

FRA - SR 104-05.63
 210538 PID - 97727
 Dist 6 10/14/2021

STATE OF OHIO
 DEPARTMENT OF TRANSPORTATION

FRA-104-5.63

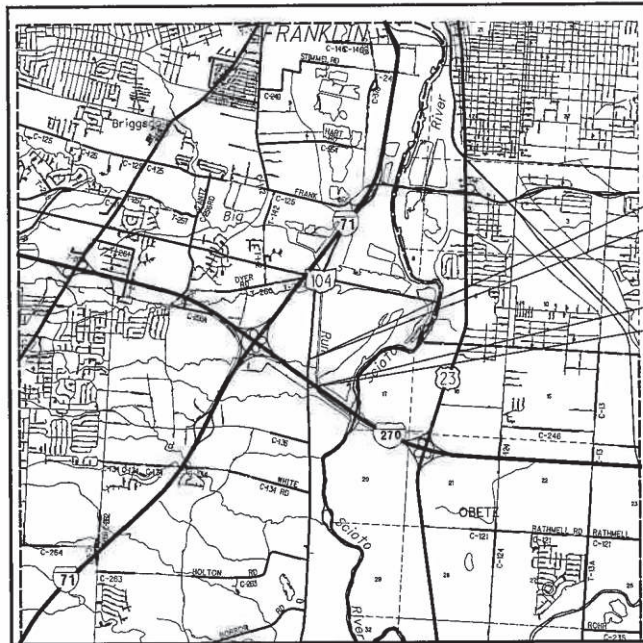
JACKSON TOWNSHIP
 FRANKLIN COUNTY

PROJECT DESCRIPTION

IMPROVEMENT OF 0.30 MILES OF S.R. 104 OVER I-270 INCLUDING DECK REPLACEMENT, BEARING REPLACEMENT, APPROACH SLAB REPLACEMENT, SUBSTRUCTURE REPAIRS, DITCH CLEAN OUT, AND GUARDRAIL REPLACEMENT.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 2.81 (MAINTENANCE PROJECT)
 ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A (MAINTENANCE PROJECT)
 NOTICE OF INTENT EARTH DISTURBED AREA: N/A (MAINTENANCE PROJECT)



LOCATION MAP

LATITUDE: 39°53'09" N LONGITUDE: 83°01'40" W

SCALE IN MILES



PORTION TO BE IMPROVED	_____
INTERSTATE HIGHWAY	_____
FEDERAL ROUTES	_____
STATE ROUTES	_____
COUNTY & TOWNSHIP ROADS	_____
OTHER ROADS	_____

DESIGN DESIGNATION

CURRENT ADT (2020)	13,000
DESIGN YEAR ADT (2040)	17,000
DESIGN HOURLY VOLUME (2040)	2,200
DIRECTIONAL DISTRIBUTION	61%
TRUCKS (24 HOUR B&C)	17%
DESIGN SPEED	50 MPH
LEGAL SPEED	45 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
URBAN MINOR ARTERIAL	
NHS PROJECT	NO

DESIGN EXCEPTIONS

NONE REQUIRED

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig



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

PLAN PREPARED BY:



FISHBECK
 ONE EAST CAMPUS
 VIEW BLVD.
 SUITE 310
 COLUMBUS, OH 43235

INDEX OF SHEETS:

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BSM	10-07-21	ADDED SS878
REV. BY	DATE	DESCRIPTION
DATE COMPLETED 07-02-2021		

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
BP-3.1	1/17/20	MGS-1.1	1/19/18	TC-41.20	10/18/13	800	7/16/21		
BP-5.1	1/18/19	MGS-2.1	1/19/18	TC-42.20	10/18/13	832	10/19/18		
		MGS-3.1	1/19/18	TC-52.10	10/18/13	846	4/17/15		
DM-1.1	7/17/20	MGS-4.2	7/19/13	TC-52.20	1/15/21	869	10/17/14		
DM-1.2	1/18/13			TC-61.30	7/19/19	878	4/16/21		
DM-3.1	1/18/13	MT-95.30	7/19/19						
DM-4.1	7/17/20	MT-95.31	7/19/19	AS-1-15	7/17/15				
DM-4.3	1/15/16	MT-95.32	4/19/19	AS-2-15	1/18/19				
DM-4.4	1/15/16	MT-95.45	1/17/20	BR-1-13	1/17/14				
		MT-101.60	1/17/20	SICD-1-96	7/18/14				
F-2.1	7/20/18	MT-101.70	1/17/20	SICD-2-14	1/15/21				
F-3.1	7/19/13	MT-101.75	1/17/20	VPF-1-90	7/20/18				
		MT-101.90	7/17/20						
		MT-105.10	1/17/20						
		RM-4.2	4/17/20						

ENGINEERS SEAL:

SIGNED: *[Signature]*
 DATE: 07-02-2021

2019 SPECIFICATIONS

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

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF I-270 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF SR 104 AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEETS 10/60 - 11/60.

PLAN CERTIFIED AS TO COMPLETENESS AND QUALITY

[Signature] 07-02-2021
 SIGNATURE DATE
 FISHBECK PROJECT MANAGER
 FIRM TITLE

APPROVED *[Signature]*
 DATE 7/16/2021 DISTRICT DEPUTY DIRECTOR

APPROVED *[Signature]*
 DATE 8/25/21 DIRECTOR, DEPARTMENT OF TRANSPORTATION

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

FEDERAL PROJECT NO.
E150342

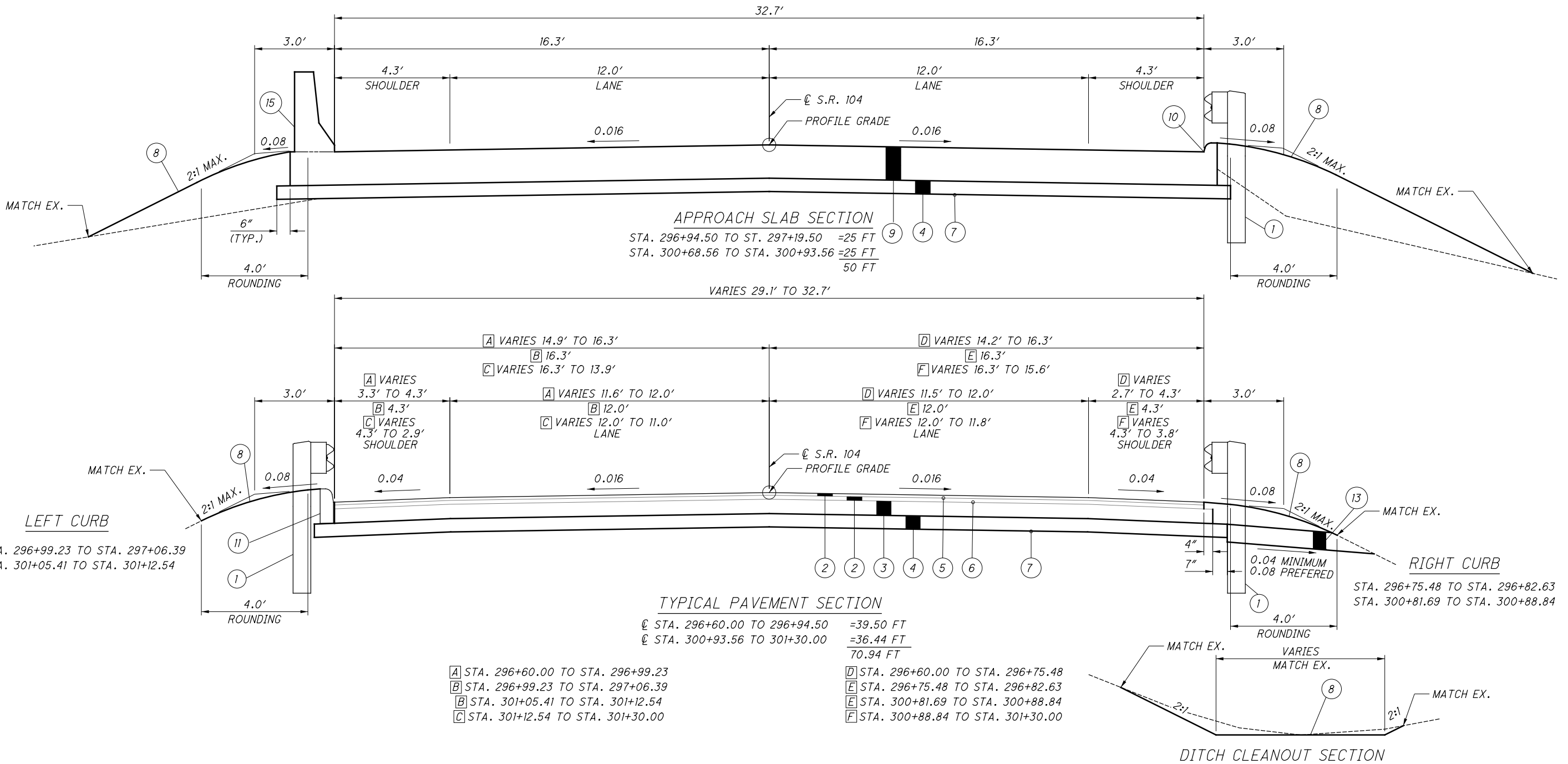
PID NO.
97727

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT
NONE

FRA-104-5.63

1
 60



LEGEND

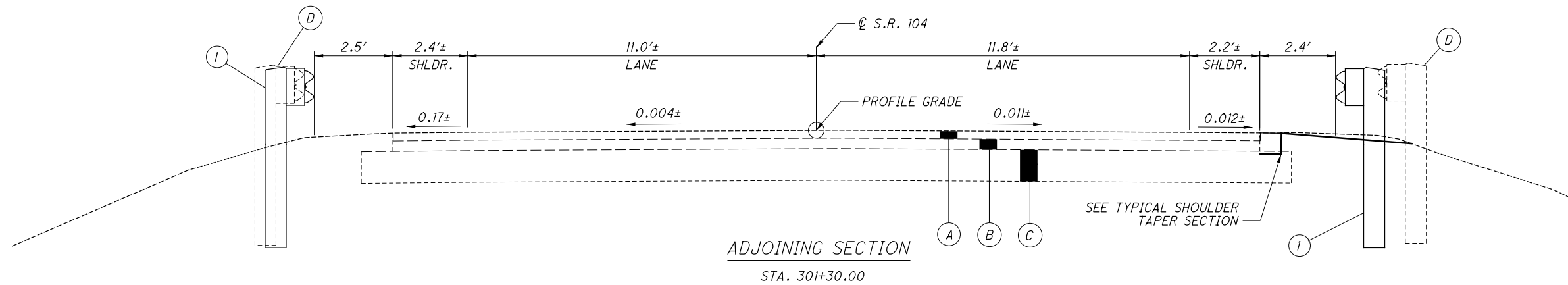
- (1) ITEM 606 - GUARDRAIL, TYPE MGS
- (2) ITEM 442 - 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
- (3) ITEM 302 - 7" ASPHALT CONCRETE BASE, PG64-22
- (4) ITEM 304 - 6" AGGREGATE BASE
- (5) ITEM 407 - TACK COAT
- (6) ITEM 407 - TACK COAT
- (7) ITEM 204 - SUBGRADE COMPACTION
- (8) ITEM 659 - SEEDING AND MULCHING

- (9) ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN
- (10) INTEGRAL TYPE 4-A CURB (INCLUDED WITH ITEM 526)
- (11) ITEM 609 - CURB, TYPE 4-C
- (12) ITEM 411 - 8" STABILIZED CRUSHED AGGREGATE
- (13) ITEM 605 - AGGREGATE DRAINS
- (15) NEW JERSEY SHAPE CONCRETE BRIDGE RAILING MOUNTED ON APPROACH SLAB (INCLUDED WITH ITEM 526) (SEE BRIDGE PLANS)

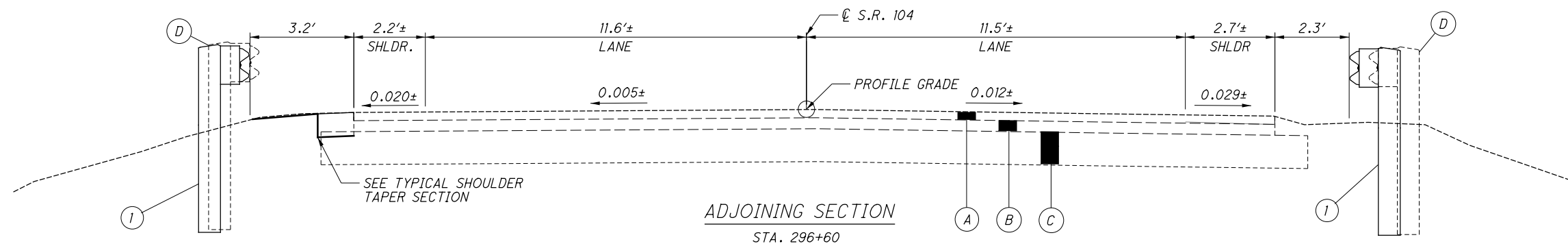
EXISTING LEGEND

- (A) ± 3" EXISTING 442-ASPHALT CONCRETE SURFACE COURSE TYPE A (448)
- (B) ± 4" EXISTING ASPHALT CONCRETE PAVEMENT
- (C) ± 12" EXISTING AGGREGATE BASE
- (D) EXISTING GUARDRAIL

REV.	BY	DATE	DESCRIPTION
BSM	10-07-21	DELETED DITCH CLEANOUT PAY ITEM	



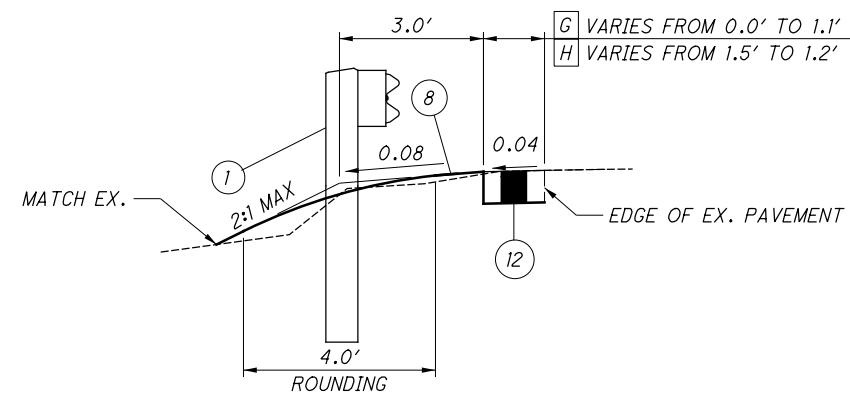
ADJOINING SECTION
STA. 301+30.00



ADJOINING SECTION
STA. 296+60

EXISTING LEGEND

- (A) ± 3" EXISTING 442-ASPHALT CONCRETE SURFACE COURSE TYPE A (448)
- (B) ± 4" EXISTING ASPHALT CONCRETE PAVEMENT
- (C) ± 12" EXISTING AGGREGATE BASE
- (D) EXISTING GUARDRAIL



TYPICAL SHOULDER TAPER SECTION

G STA. 296+ 26.93 LT. TO STA. 296+60.00 LT.
H STA. 301+30.00 RT. TO STA. 301+46.14 RT.

LEGEND

- (1) ITEM 606 - GUARDRAIL, TYPE MGS
- (2) ITEM 442 - 1½" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
- (3) ITEM 302 - 7" ASPHALT CONCRETE BASE, PG64-22
- (4) ITEM 304 - 6" AGGREGATE BASE
- (5) ITEM 407 - TACK COAT
- (6) ITEM 407 - TACK COAT
- (7) ITEM 204 - SUBGRADE COMPACTION
- (8) ITEM 659 - SEEDING AND MULCHING
- (9) ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN
- (10) INTEGRAL TYPE 4-A CURB (INCLUDED WITH ITEM 526)
- (11) ITEM 609 - CURB, TYPE 4-C
- (12) ITEM 411 - 8" STABILIZED CRUSHED AGGREGATE
- (13) ITEM 605 - AGGREGATE DRAINS
- (15) NEW JERSEY SHAPE CONCRETE BRIDGE RAILING MOUNTED ON APPROACH SLAB (INCLUDED WITH ITEM 526) (SEE BRIDGE PLANS)

BSM	10-07-21	DELETED DITCH CLEANOUT PAY ITEM
REV. BY	DATE	DESCRIPTION
DATE COMPLETED	07-02-2021	

SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
4	5	7	8	9	12	17	36			01/S>2 /BR								
											LS	201	11000	LS		ROADWAY CLEARING AND GRUBBING		
						223					223	202	23000	223	SY	PAVEMENT REMOVED		
						2354					2354	202	38000	2,354	FT	GUARDRAIL REMOVED		
						258					258	202	75000	258	FT	FENCE REMOVED	BSM 10-07-21	
						690					690	203	10000	690	CY	EXCAVATION	BSM 10-07-21	
																REV. BY DATE DESCRIPTION		
						842					842	203	20000	842	CY	EMBANKMENT	DATE COMPLETED 07-02-2021	
						484					484	204	10000	484	SY	SUBGRADE COMPACTION		
						504					504	204	50000	504	SY	GEOTEXTILE FABRIC		
											1925	606	15050	1,925	FT	GUARDRAIL, TYPE MGS		
											5	606	26150	5	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)		
											1	606	26550	1	EACH	ANCHOR ASSEMBLY, MGS TYPE T		
											4	606	35002	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1		
											4	221	15000	221	FT	FENCE, TYPE 47		
											221	LS	878	25000	LS	INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS		
																EROSION CONTROL		
						504					504	601	20000	504	SY	CRUSHED AGGREGATE SLOPE PROTECTION		
	1										1	601	21050	1	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT		
											193	601	21060	193	SY	TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT		
											2	659	00100	2	EACH	SOIL ANALYSIS TEST		
	2										242	659	00300	242	CY	TOPSOIL		
											2175	659	10000	2,175	SY	SEEDING AND MULCHING		
											109	659	14000	109	SY	REPAIR SEEDING AND MULCHING		
											109	659	15000	109	SY	INTER-SEEDING		
											0.31	659	20000	0.31	TON	COMMERCIAL FERTILIZER		
											0.45	659	31000	0.45	ACRE	LIME		
											13	659	35000	13	MGAL	WATER		
											45000	832	30000	45,000	EACH	EROSION CONTROL		
																DRAINAGE		
	10										10	605	13300	10	FT	6" UNCLASSIFIED PIPE UNDERDRAINS		
	5					39					44	605	31100	44	FT	AGGREGATE DRAINS		
	10										10	611	01100	10	FT	6" CONDUIT, TYPE C		
	10					190					200	611	01500	200	FT	6" CONDUIT, TYPE F		
	10										10	611	01800	10	FT	8" CONDUIT, TYPE B		
	10										10	611	02000	10	FT	8" CONDUIT, TYPE C		
	8										8	611	04400	8	FT	12" CONDUIT, TYPE B		
	8										8	611	04600	8	FT	12" CONDUIT, TYPE C		
	8										8	611	05100	8	FT	12" CONDUIT, TYPE E		
	8										8	611	05200	8	FT	12" CONDUIT, TYPE F		
	1										1	611	99710	1	EACH	PRECAST REINFORCED CONCRETE OUTLET		
	1										1	611	99720	1	EACH	INSPECTION WELL		
																PAVEMENT		
			128								128	251	01000	128	SY	PARTIAL DEPTH PAVEMENT REPAIR (441)		
			32								32	253	01000	32	SY	PAVEMENT REPAIR		
						57					57	255	20000	57	FT	FULL DEPTH PAVEMENT SAWING		
			8								8	301	46000	8	CY	ASPHALT CONCRETE BASE, PG64-22		
						50					50	302	46000	50	CY	ASPHALT CONCRETE BASE, PG64-22		
						6					84	304	20000	84	CY	AGGREGATE BASE		
			4								35	407	10000	35	GAL	TACK COAT		
						1					1	411	10000	1	CY	STABILIZED CRUSHED AGGREGATE		
			3								3	441	50000	3	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22		
						21					21	442	20000	21	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)		
						29					29	609	24510	29	FT	CURB, TYPE 4-C		
			6								6	617	10100	6	CY	COMPACTED AGGREGATE		
			0.03								0.03	617	25000	.03	MGAL	WATER		
																TRAFFIC CONTROL		
						10					10	626	00102	10	EACH	BARRIER REFLECTOR, TYPE 1 (BI-DIRECTIONAL)		
						27					27	626	00110	27	EACH	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL)		
						50					50	630	02100	50	EACH	GROUND MOUNTED SUPPORT, NO. 2 POST		

GENERAL SUMMARY

FRA-104-5.63

DRAINAGE AND EROSION CONTROL TABLE

REFERENCE NO.	CARRIED FROM SHEET	STATION		SIDE	ITEMS						
		FROM/AT	TO		204	601	601	605	611	659	
		SY	SY		SY	FT	FT	SY			
DC1	18	294+45.00	296+00.00	LT						111	
DC2	19	296+00.00	297+45.00	LT						293	
DC3	19	301+00.00	307+00.00	RT						745	
DC4	19	301+16.00	304+16.00	LT						343	
E1	19	297+00.00		RT	106.63	106.63					
E2	19	297+32.94		LT	115.29	115.29					
E3	19	300+54.85		RT	247.00	247.00					
E4	19	300+87.78		LT	34.49	34.49					
D1	19	296+71.39		RT			41.12				
D2	19	296+95.04		LT			54.97				
D3	19	300+92.66		RT			64.63				
D4	19	301+16.71		LT			31.82				
D5	19	297+01.64	297+27.43	LT						45	
D6	19	296+59.05	296+77.70	RT						30	
D7	19	301+11.12	301+33.13	LT						40	
D8	19	300+45.29	300+87.58	RT						75	
A1	19	296+50.00		LT			5.68				
A2	19	296+63.78		RT			7.72				
A3	19	296+76.92		LT			7.56				
A4	19	301+06.44		RT			7.37				
A5	19	301+24.53		LT			4.71				
A6	19	301+30.00		RT			5.10				
S1	19	296+30.00	297+00.00	RT						125	
S2	19	297+10.00	297+32.98	LT						82	
S3	19	300+55.13	301+00.00	RT						295	
S4	19	300+87.78	301+50.00	LT						181	
SUB-TOTAL					503.41	503.41	192.54	38.14	190	2175*	
TOTALS CARRIED TO GENERAL SUMMARY					504	504	193	39	190		

* TOTALS CARRIED TO GENERAL NOTES

GUARDRAIL AND FENCE TABLE

REFERENCE NO.	CARRIED FROM SHEET	STATION		SIDE	ITEMS						
		FROM/AT	TO		202	202	606	606	606	606	607
		FT	FT		FT	EACH	EACH	EACH	FT		
G1	18	293+69.30	296+94.23	RT	345.22		250	1		1	
G2	18	294+17.97	297+17.99	LT	328.39		225	1		1	
G3	19	300+70.09	309+47.12	RT	927.60		800	1		1	
G4	19	300+93.56	304+53.31	LT	377.84		287.5	1		1	
G5	19	305+02.36	309+05.82	LT	374.03		362.5	1	1		
F1	19	297+01.41		RT		54.05					42.93
F2	19	297+39.15		LT		46.96					38.78
F3	19	300+48.81		RT		91.57					84.66
F4	19	300+86.37		LT		64.43					53.88
SUB-TOTAL					2353.08	257.01	1925	5	1	4	220.25
TOTALS CARRIED TO GENERAL SUMMARY					2354	258	1925	5	1	4	221

EARTHWORK TABLE

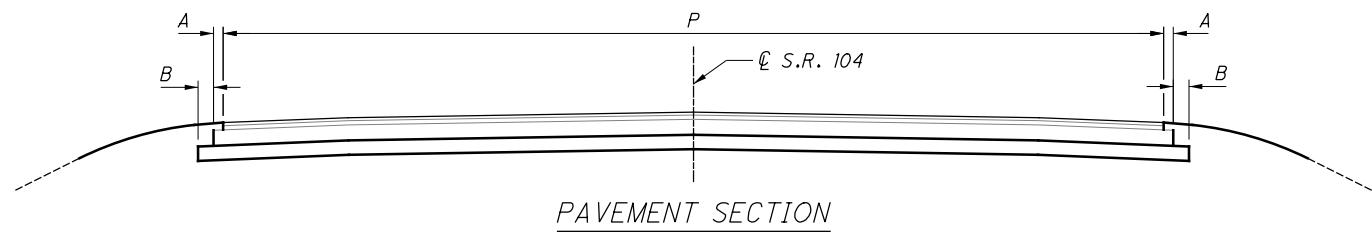
REFERENCE NO.	CARRIED FROM SHEET	STATION		ITEMS	
		FROM/AT	TO	203	203
		EXCAVATION	EMBANKMENT		
	22	294+50.00	296+00.00	5	
	23	296+50.00	294+94.50	96	111
	24	296+94.50	300+93.56	331	654
	25	301+30.00	301+50.00	169	77
	26	301+50.00	302+00.00	43	
	27	302+50.00	303+00.00	11	
	28	303+00.00	303+50.00	6	
	29	304+00.00	304+50.00	7	
	30	305+00.00	306+00.00	8	
	31	306+50.00	307+28.97	14	
TOTALS CARRIED TO GENERAL SUMMARY				690	842

PAVEMENT QUANTITIES TABLE

REFERENCE NO.	CARRIED FROM SHEET	STATION		SIDE	P (AVG)	A	B	ITEMS											
		FROM/AT	TO					202	204	255	302	304	407	411	442	609			
		SY	SY					FT	SY	FT	CY	CY	GAL	CY	CY	FT			
P1	19	296+60.00	296+94.50		31.40	4	7	108.36	131.87	28.07	23.90	21.23	14.60		10.03				
P2	19	300+93.56	301+30.00		31.72	4	7	114.16	140.58	27.94	25.50	22.64	15.57		10.70				
T1	19	296+26.93	296+60.00	LT	0.55										0.45				
T2	19	301+30.00	301+46.41	RT	1.35										0.55				
AS1	19	296+94.50	297+19.50		34.97	6	0	105.47				16.65							
AS2	19	300+68.56	300+93.56		34.97	6	0	105.47				16.65							
C1	19	296+75.48	296+82.63	RT												7.15			
C2	19	296+99.23	297+06.39	LT												7.16			
C3	19	300+81.69	300+88.84	RT												7.15			
C4	19	301+05.41	301+12.54	LT												7.13			
SUB-TOTAL								222.52	483.39	56.01	49.40	77.18	30.17	1.00	20.73	28.59			
TOTALS CARRIED TO GENERAL SUMMARY								223	484	57	50	78	31	1	21	29			

SIGNING AND PAVEMENT MARKING TABLE

REFERENCE NO.	CARRIED FROM SHEET	STATION		SIDE	CODE	ITEMS										
		FROM/AT	TO			626	626	630	630	630	630	630	642	642		
		EACH	EACH			FT	FT	SF	EACH	EACH	MILE	MILE				
BR 1	32	293+69.30	309+47.12	RT		5	13									
BR 2	32	294+17.97	304+53.31	LT		5	8									
BR 3	32	305+02.36	309+05.82	LT			6									
SN 1	32	296+75.00		RT	I-H25a			10.25		1.00						
SN 2	32	306+21.21		RT	I-H3B			6.58	10							
SN 3	32	307+76.36		LT	I-H3B			6.58	10							
SN 4	32	308+62.54		RT	W8-H18a			9.14	10							
SN 5	32	308+62.36		LT	R2-1			8.58	10							
SN 6	32	308+93.81		RT	M3-1			8.35	10							
					MI-5-3											
EL 1	32	296+60.00	301+30.00	RT											0.09	
EL 2	32	296+60.00	301+30.00	LT											0.09	
CL 1	32	296+60.00	301+30.00													0.09
SUB-TOTAL						10	27	49.48	50.00	1.00	6	5	0.18	0.09		
TOTALS CARRIED TO GENERAL SUMMARY						10	27	50	50	1	6	5	0.18	0.09		



BSM	10-07-21	DELETED DITCH CLEANOUT PAY ITEM
REV. BY	DATE	DESCRIPTION
DATE COMPLETED	07-02-2021	