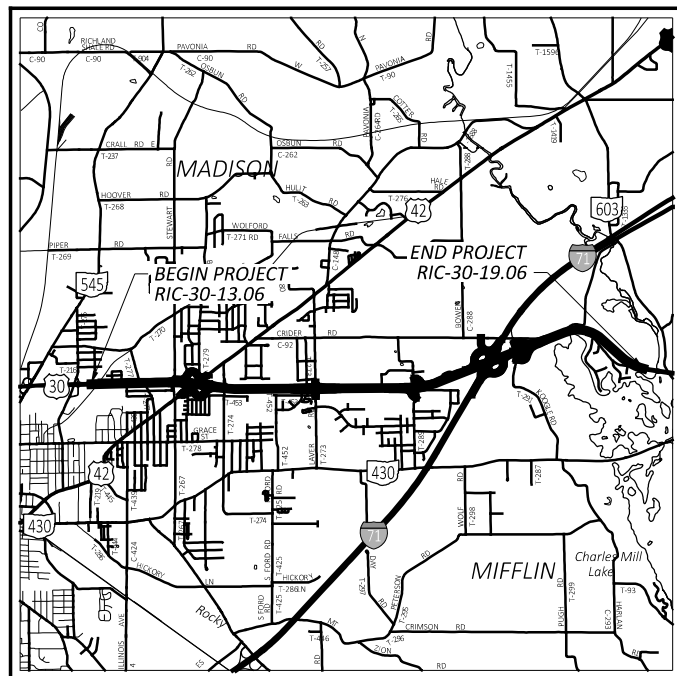


STATE OF OHIO DEPARTMENT OF TRANSPORTATION

RIC-30-13.06

MADISON TOWNSHIP
MIFFLIN TOWNSHIP
RICHLAND COUNTY



LOCATION MAP

LATITUDE: 40°46'40" LONGITUDE: -82°26'05"



PORTION TO BE IMPROVED	—————
INTERSTATE HIGHWAY	=====
FEDERAL ROUTES	=====
STATE ROUTES	=====
COUNTY & TOWNSHIP ROADS	=====
OTHER ROADS	-----

DESIGN DESIGNATION

	RIC-30-13.06 TO 14.10	RIC-30-14.11 TO 15.39	RIC-30-15.39 TO 16.55	RIC-39-16.55 TO 17.12	RIC-39-17.12 TO 19.06
CURRENT ADT (2022)	28,500	20,000	17,500	16,500	16,500
DESIGN YEAR ADT (2042)	31,000	20,500	19,000	17,500	18,000
DESIGN HOURLY VOLUME (2042)	3100	2000	1900	1800	1800
DIRECTIONAL DISTRIBUTION	56%	54%	52%	52%	53%
TRUCKS (24 HOUR B&C)	28%	28%	29%	28%	25%
DESIGN SPEED	60 MPH	60 MPH	60 MPH	60 MPH	60 MPH
LEGAL SPEED	60 MPH	60 MPH	60 MPH	60 MPH	60 MPH
NHS PROJECT	YES	YES	YES	YES	YES

DESIGN FUNCTIONAL CLASSIFICATION
 RIC-30-13.06 TO 17.88: FREEWAY / EXPRESSWAY
 RIC-30-17.88 TO 19.06: OTHER PRINCIPAL ARTERIAL

DESIGN EXCEPTIONS ADA DESIGN WAIVERS

NONE NONE

UNDERGROUND UTILITIES
Contact Two Working Days
Before You Dig

OHIO811.org
Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:

**OHIO DEPARTMENT OF
TRANSPORTATION**
 DISTRICT THREE ENGINEERING

INDEX OF SHEETS:

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FEDERAL PROJECT NUMBER

E140767

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF RESURFACING ASPHALT CONCRETE, PAVEMENT REPAIRS AND OTHER ASSOCIATED WORK, PAVEMENT MARKING, AND MINOR REPAIRS AND PREVENTATIVE MAINTENANCE TO STRUCTURES.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 0.133 ACRES
 ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.250 ACRES
 NOTICE OF INTENT EARTH DISTURBED AREA: N/A*
 *ROUTINE MAINTENANCE PROJECT; NOI NOT REQUIRED

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON THE DETOUR DETAIL SHEETS, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED
 DATE 08/09/22 DISTRICT DEPUTY DIRECTOR

APPROVED _____
 DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

ENGINEER'S SEAL:	STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS
	BP-2.1	1/21/22	MT-98.20	4/19/19	TC-64.10	7/16/21	800-2019 SEE PROPOSAL
	BP-2.3	7/18/14	MT-98.22	1/17/20	TC-65.10	1/17/14	807 1/21/22
	BP-2.5	1/21/22	MT-98.28	1/17/20	TC-65.11	7/15/2022	808 1/18/19
	BP-3.1	1/21/22	MT-98.29	1/17/20	TC-71.10	7/15/22	821 4/20/12
	BP-9.1	1/18/19	MT-98.30	7/16/21	TC-72.20	7/20/18	832 10/19/18
	BP-9.2	1/15/21	MT-99.20	4/19/19			850 1/21/22
			MT-101.60	1/17/20			888 10/18/19
	DM-4.3	1/15/16	MT-101.90	7/17/20			908 10/20/17
	DM-4.4	1/15/16	MT-104.10	10/16/15			921 4/20/12
			MT-105.10	1/17/20			
	RM-4.6	7/19/13					
					TC-41.20	10/18/13	
					TC-42.20	10/18/13	
	MT-95.30	7/19/19	TC-52.10	10/18/13			
	MT-95.50	7/21/17	TC-52.10	10/18/13			
MT-98.10	1/17/20	TC-52.20	1/15/21				
MT-98.11	1/17/20	TC-61.30	7/19/19				

SIGNED: Nicholas R Foster
 DATE: 8/09/2022

TITLE SHEET

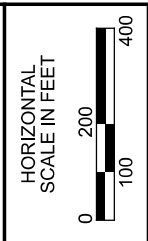
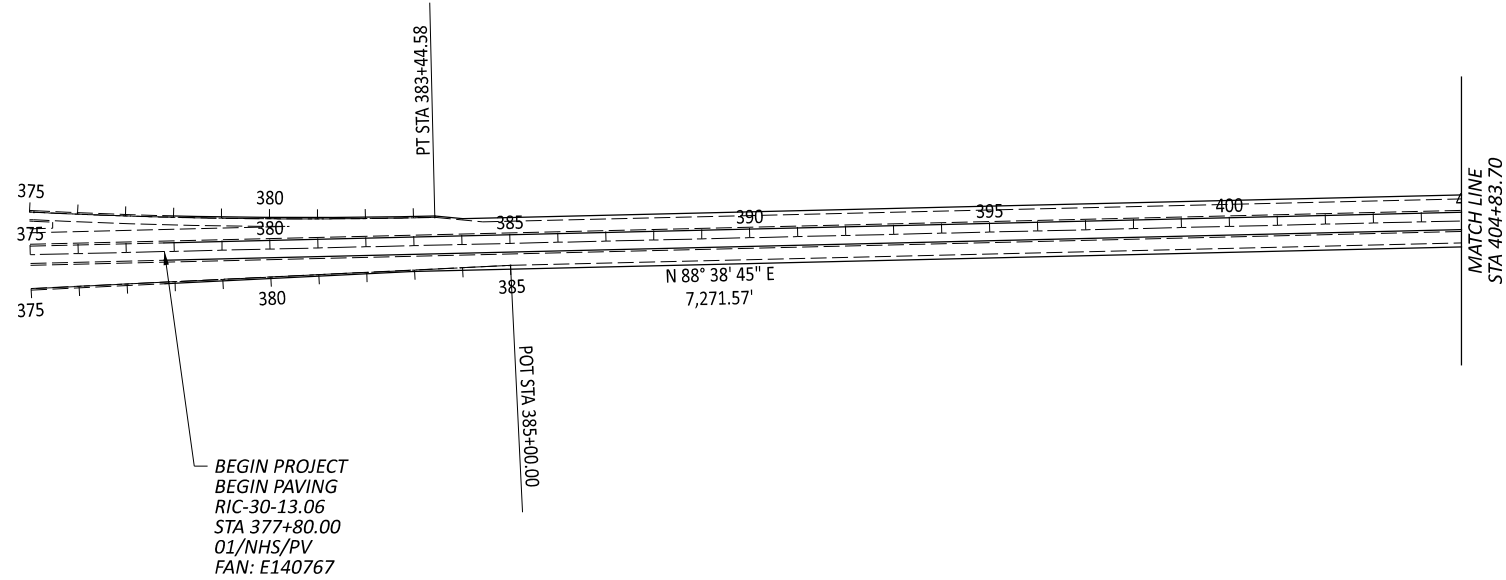
DESIGN AGENCY	DISTRICT 3
ENGINEERING TEAM FOUR	
DESIGNER	JNC
REVIEWER	NRF
PROJECT ID	08-04-22
	79740
SHEET	TOTAL
1	46

RIC-30-13.06

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PAVEMENT CORING DATA							
COUNTY	ROUTE	DIRECTION	SLM	LOCATION	ASPHALT [IN]	CONCRETE [IN]	YEAR CORED
RIC	30	EB	15.00	Inside	8	8.75	2007
RIC	30	EB	15.00	Outside	7.25	8.75	2007
RIC	30	EB	15.00	Out Shoulder	10		2007
RIC	30	EB	16.75	Inside	6.5	9.5	2007
RIC	30	EB	16.75	Outside	7.5	8.5	2007
RIC	30	EB	16.75	Out Shoulder	10	0	2007
RIC	30	EB	18.50	Inside	7.5	8.25	2007
RIC	30	EB	18.50	Outside	7	8.25	2007
RIC	30	EB	18.50	Out Shoulder	12.5		2007
RIC	30	WB	13.149	Edge Line	9.5		2021
RIC	30	WB	13.151	LWP	9.5	7.5	2021
RIC	30	WB	13.151	LWP	9.5	7.5	2021
RIC	30	WB	13.151	LWP	9.5	7.5	2021
RIC	30	WB	13.151	LWP	9.5	7.5	2021
RIC	30	WB	13.152	LWP	9.5	8.5	2021
RIC	30	WB	13.152	LWP	9.5	8.5	2021
RIC	30	WB	13.152	LWP	9.5	8.5	2021
RIC	30	WB	13.152	LWP	9.5	8.5	2021
RIC	30	WB	13.433	Edge Line	8.5	9	2021
RIC	30	WB	13.433	Edge Line	8.5	9	2021
RIC	30	WB	13.433	Edge Line	8.5	9	2021
RIC	30	WB	13.434	RWP	8	9	2021
RIC	30	WB	13.434	RWP	8	9	2021
RIC	30	WB	13.434	RWP	8	9	2021
RIC	30	WB	13.434	RWP	8	9	2021
RIC	30	WB	13.436	LWP	9	8	2021
RIC	30	WB	13.436	LWP	9	8	2021
RIC	30	WB	13.436	LWP	9	8	2021
RIC	30	WB	13.436	LWP	9	8	2021
RIC	30	WB	13.437	LWP	8.5	8.5	2021
RIC	30	WB	13.437	LWP	8.5	8.5	2021
RIC	30	WB	13.437	LWP	8.5	8.5	2021
RIC	30	WB	13.437	LWP	8.5	8.5	2021
RIC	30	WB	13.437	LWP	8.5	8.5	2021
RIC	30	WB	13.437	LWP	8.5	8.5	2021
RIC	30	WB	13.437	LWP	8.5	8.5	2021
RIC	30	WB	13.437	LWP	8.5	8.5	2021
RIC	30	WB	13.50	Out Shoulder	12.5		2007
RIC	30	WB	13.50	In Shoulder	12.5		2007
RIC	30	WB	14.198	Edge Line	20		2021
RIC	30	WB	14.198	Edge Line	20		2021
RIC	30	WB	14.198	Edge Line	20		2021
RIC	30	WB	14.198	Edge Line	20		2021
RIC	30	WB	14.199	RWP	18		2021
RIC	30	WB	14.199	RWP	18		2021
RIC	30	WB	14.199	RWP	18		2021
RIC	30	WB	14.199	RWP	18		2021
RIC	30	WB	14.201	LWP	18.5		2021
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RIC	30	WB	14.201	LWP	18.5		2021
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RIC	30	WB	14.203	LWP	5	8	2021
RIC	30	WB	14.203	LWP	5	8	2021
RIC	30	WB	14.537	Edge Line	10		2021
RIC	30	WB	14.54	LWP	19		2021
RIC	30	WB	14.54	LWP	19		2021
RIC	30	WB	14.54	LWP	19		2021
RIC	30	WB	14.541	LWP	10.5	8	2021
RIC	30	WB	14.541	LWP	10.5	8	2021
RIC	30	WB	14.541	LWP	10.5	8	2021
RIC	30	WB	14.541	LWP	10.5	8	2021
RIC	30	WB	15.00	Inside	10	9	2007
RIC	30	WB	15.00	Outside	9	9	2007
RIC	30	WB	15.00	Out Shoulder	12.5		2007
RIC	30	WB	15.028	Edge Line	9		2021
RIC	30	WB	15.028	Edge Line	9		2021
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RIC	30	WB	15.028	RWP	9	9	2021
RIC	30	WB	15.028	RWP	9	9	2021
RIC	30	WB	15.031	LWP	10.5	8.5	2021
RIC	30	WB	15.031	LWP	10.5	8.5	2021
RIC	30	WB	15.031	LWP	10.5	8.5	2021
RIC	30	WB	15.033	LWP	10.5	11.5	2021
RIC	30	WB	15.033	LWP	10.5	11.5	2021
RIC	30	WB	15.033	LWP	10.5	11.5	2021
RIC	30	WB	15.033	LWP	10.5	11.5	2021
RIC	30	WB	15.399	Edge Line	11.5		2021
RIC	30	WB	15.402	RWP	9	9	2021
RIC	30	WB	15.402	RWP	9	9	2021
RIC	30	WB	15.463	LWP	15		2021
RIC	30	WB	15.463	LWP	7	8.5	2021
RIC	30	WB	15.463	LWP	15		2021
RIC	30	WB	15.463	LWP	15		2021
RIC	30	WB	15.463	LWP	15		2021
RIC	30	WB	15.463	LWP	15		2021
RIC	30	WB	15.463	LWP	7	8.5	2021
RIC	30	WB	15.463	LWP	7	8.5	2021
RIC	30	WB	15.463	LWP	7	8.5	2021
RIC	30	WB	16.033	LWP	8.5	9	2021
RIC	30	WB	16.033	LWP	8.5	9	2021
RIC	30	WB	16.033	LWP	19		2021
RIC	30	WB	16.033	LWP	19		2021

PAVEMENT CORING DATA (CONT.)							
COUNTY	ROUTE	DIRECTION	SLM	LOCATION	ASPHALT [IN]	CONCRETE [IN]	YEAR CORED
RIC	30	WB	16.033	Shoulder	10.5		2021
RIC	30	WB	16.033	Shoulder	10.5		2021
RIC	30	WB	16.48	Edge Line	12		2021
RIC	30	WB	16.48	Edge Line	12		2021
RIC	30	WB	16.48	Edge Line	12		2021
RIC	30	WB	16.48	Edge Line	12		2021
RIC	30	WB	16.483	LWP	7.5	8	2021
RIC	30	WB	16.483	LWP	7.5	8	2021
RIC	30	WB	16.483	LWP	7.5	8	2021
RIC	30	WB	16.483	LWP	7.5	8	2021
RIC	30	WB	16.483	RWP	7	7.5	2021
RIC	30	WB	16.483	LWP	7.5	9	2021
RIC	30	WB	16.483	LWP	7.5	9	2021
RIC	30	WB	16.483	RWP	7	7.5	2021
RIC	30	WB	16.483	RWP	7	7.5	2021
RIC	30	WB	16.75	Inside	10	9	2007
RIC	30	WB	16.75	Outside	9	9	2007
RIC	30	WB	16.75	In Shoulder	8		2007
RIC	30	WB	17.042	RWP	9	9	2021
RIC	30	WB	17.042	LWP	9.5	8.5	2021
RIC	30	WB	17.042	LWP	9.5	8.5	2021
RIC	30	WB	17.042	LWP	9.5	8.5	2021
RIC	30	WB	17.042	LWP	9.5	8.5	2021
RIC	30	WB	17.042	RWP	9	9	2021
RIC	30	WB	17.042	RWP	9	9	2021
RIC	30	WB	17.042	RWP	9	9	2021
RIC	30	WB	17.043	LWP	10	8.5	2021
RIC	30	WB	17.043	LWP	10	8.5	2021
RIC	30	WB	17.043	LWP	10	8.5	2021
RIC	30	WB	17.616	Edge Line	8	9	2021
RIC	30	WB	17.616	Edge Line	8	9	2021
RIC	30	WB	17.616	Edge Line	8	9	2021
RIC	30	WB	17.617	RWP	8	9	2021
RIC	30	WB	17.617	RWP	8	9	2021
RIC	30	WB	17.617	LWP	7.5	8.5	2021
RIC	30	WB	17.617	LWP	7.5	8.5	2021
RIC	30	WB	17.617	RWP	8	9	2021
RIC	30	WB	17.617	RWP	8	9	2021
RIC	30	WB	17.618	LWP	8	6	2021
RIC	30	WB	17.618	LWP	8	6	2021
RIC	30	WB	17.618	LWP	8	6	2021
RIC	30	WB	17.618	LWP	8	6	2021
RIC	30	WB	18.049	Edge Line	4.5	9	2021
RIC	30	WB	18.049	Edge Line	4.5	9	2021
RIC	30	WB	18.049	Edge Line	4.5	9	2021
RIC	30	WB	18.049	Edge Line	4.5	9	2021
RIC	30	WB	18.049	Edge Line	4.5	9	2021
RIC	30	WB	18.049	Edge Line	4.5	9	2021
RIC	30	WB	18.049	Edge Line	4.5	9	2021
RIC	30	WB	18.049	Edge Line	4.5	9	2021
RIC	30	WB	18.052	LWP	7	9	2021
RIC	30	WB	18.052	LWP	7	9	2021
RIC	30	WB	18.052	LWP	7	9	2021
RIC	30	WB	18.052	LWP	7	9	2021
RIC	30	WB	18.052	LWP	7	9	2021
RIC	30	WB	18.052	LWP	6.5	9	2021
RIC	30	WB	18.052	LWP	6.5	9	2021
RIC	30	WB	18.052	LWP	6.5	9	2021
RIC	30	WB	18.052	LWP	6.5	9	2021
RIC	30	WB	18.052	LWP	6.5	9	2021
RIC	30	WB	18.433	LWP	8	8.5	2021
RIC	30	WB	18.433	LWP	8	8.5	2021
RIC	30	WB	18.433	LWP	8	8.5	2021
RIC	30	WB	18.433	Edge Line	7	9	2021
RIC	30	WB	18.433	Edge Line	7	9	2021
RIC	30	WB	18.433	Edge Line	7	9	2021
RIC	30	WB	18.434	LWP	8	8.5	2021
RIC	30	WB	18.434	LWP	8	8.5	2021
RIC	30	WB	18.434	LWP	8	8.5	2021
RIC	30	WB	18.434	LWP	8	8.5	2021
RIC	30	WB	18.434	RWP	6	0.25	2021
RIC	30	WB	18.434	RWP	6	0.25	2021
RIC	30	WB	18.434	RWP	6	0.25	2021
RIC	30	WB	18.434	RWP	6	0.25	2021
RIC	30	WB	18.50	Inside	7.25	9	2007
RIC	30	WB	18.50	Outside	6.5	8.75	2007
RIC	30	WB	18.50	Out Shoulder	8		2007
RIC	30	WB	19.034	Edge Line	12		2021
RIC	30	WB	19.034	Edge Line	12		2021
RIC	30	WB	19.035	LWP	15	0.1	2021
RIC	30	WB	19.035	LWP	15	0.1	2021
RIC	30	WB	19.035	LWP	8	9	2021
RIC	30	WB	19.035	LWP	8	9	2021
RIC	30	WB	19.035	RWP	13.5		2021
RIC	30	WB	19.035	RWP	13.5		2021
RIC	30	WB	19.035	RWP	13.5		2021



SCHEMATIC PLAN & PAVEMENT CORING DATA

DESIGN AGENCY
DISTRICT 3

ENGINEERING TEAM FOUR

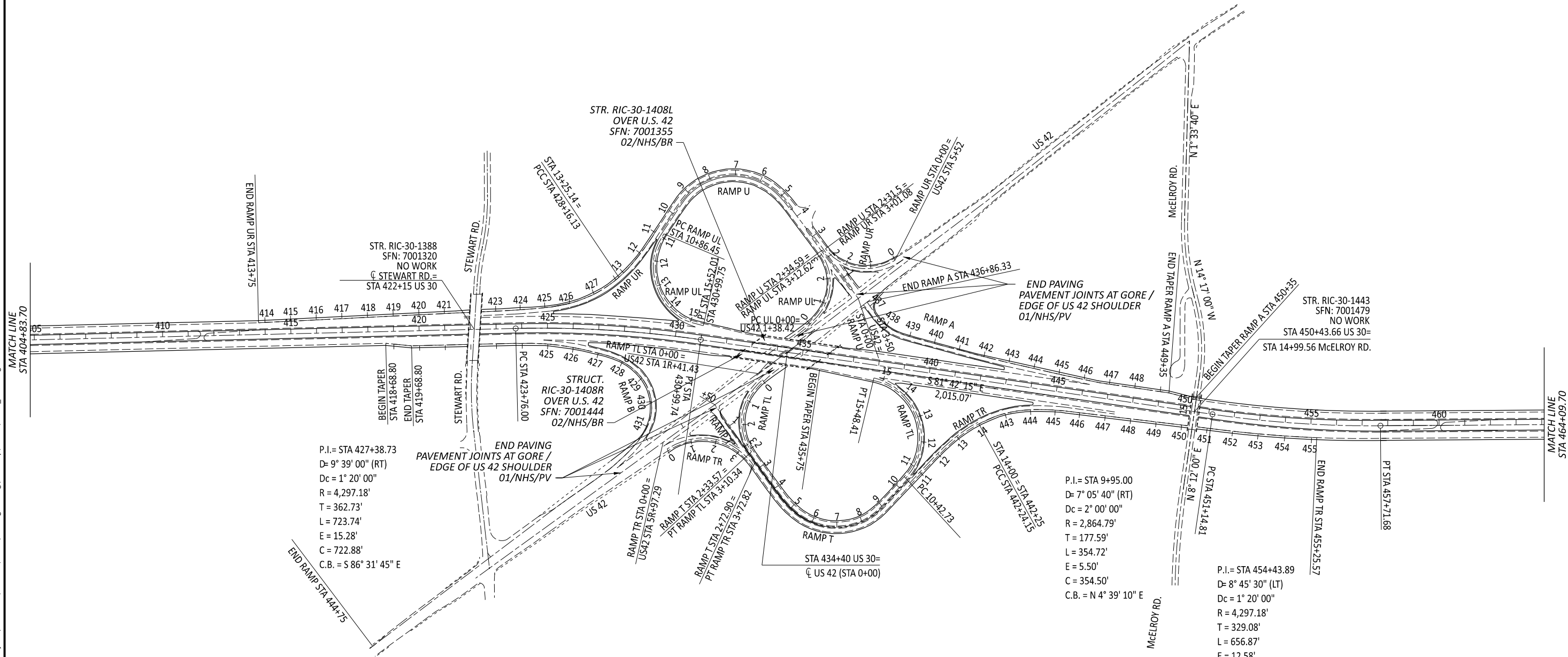
DESIGNER
JNC

REVIEWER
NRF 08/04/22

PROJECT ID
79740

SHEET TOTAL
 2 | 46

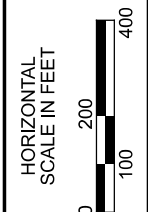
PAVEMENT CORING DATA - US 42 RAMPS	
RAMP	EXISTING ASPHALT CONCRETE THICKNESS [IN]
T	5.25
U (MID)	3.50
UR	4.50
RL	1.50
A	UNKNOWN
B	UNKNOWN



P.I. = STA 427+38.73
 D = 9° 39' 00" (RT)
 Dc = 1° 20' 00"
 R = 4,297.18'
 T = 362.73'
 L = 723.74'
 E = 15.28'
 C = 722.88'
 C.B. = S 86° 31' 45" E

P.I. = STA 9+95.00
 D = 7° 05' 40" (RT)
 Dc = 2° 00' 00"
 R = 2,864.79'
 T = 177.59'
 L = 354.72'
 E = 5.50'
 C = 354.50'
 C.B. = N 4° 39' 10" E

P.I. = STA 454+43.89
 D = 8° 45' 30" (LT)
 Dc = 1° 20' 00"
 R = 4,297.18'
 T = 329.08'
 L = 656.87'
 E = 12.58'
 C = 656.24'
 C.B. = S 86° 05' 00" E



SCHEMATIC PLAN & PAVEMENT CORING DATA

DESIGN AGENCY
DISTRICT 3

ENGINEERING
TEAM FOUR

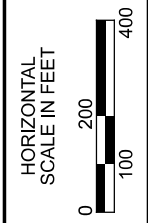
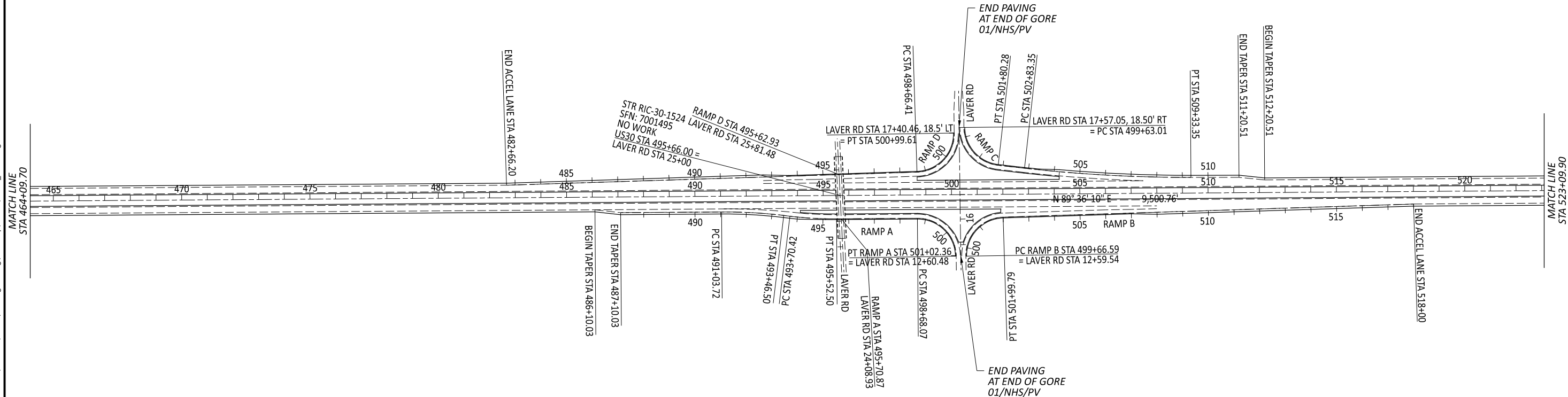
DESIGNER
JNC

REVIEWER
NRF 08/04/22

PROJECT ID
79740

SHEET TOTAL
3 46

PAVEMENT CORING DATA - LAVER ROAD RAMPS	
RAMP	EXISTING ASPHALT CONCRETE THICKNESS [IN]
A	3.50
B	5.50
C	3.50
D	3.50



SCHEMATIC PLAN & PAVEMENT CORING DATA

DESIGN AGENCY
DISTRICT 3

ENGINEERING TEAM FOUR

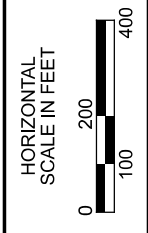
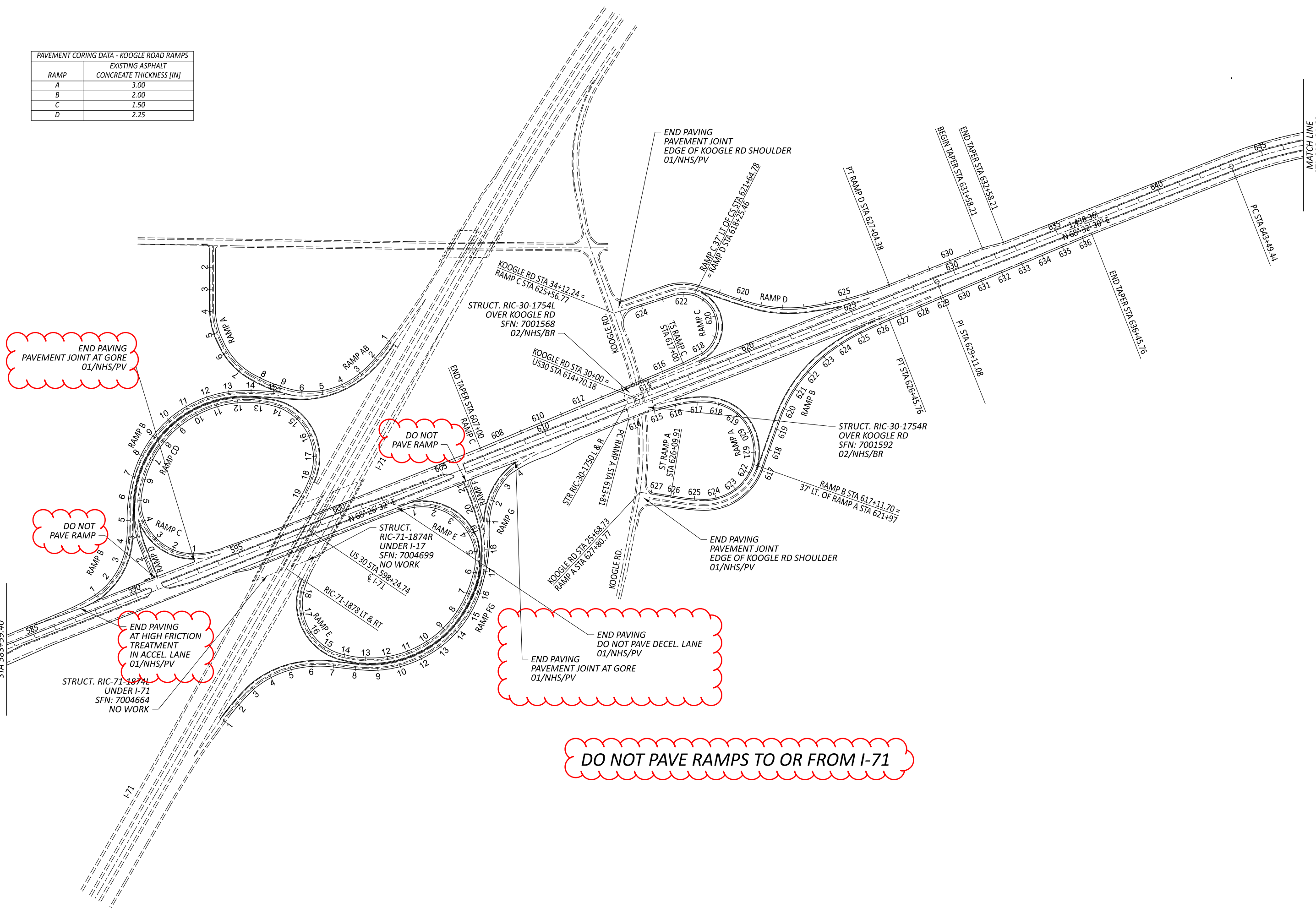
DESIGNER
JNC

REVIEWER
NRF 08/04/22

PROJECT ID
79740

SHEET	TOTAL
4	46

PAVEMENT CORING DATA - KOOGLE ROAD RAMPS	
EXISTING ASPHALT CONCRETE THICKNESS [IN]	
RAMP A	3.00
B	2.00
C	1.50
D	2.25



SCHEMATIC PLAN & PAVEMENT CORING DATA

DESIGN AGENCY
 DISTRICT 3

ENGINEERING TEAM FOUR

DESIGNER
 JNC

REVIEWER
 NRF 08/04/22

PROJECT ID
 79740

SHEET TOTAL
 6 46

MATCH LINE
 STA 646+91.60

P.I. = STA 655+43.82
 D = 64° 02' 30" (RT)
 Dc = 3° 00' 00"
 R = 1,909.86'
 T = 1,194.38'
 L = 2,134.72'
 E = 342.72'
 C = 2,025.32'
 C.B. = S 79° 26' 15" E

PAVE APRON
 TROUT RD
 01/NHS/PV

TROUT DR

PT STA 664+84.16

PI STA 672+84.16

EQUATION:
 STA 670+00.00 AH
 STA 676+08.96 BK =

PC STA 673+34.80

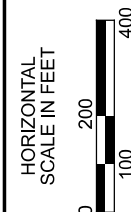
P.I. = STA 682+06.79
 D = 33° 51' 30" (LT)
 Dc = 2° 00' 00"
 R = 2,864.79'
 T = 871.98'
 L = 1,692.92'
 E = 129.77'
 C = 1,668.39'
 C.B. = S 64° 36' 30" E

END PROJECT
 END PAVING
 RIC-30-19.06
 STA 694+60.00
 01/NHS/PV
 FAN: E140767

EQUATION:
 STA 697+34.00 BK =
 STA 0+00.00 AH

STR RIC-30-1915 L&R
 OVER BLACK FORK

RICHLAND CO.
 ASHLAND CO.



SCHEMATIC PLAN & PAVEMENT CORING DATA

DESIGN AGENCY

DISTRICT 3



ENGINEERING
 TEAM FOUR

DESIGNER

JNC

REVIEWER

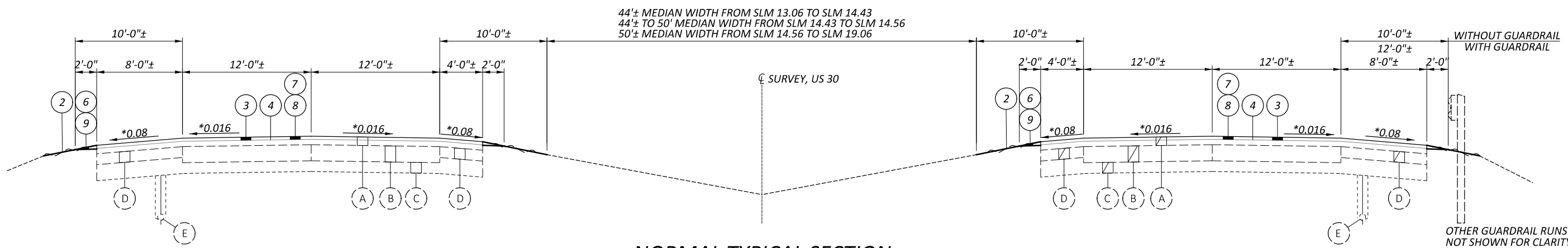
NRF 08/04/22

PROJECT ID

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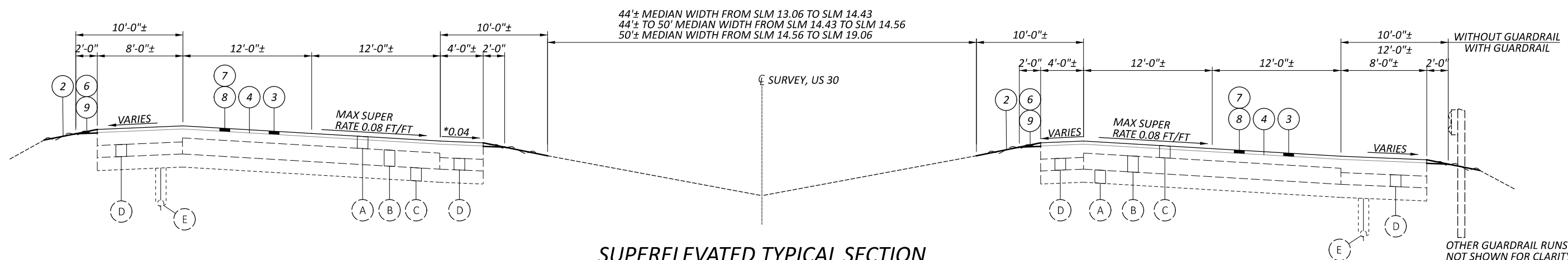
SHEET TOTAL

7 46



NORMAL TYPICAL SECTION

* PREFERRED SLOPE



SUPERELEVATED TYPICAL SECTION

* PREFERRED SLOPE

EXISTING LEGEND

- (A) EXISTING ASPHALT CONCRETE VARIES, SEE PAVEMENT CORING INFORMATION
- (B) EXISTING 9"± REINFORCED CONCRETE
- (C) EXISTING VARIABLE DEPTH SUBBASE
- (D) EXISTING VARIABLE DEPTH AGGREGATE BASE
- (E) EXISTING UNDERDRAIN
- (F) EXISTING AGGREGATE UNDERDRAIN
- (G) EXISTING 6"± STABILIZED CRUSHED AGGREGATE
- (H) EXISTING BITUMINOUS AGGREGATE BASE

PROPOSED LEGEND

- (1) ITEM 202 - WEARING COURSE REMOVED
- (2) ITEM 209 - LINEAR GRADING (TYP.) **
- (3) ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (1.75" DEEP)
- (4) ITEM 407 - TACK COAT (0.09 GAL/SY)
- (5) ITEM 407 - TACK COAT, 702.13 (0.08 GAL/SY)
- (6) ITEM 408 - PRIME COAT, AS PER PLAN (0.40 GAL/SY) (TYP.)
- (7) ITEM 442 - ANTI-SEGREGATION EQUIPMENT
- (8) ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), (1.75" THICK)
- (9) ITEM 617 - COMPACTED AGGREGATE (4" AVG. THICKNESS) (TYP.)

** LINEAR GRADING TO EXTEND UNDER GUARDRAIL, WHERE APPLICABLE.

TYPICAL SECTIONS

DESIGN AGENCY
DISTRICT 3

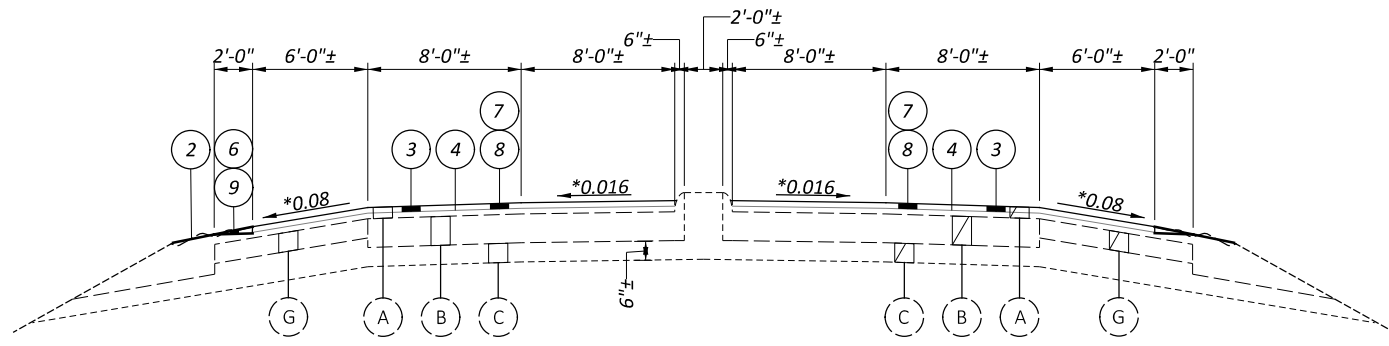
ENGINEERING TEAM FOUR

DESIGNER
JNC

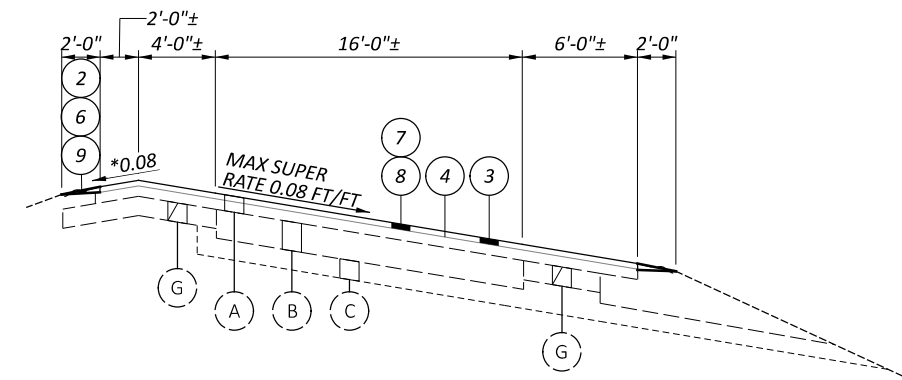
REVIEWER
NRF 08/04/22

PROJECT ID
79740

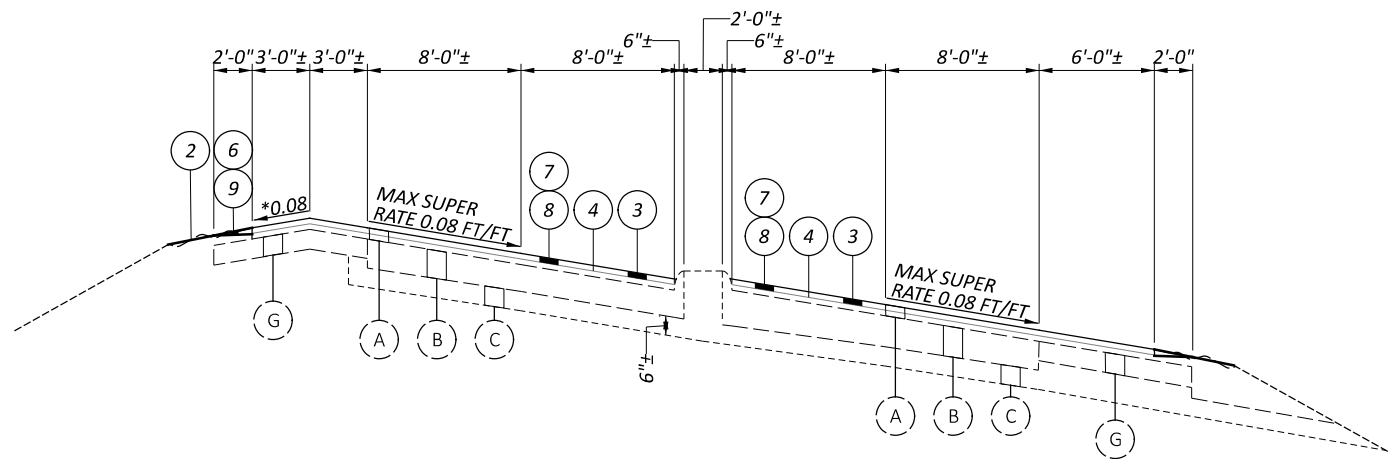
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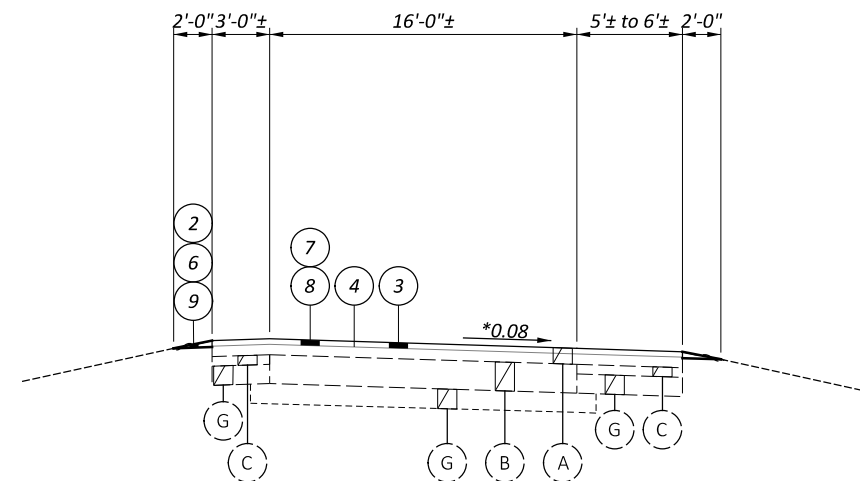
NORMAL SECTION
US 42 RAMPS T, U



SUPERELEVATED SECTION
US 42 RAMPS TR, TL, AND UL



SUPERELEVATED SECTION
US 42 RAMPS T, U



TYPICAL SECTION
US 42 RAMPS A, B, UR

PROPOSED LEGEND

- 1 ITEM 202 - WEARING COURSE REMOVED
- 2 ITEM 209 - LINEAR GRADING (TYP.) **
- 3 ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (1.75" DEEP)
- 4 ITEM 407 - TACK COAT (0.09 GAL/SY)
- 5 ITEM 407 - TACK COAT, 702.13 (0.08 GAL/SY)
- 6 ITEM 408 - PRIME COAT, AS PER PLAN (0.40 GAL/SY) (TYP.)
- 7 ITEM 442 - ANTI-SEGREGATION EQUIPMENT
- 8 ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), (1.75" THICK)
- 9 ITEM 617 - COMPACTED AGGREGATE (4" AVG. THICKNESS) (TYP.)

EXISTING LEGEND

- A EXISTING ASPHALT CONCRETE VARIES, SEE PAVEMENT CORING INFORMATION
- B EXISTING 9"± REINFORCED CONCRETE
- C EXISTING VARIABLE DEPTH SUBBASE
- D EXISTING VARIABLE DEPTH AGGREGATE BASE
- E EXISTING UNDERDRAIN
- F EXISTING AGGREGATE UNDERDRAIN
- G EXISTING 6"± STABILIZED CRUSHED AGGREGATE
- H EXISTING BITUMINOUS AGGREGATE BASE

** LINEAR GRADING TO EXTEND UNDER GUARDRAIL, WHERE APPLICABLE.

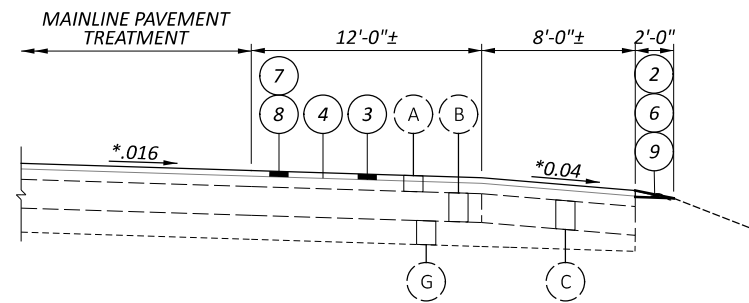


PROPOSED LEGEND

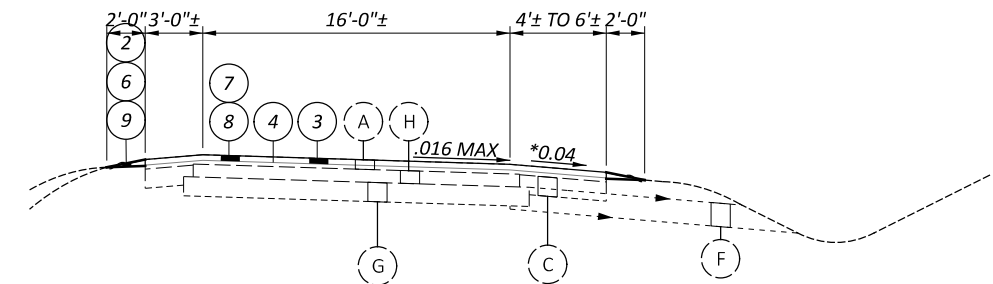
- 1 ITEM 202 - WEARING COURSE REMOVED
- 2 ITEM 209 - LINEAR GRADING (TYP.) **
- 3 ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (1.75" DEEP)
- 4 ITEM 407 - TACK COAT (0.09 GAL/SY)
- 5 ITEM 407 - TACK COAT, 702.13 (0.08 GAL/SY)
- 6 ITEM 408 - PRIME COAT, AS PER PLAN (0.40 GAL/SY) (TYP.)
- 7 ITEM 442 - ANTI-SEGREGATION EQUIPMENT
- 8 ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), (1.75" THICK)
- 9 ITEM 617 - COMPACTED AGGREGATE (4" AVG. THICKNESS) (TYP.)

EXISTING LEGEND

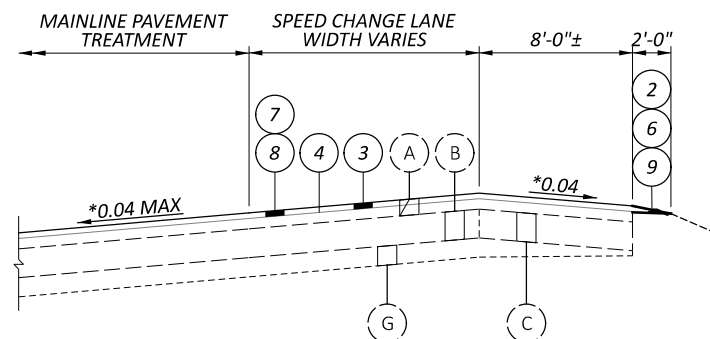
- A EXISTING ASPHALT CONCRETE VARIES, SEE PAVEMENT CORING INFORMATION
- B EXISTING 9"± REINFORCED CONCRETE
- C EXISTING VARIABLE DEPTH SUBBASE
- D EXISTING VARIABLE DEPTH AGGREGATE BASE
- E EXISTING UNDERDRAIN
- F EXISTING AGGREGATE UNDERDRAIN
- G EXISTING 6"± STABILIZED CRUSHED AGGREGATE
- H EXISTING BITUMINOUS AGGREGATE BASE



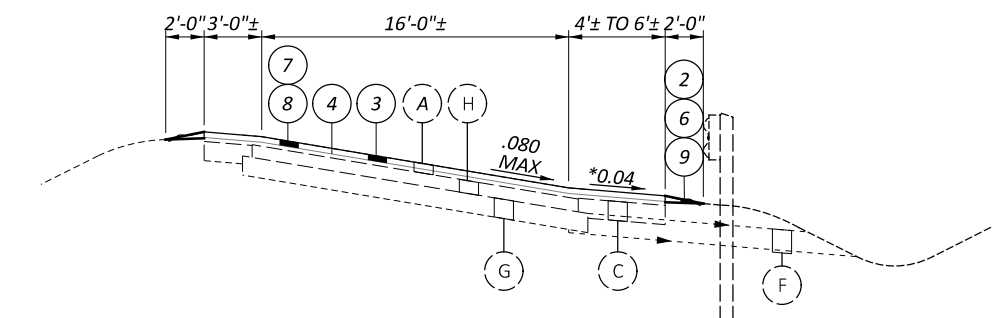
TYPICAL SECTION
SPEED CHANGE LANES AT US 42
(ADJACENT TO US 30)



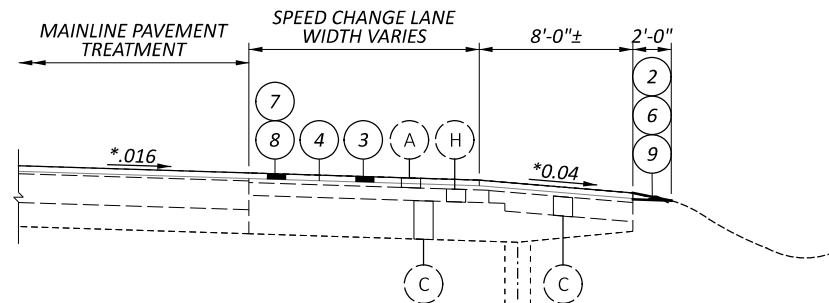
TYPICAL SECTION
LAVER, REED, AND KOOGLE RD RAMPS



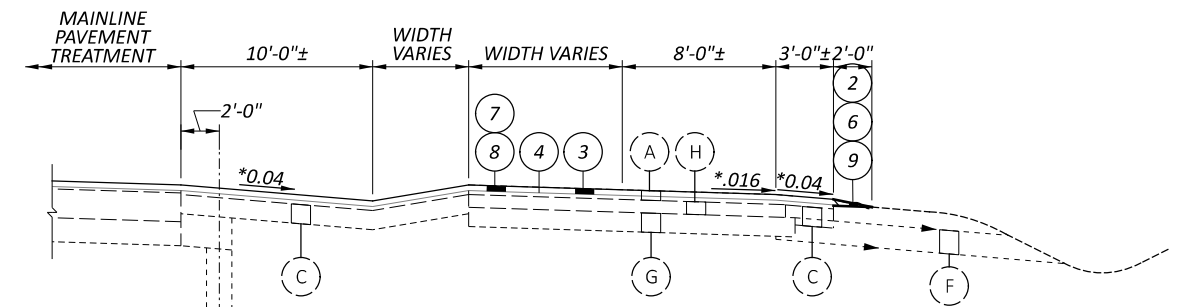
SUPERELEVATED SECTION
SPEED CHANGE LANES AT US 42
(ADJACENT TO US 30)



SUPERELEVATED SECTION
LAVER, REED, AND KOOGLE RD RAMPS



TYPICAL SECTION
LAVER ROAD SPEED CHANGE LANES
(ADJACENT TO US 30)



TYPICAL SECTION
LAVER ROAD, REED ROAD, AND KOOGLE ROAD
SPEED CHANGE LANES
(DETACHED FROM US 30)


** LINEAR GRADING TO EXTEND UNDER GUARDRAIL, WHERE APPLICABLE.

TYPICAL SECTIONS

RIC-30-13.06

MODEL: Typical Sections 3 PAPER SIZE: 17x11 (in.) DATE: 11/28/2022 TIME: 8:57:46 PM USER: jdark8
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DESIGN AGENCY
DISTRICT 3



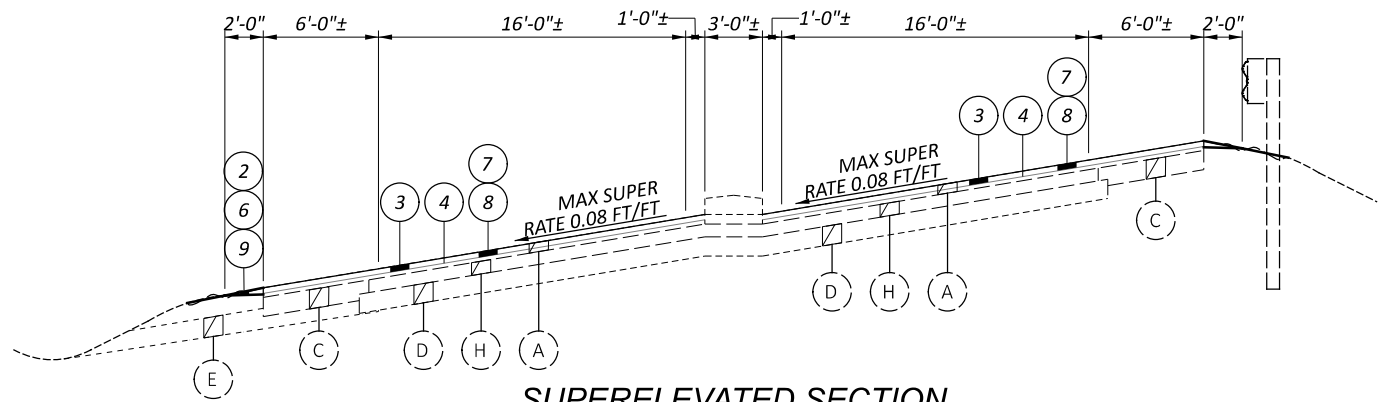
ENGINEERING
TEAM FOUR

DESIGNER
JNC

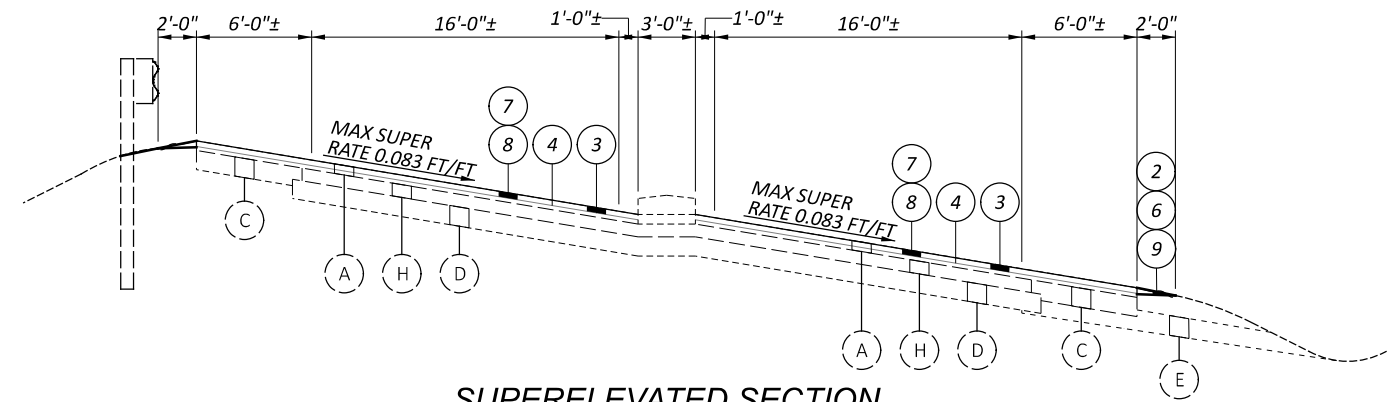
REVIEWER
NRF 08/04/22

PROJECT ID
79740

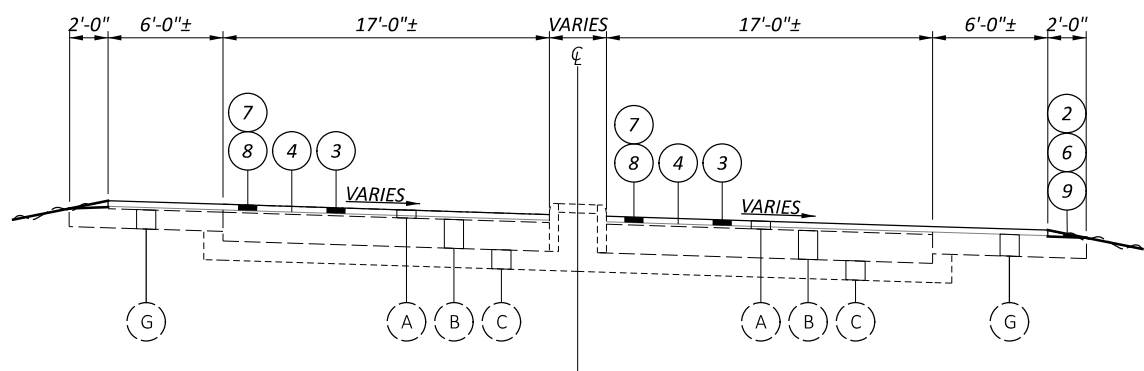
SHEET TOTAL
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SUPERELEVATED SECTION
 REED AND KOOGLE RD RAMPS



SUPERELEVATED SECTION
 REED AND KOOGLE RD RAMPS



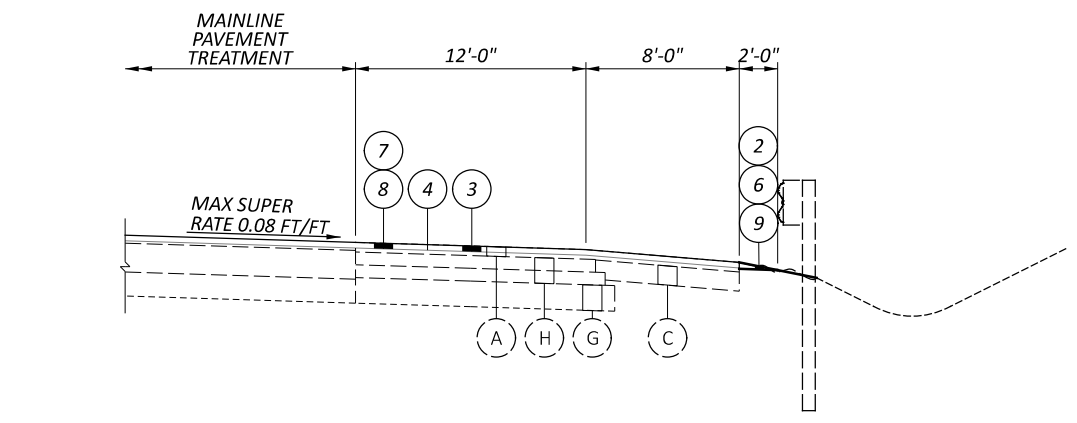
TWO-WAY RAMP TYPICAL
 REED AND KOOGLE RD RAMPS

PROPOSED LEGEND

- 1 ITEM 209 - LINEAR GRADING (TYP.) **
- 2 ITEM 209 - PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN
- 3 ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (1.75" DEEP)
- 4 ITEM 407 - TACK COAT (0.09 GAL/SY)
- 5 ITEM 407 - TACK COAT, 702.13 (0.08 GAL/SY)
- 6 ITEM 408 - PRIME COAT, AS PER PLAN (0.40 GAL/SY) (TYP.)
- 7 ITEM 442 - ANTI-SEGREGATION EQUIPMENT
- 8 ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), (1.75" THICK)
- 9 ITEM 617 - COMPACTED AGGREGATE (4" AVG. THICKNESS) (TYP.)

EXISTING LEGEND

- A EXISTING ASPHALT CONCRETE VARIES, SEE PAVEMENT CORING INFORMATION
- B EXISTING 9"± REINFORCED CONCRETE
- C EXISTING VARIABLE DEPTH SUBBASE
- D EXISTING VARIABLE DEPTH AGGREGATE BASE
- E EXISTING UNDERDRAIN
- F EXISTING AGGREGATE UNDERDRAIN
- G EXISTING 6"± STABILIZED CRUSHED AGGREGATE
- H EXISTING BITUMINOUS AGGREGATE BASE



NORMAL OR SUPERELEVATED SPEED CHANGE LANE
 REED AND KOOGLE RD
 ADJACENT TO US 30

** LINEAR GRADING TO EXTEND UNDER GUARDRAIL, WHERE APPLICABLE.

TYPICAL SECTIONS

DESIGN AGENCY
DISTRICT 3

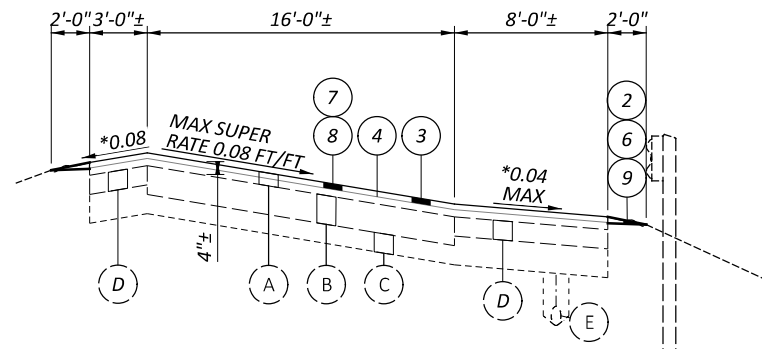
ENGINEERING
 TEAM FOUR

DESIGNER
JNC

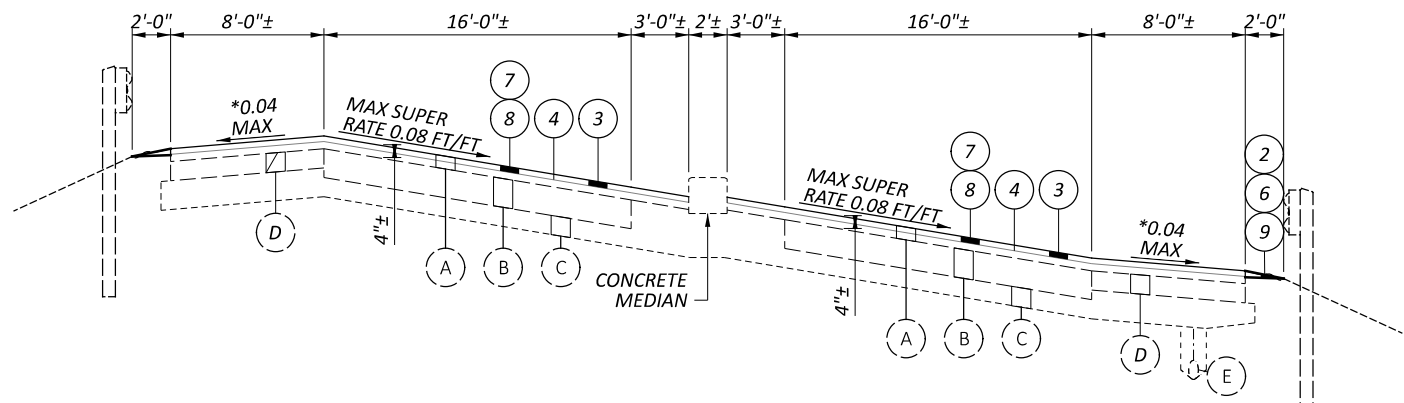
REVIEWER
NRF 08/04/22

PROJECT ID
79740

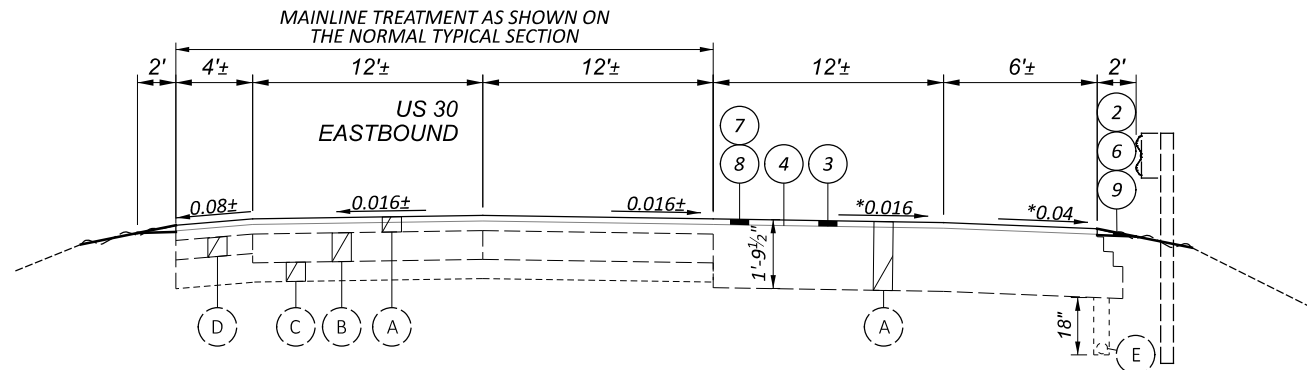
SHEET TOTAL
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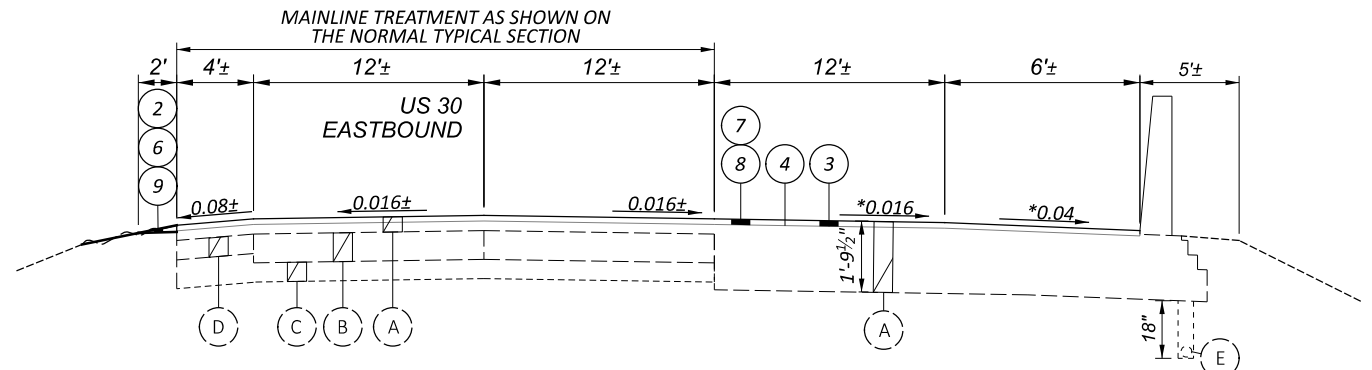
SUPERELEVATED SECTION
US 30 SINGLE LANE RAMPS



SUPERELEVATED SECTION
US 30 SINGLE LANE RAMPS



US 30 EB RAMP TO I-71 NB DECELERATION LANE (MGS GUARDRAIL)
RIC-30-17.11 TO 17.15 EB
RIC-30-17.22 TO 17.28 EB



US 30 EB RAMP TO I-71 NB DECELERATION LANE (CONCRETE BARRIER)
RIC-30-17.15 TO 17.22 EB

PROPOSED LEGEND

- 1 ITEM 202 - WEARING COURSE REMOVED
- 2 ITEM 209 - LINEAR GRADING (TYP.) **
- 3 ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (1.75" DEEP)
- 4 ITEM 407 - TACK COAT (0.09 GAL/SY)
- 5 ITEM 407 - TACK COAT, 702.13 (0.08 GAL/SY)
- 6 ITEM 408 - PRIME COAT, AS PER PLAN (0.40 GAL/SY) (TYP.)
- 7 ITEM 442 - ANTI-SEGREGATION EQUIPMENT
- 8 ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), (1.75" THICK)
- 9 ITEM 617 - COMPACTED AGGREGATE (4" AVG. THICKNESS) (TYP.)

EXISTING LEGEND

- A EXISTING ASPHALT CONCRETE VARIES, SEE PAVEMENT CORING INFORMATION
- B EXISTING 9"± REINFORCED CONCRETE
- C EXISTING VARIABLE DEPTH SUBBASE
- D EXISTING VARIABLE DEPTH AGGREGATE BASE
- E EXISTING UNDERDRAIN
- F EXISTING AGGREGATE UNDERDRAIN
- G EXISTING 6"± STABILIZED CRUSHED AGGREGATE
- H EXISTING BITUMINOUS AGGREGATE BASE

** LINEAR GRADING TO EXTEND UNDER GUARDRAIL, WHERE APPLICABLE.

TYPICAL SECTIONS

RIC-30-13.06

MODEL: Typical Sections 5 PAPER SIZE: 17x11 (in.) DATE: 11/28/2022 TIME: 8:57:47 PM USER: jdark8
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DESIGN AGENCY
DISTRICT 3

ENGINEERING
TEAM FOUR

DESIGNER
JNC

REVIEWER
NRF 08/04/22

PROJECT ID
79740

SHEET TOTAL
12 46

GENERAL

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

<p>GAS COLUMBIA GAS OF OHIO 1021 NORTH MAIN STREET MANSFIELD, OH 44903 419.528.1134</p> <p>ELECTRIC FIRELANDS ELECTRIC 1 ENERGY PLACE NEW LONDON, OH 44851 419.929.1571</p> <p>COMMUNICATION ZAYO FIBER SOLUTIONS 4199 KINROSS LAKES PARKWAY RICHFIELD, OH 44286 740.501.6921</p> <p>WATER MUSKINGUM WATERSHED CONSERVANCY DISTRICT 1319 3RD STREET NW NEW PHILADELPHIA, OH, 44663 330.242.6647 CITY CITY OF MANSFIELD 30 N DIAMOND STREET MANSFIELD, OH 44902 419.755.9626</p>	<p>GAS TC ENERGY 589 N STATE ROAD MEDINA, OH 44256 330.721.4163</p> <p>COMMUNICATION EVERSTREAM SOLUTIONS 800 W ST CLAIR, 2ND FLOOR CLEVELAND, OH 44113 216.581.7972</p> <p>CABLE CHARTER COMMUNICATIONS 5520 WHIPPLE AVENUE NW NORTH CANTON, OH 44720 330.494.9200</p> <p>WATER AQUA OHIO, INC 870 THIRD STREET NW MASSILLON, OHIO 44647 330.832.7600</p> <p>COUNTY RICHLAND COUNTY SANITARY ENGINEER 50 PARK AVENUE EAST MANSFIELD, OH 44902 419.774.3548</p>	<p>ELECTRIC OHIO EDISON 1717 ASHLAND ROAD MANSFIELD, OH 44905 419.521.6214</p> <p>COMMUNICATION LUMEN 175 ASHLAND ROAD, P.O. BOX 3555 MANSFIELD, OH 44907 419.755.7956</p> <p>WATER MADISON WATER DISTRICT 489 INDIANA AVENUE MANSFIELD, OH 44905 419.589.2135</p> <p>TRAFFIC ODOT DISTRICT THREE 906 CLARK AVENUE ASHLAND, OH 44805 419.207.7045</p>
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THE AFOREMENTIONED UTILITY COMPANIES AND AGENCIES HAVE VARIOUS FACILITIES IN THE AREA THAT WILL REMAIN IN PLACE DURING CONSTRUCTION.

EXTREME CAUTION SHOULD BE EXERCISED IN AREAS WITH UTILITIES. SECTIONS 105.07 AND 107.16 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS REQUIRE, AMONG OTHER THINGS, THAT THE CONTRACTOR COOPERATE WITH ALL UTILITIES LOCATED WITHIN THE LIMITS OF THIS CONSTRUCTION PROJECT AND TAKE RESPONSIBILITY FOR THE PROTECTION OF THE UTILITY PROPERTY AND SERVICES.

EXISTING PLANS

EXISTING PLANS ENTITLED AND DATED AS SHOWN HERE MAY BE INSPECTED IN THE ODOT DISTRICT THREE OFFICE IN ASHLAND:

TITLE	DATE	TITLE	DATE
RIC-30-12.37	1985	RIC-CULVERTS-FY2016(B)	2016
RIC-30-5.600	1996	RIC-CULVERT-FY2017	2017
RIC-30-8.56	2011	RIC-30-9.13 FY17 RM	2017
RIC/ASD-30-13.18/0.00/RIC-42-13.74	2011		

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

COORDINATION OF WORK BETWEEN CONTRACTORS

THE CONTRACTOR SHOULD BE AWARE THAT THERE MAY BE OTHER WORK BEING PERFORMED BY A SEPARATE CONTRACT. THE FOLLOWING CONTRACTS ARE SCHEDULED TO BEGIN WORK IN THE 2023 CONSTRUCTION SEASON. COORDINATION OF WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.

CONTRACT TITLE	PROJECT TYPE
RIC-30-9.26	MAJOR REHABILITATION
RIC-SYSSIGN-FY2023	SYSTEMIC SIGN REPLACEMENT
D03-MOW-FY2023(A)	MOWING CONTRACT
RIC-30-18.10	WATERWAY MITIGATION

BECAUSE CONTRACT RIC-30-18.10 WILL REQUIRE EXTENSIVE MAINTENANCE OF TRAFFIC MEASURES, RESURFACING AND OTHER WORK DIRECTED IN THESE PLANS FROM RIC-30-17.00 TO 19.06 SHALL NOT BEGIN PRIOR TO 06 AUGUST, 2023. THE CONTRACTOR WILL COORDINATE CLOSELY WITH THE ENGINEER AND OTHER CONTRACTORS TO ENSURE THAT THE PROJECT SCHEDULES AND FOOTPRINTS DO NOT CONFLICT OR CAUSE DISRUPTIONS TO TRAFFIC BEYOND THE IMPACT OF EITHER PROJECT ON ITS OWN.

ROUTINE MAINTENANCE

BETWEEN THE TIME THAT BIDS ARE TAKEN AND THE START OF CONSTRUCTION, THE MAINTAINING AGENCY MAY ENTER UPON THE PROJECT AND PERFORM ROUTINE MAINTENANCE SUCH AS CRACK SEALING, PATCHING, AND BERM AND SHOULDER REPAIR. THE EFFECTS, IF ANY, OF THE PERFORMANCE OF ROUTINE MAINTENANCE SHALL BE CONSIDERED AS INHERENT IN WORK OF THE CHARACTER PROVIDED FOR IN THE PLAN AND THE RESULTING CONDITIONS SHALL NOT BE CONSIDERED AS DIFFERING MATERIALLY FROM THOSE EXISTING AT THE TIME BIDS WERE TAKEN.

ROADWAY

ITEM 209 – LINEAR GRADING

THE CONTRACTOR IS REQUIRED TO PERFORM LINEAR GRADING ON THE GRADED SHOULDER. IT IS ANTICIPATED THAT THERE ARE AREAS WHERE THE GRADED SHOULDER IS AT A HIGHER ELEVATION THAN THE ADJACENT PROPOSED PAVEMENT. A 10:1 SLOPE SHALL BE ESTABLISHED, OR AS DIRECTED BY THE ENGINEER, WHEN PERFORMING ITEM 209 LINEAR GRADING. THE INTENT IS TO PROVIDE AN UNOBSTRUCTED AND POSITIVE FLOW OF STORM WATER FROM THE PAVEMENT TO THE DITCH. THE LINEAR GRADING SHALL BE PERFORMED AFTER THE INTERMEDIATE COURSE HAS BEEN COMPLETED AND BEFORE THE SURFACE COURSE IS PLACED. ALL LABOR AND EQUIPMENT NECESSARY TO PERFORM THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID PER MILE FOR ITEM 209 - LINEAR GRADING.

EROSION CONTROL

ITEM 659 – SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659	COMMERCIAL FERTILIZER	0.09	TON
659	LIME	0.13	ACRE
659	WATER	3.56	M GAL
659	REPAIR SEEDING AND MULCHING	32	SQ YD
659	INTERSEEDING	32	SQ YD
659	TOPSOIL	71	CU YD
659	SOIL ANALYSIS TEST	2	EACH
659	SEEDING AND MULCHING	642	SQ YD

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS. QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY.

GUARDRAIL

LOCATIONS OF GUARDRAIL

THE GUARDRAIL PROTECTION PROVIDED IN THIS PLAN SHALL BE LOCATED IN THE FIELD TO ASSURE THAT THE INSTALLATION WILL AFFORD THE MAXIMUM PROTECTION FOR TRAFFIC. THIS LOCATION SHALL BE POSITIONED AS FAR AS POSSIBLE FROM THE EDGE OF PAVEMENT WHILE MAINTAINING PROPER GRADE IN FRONT OF GUARDRAIL AS PER STANDARD DRAWINGS AND PLAN DETAILS.

SUGGESTED SEQUENCE OF GUARDRAIL WORK

1. GUARDRAIL WORK IS TO BEGIN AFTER THE SHOULDER GRADING IS COMPLETED AND THE 617 MATERIAL IS PLACED.
2. REMOVE THE GUARDRAIL.
3. PERFORM THE RESHAPING UNDER GUARDRAIL INCLUDING COMPLETING THE EMBANKMENT, AS PER PLAN.
4. REBUILD/CONSTRUCT THE GUARDRAIL RUN.
5. INSTALL BARRIER REFLECTORS.

GUARDRAIL WORK SHALL BE DONE AFTER RESURFACING AND BERM WORK SO AS TO ESTABLISH PROPER GRADES FROM WHICH TO CONSTRUCT THE RAIL.

CONNECTING GUARDRAIL TO EXISTING RAIL

IN LOCATIONS WHERE TYPE 5 GUARDRAIL, TERMINAL ASSEMBLIES, ETC. ARE TO BE CONNECTED TO EXISTING RAIL SOME MODIFICATIONS MAY BE REQUIRED, INCLUDING EXTRA POSTS, DRILLING HOLES AND POSSIBLY PARTIAL SECTIONS OF ADDITIONAL RAIL ELEMENTS. THE COST OF THIS ADDITIONAL WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR TYPE 5 GUARDRAIL. IF ADDITIONAL PORTIONS OF RAIL ELEMENT ARE USED THE LINEAL MEASUREMENT OF THIS ADDITIONAL PORTION SHALL BE ADDED FOR PAYMENT.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 606 – GUARDRAIL REBUILD, TYPE 5

THIS ITEM SHALL BE USED WHEN THE GUARDRAIL REQUIRES REPAIRS IN WHICH THE RAIL ELEMENT IS REUSABLE. ALSO, THIS ITEM WILL BE USED TO RE-ALIGN GUARDRAIL RUNS, AS DIRECTED BY THE ENGINEER.

PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT, AS DESCRIBED IN C&MS 606.05 FOR ITEM 606 – GUARDRAIL REBUILD, TYPE 5.

ITEM 606 – IMPACT ATTENUATOR REBUILD, TYPE 1 (UNIDIRECTIONAL), AS PER PLAN

THIS WORK SHALL BE PERFORMED ACCORDING TO C&MS 606.05, EXCEPT WHERE THE SPECIFICATION REFERENCES GUARDRAIL, IT SHOULD BE CONSIDERED TO REFER TO IMPACT ATTENUATORS.

PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT, AS DESCRIBED IN C&MS 606.05 FOR ITEM 606 – IMPACT ATTENUATOR REBUILD, TYPE 1 (UNIDIRECTIONAL), AS PER PLAN.

ITEM 203 – EMBANKMENT, AS PER PLAN

AT SPECIFIED LOCATIONS AND LOCATIONS AS DIRECTED BY THE ENGINEER, EMBANKMENT SHALL BE PLACED AS TO PROVIDE A SUITABLE AREA TO CONSTRUCT GUARDRAIL AND TO PROVIDE STRUCTURAL INTEGRITY OF THE ROADWAY SHOULDER.

AREAS WHERE EMBANKMENT MATERIAL IS TO BE PLACED SHALL BE SCALPED. THE REQUIREMENTS FOR BENCHING SHALL BE WAIVED. THE DEPTH OF LAYERS IN WHICH THE EMBANKMENT IS PLACED SHALL BE LIMITED TO EIGHT (8) INCHES IN THICKNESS. THE METHOD OF COMPACTION AND EQUIPMENT USED SHALL BE PER C&MS 203.07 OR 98% MAXIMUM DRY DENSITY.

AFTER THE EMBANKMENT HAS BEEN PLACED, THE AREAS SHALL BE FERTILIZED, SEEDED, MULCHED, AND WATERED AS PER ITEM 659.

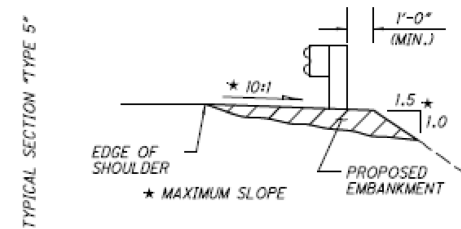
THE METHOD OF MEASUREMENT FOR EMBANKMENT MATERIAL SHALL BE BY THE NUMBER OF CUBIC YARDS MEASURED BY LOOSE VOLUME IN THE CARRIER AT THE WORK SITE, IN LIEU OF THE REQUIREMENTS OF 203.09. PAYMENT FOR ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT UNIT BID PRICE PER CUBIC YARD FOR ITEM 203 - EMBANKMENT, AS PER PLAN AND SHALL INCLUDE ALL WORK DESCRIBED ABOVE.

CONTINGENCY QUANTITIES OF ITEM 203 – EMBANKMENT, AS PER PLAN HAVE BEEN PROVIDED IN LOCATIONS WHERE GUARDRAIL IMPROVEMENTS ARE TO BE MADE. THESE AREAS ARE NOT SHOWN ON THE PLANS FOR CLARITY. EXACT DIMENSIONS AND LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER.

CONTINGENCY QUANTITY:

ITEM 203 – EMBANKMENT, AS PER PLAN

20 CU. YD.



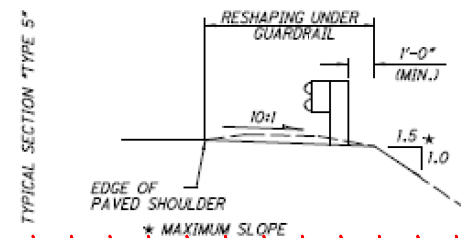
ITEM 209 – RESHAPING UNDER GUARDRAIL, AS PER PLAN

THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLANS. THIS WORK SHALL BE PERFORMED AT THE SPECIFIED LOCATIONS WITH GUARDRAIL LEFT IN PLACE, BY MEANS SATISFACTORY TO THE ENGINEER. THIS DIRECTION SUPERCEDES C&MS 209.5, WITHOUT ALTERING THE INTENT OF PROVIDING A SMOOTH, DRAINABLE SURFACE FREE OF IRREGULARITIES.

THE AREA IN FRONT OF, UNDER, AND BEHIND THE GUARDRAIL SHALL BE GRADED AND RESHAPED TO PROVIDE AN AREA THAT HAS A SLOPE OF 10:1 MAXIMUM (SEE DETAIL BELOW AS WELL AS THE GUARDRAIL DETAIL SHEETS FOR FURTHER DETAILS AND INFORMATION OF THE LIMITS OF THIS WORK).

EXCESS MATERIAL RESULTING SHALL BE USED ELSEWHERE FOR THIS ITEM IF SO DIRECTED OR DISPOSED OF PROPERLY. IF EXTRA MATERIAL IS REQUIRED IT SHALL BE PAID FOR WITH ITEM 203 - EMBANKMENT, AS PER PLAN. THIS WORK SHALL NOT BE STARTED UNTIL AFTER THE RESURFACING AND BERM WORK HAS BEEN COMPLETED.

THE ABOVE WORK SHALL BE PAID FOR PER STATION WITH ITEM 209, RESHAPING UNDER GUARDRAIL, AS PER PLAN WITH THE EXCEPTION OF ANY EXTRA MATERIAL REQUIRED TO MEET THE SLOPE REQUIREMENTS WHICH SHALL BE PAID BY ITEM 203 - EMBANKMENT, AS PER PLAN.



ITEM 606 – RAISING TYPE 5 GUARDRAIL

WHERE DESIGNATED ON THE PLAN, THE EXISTING TYPE 5 GUARDRAIL SHALL BE RAISED ON THE EXISTING WOOD POSTS AS PER PLAN INSERT SHEET GR-2.1 SO AS TO OBTAIN THE STANDARD 29 IN. HEIGHT. THE RAIL SHALL BE RE-ATTACHED TO THE POSTS USING NEW POST BOLTS.

THE RAIL SHALL BE DISMANTLED ONLY TO THE EXTENT NECESSARY TO FIELD BORE NEW BOLT HOLES IN THE WOOD POSTS, AND TO RECONNECT THE RAIL AND BLOCK TO THE EXISTING POSTS.

THE EXISTING TYPE "A" ANCHOR ASSEMBLIES THAT ARE TO REMAIN SHALL NOT BE ADJUSTED. THE LAST RAIL ELEMENT SHALL BE TRANSITIONED TO MEET THESE ASSEMBLIES.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT OF ITEM 606 – RAISING TYPE 5 GUARDRAIL, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

GENERAL NOTES

RIC-30-13.06

MODEL: GENERAL NOTES 17x11 (in.) DATE: 11/28/2022 TIME: 8:57:57 PM USER: jdark8 pwc\ohio-dot-pw-bentley.com\shahidoc-pw-02\Documents\01_Active Projects\District 03\Richland\79740-Engineering\Roadway\Sheets\79740_GN001.dgn

DESIGN AGENCY	DISTRICT 3
ENGINEERING TEAM FOUR	
DESIGNER	JNC
REVIEWER	NRF
PROJECT ID	08/04/22
SHEET	79740
TOTAL	13 46

ITEM 606 – ANCHOR ASSEMBLY, TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE 5 GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE J, ASTM D4956 TYPE XI REFLECTIVE SHEETING, PER CMS 730.193.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 29 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. NO ITEM OR QUANTITY SEPERATELY ITEMIZED IN THE PLANS SHALL EXEMPT THE CONTRACTOR FROM COMPLETING INSTALLATION ACCORDING TO THE MANUFACTURER INSTRUCTIONS.

ITEM 202 – GUARDRAIL REMOVED FOR REUSE, AS PER PLAN
ITEM 202 – BRIDGE TERMINAL ASSEMBLY REMOVED FOR REUSE, AS PER PLAN

THE PURPOSE OF THIS WORK IS TO REDUCE THE RISK OF POCKETING OR IMPACT WITH THE BLUNT END OF THE BRIDGE PARAPET AND TO CREATE A MORE GRADUAL TRANSITION TO BRIDGE PARAPET THAN THE EXISTING CONDITION.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE AND AS PER THE DETAILS IN THE PLANS.

ITEM 606 – IMPACT ATTENUATOR REBUILT, TYPE 1 (UNIDIRECTIONAL), AS PER PLAN

THIS WORK SHALL BE PERFORMED ACCORDING TO C&MS 606.05, EXCEPT WHERE THE SPECIFICATION REFERENCES GUARDRAIL, IT SHOULD BE CONSIDERED TO REFER TO IMPACT ATTENUATORS. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT, AS DESCRIBED IN C&MS 606.05 FOR ITEM 606 – IMPACT ATTENUATOR REBUILT, TYPE 1 (UNIDIRECTIONAL), AS PER PLAN.

ITEM 622 - CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN
ITEM 202 – CONCRETE BARRIER REMOVED
ITEM 203 - EXCAVATION
ITEM 304 AGGREGATE BASE

THE NEW BARRIER END SECTION SHALL BE INSTALLED ON THE NEW EMBANKMENT, CONSISTING OF ITEM 304 - AGGREGATE BASE, IN ACCORDANCE WITH RM-4.6. THE NEW END SECTION SHALL BE CONSISTANT IN LENGTH WITH THE EXISTING SECTION AND ATTACHED TO THE EXISTING BRIDGE TERMINAL ASSEMBLY. ANY MODIFICATIONS TO THE EXISTING BRIDGE TERMINAL ASSEMBLY REQUIRED TO PERFORM THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 622 – CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN.

THE AREA TO BE EXCAVATED SHALL CONSIST OF THE LENGTH OF THE BARRIER END SECTION TO BE PLACED, 54" WIDE AND 24" DEEP. THE LONG EDGES EXCAVATION SHALL BE PLACED 6" BEYOND THE BASE EDGE OF THE NEW BARRIER SECTION. PLACE AND COMPACT AGGREGATE BASE IN ACCORDANCE WITH THE SPECIFICATION.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE. IN ADDITION TO THE QUANTITIES GIVEN IN THE DETAILS, THE FOLLOWING QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY:

ITEM 203- EXCAVATION	26 CU YD
ITEM 304 – AGGREGATE BASE	26 CU YD

DRAINAGE

CASTING LOCATIONS

CASTINGS IDENTIFIED FOR TREATMENT AT THE DIRECTION OF THE ENGINEER ARE FOUND AT THESE LOCATIONS:

SECTION	STATION	TYPE	TREATMENT
US 42 RAMP T	1+50	CATCH BASIN	ADJUST
US 42 RAMP U	1+50	CATCH BASIN	ADJUST
LAVER RD RAMP D	496+50	CATCH BASIN	ADJUST
LAVER RD RAMP D	497+50	CATCH BASIN	ADJUST
REED RD RAMP B	554+80	CATCH BASIN	ADJUST
KOOGLE RD RAMP AB	627+00	CATCH BASIN	ADJUST
KOOGLE RD RAMP B	617+50	MANHOLE	RECONSTRUCT
KOOGLE RD RAMP B	6258+50	CATCH BASIN	ADJUST
KOOGLE RD RAMP CD	624+90	CATCH BASIN	ADJUST
KOOGLE RD RAMP D	624+70	CATCH BASIN	ADJUST

ITEM 611 – MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN

THIS ITEM SHALL INCLUDE THE REMOVAL OF THE EXISTING MANHOLE WALLS DOWN TO THE FLOW LINE, AND THE REPLACEMENT OF SAID MANHOLE WALLS WITH 8" THICK CLASS QC1 CONCRETE CAST IN PLACE. A CONSTRUCTION JOINT SHALL BE PLACED 12" BELOW TOP OF GRATE ELEVATION. THE GRATE ELEVATION SHALL BE A MINIMUM 1/2" BELOW THE NORMAL PAVEMENT SLOPE MEASURED AT THE MIDDLE OF THE COVER. IT MAY BE DETERMINED IN THE FIELD THAT A SUMP DEPTH GREATER THAN 1/2" SHALL BE USED. THE FINAL SUMP DEPTH SHALL BE DETERMINED BY THE ENGINEER.

THE CONCRETE BEARING AREA SHALL BE A MINIMUM OF 2 1/2" IN WIDTH AND SHALL BE SMOOTH AND EVEN FOR ALL PORTIONS OF THE COVER TO PREVENT THE COVER FROM ROCKING DURING LIVE LOAD IMPACT. ALL COVERS SHALL BE REUSED. IF THE EXISTING COVER IS MISSING OR NOT SUITABLE FOR REUSE, A NEW COVER WILL BE FURNISHED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE DEPARTMENT. FRAMES WILL NOT BE USED.

THE NEW APRON SHALL CONFORM AS NEARLY AS PRACTICABLE TO THE EXISTING DIMENSIONS.

ALL DRAINAGE CONDUITS OUT-LETTING INTO THE MANHOLE SHALL BE MAINTAINED WITH A CONDUIT OF THE SAME SIZE WITH A CONCRETE COLLAR POURED COMPLETELY AROUND THE JOINT. ANY VOIDS FOUND AROUND THE MANHOLE DURING THE RECONSTRUCTION WILL BE FILLED WITH LOW STRENGTH MORTAR BACKFILL AND SHALL BE INCLUDED IN THIS ITEM.

THIS ITEM SHALL ALSO INCLUDE THE NECESSARY TOPSOIL, SEEDING, AND MULCHING FOR THE ASSOCIATED DISTURBED AREAS. THE CONTRACTOR SHALL ENSURE A DENSITY OF AT LEAST 70% GRASS COVER. REPAIR SEEDING AND MULCHING MY BE NECESSARY. NO SEPARATE PAYMENT WILL BE MADE FOR REPAIR SEEDING AND MULCHING.

PAYMENT FOR THE CURB AT THE MANHOLE SHALL BE INCLUDED IN THIS ITEM.

PAYMENT FOR ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN AND ITEM 611 - INLET RECONSTRUCTED TO GRADE, AS PER PLAN SHALL BE MADE AT THE UNIT PRICE BID PER EACH AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO PERFORM THE ITEM OF WORK AS DESCRIBED IN THESE SECTIONS.

ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN 1 EACH

ITEM 611 – CATCH BASIN ADJUSTED TO GRADE

THE CASTING TO BE ADJUSTED MAY OR MAY NOT HAVE AN EXISTING FRAME. THE WORK SHALL CONSIST OF ADJUSTING THE EXISTING CASTING TO THE SATISFACTION OF THE ENGINEER. IT IS NOT INTENDED TO PLACE NEW FRAMES WHERE NONE CURRENTLY EXIST. THE CONTRACTOR IS REMINDED TO FIELD CHECK ALL ADJUSTMENT TO GRADE ITEMS PRIOR TO BIDDING, AS NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR LABOR AND MATERIALS REQUIRED TO SATISFACTORILY ADJUST CASTINGS WITHOUT FRAMES. ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO PERFORM THE WORK DESCRIBED ABOVE SHALL BE PAID FOR AT THE RESPECTIVE CONTRACT PRICE FOR THE APPLICABLE ITEM BELOW.

ITEM 611 – CATCH BASIN ADJUSTED TO GRADE 9 EACH

PAVEMENT

PROFILE AND ALIGNMENT

PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. (PREVIOUS CONSTRUCTION PLANS SHOWING THE ORIGINAL ALIGNMENT AND PROFILE, ARE AVAILABLE FOR INSPECTION AT THE ODOT DISTRICT 3 OFFICE). PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE), AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL OF THE EXISTING PAVEMENT OR PAVED BERM WHICH MAY BE ASPHALT, BRICK, CONCRETE, OR A COMBINATION OF EACH, IN AREAS OF EXISTING PAVEMENT FAILURE. CORING HAS BEEN PERFORMED TO HELP DETERMINE THE COMPONENTS THAT MAY BE ENCOUNTERED DURING THIS ITEM OF WORK. THIS PAY ITEM IS NOT TO BE USED WHERE 255 REPAIRS WILL BE DONE.

ALL PAVEMENT REPAIRS SHALL BE PERFORMED PRIOR TO PAVEMENT PLANING. REPLACEMENT MATERIAL SHALL BE ITEM 301 PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT PAVEMENT SURFACE.

THE DEPTH OF REMOVAL SHALL BE SUFFICIENT TO REMOVE ALL DETERIORATED PAVEMENT WITH A MAXIMUM DEPTH OF 8", BASED ON THE PAVEMENT DESIGN, AND A MINIMUM WIDTH OF 4'. LONGITUDINAL IS DEFINED AS ANY REPAIR THAT HAS A GREATER MEASUREMENT PARALLEL TO THE CENTER LINE THAN MEASUREMENT PERPENDICULAR TO THE CENTER LINE. TRANSVERSE IS DEFINED AS ANY REPAIR THAT HAS A GREATER MEASUREMENT PERPENDICULAR TO THE CENTER LINE THAN MEASUREMENT PARALLEL TO THE CENTER LINE.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT REPAIR. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER CUBIC YARD, (BY TICKET WEIGHT CONVERSION), OF ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE), AS PER PLAN (LONGITUDINAL), AND ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE), AS PER PLAN (TRANSVERSE). A BREAKDOWN FOR ESTIMATION PURPOSES IS PROVIDED BELOW. ALL REPAIRS SHALL BE PERFORMED AT LOCATIONS AND IN A MANNER AS DIRECTED BY THE ENGINEER.

SECTION	TRANSVERSE [CY]	LONGITUDINAL [CY]
US 30 MAINLINE EB	180	420
US 30 MAINLINE WB	180	420
RAMPS AT US 42	50	88
RAMPS AT LAVER RD	32	22
RAMPS AT REED RD	36	24
RAMPS AT KOOGLE RD	44	34
TOTALS	522	1008

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE), AS PER PLAN (LONGITUDINAL) 1008 CY
 ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE), AS PER PLAN (TRANSVERSE) 522 CY

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN
ITEM 255 - FULL DEPTH PAVEMENT SAWING

THE EXISTING APPROXIMATELY 9" REINFORCED CONCRETE PAVEMENT AND VARIABLE THICKNESS ASPHALT CONCRETE SHALL BE REMOVED AS PART OF THIS PAY ITEM. REPLACE THE CONCRETE TO 3" BELOW THE ADJACENT EXISTING PAVEMENT SURFACE. PLACE ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A, TO BE FLUSH THE ADJACENT PAVEMENT SURFACE. INTERMEDIATE COURSE MATERIAL SHALL USE A PG 64-22 BINDER FOR 0 TO 25% RAP AND A PG 58-28 FOR 26-30% RAP. REPAIRS SHALL BE PERFORMED PRIOR TO PAVING AND PLANING.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE ABOVE-DESCRIBED PAVEMENT REPAIR WORK, IN ADDITION TO THE REST OF THE REQUIREMENTS IN CMS ITEM 255. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER SQUARE YARD OF ITEM 255 FULL DEPTH RIGID PAVEMENT REMOVAL AND REPLACEMENT, AS PER PLAN. ALL EQUIPMENT, MATERIALS, AND LABOR REQUIRED TO PERFORM THESE REPAIRS, INCLUDING ASPHALT CONCRETE MATERIAL, SHALL BE CONSIDERED INCIDENTAL TO THESE ITEMS. A BREAKDOWN FOR ESTIMATION PURPOSES IS PROVIDED BELOW. THIS ESTIMATION ASSUMES PRIMARILY TRANSVERSE REPAIRS WITH AVERAGE DIMENSIONS OF 12' X 6'. ALL REPAIRS SHALL BE PERFORMED AT LOCATIONS AND IN A MANNER AS DIRECTED BY THE ENGINEER.

SECTION	FULL DEPTH REPAIRS [SY]	SAWING [FT]
US 30 MAINLINE EB	6000	27,000
US 30 MAINLINE WB	6000	27,000
RAMPS AT US 42	400	1800
RAMPS AT LAVER RD	200	900
RAMPS AT REED RD	200	900
RAMPS AT KOOGLE RD	200	900
TOTALS	13,000	58,500

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN 13,000 SY

ITEM 255 - FULL DEPTH PAVEMENT SAWING 58,500 FT

RIC-30-13.06

MODEL: GENERAL NOTES 2 PAPER SIZE: 17x11 (in.) DATE: 11/28/2022 TIME: 8:58:06 PM USER: jdark8 pwc:\hoboc-pw-bentley.com\shhoboc-pw-02\Documents\01 Active Projects\District 03\Richland\79740\400-Engineering\Roadway\Sheets\79740_GN001.dgn

GENERAL NOTES

DESIGN AGENCY
DISTRICT 3



ENGINEERING
 TEAM FOUR

DESIGNER
JNC

REVIEWER
NRF 08/04/22

PROJECT ID
79740

SHEET	TOTAL
14	46

AC GAUGE OFFSET, AS PER PLAN

FOLLOW 403, EXCEPT AS FOLLOWS:

- OFFSET THE AC GAUGE FOR EACH JMF FOR THE PROJECT PRIOR TO THE PROJECT'S START USING 403.06.A AND THE MODIFIED SUPPLEMENT 1043 PROCEDURE BELOW.
- DURING THE S-1043.07 PROCESS, A RAP SAMPLE OBTAINED FROM THE JMF-DESIGNATED RAP PILE WILL BE EXTRACTED IN THE ASPHALT LEVEL 3 LAB TO VERIFY THE RAP AC%. THE RAP AC% WILL BE WITHIN 0.3% OF THE AVERAGE RAP AC% FROM THE JMF. IF RAP AC% IS OUTSIDE OF THE 0.3%, THE VERIFICATION PAN PROCESS WILL STOP, AND DISTRICT TESTING WILL ALLOW ONE OPPORTUNITY TO REWORK THE RAP PILE AT THE MIX PLANT AND RESAMPLE. RESAMPLING REQUIRES DISTRICT TESTING TO BE PRESENT. IF THE RESAMPLE IS STILL OUTSIDE OF THE 0.3%, THE JMF WILL BE RESCINDED AND NEED TO BE REDESIGNED.

FOLLOW 403.06 EXCEPT AS FOLLOWS:

- ENSURE ASPHALT BINDER CONTENT DOES NOT EXCEED TABLE 403.06.G-1. ADJUSTMENTS TO MIX PLANT CONTROL SETTINGS MUST BE SUBMITTED TO AND APPROVED BY DISTRICT TESTING PRIOR TO MAKING THE ADJUSTMENT. THE ADJUSTMENT CANNOT EXCEED +/-0.2% FROM DESIGN AC% FROM JMF. DO NOT LOWER VIRGIN BINDER CONTENT OR INCREASE RAP PERCENT. ENSURE PLANT TICKET SHOWS THE ADJUSTMENT AND IS SET TO THE ADJUSTED TOTAL AC% AT ALL TIMES AFTERWARDS.
- RECORD THE DAILY VERIFICATION PAN RESULTS IN A SEPARATE WORKSHEET AND MAKE SURE IT'S POSTED IN THE PLANT FACILITY AND AVAILABLE TO THE MONITORS. INCLUDE THE DATE RAN, VERIFICATION PAN RESULT, AND INITIALS OF WHO RAN IT. ENSURE A PRINTOUT OF THE DAILY VERIFICATION PAN IS ALSO INCLUDED WITH THE TE-199.

FOLLOW SUPPLEMENT 1043 FOR AC GAUGE OFFSET, EXCEPT AS MODIFIED BELOW:

- FOLLOW 1043.07 EXCEPT AS FOLLOWS:
 - o NOTIFY DISTRICT TESTING A MINIMUM OF ONE WEEK PRIOR TO MAKING VERIFICATION PANS.
 - o DISTRICT TESTING WILL WITNESS A SOLVENT EXTRACTION FROM A SAMPLE FROM THE RAP PILE THAT IS TO BE USED IN THE JMF TO VERIFY THE RAP AC%. RAP AC% WILL BE WITHIN 0.3% OF RAP AC% DETERMINED IN JMF. IF OUTSIDE OF 0.3%, DO NOT PROCEED AND THE JMF WILL NEED TO BE REDESIGNED.
 - o DISTRICT TESTING WILL WITNESS THE VERIFICATION PANS BEING BLENDED, MIXED, AND COMPACTED.
 - o MAKE A MINIMUM OF THREE VERIFICATION PANS FOR THE JMF THAT ARE AT THE JMF ASPHALT BINDER CONTENT. MAKE ONE ADDITIONAL VERIFICATION PAN FOR EACH ADDITIONAL DISTRICT THE JMF WILL BE USED IN.
 - o IN ADDITION, TURN POSSESSION OVER OF THE CALIBRATION AC GAUGE PANS USED TO DETERMINE THE FIT COEFFICIENT TO DISTRICT TESTING.
- FOR AC CONTENT PAY ACCEPTANCE, REPLACE 1043.08 WITH THE FOLLOWING:

CALCULATE AN AC GAUGE OFFSET AMOUNT FOR EACH JMF AND MIX PLANT IN ACCORDANCE WITH THE FOLLOWING PROCEDURE PRIOR TO START OF ANY PRODUCTION FOR THE JMF. NOTIFY DISTRICT TESTING 24 HOURS PRIOR TO OFFSETTING GAUGE.

1. ENSURE PRINTER IS ON AND PLACE THE FIRST VERIFICATION PAN IN THE AC GAUGE AND RUN.
2. AFTER THE 16-MINUTE TEST, TAKE THE VERIFICATION PAN OUT AND TURN 180 DEGREES AND PLACE BACK IN AC GAUGE AND RUN.
3. REPEAT STEPS 1 AND 2 WITH SECOND AND THIRD VERIFICATION PANS.
4. FOR EACH RUN, TAKE THE JMF ASPHALT BINDER CONTENT MINUS THE AC GAUGE AC% TO OBTAIN THE OFFSET OF THE RUN.
5. AVERAGE ALL OFFSETS FOR A FINAL OFFSET.
6. RETAIN ALL OF THE VERIFICATION PANS. AFTER THE FINAL OFFSET IS DETERMINED, DISTRICT TESTING WILL CHOOSE TWO OF THE VERIFICATION PANS AND SEND ONE OF THESE TWO TO OMM TO EXTRACT AND REFLUX.
7. DISTRICT TESTING WILL USE THE TWO VERIFICATION PANS TO OFFSET THEIR AC GAUGE.

BEFORE THE BEGINNING OF A PRODUCTION DAY, RUN THE VERIFICATION PAN IN THE AC GAUGE AND ENSURE THE OFFSET AC GAUGE AMOUNT IS WITHIN 0.14% OF THE JMF ASPHALT BINDER CONTENT. DURING THE START OF PRODUCTION FOR THE JMF, SOLVENT EXTRACT THE FIRST TOW QC SAMPLES AND COMPARE TO THE OFFSET AC GAUGE. ENSURE SOLVENT EXTRACTION IS WITHIN 0.3% OF OFFSET AC GAUGE. IF MORE THAN 0.3% OFF, IMMEDIATELY RESAMPLE AND RUN AC GAUGE AND SOLVENT EXTRACT IMMEDIATELY. IF TWO CONSECUTIVE SAMPLES ARE MORE THAN 0.3% OFF, IMMEDIATELY STOP PRODUCTION, CONTACT MONITORING TEAM, AND INVESTIGATE THE REASON FOR THE PROBLEM. ONCE TWO CONSECUTIVE QC SAMPLES ARE WITHIN 0.3% OF OFFSET AC GAUGE, THE FINAL OFFSET GAUGE IS CONFIRMED.

AFTER CONFIRMING THE AC GAUGE OFFSET AMOUNT, PROCEED WITH DETERMINING AC CONTENTS OF PRODUCTION SAMPLES BY THE AC GAUGE ACCORDING TO 1043.09.

ONLY DETERMINE ONE AC GAUGE OFFSET AMOUNT PER JMF. IF MORE THAN 30 DAYS HAS LAPSED SINCE THE JMF WAS LAST TESTED, RE-DO THE OFFSET PROCEDURE ABOVE WITH TWO VERIFICATION PANS (ONE FROM THE CONTRACTOR AND ONE FROM THE DISTRICT). IF AN AC GAUGE OFFSET AMOUNT IS LATER DETERMINED, BY AN INVESTIGATION OF BOTH THE CONTRACTOR AND THE DISTRICT, TO BE INCORRECT, RE-DO THE OFFSET PROCEDURE.

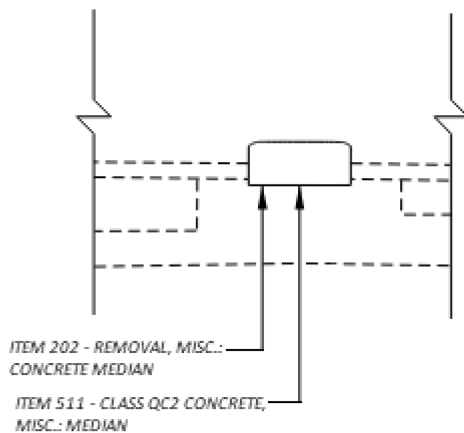
IN ADDITION, ALSO DETERMINE THE AC GAUGE OFFSET FOLLOWING THE CURRENT PROCEDURE AS OUTLINE IN SUPPLEMENT 1043 DATED JANUARY 21, 2022 AND PROVIDE THE INFORMATION TO THE DEPARTMENT. THIS AC GAUGE OFFSET NUMBER WILL NOT BE USED DURING QC TESTING.

**ITEM 202 – REMOVAL, MISC.: CONCRETE MEDIAN
ITEM 511 – CLASS QC2 CONCRETE, MISC.: MEDIAN**

THE EXISTING CONCRETE MEDIAN LOCATED ON KOOGLE RD RAMP AB AND CD SHALL BE REPLACED IN AREAS MARKED BY THE ENGINEER THAT ARE DETERIORATED. AN AVERAGE DEPTH OF 4 INCHES AND AN AVERAGE WIDTH OF 3.50 FT WERE USED FOR ESTIMATING PURPOSES. ALL SAWCUTTING, EXCAVATION, OR OTHER REMOVAL REQUIRED TO PERFORM THE WORK DESCRIBED SHALL BE CONSIDERED INCIDENTAL TO ITEM 202 – REMOVAL, MISC.: CONCRETE MEDIAN.

REMOVE ALL LOOSE OR DETERIORATED CONCRETE WITHIN THE AREA IDENTIFIED BY THE ENGINEER. PERFORM REMOVAL IN A MANNER CONSISTANT WITH C&MS 519.03. PREPARE SURFACES IN A MANNER CONSISTANT WITH C&MS 519.04.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NECESSARY TO COMPLETE THE REPLACEMENT. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER CUBIC YARDS OF ITEM 202 – REMOVAL, MISC.: CONCRETE MEDIAN AND ITEM 511 – CLASS QC2 CONCRETE, MISC.: MEDIAN. THE QUANTITIES BELOW ARE BASED ON FIELD MEASUREMENTS AND INCLUDE A 20% CONTINGENCY TO ALLOW FOR DAMAGE SUSTAINED BETWEEN FIELD REVIEW AND CONSTRUCTION.



ITEM 202 – REMOVAL, MISC.: CONCRETE MEDIAN	22 CU YD
ITEM 511 – CLASS QC2 CONCRETE, MISC.: MEDIAN	22 CU YD

ITEM 408 - PRIME COAT, AS PER PLAN

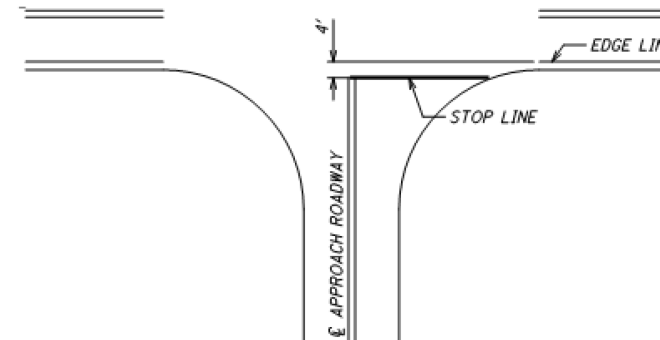
THE CONTRACTOR SHALL APPLY ONE COAT OF MC-70 (AS PER SECTION 702) AT A RATE OF 0.40 GAL/SY TO THE COMPLETED AGGREGATE SHOULDER (ITEM 617) AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE A SHIELD TO PREVENT THE SPRAYING OR DRIFTING OF LIQUID BITUMINOUS MATERIAL ONTO THE EDGE OF PAVEMENT OR EDGE LINE. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO 107.10 OF THE SPECIFICATIONS



TRAFFIC CONTROL

STOP BAR PLACEMENT

IN ORDER TO ACHIEVE MAXIMUM INTERSECTION SIGHT DISTANCE, AT NORMAL STOP CONTROLLED RURAL INTERSECTIONS WITHOUT CROSSWALK, PLACE THE STOP BAR FOUR FEET FROM THE EDGE LINE OF THE INTERSECTING ROADWAY, OR IN LINE WITH THE OUTSIDE EDGE OF THE PAVED SHOULDER, WHICHEVER IS WIDER.



PAVEMENT MARKING LOG

PRIOR TO REMOVING, GRINDING, OR OTHERWISE DESTROYING ANY EXISTING PAVEMENT MARKINGS, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CREATE AN EXISTING PAVEMENT MARKING LOG IN ORDER TO PLACE THE PROPOSED PAVEMENT MARKINGS IN THE SAME LOCATION AS THEIR EXISTING CONFIGURATION. SUBMIT THE EXISTING PAVEMENT MARKING LOG TO THE ENGINEER AND OBTAIN HIS OR HER APPROVAL PRIOR TO REMOVING, GRINDING, OR OTHERWISE DESTROYING THE EXISTING PAVEMENT MARKINGS.

ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTALS NEEDED TO COMPLETE THIS WORK SHOULD BE INCLUDED IN THE CONTRACT LUMP SUM BID PRICE FOR ITEM 614 – MAINTAINING TRAFFIC.

DESIGN AGENCY	DISTRICT 3
ENGINEERING TEAM FOUR	
DESIGNER	JNC
REVIEWER	NRF
PROJECT ID	08/04/22
	79740
SHEET	TOTAL
15	46

MAINTENANCE OF TRAFFIC

ITEM 614 – MAINTAINING TRAFFIC (GENERAL)

MAINTAIN ONE 11' LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES.

SUBMIT, IN WRITING, A SCHEDULE OF OPERATIONS TO THE ENGINEER AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT. PRIOR TO BEGINNING WORK, COORDINATE THE MAINTENANCE OF TRAFFIC OPERATIONS WITH THE LOCAL STATE HIGHWAY PATROL.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN FIVE (5) CALENDAR DAYS, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

THE MAXIMUM PHYSICAL LENGTH OF ANY LANE CLOSURE SHALL NOT BE LONGER THAN 3 MILES. THE ENGINEER SHALL HAVE FULL DISCRETION TO DIRECT ADJUSTMENT OF WORK ZONES AS JUDGEMENT INDICATES IN ORDER TO REDUCE HAZARDS AND TRAFFIC IMPACTS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 2012 EDITION WITH THE LATEST REVISIONS. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

ITEM 614 – MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS (W20-H14) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLAT SHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.] THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP AND ROAD CLOSURES	≥ 2 WEEKS	14 CALENDAR DAYS*
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS*
	< 12 HOURS	2 BUSINESS DAYS*

* DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H14 SIGN LISTS THE NAME OF THE DEPARTMENT, I.E. "THE OHIO DEPT. OF TRANS."

BUTT JOINTS

DO NOT CUT BUTT JOINTS AND ALLOW THEM TO BE LEFT OPEN TO TRAFFIC. FILL THE BUTT JOINTS WITH A TEMPORARY ASPHALT CONCRETE WEDGE USING ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC IN ACCORDANCE WITH THE TAPER RATES SET FORTH IN SCD BP-3.1.

ERECT AND MAINTAIN CONSTRUCTION "BUMP" (W8-1-36) AND "ADVISORY SPEED" (W13-1-24) SIGNS DURING THE PERIOD THE BUTT JOINT IS LEFT OPEN. PAYMENT FOR THESE SIGNS WILL BE MADE UNDER THE LUMP SUM BID PRICE FOR ITEM 614 MAINTAINING TRAFFIC.

CONTRACTOR EQUIPMENT ACCESS AND WORK OPERATIONS

IN ADDITION TO THE REQUIREMENTS OF SECTION 614 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS THE FOLLOWING SHALL APPLY:

THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAVEL WHERE PRACTICAL. A FLAGGER SHALL BE USED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM.

THE CONTRACTOR SHALL ARRANGE CONSTRUCTION OPERATIONS SO AS TO PREVENT ANY INTERFERENCE TO THE CONTINUOUS FLOW OF TRAFFIC. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO THE CLOSED LANES UNLESS OTHERWISE APPROVED BY THE ENGINEER.

LANE CLOSURE DISINCENTIVE

A LANE CLOSURE IS DEFINED AS ANY RESTRICTION OF A LANE OF TRAFFIC INCLUDING, BUT NOT LIMITED TO, SET UP AND TEAR DOWN OF TRAFFIC CONTROL ZONES. THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE FEE IN THE AMOUNT PER MINUTE THAT LANES ARE CLOSED FOR TRAFFIC DURING TIMES DESIGNATED AS "LANE CLOSURE NOT PERMITTED" AS STATED IN THESE PLANS AND ON THE ODOT PLCM WEB SITE AT <http://plcm.dot.state.oh.us>, SHOWN IN THE TABLE BELOW. BETWEEN RIC-30-14.10 TO RIC-3019.06 (EAST OF US 42 INTERCHANGE), PLCS REQUIREMENTS ARE WAIVED; HOWEVER, THE ENGINEER RESERVES THE RIGHT TO DIRECT THE CONTRACTOR TO REMOVE LANE CLOSURES WHERE QUEUEING IS OBSERVED AND OPENING OF THE LANE IS SAFE.

MAINLINE SECTION	DISINCENTIVE (PER MINUTE)
RIC-30-13.06 TO 14.10	\$200

ITEM 614 – MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR)

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED THE DURATIONS SHOWN ON THE TABLE BELOW, WHEN THROUGH TRAFFIC MAY BE DETOURED AS DESCRIBED IN THE PLAN. A DISINCENTIVE SHALL BE ASSESSED PER DAY FOR EACH DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT, AS SPECIFIED IN THE TABLE BELOW.

RAMP DETOUR DURATION TABLE

DESCRIPTION OF CRITICAL WORK	CALENDAR DAYS TO COMPLETE	DISINCENTIVE (PER DAY)
RAMP FROM US 30 EB TO US 42 SB	7 DAYS	\$6,500
RAMP FROM US 30 EB TO US 42 NB	7 DAYS	\$9,500
RAMP FROM US 42 TO US 30 EB	7 DAYS	\$2,500
RAMP FROM US 30 WB TO US 42 NB	7 DAYS	\$500
RAMP FROM US 30 WB TO US 42 SB	7 DAYS	\$1,500
RAMP FROM US 42 TO US 30 WB	7 DAYS	\$10,000
RAMP FROM US 30 EB TO LAVER RD	7 DAYS	\$1,000
RAMP FROM LAVER RD TO US 30 EB	7 DAYS	\$500
RAMP FROM US 30 WB TO LAVER RD	7 DAYS	\$500
RAMP FROM LAVER RD TO US 30 WB	7 DAYS	\$500
RAMP FROM US 30 EB TO REED RD	7 DAYS	\$1,000
RAMP FROM REED RD TO US 30 EB	7 DAYS	\$500
RAMP FROM US 30 WB TO REED RD	7 DAYS	\$500
RAMP FROM REED RD TO US 30 WB	7 DAYS	\$1,000
RAMP FROM US 30 EB TO KOOGLE RD	7 DAYS	\$500
RAMP FROM KOOGLE RD TO US 30 EB	7 DAYS	\$500
RAMP FROM US 30 WB TO KOOGLE RD	7 DAYS	\$500
RAMP FROM KOOGLE RD TO US 30 WB	7 DAYS	\$500
RAMP FROM IR 71 SB TO US 30 WB (RAMP B) *	3 DAYS	\$3,000

*THIS CLOSURE IS INTENDED TO FACILITATE PAVING OF THE ASSOCIATED ACCELERATION LANE.

DETOUR ROUTES

THE DETOUR ROUTES DESCRIBED BELOW SHALL BE USED TO MAINTAIN TRAFFIC DURING RAMP CLOSURES. ESTABLISH AND MAINTAIN THE ROUTES CONSISTANT WITH THE PLAN STANDARD CONSTRUCTION DRAWINGS AND EXAMPLE DETOUR DETAILS IN THIS PLAN.

RAMP CLOSURE	DETOUR TYPE	DETOUR ROUTE
RAMP FROM US 30 EB TO US 42 SB	FLAT SHEET SIGNS	CONTINUE EB ON US 30, TRANSITION TO WB AT THE REED RD INTERCHANGE, FOLLOW US 30 WB TO US 42 INTERCHANGE
RAMP FROM US 30 EB TO US 42 NB	FLAT SHEET SIGNS	CONTINUE EB ON US 30, TRANSITION TO WB AT THE REED RD INTERCHANGE, FOLLOW US 30 WB TO US 42 INTERCHANGE
RAMP FROM US 42 TO US 30 EB	MESSAGE BOARDS	TAKE US 30 WB, TRANSITION TO EB AT 5TH AVE INTERCHANGE. ENTER US 30 EB AT 5TH AVE.
RAMP FROM US 30 WB TO US 42 NB	MESSAGE BOARDS	CONTINUE ON US 30 WB, TRANSITION TO EB AT 5TH AVE INTERCHANGE. ENTER US 30 EB AT 5TH AVE.
RAMP FROM US 30 WB TO US 42 SB	MESSAGE BOARDS	CONTINUE ON US 30 WB, TRANSITION TO EB AT 5TH AVE INTERCHANGE. FOLLOW US 30 EB TO US 42 INTERCHANGE
RAMP FROM US 42 TO US 30 WB	FLAT SHEET SIGNS*	TAKE US 30 EB THEN TRANSITION TO WB AT REED RD INTERCHANGE
RAMP FROM US 30 EB TO LAVER RD	MESSAGE BOARDS	CONTINUE ON US 30 EB TO THE REED RD INTERCHANGE. TAKE REED RD SB TO SR 430.
RAMP FROM LAVER RD TO US 30 EB	MESSAGE BOARDS	TAKE SR 430 EB TO REED RD NB TO US 30
RAMP FROM US 30 WB TO LAVER RD	MESSAGE BOARDS	CONTINUE ON US 30 WB TO US 42 NB TO CRIDER RD EB TO LAVER RD
RAMP FROM LAVER RD TO US 30 WB	MESSAGE BOARDS	TAKE CRIDER RD WB TO US 42 SB TO US 30 WB
RAMP FROM US 30 EB TO REED RD	FLAT SHEET SIGNS	CONTINUE US 30 EB THEN TRANSITION TO WB AT KOOGLE RD INTERCHANGE
RAMP FROM REED RD TO US 30 EB	FLAT SHEET SIGNS	TAKE US 30 WB TO US 42 INTERCHANGE, THEN TRANSITION TO US 30 EB AT THE US 42 INTERCHANGE
RAMP FROM US 30 WB TO REED RD	FLAT SHEET SIGNS	CONTINUE ON US 30 WB THEN TRANSITION TO US 30 EB AT US 42 INTERCHANGE. PROCEED TO THE UNCLOSED PORTION OF THE REED RD INTERCHANGE
RAMP FROM REED RD TO US 30 WB	FLAT SHEET SIGNS	TAKE US 30 EB TO THE KOOGLE RD INTERCHANGE. TRANSITION TO US 30 WB AT THE KOOGLE RD INTERCHANGE
RAMP FROM US 30 EB TO KOOGLE RD	FLAT SHEET SIGNS	TAKE US 30 EB AND TRANSITION TO US 30 WB AT THE COMPLETED ASD-603 RCUT U-TURN. TAKE US 30 WB TO KOOGLE RD
RAMP FROM KOOGLE RD TO US 30 EB	FLAT SHEET SIGNS	TAKE US 30 WB TO THE REED RD INTERCHANGE. TRANSITION TO US 30 EB AT THE REED RD INTERCHANGE
RAMP FROM US 30 WB TO KOOGLE RD	FLAT SHEET SIGNS	CONTINUE ON US 30 WB TO THE REED RD INTERCHANGE. TRANSITION TO US 30 EB AT THE REED RD INTERCHANGE. TAKE US 30 TO THE UNCLOSED PORTION OF THE KOOGLE RD INTERCHANGE
RAMP FROM KOOGLE RD TO US 30 WB	FLAT SHEET SIGNS	TAKE US 30 EB AND TRANSITION TO US 30 WB AT THE COMPLETED ASD-603 RCUT U-TURN
RAMP FROM IR 71 SB TO US 30 WB (RAMP B)	FLAT SHEET SIGNS	TAKE RAMP A TO CRIDER RD. TAKE CRIDER RD TO KOOGLE RD, AND UTILIZE KOOGLE RD RAMP C TO ENTER US 30 WB.

*SHALL INCLUDE BARRICADES CLOSING BEAL RD AND A PCMS OR FLAT SHEET SIGN DIRECTING BEAL RD USERS TO ACCESS US 30 WB VIA US 42. PAYMENT SHALL BE INCIDENTAL TO ITEM 614 – DETOUR SIGNING.

RAMP DETOUR USING MESSAGE BOARDS

RAMP CLOSURES PERMITTED AS DETAILED IN THESE PLANS IN ACCORDANCE WITH SCD MT-98.29. TWO BUSINESS DAYS PRIOR TO CLOSING THE RAMP, A MESSAGE BOARD SHALL BE PLACED PRIOR TO THE RAMP NOTIFYING THE PUBLIC OF THE DATE AND TIME OF THE CLOSURE.

TRAFFIC SHALL BE DETOURED VIA AN ADDITIONAL MESSAGE BOARD PRIOR TO THE CLOSED RAMP, TO THE INTERCHANGE LISTED IN THE PLANS. AN ADDITIONAL MESSAGE BOARD SHALL BE PLACED PRIOR TO THE INTERCHANGE TO WHICH TRAFFIC IS DETOURED. A FOURTH MESSAGE BOARD SHALL BE PLACED PRIOR TO THE INTERCHANGE INCLUDING THE CLOSURE TO DIRECT DETOURED TRAFFIC ONTO THE APPROPRIATE INTERCHANGE RAMP.

ITEM 614 – DETOUR SIGNING

ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED FOR DETOUR SIGNING SHALL BE PAID FOR UNDER THE LUMP SUM BID PRICE FOR ITEM 614 – DETOUR SIGNING UNLESS SEPERATELY ITEMIZED IN THE PLANS.

ITEM 614 – DETOUR SIGNING

LUMP

ITEM 614 – MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

NO WORK SHALL BE PERFORMED, AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	MEMORIAL DAY	LABOR DAY
NEW YEARS DAY	FOURTH OF JULY	THANKSGIVING
INKARCERATION FESTIVAL (USUALLY MID-JULY)		

THE PERIOD OF TIME THAT LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THANKSGIVING	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$200/MIN MAINLINE AND \$50/MIN EACH RAMP THE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

ITEM 614 – MAINTAINING TRAFFIC (ESTIMATED QUANTITIES)

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR MAINTENANCE OF TRAFFIC. INCLUDE THE COST FOR THE REMOVAL OF ALL MAINTENANCE OF TRAFFIC MATERIALS IN THE CONTRACT BID PRICE FOR EACH ITEM BELOW. REMOVE THE MATERIALS AT THE DIRECTION OF THE ENGINEER WHEN NO LONGER OPERATIONALLY NEEDED.

ITEM 614 – ASPHALT CONCRETE FOR MAINTAINING TRAFFIC

125 CU YD

TEMPORARY PAVEMENT WEDGES

PROVIDE TEMPORARY PAVEMENT WEDGES AT ALL TIMES WHERE TRAFFIC IS REQUIRED TO TRAVEL FROM OR ONTO A SURFACE OF A DIFFERENT ELEVATION IN THE DIRECTION OF TRAVEL (JOINTS, MANHOLES, CATCH BASINS, VALVE BOXES, MONUMENT BOXES, ETC.). THE TAPER RATE OF THE TEMPORARY PAVEMENT WEDGES SHALL BE AS PER THE REQUIREMENTS IN THE CHART BELOW. REMOVE THE TEMPORARY PAVEMENT WEDGES PRIOR TO PLACING EACH PROPOSED PAVEMENT COURSE. CONSIDER PAYMENT FOR THIS WORK, INCLUDING ALL MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NEEDED TO COMPLETE THIS WORK, AS INCIDENTAL TO ITEM 614 – ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.

SPEED		DURATION	
		7 DAYS OR LESS	MORE THAN 7 DAYS
LESS THAN 45 MPH	45 MPH OR GREATER	36H:1V	60H:1V
		60H:1V	120H:1V

WORK ZONE MARKINGS AND SIGNS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS OF C&MS 614.04 AND 614.11. MARKING QUANTITIES ARE AS LISTED ON THE PAVEMENT MARKING SUBSUMMARY.


WORK ZONE MARKING SIGN: (W8-H12A-36) NO EDGE LINE TOTAL:

35 EACH
35 EACH

RIC-30-13.06

MODEL: MAINTENANCE OF TRAFFIC 1 PAPER SIZE: 17x11 (in.) DATE: 11/28/2022 TIME: 8:56:35 PM USER: jdark8 pvc:\ohio\dot-cpw\benley.com\ohio\dot-cpw\02\Documents\01 Active Projects\District 03\Richland\79740\400-400-Engineering\WOT\Sheets\79740_MN0001.dgn

DESIGN AGENCY
DISTRICT 3



ENGINEERING TEAM FOUR

DESIGNER
JNC

REVIEWER
NRF 08/04/22

PROJECT ID
79740

SHEET TOTAL
16 | 46

MAINTENANCE OF TRAFFIC

MAINTENANCE OF LOCAL DETOUR ROUTE

A DETOUR ROUTES, OTHER THAN THE OFFICIAL SIGNED ODOT DETOUR ROUTE, AS NOTED IN THESE PLANS, MAY BE SELECTED BY AGREEMENT BETWEEN ODOT AND LOCAL GOVERNMENTAL AGENCIES PRIOR TO THE HIGHWAY CLOSURE. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST, AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DIRECTED BY THE ENGINEER. THE DESIGNATED LOCAL DETOUR ROUTE IS TO BE REVIEWED AND REPAIRED PRIOR TO THE ASPHALT CONTRACTOR OR SUBCONTRACTOR LEAVING THE PROJECT.

PAYMENT FOR THE WORK NECESSARY TO REPAIR THESE LOCAL ROADS WILL BE PERFORMED BY CHANGE ORDER.

WORK ZONE SPEED ZONES (WZSZs)

THE FOLLOWING WORK ZONE SPEED ZONE (WZSZ) SPEED LIMIT REVISION(S) HAVE BEEN APPROVED FOR USE ON THIS PROJECT WHEN WORK ZONE CONDITIONS AND FACTORS ARE MET AS DESCRIBED BELOW:

WZSZ REVISION NUMBER(S)	COUNTY-ROUTE-SECTION(S)	DIRECTION(S)
WZ-20661	RIC-30-13.06 TO RIC-30-19.06	EB, WB

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF 55 MPH OR GREATER, A QUALIFYING WORK ZONE CONDITION OF AT LEAST 0.5 MILE IN LENGTH, AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS, AND A WORK ZONE CONDITION IN PLACE THAT REDUCES THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS (I.E., LANE CLOSURE, LANE SHIFT, CROSSOVER, CONTRAFLOW AND/OR SHOULDER CLOSURE). THE LENGTH OF THE WORK ZONE CONDITION IS MEASURED FROM THE BEGINNING OF THE TAPER FOR THE SUBJECT WORK ZONE CONDITION IMPACTING THE TRAVEL LANES AND/OR SHOULDER TO THE END OF THE DOWNSTREAM TAPER, WHERE DRIVERS ARE RETURNED TO TYPICAL ALIGNMENT. AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS IS REQUIRED TO BALANCE THE ADDITIONAL EXPOSURE CREATED BY INSTALLING AND REMOVING WZSZ SIGNING WITH THE TIME NEEDED TO COMPLETE THE WORK.

IF THE WORK ZONE MEETS THESE MINIMUM CRITERIA, IT SHALL BE ANALYZED FURTHER USING TABLE 1 BELOW TO DETERMINE IF AND WHEN IT QUALIFIES FOR A SPEED LIMIT REDUCTION. DEPENDING ON THE ORIGINAL POSTED SPEED LIMIT, THE TYPE OF TEMPORARY TRAFFIC CONTROL USED, AND WHETHER OR NOT WORKERS ARE PRESENT, A WARRANTED WZSZ WILL VARY IN THE APPROVED SPEED LIMIT TO BE POSTED OVER TIME.

C&MS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED LIMIT REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION. EACH DIRECTION SHALL BE ANALYZED INDEPENDENTLY FROM EACH OTHER.

ALL WZSZS FLUCTUATE BETWEEN TWO APPROVED REDUCED SPEED LIMITS OR BETWEEN AN APPROVED REDUCED SPEED LIMIT AND THE ORIGINAL POSTED SPEED LIMIT. ONLY ONE OF TWO SIGNING STRATEGIES SHALL BE USED TO IMPLEMENT A WZSZ.

WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, APPROVED LIST, SUPPLEMENTAL SPECIFICATIONS (SS) 808 AND 908, AND TRAFFIC SCD MT-104.10.

WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS SHALL BE IN ACCORDANCE WITH THIS NOTE AND SCD MT-104.10. ADDITIONALLY, PAYMENT MAY BE REMOVED, OR A DISINCENTIVE APPLIED, FOR WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS THE SAME AS DESCRIBED IN THE MOST RECENT PUBLICATION OF SS 808 IN REGARD TO WZSZS USING DSL SIGN ASSEMBLIES (SEE SS 808.06 PARAGRAPHS 4 THROUGH 7, INCLUDING TABLE 1.) ONLY ONE WARRANTED SPEED LIMIT APPLIES AT ANY ONE TIME; SPEED LIMIT REDUCTIONS ARE NOT CUMULATIVE. WZSZS SHALL NOT BE USED FOR MOVING/MOBILE ACTIVITIES, AS DEFINED IN OMUTCD PART 6.

WHEN LOOKING UP THE WARRANTED WORK ZONE SPEED LIMITS, ALWAYS USE THE ORIGINAL, PRECONSTRUCTION, POSTED SPEED LIMIT. DO NOT USE A PRIOR OR CURRENT WORK ZONE SPEED LIMIT AS A LOOK UP VALUE IN THE TABLE. POSITIVE PROTECTION IS GENERALLY REGARDED AS PORTABLE BARRIER OR OTHER RIGID BARRIER IN USE ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WITHOUT POSITIVE PROTECTION IS GENERALLY REGARDED AS USING DRUMS, CONES, SHADOW VEHICLE, ETC., ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WORKERS ARE CONSIDERED AS BEING PRESENT WHEN ON-SITE, WORKING WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WHEN THE WORK ZONE CONDITION REDUCING THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS IS REMOVED, THE SPEED LIMIT DISPLAYED SHALL RETURN TO THE ORIGINAL POSTED SPEED LIMIT.

TABLE 1: WARRANTED WORK ZONE SPEED LIMITS (MPH) FOR WORK ZONES ON HIGH-SPEED (55 MPH OR GREATER) MULTI-LANE HIGHWAYS:

ORIGINAL POSTED SPEED LIMIT	WITH POSITIVE PROTECTION		WITHOUT POSITIVE PROTECTION	
	WORKERS PRESENT	WORKERS NOT PRESENT	WORKERS PRESENT	WORKERS NOT PRESENT
70	60	65	55	65
65	55	60	50	60
60	55	60	50	60
55	50	55	45	55

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 808 - DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY 48 SIGN MNTH ASSUMING 6 DSL SIGN ASSEMBLIES FOR 8 MONTHS

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614 – PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEET(S) OF THE PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

(THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN [XXX] HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.)

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

(THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.) THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614 – PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 33 SIGN MONTH (ASSUMING 6 PCMS SIGNS FOR 2 WEEKS PER RAMP CLOSURE, AND A CONTINGENCY QUANTITY OF 2 PCMS SIGNS FOR 6 MONTHS FOR USE AS DIRECTED BY THE ENGINEER)

ITEM 614 – LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING CRITERIA:

ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND

AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND,

AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

“WITHOUT POSITIVE PROTECTION” MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS ARE REGARDED AS “WITHOUT POSITIVE PROTECTION”. FOR WORK ZONES USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED.

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF:

THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR

THE ACTIVE WORK AREA LATERALLY CLOSEST TO THE OPEN TRAVELED LANE; OR

OTHER LOCATION AS APPROVED BY THE ENGINEER.

THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES. LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE

1000 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

MAINTENANCE OF TRAFFIC

DESIGN AGENCY	DISTRICT 3
ENGINEERING TEAM FOUR	
DESIGNER	JNC
REVIEWER	NRF 08/04/22
PROJECT ID	79740
SHEET	17
TOTAL	46

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS AND PIO*
RAMP AND/OR ROAD CLOSURES	2 WEEKS OR GREATER	21 CALENDAR DAYS
	12 HOURS TO 2 WEEKS	14 CALENDAR DAYS
	12 HOURS OR LESS	4 BUSINESS DAYS
LANE CLOSURES AND RESTRICTIONS	2 WEEKS OR GREATER	14 CALENDAR DAYS
	LESS THAN 2 WEEKS	5 BUSINESS DAYS
START OF CONSTRUCTION AND TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS

* - PRIOR TO CLOSURE DATE, UNLESS NOTED OTHERWISE

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

WORKSITE TRAFFIC SUPERVISOR

SUBJECT TO APPROVAL OF THE ENGINEER, THE CONTRACTOR SHALL EMPLOY AND IDENTIFY (SOMEONE OTHER THAN THE SUPERINTENDENT) A PREQUALIFIED WORKSITE TRAFFIC SUPERVISOR (WTS) BEFORE STARTING WORK IN THE FIELD. THE WTS SHALL BE TRAINED IN ACCORDANCE WITH CMS 614.03, SHALL HAVE SUCCESSFULLY COMPLETED ODOT ADMINISTERED WTS TESTING (AND RE-TESTING WHEN APPLICABLE) AND BE LISTED ON THE ODOT PREQUALIFIED WTS ROSTER. PREQUALIFICATION EXPIRES EVERY 5 YEARS. RE-TESTING SHALL BE SUCCESSFULLY REPEATED EVERY 5 YEARS TO REMAIN PREQUALIFIED.

THE NAME OF THE PREQUALIFIED WTS AND RELATED 24-HOUR CONTACT INFORMATION SHALL BE PROVIDED TO THE ENGINEER AT THE PRECONSTRUCTION CONFERENCE. IF THE DESIGNATED WTS WILL NOT BE AVAILABLE FULL TIME (24/7), THE CONTRACTOR MAY DESIGNATE AN ALTERNATE (SECONDARY) WTS TO BE AVAILABLE WHEN THE PRIMARY IS OFF DUTY; HOWEVER, THE PRIMARY WTS SHALL REMAIN THE POINT OF CONTACT AT ALL TIMES. ANY ALTERNATE (SECONDARY) WTS IS SUBJECT TO THE SAME TRAINING, PREQUALIFICATION AND OTHER REQUIREMENTS OUTLINED WITHIN THIS PLAN NOTE. AT ALL TIMES THE ENGINEER, OR ENGINEER'S REPRESENTATIVES, MUST BE INFORMED OF WHO THE PRIMARY WTS (AND SECONDARY WTS, IF APPLICABLE) IS AT THE CURRENT TIME.

THE WTS POSITION HAS THE PRIMARY RESPONSIBILITY OF IMPLEMENTING THE TRAFFIC MANAGEMENT PLAN (TMP), MONITORING THE SAFETY AND MOBILITY OF THE ENTIRE WORK ZONE, AND CORRECTING TEMPORARY TRAFFIC CONTROL (TTC) DEFICIENCIES FOR THE ENTIRE WORK ZONE. THE WTS, AND ALTERNATE WTS WHEN ON DUTY, SHALL HAVE SUFFICIENT AUTHORITY TO EFFECTIVELY CARRY OUT THE IDENTIFIED WTS RESPONSIBILITIES AND DUTIES. THE DUTIES OF THE WTS ARE AS FOLLOWS:

1. BE AVAILABLE ON A 24-HOUR PER DAY BASIS.
2. BE ON SITE FOR ALL EMERGENCY TTC NEEDS WITHIN ONE HOUR OF NOTIFICATION BY POLICE OR PROJECT STAFF, AND EFFECT CORRECTIVE MEASURES IMMEDIATELY ON EXISTING WORK ZONE TTC DEVICES.
3. ATTEND PRECONSTRUCTION MEETING AND ALL PROJECT MEETINGS WHERE TTC MANAGEMENT IS DISCUSSED.
4. BE AVAILABLE ON SITE FOR OTHER MEETINGS OR DISCUSSIONS WITH THE ENGINEER UPON REQUEST.
5. BE AWARE OF ALL EXISTING AND PROPOSED TTC OPERATIONS OF THE CONTRACTOR, SUBCONTRACTORS AND SUPPLIERS, AND ENSURE COORDINATION OCCURS BETWEEN THEM TO ELIMINATE CONFLICTING TEMPORARY AND/OR PERMANENT TRAFFIC CONTROL.
6. COORDINATE PROJECT ACTIVITIES WITH ALL LAW ENFORCEMENT OFFICERS (LEOS). THE WTS SHALL ALSO BE THE MAIN CONTACT PERSON WITH THE LEOS WHILE LEOS ARE ON THE PROJECT.
7. COORDINATE AND FACILITATE MEETINGS WITH ODOT PERSONNEL, LEOS AND OTHER APPLICABLE ENTITIES BEFORE EACH PLAN PHASE SWITCH TO DISCUSS THE WORK ZONE TTC FOR IMPLEMENTING THE PHASE SWITCH. SUBMIT A WRITTEN DETAIL OF MOT OPERATIONS AND SCHEDULE OF EVENTS TO IMPLEMENT THE SWITCH BETWEEN PHASE PLANS TO THE ENGINEER 5 CALENDAR DAYS PRIOR TO THIS MEETING.
8. BE PRESENT, ON SITE FOR, AND INVOLVED WITH, EACH TTC SET UP/TAKE DOWN AND EACH PHASE CHANGE IN ACCORDANCE WITH CMS 614.03.
9. ON A CONTINUAL BASIS ENSURE THAT THE TTC ZONE AND ALL RELATED DEVICES ARE INSTALLED, MAINTAINED AND REMOVED IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
10. ON A CONTINUAL BASIS FACILITATE CORRECTIVE ACTION(S) NECESSARY TO BRING DEFICIENT TTC ZONES AND ALL RELATED DEVICES INTO COMPLIANCE WITH CONTRACT DOCUMENTS IN THE TIMEFRAME DETERMINED BY THE ENGINEER.

WORKSITE TRAFFIC SUPERVISOR (CONTINUED)

11. INSPECT, EVALUATE, PROPOSE NECESSARY MODIFICATIONS TO, AND DOCUMENT THE EFFECTIVENESS OF, THE TTC DEVICES AND TRAFFIC OPERATIONS ON A DAILY BASIS (7 DAYS A WEEK). IN ADDITION, PERFORM ONE WEEKLY NIGHT INSPECTION OF THE WORK ZONE SETUP FOR DAYTIME WORK OPERATIONS; AND ONE DAYTIME INSPECTION PER WEEK FOR NIGHTTIME PROJECTS. THIS SHALL INCLUDE (BUT NOT BE LIMITED TO) DOCUMENTATION ON THE FOLLOWING PROJECT EVENTS:

- A. INITIAL TTC SETUP (DAY AND NIGHT REVIEW).
- B. DAILY TTC SETUP AND REMOVAL.
- C. WHEN CONSTRUCTION STAGING CAUSES A CHANGE IN THE TTC SETUP.
- D. CRASH OCCURRENCES WITHIN THE CONSTRUCTION AREA AND WITHIN THE INFLUENCE AREA(S) APPROACHING THE WORK ZONE.
- E. REMOVAL OF TTC DEVICES AT THE END OF A PHASE OR PROJECT.
- F. ALL OTHER EMERGENCY TTC NEEDS.

12. COMPLETE THE DEPARTMENT APPROVED LONG TERM INSPECTION FORM (CA-D-8) AFTER EACH INSPECTION AS REQUIRED IN # 11 AND SUBMIT IT TO THE ENGINEER THE FOLLOWING WORKDAY. THESE REPORTS SHALL INCLUDE A CHECKLIST OF ALL TTC MAINTENANCE ITEMS TO BE REVIEWED. A COPY OF THE FORM WILL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING. ANY DEFICIENCIES OBSERVED SHALL BE NOTED, ALONG WITH RECOMMENDED OR COMPLETED CORRECTIVE ACTIONS AND THE DATES BY WHICH SUCH CORRECTIONS WERE, OR WILL BE, COMPLETED. A COPY OF THE CURRENT CA-D-8 DOCUMENT CAN BE FOUND ON THE OFFICE OF CONSTRUCTION ADMINISTRATION'S INSPECTION FORMS WEBSITE.

13. HAVE COPIES OF THE ODOT TEMPORARY TRAFFIC CONTROL MANUAL AND CONTRACT DOCUMENTS AVAILABLE AT ALL TIMES ON THE PROJECT.

THE DEPARTMENT WILL DEDUCT:

A. THE PRORATED DAILY AMOUNT OF ITEM 614 MAINTAINING TRAFFIC FOR ANY DAY IN WHICH THE WTS FAILS TO PERFORM THE DUTIES SET FORTH ABOVE. THE PRORATED DAILY AMOUNT WILL BE EQUAL TO THE ORIGINAL BID AMOUNT FOR ITEM 614 MAINTAINING TRAFFIC DIVIDED BY THE DIFFERENCE BETWEEN THE ORIGINAL COMPLETION DATE AND THE FIRST DAY OF WORK, IN CALENDAR DAYS.

B. 1% OF THE ORIGINAL BID AMOUNT FOR ITEM 614 MAINTAINING TRAFFIC FOR ANY DAY THAT A TTC ISSUE IS IDENTIFIED IN THE FIELD AND IS NOT CORRECTED IN THE GIVEN TIMEFRAME PER THE ENGINEER. DEDUCTION B SHALL NOT APPLY TO SITUATIONS COVERED BY DEDUCTION C.

C. 1% OF THE ORIGINAL BID AMOUNT FOR ITEM 614 MAINTAINING TRAFFIC FOR ANY DAY THAT A LANE OR RAMP IS BLOCKED (FULLY OR PARTIALLY) WITHOUT TTC, AS DETERMINED BY THE ENGINEER. THIS DEDUCTION SHALL BE IN ADDITION TO ANY OTHER DISINCENTIVES ESTABLISHED FOR UNAUTHORIZED LANE USE.

FOR DAYS IN WHICH MORE THAN ONE DEDUCTION LISTED ABOVE OCCUR, THE HIGHEST DEDUCTION AMOUNT WILL APPLY.

IF THREE OR MORE TOTAL DAYS RESULT IN TTC ISSUES DESCRIBED IN DEDUCTION B OR C ABOVE, THE PRIMARY WTS SHALL BE IMMEDIATELY REMOVED FROM THE WORK IN ACCORDANCE WITH C&MS 108.05. UPON REMOVAL THE ENGINEER SHALL NOTIFY ODOT CENTRAL OFFICE (WTSPREQUALIFICATION@DOT.OHIO.GOV) TO REGISTER A REMOVAL AGAINST THE STATEWIDE PREQUALIFICATION FOR THE PRIMARY WTS. THREE REMOVALS SHALL CAUSE STATEWIDE DISQUALIFICATION FOR ANY PREVIOUSLY PREQUALIFIED WTS.

PAYMENT FOR THE ABOVE REQUIREMENTS, RESPONSIBILITIES AND DUTIES SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTIONS

PORTIONS OF THE MOT PLANS AS DESCRIBED IN THE PLANS HAVE APPROVED MOT EXCEPTIONS PER TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

APPROVED MOT EXCEPTIONS INCLUDE LANE CLOSURES AS DESCRIBED BELOW:

LOCATION	LANE	DURATION	PURPOSE
RIC-30-13.06 TO 14.10 EB (PROJECT START TO US 42)	INSIDE	5 CONSECUTIVE DAYS	PAVEMENT REPAIRS
RIC-30-13.06 TO 14.10 EB (PROJECT START TO US 42)	OUTSIDE	5 CONSECUTIVE DAYS	PAVEMENT REPAIRS
RIC-30-13.06 TO 14.10 EB (PROJECT START TO US 42)	INSIDE	5 CONSECUTIVE DAYS	PAVEMENT REPAIRS
RIC-30-13.06 TO 14.10 EB (PROJECT START TO US 42)	OUTSIDE	5 CONSECUTIVE DAYS	PAVEMENT REPAIRS

A MAINTENANCE OF TRAFFIC MEETING SHALL BE HELD A MINIMUM OF 30 CALENDAR DAYS PRIOR TO IMPLEMENTATION OF EACH APPROVED MOT EXCEPTION. THIS MEETING SHALL INCLUDE THE DISTRICT WORK ZONE TRAFFIC MANAGER AS WELL AS THE CONTRACTOR, WORKSITE TRAFFIC SUPERVISOR (WTS) AND ANY SUBCONTRACTORS INVOLVED WITH TEMPORARY TRAFFIC CONTROL.

IN ADDITION TO ANY NOTIFICATIONS REQUIRED IN OTHER NOTES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AT LEAST 3 BUSINESS DAYS IN ADVANCE OF IMPLEMENTATION OF THE APPROVED MOT EXCEPTIONS REFERENCED ABOVE SO THAT THE PROJECT ENGINEER CAN SEND EMAIL NOTIFICATION TO THE OFFICE OF ROADWAY ENGINEERING, STATEWIDE TMC, DWZTM AND SPECIAL HAULING PERMITS AT LEAST 2 BUSINESS DAYS IN ADVANCE OF THE IMPLEMENTATION OF THE APPROVED MOT EXCEPTIONS REFERENCED ABOVE. REFERENCE "EXCEPTION REQUEST APPROVAL DATED 10/18/2022 FOR PID 79740" IN THE NOTIFICATION AND OTHER CORRESPONDENCE.

ANY CHANGES TO THE MOT THAT IMPACT THE PREVIOUSLY APPROVED MOT EXCEPTIONS LISTED ABOVE SHALL BE APPROVED IN WRITING BY THE MOT EXCEPTION COMMITTEE (MOTEC). IN THE EVENT THAT SUCH CHANGES ARE PROPOSED, THE REQUEST SHALL BE COORDINATED THROUGH THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM) A MINIMUM OF 30 CALENDAR DAYS PRIOR TO THE DESIRED IMPLEMENTATION DATE. IF THE DISTRICT AGREES WITH THE PROPOSED CHANGES THE DWZTM SHALL SEEK APPROVAL FROM THE MOTEC. IN THE EVENT THE PROPOSED CHANGES ARE APPROVED IN WRITING, THE CLOSURES ARE STILL SUBJECT TO NOTIFICATION REQUIREMENTS WITHIN THIS NOTE PRIOR TO IMPLEMENTATION.

DESIGN AGENCY

DISTRICT 3



ENGINEERING TEAM FOUR

DESIGNER

JNC

REVIEWER

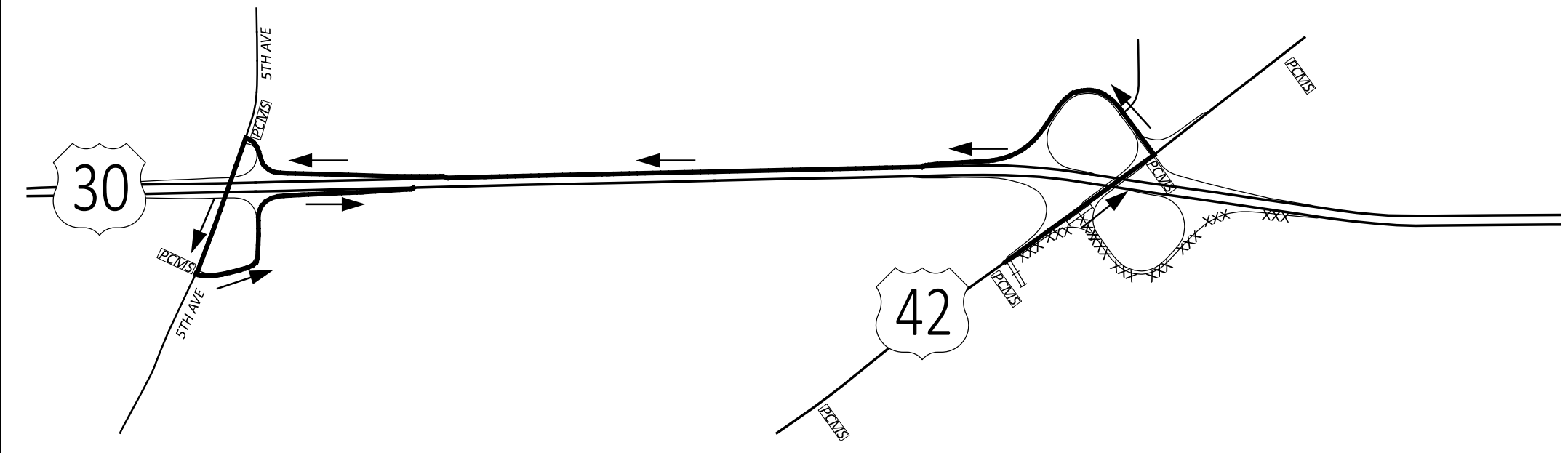
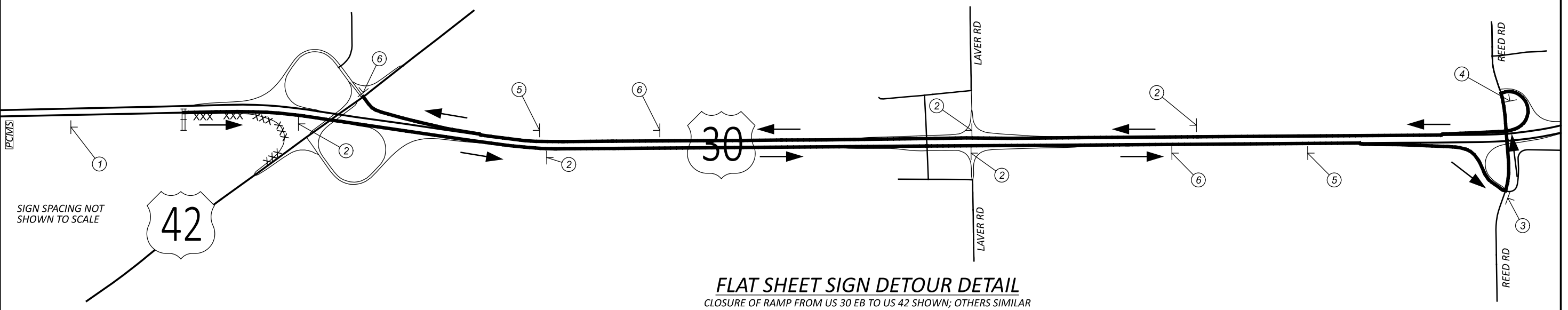
NRF 08/04/22

PROJECT ID

79740

SHEET TOTAL

18 | 46



SIGN LEGEND

 W20-2-36 ①	 M4-8-24 M1-4-24-2 M3-2-24 M6-3-21 ②	 M4-8-24 M1-4-24-2 M3-2-24 M6-1-21 ③	 M4-8-24 M1-4-24-2 M3-2-24 M6-1-21 ④	 M4-8-24 M1-4-24-2 M3-2-24 M6-2-21 ⑤	 M4-8-24 M1-4-24-2 M3-2-24 M5-2-21 ⑥	 M4-8a-24 M1-4-24-2 M3-2-24 ⑦
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ADDITIONAL SIGNS FOR OTHER ROUTES

 M5-1-21	 M5-1-21	 M5-2-21	 M6-2-21	 M3-4-24
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MAP LEGEND

- GATES, BARRICADES, DRUMS, AND ADVANCE WARNING SIGNS, AS PER MT-98.29, MT-101.60
- DETOUR SIGNS
- DIRECTION OF DETOURED TRAFFIC
- CLOSED RAMP
- PORTABLE CHANGEABLE MESSAGE SIGN
- STATE DETOUR

SCALE IN MILES
0 0.1 0.2 0.3 0.4 0.5

EASTBOUND AUXILIARY AND LONG LINE PAVEMENT MARKINGS

COUNTY	ROUTE	DIRECTION	PLAN SPLIT:				614 (WORK ZONE)										807						850				644					646					
			LOG POINT		LENGTH		MILE		FEET		MILE		MILE		MILE		MILE		MILE		MILE		MILE		MILE		MILE		MILE		MILE		MILE		MILE		
			TO	LOG POINT																																	
RIC	30	EB	13.06	13.08	0.02	106	0.04	0.08																													
RIC	30	EB	13.08	13.75	0.67	3538	1.34	2.68																													
RIC	30	EB	13.75	13.96	0.21	1109	0.42	0.84	398	375	63																										
RIC	30	EB	13.96	14.10	0.14	739	0.28	0.56																													
RIC	30	EB	14.10	14.16	0.06	317	0.12	0.24																													
RIC	30	EB	14.16	14.36	0.20	1056	0.40	0.80	586	180	55																										
RIC	30	EB	14.36	14.53	0.17	898	0.34	0.68																													
RIC	30	EB	14.53	15.12	0.59	3115	1.18	2.36																													
RIC	30	EB	15.12	15.23	0.11	581	0.22	0.44	535	310	54																										
RIC	30	EB	15.23	15.53	0.30	1584	0.60	1.20	1234																												
RIC	30	EB	15.53	15.73	0.20	1056	0.40	0.80																													
RIC	30	EB	15.73	16.14	0.41	2165	0.82	1.64																													
RIC	30	EB	16.14	16.23	0.09	475	0.18	0.36																													
RIC	30	EB	16.23	16.47	0.24	1267	0.48	0.96	1242																												
RIC	30	EB	16.47	16.75	0.28	1478	0.56	1.12																													
RIC	30	EB	16.75	16.90	0.15	792	0.30	0.60	612	1250	26																										
RIC	30	EB	16.90	16.91	0.01	53	0.02	0.04																													
RIC	30	EB	16.91	17.45	0.54	2851	1.08	2.16	615	800	43																										
RIC	30	EB	17.45	17.54	0.09	475	0.18	0.36																													
RIC	30	EB	17.54	17.57	0.03	158	0.08	0.12	120																												
RIC	30	EB	17.57	17.82	0.25	1320	0.50	1.00	961																												
RIC	30	EB	17.82	17.92	0.10	528	0.20	0.40																													
RIC	30	EB	17.92	18.32	0.40	2112	0.80	1.60																													
RIC	30	EB	18.32	18.41	0.09	475	0.18	0.36	150	240																											
RIC	30	EB	18.41	19.06	0.65	3432	1.30	2.60																													
		US 42 RAMP B				0.09	481	0.36																													
		US 42 RAMP TL				0.11	585	0.44																													
		US 42 RAMP TR				0.13	685	0.52																													
		US 42 RAMP T				0.21	1087	0.82																													
		LAVER RD RAMP A				0.13	690	0.52																													
		LAVER RD RAMP B				0.04	233	0.18																													
		REED RD RAMP A				0.11	580	0.44																													
		REED RD RAMP B				0.05	260	0.20																													
		REED RD RAMP AB				0.06	320	0.24																													
		KOOGLE RD RAMP A				0.10	548	0.42																													
		KOOGLE RD RAMP B				0.06	338	0.26																													
		KOOGLE RD RAMP AB				0.11	582	0.44																													
TOTAL CARRIED TO GENERAL SUMMARY							12.02	28.84	6453	5963	361	156	6	7.12	7.12	5.91	6333	5963	21.28	6333	78	355	6	2	6	10	0.09	0.09	0.10	120	6						

RAISED PAVEMENT MARKERS

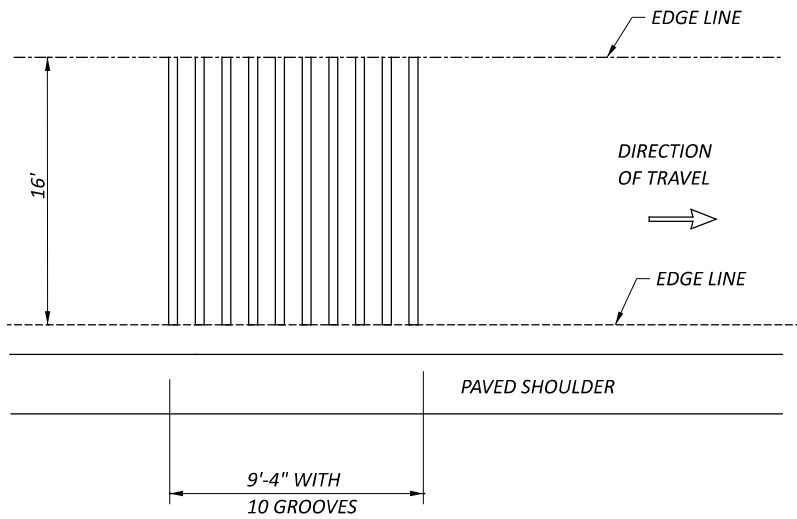
PLAN SPLIT	COUNTY	ROUTE	STATION/SLM		DETAIL	621		ONE-WAY	TWO-WAY	DETAIL	DESCRIPTION
			FROM	TO		RAISED PAVEMENT MARKER REMOVED	APM				
						WHITE	YELLOW / YELLOW				
						EACH	EACH	EACH	EACH		
01/NHS/PV	RIC	30	13.06	17.48	5	528	528			1	MULTILANE UNDIVIDED TYPICAL SPACING
01/NHS/PV	RIC	30	14.08	14.09	2 / 3	94	94			2	TAPERED ACCEL. LANE
01/NHS/PV	RIC	30	15.27	15.28	2 / 3	77	77			3	DECELERATION LANE
01/NHS/PV	RIC	30	16.40	16.41	2 / 3	73	73			4	PARALLEL ACCEL LANE
01/NHS/PV	RIC	30	16.72	16.73	2 / 3	19	19			5	MULTILANE DIVIDED/EXPRESSWAY
01/NHS/PV	RIC	30	17.00	17.01	9	23	23			6	STOP APPROACH
01/NHS/PV	RIC	30	17.48	17.49	2 / 3	85	85			7	2 LANE APPR. WITH TURN LANE
01/NHS/PV	RIC	30	17.48	19.06	5	267	267			8	THROUGH APPROACH
01/NHS/PV	RIC	30	18.36	18.37	SPEC.	8	8			9	3 LANE APPR. WITH TURN LANE
TOTAL CARRIED TO GENERAL SUMMARY						1,174	1,174			10	3 LANE DIVIDED TO 2 LANE TRANSITION
										11	3 LANE UNDIVIDED TO 2 LANE TRANSITION
										12	TWO LANE NARROW BRIDGE
										13	TWO WAY LEFT TURN LANE
										14	ONE LANE BRIDGE
										15	HORIZONTAL CURVE
										16	HORIZONTAL CURVE ALT.
										18	FIRE HYDRANT
										GAP	CENTER LINE AT 80 FT. TYP.
										NOTES: SPEC. REFERS TO CHANNELIZING LINE AT TROUT RD.	

ITEM 618 - RUMBLE STRIPS, TRANSVERSE (ASPHALT CONCRETE), AS PER PLAN

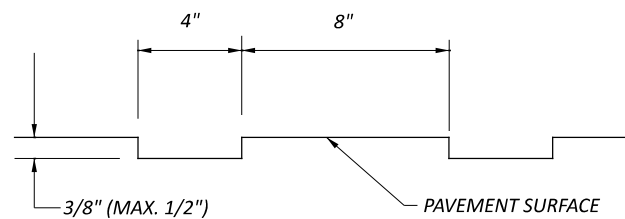
THIS ITEM CONSISTS OF REPLACING RUMBLE STRIPS AS SEEN ON THE PAVEMENT AND SHOULDER DATA SHEET. THE PROPOSED RUMBLE STRIPS SHALL CONSIST OF PARALLEL GROOVES CUT AT ONE FOOT INTERVALS.

ALL DIMENSIONS SHOWN ARE NOMINAL AND SHOULD BE CONSIDERED TO BE ±1/8 INCH. EACH GROOVE SHALL BE CUT TO A DEPTH OF APPROXIMATE 3/8 INCH WITH ALLOWANCE FOR PAVEMENT SURFACE IRREGULARITIES AND VARIATIONS. WIDTH OF THE GROOVE AT THE PAVEMENT SURFACE IS TO BE 4 INCHES.

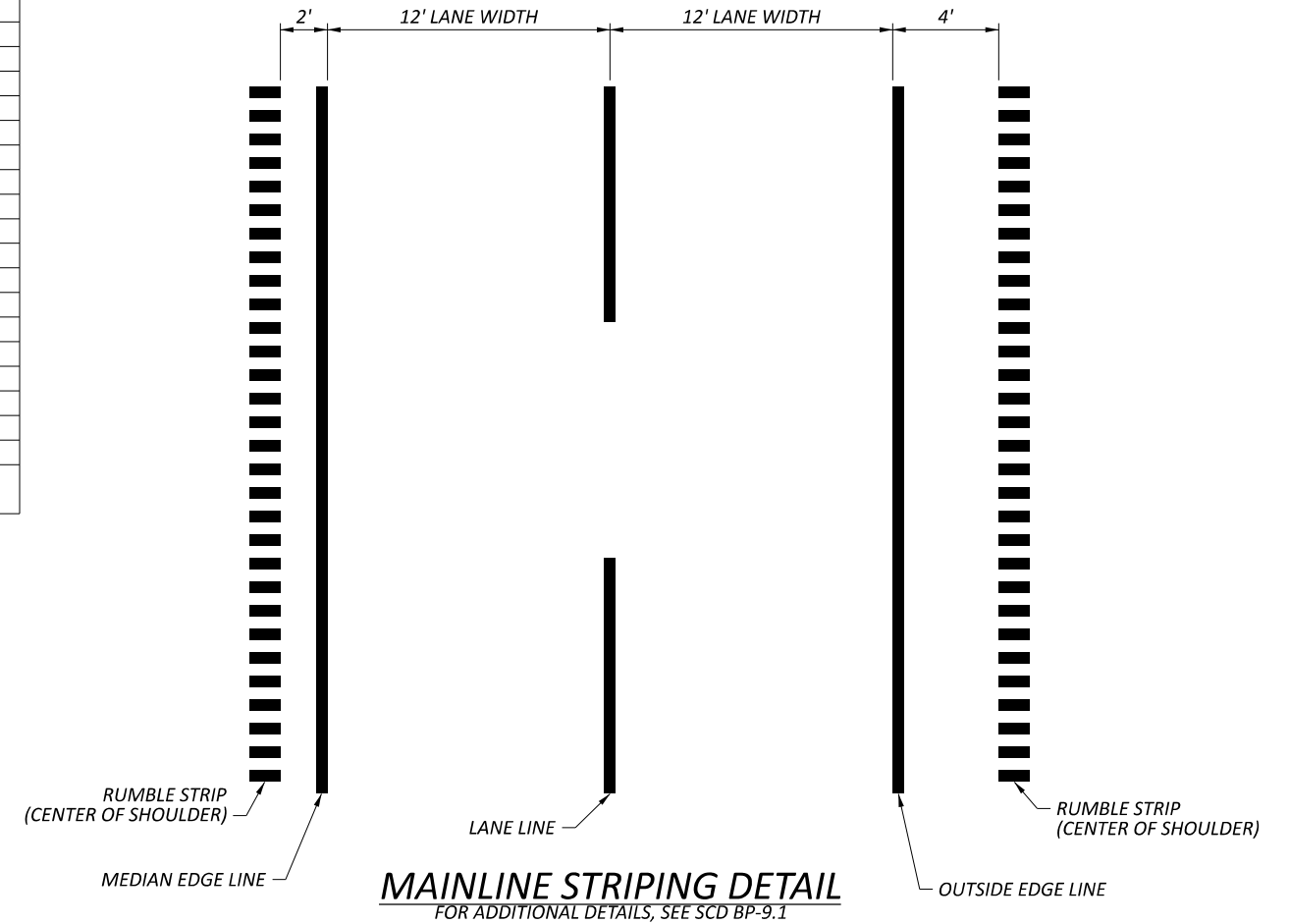
PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE STRIPS. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER EACH OF ITEM 618 - RUMBLE STRIPS (ASPHALT CONCRETE) AS PER PLAN, WITH 16' AS AN AVERAGE PER STRIP FOR ESTIMATING PURPOSES.



RUMBLE STRIPS, TRANSVERSE (ASPHALT CONCRETE), AS PER PLAN DETAIL



RUMBLE STRIPS, TRANSVERSE (ASPHALT CONCRETE), AS PER PLAN DETAIL GROOVE DETAIL



MAINLINE STRIPING DETAIL
FOR ADDITIONAL DETAILS, SEE SCD BP-9.1

TRAFFIC CONTROL DETAILS

RIC-30-13.06

MODEL: TRAFFIC CONTROL DETAILS PAPER SIZE: 17x11 (in.) DATE: 11/28/2022 TIME: 8:59:35 PM USER: jdark8 pwc:\hobol-pw-bentley.com\shhdop-pw-02\Documents\01 Active Projects\District 03\Richland\79740\400-Engineering\Roadway\Sheets\79740_GS001.dgn

DESIGN AGENCY
DISTRICT THREE

ENGINEERING TEAM FOUR

DESIGNER
JNC

REVIEWER
NRF 08/04/22

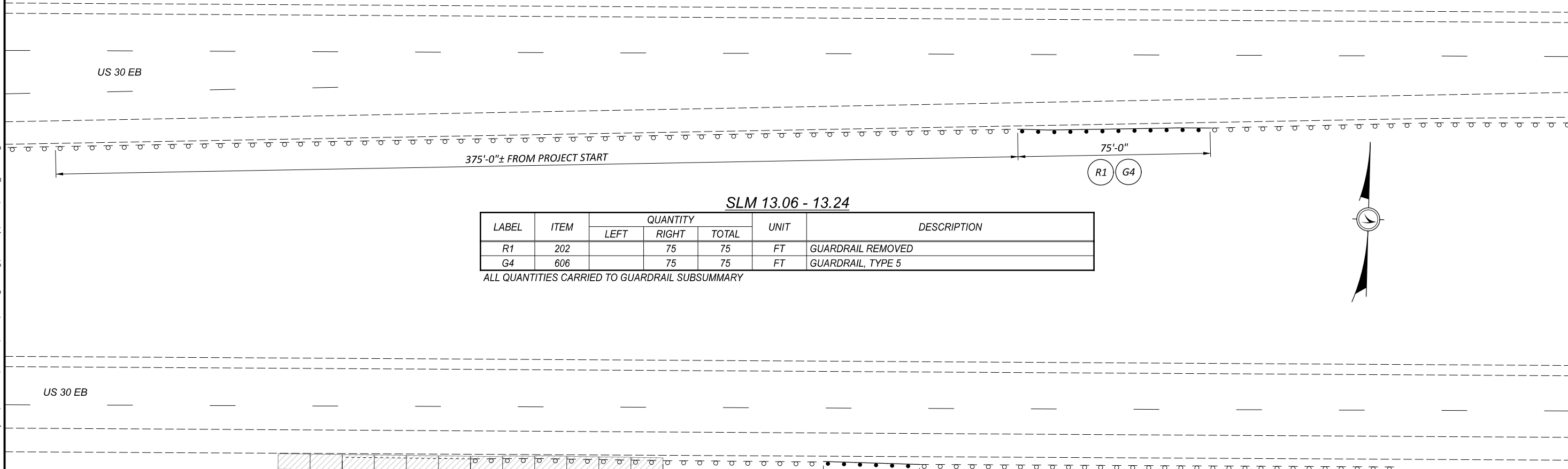
PROJECT ID
79740

SHEET TOTAL
26 | 46

GUARDRAIL SUBSUMMARY

LABEL	ITEM	EXTENSION	QUANTITY FROM GUARDRAIL AT SLM:										TOTAL QUANTITY	UNIT	DESCRIPTION		
			13.06-13.04	13.42-13.54	13.88-13.97	14.00-14.10	14.34-14.48	15.29-15.33	16.14-16.20	16.40-16.43	17.04-17.09	17.62-17.66					
R1	202	38000	75.0	37.5											112.5	FT	GUARDRAIL REMOVED
R3-A	202	38201				287.5									287.5	FT	GUARDRAIL REMOVED FOR REUSE, AS PER PLAN
R26-A	202	47201				1									1	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED FOR REUSE, AS PER PLAN
PR1	202	23000				39									39	SY	PAVEMENT REMOVED
CR1	202	32000												92	FT	CURB REMOVED	
E2-A	203	20001		24				8	12						44	CY	EMBANKMENT, AS PER PLAN
E3	209	15000			2.75		1.13								3.88	STA	RESHAPING UNDER GUARDRAIL
AG1	304	20000				8									8	CY	AGGREGATE BASE
G4	606	13000	75.0	37.5											112.5	FT	GUARDRAIL, TYPE 5
G23	606	16000				287.5									287.5	FT	GUARDRAIL REBUILT
G37	606	17000					37.6			50.0					87.6	FT	RAISING TYPE 5 GUARDRAIL
A19	606	27850						1							1	EACH	ANCHOR ASSEMBLY REBUILT, TYPE E
B23	606	35010				1	1								2	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1
I7-A	606	60060											2		2	EACH	IMPACT ATTENUATOR REBUILT, TYPE 1 (UNIDIRECTIONAL), AS PER PLAN
M9	626	00116				4									4	EACH	BARRIER REFLECTOR, TYPE 5, 1 WAY

ALL TOTALS CARRIED TO GENERAL SUMMARY



SLM 13.06 - 13.24

LABEL	ITEM	QUANTITY			UNIT	DESCRIPTION
		LEFT	RIGHT	TOTAL		
R1	202		75	75	FT	GUARDRAIL REMOVED
G4	606		75	75	FT	GUARDRAIL, TYPE 5

ALL QUANTITIES CARRIED TO GUARDRAIL SUBSUMMARY

SLM 13.42 - 13.54

LABEL	ITEM	QUANTITY			UNIT	DESCRIPTION
		LEFT	RIGHT	TOTAL		
R1	202		37.5	37.5	FT	GUARDRAIL REMOVED
G4	606		37.5	37.5	FT	GUARDRAIL, TYPE 5
E2-A	203		24	24	CY	EMBANKMENT, AS PER PLAN

ALL QUANTITIES CARRIED TO GUARDRAIL SUBSUMMARY

- ITEM 203 - EMBANKMENT, AS PER PLAN



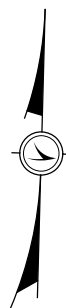
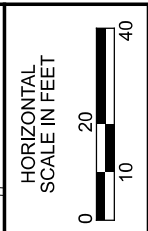
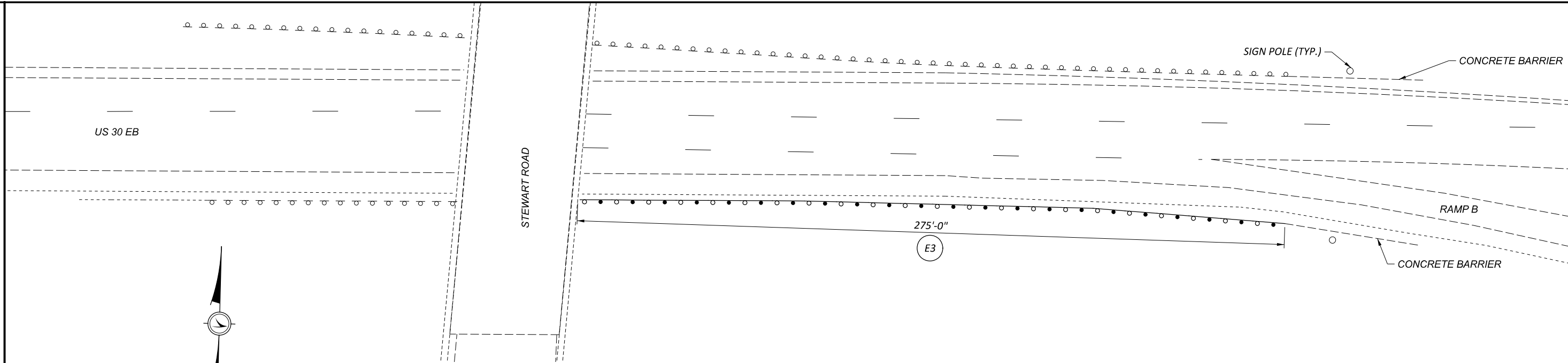
GUARDRAIL DETAILS

RIC-30-13.06

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DESIGN AGENCY
DISTRICT 3

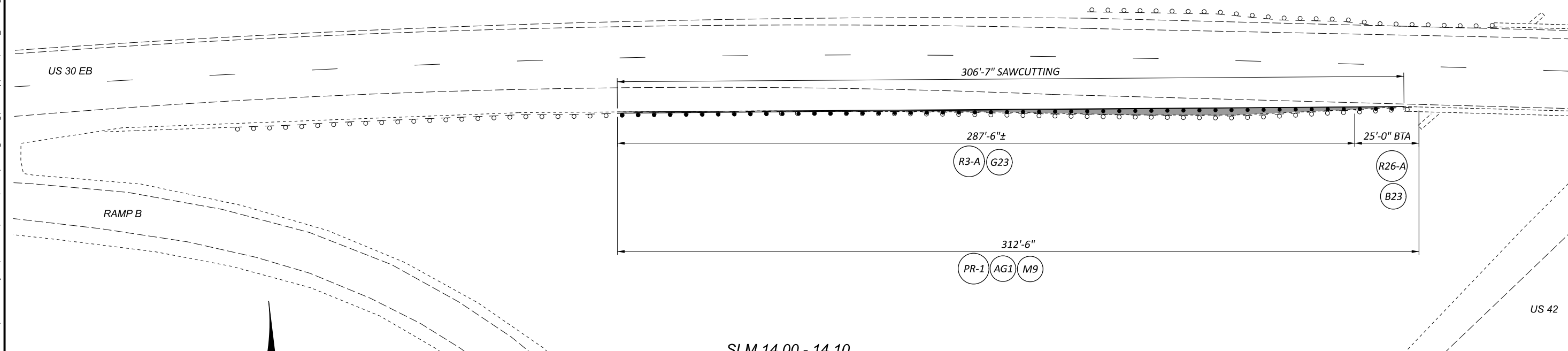
 ENGINEERING
 TEAM FOUR
 DESIGNER
 JLB
 REVIEWER
 NRF 08/04/22
 PROJECT ID
 79740
 SHEET TOTAL
 27 46



SLM 13.88 - 13.97

LABEL	ITEM	QUANTITY			UNIT	DESCRIPTION
		LEFT	RIGHT	TOTAL		
E3	209		2.75	2.75	STA	RESHAPING UNDER GUARDRAIL

ALL QUANTITIES CARRIED TO GUARDRAIL SUBSUMMARY



GUARDRAIL DETAILS

SLM 14.00 - 14.10

LABEL	ITEM	QUANTITY			UNIT	DESCRIPTION
		LEFT	RIGHT	TOTAL		
R3-A	202		287.5	287.5	FT	GUARDRAIL REMOVED FOR REUSE, AS PER PLAN
R26-A	202		1	1	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED FOR REUSE, AS PER PLAN
PR1	202		39	39	SY	PAVEMENT REMOVED
AG1	304		8	8	CY	AGGREGATE BASE
B23	606		1	1	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1
G23	606		287.5	287.5	FT	GUARDRAIL REBUILT
M9	626		4	4	EACH	BARRIER REFLECTOR, TYPE 5, 1 WAY

ALL QUANTITIES CARRIED TO GUARDRAIL SUBSUMMARY

NOTE (SLM 14.00 - 14.10):

THE PAVEMENT REMOVAL IS INTENDED TO CREATE A STRAIGHT, LINEAR TAPER FROM THE GIVEN DISTANCE TO THE EDGE OF THE BRIDGE PARAPET. THE GUARDRAIL AND BRIDGE TERMINAL ASSEMBLY REBUILT ITEMS ARE TO BE OFFSET TO THE NEW EDGE OF PAVEMENT AFTER SAWCUTTING AND PAVEMENT REMOVAL TO REDUCE THE RISK OF POCKETING OR IMPACT WITH THE BLUNT END OF THE BRIDGE PARAPET. THIS WILL CREATE A MORE GRADUAL TRANSITION TO BRIDGE PARAPET THAN EXISTING CONDITIONS.

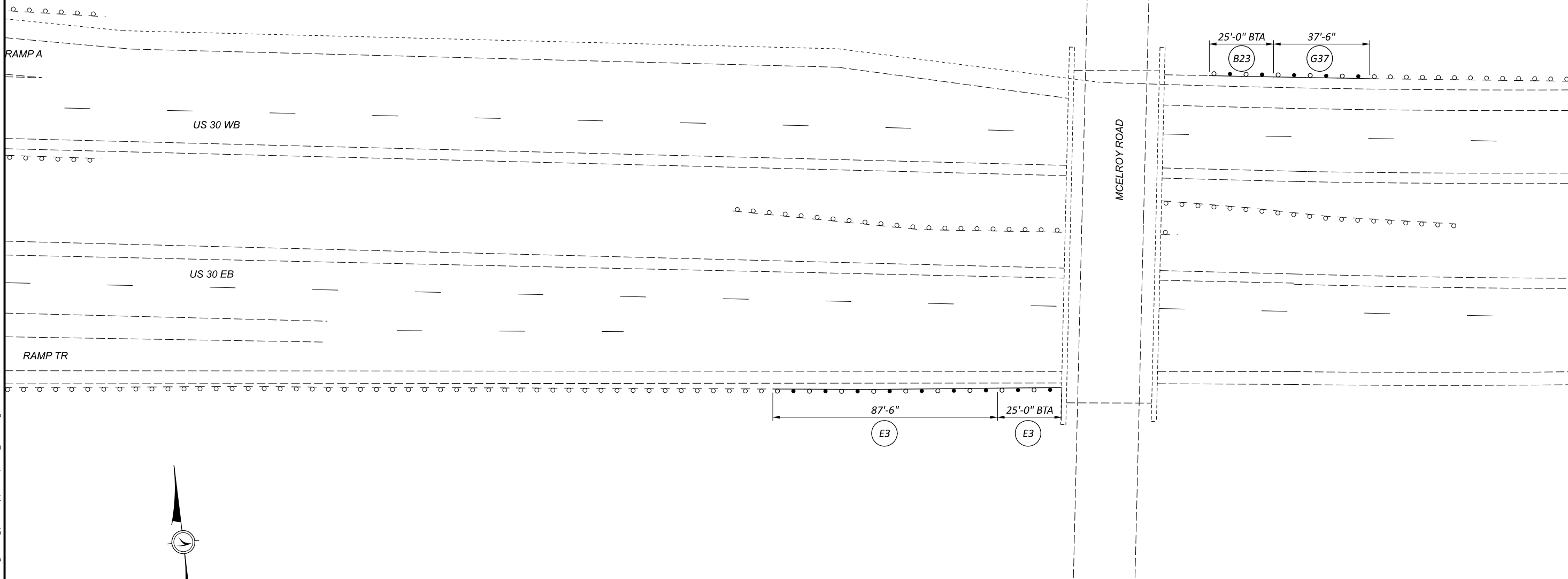
THE FOLLOWING PLACEMENT OF ITEMS 209, 304, AND 617 SHALL BE COMPLETED AS SHOWN IN THE TYPICAL SECTIONS.

■ - PAVEMENT REMOVED



DESIGN AGENCY
 DISTRICT 3

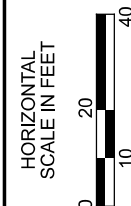
 ENGINEERING
 TEAM FOUR
 DESIGNER
 JLB
 REVIEWER
 NRF 08/04/22
 PROJECT ID
 79740
 SHEET TOTAL
 28 46



SLM 14.34 - 14.48

LABEL	ITEM	QUANTITY			UNIT	DESCRIPTION
		LEFT	RIGHT	TOTAL		
E3	209		1.125	1.125	STA	RESHAPING UNDER GUARDRAIL
B23	606	1		1	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1
G37	606	37.6		37.6	FT	RAISING TYPE 5 GUARDRAIL

ALL QUANTITIES CARRIED TO GUARDRAIL SUBSUMMARY



GUARDRAIL DETAILS

DESIGN AGENCY

DISTRICT 3



ENGINEERING
TEAM FOUR

DESIGNER

JLB

REVIEWER

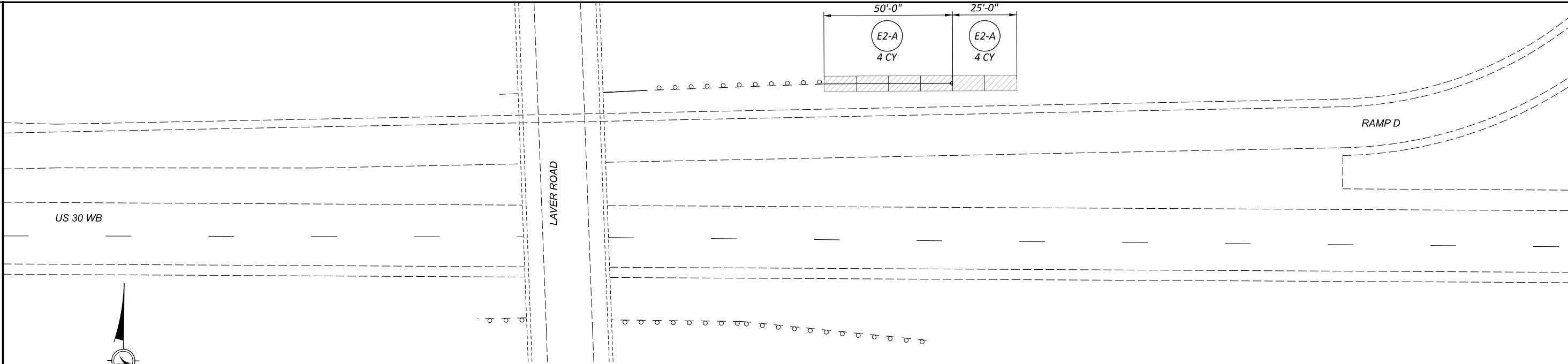
NRF 08/04/22

PROJECT ID

79740

SHEET TOTAL

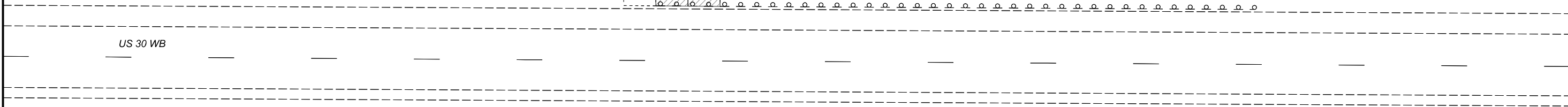
29 46



SLM 15.29 - 15.33

LABEL	ITEM	QUANTITY			UNIT	DESCRIPTION
		LEFT	RIGHT	TOTAL		
A19	606	1		1	EACH	ANCHOR ASSEMBLY REBUILT, TYPE E
E2-A	203	8		8	CY	EMBANKMENT, AS PER PLAN

ALL QUANTITIES CARRIED TO GUARDRAIL SUBSUMMARY

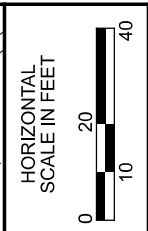


SLM 16.14 - 16.20

LABEL	ITEM	QUANTITY			UNIT	DESCRIPTION
		LEFT	RIGHT	TOTAL		
E2-A	203	12		12	CY	EMBANKMENT, AS PER PLAN

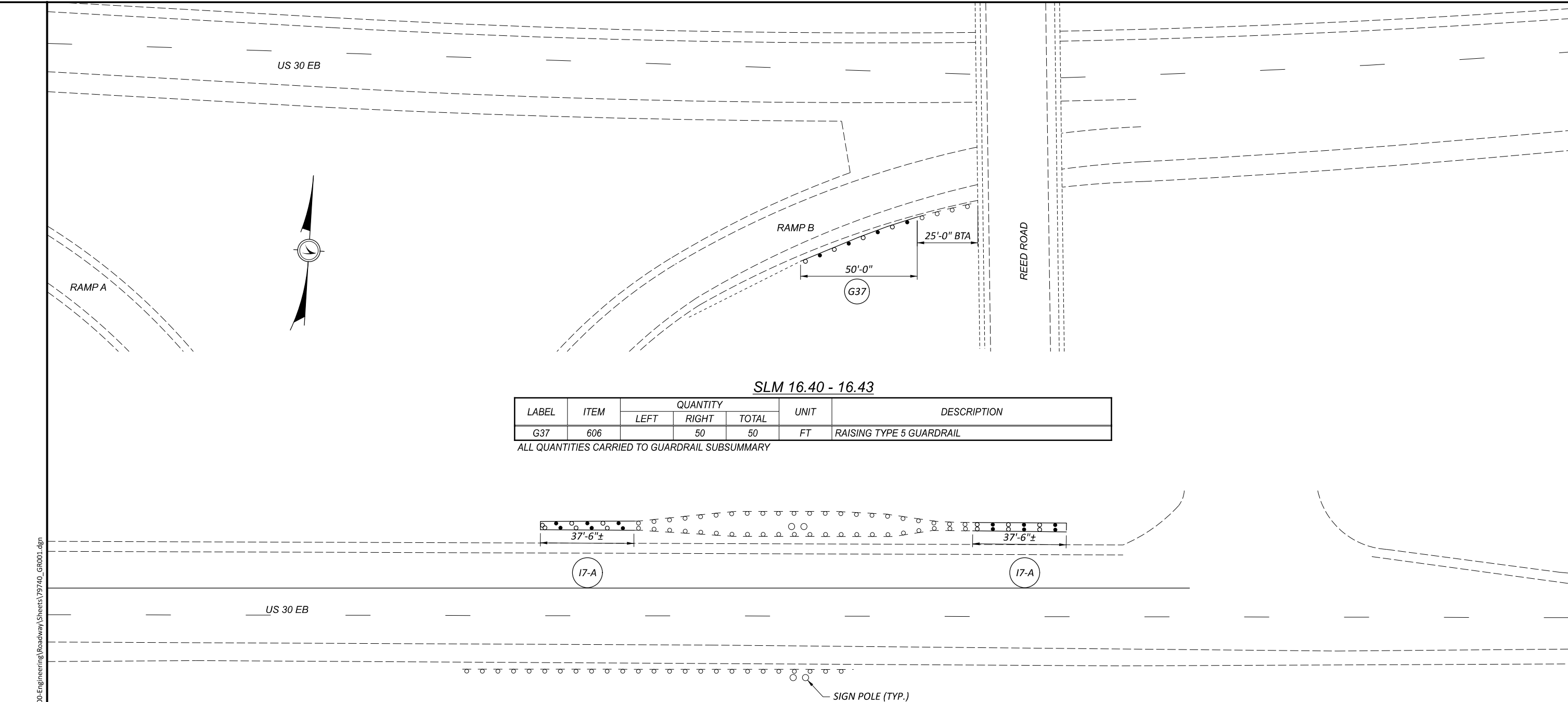
ALL QUANTITIES CARRIED TO GUARDRAIL SUBSUMMARY

- ITEM 203 - EMBANKMENT, AS PER PLAN



GUARDRAIL DETAILS

DESIGN AGENCY	DISTRICT 3
ENGINEERING TEAM FOUR	
DESIGNER	JLB
REVIEWER	NRF
PROJECT ID	08/04/22
SHEET	79740
TOTAL	46



US 30 EB

RAMP A

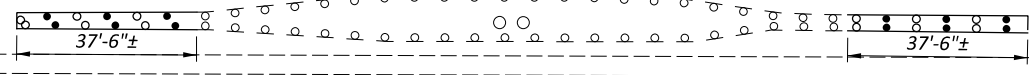
RAMP B

REED ROAD

SLM 16.40 - 16.43

LABEL	ITEM	QUANTITY			UNIT	DESCRIPTION
		LEFT	RIGHT	TOTAL		
G37	606		50	50	FT	RAISING TYPE 5 GUARDRAIL

ALL QUANTITIES CARRIED TO GUARDRAIL SUBSUMMARY



17-A

17-A

US 30 EB

SLM 17.04 - 17.09

LABEL	ITEM	QUANTITY			UNIT	DESCRIPTION
		LEFT	RIGHT	TOTAL		
17-A	606		2	2	EACH	IMPACT ATTENUATOR REBUILT, TYPE 1 (UNIDIRECTIONAL), AS PER PLAN

ALL QUANTITIES CARRIED TO GUARDRAIL SUBSUMMARY

SIGN POLE (TYP.)



GUARDRAIL DETAILS

DESIGN AGENCY
 DISTRICT 3

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 TEAM FOUR
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 JLB
 REVIEWER
 NRF 08/04/22
 PROJECT ID
 79740
 SHEET TOTAL
 31 46



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HORIZONTAL
SCALE IN FEET



GUARDRAIL DETAILS

DESIGN AGENCY

DISTRICT 3



ENGINEERING
TEAM FOUR

DESIGNER

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REVIEWER

NRF 08/04/22

PROJECT ID

79740

SHEET

32

TOTAL

46

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HORIZONTAL
SCALE IN FEET



GUARDRAIL DETAILS

DESIGN AGENCY

DISTRICT 3



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NRF 08/04/22

PROJECT ID

79740

SHEET TOTAL

33 46

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SHEET	TOTAL
34	46

PROJECT ID
79740

REVIEWER
NRF 08/04/22

DESIGNER
JLB

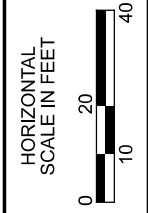
ENGINEERING
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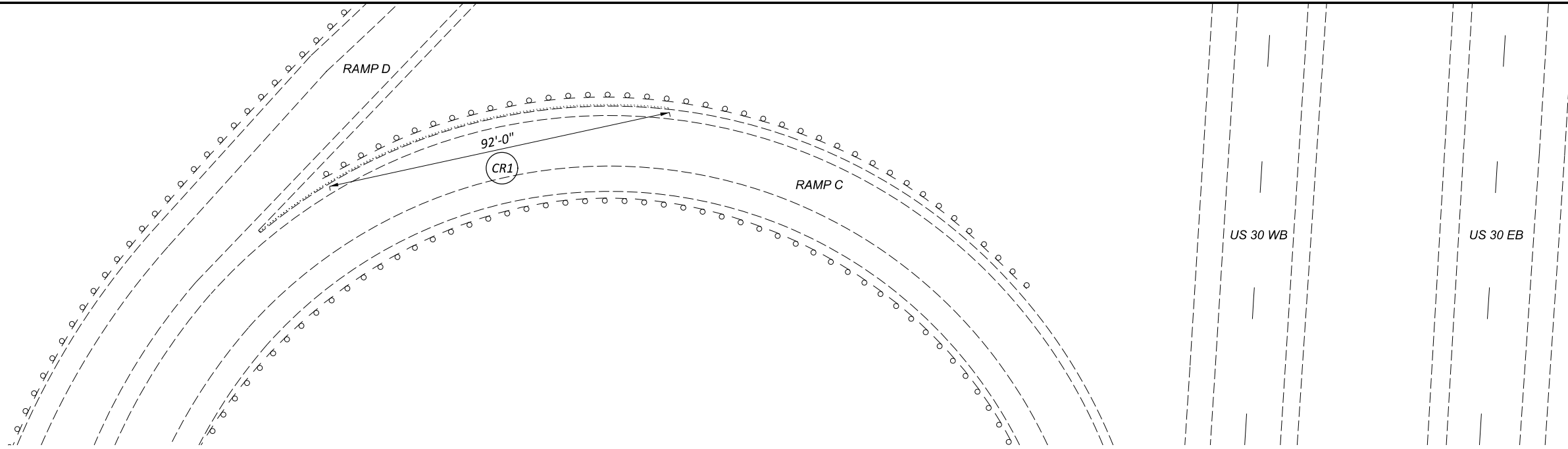
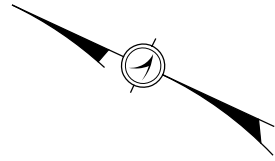


DISTRICT 3

DESIGN AGENCY

GUARDRAIL DETAILS

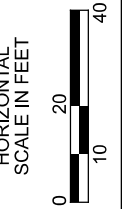




MAINLINE SLM 17.62 - 17.66 (US 30 WB AND KOOGLER RD INTERCHANGE)

LABEL	ITEM	QUANTITY			UNIT	DESCRIPTION
		LEFT	RIGHT	TOTAL		
CR1	202	92		92	FT	CURB REMOVED

ALL QUANTITIES CARRIED TO GUARDRAIL SUBSUMMARY



GUARDRAIL DETAILS

DESIGN AGENCY

DISTRICT 3



ENGINEERING TEAM FOUR

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NRF 08/04/22

PROJECT ID

79740

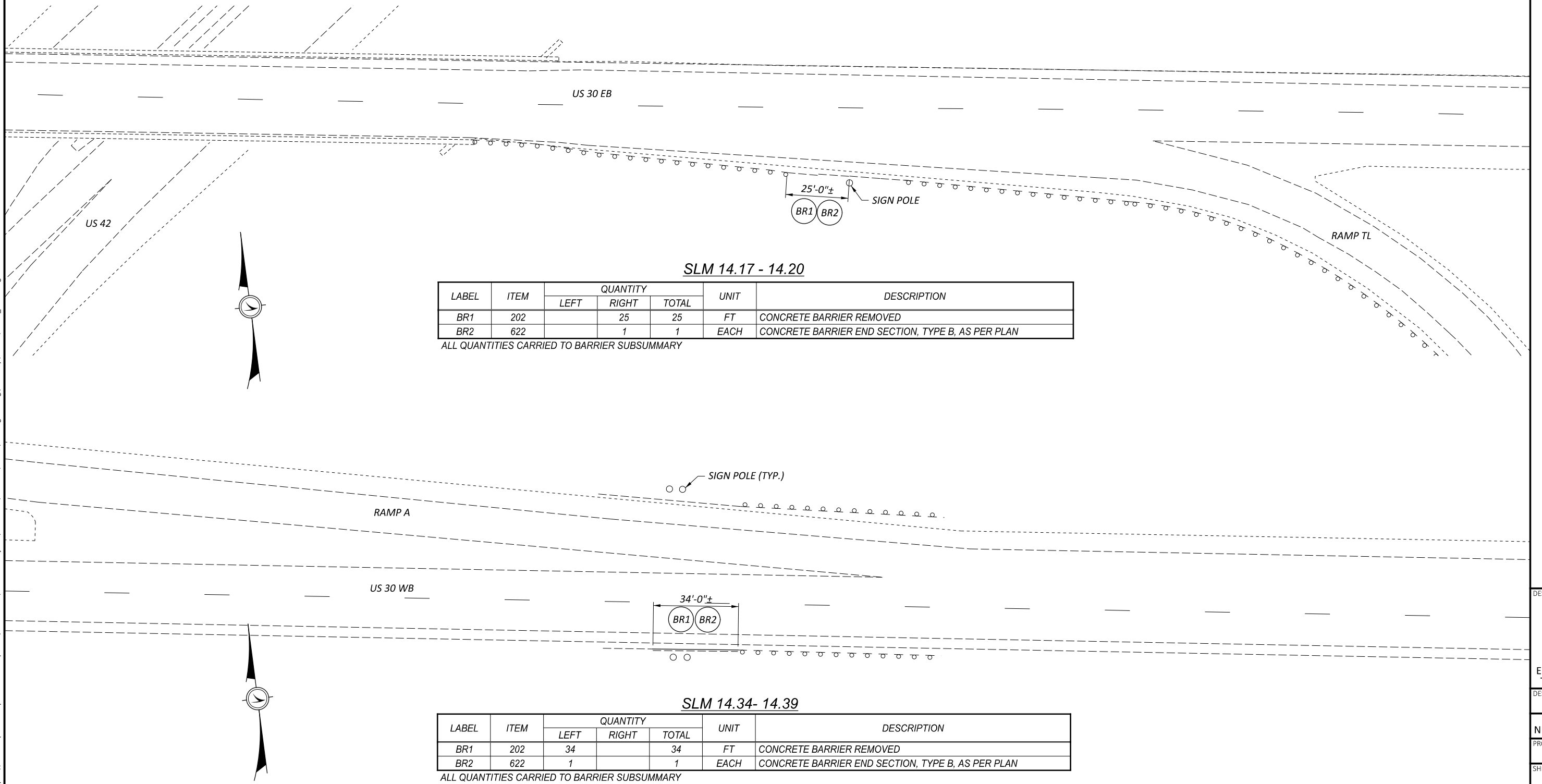
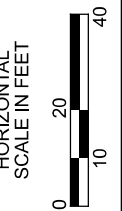
SHEET TOTAL

35 46

BARRIER SUBSUMMARY

LABEL	ITEM	EXTENSION	QUANTITY FROM BARRIER AT SLM:			TOTAL QUANTITY	UNIT	DESCRIPTION
			14.17-14.20	14.34-14.39	15.29-15.33			
BR1	202	30700	25	34	17	76	FT	CONCRETE BARRIER REMOVED
BR2	622	24841	1	1	1	3	EACH	CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN

ALL TOTALS CARRIED TO GENERAL SUMMARY



SLM 14.17 - 14.20

LABEL	ITEM	QUANTITY			UNIT	DESCRIPTION
		LEFT	RIGHT	TOTAL		
BR1	202		25	25	FT	CONCRETE BARRIER REMOVED
BR2	622		1	1	EACH	CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN

ALL QUANTITIES CARRIED TO BARRIER SUBSUMMARY

SLM 14.34 - 14.39

LABEL	ITEM	QUANTITY			UNIT	DESCRIPTION
		LEFT	RIGHT	TOTAL		
BR1	202	34		34	FT	CONCRETE BARRIER REMOVED
BR2	622	1		1	EACH	CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN

ALL QUANTITIES CARRIED TO BARRIER SUBSUMMARY

BARRIER DETAILS

DESIGN AGENCY
DISTRICT 3



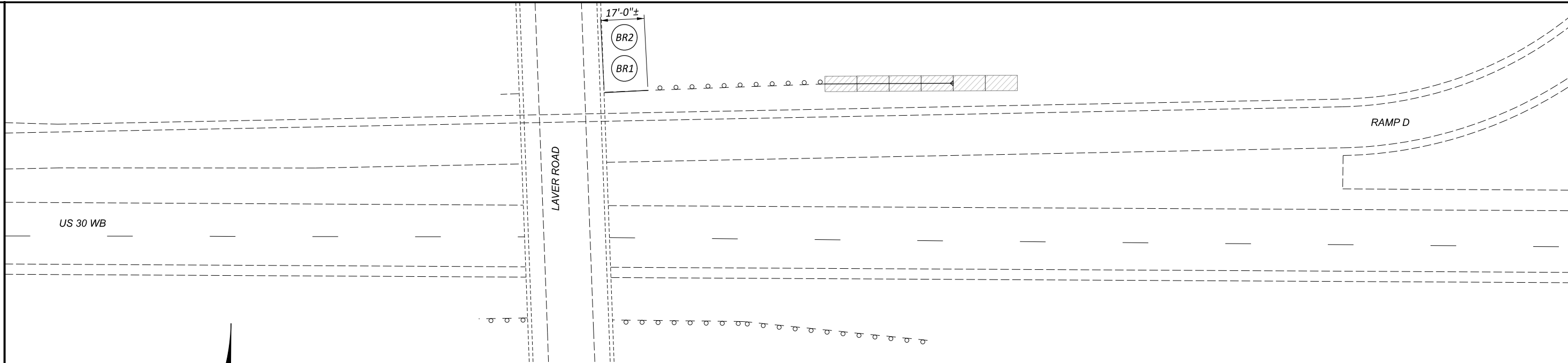
ENGINEERING
TEAM FOUR

DESIGNER
JLB

REVIEWER
NRF 08/04/22

PROJECT ID
79740

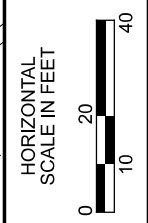
SHEET TOTAL
36 46




SLM 15.29 - 15.33

LABEL	ITEM	QUANTITY			UNIT	DESCRIPTION
		LEFT	RIGHT	TOTAL		
BR1	202	17		17	FT	CONCRETE BARRIER REMOVED
BR2	622	1		1	EACH	CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN

ALL QUANTITIES CARRIED TO BARRIER SUBSUMMARY



BARRIER DETAILS

DESIGN AGENCY
 DISTRICT 3

 ENGINEERING
 TEAM FOUR
 DESIGNER
 JLB
 REVIEWER
 NRF 08/04/22
 PROJECT ID
 79740
 SHEET TOTAL
 37 46

STRUCTURE NOTES

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):
800 DATED AS SPECIFIED IN THE PROPOSAL
832 DATED 7/15/2022

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE WORK CONFORMS TO "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020, AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA

CONCRETE CLASS SCC - COMPRESSIVE STRENGTH 4,500 PSI

EXISTING PLANS

THE FOLLOWING PLANS MAY BE INSPECTED IN THE ODOT DISTRICT THREE OFFICE IN ASHLAND, OHIO

TITLE	DATE
RIC-30-9.28 & ASD-30-0.00	1964
RIC-30-12.37	1985
RIC/ASD-30-13.18/0.00/RIC-42-13.74	2011

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURES. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

DECK PROTECTION METHOD

ITEM 512 - SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN

UTILITIES

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

ITEM 519 - COMPOSITE FIBER WRAP SYSTEM

THIS ITEM SHALL BE USED ON DECK EDGES PASSING OVER ROADWAYS AND AT OTHER REPAIR LOCATIONS WHERE SPECIFIED IN THE PLANS. THE WRAP SHALL COVER THE LENGTH OF THE SHOULDERS AND LANES OF PAVEMENT UNDERNEATH AND USE A WIDTH OF 3' (1' ADHERED TO THE SOFFIT AND 2' ADHERED TO THE OUTSIDE OF THE BARRIER).

SEE PROPOSAL NOTE 519 FOR ADDITIONAL DETAILS.

PAYMENT FOR ALL THE ABOVE ITEMS WILL BE MADE AT THE UNIT BID PRICE PER SQUARE FOOT AND IS TO INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NEEDED TO COMPLETE THE ABOVE WORK.

ITEM 202 - REMOVAL MISC.: DECK OVERHANG

THIS ITEM SHALL INCLUDE THE INSPECTION AND REMOVAL OF DAMAGED CONCRETE AND REINFORCING STEEL ALONG DECK EDGES UNDER PARAPETS. UNLESS OTHERWISE SPECIFIED IN THIS NOTE, REMOVAL SHALL BE PERFORMED ACCORDING TO C&MS 519.03.

WITH THE ENGINEER, INSPECT DECK EDGES FOR DAMAGED CONCRETE AND EXPOSED OR CORRODED REINFORCING STEEL. REMOVE UNSOUND CONCRETE UP TO THE FULL THICKNESS OF THE DECK, TO A MINIMUM DEPTH OF 4", AND A MAXIMUM DEPTH OF 6". WHERE CONCRETE HAS ALREADY DETERIORATED PAST 6" IN DEPTH, REMOVE LOOSE CONCRETE AND PREPARE SURFACES AS DESCRIBED HEREIN. PROVIDE A NEAT SAWCUT ON THE BOTTOM OF THE DECK OVERHANG. REMOVE EXPOSED LONGITUDINAL REINFORCING STEEL NO LONGER EMBEDDED IN THE DECK CONCRETE.

WHERE PORTIONS OF THE DECK EDGE ARE DETERMINED TO BE SOUND, EXPOSE A SUFFICIENT LENGTH OF REINFORCING STEEL EXTENDING FROM THE SOUND PORTION TO PERMIT A LAP SPLICE (36" MIN. FOR #5 BAR, 43" MIN FOR #6 BAR) WITH REPLACEMENT STEEL. IF FIELD CONDITIONS DO NOT PERMIT THIS MINIMUM LENGTH TO BE PROVIDED, OBTAIN THE ENGINEERS APPROVAL FOR AN ALTERNATE CONNECTION METHOD OR EXCEPTION TO THIS MINIMUM VALUE.

REMOVE ALL HEAVY CORROSION AND SCALE FROM THE REINFORCING BARS WITH WIRE BRUSH OR ABRASIVE BLASTING. A MINOR AMOUNT OR TIGHTLY ADHERED RUST MAY BE LEFT IN PLACE.

DO NOT REMOVE MORE THAN 18 CONTINUOUS LINEAR FEET OF A SINGLE DECK EDGE AT A TIME. DISTANCE BETWEEN REPAIRS BEING SIMULTANEOUSLY CONDUCTED ON A SINGLE DECK EDGE SHALL NOT BE LESS THAN 18'. ALLOW A MINIMUM CURE TIME AS DIRECTED IN C&MS 511.14 PRIOR TO BEGINNING ADJACENT REPAIRS.

REMOVAL & REINSTALLATION OF ANY BRIDGE MOUNTED SIGNS OR OTHER HARDWARE SHALL BE INCIDENTAL TO THIS ITEM. ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED FOR THE WORK DESCRIBED ABOVE SHALL BE PAID UNDER THE CONTRACT BID PRICE PER LINEAR FOOT FOR ITEM 202, REMOVAL MISC.: DECK EDGE.

ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO C&MS 709.00.

PROVIDE CONTINUITY BETWEEN SEGMENTS OF NEW REINFORCING STEEL BY MEANS OF EPOXY-COATED MECHANICAL CONNECTORS. THE WEIGHT OF MECHANICAL CONNECTORS IS NOT INCLUDED IN THE PAY QUANTITY AND IS CONSIDERED INCIDENTAL TO THIS ITEM OF WORK.

PROVIDE CONTINUITY BETWEEN SEGMENTS OF EXISTING AND NEW REINFORCING STEEL BY MEANS OF A LAP SPLICE (36" MIN. FOR #5 BAR, 43" MIN FOR #6 BAR) OR METHOD APPROVED BY THE ENGINEER.

PAYMENT FOR THE ABOVE SHALL BE MADE AT THE UNIT BID PRICE PER POUND FOR ITEM 509, EPOXY COATED REINFORCING STEEL, AS PER PLAN, AND WILL INCLUDE ALL LABOR EQUIPMENT, MATERIALS, AND INCIDENTALS NEEDED TO COMPLETE THE WORK.

ITEM 509 - REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE. REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO C&MS 709.00.

PROVIDE CONTINUITY BETWEEN SEGMENTS OF NEW REINFORCING STEEL BY MEANS OF EPOXY-COATED MECHANICAL CONNECTORS. THE WEIGHT OF MECHANICAL CONNECTORS IS NOT INCLUDED IN THE PAY QUANTITY AND IS CONSIDERED INCIDENTAL TO THIS ITEM OF WORK.

PROVIDE CONTINUITY BETWEEN SEGMENTS OF EXISTING AND NEW REINFORCING STEEL BY MEANS OF A LAP SPLICE (36" MIN. FOR #5 BAR, 43" MIN FOR #6 BAR) OR METHOD APPROVED BY THE ENGINEER.

PAYMENT FOR THE ABOVE SHALL BE MADE AT THE UNIT BID PRICE PER POUND FOR ITEM 509, REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN, AND WILL INCLUDE ALL LABOR EQUIPMENT, MATERIALS, AND INCIDENTALS NEEDED TO COMPLETE THE WORK.

ITEM 511 - CONCRETE, MISC: CLASS QC SCC CONCRETE, BRIDGE DECK, DECK OVERHANG

THIS ITEM SHALL BE USED TO REBUILD DAMAGED DECK EDGES UNDER PARAPETS AT LOCATIONS SPECIFIED IN THESE PLANS. LOCATIONS TO BE REBUILT SHOULD FIRST BE PREPARED ACCORDING TO THE PROVISIONS OF ITEM 202, REMOVAL MISC.: DECK OVERHANG AND THIS NOTE.

THIS WORK SHALL COMPLY WITH ALL REQUIREMENTS OF C&MS 455, QUALITY CONTROL PLAN, TESTING AND ASSURANCE FOR QC/QA CONCRETE.

FURNISH MATERIALS CONFORMING TO THE C&MS SECTIONS SHOWN BELOW:

CONCRETE, QC SCC (CLASS 1)	499, 511
DOWELS	709.01, 709.03, OR 709.05
REINFORCING STEEL	AS SPECIFIED IN THE PLANS
WELDED STEEL WIRE FABRIC	709.10 OR 709.12

IN ADDITION TO THE REQUIREMENTS SHOWN ABOVE, MAXIMUM CONCRETE AGGREGATE SIZE SHALL BE #8.

PROVIDE LONGITUDINAL REINFORCING STEEL AS SPECIFIED BY ITEM 509, EPOXY COATED REINFORCING STEEL, AS PER PLAN. SECURELY FASTEN THE REPLACEMENT STEEL TO THE EXISTING REINFORCING STEEL IN THE ORIGINAL STRUCTURE EXPOSED IN REMOVING UNSOUND CONCRETE. IF NO EXISTING REINFORCING STEEL IS EXPOSED OR IT IS NOT PRACTICAL TO FASTEN THE REPLACEMENT REINFORCING STEEL TO EXISTING STEEL, INSTALL DOWEL OR EXPANSION BOLTS AT A DISTANCE NOT TO EXCEED 18-INCH CENTERS IN BOTH DIRECTIONS, AND FASTEN THE REPLACEMENT STEEL TO THESE DOWELS OR BOLTS.

WELDED STEEL WIRE FABRIC SHALL BE 2"x 2" AND WIRE SIZE NUMBER W 0.9. COVER THE ENTIRE AREA OF THE REPAIR WITH THE FABRIC, AND PLACE AND HOLD THE FABRIC APPROXIMATELY 1" FROM THE COMPLETED EXPOSED SURFACE OF THE PATCH. SECURELY FASTEN THE FABRIC TO THE REINFORCING STEEL IN THE ORIGINAL STRUCTURE EXPOSED IN REMOVING UNSOUND CONCRETE, OR REPLACEMENT REINFORCING STEEL ALREADY SECURED. IF NO REINFORCING STEEL IS EXPOSED OR IT IS NOT PRACTICAL TO FASTEN THE FABRIC TO EXPOSED STEEL, INSTALL DOWEL OR EXPANSION BOLTS AT A DISTANCE NOT TO EXCEED 18-INCH CENTERS IN BOTH DIRECTIONS, AND FASTEN THE FABRIC TO THESE DOWELS OR BOLTS.

ALL EXISTING SURFACES WITH WHICH THE CONCRETE IS TO BOND SHALL BE PREPARED ACCORDING TO C&MS 520.10.

PLACE CONCRETE ACCORDING TO C&MS 519.06.

PROVIDE APPROPRIATE MEASURES TO CONTAIN AND PREVENT ANY DEBRIS FROM FALLING INTO STREAMS, ROADWAYS, OR RAIL LINES DURING PERFORMANCE OF THIS WORK.

PAYMENT FOR THE ABOVE SHALL BE MADE AT THE UNIT BID PRICE PER LINEAR FOOT FOR ITEM 511, CONCRETE, MISC: CLASS QC SCC CONCRETE, BRIDGE DECK, DECK OVERHANG, AND WILL INCLUDE ALL LABOR EQUIPMENT, MATERIALS, AND INCIDENTALS NEEDED TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THESE PLANS.

ESTIMATED STRUCTURE QUANTITIES			CALCULATED: JNC DATE: 08 / 2022	
			CHECKED: NRF DATE: 08 / 2022	
PLAN SPLIT	ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY
02/NHS/BR	202E98200	REMOVAL MISC.: DECK OVERHANG	FT	80
02/NHS/BR	202E23500	WEARING COURSE REMOVED (1.50" +/-)	SY	637
02/NHS/BR	442E10301	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), PG64-22, AS PER PLAN (1.50" THICK)	CY	27
02/NHS/BR	509E10001	EPOXY COATED REINFORCING STEEL, AS PER PLAN	LB	84
02/NHS/BR	509E20001	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	LB	21
02/NHS/BR	511E71100	CONCRETE, MISC.: CLASS QC SCC CONCRETE, BRIDGE DECK, DECK OVERHANG	CY	2
02/NHS/BR	512E10100	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	SY	14
02/NHS/BR	512E10300	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	SY	3784
02/NHS/BR	519E00100	SPECIAL - COMPOSITE FIBER WRAP SYSTEM	SF	320

ALL QUANTITIES CARRIED TO THE GENERAL SUMMARY

STRUCTURE NOTES
AND ESTIMATED QUANTITIES

DESIGN AGENCY

DISTRICT 3



ENGINEERING
TEAM FOUR

DESIGNER

JNC

REVIEWER

NRF 08/04/22

PROJECT ID

79740

SUBSET TOTAL

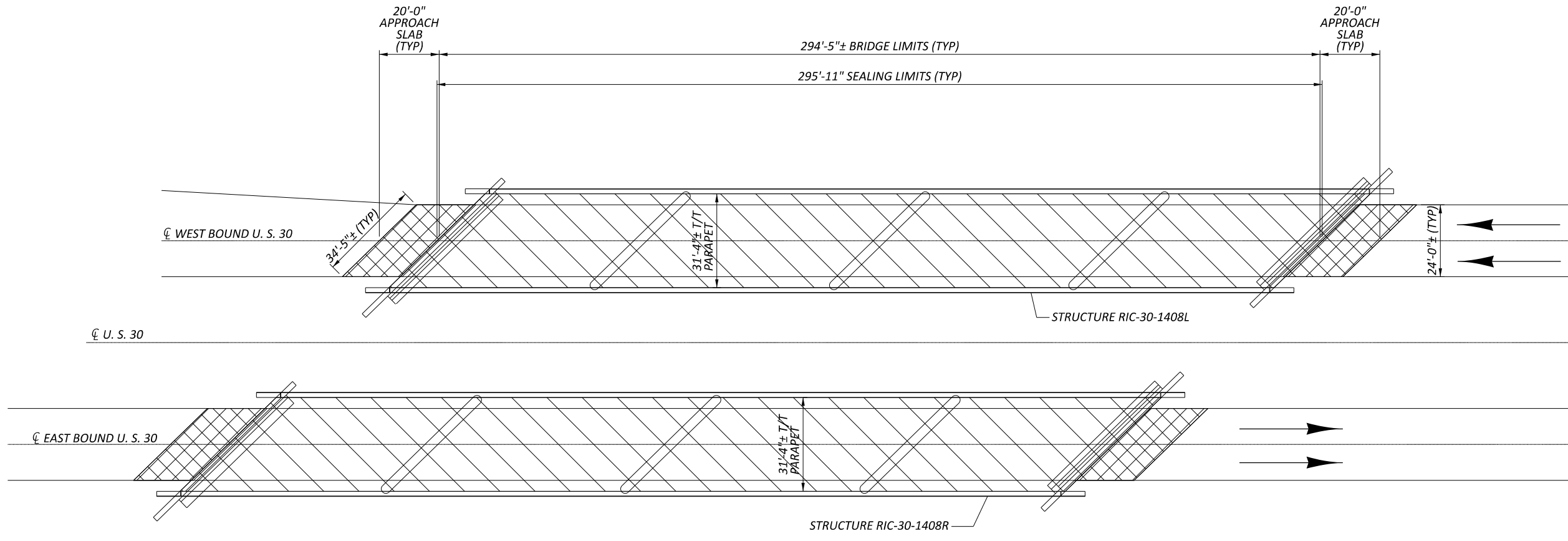
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SHEET TOTAL

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RIC-30-13.06

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PLAN VIEW
RIC-30-1408 R&L

LEGEND

- ITEM 512 - SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN
- ITEM 202 - WEARING COURSE REMOVED (1.50"±)
- ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), PG64-22, AS PER PLAN (1.50" THICK)

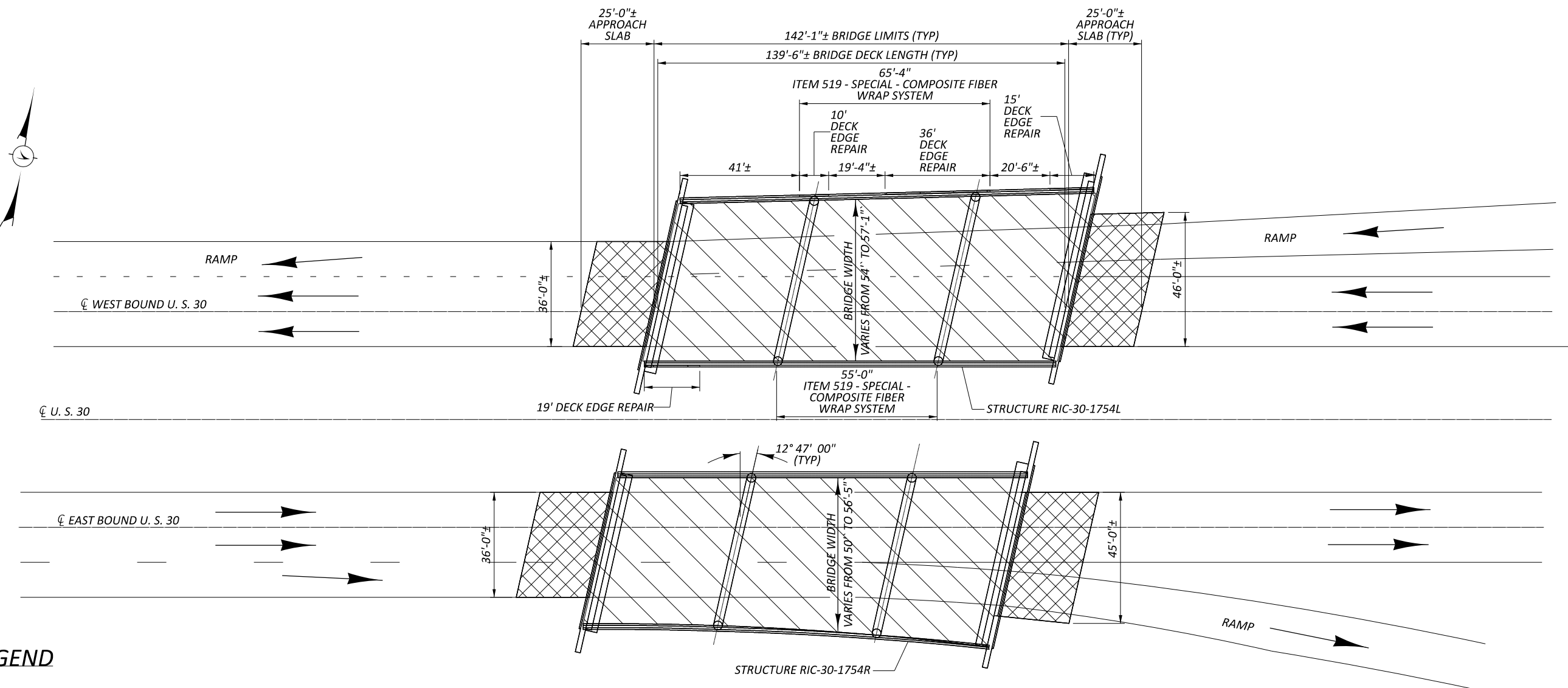
ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY
202E23500	WEARING COURSE REMOVED (1.50" +/-)	SY	206
442E10301	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), PG64-22, AS PER PLAN (1.50" THICK)	CY	9
512E10300	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	SY	2061

ALL QUANTITIES CARRIED TO THE STRUCTURE ESTIMATED QUANTITIES








STRUCTURE TREATMENT
RIC-30-1408 R&L
OVER US 42

SFN	7001444
SFN	7001355
DESIGN AGENCY	DISTRICT 3
ENGINEERING TEAM FOUR	
DESIGNER	CHECKER
JNC	JLB
REVIEWER	
NRF	08/04/22
PROJECT ID	79740
SUBSET	TOTAL
1	1
SHEET	TOTAL
39	46



PLAN VIEW
RIC-30-1754 R&L

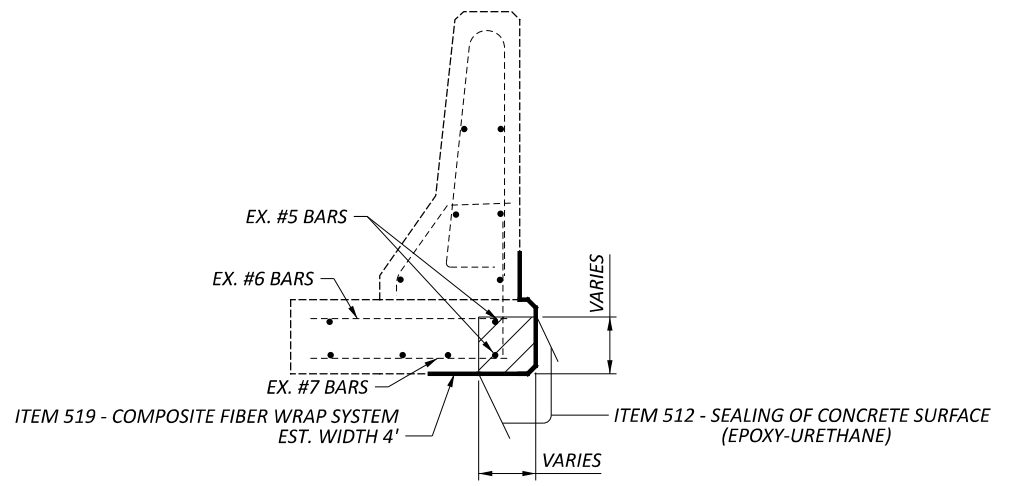
LEGEND

-  ITEM 202 - REMOVAL MISC.: DECK OVERHANG
-  ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN
-  ITEM 509 - REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN
-  ITEM 511 - CONCRETE, MISC.: CLASS QC SCC CONCRETE, BRIDGE DECK, DECK OVERHANG
-  ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
-  ITEM 202 - WEARING COURSE REMOVED (1.50"±)
-  ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), PG64-22, AS PER PLAN (1.50" THICK)

ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY
202E98200	REMOVAL MISC.: DECK OVERHANG	FT	80
202E23500	WEARING COURSE REMOVED (1.50" +/-)	SY	431
442E10301	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), PG64-22, AS PER PLAN (1.50" THICK)	CY	18
509E10001	EPOXY COATED REINFORCING STEEL, AS PER PLAN	LB	84
509E20001	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	LB	21
511E71100	CONCRETE, MISC.: CLASS QC SCC CONCRETE, BRIDGE DECK, DECK OVERHANG	CY	2
512E10100	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	SY	14
512E10300	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	SY	1723
519E00100	SPECIAL - COMPOSITE FIBER WRAP SYSTEM	SF	320

ALL QUANTITIES CARRIED TO THE STRUCTURE ESTIMATED QUANTITIES



DECK EDGE REPAIR CROSS SECTION VIEW

STRUCTURE TREATMENT
 RIC-30-1754 R&L
 OVER KOOGLE RD

SFN	7001592
SFN	7001568
DESIGN AGENCY	DISTRICT 3
ENGINEERING TEAM FOUR	
DESIGNER	JNC
CHECKER	JLB
REVIEWER	NRF
DATE	08/04/22
PROJECT ID	79740
SUBSET	TOTAL
1	1
SHEET	TOTAL
40	46

pw:\ohiodot-pw-bentley.com\ohiodot-pw-02\Documents\01 Active Projects\District 03\Richland\79740\400-Engineering\Roadway\Sheets\GR-1.1 - Guardrail Details.dgn Sheet 1 11/28/2022 9:00:38 PM jclarck

NOTES

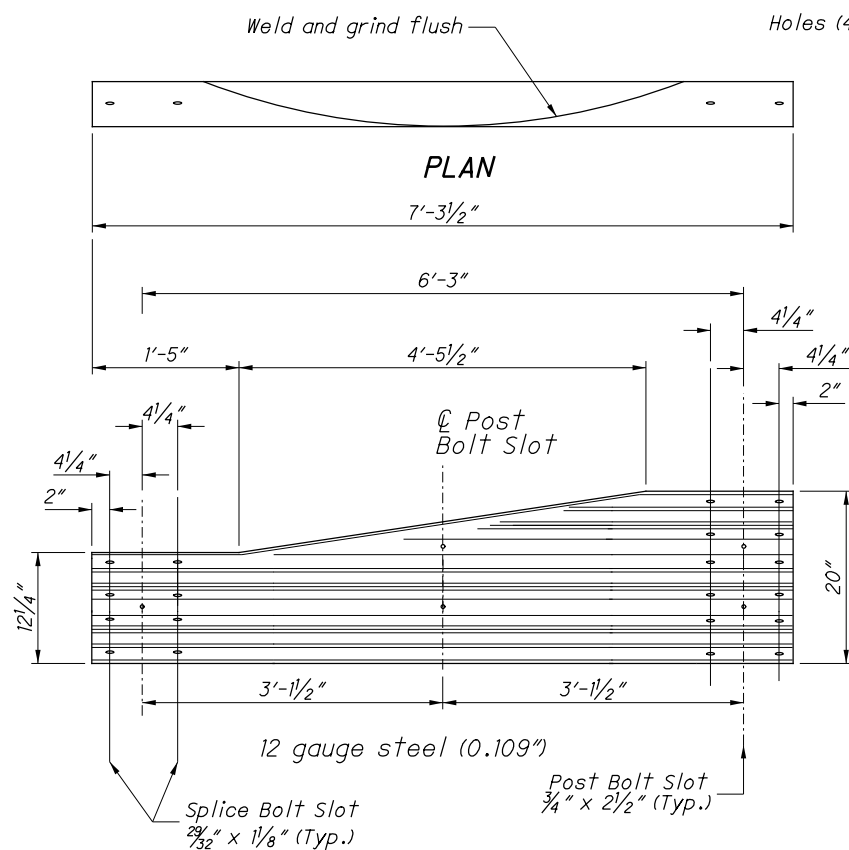
GENERAL: Components shown on this drawing are used in a variety of guardrail systems. See individual guardrail drawing for specific applications.

See CMS 606 for guardrail specifications not covered on these drawings.

Refer to AASHTO M 180 for dimensional details of W-Beam and Thrie-Beam rail elements, related buffer and end sections, beam splices, post and splice bolts, nuts, and Type 1 W-Beam to Thrie-Beam Transition sections.

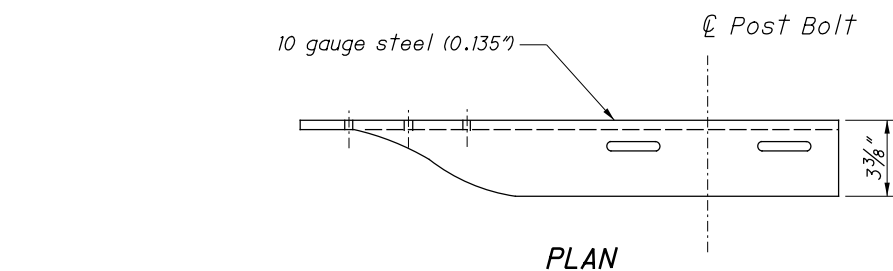
RAIL ELEMENTS: W-Beam Rail has an effective length of 12'-6" unless otherwise specified, with 3/4" x 2 1/2" post bolt slots on 6'-3" centers regardless of post spacing. Field punch or drill bolt holes or slots for irregularly spaced posts as specified in CMS 606.04.

RAIL SPLICES: Lap splices between two rail elements or between a rail and terminal connector in the direction of traffic. Lap the buffer or flared end sections in the direction of traffic.

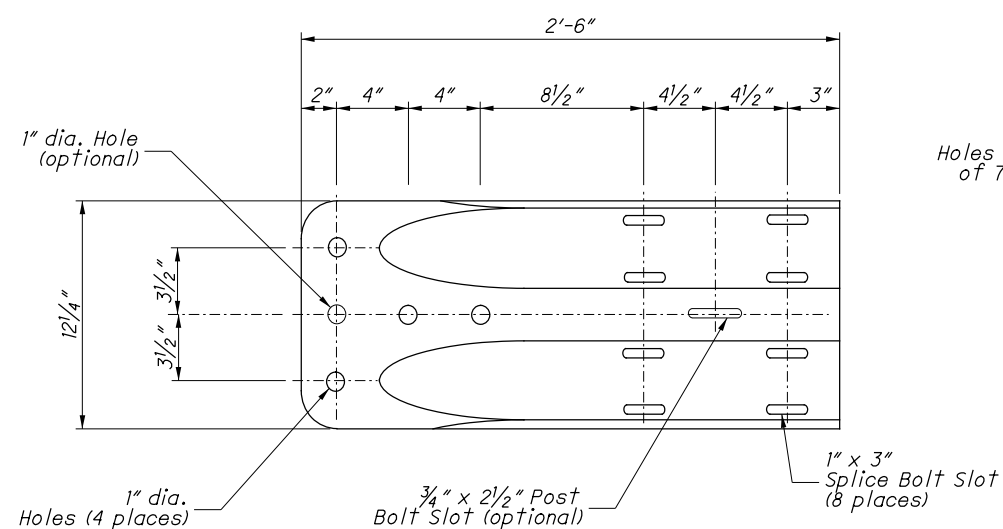


**ELEVATION
TYPE 2 TRANSITION SECTION**
(Asymmetric W to Thrie-Beam)

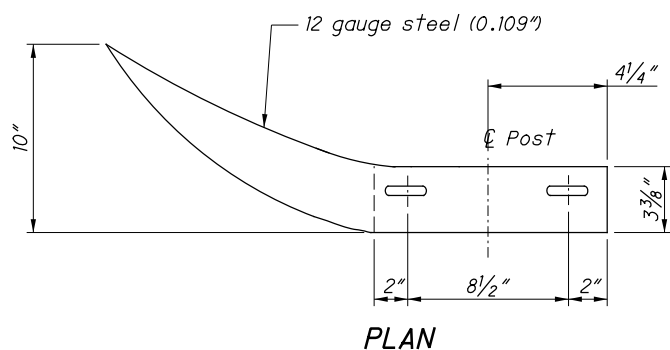
For details of Type 1 Transition Section (Symmetric), refer to AASHTO M 180, Figure 4.



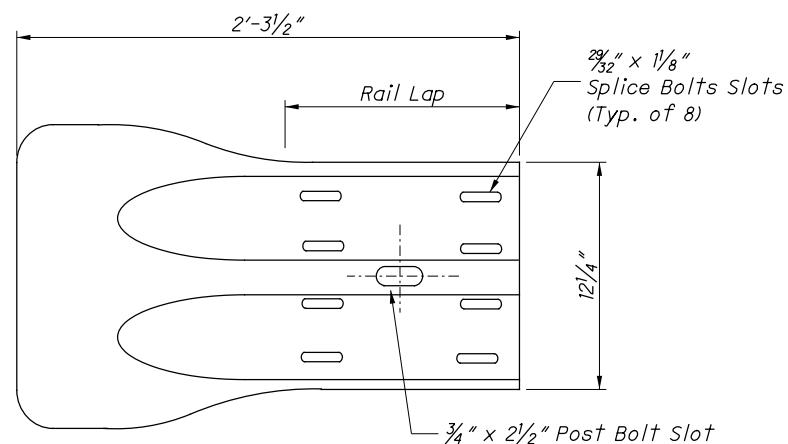
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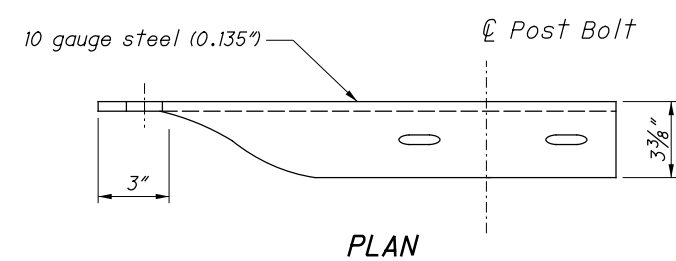
**ELEVATION
W-BEAM TERMINAL CONNECTOR**



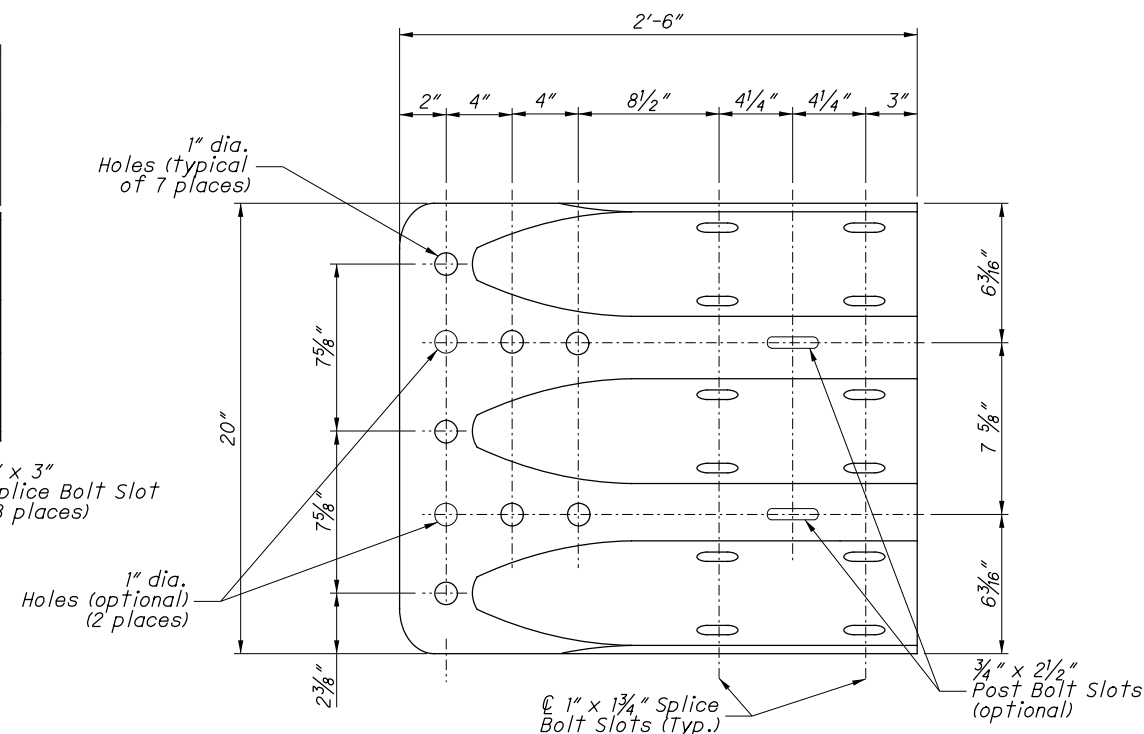
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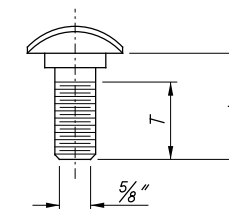
**ELEVATION
W-BEAM FLARED END SECTION**



PLAN



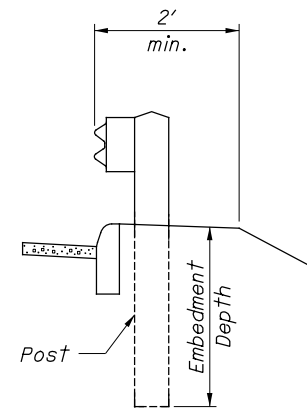
**ELEVATION
THRIE-BEAM TERMINAL CONNECTOR**



GUARDRAIL BOLT (For Post and Splice Bolts)		
L	T min.	Bolt Use
18" (Standard Rail)	4"	Type 5: WP/WB, PB
26" (Barrier Rail)		
10"	4"	Type 5: SP/WB, PB
1 1/4"	1 1/8"	Splice Bolt

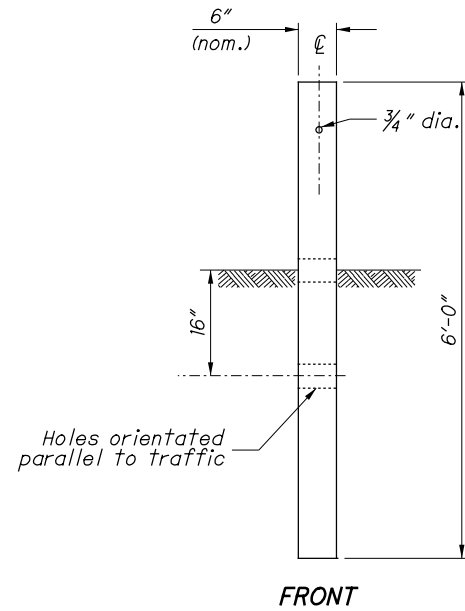
WP = Wood Post WB = Wood Blockout
 SP = Steel Post PB = Plastic Blockout

Longer Bolt may be needed for round Wood Post larger than 8" dia.

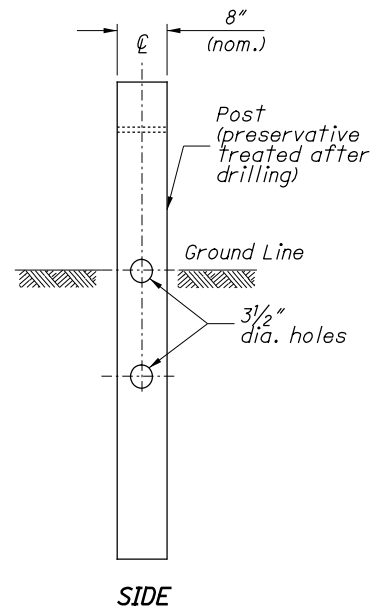


DETAIL A

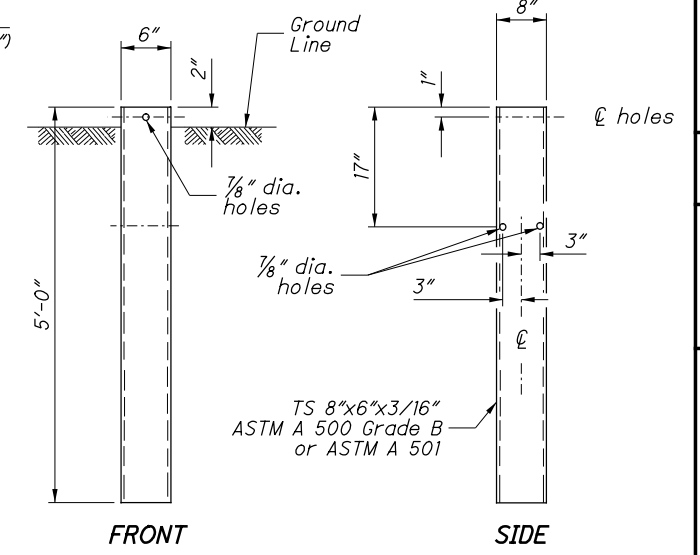
See POST EMBEDMENT DEPTH Note



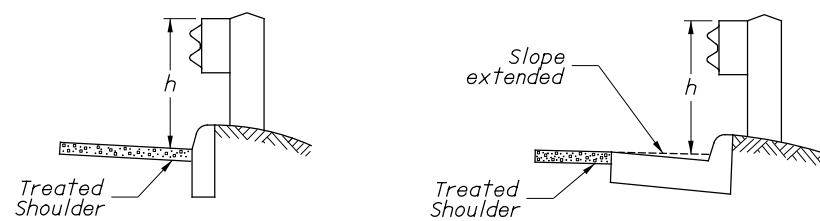
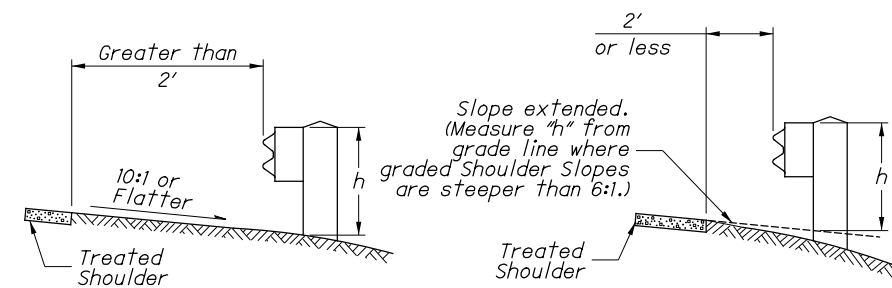
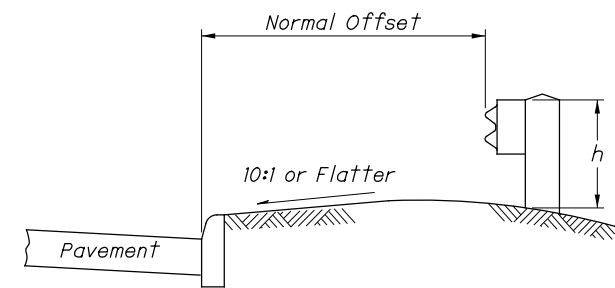
TYPE 1 BREAKAWAY CRT POST



TYPE 2 BREAKAWAY CRT POST



STEEL GROUND TUBE



h = Standard Height (See GUARDRAIL HEIGHT Note)

MEASURING GUARDRAIL HEIGHT

NOTES

GUARDRAIL HEIGHT: For initial installation, construct the guardrail within $\pm 1"$ of the standard height, h , or **29"** to the top of W-Beam rail. (See MEASURING GUARDRAIL HEIGHT Detail.)
When subsequent projects, such as resurfacings, affect the height of existing guardrail, the finished height is to be within $\pm 2.5"$ of the standard height.

POST EMBEDMENT DEPTH: Standard embedment is 3'-5" min. Where less than 2' of graded shoulder width (10:1 or flatter) exists, measured from the face of the guardrail (see DETAIL "A"), use longer posts so that a minimum of 5'-5" embedment depth is provided. Payment for the longer posts will be made at the unit price bid for **ITEM 606 - GUARDRAIL POST, 9', Each.**

SPECIAL POST MOUNTINGS: Install posts located over a drainage inlet or structure as shown in the FOOTING ANCHOR Detail, or anchor per the details shown on **SCD GR-2.2.**

Install posts located over a footing with a cover of less than 2'-6" with a footing anchor as detailed here. (A plate, as detailed on SECTION B-B of **SCD GR-2.2**, may be used as an alternative attachment method.) Where the cover is between 2'-6" and 3'-5", the footing anchor may be omitted and the post encased instead with 4" (min.) of concrete.

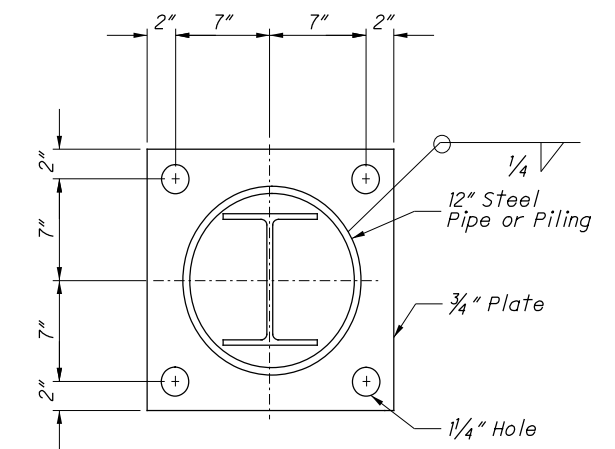
Do not drive posts located over a culvert with less than 4'-3" of cover; instead set in drilled or dug holes. Where the available post embedment depth is less than 3'-5", encase the post with a minimum of 4" concrete.

All costs associated with special post mountings are included in the unit price bid of Item 606 Guardrail of the type specified in the plans.

ANCHORS: Holes and grouting shall comply with CMS 510. Use either cement or non-shrink, nonmetallic grout.

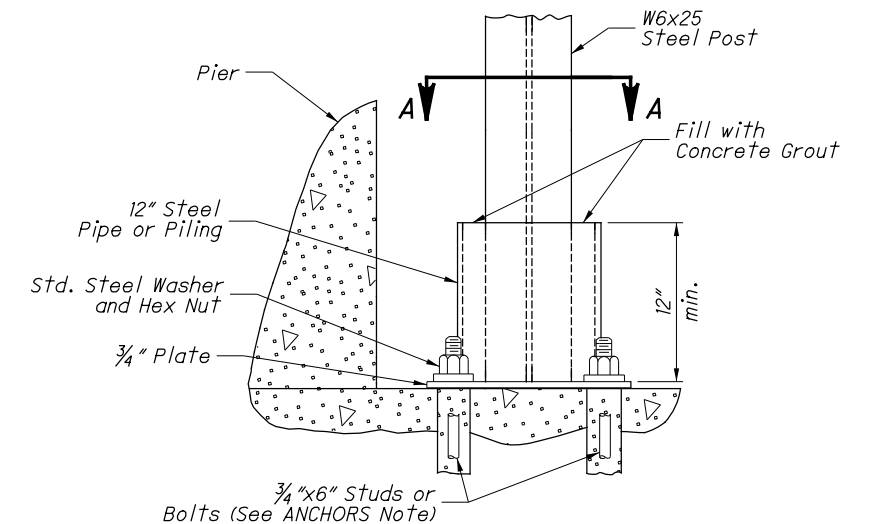
Expansion shield anchors as specified in CMS 712.01 may be substituted except where concrete deterioration has occurred, as determined by the Engineer. Where self-drilling anchors are used, drill the holes with the expansion shield (not by a drill bit) and install the shield flush with the concrete surface.

PROTECTIVE COATING: In lieu of the complying with CMS 710.06, coat expansion shields, anchors and concrete insert anchor assemblies embedded in concrete in accordance with ASTM A 153 or be of stainless steel. Any bolts screwed into these devices shall meet CMS 710.06. (See sheet 3 for Concrete Insert Anchor Assembly Detail.)



Footing Anchor and hardware need not be galvanized

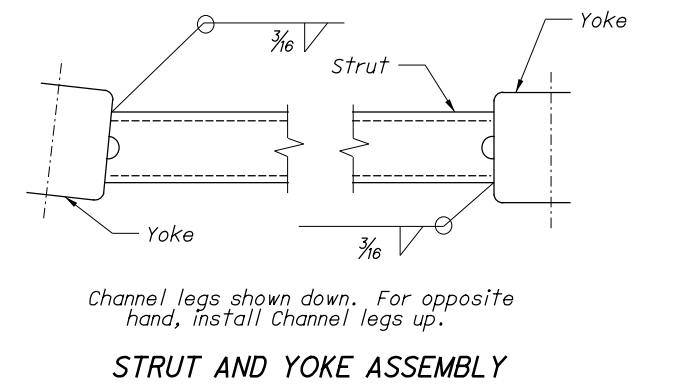
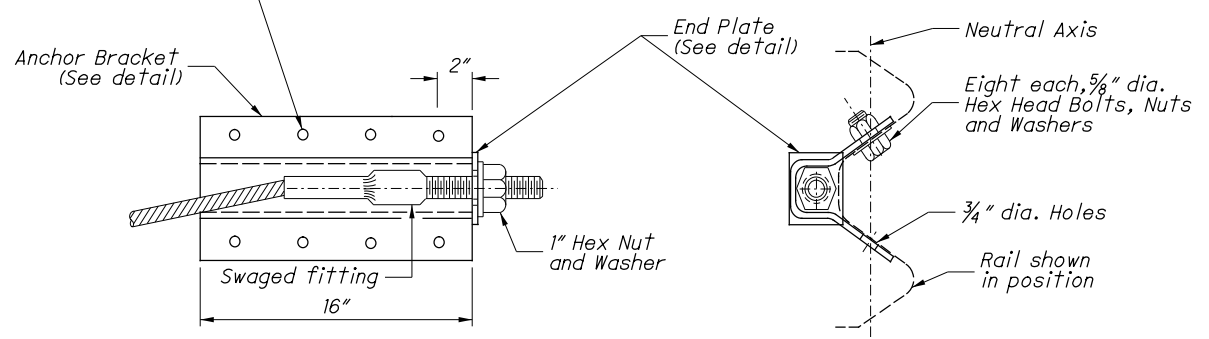
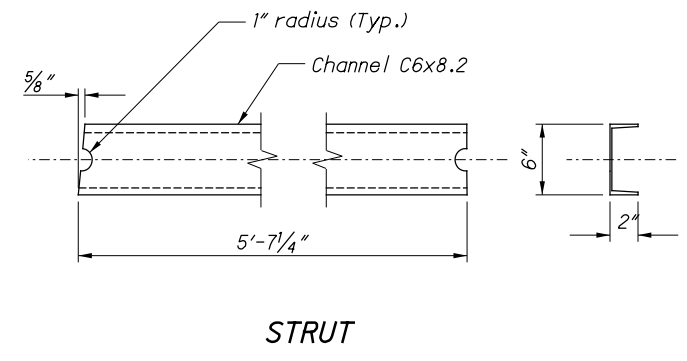
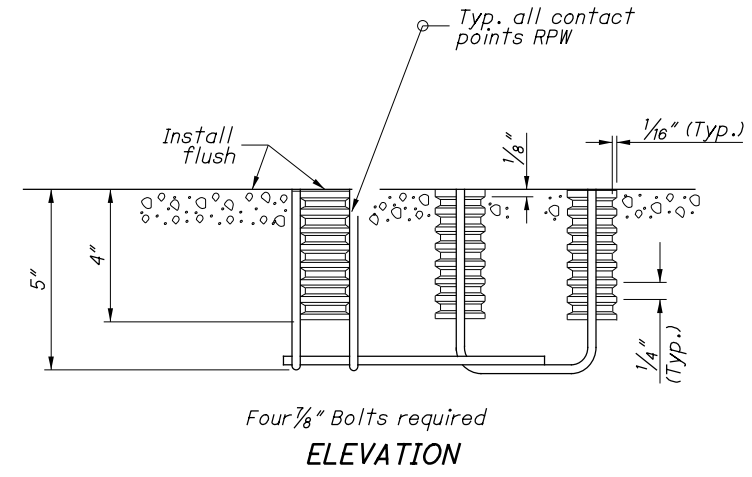
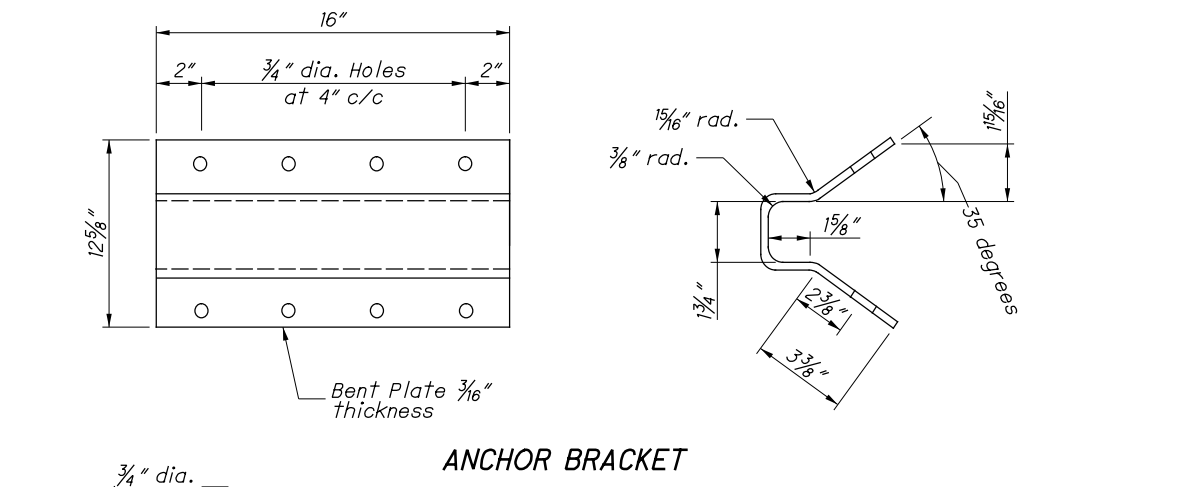
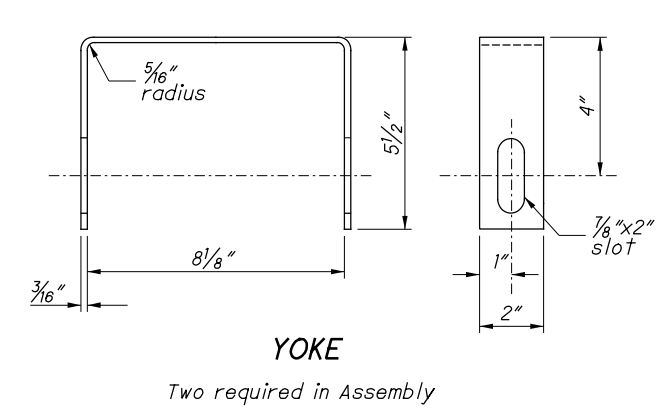
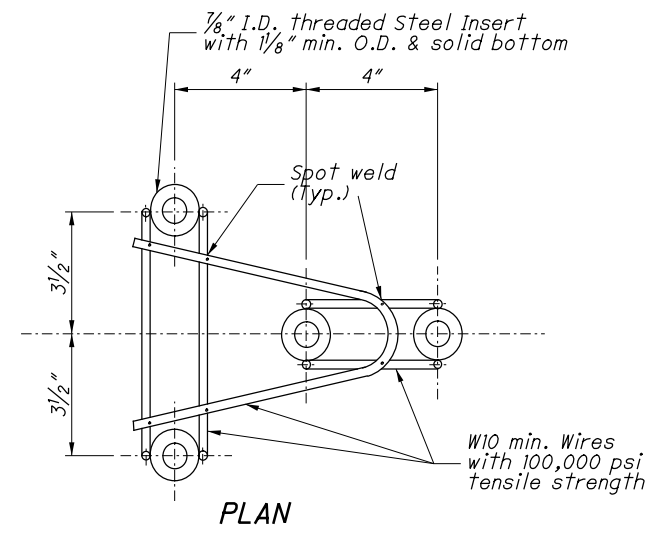
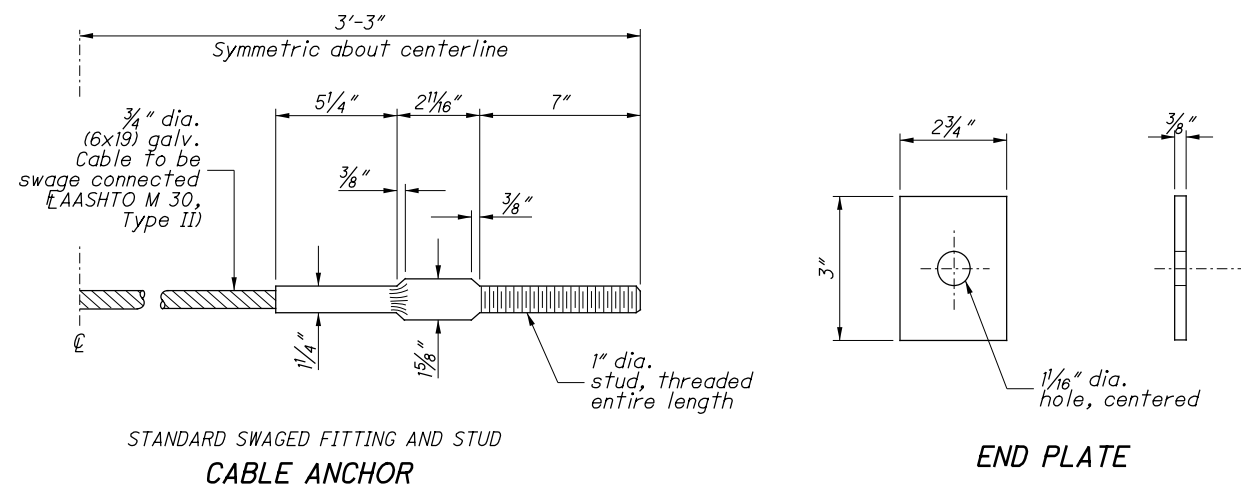
SECTION A-A



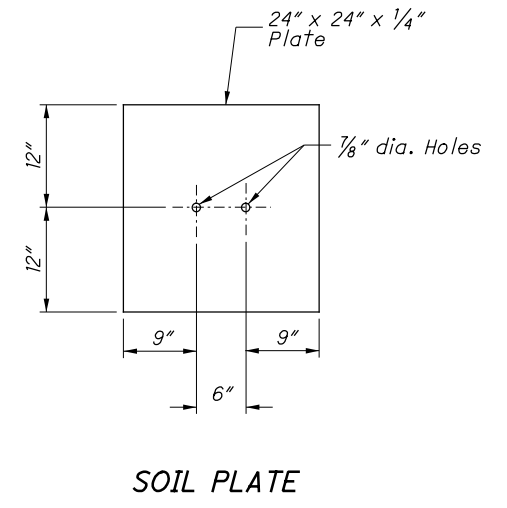
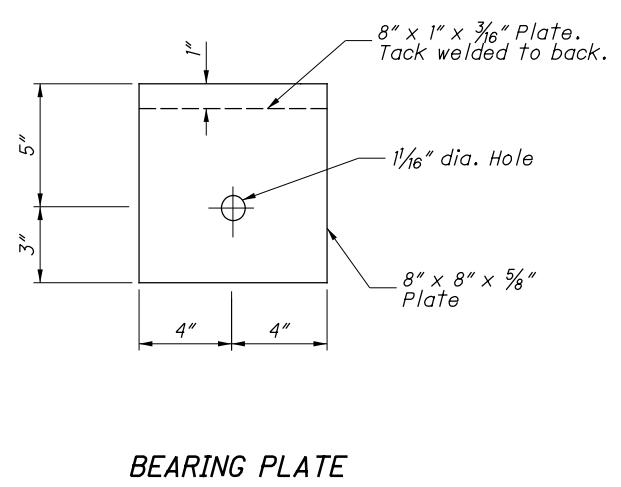
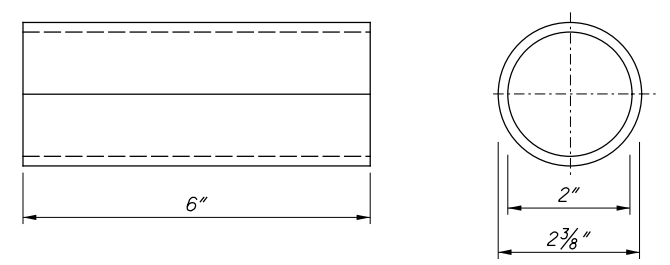
ELEVATION FOOTING ANCHOR

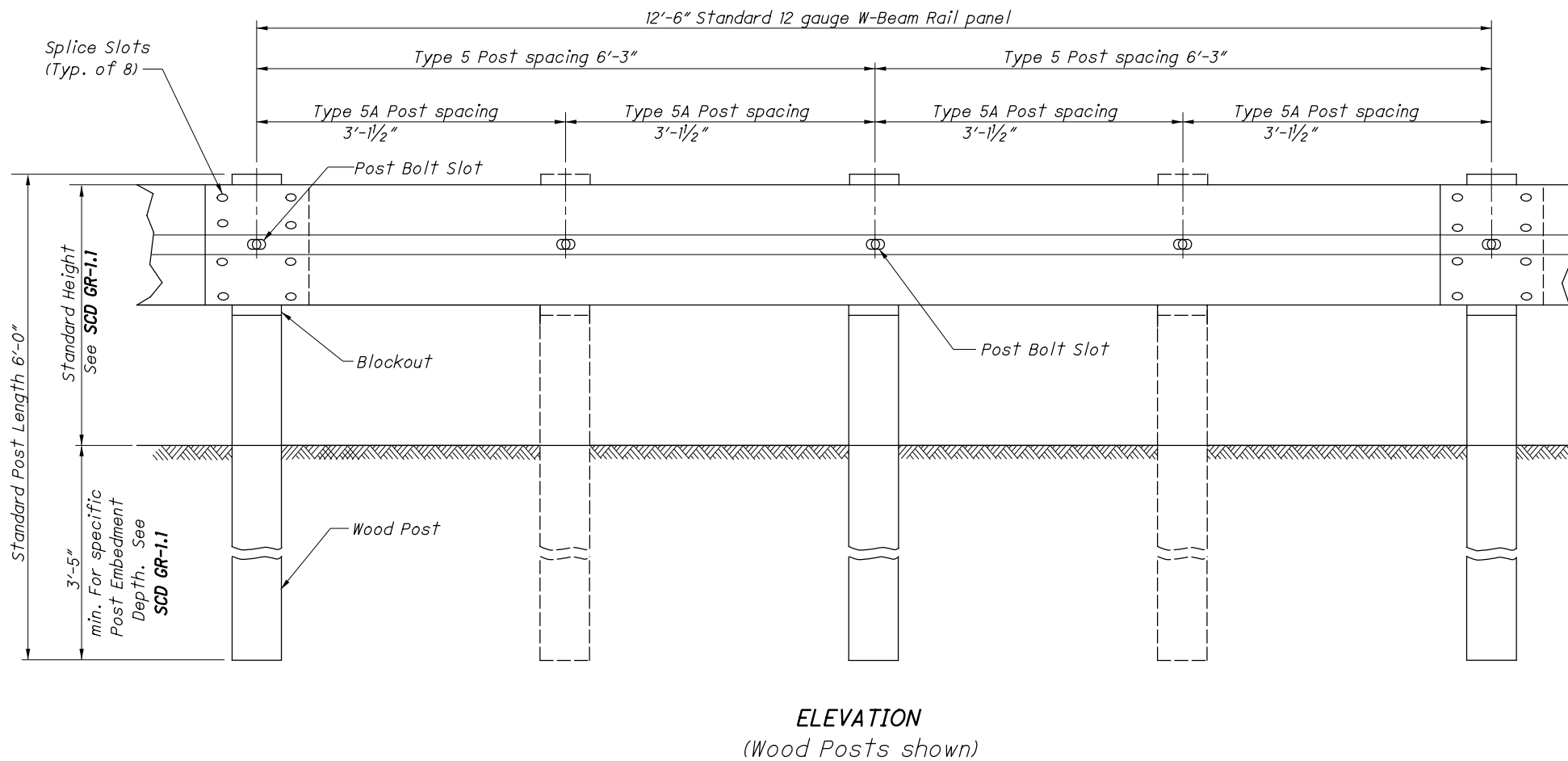
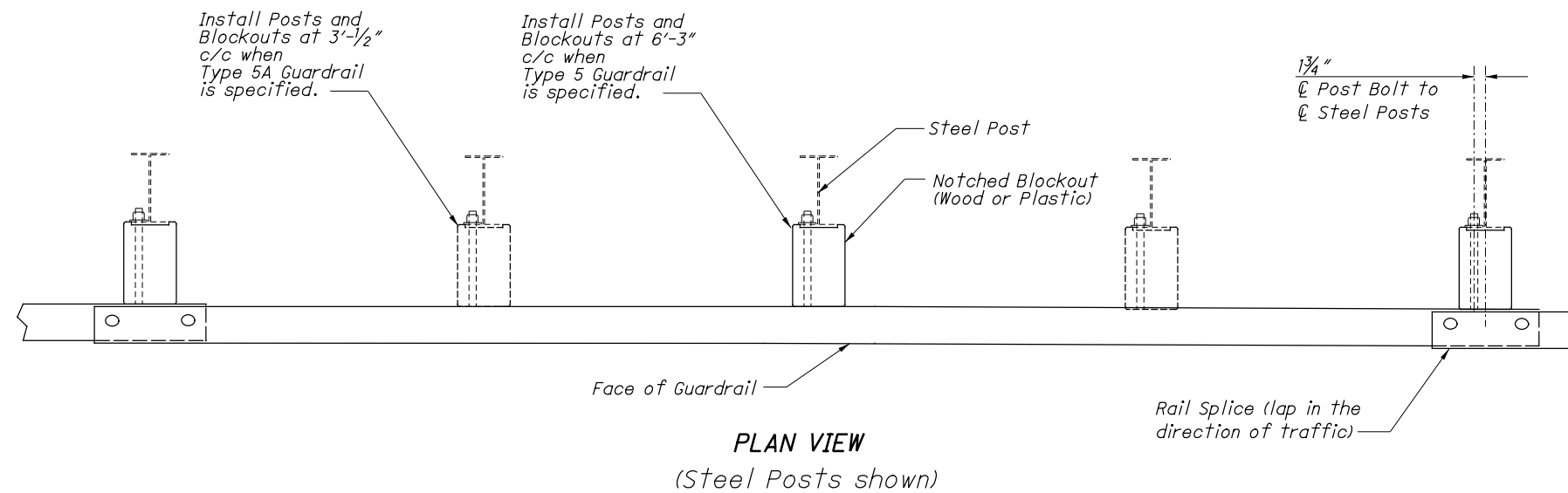
See SPECIAL POST MOUNTINGS Note.

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ANCHOR BRACKET ASSEMBLY DETAILS





NOTES

RAIL: Use W-Beam rail meeting AASHTO M 180 Type II Class A, as specified in CMS 606.

POSTS: Posts may be constructed of wood or steel. Wood posts may be round or 6"x8" square-sawed.

Use round wood posts on runs of single-sided rail. The round posts shall be 8"±1 in diameter at the top and not more than 3" larger at the butt with a uniform Taper.

Fabricated wood posts with square ends. Posts shall be pressure-treated as per CMS 710.14. Bore bolt holes and, if required, trim the tops of posts after the posts are set.

Steel posts are to be W6x9 or W6x8.5 galvanized steel. Use the same type of post throughout the length of the project unless otherwise specified in the plans or permitted by the Engineer.

All posts are 6'-0" long unless specified otherwise in the Contract Document. Posts may be set in drilled holes or may be driven to grade.

WELDED BEAM POSTS: Welded beam guardrail posts may be used for Item 606, Guardrail, provided the web and flange sizes are as shown here. Welding of the web to the flanges must comply with ASTM A 769, Class 1, using Grade 36 steel [250 MPa yield point] with the following exceptions:

- Sec. 7.2 Test reports of tensile properties for each lot shall accompany each shipment.
- Sec. 12 Beams that have imperfections repaired by welding shall not be accepted for use in Item 606.
- Sec. 13 Random samples shall be tested by the Department from materials delivered to the project site, or other locations designated by the Laboratory.

ALTERNATE POSTS: Engineered guardrail posts having met NCHRP 350 criteria, and listed on the **Office of Materials Management's** Approved List are permitted as an equal alternate when installed according to the Manufacturer's instructions and within the limitations shown on the Approved List.

BLOCKOUTS: Blockout dimensions are dependent on post used. Wood Blockouts are to be pressure treated as specified in CMS 710.14. Bore bolt holes. Approved alternate blockouts may be used in lieu of the wood blockouts shown. The approved list is maintained by the **Office of Roadway Engineering**.

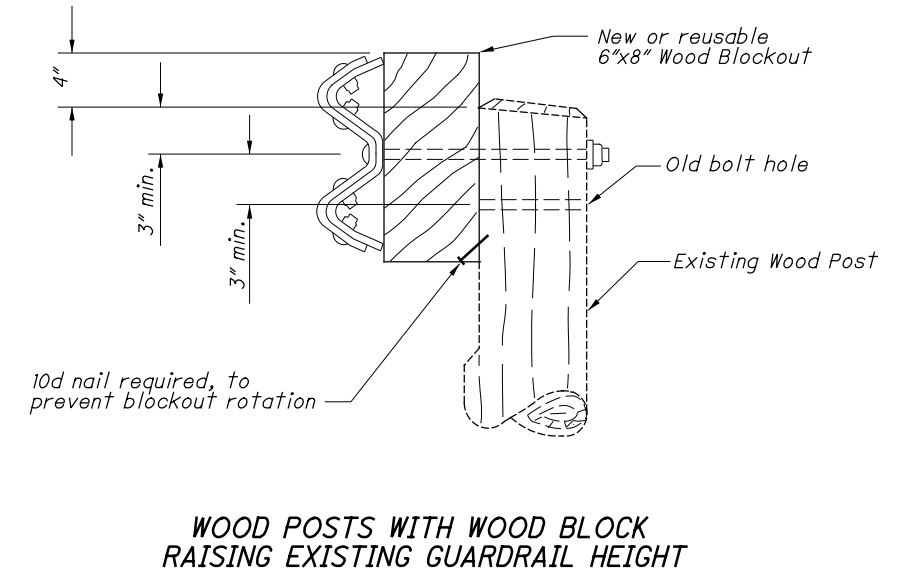
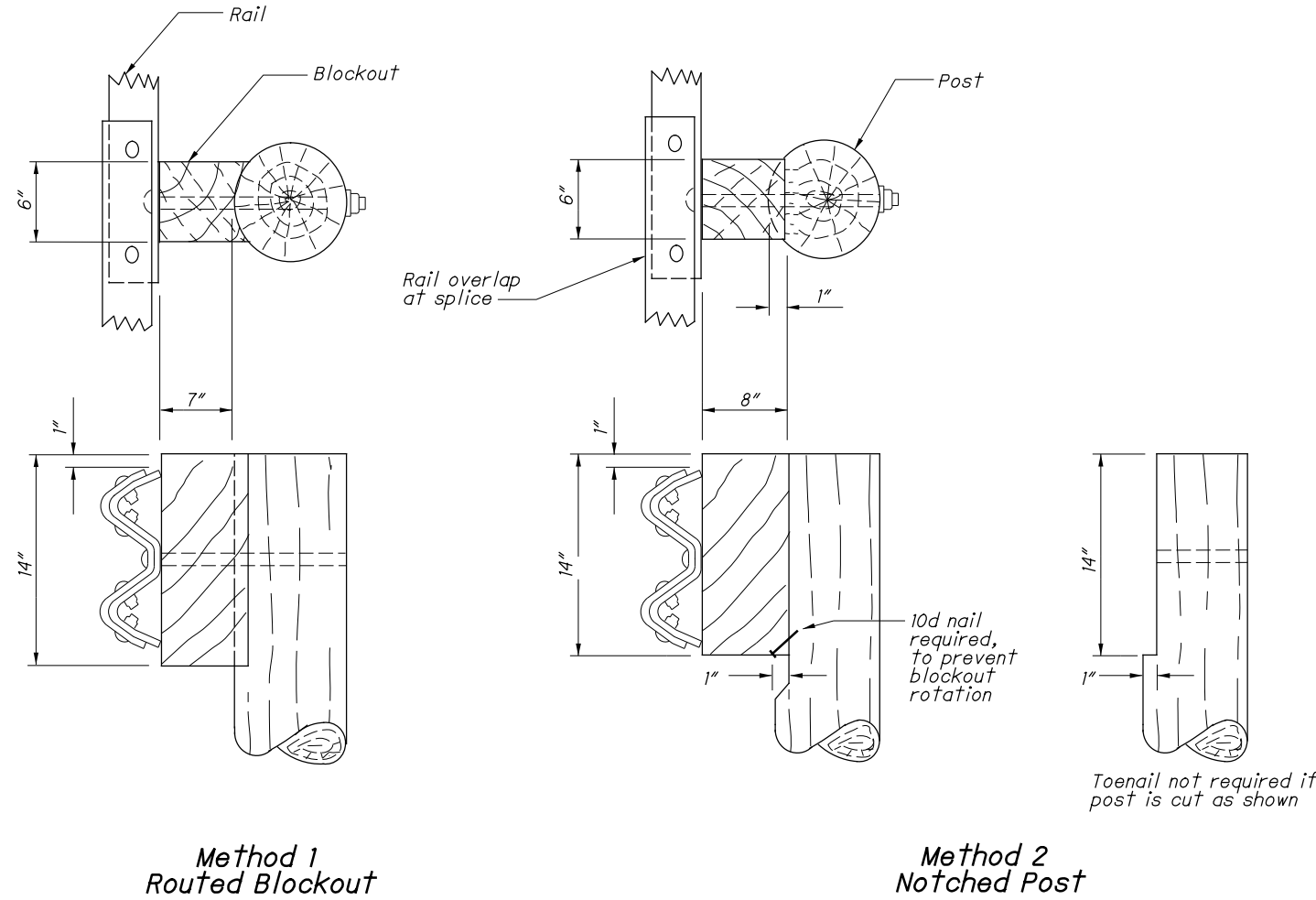
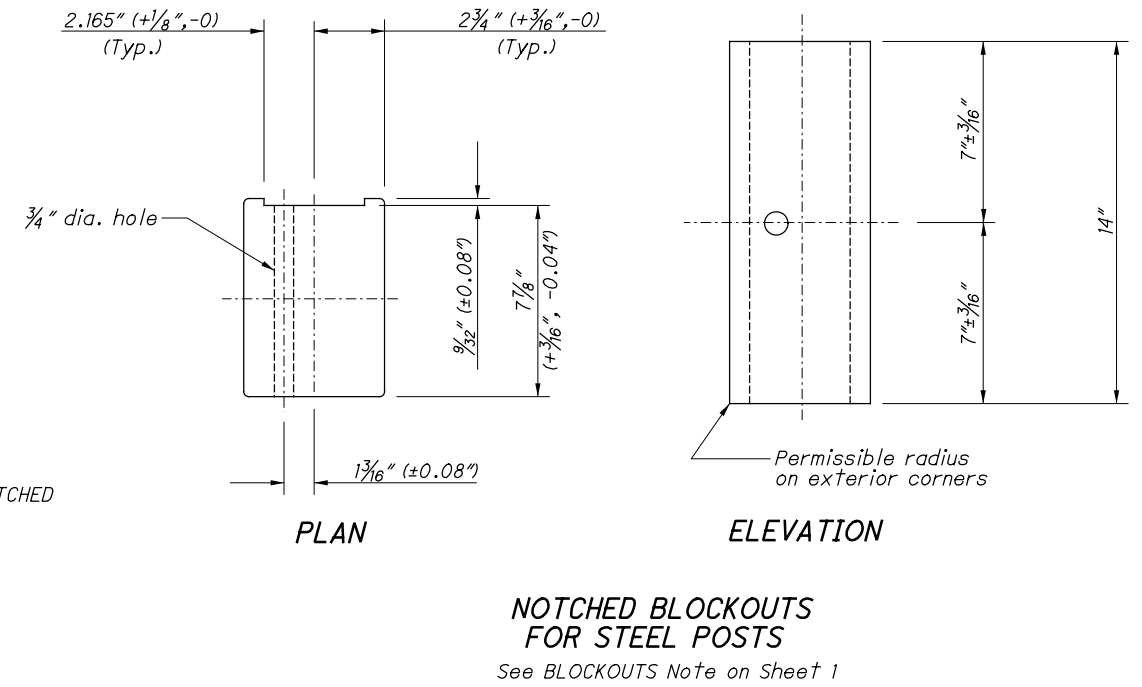
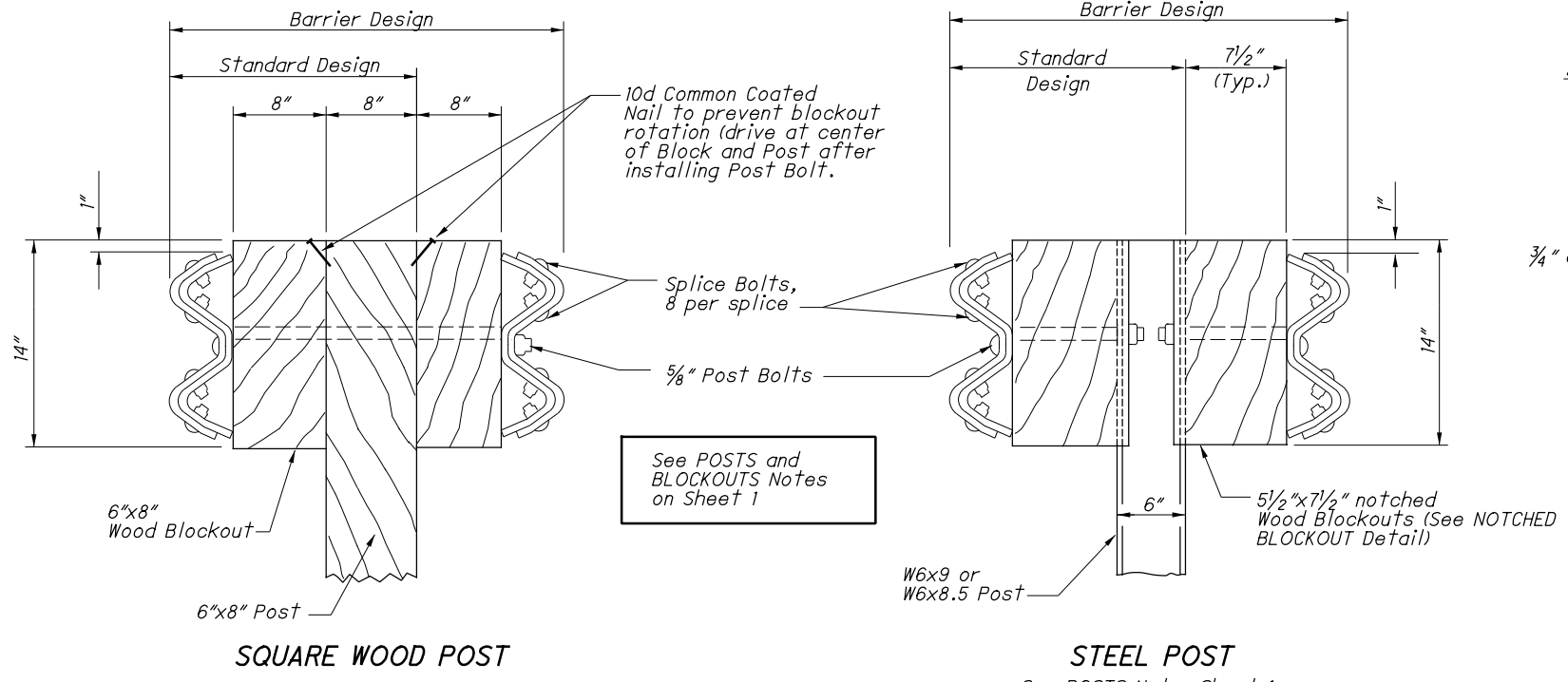
WASHERS: Install appropriate sized standard galvanized steel washers on the nut side of bolts installed on wood posts.

DELINEATION: For barrier reflectors, see CMS 626.

MISCELLANEOUS: For other guardrail details, see SCD GR-1.1.

STEEL BEAM POSTS (English)				
Size	Beam depth	Flange width	Flange thickness	Web thickness
Rolled W6x8.5	5.8"	3.94"	0.193"	0.170"
Rolled W6x9	5.9"	3.94"	0.215"	0.170"
Welded 6x8.5	6.0"	3.94"	0.193"	0.170"
Welded 6x9	6.0"	3.94"	0.215"	0.170"

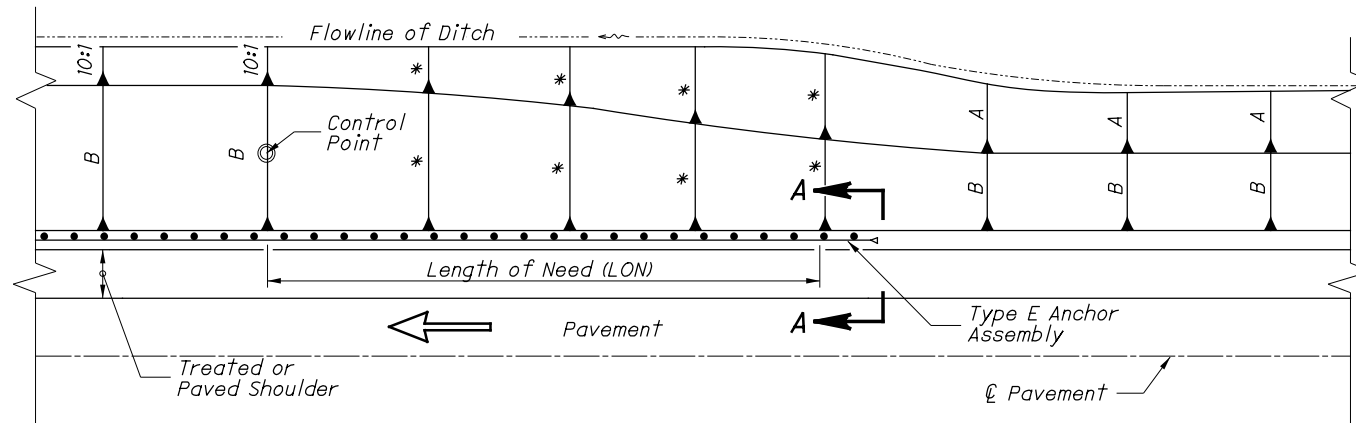
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Alternate methods of placing the Blockouts on round Posts may be submitted for consideration and approved by the Engineer.

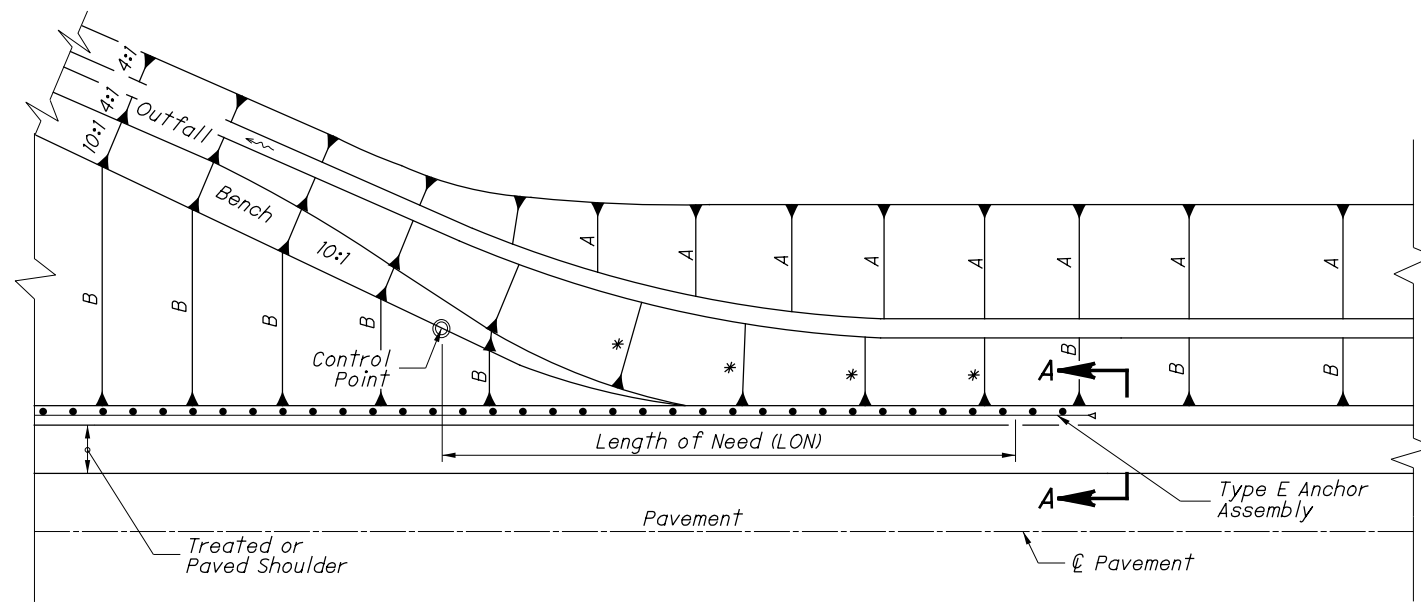
ROUND WOOD POSTS
Single Sided runs only (Standard Design)

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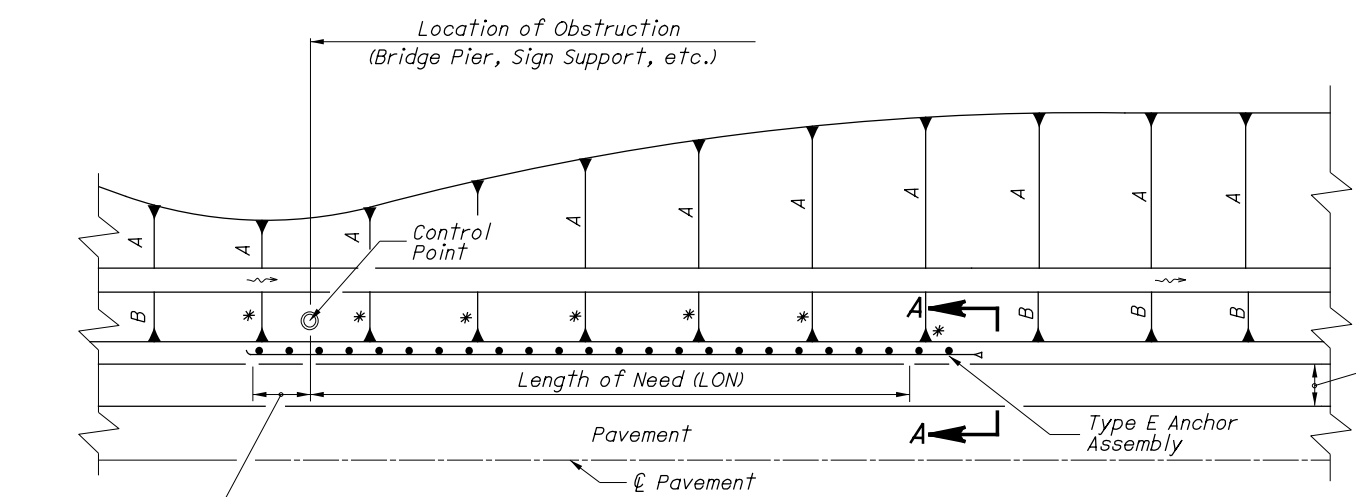


FILL TO FILL

* 3:1 or Flatter

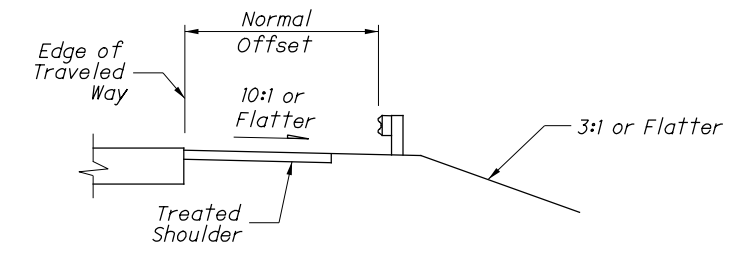


CUT TO FILL



OBSTRUCTION

Type T Anchor Assembly. See SCD GR-4.2.



SECTION A-A

NOTES

APPLICATION: Utilize details shown here only where approach foreslopes are steeper than 6:1, but not steeper than 3:1.

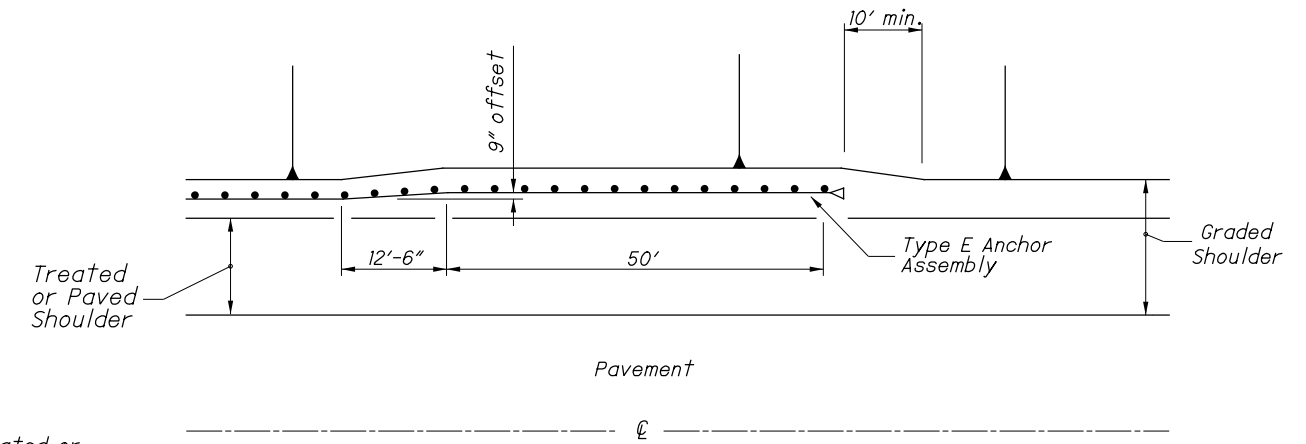
SLOPES: Slopes designated by * shall be 3:1 or flatter. Slopes labeled "A" and "B" shall be constructed as specified in the plans.

"LON" DISTANCE: The Length of Need, LON, represents the distance from the control point to the beginning of the end treatment. The control point shown designates the extent of the hazard being shielded and is shown for design use only. See **Location & Design Manual, Volume 1, Section 602.**

GUARDRAIL END TERMINALS: Terminals utilized for the situations shown here shall be Type E Anchor Assemblies unless otherwise specified in the plans.

OBSTRUCTION INSTALLATION: Use this installation for one-directional roadways only.

OFFSET DESIGN: The design shown may be specified on the plans where it is deemed detrimental to lose effective shoulder width due to the dimensions of the Type E Anchor Assembly. The Type E which represents the final 50' of guardrail is to be offset an additional 9" from the normal guardrail offset by tapering within the 12'-6" shown below. The graded shoulder width shall be increased 9" and tapered back to the normal width to 10' as shown.



OFFSET DESIGN
(Plan View)

DESIGNED	XXX
REVISION DATE	1/18/2013
CHECKED	XXX
REVIEWED	XXX
CHECKED	XXX