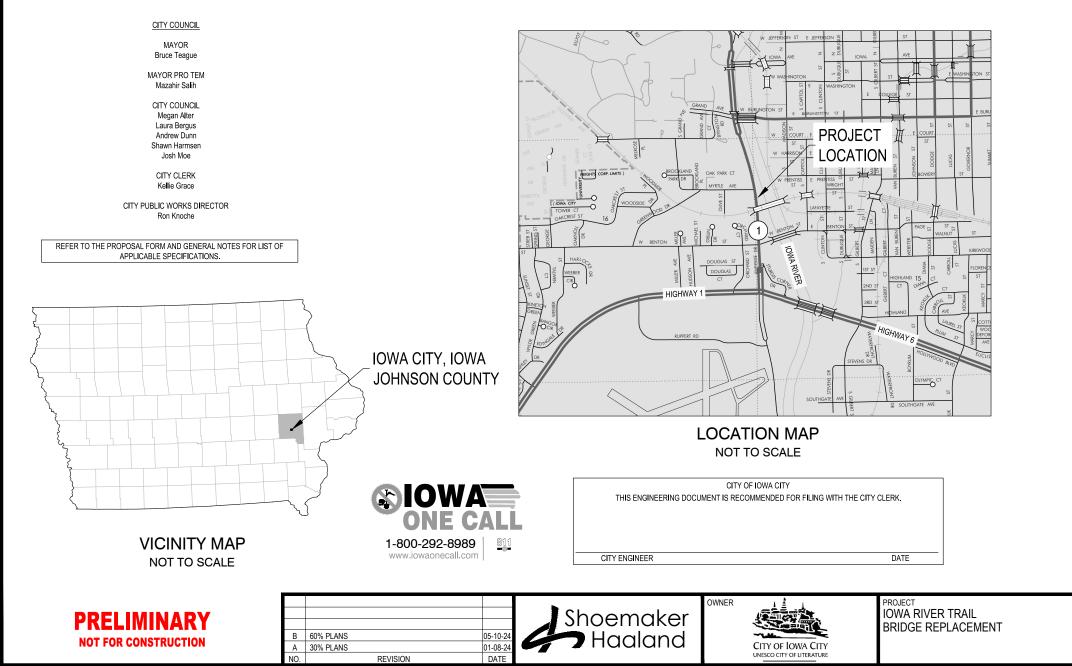


IOWA RIVER TRAIL BRIDGE REPLACEMENT IOWA CITY, IOWA



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
A.01	TITLE SHEET
A.02	LEGEND, UTILITY CONTACTS, AND NOTES
B.01	TYPICAL SECTIONS
C.01	QUANTITIES AND ESTIMATE REFERENCE INFORMATION
C.02	TABULATIONS
C.03	REMOVALS PLAN
D.01	IOWA RIVER TRAIL PLAN AND PROFILE
G.01	ALIGNMENT AND CONTROL POINTS
H.01	RIGHT OF WAY
J.01	TRAFFIC CONTROL AND STAGING PLAN
M.01	STORM SEWER
Q.01	SOIL BORING LOGS
R.01	EROSION CONTROL PLAN
U.01	RETAINING WALL PLAN AND PROFILE
U.02	RETAINING WALL DETAILS
V.01	BRIDGE REPAIR PLAN AND DETAILS
W.01-W.02	IOWA RIVER TRAIL CROSS-SECTIONS

	I hereby certify that this engineering document was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Iowa.
	Grant F. Finch Lic. No. 19727 Date My license renewal date is December 31, 2025. Pages or sheets covered by this seal: ALL EXCEPT V SHEETS
	I hereby certify that this engineering document was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Iowa.
	Troyer J. Ritter Lic. No. P2442551 Date My license renewal date is December 31, 2025. Pages or sheets covered by this seal: V SHEETS
HEET TITLE ITLE SHEET	PROJECT NUMBER: 23184 ISSUED DATE: PRELIMINARY DRAWN BY: KJB CHECK BY: JTL APPROVED BY: GFF

				UTILITY CONTACTS
	LEGEND	COMPANY	CONTACT	EMAIL
	LINETYPES	IMON COMMUNICATIONS	NATALIE PERKINS	NATALIE.PERKINS@IMON.NET
EXISTING	PROPOSED			
(OE)	ELECTRIC - OVERHEAD OE	MEDIACOM	DARWIN DRISCOLL	DDRISCOLL@MEDIACOMCC.COM
(E) (FO)	ELECTRIC - UNDERGROUND E FIBER OPTIC FO			JASON.WARREN@MIDAMERICAN.COM
(G)	GAS G	MIDAMERICAN ELECTRIC	JASON WARREN	JASON.WARKEN@MIDAWERICAN.COM
(HPG) (S)	GAS - HIGH PRESSURE ————————————————————————————————————	MIDAMERICAN GAS	STEVEN DACHTLER	STEVEN.DACHTLER@MIDAMERICAN.CO
(ST)	SEWER - STORM ST			
(SD) (T)	SUBDRAIN	UNIVERSITY OF IOWA	CHRIS HATLAND	CHRIS-HATLAND@UIOWA.EDU
(Ŵ)	WATER W			
OO	FENCE - CHAIN LINK			
	FENCE - WOOD			
	HANDRAIL <u> </u>			
	EASEMENT			
=	PROPERTY LINE			
 • • • •	SURFACE WATER			
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	TREE LINE FILTER SOCK			
	SILT FENCE			
	GRADING LIMITS			
		-		
	SYMBOLS			
<ul> <li>ANCHOR BOLT</li> <li>ANTENNA</li> </ul>	© ELECTRIC MANHOLE Q FIRE HYDRANT			
	FO FIBER OPTIC BOX			
T BUILDING COLUMN	FIBER OPTIC MANHOLE			
SURVEY BENCHMARK	GM GAS METER			
● BOLLARD         □ CABLE TELEVISION BOX         □         □         □	切 GAS VALVE © GAS MANHOLE			
SIGN	← GUY WIRE			
×th	💢 LIGHT POLE			
	POWER POLE			
	TELEPHONE BOX     TELEPHONE MANHOLE			
	S SANITARY SEWER MANHOLE			
C SHRUB	I STORM SEWER MANHOLE			
E ELECTRIC HANDHOLE	WATER VALVE			
	WATER MANHOLE			
	HATCHES			
HOT MIX ASPHA PAVEMENT	ALT AGGREGATE SURFACING			
PORTLAND CEN CONCRETE PA				
	MOVAL			
MULCH	TURF REINFORCED MAT			
DECORATIVE B		1		

### GENERAL NOTES

PHONE NUMBER

319-200-6299

845-204-5742

319-341-4425

319-383-8739

319-335-1357

# GENERAL UTILITY NOTES

## EROSION CONTROL NOTES

NO. REVISION DATE	NOT FOR CONSTRUCTION	PLANS 05-10-24 PLANS 01-08-24 REVISION DATE	Shoemaker Haaland		PROJECT IOWA RIVER TRAIL BRIDGE REPLACEMENT
-------------------	----------------------	---------------------------------------------------	----------------------	--	---------------------------------------------------

SHEET TI AND NO

1. CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH CITY STAFF TO AVOID CONFLICTS WITH CITY AND UNIVERSITY OF IOWA EVENTS. NO ADDITIONAL COMPENSATION WILL BE MADE FOR COORDINATING SCHEDULES AROUND EVENTS.

 FLOOD PROTECTION SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. THE CONTRACTOR WILL SATISFY THEMSELVES AS TO THE LEVEL OF FLOOD PROTECTION TO BE INCLUDED ON THE PROJECT. THE OWNER WILL NOT BE RESPONSIBLE FOR COSTS INCURRED TO THE PROJECT AND/OR CONTRACTOR DUE TO FLOODING.

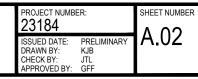
3. REFER TO SUDAS 1070 2.07 FOR GENERAL UTILITY NOTES.

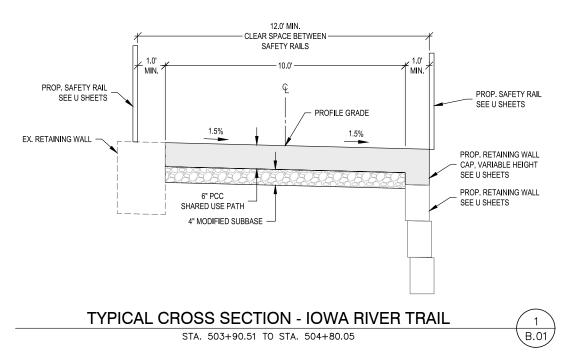
4. ABANDONED UTILITIES NOT SHOWN ON THE PLANS MAY EXIST WITHIN THE CONSTRUCTION LIMITS. IF ENCOUNTERED, CONTRACTOR SHALL CONFIRM SAID UTILITIES ARE ABANDONED. CONTRACTOR IS RESPONSIBLE FOR REMOVING THESE LINES AS NECESSARY FOR CONSTRUCTION.

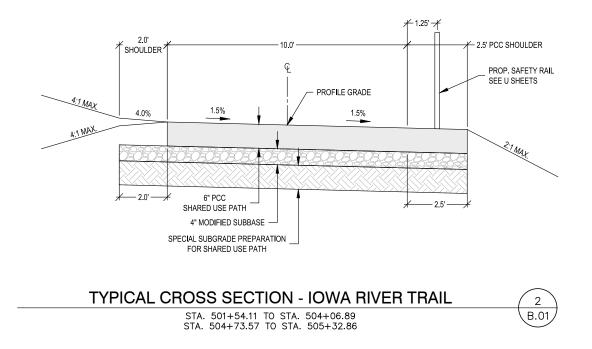
 REPAIR ALL FIELD/DRAIN TILES ENCOUNTERED DURING CONSTRUCTION AS SPECIFIED OR AT A MINIMUM TO ALLOW FLOW USING LIKE MATERIAL IN NEW CONDITION WITH CITY APPROVED CONNECTIONS. CONTRACTOR SHALL RECORD EXISTING TYPE, SIZE, LOCATION, AND DEPTH OF ALL FIELD/DRAIN TILES ENCOUNTERED AND REPAIRED DURING CONSTRUCTION. PROVIDE DATA TO THE CITY FOR INCORPORATION INTO RECORD DRAWINGS.

6. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND MAINTENANCE OF ALL EXISTING AND CONSTRUCTED DRAINAGE CHANNELS AND DRAINAGE STRUCTURES. CONTRACTOR IS LIABLE FOR ALL DAMAGE TO PUBLIC OR PRIVATE PROPERTY CAUSED BY THEIR ACTION OR INACTION IN THE HANDLING OF STORMWATER FLOWS DURING CONSTRUCTION. EXTRA GRADING WORK NECESSARY TO MAINTAIN POSITIVE DRAINAGE WITHIN THE CONSTRUCTION LIMITS IS CONSIDERED INCIDENTAL TO CONSTRUCTION OR RELATED BID ITEMS.

^{tle} ID, UT	ILITY CONTACTS,
OTES	









- NOTES: 1. TRANSVERSE JOINTS: 'C' AT 10' SPACING
- 2. TRIM TREES AND VEGETATION TO PROVIDE A MINIMUM 10' VERTICAL CLEARANCE.

	PROJECT NUMB	ER:	SHEET NUMBER	
CAL SECTIONS	23184			
	ISSUED DATE:	PRELIMINARY	D.UI	
	DRAWN BY: CHECK BY:	KJB JTL		A
	APPROVED BY:	GFF		

Item No.	Item Code	Bid Item	Units	Total Quantity
1	0000-999-A	Structural Steel	LB	4045
2	0000-999-B	Bridge Decking	EA	80
3	2010-C	Clearing and Grubbing	LS	1
4	2010-D-3	Topsoil, Off-site	CY	188
5	2010-E	Excavation, Class 13	CY	55
6	2010-J	Subbase, Modified, 4"		1059.15
7	4020-A-1	Storm Sewer, Trenched, PVC, 6"	LF	12
8	7020-A	Pavement, Asphalt, Base, 1/2", PG 58-28S, ST	TON	159
9	7020-1	Asphalt Pavement Samples and Testing	LS	1
10	7030-A-1	Removal of Sidewalk	SY	14.50
11	7030-A-2	Removal of Shared Use Path	SY	418.04
12	7030-C	Shared Use Path, PCC, 6"	SY	575.18
13	7030-D	Special Subgrade Preparation for Shared Use Path	SY	575.18
14	7030-E	Sidewalk, PCC, 6"	SY	14.50
15	7040-H	Pavement Removal	SY	461.20
16	8030-A	Temporary Traffic Control	LS	1
17	9010-B	Hydraulic Seeding, Seeding, Fertilizing, and Mulching, Type 1	AC	0.18
18	9040-D-1	Filter Sock, 12"	LF	532
19	9040-D-2	Filter Socks, Removal	LF	532
20	9040-J	Rip Rap, Class E	TON	9.16
21	9040-O-1	Stabilized Construction Entrance	SY	278
22	9040-T-1	Inlet Protection Device, Surface-Applied	EA	1
23	9040-T-2	Inlet Protection Device, Maintenance	EA	1
24	9060-E	Removal of Fence	LF	248
25	9071-A	Segmental Block Retaining Wall	SF	895
26	9071-C	Granular Backfill Material	TON	311
27	9080-C	Safety Rail	LF	514
28	10,010-A	Demolition Work	LS	1
29	11,010-A	Construction Survey	LS	1
30	11,020-A	Mobilization	LS	1
31	11,050-A	Concrete Washout	LS	1

em No.	Item Code	Description
1	0000-999-A	Structural Steel
1	0000-999-A	A. Description, materials, method of measurement, and basis of payment shall be per Iowa DOT Standard
		Specification Section 2408. Suppliers need not be approved by the Iowa DOT.
2	0000-999-B	Bridge Decking
		A. Includes furnishing and installing hold down bolts as detailed on Sheet V.01.
3	2010-C	Clearing and Grubbing A. Contractor may spray existing vegetation on the river bank as needed.
		<ul> <li>B. Item includes clearing and grubbing for retaining wall repairs. See C Sheets for tabulation and D Sheets for plan</li> </ul>
4	2010-D-3	Topsoil, Off-site
		A. Item is for all seeded areas.
5	2010-E	Excavation, Class 13
		A. Item excludes pavement removals and excavation necessary for bridge removal work included in Item 10,010-A
		B. Item includes flowable fill used to fill void below existing trail pavement. See D Sheet for plan.
6	2010 1	Subbase, Modified, 4"
0	2010-J	A. See B Sheet for typical sections.
		B. Item is for subbase beneath the shared use path, sidewalk, and asphalt pavement.
7	4020-A-1	Storm Sewer, Trenched, PVC, 6"
		A. See M Sheet for plan.
8	7020-A	Pavement, Asphalt, Base, 1/2", PG 58-28S, ST
		A. See D Sheet for plan.
9	7020-1	Asphalt Pavement Samples and Testing
0	10201	A. Contractor is responsible for samples and testing.
10	7030-A-1	Removal of Sidewalk
		A. See C Sheet for removals plan.
11	7030-A-2	Removal of Shared Use Path A. See C Sheet for removals plan.
12	7030-C	Shared Use Path, PCC, 6"
		A. See B Sheet for typical section and D Sheet for plan.
13	7030-D	Special Subgrade Preparation for Shared Use Path
		A. Item is for all new shared use path. See B Sheet for typical section.
14	7020 5	Sidewalk, PCC, 6"
14	7030-E	A. See D Sheet for plan.
15	7040-H	Pavement Removal
		A. See C Sheet for removals plan.
16	8030-A	Temporary Traffic Control
		A. See J Sheet for plan.
47	0040 5	Luden lie Conding Conding Fatilizing and Mulaking Trans 4
17	9010-B	Hydraulic Seeding, Seeding, Fertilizing, and Mulching, Type 1
	1	A. See R Sheet for plan.

Item No.	Item Code	
18	9040-D-1	Filter Sock, 1
		A. See R Sh
19	9040-D-2	Filter Socks,
20	9040-J	Rip Rap, Cla
		A. See R Sh
		B. Item inclu
21	9040-O-1	Stabilized Co
		A. See J She
22	9040-T-1	Inlet Protecti
22	3040-1-1	A. See R Sh
		71.00011011
23	9040-T-2	Inlet Protecti
24	9060-E	Removal of F
		A. See C Sh
25	9071-A	Segmental B
20		A. See U Sh
		B. Block cold
		C. Item inclu
		D. Item inclu
		furnishing an
		E. Leveling p
26	9071-C	Granular Bad
		A. Item is for
27	9080-C	Safety Rail
		A. See D and
		B. Rail shall
28	10,010-A	Demolition W
20		A Item inclu
		This includes
		B. Item inclu
		C. Item inclu
		D. Item inclu
		E. Item inclu
29	11,010-A	Construction
		A. Item cove
30	11,020-A	Mobilization
31	11,050-A	Concrete Wa

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PRELIMINARY NOT FOR CONSTRUCTION

B A NO.	60% PLANS 30% PLANS REVISION	05-10-24 01-08-24 DATE	Shoemaker Haaland	OWNER	CITY OF IOWA CITY UNESCO CITY OF LITERATURE	PROJECT IOWA RIVER TRAIL BRIDGE REPLACEMENT
INU.	REVISION	DATE				

Description
12"
eet for plan. Item shall be used to properly control erosion and sediment within the project lim
Removal
ass E
ieet for plan. Depth shall be 2.0'.
des engineering fabric to be installed beneath the rip rap.
onstruction Entrance
eet for plan. Item shall only be installed within easement limits as shown on the H Sheet.
ion Device, Surface-Applied
neet for plan.
tion Device, Maintenance
Fence
neet for removals plan. Item excludes removal of fence within the bridge removal limits.
Block Retaining Wall
neets for plan, profile, and details.
or shall match the existing blocks. Owner must approve the block selection prior to construction
ides all backfill material and installation necessary for wall construction.
ides installation of salvaged blocks for retaining wall repairs. Also includes all material furnishi
nd repairs for retaining wall repairs.
pad shall be granular material.
ickfill Material
or new retaining wall backfill including below leveling pad.
nd U Sheets for plan and details.
be galvanized and not painted.
Nork
ides removal of existing trail bridge and removal of other items necessary for bridge removal.
s but is not limited to: abutments, piles, retaining walls, and fence.
ides excavation required to remove the bridge.
Ides removal of existing retaining wall at the existing trail bridge and for retaining wall repairs.
Ides removal of existing 3"x12" deck planks on the railroad bridge.
Ides removal of top of existing concrete wall at Kelly's Auto. See U Sheets.
n Survey
ers pavement, pavement removals, segmental block retaining wall, safety rail, and rip rap.
ashout



PROJECT NUMB 23184		
ISSUED DATE: DRAWN BY: CHECK BY: APPROVED BY:	PRELIMINARY KJB JTL GFF	C.01

	STORM SEWER, TRENCHED										
	BID ITEM: 4020-A-1										
Number	Pipe	Size	Material	Grade	US Structure	DS Structure	US Flow Line	DS Flow Line	Length (LF)		
1	ST P-1	6"	PVC	1.00%	Ex. Pipe	N/A	633.90	633.85	12		
								TOTAL	12		

### PAVEMENT, ASPHALT BID ITEM: 7020-A Number Start Station End Station Side Area (SY) 1 502+11.04 502+35.85 L 27.89 2 502+08.58 502+20.60 412.75 L 3 504+73.73 505+03.59 28.83 L TOTAL (SY) 469.47 TOTAL (TON) 159

	REMOVAL OF SIDEWALK										
	BID ITEM: 7030-A-1										
Number	Start Station	End Station	Side	Width	Area (SY)						
1	502+09.44	502+33.69	L	4'	14.50						
				TOTAL	14.50						

	REMOVAL OF SHARED USE PATH									
	BID ITEM: 7030-A-2									
Number	Location	Start Station	End Station	Side	Area (SY)					
1	Between Bridges	501+54.11	504+01.30	В	354.48					
2	North of Removed Bridge	504+75.48	505+32.86	В	63.56					
	TOTAL 418.04									

SHARED USE PATH									
	BID ITEM: 7030-C								
Number	Start Station	End Station	Side	Width	Area (SY)				
1	501+54.11	505+32.86	В	VARIES	575.18				
				TOTAL	575.18				

	SIDEWALK, PCC, 6"									
	BID ITEM: 7030-E									
Number	Start Station	End Station	Side	Width	Area (SY)					
1	502+09.44	502+33.69	L	4'	14.50					
	TOTAL 14.50									

	PAVEMENT REMOVAL									
	BID ITEM: 7040-H									
Number	Location	Start Station	End Station	Side	Area (SY)					
1	Dairy Queen Parking Lot	502+11.04	502+35.85	L	27.89					
2	Dairy Queen Parking Lot	502+08.58	502+20.60	L	412.75					
3	Kelly's Auto Parking Lot	504+73.73	504+97.74	L	20.56					
			•	TOTAL	461.20					

	FILTER SOCK, 12"									
	BID ITEMS: 9040-D-1 AND 9040-D-2									
Number	Start Station	Offset	End Station	Offset	Length (FT)					
1	501+30.69	161.03' L	501+42.37	10.88' L	171					
2	501+41.77	5.20' R	503+89.79	8.73' R	251					
3	504+86.49	7.44' R	505+92.92	4.91' R	110					
				TOTAL	532					

RIP RAP, CLASS E								
	BID ITEM: 9040-J							
Number	Start Station	End Station	Side	Weight (TON)				
1	503+91.14	504+77.97	R	9.16				
		•	TOTAL	9.16				

INLET PROTECTION DEVICE, SURFACE-APPLIED								
	BID ITEMS: 9040-T-1 AND 9040-T-2							
Number	Location	Structure ID	Station	Offset				
1	Kelly's Auto	Ex. Intake	504+46.45	9.34' L				

	REMOVAL OF FENCE								
		BID ITE	EM: 9060-E						
Number	Start Station	Offset	End Station	Offset	Length (FT)				
1	501+43.81	5.96' L	501+79.73	8.18' L	35				
2	501+62.00	10.08' R	502+07.36	10.20' R	49				
3	503+36.28	10.32' R	504+00.81	4.49' R	67				
4	504+75.94	4.60' R	505+69.84	8.56' R	97				
	•		•	TOTAL	248				

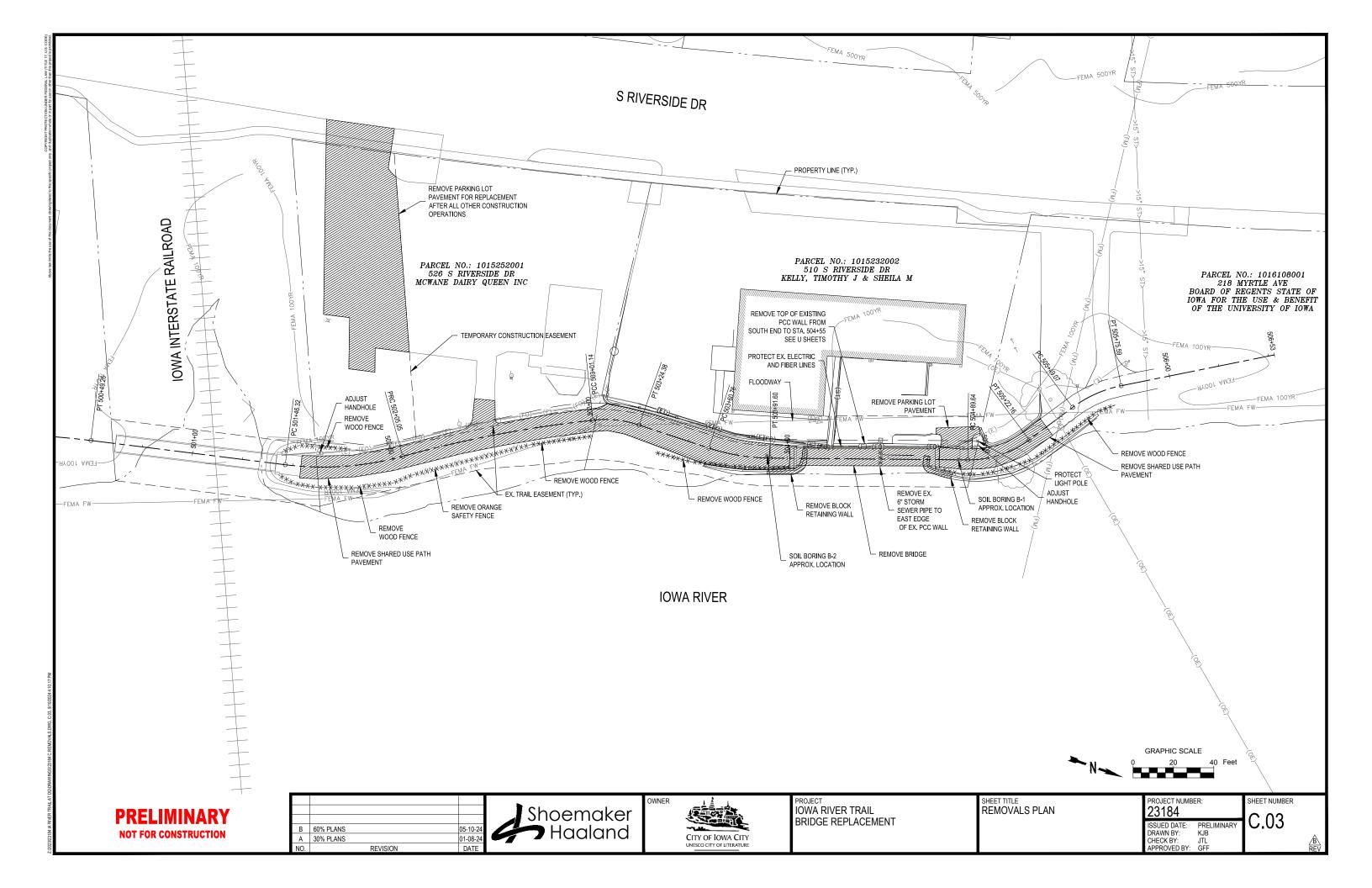
	SAFETY RAIL									
	BID ITEM: 9080-C									
Number	Start Station	Offset	End Station	Offset	Length (FT)					
1	501+44.16	5.80' L	501+79.55	7.00' L	35					
2	501+44.23	5.19' R	505+69.84	8.56' R	428					
3	504+22.92	6.45' L	504+73.35	6.45' L	51					
	•			TOTAL	514					

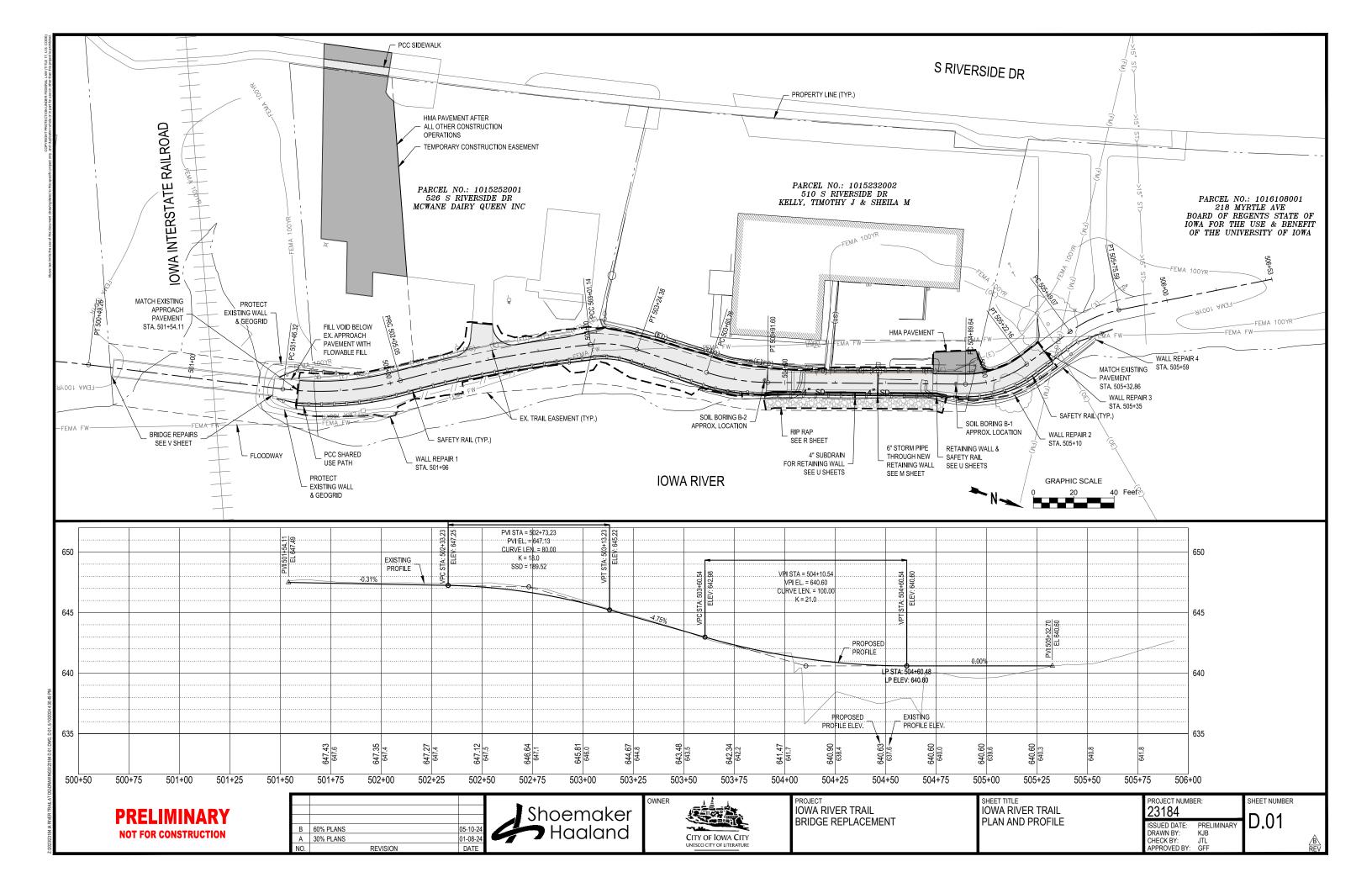
	RETAINING WALL REPAIRS												
BID ITEMS: 2010-C, 9071-A, 10,010-A													
	Number	Station	Side	Blocks	Cap Blocks	Area (SF)	Notes						
	1	501+96	R	20	8	24	Tree, vegetation						
	2	505+10	R	16	9	20.5	Tree, stump						
	3	505+35	R	20	8	24	Tree, two stumps, vegetat						
	4	505+59	R	8.5	2.5	9.75	Vegetation						
					TOTAL	78.25							

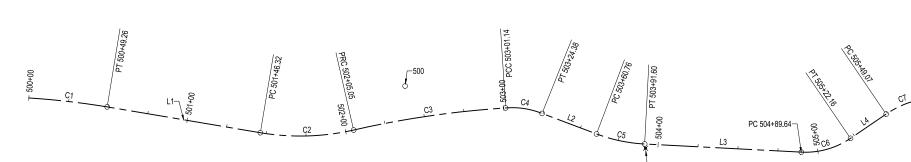












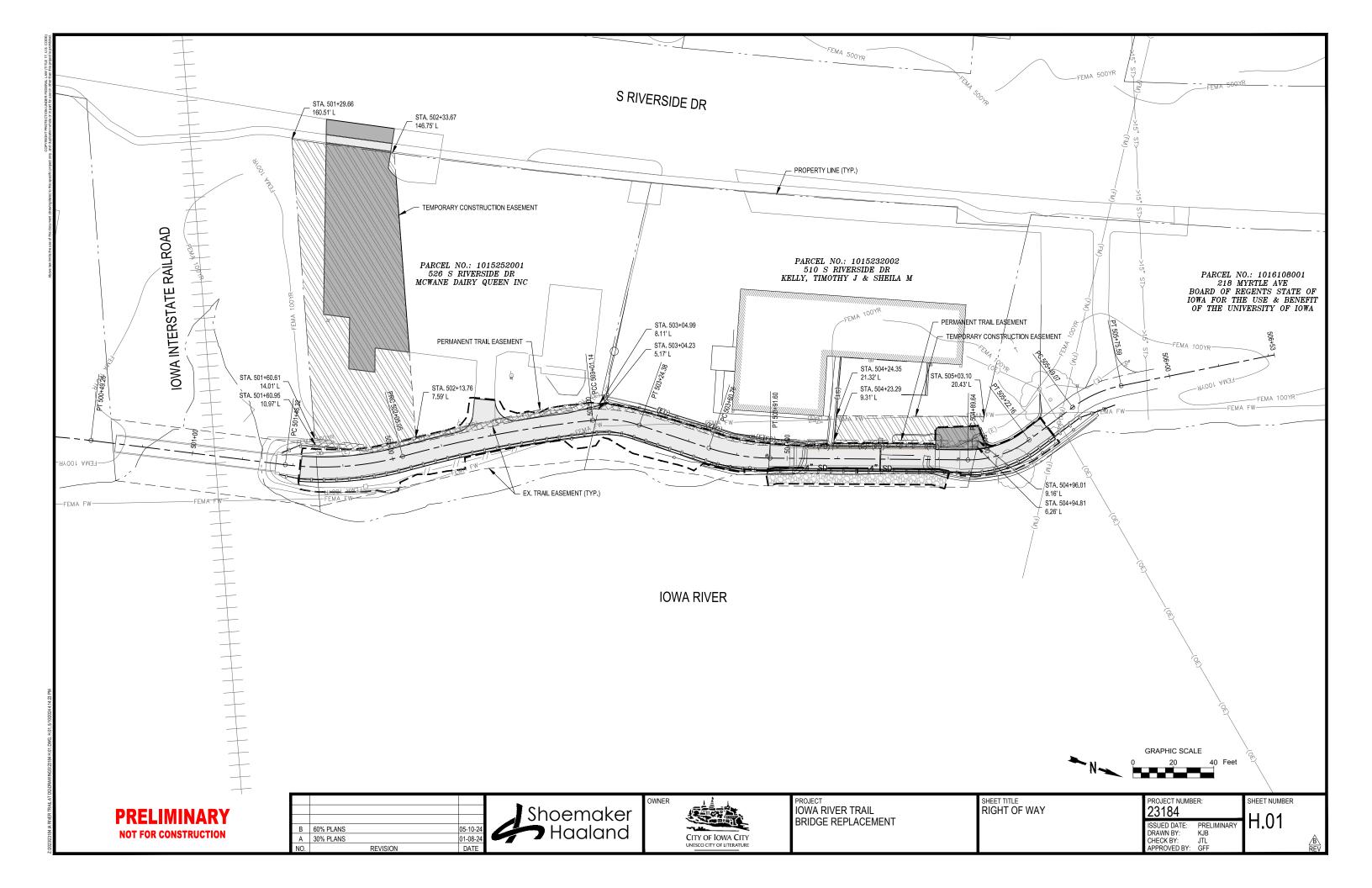
	Control Points											
Point No.	Northing	Easting	Elevation	Description								
500	608276.739	2176070.085	647.55	SET 5/8" REBAR								
501	608431.937	2176066.443	641.60	CUT X								
502	608609.334	2175984.980	642.62	CUT X								
505	608554.636	2175800.728	651.45	FOUND MAG NAIL								

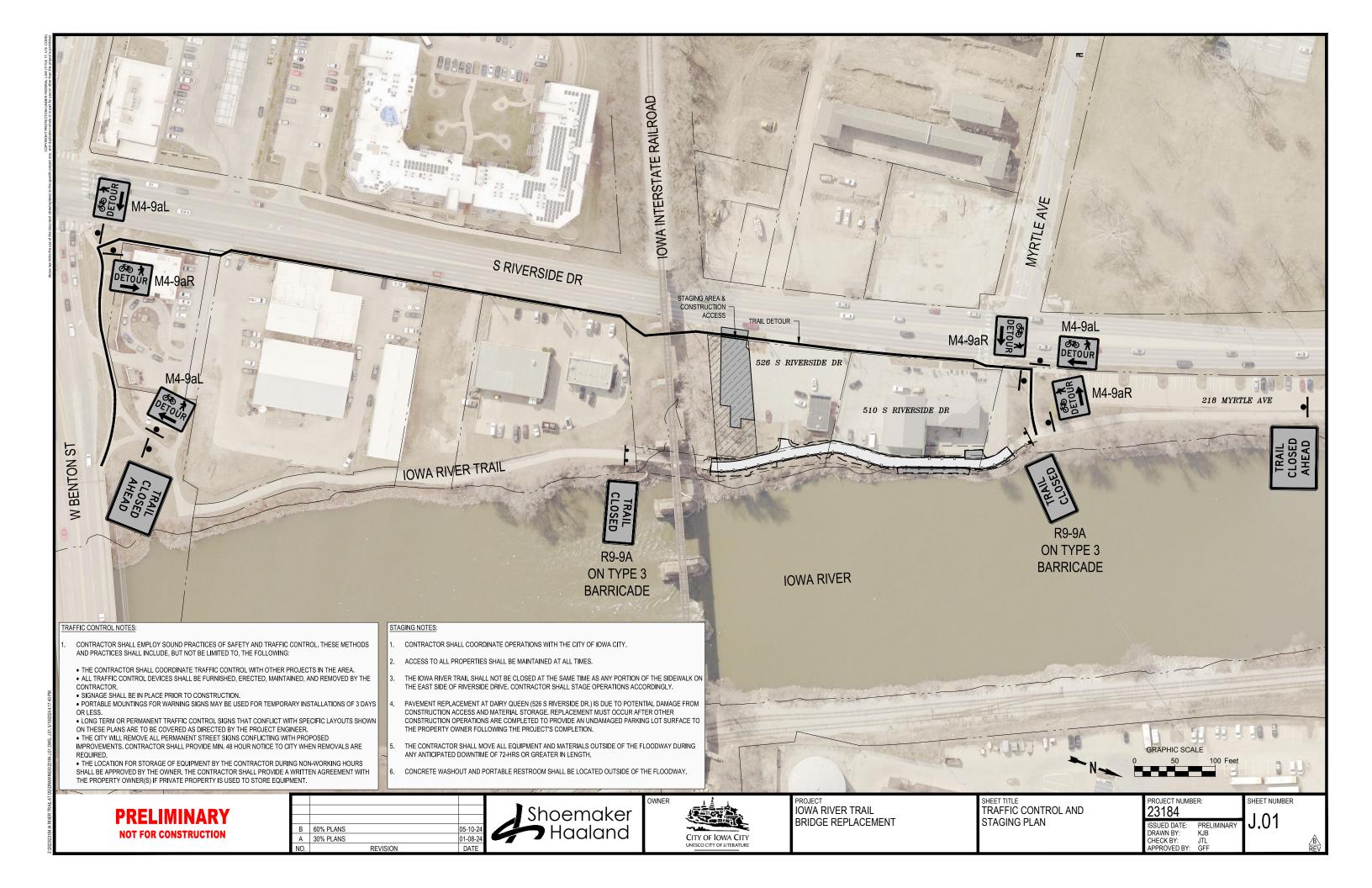
										Iowa River Trai					
Number	Туре	Length	Radius	Start Station	End Station	Delta Angle	Chord Length	Chord Direction	Start Direction	End Direction	Mid-Ordinate	External Tangent	External Secant	PI Included Angle	PI Statio
C1	Curve	49.261'	500.00'	500+00	500+49.26	005.6449 (d)	49.24'	N09° 20' 58.74"W	N12° 10' 19.59"W	N06° 31' 37.90"W	0.61	24.65'	0.61'	174.3551 (d)	500+24.6
L1	Line	97.056'		500+49.26	501+46.32										
C2	Curve	58.729'	150.00'	501+46.32	502+05.05	022.4330 (d)	58.35'	N17° 29' 42.98"W	N06° 16' 43.67"W	N28° 42' 42.29"W	2.87	29.75'	2.92'	157.5670 (d)	501+76.0
C3	Curve	96.092'	598.72'	502+05.05	503+01.14	009.1958 (d)	95.99'	N24° 06' 49.78"W	N28° 42' 42.29"W	N19° 30' 57.27"W	1.93	48.15'	1.93'	170.8042 (d)	502+53.20
C4	Curve	23.243'	50.00'	503+01.14	503+24.38	026.6343 (d)	23.03'	N07° 19' 24.49"W	N20° 38' 26.17"W	N05° 59' 37.19"E	1.34	11.84'	1.38'	153.3657 (d)	503+12.9
L2	Line	36.377'		503+24.38	503+60.76										
C5	Curve	30.841'	100.00'	503+60.76	503+91.60	017.6704 (d)	30.72'	N04° 02' 43.85"W	N04° 47' 22.81"E	N12° 52' 50.51"W	1.19	15.54'	1.20'	162.3296 (d)	503+76.3
L3	Line	98.037'		503+91.60	504+89.64										
C6	Curve	32.524'	50.04'	504+89.64	505+22.16	037.2368 (d)	31.95'	N31° 30' 26.36"W	N12° 53' 20.06"W	N50° 07' 32.67"W	2.62	16.86'	2.76'	142.7632 (d)	505+06.50
L4	Line	26.913'		505+22.16	505+49.07										
C7	Curve	26.518'	60.00'	505+49.07	505+75.59	025.3231 (d)	26.30'	N37° 25' 57.33"W	N50° 05' 38.92"W	N24° 46' 15.74"W	1.46	13.48'	1.50'	154.6769 (d)	505+62.55
L5	Line	77.416'		505+75.59	506+53.01										

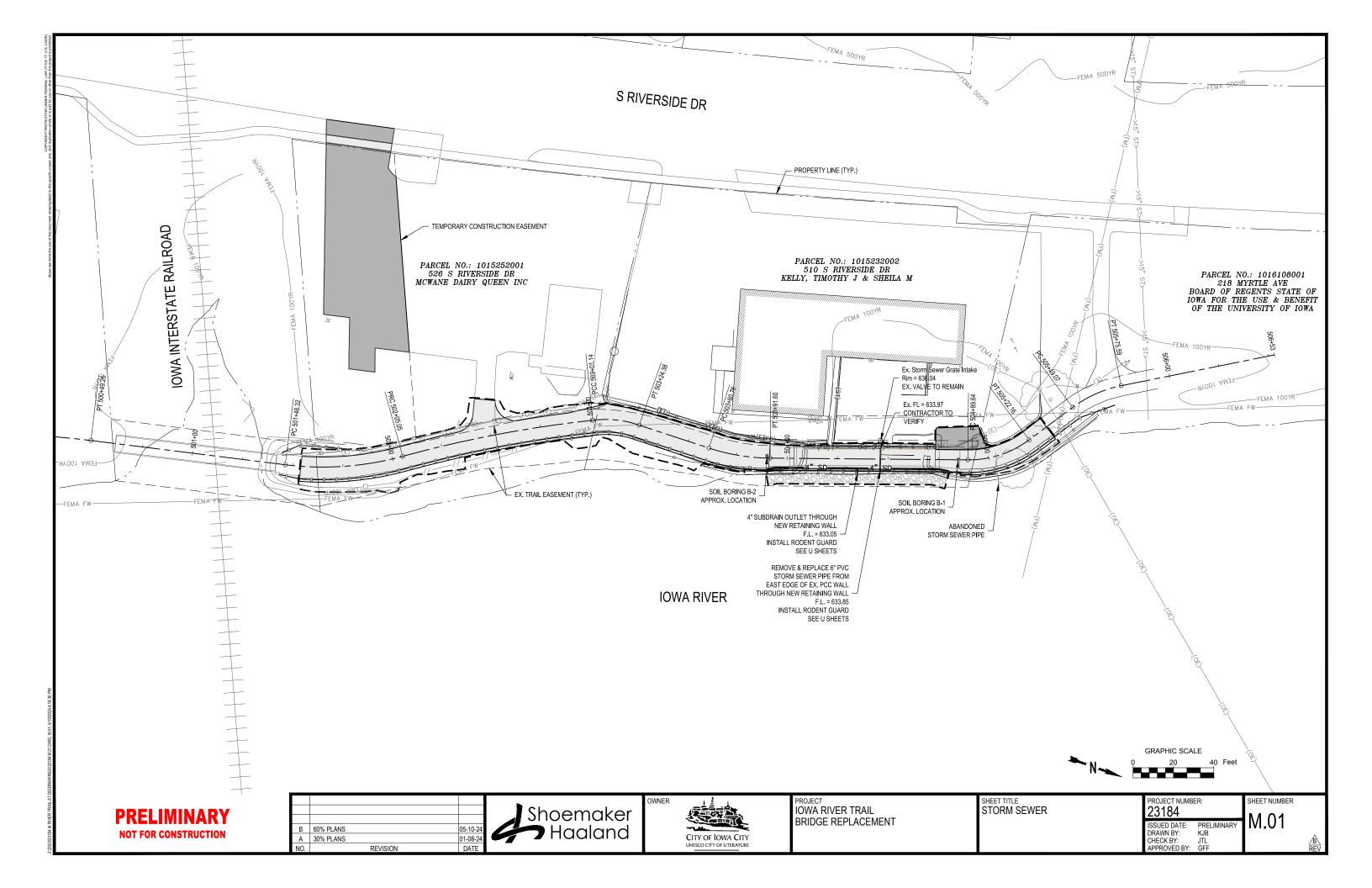
	B 60% PL4	NS	05-10-24	Shoemaker	OWNER		PROJECT IOWA RIVER TRAIL BRIDGE REPLACEMENT	
OT FOR CONSTRUCTION	B 60% PLA A 30% PLA NO.		05-10-24 01-08-24 DATE	Haaland		CITY OF IOWA CITY UNESCO CITY OF LITERATURE		

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	5	05_J		*	~ N- <u>~</u>	GRAPHIC	SCALE 60 F	eet
	-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	502 J	L F F 506+53					
-1-		<b>2</b> (1)						
gle	PI Station 500+24.65'	Start Point	End Point	N =	PI Point			
		E = 2176141.47 N = 608101.18 E = 2176133.47	E = 2176133.47 N = 608197.66 E = 2176122.86	E=	2176136.28			
	501+76.06'	N = 608197.66 E = 2176122.86	N = 608253.31 E = 2176105.32		608227.23 2176119.61			
	502+53.20'	N = 608253.31 E = 2176105.32	N = 608340.93 E = 2176066.10	N =	608295.54 2176082.19			
	503+12.97'	N = 608340.93 E = 2176066.10	N = 608363.77 E = 2176063.16	N =	= 608352.00 2176061.93			
		N = 608363.77 E = 2176063.16	N = 608400.02 E = 2176066.20					
	503+76.30'	N = 608400.02 E = 2176066.20	N = 608430.66 E = 2176064.03		= 608415.51 2176067.50			
		N = 608430.66 E = 2176064.03	N = 608526.24 E = 2176042.18					
	505+06.50'	N = 608526.24 E = 2176042.18	N = 608553.48 E = 2176025.48		608542.67 2176038.42			
		N = 608553.48 E = 2176025.48	N = 608570.75 E = 2176004.84					
	505+62.55'	N = 608570.75 E = 2176004.84	N = 608591.63 E = 2175988.85		608579.39 2175994.50			
		N = 608591.63 E = 2175988.85	N = 608661.92 E = 2175956.41					
s A	HEET TITLE	T AND CONT	ROL POINT	S	PROJECT NUMB 23184 ISSUED DATE: DRAWN BY: CHECK BY: APPROVED BY:	PRELIMINARY KJB JTL	SHEET NUMBER	R B REV











# Boring Log No. B-1

ē	Б	Location: See Exploration Plan	$\overline{\mathbf{x}}$	<u> </u>	be	(In.)			rength 1	train (%) a Water Content (%)		ц. <del>Б</del>	
Model Layer	Graphic Log	Latitude: 41.6536° Longitude: -91.5399°	Depth (Ft.)	Water Level Observations	Sample Type	<u>ک</u>	Field Test Results	ъ	Compressive Strength (tsf)	(%	nt (	Dry Unit Weight (pcf)	Percent Fines
bdel	aph		epth	ater	Idma	Recovery	Res	Test Type	engt tsf)	Strain (%)	N Ng	Dry eigh	Pen
Σ	Ū		ŏ	≥S	Ň	Rec	-	Tes	Str (	Stra	Ŭ	×	
	4 B B	Depth (Ft.)         Elevation: 639 (Ft.) +/-           0.6 <b>7" Concrete</b> 638.4			_				0				
		FILL - LEAN CLAY and SANDY LEAN CLAY, trace	_										
		gravel, brown and dark brown											
		2.5 636.5	-	1									
		FILL - SILTY SAND, occasional clay inclusions,	_			16					8.1		
		brown and dark brown											
			-	1									
			5-		X	0	2-1-3 N=4				9.6		
			5		ΔĽ								
1	×	6.0 633 FILL - SANDY LEAN CLAY, trace crushed limestone,	-	-									
		gravel, and brick, dark gray	_				4-4-4						
					X	11	N=8				18.2		
			-	1	$ \rightarrow$								
			_										
					M	16	4-5-5				14.6		
			10-	1	$\wedge$	10	N=10				14.0		
		11.0 628	_										
	0	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM), fine to coarse grained, brown, loose		NICENCE									
	2	<u></u> ,,	-	<b>談照</b>									
	4		_										
	<b>.</b> C		-	$\nabla$									
2	<b>3</b>		15-		X	6	3-2-2 N=4				14.3		11
-			15		$\square$								
	<b>3</b>		-	1									
			_										
	<u></u> .												
			-	1									
	6	19.0 620	-										
3		LIMESTONE, brown, completely to highly weathered			X	12	SPT = 9-17-50/3"				12.7		
		20.5 turning gray below about 20 feet 618.5	20-		$\bigtriangleup$		9-17-50/5				10.6		
		Auger Refusal at 20.5 Feet											
1	1												
L													
See	Explora	ation and Testing Procedures for a description of field and laboratory procedures		er Leve							<b>Drill Ri</b> 1206 - (	g CME SE	
		dditional data (If any). rting Information for explanation of symbols and abbreviations.		14' while drilling/sampling       12' after boring									
			<u></u> uter boring				Hamme CME Au	tomatic					
							ter boring				Driller DL		
Not Elev		eference: Elevation obtained using IDNR LiDAR Data Elevation Tool	Hollo	w Stem	Aug	er	u				Logged CL	i by	
Classification of rock estimated from disturbed samples. Core samples and petrographic													
ana	analysis may reveal other rock types.			donm	ent M	letho	d				Boring 12-15-2	Starte 2023	d
			Borin	g backf ment pa	filled 1	with a	uger cuttings upon co	mpleti	on and		Boring	Compl	eted
											12-15-2	2023	

Facilities | Environmental | Geotechnical | Materials

Yer	bo:	Location: See Exploration Plan		la el	/be	(In.)	, st	St	rength	Test	(%	t cf)	
Model Layer	Graphic Log	Latitude: 41.6534° Longitude: -91.5398° Depth (Ft.) Elevation: 639 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (	Field Test Results	Test Type	Compressive Strength (tsf)	Strain (%)	Water Content (%)	Dry Unit Weight (pcf)	Percent
	₀ ♥ (	0.3 4" Asphalt638.7 0.8 5" Crushed Limestone638.2	_										
		FILL - LEAN CLAY, trace sand and brick, brown 1.8 637.2 FILL - SILTY SAND, trace crushed limestone, brown	_		$\bigvee$	13	3-6-4				19.2		
		2.8 636.2 3.5 FILL - CRUSHED LIMESTONE, brown and gray 635.5	-	-	Δ		N=10				6.8		
		FILL - SANDY LEAN CLAY, trace gravel, brown	_	-									-
			5-			6		UC	2.36	8.9	14.0	117	
1			-	-	X	8	1-2-2 N=4	-			15.4		
		8.5 <u>FILL - SANDY LEAN CLAY</u> , trace gravel and crushed	-										
		limestone, gray	10-	-		8					17.3	117	
		12.0 627	-										
		POORLY GRADED SAND (SP), trace silt and gravel, fine to coarse grained, brown, loose	_										
			- 15-		X	14	4-4-5 N=9	-			2.4		
			-					-					-
2			_										
		very loose below about 19 feet	_					_					
			20–	-	Д	6	3-1-1 N=2	_			16.5		
3		21.5 617.5 22.1 <b>LIMESTONE</b> , gray, highly weathered 616.9	-										
		SPT and Auger Refusal at 22.1 Feet				0.5	SPT = 50/1"						
		tion and Testing Procedures for a description of field and laboratory procedures dditional data (If any).	Wate	er Leve 17' w	<b>el Ob</b> hile d	<b>serva</b> Irilling/	<b>tions</b> sampling				Drill Ri 1206 - 1	<b>g</b> CME 550	iox
See Supporting Information for explanation of symbols and abbreviations.				13' a	fter b	oring					Hammer Type CME Automatic		
Notes Elevation Reference: Elevation obtained using IDNR LiDAR Data Elevation Tool			Adva	Cave ncem w Sten	ent M	lethoo	ter boring I				Driller DL Logged CL	l by	
Classification of rock estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.				Abandonment Method Boring backfilled with auger cuttings upon completion and							CL Boring Started 12-15-2023		





Cedar Rapids, IA

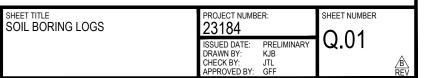
# Boring Log No. B-2

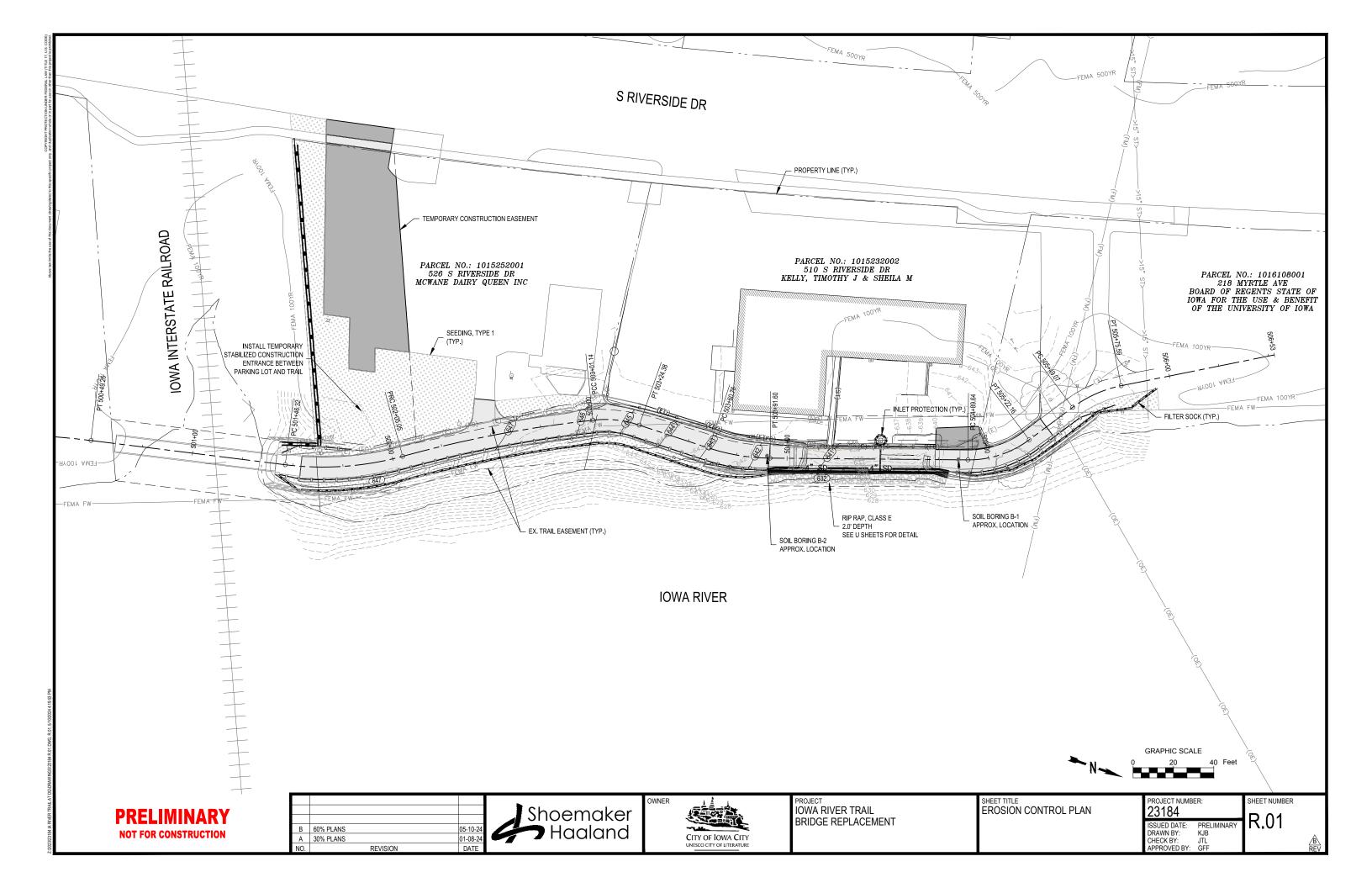
Iowa River Trail Retaining Wall

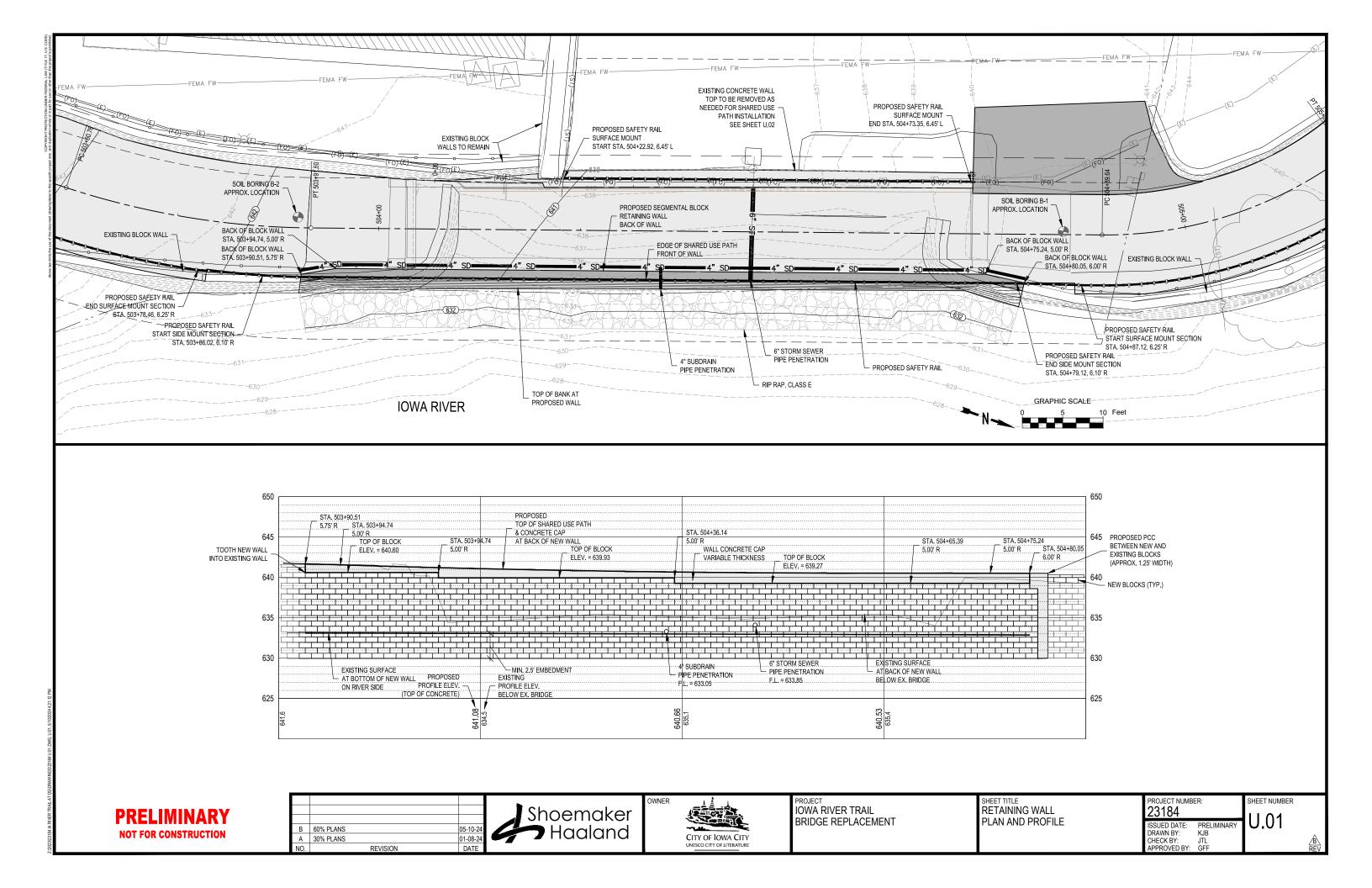
Terracon Project No. 06235122

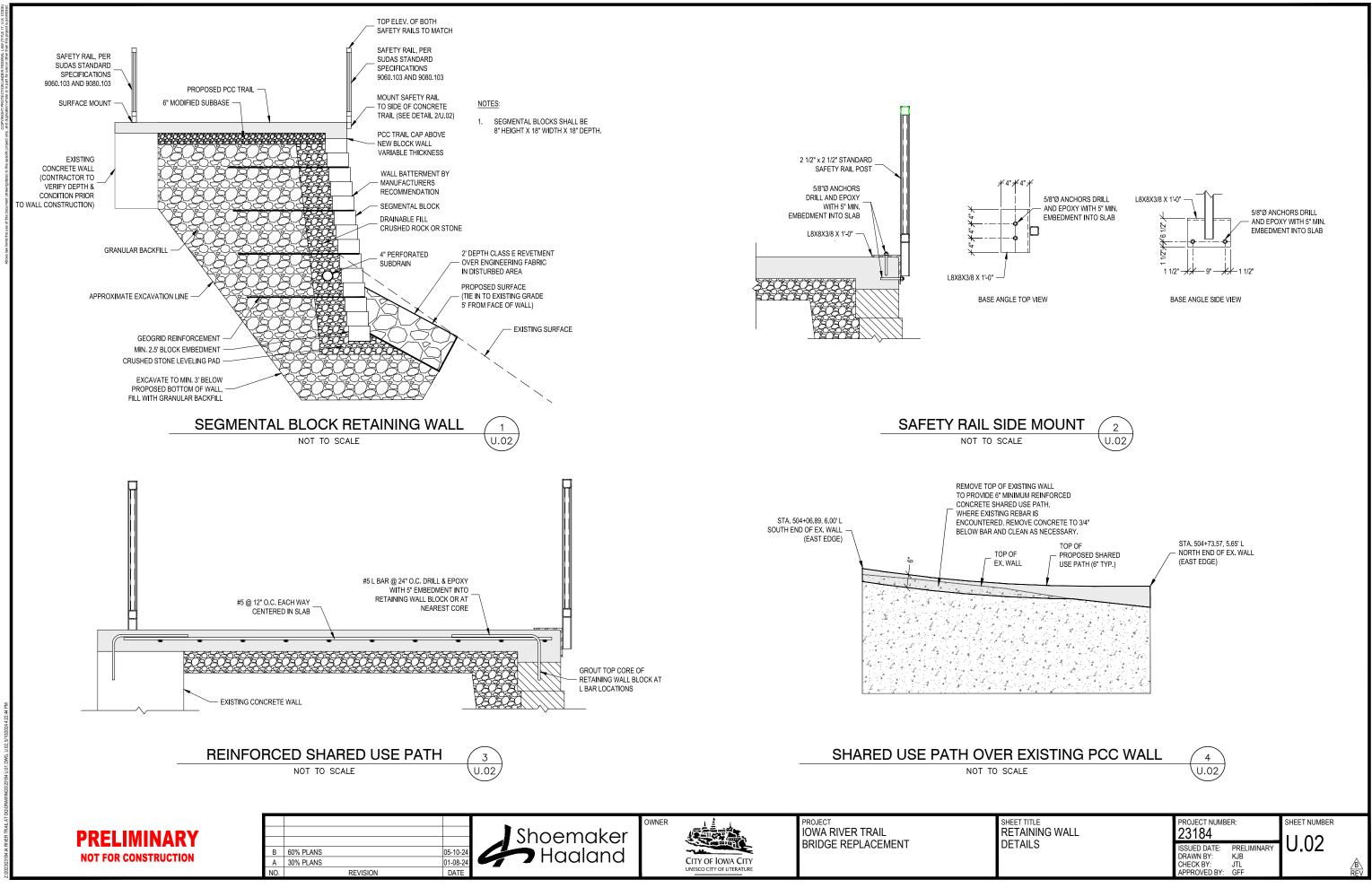
510 South Riverside Drive | Iowa City, Iowa

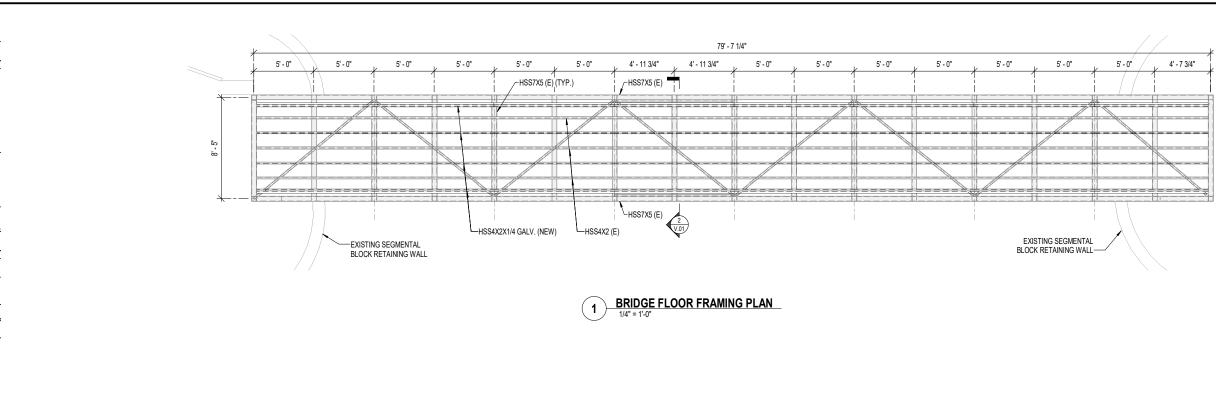
Facilities | Environmental | Geotechnical | Materials

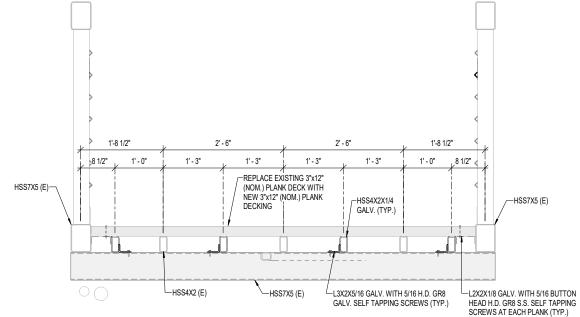












# STEEL NOTES:

1. ALL STRUCTURAL STEEL EXCEPT AS NOTED, SHALL CONFORM TO ASTM A709 GRADE 50. THE MINIMUM YIELD POINT FOR GRADE 50 STRUCTURAL STEEL IS 50 KSI FOR PLATES 4 INCHES AND UNDER IN THICKNESS AND ALL STRUCTURAL SHAPES. SEE GENERAL NOTES FOR PAINTING.

2. CHARPY V-NOTCH TOUGHNESS REQUIREMENTS IN ACCORDANCE WITH ARTICAL 4152.02 OF THE STANDARD SPECIFICATIONS APPLY TO ALL CROSS FRAMES AND CCONNECTION STIFFENERS AT CROSS FRAMES.

3. ALL STEEL TO BE HOT DIP GALVANIIZED PER IOWA D.O.T. STANDARDS.

### 4. DECK NOTES:

CITY TO MARK EXISTING BOARDS TO SALVAGED PRIOR TO START OF CONSTRUCTION. CONTRACTOR TO SALVAGE AND DELIVER BOARDS TO CITY. DECK TO BE 3" NOMINAL DOUGLAS FIR SELECT, STRUCTURAL, TREATED. ROUGH SIDE SHALL BE PLACED UP.

### NOTES:

1. CONNECTION ANGLE REQUIRED ON EVERY OTHER CROSS MEMBER AND EACH END. WHERE ABUTTING HSS4x2 STRINGERS ARE INSTALLED, ALTERNATE CONNECTION SIDE.

2. CONTRACTOR OPTION TO PROVIDE 2" GROOVE WELD ON ONE SIDE OF NEW HSS4x2 STRINGERS IN LIEU OF SELF TAPPING SCREWS. WELDING CAN BE COMPLETED AS OUTLINED IN NOTE 1.





			Shoemaker		PROJECT
			JIOCITICKCI		-
В	60% PLANS	05-10-24	Haaland		BRIDGE REPLACEMENT
Α	30% PLANS	01-08-24		CITY OF IOWA CITY	
NO.	REVISION	DATE	www.shoemaker-haaland.com	UNESCO CITY OF LITERATURE	

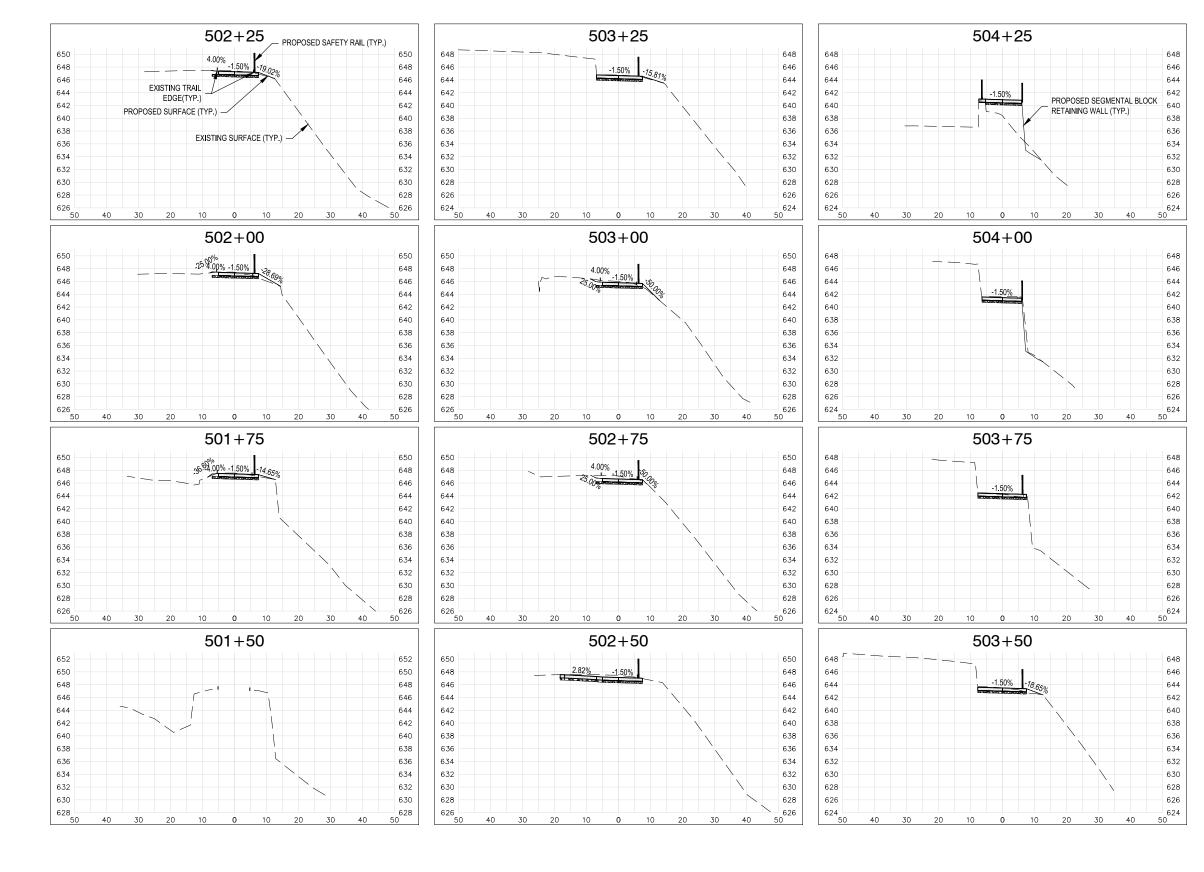
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SHEET TITLE
<b>BRIDGE REPAIR PLAN &amp; DETAILS</b>

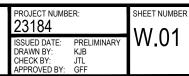
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DRAWN	DAA
CHKD	TJR
APROV.	TJR

SHEET NUMBER



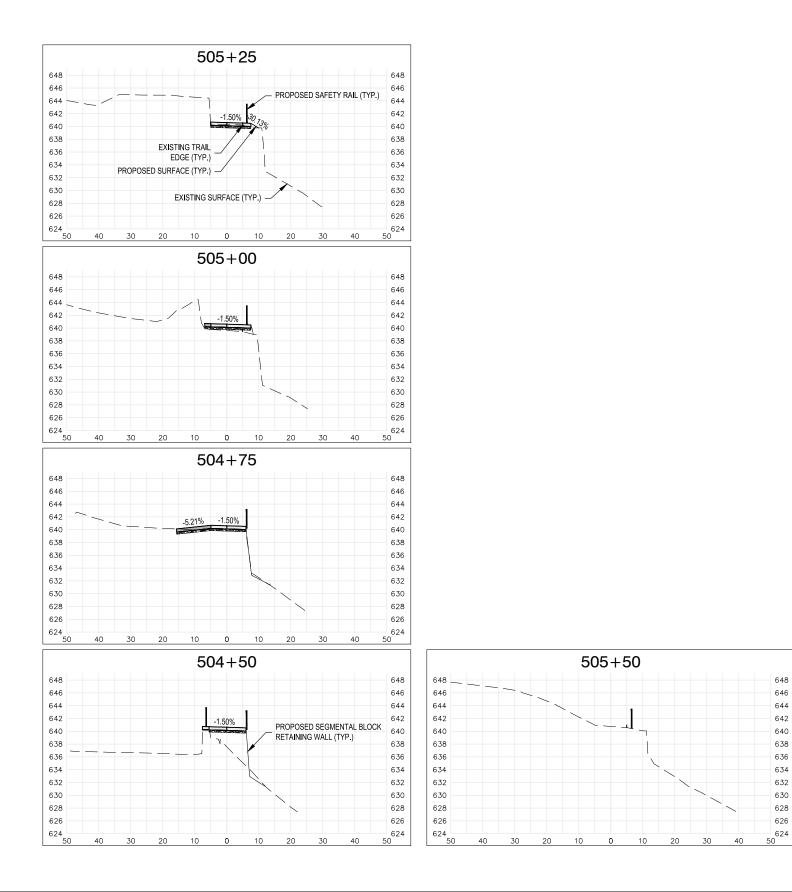






SHEET TITLE CROSS-SECTIONS







PRELIMINARY

**NOT FOR CONSTRUCTION** 

	PROJECT NUMBE	ER:
SS-SECTIONS	ISSUED DATE: DRAWN BY: CHECK BY: APPROVED BY:	PRELIN KJB JTL GFF

SHEET NUMBER



