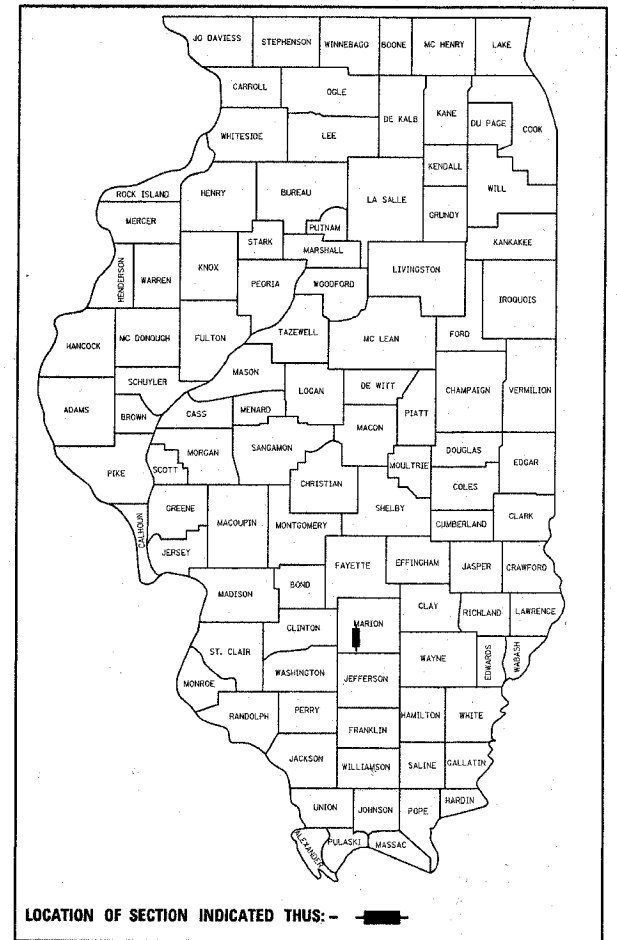


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	*	MARION	13	1

D-7 JOINT REPAIRS 2006-1

D-97-025-05



LOCATION OF SECTION INDICATED THIS: - [black box] -

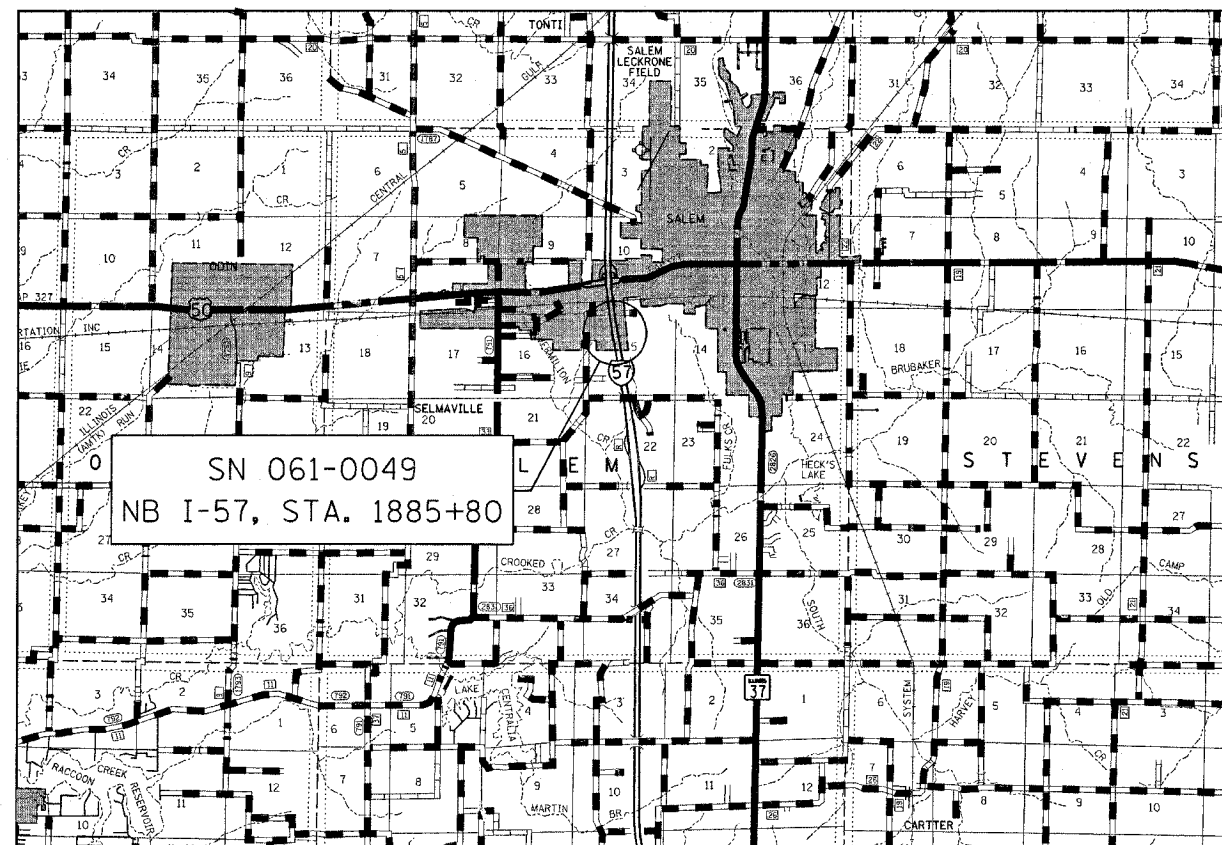
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

**PROPOSED
 HIGHWAY PLANS**

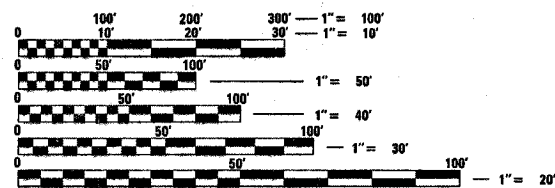
FAI ROUTE 57 (I-57)
 D-7 JOINT REPAIRS 2006-1
 MARION COUNTY

C-97-058-05

FOR INDEX OF SHEETS, SEE SHEET NO. 2



2004 ADT = 8,950 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

PROJECT ENGINEER : MARK DAUGHERTY
 SQUAD LEADER : BRIAN LEWIS
 DESIGNER : BRIAN J. BIERMAN
 TELEPHONE : 217/342-3951 EX 313

CONTRACT NO. 74097

TOWNSHIP : SALEM

GROSS LENGTH = 1357 FEET = 0.26 MILES
 NET LENGTH = 1357 FEET = 0.26 MILES

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED FEB. 10, 20 06
Christ H. Reed
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 24, 20 06
Mike Blum
 ENGINEER OF DESIGN AND ENVIRONMENT

March 24, 20 06
Milton R. See, P.E.
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57		MARION	13	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• D-7 JOINT REPAIRS 2006-1				

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NORMAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIAL. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION OR FOR A CHANGE IN THE SCOPE OF THE WORK; HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE FOR THE WORK.

THE GUARDRAIL LOCATED WITHIN THE LIMITS OF THE BRIDGE APPROACH SHOULDER PAVEMENT SHALL BE REMOVED AND RE-ERECTED. THE COST OF REMOVING AND RE-ERECTING THE GUARDRAIL WILL NOT BE PAID FOR SEPERATELY BUT SHALL BE INCLUDED IN THE COST OF THE BRIDGE APPROACH SHOULDER PAVEMENT.

THE INSTALLATION OF TEMPORARY PAVEMENT MARKING AS SHOWN ON STANDARDS 701401 AND 701402 IS INCLUDED IN THE COST OF EACH RESPECTIVE TRAFFIC CONTROL PAY ITEM. THE REMOVAL OF THIS STRIPING SHALL BE PAID FOR AS WORK ZONE PAVEMENT MARKING REMOVAL.

BITUMINOUS MATERIALS (PRIME COAT) SHALL BE EITHER RC-70 OR AN EMULSIFIED POLYMER PRIME SS-1HP.

THE FOLLOWING POLYMERIZED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIXTURE D, NI05 MIXTURE REQUIREMENTS ARE APPLICABLE TO THIS PROJECT:

MIXTURE USE(S):	SURFACE COURSE
PG GRADE:	PG 64-22
RAP%: (MAX)	0%
DESIGN AIR VOIDS:	4.0% @ NDESIGN = 105
MIXTURE COMPOSITION:	IL-9.5
FRICITION AGGREGATE:	MIXTURE D

INDEX OF SHEETS

SHEET NO.	TITLE
1	COVER SHEET
2	GENERAL NOTES, INDEX OF SHEETS & LIST OF STANDARDS
3	SUMMARY OF QUANTITIES
4	SCHEDULE OF QUANTITIES
5	STAGE CONSTRUCTION DETAILS
6-13	STRUCTURE PLANS AND DETAILS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 13:

STD. NO.	DESCRIPTION
000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
420401-05	BRIDGE APPROACH PAVEMENT
609001-02	BRIDGE APPROACH SHOULDER PAVEMENT AND DRAIN
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
701101-01	OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-01	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701400-02	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-03	LANE CLOSURE, FREEWAY/EXPRESSWAY
701402-05	LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
701426-02	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS >= 45 MPH
702001-06	TRAFFIC CONTROL DEVICES
704001-02	TEMPORARY CONCRETE BARRIERS
780001-01	TYPICAL PAVEMENT MARKINGS
781001-02	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

PLOT DATE = 2/19/2006
 FILE NAME = c:\projects\74097\1\21021861.dgn
 PLOT SCALE = 58.8000 / IN.
 USER NAME = staff\mark

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		GENERAL NOTES & INDEX OF SHEETS
SCALE: VERT.	DRAWN BY	CHECKED BY
DATE	HORIZ.	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57		MARION	13	3
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

• D-7 JOINT REPAIRS 2006-1

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			URBAN 100% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		SFTY-2A	
X0325233	SILICONE JOINT SEALER, 2.25"	FOOT	94	94	
20700400	POROUS GRANULAR EMBANKMENT (SPECIAL)	CU YD	129.8	129.8	
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	143	143	
42001500	P.C. CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT	SQ YD	30	30	
44000006	BITUMINOUS SURFACE REMOVAL 1 1/2"	SQ YD	1435	1435	
50102400	CONCRETE REMOVAL	CU YD	22.2	22.2	
50200100	STRUCTURE EXCAVATION	CU YD	129.8	129.8	
50300225	CONCRETE STRUCTURES	CU YD	22.2	22.2	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1640	1640	
51205200	TEMPORARY SHEET PILING	SQ FT	289	289	
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	104	104	
67100100	MOBILIZATION	L SUM	1	1	
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	1	
70100805	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	L SUM	1	1	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2720	2720	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2070	2070	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	330	330	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	330	330	
* 78008310	POLYUREA PAVEMENT MARKING TYPE II - LINE 4"	FOOT	2720	2720	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	905	905	
X0300136	BRIDGE APPROACH SHOULDER REMOVAL	SQ YD	30	30	
X0320887	POLYMER CONCRETE	CU FT	7.5	7.5	
X4066430	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N105	TON	121	121	
X6028300	INLETS TO BE REMOVED, SPECIAL	EACH	2	2	
Z0001500	APPROACH SLAB REMOVAL & REPLACEMENT	SQ YD	76	76	
Z0002600	BAR SPLICERS	EACH	104	104	
Δ Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	1	
Δ Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	1	

Δ SFTY-3N

*SPECIALTY ITEMS

Rev.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: VERT. HORIZ. DATE

DRAWN BY CHECKED BY

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	*	MARION	13	7
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* D-7 JOINT REPAIRS 2006-1

PAVING SCHEDULE

STATION TO STATION	LENGTH	PAVEMENT WIDTH	AREA	BITUMINOUS MATERIALS (PRIME COAT)	BITUMINOUS SURFACE REMOVAL 1 1/2"	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N105
	LIN FT	FEET	SQ. YD.	GAL	SQ. YD.	TON
PASSING LANE SHOULDER						
1876+55 TO 1885+78	923	6	615	62	615	52
1887+62 TO 1890+12	250	6	167	17	167	14
DRIVING LANE SHOULDER						
1876+55 TO 1885+96	941	5	523	52	523	44
1887+78 TO 1890+12	234	5	130	13	130	11
TOTALS:			1435	143	1435	121

STRIPING SCHEDULE

STATION TO STATION	LENGTH	TEMPORARY PAVEMENT MARKING - LINE 4"	WORK ZONE PAVEMENT MARKING REMOVAL	POLYUREA PAVEMENT MARKING - LINE 4"	PAVEMENT MARKING REMOVAL
	LIN FT	FOOT	SQ. FT.	FOOT	FOOT
DRIVING LANE					
1870+72 TO 1876+55	583	0	195	0	0
1876+55 TO 1888+12	1157	1160	773	1160	386
1888+12 TO 1890+12	200	200	67	200	67
PASSING LANE					
1870+72 TO 1876+55	583	0	195	0	0
1876+55 TO 1888+12	1157	1160	773	1160	386
1888+12 TO 1890+12	200	200	67	200	67
TOTALS:			2720	2070	905

PLOT DATE = 2/10/2006
 PLOT SCALE = 50.0000 / IN.
 USER NAME = staffennk

REVISIONS	
NAME	DATE

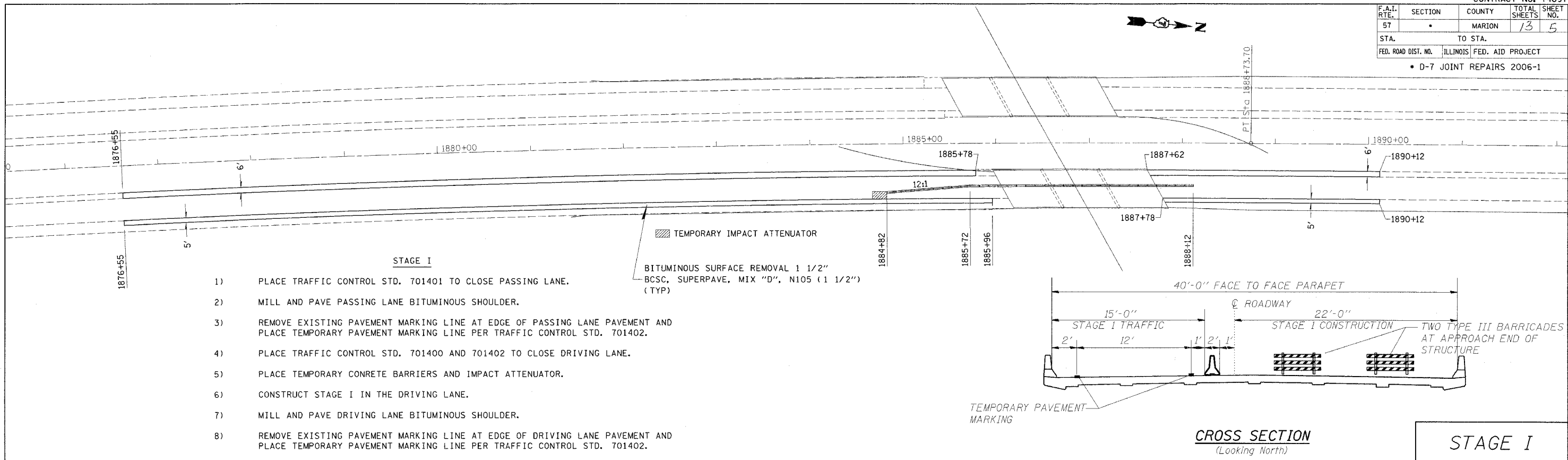
ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: VERT. DATE HORIZ. DATE

DRAWN BY CHECKED BY

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57		MARION	13	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
• D-7 JOINT REPAIRS 2006-1				



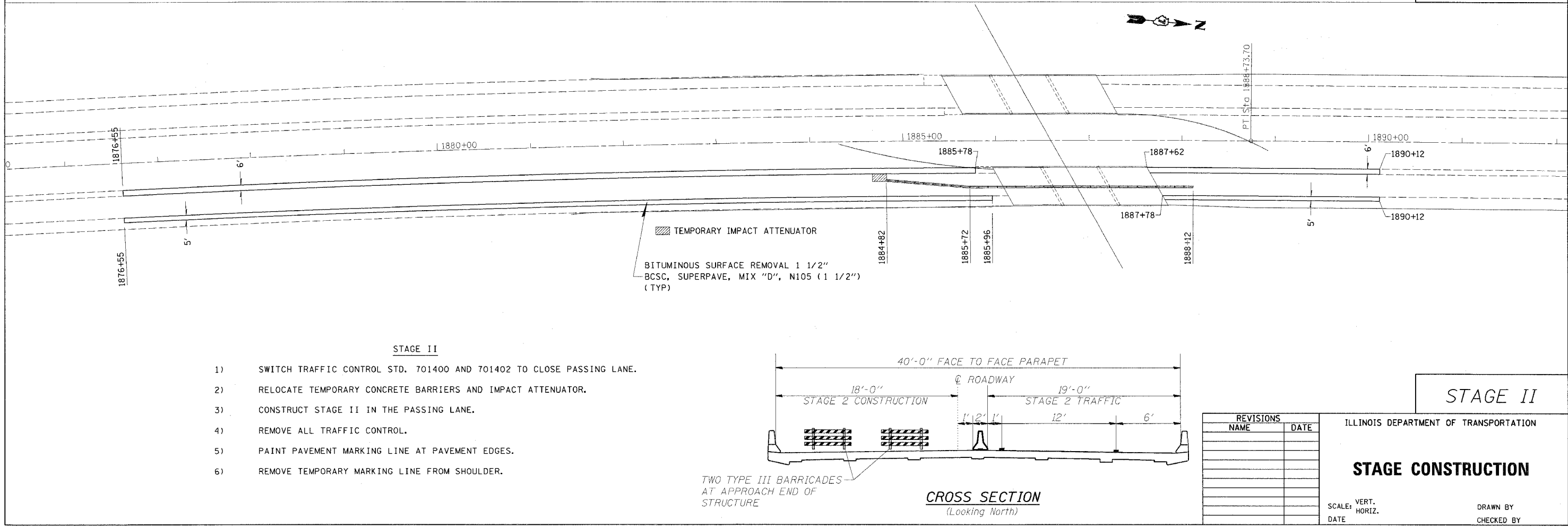
- STAGE I**
- 1) PLACE TRAFFIC CONTROL STD. 701401 TO CLOSE PASSING LANE.
 - 2) MILL AND PAVE PASSING LANE BITUMINOUS SHOULDER.
 - 3) REMOVE EXISTING PAVEMENT MARKING LINE AT EDGE OF PASSING LANE PAVEMENT AND PLACE TEMPORARY PAVEMENT MARKING LINE PER TRAFFIC CONTROL STD. 701402.
 - 4) PLACE TRAFFIC CONTROL STD. 701400 AND 701402 TO CLOSE DRIVING LANE.
 - 5) PLACE TEMPORARY CONCRETE BARRIERS AND IMPACT ATTENUATOR.
 - 6) CONSTRUCT STAGE I IN THE DRIVING LANE.
 - 7) MILL AND PAVE DRIVING LANE BITUMINOUS SHOULDER.
 - 8) REMOVE EXISTING PAVEMENT MARKING LINE AT EDGE OF DRIVING LANE PAVEMENT AND PLACE TEMPORARY PAVEMENT MARKING LINE PER TRAFFIC CONTROL STD. 701402.

BITUMINOUS SURFACE REMOVAL 1 1/2" BCSC, SUPERPAVE, MIX "D", N105 (1 1/2") (TYP)

TEMPORARY PAVEMENT MARKING

CROSS SECTION
(Looking North)

STAGE I



- STAGE II**
- 1) SWITCH TRAFFIC CONTROL STD. 701400 AND 701402 TO CLOSE PASSING LANE.
 - 2) RELOCATE TEMPORARY CONCRETE BARRIERS AND IMPACT ATTENUATOR.
 - 3) CONSTRUCT STAGE II IN THE PASSING LANE.
 - 4) REMOVE ALL TRAFFIC CONTROL.
 - 5) PAINT PAVEMENT MARKING LINE AT PAVEMENT EDGES.
 - 6) REMOVE TEMPORARY MARKING LINE FROM SHOULDER.

BITUMINOUS SURFACE REMOVAL 1 1/2" BCSC, SUPERPAVE, MIX "D", N105 (1 1/2") (TYP)

TWO TYPE III BARRICADES AT APPROACH END OF STRUCTURE

CROSS SECTION
(Looking North)

STAGE II

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION

SCALE: VERT. DATE
HORIZ.

DRAWN BY
CHECKED BY

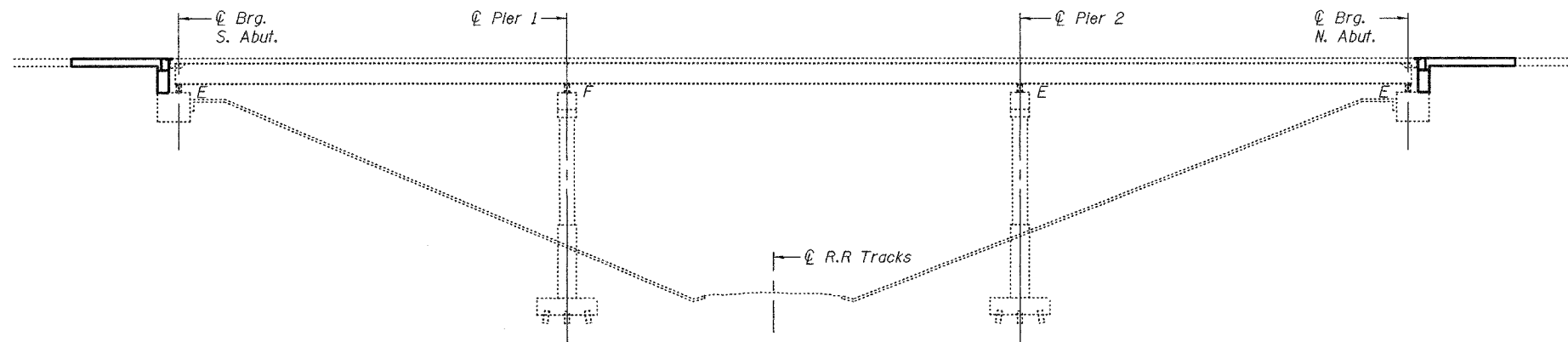
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PLOT SCALE = 5/8"=1'-0"
USER NAME = staffcmk

B.M.: Railroad spike in telephone pole
330'-0" Rt. Station 1006+30 Elev. 539.75

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
I-57		Marion	13	8
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract Number: 74097



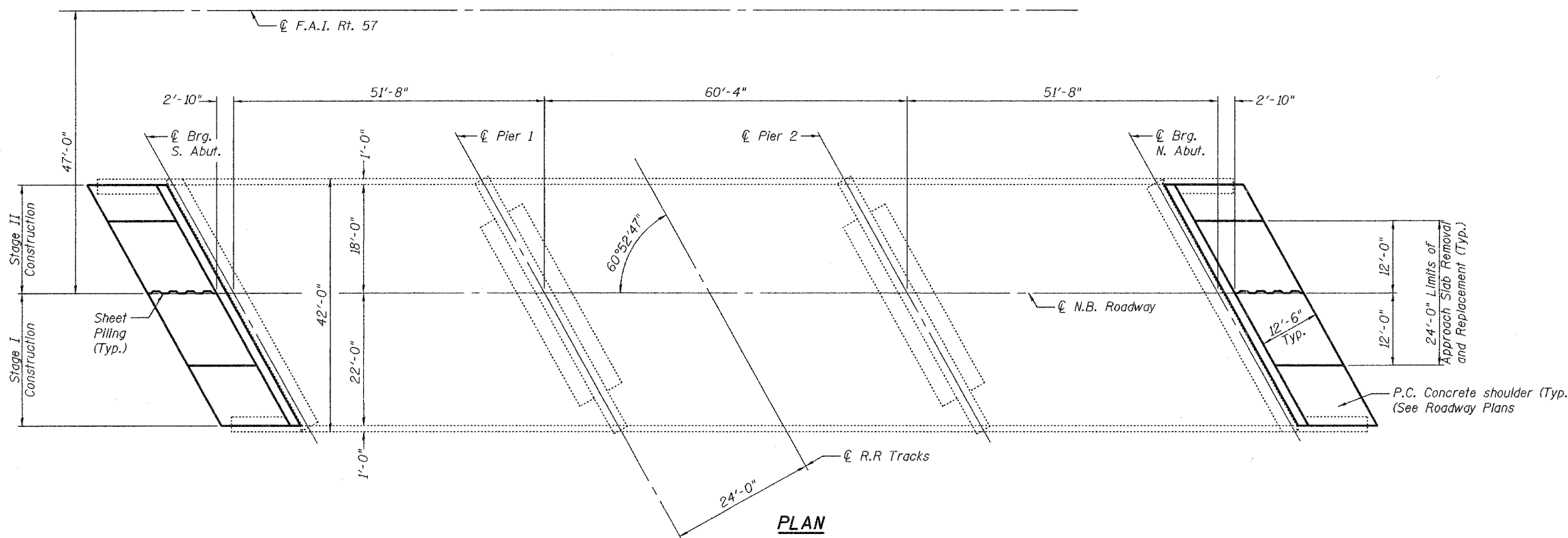
ELEVATION



GENERAL NOTES

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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.

All construction joints shall be bonded.
See Roadway Plans for quantity of Approach Slab Removal and Replacement, Temporary Concrete Barrier and P.C. Concrete Shoulder.



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Porous Granular Embankment (Special)	Cu. Yd.	129.8
Structure Excavation	Cu. Yd.	129.8
Reinforcement Bars, Epoxy Coated	Pound	1,640
Concrete Removal	Cu. Yd.	22.2
Concrete Structures	Cu. Yd.	22.2
Temporary Sheet Piling	Sq. Ft.	289
Pipe Underdrains for Structures	Foot	104
Polymer Concrete	Cu. Ft.	7.5
Silicone Joint Sealer, 2 1/4"	Foot	94
Bar Splicers	Each	104

DESIGNED	Alan T. Holloway
CHECKED	Paul Brakke
DRAWN	[Signature]
CHECKED	A.T.H. S.J.B.

EXAMINED	February 28, 2006	John A. Morrison
PASSED		Ralph E. Anderson



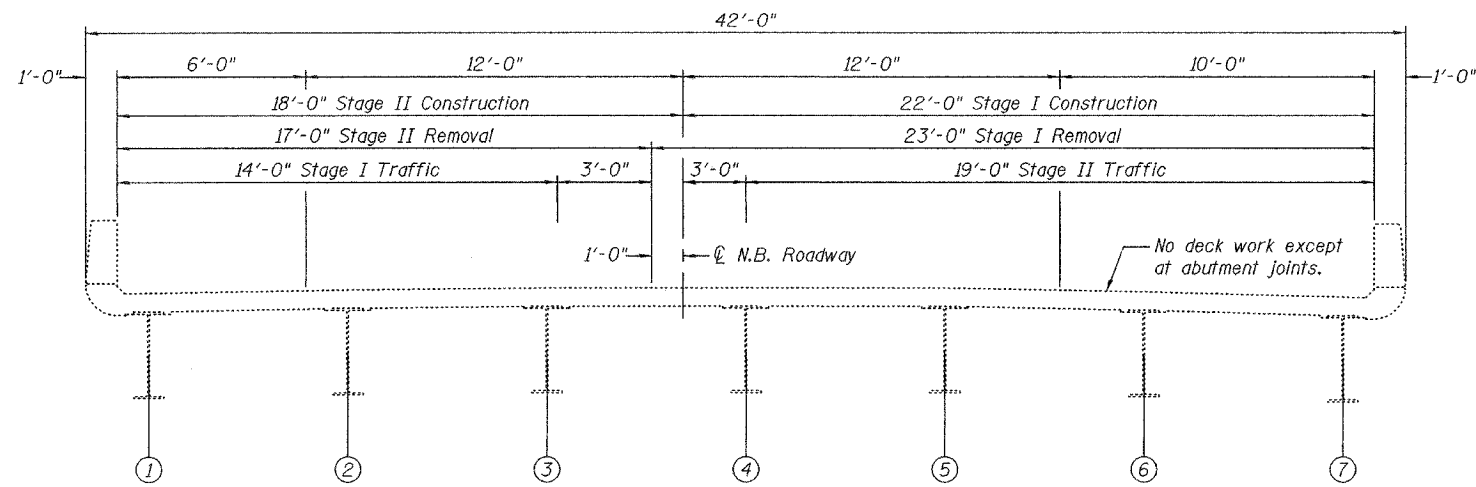
Expires: November 30, 2006

PLAN AND ELEVATION
I-57 OVER MISSOURI &
ILLINOIS RAILROAD
MARION COUNTY
SN 061-0049

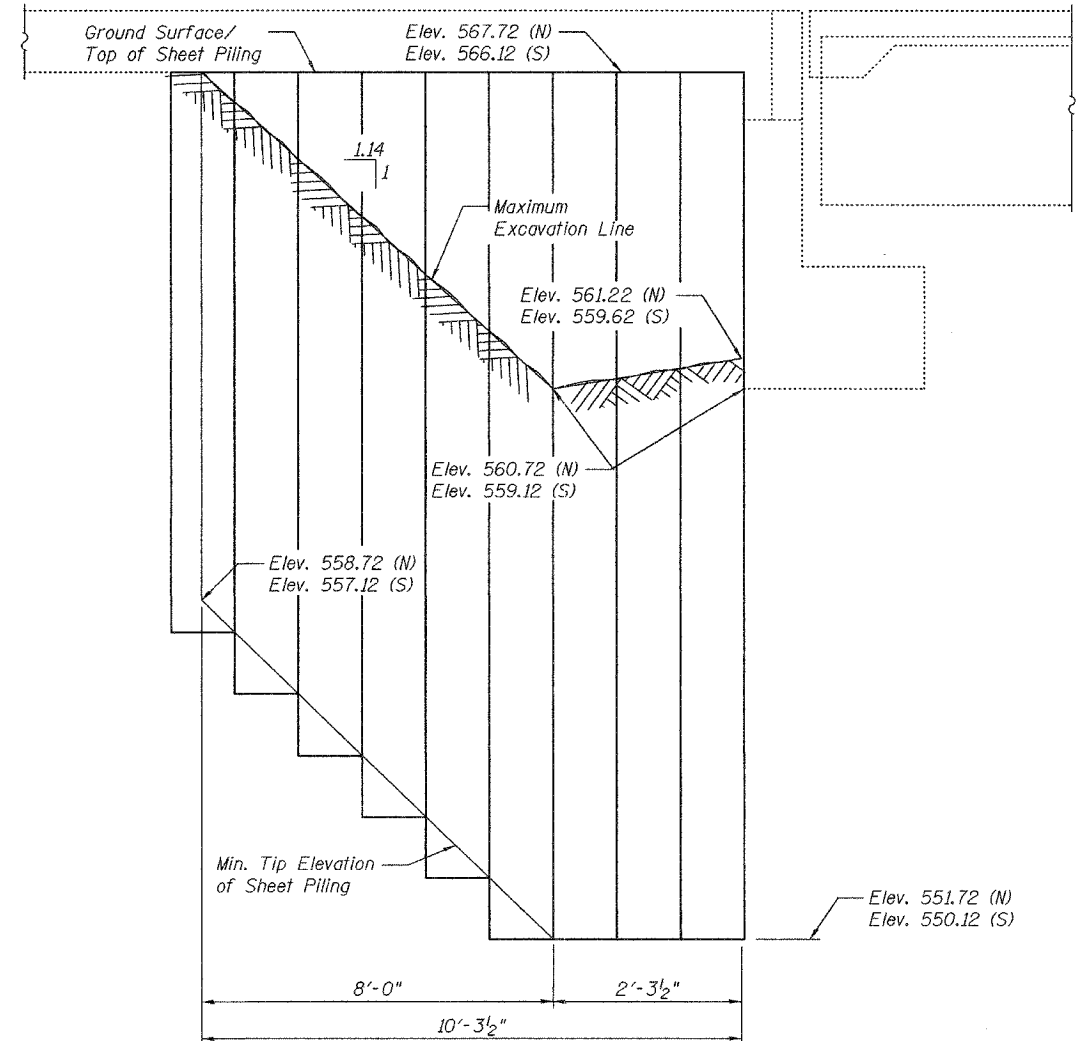
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2 8 SHEETS
I-57		Marion	13	7	
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT			

Contract Number: 74097



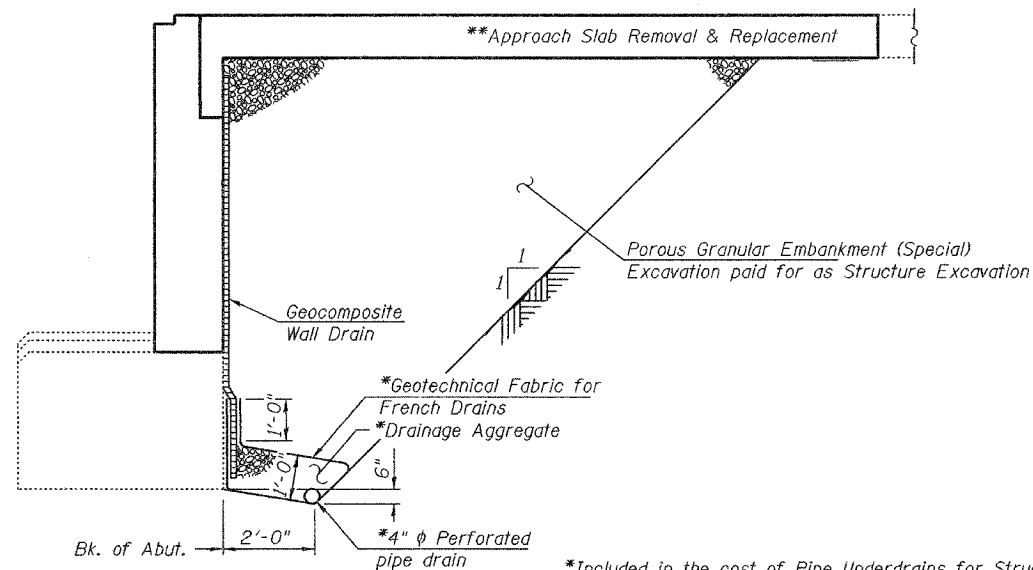
CONSTRUCTION STAGING
(Looking North)



TEMPORARY SHEET PILING

Slopes and dimensions shown along sheeting alignment.

Notes:
Minimum Section Modulus = 3.3 in.³/ft.
If the contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and approval by the Engineer.



SECTION THRU ABUTMENT
(Dimensions at Rt. L's)

*Included in the cost of Pipe Underdrains for Structures.
**For details see Roadway Plans

All drainage system components shall extend 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101). Bore holes through wingwalls as required and seal gap around pipe. Cost included with Pipe Underdrains for Structures.

DESIGNED	A.T.H.
CHECKED	S.J.B.
DRAWN	Drew Christopher
CHECKED	A.T.H. S.J.B.

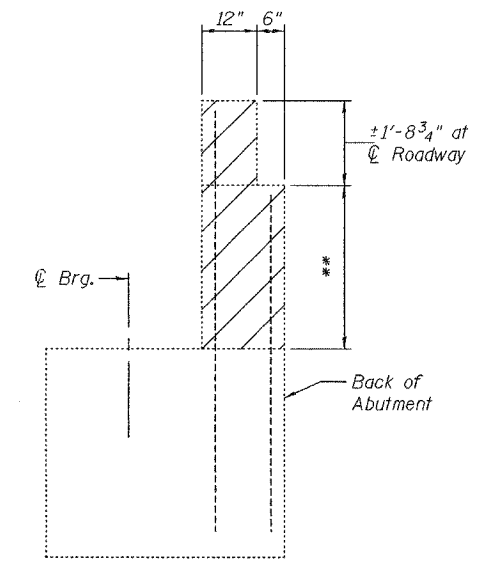
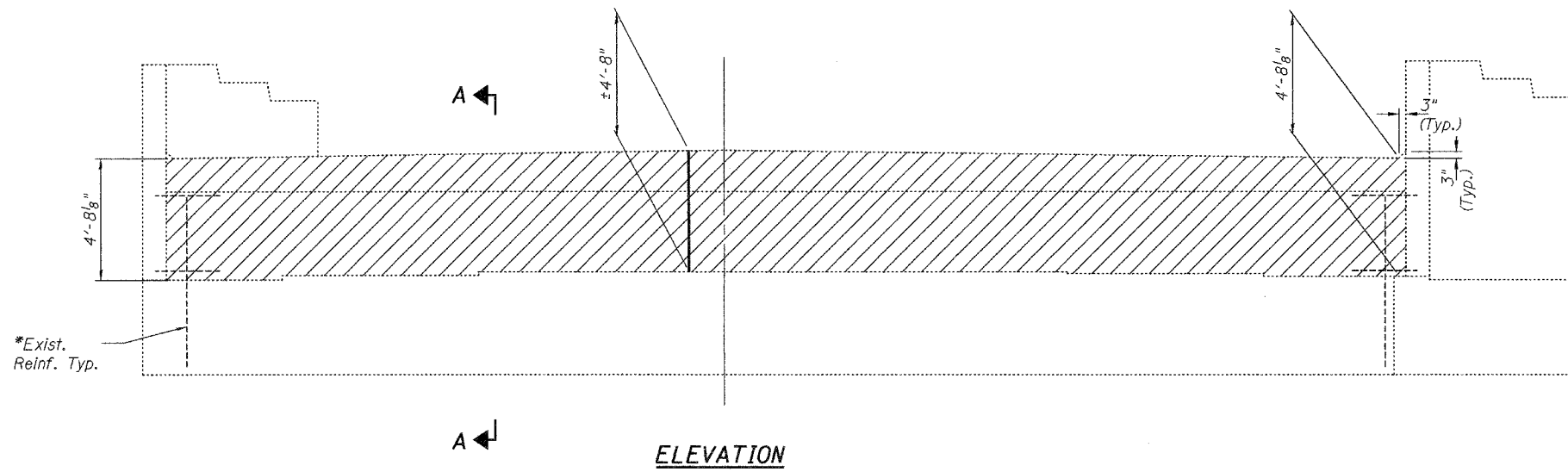
February 28, 2006
EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

STAGING DETAILS
I-57 OVER MISSOURI &
ILLINOIS RAILROAD
MARION COUNTY
SN 061-0049

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

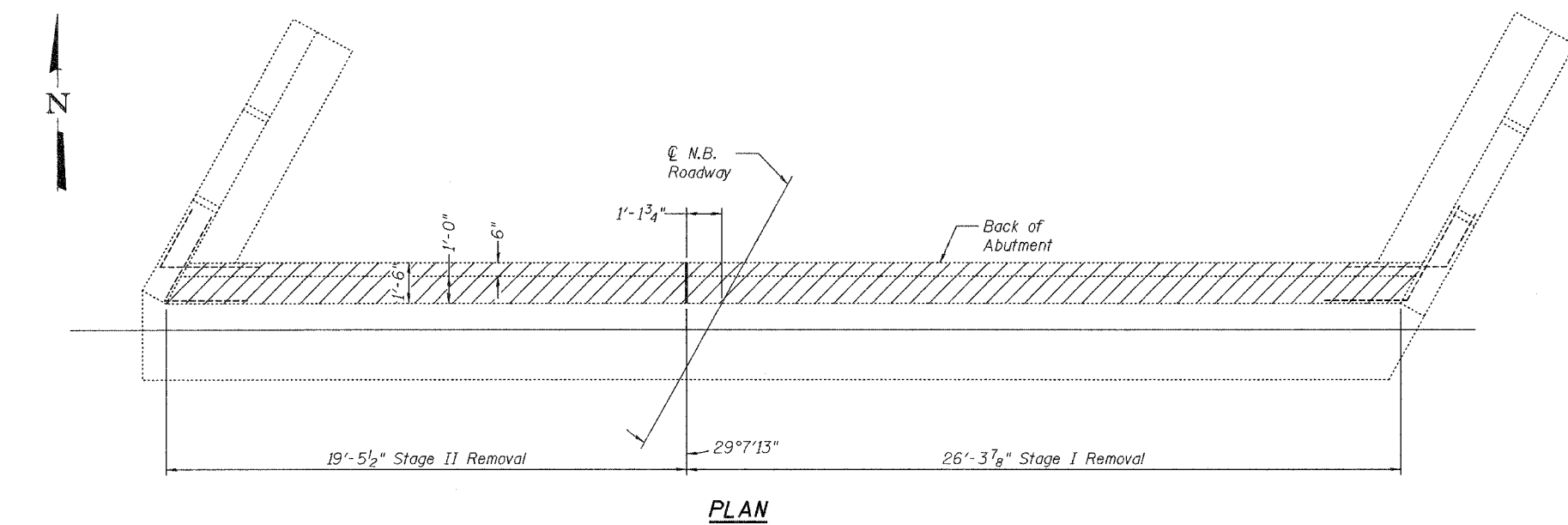
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I-57		Marion	13	8	3
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract Number: 74097



SECTION A-A
**Varies from
2'-11 $\frac{1}{2}"$ to 3'-3" for the North Abutment
2'-9 $\frac{7}{8}"$ to 3'-2 $\frac{5}{8}"$ for the South Abutment

Notes:
Hatched areas indicate area of Concrete Removal.
*Existing reinforcement 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 shall be included with Concrete Removal.



DESIGNED	A.T.H.	February 28, 2006
CHECKED	S.J.B.	EXAMINED <i>John A. Morris</i> ENGINEER OF STRUCTURAL SERVICES
DRAWN	Drew Christopher	PASSED <i>Ralph E. Anderson</i> ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	A.T.H. S.J.B.	

**NORTH ABUTMENT
REMOVAL DETAILS
I-57 OVER MISSOURI &
ILLINOIS RAILROAD
MARION COUNTY
SN 061-0049**

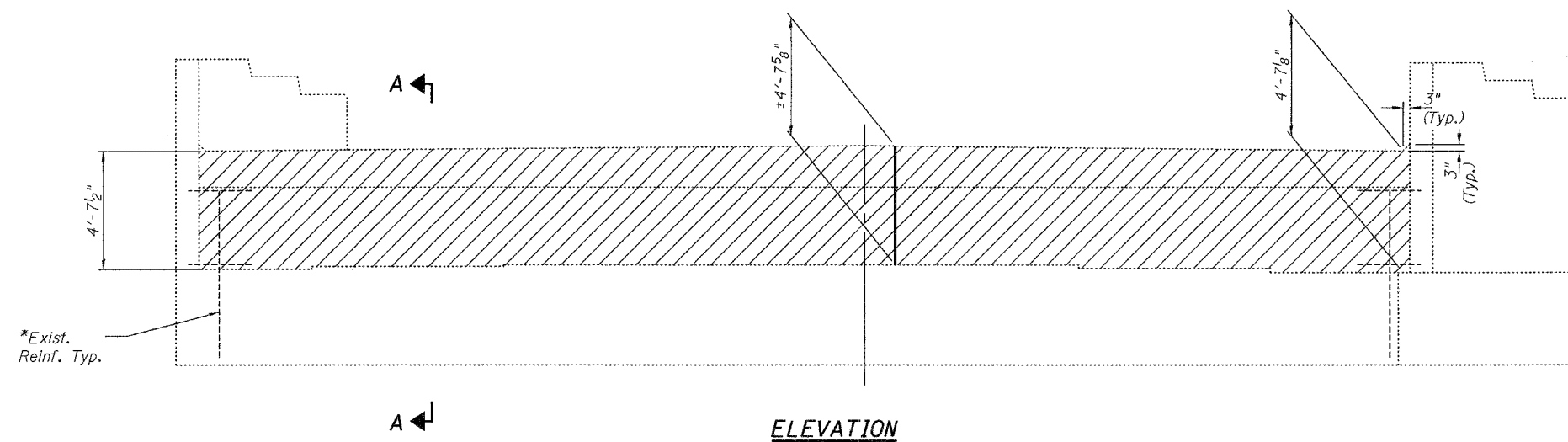
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DISTRICT	SHEET NO.
I-57		Marion	13	9
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

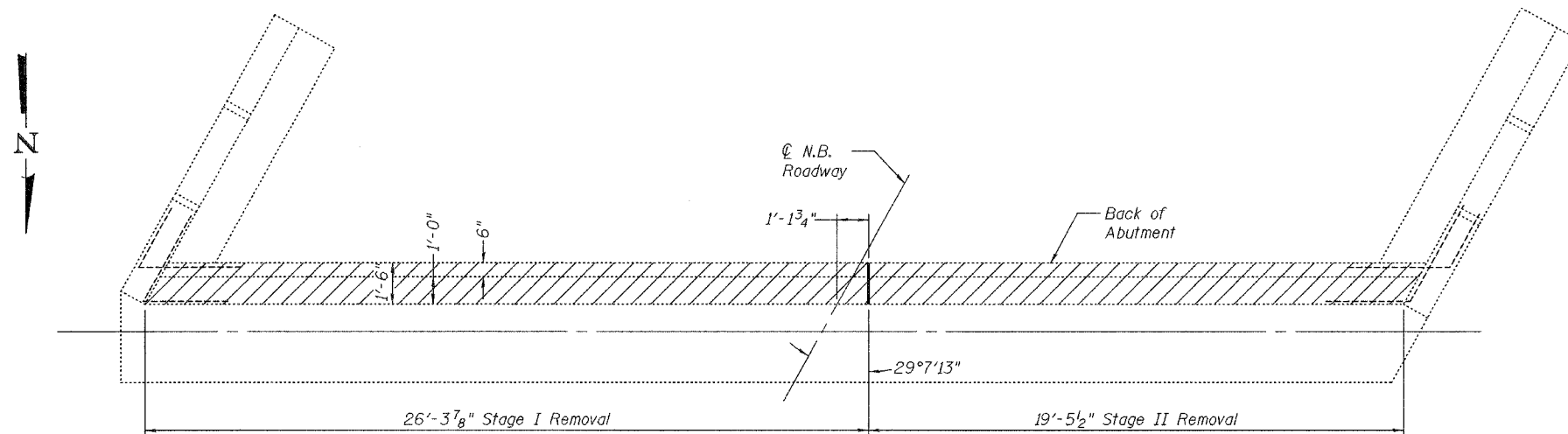
SHEET NO. 4

8 SHEETS

Contract Number: 74097



ELEVATION



PLAN

Notes:
For Section A-A see sheet 3 of 8.
Hatched areas indicate area of Concrete Removal.
*Existing reinforcement 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 shall be included with Concrete Removal.

DESIGNED	A.T.H.
CHECKED	S.J.B.
DRAWN	Drew Christopher
CHECKED	A.T.H. S.J.B.

February 28, 2006
EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

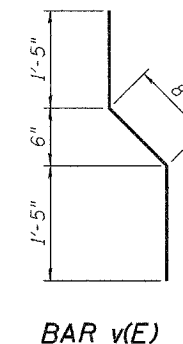
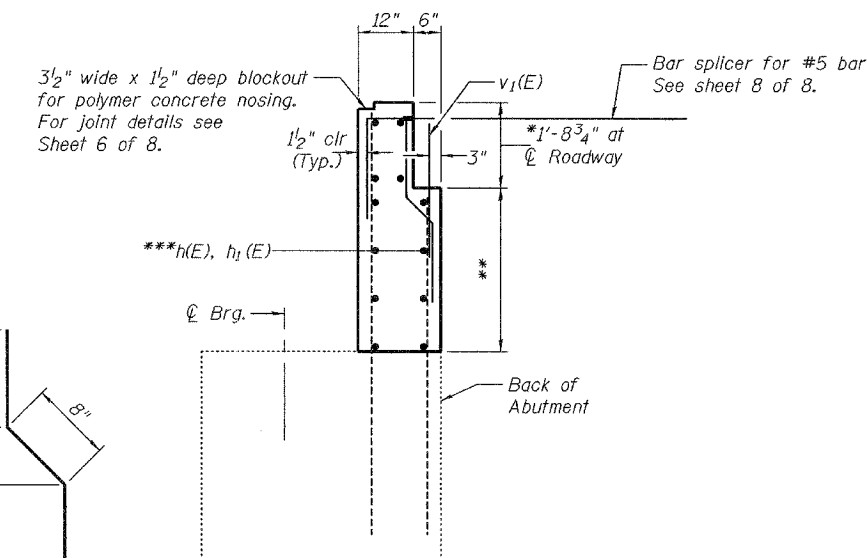
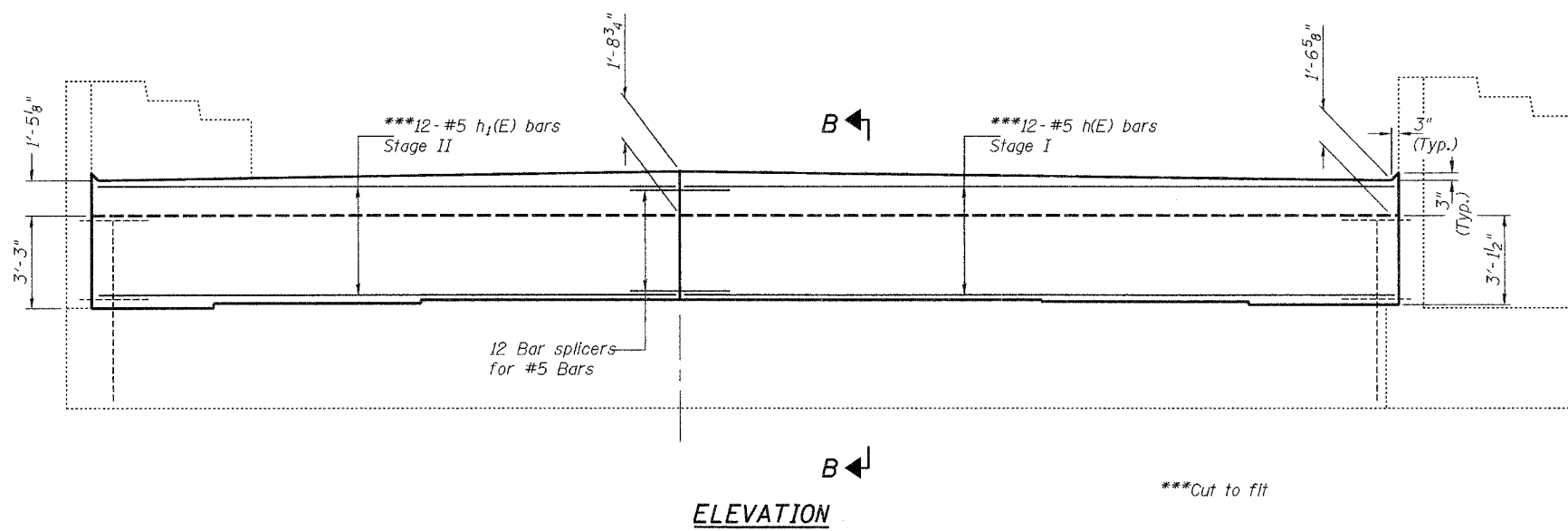
**SOUTH ABUTMENT
REMOVAL DETAILS
I-57 OVER MISSOURI &
ILLINOIS RAILROAD
MARION COUNTY
SN 061-0049**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-57		Marion	13	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
8 SHEETS

Contract Number: 74097



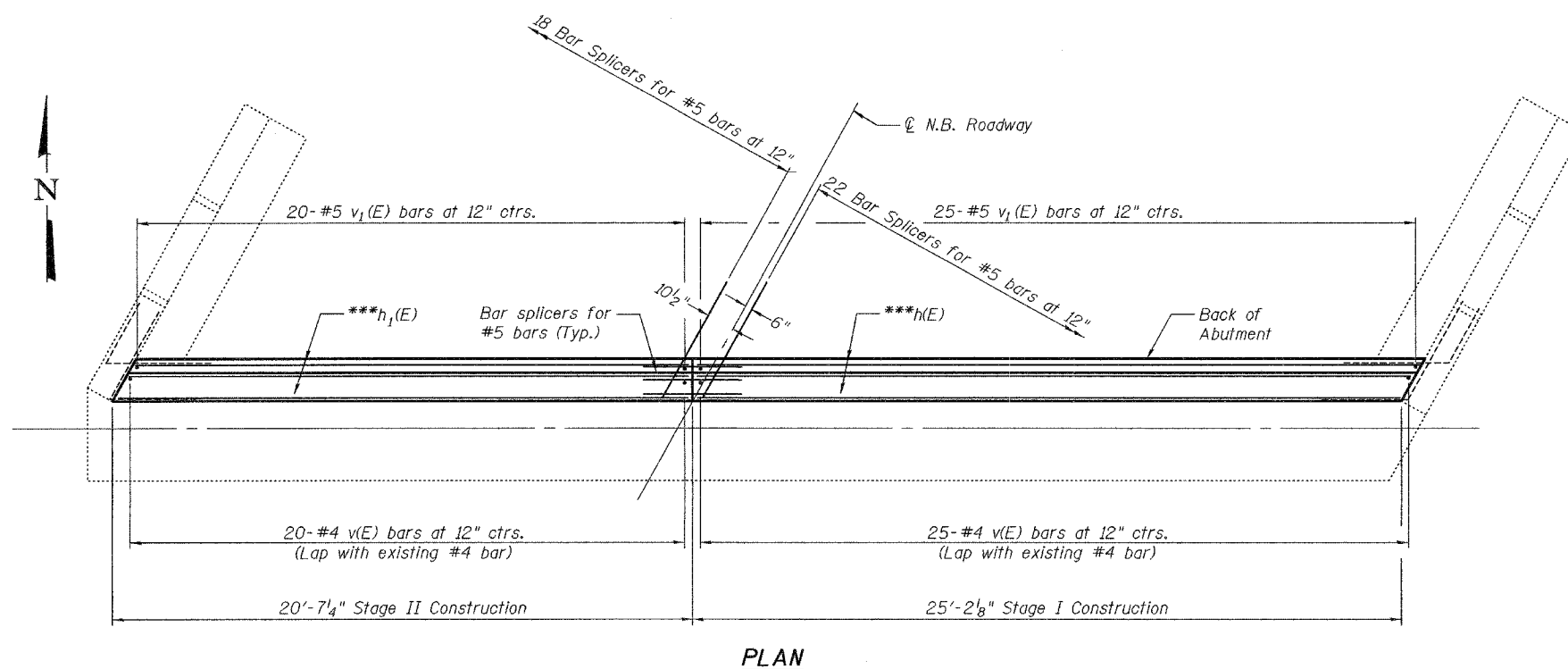
SECTION B-B

*Match existing deck elevation
**Varies from 2'-11 1/2" to 3'-3" for the North Abutment
2'-9 7/8" to 3'-2 5/8" for the South Abutment

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h(E)$	24	#5	25'-9"	—
$h_1(E)$	24	#5	20'-4"	—
$v(E)$	90	#4	3'-6"	—
$v_1(E)$	90	#5	3'-0"	—
Concrete Removal			Cu. Yd.	22.2
Concrete Superstructure			Cu. Yd.	22.2
Reinforcement Bars, Epoxy Coated			Lbs.	1,640

Reinforcement bars designated (E) shall be epoxy coated.



DESIGNED	A.T.H.
CHECKED	S.J.B.
DRAWN	Drew Christopher
CHECKED	A.T.H. S.J.B.

February 28, 2006

EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES

PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

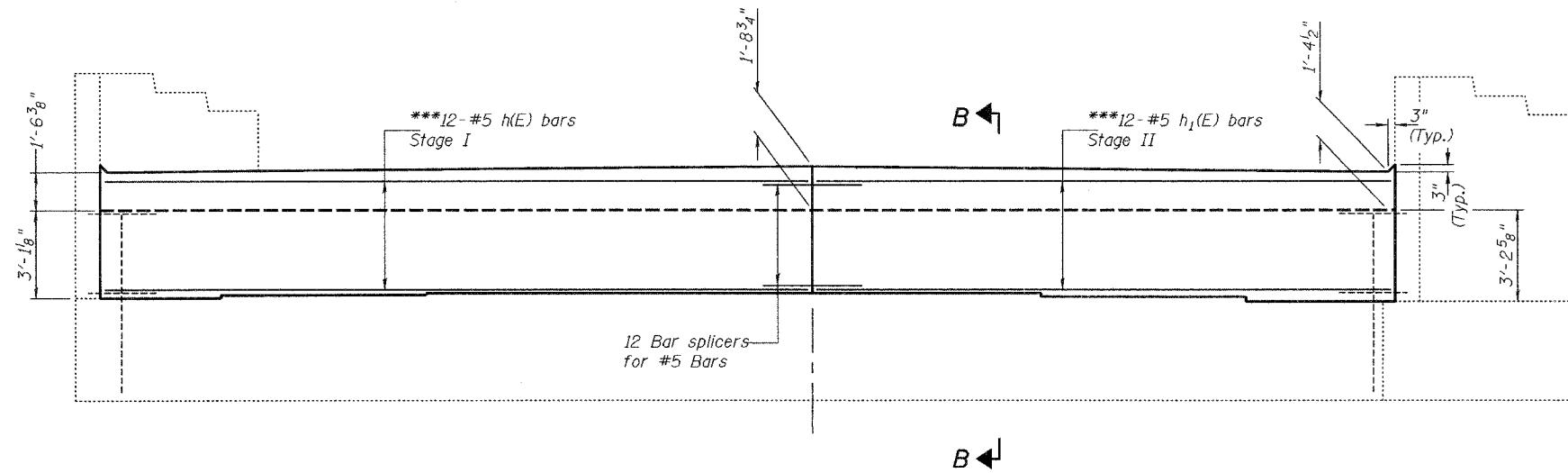
NORTH ABUTMENT DETAILS
I-57 OVER MISSOURI &
ILLINOIS RAILROAD
MARION COUNTY
SN 061-0049

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

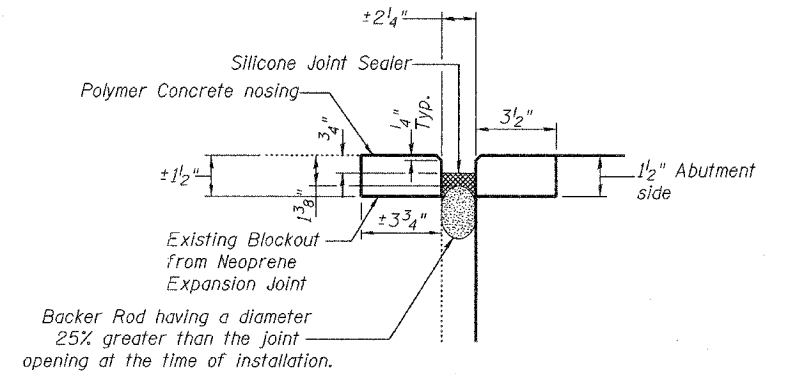
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
I-57		Marion	13	11
FED. ROAD DIST. NO. 7	MILES	FED. AID PROJECT		

Contract Number: 74097

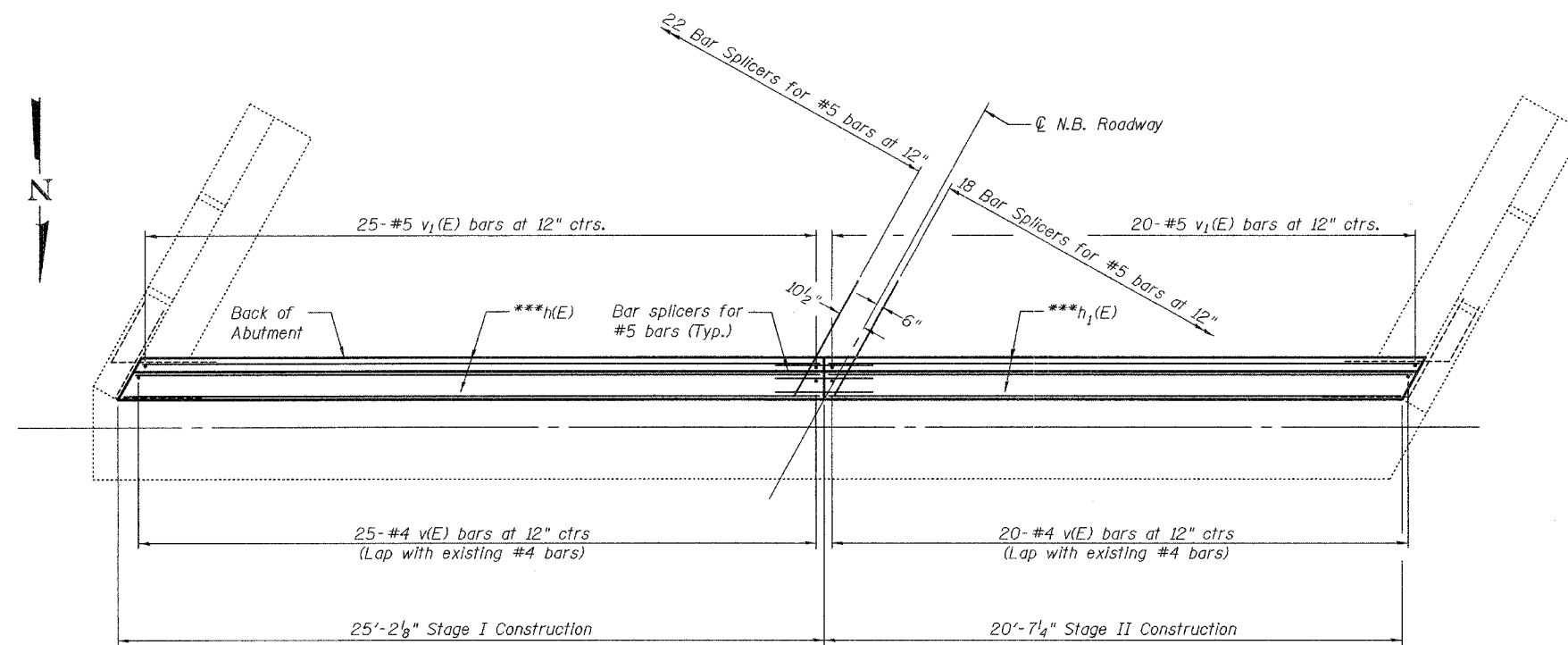
SHEET NO. 6
8 SHEETS



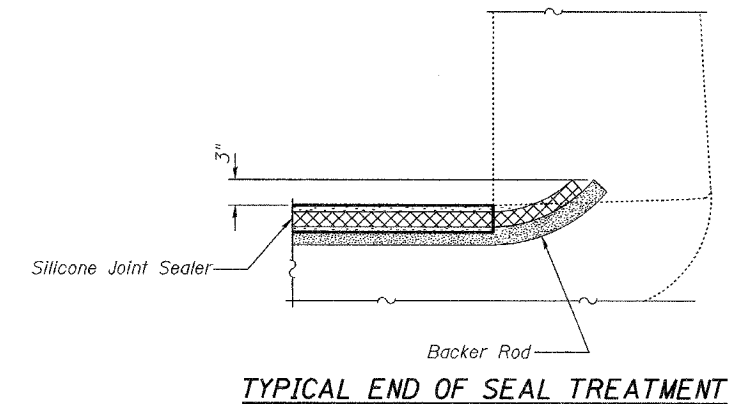
ELEVATION



SILICONE JOINT SEAL DETAILS



PLAN



TYPICAL END OF SEAL TREATMENT

Notes:
For Section B-B see sheet 5 of 8

DESIGNED	A.T.H.
CHECKED	S.J.B.
DRAWN	Drew Christopher
CHECKED	A.T.H. S.J.B.

February 28, 2006

EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES

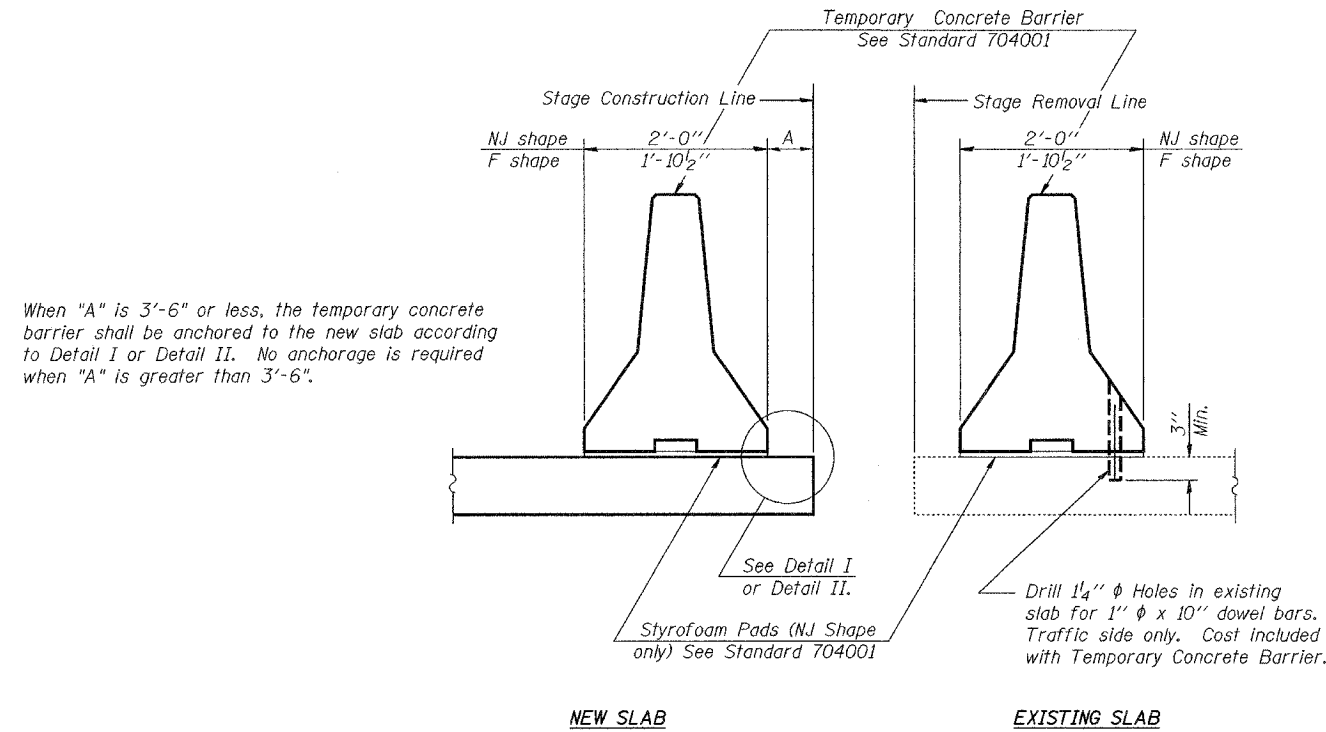
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

SOUTH ABUTMENT DETAILS
I-57 OVER MISSOURI &
ILLINOIS RAILROAD
MARION COUNTY
SN 061-0049

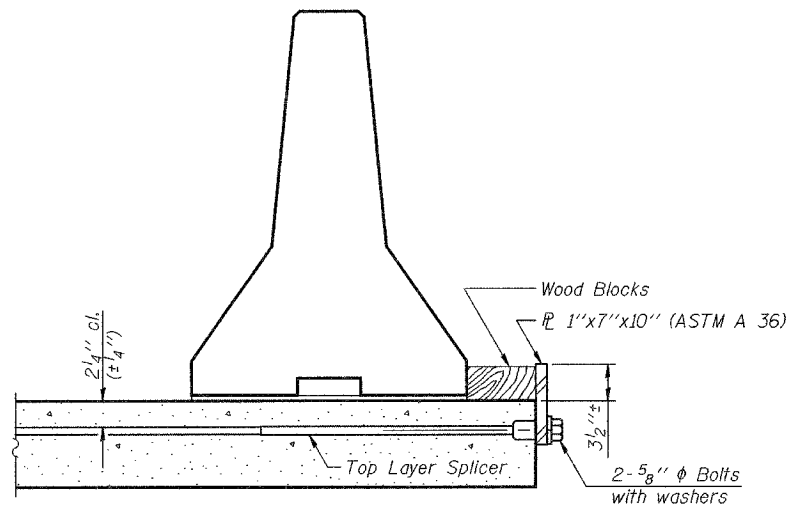
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 7 8 SHEETS
I-57		Marion	13	12	
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

Contract Number: 74097

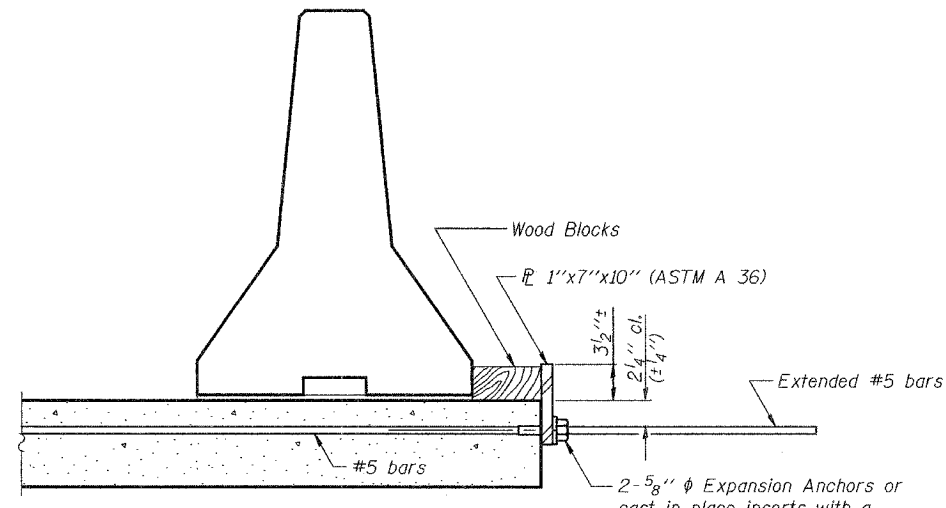


SECTIONS THRU SLAB



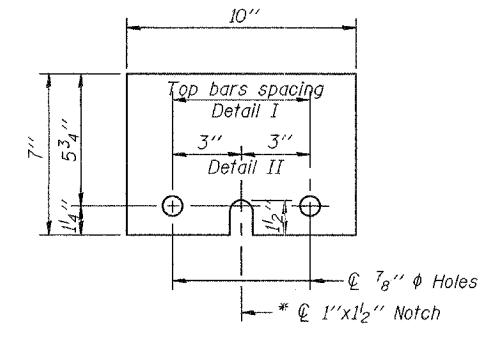
DETAIL I

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



1" x 7" x 10"

* Required only with Detail II

DESIGNED	A.T.H.	February 28, 2006
CHECKED	S.J.B.	EXAMINED <i>John A. Morris</i> ENGINEER OF STRUCTURAL SERVICES
DRAWN	Drew Christopher	PASSED <i>Ralph E. Anderson</i> ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	A.T.H. S.J.B.	

R-27 10-22-04

TEMPORARY CONCRETE BARRIER
I-57 OVER MISSOURI &
ILLINOIS RAILROAD
MARION COUNTY
SN 061-0049

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
I-57		Marion	13	13	8
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract Number: 74097

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:

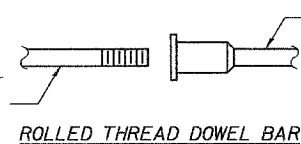
- ① Minimum Capacity = $1.25 \times f_y \times A_t$
(Tension in kips)
- ② Minimum *Pull-out Strength = $1.25 \times f_{s,allow} \times A_t$
(Tension in kips)

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_{s,allow}$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 A_t = 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	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

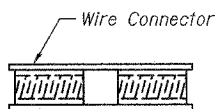
The diameter of this part is equal or larger than the diameter of bar spliced.



ROLLED THREAD DOWEL BAR



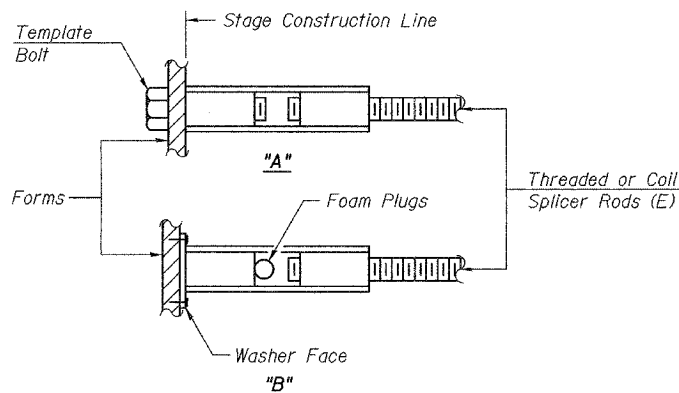
** ONE PIECE



WELDED SECTIONS

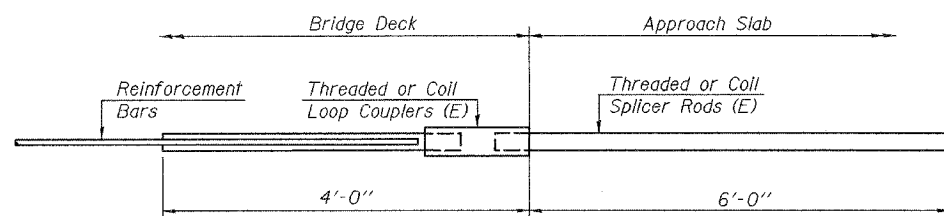
BAR SPLICER ASSEMBLY ALTERNATIVES

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



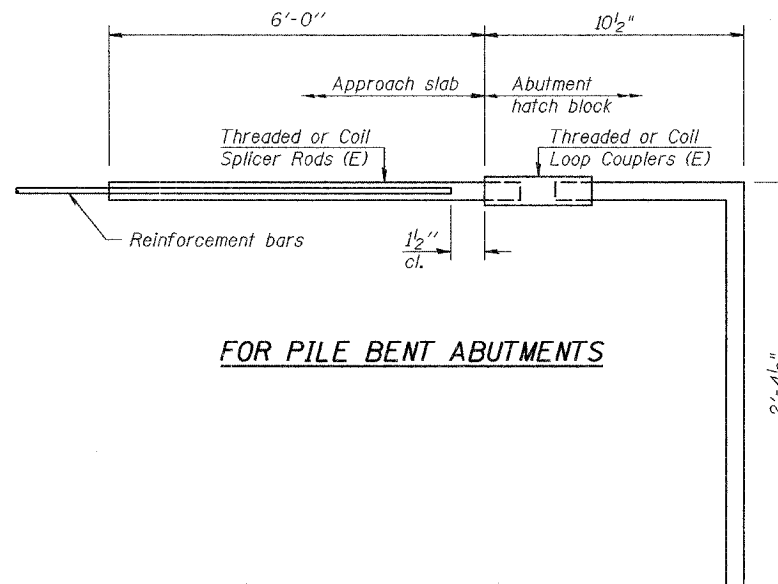
INSTALLATION AND SETTING METHODS

"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.



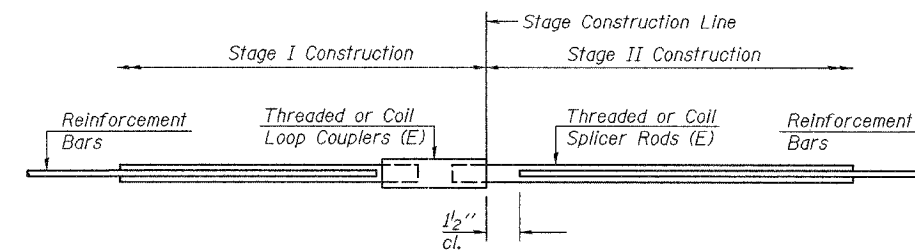
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =



FOR PILE BENT ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 80



STANDARD

Bar Size	No. Assemblies Required	Location
#5	24	Abut. Backwall

DESIGNED	A.T.H.
CHECKED	S.J.B.
DRAWN	Drew Christopher
CHECKED	A.T.H. S.J.B.

February 28, 2006
EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 10-22-04

BAR SPLICER DETAILS
I-57 OVER MISSOURI &
ILLINOIS RAILROAD
MARION COUNTY
SN 061-0049