CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL OVER COON RAPIDS BLVD (CSAH1)

CITY PROJECT NO. 24-6

CONSTRUCTION PLANS FOR: PEDESTRIAN AND BICYCLE TRAIL FACILITIES

LOCATED ON: COON RAPIDS BLVD (CSAH 1) FROM 900' SOUTHEAST OF EGRET BLVD NW TO ZILLA ST NW (GEOGRAPHIC DESCRIPTION)

PROJECT TEAM

OWNER
CITY OF COON RAPIDS
11155 ROBINSON DRIVE NW
COON RAPIDS, MN 55433
PHONE: (763)-755-2880

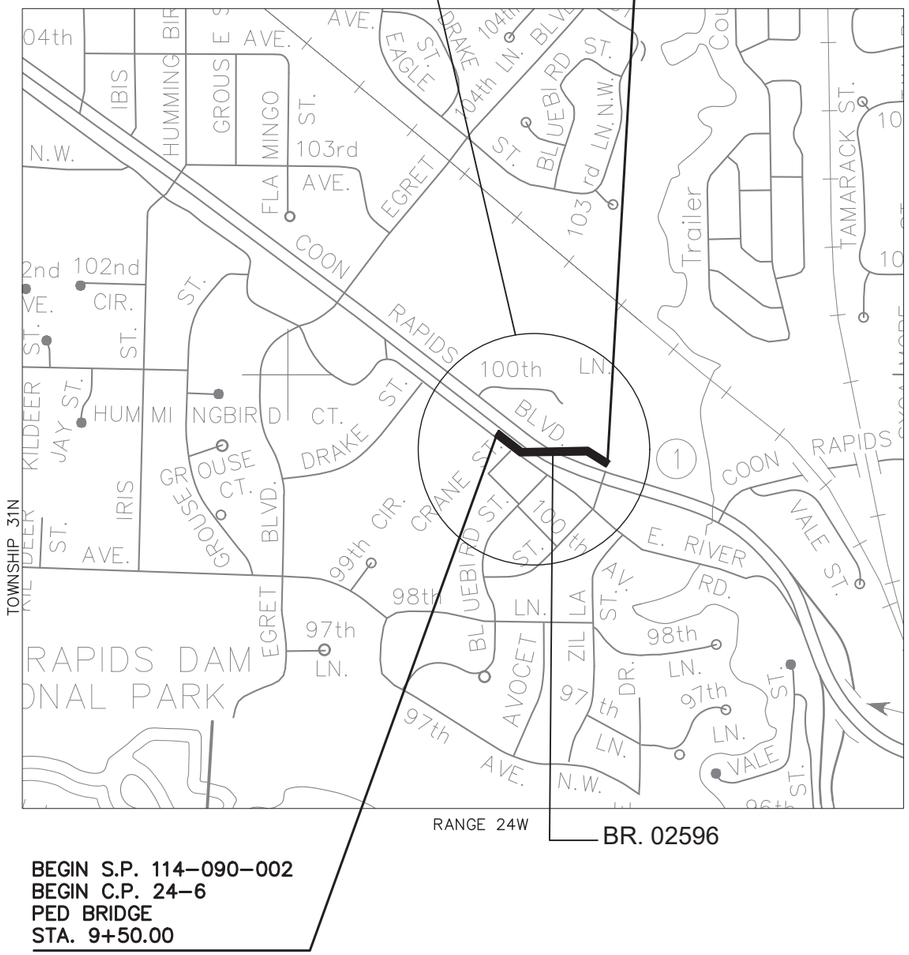
STRUCTURAL, CIVIL AND LANDSCAPE DESIGN
KIMLEY-HORN AND ASSOCIATES
11995 SINGLE TREE LN, SUITE 225
EDEN PRAIRIE, MN 55344
PHONE: (612) 315-1272

LEGEND

- EXISTING GATE VALVE
- EXISTING HYDRANT
- EXISTING CURB BOX
- EXISTING WATERMAIN MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE
- EXISTING GAS MANHOLE
- EXISTING CATCH BASIN
- EXISTING POWER POLE
- EXISTING CABLE TV BOX
- EXISTING TELEPHONE BOX
- EXISTING ELECTRICAL MANHOLE
- EXISTING ELECTRICAL TRANSFORMER
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING WATERMAIN
- EXISTING CURB AND GUTTER
- EXISTING FIBER OPTIC
- EXISTING GAS MAIN
- EXISTING OVERHEAD POWER/COMMUNICATION
- EXISTING UNDERGROUND POWER
- EXISTING FENCE
- EXISTING RETAINING WALL
- EXISTING STREET SIGN
- PROPOSED GATE VALVE
- PROPOSED HYDRANT
- PROPOSED MANHOLE (STORM)
- PROPOSED CATCH BASIN
- PROPOSED WATERMAIN
- PROPOSED STORM SEWER
- PROPOSED CURB AND GUTTER
- PROPOSED RETAINING WALL
- DRAIN TILE
- EXISTING RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT
- CONSTRUCTION LIMITS
- PERMANENT EASEMENT

PROJECT LOCATION

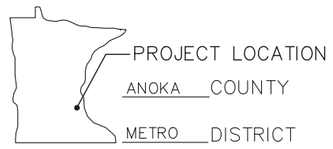
END S.P. 114-090-002
END C.P. 24-6
PED BRIDGE
STA. 21+78.65



BEGIN S.P. 114-090-002
BEGIN C.P. 24-6
PED BRIDGE
STA. 9+50.00

PLAN SET SCALES

LOCATION MAP	0 250 500	1"=500'
ALIGNMENT	0 25 50	1"=50'
PLAN	0 10 20	1"=20'
PROFILE	0 2.5 5	1"=5'



DESIGN DESIGNATION: TRAIL
Functional Classification: TRAIL
Design Speed 20 mph
Based on STOPPING Sight Distance
Height of eye 4.5 Height of Object 0'

NOTE:
THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINES FOR THE INVESTIGATING AND DOCUMENTING EXISTING UTILITIES".

THE EXACT LOCATION OF UNDERGROUND UTILITIES SHOWN IN THIS PLAN SET ARE UNKNOWN. THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE PRIOR TO STARTING ANY EXCAVATION.

GOPHER STATE ONE CALL SYSTEM.....1-800-252-1166

PLAN REVISONS

DATE	SHEET NO.	APPROVED BY

MINN. PROJ. NO. TA 0224(173)

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE THE LATEST MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS."

THE LATEST EDITION OF THE MnDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION IS FURTHER AMENDED BY THE 2018 EDITION OF THE CITY ENGINEERS ASSOCIATION OF MINNESOTA STANDARD SPECIFICATIONS. THE LATEST EDITIONS OF THE MnDOT AND CITY ENGINEERS ASSOCIATION OF MINNESOTA STANDARD SPECIFICATIONS ARE AMENDED BY THE CITY OF COON RAPIDS SPECIFICATIONS FOR CONSTRUCTION.

INDEX

THIS PLAN SET CONTAINS 97 SHEETS

Kimley»Horn

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

DATE 05/10/2024 LIC. NO. 44821

ENGINEER Daniel J. Coyle
DANIEL J. COYLE, PE

APPROVED Mark Hansen Digitally signed by Mark Hansen Date: 2024.04.23 11:42:20 -05'00' 4 / 23 / 2024
CITY ENGINEER, CITY OF COON RAPIDS

APPROVED Joseph MacPherson Digitally signed by Joseph MacPherson Date: 2024.05.06 18:08:23 -05'00' 5/06/2024
ANOKA COUNTY ENGINEER

Dan Erickson Digitally signed by Dan Erickson Date: 2024.05.07 13:26:44 -05'00' 2024
DISTRICT STATE AID ENGINEER: REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY

Dan Erickson Digitally signed by Dan Erickson Date: 2024.05.07 13:27:06 -05'00' 2024
for STATE AID ENGINEER APPROVED FOR STATE AID AND FEDERAL AID FUNDING

STATE AID PROJ. NO. 114-090-002 SHEET NO. 1 OF 29 SHEETS

K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\CoverSheet.dwg April 23, 2024 - 8:42am

STATEMENT OF ESTIMATED QUANTITIES

NOTE	SHEET NO.	TAB	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL ESTIMATED QUANTITY	S.P. 114-090-002 & C.P. NO 24-6 COON RAPIDS BLVD PED BRDIGE TRAIL ESTIMATED QUANTITY	S.P. 114-090-002 & C.P. NO 24-6 COON RAPIDS BLVD PED BRDIGE BRIDGE ESTIMATED QUANTITY
4	5	G	2011.601	CONSTRUCTION SURVEYING	LUMP SUM	**1**	0.5	0.5
	B5	I	2011.601	VIBRATION MONITORING	LUMP SUM	**1**		1
			2021.501	MOBILIZATION	LUMP SUM	**1**	0.5	0.5
			2031.502	FIELD OFFICE	EACH	**1**	0.5	0.5
	5	G	2041.610	TRAINEES	HOUR	**1350**	675	675
	5	C	2104.502	REMOVE GATE VALVE & BOX	EACH	**1**	1	
	5	C	2104.502	REMOVE LIGHT FOUNDATION	EACH	**1**	1	
	5	C	2104.502	SALVAGE SIGN	EACH	**2**	2	
	5	C	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	**38**	38	
	5	C	2104.503	SAWING BIT PAVEMENT (FULL DEPTH)	LIN FT	**270**	270	
	5	C	2104.503	REMOVE WATER MAIN	LIN FT	**700**	700	
	5	C	2104.503	REMOVE CURB & GUTTER	LIN FT	**18**	18	
	5	C	2104.504	REMOVE BITUMINOUS PAVEMENT	SQ YD	**370**	370	
3	5	C	2104.518	REMOVE BITUMINOUS WALK	SQ FT	**2825**	2825	
3	5	C	2104.518	REMOVE CONCRETE WALK	SQ FT	**1200**	1200	
(P)		A	2105.607	COMMON EXCAVATION	CU YD	**690**	690	
(P)	4	A	2106.507	COMMON EMBANKMENT (CV)	CU YD	**100**	100	
	B5	I	2106.601	DEWATERING	LUMP SUM	**1**		1
(P)		A	2211.509	AGGREGATE BASE CLASS 5	TON	**160**	160	
	5	D	2360.509	TYPE SP 12.5 WEARING COURSE MIX (3;E)	TON	**16**	16	
(P)	B5	I	2401.503	TYPE CURB BARRIER CONCRETE (3S52)	LIN FT	**2095**		2095
(P)	B5	I	2401.507	STRUCTURAL CONCRETE (1G52)	CU YD	**232**		232
(P)	B5	I	2401.507	STRUCTURAL CONCRETE (3JM)	CU YD	**575**		575
(P)	B5	I	2401.507	STRUCTURAL CONCRETE (3B52)	CU YD	**201**		201
(P)	B5	I	2401.507	STRUCTURAL CONCRETE (3S52)	CU YD	**78**		78
(P)	B5	I	2401.508	REINFORCEMENT BARS	POUND	**25620**		25620
(P)	B5	I	2401.508	REINFORCEMENT BARS (EPOXY COATED)	POUND	**207900**		207900
(P)	B5	I	2401.508	REINFORCEMENT BARS (STAINLESS-75KSI)	POUND	**120**		120
	B5	I	2401.601	STRUCTURE EXCAVATION	LUMP SUM	**1**		1
		I	2402.502	BEARING ASSEMBLY	EACH	**9**		9
	B5	I	2402.601	PEDESTRIAN BRIDGE (SUPERSTRUCTURE)	LUMP SUM	**1**		1
	5	H	2411.618	PREFABRICATED MODULAR BLOCK WALL	SQ FT	**3350**	3350	
(P)	B5	I	2411.618	ANTI-GRAFFITI COATING	SQ FT	**3300**		3300
(P)	B5	I	2411.618	ARCH SURFACE FINISH (MULTI COLOR)	SQ FT	**3300**		3300
(P)	B5	I	2411.618	ARCH CONC TEXTURE (COURSED STONE)	SQ FT	**3300**		3300

STATEMENT OF ESTIMATED QUANTITIES

NOTE	SHEET NO.	TAB	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL ESTIMATED QUANTITY	S.P. 114-090-002 & C.P. NO 24-6 COON RAPIDS BLVD PED BRDIGE TRAIL ESTIMATED QUANTITY	S.P. 114-090-002 & C.P. NO 24-6 COON RAPIDS BLVD PED BRDIGE BRIDGE ESTIMATED QUANTITY
(P)	4	A	2451.607	STRUCTURAL BACKFILL	CU YD	**3440**	3440	
	B5	I	2452.502	C-I-P CONC TEST PILE 85 FT LONG 12"	EACH	**2**		2
	B5	I	2452.502	C-I-P CONC TEST PILE 90 FT LONG 12"	EACH	**7**		7
	B5	I	2452.502	C-I-P CONC TEST PILE 95 FT LONG 12"	EACH	**4**		4
	B5	I	2452.601	STEEL SHEET PILING (TEMPORARY)	LUMP SUM	**1**		1
	B5	I	2452.603	C-I-P CONCRETE PILING 12"	LIN FT	**5360**		5360
(P)	B5	I	2473.503	EXPANSION JOINT DEVICES TYPE 4	LIN FT	**28**		28
(P)	B5	I	2473.503	EXPANSION JOINT DEVICES TYPE 5	LIN FT	**28**		28
(P)	B5	I	2475.503	ORNAMENTAL METAL RAILING TYPE SPECIAL 1	LIN FT	**1687**		1687
(P)	B5	I	2475.503	ORNAMENTAL METAL RAILING TYPE SPECIAL 2	LIN FT	**408**		408
	B5	I	2502.501	DRAINAGE SYSTEM TYPE (B910)	LUMP SUM	**1**		1
4	5	G	2502.601	RELOCATE IRRIGATION YSTEM	LUMP SUM	**1**	1	
		H	2502.603	DRAIN TILE	LIN FT	**380**	380	
	4	B	2503.503	12" RC PIPE SEWER DES 3006 CL V	LIN FT	**36**	36	
	4	B	2503.602	CONNECT TO EXISTING STORM SEWER	EACH	**1**	1	
	4	B	2506.502	CONST DRAINAGE STRUCTURE DES 48-4020	EACH	**1**	1	
	4	B	2506.502	CASTING ASSEMBLY	EACH	**1**	1	
	5	E	2511.507	RANDOM RIPRAP CLASS III	CU YD	**5**	5	
2	5	D	2521.518	4" CONCRETE WALK	SQ FT	**1250**	1250	
1	5	D	2521.518	4" BITUMINOUS WALK	SQ FT	**4675**	4675	
	5	D	2531.503	CONCRETE CURB & GUTTER DESIGN B624	LIN FT	**35**	35	
	5	D	2531.503	CONCRETE CURB DESIGN V6	LIN FT	**50**	50	
		I	2545.501	LIGHTING SYSTEM "A"	LUMP SUM	**1**		1
		I	2545.501	LIGHTING SYSTEM "B"	LUMP SUM	**1**		1
	B5	I	2545.501	CONDUIT SYSTEM	LUMP SUM	**1**		1
	5	C	2545.602	RELOCATE HANDHOLE	EACH	**1**	1	
	5	G	2563.601	TRAFFIC CONTROL	LUMP SUM	**1**	1	
	5	G	2564.502	INSTALL SIGN	EACH	**2**	2	
5	5	E	2573.502	STORM DRAIN INLET PROTECTION	EACH	**7**	7	
6	5	E	2573.503	SILT FENCE; TYPE MS	LIN FT	**1110**	1110	
	5	E	2574.507	COMMON TOPSOIL BORROW	CU YD	**375**	375	
	5	E	2574.508	FERTILIZER TYPE 3	POUND	**100**	100	
	5	E	2575.504	SODDING TYPE LAWN	SQ YD	**2250**	2250	
	5	E	2575.505	RAPID STABILIZATION METHOD 1	ACRE	**0.5**	0.5	

GENERAL NOTES:

(P) = PLAN QUANTITY
(1) SEE CITY OF COON RAPIDS STD. PLATE NO. STR-14
(2) SEE CITY OF COON RAPIDS STD. PLATE NO. STR-6.
(3) SAWING SHALL BE INCIDENTAL.
(4) SEE SHEET SPECIAL PROVISIONS FOR DETAILS
(5) SEE CITY OF COON RAPIDS STD. PLATE NO. EC-2.
(6) SEE SHEET 10 FOR DETAILS.

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No.	Date	Revisions	App.

DRAWING NAME: Tabulations.dwg
DESIGNED BY: VLB
DRAWN BY: SHC
CHECKED BY: DJC
DATE: 05/10/2024
PROJECT NO. 160000023

COON RAPIDS Minnesota
Kimley»Horn

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
DANIEL J. DOYLE, PE
DATE: 05/10/2024 MN LIC. NO. 44821

CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

STATEMENT OF ESTIMATED QUANTITIES

S.P. 114-090-002
C.P. 24-6

SHEET NO. 2 / 29

GENERAL CONSTRUCTION NOTES:

1. SELECT GRADING MATERIAL ON THIS PROJECT SHALL CONSIST OF ALL SOILS ENCOUNTERED WITH THE EXCEPTION OF TOPSOIL, DEBRIS, ORGANIC MATERIAL, AND OTHER UNSTABLE MATERIALS.
2. THE GRADING GRADE ON THIS PROJECT IS DEFINED AS THE BOTTOM OF THE AGGREGATE BASE OR TOPSOIL. THE PROPOSED GRADE ON THIS PROJECT IS DEFINED AS THE TOP OF PAVEMENT OR TOPSOIL.
3. BITUMINOUS AND CONCRETE ITEMS DISTURBED BY THE CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND MAY BE RECYCLED OR DISPOSED OF OFF THE RIGHT OF WAY. THE MAXIMUM BITUM CONTENT OF RECYCLED BITUMINOUS MATERIALS IS 3.5% PER MnDOT SPEC. 3138.
4. OBTAIN COMPACTION OF THE GRADING AND AGGREGATE BASE PORTIONS OF CONSTRUCTION IN ACCORDANCE WITH THE QUALITY COMPACTION METHOD AS DESCRIBED IN MNDOT SPEC. 2105.3F2.
5. UNDERGROUND UTILITIES EXIST WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL HAVE ALL UNDERGROUND UTILITIES LOCATED PRIOR TO THE START OF CONSTRUCTION AND COORDINATE THE WORK SCHEDULE WITH UTILITY COMPANY CREWS PERFORMING RELOCATION WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT EACH RESPECTIVE UTILITY COMPANY TO SCHEDULE WORK AROUND WORK PERFORMED BY PRIVATE UTILITY COMPANIES.
6. THE SUBSURFACE UTILITY PLAN INFORMATION ON THIS PLAN IS UTILITY QUALITY D. THIS UTILITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF SUBSURFACE UTILITY DATA".
7. NO DISPOSAL SITE IS PROVIDED. ANY MATERIAL NOT UTILIZED ON THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR FOR DISPOSAL. THE CONTRACTOR SHALL DISPOSE OF MATERIAL UNSUITABLE FOR USE DURING CONSTRUCTION.
8. REMOVALS: BITUMINOUS, SURFACES, CONCRETE, DRAINAGE STRUCTURE, PIPE, DEBRIS, AND OTHER OBJECTS OR MATERIALS TO BE REMOVED UNDER THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND EITHER RECYCLED OR DISPOSED OF OUTSIDE OF THE PROJECT LIMITS IN ACCORDANCE WITH MnDOT SPEC. 2104.
9. PROVIDE 1:10 TAPERS BETWEEN LONGITUDINAL GRADE CHANGES IN SUBCUT DEPTHS UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR DETAILED IN THE PLANS.
10. DURING CONSTRUCTION, TRAFFIC SHOULD BE NO CLOSER THAN AN IMAGINARY 1:2 LINE DRAWN FROM THE BOTTOM OF ANY SUBCUT TO THE TRAVELED SURFACE.
11. NO EXTRA PAYMENT WILL BE MADE FOR TEMPORARY STOCKPILING OF EXCAVATION, EMBANKMENT, AND/OR BORROW MATERIAL. ANY EXTRA MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF OUTSIDE OF THE RIGHT OF WAY IN ACCORDANCE WITH MnDOT SPEC. 2104.
12. PLACE A MINIMUM OF 6" TOPSOIL OR SLOPE DRESSING ON ALL AREAS DISTURBED BY CONSTRUCTION AND SCHEDULED FOR PERMANENT TURF ESTABLISHMENT UNLESS OTHERWISE SPECIFIED.
13. COMMON EXCAVATION QUANTITIES DO NOT INCLUDE THE REMOVAL OF EXISTING BITUMINOUS PAVEMENT. BITUMINOUS PAVEMENT REMOVAL IS PAID FOR SEPARATELY.
14. BITUMINOUS PAVING SHALL BE IN ACCORDANCE WITH MnDOT SPEC. 2360. PROVIDE TACK COAT (INCIDENTAL) PER MnDOT SPEC. 2357. THE CONTRACTOR SHALL COAT THE EXPOSED EDGES OF EXISTING SURFACING, CONCRETE PAVEMENT, AND CONCRETE CURB AND GUTTER WITH TACK COAT WHEN PLACING NEW BITUMINOUS SURFACING ADJACENT TO THOSE FEATURES. PAVEMENT DENSITY SHALL BE BY ORDINARY COMPACTION.
15. ALL CONCRETE TRUCKS SHALL WASH OUT WITHIN THE PROJECT LIMITS AWAY FROM ANY CATCH BASINS, MANHOLES, OR PERVIOUS SURFACES, ONLY AT A DESIGNATED LOCATION DETERMINED BY THE ENGINEER INTO DESIGNATED SEALED CONTAINERS. HARDENED CONCRETE WASTE MUST BE REMOVED FROM THE PROJECT LIMITS AND PROPERLY DISPOSED OF OUTSIDE THE RIGHT OF WAY AND SHALL BE INCIDENTAL.
16. CONTRACTOR SHALL CONFIRM EXISTING PIPE ELEVATIONS BEFORE CONNECTING TO PROPOSED CATCH BASIN, MANHOLE, OR STORM SEWER PIPE.
17. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE CURRENT EDITION OF THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A TRAFFIC CONTROL PLAN FOR THE WORK THAT WILL TAKE PLACE ADJACENT TO ARCADIA AVE. WORK SHALL NOT BEGIN UNTIL TRAFFIC CONTROL PLAN IS APPROVED BY THE ENGINEER. ALL TRAFFIC CONTROL SHALL BE INCLUDED IN BID ITEM 2563.601 TRAFFIC CONTROL (LUMP SUM).
18. CONTRACTOR SHALL VERIFY LAYOUT AND ANY DIMENSIONS SHOWN AND BRING TO THE ATTENTION OF THE ENGINEER ANY DISCREPANCIES WHICH MAY COMPROMISE THE DESIGN AND/OR INTENT OF THE PROJECT.
19. CONTRACTOR SHALL ASSURE COMPLIANCE WITH APPLICABLE CODES AND REGULATIONS GOVERNING THE WORK OR MATERIALS SUPPLIED.
20. CONTRACTOR SHALL CEASE OPERATIONS IMMEDIATELY IF ADJACENT STRUCTURES APPEAR TO BE IN DANGER. NOTIFY THE ENGINEER. DO NOT RESUME OPERATIONS UNTIL DIRECTED.
21. THE CONTRACTOR WILL REFERENCE THE 2018 MINNESOTA TEMPORARY TRAFFIC CONTROL FIELD MANUAL LAYOUT 57 FOR WORK THAT REQUIRES LANE CLOSURES WITHIN COON RAPIDS BLVD. AT A MINIMUM, 2 LANES OF TRAFFIC WILL BE OPEN IN EACH DIRECTION ALONG COON RAPIDS BLVD AT ALL TIMES.
22. FOR PLACEMENT OF THE TRUSS, A FULL CLOSURE OF COON RAPIDS BLVD WILL BE ALLOWED BETWEEN THE HOURS OF 10 PM FRIDAY AND 6 AM MONDAY. THE CONTRACTOR WILL REFERENCE MINNESOTA TEMPORARY TRAFFIC CONTROL FIELD MANUAL LAYOUT 32 FOR COON RAPIDS BLVD ROAD CLOSURE. THE CONTRACTOR WILL COORDINATE, WITH THE CITY AND COUNTY, ANY PLAN FOR A FULL CLOSURE A MINIMUM OF 4 WEEKS PRIOR TO THE CLOSURE TAKING PLACE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CREATION OF A DETOUR PLAN DURING THE FULL CLOSURE PERIOD.

UTILITY CONTACTS

AGENCY	NAME	PHONE NUMBER	EMAIL
COMCAST	LUKE BASTIL	651-262-6600	luke_bastil@comcast.com
CENTER POINT ENERGY	Nick Larson	612-321-5336	nicholas.larson@centerpointenergy.com
LUMEN	Chuck Daher	-	cdaher@congruex.com
XCEL ENERGY	MARKUS FRANZ	612-430-1050	markus.g.franz@xcelenergy.com
ZAYO BANDWITH	Angela Reese	763-360-3378	areese@terratechllc.net
CITY OF COON RAPIDS	MARK HANSEN	(763)-767-6465	MHANSEN@COONRAPIDSMN.GOV

CITY OF COON RAPIDS STANDARD PLATES

PLATE NO.	DESCRIPTION
STR-06	CONCRETE SIDEWALK SECTION
STR-14	8 FEET AND 10 FEET WIDE BITUMINOUS TRAIL
STM-09	STANDARD MANHOLE
EC-02	INFRASAFE 2 BY 3 INLET PROTECTION
WM-05	CLASS C PIPE BEDDING

MNDOT STANDARD PLATES

PLATE NO.	DESCRIPTION
7100H	CONCRETE CURB & GUTTER (DESIGN B & V)
8000K	TEMPORARY CHANNELIZERS - TYPE A

BASIS OF QUANTITIES

ITEM NO.	DESCRIPTION	BASIS
2211	AGGREGATE BASE CLASS 5	140 LBS/CUBIC FT *
2360	TYPE SP 12.5 WEARING COURSE MIX (3,E)	115 LBS/SQ YD-INCH

* BASIS OF QUANTITY IS FOR THE COMPACTED VOLUME CONDITION (CV).

No.	Date	Revisions	App.

DRAWING NAME: General Notes.dwg

DESIGNED BY:	VLB
DRAWN BY:	SHC
CHECKED BY:	DJC
DATE:	05/10/2024
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn

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CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

GENERAL NOTES

S.P. 114-090-002

C.P. 24-6

SHEET NO. 3

EARTHWORK SUMMARY

PROJECT NUMBER	ALIGNMENT	STATION RANGE	COMMON EMBANKMENT (CV) (P)	COMMON EXCAVATION (P)	AGGREGATE BASE (CV) CLASS 5 (P)	STRUCTURAL BACKFILL (P)
			2106	2106	2211	2451
			CU YD	CU YD	TONS	CU YD
114-090-002	PED BRIDGE	STA. 9+50.00 STA. 21+79.00	100	690	160	3440
PROJECT TOTALS			**100**	**690**	**160**	**3440**

DRAINAGE TABULATION

FLOWS FROM		STRUCTURE LOCATION				CASTING ASSEMBLY				DRAINS TO			12" RC PIPE SEWER DES 3006 CL III	CONNECT TO EXISTING STORM SEWER	CASTING ASSEMBLY
STR. NO.	TYPE	ALIGNMENT	STATION	OFFSET		TOP OF CASTING ELEV.	FRAME CASTING	OUTLET ELEV.	48-4020	STR. NO.	% GRADE	INLET ELEV.			
				LT.	RT.				LIN FT				LIN FT	EACH	EACH
1	CB	PED BRIDGE	21+68.13	13.00		848.50	NEENAH R-4342	844.48	4.0	2	1.50	843.94	36	1	1
PROJECT TOTAL									**4.0**				**36**	**1**	**1**

K:\twc_civil\City\coon_rapids\coon creek trail bridge over crb\CAD\plan sheets\Tabulations.dwg May 02, 2024 - 4:44pm

No.	Date	Revisions	App.

DRAWING NAME Tabulations.dwg

DESIGNED BY:	VLB
DRAWN BY:	SHC
CHECKED BY:	DJC
DATE:	05/10/2024
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COON RAPIDS Minnesota

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COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

EARTHWORK & DRAINAGE TABULATIONS

S.P. 114–090–002

C.P. 24–6

SHEET NO. 4 / 29

REMOVALS [C]

ALIGNMENT	REMOVE GATE VALVE & BOX	REMOVE LIGHT FOUNDATION	SALVAGE SIGN	SAWING CONCRETE PAVEMENT (FULL DEPTH)	SAWING BIT PAVEMENT (FULL DEPTH)	REMOVE WATER MAIN	REMOVE CURB & GUTTER	REMOVE BITUMINOUS PAVEMENT	REMOVE BITUMINOUS WALK	REMOVE CONCRETE WALK	RELOCATE HANDHOLE
	2104	2104	2104	2104	2104	2104	2104	2104	2104	2104	2545
	EACH	EACH	EACH	LIN FT	LIN FT	LIN FT	LIN FT	SQ YD	SQ FT	SQ FT	EACH
PED BRIDGE	1	1	2	38	270	700	18	370	2825	1200	1
PROJECT TOTALS	1	1	2	38	270	700	18	370	2825	1200	1

BITUMINOUS & CONCRETE PAVEMENT [D]

ALIGNMENT	TYPE SP 12.5 WEARING COURSE MIX (3;E)	4" CONCRETE WALK	4" BITUMINOUS WALK	CONCRETE CURB & GUTTER DESIGN B624	CONCRETE CURB DESIGN V6
	2360	2521	2521	2531	2531
	TON	SQ FT	SQ FT	LIN FT	LIN FT
PED BRIDGE	16	1250	4675	35	50
PROJECT TOTALS	16	1250	4675	35	50

EROSION CONTROL & TURF ESTABLISHMENT [E]

ALIGNMENT	RANDOM RIPRAP CLASS III	STORM DRAIN INLET PROTECTION	SILT FENCE; TYPE MS	COMMON TOPSOIL BORROW	FERTILIZER TYPE 3	SODDING TYPE LAWN	RAPID STABILIZATION METHOD 1
	2511	2573	2573	2574	2574	2575	2575
	CU YD	EACH	LIN FT	CU YD	POUND	SQ YD	ACRE
PED BRIDGE	5	7	1110	375	100	2250	0.5
PROJECT TOTALS	5	7	1110	375	100	2250	0.5

MISCELLANEOUS [G]

ALIGNMENT	CONSTRUCTION SURVEYING	TRAINEES	RELOCATE IRRIGATION YSTEM	TRAFFIC CONTROL	INSTALL SIGN
	2011	2041	2502	2563	2564
	LUMP SUM	HOUR	LUMP SUM	LUMP SUM	EACH
PED BRIDGE	1	1350	1	1	2
PROJECT TOTALS	1	1350	1	1	2

RETAINING WALLS [H]

ALIGNMENT	PREFABRICATED MODULAR BLOCK WALL	DRAIN TILE
	2411	2502
	SQ FT	LIN FT
PED BRIDGE	3350	380
PROJECT TOTALS	3350	380

K:\\wc_civil\City\coon_rapids\coon creek trail bridge over crb\CAD\plan sheets\Tabulations.dwg May 02, 2024 - 4:44pm

No.	Date	Revisions	App.

DRAWING NAME Tabulations.dwg

DESIGNED BY:	VLB
DRAWN BY:	SHC
CHECKED BY:	DJC
DATE:	05/10/2024
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn

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

DANIEL J. DOYLE, PE

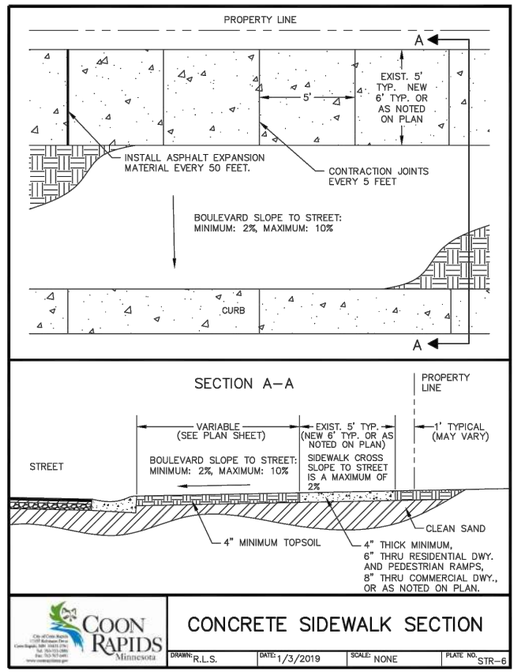
DATE: 05/10/2024 MN LIC. NO. 44821

CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

TABULATIONS

S.P.	114-090-002
C.P.	24-6

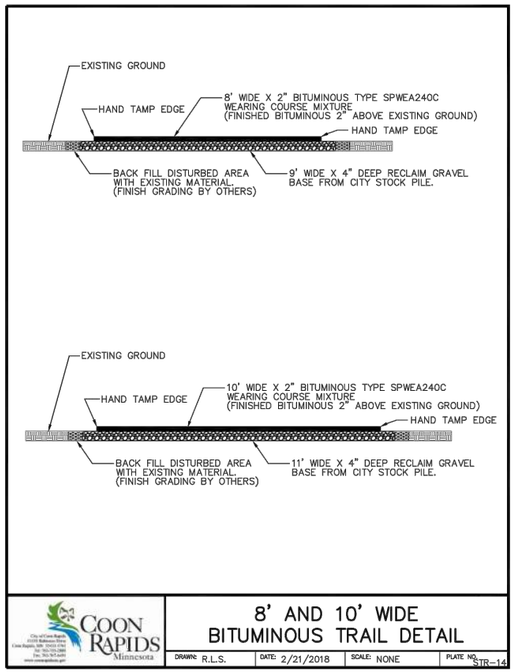
SHEET NO. 5 / 29



COON RAPIDS Minnesota

CONCRETE SIDEWALK SECTION

DRAWN: R.L.S. | DATE: 1/3/2019 | SCALE: NONE | PLATE NO. STR–6



COON RAPIDS Minnesota

8' AND 10' WIDE BITUMINOUS TRAIL DETAIL

DRAWN: R.L.S. | DATE: 2/21/2018 | SCALE: NONE | PLATE NO. STR–14

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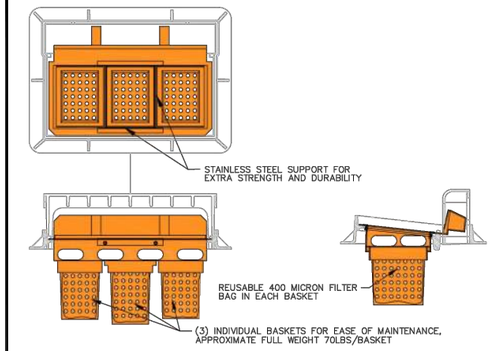
File: .\Library\STM - 1 - Slab Top Manhole_20190408153719168 3.pdf
Sheet: 1



FILTER AREA	6.5 FT²
OVERFLOW AREA	0.6 FT²
MAXIMUM OVERFLOW RATE (@ 7" HEAD)	3.00 CFS
MAXIMUM OVERFLOW RATE (@ 13" HEAD)	4.00 CFS
BASKET WEIGHT (EMPTY)	1 LB
BASKET WEIGHT (FULL–APPROX.)	70 LBS

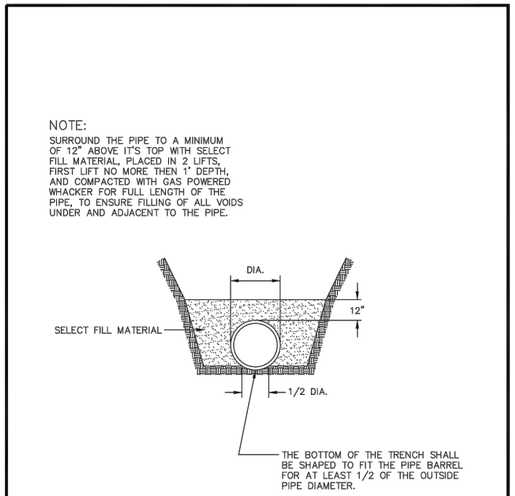
GENERAL NOTES:

1. PRODUCT DESIGN DOES NOT INTERFERE WITH LOAD BEARING CAPACITY OF FRAMES.
2. MADE OF UV RESISTANT MATERIAL.
3. DURABLE ECO–FRIENDLY HDPE PROVIDES A LIGHTWEIGHT AND STRONG PRODUCT THAT CAN EASILY BE RE–USED NEXT PROJECT.
4. FLOW RATES COMPARE TO OR EXCEED FLOW RATES OF COMMONLY USED GRATES.
5. BASKET DESIGN PROVIDES LARGER FILTER AREA AND PROVIDES EASY CLEANING, REDUCING OVERFLOW INSTANCES AND SEDIMENT LOAD ON THE SEWER SYSTEM.
6. DESIGNED TO FIT NEENAH R–3067 OR R–3290 SERIES.

COON RAPIDS Minnesota

INFRASAFE 2'X3' INLET PROTECTION DEVICE

DRAWN: R.L.S. | DATE: 3/1/2019 | SCALE: NONE | PLATE NO. EC–2



COON RAPIDS Minnesota

CLASS C PIPE BEDDING

DRAWN: R.L.S. | DATE: 1/12/2005 | SCALE: NONE | PLATE NO. WM–5

No.	Date	Revisions	App.

DRAWING NAME: Details.dwg

DESIGNED BY:	VLB
DRAWN BY:	SHC
CHECKED BY:	DJC
DATE:	05/10/2024
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn

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DANIEL J. DOYLE, PE

DATE: 05/10/2024 MN LIC. NO. 44821

CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

CITY OF COON RAPIDS STANDARD PLATES

S.P.	114–090–002
C.P.	24–6

SHEET NO. 6 / 29

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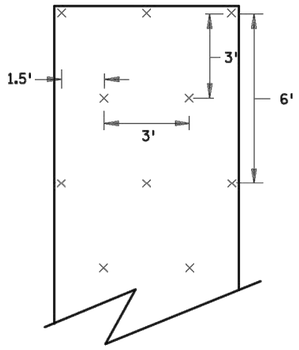
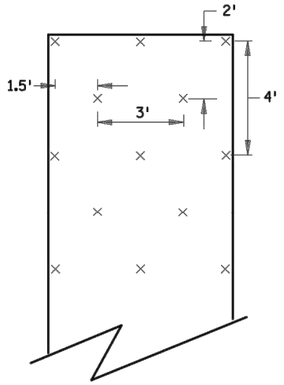
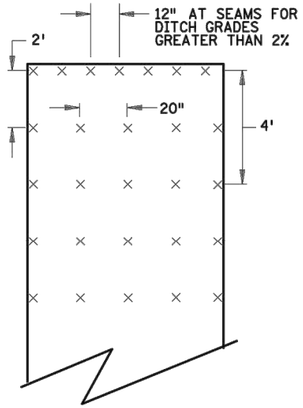


SLOPES FLATTER THAN 1:2
120 STAPLES PER 100 SQ YD

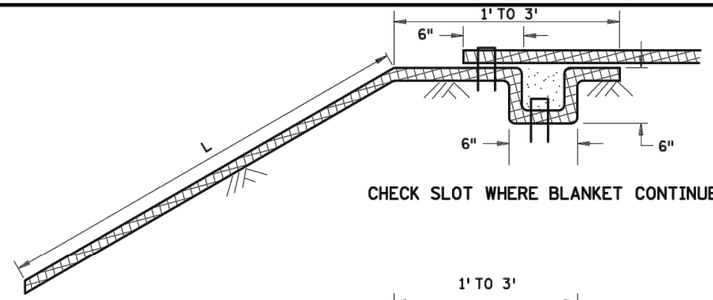


SLOPES 1:2 TO 1:1
170 STAPLES PER 100 SQ YD

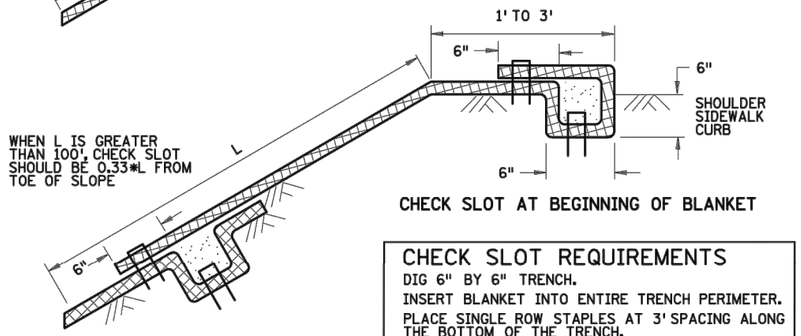


CHANNEL AND DITCH APPLICATIONS
350 STAPLES PER 100 SQ YD

BLANKET STAPLE PATTERN



CHECK SLOT WHERE BLANKET CONTINUES



CHECK SLOT AT BEGINNING OF BLANKET

CHECK SLOT REQUIREMENTS

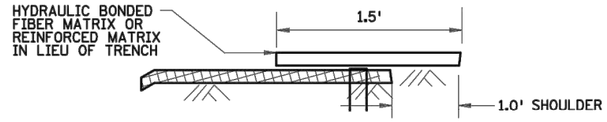
DIG 6" BY 6" TRENCH.

INSERT BLANKET INTO ENTIRE TRENCH PERIMETER.

PLACE SINGLE ROW STAPLES AT 3' SPACING ALONG THE BOTTOM OF THE TRENCH.

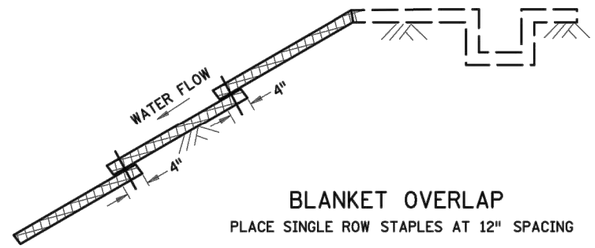
BACKFILL TRENCH WITH SOIL AND TAMP.

PLACE SINGLE ROW STAPLES AT 3' SPACING ON OVERLAP.

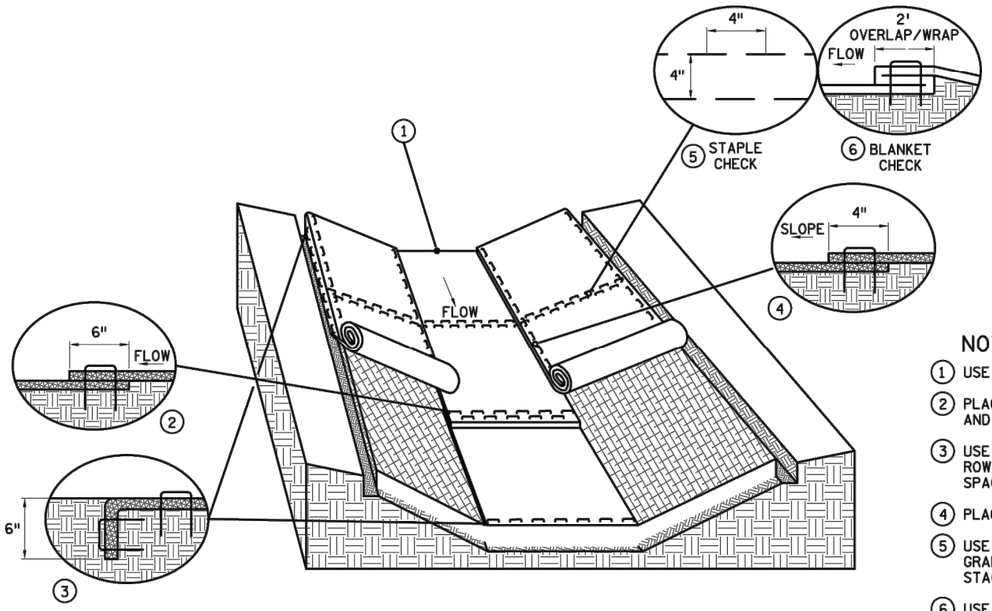


CHECK SLOT ALTERNATIVE
PLACE SINGLE ROW STAPLES AT 12" SPACING

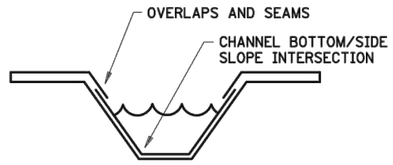
CHECK SLOT DETAILS



BLANKET OVERLAP
PLACE SINGLE ROW STAPLES AT 12" SPACING



DITCH BLANKET STAPLE DETAIL



DITCH BLANKET CRITICAL POINTS (7)

NOTES:

1. USE CHECK SLOT DETAIL (NO ALTERNATES).
2. PLACE DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER.
3. USE 6" X 6" TRENCH TO PLACE BLANKET. PLACE SINGLE ROW OF STAPLES ON TOP AND TRENCH SIDES AT 12" SPACING. BACKFILL TRENCH WITH SOIL AND TAMP.
4. PLACE SINGLE ROW OF STAPLES AT 12" SPACING.
5. USE STAPLE CHECK FOR CHANNEL SLOPES LESS THAN 2.5% GRADE AT 100' INTERVALS. PLACE DOUBLE ROW OF STAPLES STAGGERED 4" APART AND AT 4" SPACING.
6. USE BLANKET CHECKS FOR THE FOLLOWING SLOPES:
   2.5%-3% 100' INTERVALS
   3%-5% 50' INTERVALS
   5%-7% 25' INTERVALS
7. CRITICAL POINTS SHALL BE SECURED WITH PROPER STAPLE PATTERNS.

GENERAL BLANKET INSTALLATION REQUIREMENTS

REPP = ROLLED EROSION PREVENTION PRODUCT.

PREPARE SOIL AS PER SPECIFICATION 2574.

LAY PARALLEL OR PERPENDICULAR TO THE DIRECTION OF WATER FLOW.

OVERLAP ADJACENT STRIP EDGES A MINIMUM OF 4".

OVERLAP BLANKET 6" (MINIMUM) AT EACH END. OVERLAP BOTTOM END OF UPPER BLANKET OVER TOP END OF LOWER BLANKET. STAPLE ALONG OVERLAP EVERY 1.5'.

THE UPPERMOST BLANKET OF ALL SLOPE APPLICATIONS MUST START IN A CHECK SLOT. IF SLOPE LENGTH (L) IS 100' OR GREATER, INSERT BLANKET INTO A CHECK SLOT ⅓ FROM THE BOTTOM OF THE SLOPE.

REVISION:

APPROVED: JANUARY 8, 2020
MARNI KARNOWSKI
CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.404 | 3 OF 3

APPROVED: 1-8-2020
REVISED:
THOMAS STYRBICKI
STATE DESIGN ENGINEER

PERMANENT EROSION CONTROL

REPP (BLANKET) STAPLE PATTERN FOR SLOPES

STATE PROJ. NO. 114-090-002 SHEET NO. 7 OF 29 SHEETS

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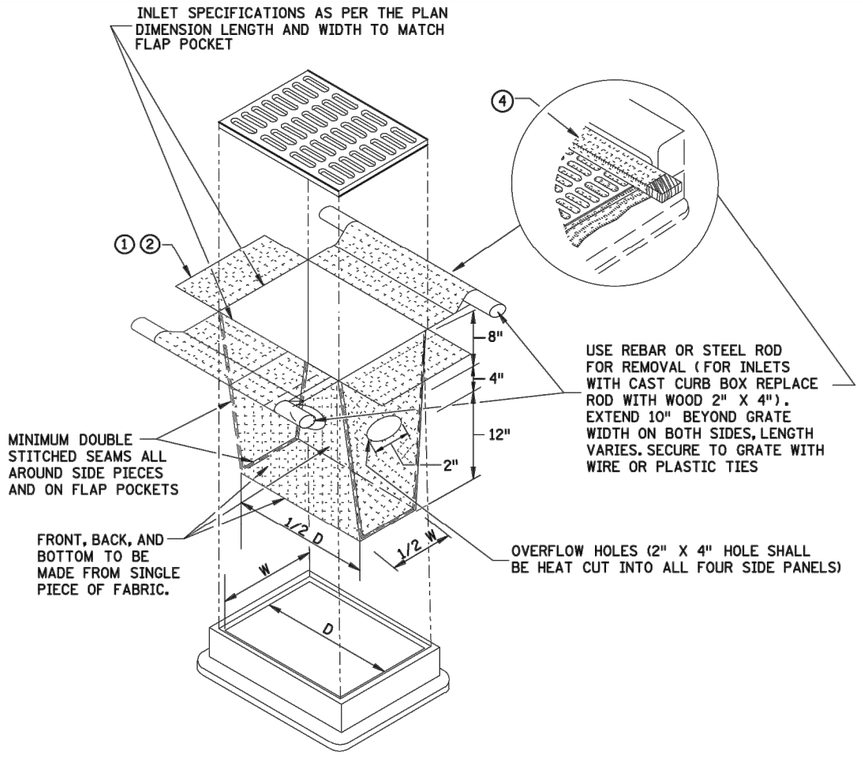
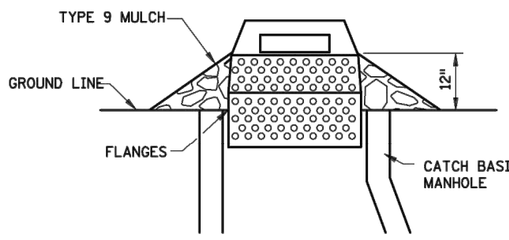


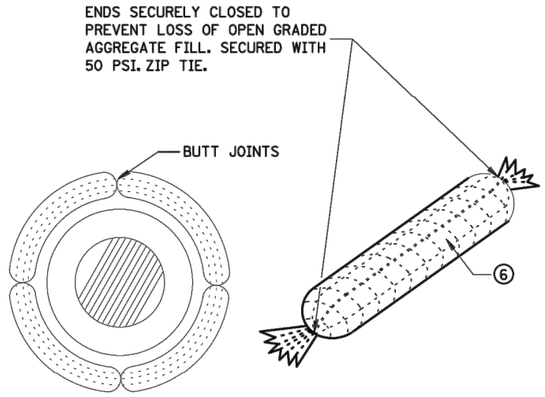
FILTER BAG INSERT ③

(CAN BE INSTALLED IN ANY INLET TYPE
WITH OR WITHOUT A CURB BOX)

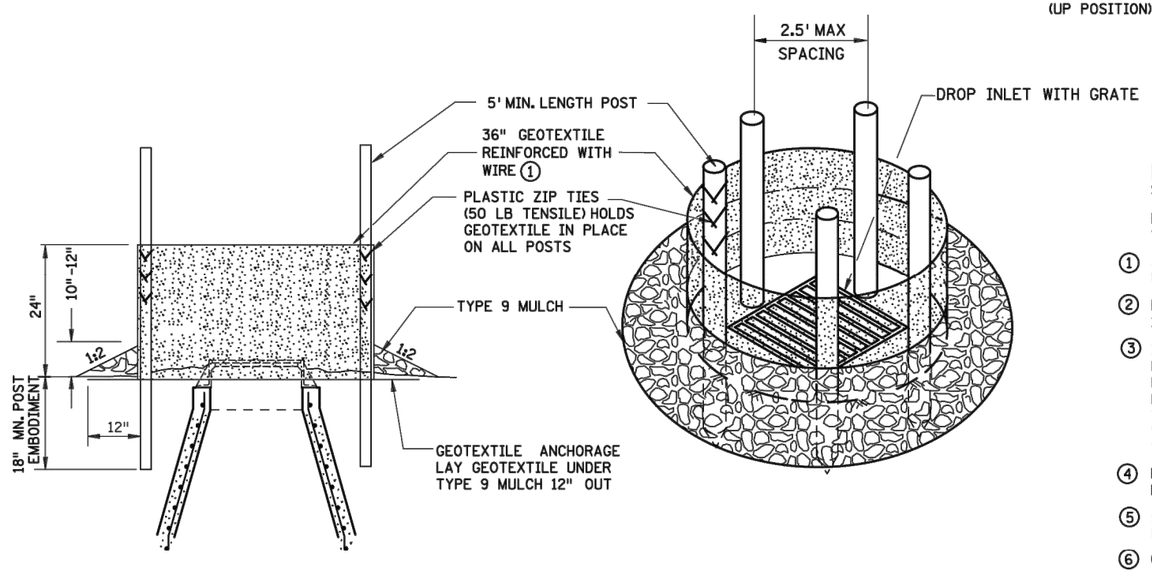


SEDIMENT CONTROL INLET HAT

NOTE:
THE SEDIMENT CONTROL BARRIER SHALL BE A METAL OR PLASTIC/POLYETHYLENE RISER SIZED TO FIT INSIDE THE CATCH BASIN/MANHOLE; HAVE PERFORATIONS TO ALLOW FOR WATER INFILTRATION; HAVE AN OVERFLOW OPENING, FLANGES AND A LID/COVER.

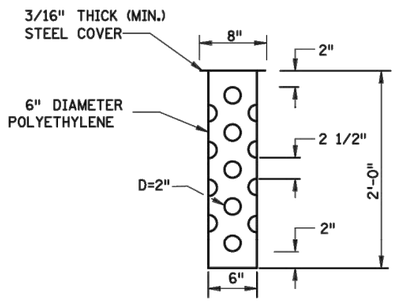


ROCK LOG/COMPOST LOG

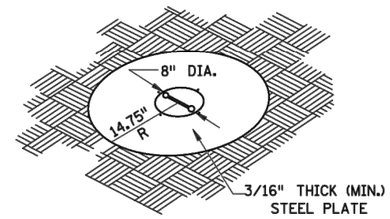


SILT FENCE RING AND ROCK FILTER BERM

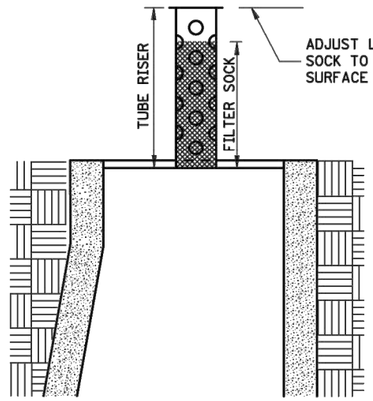
USE WHERE INLET DRAINS IN AN AREA WITH SLOPES AT 1:3 or LESS



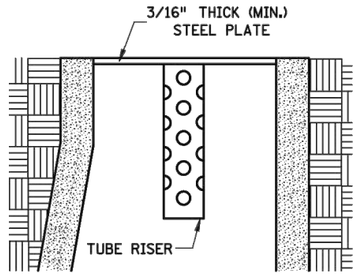
TUBE RISER



PERSPECTIVE VIEW



SECTION
(UP POSITION)



SECTION
(DOWN POSITION)

POP-UP HEAD

NOTES:

SEE SPECS. 2573, 3137, & 3886.

DEVICES MUST BE ADJUSTED ACCORDINGLY AS TO NOT CAUSE FLOODING ON ROADWAY THAT WOULD IMPEED TRAFFIC FLOW.

1. ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886.
2. FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
3. INSTALLATION NOTES:
   DO NOT PLACE FILTER BAG INSERT IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. THE PLACED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE OF 3 INCHES BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES. WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCH SIDE CLEARANCE.
4. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2 INCH X 4 INCH OR USE A ROCK SOCK OR SAND BAGS IN PLACE OF THE FLAP POCKETS.
5. SOCK HEIGHT MUST NOT BE SO HIGH AS TO SLOW DOWN WATER FILTRATION TO CAUSE FLOODING OF THE ROADWAY.
6. GEOTEXTILE SOCK BETWEEN 4-10 FEET LONG AND 4-6 INCH DIAMETER. SEAM TO BE JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR PROVIDE A HEAT BONDED SEAM (OR APPROVED EQUIVALENT). FILL ROCK LOG WITH OPEN GRADED AGGREGATE CONSISTING OF SOUND DURABLE PARTICLES OF COARSE AGGREGATE CONFORMING TO SPEC. 3137 TABLE 3137-1; CA-3 GRADATION.

REVISION:

APPROVED: 2-28-2017
CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

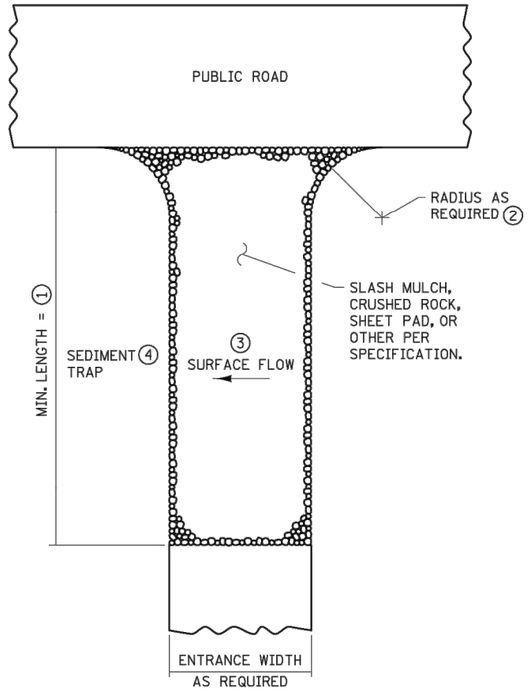
STANDARD PLAN 5-297.405 | 4 OF 8

APPROVED: 2-28-2017
REVISED:
STATE DESIGN ENGINEER

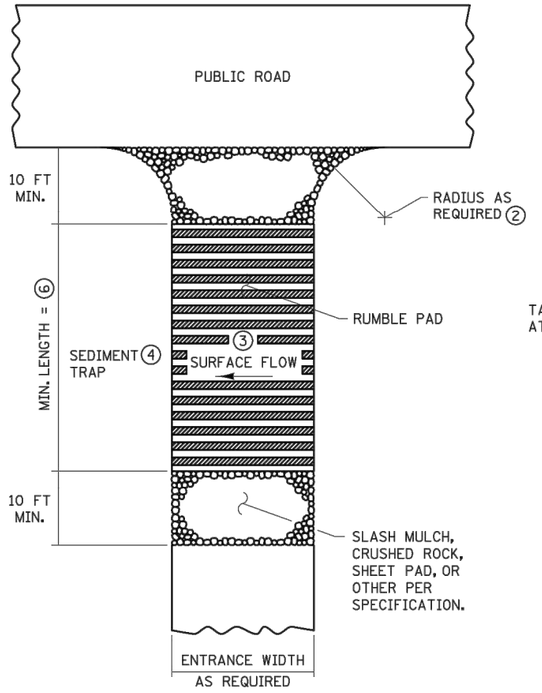
TEMPORARY SEDIMENT CONTROL

STORM DRAIN INLET PROTECTION

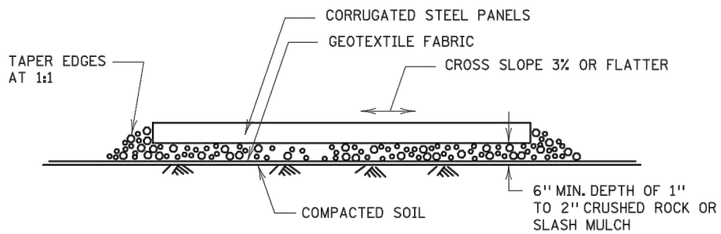
STATE PROJ. NO. 114-090-002 SHEET NO. 8 OF 29 SHEETS



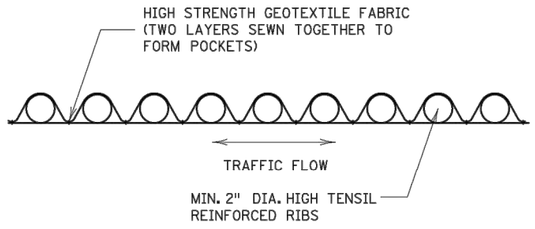
SLASH MULCH, CRUSHED ROCK, OR SHEET PAD CONSTRUCTION EXIT ⑤⑦



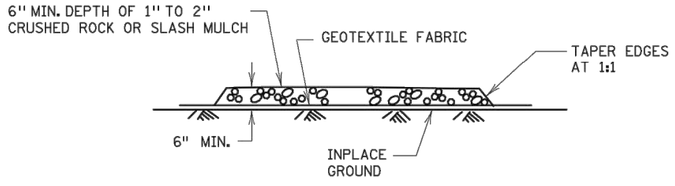
RUMBLE PAD CONSTRUCTION EXIT ⑤⑦



RUMBLE PAD



SHEET PAD



SLASH MULCH OR CRUSHED ROCK

NOTES:

SEE SPECS. 2573 & 3882.

(1) MINIMUM LENGTH SHALL BE THE GREATER OF 50 FEET OR A LENGTH SUFFICIENT TO ALLOW A MINIMUM OF 5 TIRE ROTATIONS ON THE PROVIDED PAD. MINIMUM LENGTH SHALL BE CALCULATED USING THE LARGEST TIRE WHICH WILL BE USED IN TYPICAL OPERATIONS.

(2) PROVIDE RADIUS OR WIDEN PAD SUFFICIENTLY TO PREVENT VEHICLE TIRES FROM TRACKING OFF OF PAD WHEN LEAVING SITE.

(3) IF RUNOFF FROM DISTURBED AREAS FLOWS TOWARD CONSTRUCTION EXITS, PREVENT RUNOFF FROM DRAINING DIRECTLY TO PUBLIC ROAD OVER CONSTRUCTION EXIT BY CROWNING THE EXIT OR SLOPING TO ONE SIDE. IF SURFACE GRADING IS INSUFFICIENT, PROVIDE OTHER MEANS OF INTERCEPTING RUNOFF.

(4) IF RUNOFF FROM CONSTRUCTION EXITS WILL DRAIN OFF OF PROJECT SITE, PROVIDE SEDIMENT TRAP WITH STABILIZED OVERFLOW.

(5) IF A TIRE WASH OFF IS REQUIRED THE CONSTRUCTION EXITS SHALL BE GRADED TO DRAIN THE WASH WATER TO A SEDIMENT TRAP.

(6) MINIMUM LENGTH OF RUMBLE PAD SHALL BE 20 FEET, OR AS REQUIRED TO REMOVE SEDIMENT FROM TIRES. IF SIGNIFICANT SEDIMENT IS TRACKED FROM THE SITE, THE RUMBLE PAD SHALL BE LENGTHENED OR THE DESIGN MODIFIED TO PROVIDE ADDITIONAL VIBRATION. WASH-OFF LENGTH SHALL BE AS REQUIRED TO EFFECTIVELY REMOVE CONSTRUCTION SEDIMENT FROM VEHICLE TIRES.

(7) MAINTENANCE OF CONSTRUCTION EXITS SHALL OCCUR WHEN THE EFFECTIVENESS OF SEDIMENT REMOVAL HAS BEEN REDUCED. MAINTENANCE SHALL CONSIST OF REMOVING SEDIMENT AND CLEANING THE MATERIALS OR PLACING ADDITIONAL MATERIAL (SLASH MULCH OR CRUSHED ROCK) OVER SEDIMENT FILLED MATERIAL TO RESTORE EFFECTIVENESS.

REVISION:

APPROVED: 2-28-2017

CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.405 | 5 OF 8

APPROVED: 2-28-2017

REVISED:

STATE DESIGN ENGINEER

TEMPORARY SEDIMENT CONTROL

STABILIZED CONSTRUCTION EXIT

STATE PROJ. NO. 114-090-002 SHEET NO. 9 OF 29 SHEETS

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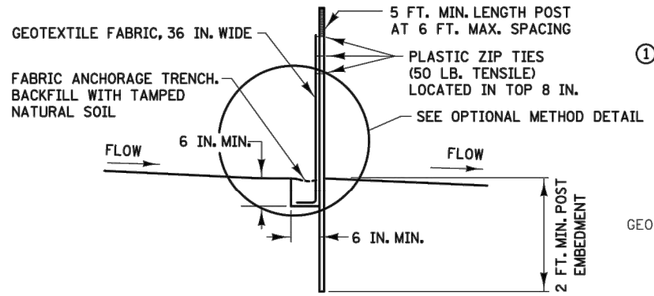
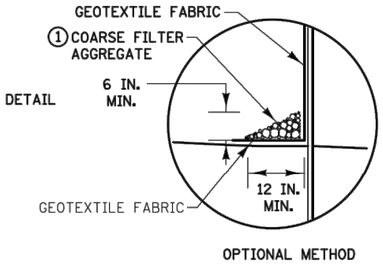
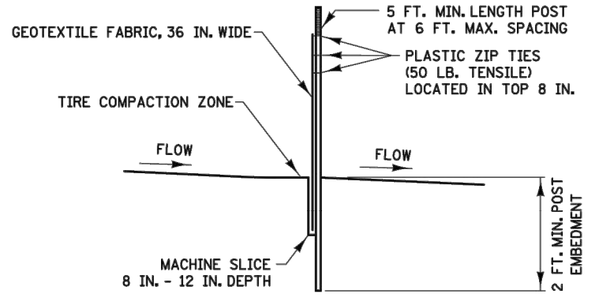


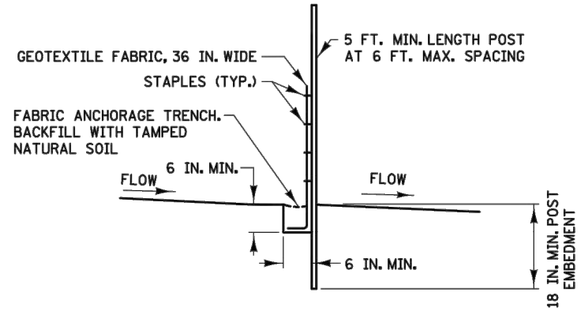


OPTIONAL METHOD

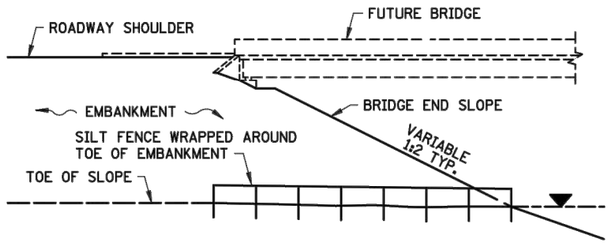
SILT FENCE TYPE HI ②
(HAND INSTALLED)



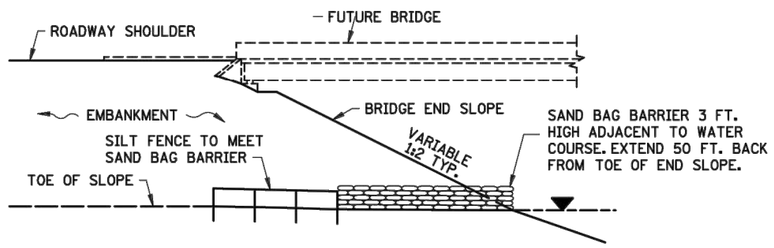
SILT FENCE TYPE MS ②
(MACHINE SLICED)



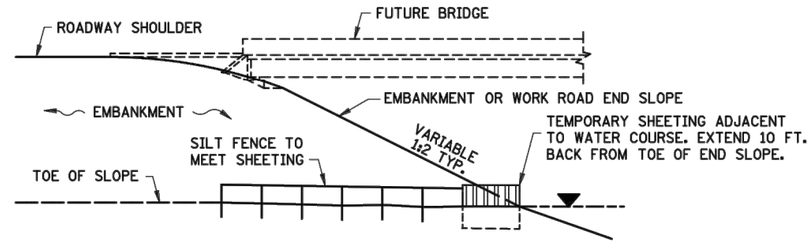
SILT FENCE TYPE PA ③
(PREASSEMBLED)



SILT FENCE ONLY ④

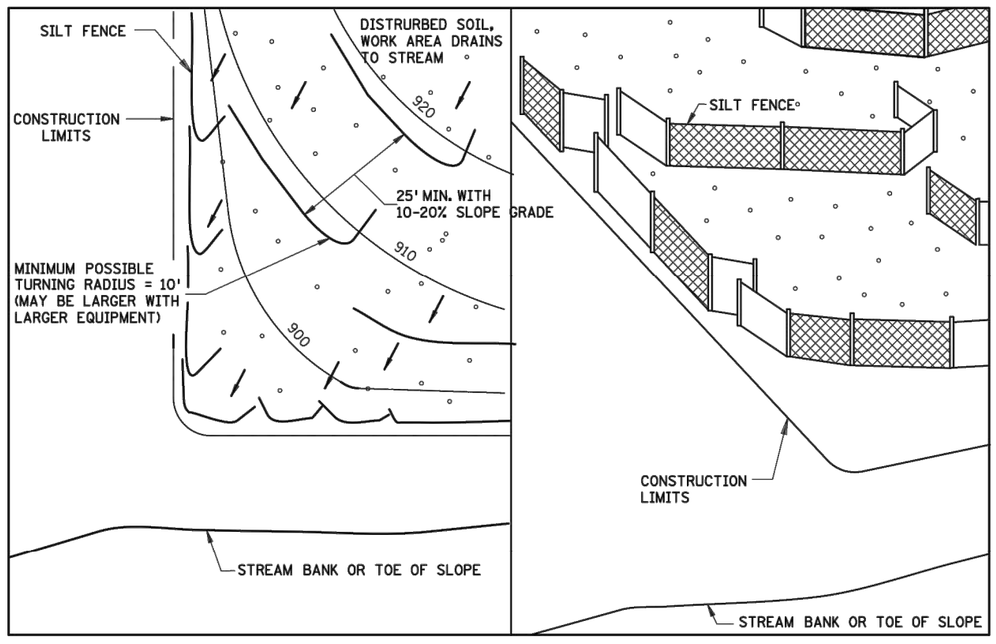


SILT FENCE WITH SAND BAGS ⑤



SILT FENCE WITH SHEETING ⑥

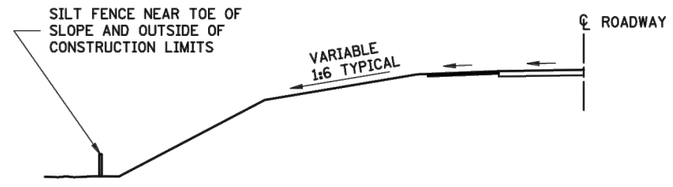
INSTALLATION AT BRIDGE EMBANKMENT ADJACENT TO WATER



PLAN VIEW

PERSPECTIVE VIEW

J-HOOK INSTALLATION



LOCATION AT TOE OF ROADWAY EMBANKMENT

NOTES:

SEE SPECS. 2573, 3149 & 3886.

① COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.

② TO PROTECT AREAS FROM SHEET FLOW. MAXIMUM CONTRIBUTING AREA: 1 ACRE.

③ TO PROTECT AREAS FROM SHEET FLOW. MAXIMUM CONTRIBUTING AREA: 0.25 ACRE.

④ WATER COURSE FLOW VELOCITY: STANDING.
CONTRIBUTING SLOPE AREA: 1./2 ACRE.

⑤ WATER COURSE FLOW VELOCITY: 1 TO 7 FT./SEC.
CONTRIBUTING SLOPE AREA: 1. ACRE.

⑥ WATER COURSE FLOW VELOCITY: 8 TO 15 FT./SEC.
CONTRIBUTING SLOPE AREA: 3 ACRES.

REVISION:

APPROVED: 2-28-2017

CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STATE DESIGN ENGINEER

STANDARD PLAN 5-297.405 | 6 OF 8

APPROVED: 2-28-2017

REVISED:

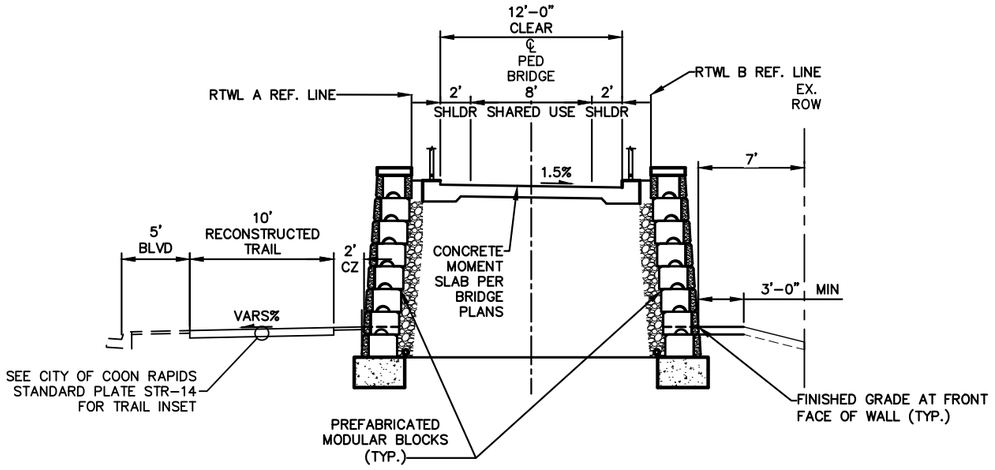
STATE PROJ. NO. 114-090-002

TEMPORARY SEDIMENT CONTROL

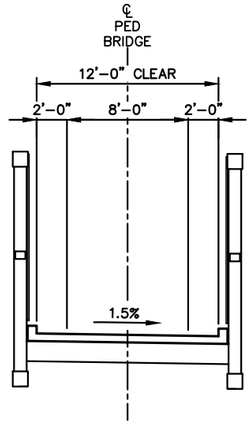
SILT FENCE

SHEET NO. 10 OF 29 SHEETS

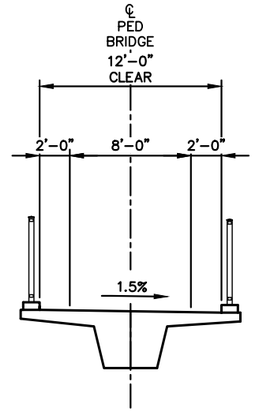
K:\twc_civil\City\coon_rapids\coon creek trail bridge over crb\CAD\plan sheets\Details.dwg May 02, 2024 - 4:45pm



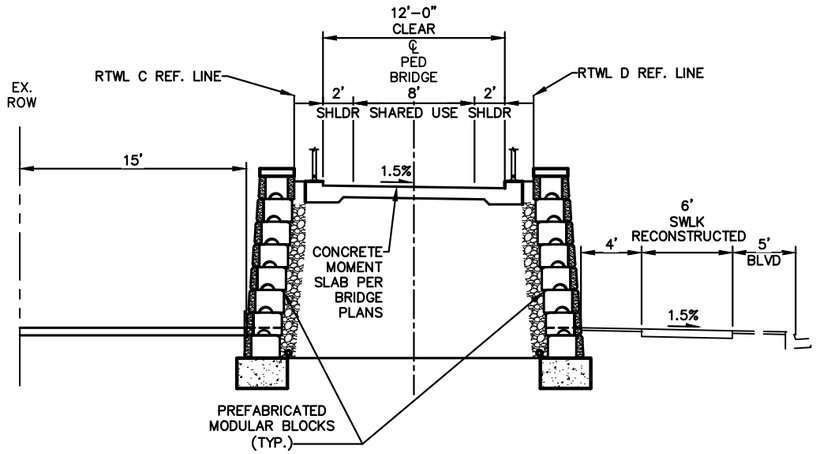
PROPOSED TYPICAL SECTION – PED BRIDGE APPROACH
STA. 10+60.22 TO STA. 11+61.63



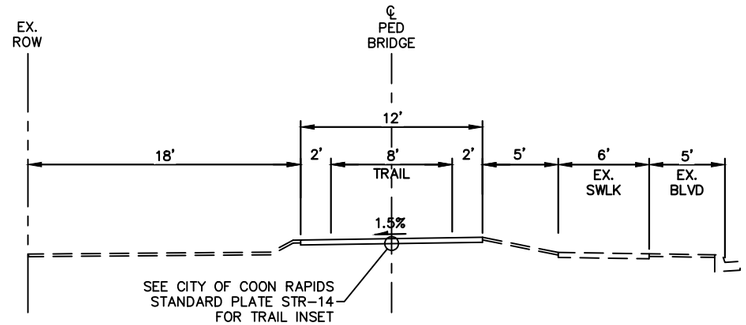
PROPOSED TYPICAL SECTION – PED BRIDGE
STA. 15+10.78 TO STA. 17+11.78



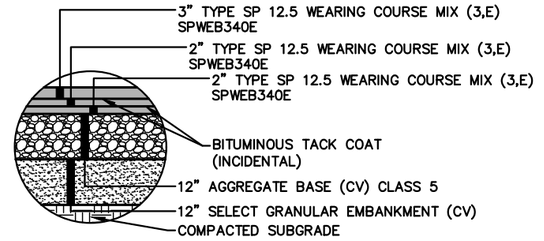
PROPOSED TYPICAL SECTION – PED BRIDGE
STA. 11+61.63 TO STA. 15+10.78
STA. 17+11.78 TO STA. 20+15.95



PROPOSED TYPICAL SECTION – PED BRIDGE APPROACH
STA. 20+15.95 TO STA. 21+09.77



PROPOSED TYPICAL SECTION – TRAIL
STA. 21+09.77 TO STA. 21+74.00



ROADWAY BITUMINOUS PAVEMENT DETAIL

0 2 5 10
HORIZONTAL SCALE IN FEET

No.	Date	Revisions	App.

DRAWING NAME Typicals.dwg	
DESIGNED BY:	VLB
DRAWN BY:	SHC
CHECKED BY:	DJC
DATE:	05/10/2024
PROJECT NO.	160000023

COON RAPIDS Minnesota
Kimley»Horn

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

DANIEL J. DOYLE, PE
DATE: 05/10/2024 MN LIC. NO. 44821

CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

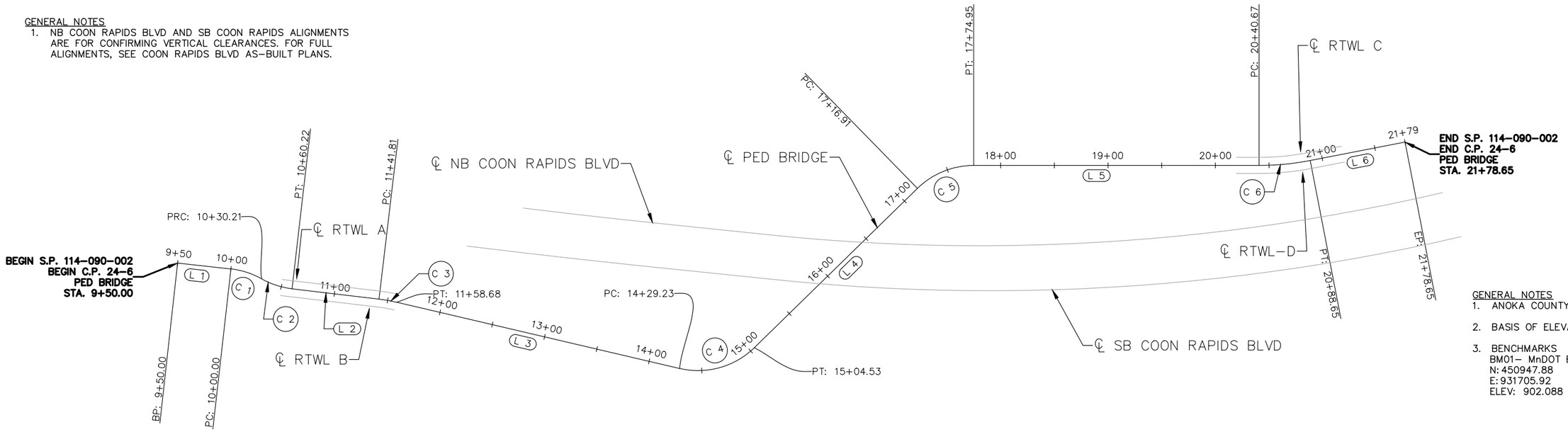
TYPICAL SECTIONS

S.P.	114-090-002
C.P.	24-6

SHEET NO. 11 / 29

K:\twc_civil\City\coon_rapids\coon creek trail bridge over crb\CAD\plan sheets\Typicals.dwg May 02, 2024 - 4:45pm

GENERAL NOTES
1. NB COON RAPIDS BLVD AND SB COON RAPIDS ALIGNMENTS ARE FOR CONFIRMING VERTICAL CLEARANCES. FOR FULL ALIGNMENTS, SEE COON RAPIDS BLVD AS-BUILT PLANS.



GENERAL NOTES
1. ANOKA COUNTY COORDINATE SYSTEM
2. BASIS OF ELEVATION: NAVD 88
3. BENCHMARKS
BM01- MnDOT BR 02031
N: 450947.88
E: 931705.92
ELEV: 902.088

ALIGNMENT DATA
PED BRIDGE

SEGMENT NUMBER	BEGINNING STATION	ENDING STATION	PI STATION	NOTES	DELTA	DEGREE	RADIUS (FT)	TANGENT (FT)	LENGTH (FT)	BEGINNING COORDINATES NORTHING	BEGINNING COORDINATES EASTING	ENDING COORDINATES NORTHING	ENDING COORDINATES EASTING	AZIMUTH
L 1	9+50.00	10+00.00							50.00	142983.64	490444.65	142952.94	490484.11	127°52'33"
C 1	10+00.00	10+30.21	10+15.31		23°04'41"	76°23'39.74"	75.00	15.31	30.21	142952.94	490484.11	142930.10	490503.58	128°01'14" 151°05'55"
C 2	10+30.21	10+60.22	10+45.42		22°55'43"	76°23'39.74"	75.00	15.21	30.01	142930.10	490503.58	142907.39	490522.89	151°05'55" 128°10'12"
L 2	10+60.22	11+41.81							81.59	142907.39	490522.89	142856.81	490586.90	128°18'57"
C 3	11+41.81	11+58.68	11+50.26		6°26'46"	38°11'49.87"	150.00	8.45	16.88	142856.81	490586.90	142845.62	490599.52	128°18'57" 134°45'42"
L 3	11+58.68	14+29.23							270.55	142845.62	490599.52	142655.11	490791.62	134°45'42"
C 4	14+29.23	15+04.53	14+70.40		57°31'37"	76°23'39.74"	75.00	41.17	75.30	142655.11	490791.62	142635.22	490861.01	134°45'42" 77°14'05"
L 4	15+04.53	17+16.91							212.38	142635.22	490861.01	142682.14	491068.14	77°14'05"
C 5	17+16.91	17+74.95	17+47.47		44°20'08"	76°23'39.74"	75.00	30.56	58.04	142682.14	491068.14	142672.90	491123.97	77°14'05" 121°34'14"
L 5	17+74.95	20+40.67							265.72	142672.90	491123.97	142533.78	491350.36	121°34'14"
C 6	20+40.67	20+88.65	20+64.73		10°59'50"	22°55'05.92"	250.00	24.07	47.98	142533.78	491350.36	142512.73	491393.40	121°34'14" 110°34'23"
L 6	20+88.65	21+78.65							90.00	142512.73	491393.40	142481.10	491477.66	110°34'23"

ALIGNMENT DATA
RTWL A

SEGMENT NUMBER	BEGINNING STATION	ENDING STATION	PI STATION	NOTES	DELTA	DEGREE	RADIUS (FT)	TANGENT (FT)	LENGTH (FT)	BEGINNING COORDINATES NORTHING	BEGINNING COORDINATES EASTING	ENDING COORDINATES NORTHING	ENDING COORDINATES EASTING	AZIMUTH
L 200	30+00.00	30+91.36							91.36	142919.48	490519.70	142862.84	490591.38	128°18'57"
C 200	30+91.36	31+08.51	30+99.94		6°05'59"	35°34'43.13"	161.04	8.58	17.14	142862.84	490591.38	142851.51	490604.24	128°19'51" 134°25'50"

0 25 50 100
HORIZONTAL SCALE IN FEET

No.	Date	Revisions	App.

DRAWING NAME AL01.dwg

DESIGNED BY:	VLB
DRAWN BY:	SHC
CHECKED BY:	DJC
DATE:	05/10/2024
PROJECT NO.	160000023

COON RAPIDS Minnesota
Kimley»Horn

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
DANIEL J. DOYLE, PE
DATE: 05/10/2024 MN LIC. NO. 44821

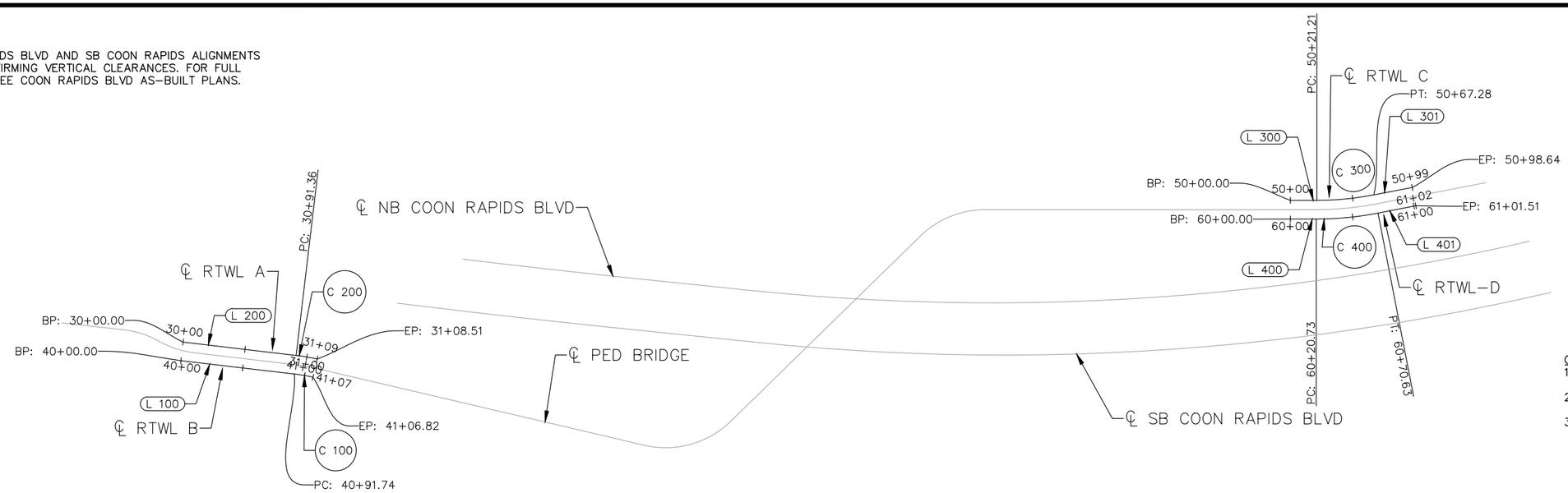
CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

ALIGNMENT PLAN AND TABULATIONS

S.P. 114-090-002
C.P. 24-6

SHEET NO. 12
29

GENERAL NOTES
1. NB COON RAPIDS BLVD AND SB COON RAPIDS ALIGNMENTS ARE FOR CONFIRMING VERTICAL CLEARANCES. FOR FULL ALIGNMENTS, SEE COON RAPIDS BLVD AS-BUILT PLANS.



GENERAL NOTES
1. ANOKA COUNTY COORDINATE SYSTEM
2. BASIS OF ELEVATION: NAVD 88
3. BENCHMARKS
BM01- MnDOT BR 02031
N: 450947.88
E: 931705.92
ELEV: 902.088

ALIGNMENT DATA
RTWL B

SEGMENT NUMBER	BEGINNING STATION	ENDING STATION	PI STATION	NOTES	DELTA	DEGREE	RADIUS (FT)	TANGENT (FT)	LENGTH (FT)	BEGINNING COORDINATES NORTHING	BEGINNING COORDINATES EASTING	ENDING COORDINATES NORTHING	ENDING COORDINATES EASTING	AZIMUTH
L 100	40+00.00	40+91.74							91.74	142907.70	490510.39	142850.83	490582.37	128°18'57"
C 100	40+91.74	41+06.82	40+99.28		6°10'20"	40°55'32.00"	140.00	7.55	15.08	142850.83	490582.37	142840.86	490593.67	128°18'57" 134°29'17"

ALIGNMENT DATA
RTWL C

SEGMENT NUMBER	BEGINNING STATION	ENDING STATION	PI STATION	NOTES	DELTA	DEGREE	RADIUS (FT)	TANGENT (FT)	LENGTH (FT)	BEGINNING COORDINATES NORTHING	BEGINNING COORDINATES EASTING	ENDING COORDINATES NORTHING	ENDING COORDINATES EASTING	AZIMUTH
L 300	50+00.00	50+21.21							21.21	142551.15	491336.43	142540.05	491354.50	121°34'14"
C 300	50+21.21	50+67.28	50+44.31		10°59'50"	23°52'23.67"	240.00	23.10	46.07	142540.05	491354.50	142519.83	491395.81	121°34'14" 110°34'23"
L 301	50+67.28	50+98.64							31.36	142519.83	491395.81	142508.81	491425.17	110°34'23"

ALIGNMENT DATA
RTWL-D

SEGMENT NUMBER	BEGINNING STATION	ENDING STATION	PI STATION	NOTES	DELTA	DEGREE	RADIUS (FT)	TANGENT (FT)	LENGTH (FT)	BEGINNING COORDINATES NORTHING	BEGINNING COORDINATES EASTING	ENDING COORDINATES NORTHING	ENDING COORDINATES EASTING	AZIMUTH
L 400	60+00.00	60+20.73							20.73	142538.37	491328.57	142527.52	491346.23	121°34'14"
C 400	60+20.73	60+70.63	60+45.76		10°59'50"	22°02'12.62"	260.00	25.03	49.90	142527.52	491346.23	142505.62	491390.99	121°34'14" 110°34'23"
L 401	60+70.63	61+01.51							30.88	142505.62	491390.99	142494.77	491419.90	110°34'23"

0 25 50 100
HORIZONTAL SCALE IN FEET

No.	Date	Revisions	App.

DRAWING NAME AL01.dwg
DESIGNED BY: VLB
DRAWN BY: SHC
CHECKED BY: DJC
DATE: 05/10/2024
PROJECT NO. 160000023

COON RAPIDS Minnesota
Kimley»Horn

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DANIEL J. COYLE, PE
DATE: 05/10/2024 MN LIC. NO. 44821

CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

ALIGNMENT PLAN AND TABULATIONS

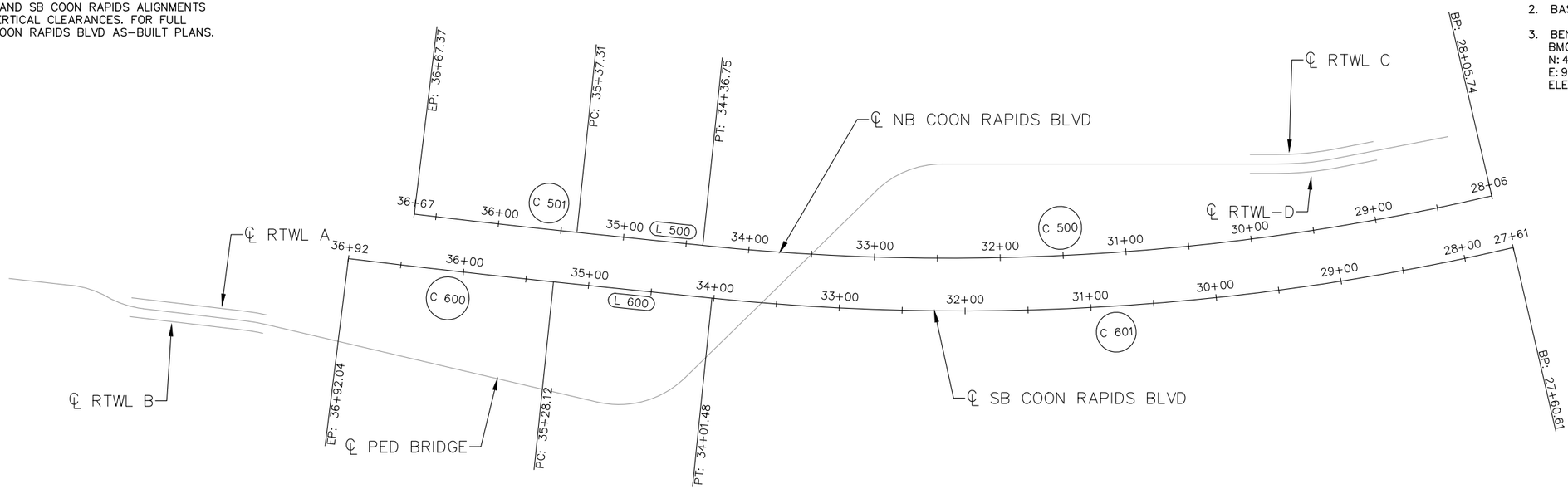
S.P. 114-090-002
C.P. 24-6

SHEET NO. 13
29

GENERAL NOTES:

1. NB COON RAPIDS BLVD AND SB COON RAPIDS ALIGNMENTS ARE FOR CONFIRMING VERTICAL CLEARANCES. FOR FULL ALIGNMENTS, SEE THE COON RAPIDS BLVD AS-BUILT PLANS.

GENERAL NOTES
1. ANOKA COUNTY COORDINATE SYSTEM
2. BASIS OF ELEVATION: NAVD 88
3. BENCHMARKS
BM01- MnDOT BR 02031
N: 450947.88
E: 931705.92
ELEV: 902.088



ALIGNMENT DATA
NB COON RAPIDS BLVD

SEGMENT NUMBER	BEGINNING STATION	ENDING STATION	PI STATION	NOTES	DELTA	DEGREE	RADIUS (FT)	TANGENT (FT)	LENGTH (FT)	BEGINNING COORDINATES NORTHING	BEGINNING COORDINATES EASTING	ENDING COORDINATES NORTHING	ENDING COORDINATES EASTING	AZIMUTH
C 500	28+05.74	34+36.75	31+24.17		19°01'42"	3°00'56.04"	1900.00	318.44	631.01	142422.72	491482.78	142717.40	490928.08	288°27'54" 307°29'36"
L 500	34+36.75	35+37.31							100.57	142717.40	490928.08	142778.61	490848.29	307°29'36"
C 501	35+37.31	36+67.37	36+02.35		0°58'32"	0°45'00.15"	7639.00	65.03	130.06	142778.61	490848.29	142858.65	490745.77	307°29'36" 308°28'08"

ALIGNMENT DATA
SB COON RAPIDS BLVD

SEGMENT NUMBER	BEGINNING STATION	ENDING STATION	PI STATION	NOTES	DELTA	DEGREE	RADIUS (FT)	TANGENT (FT)	LENGTH (FT)	BEGINNING COORDINATES NORTHING	BEGINNING COORDINATES EASTING	ENDING COORDINATES NORTHING	ENDING COORDINATES EASTING	AZIMUTH
C 601	27+60.61	34+01.48	30+84.01		18°58'00"	2°57'34.17"	1936.00	323.40	640.87	142378.78	491475.82	142677.89	490912.33	288°28'35" 307°26'34"
L 600	34+01.48	35+28.12							126.64	142677.89	490912.33	142754.88	490811.78	307°26'34"
C 600	35+28.12	36+92.04	36+10.09		1°13'46"	0°45'00.15"	7639.00	81.96	163.92	142754.88	490811.78	142855.93	490682.72	307°26'34" 308°40'20"

0 25 50 100
HORIZONTAL SCALE IN FEET

No.	Date	Revisions	App.

DRAWING NAME AL02.dwg
DESIGNED BY: VLB
DRAWN BY: SHC
CHECKED BY: DJC
DATE: 05/10/2024
PROJECT NO. 160000023

COON RAPIDS Minnesota
Kimley»Horn

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DATE: 05/10/2024 MN LIC. NO. 44821

CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

ALIGNMENT PLAN AND TABULATIONS

S.P. 114-090-002
C.P. 24-6

SHEET NO. 14
29

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

PROJECT DESCRIPTION/LOCATION

EXTEND A PEDESTRIAN TRAIL OVER COON RAPIDS BLVD BETWEEN 100TH LN NW AND ZILLA ST NW IN COON RAPIDS, MN. THE TRAIL WILL BE PREFABRICATED SINGLE SPAN TRUSS BRIDGE WITH ACCOMPYING PAVED APPROACH TRAILS, MODULAR BLOCK RETAINING WALLS, AND DRAINAGE ACCOMIDATIONS.

THE TOTAL SITE AREA IS 0.90 ACRES, WHICH INCLUDES AN INCREASE OF 0.09 ACRES OF IMPERVIOUS AREA.

SPECIAL AND IMPAIRED WATERS

THE FOLLOWING SPECIAL AND IMPAIRED WATERS ARE LOCATED WITHIN ONE MILE (AERIAL RADIUS) OF THE PROJECT LIMITS AND THAT RECEIVE RUNOFF FROM THE PROJECT SITE.

WATERBODY	IMPAIRMENT(S)
COON CREEK	BENTHIC, MACROINVERTABRATES BIOASSESSMENTS, ESCHERICHIA COLI, FISH BIOASSESSMENTS, TOTAL SUSPENDED SOLIDS
MISSISSIPPI RIVER	FECAL COLIFORM, MERCUTY IN FISH TISSUE, NUTRIENTS, PCBs IN FISH TISSUES

AREAS OF ENVIRONMENTAL SENSITIVITY (AES) AND INFESTED WATERS

THERE ARE NO ADDITIONAL AREAS OF ENVIRONMENTAL SENSITIVITY OR INFESTED WATERS WTIHIN AND NEAR THE PROJECT BOUNDARY.

SOIL TYPES

DESCRIPTION OF SOIL TYPES FROM GEOTECHNICAL REPORT.GEOTECHNICAL REPORT AVAILABLE UPON REQUEST.

THERE ARE NO KNOWN OR PROPOSED DISCHARGES TO CALCAREOUS FENS ON THIS PROJECT.

ENVIRONMENTAL REVIEW

THERE ARE NO STORMWATER MITIGATION MEASURES REQUIRED AS A RESULT OF AN ENVIRONMENTAL, ARCHEOLOGICAL OR AGENCY REVIEW. ALL MITIGATION MEASURES HAVE BEEN ADDRESSED IN THIS PLAN SET OR THE SPECIAL PROVISIONS.

THIS PROJECT IS NOT LOCATED IN A WELL HEAD PROTECTION AREA.

THIS PROJECT IS NOT LOCATED IN A DRINKING WATER SUPPLY MANAGEMENT AREA (DWSMA).

LAND FEATURE CHANGES

TOTAL DISTURBED AREA	0.90 ACRES
TOTAL EXISTING IMPERVIOUS SURFACE AREA	0.09 ACRES
TOTAL PROPOSED IMPERVIOUS SURFACE AREA	0.18 ACRES
TOTAL PROPOSED NET CHANGE IN IMPERVIOUS SURFACE AREA	+0.09 ACRES

STORM WATER MANAGEMENT:

- THIS PROJECT HAS A NET IMPERVIOUS AREA LESS THAN 1.0 ACRE SO STORM WATER DETENTION IS NOT REQUIRED.

PROJECT PERSONNEL AND TRAINING

THIS SWPPP WAS PREPARED BY PERSONNEL THAT ARE CERTIFIED IN THE DESIGN OF CONSTRUCTION SWPPPS. COPIES OF THE CERTIFICATIONS ARE AVAILABLE UPON REQUEST. NAME: ADAM TJADEN, TRAINING EXPIRES: MAY 2024

PROVIDE A CERTIFIED EROSION CONTROL SUPERVISOR IN GOOD STANDING WHO IS KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES. THE EROSION CONTROL SUPERVISOR WILL WORK WITH THE PROJECT ENGINEER TO OVERSEE THE IMPLEMENTATION OF THE SWPPP AND THE INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS BEFORE, DURING AND AFTER CONSTRUCTION UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA. PROVIDE PROOF OF CERTIFICATION AT THE PRECONSTRUCTION MEETING. WORK WILL NOT BE ALLOWED TO COMMENCE UNTIL PROOF OF CERTIFICATION HAS BEEN PROVIDED TO THE PROJECT ENGINEER.

PROVIDE AT LEAST ONE CERTIFIED INSTALLER FOR EACH CONTRACTOR OR SUBCONTRACTOR THAT PLACES THE PRODUCTS LISTED IN SPECIFICATION SECTION 2573.3.A.2. PROVIDE PROOF OF CERTIFICATION AT THE PRECONSTRUCTION MEETING. WORK WILL NOT BE ALLOWED TO COMMENCE UNTIL PROOF OF CERTIFICATION HAS BEEN PROVIDED TO THE PROJECT ENGINEER.

CHAIN OF RESPONSIBILITY

CITY OF COON RAPIDS, AND THE CONTRACTOR ARE COPERMITEES FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION PERMIT. THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION PERMIT AT ALL TIMES UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA. CITY OR COUNTY CONSTRUCTION PROJECT ENGINEER WILL ENSURE THAT THE CONTRACTOR'S EROSION AND SEDIMENT CONTROL SUPERVISOR FULFILLS THEIR DUTIES.

PROJECT CONTACTS

ORGANIZATION	CONTACT NAME	PHONE
CONTRACTOR'S EROSION AND SEDIMENT CONTROL SUPERVISOR	TBD	TBD
CITY CONTACT	MARK HANSEN	763-767-6465
WATER RESOURCES (WRE) DESIGN	ADAM TJADEN	612-503-8531
MNDOT METRO WRE (EROSION CONTROL/MS4)	JASON SWENSON	651-234-7539
MINNESOTA POLLUTION CONTROL AGENCY (MPCA)	SARAH KAMRATH	651-747-2855
MINNESOTA DEPARTMENT OF NATURAL RESOURCES	PETER LEETE	651-366-3634

MPCA DUTY OFFICER 24 HOUR EMERGENCY NOTIFICATION:
651-649-5451 OR 800-422-0798

LOCATION OF SWPPP REQUIREMENTS

THE REQUIRED SWPPP ELEMENTS MAY BE LOCATED IN MANY PLACES WITHIN THE PLAN SET AS WELL AS IN THE SPECIAL PROVISIONS, MNDOT SPEC BOOK (2020 EDITION), OR ON FILE WITH THE ENGINEER. THE NOTES AND TABLE BELOW ARE INTENDED TO BE A QUICK REFERENCE FOR THE CONTRACTOR AND PROJECT ENGINEER TO USE IN THE FIELD. THERE MAY BE ADDITIONAL REQUIRED SWPPP ELEMENTS INCLUDED ON THE PROJECT THAT ARE NOT LISTED ON THIS SHEET.

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

DESCRIPTION	LOCATION
TEMPORARY EROSION CONTROL & TURF ESTABLISHMENT	SHEETS NO. 29
CONSTRUCTION NOTES	SHEETS NO. 3
EROSION AND SEDIMENT CONTROL DETAILS	SHEETS NO. 7-10
SITE MAP	SHEETS NO. 17

SITE INSPECTION AND MAINTENANCE

INSPECT THE ENTIRE CONSTRUCTION SITE A MINIMUM OF ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. INSPECT ALL TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT, EROSION PREVENTION AND SEDIMENT CONTROL BMPS UNTIL THE SITE HAS UNDERGONE FINAL STABILIZATION AND THE NOT HAS BEEN SUBMITTED. INSPECT SURFACE WATER INCLUDING DRAINAGE DITCHES FOR SIGNS OF EROSION AND SEDIMENT DEPOSITION. INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS FOR EVIDENCE OF TRACKING ONTO PAVED SURFACES. INSPECT SURROUNDING PROPERTIES FOR EVIDENCE OF OFF SITE SEDIMENT ACCUMULATION. INSPECT INFILTRATION AREAS FOR SIGNS OF SEDIMENT DEPOSITION AND COMPACTION (TO ENSURE THAT EQUIPMENT IS NOT BEING DRIVEN ACROSS THE AREA).

RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES IN WRITING WITHIN 24 HOURS. SUBMIT INSPECTION REPORTS IN A FORMAT THAT IS ACCEPTABLE TO THE PROJECT ENGINEER. INCLUDE THE FOLLOWING IN THE RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY:

A. DATE AND TIME OF INSPECTIONS
B. NAME OF PERSONS CONDUCTING INSPECTIONS
C. FINDINGS OF INSPECTIONS, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS
D. CORRECTIVE ACTIONS TAKEN, INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES
E. DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 0.5 INCH IN 24 HOURS
F. DOCUMENTS AND CHANGES MADE TO THE SWPPP

K:\twc_civil\City\coon_rapids\coon creek trail bridge over crb\CAD\plan sheets\SWPPP.dwg May 02, 2024 - 4:46pm

No.	Date	Revisions	App.

DRAWING NAME: SWPPP.dwg

DESIGNED BY:	VLB
DRAWN BY:	SHC
CHECKED BY:	DJC
DATE:	05/10/2024
PROJECT NO.	160000023

COON RAPIDS Minnesota
Kimley»Horn

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

DANIEL J. COYLE, PE
DATE: 05/10/2024 MN LIC. NO. 44821

CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

STORM WATER POLLUTION PREVENTION PLAN

S.P. 114-090-002
C.P. 24-6

SHEET NO. 15 / 29

SITE INSPECTION AND MAINTENANCE (CONTINUED)

REPLACE, REPAIR OR SUPPLEMENT ALL NONFUNCTIONAL BMPS BY THE END OF THE NEXT BUSINESS DAY FOLLOWING DISCOVERY UNLESS LISTED DIFFERENTLY BELOW:

A. REPAIR, REPLACE, OR SUPPLEMENT PERIMETER CONTROL DEVICES WHEN IT BECOMES NONFUNCTIONAL OR SEDIMENT REACHES 1/2 THE HEIGHT OF THE DEVICE. COMPLETE REPAIRS BY THE END OF THE NEXT BUSINESS DAY FOLLOWING DISCOVERY.
B. REPAIR OR REPLACE INLET PROTECTION DEVICES WHEN THEY BECOME NONFUNCTIONAL OR SEDIMENT REACHES 1/2 THE HEIGHT AND/OR DEPTH OF THE DEVICE.
C. DRAIN AND REMOVE SEDIMENT FROM TEMPORARY AND PERMANENT SEDIMENT BASINS ONCE THE SEDIMENT HAS REACHED 1/2 THE STORAGE VOLUME. COMPLETE WORK WITHIN 72 HOURS OF DISCOVERY.
D. REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS. RESTABILIZE ANY AREAS THAT ARE DISTURBED BY SEDIMENT REMOVAL OPERATIONS. SEDIMENT REMOVAL AND STABILIZATION MUST BE COMPLETED WITHIN 7 DAYS OF DISCOVERY. PREPARE AND SUBMIT A SITE MANAGEMENT PLAN FOR WORKING IN SURFACE WATERS. CONTACT ALL APPROPRIATE AUTHORITIES PRIOR TO WORKING IN SURFACE WATERS.
E. REMOVE TRACKED SEDIMENT FROM PAVED SURFACES BOTH ON AND OFF SITE WITHIN 24 HOURS OF DISCOVERY. STREET SWEEPING MAY HAVE TO OCCUR MORE OFTEN TO MINIMIZE OFF SITE IMPACTS. LIGHTLY WET THE PAVEMENT PRIOR TO SWEEPING.
F. MAINTAIN ALL BMPS UNTIL WORK HAS BEEN COMPLETED, SITE HAS GONE UNDER FINAL STABILIZATION, AND THE NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED TO THE MPCA.

STABILIZATION TIME FRAMES

AREA	TIME FRAME	NOTES
LAST 200 LINEAL FEET OF DRAINAGE DITCH OR SWALE	WITHIN 24 HOURS OF CONNECTION TO SURFACE WATER OR PROPERTY EDGE	1, 2, 3
REMAINING PORTIONS OF DRAINAGE DITCH OR SWALE	14 DAYS/7 DAYS	1, 3
PIPE AND CULVERT OUTLETS	24 HOURS	
EXPOSED SOILS AND STOCKPILES	14 DAYS/7 DAYS	1
WITHIN 200 FEET OF A PUBLIC WATER	24 HOURS	7

1. INITIATE STABILIZATION IMMEDIATELY WHEN CONSTRUCTION HAS TEMPORARILY OR PERMANENTLY CEASED ON ANY PORTION OF THE SITE. COMPLETE STABILIZATION WITHIN THE TIME FRAME LISTED. IN MANY INSTANCES THIS WILL REQUIRE STABILIZATION TO OCCUR MORE THAN ONCE DURING THE COURSE OF THE PROJECT. TEMPORARY SOIL STOCKPILES WITHOUT SIGNIFICANT CLAY OR SILT AND STOCKPILED AND CONSTRUCTED ROAD BASE ARE EXEMPT FROM THE STABILIZATION REQUIREMENT.

2. STABILIZE WETTED PERIMETER OF DITCH (I.E. WHERE THE DITCH GETS WET).

3. APPLICATION OF MULCH, HYDROMULCH, TACKIFIER AND POLYACRYLAMIDE ARE NOT ACCEPTABLE STABILIZATION METHODS IN THESE AREAS.

4. STABILIZE ALL AREAS OF THE SITE PRIOR TO THE ONSET OF WINTER. ANY WORK STILL BEING PERFORMED WILL BE SNOW MULCHED, SEEDED, AND BLANKETED WITHIN THE TIME FRAMES IN THE NPDES PERMIT.

5. TOPSOIL BERMS MUST BE STABILIZED IN ORDER TO BE CONSIDERED PERIMETER CONTROL BMPS. USE RAPID STABILIZATION METHOD 2, 3, OR 4 AS DIRECTED BY THE ENGINEER. THE SEED MIX USED IN THE RAPID STABILIZATION MAY BE SUBSTITUTED AS FOLLOWS:
   A. SINGLE YEAR CONSTRUCTION BETWEEN MAY 1 – AUGUST 1, SEED WITH SEED MIXTURE 21–111
   B. SINGLE YEAR CONSTRUCTION BETWEEN AUGUST 1 AND OCTOBER 31, SEED WITH SEED MIXTURE 21–112
   C. MULTI YEAR CONSTRUCTION 22–111

6. KEEP DITCHES AND EXPOSED SOILS IN AN EVEN ROUGH GRADED CONDITION IN ORDER TO BE ABLE TO APPLY EROSION CONTROL MULCHES, HYDROMULCHES AND BLANKETS.

7. SEE WATER RESOURCES NOTES FOR A LIST OF PUBLIC WATER EXCLUSION DATES. TWENTY FOUR HOUR STABILIZATION REQUIREMENT ONLY APPLIES DURING THE EXCLUSION DATES.

GENERAL SWPPP NOTES FOR CONSTRUCTION ACTIVITY

1. AMEND THE SWPPP AND DOCUMENT ANY AND ALL CHANGES TO THE SWPPP AND ASSOCIATED PLAN SHEETS IN A TIMELY MANNER. STORE THE SWPPP AND ALL AMENDMENTS ON SITE AT ALL TIMES.

2. PREPARE AND SUBMIT A SITE MANAGEMENT PLAN FOR THE ENGINEER'S ACCEPTANCE FOR CONCRETE MANAGEMENT, CONCRETE SLURRY APPLICATION AREAS, WORK IN AND NEAR AREAS OF ENVIRONMENTAL SENSITIVITY, AREAS IDENTIFIED IN THE PLANS AS "SITE MANAGEMENT PLAN AREA", ANY WORK THAT WILL REQUIRE DEWATERING, AND AS REQUESTED BY THE ENGINEER. SUBMIT ALL SITE MANAGEMENT PLANS TO THE ENGINEER IN WRITING. ALLOW A MINIMUM OF 7 DAYS FOR MNDOT TO REVIEW AND ACCEPT SITE MANAGEMENT PLAN SUBMITTALS. WORK WILL NOT BE ALLOWED TO COMMENCE IF A SITE MANAGEMENT PLAN IS REQUIRED UNTIL ACCEPTANCE HAS BEEN GRANTED BY THE ENGINEER. THERE WILL BE NO EXTRA TIME ADDED TO THE CONTRACT DUE TO THE UNTIMELY SUBMITTAL.

3. IT IS THE DESIGNER'S INTENT THAT THE CONTRACTOR BUILD PONDS AND PLACE EROSION CONTROL BMPS BEFORE PUTTING THEM INTO ACTIVE SERVICE TO THE MAXIMUM EXTENT PRACTICABLE.

4. BURNING OF ANY MATERIAL IS NOT ALLOWED WITHIN PROJECT BOUNDARY.

5. DO NOT DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMITS. DELINEATE AREAS NOT TO BE DISTURBED PRIOR TO STARTING GROUND DISTURBING ACTIVITIES. IF IT BECOMES NECESSARY TO DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMITS OBTAIN WRITTEN PERMISSION FROM THE PROJECT ENGINEER PRIOR TO PROCEEDING. PRESERVE ALL NATURAL BUFFERS SHOWN ON THE PLANS.

6. ROUTE STORMWATER AROUND UNSTABILIZED AREAS OF THE SITE WHENEVER FEASIBLE. PROVIDE EROSION CONTROL AND VELOCITY DISSIPATION DEVICES AS NEEDED TO KEEP CHANNELS FROM ERODING AND TO PREVENT NUISANCE CONDITIONS AT THE OUTLET.

7. DIRECT DISCHARGES FROM BMPS TO VEGETATED AREAS WHENEVER FEASIBLE. PROVIDE VELOCITY DISSIPATION DEVICES AS NEEDED TO PREVENT EROSION.

8. THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS SHALL BE PLACED AS NECESSARY TO MINIMIZE EROSION FROM DISTURBED SURFACES AND TO CAPTURE SEDIMENT ON SITE. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF ANY REMOVAL WORK AND/OR GROUND DISTURBING ACTIVITIES COMMENCE.

9. ESTABLISH SEDIMENT CONTROL DEVICES ON ALL DOWN GRADIENT PERIMETERS AND UPGRADIENT OF ANY BUFFER ZONES BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITIES BEGIN. MAINTAIN SEDIMENT CONTROL DEVICES UNTIL CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

10. LOCATE PERIMETER CONTROL ON THE CONTOUR TO CAPTURE OVERLAND, LOW– VELOCITY SHEET FLOWS DOWN GRADIENT OF ALL EXPOSED SOILS AND PRIOR TO DISCHARGING TO SURFACE WATERS. PLACE J–HOOKS AT A MAXIMUM OF 100 FOOT INTERVALS.

11. PROVIDE PERIMETER CONTROL AROUND ALL STOCKPILES. PLACE BMP A MINIMUM 5 FEET FROM THE TOE OF SLOPE WHERE FEASIBLE. DO NOT PLACE STOCKPILES IN NATURAL BUFFER AREAS, SURFACE WATERS OR STORMWATER CONVEYANCES.

12. PROTECT STORM SEWER INLETS AT ALL TIMES WITH THE APPROPRIATE INLET PROTECTION FOR EACH SPECIFIC PHASE OF CONSTRUCTION. PROVIDE INLET PROTECTION DEVICES WITH EMERGENCY OVERFLOW CAPABILITIES. SILT FENCE PLACED IN THE INLET GRATE IS NOT AN ACCEPTABLE INLET PROTECTION BMP FOR GRADING OPERATIONS. SILT FENCE PLACED IN THE GRATE IS ONLY ALLOWED FOR SHORT INTERVALS DURING MILLING OR PAVING OPERATIONS. INLET PROTECTION DEVICES MAY NEED TO BE PLACED MULTIPLE TIMES IN THE SAME LOCATION OVER THE LIFE OF THE CONTRACT. INLET PROTECTION DEVICES WILL BE PAID FOR ONCE PER INLET REGARDLESS OF THE NUMBER OF TIMES THE BMP IS PLACED. KEEP ALL STORM SEWER INLET PROTECTION DEVICES IN GOOD FUNCTIONAL CONDITION AT ALL TIMES. REPLACE INLET PROTECTION DEVICE WITH A SUITABLE ALTERNATIVE IF THE PROJECT ENGINEER DEEMS AN INLET PROTECTION DEVICE TO BE NONFUNCTIONAL, IN POOR CONDITION, INEFFECTIVE, OR NOT APPROPRIATE FOR THE CURRENT CONSTRUCTION ACTIVITIES. THERE WILL BE NO COST TO MNDOT FOR REPLACEMENT OF INLET PROTECTION DEVICES.

13. PLACE CONSTRUCTION EXITS, AS NECESSARY, TO PREVENT TRACKING OF SEDIMENT ONTO PAVED SURFACES BOTH ON AND OFF THE PROJECT SITE. PROVIDE CONSTRUCTION EXITS OF SUFFICIENT SIZE TO PREVENT TRACK OUT. MAINTAIN CONSTRUCTION EXITS WHEN EVIDENCE OF TRACKING IS DISCOVERED. REGULAR STREET SWEEPING IS NOT AN ACCEPTABLE ALTERNATIVE TO PROPER CONSTRUCTION EXIT INSTALLATION AND MAINTENANCE.

14. DISCHARGE TURBID OR SEDIMENT LADEN WATER TO TEMPORARY SEDIMENT BASINS WHENEVER FEASIBLE. IN THE EVENT THAT IT IS NOT FEASIBLE TO DISCHARGE THE SEDIMENT LADEN WATER TO A TEMPORARY SEDIMENT BASIN, THE WATER MUST BE TREATED SO THAT IT DOES NOT CAUSE A NUISANCE CONDITION IN THE RECEIVING WATERS OR TO DOWNSTREAM LANDOWNERS. CLEAN OUT ALL PERMANENT STORMWATER BASINS REGARDLESS OF WHETHER USED AS TEMPORARY SEDIMENT BASINS OR TEMPORARY SEDIMENT TRAPS TO THE DESIGN CAPACITY AFTER ALL UPGRADIENT LAND DISTURBING ACTIVITY IS COMPLETED.

15. PROVIDE SCOUR PROTECTION AT ANY OUTFALL OF DEWATERING ACTIVITIES.

16. PROVIDE STABILIZATION IN ANY TRENCHES CUT FOR DEWATERING OR SITE DRAINING PURPOSES.

17. REMOVE SEDIMENT FROM STORMWATER SYSTEM AT THE END OF PROJECT.

POLLUTION PREVENTION

1. PROVIDE A SPILL KIT AT EACH WORK LOCATION ON THE SITE.

2. STORE ALL BUILDING MATERIALS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS, PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS, AND LANDSCAPE MATERIALS UNDER COVER AND WITH SECONDARY CONTAINMENT.

3. PROVIDE A SECURE STORAGE AREA WITH RESTRICTED ACCESS FOR ALL HAZARDOUS MATERIALS AND TOXIC WASTE. RETURN ALL HAZARDOUS MATERIALS AND TOXIC WASTE TO THE DESIGNATED STORAGE AREA AT THE END OF THE BUSINESS DAY UNLESS INFEASIBLE. STORE ALL HAZARDOUS MATERIALS AND TOXIC WASTE (INCLUDING BUT NOT LIMITED TO OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT, PETROLEUM BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS WITH SECONDARY CONTAINMENT. CLEAN UP SPILLS IMMEDIATELY.

4. STORE, COLLECT AND DISPOSE OF ALL SOLID WASTE.

5. POSITION ALL PORTABLE TOILETS SO THAT THEY ARE SECURE AND CANNOT BE TIPPED OR KNOCKED OVER. PROPERLY DISPOSE OF ALL SANITARY WASTE.

6. FUEL AND MAINTAIN VEHICLES IN A DESIGNATED CONTAINED AREA WHENEVER FEASIBLE. USE DRIP PANS OR ABSORBENT MATERIALS TO PREVENT SPILLS OR LEAKED CHEMICALS FROM DISCHARGING TO SURFACE WATER OR STORMWATER CONVEYANCES. PROVIDE A SPILL KIT AT EACH LOCATION THAT VEHICLES AND EQUIPMENT ARE FUELED OR MAINTAINED AT.

7. LIMIT VEHICLE AND EQUIPMENT WASHING TO A DEFINED AREA OF THE SITE. CONTAIN RUNOFF FROM THE WASHING AREA TO A TEMPORARY SEDIMENT BASIN OR OTHER EFFECTIVE CONTROL. PROPERLY DISPOSE OF ALL WASTE GENERATED BY VEHICLE AND EQUIPMENT WASHING. ENGINE DEGREASING IS NOT ALLOWED ON THE SITE.

No.	Date	Revisions	App.

DRAWING NAME SWPPP.dwg	
DESIGNED BY:	VLB
DRAWN BY:	SHC
CHECKED BY:	DJC
DATE:	05/10/2024
PROJECT NO.	160000023

COON RAPIDS Minnesota
Kimley»Horn

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

DANIEL J. COYLE, PE
DATE: 05/10/2024 MN LIC. NO. 44821

CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

STORM WATER POLLUTION PREVENTION PLAN

S.P.	114–090–002
C.P.	24–6

SHEET NO. 16 / 29

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE (CONTINUED)

8. PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS. LIQUID AND SOLID WASHOUT WASTES MUST NOT CONTACT THE GROUND. DESIGN THE CONTAINMENT SO THAT IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR CONTAINMENT AREA.

9. CREATE AND FOLLOW A WRITTEN DISPOSAL PLAN FOR ALL WASTE MATERIALS. INCLUDE IN THE PLAN HOW THE MATERIAL WILL BE DISPOSED OF AND THE LOCATION OF THE DISPOSAL SITE. SUBMIT PLAN TO THE ENGINEER.

10. USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT DISCHARGE OR PLACEMENT OF BITUMINOUS GRINDINGS, CUTTINGS, MILLINGS, AND OTHER BITUMINOUS WASTES FROM AREAS OF EXISTING OR FUTURE VEGETATED SOILS AND FROM ALL WATER CONVEYANCE SYSTEMS, INCLUDING INLETS, DITCHES AND CURB FLOW LINES.

11. USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT CONCRETE DUST, PARTICLES, CONCRETE WASH OUT, AND OTHER CONCRETE WASTES FROM LEAVING MNDOT RIGHT OF WAY, DEPOSITING IN EXISTING OR FUTURE VEGETATED AREAS, AND FROM ENTERING STORMWATER CONVEYANCE SYSTEMS, INCLUDING INLETS, DITCHES AND CURB FLOW LINES. USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT SAW CUT SLURRY AND PLANING WASTE FROM LEAVING MNDOT RIGHT OF WAY AND FROM ENTERING STORMWATER CONVEYANCE SYSTEMS INCLUDING DITCHES AND CULVERTS.

WATER RESOURCES NOTES

THESE NOTES ALONG WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE ARE INTENDED TO GIVE INFORMATION ON CRITICAL DRAINAGE FEATURES, NATURAL RESOURCES AND CONTRACTOR OPERATIONS THAT MAY IMPACT DRAINAGE AND NATURAL RESOURCES.

1. THE SIZE AND ELEVATION OF CULVERTS, STORM SEWER PIPES, CATCH BASINS, PONDS, INFILTRATION/FILTRATION BASINS, PERMEABLE DITCH BLOCKS AND OVERFLOW DEVICES HAVE BEEN SPECIFICALLY DESIGNED TO CONFORM TO MNDOT DESIGN STANDARDS, MINNESOTA POLLUTION CONTROL AGENCY (MPCA) AND WATERSHED DISTRICT PERMIT REQUIREMENTS. CHANGING THESE ITEMS OR THE DIRECTION OF FLOW FROM WHAT IS SHOWN ON THE PLANS MAY CAUSE PROBLEMS OFF THE PROJECT AND COULD MEAN THE PROJECT IS OUT OF COMPLIANCE WITH APPROVED DRAINAGE PERMITS. ANY CHANGES TO THE SIZE, ELEVATION OR DIRECTION OF FLOW OF THE DRAINAGE SYSTEM MUST BE APPROVED BY THE ENGINEER.

2. SUBSOIL ALL DISTURBED GREEN SPACES EXCEPT AS LISTED IN 2574.3A.5.

3. PERFORM POST INSTALLATION MANDREL TESTING OF ALL PLASTIC PIPE.

4. ANY SUBSURFACE DRAINAGE TILES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED, REPLACED OR REROUTED, AND CONNECTED TO THE EXISTING TILE OR DRAINAGE SYSTEM TO ENSURE THAT EXISTING UPLAND DRAINAGE IS PERPETUATED. THIS SHOULD BE DONE TO THE APPROVAL AND SATISFACTION OF THE ENGINEER.

5. THE FOLLOWING WATER RELATED PERMITS APPLY TO THIS PROJECT:

AGENCY	TYPE OF PERMIT
MINNESOTA POLLUTION CONTROL AGENCY (MPCA)	NPDES CONSTRUCTION PERMIT

REVIEW ALL PERMITS FOR ANY SPECIAL CONDITIONS THAT WILL EFFECT CONSTRUCTION OF THE PROJECT.

TEMPORARY DEWATERING ACTIVITIES MAY BE REQUIRED FOR SIDEWALK CONSTRUCTION AND UTILITY WORK. THEREFORE IT IS POSSIBLE THAT A PERMIT FOR THE TEMPORARY APPROPRIATION OF WATERS OF THE STATE, NON-IRRIGATION FROM MNDNR WILL BE REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THIS PERMIT PRIOR TO COMMENCING DEWATERING ACTIVITIES. ALL TEMPORARY DEWATERING SHALL BE DISCHARGED TO AN APPROVED LOCATION FOR TREATMENT PRIOR TO DISCHARGE TO THE RECEIVING WATER. SUBMIT A SITE MANAGEMENT PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK.

6. THE FOLLOWING TYPES OF WATERS HAVE WORK IN WATER EXCLUSIONS. NO WORK IN THE WATER IS ALLOWED DURING THE EXCLUSION DATES. SEE DNR PERMIT FOR WHICH WATERBODIES THIS APPLIES TO.

WATERBODY	EXCLUSION DATES
LAKES	APRIL 1 – JUNE 30
NON-TROUT STREAMS	MARCH 15 – JUNE 15
TROUT STREAMS	SEPTEMBER 1 – APRIL 1

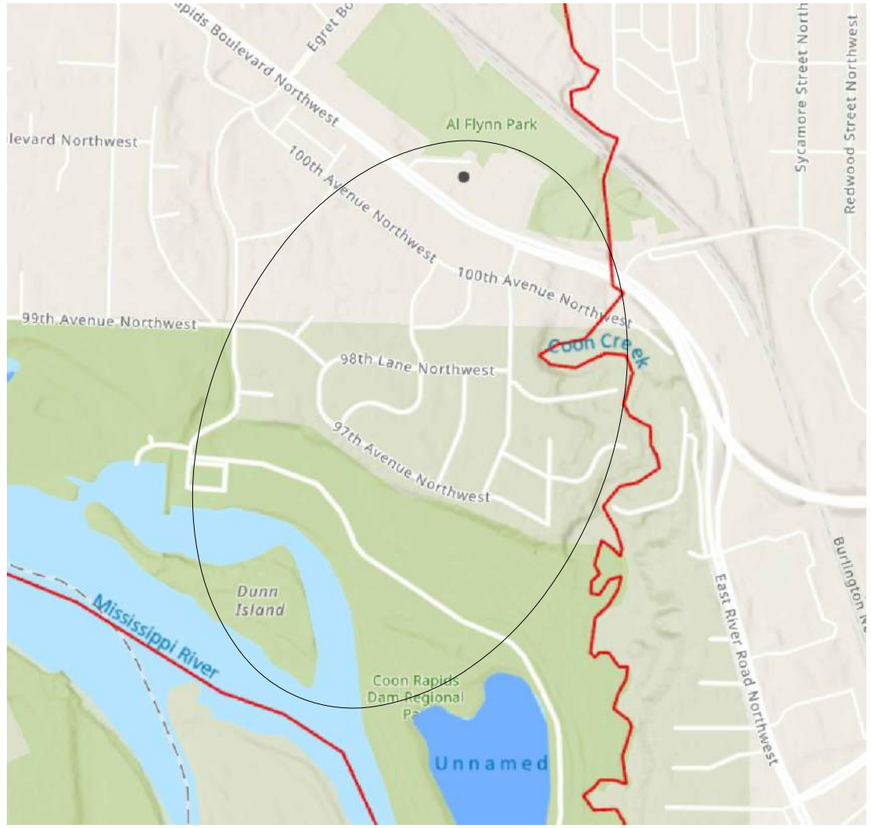
LANDSCAPE NOTES

1. FILTER LOGS SHALL BE PLACED, AS NEEDED, TO TRAP SEDIMENT ON THE LOWER EDGE OF BEDS OR TREE HOLES. FILTER LOGS WILL BE LEFT TO PHOTO DEGRADE.

2. TILLING FOR BEDS OR TREE HOLES MUST BE PLANTED AND MULCHED WITH WOOD CHIP WITHIN 7 DAYS OR STRAW MULCHED UNTIL PLANTING OPERATIONS CAN BE COMPLETED.

3. ANY POND CORNERS OPENED DUE TO TILLING FOR SHRUB BEDS OR TREE HOLES MUST BE PLANTED AND MULCHED WITH WOOD CHIP WITHIN 24 HOURS OR STRAW MULCHED UNTIL PLANTING OPERATIONS CAN BE COMPLETED.

RECEIVING WATERS MAP



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COON RAPIDS Minnesota

Kimley»Horn

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Daniel J. Coyle

DANIEL J. COYLE, PE

DATE: 05/10/2024 MN LIC. NO. 44821

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STORM WATER POLLUTION PREVENTION PLAN

S.P.	114-090-002
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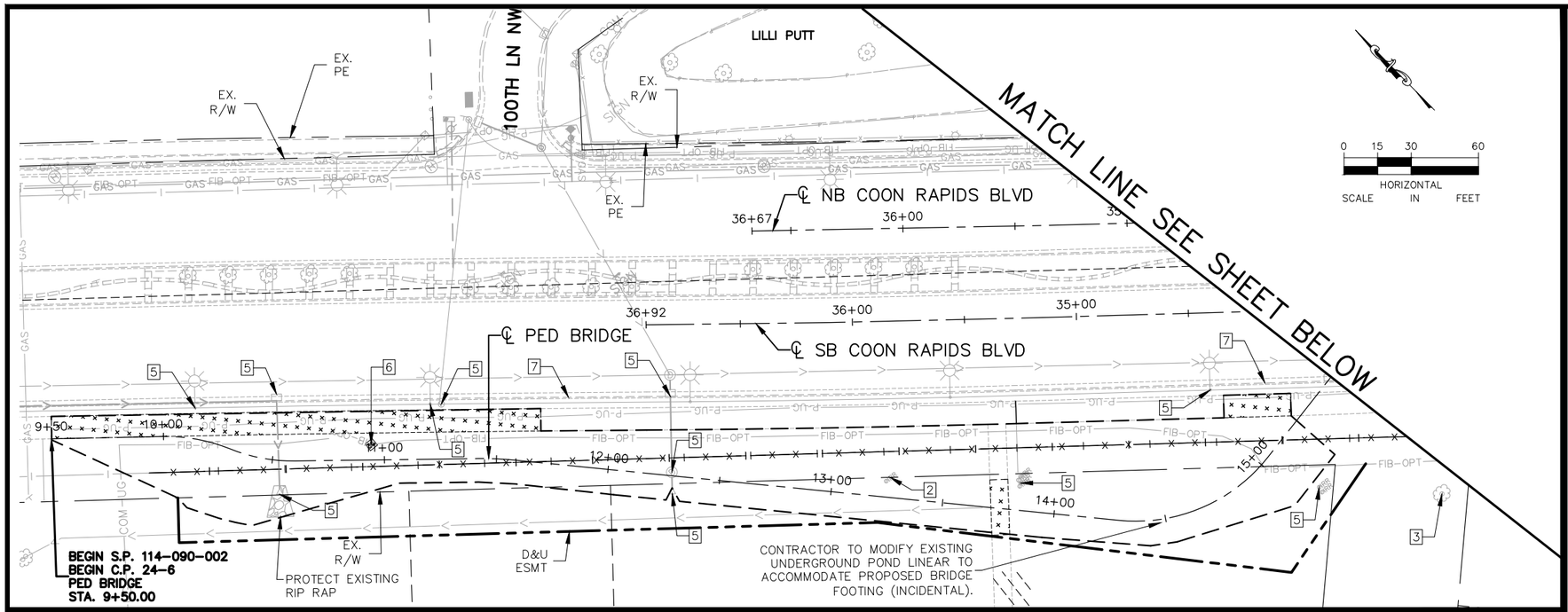
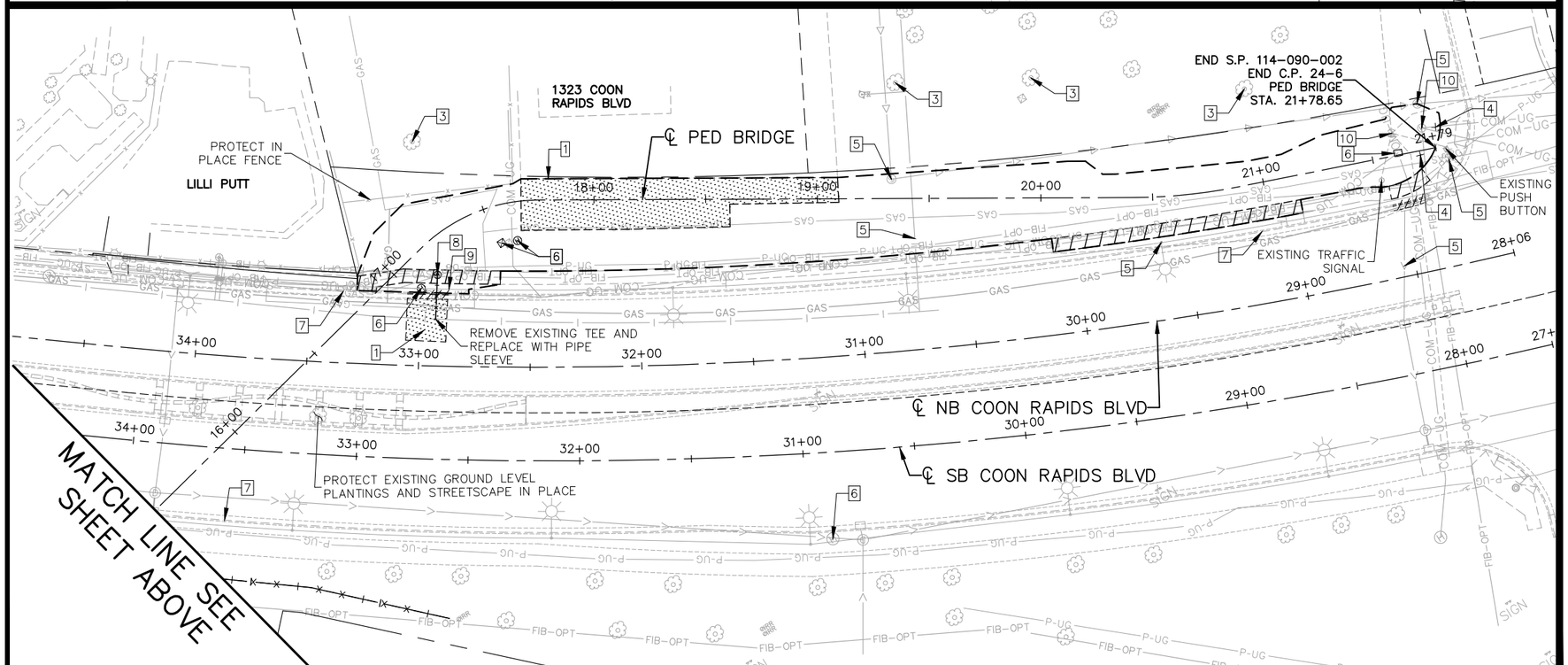
SHEET NO. 17 / 29





NOTES LEGEND

1. SAWING BIT PAVEMENT (FULL DEPTH)
2. RELOCATE IRRIGATION EQIPMENT
3. PROTECT IN PLACE TREE
4. SALVAGE INPLACE SIGN
5. PROTECT EXISTING UTILITY IN PLACE
6. UTILITY STRUCTURE RELOCATION (BY OTHERS)
7. PROTECT IN PLACE CURB AND GUTTER
8. REMOVE GATE VALVE AND BOX
9. REMOVE FOUNDATION
10. ADJUST UTILITY MANHOLE (BY OTHERS)

LEGEND

- REMOVE BITUMINOUS WALK
- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS PAVEMENT
- REMOVE WATER MAIN
- REMOVE CURB & GUTTER
- CONSTRUCTION LIMITS

GENERAL REMOVAL NOTES:

1. THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINES FOR INVESTIGATION AND DOCUMENTING EXISTING UTILITIES."

2. OWNER HAS ATTEMPTED TO LOCATE ALL BELOW GROUND UTILITIES. UTILITIES ARE SHOWN IN AN APPROXIMATED MANNER AND MAY BE INACCURATE OR INCOMPLETE. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING THE ACTUAL LOCATION OF ALL UTILITIES.

3. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITY STRUCTURES THAT ARE NOT BEING REMOVED OR RELOCATED. PROTECTION OF EXISTING UTILITY STRUCTURES IS INCIDENTAL.

4. CONTRACTOR TO VERIFY REMOVAL LIMITS WITH ENGINEER PRIOR TO SAWCUTTING.

No.	Date	Revisions	App.

DRAWING NAME Turf.dwg	
DESIGNED BY:	VLB
DRAWN BY:	SHC
CHECKED BY:	DJC
DATE:	05/10/2024
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn

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

DANIEL J. COYLE, PE

DATE: 05/10/2024 MN LIC. NO. 44821

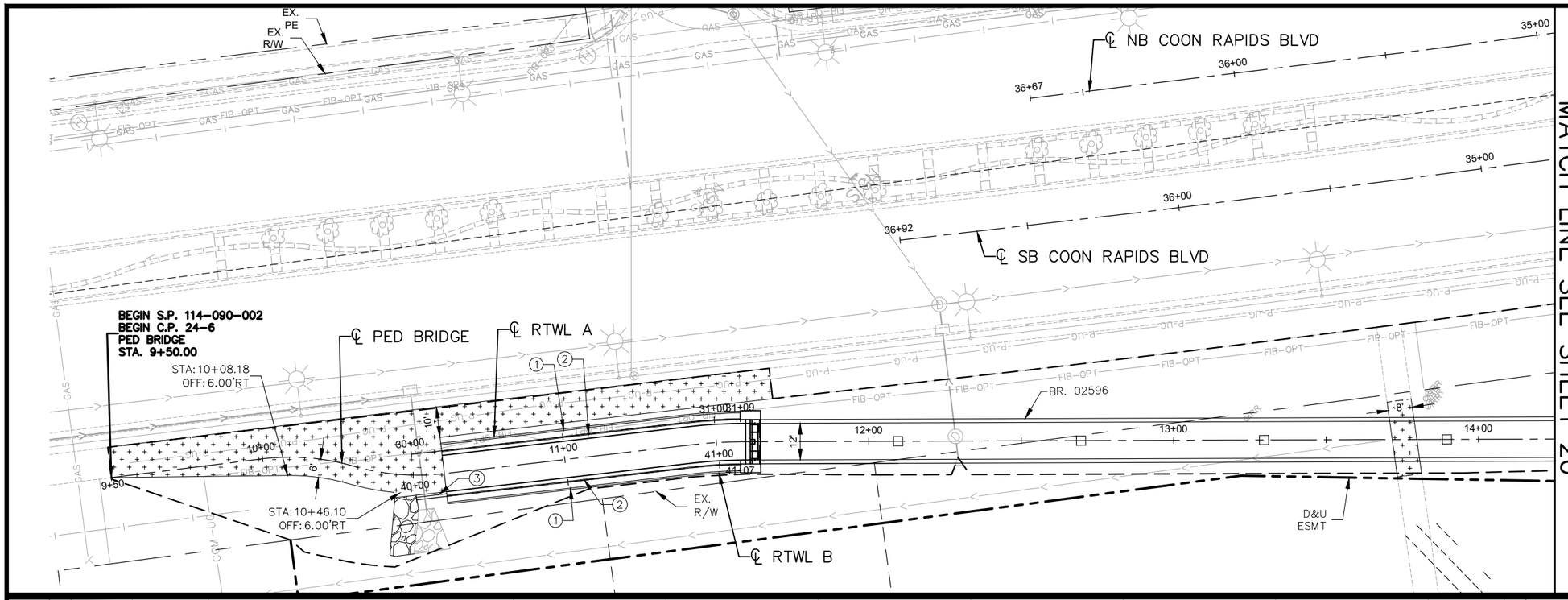
CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

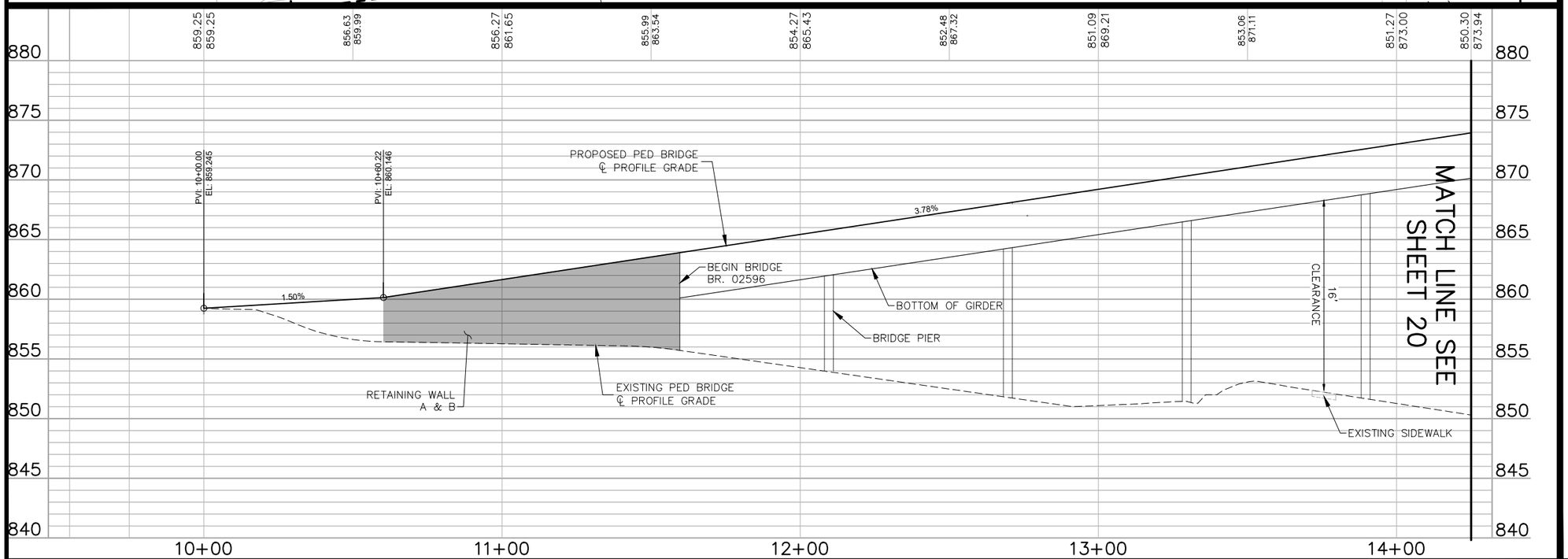
EXISTING CONDITIONS AND REMOVAL PLANS AND UTILITIES

S.P.	114-090-002
C.P.	24-6

SHEET NO. 18 / 29

K:\twc_civil\City\coon_rapids\coon creek trail bridge over crb\CAD\plan sheets\Turf.dwg May 02, 2024 - 4:47pm





LEGEND:

- 4" CONCRETE WALK PER CITY STD. PLATE STR-6.
- BITUMINOUS PAVEMENT PER INSET A, SEE SHEET 11.
- BITUMINOUS WALK PER CITY STD. PLATE STR-14.
- CONSTRUCTION LIMITS.

CONSTRUCTION NOTES:

1. PRE-FABRICATED MODULAR BLOCK RETAINING WALL SEE SHEETS 22 FOR DETAILS
2. METAL RAILING SEE BRIDGE PLANS FOR DETAILS
3. CONCRETE CURB AND GUTTER DESIGN V6
4. CONNECT TO EXISTING STORM SEWER
5. 48" DRAINAGE STRUCTURE WITH FIELD INLET
6. CONCRETE CURB & GUTTER DESIGN B624
7. INSTALL SIGN

GENERAL NOTES:

A. STATIONINS AND OFFSETS ARE WITH RESPECT TO PED BRIDGE ℄. UNLESS OTHERWISE NOTED.

B. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

C. SEE SHEETS B8-B11 FOR BRIDGE AND ABUTMENT DETAILS.

D. SEE SHEET 25 FOR STORM SEWER LATERAL INFORMATION

0 2.5 5 10
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HORIZONTAL
SCALE IN FEET

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No.	Date	Revisions	App.

DRAWING NAME PP01.dwg	
DESIGNED BY:	VLB
DRAWN BY:	SHC
CHECKED BY:	DJC
DATE:	05/10/2024
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn

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DANIEL J. GOYLE, PE

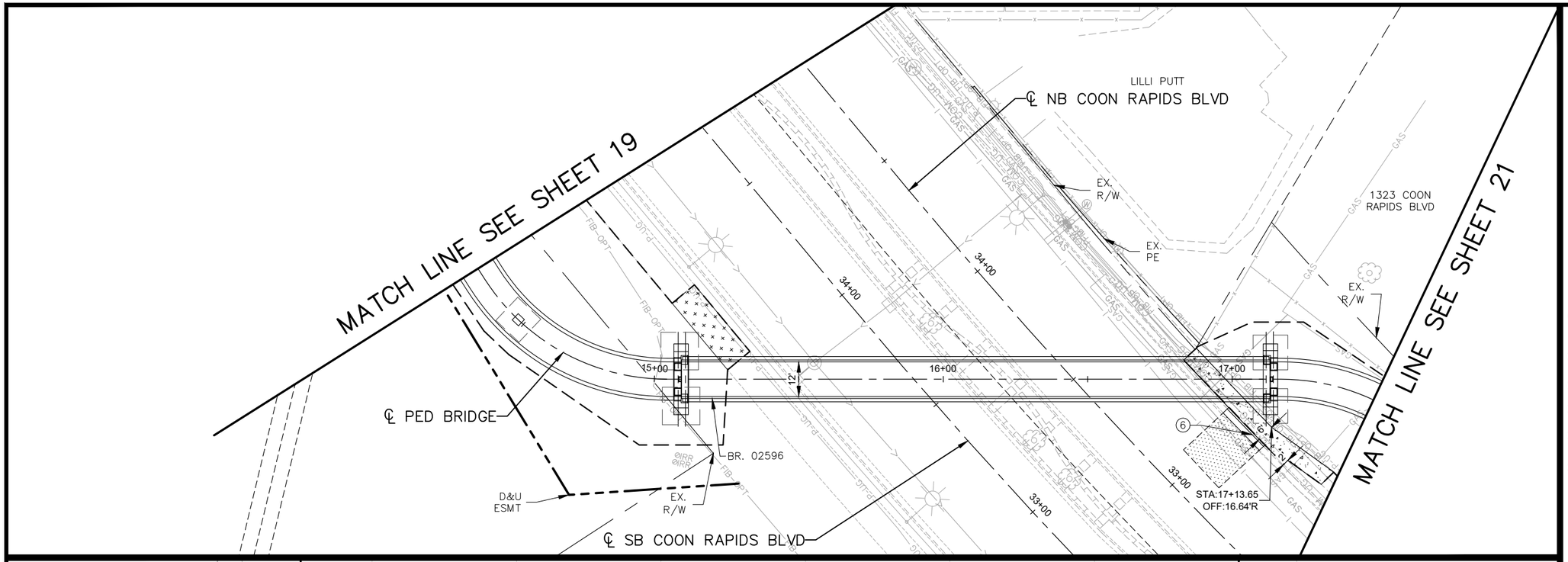
DATE: 05/10/2024 MN LIC. NO. 44821

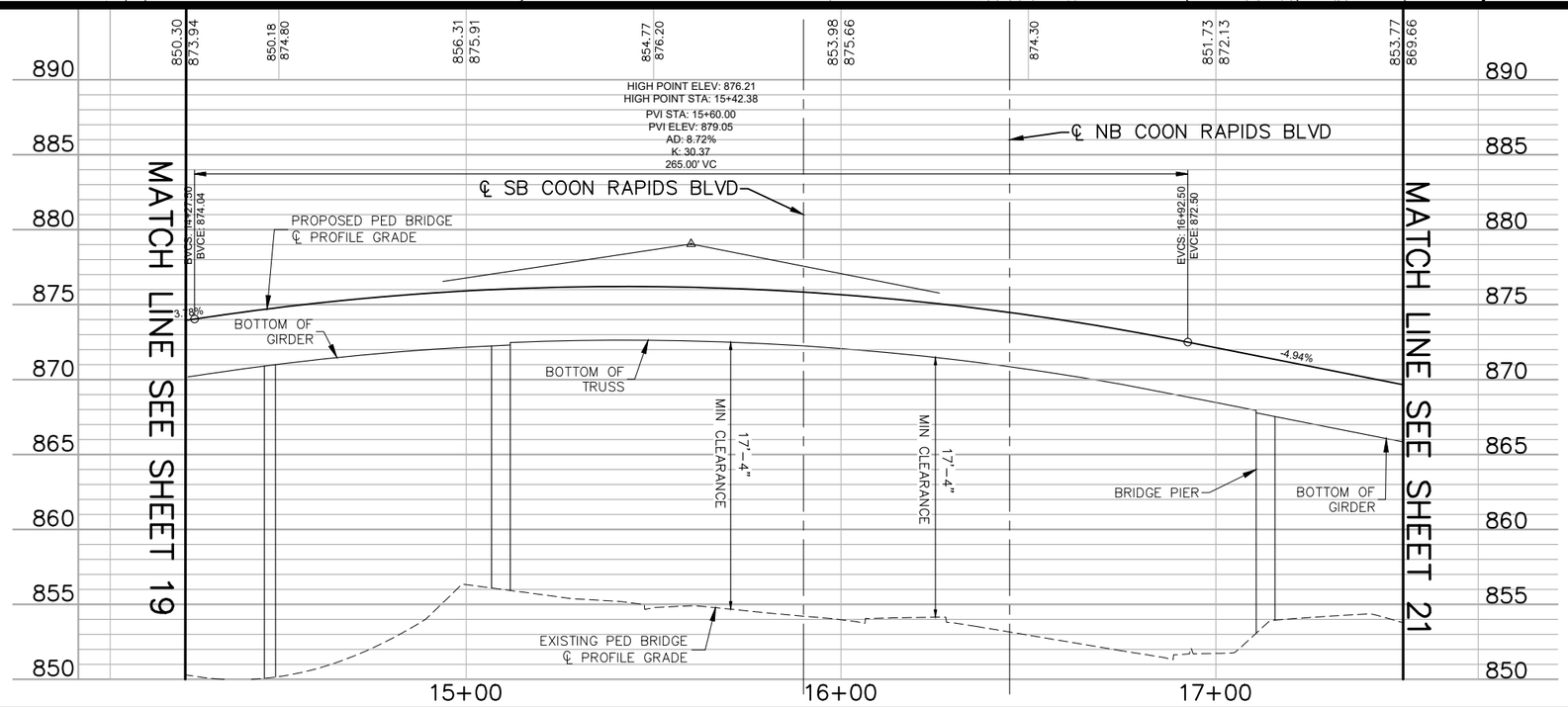
CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

TRAIL PLAN AND PROFILE

S.P.	114-090-002
C.P.	24-6

SHEET NO. 19 / 29





LEGEND:

- 4" CONCRETE WALK PER CITY STD. PLATE STR-6.
- BITUMINOUS PAVEMENT PER INSET A, SEE SHEET 11.
- BITUMINOUS WALK PER CITY STD. PLATE STR-14.
- CONSTRUCTION LIMITS.

CONSTRUCTION NOTES:

1. PRE-FABRICATED MODULAR BLOCK RETAINING WALL SEE SHEETS 22 FOR DETAILS
2. METAL RAILING SEE BRIDGE PLANS FOR DETAILS
3. CONCRETE CURB AND GUTTER DESIGN V6
4. CONNECT TO EXISTING STORM SEWER
5. 48" DRAINAGE STRUCTURE WITH FIELD INLET
6. CONCRETE CURB & GUTTER DESIGN B624

GENERAL NOTES:

A. STATIONINS AND OFFSETS ARE WITH RESPECT TO PED BRIDGE ℄. UNLESS OTHERWISE NOTED.

B. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

C. SEE SHEETS B8-B11 FOR BRIDGE AND ABUTMENT DETAILS.

D. SEE SHEET 11 FOR ROADWAY BITUMINOUS PAVEMENT DETAIL.

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HORIZONTAL
SCALE IN FEET

No.	Date	Revisions	App.

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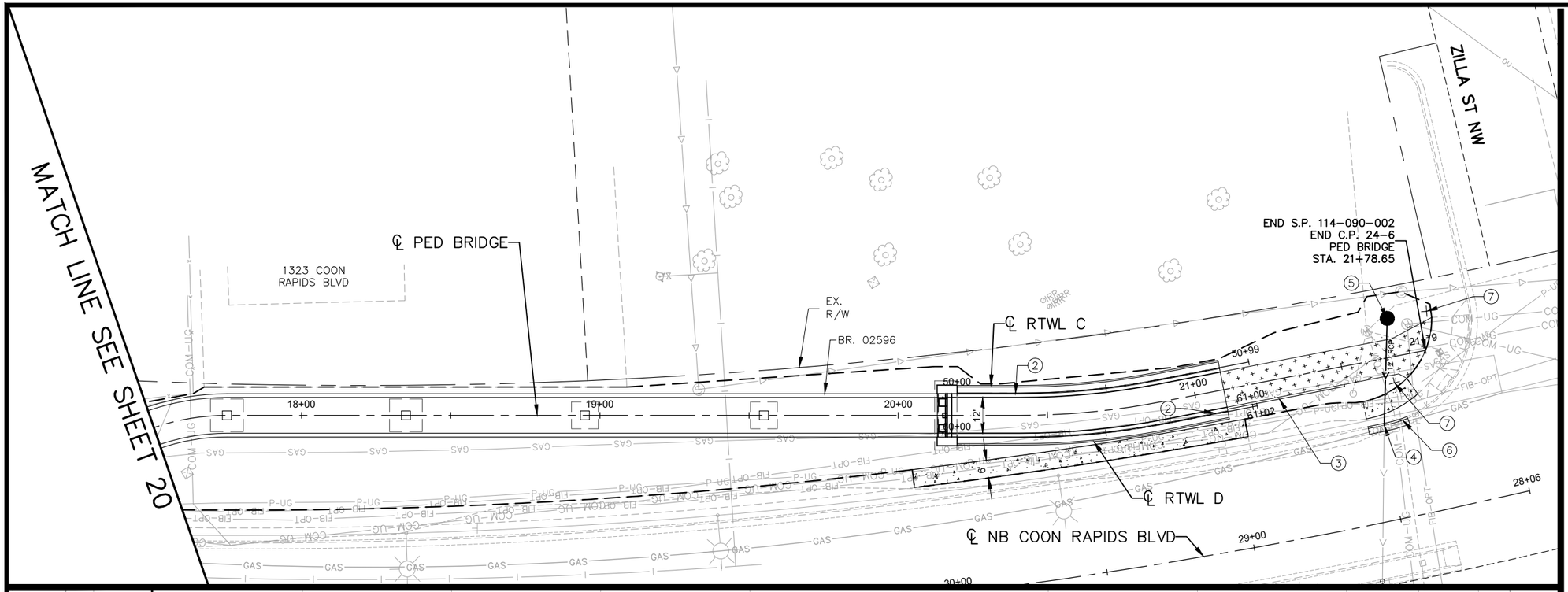
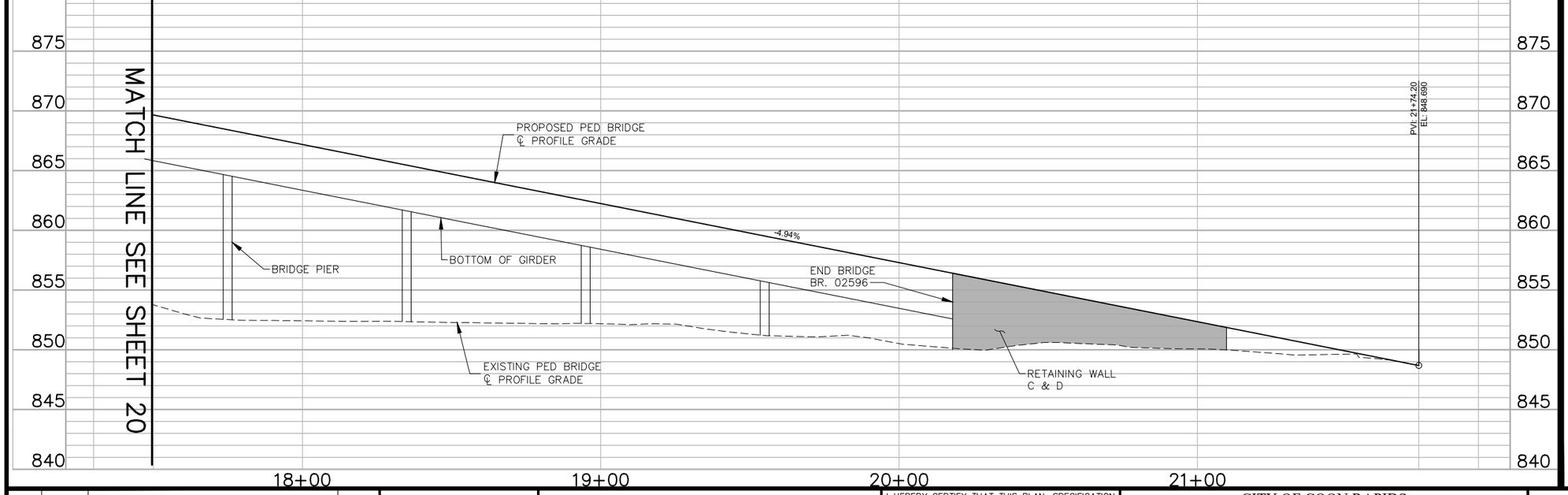
CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

TRAIL PLAN AND PROFILE

S.P.	114-090-002
C.P.	24-6

SHEET NO. 20 / 29





LEGEND:

- 4" CONCRETE WALK PER CITY STD. PLATE STR-6.
- BITUMINOUS PAVEMENT PER INSET A, SEE SHEET 11.
- BITUMINOUS WALK PER CITY STD. PLATE STR-14.
- CONSTRUCTION LIMITS.

CONSTRUCTION NOTES:

1. PRE-FABRICATED MODULAR BLOCK RETAINING WALL SEE SHEETS 22 FOR DETAILS
2. METAL RAILING SEE BRIDGE PLANS FOR DETAILS
3. CONCRETE CURB AND GUTTER DESIGN V6
4. CONNECT TO EXISTING STORM SEWER
5. 48" DRAINAGE STRUCTURE WITH FIELD INLET
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7. INSTALL SIGN

GENERAL NOTES:

A. STATIONINS AND OFFSETS ARE WITH RESPECT TO PED BRIDGE ℄. UNLESS OTHERWISE NOTED.

B. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

C. SEE SHEETS B8-B11 FOR BRIDGE AND ABUTMENT DETAILS.

D. SEE SHEET 25 FOR STORM SEWER LATERAL INFORMATION

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VERTICAL

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HORIZONTAL
SCALE IN FEET

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DANIEL J. GOYLE, PE

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CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

TRAIL PLAN AND PROFILE

S.P.	114-090-002
C.P.	24-6

SHEET NO. 21 / 29

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GENERAL NOTES:

UTILITIES:
EXISTING AND PROPOSED UTILITIES ARE SHOWN IN THE GRADING PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING FACILITIES AND SHALL EXERCISE CARE IN ADJACENT CONSTRUCTION.

EXCAVATION AND BACKFILL LIMITS:
PAY ITEMS FOR UNIT PRICE BID PROJECTS ARE SHOWN IN THE SECTIONS. EXCAVATION AND BACKFILL PER THE PLANS AND SPECIFICATIONS FOR RETAINING WALL CONSTRUCTION IS INCIDENTAL. ACTUAL EXCAVATION SLOPE IS DETERMINED BY OSHA REGULATIONS AND IN-SITU SOILS: EXCAVATIONS BEYOND THE SLOPES SHOWN ARE AT THE CONTRACTOR'S EXPENSE.

EXCAVATION AND EARTHWORK:
ALL EXCAVATION AND EMBANKMENT WORK SHALL CONFORM TO MnDOT 2451.

CONSTRUCTION:
CONSTRUCTION SHALL BE IN ACCORDANCE WITH SPEC. 2411, EXCEPT AS NOTED.

COMPACTION REQUIREMENTS:
COMPACT WALL FILL IN ACCORDANCE WITH SPEC. 2106.3.F.1 UNLESS RECOMMENDED OTHERWISE BY THE SOILS ENGINEER.

COMPACT GRANULAR BEDDING IN ACCORDANCE WITH SPEC. 2106.3.F.1 UNLESS RECOMMENDED OTHERWISE BY THE SOILS ENGINEER.

NOTES TO THE CONTRACTOR:

ARCHITECTURAL SURFACE FINISH SHALL BE APPLIED TO EXPOSED SURFACE OF PREFABRICATED MODULAR BLOCK RETAINING WALL, INCLUDING 2'-0" BELOW FINISHED GRADE ON FRONT FACE, TOP AND SIDES OF CAP BLOCK AND TO THE BACKFACE OF THE TOP WALL BLOCK. ALL WORK AND MATERIALS ASSOCIATED WITH CONSTRUCTING THE ARCHITECTURAL SURFACE FINISH ARE INCLUDED IN THE BID ITEM "PREFABRICATED MODULAR BLOCK WALL".

PROVIDE DETAILED DRAWINGS FOR CONSTRUCTION CONTAINING:

1. ELEVATION VIEW WITH WALL FACING LAYOUT AND GEOMETRIC INFORMATION. TOP WALL BLOCK MAY EXTEND UP TO 2" MIN. ABOVE THE MOMENT SLAB TOP OF CURB AT BACK FACE OF WALL.
2. PLAN VIEW WITH BOTTOM AND TOP OF WALL ALIGNMENT, LEVELING PAD THICKNESS AND ALIGNMENT, AND PLAN LIMITS OF WALL ALIGNMENT.
3. CROSS SECTIONS DETAILING BATTER, SUBSURFACE DRAINAGE, SURFACE DRAINAGE, AND WATER RUNOFF COLLECTION ABOVE WALL.
4. NOTE BLOCK, FILL PLACEMENT METHODS AND REQUIREMENTS.
5. DETAIL ALL WALL FILL PENETRATIONS AND WALL FACE PENETRATIONS. DETAIL WALL FACING UNIT PLACEMENT AROUND PENETRATIONS.
6. DETAILS THAT ARE SPECIFIC TO VENDOR PRODUCTS AND THEIR INTERACTION WITH OTHER PROJECT COMPONENTS.
7. DETAILS OF CAP BLOCKS AND INSTALLATION INSTRUCTIONS FOR THE CAPS. CAP BLOCKS TO HAVE ARCHITECTURAL TEXTURE ON TOP, SIDES, AND END FACES.
8. CERTIFICATION BY PROFESSIONAL ENGINEER THAT THE CONSTRUCTION LAYOUT MEETS THE REQUIREMENTS OF PLANS AND SPECIFICATIONS.
9. PREFABRICATED MODULAR BLOCK RETAINING WALL TO HAVE THE FOLLOWING ARCHITECTURAL TEXTURE AND FINISH:
   - 9.1 ARCHITECTURAL CONCRETE TEXTURE
     - 9.1.1 LESUEUR COUNTY LIMESTONE – RECON WALL SYSTEM
     - 9.1.2. OR APPROVED EQUAL BY THE OWNER
   - 9.2 ARCHITECTURAL SURFACE FINISH (SINGLE COLOR)
     - 9.2.1. AMS COLOR 36622 (PEARL GREY)

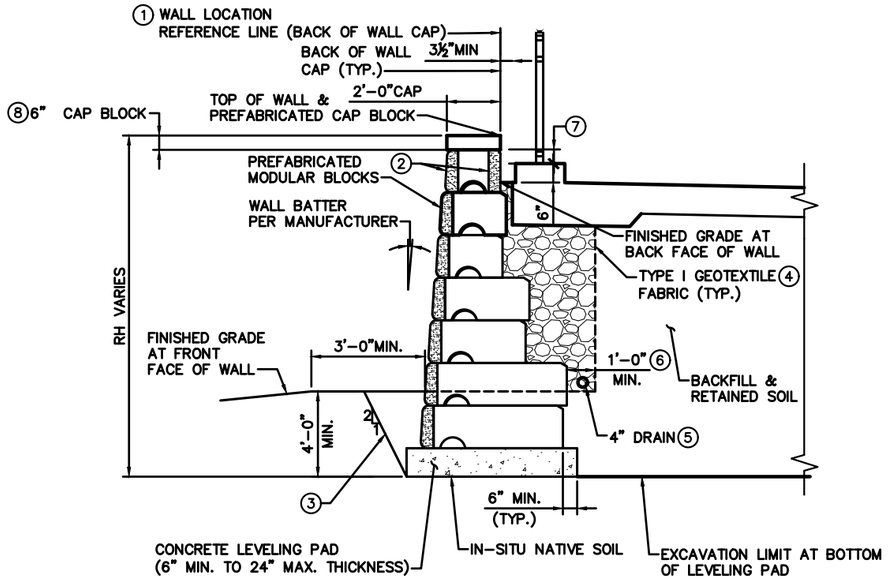
DESIGN CRITERIA:

DESIGN CRITERIA FOLLOWS THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, LATEST, WITH ALL INTERIMS. DESIGN CRITERIA ARE IN ACCORDANCE WITH MnDOT POLICY, AS RECORDED IN THE MnDOT ROAD DESIGN MANUAL. SEE SPECIAL PROVISIONS FOR SPECIFIC DESIGN CRITERIA.

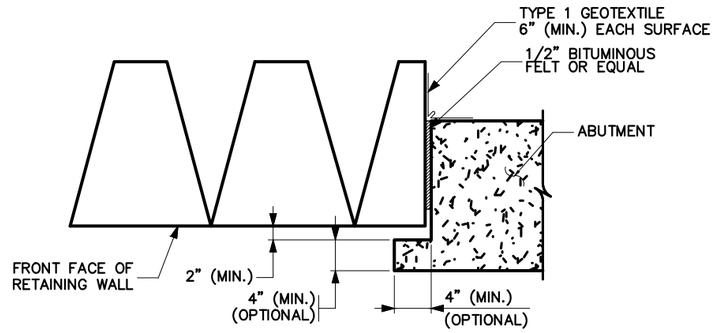
ALL DESIGN AND MATERIALS SHALL CONFORM TO REQUIREMENTS IN THE SPECIAL PROVISIONS.

NOTES:

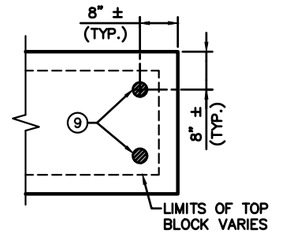
1. LOCATION OF WALL REFERENCE LINE IS SHOWN AT THE BACK FACE OF WALL CAP. WALL ALIGNMENT AND REFERENCE LINE MAY BE LOCATED AT FRONT FACE OF WALL OR BACK FACE OF WALL CAP. REFER TO THE TYPICAL SECTION SHEETS FOR MINIMUM REQUIREMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND VERIFY THE WALL REFERENCE LINE, ACCOUNTING FOR WALL MANUFACTURER'S BATTER, PMBW BLOCK DIMENSIONS, AND CAP BLOCK DIMENSIONS. CONTRACTOR SHALL NOT DECREASE THE MOMENT SLAB. CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE AND SURVEY PROPOSED WALL REFERENCE LINE ONCE PMBW MANUFACTURER'S SHOP DRAWINGS HAVE BEEN APPROVED.
2. ALL EXPOSED FACES OF PREFABRICATED MODULAR BLOCKS SHALL BE TEXTURED, SEE SPECIAL PROVISIONS.
3. PAY LIMITS (2V:1H). ACTUAL EXCAVATION SLOPE IS DETERMINED BY OSHA REGULATIONS AND IN-SITU SOILS: EXCAVATION BEYOND THESE LIMITS AT CONTRACTOR'S EXPENSE.
4. THE WRAP LENGTH FOR GEOTEXTILE FABRIC SHALL NOT BE MORE THAN 6".
5. 4" THERMOPLASTIC PERFORATED PIPE, SPEC. 3245. WRAP WITH TYPE 1 GEOTEXTILE, SPEC. 3733, INSTALLATION AS PER SPEC. 2502. CONNECT TO DRAINAGE SYSTEM OR OUTLET THROUGH WALL USING 6" T.P. NON-PERFORATED PIPE WITH RODENT SCREEN. ALL WORK AND MATERIALS ASSOCIATED WITH CONSTRUCTING THE 4" DRAINS ARE INCLUDED IN THE BID ITEM "PREFABRICATED MODULAR BLOCK WALL".
6. 1'-0" MIN. DRAINAGE ZONE, COARSE AGGREGATE, SPEC. 3149.2.H.
7. TOP OF WALL BLOCK MAY EXTEND UP TO 2" MIN. ABOVE THE MOMENT SLAB TOP OF CURB AT BACK FACE OF WALL.
8. PREFABRICATED CAP BLOCK DIMENSIONS MAY VARY BY MANUFACTURER. THIS PLAN ASSUMES A 2'-0" WIDE X 6" THICK CAP. PREFABRICATED CAP BLOCK SHALL HAVE A MAXIMUM CAP THICKNESS OF 9".
9. CLEAN AND APPLY 1½" THICK X 3" DIA. BEAD OF ADHESIVE TO TOP COURSE PRIOR TO PLACING CAP BLOCK. ADHESIVE SHALL WITHSTAND MOISTURE AND TEMPERATURE CHANGES, REMAIN FLEXIBLE, AND BE SPECIFICALLY FORMULATED FOR BONDING MASONRY TO MASONRY. ALL WORK AND MATERIALS ASSOCIATED WITH CONSTRUCTING THE ADHESIVE FOR THE CAP BLOCKS ARE INCLUDED IN THE BID ITEM "PREFABRICATED MODULAR BLOCK WALL".



TYPICAL SECTION THRU PREFABRICATED MODULAR BLOCK RETAINING WALL



CONNECTION DETAIL AT JUNCTURE OF PMBW AND C.I.P. ABUTMENT



PARTIAL PLAN VIEW – CAP BLOCK
(BOTTOM OF CAP SHOWN)

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No.	Date	Revisions	App.

DRAWING NAME Walls.dwg	
DESIGNED BY:	VLB
DRAWN BY:	SHC
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DATE:	05/10/2024
PROJECT NO.	160000023

COON RAPIDS Minnesota
Kimley»Horn

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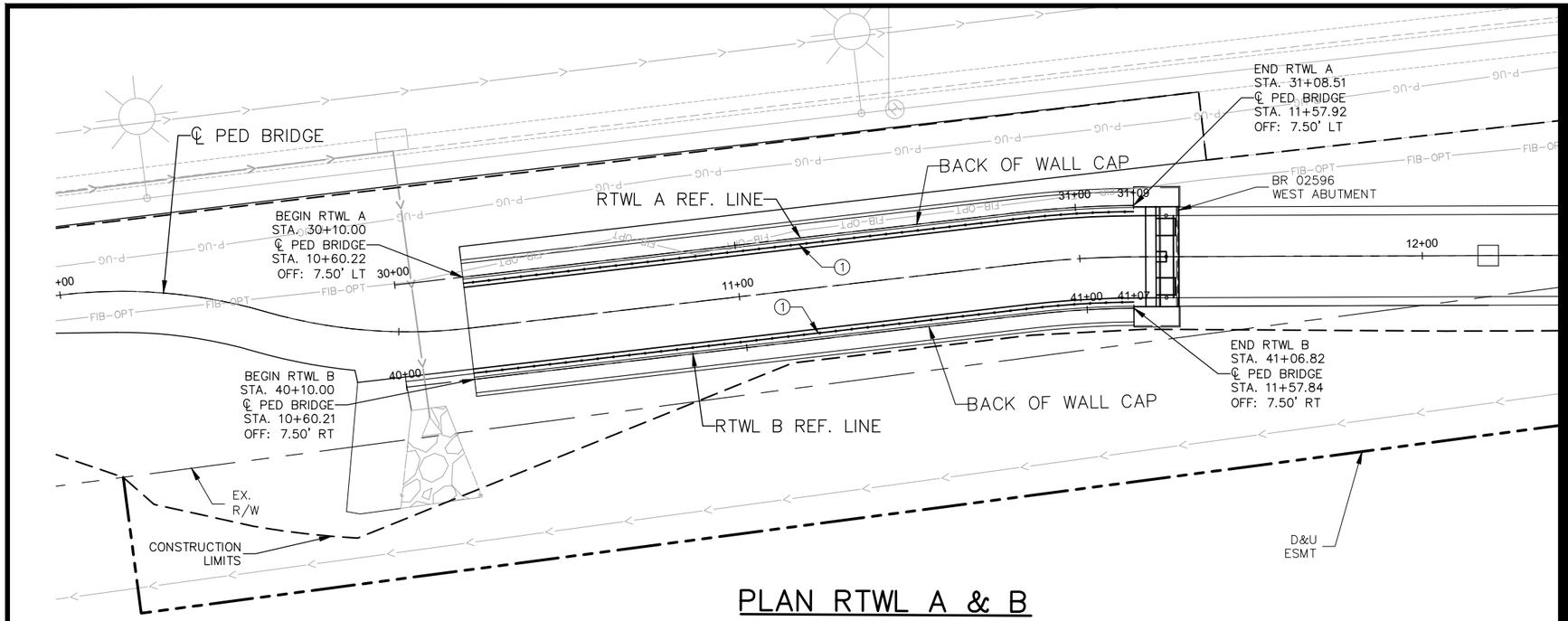
CHRISTOPHER P. EWERT
DATE: 05/10/2024 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)
CONSTRUCTION DETAILS

S.P.	114-090-002
C.P.	24-6

SHEET NO. 22 / 29



PLAN RTWL A & B

LEGEND:

— — — CONSTRUCTION LIMITS.

① 4" DIA. PERF PIPE DRAIN

GENERAL NOTES:

SEE SHEET 22 FOR PREFABRICATED MODULAR BLOCK WALL DETAILS

SEE SHEETS 12–13 FOR RETAINING WALL ALIGNMENT AND REFERENCE LINE DATA.

CONTRACTOR SHALL FIELD VERIFY CONSTRUCTED TOP OF WALL PROFILE AND INCLUDE ELEVATIONS, STEP LOCATIONS AND DIMENSIONS IN SHOP DRAWINGS.

SEE CROSS SECTIONS AND GRADING PLAN FOR PROPOSED SURFACES.

FINISHED GRADE PROFILES: FRONT AND BACK FACE OF WALL ARE SHOWN. THE PREFABRICATED MODULAR BLOCK WALL DESIGN ENGINEER AND MANUFACTURER SHALL PROVIDE BLOCK LAYOUT THAT MEETS THE CRITERIA IN THIS PLAN AND SPECIAL PROVISIONS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND VERIFY THE WALL REFERENCE LINE, ACCOUNTING FOR WALL MANUFACTURER'S BATTER, PMBW BLOCK DIMENSIONS AND CAP BLOCK DIMENSIONS. THE WALL LOCATION REFERENCE LINE SHOWN IN THESE PLANS IS ASSUMED AT THE FRONT FACE OF WALL. CONTRACTOR SHALL NOT DECREASE MOMENT SLAB WIDTH. CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE AND SURVEY PROPOSED WALL REFERENCE LINE ONCE PMBW MANUFACTURER'S SHOP DRAWINGS HAVE BEEN APPROVED.

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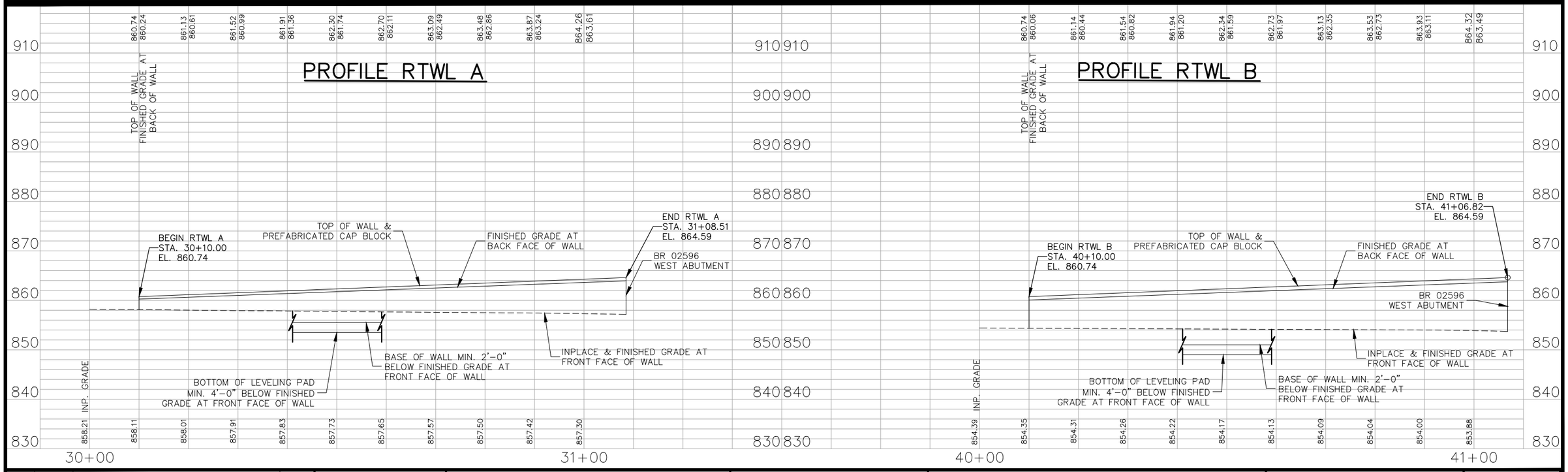

No.	Date	Revisions	App.

DRAWING NAME	RTWL–PP02.dwg
DESIGNED BY:	VLB
DRAWN BY:	SHC
CHECKED BY:	DJC
DATE:	05/10/2024
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn

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Christopher P. Ewert

CHRISTOPHER P. EWERT

DATE: 05/10/2024 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

RETAINING WALL PLAN AND PROFILE

S.P.	114–090–002
C.P.	24–6

SHEET NO. 23 / 29

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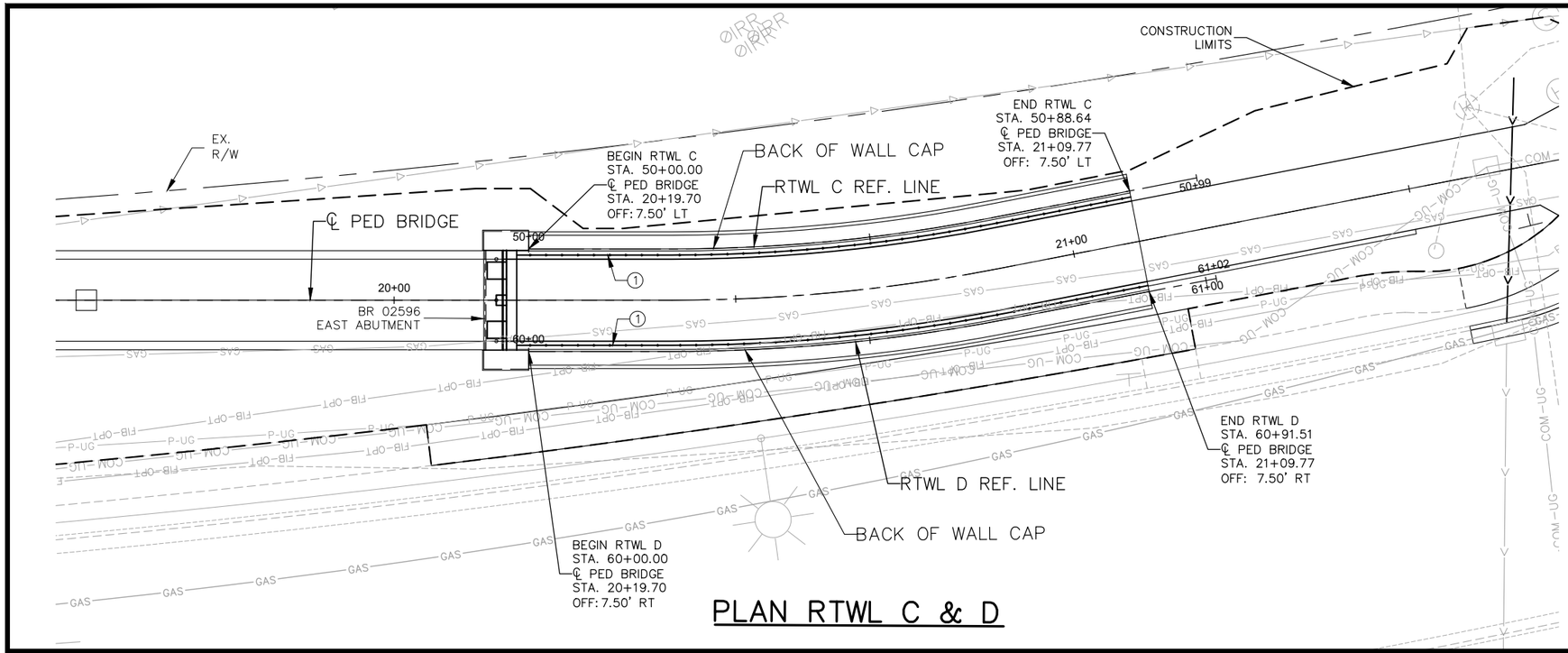

PLAN RTWL C & D

LEGEND:

— — — CONSTRUCTION LIMITS.

① 4" DIA. PERF PIPE DRAIN

GENERAL NOTES:

SEE SHEET 22 FOR PREFABRICATED MODULAR BLOCK WALL DETAILS

SEE SHEETS 12–13 FOR RETAINING WALL ALIGNMENT AND REFERENCE LINE DATA.

CONTRACTOR SHALL FIELD VERIFY CONSTRUCTED TOP OF WALL PROFILE AND INCLUDE ELEVATIONS, STEP LOCATIONS AND DIMENSIONS IN SHOP DRAWINGS.

SEE CROSS SECTIONS AND GRADING PLAN FOR PROPOSED SURFACES.

FINISHED GRADE PROFILES: FRONT AND BACK FACE OF WALL ARE SHOWN. THE PREFABRICATED MODULAR BLOCK WALL DESIGN ENGINEER AND MANUFACTURER SHALL PROVIDE BLOCK LAYOUT THAT MEETS THE CRITERIA IN THIS PLAN AND SPECIAL PROVISIONS.

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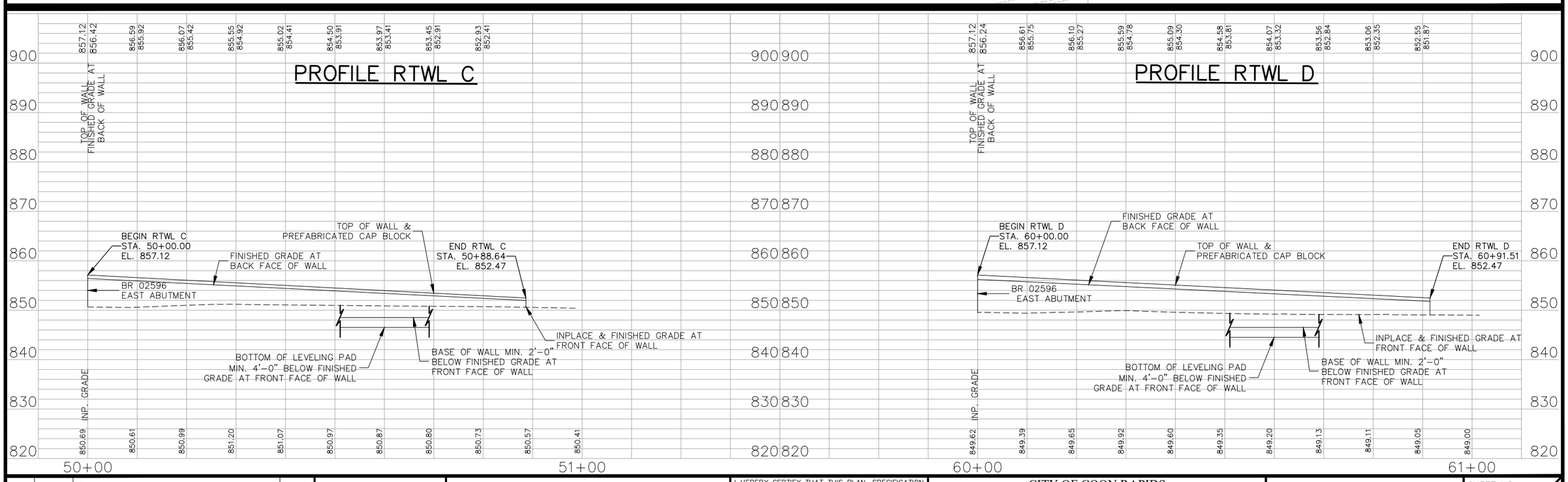

No.	Date	Revisions	App.

DRAWING NAME RTWL–PP02.dwg	
DESIGNED BY:	VLB
DRAWN BY:	SHC
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Christopher P. Ewert

CHRISTOPHER P. EWERT

DATE: 05/10/2024 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

RETAINING WALL PLAN AND PROFILE

S.P.	114–090–002
C.P.	24–6

SHEET NO. 24 / 29

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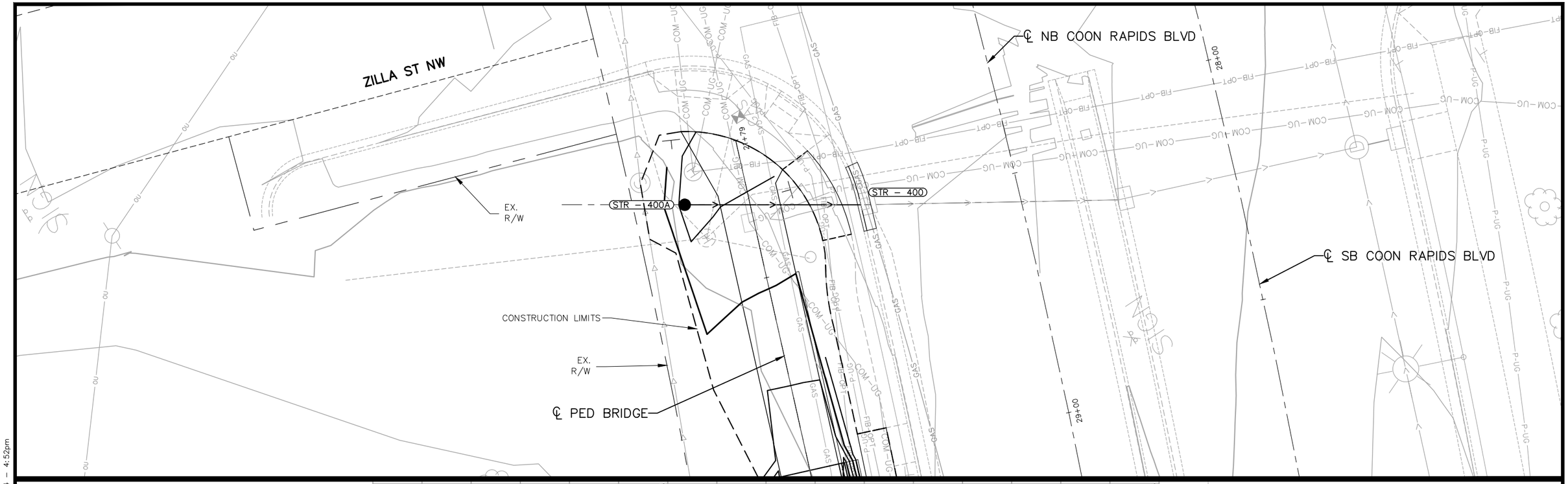

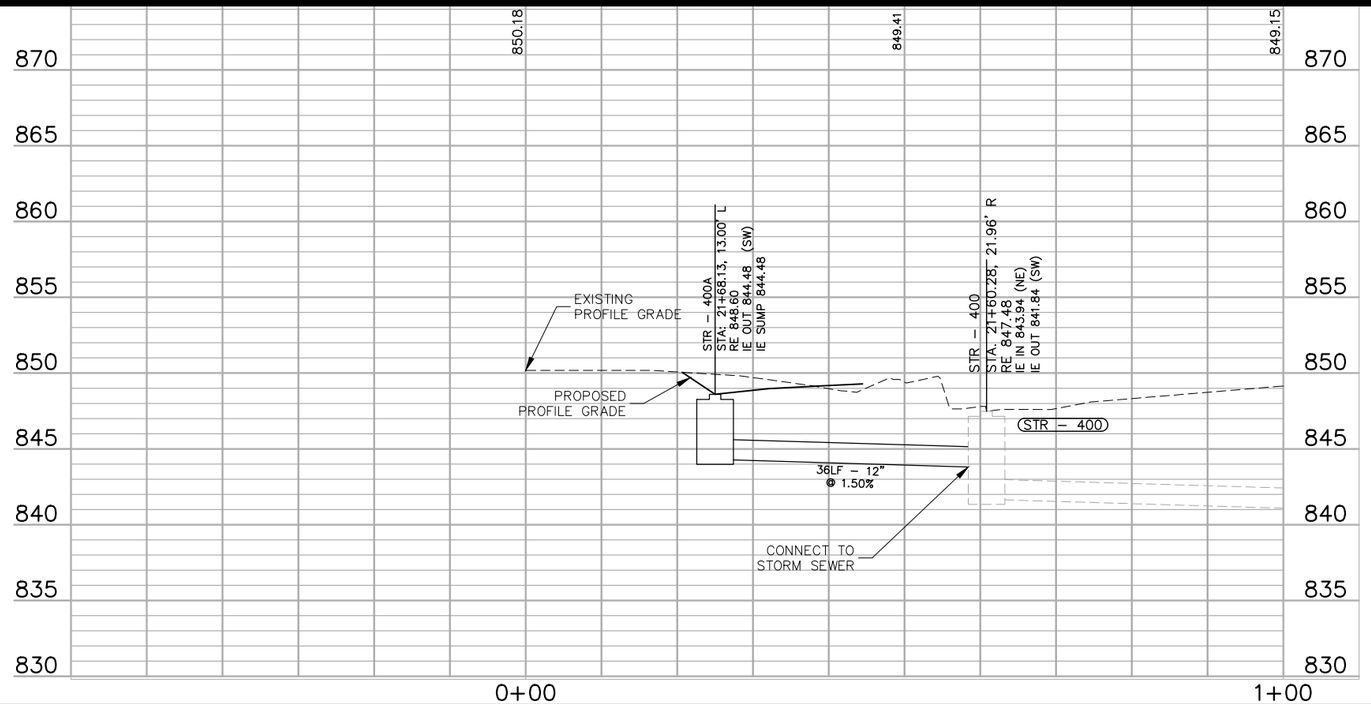

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SCALE IN FEET

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VERTICAL

No.	Date	Revisions	App.

DRAWING NAME
Drainage Plan.dwg

DESIGNED BY:	VLB
DRAWN BY:	SHC
CHECKED BY:	DJC
DATE:	05/10/2024
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn

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DANIEL J. COYLE, PE
DATE: 05/10/2024 MN LIC. NO. 44821

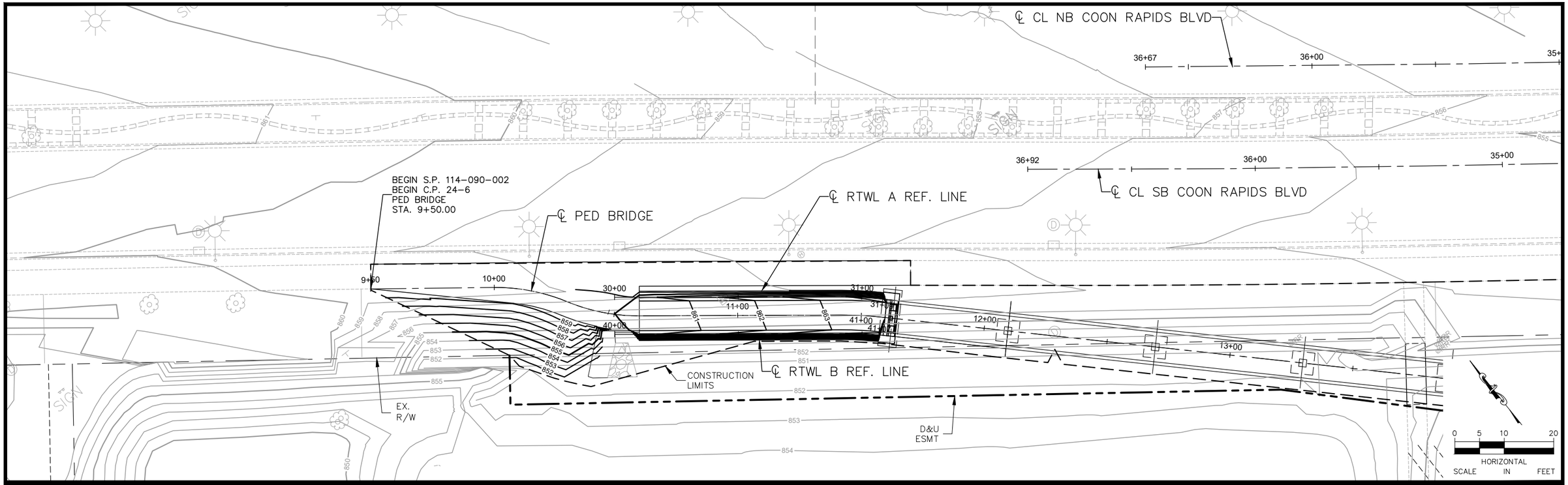
CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

DRAINAGE PLAN

S.P.	114–090–002
C.P.	24–6

SHEET NO. 25 / 29

K:\twc_civil\City\coon_rapids\coon creek trail bridge over crb\CAD\plan sheets\Drainage Plan.dwg May 02, 2024 – 4:52pm



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No.	Date	Revisions	App.

DRAWING NAME Grading.dwg	
DESIGNED BY:	VLB
DRAWN BY:	SHC
CHECKED BY:	DJC
DATE:	05/10/2024
PROJECT NO.	160000023

COON RAPIDS Minnesota

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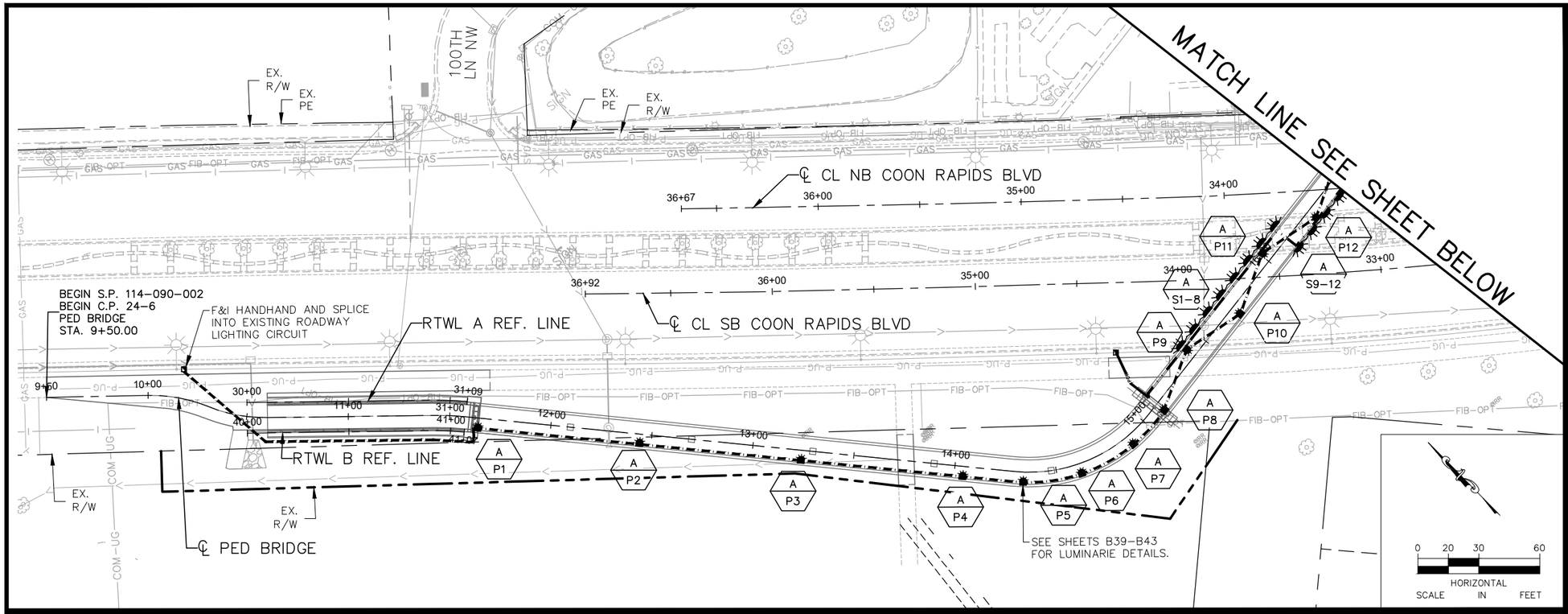
DATE: 05/10/2024 MN LIC. NO. 44821

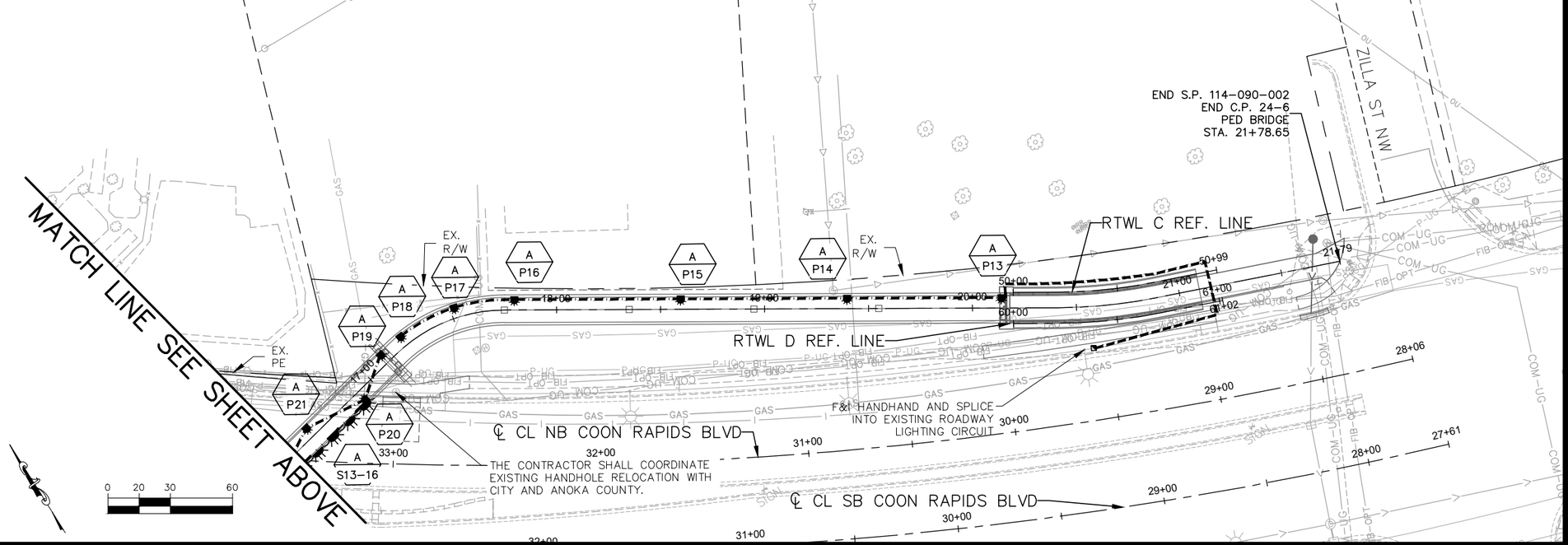
CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL OVER COON RAPIDS BLVD (CSAH 1)

GRADING PLAN

S.P.	114-090-002
C.P.	24-6

SHEET NO. 26 / 29





LEGEND:

- EXISTING LIGHT POLE & FOUNDATION
- LIGHTING UNIT TYPE SPECIAL A (PAID FOR AS LIGHTING SYSTEM "A")
- LIGHTING UNIT TYPE SPECIAL B (PAID FOR AS LIGHTING SYSTEM "B")
- 2" NON–METALLIC CONDUIT (2545) 3 – UNDERGROUND WIRE 1/C 14 AWG 1 – UNDERGROUND WIRE 1/C 14 AWG (TRACERS)
- 1 1/4" NON–METALLIC CONDUIT (2545) 3 – UNDERGROUND WIRE 1/C 14 AWG 1 – UNDERGROUND WIRE 1/C 14 AWG (TRACERS)
- 2" NON–METALLIC CONDUIT (2545) 3 – UNDERGROUND WIRE 1/C 12 AWG 1 – UNDERGROUND WIRE 1/C 12 AWG (TRACERS)
- 1 1/4" NON–METALLIC CONDUIT (2545) 3 – UNDERGROUND WIRE 1/C 12 AWG 1 – UNDERGROUND WIRE 1/C 12 AWG (TRACERS)
- HANDHOLE (2545)
- X / XX — FEED POINT; LIGHT NUMBER (P DENOTES LIGHTING UNIT SPECIAL TYPE A) (S DENOTES LIGHTING UNIT SPECIAL TYPE B)

GENERAL NOTE:

1. ALL CONDUIT, WIRING, HANDHOLES AND SPLICING TO BE PAID FOR AS 2545.501 CONDUIT SYSTEM.
2. SEE SHEETS B38–B44 FOR BRIDGE LIGHTING SPACING, PLACEMENT AND CONNECTION DETAILS.
3. FOR LIGHTING FIXTURE DETAILS, SEE BRIDGE PLANS AND PROJECT SPECIFICATIONS, DIVISION SL.

No.	Date	Revisions	App.

DRAWING NAME Lighting.dwg	
DESIGNED BY:	VLB
DRAWN BY:	SHC
CHECKED BY:	DJC
DATE:	05/10/2024
PROJECT NO.	160000023

COON RAPIDS Minnesota

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DANIEL J. COYLE, PE

DATE: 05/10/2024 MN LIC. NO. 44821

CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

LIGHTING PLAN

S.P.	114–090–002
C.P.	24–6

SHEET NO. 27 / 29

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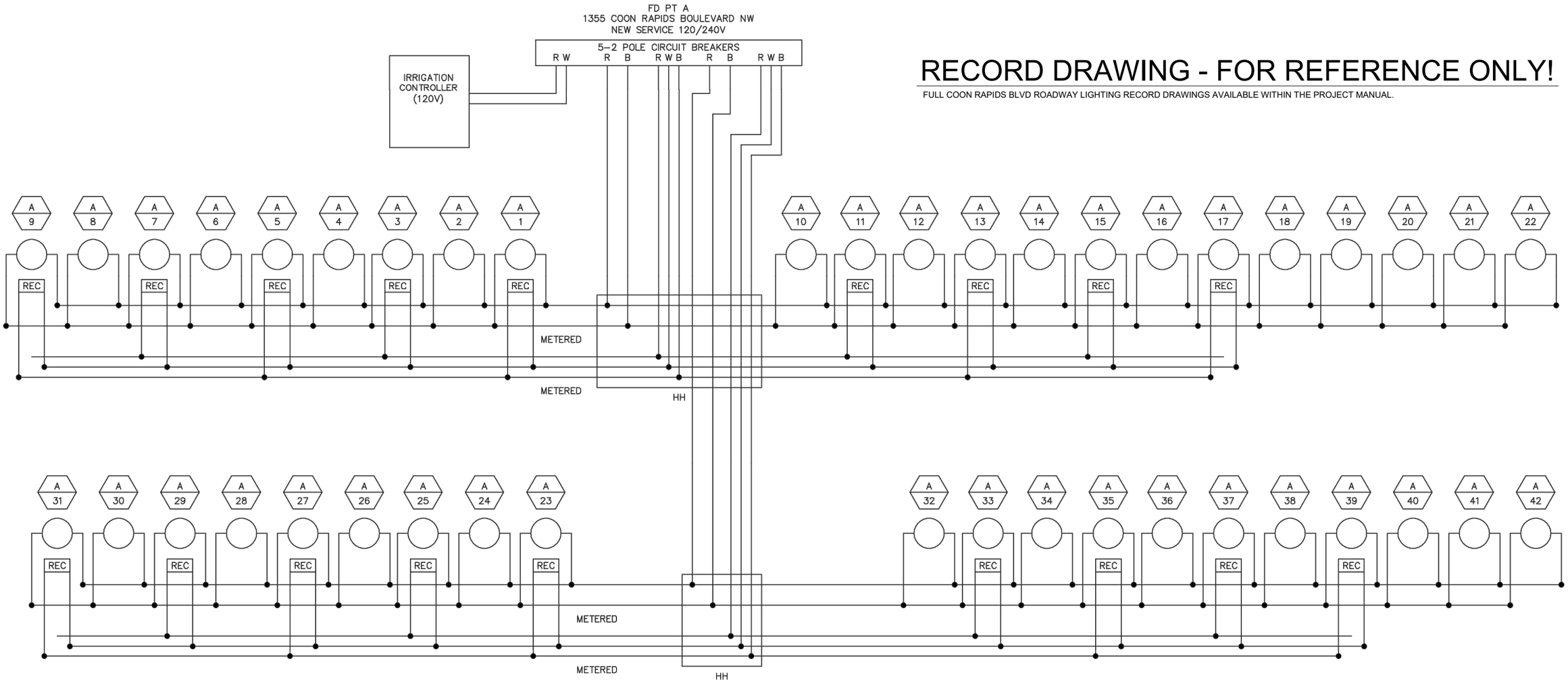
LIGHTING UNIT SCHEDULE			
ITEM NO.	ITEM	UNIT	QUANTITY
2545	LIGHTING UNIT TYPE SPECIAL A	EACH	21
2545	LIGHTING UNIT TYPE SPECIAL B	EACH	16
2545	2" NON METALLIC CONDUIT	LIN FT	380
2545	1 1/4" NON METALLIC CONDUIT	LIN FT	1100
2545	UNDERGROUND WIRE 1/C 12 AWG	LIN FT	4900
2545	UNDERGROUND WIRE 1/C 14 AWG	LIN FT	900
2545	HANDHOLE	EACH	2



RECORD DRAWING - FOR REFERENCE ONLY!

FULL COON RAPIDS BLVD ROADWAY LIGHTING RECORD DRAWINGS AVAILABLE WITHIN THE PROJECT MANUAL.

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No.	Date	Revisions	App.

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PROJECT NO.	160000023

COON RAPIDS Minnesota

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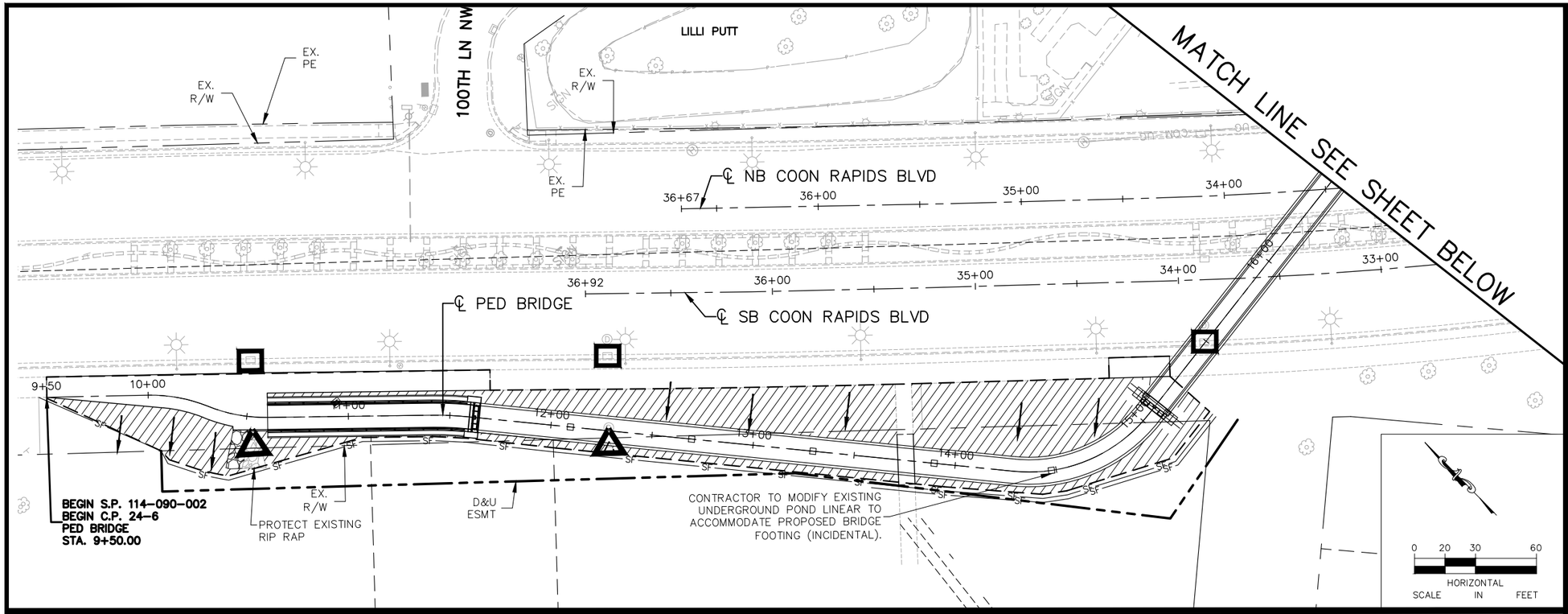
CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

LIGHTING PLAN

S.P.	114–090–002
C.P.	24–6

SHEET NO. 28 / 29



LEGEND

- RAPID STABILIZATION METHOD 1
  6" COMMON TOPSOIL BORROW
  SODDING TYPE LAWN
  FERTILIZER TYPE 3
- RANDOM RIP RAP CLASS III
- SF — SILT FENCE, TYPE MS
- CONSTRUCTION LIMITS
- STORM DRAIN INLET PROTECTION
- CULVERT END CONTROLS
- DIRECTIONAL FLOW ARROWS

TEMPORARY EROSION AND SEDIMENT CONTROL NOTES

1. THE CONTRACTOR SHALL PLACE INLET PROTECTION AT EXISTING STRUCTURES PRIOR TO ANY REMOVALS TAKING PLACE.
2. THE CONTRACTOR SHALL PLACE INLET PROTECTION IMMEDIATELY UPON INSTALLATION OF THE NEW STRUCTURE TO PREVENT SEDIMENT FROM ENTERING DRAINAGE FACILITIES DURING CONSTRUCTION.
3. RIP RAP IS PLACED AT A DEPTH OF 18"

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DATE:	05/10/2024
PROJECT NO.	160000023

COON RAPIDS Minnesota

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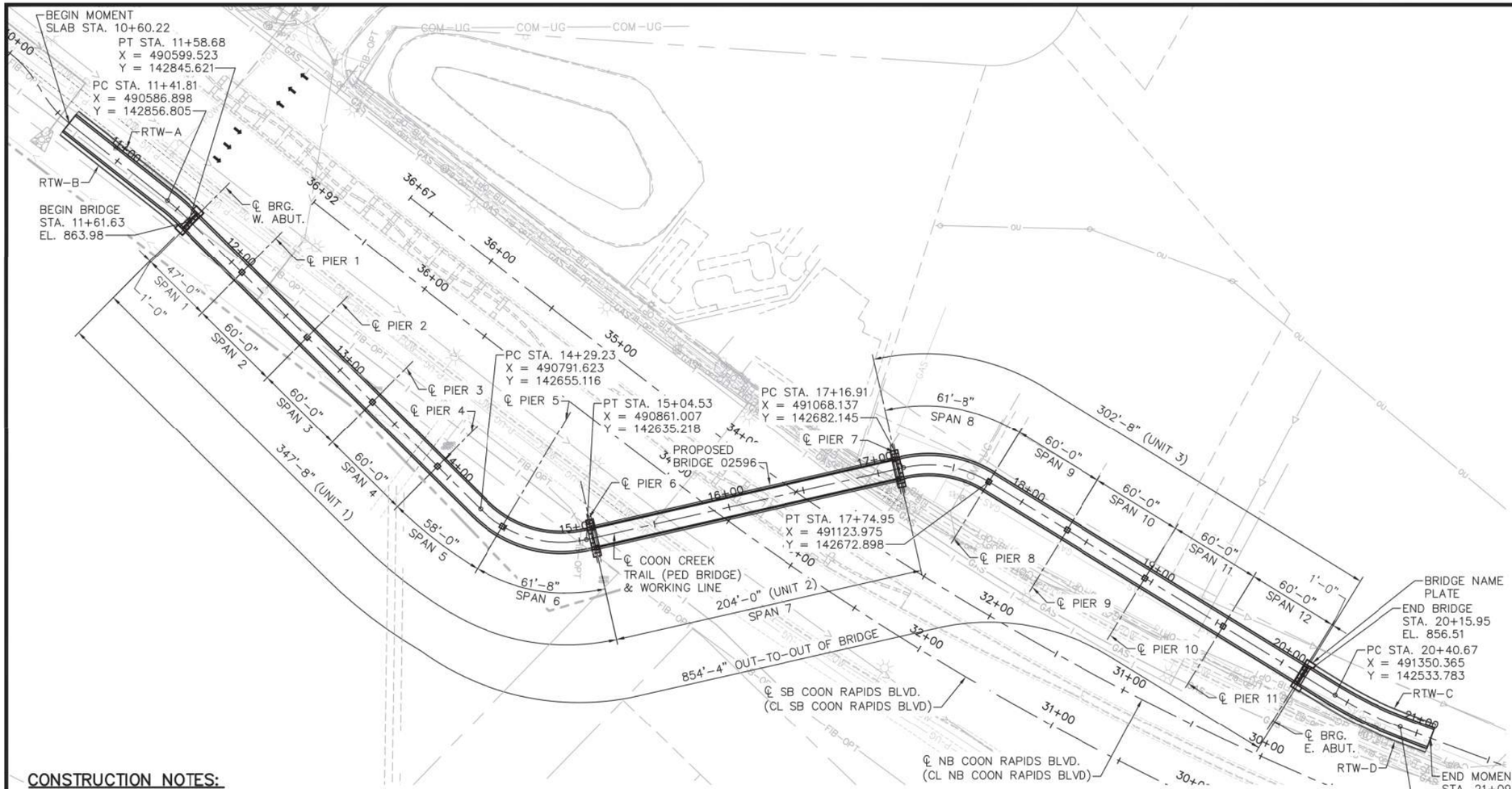
DATE: 05/10/2024 MN LIC. NO. 44821

CITY OF COON RAPIDS
COON CREEK REGIONAL TRAIL
OVER COON RAPIDS BLVD (CSAH 1)

TEMPORARY EROSION CONTROL AND TURF ESTABLISHMENT PLANS

S.P.	114-090-002
C.P.	24-6

SHEET NO. 29 / 29



CONSTRUCTION NOTES:

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

SEE SPECIAL PROVISIONS FOR ALL XXX.6XX SERIES PAY ITEMS FOR ADDITIONAL REQUIREMENTS.

THE BAR SIZES SHOWN IN THIS PLAN ARE IN U.S. CUSTOMARY DESIGNATIONS.

BARS MARKED WITH THE SUFFIX "E" SHALL BE EPOXY COATED IN ACCORDANCE WITH SPEC. 3301.

BARS MARKED WITH THE SUFFIX "S" SHALL BE STAINLESS STEEL IN ACCORDANCE WITH SPEC. 3301.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINE FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES."

PILE LOADS SHOWN IN THE PLANS AND THE CORRESPONDING NOMINAL PILE BEARING RESISTANCE (Rn) WERE COMPUTED USING LRFD METHODOLOGY. PILE BEARING RESISTANCE DETERMINED IN THE FIELD SHALL INCORPORATE THE METHODS AND/OR FORMULAS DESCRIBED IN THE SPECIAL PROVISIONS.

CONTRACTOR SHALL KEEP ALL SUPERSTRUCTURE FORMS AND FALSEWORK INPLACE UNTIL FULL CONCRETE STRENGTH (6,000 PSI) IS ACHIEVED.

BRIDGE SEAT REINFORCEMENT SHALL BE CAREFULLY PACED TO AVOID INTERFERENCE WITH DRILLING HOLES FOR ANCHOR RODS. THE PREFABRICATED SUPERSTRUCTURE SHALL BE ERECTED IN FINAL POSITION PRIOR TO DRILLING HOLES FOR AND PLACING ANCHOR RODS.

HYDRAULICS INVESTIGATION HAS DETERMINED THAT DECK DRAINS ARE NOT REQUIRED.

GENERAL PLAN

DESIGN DATA

DESIGNED IN ACCORDANCE WITH 2020 AASHTO LRFD BRIDGE DESIGN SPECIFICATION AND THE 2009 AND CURRENT INTERIM AASHTO GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES

LOAD AND RESISTANCE FACTOR DESIGN METHOD
PEDESTRIAN LIVE LOAD = 0.090 KSF
H-10 TRUCK VEHICULAR LIVE LOAD

MATERIAL DESIGN PROPERTIES
REINFORCED CONCRETE:
f'c = 6 KSI CONCRETE (SUPERSTRUCTURE)
f'c = 4 KSI CONCRETE (SUBSTRUCTURE)
fy = 60 KSI PLAIN & EPOXY COATED BARS
fy = 75 KSI STAINLESS STEEL BARS
n = 6.4 FOR REINFORCEMENT BARS (SUPER.)
n = 7.3 FOR REINFORCEMENT BARS (SUBSTUCT.)

STRUCTURAL STEEL (TRUSS):
fy = 50 KSI MINIMUM
PER MNDOT 3309 & 3361 TYPE C
(WEATHERING STEEL-PAINTED)

DESIGN SPEED:
OVER = 20 MPH UNDER = 45 MPH

APPROXIMATE DECK AREA = 10,252 SQ. FT.

2044 PROJECT TRAFFIC VOLUMES

ROADWAY UNDER (COON RAPIDS BLVD.)

ADT	33,600
DHV	3,360
HCAADT	1,700

LIST OF SHEETS

BRIDGE NO. 02596

COON CREEK TRAIL BRIDGE OVER COON RAPIDS BLVD.
0.3 MI EAST OF JCT. OF COON RAPIDS BLVD. & EGRET BLVD. NW IN COON RAPIDS

12'-0" WIDE TRAIL X 854' LONG
PREFABRICATED METAL TRUSS SPAN (MAIN SPAN)
IDENTIFICATION NO. 302
CAST-IN-PLACE CONTINUOUS DECK GIRDER
(APPROACH SPANS) IDENTIFICATION NO. 206

GENERAL PLAN

SEC 26 T 31 N R 24 W

CITY OF COON RAPIDS ANOKA COUNTY

APPROVED: Mark Hansen Digitally signed by Mark Hansen Date: 2024.04.23 11:40:30 -05'00'
CITY ENGINEER, CITY OF COON RAPIDS
DATE: 4/23/24

APPROVED: Edward A. Lutgen Digitally signed by Edward Lutgen Date: 2024.04.29 10:27:05 -05'00'
STATE BRIDGE ENGINEER
DATE:

No.	Date	Revisions	App.

DRAWING NAME GEN_GP.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn
767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114
PHONE: 651-645-4197
WWW.KIMLEY-HORN.COM

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Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
GENERAL PLAN

CITY PROJECT 24-6	S.P. 114-090-002	SHEET NO.
MINN. PROJECT NO.	TA 0224(173)	B1
BRIDGE NO. 02596		B68

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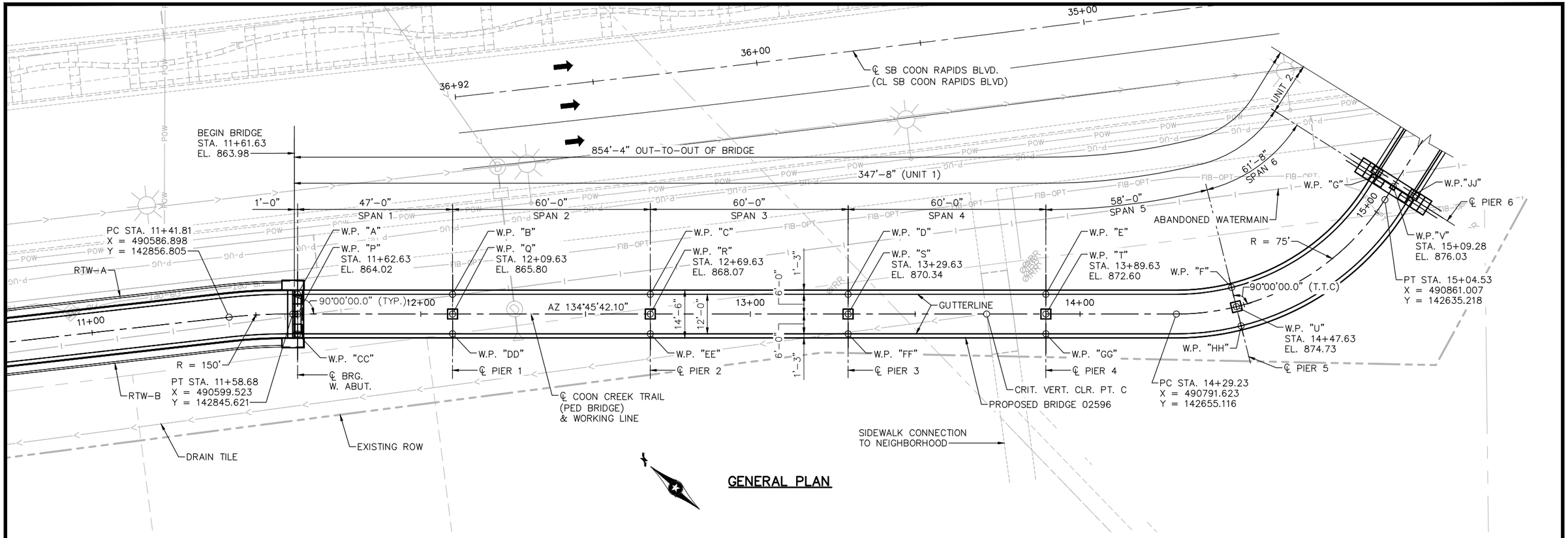
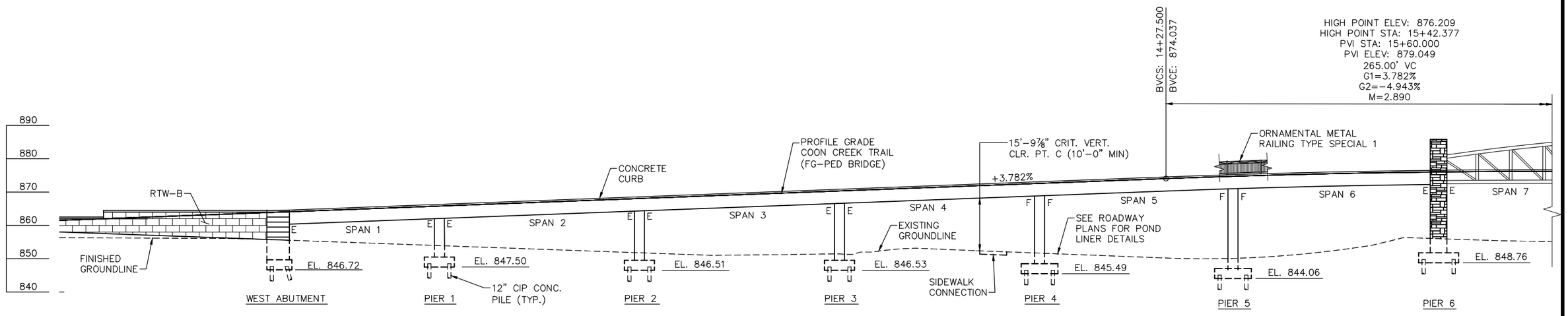


GENERAL PLAN



GENERAL ELEVATION

No.	Date	Revisions	App.

DRAWING NAME GEN_GPE1.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

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CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

GENERAL PLAN AND ELEVATION
(1 OF 3)

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B2 / B68

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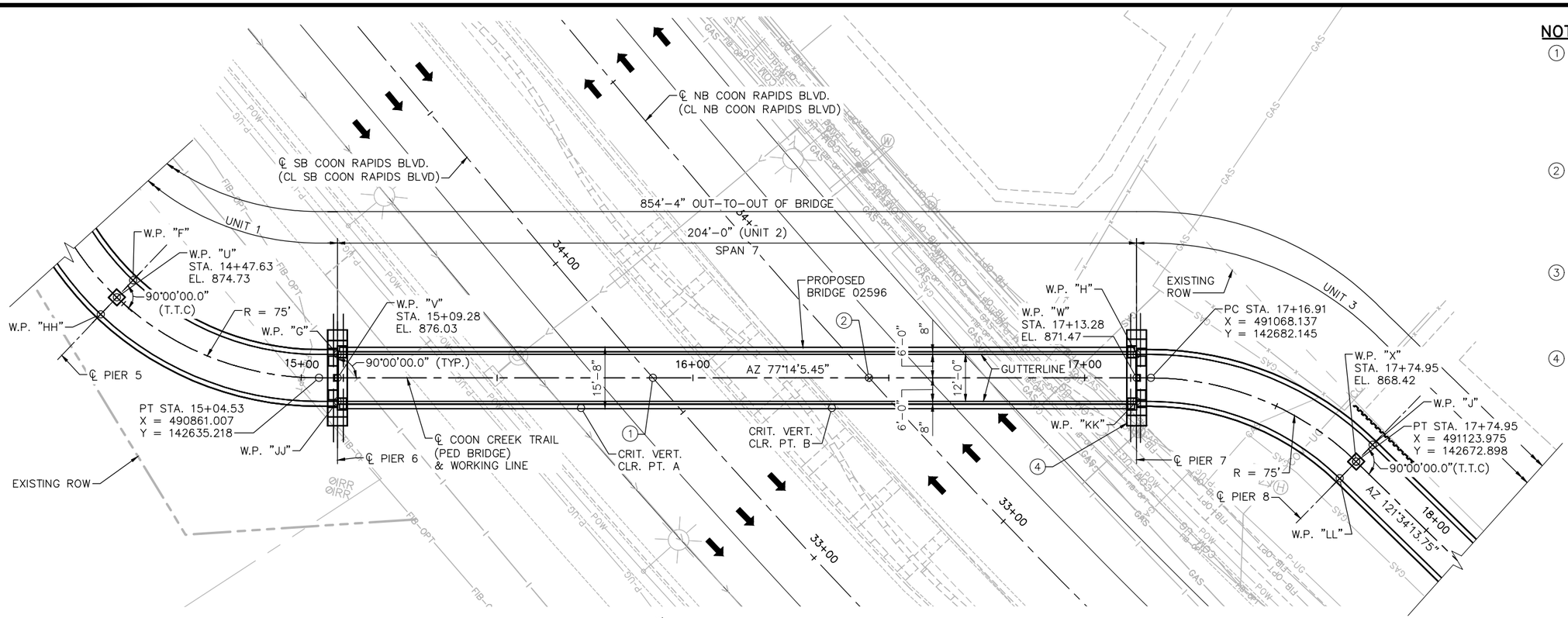
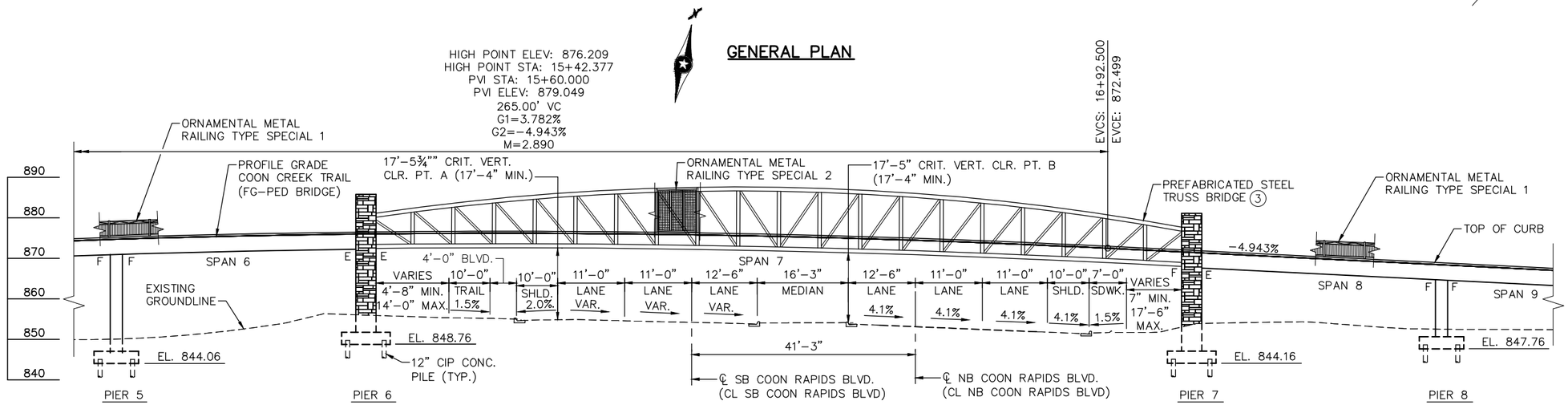


GENERAL PLAN



GENERAL ELEVATION

NOTES:

1. CONTROL POINT
   ℄ COON CREEK TRAIL (PED BRIDGE)
   P.O.T. STA. = 15+89.76 =
   ℄ SB COON RAPIDS BLVD.
   (CL SB COON RAPIDS BLVD)
   P.O.C. STA. = 33+61.74
   X = 490944.130 Y = 142654.050
   ∢ 126°16'0.18" T.T.C
2. ℄ COON CREEK TRAIL (PED BRIDGE)
   P.O.T. STA. = 16+45.00 =
   ℄ NB COON RAPIDS BLVD.
   (CL NB COON RAPIDS BLVD)
   P.O.C. STA. = 33+50.11
   X = 490997.996 Y = 142666.254
   ∢ 124°52'38.92" T.T.C
3. ARCHITECTURAL METAL COMPONENTS ATTACHED TO THE EXTERIOR OF THE STEEL TRUSS BRIDGE NOT SHOWN FOR CLARITY. SEE SHEETS B51-B54 FOR PREFABRICATED TRUSS ARCHITECTURAL DETAILS.
4. CONTRACTOR TO COORDINATE WITH UTILITY STAKEHOLDERS/OWNERS FOR TEMPORARY RELOCATION AND RESETTING OF UTILITIES DURING PIER FOOTING CONSTRUCTION. INCIDENTAL TO STRUCTURE EXCAVATION.

No.	Date	Revisions	App.

DRAWING NAME GEN_GPE1.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

GENERAL PLAN AND ELEVATION
(2 OF 3)

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B3 / B68

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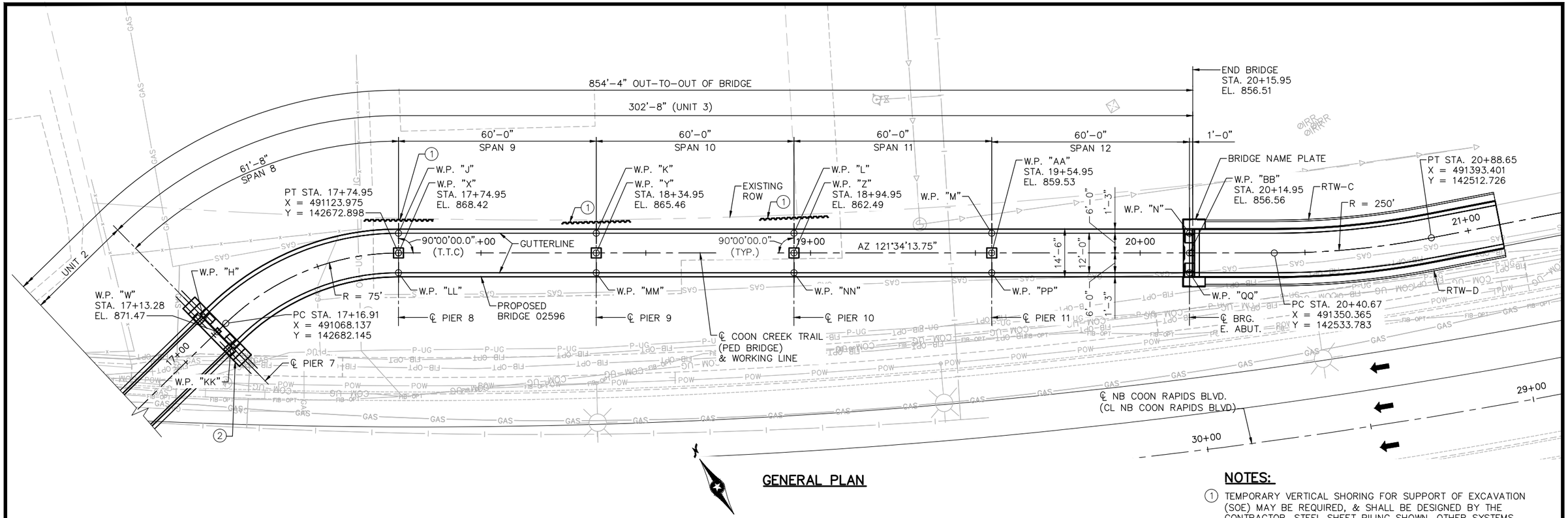
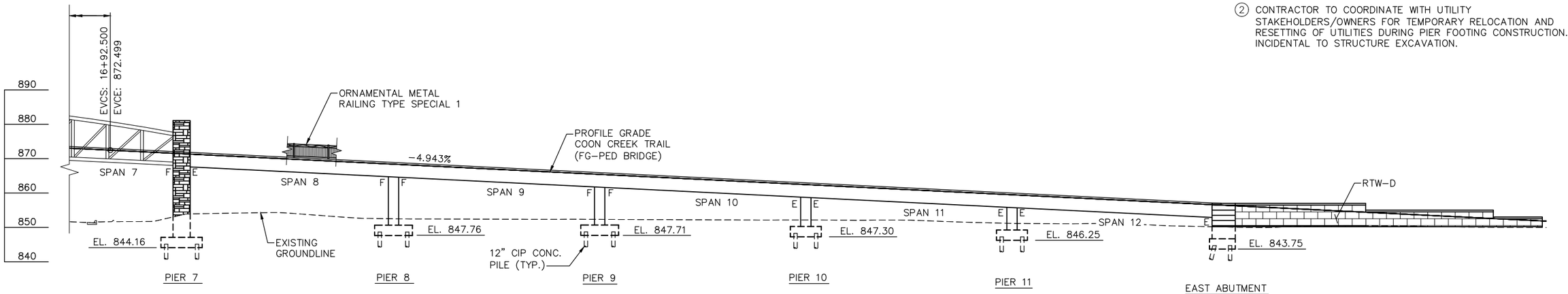


GENERAL PLAN

NOTES:

1. TEMPORARY VERTICAL SHORING FOR SUPPORT OF EXCAVATION (SOE) MAY BE REQUIRED, & SHALL BE DESIGNED BY THE CONTRACTOR. STEEL SHEET PILING SHOWN, OTHER SYSTEMS MAY BE UTILIZED AT THE CONTRACTOR'S OPTION. ALL TEMPORARY SOE, INCLUDING EARTH ANCHORS, MUST BE REMOVED PER MNDOT POLICY & SPEC 1407, FINAL CLEANUP.

2. CONTRACTOR TO COORDINATE WITH UTILITY STAKEHOLDERS/OWNERS FOR TEMPORARY RELOCATION AND RESETTING OF UTILITIES DURING PIER FOOTING CONSTRUCTION. INCIDENTAL TO STRUCTURE EXCAVATION.



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CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
GENERAL PLAN AND ELEVATION (3 OF 3)

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B4 / B68

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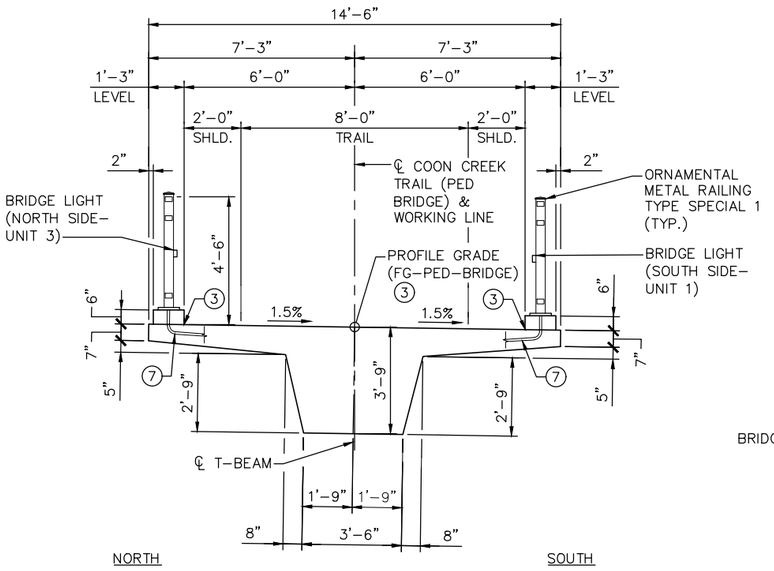
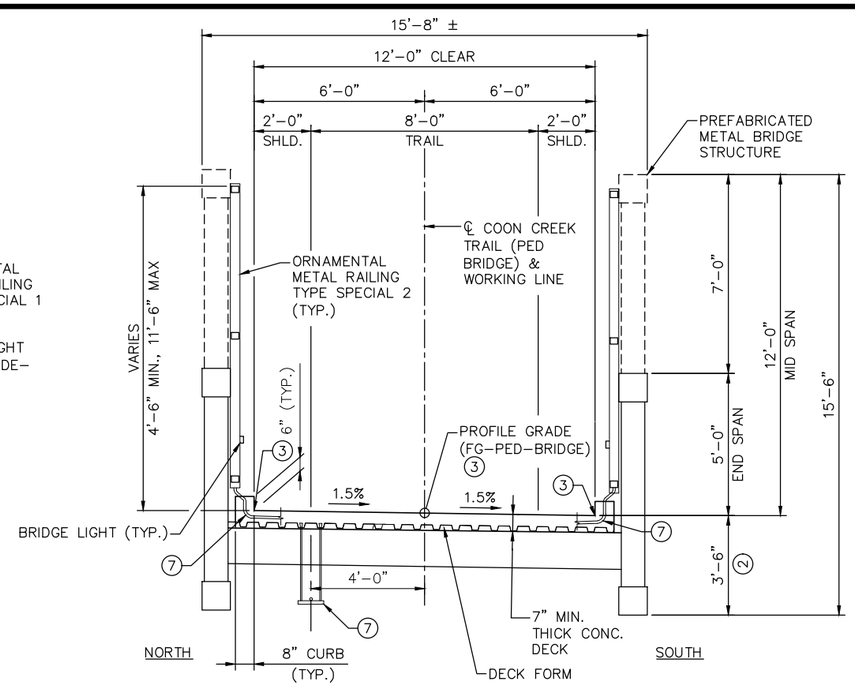
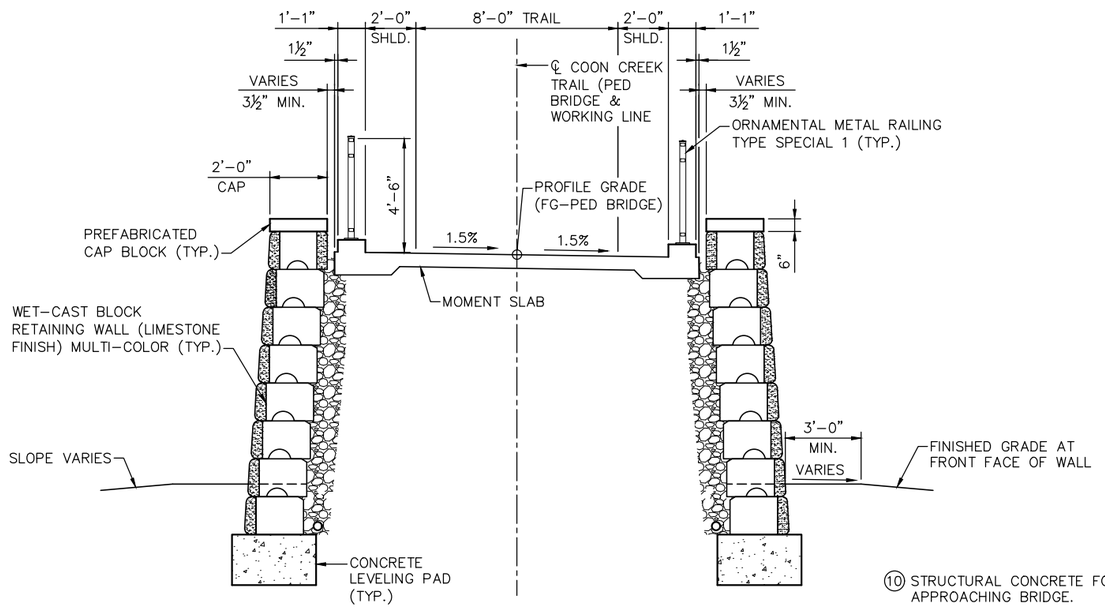


TRANSVERSE SECTION – UNITS 1 AND 3



TRANSVERSE SECTION – UNIT 2 (1)



TYPICAL APPROACH RETAINING WALL SECTION

SCHEDULE OF QUANTITIES FOR ENTIRE BRIDGE 02596				
	ITEM NO.	ITEM	UNIT	QUANTITY
	2011.601	VIBRATION MONITORING	LUMP SUM	1
(5)	2106.601	DEWATERING	LUMP SUM	1
	2401.503	TYPE CURB BARRIER CONCRETE (3S52)	LIN. FT.	2095 (P)
	2401.507	STRUCTURAL CONCRETE (1G52)	CU. YD.	232 (P)
(8)	2401.507	STRUCTURAL CONCRETE (3B52)	CU. YD.	201 (P)
(10)	2401.507	STRUCTURAL CONCRETE (3S52)	CU. YD.	78 (P)
(11)	2401.507	STRUCTURAL CONCRETE (3JM)	CU. YD.	575 (P)
	2401.508	REINFORCEMENT BARS	POUND	25620 (P)
	2401.508	REINFORCEMENT BARS (EPOXY COATED)	POUND	207900 (P)
	2401.508	REINFORCEMENT BARS (STAINLESS-75KSI)	POUND	120 (P)
	2401.601	STRUCTURE EXCAVATION	LUMP SUM	1
	2402.502	BEARING ASSEMBLY	EACH	9
(4)	2402.601	PEDESTRIAN BRIDGE (SUPERSTRUCTURE)	LUMP SUM	1
	2411.618	ARCHITECTURAL SURFACE FINISH (MULTI COLOR)	SQ. FT.	3300 (P)
	2411.618	ARCHITECTURAL CONCRETE TEXTURE (ASHLAR STONE)	SQ. FT.	3300 (P)
	2411.618	ANTI-GRAFFITI COATING	SQ. FT.	3300 (P)
	2452.502	C-I-P CONC TEST PILE 85 FT LONG 12"	EACH	2
	2452.502	C-I-P CONC TEST PILE 90 FT LONG 12"	EACH	7
	2452.502	C-I-P CONC TEST PILE 95 FT LONG 12"	EACH	4
	2452.503	C-I-P CONCRETE PILING 12"	LIN. FT.	5360
(6)	2452.601	STEEL SHEET PILING (TEMPORARY)	LUMP SUM	1
(9)	2473.503	EXPANSION JOINT DEVICES TYPE 4	LIN. FT.	28 (P)
(9)	2473.503	EXPANSION JOINT DEVICES TYPE 5	LIN. FT.	28 (P)
	2475.503	ORNAMENTAL METAL RAILING TYPE SPECIAL 1 PC	LIN. FT.	1687 (P)
	2476.503	ORNAMENTAL METAL RAILING TYPE SPECIAL 2 PC	LIN. FT.	408 (P)
	2502.501	DRAINAGE SYSTEM TYPE (B910)	LUMP SUM	1
	2545.501	CONDUIT SYSTEM TYPE 1	LUMP SUM	1
	2545.501	LIGHTING SYSTEM "A"	LUMP SUM	1
	2545.501	LIGHTING SYSTEM "B"	LUMP SUM	1

NOTES:

(1) VERIFY DIMENSIONS WITH PREFABRICATED SUPERSTRUCTURE MANUFACTURER PRIOR TO CONSTRUCTION OF SUBSTRUCTURES.

(2) GUTTER TO LOWER MEMBER.

(3) LOCATION OF WORKING POINT.

(4) ITEM INCLUDES ALL MATERIALS, LABOR AND DESIGN FOR THE PREFABRICATED SUPERSTRUCTURE. DESIGN SHALL FOLLOW CURRENT AASHTO AND MnDOT LRFD BRIDGE DESIGN SPECIFICATIONS. BID ITEM SHALL INCLUDE, BUT NOT LIMITED TO: PAINTED STEEL TRUSS, TRUSS BEARINGS, ANCHOR RODS, CONCRETE DECK, DECK REINFORCEMENT COMPLETE INPLACE, SPECIAL SURFACE FINISH APPLIED TO CONCRETE CURBS, CONNECTIONS FOR ORNAMENTAL METAL RAILING TYPE SPECIAL 2, ARCHITECTURAL STEEL CLADDING AND CONNECTIONS, ARCHITECTURAL METAL FRAMES FOR LETTERS AND CONNECTIONS, AND PAINTING OF ARCHITECTURAL STEEL CLADDING AND METAL FRAMES FOR LETTER, COMPONENTS AND CONNECTIONS, AND LIGHTING SYSTEM "B" SUPPORT AND CONNECTION.

(5) QUANTITY IS BASED ON NUMBER OF FOUNDATIONS WITH EXCAVATIONS AT OR NEAR WATER TABLE ELEVATIONS OBSERVED AT TIME OF BORINGS. ACTUAL QUANTITY MAY VARY. SEE SPECIAL PROVISIONS.

(6) SHORED EXCAVATIONS ARE ASSUMED TO BE REQUIRED AT LOCATIONS INDICATED IN THE GENERAL PLAN AND ELEVATION SHEETS. ACTUAL SHORING REQUIREMENTS WILL BE DETERMINED BY THE CONTRACTOR. ALL WORK SHALL BE STAY WITHIN EXISTING ROW LIMITS.

(7) CONDUIT SYSTEM TYPE 1 – 1¼" DIA. RSC.

(8) CONCRETE QUANTITY INCLUDES PORTION OF STRUCTURE THAT MUST ADHERE TO MASS CONCRETE PROVISIONS. SEE SPECIAL PROVISIONS.

(9) TYPE 4 JOINTS AT WEST & EAST ABUTMENT. TYPE 5 JOINTS AT PIER 6 & 7.

(10) STRUCTURAL CONCRETE FOR MOMENT SLABS APPROACHING BRIDGE.

(11) STRUCTURAL CONCRETE FOR DECK GIRDER SUPERSTRUCTURE. SEE SPECIAL PROVISIONS FOR MIX REQUIREMENTS.

No.	Date	Revisions	App.

DRAWING NAME BRG_TSECT.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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

Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
TRANSVERSE SECTIONS & QUANTITIES

CITY PROJECT 24-6 | S.P. 114-090-002
MINN. PROJECT NO. TA 0224(173)
BRIDGE NO. 02596

SHEET NO. B5 / B68

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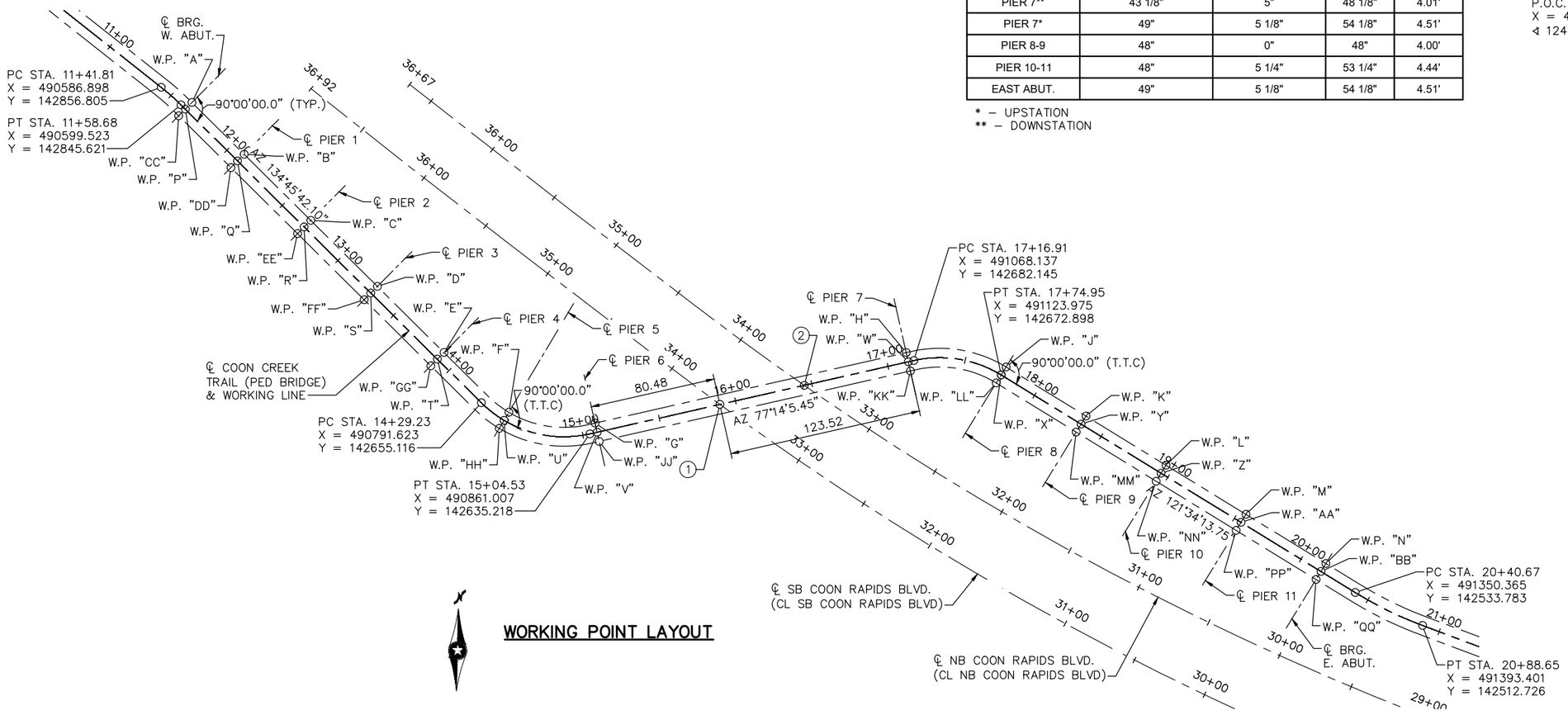
TOP OF ROADWAY TO BRIDGE SEAT				
LOCATION	PROFILE GRADE TO BOT. BEAM/CHORD	BEARING HEIGHT	TOTAL	
			INCHES	FEET
WEST ABUT.	49"	5 1/8"	54 1/8"	4.51'
PIER 1-3	47 3/8"	5 1/4"	52 5/8"	4.39'
PIER 4	47 3/8"	0"	47 3/8"	3.95'
PIER 5	47"	0"	47"	3.92'
PIER 6**	49"	5 1/8"	54 1/8"	4.51'
PIER 6*	43 1/8"	5"	48 1/8"	4.01'
PIER 7**	43 1/8"	5"	48 1/8"	4.01'
PIER 7*	49"	5 1/8"	54 1/8"	4.51'
PIER 8-9	48"	0"	48"	4.00'
PIER 10-11	48"	5 1/4"	53 1/4"	4.44'
EAST ABUT.	49"	5 1/8"	54 1/8"	4.51'

* – UPSTATION
** – DOWNSTATION

NOTES:

1. CONTROL POINT
℄ COON CREEK TRAIL (PED BRIDGE)
P.O.T. STA. = 15+89.76 =
℄ SB COON RAPIDS BLVD.
(CL SB COON RAPIDS BLVD)
P.O.C. STA. = 33+61.74
X = 490944.130 Y = 142654.050
∢ 126°16'0.18" T.T.C

2. ℄ COON CREEK TRAIL (PED BRIDGE)
P.O.T. STA. = 16+45.00 =
℄ NB COON RAPIDS BLVD.
(CL NB COON RAPIDS BLVD)
P.O.C. STA. = 33+50.11
X = 490997.996 Y = 142666.254
∢ 124°52'38.92" T.T.C



WORKING POINT LAYOUT

No.	Date	Revisions	App.

DRAWING NAME BRG_WP.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
BRIDGE LAYOUT

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B6 / B68

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	DIMENSIONS BETWEEN WORKING POINTS																																										ELEVATIONS			
POINT	STATION	COORDINATES		A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG	HH	JJ	KK	LL	MM	NN	PP	QQ	TOP OF SLAB	TOP OF SLAB TO BRIDGE SEAT	BRIDGE SEAT	POINT
		X	Y																																											
A	11+62.63	490606.550	142847.103		47.00												6.00	47.38													48.50	107.67											864.11			A
B	12+09.63	490639.918	142814.010			60.00												6.00	60.30											48.50		61.19	120.60										865.89			B
C	12+69.63	490682.523	142771.759				60.00												6.00	60.30										107.67	61.19		61.19	120.60									868.16			C
D	13+29.63	490725.125	142729.509					60.00												6.00	60.30										120.60	61.19		61.19	119.65								870.43			D
E	13+89.63	490767.728	142687.259						56.40												6.00	57.94										120.60	61.19		60.04	114.36							872.69			E
F	14+47.63	490809.205	142649.037							55.54												6.00	57.86										117.21	58.09		60.69	258.08						874.82			F
G	15+09.28	490864.314	142642.120								204.00												6.00	204.09										111.24	61.34		204.35	257.80					876.12			G
H	17+13.28	491063.271	142687.194									64.50												6.00	62.36										264.68	204.35		60.75	119.98				871.56			H
J	17+74.95	491127.116	142678.010										60.00												6.00	60.30										264.47	61.25		61.19	120.60			868.51			J
K	18+34.95	491178.236	142646.597											60.00												6.00	60.30										115.97	61.19		61.19	120.60		865.55			K
L	18+94.95	491229.356	142615.185												60.00												6.00	60.30										120.60	61.19		61.19	120.60	862.58			L
M	19+54.95	491280.475	142583.772													60.00												6.00	60.30										120.60	61.19		61.19	859.62			M
N	20+14.95	491331.595	142552.359																										6.00											120.60	61.19		856.65			N
P	11+62.63	490602.325	142842.842															47.00													6.00	47.38											864.02	4.51	859.51	P
Q	12+09.63	490635.693	142809.750																60.00													6.00	60.30										865.80	4.39	861.41	Q
R	12+69.63	490678.298	142767.498																	60.00													6.00	60.30									868.07	4.39	863.68	R
S	13+29.63	490720.900	142725.249																		60.00													6.00	60.30								870.34	4.39	865.95	S
T	13+89.63	490763.503	142682.999																			57.86													6.00	59.37							872.60	3.95	868.66	T
U	14+47.63	490806.136	142643.881																				59.99													6.00	62.30						874.73	3.92	870.81	U
V	15+09.28	490865.640	142636.268																					204.00													6.00	204.09					876.03	4.51	871.52	V
W	17+13.28	491064.596	142681.343																						59.98													6.00	57.85				871.47	4.51	866.96	W
X	17+74.95	491123.975	142672.898																							60.00													6.00	60.30			868.42	4.00	864.42	X
Y	18+34.95	491175.095	142641.485																								60.00													6.00	60.30		865.46	4.00	861.46	Y
Z	18+94.95	491226.214	142610.073																									60.00													6.00	60.30	862.49	4.44	858.05	Z
AA	19+54.95	491277.334	142578.660																										60.00													6.00	60.30	859.53	4.44	855.09	AA
BB	20+14.95	491328.454	142547.247																																							6.00	856.56	4.51	852.05	BB
CC	11+62.63	490598.100	142838.582																												47.00												863.93			CC
DD	12+09.63	490631.468	142805.490																													60.00											865.71			DD
EE	12+69.63	490674.073	142763.238																														60.00										867.98			EE
FF	13+29.63	490716.675	142720.989																															60.00									870.25			FF
GG	13+89.63	490759.278	142678.739																																59.32								872.51			GG
HH	14+47.63	490803.066	142638.726																																	64.44							874.64			HH
JJ	15+09.28	490866.965	142630.416																																		204.00						875.94			JJ
KK	17+13.28	491065.922	142675.491																																			55.45					871.38			KK
LL	17+74.95	491120.834	142667.786																																				60.00				868.33			LL
MM	18+34.95	491171.953	142636.373																																					60.00			865.37			MM
NN	18+94.95	491223.073	142604.961																																						60.00		862.40			NN
PP	19+54.95	491274.193	142573.548																																							60.00	859.44			PP
QQ	20+14.95	491325.313	142542.135																																								856.47			QQ

No.	Date	Revisions	App.

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DESIGNED BY: MJN
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DRAWN BY: NMA
CHECKED BY: KAE
PROJECT NO. 160000023

COON RAPIDS
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Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD
WORKING POINT TABLE

CITY PROJECT 24-6
S.P. 114-090-002
MINN. PROJECT NO. TA 0224(173)
BRIDGE NO. 02596

SHEET NO.
B7
B68

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EAST & WEST ABUTMENT REQUIRED NOMINAL PILE BEARING RESISTANCE FOR CIP PILES Rn - TONS/PILE		
FIELD CONTROL METHOD	φdyn	** Rn
MnDOT PILE FORMULA 2012 $Rn = 20\sqrt{\frac{(MPF12)}{\frac{WxH}{1000}\ xLOG(\frac{10}{S})}}$	0.50	152.6
PDA	0.65	117.4

**Rn = (FACTORED DESIGN LOAD) / φdyn

EAST & WEST ABUTMENT COMPUTED PILE LOAD - TONS/PILE	
FACTORED DEAD LOAD + EARTH PRESSURE	56.8
FACTORED LIVE LOAD	19.5
* FACTORED DESIGN LOAD	76.3

*BASED ON STRENGTH I LOAD COMBINATION

PILE NOTES:

1/5/6 12" CIP TEST PILES 95 FT. LONG
12" CIP PILES EST. LENGTH 85 FT.
12" CIP PILES REQ'D FOR WEST ABUT.

1/5/6 12" CIP TEST PILES 90 FT. LONG
12" CIP PILES EST. LENGTH 80 FT.
12" CIP PILES REQ'D FOR EAST ABUT.

PILE SPACING SHOWN IS AT BOTTOM OF FOOTING.

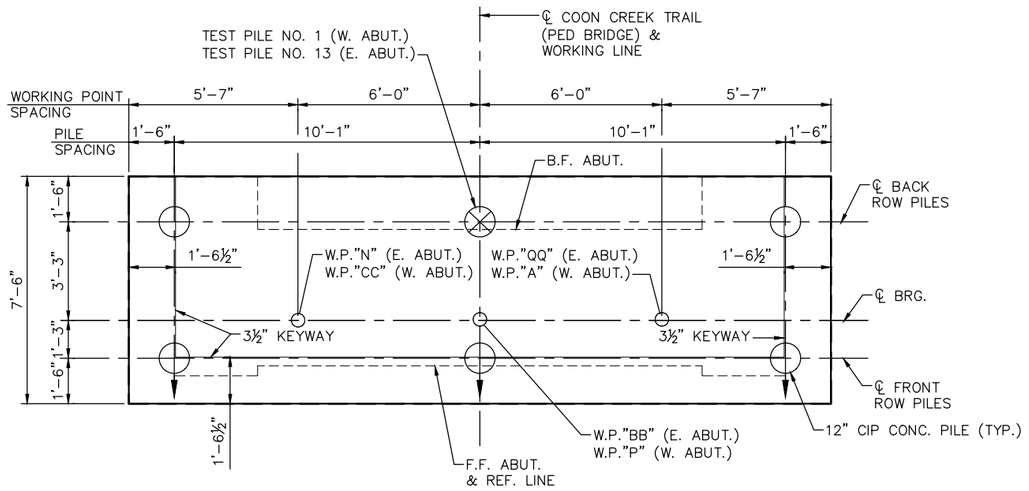
FOR PILE SPLICE DETAILS SEE DETAIL B201.

PILES SHALL HAVE A NOMINAL DIAMETER OF 12" AND ¼" WALL THICKNESS.

PILES MARKED THUS ◯→ TO BE BATTERED 3" PER FOOT IN DIRECTION SHOWN.

NOTES:

F.F. DENOTES FRONT FACE
B.F. DENOTES BACK FACE



FOOTING PLAN

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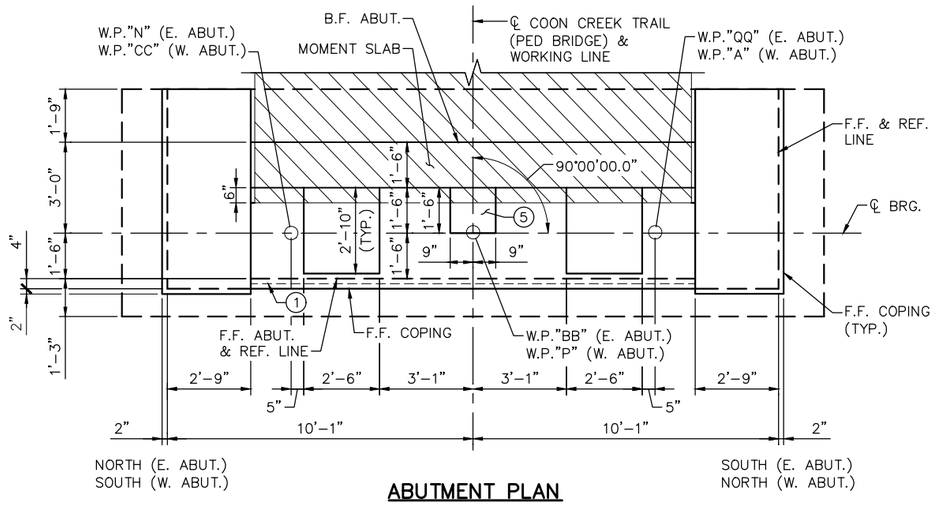
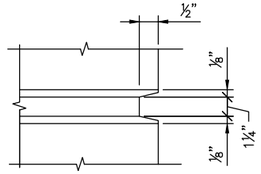
Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD
ABUTMENT DETAILS 1
WEST & EAST ABUT.

CITY PROJECT 24–6	S.P. 114–090–002	SHEET NO. B8 / B68
MINN. PROJECT NO.	TA 0224(173)	
BRIDGE NO. 02596		



ABUTMENT PLAN

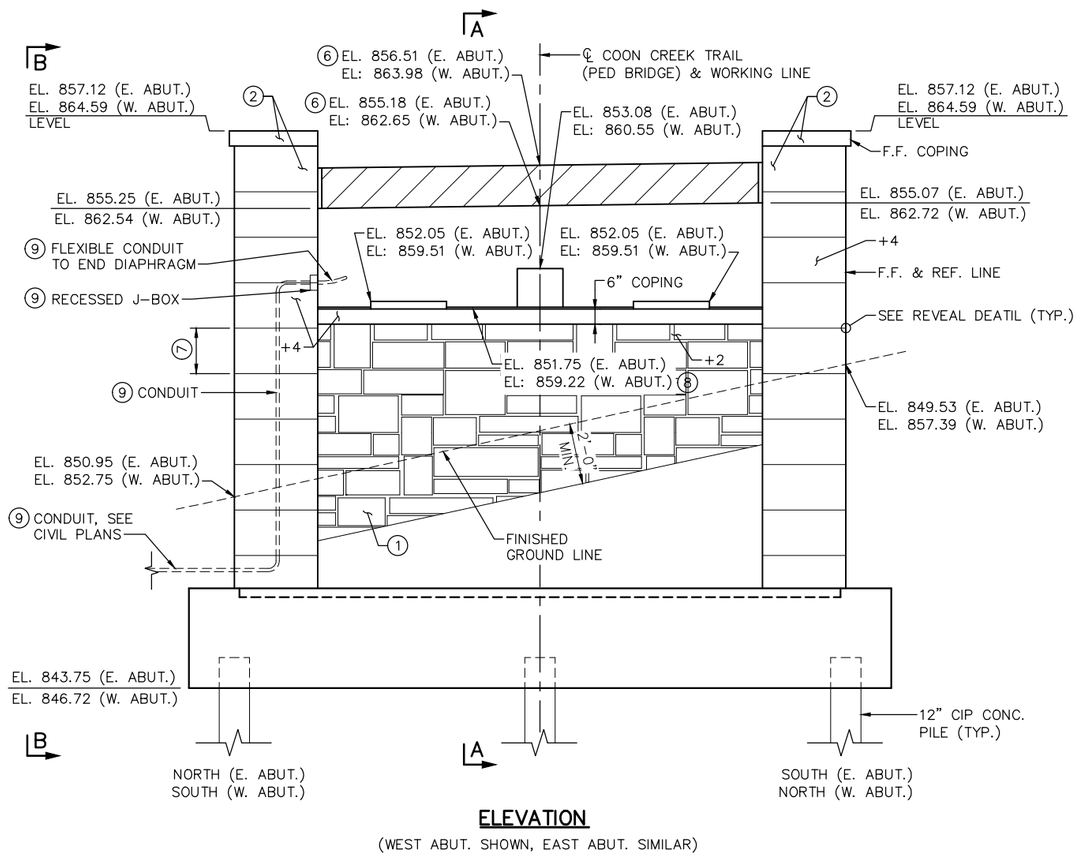


REVEAL DETAIL

NOTES:

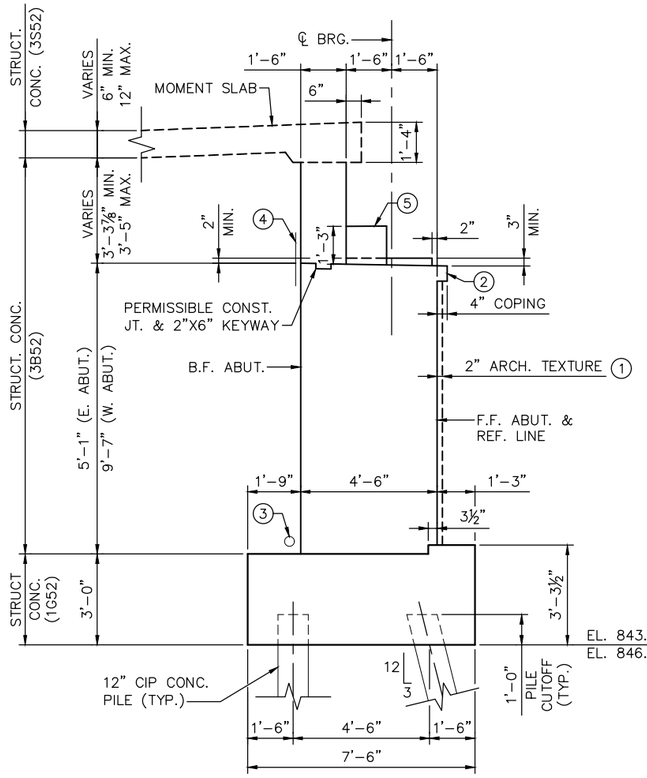
F.F. DENOTES FRONT FACE
B.F. DENOTES BACK FACE

1. ARCHITECTURAL CONCRETE TEXTURE (ASHLAR STONE). ARCHITECTURAL SURFACE FINISH (MULTI-COLOR) WITH ANTI GRAFFITI COATING.
2. SMOOTH TEXTURE WITH SPECIAL SURFACE FINISH (SINGLE COLOR)
3. 4" DIA. PERFORATED PIPE. SEE DETAIL B910.
4. MEMBRANE WATERPROOFING SYSTEM PER MnDOT 24811.3.B.
5. SIDES OF SHEAR KEY TO BE VERTICAL AND TOP OF SHEAR KEY TO BE LEVEL IN BOTH DIRECTIONS.
6. TAKEN AT BEGIN/END BRIDGE.
7. THE REVEAL SPACING ON THE ABUTMENTS ARE BASED ON ASSUMED PREFABRICATED MODULAR BLOCK DEPTH OF 18" COURSES. IF THE DEPTH OF PREFABRICATED MODULAR BLOCK DIFFERS FROM ASSUMED, THE CONTRACTOR SHALL MODIFY THE REVEAL LOCATIONS TO ALIGN WITH MODULAR BLOCK COURSE DEPTHS.
8. ELEVATION TAKEN AT F.F. ABUT.
9. CONDUIT SYSTEM TYPE 1 – 1¼" DIA. RSC.

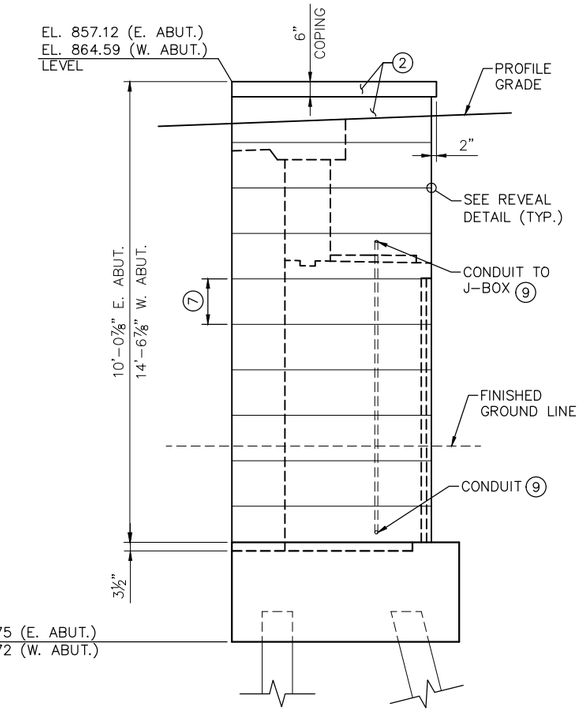


ELEVATION

(WEST ABUT. SHOWN, EAST ABUT. SIMILAR)



SECTION A–A



SECTION B–B

No.	Date	Revisions	App.

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DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
ABUTMENT DETAILS 2
WEST & EAST ABUT.

CITY PROJECT 24-6	S.P. 114-090-002	SHEET NO.
MINN. PROJECT NO.	TA 0224(173)	B9
BRIDGE NO. 02596		B68

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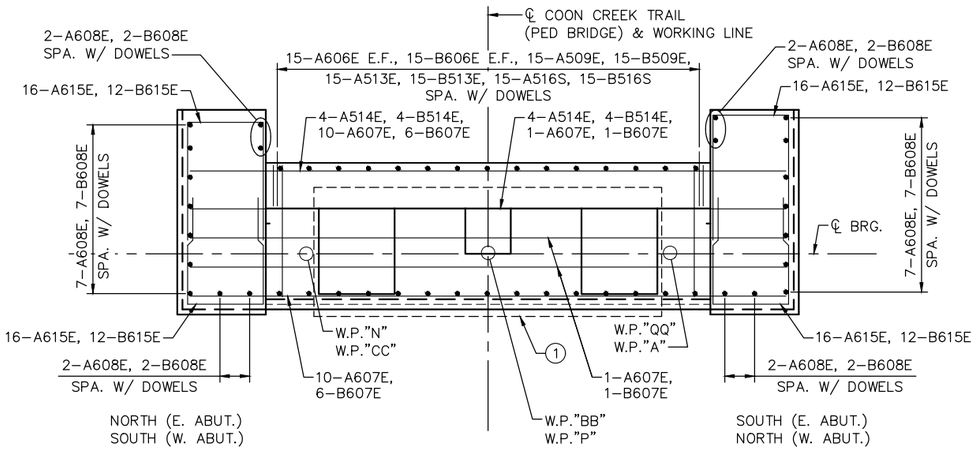
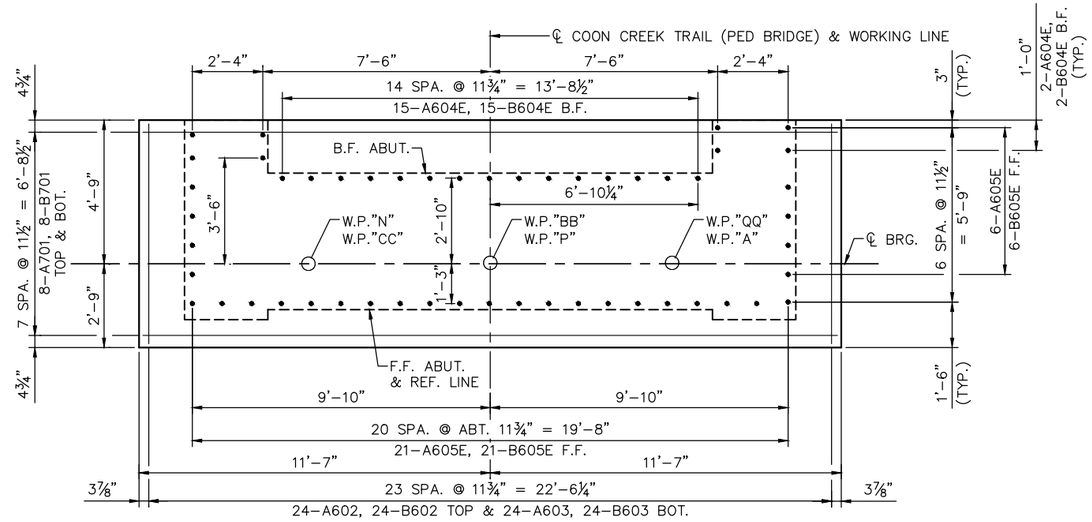
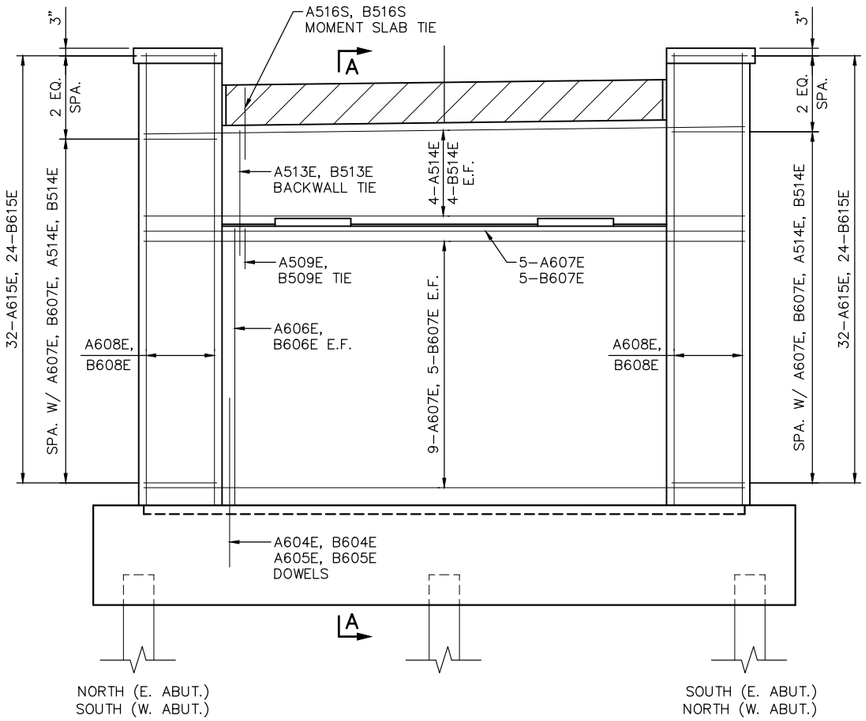


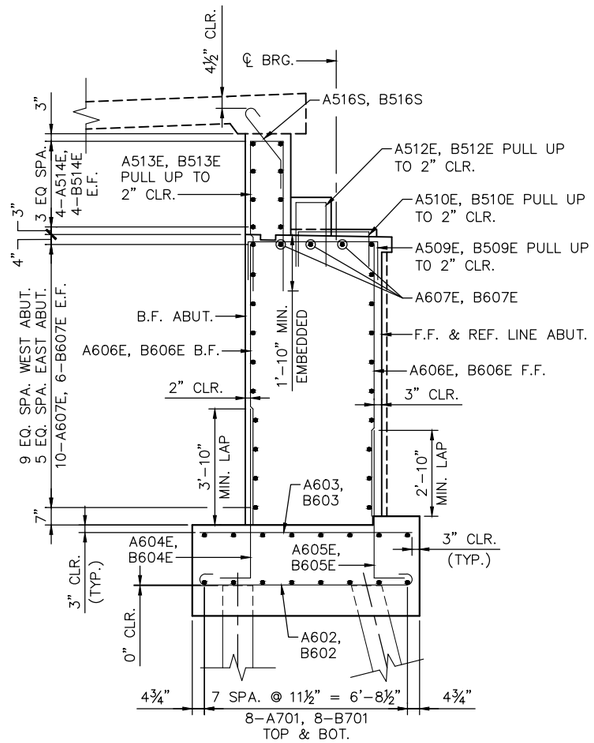
PLAN



FOOTING PLAN



ELEVATION



SECTION A–A

NOTES:

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

(1) SEE SHEET B11 FOR BEAM SEAT AND SHEAR BLOCK DETAILS

No.	Date	Revisions	App.

DRAWING NAME BRG_ABT REINF.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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CHRISTOPHER P. EVERT

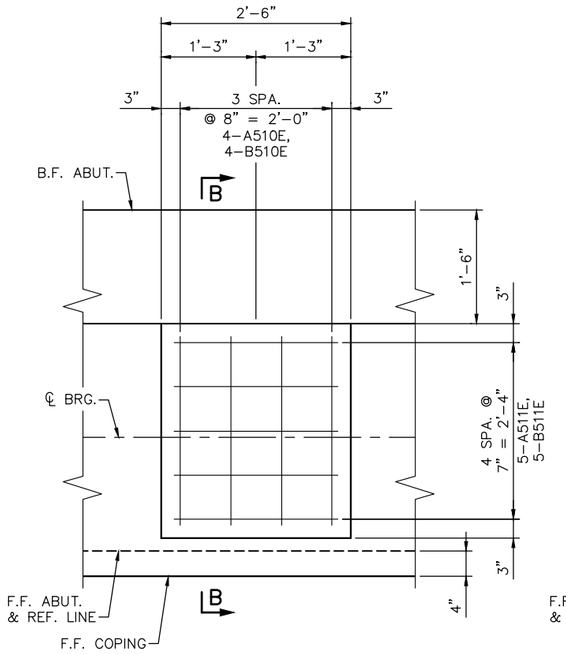
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

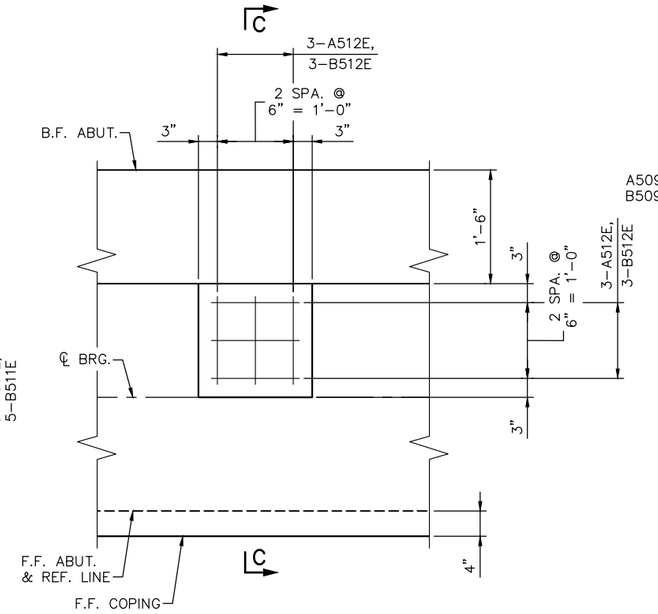
ABUTMENT REINFORCEMENT DETAILS 1
WEST & EAST ABUT.

CITY PROJECT 24–6	S.P. 114–090–002	SHEET NO. B10 / B68
MINN. PROJECT NO.	TA 0224(173)	
BRIDGE NO. 02596		

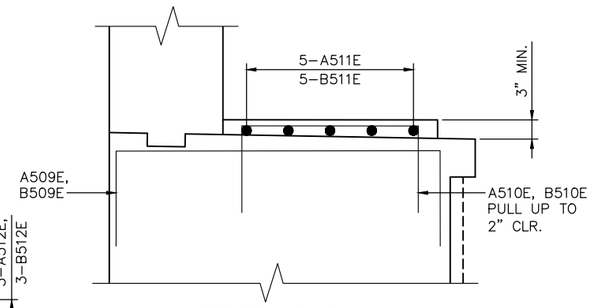
K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_ABT REINF.dwg 4/19/2024 12:15 PM



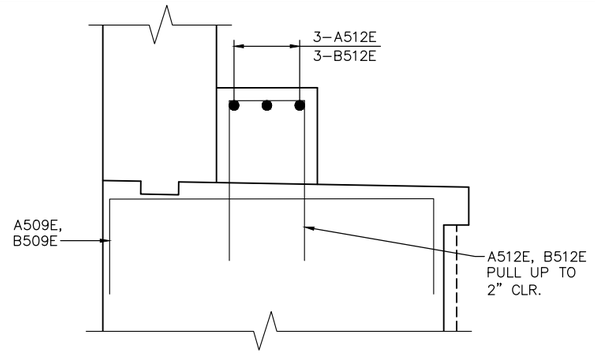
BEAM SEAT DETAIL



SHEAR BLOCK DETAIL



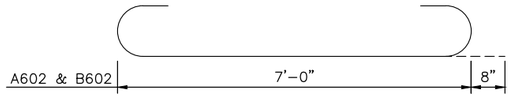
SECTION B–B



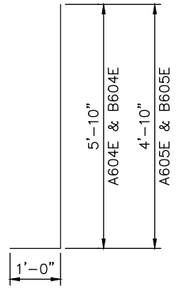
SECTION C–C

BILL OF REINFORCEMENT FOR WEST ABUTMENT				
BAR	NO.	LENGTH	SHAPE	LOCATION
A701	16	22'-8"	STR	FOOTING LONGIT.
A602	24	8'-4"	BENT	TOP FOOTING TRANS.
A603	24	7'-0"	STR	BOT FOOTING TRANS.
A604E	19	6'-10"	BENT	BF DOWEL
A605E	33	5'-10"	BENT	FF DOWEL
A606E	30	9'-0"	STR	FF VERT.
A607E	23	19'-10"	STR	STEM HORIZ.
A608E	22	14'-8"	STR	PILASTER VERT.
A509E	15	5'-10"	BENT	STEM TIE
A510E	8	4'-2"	BENT	PEDESTAL TIE
A511E	10	3'-10"	BENT	PEDESTAL TIE
A512E	6	8'-2"	BENT	SHEAR KEY TIE
A513E	15	12'-10"	BENT	BACKWALL VERT.
A514E	8	19'-10"	STR	BACKWALL HORIZ.
A615E	64	11'-9"	BENT	PILASTER TIE
A516S	15	3'-7"	BENT	MOMENT SLAB TIE

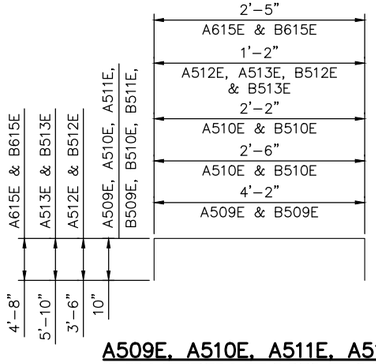
BILL OF REINFORCEMENT FOR EAST ABUTMENT				
BAR	NO.	LENGTH	SHAPE	LOCATION
B701	16	22'-8"	STR	FOOTING LONGIT.
B602	24	8'-4"	BENT	TOP FOOTING TRANS.
B603	24	7'-0"	STR	BOT FOOTING TRANS.
B604E	19	6'-10"	BENT	BF DOWEL
B605E	33	5'-10"	BENT	FF DOWEL
B606E	30	4'-6"	STR	FF VERT.
B607E	15	19'-10"	STR	STEM HORIZ.
B608E	22	10'-2"	STR	PILASTER VERT.
B509E	15	5'-10"	BENT	STEM TIE
B510E	8	4'-2"	BENT	PEDESTAL TIE
B511E	10	3'-10"	BENT	PEDESTAL TIE
B512E	6	8'-2"	BENT	SHEAR KEY TIE
B513E	15	12'-10"	BENT	BACKWALL VERT.
B514E	8	19'-10"	STR	BACKWALL HORIZ.
B615E	48	11'-9"	BENT	PILASTER TIE
B516S	15	3'-7"	BENT	MOMENT SLAB TIE



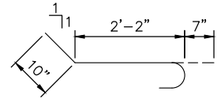
A602 & B602



A604E, A605E
B604E & B605E



A509E, A510E, A511E, A512E,
A513E, A615E, B509E, B510E,
B511E, B512E, B513E & B615E



A516S & B516S

No.	Date	Revisions	App.

DRAWING NAME BRG_ABT REINF.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn
767 EUSTIS STREET, SUITE 100, ST, PAUL, MN 55114
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Christopher P. Ewert

CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

ABUTMENT REINFORCEMENT DETAILS 2
WEST & EAST ABUT.

CITY PROJECT 24–6	S.P. 114–090–002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B11 / B68

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DIMENSIONS FOR EXPANSION PIER SHAFT			
	BOT. FOOTING ELEVATION	TOP SHAFT ELEVATION (1)	LENGTH "A"
PIER 1	847.50	861.41	10'-11"
PIER 2	846.51	863.68	14'-2"
PIER 3	846.53	865.95	16'-5"
PIER 10	847.30	858.05	7'-9"
PIER 11	846.25	855.09	5'-10"

DIMENSIONS FOR EXPANSION PIER SHAFT			
	CAST-IN-PLACE CONC. PILE	CAST-IN-PLACE TEST PILE	TOTAL C.I.P. PILES REQ'D
PIER 1	3 - 85 FT	1 - 95 FT	4
PIER 2	3 - 80 FT	1 - 90 FT	4
PIER 3	3 - 80 FT	1 - 90 FT	4
PIER 10	3 - 85 FT	1 - 95 FT	4
PIER 11	3 - 80 FT	1 - 90 FT	4

PILE NOTES:

PILE SPACING SHOWN IS AT BOTTOM OF FOOTING.

FOR PILE SPLICE DETAILS, SEE DETAIL B201.

PILES SHALL HAVE A NOMINAL DIAMETER OF 12" AND A ¼" WALL THICKNESS.

NOTES:

(1) MEASURED AT ℄ PIER

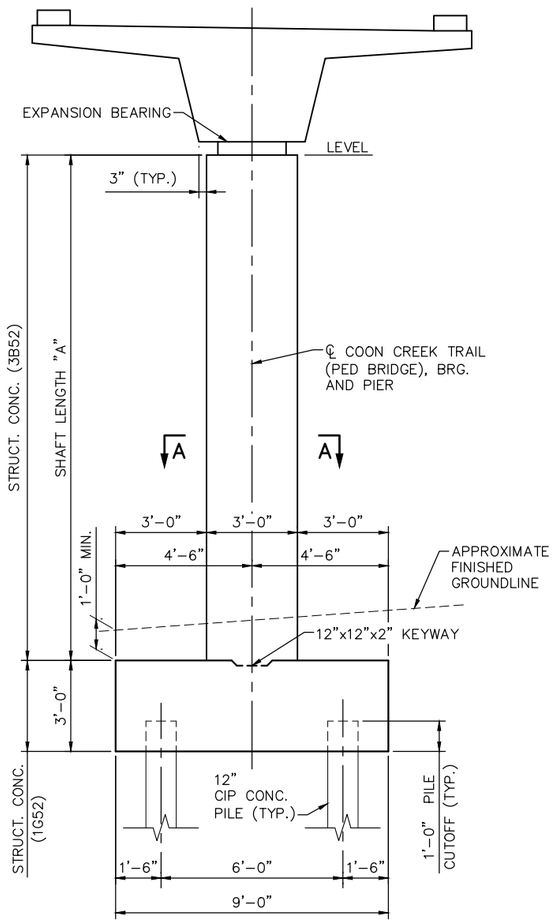
(2) FACTORED LOAD IS BASED ON STRENGTH III LOAD COMBINATION WHICH DOES NOT INCLUDE A LIVE LOAD COMPONENT. MAXIMUM FACTORED LIVE LOAD COMPONENT BASED ON STRENGTH LOAD COMBINATION = 16.21 TONS.

PIERS 1-3, 10-11 COMPUTED PILE LOAD - TONS/PILE	
FACTORED DEAD LOAD	49.0
FACTORED LIVE LOAD	(2) 0.0
FACTORED OVERTURNING	25.4
* FACTORED DESIGN LOAD	74.4

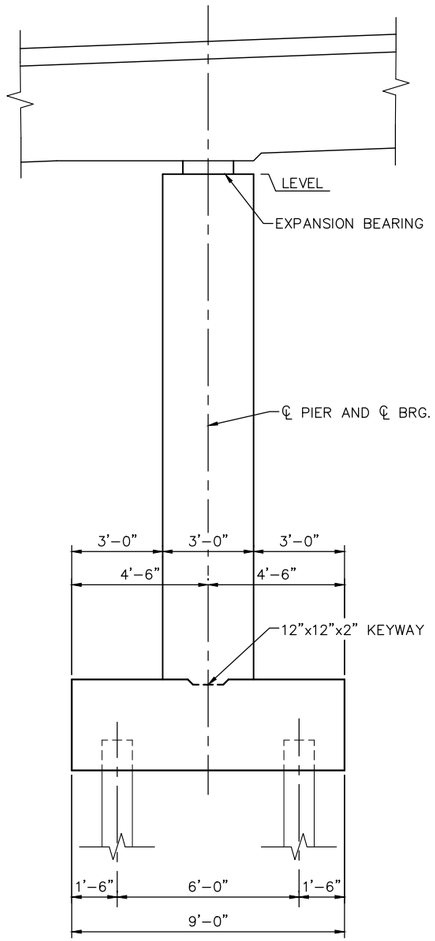
*** BASED ON STRENGTH III LOAD COMBINATION**

PIERS 1-3, 10-11 REQUIRED NOMINAL PILE BEARING RESISTANCE FOR CIP PILES Rn - TONS/PILE		
FIELD CONTROL METHOD	φdyn	** Rn
MnDOT PILE FORMULA 2012 $Rn = 20\sqrt{\frac{(MPF12)}{\frac{WxH}{1000}xLOG(\frac{10}{S})}}$	0.50	148.8
PDA	0.65	114.5

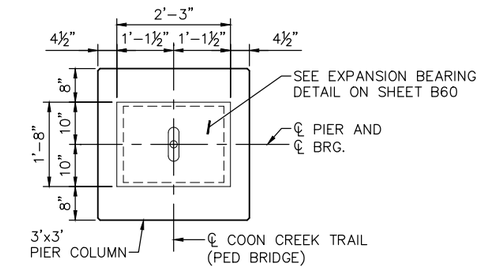
****Rn = (FACTORED DESIGN LOAD) /φdyn**



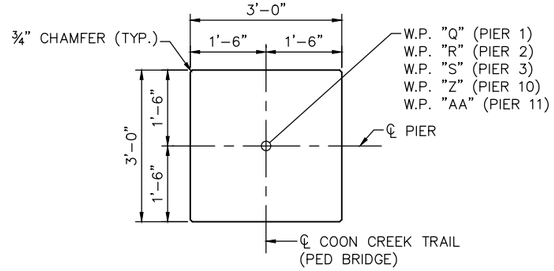
ELEVATION



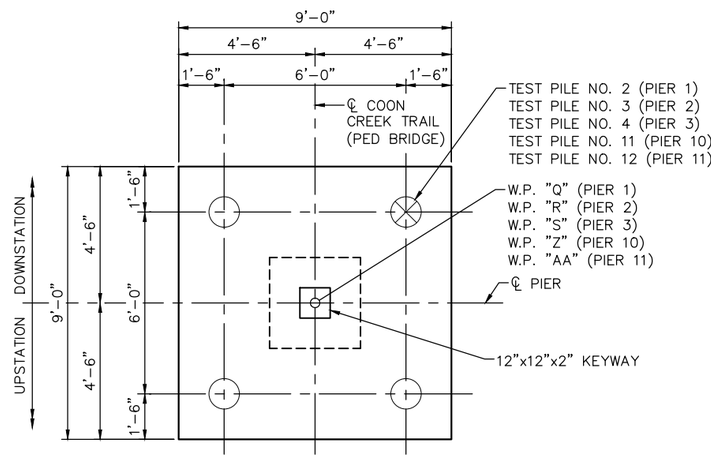
END VIEW



EXPANSION BEARING PLAN VIEW



SECTION A–A



FOOTING PLAN

No.	Date	Revisions	App.

DRAWING NAME BRG_PIR1.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
PIER DETAILS
EXPANSION PIERS 1–3, 10–11

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B12 / B68

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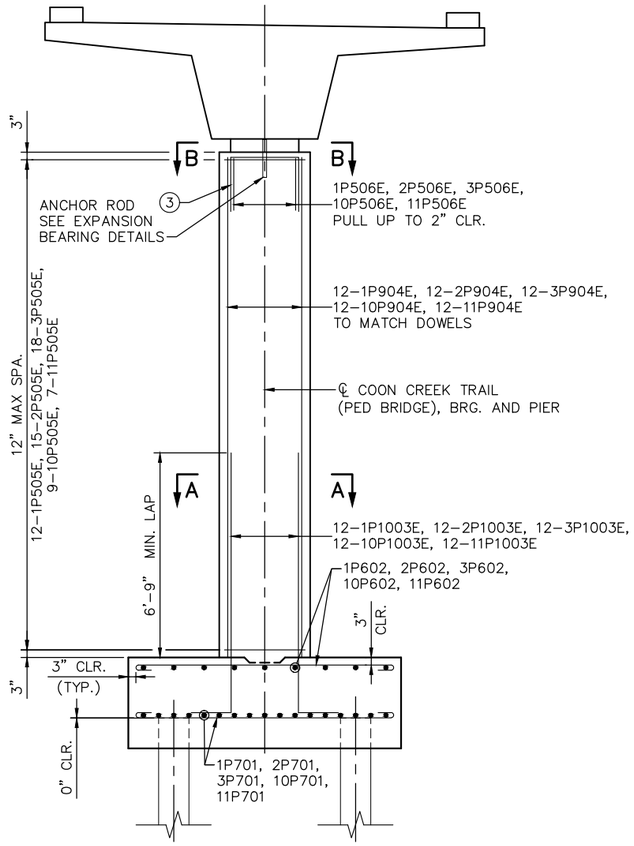
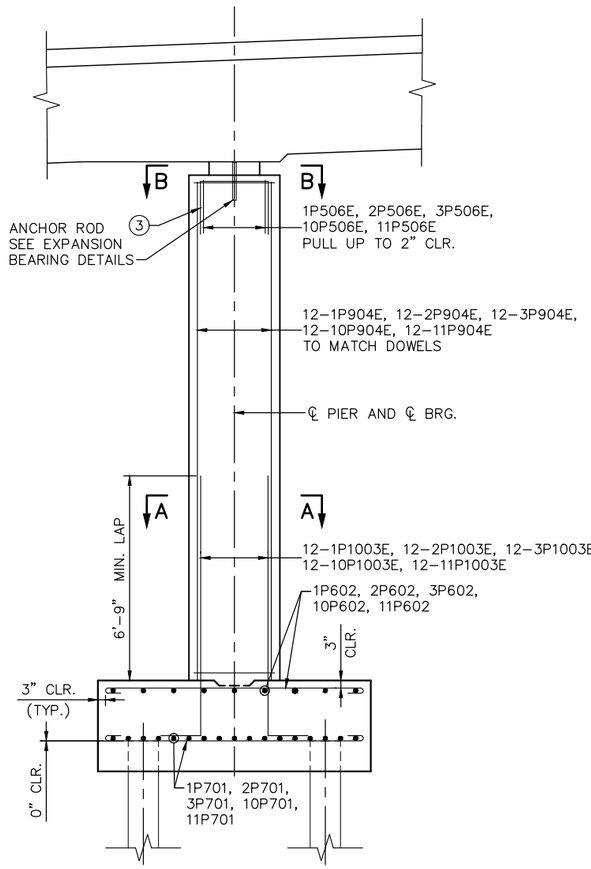
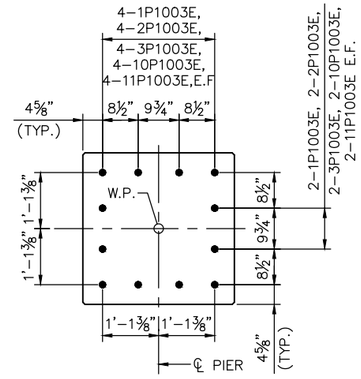


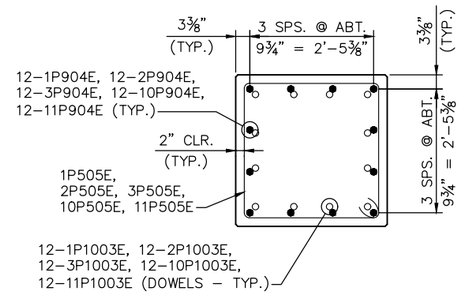
REINFORCEMENT ELEVATION



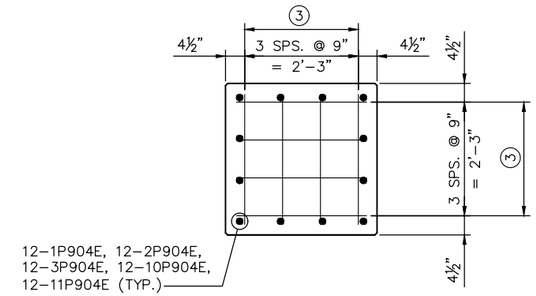
REINFORCEMENT END VIEW



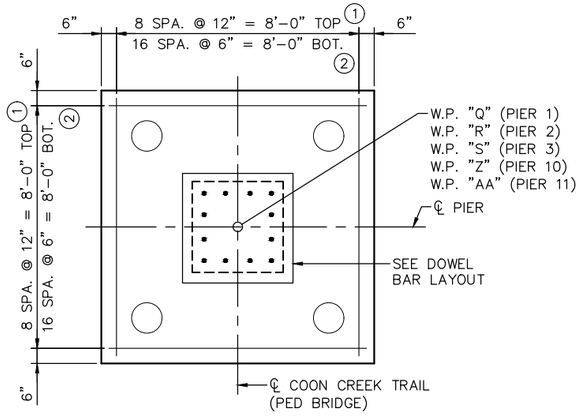
DOWEL BAR LAYOUT



SECTION A–A



SECTION B–B



FOOTING REINFORCEMENT PLAN

NOTES:

E.F. DENOTES EACH FACE

1. 9–1P602, 9–2P602, 9–3P602, 9–10P602, 9–11P602 TOP
2. 9–1P701, 9–2P701, 9–3P701, 9–10P701, 9–11P701 BOT.
3. 4–1P506E, 4–2P506E, 4–3P506E, 4–10P506E, 4–11P506E PULL UP TO 2" CLR.

No.	Date	Revisions	App.

DRAWING NAME BRG_PIR1.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

PIER REINFORCEMENT DETAILS
EXPANSION PIERS 1–3, 10–11

CITY PROJECT 24–6	S.P. 114–090–002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B13 / B68

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DIMENSIONS FOR FIXED PIER SHAFT			
	BOT. FOOTING ELEVATION	TOP SHAFT ELEVATION (1)	LENGTH "A"
PIER 4	845.49	868.66	19'-8"
PIER 5	844.06	870.81	23'-3"
PIER 8	847.76	864.42	13'-2"
PIER 9	847.71	861.46	10'-3"

DIMENSIONS FOR FIXED PIER SHAFT			
	CAST-IN-PLACE CONC. PILE	CAST-IN-PLACE TEST PILE	TOTAL C.I.P. PILES REQ'D
PIER 4	5 - 80 FT	1 - 90 FT	6
PIER 5	5 - 80 FT	1 - 90 FT	6
PIER 8	5 - 75 FT	1 - 85 FT	6
PIER 9	5 - 85 FT	1 - 95 FT	6

PILE NOTES:

PILE SPACING SHOWN IS AT BOTTOM OF FOOTING.

FOR PILE SPLICE DETAILS, SEE DETAIL B201.

PILES SHALL HAVE A NOMINAL DIAMETER OF 12" AND ¼" WALL THICKNESS.

NOTES:

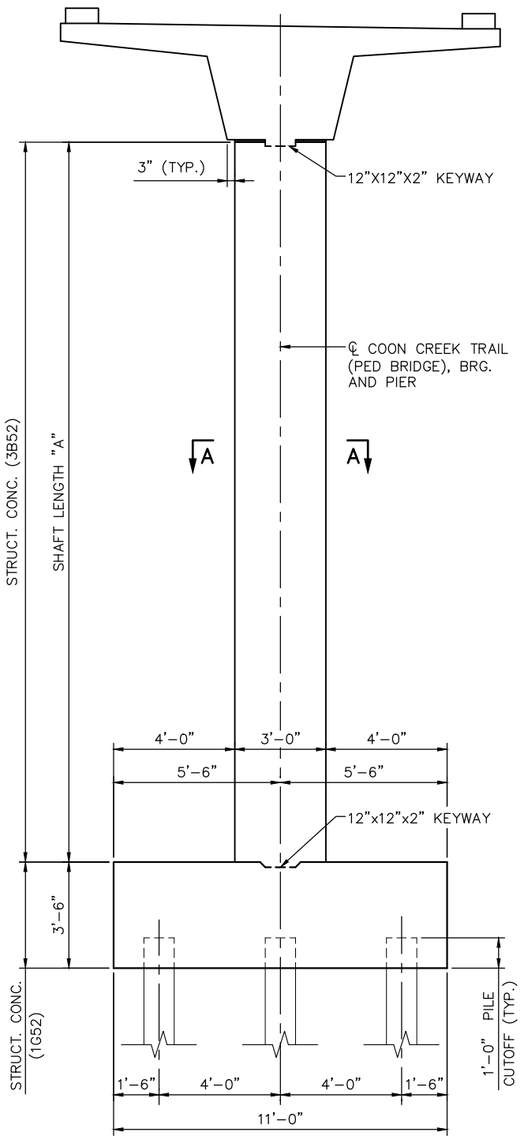
(1) MEASURED AT ℄ PIER

PIERS 4-5, 8-9 COMPUTED PILE LOAD - TONS/PILE	
FACTORED DEAD LOAD	45.4
FACTORED LIVE LOAD	23.5
FACTORED OVERTURNING	1.6
* FACTORED DESIGN LOAD	70.5

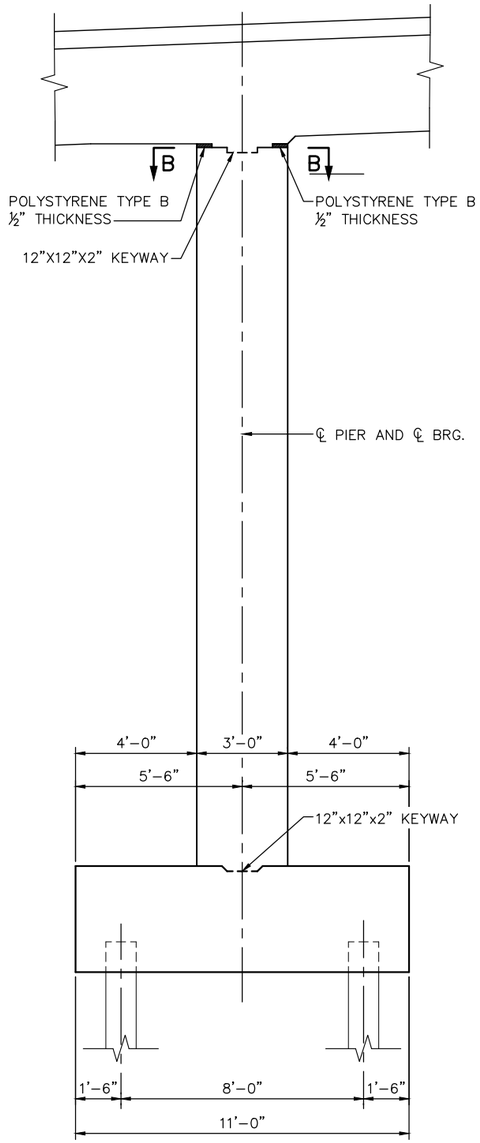
*** BASED ON STRENGTH I LOAD COMBINATION**

PIERS 4-5, 8-9 REQUIRED NOMINAL PILE BEARING RESISTANCE FOR CIP PILES Rn - TONS/PILE		
FIELD CONTROL METHOD	φdyn	** Rn
MnDOT PILE FORMULA 2012 $Rn = 20\sqrt{\frac{(MPF12)}{\frac{WxH}{1000}\times LOG(\frac{10}{S})}}$	0.50	141.0
PDA	0.65	108.5

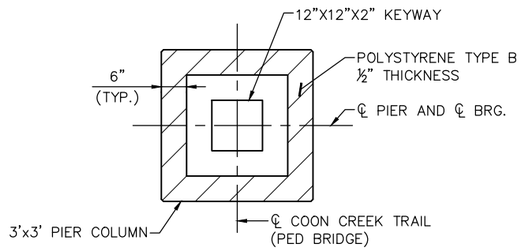
****Rn = (FACTORED DESIGN LOAD) / φdyn**



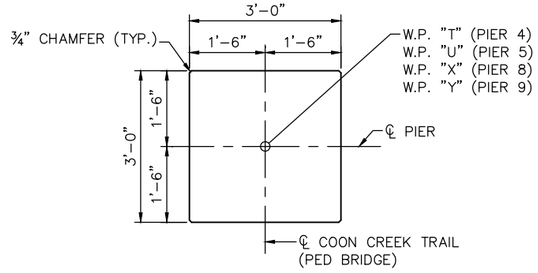
ELEVATION



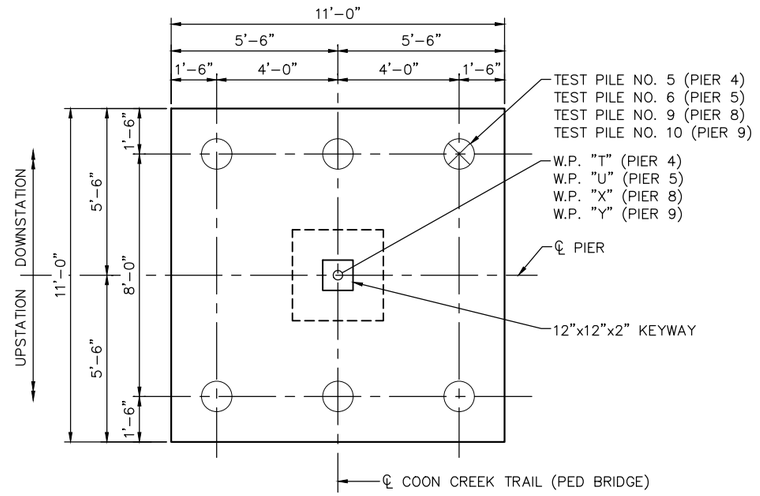
END VIEW



SECTION B–B



SECTION A–A



FOOTING PLAN

No.	Date	Revisions	App.

DRAWING NAME BRG_PIR1.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD

PIER DETAILS
FIXED PIERS 4–5, 8–9

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B14 / B68

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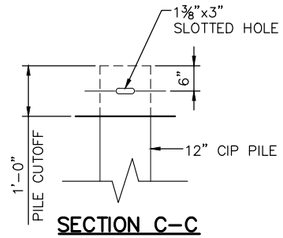
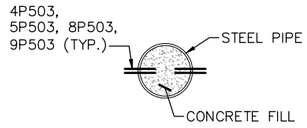
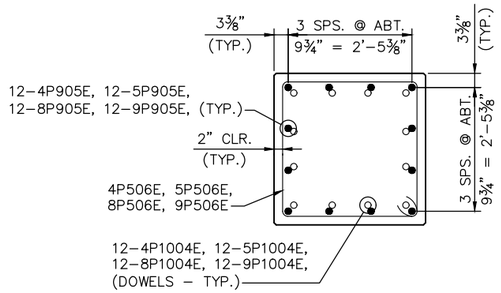


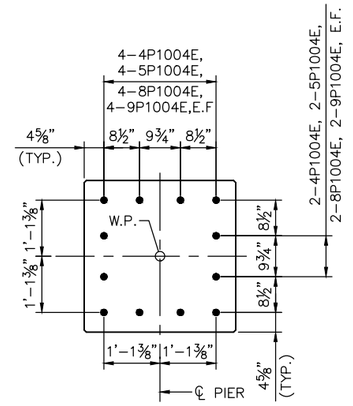
SECTION C–C



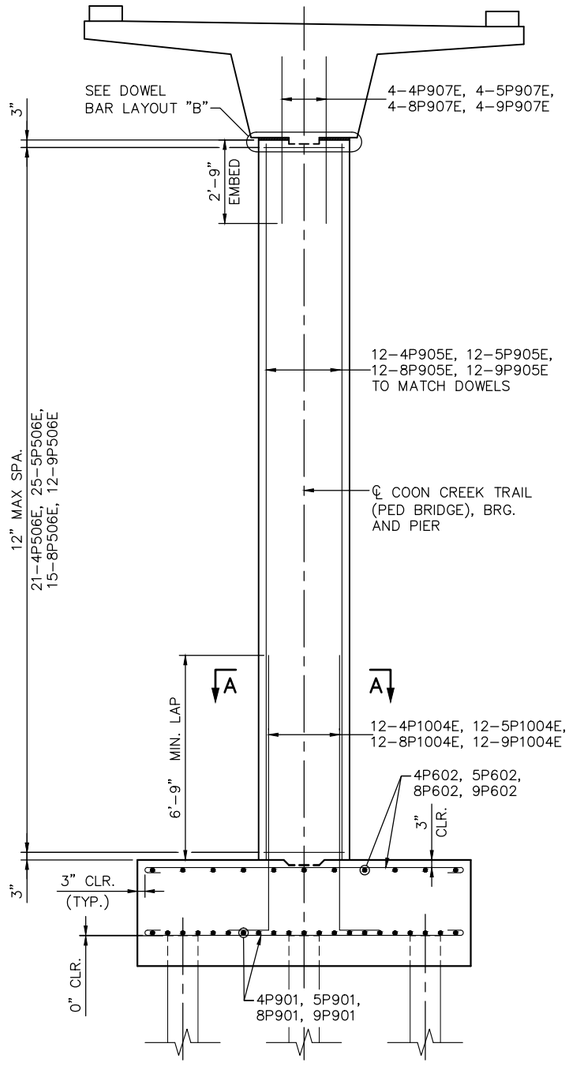
SECTION B–B



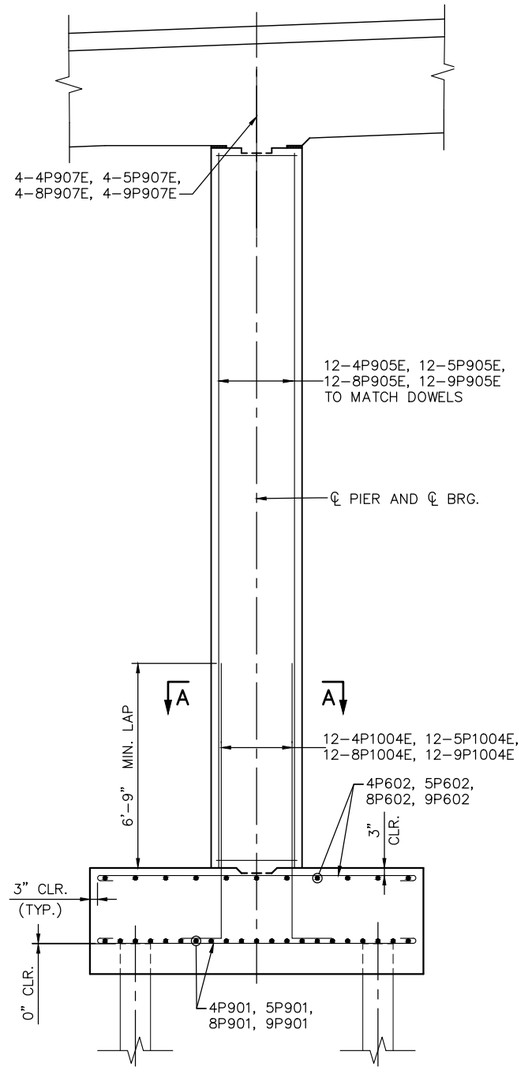
SECTION A–A



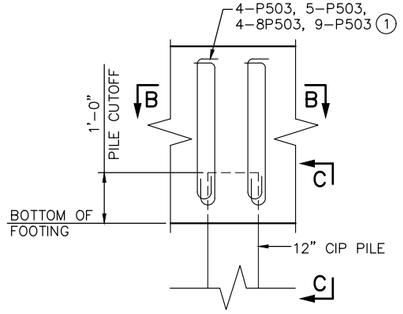
DOWEL BAR LAYOUT "A"



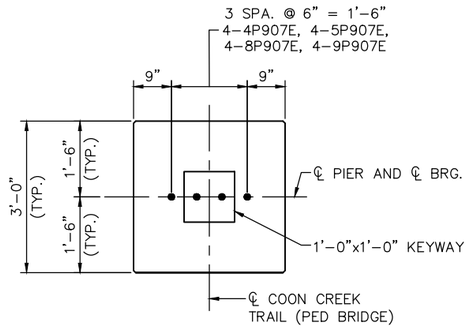
REINFORCEMENT ELEVATION



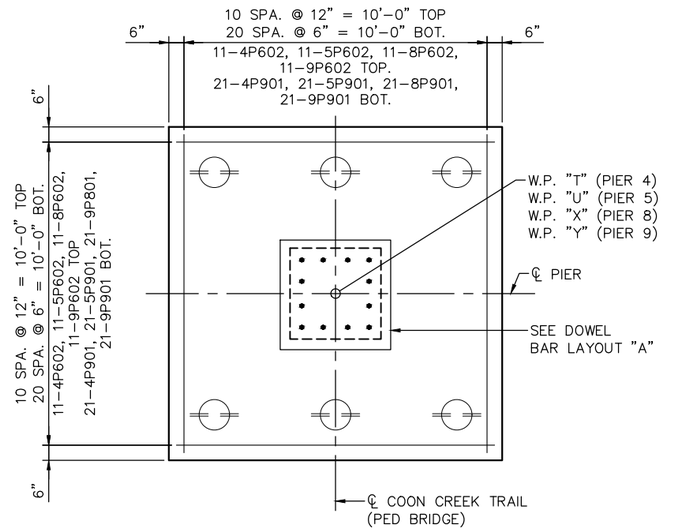
REINFORCEMENT END VIEW



PILE ANCHORAGE DETAIL (2)



DOWEL BAR LAYOUT "B"



FOOTING REINFORCEMENT PLAN

NOTES:

E.F. DENOTES EACH FACE

(1) TIE BAR TO FOOTING TOP MAT.

(2) PROVIDE PILE ANCHORAGE REINFORCEMENT AT PIERS 4–5, 8–9.

No.	Date	Revisions	App.

DRAWING NAME BRG_PIR1.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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

CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD

PIER REINFORCEMENT DETAILS
FIXED PIERS 4–5, 8–9

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B15 / B68

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BILL OF REINFORCEMENT FOR PIER 1				
BAR	NO.	LENGTH	SHAPE	LOCATION
1P701	36	10'-2"	BENT	FOOTING BOT.
1P602	18	9'-2"	BENT	FOOTING TOP
1P1003E	12	10'-11"	BENT	FOOTING DOWEL
1P904E	12	10'-7"	STR	COLUMN VERT.
1P505E	12	11'-2"	BENT	COLUMN TIE
1P506E	8	16'-0"	BENT	BRG. SEAT

BILL OF REINFORCEMENT FOR PIER 2				
BAR	NO.	LENGTH	SHAPE	LOCATION
2P701	36	10'-2"	BENT	FOOTING BOT.
2P602	18	9'-2"	BENT	FOOTING TOP
2P1003E	12	10'-11"	BENT	FOOTING DOWEL
2P904E	12	13'-10"	STR	COLUMN VERT.
2P505E	15	11'-2"	BENT	COLUMN TIE
2P506E	8	16'-0"	BENT	BRG. SEAT

BILL OF REINFORCEMENT FOR PIER 3				
BAR	NO.	LENGTH	SHAPE	LOCATION
3P701	36	10'-2"	BENT	FOOTING BOT.
3P602	18	9'-2"	BENT	FOOTING TOP
3P1003E	12	10'-11"	BENT	FOOTING DOWEL
3P904E	12	16'-1"	STR	COLUMN VERT.
3P505E	18	11'-2"	BENT	COLUMN TIE
3P506E	8	16'-0"	BENT	BRG. SEAT

BILL OF REINFORCEMENT FOR PIER 4				
BAR	NO.	LENGTH	SHAPE	LOCATION
4P901	42	13'-0"	BENT	FOOTING BOT.
4P602	22	11'-2"	BENT	FOOTING TOP
4P503E	12	3'-3.5"	BENT	PILE ANCHORAGE
4P1004E	12	11'-5"	BENT	FOOTING DOWEL
4P905E	12	19'-4"	STR	COLUMN VERT.
4P506E	21	11'-2"	BENT	COLUMN TIE
4P907E	2	5'-6"	BENT	COLUMN DOWEL

BILL OF REINFORCEMENT FOR PIER 5				
BAR	NO.	LENGTH	SHAPE	LOCATION
5P901	42	13'-0"	BENT	FOOTING BOT.
5P602	22	11'-2"	BENT	FOOTING TOP
5P503E	12	3'-3.5"	BENT	PILE ANCHORAGE
5P1004E	12	11'-5"	BENT	FOOTING DOWEL
5P905E	12	22'-11"	STR	COLUMN VERT.
5P506E	24	11'-2"	BENT	COLUMN TIE
5P907E	2	5'-6"	BENT	COLUMN DOWEL

BILL OF REINFORCEMENT FOR PIER 8				
BAR	NO.	LENGTH	SHAPE	LOCATION
8P901	42	13'-0"	BENT	FOOTING BOT.
8P602	22	11'-2"	BENT	FOOTING TOP
8P503E	12	3'-3.5"	BENT	PILE ANCHORAGE
8P1004E	12	11'-5"	BENT	FOOTING DOWEL
8P905E	12	12'-10"	STR	COLUMN VERT.
8P506E	14	11'-2"	BENT	COLUMN TIE
8P907E	2	5'-6"	BENT	COLUMN DOWEL

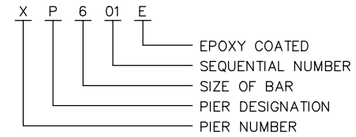
BILL OF REINFORCEMENT FOR PIER 9				
BAR	NO.	LENGTH	SHAPE	LOCATION
9P901	42	13'-0"	BENT	FOOTING BOT.
9P602	22	11'-2"	BENT	FOOTING TOP
9P503E	12	3'-3.5"	BENT	PILE ANCHORAGE
9P1004E	12	11'-5"	BENT	FOOTING DOWEL
9P905E	12	9'-11"	STR	COLUMN VERT.
9P506E	11	11'-2"	BENT	COLUMN TIE
9P907E	2	5'-6"	BENT	COLUMN DOWEL

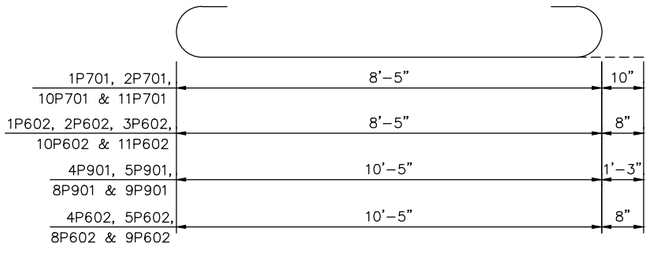
BILL OF REINFORCEMENT FOR PIER 10				
BAR	NO.	LENGTH	SHAPE	LOCATION
10P701	36	10'-2"	BENT	FOOTING BOT.
10P602	18	9'-2"	BENT	FOOTING TOP
10P1003E	12	10'-11"	BENT	FOOTING DOWEL
10P904E	12	7'-5"	STR	COLUMN VERT.
10P505E	9	11'-2"	BENT	COLUMN TIE
10P506E	8	16'-0"	BENT	BRG. SEAT

BILL OF REINFORCEMENT FOR PIER 11				
BAR	NO.	LENGTH	SHAPE	LOCATION
11P701	36	10'-2"	BENT	FOOTING BOT.
11P602	18	9'-2"	BENT	FOOTING TOP
11P1003E	12	10'-11"	BENT	FOOTING DOWEL
11P904E	12	5'-6"	STR	COLUMN VERT.
11P505E	7	11'-2"	BENT	COLUMN TIE
11P506E	8	16'-0"	BENT	BRG. SEAT

PIER REINFORCEMENT NOTES:

PIER REINFORCEMENT BAR MARKS ARE AS FOLLOWS





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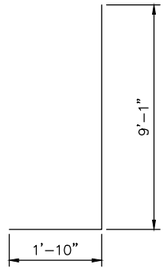

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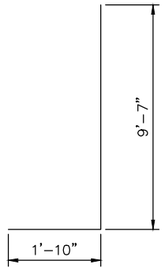

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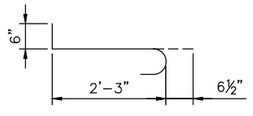

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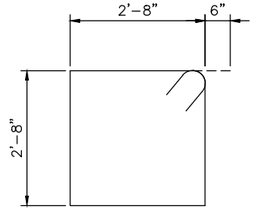

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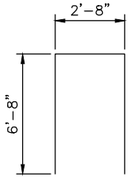

1P506E, 2P506E, 3P506E, 10P506E, 11P506E

No.	Date	Revisions	App.

DRAWING NAME BRG_PIR3.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

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CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD

PIER REINFORCEMENT DETAILS
PIERS 1-5 & 8-11

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B16 / B68

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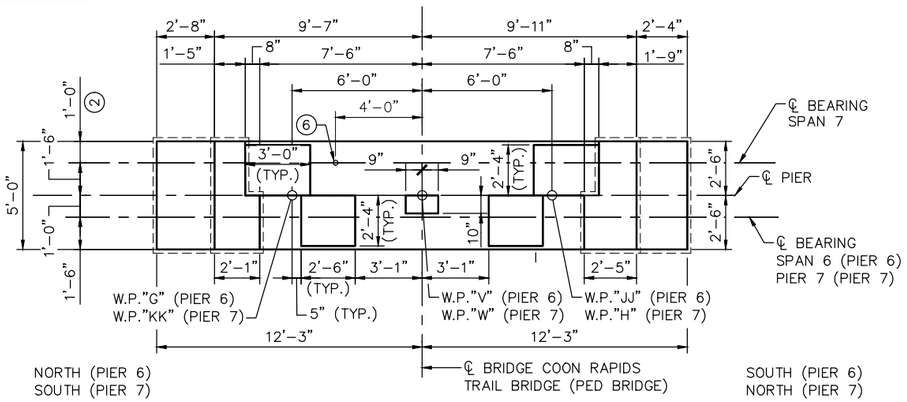

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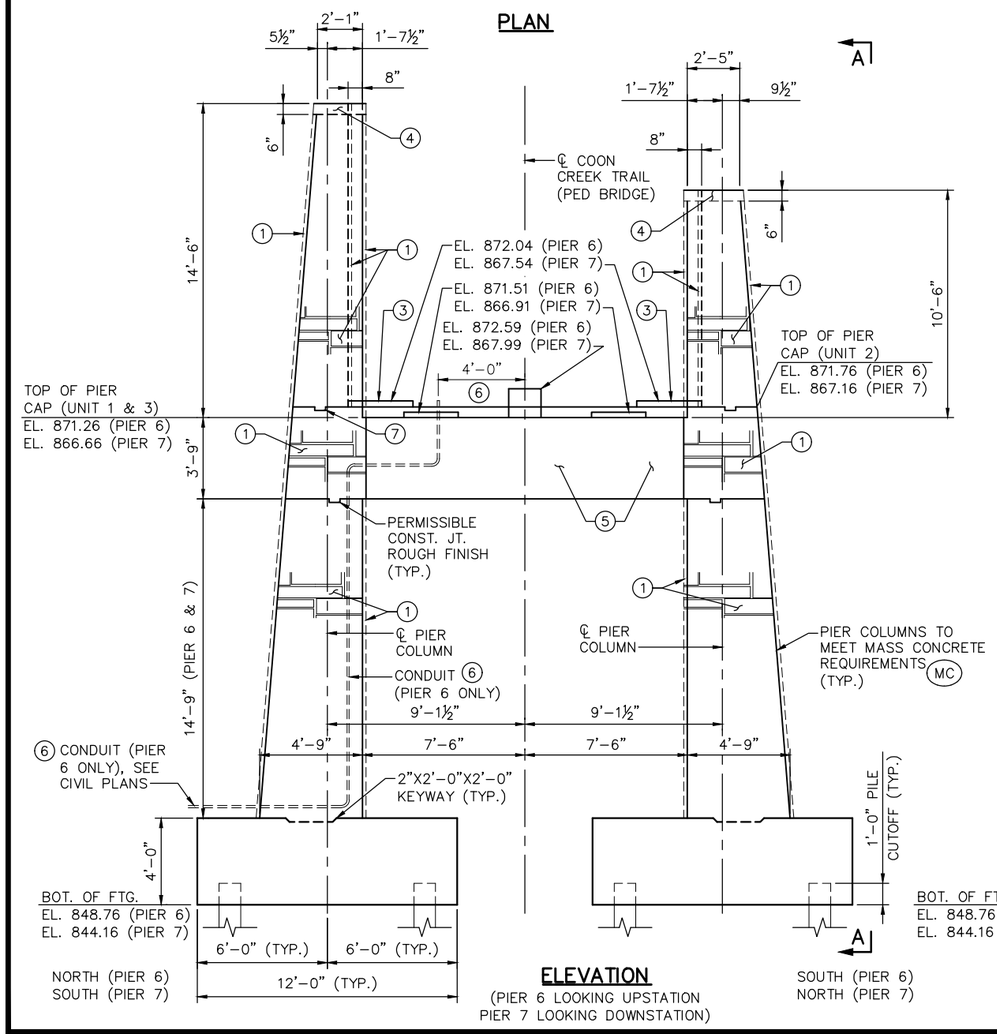
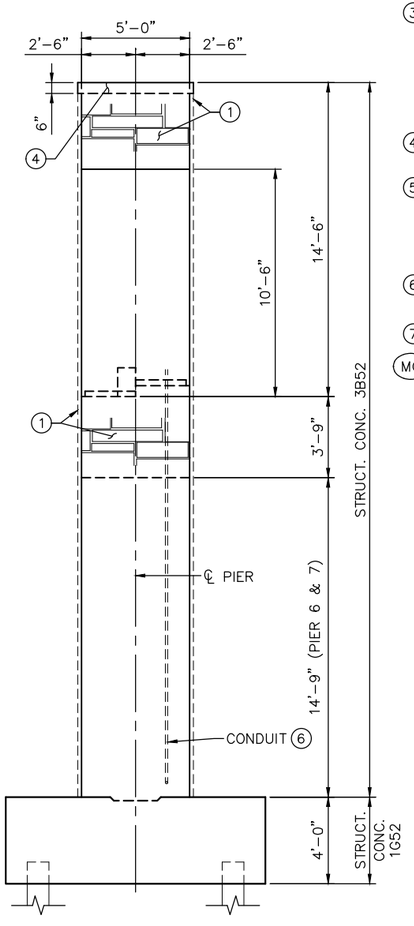


ELEVATION

(PIER 6 LOOKING UPSTATION
PIER 7 LOOKING DOWNSTATION)



SECTION A–A

PIER 6-7 REQUIRED NOMINAL PILE BEARING RESISTANCE FOR CIP PILES Rn - TONS/PILE		
FIELD CONTROL METHOD	φdyn	** Rn
MnDOT PILE FORMULA 2012 $Rn = 20\sqrt{\frac{(MPF12)}{\frac{WxH}{1000}}}\ xLOG(\frac{10}{S})$	0.50	198.6
PDA	0.65	152.8

**Rn = (FACTORED DESIGN LOAD) /φdyn

PIER 6-7 COMPUTED PILE LOAD - TONS/PILE	
FACTORED DEAD LOAD	76.5
FACTORED LIVE LOAD	18.0
FACTORED OVERTURNING	4.7
* FACTORED DESIGN LOAD	99.3

* BASED ON STRENGTH I LOAD COMBINATION.

NOTES:

1. ARCHITECTURAL CONCRETE TEXTURE (ASHLAR STONE) & ARCHITECTURAL CONCRETE SURFACE FINISH (MULTI–COLOR) WITH ANTI–GRAFFITI COATING.
2. TO BE DETERMINED BY PREFABRICATED TRUSS DESIGNER IN ACCORDANCE WITH THE INTENT OF THIS PLAN.
3. TO BE DETERMINED DURING CONSTRUCTION BY PREFABRICATED SUPERSTRUCTURE SUPPLIER. PIERS SHALL NOT BE CONSTRUCTED UNTIL PREFABRICATED SUPERSTRUCTURE PLAN HAS BEEN APPROVED. ANCHOR ROD AND REBAR LOCATIONS SHALL BE COORDINATED TO AVOID CONFLICTS. SEE SPECIAL PROVISIONS.
4. SMOOTH CONCRETE SURFACE WITH SPECIAL SURFACE FINISH.
5. CONTRACTOR TO COORDINATE WITH UTILITY STAKEHOLDERS/OWNERS FOR TEMPORARY RELOCATION AND RESETTING OF UTILITIES DURING PIER FOOTING CONSTRUCTION. INCIDENTAL TO STRUCTURE EXCAVATION,
6. CONDUIT SYSTEM TYPE 1 – 1¼" DIA. RSC. AT PIER 6 ONLY.
7. PERMISSIBLE CONSTRUCTION JT. ROUGH FINISH, (TYP.).

MC INCLUDES BRIDGE ELEMENTS WITH MASS CONCRETE REQUIREMENTS. SEE SPECIAL PROVISIONS.

PILE NOTES:

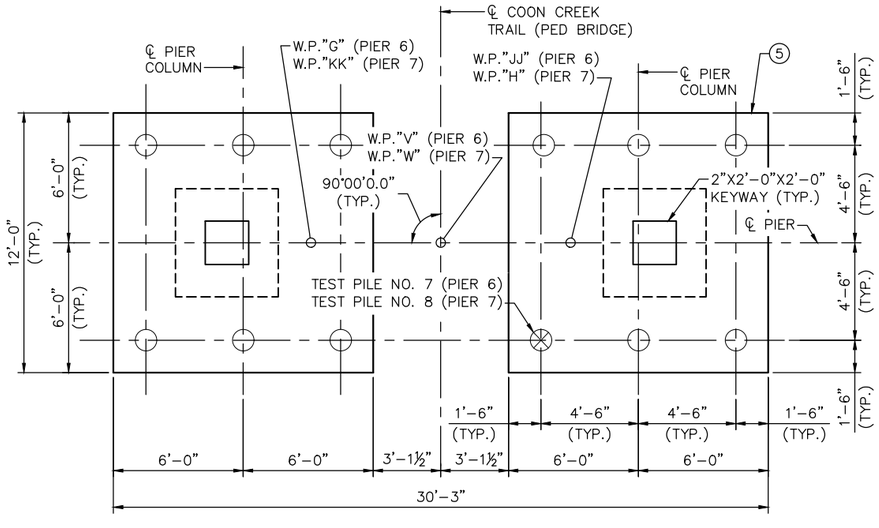
1 12" CIP TEST PILE, 90 FEET LONG.
11/12 12" CIP PILES, ESTIMATED LENGTH 80 FEET LONG.
12 12" CIP PILES REQUIRED FOR PIER 6.

1 12" CIP TEST PILE, 85 FEET LONG.
11/12 12" CIP PILES, ESTIMATED LENGTH 75 FEET LONG.
12 12" CIP PILES REQUIRED FOR PIER 7.

PILES SPACING SHOWN IS AT BOTTOM OF FOOTING.

FOR PILE SPLICE, SEE DETAIL B201.

PILES SHALL HAVE A NOMINAL DIAMETER OF 12" AND A MINIMUM WALL THICKNESS OF ¼".



FOOTING PLAN

(PIER 6 LOOKING UPSTATION
PIER 7 LOOKING DOWNSTATION)

No.	Date	Revisions	App.

DRAWING NAME BRG_PIR1.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

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Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
PIER DETAILS
PIERS 6–7

CITY PROJECT 24-6	S.P. 114-090-002	SHEET NO. B17
MINN. PROJECT NO.	TA 0224(173)	B68
BRIDGE NO. 02596		

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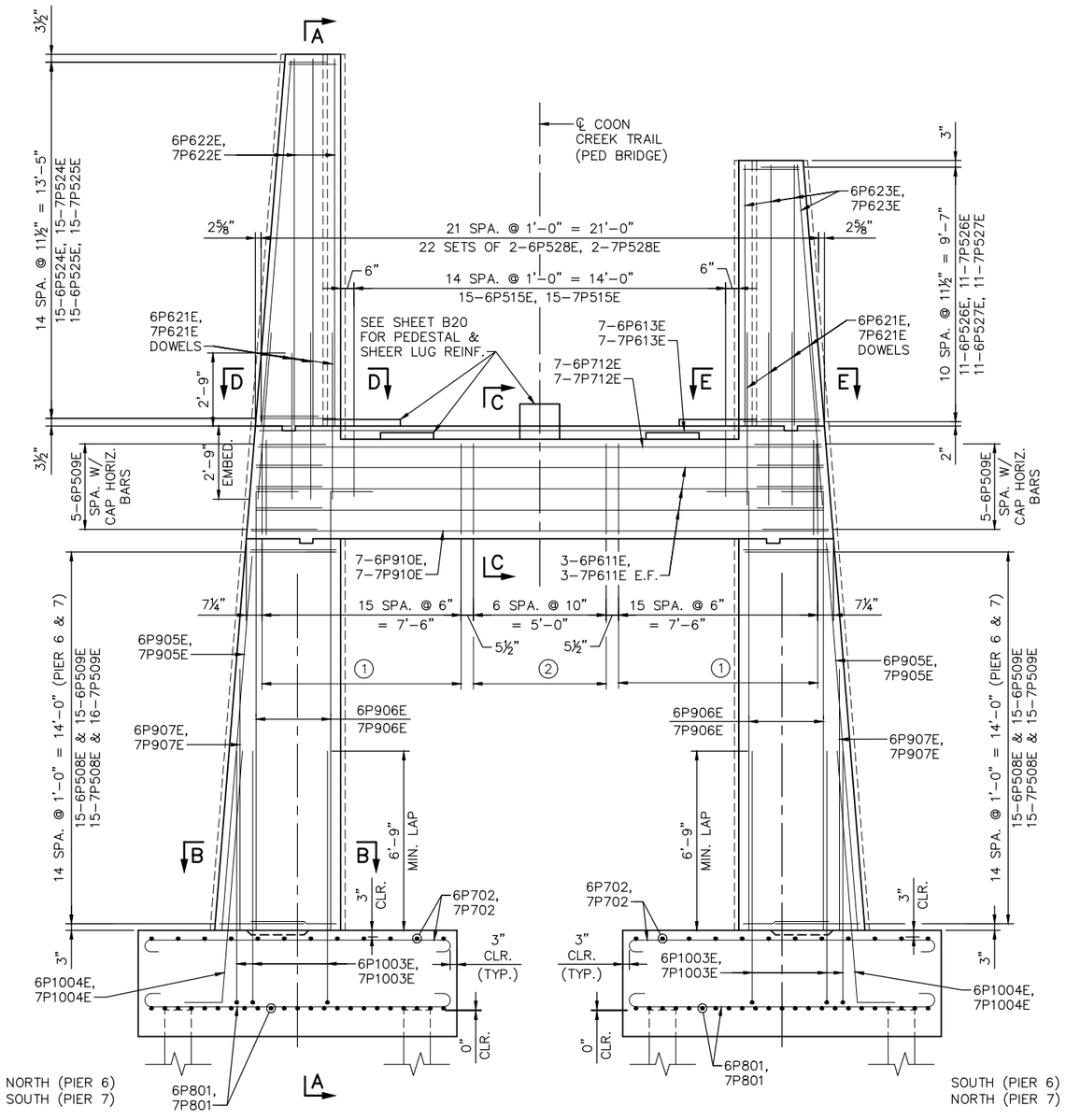
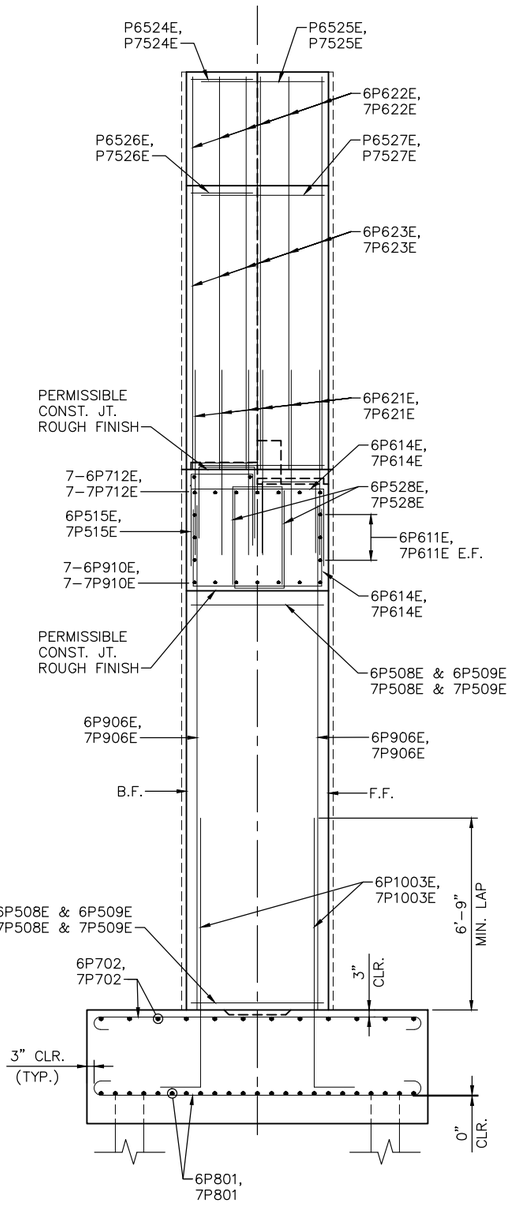


ELEVATION
(PIER 6 LOOKING UPSTATION
PIER 7 LOOKING DOWNSTATION)



SECTION A–A

NOTES:

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

FOR SECTIONS B–B, C–C, D–D & E–E, SEE SHEET B19.

① 16 SETS OF 2–6P614E & 2–6P628E (PIER 6)
16 SETS OF 2–6P614E & 2–6P628E (PIER 7)

② 7 SETS OF 2–6P614E & 2–6P628E (PIER 6)
7 SETS OF 2–6P614E & 2–6P628E (PIER 7)

No.	Date	Revisions	App.

DRAWING NAME BRG_PIR2.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
PIER REINFORCEMENT DETAILS 1
PIERS 6–7

CITY PROJECT 24–6	S.P. 114–090–002	SHEET NO. B18
MINN. PROJECT NO.	TA 0224(173)	
BRIDGE NO. 02596		B68

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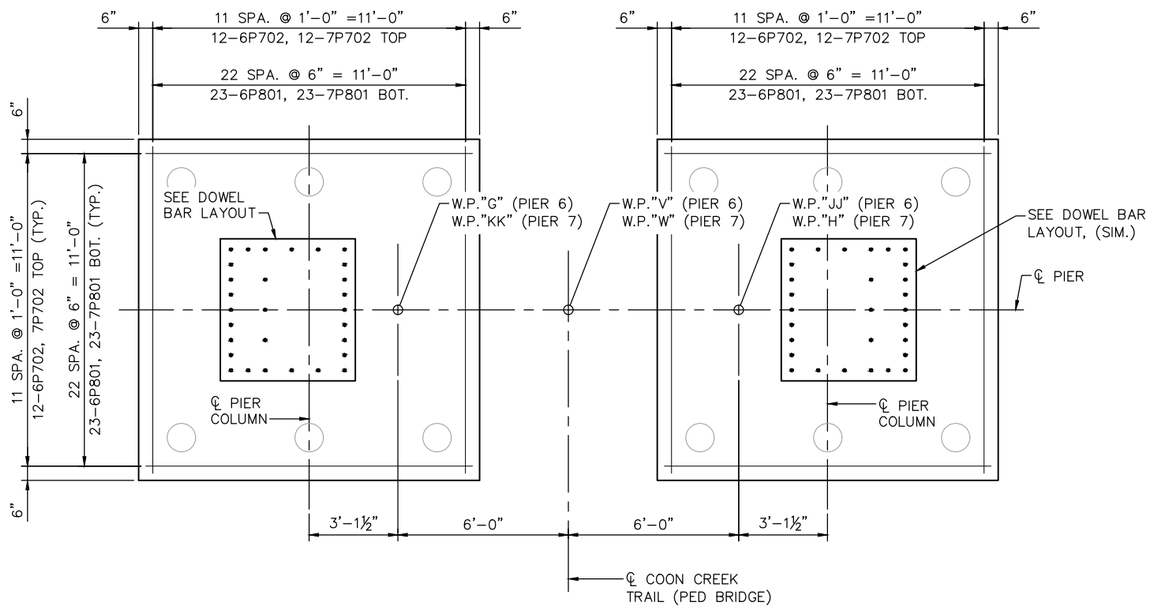
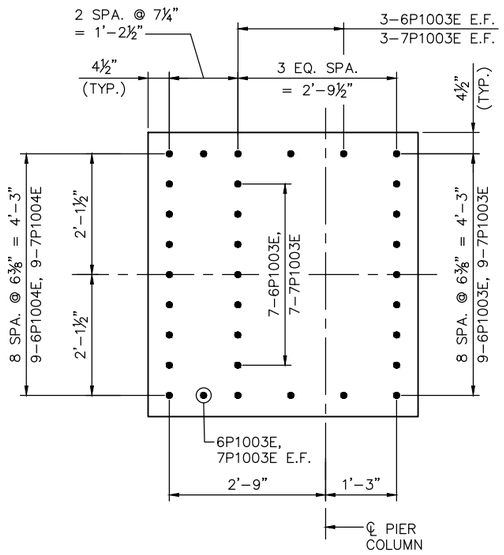


FOOTING REINFORCEMENT PLAN

(PIER 6 LOOKING UPSTATION
PIER 7 LOOKING DOWNSTATION)



FOOTING REINFORCEMENT PLAN

(PIER 6 LOOKING UPSTATION
PIER 7 LOOKING DOWNSTATION)

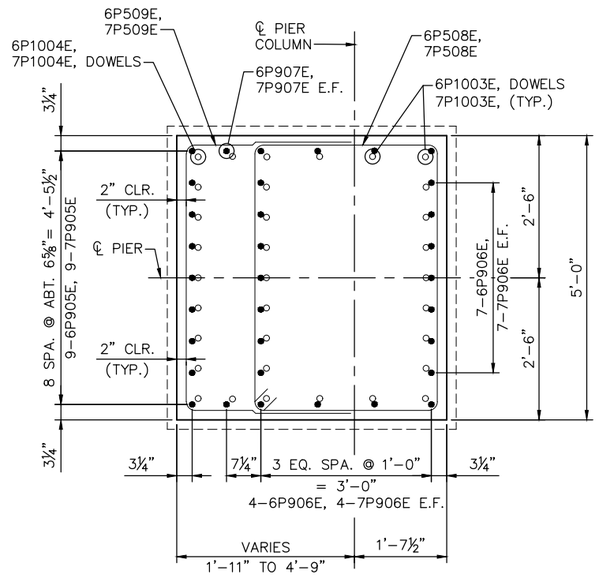
NOTES:

F.F. DENOTES FRONT FACE

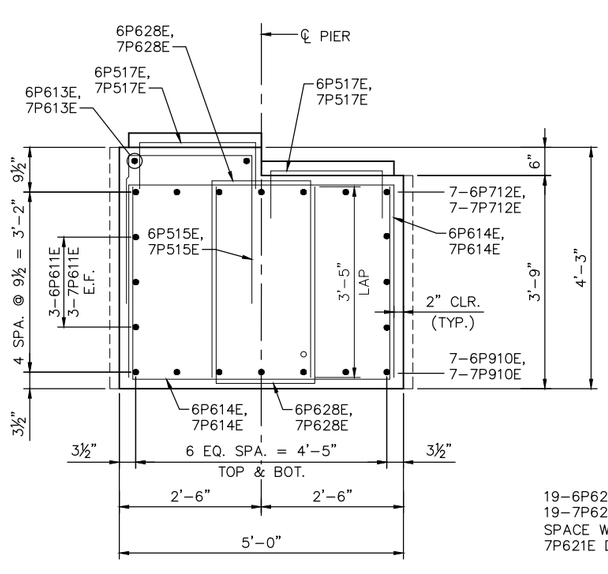
B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

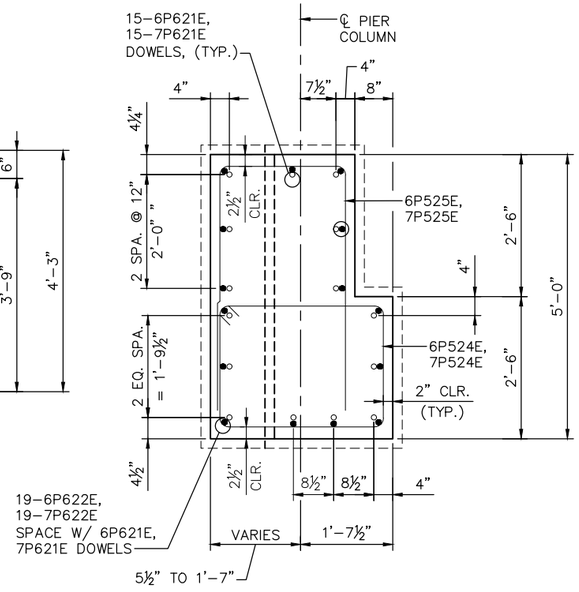
FOR LOCATIONS OF SECTIONS B-B, C-C, D-D & E-E, SEE SHEET B18.



SECTION B-B



PIER CAP SECTION C-C



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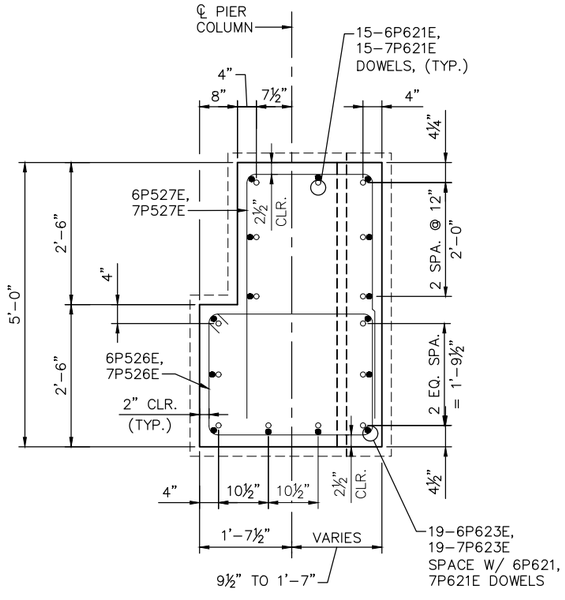

SECTION E-E

No.	Date	Revisions	App.

DRAWING NAME BRG_PIR2.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

PIER REINFORCEMENT DETAILS 2
PIERS 6-7

CITY PROJECT 24-6	S.P. 114-090-002	SHEET NO. B19
MINN. PROJECT NO.	TA 0224(173)	B68
BRIDGE NO. 02596		

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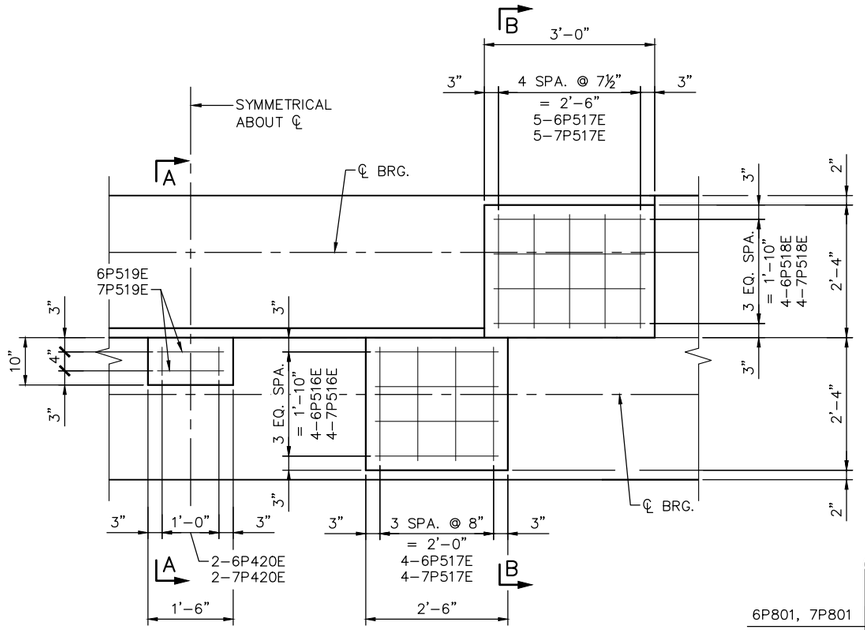
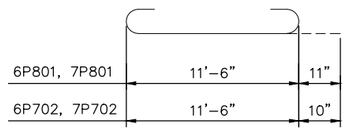
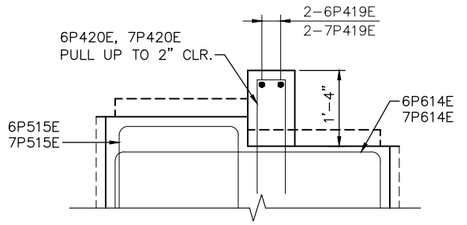


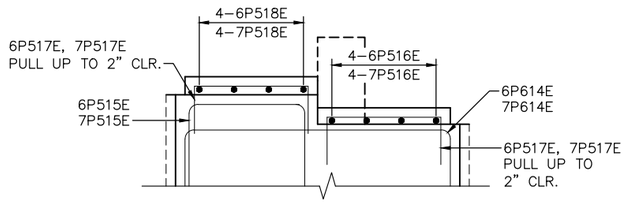
BEARING SEAT & SHEAR BLOCK DETAIL



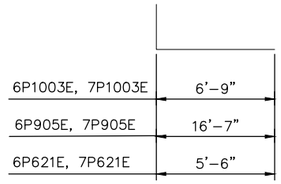
6P801, 7P801, 6P702, 7P702



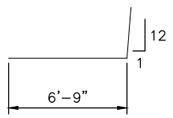
SECTION A-A



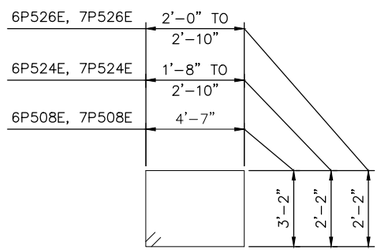
SECTION B-B



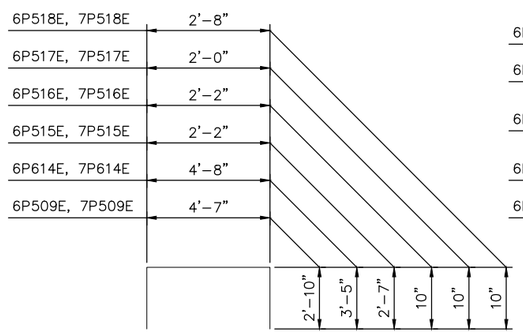
6P1003E, 7P1003E 6P905E, 7P905E, 6P621E, 7P621E



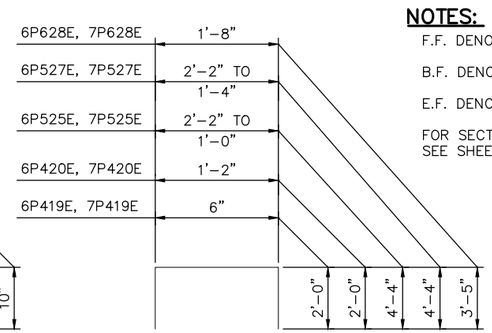
6P1004E, 7P1004E



6P508E, 7P508E, 6P524E, 7P524E, 6P526E, 7P526E



6P509E, 7P509E, 6P614E, 7P614E, 6P515E, 7P515E, 6P516E, 7P516E, 6P517E, 7P517E, 6P518E, 7P518E



6P419E, 7P419E, 6P420E, 7P420E, 6P525E, 7P525E, 6P527E, 7P527E, 6P628E, 7P628E

NOTES:

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

FOR SECTIONS B-B, C-C, D-D & E-E, SEE SHEET B19.

BILL OF REINFORCEMENT FOR PIER 6

BAR	NO.	LENGTH	SHAPE	LOCATION
6P801	92	13'-4"	BENT	FTG. . BOT. E.W.
6P702	48	13'-2"	BENT	FTG. TOP, E.W.
6P1003E	44	11'-7"	BENT	FTG. DOWEL
6P1004E	18	11'-7"	BENT	FTG. DOWEL
6P905E	18	14'-1"	BENT	COLUMN, VERT. TAPERED
6P906E	44	18'-2"	STR	COLUMN, VERT.
6P907E	4	9'-10"	STR	COLUMN, VERT. @ TAPER
6P508E	30	16'-6"	BENT	COLUMN STIRRUP
6P509E	40	10'-3"	BENT	COLUMN TIE
6P910E	7	21'-9"	STR	CAP HORIZ. BOT.
6P611E	6	21'-4"	STR	CAP HORIZ. SIDES
6P712E	7	21'-3"	STR	CAP HORIZ. TOP
6P613E	2	21'-1"	STR	CAP HORIZ. BACKWALL
6P614E	78	11'-6"	BENT	CAP STIRRUPS
6P515E	15	7'-4"	BENT	CAP TIES TOP
6P516E	8	3'-10"	BENT	PEDESTAL TIES
6P517E	18	3'-8"	BENT	PEDESTAL TIES
6P518E	8	4'-4"	BENT	PEDESTAL TIES
6P419E	2	4'-6"	BENT	SHEER LUG TIES
6P420E	2	5'-2"	BENT	SHEER LUG TIES
6P621E	30	6'-6"	STR	COLUMN DOWELS
6P622E	19	13'-10"	STR	COLUMN VERT.
6P623E	19	9'-10"	STR	COLUMN VERT.
6P524E	1 SERIES OF 15	7'-8" TO 10'-0"	BENT	COLUMN STIRRUP
6P525E	1 SERIES OF 15	9'-8" TO 10'-10"	BENT	COLUMN TIE
6P526E	1 SERIES OF 12	8'-4" TO 10'-0"	BENT	COLUMN STIRRUP
6P527E	1 SERIES OF 12	10'-0" to 10'-10"	BENT	COLUMN TIE
6P528E	78	8'-6"	BENT	COLUMN TIE

BILL OF REINFORCEMENT FOR PIER 7

BAR	NO.	LENGTH	SHAPE	LOCATION
7P801	92	13'-4"	BENT	FTG. . BOT. E.W.
7P702	48	13'-2"	BENT	FTG. TOP, E.W.
7P1003E	44	11'-7"	BENT	FTG. DOWEL
7P1004E	18	11'-7"	BENT	FTG. DOWEL
7P905E	18	14'-1"	BENT	COLUMN, VERT. TAPERED
7P906E	44	18'-2"	STR	COLUMN, VERT.
7P907E	4	9'-10"	STR	COLUMN, VERT. @ TAPER
7P508E	30	16'-6"	BENT	COLUMN STIRRUP
7P509E	40	10'-3"	BENT	COLUMN TIE
7P910E	7	21'-9"	STR	CAP HORIZ. BOT.
7P611E	6	21'-4"	STR	CAP HORIZ. SIDES
7P712E	7	21'-3"	STR	CAP HORIZ. TOP
7P613E	2	21'-1"	STR	CAP HORIZ. BACKWALL
7P614E	78	11'-6"	BENT	CAP STIRRUPS
7P515E	15	7'-4"	BENT	CAP TIES TOP
7P516E	8	3'-10"	BENT	PEDESTAL TIES
7P517E	18	3'-8"	BENT	PEDESTAL TIES
7P518E	8	4'-4"	BENT	PEDESTAL TIES
7P419E	2	4'-6"	BENT	SHEER LUG TIES
7P420E	2	5'-2"	BENT	SHEER LUG TIES
7P621E	30	6'-6"	STR	COLUMN DOWELS
7P622E	19	13'-10"	STR	COLUMN VERT.
7P623E	19	9'-10"	STR	COLUMN VERT.
7P524E	1 SERIES OF 15	7'-8" TO 10'-0"	BENT	COLUMN STIRRUP
7P525E	1 SERIES OF 15	9'-8" TO 10'-10"	BENT	COLUMN TIE
7P526E	1 SERIES OF 12	8'-4" TO 10'-0"	BENT	COLUMN STIRRUP
7P527E	1 SERIES OF 12	10'-0" to 10'-10"	BENT	COLUMN TIE
7P528E	78	8'-6"	BENT	COLUMN TIE

No.	Date	Revisions	App.

DRAWING NAME BRG_PIR2.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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Christopher P. Ewert

CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

PIER REINFORCEMENT DETAILS 3
PIERS 6-7

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B20 / B68

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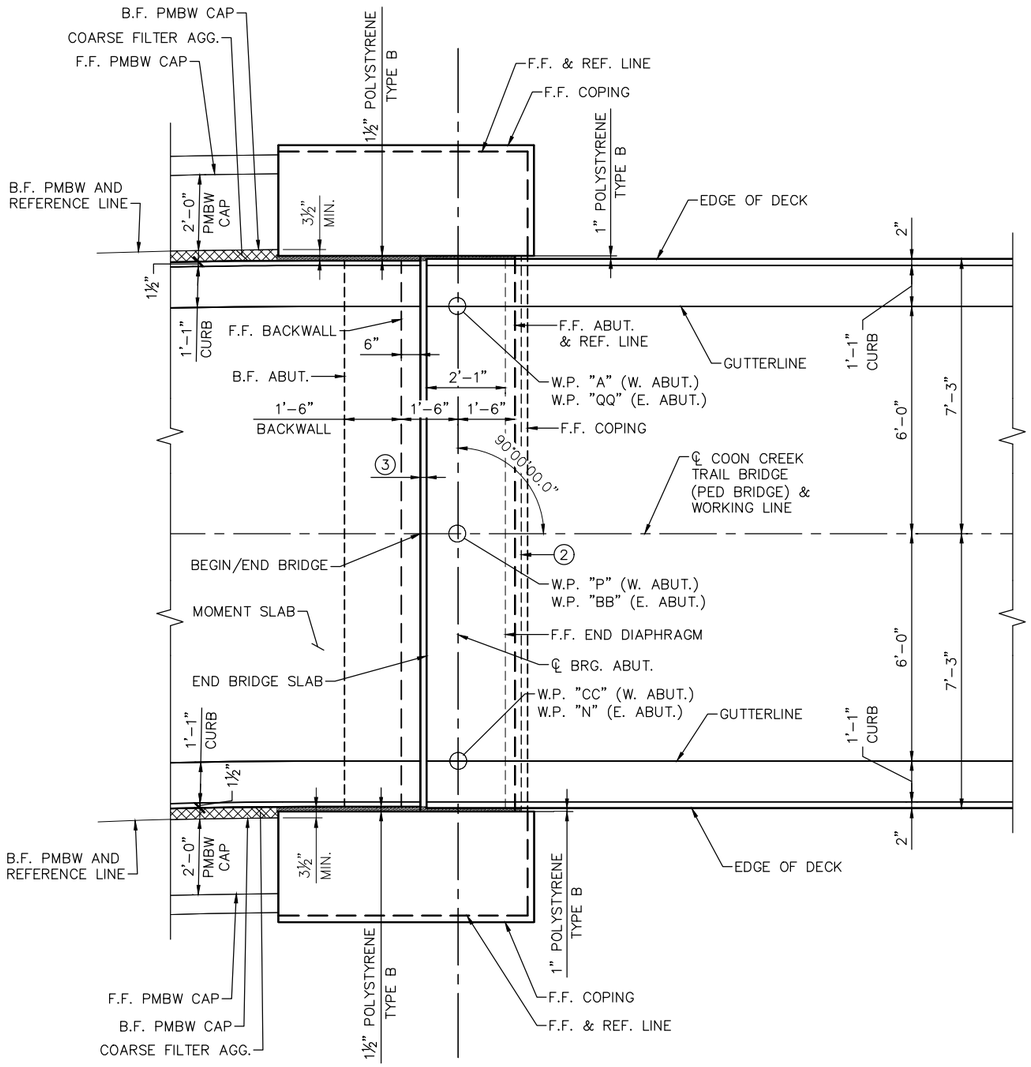
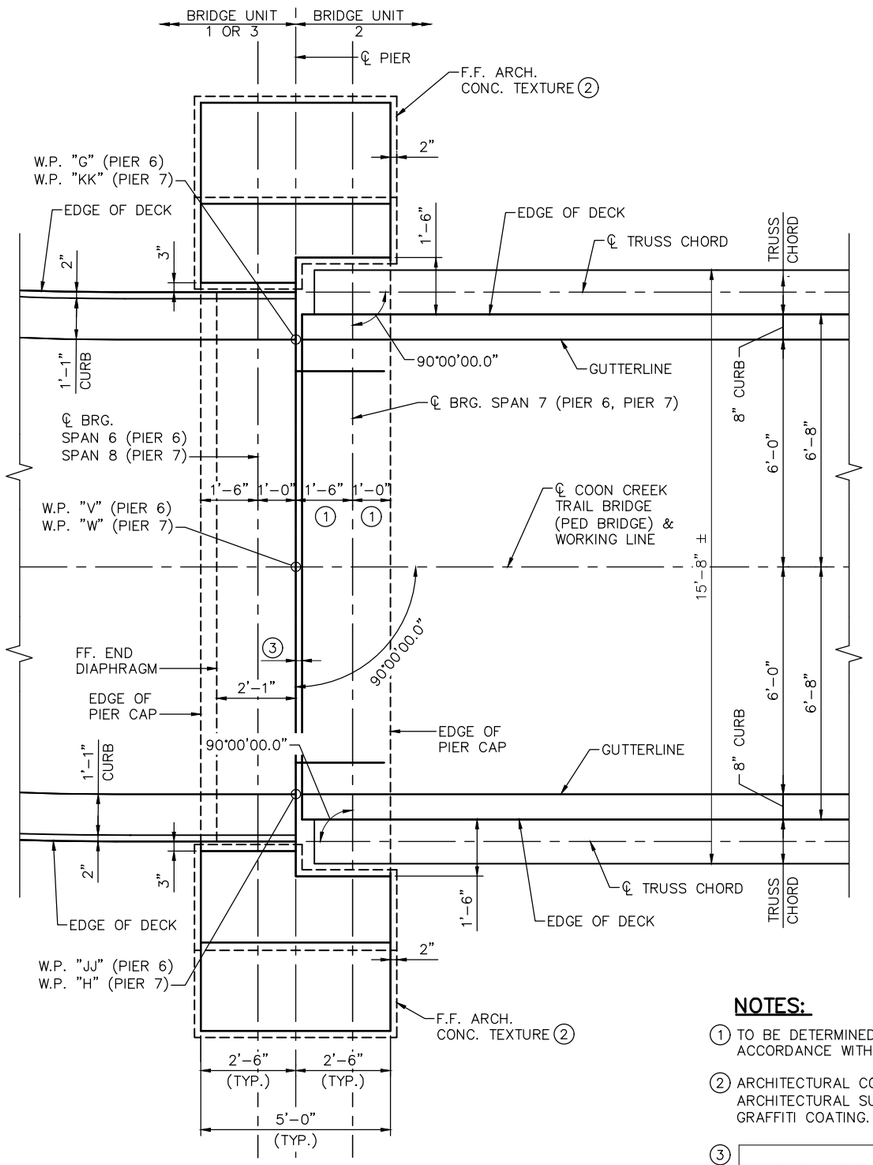


WEST ABUTMENT CORNER DETAIL

(EAST ABUTMENT CORNER DETAIL SIMILAR)
(EXPANSION JOINT DEVICES TYPE 4)



PIER 6 CORNER DETAIL

(PIER 7 CORNER DETAIL SIMILAR)
(EXPANSION JOINT DEVICES TYPE 5)

NOTES:

1. TO BE DETERMINED BY PREFABRICATED TRUSS DESIGNER IN ACCORDANCE WITH THE INTENT OF THIS PLAN.
2. ARCHITECTURAL CONCRETE TEXTURE (COURSED STONE). ARCHITECTURAL SURFACE FINISH (MULTI-COLOR) WITH ANTI GRAFFITI COATING.
3.

EXPANSION JOINT LOCATION	EXPANSION JOINT OPENING	
	@ 45 F	@ 90 F
WEST ABUT. - TYPE 4	2"	1 1/2"
PIER 6 - TYPE 5	2 1/8"	1 1/2"
PIER 7 - TYPE 5	2 1/8"	1 1/2"
EAST ABUT. - TYPE 4	2 1/4"	2"

No.	Date	Revisions	App.

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DESIGNED BY:	MJN
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CHECKED BY:	KAE
PROJECT NO.	160000023

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CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
CORNER DETAILS ABUTMENT & PIER

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B21 / B68

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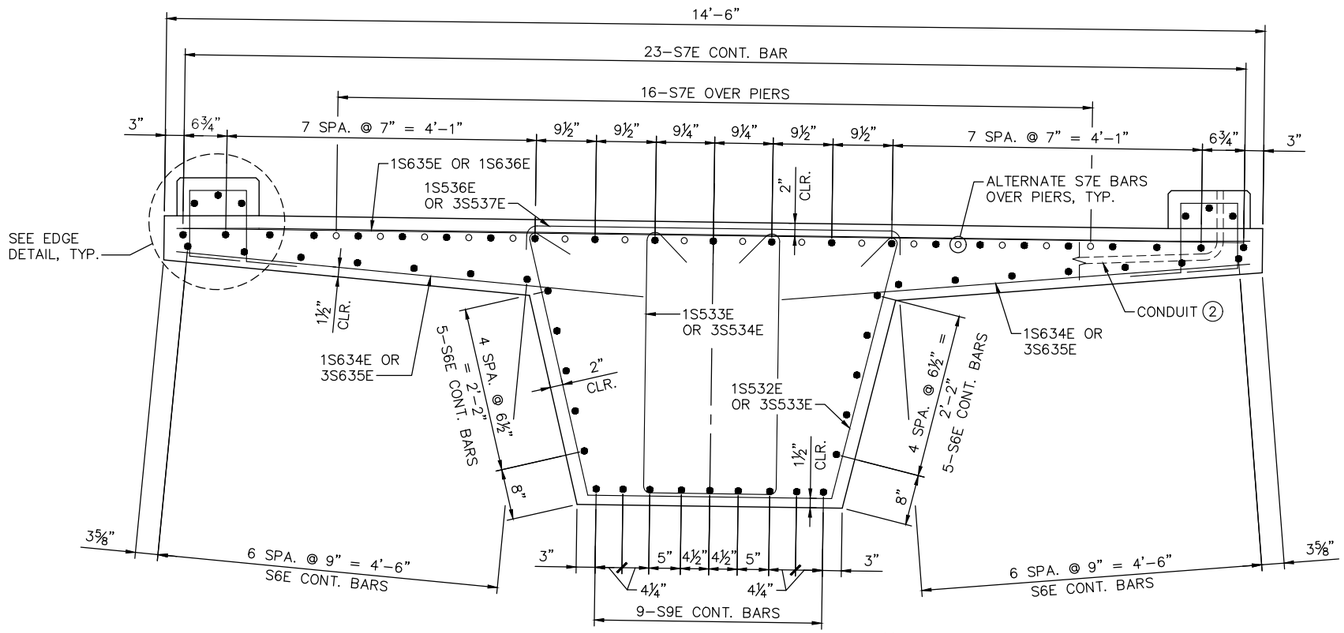
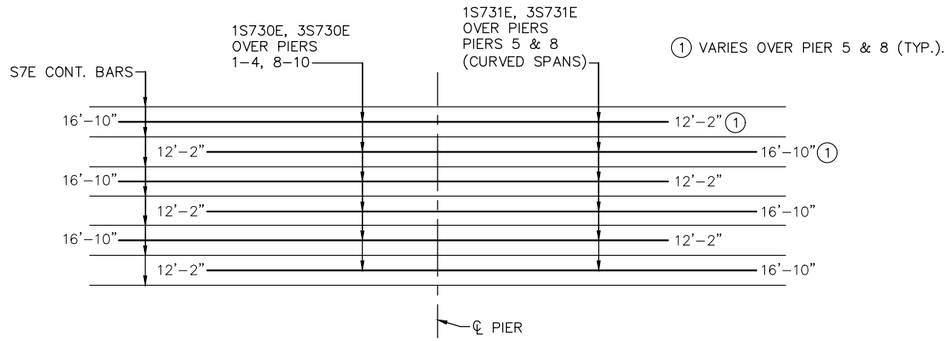
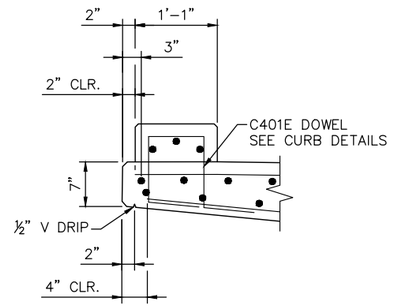


TYPICAL SECTION
(UNIT 1 & 3)

(2) CONDUIT SYSTEM TYPE 1 = 1¼" DIA. RSC.



STAGGER DETAIL



EDGE DETAIL
(SEE CURB DETAILS FOR CURB
REINFORCEMENT DIMENSIONS)

TYPICAL SECTION
(SPANS 6, 8 & 12)

No.	Date	Revisions	App.

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Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

SUPERSTRUCTURE DETAILS
SECTIONS

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B22 / B68

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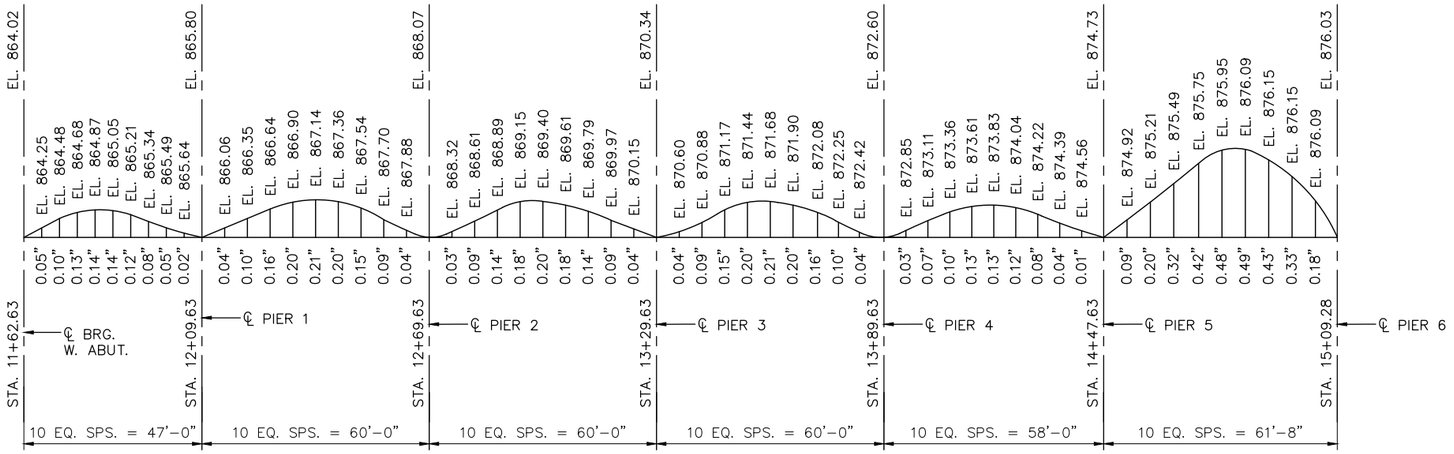
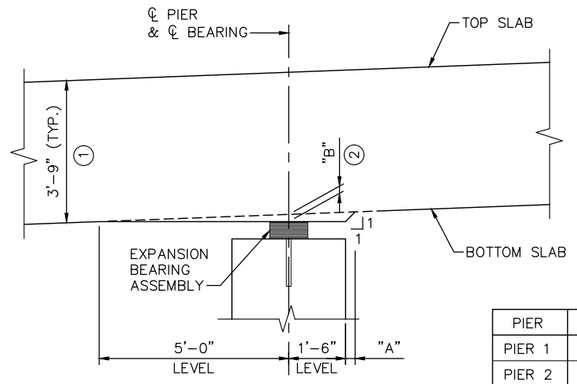


CAMBER DIAGRAM ③

(UNIT 1)



SECTION @ PIER

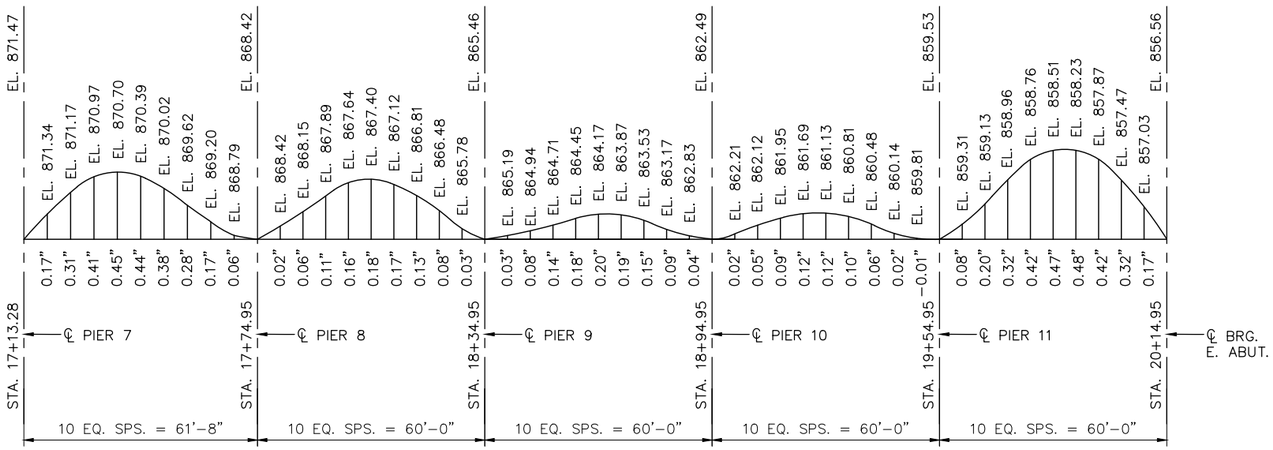
PIER	"A"	"B"
PIER 1	3"	2⅜"
PIER 2	3"	2⅜"
PIER 3	3"	2⅜"
PIER 4	3"	2⅜"
PIER 5	2½"	2"
PIER 8	3⅞"	3"
PIER 9	3⅞"	3"
PIER 10	3⅞"	3"
PIER 11	3⅞"	3"

NOTES:

① MEASURED AT CENTERLINE OF COON CREEK TRAIL.

② FROM BOTTOM OF PROJECTED SLAB.

③ CAMBER DIAGRAM IS FOR SUPERSTRUCTURE IN UNLOADED POSITION AND PROVIDES FOR ALL DEAD LOAD DEFLECTIONS AND RESIDUAL CAMBER.



CAMBER DIAGRAM ③

(UNIT 2)

No.	Date	Revisions	App.

DRAWING NAME BRG_SUP2.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	PHH
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

SUPERSTRUCTURE DETAILS
CAMBER DIAGRAMS

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B23 / B68

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NOTES:

SEE SHEET B22 FOR TYPICAL SECTION.

(1) 3'–7" MIN. LAP FOR NO. 1S6 BARS (TYP.)

(2) 4'–8" MIN LAP FOR NO. 1S7 BARS (TYP.)

(3) 7'–3" MIN LAP FOR NO. 1S9 BARS (TYP.)

(4) DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.

(5) SEE CORNER DETAILS NOTE 3 FOR JOINT OPENING.

(6) SEE SHEET B31 FOR END DIAPHRAGM DETAILS.

BAR CALL–OUTS

(1) 5 – 1S901E (B)

(2) 4 – 1S902E (B)

(3) 9 – 1S902E (B)

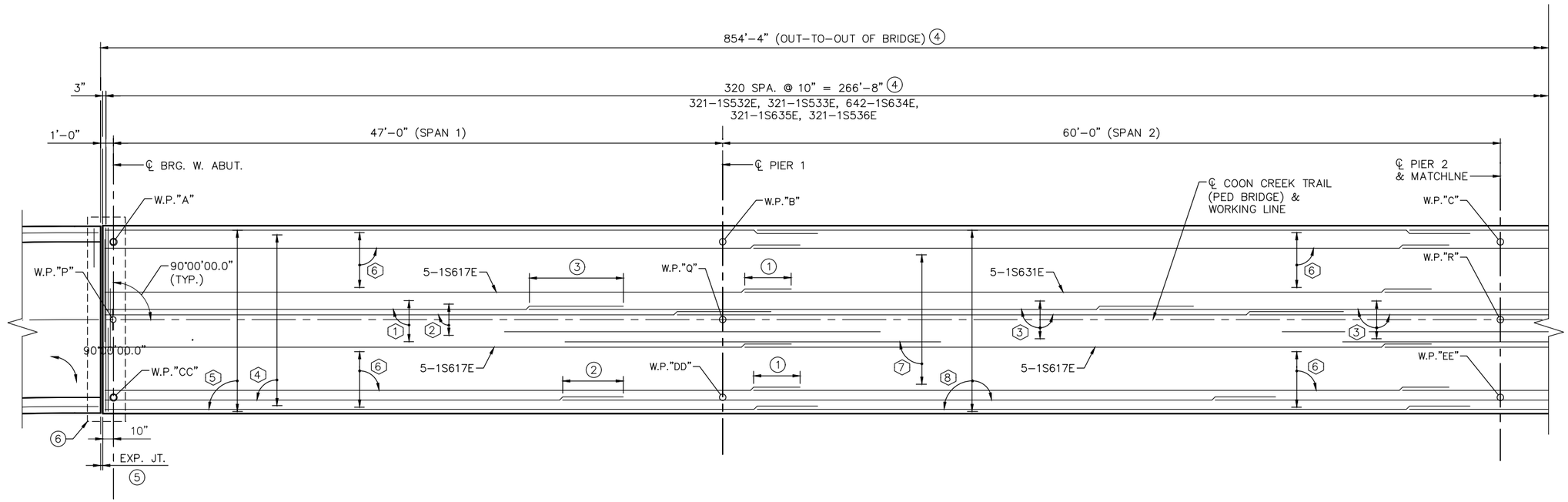
(4) 11 – 1S724E (T)

(5) 12 – 1S723E (T)

(6) 7 – 1S618E

(7) 16 – 1S730E (T) SEE STAGGER DETAIL

(8) 23 – 1S723E (T)



SUPERSTRUCTURE REINFORCEMENT
(SPANS 1 & 2)

No.	Date	Revisions	App.

DRAWING NAME BRG_SUP2.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

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CHRISTOPHER P. EWERT

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CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

SUPERSTRUCTURE REINFORCEMENT
PLAN (SPAN 1 & 2)

CITY PROJECT 24–6	S.P. 114–090–002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B24 / B68

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NOTES:

SEE SHEET B22 FOR TYPICAL SECTION.

(1) 3'–7" MIN. LAP FOR NO. 1S6 BARS (TYP.)

(2) 4'–8" MIN LAP FOR NO. 1S7 BARS (TYP.)

(3) 7'–3" MIN LAP FOR NO. 1S9 BARS (TYP.)

(4) DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.

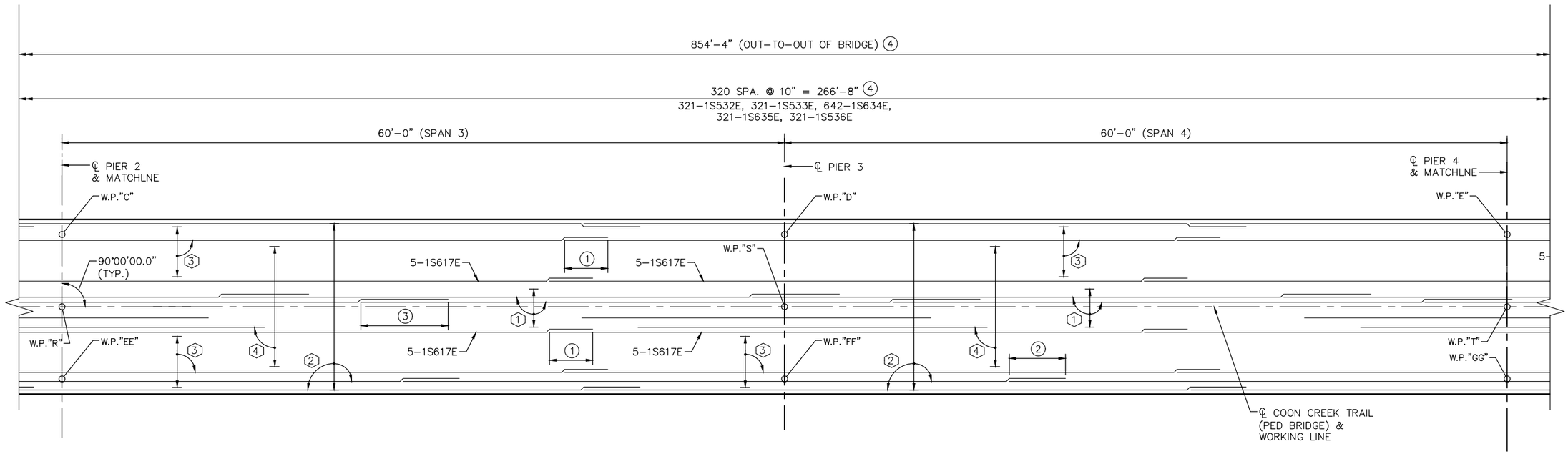
BAR CALL–OUTS

(1) 9–1S902E (B)

(2) 23–1S723E (T)

(3) 7–1S618E

(4) 16–1S730E (T) SEE STAGGER DETAIL



SUPERSTRUCTURE REINFORCEMENT
(SPANS 3 & 4)

No.	Date	Revisions	App.

DRAWING NAME BRG_SUP2.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

SUPERSTRUCTURE REINFORCEMENT
PLAN (SPAN 3 & 4)

CITY PROJECT 24–6	S.P. 114–090–002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B25 / B68

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NOTES:

SEE SHEET B22 FOR TYPICAL SECTION.

(1) 3'–7" MIN. LAP FOR NO. 1S6 BARS (TYP.)

(2) 4'–8" MIN LAP FOR NO. 1S7 BARS (TYP.)

(3) 7'–3" MIN LAP FOR NO. 1S9 BARS (TYP.)

(4) DIMENSION MEASURED ALONG ℄ COON RAPIDS TRAIL BRIDGE (PED BRIDGE) AND WORKING LINE.

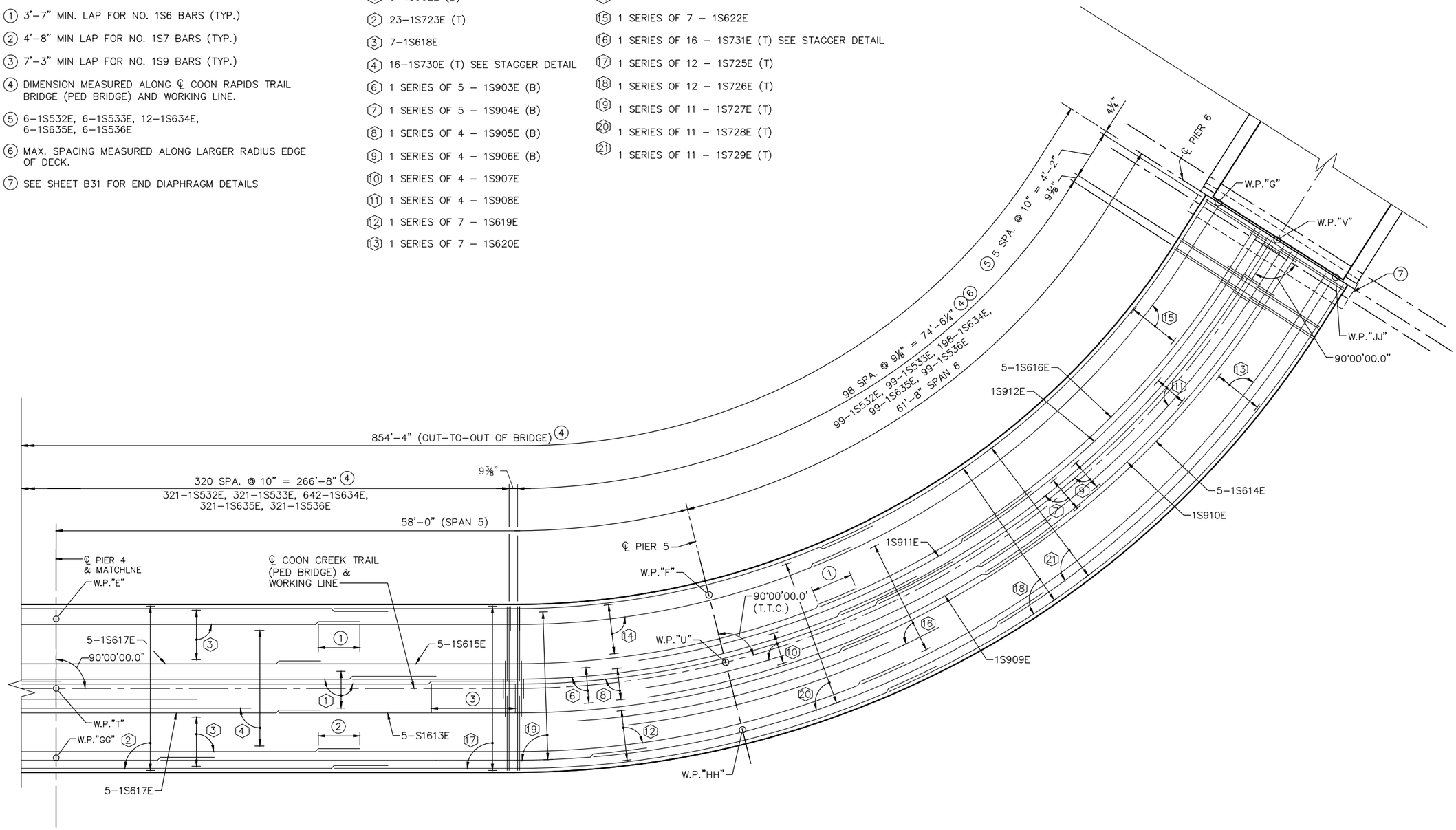
(5) 6–1S532E, 6–1S533E, 12–1S634E, 6–1S635E, 6–1S536E

(6) MAX. SPACING MEASURED ALONG LARGER RADIUS EDGE OF DECK.

(7) SEE SHEET B31 FOR END DIAPHRAGM DETAILS

BAR CALL–OUTS

(1) 9–1S902E (B)
(2) 23–1S723E (T)
(3) 7–1S618E
(4) 16–1S730E (T) SEE STAGGER DETAIL
(6) 1 SERIES OF 5 – 1S903E (B)
(7) 1 SERIES OF 5 – 1S904E (B)
(8) 1 SERIES OF 4 – 1S905E (B)
(9) 1 SERIES OF 4 – 1S906E (B)
(10) 1 SERIES OF 4 – 1S907E
(11) 1 SERIES OF 4 – 1S908E
(12) 1 SERIES OF 7 – 1S619E
(13) 1 SERIES OF 7 – 1S620E
(14) 1 SERIES OF 7 – 1S621E
(15) 1 SERIES OF 7 – 1S622E
(16) 1 SERIES OF 16 – 1S731E (T) SEE STAGGER DETAIL
(17) 1 SERIES OF 12 – 1S725E (T)
(18) 1 SERIES OF 12 – 1S726E (T)
(19) 1 SERIES OF 11 – 1S727E (T)
(20) 1 SERIES OF 11 – 1S728E (T)
(21) 1 SERIES OF 11 – 1S729E (T)



SUPERSTRUCTURE REINFORCEMENT
(SPANS 5 & 6)

No.	Date	Revisions	App.

DRAWING NAME BRG_SUP2.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn
767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114
PHONE: 651–645–4197
WWW.KIMLEY–HORN.COM

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

CHRISTOPHER P. EVERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

SUPERSTRUCTURE REINFORCEMENT
PLAN (SPAN 5 & 6)

CITY PROJECT 24–6	S.P. 114–090–002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B26 / B68

K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_SUP2.dwg 3/5/2024 1:49 PM

NOTES:

SEE SHEET B22 FOR TYPICAL SECTION.

(1) 3'–7" MIN. LAP FOR NO. 3S6 BARS (TYP.)

(2) 4'–8" MIN LAP FOR NO. 3S7 BARS (TYP.)

(3) 7'–3" MIN LAP FOR NO. 3S9 BARS (TYP.)

(4) DIMENSION MEASURED ALONG C COON CREEK TRAIL AND WORKING LINE.

(5) SEE SHEET B31 FOR END DIAPHRAGM DETAILS.

(6) 4–3S533E, 4–3S534E, 8–3S635E, 4–3S636E, 4–3S537E

BAR CALL–OUTS

(1) 1 SERIES OF 5 3S903E (B)

(2) 1 SERIES OF 4 3S905E (B)

(3) 1 SERIES OF 5 3S904E (B)

(4) 1 SERIES OF 4 3S906E (B)

(5) 1 SERIES OF 4 3S909E

(6) 1 SERIES OF 7 3S623E

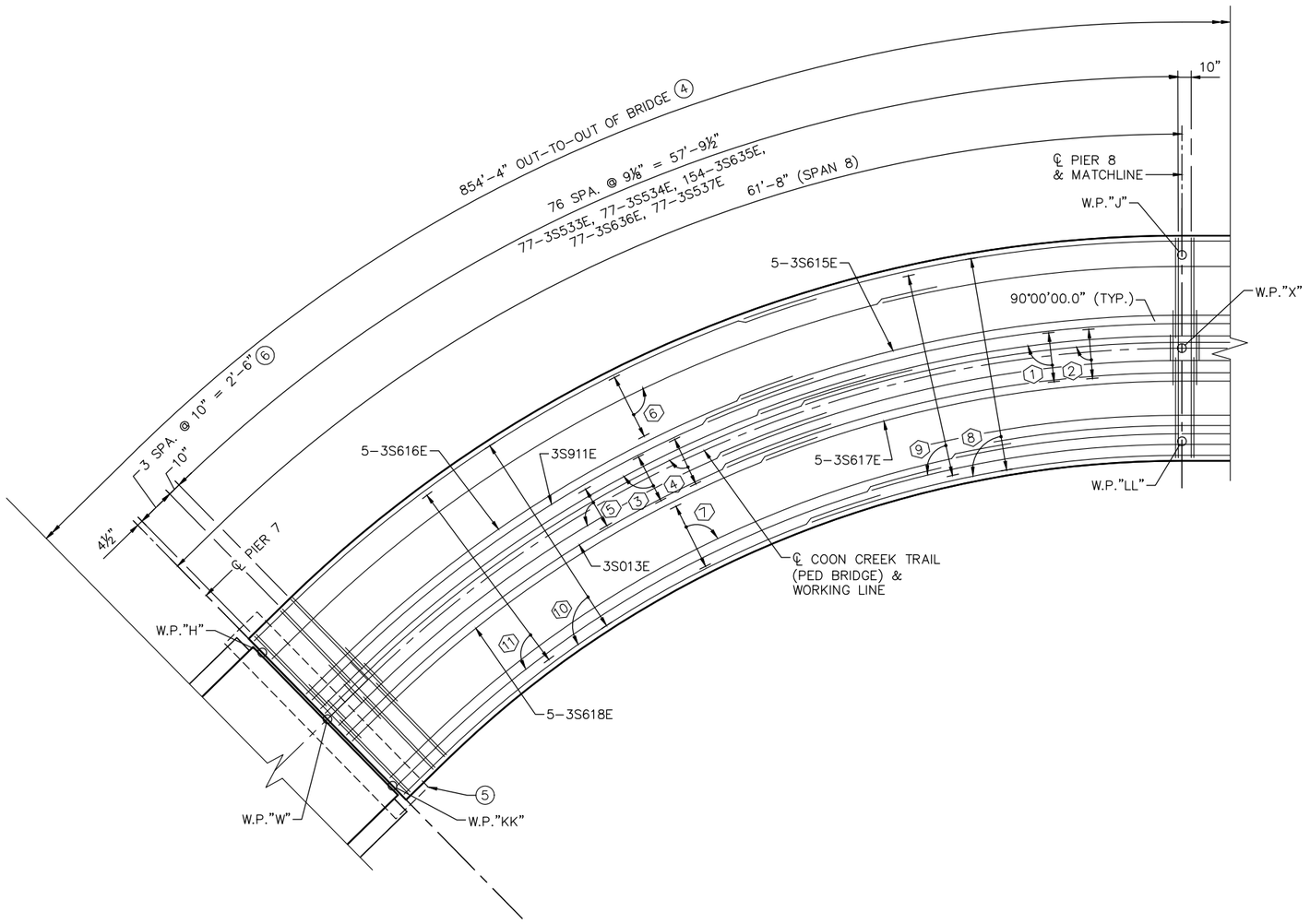
(7) 1 SERIES OF 7 3S622E

(8) 1 SERIES OF 12 3S726E (T)

(9) 1 SERIES OF 11 3S727E (T)

(10) 1 SERIES OF 12 3S728E (T)

(11) 1 SERIES OF 11 3S729E (T)



SUPERSTRUCTURE REINFORCEMENT
(SPAN 8)

No.	Date	Revisions	App.

DRAWING NAME BRG_SUP2.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

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Christopher P. Ewert

CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

SUPERSTRUCTURE REINFORCEMENT PLAN (SPAN 8)

CITY PROJECT 24–6	S.P. 114–090–002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B27 / B68

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NOTES:

SEE SHEET B22 FOR TYPICAL SECTION.

(1) 3'–7" MIN. LAP FOR NO. 3S6 BARS (TYP.)

(2) 4'–8" MIN LAP FOR NO. 3S7 BARS (TYP.)

(3) 7'–3" MIN LAP FOR NO. 3S9 BARS (TYP.)

(4) DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.

BAR CALL–OUTS

(1) 9 – 3S902E (B)

(2) 7 – 3S619E

(3) 23 – 3S724E (T)

(4) 16 – 3S730E (T) SEE STAGGER DETAIL

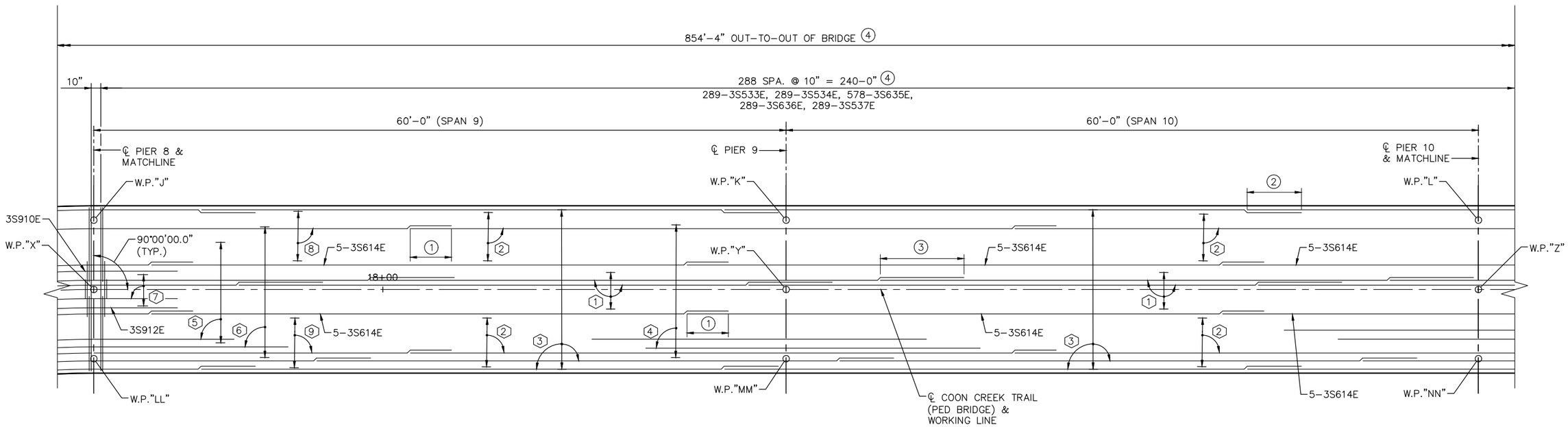
(5) 1 SERIES OF 8 3S732E (T) SEE STAGGER DETAIL

(6) 1 SERIES OF 8 3S731E (T) SEE STAGGER DETAIL

(7) 1 SERIES OF 4 3S908E

(8) 1 SERIES OF 7 3S621E

(9) 1 SERIES OF 7 3S620E



SUPERSTRUCTURE REINFORCEMENT
(SPANS 9 & 10)

No.	Date	Revisions	App.

DRAWING NAME BRG_SUP2.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

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Christopher P. Ewert

CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

SUPERSTRUCTURE REINFORCEMENT PLAN (SPAN 9 & 10)

CITY PROJECT 24–6	S.P. 114–090–002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B28 / B68

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NOTES:

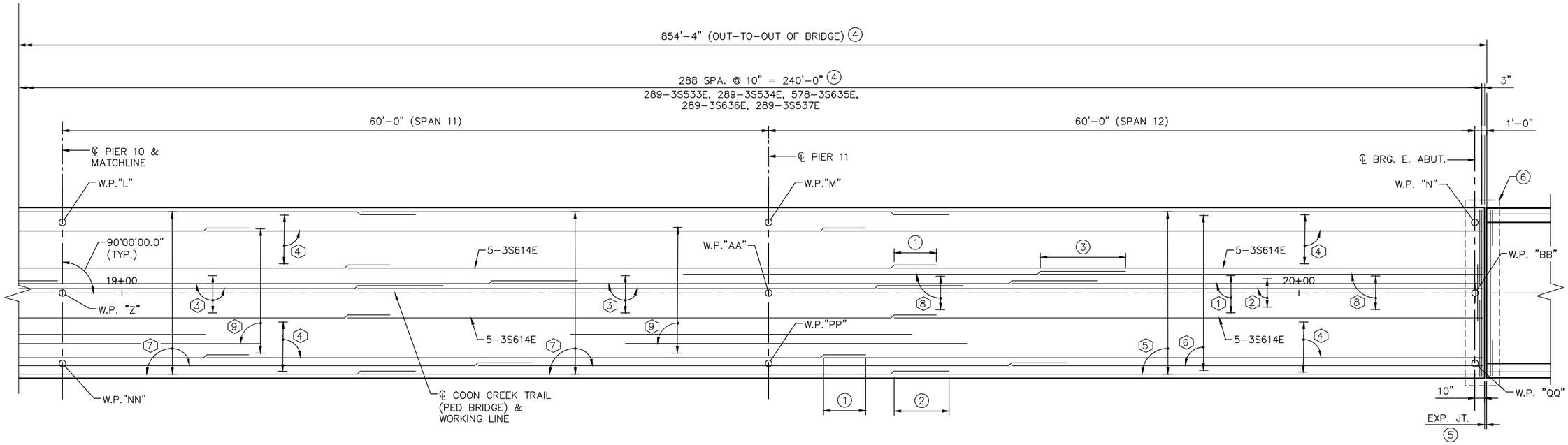
SEE SHEET B22 FOR TYPICAL SECTION.

1. 3'–7" MIN. LAP FOR NO. 3S6 BARS (TYP.)
2. 4'–8" MIN LAP FOR NO. 3S7 BARS (TYP.)
3. 7'–3" MIN LAP FOR NO. 3S9 BARS (TYP.)
4. DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.
5. SEE CORNER DETAILS NOTE 3 FOR JOINT OPENING.
6. SEE SHEET B31 FOR END DIAPHRAGM DETAILS.

BAR CALL–OUTS

1. 5 – 3S901E (B)
2. 4 – 3S902E (B)
3. 9 – 3S902E (B)
4. 7 – 3S619E
5. 12 – 3S724E (T)
6. 11 – 3S725E (T)
7. 23 – 3S724E (T)
8. 6 – 3S907E

16 – 3S730E (T) SEE STAGGER DETAIL



SUPERSTRUCTURE REINFORCEMENT

(SPANS 11 & 12)

No.	Date	Revisions	App.

DRAWING NAME BRG_SUP2.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

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Christopher P. Ewert

CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

SUPERSTRUCTURE REINFORCEMENT PLAN (SPAN 11 & 12)

CITY PROJECT 24–6	S.P. 114–090–002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B29 / B68

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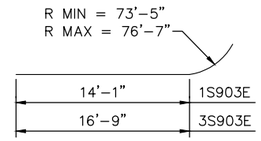
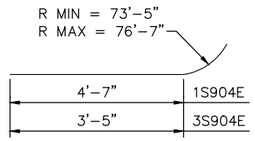


1S903E & 3S903E



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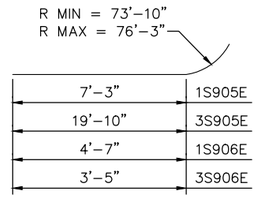

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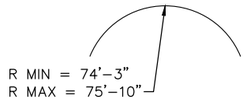

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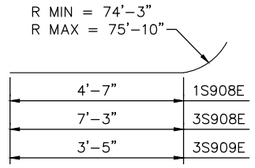

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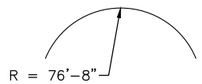

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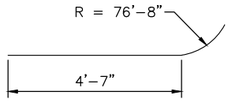

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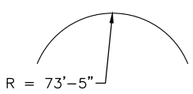

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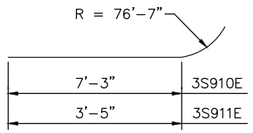

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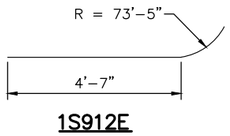

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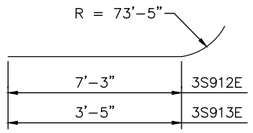

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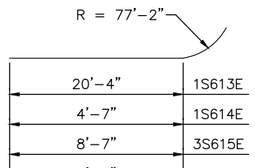

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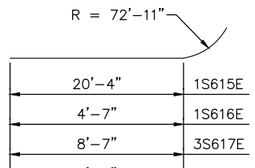

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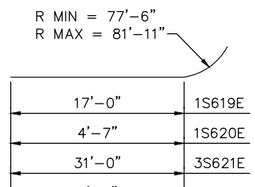

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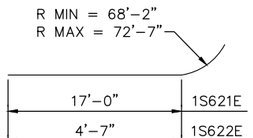

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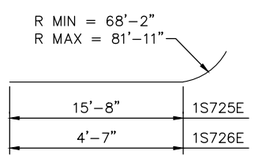

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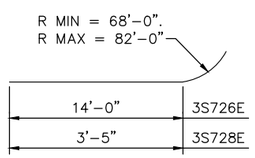

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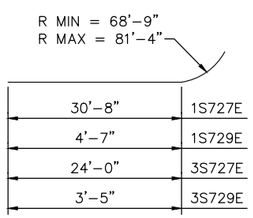

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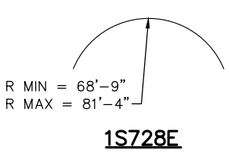

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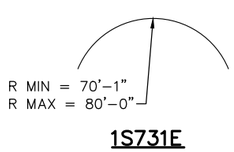

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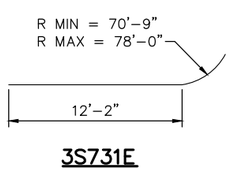

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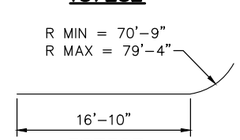

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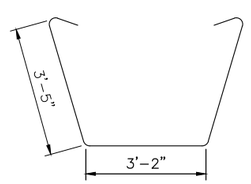

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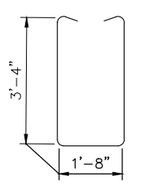

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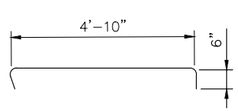

1S536E & 3S537E

BILL OF REINFORCEMENT FOR UNIT 1
SUPERSTRUCTURE

BAR	NO.	LENGTH	SHAPE	LOCATION
1S901E	5	40'-0"	STR.	BOT. LONGIT.
1S902E	49	51'-5"	STR.	BOT. LONGIT.
1S903E	1 SERIES OF 5	50'-0" TO 51'-6"	BENT	BOT. LONGIT.
1S904E	1 SERIES OF 5	49'-7" TO 51'-5"	BENT	BOT. LONGIT.
1S905E	1 SERIES OF 4	46'-8" TO 47'-10"	BENT	BOT. LONGIT.
1S906E	I SERIES OF 4	46'-8" TO 47'-10"	BENT	BOT. LONGIT.
1S907E	I SERIES OF 4	37'-9" TO 38'-4"	BENT	SECOND ROW BOT. LONGIT.
1S908E	1 SERIES OF 4	37'-9" TO 38'-4"	BENT	SECOND ROW BOT. LONGIT.
1S909E	1	38'-8"	BENT	SECOND ROW BOT. LONGIT.
1S910E	1	38'-8"	BENT	SECOND ROW BOT. LONGIT.
1S911E	1	37'-5"	BENT	SECOND ROW BOT. LONGIT.
1S912E	1	37'-5"	BENT	SECOND ROW BOT. LONGIT.
1S613E	5	53'-0"	BENT	SIDE LONGIT.
1S614E	5	53'-0"	BENT	SIDE LONGIT.
1S615E	5	50'-10"	BENT	SIDE LONGIT.
1S616E	5	50'-11"	BENT	SIDE LONGIT.
1S617E	50	53'-0"	STR.	SIDE LONGIT.
1S618E	70	53'-8"	STR.	BOT. FLANGE LONGIT.
1S619E	1 SERIES OF 7	51'-6" TO 53'-9"	BENT	BOT. FLANGE LONGIT.
1S620E	1 SERIES OF 7	51'-6" TO 53'-8"	BENT	BOT. FLANGE LONGIT.
1S621E	1 SERIES OF 7	46'-10" TO 48'-7"	BENT	BOT. FLANGE LONGIT.
1S622E	1 SERIES OF 7	46'-10" TO 49'-8"	BENT	BOT. FLANGE LONGIT.
1S723E	104	55'-0"	STR.	TOP FLANGE LOGIT.
1S724E	11	40'-0"	STR.	TOP FLANGE LOGIT.
1S725E	1 SERIES OF 12	47'-8" TO 53'-8"	BENT	TOP FLANGE LOGIT.
1S726E	1 SERIES OF 12	45'-9" TO 53'-7"	BENT	TOP FLANGE LOGIT.
1S727E	1 SERIES OF 11	40'-9" TO 42'-2"	BENT	TOP FLANGE LOGIT.
1S728E	1 SERIES OF 11	36'-4" TO 42'-1"	BENT	TOP FLANGE LOGIT.
1S729E	1 SERIES OF 11	36'-8" TO 42'-1"	BENT	TOP FLANGE LOGIT.
1S730E	70	29'-0"	STR.	TOP PIER LONGIT.
1S731E	1 SERIES OF 16	29'-0" TO 29'-0"	BENT	TOP PIER LONGIT.
1S532E	426	11'-0"	BENT	STIRRUP
1S533E	426	9'-4"	BENT	STIRRUP
1S634E	852	6'-3"	STR.	BOT. FLANGE TRANS.
1S635E	426	14'-2"	STR.	TOP TRANS.
1S536E	426	5'-10"	BENT	TIE

BILL OF REINFORCEMENT FOR UNIT 3
SUPERSTRUCTURE

BAR	NO.	LENGTH	SHAPE	LOCATION
3S901E	5	40'-0"	STR.	BOT. LONGIT.
3S902E	40	51'-5"	STR.	BOT. LONGIT.
3S903E	1 SERIES OF 5	42'-11 TO 42'-3"	BENT	BOT. LONGIT.
3S904E	1 SERIES OF 5	40'-2" TO 41'-8"	BENT	BOT. LONGIT.
3S905E	1 SERIES OF 4	43'-1" TO 44'-9"	BENT	BOT. LONGIT.
3S906E	1 SERIES OF 4	43'-7" TO 44'-9"	BENT	BOT. LONGIT.
3S907E	12	37'-7"	STR.	SECOND ROW BOT. LONGIT.
3S908E	1 SERIES OF 4	37'-9" TO 38'-4"	BENT	SECOND ROW BOT. LONGIT.
3S909E	1 SERIES OF 4	37'-8" TO 38'-4"	BENT	SECOND ROW BOT. LONGIT.
3S910E	1	38'-8"	BENT	SECOND ROW BOT. LONGIT.
3S911E	1	38'-8"	BENT	SECOND ROW BOT. LONGIT.
3S912E	1	37'-5"	BENT	SECOND ROW BOT. LONGIT.
3S913E	1	37'-5"	BENT	SECOND ROW BOT. LONGIT.
3S614E	50	50'-0"	STR.	SIDE LONGIT.
3S615E	5	37'-8"	BENT	SIDE LONGIT.
3S616E	5	37'-8"	BENT	SIDE LONGIT.
3S617E	5	36'-0"	BENT	SIDE LONGIT.
3S618E	5	36'-0"	BENT	SIDE LONGIT.
3S619E	32	56'-0"	STR.	BOT. FLANGE LONGIT.
3S620E	1 SERIES OF 7	45'-4" TO 47'-1"	BENT	BOT. FLANGE LONGIT.
3S621E	1 SERIES OF 7	49'-0" TO 50'-9"	BENT	BOT. FLANGE LONGIT.
3S622E	1 SERIES OF 7	45'-5" TO 47'-1"	BENT	BOT. FLANGE LONGIT.
3S623E	1 SERIES OF 7	49'-0" TO 50'-9"	BENT	BOT. FLANGE LONGIT.
3S724E	104	50'-0"	STR.	TOP FLANGE LONGIT.
3S725E	11	40'-0"	STR.	TOP FLANGE LONGIT.
3S726E	1 SERIES OF 12	38'-4" TO 42'-10"	BENT	TOP FLANGE LONGIT.
3S727E	1 SERIES OF 11	44'-3" TO 47'-6"	BENT	TOP FLANGE LONGIT.
3S728E	1 SERIES OF 12	36'-6" TO 42'-11"	BENT	TOP FLANGE LONGIT.
3S729E	1 SERIES OF 11	41'-1" TO 47'-7"	BENT	TOP FLANGE LONGIT.
3S730E	48	29'-0"	STR.	TOP PIER LONGIT.
3S731E	1 SERIES OF 8	29'-0" TO 29'-0"	BENT	TOP PIER LONGIT.
3S732E	1 SERIES OF 8	29'-0" TO 29'-0"	BENT	TOP PIER LONGIT.
3S533E	370	11'-0"	BENT	STIRRUP
3S534E	370	9'-4"	BENT	STIRRUP
3S635E	740	6'-3"	STR.	BOT. FLANGE TRANS.
3S636E	370	14'-2"	STR.	TOP TRANS.
3S537E	370	5'-10"	BENT	TIE

No.	Date	Revisions	App.

DRAWING NAME
BRG_SUP4.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn
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CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

SUPERSTRUCTURE REINFORCEMENT
BAR LISTS & BAR BENDS

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO.
B30
B68

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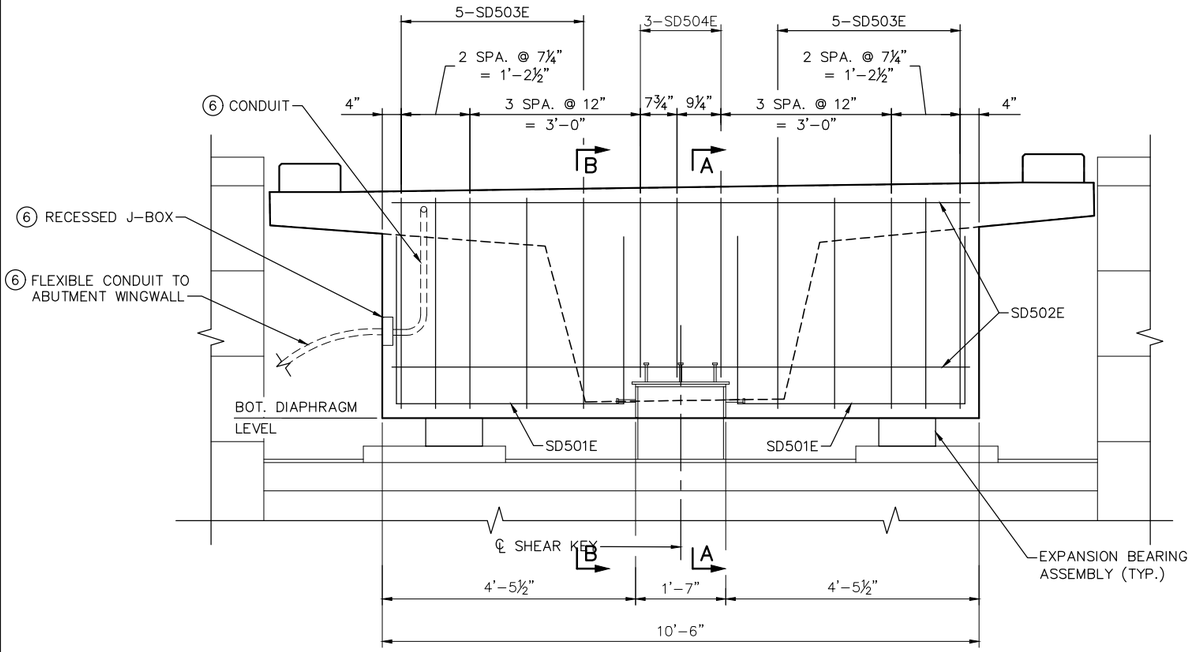
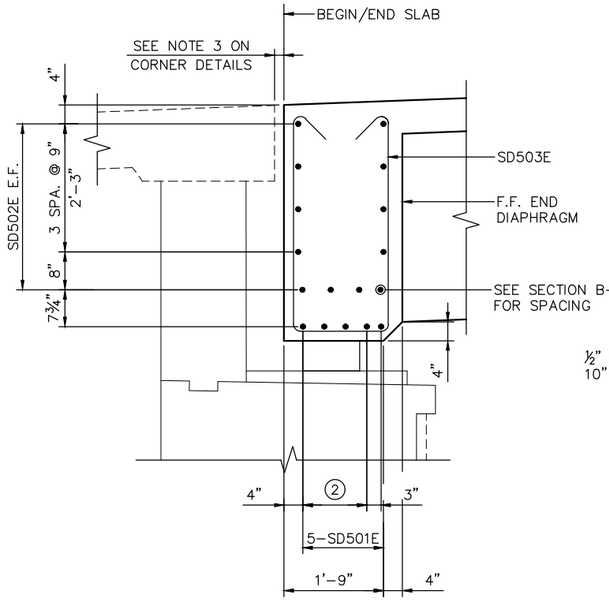
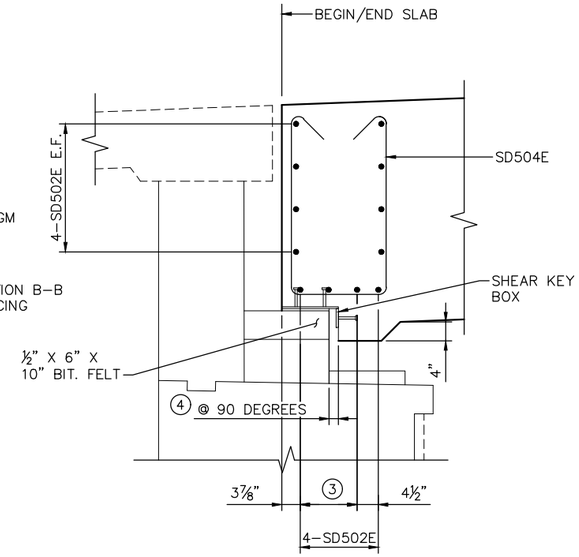


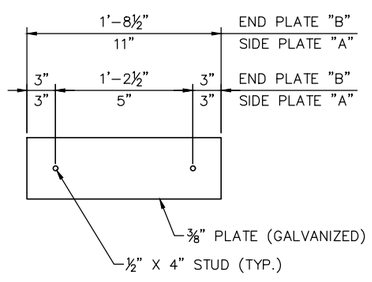
END DIAPRAGM ELEVATION
(ABUTMENT SHOWN, PIER 6 & 7 SIMILAR)



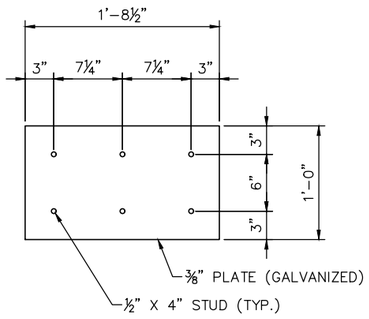
SECTION A–A
(ABUTMENT SHOWN, PIER 6 & 7 SIMILAR)



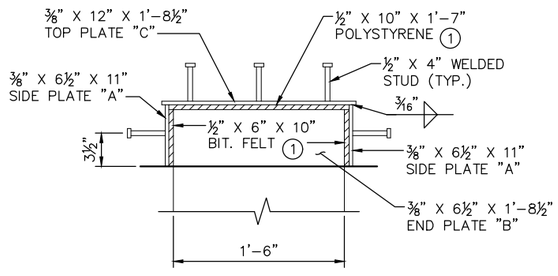
SECTION B–B
(ABUTMENT SHOWN, PIER 6 & 7 SIMILAR)



SIDE PLATE "A" & END PLATE "B"
PLATE "A" – 8 REQ'D EACH DIAPHRAGM
PLATE "B" – 4 REQ'D EACH DIAPHRAGM

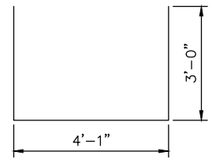


TOP PLATE "C"
2 REQ'D EACH DIAPHRAGM

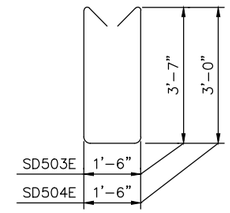


TRANSVERSE SECTION

BILL OF REINFORCEMENT FOR END DIAPHRAGM				
BAR	NO.	LENGTH	SHAPE	LOCATION
SD401E	40	10'-1"	BENT	BOT.TRANS.
SD402E	48	10'-2"	STR.	TRANS.
SD03E	40	9'-8"	BENT	TIE
SD404E	12	8'-6"	BENT	TIE



SD501E



SD503E, SD504E

NOTES:
1. SECURE BITUMINOUS FELT AND POLYSTYRENE TO SHEAR KEY W/ APPROVED ADHESIVES.
2. 3 SPA. @ 4½" = 1'–1½"
3. 2 SPA. @ 6" = 1'–0"
4. 2½" WEST ABUT., 2" EAST ABUT., 2½" PIER 6, 2½" PIER 7
5. SHEAR KEY BOX MATERIALS AND INSTALLATION INCIDENTAL TO ITEM NO. 2401.507 STRUCTURAL CONCRETE (3JM).
6. CONDUIT SYSTEM TYPE 1 – 1¼" DIA. RSC. AT EAST & WEST ABUT. ONLY

SHEAR KEY BOX DETAILS ⑤

No.	Date	Revisions	App.

DRAWING NAME: BRG_SUP4.dwg
DESIGNED BY: MJN
CHECKED BY: KAE
DRAWN BY: NMA
CHECKED BY: KAE
PROJECT NO. 160000023

COON RAPIDS Minnesota

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CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
SUPERSTRUCTURE DETAILS
END DIAPHRAGM

CITY PROJECT 24–6 | S.P. 114–090–002
MINN. PROJECT NO. TA 0224(173)
BRIDGE NO. 02596

SHEET NO. B31 / B68

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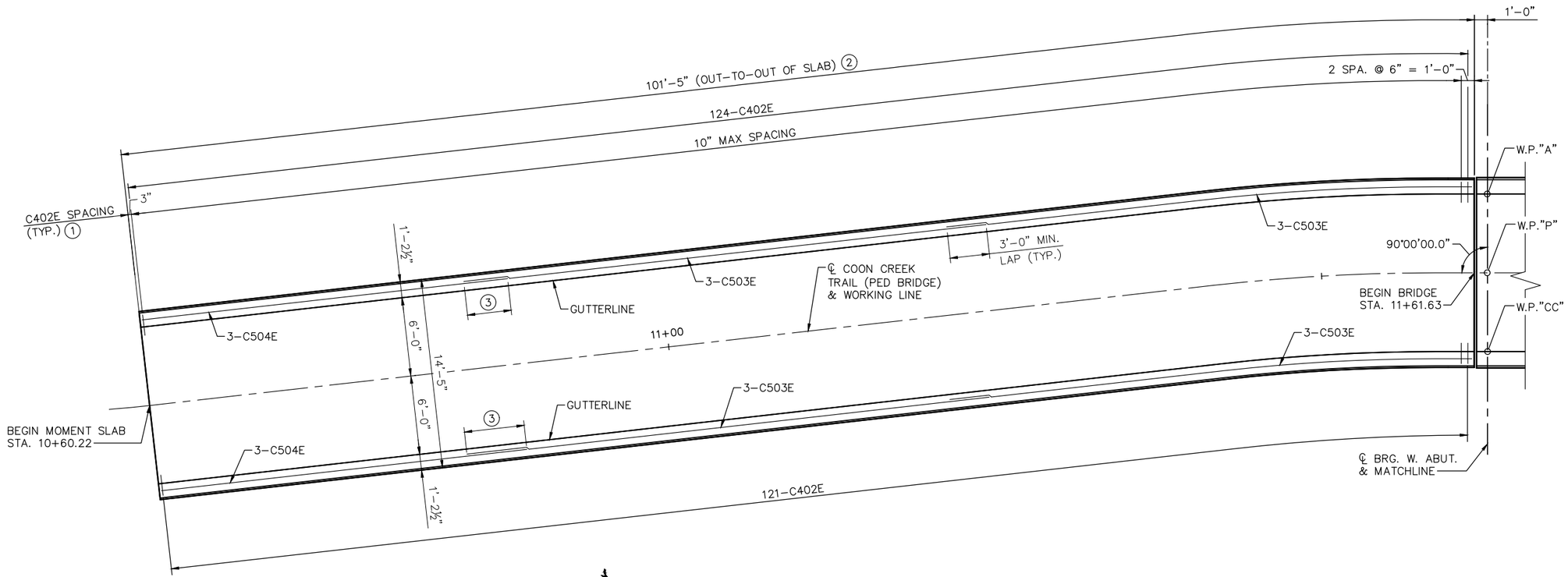

PARTIAL CURB REINFORCEMENT PLAN
(WEST MOMENT SLAB)

NOTES:

SEE SHEET B47 FOR CONCRETE CURB FOR USE WITH ORNAMENTAL METAL RAILING DETAILS.

LONGITUDINAL BARS LOCATED ON CURVES WITHOUT A SPECIFICALLY DETAILED RADIUS SHALL BE FIELD BENT TO THE REQUIRED RADIUS.

(1) DIMENSION MEASURED ALONG CONCRETE CURB.

(2) DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.

(3) INCREASE MIN. LAP AS NEEDED FOR C504E TO MAINTAIN REQUIRED END CLEAR.

No.	Date	Revisions	App.

DRAWING NAME: BRG_MOMNT SLAB CURB.dwg
DESIGNED BY: MJN
CHECKED BY: KAE
DRAWN BY: NMA
CHECKED BY: KAE
PROJECT NO. 160000023

COON RAPIDS Minnesota

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Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD
CURB DETAILS & REINFORCEMENT
(WEST MOMENT SLAB)

CITY PROJECT 24-6 | S.P. 114-090-002
MINN. PROJECT NO. TA 0224(173)
BRIDGE NO. 02596

SHEET NO. B32 / B68

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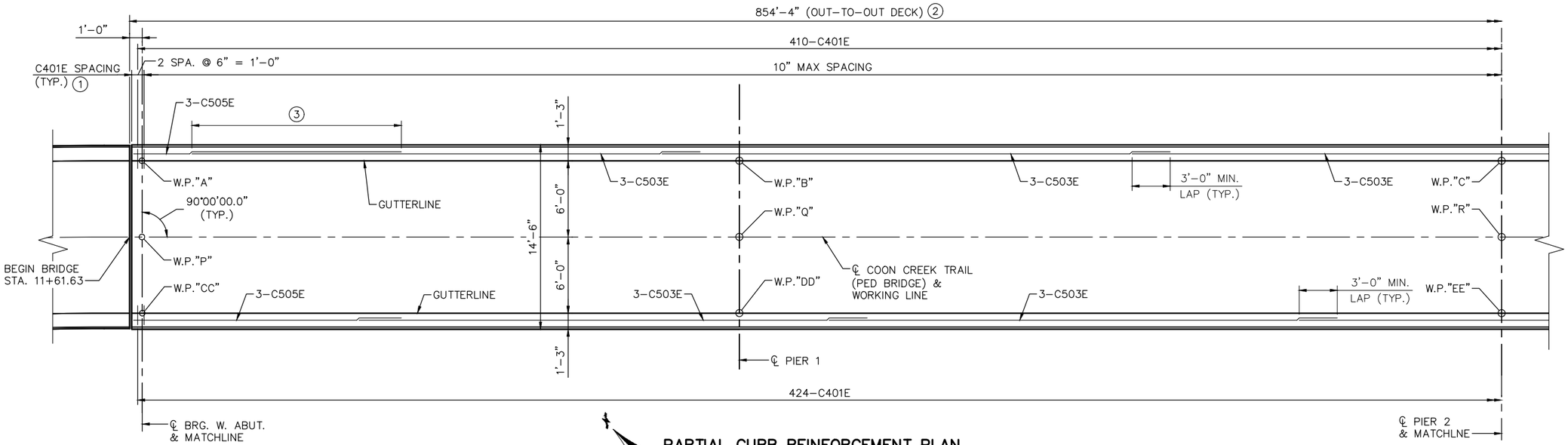
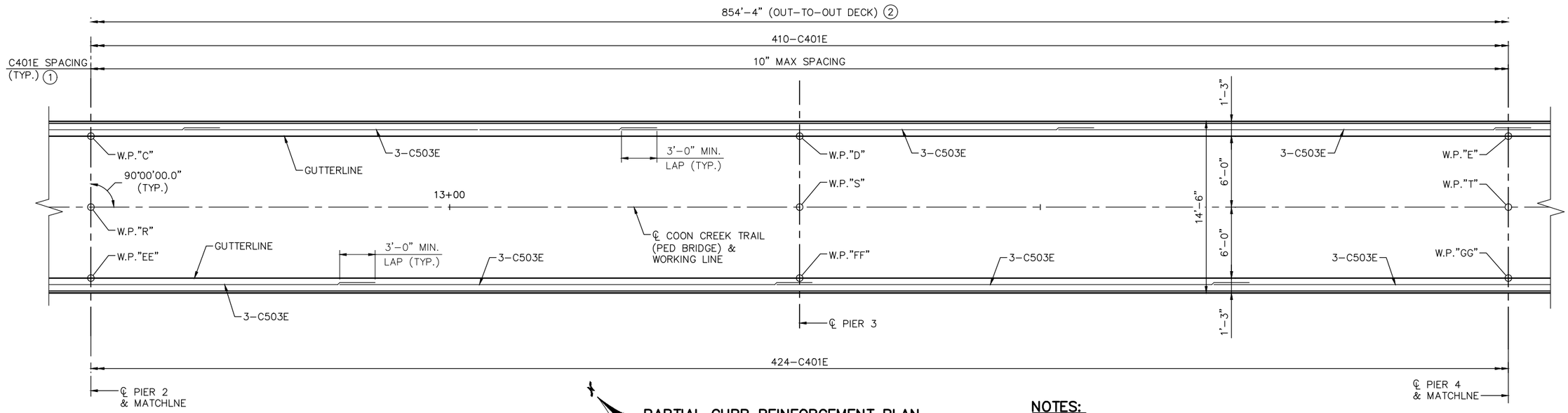


PARTIAL CURB REINFORCEMENT PLAN
(SPANS 1 & 2)



PARTIAL CURB REINFORCEMENT PLAN
(SPANS 3 & 4)

NOTES:

SEE SHEET B47 FOR CONCRETE CURB FOR USE WITH ORNAMENTAL METAL RAILING DETAILS.

LONGITUDINAL BARS LOCATED ON CURVES WITHOUT A SPECIFICALLY DETAILED RADIUS SHALL BE FIELD BENT TO THE REQUIRED RADIUS.

(1) DIMENSION MEASURED ALONG CONCRETE CURB.

(2) DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.

(3) INCREASE MIN. LAP AS NEEDED FOR C505E TO MAINTAIN REQUIRED END CLEAR.

No.	Date	Revisions	App.

DRAWING NAME: BRG_CURB REINF.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

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CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

CURB DETAILS & REINFORCEMENT
(SPAN 1-4)

CITY PROJECT 24-6	S.P. 114-090-002	SHEET NO. B33
MINN. PROJECT NO.	TA 0224(173)	B68
BRIDGE NO. 02596		

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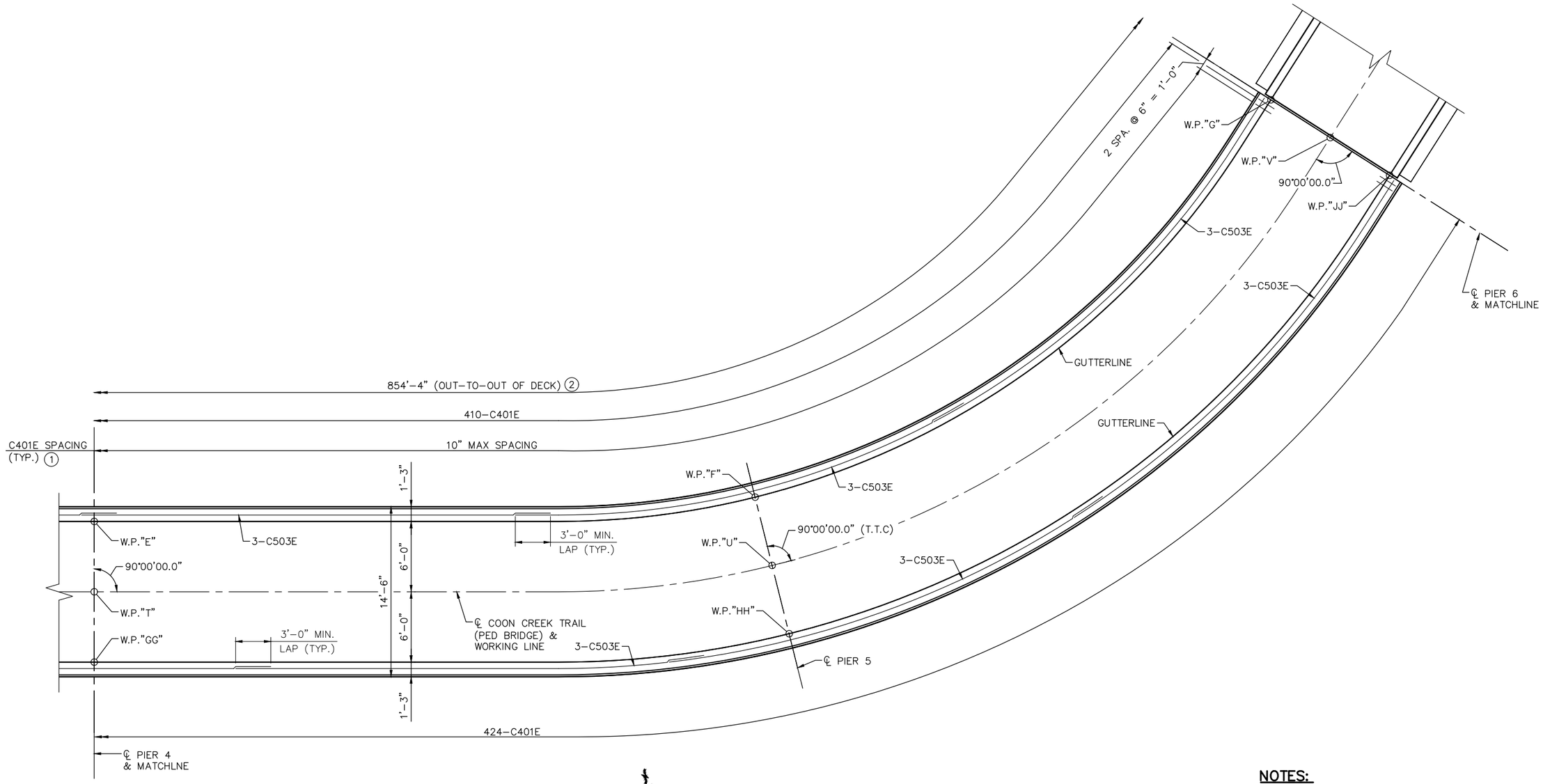

PARTIAL CURB REINFORCEMENT PLAN
(SPANS 5 & 6)

NOTES:

SEE SHEET B47 FOR CONCRETE CURB FOR USE WITH ORNAMENTAL METAL RAILING DETAILS.

LONGITUDINAL BARS LOCATED ON CURVES WITHOUT A SPECIFICALLY DETAILED RADIUS SHALL BE FIELD BENT TO THE REQUIRED RADIUS.

(1) DIMENSION MEASURED ALONG CONCRETE CURB.

(2) DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.

No.	Date	Revisions	App.

DRAWING NAME BRG_CURB REINF.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

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CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

CURB DETAILS & REINFORCEMENT
(SPAN 5 & 6)

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B34 / B68

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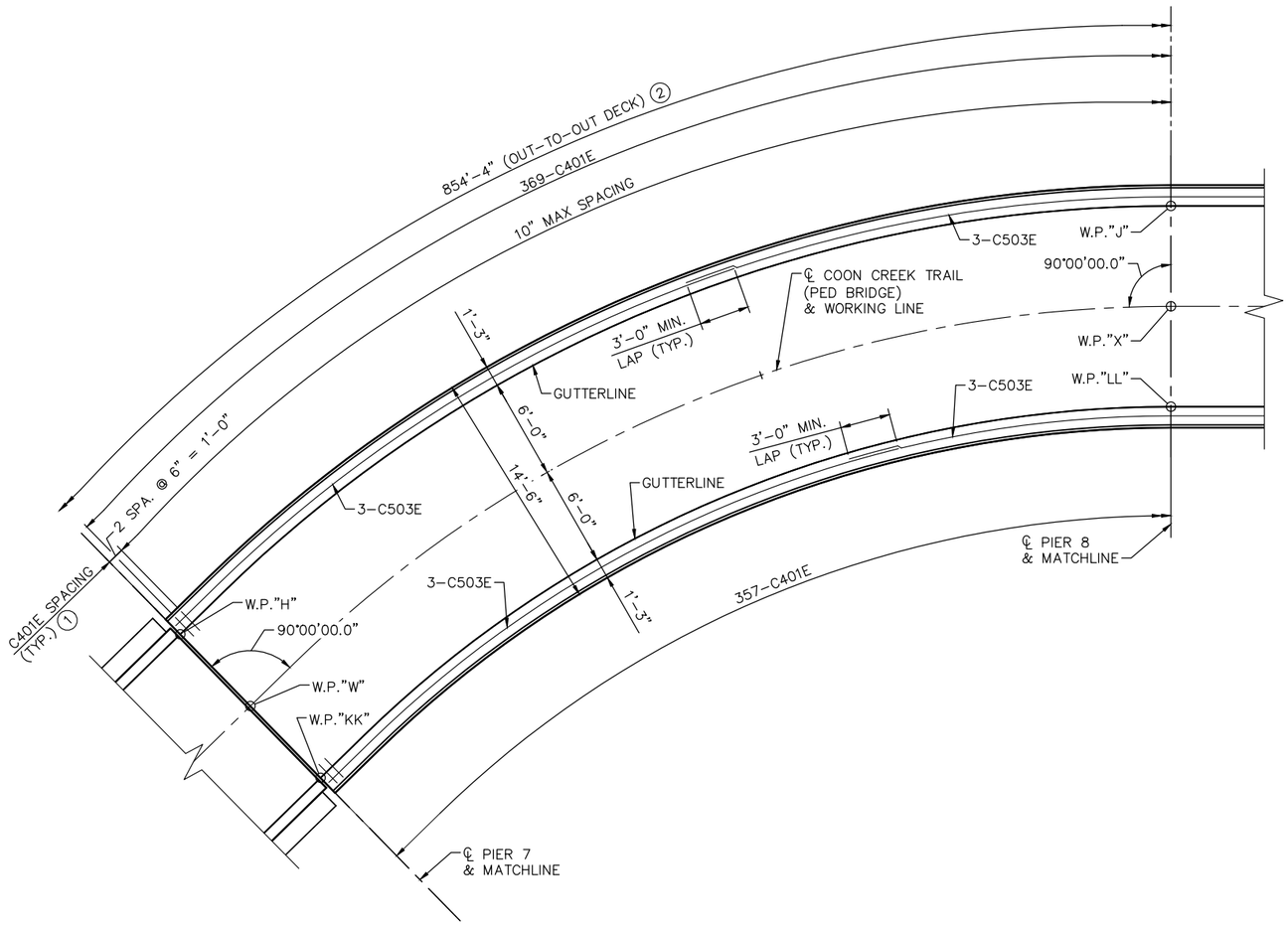

PARTIAL CURB REINFORCEMENT PLAN
(SPAN 8)

NOTES:

SEE SHEET B47 FOR CONCRETE CURB FOR USE WITH ORNAMENTAL METAL RAILING DETAILS.

LONGITUDINAL BARS LOCATED ON CURVES WITHOUT A SPECIFICALLY DETAILED RADIUS SHALL BE FIELD BENT TO THE REQUIRED RADIUS.

① DIMENSION MEASURED ALONG CONCRETE CURB.

② DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.

No.	Date	Revisions	App.

DRAWING NAME: BRG_CURB REINF.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

CURB DETAILS & REINFORCEMENT
(SPAN 8)

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B35 / B68

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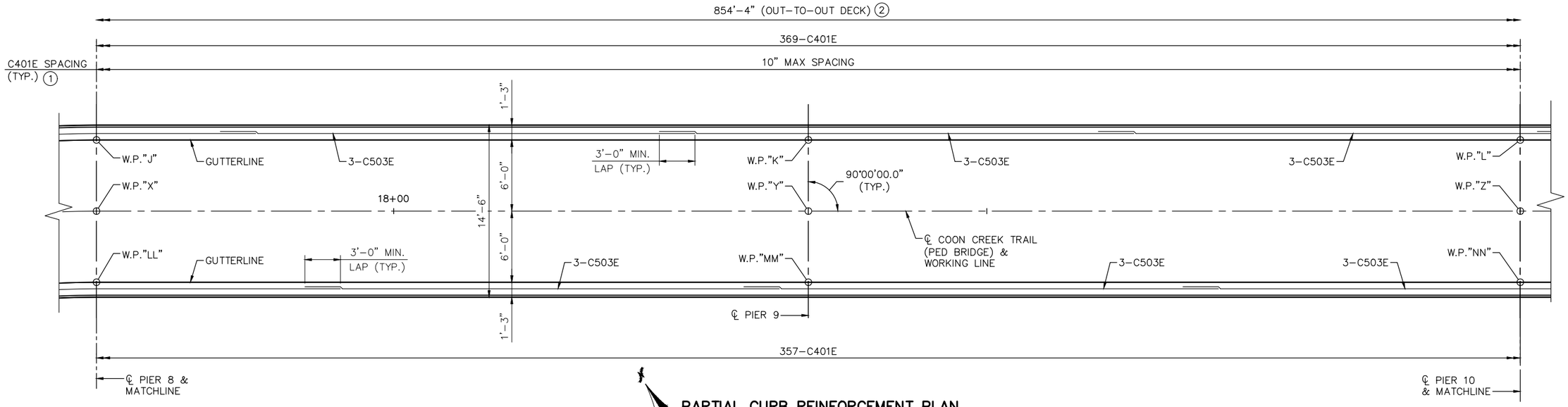
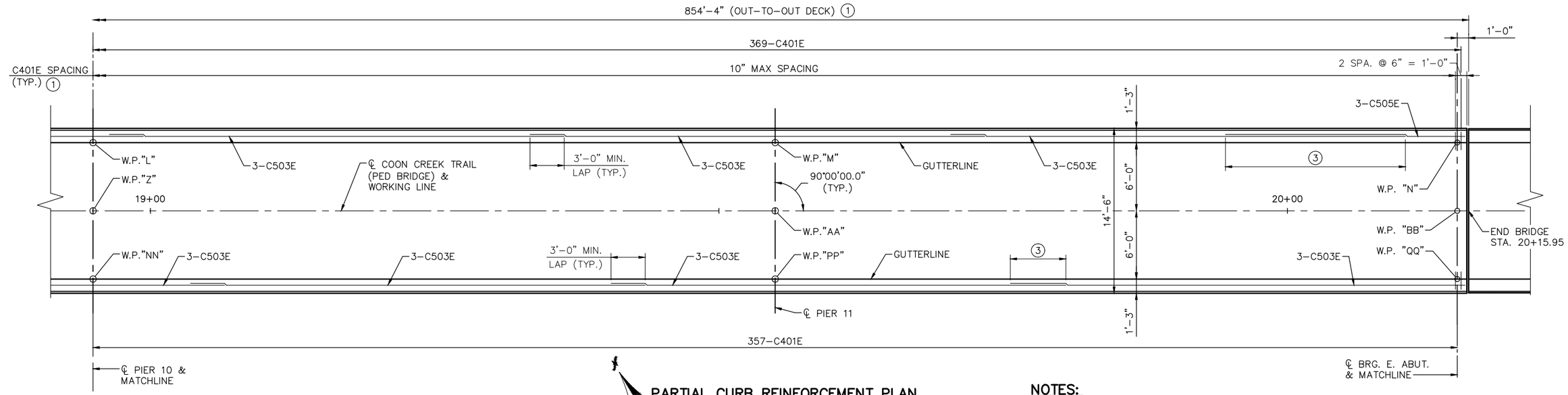


PARTIAL CURB REINFORCEMENT PLAN
(SPANS 9 & 10)



PARTIAL CURB REINFORCEMENT PLAN
(SPANS 11 & 12)

NOTES:

SEE SHEET B47 FOR CONCRETE CURB FOR USE WITH ORNAMENTAL METAL RAILING DETAILS.

LONGITUDINAL BARS LOCATED ON CURVES WITHOUT A SPECIFICALLY DETAILED RADIUS SHALL BE FIELD BENT TO THE REQUIRED RADIUS.

(1) DIMENSION MEASURED ALONG CONCRETE CURB.

(2) DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.

(3) INCREASE MIN. LAP AS NEEDED FOR C503E OR C505E TO MAINTAIN REQUIRED END CLEAR.

No.	Date	Revisions	App.

DRAWING NAME: BRG_CURB REINF.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

CURB DETAILS & REINFORCEMENT
(SPAN 9-12)

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B36 / B68

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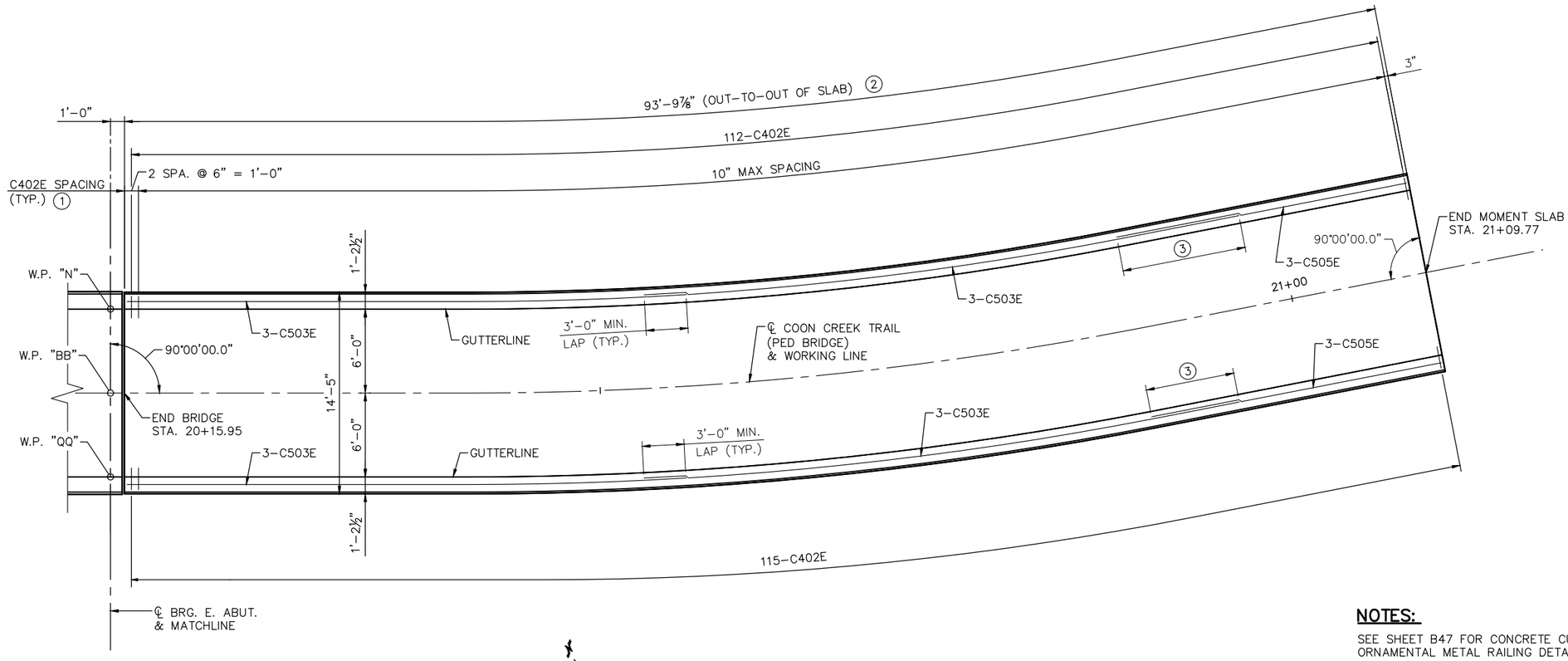

PARTIAL CURB REINFORCEMENT PLAN
(EAST MOMENT SLAB)

NOTES:

SEE SHEET B47 FOR CONCRETE CURB FOR USE WITH ORNAMENTAL METAL RAILING DETAILS.

LONGITUDINAL BARS LOCATED ON CURVES WITHOUT A SPECIFICALLY DETAILED RADIUS SHALL BE FIELD BENT TO THE REQUIRED RADIUS.

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(2) DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.

(3) INCREASE MIN. LAP AS NEEDED FOR C505E TO MAINTAIN REQUIRED END CLEAR.

No.	Date	Revisions	App.

DRAWING NAME	BRG_MOMNT SLAB CURB.dwg
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn
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CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

CURB DETAILS & REINFORCEMENT
(EAST MOMENT SLAB)

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B37 / B68

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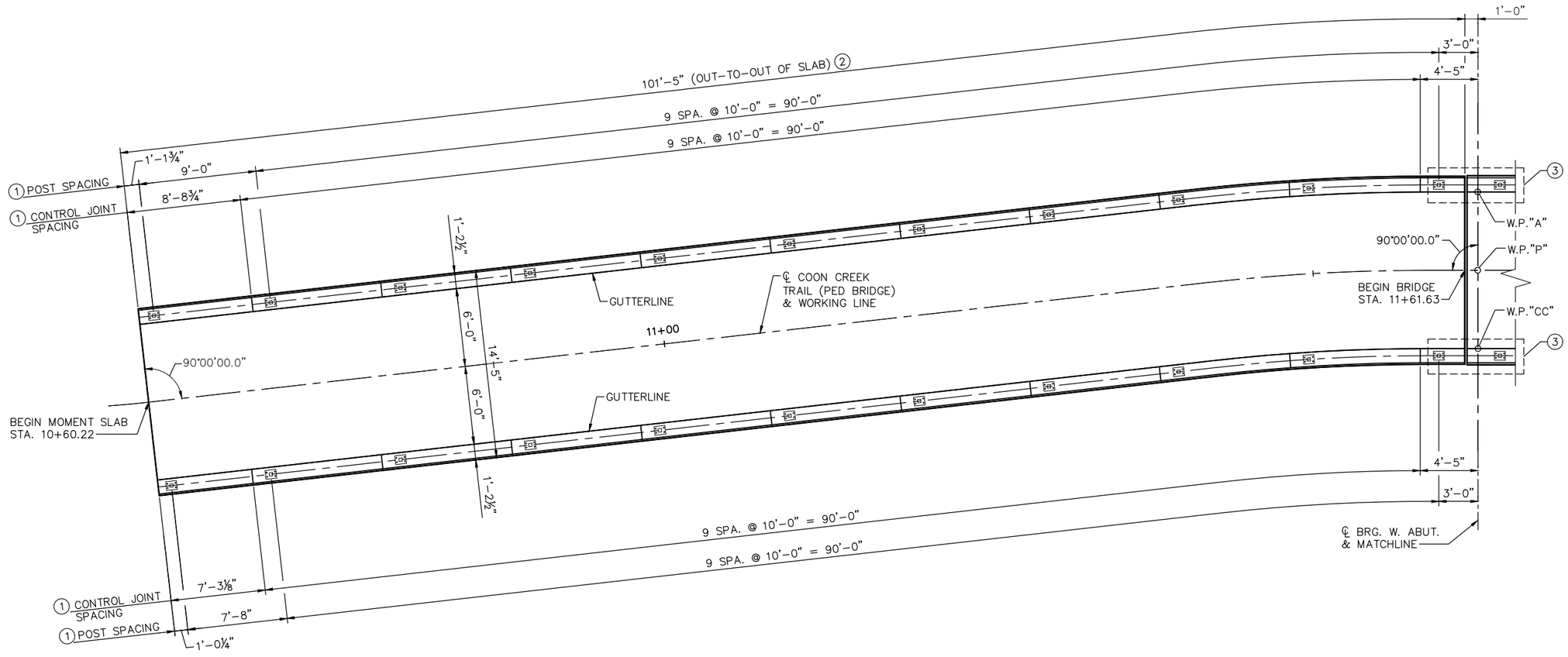

PARTIAL JOINT & POST LAYOUT
(WEST MOMENT SLAB)

NOTES:

(1) DIMENSION MEASURED ALONG ℄ ORNAMENTAL METAL RAILING TYPE SPECIAL 1 AND CONCRETE CURB.

(2) DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.

(3) SEE W. ABUT. CANTILEVER DETAILS ON SHEET B39

No.	Date	Revisions	App.

DRAWING NAME: BRG_MOMNT SLAB C&R.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

JOINT, POST & CONDUIT DETAILS
(WEST MOMENT SLAB)

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B38 / B68

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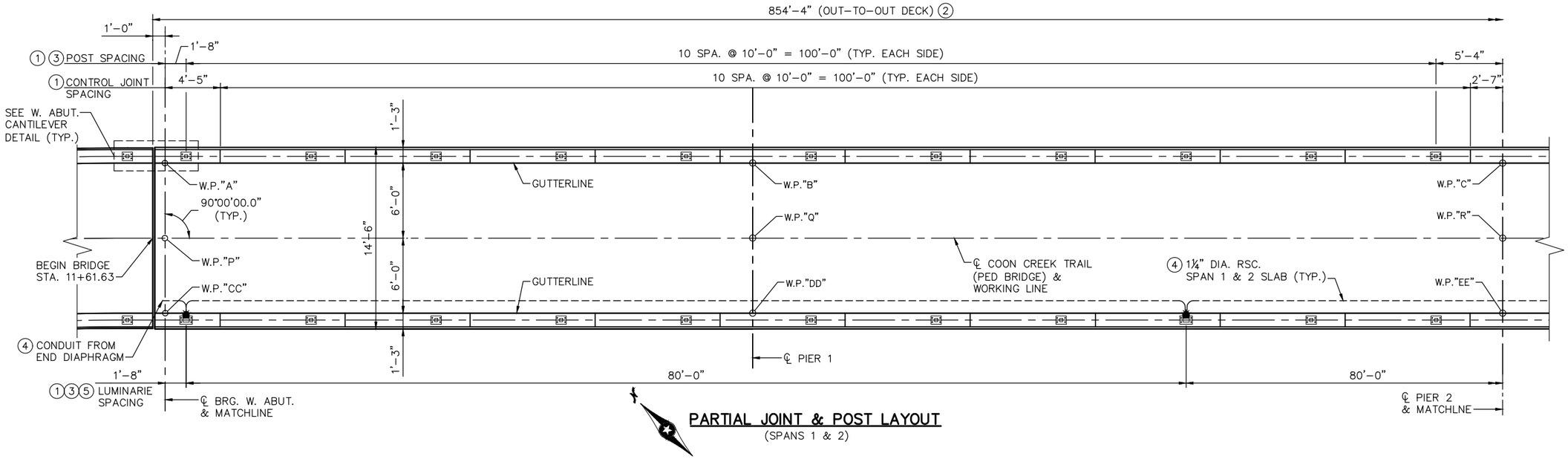
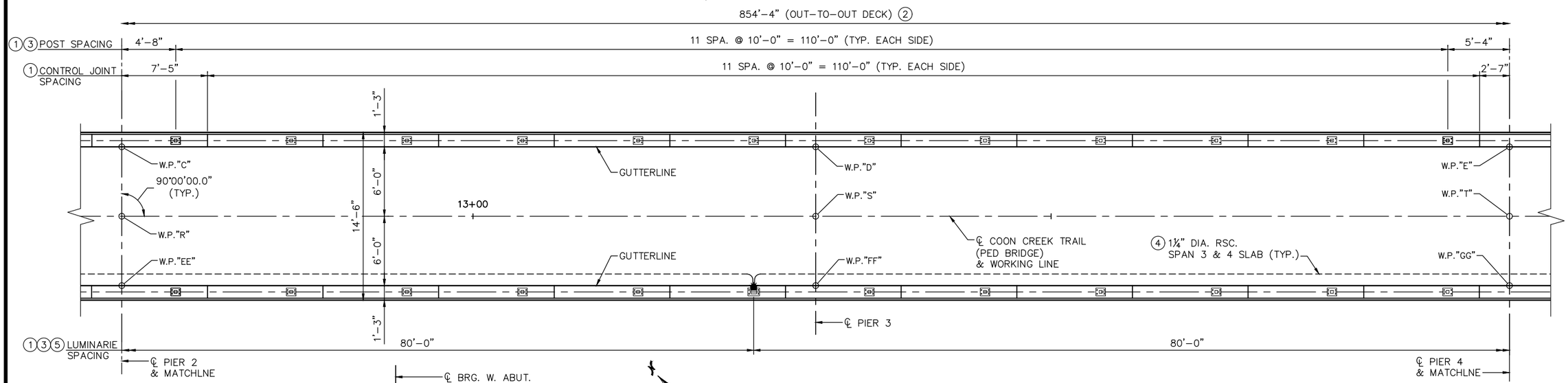
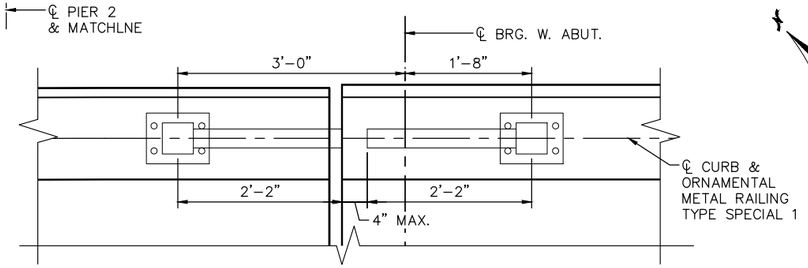


PARTIAL JOINT & POST LAYOUT
(SPANS 1 & 2)



PARTIAL JOINT & POST LAYOUT
(SPANS 3 & 4)



W. ABUT. CANTILEVER DETAIL

NOTES:

(1) DIMENSION MEASURED ALONG ℄ ORNAMENTAL METAL RAILING TYPE SPECIAL 1 AND CONCRETE CURB.

(2) DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.

(3) HSS 4 x 4 POST (TYP.)
HSS 6 x 6 POST AT LUMINARIE LOCATIONS.
SEE ORNAMENTAL METAL RAILING DETAILS FOR ADDITIONAL INFORMATION.

(4) CONDUIT SYSTEM TYPE 1

(5) LIGHTING SYSTEM "A"

No.	Date	Revisions	App.

DRAWING NAME: BRG_CURB & RAILING.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn
767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114
PHONE: 651-645-4197
WWW.KIMLEY-HORN.COM

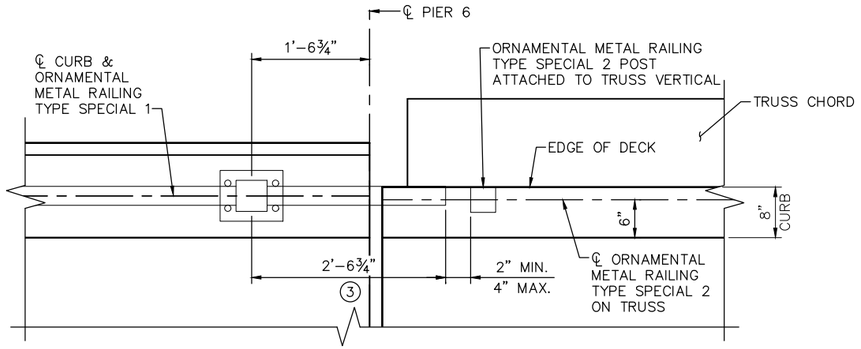
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
JOINT, POST & CONDUIT DETAILS (SPAN 1 – 4)

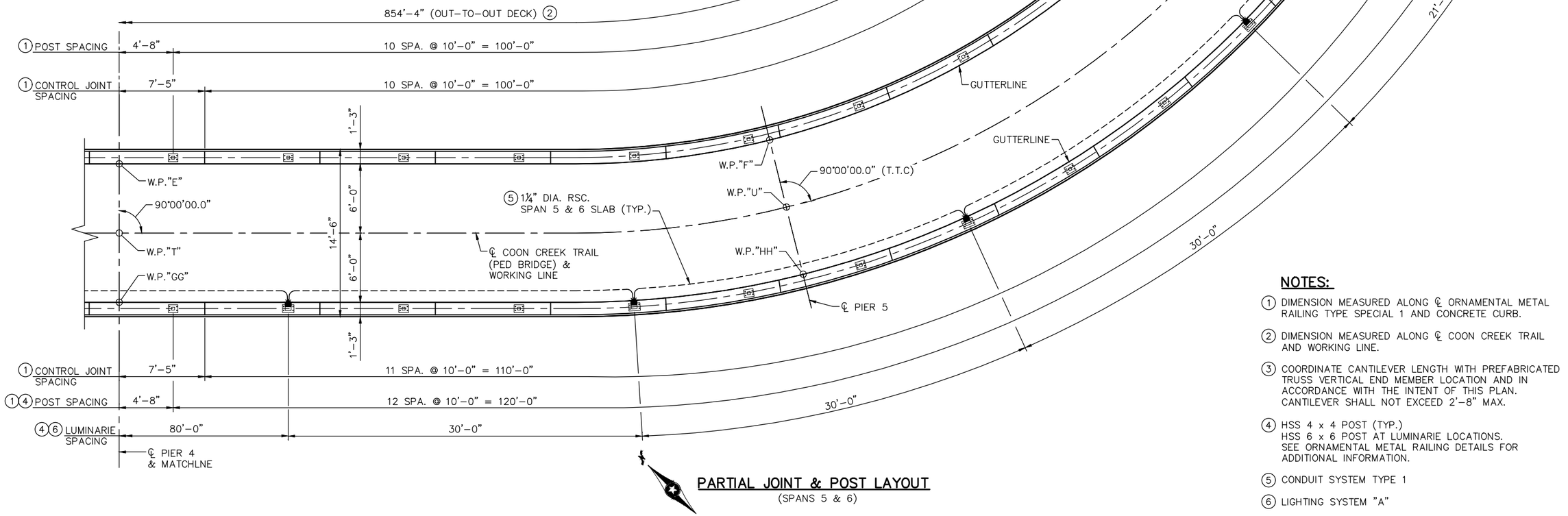
CITY PROJECT 24-6	S.P. 114-090-002	SHEET NO. B39
MINN. PROJECT NO.	TA 0224(173)	
BRIDGE NO. 02596		B68

K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_CURB & RAILING.dwg 4/22/2024 4:52 PM



TRUSS CANTILEVER DETAIL

(NW CORNER SHOWN, ALL TRUSS CORNERS SIMILAR)



PARTIAL JOINT & POST LAYOUT

(SPANS 5 & 6)

NOTES:

1. DIMENSION MEASURED ALONG ℄ ORNAMENTAL METAL RAILING TYPE SPECIAL 1 AND CONCRETE CURB.
2. DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.
3. COORDINATE CANTILEVER LENGTH WITH PREFABRICATED TRUSS VERTICAL END MEMBER LOCATION AND IN ACCORDANCE WITH THE INTENT OF THIS PLAN. CANTILEVER SHALL NOT EXCEED 2'-8" MAX.
4. HSS 4 x 4 POST (TYP.) HSS 6 x 6 POST AT LUMINARIE LOCATIONS. SEE ORNAMENTAL METAL RAILING DETAILS FOR ADDITIONAL INFORMATION.
5. CONDUIT SYSTEM TYPE 1
6. LIGHTING SYSTEM "A"

No.	Date	Revisions	App.

DRAWING NAME: BRG_CURB & RAILING.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

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CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

JOINT, POST & CONDUIT DETAILS
(SPAN 5 & 6)

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B40 / B68

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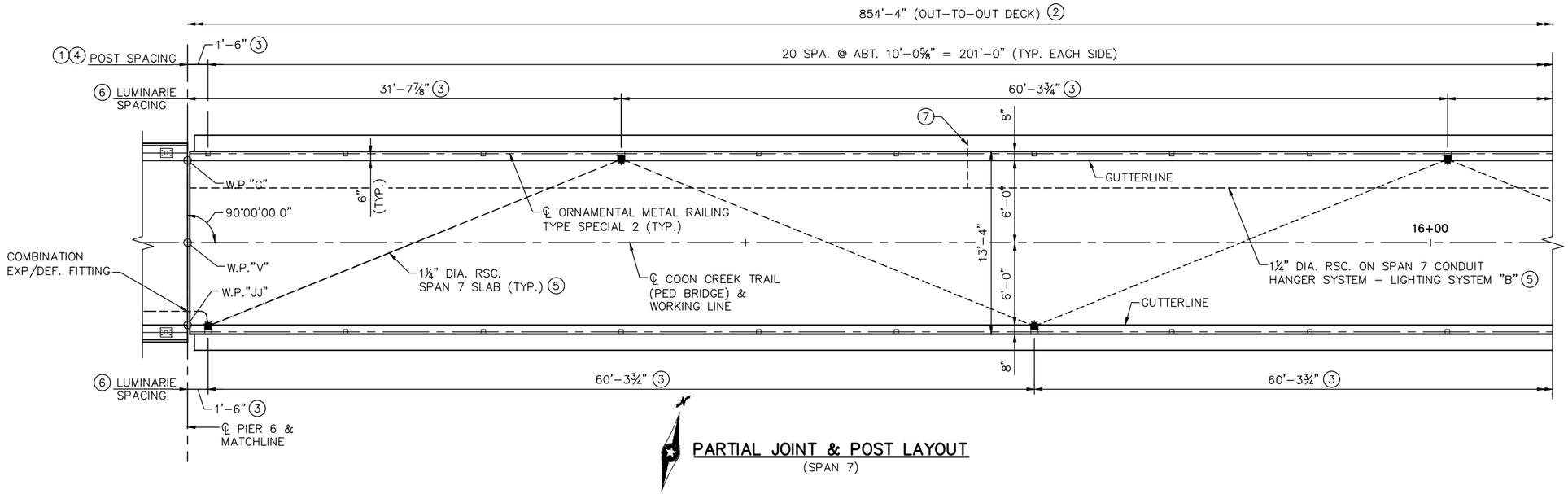
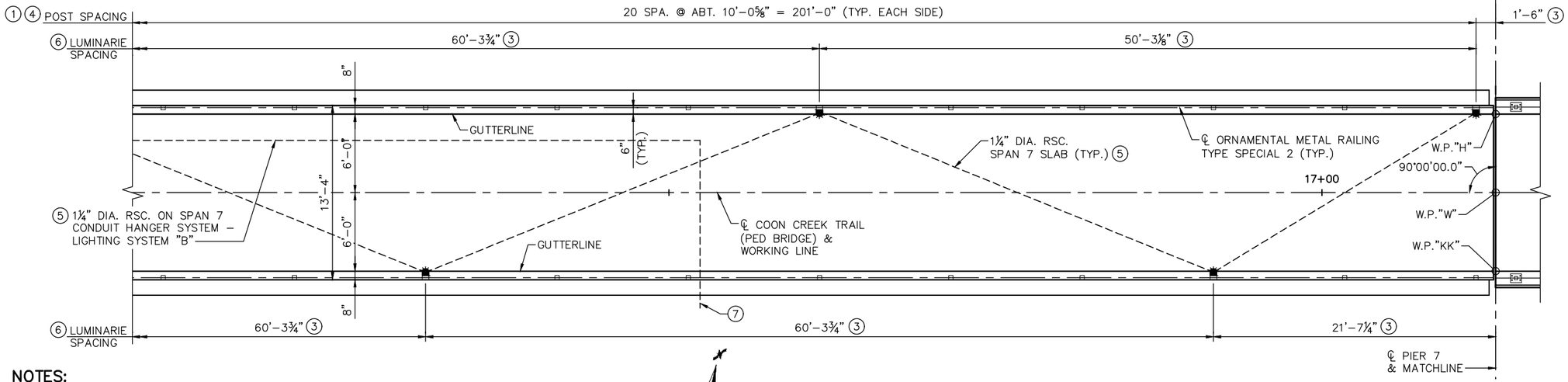


PARTIAL JOINT & POST LAYOUT
(SPAN 7)



PARTIAL JOINT & POST LAYOUT
(SPAN 7)

NOTES:

CONTROL JOINT SPACING OF TRUSS CURBS TO BE DETERMINED BY PREFABRICATED TRUSS DESIGNER.

SEE SHEET B42 FOR CONDUIT HANGER DETAILS AND SECTIONS.

(1) DIMENSION MEASURED ALONG ℄ ORNAMENTAL METAL RAILING TYPE SPECIAL 2. RAIL POSTS ATTACHED TO TRUSS VERTICALS.

(2) DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.

(3) TO BE COORDINATED WITH PREFABRICATED TRUSS DESIGN IN ACCORDANCE WITH THE INTENT OF THIS PLAN. SEE PREFABRICATED TRUSS PLANS FOR DETAILS.

(4) HSS 4x4 POST (TYP.)
HSS 6x4 POST AT LUMINARIE LOCATIONS.

(5) CONDUIT SYSTEM TYPE 1

(6) LIGHTING SYSTEM "A"

(7) LIGHTING SYSTEM "B"

No.	Date	Revisions	App.

DRAWING NAME BRG_CURB & RAILING.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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Christopher P. Ewert

CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

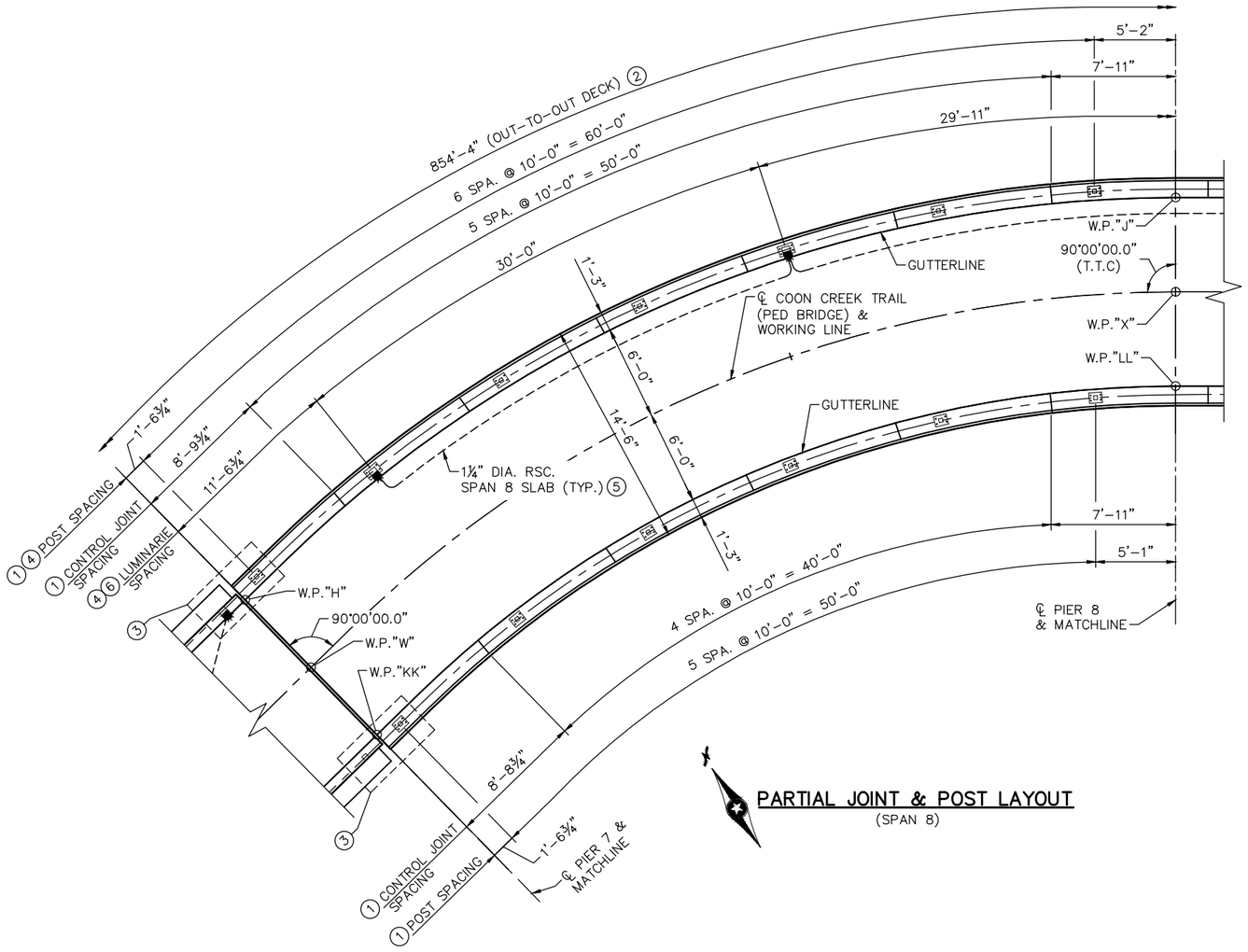
CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD

JOINT, POST & CONDUIT DETAILS (SPAN 7)

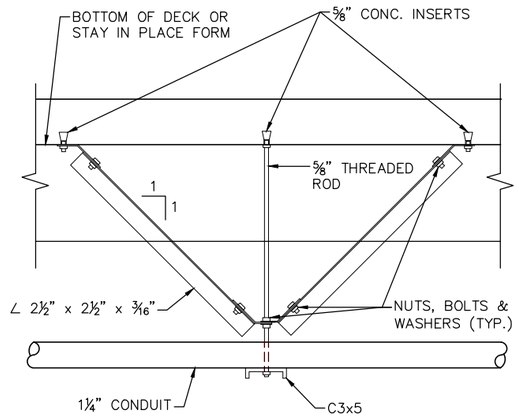
CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B41 / B68

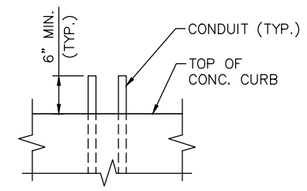
K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_CURB & RAILING.dwg 5/14/2024 6:56 AM



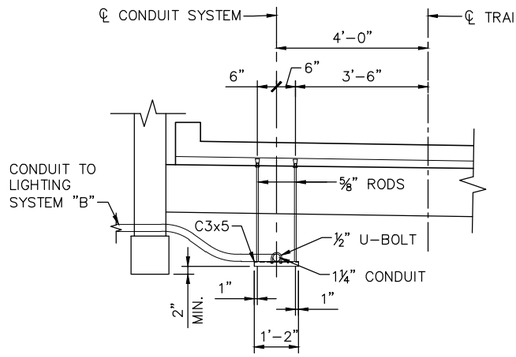
PARTIAL JOINT & POST LAYOUT
(SPAN 8)



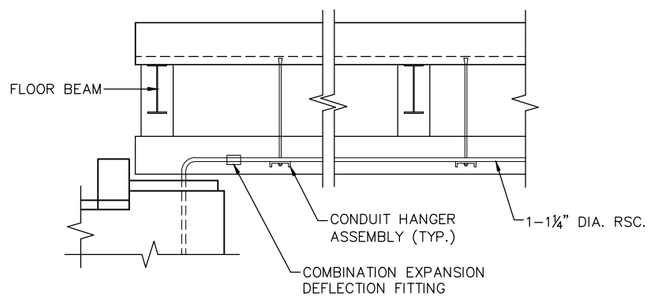
LONGITUDINAL SECTION



CONDUIT PROJECTION DETAIL



TRANSVERSE SECTION



LONGITUDINAL SECTION
(CONDUIT AT PIER 6 ONLY)

NOTES:

1. DIMENSION MEASURED ALONG ℄ ORNAMENTAL METAL RAILING TYPE SPECIAL 1 AND CONCRETE CURB.
2. DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.
3. SEE TRUSS CANTILEVER DETAIL ON SHEET B40
4. HSS 4 x 4 POST (TYP.)
   HSS 6 x 4 POST AT LUMINARIE LOCATIONS.
   SEE ORNAMENTAL METAL RAILING DETAILS FOR ADDITIONAL INFORMATION.
5. CONDUIT SYSTEM TYPE 1
6. LIGHTING SYSTEM "A"

No.	Date	Revisions	App.

DRAWING NAME BRG_CURB & RAILING.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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Christopher P. Ewert

CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

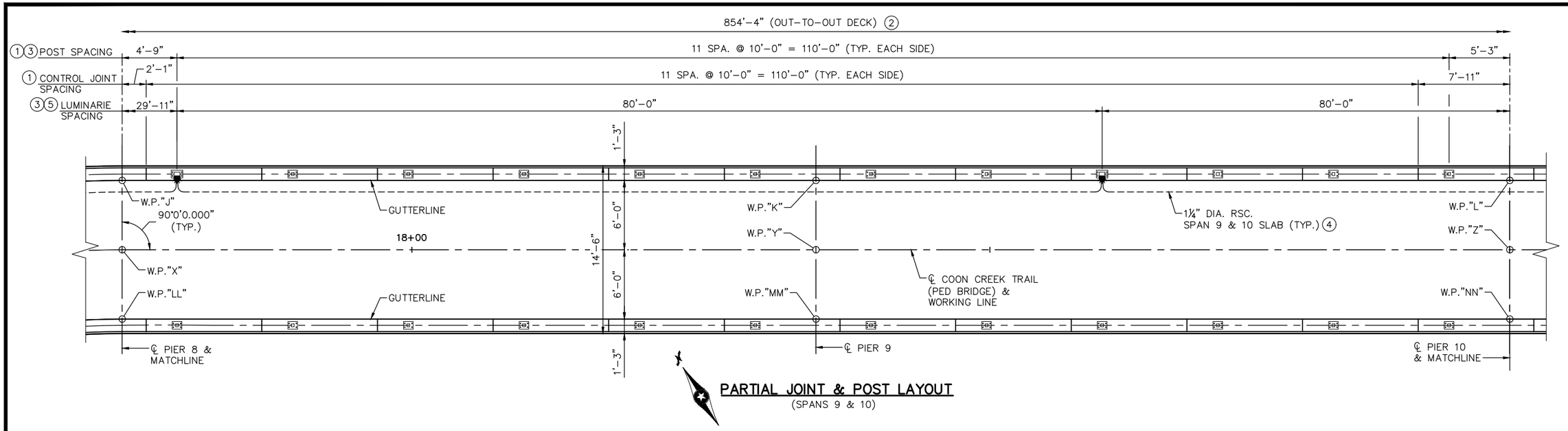
CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

JOINT, POST & CONDUIT DETAILS
(SPAN 8)

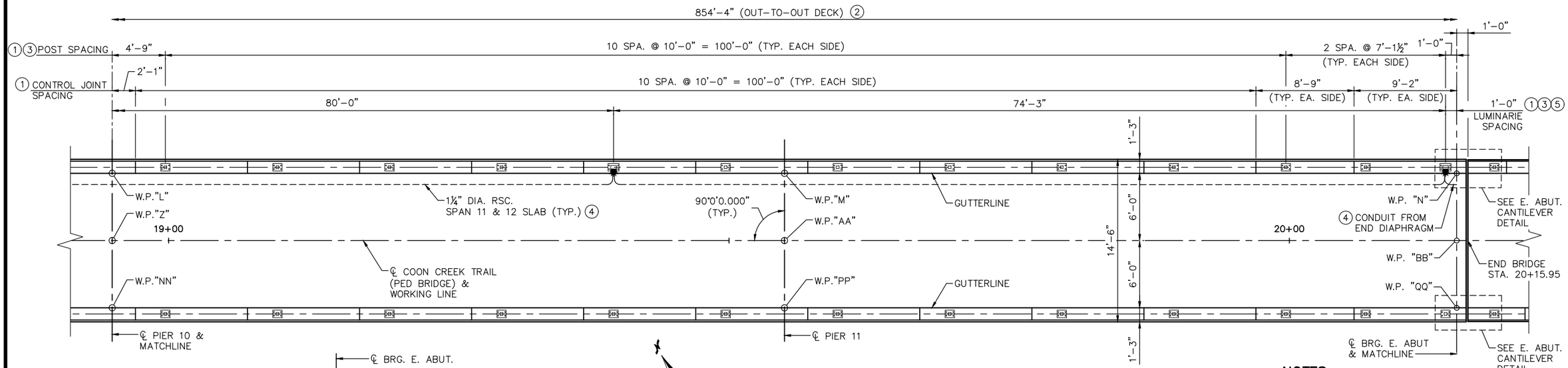
CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B42 / B68

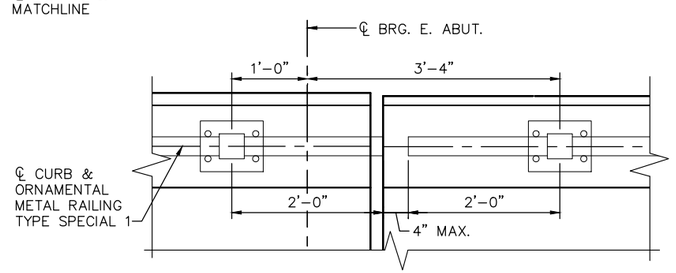
K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_CURB & RAILING.dwg 5/14/2024 9:50 AM



PARTIAL JOINT & POST LAYOUT
(SPANS 9 & 10)



PARTIAL JOINT & POST LAYOUT
(SPANS 11 & 12)



E. ABUT. CANTILEVER DETAIL

NOTES:

1. DIMENSION MEASURED ALONG ℄ ORNAMENTAL METAL RAILING TYPE SPECIAL 1 AND CONCRETE CURB.
2. DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.
3. HSS 4 x 4 POST (TYP.)
   HSS 6 x 4 POST AT LUMINARIE LOCATIONS.
   SEE ORNAMENTAL METAL RAILING DETAILS FOR ADDITIONAL INFORMATION.
4. CONDUIT SYSTEM TYPE 1
5. LIGHTING SYSTEM "A"

No.	Date	Revisions	App.

DRAWING NAME BRG_CURB & RAILING.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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Christopher P. Ewert

CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

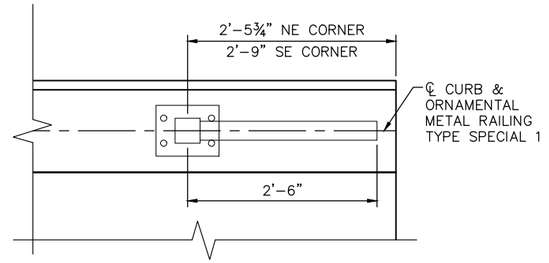
CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD

JOINT, POST & CONDUIT DETAILS (SPAN 9 – 12)

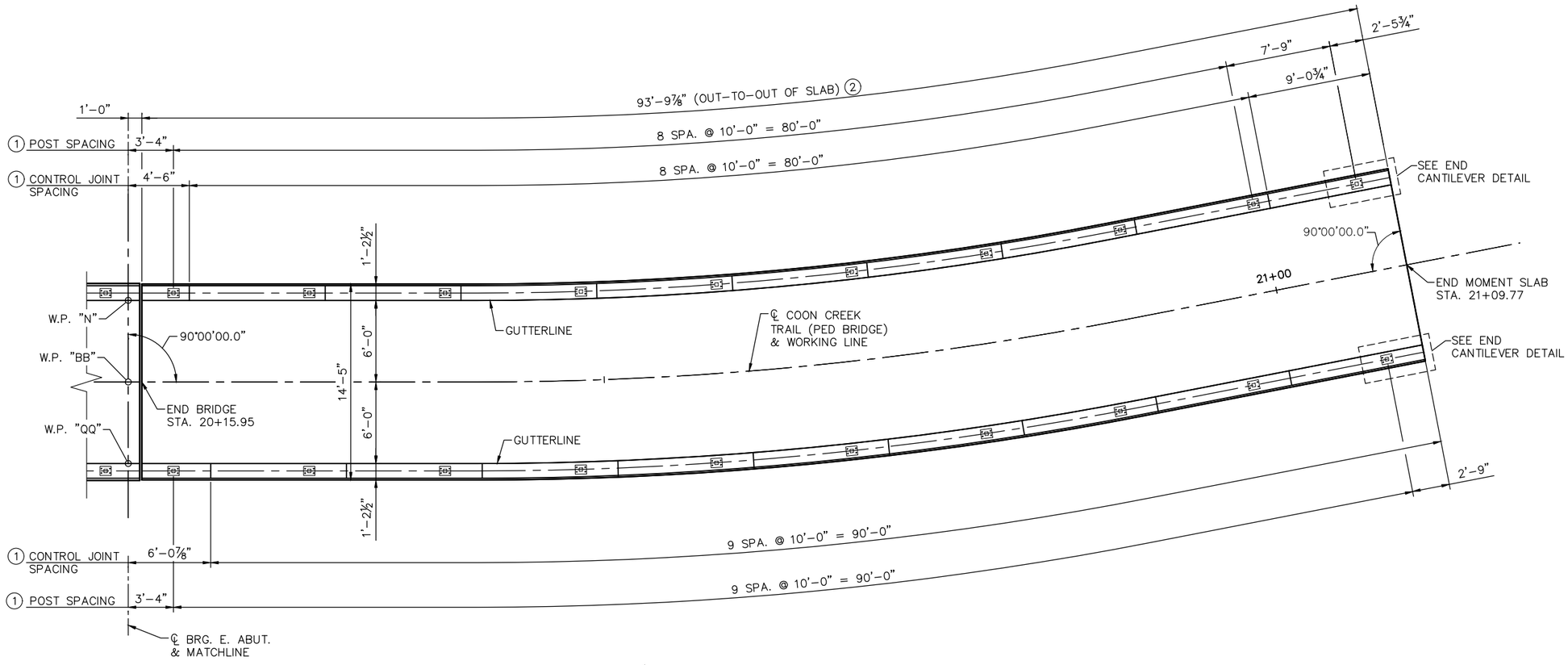
CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B43 / B68

K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_CURB & RAILING.dwg 4/22/2024 4:52 PM



END CANTILEVER DETAIL



PARTIAL JOINT & POST LAYOUT
(EAST MOMENT SLAB)

NOTES:

1. DIMENSION MEASURED ALONG ℄ ORNAMENTAL METAL RAILING TYPE SPECIAL 1 AND CONCRETE CURB.
2. DIMENSION MEASURED ALONG ℄ COON CREEK TRAIL AND WORKING LINE.

No.	Date	Revisions	App.

DRAWING NAME	BRG_MOMNT SLAB C&R.dwg
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

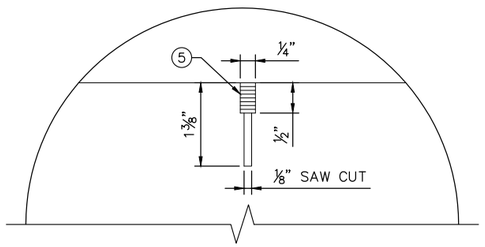
CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD

JOINT, POST & CONDUIT DETAILS (EAST MOMENT SLAB)

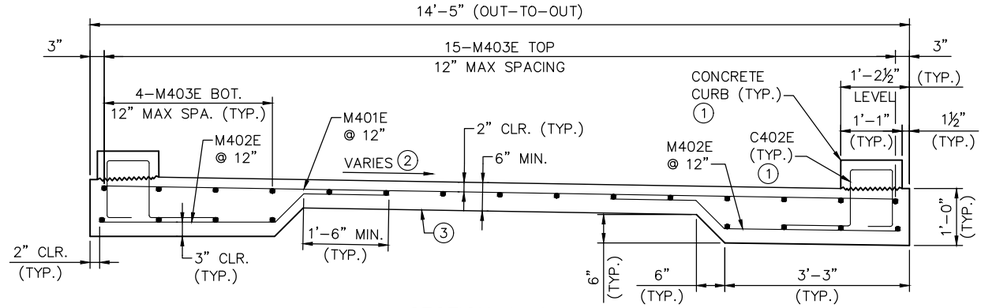
CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B44 / B68

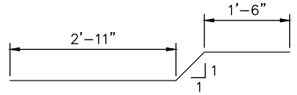
BILL OF REINFORCEMENT FOR MOMENT SLAB				
BAR	NO.	LENGTH	SHAPE	LOCATION
M401E	195	14'-1"	STR	TOP TRANS.
M402E	390	5'-2"	BENT	BOT. TRANS.
M403E	92	51'-0"	STR	TOP & BOT. LONGIT.



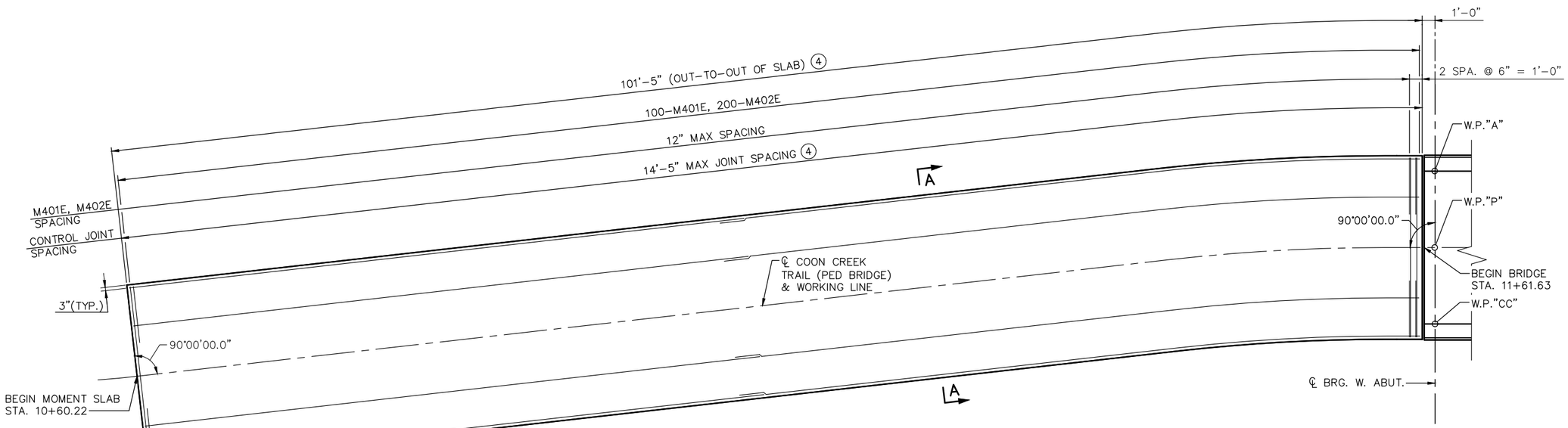
CONTROL JOINT DETAIL



SECTION A-A



M402E



MOMENT SLAB REINFORCEMENT PLAN
(WEST MOMENT SLAB)

NOTES:

ALL MOMENT SLAB REINFORCEMENT (M-SERIES) TO BE EPOXY COATED.

LONGITUDINAL BARS LOCATED ON CURVES WITHOUT A SPECIFICALLY DETAILED RADIUS SHALL BE FIELD BENT TO THE REQUIRED RADIUS.

1. SEE CURB REINFORCEMENT PLANS & JOINT AND POST LAYOUT FOR MORE DETAILS.
2. SEE TRAIL PLAN AND PROFILES FOR SUPERELEVATIONS TRANSIONS.
3. STRUCTURAL CONCRETE (3S52).
4. MEASURED FROM ℄ OF COON CREEK TRAIL (PED BRIDGE) & WORKING LINE.
5. JOINT SEALANT PER MNDOT APPROVED/QUALIFIED PRODUCTS LIST – CRACK AND JOINT MATERIALS – SILICONE JOINT SEALERS. INCIDENTAL TO STRUCTURAL CONCRETE (3S52) BID ITEM.

No.	Date	Revisions	App.

DRAWING NAME BRG_MOMNT SLAB.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

MOMENT SLAB DETAILS &
REINFORCEMENT (WEST MOMENT SLAB)

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B45 / B68

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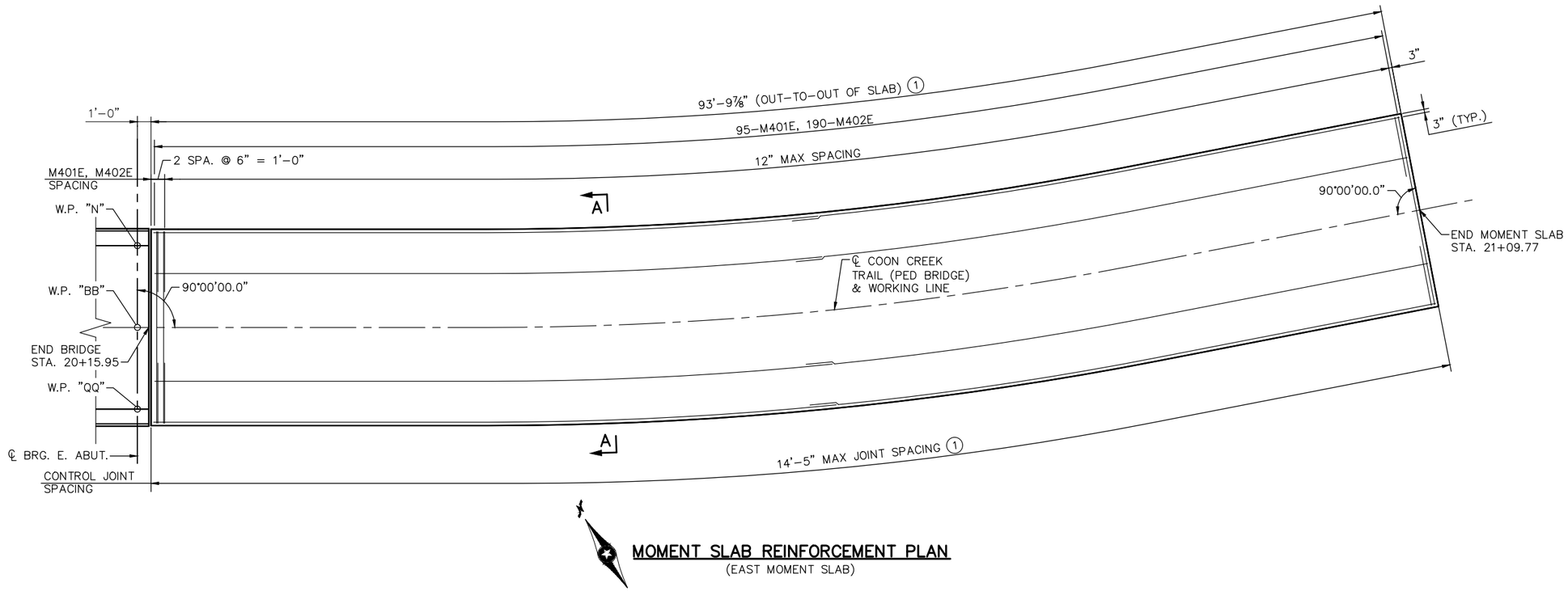

MOMENT SLAB REINFORCEMENT PLAN
(EAST MOMENT SLAB)

NOTES:

SEE SHEET B45 FOR SECTION A-A, BILL OF REINFORCEMENT FOR MOMENT SLABS, CONTROL JOINT DETAILS, AND BAR BEND DETAILS.

ALL MOMENT SLAB REINFORCEMENT (M-SERIES) TO BE EPOXY COATED.

LONGITUDINAL BARS LOCATED ON CURVES WITHOUT A SPECIFICALLY DETAILED RADIUS SHALL BE FIELD BENT TO THE REQUIRED RADIUS.

(1) MEASURED FROM ℄ OF COON CREEK TRAIL (PED BRIDGE) & WORKING LINE.

No.	Date	Revisions	App.

DRAWING NAME: BRG_MOMNT SLAB.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn
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Christopher P. Ewert

CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

MOMENT SLAB DETAILS & REINFORCEMENT (EAST MOMENT SLAB)

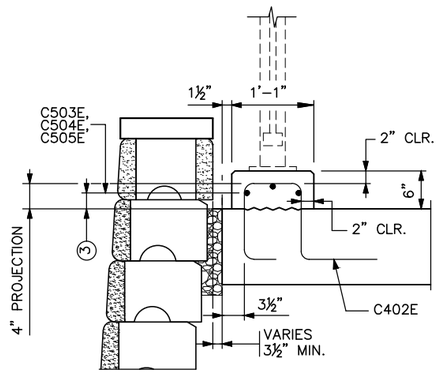
CITY PROJECT 24-6 | S.P. 114-090-002

MINN. PROJECT NO. TA 0224(173)

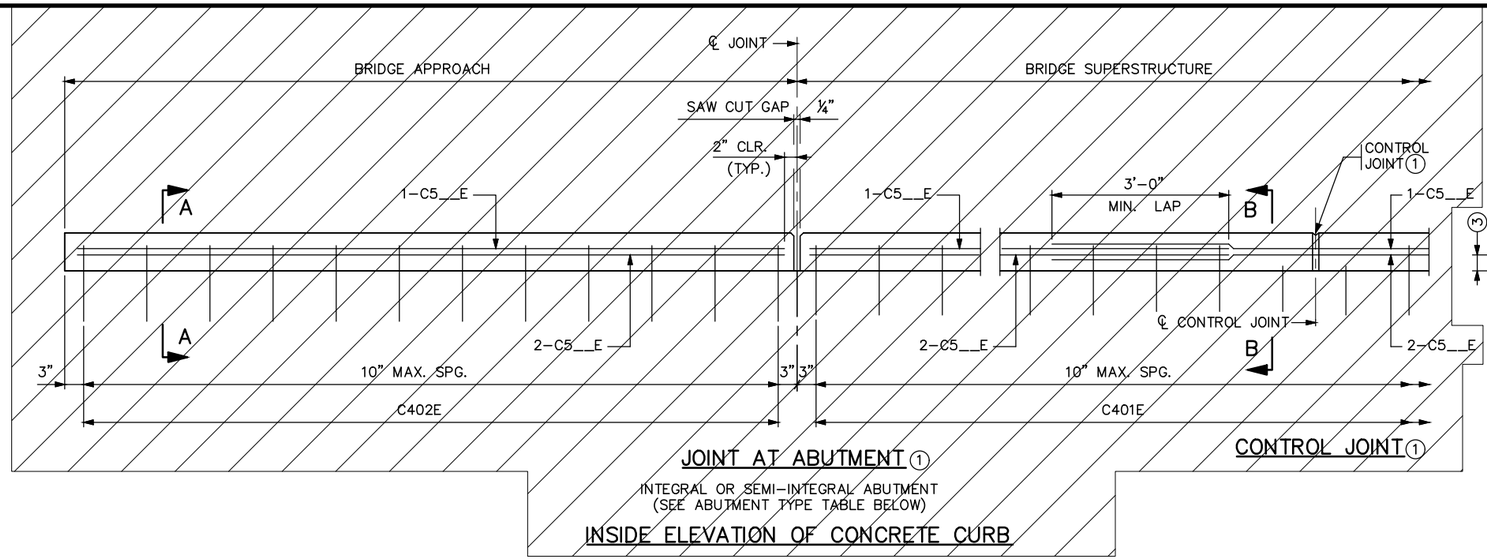
BRIDGE NO. 02596

SHEET NO. B46 / B68

K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_MOMNT SLAB.dwg 3/4/2024 6:46 PM



SECTION A–A Ⓐ

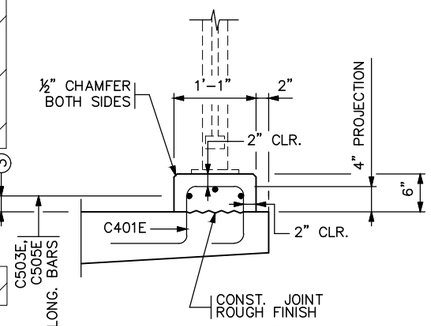


JOINT AT ABUTMENT ①

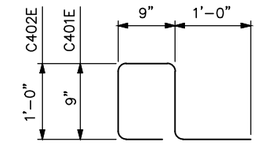
INTEGRAL OR SEMI–INTEGRAL ABUTMENT
(SEE ABUTMENT TYPE TABLE BELOW)

INSIDE ELEVATION OF CONCRETE CURB

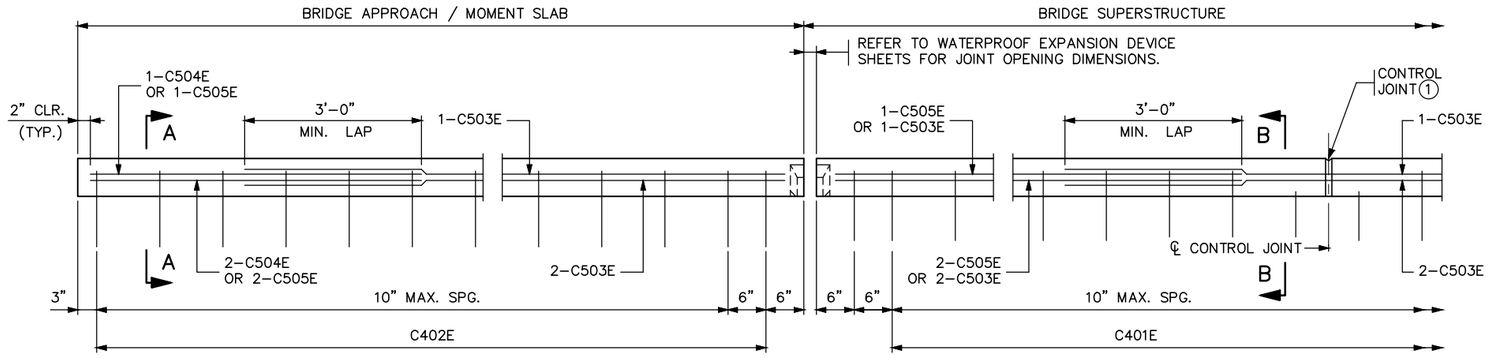
CONTROL JOINT ①



SECTION B–B Ⓐ



Ⓐ C401E, C402E



JOINT AT ABUTMENT ① Ⓐ

PARAPET ABUTMENT (SEE ABUTMENT TYPE TABLE BELOW)
(USE ONLY WITH STRIP SEAL EXPANSION DEVICE)
(EXPANSION DEVICE NOT SHOWN) ②

INSIDE ELEVATION OF CONCRETE CURB

CONTROL JOINT ①

CURB DOES NOT MEET CRASH TEST REQUIREMENTS OF NCHRP REPORT 350 OR MASH

ABUTMENT TYPE	
INTEGRAL OR SEMI–INTEGRAL ABUTMENT	☐
PARAPET ABUTMENT	☒

BILL OF REINFORCEMENT FOR CURB

BAR	NO.	LENGTH	SHAPE	LOCATION
C401E	1560	4'–1"		CURB BASE VERTICAL
C402E	472	4'–4"		CURB BASE VERTICAL
C503E	126	40'–0"	——	CURB BASE LONGIT.
C504E	6	28'–0"	——	CURB BASE LONGIT. W. MOMENT SLAB
C505E	15	21'–1"	——	CURB BASE LONGIT. UNIT 1 & 3, E. MOMEMT SLAB

GENERAL NOTES

CONTINUOUSLY GROUND ALL METAL RAILINGS; SEE THE SPECIAL PROVISIONS. REFER TO THE ELECTRICAL PLANS AND ELECTRICAL SPECIAL PROVISIONS FOR DETAILS REGARDING BONDING MULTIPLE ELECTRICAL GROUNDING SYSTEMS.

CONCRETE CURB = 81 LBS./FT. (0.020 CU. YDS./FT.)

FINISH ALL EDGES OF CURB WITH ½" CHAMFER, EXCEPT WHERE OTHERWISE NOTED.

MAXIMUM SPACING OF CONTROL JOINTS ON SUPERSTRUCTURE, APPROACH AND WINGWALL IS 10 FT. SEE SUPERSTRUCTURE SHEET FOR CONTROL JOINT SPACING.

CONCRETE CURB QUANTITIES ARE LISTED IN SUMMARY OF QUANTITIES FOR SUPERSTRUCTURE.

① REFER TO "MISCELLANEOUS CONCRETE BARRIER AND PARAPET DETAILS" SHEET INCLUDED IN THIS PLAN SET FOR GUARDRAIL CONNECTION DETAILS AND CONTROL JOINT AND ABUTMENT JOINT DETAILS.

② REFER TO STANDARD FIGURE 5–397.632 FOR COVER PLATE DETAILS.

③ TO MAXIMIZE CLEARANCES FOR ANCHORAGES, PLACE TOP OF OUTSIDE LONGITUDINAL BARS 2" FROM DECK SURFACE (TYP.).

SHEET MODIFICATION:

Ⓐ DENOTES MODIFICATION TO STANDARD SHEET
- MODIFIED SECTION A–A FOR APPROACH GEOMETRY
- MODIFIED SECTION B–B FOR SUPERSTRUCTURE GEOMETRY
- MODIFIED INSIDE ELEVATION VIEW TO SHOW MIN. LAP IN MOMENT SLAB
- MODIFIED BAR C401E FOR DECK THICKNESS

FIG. 5–397.167 (MOD.)

REVISION: DECEMBER 21, 2022
APPROVED: NOVEMBER 06, 2013
Nancy Daubenberger
STATE BRIDGE ENGINEER

REV. NO.	DATE	REVISION DESCRIPTION	BY
1			

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CERTIFIED BY Christopher P. Ewert 5/10/2024
LICENSED PROFESSIONAL ENGINEER — DATE
NAME: CHRISTOPHER P. EWERT LIC. NO. 49609

TITLE: CONCRETE CURB FOR USE WITH ORNAMENTAL RAILING ~~OR CHAIN LINK FENCE~~

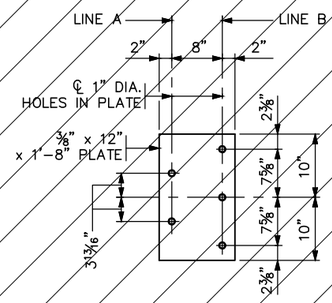
DES: MJN	DR: NMA	APPROVED:
CHK: KAE	CHK: KAE	

SHEET NO. B47 OF B68 SHEETS

BRIDGE NO. 02596

Apr, 24 2024 06:34 am K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_DET1.dwg By: phil.horton

GUARDRAIL CONNECTION



NOTES

GUARDRAIL CONNECTION TO BE STRUCTURAL STEEL IN ACCORDANCE WITH SPEC. 3306.

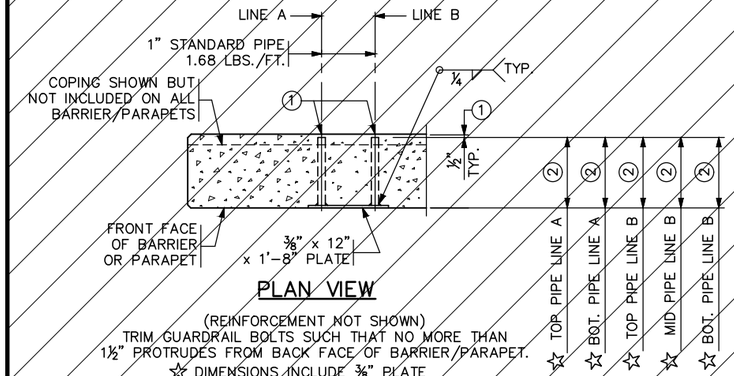
GUARDRAIL CONNECTION IS INCIDENTAL.

(1) REMOVE CONCRETE FROM PIPE ENDS AFTER SLIPFORMING OR FORM REMOVAL.

(2) SEE PIPE LENGTH TABLE.

GUARDRAIL CONNECTION DETAIL

GALVANIZE PLATE AND PIPES AFTER FABRICATION IN ACCORDANCE WITH SPEC. 3394



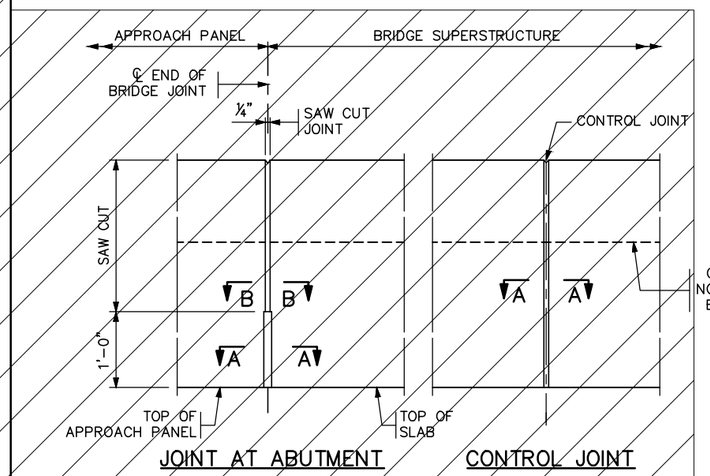
PLAN VIEW

(REINFORCEMENT NOT SHOWN)
TRIM GUARDRAIL BOLTS SUCH THAT NO MORE THAN 1½" PROTRUDES FROM BACK FACE OF BARRIER/PARAPET.
☆ DIMENSIONS INCLUDE ⅜" PLATE

PIPE LENGTH TABLE

BARRIER/PARAPET TYPE STD FIGURE 5-397.	PIPE LENGTH					WEIGHT
	TOP PIPE LINE A	BOT. PIPE LINE A	TOP PIPE LINE B	MID. PIPE LINE B	BOT. PIPE LINE B	
36" SINGLE SLOPE						
138(A),(B),(E), 139(A),(B)	1'-0¾"	1'-0¼"	1'-0"	11½"	1'-1"	34 LBS.
138(C),(D), 139(C),(D)	10¾"	1'-0¼"	10"	11½"	1'-1"	34 LBS.
42" SINGLE SLOPE						
140(A),(B), 141(A),(B)	1'-0¾"	1'-2¼"	1'-0"	1'-1½"	1'-3"	35 LBS.
140(C),(D), 141(C),(D)	10¾"	1'-0¼"	10"	11½"	1'-1"	34 LBS.
54" SINGLE SLOPE						
142(A),(B), 143(A),(B)	1'-0¾"	1'-2¼"	1'-0"	1'-1½"	1'-3"	35 LBS.
142(C),(D), 143(C),(D)	10¾"	1'-0¼"	10"	11½"	1'-1"	34 LBS.
TYPE P-1 PARAPET						
166(B),(D),(F),(H)	1'-2½"	1'-0½"	1'-2½"	1'-2½"	1'-0½"	34 LBS.
TYPE P-2 PARAPET						
157(A)-(H)	1'-3½"	1'-3½"	1'-3½"	1'-3½"	1'-3½"	37 LBS.
TYPE P-4 PARAPET						
173(A),(B),(C),(D)	1'-5½"	1'-3½"	1'-5½"	1'-3½"	1'-3½"	37 LBS.

CONTROL JOINT AND ABUTMENT JOINT

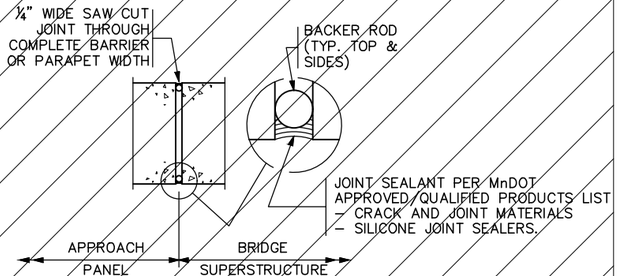


JOINT AT ABUTMENT

CONTROL JOINT

INSIDE ELEVATION OF CONCRETE BARRIER OR PARAPET

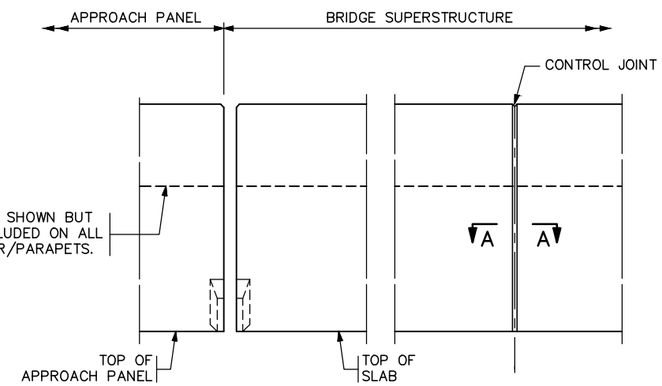
(INTEGRAL OR SEMI-INTEGRAL ABUTMENT)



SECTION B-B

JOINT AT ABUTMENT DETAIL

INTEGRAL OR SEMI-INTEGRAL ABUTMENT



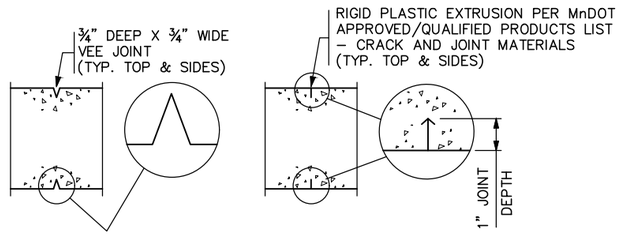
EXPANSION JOINT

EXPANSION DEVICE NOT SHOWN

CONTROL JOINT

INSIDE ELEVATION OF CONCRETE BARRIER OR PARAPET

(PARAPET ABUTMENT)



SECTION A-A

CAST-IN-PLACE CONSTRUCTION

SECTION A-A

SLIPFORM CONSTRUCTION

CONTROL JOINT DETAILS

FOR SLIPFORM CONSTRUCTION: IMMEDIATELY AFTER CONCRETE IS PLACED AND WHILE IT IS STILL WET, CREATE A ONE INCH STRAIGHT GROOVE USING A TROWEL. INSERT RIGID PLASTIC EXTRUSION INTO GROOVE TO A DEPTH ⅛" BELOW THE SURFACE; FINISH OVER GROOVE COMPLETELY HIDING THE EXTRUSION.

REVISION: NOVEMBER 29, 2023

APPROVED: DECEMBER 21, 2022
Edward A. Sutgen
STATE BRIDGE ENGINEER

REV. NO.	DATE	REVISION DESCRIPTION	BY
1			

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CERTIFIED BY Christopher P. Ewert 5/10/2024
LICENSED PROFESSIONAL ENGINEER DATE

NAME: CHRISTOPHER P. EWERT LIC. NO. 49609

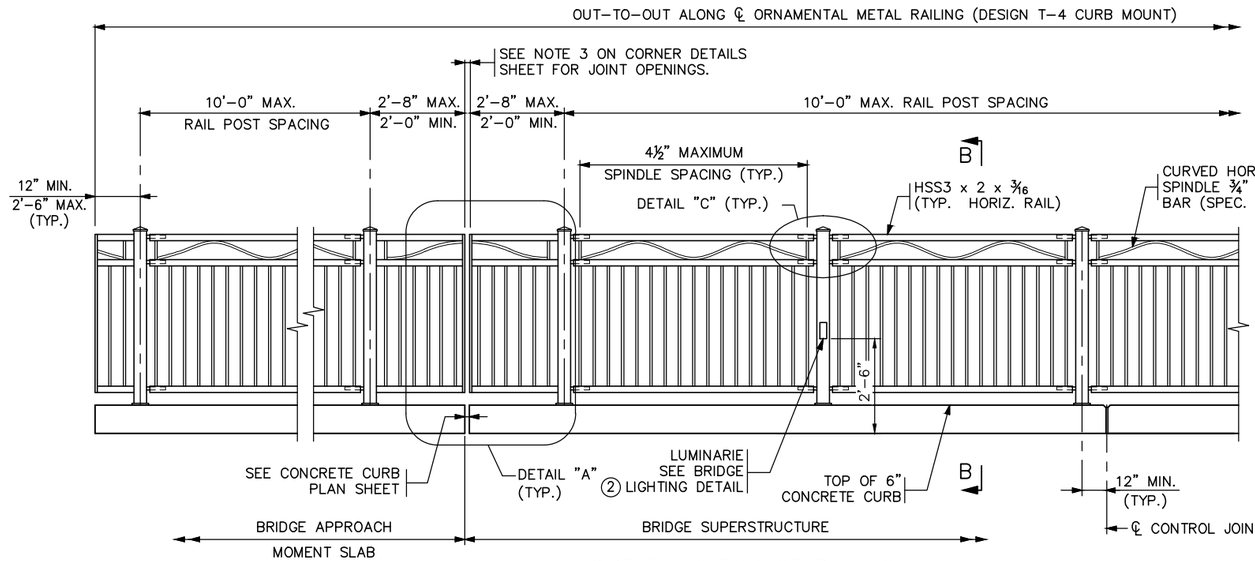
TITLE: MISCELLANEOUS CONCRETE BARRIER AND PARAPET DETAILS

FIG. 5-397.174

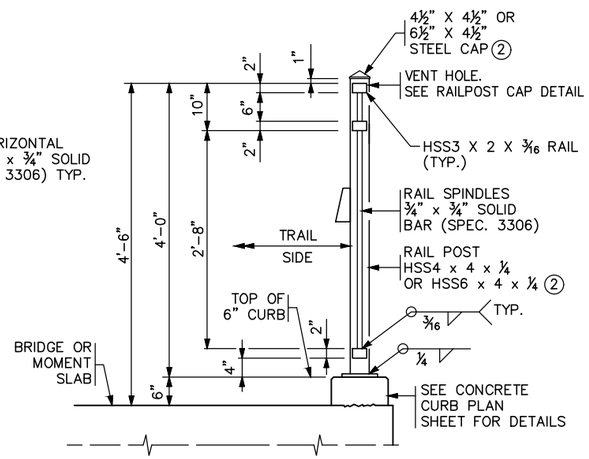
DES: MJN	DR: NMA	APPROVED:	BRIDGE NO.
CHK: KAE	CHK: KAE		02596

SHEET NO. B48 OF B68 SHEETS

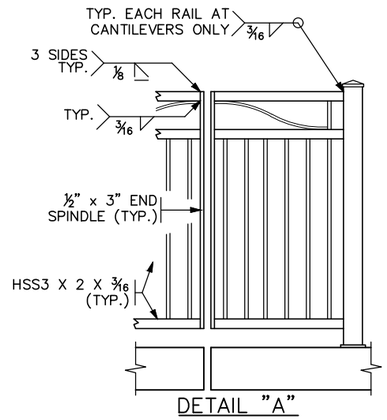
Apr, 24 2024 06:36 am K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_DET1.dwg By: phil.horton



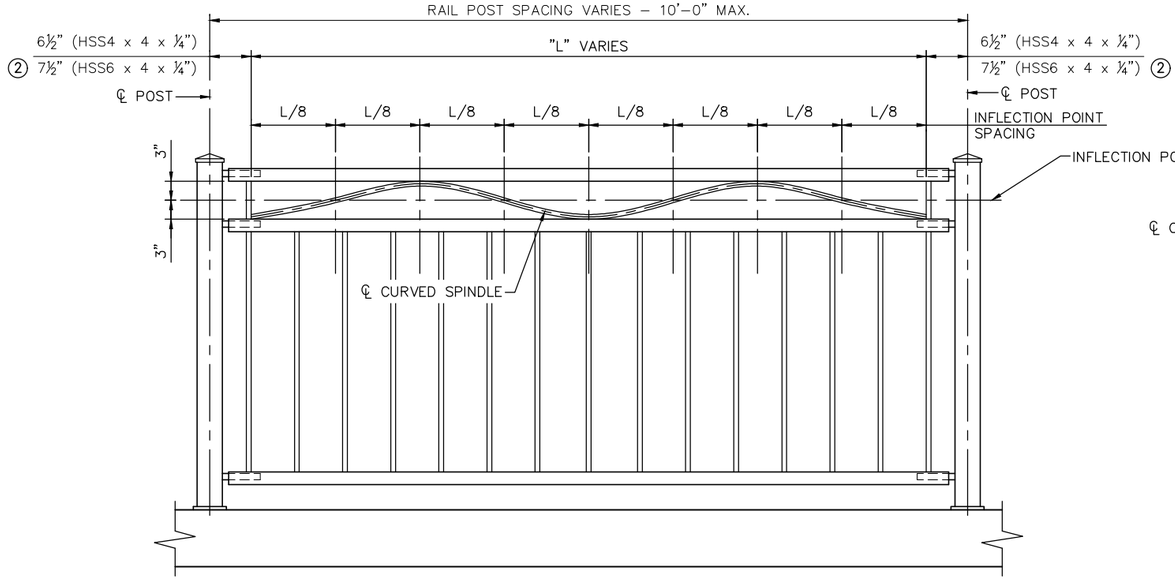
INSIDE ELEVATION OF RAILING



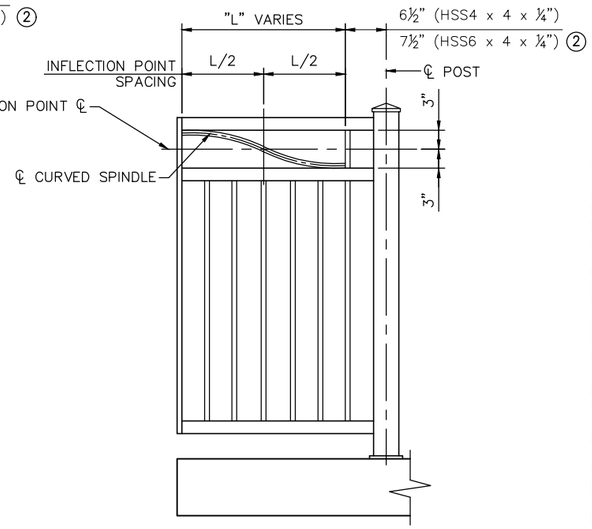
SECTION B–B



DETAIL "A"



CURVED SPINDLE LAYOUT
(INTERIOR RAILING PANEL)



CURVED SPINDLE LAYOUT
(CANTILEVERED RAILING PANEL)

GENERAL NOTES

SEE SHEET B50 FOR ADDITIONAL ORNAMENTAL METAL RAILING DETAILS.

CONTINUOUSLY GROUND ALL METAL RAILINGS; SEE THE SPECIAL PROVISIONS. REFER TO THE ELECTRICAL PLANS AND ELECTRICAL SPECIAL PROVISIONS FOR DETAILS REGARDING BONDING MULTIPLE ELECTRICAL GROUNDING SYSTEMS.

PROVIDE A500, GRADE B STRUCTURAL STEEL TUBING (HSS) IN THE RAIL CONFORMING TO SPEC. 3361. PROVIDE ALL OTHER STEEL IN ACCORDANCE WITH SPEC. 3306.

GALVANIZE BOLTS, NUTS, WASHERS AND ANCHORS IN ACCORDANCE WITH SPEC. 3392. GALVANIZE ALL OTHER STRUCTURAL STEEL IN ACCORDANCE WITH SPEC. 3394, AFTER FABRICATION.

REFER TO SPEC. 2475 AND THE SPECIAL PROVISIONS FOR COATING AND OTHER REQUIREMENTS NOT INCLUDED ON THIS SHEET.

INSTALL RAIL POSTS AND SPINDLES PLUMB

CURVE HORIZONTAL RAILS AND CURVED SPINDLE WHERE APPLICABLE AND PLACE RAILS PARALLEL TO THE EDGE OF SIDEWALK PROFILE.

DRILL ½" DIA. MAX. VENT HOLES ON THE UNDERSIDE OF RAIL TUBES AS NECESSARY TO FACILITATE GALVANIZING.

① SEE CONCRETE CURB PLAN SHEET FOR CONTROL JOINT SPACING.

② SEE JOINT & POST LAYOUT PLANS FOR BRIDGE LUMINAIRE AND HSS6 x 4 x ¼" POST LOCATIONS.

No.	Date	Revisions	App.

DRAWING NAME BRG_DET1.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

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Christopher P. Ewert

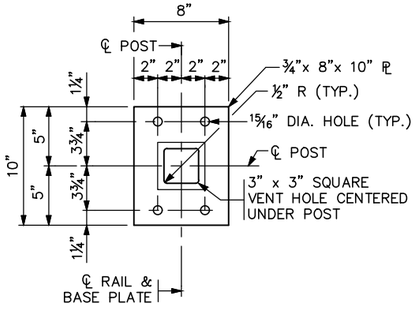
CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
ORNAMENTAL METAL RAILING (TYPE 1) DETAILS 1

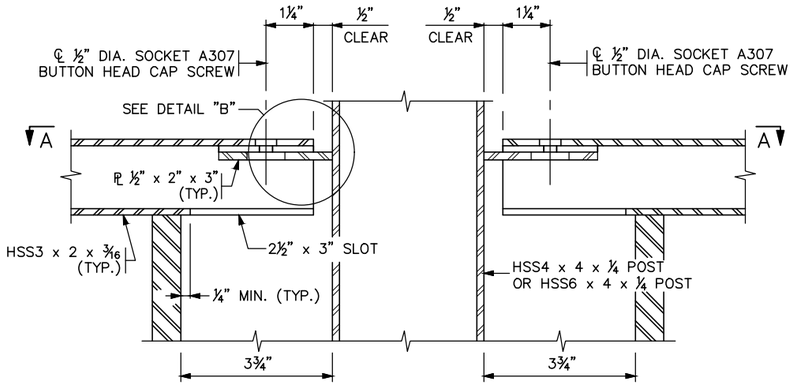
CITY PROJECT 24–6	S.P. 114–090–002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B49 / B68



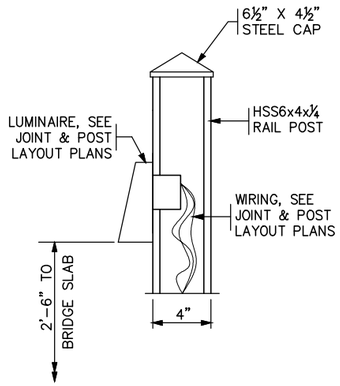
BASE PLATE

(HSS 4 x 4 x ¼ POST)



DETAIL "C"

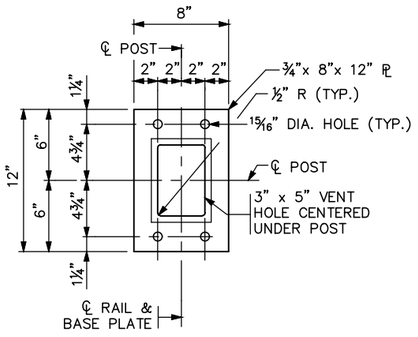
(BOLT NOT SHOWN FOR CLARITY)



BRIDGE LIGHTING DETAIL ④

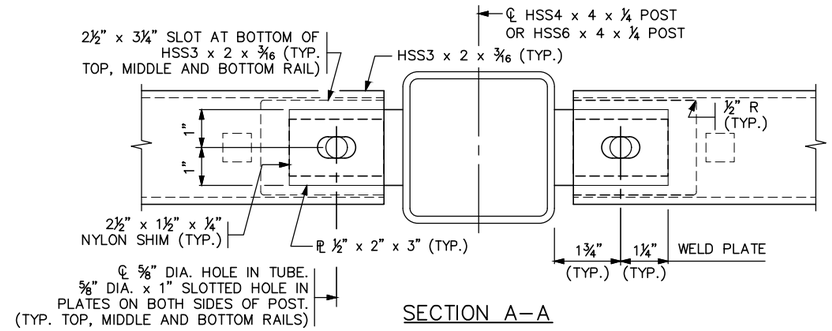
(SECTION THRU HSS6 x 4 POST)

(LIGHTING SYSTEM "A")

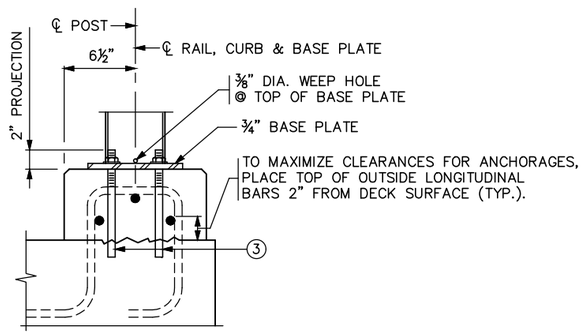


BASE PLATE ④

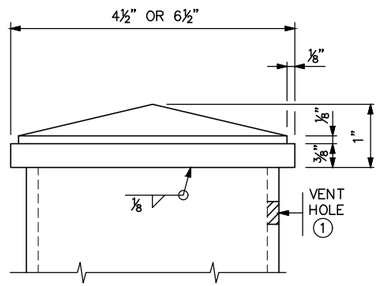
(HSS 6 x 4 x ¼ POST)



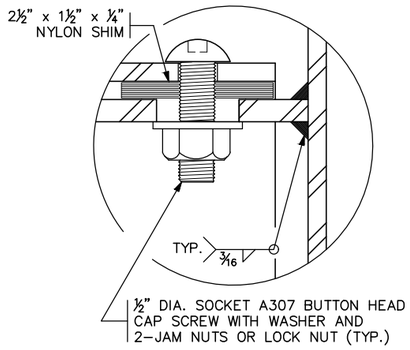
SECTION A–A



ANCHOR DETAIL



RAILPOST CAP DETAIL ②



DETAIL "B"

NOTES

SEE SHEET B49 FOR GENERAL NOTES AND ADDITIONAL ORNAMENTAL METAL RAILING DETAILS.

① DRILL VENT HOLE IN THE RAIL POST WITHIN 2" OF THE UNDERSIDE OF THE CAP, ON THE NON–TRAFFIC SIDE OF THE POST AS NECESSARY TO FACILITATE GALVANIZING. MAXIMUM HOLE SIZE IS ½" DIA.

② PROVIDE A PYRAMID TOP STYLE STEEL CAP WELDED TO TOP OF POST WITH A SURFACE FINISH OF 1000 MICRO–INCH, OR SMOOTHER, PRIOR TO GALVANIZING.

③ ADHESIVE ANCHORAGE WITH ⅝" DIA. ANCHOR ROD IN ACCORDANCE WITH SPEC. 3385, TYPE A OR B WITH HEX NUT AND WASHER. PROVIDE AN ADHESIVE WITH A MINIMUM CHARACTERISTIC BOND STRENGTH IN UNCRACKED CONCRETE OF 1.5 KSI. EMBED THE ANCHORAGE NO LESS THAN 8" REGARDLESS OF CHARACTERISTIC BOND STRENGTH. DRILL THROUGH REINFORCEMENT (IF ENCOUNTERED) TO ACHIEVE MINIMUM EMBEDMENT. ENSURE HEX NUT IS IN CONTACT WITH THE ADJACENT SURFACE AND TORQUE TO 60 FT–LBS UNLESS A HIGHER TORQUE IS RECOMMENDED BY THE MANUFACTURER. PROOF LOAD TO 8.8 KIPS. REFER TO THE APPROVED/QUALIFIED PRODUCTS LIST AND THE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.

④ SEE JOINT & POST LAYOUT PLANS FOR BRIDGE LUMINARIE AND HSS6 x 4 x ¼" POST LOCATIONS LIGHTING SYSTEM "A".

No.	Date	Revisions	App.

DRAWING NAME BRG_DET1.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn
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Christopher P. Ewert

CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

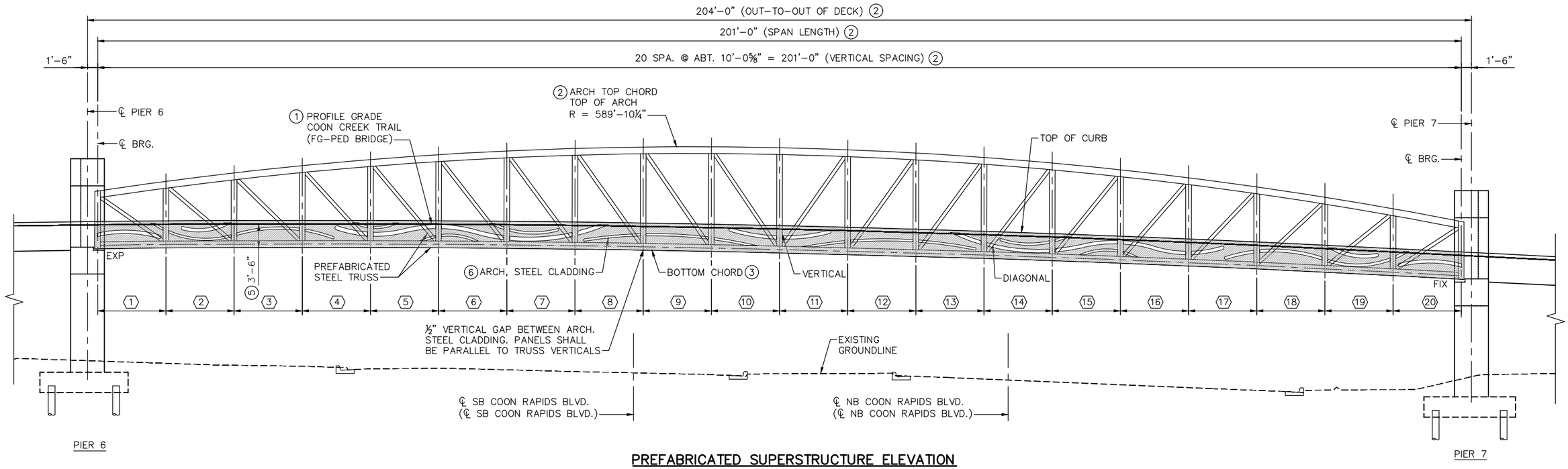
CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

ORNAMENTAL METAL RAILING (TYPE 1)
DETAILS 2

CITY PROJECT 24–6	S.P. 114–090–002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B50 / B68

K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_DET1.dwg 4/24/2024 8:18 AM



PREFABRICATED SUPERSTRUCTURE ELEVATION

ASSUMED TRUSS BEARING LOADS (4)		
TYPE	LOADING	NOTES
DEAD LOAD (DC1)	125.1 KIPS PER BEARING DOWNWARD	INCLUDE TRUSS, ORNAMENTAL RAILING, DECK, CURBS, ARCH STEEL CLADDING, ARCH METAL FRAME & LETTERS, LUMINARIES, AND CONDUIT.
PEDESTRIAN LOAD (PL)	55.0 KIPS PER BEARING DOWNWARD	90 PSF PED. LOADING. H10 VEHICLE DETERMINED NOT TO CONTROL PIER 6 & 7 DESIGN. CONTRACTOR SHALL DETERMINE THE NECESSITY OF USING VEHICLE LOADING FOR THE TRUSS DESIGN. NO LIVE LOAD REDUCTION ALLOWED.
WIND LOAD (WL)	± 13.6 KIPS PER BEARING UPLIFT OR DOWNWARD	LOADING DOES NOT INCLUDE 20 PSF WIND UPLIFT LOAD. CONTRACTOR SHALL DETERMINE THE NECESSITY OF USING WIND UPLIFT LOADING FOR THE TRUSS DESIGN.

NOTES:

SEE SPECIAL PROVISIONS FOR ADDITIONAL SUPERSTRUCTURE SPECIFICATIONS.

FINAL ANCHOR ROD LOCATIONS AT SUPERSTRUCTURES SHALL BE FURNISHED BY PREFABRICATED SUPERSTRUCTURE MANUFACTURER.

BID ITEM "PEDESTRIAN BRIDGE (SUPERSTRUCTURE)" SHALL INCLUDE ALL MATERIALS, LABOR, AND DESIGN FOR THE PREFABRICATED SUPERSTRUCTURE. DESIGN SHALL FOLLOW CURRENT AASHTO AND MNDOT LRFD BRIDGE DESIGN SPECIFICATIONS. BID ITEM SHALL INCLUDE, BUT NOT LIMITED TO: PAINTED STEEL TRUSS, TRUSS BEARINGS, ANCHOR RODS, CONCRETE DECK, DECK REINFORCEMENT COMPLETE INPLACE, SPECIAL SURFACE FINISH APPLIED TO CONCRETE CURBS, CONNECTIONS FOR ORNAMENTAL METAL RAILING TYPE SPECIAL 2, ARCHITECTURAL STEEL CLADDING AND CONNECTION, ARCHITECTURAL METAL FRAMES FOR LETTERS AND CONNECTIONS, PAINTING OF ARCHITECTURAL STEEL CLADDING AND METAL FRAMES FOR LETTER, LETTER COMPONENTS AND CONNECTIONS, AND LIGHTING SYSTEM "B" SUPPORT AND CONNECTION.

(#) DESIGNATES BAY NUMBER.

(1) DECK SHALL FOLLOW PROFILE GRADE. REINFORCEMENT TO BE DESIGNED BY PREFABRICATED SUPERSTRUCTURE MANUFACTURER.

(2) DIMENSIONS ARE ASSUMED BASED ON PRE-BIDDING COORDINATION WITH PREFABRICATED SUPERSTRUCTURE MANUFACTURERS.

(3) BOTTOM CHORD SHALL HAVE A MINIMUM 1'-6" OF RESIDUAL UPWARD CAMBER.

(4) UNFACTORED LOADS PER BEARING USED FOR PIER 6 & 7 DESIGN ASSUMING FOUR BEARINGS TOTAL.

(5) GUTTER TO LOW MEMBER

(6) SEE SHEET B52

No.	Date	Revisions	App.

DRAWING NAME BRG_SUP3.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

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CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

PREFABRICATED TRUSS & ARCH.
DETAILS 1

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B51 / B68

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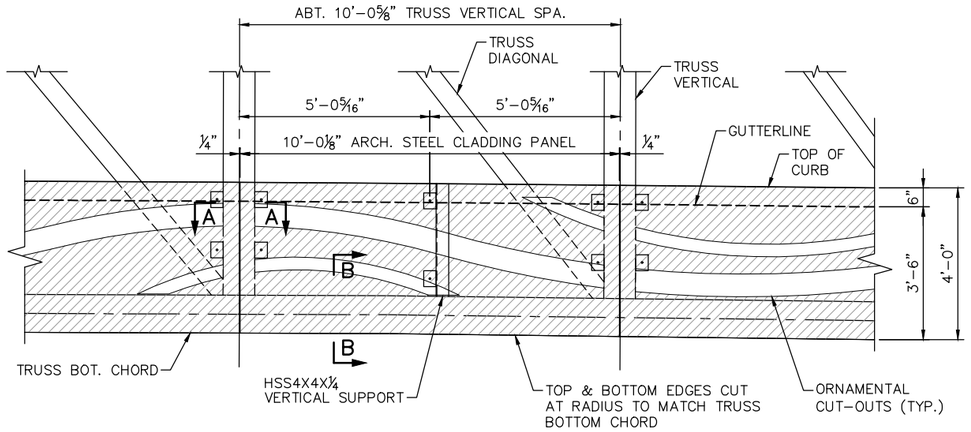
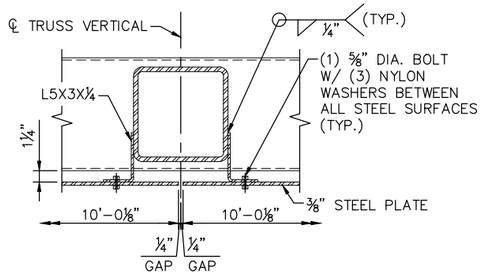
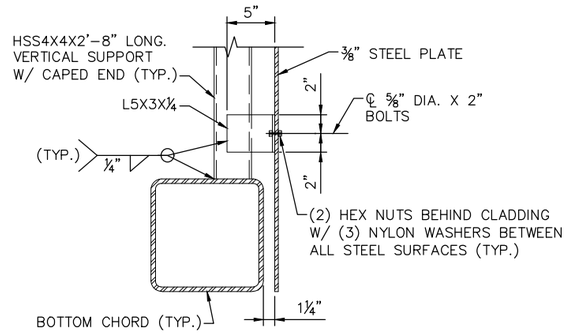


ARCHITECTURAL STEEL CLADDING ELEVATION



SECTION A-A



SECTION B-B

NOTES:

(6) THE ARCHITECTURAL STEEL CLADDING WILL REQUIRE SPECIAL ATTACHMENT TO THE STEEL TRUSS AS SUGGESTED ON PLANS, AND WILL BE INCLUDED IN BID ITEM "PEDESTRIAN BRIDGE (SUPERSTRUCTURE)." THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE DESIGN AND PROPER INSTALLATION OF THE STEEL CLADDING. THE ARCHITECTURAL STEEL CLADDING SHALL BE IN STRAIGHT AND TRUE ALIGNMENT AND SHALL NOT BE LOOSE OR RATTLE AFTER INSTALLATION IS COMPLETE. FIELD WELDING TO THE STEEL TRUSS WILL NOT BE PERMITTED. THE DESIGN, FABRICATION, AND INSTALLATION METHODS FOR THE ARCHITECTURAL STEEL CLADDING SHALL BE CLEARLY SHOWN ON THE SHOP DRAWINGS:

ARCHITECTURAL STEEL CLADDING FABRICATION SHALL NOT BEGIN UNTIL TRUSS SHOP DRAWINGS HAVE BEEN ACCEPTED.

BOLTED CONNECTIONS FOR ARCHITECTURAL STEEL CLADDING SHALL BE MADE WITH ⅝" DIA. BOLTS IN ACCORDANCE WITH ASTM A325, TYPE 3. ALL BOLTS SHALL BE FULLY TIGHTENED.

ARCHITECTURAL STEEL CLADDING PANELS WITH ORNAMENTAL CUT-OUTS:

- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING CUT-OUT DIMENSIONS, CLEARANCES, RADII AND CLADDING JOINTS. THE SHOP DRAWING SUBMITTAL SHALL INCLUDE THE FINAL RENDITION OF THE STEEL CLADDING DRAWN TO SCALE USING THE APPROXIMATE FULL WIDTH OF 22x34 INCH WIDE SHEET. ENGINEER WILL PROVIDE DIGITAL FILES TO ASSIST WITH CREATING THE ORNAMENTAL WAVE SHOP DRAWINGS.
- SHALL HAVE 4" MIN. CLEARANCE FROM TOP AND SIDES OF EACH PANEL AND 10-12" MIN. CLEARANCE FROM BOTTOM OF PANEL.
- SHALL HAVE 6" MIN. CLEARANCE FROM OTHER CUT-OUTS.
- SHALL BE FORMED WITH CONSISTENT RADII JOINTING AT TANGENT POINTS FOR A SMOOTH VISUAL CONNECTION. JAGGED OR CROOKED LINES OR CUTS EXCEEDING ⅛" ARE NOT ACCEPTABLE.
- ALL CUTS SHALL BE SMOOTH AND PERPENDICULAR TO SURFACE OF PANEL AND DEBURRED ON BOTH SIDES PRIOR TO INSTALLATION ONTO THE BRIDGE.

No.	Date	Revisions	App.

DRAWING NAME BRG_SUP3.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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

CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

PREFABRICATED TRUSS & ARCH. DETAILS 2

CITY PROJECT 24-6 | S.P. 114-090-002

MINN. PROJECT NO. TA 0224(173)

BRIDGE NO. 02596

SHEET NO. B52 / B68

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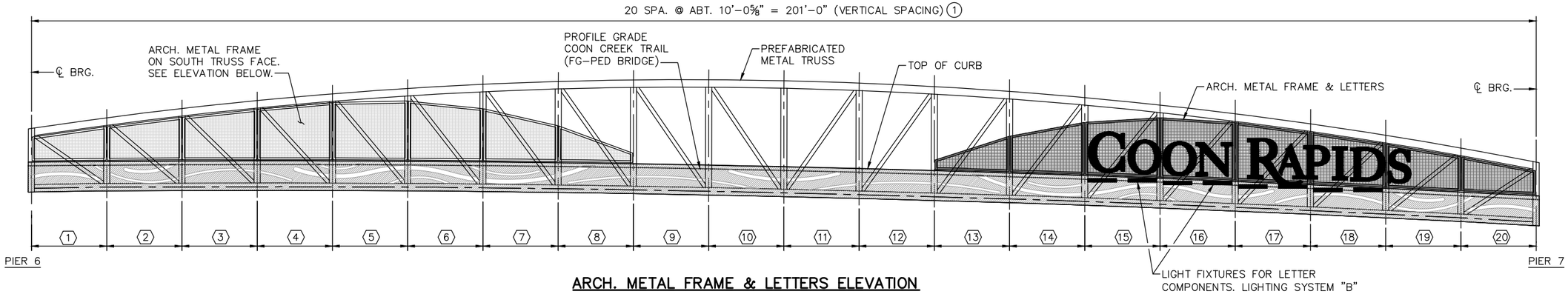
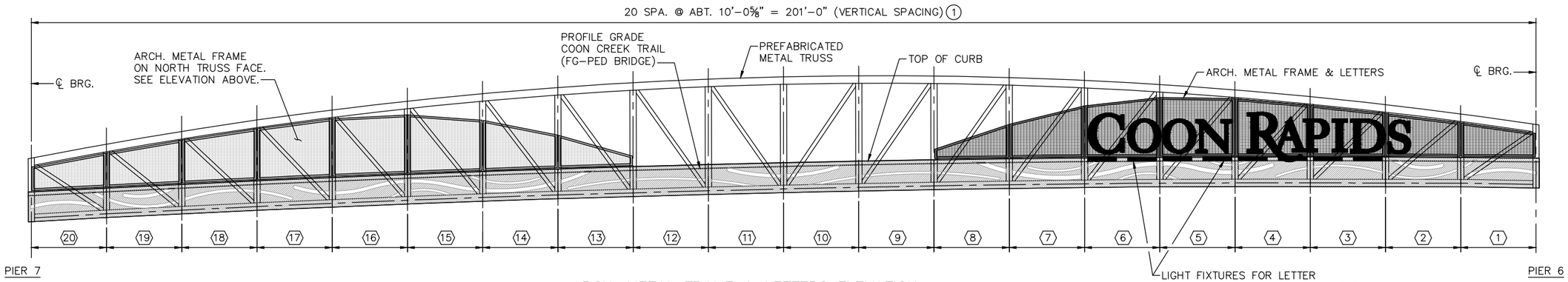


ARCH. METAL FRAME & LETTERS ELEVATION

(NORTH TRUSS FACE SHOWN)



ARCH. METAL FRAME & LETTERS ELEVATION

(SOUTH TRUSS FACE SHOWN)

(#) DESIGNATES BAY NUMBER

(1) DIMENSIONS ARE ASSUMED BASED ON PRE-BIDDING COORDINATION WITH PREFABRICATED SUPERSTRUCTURE MANUFACTURERS.

NOTES:

THE ARCHITECTURAL MOUNTING FRAME & LETTER COMPONENTS WILL REQUIRE SPECIAL ATTACHMENT TO THE STEEL TRUSS AS SUGGESTED ON THE PLANS AND WILL BE INCLUDED IN THE BID ITEM "PEDESTRIAN BRIDGE (SUPERSTRUCTURE)". THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE DESIGN, ATTACHMENT AND PROPER INSTALLATION OF THE MOUNTING FRAMES AND LETTER COMPONENTS. FIELD WELDING TO THE STEEL TRUSS WILL NOT BE PERMITTED. THE DESIGN, FABRICATION AND INSTALLATION METHODS FOR THE MOUNTING FRAME & LETTER COMPONENTS SHALL BE CLEARLY SHOWN ON THE SHOP DRAWINGS.

ARCHITECTURAL METAL FRAME & LETTER COMPONENT FABRICATION SHALL NOT BEGIN UNTIL TRUSS SHOP DRAWINGS HAVE BEEN ACCEPTED.

ARCHITECTURAL LETTER COMPONENTS:

- ALL LETTERS SHALL BE ¼" DEPTH POWDER-COATED ALUMINUM.
- ALL LETTERS SHALL PROTRUDE BEYOND THE MOUNTING FRAME AT AN EQUAL STAND-OFF DISTANCE OF 3".
- ALL LETTERS SHALL FOLLOW THE TOP OF CURB PROFILE ON THE TRUSS WITH EACH LETTER ALIGNED 90 DEGREES VERTICALLY TO THE GROUND PLANE.
- CONTRACTOR SHALL PROVIDE A MINIMUM OF 6 ATTACHMENT POINTS TO THE MOUNTING FRAME FOR EACH LETTER. MINIMIZE THE USE OF VISIBLE FASTENERS FOR EACH ATTACHMENT POINT.
- ALL LETTERS SHALL BE DESIGNED WITH A SAFETY TETHER TO ACT AS A FAIL-SAFE IN THE EVENT OF PRIMARY ATTACHMENT FASTENER FAILURE.
- THE LETTER DESIGN SHALL BE COORDINATED WITH THE MOUNTING FRAME AND LIGHTING FEATURES TO PROVIDE A COHESIVE DESIGN THAT CONFORMS TO THE INTENT OF THESE DRAWINGS.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING THE LAYOUT AND SPACING OF ALL LETTERS, LETTER FONT LETTER PAINT COLOR. ENGINEER WILL PROVIDE DIGITAL FILES TO ASSIST WITH THE PRODUCTION OF LETTER COMPONENT SHOP DRAWINGS.

SEE JOINT & POST LAYOUT FOR THE LOCATION OF THE LIGHTING FIXTURE FOR THE LETTER COMPONENTS TO BE INCLUDED IN THE BID ITEM "LIGHTING SYSTEM "B". THE FINAL FIXTURE LOCATION TO BE DESIGNED AND COORDINATED WITH LETTER COMPONENTS, FINAL PREFABRICATED SUPERSTRUCTURE DIMENSIONS AND VERIFIED THROUGH THE SHOP DRAWING PROCESS.

No.	Date	Revisions	App.

DRAWING NAME BRG_DET3.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

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Christopher P. Ewert

CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

PREFABRICATED TRUSS & ARCH. DETAILS 3

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B53 / B68

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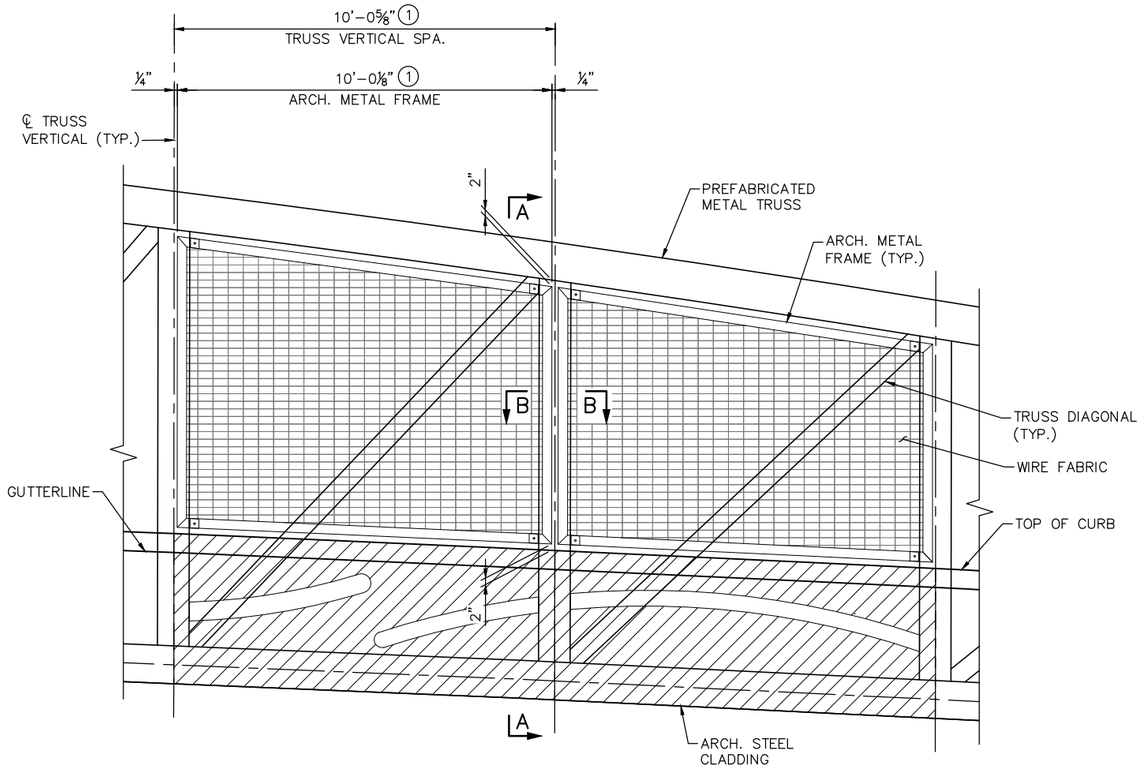
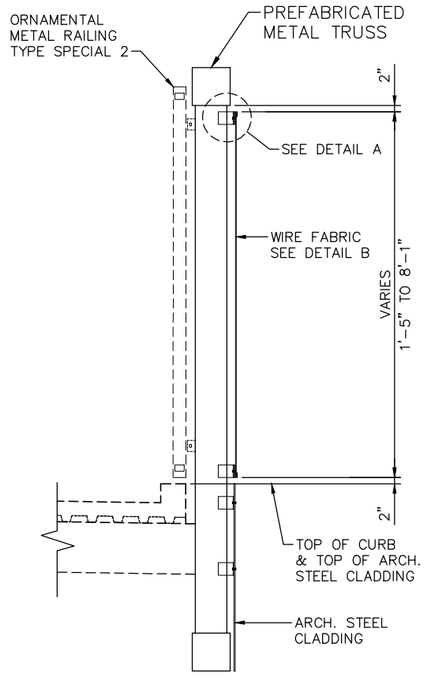
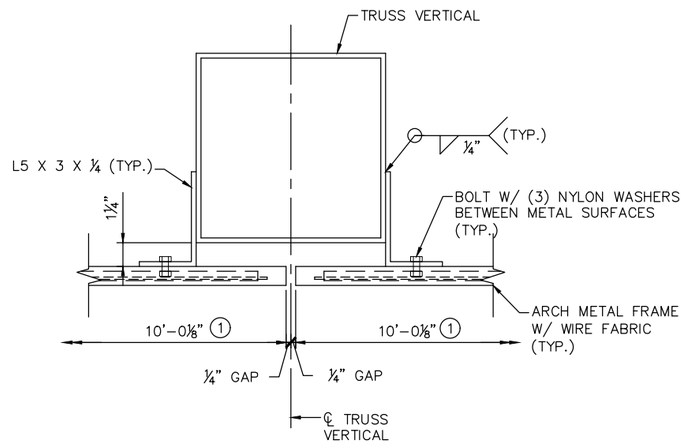


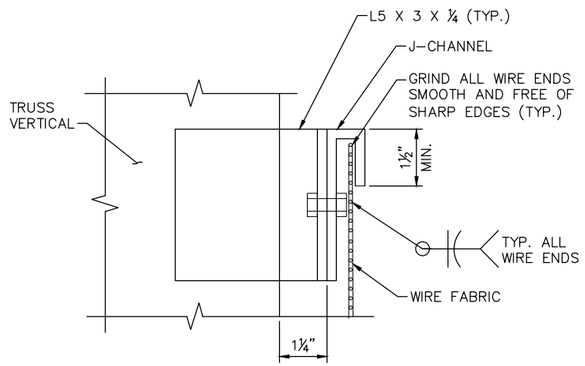
ARCH. METAL FRAME ELEVATION



SECTION A–A
(AT TRUSS VERTICAL)



SECTION B–B



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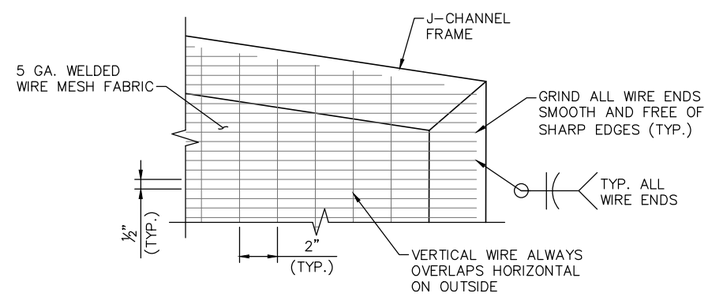

DETAIL B

NOTES:

ARCHITECTURAL METAL MOUNTING FRAME WILL BE INCLUDED IN THE BID ITEM "PEDESTRIAN BRIDGE (SUPERSTRUCTURE)".

ARCHITECTURAL METAL FRAME FABRICATION SHALL NOT BEGIN UNTIL TRUSS SHOP DRAWINGS HAVE BEEN ACCEPTED.

SEE SHEET B53 FOR ADDITIONAL NOTES AND DETAILS.

(1) DIMENSIONS ARE ASSUMED BASED ON PRE–BIDDING COORDINATION WITH PREFABRICATED SUPERSTRUCTURE MANUFACTURER.

No.	Date	Revisions	App.

DRAWING NAME BRG_DET3.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

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Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

PREFABRICATED TRUSS & ARCH. DETAILS 4

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B54 / B68

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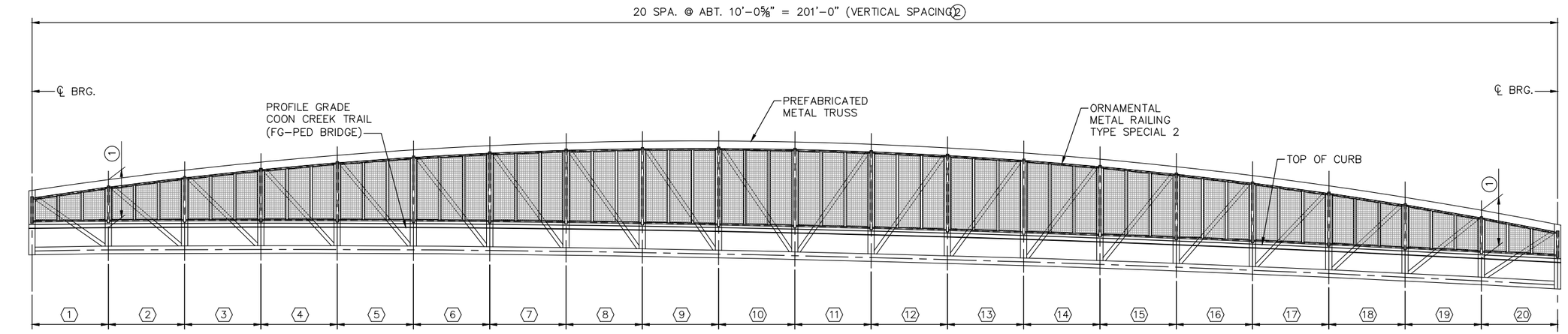

RAILING/TRUSS ELEVATION

(TRAIL SIDE SHOWN)

GENERAL NOTES:

CONTINUOUSLY GROUND ALL METAL RAILINGS; SEE THE SPECIAL PROVISIONS.

PAYMENT LENGTH SHALL BE INCLUDED IN BID ITEM "ORNAMENTAL METAL RAILING TYPE SPECIAL 2."

THE LENGTH OF RAILING FOR PAYMENT SHALL BE MEASURED OUT TO OUT OF RAIL.

PROVIDE A500, GRADE B STRUCTURAL STEEL TUBING (HSS) IN THE RAIL CONFORMING TO SPEC. 3361. ALL OTHER STEEL SHALL CONFORM TO SPEC. 3306.

GALVANIZE BOLTS, NUTS, WASHERS, AND ANCHORS PER SPEC. 3392, GALVANIZE ALL OTHER STRUCTURAL STEEL PER SPEC. 3394 AFTER FABRICATION.

COAT THE GALVANIZED RAILING, BASE, PLATES, AND PROTRUDING PORTIONS OF BOLTS, NUTS, ANCHORS, AND WASHERS.

DRILL ½" DIA. MAX. VENT HOLES ON THE UNDERSIDE OF RAIL TUBES AS NECESSARY TO FACILITATE GALVANIZING.

THE RAILING, BOLTS, NUTS, AND WASHERS SHALL BE PAINTED AFTER GALVANIZING IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

INSTALL THE VERTICAL MEMBERS OF THE WIRE FABRIC PANELS PLUMB AND PARALLEL TO THE PREFABRICATED TRUSS VERTICALS.

HORIZONTAL RAIL LENGTH AND WIRE FABRIC PANEL LENGTHS SHALL BE ADJUSTED TO MATCH TRUSS VERTICAL MEMBER SPACING AFTER THE TRUSS SHOP DRAWINGS HAVE BEEN ACCEPTED.

RAIL FABRICATION SHALL NOT BEGIN UNTIL TRUSS SHOP DRAWINGS HAVE BEEN ACCEPTED.

SEE SPECIAL PROVISIONS FOR REQUIREMENTS NOT INCLUDED ON THIS SHEET.

NOTES:

SEE SHEETS B56-B57 FOR ADDITIONAL ORNAMENTAL RAILING TYPE SPECIAL 2 DETAILS AND NOTES.

SEE SPECIAL PROVISIONS FOR ADDITIONAL ORNAMENTAL RAILING SPECIFICATIONS.

ORNAMENTAL METAL RAILING ON TRUSS TO BE INCLUDED IN BID ITEM "ORNAMENTAL METAL RAILING TYPE SPECIAL 2".

(#) DESIGNATES BAY NUMBER.

(1) MINIMUM TRUSS HEIGHT IN BAYS 2-19 SHALL BE 6'-0". HEIGHT MEASURED FROM GUTTERLINE TO TOP OF TRUSS TOP CHORD.

(2) DIMENSIONS ARE ASSUMED BASED ON PRE-BIDDING COORDINATION WITH PREFABRICATED SUPERSTRUCTURE MANUFACTURER.

No.	Date	Revisions	App.

DRAWING NAME BRG_SUP3.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

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CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

ORNAMENTAL METAL RAILING (TYPE 2)
DETAILS 1

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B55 / B68

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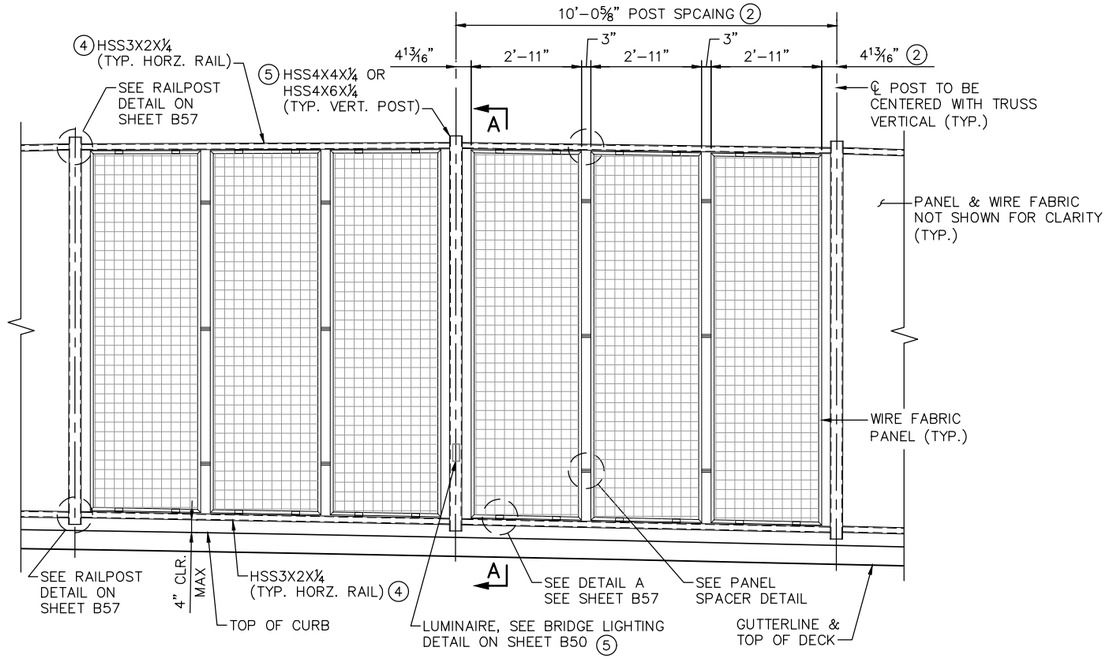
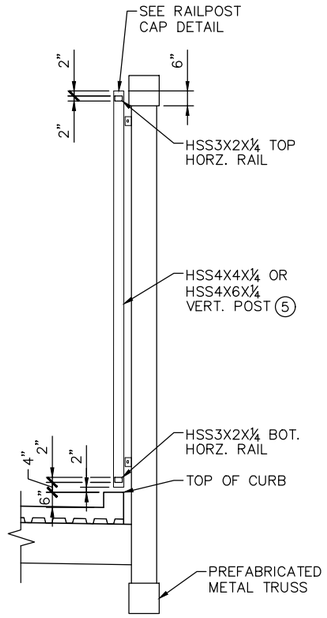
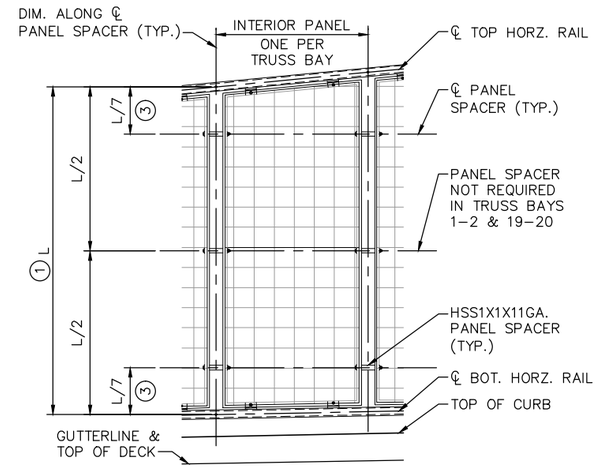


ELEVATION

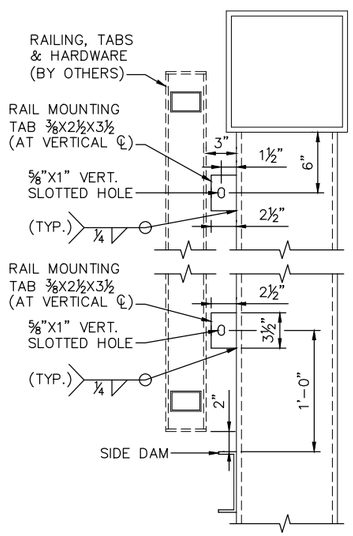
(PREFABRICATED METAL TRUSS NOT SHOWN)

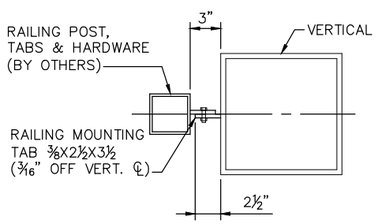


SECTION A–A



PANEL SPACER DETAIL





PLAN VIEW – BOTTOM TAB

RAIL MOUNTING TAB DETAILS

NOTES:

SEE SHEET B57 FOR ADDITIONAL RAILING DETAILS.

SEE SHEET B55 FOR RAILING LAYOUT.

(1) DIMENSION "L" SHALL BE DETERMINED BY THE ORNAMENTAL METAL RAILING FABRICATOR AND DETAILED IN THE SHOP DRAWINGS FOR APPROVAL BY THE ENGINEER. EACH TRUSS BAY CONTAINS THREE (3) WIRE FABRIC PANELS WITH VARYING VERTICAL LENGTHS. DIMENSION "L" SHALL BE LOCATED BETWEEN THE TWO (2) SHORTEST WIRE FABRIC PANELS AND REMAIN CONSTANT FOR EACH TRUSS BAY.

(2) DIMENSIONS ARE ASSUMED BASED ON PRE–BIDDING COORDINATION WITH PREFABRICATED SUPERSTRUCTURE MANUFACTURER.

(3) MINIMUM OF 7½"

(4) TOP AND BOTTOM HORIZONTAL RAILS MAY BE CHORDED BETWEEN VERTICAL RAIL POSTS.

(5) SEE JOINT & POST LAYOUT PLANS FOR BRIDGE LUMINAIRE AND HSS 4 X 4 X ¼ POST LOCATIONS. LIGHTING SYSTEM "A".

No.	Date	Revisions	App.

DRAWING NAME BRG_SUP3.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
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PROJECT NO.	160000023

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CHRISTOPHER P. EWERT

DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
ORNAMENTAL METAL RAILING (TYPE 2) DETAILS 2

CITY PROJECT 24–6	S.P. 114–090–002	SHEET NO. B56 / B68
MINN. PROJECT NO.	TA 0224(173)	
BRIDGE NO. 02596		

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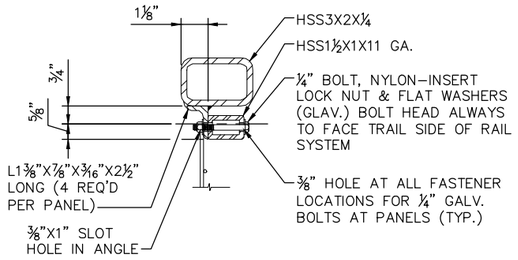

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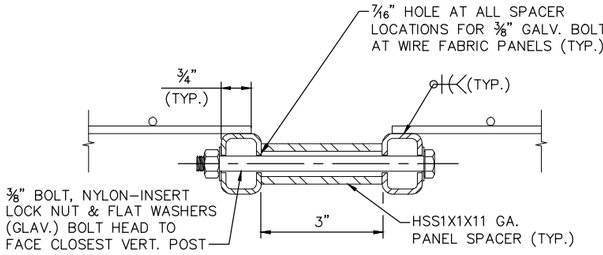

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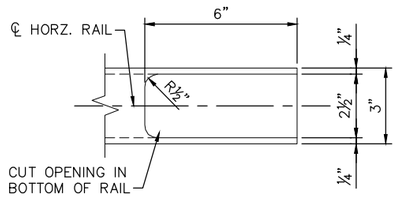
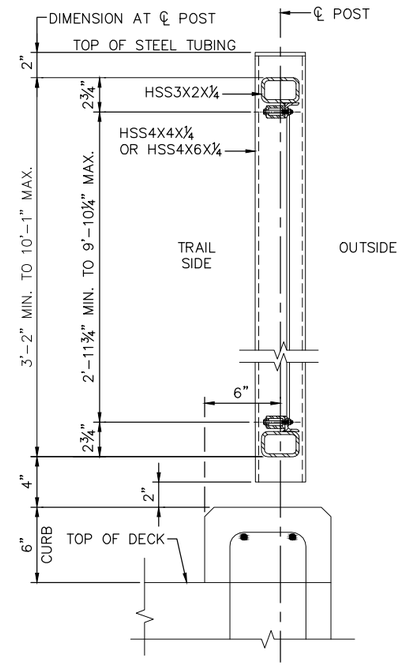
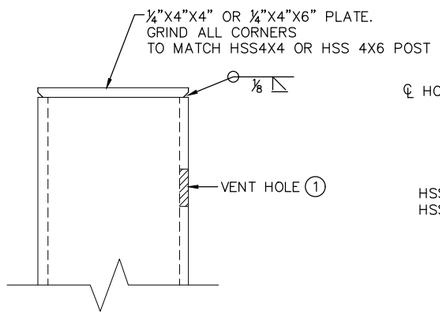


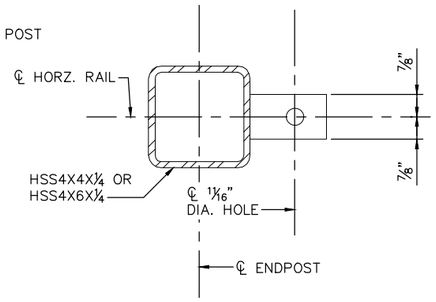
RAIL NOTCH BOTTOM VIEW



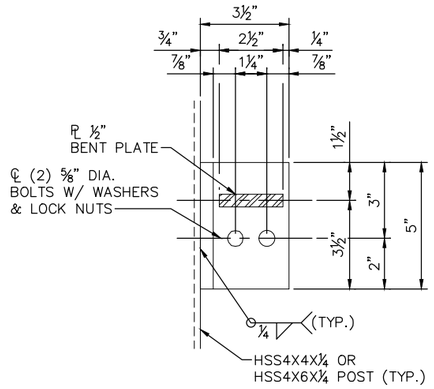
RAILPOST DETAIL



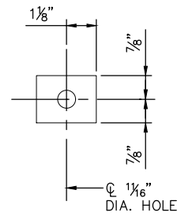
RAILPOST CAP DETAIL



END POST CONNECTION TOP VIEW

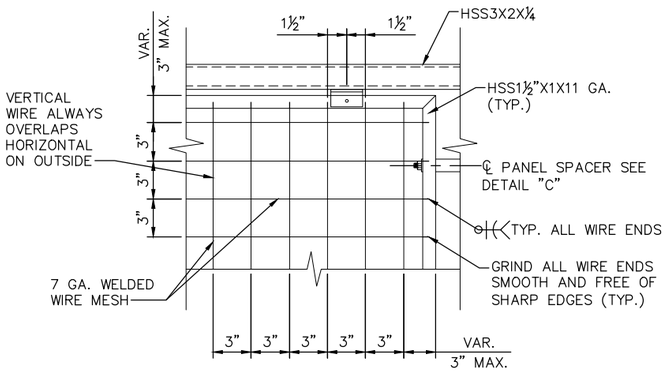


SECTION A–A

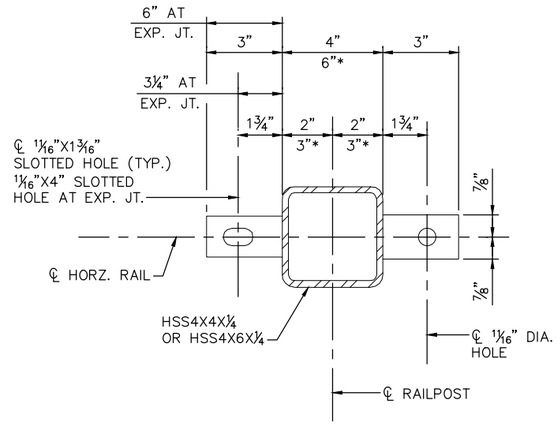


NYLON SHIM "A"

① DRILL VENT HOLE IN THE RAIL POST WITHIN 2" OF THE UNDERSIDE OF THE CAP, ON THE NON–TRAIL SIDE OF THE POST AS NECESSARY TO FACILITATE GALVANIZING. MAXIMUM HOLE SIZE IS ½" DIA.

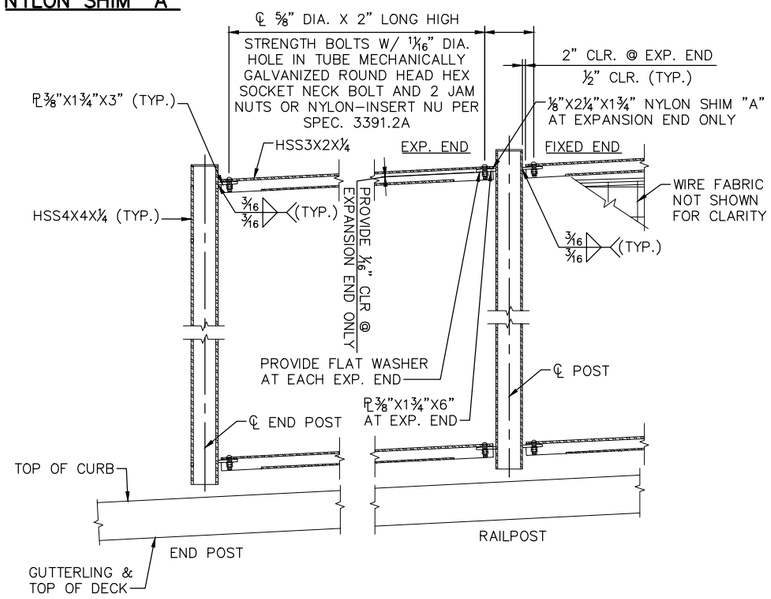


DETAIL A



RAIL POST CONNECTION TOP VIEW

* DIM FOR HSS 4X4X¼ POST



SECTION ON CENTERLINE OF RAIL

No.	Date	Revisions	App.

DRAWING NAME BRG_DET3.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn
767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114
PHONE: 651–645–4197
WWW.KIMLEY–HORN.COM

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

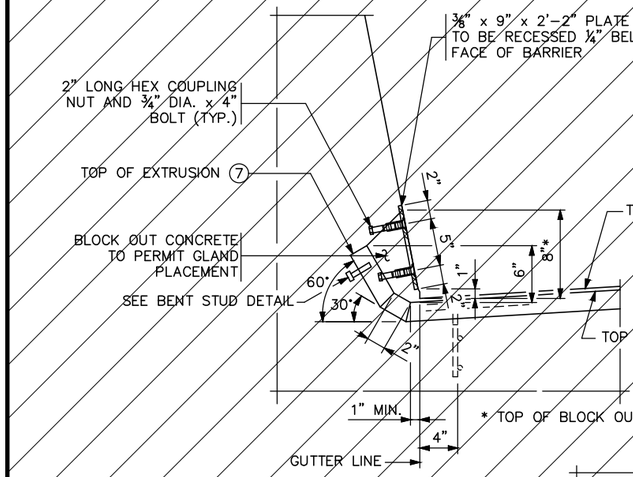
Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
ORNAMENTAL METAL RAILING (TYPE 2) DETAILS 3

CITY PROJECT 24–6	S.P. 114–090–002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

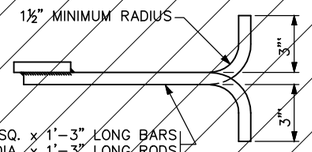
SHEET NO. B57 / B68

K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_DET3.dwg 4/23/2024 2:41 PM

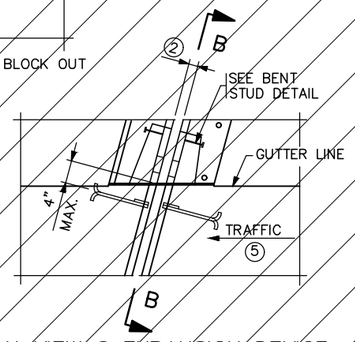


SECTION THROUGH BARRIER

TYPE S BARRIER

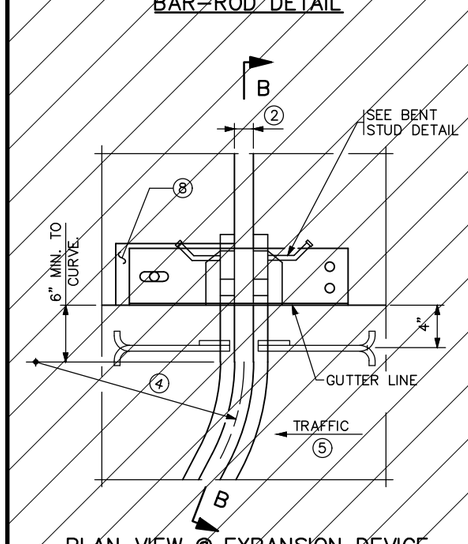


BAR-ROD DETAIL



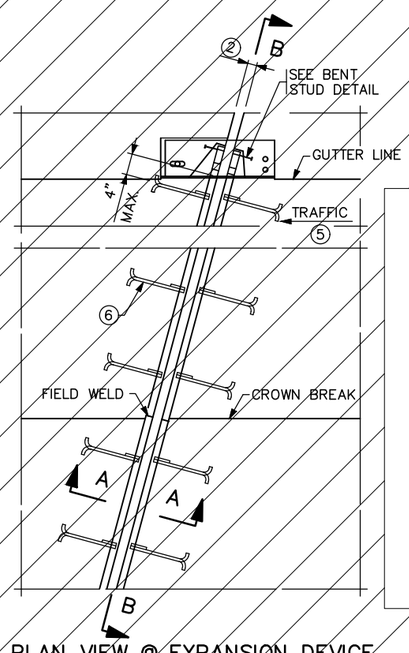
PLAN VIEW @ EXPANSION DEVICE

MEDIAN OR RAISED SIDEWALK ALTERNATE



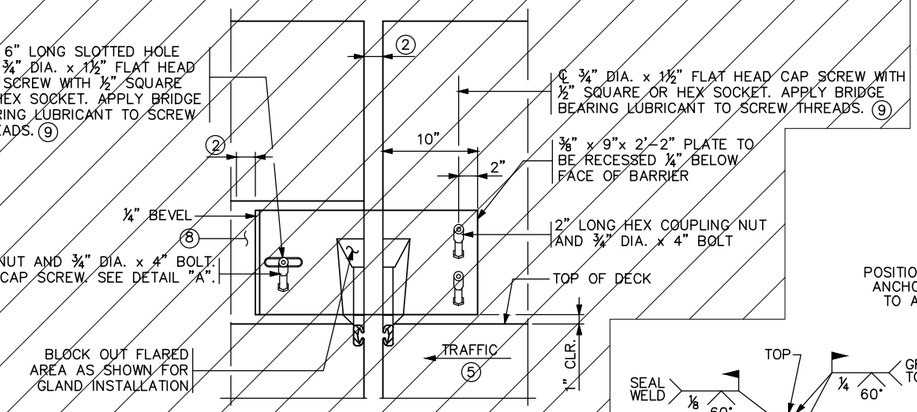
PLAN VIEW @ EXPANSION DEVICE

WITH CURVED DEVICE ALTERNATE

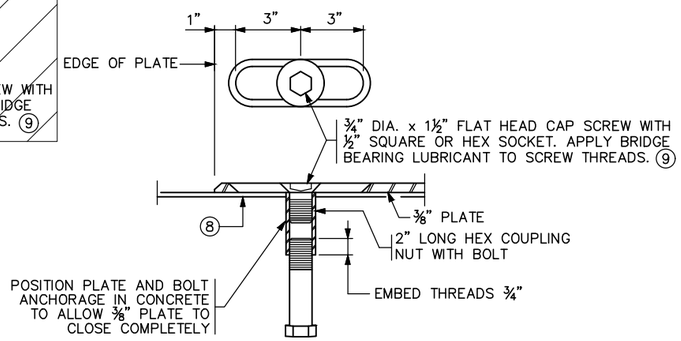


PLAN VIEW @ EXPANSION DEVICE

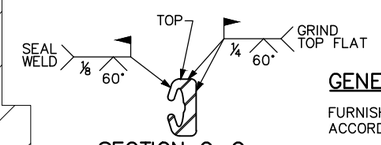
WITH STRAIGHT DEVICE



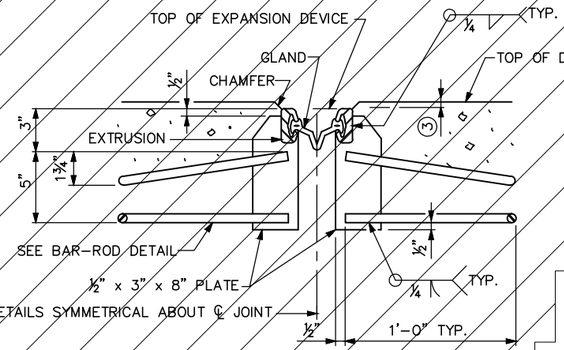
BARRIER ELEVATION



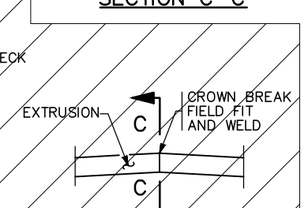
DETAIL "A"



SECTION C-C



SECTION A-A



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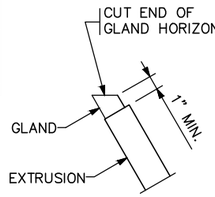
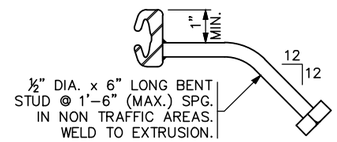
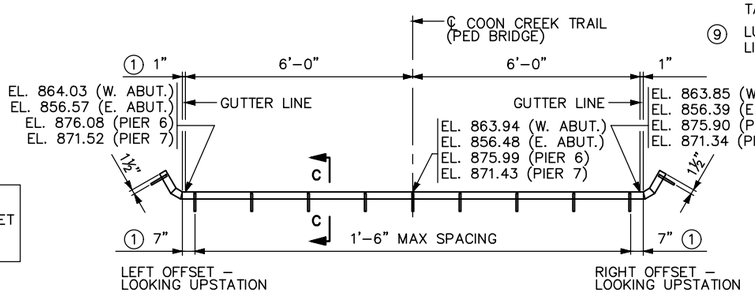


DETAIL "C"



BENT STUD DETAIL



SECTION B-B ~ ALONG ℄ JOINT (A)

ELEVATIONS SHOWN ARE AT ℄ OF JOINT ~~AND ARE AT A DEPTH BEOLW THE TOP OF SLAB AS SPECIFIED IN NOTE (3).~~

GENERAL NOTES

FURNISH AND INSTALL WATERPROOF EXPANSION JOINT DEVICES IN ACCORDANCE WITH SPEC. 2473.

GALVANIZE STRUCTURAL STEEL AFTER FABRICATION IN ACCORANCE WITH SPEC. 3394. GALVANIZE FASTENERS IN ACCORDANCE WITH SPEC. 3392.

~~LOCATE JOINTS IN EXTRUSION AT BREAKS IN TRANSVERSE PROFILE AND AS OTHERWISE REQUIRED, WITH CLOSE FIT, WELDED JOINTS. REPAIR AFTER WELDING IN ACCORDANCE WITH SPEC. 2471.3L.~~

PROVIDE STRUCTURAL STEEL IN ACCORDANCE WITH SPEC. 3306 OR SPEC. 3310.

STRAIGHTEN EXPANSION DEVICE TO A TOLERANCE OF ⅛" IN 10 FT.

¾" DIA. X 1½" FLAT HEAD CAP SCREW WITH ½" SQUARE OR HEX SOCKET IN ACCORDANCE WITH SPEC 3391. COUNTERSINK CAP SCREWS ⅛" BELOW TOP OF PLATE. APPLY BRIDGE BEARING LUBRICANT TO SCREW THREADS. (9)

(1) DIMENSIONS ARE ALONG CENTERLINE OF JOINT.

(A) (2) SEE NOTE 3 ON CORNER DETAILS SHEET.

(3) ~~SNOWPLOW FINGERS ARE REQUIRED FOR SKEWS OVER 15 AND LESS THAN 50 DEGREES. SET THE TOP OF EXTRUSION AT __" BELOW PROPOSED DRIVING SURFACE.~~

(4) ~~SEE SUPERSTRUCTURE DETAILS FOR RADIUS.~~

(5) ~~SEE SHEET NO. __ FOR DIRECTION OF TRAFFIC.~~

(6) ~~PLACE BAR-ROD NORMAL TO JOINT ON NEW BRIDGES AND JOINT REPLACEMENTS. ON JOINT REPLACEMENTS WHEN SKEW IS OVER 15° AND LESS THAN 50° BEND RODS PARALLEL TO ℄ ROADWAY.~~

(7) EXTEND GLAND 1" MIN. BEYOND THE END OF THE EXTRUSION. SEE DETAIL "C".

(8) PROVIDE SMOOTH CONCRETE FINISH BENEATH PLATE WITH 0" MIN. TO ⅛" MAX. GAP BETWEEN CONCRETE AND UNDERSIDE OF PLATE. PROVIDE BOND BREAKER (DUCT TAPE, ETC.) TO UNDERSIDE OF COVER PLATE.

(9) LUBRICANT PER MNDOT APPROVED/QUALIFIED PRODUCTS LIST: BRIDGE GREASE.

SHEET MODIFICATIONS:

(A) DENOTES MODIFICATION TO STANDARD SHEET
- MODIFIED SECTION B-B
- MODIFIED NOTE 2

~~* INDICATES MODIFICATION FROM STANDARD PLAN~~

REVISION: DECEMBER 21, 2022

APPROVED: AUGUST 24, 2016

Kevin Western
STATE BRIDGE ENGINEER

REV. NO.	DATE	REVISION DESCRIPTION	BY
1			

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

CERTIFIED BY Christopher P. Ewert 5/10/2024
LICENSED PROFESSIONAL ENGINEER DATE

NAME: CHRISTOPHER P. EWERT LIC. NO. 49609

TITLE: WATERPROOF EXPANSION DEVICE ~~(WITH TYPE S BARRIER)~~

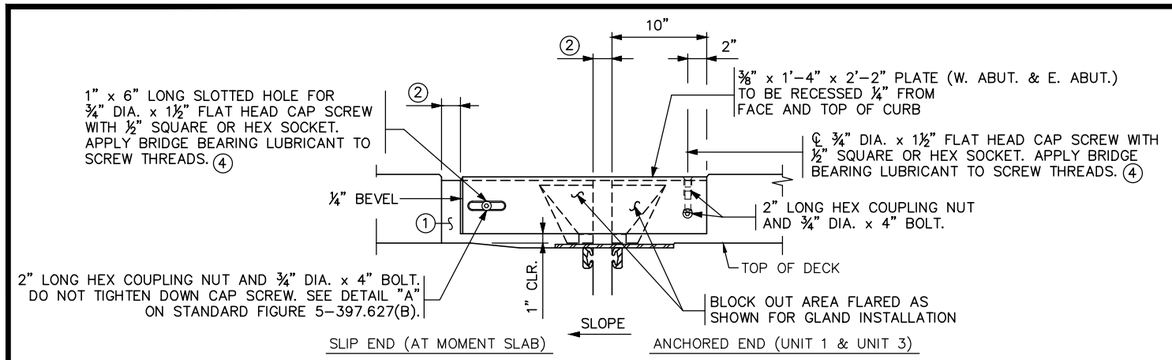
FIG. 5-397.627(B) (MOD.)

DES: MJN	DR: NMA	APPROVED:
CHK: KAE	CHK: KAE	

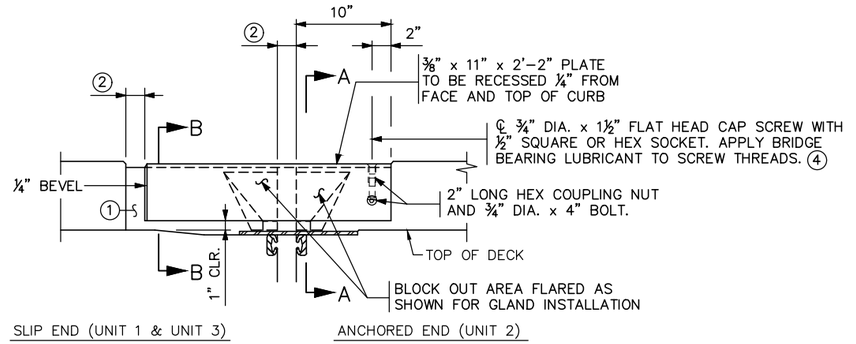
SHEET NO. B58 OF B68 SHEETS

BRIDGE NO. 02596

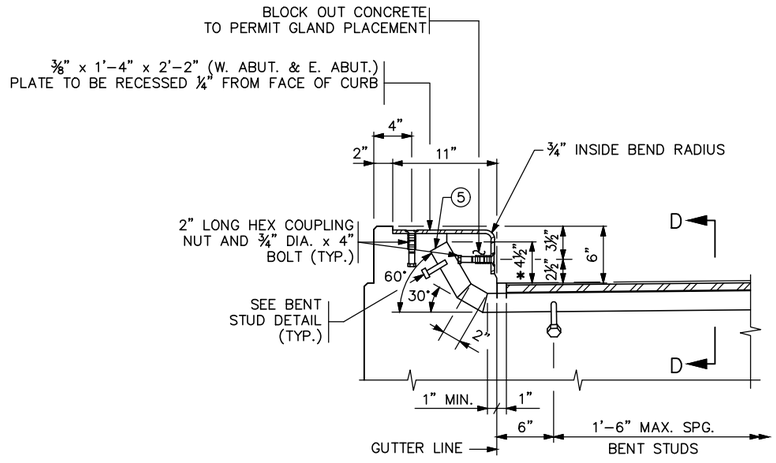
Apr. 24 2024 06:55 am K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_DET1.dwg By: phil.horton



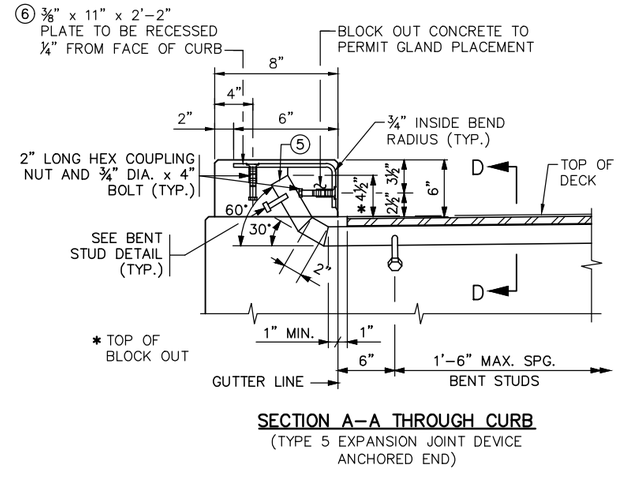
INSIDE ELEVATION OF CONCRETE CURB
(TYPE 4 EXPANSION JOINT DEVICE)



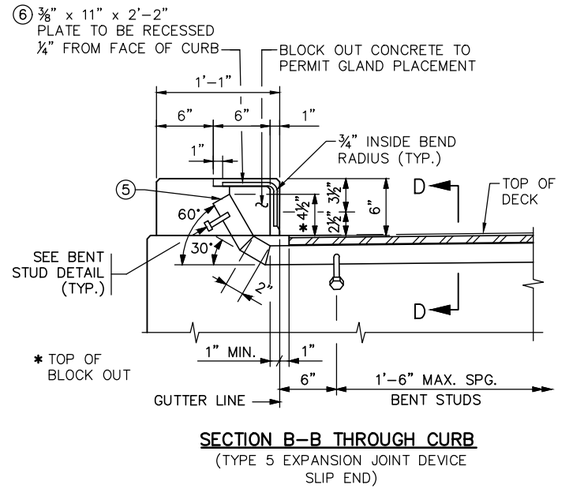
INSIDE ELEVATION OF CONCRETE CURB
(TYPE 5 EXPANSION JOINT DEVICE)



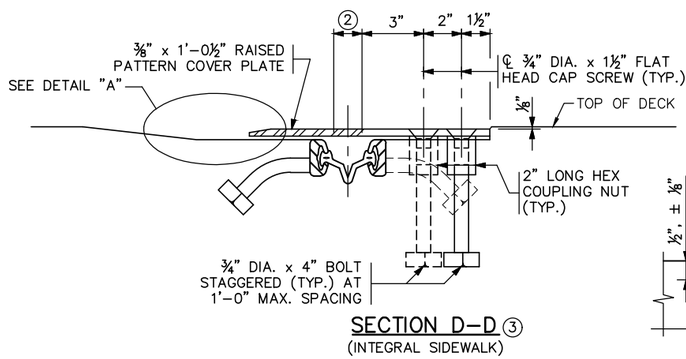
SECTION THROUGH CURB
(TYPE 4 EXPANSION JOINT DEVICE)



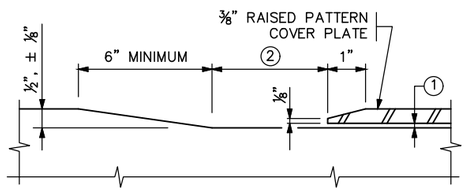
SECTION A-A THROUGH CURB
(TYPE 5 EXPANSION JOINT DEVICE ANCHORED END)



SECTION B-B THROUGH CURB
(TYPE 5 EXPANSION JOINT DEVICE SLIP END)



SECTION D-D 3
(INTEGRAL SIDEWALK)



DETAIL "A" 3

GENERAL NOTES

SEE OTHER WATERPROOF EXPANSION DEVICE SHEET FOR ADDITIONAL DETAILS AND NOTES.

PROVIDE RAISED PATTERN PLATE IN ACCORDANCE WITH SPEC. 3310, ASTM A709, GRADE 50, GALVANIZED IN ACCORDANCE WITH SPEC. 3394.

TRANSVERSE DECK REINFORCEMENT MAY BE SHIFTED THE MINIMUM DISTANCE REQUIRED FOR EXPANSION DEVICE PLACEMENT.

¾" DIA. X 1½" FLAT HEAD CAP SCREW WITH ½" SQUARE OR HEX SOCKET IN ACCORDANCE WITH SPEC 3391. COUNTERSINK CAP SCREWS 1/16" FROM TOP OF PLATE. APPLY BRIDGE BEARING LUBRICANT TO SCREW THREADS. 4

1 PROVIDE SMOOTH CONCRETE FINISH BENEATH PLATE WITH 0" MIN. TO ⅛" MAX. GAP BETWEEN CONCRETE AND UNDERSIDE OF PLATE. PROVIDE BOND BREAKER (DUCT TAPE, ETC.) TO UNDERSIDE OF COVER PLATE.

2 SEE NOTE 3 ON CORNER DETAILS SHEET.

3 DIMENSIONS SHOWN ARE REQUIRED TO COMPLY WITH A.D.A. STANDARDS.

4 LUBRICANT PER MNDOT APPROVED/QUALIFIED PRODUCTS LIST: BRIDGE GREASE.

5 SEE NOTE 7 ON OTHER WATERPROOF EXPANSION DEVICE SHEET.

6 AT PIER 6 & 7, CONTRACTOR SHALL CUT OUT CURB COVER PLATE TO ENSURE NO INTERFERENCE WITH THE PREFABRICATED TRUSS SUPERSTRUCTURE. COVER PLATE SHALL PROVIDE FOR EXPANSION MOVEMENT AS INDICATED ON THE CORNER DETAILS SHEET AND 1" CLEARANCE FROM ALL TRUSS MEMBERS SUCH AS THE TRUSS VERTICAL END POST. COVER PLATES TO BE INSTALLED AT PIER 6 & 7 SHALL BE COORDINATED WITH APPROVED TRUSS PLANS PRIOR TO FABRICATION.

No.	Date	Revisions	App.

DRAWING NAME BRG_DET1.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn
767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114
PHONE: 651-645-4197
WWW.KIMLEY-HORN.COM

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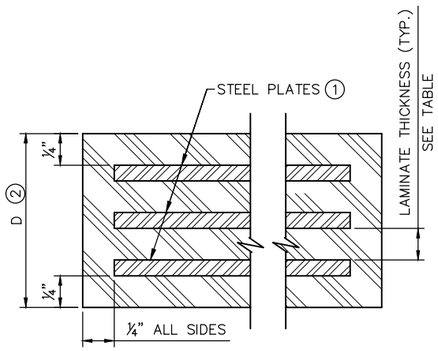
Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

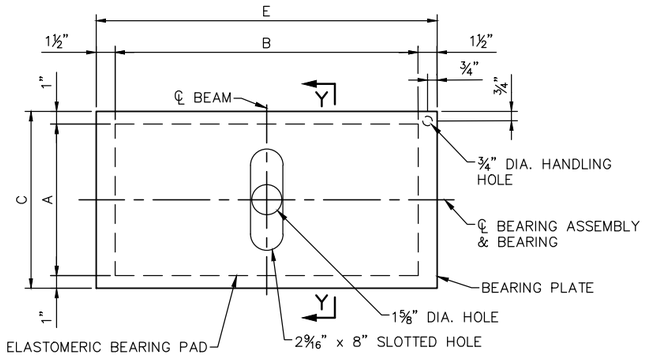
WATERPROOF EXPANSION DEVICE

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

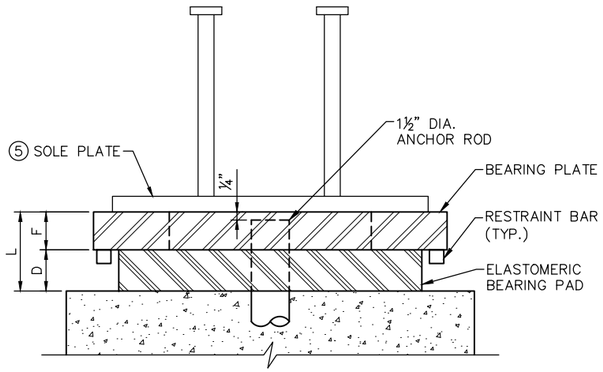
SHEET NO. B59 / B68



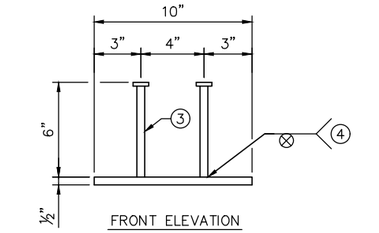
SECTION THROUGH
ELASTOMERIC BEARING PAD



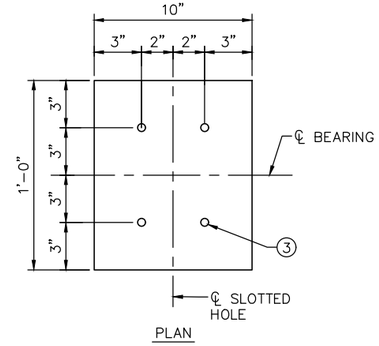
PLAN



SECTION Y–Y

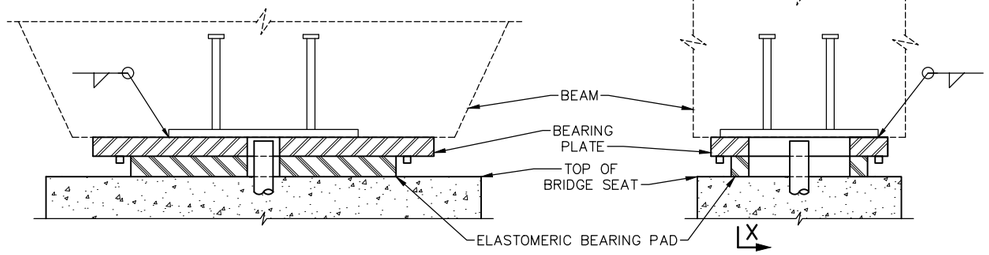


FRONT ELEVATION

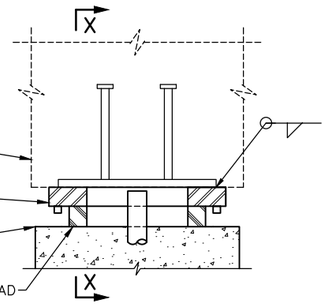


PLAN

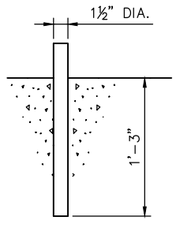
SOLE PLATE



SECTION X–X



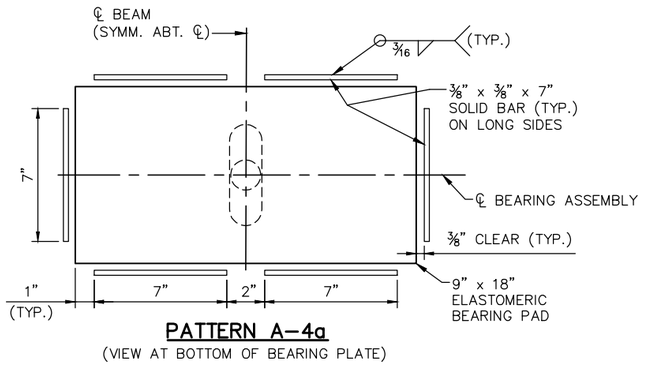
SIDE ELEVATION



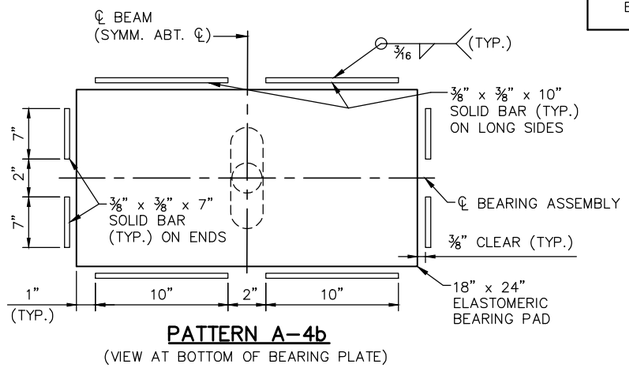
ANCHOR ROD DETAIL

BEARING ASSEMBLY TABLE

ASSEMBLY TYPE	LOCATION	BEARING PAD SIZE			STEEL PLATES		LAMINATES		SHAPE FACTOR	BEARING PLATE SIZE			ASSY. HEIGHT	RESTRAINT PATTERN
		A	B	D	NO.	THICK	NO.	THICK		C	E	F	L	
E1	W. ABUT. E. ABUT. PIER 6 PIER 7	9"	18"	3⅝"	7	⅛"	6	⅜"	5.4	11"	21"	1½"	5⅛"	A–4a
E2	PIER 1–3 PIER 10–11	18"	24"	2½"	4	⅛"	3	½"	8.2	20"	27"	2¾"	5¼"	A–4b



PATTERN A–4a
(VIEW AT BOTTOM OF BEARING PLATE)



PATTERN A–4b
(VIEW AT BOTTOM OF BEARING PLATE)

NOTES:

PROVIDE ELASTOMERIC MATERIALS AND PAD CONSTRUCTION IN ACCORDANCE WITH SPEC. 3741.

PROVIDE STEEL PLATE IN ACCORDANCE WITH SPEC. 3306.

PROVIDE ROUND BARS IN ACCORDANCE WITH SPEC. 3306 FOR USE AS ANCHOR RODS. GALVANIZE IN ACCORDANCE WITH SPEC. 3394.

GALVANIZE STRUCTURAL STEEL BEARING ASSEMBLY AFTER FABRICATION IN ACCORDANCE WITH SPEC. 3394, EXCEPT AS NOTED.

INSTALL ⅜" X ¾" SOLID RESTRAINT BARS SYMMETRIC TO CENTER OF BEARING PLATE WITH CLEAR DISTANCE OF ⅜" FROM EDGE OF BEARING PAD TO INSIDE FACE OF RESTRAINT BAR.

PAYMENT FOR BEARING ASSEMBLY INCLUDES ALL MATERIAL ON THIS DETAIL.

(1) DO NOT GALVANIZE THESE PLATES.

(2) THE TOTAL THICKNESS SHOWN INCLUDES THE STEEL PLATES.

(3) ½" DIA. X 6" LONG STUD (TYP.)

(4) STUD WELDING PER AWS. D1.1

(5) PROVIDE ONE SOLE PLATE AT EACH BEARING ASSEMBLY.

No.	Date	Revisions	App.

DRAWING NAME
BRG_DET1.dwg

DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn
767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114
PHONE: 651-645-4197
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Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

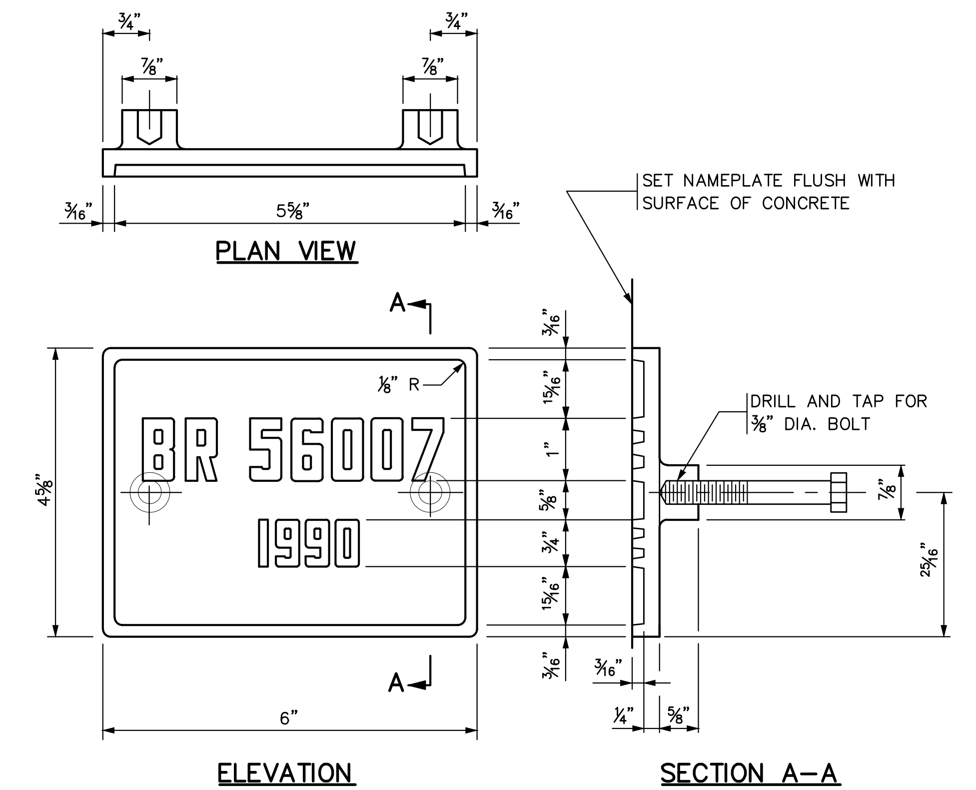
CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

EXPANSION BEARING DETAILS

CITY PROJECT 24–6	S.P. 114–090–002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO.
B60
B68

K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_DET1.dwg 4/24/2024 8:16 AM



THE DASHED NUMBERS SHOWN ABOVE ARE FOR ILLUSTRATION. DATA TO BE SHOWN ON NAMEPLATE IS AS FOLLOWS:

BRIDGE 02596

YEAR 2024

NUMBERS FOR NAMEPLATE

NOTES:

MATERIAL SHALL COMPLY WITH SPEC. 3327.

LETTERS AND NUMBERS SHALL CONFORM TO THOSE SHOWN.

DRAFT ON LETTERS AND NUMBERS SHALL NOT BE MORE THAN 3" IN 12".

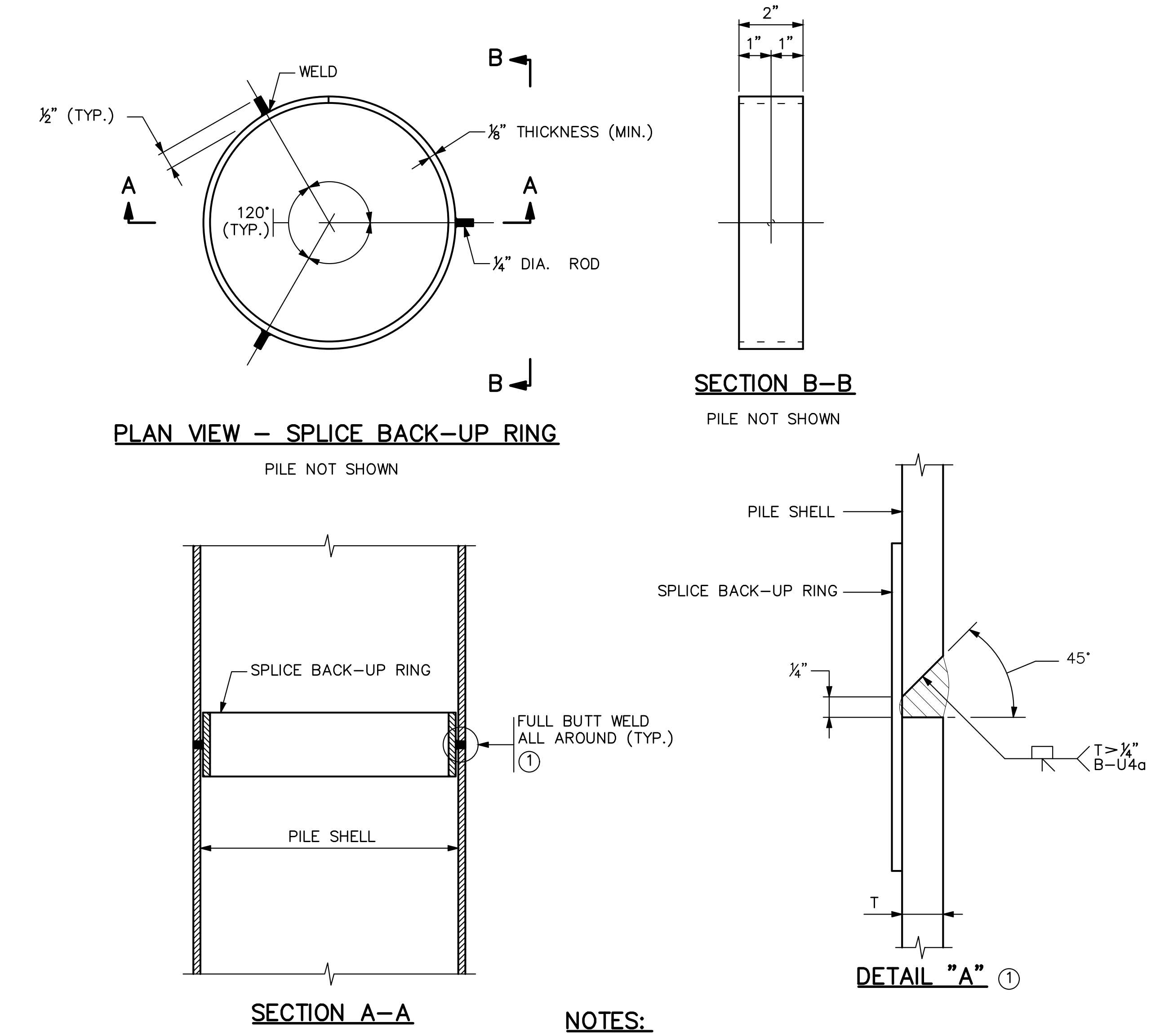
HORIZONTAL SPACING OF LETTERS AND NUMBERS SHALL PRODUCE A BALANCED LAYOUT IN PROPORTION TO SPACING SHOWN.

TOP SURFACE OF LETTERS, NUMBERS AND FRAMES SHALL BE BURNISHED.

FURNISH 2 STEEL BOLTS ⅜" DIA. x 3" LONG WITH EACH PLATE.

ALL DIMENSIONS FOR ¾" HIGH LETTERS AND NUMBERS SHALL BE IN DIRECT PROPORTION TO THOSE SHOWN FOR THE 1" HIGH LETTERS AND NUMBERS.

APPROVED: NOVEMBER 22, 2002 STATE BRIDGE ENGINEER	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION BRIDGE NAMEPLATE (FOR NEW BRIDGES)	REVISION 09-11-2014	DETAIL NO. B101



NOTES:

APPROVED COMMERCIAL PILE SPLICE BACK-UP RING MAY BE USED IN LIEU OF THE TYPE DETAILED, PROVIDED THAT ¼" ROOT IS MAINTAINED. BACK-UP RING SHALL HAVE A TIGHT FIT.

WELDING ELECTRODES SHALL BE CELLULOSIC TYPE ELECTRODES E-6010 OR E-6011.

ELECTRODES WHICH HAVE BECOME WET, SOILED OR DAMAGED SHALL NOT BE USED.

WELDING SHALL NOT BE DONE WHEN THE AMBIENT TEMPERATURE IS LOWER THAN 0° F. OR WHEN THE PILE IS WET OR EXPOSED TO FALLING RAIN OR SNOW. WHEN THE PILE METAL TEMPERATURE IS BELOW 32° F., THE PILE METAL IN THE AREA OF THE WELD SHALL BE HEATED TO A MINIMUM TEMPERATURE OF 70° F. AND MAINTAINED AT THIS TEMPERATURE DURING WELDING.

(1) FOR PILE SHELL THICKNESSES GREATER THAN ¼", USE A B-U4a WELD CONFIGURATION. SEE DETAIL "A".

APPROVED: NOVEMBER 22, 2002 STATE BRIDGE ENGINEER	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION PILE SPLICE (CAST-IN-PLACE CONCRETE PILES)	REVISION: 11-06-2013	DETAIL NO. B201

No.	Date	Revisions	App.

DRAWING NAME BRG_DET2.dwg
DESIGNED BY: MJN
CHECKED BY: KAE
DRAWN BY: NMA
CHECKED BY: KAE
PROJECT NO. 160000023

COON RAPIDS Minnesota

Kimley»Horn
767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114
PHONE: 651-645-4197
WWW.KIMLEY-HORN.COM

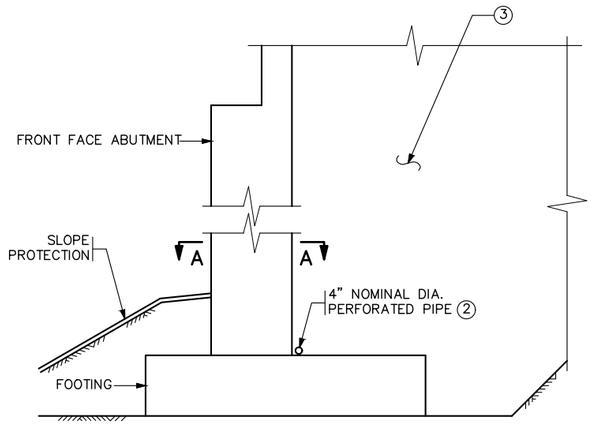
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
STANDARD DETAILS B101 AND B201

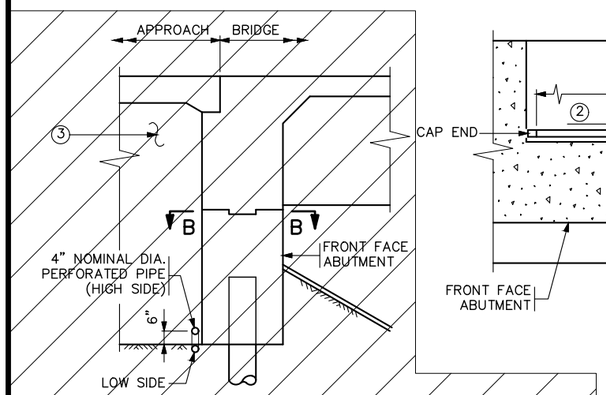
CITY PROJECT 24-6 | S.P. 114-090-002
MINN. PROJECT NO. TA 0224(173)
BRIDGE NO. 02596

SHEET NO. B61 / B68

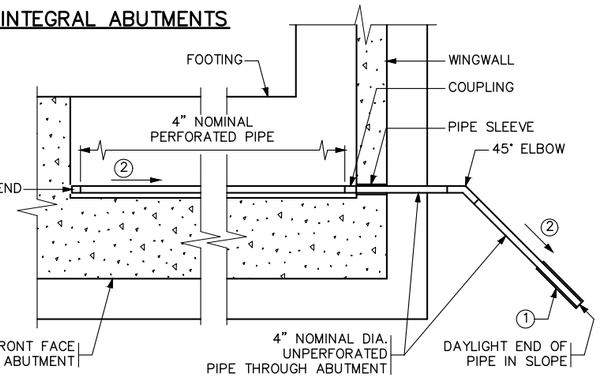
K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_DET2.dwg 4/22/2024 9:55 AM



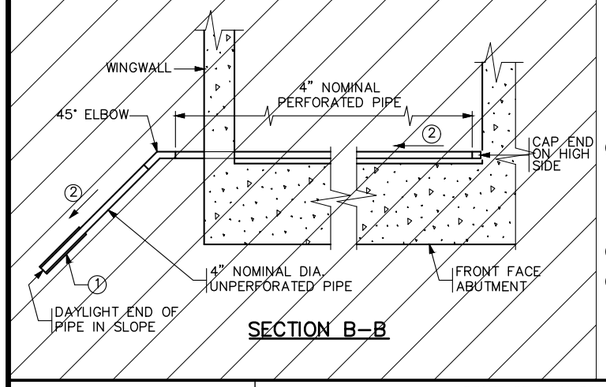
SECTION THROUGH PARAPET AND SEMI-INTEGRAL ABUTMENTS



SECTION THROUGH INTEGRAL ABUTMENT



SECTION A–A



SECTION B–B

NOTES:

PAYMENT WILL BE INCLUDED IN THE SINGLE LUMP SUM PRICE FOR "DRAINAGE SYSTEM TYPE (B910)", INCLUDES BUT IS NOT LIMITED TO 4" DIAMETER PERFORATED AND UNPERFORATED PIPE, ELBOWS, END CAPS, COUPLINGS, SLEEVES AND PRECAST CONCRETE HEADWALLS.

ALL PIPE TO COMPLY WITH SPEC. 3245.2(5).

SLEEVE PERFORATED PIPE WITH GEOTEXTILE KNIT SOCK IN ACCORDANCE WITH SPEC. 3733, TYPE 1. ATTACH TO PIPE IN ACCORDANCE WITH SPEC. 2502.3B.

(1) **USE PRECAST CONCRETE HEADWALL WITH RODENT SCREEN. SEE STANDARD PLATE 3131 FOR DETAILS. AT CONTRACTOR'S OPTION, TIE APPROACH PANEL DRAINAGE SYSTEM AND ABUTMENT DRAINAGE SYSTEM INTO A SINGLE PRECAST CONCRETE HEADWALL OR INTO A CATCH BASIN AS LONG AS A MINIMUM OF 2% POSITIVE SLOPE CAN BE MAINTAINED.**

(2) ⅛" PER FT. MINIMUM SLOPE.

(3) REFER TO GRADING PLANS FOR ABUTMENT BACKFILL REQUIREMENTS.

APPROVED: JANUARY 13, 2015
Nancy Daubenberger
STATE BRIDGE ENGINEER

STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION

DRAINAGE SYSTEM

REVISION
12-02-2015
02-22-2018
11-08-2018
12-21-2022

DETAIL NO. B910

No.	Date	Revisions	App.

DRAWING NAME BRG_DET2.dwg	
DESIGNED BY:	MJN
CHECKED BY:	KAE
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn
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PHONE: 651-645-4197
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Christopher P. Ewert
CHRISTOPHER P. EWERT
DATE: 05/10/24 MN LIC. NO. 49609

CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD
STANDARD DETAIL B910

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B62 / B68

K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_DET2.dwg 4/22/2024 9:55 AM

WEARING COURSE

☐ LOW SLUMP

☐ OTHER _____
TYPE OR MANUFACTURER

EXPANSION JOINTS

JOINT MANUFACTURER

MANUFACTURER'S IDENTIFICATION _____
MFR'S No. AND/OR LETTER DESIGNATION FOR JOINT USED

GLAND MANUFACTURER _____
NAME AND ADDRESS (CITY, STATE)

SIZE OF GLAND _____

MANUFACTURER'S IDENTIFICATION _____
MFR'S No. AND/OR LETTER DESIGNATION FOR GLAND USED

ELASTOMERIC BEARING PADS

PAD MANUFACTURER _____
NAME AND ADDRESS (CITY, STATE)

SPECIAL SURFACE FINISH

PRODUCT NAME: _____ COLOR & TEXTURE: _____

FINISHING ROADWAY FACES OF BARRIER OR PARAPET

PRODUCT NAME: _____ COLOR & TEXTURE: _____

ANTI-GRAFFITI COATING

MANUFACTURER _____
NAME AND ADDRESS (CITY, STATE)

PRODUCT NAME: _____ LOCATION: _____

PAINT SYSTEM

MnDOT SPECIFICATION NUMBER _____
2478 OR 2479 OR OTHER

MANUFACTURER _____
NAME AND ADDRESS (CITY, STATE)

PRIME COAT _____
MnDOT MATERIAL SPECIFICATION NUMBER

INTERMEDIATE COAT _____
MnDOT MATERIAL SPECIFICATION NUMBER

FINISH COAT _____ _____
MnDOT MATERIAL SPECIFICATION NUMBER COLOR

PLAN QUALITY

RATE 1 (AGREE), 2 (NEUTRAL), OR 3 (DISAGREE, PLEASE COMMENT BELOW)

DIMENSIONING AND DETAILING ADEQUATELY DESCRIBED REQUIRED CONSTRUCTION. _____

BAR LISTS AND QUANTITIES WERE TYPICALLY COMPLETE AND FREE OF ERRORS. _____

SCALE OF DRAWINGS AND OVERALL LEGIBILITY OF LINES AND TEXT WAS GOOD. _____

(SB) SPECIAL PROVISIONS ADEQUATELY DESCRIBED SPECIAL WORK AND PAYMENT. _____

COMMENTS: _____

NUMBER OF BRIDGE SUPPLEMENTAL AGREEMENTS: _____ COST: $ _____

LIST SIGNIFICANT ERRORS OR OMISSIONS IN PLAN DETAILS OR PAY QUANTITIES IN THE SPACE PROVIDED AT RIGHT.

NOTIFICATION TO ADD, REMOVE, OR REHAB A STRUCTURE

PLEASE GO TO THE FOLLOWING WEBSITE AND COMPLETE THE FORM WHEN ADDING, REMOVING OR REHABILITATING A STRUCTURE:
(CONTACT THE BRIDGE INVENTORY MANAGEMENT UNIT AT 651-366-4557 IF YOU HAVE QUESTIONS)
- WHEN ADDING A NEW STRUCTURE - (SEND WHEN THE BRIDGE IS OPEN TO TRAFFIC)
http://www.dot.state.mn.us/bridge/new-structure.html
- WHEN REMOVING A STRUCTURE - (SEND WHEN THE BRIDGE IS NO LONGER IN SERVICE)
http://www.dot.state.mn.us/bridge/remove-structure.html
- WHEN REHABILITATING A STRUCTURE - (SEND WHEN THE REHABILITATION IS COMPLETE)
http://www.dot.state.mn.us/bridge/rehab-structure.html

CHANGE OF VERTICAL CLEARANCE

PLEASE GO TO THE FOLLOWING WEBSITE WHEN CHANGING THE VERTICAL CLEARANCE OF EXISTING BRIDGE STRUCTURE:
(CONTACT THE BRIDGE INVENTORY MANAGEMENT UNIT AT 651-366-4557 IF YOU HAVE QUESTIONS)
http://www.dot.state.mn.us/bridge/pdf/clearanceform.pdf

OTHER ITEMS ①

① UTILITIES ADDED DURING CONSTRUCTION AND SPECIALTY ITEMS.

FINAL QUANTITIES ENTERED ON SCHEDULE OF QUANTITIES: YES ☐ NO ☐

REMOVE & PATCH QUANTITIES (SF)						CONCRETE SURFACE REPAIR (SF)	CLEAN & PAINT REINF. (SF)
TYPE A:	TYPE B:	TYPE C:	TYPE D:	TYPE E:	TYPE F:		

SUMMARY OF SIGNIFICANT AS-BUILT CHANGES

THE AS-BUILT INFORMATION WAS ADDED TO THE PLAN BY:

_____ _____
INSPECTOR(S) SIGNATURE DATE

CHECKED BY: _____ _____
PROJECT ENGINEER/SUPERVISOR SIGNATURE DATE

WHEN BRIDGE IS OPEN TO TRAFFIC, COMPLETE THIS AS-BUILT BRIDGE DATA SHEET AND SUBMIT TO THE BRIDGE OFFICE VIA EMAIL AT: BridgeForms.dot@state.mn.us.

REVISION:

APPROVED: MAY 10, 2017
Kevin Western
STATE BRIDGE ENGINEER

AS-BUILT DETAILS
(AS NEEDED)

THIS FORM IS AVAILABLE IN AN ELECTRONIC FORMAT AT:
http://www.dot.state.mn.us/bridge/pdf/as-built-bridge-data-r0.xlsx

TITLE: AS-BUILT BRIDGE DATA

FIG. 5-397.900

APPROVED:

SHEET NO. B63 OF B68 SHEETS

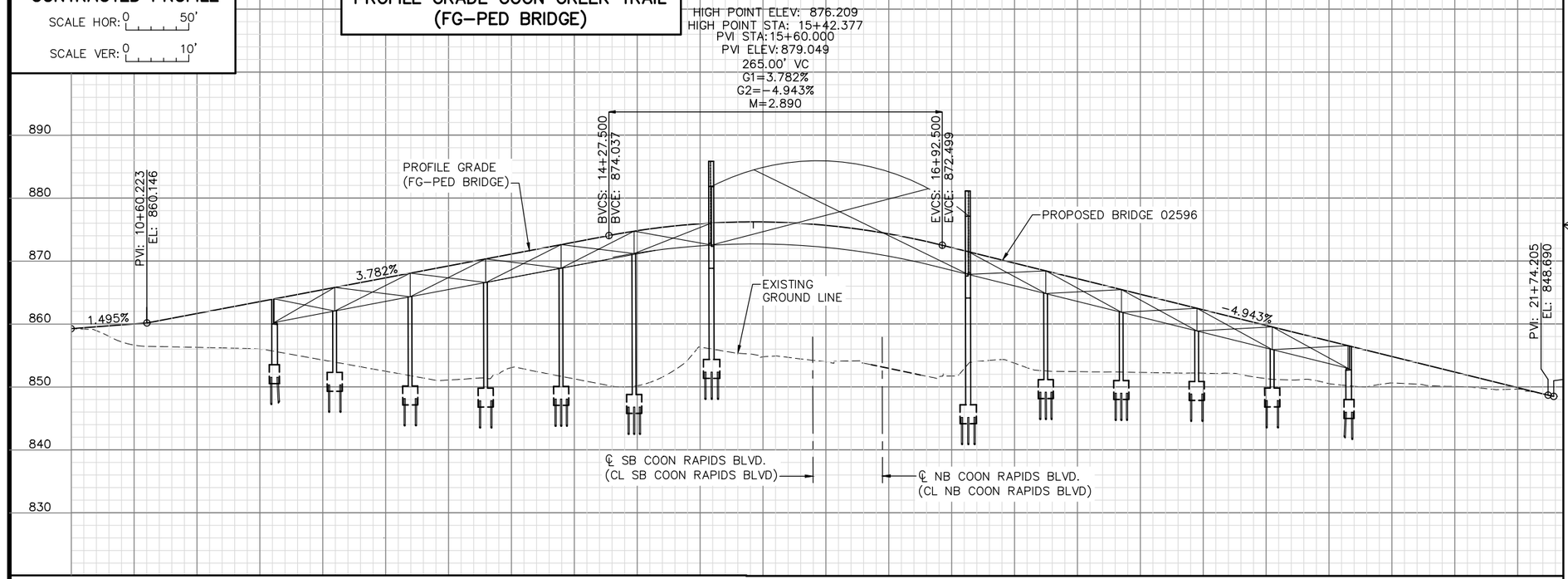
BRIDGE NO. 02596

CONTRACTED PROFILE

SCALE HOR: 0 50'

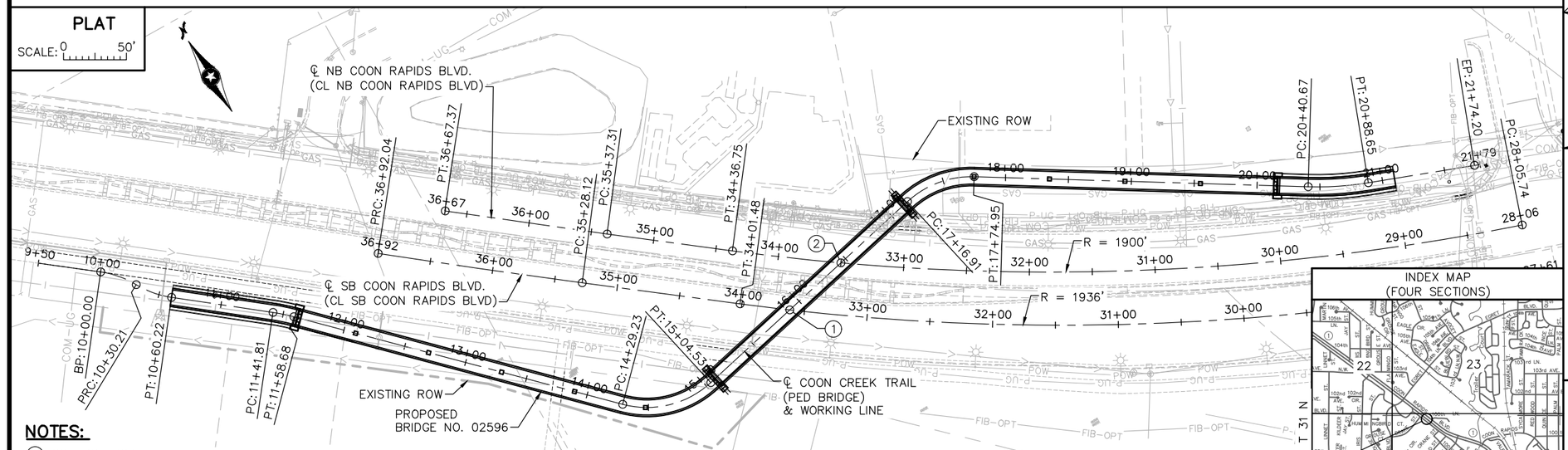
SCALE VER: 0 10'

PROFILE GRADE COON CREEK TRAIL (FG–PED BRIDGE)



PLAT

SCALE: 0 50'



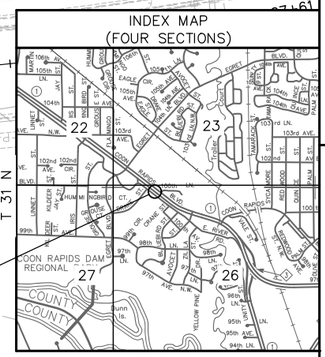
NOTES:

1. ℄ COON CREEK TRAIL (PED BRIDGE)
   P.O.T. STA. = 15+89.76 =
   ℄ SB COON RAPIDS BLVD.
   (CL SB COON RAPIDS BLVD)
   P.O.C. STA. = 33+61.74
   X = 490944.130 Y = 142654.050
   ∢ 126°16'0.18" (T.T.C)

2. ℄ COON CREEK TRAIL (PED BRIDGE)
   P.O.T. STA. = 16+45.00 =
   ℄ NB COON RAPIDS BLVD.
   (CL NB COON RAPIDS BLVD)
   P.O.C. STA. = 33+50.11
   X = 490997.996 Y = 142666.254
   ∢ 124°52'38.92" (T.T.C)

THE SUBFURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38–22, ENTITLED "STANDARD GUIDELINE FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES".

INDEX MAP (FOUR SECTIONS)



LOCATION ENGINEER'S OBSERVATIONS AT BRIDGE SITE

1. SPECIAL FEATURES: WATERFALLS, DAMS, FLOODS, ICE, DEBRIS SLIDING BANKS, RECREATIONAL BOATING.
2. OTHER BRIDGES OR CULVERTS OVER THE SAME STREAM (PARTICULARY STRUCTURES WHICH CARRY HIGH WATER WITHOUT OVERFLOW OF ROADWAY): GIVEN LOCATION, TYPE, LENGTH, HEIGHT ABOVE HIGH WATER, CROSS–SECTIONAL AREA ETC.
3. APPARENT HIGHWATER ELEVATION _____ OBTAINED FROM:
4. OTHER DATA: APPROX. VELOCITY OF WATER AT TIME OF SURVEY.

HYDRAULIC ENGINEER'S RECOMMENDATION

DATE: XX–XX–XX

STREAM OR DITCH DESIGNATION: XXX
DRAINAGE AREA: XXX SQ. MI.
MAX. FLOOD ON RECORD: XXX C.F.S. (XX–XX–XX)
MAXIMUM OBSERVED HIGHWATER ELEVATION: XXX.XX FT.
DESIGN FLOOD (XX YR. FREQ.): XXX C.F.S.
HEADWATER ELEVATION: XXX.X FT.
DESIGN MEAN VELOCITY THROUGH STRUCTURE: X.X F.P.S.
TOTAL STAGE INCREASE: XX.X FT.
LOW MEMBER AT OR ABOVE ELEVATION: XXX.X FT.
WATERWAY AREA REQUIRED BELOW ELEV. XXX.X = XXX SQ. FT. AT RIGHT ANGLES TO CHANNEL
BASIC FLOOD (100 YR. FREQ.): XXXX C.F.S.
HEADWATER ELEVATION: XXX.X FT.
TOTAL STAGE INCREASE: X.X FT.
MEAN VELOCITY THROUGH STRUCTURE: X.X F.P.S.
FLOWLINE ELEVATION: XXX.X FT. SKEW ANGLE: XX°
ESTIMATED PRELIMINARY TOTAL SCOUR AT PIER EL. XXX.X (500 OR OT YR. FREQ.)

SCOUR CONFIRMATION RECOMMENDATION

DATE: XX–XX–XX

TOTAL SCOUR AT PIER EL. XXX.XX (500 OR OT YR. FREQ.)
SCOUR CODE: OBTAIN FROM HYDRAULIC ENGINEER

BRIDGE SURVEY SHEETS MADE FROM:
MNDOT GEOTETIC DATA SHEETS

BENCH MARK (BR 02027 SW – GSID #72666)
ELEVATION: 918.978 (NAVD88)
LOCATION: BRIDGE RAILING ON BRIDGE 02027 IN COON RAPIDS, 2 MI. NW ALONG CTY RD 10/COON RAPIDS BLVD FROM THE JCT. OF CNTY 10 AND TH 65 IN BLAINE, AT TH 610 MILEPOST 11.1, 1FT S OF AN EXPANSION JOINT.

BENCH MARK (ALUMINUM ALLOY ROD – GSID #102784)
ELEVATION: 946.137 (NAVD88)
LOCATION: IN COON RAPIDS, 0.6 MI SE TH 10 FROM THE JCT OF TH 10 AND FOLEY BLVD, AT TH 10 MILEPOST 232.55, 36.2 FT SW OF AN EB TH 10 FOG LINE, 1.5 FT. NE OF A WITNESS POST.

BRIDGE SURVEY

COON CREEK TRAIL BRIDGE OVER COON RAPIDS BLVD.
0.3 MI EAST OF JCT. OF COON RAPIDS BLVD. & EGRET BLVD. NW IN COON RAPIDS

SEC 26 T 31 N R 24 W

CITY OF COON RAPIDS
ANOKA COUNTY

BRIDGE 02596

No.	Date	Revisions	App.

DRAWING NAME: BRG_SUR2.dwg

DESIGNED BY:	–
CHECKED BY:	–
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

Kimley»Horn
767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114
PHONE: 651–645–4197
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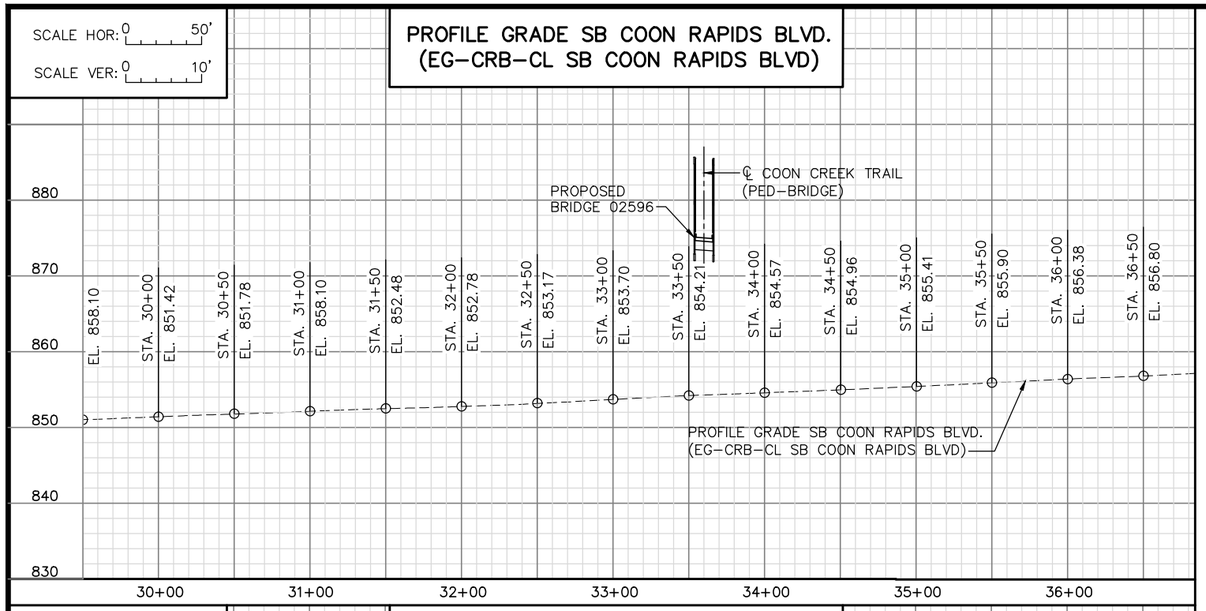
CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
BRIDGE SURVEY

CITY PROJECT 24–6	S.P. 114–090–002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B64 / B68

K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_SUR2.dwg 4/22/2024 10:28 AM

PROFILE GRADE SB COON RAPIDS BLVD. (EG–CRB–CL SB COON RAPIDS BLVD)



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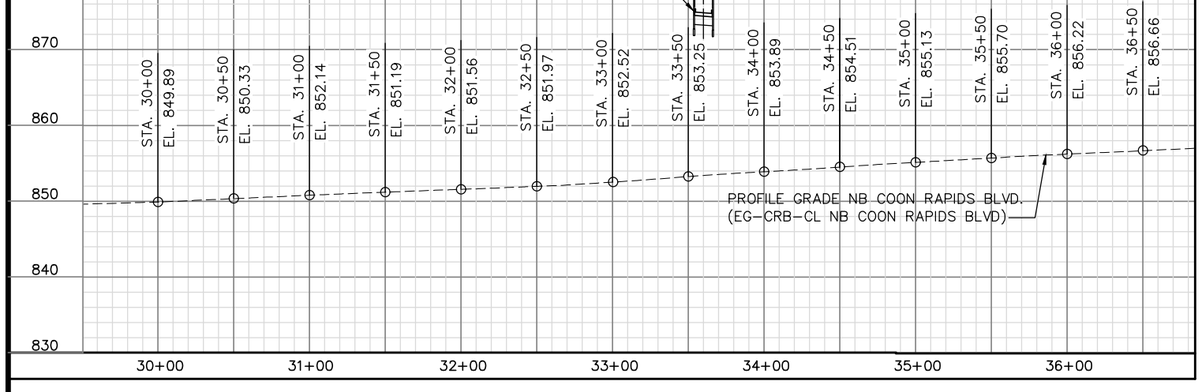
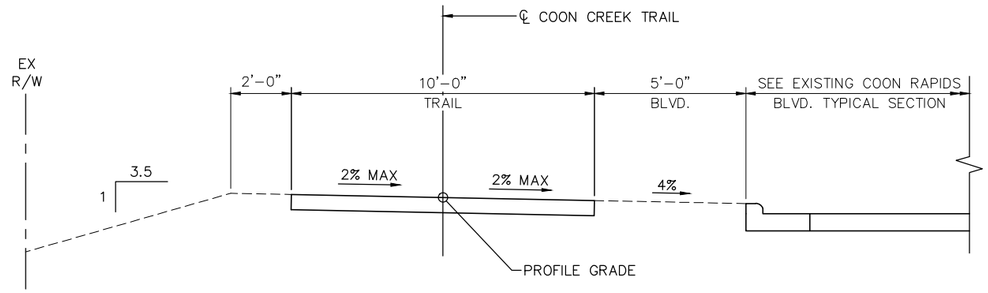
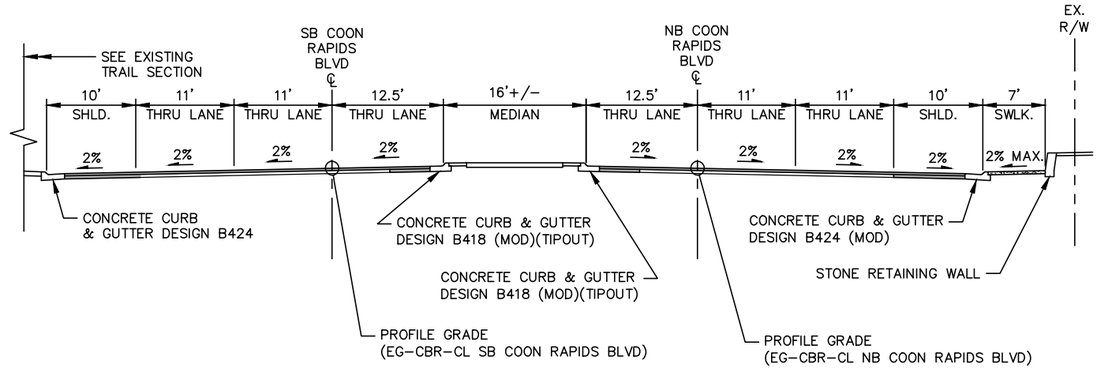




TYPICAL EXISTING TRAIL SECTION



TYPICAL SECTION – EXISTING COON RAPIDS BOULEVARD

①

No.	Date	Revisions	App.

DRAWING NAME BRG_SUR1.dwg	
DESIGNED BY:	–
CHECKED BY:	–
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114
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CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER COON RAPIDS BOULEVARD
BRIDGE SURVEY

CITY PROJECT 24–6	S.P. 114–090–002	SHEET NO. B65 / B68
MINN. PROJECT NO.	TA 0224(173)	
BRIDGE NO. 02596		

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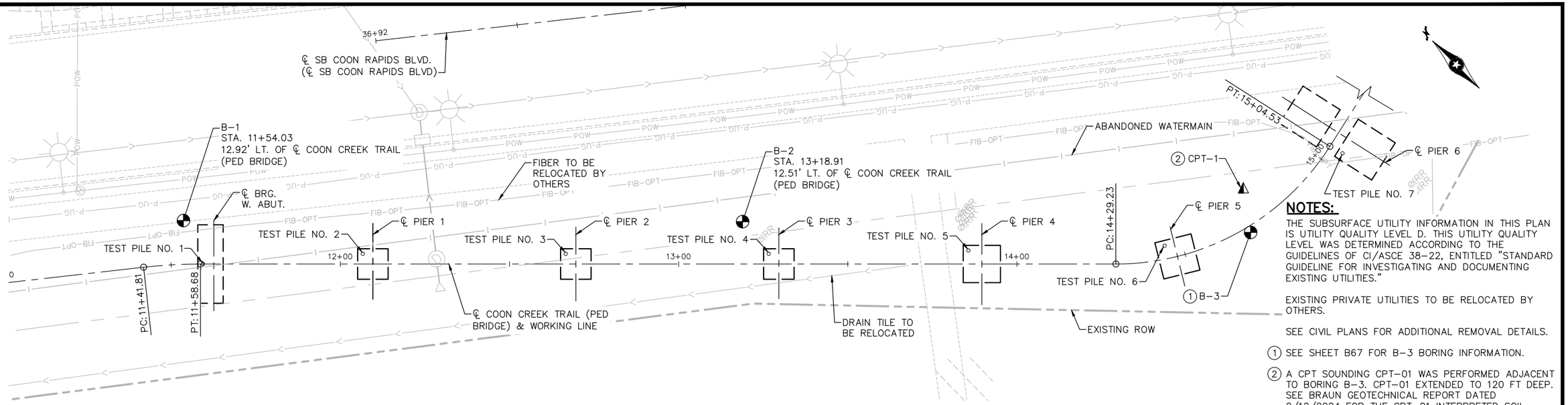


NOTES:

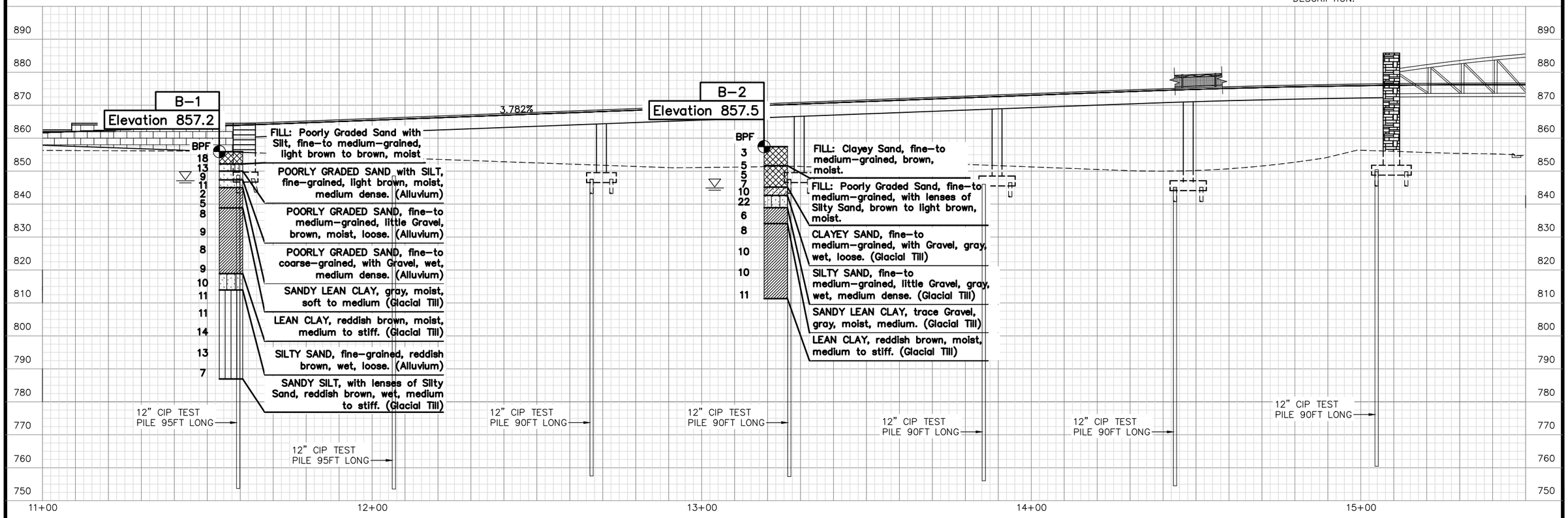
THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINE FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES."

EXISTING PRIVATE UTILITIES TO BE RELOCATED BY OTHERS.

SEE CIVIL PLANS FOR ADDITIONAL REMOVAL DETAILS.

(1) SEE SHEET B67 FOR B-3 BORING INFORMATION.

(2) A CPT SOUNDING CPT-01 WAS PERFORMED ADJACENT TO BORING B-3. CPT-01 EXTENDED TO 120 FT DEEP. SEE BRAUN GEOTECHNICAL REPORT DATED 2/12/2024 FOR THE CPT-01 INTERPRETED SOIL DESCRIPTION.



No.	Date	Revisions	App.

DRAWING NAME	BRG_SURPP1.dwg
DESIGNED BY:	–
CHECKED BY:	–
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD

BRIDGE SURVEY PLAN AND PROFILE
(1 OF 3)

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B66 / B68

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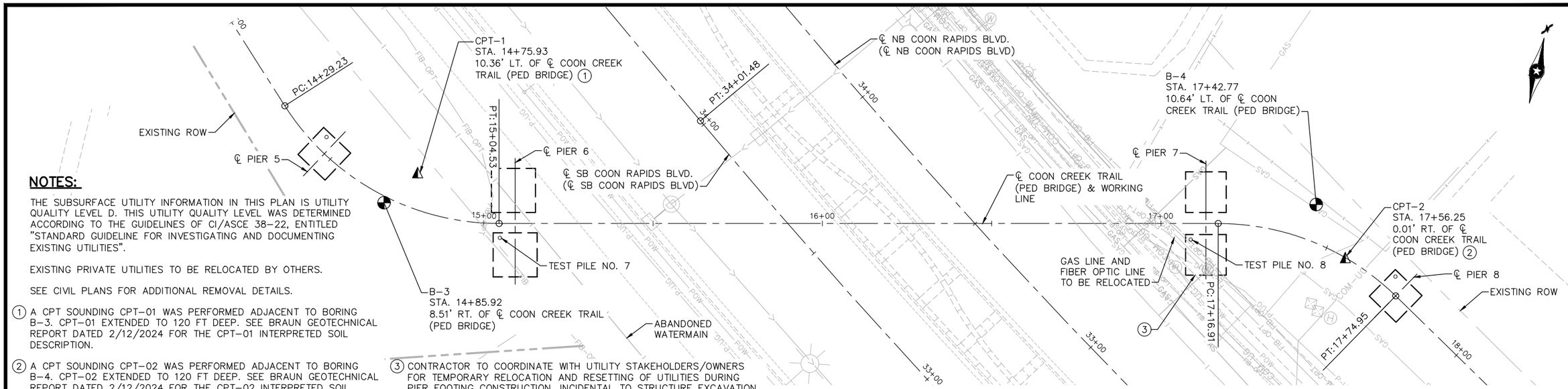

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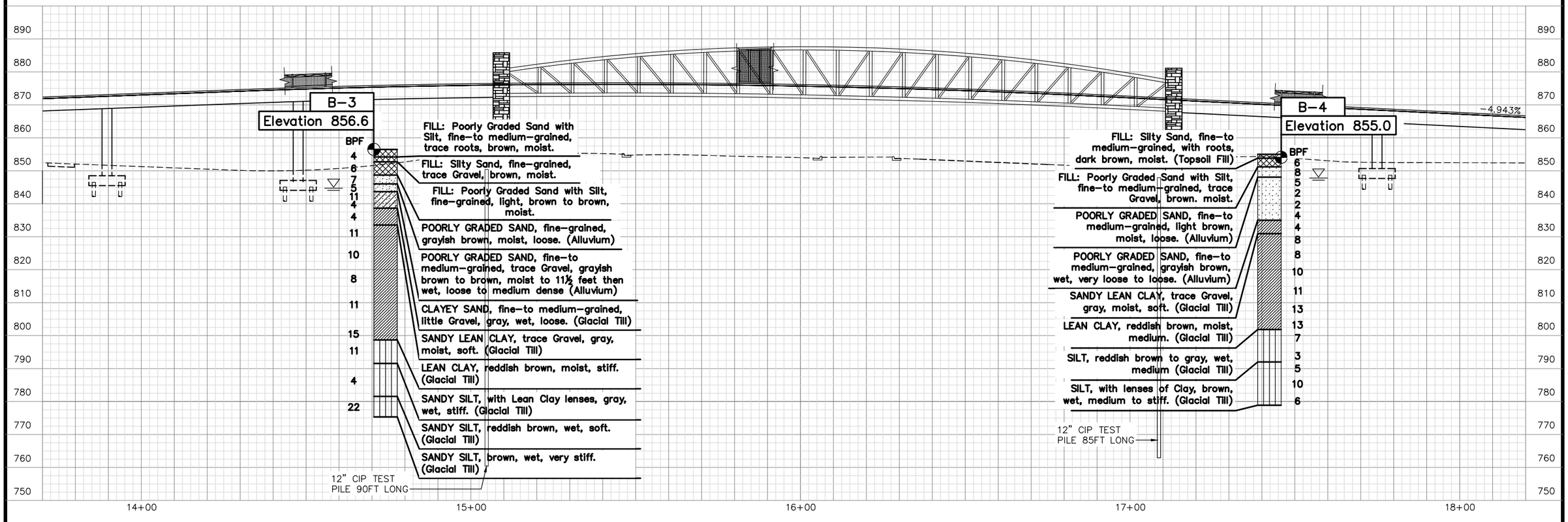
EXISTING PRIVATE UTILITIES TO BE RELOCATED BY OTHERS.

SEE CIVIL PLANS FOR ADDITIONAL REMOVAL DETAILS.

(1) A CPT SOUNDING CPT-01 WAS PERFORMED ADJACENT TO BORING B-3. CPT-01 EXTENDED TO 120 FT DEEP. SEE BRAUN GEOTECHNICAL REPORT DATED 2/12/2024 FOR THE CPT-01 INTERPRETED SOIL DESCRIPTION.

(2) A CPT SOUNDING CPT-02 WAS PERFORMED ADJACENT TO BORING B-4. CPT-02 EXTENDED TO 120 FT DEEP. SEE BRAUN GEOTECHNICAL REPORT DATED 2/12/2024 FOR THE CPT-02 INTERPRETED SOIL DESCRIPTION.

(3) CONTRACTOR TO COORDINATE WITH UTILITY STAKEHOLDERS/OWNERS FOR TEMPORARY RELOCATION AND RESETTING OF UTILITIES DURING PIER FOOTING CONSTRUCTION. INCIDENTAL TO STRUCTURE EXCAVATION.



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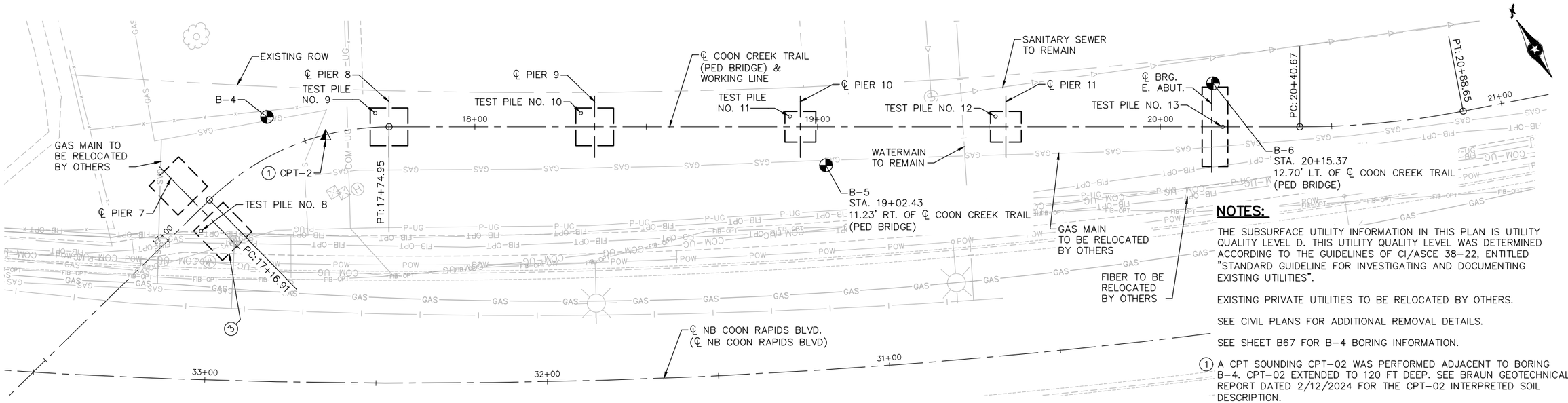
CITY OF COON RAPIDS
COON CREEK TRAIL BRIDGE OVER
COON RAPIDS BOULEVARD
BRIDGE SURVEY PLAN AND PROFILE
(2 OF 3)

CITY PROJECT 24-6	S.P. 114-090-002
MINN. PROJECT NO.	TA 0224(173)
BRIDGE NO. 02596	

SHEET NO. B67 / B68

K:\TWC_Civil\City\COON_RAPIDS\COON CREEK TRAIL BRIDGE OVER CRB\CAD\Plan Sheets\Bridge\BRG_SURPP1.dwg 4/22/2024 10:54 AM



NOTES:

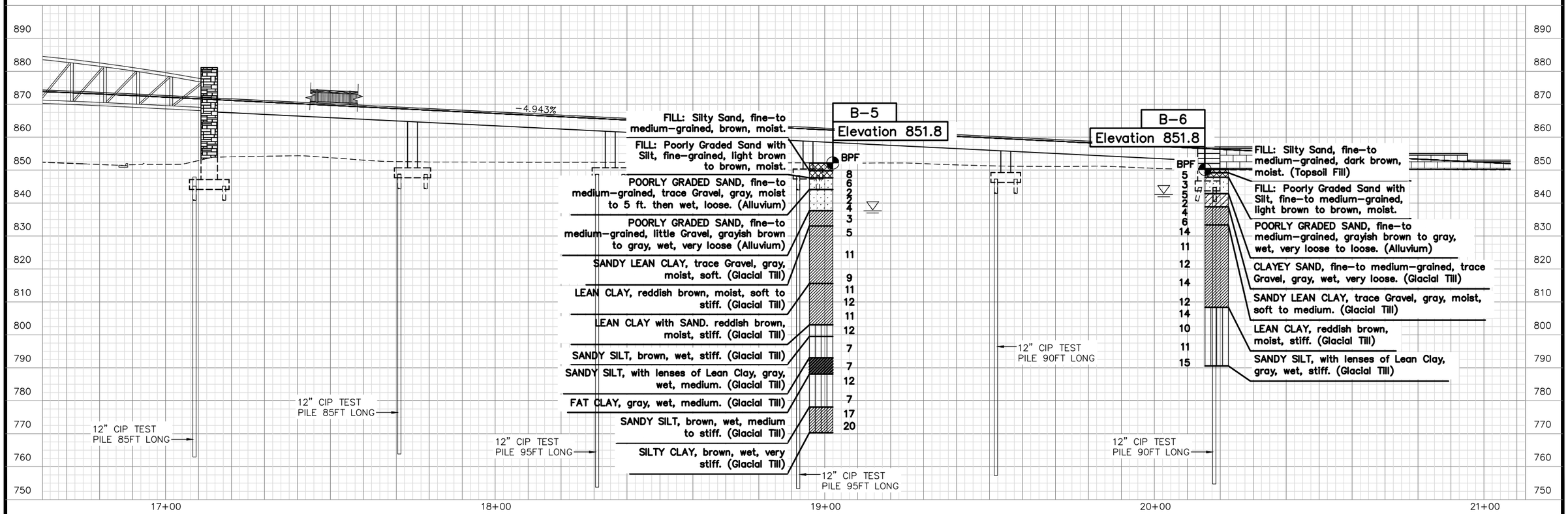
THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINE FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES".

EXISTING PRIVATE UTILITIES TO BE RELOCATED BY OTHERS.

SEE CIVIL PLANS FOR ADDITIONAL REMOVAL DETAILS.

SEE SHEET B67 FOR B-4 BORING INFORMATION.

(1) A CPT SOUNDING CPT-02 WAS PERFORMED ADJACENT TO BORING B-4. CPT-02 EXTENDED TO 120 FT DEEP. SEE BRAUN GEOTECHNICAL REPORT DATED 2/12/2024 FOR THE CPT-02 INTERPRETED SOIL DESCRIPTION.



No.	Date	Revisions	App.

DRAWING NAME BRG_SURPP1.dwg	
DESIGNED BY:	–
CHECKED BY:	–
DRAWN BY:	NMA
CHECKED BY:	KAE
PROJECT NO.	160000023

COON RAPIDS Minnesota

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