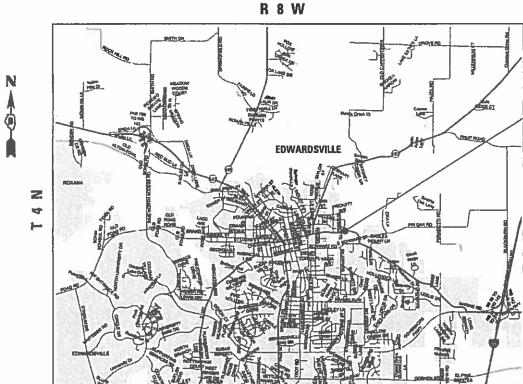
STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

# **PROPOSED** HIGHWAY PLANS

**FAP ROUTE 789 (IL 143)** SECTION 65B-R-2 **GUARDRAIL & BRIDGE REPAIR MADISON COUNTY** 

C-98-044-19



GROSS LENGTH = 105.00 FT. = 0.020 MILE NET LENGTH = 105.00 FT. = 0.020 MILE

D-98-032-19

65 B-R-2

PROJECT LOCATION:

IN EDWARDSVILLE SN 060-0188 STA. 25 + 78.87 **LATITUDE: 38.81335** LONGITUDE: -89.93843

IL 143 OVER MODNEY CREEK 0.5 MILES EAST OF IL 157

STATE OF ILLINOIS

LOCATION OF SECTION INDICATED THUS:-

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

# FOR INDEX OF SHEETS, SEE SHEET NO. 2

2017 ADT = 4450 (ACTUAL) 2019 ADT = 4500 (ESTIMATED)

DIRECTIONAL DIST = 50 /50

ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

PROJECT ENGINEER HERVE GELIN 618-346-3179 PROJECT MANAGER BILLIE OWEN 618-346-3209

CONTRACT NO. 76M23

0

0

0

NOT TO SCALE

## **INDEX OF SHEETS**

- 1 COVER SHEET
- 2 INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES & COMMITMENTS
- 3-4 SUMMARY OF QUANTITIES
- 5 TYPICAL SECTION
- 6 SCHEDULE OF QUANTITIES
- 7 REMOVAL & REPLACEMENT DETAILS
- 8 STEEL RAILING & GUARDRAIL
- 9 TRAFFIC CONTROL PLAN
- 10-12 EXISTING PLANS

# **HIGHWAY STANDARDS**

000001-07

001006

701321-17

701501-06 701901-08

704001-08

780001-05

781001-04

# **GENERAL NOTES**

1. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

UTILITY	ABOVE GROUND	BELOW GROUND
*ADB COMPANIES	Х	X
*AMEREN ILLINOIS	Х	Х
*AT&T ILLINOIS	Х	Х
*CHARTER COMMUNICATIONS, INC.	X	X
*CITY OF EDWARDSVILLE		X
*VERIZON BUSINESS	X	X
*NORTHEAST CENTRAL COUNTY PUBLIC WATER DISTRICT		X

MEMBERS OF J.U.L.I.E. CALL TOLL FREE (800) 892-0123 OR 811 AND ARE INDICATED BY \*. NON- J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.

- THE CONTRACTOR AND THE ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED FOR THIS PROJECT. THE STATIONING SHOWN IN THE PLAN SHEETS WAS CREATED USING MICROFILM. IT SHALL BE ASSUMED TO BE APPROXIMATE. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- 3. THE PROPOSED PAVEMENT MARKING SHALL MATCH THE LOCATIONS OF THE EXISTING PAVEMENT MARKING, AS DIRECTED BY THE ENGINEER.
- 4. THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION-RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL-TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.
- 5. THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

MIXTURE USE	SURFACE
AC/PG	PG 64-22
RAP % (MAX)	SEE SPECIAL PROVISION
DESIGN AIR VOIDS	4.0% @ Ndes=70
MIX COMPOSITION (Gradation)	IL 9.5
FRICTION AGG	MIXTURE "D"
QUALITY MGMT PROGRAM	QC/QA

PLAN QUANTITIES FOR HOT-MIX ASPHALT ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SO YD/IN.

- 6. WHERE PERMANENT RRPM ARE PRESENT AND CONFLICT WITH THE REVISED TRAFFIC PATTERNS ONLY THE REFLECTORS SHALL BE REMOVED AND PAID FOR AS RAISED REFLECTIVE PAVEMENT MARKER REMOVAL (7 TOTAL).
- 7. THE BOTTOM 6" OF THE TEMPORARY CONCRETE BARRIER SHALL BE PAINTED WITH TEMPORARY PAVEMENT MARKING CONSISTENT WITH TRAFFIC CONTROL. THIS WILL BE MEASURED FOR PAYMENT BUT SHALL BE CONSIDERED AS INCLUDED IN THE COST OF TEMPORARY CONCRETE BARRIER AND NO OTHER COMPENSATION SHALL BE ALLOWED.

## **COMMITMENTS**

PASTOR JACK TOWNSEND OF CHURCH OF GOD IN CHRIST CONGREGATIONAL MUST BE NOTIFIED BY THE RESIDENT ENGINEER TWO WEEKS PRIOR TO THE PLACEMENT OF THE TEMPORARY TRAFFIC SIGNALS FOR THE CHURCH PARKING LOT AT THE ENTRANCE ON IL 143.

- 618-656-1860

# PERTINENT INFORMATION

THE FOLLOWING SHALL BE NOTIFIED OF THE ROAD CLOSURES TWO WEEKS PRIOR TO CLOSURE:

- FIRE DEPARTMENT AND AMBULANCE 618-692-7540
- EDWARDSVILLE SCHOOL DISTRICT: DR. LYNDA ANDRE 618-656-1182
- FIRST STUDENT 618-692-4290

USER NAME = leej	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
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PLOT DATE = 1/28/2019	DATE -	REVISED -	

	RAL N	0Т	ES & C	МТІММС	•
SHEET 1	OF	1	SHEETS	STA.	TO STA

	F.A.P. SECTION			COUNTY	TOTAL SHEETS	SHEET NO.		
	789	789 65B-R-2				MADISON	12	2
						CONTRACT	NO. 76	5M23
ı			TELIMOIS	EED	ΔI	D PROJECT		

URBAN	CONSTR. CODE
100% MCHD	

	MC+					
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0013 060-0188		
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	6	6		
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	2	2		
42000500	PORTLAND CEMENT CONCRETE PAVEMENT 10"	SQ YD	4	4		
44000100	PAVEMENT REMOVAL	SQ YD	4	4		
44000157	HOT-MIX ASPHALT SURFACE REMOVAL,2"	SQ YD	3	3		
50400105	PRECAST CONCRETE BRIDGE SLAB	SQ FT	61	61		
50900205	STEEL RAILING, TYPE S1	FOOT	30.5	30.5		
54000000	EVPANOION POLTO CALINOLI	FAOU	20			
54002020	EXPANSION BOLTS 3/4 INCH	EACH	22	22		
63301210	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	50	50		
63301990	REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE1	EACH	1	1		
67100100	MOBILIZATION	L SUM	1	1		
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1		
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		
70106700	TEMPORARY RUMBLE STRIPS	EACH	3	3		
	·					

\* SPECIALTY ITEM

USER NAME = leej	DESIGNED -	REVISED -
	DRAWN -	REVISED -
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PLOT DATE = 2/5/2019	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:

SUMMARY OF QUANTITIES				F.A.P. RTE	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.		
				789	65B-R-2		MADISON	12	3		
							CONTRACT	NO. 76	M23		
SHEET 1	OF	2	SHEETS	STA.	TO STA.		ILLINOIS	FED. AI	ID PROJECT		

URBAN 100% MCHD CONSTR. CODE

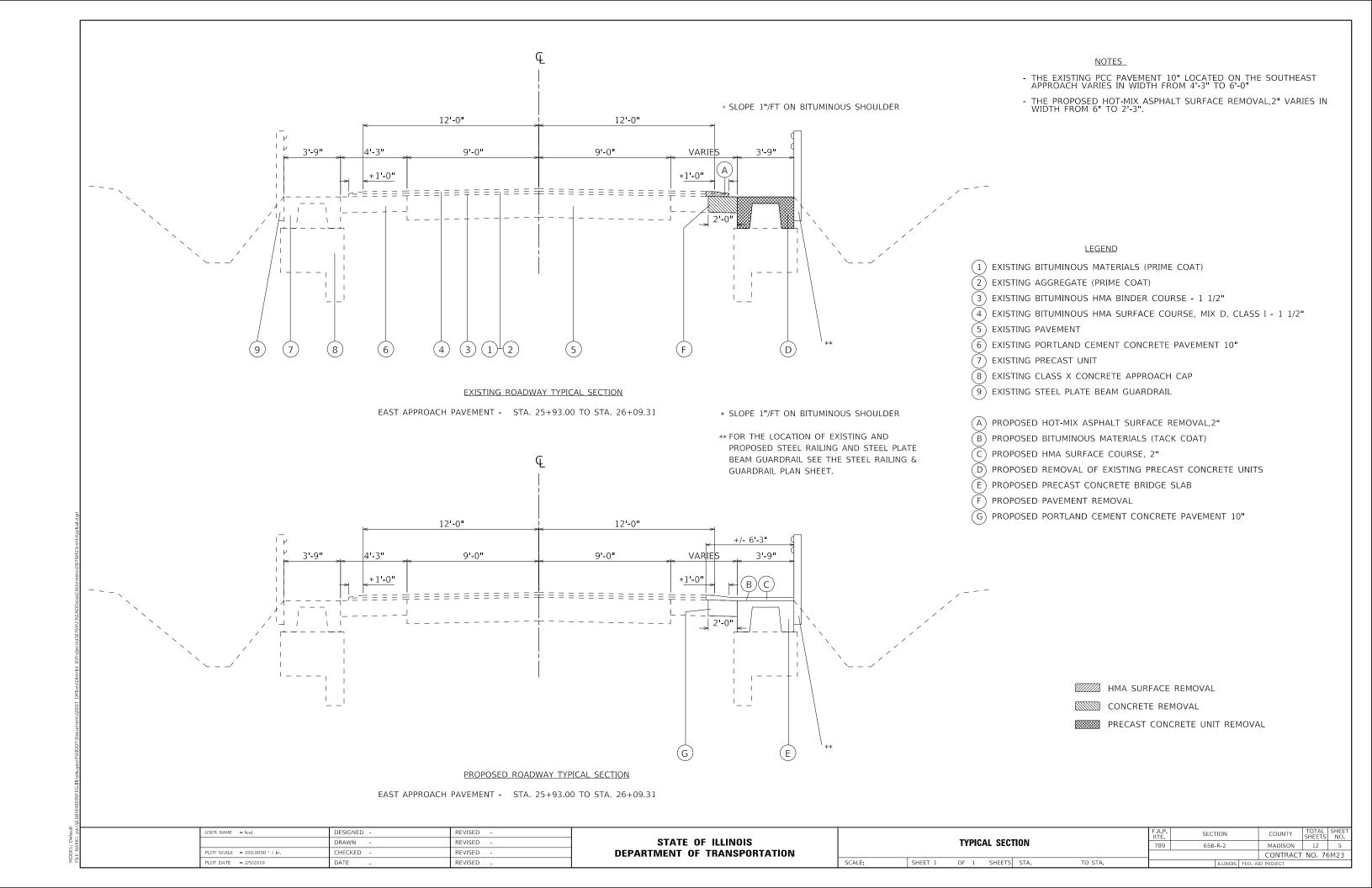
			MCHD		
CODE	ITEM	LIAUT	TOTAL	0013	
NO.	ITEM	UNIT	QUANTITY	060-0188	
70107005	PAVEMENT MARKING BLACKOUT TAPE, 5"	FOOT	975	975	
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	40	40	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	17	17	
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	412	412	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	175	175	
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE4"	FOOT	17	17	
78100300	REPLACEMENT REFLECTOR	EACH	7	7	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	7	7	
X0324744	REMOVAL OF EXISTING PRECAST CONCRETE UNITS	SQ FT	61	61	
X0326519	STEEL RAILING REMOVAL	FOOT	30.5	30.5	
X7010202	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1	1	

\* SPECIALTY ITEM

USER NAME = leej	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 2/5/2019	DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

				F.A.P. RTE	SECTION	COUNTY	COUNTY TOTAL SHEETS			
SUMMARY OF QUANTITIES						789	789 65B-R-2 MADISON			4
						CONTRACT	NO. 76	5M23		
E:	SHEET 2	OF 2	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT				



	RI	SURFACING SCHEDUL	E		
LOCATION	BITUMINOUS MATERIALS (TACK COAT)	HOT-MIX ASPHALT SURFACE REMOVAL,2"	PAVEMENT REMOVAL	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	
STATION STATION	POUND	SQ YD	SQ YD	TON	
25+93.00 TO 26+09.31	6	3	4	2	
TOTAL	6	3	4	2	

						CONCRETE SCHEDU	LE		
LOCATION		LENGTH 1	LENGTH LENGTH WID		DEPTH	PORTLAND CEMENT CONCRETE PAVEMENT 10"	PRECAST CONCRETE BRIDGE SLAB	EXPANSION BOLTS 3/4 INCH	REMOVAL OF EXISTING PRECAST CONCRETE UNITS
STATION	STATIO	I FEET	FEET	FEET	FEET	SQ YD	SQ FT	EACH	SQ FT
25 102 00	TO 26+09.3	15.9167	16.3125	3.75	-		60.43		60.43
25+35.00	10 20+09.5	16.3125	-	2.00	0.83	3.63		22.00	
TOTAL						4	61	22	61

	RAILING SCHEDULE										
LOCATION		ION	LENGTH	STEEL RAILING REMOVAL	STEEL RAILING, TYPE S1	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL, TYPE A	REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE1				
STATION		<b>STATION</b>	FOOT	FOOT	FOOT	FOOT	EACH				
25+78.42	ΤO	26+08.92	30.50	30.5	30.5						
26+08.92	ΤO	26+83.92	75.00			50.0	1.0				
TOTAL			30.5	30.5	50.0	1.0					

				PAV	EMENT MARKING SCHE	DULE			
LOCATION		N	PAVEMENT MARKING BLACKOUT TAPE, 5"	SHORT TERM PAVEMENT MARKING SHORT TERM PAVEMENT MARKING REMOVAL		THERMOPLASTIC PAVEMENT MARKING - LINE4"	REPLACEMENT REFLECTOR	RAISED REFLECTIVE PAVEMENT MARKEI REMOVAL	
STATION	I S	TATION	FOOT	FOOT	SQ FT	FOOT SOLID WHITE	EACH	EACH	
23+88.33	3 TO 29	9+04.74	975	17	412	17	7	7	
TOTAL			975	17	412	17	7	7	

 USER NAME
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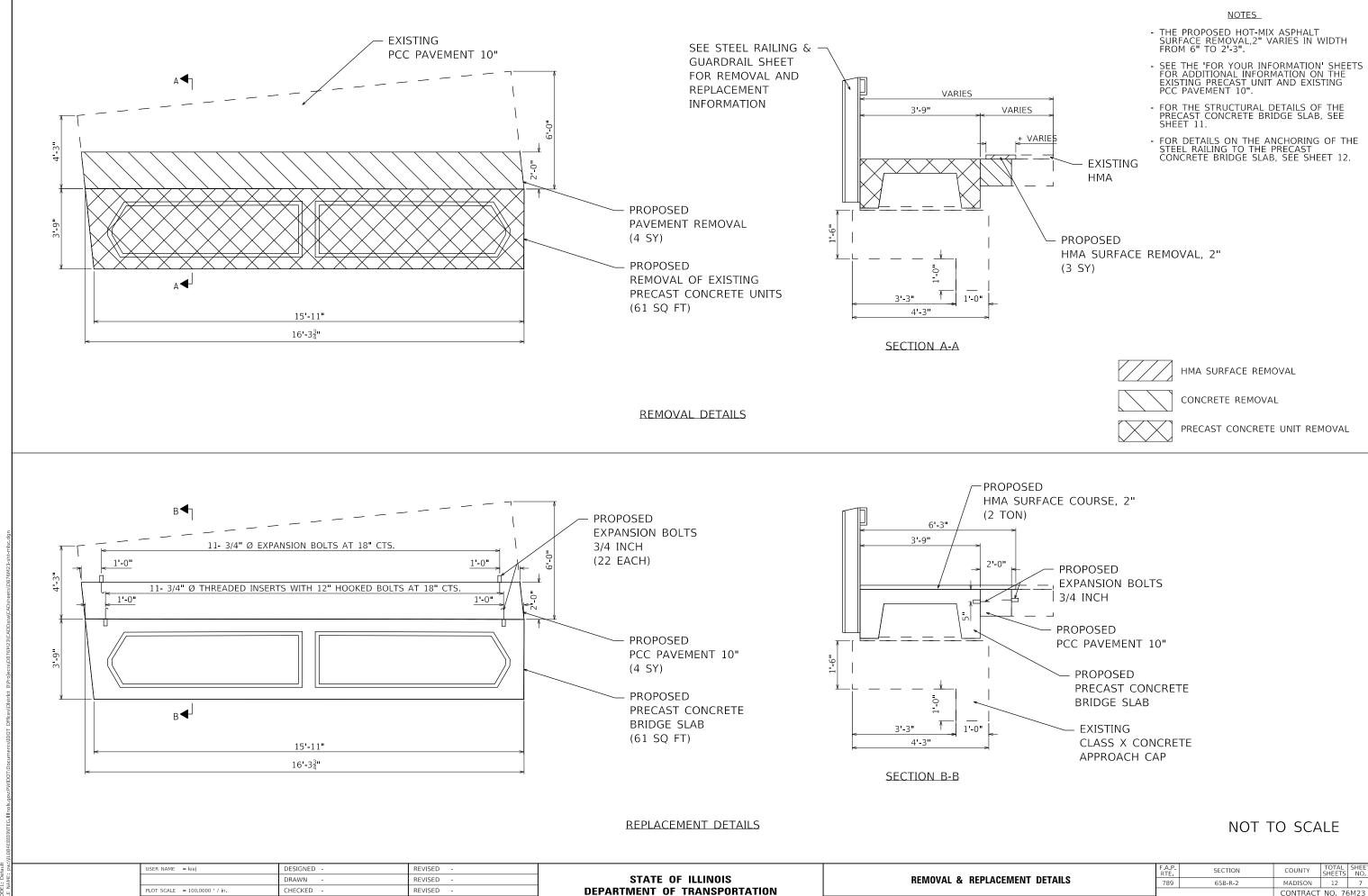
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 PLOT DATE
 = 2/5/2019
 DATE
 REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:

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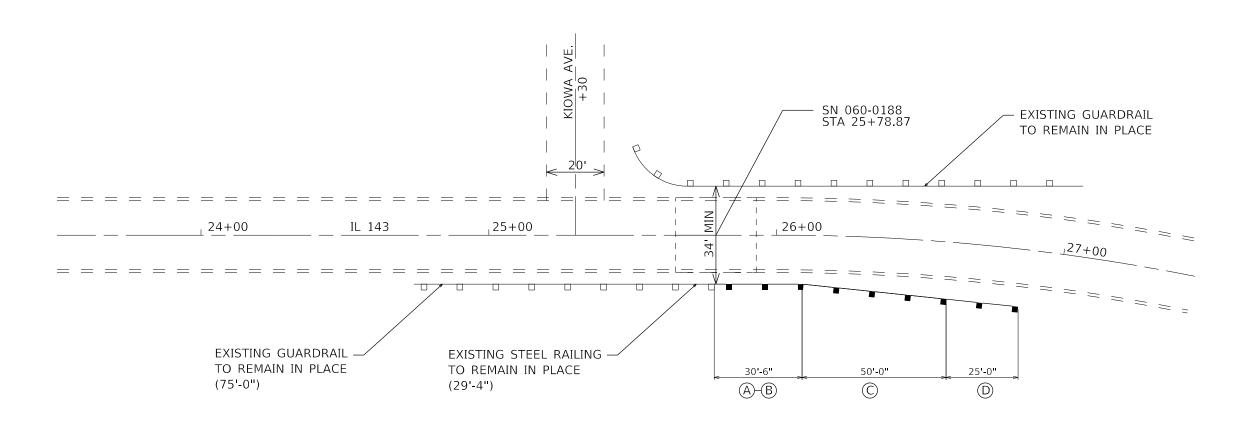
DATE

CONTRACT NO. 76M23

SHEET 1 OF 1 SHEETS STA.

- FOR DETAILS ON THE STEEL RAILING INCLUDING THE ANCHORING OF THE STEEL RAILING TO THE PRECAST CONCRETE BRIDGE SLAB, SEE SHEET 12.





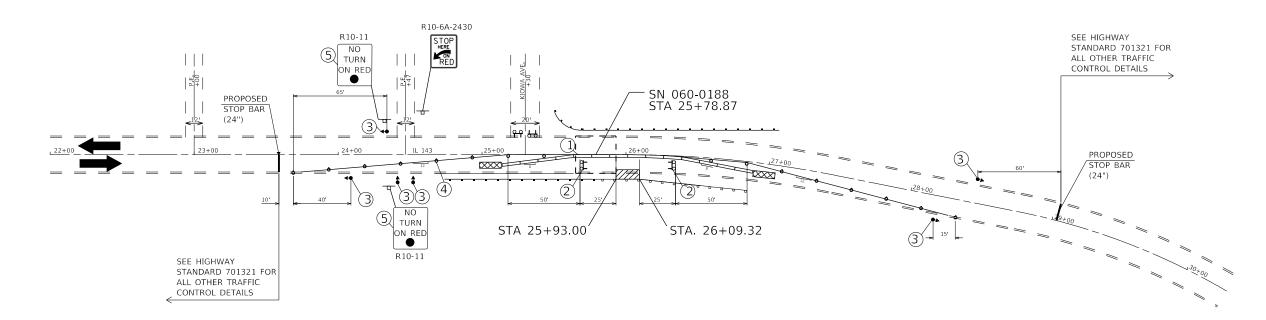
- (A) STEEL RAILING REMOVAL
- B STEEL RAILING, TYPE S1
- © REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL, TYPE A
- © REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE1

NOT TO SCALE

USER NAME = leej	DESIGNED -	REVISED -							F.A.P. RTF	SECTION	COUNTY	TOTAL S	SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS	STATE OF ILLINOIS STEEL RAILING & GUARDRAIL			789 65B-R-2		MADISON	12	8		
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION							CONTRACT NO. 761		M23	
PLOT DATE = 1/28/2019	DATE -	REVISED -		SCALE:	SHEET 1 O	OF 1 SH	HEETS STA.	TO STA.		ILLINOIS FED. AI	D PROJECT		

#### GENERAL NOTES

- ① THE TEMPORARY CONCRETE BARRIER SHALL BE PLACED SLIGHTLY BACK FROM THE LANE LINE TO ENSURE FULL VISIBILITY OF THE LANE LINE.
- 2 TYPE III BARRICADE TO BE PLACED WHEN NO WORK IS BEING PERFORMED.
- 3 THE EDGE OF THE POST MOUNTED SIGNAL HEAD SHALL BE BETWEEN 24" AND 6' FROM EDGE OF SHOULDER.
- 4 DRUMS SHALL BE PLACED AT 25' CENTERS.
- (5) ALL 'NO TURN ON RED' AND 'STOP HERE ON RED' SIGNS SHALL BE INCLUDED IN THE COST OF THE TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL).
- (6) TEMPORARY RUMBLE STRIPS (NOT SHOWN) SHALL BE PLACED ACCORDING TO HIGHWAY STANDARD 701321 ONLY ALONG THE EAST END OF THE ROADWAY DUE TO THE ENTRANCES ON THE WEST END.



## <u>LEGEND</u>

DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT



WORK AREA



DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT



TRAFFIC DIRECTION ARROW



TEMPORARY CONCRETE BARRIER (175 FT)

IMPACT ATTENUATOR (2 EACH)

TRAFFIC SIGNAL

TYPE III BARRICADE WITH FLASHING LIGHTS

NOT TO SCALE

USER NAME = leej	DESIGNED -	REVISED -					F.A.P. RTF	SECTION	COUNTY TOTAL SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS	TRAFFIC CONTROL PLAN		789	65B-R-2	MADISON 12 9	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					CONTRACT NO. 76M23	
PLOT DATE = 1/28/2019	DATE -	REVISED -		SCALE:	SHEET 1 OF 1 SHEETS STA.	TO STA.		ILLINOIS FED. A	D PROJECT

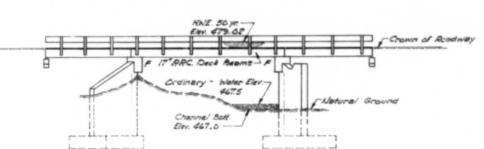
BM. Painted 'a' on North West corner of bridge Wingwall 16' Left Sta 25+63 - Elev. 478.05
Existing Structure built as County Highway Marine Road.
Sec. 2 in 1940. Single span R.C. slab on closed abutment
(Structure No. 060-0188) The contractor shall remove
the superstructure and replace with wider one, \$ widen
the existing abutments. No salvage. Bridge shall be built
using stage construction, and maintaining Traffic at all Times.

# STATE OF ILLINOIS

# DEPARTMENT OF TRANSPORTATION

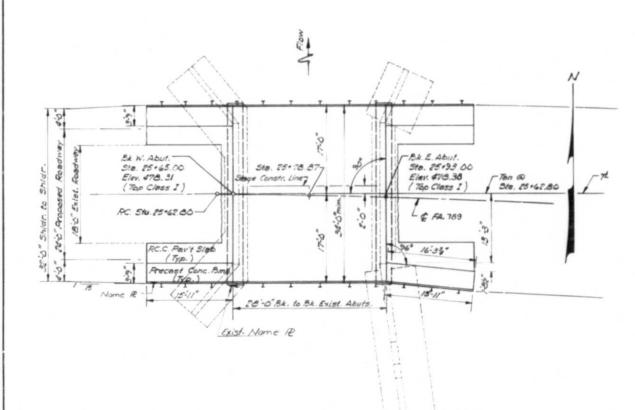
# FOR INFORMATION ONLY





STATION 25+78.87 MOONEY CREEK BUILT 19 RT. 789 SEC. 56BR-1 LOADING HSEO

> NAME PLATE (Sec Std. 2113)



Curve Data = Sta. 86+36.10 = 11415'0" = 742'07" 744.08 144.1 0.035% Begins at Sta. 24 -79.60 Full S.E. Attained at Sta. 26+04.80

# Design Stresses

Precest Prestressed Concrete Units

5,000 psi fci = 4,000 pol

0

270,000 pei (% f Strends) 188,700 psi (% f Strends)

Precast Units Field Units fc : 4,500 pal fc = 1,400 psi 1,000 pol Fs . 20,000,000 20,000 00/

Loading HS 20-44 Allow 25"/" for future Wearing Surface, Design Specifications LOCATION SKETCH 1973 A A S H T O . 1974 and 1975 Interim Specifications. GENERAL NOTES

1016), 81681 816819 80

27

9 SHEETS

Madison 57

It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to con-

struction and ordering of materials.
The top surface of the beams shall be finished in accordance with Article 505.06 of the Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners.

Expansion bolls shall consist of self drilling expansion anchors and \*\* \$ x 12" hooked bolts.

Limits of Waterproofing Membrane System shall be six inches beyond the ends of deck beams and out to out of deck.

Shoulder transition to wingwall shall be shaped with broken concrete. Cost incidental.

### TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Bituminous Soncrete Surface Course Mixture D, Class I	Tons	6		6
Portland Cement Concrete Pavement (10")	59 H.	38		38
Pavement Fabric	59 W.	38		38
Removal of Existing Superstructures	Each			/
Concrete Removal	Cu. Ved		6	6
Expansion Bolts (***)	Each	88	36	118
Precast Concrete Bridge Slob	Sq. Ft.	€39		839
Pavement Removal and Portland Cement Concrete Replacement, Type II (10)	59. Yd.	8		8
Class X Concrete	Cu. Yes	1.6	14.8	16.4
Reinforcement Bars	Pound		3060	3060
Precast Prestressed Concrete Deck Beams (17"Depth)	Sp.Ft	947		947
Waterproofing Membrane System	39. W.	109		109
Steel Railing, Type "5"	Lin. Ft.	180		120
Name Plates	Each	1		/
Temporary Guardrail	Lin. Ft.	28		28
Portland Coment Mortar Fairing Course	Lin. Ft.	278		278

Sta 25+65.00

OFFSET SKETCH

3N. PM Range Sw. Range 7w Prop. Bridge

SHEET

\*See Special Provisions.

Sta. 25 . 62.80

SCALE:

GENERAL PLAN & ELEVATION FA. RTE. 789 Over MODNEY CREEK RTE. 789 SECTION 56BR-1 MADISON COUNTY STA. 25+78.87

- € FA. 789

Ste. 25.93.00

DESIGNED T.E. Souther DRAWN R. Doty APPROVED CHECKED TES

> JSER NAME = leej DESIGNED -REVISED DRAWN REVISED HECKED REVISED PLOT DATE = 1/28/2019 DATE REVISED

Waterway Data

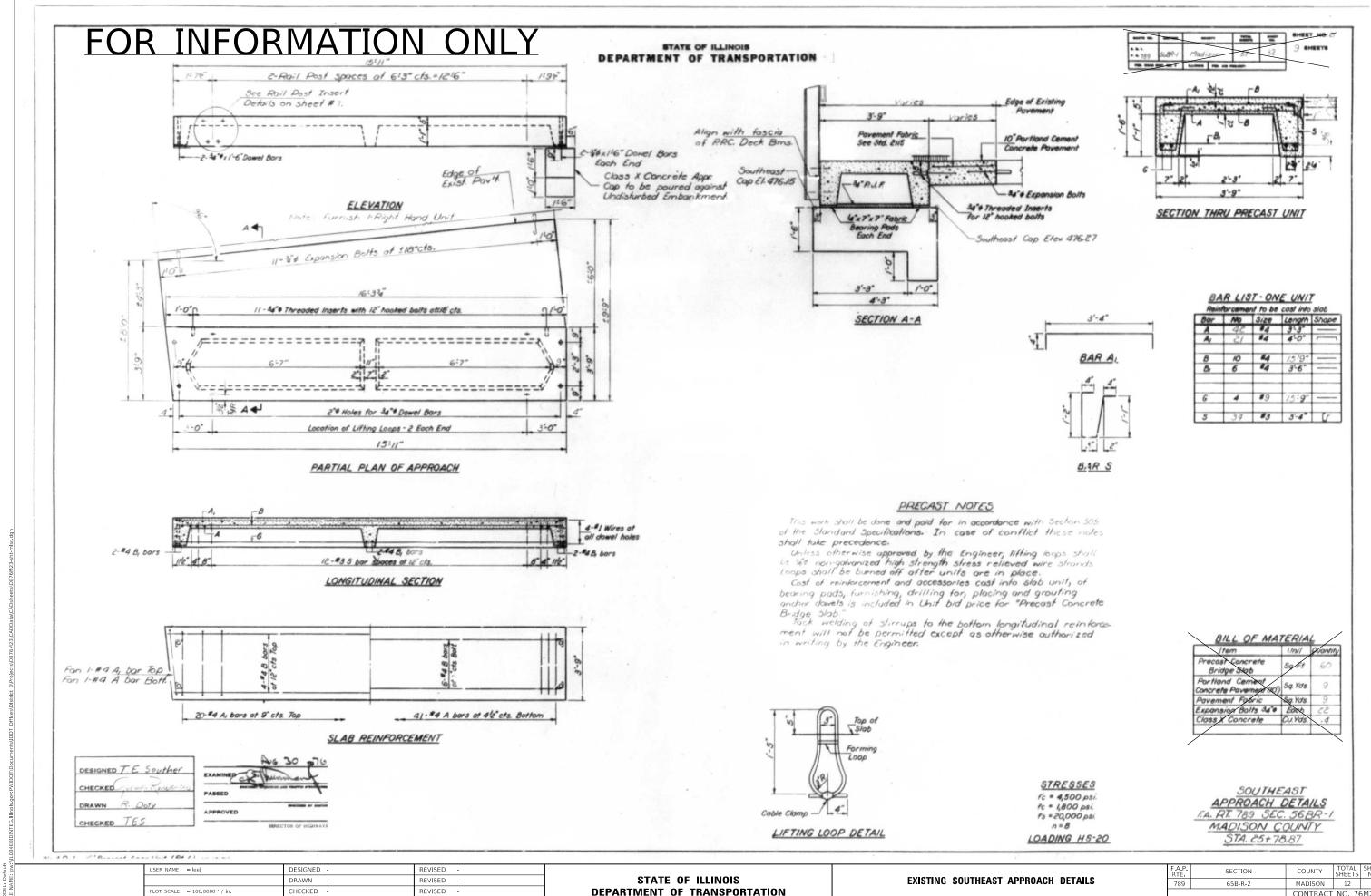
Orainage Area . 4.9 Sq.mi.

Design Discharge (50 yr.) = 2659 cfs
Existing Opening (500 yr.) = 2659 cfs
Existing Opening (600 yr. H.W.E.) = 225 a'
Proposed Opening(600 50 yr. H.W.E.) = 225 a'

100-Year Discharge = 3360 c.f.s.

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

		F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
EXISTING GENERAL PLAN & ELEVATION		789	65B-R-2	MADISON	12	10
_				CONTRACT	NO. 76	5M23
	I SHEET 1 OF 3 SHEETS I STA TO ST	ΓΛ	THINOIC SED A	ID DDOJECT		



PLOT DATE = 1/28/2019

DATE

REVISED

**DEPARTMENT OF TRANSPORTATION** 

SHEET 2 OF 3 SHEETS STA.

12 11 CONTRACT NO. 76M23

