

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	*	**	18	1

- D-7 JOINT REPAIRS 2007-1
- FAYETTE

D-97-064-06

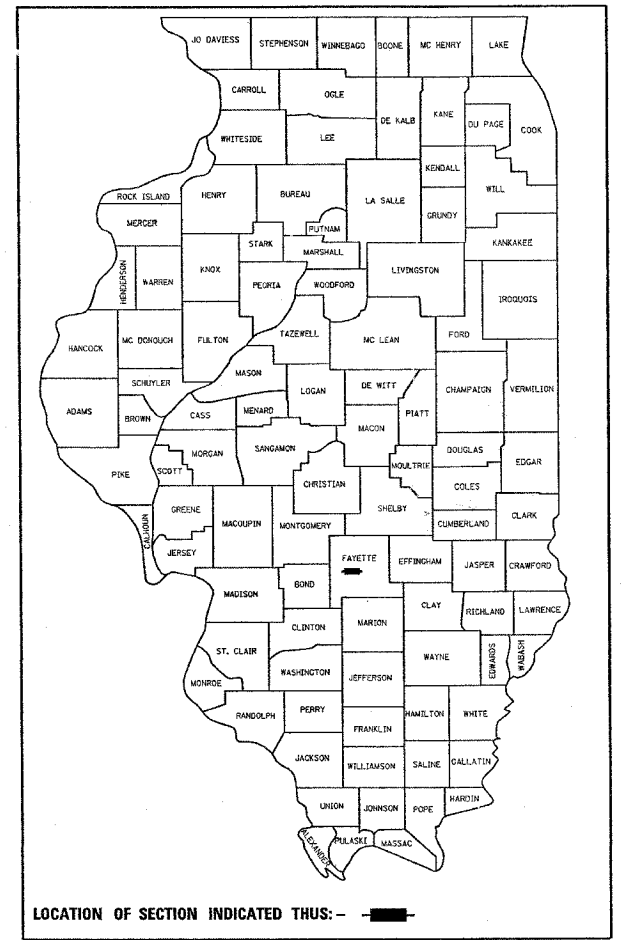
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

**PROPOSED
 HIGHWAY PLANS**

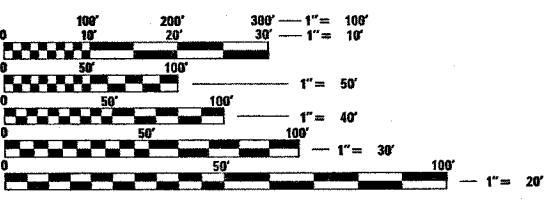
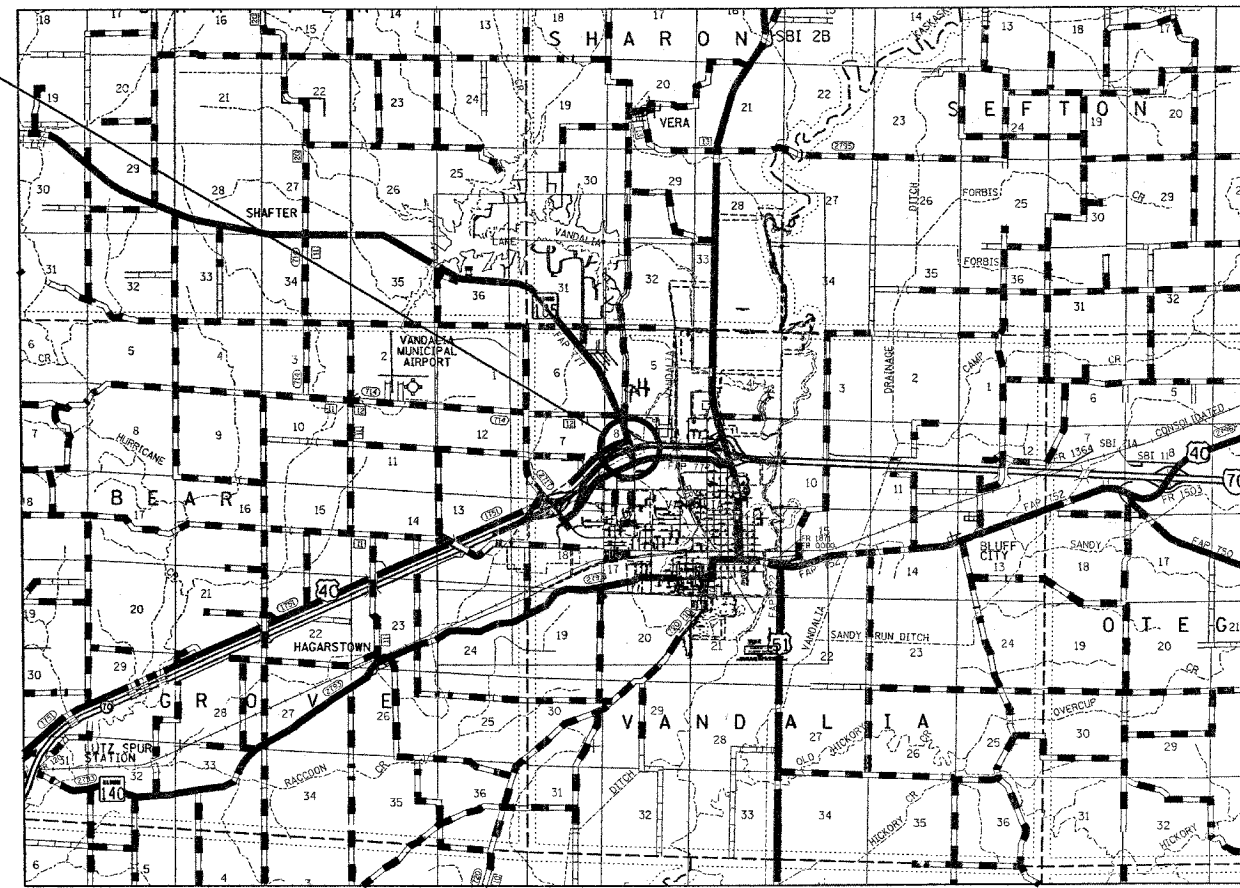
FAI ROUTE 70 (I-70)
 D-7 JOINT REPAIRS 2007-1
 FAYETTE COUNTY

C-97-110-06

SEE SHEET 2 FOR INDEX OF SHEETS



STRUCTURE NO. 026-0013
 BEGINING STA. 440+29.26
 THREE SPAN STRUCTURE
 W27X84 STEEL I BEAMS
 WITH REINFORCED CONCRETE DECK
 BK. TO BK. ABUTMENT = 125'-6" (ALONG CHORD)
 END STA. 460+32.00



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

CONTRACT NO. 74191

ADT (2006) = 20500

GROSS LENGTH = 2003.0 FT
 NET LENGTH = 2003.0 FT

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED March 29th 2007

Christina M. Reed
 DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER

May 11, 2007
Eve E. Hamel
 INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

May 11, 2007
Milton R. Searles
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS**

PROJECT ENGINEER : MIKE ALLEN
 SQUAD LEADER :
 DESIGNER : KEVIN BRADY
 TELEPHONE : 217/342-3951 EX 316 OR 343

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		**	18	2
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

- D-7 JOINT REPAIRS 2007-1
- FAYETTE

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS & GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	SCHEDULE OF QUANTITIES
5	EXISTING TYPICAL CROSS SECTION
6	STAGE I & II CONSTRUCTION TYPICAL
7-8	STAGE I TRAFFIC CONTROL
9-10	STAGE II TRAFFIC CONTROL
11	PLAN VIEW
12-13	EXPANSION JOINT & REBAR DETAILS
14-16	BEARING DETAILS
17	PREFORMED JOINT STRIP SEAL
18	BAR SPLICER ASSEMBLY

LIST OF HIGHWAY STANDARDS

000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-01	AREAS OF REINFORCEMENT REBARS
001006	DECIMAL OF AN INCH AND OF A FOOT
421001-01	BAR REINFORCEMENT FOR CRC PAVEMENT
701400-02	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
701402-05	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
701406-04	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
701426-02	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
702001-06	TRAFFIC CONTROL DEVICES
780001-01	TYPICAL PAVEMENT MARKINGS
781001-02	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2007; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" INDICATED ON THE CHECK SHEET, AND "THE SPECIAL PROVISIONS" INCLUDED IN THE PROPOSAL.

THE PROJECT IS LOCATED, APPROXIMATELY 1.0 MILES WEST OF THE (I-70) / (US 51) INTERCHANGE, JUST NORTH OF VANDALIA IN FAYETTE COUNTY. STRUCTURE # 026-0013 CROSSES (IL-185) IN AN EASTERLY DIRECTION.

THE WORK INCLUDED IN THIS PROJECT WILL CONSIST OF, REMOVING THE EXISTING PREFORMED JOINT SEAL EXPANSION JOINTS AND REPLACING THEM WITH PREFORMED JOINT STRIP SEAL EXPANSION JOINTS, REMOVING EXISTING ABUTMENT BEARINGS AND REPLACING THEM WITH ELASTOMERIC BEARING ASSEMBLIES, REMOVING PART OF THE EXISTING BITUMINOUS SHOULDER AND REPLACING IT WITH CONCRETE BASE COURSE WIDENING 10" AND ALL OTHER WORK NECESSARY TO COMPLETE THIS PROJECT.

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE 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 BASED UPON THE UNIT PRICE BID FOR THE WORK.

TEMPORARY CONCRETE BARRIERS, STATE OWNED, ARE LOCATED AT THE MAINTENANCE YARD IN FLORA. A MINIMUM OF 48 HOURS NOTICE WILL BE REQUIRED TO ARRANGE PICK UP AND RETURN OF THE BARRIERS. STATE MAINTENANCE FORCES WILL NOT LOAD OR UNLOAD THE BARRIERS. CONNECTING PINS, DOWEL BARS, STYROFOAM PADS AND DRIFT PINS USED WITH THE BARRIERS SHALL BE FURNISHED BY THE CONTRACTOR. THE COST OF NECESSARY CONNECTING PINS, DOWEL BARS AND STYROFOAM PADS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER FOOT (METER) FOR TEMPORARY CONCRETE BARRIER, STATE OWNED.

ALL ELEVATIONS SHOWN IN PLANS ARE BASED ON U.S.G.S. DATUM.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATION AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE J.U.L.I.E. NUMBER IS 800-892-0123. A MINIMUM OF 96 HOURS ADVANCE NOTICE IS REQUESTED.

PLOT DATE * DATE *
FILE NAME * FILE *
PLOT SCALE * SCALE *
USER NAME * USER *

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**INDEX OF SHEETS,
HIGHWAY STANDARDS
& GENERAL NOTES**
SN 026-0013

SCALE: VERT. DRAWN BY
 HORIZ. CHECKED BY
DATE

Rev.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	.	**	12	3
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

- D-7 JOINT REPAIRS 2007-1
- FAYETTE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE
CODE NO	ITEM	UNIT		100% STATE SFTY-2A
35400500	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 10"	SQ YD	391	391
44004250	PAVED SHOULDER REMOVAL	SQ YD	391	391
50102400	CONCRETE REMOVAL	CU YD	12.3	12.3
50300255	CONCRETE SUPERSTRUCTURE	CU YD	12.6	12.6
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1530	1530
50500715	JACK AND REMOVE EXISTING BEARINGS	EACH	14	14
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1700	1700
50800515	BAR SPLICERS	EACH	24	24
52000110	PREFORMED JOINT STRIP SEAL	FOOT	86	86
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	7	7
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	7	7
52100520	ANCHOR BOLTS, 1"	EACH	28	28
67100100	MOBILIZATION	L SUM	1	1
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1	1
70100805	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	L SUM	1	1
70300625	TEMPORARY PAINT PAVEMENT MARKING LINE 4"	FOOT	5810	5810
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1937	1937
70400500	TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	400	400
70400600	RELOCATE TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	320	320
*78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	2887	2887
*78100300	REPLACEMENT REFLECTOR	EACH	22	22
78300100	PAVEMENT MARKING REMOVAL	SQ FT	963	963
X0322050	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	EACH	22	22
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	1
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	1

*SPECIALTY ITEMS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: VERT. DATE: HORIZ.

DRAWN BY: CHECKED BY:

PLOT DATE: DATE: FILE SCALE: USER NAME: NUMBER:

Rev.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	*	**	15	4
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

- * D-7 JOINT REPAIRS 2007-1
- ** FAYETTE

LOCATION		DISCRIPTION PAVEMENT MARKING STRIPE	WORK ZONE PAVEMENT MARKING REMOVAL SQ FT	PAVEMENT MARKING REMOVAL SQ FT
STATION / OFFSET	TO STATION / OFFSET			
STAGE I				
440+29.44 / RT 56.00'	450+29.44 / RT 40.50'	SOLID WHITE	329.9	
450+29.44 / RT 40.50'	455+29.44 / RT 40.50'	SOLID WHITE	165.2	
455+29.44 / RT 40.50'	457+31.33 / RT 40.50'	SOLID WHITE	66.7	
448+01.00 / RT 32.00'	450+29.44 / RT 28.50'	SOLID YELLOW	75.7	
450+29.44 / RT 28.50'	455+29.44 / RT 28.50'	SOLID YELLOW	165.6	
455+29.44 / RT 28.50'	457+31.33 / RT 28.50'	SOLID YELLOW	66.7	
457+31.33 / RT 28.50'	460+32.00 / RT 32.00'	SOLID YELLOW	99.6	
440+29.44	457+31.33	4" SKIP DASH		141.8
448+01.00	460+32.00	4" SOLID		410.3
STAGE II				
440+29.26 / RT 32.00'	450+29.26 / RT 47.50'	SOLID YELLOW	330.5	
450+29.26 / RT 47.50'	455+29.26 / RT 47.50'	SOLID YELLOW	164.9	
455+29.26 / RT 47.50'	457+31.33 / RT 47.50'	SOLID YELLOW	66.7	
448+01.00 / RT 56.00'	450+29.26 / RT 59.50'	SOLID WHITE	75.1	
450+29.26 / RT 59.50'	455+29.26 / RT 59.50'	SOLID WHITE	164.5	
455+29.26 / RT 59.50'	457+31.33 / RT 59.50'	SOLID WHITE	66.5	
457+31.33 / RT 59.50'	460+32.00 / RT 56.00'	SOLID WHITE	99.0	
448+01.00	460+32.00	4" SOLID		410.3
TOTAL =			1936.6	962.4

LOCATION		PAVED SHOULDER REMOVAL SQ YD	PCC BASE COURSE WIDENING 10" SQ YD
STATION / OFFSET	TO STATION / OFFSET		
STAGE I			
448+01.00 / RT 28.00'	450+08.00 / RT 28.00'		
448+01.00 / RT 32.00'	450+08.00 / RT 32.00'	90.9	90.9
457+94.00 / RT 28.00'	460+32.00 / RT 28.00'		
457+94.00 / RT 32.00'	460+32.00 / RT 32.00'	105.1	105.1
STAGE II			
448+01.00 / RT 56.00'	450+06.00 / RT 56.00'		
448+01.00 / RT 60.00'	450+06.00 / RT 60.00'	89.9	89.9
457+92.00 / RT 56.00'	460+32.00 / RT 56.00'		
457+92.00 / RT 60.00'	460+32.00 / RT 60.00'	105.3	105.3
TOTAL =		391.2	391.2

LOCATION		RRPM REFLECTOR REMOVAL	RRPM REFLECTOR REPLACEMENT
STATION	TO STATION		
440+29.44	457+31.33	EACH	EACH
440+29.44	457+31.33	22.0	22.0
TOTAL =		22.0	22.0

	CONCRETE REMOVAL CU. YD.	PERFORMED JOINT STRIP SEAL FOOT	CONCRETE SUPERSTRUCTURE CU. YD.	REINFORCEMENT BARS, EPOXY COATED POUND	BAR SPLICERS EACH	ELASTOMERIC BEARING ASSEMBLY, TYPE I EACH	ELASTOMERIC BEARING ASSEMBLY, TYPE II EACH	FURNISHING AND ERECTING STRUCTURAL STEEL POUND	JACK AND REMOVE EXISTING BEARINGS EACH	ANCHOR BOLTS, 1" EACH
STAGE I	4.7	42.8	4.9	809	12.0	3.0	3.0	656.0	6.0	12.0
STAGE II	7.6	42.8	7.7	887	12.0	4.0	4.0	874.0	8.0	16.0
TOTAL =	12.3	86.0	12.6	1700.0	24.0	14.0	14.0	1530.0	14.0	28.0

LOCATION		DISCRIPTION PAVEMENT MARKING STRIPE	TEMPORARY PAINT PAVEMENT MARKING - LINE 4"	PAINT PAVEMENT MARKING - LINE 4"
STATION / OFFSET	TO STATION / OFFSET			
STAGE I				
440+29.44 / RT 56.00'	450+29.44 / RT 40.50'	SOLID WHITE	FOOT	FOOT
450+29.44 / RT 40.50'	455+29.44 / RT 40.50'	SOLID WHITE	989.6	
455+29.44 / RT 40.50'	457+31.33 / RT 40.50'	SOLID WHITE	495.6	
448+01.00 / RT 32.00'	450+29.44 / RT 28.50'	SOLID WHITE	200.1	
450+29.44 / RT 28.50'	455+29.44 / RT 28.50'	SOLID YELLOW	227.0	
455+29.44 / RT 28.50'	457+31.33 / RT 28.50'	SOLID YELLOW	496.8	
457+31.33 / RT 28.50'	460+32.00 / RT 32.00'	SOLID YELLOW	200.6	
457+31.33 / RT 28.50'	460+32.00 / RT 32.00'	SOLID YELLOW	298.7	
STAGE II				
440+29.26 / RT 32.00'	450+29.26 / RT 47.50'	SOLID YELLOW	991.5	
450+29.26 / RT 47.50'	455+29.26 / RT 47.50'	SOLID YELLOW	494.8	
455+29.26 / RT 47.50'	457+31.33 / RT 47.50'	SOLID YELLOW	200.0	
448+01.00 / RT 56.00'	450+29.26 / RT 59.50'	SOLID WHITE	225.2	
450+29.26 / RT 59.50'	455+29.26 / RT 59.50'	SOLID WHITE	493.6	
455+29.26 / RT 59.50'	457+31.33 / RT 59.50'	SOLID WHITE	199.4	
457+31.33 / RT 59.50'	460+32.00 / RT 56.00'	SOLID WHITE	296.9	
448+01.00 / RT 32.00'	460+32.00 / RT 32.00'	SOLID YELLOW		1231.0
440+29.44 / RT 44.00'	457+31.33 / RT 44.00'	SKIP DASH WHITE		425.5
448+01.00 / RT 56.00'	460+32.00 / RT 56.00'	SOLID WHITE		1231.0
TOTAL =			5809.8	2887.5

REVISIONS	
NAME	DATE

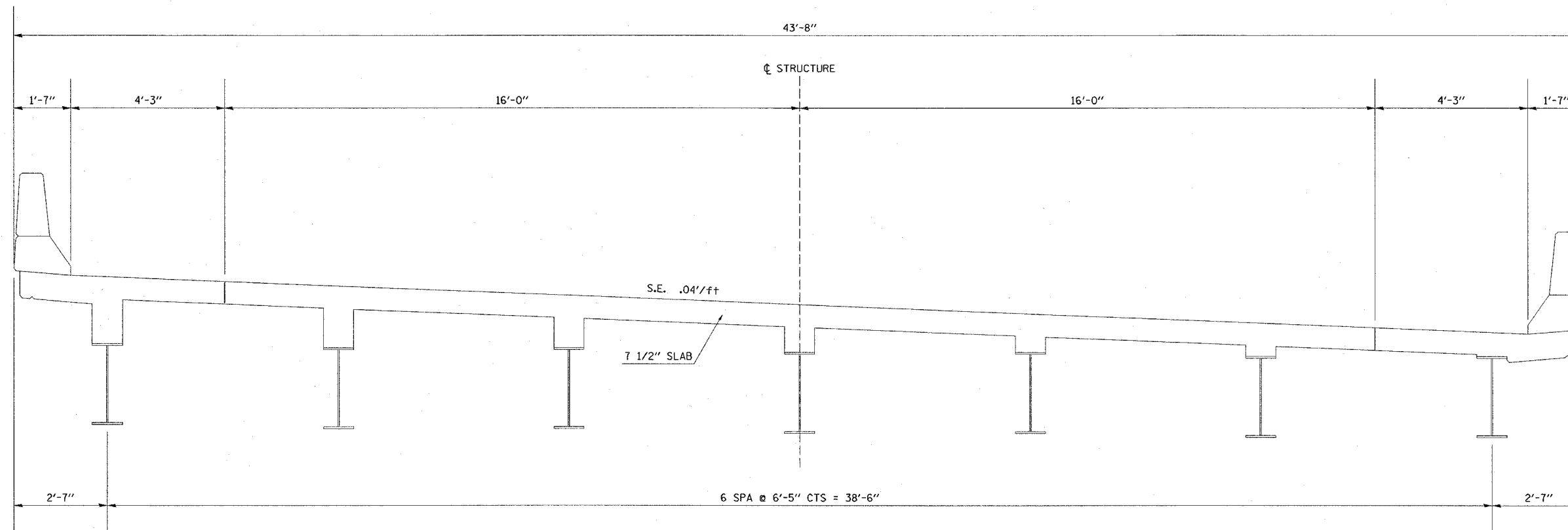
ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF QUANTITIES
SN 026-0013
 SCALE: VERT. DATE
 HORIZ. DRAWN BY
 CHECKED BY

DATE
 FILE NAME
 PLOT SCALE
 USER

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70			18	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

- D-7 JOINT REPAIRS 2007-1
- FAYETTE

EXISTING TYPICAL CROSS SECTION SN 026-0013



(LOOKING EAST)

PLOT DATE = #DATE#
 FILE NAME = #FILE#
 PLOT SCALE = #SCALE#
 USER NAME = #USER#

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**EXISTING TYPICAL CROSS SECTION
SN 026-0013**

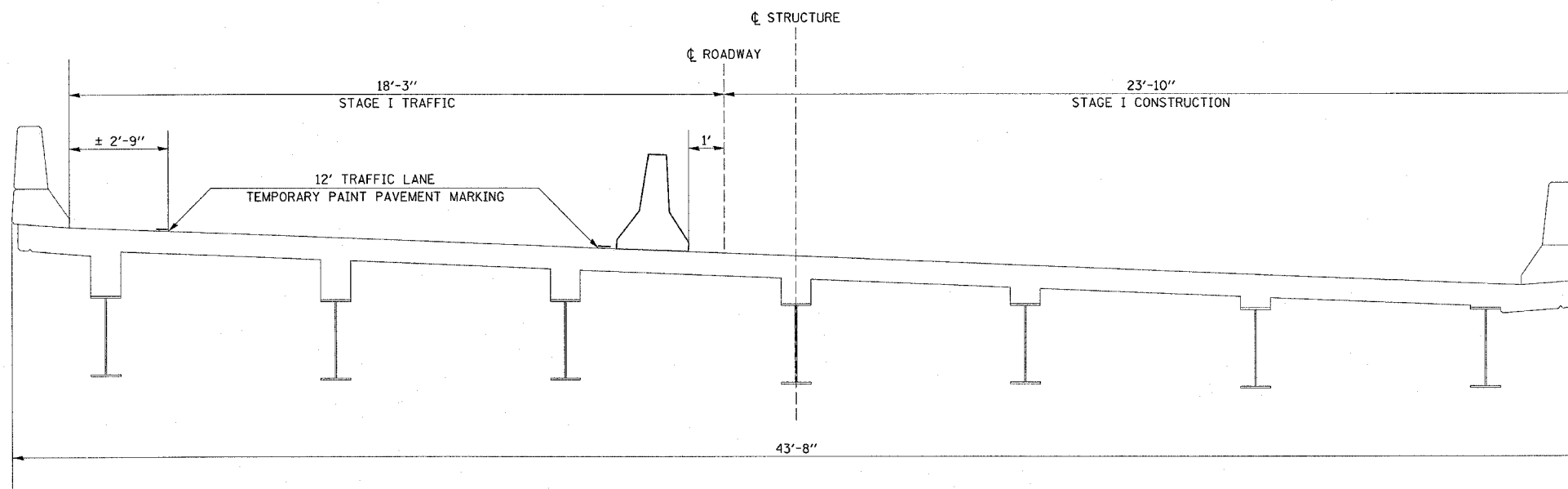
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 HORIZ. _____

DATE _____ DRAWN BY _____
 CHECKED BY _____

F.A.T. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

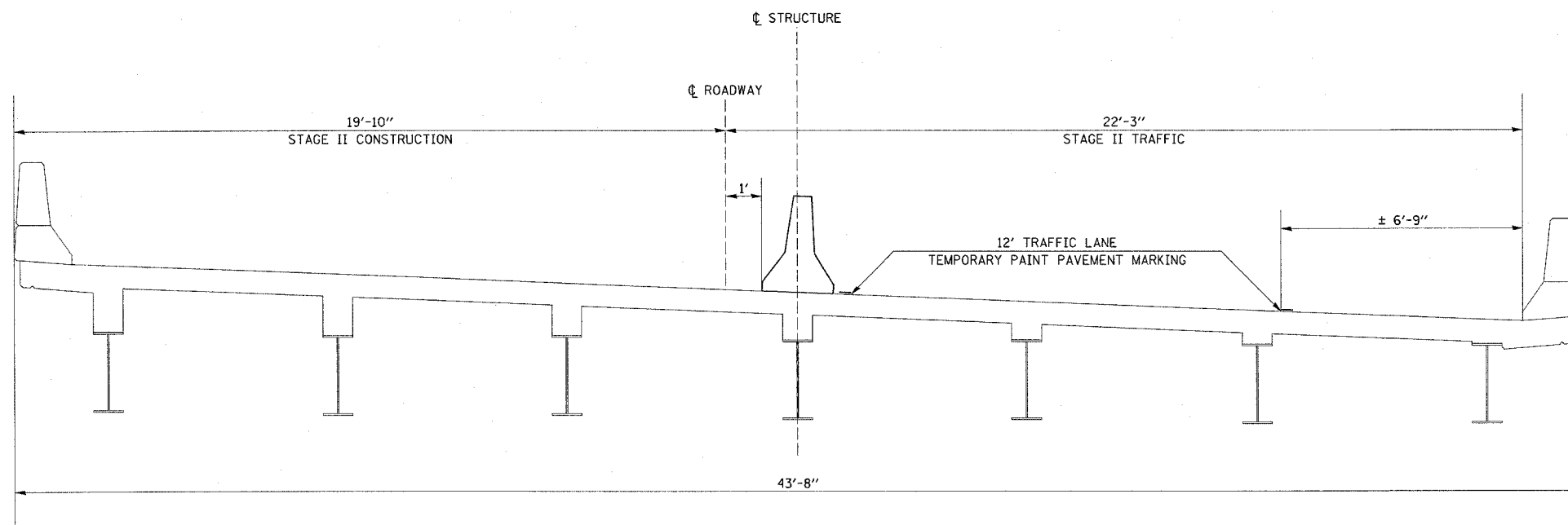
- D-7 JOINT REPAIRS 2007-1
- FAYETTE

STAGE I CONSTRUCTION



(LOOKING EAST)

STAGE II CONSTRUCTION



(LOOKING EAST)

PLOT DATE = #DATE#
 FILE NAME = #FILE#
 PLOT SCALE = #SCALE#
 USER NAME = #USER#

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGING
SN 026-0013

SCALE: VERT.
 DATE: HORIZ.

DRAWN BY
 CHECKED BY

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	*	**	18	7
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

- D-7 JOINT REPAIRS 2007-1
- ** FAYETTE



TRAFFIC CONTROL STAGE I STRUCTURE NUMBER 026-0013

78300100 PAVEMENT MARKING REMOVAL

STATION	TO	STATION	TYPE	FEET	SQ FT
EB LANE					
440+29.44		457+31.33	4" SKIP DASH	425.5	141.8
448+01.00		460+32.00	4" SOLID	1231.0	410.3
TOTAL =				552.1	

35400500 PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 10"

STATION / OFFSET	TO	STATION / OFFSET	SQ YD
EB LANE			
448+01.00 / RT 28.00'		450+08.00 / RT 28.00'	
448+01.00 / RT 32.00'		450+08.00 / RT 32.00'	90.9
457+94.00 / RT 28.00'		460+32.00 / RT 28.00'	
457+94.00 / RT 32.00'		460+32.00 / RT 32.00'	105.1
TOTAL =			196.0

X0322050 RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL

STATION	TO	STATION	EACH
440+29.44		457+31.33	22.0
TOTAL =			22.0

70300625 TEMPORARY PAINT PAVEMENT MARKING LINE 4"

STATION / OFFSET	TO	STATION / OFFSET	STRIPE	FEET
EB LANE				
440+29.44 / RT 56.00'		450+29.44 / RT 40.50'	SOLID WHITE	989.6
450+29.44 / RT 40.50'		455+29.44 / RT 40.50'	SOLID WHITE	495.6
455+29.44 / RT 40.50'		457+31.33 / RT 40.50'	SOLID WHITE	200.1
448+01.00 / RT 32.00'		450+29.44 / RT 28.50'	SOLID YELLOW	227.0
450+29.44 / RT 28.50'		455+29.44 / RT 28.50'	SOLID YELLOW	496.8
455+29.44 / RT 28.50'		457+31.33 / RT 28.50'	SOLID YELLOW	200.6
457+31.33 / RT 28.50'		460+32.00 / RT 32.00'	SOLID YELLOW	298.7
TOTAL =				2908.4

44004250 PAVED SHOULDER REMOVAL

STATION / OFFSET	TO	STATION / OFFSET	SQ YD
EB LANE			
448+01.00 / RT 28.00'		450+08.00 / RT 28.00'	
448+01.00 / RT 32.00'		450+08.00 / RT 32.00'	90.9
457+94.00 / RT 28.00'		460+32.00 / RT 28.00'	
457+94.00 / RT 32.00'		460+32.00 / RT 32.00'	105.1
TOTAL =			196.0

70301000 WORK ZONE PAVEMENT MARKING REMOVAL

STATION / OFFSET	TO	STATION / OFFSET	STRIPE	FEET	SQ FT
EB LANE					
440+29.44 / RT 56.00'		450+29.44 / RT 40.50'	SOLID WHITE	989.6	329.9
450+29.44 / RT 40.50'		455+29.44 / RT 40.50'	SOLID WHITE	495.6	165.2
455+29.44 / RT 40.50'		457+31.33 / RT 40.50'	SOLID WHITE	200.1	66.7
448+01.00 / RT 32.00'		450+29.44 / RT 28.50'	SOLID YELLOW	227.0	75.7
450+29.44 / RT 28.50'		455+29.44 / RT 28.50'	SOLID YELLOW	496.8	165.6
455+29.44 / RT 28.50'		457+31.33 / RT 28.50'	SOLID YELLOW	200.6	66.7
457+31.33 / RT 28.50'		460+32.00 / RT 32.00'	SOLID YELLOW	298.7	99.6
TOTAL =					969.4

NOTES:

TRAFFIC DETAILS NOT SHOWN ARE TO CONFORM WITH STANDARD 701400, 701402, AND 701406.

MESSAGE BOARD MAY BE ADJUSTED TO MEET FIELD CONDITIONS.

RESIDENT ENGINEER AND TRAFFIC CONTROL SUPERVISOR WILL PROVIDE THE APPROPRIATE MESSAGE FOR THE CHANGEABLE MESSAGE SIGN.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

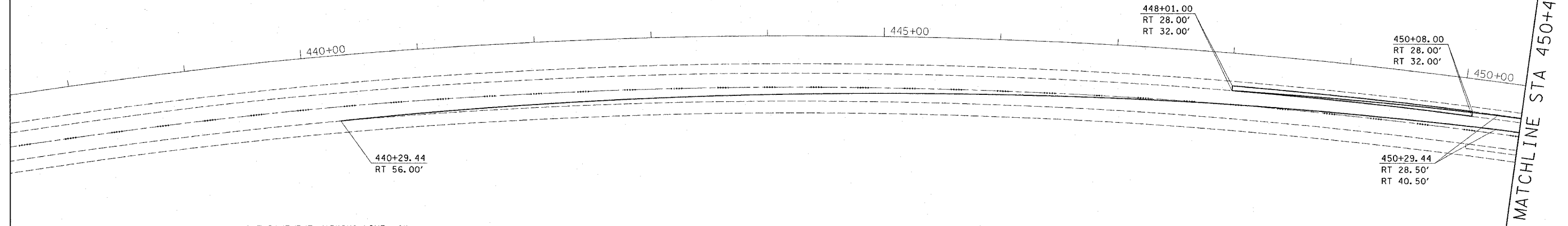
TRAFFIC CONTROL STAGE I SN 026-0013

SCALE: VERT. _____
HORIZ. _____

DATE _____ DRAWN BY _____
CHECKED BY _____

PLOT DATE = 08/15/07
 FILE NAME = 026-0013
 PLOT SCALE = 1/8"=1'-0"
 USER NAME = JUSER

MATCHLINE STA 450+49.32



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		**	18	8
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



- D-7 JOINT REPAIRS 2007-1
- ** FAYETTE

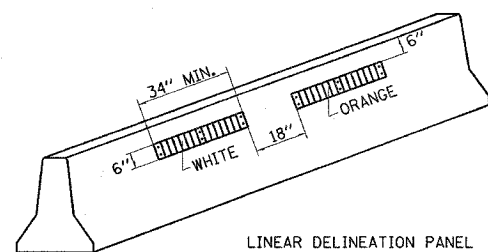
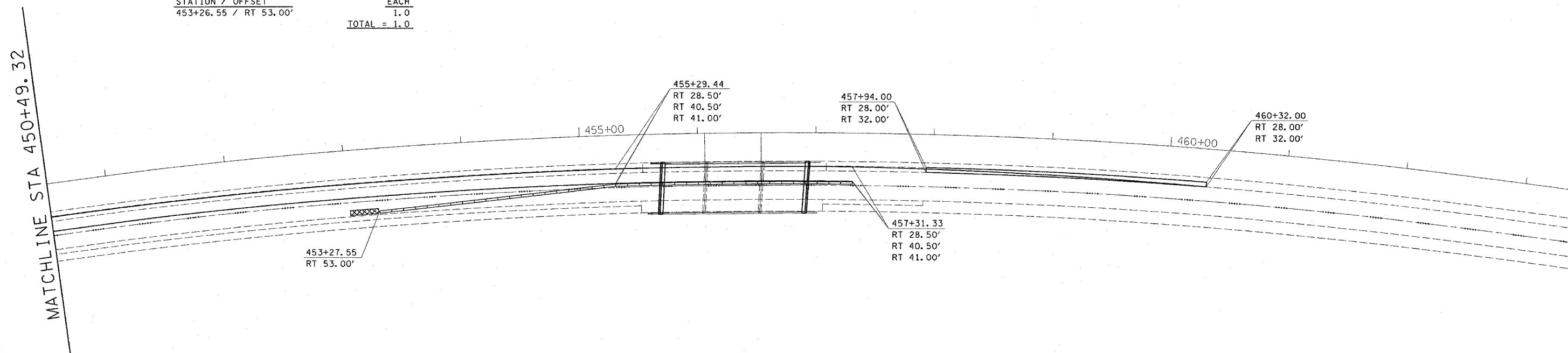
TRAFFIC CONTROL STAGE I STRUCTURE NUMBER 026-0013

70400100 TEMPORARY CONCRETE BARRIER

STATION / OFFSET	TO	STATION / OFFSET	FOOT
453+27.55 / RT 53.00'		455+29.44 / RT 41.00'	200.0
455+29.44 / RT 41.00'		457+31.33 / RT 41.00'	200.0
TOTAL =			400.0

Z0030250 IMPACT ATTENUATORS, TEMPORARY
(NON-REDIRECTIVE), TEST LEVEL 3

STATION / OFFSET	EACH
453+26.55 / RT 53.00'	1.0
TOTAL =	



NOTES:

TRAFFIC DETAILS NOT SHOWN ARE TO CONFORM WITH STANDARD 701400, 701402, AND 701406.

MESSAGE BOARD MAY BE ADJUSTED TO MEET FIELD CONDITIONS.

RESIDENT ENGINEER AND TRAFFIC CONTROL SUPERVISOR WILL PROVIDE THE APPROPRIATE MESSAGE FOR THE CHANGEABLE MESSAGE SIGN.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL
STAGE I
SN 026-0013**

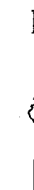
SCALE: VERT. _____
HORIZ. _____

DATE _____ DRAWN BY _____
CHECKED BY _____

PLOT DATE = 08/15/07
 FILE NAME = 026-0013
 PLOT SCALE = 1/8"=1'-0"
 USER NAME = MUSER

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	*	**	18	9
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

- D-7 JOINT REPAIRS 2007-1
- ** FAYETTE



TRAFFIC CONTROL STAGE II STRUCTURE NUMBER 026-0013

78300100 PAVEMENT MARKING REMOVAL

STATION	TO	STATION	TYPE	FEET	SQ FT
448+01.00		460+32.00	4" SOLID	1231.0	410.3
				TOTAL =	410.3

35400500 PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 10"

STATION / OFFSET	TO	STATION / OFFSET	SQ YD
448+01.00 / RT 56.00'		450+06.00 / RT 56.00'	
448+01.00 / RT 60.00'		450+06.00 / RT 60.00'	89.9
457+92.00 / RT 56.00'		460+32.00 / RT 56.00'	
457+92.00 / RT 60.00'		460+32.00 / RT 60.00'	105.3
TOTAL			195.2

70300625 TEMPORARY PAINT PAVEMENT MARKING LINE 4"

STATION / OFFSET	TO	STATION / OFFSET	STRIPE	FEET
440+29.26 / RT 32.00'		450+29.26 / RT 47.50'	SOLID YELLOW	991.5
450+29.26 / RT 47.50'		455+29.26 / RT 47.50'	SOLID YELLOW	494.8
455+29.26 / RT 47.50'		457+31.33 / RT 47.50'	SOLID YELLOW	200.0
448+01.00 / RT 56.00'		450+29.26 / RT 59.50'	SOLID WHITE	225.2
450+29.26 / RT 59.50'		455+29.26 / RT 59.50'	SOLID WHITE	493.6
455+29.26 / RT 59.50'		457+31.33 / RT 59.50'	SOLID WHITE	199.4
457+31.33 / RT 59.50'		460+32.00 / RT 56.00'	SOLID WHITE	296.9
TOTAL =				2901.4

44004250 PAVED SHOULDER REMOVAL

STATION / OFFSET	TO	STATION / OFFSET	SQ YD
448+01.00 / RT 56.00'		450+06.00 / RT 56.00'	
448+01.00 / RT 60.00'		450+06.00 / RT 60.00'	89.9
457+92.00 / RT 56.00'		460+32.00 / RT 56.00'	
457+92.00 / RT 60.00'		460+32.00 / RT 60.00'	105.3
TOTAL			195.2

70301000 WORK ZONE PAVEMENT MARKING REMOVAL

STATION / OFFSET	TO	STATION / OFFSET	STRIPE	FEET	SQ FT
440+29.26 / RT 32.00'		450+29.26 / RT 47.50'	SOLID YELLOW	991.5	330.5
450+29.26 / RT 47.50'		455+29.26 / RT 47.50'	SOLID YELLOW	494.8	164.9
455+29.26 / RT 47.50'		457+31.33 / RT 47.50'	SOLID YELLOW	200.0	66.7
448+01.00 / RT 56.00'		450+29.26 / RT 59.50'	SOLID WHITE	225.2	75.1
450+29.26 / RT 59.50'		455+29.26 / RT 59.50'	SOLID WHITE	493.6	164.5
455+29.26 / RT 59.50'		457+31.33 / RT 59.50'	SOLID WHITE	199.4	66.5
457+31.33 / RT 59.50'		460+32.00 / RT 56.00'	SOLID WHITE	296.9	99.0
TOTAL =				967.2	

NOTES:

TRAFFIC DETAILS NOT SHOWN ARE TO CONFORM WITH STANDARD 701400, 701402, AND 701406.

MESSAGE BOARD MAY BE ADJUSTED TO MEET FIELD CONDITIONS.

RESIDENT ENGINEER AND TRAFFIC CONTROL SUPERVISOR WILL PROVIDE THE APPROPRIATE MESSAGE FOR THE CHANGEABLE MESSAGE SIGN.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

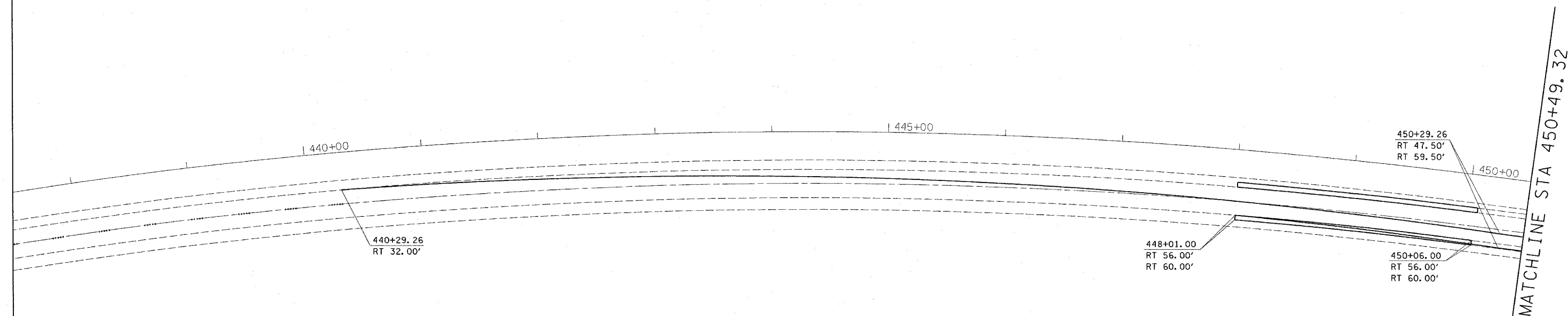
**TRAFFIC CONTROL
STAGE II
SN 026-0013**

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE * DATE *
 FILE NAME * FILEL *
 USER * USER *
 USER * USER *

MATCHLINE STA 450+49.32



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	*	**	10	10
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



- D-7 JOINT REPAIRS 2007-1
- FAYETTE

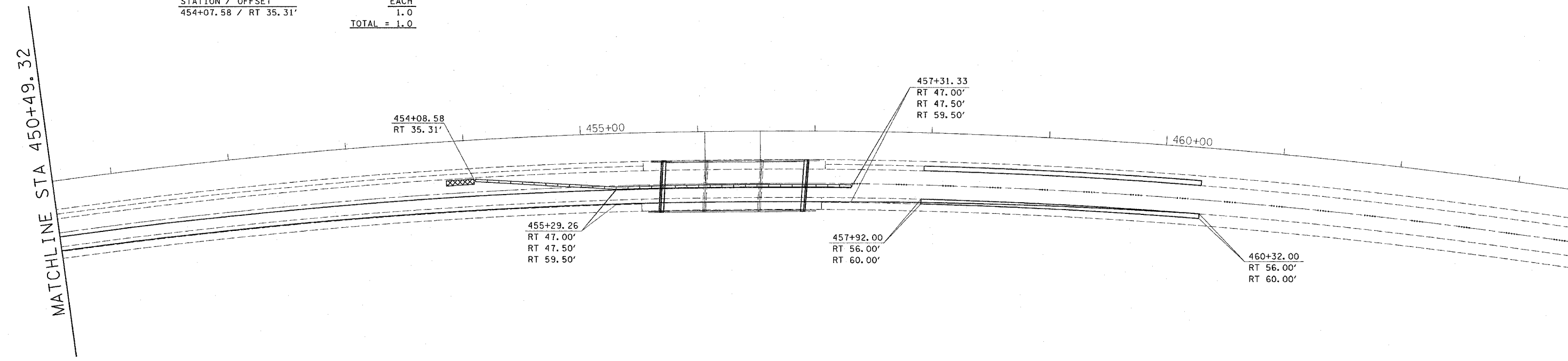
TRAFFIC CONTROL STAGE II STRUCTURE NUMBER 026-0013

70400200 RELOCATE TEMPORARY CONCRETE BARRIER

STATION / OFFSET	TO	STATION / OFFSET	FOOT
<u>EB LANE</u>			
454+08.58 / RT 35.31'		455+29.26 / RT 47.00'	120.0
455+29.26 / RT 47.00'		457+31.33 / RT 47.00'	200.0
TOTAL =			320.0

Z0030350 IMPACT ATTENUATORS, RELOCATE
(NON-REDIRECTIVE), TEST LEVEL 3

STATION / OFFSET	EACH
454+07.58 / RT 35.31'	1.0
TOTAL =	
1.0	



NOTES:

TRAFFIC DETAILS NOT SHOWN ARE TO CONFORM WITH STANDARD 701400, 701402, AND 701406.

MESSAGE BOARD MAY BE ADJUSTED TO MEET FIELD CONDITIONS.

RESIDENT ENGINEER AND TRAFFIC CONTROL SUPERVISOR WILL PROVIDE THE APPROPRIATE MESSAGE FOR THE CHANGEABLE MESSAGE SIGN.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL
STAGE II
SN 026-0013**

SCALE: VERT. _____
HORIZ. _____

DATE _____ DRAWN BY _____
CHECKED BY _____

PLOT DATE = *DATE*
 FILE NAME = *FILE*
 PLOT SCALE = *SCALE*
 USER NAME = *USER*

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	*	**	18	11
STA. TO STA.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



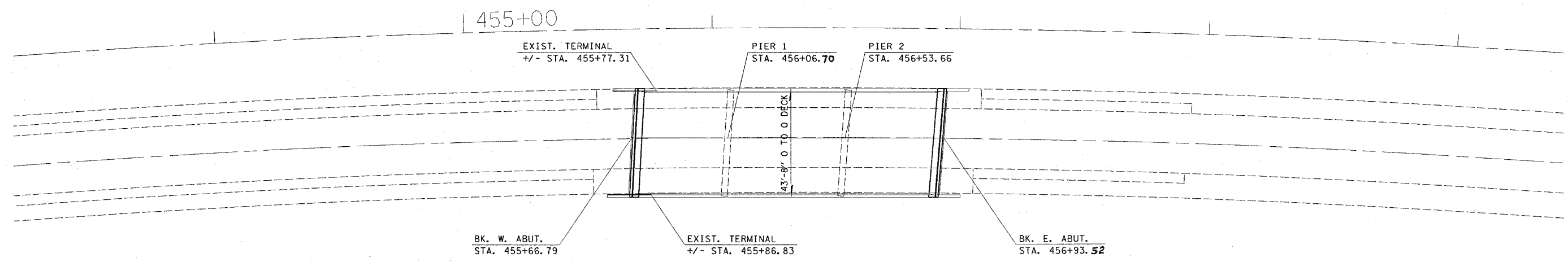
- * D-7 JOINT REPAIRS 2007-1
- ** FAYETTE

78001110 PAINT PAVEMENT MARKING - LINE 4"		TYPE	FEET
STATION / OFFSET	TO	STRIPE	
448+01.00 / RT 32.00'	460+32.00 / RT 32.00'	YELLOW SOLID	1231.0
440+29.44 / RT 44.00'	457+31.33 / RT 44.00'	WHITE SKIP DASH	425.5
448+01.00 / RT 56.00'	460+32.00 / RT 56.00'	WHITE SOLID	1231.0
			TOTAL = 2887.0

78100300 RAISED PAVEMENT MARKER REFLECTOR REPLACEMENT		
STATION	TO	STATION
440+29.44	457+31.33	457+31.33
		EACH
		22.0
TOTAL = 22.0		

TOTAL BILL OF MATERIALS

ITEM	UNIT	QUANTITY
CONCRETE REMOVAL	CU. YD.	12.3
PREFORMED JOINT STRIP SEAL	FOOT	86.0
CONCRETE SUPERSTRUCTURE	CU. YD.	12.6
REINFORCEMENT BARS, EPOXY COATED	POUND	1700.0
BAR SPLICERS	EACH	24.0
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	7.0
ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	7.0
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1530.0
JACK AND REMOVE EXISTING BEARINGS	EACH	14.0
ANCHOR BOLTS, 1"	EACH	28.0



BRIDGE GENERAL NOTES

Field welding of construction accessories will not be permitted to beams or girders.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to routine 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 based upon the unit price bid for the work.

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 Standard Specifications when the deck is poured at an ambient temperature other than 50 F.

To facilitate the new construction, removal and reinstallation of guardrail sections and the name plate attached to the structure will be required. All existing embedded anchors that are within the concrete removal area shall be cleaned and incorporated into the new construction or new approved alternates shall be supplied and installed. Cost of this work shall be included in the unit price for Concrete Superstructure.

Removal of all existing expansion joints shall be included in the contract unit price for Concrete Removal.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering the removal of the existing concrete.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PLAN VIEW
SN 026-0013

SCALE: VERT. DATE
HORIZ. DRAWN BY
CHECKED BY

PLOT DATE = 04/25/08
FILE NAME = 074191.PLS
PLOT SCALE = 1/8"=1'-0"
USER NAME = JGIBSON

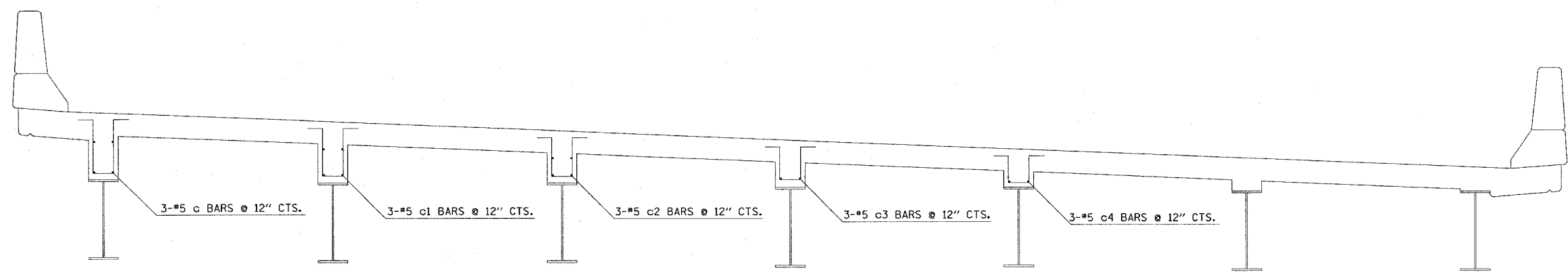
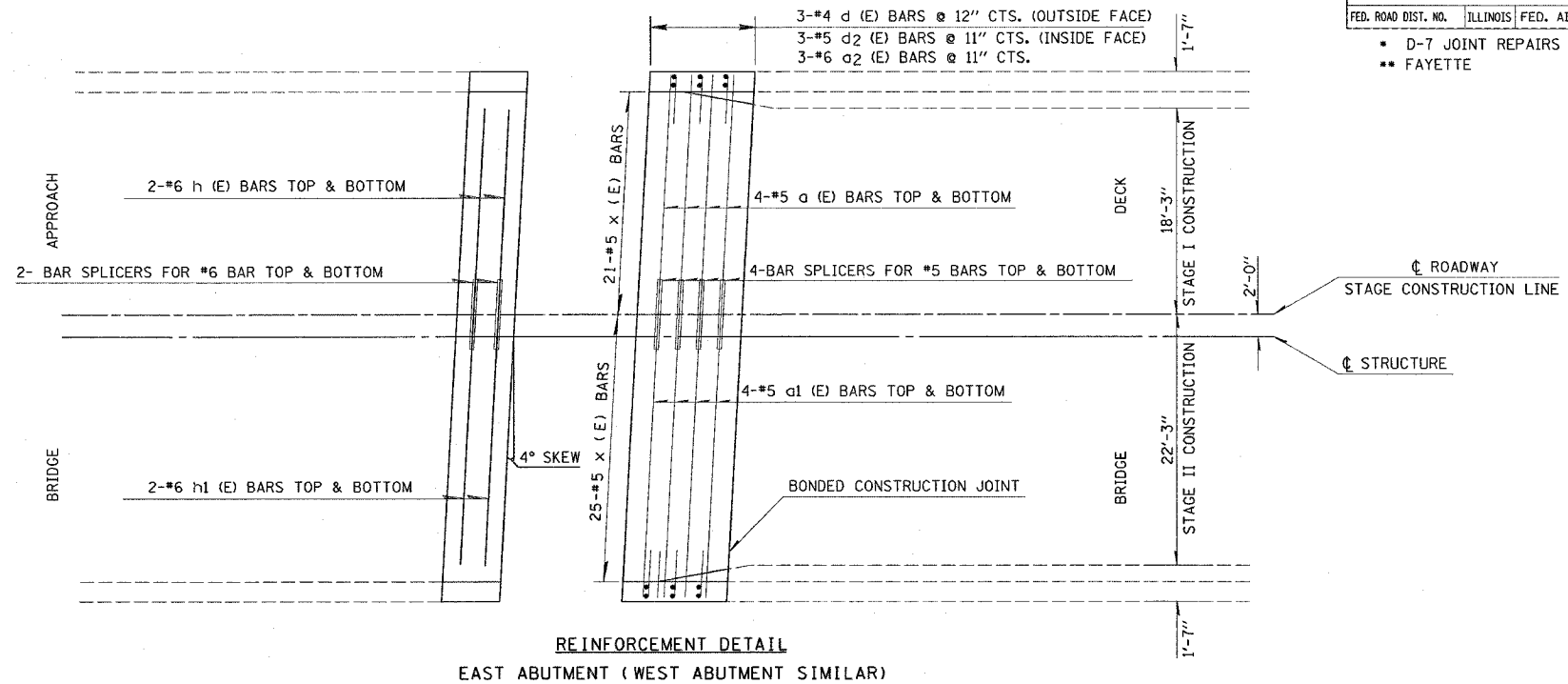
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO		**	10	12
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

- D-7 JOINT REPAIRS 2007-1
- FAYETTE

BAR LIST - PER ABUTMENTS - STR #026-0013

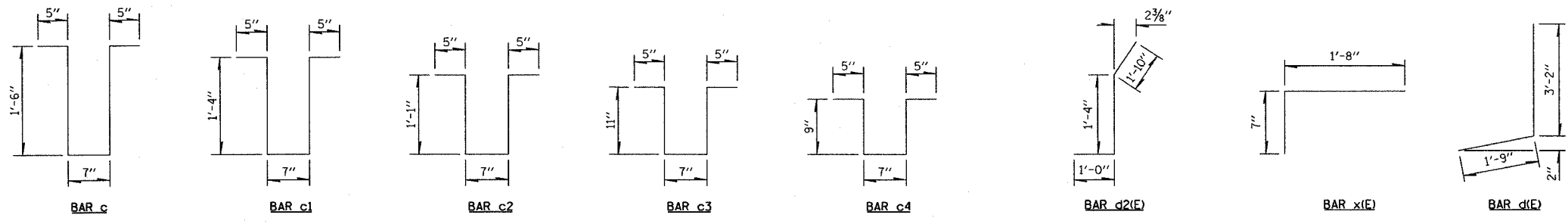
BAR	NUMBER OF BARS		TOTAL	SIZE	LENGTH	SHAPE
	STAGE I	STAGE II				
a (E)	8		8	#5	19'-3"	—
a1 (E)	8		8	#5	23'-3"	—
a2 (E)	3	3	6	#6	4'-0"	—
d (E)	3	3	6	#4	4'-11"	J
d2 (E)	3	3	6	#5	4'-2"	J
h (E)	4		4	#6	18'-6"	—
h1 (E)		4	4	#6	22'-6"	—
x (E)	21	25	46	#5	2'-3"	—
c (E)	3	0	3	#5	4'-5"	U
c1 (E)	3	0	3	#5	4'-1"	U
c2 (E)	3	0	3	#5	3'-7"	U
c3 (E)	0	3	3	#5	3'-3"	U
c4 (E)	0	3	3	#5	2'-11"	U
CONCRETE REMOVAL				CU. YD.	12.3	
REINFORCEMENT BARS (EPOXY COATED)				POUND	1700	
CONCRETE SUPERSTRUCTURE				CU. YD.	12.6	

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED



DECK CROSS SECTION
(LOOKING EAST)

NOTE: EXISTING REINFORCEMENT BARS ARE TO BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL OPERATIONS SHALL BE REPAIRED OR REPLACED USING AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM (COST INCLUDED IN CONCRETE REMOVAL).



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXPANSION JOINT & REBAR DETAILS
EAST & WEST ABUTMENTS
SN 026-0013

SCALE: VERT. 1\"/>

DATE: 06/06/07
DGN-SPEC

PLOT DATE = 06/06/07
FILE NAME = 026-0013
USER NAME = RUSBY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70		FAYETTE	18	14
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

SHEET NO. 1
3 SHEETS

Contract Number: 74191

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

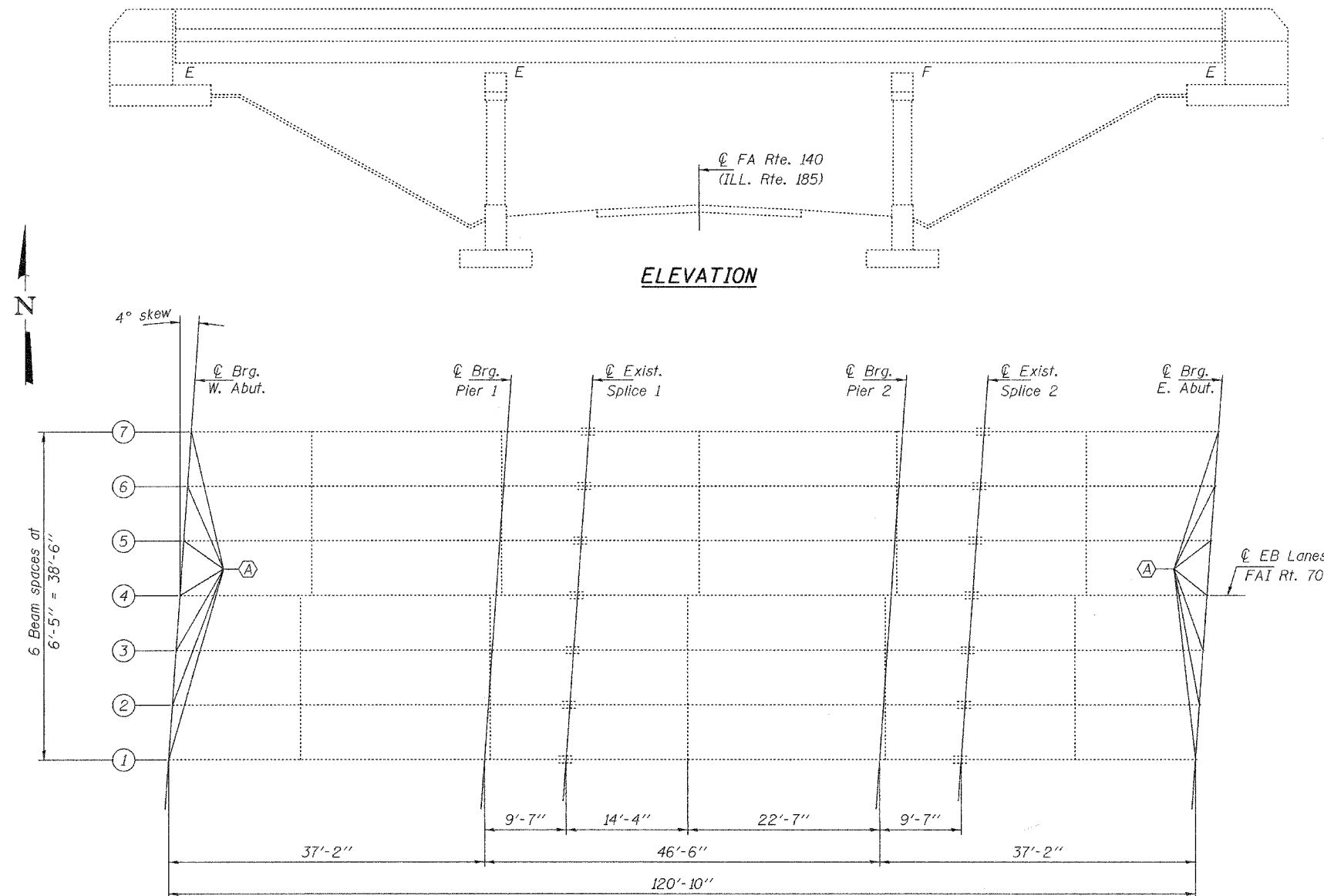
Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Cost of removal and/or re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included in the cost of Furnishing and Erecting Structural Steel.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Furnishing and Erecting Structural Steel.



FRAMING PLAN

(A) - Bearing replacement.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Elastomeric Bearing Assembly Type I	Each	7
Elastomeric Bearing Assembly Type II	Each	7
Furnishing and Erecting Structural Steel	Pound	1530
Jack and Remove Existing Bearings	Each	14
Anchor Bolts 1"φ	Each	28

DESIGNED *Steve Blakely* MAY 11, 2007
 CHECKED *Adrian Holloway* EXAMINED *Carl Pinner*
 DRAWN *ballva* PASSED *Ralph E. Anderson*
 CHECKED *SJB/ATH* ENGINEER OF BRIDGES AND STRUCTURES



EXPIRES 11-30-2008

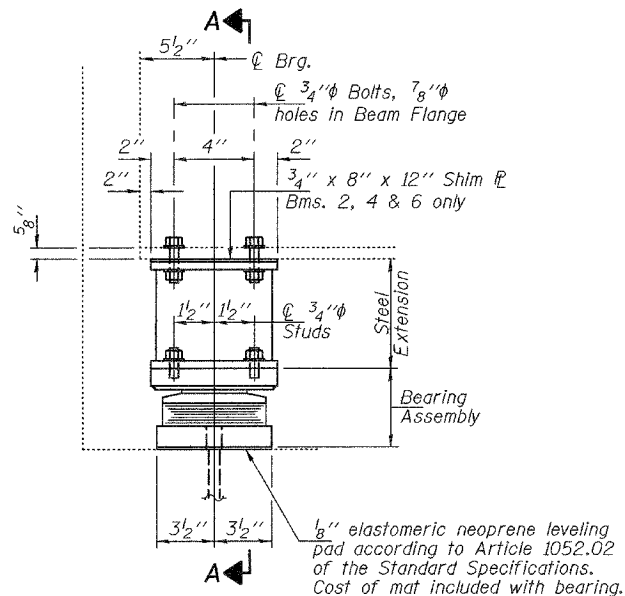
PLAN AND ELEVATION
FAI 70
FAYETTE COUNTY
SN 026-0013

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

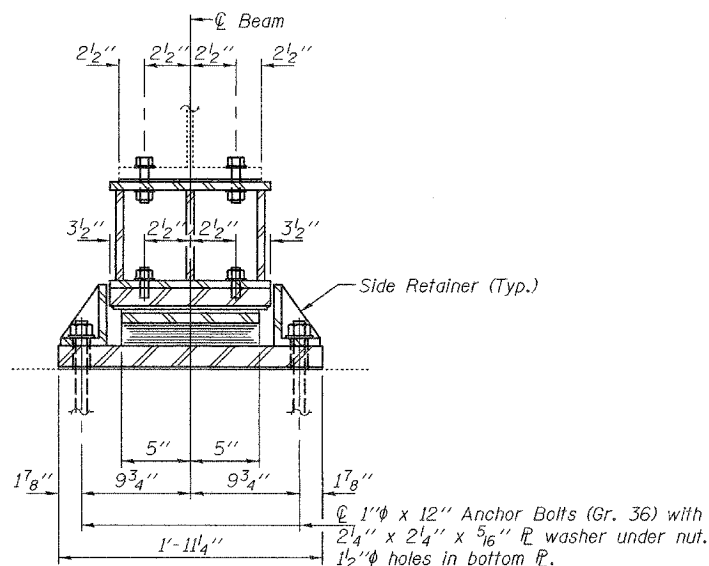
ROUTE NO.	SECTION	COUNTY	DATE	SHEET
FAI 70		FAYETTE	18	16
FED. ROAD DIST. NO. 7	ILLINOIS		FED. AID PROJECT	

SHEET NO. 3
3 SHEETS

Contract Number: 74191



ELEVATION AT ABUTMENT



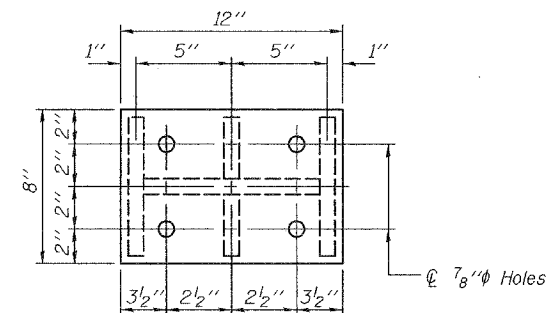
SECTION A-A

TYPE II TFE ELASTOMERIC EXP. BRG.

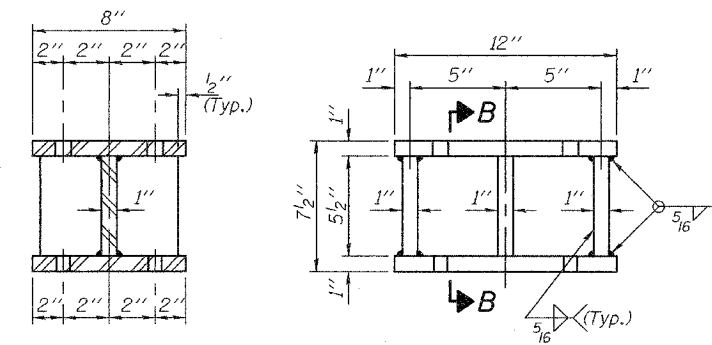
BEAM REACTIONS

R _l	(K)	14.7
R _r	(K)	30.7
Imp.	(K)	9.2
R (Total)	(K)	54.6

Notes:
Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 30 Tons.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.
The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

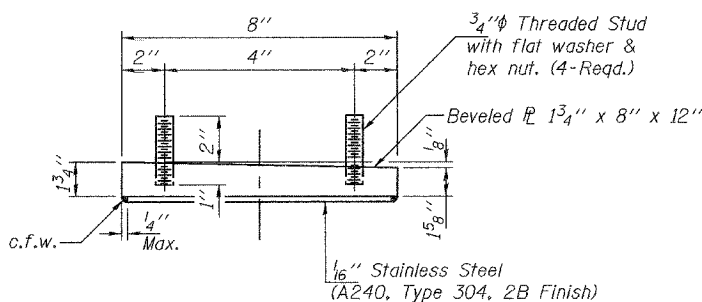


PLAN TOP AND BOTTOM PLATE



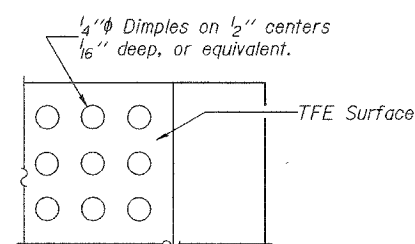
SECTION B-B

STEEL EXTENSION DETAIL

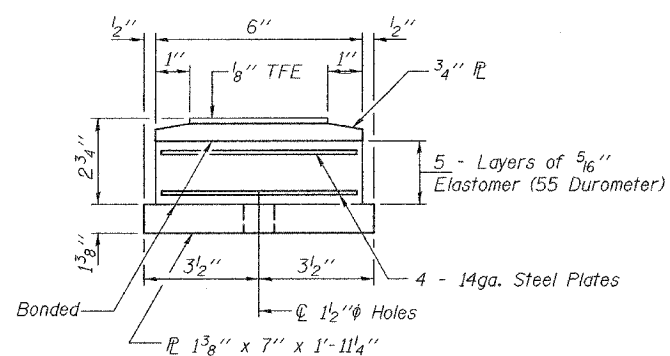


TOP BEARING ASSEMBLY

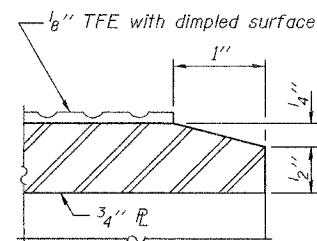
(Looking North)



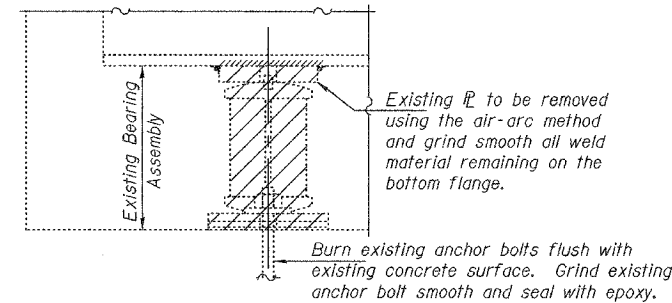
PLAN-TFE SURFACE



BOTTOM BEARING ASSEMBLY



SECTION THRU TFE

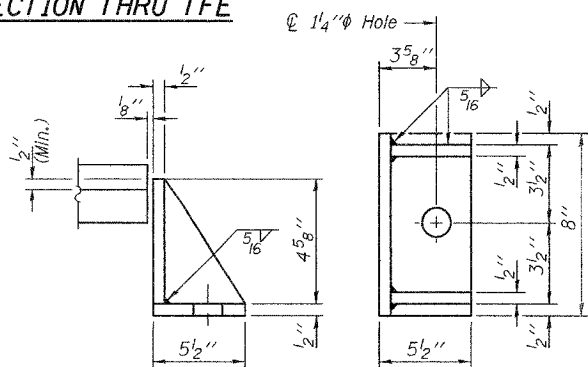


EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

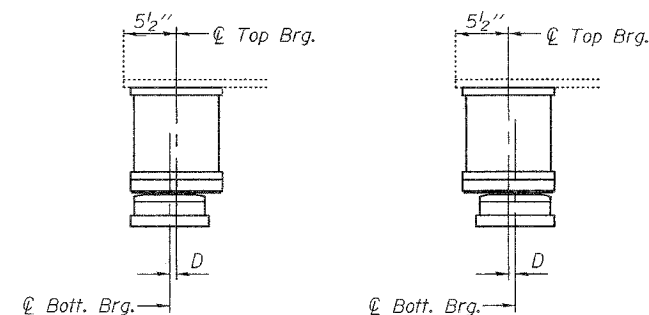
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	7
Jack and Remove Existing Bearings	Each	7
Furnishing and Erecting Structural Steel	Pound	750
Anchor Bolts 1" ϕ	Each	14



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BELOW 50° F. (Move bott. brg. away from fixed brg.) ABOVE 50° F. (Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

DESIGNED	SJB
CHECKED	ATH
DRAWN	ballva
CHECKED	SJB ATH

MAY 11, 2007
EXAMINED *Carl P. ...*
REPAIR PLANS UNIT CHIEF
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

TYII/REPS 11-01-2006

WEST ABUTMENT
FAI 70
FAYETTE COUNTY
SN 026-0013

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		**	17	17
STA.		TO STA.		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

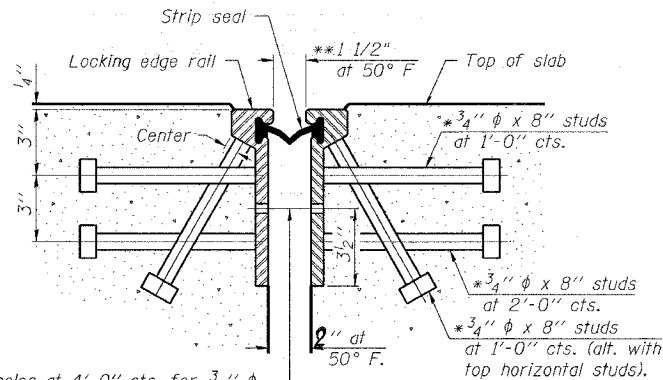
* D-7 JOINT REPAIRS 2007-1
 ** FAYETTE

Notes:

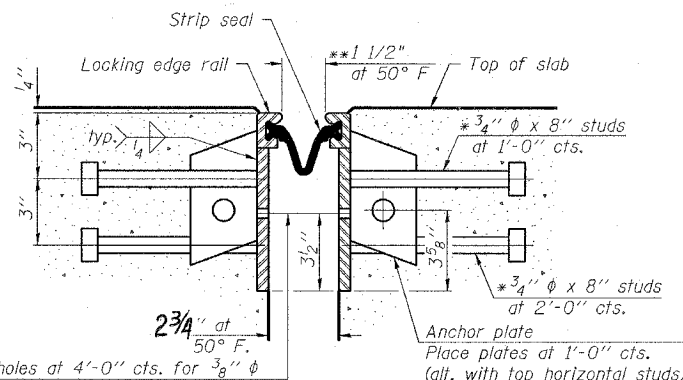
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of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

* Granular or solid flux-filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

** When joint is fixed, dimension is set at 1/2".



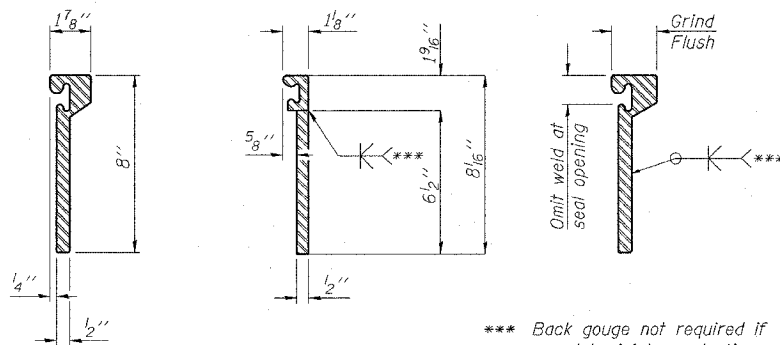
7/16" diameter holes at 4'-0" centers for 3/8" diameter bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



7/16" diameter holes at 4'-0" centers for 3/8" diameter bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU ROLLED RAIL JOINT

SECTION THRU WELDED RAIL JOINT

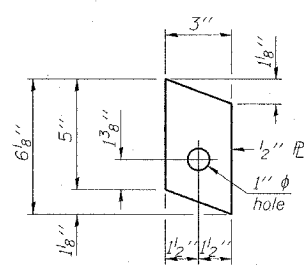


ROLLED (EXTRUDED) RAIL WELDED RAIL

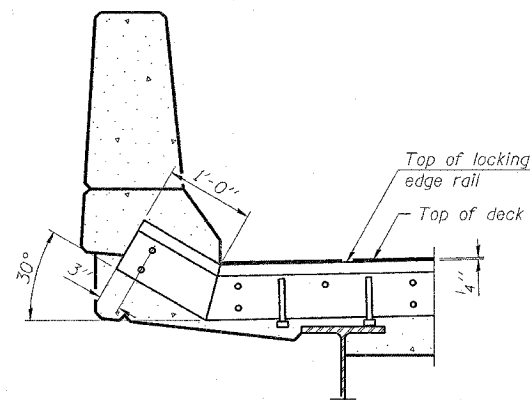
*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAIL SPLICE

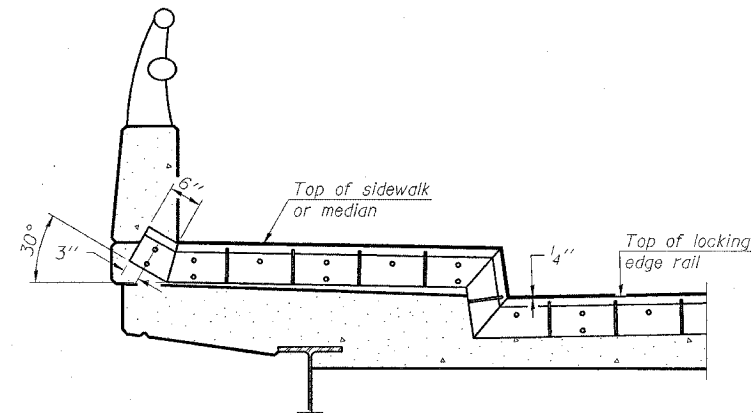
The inside of the locking edge rail groove shall be free of weld residue.



ANCHOR PLATE (for welded rail)



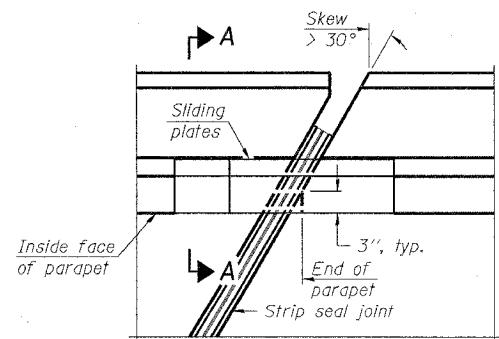
AT PARAPET



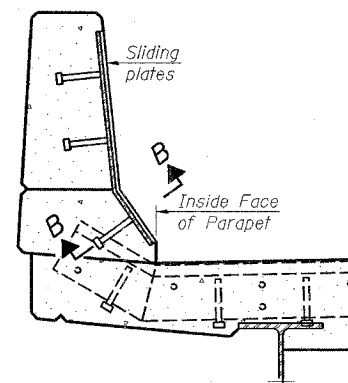
AT SIDEWALK OR MEDIAN

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

LOCKING EDGE RAILS



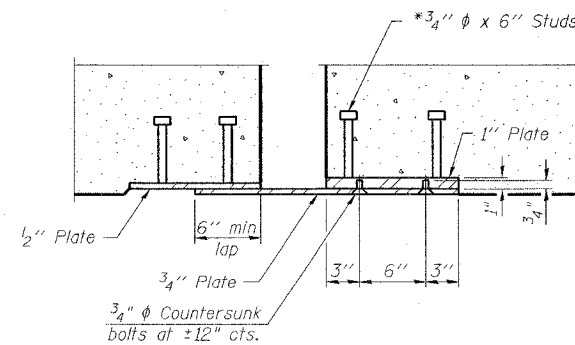
PLAN



SECTION A-A

POINT BLOCK DETAILS (for skews > 30°)

TYPICAL END TREATMENTS



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	86

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL SN 026-0013

SCALE: VERT. DATE
 HORIZ. CHECKED BY

DRAWN BY

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		**	18	18
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
• D-7 JOINT REPAIRS 2007-1 •• FAYETTE				

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity = $1.25 \times f_y \times A_s$
(Tension in kips)
- ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_s$
(Tension in kips)

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_s = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8

The diameter of this part is the same as the diameter of the bar spliced.

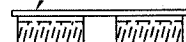
The diameter of this part is equal or larger than the diameter of bar spliced.

ROLLED THREAD DOWEL BAR



**** ONE PIECE**

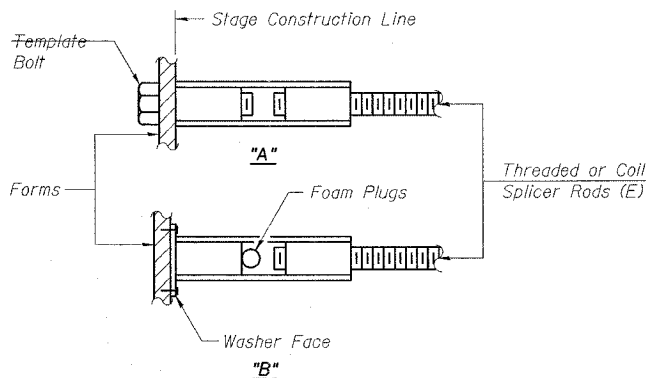
Wire Connector



WELDED SECTIONS

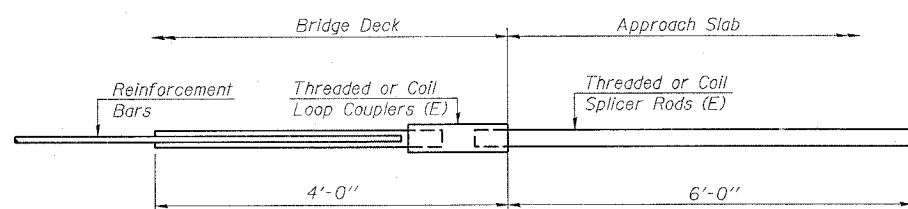
BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



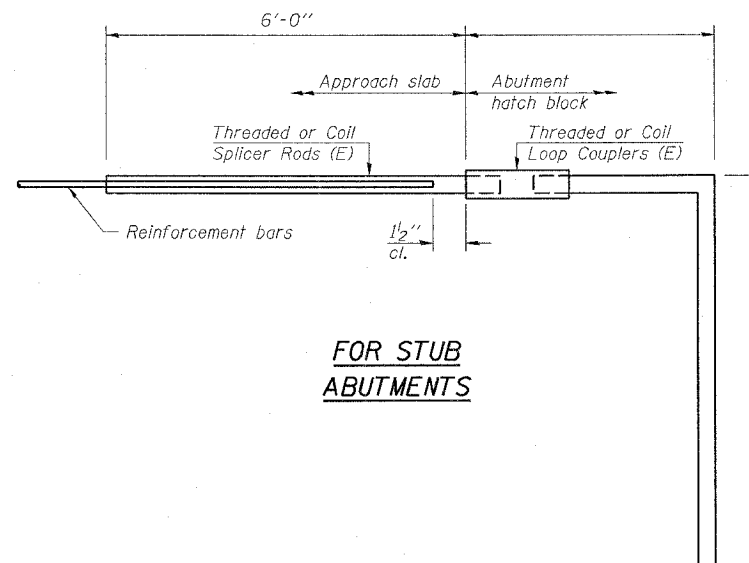
INSTALLATION AND SETTING METHODS

"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.



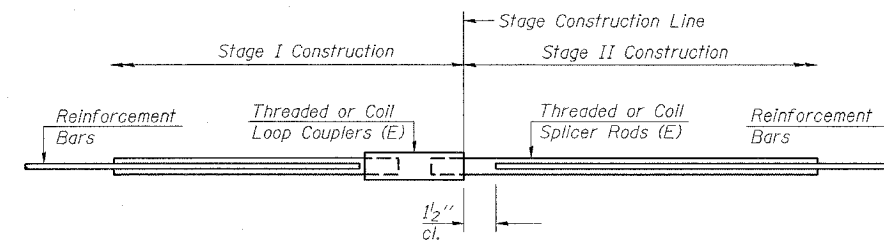
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location
#5	16	End of Deck
#6	8	Abut. Blocks

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**BAR SPLICER ASSEMBLY DETAILS
SN 026-0013**

SCALE: VERT. _____
HORIZ. _____
DATE _____

DRAWN BY _____
CHECKED BY _____