

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED
HIGHWAY PLANS**

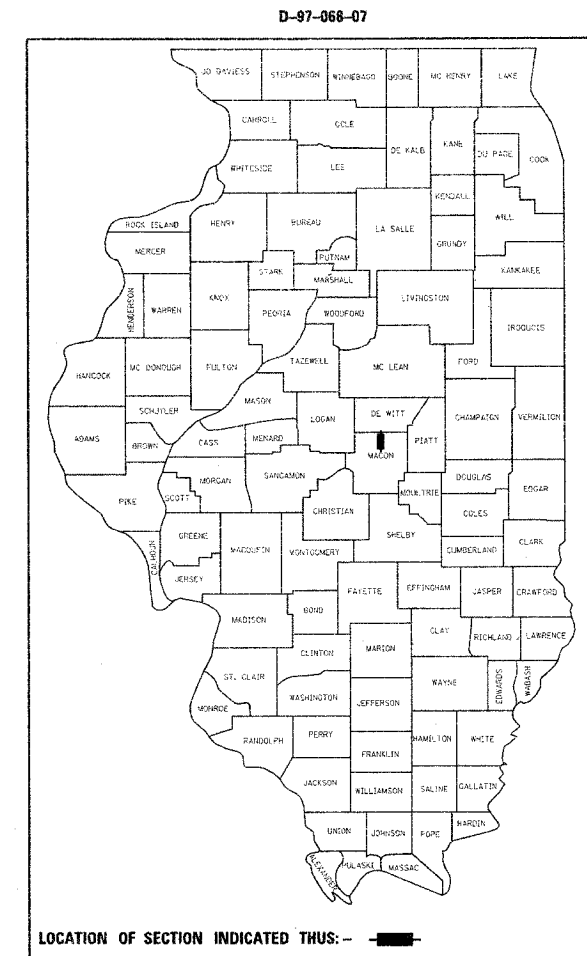
FAP ROUTE 322
D7 BRIDGE REPAIRS 2009-1

MACON COUNTY

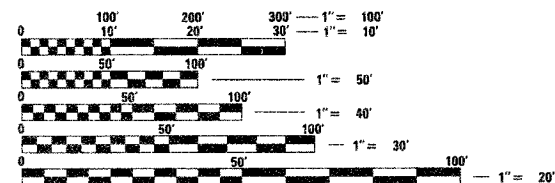
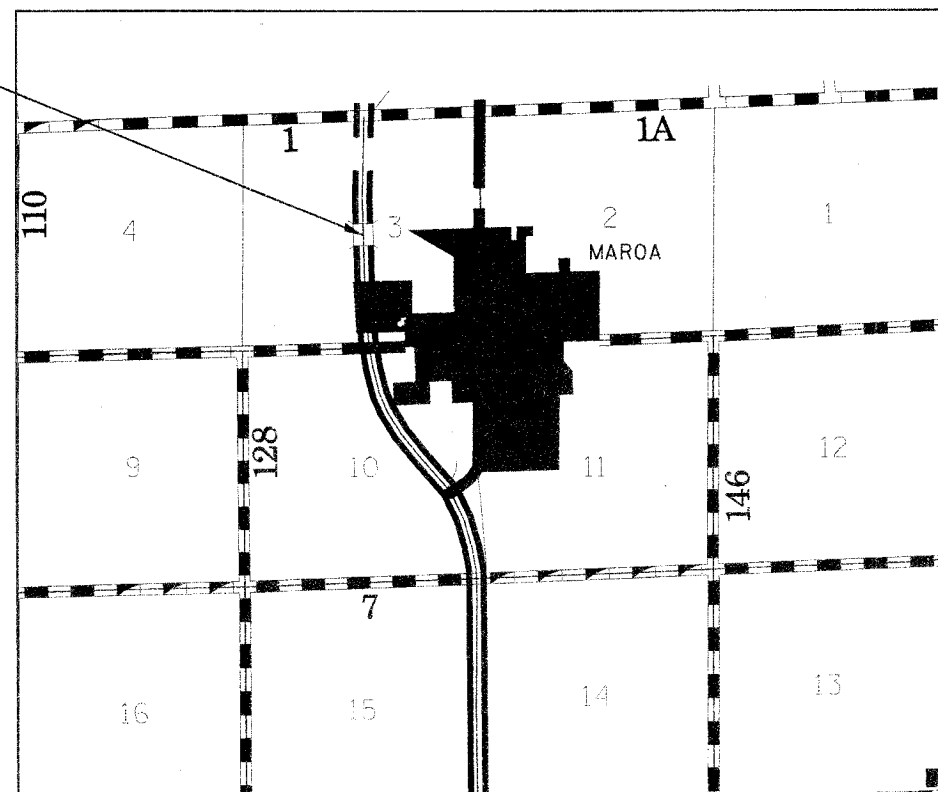
C-97-108-07

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	D7 BRIDGE REPAIRS 2009-1	MACON	14	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 74275		

FOR INDEX OF SHEETS, SEE SHEET NO.



STR# 058-0117 SB
STR# 058-0118 NB



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: ALEC RING
PROJECT MANAGER

058-0117 (2008) ADT = 4721
058-0110 (2008) ADT = 4721

CONTRACT NO. 74275

GROSS LENGTH = 528 FEET = 0.1 MILES
NET LENGTH = 528 FEET = 0.1 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *March 14* 20 08

Christina M. Reed
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 9 20 08
Eric E. Harn
ENGINEER OF DESIGN AND ENVIRONMENT

May 9 20 08
Christina M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

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 CHECKSHEET; AND THE SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

THIS PROJECT IS LOCATED NEAR MAROA ON US-51 MACON COUNTY. THE PROJECT INCLUDES THE STRUCTURE NUMBERS 058-0117 and 058-0118.

THE WORK INCLUDED IN THIS PROJECT CONSISTS OF CONSTRUCTION OF PCC BASE COURSE WIDENING, REMOVAL OF THE EXISTING NEOPRENE JOINT SEAL EXPANSION JOINTS AND REPLACING THEM WITH PREFORMED JOINT STRIP SEAL EXPANSION JOINTS, AND ALL OTHER WORK NECESSARY TO COMPLETE THIS SECTION.

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 WORK HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR WORK.

THE TOTAL QUANTITY OF POLYUREA PAVEMENT MARKING TYPE I - LINE 4 INCH CONSISTS OF:

STR#	YELLOW FT	WHITE FT
058-0117	361	361
058-0118	361	361

THE TOTAL QUANTITY OF POLYUREA PAVEMENT MARKING TYPE I - LINE 6 INCH CONSISTS OF:

STR#	WHITE FT
058-0117	90
058-0118	90

THE REFLECTIVE LENSE OF ALL RAISED REFLECTIVE MARKERS LOCATED BETWEEN THE START OF TAPER AND THE ABUTMENT OF THE FIRST STRUCTURE SHALL BE REMOVED PRIOR TO STAGE I CONSTRUCTION. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL. REPLACEMENT OF THE DIRECTIONAL WHITE REFLECTORS AT THE COMPLETION OF STAGE II WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR REPLACEMENT REFLECTOR.

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.

INDEX OF SHEETS

SHEET NO

- 1 COVER SHEET
- 2 INDEX OF SHEETS, HIGHWAY STANDARDS AND GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4 SCHEDULE OF QUANTITIES
- 5 STAGE CONSTRUCTION I
- 6 STAGE CONSTRUCTION II
- 7-12 BRIDGE PLAN AND DETAILS 058-0117 & 0118
- 13 PREFORMED JOINT STRIP SEAL
- 14 BAR SPLICER ASSEMBLY

LIST OF HIGHWAY STANDARDS

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-01 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 701006-02 OFF-ROAD OPERATIONS, 2L 2W, 15' TO 24" AWAY, SPEEDS > 45 MPH
- 701011-01 OFF-ROAD MOVING OPERATIONS, 2L 2W, DAY ONLY, FOR SPEEDS > 45 MPH
- 701400-02 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701402-06 LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
- 701901 TRAFFIC CONTROL DEVICES
- 704001-04 TEMPORARY CONCRETE BARRIER
- 720001 SIGN PANEL MOUNTING DETAILS
- 720006-01 SIGN PANEL ERECTION DETAILS
- 780001-01 TYPICAL PAVEMENT MARKINGS
- 781001-02 TYPICAL APPLICATIONS OF RAISED REFLECTIVE PAVEMENT MARKERS

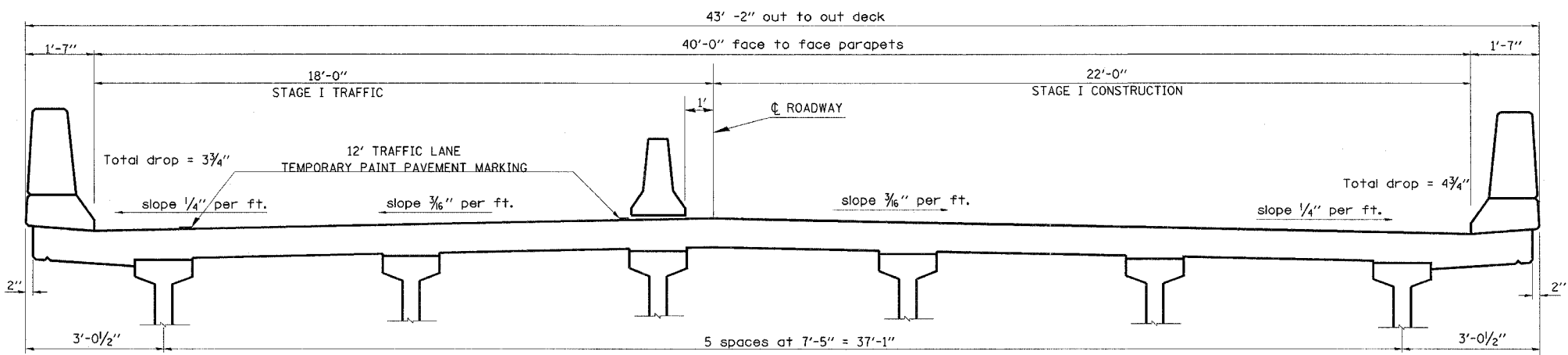
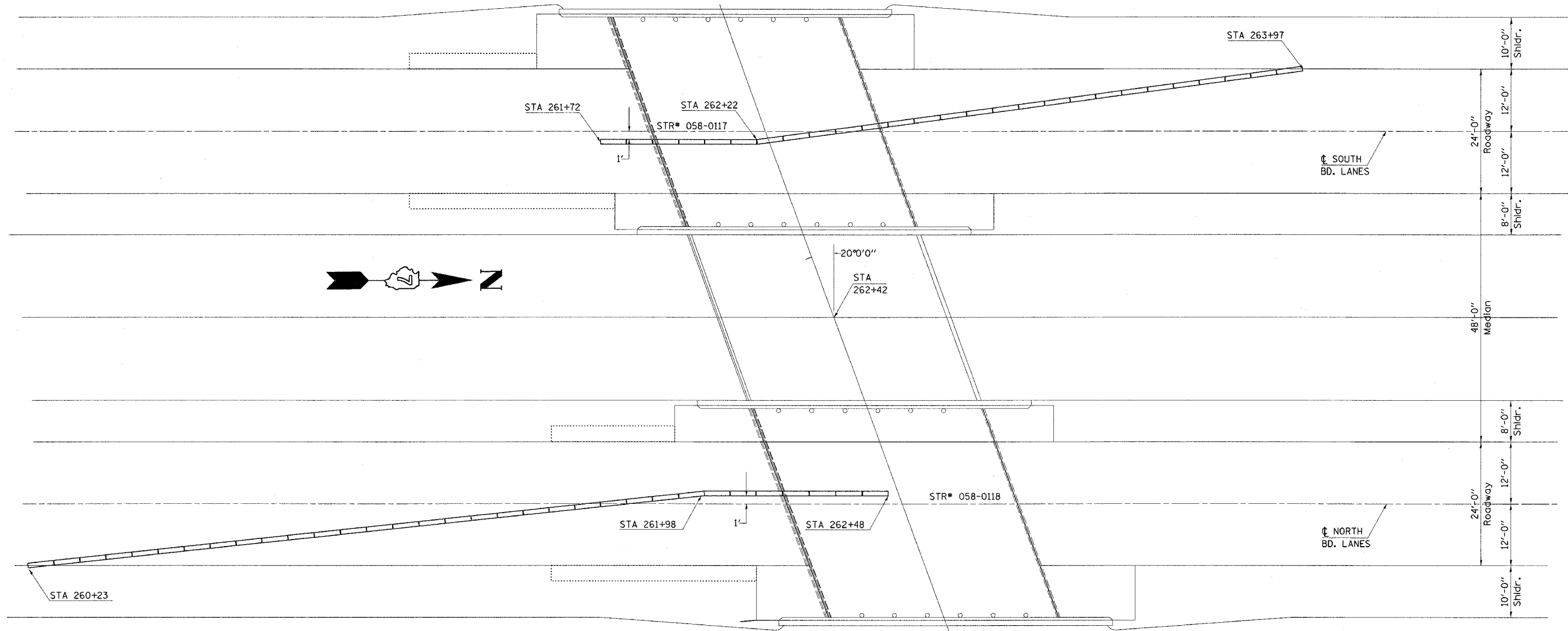
FILE NAME: c:\projects\74275\sheetcover_74275.dgn	USER NAME: seaslegk	DESIGNED: -	REVISED: -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS AND GENERAL NOTES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	Rev.
PLOT SCALE: 20.000000 1/2 IN.	CHECKED: -	REVISED: -	322 D7 BRIDGE REPAIRS 2009-1			MACON	14	2			
PLOT DATE: 3/13/2008	DATE: -	REVISED: -	CONTRACT NO. 74275								
			SCALE:			SHEET NO. OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES			100% STATE	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	058-0117 SFTY-2A	058-0118 SFTY-2A
50102400	CONCRETE REMOVAL	CU YD	32.6	17.7	14.9
50300255	CONCRETE SUPERSTRUCTURE	CU YD	32.6	17.7	14.9
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	5910	3030	2880
50800515	BAR SPLICERS	EACH	60	31	29
52000110	PREFORMED JOINT STRIP SEAL	FOOT	90	45	45
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	3	1.5	1.5
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	2	1	1
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1	0.5	0.5
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	4	2	2
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	66	33	33
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2886	1443	1443
70400100	TEMPORARY CONCRETE BARRIER	FOOT	650	325	325
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	650	325	325
*78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	1444	722	722
*78008230	POLYUREA PAVEMENT MARKING TYPE I - LINE 6"	FOOT	180	90	90
*78100300	REPLACEMENT REFLECTOR	EACH	10	5	5
78300500	PAINT PAVEMENT MARKING REMOVAL	SQ FT	558	279	279
X0322050	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	EACH	10	5	5
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	1	1
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	1	1

* Specialty Items

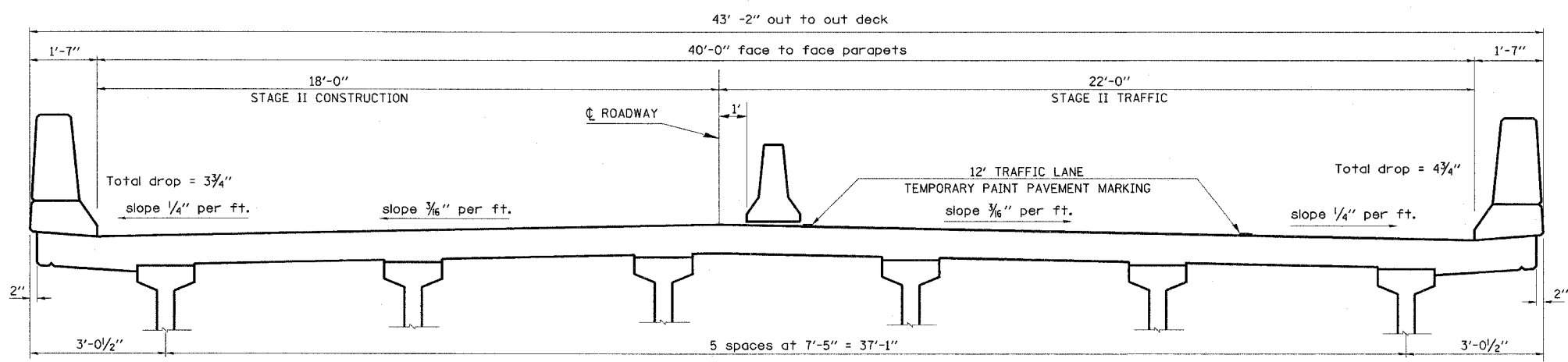
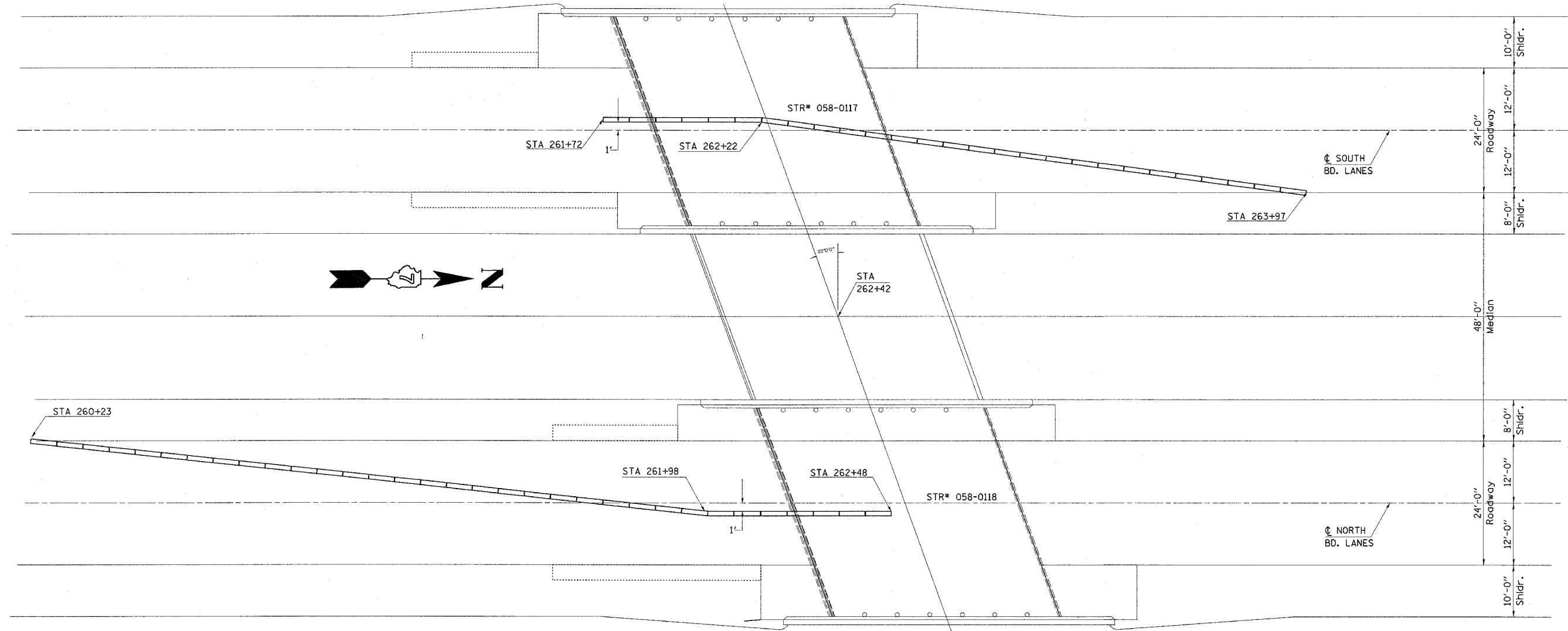
Bridge Repair Schedule						
Structure Number	Length	Concrete Removal	Concrete Superstructure	Reinforcement Bars, Epoxy Coated	Bar Splicers	Preformed Joint Strip Seal
058-0117						
Stage I	91.17	9.6	9.6	1700		24.8
Stage II		8.1	8.1	1360		20.2
TOTAL	91.17	17.7	17.7	3030	31	45.0
058-0118						
Stage I	91.17	8.1	8.1	1575		24.8
Stage II		6.8	6.8	1305		20.2
TOTAL	91.17	14.9	14.9	2880	29	45.0
GRAND TOTAL	182.34	32.6	32.6	5910	60	90

Pavement Marking Schedule					
STRUCTURE NUMBER	Paint Pavement Marking Removal	Short Term Pavement Marking	Work Zone Pavement Marking Removal	Polyurea Pavement Marking Type I - Line 4"	Polyurea Pavement Marking Type I - Line 6"
058-0117					
STAGE I	160		721.4		
STAGE II	119	33	721.4	722	90
Total	279	33	1443	722	90
058-0118					
STAGE I	160		721.4		
STAGE II	119	33	721.4	722	90
Total	279	33	1443	722	90
GRAND TOTAL	558	66	2886	1444	180



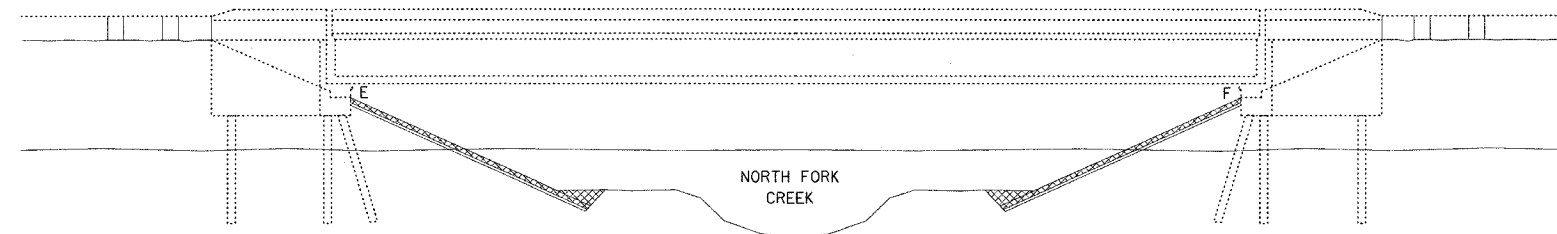
CROSS SECTION
 (SB Bridge Looking South)
 (NB Bridge Looking North)

FILE NAME = c:\projects\74275\shsttsgoon_74275.dgn	USER NAME = teasleyck	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE I TRAFFIC CONTROL PLAN			F.A.P. RTE. 322	SECTION 07 BRIDGE REPAIRS 2009-1	COUNTY MACON	TOTAL SHEETS 14	SHEET NO. 5
	PLOT SCALE = 20,0000' / IN.	DRAWN -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
	PLOT DATE = 3/13/2009	CHECKED -	REVISED -									
		DATE -	REVISED -									

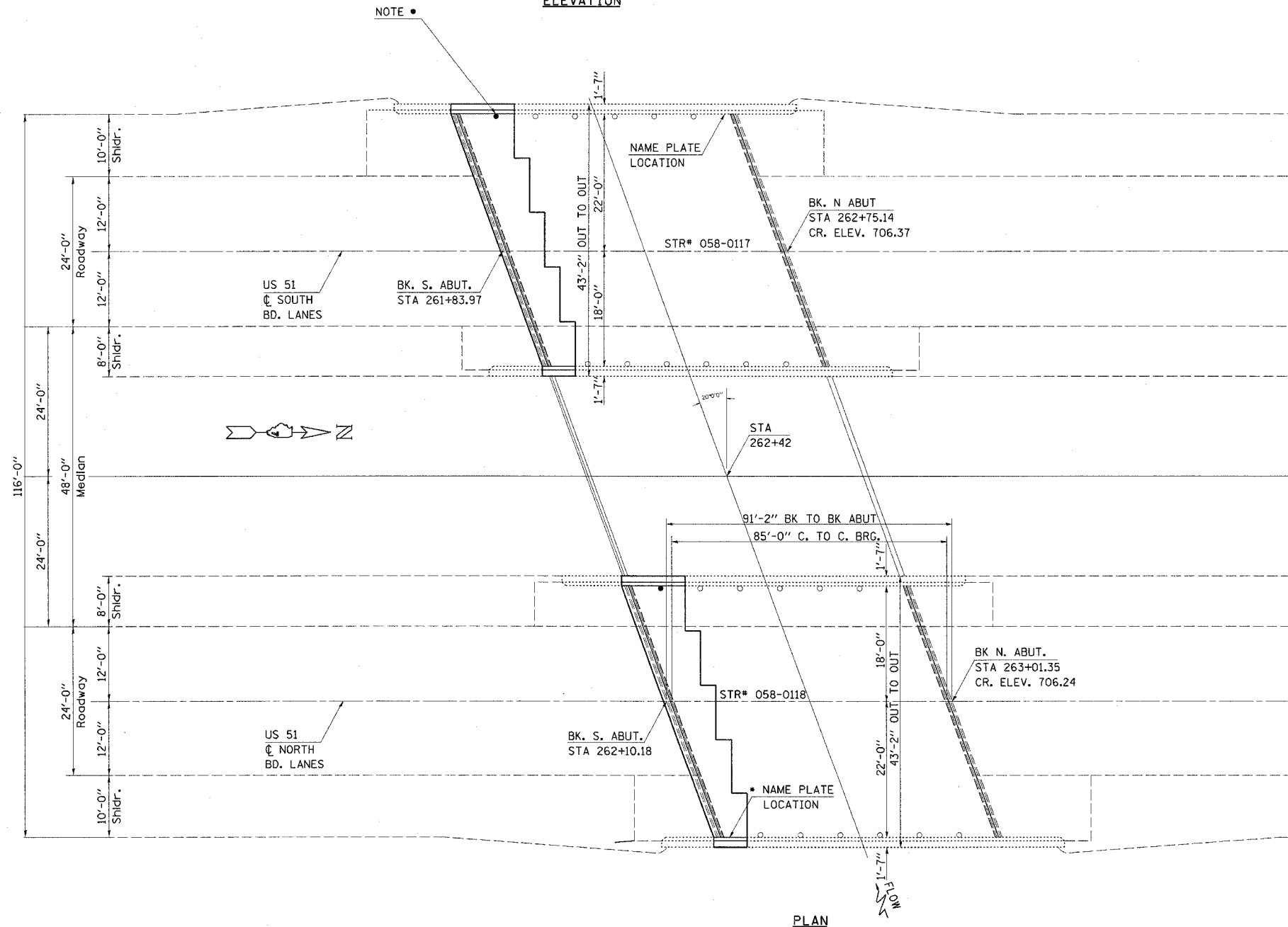


CROSS SECTION
 (SB Bridge Looking South)
 (NB Bridge Looking North)

FILE NAME = c:\projects\74275d\shatgoon_74275.dgn	USER NAME = teeslegok	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE II TRAFFIC CONTROL PLAN	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 20.0000' / IN.	DRAWN -	REVISED -			322	D7 BRIDGE REPAIRS 2009	MACON	14	6	
	PLOT DATE = 3/13/2008	CHECKED -	REVISED -			CONTRACT NO. 74275					
		DATE -	REVISED -			SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	



ELEVATION



PLAN

GENERAL NOTES

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 compensations 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 shall 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).

Joint openings shall be adjusted according to Article 520.04(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50 F.

Prior to pouring concrete on the new concrete deck, all loose potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Removal shall be accomplished by methods that will not damage the existing PPC I-Beams and the cost will be included in the pay item covering removal of the existing concrete.

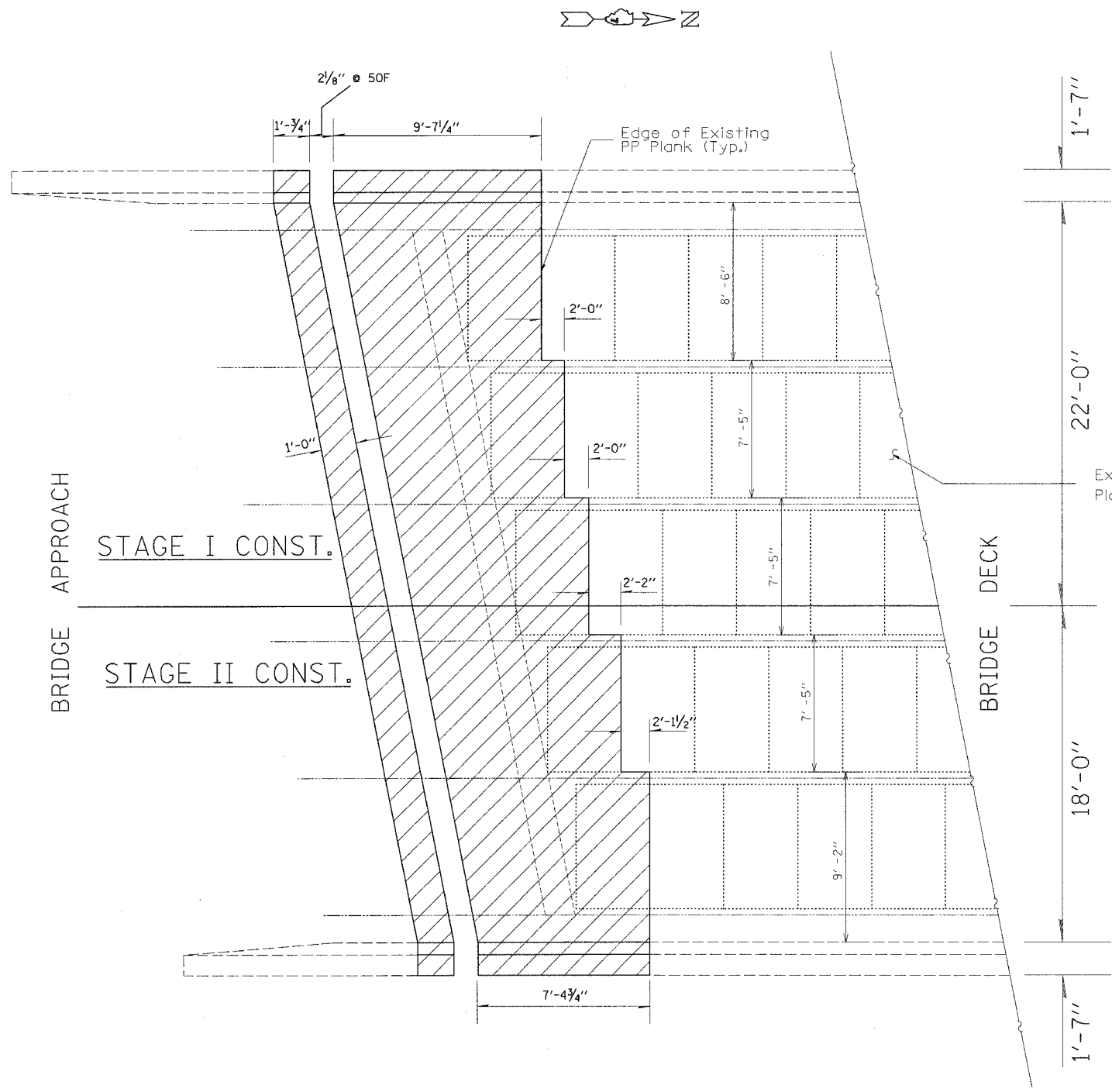
Strip Seal Joint Assembly will run straight through soffit. See detail on Page 12.

BILL OF MATERIALS

ITEM DESCRIPTION	UNIT	058-0117	058-0118
Concrete Removal	CU YD	17.7	14.9
Concrete Superstructure	CU YD	17.7	14.9
Preformed Joint Strip Seal	FOOT	45	45
Reinforcement Bars, Epoxy Coated	POUND	3030	2880
Bar Splacers	EACH	31	29

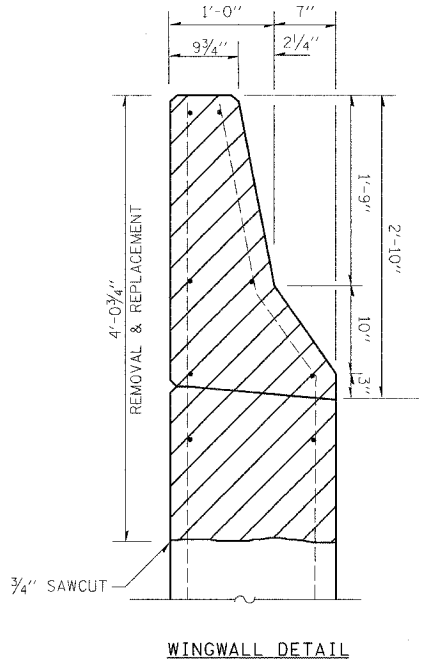
• Cost of Removal and Reinstallation of Name Plate is included with concrete superstructure.

• Cost of removal and reinstallation of Floor Drains is included with Concrete Superstructures.

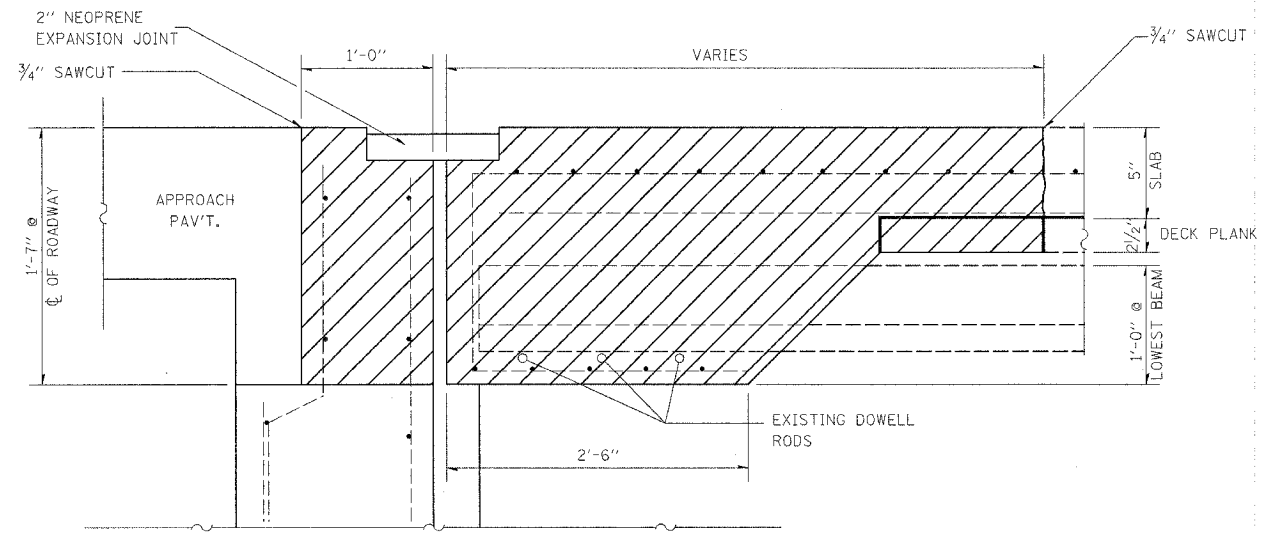


CONCRETE REMOVAL (LIMITS ARE FROM OUT TO OUT OF DECK)

Existing Precast Prestressed Plank (4'-0" x 6'-9")



WINGWALL DETAIL



EXISTING EXPANSION JOINTS AT ABUTMENTS

NOTE: THE CONTRACTOR SHALL USE EXTREME CARE DURING CONCRETE REMOVAL SO AS NOT TO DAMAGE THE PPC I-BEAMS.

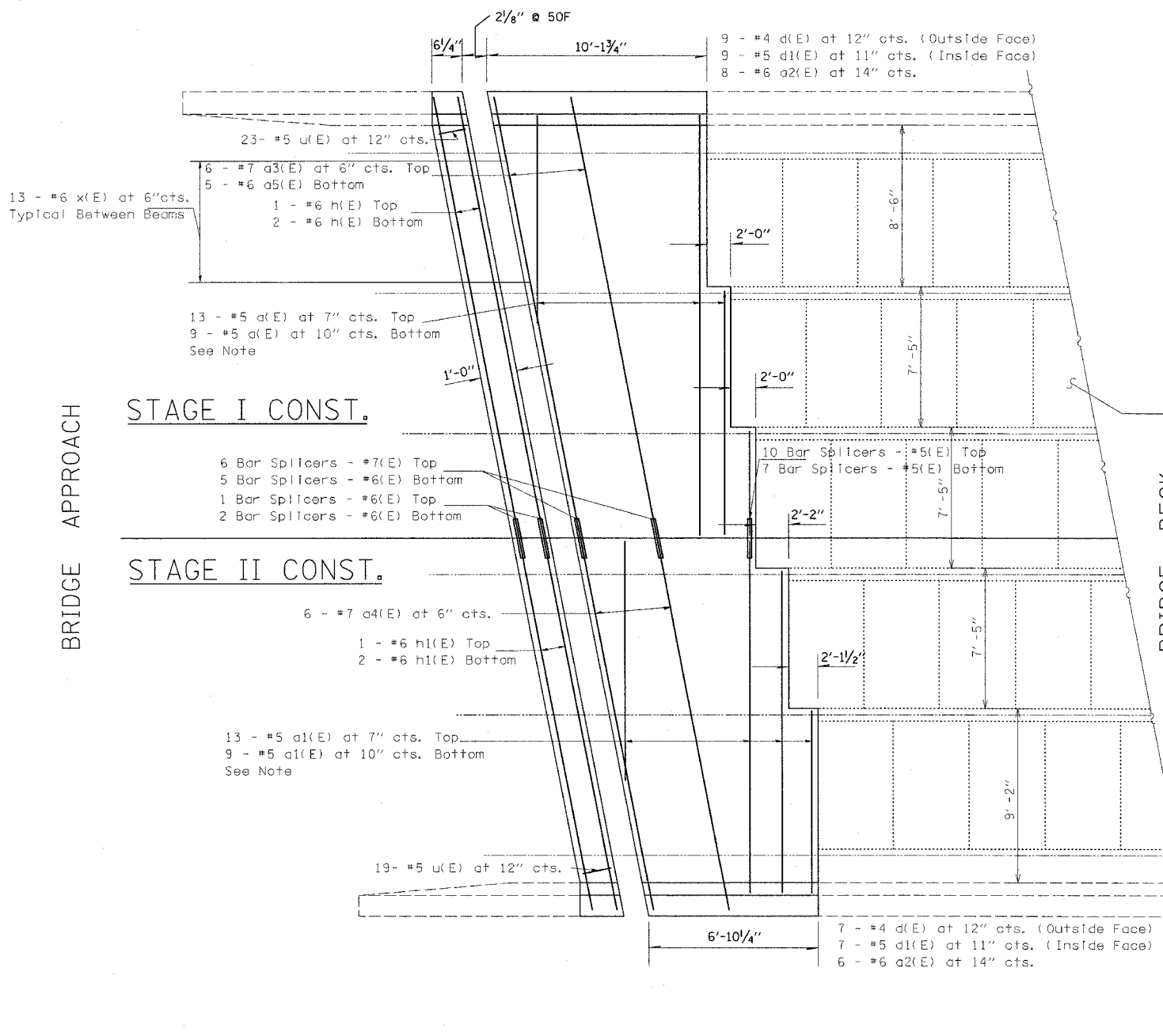
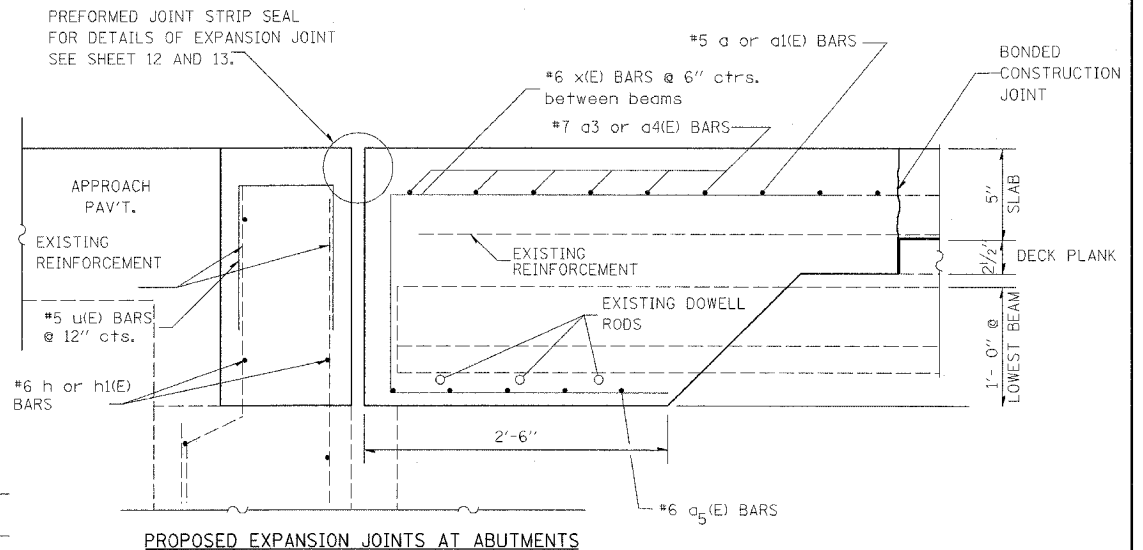
FILE NAME =	USER NAME = teesleyck	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	058-0117 REMOVAL SOUTH EXPANSION JOINT	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\projects\74275d\shdtdetails_74275.dgn		DRAWN -	REVISED -			322	07 BRIDGE REPAIRS 2009-1	MACON	14	8	
		CHECKED -	REVISED -			CONTRACT NO. 74275					
		DATE -	REVISED -			SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT

BAR LIST - PER ABUTMENT - STR #058-0117

BAR	NUMBER OF BARS		TOTAL	SIZE	LENGTH	SHAPE
	STAGE I	STAGE II				
a(E)	22		22	#5	22'-6"	
a1(E)		22	22	#5	18'-6"	
a2(E)	8	6	14	#6	4'-0"	
a3(E)	6		6	#7	24'-6"	
a4(E)		6	6	#7	20'-4"	
a5(E)	15	10	25	#6	7'-0"	
d(E)	9	7	16	#4	4'-11"	J
d1(E)	9	7	16	#5	3'-11"	J
h(E)	3		3	#6	24'-6"	
h1(E)		3	3	#6	20'-4"	
x(E)	36	29	65	#6	8'-0"	
u(E)	23	19	42	#5	1'-11"	

CONCRETE REMOVAL	CU YD	17.7
REINFORCEMENT BARS (EPOXY COATED)	POUND	3030
CONCRETE SUPERSTRUCTURE	CU YD	17.7

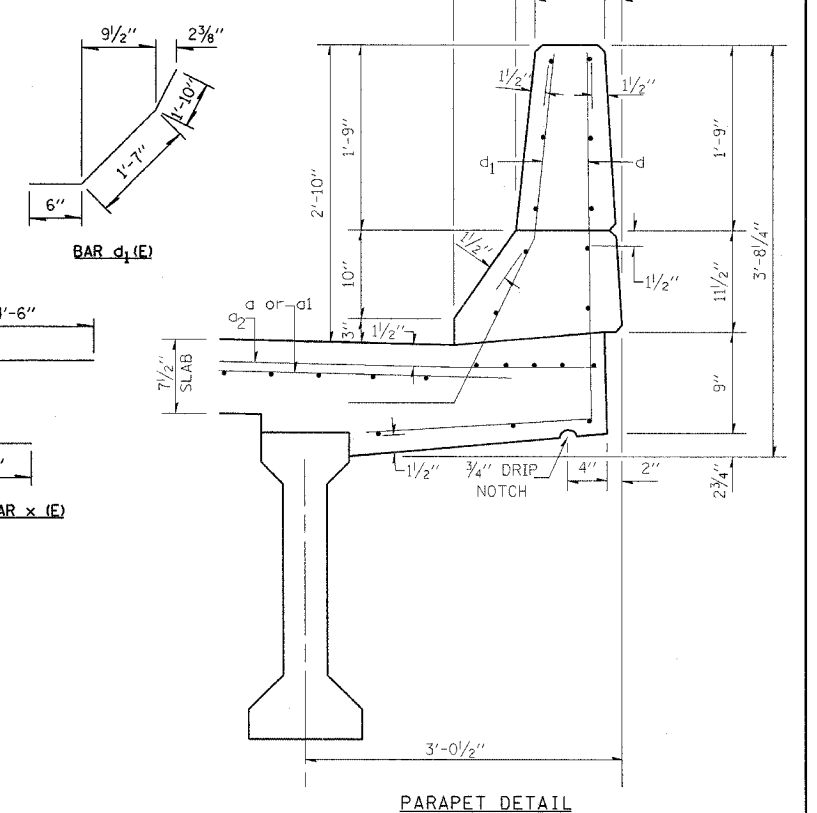
NOTE: Order a(E) and a1(E) Bars full length. Cut to fit in field and use remainder of bars in stagger on same stage.



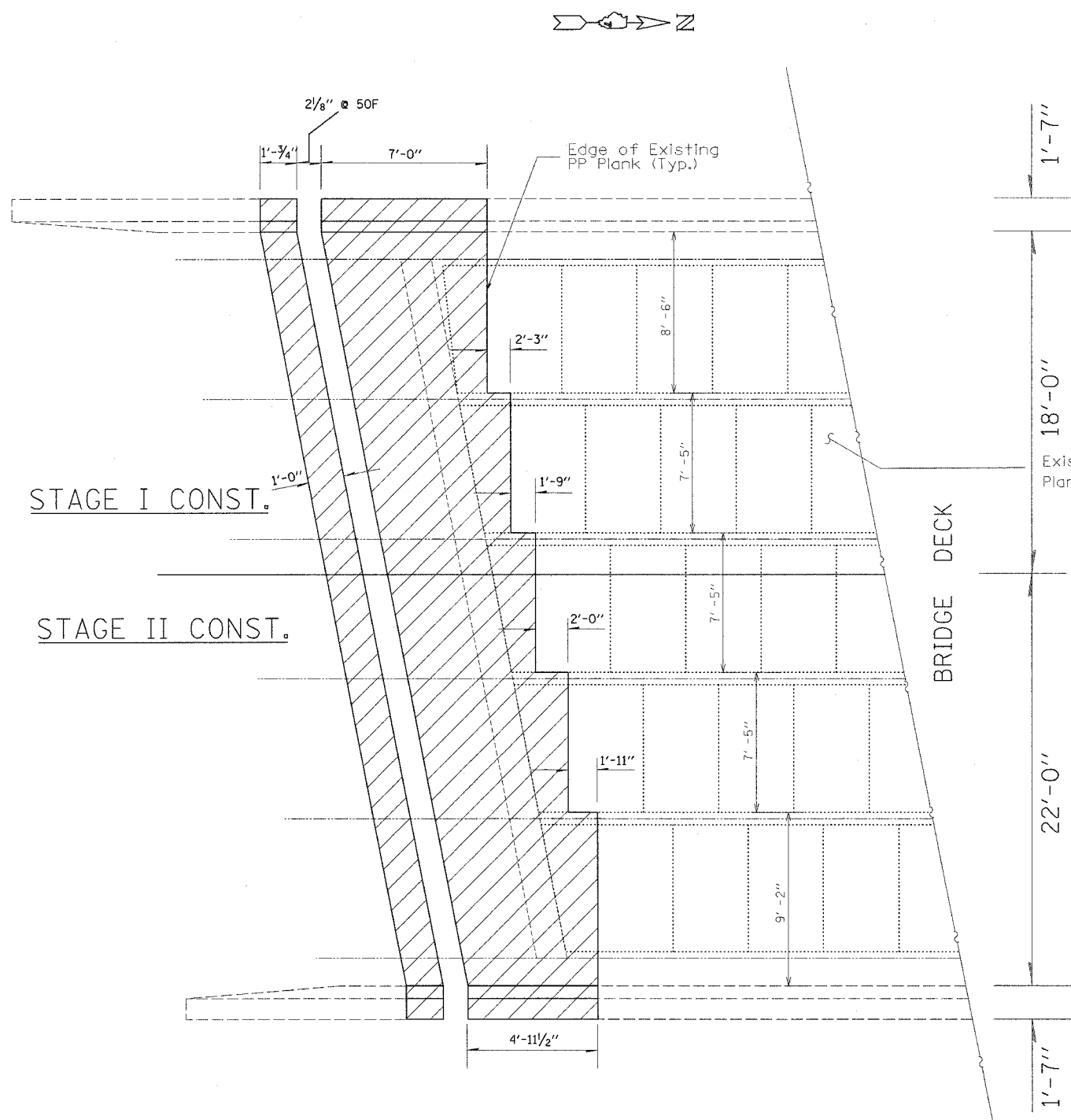
BRIDGE DECK

BRIDGE APPROACH

Existing Precast Prestressed Plank (4'-0" x 6'-9")

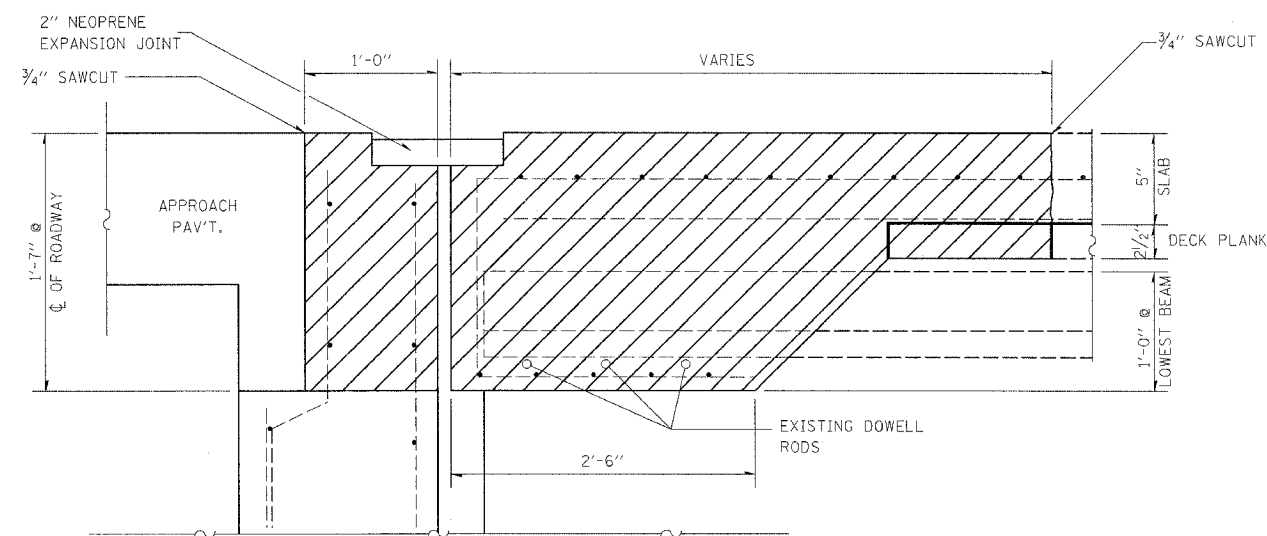
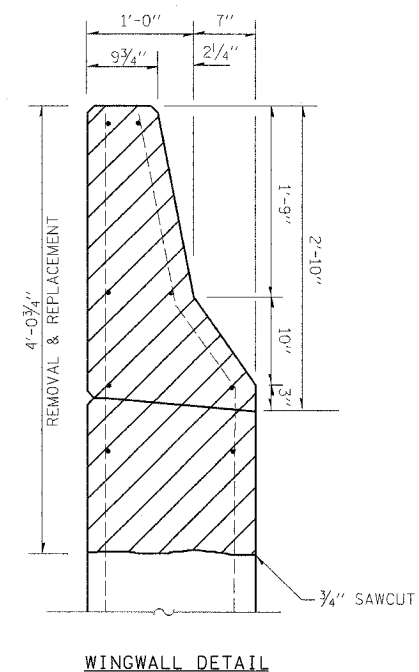


BRIDGE APPROACH



CONCRETE REMOVAL (LIMITS ARE FROM OUT TO OUT OF DECK)

Existing Precast Prestressed Plank (4'-0" x 6'-9")



NOTE: THE CONTRACTOR SHALL USE EXTREME CARE DURING CONCRETE REMOVAL SO AS NOT TO DAMAGE THE PPC I-BEAMS.

EXISTING EXPANSION JOINTS AT ABUTMENTS

FILE NAME = c:\projects\74275\ah\details_74275.dgn	USER NAME = seeslegk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	058-0118 REMOVAL SOUTH EXPANSION JOINT	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLLOT SCALE = 28.0000 1 / IN.	CHECKED -	REVISED -	322 DT BRIDGE REPAIRS 2009-1			MACON	14	10		
PLLOT DATE = 3/13/2008	DATE -	REVISED -	CONTRACT NO. 74275							
			FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT				
		SCALE: SHEET NO. OF SHEETS STA. TO STA.								

BAR LIST - PER ABUTMENT - STR #058-0118

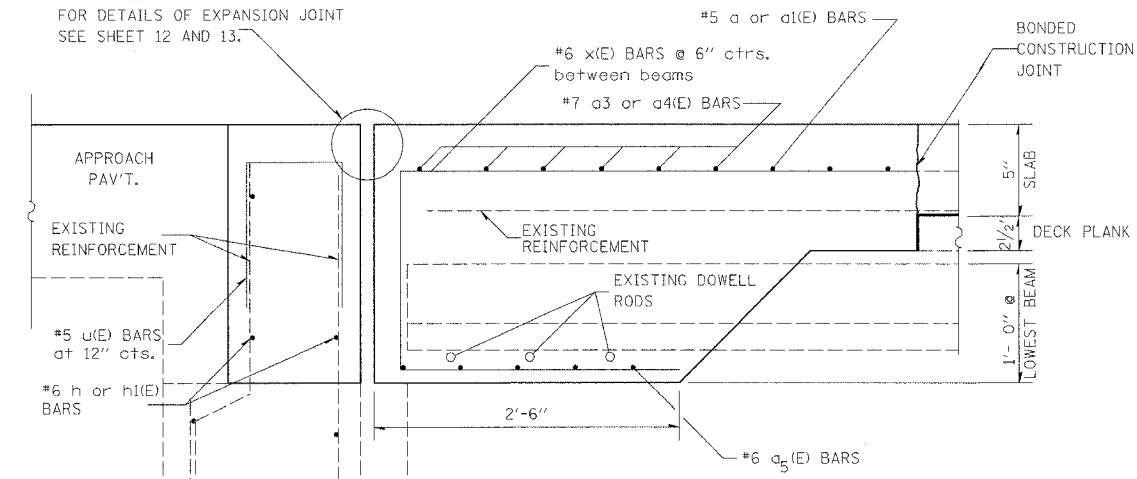
BAR	NUMBER OF BARS		TOTAL	SIZE	LENGTH	SHAPE
	STAGE I	STAGE II				
a (E)	19		19	#5	22'-6"	—
a1(E)		19	19	#5	18'-6"	—
a2(E)	4	6	10	#6	4'-0"	—
a3(E)	6		6	#7	24'-6"	—
a4(E)		6	6	#7	20'-4"	—
a5(E)	15	10	25	#6	7'-0"	—
d(E)	5	7	12	#4	4'-11"	J
d1(E)	5	7	12	#5	3'-11"	J
h(E)	3		3	#6	24'-6"	—
h1(E)		3	3	#6	20'-4"	—
x(E)	36	29	65	#6	8'-0"	—
u(E)	23	19	42	#5	1'-11"	□

CONCRETE REMOVAL	CU YD	14.9
REINFORCEMENT BARS (EPOXY COATED)	POUND	2880
CONCRETE SUPERSTRUCTURE	CU YD	14.9

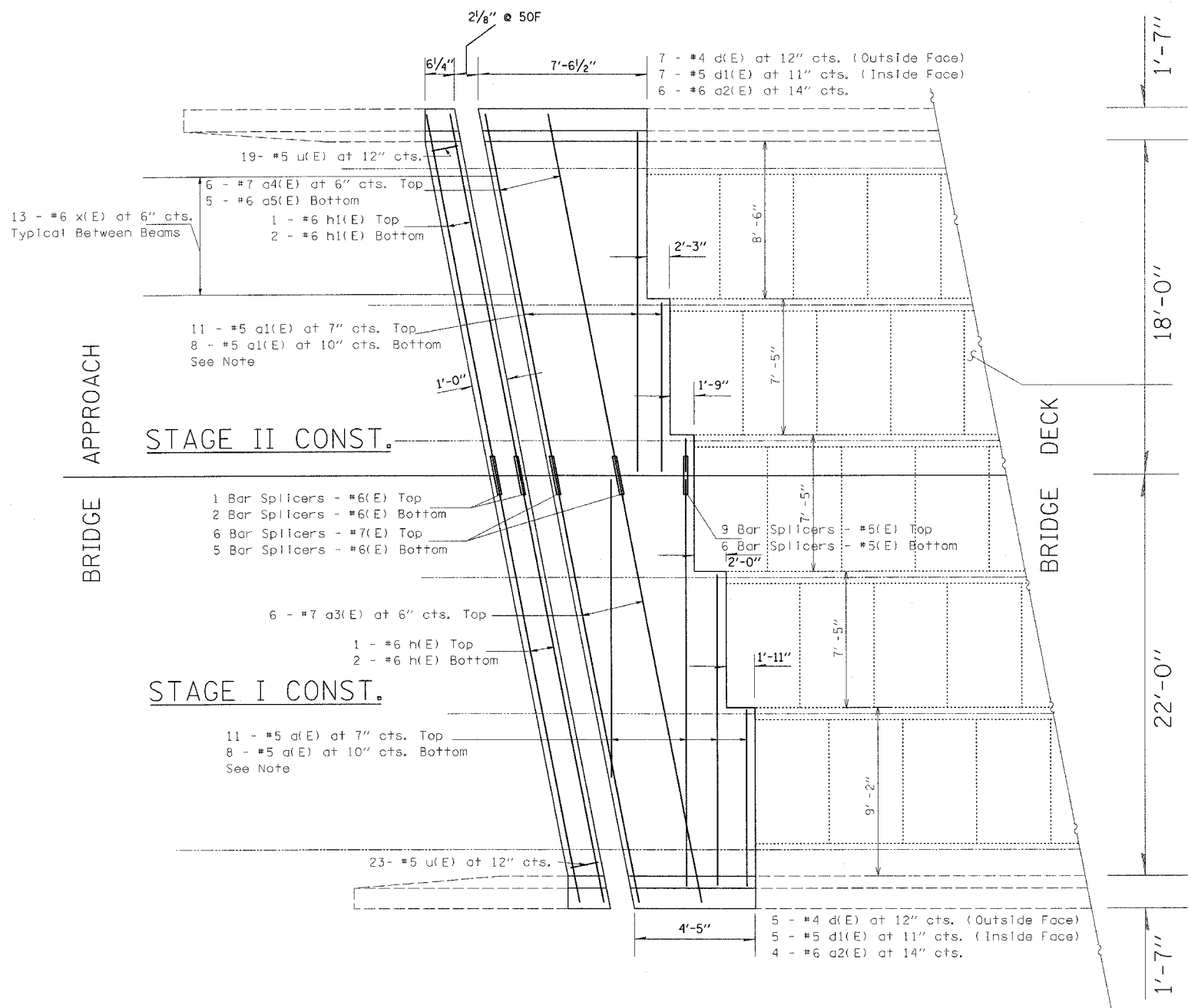


NOTE: Order a(E) and a1(E) Bars full length. Cut to fit in field and use remainder of bars in stagger on same stage.

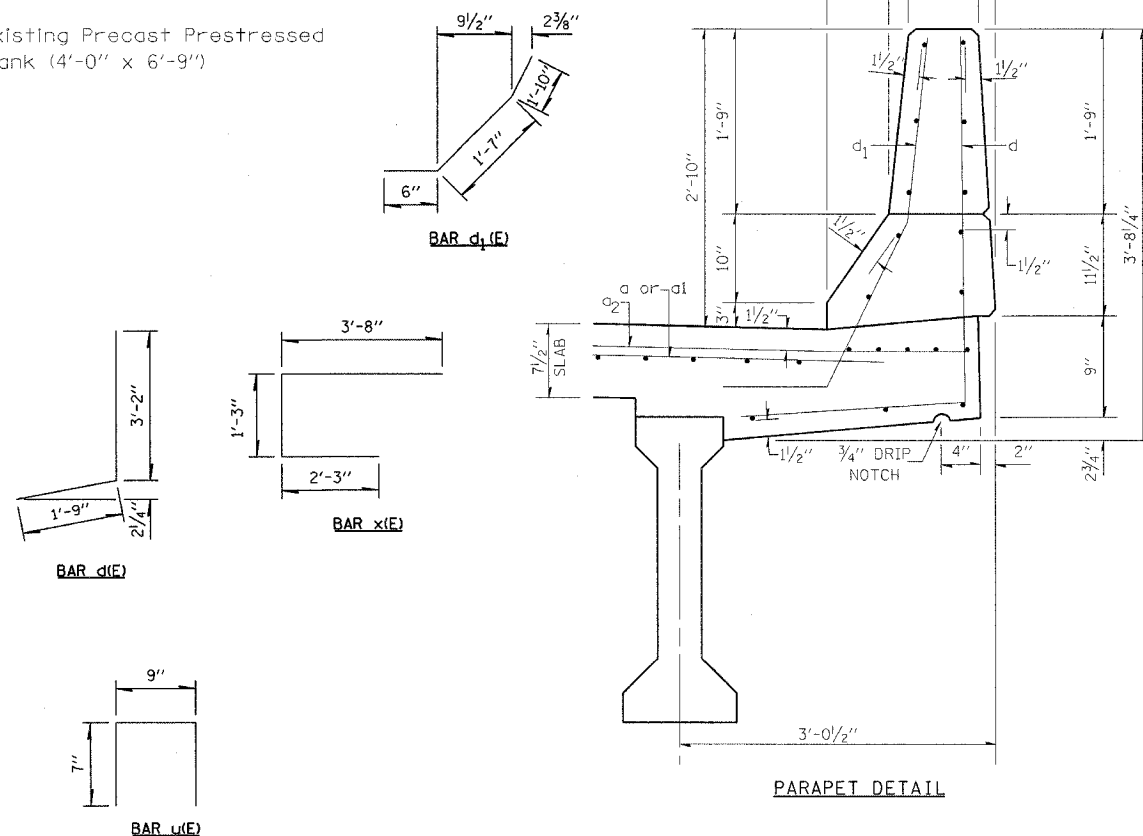
PREFORMED JOINT STRIP SEAL FOR DETAILS OF EXPANSION JOINT SEE SHEET 12 AND 13.



PROPOSED EXPANSION JOINTS AT ABUTMENTS



Existing Precast Prestressed Plank (4'-0" x 6'-9")



PARAPET DETAIL

FILE NAME =
c:\projects\74275d\shd\details\74275.dgn

USER NAME = seasleyk
PLOT SCALE = 20,0000 / IN.
PLOT DATE = 3/13/2008

DESIGNED -
DRAWN -
CHECKED -
DATE -

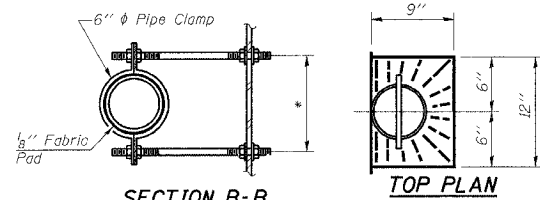
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

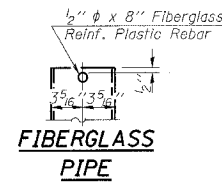
058-0118 EXPANSION JOINT AND REBAR DETAILS

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

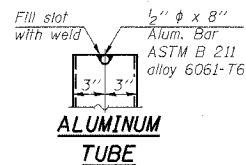
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322 DT	BRIDGE REPAIRS 2009-1	MACON	14	11
CONTRACT NO. 74275				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



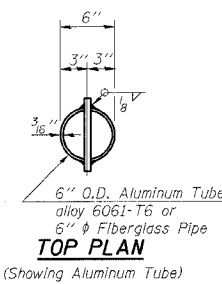
SECTION B-B
* Dimension as required by Pipe Clamp



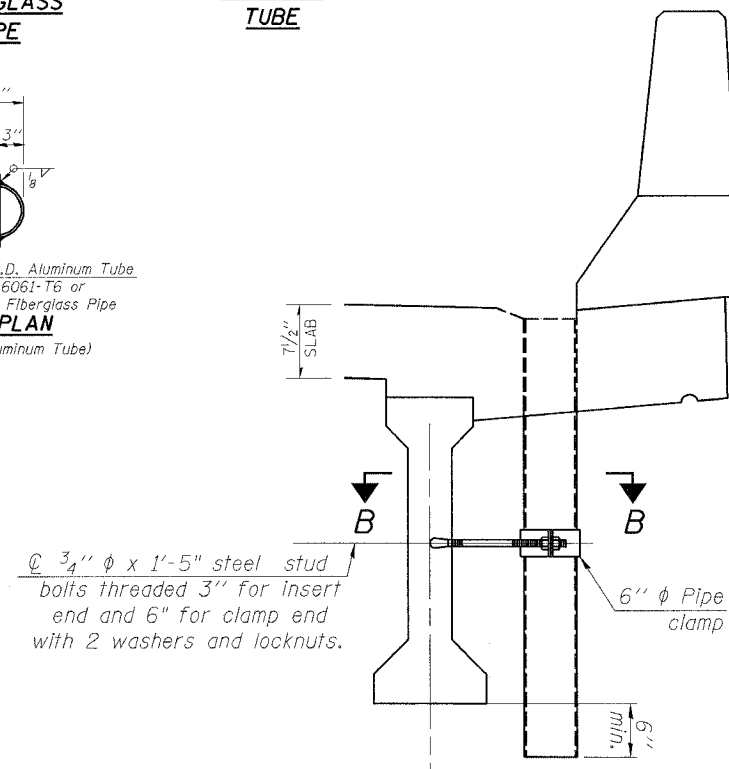
FIBERGLASS PIPE



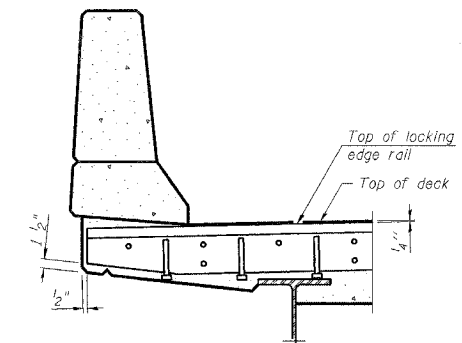
ALUMINUM TUBE



TOP PLAN
(Showing Aluminum Tube)



DRAIN DETAIL AT PARAPET

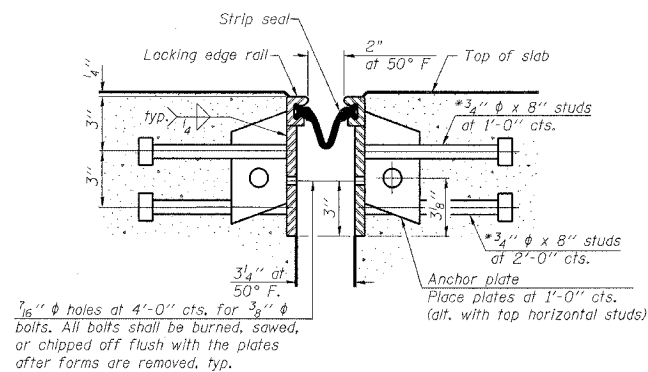
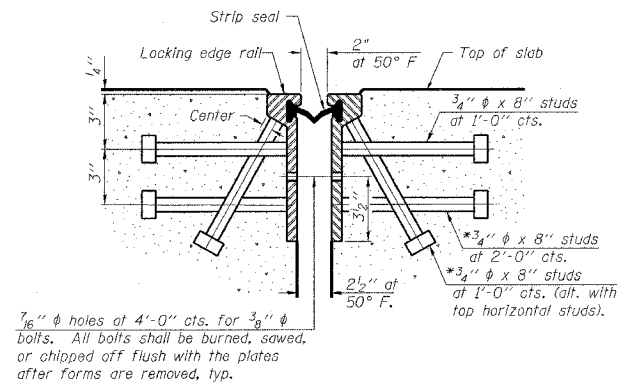


STRIP SEAL JOINT ASSEMBLY AT SOFFIT

Note: Extend Rubber Strip Seal 6" past outside edge of parapet.

FILE NAME = c:\projects\74275d\shdeta\is_74275.dgn	USER NAME = teasleyk	DESIGNED - DRAWN -	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ADDITIONAL BRIDGE DETAILS				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 20,00000 ' / IN.	CHECKED -	REVISED -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	322 DT BRIDGE REPAIRS 2009-1	MACON	14	12
PLOT DATE = 3/13/2009	DATE -	REVISED -	REVISED -								CONTRACT NO. 74275			
											ILLINOIS FED. AID PROJECT			

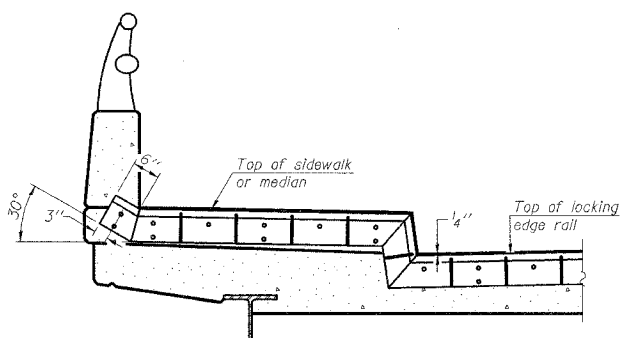
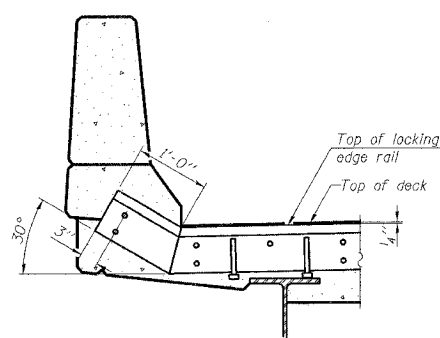
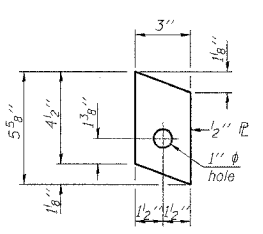
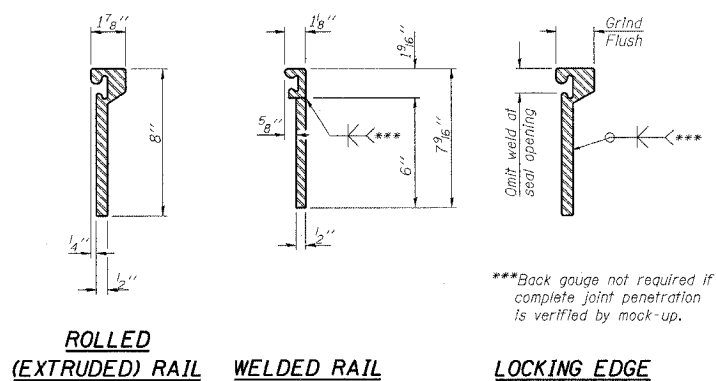
*Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



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.

SECTION THRU ROLLED RAIL JOINT

SECTION THRU WELDED RAIL JOINT

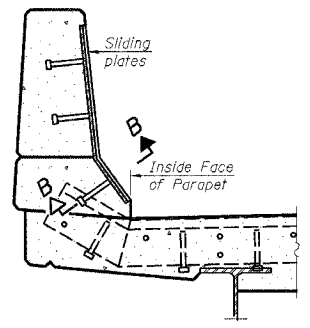
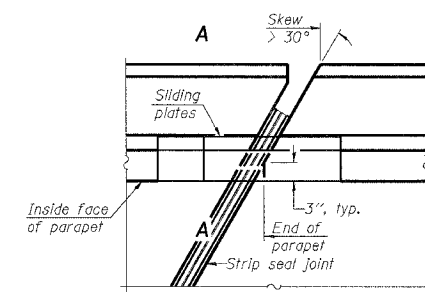


AT PARAPET
 FOR END TREATMENT SEE
 DETAIL ON SHEET 12 OF 14

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.

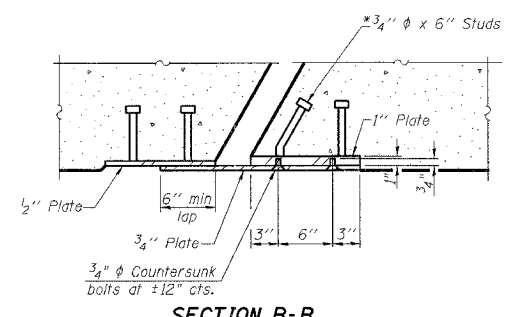
LOCKING EDGE RAIL SPLICE
 The inside of the locking edge rail groove shall be free of weld residue.

LOCKING EDGE RAILS



SECTION A-A
 POINT BLOCK DETAILS
 (for skews > 30°)

TYPICAL END TREATMENTS



BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	45
Preformed Joint Strip Seal	Foot	45

STR# 058-0117
 STR# 058-0118

PREFORMED JOINT STRIP SEAL

EJ-SSJ 9-3-07

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

ROLLED THREAD DOWEL BAR



**** ONE PIECE**

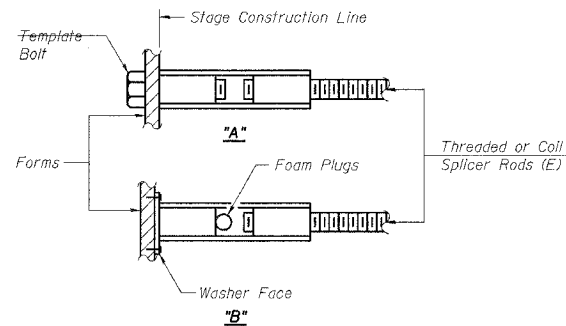
Wire Connector



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.

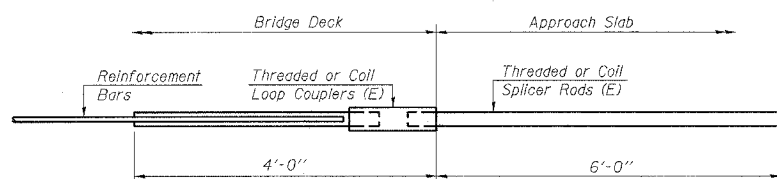
NOTES

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

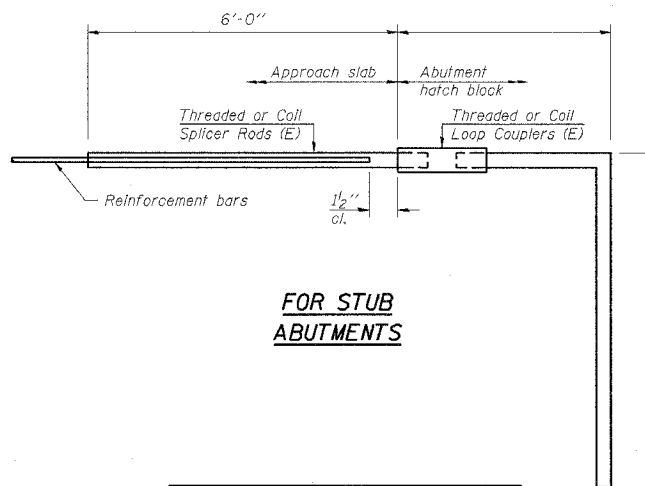
Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_s = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

BAR SPLICER ASSEMBLIES			
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



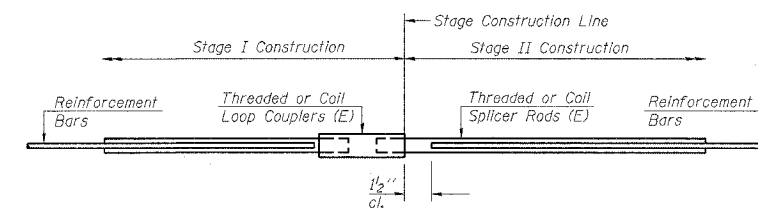
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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
#6	3	0117 APPROACH
#7	6	0117 DECK
#6	5	0117 DECK
#5	17	0117 DECK
#6	3	0118 APPROACH
#7	6	0118 DECK
#6	5	0118 DECK
#5	15	0118 DECK

BAR SPLICER ASSEMBLY DETAILS

BSD-1

11-1-06