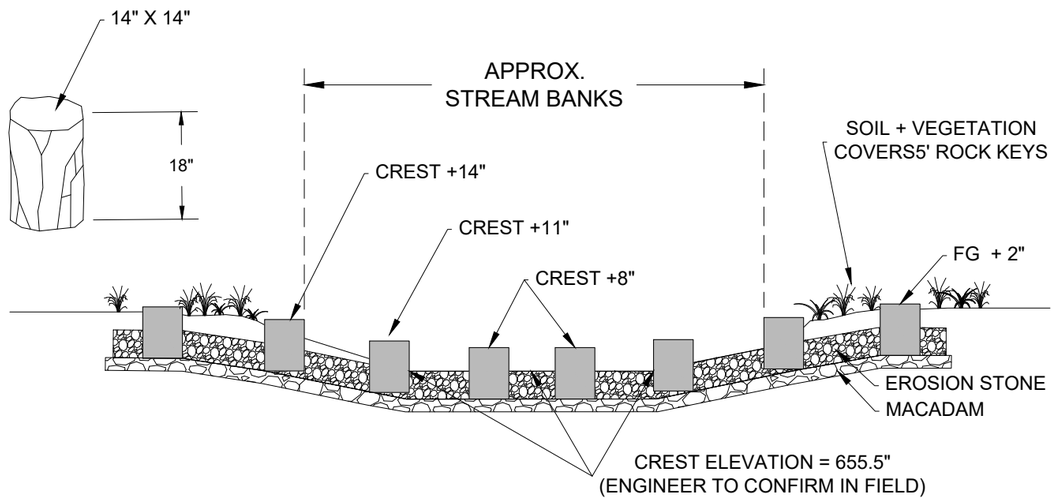
water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

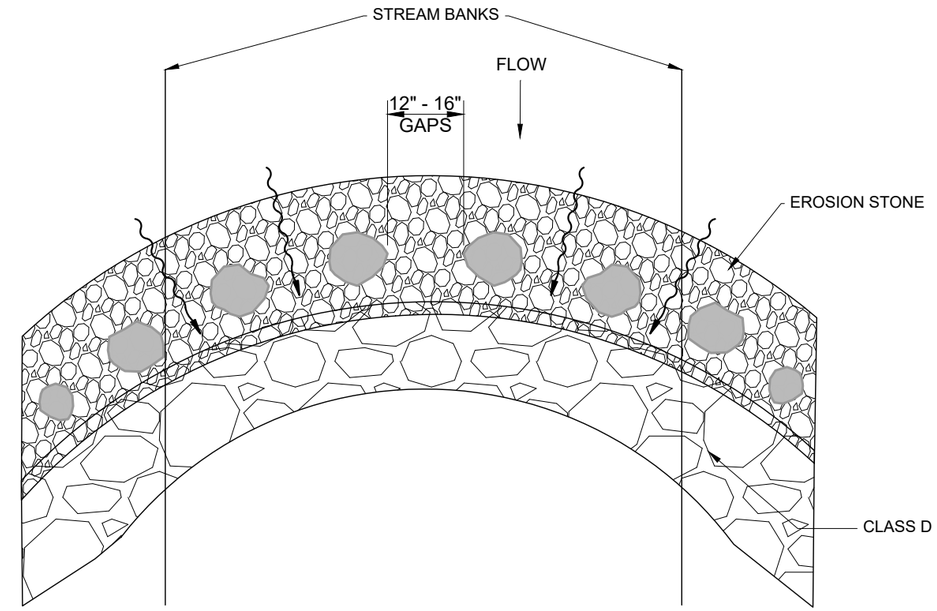
DETAIL SHEET 10

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\16701-01_Detail Drawings.dwg
Xrefs: 8030_1112_SUDAS Logo2



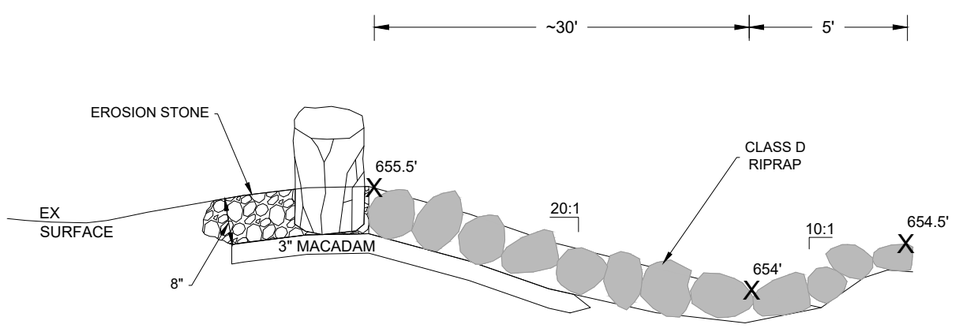
01 / 45 ROCK RIFFLE (CENTRAL PARK) CROSS SECTION

*NOT TO SCALE



02 / 45 ROCK RIFFLE (CENTRAL PARK) PLAN VIEW

*NOT TO SCALE



03 / 45 ROCK RIFFLE (CENTRAL PARK) PROFILE

*NOT TO SCALE

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 50 100 200

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

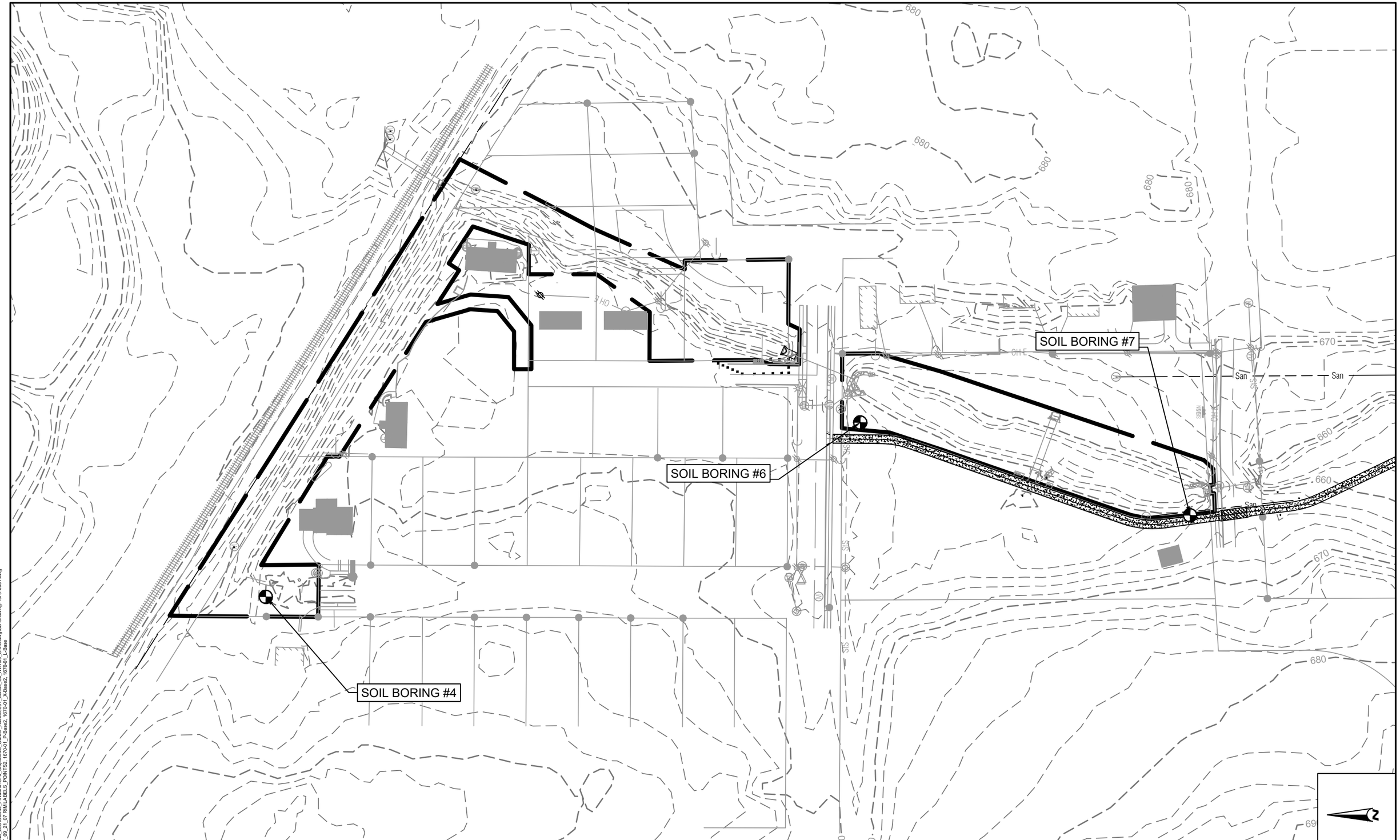
water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

DETAIL SHEET 11

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\1670-01_Detail Drawings.dwg
Xrefs: 8030_1112; SUDAS Logo2



NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 50 100 200

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

EOR Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com
water ecology community

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

SOIL BORING LOCATION MAP 1

SHEET 46 OF 52 SHEETS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Olapaddle_Garber_Assoc\0001_Biscuit_CK_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2, 283123ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

LOG OF BORING NO. 4

Page 1 of 1

OWNER: City of Coralville
CLIENT: Veenstra & Kimm, Inc.
SITE: 10th Avenue, Coralville, Iowa
PROJECT: Proposed Sewer Line

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	TYPE	RECOVERY, in.	SPT - N ** BLOWS / ft	TESTS WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf
	2" Root Zone				PA					
	FILL, LEAN CLAY TO SILTY CLAY, TRACE SAND, Gray Brown and Dark Gray									
	4									
	4.5 **SILTY CLAY, TRACE SAND** Dark Gray			1	SS	15	8	25		
		5			PA					
	SILTY CLAY, TRACE SAND & ORGANICS WITH OCCASIONAL SAND SEAMS, Gray, Soft									
			CL/ML	2	SS	14	2	27		*500
	9.5 **LEAN CLAY, TRACE SAND** Brown Gray	10			PA					
	11 **SILTY CLAY, TRACE SAND WITH OCCASIONAL SAND SEAMS** Gray, Soft									
			CL/ML	3	SS	16	2	28		*500
	14.5 **LEAN TO FAT CLAY, TRACE SAND** Gray	15			PA					
	17 **SILTY CLAY, TRACE SAND WITH OCCASIONAL SAND SEAMS** Gray, Soft									
			CL/ML	4	SS	17	2	24		*500
	20 **BOTTOM OF BORING**	20								

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Calibrated Hand Penetrometer
**CME 140 lb. SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft			
WL	7	WD	6 (8/22/03)
WL	14	AB	
WL	WCI @ 13.5' (8/22/03)		

Terracon

BORING STARTED	8-21-03		
BORING COMPLETED	8-21-03		
RIG	#6	FOREMAN	TM
APPROVED	TAS	JOB #	06035662

BOREHOLE 06035662.GPJ TERRACON.GDT 9/8/03

LOG OF BORING NO. 6

Page 1 of 1

OWNER: City of Coralville
CLIENT: Veenstra & Kimm, Inc.
SITE: 10th Avenue, Coralville, Iowa
PROJECT: Proposed Sewer Line

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	TYPE	RECOVERY, in.	SPT - N ** BLOWS / ft	TESTS WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf
	2" Root Zone				PA					
	LEAN CLAY, TRACE SAND Gray Brown, Medium to Stiff		CL	1	SS	18	8	27		*4000
		5			PA					
			CL	2	SS	12	4	29		*1500
		10			PA					
	11.5 **SILTY CLAY, TRACE SAND WITH OCCASIONAL SAND LAYERS** Gray, Soft to Medium									
			CL/ML	3	SS	8	4	23		*1500
		15			PA					
			CL/ML	4	SS	16	4	27		*1000
	20 **BOTTOM OF BORING**	20								

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Calibrated Hand Penetrometer
**CME 140 lb. SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft			
WL	15	WS	12 (8/22/03)
WL	17	AB	
WL			

Terracon

BORING STARTED	8-21-03		
BORING COMPLETED	8-21-03		
RIG	#6	FOREMAN	TM
APPROVED	TAS	JOB #	06035662

BOREHOLE 06035662.GPJ TERRACON.GDT 9/8/03

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET: 0 50 100 200

SUBMISSION DATE: 10-14-2021
DESIGN BY AG | DRAWN BY RK
EOR PROJECT NO. 01670-0001

EOR water ecology community
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

SOIL BORING DATA SHEET 4 & 6

SHEET 47 OF 52 SHEETS

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2; 28312\ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

LOG OF BORING NO. 7

OWNER: City of Coralville

CLIENT: Veenstra & Kimm, Inc.

SITE: 10th Avenue, Coralville, Iowa

PROJECT: Proposed Sewer Line

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	TYPE	RECOVERY, in.	SPT - N ** BLOWS / ft	TESTS WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf
	2" Root Zone				PA					
	LEAN CLAY, TRACE SAND & ORGANICS, Brown and Dark Brown, Soft		CL	1	SS	15	2	28		*500
6		5			PA					
	LEAN CLAY, TRACE SAND Gray to Dark Gray									
8			CL	2	SS	18	5	29		*1500
	LEAN CLAY, TRACE SAND Gray Brown, Medium	10			PA					
11										
	LEAN TO FAT CLAY, TRACE SAND Gray Brown, Soft to Medium		CL/CH	3	SS	18	3	33		*1000
	Sand layer between about 16 to 16.5 feet.	15			PA					
			CL/CH	4	SS	14	5	30		*2000
20	**BOTTOM OF BORING**	20								

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Calibrated Hand Penetrometer
**CME 140 lb. SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft			
WL	▽ 8	WD	▼ 8 (8/22/03)
WL	▽ 15	AB	▽
WL	WCI @ 16' (8/22/03)		

Terracon

BORING STARTED	8-21-03		
BORING COMPLETED	8-21-03		
RIG	#6	FOREMAN	TM
APPROVED	TAS	JOB #	06035662

BOREHOLE 06035662.GPJ TERRACON.GDT 9/8/03

Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2, 283123ASBUILT_09_21_07 RIMLABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989 www.iowaonecall.com

SCALE IN FEET

0 50 100 200

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

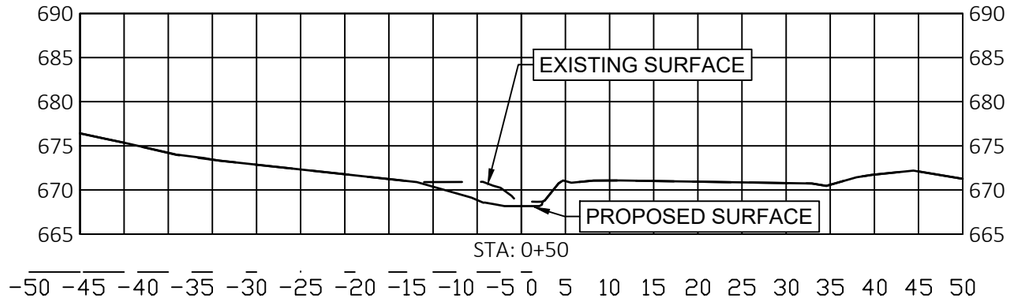
EOR PROJECT NO. 01670-0001

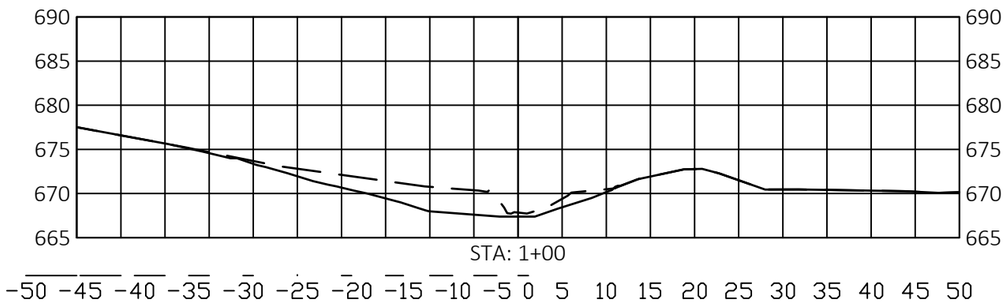
EOR
water ecology community
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

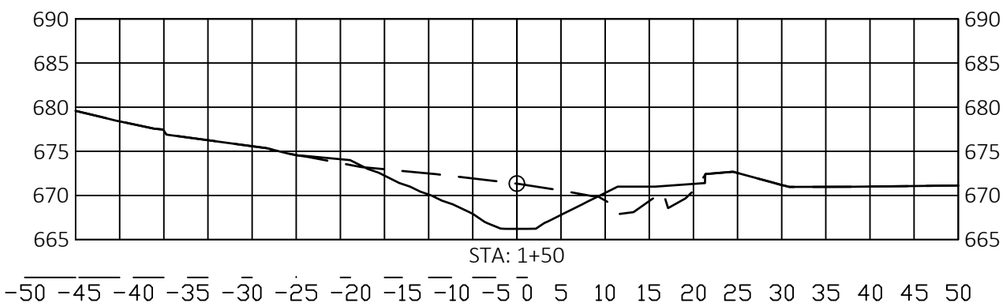
BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

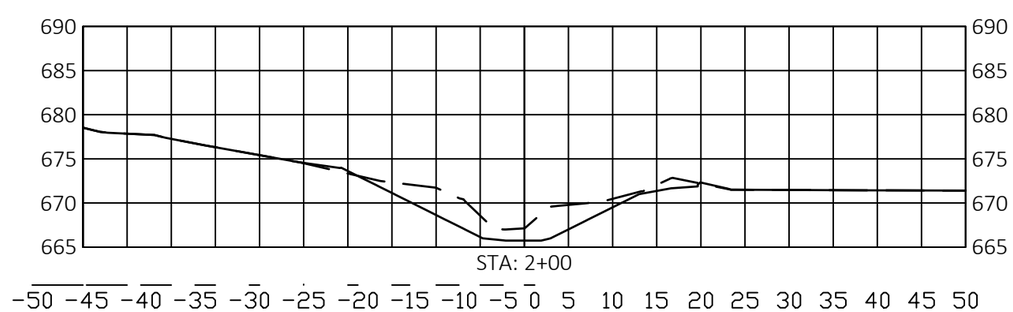
STATE PROJECT NO. --- | CITY PROJECT NO. ###

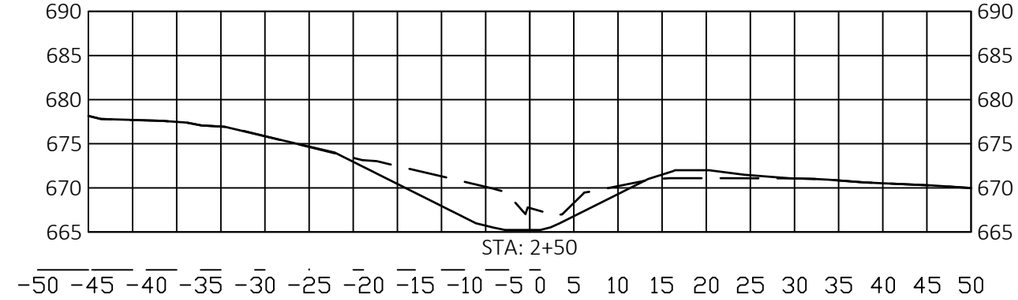
SOIL BORING DATA SHEET 7

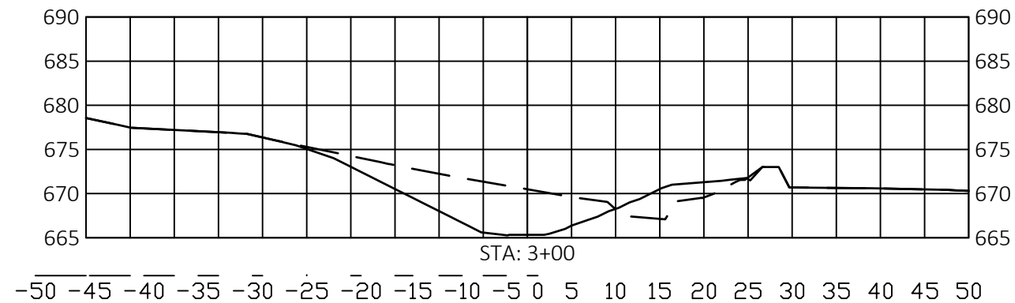


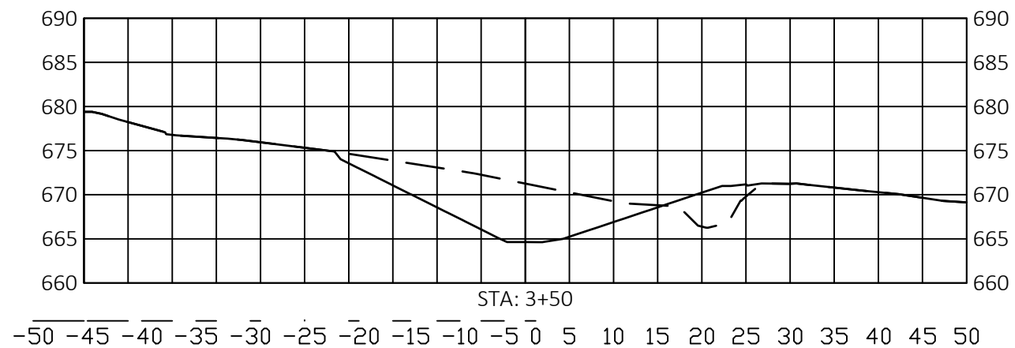


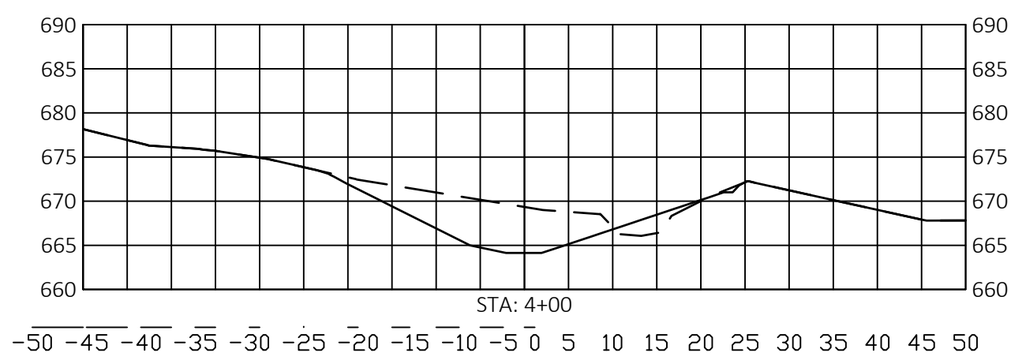












Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2; 283123ASBUILT_09_21_07 RIM LABELS_POINTS2; 1670-01_P-Base2; 1670-01_X-Base2; 1670-01_L-Base

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 50 100 200

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

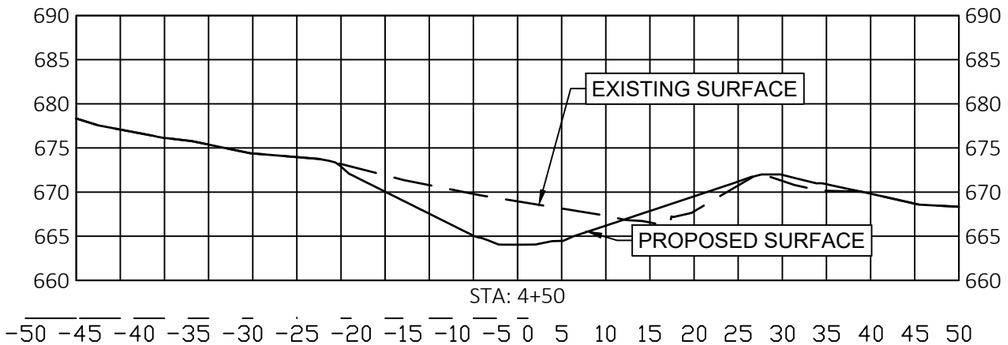
EOR PROJECT NO. 01670-0001

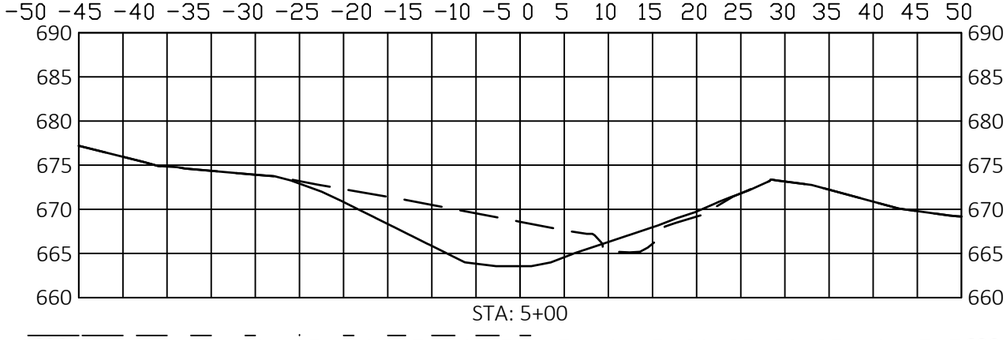
EOR water ecology community
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

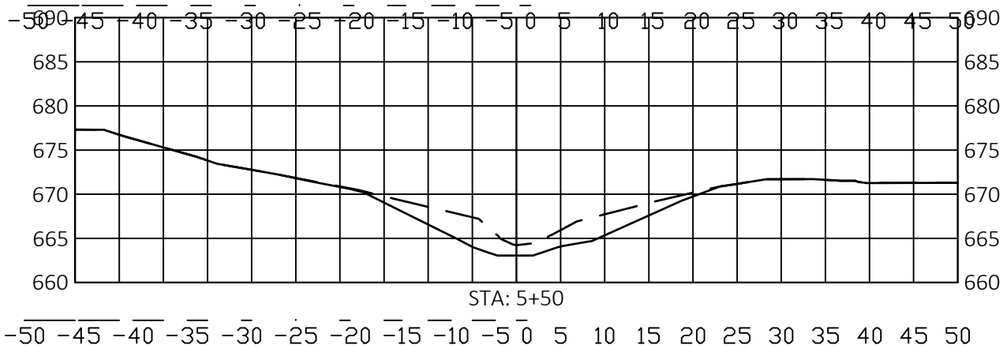
BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

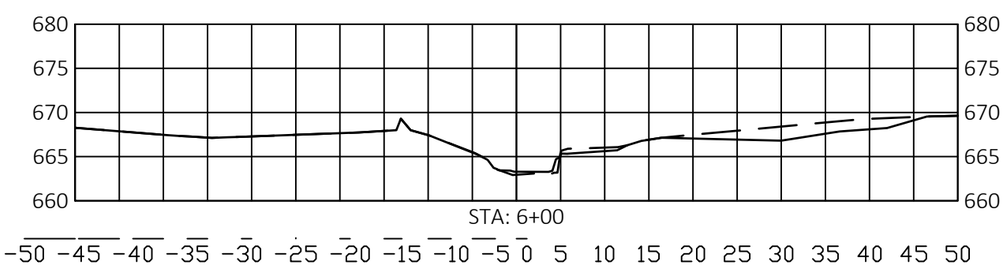
STATE PROJECT NO. --- | CITY PROJECT NO. ###

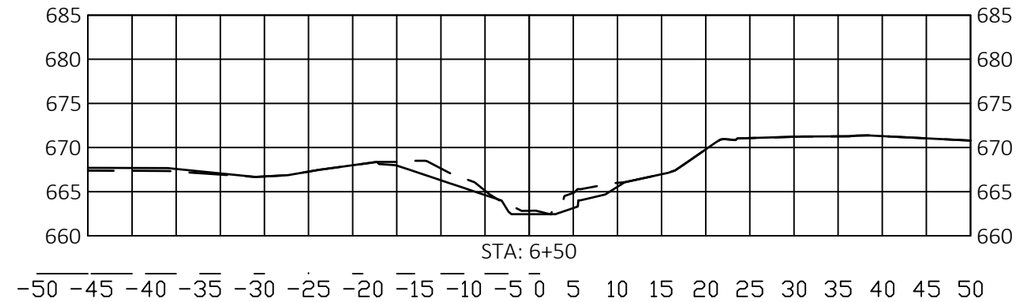
CROSS SECTIONS 1

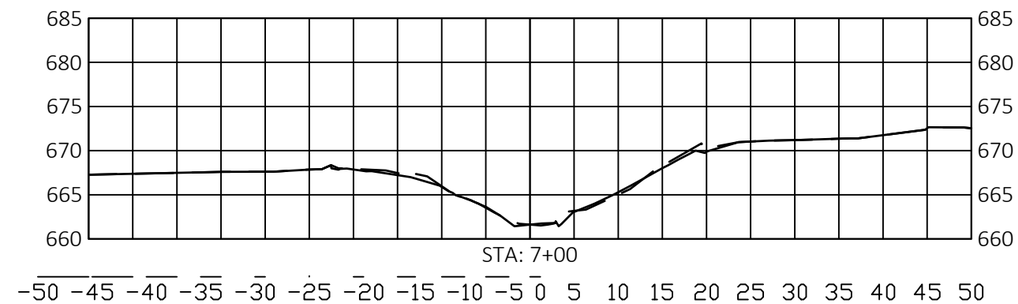


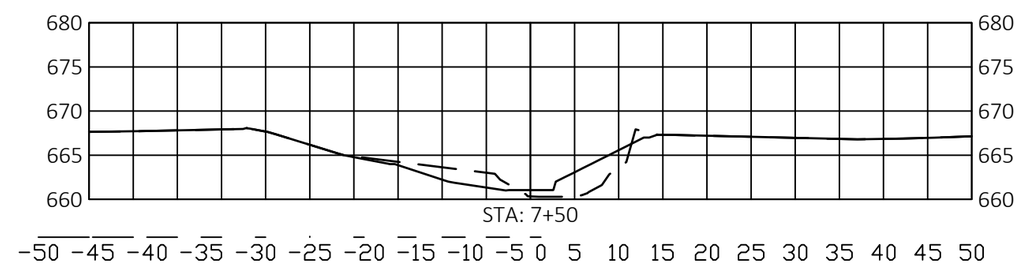


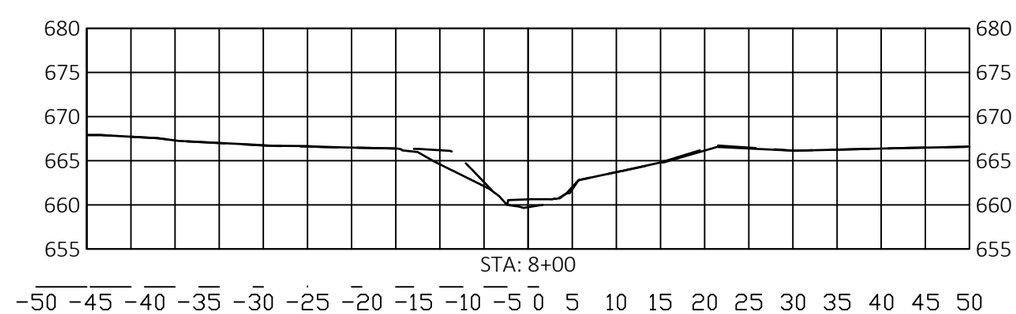












Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Olapaddle_Garber_Assoc\0001_Biscuit_CK_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: , X-Base2, 283123ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 50 100 200

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

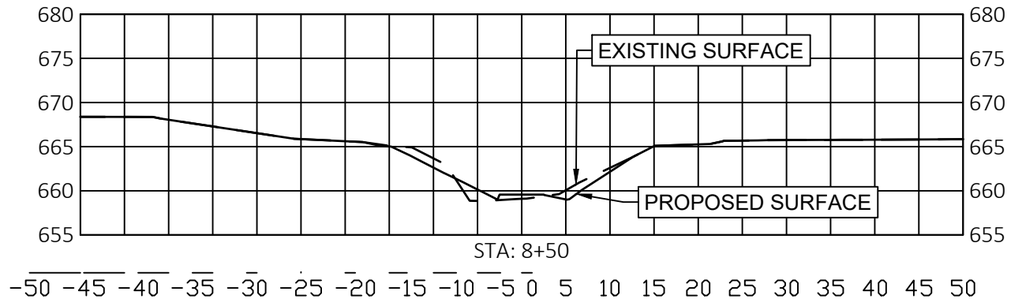
EOR water ecology community

Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

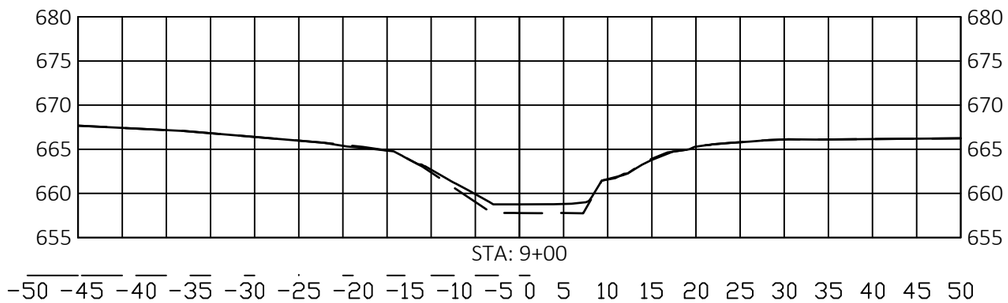
BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. --- | CITY PROJECT NO. ###

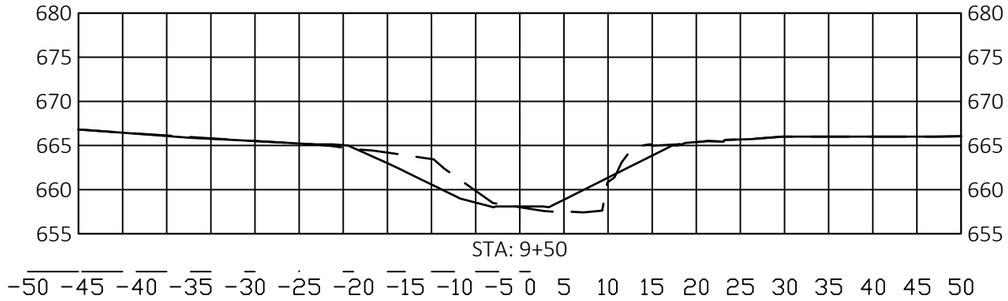
CROSS SECTIONS 2

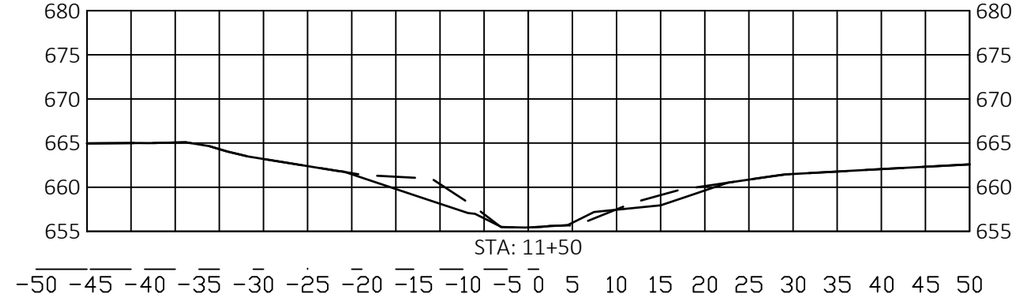


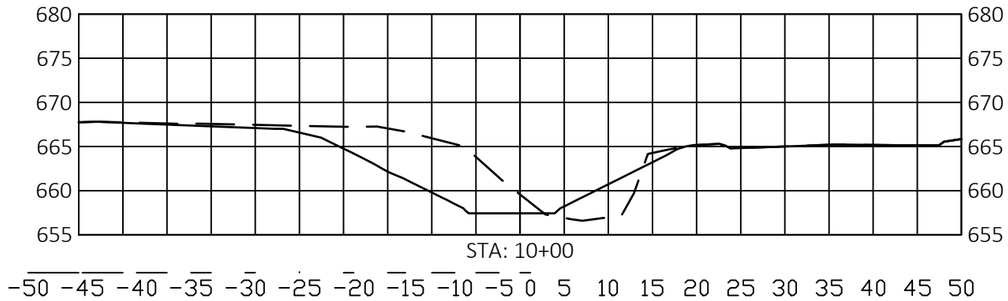
CROSS SECTION OMITTED

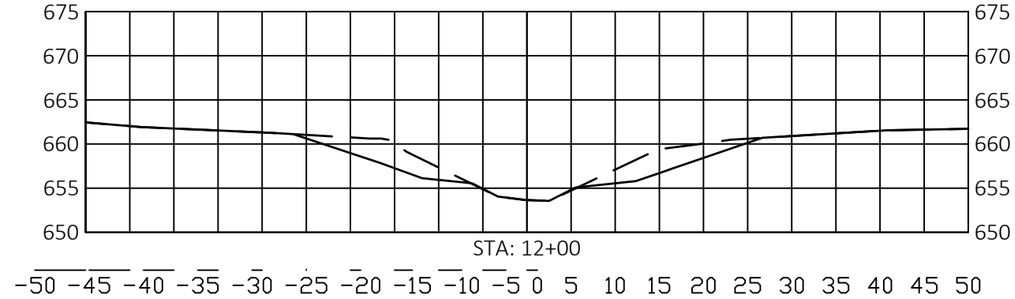


CROSS SECTION OMITTED









NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.

IOWA ONE CALL 1-800-292-8989

SCALE IN FEET

0 50 100 200

SUBMISSION DATE: 10-14-2021

DESIGN BY AG | DRAWN BY RK

EOR PROJECT NO. 01670-0001

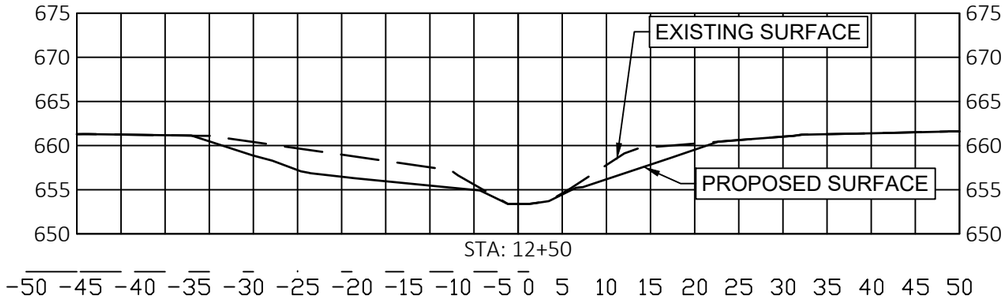
Emmons & Olivier Resources, Inc.
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

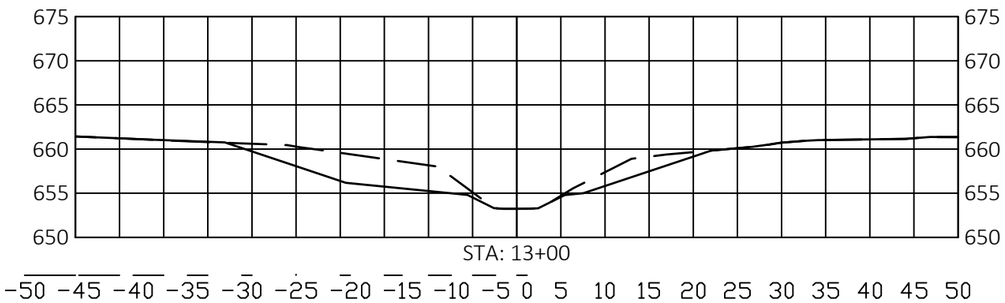
BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

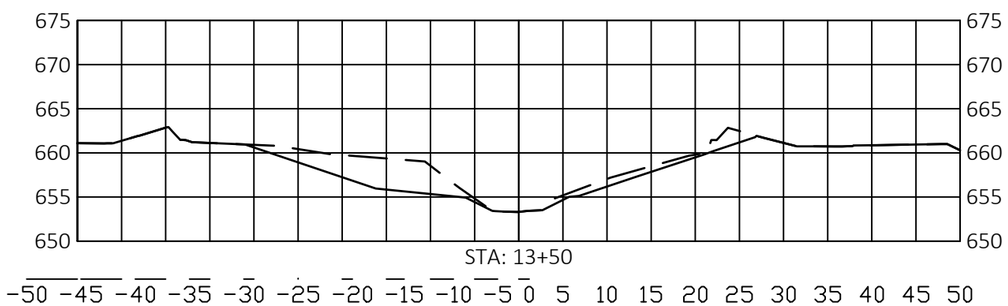
STATE PROJECT NO. --- | CITY PROJECT NO. ###

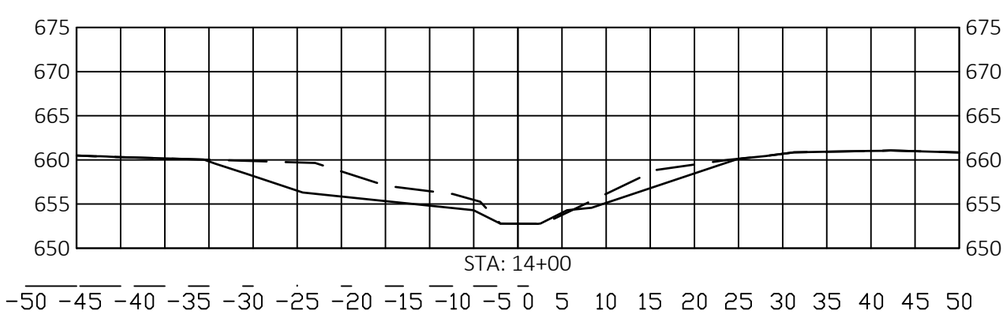
CROSS SECTIONS 3

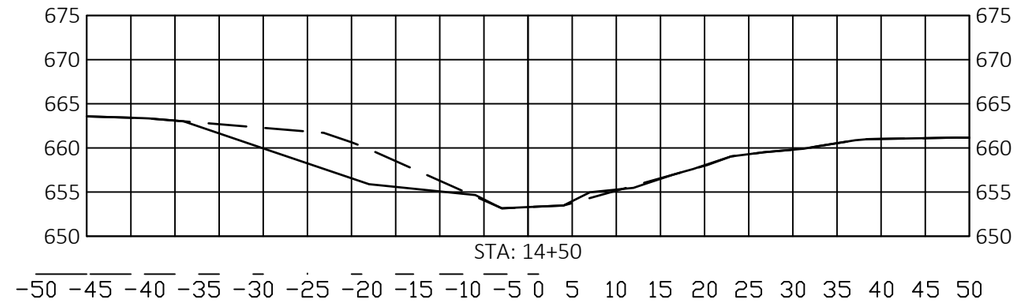
Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Clapsaddle_Garber_Assoc\0001_Biscuit_Ck_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2; 283123ASBUILT_09_21_07 RIM LABELS_POINTS2; 1670-01_P-Base2; 1670-01_X-Base2; 1670-01_L-Base

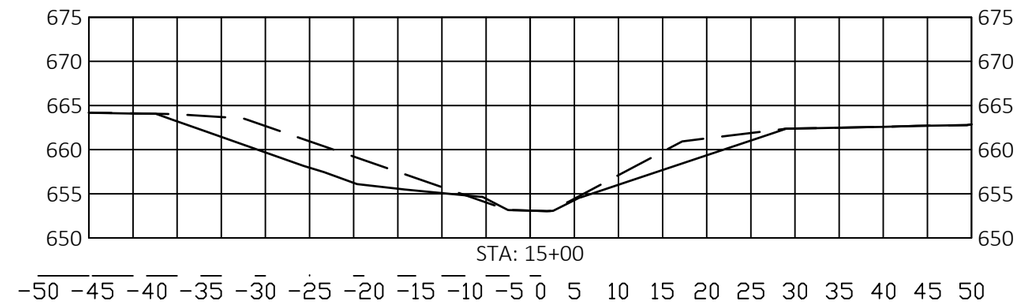












Plot Date: 10/14/2021
Drawing name: X:\Client_EOR_Iowa_LLC\Clients_Private\01670_Olapaddle_Gather_Assoc\0001_Biscuit_CK_IWA\09_GIMS\dwg\CD-Drawing-1670-0001.dwg
Xrefs: X-Base2, 283123ASBUILT_09_21_07 RIM LABELS_POINTS2, 1670-01_P-Base2, 1670-01_X-Base2, 1670-01_L-Base

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

811 Know what's below. Call before you dig.
IOWA ONE CALL 1-800-292-8989

SCALE IN FEET
0 50 100 200

SUBMISSION DATE: 10-14-2021
DESIGN BY AG
DRAWN BY RK
EOR PROJECT NO. 01670-0001

Emmons & Olivier Resources, Inc.
water ecology community
1919 University Ave W
St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

BISCUIT CREEK IWA
CITY OF CORALVILLE, JOHNSON COUNTY, IOWA

STATE PROJECT NO. ---
CITY PROJECT NO. ###

CROSS SECTIONS 4