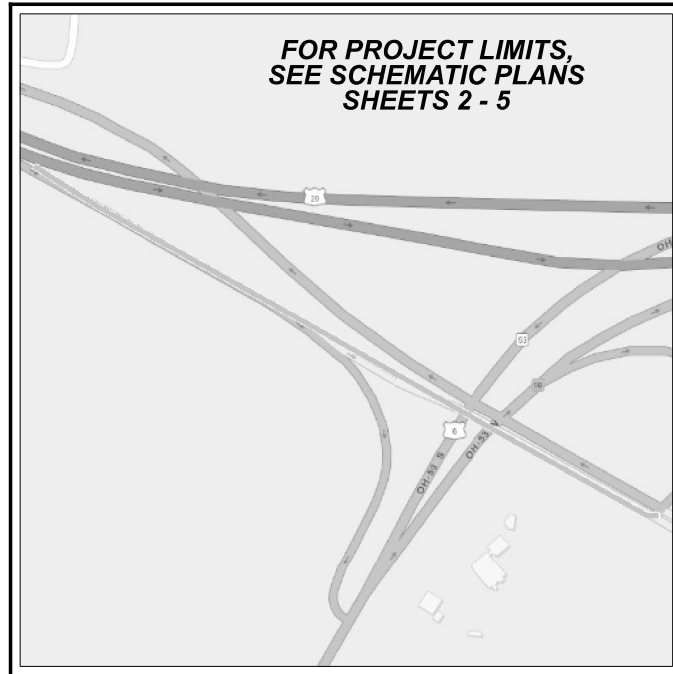


# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

## SAN-6/20I-14.87/0.00

FOR PART 2, SEE SAN-CR20W-0.00

SANDUSKY TOWNSHIP  
SANDUSKY COUNTY



### LOCATION MAP

LATITUDE: 41°22'04" N LONGITUDE: 83°09'42" W



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

### DESIGN DESIGNATION - (A) U.S. 6 - (B) C.R. 20 (W. STATE ST.) - (C) U.S. 20 WEST OF INTERCHANGE

OPENING YEAR ADT (2022)	(A) 10500, (B) 7500, (C) 14000
DESIGN YEAR ADT (2042)	(A) 11500, (B) 10100, (C) 17000
DESIGN HOURLY VOLUME (2042)	(A) 1000, (B) 1000, (C) 1500
DIRECTIONAL DISTRIBUTION	(A) 50%, (B) 57%, (C) 53%
TRUCKS (24 HOUR B&C)	(A) 23%, (B) 9%, (C) 17%
DESIGN SPEED	(A) 60, (B) VARIES, (C) 65
LEGAL SPEED	(A) 55, (B) VARIES, (C) 60
DESIGN FUNCTIONAL CLASSIFICATION:	
RURAL PRINCIPAL ARTERIAL	_____
NHS PROJECT	_____ YES

### DESIGN EXCEPTIONS

NONE REQUIRED

### ADA DESIGN WAIVERS

NONE REQUIRED

**UNDERGROUND UTILITIES**  
Contact Two Working Days  
Before You Dig

**OHIO811.org**  
Before You Dig

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

### PLAN PREPARED BY:



DESIGN AGENCY  
Jb Inc. • 2500 Newmark Drive  
Mansfield, OH 44834  
(937) 259-5000 tel • (937) 259-5100 fax • JbInc.com

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### DESIGN DESIGNATION - U.S. 6/20 EAST OF INTERCHANGE

OPENING YEAR ADT (2022)	15000
DESIGN YEAR ADT (2042)	16000
DESIGN HOURLY VOLUME (2042)	1300
DIRECTIONAL DISTRIBUTION	52%
TRUCKS (24 HOUR B&C)	17%
DESIGN SPEED	70
LEGAL SPEED	65
DESIGN FUNCTIONAL CLASSIFICATION:	
RURAL EXPRESSWAY	_____
NHS PROJECT	_____ YES

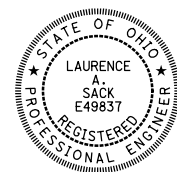
### DESIGN DESIGNATION - EB C.R. 20 (W. STATE ST.) TO U.S. 6 RAMP

OPENING YEAR ADT (2022)	1100
DESIGN YEAR ADT (2042)	1400
DESIGN HOURLY VOLUME (2042)	160
DIRECTIONAL DISTRIBUTION	100%
TRUCKS (24 HOUR B&C)	22%
DESIGN SPEED	45
DESIGN FUNCTIONAL CLASSIFICATION:	
RURAL LOCAL	_____
NHS PROJECT	_____ NO

### INDEX OF SHEETS:

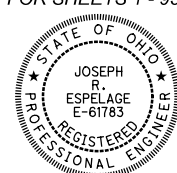
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TYPICAL SECTION	7 - 11
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ENGINEER'S SEAL:  
FOR SHEETS 96 - 150



SIGNED: *Laurence A. Sack*  
DATE: 09/29/2021

ENGINEER'S SEAL:  
FOR SHEETS 1 - 95



SIGNED: *Joseph R. Espelage*  
DATE: 09/29/2021

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-2.1	7/17/15	MGS-4.2	7/19/13	TC-21.11	7/16/21	TC-61.30	7/19/19	800-2019	7/17/20
BP-2.2	1/15/21	MGS-4.3	1/18/13	TC-21.21	7/16/21	TC-65.10	1/17/14	832	10/19/18
BP-2.5	7/19/13	MGS-5.2	7/15/16	TC-22.10	4/17/20	TC-65.11	7/21/17	861	1/15/21
BP-3.1	1/17/20	MGS-5.3	7/15/16	TC-22.20	1/17/14	TC-71.10	7/16/21	874	4/17/20
BP-4.1	7/19/13			TC-41.10	7/19/13	TC-72.20	7/20/18	1120	7/16/21
BP-6.1	7/19/13	RM-1.1	1/15/21	TC-41.20	10/18/13	TC-73.20	1/17/20		
		RM-4.1	7/21/17	TC-41.30	10/18/13				
DM-1.1	7/17/20			TC-41.40	10/18/13				
DM-1.2	7/16/21	MT-95.30	7/19/19	TC-41.50	10/18/13				
		MT-97.10	4/19/19	TC-42.10	10/18/13				
F-2.1	7/20/18	MT-97.12	1/20/17	TC-42.20	10/18/13				
		MT-99.20	4/19/19	TC-51.11	1/15/16				
MGS-1.1	7/16/21			TC-51.12	1/15/16				
MGS-2.1	1/19/18	TC-12.31	1/21/22	TC-52.10	10/18/13				
MGS-3.1	1/19/18	TC-15.116	7/16/21	TC-52.20	1/15/21				
MGS-3.2	1/18/13	TC-16.22	7/16/21	TC-61.10	1/17/20				

### FEDERAL PROJECT NUMBER

E200611

### RAILROAD INVOLVEMENT

NONE

### PROJECT DESCRIPTION

RECONFIGURE C.R. 20 ACCESS TO U.S. 6 WITH A HIGH SPEED ENTRANCE RAMP. REMOVE ACCESS T.R. 138 TO U.S. 20. RECONFIGURE OVERHEAD SIGNS AND MARKINGS FOR NEW LANE UTILIZATION ON WESTBOUND U.S. 20 AND EASTBOUND IN ADVANCE OF THE INTERCHANGE.

### EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	4.24 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.40 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	4.64 ACRES

### LIMITED ACCESS

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

### 2019 SPECIFICATIONS

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

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE PART TIME CLOSING OF THE HIGHWAY TO TRAFFIC, AS NOTED ON SHEET 21. DURING WHICH TIME DETOURS WILL BE PROVIDED AS SHOWN HEREIN. PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED \_\_\_\_\_

DATE \_\_\_\_\_ DISTRICT DEPUTY DIRECTOR

APPROVED \_\_\_\_\_

DATE \_\_\_\_\_ DIRECTOR, DEPARTMENT OF TRANSPORTATION

TITLE SHEET

DESIGN AGENCY



DESIGNER

BMG

REVIEWER

JRE 07/19/21

PROJECT ID

111020

SHEET TOTAL

1 157

SAN-6/20I-14.87/0.00

MODEL: Sheet PAPER SIZE: 17x11 (in.) DATE: 3/21/2022 TIME: 10:37:59 AM USER: lsack C:\ODOT\_D2\0118257A\00 - SAN-6\_20I-1487\_000\111020400-Engineering\Roadway\Sheets\111020\_GT0001.dgn

**PHASE 1--CONSTRUCT PROPOSED C.R. 20  
MEDIAN PAVEMENT AT RAMP G AND PROPOSED COUNTY  
ROAD 20 DRIVE ACCESS MEDIAN CROSSOVER.**

1. CLOSE LEFT LANE OF EASTBOUND AND WESTBOUND C.R. 20 (WEST STATE STREET) USING A DESIGN SPEED OF 45 MPH WESTBOUND AND 45 MPH EASTBOUND AND MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS).
2. CONSTRUCT DRIVE CROSSOVER EAST OF THE U.S. 6 OVERPASS NEAR STA. 258+50. TO REMAIN CLOSED UNTIL NEW RAMP G IS COMPLETED. MAINTAIN ACCESS TO MADISON MOTORS AT ALL TIMES.
3. CONSTRUCT CROSSOVER FOR PROPOSED RAMP G AND LEAVE CLOSED OFF USING MT-98.30 (INTERSECTION ENTRANCE RAMP AND TURN BAY CLOSURE).
4. DRUM OFF THE EXISTING T.R. 138 CROSSOVER ALONG SOUTH (LEFT-HAND) EDGE LINE OF WESTBOUND C.R. 20 (WEST STATE STREET).
5. DRUM OFF THE EXISTING T.R. 138 CROSSOVER ALONG NORTH (RIGHT-HAND) EDGE LINE OF WESTBOUND U.S. 20.
6. CLOSE THE LEFT-HAND LANE OF WESTBOUND U.S. 20 USING A DESIGN SPEED OF 60 MPH, MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS).
7. CLOSE THE NORTH (LEFT-HAND) LANE OF EASTBOUND C.R. 20 (WEST STATE STREET) USING A DESIGN SPEED OF 60 MPH AND MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS).

**PHASE 2-CONSTRUCT PROPOSED RAMP G (C.R. 20 (WEST STATE STREET TO WESTBOUND U.S. 6)) AND WIDENING OF U. S. 6 SOUTH OF C.R. 20.**

1. SWITCH EB W STATE STREET LEFT LANE CLOSURE (FROM PHASE 1) TO RIGHT LANE CLOSURE.
2. DETOUR RAMP G AS SHOWN IN THESE PLANS. CLOSURE TO BE LIMITED TO 70 CALENDAR DAYS.
3. CONSTRUCT PAVEMENT FOR MAINTAINING TRAFFIC ALONG EASTERN SHOULDER OF US 6 SOUTH OF C.R. 20
  - A. CLOSURE OF WB/SB U.S. 6 LIMITED TO 4 DAYS FOR INSTALLATION OF THE PAVEMENT FOR MAINTAINING TRAFFIC/CONCRETE BARRIER WALL AND REALIGNMENT OF TRAFFIC LANES ON US 6 SOUTH OF C.R. 20
    - I. CLOSE WB/SB US 6 AT RAMP TO WB 20 (STATION 805+00+/-)
    - II. DETOUR OF WB/SB US 6: WB 20 TO SB 590 TO US 6.
    - III. SHIFT EB/NB US 6 OVER TO WB/SB LANES OF US 6 BETWEEN STATIONS 500+75 AND 516+27
    - IV. INSTALL PAVEMENT FOR MAINTAINING TRAFFIC.
    - V. INSTALL TEMPORARY PAVEMENT MARKINGS
    - VI. SHIFT EB/NB US 6 ONTO NEWLY INSTALLED PAVEMENT FOR MAINTAINING TRAFFIC.
    - VII. INSTALL CONCRETE BARRIER WALL ALONG WB/SB US 6
    - VIII. REOPEN WB/SB US 6
4. CONSTRUCT WIDENING OF U. S. 6 AND RAMP G ALONG WEST SIDE OF THE ROADWAY
5. CLOSE WB/SB US 6 AT WB 20 (STATION 805+00+/-) FOR UP TO 4 DAYS. EB/NB US 6 TO REMAIN OPEN.
  - A. REMOVE CONCRETE BARRIER WALL.
  - B. COMPLETE MILL/FILL, PAVEMENT MARKINGS FROM SOUTH END OF PROJECT UP TO C.R. 20 BY SHIFTING THE EB/NB TRAFFIC TO THE WB/SB LANES WHEN NECESSARY.

6. OPEN RAMP G. REMOVE/RESTORE THE EXISTING RAMP G PER THE GRADING PLAN.

**PHASE 3A--REMOVE T.R. 138 CROSSOVER (NORTH)**

1. REMOVE PAVEMENT BETWEEN WESTBOUND C.R. 20 (WEST STATE STREET) AND WESTBOUND U.S. 20.

**PHASE 3B--REMOVE T.R. 138 CROSSOVER (SOUTH)**

1. REMOVE THE EXISTING PAVEMENT.
2. RESURFACE T.R. 138, MODIFY SIGNING AND PAVEMENT MARKINGS TO RIGHT-IN/RIGHT-OUT.

**PHASE 4--EASTBOUND AND WESTBOUND C.R. 20 (WEST STATE STREET) FROM U.S. 20 EXIT GORE TO PROJECT END**

1. INSTALL ADVANCE OVERHEAD SIGN SUPPORTS ON EASTBOUND U.S. 20 NORTHWEST OF GORE USING A DESIGN SPEED OF 65 MPH AND MT-95.45 (CLOSING SHOULDER OF A MULTI-LANE DIVIDED HIGHWAY). IF PROPOSED OVERHEAD SIGN SUPPORTS ARE NOT AVAILABLE, MODIFY THE EXISTING SIGNS WITH TEMPORARY OVERLAY.
2. INSTALL LANE DROP SIGNING AND MARKING ON THE SOUTH (RIGHT-HAND) LANE OF EASTBOUND U.S. 20 NORTHWEST OF GORE USING A DESIGN SPEED OF 65 MPH AND MT-99.20 (TRAFFIC CONTROL FOR LINE PAVEMENT MARKING OPERATIONS).
3. CLOSE THE RIGHT LANE OF EASTBOUND U.S. 20 AND CLOSE THE LEFT LANE OF EASTBOUND C.R. 20 (WEST STATE STREET) USING A MAINLINE DESIGN SPEED OF 65 MPH AND MT-98.20 (LANE CLOSURE AT EXIT RAMP USING DRUMS).
4. RESURFACE WESTBOUND C.R. 20.

**PHASE 5A--RESURFACE EASTBOUND U.S. 20 (E.B. LANES B AND F) AND EASTBOUND U.S. 6.**

1. RESURFACE EASTBOUND U.S. 20 AND EASTBOUND U.S. 6 USING A DESIGN SPEED OF 65 MPH AND MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS).
2. STRIPE/SIGN COMPLETED PAVEMENT USING MT-99.20 (TRAFFIC CONTROL FOR LONG LINE PAVEMENT MARKING OPERATIONS).

**PHASE 5B--RESURFACE RAMP H.**

1. DETOUR TRAFFIC FROM RAMP H. CLOSURE TO BE LIMITED TO 4 CALENDAR DAYS.
2. RESURFACE RAMP H USING A MAINLINE DESIGN SPEED OF 65 MPH AND MT-98.20 (LANE CLOSURE AT EXIT RAMP USING DRUMS).
3. STRIPE/SIGN COMPLETED PAVEMENT USING MT-99.20 (TRAFFIC CONTROL FOR LONG LINE PAVEMENT MARKING OPERATIONS).

**PHASE 6--RESURFACE WESTBOUND U.S. 20 (W.B. LANES A AND E), WESTBOUND U.S. 6**

1. INSTALL ADVANCE OVERHEAD SIGN SUPPORTS ON WESTBOUND U.S. 6/U.S. 20 EAST OF GORE USING A DESIGN SPEED OF 65 MPH AND MT-95.45 (CLOSING SHOULDER OF A MULTI-LANE DIVIDED HIGHWAY). IF PROPOSED OVERHEAD SIGN SUPPORTS ARE NOT AVAILABLE, MODIFY THE EXISTING SIGNS WITH TEMPORARY OVERLAY.
2. INSTALL LANE DROP SIGNING AND MARKING ON WESTBOUND U.S. 6/U.S. 20 EAST OF GORE USING MT-99.20 (TRAFFIC CONTROL FOR LONG LINE PAVEMENT MARKING OPERATIONS).
3. CLOSE THE SOUTH (LEFT-HAND) LANE OF WESTBOUND U.S. 20 USING A DESIGN SPEED OF 65 MPH, MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) AND MT-95.30 (SUPPLEMENTAL ADVANCED SIGNS USED WITH LANE CLOSURES FROM THE GORE TO JUST WEST OF THE INTERSECTION WITH T.R. 138).
4. RESURFACE THE SOUTH (LEFT-HAND) HALF OF THE PAVEMENT FROM THE GORE TO JUST WEST OF THE INTERSECTION WITH T.R. 138.
5. CLOSE THE NORTH (RIGHT-HAND) LANE OF WESTBOUND U.S. 20 USING A DESIGN SPEED OF 65 MPH, MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) AND MT-95.30 (SUPPLEMENTAL ADVANCED SIGNS USED WITH LANE CLOSURES) FROM THE GORE TO JUST WEST OF THE INTERSECTION WITH T.R. 138.

**DESIGNATED LOCAL DETOUR ROUTE**

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE." THIS ROUTE IS SHOWN ON SHEET NO. 21. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER.

THE REPLACEMENT PAVEMENT FOR ITEM 253, PAVEMENT REPAIR SHALL CONSIST OF 1.25" ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22, ITEM 407, TACK COAT PLACED ON 5" OF ITEM 301, ASPHALT CONCRETE BASE, PG64-22.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE.

ITEM 253, PAVEMENT REPAIR	20 CU. YD.
ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22	20 CU. YD.
ITEM 407, TACK COAT	20 GAL.
ITEM 617, COMPACTED AGGREGATE	50 CU. YD.
ITEM 642, CENTER LINE	1.0 MILE

**OVERHEAD SIGN WORK SCHEDULING**

DEPENDING ON AVAILIBLTY/DELIVERY SCHEDULING OF THE OVERHEAD SIGN SUPPORTS IT MAY BE NECESSARY TO DELAY FINALIZING PHASES 5-7. THE CONTRACTOR SHALL NOT OPEN THE RECONFIGURED LANES UNTIL THE PROPOSED OVERHEAD SIGNING IS INSTALLED.

DESIGN AGENCY



DESIGNER

JRE

REVIEWER

LAS 07/19/21

PROJECT ID

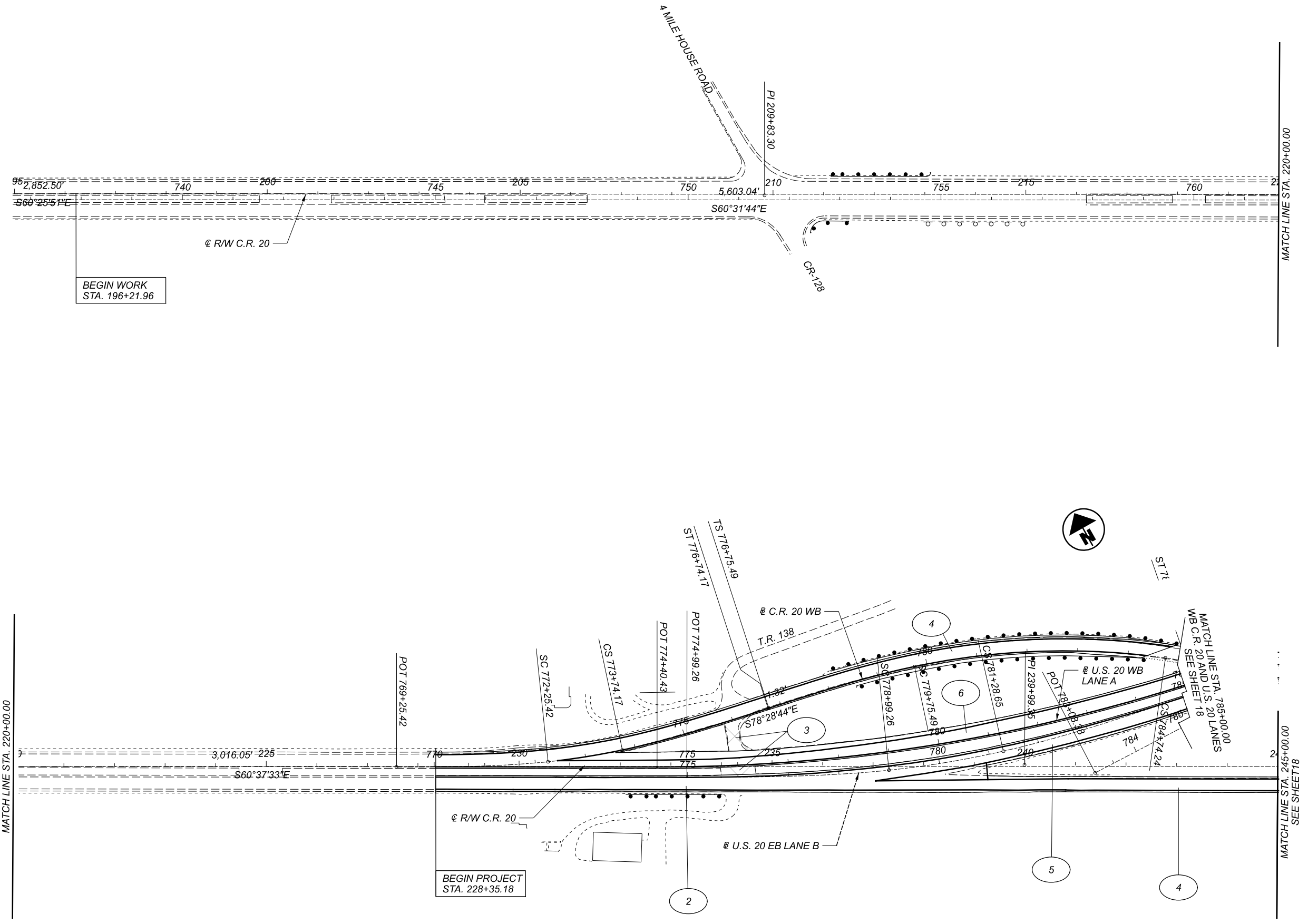
111020

SHEET

16

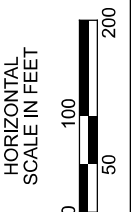
TOTAL

157



BEGIN WORK  
STA. 196+21.96

BEGIN PROJECT  
STA. 228+35.18



MAINTENANCE OF TRAFFIC SCHEMATIC PLAN

DESIGN AGENCY



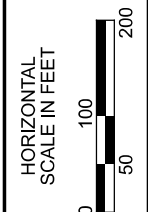
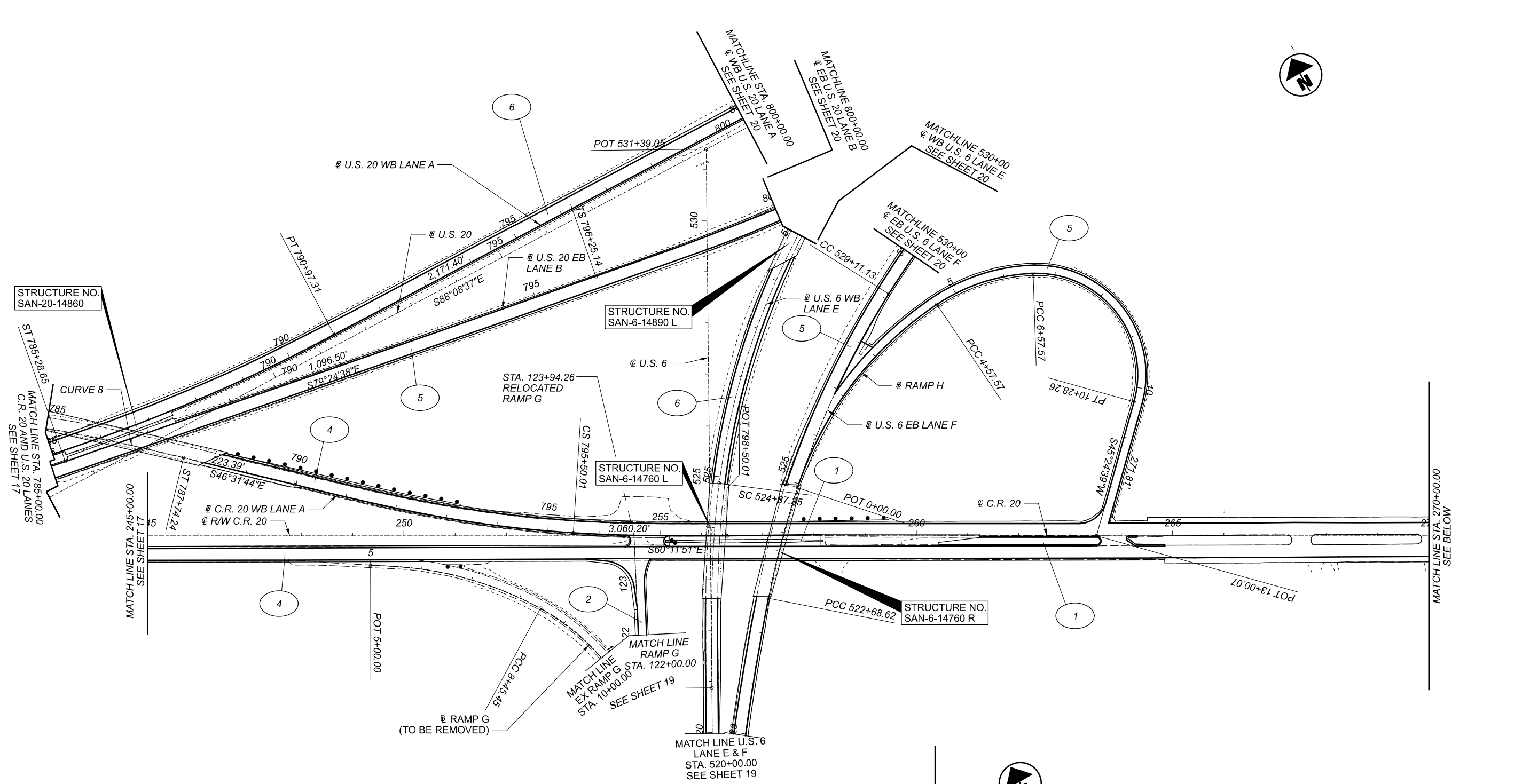
DESIGNER  
JRE

REVIEWER  
LAS 09/18/20

PROJECT ID  
111020

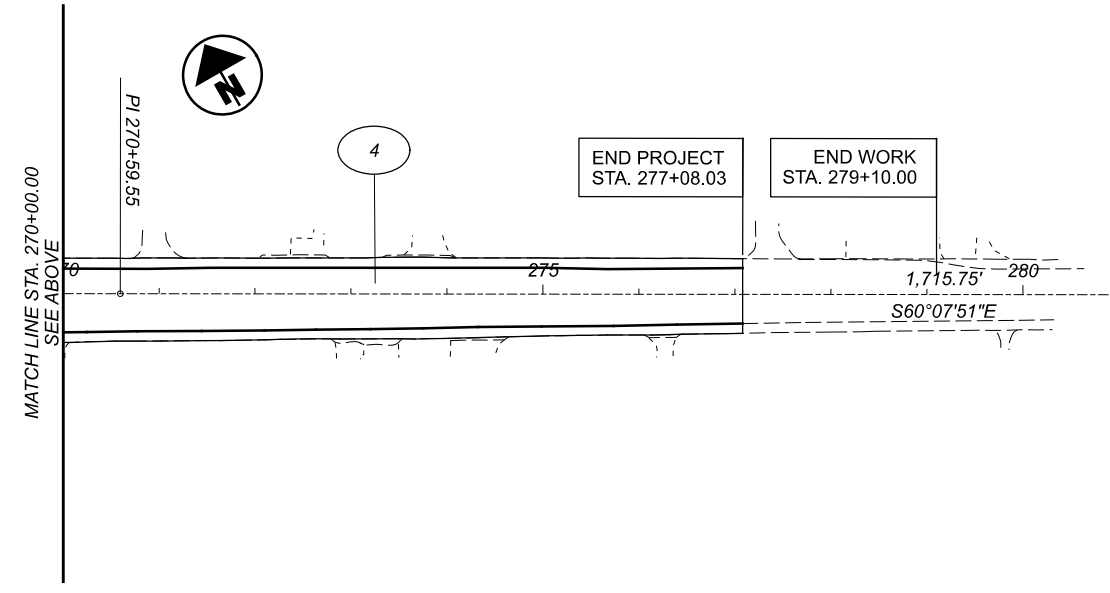
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X MAINTENANCE OF TRAFFIC PHASE



MAINTENANCE OF TRAFFIC SCHEMATIC PLAN

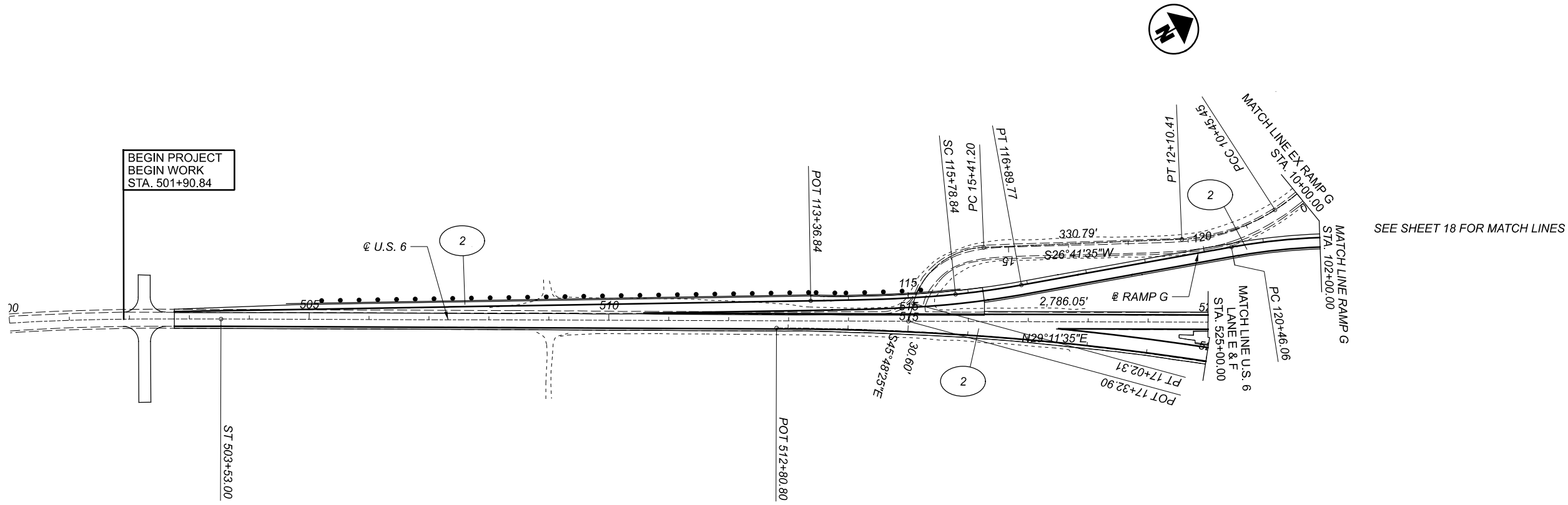
X MAINTENANCE OF TRAFFIC PHASE



DESIGN AGENCY



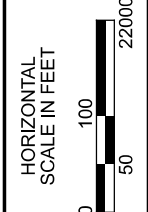
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REVIEWER	LAS 07/19/21
PROJECT ID	111020
SHEET	TOTAL
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SEE SHEET 18 FOR MATCH LINES



(X) MAINTENANCE OF TRAFFIC PHASE

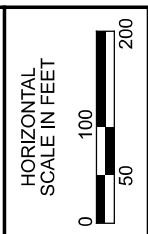
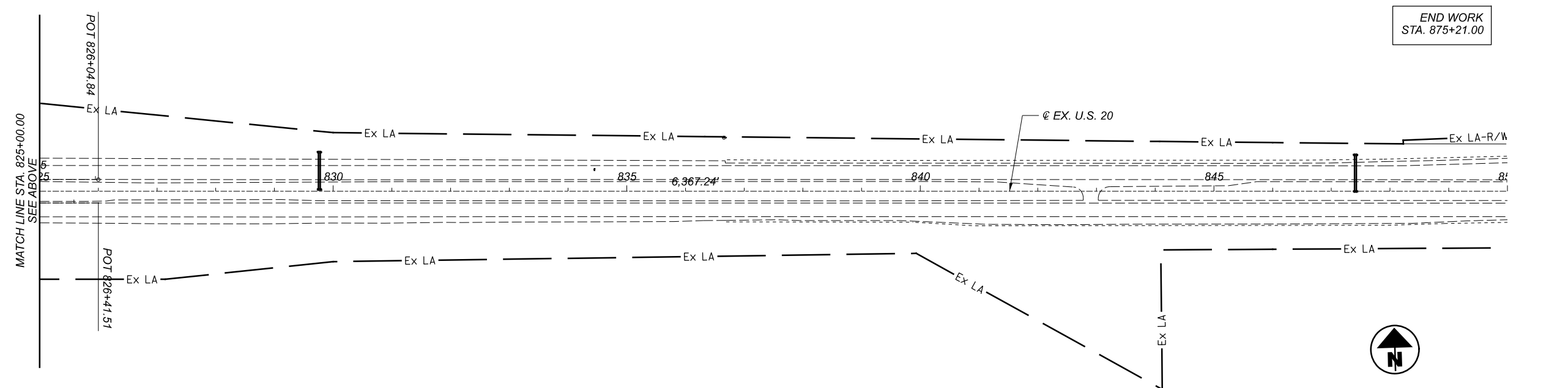
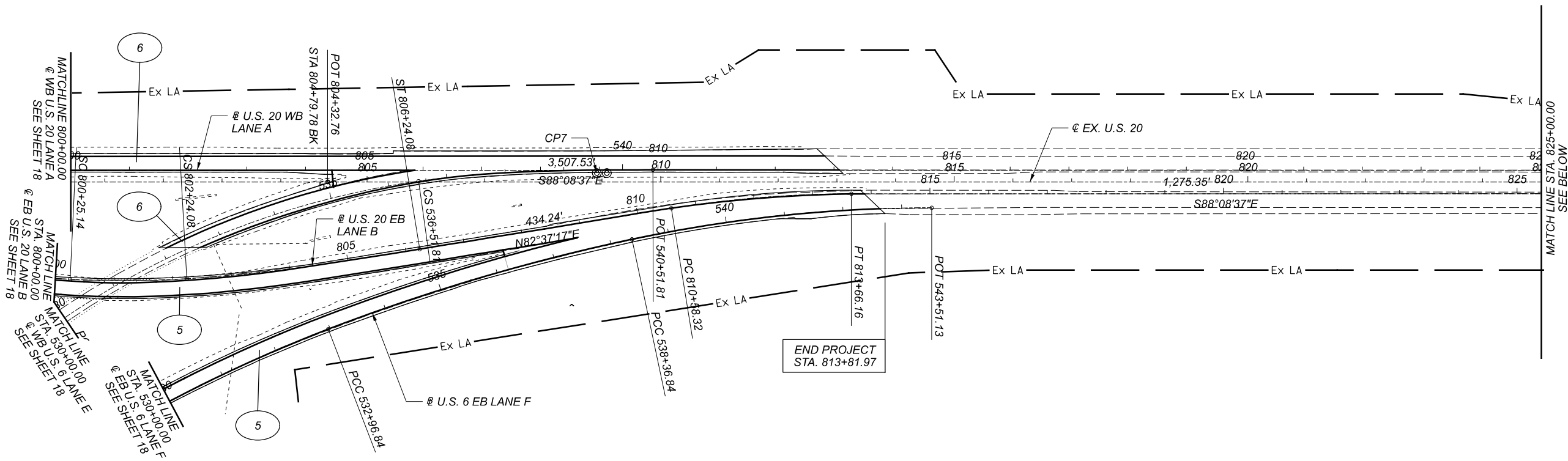


MANTENANCE OF TRAFFIC SCHEMATIC PLAN

DESIGN AGENCY



DESIGNER	JRE
REVIEWER	LAS 07/19/21
PROJECT ID	111020
SHEET	TOTAL
19	157



MAINTENANCE OF TRAFFIC SCHEMATIC PLAN

DESIGN AGENCY



DESIGNER  
BMG

REVIEWER  
JRE 03/09/21

PROJECT ID  
111020

SHEET	TOTAL
20	123

SAN-6/20I-14.87/0.01

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SHEET NUM.												PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
12	13	15		31	31A	32	33	70	80	83	94	01/SAF/PV	EXT	TOTAL				
	LS											LS	201	11000	LS		CLEARING AND GRUBBING	
		690				7,852						8,542	202	23000	8,542	SY	PAVEMENT REMOVED	
	360					239						599	202	35100	599	FT	PIPE REMOVED, 24" AND UNDER	
						3,085						3,085	202	38000	3,085	FT	GUARDRAIL REMOVED	
						2						2	202	47800	2	EACH	IMPACT ATTENUATOR REMOVED	
						1						1	202	58100	1	EACH	CATCH BASIN REMOVED	
											132	132	202	75000	132	FT	FENCE REMOVED	
									2,098			2,098	203	10000	2,098	CY	EXCAVATION	
	100								5,100	635		5,835	203	20000	5,835	CY	EMBANKMENT	
						868						868	204	10000	868	SY	SUBGRADE COMPACTION	
						290		705				995	204	13000	995	CY	EXCAVATION OF SUBGRADE	
						290		705				995	204	30020	995	CY	GRANULAR MATERIAL, TYPE C	
						1	2					3	204	45000	3	HOUR	PROOF ROLLING	
						868						868	204	50001	868	SY	GEOTEXTILE FABRIC, AS PER PLAN	13
												150	206	10500	150	TON	CEMENT	
						4,945						4,945	206	11000	4,945	SY	CURING COAT	
						4,945						4,945	206	15020	4,945	SY	CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	
												LS	206	30000	LS		MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS	
					402	34						436	209	60200	436	STA	LINEAR GRADING	
						3,350						3,350	606	15050	3,350	FT	GUARDRAIL, TYPE MGS	
						825						825	606	15100	825	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
	1,600											1,600	606	15101	1,600	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS, AS PER PLAN	13
						1						1	606	20000	1	EACH	FLARED END SECTION	
						2						2	606	26050	2	EACH	ANCHOR ASSEMBLY, MGS TYPE B	
						8						8	606	26150	8	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016	
						14						14	606	26550	14	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
						4						4	606	35002	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
						2						2	606	35102	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
						2						2	606	60029	2	EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL), AS PER PLAN (60 MPH/24 INCHES)	14
											32	32	607	15000	32	FT	FENCE, TYPE 47	
		1,500										1,500	622	41100	1,500	FT	PORTABLE BARRIER, UNANCHORED	
																	<b>EROSION CONTROL</b>	
	50											50	601	20010	50	CY	CRUSHED AGGREGATE SLOPE PROTECTION	
	20											20	601	21050	20	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
	90											90	601	34301	90	CY	ROCK CHANNEL PROTECTION, TYPE D WITHOUT FILTER, AS PER PLAN	13
		16										16	616	10000	16	MGAL	WATER	
	2											2	659	00100	2	EACH	SOIL ANALYSIS TEST	
	1,597						372					1,969	659	00300	1,969	CY	TOPSOIL	
	14,372									2,100		16,472	659	10000	16,472	SY	SEEDING AND MULCHING	
	719											719	659	14000	719	SY	REPAIR SEEDING AND MULCHING	
	719											719	659	15000	719	SY	INTER-SEEDING	
	2.01											2.01	659	20000	2.01	TON	COMMERCIAL FERTILIZER	
	2.97											2.97	659	31000	2.97	ACRE	LIME	
	82											82	659	35000	82	MGAL	WATER	
							3,346					3,346	670	00500	3,346	SY	SLOPE EROSION PROTECTION	
												LS	832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
												LS	832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
												LS	832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
												50,000	832	30000	50,000	EACH	EROSION CONTROL	
																	<b>DRAINAGE</b>	
							3					3	602	20000	3	CY	CONCRETE MASONRY	
							3,656					3,656	605	1110	3,656	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
	1,000											1,000	605	13300	1,000	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
	500											500	605	31100	500	FT	AGGREGATE DRAINS	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER

BMG

REVIEWER

JRE 07/19/21

PROJECT ID

111020

SHEET

28

TOTAL

157


SHEET NUM.												PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.	
12	13	16	31	31A	33	94	99	100	101	102	103	01/SAF/PV	EXT	TOTAL					
					88								88	611	00510	88	FT	<b>DRAINAGE CONT.</b> 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
	600												600	611	01500	600	FT	6" CONDUIT, TYPE F	
	160												160	611	02600	160	FT	8" CONDUIT, TYPE F	
					30								30	611	09400	30	FT	21" CONDUIT, TYPE D	
					111								111	611	10400	111	FT	24" CONDUIT, TYPE B	
					29								29	611	16900	29	FT	36" CONDUIT, TYPE D	
					2								2	611	98510	2	EACH	CATCH BASIN, NO. 2-3	
					1								1	611	98630	1	EACH	CATCH BASIN ADJUSTED TO GRADE	
	10				1								11	611	99710	11	EACH	PRECAST REINFORCED CONCRETE OUTLET	
																		<b>PAVEMENT</b>	
3,250		20											3,270	253	02000	3,270	CY	PAVEMENT REPAIR	
			77,015	6,401									83,416	254	01000	83,416	SY	PAVEMENT PLANING, ASPHALT CONCRETE(T=3.25)	
			145	583									728	301	46000	728	CY	ASPHALT CONCRETE BASE, PG64-22	
			145	951		147							1,243	304	20000	1,243	CY	AGGREGATE BASE	
		20											20	407	10000	20	GAL	TACK COAT	
			10,830	1,089									11,919	407	20000	11,919	GAL	NON-TRACKING TACK COAT	
		20											20	441	50000	20	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
			3,246	413									3,659	442	10000	3,659	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	
				2,209									2,209	452	14020	2,209	SY	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA	
		50	1,669	63									1,782	617	10100	1,782	CY	COMPACTED AGGREGATE	
			3,786	481									4,267	861	11100	4,267	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446)	
			4,806	1,934									6,740	875	10000	6,740	LB	LONGITUDINAL JOINT ADHESIVE	
																		<b>TRAFFIC CONTROL</b>	
										15			15	625	32000	15	EACH	GROUND ROD	
							169	140	112	140			561	630	03100	561	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
							5						5	630	08600	5	EACH	SIGN POST REFLECTOR	
											1		1	630	72340	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12	148
											3		3	630	72410	3	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	
											2		2	630	72420	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	
											1		1	630	72430	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 3	
											1		1	630	72530	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-16.22, DESIGN 9	
											1		1	630	72540	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-16.22, DESIGN 12	
											4		4	630	79200	4	EACH	SIGN ATTACHMENT ASSEMBLY, MAST ARM	
						118	68	183	101	95			565	630	80100	565	SF	SIGN, FLAT SHEET	
											56		56	630	80200	56	SF	SIGN, GROUND MOUNTED EXTRUSHEET	
											2,868		2,868	630	80224	2,868	SF	SIGN, OVERHEAD EXTRUSHEET	
											2		2	630	84501	2	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION, AS PER PLAN	145
											15		15	630	84510	15	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
						51	55	56	14				176	630	84900	176	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
											4		4	630	85400	4	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	
						33	45	31	6				115	630	86002	115	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
											2		2	630	86102	2	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	
											2		2	630	86292	2	EACH	REMOVAL OF GROUND MOUNTED WOODEN BOX BEAM SUPPORT AND DISPOSAL	
											17		17	630	87400	17	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
											2		2	630	89706	2	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-12.30	
											4		4	630	89804	4	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-15.115	
								6	2				8	630	97700	8	EACH	SIGNING, MISC.:SOLID WOOD POST, 4X6	139
											2		2	630	97700	2	EACH	SIGNING, MISC.:SOLID WOOD POST, 6X8	145





REF NO.	SHEET NO.	STATION TO STATION				202	202	202	202	202	606	606	606	606	606	606	606	606	626	626						
						PAVEMENT REMOVED	PIPE REMOVED, 24" AND UNDER	GUARDRAIL REMOVED	IMPACT ATTENUATOR REMOVED	CATCH BASIN REMOVED	GUARDRAIL, TYPE MGS	GUARDRAIL, TYPE MGS WITH LONG POSTS	FLARED END SECTION	ANCHOR ASSEMBLY, MGS TYPE B	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016	ANCHOR ASSEMBLY, MGS TYPE T	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL), AS PER PLAN	BARRIER REFLECTOR, TYPE 5 (BI-DIRECTIONAL)	BARRIER REFLECTOR, TYPE 5 (ONE-WAY)					
					SY	FT	FT	EACH	EACH	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH							
CL RW C.R. 20																										
R-1	35	233+39.80	RT	TO	235+12.37	RT																				
R-2	35	233+79.38	LT	TO	234+61.35	LT																				
R-3	37	249+22.35	RT	TO	250+62.34	RT															140					
R-4	37	249+34.74	RT	TO	250+62.07	RT															128					
R-5	37	253+98.96	RT	TO	255+70.88	RT															172					
R-6	37 / 60	254+08.11	LT/RT	TO	255+17.68	LT/RT																				
R-7	37 / 60	253+93.86	RT	TO	255+12.04	RT																				
R-8	37 / 60	255+11.28	RT	TO	255+32.45	RT																				
R-9	38	257+70.30	LT	TO	259+45.28	LT																				
R-10	38	257+97.33	RT	TO	258+18.23	RT																				
R-11	38	258+12.09	LT/RT	TO	261+23.53	LT/RT																				
R-20	98	212+97.39	RT	TO	214+99.24	RT																				
R-21	93	233+96.46	LT	TO	234+51.06	LT																				
BL C.R. 20 WB																										
R-12	41 - 42	778+12.58	LT	TO	785+00.40	LT																				
R-13	41 - 42	778+53.51	RT	TO	784+33.89	RT																				
R-14	42 - 43	787+92.80	RT	TO	793+20.19	RT																				
R-15	42 - 43	788+47.55	LT	TO	793+14.50	LT																				
CL U.S. 6																										
R-16	56 - 57	502+75.00	LT	TO	509+19.05	LT																				
R-17	57	508+75.58	LT	TO	509+17.00	LT																				
R-18	57	508+86.84	RT	TO	509+18.10	RT																				
BL RAMP G																										
R-19	59 - 60	115+00.78	LT	TO	123+73.48	LT																				
CL RW C.R. 20																										
GR-1	140	181+93.48	RT	TO	182+91.44	RT																				
GR-2	107	210+73.98	RT	TO	211+50.87	RT																				
GR-3	107	211+15.09	LT	TO	213+12.10	LT																				
GR-4	35	232+11.41	RT	TO	233+97.91	RT																				
GR-5	37	250+39.31	RT	TO	251+14.08	RT																				
GR-6	37 / 60	254+78.09	RT	TO	255+70.88	RT																				
GR-7	37 / 60	255+11.28	RT	TO	255+32.45	RT																				
GR-8	38	257+70.30	LT	TO	259+45.30	LT																				
GR-9	38	257+97.03	RT	TO	258+18.46	RT																				
GR-10																										
NOT USED																										
BL C.R. 20 WB																										
GR-11	41 - 42	778+14.51	LT	TO	785+00.40	LT																				
GR-12	41 - 42	778+55.42	RT	TO	784+33.89	RT																				
GR-13	42 - 43	787+92.80	RT	TO	793+41.88	RT																				
GR-14	42 - 43	788+47.55	LT	TO	793+24.61	LT																				
CL U.S. 20 WB LANE A																										
GR-15	141	844+57.59	RT	TO	847+57.59	RT																				
GR-16	141	847+24.88	LT	TO	850+24.88	LT																				
GR-17	141	847+24.82	LT	TO	848+99.61	LT																				
CL U.S. 6																										
GR-18	56 - 59	504+61.82	LT	TO	515+86.06	LT																				
TOTALS CARRIED TO GENERAL SUMMARY																										
					7852	239	3085	2	1	3350	825	1	2	8	14	4	2	2	82	27						


ROADWAY SUBSUMMARY

DESIGN AGENCY	
DESIGNER	ARW
REVIEWER	JLM 07/19/21
PROJECT ID	111020
SHEET TOTAL	32   157

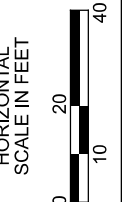
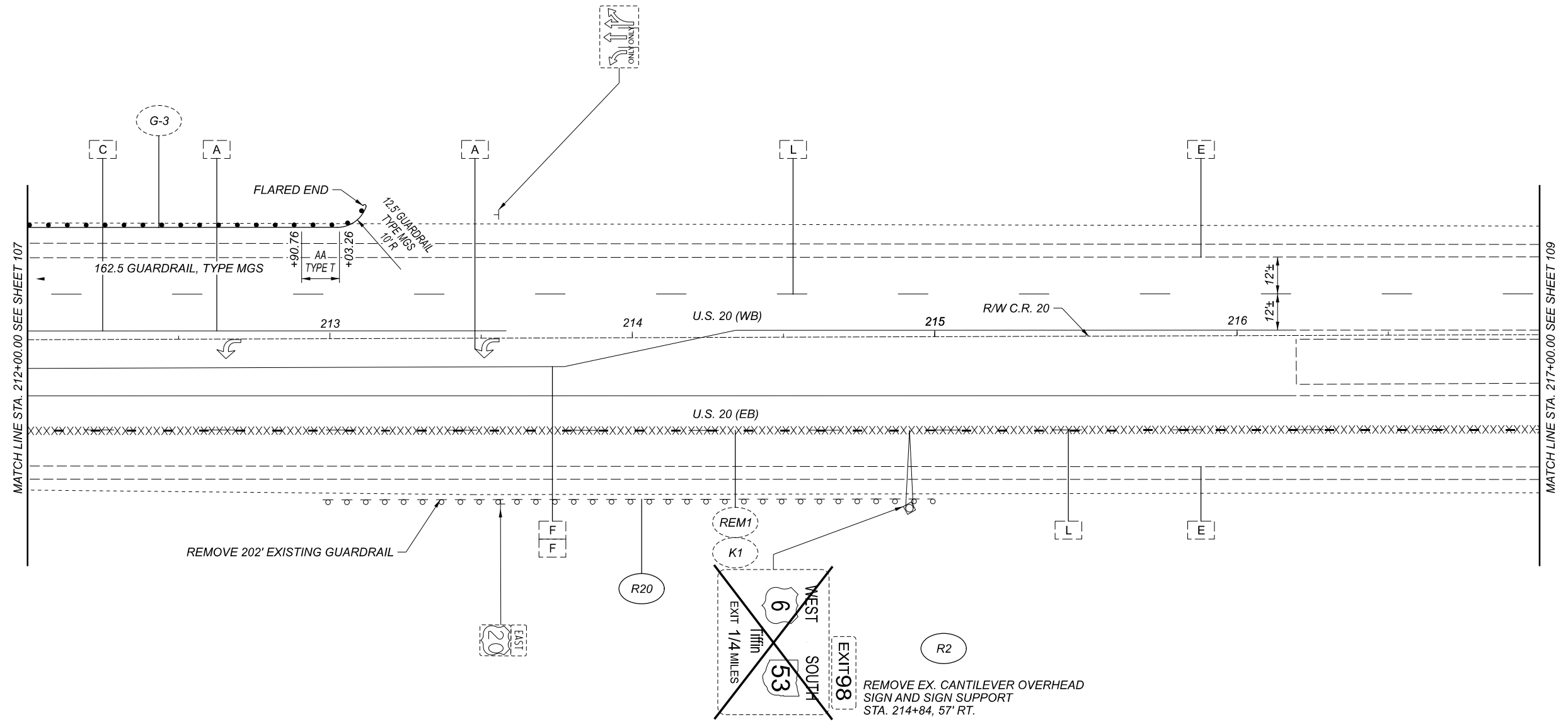
REF NO.	SHEET NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	625	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630																		
							GROUND ROD	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12	OVERHEAD SIGN SUPPORT, TYPE TC-16.22, DESIGN 9	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 3	SIGN ATTACHMENT ASSEMBLY, MAST ARM	SIGN, FLAT SHEET	OVERHEAD SIGN SUPPORT, TYPE TC-16.22, DESIGN 12	SIGN, GROUND MOUNTED EXTRUSHEET	SIGN, OVERHEAD EXTRUSHEET	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION, AS PER PLAN	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED WOODEN BOX BEAM SUPPORT AND DISPOSAL	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-12.30	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-15.115	SIGNING, MISC.: SOLID WOOD POST, 6 X 8															
							EACH	EACH	EACH	EACH	EACH	EACH	SF	EACH	SF	SF	EACH	EACH	EACH	EACH	EACH	EACH	EACH																		
M1	140	US 20	182+75	RT & LT	GUIDE	192X132	2					1						176.0	2																						
				GUIDE	168X170																																				
				PANEL	108X30																																				
M2	107	US 20	211+32	RT & LT	GUIDE	192X132	2					1						176.0	2																						
				GUIDE	168X166																																				
				PANEL	108X30																																				
M3	112	US 20	233+92.5	RT & LT	GUIDE	192X132	2					1						176.0	2																						
				GUIDE	168X156																																				
				PANEL	108X30																																				
M4	113	CR 20	239+32.5	RIGHT	GORE	48X84												28.0						1																	
M5	118	US 20	534+96	LEFT	GORE	48X84																		28.0																	
M6	119	US 20	807+81	LEFT	GUIDE	264X156	2					1						286.0	2																						
				GUIDE	168X108																																				
				PANEL	105X54																																				
M7	123	US 20	829+76	LEFT	GUIDE	264X180	2					1						330.0	2																						
				GUIDE	168X108																																				
				PANEL	108X54																																				
M8	129	US 6	522+93	RIGHT	GUIDE	216X144	1											216.0	1																						
				PANEL	108X30	1																																			
M9	133	CR 20	251+00	RIGHT	R3-5a-36	36X42	1											10.5	1																						
				M2-H10-108	108X42																																				
M10	135	CR 20	257+89	LEFT	M2-H10-108	108X42	1											31.5	1																						
				M2-H10-72	72X42	1																																			
M11	141	US 20	847+41	RT & LT	GUIDE	264X174	2					1						319.0	2																						
				GUIDE	168X120																																				
				PANEL	102X54																																				
R1	107	US 20 EB	196+25	RIGHT	EX	BEAM																		2																	
R2	108	US 20 EB	214+84	RIGHT	EX	CANTILEVER																		2																	
R3	112	US 20 EB	236+60	RT & LT	EX	TRUSS																		3																	
R4	118	US 20 WB	805+71	RT & LT	EX	TRUSS																		4																	
R5	123	US 20 WB	829+85	LEFT	EX	CANTILEVER																		3																	
R6	118	US 20	534+96	LEFT	EX	BEAM																		1																	
R7	130	US 6	526+22	RT & LT	EX	TRUSS																		3																	
R8	133	CR 20	250+44	RIGHT	EX	TRUSS																		2																	
R9	113	CR 20	239+32.5	RIGHT	EX	BEAM																		1																	
TOTALS CARRIED TO GENERAL SUMMARY							15	1	1	3	2	1	4	95	1	56	2868	2	15	4	2	2	17	2	4																

SIGNING SUBSUMMARY

DESIGN AGENCY



DESIGNER: MVN  
 REVIEWER: LAS 07/19/21  
 PROJECT ID: 111020  
 SHEET TOTAL: 103 | 157



TRAFFIC CONTROL PLAN - U.S. 20  
 STA. 212+00 TO STA. 217+00

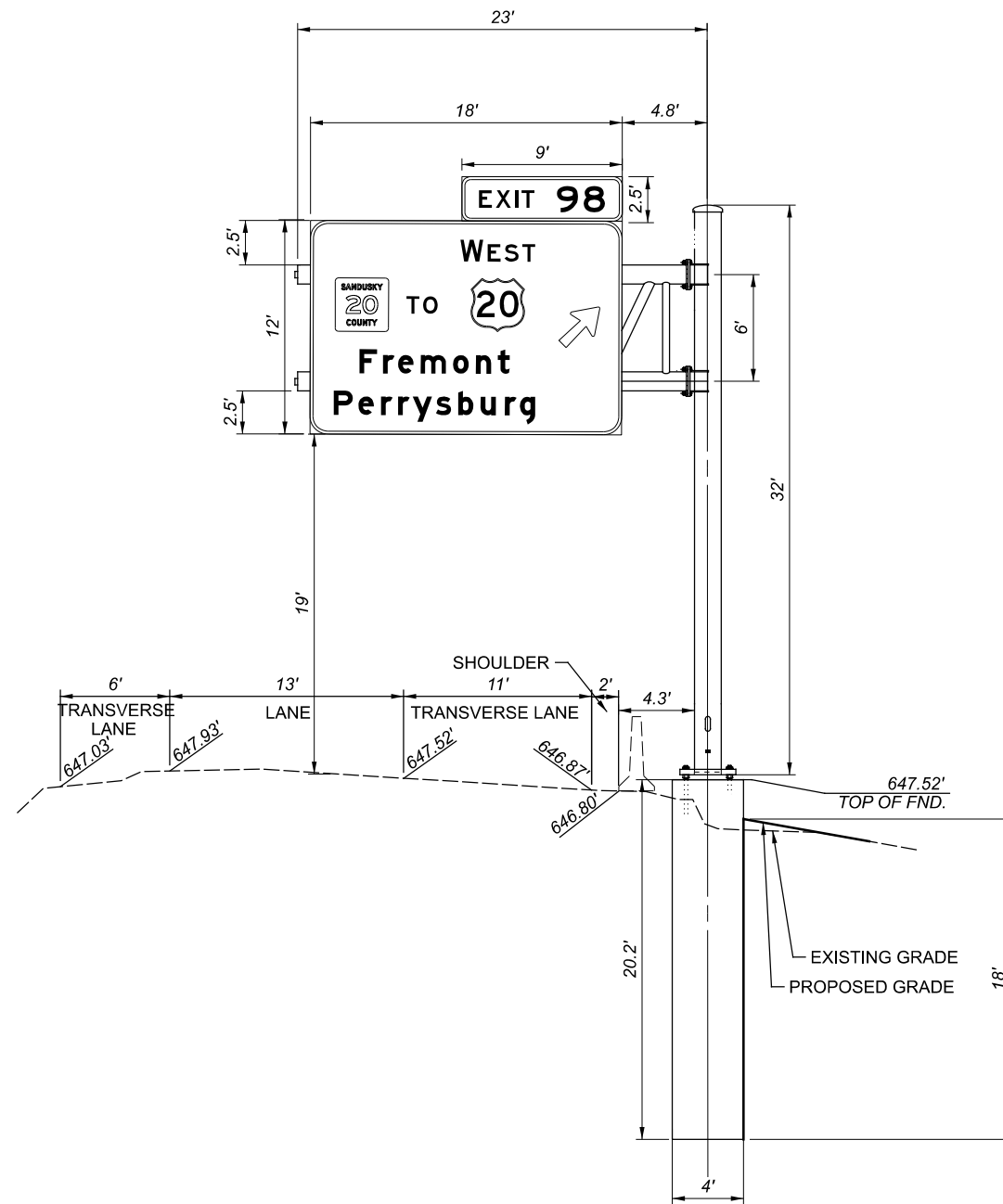
DESIGN AGENCY



DESIGNER	MVN
REVIEWER	LAS 07/19/21
PROJECT ID	111020
SHEET	TOTAL
108	157

FOR LEGEND SEE SHEET 106





**TC-12.31 BASE PLATE CONNECTION:**

ALL REFERENCE ITEMS THAT REFER TO THE TC-12.31 STANDARD DRAWING SHALL USE THE TC-12.31 STANDARD DRAWING DATED : 01-21-2022 TO FABRICATE AND CONSTRUCT THE ASSOCIATED ITEMS. BASE CONNECTION OF SIGN SUPPORT SHALL BE FABRICATED AS PER THE "STANDARD BASE DESIGN" WHICH UTILIZES COMPLETE JOINT PENETRATION (CJP) WELDS.

OVERHEAD SIGN SUPPORT, M8  
 STA. 522+93 US 6  
 PROP. TC-12.31, DESIGN 12  
 ARM LENGTH = 23'  
 DESIGN VERTICAL CLEARANCE: 19'

SEE SHEET 129 FOR PLAN VIEW

DESIGN AGENCY



DESIGNER

MVN

REVIEWER

LAS 07/19/21

PROJECT ID

111020

SHEET TOTAL

148 | 157