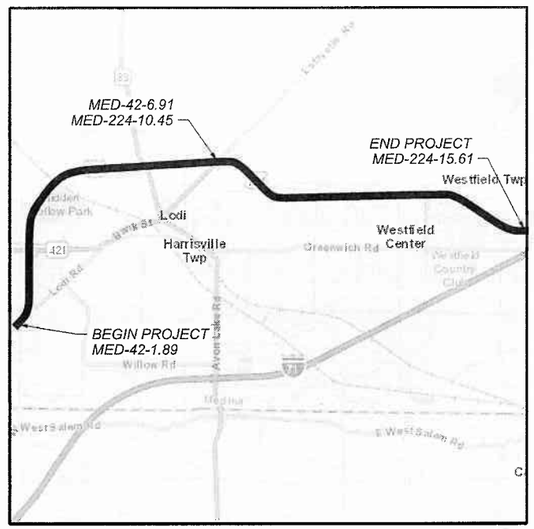
MED - US-US 42-01.89
210531 PID - 79761
Dist 3 11/18/2021

Contract Proposal available @ www.contracts.dot.state.oh.us

MED-42-1.89/MED-224-(6.25)(10.45)



LOCATION MAP

LATITUDE: 41°2'48" LONGITUDE: 81°59'38"

PORTION TO BE IMPROVED ----------

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

MED-42-1.89
MED-224-(6.25)(10.45)

VILLAGE OF WESTFIELD CENTER

HARRISVILLE TOWNSHIP
WESTFIELD TOWNSHIP

MEDINA COUNTY

DESIGN DESIGNATIONS: SEE SHEET 2

DESIGN EXCEPTIONS

NONE REQUIRED

ADA DESIGN WAIVERS

NONE REQUIRED

INDEX OF SHEETS:

FEDERAL PROJECT NUMBER

E170083

RAILROAD INVOLVEMENT

CSX, WHEELING & LAKE ERIE

PROJECT DESCRIPTION

THIS PROJECT INCLUDES PAVEMENT REPAIRS, PLANING AND PAVING WITH ASPHALT CONCRETE, BRIDGE MAINTENANCE, GUARDRAIL REPAIR, AND REPLACING PAVEMENT MARKINGS.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	*N/A ACRES**
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	*N/A ACRES**
NOTICE OF INTENT EARTH DISTURBED AREA:	*N/A ACRES**

** = MAINTENANCE PROJECT*

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.

CONFORMED SET

PLANS PREPARED BY:

OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT THREE ENGINEERING

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEETS 17-22.

APPROVED _____ *DATE* 6/25/21 *DISTRICT DEPUTY DIRECTOR*

APPROVED Jack Hanrahan/DES *DATE* 8/17/2021 *DIRECTOR, DEPARTMENT OF TRANSPORTATION*

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)

ENGINEER'S SEAL:

STATE OF OHIO
KARLA R. BOHMER
E-76834
REGISTERED PROFESSIONAL ENGINEER

SIGNED: Karla R. Bohmer
DATE: 6/30/21

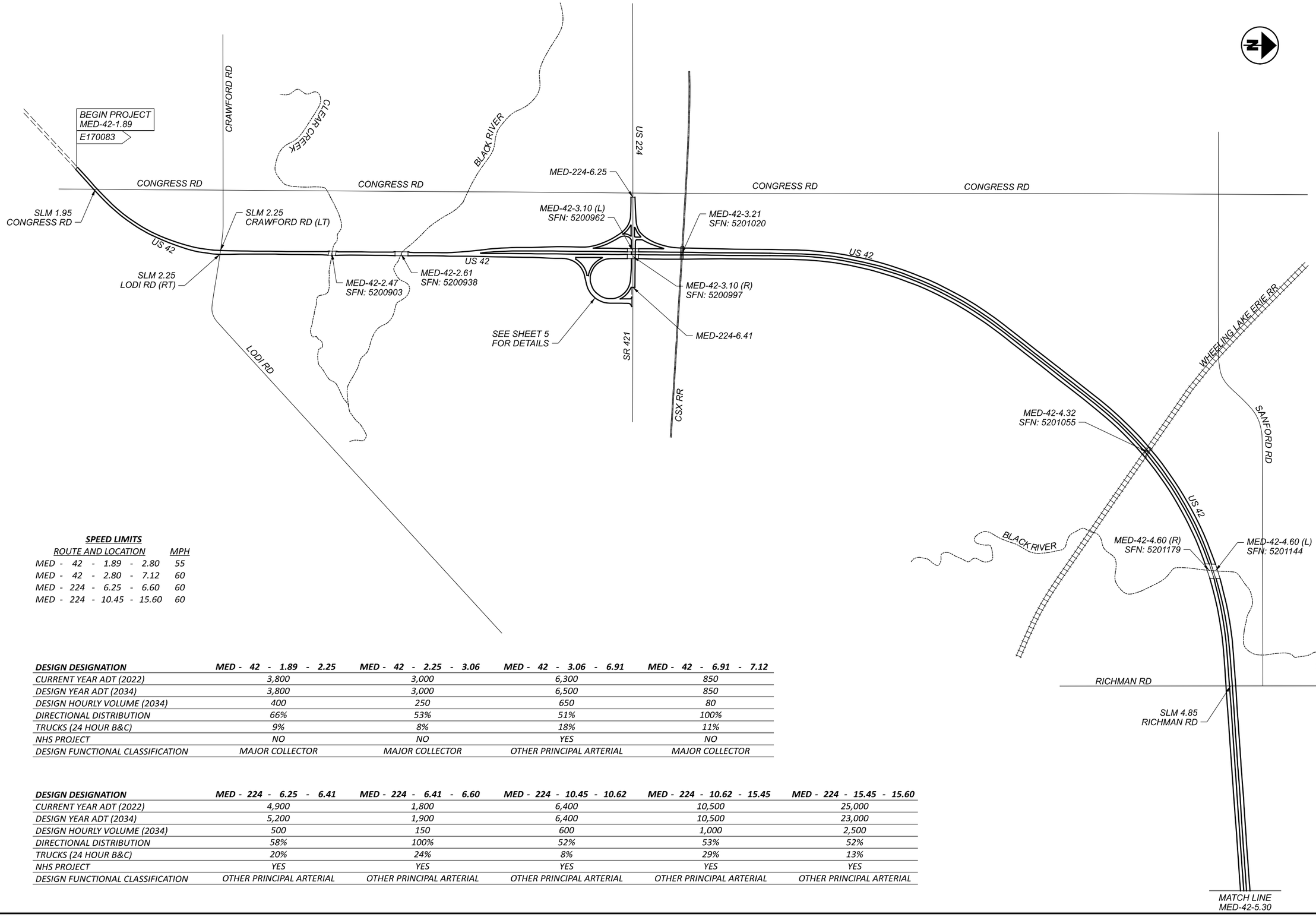
STANDARD CONSTRUCTION DRAWINGS

AS-1-15	7/17/15	MGS-1.1	1/19/18	MT-95.30	7/19/19	MT-101.60	1/17/20	TC-41.20	10/18/13	800	7/16/21
DBR-2-73	7/19/02	MGS-2.1	1/19/18	MT-95.40	1/17/20	MT-101.70	1/17/20	TC-42.20	10/18/13	807	7/17/20
DBR-3-11	7/15/11	MGS-3.1	1/19/18	MT-95.45	1/17/20	MT-101.75	1/17/20	TC-52.10	10/18/13	808	1/18/19
EXJ-4-87	1/19/18	MGS-3.2	1/18/13	MT-95.50	7/21/17	MT-101.90	7/17/20	TC-52.20	1/15/21	821	4/20/12
		MGS-4.2	7/19/13	MT-96.11	4/16/21	MT-102.20	4/19/19	TC-61.30	7/19/19	830	7/19/19
BP-2.1	7/17/15	MGS-4.3	1/18/13	MT-96.20	7/15/16	MT-104.10	10/16/15	TC-64.10	1/17/20	832	10/19/18
BP-2.2	1/15/21	MGS-6.1	1/19/18	MT-96.26	1/18/19	MT-105.10	1/17/20	TC-65.10	1/17/14	848	1/15/21
BP-2.5	7/19/13	MGS-6.2	7/19/19	MT-97.12	1/20/17			TC-65.11	7/21/17	850	4/16/21
BP-3.1	1/17/20			MT-98.10	1/17/20			TC-71.10	1/19/18	872	4/17/20
BP-3.2	1/18/19	RM-4.6	7/19/13	MT-98.11	1/17/20			TC-72.20	7/20/18	873	4/16/21
BP-6.1	7/19/13			MT-98.20	4/19/19			TC-73.20	1/17/20	874	4/17/20
BP-9.1	1/18/19			MT-98.22	1/17/20					875	1/18/19
				MT-98.28	1/17/20					861	1/15/21
DM-4.1	7/17/20			MT-98.29	1/17/20					***SPECIAL PROVISIONS***	
DM-4.3	1/15/16			MT-99.20	4/19/19						
DM-4.4	1/15/16			MT-99.50	1/17/20						

SUPPLEMENTAL SPECIFICATIONS

TITLE SHEET

DESIGN AGENCY	DISTRICT 3
	ENGINEERING TEAM TWO
DESIGNER	ACM
REVIEWER	KRB 6-30-21
PROJECT ID	79761
SHEET	1
TOTAL	79



HORIZONTAL SCALE IN FEET
0 250 500 1000

SCHEMATIC PLAN
MED-42 MAINLINE

SPEED LIMITS

ROUTE AND LOCATION	MPH
MED - 42 - 1.89 - 2.80	55
MED - 42 - 2.80 - 7.12	60
MED - 224 - 6.25 - 6.60	60
MED - 224 - 10.45 - 15.60	60

DESIGN DESIGNATION	MED - 42 - 1.89 - 2.25	MED - 42 - 2.25 - 3.06	MED - 42 - 3.06 - 6.91	MED - 42 - 6.91 - 7.12
CURRENT YEAR ADT (2022)	3,800	3,000	6,300	850
DESIGN YEAR ADT (2034)	3,800	3,000	6,500	850
DESIGN HOURLY VOLUME (2034)	400	250	650	80
DIRECTIONAL DISTRIBUTION	66%	53%	51%	100%
TRUCKS (24 HOUR B&C)	9%	8%	18%	11%
NHS PROJECT	NO	NO	YES	NO
DESIGN FUNCTIONAL CLASSIFICATION	MAJOR COLLECTOR	MAJOR COLLECTOR	OTHER PRINCIPAL ARTERIAL	MAJOR COLLECTOR

DESIGN DESIGNATION	MED - 224 - 6.25 - 6.41	MED - 224 - 6.41 - 6.60	MED - 224 - 10.45 - 10.62	MED - 224 - 10.62 - 15.45	MED - 224 - 15.45 - 15.60
CURRENT YEAR ADT (2022)	4,900	1,800	6,400	10,500	25,000
DESIGN YEAR ADT (2034)	5,200	1,900	6,400	10,500	23,000
DESIGN HOURLY VOLUME (2034)	500	150	600	1,000	2,500
DIRECTIONAL DISTRIBUTION	58%	100%	52%	53%	52%
TRUCKS (24 HOUR B&C)	20%	24%	8%	29%	13%
NHS PROJECT	YES	YES	YES	YES	YES
DESIGN FUNCTIONAL CLASSIFICATION	OTHER PRINCIPAL ARTERIAL	OTHER PRINCIPAL ARTERIAL	OTHER PRINCIPAL ARTERIAL	OTHER PRINCIPAL ARTERIAL	OTHER PRINCIPAL ARTERIAL

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER: TPG
REVIEWER: KRB 6-30-21
PROJECT ID: 79761
SHEET 2 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

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MED-42-1.89/MED-224-(6.25)(10.45)

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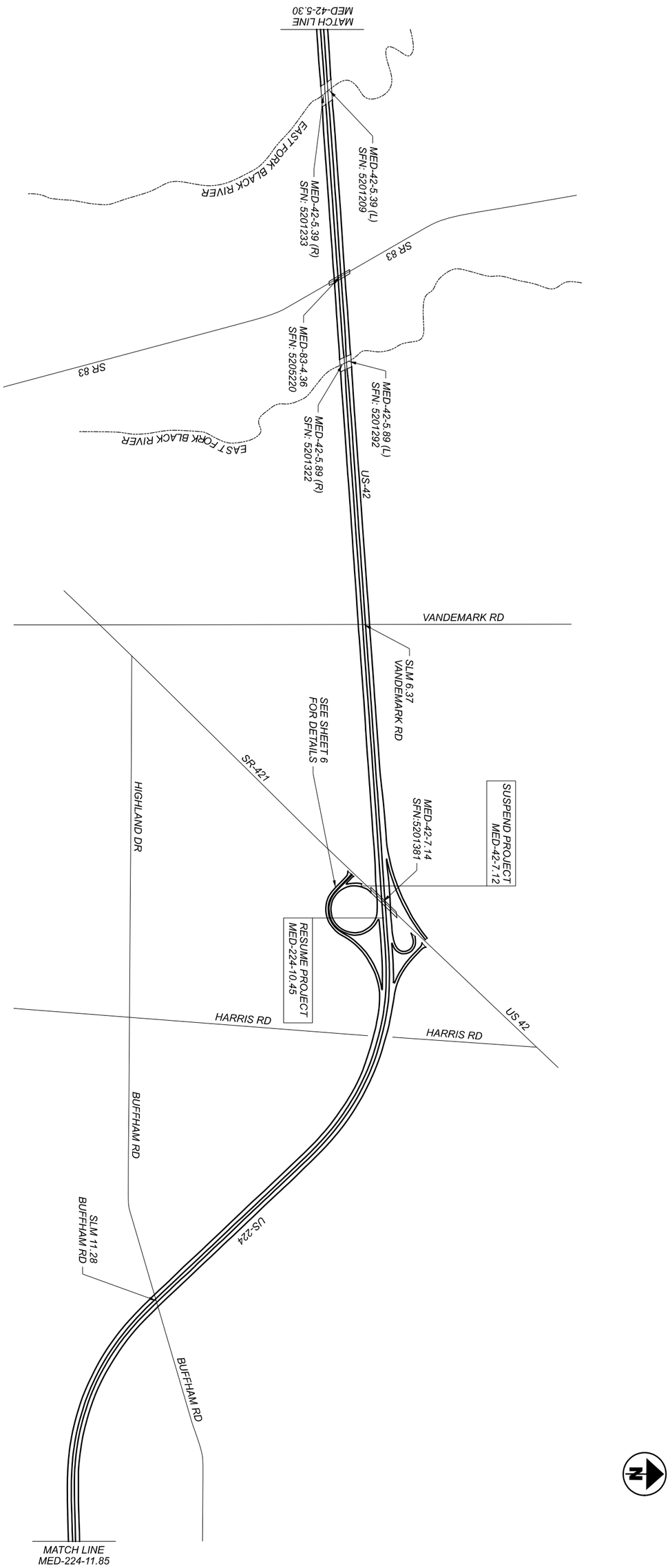

SHEET 3 / TOTAL 79	PROJECT ID 79761	REVIEWER KRB 6-30-21	DESIGNER TPG	DESIGN AGENCY DISTRICT 3 — ENGINEERING TEAM TWO

SCHEMATIC PLAN
MED-42/224 MAINLINE

HORIZONTAL SCALE IN FEET
0 500
250 1000

MED-42-1.89/MED-224-(6.25)(10.45)

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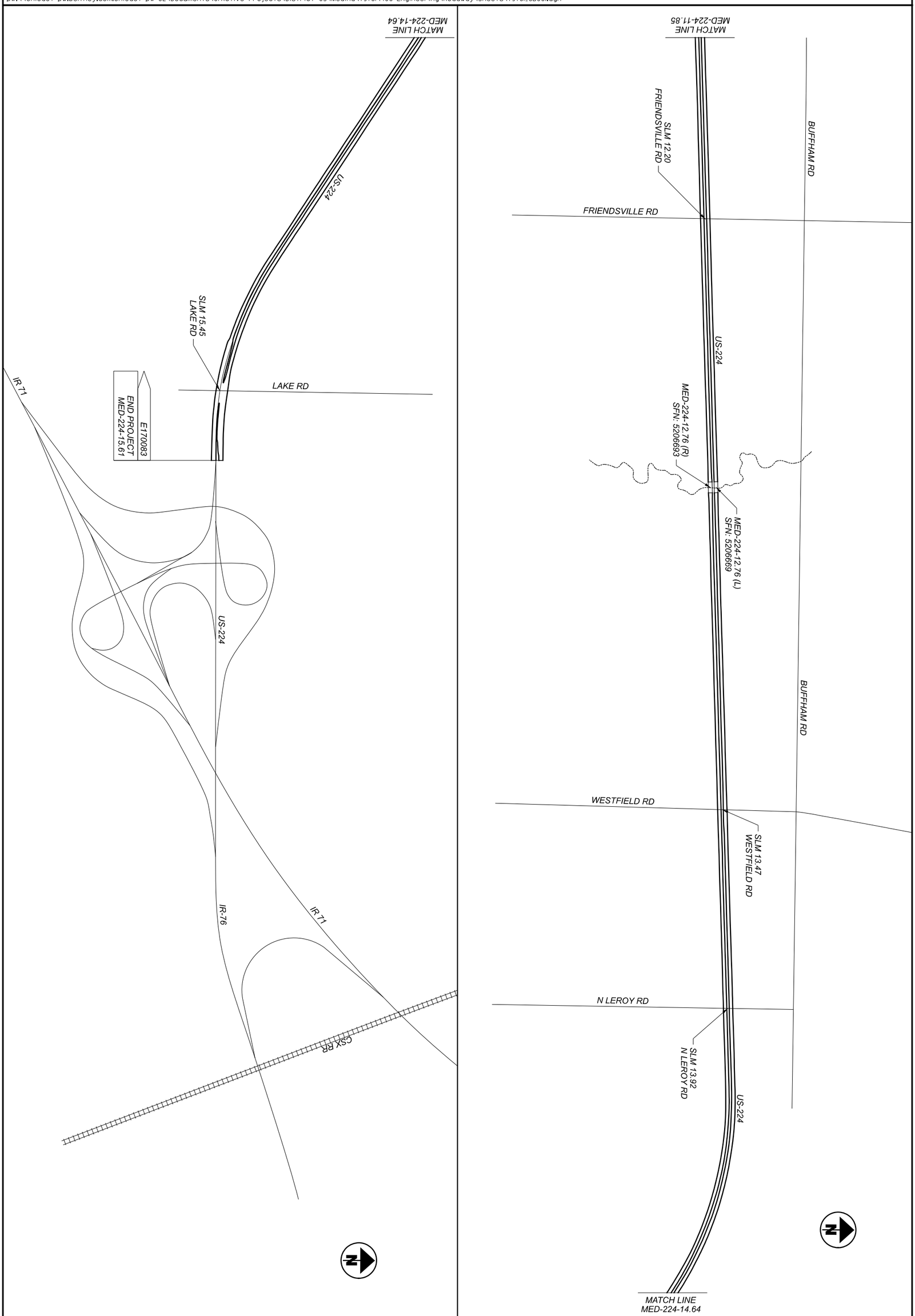

DESIGN AGENCY: DISTRICT 3	SCHEMATIC PLAN MED-224 MAINLINE		HORIZONTAL SCALE IN FEET 0 500 250 1000
ENGINEERING TEAM TWO			
DESIGNER: TPG			
REVIEWER: KRB 6-30-21			
PROJECT ID: 79761			
SHEET 4 | TOTAL 79			

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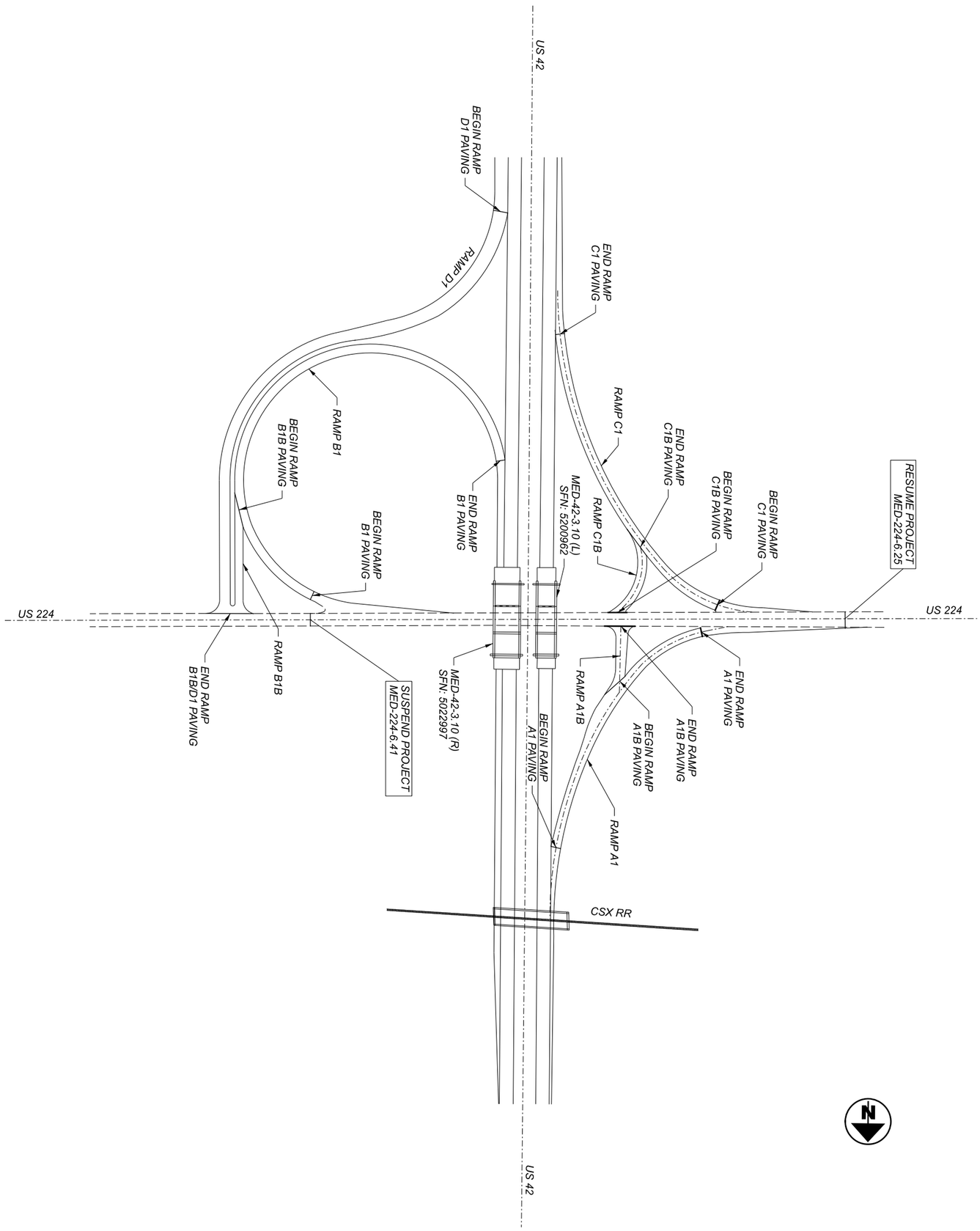

SHEET 5 / TOTAL 79	PROJECT ID 79761	REVIEWER KRB 6-30-21	DESIGNER TPG

ENGINEERING TEAM TWO

DESIGN AGENCY DISTRICT 3

SCHEMATIC PLAN
MED-42/224 SOUTH INTERCHANGE

HORIZONTAL SCALE IN FEET
0 100
50 200

MODEL: SCHEMATIC5 PAPERSIZE: 17x11(In.) DATE: 7/12/2021 TIME: 12:51:19 PM USER: jlowery
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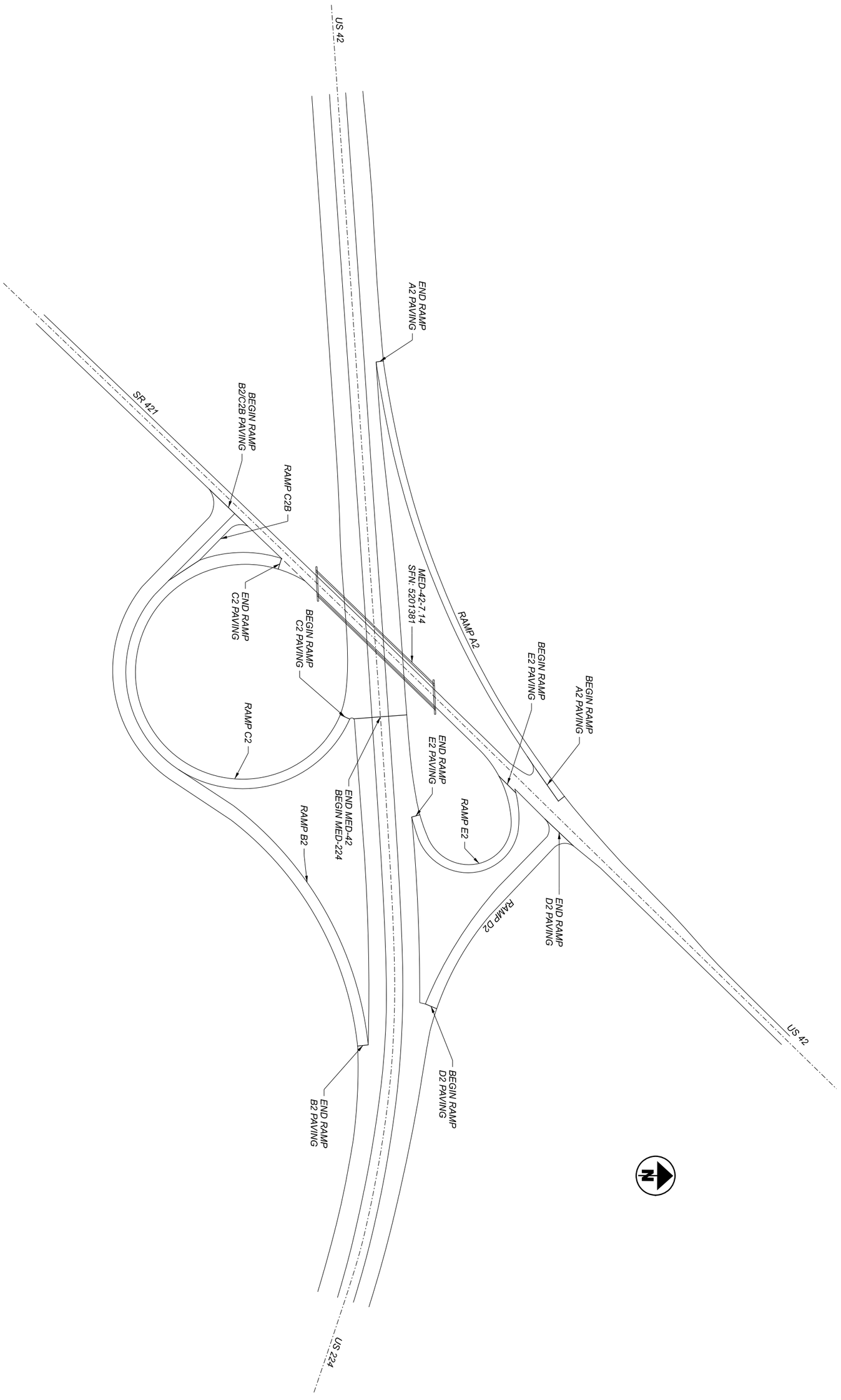


SCHEMATIC PLAN
MED-42/224 NORTH INTERCHANGE

DESIGN AGENCY
DISTRICT 3

ENGINEERING TEAM TWO

DESIGNER
TPG

REVIEWER
KRB 6-30-21

PROJECT ID
79761

SHEET 6 | TOTAL 79

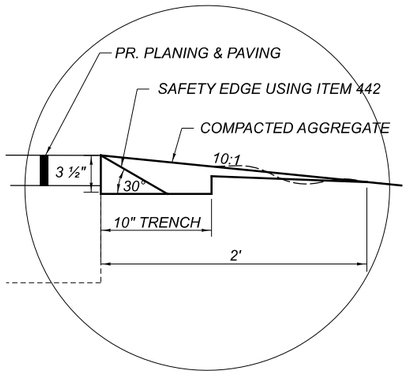
HORIZONTAL SCALE IN FEET
0 100
50 200

EXISTING LEGEND

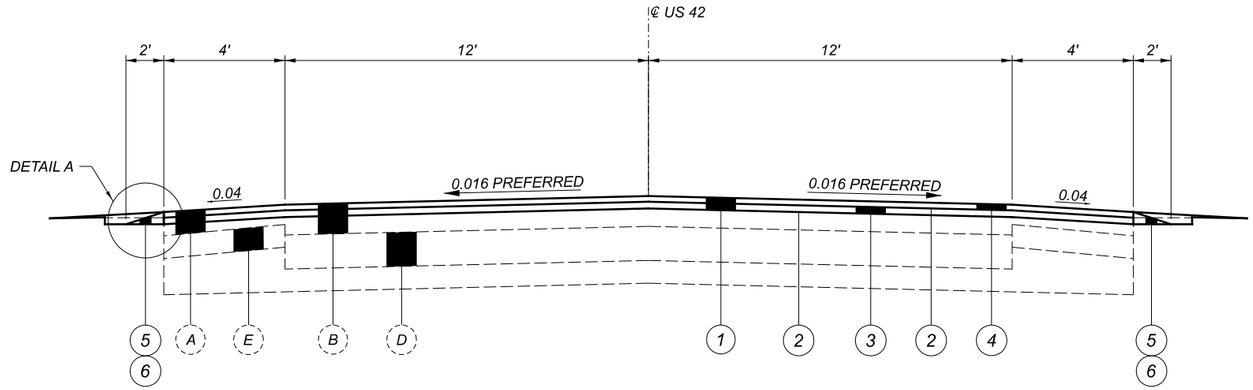
- (A) 5"± ASPHALT CONCRETE
- (B) 7"± ASPHALT CONCRETE
- (C) 9"± ASPHALT CONCRETE
- (D) 9"± REINFORCED CONCRETE PAVEMENT
- (E) AGGREGATE BASE

PROPOSED LEGEND

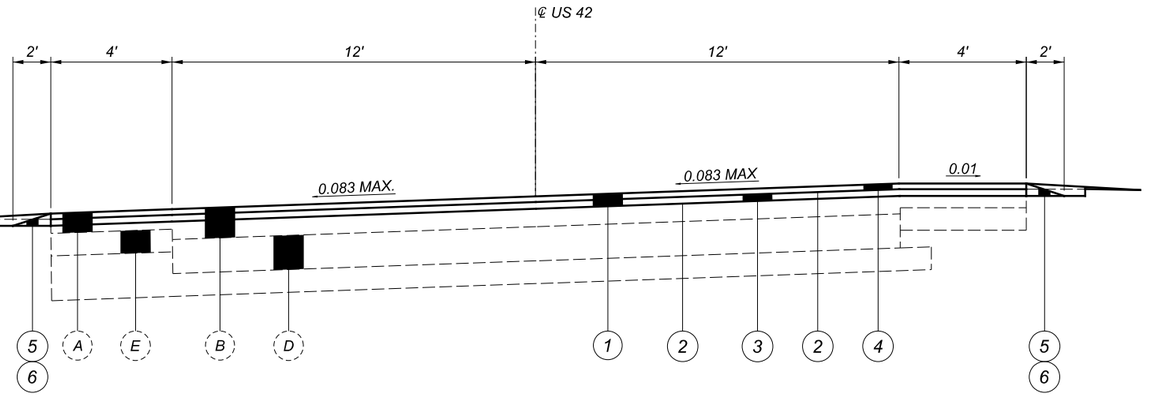
1. ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (3.25")
2. ITEM 407 - TACK COAT (0.08 GAL/SY 1ST LIFT, 0.05 GAL/SY 2ND LIFT)
3. ITEM 861 - ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446) (1.75")
4. ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446) (1.50")
5. ITEM 408 - PRIME COAT, AS PER PLAN (0.40 GAL/SY)
6. ITEM 617 - COMPACTED AGGREGATE (2.0")



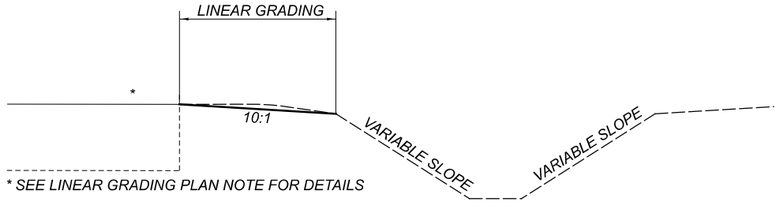
DETAIL A
SAFETY EDGE



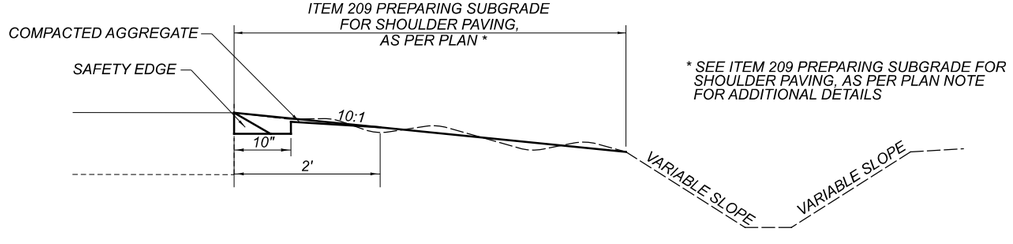
NORMAL SECTION - TWO-LANE
MED-42-1.89 TO 2.78



SUPERELEVATED SECTION - TWO-LANE
MED-42-1.89 TO 2.78



LINEAR GRADING DETAIL



ITEM 209 PREPARING SUBGRADE
FOR SHOULDER PAVING, AS PER PLAN

NOTE: ALL CROSS SLOPES
SHALL MATCH THE EXISTING CROSS SLOPES.

TYPICAL SECTIONS

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
ACM 6-29-21

PROJECT ID
79761

SHEET 7 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

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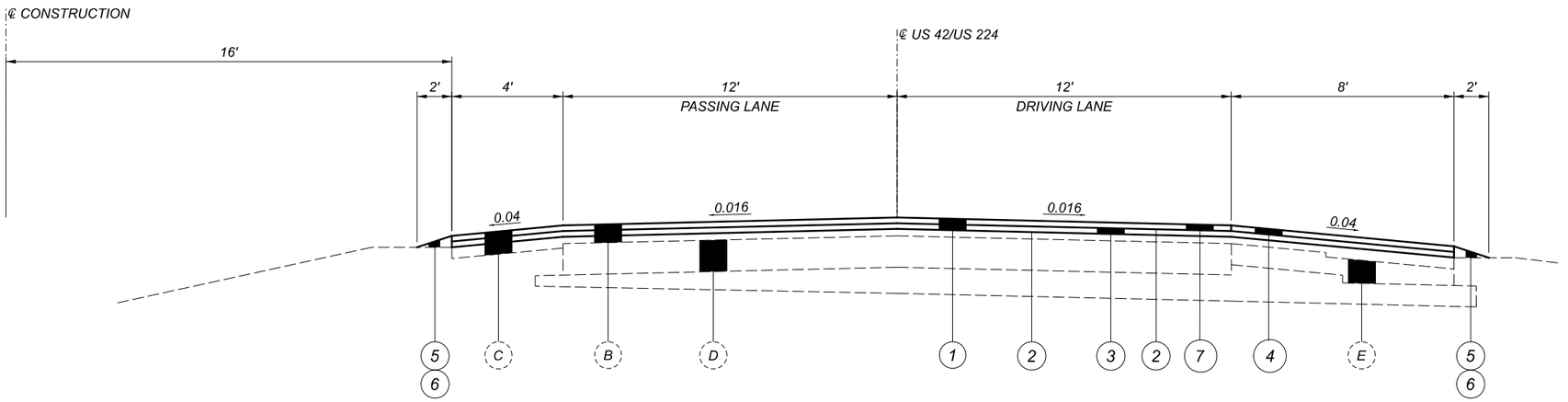
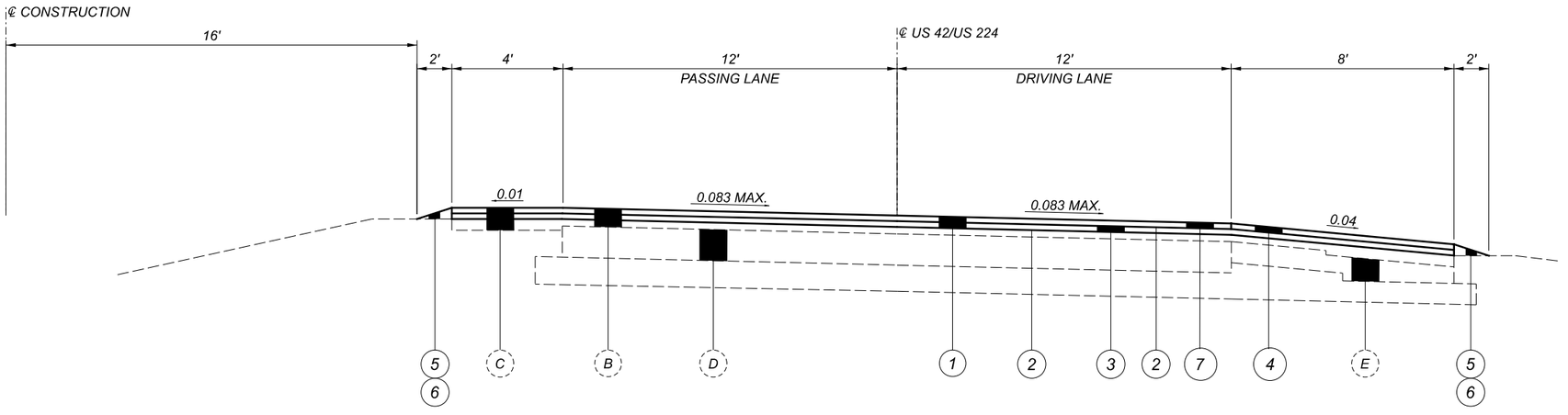


NORMAL SECTION - FOUR-LANE

IN DIRECTION OF TRAVEL
MED-42-2.78 TO 6.91
MED-224-10.45 TO 15.30 (EASTBOUND)
10.45 TO 15.40 (WESTBOUND)



SUPERELEVATED SECTION - FOUR-LANE

IN DIRECTION OF TRAVEL
MED-42-2.78 TO 6.91
MED-224-10.45 TO 15.30 (EASTBOUND)
10.45 TO 15.40 (WESTBOUND)

EXISTING LEGEND

- (A) 5"± ASPHALT CONCRETE
- (B) 7"± ASPHALT CONCRETE
- (C) 9"± ASPHALT CONCRETE
- (D) 9"± REINFORCED CONCRETE PAVEMENT
- (E) AGGREGATE BASE

PROPOSED LEGEND

1. ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (3.25")
2. ITEM 407 - TACK COAT (0.08 GAL/SY 1ST LIFT, 0.05 GAL/SY 2ND LIFT)
3. ITEM 861 - ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446) (1.75")
4. ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446) (1.50")
5. ITEM 408 - PRIME COAT, AS PER PLAN (0.40 GAL/SY)
6. ITEM 617 - COMPACTED AGGREGATE (2.0")
7. ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN (1.50")

NOTE: ALL CROSS SLOPES SHALL MATCH THE EXISTING CROSS SLOPES.

TYPICAL SECTIONS

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
ACM 6-29-21

PROJECT ID
79761

SHEET 8 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

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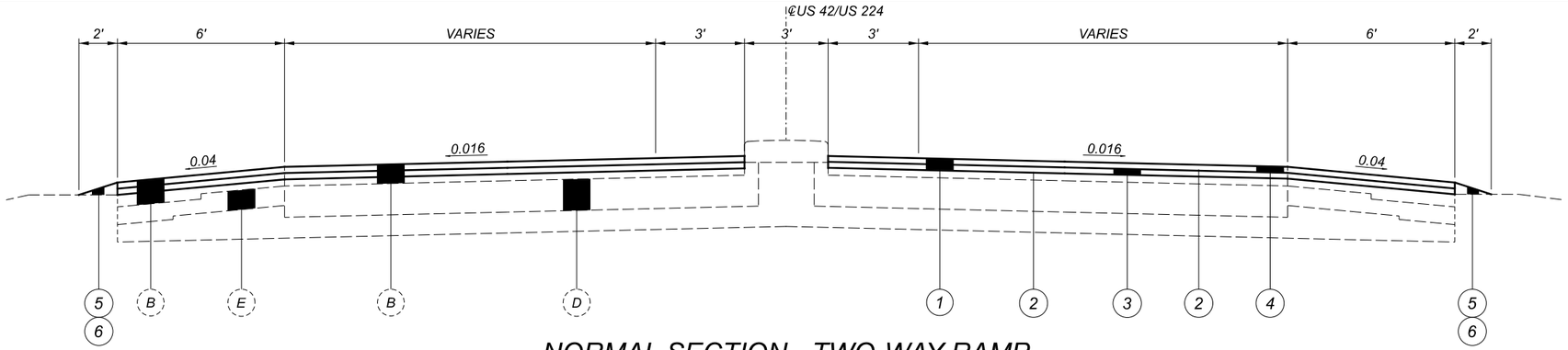
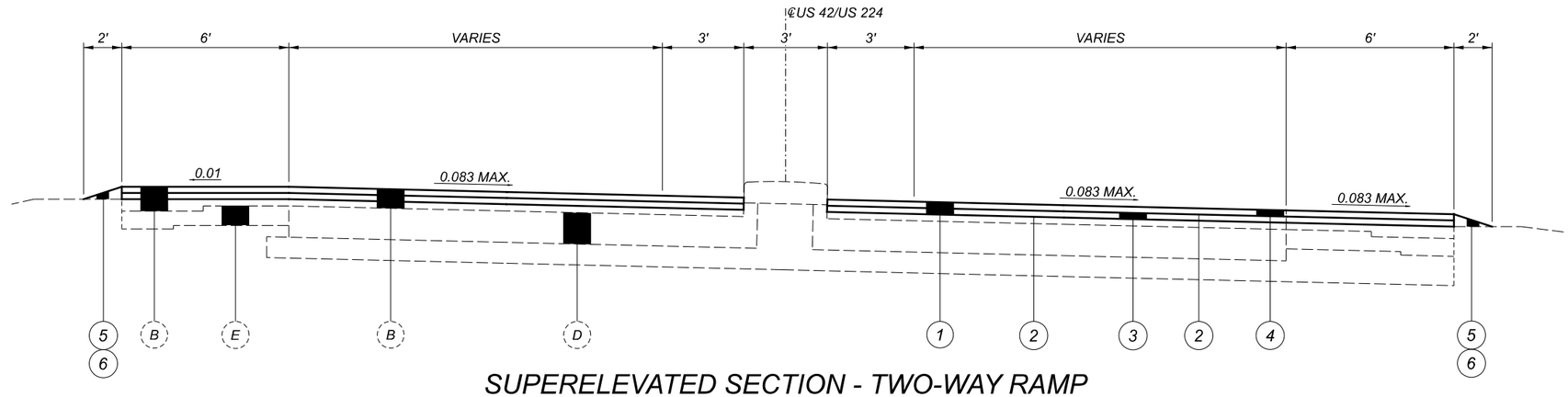


NORMAL SECTION - TWO-WAY RAMP

MED-42/224

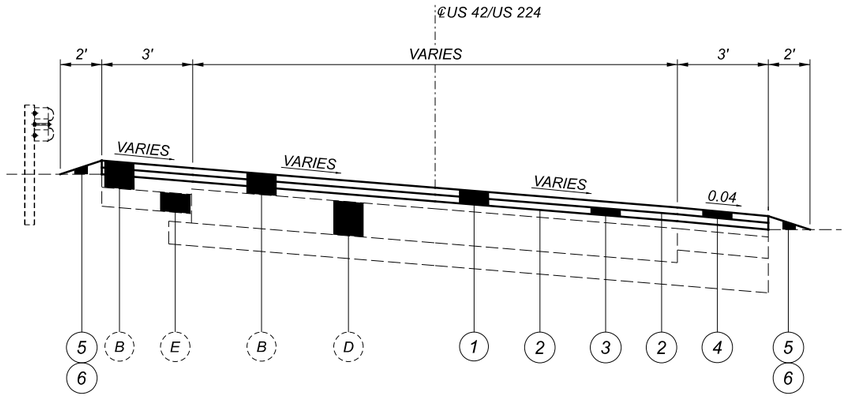
RAMP D1 RAMP B1
RAMP C2 RAMP B2



SUPERELEVATED SECTION - TWO-WAY RAMP

MED-42/224

RAMP D1 RAMP B1
RAMP C2 RAMP B2



SUPERELEVATED SECTION - ONE-WAY RAMP

MED-42/224

RAMP D1 RAMP D2
RAMP B1 RAMP B2
RAMP C1 RAMP C2
RAMP A1 RAMP A2
RAMP E2

EXISTING LEGEND

(A) 5"± ASPHALT CONCRETE

(B) 7"± ASPHALT CONCRETE

(C) 9"± ASPHALT CONCRETE

(D) 9"± REINFORCED CONCRETE PAVEMENT

(E) AGGREGATE BASE

PROPOSED LEGEND

(1) ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (3.25")

(2) ITEM 407 - TACK COAT (0.08 GAL/SY 1ST LIFT, 0.05 GAL/SY 2ND LIFT)

(3) ITEM 861 - ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446) (1.75")

(4) ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446) (1.50")

(5) ITEM 408 - PRIME COAT, AS PER PLAN (0.40 GAL/SY)

(6) ITEM 617 - COMPACTED AGGREGATE (2.0")

NOTE: ALL CROSS SLOPES
SHALL MATCH THE EXISTING CROSS SLOPES.

TYPICAL SECTIONS

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
ACM 6-29-21

PROJECT ID
79761

SHEET 9 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)
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UTILITIES

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

MED-42

CABLE
CHARTER COMMUNICATIONS
5520 WHIPPLE AVENUE NW
NORTH CANTON, OH 44720
330.494.9200

COMMUNICATION
FRONTIER COM
83 TOWNSEND AVENUE
NORWALK, OH 44857
419.744.3613

COMMUNICATION
VERIZON BUSINESS
120 RAVINE STREET
AKRON, OH 44303
330.253.8267

COUNTY
MEDINA COUNTY ENGINEER
790 W SMITH RD
MEDINA, OH 44256
330.764.8331

ELECTRIC
LORAIN-MEDINA RURAL ELECTRIC
P.O. BOX 158
WELLINGTON, OH 44090
800.222.8673

GAS
ASPIRE ENERGY
300 TRACY BRIDGE ROAD
ORRVILLE, OH 44667
330.682.7726

GAS
DIVERSIFIED GAS & OIL PLC
1800 CORPORATE DRIVE
BIRMINGHAM, AL 35242
205.408.0909

TRAFFIC
ODOT DISTRICT THREE
906 CLARK AVENUE
ASHLAND, OH 44805
419.207.7045

VILLAGE
VILLAGE OF LODI
108 AINSWORTH STREET, P.O. BOX 95
LODI, OH 44254
330.948.2040

MED-224

CABLE
CHARTER COMMUNICATIONS
5520 WHIPPLE AVENUE NW
NORTH CANTON, OH 44720
330.494.9200

COMMUNICATION
FRONTIER COM
83 TOWNSEND AVENUE
NORWALK, OH
419.744.3613

COUNTY
MEDINA COUNTY ENGINEER
790 W SMITH ROAD
MEDINA, OH 44256
330.764.8331

ELECTRIC
LORAIN-MEDINA RURAL ELECTRIC
P.O. BOX 158
WELLINGTON, OH 44090
800.222.8673

ELECTRIC
OHIO EDISON
1717 ASHLAND ROAD
MANSFIELD, OH 44905
419.521.6213

GAS
ASPIRE ENERGY
300 TRACY BRIDGE ROAD
ORRVILLE, OH 44667
330.682.7726

GAS
COLUMBIA GAS OF OHIO
780 FRY ROAD
MIDDLEBURG HEIGHTS, OH 44130
440.891.2428

GAS
EQUITY OIL & GAS
343 W. BAGLEY RD, #410
BEREA, OH 44017
330.287.5520

GAS
TC ENERGY
589 N STATE ROAD
MEDINA, OH 44256
330.721.4163

TRAFFIC
ODOT DISTRICT THREE
906 CLARK AVENUE
ASHLAND, OH 44805
419.207.7045

VILLAGE
VILLAGE OF LODI
108 AINSWORTH STREET, P.O. BOX 95
LODI, OH 44254
330.948.2040

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 MED-42-1.89/MED-224-10.45, DATED 2011 AND MED-42-1.89, DATED 2003, MAY BE INSPECTED IN THE ODOT DISTRICT THREE OFFICE IN ASHLAND.

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.

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.

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.

INTERSECTIONS AND DRIVES

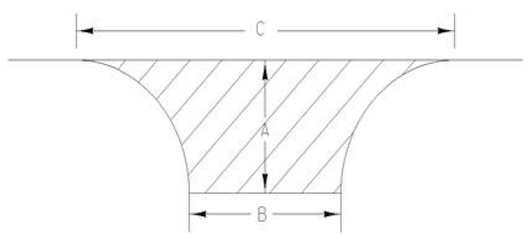
IN ORDER TO PROVIDE A SMOOTH TRANSITION BETWEEN THE TWO HIGHWAYS, AND TO ELIMINATE WATER POCKETS, RURAL INTERSECTIONS SHALL BE PLANED AND PAVED TO THE END OF THE RADII OR AS DIRECTED BY THE ENGINEER AND URBAN INTERSECTIONS SHALL BE PLANED AND PAVED TO THE BACK OF CROSSWALKS OR AS DIRECTED BY THE ENGINEER

EXISTING PAVED DRIVES SHALL BE PAVED SO AS TO PROVIDE A SMOOTH TRANSITION BETWEEN THE HIGHWAY AND THE DRIVE, AS DIRECTED BY THE ENGINEER. THE DISTANCE FROM EDGE OF ROADWAY MAY VARY AT EACH DRIVE.

EXISTING AGGREGATE DRIVES SHALL BE PAVED WITH AN APRON AT AN AVERAGE WIDTH OF 4 FEET. THE SLOPE OF THIS APRON SHALL BE THE SAME AS THE ADJACENT PAVEMENT SLOPE OR AS DIRECTED BY THE ENGINEER. ANY GRADING NEEDED TO PAVE THE APRON SHALL BE INCLUDED IN THE RELATED ASPHALT ITEM FOR PAYMENT. ITEM 617 COMPACTED AGGREGATE SHALL BE PLACED ADJACENT TO THIS APRON TO PROVIDE A SMOOTH TRANSITION FROM THE APRON TO THE EXISTING DRIVE, AS DIRECTED BY THE ENGINEER. THE WIDTH OF THIS 617 APPLICATION MAY VARY. AN ADDITIONAL QUANTITY OF ITEM 617 HAS BEEN ESTIMATED TO COMPLETE THIS WORK AND IS SHOWN AS AN EXTRA AREA ON THE PAVEMENT & SHOULDER DATA SHEET.

ANY HAZARD OR UNSAFE CONDITION RESULTING FROM THE ABOVE WORK MUST BE CORRECTED IMMEDIATELY. THE CONTRACTOR IS REMINDED OF SECTIONS 105.01, 107.07 & 614.02A OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE PAVING DIMENSIONS FOR THE INTERSECTIONS ARE SHOWN IN THE CHARTS ON THIS SHEET.



INTERSECTION NAME	SLM	SIDE	A (FT.)	B (FT.)	C (FT.)	AREA (SY)
CONGRESS RD	1.95	LT	51	22	98	268
CONGRESS RD	1.95	RT	52	22	101	279
CRAWFORD RD	2.25	LT	61	21	118	361
LODI RD	2.25	RT	40	35	123	286
RICHMAN RD	4.85	LT	39	23	90	196
RICHMAN RD	4.85	RT	50	23	92	256
VANDEMARK RD	6.37	LT	23	45	100	162
N REDFIELD ST	6.37	RT	30	38	90	184
TOTAL INTERSECTION AREAS (MED-42)						1,992

INTERSECTION NAME	SLM	SIDE	A (FT.)	B (FT.)	C (FT.)	AREA (SY)
BUFFHAM RD	11.28	LT	23	55	97	176
BUFFHAM RD	11.28	RT	46	24	103	257
FRIENDSVILLE RD	12.20	LT	46	30	95	264
FRIENDSVILLE RD	12.20	RT	35	25	76	163
WESTFIELD RD	13.47	LT	40	23	91	203
WESTFIELD RD	13.47	RT	47	23	80	219
N LEROY RD	13.92	LT	41	27	82	207
N LEROY RD	13.92	RT	45	29	100	263
TOTAL INTERSECTION AREAS (MED-224)						1,752

SAFETY EDGE

IN ADDITION TO THE REQUIREMENTS OF 401.12, ATTACH A DEVICE TO THE SCREED OF THE PAVER THAT CONFINES THE MATERIAL AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A COMPACTED WEDGE SHAPE PAVEMENT EDGE OF APPROXIMATELY 30 DEGREES (NOT STEEPER THAN 40 DEGREES). ENSURE THE DEVICE MAINTAINS CONTACT WITH THE EXISTING SURFACE, AND ALLOW FOR AUTOMATIC TRANSITION TO CROSS ROADS, DRIVEWAYS AND OBSTRUCTIONS. DO NOT USE CONVENTIONAL SINGLE PLATE STRIKE OFF.

CONSTRUCTION OF SAFETY EDGE CAN BE OMITTED AT LOCATIONS WHERE EXISTING WIDTH OF GRADED SHOULDER OR BERM IS LESS THAN 12". PROJECTS WITH VARYING CONDITIONS SHOULD USE SAFETY EDGE WHERE POSSIBLE. PLAN PREPARATION HAS MADE EVERY REASONABLE ATTEMPT TO IDENTIFY POSSIBLE SAFETY EDGE LOCATIONS.

USE THE TRANSTECH SHOULDER WEDGE MAKER, THE CARLSON SAFETY EDGE END GATE, THE ADVANT-EDGER, THE TROXLER SAFETSLOPE OR A SIMILAR APPROVED-EQUAL DEVICE THAT PRODUCES THE SAME WEDGE CONSOLIDATION RESULTS. CONTACT INFORMATION FOR THESE WEDGE SHAPE COMPACTION DEVICES IS THE FOLLOWING:

TRANSTECH SYSTEMS, INC.
1594 STATE STREET
SCHENECTADY, NY 12304
1-800-724-6306
www.transtechsys.com

ADVANT-EDGE PAVING EQUIPMENT LLC
P.O. BOX 9163
NISKAYUNA, NY 12309-0163
518-280-6090
www.advantedgepaving.com

CARLSON SAFETY EDGE END GATE
18450 50TH AVENUE EAST
TACOMA, WA 98446
253-875-8000

TROXLER ELECTRONICS LABORATORIES INC.
3008 E. CORNWALLIS RD.
RESEARCH TRIANGLE PARK, NC 27709
1-877-TROXLER
www.troxlerlabs.com

IF ELECTING TO USE A SIMILAR DEVICE, PROVIDE PROOF THAT THE DEVICE HAS BEEN USED ON PREVIOUS PROJECTS WITH ACCEPTABLE RESULTS OR CONSTRUCT A TEST SECTION PRIOR TO THE BEGINNING OF WORK AND DEMONSTRATE WEDGE COMPACTION TO THE SATISFACTION OF THE ENGINEER. SHORT SECTIONS OF HANDWORK WILL BE ALLOWED WHEN NECESSARY FOR TRANSITIONS AND TURNOUTS OR OTHERWISE AUTHORIZED BY THE ENGINEER.

IN ADDITION TO THE REQUIREMENTS OF 401.16, MAKE THE FIRST ROLLER PASS 8 TO 12 INCHES AWAY FROM TAPERED EDGE. DO NOT ROLL THE TAPER.

MED-42-1.89/MED-224-(6.25)(10.45)
MODEL: GEN NOTES 1 PAPERSIZE: 17x11 (in.) DATE: 7/12/2021 TIME: 12:51:36 PM USER: jtkwery
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Medina\79761\400-Engineering\Roadway\Sheets\79761_GN001.dgn

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER
JLL
REVIEWER
KRB 6-30-21
PROJECT ID
79761
SHEET 10 TOTAL 79

PAVEMENT CORING INFORMATION

COUNTY	ROUTE	SLM	ASPHALT	CONCRETE	BRICK	LOCATION	DIRECTION	YEAR CORED
MED	42	3.55	7.0	9.5	0.0	MWP	WB	2019
MED	42	3.56	7.0	8.5	0.0	RWP	WB	2019
MED	42	3.56	7.0	9.0	0.0	RWP	WB	2019
MED	42	3.95	6.0	9.0	0.0	MWP	WB	2019
MED	42	3.96	6.0	5.0	0.0	MWP	WB	2019
MED	42	3.96	6.0	9.0	0.0	MWP	WB	2019
MED	42	4.44	8.0	9.0	0.0	MWP	WB	2019
MED	42	4.67	8.5	9.0	0.0	RWP	WB	2019
MED	42	4.67	6.9	9.5	0.0	RWP	WB	2019
MED	42	5.46	7.5	6.5	0.0	MWP	WB	2019
MED	42	5.46	6.5	9.0	0.0	MWP	WB	2019
MED	42	6.57	5.0	9.0	0.0	RWP	WB	2019
MED	42	6.57	6.0	9.0	0.0	LWP	WB	2019

COUNTY	ROUTE	SLM	ASPHALT	CONCRETE	BRICK	LOCATION	DIRECTION	YEAR CORED
MED	224	11.21	12.0	8.5	0.0	RWP	WB	2019
MED	224	11.21	6.5	8.5	0.0	RWP	WB	2019
MED	224	11.94	5.0	3.5	0.0	MWP	WB	2019
MED	224	11.94	6.5	9.0	0.0	MWP	WB	2019
MED	224	13.21	6.0	3.0	0.0	MWP	WB	2019
MED	224	13.21	6.5	9.0	0.0	MWP	WB	2019
MED	224	14.13	7.5	8.5	0.0	MWP	WB	2019
MED	224	14.13	7.5	9.0	0.0	MWP	WB	2019
MED	224	14.13	7.0	9.0	0.0	MWP	WB	2019
MED	224	14.70	16.5	0.0	0.0	MWP	WB	2019
MED	224	14.70	4.5	9.0	0.0	MWP	WB	2019
MED	224	14.70	7.0	9.0	0.0	MWP	WB	2019
MED	224	15.30	4.0	8.5	0.0	LWP	WB	2019
MED	224	15.30	15.0	0.0	0.0	LWP	WB	2019
MED	224	15.30	6.0	9.0	0.0	LWP	WB	2019

ITEM 209 – PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN

PREPARE THE SHOULDER FOR PAVING A CONSISTENT SAFETY EDGE IN BOTH THICKNESS AND WIDTH.

PRIOR TO PAVING THE SAFETY EDGE, GRADE AN AREA 10 INCHES WIDE, BEGINNING AT THE EDGE OF THE PAVED ROADWAY, TO PROVIDE A LEVEL SURFACE FREE OF VEGETATION FOR CONSTRUCTION OF THE SAFETY EDGE. IF NECESSARY, EXCAVATE THE GRADED AREA TO THE DEPTH NECESSARY TO CONSTRUCT THE SAFETY EDGE. COMPACT THE GRADED SHOULDER ACCORDING TO 617.05 OR AS DIRECTED BY THE ENGINEER. THE GRADED SHOULDER BEYOND THE 10-INCH WIDE AREA FOR THE SAFETY EDGE SHALL BE GRADED AT A 10:1 SLOPE, OR AS DIRECTED BY THE ENGINEER. THE INTENT IS TO PROVIDE AN UNOBSTRUCTED AND POSITIVE FLOW OF STORM WATER FROM THE PAVEMENT TO THE DITCH.

ITEM 254 – PATCHING PLANED SURFACE

AN ESTIMATED QUANTITY OF ITEM 254 - PATCHING PLANED SURFACE HAS BEEN SET UP TO BE USED AS DIRECTED BY THE ENGINEER AS DESCRIBED IN CMS 254.04. THE LIMIT OF THE PATCHING DEPTH IS 0 TO 2 IN.

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.

ITEM 251 – PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE)

THESE ITEMS 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. THE PAVEMENT CORING INFORMATION IS SHOWN ON THIS SHEET.

THIS PAY ITEM SHALL NOT BE USED WHERE ITEM 255 REPAIRS ARE TO BE PERFORMED.

PAVEMENT REPAIR SHALL BE PERFORMED AFTER PAVEMENT PLANING AND BEFORE PLACEMENT OF THE INTERMEDIATE AND SURFACE COURSES. THE DEPTH OF REMOVAL SHALL BE SUFFICIENT TO REMOVE ALL DETERIORATED PAVEMENT WITH A MAXIMUM DEPTH OF 12", BASED ON THE PAVEMENT DESIGN AND AN AVERAGE DEPTH OF 4" AND AN AVERAGE WIDTH OF 4 FT FOR ESTIMATING PURPOSES.

THE CONTRACTOR SHALL BE CAPABLE OF PERFORMING PAVEMENT REPAIRS 2 FEET WIDE.

REPLACEMENT MATERIAL SHALL BE ITEM 301, OR ITEM 442 19MM MATERIAL AND SHALL BE PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT PAVEMENT SURFACE. ITEM 301 ASPHALT CONCRETE CAN BE USED WHEN THE DEPTH OF THE REPAIR IS BETWEEN 3" AND 12" WITH A MAXIMUM PAVEMENT LIFT OF 6". ITEM 442 19MM CAN BE USED WHEN THE DEPTH OF THE REPAIR IS BETWEEN 1.5" AND 3".

FOR BID AND ESTIMATING PURPOSES, APPROXIMATELY 70% OF THE REPAIRS ARE TO BE CONSIDERED LONGITUDINAL REPAIRS AND 30% ARE TO BE CONSIDERED TRANSVERSE REPAIRS. THIS APPROXIMATION IS SHOWN IN THE QUANTITIES BELOW.

PAVEMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT REPAIR. FOR PAYMENT PURPOSES ITEM 251 – PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) IS TO BE A MAXIMUM OF 12" DEEP. 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). THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

01/NHS/PV:

ITEM 251 – PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) (LONGITUDINAL)	1,210 CY
ITEM 251 – PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) (TRANSVERSE)	515 CY

02/STR/PV:

ITEM 251 – PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) (LONGITUDINAL)	190 CY
ITEM 251 – PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) (TRANSVERSE)	80 CY

ITEM 254 – PAVEMENT PLANING, ASPHALT CONCRETE

THE INTENT OF THE PLANING IS TO MILL 3.25 INCHES AT THE CENTER OF PAVEMENT AT NON-CURBED AREAS. THE PAVEMENT SLOPE SHALL BE 0.010 MINIMUM AND 0.016 PREFERRED, CONTINUOUS BETWEEN THE CROWN AND THE PROPOSED EDGELINE/SHOULDER. THE MILLING DEPTH SHALL BE CONTROLLED FROM THE CENTER OF PAVEMENT IN CONFORMANCE WITH THE ABOVE GUIDELINES.

SPECIAL ATTENTION SHALL BE GIVEN TO SUPERELEVATED CURVES. THE SUPERELEVATION SHALL BE MAINTAINED AND/OR RESTORED, IF NECESSARY, AS DIRECTED BY THE ENGINEER. IF THERE IS NO INFORMATION IN THE PLANS TO CHANGE THE SUPERELEVATION, THE INTENT IS TO MAINTAIN THE EXISTING SUPERELEVATION.

THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE TO ALL CATCH BASINS AND INLETS.

FOUR LANE SECTION:
THE PROGRESSION OF THE PLANING SHALL PROCEED IN SUCH A MANNER THAT NORMAL TRAFFIC SHALL NOT BE PERMITTED TO RUN OVER THE PLANED ROADWAY SURFACE. FOR EACH CALENDAR DAY THAT THE TRAFFIC IS EXPOSED TO THE PLANED SURFACE, THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE FEE OF $1,000 PER DAY.

TWO LANE SECTION, INTERSECTIONS, AND RAMPS:
THE PROGRESSION OF THE PLANING SHALL PROCEED IN SUCH A MANNER THAT NORMAL TRAFFIC WILL NOT BE REQUIRED TO RUN OVER THE PLANED ROADWAY SURFACE FOR MORE THAN FOURTEEN (14) CALENDAR DAYS. FOR EACH CALENDAR DAY BEYOND THE 14 DAYS THAT THE ROADWAY REMAINS EXPOSED TO THE PLANED SURFACE, THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE FEE OF $1,000 PER DAY.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT PLANING, ASPHALT CONCRETE. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER SQUARE YARD OF ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE.

ITEM 255 –FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN, (LONGITUDINAL CRACK)

THE LONGITUDINAL JOINT REPAIRS ARE TO BE COMPLETED AFTER THE TRANSVERSE JOINTS ARE REPLACED. CONCRETE WILL BE CLASS QC MS.

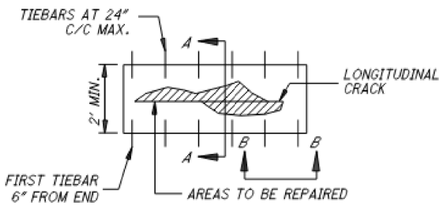
PERFORM 2' WIDE FULL DEPTH REPAIRS AT DETERIORATED LONGITUDINAL JOINTS AT THE MED-224/LAKE RD INTERSECTION. EXACT LOCATIONS WILL BE AS DETERMINED BY THE ENGINEER.

ACTUAL LENGTH AND ANY WIDTH OVER THE 2' MINIMUM, WILL BE DETERMINED BY THE ENGINEER DURING LAYOUT.

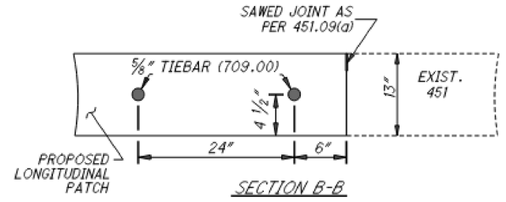
THE CONCRETE SHALL BE PLACED IN THE REPAIR AREA THE SAME DAY THAT THE EXISTING PAVEMENT IS REMOVED FROM THE REPAIR AREA.

IF THE LONGITUDINAL JOINT REPAIR IS WITHIN 5 FEET OF AN EXISTING TRANSVERSE JOINT THAT HAS BEEN REPAIRED THEN THE LONGITUDINAL JOINT SHALL BE EXTENDED TO BE NEAREST REPAIRED JOINT.

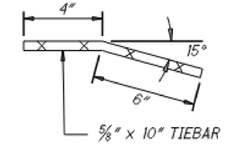
ALL REINFORCING STEEL SHALL BE EPOXY COATED AND CONFORMING TO C.M.S. 709.00.



SECTION A-A



SECTION B-B



TIEBAR

GENERAL NOTES

DESIGN AGENCY	DISTRICT 3
	ENGINEERING TEAM TWO
DESIGNER	JLL
REVIEWER	KRB 6-30-21
PROJECT ID	79761
SHEET	11
TOTAL	79

MED-42-1.89/MED-224-(6.25)(10.45)
MODEL: GEN NOTES 2 PAPERSIZE: 17x11 (in.) DATE: 11/4/2021 TIME: 12:46:41 PM USER: ksalay
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Medina\79761\400-Engineering\Roadway\Sheets\79761_GN001.dgn

ITEM 255 –FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN, (13.0" CONCRETE)
ITEM 255 – FULL DEPTH PAVEMENT SAWING

THE EXISTING PAVEMENT BUILDUP SHALL BE REMOVED AS PART OF THIS PAY ITEM. PLACE THE CONCRETE BASE IN ACCORDANCE WITH THE SPEC AND PLACED TO BE FLUSH WITH THE PLANED SURFACE. IN FULL DEPTH CONCRETE SECTIONS, THE CONCRETE REPAIRS SHALL BE PLACED FLUSH TO THE EXISTING SURFACE.

THE CONCRETE SHALL BE PLACED IN THE REPAIR AREA THE SAME DAY THAT THE EXISTING PAVEMENT IS REMOVED FROM THE REPAIR AREA.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE YARD FOR ITEM 255 – FULL DEPTH REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

IN ADDITION TO THE QUANTITIES PROVIDED ON SHEET 32, THE FOLLOWING ADDITIONAL ESTIMATED QUANTITIES ARE PROVIDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER OVER THE ENTIRE PROJECT LIMITS.

01/NHS/PV:

ITEM 255 – FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN	14,000 SY
ITEM 255 – FULL DEPTH PAVEMENT SAWING	56,000 FT

02/STR/PV:

ITEM 255 – FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN	1,700 SY
ITEM 255 – FULL DEPTH PAVEMENT SAWING	6,800 FT

ITEM 203 – EXCAVATION, AS PER PLAN
ITEM 304 – AGGREGATE BASE, AS PER PLAN

THIS WORK SHALL BE PERFORMED AT FULL DEPTH CONCRETE REPAIR AREAS TO REPLACE DISTURBED OR DETERIORATED BASE MATERIAL UNDERNEATH THE EXISTING CONCRETE PAVEMENT. EXACT LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE ABOVE WORK. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER CUBIC YARD FOR ITEM 203 – EXCAVATION, AS PER PLAN, AND ITEM 304 – AGGREGATE BASE, AS PER PLAN.

01/NHS/PV:

ITEM 203 – EXCAVATION, AS PER PLAN	40 CY
ITEM 304 – AGGREGATE BASE, AS PER PLAN	40 CY

02/STR/PV:

ITEM 203 – EXCAVATION, AS PER PLAN	10 CY
ITEM 304 – AGGREGATE BASE, AS PER PLAN	10 CY

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.

ITEM 442 – ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)

ALL OPEN TRANSVERSE JOINTS SHALL BE TAPERED TO MEET EXISTING PAVEMENT BEFORE INTRODUCING TRAFFIC. A "BUMP" SIGN (W-8-1-36) SHALL BE ERECTED AT ANY TRANSVERSE JOINT LEFT OPEN OVER NIGHT, INCLUDING A SPEED ADVISORY SIGN. THESE SIGNS SHALL BE REMOVED IMMEDIATELY AFTER JOINT HAS BEEN CLOSED. PLACEMENT OF SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

CARE SHALL BE TAKEN TO MATCH EXISTING PAVEMENT ELEVATIONS AT EXISTING PAVED BERMS, DRIVES, INTERSECTIONS, ETC.

ITEM 442 – ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), (SAFETY EDGE)

THE SAFETY EDGE SHALL BE INSTALLED AT THE SAME TIME AS THE SURACE COURSE IS TO BE PLACED. THE SAFETY EDGE WILL NOT REQUIRE ANY DENSITY TESTING.

ITEM 442 – ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN

ALL OPEN TRANSVERSE JOINTS SHALL BE TAPERED TO MEET EXISTING PAVEMENT BEFORE INTRODUCING TRAFFIC. A "BUMP" SIGN (W-8-1-36) SHALL BE ERECTED AT ANY TRANSVERSE JOINT LEFT OPEN OVER NIGHT, INCLUDING A SPEED ADVISORY SIGN. THESE SIGNS SHALL BE REMOVED IMMEDIATELY AFTER JOINT HAS BEEN CLOSED. PLACEMENT OF SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

CARE SHALL BE TAKEN TO MATCH EXISTING PAVEMENT ELEVATIONS AT EXISTING PAVED BERMS, DRIVES, INTERSECTIONS, ETC.

REQUIREMENTS OF 447 APPLY EXCEPT AS FOLLOWS: THE JOINT BETWEEN THE RIGHT LANE AND THE OUTSIDE SHOULDER WILL BE EXCLUDED FROM THE 447.06 JOINT DENSITY ACCEPTANCE.

ADDITIONAL QUANTITIES FOR PAVING THE RIGHT LANE (FOUR LANE SECTION)

THE FOLLOWING QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER WHEN PAVING THE RIGHT LANE TO CORRECT ANY DAMAGED AREAS ON THE PREVIOUSLY OVERLAID OUTSIDE SHOULDERS.

01/NHS/PV:

ITEM 254 – PAVEMENT PLANING, ASPHALT CONCRETE (1.5 INCH)	5,080 SY
ITEM 442 – ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN	212 CY

02/STR/PV:

ITEM 254 – PAVEMENT PLANING, ASPHALT CONCRETE (1.5 INCH)	164 SY
ITEM 442 – ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN	7 CY

ITEM 605 – AGGREGATE DRAINS, AS PER PLAN

AGGREGATE DRAINS SHALL BE PLACED AT FULL DEPTH CONCRETE REPAIR AREAS TO IMPROVE EXISTING DRAINAGE. EXACT LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER. THE AGGREGATE DRAINS SHOULD BE PLACED ADJACENT TO THE FULL DEPTH CONCRETE REPAIRS AND EXTEND UNDERNEATH THE PAVED SHOULDERS AND OUTLET BEYOND THE PAVED SHOULDERS.

IN ADDITION TO THE REQUIREMENTS OF 605.07, THIS ITEM SHALL INCLUDE THE PLACEMENT OF 6' OF ITEM 301 OVER THE EMBANKMENT MATERIAL AND 1.5" OF ITEM 442 – ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446) PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT PAVEMENT SURFACE ON THE PAVED SHOULDERS.

PAYMENT FOR THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR THE ABOVE ITEM, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

01/NHS/PV:

ITEM 605 – AGGREGATE DRAINS, AS PER PLAN	100 FT

02/STR/PV:

ITEM 605 – AGGREGATE DRAINS, AS PER PLAN	20 FT

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

REPLACE EXISTING TRANSVERSE RUMBLE STRIPS IN THE SOUTHBOUND LANES ON MED-42. THE REPLACEMENT RUMBLE STRIPS SHALL MATCH THE LOCATIONS, GROOVE DIMENSIONS AND GROOVE SPACING OF THE EXISTING RUMBLE STRIPS TO BE REPLACED.

SEE STANDARD CONSTRUCTION DRAWING BP-9.2 FOR ADDITIONAL DETAILS.

MED-42 (SB RT LANE):
3.29
3.35
3.42

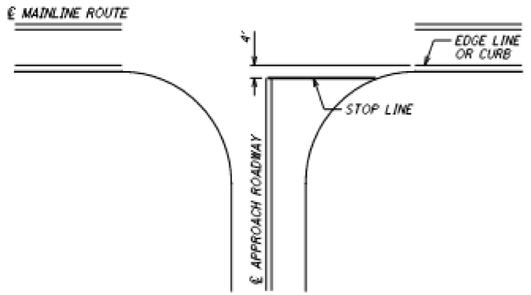
ITEM 618 – RUMBLE STRIPS, TRANSVERSE (ASPHALT CONCRETE), AS PER PLAN
01/NHS/PV – 3 EACH

PAVING AT WESTFIELD RD RCUT AND LEROY RD LEFT TURN LANES

MAINLINE PAVING OF MED-224 SHALL OVERLAP 1 FT INTO THE EXISTING PAVEMENT AREAS AT THE WESTFIELD RD (SLM 13.47) RCUT AND LEROY RD (SLM 13.92) LEFT TURN LANES. THE REMAINING EXISTING PAVEMENT AREAS AT BOTH LOCATIONS SHALL BE UNDISTURBED.

STOP BAR PLACEMENT

AT NORMAL STOP CONTROLLED RURAL INTERSECTIONS WITHOUT CROSSWALK, THE STOP BAR SHOULD BE PLACED FOUR FEET FROM THE EDGE LINE OF THE INTERSECTING ROADWAY IN ORDER TO ACHIEVE MAXIMUM INTERSECTION SIGHT DISTANCE.



DETECTION MAINTENANCE

IF VEHICLE DETECTION BECOMES UNEXPECTEDLY DISABLED, REQUIRES MODIFICATION, OR IS SCHEDULED TO BE TEMPORARILY REMOVED DURING THE CONSTRUCTION PROJECT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER.

IF THE LOSS OF VEHICLE DETECTION IS KNOWN PRIOR TO THE START OF CONSTRUCTION, IT SHALL BE DISCUSSED AT THE PRECONSTRUCTION MEETING. AT SUCH TIME, THE DISTRICT TRAFFIC ENGINEER SHALL ADVISE THE PROJECT ENGINEER AND CONTRACTOR ON THE APPROPRIATE ACTION TO RECTIFY ANY LOSS OF VEHICLE DETECTION. THIS MAY INCLUDE PLACING THE TRAFFIC SIGNAL ON MINIMUM OR MAXIMUM RECALL, MODIFYING THE MINIMUM GREEN TIMES, AND REMOVING THE MALFUNCTIONING DETECTION FROM SERVICE. WHERE NON-INTRUSIVE DETECTION (I.E., VIDEO, RADAR) ALREADY EXISTS, THE CONTRACTOR SHALL INSURE THAT DETECTION IS OPERATING AND MAINTAINED BY RECONFIGURING THE DETECTION UNITS ACCORDINGLY DURING ALL CONSTRUCTION PHASES. THIS IS TO AVOID THE SIGNAL FROM MAXING OUT THE EFFECTED SIGNAL PHASE AND CREATING UNNECESSARY DELAYS.

LOCATIONS WHERE NON-INTRUSIVE DETECTION IS PROPOSED AND THE EXISTING VEHICLE DETECTION IS TO BE ABANDONED, THE NON-INTRUSIVE VEHICLE DETECTION SHALL BE INSTALLED, CONFIGURED AND MADE FULLY FUNCTIONAL PRIOR TO THE EXISTING DETECTION BEING DISABLED. THE CONTRACTOR SHALL CONTINUE TO MAINTAIN AND MODIFY THE DETECTION UNTIL FINAL ACCEPTANCE OF THE TRAFFIC SIGNAL. THIS IS TO ENSURE VEHICLE DETECTION REMAINS FULLY FUNCTIONAL THROUGHOUT CONSTRUCTION.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NEEDED TO PERFORM THE ABOVE LISTED WORK IS CONSIDERED INCIDENTAL TO MAINTAINING TRAFFIC ON THE PROJECT AND WILL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 – MAINTAINING TRAFFIC.

MAINTENANCE OF LEFT TURN MOVEMENTS

ALL LEFT TURN LANES AND SIGNAL PHASES AT THE FRIENDSVILLE RD AND LAKE RD INTERSECTIONS SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS NOTED BELOW.

LEFT TURN LANES AND SIGNAL PHASES SHALL BE MAINTAINED AT ALL TIMES, EXCEPT DURING SHORT INTERVALS WHEN THE LEFT TURN MOVEMENTS FROM US 224 SHALL BE FLAGGED WITH LEOS. THIS WORK SHALL NOT OCCUR BETWEEN 6 AM AND 9 PM. AT FRIENDSVILLE RD, HOWEVER, THIS WORK MAY OCCUR DURING WEEKDAYS WHEN CLOVERLEAF SCHOOLS ARE NOT IN SESSION AND ON WEEKENDS WHEN NO EVENTS ARE SCHEDULED TO TAKE PLACE AT THE CLOVERLEAF SCHOOLS COMPLEX. AT LAKE RD, WHERE DUAL LEFT TURN LANES EXIST, ONE OF THE TURN LANES MAY BE CLOSED AT A TIME COMMENSURATE WITH THE WORK IN PROGRESS. IF ANY LEFT TURN PHASES ARE REMOVED WHEN AN LEO IS NOT PRESENT, THE CORRESPONDING LEFT TURN SIGNAL HEADS SHALL BE FULLY COVERED SO THAT THE LEFT TURN SIGNAL INDICATION IS NOT VISIBLE TO TRAFFIC.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NEEDED TO PERFORM THE ABOVE LISTED WORK IS CONSIDERED INCIDENTAL TO MAINTAINING TRAFFIC ON THE PROJECT AND WILL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 – MAINTAINING TRAFFIC.

GENERAL NOTES

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
KRB 6-30-21

PROJECT ID
79761

SHEET 12 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)
MODEL: GEN NOTES 3 PAPERSIZE: 17x11 (in.) DATE: 11/24/2021 TIME: 10:58:33 AM USER: ksalay
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Medina\79761\400-Engineering\Roadway\Sheets\79761_GN001.dgn

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 PORTIONS 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 RAIL SPLICE: AS SHOWN ON STANDARD CONSTRUCTION DRAWING GR-1.1. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

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.

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 THICKESS. 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 CCST SHALL BE INCLUDED IN THIS ITEM FOR PAYMENT.

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.

ITEM 209 – RESHAPING UNDER GUARDRAIL

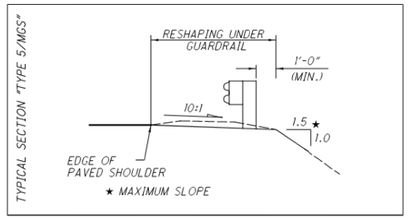
THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLANS.

THIS WORK SHALL BE COMPLETED AT LOCATIONS SPECIFIED FOR WORK AS WELL AS PER CMS 209.05 AND AS DESCRIBED HEREIN, AND SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER.

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 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 – ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS AS LISTED ON ROADWAY ENGINERING'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 MGS TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

THE CONTRACTOR MAY USE A SALVAGED EXTRUDER WHEN ASSEMBLING THE ITEM 606 – ANCHOR ASSEMBLY, MGS TYPE E. ALL WELDS ON THE EXTERIOR OF THE SALVAGED EXTRUDER SHALL NOT BE DAMAGED AND THE FEEDER SHUTE SHALL NOT BE BENT.

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 FOUNDATIONS TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 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 PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

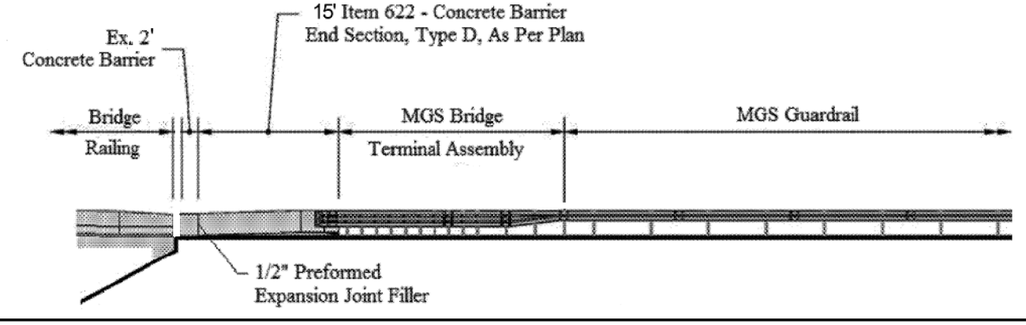
PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606 – ANCHOR ASSEMBLY, MGS TYPE E, EACH AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT, AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 – MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1

ITEM 606 – MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 WILL REQUIRE 15'-0 ½" LONG NESTED THRIE BEAM SECTIONS AT THE CONNECTION TO THE EXISTING BRIDGE PARAPETS. SEE SCD MGS-3.1 FOR ADDITIONAL DETAILS.

ITEM 622 – CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN

CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN SHALL BE CONSTRUCTED TO MATCH THE EXISTING BRIDGE PARAPET IN ELEVATION AND SHAPE AND TRANSITION TO THE PROPER ELEVATION AND SHAPE, IN ORDER FOR THE MGS BRIDGE TERMINAL ASSEMBLY TO BE CORRECTLY ATTACHED. A DETAIL IS PROVIDED ON THIS SHEET TO REPRESENT THE INTENT OF THIS ITEM. THE PROPOSED CONCRETE BARRIER END SECTION SHALL BE DOWELED INTO THE EXISTING 2 FT CONCRETE BARRIER ON THE APPROACH SLAB. ALL OTHER GUARDRAIL OR BRIDGE TERMINAL ASSEMBLY ITEMS WILL BE PAID THROUGH THEIR RESPECTIVE ITEMS. PAYMENT WILL BE MADE FOR EACH CONCRETE BARRIER END SECTION (15') INSTALLED INCLUDING ALL REMOVAL OF EXISTING OBSTRUCTIONS, CURB, LABOR, TOOLS, EQUIPMENT, PREFORMED EXPANSION JOINT FILLER MATERIAL, HARDWARE, AND MATERIALS TO CONSTRUCT THE FOUNDATION AS DETAILED IN THE STANDARD DRAWINGS.



ITEM 606 – IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY ONE OF THE TYPE 1 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THR MANUFACTURER'S SPECIFICATION.

THE FACE OF THE TYPE 1 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606 – IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED TRANSITIONS, HARDWARE, REFLECTIVE SHEETING AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

EARTHWORK AT STRUCTURE MED-42-3.21 (UNDER CSX RR)

EXCAVATED SOIL FROM RESHAPING UNDER THE GUARDRAIL WITHIN CSXT'S RAILROAD RIGHT-OF-WAY SHALL REMAIN ON CSXT'S RIGHT-OF-WAY. FOR ANY EXCAVATED SOIL THAT REQUIRES OFF-SITE DISPOSAL, THE LICENSEE IS REQUIRED TO USE ONLY CSXT APPROVED LABORATORIES, TRANSPORTERS, AND DISPOSAL FACILITY THAT ARE IN COMPLIANCE WITH ALL APPLICABLE ENVIRONMENTAL LAWS AND CSXT'S POLICIES AND PROCEDURES. SOIL RESULTING FROM EXCAVATION OUTSIDE OF CSXT'S RAILROAD RIGHT-OF-WAY OR RAILROAD OWNED PROPERTY SHALL NOT BE BROUGHT ONTO CSXT'S PROPERTY AND THEREFORE MUST BE STORED OFF CSXT PROPERTY.

GUARDRAIL NOTES

MED-42-1.89/MED-224-(6.25)(10.45)
MODEL: GR NOTES 1 PAPERSIZE: 17x11 (in.) DATE: 7/12/2021 TIME: 12:52:19 PM USER: jllowery
pw:\\ohdot-pw.bentley.com:ohdot-pw-02\Documents\01 Active Projects\District 03\Medina\79761\400-Engineering\Roadway\Sheets\79761_GN001.dgn

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER
JLL
REVIEWER
ACM 6-24-21
PROJECT ID
79761
SHEET 13 TOTAL 79

ITEM 614 – MAINTAINING TRAFFIC (GENERAL)

2-LANE: MAINTAIN ONE 10' LANE OF TRAFFIC AT ALL TIMES.

4-LANE: 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.

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 CURRENT 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.

COORDINATION OF WORK BETWEEN CONTRACTORS

THE CONTRACTOR SHOULD BE AWARE THAT THERE MAY BE OTHER WORK BEING PERFORMED BY A SEPARATE CONTRACT. MED-42-6.10 (PID 102624) IS A CULVERT REPAIR PROJECT AND IS SCHEDULED TO BEGIN WORK IN THE 2022 CONSTRUCTION SEASON AFTER AUGUST 31, 2022. COORDINATION OF WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.

INTERIM COMPLETION DATE

DUE TO THE ANTICIPATED CULVERT REPAIR WORK AT MED-42-6.10 TO BE PERFORMED BY A SEPARATE CONTRACT, THE CONTRACTOR SHALL PERFORM ALL PAVEMENT REPAIRS AND PAVING WORK, UP THROUGH THE SURFACE COURSE, ON EASTBOUND MED-42 SLM 1.89 TO SLM 6.91 WITH AN INTERIM COMPLETION DATE OF AUGUST 31, 2022. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE FEE OF $5,000 PER DAY.

SEQUENCE OF PAVING WORK

1. CLOSE RIGHT LANE. PLANE, PERFORM PAVEMENT REPAIRS AND PAVE OUTSIDE SHOULDER UP TO SURFACE COURSE.
2. CLOSE LEFT LANE. PLANE, PERFORM PAVEMENT REPAIRS AND PAVE LEFT LANE AND INSIDE SHOULDER UP TO INTERMEDIATE COURSE.
3. CLOSE RIGHT LANE. PLANE, PERFORM PAVEMENT REPAIRS AND PAVE RIGHT LANE UP TO SURFACE COURSE.
4. CLOSE LEFT LANE. PAVE LEFT LANE AND INSIDE SHOULDER WITH SURFACE COURSE.

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 OF $50 PER MINUTE THAT LANES ARE CLOSED TOR 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.

MAINTENANCE OF TRAFFIC FOR MARKING PAVEMENT REPAIRS

PROVIDE LANE CLOSURES AS PER THE MAINTENANCE OF TRAFFIC NOTES IN THESE PLANS A MINIMUM OF 24 HOURS PRIOR TO PERFORMING PAVEMENT REPAIRS TO ALLOW THE ENGINEER TO IDENTIFY AND MARK THE AREAS OF THE PAVEMENT IN NEED OF REPAIRS.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NEEDED TO PERFORM THE ABOVE LISTED WORK IS CONSIDERED INCIDENTAL TO MAINTAINING TRAFFIC ON THE PROJECT AND WILL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 – MAINTAINING TRAFFIC.

LIMITATION ON WORK ZONE LENGTH

LIMITATIONS ON WORK ZONE LENGTH SHALL BE IMPLEMENTED SO AS TO NOT CREATE CONGESTION AND UN-NEEDED STRAIN ON TRAFFIC AND TRAFFIC FACILITIES. THE MAXIMUM WORK ZONE LENGTH SHALL BE SIX (6) MILES, SUBJECT TO MODIFICATION BY THE ENGINEER. CONSECUTIVE WORK ZONES ARE ALLOWED WITH A MINIMUM DISTANCE OF TWO (2) MILES REQUIRED BETWEEN WORK ZONE AREAS.

ITEM 614 – MAINTAINING TRAFFIC (LANE CLOSURE/REDUCTION REQUIRED)

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, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

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.

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

THIS REQUIREMENT SHALL ONLY APPLY TO THE PROPOSED RAMP DETOURS, SIGNALIZED CLOSURE AND CONCRETE REPAIRS AT THE LAKE ROAD INTERSECTION.

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

CHRISTMAS — FOURTH OF JULY
NEW YEARS DAY — LABOR DAY
MEMORIAL DAY — THANKSGIVING

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 $50 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

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."

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
01/NHS/PV – 40 CU YD
01/STR/PV – 10 CU YD

ITEM 614 – MAINTAINING TRAFFIC (SIGNS AND BARRICADES)

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES OF THE TYPE AND LOCATION AS FOLLOWS OR AS PER THE ENGINEER.

PLACEMENT OF ASPHALT CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

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 RPM AND PAVEMENT MARKING SUBSUMMARY.

WORK ZONE MARKING SIGN: (W8-H12A-36) NO EDGE LINE — 6 EACH
WORK ZONE MARKING SIGN: (R4-1-24) DO NOT PASS — 4 EACH
WORK ZONE MARKING SIGN: (R4-2-24) PASS WITH CARE — 3 EACH
TOTAL: — 02/STR/PV - 13 EACH

DETOUR SIGNING

THE FOLLOWING QUANTITY IS INCLUDED FOR THE CONTRACTOR TO PROVIDE THE DETOUR SIGNING AS SHOWN AS PER 614.06(B):

ITEM 614 – DETOUR SIGNING — LUMP (01/NHS/PV); LUMP (03/NHS/BR); LUMP (04/STR/BR)

ITEM 614 – REPLACEMENT SIGN

FLATSHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

THIS ITEM IS TO BE CONSIDERED INCIDENTAL TO MAINTAINING TRAFFIC ON THE PROJECT AND WILL BE PAID FOR UNDER THE LUMP SUM CONTRACT BID PRICE FOR ITEM 614 – MAINTAINING TRAFFIC. IT SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED SIGNS, HARDDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY: DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER: JLL
REVIEWER: SRO 7-6-21
PROJECT ID: 79761
SHEET 14 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)
MODEL: MOT NOTES 1 PAPERSIZE: 17X11 (in.) DATE: 10/27/2021 TIME: 3:09:38 PM USER: ksalay
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Medina\79761400-Engineering\Roadway\Sheets\79761_GN001.dgn

ITEM 614 – REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

THIS ITEM IS TO BE CONSIDERED INCIDENTAL TO MAINTAINING TRAFFIC ON THE PROJECT AND WILL BE PAID FOR UNDER THE LUMP SUM CONTRACT BID PRICE FOR ITEM 614 – MAINTAINING TRAFFIC. IT SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

ITEM 614 – WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 614 – BARRIER REFLECTORS AND/OR OBJECT MARKERS

BARRIER REFLECTORS AND/OR OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE CONCRETE BARRIER USED FOR TRAFFIC CONTROL. BARRIER REFLECTORS, OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO CMS 626, EXCEPT THAT THE SPACING SHALL BE 50 FEET.

ITEM 614 – MAINTAINING TRAFFIC FOR STRUCTURES (MED-42-3.10L&R) (MED-42-4.60L&R) (MED-224-12.76L&R)

ONE LANE OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. LANE CLOSURES FOR WORK ON STRUCTURES MED-42-3.10L&R, MED-42-4.60L&R, MED-224-12.76L&R SHALL FOLLOW STANDARD CONSTRUCTION DRAWING MT-95.40. THE REMOVAL OF CONFLICTING EDGE LINES AND LANE LINES WILL BE INCIDENTAL TO ITEM 614 - MAINTAINING TRAFFIC. PLACING AND REMOVING WORK ZONE EDGE LINES WILL BE INCIDENTAL TO ITEM 614 – MAINTAINING TRAFFIC; WORK ZONE EDGE LINES ON STRUCTURES SHALL BE CLASS 1, 6", 873.

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

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

STRUCTURE MED-42-3.10L (03/NHS/BR):

ITEM 614 - WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL):	4 EACH
ITEM 614 - BARRIER REFLECTOR, TYPE 1 (ONE-WAY):	16 EACH
ITEM 614 - OBJECT MARKER, ONE WAY:	16 EACH
ITEM 622 - PORTABLE BARRIER, 32" (UNANCHORED):	770 FT

STRUCTURE MED-42-3.10R (03/NHS/BR):

ITEM 614 - WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL):	4 EACH
ITEM 614 - BARRIER REFLECTOR, TYPE 1 (ONE-WAY):	16 EACH
ITEM 614 - OBJECT MARKER, ONE WAY:	16 EACH
ITEM 622 - PORTABLE BARRIER, 32" (UNANCHORED):	770 FT

STRUCTURE MED-42-4.60L (03/NHS/BR):

ITEM 614 - WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL):	4 EACH
ITEM 614 - BARRIER REFLECTOR, TYPE 1 (ONE-WAY):	16 EACH
ITEM 614 - OBJECT MARKER, ONE WAY:	16 EACH
ITEM 622 - PORTABLE BARRIER, 32" (UNANCHORED):	750 FT

STRUCTURE MED-42-4.60R (03/NHS/BR):

ITEM 614 - WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL):	4 EACH
ITEM 614 - BARRIER REFLECTOR, TYPE 1 (ONE-WAY):	16 EACH
ITEM 614 - OBJECT MARKER, ONE WAY:	16 EACH
ITEM 622 - PORTABLE BARRIER, 32" (UNANCHORED):	750 FT

STRUCTURE MED-224-12.76L (03/NHS/BR):

ITEM 614 - WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL):	4 EACH
ITEM 614 - BARRIER REFLECTOR, TYPE 1 (ONE-WAY):	16 EACH
ITEM 614 - OBJECT MARKER, ONE WAY:	16 EACH
ITEM 622 - PORTABLE BARRIER, 32" (UNANCHORED):	760 FT

STRUCTURE MED-224-12.76R (03/NHS/BR):

ITEM 614 - WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS (UNIDIRECTIONAL):	4 EACH
ITEM 614 - BARRIER REFLECTOR, TYPE 1 (ONE-WAY):	16 EACH
ITEM 614 - OBJECT MARKER, ONE WAY:	16 EACH
ITEM 622 - PORTABLE BARRIER, 32" (UNANCHORED):	760 FT

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.

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 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
01/NHS/PV - 36 SIGN MONTH
[ASSUMING 6 PCMS SIGNS FOR 6 MONTHS]

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-20629	MED-42-2.79 TO 6.90	NB & SB
WZ-20630	MED-224-10.45 TO 15.61	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
[ASSUMING 22 DSL SIGN ASSEMBLIES FOR 6 MONTHS]
01/NHS/PV – 132 SIGN MONTHS

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER JLL
REVIEWER SRO 7-6-21
PROJECT ID 79761
SHEET 15 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)
MODEL: MOT NOTES 2 PAPERSIZE: 17x11 (in.) DATE: 11/16/2021 TIME: 12:53:56 PM USER: ksalby
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Medina\79761\400-Engineering\Roadway\Sheets\79761_GN001.dgn

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 FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

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
01/NHS/PV - 500 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.

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.

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.

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
SRO 7-6-21

PROJECT ID
79761

SHEET 16 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: MOT NOTES 3 PAPERSIZE: 17x11 (in.) DATE: 7/12/2021 TIME: 12:53:03 PM USER: jlowery
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ITEM 614 – MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR)

DETOUR LIMITATION:

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED SIXTY (60) CONSECUTIVE CALENDAR DAYS. THROUGH TRAFFIC SHALL BE DETOURED AS SHOWN ON THIS SHEET.

THE CONTRACTOR WILL INSTALL, MAINTAIN, AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.

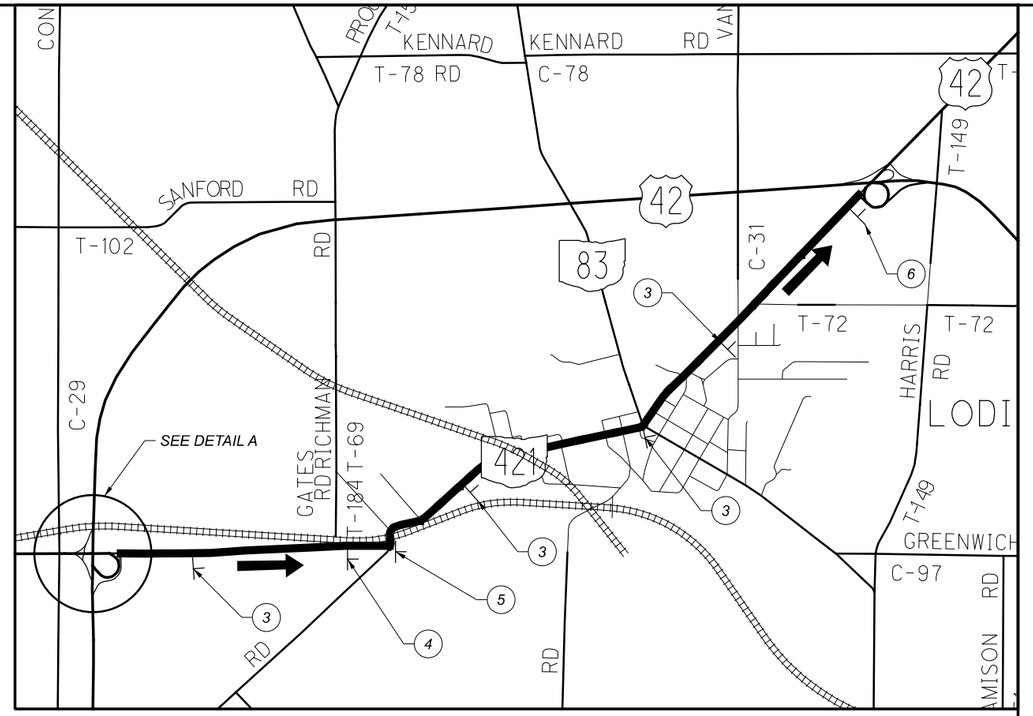
THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE APPROXIMATE WORK LIMITS OF THE PROJECT, AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

INTERIM COMPLETION DATE:

THE SIXTY (60) CONSECUTIVE CALENDAR DAYS SHALL BE CONSIDERED AN INTERIM COMPLETION DATE, AND FOR EACH CALENDAR DAY BEYOND THE SIXTY (60) CONSECUTIVE CALENDAR DAYS THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE FEE OF $1,500 PER DAY.

ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES, AS PER SECTION 614.02(A).

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATION, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. 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.



MAP LEGEND

- *PROJECT LOCATION*
- *OFFICIAL STATE SIGNED DETOUR*
- *GATES AND BARRICADES, AS PER MT-101.60*

SCALE IN FEET

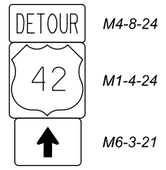
0 750 1500 2250 3000

W20-3-36

(1)

W20-2-36

(2)



M4-8-24
M1-4-24
M6-3-21

(3)

M4-8-24
M1-4-24
M5-1L-21

(4)

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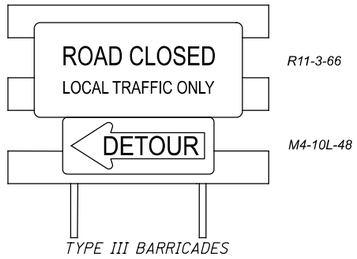
M6-1L-21

(5)

M4-8A-24
M1-4-24

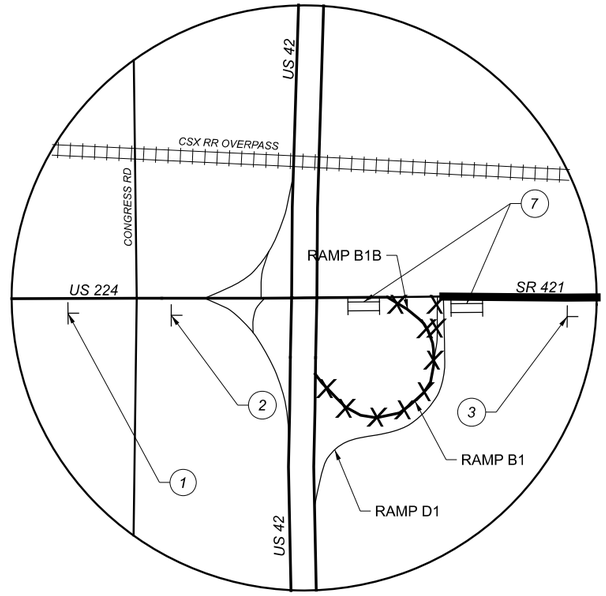
(6)



R11-3-66
M4-10L-48

TYPE III BARRICADES

(7)



DETAIL A

MAINTENANCE OF TRAFFIC DETOUR PLAN
US 42/224 - RAMP B1

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
SRO 7-6-21

PROJECT ID
79761

SHEET 17 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: RAMP B PAPERSIZE: 17x11(in.) DATE: 7/12/2021 TIME: 4:15:31 PM USER: ksalay
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ITEM 614 – MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR)

DETOUR LIMITATION:

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED THREE (3) CONSECUTIVE CALENDAR DAYS. THROUGH TRAFFIC SHALL BE DETOURED AS SHOWN ON THIS SHEET.

THE CONTRACTOR WILL INSTALL, MAINTAIN, AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.

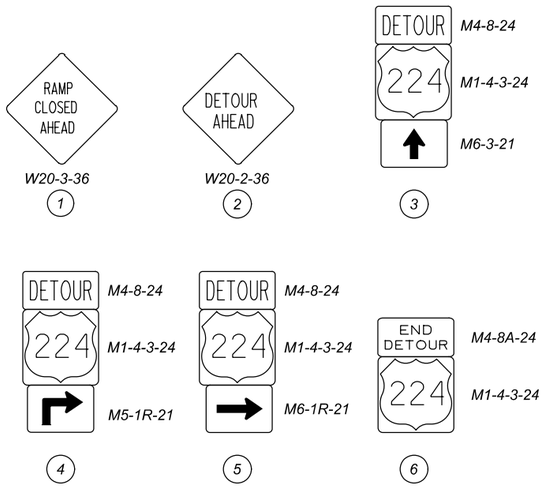
THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE APPROXIMATE WORK LIMITS OF THE PROJECT, AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

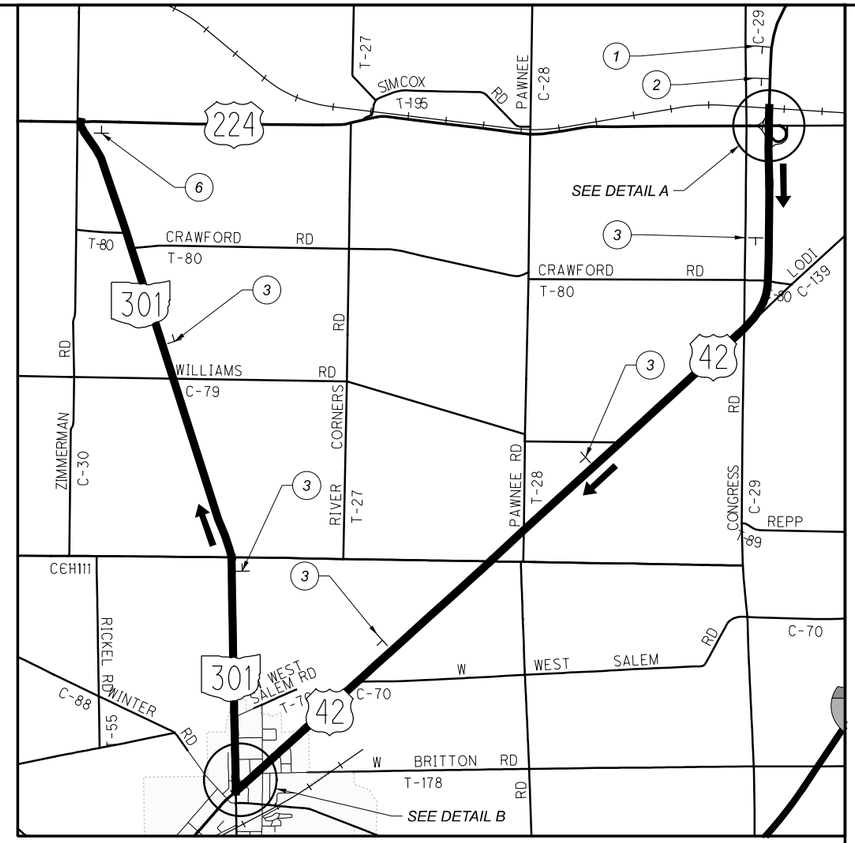
INTERIM COMPLETION DATE:

THE THREE (3) CONSECUTIVE CALENDAR DAYS SHALL BE CONSIDERED AN INTERIM COMPLETION DATE, AND FOR EACH CALENDAR DAY BEYOND THE THREE (3) CONSECUTIVE CALENDAR DAYS THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE FEE OF $8,400 PER DAY.

ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES, AS PER SECTION 614.02(A).

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATION, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. 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.





MAP LEGEND

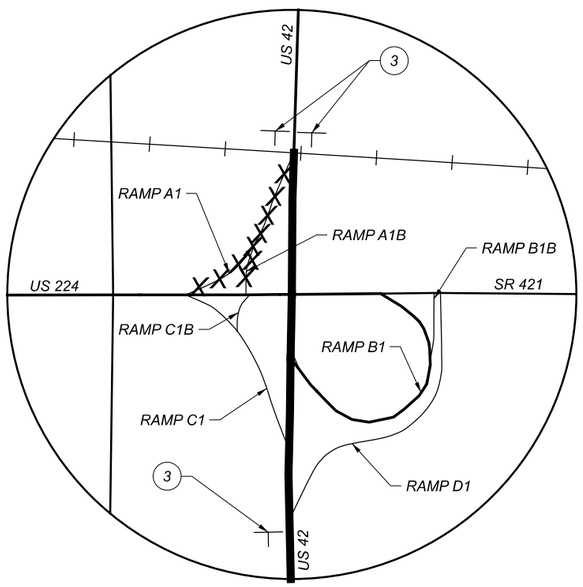
X - *PROJECT LOCATION*

← - *OFFICIAL STATE SIGNED DETOUR*

‖ - *GATES AND BARRICADES, AS PER MT-101.60*

SCALE IN FEET

0 1000 2000 3000 4000



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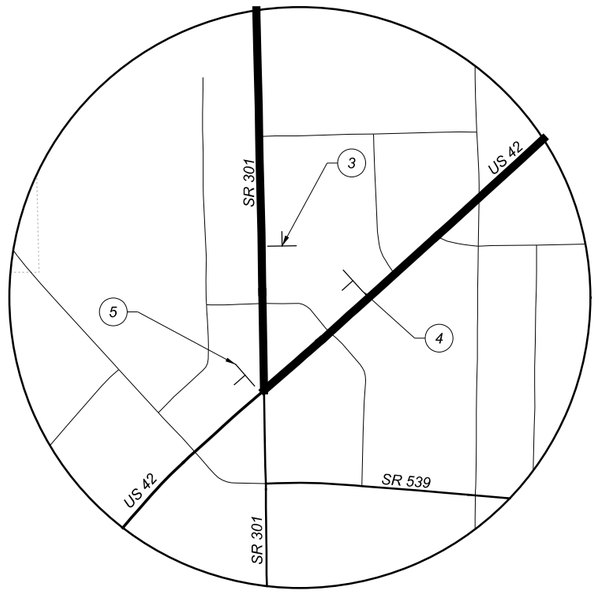

DETAIL B

MAINTENANCE OF TRAFFIC DETOUR PLAN
US 42/224 - RAMP A1

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER	JLL
REVIEWER	XXX MM-DD-YY
PROJECT ID	79761
SHEET	17A
TOTAL	79

MED-42-1.89/MED-224-(6.25)(10.45)

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

DETOUR LIMITATION:

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED THREE (3) CONSECUTIVE CALENDAR DAYS. THROUGH TRAFFIC SHALL BE DETOURED AS SHOWN ON THIS SHEET.

THE CONTRACTOR WILL INSTALL, MAINTAIN, AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.

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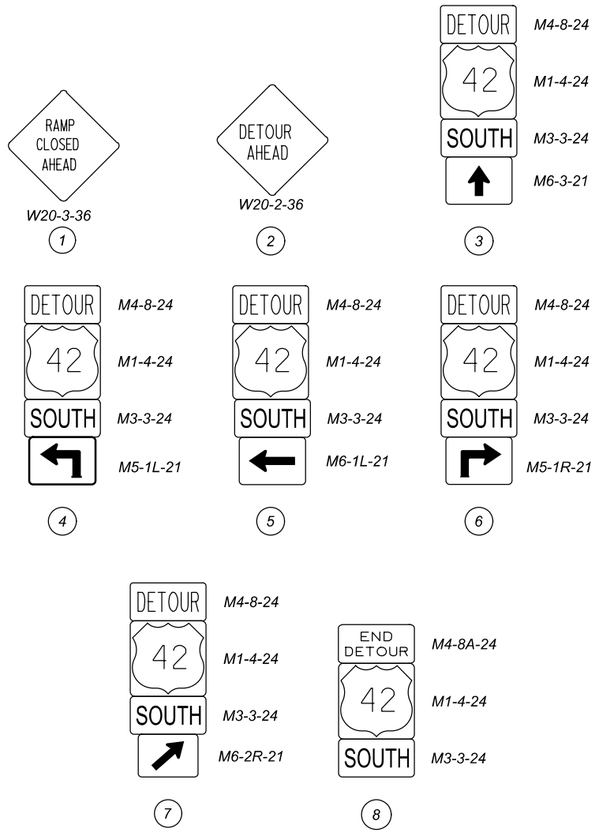
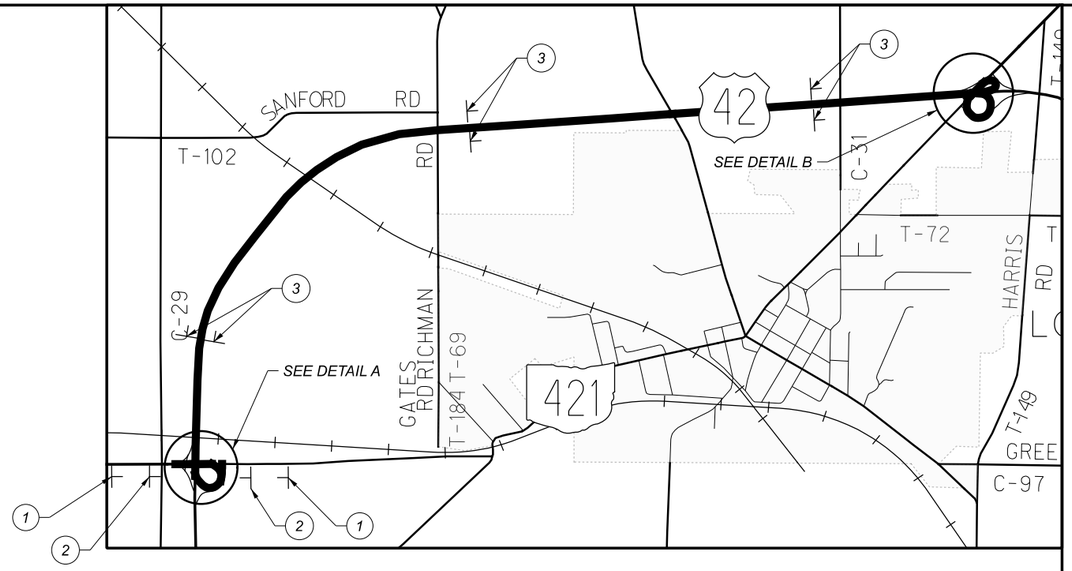
ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES, AS PER SECTION 614.02(A).

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATION, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. 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.



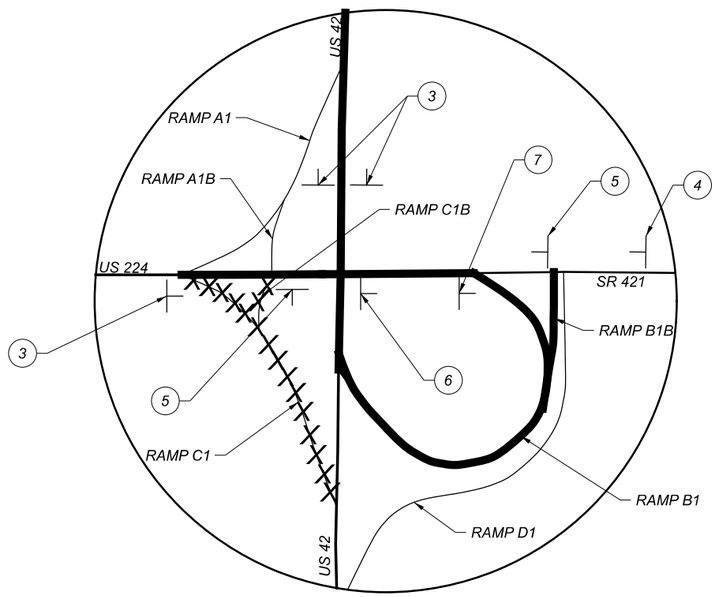


MAP LEGEND

- *PROJECT LOCATION*
- *OFFICIAL STATE SIGNED DETOUR*
- *GATES AND BARRICADES, AS PER MT-101.60*

SCALE IN FEET

0 750 1500 2250 3000



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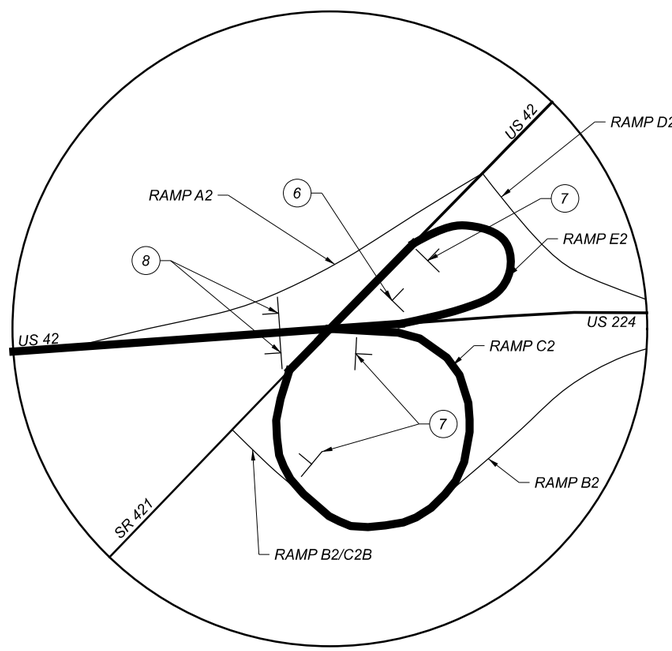

DETAIL B

MAINTENANCE OF TRAFFIC DETOUR PLAN
US 42/224 - RAMP C1

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER	JLL
REVIEWER	XXX MM-DD-YY
PROJECT ID	79761
SHEET	17B
TOTAL	79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: RAMP CI PAPERSIZE: 17x11(in.) DATE: 11/22/2021 TIME: 5:17:22 PM USER: ksalay
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ITEM 614 – MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR)

DETOUR LIMITATION:

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED THREE (3) CONSECUTIVE CALENDAR DAYS. THROUGH TRAFFIC SHALL BE DETOURED AS SHOWN ON THIS SHEET.

THE CONTRACTOR WILL INSTALL, MAINTAIN, AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE APPROXIMATE WORK LIMITS OF THE PROJECT, AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES, AS PER SECTION 614.02(A).

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATION, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. 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.

W20-3-36

(1)

W20-2-36

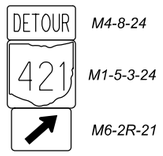
(2)

M4-8-24

M1-5-3-24

M6-3-21

(3)

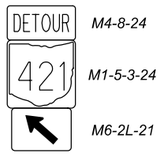


M4-8-24

M1-5-3-24

M6-2R-21

(4)



M4-8-24

M1-5-3-24

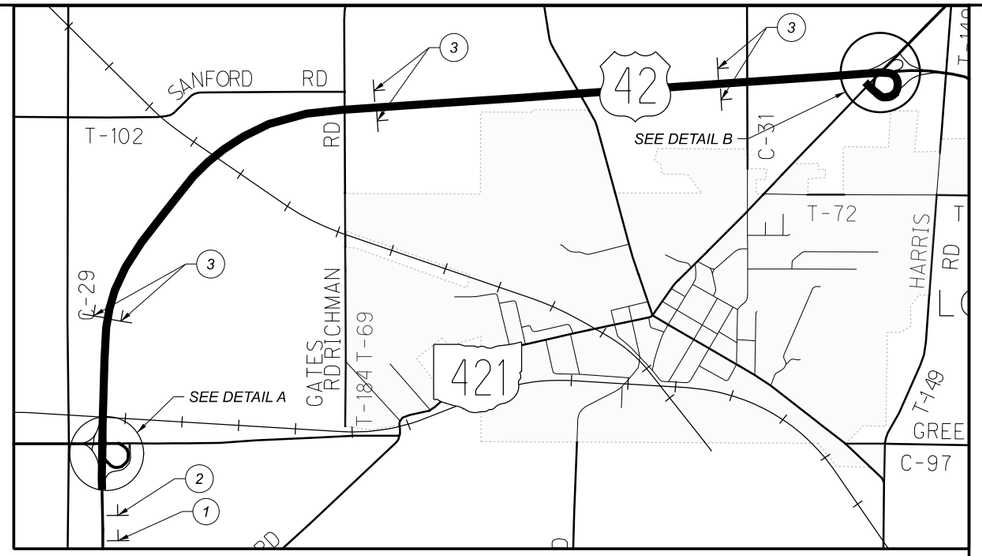
M6-2L-21

(5)

M4-8A-24

M1-5-3-24

(6)

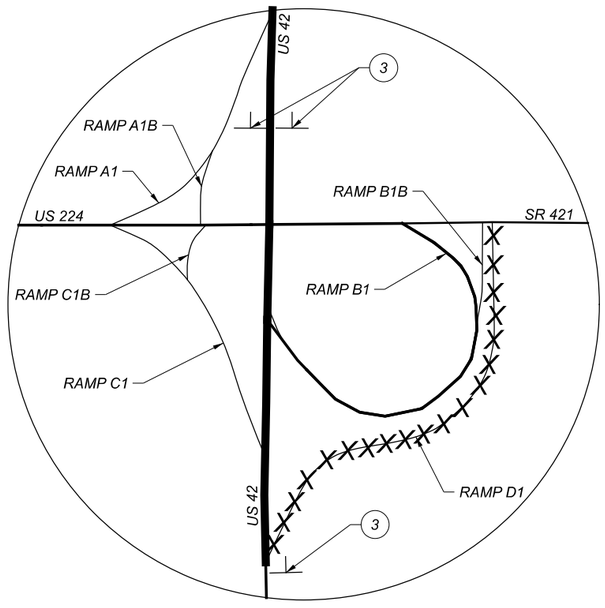


MAP LEGEND

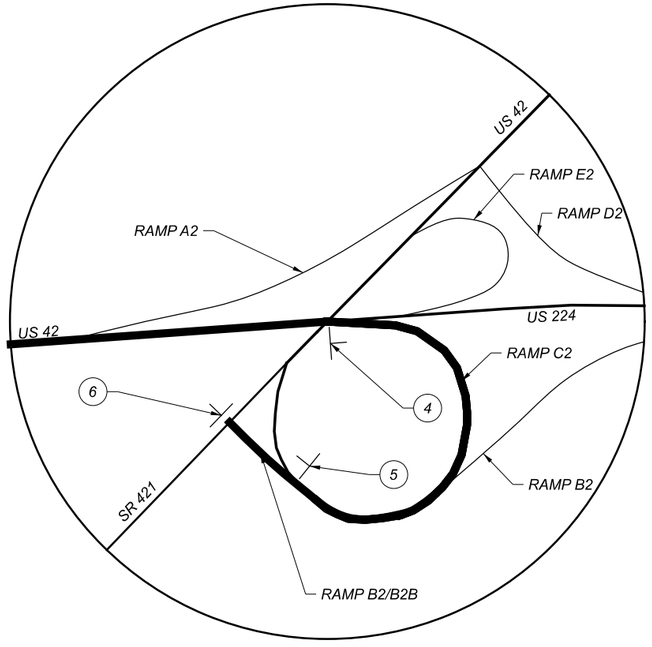
- *PROJECT LOCATION*
- *OFFICIAL STATE SIGNED DETOUR*
- *GATES AND BARRICADES, AS PER MT-101.60*

SCALE IN FEET

0 750 1500 2250 3000



DETAIL A



DETAIL B

MAINTENANCE OF TRAFFIC DETOUR PLAN
US 42/224 - RAMP D1

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER: JLL
REVIEWER: XXX MM-DD-YY
PROJECT ID: 79761
SHEET: 17C TOTAL: 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: RAMP DI PAPERSIZE: 17x11(in.) DATE: 11/22/2021 TIME: 5:17:57 PM USER: ksalay
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ITEM 614 – MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR)

DETOUR LIMITATION:

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED THIRTY (30) CONSECUTIVE CALENDAR DAYS. THROUGH TRAFFIC SHALL BE DETOURED AS SHOWN ON THIS SHEET.

THE CONTRACTOR WILL INSTALL, MAINTAIN, AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE APPROXIMATE WORK LIMITS OF THE PROJECT, AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

INTERIM COMPLETION DATE:

THE THIRTY (30) CONSECUTIVE CALENDAR DAYS SHALL BE CONSIDERED AN INTERIM COMPLETION DATE, AND FOR EACH CALENDAR DAY BEYOND THE THIRTY (30) CONSECUTIVE CALENDAR DAYS THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE FEE OF $3,000 PER DAY.

ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES, AS PER SECTION 614.02(A).

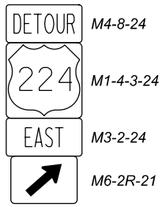
ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATION, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 – MAINTAINING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

W20-3-36

(1)

W20-2-36

(2)



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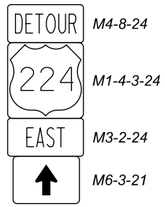
M1-4-3-24
M3-2-24
M6-2R-21

(3)



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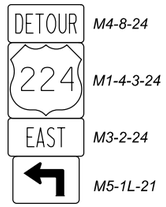
M1-4-3-24
M3-2-24
M6-3-21

(4)



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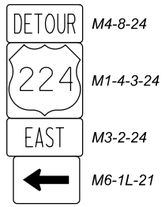
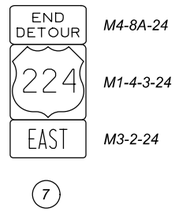
M1-4-3-24
M3-2-24
M5-1L-21

(5)



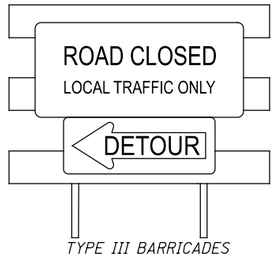
M4-8-24
M1-4-3-24
M3-2-24
M6-1L-21

(6)



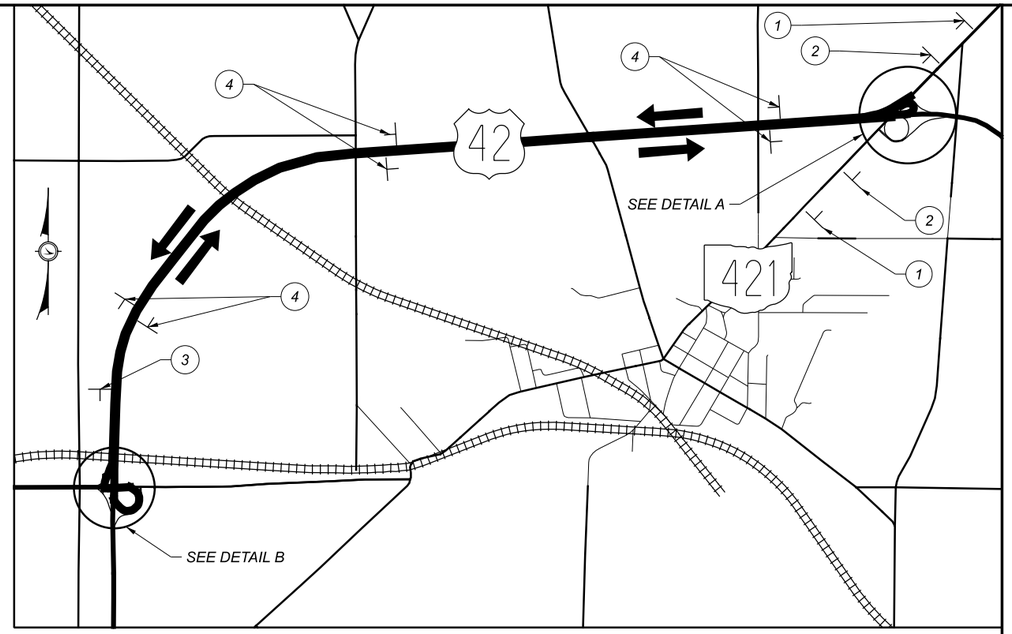
M4-8A-24
M1-4-3-24
M3-2-24

(7)



TYPE III BARRICADES

(8)

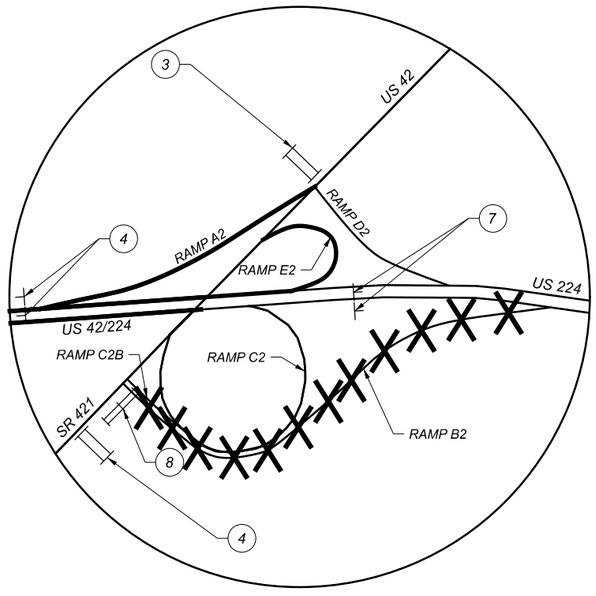


MAP LEGEND

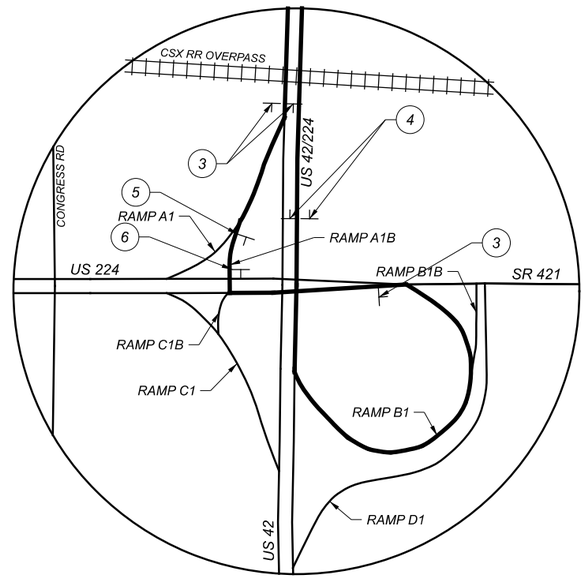
- *PROJECT LOCATION*
- *OFFICIAL STATE SIGNED DETOUR*
- *GATES AND BARRICADES, AS PER MT-101.60*

SCALE IN FEET

0 750 1500 2250 3000



DETAIL A



DETAIL B

MAINTENANCE OF TRAFFIC DETOUR PLAN
US 42/224 - RAMP B2

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER	JLL
REVIEWER	SRO 7-6-21
PROJECT ID	79761
SHEET	18
TOTAL	73

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: RAMP B2 PAPERSIZE: ITxII(In.) DATE: 7/12/2021 TIME: 4:15:50 PM USER: ksalay
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01Active Projects\District 03\Medina\79761\400-Engineering\MOT\Sheets\79761_MD002.dgn

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

DETOUR LIMITATION:

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED THIRTY (30) CONSECUTIVE CALENDAR DAYS. THROUGH TRAFFIC SHALL BE DETOURED AS SHOWN ON THIS SHEET.

THE CONTRACTOR WILL INSTALL, MAINTAIN, AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.

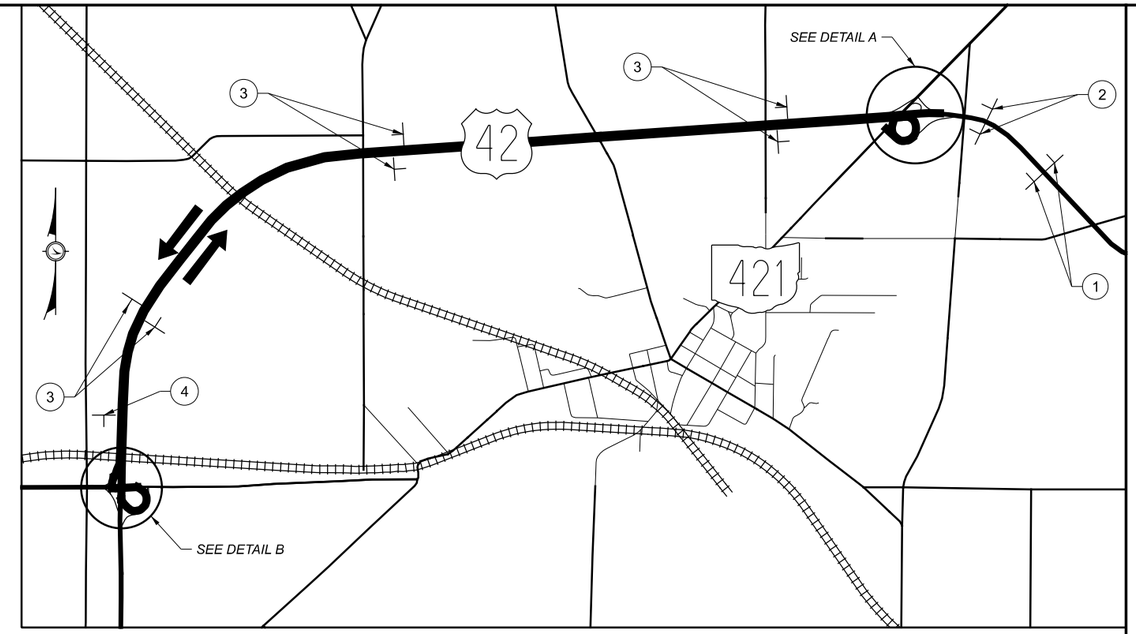
THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE APPROXIMATE WORK LIMITS OF THE PROJECT, AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

INTERIM COMPLETION DATE:

THE THIRTY (30) CONSECUTIVE CALENDAR DAYS SHALL BE CONSIDERED AN INTERIM COMPLETION DATE, AND FOR EACH CALENDAR DAY BEYOND THE THIRTY (30) CONSECUTIVE CALENDAR DAYS THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE FEE OF $2,500 PER DAY.

ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES, AS PER SECTION 614.02(A).

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATION, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. 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.

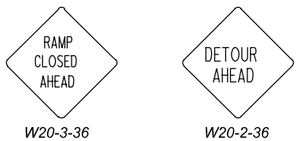


MAP LEGEND

- *PROJECT LOCATION*
- *OFFICIAL STATE SIGNED DETOUR*
- *GATES AND BARRICADES, AS PER MT-101.60*

SCALE IN FEET

0 750 1500 2250 3000



W20-3-36

(1)

W20-2-36

(2)

M4-8-24

M1-5-3-24

M6-3-21

(3)

M4-8-24

M1-5-3-24

M6-2R-21

(4)

M4-8-24

M1-5-3-24

M5-1L-21

(5)

M4-8-24

M1-5-3-24

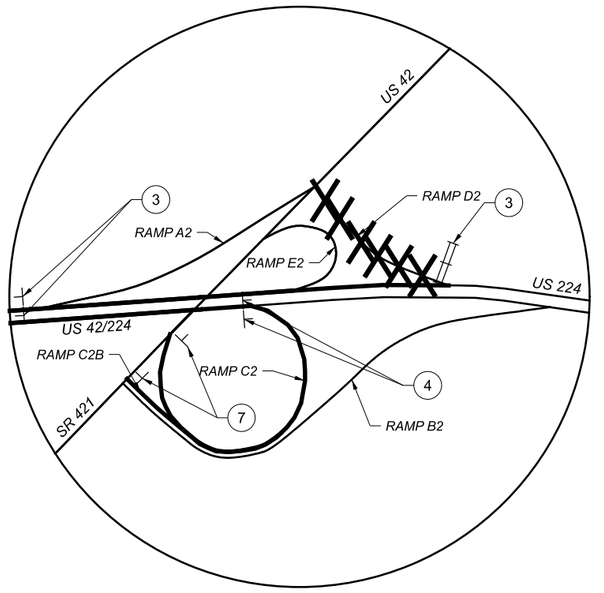
M6-1L-21

(6)

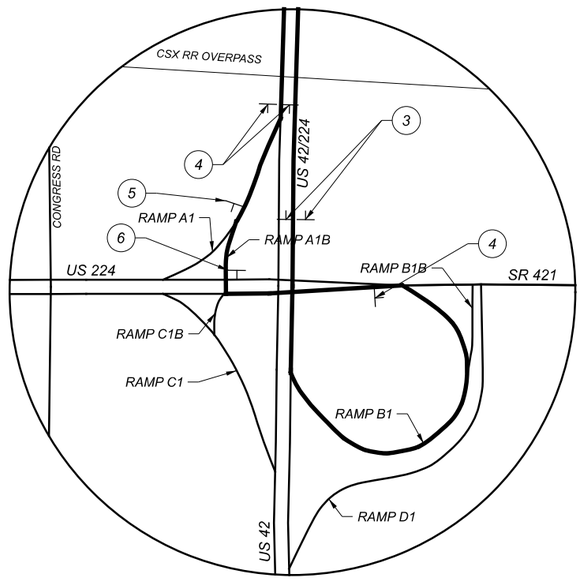
M4-8A-24

M1-5-3-24

(7)



DETAIL A



DETAIL B

MAINTENANCE OF TRAFFIC DETOUR PLAN
US 42/224 - RAMP D2

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
SRO 7-6-21

PROJECT ID
79761

SHEET 19 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: RAMP D2 PAPERSIZE: 17x11 (in.) DATE: 7/12/2021 TIME: 4:16:02 PM USER: ksalay
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01Active Projects\District 03\Medina\79761\400-Engineering\

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

DETOUR LIMITATION:

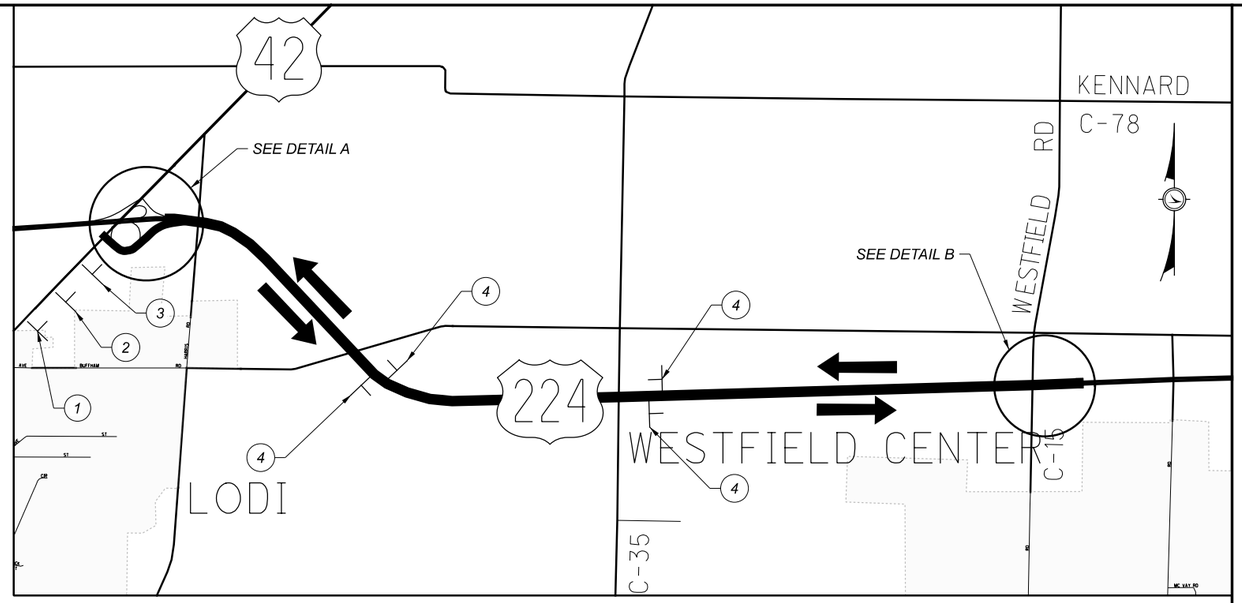
TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED THIRTY (30) CONSECUTIVE CALENDAR DAYS. THROUGH TRAFFIC SHALL BE DETOURED AS SHOWN ON THIS SHEET.

THE CONTRACTOR WILL INSTALL, MAINTAIN, AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE APPROXIMATE WORK LIMITS OF THE PROJECT, AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES, AS PER SECTION 614.02(A).

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATION, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. 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.



MAP LEGEND

- *PROJECT LOCATION*
- *OFFICIAL STATE SIGNED DETOUR*
- *GATES AND BARRICADES, AS PER MT-101.60*

SCALE IN FEET

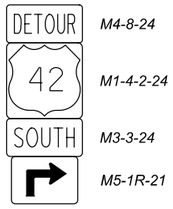
0 625 1250 1875 2500

W20-3-36

(1)

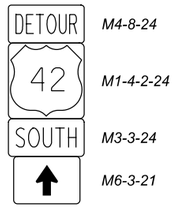
W20-2-36

(2)



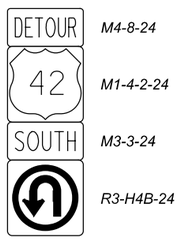
M4-8-24
M1-4-2-24
M3-3-24
M5-1R-21

(3)



M4-8-24
M1-4-2-24
M3-3-24
M6-3-21

(4)



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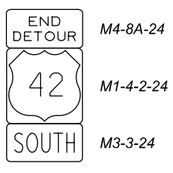
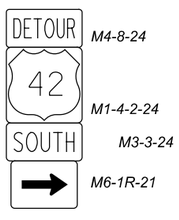
M1-4-2-24
M3-3-24
R3-H4B-24

(5)



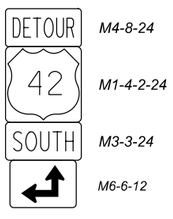
M4-8A-24
M1-4-2-24
M3-3-24

(6)



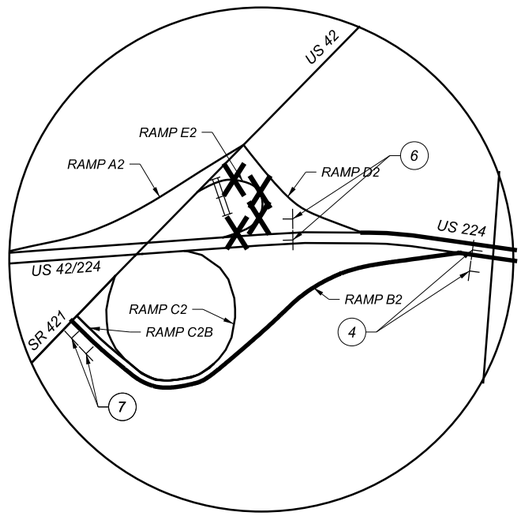
M4-8-24
M1-4-2-24
M3-3-24
M6-1R-21

(7)

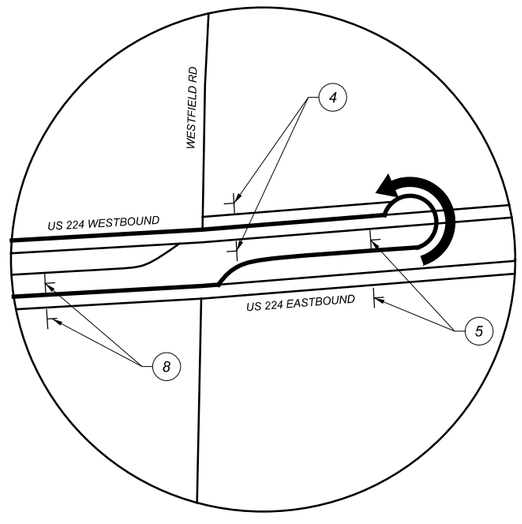


M4-8-24
M1-4-2-24
M3-3-24
M6-6-12

(8)



DETAIL A



DETAIL B

MAINTENANCE OF TRAFFIC DETOUR PLAN
US 42/224 - RAMP E2

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER JLL
REVIEWER SRO 7-6-21
PROJECT ID 79761
SHEET 20 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: RAMP E2 PAPERSIZE: 17x11(in.) DATE: 7/12/2021 TIME: 4:16:13 PM USER: ksolay
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Medina\79761\400-Engineering\MOT\Sheets\79761_MD002.dgn

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

DETOUR LIMITATION:

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED THIRTY (30) CONSECUTIVE CALENDAR DAYS. THROUGH TRAFFIC SHALL BE DETOURED AS SHOWN ON THIS SHEET AND SHEET 22.

THE CONTRACTOR WILL INSTALL, MAINTAIN, AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE APPROXIMATE WORK LIMITS OF THE PROJECT, AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

INTERIM COMPLETION DATE:

THE THIRTY (30) CONSECUTIVE CALENDAR DAYS SHALL BE CONSIDERED AN INTERIM COMPLETION DATE, AND FOR EACH CALENDAR DAY BEYOND THE THIRTY (30) CONSECUTIVE CALENDAR DAYS THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE FEE OF $5,000 PER DAY.

ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES, AS PER SECTION 614.02(A).

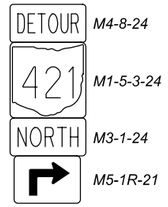
ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATION, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 – MAINTAINING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

W20-3-36

1

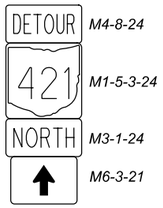
W20-2-36

2



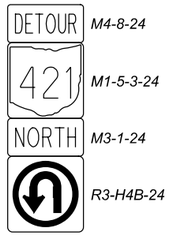
M4-8-24
M1-5-3-24
M3-1-24
M5-1R-21

3



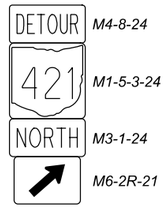
M4-8-24
M1-5-3-24
M3-1-24
M6-3-21

4



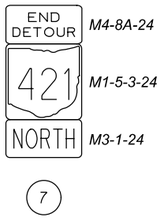
M4-8-24
M1-5-3-24
M3-1-24
R3-H4B-24

5



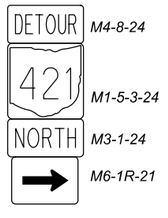
M4-8-24
M1-5-3-24
M3-1-24
M6-2R-21

6



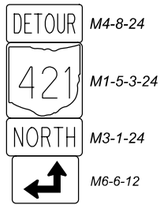
M4-8A-24
M1-5-3-24
M3-1-24

7



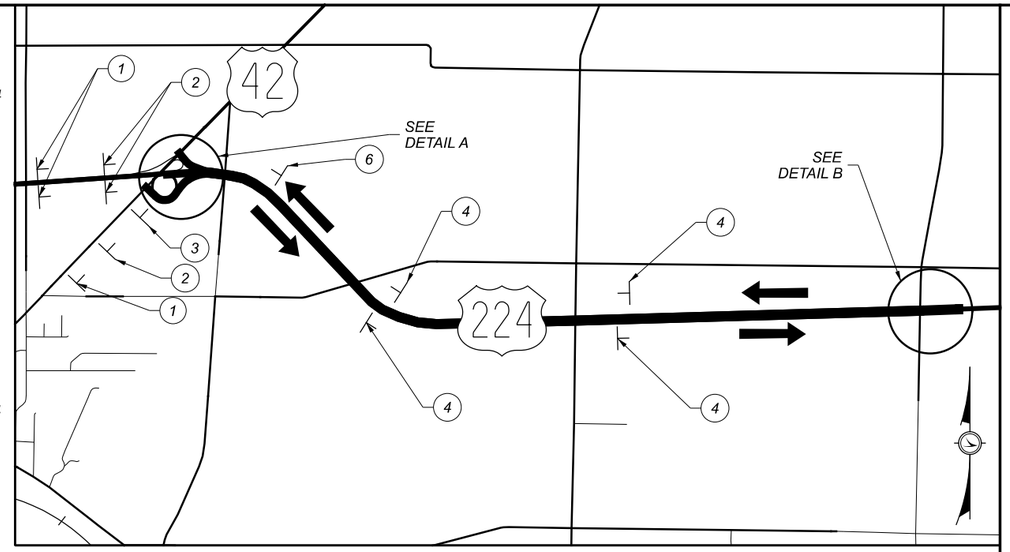
M4-8-24
M1-5-3-24
M3-1-24
M6-1R-21

8



M4-8-24
M1-5-3-24
M3-1-24
M6-6-12

9

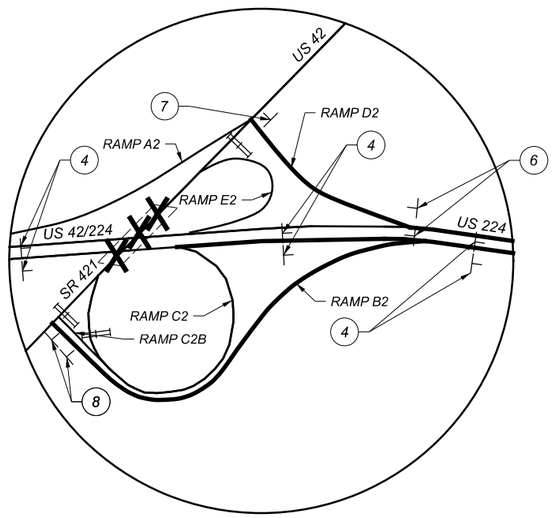


MAP LEGEND

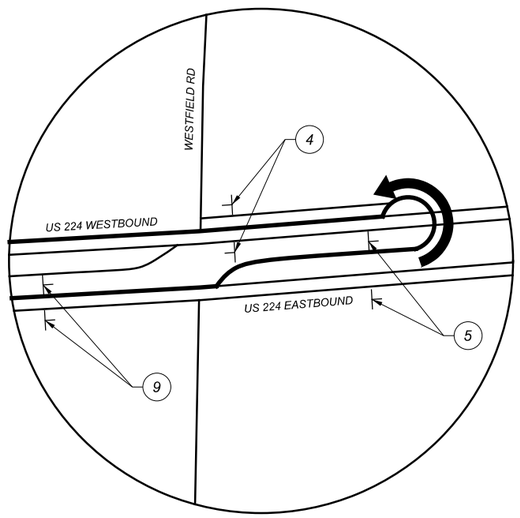
- PROJECT LOCATION
- OFFICIAL STATE SIGNED DETOUR
- GATES AND BARRICADES, AS PER MT-101.60

SCALE IN FEET

0 750 1500 2250 3000



DETAIL A



DETAIL B

MAINTENANCE OF TRAFFIC DETOUR PLAN
SR 421 - NORTHBOUND

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER JLL

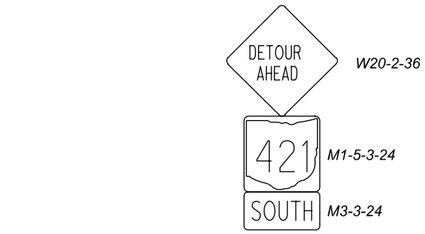
REVIEWER SRO 7-6-21

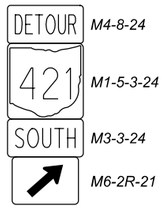
PROJECT ID 79761

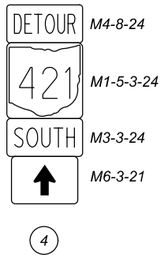
SHEET 21 TOTAL 79

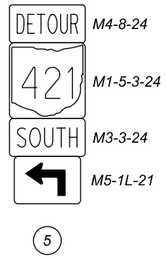
MED-42-1.89/MED-224-(6.25)(10.45)

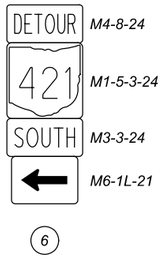
MODEL: Sheet_SR42NB PAPERSIZE: 17x11(ln.) DATE: 7/12/2021 TIME: 4:16:32 PM USER: ksalay
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Medina\79761\400-Engineering\MOT\Sheets\79761_MD003.dgn

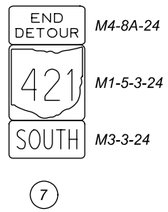


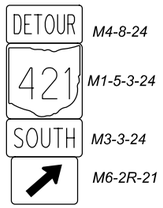


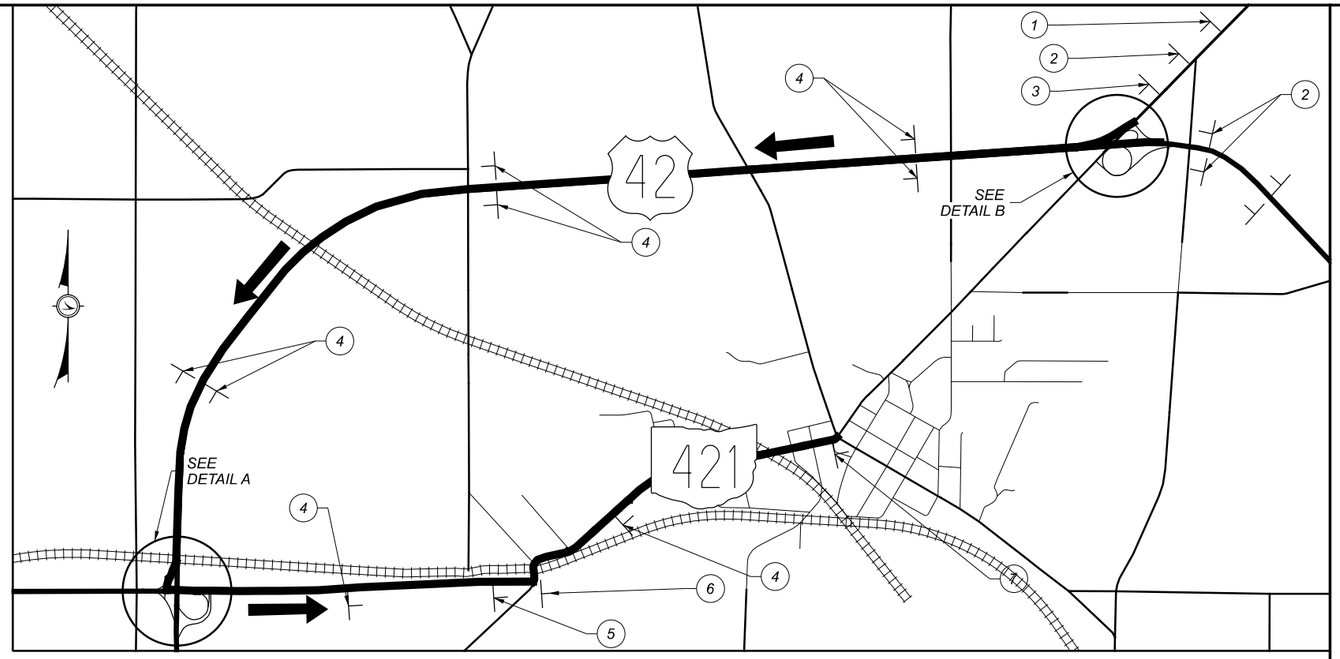










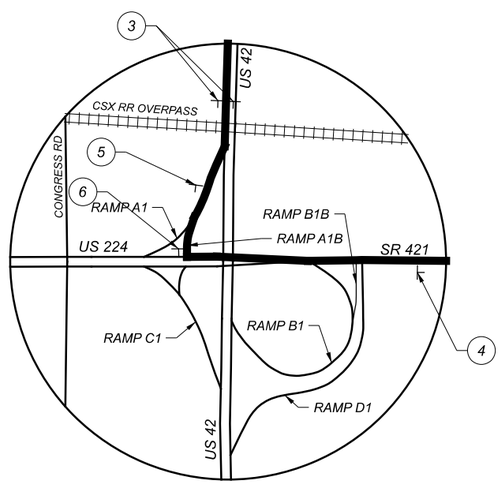


MAP LEGEND

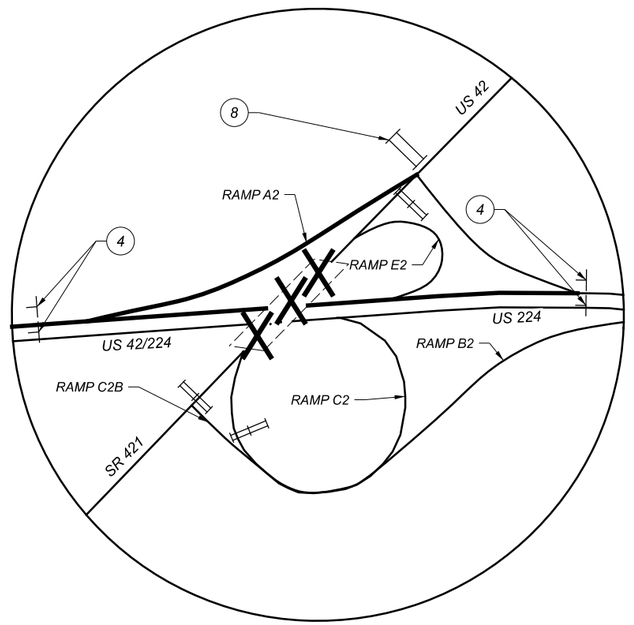
- PROJECT LOCATION
- OFFICIAL STATE SIGNED DETOUR
- GATES AND BARRICADES, AS PER MT-101.60

SCALE IN FEET

0 625 1250 1875 2500



DETAIL A



DETAIL B

MAINTENANCE OF TRAFFIC DETOUR PLAN
SR 421 - SOUTHBOUND

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER JLL
REVIEWER SRO 7-6-21
PROJECT ID 79761
SHEET 22 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet_SR42ISB PAPERSIZE: ITxll(in.) DATE: 7/12/2021 TIME: 4:16:44 PM USER: ksalay
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Medina\79761\400-Engineering\MOT\Sheets\79761_MD003.dgn

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

DETOUR LIMITATION:

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED THREE (3) CONSECUTIVE CALENDAR DAYS. THROUGH TRAFFIC SHALL BE DETOURED AS SHOWN ON THIS SHEET.

THE CONTRACTOR WILL INSTALL, MAINTAIN, AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.

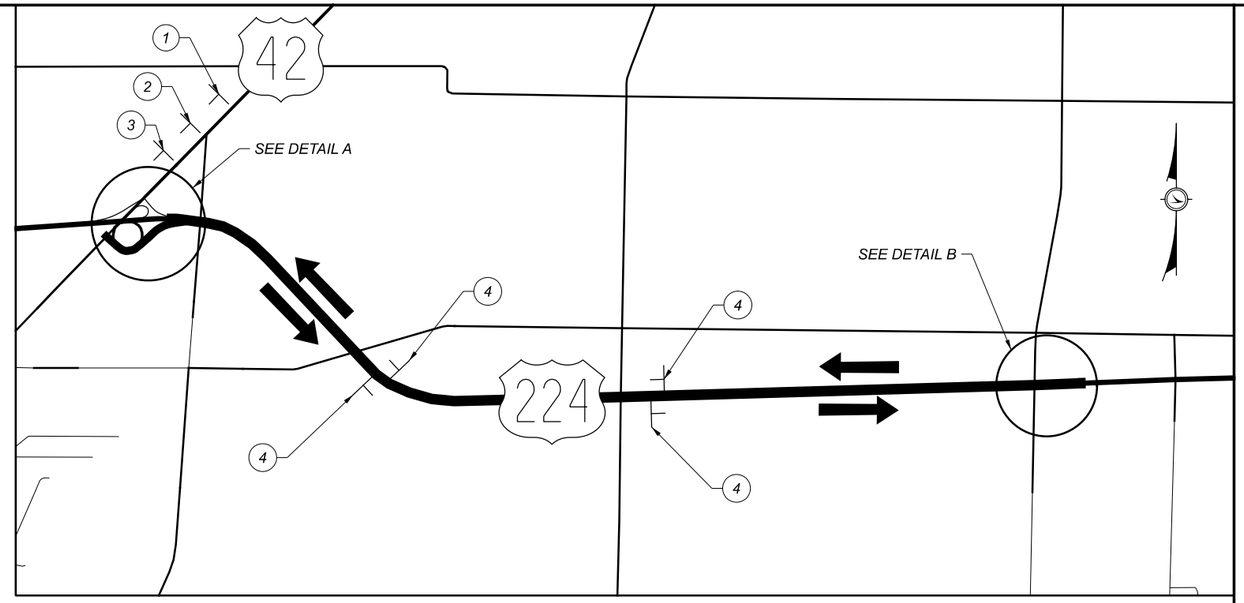
THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE APPROXIMATE WORK LIMITS OF THE PROJECT, AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

INTERIM COMPLETION DATE:

THE THREE (3) CONSECUTIVE CALENDAR DAYS SHALL BE CONSIDERED AN INTERIM COMPLETION DATE, AND FOR EACH CALENDAR DAY BEYOND THE THREE (3) CONSECUTIVE CALENDAR DAYS THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE FEE OF $2,400 PER DAY.

ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES, AS PER SECTION 614.02(A).

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATION, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. 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.



MAP LEGEND

- *PROJECT LOCATION*
- *OFFICIAL STATE SIGNED DETOUR*
- *GATES AND BARRICADES, AS PER MT-101.60*

SCALE IN FEET

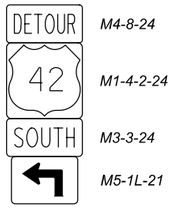
0 625 1250 1875 2500

W20-3-36

1

W20-2-36

2



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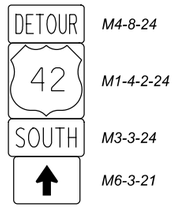
M1-4-2-24
M3-3-24
M5-1L-21

3



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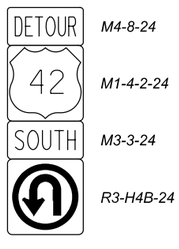
M3-3-24
M6-3-21

4



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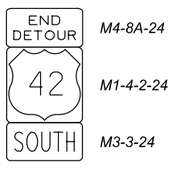
M1-4-2-24
M3-3-24
R3-H4B-24

5



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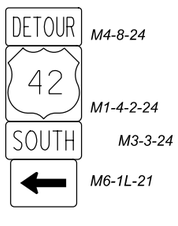
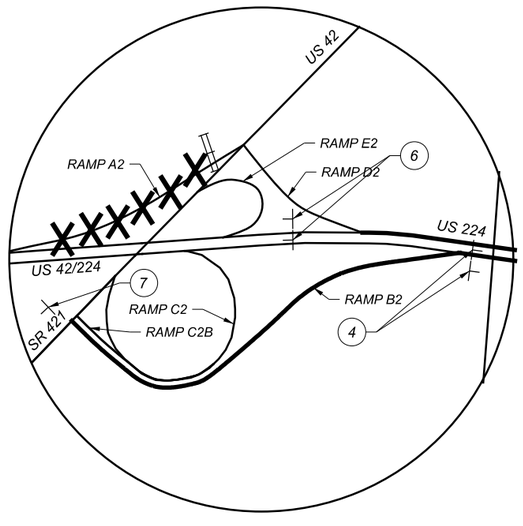
M1-4-2-24
M3-3-24

6

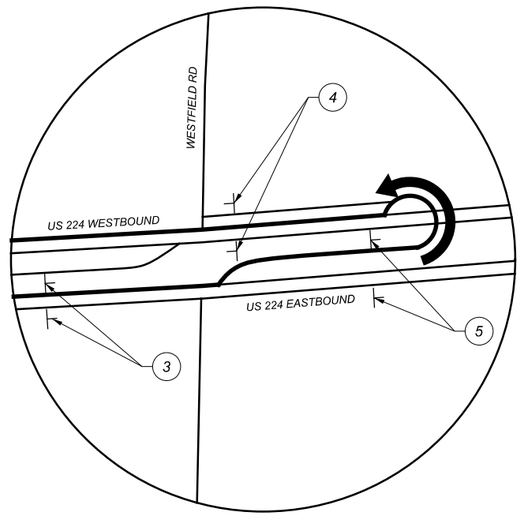


M4-8-24
M1-4-2-24
M3-3-24
M6-1L-21

7



DETAIL A



DETAIL B

MAINTENANCE OF TRAFFIC DETOUR PLAN
US 42/224 - RAMP A2

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER: KRB
REVIEWER: XXX 11-2021
PROJECT ID: 79761
SHEET: 22A TOTAL: 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: RAMP A2 PAPERSIZE: 17x11(in) DATE: 11/20/2021 TIME: 5:23:02 PM USER: ksalay
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Medina\79761\400-Engineering\MOT\Sheets\79761_MD002.dgn

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

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THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE APPROXIMATE WORK LIMITS OF THE PROJECT, AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

INTERIM COMPLETION DATE:

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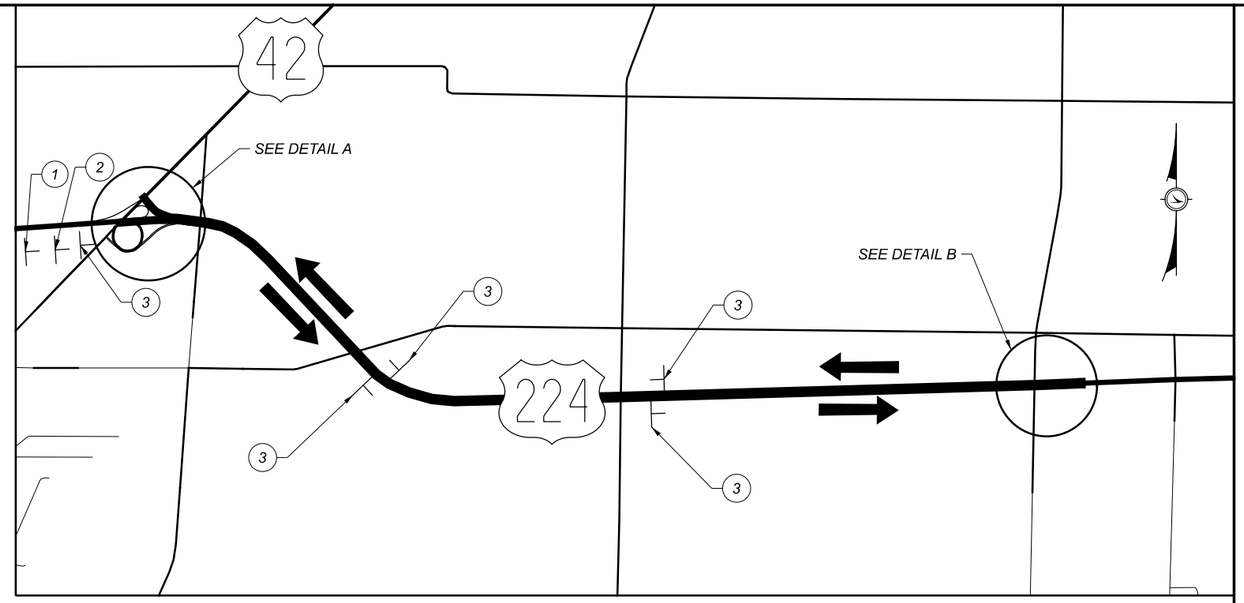


MAP LEGEND

- *PROJECT LOCATION*
- *OFFICIAL STATE SIGNED DETOUR*
- *GATES AND BARRICADES, AS PER MT-101.60*

SCALE IN FEET

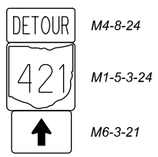
0 625 1250 1875 2500

W20-3-36

(1)

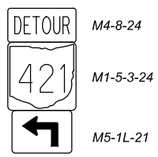
W20-2-36

(2)



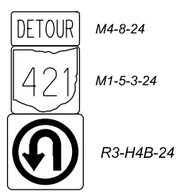
M4-8-24
M1-5-3-24
M6-3-21

(3)



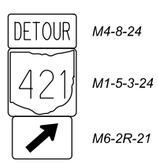
M4-8-24
M1-5-3-24
M5-1L-21

(4)



M4-8-24
M1-5-3-24
R3-H4B-24

(5)



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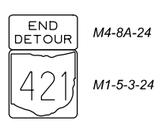
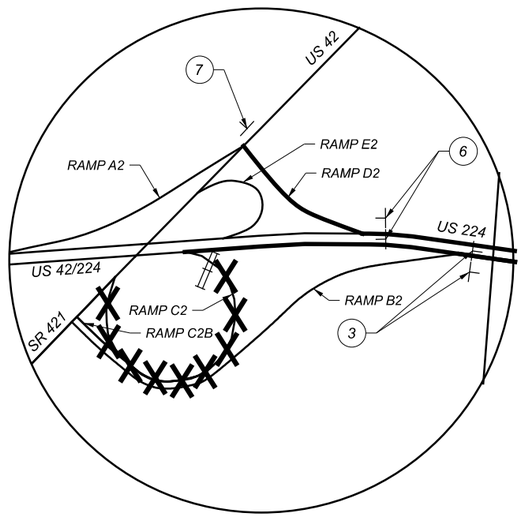
M1-5-3-24
M6-2R-21

(6)

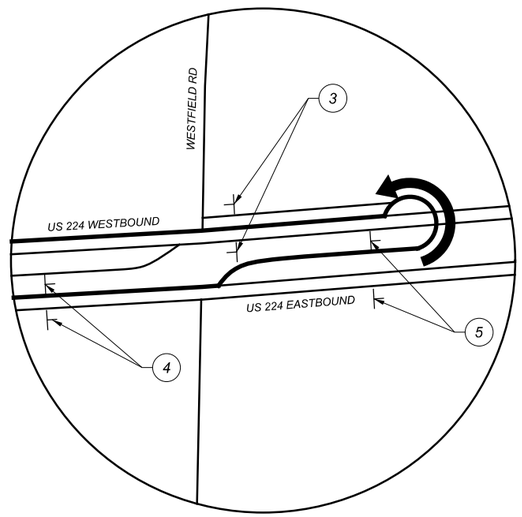


M4-8A-24
M1-5-3-24

(7)



DETAIL A



DETAIL B

MAINTENANCE OF TRAFFIC DETOUR PLAN
US 42/224 - RAMP C2

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER: KRB
REVIEWER: XXX 11-2021
PROJECT ID: 79761
SHEET: 22B TOTAL: 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: RAMP C2 PAPERSIZE: ltxli(in) DATE: 11/20/2021 TIME: 5:39:58 PM USER: ksday
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Medina\79761\400-Engineering\MOT\Sheets\79761_MD002.dgn

SHEET NUM.						PART.						ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
11	12	29	30	31	32	01/NHS/PV	02/STR/PV	03/NHS/BR	04/STR/BR	05/SAF/OT	06/SAF/OT						
																ROADWAY	
					22,325.5	21,338	987.5					202	38000	22,325.5	FT	GUARDRAIL REMOVED	
					2,772.5	2,522.5	250					202	38300	2,772.5	FT	GUARDRAIL REMOVED, BARRIER DESIGN	
					3	3						202	42000	3	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A	
					45	40	5					202	42010	45	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
					50	47	3					202	42040	50	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
					58	54	4					202	47000	58	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
					20	18	2					202	47800	20	EACH	IMPACT ATTENUATOR REMOVED	
	50					40	10					203	10001	50	CY	EXCAVATION, AS PER PLAN	12
					310	295	15					203	20001	310	CY	EMBANKMENT, AS PER PLAN	13
					285.76	269.88	15.88					209	15000	285.76	STA	RESHAPING UNDER GUARDRAIL	
		8.37	8.62	20.7		35.87	1.82					209	60500	37.69	MILE	LINEAR GRADING	
		1.66					1.66					209	72051	1.66	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	11
					837.5	737.5	100					606	13000	837.5	FT	GUARDRAIL, TYPE 5	
					8,169.25	7,656.75	512.5					606	15050	8,169.25	FT	GUARDRAIL, TYPE MGS	
					12,781.3	12,406.3	375					606	15100	12,781.3	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
					500	500						606	15150	500	FT	GUARDRAIL, TYPE MGS HALF POST SPACING	
					2,745	2,495	250					606	15550	2,745	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS	
					46	41	5					606	26150	46	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016	
					51	48	3					606	26550	51	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
					20	20						606	35002	20	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
					2	2						606	35102	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
					36	32	4					606	35140	36	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4	
					20	18	2					606	60012	20	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	
					8	8						622	25001	8	EACH	CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN	13
																EROSION CONTROL	
						1,535	130	205	55	70	5	832	30000	2,000	EACH	EROSION CONTROL	
																DRAINAGE	
	120					100	20					605	31101	120	FT	AGGREGATE DRAINS, AS PER PLAN	12
																PAVEMENT	
1,400						1,210	190					251	01042	1,400	CY	PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) (LONGITUDINAL)	
595						515	80					251	01042	595	CY	PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) (TRANSVERSE)	
	5,244					5,080	164					254	01000	5,244	SY	PAVEMENT PLANING, ASPHALT CONCRETE (1.5 INCH)	
		109,283	94,726	224,268		390,628	37,649					254	01000	428,277	SY	PAVEMENT PLANING, ASPHALT CONCRETE (3.25 INCH)	
		178					178					254	01000	178	SY	PAVEMENT PLANING, ASPHALT CONCRETE (TAPER 3.25" TO 2.0")	
		356					356					254	01000	356	SY	PAVEMENT PLANING, ASPHALT CONCRETE (TAPER 3.25" TO 1.5")	
		547	474	1,122		1,955	188					254	01600	2,143	SY	PATCHING PLANED SURFACE	
	15,700				670	14,670	1,700					255	10161	16,370	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN	12
					235	235						255	10161	235	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN (LONGITUDINAL CRACK)	11
	62,800				5,325	61,325	6,800					255	20000	68,125	FT	FULL DEPTH PAVEMENT SAWING	
					17,392	17,392						257	10000	17,392	SY	DIAMOND GRINDING PORTLAND CEMENT CONCRETE PAVEMENT	
	50					40	10					304	20001	50	CY	AGGREGATE BASE, AS PER PLAN	12
		14,233	12,315	29,154		50,778	4,924					407	10000	55,702	GAL	TACK COAT	
		4,709	4,043	9,715		16,834	1,633					408	10001	18,467	GAL	PRIME COAT, AS PER PLAN	12
		6,797	5,833	13,967		24,125	2,472					442	00100	26,597	CY	ANTI-SEGREGATION EQUIPMENT	
		1,732	1,026	2,357		3,980	1,135					442	10000	5,115	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), PG70-22	
		23					23					442	10000	23	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), PG70-22, (SAFETY EDGE)	
	219	2,839	2,922	6,991		12,516	455					442	10301	12,971	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN, PG70-22	12
		5,313	4,607	10,902		18,990	1,832					861	11100	20,822	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446)	
		654	560	1,350		2,338	226					617	10100	2,564	CY	COMPACTED AGGREGATE	
		9,820	10,107	24,284		42,075	2,136					617	20000	44,211	SY	SHOULDER PREPARATION	
	3					3						618	39001	3	EACH	RUMBLE STRIPS, TRANSVERSE (ASPHALT CONCRETE), AS PER PLAN	12
		7.97	7.97	19.47		34.29	1.12					618	40600	35.41	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
		1.66					1.66					618	41000	1.66	MILE	RUMBLE STRIPES, EDGE LINE (ASPHALT CONCRETE)	
		0.89									0.89	618	43000	0.89	MILE	RUMBLE STRIPES, CENTER LINE (ASPHALT CONCRETE)	
		4,699									4,699	874	20000	4,699	FT	LONGITUDINAL JOINT PREPARATION	

GENERAL SUMMARY

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER JLL

REVIEWER KRB 7-7-21

PROJECT ID 79761

SHEET 23 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: GENSUM1 PAPERSIZE: 17x11 (in.) DATE: 11/23/2021 TIME: 4:31:28 PM USER: ksilby
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Medina\79761\400=Engineering\RoadwaySheets\79761_GG001.dgn

SHEET NUM.					PART.						ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
32	51	52	53	56	01/NHS/PV	02/STR/PV	03/NHS/BR	04/STR/BR	05/SAF/OT	06/SAF/OT						
															TRAFFIC CONTROL	
			1,732		1,396	336					621	00100	1,732	EACH	RPM	
			1,755		1,414	341					621	54000	1,755	EACH	RAISED PAVEMENT MARKER REMOVED	
306					288	18					626	00110	306	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL	
	16.52	19.4			34.8	1.12					642	30030	35.92	MILE	REMOVAL OF PAVEMENT MARKING (EXISTING EDGE LINE)	
	250	358			530	78					644	00500	608	FT	STOP LINE	
	685	216			488	413					644	00700	901	FT	TRANSVERSE/DIAGONAL LINE	
	10	32			40	2					644	01300	42	EACH	LANE ARROW	
	6	2			8						644	01360	8	EACH	WRONG WAY ARROW	
	108	320			428						644	30000	428	FT	REMOVAL OF PAVEMENT MARKING (EXISTING STOP LINE)	
	8	32			40						644	30020	40	EACH	REMOVAL OF PAVEMENT MARKING (EXISTING LANE ARROW)	
	2				2						644	40000	2	EACH	SPEED MEASUREMENT MARKING	
		113			113						646	10400	113	FT	STOP LINE	
		24			24						646	10800	24	SF	ISLAND MARKING	
		25			25						646	20300	25	EACH	LANE ARROW	
	0.67	1.38							2.05		807	12010	2.05	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6"	
	0.33	0.66							0.99		807	12110	0.99	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	
	0.04								0.04		807	12200	0.04	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, CENTER LINE	
		2,552							2,552		807	12300	2,552	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 8"	
	19.09	20.63							39.72		807	14010	39.72	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"	
	8.11	9.8							17.91		807	14110	17.91	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	
	0.85								0.85		807	14200	0.85	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CENTER LINE	
	1,918	3,448							5,366		807	14300	5,366	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 8"	
		1,455							1,455		807	14410	1,455	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	
	1.7								1.7		850	10000	1.7	MILE	GROOVING FOR 4" RECESSED PAVEMENT MARKING, (ASPHALT)	
	27.2	30.43							57.63		850	10010	57.63	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
		1,455							1,455		850	10110	1,455	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
	1,918	3,448							5,366		850	10120	5,366	FT	GROOVING FOR 8" RECESSED PAVEMENT MARKING, (ASPHALT)	
	0.08								0.08		850	20000	0.08	MILE	GROOVING FOR 4" RECESSED PAVEMENT MARKING, (CONCRETE)	
	1	2.04							3.04		850	20010	3.04	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
		2,552							2,552		850	20120	2,552	FT	GROOVING FOR 8" RECESSED PAVEMENT MARKING, (CONCRETE)	
															STRUCTURE REPAIR (MED-42-2.61)	
				32				32			512	10300	32	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
				5				5			516	45305	5	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	55
				LS				LS			516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	55
				300				300			517	75600	300	FT	DEEP BEAM BRIDGE RETROFIT RAILING	
				300				300			517	76300	300	FT	RAILING, MISC.:DEEP BEAM RAILING PANELS	55
				709				709			848	10001	709	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (2.25 INCH THICK)	55
				709				709			848	20000	709	SY	SURFACE PREPARATION USING HYDRODEMOLITION	
				22				22			848	30001	22	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	55
				40				40			848	50000	40	SY	HAND CHIPPING	
				LS				LS			848	50100	LS		TEST SLAB	
				709				709			848	50320	709	SY	EXISTING CONCRETE OVERLAY REMOVED (2 INCH NOMINAL THICKNESS)	
				398				398			848	50340	398	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	
															STRUCTURE REPAIR (MED-42-3.10 L)	
				52			52				202	32000	52	FT	CURB REMOVED	
				100			100				202	32600	100	FT	GUTTER REMOVED	
				256			256				202	98200	256	FT	REMOVAL MISC.: DECK OVERHANG	54
				66			66				202	98200	66	FT	REMOVAL MISC.:JOINT SEALER	54
				1,157			1,157				509	10001	1,157	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	55
				100			100				509	20001	100	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	54
				256			256				511	81100	256	FT	CONCRETE, MISC.: CLASS QC SCC CONCRETE, BRIDGE DECK, DECK OVERHANG	55
				138			138				512	10100	138	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
				28			28				512	10300	28	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
				66			66				516	31000	66	FT	JOINT SEALER	
				4			4				516	45305	4	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	55
				LS			LS				516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	55

GENERAL SUMMARY

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
KRB 7-7-21

PROJECT ID
79761

SHEET 24 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: GENSUM2 PAPERSIZE: 17x11 (in.) DATE: 11/24/2021 TIME: 12:26:01 PM USER: ksalley
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Medina\79761\400-Engineering\Roadway\Sheets\79761_GG001.dgn

SHEET NUM.						PART.						ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
31	32	51	52	53	56	01/NHS/PV	02/STR/PV	03/NHS/BR	04/STR/BR	05/SAF/OT	06/SAF/OT						
					33			33				519	11100	33	SF	PATCHING CONCRETE STRUCTURE	
					12			12				SPECIAL	51912510	12	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B	55
					25			25				601	27000	25	CY	DUMPED ROCK FILL, TYPE C	
					474			474				848	10001	474	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (1.75 INCH THICK)	55
					474			474				848	20000	474	SY	SURFACE PREPARATION USING HYDRODEMOLITION	
					9			9				848	30001	9	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	55
					27			27				848	50000	27	SY	HAND CHIPPING	
					LS			LS				848	50100	LS		TEST SLAB	
					2			2				848	50200	2	CY	FULL-DEPTH REPAIR	
					474			474				848	50320	474	SY	EXISTING CONCRETE OVERLAY REMOVED (1.25 INCH NOMINAL THICKNESS)	
					266			266				848	50340	266	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	
					240			240				SPECIAL	51900100	240	SF	COMPOSITE FIBER WRAP SYSTEM	55
																STRUCTURE REPAIR (MED-42-3.10 R)	
					52			52				202	32000	52	FT	CURB REMOVED	
					100			100				202	32600	100	FT	GUTTER REMOVED	
					256			256				202	98200	256	FT	REMOVAL MISC.: DECK OVERHANG	54
					90			90				202	98200	90	FT	REMOVAL MISC.:JOINT SEALER	54
					1,157			1,157				509	10001	1,157	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	55
					100			100				509	20001	100	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	54
					256			256				511	81100	256	FT	CONCRETE, MISC.: CLASS QC SCC CONCRETE, BRIDGE DECK, DECK OVERHANG	55
					138			138				512	10100	138	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
					28			28				512	10300	28	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
					90			90				516	31000	90	FT	JOINT SEALER	
					3			3				516	45305	3	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	55
					LS			LS				516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	55
					38			38				519	11100	38	SF	PATCHING CONCRETE STRUCTURE	
					18			18				601	21060	18	SY	TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT	
					25			25				601	27000	25	CY	DUMPED ROCK FILL, TYPE C	
					644			644				848	10001	644	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (1.75 INCH THICK)	55
					644			644				848	20000	644	SY	SURFACE PREPARATION USING HYDRODEMOLITION	
					13			13				848	30001	13	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	55
					36			36				848	50000	36	SY	HAND CHIPPING	
					LS			LS				848	50100	LS		TEST SLAB	
					4			4				848	50200	4	CY	FULL-DEPTH REPAIR	
					644			644				848	50320	644	SY	EXISTING CONCRETE OVERLAY REMOVED (1.25 INCH NOMINAL THICKNESS)	
					361			361				848	50340	361	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	
					240			240				SPECIAL	51900100	240	SF	COMPOSITE FIBER WRAP SYSTEM	55
																STRUCTURE REPAIR (MED-42-4.60 L)	
					1			1				202	11301	1	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	54
					94			94				202	98200	94	FT	REMOVAL MISC.:JOINT SEALER	54
					1			1				511	46010	1	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING	
					26			26				512	10300	26	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
					94			94				516	31000	94	FT	JOINT SEALER	
					238			238				517	75600	238	FT	DEEP BEAM BRIDGE RETROFIT RAILING	
					238			238				517	76300	238	FT	RAILING, MISC.:DEEP BEAM RAILING PANELS	55
					6			6				519	11100	6	SF	PATCHING CONCRETE STRUCTURE	
					2			2				SPECIAL	51912510	2	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B	55
					574			574				848	10001	574	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (1.75 INCH THICK)	55
					574			574				848	20000	574	SY	SURFACE PREPARATION USING HYDRODEMOLITION	
					11			11				848	30001	11	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	55
					32			32				848	50000	32	SY	HAND CHIPPING	
					LS			LS				848	50100	LS		TEST SLAB	
					12			12				848	50200	12	CY	FULL-DEPTH REPAIR	
					574			574				848	50320	574	SY	EXISTING CONCRETE OVERLAY REMOVED (1.25 INCH NOMINAL THICKNESS)	
					322			322				848	50340	322	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	

GENERAL SUMMARY

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: GENSUM3 PAPERSIZE: 17x11 (in.) DATE: 11/24/2021 TIME: 12:36:27 PM USER: ksalay
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DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
KRB 7-7-21

PROJECT ID
79761

SHEET 25 TOTAL 79

SHEET NUM.						PART.						ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
31	32	51	52	53	56	01/NHS/PV	02/STR/PV	03/NHS/BR	04/STR/BR	05/SAF/OT	06/SAF/OT						
																STRUCTURE REPAIR (MED-42-4.60 R)	
					1			1				202	11301	1	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	54
					94			94				202	98200	94	FT	REMOVAL MISC.:JOINT SEALER	54
					1			1				511	46010	1	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING	
					26			26				512	10300	26	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
					94			94				516	31000	94	FT	JOINT SEALER	
					238			238				517	75600	238	FT	DEEP BEAM BRIDGE RETROFIT RAILING	
					238			238				517	76300	238	FT	RAILING, MISC.:DEEP BEAM RAILING PANELS	55
					24			24				519	11100	24	SF	PATCHING CONCRETE STRUCTURE	
					4			4				SPECIAL	51912510	4	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B	55
					574			574				848	10001	574	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (1.75 INCH THICK)	55
					574			574				848	20000	574	SY	SURFACE PREPARATION USING HYDRODEMOLITION	
					11			11				848	30001	11	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	55
					32			32				848	50000	32	SY	HAND CHIPPING	
					LS			LS				848	50100	LS		TEST SLAB	
					8			8				848	50200	8	CY	FULL-DEPTH REPAIR	
					574			574				848	50320	574	SY	EXISTING CONCRETE OVERLAY REMOVED (1.25 INCH NOMINAL THICKNESS)	
					322			322				848	50340	322	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	
																STRUCTURE REPAIR (MED-42-5.39 L)	
					80			80				202	98200	80	FT	REMOVAL MISC.:JOINT SEALER	54
					800			800				512	10300	800	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
					80			80				516	31000	80	FT	JOINT SEALER	
					425			425				517	75600	425	FT	DEEP BEAM BRIDGE RETROFIT RAILING	
					425			425				517	76300	425	FT	RAILING, MISC.:DEEP BEAM RAILING PANELS	55
					28			28				519	11100	28	SF	PATCHING CONCRETE STRUCTURE	
					18			18				SPECIAL	51912510	18	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B	55
																STRUCTURE REPAIR (MED-42-5.39 R)	
					80			80				202	98200	80	FT	REMOVAL MISC.:JOINT SEALER	54
					800			800				512	10300	800	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
					80			80				516	31000	80	FT	JOINT SEALER	
					425			425				517	75600	425	FT	DEEP BEAM BRIDGE RETROFIT RAILING	
					425			425				517	76300	425	FT	RAILING, MISC.:DEEP BEAM RAILING PANELS	55
					10			10				519	11100	10	SF	PATCHING CONCRETE STRUCTURE	
					9			9				SPECIAL	51912510	9	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B	55
																STRUCTURE REPAIR (MED-42-5.89 L)	
					94			94				202	98200	94	FT	REMOVAL MISC.:JOINT SEALER	54
					605			605				512	10300	605	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
					94			94				516	31000	94	FT	JOINT SEALER	
					2			2				516	45305	2	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	55
					LS			LS				516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	55
					250			250				517	75600	250	FT	DEEP BEAM BRIDGE RETROFIT RAILING	
					250			250				517	76300	250	FT	RAILING, MISC.:DEEP BEAM RAILING PANELS	55
																STRUCTURE REPAIR (MED-42-5.89 R)	
					141			141				202	98200	141	FT	REMOVAL MISC.:JOINT SEALER	54
					605			605				512	10300	605	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
					47			47				516	10000	47	FT	PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL	
					94			94				516	31000	94	FT	JOINT SEALER	
					2			2				516	45305	2	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	55
					LS			LS				516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	55
					250			250				517	75600	250	FT	DEEP BEAM BRIDGE RETROFIT RAILING	
					250			250				517	76300	250	FT	RAILING, MISC.:DEEP BEAM RAILING PANELS	55
					3			3				519	11100	3	SF	PATCHING CONCRETE STRUCTURE	

GENERAL SUMMARY

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: GENSUM4 PAPERSIZE: 17x11 (in.) DATE: 11/5/2021 TIME: 5:44:59 PM USER: ksalay
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DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
KRB 7-7-21

PROJECT ID
79761

SHEET 26 | TOTAL 79

SHEET NUM.						PART.						ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
31	32	51	52	53	56	01/NHS/PV	02/STR/PV	03/NHS/BR	04/STR/BR	05/SAF/OT	06/SAF/OT						
																STRUCTURE REPAIR (MED-42-7.14)	
					12				12			202	11301	12	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	54
					7				7			511	21521	7	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN (RECONSTRUCTION)	55
					5				5			511	45711	5	CY	CLASS QC1 CONCRETE, ABUTMENT, AS PER PLAN (RECONSTRUCTION)	55
					8				8			512	10100	8	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
					10				10			513	21000	10	EACH	TRIMMING OF BEAM END	
					104				104			516	11211	104	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN	55
					72				72			516	31000	72	FT	JOINT SEALER	
					4				4			516	45305	4	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	55
					LS				LS			516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	55
					141				141			519	11100	141	SF	PATCHING CONCRETE STRUCTURE	
																STRUCTURE REPAIR (MED-83-4.36)	
					76			76				202	32600	76	FT	GUTTER REMOVED	
					12			12				519	11100	12	SF	PATCHING CONCRETE STRUCTURE	
					21			21				601	27000	21	CY	DUMPED ROCK FILL, TYPE C	
																STRUCTURE REPAIR (MED-224-12.76 L)	
					80			80				202	98200	80	FT	REMOVAL MISC.:JOINT SEALER	54
					28			28				512	10300	28	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
					80			80				516	31000	80	FT	JOINT SEALER	
					1			1				516	45305	1	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	55
					LS			LS				516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	55
					262.5			262.5				517	75600	262.5	FT	DEEP BEAM BRIDGE RETROFIT RAILING	
					262.5			262.5				517	76300	262.5	FT	RAILING, MISC.:DEEP BEAM RAILING PANELS	55
					21			21				519	11100	21	SF	PATCHING CONCRETE STRUCTURE	
					3			3				SPECIAL	51912510	3	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B	55
					558			558				848	10001	558	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (1.75 INCH THICK)	55
					558			558				848	20000	558	SY	SURFACE PREPARATION USING HYDRODEMOLITION	
					17			17				848	30001	17	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	55
					31			31				848	50000	31	SY	HAND CHIPPING	
					LS			LS				848	50100	LS		TEST SLAB	
					2			2				848	50200	2	CY	FULL-DEPTH REPAIR	
					558			558				848	50320	558	SY	EXISTING CONCRETE OVERLAY REMOVED (1.25 INCH NOMINAL THICKNESS)	
					313			313				848	50340	313	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	
																STRUCTURE REPAIR (MED-224-12.76 R)	
					8			8				202	11301	8	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	54
					88			88				202	98200	88	FT	REMOVAL MISC.:JOINT SEALER	54
					2			2				511	21521	2	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN (RECONSTRUCTION)	55
					3			3				511	45711	3	CY	CLASS QC1 CONCRETE, ABUTMENT, AS PER PLAN (RECONSTRUCTION)	55
					3			3				511	46010	3	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING	
					40			40				512	10300	40	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
					44			44				516	11211	44	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN	55
					88			88				516	31000	88	FT	JOINT SEALER	
					5			5				516	45305	5	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	55
					LS			LS				516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	55
					262.5			262.5				517	75600	262.5	FT	DEEP BEAM BRIDGE RETROFIT RAILING	
					262.5			262.5				517	76300	262.5	FT	RAILING, MISC.:DEEP BEAM RAILING PANELS	55
					7			7				SPECIAL	51912510	7	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B	55
					858			858				848	10001	858	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (1.75 INCH THICK)	55
					858			858				848	20000	858	SY	SURFACE PREPARATION USING HYDRODEMOLITION	
					27			27				848	30001	27	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	55
					48			48				848	50000	48	SY	HAND CHIPPING	
					LS			LS				848	50100	LS		TEST SLAB	
					5			5				848	50200	5	CY	FULL-DEPTH REPAIR	
					858			858				848	50320	858	SY	EXISTING CONCRETE OVERLAY REMOVED (1.25 INCH NOMINAL THICKNESS)	
					481			481				848	50340	481	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	

GENERAL SUMMARY

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: GENSUM5 PAPERSIZE: 17x11 (in.) DATE: 10/28/2021 TIME: 4:20:49 PM USER: ksalley
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Medina\79761\400-Engineering\Roadway\Sheets\79761_GG001.dgn

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
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REVIEWER
KRB 7-7-21

PROJECT ID
79761

SHEET 27 TOTAL 79

SHEET NUM.						PART.						ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
14	15	16	51	52	61	01/NHS/PV	02/STR/PV	03/NHS/BR	04/STR/BR	05/SAF/OT	06/SAF/OT						
																MAINTENANCE OF TRAFFIC	
		500				500						614	11110	500	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
	24				4			24	4			614	12380	28	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
LS						LS		LS	LS			614	12420	LS		DETOUR SIGNING	
13							13					614	12460	13	EACH	WORK ZONE MARKING SIGN	
50						40	10					614	13000	50	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
	96				22			96	22			614	13310	118	EACH	BARRIER REFLECTOR, TYPE 1 (ONE-WAY)	
	96				22			96	22			614	13350	118	EACH	OBJECT MARKER, ONE WAY	
	36					36						614	18601	36	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	15
			25.32	29.91		53.19	2.04					614	20560	55.23	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	
					0.19				0.19			614	21200	0.19	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	
			2.67				2.67					614	21550	2.67	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
					0.42				0.42			614	22210	0.42	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I	
			53.94	62.91		112.02	4.83					614	22360	116.85	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
			5,754	11,544		15,711	1,587					614	23680	17,298	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 8", 642 PAINT	
					24				24			614	26400	24	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
			345	693		993	45					614	26610	1,038	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
	4,560				1,100			4,560	1,100			622	41100	5,660	FT	PORTABLE BARRIER, UNANCHORED	
	132					132						808	18700	132	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
																INCIDENTALS	
						LS	LS	LS	LS	LS	LS	614	11000	LS		MAINTAINING TRAFFIC	
						8	1					619	16020	9	MNTH	FIELD OFFICE, TYPE C	
						LS	LS	LS	LS	LS	LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
						LS	LS	LS	LS	LS	LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: GENSUM6 PAPERSIZE: 17x11 (in.) DATE: 11/24/2021 TIME: 12:56:54 PM USER: ksalay
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Medina\79761\400>Engineering\Roadway\Sheets\79761_GG001.dgn

DESIGN AGENCY
DISTRICT 3
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KRB 7-7-21

PROJECT ID
79761

SHEET 28 | TOTAL 79

PAVEMENT & SHOULDER DATA
MED-42 NORTHBOUND

PLAN SPLIT	COUNTY	ROUTE	LOG POINT TO LOG POINT (STRAIGHT LINE MILEAGE)		DIRECTION	LENGTH MILE	LENGTH FEET	AVERAGE WIDTH	AVERAGE PAVED SHOULDER WIDTH SL	AVERAGE PAVED SHOULDER WIDTH SR	PAVEMENT AREA	254 PAVEMENT PLANING, ASPHALT CONCRETE (3.25")	254 PAVEMENT PLANING, ASPHALT CONCRETE (TAPER 3.25" TO 2.0")	254 PAVEMENT PLANING, ASPHALT CONCRETE (TAPER 3.25" TO 1.50")	254 PATCHING PLANED SURFACE	407 TACK COAT (@ 0.08 GAL/SY)	407 TACK COAT (@ 0.05 GAL/SY)	442 ANTI-SEGREGATION EQUIPMENT	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN (1.50")	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446) (SAFETY EDGE)	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446) (1.50")	861 ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446) (1.75")	618 RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	618 RUMBLE STRIPES, EDGE LINE (ASPHALT CONCRETE)	618 RUMBLE STRIPES, CENTER LINE (ASPHALT CONCRETE)	874 LONGITUDINAL JOINT PREPARATION	AGGREGATE SHOULDER PROPOSED WIDTH SL	AGGREGATE SHOULDER PROPOSED WIDTH SR	AGGREGATE SHOULDER AREA	209 LINEAR GRADING	209 PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	408 PRIME COAT, AS PER PLAN (@ 0.40 GAL/SY)	617 COMPACTED AGGREGATE 2 INCHES	617 SHOULDER PREPARATION
								FT	FT	FT	SY	SY	SY	SY	SY	GAL	GAL	CY	CY	CY	CY	CY	MILE	MILE	MILE	FT	FT	FT	SY	MILE	MILE	GAL	CY	SY
02/STR/PV	MED	42	1.89	2.15	NB/SB	0.26	1,373	24.0	4.0	4.0	4,882	4,882	178		24	391	244	331		7	203	237		0.52			2.0	2.0	610		0.52	244	34	
02/STR/PV	MED	42	2.15	2.28	NB/SB	0.13	686	31.0	4.0	4.0	2,973	2,973			15	238	149	213		4	124	145		0.26			2.0	2.0	305		0.26	122	17	
02/STR/PV	MED	42	2.28	2.47	NB/SB	0.19	1,003	24.0	4.0	4.0	3,566	3,566			18	285	178	241		5	149	173		0.38			2.0	2.0	446		0.38	178	25	
CONCRETE STRUCTURE MED-42-2.47						0.021	113																											
02/STR/PV	MED	42	2.49	2.61	NB/SB	0.12	626	24.0	4.0	4.0	2,226	2,226			11	178	111	151		3	93	108		0.24			2.0	2.0	278		0.24	111	15	
02/STR/PV	APPROACH SLAB PAVING					0.005	25	24.0	4.0	4.0	89			178		14		3			7													
CONCRETE STRUCTURE MED-42-2.61						0.028	146																											
02/STR/PV	APPROACH SLAB PAVING					0.005	25	24.0	4.0	4.0	89			178		14		3			7													
02/STR/PV	MED	42	2.65	2.72	NB/SB	0.07	385	24.0	4.0	4.0	1,369	1,369			7	110	68	93		2	57	67		0.15			2.0	2.0	171		0.15	68	10	
02/STR/PV	MED	42	2.72	2.78	NB/SB	0.06	317	45.5	4.0	4.0	1,884	1,884			9	151	94	145		2	79	92		0.12			2.0	2.0	141		0.12	56	8	
02/STR/PV	MED	42	2.78	2.88	NB	0.10	528	24.0	4.0	8.0	2,112	2,112			11	169	106	127	68		20	103	0.20				2.0	2.0	235	0.20		94	13	235
02/STR/PV	MED	42	2.88	2.98	NB	0.10	528	37.5	4.0	8.0	2,904	2,904			15	232	145	199	101		20	141	0.20				2.0	2.0	235	0.20		94	13	235
02/STR/PV	MED	42	2.98	3.06	NB	0.08	422	24.0	4.0	8.0	1,688	1,688			8	135	84	102	55		16	82	0.16				2.0	2.0	188	0.16		75	10	188
01/NHS/PV	MED	42	3.06	3.10	NB	0.04	211	35.5	4.0	8.0	1,114	1,114			6	89	56	75	39		8	54	0.08				2.0	2.0	94	0.08		38	5	94
CONCRETE STRUCTURE MED-42-3.10R						0.034	178																											
01/NHS/PV	MED	42	3.13	3.30	NB	0.17	878	32.5	4.0	8.0	4,341	4,341			22	347	217	286	148		33	211	0.33				2.0	2.0	390	0.33		156	22	390
01/NHS/PV	MED	42	3.30	4.59	NB	1.29	6,811	24.0	4.0	8.0	27,244	27,244			136	2,180	1,362	1,640	883		252	1,324	2.58				2.0	2.0	3,027	2.58		1,211	168	3,027
CONCRETE STRUCTURE MED-42-4.60R						0.032	169																											
01/NHS/PV	MED	42	4.62	4.82	NB	0.20	1,045	24.0	4.0	8.0	4,180	4,180			21	334	209	252	135		39	203	0.40				2.0	2.0	464	0.40		186	26	464
01/NHS/PV	MED	42	4.82	4.87	NB	0.05	264	28.4	4.0	8.0	1,185	1,185			6	95	59	75	40		10	58	0.10				2.0	2.0	117	0.10		47	7	117
01/NHS/PV	MED	42	4.87	5.38	NB	0.51	2,693	24.0	4.0	8.0	10,772	10,772			54	862	539	648	349		100	524	1.02				2.0	2.0	1,197	1.02		479	66	1,197
CONCRETE STRUCTURE MED-42-5.39R						0.047	250																											
01/NHS/PV	MED	42	5.43	5.88	NB	0.45	2,390	24.0	4.0	8.0	9,560	9,560			48	765	478	575	310		89	465	0.91				2.0	2.0	1,062	0.91		425	59	1,062
CONCRETE STRUCTURE MED-42-5.89R						0.033	173																											
01/NHS/PV	MED	42	5.91	6.32	NB	0.41	2,150	24.0	4.0	8.0	8,600	8,600			43	688	430	518	279		80	418	0.81				2.0	2.0	956	0.81		382	53	956
01/NHS/PV	MED	42	6.32	6.39	NB	0.07	370	30.0	4.0	8.0	1,727	1,727			9	138	86	111	58		14	84	0.14				2.0	2.0	164	0.14		66	9	164
01/NHS/PV	MED	42	6.39	6.82	NB	0.43	2,270	24.0	4.0	8.0	9,080	9,080			45	726	454	546	294		84	441	0.86				2.0	2.0	1,009	0.86		404	56	1,009
01/NHS/PV	MED	42	6.82	6.91	NB	0.09	475	32.5	4.0	8.0	2,349	2,349			12	188	117	155	80		18	114	0.18				2.0	2.0	211	0.18		84	12	211
01/NHS/PV	RAMP D1 (US 42 NB TO US 224/SR 421)					0.17	897	15.5	3.0	6.0	2,443	2,443			12	195	122	140			102	119						2.0	199	0.17		80	11	199
02/STR/PV	RAMP C2 (US 42 NB TO US 42 NB)					0.21	1,091	14.0	3.0	6.0	2,789	2,789			14	223	139	153			116	136						2.0	242	0.21		97	13	242
02/STR/PV	RAMP C2B (US 42 NB TO SR 421)					0.03	133	11.0	3.0	6.0	295	295			1	24	15	15			12	14						2.0	30	0.03		12	2	30
06/SAF/OT	MED	42	1.89	2.78	NB/SB	0.89	4,699																		0.89	4,699								
NORTHBOUND SUBTOTAL (01/NHS/PV)											**82,595**			**414**	**6,607**	**4,129**	**5,021**	**2,615**		**829**	**4,015**	**7.41**							**7.58**		**3,558**	**494**	**8,890**
NORTHBOUND SUBTOTAL (02/STR/PV)											**26,688**	**178**	**356**	**133**	**2,164**	**1,333**	**1,776**	**224**	**23**	**903**	**1,298**	**0.56**	**1.66**						**0.79**	**1.66**	**1,151**	**160**	**930**
NORTHBOUND SUBTOTAL (06/SAF/OT)																									**0.89**	**4,699**								
TOTALS CARRIED TO THE GENERAL SUMMARY											**109,283**	**178**	**356**	**547**	**8,771**	**5,462**	**6,797**	**2,839**	**23**	**1,732**	**5,313**	**7.97**	**1.66**	**0.89**	**4,699**				**8.37**	**1.66**	**4,709**	**654**	**9,820**

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

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PROJECT ID
79761

SHEET 29 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

PAVEMENT & SHOULDER DATA
MED-42 SOUTHBOUND

PLAN SPLIT	COUNTY	ROUTE	LOG POINT TO LOG POINT		DIRECTION	LENGTH		AVERAGE WIDTH	AVERAGE PAVED SHOULDER WIDTH		PAVEMENT AREA	254		407		442			861	618	AGGREGATE SHOULDER PROPOSED WIDTH		AGGREGATE SHOULDER AREA	209	408	617	617
						MILE	FEET		SL	SR		PAVEMENT PLANING, ASPHALT CONCRETE (3.25")	PATCHING PLANED SURFACE	TACK COAT (@ 0.08 GAL/SY)	TACK COAT (@ 0.05 GAL/SY)	ANTI-SEGREGATION EQUIPMENT	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN (1.50")	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446) (1.50")	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446) (1.75")	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	SL	SR		LINEAR GRADING	PRIME COAT, AS PER PLAN (@ 0.40 GAL/SY)	COMPACTED AGGREGATE 2 INCHES	SHOULDER PREPARATION
			STRAIGHT LINE MILEAGE					FT	FT	FT	SY	SY	SY	GAL	GAL	CY	CY	CY	CY	MILE	FT	FT	SY	MILE	GAL	CY	SY
02/STR/PV	MED	42	2.78	2.89	SB	0.11	581	24.0	4.0	8.0	2,324	2,324	12	186	116	140	75	22	113	0.22	2.0	2.0	258	0.22	103	14	258
02/STR/PV	MED	42	2.89	3.03	SB	0.14	739	33.0	4.0	8.0	3,695	3,695	18	296	185	245	127	27	180	0.28	2.0	2.0	328	0.28	131	18	328
02/STR/PV	MED	42	3.03	3.06	SB	0.03	158	24.0	4.0	8.0	632	632	3	51	32	38	20	6	31	0.06	2.0	2.0	70	0.06	28	4	70
01/NHS/PV	MED	42	3.06	3.10	SB	0.04	211	24.0	4.0	8.0	844	844	4	68	42	51	27	8	41	0.08	2.0	2.0	94	0.08	38	5	94
	CONCRETE STRUCTURE MED-42-3.10L					0.034	178																				
01/NHS/PV	MED	42	3.13	3.19	SB	0.06	297	24.0	4.0	8.0	1,188	1,188	6	95	59	72	39	11	58	0.11	2.0	2.0	132	0.11	53	7	132
01/NHS/PV	MED	42	3.19	3.29	SB	0.10	528	36.5	4.0	8.0	2,845	2,845	14	228	142	193	99	20	138	0.20	2.0	2.0	235	0.20	94	13	235
01/NHS/PV	MED	42	3.29	4.59	SB	1.30	6,864	24.0	4.0	8.0	27,456	27,456	137	2,196	1,373	1,652	890	254	1,335	2.60	2.0	2.0	3,051	2.60	1,220	169	3,051
	CONCRETE STRUCTURE MED-42-4.60L					0.032	169																				
01/NHS/PV	MED	42	4.62	4.83	SB	0.21	1,098	24.0	4.0	8.0	4,392	4,392	22	351	220	264	142	41	214	0.42	2.0	2.0	488	0.42	195	27	488
01/NHS/PV	MED	42	4.83	4.88	SB	0.05	264	29.7	4.0	8.0	1,223	1,223	6	98	61	79	41	10	59	0.10	2.0	2.0	117	0.10	47	7	117
01/NHS/PV	MED	42	4.88	5.37	SB	0.49	2,587	24.0	4.0	8.0	10,348	10,348	52	828	517	623	335	96	503	0.98	2.0	2.0	1,150	0.98	460	64	1,150
	CONCRETE STRUCTURE MED-42-5.39L					0.047	250																				
01/NHS/PV	MED	42	5.42	5.87	SB	0.45	2,390	24.0	4.0	8.0	9,560	9,560	48	765	478	575	310	89	465	0.91	2.0	2.0	1,062	0.91	425	59	1,062
	CONCRETE STRUCTURE MED-42-5.89L					0.033	173																				
01/NHS/PV	MED	42	5.90	6.34	SB	0.44	2,309	24.0	4.0	8.0	9,236	9,236	46	739	462	556	299	86	449	0.87	2.0	2.0	1,026	0.87	410	57	1,026
01/NHS/PV	MED	42	6.34	6.41	SB	0.07	370	29.7	4.0	8.0	1,714	1,714	9	137	86	110	58	14	83	0.14	2.0	2.0	164	0.14	66	9	164
01/NHS/PV	MED	42	6.41	6.64	SB	0.23	1,214	24.0	4.0	8.0	4,856	4,856	24	388	243	292	157	45	236	0.46	2.0	2.0	540	0.46	216	30	540
01/NHS/PV	MED	42	6.64	6.80	SB	0.16	845	35.7	4.0	8.0	4,479	4,479	22	358	224	303	155	31	218	0.32	2.0	2.0	376	0.32	150	21	376
01/NHS/PV	MED	42	6.80	6.91	SB	0.11	581	33.0	4.0	8.0	2,905	2,905	15	232	145	192	100	22	141	0.22	2.0	2.0	258	0.22	103	14	258
01/NHS/PV	RAMP A1 (US 42 SB TO US 224 WB)					0.08	403	23.1	3.0	6.0	1,438	1,438	7	115	72	93		60	70		2.0	2.0	179	0.15	72	10	179
01/NHS/PV	RAMP A1B (US 42 SB TO SR 421)					0.01	65	15.8	3.0	6.0	178	178	1	14	9	10		7	9		2.0	2.0	29	0.02	12	2	29
02/STR/PV	RAMP A2 (US 42 SB TO US 42 SB)					0.16	858	13.0	3.0	6.0	2,098	2,098	10	168	105	112		87	102		2.0	2.0	381	0.33	153	21	381
02/STR/PV	RAMP E2 (US 42 NB TO US 42 SB)					0.07	380	13.9	3.0	6.0	966	966	5	77	48	53		40	47		2.0	2.0	169	0.14	67	9	169
01/NHS/PV	EXTRA AREA FOR INTERSECTIONS										798	798	4	64	40	72	33		39								
01/NHS/PV	EXTRA AREA FOR MEDIAN CROSSOVERS										305	305	2	24	15		13		15								
02/STR/PV	EXTRA AREA FOR INTERSECTIONS										1,194	1,194	6	96	60	108		50	58								
02/STR/PV	EXTRA AREA FOR MEDIAN CROSSOVERS										52	52	1	4	3		2		3								
SOUTHBOUND SUBTOTAL (01/NHS/PV)												**83,765**	**419**	**6,700**	**4,188**	**5,137**	**2,698**	**794**	**4,073**	**7.41**				**7.59**	**3,561**	**494**	**8,901**
SOUTHBOUND SUBTOTAL (02/STR/PV)												**10,961**	**55**	**878**	**549**	**696**	**224**	**232**	**534**	**0.56**				**1.03**	**482**	**66**	**1,206**
TOTALS CARRIED TO THE GENERAL SUMMARY												**94,726**	**474**	**7,578**	**4,737**	**5,833**	**2,922**	**1,026**	**4,607**	**7.97**				**8.62**	**4,043**	**560**	**10,107**

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

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KRB 6-30-21

PROJECT ID
79761

SHEET 30 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: MED-42 SB PAPERSIZE: 17x11(in.) DATE: 11/23/2021 TIME: 4:00:35 PM USER: ksaley
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Medina\79761\400-Engineering\Roadway\Sheets\79761_G0001.dgn

PLAN SPLIT	COUNTY	ROUTE	LOG POINT TO LOG POINT		DIRECTION	LENGTH		AVERAGE WIDTH	AVERAGE PAVED SHOULDER WIDTH		PAVEMENT AREA	254		407	407	442			861	618	AGGREGATE SHOULDER PROPOSED WIDTH		AGGREGATE SHOULDER AREA	209	408	617	617
						MILE	FEET		SL	SR		PAVEMENT PLANING, ASPHALT CONCRETE (3.25")	PATCHING PLANED SURFACE	TACK COAT (@ 0.08 GAL/SY)	TACK COAT (@ 0.05 GAL/SY)	ANTI-SEGREGATION EQUIPMENT	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN (1.50")	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446) (1.50")	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446) (1.75")	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	SL	SR		LINEAR GRADING	PRIME COAT, AS PER PLAN (@ 0.40 GAL/SY)	COMPACTED AGGREGATE 2 INCHES	SHOULDER PREPARATION
			STRAIGHT LINE MILEAGE					FT	FT	FT	SY	SY	SY	GAL	GAL	CY	CY	CY	CY	MILE	FT	FT	SY	MILE	GAL	CY	SY
01/NHS/PV	MED	224	6.23	6.31	EB/WB	0.08	422	42.0	4.0	10.0	2,626	2,626	13	210	131	178		109	128		2.0	2.0	188	0.16	75	10	188
01/NHS/PV	MED	224	6.31	6.37	EB/WB	0.06	317	24.0	4.0	10.0	1,338	1,338	7	107	67	76		56	65		2.0	2.0	141	0.12	56	8	141
01/NHS/PV	MED	224	6.37	6.41	EB/WB	0.04	211	36.5	4.0	6.0	1,090	1,090	5	87	55	77		45	53		2.0	2.0	94	0.08	38	5	94
01/NHS/PV	MED	224	10.45	10.46	EB	0.01	53	48.0	4.0	8.0	353	353	2	28	18	26	13	2	17	0.02	2.0	2.0	24	0.02	9	1	24
01/NHS/PV	MED	224	10.46	10.59	EB	0.13	686	24.0	4.0	8.0	2,744	2,744	14	220	137	165	89	25	133	0.26	2.0	2.0	305	0.26	122	17	305
01/NHS/PV	MED	224	10.59	10.74	EB	0.15	792	35.5	4.0	8.0	4,180	4,180	21	334	209	282	145	29	203	0.30	2.0	2.0	352	0.30	141	20	352
01/NHS/PV	MED	224	10.74	11.26	EB	0.52	2,746	24.0	4.0	8.0	10,984	10,984	55	879	549	661	356	102	534	1.04	2.0	2.0	1,220	1.04	488	68	1,220
01/NHS/PV	MED	224	11.26	11.33	EB	0.07	370	29.4	4.0	8.0	1,702	1,702	9	136	85	109	57	14	83	0.14	2.0	2.0	164	0.14	66	9	164
01/NHS/PV	MED	224	11.33	12.11	EB	0.78	4,118	24.0	4.0	8.0	16,472	16,472	82	1,318	824	991	534	153	801	1.56	2.0	2.0	1,830	1.56	732	102	1,830
01/NHS/PV	MED	224	12.11	12.21	EB	0.10	528	31.4	4.0	8.0	2,546	2,546	13	204	127	166	87	20	124	0.20	2.0	2.0	235	0.20	94	13	235
01/NHS/PV	MED	224	12.21	12.75	EB	0.54	2,851	24.0	4.0	8.0	11,404	11,404	57	912	570	686	370	106	554	1.08	2.0	2.0	1,267	1.08	507	70	1,267
	CONCRETE STRUCTURE MED-224-12.76R					0.034	178																				
01/NHS/PV	MED	224	12.78	13.34	EB	0.56	2,937	24.0	4.0	8.0	11,748	11,748	59	940	587	707	381	109	571	1.11	2.0	2.0	1,305	1.11	522	73	1,305
01/NHS/PV	MED	224	13.34	13.59	EB	0.25	1,320	31.8			4,664	4,664	23	373	233	421	194		227	0.50	2.0	2.0	587	0.50	235	33	587
01/NHS/PV	MED	224	13.59	13.81	EB	0.22	1,162	24.0	4.0	8.0	4,648	4,648	23	372	232	280	151	43	226	0.44	2.0	2.0	516	0.44	207	29	516
01/NHS/PV	MED	224	13.81	13.93	EB	0.12	634	30.0			2,113	2,113	11	169	106	191	88		103	0.24	2.0	2.0	282	0.24	113	16	282
01/NHS/PV	MED	224	13.93	15.30	EB	1.37	7,234	24.0	4.0	8.0	28,936	28,936	145	2,315	1,447	1,742	938	268	1,407	2.74	2.0	2.0	3,215	2.74	1,286	179	3,215
01/NHS/PV	RAMP B1 (US 224 EB TO US 42 NB)					0.17	914	15.6	3.0	6.0	2,497	2,497	12	200	125	143		104	121			2.0	203	0.17	81	11	203
01/NHS/PV	RAMP C1 (US 224 EB TO US 42 SB)					0.09	497	13.2	3.0	6.0	1,226	1,226	6	98	61	66		51	60		2.0	2.0	221	0.19	88	12	221
01/NHS/PV	RAMP B2 (SR 421 NB TO US 224 EB)					0.26	1,384	14.3	3.0	6.0	3,584	3,584	18	287	179	199		149	174			2.0	308	0.26	123	17	308
EASTBOUND SUBTOTAL												114,855	575	9,189	5,742	7,166	3,403	1,385	5,584	9.63				10.62	4,983	693	12,457
01/NHS/PV	MED	224	10.45	10.51	WB	0.06	317	35.5	4.0	8.0	1,673	1,673	8	134	84	113	58	12	81	0.12	2.0	2.0	141	0.12	56	8	141
01/NHS/PV	MED	224	10.51	10.57	WB	0.06	317	24.0	4.0	8.0	1,268	1,268	6	101	63	76	41	12	62	0.12	2.0	2.0	141	0.12	56	8	141
01/NHS/PV	MED	224	10.57	10.66	WB	0.09	475	36.5	4.0	8.0	2,560	2,560	13	205	128	174	89	18	124	0.18	2.0	2.0	211	0.18	84	12	211
01/NHS/PV	MED	224	10.66	11.29	WB	0.63	3,326	24.0	4.0	8.0	13,304	13,304	67	1,064	665	801	431	123	647	1.26	2.0	2.0	1,478	1.26	591	82	1,478
01/NHS/PV	MED	224	11.29	11.36	WB	0.07	370	28.8	4.0	8.0	1,677	1,677	8	134	84	107	56	14	82	0.14	2.0	2.0	164	0.14	66	9	164
01/NHS/PV	MED	224	11.36	12.16	WB	0.80	4,224	24.0	4.0	8.0	16,896	16,896	84	1,352	845	1,017	548	156	821	1.60	2.0	2.0	1,877	1.60	751	104	1,877
01/NHS/PV	MED	224	12.16	12.26	WB	0.10	528	33.1	4.0	8.0	2,646	2,646	13	212	132	175	91	20	129	0.20	2.0	2.0	235	0.20	94	13	235
01/NHS/PV	MED	224	12.26	12.75	WB	0.49	2,587	24.0	4.0	8.0	10,348	10,348	52	828	517	623	335	96	503	0.98	2.0	2.0	1,150	0.98	460	64	1,150
	CONCRETE STRUCTURE MED-224-12.76L					0.034	178																				
01/NHS/PV	MED	224	12.78	13.35	WB	0.57	2,990	24.0	4.0	8.0	11,960	11,960	60	957	598	720	388	111	581	1.13	2.0	2.0	1,329	1.13	532	74	1,329
01/NHS/PV	MED	224	13.35	13.60	WB	0.25	1,320	30.0			4,400	4,400	22	352	220	397	183		214	0.50	2.0	2.0	587	0.50	235	33	587
01/NHS/PV	MED	224	13.60	13.90	WB	0.30	1,584	24.0	4.0	8.0	6,336	6,336	32	507	317	381	205	59	308	0.60	2.0	2.0	704	0.60	282	39	704
01/NHS/PV	MED	224	13.90	14.01	WB	0.11	581	32.0			2,066	2,066	10	165	103	186	86		100	0.22	2.0	2.0	258	0.22	103	14	258
01/NHS/PV	MED	224	14.01	15.40	WB	1.39	7,339	24.0	4.0	8.0	29,356	29,356	147	2,348	1,468	1,767	951	272	1,427	2.78	2.0	2.0	3,262	2.78	1,305	181	3,262
01/NHS/PV	RAMP B1B (SR 421 WB TO US 42 NB)					0.03	168	11.8	3.0	6.0	389	389	2	31	19	20		16	19			2.0	37	0.03	15	2	37
01/NHS/PV	RAMP C1B (US 224/SR 421 WB TO US 42 SB)					0.02	111	16.4	3.0	6.0	313	313	2	25	16	18		13	15		2.0	2.0	49	0.04	20	3	49
01/NHS/PV	RAMP D2 (US 224 WB TO US 42/SR 421)					0.09	459	14.7	3.0	6.0	1,209	1,209	6	97	60	68		50	59		2.0	2.0	204	0.17	82	11	204
01/NHS/PV	EXTRA AREA FOR INTERSECTIONS										1,752	1,752	9	140	88	158	73		85								
01/NHS/PV	EXTRA AREA FOR MEDIAN CROSSOVERS										1,260	1,260	6	101	63		53		61								
WESTBOUND SUBTOTAL												109,413	547	8,753	5,470	6,801	3,588	972	5,318	9.83				10.08	4,732	657	11,827
TOTALS CARRIED TO THE GENERAL SUMMARY (01/NHS/PV)												224,268	1,122	17,942	11,212	13,967	6,991	2,357	10,902	19.47				20.70	9,715	1,350	24,284

PAVEMENT & SHOULDER DATA
MED-224

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
KRB 6-30-21

PROJECT ID
79761

SHEET 31 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: MED-224 PAPERSIZE: 17x11(in.) DATE: 11/23/2021 TIME: 4:00:57 PM USER: ksalay
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GUARDRAIL SUB-SUMMARY

LABEL	ITEM	EXTENSION	QUANTITY FROM GUARDRAIL AT SLM: 2.61	3.05	3.15/6.35	3.50/4.32	4.60	5.39	5.75/5.89	6.42	6.86	11.92	12.76	14.43	14.70	15.44	01/NHS/PV	02/STR/PV	TOTAL QUANTITY	UNIT	DESCRIPTION
R1	202	38000	850	755.5	1,326.25	1,775	2,968.75	2,643.75	2,662.5	1,437.5	1,162.5	975	1,893.75	2,200	787.5	887.5	21,338	987.5	22,325.5	FT	GUARDRAIL REMOVED
R4	202	38300		375	547.5	175	300	225	475		400		275				2,522.5	250	2,772.5	FT	GUARDRAIL REMOVED, BARRIER DESIGN
R8	202	42000									1					2	3		3	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A
R9	202	42010	4	2	6	4	3	2	5	1	8	2	2	2	2	2	40	5	45	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E
R10	202	42040		4	3	4	5	4	7	3	5	2	4	2	2	5	47	3	50	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T
R24	202	47000	4	3	9	2	8	8	10		6		8				54	4	58	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED
R27	202	47800		3	1	2	2	2	4		4		2				18	2	20	EACH	IMPACT ATTENUATOR REMOVED
E2-A	203	20001	10	15	25	30	35	35	35	15	25	10	25	25	10	15	295	15	310	CY	EMBANKMENT, AS PER PLAN
E3	209	15000	10.500	13.300	21.978	22.625	35.455	30.818	36.010	15.250	21.635	11.000	23.818	23.250	9.125	11.000	269.883	15.880	285.763	STA	RESHAPING UNDER GUARDRAIL
G4	606	13000	100				187.5	187.5	175				187.5				737.5	100	837.5	FT	GUARDRAIL, TYPE 5
G13	606	15050	375	710.5	1,158.75	262.5	356.25	43.75	1,725	25	700	975	137.5		787.5	912.5	7,656.75	512.5	8,169.25	FT	GUARDRAIL, TYPE MGS
G14	606	15100	375			1,437.5	2,425	2,412.5	637.5	1,412.5	312.5		1,568.75	2,200			12,406.25	375	12,781.25	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS
G15	606	15150			150	75			125		150						500		500	FT	GUARDRAIL, TYPE MGS HALF POST SPACING
G22	606	15550		375	520	175	300	225	475		400		275				2,495	250	2,745	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS
A9	606	26150	4	2	6	4	3	2	5	1	8	2	2	2	2	3	41	5	46	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016
A13	606	26550		4	3	4	5	4	7	3	6	2	4	2	2	5	48	3	51	EACH	ANCHOR ASSEMBLY, MGS TYPE T
B18	606	35002		2	8	2			2		6						20		20	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
B26	606	35102		1	1												2		2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2
B31	606	35140	4				8	8	8				8				32	4	36	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4
I2	606	60012		3	1	2	2	2	4		4		2				18	2	20	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)
L1	622	25001		4	4												8		8	EACH	CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN
M4	626	00110	12	15	25	24	37	32	36	17	24	12	26	24	10	12	288	18	306	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL

CONCRETE REPAIR SUB-SUMMARY

EASTBOUND PAVEMENT REPAIRS (01/NHS/PV)

SLM BEGIN	SLM END	LANE	WIDTH FT	LENGTH FT	INDIVIDUAL REPAIR AREA SY	TYPE OF REPAIR	NUMBER OF REPAIRS	255 FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN (13.0" CONCRETE) SY	255 FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN (LONGITUDINAL CRACK) SY	255 FULL DEPTH PAVEMENT SAWING FT	257 DIAMOND GRINDING PORTLAND CEMENT CONCRETE PAVEMENT SY
15.30	15.40	LT	12	6	8.00	TRANS	14	112		504	
		RT	12	6	8.00	TRANS	3	24		108	
		LANE LINE	2	20	4.44	LONG	1		4	44	
15.40	15.50	LT	12	6	8.00	TRANS	6	48		216	
		RT	12	6	8.00	TRANS	8	64		288	9,838
		LANE LINE	2	20	4.44	LONG	2		9	88	
15.50	15.61	LT	12	6	8.00	TRANS	1	8		36	
		RT	12	6	8.00	TRANS	9	72		324	
		LANE LINE	2	20	4.44	LONG	6		27	264	
		EDGE LINE	2	20	4.44	LONG	6		27	264	
EASTBOUND SUB-TOTAL								328	67	2,136	9,838

WESTBOUND PAVEMENT REPAIRS (01/NHS/PV)

SLM BEGIN	SLM END	LANE	WIDTH FT	LENGTH FT	INDIVIDUAL REPAIR AREA SY	TYPE OF REPAIR	NUMBER OF REPAIRS	255 FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN (13.0" CONCRETE) SY	255 FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN (LONGITUDINAL CRACK) SY	255 FULL DEPTH PAVEMENT SAWING FT	257 DIAMOND GRINDING PORTLAND CEMENT CONCRETE PAVEMENT SY
15.40	15.50	LT	12	6	8.00	TRANS	6	48		216	
		RT	12	6	8.00	TRANS	3	24		108	
		LANE LINE	2	20	4.44	LONG	9		40	396	
		EDGE LINE	2	20	4.44	LONG	6		27	264	
											7,554
15.50	15.61	LT	12	6	8.00	TRANS	11	88		396	
		RT	12	6	8.00	TRANS	6	48		216	
		LANE LINE	2	20	4.44	LONG	8		36	352	
		EDGE LINE	2	20	4.44	LONG	4		18	176	
WESTBOUND SUB-TOTAL								208	121	2,124	7,554
CONTINGENCY								134	47	1,065	
TOTALS CARRIED TO THE GENERAL SUMMARY (01/NHS/PV)								670	235	5,325	17,392

GUARDRAIL/CONCRETE REPAIR SUB-SUMMARY

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 11/23/2021 TIME: 2:55:54 PM USER: ksalby
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DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER JLL
REVIEWER ACM 6-24-21
PROJECT ID 79761
SHEET 32 TOTAL 79

MODEL: Sheet PAPERSIZE: 17x11(In.) DATE: 11/23/2021 TIME: 2:53:05 PM USER: ksalay
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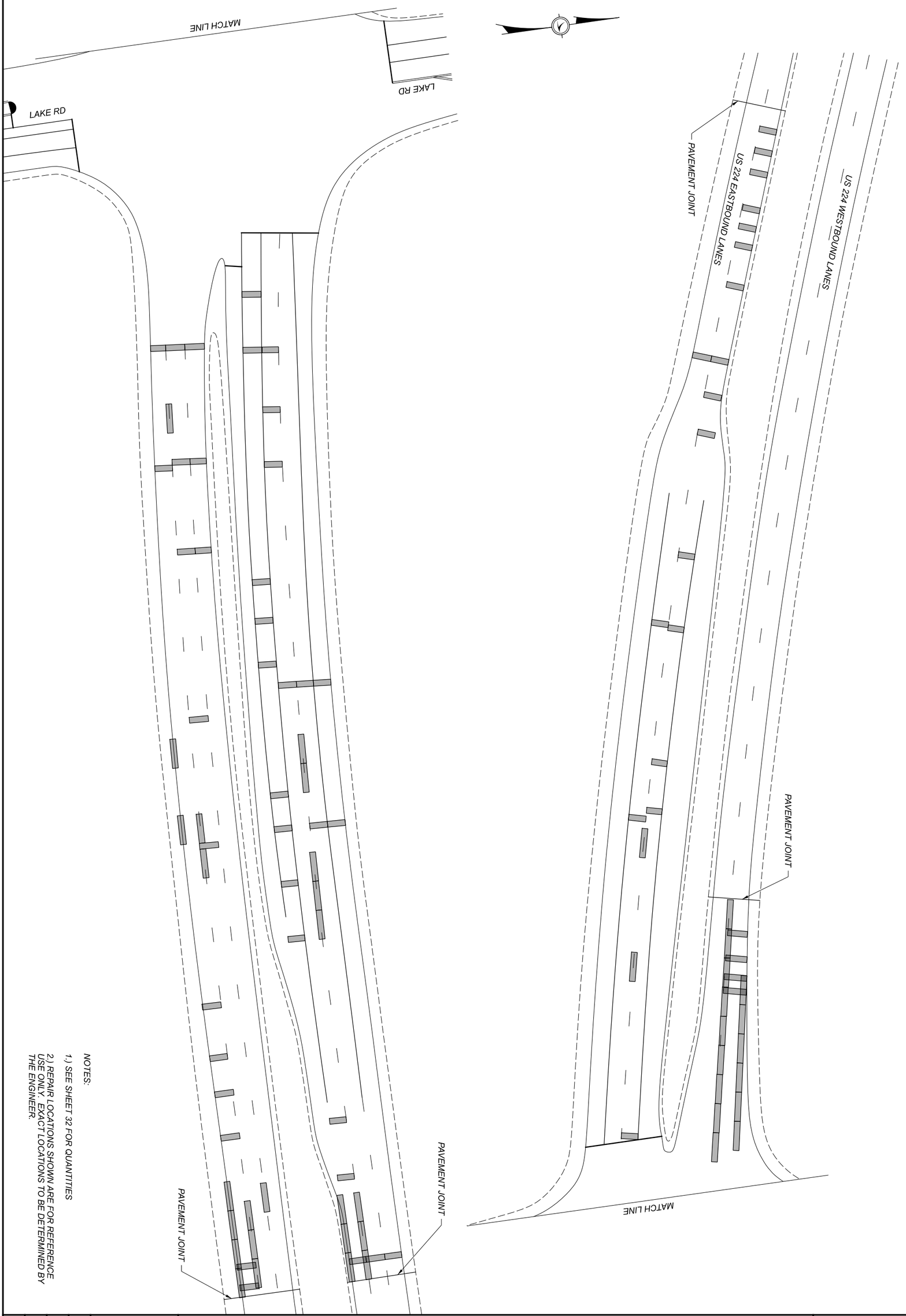


NOTES:

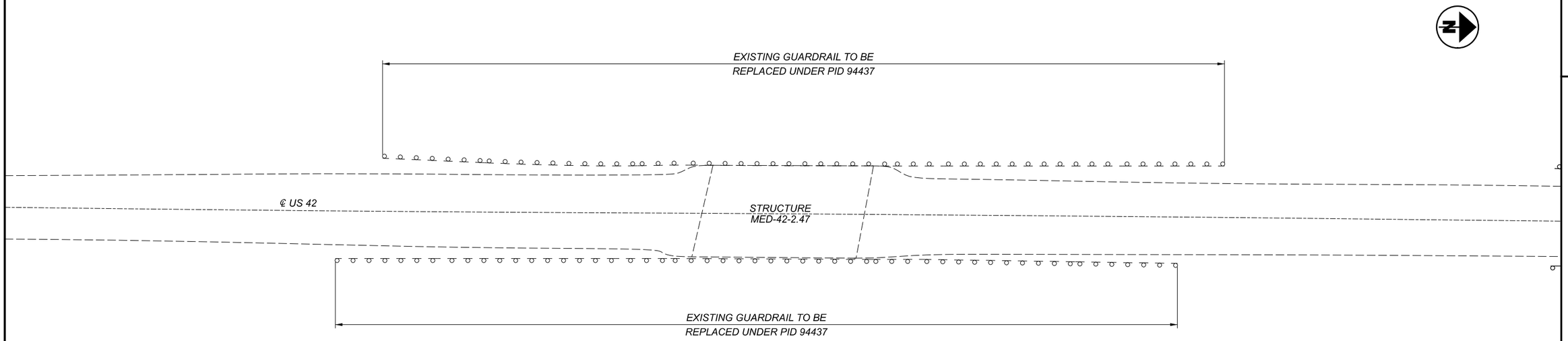
1.) SEE SHEET 32 FOR QUANTITIES

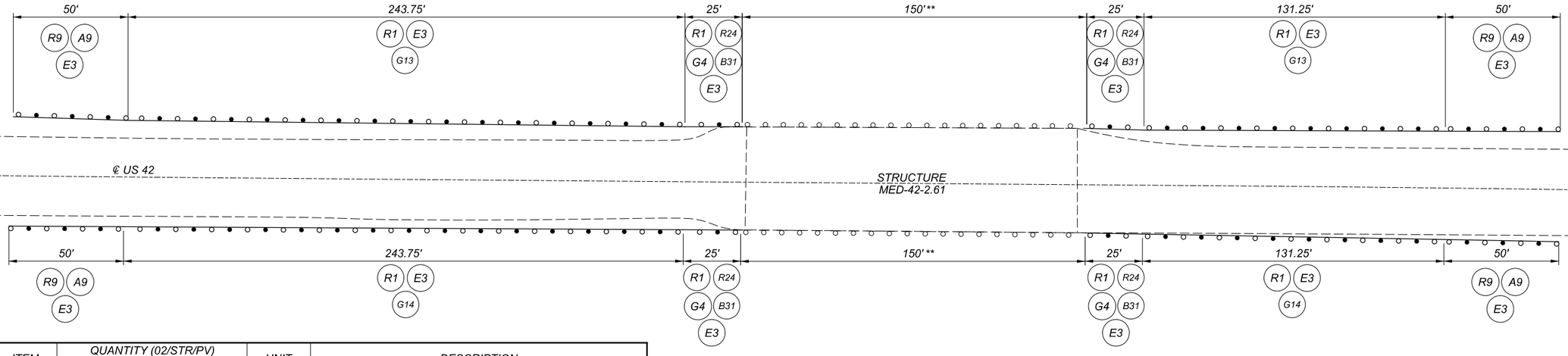
2.) REPAIR LOCATIONS SHOWN ARE FOR REFERENCE USE ONLY. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.

PLAN VIEW
MED-224/LAKE RD CONCRETE REPAIRS

HORIZONTAL SCALE IN FEET
0 30
15 60

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER
JLL
REVIEWER
ACM 6-24-21
PROJECT ID
79761
SHEET 33 TOTAL 79





LABEL	ITEM	QUANTITY (02/STR/PV)			UNIT	DESCRIPTION
		NB	SB	TOTAL		
R1	202	425	425	850	FT	GUARDRAIL REMOVED
R9	202	2	2	4	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E
R24	202	2	2	4	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED
E2-A	203	5	5	10	CY	EMBANKMENT, AS PER PLAN
E3	209	5.250	5.250	10.500	STA	RESHAPING UNDER GUARDRAIL
G4	606	50	50	100	FT	GUARDRAIL, TYPE 5
G13	606		375	375	FT	GUARDRAIL, TYPE MGS
G14	606	375		375	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS
A9	606	2	2	4	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016
B31	606	2	2	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4
M4	626	6	6	12	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL

ALL QUANTITIES CARRIED TO GUARDRAIL SUB-SUMMARY

**DEEP BEAM BRIDGE RAIL WITH TUBULAR BACKUP

HORIZONTAL SCALE IN FEET
0 12.5 25 50

GUARDRAIL DETAILS
MED 42 - 2.47/2.61

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
ACM 6-24-21

PROJECT ID
79761

SHEET 34 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet I PAPERSIZE: 17x11(in.) DATE: 11/1/2021 TIME: 4:46:01 PM USER: ksalay
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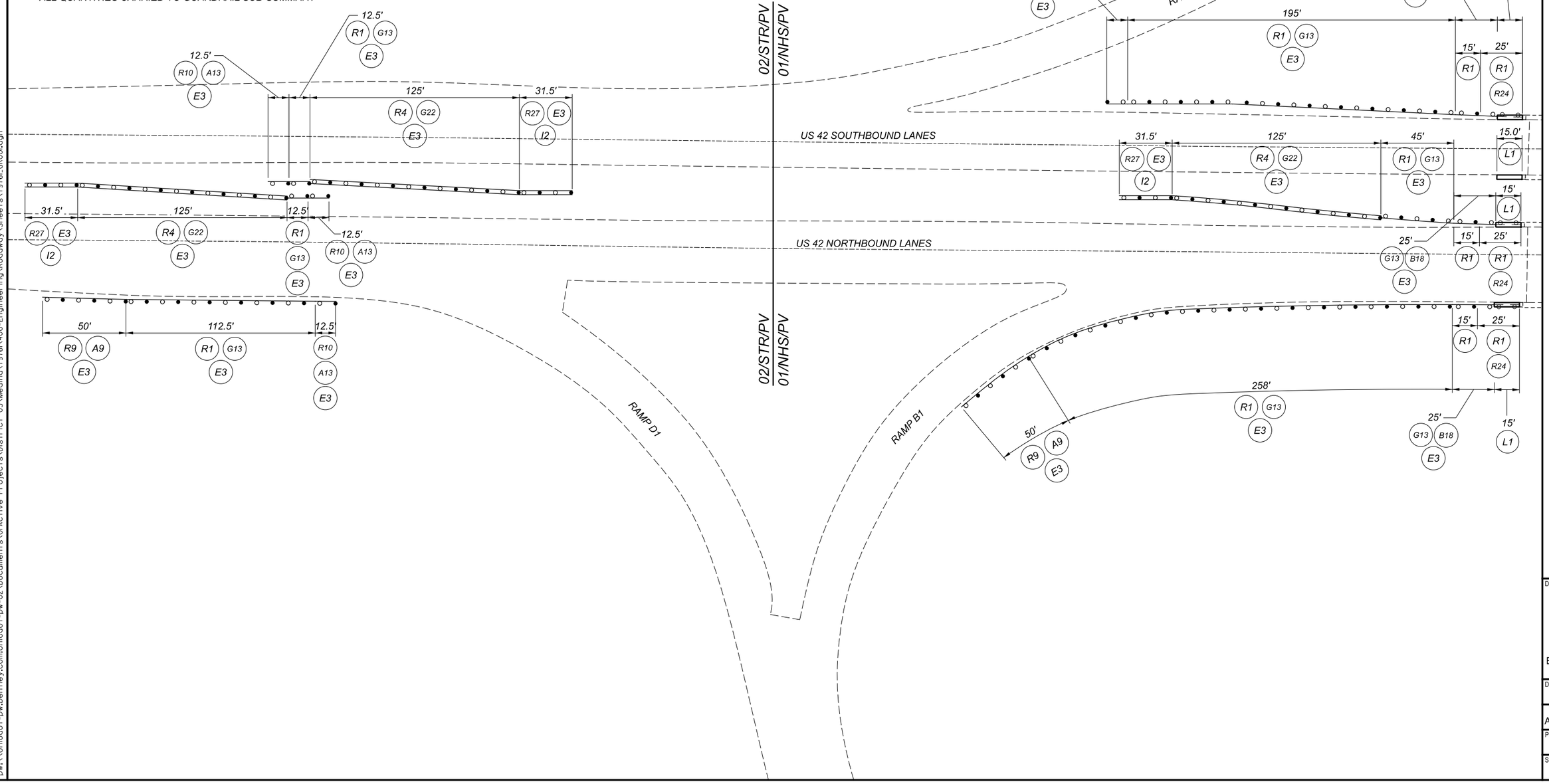
LABEL	ITEM	QUANTITY						UNIT	DESCRIPTION
		NB	SB	MEDIAN	01/NHS/PV	02/STR/PV	TOTAL		
R1	202	410.5	235	110	618	137.5	755.5	FT	GUARDRAIL REMOVED
R4	202			375	125	250	375	FT	GUARDRAIL REMOVED, BARRIER DESIGN
R9	202	2			1	1	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E
R10	202	1	1	2	1	3	4	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T
R24	202	1	1	1	3		3	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED
R27	202			3	1	2	3	EACH	IMPACT ATTENUATOR REMOVED
E2-A	203	5	5	5	10	5	15	CY	EMBANKMENT, AS PER PLAN
E3	209	5.080	2.325	5.895	7.920	5.380	13.300	STA	RESHAPING UNDER GUARDRAIL
G13	606	395.5	220	95	573	137.5	710.5	FT	GUARDRAIL, TYPE MGS
G22	606			375	125	250	375	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS
A9	606	2			1	1	2	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016
A13	606	1	1	2	1	3	4	EACH	ANCHOR ASSEMBLY, MGS TYPE T
B18	606	1		1	2		2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
B26	606		1		1		1	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2
I2	606			3	1	2	3	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)
L1	622	1	1	2	4		4	EACH	CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN
M4	626	6	3	6	9	6	15	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL

ALL QUANTITIES CARRIED TO GUARDRAIL SUB-SUMMARY



HORIZONTAL SCALE IN FEET
0 15 30 60

GUARDRAIL DETAILS
MED-42-3.05

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER	JLL
REVIEWER	ACM 6-24-21
PROJECT ID	79761
SHEET	35
TOTAL	79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet 2 PAPERSIZE: 17x11(in.) DATE: 7/12/2021 TIME: 12:55:24 PM USER: jlowery
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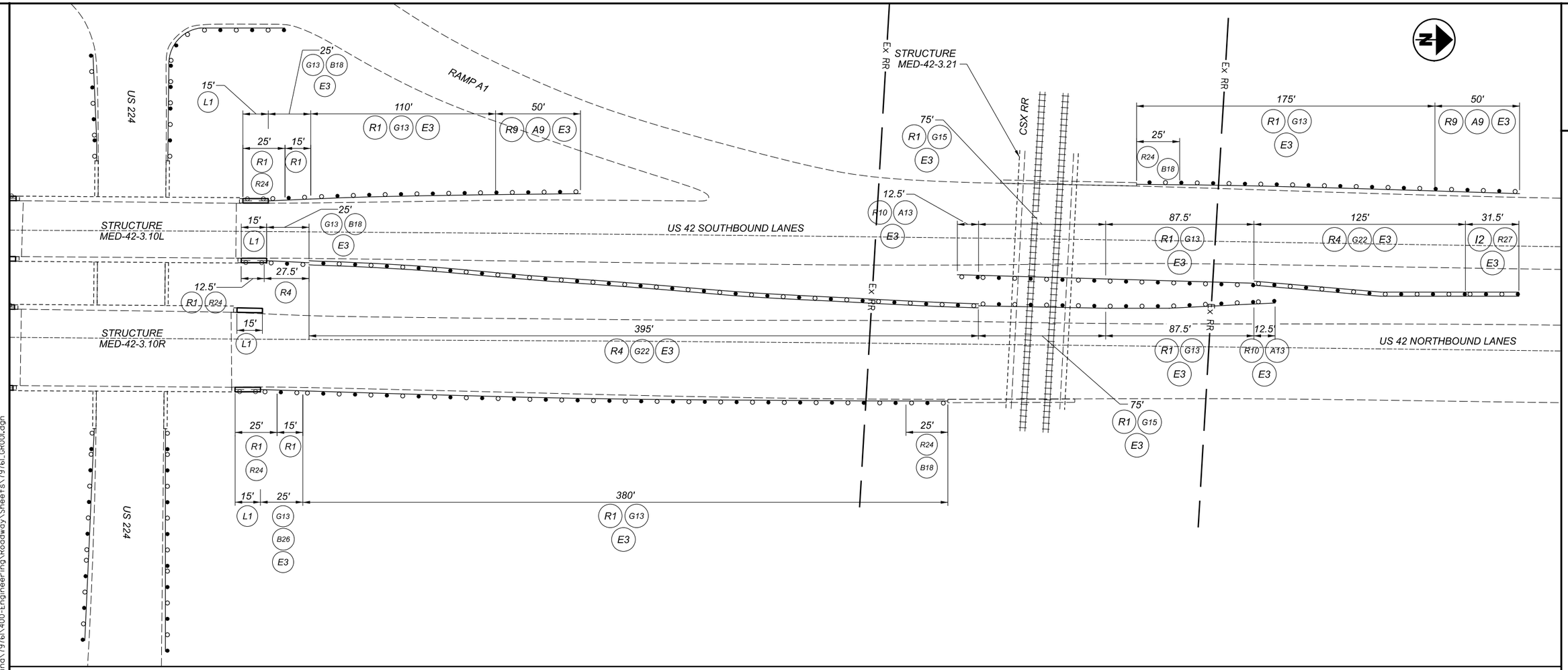

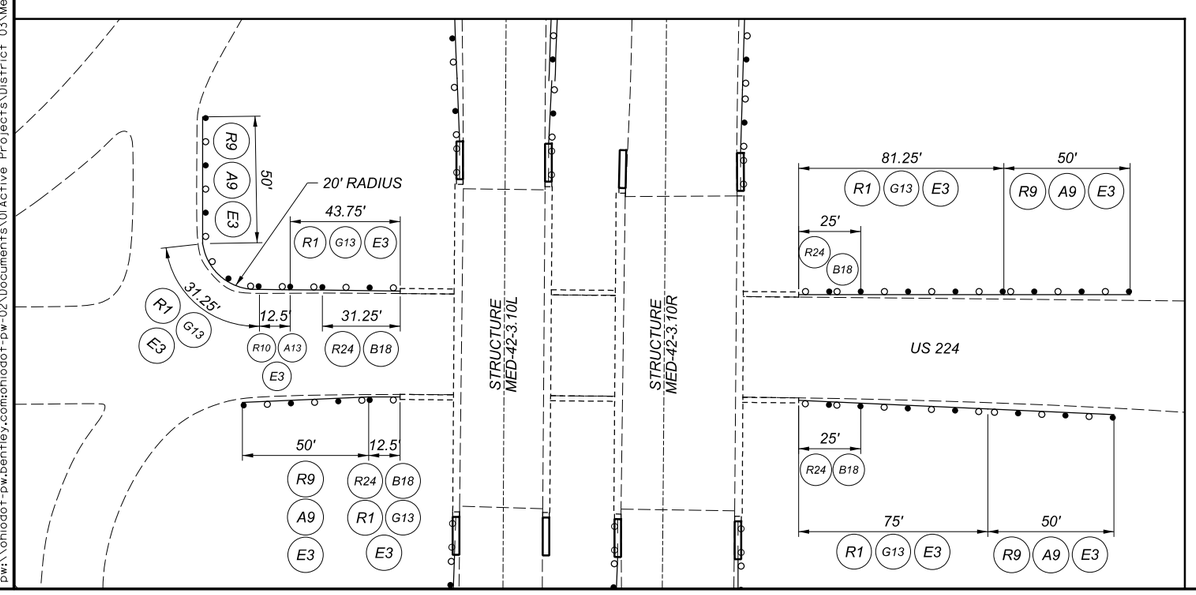

LABEL	ITEM	QUANTITY (01/NHS/PV)					UNIT	DESCRIPTION
		NB	SB	MEDIAN	MED-224	TOTAL		
R1	202	420	325	337.5	243.75	1,326.25	FT	GUARDRAIL REMOVED
R4	202			547.5		547.5	FT	GUARDRAIL REMOVED, BARRIER DESIGN
R9	202		2		4	6	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E
R10	202			2	1	3	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T
R24	202	2	2	1	4	9	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED
R27	202			1		1	EACH	IMPACT ATTENUATOR REMOVED
E2-A	203	5	5	10	5	25	CY	EMBANKMENT, AS PER PLAN
E3	209	4.050	4.100	9.265	4.563	21.978	STA	RESHAPING UNDER GUARDRAIL
G13	606	405	310	200.0	243.75	1,158.75	FT	GUARDRAIL, TYPE MGS
G15	606			150		150	FT	GUARDRAIL, TYPE MGS HALF POST SPACING
G22	606			520		520	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS
A9	606		2		4	6	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016
A13	606			2	1	3	EACH	ANCHOR ASSEMBLY, MGS TYPE T
B18	606	1	2	1	4	8	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
B26	606	1				1	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2
I2	606			1		1	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)
L1	622	1	1	2		4	EACH	CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN
M4	626	5	5	10	5	25	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL

ALL QUANTITIES CARRIED TO GUARDRAIL SUB-SUMMARY

HORIZONTAL SCALE IN FEET
0 15 30 60

GUARDRAIL DETAILS
MED-42-3.15/MED-224-6.35

MED-42-1.89/MED-224-(6.25)(10.45)

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER JLL
REVIEWER ACM 6-24-21
PROJECT ID 79761
SHEET 36 TOTAL 79

MODEL: Sheet 3 PAPERSIZE: 17x11(in.) DATE: 7/12/2021 TIME: 12:55:25 PM USER: jlowery
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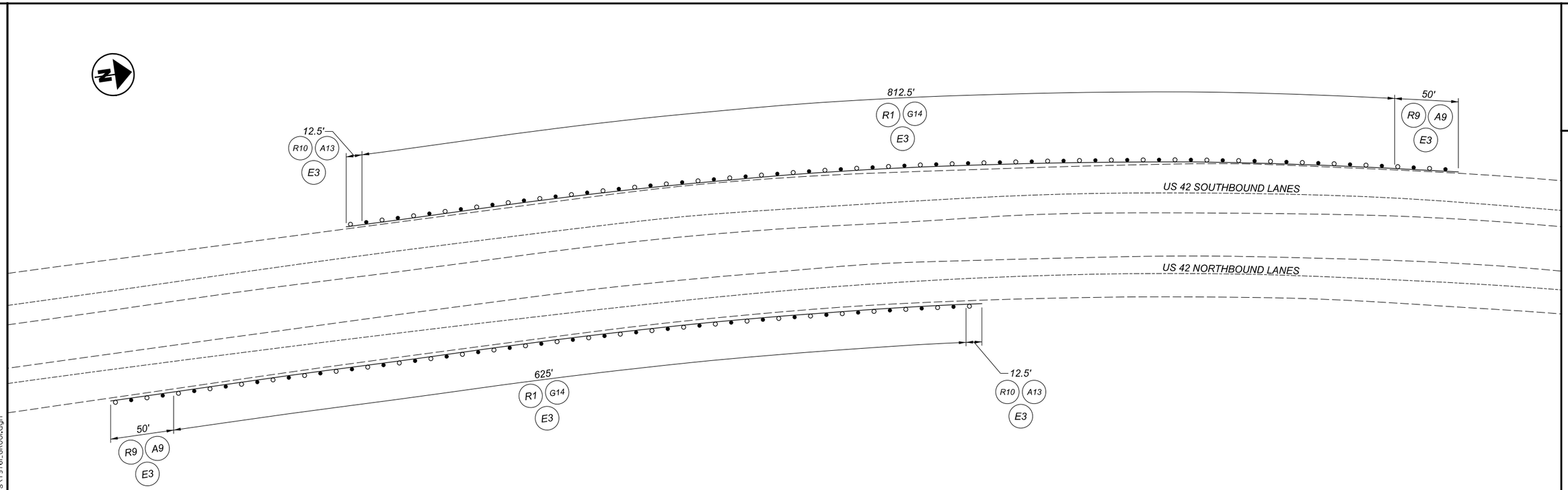

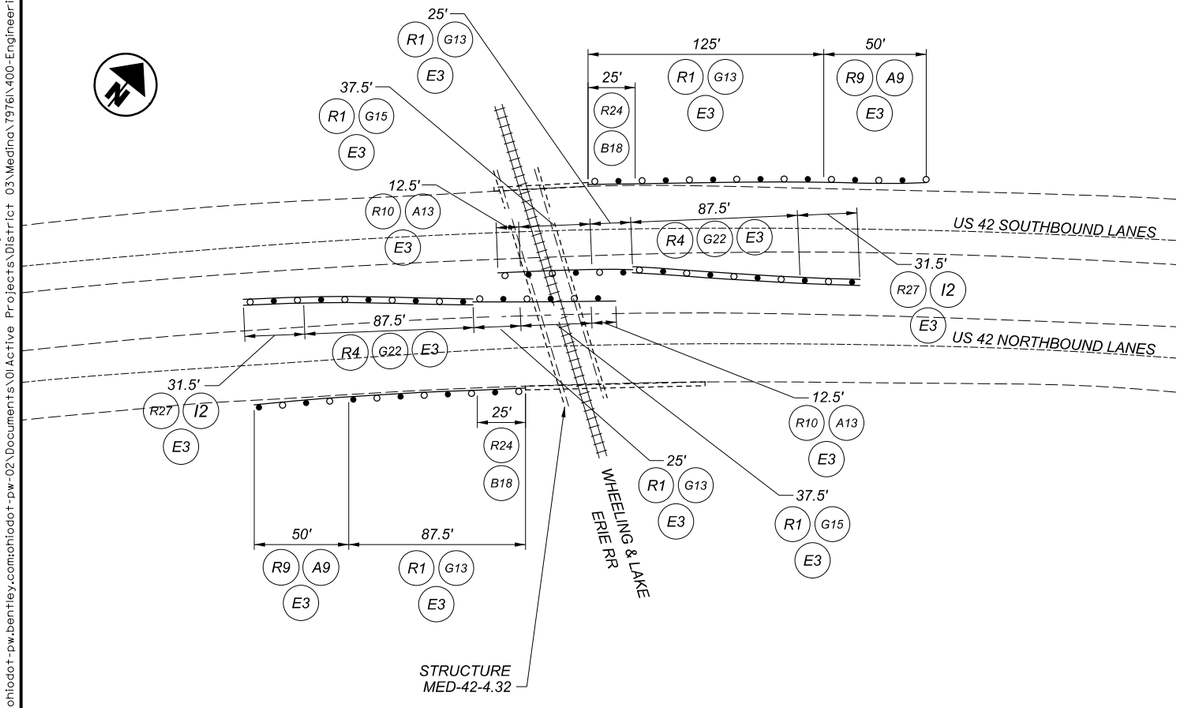

LABEL	ITEM	QUANTITY (01/NHS/PV)				UNIT	DESCRIPTION
		NB	SB	MEDIAN	TOTAL		
R1	202	712.5	937.5	125	1,775	FT	GUARDRAIL REMOVED
R4	202			175	175	FT	GUARDRAIL REMOVED, BARRIER DESIGN
R9	202	2	2		4	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E
R10	202	1	1	2	4	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T
R24	202	1	1		2	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED
R27	202			2	2	EACH	IMPACT ATTENUATOR REMOVED
E2-A	203	10	15	5	30	CY	EMBANKMENT, AS PER PLAN
E3	209	8.250	10.500	3.875	22.625	STA	RESHAPING UNDER GUARDRAIL
G13	606	87.5	125	50	262.5	FT	GUARDRAIL, TYPE MGS
G14	606	625	812.5		1,437.5	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS
G15	606			75	75	FT	GUARDRAIL, TYPE MGS HALF POST SPACING
G22	606			175	175	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS
A9	606	2	2		4	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016
A13	606	1	1	2	4	EACH	ANCHOR ASSEMBLY, MGS TYPE T
B18	606	1	1		2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
I2	606			2	2	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)
M4	626	9	11	4	24	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL

ALL QUANTITIES CARRIED TO GUARDRAIL SUB-SUMMARY

HORIZONTAL SCALE IN FEET
0 20 40 80

GUARDRAIL DETAILS
MED-42-3.50/4.32

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
ACM 6-24-21

PROJECT ID
79761

SHEET 37 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet 4 PAPERSIZE: ltxll(ln.) DATE: 11/1/2021 TIME: 4:48:15 PM USER: ksday
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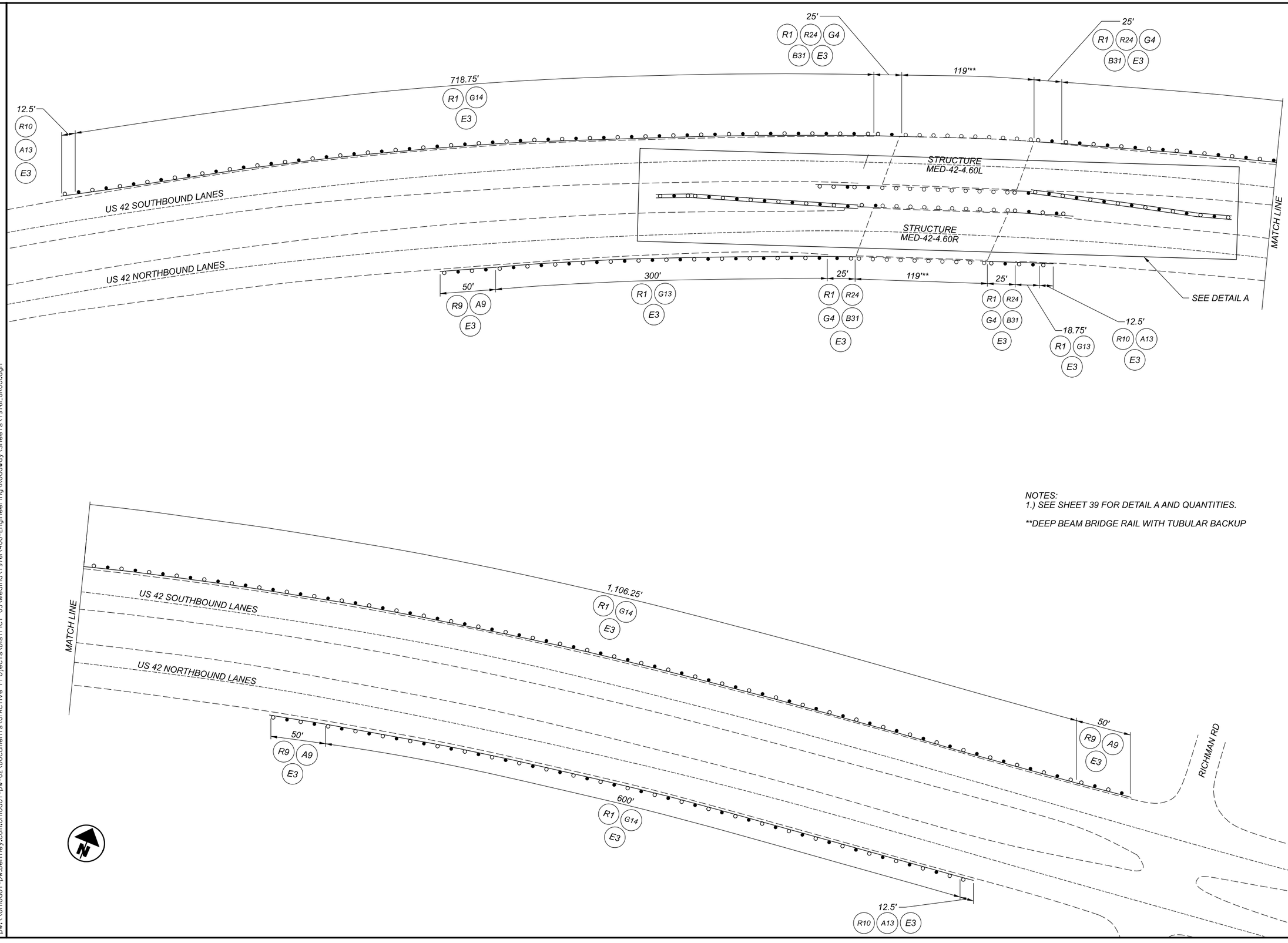


HORIZONTAL SCALE IN FEET
0 20 40 80

GUARDRAIL DETAILS MED-42-4.60

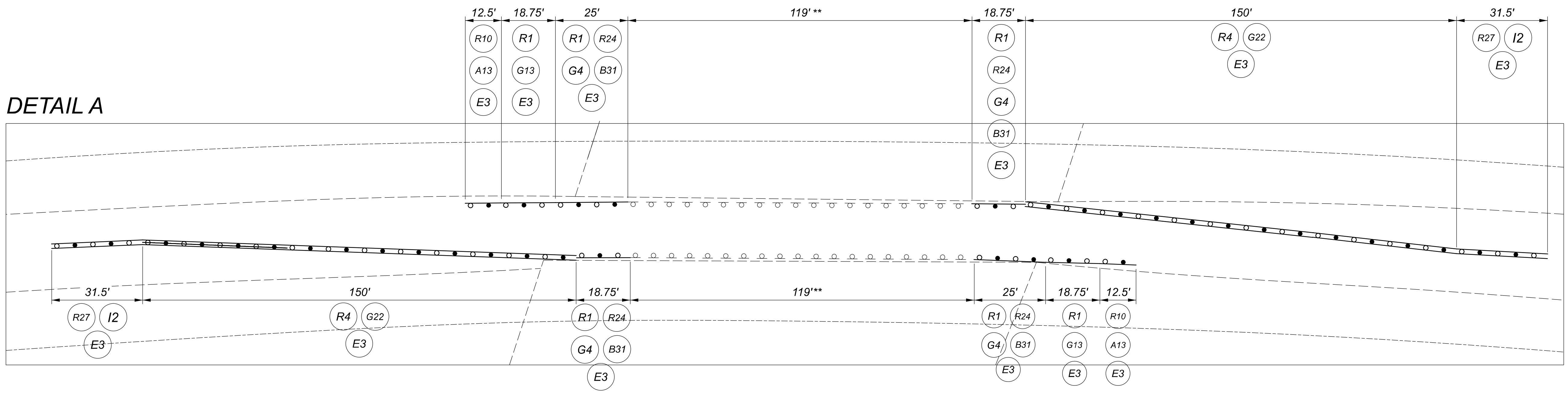
DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER	JLL
REVIEWER	ACM 6-24-21
PROJECT ID	79761
SHEET	38
TOTAL	79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet 5 PAPERSIZE: 17x11(in.) DATE: 11/1/2021 TIME: 4:49:28 PM USER: ksalay
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01Active Projects\District 03\Medina\79761\400-Engineering\Roadway\Sheets\79761_GR001.dgn

DETAIL A



LABEL	ITEM	QUANTITY (01/NHS/PV)				UNIT	DESCRIPTION
		NB	SB	MEDIAN	TOTAL		
R1	202	968.75	1,875	125	2,968.75	FT	GUARDRAIL REMOVED
R4	202			300	300	FT	GUARDRAIL REMOVED, BARRIER DESIGN
R9	202	2	1		3	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E
R10	202	2	1	2	5	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T
R24	202	2	2	4	8	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED
R27	202			2	2	EACH	IMPACT ATTENUATOR REMOVED
E2-A	203	10	20	5	35	CY	EMBANKMENT, AS PER PLAN
E3	209	10.950	19.375	5.130	35.455	STA	RESHAPING UNDER GUARDRAIL
G4	606	50	50	87.5	187.5	FT	GUARDRAIL, TYPE 5
G13	606	318.75		37.5	356.25	FT	GUARDRAIL, TYPE MGS
G14	606	600	1,825		2,425	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS
G22	606			300	300	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS
A9	606	2	1		3	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016
A13	606	2	1	2	5	EACH	ANCHOR ASSEMBLY, MGS TYPE T
B31	606	2	2	4	8	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4
I2	606			2	2	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)
M4	626	11	20	6	37	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL

ALL QUANTITIES CARRIED TO GUARDRAIL SUB-SUMMARY

GUARDRAIL DETAILS
MED-42-4.60 (CONT'D)

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
ACM 6-24-21

PROJECT ID
79761

SHEET 39 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet 6 PAPERSIZE: 17x11 (in.) DATE: 11/1/2021 TIME: 4:50:38 PM USER: ksolay
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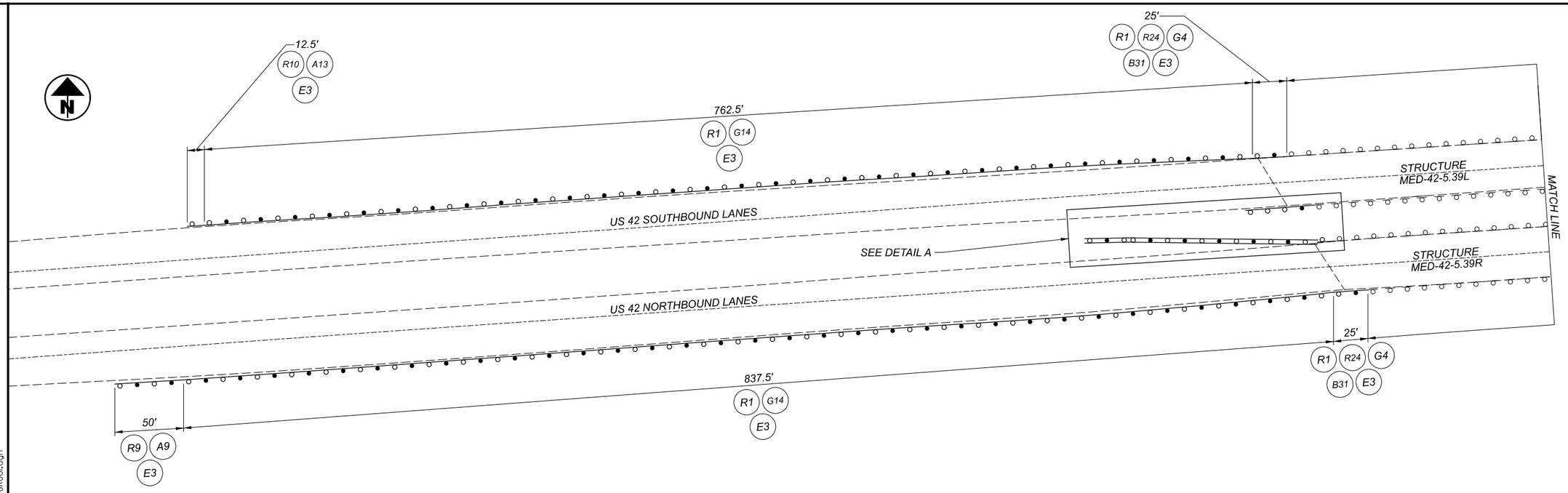

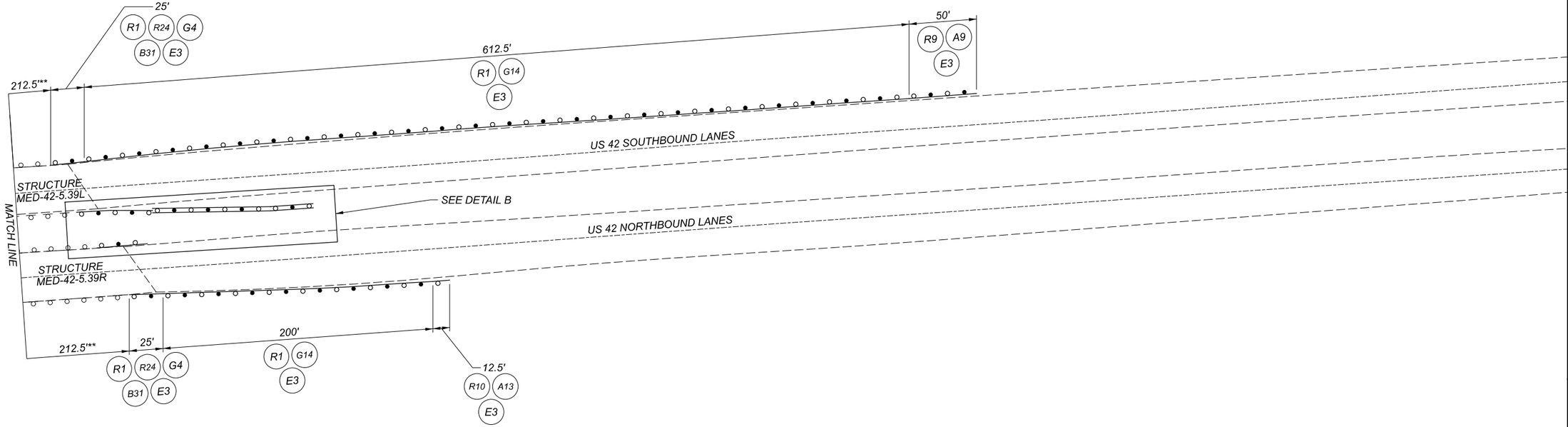

NOTES:
1.) SEE SHEET 41 FOR DETAIL A, DETAIL B AND QUANTITIES.

***DEEP BEAM BRIDGE RAIL WITH TUBULAR BACKUP*

HORIZONTAL SCALE IN FEET
0 20 40 80

GUARDRAIL DETAILS MED-42-5.39

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER	JLL
REVIEWER	ACM 6-24-21
PROJECT ID	79761
SHEET	40
TOTAL	79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet 7 PAPERSIZE: 17x11(in.) DATE: 11/1/2021 TIME: 4:5:20 PM USER: ksaloy
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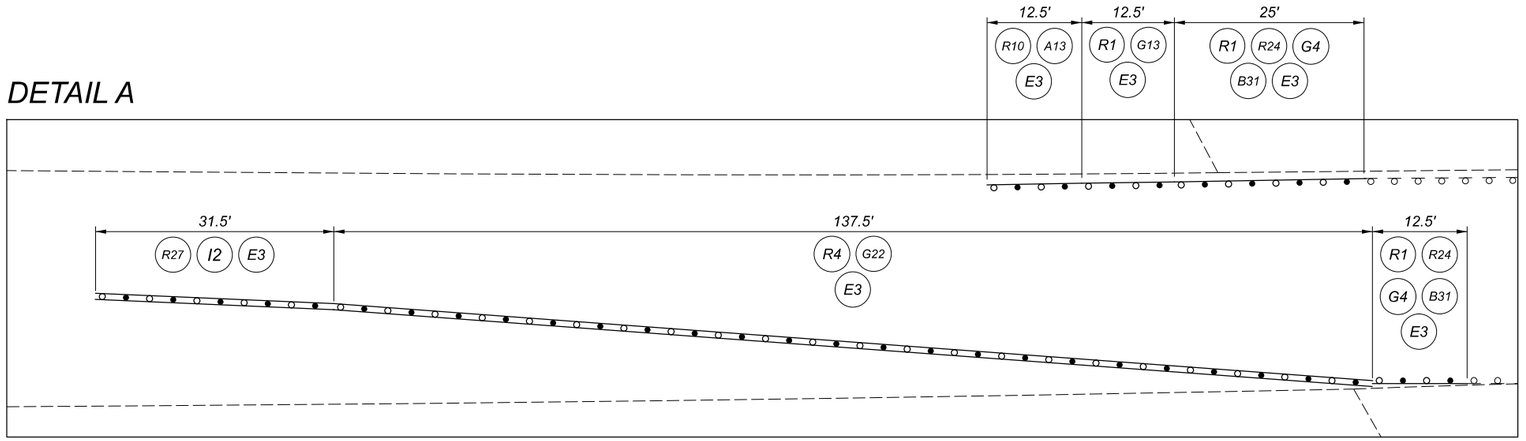
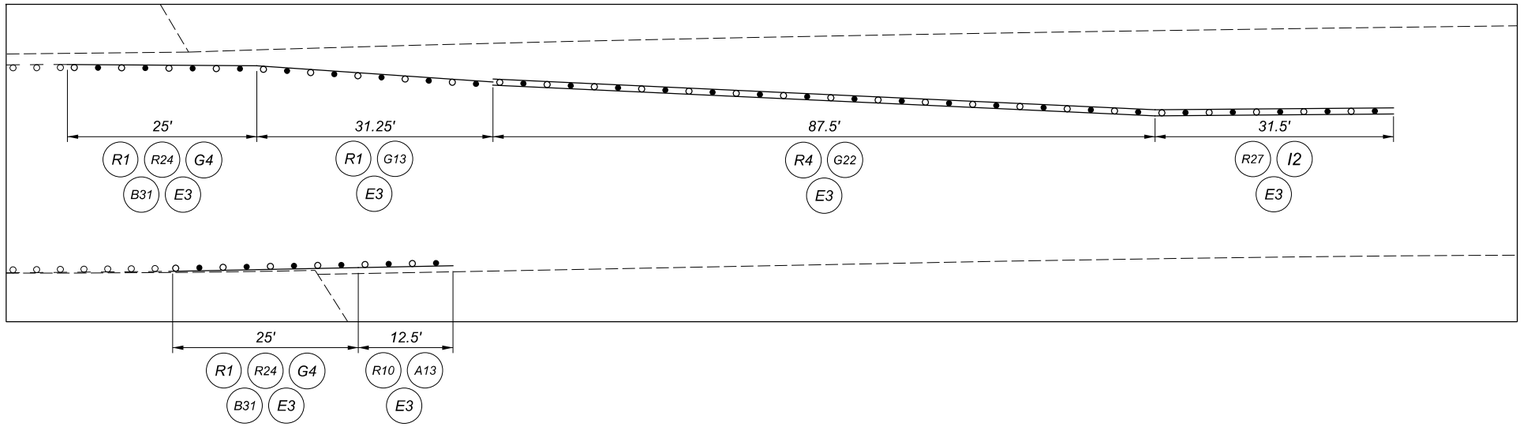
DETAIL A



DETAIL B



LABEL	ITEM	QUANTITY (01/NHS/PV)				UNIT	DESCRIPTION
		NB	SB	MEDIAN	TOTAL		
R1	202	1,087.5	1,425	131.25	2,643.75	FT	GUARDRAIL REMOVED
R4	202			225	225	FT	GUARDRAIL REMOVED, BARRIER DESIGN
R9	202	1	1		2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E
R10	202	1	1	2	4	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T
R24	202	2	2	4	8	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED
R27	202			2	2	EACH	IMPACT ATTENUATOR REMOVED
E2-A	203	15	15	5	35	CY	EMBANKMENT, AS PER PLAN
E3	209	11.500	14.875	4.443	30.818	STA	RESHAPING UNDER GUARDRAIL
G4	606	50	50	87.5	187.5	FT	GUARDRAIL, TYPE 5
G13	606			43.75	43.75	FT	GUARDRAIL, TYPE MGS
G14	606	1,037.5	1,375		2,412.5	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS
G22	606			225	225	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS
A9	606	1	1		2	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016
A13	606	1	1	2	4	EACH	ANCHOR ASSEMBLY, MGS TYPE T
B31	606	2	2	4	8	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4
I2	606			2	2	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)
M4	626	12	15	5	32	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL

ALL QUANTITIES CARRIED TO GUARDRAIL SUB-SUMMARY

GUARDRAIL DETAILS
MED-42-5.39 (CONT'D)

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
ACM 6-24-21

PROJECT ID
79761

SHEET 41 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet 8 PAPERSIZE: ITxII(In.) DATE: 11/1/2021 TIME: 4:52:02 PM USER: ksalay
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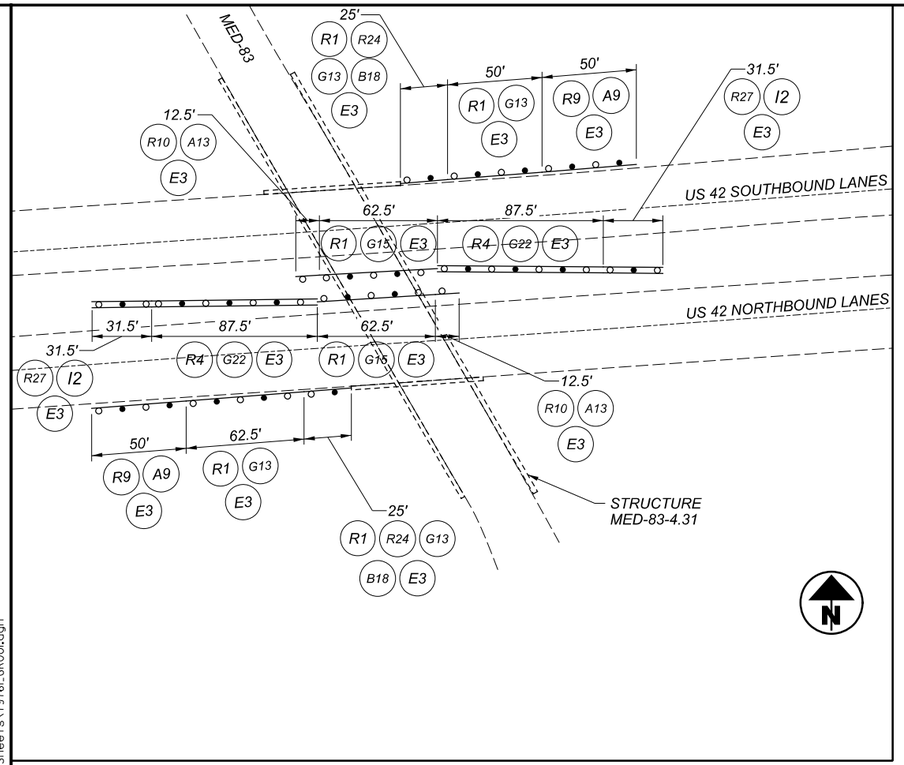

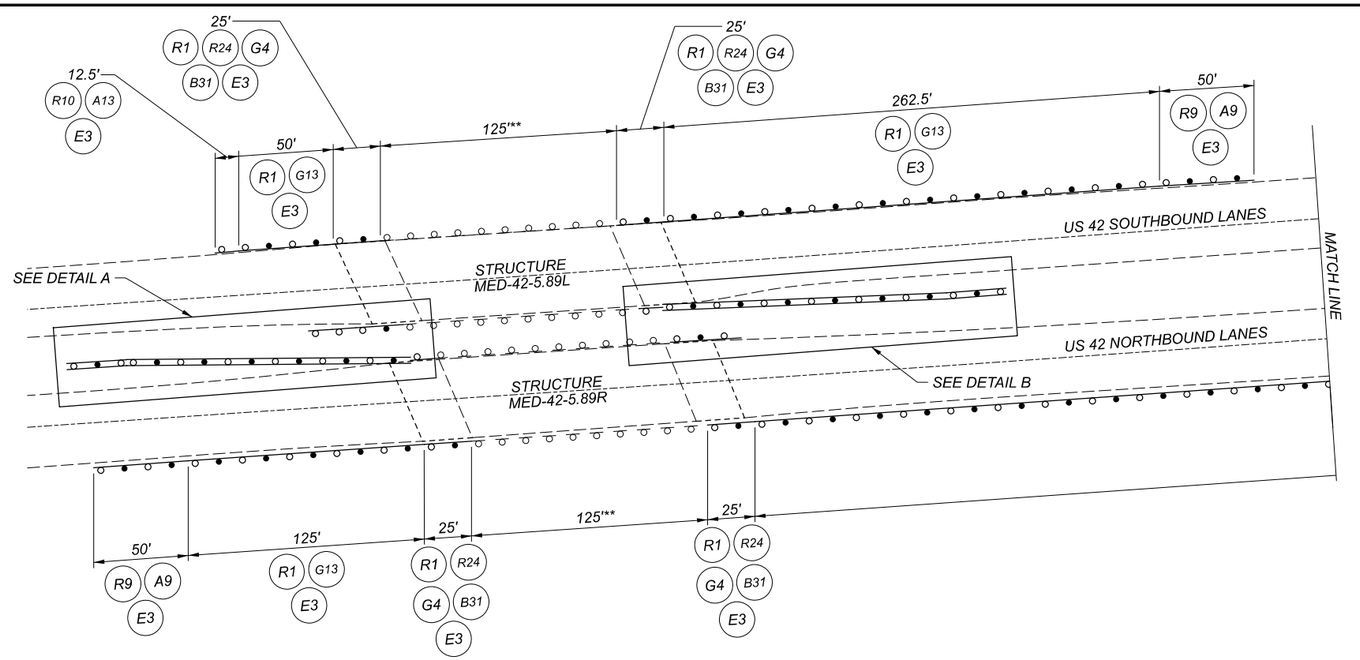

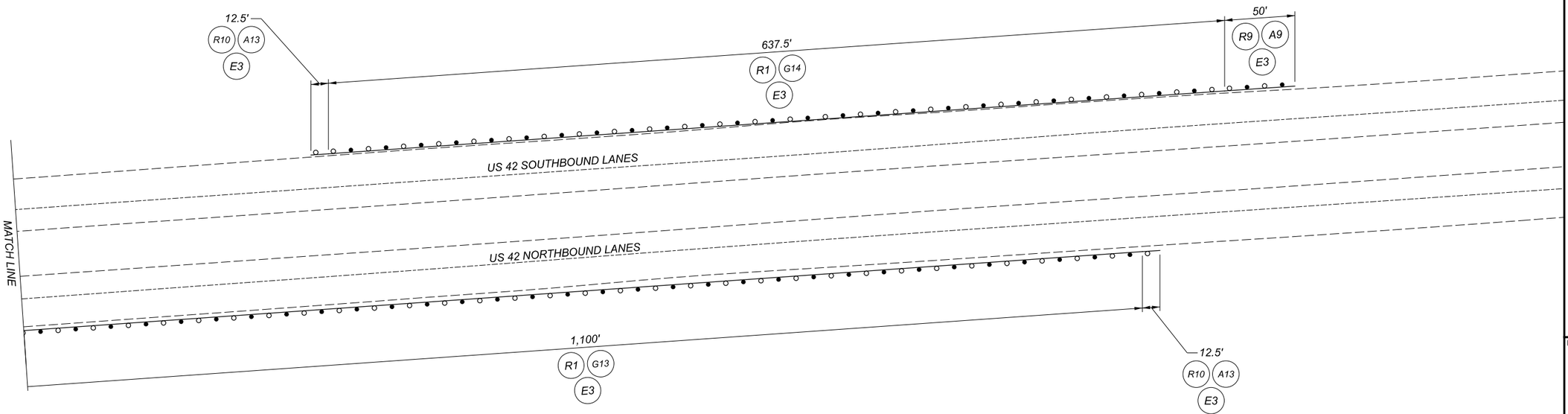

NOTES:
1.) SEE SHEET 43 FOR DETAIL A, DETAIL B AND QUANTITIES.

**DEEP BEAM BRIDGE RAIL WITH TUBULAR BACKUP

HORIZONTAL SCALE IN FEET
0 20 40 80

GUARDRAIL DETAILS
MED-42-5.75/5.89

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER	JLL
REVIEWER	ACM 6-24-21
PROJECT ID	79761
SHEET	42
TOTAL	79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet 9 PAPERSIZE: 17x11(in.) DATE: 11/1/2021 TIME: 4:52:49 PM USER: ksday
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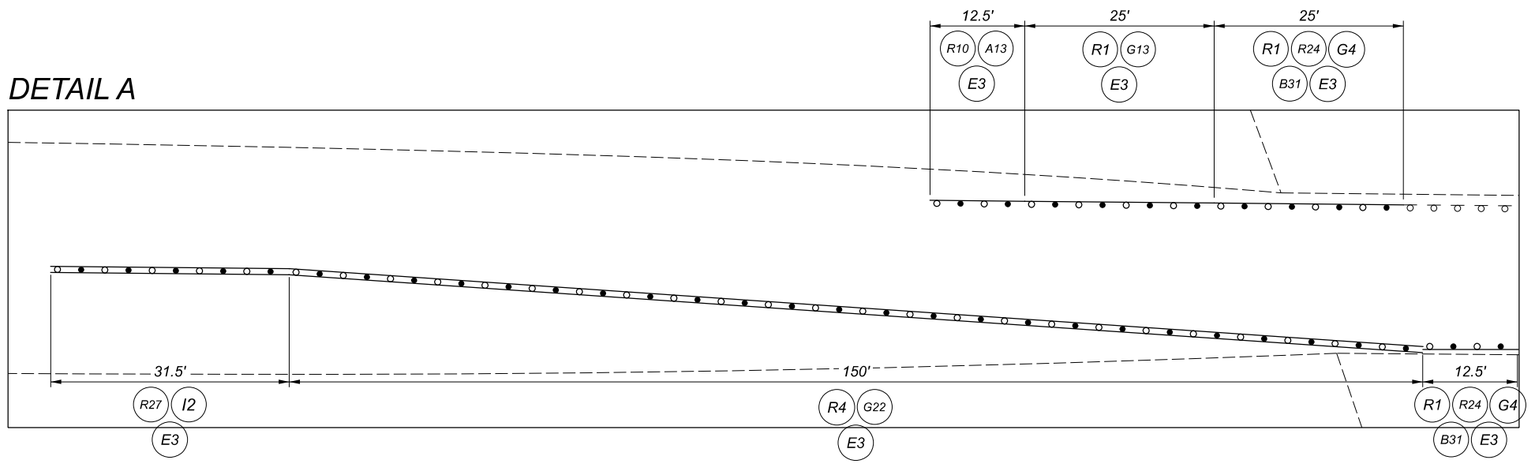
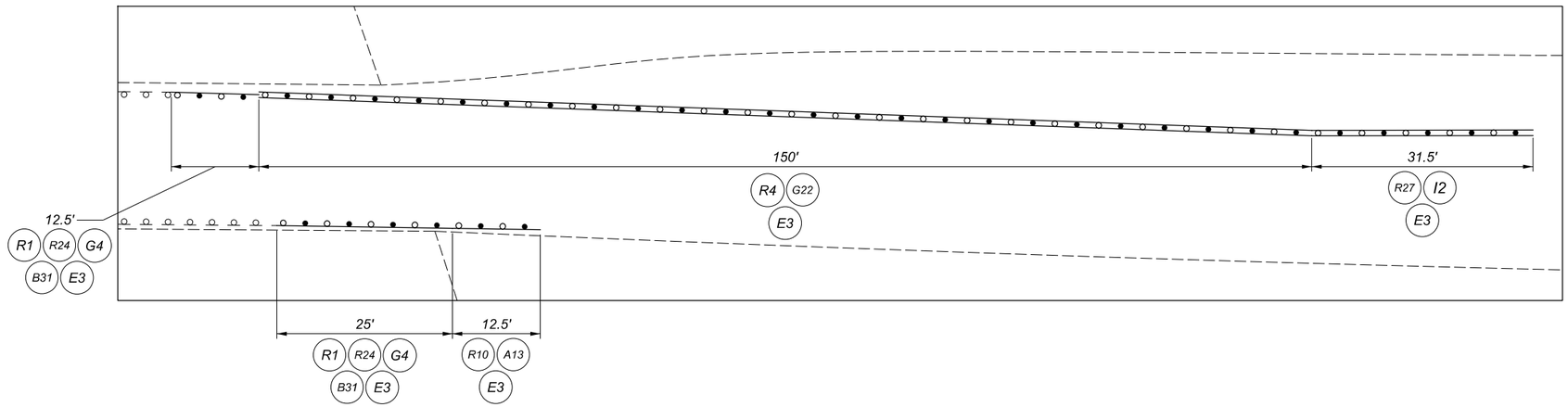
DETAIL A



DETAIL B



LABEL	ITEM	QUANTITY (01/NHS/PV)				UNIT	DESCRIPTION
		NB	SB	MEDIAN	TOTAL		
R1	202	1,362.5	1,075	225	2,662.5	FT	GUARDRAIL REMOVED
R4	202			475	475	FT	GUARDRAIL REMOVED, BARRIER DESIGN
R9	202	2	3		5	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E
R10	202	1	2	4	7	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T
R24	202	3	3	4	10	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED
R27	202			4	4	EACH	IMPACT ATTENUATOR REMOVED
E2-A	203	15	10	10	35	CY	EMBANKMENT, AS PER PLAN
E3	209	14.750	12.500	8.760	36.010	STA	RESHAPING UNDER GUARDRAIL
G4	606	50	50	75	175	FT	GUARDRAIL, TYPE 5
G13	606	1,312.5	387.5	25	1,725	FT	GUARDRAIL, TYPE MGS
G14	606		637.5		637.5	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS
G15	606			125	125	FT	GUARDRAIL, TYPE MGS HALF POST SPACING
G22	606			475	475	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS
A9	606	2	3		5	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016
A13	606	1	2	4	7	EACH	ANCHOR ASSEMBLY, MGS TYPE T
B18	606	1	1		2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
B31	606	2	2	4	8	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4
I2	606			4	4	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)
M4	626	15	12	9	36	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL

ALL QUANTITIES CARRIED TO GUARDRAIL SUB-SUMMARY

GUARDRAIL DETAILS
MED-42-5.75/5.89 (CONT'D)

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
ACM 6-24-21

PROJECT ID
79761

SHEET 43 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet 10 PAPERSIZE: 17x11(in.) DATE: 11/1/2021 TIME: 4:53:35 PM USER: ksalay
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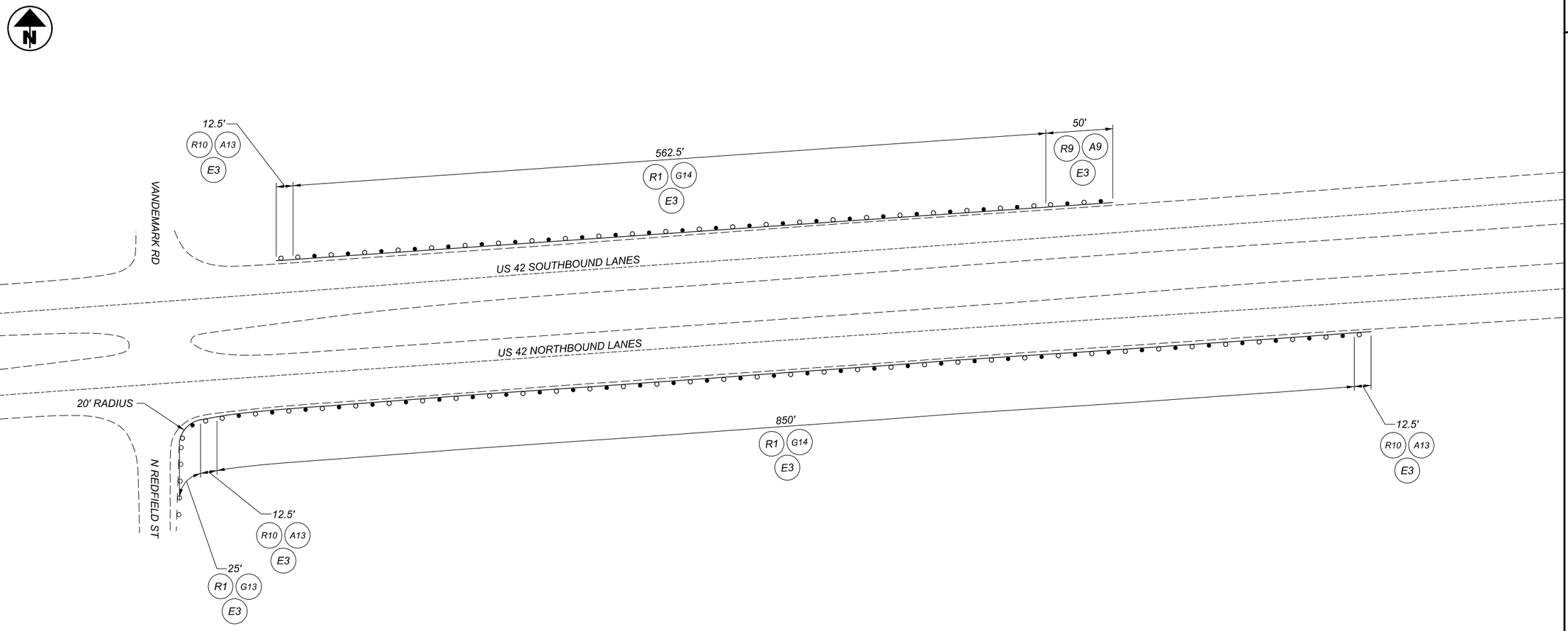

LABEL	ITEM	QUANTITY (01/NHS/PV)			UNIT	DESCRIPTION
		NB	SB	TOTAL		
R1	202	875	562.5	1,437.5	FT	GUARDRAIL REMOVED
R9	202		1	1	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E
R10	202	2	1	3	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T
E2-A	203	10	5	15	CY	EMBANKMENT, AS PER PLAN
E3	209	9.000	6.250	15.250	STA	RESHAPING UNDER GUARDRAIL
G13	606	25		25	FT	GUARDRAIL, TYPE MGS
G14	606	850	562.5	1,412.5	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS
A9	606		1	1	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016
A13	606	2	1	3	EACH	ANCHOR ASSEMBLY, MGS TYPE T
M4	626	10	7	17	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL

ALL QUANTITIES CARRIED TO GUARDRAIL SUB-SUMMARY

HORIZONTAL SCALE IN FEET
0 20 40 80

GUARDRAIL DETAILS
MED-42-6.42

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
ACM 6-24-21

PROJECT ID
79761

SHEET 44 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet II PAPERSIZE: 17x11(in.) DATE: 11/1/2021 TIME: 4:54:15 PM USER: ksalay
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MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet 12 PAPERSIZE: 17x11(in.) DATE: 11/1/2021 TIME: 4:55:09 PM USER: ksalay
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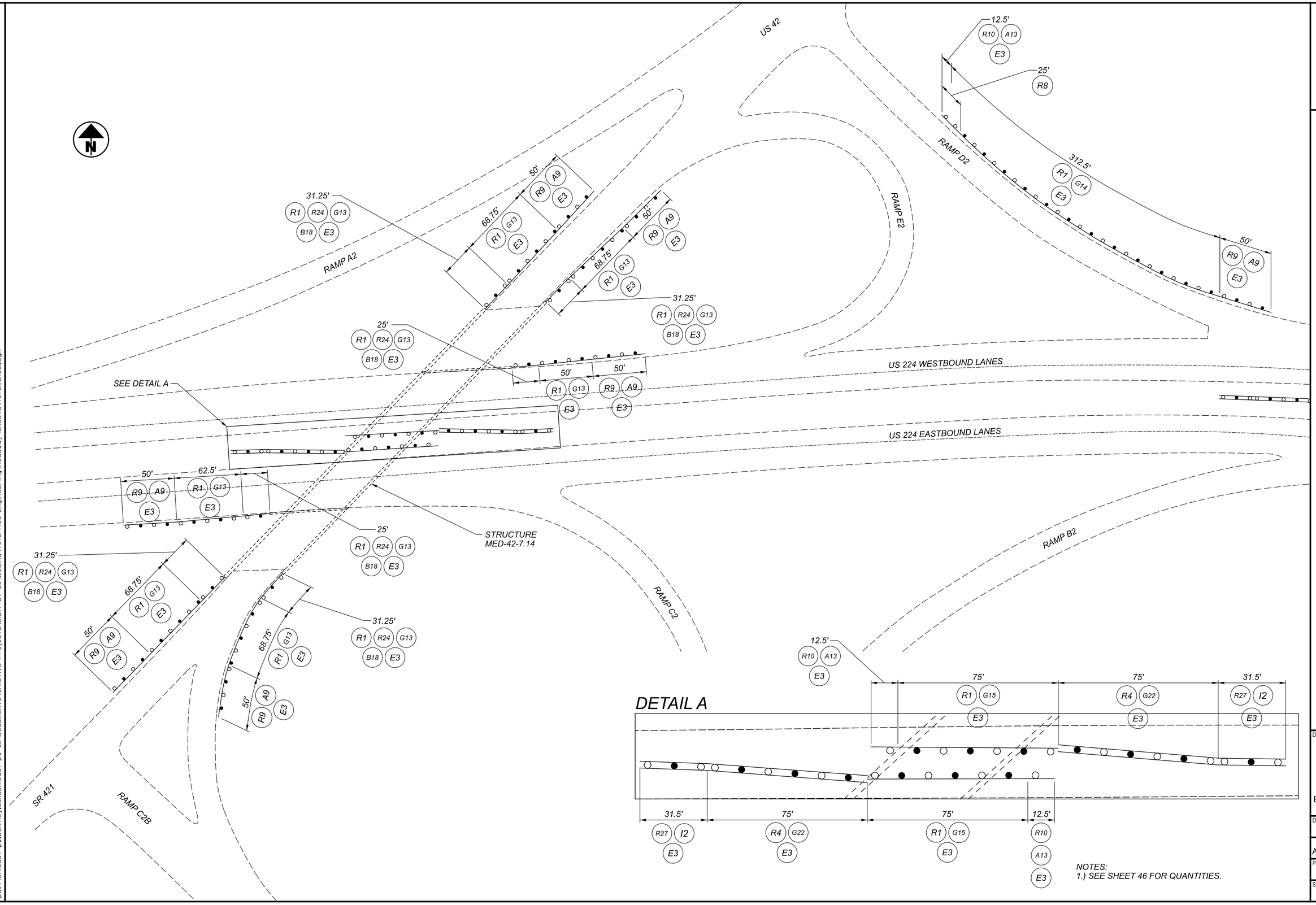


HORIZONTAL SCALE IN FEET
0 25 50 100

NOTES:
1.) SEE SHEET 46 FOR QUANTITIES.

GUARDRAIL DETAILS
MED-42-6.86

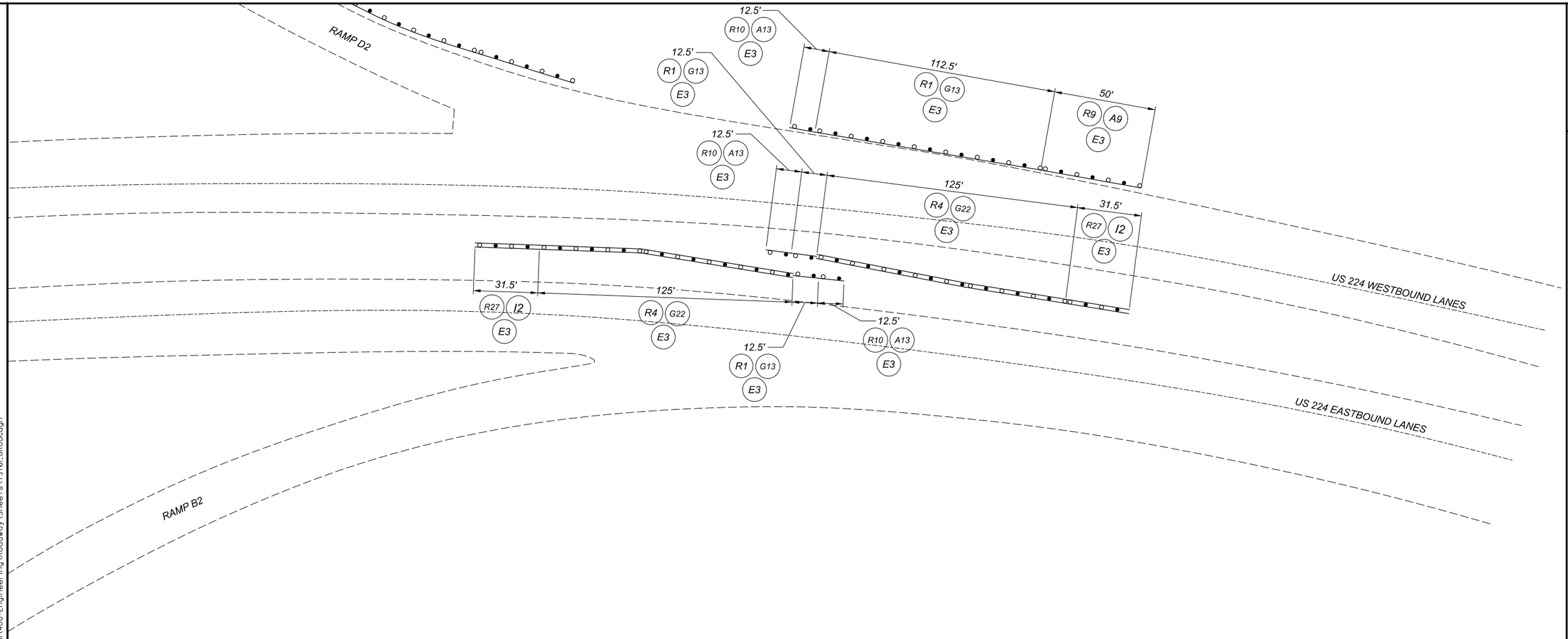
DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
ACM 6-24-21

PROJECT ID
79761

SHEET 45 TOTAL 79



LABEL	ITEM	QUANTITY (01/NHS/PV)					UNIT	DESCRIPTION
		NB/EB	SB/WB	MEDIAN	SR 421	TOTAL		
R1	202	87.5	500.0	175	400	1,162.5	FT	GUARDRAIL REMOVED
R4	202			400		400	FT	GUARDRAIL REMOVED, BARRIER DESIGN
R8	202		1			1	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A
R9	202	1	3		4	8	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E
R10	202		1	4		5	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T
R24	202	1	1		4	6	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED
R27	202			4		4	EACH	IMPACT ATTENUATOR REMOVED
E2-A	203	5	5	10	5	25	CY	EMBANKMENT, AS PER PLAN
E3	209	1.375	6.750	7.510	6.000	21.635	STA	RESHAPING UNDER GUARDRAIL
G13	606	87.5	187.5	25	400	700	FT	GUARDRAIL, TYPE MGS
G14	606		312.5			312.5	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS
G15	606			150		150	FT	GUARDRAIL, TYPE MGS HALF POST SPACING
G22	606			400		400	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS
A9	606	1	3		4	8	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016
A13	606		2	4		6	EACH	ANCHOR ASSEMBLY, MGS TYPE T
B18	606	1	1		4	6	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
I2	606			4		4	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)
M4	626	2	7	8	7	24	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL

ALL QUANTITIES CARRIED TO GUARDRAIL SUB-SUMMARY

HORIZONTAL SCALE IN FEET
0 12.5 25 50

GUARDRAIL DETAILS
MED-42-6.86 (CONT'D)

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER JLL
REVIEWER ACM 6-24-21
PROJECT ID 79761
SHEET 46 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet I3 PAPERSIZE: 17x11(in.) DATE: 11/1/2021 TIME: 4:55:52 PM USER: ksalay
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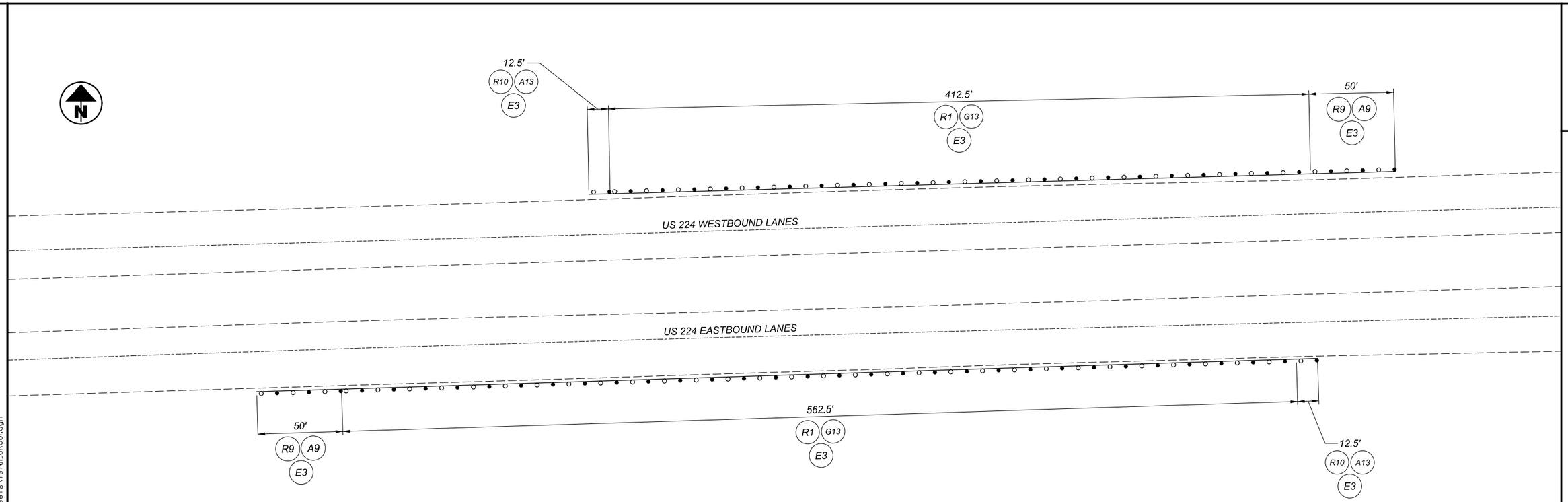

HORIZONTAL SCALE IN FEET
0 15 30 60

GUARDRAIL DETAILS
MED-224-11.92

LABEL	ITEM	QUANTITY (01/NHS/PV)			UNIT	DESCRIPTION
		EB	WB	TOTAL		
R1	202	562.5	412.5	975	FT	GUARDRAIL REMOVED
R9	202	1	1	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E
R10	202	1	1	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T
E2-A	203	5	5	10	CY	EMBANKMENT, AS PER PLAN
E3	209	6.250	4.750	11.000	STA	RESHAPING UNDER GUARDRAIL
G13	606	562.5	412.5	975	FT	GUARDRAIL, TYPE MGS
A9	606	1	1	2	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016
A13	606	1	1	2	EACH	ANCHOR ASSEMBLY, MGS TYPE T
M4	626	7	5	12	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL

ALL QUANTITIES CARRIED TO GUARDRAIL SUB-SUMMARY

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER
JLL
REVIEWER
ACM 6-24-21
PROJECT ID
79761
SHEET 47 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet 14 PAPERSIZE: 17x11(in.) DATE: 7/12/2021 TIME: 12:55:30 PM USER: jlowery
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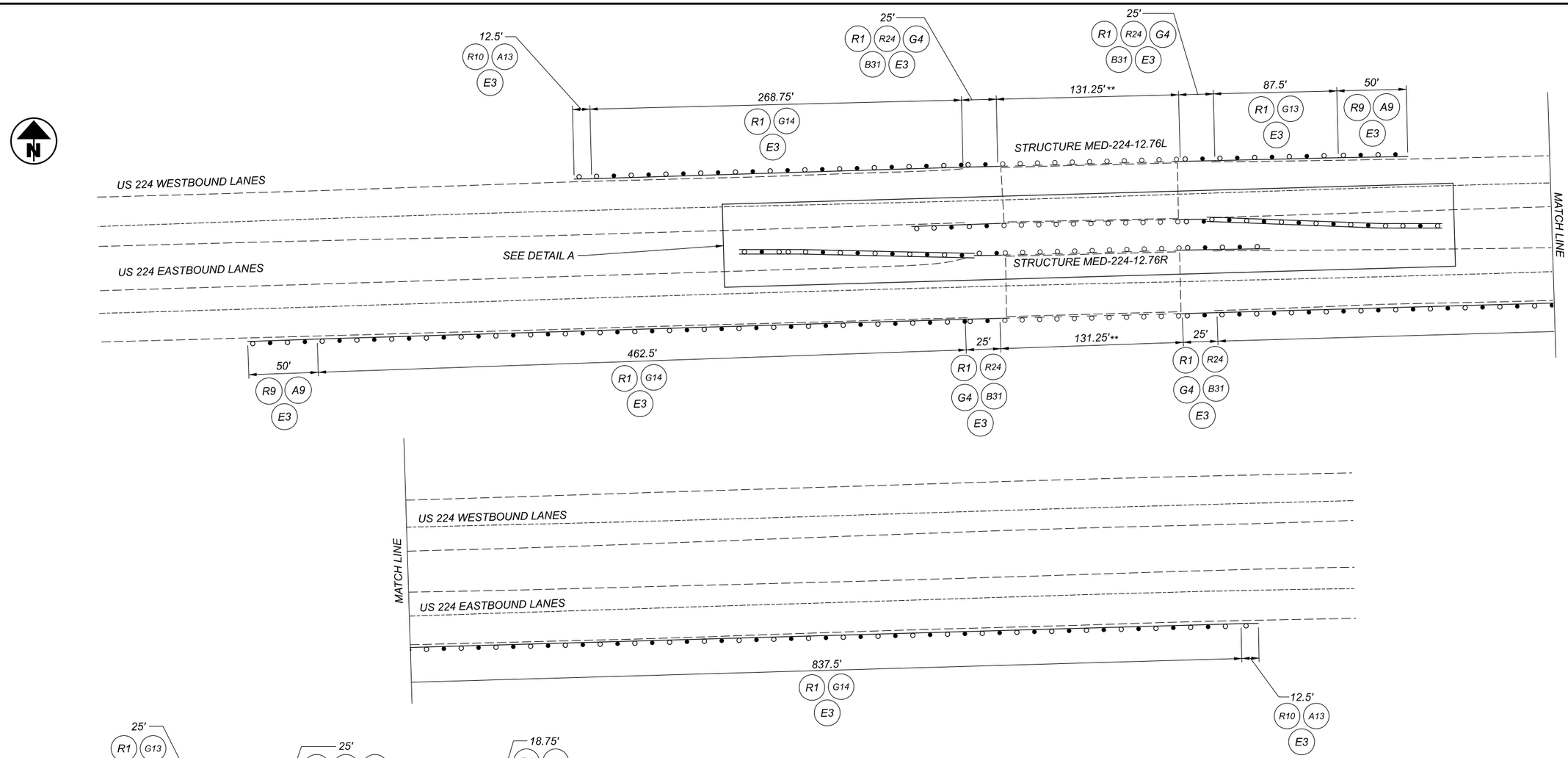

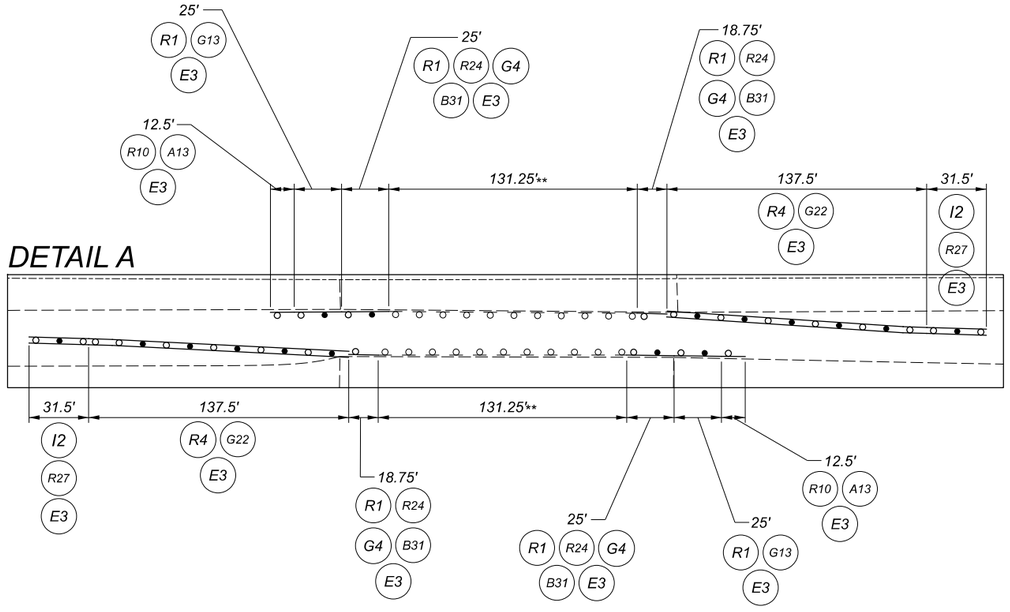

NOTES:
**DEEP BEAM BRIDGE RAIL WITH TUBULAR BACKUP

LABEL	ITEM	QUANTITY (01/NHS/PV)				UNIT	DESCRIPTION
		EB	WB	MEDIAN	TOTAL		
R1	202	1,350	406.25	137.5	1,893.75	FT	GUARDRAIL REMOVED
R4	202			275	275	FT	GUARDRAIL REMOVED, BARRIER DESIGN
R9	202	1	1		2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E
R10	202	1	1	2	4	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T
R24	202	2	2	4	8	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED
R27	202			2	2	EACH	IMPACT ATTENUATOR REMOVED
E2-A	203	15	5	5	25	CY	EMBANKMENT, AS PER PLAN
E3	209	14.125	4.688	5.005	23.818	STA	RESHAPING UNDER GUARDRAIL
G4	606	50	50	87.5	187.5	FT	GUARDRAIL, TYPE 5
G13	606		87.5	50	137.5	FT	GUARDRAIL, TYPE MGS
G14	606	1,300	268.75		1,568.75	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS
G22	606			275	275	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS
A9	606	1	1		2	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016
A13	606	1	1	2	4	EACH	ANCHOR ASSEMBLY, MGS TYPE T
B31	606	2	2	4	8	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4
I2	606			2	2	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)
M4	626	15	5	6	26	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL

ALL QUANTITIES CARRIED TO GUARDRAIL SUB-SUMMARY

HORIZONTAL SCALE IN FEET
0 20 40 80

GUARDRAIL DETAILS
MED-224-12.76

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER JLL
REVIEWER ACM 6-24-21
PROJECT ID 79761
SHEET 48 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet 15 PAPERSIZE: 17x11(in.) DATE: 11/1/2021 TIME: 4:56:58 PM USER: kalay
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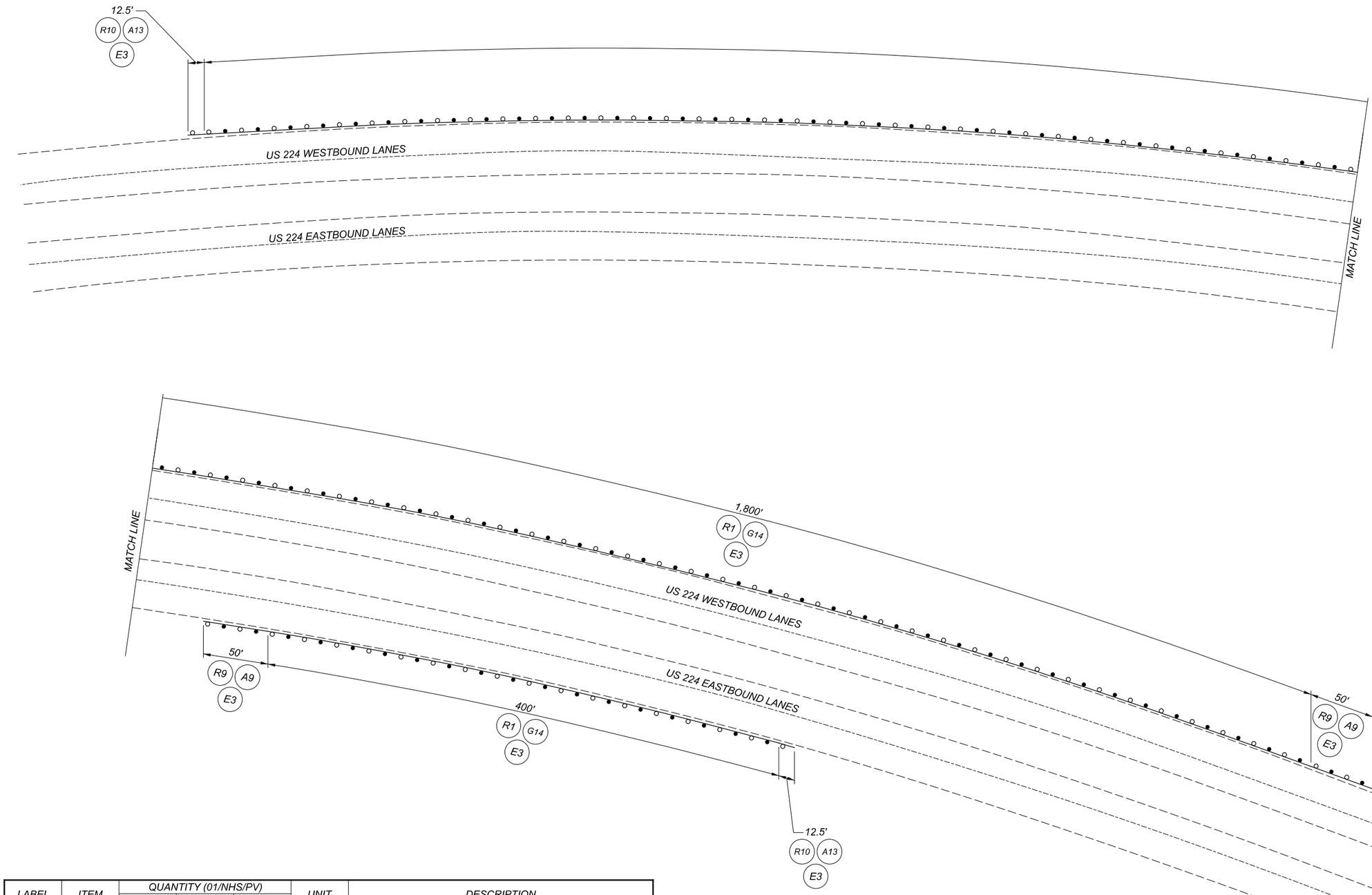

LABEL	ITEM	QUANTITY (01/NHS/PV)			UNIT	DESCRIPTION
		EB	WB	TOTAL		
R1	202	400	1,800	2,200	FT	GUARDRAIL REMOVED
R9	202	1	1	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E
R10	202	1	1	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T
E2-A	203	5	20	25	CY	EMBANKMENT, AS PER PLAN
E3	209	4.625	18.625	23.250	STA	RESHAPING UNDER GUARDRAIL
G14	606	400	1,800	2,200	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS
A9	606	1	1	2	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016
A13	606	1	1	2	EACH	ANCHOR ASSEMBLY, MGS TYPE T
M4	626	5	19	24	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL

ALL QUANTITIES CARRIED TO GUARDRAIL SUB-SUMMARY

HORIZONTAL SCALE IN FEET
0 20 40 80

GUARDRAIL DETAILS
MED-224-14.43

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
ACM 6-24-21

PROJECT ID
79761

SHEET 49 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet 16 PAPERSIZE: 17x11(in.) DATE: 11/1/2021 TIME: 4:57:46 PM USER: kalay
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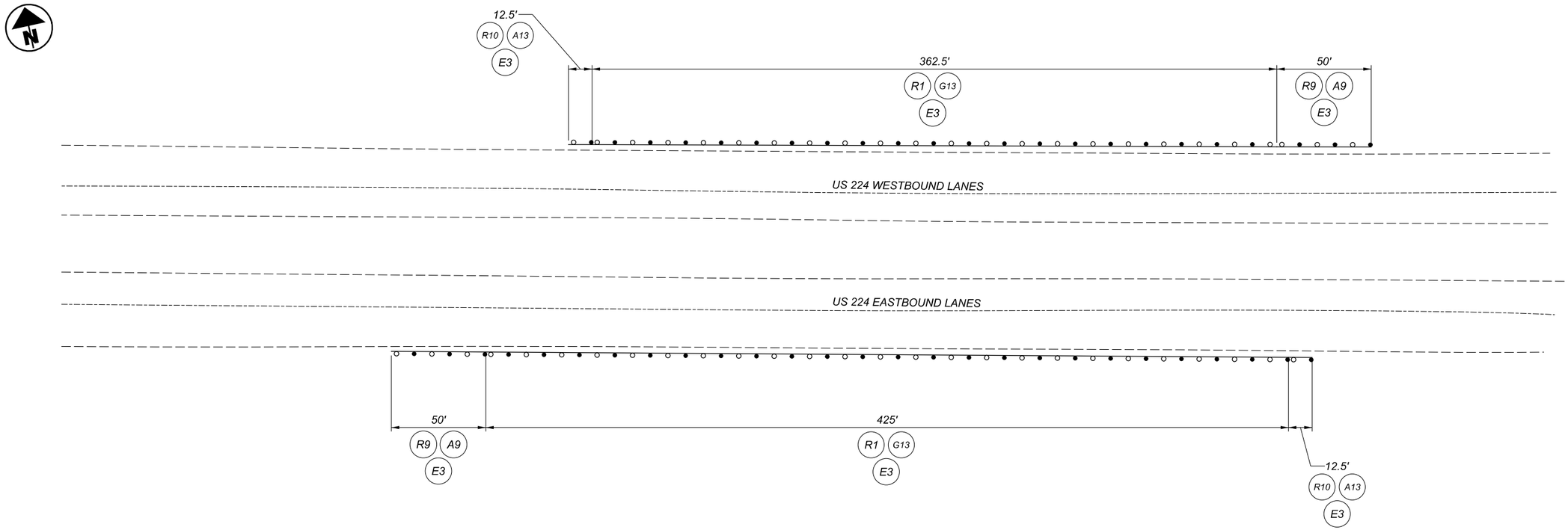

LABEL	ITEM	QUANTITY (01/NHS/PV)			UNIT	DESCRIPTION
		EB	WB	TOTAL		
R1	202	425	362.5	787.5	FT	GUARDRAIL REMOVED
R9	202	1	1	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E
R10	202	1	1	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T
E2-A	203	5	5	10	CY	EMBANKMENT, AS PER PLAN
E3	209	4.875	4.250	9.125	STA	RESHAPING UNDER GUARDRAIL
G13	606	425	362.5	787.5	FT	GUARDRAIL, TYPE MGS
A9	606	1	1	2	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016
A13	606	1	1	2	EACH	ANCHOR ASSEMBLY, MGS TYPE T
M4	626	5	5	10	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL

ALL QUANTITIES CARRIED TO GUARDRAIL SUB-SUMMARY

HORIZONTAL SCALE IN FEET
0 15 30 60

GUARDRAIL DETAILS
MED-224-14.70

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
KRB 11-1-2021

PROJECT ID
79761

SHEET 49A | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet 16A PAPERSIZE: 17x11(in.) DATE: 11/1/2021 TIME: 4:58:29 PM USER: ksalay
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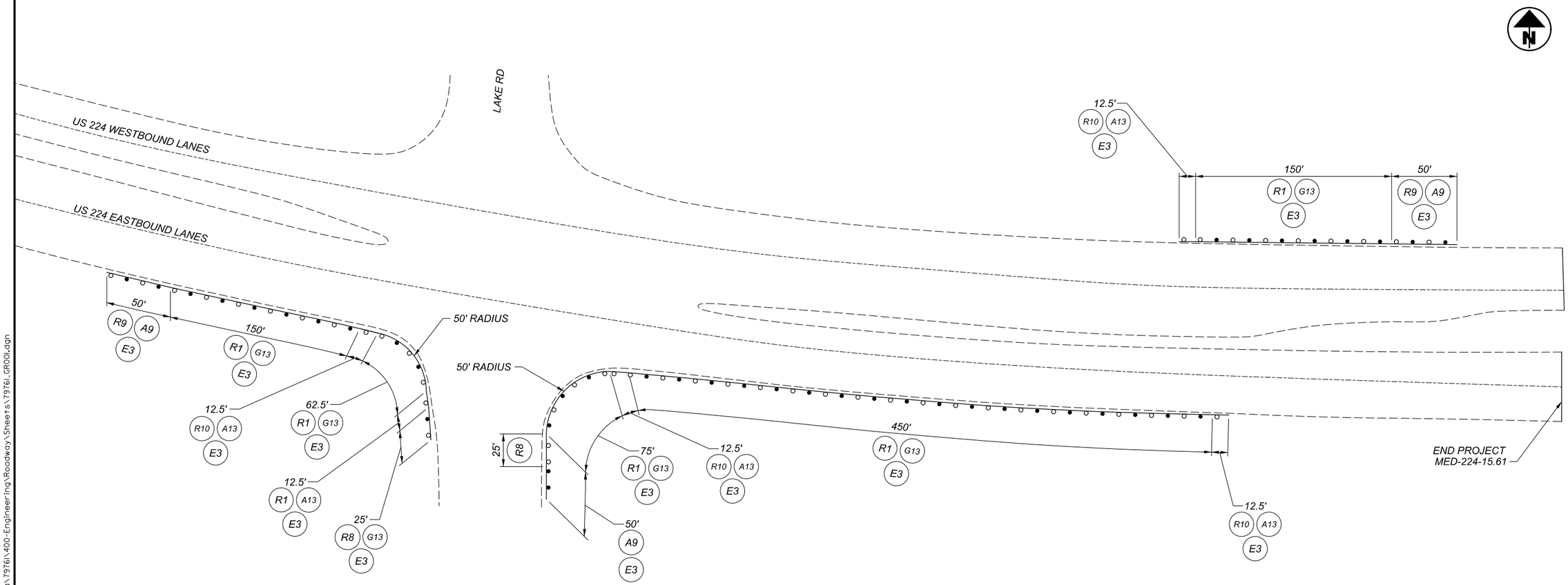

LABEL	ITEM	QUANTITY (01/NHS/PV)			UNIT	DESCRIPTION
		EB	WB	TOTAL		
R1	202	737.5	150	887.5	FT	GUARDRAIL REMOVED
R8	202	2		2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A
R9	202	1	1	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E
R10	202	4	1	5	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T
E2-A	203	10	5	15	CY	EMBANKMENT, AS PER PLAN
E3	209	8.875	2.125	11.000	STA	RESHAPING UNDER GUARDRAIL
G13	606	762.5	150	912.5	FT	GUARDRAIL, TYPE MGS
A9	606	2	1	3	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016
A13	606	4	1	5	EACH	ANCHOR ASSEMBLY, MGS TYPE T
M4	626	9	3	12	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL

ALL QUANTITIES CARRIED TO GUARDRAIL SUB-SUMMARY

HORIZONTAL SCALE IN FEET
0 20 40 80

GUARDRAIL DETAILS
MED-224-15.44

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
ACM 6-24-21

PROJECT ID
79761

SHEET 50 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet 17 PAPERSIZE: 17x11(in.) DATE: 7/12/2021 TIME: 12:55:31 PM USER: jlowery
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AUXILIARY & LONG LINE MARKINGS

PLAN SPLIT	COUNTY	ROUTE	STATION / SLM FROM	STATION / SLM TO	HIGHWAY MILES	DESCRIPTION	614 WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	614 WORK ZONE CENTER LINE, CLASS III, 642 PAINT	614 WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	614 WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	614 WORK ZONE STOP LINE, CLASS III, 642 PAINT	642 REMOVAL OF PAVEMENT MARKING (EXISTING EDGE LINE)	644 REMOVAL OF PAVEMENT MARKING (EXISTING STOP LINE)	644 REMOVAL OF PAVEMENT MARKING (EXISTING LANE ARROW)	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (WHITE)	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (YELLOW)	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CENTER LINE	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 8"	850 GROOVING FOR 4" RECESSED PAVEMENT MARKINGS, ASPHALT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKINGS, ASPHALT	850 GROOVING FOR 8" RECESSED PAVEMENT MARKINGS, ASPHALT	644 AUXILIARY MARKINGS (740.04) STOP LINE 24"	644 TRANSVERSE/ DIAGONAL LINE (WHITE) 24"	644 TRANSVERSE/ DIAGONAL LINE (YELLOW) 24"	644 LANE ARROW LEFT	644 LANE ARROW RIGHT	644 WRONG WAY ARROW	644 SPEED MEASUREMENT MARKING	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (WHITE)	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (YELLOW)	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, CENTER LINE	850 GROOVING FOR 4" RECESSED PAVEMENT MARKINGS, CONCRETE	850 GROOVING FOR 6" RECESSED PAVEMENT MARKINGS, CONCRETE
			MILE	MILE	MILE		MILE	MILE	MILE	FT	FT	MILE	FT	EACH	MILE	MILE	MILE	MILE	FT	MILE	MILE	FT	FT	FT	FT	EACH	EACH	EACH	EACH	MILE	MILE	MILE	MILE	MILE	MILE
02/STR/PV	MED	42	1.89	2.78	0.89	TWO-LANE PAVEMENT MARKINGS		2.67		945															63	159	254		2								
05/SAF/OT															1.78			0.89	315	1.78	1.78	315													
02/STR/PV	MED	42	2.78	3.06	0.28	NORTHBOUND LONG LINE MARKINGS	0.84		1.68			0.56																							
01/NHS/PV			3.06	6.91	3.85		11.55		23.10	312		7.70																						
05/SAF/OT			2.78	6.91	4.13										4.13	4.13	4.13		104		12.39	104												
02/STR/PV	MED	42	2.78	3.06	0.28	SOUTHBOUND LONG LINE MARKINGS	0.84		1.68			0.56																							
01/NHS/PV			3.06	6.91	3.85		11.55		23.10	306		7.70																						
05/SAF/OT			2.78	6.91	4.13										4.13	4.13	4.13		102		12.39	102												
01/NHS/PV			3.06	6.91	3.85	FOUR-LANE AUXILIARY MARKINGS					108		108	8									108			8			2					
01/NHS/PV	MED	42	3.11	3.29	0.18	SB EXIT RAMP AT US 224 (RAMP A1)			0.54	2,367														104				2						
05/SAF/OT															0.09	0.09			789		0.18	789												
01/NHS/PV	MED	42	3.11	3.14	0.03	SB EXIT RAMP AT SR 421 (RAMP A1B)			0.12		90												30											
05/SAF/OT															0.02	0.02					0.04													
01/NHS/PV	MED	42	2.88	3.11	0.23	NB EXIT RAMP AT US 224/SR 421 (RAMP D1)	0.09		1.02	555	102												34	107				2						
05/SAF/OT															0.17	0.17	0.03		185		0.37	185												
02/STR/PV	MED	42	6.80	6.88	0.08	SB ENTRANCE RAMP AT US 42 (RAMP A2)	0.18		0.93	300																								
05/SAF/OT															0.15	0.16	0.06		100		0.37	100												
01/NHS/PV	MED	42	6.82	7.12	0.30	NB EXIT RAMP AT US 42 (RAMP C2)	0.09		1.23	627														61				2						
05/SAF/OT															0.21	0.20	0.03		209		0.44	209												
02/STR/PV	MED	42	7.08	7.12	0.04	NB EXIT RAMP AT SR 421 (RAMP C2B)			0.12		45												15											
05/SAF/OT															0.02	0.02					0.04													
02/STR/PV	MED	42	6.88	7.24	0.36	SB ENTRANCE RAMP AT US 42 (RAMP E2)	0.18		0.42	342																								
05/SAF/OT															0.07	0.07	0.06		114		0.20	114												
05/SAF/OT	CONCRETE BRIDGE DECKS														-0.38	-0.29	-0.33	-0.04		-0.08	-1.00									0.38	0.29	0.33	0.04	0.08	1.00
SUBTOTAL (01/NHS/PV)							23.28		49.11	4,167	300	15.40	108	8									172	272		8		6	2						
SUBTOTAL (02/STR/PV)							2.04	2.67	4.83	1,587	45	1.12											78	159	254		2								
SUBTOTAL (05/SAF/OT)															10.39	8.70	8.11	0.85	1,918	1.70	27.20	1,918								0.38	0.29	0.33	0.04	0.08	1.00
TOTALS TO GENERAL SUMMARY							**25.32**	**2.67**	**53.94**	**5,754**	**345**	**16.52**	**108**	**8**	**10.39**	**8.70**	**8.11**	**0.85**	**1,918**	**1.70**	**27.20**	**1,918**	**250**	**431**	**254**	**8**	**2**	**6**	**2**	**0.38**	**0.29**	**0.33**	**0.04**	**0.08**	**1.00**

PAVEMENT MARKING SUB-SUMMARY
MED-42

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER JLL

REVIEWER KRB 6-30-21

PROJECT ID 79761

SHEET 51 TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: MED-42_PM PAPERSIZE: 17x11(in.) DATE: 11/24/2021 TIME: 11:28:26 AM USER: ksaloy
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AUXILIARY & LONG LINE MARKINGS

PLAN SPLIT	COUNTY	ROUTE	STATION / SLM FROM	STATION / SLM TO	HIGHWAY MILES MILE	DESCRIPTION	614 WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT MILE	614 WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT MILE	614 WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT FT	614 WORK ZONE STOP LINE, CLASS III, 642 PAINT FT	642 REMOVAL OF PAVEMENT MARKING (EXISTING EDGE LINE) MILE	644 REMOVAL OF PAVEMENT MARKING (EXISTING STOP LINE) FT	644 REMOVAL OF PAVEMENT MARKING (EXISTING LANE ARROW) EACH	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (WHITE) MILE	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) MILE	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6" MILE	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 8" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6" FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKINGS, ASPHALT MILE	850 GROOVING FOR 8" RECESSED PAVEMENT MARKINGS, ASPHALT FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKINGS, ASPHALT FT	644 AUXILIARY MARKINGS (740.04) STOP LINE 24" FT	644 TRANSVERSE/ DIAGONAL LINE (WHITE) 24" FT	644 TRANSVERSE/ DIAGONAL LINE (YELLOW) 24" FT	644 LANE ARROW LEFT EACH	644 LANE ARROW RIGHT EACH	644 WRONG WAY ARROW EACH	646 AUXILIARY MARKINGS (740.07) STOP LINE 24" FT	646 ISLAND MARKING SQ FT	646 LANE ARROW LEFT EACH	646 LANE ARROW RIGHT EACH	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (WHITE) MILE	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) MILE	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6" MILE	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 8" FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKINGS, CONCRETE MILE	850 GROOVING FOR 8" RECESSED PAVEMENT MARKINGS, CONCRETE FT
01/NHS/PV	MED	224	10.45	15.30	4.85	EASTBOUND LONG LINE MARKINGS	14.55	29.10	3,975		9.70																											
05/SAF/OT														4.85	4.85	4.85	1,325	716	14.55	1,325	716																	
01/NHS/PV						WESTBOUND LONG LINE MARKINGS	14.55	29.10	3,987		9.70																											
05/SAF/OT														4.85	4.85	4.85	1,329	739	14.55	1,329	739																	
01/NHS/PV						FOUR-LANE AUXILIARY MARKINGS				524		320	32									320		20	23	9												
01/NHS/PV	MED	224	15.30	15.61	0.31	EASTBOUND MARKINGS (CONCRETE SECTION)	0.20	0.30	400	25																			51	24	5	5						
05/SAF/OT																																	0.31	0.31	0.40	885	1.02	885
01/NHS/PV						WESTBOUND MARKINGS (CONCRETE SECTION)	0.10	0.30	800	30																			62		10	5						
05/SAF/OT																																	0.31	0.31	0.19	1,667	0.81	1,667
01/NHS/PV	MED	224	6.37	6.60	0.23	EB RAMP TO US 42 NB (RAMP B1)	0.36	1.05	576														52															
05/SAF/OT														0.17	0.18	0.12	192		0.47	192																	
01/NHS/PV	MED	224	6.42	6.45	0.03	WB RAMP TO US 42 NB (RAMP B1B)		0.21																														
05/SAF/OT														0.03	0.04				0.07																		
01/NHS/PV	MED	224	6.25	6.34	0.09	EB RAMP TO US 42 SB (RAMP C1)	0.06	0.54	894														69															
05/SAF/OT														0.09	0.09	0.02	298		0.20	298																	
01/NHS/PV	MED	224	6.32	6.33	0.01	WB RAMP TO US 42 SB (RAMP C1B)		0.15																														
05/SAF/OT														0.02	0.03				0.05																		
01/NHS/PV	MED	224	10.45	10.74	0.29	EB ENTRANCE RAMP AT SR 421 (RAMP B2)	0.06	1.62	138																													
05/SAF/OT														0.27	0.27	0.02	46		0.56	46																	
01/NHS/PV	MED	224	10.45	10.66	0.21	WB EXIT RAMP AT US 42 (RAMP D2)	0.03	0.54	774	114												38	75				2										
05/SAF/OT														0.09	0.09	0.01	258		0.19	258																	
05/SAF/OT						CONCRETE BRIDGE DECKS								-0.07	-0.07	-0.07			-0.21																0.07	0.07	0.07		0.21	
						SUBTOTAL (01/NHS/PV)	29.91	62.91	11,544	693	19.40	320	32									358	196	20	23	9	2	113	24	15	10								
						SUBTOTAL (05/SAF/OT)								10.30	10.33	9.80	3,448	1,455	30.43	3,448	1,455														0.69	0.69	0.66	2,552	2.04	2,552
						TOTALS TO GENERAL SUMMARY	**29.91**	**62.91**	**11,544**	**693**	**19.40**	**320**	**32**	**10.30**	**10.33**	**9.80**	**3,448**	**1,455**	**30.43**	**3,448**	**1,455**	**358**	**196**	**20**	**23**	**9**	**2**	**113**	**24**	**15**	**10**	**0.69**	**0.69**	**0.66**	**2,552**	**2.04**	**2,552**

PAVEMENT MARKING SUB-SUMMARY
MED-224

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
KRB 6-30-21

PROJECT ID
79761

SHEET 52 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: MED-224_PM PAPERSIZE: 17x11(in.) DATE: 11/24/2021 TIME: 11:28:56 AM USER: ksalay
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RAISED PAVEMENT MARKERS

PLAN SPLIT	COUNTY	ROUTE	STATION/SLM FROM	STATION/SLM TO	DETAIL	621 RAISED PAVEMENT MARKER REMOVED EACH	621 RPM EACH	PRISMATIC RETRO-REFLECTOR TYPES ONE-WAY WHITE EACH	TWO-WAY YELLOW / YELLOW	TWO-WAY WHITE / RED	TWO-WAY YELLOW / RED	TWO-WAY BLUE / BLUE	REMARKS
02/STR/PV	MED	42	1.89	2.78	GAP	66	65		58	7			CONTINUOUS ROUTE TREATMENT/RT. LANE @ LODI RD
02/STR/PV	MED	42	2.78	3.01	10	136	132	64	12	14	42		2-4 LANE TRANSITION
02/STR/PV	MED	42	3.01	3.06	5	7	7			7			4-LANE DIVIDED
01/NHS/PV	MED	42	3.06	6.91	5	509	494			494			4-LANE DIVIDED
01/NHS/PV	MED	42	3.10	3.11	2/3	162	162	148			14		INTERCHANGE @ US 224/SR 421 (SOUTH JUNCTION)
02/STR/PV	MED	42	6.91	6.92	2/3	132	132	118			14		INTERCHANGE @ US 224/SR 421 (NORTH JUNCTION)
01/NHS/PV	MED	224	6.25	6.60	GAP	23	23		23				CONTINUOUS ROUTE TREATMENT
01/NHS/PV	MED	224	10.45	15.30	5	720	717	717					4-LANE DIVIDED
SUBTOTAL (01/NHS/PV)						1,414	1,396						
SUBTOTAL (02/STR/PV)						341	336						
TOTALS TO GENERAL SUMMARY						**1,755**	**1,732**						

DETAIL	DESCRIPTION
1	MULTILANE UNDIVIDED TYPICAL SPACING
2	TAPERED ACCEL. LANE
3	DECELERATION LANE
4	PARALLEL ACCEL LANE
5	MULTILANE DIVIDED/EXPRESSWAY
6	STOP APPROACH
7	2 LANE APPR. WITH TURN LANE
8	THROUGH APPROACH
9	3 LANE APPR. WITH TURN LANE
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.
17	STOP APPROACH ALT.
18	FIRE HYDRANT
GAP	CENTER LINE AT 80 FT. TYP.

NOTES:

1) THRU LANES SHALL BE STRIPED AT 12' WIDTHS.

2) FOR ALL WORK ZONE MARKINGS, THE 642 PAINT USED SHALL BE TYPE 1.

3) WORK ZONE STOP LINES SHALL BE INSTALLED AT THE FOLLOWING LOCATIONS:
- RAMP A1B
- RAMP D1
- RAMP C2B
- RAMP D2

4) INSTALL WRONG WAY ARROW MARKINGS AT EXIT RAMPS ACCORDING TO STANDARD CONSTRUCTION DRAWING TC-73.20.

5) REMOVE RPMs ON BRIDGE DECKS. DO NOT INSTALL RPMs ON BRIDGE DECK OR APPROACH SLABS.

RPM SUB-SUMMARY

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: RPMs PAPERSIZE: 17x11 (in.) DATE: 7/12/2021 TIME: 12:55:39 PM USER: jlowery
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DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER
JLL

REVIEWER
ACM 6-24-21

PROJECT ID
79761

SHEET 53 TOTAL 79

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-15 (REVISED 7/7/2015)
DBR-2-73 (REVISED 7/19/2002)
DBR-3-11 (REVISED 7/15/2011)
EXJ-4-87 (REVISED 1/19/2018)

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

800 DATED 4/16/2021
832 DATED 10/19/2018
848 DATED 1/15/2021

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE WORK CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017 AND THE ODOT BRIDGE DESIGN MANUAL.

EXISTING PLANS

THE FOLLOWING EXISTING PLANS MAY BE INSPECTED IN THE ODOT DISTRICT 3 OFFICE IN ASHLAND, OHIO.

STRUCTURE	PLAN NAME	DATE
MED-42-2.61	MED-42-1.89/MED-224-10.45 MED-42-1.89	1989 1956
MED-42-3.10 L/R		
MED-42-4.60 L/R		
MED-42-5.39 L/R		
MED-42-5.89 L/R		
MED-42-7.14		
MED-83-4.36		
MED-224-12.76 L/R	MED-42-1.89/MED-224-10.45 MED-224-10.67	1989 1962

DECK PROTECTION METHOD

MICRO SILICA MODIFIED CONCRETE OVERLAY
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.

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.

IN-STREAM WORK RESTRICTION

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID CONSTRUCTION IN AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING STREAMS OR WETLANDS. ANY MATERIAL THAT DOES FALL INTO STREAMS OR WETLANDS SHALL BE REMOVED AS SOON AS POSSIBLE.

ALL PROJECTS INVOLVING JURISDICTIONAL WATERS OF THE UNITED STATES (STREAMS, RIVERS, NON-ISOLATED WETLANDS) AND/OR ISOLATED WETLANDS ARE SUBJECT TO REGULATION UNDER SECTIONS 404 AND 401 OF THE CLEAN WATER ACT, AND POSSIBLY OHIO EPA ISOLATED WETLAND LAW. IT IS ANTICIPATED THAT NO IN-STREAM WORK, OR WORK UNDER THE STREAM'S ORDINARY HIGH WATER MARK (OHWM) WILL BE NEEDED. THEREFORE NO WATERWAY PERMITS HAVE BEEN GRANTED AND NO IN-STREAM WORK IS ALLOWED.

SHOULD WORK (EITHER TEMPORARY OR PERMANENT) IN THE STREAM BE NEEDED; IT WILL REQUIRE A PERMIT AND AUTHORIZATION BY THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE). THE CONTRACTOR SHALL NOT UTILIZE FILLS BELOW OHWM UNTIL SUCH ACTIVITY IS AUTHORIZED BY THE USACE. DETAILS OF THIS REQUIREMENT ARE DESCRIBED IN ODOT'S SUPPLEMENTAL SPECIFICATION 832.09.

USACE DEFINITION OF OHWM – THE ORDINARY HIGH WATER MARK IS THE LINE ON THE SHORES ESTABLISHED BY THE FLUCTUATIONS OF WATER AND INDICATED BY PHYSICAL CHARACTERISTICS SUCH AS A CLEAR, NATURAL LINE IMPRESSED ON THE BANKS; SHELVING; CHANGES IN THE CHARACTER OF THE SOIL; DESTRUCTION OF TERRESTRIAL VEGETATION; THE PRESENCE OF LITTER AND DEBRIS; OR THE APPROPROATE MEANS THAT CONSIDER THE CHARACTERISTICS OF THE SURROUNDING AREAS.

EXISTING REINFORCING STEEL

EXISTING REINFORCING STEEL, WHEN SHOWN, IS DETAILED FOR REPRESENTATION PURPOSES ONLY. IT IS NOT DETAILED TO SCALE. WHEN PERFORMING ALL REPAIR OR PATCHING WORK, TAKE UTMOST CARE TO NOT DAMAGE THE EXISTING REINFORCING STEEL. SHOULD THE EXISTING REINFORCING STEEL BE DAMAGED IN THE COURSE OF PERFORMING THE WORK, REPLACE THE DAMAGED STEEL AT NO COST TO THE DEPARTMENT. COST FOR THE ABOVE WORK WILL BE CONSIDERED INCIDENTAL TO THE APPROPRIATE REPAIR OR PATCHING ITEM.

PLACING ASPHALT CONCRETE FEATHERING ON APPROACHES TO BRIDGES

SPECIAL CARE SHALL BE TAKEN WHEN PLACING THE ASPHALT CONCRETE BUTT JOINT TO CREATE A SMOOTH TRANSITION FROM THE EXISTING APPROACH PAVEMENT TO THE BRIDGE DECK OR APPROACH SLAB. THE CONTRACTOR'S ATTENTION IS CALLED TO STANDARD DRAWING BP-3.1 FOR REQUIRED TOLERANCES.

PAVING AT STRUCTURES

STRUCTURES MED-42-2.47, MED-42-3.10 L/R, MED-42-4.60 L/R, MED-42-5.39 L/R, MED-42-5.89 L/R, MED-224-12.76 L/R
SUSPEND AND RESUME PAVING AT CONCRETE BRIDGE DECK AND APPROACH SLABS.

STRUCTURE MED-42-2.61
SUSPEND AND RESUME PAVING AT CONCRETE BRIDGE DECK. PLANE EXISTING ASPHALT (VARIABLE DEPTH) AND PAVE 1.5" SURFACE COURSE ONLY ON THE APPROACH SLABS. TAPER THE PLANING FROM 3.25" TO 1.50" IN 50' TO THE APPROACH SLABS.

STRUCTURES MED-42-3.21, MED-42-4.32, MED-83-4.36, MED-42-7.14
PLANE AND PAVE SAME AS ROADWAY UNDERNEATH STRUCTURE TO MAINTAIN EXISTING VERTICAL CLEARANCE.

AT STRUCTURE MED-42-3.21 (UNDER CSX), THE CONTRACTOR SHALL PROVIDE CSX WITH VERTICAL CLEARANCE MEASUREMENTS BEFORE ALL PAVING OPERATIONS UNDER THE BRIDGE BEGIN AND AFTER ALL PAVING OPERATIONS UNDER THE BRIDGE ARE COMPLETED.

ITEM 202 – PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE, OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. PRIOR TO THE CONCRETE PLACEMENT, ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSR AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRE, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. FIELD COAT EXPOSED EXISTING REINFORCING STEEL WITH EPOXY. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID PER CUBIC YARD OF ITEM 202 – PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

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 ENGINEER'S 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 AND REINSTALLATION OF BRIDGE MOUNTED SIGNS SHALL BE INCIDENTAL. 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 202 – REMOVAL MISC.: JOINT SEALER

THIS ITEM SHALL BE USED TO REMOVE THE EXISTING JOINT SEALER LOCATED BETWEEN THE APPROACH SLAB AND THE DECK OR BACKWALL.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR THE ABOVE ITEM, WHICH WILL INCLUDE ALL LABOR EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE 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 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.

STRUCTURE NOTES
NOTES APPLYING TO ALL STRUCTURES LOCATED ON THIS PROJECT

SFN
VARIOUS

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO

DESIGNER	CHECKER
JLL	KRB

REVIEWER
KAK 7-6-21

PROJECT ID
79761

SUBSET	TOTAL
1	2

SHEET	TOTAL
54	79

MODEL: Sheet1 PAPERSIZE: 17x11 (in.) DATE: 10/29/2021 TIME: 12:03:43 PM USER: ksalley
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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-COAED 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 511 – CLASS QC1 CONCRETE, ABUTMENT, AS PER PLAN (RECONSTRUCTION)
ITEM 511 – CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN (RECONSTRUCTION)

THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLANS.

THE COARSE AGGREGATE SHALL BE LIMESTONE.

ALL EXISTNG SURFACES WITH WHICH THE CONCRETE IS TO BOND SHALL BE CLEANED BY ABRASIVE BLASTING. THESE SURFACES SHALL BE MADE FREE OF SPALLS, LAITANCE, PAINT, RUST, AND OTHER CONTAMINANTS DETRIMENTAL TO ACHIEVING AN ADEQUATE BOND.

PAYMENT FOR THE ABOVE SHALL BE MADE AT THE UNIT PRICE PER CUBIC YARD FOR THE ABOVE LISTED ITEMS 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 THE 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 UNLES SSEPARATELY ITEMIZED IN THESE PLANS.

ITEM 516 – STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN

THIS ITEM SHALL BE USED ON STRUCTURES MED-42-7.14 AND MED-224-12.76R. THE WORK INVOLVES TRIMMING EXISTING CROSSFRAME CHANNEL AS NEEDED FOR PROPOSED MC 12X45 CHANNELS TO BE WELDED TO EXISTING PLATES. SEE DETAILS ON SHEET 59.

PAYMENT FOR ALL THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR THE ABOVE ITEM WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 516 – REFURBISH BEARING DEVICE, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS AS WELL AS THEIR CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARINGS, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514, REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARING PADS (C&MS 711.21), INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60° f, LUBRICATING SLIDING SURFACES, AND REASSEMBLY OF THE BEARINGS. ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING." THIS ITEM SHALL INCLUDE PAINTING OF THE FINISH COAT TO MATCH THE EXISTING COLOR, TO THE SATISFACTION OF THE ENGINEER. AT NO ADDITIONAL COST TO THE STATE, THE CONTRACTOR MAY INSTALL NEW BEARINGS OF THE SAME TYPE AS THE EXISTING IN PLACE OF REFURBISHING THE BEARINGS. ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL OF THE ABOVE DESCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516 – REFURBISH BEARING DEVICE, AS PER PLAN.

ITEM 516 – JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

THIS WORK CONSISTS OF THE FOLLOWING:

- RAISING OR REPOSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS – BEARING RESETS (MED-42-2.61, MED-42-3.10 L/R, MED-42-5.89 L/R, MED-224-12.76 L/R)

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH C&MS 501.05. THE CONTRACTOR SHALL PREPARE ALL TEMPORARY SUPPORT PLANS, JACKING PLANS, AND CONSTRUCTION SEQUENCES ASSOCIATED WITH THE ABOVE DESCRIBED WORK. MAIN LOAD CARRYING MEMBERS SHALL BE ADEQUATELY SUPPORTED DURING CONSTRUCTION OPERATIONS SUCH THAT THE EXISTING STRUCTURE SHALL INCUR NO DAMAGE.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATEFROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOCY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT MPAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516 – JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

ITEM 517 – RAILING, MISC.: DEEP BEAM RAILING PANELS

THIS ITEM SHALL INCLUDE THE REMOVAL AND REPLACEMENT OF THE EXISTING DEEP BEAM RAILING PANELS. THE REMOVAL AND REPLACEMENT OF ALL BOLTS AND HARDWARE NECESSARY TO PERFORM THIS WORK SHALL BE INCLUDED IN THIS ITEM. THE EXISTING TUBULAR BACKUP IS TO BE RETAINED. THE RAIL ELEMENTS SHALL BE OF THE SAME TYPE AND SIZE AS THE EXISTING RAILING. THEY SHALL BE PLACED IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING DBR-2-73.

ITEM 519 – SPECIAL - COMPOSITE FIBER WRAP SYSTEM

THIS ITEM SHALL BE USED WHERE DECK EDGE REPAIRS ARE PERFORMED ON STRUCTURES PASSING OVER ROADWAYS. 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 623 – CONSTRUCTION LAYOUT STAKES, AS PER PLAN

AFTER COMPLETION OF ALL WORK, BUT PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, AN OHIO PROFESSIONAL SURVEYOR SHALL DETERMINE THE MINIMUM VERTICAL CLEARANCES OF ALL EXISTING AND NEW BRIDGES WITHIN THE PROJECT LIMITS. AT A MINIMUM, MEASUREMENTS SHALL BE TAKEN ALONG EACH FASCIA BEAM AT THE EDHE OF SHOULDERS, EDGE LINES, LANE LINES, AND CROWN OF THE ROADWAY BELOW. THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURBEY FORM SHALL BE USED, WHERE APPLICABLE, TO DOCUMENT THE MEASUREMENTS. WHERE THE OFOT DISTRICT 12 VERTICAL CLEARANCESURVEY FORM IS NOT APPLICABLE, THE MEASUREMENTS SHALL BE DOCUMENTED ON A CONTRACTOR-DEVELOPED FORM THAT CLOSELY RESEMBES THE ODOT DISTRICT 12 VERTIVAL CLEARANCE SURVEY FORM AND ACCURATELY DEPICTS THE BRIDGE AND BELOW LANE AND SHOULDER CONFIGURATION. THE COMPLETED FORM SHALL BEAR THE STAMP OR SEAL OF THE OHIO ROFESSIONAL SURVEYOR WHO HAS TAKEN THE MEASUREMENTS AND SHALL BE SUBMITTED TO THE PROJECT ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.

THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM CAN BE DOWNLOADED FROM THE FOLLOWING WEBSITE:

HTTP://WWW.DOT.STATE.OH.US/DISTRICTS/D12/HIGHWAYMANAGEMENT/PAGES/PERMITS.ASPX

AT STRUCTURE MED-42-3.21 (UNDER CSX), THE CONTRACTOR SHALL PROVIDE CSX WITH VERTICAL CLEARANCE MEASUREMENTS BEFORE ALL PAVING OPERATIONS UNDER THE BRIDGE BEGIN AND AFTER ALL PAVING OPERATIONS UNDER THE BRIDGE ARE COMPLETED.

ITEM 848 – MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN
ITEM 848 – MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN

EACH ITEM SHALL BE USED AT THE LOCATIONS INDICATED IN THE PLANS.

THE COARSE AGGREGATE SHALL BE LIMESTONE.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID FOR EACH OF THE ABOVE ITEMS WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM SPECIAL – PATCHING CONCRETE BRIDGE DECK – TYPE B

USE THIS ITEM AT THE LOCATIONS INDICATED IN THE PLANS. QUANTITIES SHOWN IN THE PLANS ARE FOR ESTIMATING PURPOSES ONLY. EXACT DIMENSIONS AND LOCATIONS OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER.

SEE PROPOSAL NOTE 512 FOR ADDITIONAL DETAILS.

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

STRUCTURE NOTES
NOTES APPLYING TO ALL STRUCTURES LOCATED ON THIS PROJECT

SFN
VARIOUS
DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER JLL | CHECKER KRB
REVIEWER KAK 7-6-21
PROJECT ID 79761
SUBSET 2 | TOTAL 2
SHEET 55 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)
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ITEM	EXTENSION	QUANTITY													TOTAL	UNIT	DESCRIPTION	REFERENCE SHEET
		MED-42-2.61	MED-42-3.10		MED-42-4.60		MED-42-5.39		MED-42-5.89		MED-42-7.14	MED-83-4.36	MED-224-12.76					
			LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT			LEFT	RIGHT				
202	11301				1	1					12			8	22	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	54
202	32000		52	52											104	FT	CURB REMOVED	
202	32600		100	100								76			276	FT	GUTTER REMOVED	
202	98200		256	256											512	FT	REMOVAL, MISC.: DECK OVERHANG	54
202	98200		66	90	94	94	80	80	94	141			80	88	907	FT	REMOVAL, MISC.: JOINT SEALER	54
509	10001		1,157	1,157											2,314	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	55
509	20001		100	100											200	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCEMENT STEEL, AS PER PLAN	54
511	21521										7			2	9	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN (RECONSTRUCTION)	55
511	45711										5			3	8	CY	CLASS QC1 CONCRETE, ABUTMENT, AS PER PLAN (RECONSTRUCTION)	55
511	46010				1	1								3	5	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING	
511	81100		256	256											512	FT	CONCRETE, MISC.: CLASS QC SCC CONCRETE, BRIDGE DECK, DECK OVERHANG	55
512	10100		138	138							8				284	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
512	10300	32	28	28	26	26	800	800	605	605			28	40	3,018	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
513	21000										10				10	EACH	TRIMMING OF BEAM END	
516	10000									47					47	FT	PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL	
516	11211										104			44	148	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN	55
516	31000		66	90	94	94	80	80	94	94	72		80	88	932	FT	JOINT SEALER	
516	45305	5	4	3					2	2	4		1	5	26	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	55
516	47001	LS	LS	LS					LS	LS	LS		LS	LS	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	55
517	75600	300			238	238	425	425	250	250			262.5	262.5	2,651	FT	DEEP BEAM BRIDGE RETROFIT RAILING	
517	76300	300			238	238	425	425	250	250			262.5	262.5	2,651	FT	RAILING, MISC.: DEEP BEAM RAILING PANELS	55
SPECIAL	519E00100		240	240											480	SF	COMPOSITE FIBER WRAP SYSTEM	55
519	11100		33	38	6	24	28	10		3	141	12	21		316	SF	PATCHING CONCRETE STRUCTURE	
601	21060			18											18	SY	TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT	
601	27000		25	25								21			71	CY	DUMPED ROCK FILL, TYPE C	
848	10001	709	474	644	574	574							558	858	4,391	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (VARIABLE THICKNESS)	55
848	20000	709	474	644	574	574							558	858	4,391	SY	SURFACE PREPARATION USING HYDRODEMOLITION	
848	30001	22	9	13	11	11							17	27	110	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	55
848	50000	40	27	36	32	32							31	48	246	SY	HAND CHIPPING	
848	50100	LS	LS	LS	LS	LS							LS	LS	LS		TEST SLAB	
848	50200		2	4	12	8							2	5	33	CY	FULL DEPTH REPAIR	
848	50320	709	474	644	574	574							558	858	4,391	SY	EXISTING CONCRETE OVERLAY REMOVED (VARIABLE THICKNESS)	
848	50340	398	266	361	322	322							313	481	2,463	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	
SPECIAL	519E12510		12		2	4	18	9					3	7	55	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B	55

STRUCTURE SUMMARY
STRUCTURE SUMMARY FOR ALL STRUCTURES ON THIS PROJECT

SFN
VARIOUS

DESIGN AGENCY
DISTRICT 3

ENGINEERING TEAM TWO

DESIGNER	CHECKER
JLL	KRB

REVIEWER
KAK 7-6-21

PROJECT ID
79761

SUBSET	TOTAL
1	1

SHEET	TOTAL
56	79

MED-42-1.89/MED-224-(6.25)(10.45)

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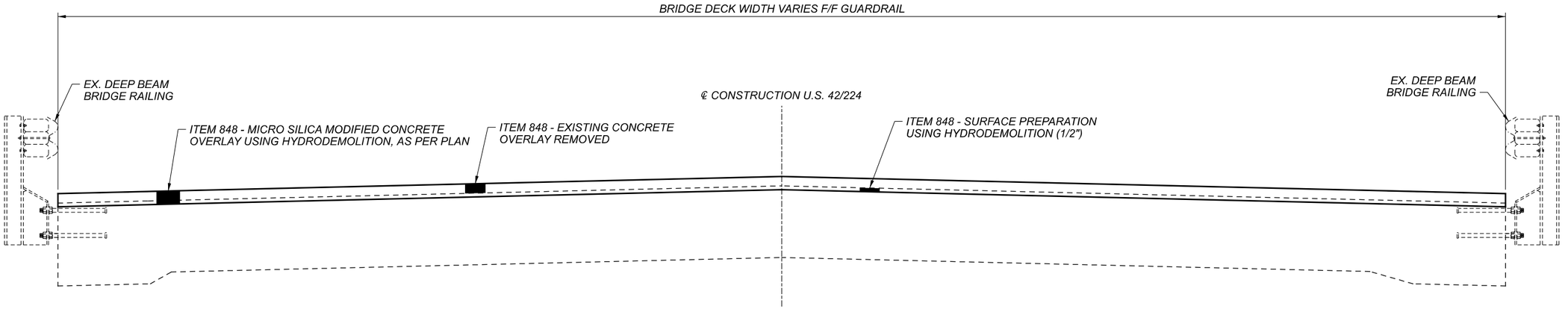
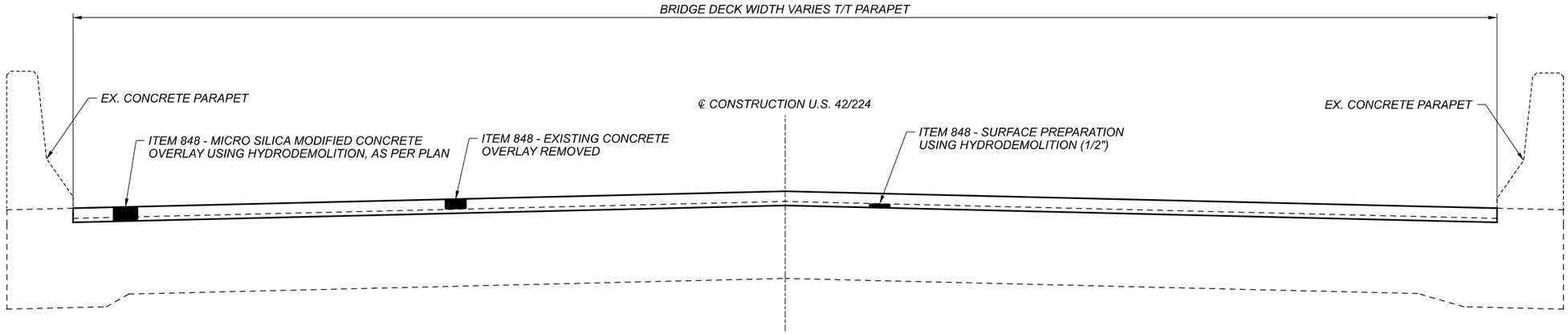


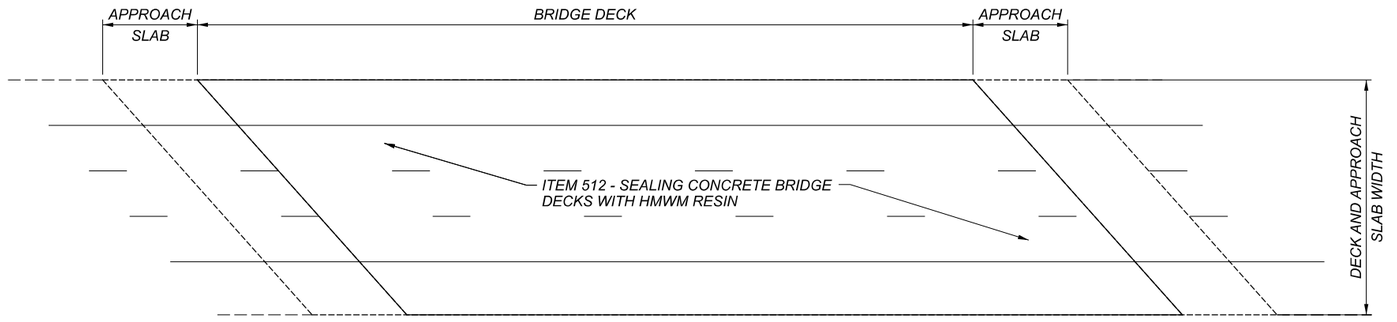
TREATMENT A1

MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN
OVERLAY THE ENTIRE BRIDGE DECK, FROM DECK END TO DECK END, FROM FACE TO FACE BRIDGE RAILING (THICKNESS VARIES BETWEEN STRUCTURES)
QUANTITY DETERMINED AS: BRIDGE DECK LENGTH X F/F BRIDGE RAILING



TREATMENT A2

MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN
OVERLAY THE ENTIRE BRIDGE DECK, FROM DECK END TO DECK END, FROM TOE TO TOE PARAPET (THICKNESS VARIES BETWEEN STRUCTURES)
QUANTITY DETERMINED AS: BRIDGE DECK LENGTH X T/T PARAPET



TREATMENT B

SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN
SEAL THE ENTIRE BRIDGE DECK, FROM DECK END TO DECK END, FACE TO FACE BRIDGE RAILING
QUANTITY DETERMINED AS: BRIDGE DECK LENGTH X F/F BRIDGE RAILING

GENERAL DETAILS
TREATMENTS APPLICABLE TO SEVERAL STRUCTURES WITHIN THE PROJECT LIMITS

SFN	VARIOUS
DESIGN AGENCY	DISTRICT 3
	ENGINEERING TEAM TWO
DESIGNER	ACM
CHECKER	KRB
REVIEWER	KAK 7-6-21
PROJECT ID	79761
SUBSET	1
TOTAL	3
SHEET	57
TOTAL	79

MED-42-1.89/MED-224-(6.25)(10.45)

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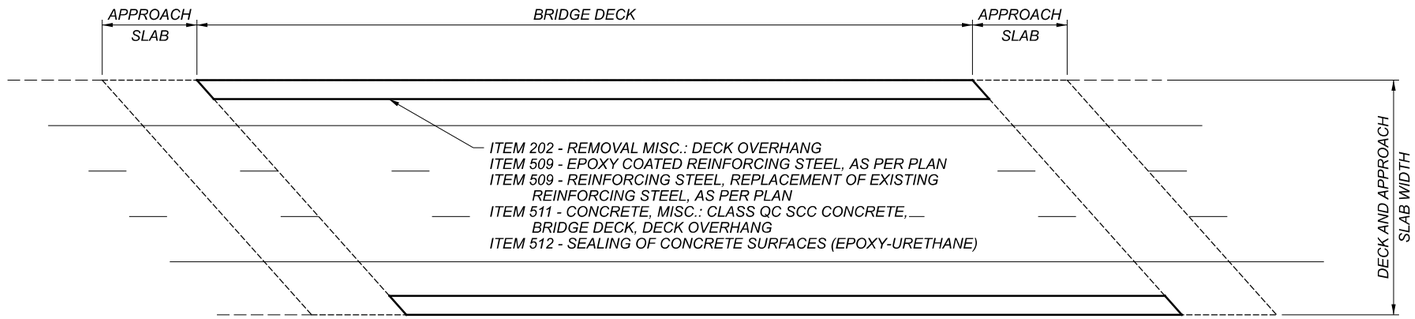
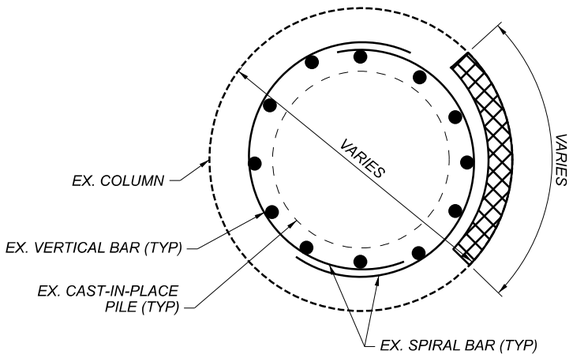


TREATMENT C

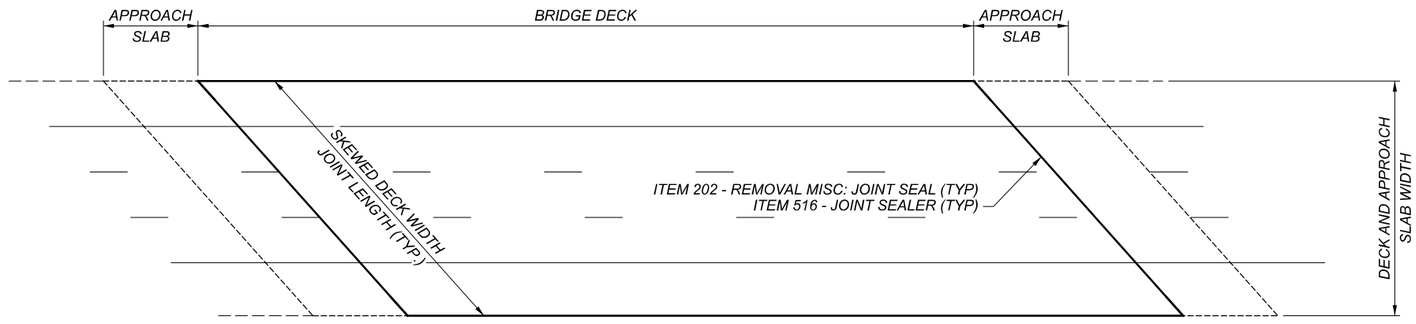
REPAIR OF DECK EDGE
UP TO FULL DEPTH OF SLAB BY VARIES - SALVAGE TRANSVERSE REINFORCING STEEL AND ADD NEW LONGITUDINAL STEEL
QUANTITY DETERMINED AS: MEASURED IN LINEAR FOOT OF CONCRETE REPAIR, LINEAR FOOT CONVERTED TO WEIGHT OF STEEL (#5 BARS), MEASURED FOOT



TREATMENT D

REPAIR OF CONCRETE COLUMN
REMOVE EXISTING CONCRETE AND PLACE NEW CONCRETE PATCH UNDER ITEM 519 - PATCHING CONCRETE STRUCTURE
SALVAGE EXISTING REINFORCING STEEL
QUANTITY DETERMINED AS: HEIGHT OF REPAIR X WIDTH OF REPAIR

ITEM 519 - PATCHING CONCRETE STRUCTURE



TREATMENT E

REPLACEMENT OF EXISTING JOINT SEAL BETWEEN BACKWALL AND APPROACH SLAB
REMOVE EXISTING JOINT SEAL AND REPLACE WITH THE ABOVE LISTED ITEM
QUANTITY DETERMINED AS: MEASURED LINEAR FEET

GENERAL DETAILS
TREATMENTS APPLICABLE TO SEVERAL STRUCTURES WITHIN THE PROJECT LIMITS

SFN
VARIOUS

DESIGN AGENCY
DISTRICT 3

ENGINEERING TEAM TWO

DESIGNER	CHECKER
ACM	KRB

REVIEWER
KAK 7-6-21

PROJECT ID
79761

SUBSET	TOTAL
2	3

SHEET	TOTAL
58	79

MED-42-1.89/MED-224-(6.25)(10.45)

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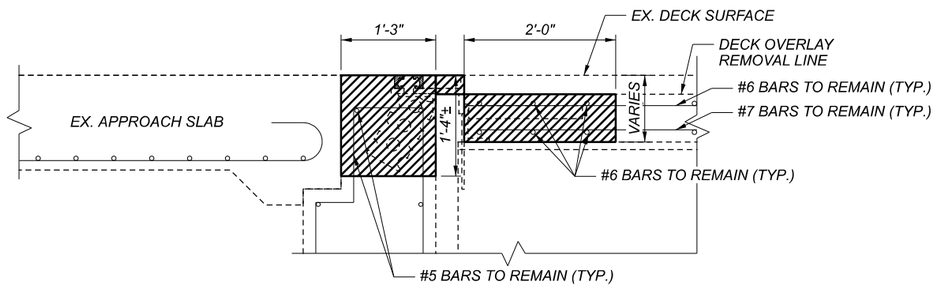
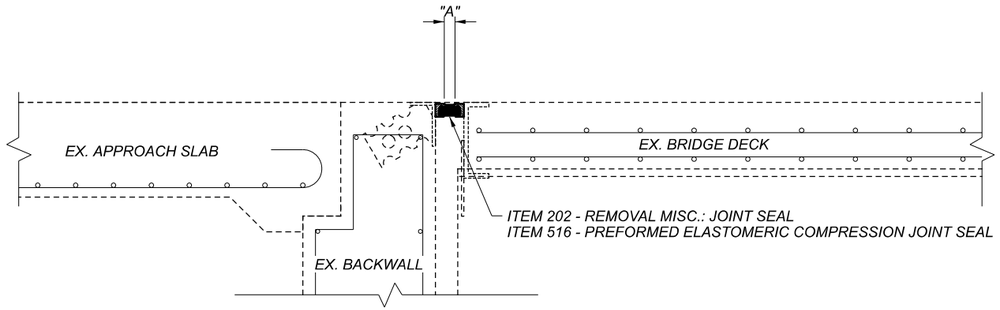


ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

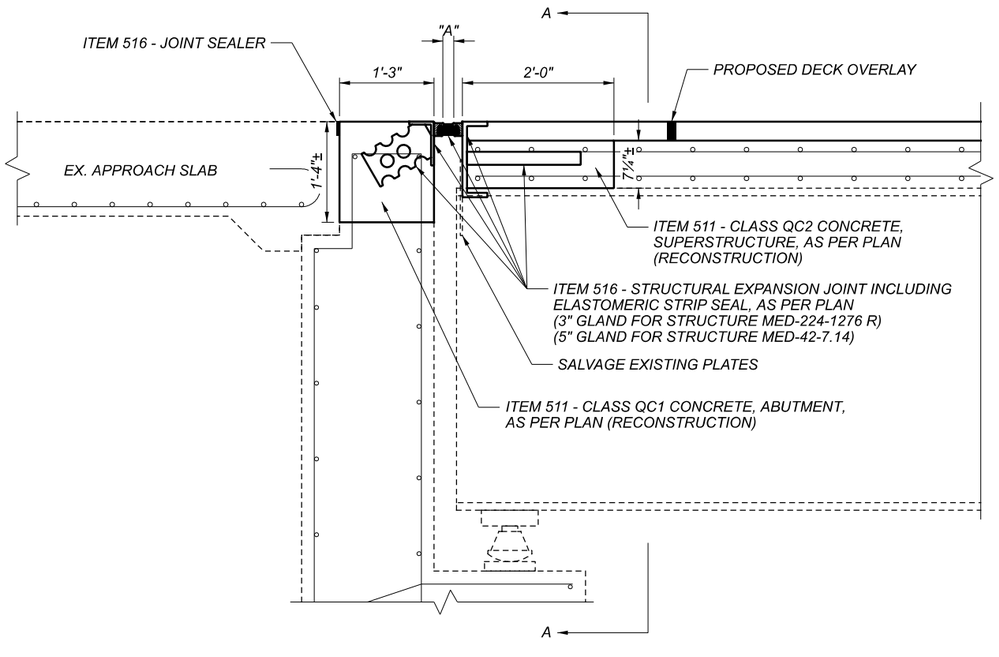
EXISTING EXPANSION JOINT DETAIL - TREATMENT F1

REMOVAL OF STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL
REMOVE EXISTING EXPANSION JOINT, TOP OF BACKWALL, AND BRIDGE DECK END
UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
STEEL EXPANSION JOINT AND CONCRETE REMOVAL MEASURED DECK EDGE TO DECK EDGE
(BACKWALL LENGTH VARIES FORWARD AND REAR, DECK EDGE TO DECK EDGE)



TREATMENT G

REPLACEMENT OF EXISTING STRIP SEAL IN EXISTING STEEL EXPANSION JOINT
REMOVE EXISTING JOINT SEAL AND REPLACE WITH THE ABOVE LISTED ITEM
QUANTITY DETERMINED AS: MEASURED LINEAR FEET



STRUCTURE MED-224-12.76 R	
AMBIENT TEMP (°F)	*DIMENSION "A"*
30	*1.9"*
40	*1.8"*
50	*1.7"*
60	*1.6"*
70	*1.5"*
80	*1.4"*
90	*1.3"*

STRUCTURE MED-42-7.14	
AMBIENT TEMP (°F)	*DIMENSION "A"*
30	*3.0"*
40	*2.8"*
50	*2.6"*
60	*2.4"*
70	*2.2"*
80	*2.0"*
90	*1.8"*

PROPOSED EXPANSION JOINT DETAIL - TREATMENT F2

STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL
(BACKWALL LENGTH VARIES FORWARD AND REAR, DECK EDGE TO DECK EDGE)

NOTES:

1.) SEE INDIVIDUAL STRUCTURE PLAN VIEW SHEETS FOR LENGTHS OF DECK OVERLAYS, THICKNESSES OF PROPOSED OVERLAYS, AND THICKNESSES OF OVERLAY REMOVED. SEE SUPPLEMENTAL SPECIFICATION 848 FOR DETAILS ON THE OVERLAY PROCESS NOT SHOWN ON THIS SHEET OR THE INDIVIDUAL STRUCTURE PLAN VIEW SHEETS.

2.) SEE STANDARD CONSTRUCTION DRAWING EXJ-4-87 FOR DETAILS ON THE EXPANSION JOINT REPLACEMENT PROCESS NOT SHOWN ON THIS SHEET OR THE INDIVIDUAL STRUCTURE PLAN VIEW SHEETS.

3.) REPLACE DECK ENDS AS SHOWN IN PLAN WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, AND ITEM 511 - CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN (RECONSTRUCTION). LENGTHS OF REPAIRS ARE SHOWN ON THE INDIVIDUAL STRUCTURE PLAN VIEW SHEETS.

4.) REBUILD BACKWALLS AS SHOWN IN PLAN WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, AND ITEM 511 - CLASS QC1 CONCRETE, ABUTMENT, AS PER PLAN (RECONSTRUCTION). LENGTHS OF REPAIRS ARE SHOWN ON THE INDIVIDUAL STRUCTURE PLAN VIEW SHEETS.

5.) ALL EXISTING REINFORCING STEEL IN THE BACKWALLS AND DECK SHALL BE PRESERVED.

6.) SEE INDIVIDUAL STRUCTURE PLAN VIEW SHEETS FOR ESTIMATED QUANTITIES.

GENERAL DETAILS
TREATMENTS APPLICABLE TO SEVERAL STRUCTURES WITHIN THE PROJECT LIMITS

SFN VARIOUS
DESIGN AGENCY DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER ACM | CHECKER KRB
REVIEWER KAK 7-6-21
PROJECT ID 79761
SUBSET 3 | TOTAL 3
SHEET 59 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: GEN STRUCTURE DETAILS 3 PAPERSIZE: 17x11 (in.) DATE: 7/12/2021 TIME: 12:56:29 PM USER: jlowery
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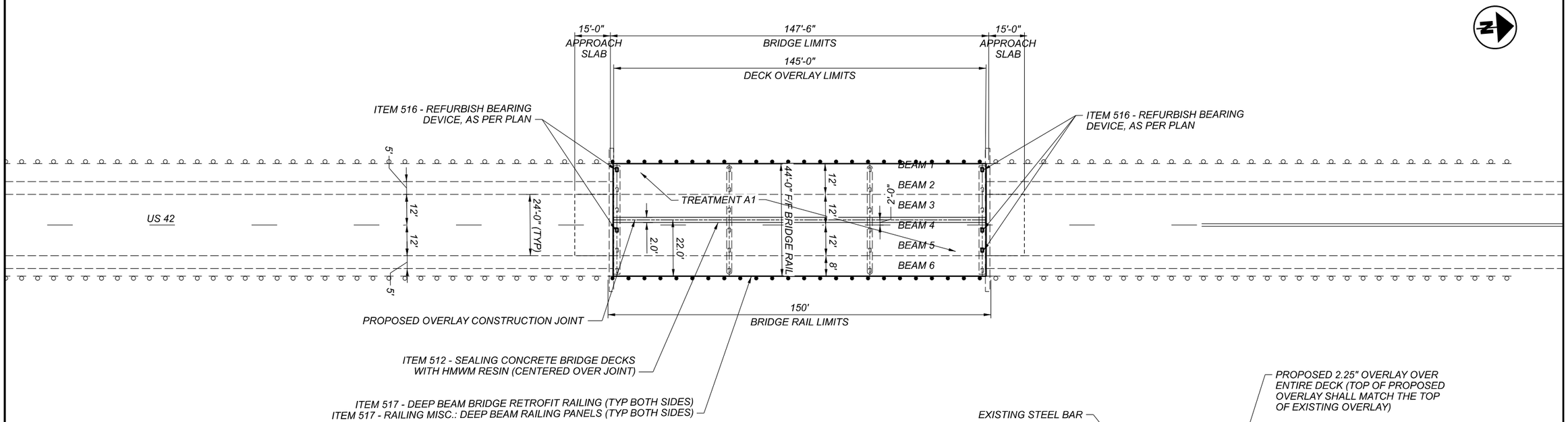

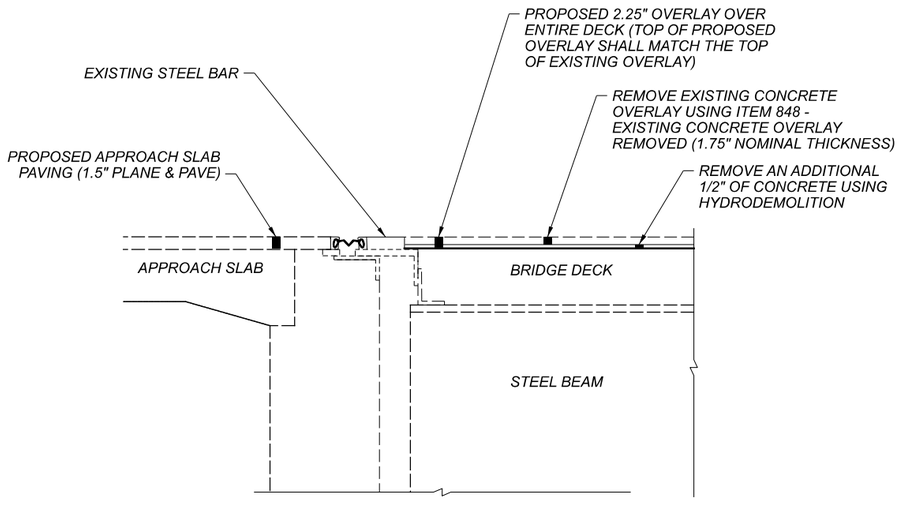

BEAM/JOINT DETAIL

NOTES:

1.) REFURBISH BEARINGS #1 AND #4 ON THE REAR ABUTMENT AND #1, #4 AND #5 ON THE FORWARD ABUTMENT.

2.) SEE SUPPLEMENTAL SPECIFICATION 848 FOR DETAILS ON THE OVERLAY PROCESS NOT SHOWN ON THIS SHEET.

3.) USE EXTREME CARE WHEN PERFORMING ALL ITEMS THAT REQUIRE ANY REMOVAL OF THE EXISTING STRUCTURE AS TO NOT DAMAGE ANY EXISTING REINFORCING STEEL; THE REINFORCING STEEL IS TO REMAIN IN PLACE AND NOT BE REMOVED IN THE REMOVAL PROCESS. CLEAN EXPOSED REINFORCING STEEL AS PER ITEM 848 WHERE APPLICABLE AND DEEMED NECESSARY BY THE ENGINEER. SHOULD ANY REINFORCING STEEL BE DAMAGED AS A RESULT OF ANY WORK PERFORMED, REPAIR OR REPLACE THE DAMAGED AREA AS DIRECTED.

4.) ACCORDING TO CURRENT CORING DATA, THE TOP MAT OF THE EXISTING REINFORCING STEEL IS 3 INCHES BELOW THE CURRENT SURFACE.

5.) PREPARE A SECTION 2 FEET WIDE OVER THE LENGTH OF THE BRIDGE DECK, CENTERED OVER THE PROPOSED CONSTRUCTION JOINT, AND SEAL USING ITEM 512 - SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN.

ITEM	QUANTITY	UNIT	DESCRIPTION
512	32	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN
516	5	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
517	300	FT	DEEP BEAM BRIDGE RETROFIT RAILING
517	300	FT	RAILING MISC.: DEEP BEAM RAILING PANELS
848	709	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (2.25" THICK)
848	709	SY	SURFACE PREPARATION USING HYDRODEMOLITION
848	22	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN
848	40	SY	HAND CHIPPING
848	LS		TEST SLAB
848	709	SY	EXISTING CONCRETE OVERLAY REMOVED (1.75" NOMINAL THICKNESS)
848	398	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY

ALL QUANTITIES CARRIED TO THE STRUCTURE SUMMARY

STRUCTURE DETAILS
MED-42-2.61
STRUCTURE OVER WEST FORK OF EAST BRANCH BLACK RIVER

SFN 5200938
DESIGN AGENCY DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER KRB | CHECKER XXX
REVIEWER KAK 7-6-21
PROJECT ID 79761
SUBSET 1 | TOTAL 3
SHEET 60 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 10/29/2021 TIME: 11:09:30 AM USER: ksalay
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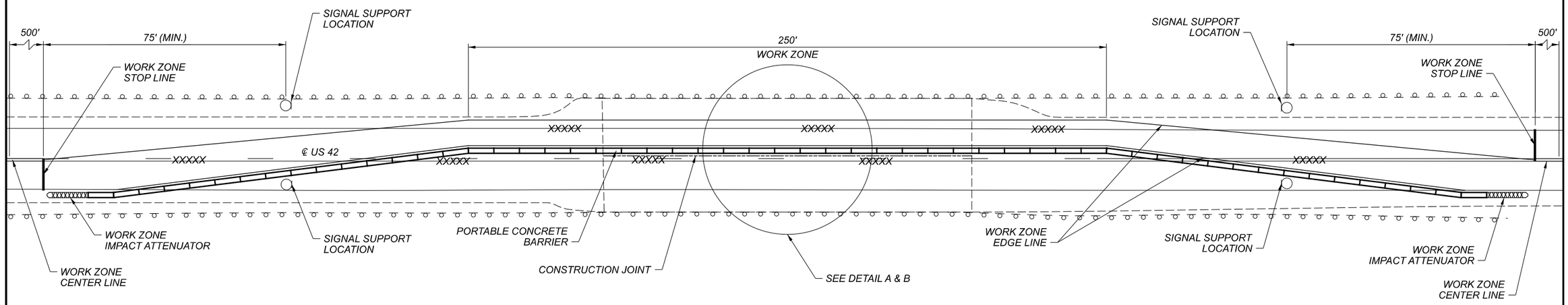


MOT DETAIL

PHASE A - SHOWN
PHASE B - SIMILAR

FULLY-ACTUATED OPERATION OF WORK ZONE TRAFFIC SIGNAL

THE WORK ZONE SIGNAL CONTROL REQUIRED FOR THIS PROJECT AND SHOWN ON THIS SHEET AND TRAFFIC SCDS MT- 96.11, 96.20 AND 96.26 SHALL BE FULLY TRAFFIC-ACTUATED AND OPERATE IN A MANNER SIMILAR TO THAT DESCRIBED IN SECTION 733.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS. THE INITIAL CONTROLLER TIMING SHALL BE AS FOLLOWS:

	PHASE	
	MED-42-2.61	
	1 MAINLINE (NORTHBOUND)	2 MAINLINE (SOUTHBOUND)
MIN. GREEN	27	27
EXTENSION	4	4
MAX. GREEN	30	30
YELLOW	5	5
ALL RED	13	13
RECALL	OFF	OFF

PROVIDE TIMING APPROPRIATE FOR THE SIGNAL LOCATION UNDER CONSIDERATION. TYPICAL FLOW RATES ARE DISPLAYED IN TABLE 697-2 IN THE ODOT TRAFFIC ENGINEERING MANUAL (TEM).

THE CONTRACTOR SHALL ALSO DESIGN, FURNISH, INSTALL AND MAINTAIN A TRAFFIC DETECTOR ON EACH TRAFFIC APPROACH WHICH WILL RELIABLY DETECT ALL LEGAL TRAFFIC APPROACHING (BUT NOT LEAVING) THE SIGNAL AS IT PASSES OR WAITS IN THE DESIGNATED DETECTOR ZONE SHOWN IN THE PLANS. DETECTOR DESIGNS WHICH DO NOT PROVIDE RELIABLE DETECTION, FREE FROM FALSE CALLS, SHALL BE IMMEDIATELY REPLACED BY THE CONTRACTOR.

ESTIMATED QUANTITIES (04/STR/BR)			
ITEM	QUANTITY	UNIT	DESCRIPTION
614	4	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)
614	22	EACH	BARRIER REFLECTOR, TYPE 1 (ONE-WAY)
614	22	EACH	OBJECT MARKER, ONE WAY
614	0.19	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I
614	0.42	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I
614	24	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I
622	1,100	FT	PORTABLE BARRIER, UNANCHORED

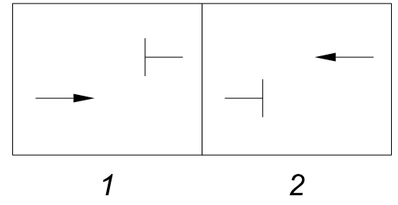
ALL QUANTITIES CARRIED TO THE GENERAL SUMMARY

NOTES:
1.) FOR ADDITIONAL DETAILS, SEE SCDs MT-96.11, MT-96.20, MT-96.26 AND ALSO SUPPLEMENTAL SPECIFICATION 961.

2.) ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES.

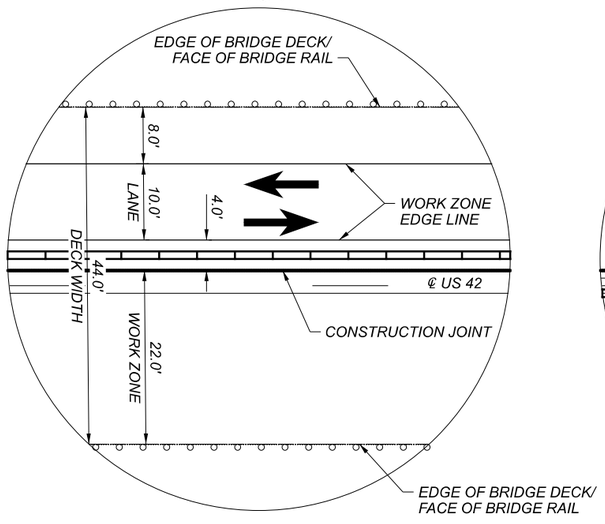
3.) SEE SHEET 51 FOR REPLACEMENT PAVEMENT MARKING ITEMS AND QUANTITIES.

SIGNAL PHASING DIAGRAM



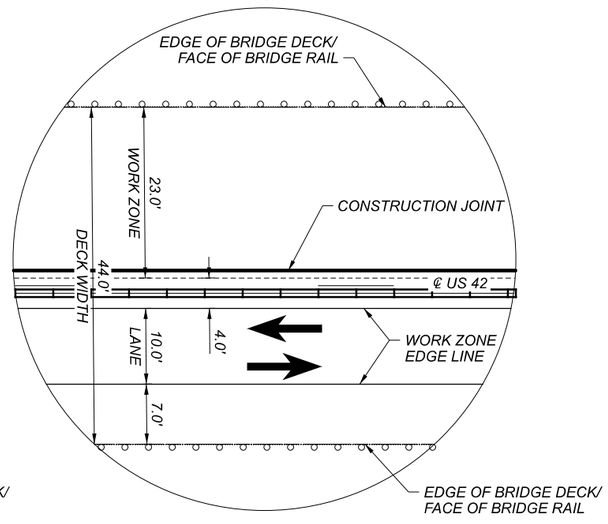
DETAIL A

PHASE A



DETAIL B

PHASE B



MAINTENANCE OF TRAFFIC PLAN
MED-42-2.61
STRUCTURE OVER WEST FORK OF EAST BRANCH BLACK RIVER

SFN 5200938
DESIGN AGENCY DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER JLL | CHECKER SRO
REVIEWER KRB 7-6-21
PROJECT ID 79761
SUBSET 2 | TOTAL 3
SHEET 61 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: MOT Details PAPERSIZE: 17x11 (in.) DATE: 11/16/2021 TIME: 12:48:37 PM USER: ksalay
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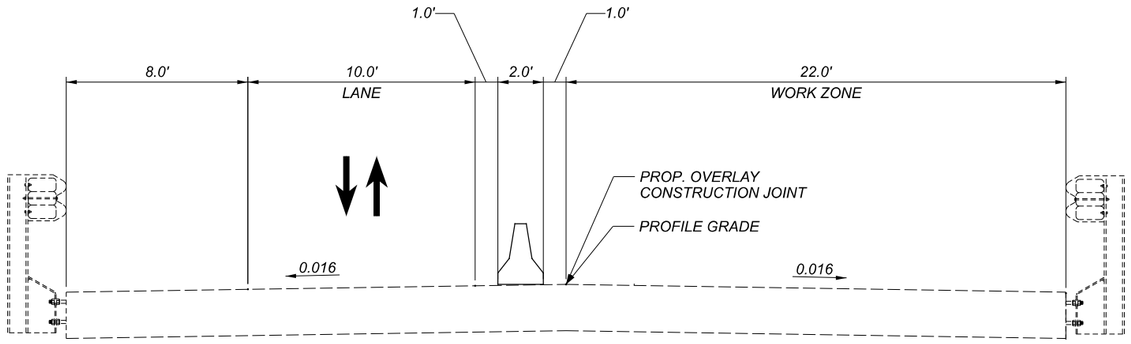
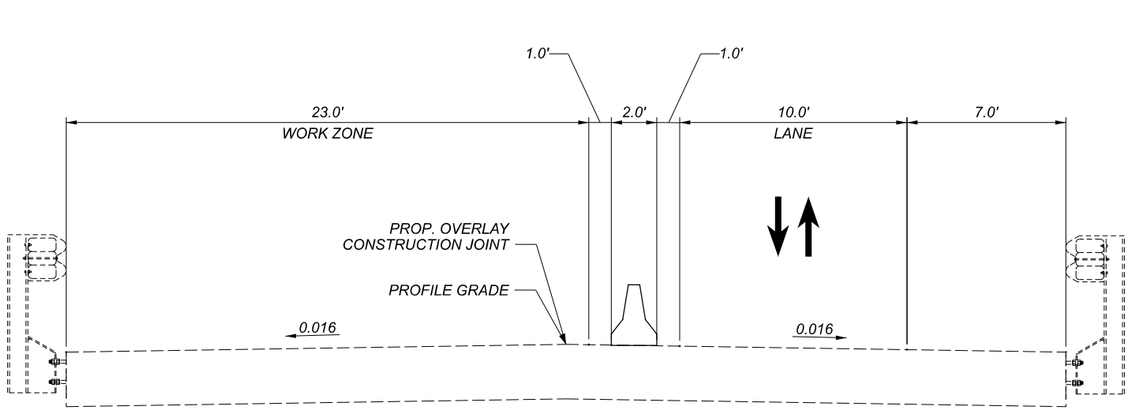


TYPICAL SECTION - MOT PHASE A



TYPICAL SECTION - MOT PHASE B

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: MOT Details 2 PAPERSIZE: 17x11 (in.) DATE: 10/27/2021 TIME: 1:45:31 PM USER: ksalay
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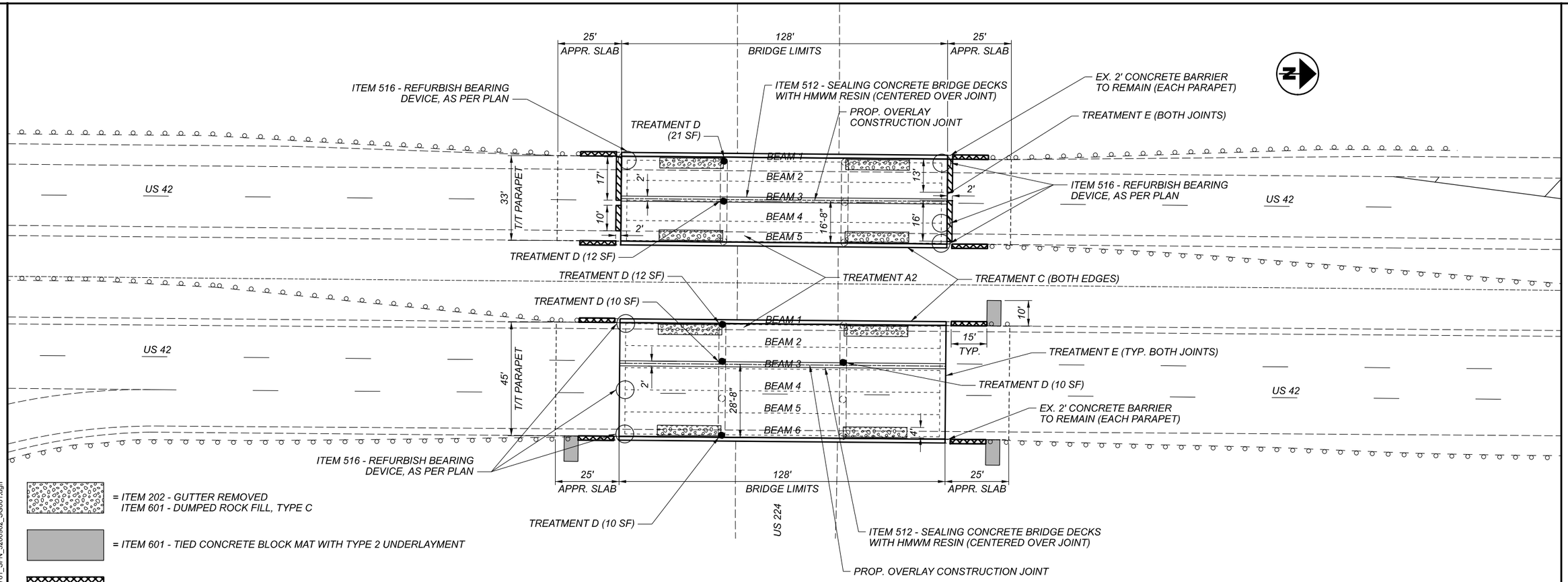
MAINTENANCE OF TRAFFIC PLAN
MED-42-2.61
STRUCTURE OVER WEST FORK OF EAST BRANCH BLACK RIVER

SFN 5200938
DESIGN AGENCY DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER JLL | CHECKER XXX
REVIEWER KRB MM-DD-YY
PROJECT ID 79761
SUBSET 3 | TOTAL 3
SHEET 61A | TOTAL 79



= ITEM 202 - GUTTER REMOVED
ITEM 601 - DUMPED ROCK FILL, TYPE C

= ITEM 601 - TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT

= ITEM 622 - CONCRETE BARRIER END SECTION, TYPE D

= ITEM SPECIAL - PATCHING CONCRETE BRIDGE DECK, TYPE B

ITEM	MED-42-3.10 L	MED-42-3.10 R	TOTAL QUANTITY	UNIT	DESCRIPTION
202	52	52	104	FT	CURB REMOVED
202	100	100	200	FT	GUTTER REMOVED
202	256	256	512	FT	REMOVAL, MISC.: DECK OVERHANG
202	66	90	156	FT	REMOVAL, MISC.: JOINT SEALER
509	1,157	1,157	2,314	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN
509	100	100	200	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCEMENT STEEL, AS PER PLAN
511	256	256	512	FT	CONCRETE, MISC.: CLASS QC SCC CONCRETE, BRIDGE DECK, DECK OVERHANG
512	138	138	276	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	28	28	57	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN
516	66	90	156	FT	JOINT SEALER
516	4	3	7	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	LS	LS	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
SPECIAL	240	240	480	SF	COMPOSITE FIBER WRAP SYSTEM
519	33	38	71	SF	PATCHING CONCRETE STRUCTURE
601		18	18	SY	TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT
601	25	25	50	CY	DUMPED ROCK FILL, TYPE C
848	474	644	1,118	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (1.75" THICK)
848	474	644	1,118	SY	SURFACE PREPARATION USING HYDRODEMOLITION
848	9	13	22	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN
848	27	36	63	SY	HAND CHIPPING
848	LS	LS	LS		TEST SLAB
848	2	4	6	CY	FULL DEPTH REPAIR
848	474	644	1,118	SY	EXISTING CONCRETE OVERLAY REMOVED (1.25" NOMINAL THICKNESS)
848	266	361	627	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY
SPECIAL	12		12	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B

ALL QUANTITIES CARRIED TO THE STRUCTURE SUMMARY

NOTES:

1.) MED-42-3.10L
REFURBISH BEARING #1 ON THE REAR ABUTMENT, AND BEARINGS #1, #4 AND #5 ON THE FORWARD ABUTMENT. JACK AND SHIM AS NECESSARY TO ALLOW ELEVATION OF EXPANSION JOINT ARMOR ON DECK SIDE TO MATCH ELEVATION OF JOINT ARMOR ON BACKWALL SIDE.

2.) MED-42-3.10R
REFURBISH BEARING #1 ON THE REAR ABUTMENT. SHIM AS NECESSARY TO ALLOW ELEVATION OF EXPANSION JOINT ARMOR ON DECK SIDE TO MATCH ELEVATION OF JOINT ARMOR ON BACKWALL SIDE.

3.) SEE SUPPLEMENTAL SPECIFICATION 848 FOR DETAILS ON THE OVERLAY PROCESS NOT SHOWN ON THIS SHEET.

4.) PERFORM ALL JOINT SEALING AFTER ALL REPAIR WORK HAS BEEN COMPLETED.

5.) USE EXTREME CARE WHEN PERFORMING ALL ITEMS THAT REQUIRE ANY REMOVAL OF THE EXISTING STRUCTURE AS TO NOT DAMAGE ANY EXISTING REINFORCING STEEL; THE REINFORCING STEEL IS TO REMAIN IN PLACE AND NOT BE REMOVED IN THE REMOVAL PROCESS. CLEAN EXPOSED REINFORCING STEEL AS PER ITEM 848 WHERE APPLICABLE AND DEEMED NECESSARY BY THE ENGINEER. SHOULD ANY REINFORCING STEEL BE DAMAGED AS A RESULT OF ANY WORK PERFORMED, REPAIR OR REPLACE THE DAMAGED AREA AS DIRECTED.

6.) ACCORDING TO CURRENT CORING DATA, THE TOP MAT OF THE EXISTING REINFORCING STEEL IS 3.25 INCHES BELOW THE CURRENT SURFACE.

7.) SEE ROADWAY SUB-SUMMARY FOR CONCRETE BARRIER END SECTION, TYPE D PAYMENT INFORMATION.

8.) PERFORM PIER COLUMN REPAIRS USING ITEM 519 - PATCHING CONCRETE STRUCTURE.

9.) ADDITIONAL QUANTITY OF 15 SQUARE YARDS (EACH STRUCTURE) OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) HAS BEEN ADDED TO TOUCH UP DAMAGED AREAS OF THE EXISTING PARAPETS THAT HAVE PREVIOUSLY BEEN SEALED.

10.) PREPARE A SECTION 2 FEET WIDE OVER THE LENGTH OF THE BRIDGE DECK, CENTERED OVER THE PROPOSED CONSTRUCTION JOINT, AND SEAL USING ITEM 512 - SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN.

STRUCTURE DETAILS
MED-42-3.10 (L/R)
OVER US 224

SFN 5200962
SFN 5200997
DESIGN AGENCY DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER JLL | CHECKER KRB
REVIEWER KAK 7-6-21
PROJECT ID 79761
SUBSET 1 | TOTAL 2
SHEET 62 | TOTAL 79

MED-42-1.89/MED-42-(6.25)(10.45)

MODEL: Details 1 PAPERSIZE: 17x11 (in.) DATE: 11/17/2021 TIME: 12:30:17 PM USER: ksalay
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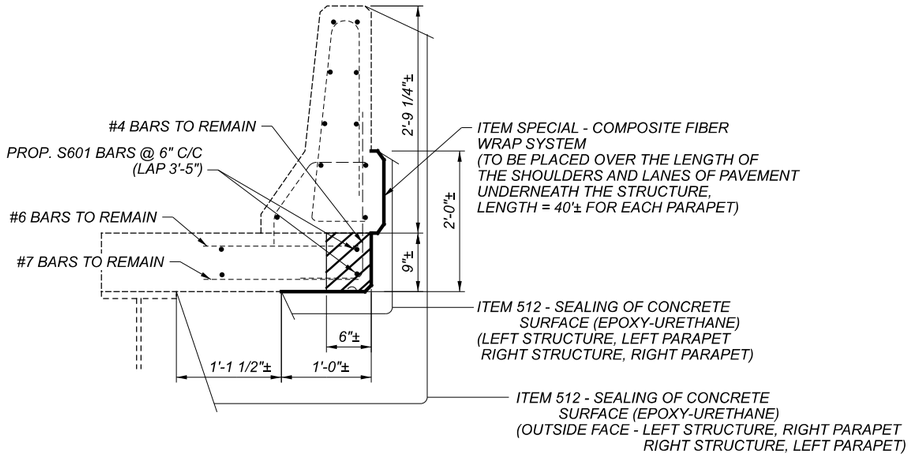
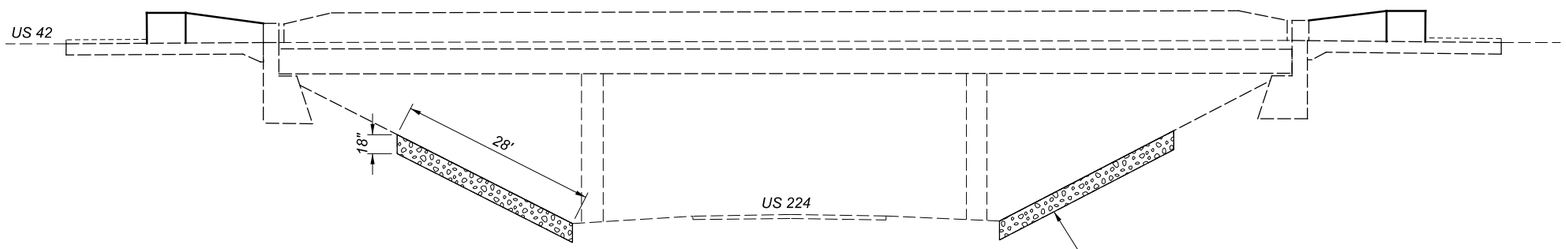
REINFORCING STEEL						
STRUCTURE	BAR MARK	# OF BARS	LENGTH	TYPE	# OF SIDES	WEIGHT
MED-42-3.10L	S601	22	17'-6"	STR.	2	1,157
MED-42-3.10R	S601	22	17'-6"	STR.	2	1,157



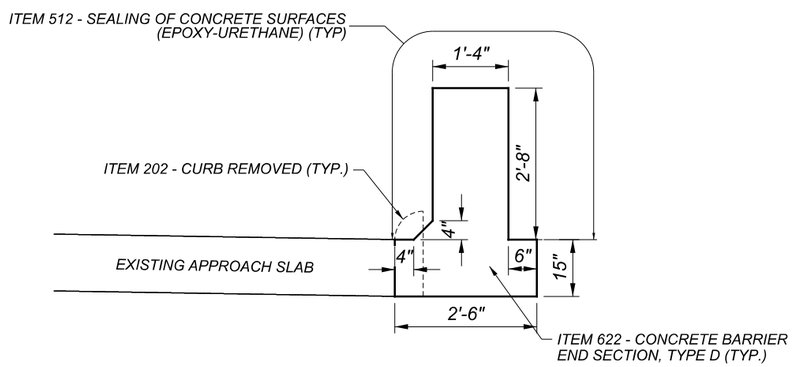
TREATMENT C - CROSS SECTION

ITEM 202 - REMOVAL MISC.: DECK OVERHANG
ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN
ITEM 509 - REINFORCING STEEL, REPLACEMENT OF EXISTING STEEL, AS PER PLAN
ITEM 511 - CONCRETE, MISC.: CLASS QC SCC CONCRETE, BRIDGE DECK, DECK OVERHANG



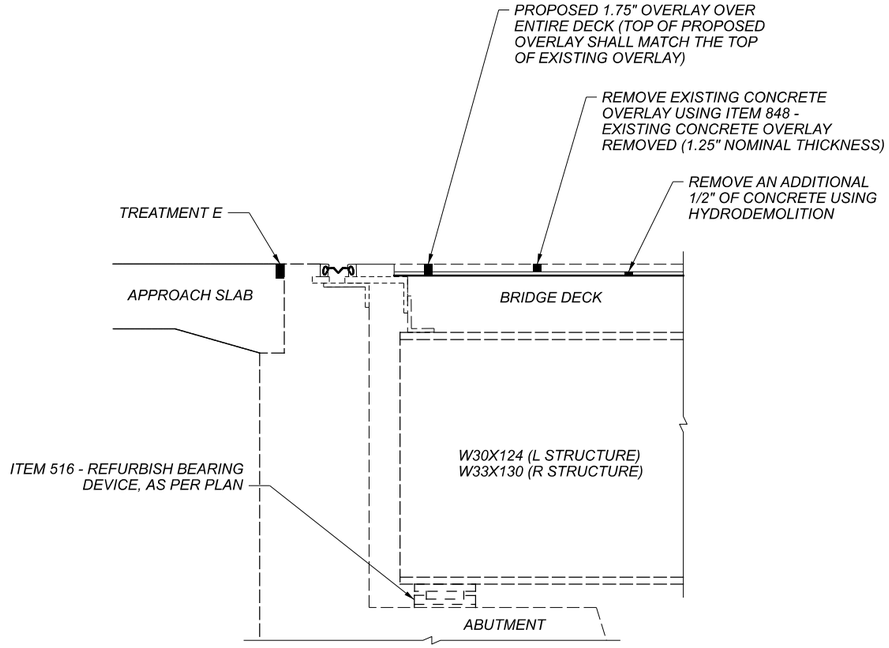
PROFILE VIEW

BOTH STRUCTURES SIMILAR
EXISTING/PROPOSED GUARDRAIL NOT SHOWN



CONCRETE BARRIER END SECTION DETAIL

REINFORCING STEEL NOT SHOWN FOR CLARITY

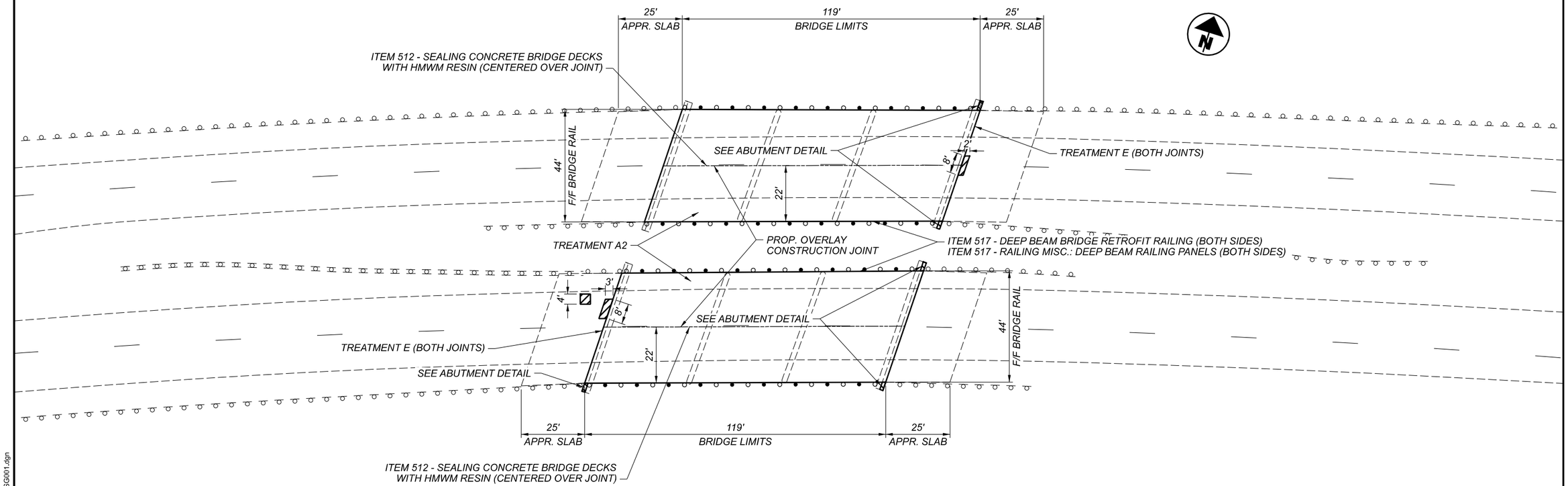


BEAM/JOINT DETAIL

STRUCTURE DETAILS
MED-42-3.10 (L/R)
OVER US 224

SFN 5200962
SFN 5200997
DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER JLL | CHECKER KRB
REVIEWER KAK 7-6-21
PROJECT ID 79761
SUBSET 2 | TOTAL 2
SHEET 63 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)



= ITEM SPECIAL - PATCHING CONCRETE BRIDGE DECK, TYPE B

NOTES:

1.) SEE SUPPLEMENTAL SPECIFICATION 848 FOR DETAILS ON THE OVERLAY PROCESS NOT SHOWN ON THIS SHEET.

2.) PERFORM ALL JOINT SEALING AFTER ALL REPAIR WORK HAS BEEN COMPLETED.

3.) USE EXTREME CARE WHEN PERFORMING ALL ITEMS THAT REQUIRE ANY REMOVAL OF THE EXISTING STRUCTURE AS TO NOT DAMAGE ANY EXISTING REINFORCING STEEL; THE REINFORCING STEEL IS TO REMAIN IN PLACE AND NOT BE REMOVED IN THE REMOVAL PROCESS. CLEAN EXPOSED REINFORCING STEEL AS PER ITEM 848 WHERE APPLICABLE AND DEEMED NECESSARY BY THE ENGINEER. SHOULD ANY REINFORCING STEEL BE DAMAGED AS A RESULT OF ANY WORK PERFORMED, REPAIR OR REPLACE THE DAMAGED AREA AS DIRECTED.

4.) ACCORDING TO CURRENT OCRING DATA, THE TOP MAT OF THE EXISTING REINFORCING STEEL IS 3.75 INCHES BELOW THE CURRENT SURFACE.

5.) SEE SHEET 2 FOR ABUTMENT AND BEAM/JOINT DETAILS.

6.) PREPARE A SECTION 2 FEET WIDE OVER THE LENGTH OF THE BRIDGE DECK, CENTERED OVER THE PROPOSED CONSTRUCTION JOINT, AND SEAL USING ITEM 512 - SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN.

ITEM	MED-42-4.60		TOTAL QUANTITY	UNIT	DESCRIPTION
	L	R			
202	1	1	2	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
202	94	94	188	FT	REMOVAL, MISC.: JOINT SEALER
511	1	1	2	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING
512	26	26	53	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN
516	94	94	188	FT	JOINT SEALER
517	238	238	476	FT	DEEP BEAM BRIDGE RETROFIT RAILING
517	238	238	476	FT	RAILING MISC.: DEEP BEAM RAILING PANELS
519	6	24	30	SF	PATCHING CONCRETE STRUCTURE
848	574	574	1,148	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (1.75" THICK)
848	574	574	1,148	SY	SURFACE PREPARATION USING HYDRODEMOLITION
848	11	11	22	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN
848	32	32	64	SY	HAND CHIPPING
848	LS	LS	LS		TEST SLAB
848	12	8	20	CY	FULL DEPTH REPAIR
848	574	574	1,148	SY	EXISTING CONCRETE OVERLAY REMOVED (1.25" NOMINAL THICKNESS)
848	322	322	644	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY
SPECIAL	2	4	6	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B

ALL QUANTITIES CARRIED TO THE STRUCTURE SUMMARY

STRUCTURE DETAILS
MED-42-4.60 (L/R)
TWIN STRUCTURES OVER WEST FORK RIVER

SFN 5201144
SFN 5201179
DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER JLL | CHECKER KRB
REVIEWER KAK 7-6-21
PROJECT ID 79761
SUBSET 1 | TOTAL 2
SHEET 64 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

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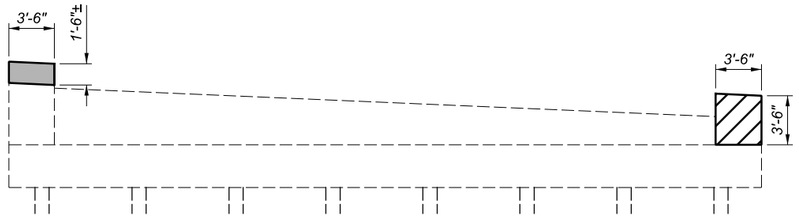
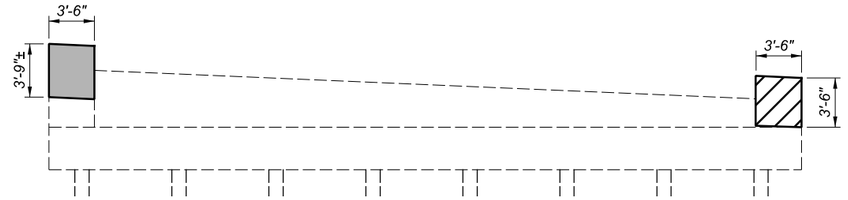


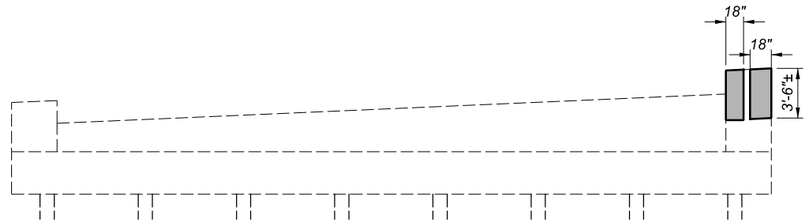
LEFT STRUCTURE, FORWARD ABUTMENT
UPSTATION VIEW



RIGHT STRUCTURE, FORWARD ABUTMENT
UPSTATION VIEW

= ITEM 519 - PATCHING CONCRETE STRUCTURE

= ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
ITEM 511 - CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING

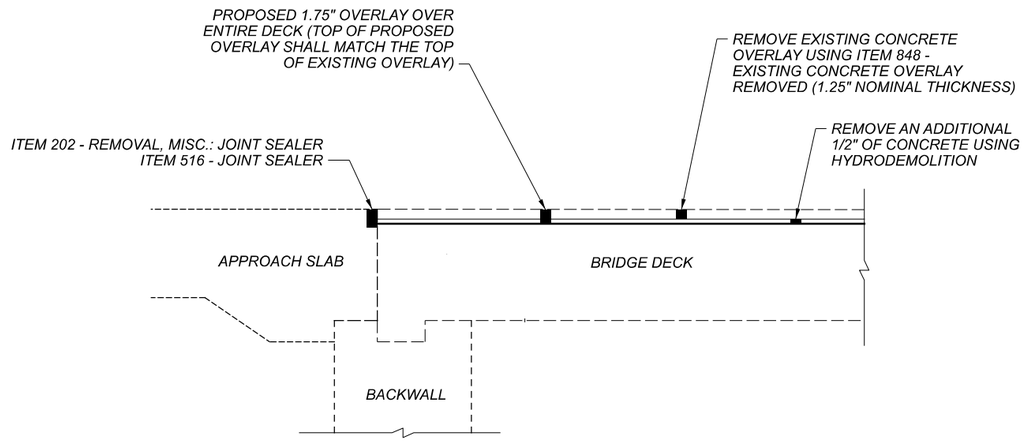


RIGHT STRUCTURE, REAR ABUTMENT
UPSTATION VIEW

NOTES:

1.) EXISTING REINFORCING STEEL SHALL BE PRESERVED.

ABUTMENT DETAILS



BEAM/JOINT DETAIL

STRUCTURE DETAILS
MED-42-4.60 (L/R)
TWIN STRUCTURES OVER WEST FORK RIVER

SFN	5201144
SFN	5201179
DESIGN AGENCY	DISTRICT 3
	ENGINEERING TEAM TWO
DESIGNER	JLL
CHECKER	KRB
REVIEWER	KAK 7-6-21
PROJECT ID	79761
SUBSET	2
TOTAL	2
SHEET	65
TOTAL	79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Details2 PAPERSIZE: 17x11 (in.) DATE: 7/12/2021 TIME: 12:56:53 PM USER: jlowery
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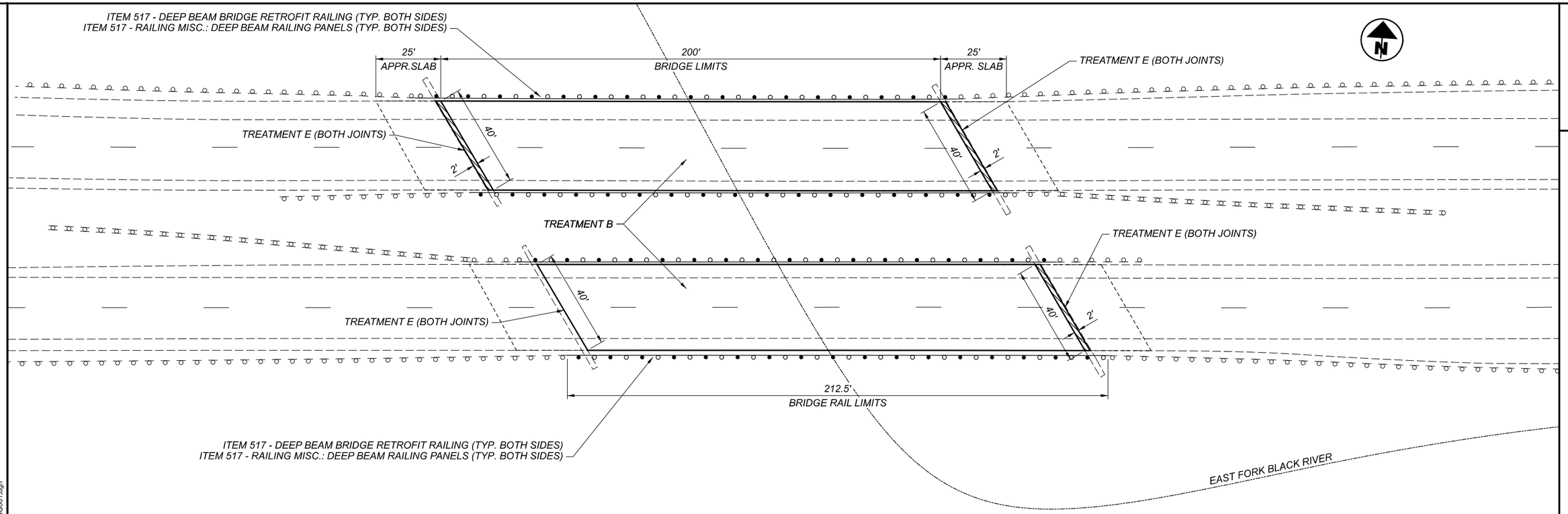

HORIZONTAL SCALE IN FEET
0 10 20 40

= ITEM SPECIAL - PATCHING CONCRETE BRIDGE DECK, TYPE B

NOTES:

1.) SEE SHEET 2 FOR ABUTMENT PATCH DETAILS.

ITEM	MED-42-5.39		TOTAL QUANTITY	UNIT	DESCRIPTION
	L	R			
202	80	80	160	FT	REMOVAL, MISC.: JOINT SEALER
512	800	800	1,600	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN
516	80	80	160	FT	JOINT SEALER
517	425	425	850	FT	DEEP BEAM BRIDGE RETROFIT RAILING
517	425	425	850	FT	RAILING MISC.: DEEP BEAM RAILING PANELS
519	28	10	38	SF	PATCHING CONCRETE STRUCTURE
SPECIAL	18	9	27	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B

ALL QUANTITIES CARRIED TO THE STRUCTURE SUMMARY

STRUCTURE DETAILS
MED-42-5.39 (L/R)
TWIN STRUCTURES OVER EAST FORK BLACK RIVER

SFN 5201209
SFN 5201233
DESIGN AGENCY DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER TPG | CHECKER KRB
REVIEWER KAK 7-6-21
PROJECT ID 79761
SUBSET 1 | TOTAL 2
SHEET 66 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 10/28/2021 TIME: 10:09:46 AM USER: kealay
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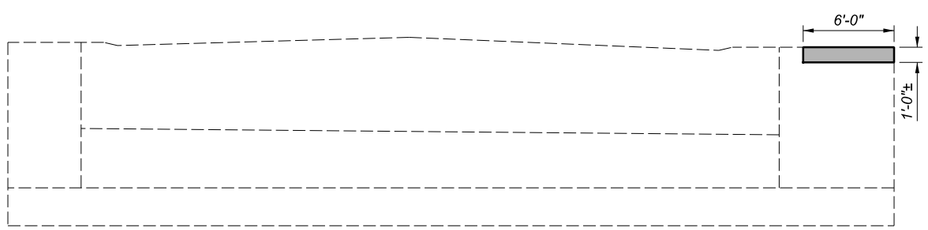
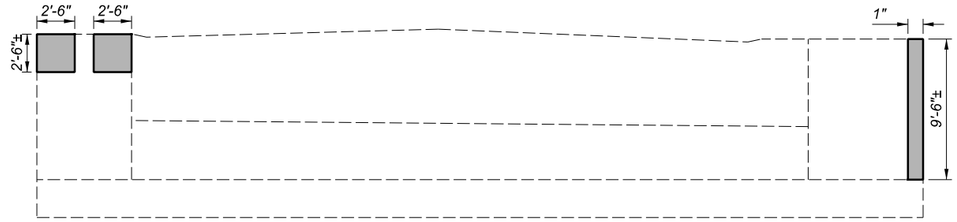


LEFT STRUCTURE, FORWARD ABUTMENT
UPSTATION VIEW

RIGHT STRUCTURE, FORWARD ABUTMENT
UPSTATION VIEW



LEFT STRUCTURE, REAR ABUTMENT
UPSTATION VIEW

ABUTMENT DETAILS

= *ITEM 519 - PATCHING CONCRETE STRUCTURE*

NOTES:

1.) EXISTING REINFORCING STEEL SHALL BE PRESERVED.

STRUCTURE DETAILS
MED-42-5.39 (L/R)
TWIN STRUCTURES OVER EAST FORK BLACK RIVER

SFN	5201209
SFN	5201233
DESIGN AGENCY	DISTRICT 3
	ENGINEERING TEAM TWO
DESIGNER	TPG
CHECKER	KRB
REVIEWER	KAK 7-6-21
PROJECT ID	79761
SUBSET	2
TOTAL	2
SHEET	67
TOTAL	79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet 2 PAPERSIZE: 17x11 (in.) DATE: 7/12/2021 TIME: 12:57:00 PM USER: jlowery
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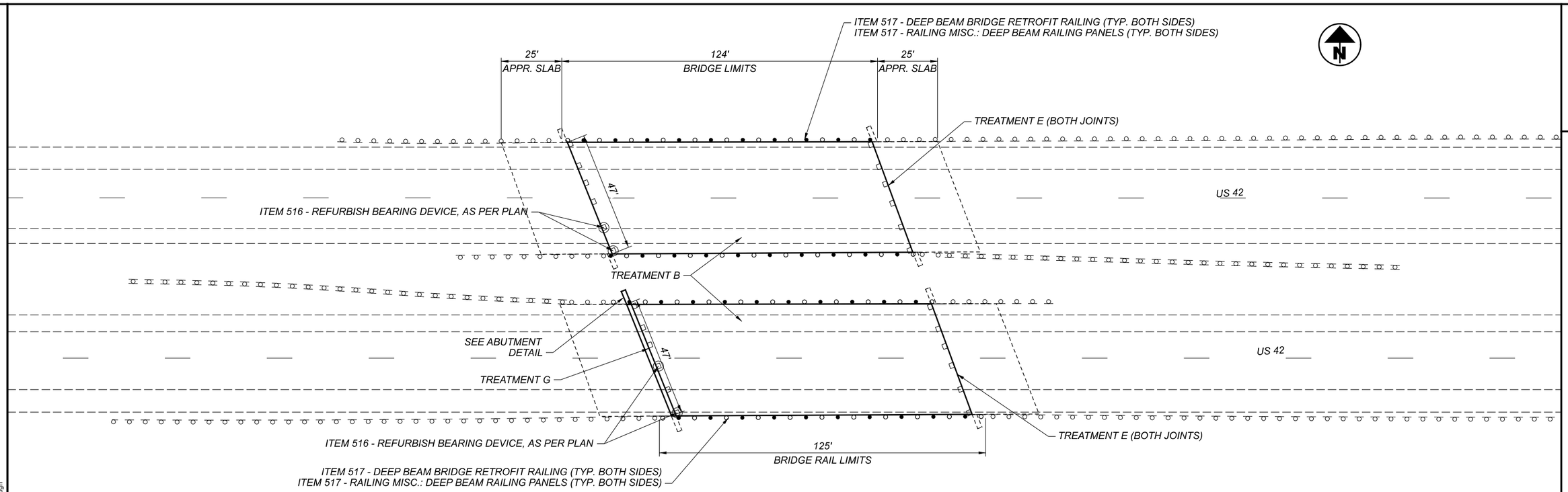


HORIZONTAL SCALE IN FEET
0 10 20 40

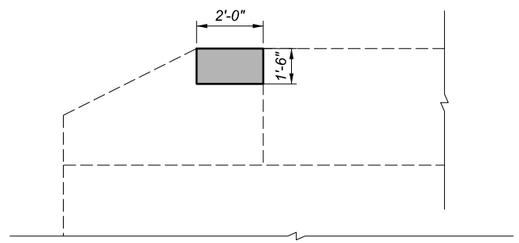
NOTE:

1.) MED-42-0589L:
REFURBISH BEARINGS #5 AND #6 ON THE REAR ABUTMENT.

MED-42-0589R:
REFURBISH BEARINGS #4 AND #6 ON THE REAR ABUTMENT.

ITEM	MED-42-5.89		TOTAL QUANTITY	UNIT	DESCRIPTION
	L	R			
202	94	141	235	FT	REMOVAL, MISC.: JOINT SEALER
512	605	605	1,210	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN
516		47	47	FT	PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL
516	94	94	188	FT	JOINT SEALER
516	2	2	4	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	LS	LS	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
517	250	250	500	FT	DEEP BEAM BRIDGE RETROFIT RAILING
517	250	250	500	FT	RAILING MISC.: DEEP BEAM RAILING PANELS
519		3	3	SF	PATCHING CONCRETE STRUCTURE

ALL QUANTITIES CARRIED TO THE STRUCTURE SUMMARY



REAR LEFT WINGWALL

ITEM 519 - PATCHING CONCRETE STRUCTURE
(PRESERVE EXISTING REINFORCING STEEL)

ABUTMENT DETAIL
MED-42-0589 RT

STRUCTURE DETAILS
MED-42-5.89 (L/R)
TWIN STRUCTURES OVER EAST FORK BLACK RIVER

SFN 5201292
SFN 5201322
DESIGN AGENCY DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER TPG | CHECKER KRB
REVIEWER KAK 7-6-21
PROJECT ID 79761
SUBSET 1 | TOTAL 1
SHEET 68 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 7/12/2021 TIME: 12:57:07 PM USER: jtlowery
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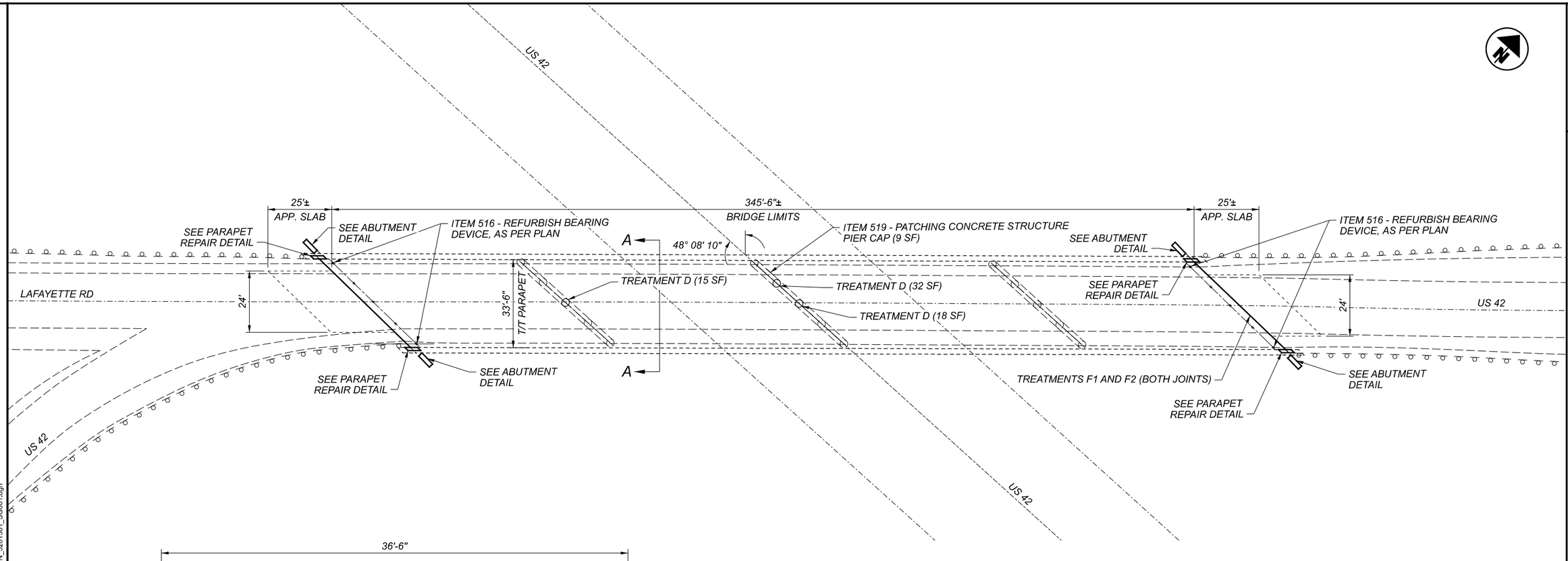

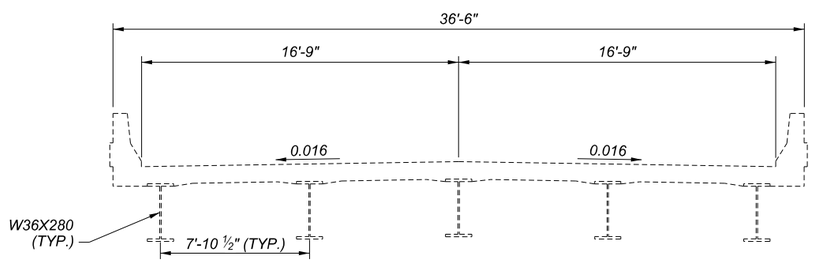

SECTION A-A

NOTES:

1.) REFURBISH BEARINGS #1 AND #5 ON THE REAR ABUTMENT AND #1 AND #5 ON THE FORWARD ABUTMENT.

2.) USE EXTREME CARE WHEN PERFORMING ALL ITEMS THAT REQUIRE ANY REMOVAL OF THE EXISTING STRUCTURE AS TO NOT DAMAGE ANY EXISTING REINFORCING STEEL; THE REINFORCING STEEL IS TO REMAIN IN PLACE AND NOT BE REMOVED IN THE REMOVAL PROCESS. SHOULD ANY REINFORCING STEEL BE DAMAGED AS A RESULT OF ANY WORK PERFORMED, REPAIR OR REPLACE THE DAMAGED AREA AS DIRECTED.

3.) PERFORM PIER COLUMN REPAIRS USING ITEM 519 - PATCHING CONCRETE STRUCTURE. SEAL PIER COLUMN REPAIR AREAS WITH A GRAY SEALER TO MATCH THE EXISTING SEALER ON THE PIER COLUMNS USING ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

4.) SEE SHEET 2 FOR ABUTMENT AND PARAPET REPAIR DETAILS.

5.) TRIM EXISTING BEAM ENDS TO PROVIDE 3" CLEARANCE FROM THE EXISTING BACKWALL FOR THE EXPANSION JOINT REPLACEMENT, USING ITEM 513 - TRIMMING OF BEAM END.

ITEM	QUANTITY	UNIT	DESCRIPTION
202	12	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
511	7	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN (RECONSTRUCTION)
511	5	CY	CLASS QC1 CONCRETE, ABUTMENT, AS PER PLAN (RECONSTRUCTION)
512	8	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
513	10	EACH	TRIMMING OF BEAM END
516	104	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN
516	72	FT	JOINT SEALER
516	4	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
519	141	SF	PATCHING CONCRETE STRUCTURE

ALL QUANTITIES CARRIED TO THE STRUCTURE SUMMARY

HORIZONTAL SCALE IN FEET
0 10 20 40

STRUCTURE DETAILS
MED-42-7.14
STRUCTURE OVER MED-42-0687

SFN 5201381
DESIGN AGENCY DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER KRB | CHECKER XXX
REVIEWER KAK 7-6-21
PROJECT ID 79761
SUBSET 1 | TOTAL 2
SHEET 69 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Details1 PAPERSIZE: 17X11 (in.) DATE: 10/29/2021 TIME: 2:07:29 PM USER: ksaBay
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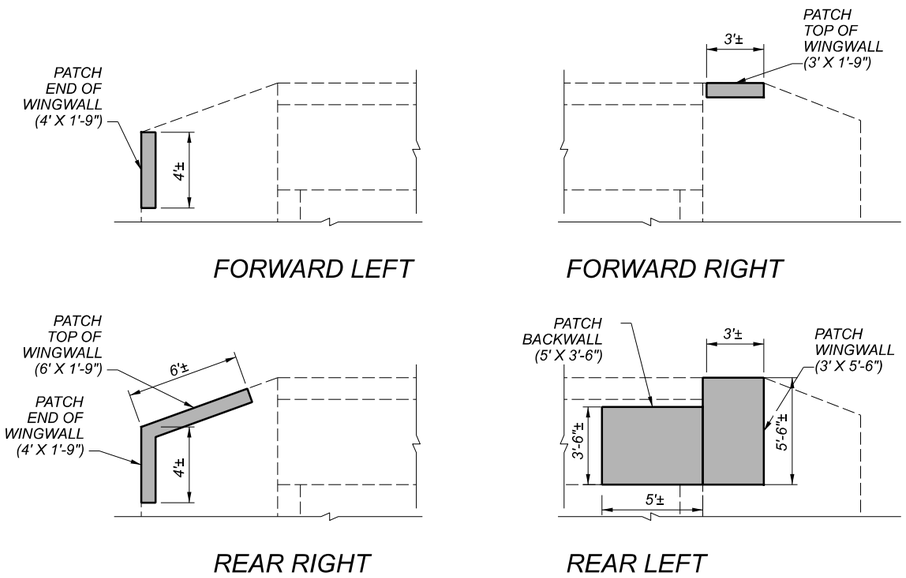
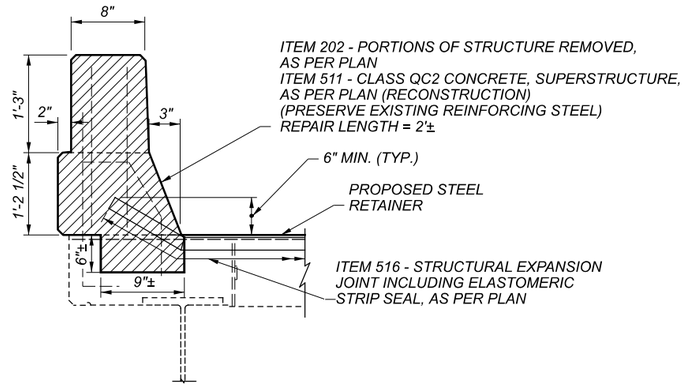


ABUTMENT DETAIL



PARAPET REPAIR DETAIL

PROPOSED EXPANSION JOINT AT PARAPET,
SEE SCD EXJ-4-87 FOR ADDITIONAL DETAILS

STRUCTURE DETAILS
MED-42-7.14
STRUCTURE OVER MED-42-0687

SFN 5201381
DESIGN AGENCY DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER KRB | CHECKER XXX
REVIEWER KAK 7-6-21
PROJECT ID 79761
SUBSET 2 | TOTAL 2
SHEET 70 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)
MODEL: Details2 PAPERSIZE: 17x11 (in.) DATE: 7/12/2021 TIME: 12:57:15 PM USER: jtlowery
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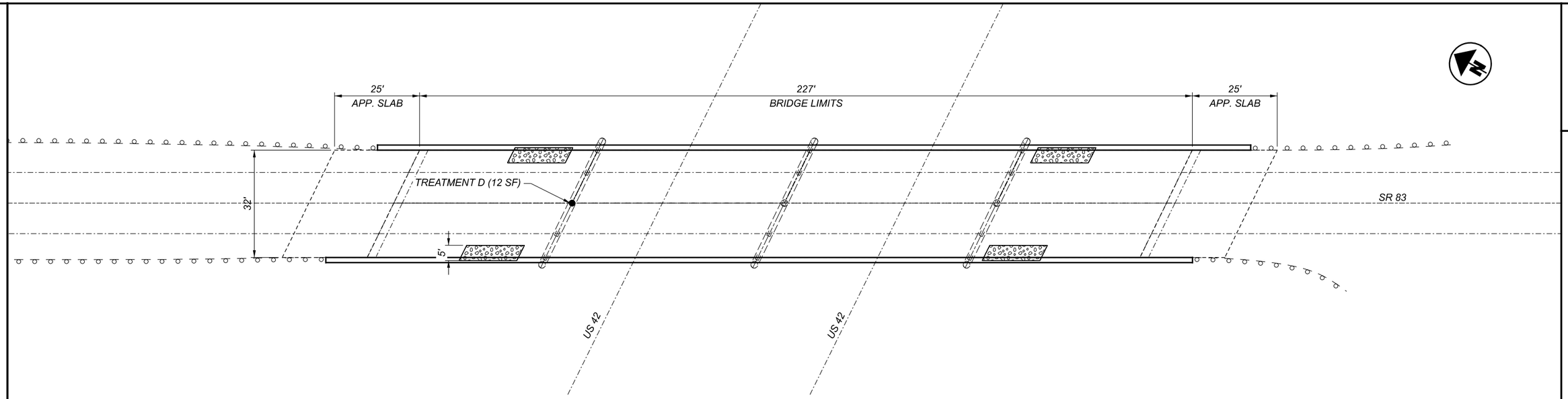
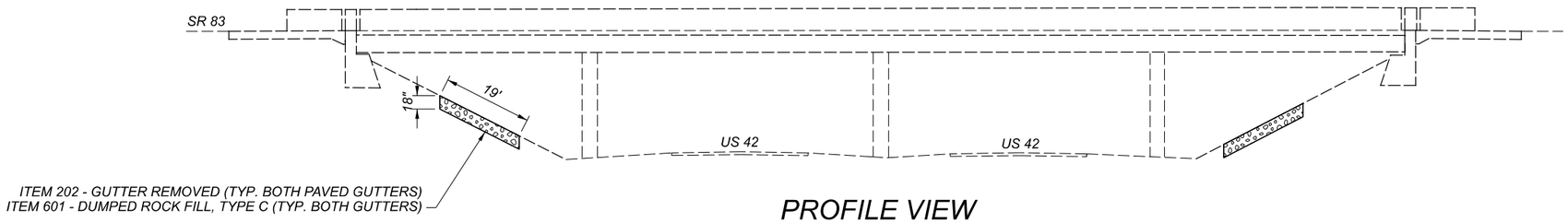


PLAN VIEW



PROFILE VIEW

EXISTING GUARDRAIL NOT SHOWN

ITEM	QUANTITY	UNIT	DESCRIPTION
202	76	FT	GUTTER REMOVED
519	12	SF	PATCHING CONCRETE STRUCTURE
601	21	CY	DUMPED ROCK FILL, TYPE C

ALL QUANTITIES CARRIED TO THE STRUCTURE SUMMARY

HORIZONTAL SCALE IN FEET
0 7.5 15 30

STRUCTURE DETAILS
MED-83-4.34
STRUCTURE OVER US-42

SFN 5205220
DESIGN AGENCY DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER TPG | CHECKER KRB
REVIEWER KAK 7-6-21
PROJECT ID 79761
SUBSET 1 | TOTAL 1
SHEET 71 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: DETAIL SHEET 1 PAPERSIZE: 17x11 (in.) DATE: 10/28/2021 TIME: 11:04:04 AM USER: ksalby
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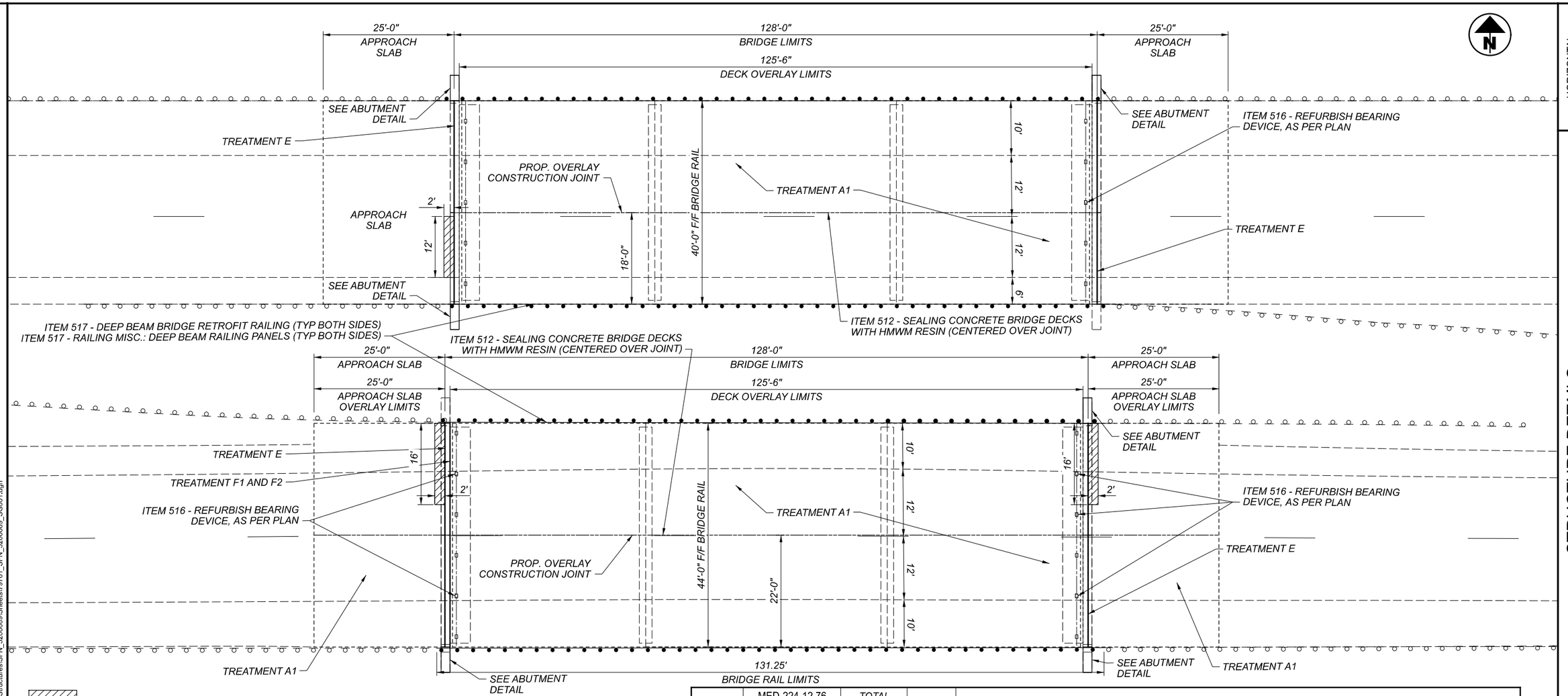

ITEM SPECIAL - PATCHING CONCRETE BRIDGE DECK, TYPE B

NOTES:

1.) MED-224-1276L:
REFURBISH BEARING #3 ON THE FORWARD ABUTMENT.

MED-224-1276R:
REFURBISH BEARINGS #2 AND #5 ON THE REAR ABUTMENT AND #2, #3 AND #5 ON THE FORWARD ABUTMENT.

2.) SEE SUPPLEMENTAL SPECIFICATION 848 FOR DETAILS ON THE OVERLAY PROCESS NOT SHOWN ON THIS SHEET.

3.) PERFORM ALL JOINT SEALING AFTER ALL REPAIR WORK HAS BEEN COMPLETED.

4.) USE EXTREME CARE WHEN PERFORMING ALL ITEMS THAT REQUIRE ANY REMOVAL OF THE EXISTING STRUCTURE AS TO NOT DAMAGE ANY EXISTING REINFORCING STEEL; THE REINFORCING STEEL IS TO REMAIN IN PLACE AND NOT BE REMOVED IN THE REMOVAL PROCESS. CLEAN EXPOSED REINFORCING STEEL AS PER ITEM 848 WHERE APPLICABLE AND DEEMED NECESSARY BY THE ENGINEER. SHOULD ANY REINFORCING STEEL BE DAMAGED AS A RESULT OF ANY WORK PERFORMED, REPAIR OR REPLACE THE DAMAGED AREA AS DIRECTED.

5.) ACCORDING TO CURRENT CORING DATA, THE TOP MAT OF THE EXISTING REINFORCING STEEL IS 3 INCHES BELOW THE CURRENT SURFACE.

6.) SEE SHEET 2 FOR ABUTMENT AND BEAM/JOINT DETAILS.

7.) PREPARE A SECTION 2 FEET WIDE OVER THE LENGTH OF THE BRIDGE DECK FOR STRUCTURE MED-224-1276L AND OVER THE LENGTH OF THE BRIDGE DECK AND APPROACH SLABS FOR STRUCTURE MED-224-1276R, CENTERED OVER THE PROPOSED CONSTRUCTION JOINT, AND SEAL USING ITEM 512 - SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN.

ITEM	MED-224-12.76 L	MED-224-12.76 R	TOTAL QUANTITY	UNIT	DESCRIPTION
202		8	8	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
202	80	88	168	FT	REMOVAL, MISC.: JOINT SEALER
511		2	2	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN (RECONSTRUCTION)
511		3	3	CY	CLASS QC1 CONCRETE, ABUTMENT, AS PER PLAN (RECONSTRUCTION)
511		3	3	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING
512	28	40	68	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN
516		44	44	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN
516	80	88	168	FT	JOINT SEALER
516	1	5	6	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	LS	LS	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
517	262.5	262.5	525	FT	DEEP BEAM BRIDGE RETROFIT RAILING
517	262.5	262.5	525	FT	RAILING MISC.: DEEP BEAM RAILING PANELS
519	21		21	SF	PATCHING CONCRETE STRUCTURE
848	558	858	1,416	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (1.75" THICK)
848	558	858	1,416	SY	SURFACE PREPARATION USING HYDRODEMOLITION
848	17	27	44	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN
848	31	48	79	SY	HAND CHIPPING
848	LS	LS	LS		TEST SLAB
848	2	5	7	CY	FULL DEPTH REPAIR
848	558	858	1,416	SY	EXISTING CONCRETE OVERLAY REMOVED (1.25" NOMINAL THICKNESS)
848	313	481	794	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY
SPECIAL	3	7	10	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B

ALL QUANTITIES CARRIED TO THE STRUCTURE SUMMARY

HORIZONTAL SCALE IN FEET
0 5 10 20

STRUCTURE DETAILS
MED-224-12.76 (L/R)
TWIN STRUCTURES OVER CAMEL CREEK

SFN 5206669
SFN 5206693
DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM TWO
DESIGNER KRB | CHECKER XXX
REVIEWER KAK 7-6-21
PROJECT ID 79761
SUBSET 1 | TOTAL 2
SHEET 72 | TOTAL 79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Details1 PAPERSIZE: 17x11 (in.) DATE: 10/29/2021 TIME: 11:28:01 AM USER: ksalley
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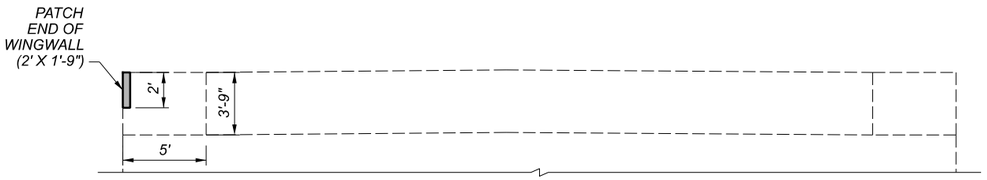
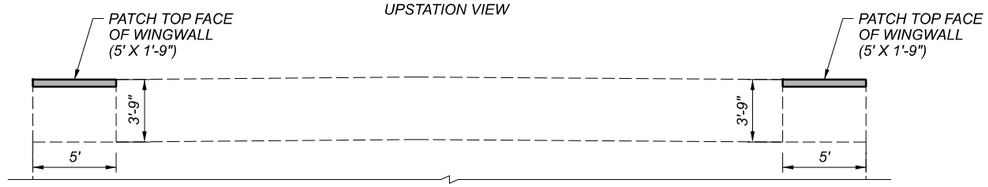


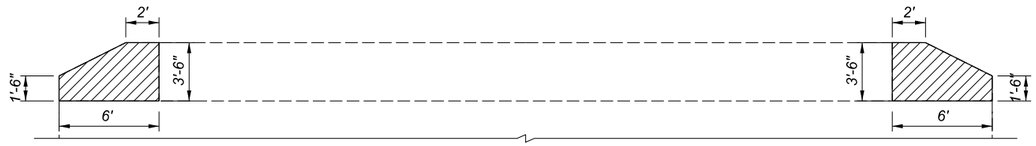
FORWARD ABUTMENT
UPSTATION VIEW



REAR ABUTMENT
UPSTATION VIEW

ITEM 519 - PATCHING CONCRETE STRUCTURE
(PRESERVE EXISTING REINFORCING STEEL)

ABUTMENT DETAIL
MED-224-1276 LT

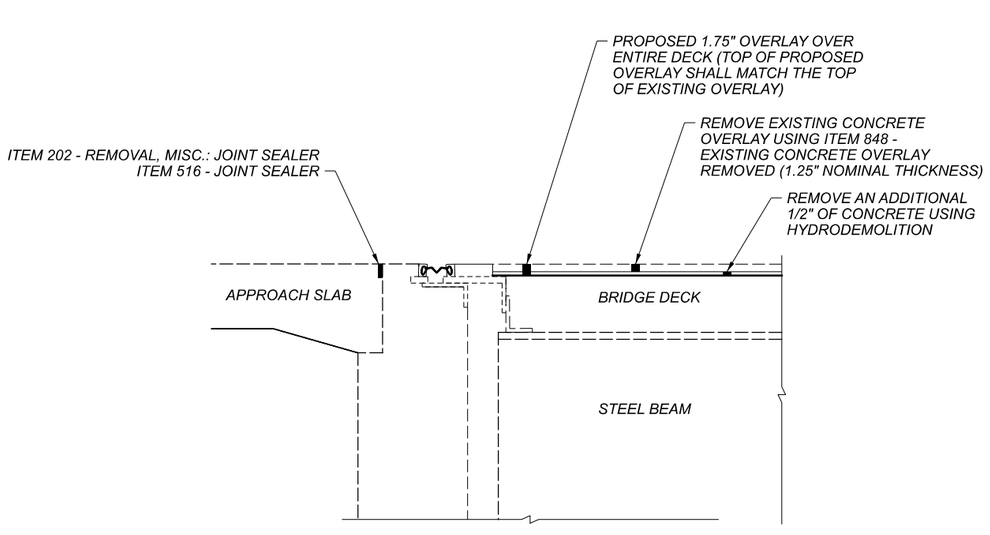


FORWARD ABUTMENT
UPSTATION VIEW

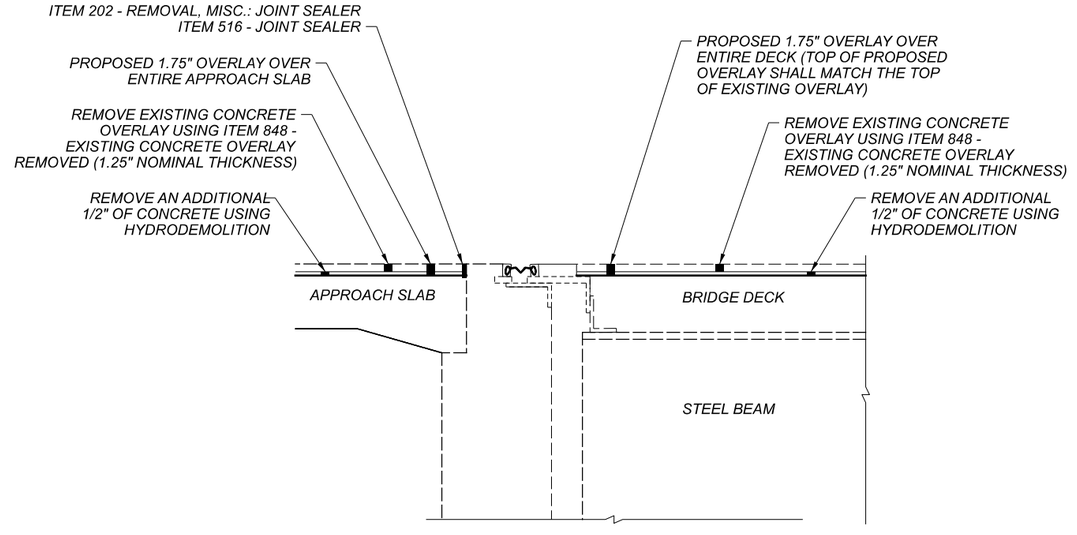
REAR ABUTMENT
UPSTATION VIEW

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
ITEM 511 - CLASS QC1 CONCRETE, RETAINING/WAINGWALL NOT INCLUDING FOOTING
(PRESERVE EXISTING REINFORCING STEEL)

ABUTMENT DETAIL
MED-224-1276 RT



BEAM/JOINT DETAIL
MED-224-1276 LT



BEAM/JOINT DETAIL
MED-224-1276 RT

SEE TREATMENT F1 AND F2 GENERAL DETAILS
FOR ADDITIONAL DETAILS FOR THE REPLACEMENT
OF THE REAR EXPANSION JOINT

STRUCTURE DETAILS
MED-224-12.76 (L/R)
TWIN STRUCTURES OVER CAMEL CREEK

SFN	5206669
SFN	5206693
DESIGN AGENCY	DISTRICT 3
	ENGINEERING TEAM TWO
DESIGNER	KRB
CHECKER	XXX
REVIEWER	KAK 7-6-21
PROJECT ID	79761
SUBSET	2
TOTAL	2
SHEET	73
TOTAL	79

MED-42/1.89/MED-224-(6.25)(10.45)

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NOTES

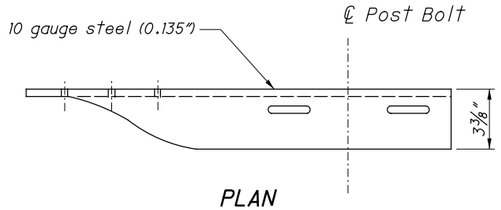
GENERAL: *Components shown on this drawing are used in a variety of guardrail systems. See individual guardrail drawing for specific applications.*

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

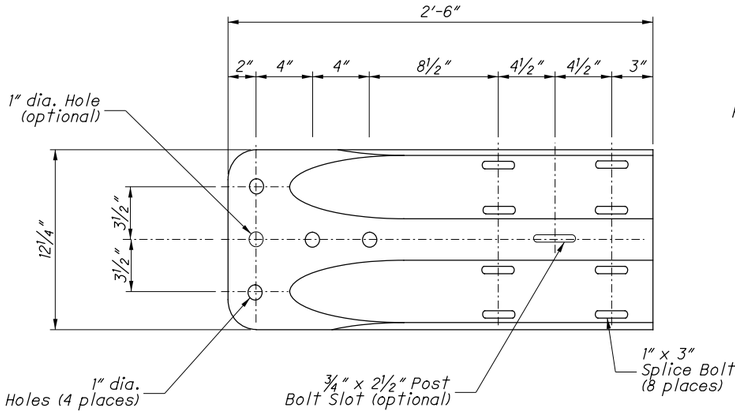
Refer to AASHTO M 180 for dimensional details of W-Beam and Thrie-Beam rail elements, related buffer and end sections, beam splices, post and splice bolts, nuts, and Type 1 W-Beam to Thrie-Beam Transition sections.

RAIL ELEMENTS: *W-Beam Rail has an effective length of 12'-6" unless otherwise specified, with ¾" x 2½" 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.*

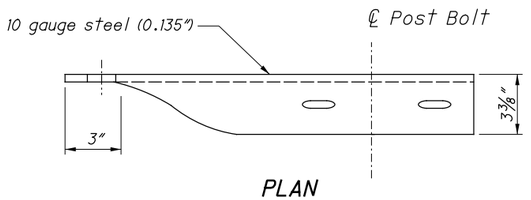


PLAN



ELEVATION

W-BEAM TERMINAL CONNECTOR



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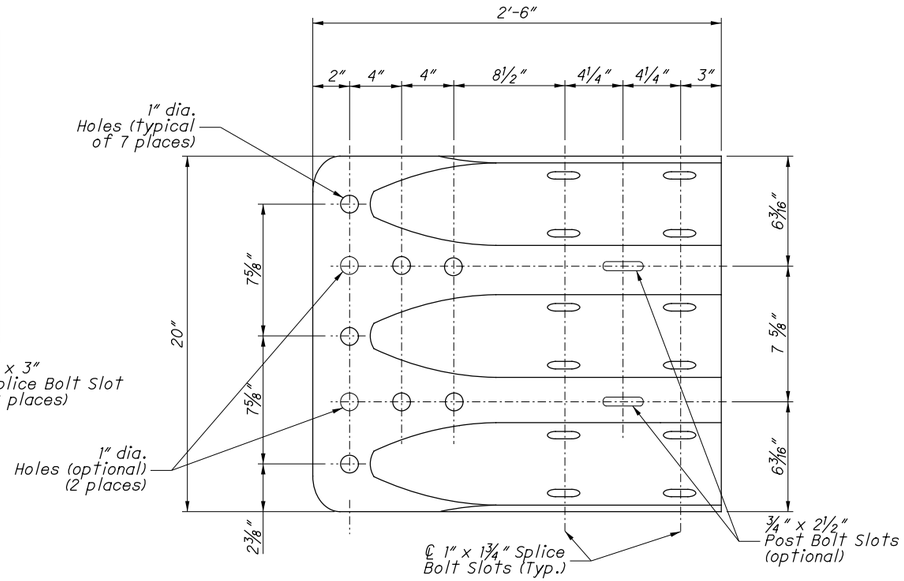
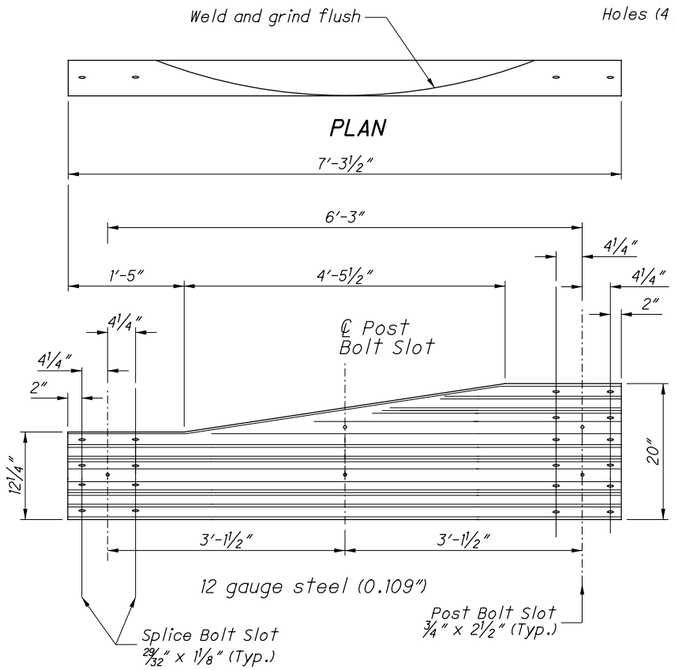


ELEVATION

THRIE-BEAM TERMINAL CONNECTOR

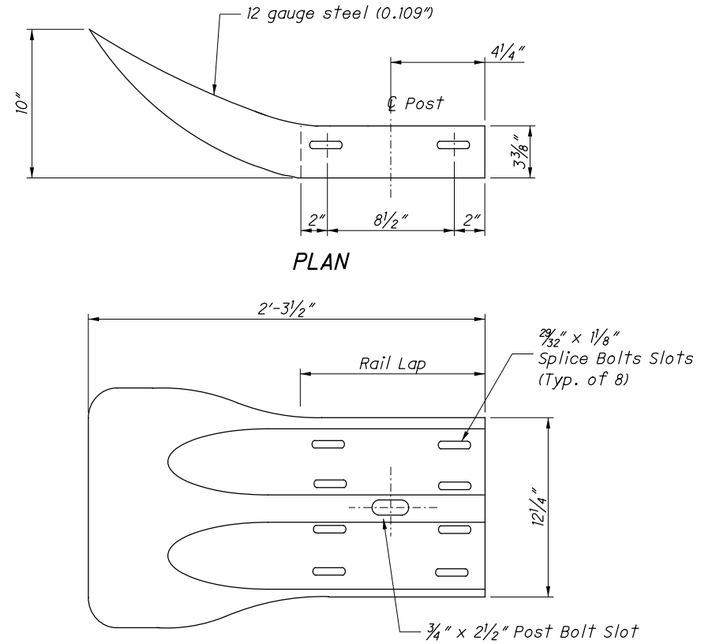


ELEVATION

TYPE 2 TRANSITION SECTION

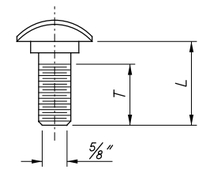
(Asymmetric W to Thrie-Beam)

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



ELEVATION

W-BEAM FLARED END SECTION



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
1¼	1⅛"	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.

OFFICE OF ROADWAY ENGINEERING

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

PLAN INSERT SHEET

GUARDRAIL DETAILS (RAIL COMPONENTS)

PIS GR-1.1

SUBSET	TOTAL
1	3
SHEET	TOTAL
74	79

MED-42-1.89/MED-224-(6.25)(10.45)

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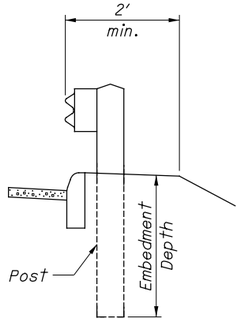
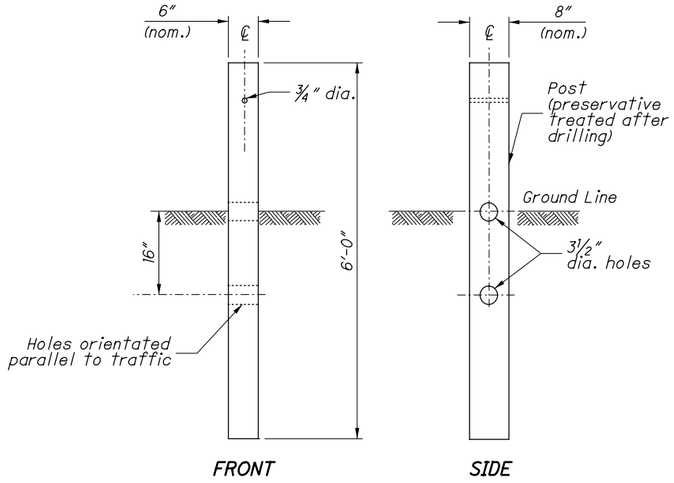
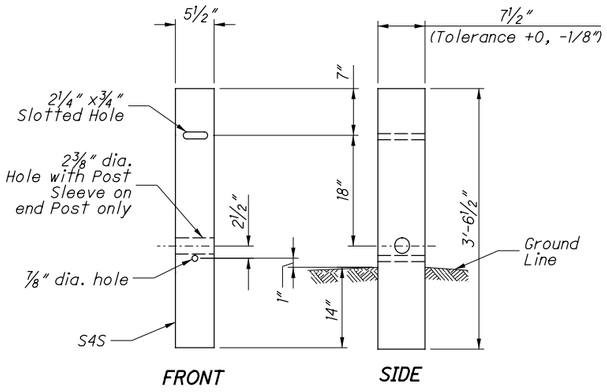


DETAIL A

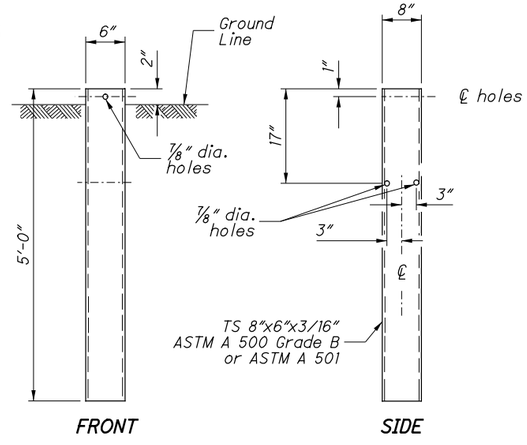
See POST EMBEDMENT DEPTH Note



TYPE 1 BREAKAWAY CRT POST



TYPE 2 BREAKAWAY CRT POST



STEEL GROUND TUBE

NOTES

GUARDRAIL HEIGHT: *For initial installation, construct the guardrail within ± 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 ±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.*

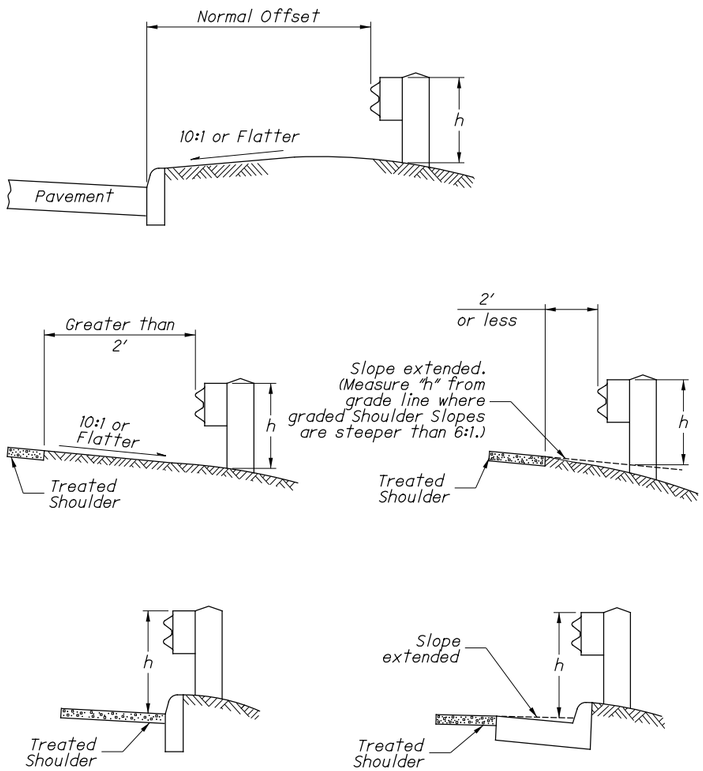
Do not drive posts located over a culvert with less than 4'-3" of cover; instead set in drilled or dug holes. Where the available post embedment depth is less than 3'-5", encase the post with a minimum of 4" concrete.

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.*

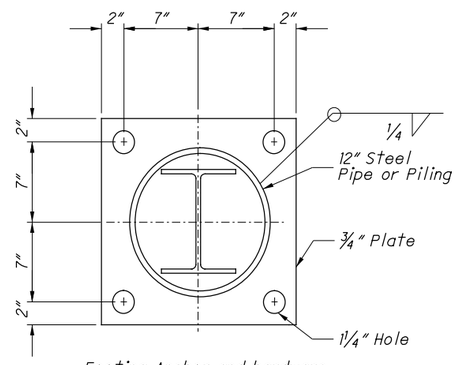
Expansion shield anchors as specified in CMS 712.01 may be substituted except where concrete deterioration has occurred, as determined by the Engineer. Where self-drilling anchors are used, drill the holes with the expansion shield (not by a drill bit) and install the shield flush with the concrete surface.

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.)*



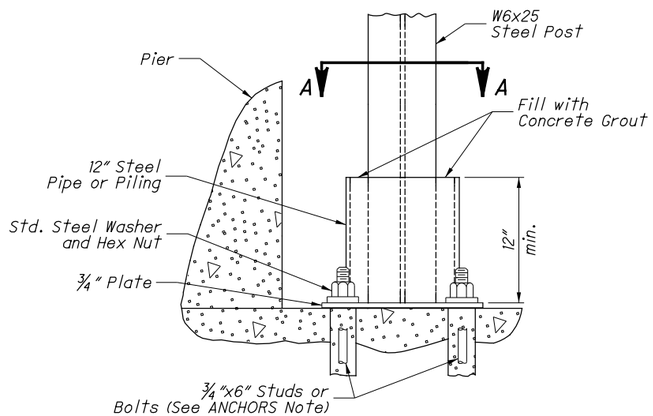
h = Standard Height (See GUARDRAIL HEIGHT Note)

MEASURING GUARDRAIL HEIGHT



Footing Anchor and hardware need not be galvanized

SECTION A-A



ELEVATION
FOOTING ANCHOR

See SPECIAL POST MOUNTINGS Note.

OFFICE OF ROADWAY ENGINEERING

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

PLAN INSERT SHEET
GUARDRAIL DETAILS
(RAIL COMPONENTS)

PIS GR-1.1

SUBSET	TOTAL
2	3
SHEET	TOTAL
75	79

MED-42-1.89/MED-224-(6.25)(10.45)
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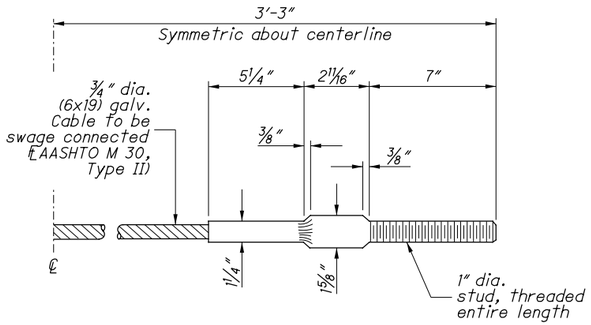
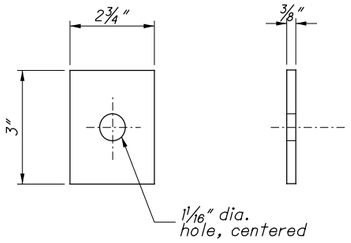
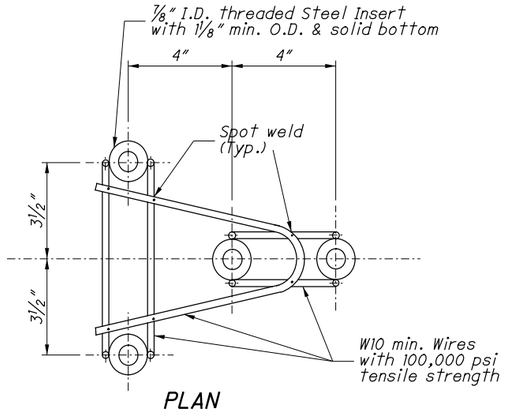


STANDARD SWAGED FITTING AND STUD

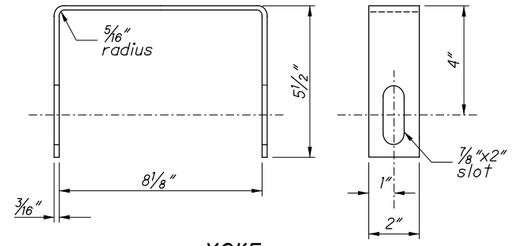
CABLE ANCHOR



END PLATE

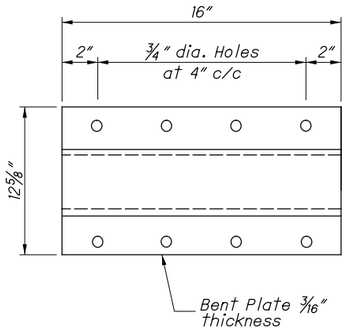


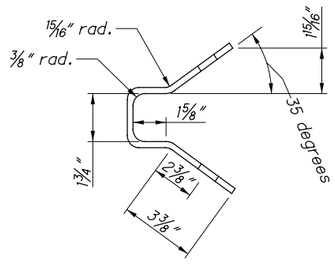
PLAN



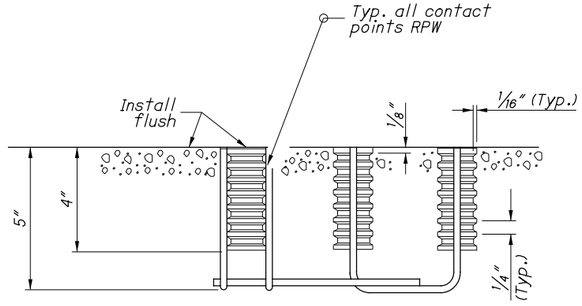
YOKE

Two required in Assembly





ANCHOR BRACKET

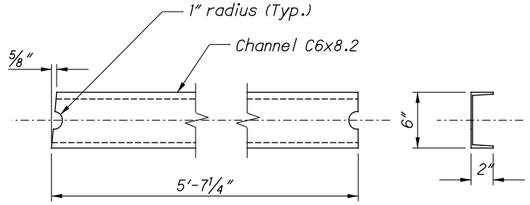


Four 7/8" Bolts required

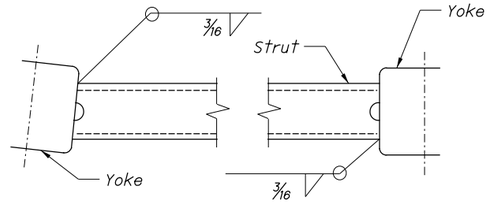
ELEVATION

CONCRETE INSERT ANCHOR ASSEMBLY (W-BEAM ONLY)

See ANCHORS and PROTECTIVE COATINGS Notes on Sheet 2



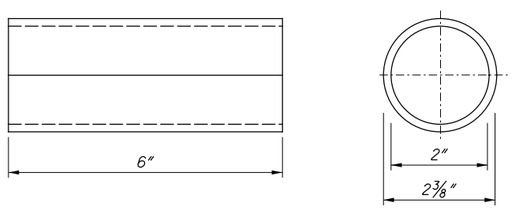
STRUT



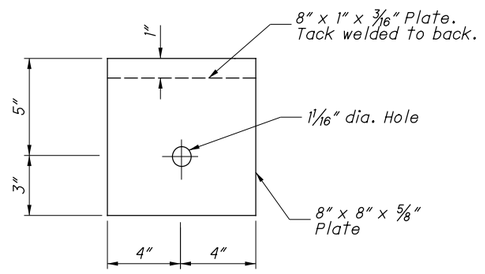
ANCHOR BRACKET ASSEMBLY DETAILS

Channel legs shown down. For opposite hand, install Channel legs up.

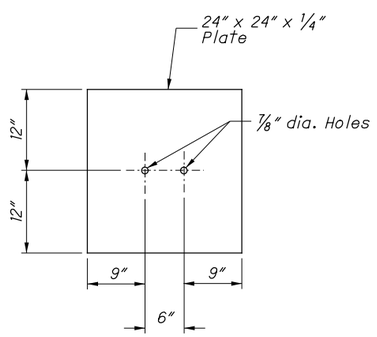
STRUT AND YOKE ASSEMBLY



POST SLEEVE



BEARING PLATE



SOIL PLATE

MED-42-1.89/MED-224-(6.25)(10.45)

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OFFICE OF ROADWAY ENGINEERING

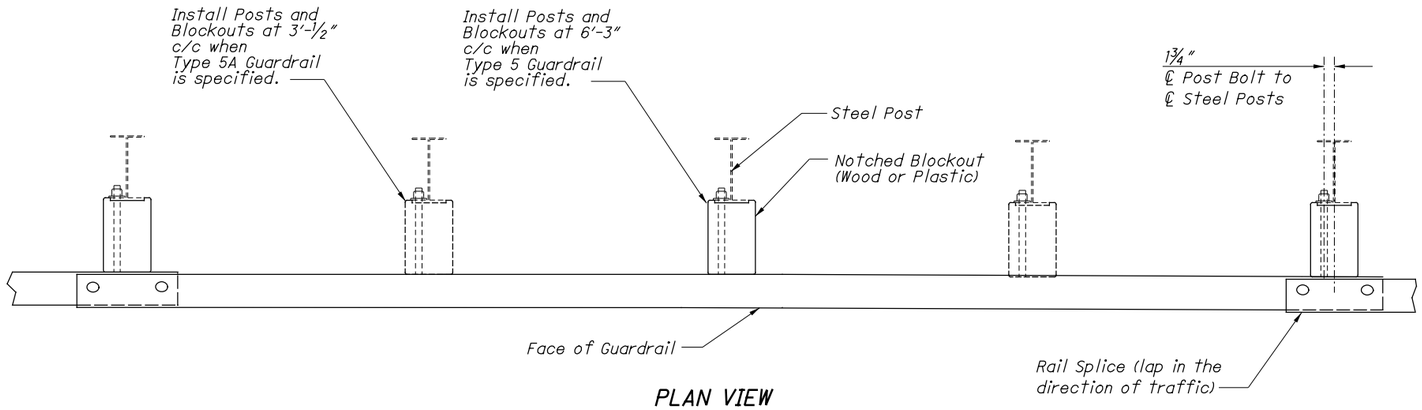
DESIGNED	REVIEWED
XXX	XXX
REVISION DATE	CHECKED
1/18/2013	CHECKED

PLAN INSERT SHEET

GUARDRAIL DETAILS (RAIL COMPONENTS)

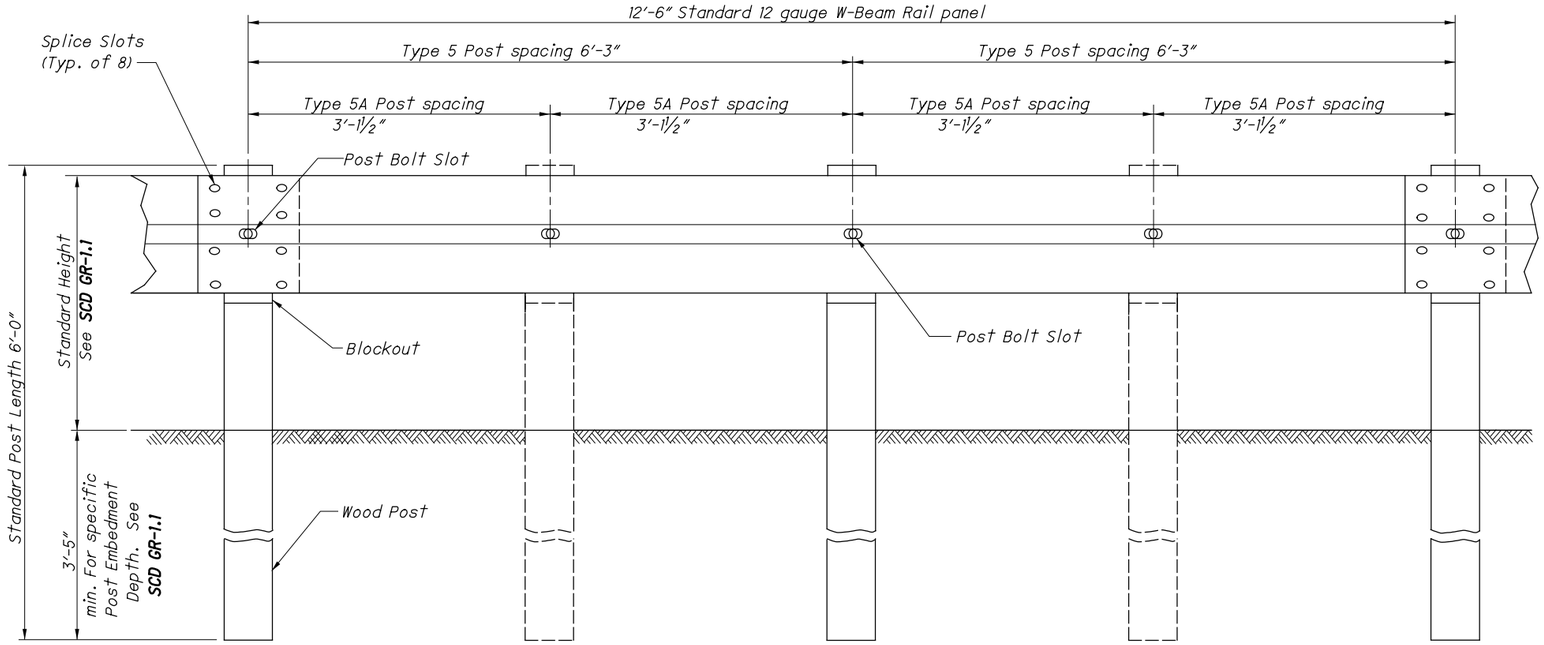
PIS GR-1.1

SUBSET	TOTAL
3	3
SHEET	TOTAL
76	79



PLAN VIEW

(Steel Posts shown)



ELEVATION

(Wood Posts shown)

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"

OFFICE OF ROADWAY ENGINEERING

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

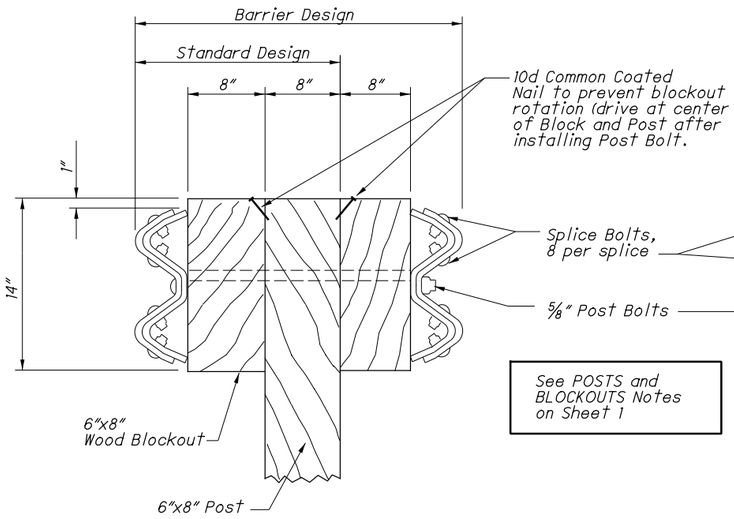
PLAN INSERT SHEET

GUARDRAIL TYPE 5 & 5A

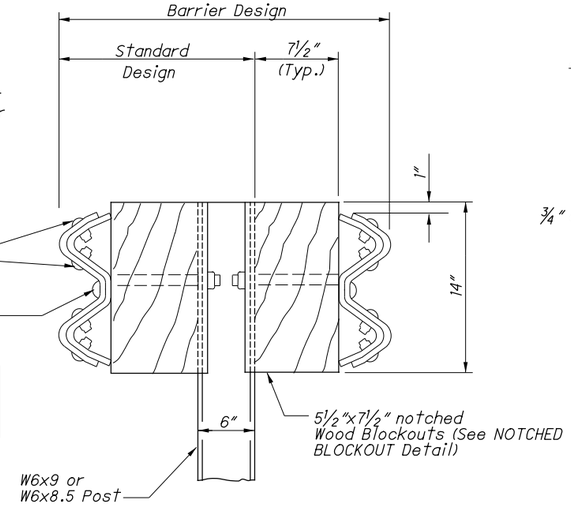
PIS GR-2.1

SUBSET	TOTAL
1	2
SHEET	TOTAL
77	79

MED-42-1.89/MED-224-(6.25)(10.45)

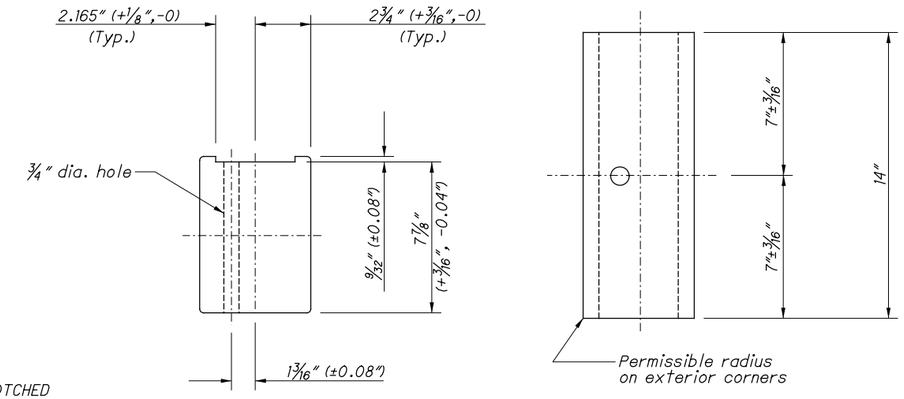


SQUARE WOOD POST



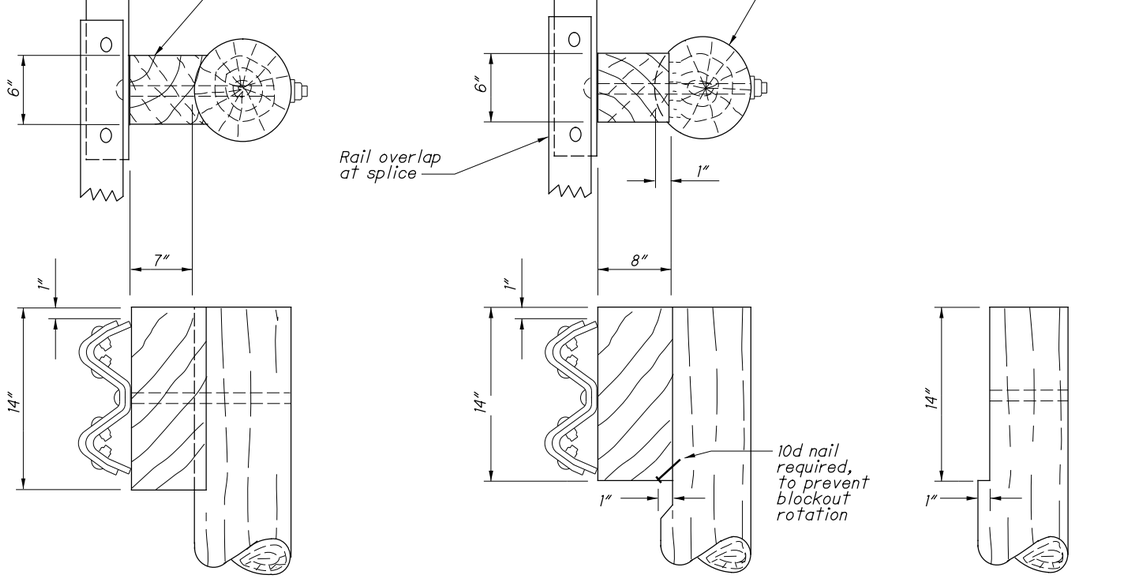
STEEL POST

See POSTS Note, Sheet 1



NOTCHED BLOCKOUTS FOR STEEL POSTS

See BLOCKOUTS Note on Sheet 1



Method 1
Routed Blockout

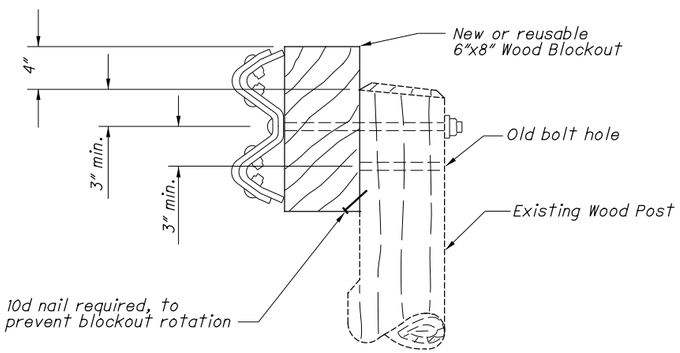
Method 2
Notched Post

Toenail not required if post is cut as shown

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)



WOOD POSTS WITH WOOD BLOCK RAISING EXISTING GUARDRAIL HEIGHT

OFFICE OF ROADWAY ENGINEERING

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

PLAN INSERT SHEET

GUARDRAIL TYPE 5 & 5A

PIS GR-2.1

SUBSET	TOTAL
2	2
SHEET	TOTAL
78	79

MED-42-1.89/MED-224-(6.25)(10.45)

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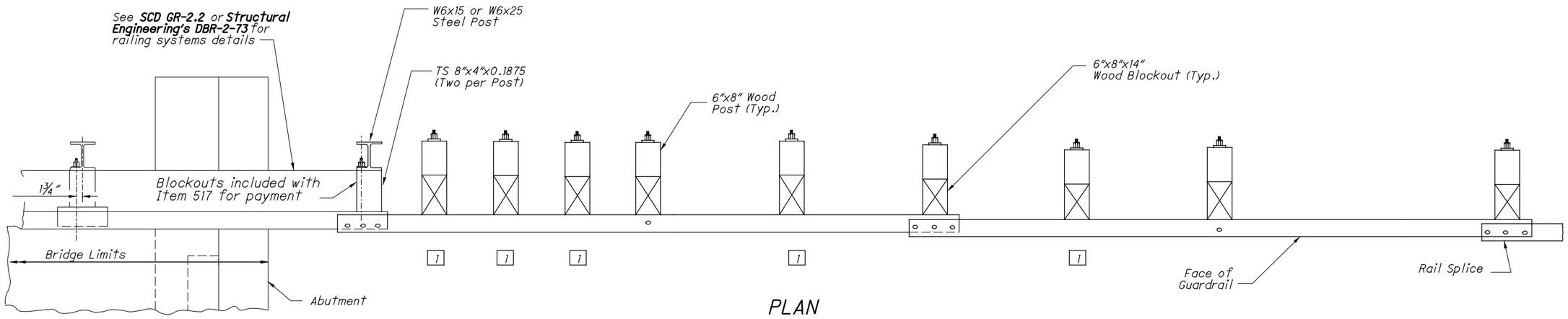
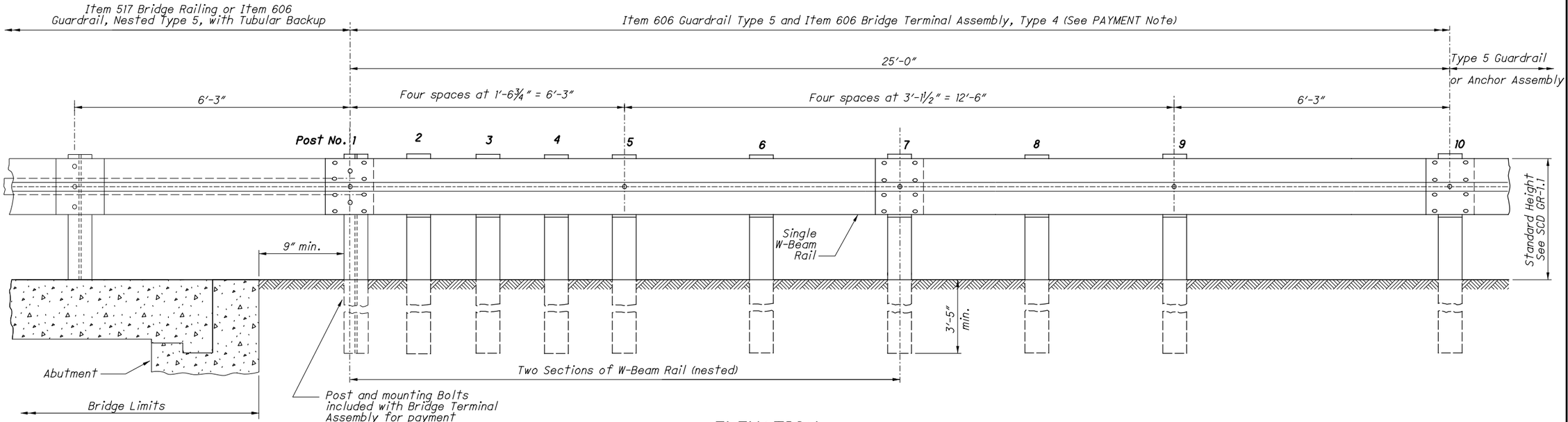


PLAN



ELEVATION

NOTES

GENERAL: *For additional details, see* ***SCD GR-1.1.***

APPLICATION: *The Type 4 Bridge Terminal Assembly shall connect Type 5 Guardrail runs to Type 5 Guardrail with Tubular Backup or to Deep Beam Bridge Guardrail (as shown on* ***Structural Engineering SCD DBR-2-73****).*

DETAIL INFORMATION: *The first post off the bridge shall be steel (W6x15 or W6x25). All holes in the off-structure end of the approach panel rail section spanning the abutment are slotted ¾"x2½". Tighten the bolts as specified for expansion joints in Item 606.05.*

POSTS: *Posts may be set in drilled holes or driven to grade. See* ***SCD GR-1.1*** *for additional Post embedment details. Guardrail is not attached to certian posts (see LEGEND).*

WOOD POSTS - Use square sawed pressure treated wood as specified in CMS 710.14 and fabricated with square ends. Bore bolt holes and trim the tops of posts, if required after the posts are set.

STEEL POSTS - are allowed as an alternate. Use W6x9 or W6x8.5 in lieu of the 6"x8" wood post. Use same post material through-out assembly.

BLOCKOUTS: *Approved alternate blockouts can be found on the Office of Roadway Engineering website. Steel blockouts are not permitted.*

FLARED GUARDRAIL: *Start Standard Guardrail Flares as shown on* ***SCD GR-5.1*** *at or beyond Post No. 10; however, the flare may begin at Post No. 7.*

PAYMENT: Item 606 - Bridge Terminal Assembly, Type 4, Each, *includes the cost of extra components in excess of normal guardrail, such as additional posts and other hardware. The TS 8"x4" spacers and Tubular backup rail extending to the first post off the bridge is included with* ***Item 517 - Railing,*** *or* ***Item 606 - Guardrail, Nested Type 5 with Tubular Backup,*** *for payment.*

LEGEND

[1] *Guardrail is not attached to posts at Posts 2, 3, 4, 6, and 8. Blockout is fastened to post with standard Post Bolt.*

OFFICE OF ROADWAY ENGINEERING

DESIGNED	REVIEWED
XXX	XXX
REVISION DATE	CHECKED
7/20/2018	CHECKED

PLAN INSERT SHEET

BRIDGE TERMINAL ASSEMBLY, TYPE 4

PIS GR-3.4

SUBSET	TOTAL
1	1
SHEET	TOTAL
79	79

MED-42-1.89/MED-224-(6.25)(10.45)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 7/12/2021 TIME: 12:57:51 PM USER: jtlowery
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Medina\79761400-Engineering\Roadway\Sheets\PIS_GR-3.4_7-20-2018.dgn