

04-27-2018 LETTING ITEM 066

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION PROPOSED HIGHWAY PLANS

FOR INDEX OF SHEETS, SEE SHEET NO. 2  
FOR STATE STANDARDS, SEE SHEET NO. 2

FAI ROUTE 88 (I-88)  
SECTION (161-1HB-9)BP  
PROJECT: NHPP-5CCD(490)  
TYPE of IMPROVEMENT: CLEANING & PAINTING  
ROCK ISLAND COUNTY

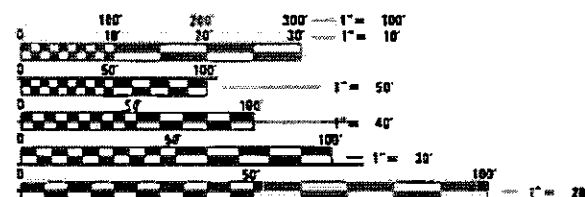
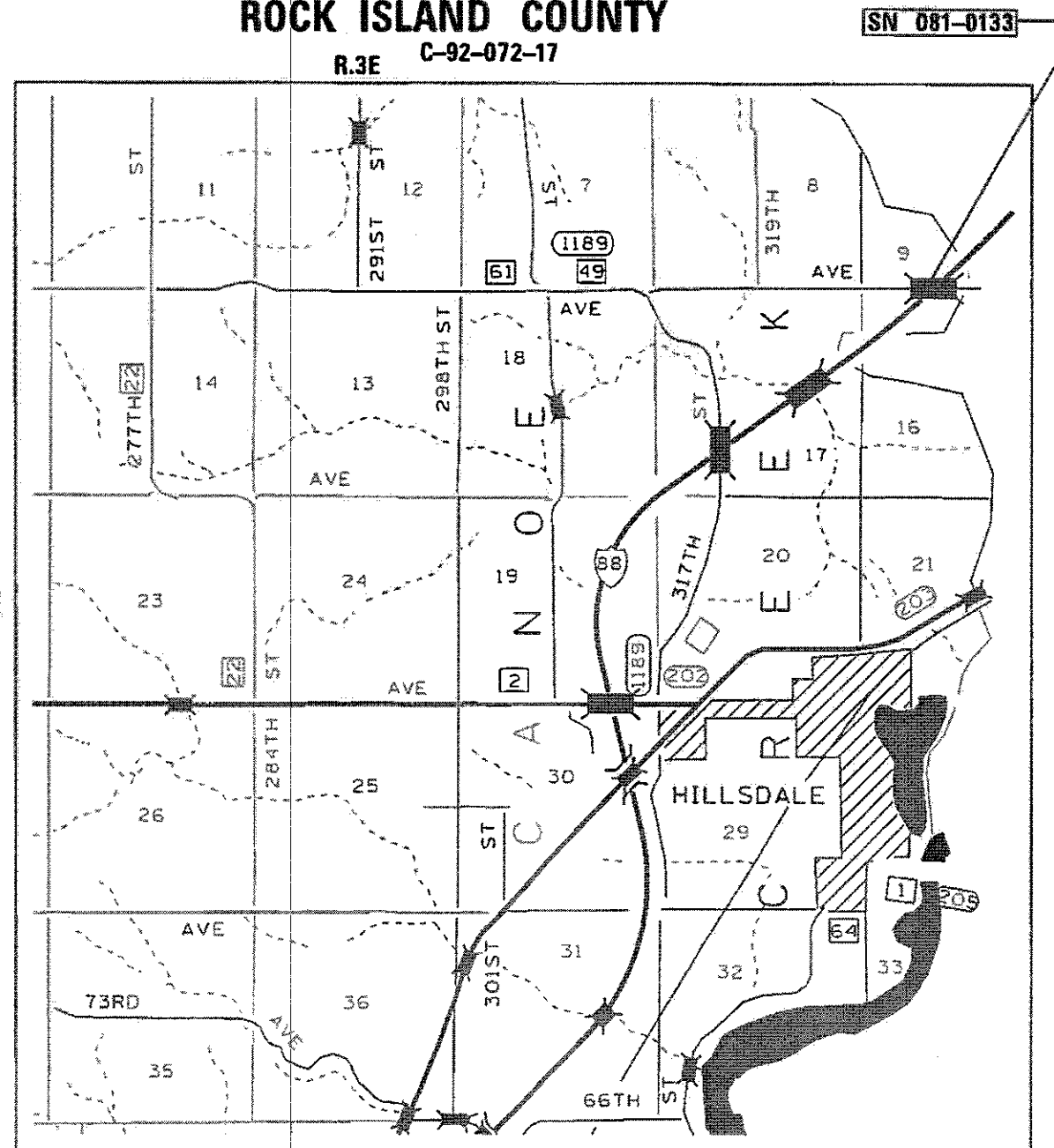
F.A.I. SHEET	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	161-1HB-9)BP	ROCK ISLAND	9	1
ILLINOIS CONTRACT NO. 64M48				

\* 9 + 6 (A-F) = 15 TOTAL SHEETS

D-92-059-17



ROCK ISLAND COUNTY  
CANOE CREEK TOWNSHIP - SECTIONS 9 & 16



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

PROJECT ENGINEER: DAVID DOSS (815) 284-5416  
PROJECT MANAGER: MAHMOUD ETEMADI (815) 284-5393

CONTRACT NO. 64M48

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED 1-25-2018  
*R. Maubel*  
REGIONAL ENGINEER

Mar 23 2018  
*David Doss*  
ENGINEER OF DESIGN AND ENVIRONMENT

Mar 23 2018  
*Paul P. Chisholm*  
DIRECTOR OF PROGRAM DEVELOPMENT

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OF THE STATE OF ILLINOIS

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- 6-9 TRAFFIC CONTROL PLAN FOR SN 081-0133
- 9A-9F EXISTING PLANS SN 081-0133

# STATE STANDARDS

- 701101-05 OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701400-09 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701401-11 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701402-12 LANE CLOSURE, FREEWAY/EXPRESSWAY WITH BARRIER
- 701426-09 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS, FOR SPEEDS  $\geq$  45 MPH
- 701901-07 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER
- 720011-01 METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- 729001-01 APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)

# GENERAL NOTES

A MINIMUM OF 2 AIR MONITORS WILL BE REQUIRED TO MONITOR ABRASIVE BLASTING OPERATIONS, SEE SPECIAL PROVISION FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS. SEEDING CLASS 2A SHALL BE USED. THIS WORK WILL BE INCLUDED IN THE CONTRACT UNIT PRICE PER LUMP SUM FOR CLEANING AND PAINTING STEEL BRIDGE NO. 1.

FERTILIZER SHALL BE APPLIED TO ALL DISTURBED AREAS AND INCORPORATED INTO THE SEEDBED PRIOR TO SEEDING OR PLACEMENT OF SOD AT THE RATE SPECIFIED IN SECTIONS 250 AND 252 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST OF CLEANING AND PAINTING STEEL BRIDGE NO. 1.

MULCH METHOD II SHALL BE APPLIED OVER ALL SEEDED AREAS. THIS SHALL BE INCLUDED IN THE COST OF THE CLEANING AND PAINTING STEEL BRIDGE NO. 1.

ALL BORROW/WASTE/USE SITES MUST BE APPROVED BY THE DEPARTMENT PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTHMOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF CONSTRUCTION.

TEMPORARY IMPACT ATTENUATORS WILL BE MEASURED AS EACH FOR EACH ATTENUATOR SUPPLIED ON THE JOB AS SPECIFIED IN THE PLANS, AND SHALL INCLUDE THE COST OF RENTING/OWNING THE ATTENUATOR FOR THE TIME REQUIRED ON THE JOB PLUS HAULING TO AND FROM THE PROJECT SITE, AS WELL AS ONE PLACEMENT AND REMOVAL FROM THE ROADWAY. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR IMPACT ATTENUATORS, TEMPORARY OF THE TYPE SPECIFIED.

RELOCATE TEMPORARY IMPACT ATTENUATOR WILL BE PAID FOR AS EACH AND WILL BE PAID FOR EACH TIME THE ATTENUATOR IS REQUIRED BY STAGING TO BE PICKED UP AND MOVED TO A DIFFERENT LOCATION ON THE PROJECT, WHETHER IT IS TO ANOTHER LOCATION ON THE ROADWAY OR TO A STORAGE/STAGING LOCATION FOR THE PROJECT. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR IMPACT ATTENUATORS, RELOCATE OF THE TYPE SPECIFIED.

THIS WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 704 OF THE STANDARD SPECIFICATIONS. TEMPORARY CONCRETE BARRIER WILL BE MEASURED IN FEET ALONG THE CENTERLINE OF THE BARRIER AND SHALL INCLUDE THE COST OF RENTING/OWNING THE BARRIER FOR THE TIME REQUIRED ON THE JOB PLUS HAULING TO AND FROM THE PROJECT SITE, AS WELL AS ONE PLACEMENT AND REMOVAL FROM THE ROADWAY IN ACCORDANCE WITH SECTION 704 OF THE STANDARD AND SPECIFICATION. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR TEMPORARY CONCRETE BARRIER.

RELOCATE TEMPORARY CONCRETE BARRIER WILL BE PAID FOR IN FEET ALONG THE CENTERLINE OF THE BARRIER, AND WILL BE PAID FOR EACH TIME THE BARRIER IS REQUIRED BY STAGING TO BE PICKED UP AND MOVED TO A DIFFERENT LOCATION ON THE PROJECT, WHETHER IT IS TO ANOTHER LOCATION ON THE ROADWAY OR TO A STORAGE/STAGING LOCATION FOR THE PROJECT. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR RELOCATE TEMPORARY CONCRETE BARRIER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123.

THE SSPC QP1 & QP2 CONTRACT CERTIFICATIONS WILL BE REQUIRED FOR THIS CONTRACT.

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES	
SCALE: _____	SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-9)BP	ROCK ISLAND	9	2
CONTRACT NO. 64M48				
ILLINOIS FED. AID PROJECT				



# SCHEDULE OF QUANTITIES

70107004	PAVEMENT MARKING BLACKOUT TAPE, 4"		
	<u>LOCATION</u>	<u>COMMENTS</u>	<u>FOOT</u>
	STAGE I		
	500'	EDGE LINE/RT	500
	130'	SKIP DASH/DOUBLE WIDE (13 DASHES)	260
	493'	EDGE LINE/LT	493
	STAGE II		
	500'	EDGE LINE/LT	500
	493'	EDGE LINE/RT	493
	STAGE III		
	500'	EDGE LINE/LT	500
	130'	SKIP DASH/DOUBLE WIDE (13 DASHES)	260
	493'	EDGE LINE/RT	493
	STAGE IV		
	500'	EDGE LINE/RT	500
	493'	EDGE LINE/LT	493
		TOTAL	4492

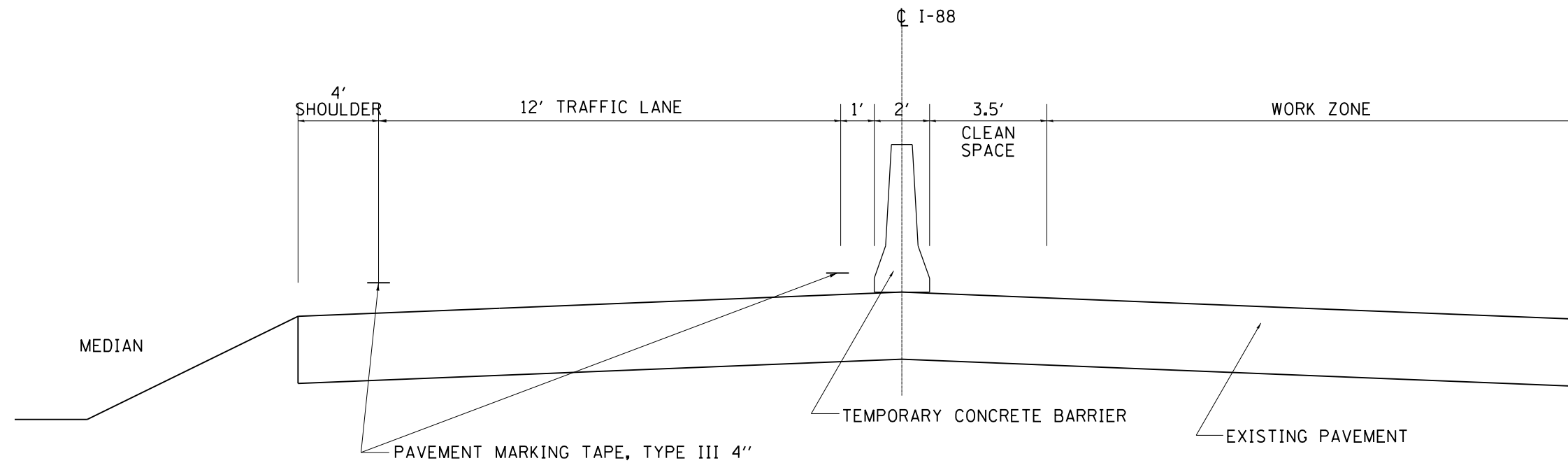
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL		
	<u>LOCATION</u>	<u>COMMENTS</u>	<u>SQ FT</u>
	STAGE I		
	1253'	BLACKOUT TAPE, 4"	418
	2486'	MARKING TAPE, TYPE III, 4"	829
	STAGE II		
	993'	BLACKOUT TAPE, 4"	331
	1986'	MARKING TAPE, TYPE III, 4"	662
	STAGE III		
	1253'	BLACKOUT TAPE, 4"	418
	2486'	MARKING TAPE, TYPE III, 4"	829
	STAGE IV		
	993'	BLACKOUT TAPE, 4"	331
	1986'	MARKING TAPE, TYPE III, 4"	662
		TOTAL	4480

70300520	PAVEMENT MARKING TAPE, TYPE III 4"		
	<u>LOCATION</u>	<u>COMMENTS</u>	<u>FOOT</u>
	STAGE I		
	1000'	TAPER	1000
	500'	CENTERLINE	500
	70'	TAPER x2	140
	353'	TANGENT x2	706
	70'	TAPER x2	140
	STAGE II		
	1000'	TAPER	1000
	70'	TAPER x2	140
	353'	TANGENT x2	706
	70'	TAPER x2	140
	STAGE III		
	1000'	TAPER	1000
	500'	CENTERLINE	500
	70'	TAPER x2	140
	353'	TANGENT x2	706
	70'	TAPER x2	140
	STAGE IV		
	1000'	TAPER	1000
	70'	TAPER x2	140
	353'	TANGENT x2	706
	70'	TAPER x2	140
		TOTAL	8944

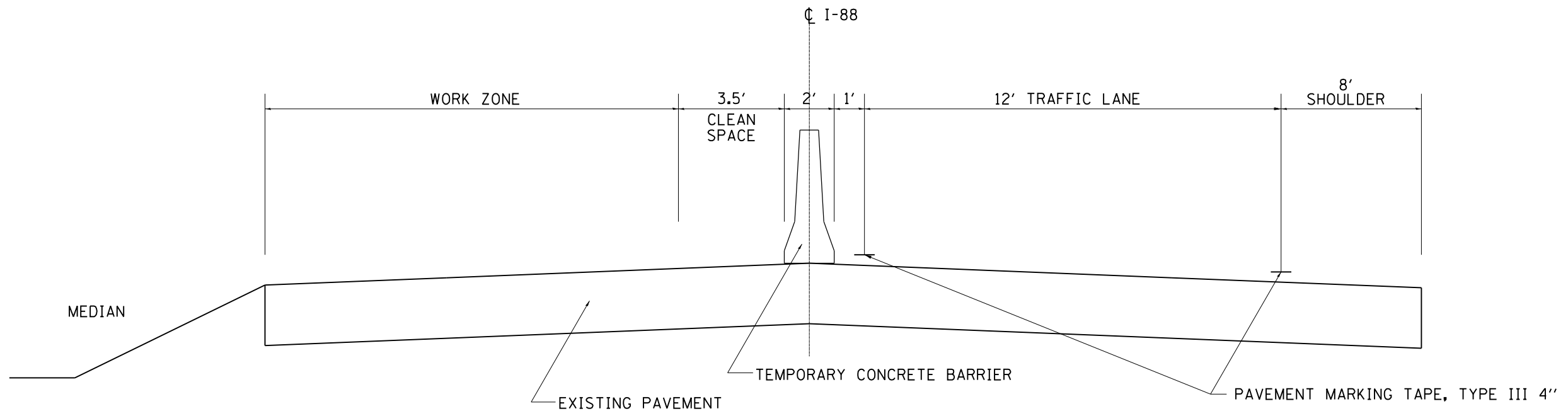
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# STAGING TYPICAL

STAGES I & IV SN 081-0133 122nd OVER I-88



STAGES II & III SN 081-0133 122nd OVER I-88



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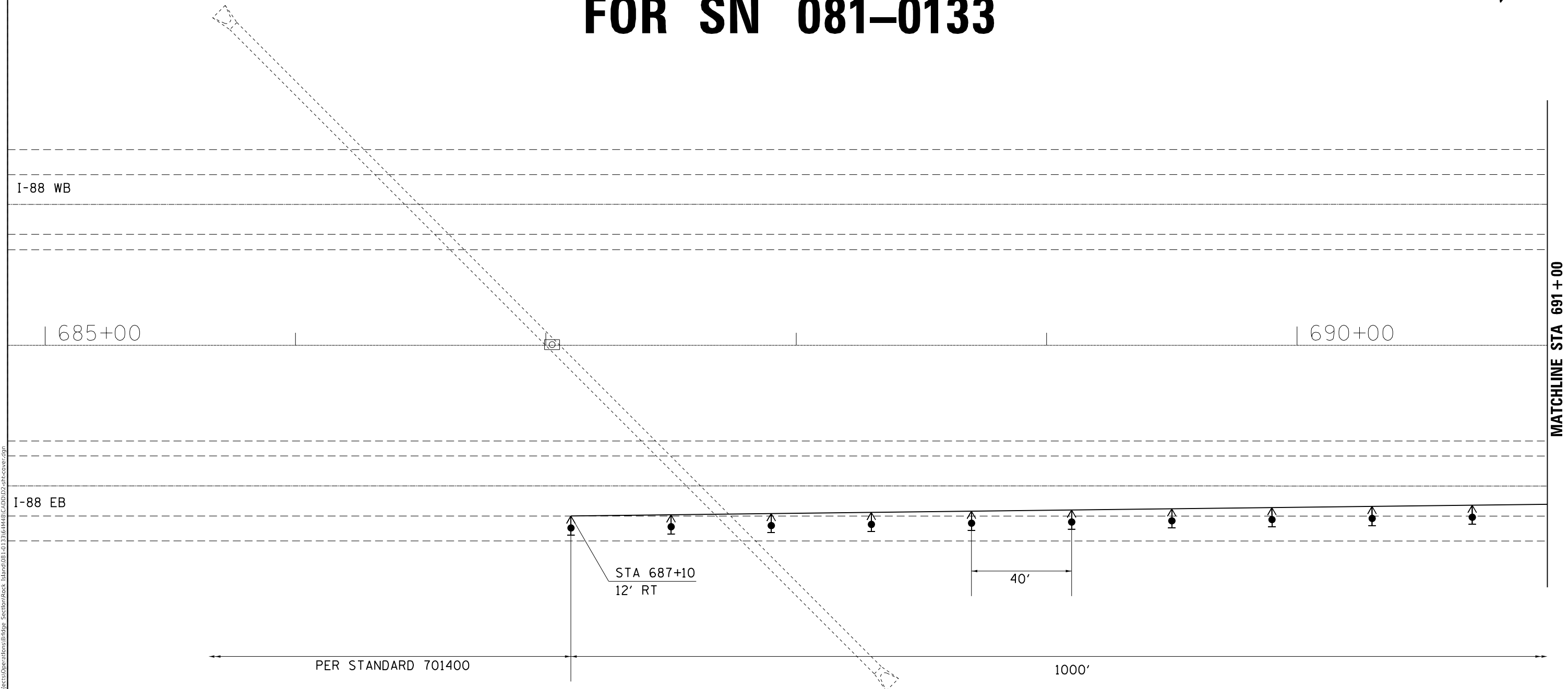
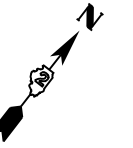
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGING TYPICAL**

SCALE: \_\_\_\_\_ SHEET \_\_\_\_ OF \_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-9)BP	ROCK ISLAND	9	5
CONTRACT NO. 64M48				
ILLINOIS FED. AID PROJECT				

# TRAFFIC CONTROL PLAN FOR SN 081-0133



### SYMBOLS

- Arrow board
- Work area
- Sign
- Direction indicator barricade with steady burn monodirectional light
- Type II barricade or drum with steady burn monodirectional light
- Temporary concrete barrier
- Monodirectional barrier wall/guardrail marker
- Impact attenuator
- Drums with steady burning monodirectional light

### NOTES

- ① ReflectORIZED temporary pavement marking shall be placed throughout the taper and along-side the work area. The edge line shall be white for right lane closure and yellow for left lane closures.
- ② Vertical panels at 7.6 m (25') centers with steady burning monodirectional lights.

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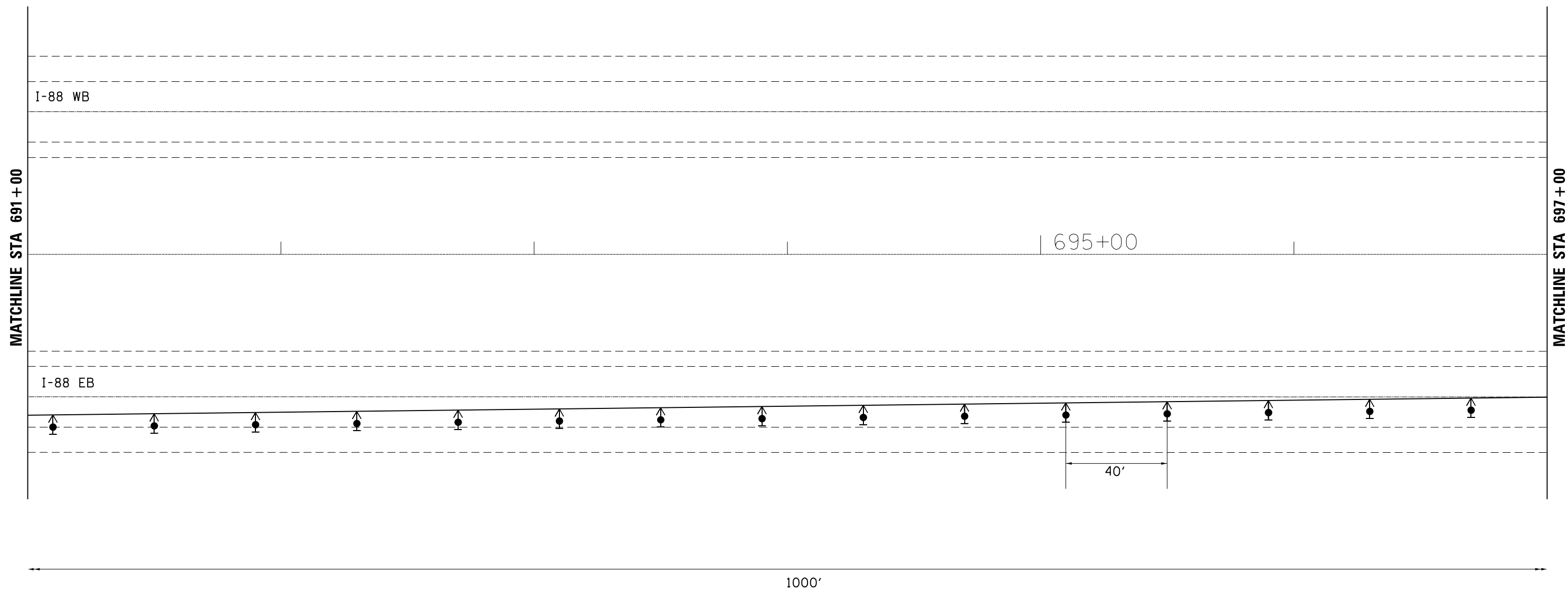
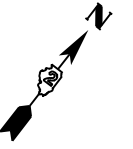
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TTRAFFIC CONTROL PLAN  
FOR SN 081-0133**

SCALE: \_\_\_\_\_ SHEET \_\_\_\_ OF \_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-9)BP	ROCK ISLAND	9	6
CONTRACT NO. 64M48				
ILLINOIS FED. AID PROJECT				

# TRAFFIC CONTROL PLAN FOR SN 081-0133



### SYMBOLS

- Arrow board
- Work area
- Sign
- Direction indicator barricade with steady burn monodirectional light
- Type II barricade or drum with steady burn monodirectional light
- Temporary concrete barrier
- Monodirectional barrier wall/guardrail marker
- Impact attenuator
- Drums with steady burning monodirectional light

### NOTES

- ① ReflectORIZED temporary pavement marking shall be placed throughout the taper and along-side the work area. The edge line shall be white for right lane closure and yellow for left lane closures.
- ② Vertical panels at 7.6 m (25') centers with steady burning monodirectional lights.

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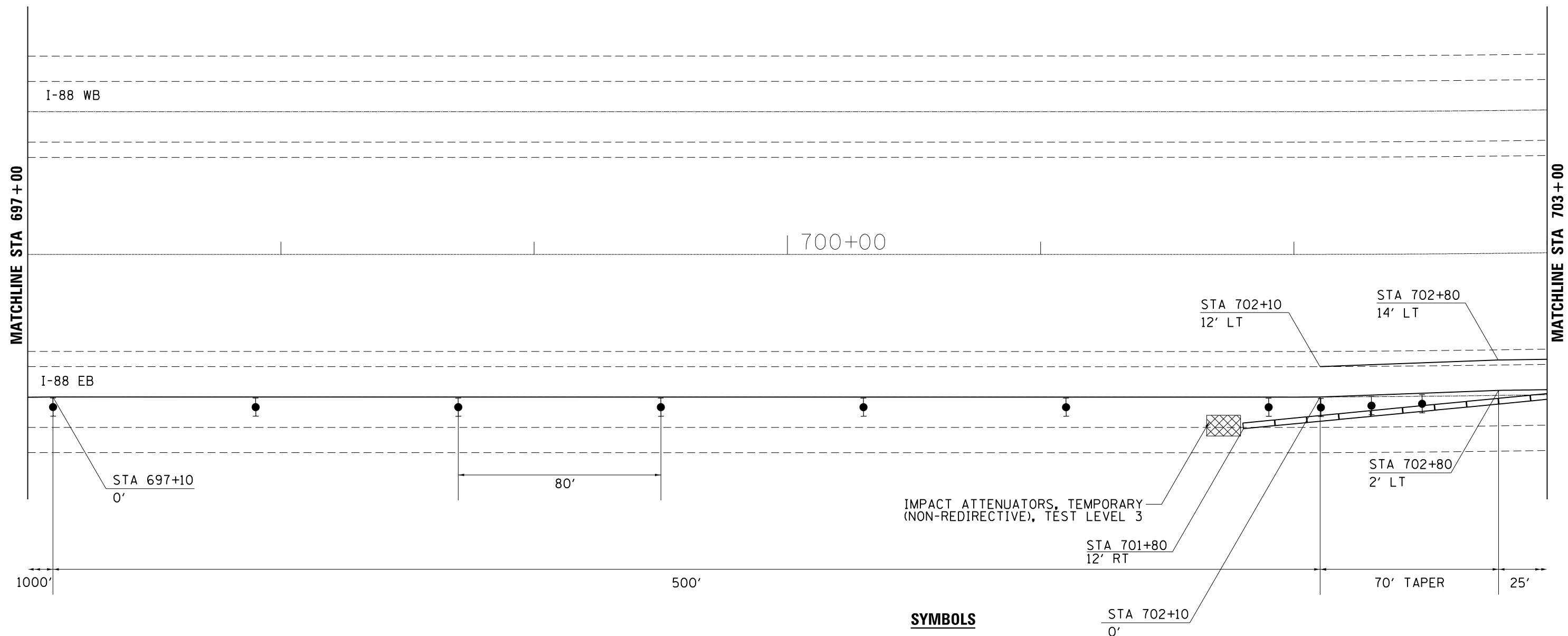
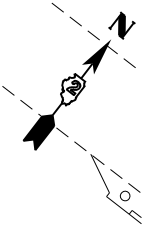
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TTRAFFIC CONTROL PLAN  
FOR SN 081-0133**

SCALE: \_\_\_\_\_ SHEET \_\_\_\_ OF \_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-9)BP	ROCK ISLAND	9	7
CONTRACT NO. 64M48				
ILLINOIS FED. AID PROJECT				

# TRAFFIC CONTROL PLAN FOR SN 081-0133



### SYMBOLS

- Arrow board
- Work area
- Sign
- Direction indicator barricade with steady burn monodirectional light
- Type II barricade or drum with steady burn monodirectional light
- Temporary concrete barrier
- Monodirectional barrier wall/guardrail marker
- Impact attenuator
- Drums with steady burning monodirectional light

### NOTES

- ① ReflectORIZED temporary pavement marking shall be placed throughout the taper and along-side the work area. The edge line shall be white for right lane closure and yellow for left lane closures.
- ② Vertical panels at 7.6 m (25') centers with steady burning monodirectional lights.

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

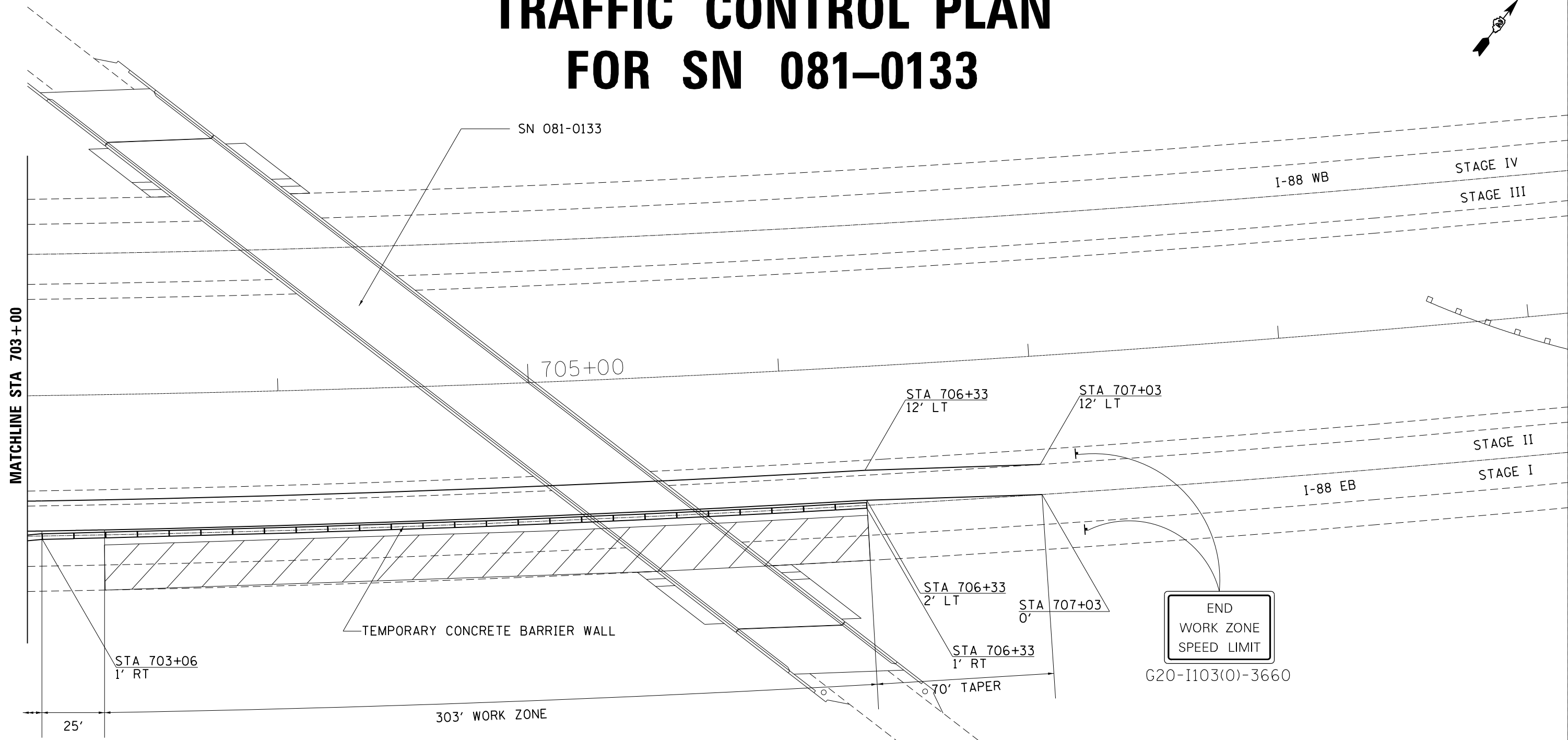
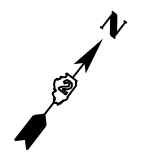
**TRAFFIC CONTROL PLAN  
FOR SN 081-0133**

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-9)BP	ROCK ISLAND	9	8
CONTRACT NO. 64M48				
ILLINOIS FED. AID PROJECT				



# TRAFFIC CONTROL PLAN FOR SN 081-0133



### SYMBOLS

- Arrow board
- Work area
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### NOTES

- ① ReflectORIZED temporary pavement marking shall be placed throughout the taper and along-side the work area. The edge line shall be white for right lane closure and yellow for left lane closures.
- ② Vertical panels at 7.6 m (25') centers with steady burning monodirectional lights.

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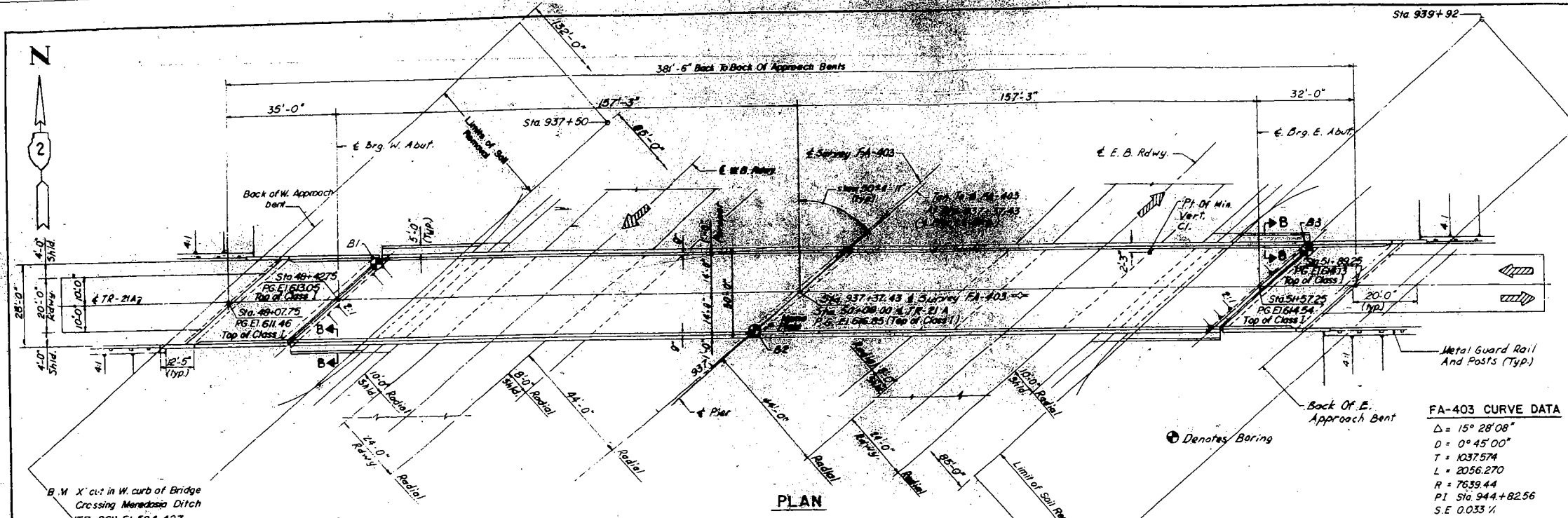
**STATE OF ILLINOIS  
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**TRAFFIC CONTROL PLAN  
FOR SN 081-0133**

SCALE: \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-9)BP	ROCK ISLAND	9	9
CONTRACT NO. 64M48				
ILLINOIS FED. AID PROJECT				

PROJECT NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
FA 403	161-2	ROCK ISLAND	532	2624
SHEET NO. 14				
17 SHEETS				



**FA-403 CURVE DATA**  
 $\Delta = 15^\circ 28' 08''$   
 $D = 0^\circ 45' 00''$   
 $T = 1037.574$   
 $L = 2056.270$   
 $R = 7639.44$   
 $PI Sta. 944+82.56$   
 $SE 0.033 \%$

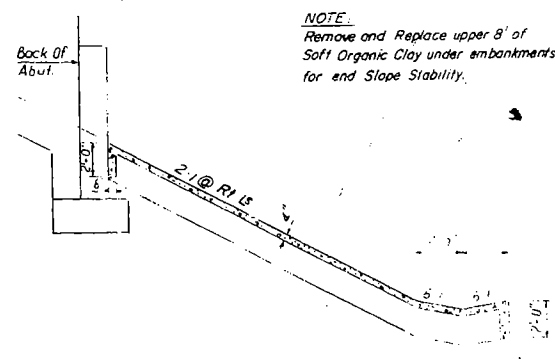
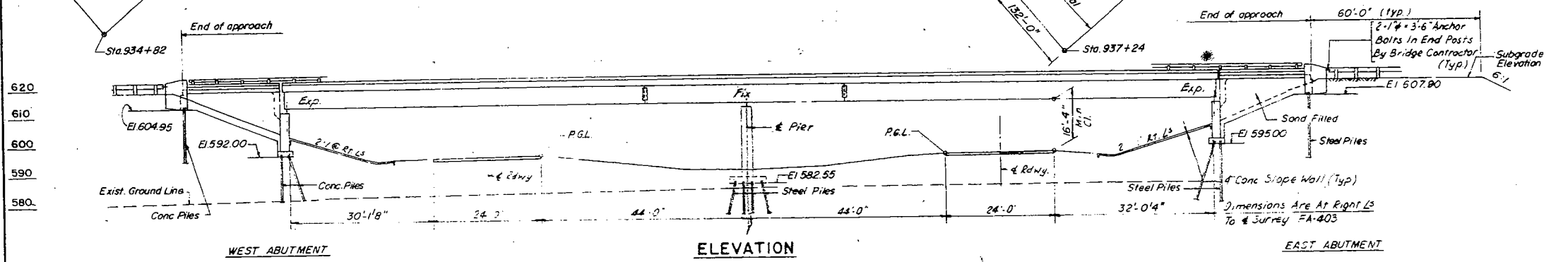
**GENERAL NOTES**

- ALL REINFORCEMENT BARS SHALL BE LAPPED 2X DIAMETERS UNLESS OTHERWISE SHOWN.
- FIELD CONNECTIONS SHALL BE BOLTED USING HIGH STRENGTH BOLTS. BOLTS 3/4"Ø, OPEN HOLES 13/16"Ø, UNLESS OTHERWISE NOTED.
- THE BASIC LEAD SILICO CHROMATE PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL.
- FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM OF FLANGE OF BEAMS OR GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.
- ANCHOR BOLTS SHALL BE SET BEFORE RIVETING OR BOLTING CROSS FRAMES OVER SUPPORTS.
- SLOPE WALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC 6" x 6" MESH, WEIGHING 50# PER 100 SQ. FT..
- THE EMBANKMENT CONFIGURATION SHOWN SHALL BE THE MINIMUM EMBANKMENT THAT MUST BE CONSTRUCTED PRIOR TO CONSTRUCTION OF THE ABUTMENTS.
- THE CONTRACTOR SHALL DRIVE ONE CONCRETE TEST PILE AT WEST ABUTMENT AND TWO STEEL TEST PILES, ONE EACH AT PIER AND EAST ABUTMENT IN PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE PILES.
- CONCRETE PILES AT WEST ABUTMENT & BENT SHALL BE DRIVEN IN HOLES PRECISED THROUGH THE EMBANKMENT IN ACCORDANCE WITH ART. 513.08 (C) OF THE STANDARD SPECIFICATIONS.
- THE CONCRETE RAIL SECTION ABOVE THE MANDATORY CONST. JOINT AT THE TOP OF THE SLAB SHALL BE CONSTRUCTED OF CLASS X CONCRETE, EXCEPT THE AGGREGATE SHALL CONFORM TO THE REQUIREMENTS OF HANDRAIL CONCRETE.
- PROTECTIVE COAT SHALL NOT BE APPLIED TO SURFACES TO WHICH WATERPROOFING MEMBRANE SYSTEM IS APPLIED.

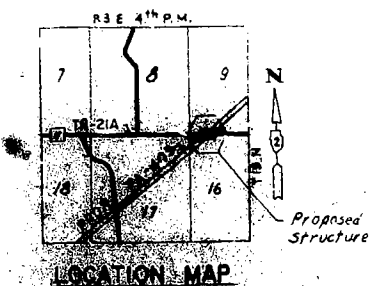
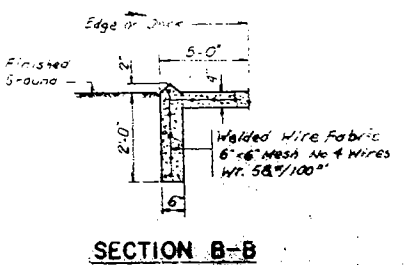
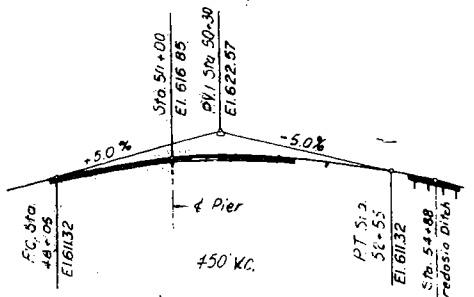
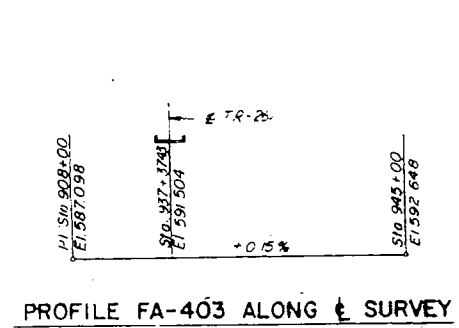
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER STRUCT.	SUB STRUCT.	TOTAL
NEOPRENE EXP. JT. 2"	LIN. FT.	89	—	89
PROTECTIVE COAT	SQ. YDS.	315	—	315
CLASS "X" CONCRETE	CU. YDS.	410.2	362.4	772.6
STRUCTURAL STEEL	L. SUM.	0.12	—	0.12
ALUMINUM RAILING	LIN. FT.	747.0	—	747.0
REINFORCEMENT BARS	LBS.	94,020.0	11,740	105,760
STUD SHEAR CONNECTORS	EACH	1440	—	1440
CONCRETE PILES	LIN. FT.	—	1,951	1,951
TEST PILES (CONCRETE)	EACH	—	1	1
NAME PLATES	EACH	—	1	1
SLOPE WALL 4"	SQ. YDS.	—	410	410
BIT. CONC. SURFACE COURSE, CLASS I	TONS	95	—	95
WATERPROOFING MEMBRANE SYSTEM	SQ. YDS.	1,119	—	1,119
SAND BACKFILL	CU. YDS.	—	310	310
STEEL PILES HP10 x 42	LIN. FT.	—	3,679	3,679
TEST PILES HP10 x 42	EACH	—	2	2
REMOVAL & DISPOSAL OF UNSUITABLE MAT'L	CU. YDS.	—	7,464	7,464
POROUS GRANULAR EMBANKMENT	CU. YDS.	—	7,464	7,464
PERMANENT "B.M." TYPE I	EACH	1	—	1

\* CALCULATED WEIGHT OF STRUCTURAL STEEL = 452,100 LBS.



DESIGNED	D.N.
CHECKED	B.T.M.
DRAWN	I.P.
CHECKED	D.M.P.



**NOTES:**  
**DESIGN LOADING**  
 HS 15-44 And Allowance For 25 PSF Future Wearing Surface  
**DESIGN STRESSES:**  
 $f_c = 1400$  PSI, Except As Follows:  
 $f_c = 1200$  PSI, For Deck Slab.  
 $f_c = 1000$  PSI, For Conc. In Contact With Earth  
 $f_s = 20,000$  PSI - A193 Structural Steel.  
 $f_s = 20,000$  PSI - Reinforcement Steel.  
 $v = 75$  PSI, Allowable Shear In Footings.  
 $n = 10$   
 Allowable Live Load Deflections:  
 $L/200$  (Composite)  
**DESIGN SPECIFICATIONS:**  
 AASHTO/1973 AS APPLICABLE

STATION 937+37.43  
 BUILT 19 BY  
 STATE OF ILLINOIS  
 FA 403 SECTION 161-1HB-9  
 FA PROJ. EBRF-403-1(6)  
 LOADING HS 15

NAME PLATE  
 SEE STD. 2113

APPROVED

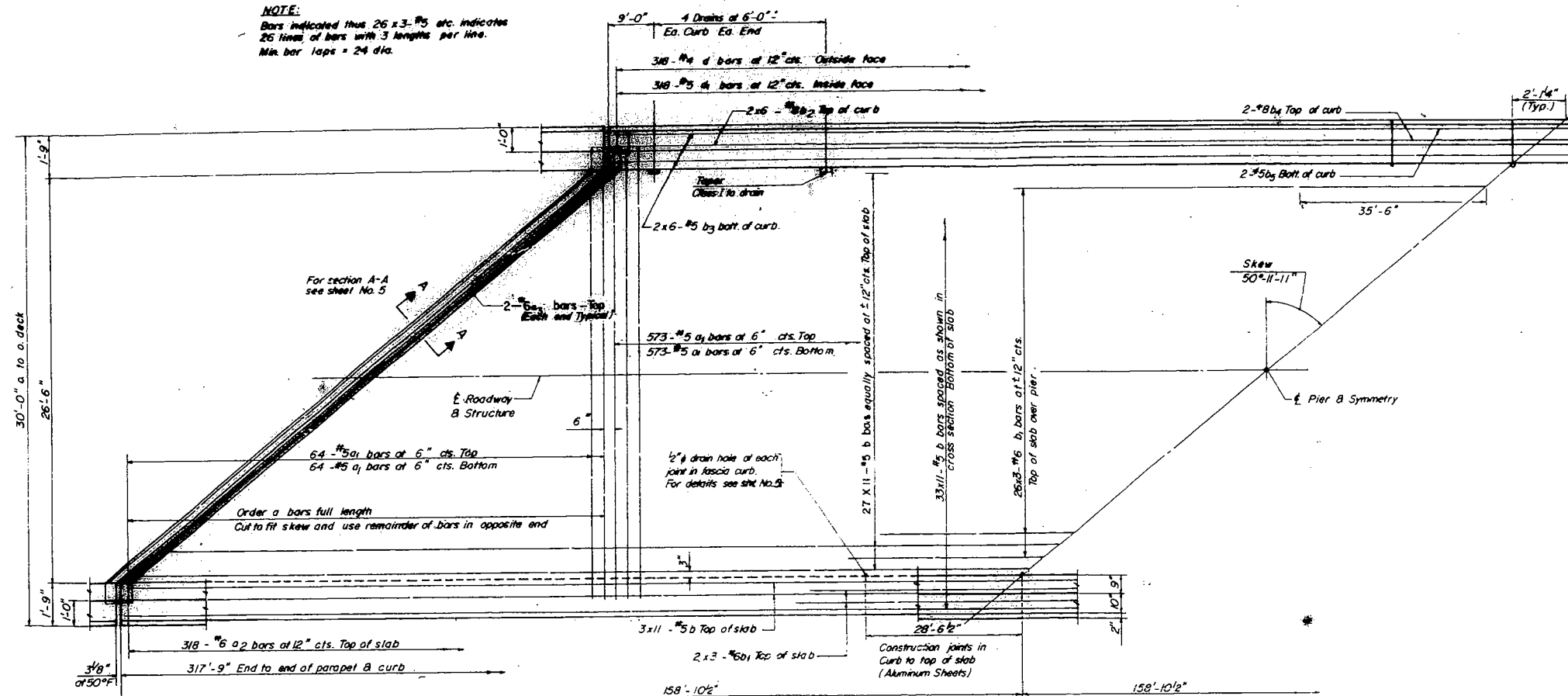
**GENERAL PLAN & ELEVATION**  
 FA 403 SECTION 161-1HB-9  
 FA 403 UNDER TR-21 A  
 ROCK ISLAND & WHITE SIDE COUNTY  
 STATION 937+37.43  
 NOV 19 1973 I.S.

**FOR INFORMATION ONLY**

Reinf. Bars Sub From 41,500 # to 41,740 # Total From 135,620 # to 135,760 # 0-7-74 D.D. AS REVISED 2-8-75 L.W.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 403	161-1-2	ROCK ISLAND WHITE SIDE	532	255
SHEET NO. 4				
17 SHEETS				

**NOTE:**  
 Bars indicated thus 26 x 3-#5 etc. indicates 26 lines of bars with 3 lengths per line.  
 Min. bar laps = 24 dia.



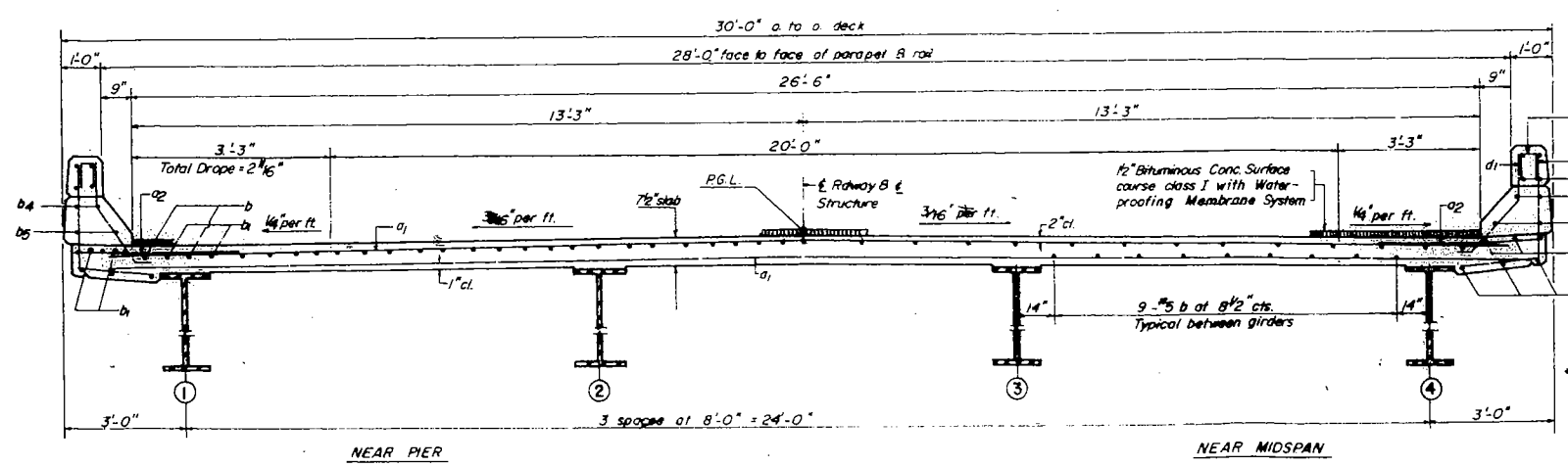
HALF PLAN

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a <sub>1</sub>	1274	#5	28'-0"	
a <sub>2</sub>	636	#6	4'-0"	
a <sub>3</sub>	4	#6	22'-0"	
b	726	#5	30'-0"	
b <sub>1</sub>	90	#6	24'-9"	
b <sub>2</sub>	48	#8	23'-4"	
b <sub>3</sub>	48	#5	22'-9"	
b <sub>4</sub>	8	#8	28'-3"	
b <sub>5</sub>	8	#5	28'-3"	
d	636	#4	4'-9"	
d <sub>1</sub>	636	#5	3'-5"	

Neoprene Exp. Joint 2"	Lin. Ft.	89
Reinforcement Bars	Lbs.	76,530
Class X Concrete	Cu. Yds.	281.7
Structural Steel	Lbs.	490,420
Protective Coat	Sq. Yds.	247
Bituminous Concrete Surface Course Class I	Ton	79
Waterproofing Mem. Sys.	Sq. Yds.	936

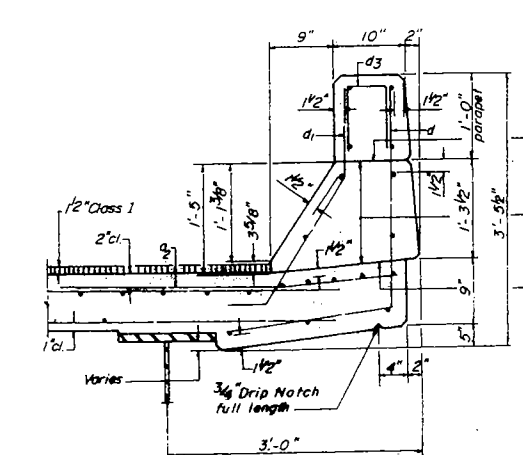
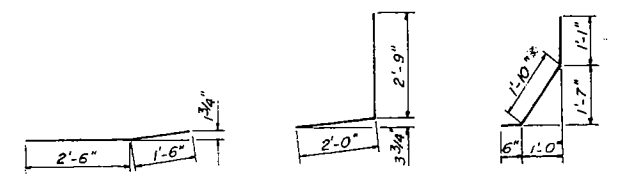
\* Parapet Reinforcement and Class X Concrete are billed on sheet No. 6



CROSS SECTION

**NOTES:**

For Placement of bars d<sub>3</sub> and e thru e<sub>3</sub> see sheet No. 5  
 Work this Sheet with Sheet No. 5



CURB SECTION

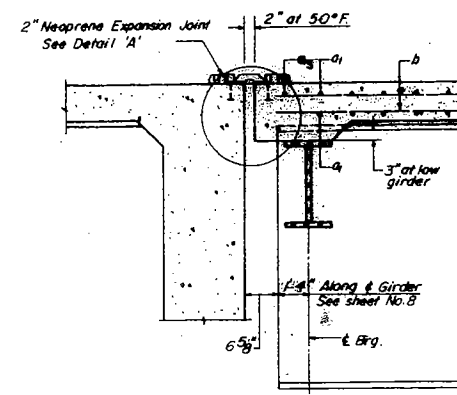
Cost of Aluminum Shears and Drains shall be incidental to Class X Concrete.

**DECK DETAILS**  
 FA 403 SECTION 161-1-2-9  
 FA 403 UNDER TR 21 A  
 ROCK ISLAND & WHITE SIDE COUNTY  
 STATION 937 + 3743  
 REV. 9-29-72 L.S.

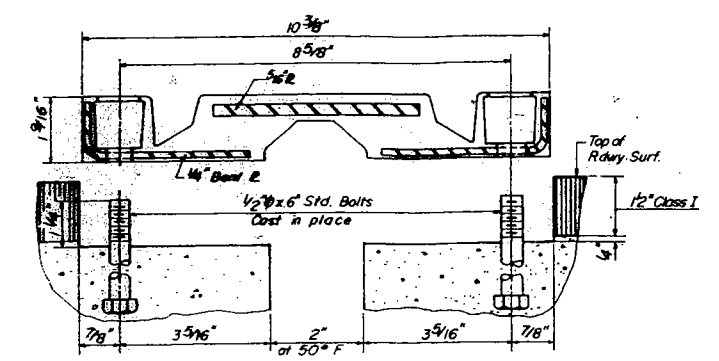
DESIGNED	B.T.M.
CHECKED	P.B.
DRAWN	A.M.
CHECKED	P.B.

**FOR INFORMATION ONLY**

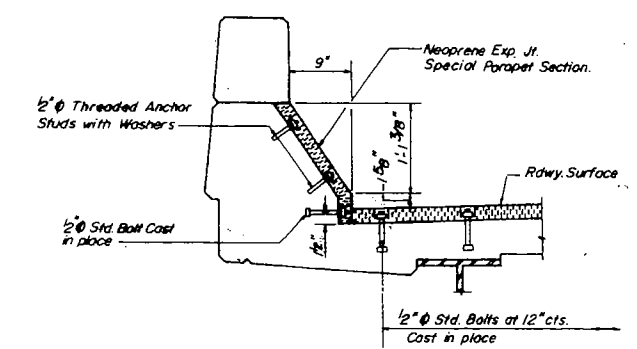
SCALE NO.	SECTION	INDUSTRY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5
P. 403	MB-1-2	ROCK ISLAND WHITESIDE	532	256	17 SHEETS
FIG. DEPT. NO. 1	CLASS	FIG. NO. PRODUCT			



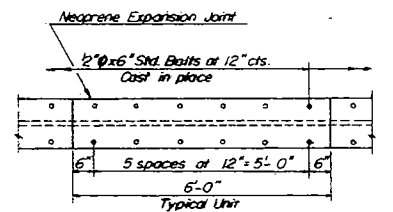
SECTION A-A



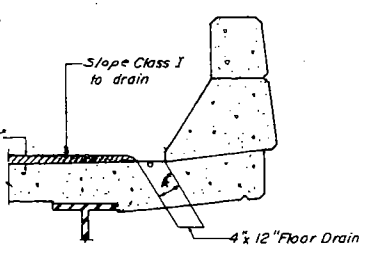
DETAIL 'A'



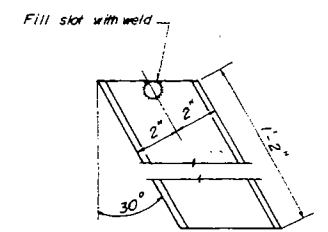
CURB INSTALLATION



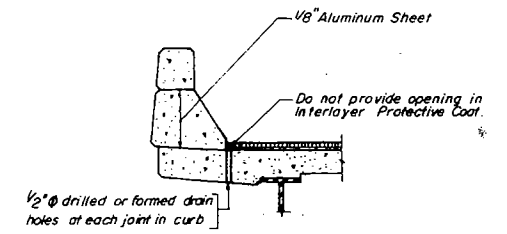
PLAN



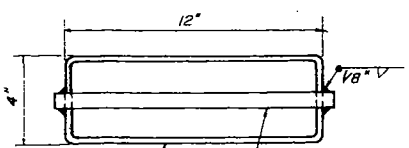
AT CURB



END VIEW



SECTION AT CURB JOINTS



TOP VIEW

3/16" Aluminum Sheets Welded  
A.S.T.M.-B209 alloy 6061-T6  
or Aluminum Extrusions  
A.S.T.M.-B221 alloy 6061-T6

3/4" x 1'-1" Aluminum Bar,  
A.S.T.M.-B211 alloy 6061-T6

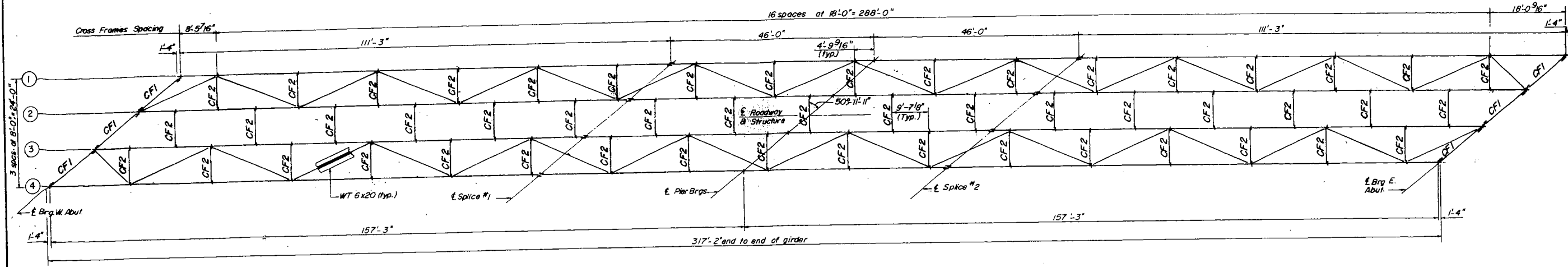
FLOOR DRAINS  
Cast incidental

DESIGNED	B.T.M.
CHECKED	P.K.
DRAWN	A.M.
CHECKED	P.B.

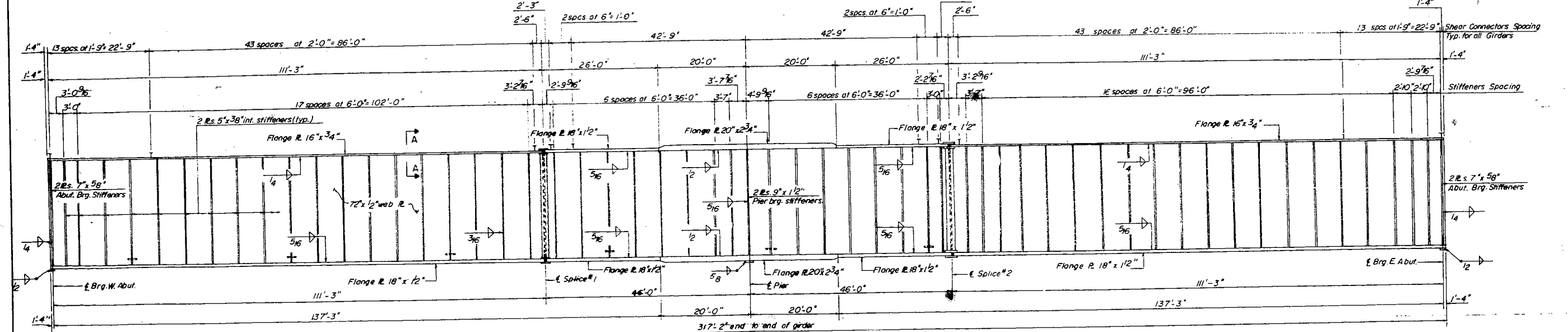
DECK DETAILS  
FA 403 SECTION MB-1HB-9  
FA 403 UNDER TR 21 A  
ROCK ISLAND & WHITE SIDE COUNTY  
STATION 937+ 3743  
REV 9-29-72 L.S.

**FOR INFORMATION ONLY**

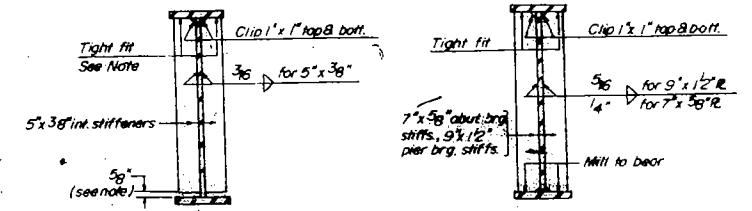
DATE	ISSUE	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
10-1-52	101-1-2	ROCK ISLAND	532	268	17
FA 403		WHITE SIDE			



FRAMING PLAN



GIRDER ELEVATION



TYPICAL SECTION (Intermediate Stiffeners)

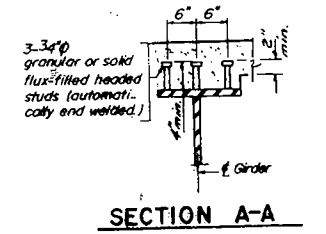
TYPICAL SECTION (Bearing Stiffeners)

NOTE:  
The intermediate stiffeners within 46'-0" either side of a pier shall be a tight fit at the bottom B. 5/16" undercut at the top. All other intermediate stiffeners shall be a tight fit at the top B. 5/16" undercut at the bottom.

DESIGNED	B.T.M.
CHECKED	P.B.
DRAWN	A.M.
CHECKED	P.B.

(Composite in Positive Moment Areas only)

	0.4 Span 1	Pier
$I_s$ (in <sup>4</sup> )	63,772	169,279.0
$I_c$ (in <sup>4</sup> )	148,926.70	
$S_s$ (in <sup>3</sup> )	2119.38	4368.49
$S_c$ (in <sup>3</sup> )	2796.2	
$R$ (k/ft)	1.057	1.347
$M_p$ (k)	1568.04	4268.41
$F_y R$ (k)	8.88	11.73
$S_y R$ (k/ft)	0.497	0.497
$M_p + imp$ (k)	848.94	1543.74
$M_p + imp$ (k)	1349.60	1629.37
Total (k)	2198.54	3172.11
$F_y R$ (k)	9.43	8.71
$F_y Total$ (k)	18.31	20.44
$VR$ (k)	50.6	



SECTION A-A

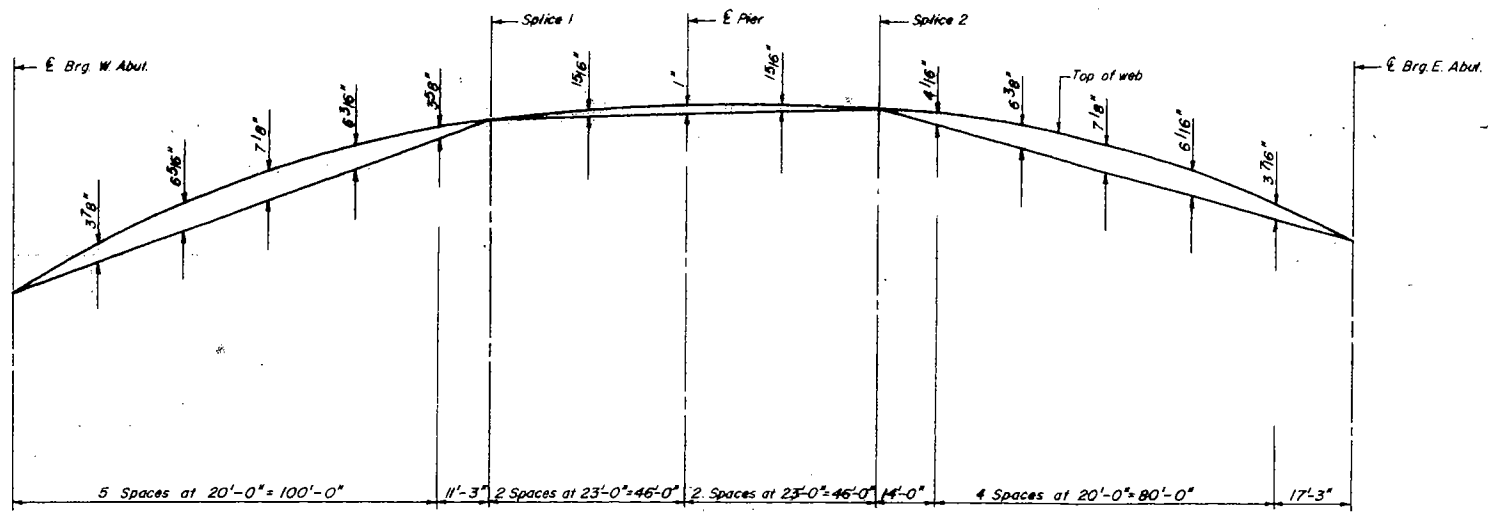
Work this sheet with sheet No. 8

	0.4 Span 1	Pier
$R$ (k)	371	326.2
$R_y + imp$ (k)	468	100.3
$R$ Total (k)	1355	426.5

STRUCTURAL STEEL  
FA 403 SECTION 101-1HB-9  
FA 403 UNDER TR 21A  
ROCK ISLAND & WHITE SIDE COUNTY  
STATION 937+37.43

FOR INFORMATION ONLY

PROJECT NO.	SECTION	QUANTITY	TOTAL QUANTITY	SHEET NO.
161-1-2	ROCK ISLAND	532	532	17
P.A. 403	WHITE SIDE	299	299	SHEETS

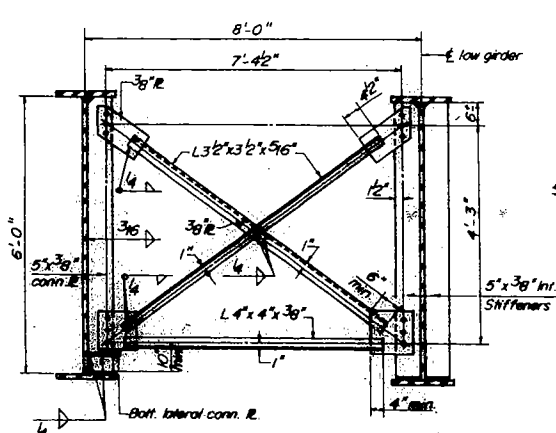
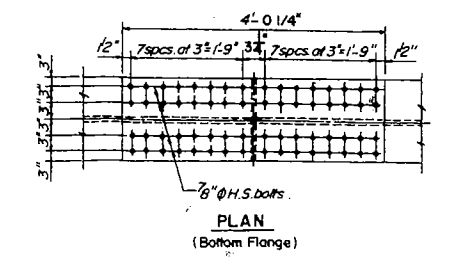
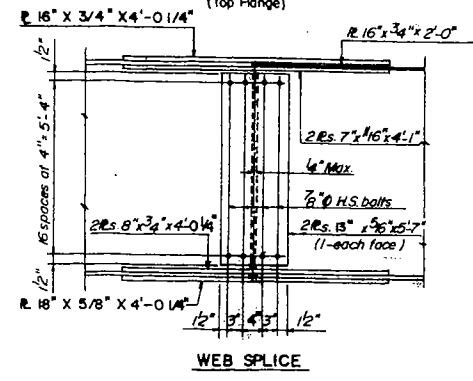
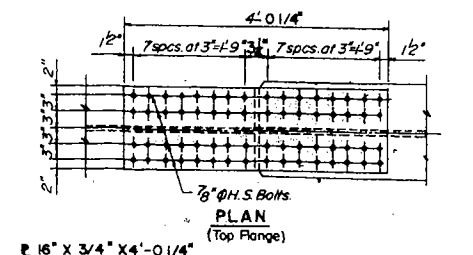


**GIRDERS FABRICATION DIAGRAM**  
Camber for Dead Loads & Curvature of Roadway

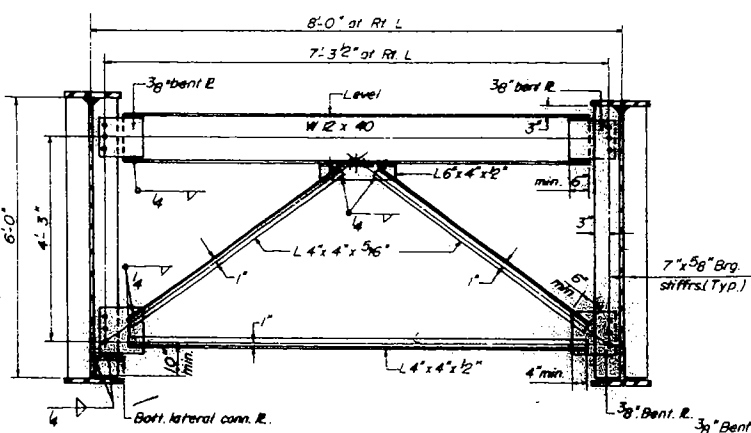
NOTE:  
Offsets are from top of web.

TOP WEB ELEVATIONS *				
	W. Abut. brg.	Splice #1	Splice #2	E. Abut. brg.
Girder 1	612.568	615.449	615.768	613.658
Girder 2	612.330	615.452	615.967	614.091
Girder 3	611.930	615.290	616.001	614.362
Girder 4	611.370	614.962	615.870	614.473

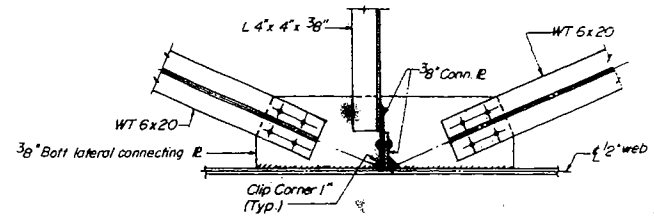
\* For Fabrication only.



TYPICAL INTERIOR CROSS FRAME (CF 2)

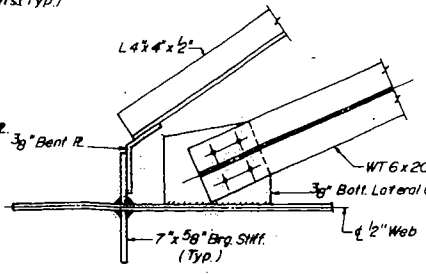


TYPICAL END CROSS FRAME (CF 1)

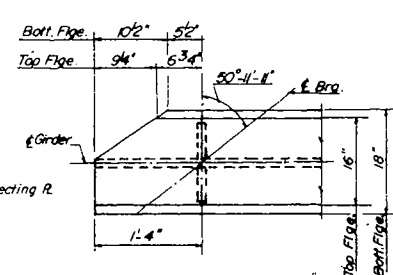


TYPICAL INT. CONNECTION

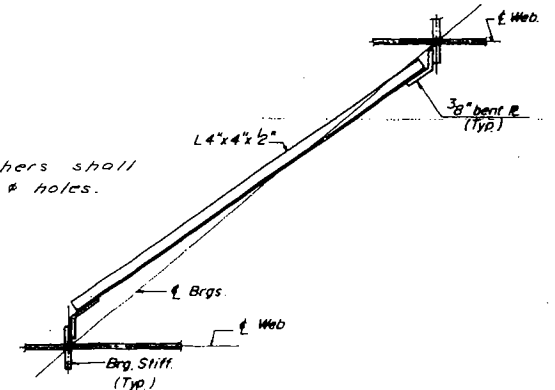
Note: Hardened washers shall be req. over 1/16" holes.



TYPICAL CONNECTION AT ABUT.



TYPICAL END OF GIRDER



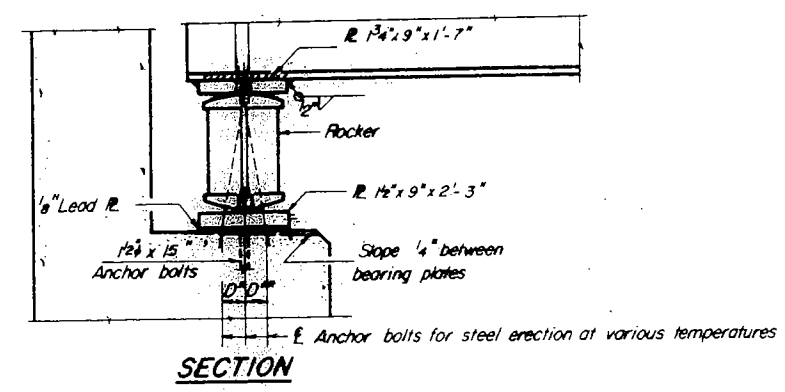
CFI PLAN

DESIGNED	B.T.M.
CHECKED	P.B.
DRAWN	A.M.
CHECKED	P.B.

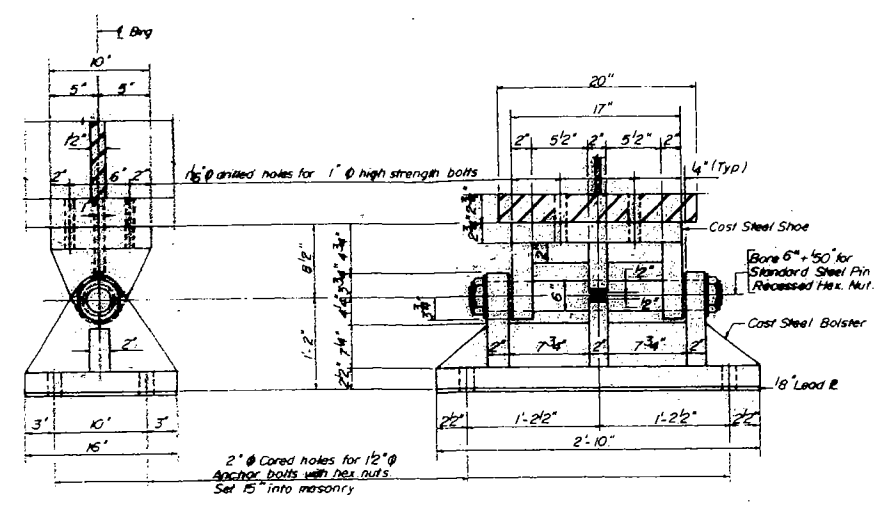
STRUCTURAL STEEL  
FA 403 SECTION 161-IHB-9  
FA 403 UNDER TR 21 A  
ROCK ISLAND & WHITE SIDE COUNTY  
STATION 337+37.43  
REV. 11-72 L.S.

**FOR INFORMATION ONLY**

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
403	161-1-2	ROCK ISLAND WHITESIDE	532	260
SHEET NO. 5 17 SHEETS				



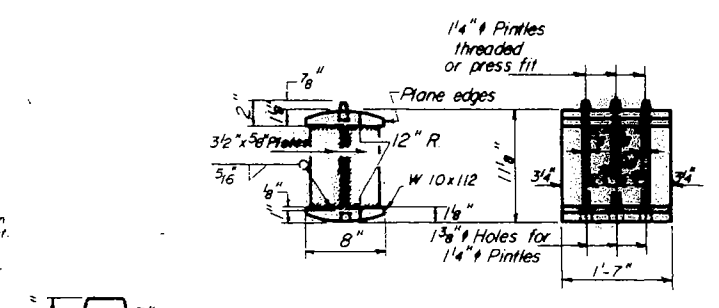
**SECTION**



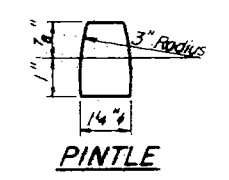
**SECTION**

**ELEVATION**

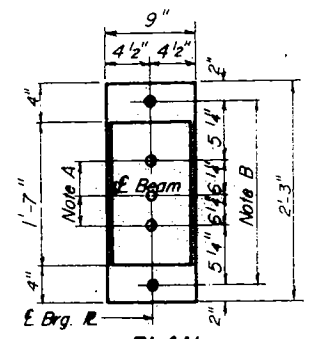
**FIX BEARING- AT PIER**  
4 REQ'D.



**ROCKER**



**PINTLE**

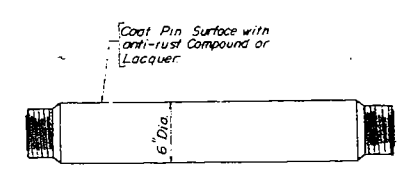


**PLAN**

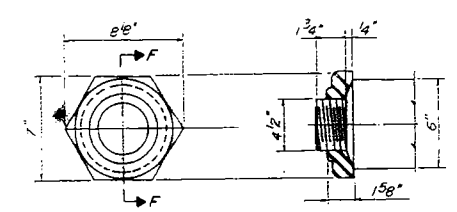
**AT ABUTMENT**  
8 REQ'D

**NOTE A**  
1 3/8\"/>

**NOTE B**  
2\"/>



**PIN DETAIL**



**PLAN**

**SECTION F-F**

**RECESSED NUT DETAILS**

**NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.**

- a) D\* (Side of brg. away from fixed brg.)  
D\* = 1/8" per each 100' of expansion for every 15° fall below the normal temp. of 50°F
- D\*\* (Side of brg. toward fixed brg.)  
D\*\* = 1/8" per each 100' of expansion for every 15° rise above the normal temp. of 50°F

b) After beams have been erected and dimensions D\* or D\*\* determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of ± 1/8 inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/8" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

DESIGNED	B. T. M.
CHECKED	P. B.
DRAWN	A. M.
CHECKED	P. B.

**BEARINGS**  
FA 403 SECTION 161-IHB-9  
FA 403 UNDER TR 21A  
ROCK ISLAND & WHITE SIDE COUNTY  
STATION 937 + 37.43

**FOR INFORMATION ONLY**