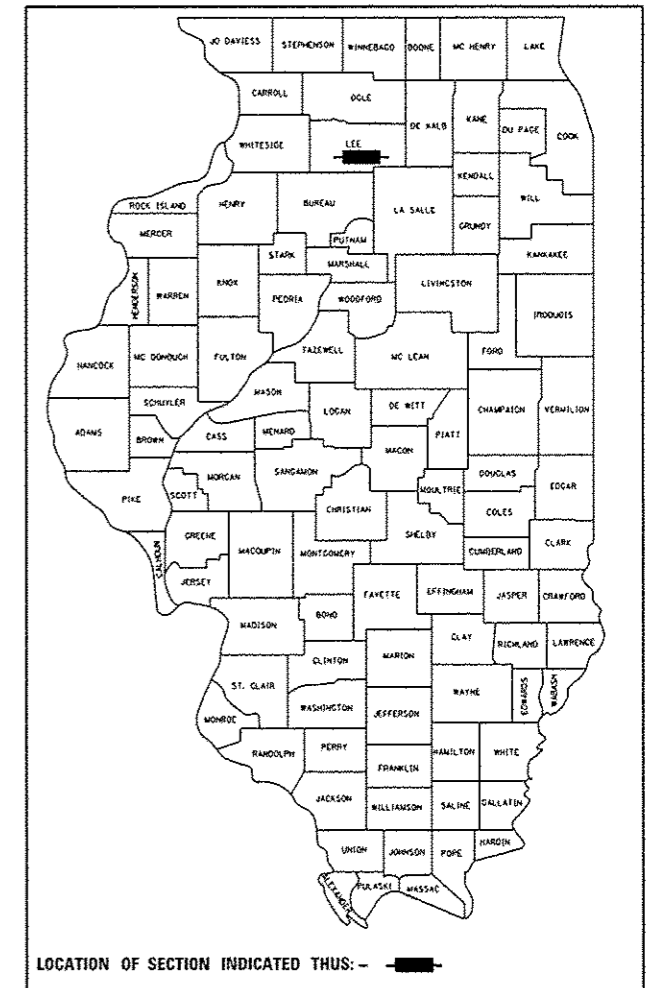


04-28-2017 LETTING ITEM 077

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(103-2HB)BJR	LEE	23	1
ILLINOIS CONTRACT NO.			64M30	

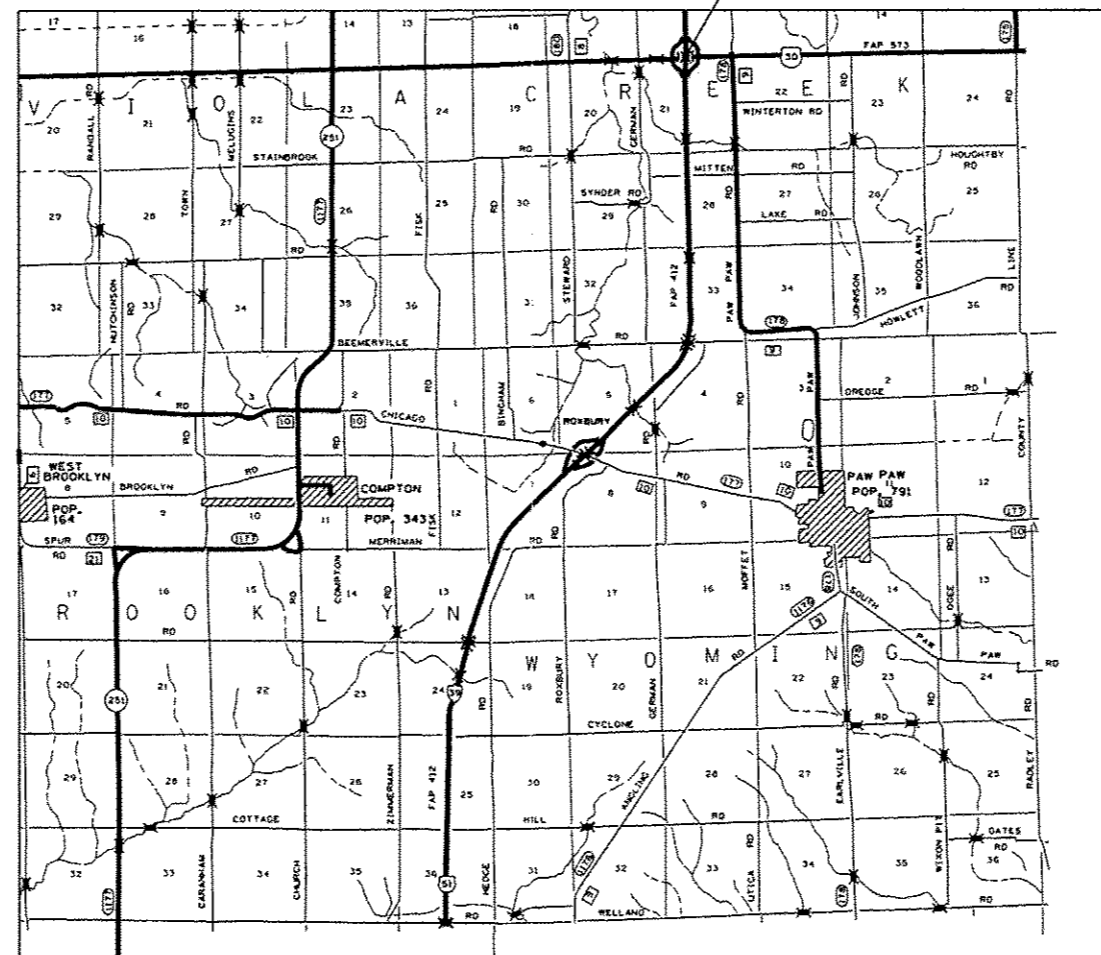
D-92-040-17



# PROPOSED HIGHWAY PLANS

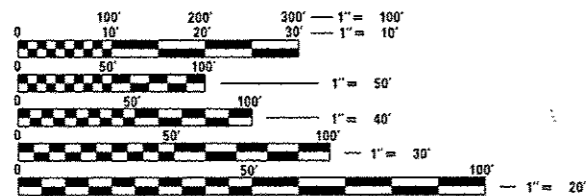
FAI ROUTE 39 (I-39)  
SECTION (103-2HB)BJR  
TYPE of IMPROVEMENT: BRIDGE REPAIRS  
LEE COUNTY

C-92-055-17 SN 052-0052 & 052-0053



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

LEE COUNTY -  
MARION TOWNSHIP SECTION 22  
AMBOY TOWNSHIP SECTION 24  
SOUTH DIXON TOWNSHIP SECTION 34  
NACHUSA TOWNSHIP SECTION 40



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

CONTRACT NO. 64M30

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED Feb 3 2017  
*K. Marshall*  
REGIONAL ENGINEER

Mar 24 2017  
*Maureen M. Addis*  
ENGINEER OF DESIGN AND ENVIRONMENT

Mar 24 2017  
*Travis*  
DIRECTOR OF PROGRAM DEVELOPMENT

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

# INDEX OF SHEETS

1	COVER SHEET
2	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES
3-4	SUMMARY OF QUANTITIES
5	STAGING TYPICALS
6-9	WORK ZONE SIGN DETAILS (DIST STD 34.1)
10	PLAN AND ELEVATION FAI 39 OVER US 30 SN 052-0052 (SB) & 0053 (NB)
11	JOINT REMOVAL AND REPLACEMENT DETAILS SN 052-0052 (SB) & 0053 (NB)
12	PREFORMED JOINT STRIP SEAL SN 052-0052 (SB) & 0053 (NB)
13	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS SN 052-0052 (SB) & 0053 (NB)
14-23	EXISTING PLAN SHEETS FOR SN 052-0052 & 052-0053

# GENERAL NOTES

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.

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.

IDOT is not a member of JULIE. If you are near any overhead lighting, intersection lighting or traffic signals, contact the IDOT Traffic Office at 815/284-5469 at least 48 hours prior to work.

Hazards behind Temporary Concrete Barrier Wall

No materials, equipment, vehicles or other hazards shall be within 2'-0" of the temporary concrete barrier wall, measured from the closest point of the barrier wall perpendicular to the hazard. Equipment that is actively working with 2'-0" of the barrier wall may be allowed for a short duration, if approved by the engineer, required for the work activity, and there is not another method to complete the work.

The Contractor shall not begin construction activities until materials are in hand and shop drawings are approved.

# STATE STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 4.5 M (15') TO 600 MM (24") FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 4.5 M (15') AWAY
701400-09	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-10	LANE CLOSURE, FREEWAY/EXPRESSWAY
701402-12	LANE CLOSURE, FREEWAY/EXPRESSWAY WITH BARRIER
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS $\geq$ 45 MPH
701901-06	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)
780001-05	TYPICAL PAVEMENT MARKINGS

USER NAME = dopedd	DESIGNED - _____	REVISED - _____	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, STATE STANDARDS &amp; GENERAL NOTES</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 100.0000' / in.	DRAWN - _____	REVISED - _____			39	1103-2HBIBJR	LEE	23	2	
PLOT DATE = Feb-03-2017 03:45:53 PM	CHECKED - _____	REVISED - _____			SCALE: _____ SHEET NO. _____ OF _____ SHEETS STA. _____ TO STA. _____		CONTRACT NO. 64M30			
	DATE - _____	REVISED - _____			(ILLINOIS) FED. AID PROJECT					

# SUMMARY OF QUANTITIES

CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY <i>0014</i>
42001300	PROTECTIVE COAT	SQ YD	35.2
50102400	CONCRETE REMOVAL	CU YD	10.4
50300255	CONCRETE SUPERSTRUCTURE	CU YD	10.6
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1,370
50800515	BAR SPLICERS	EACH	24
52000110	PREFORMED JOINT STRIP SEAL	FOOT	164
67100100	MOBILIZATION	L SUM	1
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	2
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	2
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1
70300220	TEMPORARY PAVEMENT MARKING LINE, 4"	FOOT	11,200
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1,100
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1,100
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2

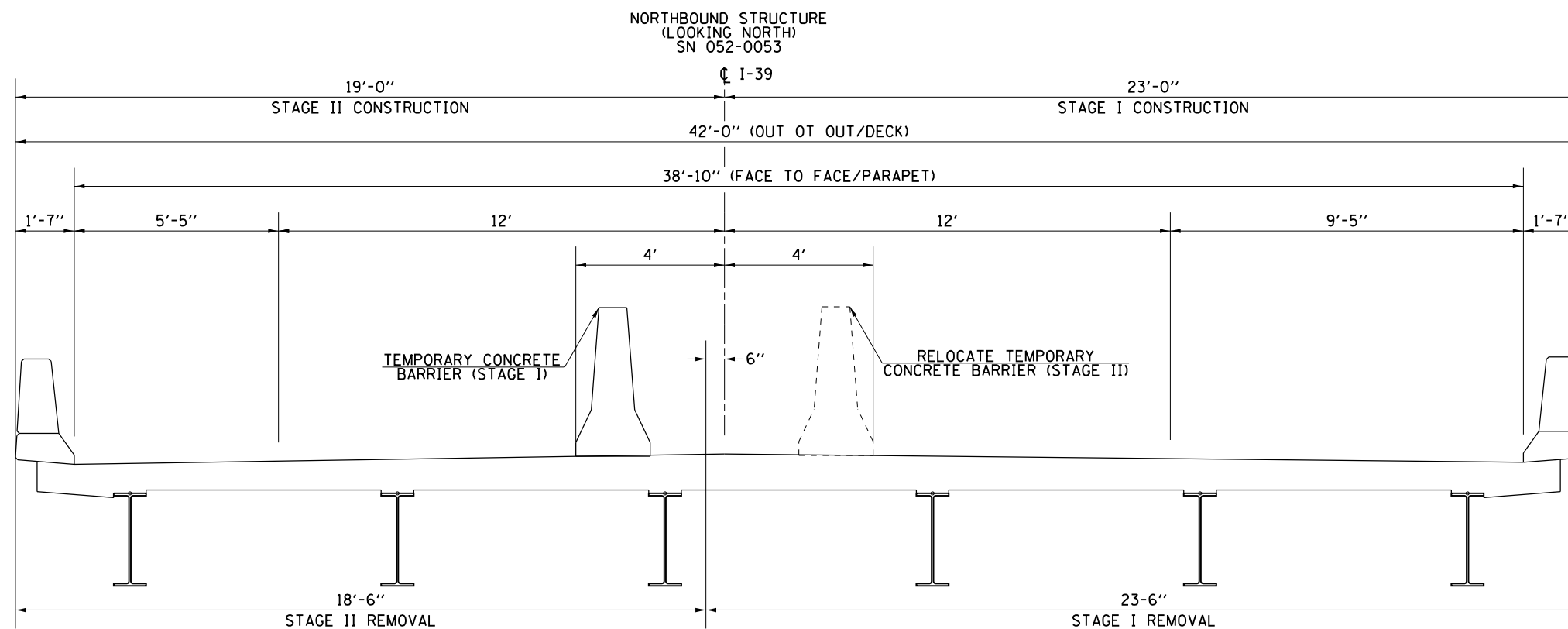
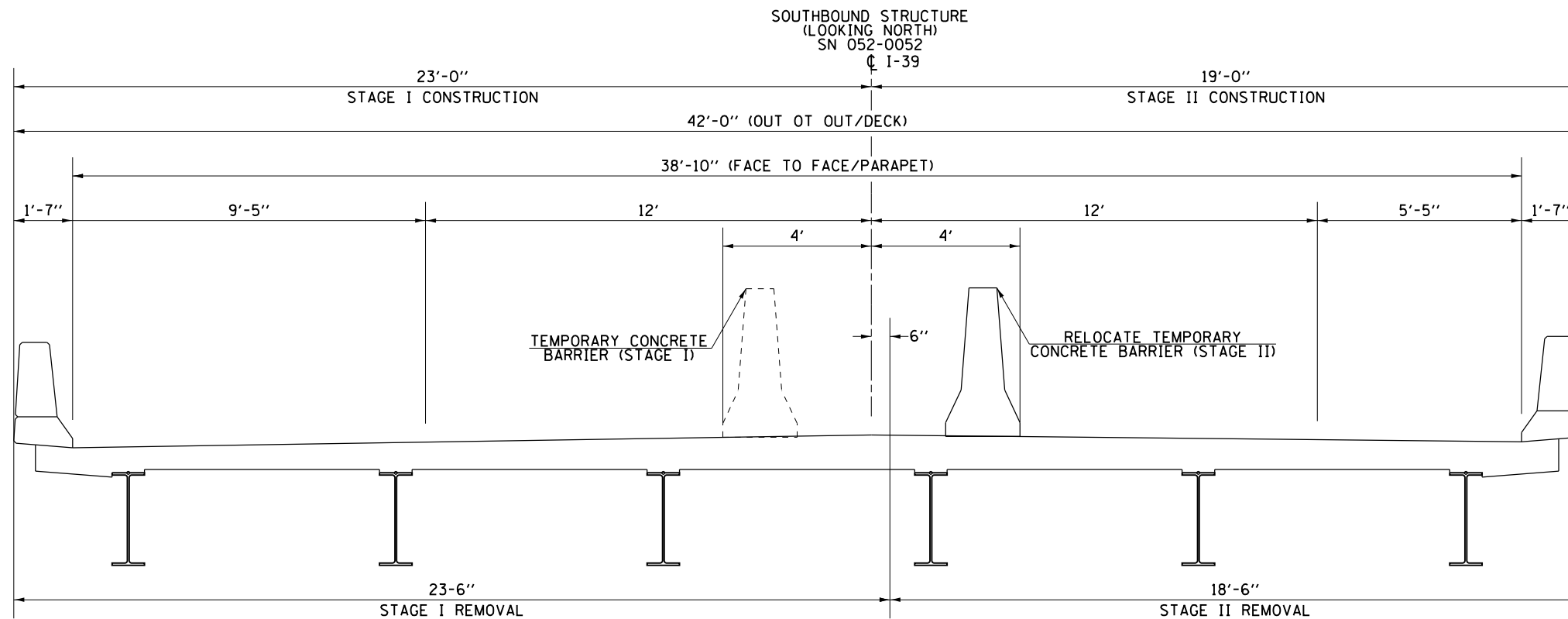
RURAL

100%  
STATE

REV



# STAGING TYPICALS

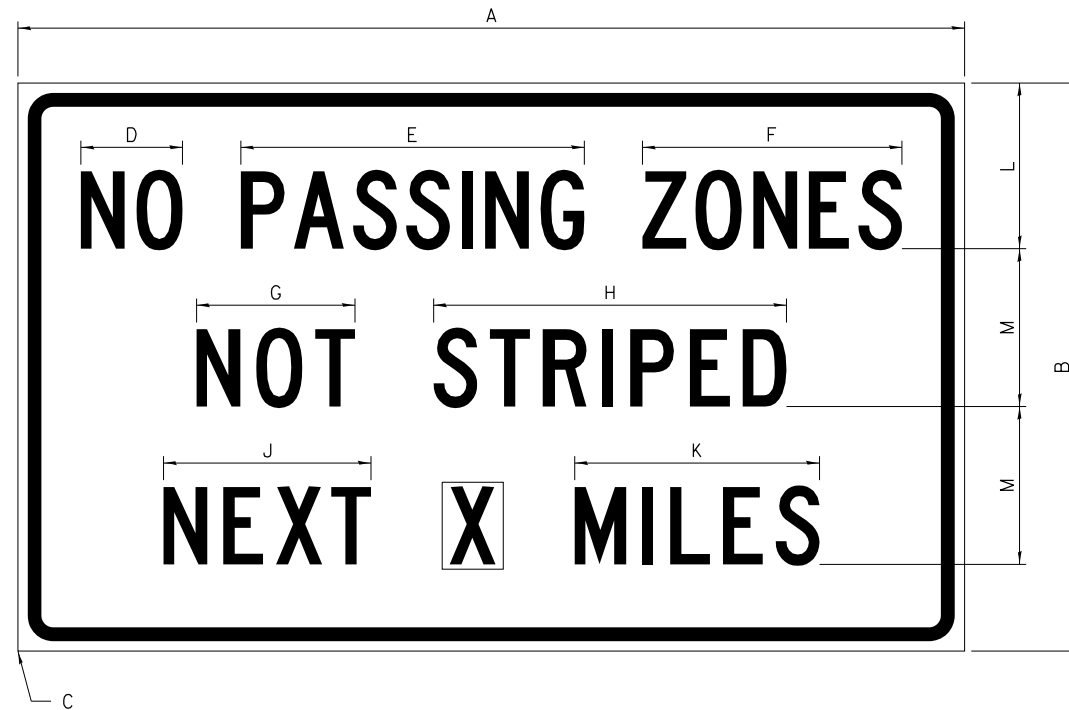


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Default	on 1-39 over US 30\CADD\64M30-shr-cover.dgn	DRAWN - _____	REVISED - _____			39	(103-2HB)BJR	LEE	23	5	
	PLOT SCALE = 100.0000' / 1in.	CHECKED - _____	REVISED - _____			CONTRACT NO. 64M30					
	PLOT DATE = Feb-03-2017 03:46:18 PM	DATE - _____	REVISED - _____			ILLINOIS FED. AID PROJECT					

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

# WORK ZONE SIGN DETAILS

**ILLINOIS STANDARD G20-I100**



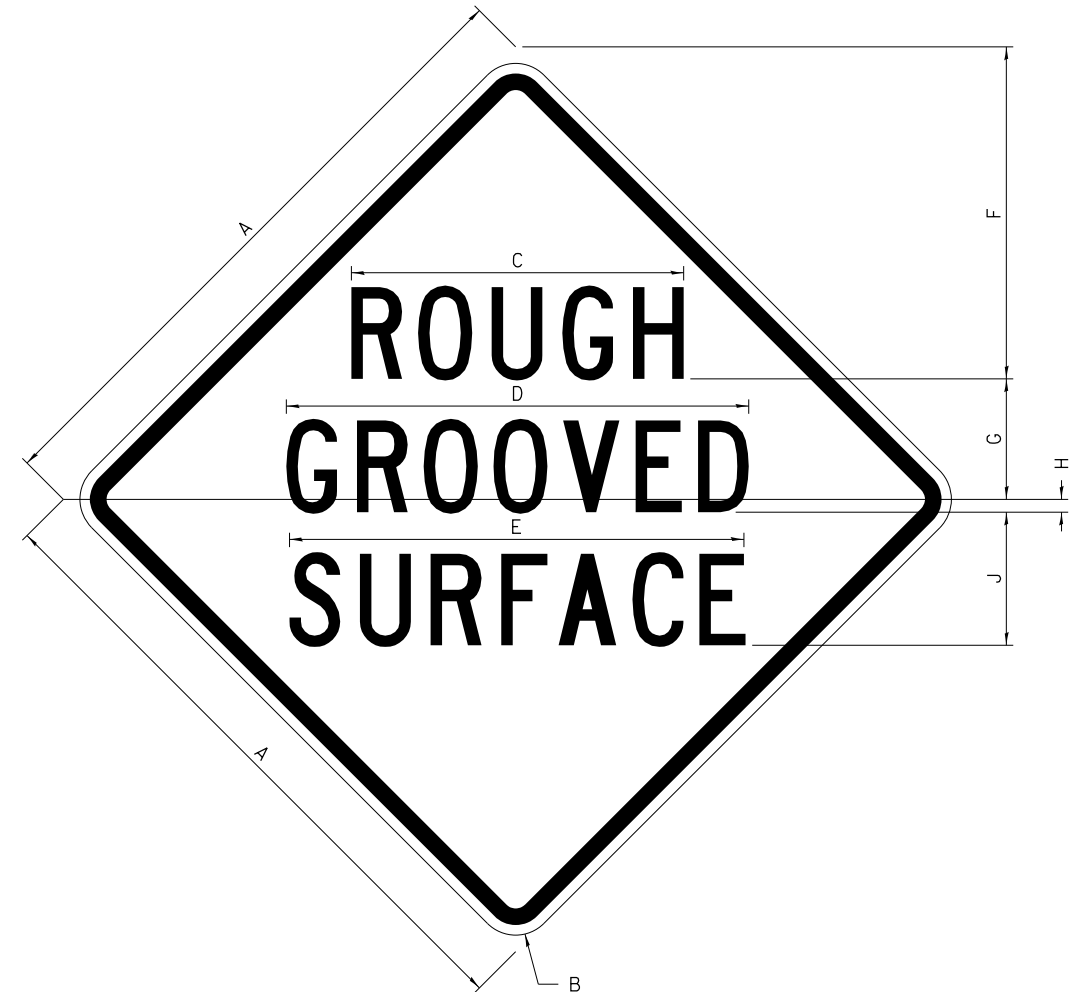
COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
60 x 36	60.00	36.00	2.25	6.4	21.80	16.40	10.00	22.40	13.20	15.50	10.50	10.00

SIGN SIZE	SERIES BY LINE			MARGIN	BORDER
	1	2	3		
60 x 36	5C	5C	5C	0.625	0.875

Sign not to scale

**ILLINOIS STANDARD W8-I107**



COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
48 x 48	48.00	3.00	25.00	34.80	34.20	24.94	9.00	1.00	10.00

SIGN SIZE	SERIES BY LINE			MARGIN	BORDER
	1	2	3		
48 x 48	7C	7C	7C	1.250	0.750

Sign not to scale

**GENERAL NOTES**

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

FILE NAME =	USER NAME = dosddd	DESIGNED -	REVISED - 3-02-16
Q:\BR\Draw\Lee\64M30 Joint Replacement	on 1-39 over US 30\CADD\64M30-sht-cover.dgn	DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISED -
	PLOT DATE = Feb-03-2017 03:46:33 PM	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

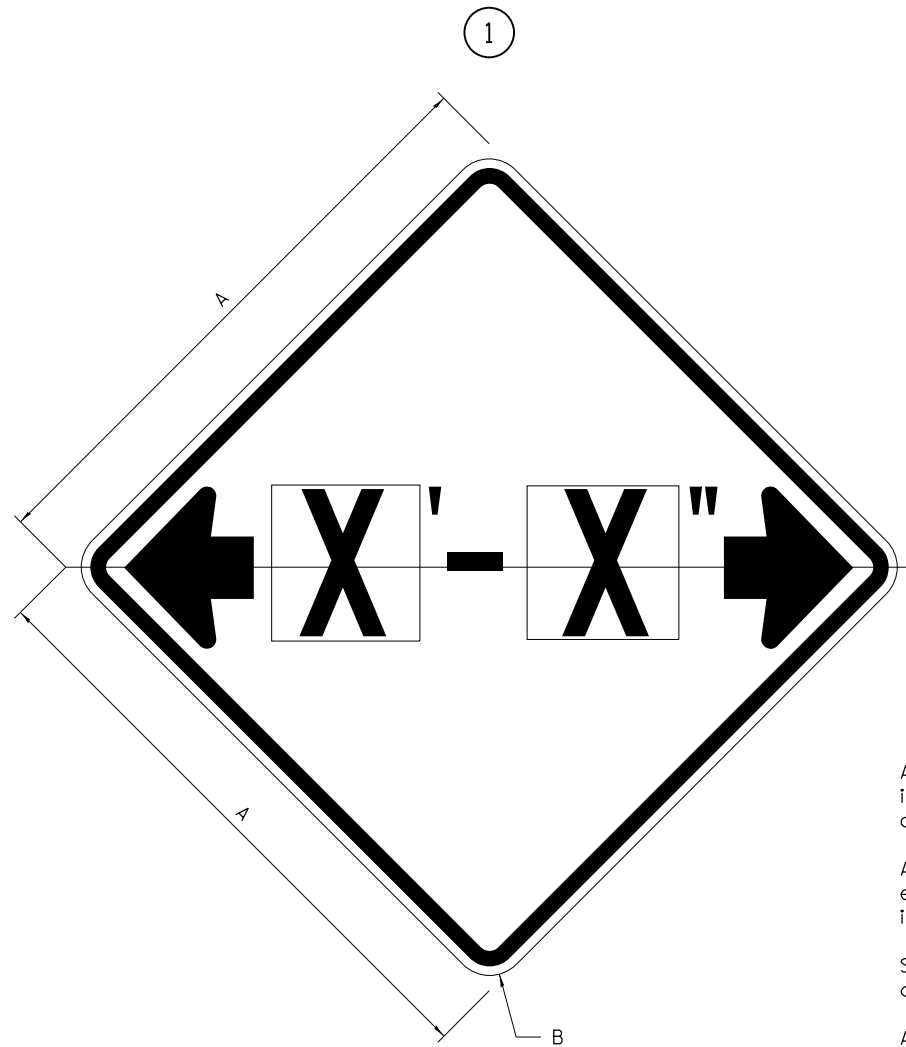
**REGION 2 / DISTRICT 2 STANDARD**

SCALE: \_\_\_\_\_ SHEET NO. \_\_\_\_ OF \_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

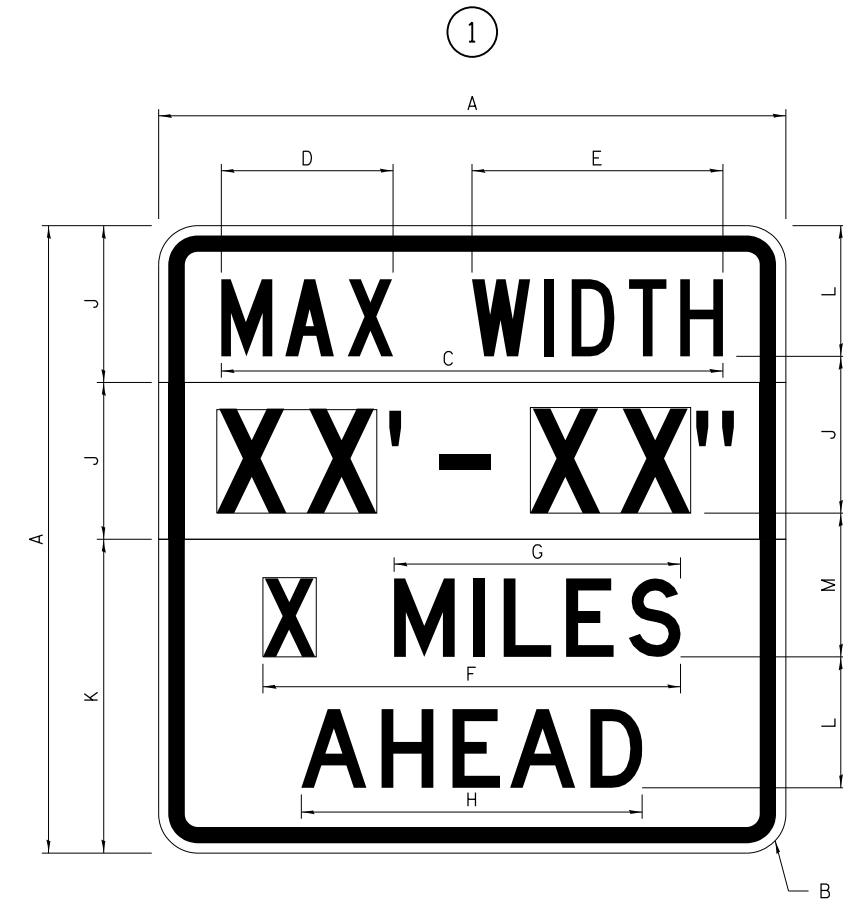
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(103-2HB)BJR	LEE	23	6
FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT			CONTRACT NO. 64M30	

# WORK ZONE SIGN DETAILS

## ILLINOIS STANDARD W12-I102



## ILLINOIS STANDARD W12-I103



### GENERAL NOTES

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

COLOR LEGEND AND BORDER BACKGROUND BLACK FL ORANGE NON-REFLECTORIZED REFLECTORIZED

SIGN SIZE	DIMENSIONS	
	A	B
48 x 48	48.00	3.00

① Illinois Standard signs W12-I102 and W12-I103 shall be used as described in the special provisions.

SIGN SIZE	SERIES BY LINE	MARGIN	BORDER
	1		
48 x 48	12C	0.750	1.250

Sign not to scale

COLOR LEGEND AND BORDER BACKGROUND (WIDTH) BLACK WHITE FL ORANGE NON-REFLECTORIZED REFLECTORIZED REFLECTORIZED

SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
48 x 48	48.00	3.00	38.40	13.20	19.20	32.00	22.00	26.20	12.00	24.00	10.00	11.00

SIGN SIZE	SERIES BY LINE				MARGIN	BORDER
	1	2	3	4		
48 x 48	6C	8D	6D	6D	0.750	1.250

Sign not to scale

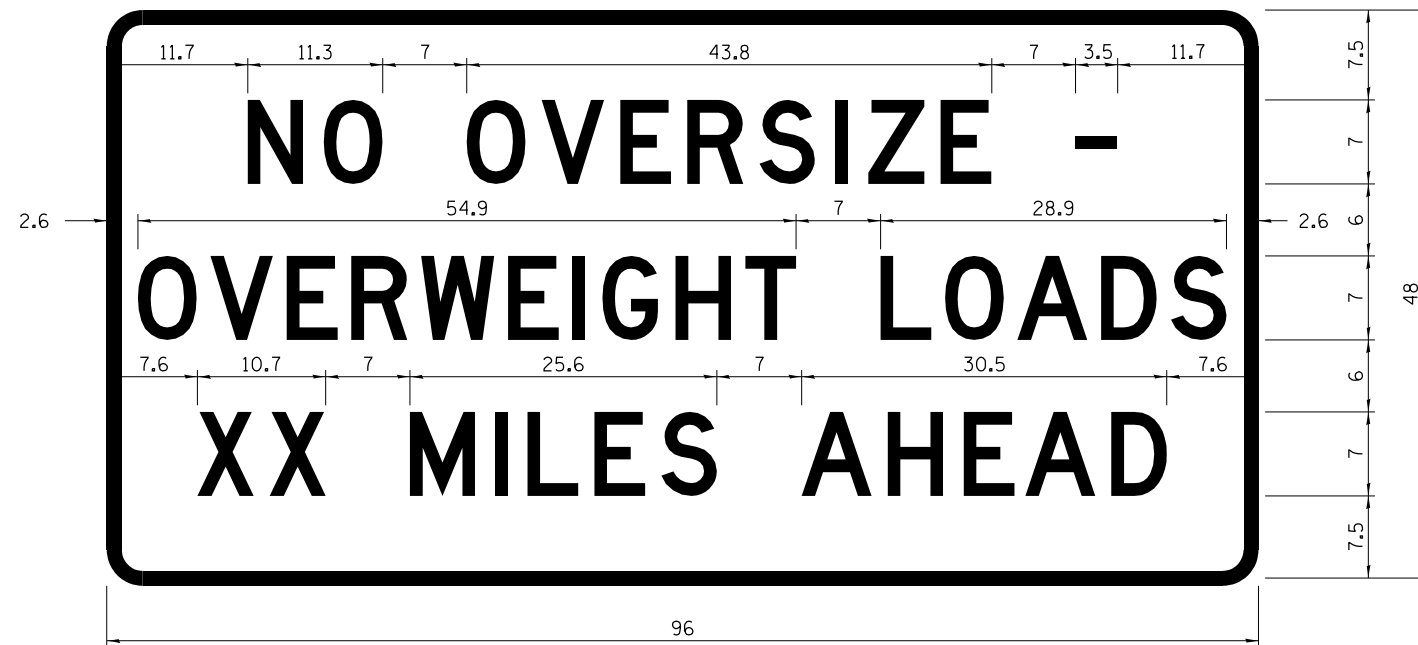
XX'-XX" WIDTH AND X MILES ARE VARIABLE TOP AND BOTTOM OF BACKGROUND WHITE

FILE NAME = D:\BR\Draw\Lee\64M30 Joint Replacement	USER NAME = dossdd	DESIGNED -	REVISED - 3-02-16	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>REGION 2 / DISTRICT 2 STANDARD</b>	F.A.I. RTE. 39	SECTION (103-2HB)BJR	COUNTY LEE	TOTAL SHEETS 23	SHEET NO. 7	
on 1-39 over US 30\CA00\64M30-shr-cover.dgn	DRAWN -	REVISED -	SCALE: _____			SHEET NO. _____ OF _____ SHEETS	STA. _____ TO STA. _____	CONTRACT NO. 64M30		FED. ROAD DIST. NO. _____	ILLINOIS FED. AID PROJECT
PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -									
PLOT DATE = Feb-03-2017 03:46:40 PM	DATE -	REVISED -									

# WORK ZONE SIGN DETAILS

## ROAD CLOSED TO OVERSIZED LOADS

## STOP LINE SIGN FOR TEMPORARY SIGNALS



COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

COLOR LEGEND AND BORDER BACKGROUND BLACK WHITE NON-REFLECTORIZED REFLECTORIZED

Permit Loads - Loads Over 13 Feet; 3.0" Radius, 1.3" Border;  
[NO OVERSIZE -] D; [OVERWEIGHT LOADS] D 85% spacing; [XX MILES AHEAD] D;  
Table of letter and object lefts.

SIGN SIZE	SERIES BY LINE		
	1	2	3
24 x 24	4C	4C	4C

N	O	O	V	E	R	S	I	Z	E	-
11.7	18.1	30.0	36.2	42.8	48.4	54.4	60.7	63.5	69.5	80.8

O	V	E	R	W	E	I	G	H	T	L	O	A	D	S
2.6	8.6	15.0	20.4	26.2	33.4	38.8	41.3	47.4	53.2	64.5	69.9	75.9	82.9	88.7

X	X	M	I	L	E	S	A	H	E	A	D
7.6	13.6	25.3	32.3	35.1	40.6	46.2	57.9	65.1	71.4	76.6	83.7

Sign not to scale

Sign not to scale

### GENERAL NOTES

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

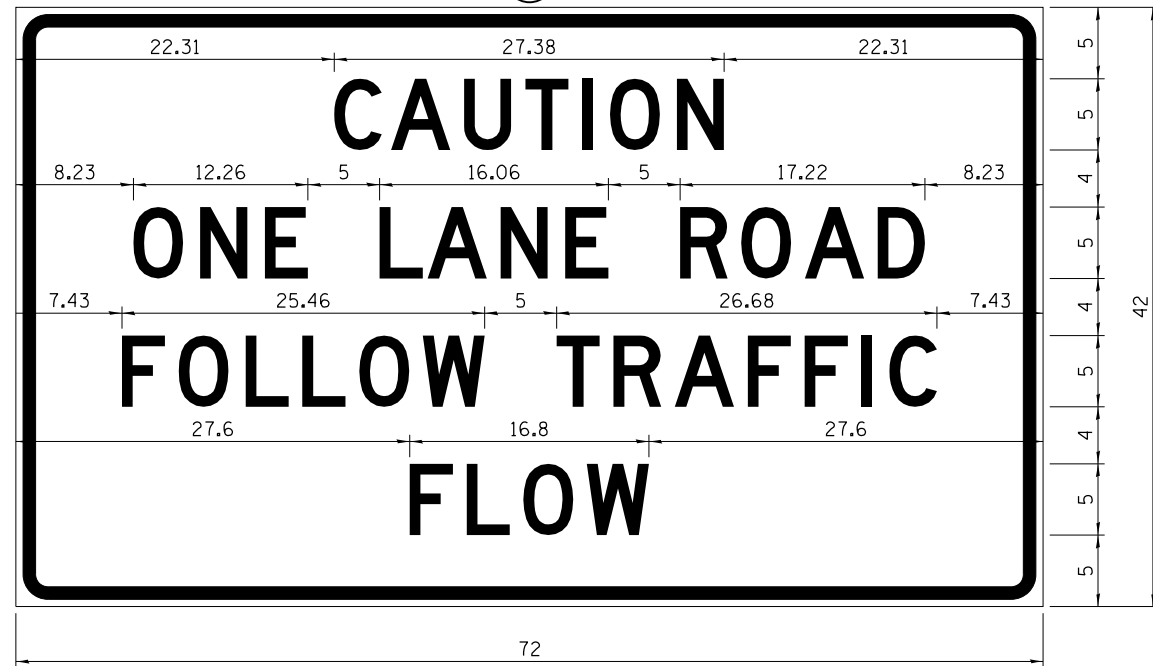
FILE NAME = D:\BR\Draws\Lee\64M30 Joint Replacement	USER NAME = dossdd	DESIGNED - _____	REVISED - 3-02-16	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>REGION 2 / DISTRICT 2 STANDARD</b>	F.A.I. RTE. = 39	SECTION = (103-2HB)BJR	COUNTY = LEE	TOTAL SHEETS = 23	SHEET NO. = 8		
	PLOT SCALE = 100.0000' / 1"	CHECKED - _____	REVISED - _____			SCALE: _____	SHEET NO. _____ OF _____ SHEETS	STA. _____ TO STA. _____	CONTRACT NO. 64M30			
	PLOT DATE = Feb-03-2017 03:46:45 PM	DATE - _____	REVISED - _____			FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT						
<b>WORK ZONE SIGN DETAILS SHEET 3 OF 4 34.1</b>												



**ENTRANCE SIGN FOR USE  
WITH TEMPORARY SIGNALS**

**WORK ZONE SIGN DETAILS**

②



COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

2.25" Radius, 0.88" Border, 0.50" Indent;  
[CAUTION] D; [ONE LANE ROAD] D;  
[FOLLOW TRAFFIC] D; [FLOW] D

② This sign shall be installed at entrances located between the temporary signals as shown in the staging plans.

**Table Of Widths And Spaces**

22.31	C	3.36	0.62	A	4.18	0.94	U	3.36	0.94	T	3.04	0.94	I	0.78	1.17	O	3.52	1.17	N	3.36	22.31
-------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	-------

8.23	O	3.51	1.17	N	3.36	1.18	E	3.04
------	---	------	------	---	------	------	---	------

5.00	L	3.05	0.31	A	4.18	0.94	N	3.36	1.17	E	3.05
------	---	------	------	---	------	------	---	------	------	---	------

5.00	R	3.36	0.93	O	3.52	0.94	A	4.18	0.93	D	3.36	8.23
------	---	------	------	---	------	------	---	------	------	---	------	------

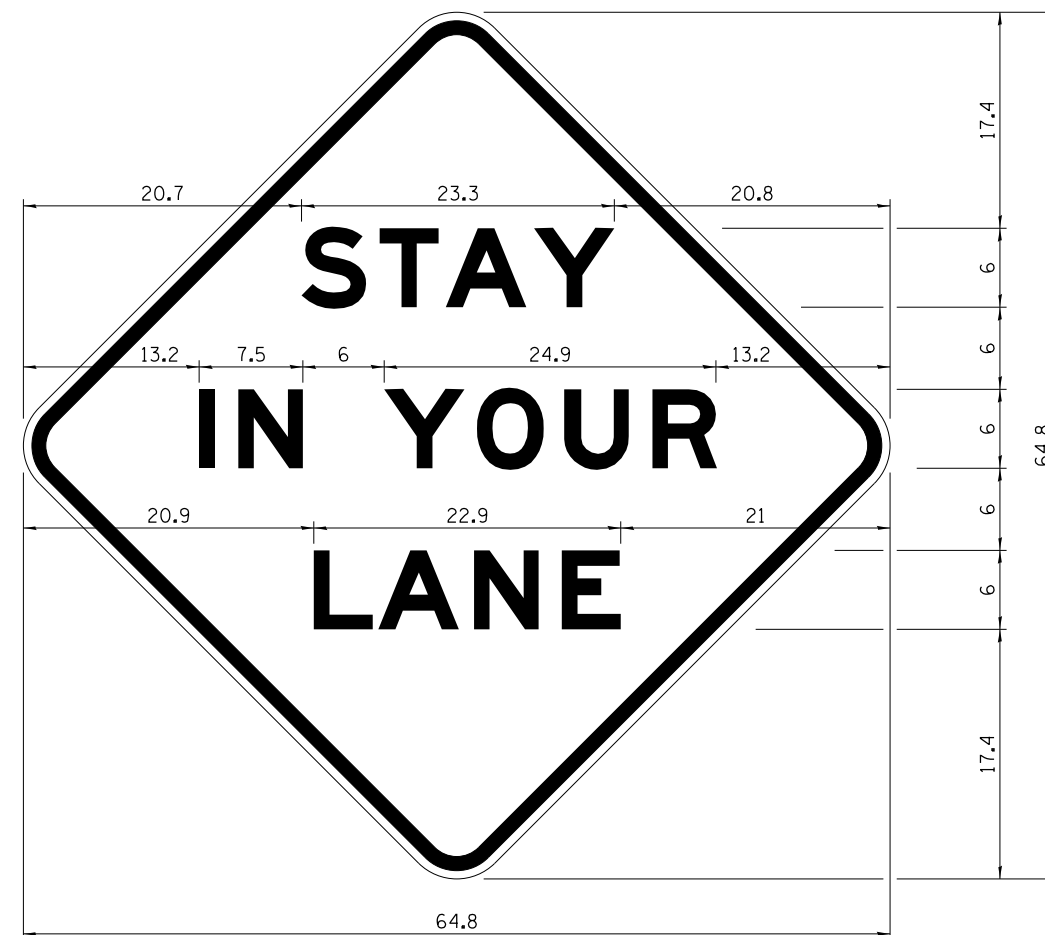
7.43	F	3.04	0.94	O	3.52	1.17	L	3.04	0.94	L	3.05	0.94	O	3.51	0.94	W	4.37
------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------	---	------

5.00	T	3.05	0.94	R	3.36	0.94	A	4.18	0.93	F	3.05	0.94	F	3.04	0.94	I	0.78	1.18	C	3.35	7.43
------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------

27.60	F	3.05	0.94	L	3.04	0.94	O	3.52	0.93	W	4.38	27.60
-------	---	------	------	---	------	------	---	------	------	---	------	-------

Sign not to scale

**STAY IN YOUR LANE**



COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

48.0" across sides 3.8" Radius, 1.0" Border, 0.6" Indent;  
"STAY" E Mod; "IN YOUR" E Mod; "LANE" E Mod;

**Table of Letter and Object Lefts**

S	T	A	Y
20.7	26.8	31.6	38.0

I	N	Y	O	U	R
13.2	15.9	26.7	33.9	40.5	46.8

L	A	N	E
20.9	25.8	33.1	39.4

Sign not to scale

**GENERAL NOTES**

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

FILE NAME =	USER NAME = dosddd	DESIGNED -	REVISED - 3-02-16
D:\NBR\Draws\Lee\64M30 Joint Replacement	on 1-39 over US 30\CADD\64M30-shr-cover.dgn	DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -
	PLOT DATE = Feb-03-2017 03:46:51 PM	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

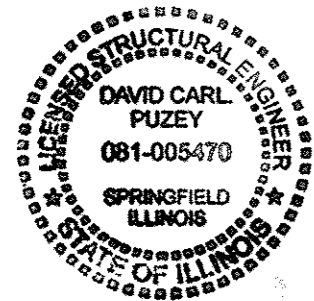
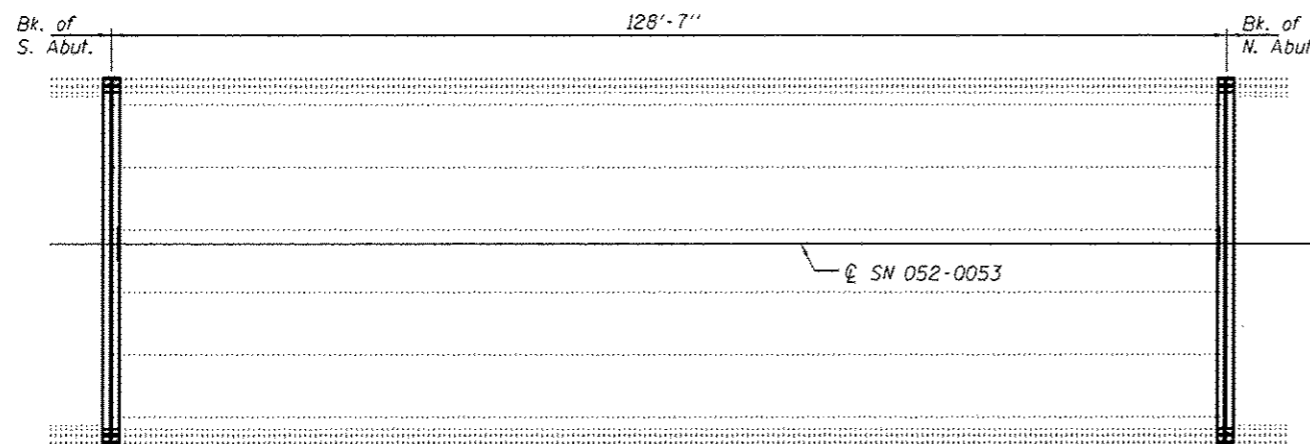
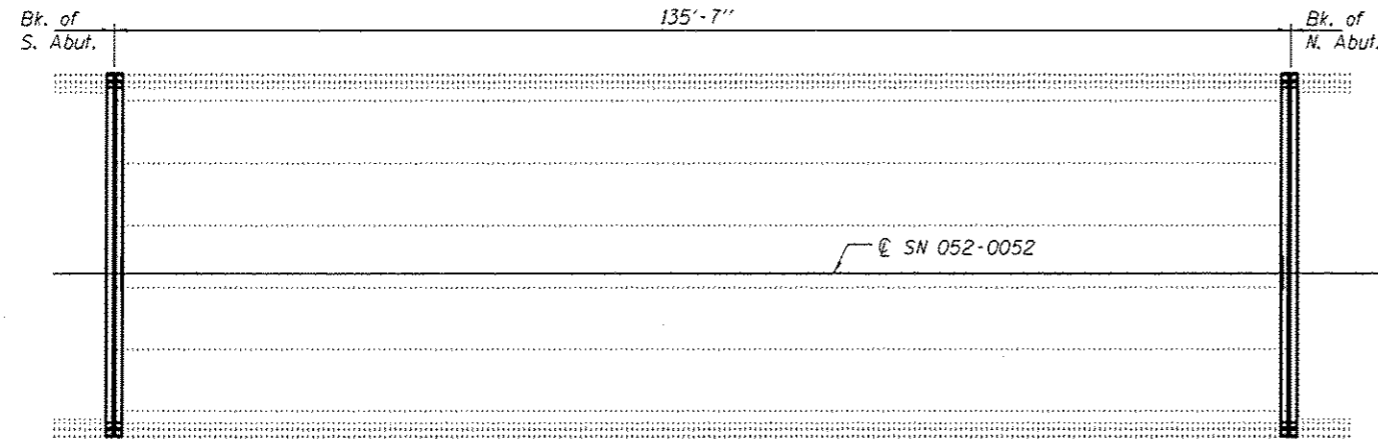
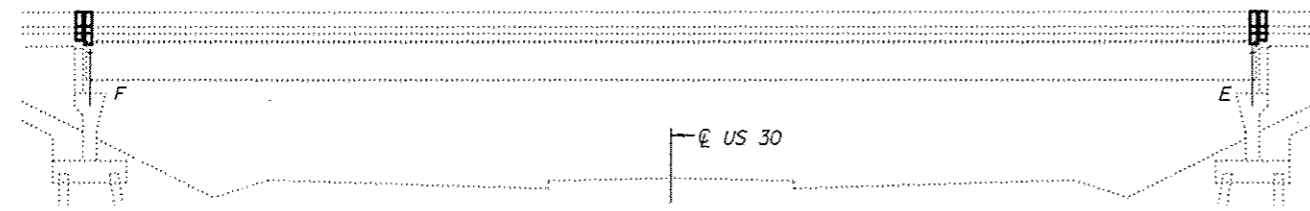
REGION 2 / DISTRICT 2 STANDARD

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(103-2HB)BJR	LEE	23	9
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 64M30	

**GENERAL NOTES**

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.  
 Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.  
 Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.  
 The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.



EXPIRES 11-30-2018

DESIGNED: *Victor H. Yelins*  
 CHECKED: *[Signature]*  
 DRAWN: *baliva*  
 CHECKED: *VAV TAD*

PASSED: *[Signature]*  
 ENGINEER OF BRIDGES AND STRUCTURES

DATE: MARCH 16, 2017  
 REVISED: \_\_\_\_\_  
 REVISED: \_\_\_\_\_

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

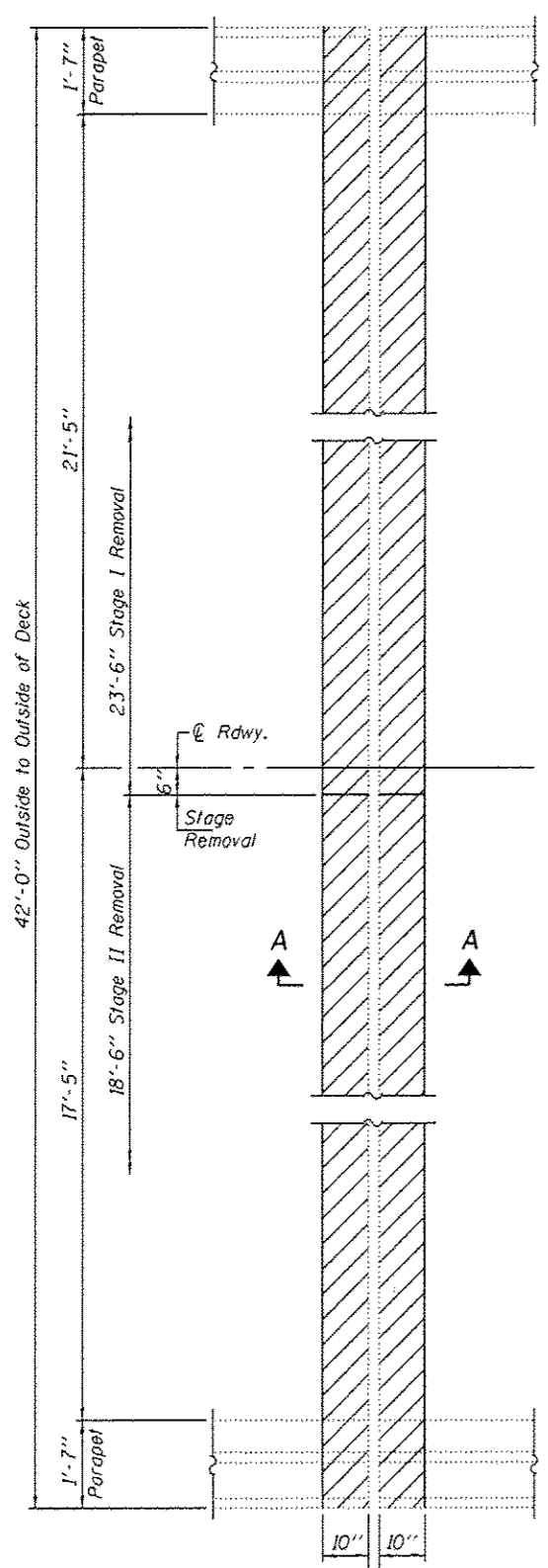
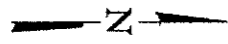
PLAN AND ELEVATION  
 FAI 39 OVER US 30  
 SN 052-0052 (SB) & 0053 (NB)  
 SHEET NO. 1 OF 4 SHEETS

**TOTAL BILL OF MATERIAL**

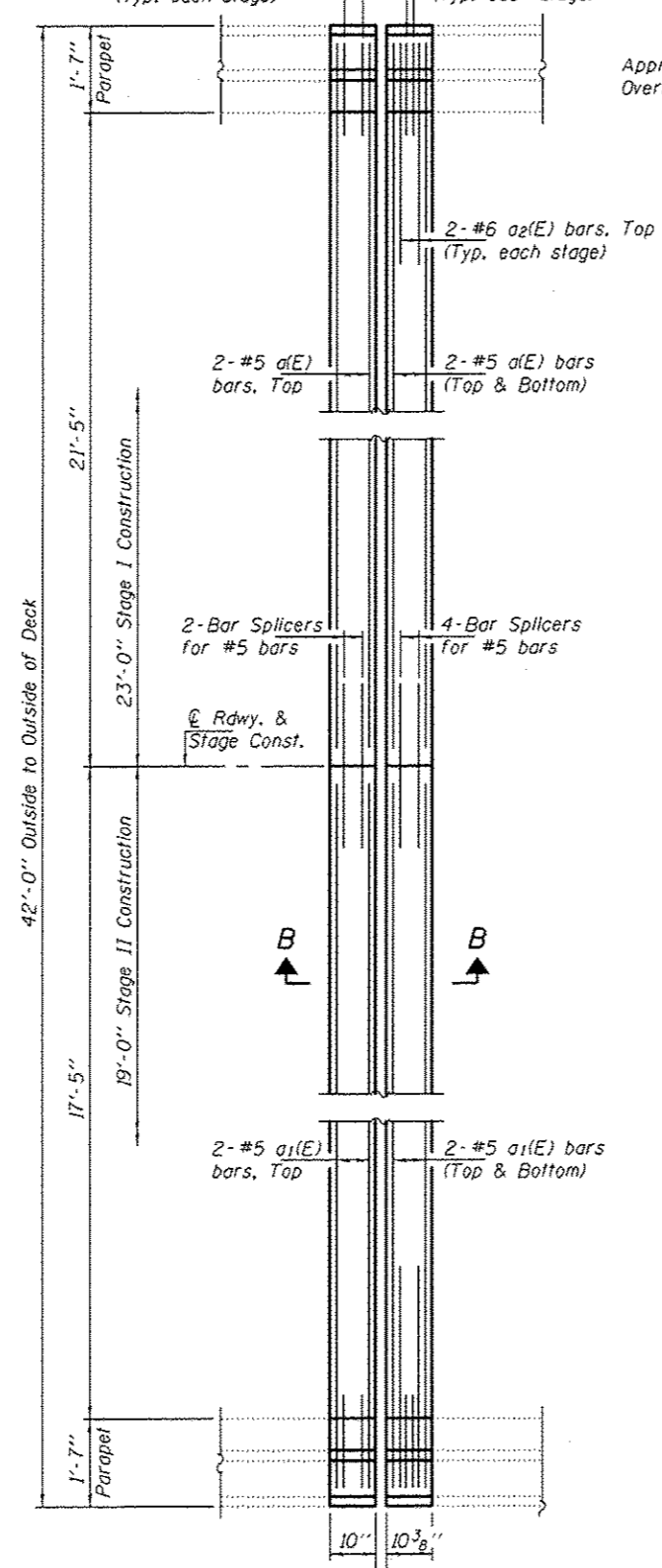
ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	10.4
Concrete Superstructure	Cu. Yd.	10.6
Reinforcement Bars, Epoxy Coated	Pound	1370
Bar Splicers	Each	24
Preformed Joint Strip Seal	Foot	164
* Protective Coat	Sq. Yd.	35.2

\* To be applied to new concrete areas only

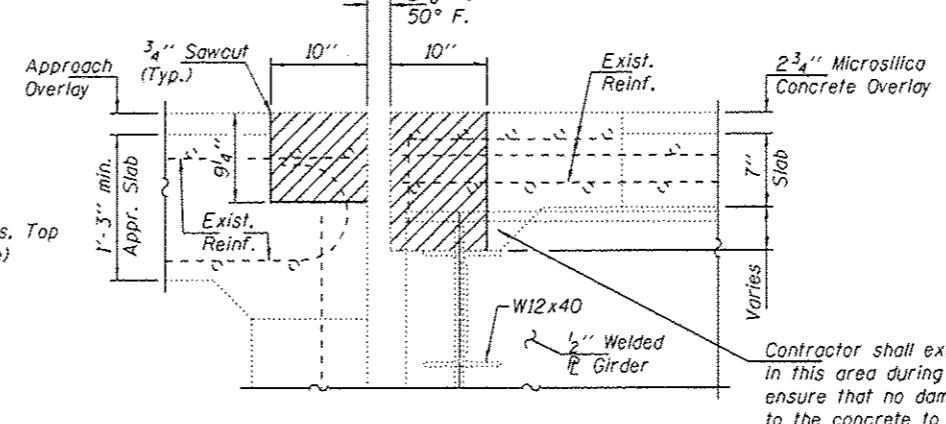
F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	103-2H8BJR	LEE	23	10
CONTRACT NO. 64M30			ILLINOIS FED. AID PROJECT	



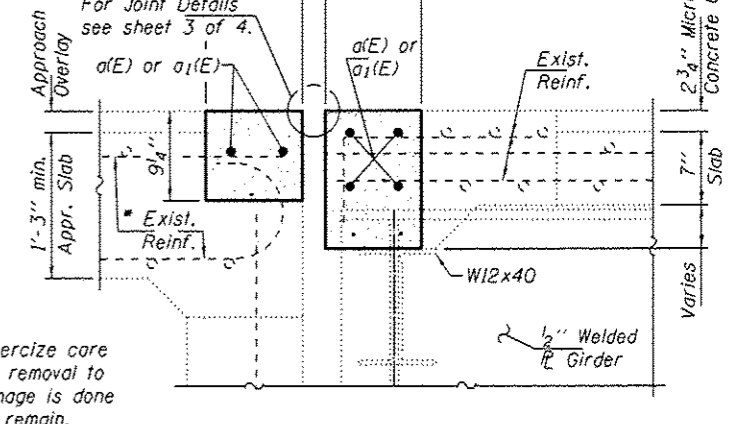
**CONCRETE REMOVAL DETAILS**  
(SN 052-0052 South Abutment Shown, other abutments similar by rotation.)



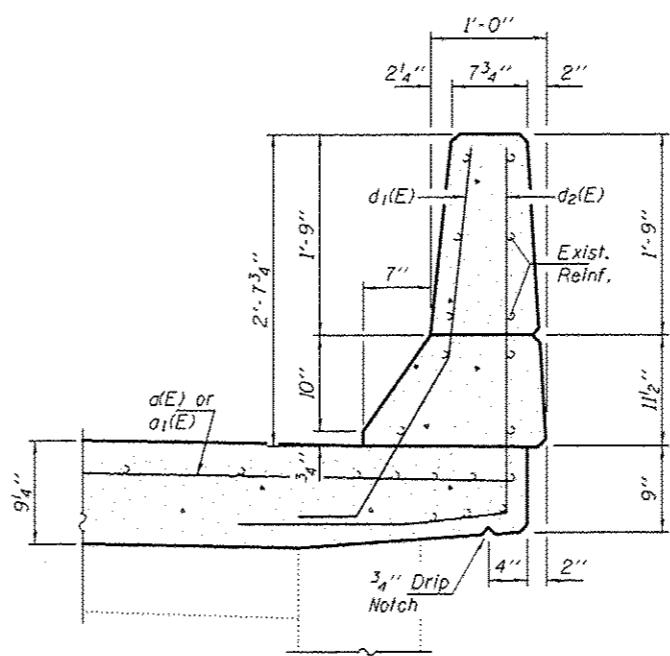
**CONCRETE REPLACEMENT DETAILS**  
(SN 052-0052 South Abutment Shown, other abutments similar by rotation.)



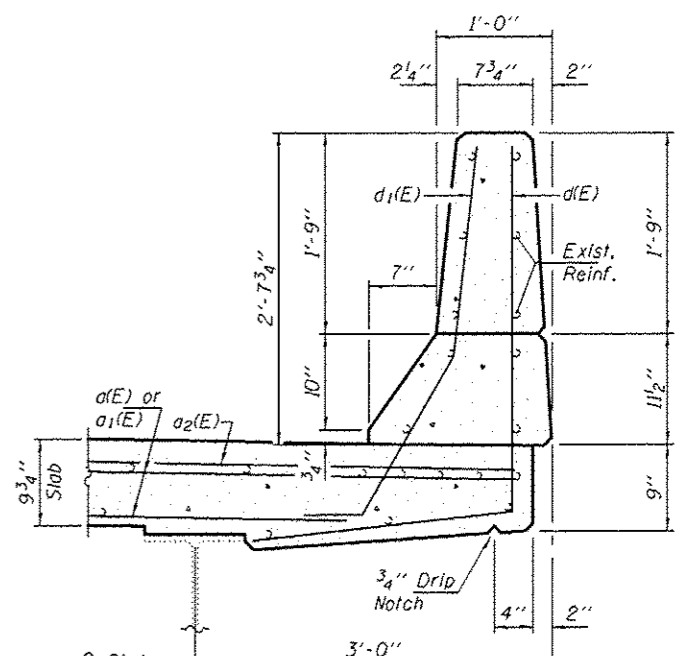
**SECTION A-A**



**SECTION B-B**

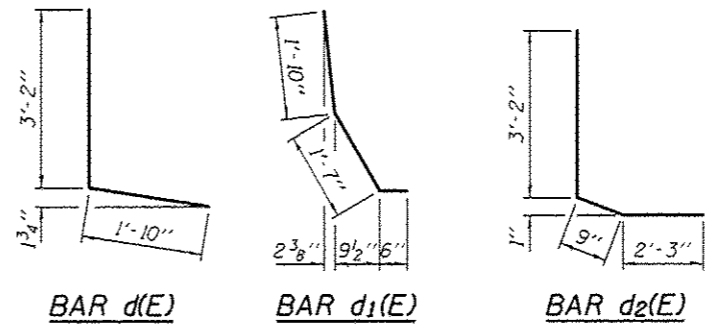


**TYPICAL SECTION THRU APPROACH PARAPET**



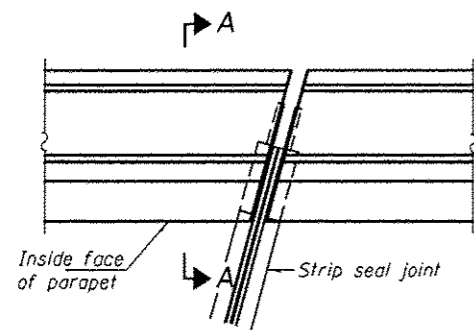
**TYPICAL SECTION THRU BRIDGE PARAPET**

Note:  
Hatched areas indicate Concrete Removal.

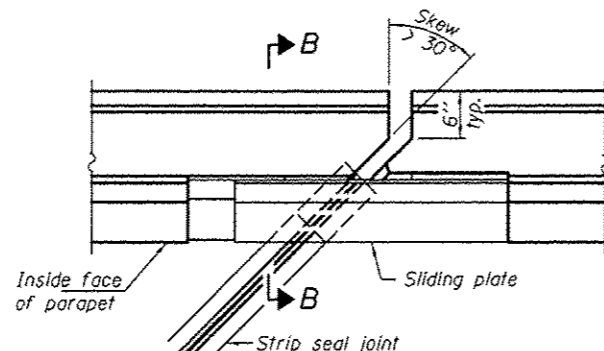


**BILL OF MATERIAL**

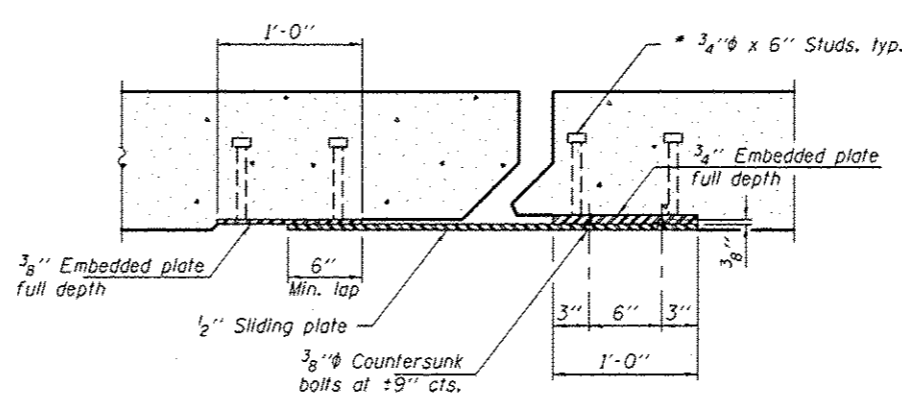
Bar	No.	Size	Length	Shape
$d(E)$	24	#5	22'-6"	—
$a_1(E)$	24	#5	18'-6"	—
$a_2(E)$	16	#6	4'-0"	—
$d(E)$	16	#4	5'-0"	L
$d_1(E)$	32	#5	3'-11"	L
$d_2(E)$	16	#4	6'-2"	L
Concrete Removal			Cu. Yd.	10.4
Concrete Superstructure			Cu. Yd.	10.6
Bar Splicers			Each	24
Reinforcement Bars, Epoxy Coated			Pound	1370



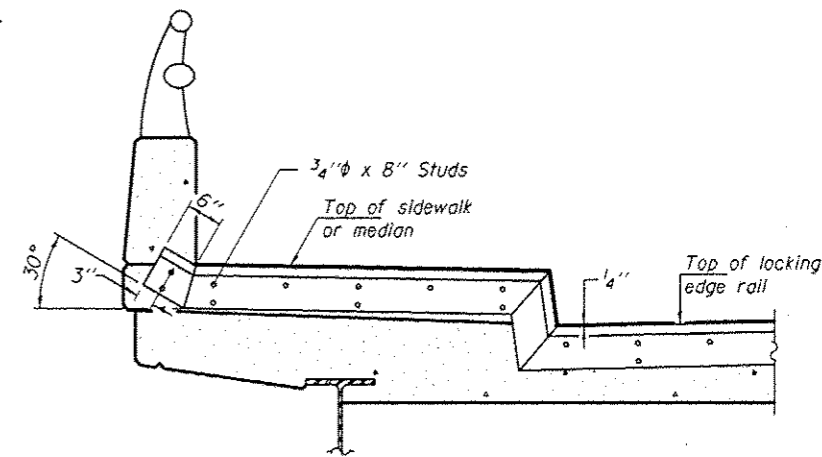
**PLAN**  
(For skews  $\leq 30^\circ$ )



**PLAN**  
(For skews  $> 30^\circ$ )  
Showing point block

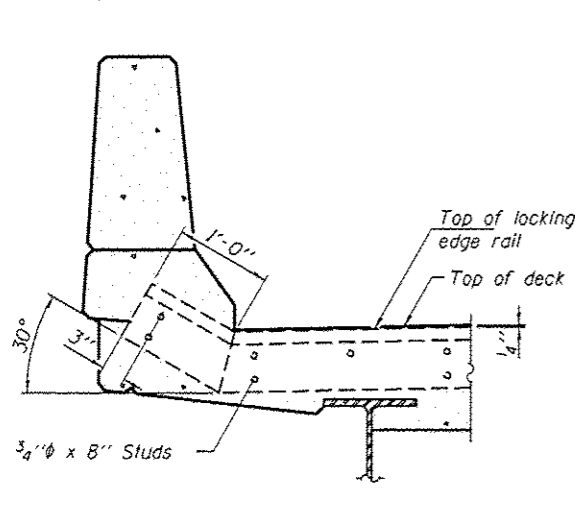


**SECTION C-C**

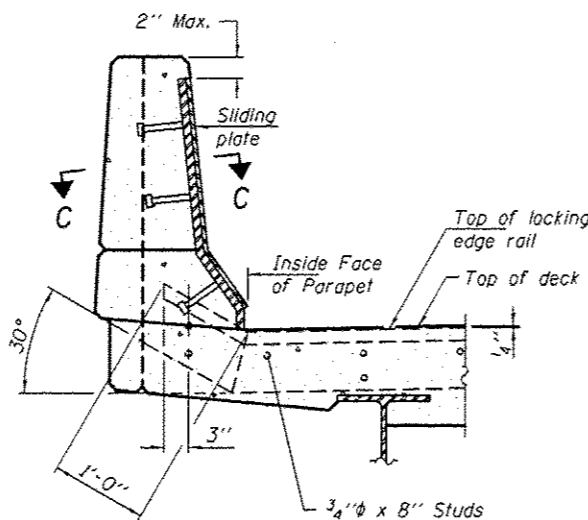


**TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN**

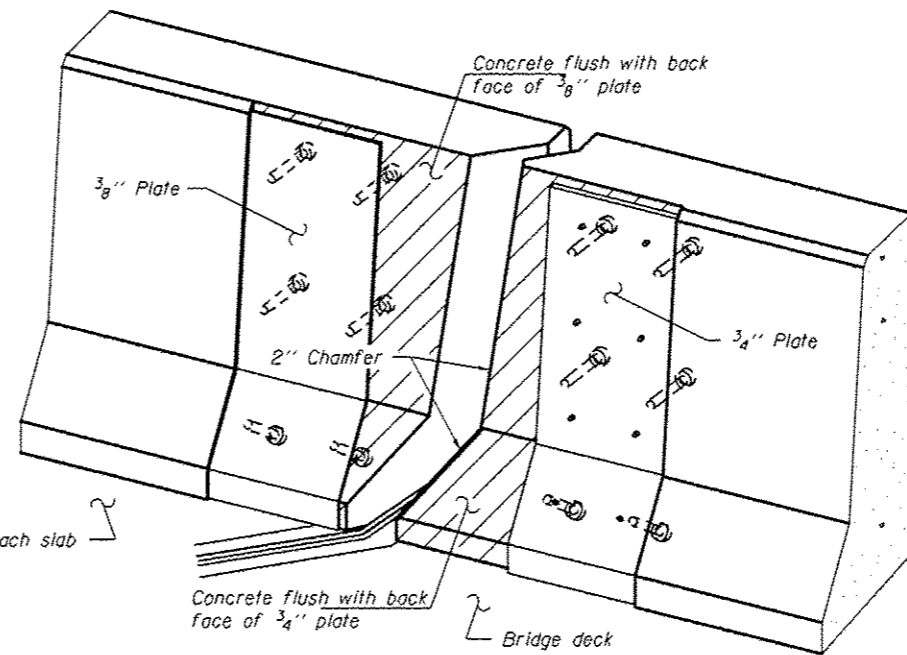
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



**SECTION A-A**



**SECTION B-B**



**TRIMETRIC VIEW**  
(Showing back plates only)

**Notes:**  
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

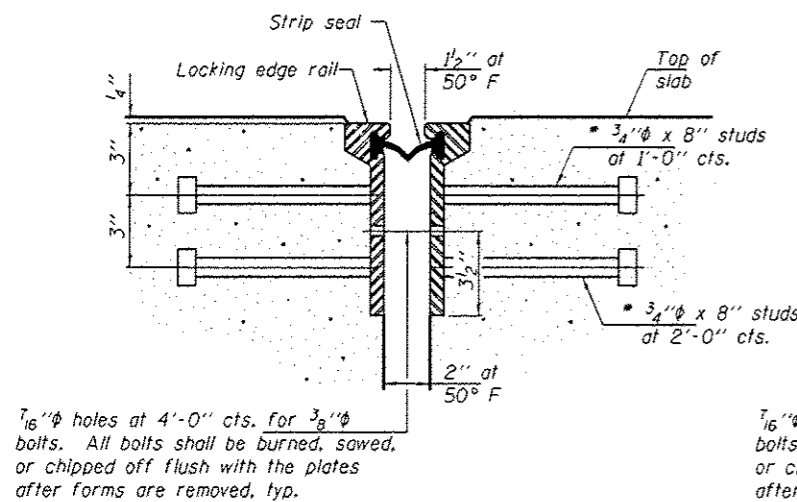
The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

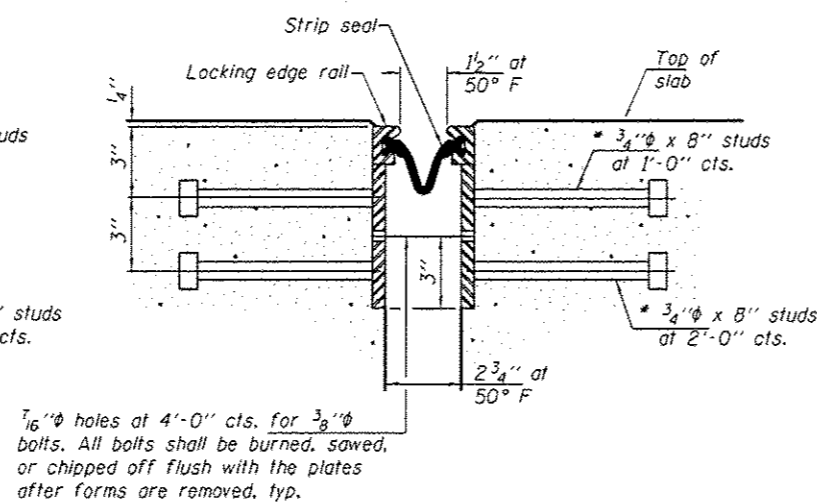
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

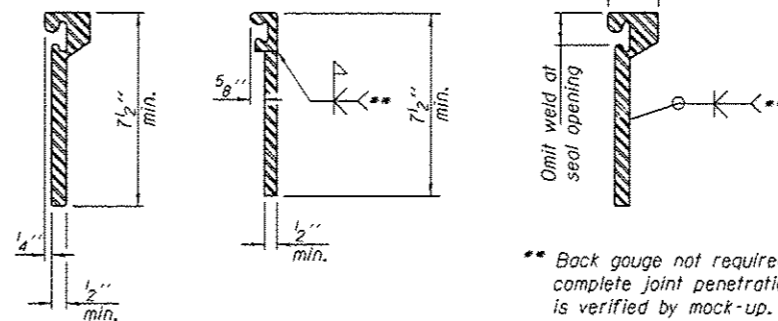
Parapet plates and anchorage studs for skews  $> 30^\circ$  included in the cost of Preformed Joint Strip Seal.



**SECTION THRU ROLLED RAIL JOINT**



**SECTION THRU WELDED RAIL JOINT**



**ROLLED EXTRUDED RAIL WELDED RAIL**

\*\* Back gauge not required if complete joint penetration is verified by mock-up.

The inside of the locking edge rail groove shall be free of weld residue.  
Rolled rail shown, welded rail similar.

**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	164

EJ-SSJ

11-22-2016

DESIGNED VHV  
CHECKED DAB  
DRAWN Daliva  
CHECKED VHV DAB

PASSED

*Carl Perry*  
ENGINEER OF BRIDGES AND STRUCTURES

DATE MARCH 16, 2017

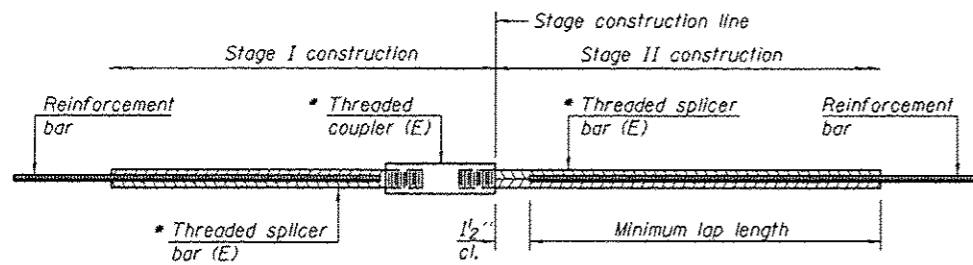
REVISED  
REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL  
SN 052-0052 (SB) & 0053 (NB)

SHEET NO. 3 OF 4 SHEETS

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	1103-2H818R	LEE	23	12
CONTRACT NO. 64M30				
ILLINOIS FED. AID PROJECT				

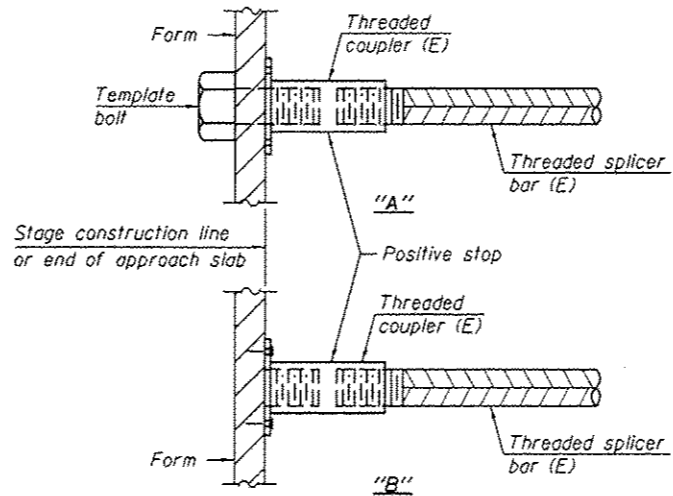


**STANDARD BAR SPLICER ASSEMBLY**

Threaded splicer bar length = min. lap length + 1/2" + thread length

\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Approach	#5	8	3'-6"
Deck	#5	16	3'-6"

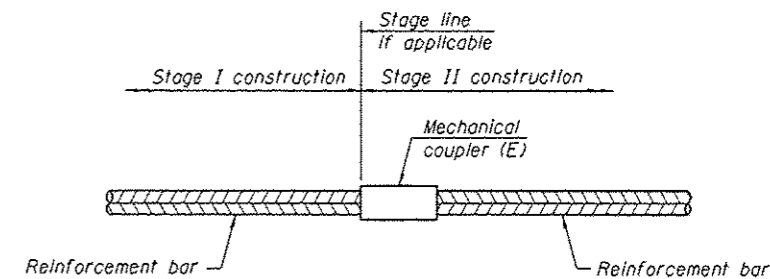


**INSTALLATION AND SETTING METHODS**

"A" : Set bar splicer assembly by means of a template bolt.

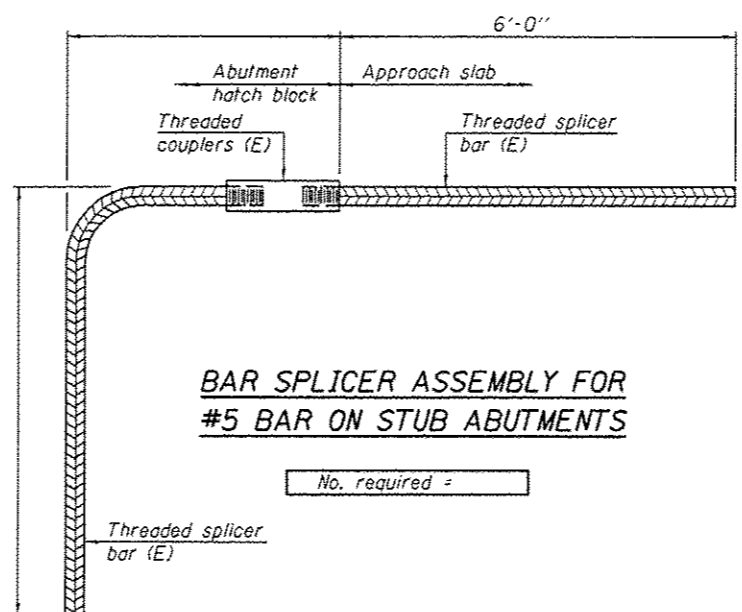
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required =

**NOTES**

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 11-22-2016

DESIGNED VHV  
 CHECKED DAB  
 DRAWN baliva  
 CHECKED VHV DAB

PASSED  
 ENGINEER OF BRIDGES AND STRUCTURES

DATE MARCH 16, 2017  
 REVISED  
 REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
 SN 052-0052 (SB) & 0053 (NB)

SHEET NO. 4 OF 4 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	1103-240BJR	LEE	23	13
			CONTRACT NO. 64M30	
ILLINOIS FED. AID PROJECT				

052-0052-0033

SEE SHEET 2 FOR INDEX OF SHEETS

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION PLANS FOR PROPOSED FEDERAL AID HIGHWAY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA. 412	103-2HB	LEE	113	1

P-92-017-74 (103)



SCALES  
 PLAN 1 INCH = 100'  
 PROFILE HOR. 1 INCH = 100'  
 PROFILE VERT. 1 INCH = 10'  
 CROSS-SECTIONS 1 INCH = 5' VERT.  
 1 INCH = 10' HORIZ.

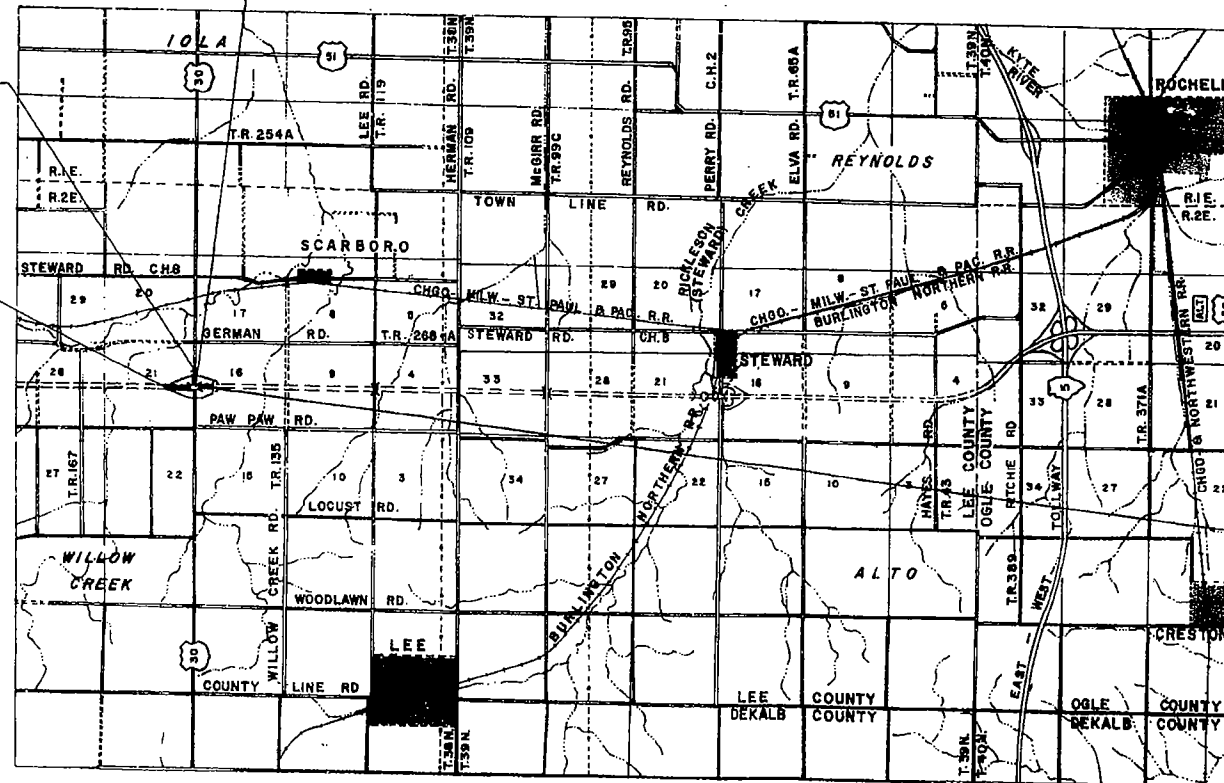
F.A. ROUTE 412 SECTION 103-2HB  
 PROJECT PD-412-4(37)  
 LEE COUNTY

C-92-123-82

SECTION 103-2HB  
 INCLUDES A SINGLE SPAN  
 REINFORCED CONCRETE STEEL  
 "I" BEAM DECK BRIDGE (CARRYING  
 FA 412 OVER U.S. 30) AT  
 STATION 864+30

STATION 39+48  
 Double 7'x4' Var. Reinforced  
 Concrete Box Culvert

PROJECT B  
 SEC. 103-2HB BEGINS  
 STA. 831+46.01



GROSS LENGTH OF SECTION = 4,353.99 Lin. Ft. = 0.825 Miles  
 NET LENGTH OF PROJECT = 4,353.99 Lin. Ft. = 0.825 Miles

PROJECT B  
 SEC. 103-2HB ENDS  
 STA. 875+00

DESIGN DESIGNATION  
 2000 (95) TRUNK 12.18 (C.R. PCC-20)

CALL JULIE  
 BEFORE YOU DIG  
 800-892-0123

Willow Creek Township

PREPARED AND RECOMMENDED BY  
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
 CONSULTING ENGINEERS  
 CHICAGO



STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUBMITTED: JAN. 13, 83  
 DISTRICT ENGINEER

EXAMINED: 3-2  
 ENGINEER OF PLANS & CONTRACTS

PASSED: 3-3  
 DIRECTOR OF HIGHWAYS

APPROVED: 3-4  
 DIRECTOR OF HIGHWAYS

## FOR INFORMATION ONLY

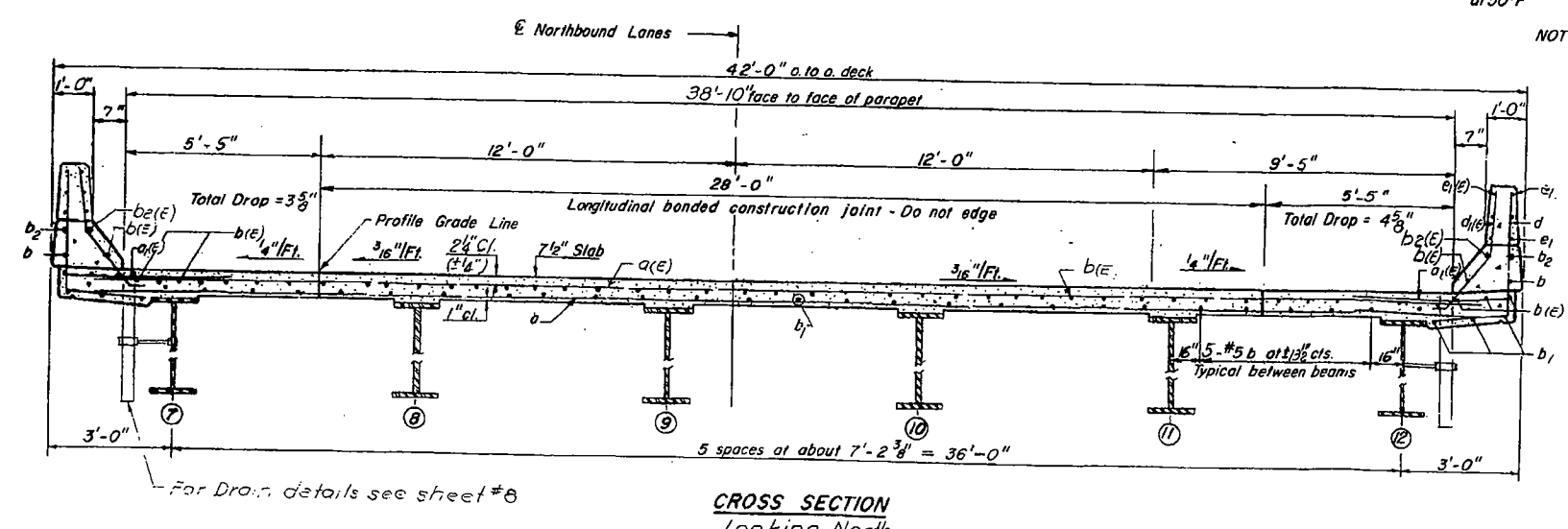
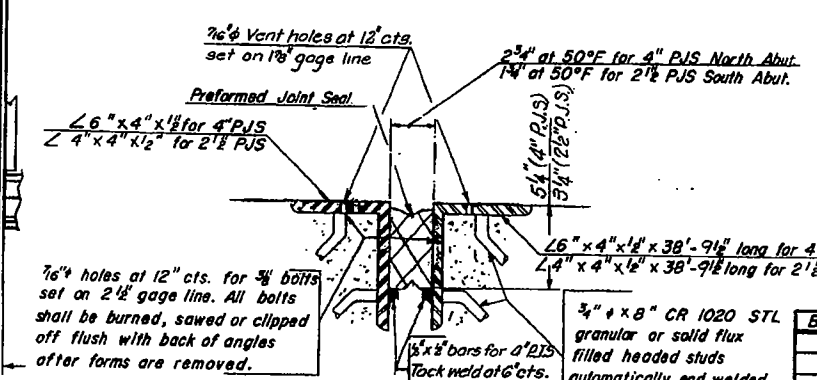
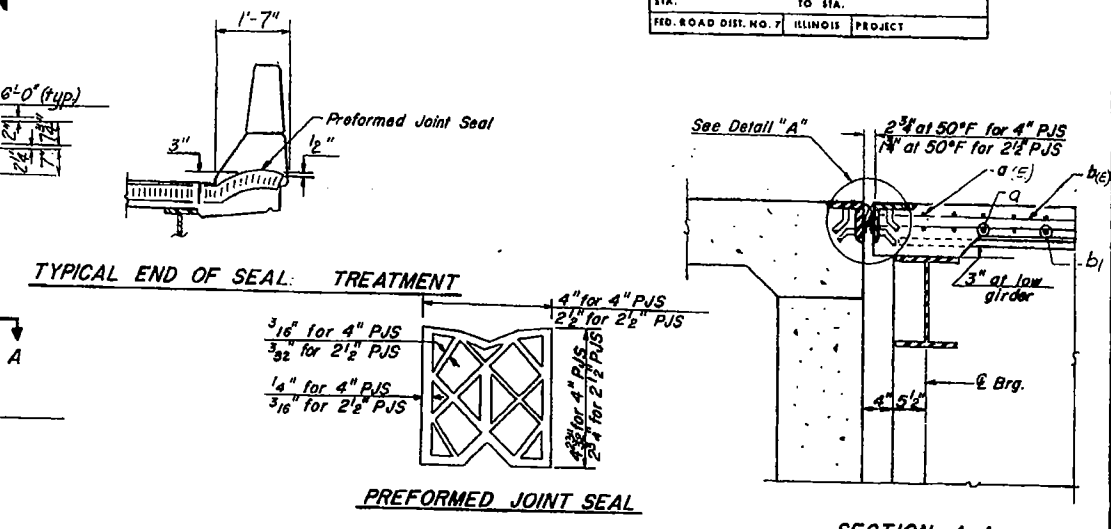
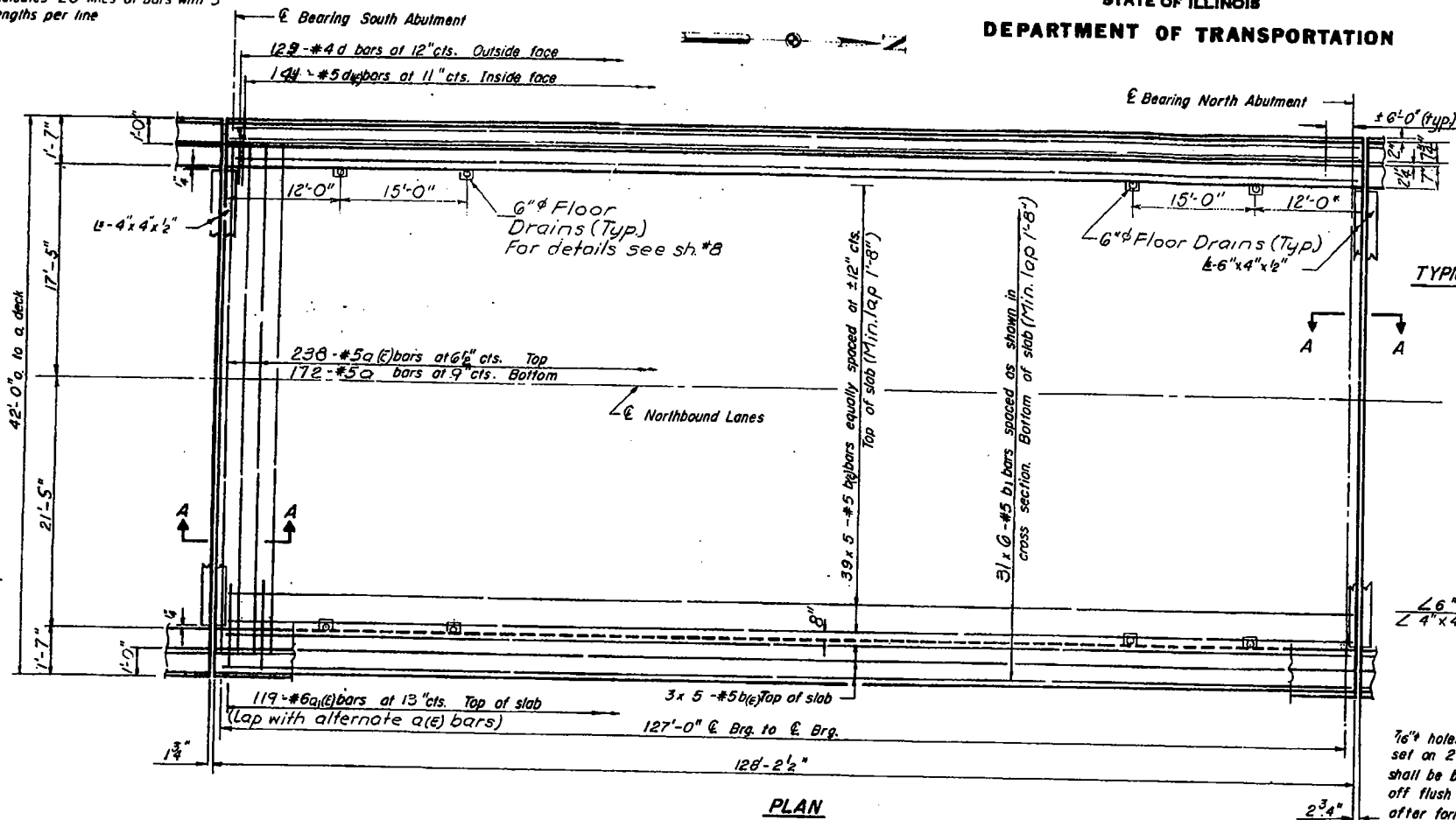
052-0052-052

CONTRACT NO. 103-75

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6 of 20 SHEETS
F.A. 412	103-2HB	LEE	115	41	
STA.	TO STA.				
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT			

NOTE:  
Bars indicated thus 20 x 3 - #5 etc  
indicates 20 lines of bars with 3  
lengths per line



DESIGNED	DNC
CHECKED	RBD
DRAWN	DNC
CHECKED	JJG

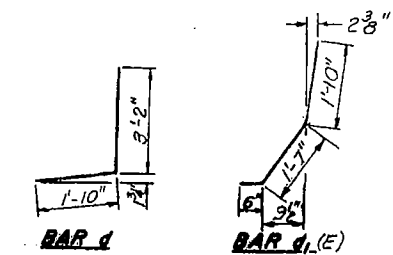
Note: For Section thru Parapet, see Sheet 8.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	238	#5	40'-2"	
a	172	#5	40'-2"	
a1(E)	238	#6	4'-0"	
b1(E)	225	#5	27'-6"	
b1	186	#5	22'-9"	
d	258	#4	5'-0"	J
d(E)	282	#5	3'-11"	J
Reinf. Bars (Epoxy Coat)			Lbs.	19,010
Reinforcement Bars			Lbs.	12,480
Class X Concrete			Cu. Yds.	73.0
4" Preformed Jt. Seal			Lin. Ft.	42
2 1/2" Preformed Jt. Seal			Lin. Ft.	42

Notes:  
Parapet Reinforcement and Class X Concrete are billed on sheet #8.  
Floor Drain details, see Sheet #3.  
Reinforcement Bars designated a(E) shall be Epoxy Coated. See Spec. Provs.

DECK DETAILS  
NORTHBOUND  
F.A. 412 SECTION 103-2HB  
F.A. 412 OVER U.S. ROUTE 30  
LEE COUNTY  
STATION 864+30.00  
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



FOR INFORMATION ONLY

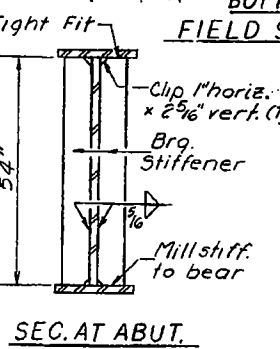
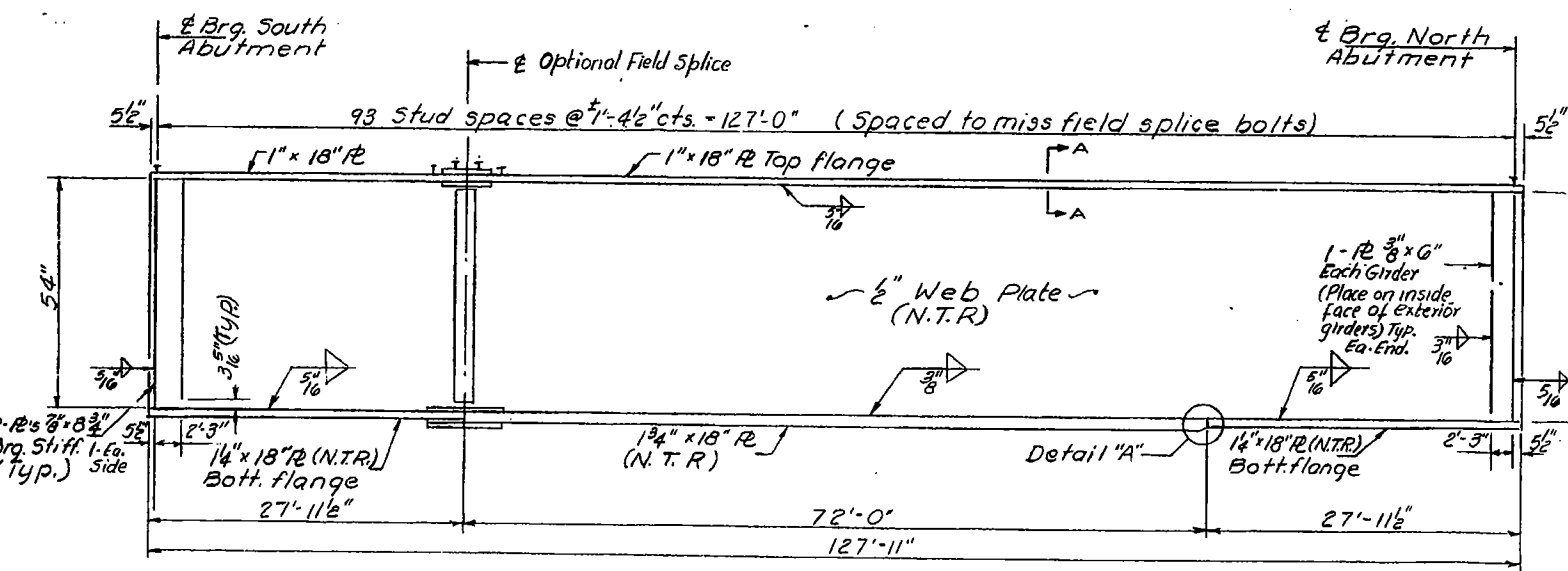
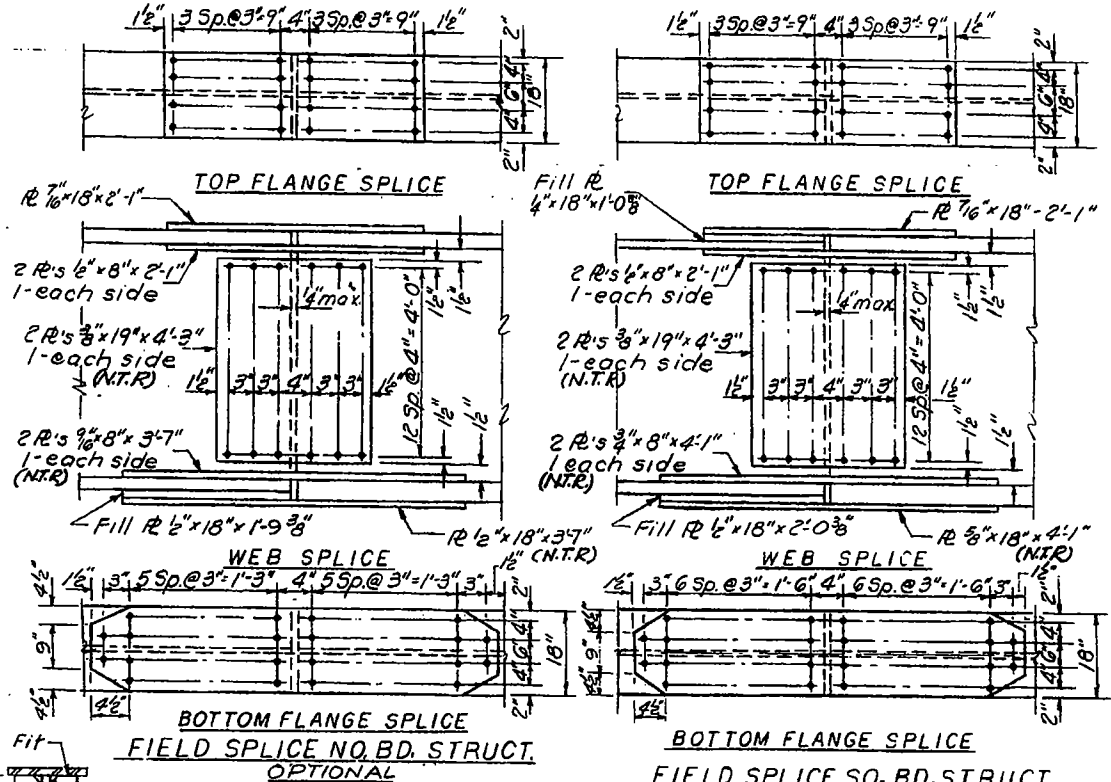
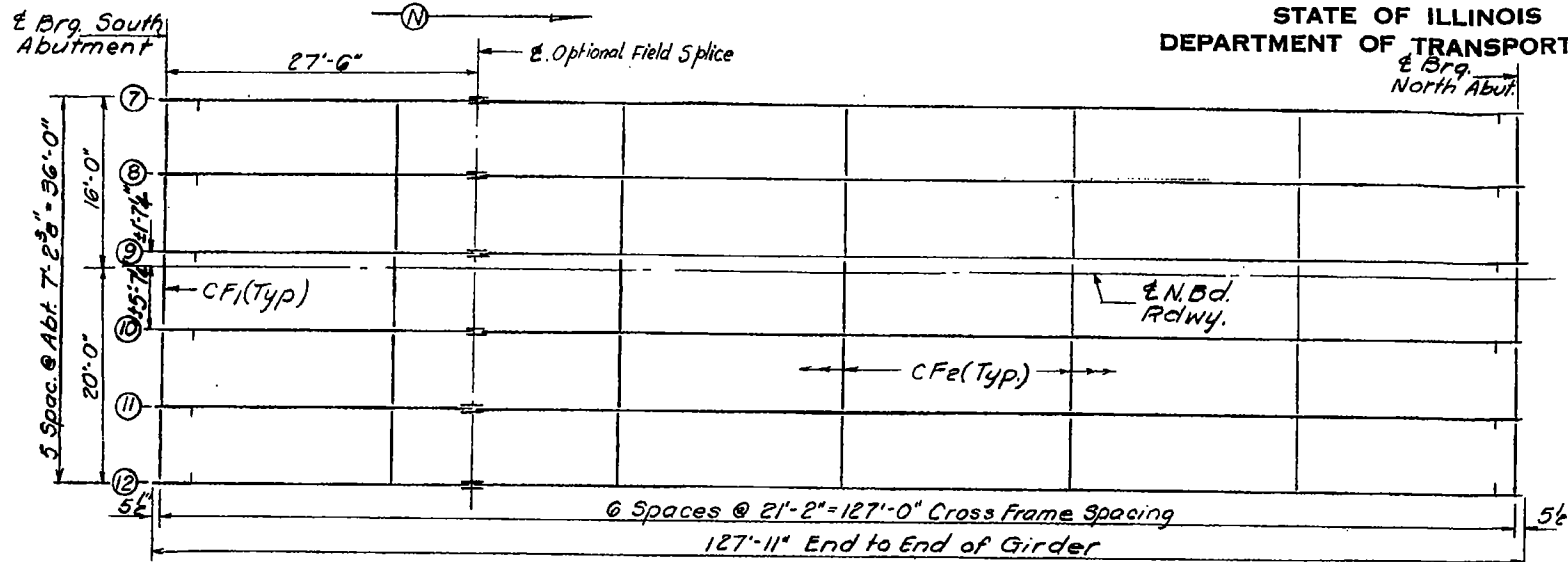




STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
& Brg. North Abut.

DATE	SECTION	DESIGN	TOTAL SHEETS	SHEET NO.
10-1-83	103-2HB	L.E.E.	113	50

20 SHEETS



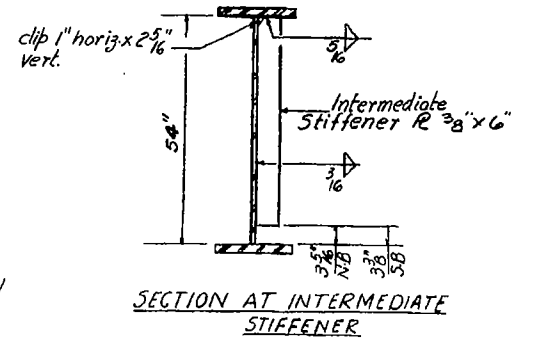
INTERIOR GIRDER MOMENT TABLE (N.B.)

Is (in <sup>4</sup> )	42741
Ic (in <sup>4</sup> )	94557
Ss (in <sup>3</sup> )	1800
Sc (in <sup>3</sup> )	2262
Q (k/ft)	0.972
M <sub>Q</sub> (k)	1959
f <sub>s</sub> (ksi)	13.1
S <sub>Q</sub> (k/ft)	.299
M <sub>SQ</sub> (k)	603
M <sub>E</sub> (k)	1312
M <sub>imp</sub> (k)	260
M <sub>shear</sub> (k)	2175
I <sub>s</sub> (k-in <sup>2</sup> )	11.5
f <sub>s</sub> total (ksi)	24.6
VR (k)	623

INTERIOR GIRDER REACTION TABLE (N.B.)

Abutment	
R <sub>Q</sub> (k)	80.7
R <sub>E</sub> (k)	43.6
R <sub>imp</sub> (k)	8.7
R <sub>total</sub> (k)	133.0

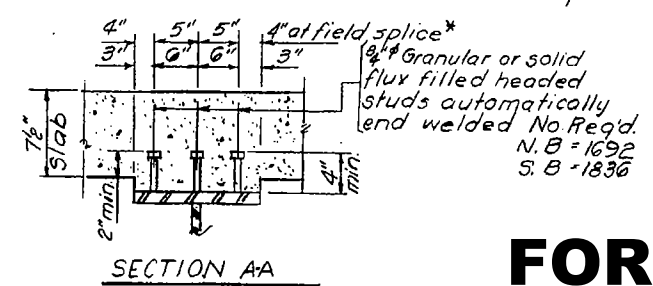
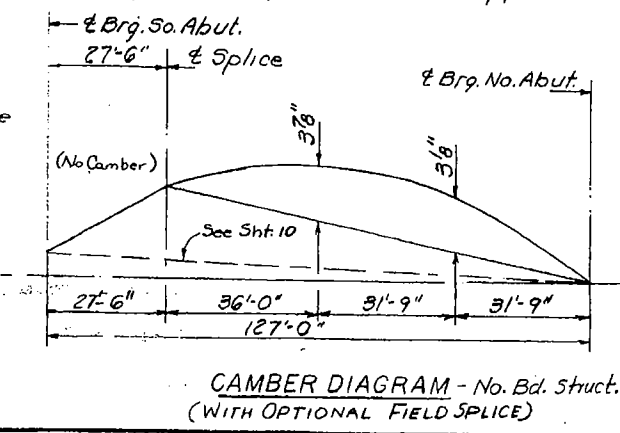
Notes:  
All contact surfaces of the joints for the cross frames shall be free of paint or lacquer.  
All structural steel for girder flanges and splice plates shall be AASHTO M 223 Gr. 50 and the girder web, stiffeners and cross frames shall be AASHTO M 183.  
For cross frame details see sheet #10 See Sheet #10 for Camber Diagram without the optional Field Splice.



TOP OF WEB ELEVATIONS

Girder	7	8	9	10	11	12
& Brg. So. Abut.	886.96	887.09	887.20	887.14	887.02	886.87
& Splice*	887.14	887.27	887.35	887.32	887.20	887.05
& Brg. No. Abut.	886.80	886.95	887.04	886.98	886.86	886.71

(For Fabrication only)



**FOR INFORMATION ONLY** LEE COUNTY  
STA. 864+30.00

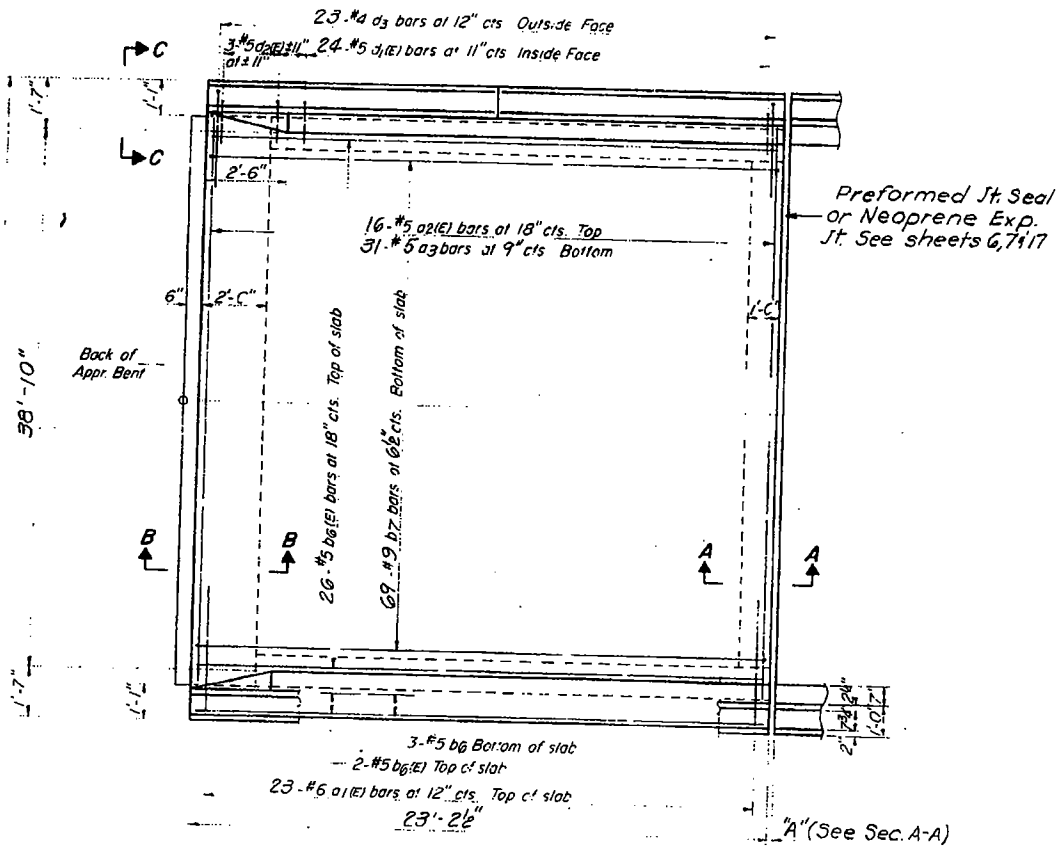
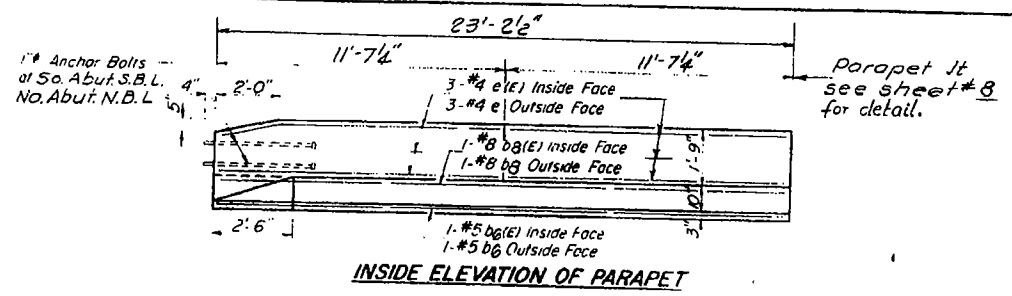
DESIGNED	VAB
CHECKED	RKM
DRAWN	FM
CHECKED	RKM



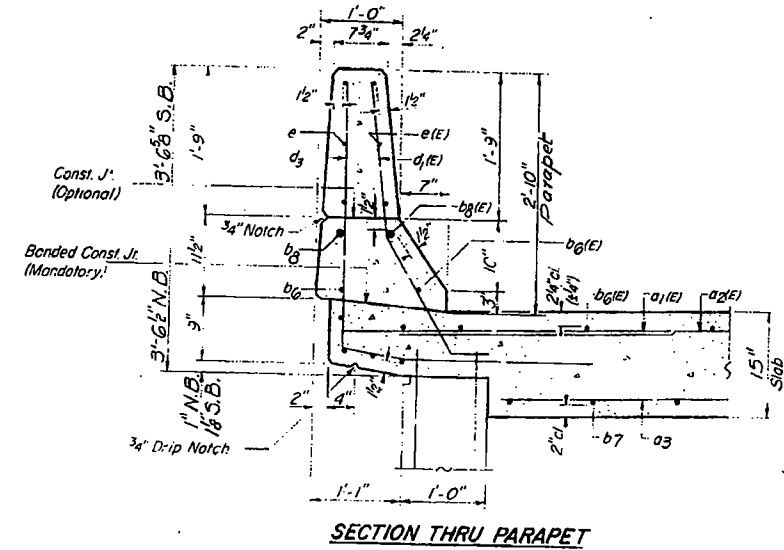
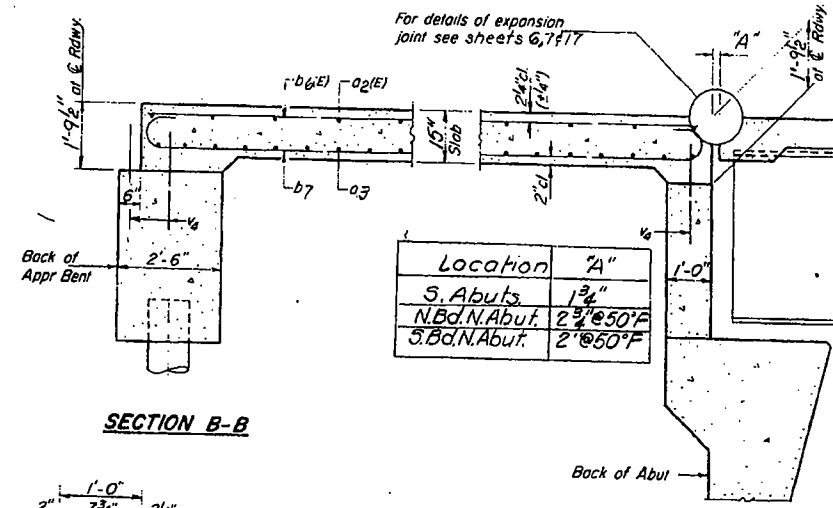
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	LOAN#	DATE	SHEET NO.
412	103-2HB	LEE	113	53
FED. ROAD DIST. NO.		ILLINOIS	FED. ROAD PROJECT	

SHEET NO. 12  
20 SHEETS



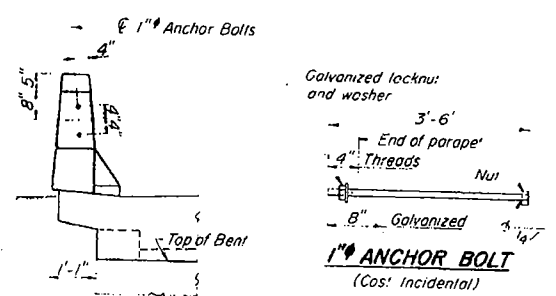
PLAN-SOUTH ABUTMENT SLABS  
North Abut. similar by 180° rotation



FOUR APPR. SLABS  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	184	#6	4'-0"	
a2(E)	64	#5	40'-0"	
a3	124	#5	37'-6"	
b6(E)	120	#5	22'-10"	
b8	32	#5	22'-10"	
b7	276	#9	25'-4"	
b8(E)	8	#8	22'-10"	
b8	8	#8	22'-10"	
d1(E)	192	#5	3'-11"	
d2(E)	24	#5	4'-2"	
d3	184	#4	6'-2"	
e1(E)	48	#4	11'-4"	
e	48	#4	11'-4"	
Reinforcement Bars		Lbs.	30990	
Reinforcement Bars (Epoxy Coated)		Lbs.	8370	
Class X Concrete		Cu. Yds.	199.0	

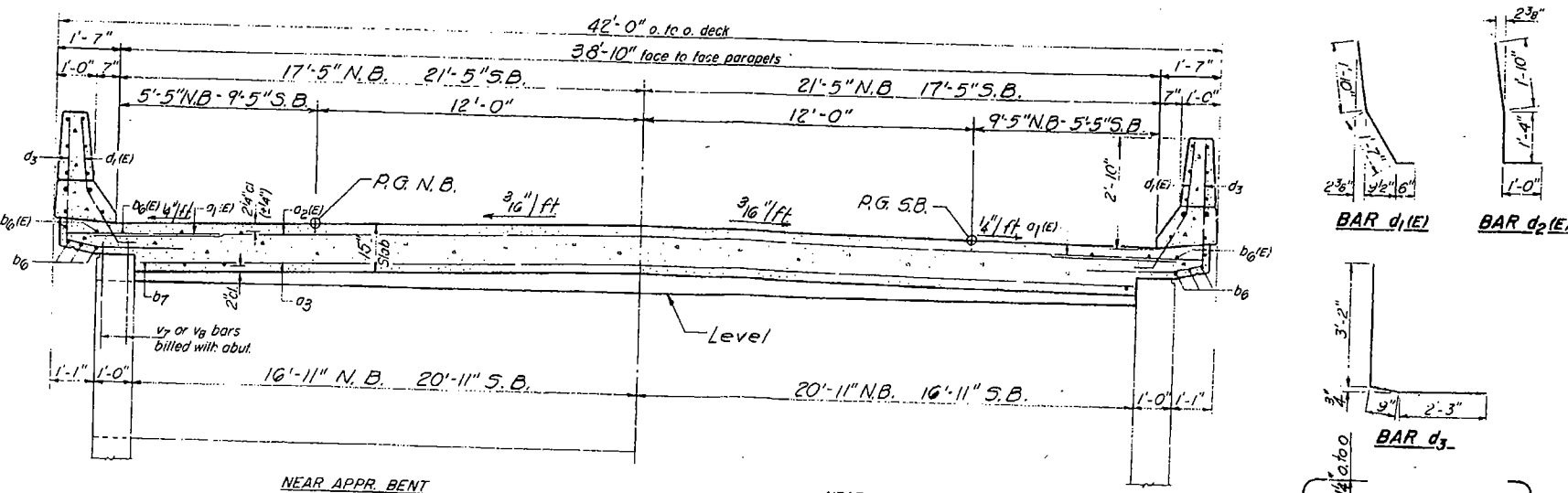
Reinforcement bars designated (E) shall be epoxy coated. See Special Provisions.



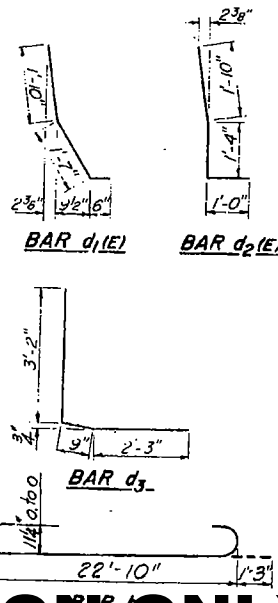
VIEW C-C  
(South Abut., Southbound Bridge and North Abut., Northbound Bridge)

DESIGNED	VRB
CHECKED	RKM
DRAWN	F.M.
CHECKED	RKM

SA-2-0 6-1-82  
Rev 2-3-83



CROSS SECTION  
Looking North



APPROACH SLABS

F.A.R.T.E. 412 SEC. 103-2HB

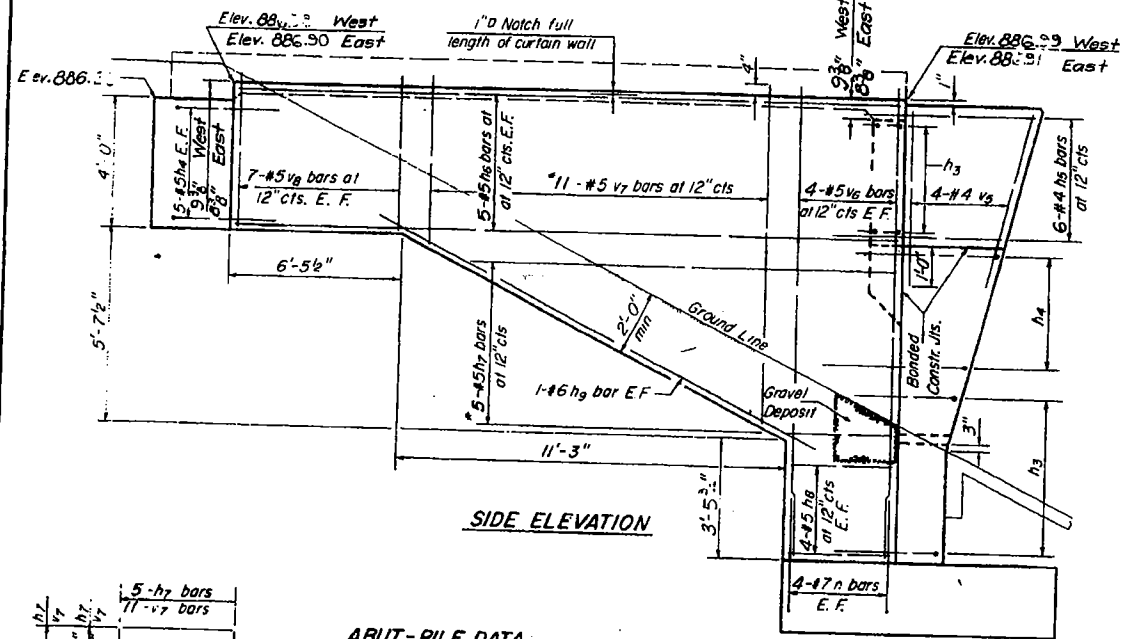
LEE COUNTY

STA. 864+40.00

FOR INFORMATION ONLY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

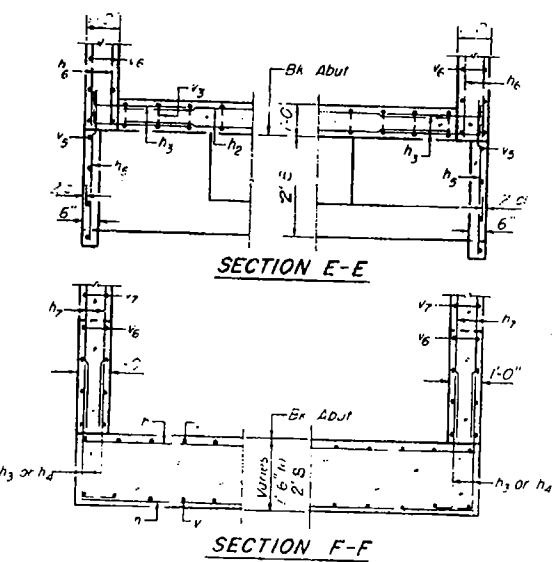
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 13
F.A. 412	103-2HB	LEE	113	54-A	of 20 SHEETS
STA.	TO STA.	FED. ROAD DIST. NO. 7 ILLINOIS PROJECT			



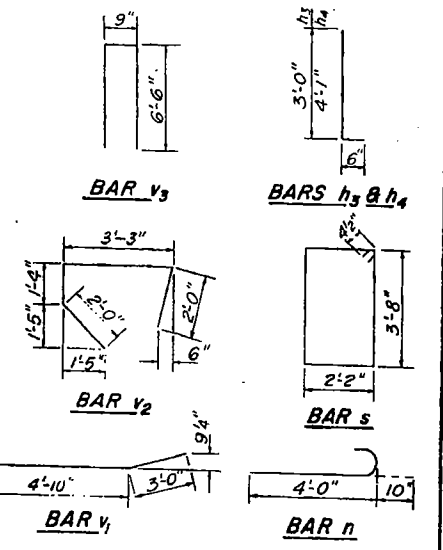
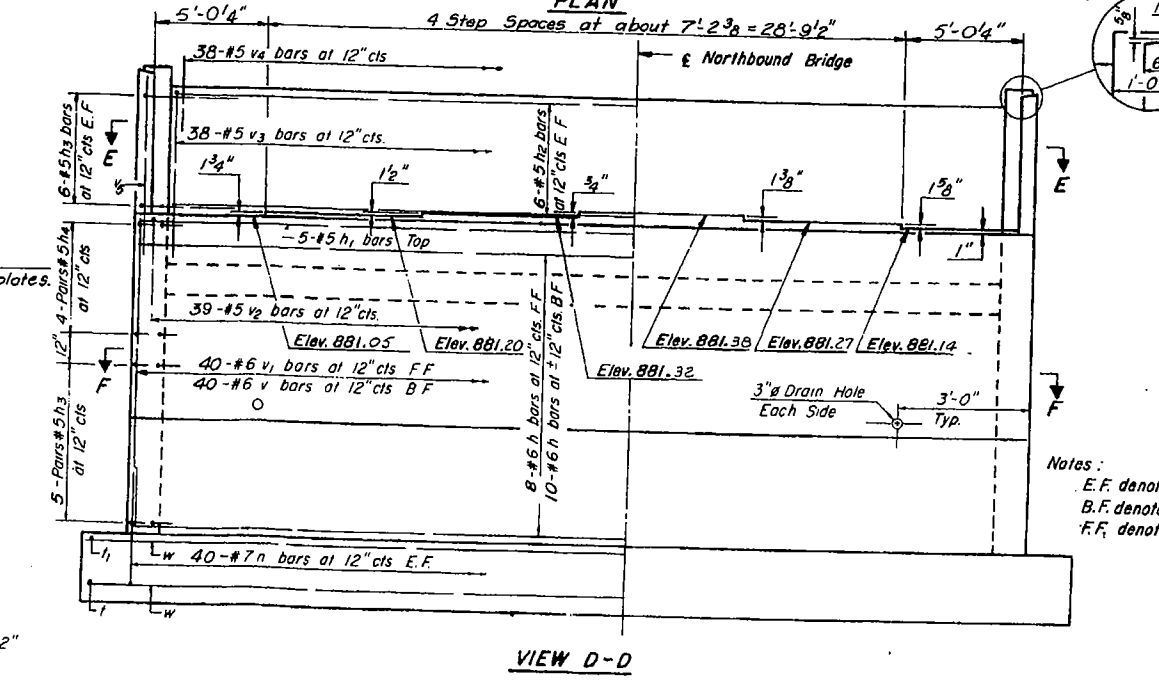
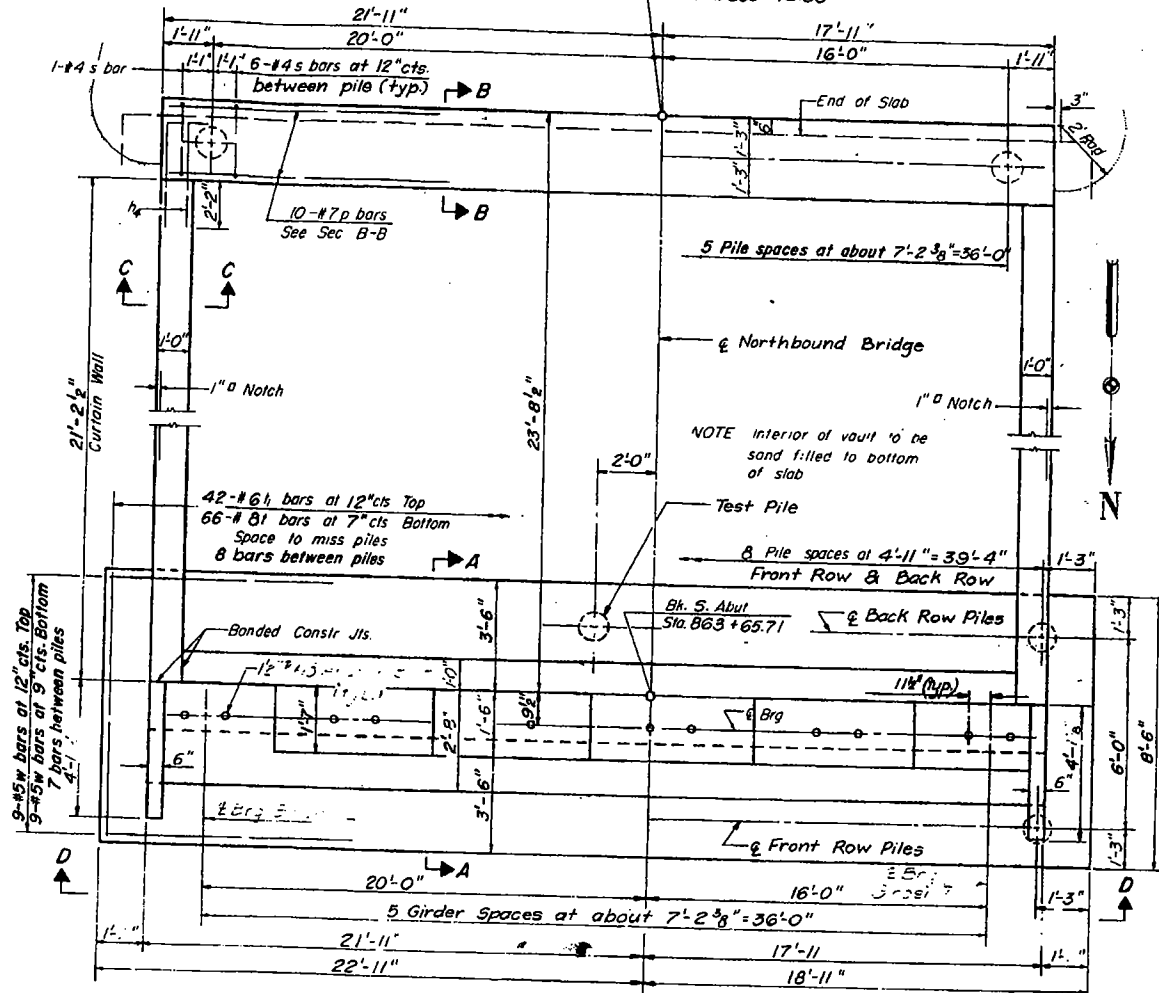
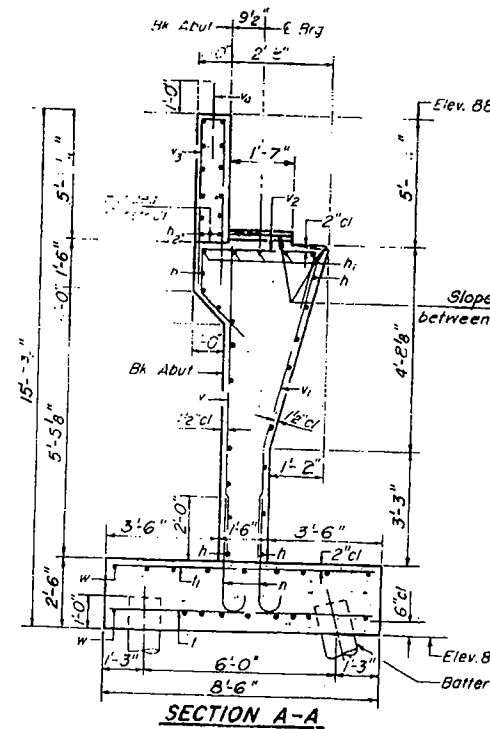
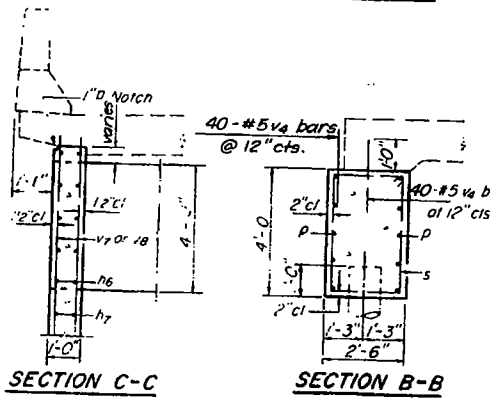
**ABUT-PILE DATA**  
Type Concrete  
Capacity 45  
Est Length 45'  
\*\*No. Req'd 18  
\*\* Including 1 Test Pile

**APPR. BENT-PILE DATA**  
Type Concrete  
Capacity 30  
Est Length 46'  
No Req'd 6

**FIELD CUTTING DIAGRAM**  
Order #5 & #7 bars full length cut to fit as shown and use remainder of bars in other face



DESIGNED	RBD
CHECKED	CGL
DRAWN	JBS
CHECKED	CGL



**BILL OF MATERIAL**

Bar	No	Size	Length	Shape
h	18	#6	39'-6"	
h1	5	#5	39'-6"	
h2	12	#5	37'-6"	
h3	44	#5	3'-6"	L
h4	36	#5	4'-7"	L
h5	12	#4	5'-3"	
h6	20	#5	20'-10"	
h7	10	#5	16'-7"	
h8	16	#5	3'-2"	
h9	4	#6	14'-7"	
n	96	#7	4'-10"	
p	10	#7	39'-6"	
s	32	#4	12'-5"	
v	66	#8	8'-0"	
v1	42	#6	8'-0"	
v2	40	#6	7'-5"	
v3	39	#5	8'-7"	
v4	38	#5	13'-9"	
v5	118	#5	2'-3"	
v6	8	#4	6'-11"	
v7	16	#5	14'-4"	
v8	22	#5	16'-0"	
v9	28	#5	5'-0"	
w	18	#5	4'-6"	
Reinforcement Bars		Lbs.	10,480	
Class X Concrete		Cu. Yds	91.3	
Test Pile - Concrete		Each	1	
Concrete Piles		Lin. Ft.	1,041	
Sand Backfill		Cu. Yds	177.0	

Notes:  
E.F. denotes each face.  
B.F. denotes back face.  
F.F. denotes front face.

**SOUTH ABUTMENT  
NORTHBOUND BRIDGE**  
F.A. 412 SECTION 103-2HB  
F.A. 412 OVER U.S. ROUTE 30  
LEE COUNTY  
STATION 864+30.00  
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS  
HNTB

Rev DAC/RKM 2-3-83

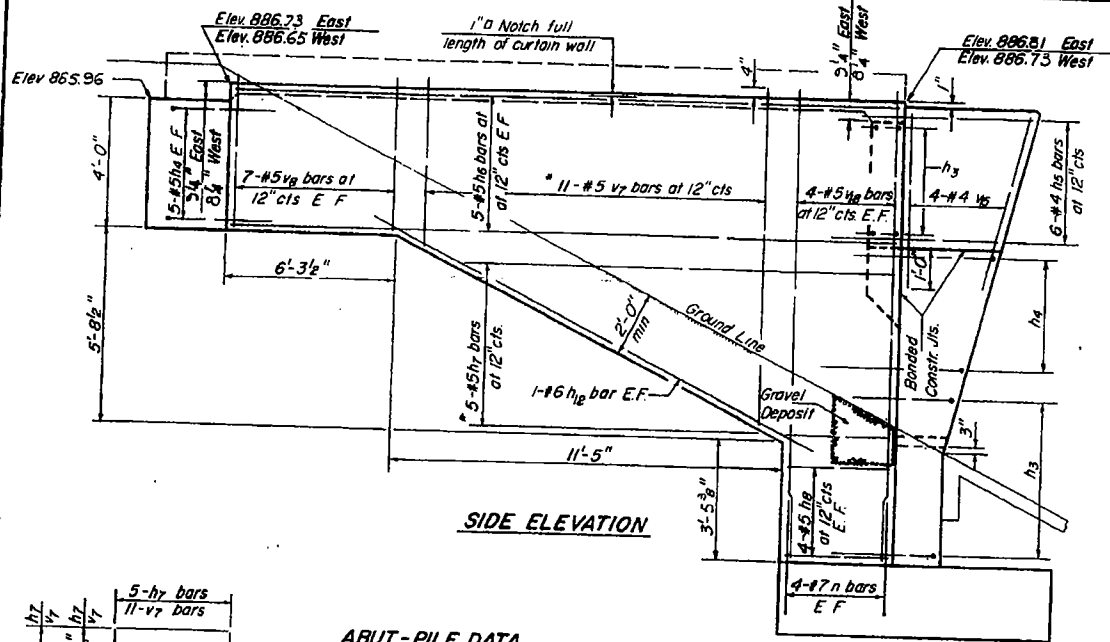
Rev Seat Elevations 5-19-83 D.D.

**FOR INFORMATION ONLY**



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. OF
F.A. 412	103-2HB	LEE	413	57	20
STA.	TO STA.				
FED. ROAD DIST. NO. 7	ILLINOIS PROJECT				



**ABUT-PILE DATA**

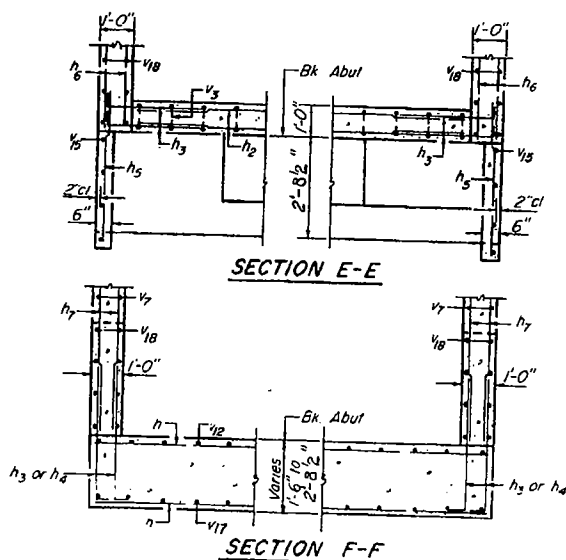
Type Concrete  
Capacity 45 TONS  
Est Length 41  
\*\*No. Req'd 18  
\*\*\*Including 1 test pile

**APPR. BENT-PILE DATA**

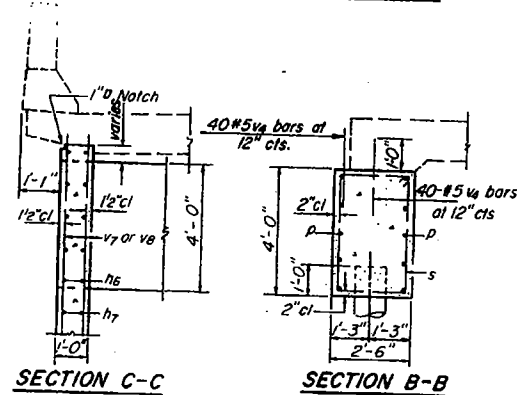
Type Concrete  
Capacity 30 TONS  
Est Length 36  
No Req'd 6

**FIELD CUTTING DIAGRAM**

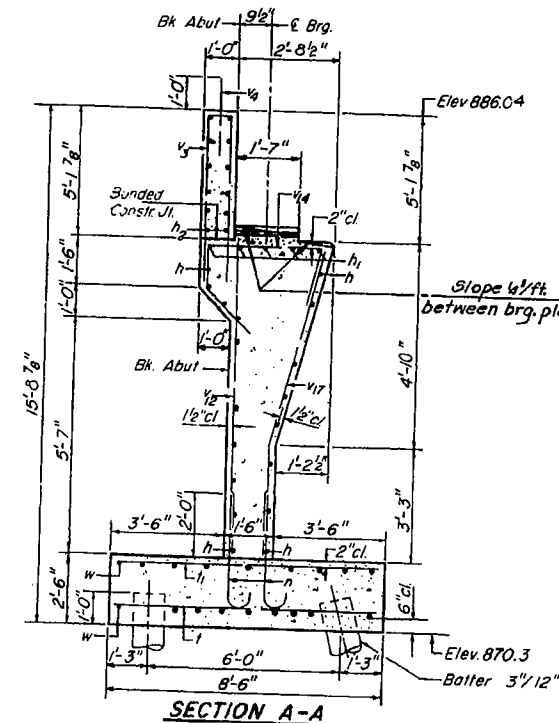
\*Order h7 & v7 bars full length Cut to fit as shown and use remainder of bars in other face.



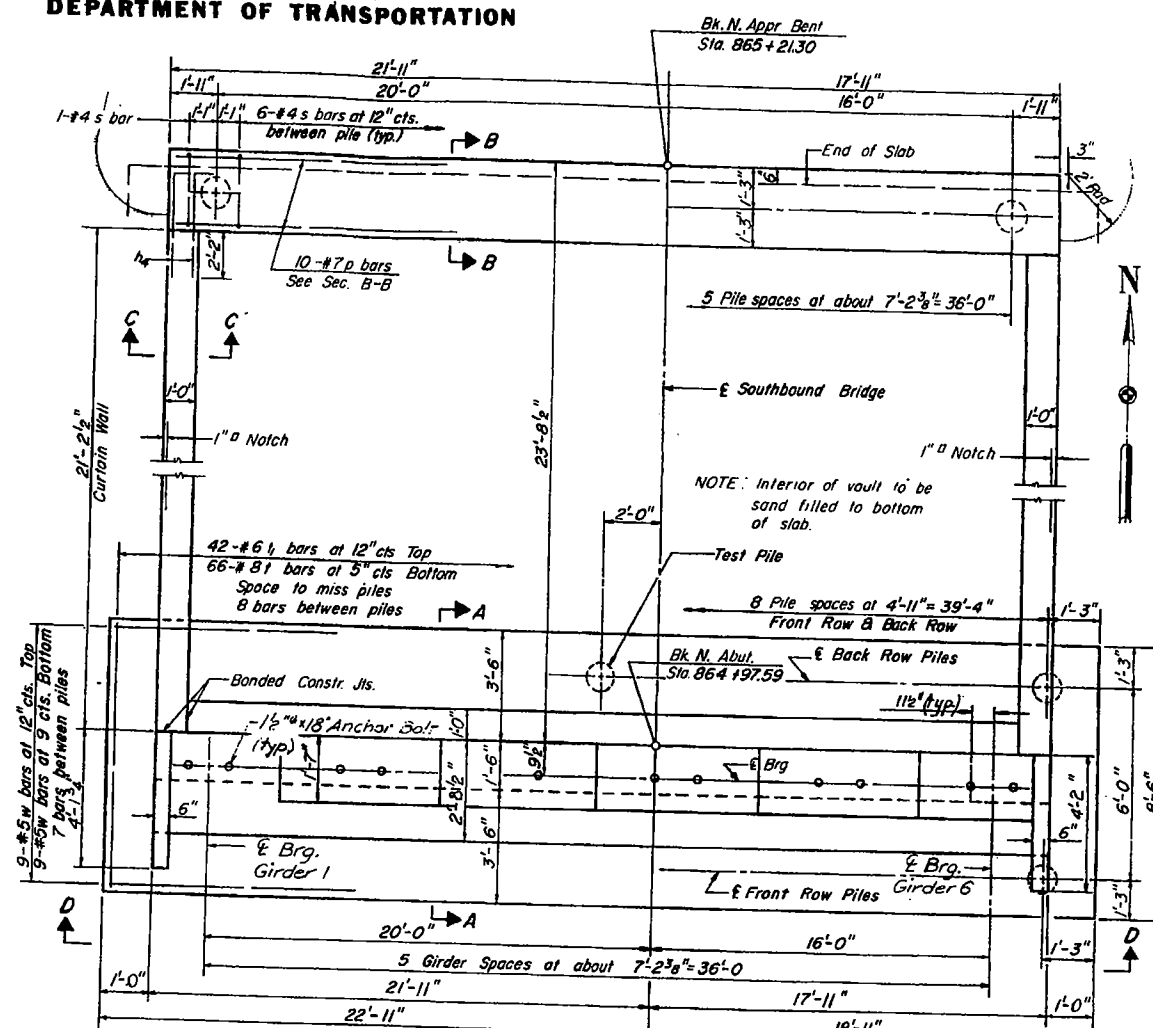
DESIGNED RBD  
CHECKED C.G.L.  
DRAWN JBS  
CHECKED C.G.L.



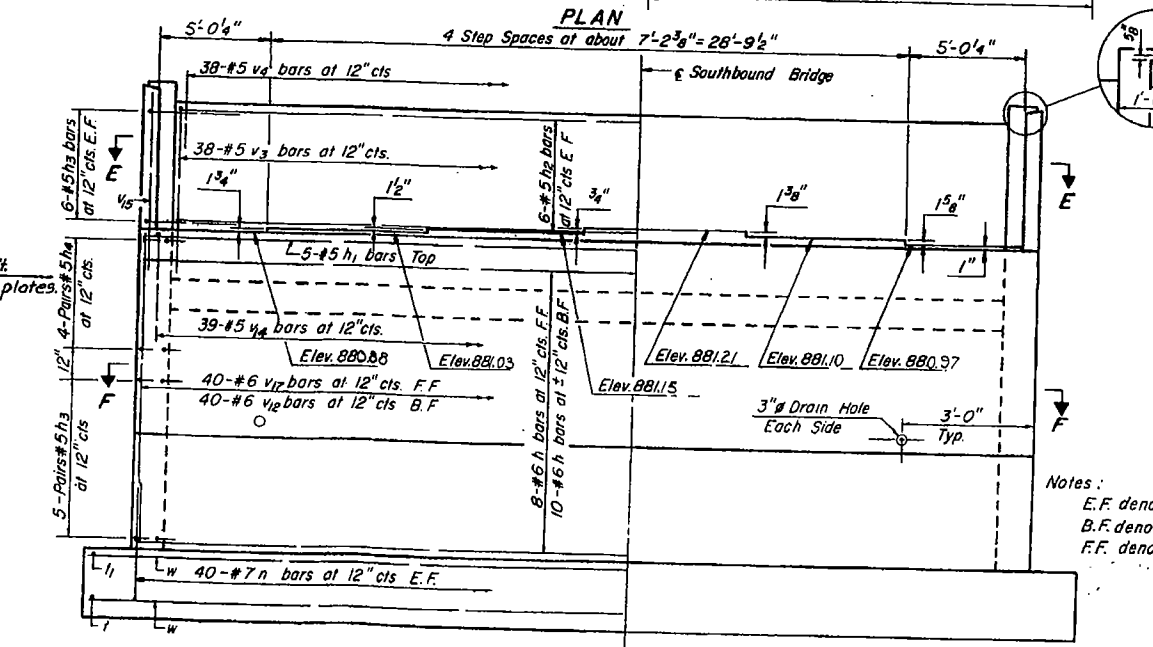
SECTION C-C SECTION B-B



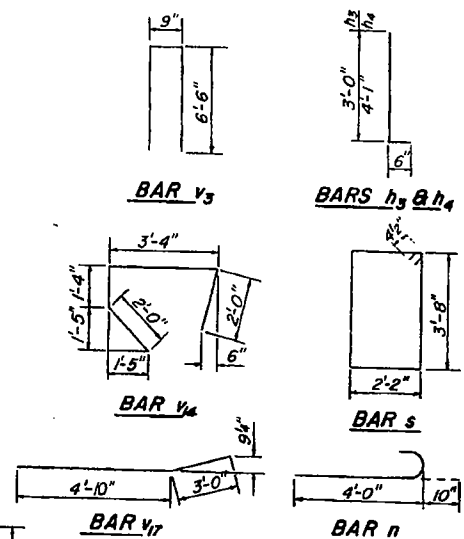
SECTION A-A



**PLAN**



VIEW D-D



**BILL OF MATERIAL**

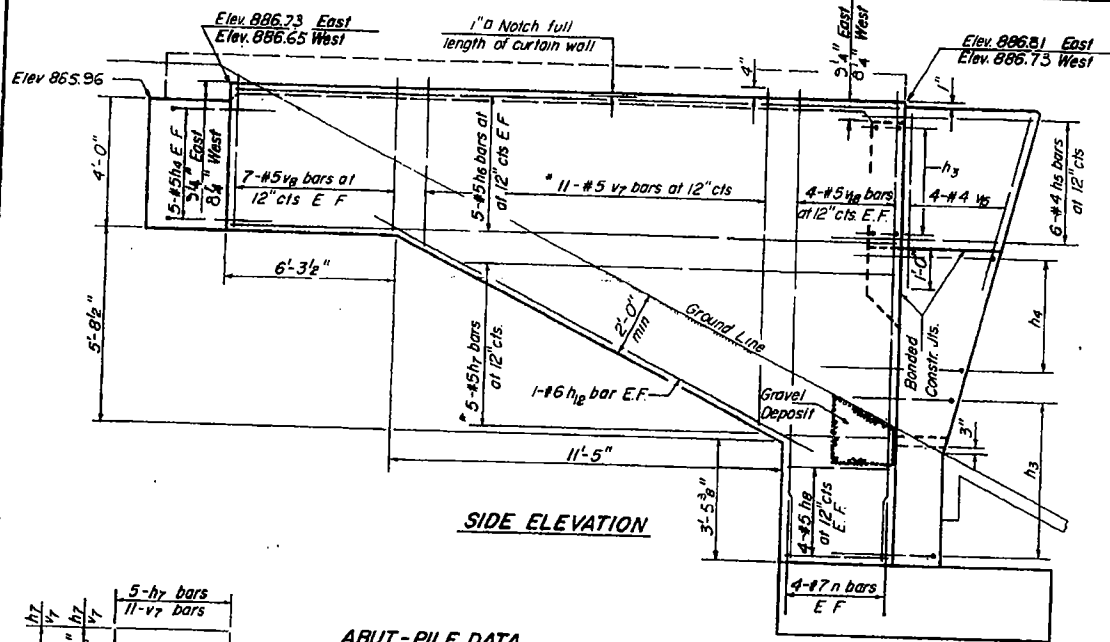
Bar	No	Size	Length	Shape
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h3	44	#5	3'-6"	L
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h5	12	#4	5'-3"	
h6	20	#5	20'-10"	
h7	10	#5	16'-7"	
h8	16	#5	3'-2"	
h9	4	#6	14'-9"	
n	96	#7	4'-10"	
p	10	#7	39'-6"	
s	32	#4	12'-5"	D
t	42	#6	8'-0"	
t	66	#8	8'-0"	
v3	38	#5	13'-9"	U
v4	118	#5	2'-3"	
v7	22	#5	16'-0"	
v8	28	#5	5'-0"	
v9	40	#5	7'-10"	
v10	39	#5	8'-8"	
v11	8	#4	6'-8"	
v12	40	#6	7'-10"	
v13	16	#5	14'-5"	
w	18	#5	4'-6"	
Reinforcement Bars		Lbs.	10430	
Class X Concrete		Cu. Yds	52.6	
Test Pile - Concrete		Each	1	
Concrete Piles		Lin. Ft.	913	
Sand Backfill		Cu. Yds.	121.0	

Notes:  
E.F. denotes each face.  
B.F. denotes back face.  
F.F. denotes front face.

**NORTH ABUTMENT  
SOUTHBOUND BRIDGE**  
F.A. 412 SECTION 103-2HB  
F.A. 412 OVER U.S. ROUTE 30  
LEE COUNTY  
STATION 864+30.00  
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. OF
F.A. 412	103-2HB	LEE	413	57	20
STA.	TO STA.				
FED. ROAD DIST. NO. 7	ILLINOIS		PROJECT		



**ABUT-PILE DATA**

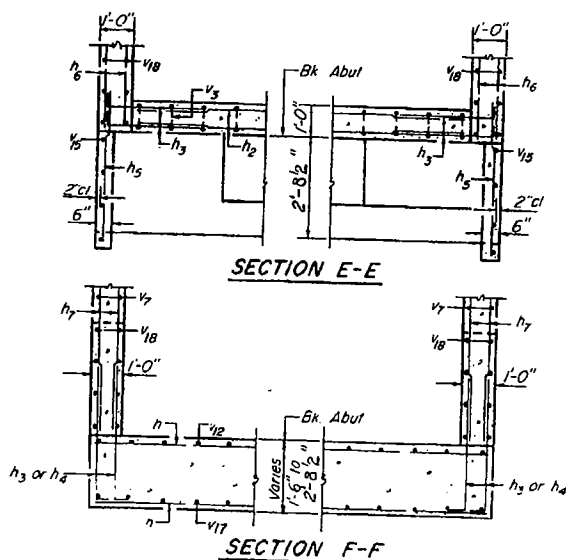
Type Concrete  
Capacity 45 TONS  
Est Length 41  
\*\*No. Req'd 18  
\*\*\*Including 1 test pile

**APPR. BENT-PILE DATA**

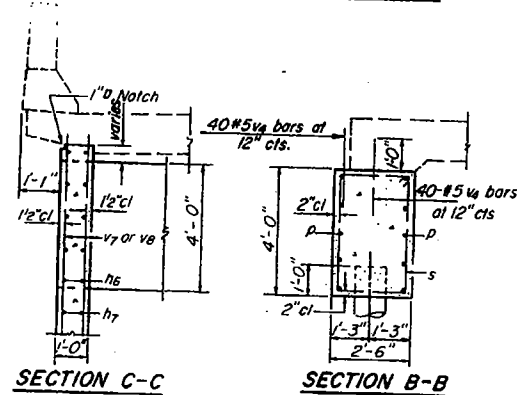
Type Concrete  
Capacity 30 TONS  
Est Length 36  
No Req'd 6

**FIELD CUTTING DIAGRAM**

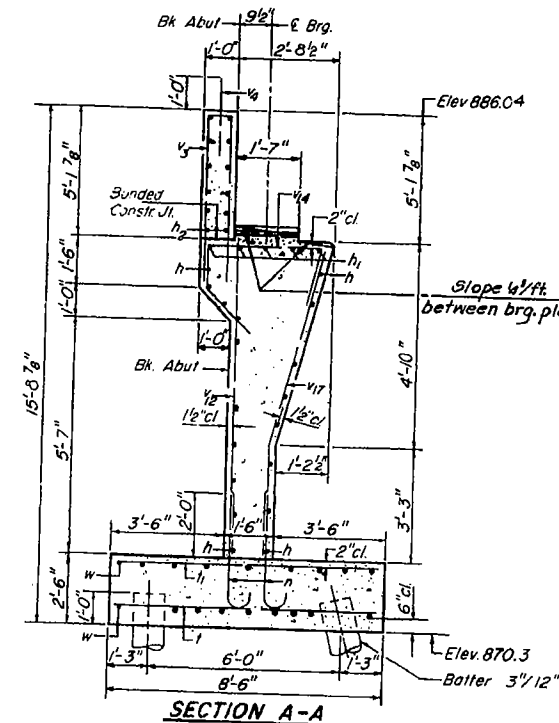
\*Order h7 & v7 bars full length Cut to fit as shown and use remainder of bars in other face.



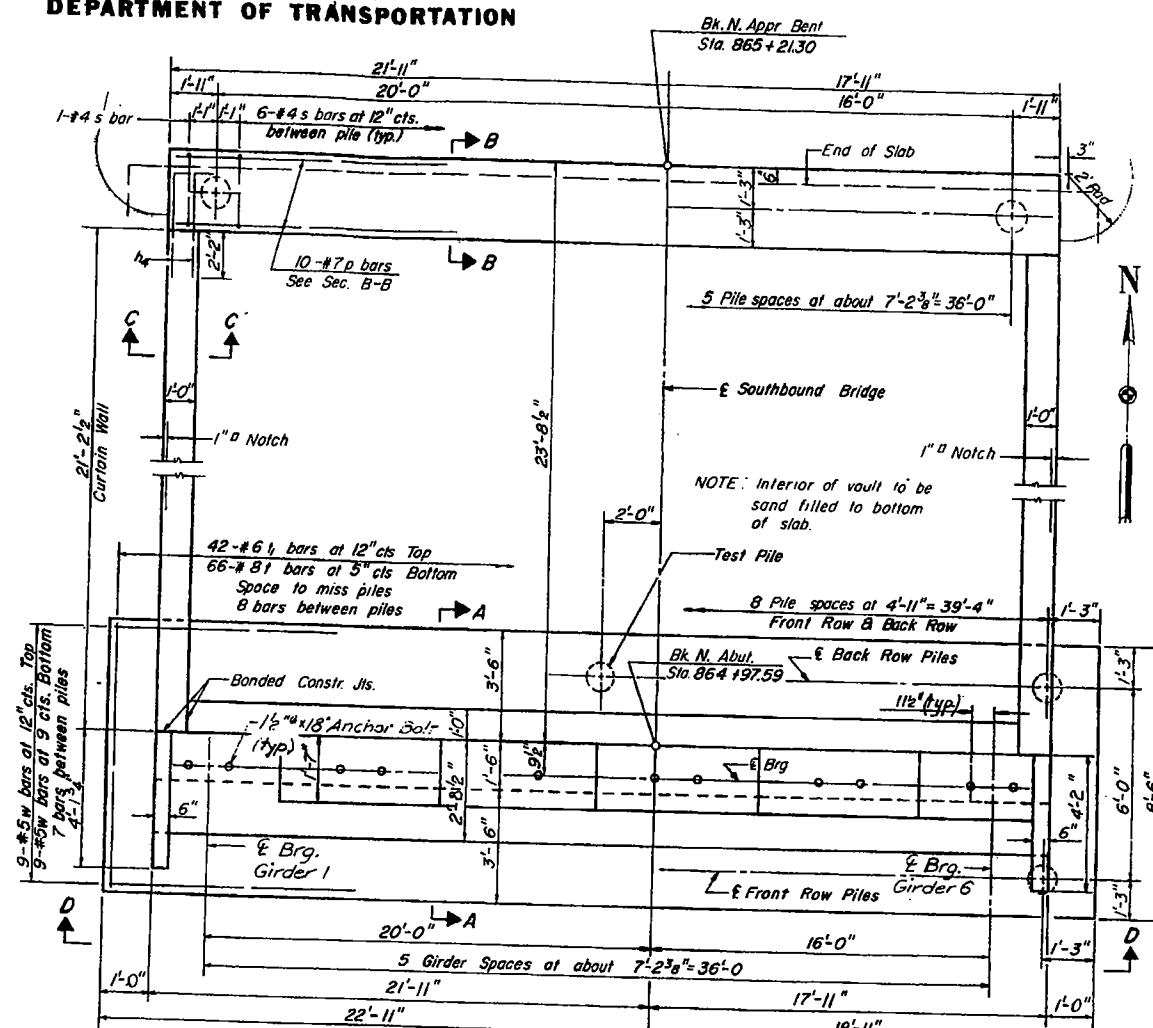
DESIGNED RBD  
CHECKED C.G.L.  
DRAWN JBS  
CHECKED C.G.L.



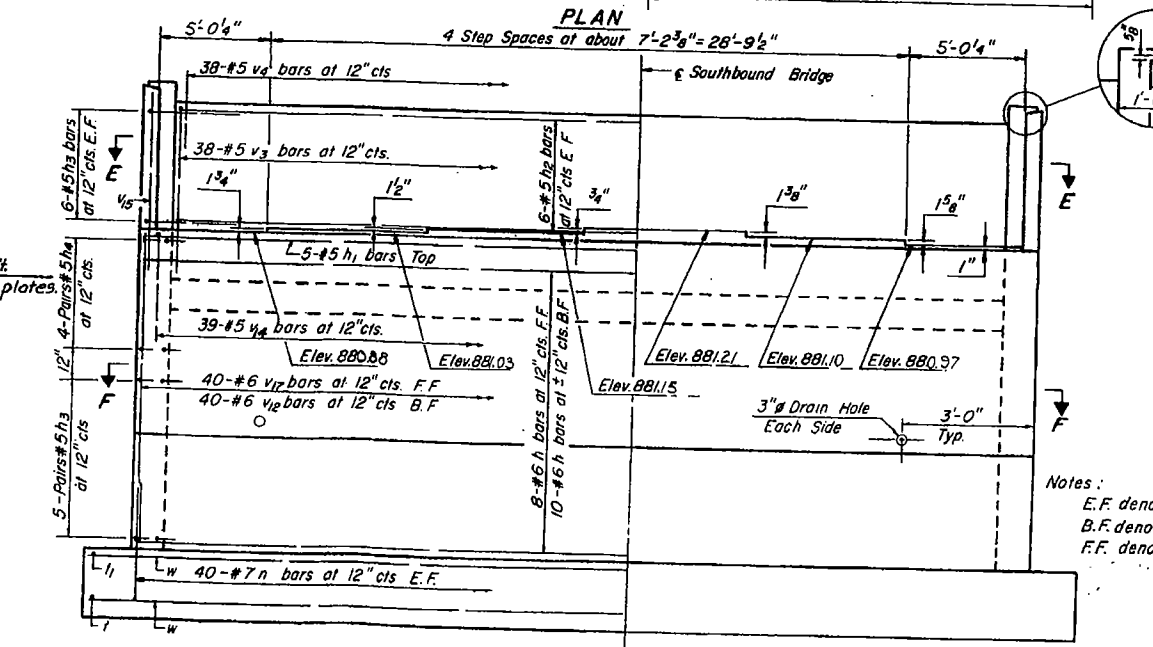
SECTION C-C SECTION B-B



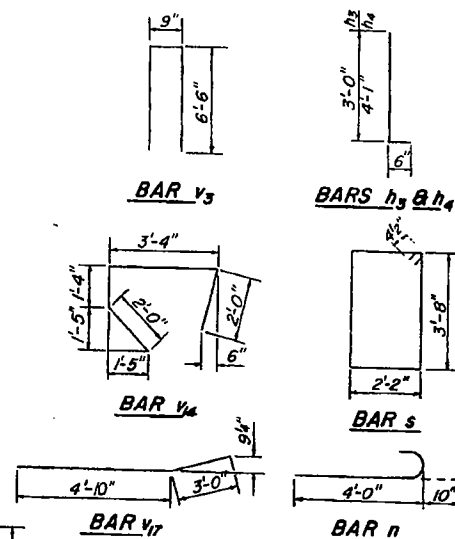
SECTION A-A



PLAN



VIEW D-D



**BILL OF MATERIAL**

Bar	No	Size	Length	Shape
h	18	#6	39'-6"	
h1	5	#5	39'-6"	
h2	12	#5	37'-6"	
h3	44	#5	3'-6"	L
h4	36	#5	4'-7"	L
h5	12	#4	5'-3"	
h6	20	#5	20'-10"	
h7	10	#5	16'-7"	
h8	16	#5	3'-2"	
h9	4	#6	14'-9"	
n	96	#7	4'-10"	
p	10	#7	39'-6"	
s	32	#4	12'-5"	
t	42	#6	8'-0"	
t	66	#8	8'-0"	
v3	38	#5	13'-9"	U
v4	118	#5	2'-3"	
v7	22	#5	16'-0"	
v8	28	#5	5'-0"	
v9	40	#5	7'-10"	
v10	39	#5	8'-8"	
v11	8	#4	6'-8"	
v12	40	#6	7'-10"	
v13	16	#5	14'-5"	
w	18	#5	4'-6"	
Reinforcement Bars		Lbs.	10430	
Class X Concrete		Cu. Yds	52.6	
Test Pile - Concrete		Each	1	
Concrete Piles		Lin. Ft.	913	
Sand Backfill		Cu. Yds.	121.0	

Notes:  
E.F. denotes each face.  
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