

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

**PROPOSED**  
**HIGHWAY PLANS**

FAI ROUTE 74 (I-74)  
 SECTION D4 MCHD 2008  
 TAZEWELL COUNTY  
 C-94-060-08

F-A-I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	D4 MCHD 2008	TAZEWELL	14	1
FED. ROAD DIST. NO. 4		I-74	CONTRACT NO. 68803	

**INDEX OF SHEETS**

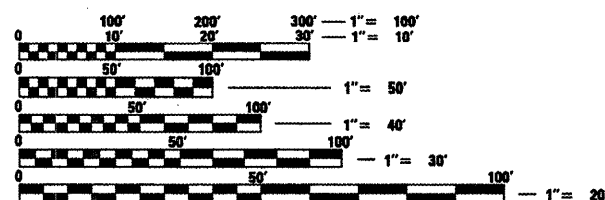
- 1 COVER SHEET
- 2 COMMITMENTS & GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4-6 TYPICAL SECTIONS
- 7 SCHEDULE OF QUANTITIES
- 8 TRAFFIC CONTROL SPECIAL DETAIL
- 9 I-74 TEMPORARY DETOUR DETAIL
- 10 PATCHING DETAIL
- 11-14 BRIDGE PLANS

**LIST OF STANDARDS**

606301-03 701411-04  
 701006-02 701901  
 701101-01 704001-04  
 701400-02 780001-01  
 701406-04

**DESIGN DESIGNATION**

**I-74**  
 ADT = 40,300 (2007)  
 SU = 1,500  
 MU = 3,100  
**PINECREST**  
 ADT = 4,350 (2007)



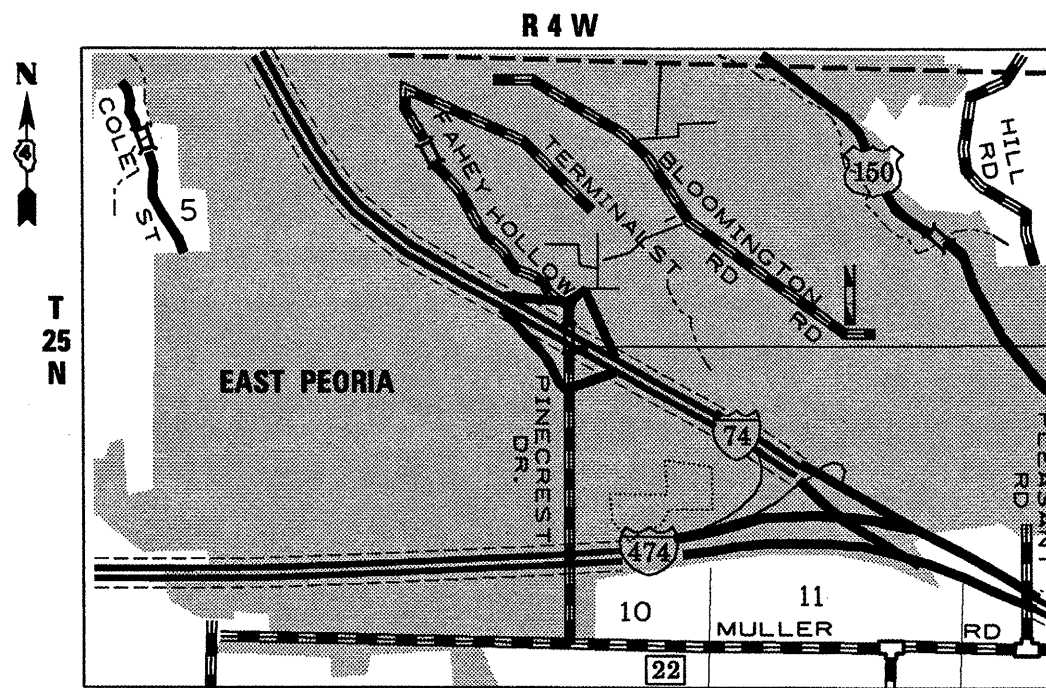
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

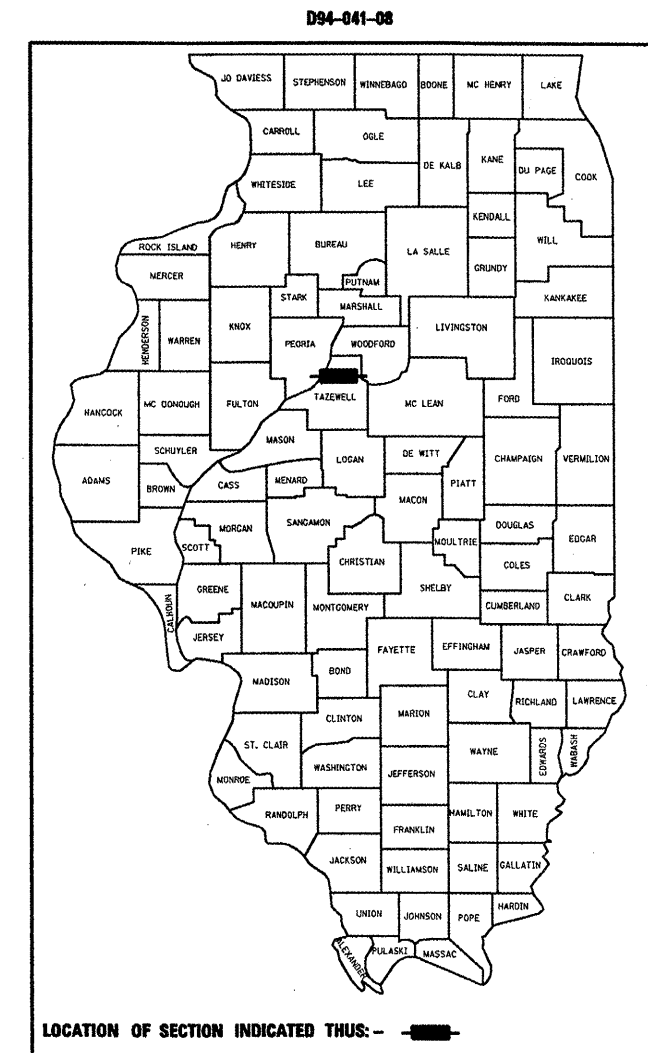
PROJECT ENGINEER: TERRISA WORSFOLD  
 PROJECT MANAGER: RICHARD DOTSON

CONTRACT NO. 68803  
 CATALOG NO. 033805-00D

GROSS LENGTH OF PROJECT 200 FT (.04 MILES)  
 NET LENGTH OF PROJECT 200 FT (.04 MILES)



**PROPOSED IMPROVEMENT**



LOCATION OF SECTION INDICATED THUS: — ■ —

**DESCRIPTION:**  
 STEEL BEAM REPLACEMENT AND BEAM STRAIGHTENING REPAIRS ON STRUCTURE CARRYING PINECREST DRIVE OVER I-74 (S.N. 090-0091) AT THE PINECREST INTERCHANGE BETWEEN MORTON AND EAST PEORIA.

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

SUBMITTED March 28, 2008  
J. E. Crava *JEC*  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 9, 2008  
Eric E. Horn *E.E.H.*  
 INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

May 9, 2008  
Christine M. Reed *C.M.R.*  
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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 OF THE STATE OF ILLINOIS**

## COMMITMENTS

*No Commitments have been make for this Project.*

## PROJECT SPECIFIC NOTES

According to Article 442.01, the Contractor has the option of Class C Patches or Class D Patches for the Pavement Patching. If Class C is chosen, the material shall consist of Class PV Concrete. If Class D is chosen, the following mix design shall be used:

MIXTURE USE(S)	CLASS D PATCHES
AC/PG	PG 64-22
Rap % (max)*	15%
Design Air voids	4.0% @ N=50
Mixture Composition (Gradation Mixture)	IL 9.5 or 12.5
Friction Aggregate	Mix C

*The Contractor shall verify existing beam lengths and flange widths prior to ordering Structural Steel.*

## GENERAL NOTES

*Plan dimensions and details relative to the existing structure and roadway 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.*

### ENVIRONMENTAL REVIEWS

*Prior to the use of any proposed borrow areas, use areas (temporary access roads, detours, run-arounds, etc.) and/or waste areas, the Contractor shall file the required environmental resource request surveys according to Section 107.22 of the Standard Specifications. These surveys are required in order for the Department to conduct cultural and biological resource surveys for the proposed site.*

*Prior to any waste materials being removed from the construction site the required environmental resource surveys will need to be obtained and filed by the Contractor. Excess waste products removed from the construction site shall be disposed of as required in Section 202.03 of the Standard Specifications.*

*Any protruding metal bars shall be removed prior to the disposal of broken concrete at approved disposal sites.*

*The required environmental resource documentation shall include the following:*

- \* BDE Form 2289 (Environmental Survey Request)
- \* A location map showing the size limits and location of the use area
- \* Signed property owner agreement form-D4 P10100
- \* Color photographs depicting the use area
- \* Borrow Area Entry Agreement form-D4 P10101

*Please note that a minimum of two weeks shall be allowed for the District to obtain the required environmental clearances.*

### ENGINEERS FIELD OFFICE

*Add the following sentence to the end of paragraph 670.02 (i) and 670.04 (e):  
All of the telephone lines provided shall have unpublished numbers.*

FILE NAME =	USER NAME = mofoedderjk	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>COMMITMENTS - GENERAL NOTES - PROJECT SPECIFIC NOTES</b>	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\projects\pincrest_bridge\468803-design.dgn	DRAWN -	REVISED -	74			D4 MCHD 2008	TAZEWELL	14	2	
PLOT SCALE = 1/8" = 1' / IN.	CHECKED -	REVISED -	CONTRACT NO. 68803							
PLOT DATE = 3/28/2008	DATE -	REVISED -	FED. ROAD DIST. NO. 4 I-74 FED. AID PROJECT							

# SUMMARY OF QUANTITIES

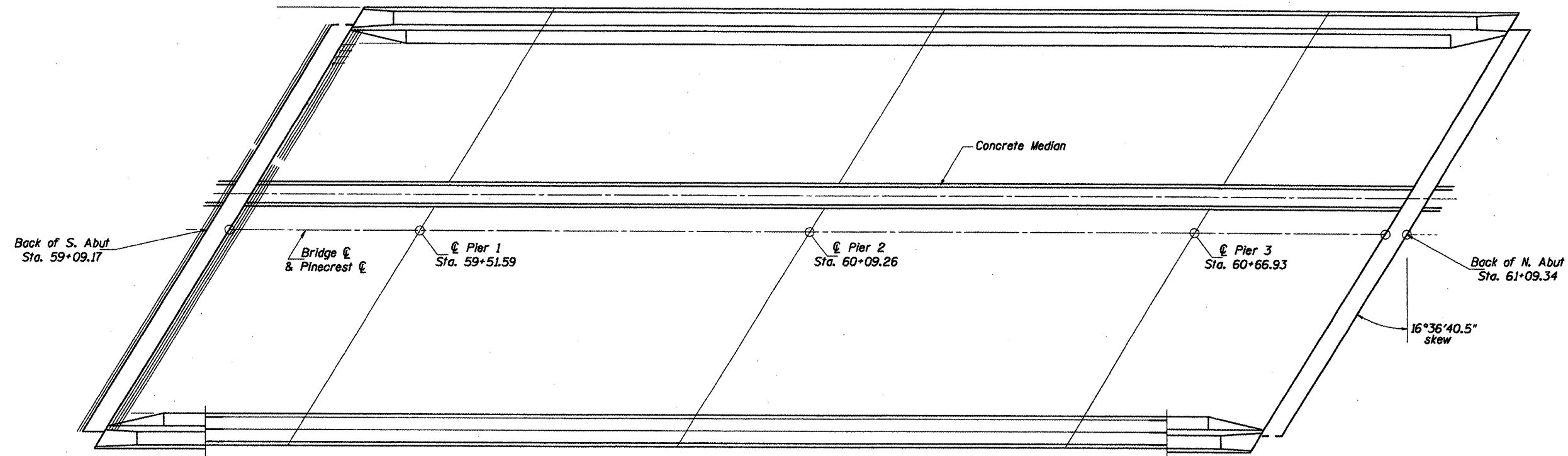
CODE NO.	ITEM	100% STATE SAFETY 2-A TAZEVELL COUNTY		
		UNIT	TOTAL	URBAN
44000100	PAVEMENT REMOVAL	SQ YD	26.1	26.1
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	15	15
44002010	CONCRETE MEDIAN REMOVAL	FOOT	14	14
44200099	PAVEMENT PATCHING, TYPE III, 8 INCH	SQ YD	43.9	43.9
50102400	CONCRETE REMOVAL	CU YD	1.3	1.3
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1.3	1.3
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	14220	14220
50501110	STRUCTURAL STEEL REMOVAL	POUND	14220	14220
60623711	CONCRETE MEDIAN	SQ FT	91	91
67000400	ENNGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3
67100100	MOBILIZATION	L SUM	1	1
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	2	2
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1	1
70101800	TRAFFIC CONTROL AND PROTECTION,(SPECIAL)	L SUM	1	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	3	3
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	372	372
70300500	PAVEMENT MARKING TAPE, TYPE III	FOOT	385	385
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	128.3	128.3
70400100	TEMPORARY CONCRETE BARRIER	FOOT	212.5	212.5
X7011005	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	L SUM	1	1
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	50	50
Z0003600	BEAM STRAIGHTENING	L SUM	1	1
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	1
Z0073300	TEMPORARY SHORING AND CRIBBING	L SUM	1	1
Z0073351	TEMPORARY SLAB SUPPORT SYSTEM	L SUM	1	1

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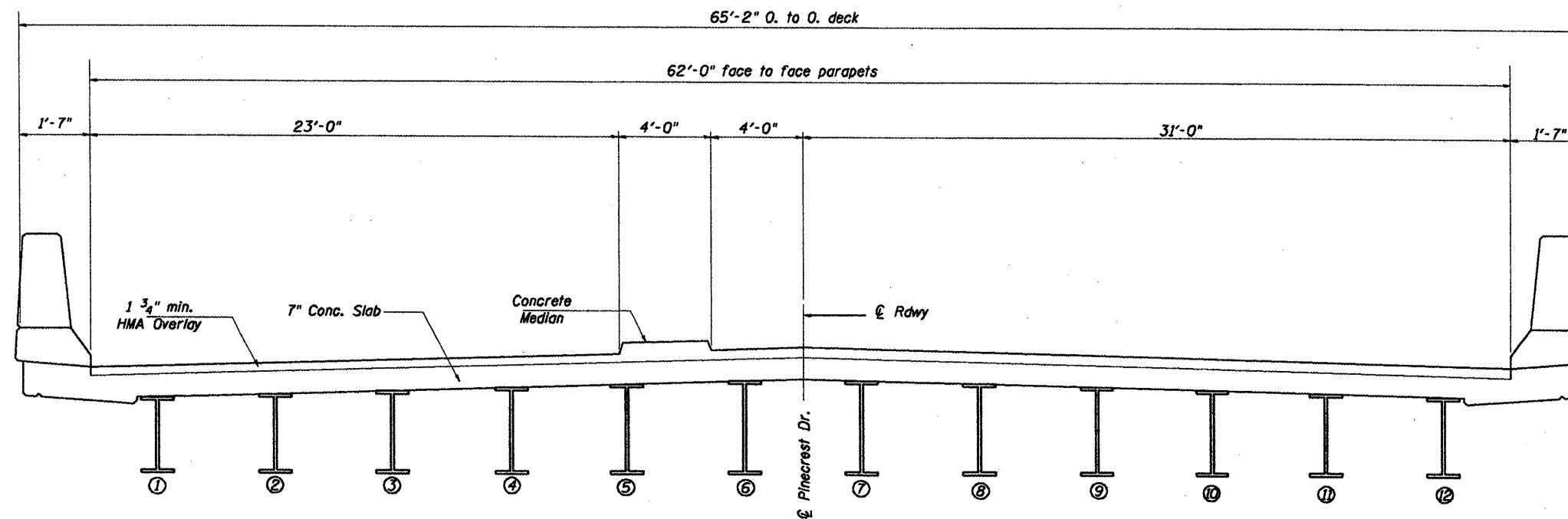
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	D4 MCHD 2008	TAZEVELL	14	3
CONTRACT NO. 68803				
FED. ROAD DIST. NO. 4   I-74   FED. AID PROJECT				



**PLAN VIEW OF EXISTING DECK**



**EXISTING CROSS SECTION**  
(Looking NORTH)

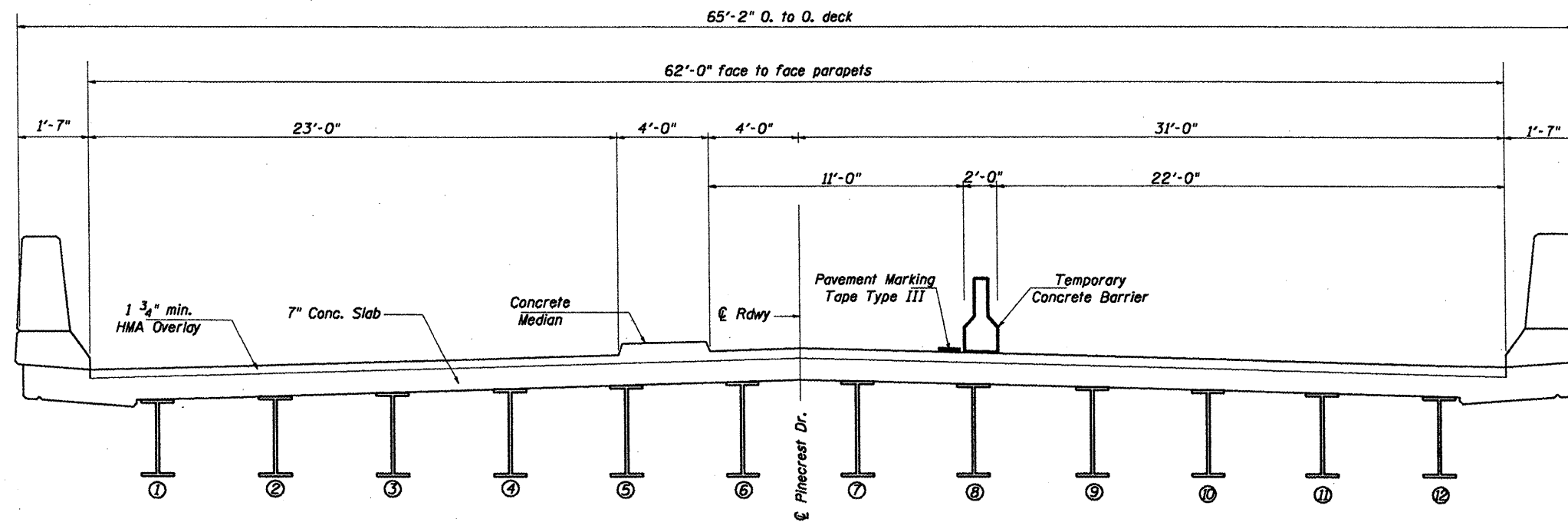
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PLOT SCALE = 100.0000' / IN.		CHECKED -	REVISED -
PLOT DATE = 3/27/2008		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXISTING PLAN AND TYPICAL SECTION**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	D4 MCHD 2008	TAZEWELL	14	4
FED. ROAD DIST. NO. 4 I-74			CONTRACT NO. 68803	
FED. AID PROJECT				

# PROPOSED TYPICAL SECTION



**PROPOSED CROSS SECTION**  
(Looking NORTH)

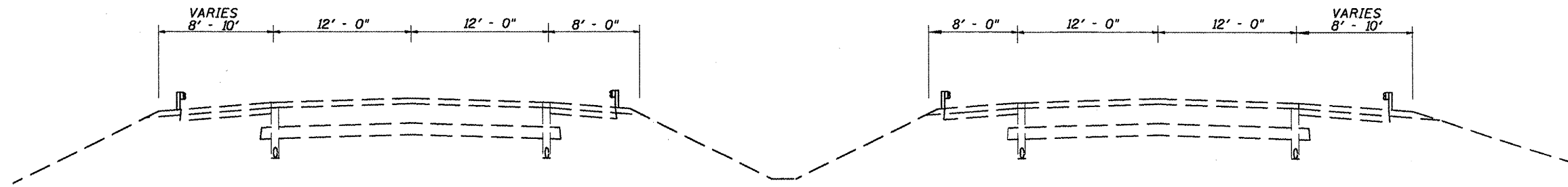
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PLOT DATE = 3/27/2008		DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PROPOSED TYPICAL SECTION**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	D4 MCHD 2008	TAZEWELL	14	5
CONTRACT NO. 68803				
FED. ROAD DIST. NO. 4 I-74 FED. AID PROJECT				

# I-74 TYPICAL SECTION (FOR INFORMATION ONLY)



EXISTING TYPICAL SECTION F.A.I. ROUTE 74 (I-74)

FILE NAME =	USER NAME = mcfadden.jk	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>I-74 TYPICAL SECTION (FOR INFORMATION ONLY)</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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PLOT DATE = 3/28/2008		DATE -	REVISED -			FED. ROAD DIST. NO. 4 I-74 FED. AID PROJECT					

# SCHEDULE OF QUANTITIES

LOCATIONS STA. TO STA.	CONCRETE MEDIAN REMOVAL	CONCRETE MEDIAN	TRAFFIC CONTROL SURVEILLANCE
	FOOT	SQ YD	CAL DAY
55+25 TO 55+39	14	91	3
<b>TOTAL</b>	14	91	3

LOCATIONS STA. TO STA.	COMB. CONC C & G REM & REPLACEMENT
	FOOT
55+18 TO 55+25	15
<b>TOTAL</b>	15

LOCATIONS	CHANGEABLE MESSAGE SIGN
	CAL DAY
* I-74 EB	14
* I-74 WB	14
** I-74 EB DETOUR	
2 BOARDS @ 4 DAYS	8
** I-74 WB DETOUR	
2 BOARDS @ 4 DAYS	8
** PINECREST NORTH	3
** PINECREST SOUTH	3
<b>TOTAL</b>	50

LOCATIONS STA. TO STA.	PAVEMENT PATCHING TYPE III, 8 INCH	PAVEMENT REMOVAL
	SQ YD	SQ YD
MEDIAN 55+18 TO 55+39	26.1	26.1
SHOULDER AT RAMP B	17.8	
<b>TOTAL</b>	43.9	26.1

LOCATIONS STA. TO STA.	TC & PROT TEMPORARY DETOUR	TRAFFIC CONTROL & PROTECTION (SPECIAL)
	L. SUM	L. SUM
JOBSITE	1	1
<b>TOTAL</b>	1	1

LOCATIONS STA. TO STA.	MOBILIZATION	TC & PROT STANDARD 701406	TC & PROT STANDARD 701411	ENGINEER FIELD OFFICE TYPE A
	L. SUM	L. SUM	EACH	CAL MO
JOBSITE	1	1	2	3
<b>TOTAL</b>	1	1	2	3

\* TO BE PLACED 14 DAYS PRIOR TO ANY LANE CLOSURES ON I-74  
 \*\* TO BE PLACED PRIOR TO AND DURING I-74 CLOSURE FOR BEAM REMOVAL & REPLACEMENT

LOCATIONS STA. TO STA.	PAVEMENT MARKING TAPE, TYPE III	WORK ZONE PAVEMENT MARKING REMOVAL
	FOOT	SQ FT
57+86 TO 61+69	385	128.3
<b>TOTAL</b>	385	128.3

LOCATIONS STA. TO STA.	SHORT TERM PAVEMENT MARKING
	FOOT
PINECREST @ EB RAMPS	248
PINECREST @ WB RAMPS	124
<b>TOTAL</b>	372

LOCATIONS STA. TO STA.	TEMPORARY CONCRETE BARRIER
	FOOT
58+59 TO 60+71.5	212.5
<b>TOTAL</b>	212.5

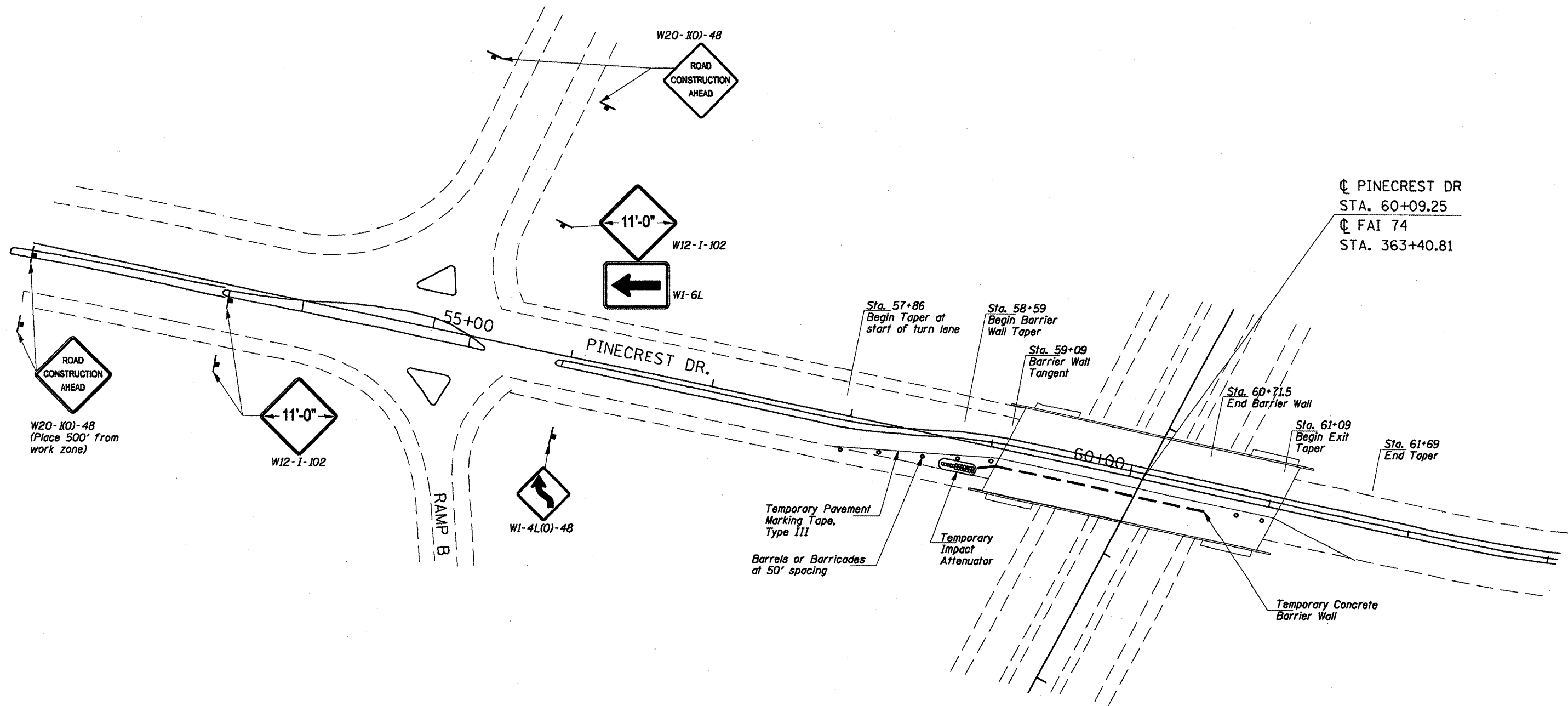
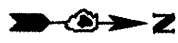
LOCATIONS STA. TO STA.	IMPACT ATTENUATOR TEMPORARY (NON- REDIRECTIVE) TEST LEVEL 3
	EACH
58+59	1
<b>TOTAL</b>	1

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	PLLOT DATE = 3/28/2008	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	D4 MCHD 2008	TAZEWELL	14	7
FED. ROAD DIST. NO. 4 I-74			CONTRACT NO. 68803	
FED. AID PROJECT				



FILE NAME =	USER NAME = mcFadden_jk	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC CONTROL SPECIAL DETAIL</b>		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\projects\p\pinecrest_bridg\468883-design.dgn	PLOT SCALE = 1/8" = 100' / IN.	DRAWN -	REVISED -				74	D4 MCHD 2008	TAZEWELL	14	8
PLOT DATE = 3/27/2008	DATE -	CHECKED -	REVISED -		NOT TO SCALE		STA.	TO STA.	CONTRACT NO. 68803		
		DATE -	REVISED -		FED. ROAD DIST. NO. 4   I-74   FED. AID PROJECT						





CLOSURE NOTES

Existing Stop signs on Ramps shall be covered during the I-74 closure to allow free flow of Interstate traffic across ramps.

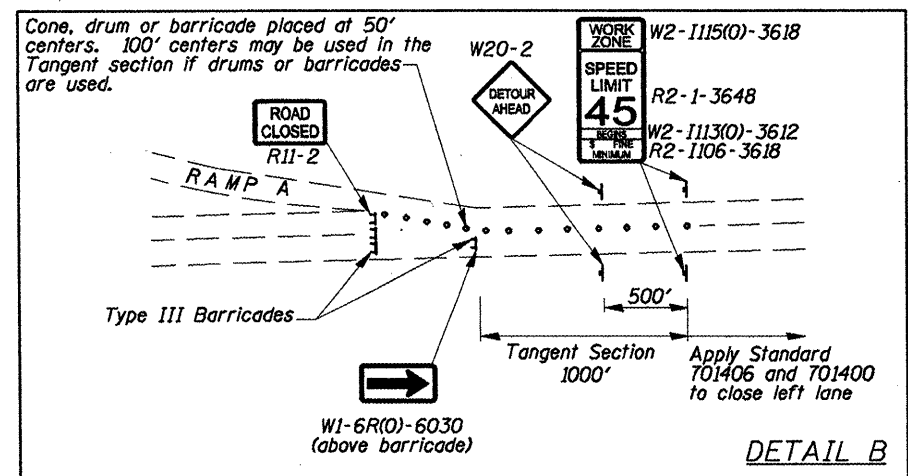
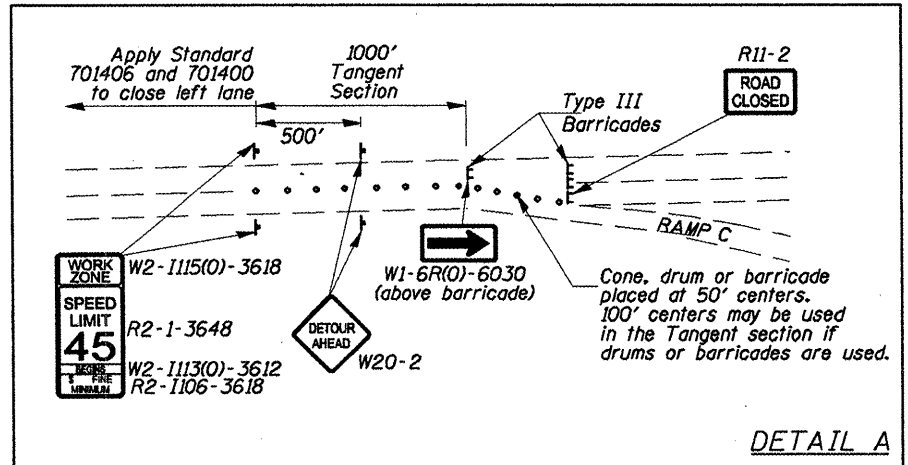
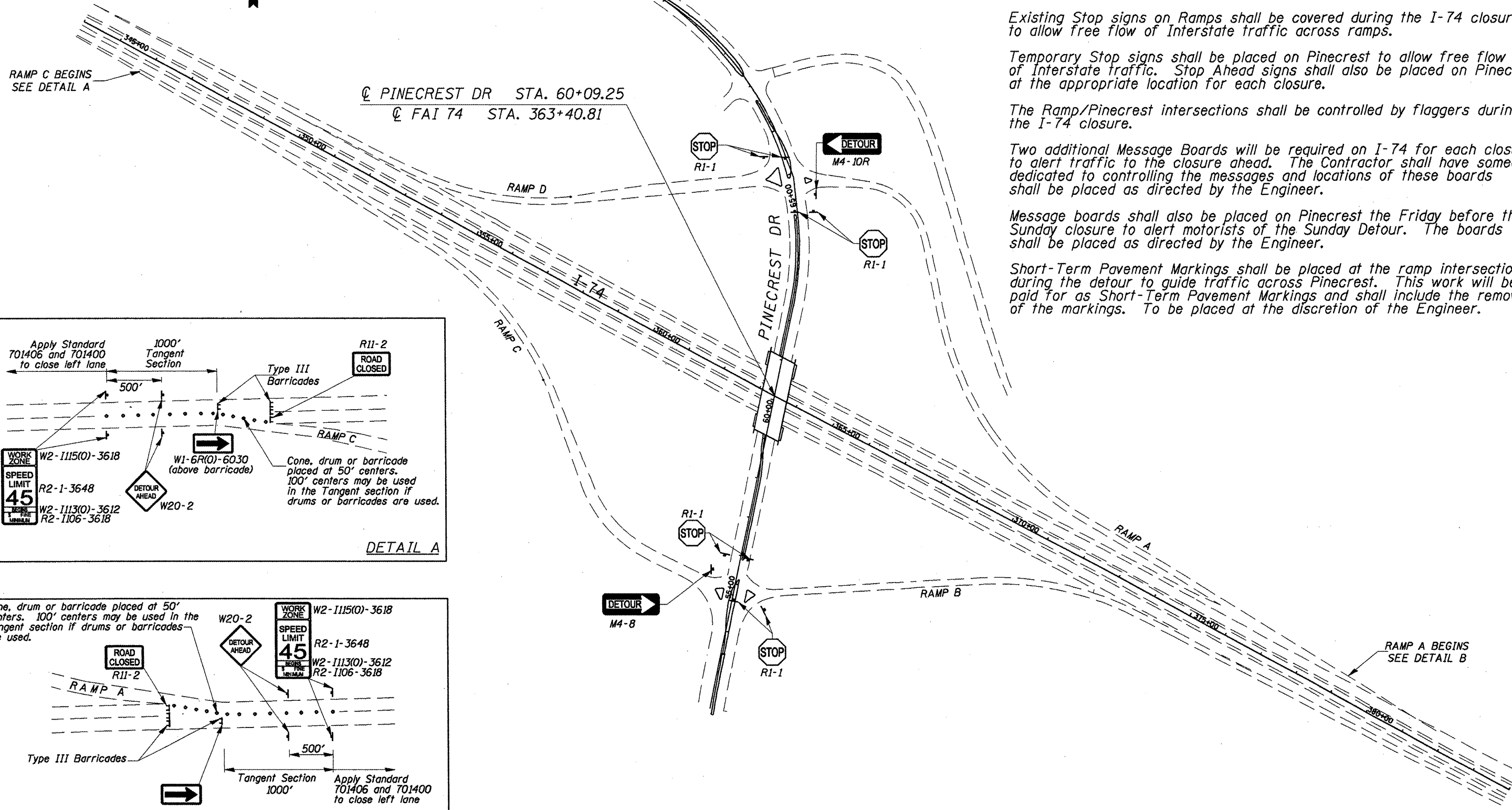
Temporary Stop signs shall be placed on Pinecrest to allow free flow of Interstate traffic. Stop Ahead signs shall also be placed on Pinecrest at the appropriate location for each closure.

The Ramp/Pinecrest intersections shall be controlled by flaggers during the I-74 closure.

Two additional Message Boards will be required on I-74 for each closure to alert traffic to the closure ahead. The Contractor shall have someone dedicated to controlling the messages and locations of these boards shall be placed as directed by the Engineer.

Message boards shall also be placed on Pinecrest the Friday before the Sunday closure to alert motorists of the Sunday Detour. The boards shall be placed as directed by the Engineer.

Short-Term Pavement Markings shall be placed at the ramp intersection during the detour to guide traffic across Pinecrest. This work will be paid for as Short-Term Pavement Markings and shall include the removal of the markings. To be placed at the discretion of the Engineer.

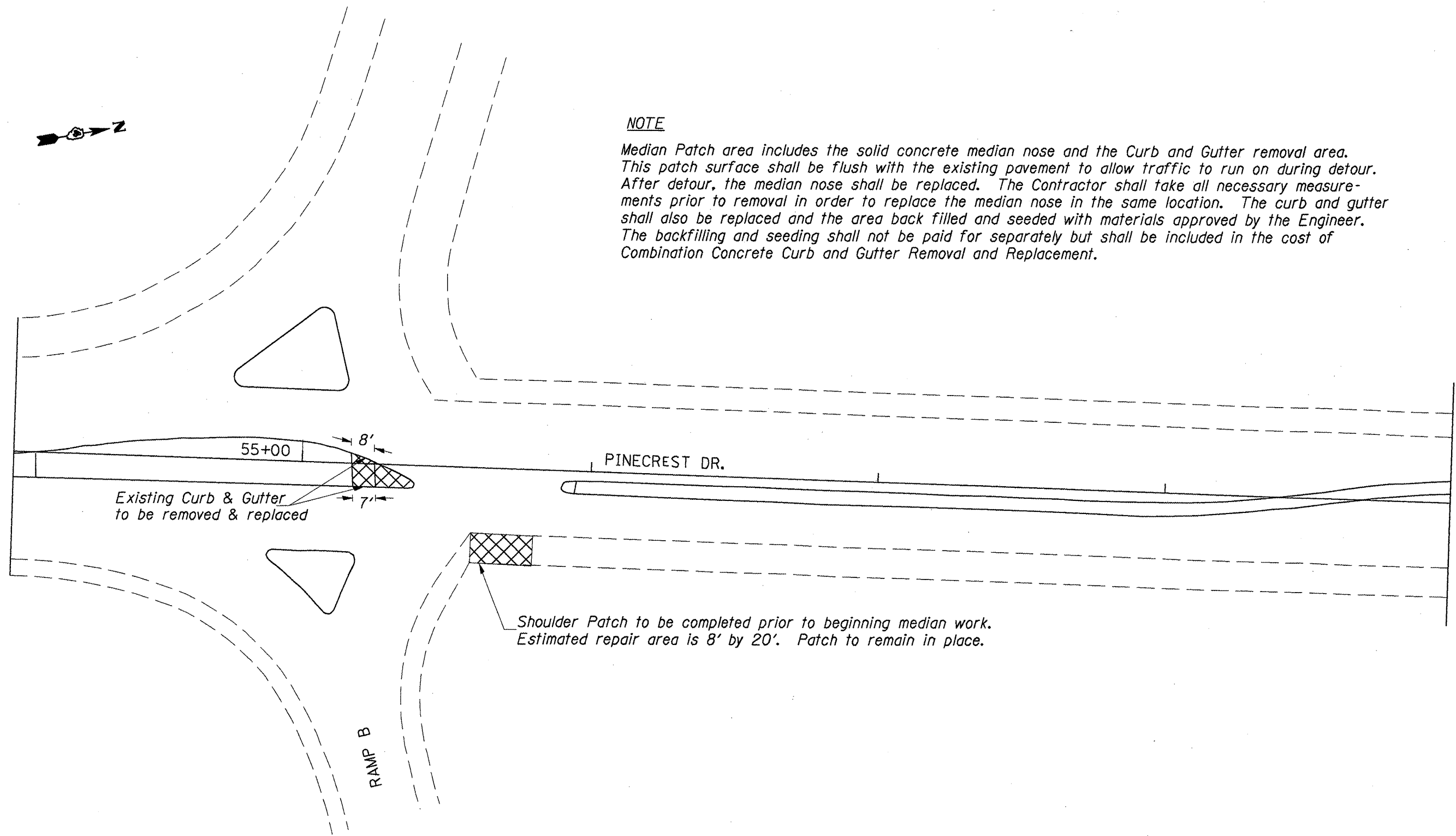



FILE NAME =	USER NAME = mofaddenjk	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>I-74 TEMPORARY DETOUR DETAIL</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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PLOT DATE = 3/28/2008		DATE -	REVISED -			FED. ROAD DIST. NO. 4   I-74   FED. AID PROJECT					
					NOT TO SCALE	STA.	TO STA.				



**NOTE**

Median Patch area includes the solid concrete median nose and the Curb and Gutter removal area. This patch surface shall be flush with the existing pavement to allow traffic to run on during detour. After detour, the median nose shall be replaced. The Contractor shall take all necessary measurements prior to removal in order to replace the median nose in the same location. The curb and gutter shall also be replaced and the area back filled and seeded with materials approved by the Engineer. The backfilling and seeding shall not be paid for separately but shall be included in the cost of Combination Concrete Curb and Gutter Removal and Replacement.



 PAVEMENT PATCHING, 8 INCH

FILE NAME =	USER NAME = mcfaddenjk	DESIGNED -	REVISED -
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	PLOT DATE = 3/28/2008	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PATCHING DETAIL**

STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	D4 MCHD 2008	TAZEWELL	14	10
FED. ROAD DIST. NO. 4   I-74			FED. AID PROJECT	
CONTRACT NO. 68803				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1 4 SHEETS
FAI 74	ΔΔ	Tazewell	14	11	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract Number: 68803  
ΔΔ D4MCHD2008

**GENERAL NOTES**

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

The Contractor shall provide support and/or shoring systems for the slab and beam in the area of existing beam removal. See Special Provisions "Temporary Shoring and Cribbing" and "Temporary Slab Support System."

After the new beam is in its final position and/or beam straightening operations have been completed, the Engineer in the field shall check to see that the top flange is tight against the slab. If not, the Contractor shall inject epoxy between the existing concrete deck and the top flange of the beam. See Special Provision "Epoxy Injection."

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

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat shall be Interstate Green, Munsell No. 7.5G 4/B. See Special Provision "Cleaning and Painting New Metal Structures".

Grind existing nicks, gouges and shallow cracks in the damaged beams as detailed. Grinding shall be done parallel to the longitudinal axis of the member. Ground surfaces shall be inspected for cracks using dye penetrant or magnetic particle testing prior to initiating any beam straightening operations. Any cracks that cannot be removed by grinding approximately 1/4" deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Ground surfaces shall be spot cleaned and painted with an aluminum epoxy mastic primer followed by a finish coat to match the color of the existing beam. Cost of grinding, testing and spot painting included with Beam Straightening.

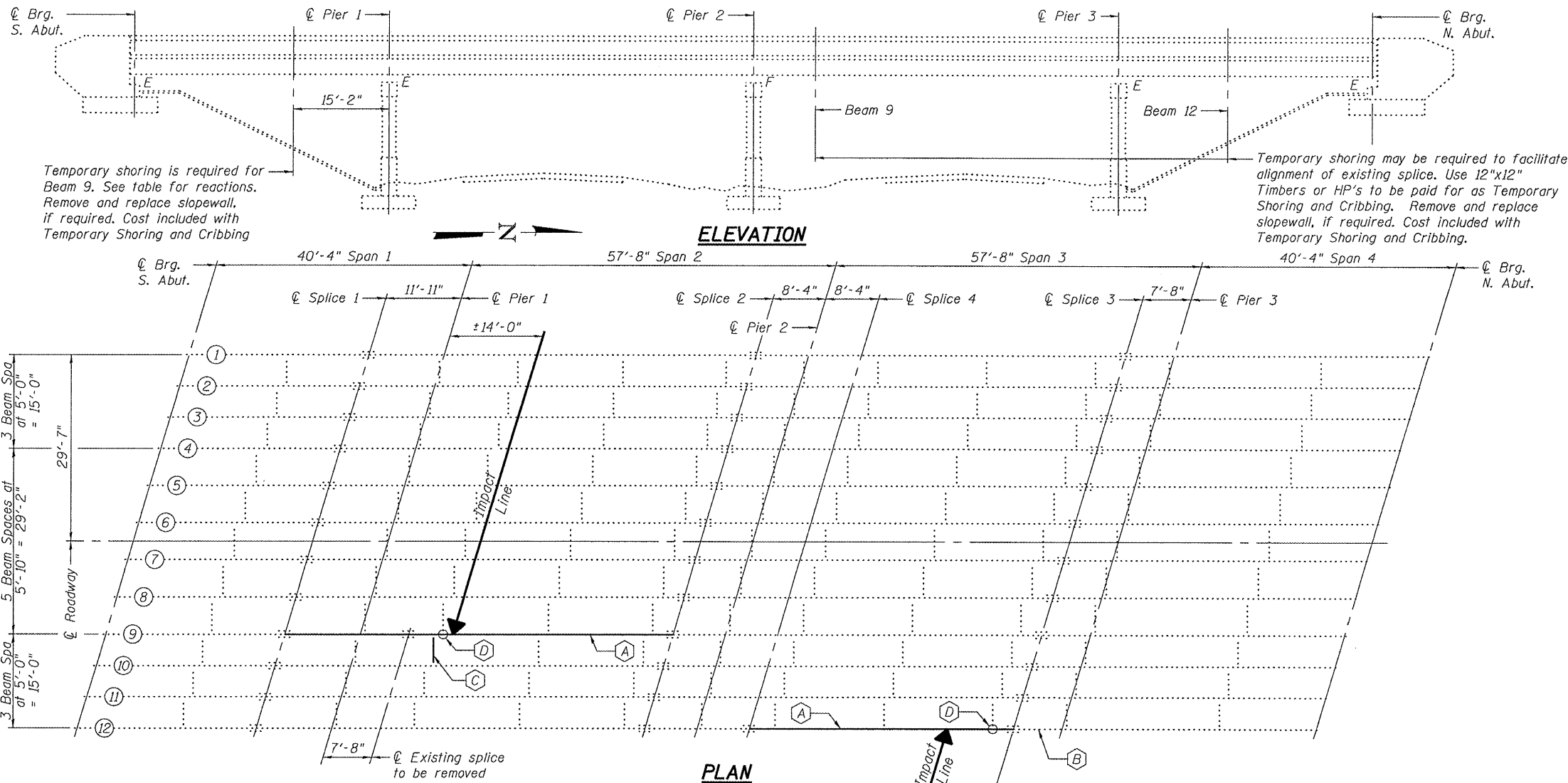
Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause 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.

Cost of removal and 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 with Furnishing and Erecting Structural Steel.

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".

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

If the analysis submitted to the Contractor for the jacking/temporary support system to be used shows temporary stiffeners are required to prevent web crippling or buckling, the stiffeners shall be steel and bolted to the web. If stiffeners are not required, hardwood timbers shall be installed tightly between the top and bottom flange to prevent flange rotation.



Temporary shoring is required for Beam 9. See table for reactions. Remove and replace slopewall, if required. Cost included with Temporary Shoring and Cribbing

Temporary shoring may be required to facilitate alignment of existing splice. Use 12"x12" Timbers or HP's to be paid for as Temporary Shoring and Cribbing. Remove and replace slopewall, if required. Cost included with Temporary Shoring and Cribbing.

**ELEVATION**

**PLAN**

- (A) Existing Beams to be replaced.
- (B) Existing Beam to be straightened.
- (C) Remove and replace existing diaphragm.
- (D) Remove and replace bottom clip L's.

REACTION TABLE AT SPAN 1  
TEMPORARY SHORING

Q	(k)	12.5
L	(k)	25.6
Imp.	(k)	7.7
Total	(k)	45.8

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	1.3
Concrete Superstructure	Cu. Yd.	1.3
Furnishing and Erecting Structural Steel	Pound	14,220
Temporary Slab Support System	L.S.	1
Beam Straightening	L.S.	1
Temporary Shoring and Cribbing	L.S.	1
Structural Steel Removal	Pound	14,220

DESIGNED *Adrian T. Holloway*  
CHECKED *[Signature]*  
DRAWN *[Signature]*  
CHECKED *ATH STB*

April 15, 2008  
EXAMINED *[Signature]*  
PASSED *[Signature]*  
ENGINEER OF BRIDGES AND STRUCTURES



Expires: November 30, 2008

**PLAN AND ELEVATION**  
**F.A.I. RT. 74**  
**TAZEWELL COUNTY**  
**SN 090-0091**

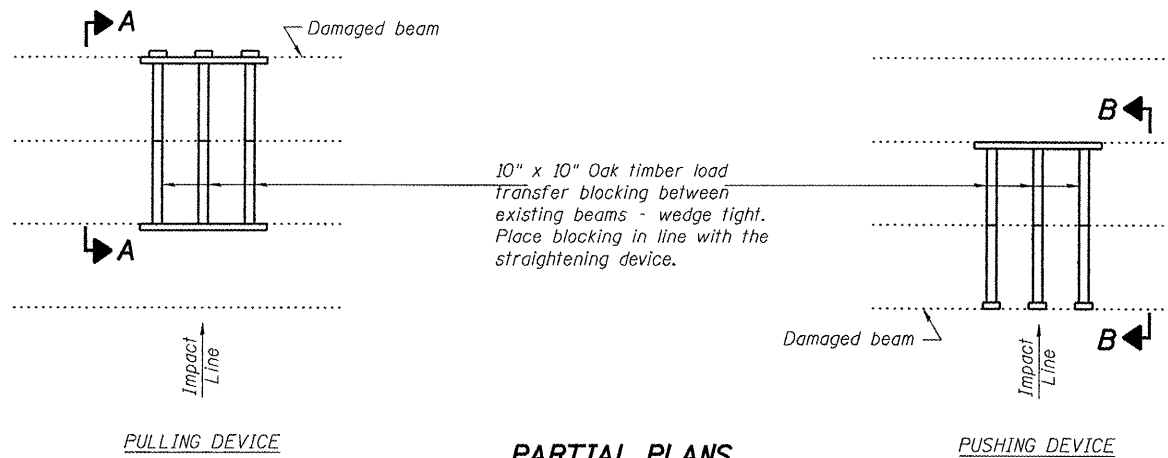
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
FAI 74	ΔΔ	Tazewell	14	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 2

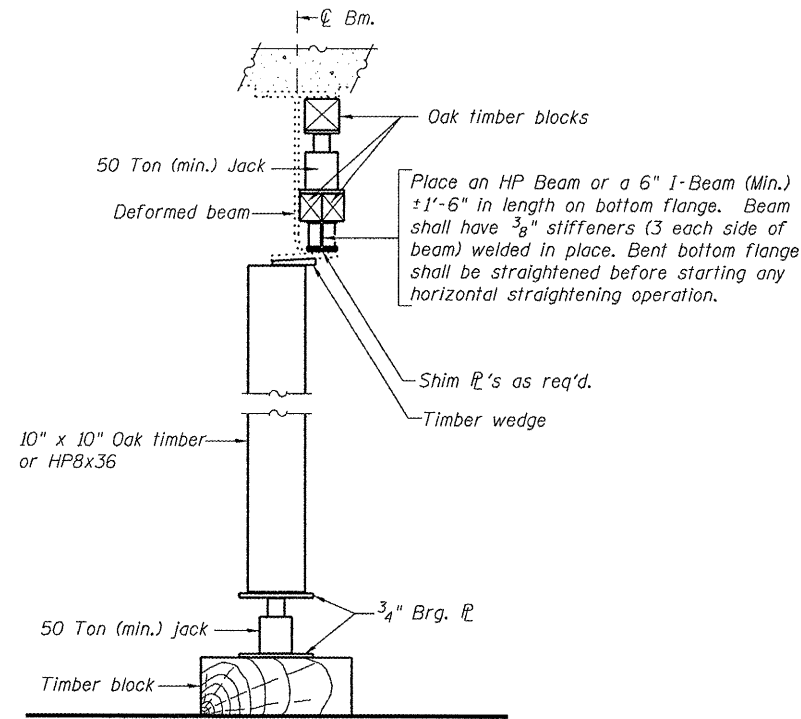
4 SHEETS

Contract Number: 68803  
ΔΔ D4MCHD2008

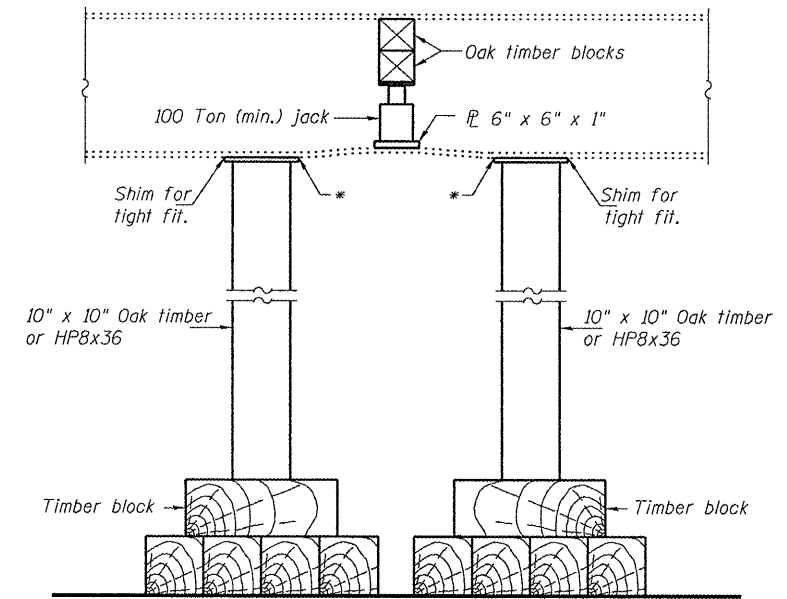


**PARTIAL PLANS**  
**SUGGESTED BEAM STRAIGHTENING METHODS**

Straightening force shall be maintained on all load transfer blocking during beam straightening.



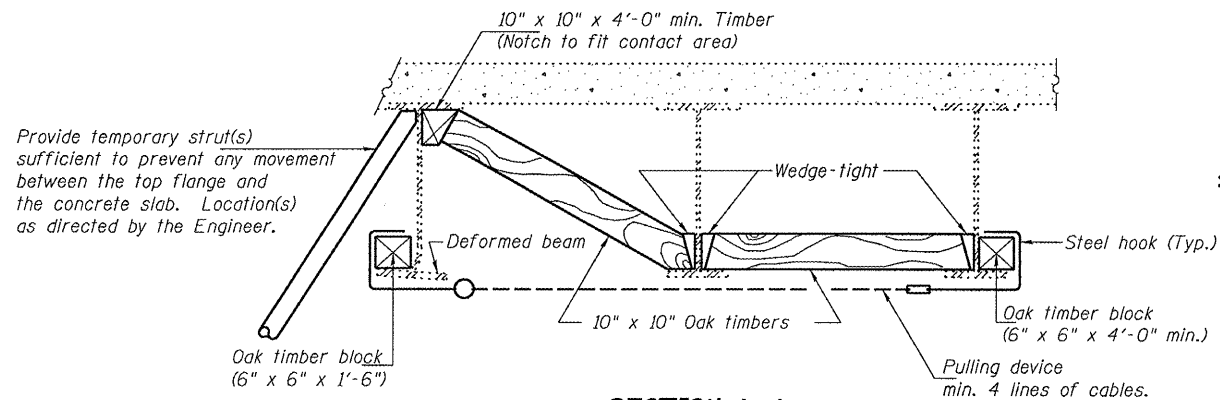
**SUGGESTED VERTICAL STRAIGHTENING DETAIL**  
(To correct flange rotation.)



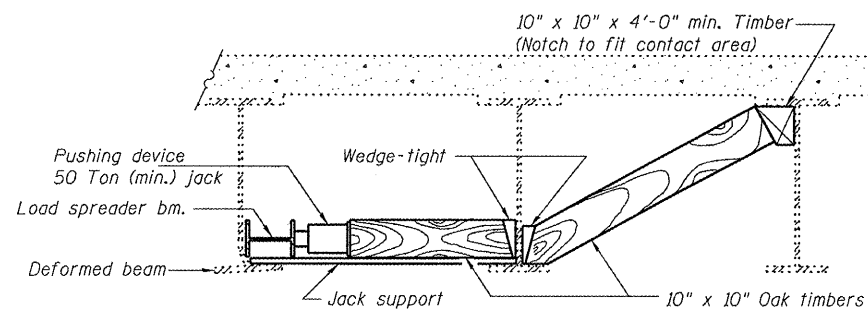
**SUGGESTED VERTICAL STRAIGHTENING DETAIL**  
(To correct localized vertical flange deformations.)

\* Edge of plate shall line up with edge of deformation.

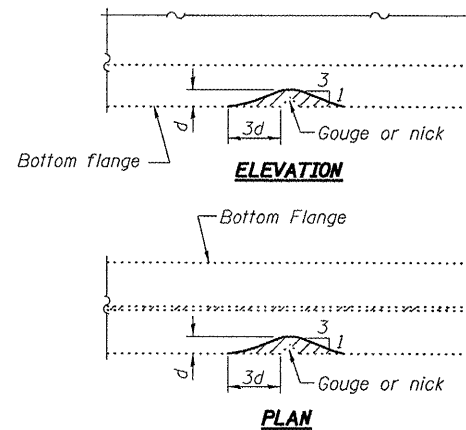
Note:  
Braces and jack assembly shall be placed on same side of web.  
Bent bottom flange shall be straightened before starting any horizontal straightening operations.



**SECTION A-A**



**SECTION B-B**



**GRINDING DETAIL**

Grind existing nicks, gouges and shallow cracks in the damaged beams as detailed. Ground surfaces shall be inspected for cracks using magnetic particle testing prior to initiating any beam straightening operations. Any cracks that cannot be removed by grinding approximately 1/4" deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Ground surfaces shall be spot cleaned and painted with an aluminum epoxy mastic primer followed by a finish coat to match the color of the existing beam. Cost of grinding, testing and spot painting included with Beam Straightening.

**EXISTING DEFORMATION TO BE STRAIGHTENED**

(Looking )  
(Approximate max. deflections)  
Deflected length of beam to be straightened is approximately .

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

APPROVED	April 15, 2008
EXAMINED	<i>Carl Perry</i>
PASSED	<i>Ralph E. Anderson</i>

**BEAM STRAIGHTENING DETAILS**

F.A.I. RT. 74  
TAZEWELL COUNTY  
SN 090-0091

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

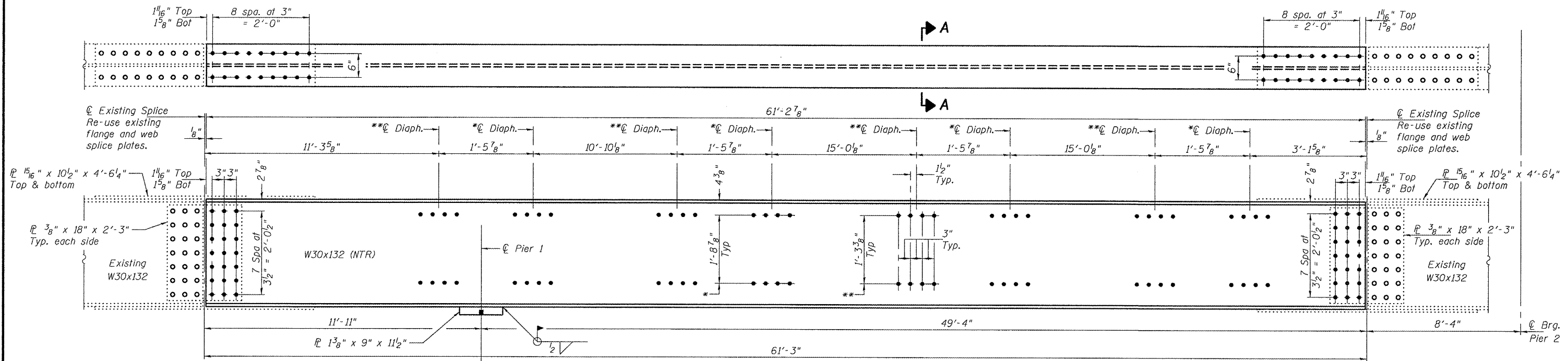
ROUTE NO.	SECTION	COUNTY	1917th SHEETS	SHEET NO.
FAI 74	ΔΔ	Tazewell	14	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3

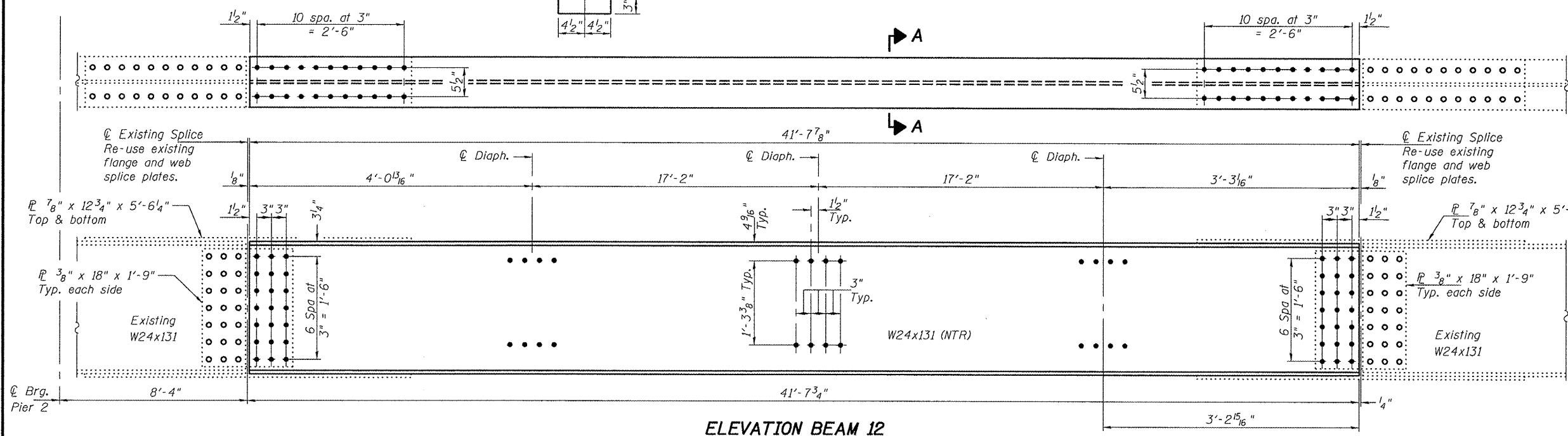
4 SHEETS

Contract Number: 68803  
ΔΔ D4MCHD2008

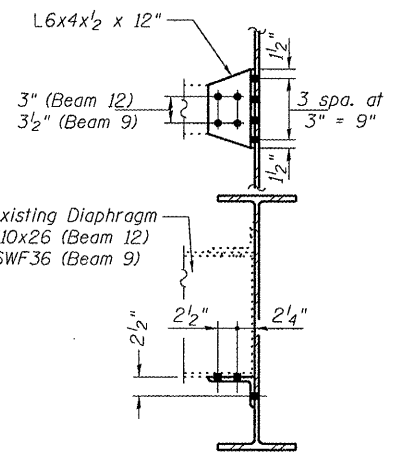
\*Diaphragms connecting to Beam 8.  
\*\*Diaphragms connecting to Beam 10.



**ELEVATION BEAM 9**  
(Looking West)

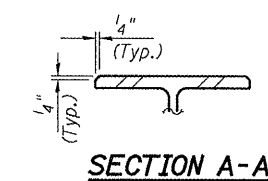


**ELEVATION BEAM 12**  
(Looking West)



**BOTTOM CLIP ANGLE  
REPLACEMENT DETAIL**

Field drill holes in angle using holes in diaphragm as template.



**SECTION A-A**

**BEAM REPLACEMENT DETAILS**

F.A.I. RT. 74  
TAZEWELL COUNTY  
SN 090-0091

The cost of all field drilling required for installation of the steel members is included with Furnishing and Erecting Structural Steel.

Notes:  
Field drill diaphragm holes in new beams using holes in new and existing clip L's as a template.  
Natural camber of new beam shall be placed upward for fabrication.  
Fasteners shall be high strength bolts. Flange splice holes shall be 15/16\"/>

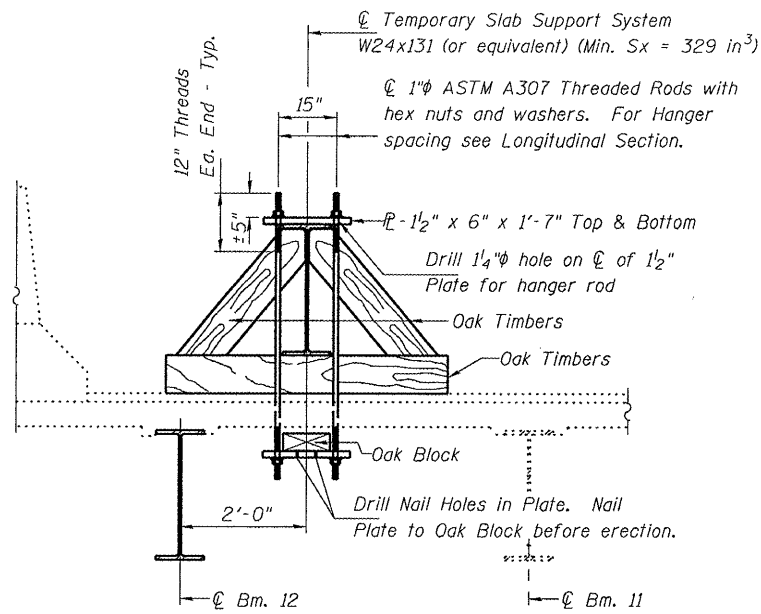
DESIGNED	A.T.H.	April 15, 2008
CHECKED	S.J.B.	<i>Carl Krusey</i> ENGINEER OF STRUCTURAL SERVICES
DRAWN	Drew Christopher	<i>Ralph E. Anderson</i> ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	A.T.H. S.J.B.	

REP-2 1-27-2000

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

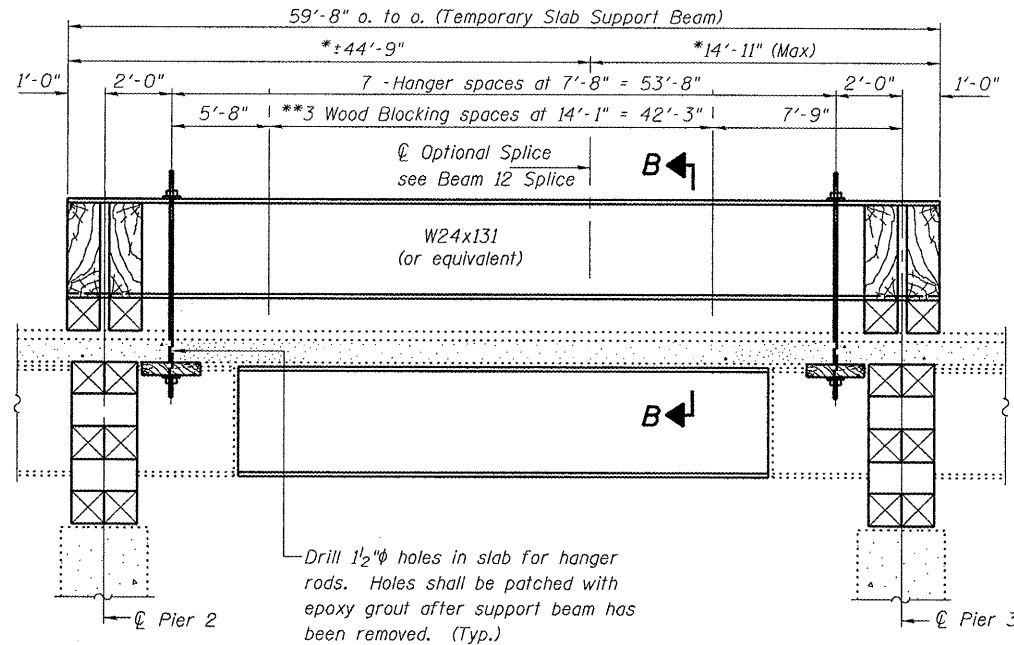
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 4 4 SHEETS
FAI 74	ΔΔ	Tazewell	14	14	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:			

Contract Number: 68803  
ΔΔ D4MCHD2008

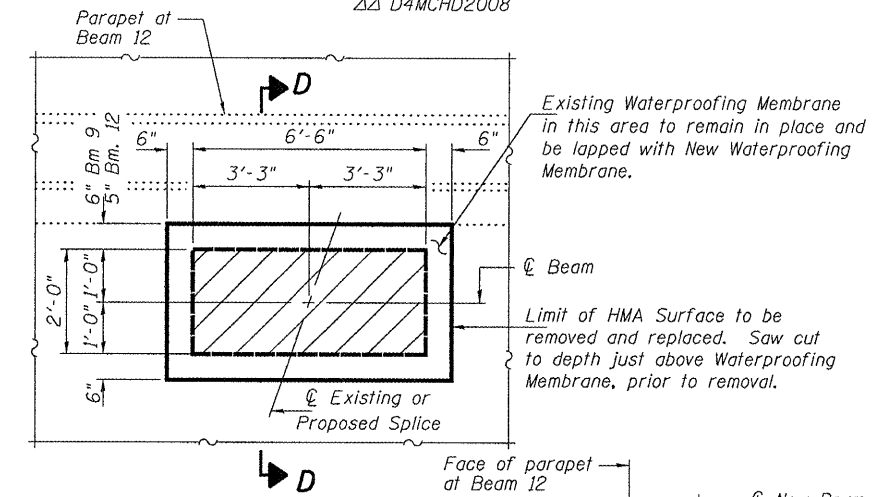


**SECTION B-B**

\* These dimensions may vary for available beams in stock.



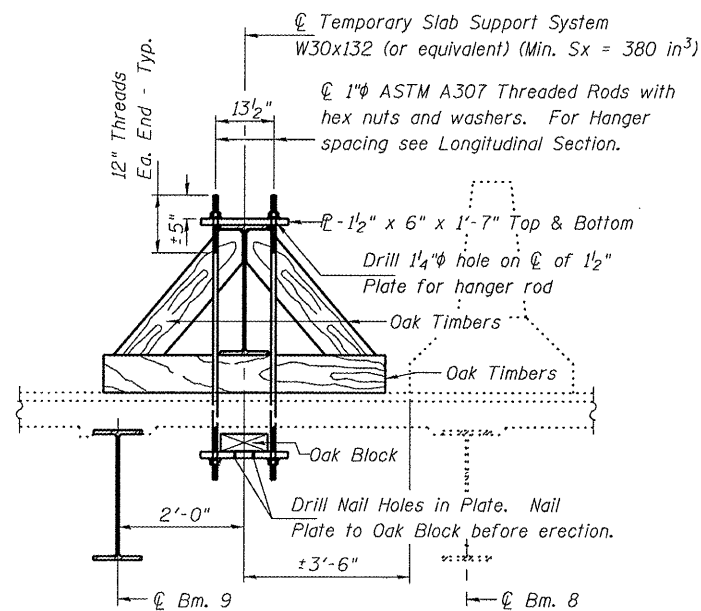
**LONGITUDINAL SECTION AT BEAM 12  
SUGGESTED TEMPORARY SLAB SUPPORT SYSTEM**



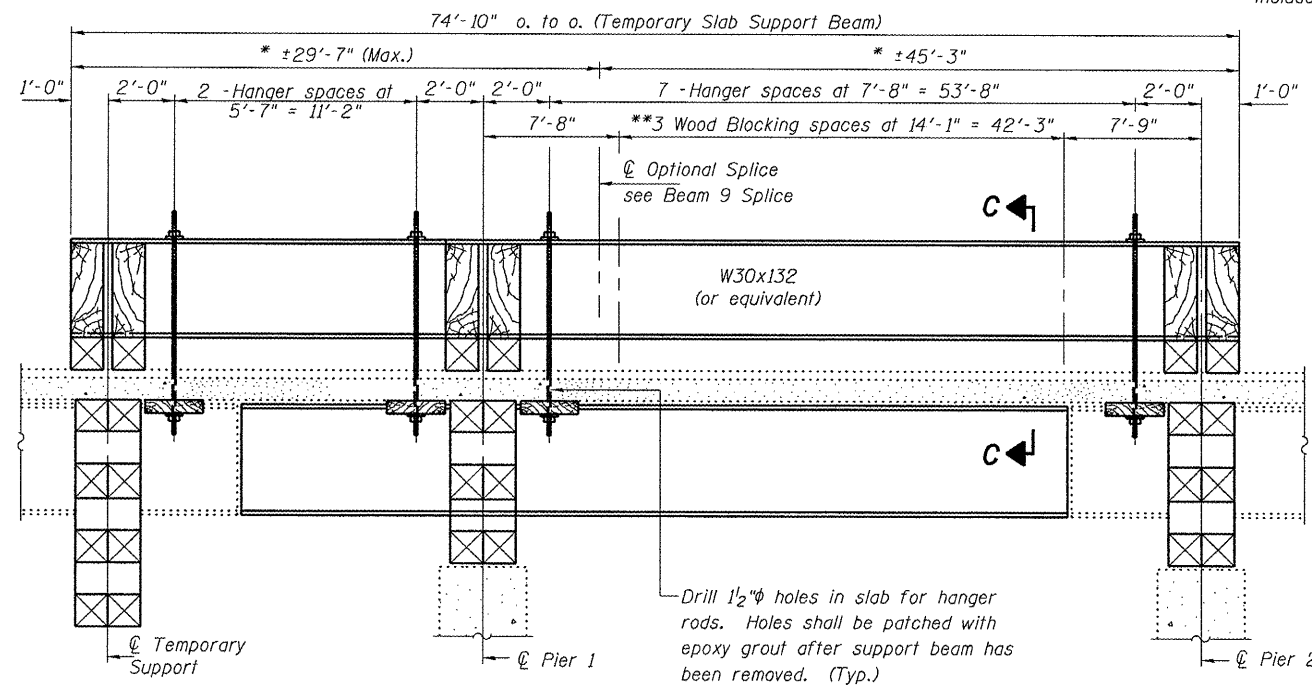
**TYPICAL CONCRETE & HMA  
SURFACE REMOVAL AND REPLACEMENT**

Hatched areas indicate concrete sections to be removed and replaced. Perimeters of concrete removal areas shall be saw cut 3/4" prior to the removal of concrete. Reinforcement shall be spliced as directed by the Engineer. Cut reinforcement shall be cut only if required for fitting bolts. Cost shall be included with Concrete Removal. The cost of removing and replacing the existing HMA surface, waterproofing membrane, and saw cutting shall be included with Concrete Removal.

**SECTION D-D**

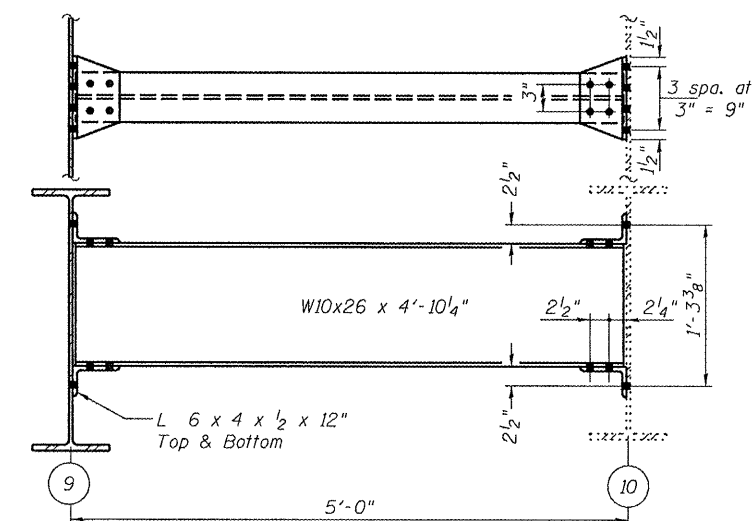


**SECTION C-C**



**LONGITUDINAL SECTION AT BEAM 9  
SUGGESTED TEMPORARY SLAB SUPPORT SYSTEM**

\*\*Wood blocking between supports to be placed after support beam deflects under its own weight.



**DIAPHRAGM REPLACEMENT DETAIL**

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

APPROVED	April 15, 2008
EXAMINED	<i>Carl Krueger</i> ENGINEER OF STRUCTURAL SERVICES
PASSED	<i>Ralph E. Anderson</i> ENGINEER OF BRIDGES AND STRUCTURES

REP-2 1-27-2000

SLT-94-001-07

**BEAM REPLACEMENT DETAILS**

F.A.I. RT. 74  
TAZEWELL COUNTY  
SN 090-0091