

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAP ROUTE 317 (US 24)

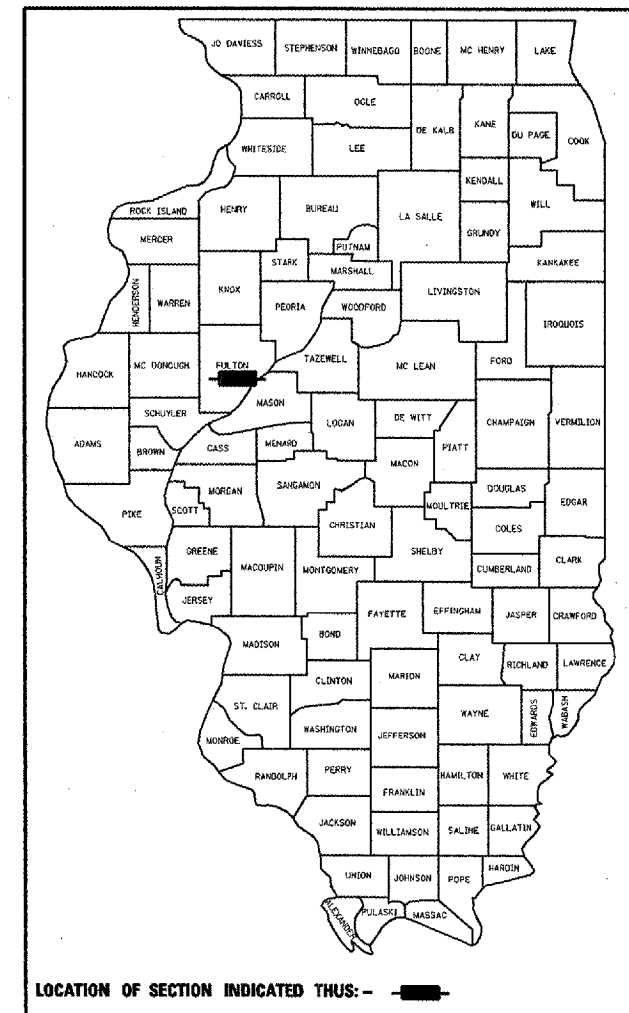
SECTION (137-BR-1) I-1
FULTON COUNTY

EMERGENCY BRIDGE BEAM REPLACEMENT

C-94-021-08

F.A.P	317	SECTION		COUNTY	SHEET NO.	TOTAL SHEETS
US	24	(137-BR-1)I-1		FULTON	1	12

D-94-020-08



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

DESCRIPTION:
EMERGENCY BRIDGE BEAM REPLACEMENT
(5 BEAMS) ON STRUCTURE CARRYING US 24
OVER BIG SISTER (S.N. 029-0018), 1.7 MILES
SW OF IL 78 STA. 1446+92

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *Feb 2, 2008*

[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 21, 2008
Eric E. Harmon
INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

March 21, 2008
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

INDEX OF SHEETS

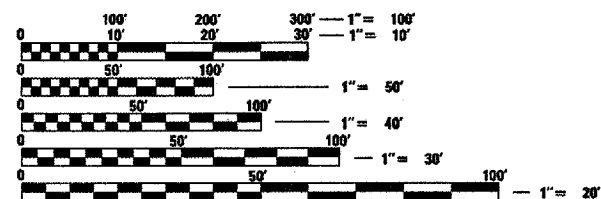
- 1 COVER SHEET
- 2 COMMITMENTS & GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4 TYPICAL SECTIONS
- 5 SCHEDULE OF QUANTITIES
- 6 TRAFFIC STAGING PLAN
- 7 WIDTH RESTRICTION SIGN LOCATIONS
- 8 STAGE REMOVAL AND CONSTRUCTION
- 9-12 BEAM REPLACEMENT DETAILS

LIST OF STANDARDS

- 000001-05 701321-09
- 701001-01 701326-02
- 701006-02 701901
- 701011-01 704001-04
- 701301-02 780001-01
- 701311-02

DESIGN DESIGNATION

ADT = 4800 (2007)
 MU = 350
 SU = 225



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.

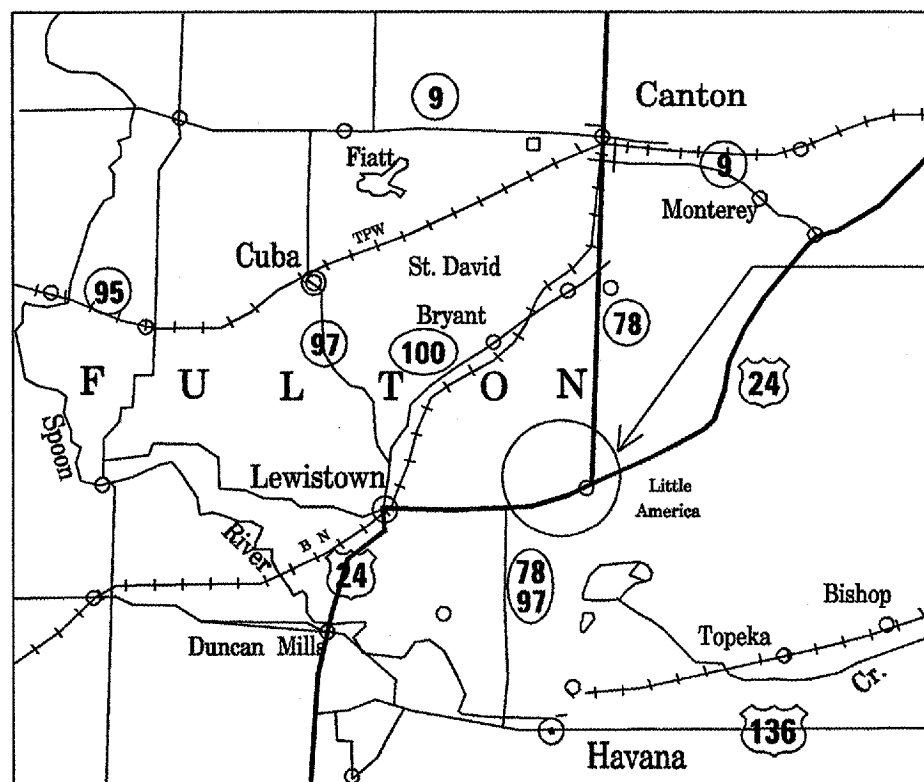
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123 OR 811

PROJECT ENGINEER : RICHARD DOTSON
 SQUAD LEADER : NICHOLAS JACK
 PROJECT DESIGNER : GEORGE RAMIA

CONTRACT NO. 68782
 CATALOG NO. 033714-00D



T 5 N



PROPOSED IMPROVEMENT

GROSS LENGTH OF PROJECT : 880 FT (0.167 MILES)
 NET LENGTH OF PROJECT : 880 FT (0.167 MILES)

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

GENERAL NOTES

COMMITMENTS

NO COMMITMENTS HAVE
BEEN MADE FOR THIS PROJECT

CLOSURE OF NORTH MUD AND EAST GRAIN BIN ROAD

The Contractor shall notify the Resident Engineer three (3) weeks prior to closing North Mud Road and East Grain Bin Road. Important contact numbers are listed below.

- Liverpool Township Road Commissioner - Tom Settles (309)668-2166
- Fulton County Engineer - William Kuhn (309)647-0351
- Fulton County Sheriff - (309)547-2277
- Buckhart Fire & Rescue - (309)668-2896
- Lewistown Fire & Rescue - (309)547-3325
- Fulton County Ambulance Service - (309)647-5147
- Lewistown Community School District Transportation Manager - Marian Jugovic - (309)547-3881

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.

BITUMINOUS CONCRETE MIXTURE REQUIREMENTS

The following mixture requirements are applicable for this Project: Contract 68782
US 24 over Big Sister Creek.

Mixture Use(s):	Sand Mix/Leveling Binder	Surface
AC/PG:	SBS or SBR PB 70-22	64-22
RAP % (Max)**:	0%	15%
Design Air Voids:	2.5% @ N=50	4.0% @ N=50
Mixture Composition: (Gradation Mixture)	IL 4.75	IL 9.5 or 12.5
Friction Aggregate:	N/A	Mix D

** If RAP option is selected, the asphalt cement grade may need to be adjusted; this will be determined by the Materials Engineer.

Notes: Individual lift thickness of each mix type will be no less than 3 X nominal maximum aggregate size and no more than 6 X nominal maximum aggregate size.

The asphalt sand seal protection layer specified in Section 581 of the Standard Specifications shall be omitted and replaced with Leveling Binder (Hand Method), N50.

The "SAND MIX / LEVELING BINDER" will be paid for separately by the ton as
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50.

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.

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.

SUMMARY OF QUANTITIES

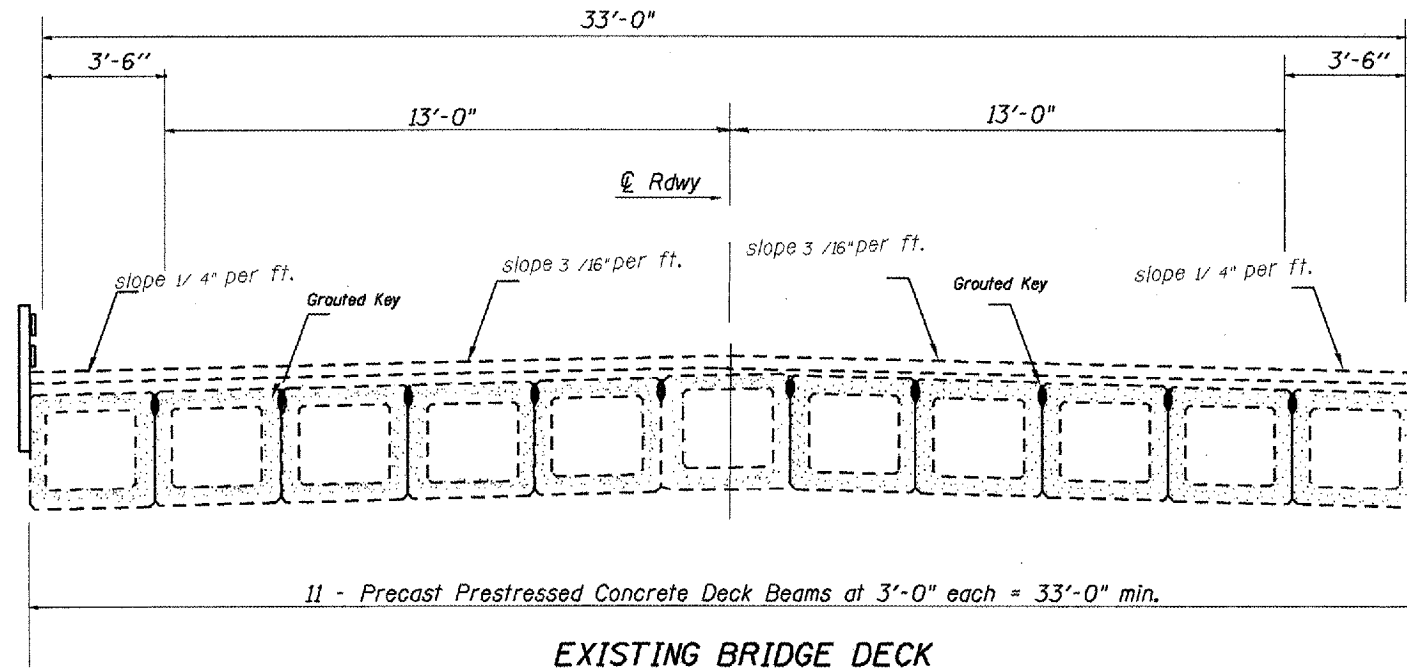
		100% STATE SAFETY-2A FULTON COUNTY		
CODE NO.	ITEM	UNIT	RURAL	TOTAL
20200500	EARTH EXCAVATION WIDENING	CU YD	280	280
25100630	EROSION CONTROL BLANKET	SQ YD	3,388	3,388
35501320	HOT-MIX ASPHALT BASE COURSE, 9"	SQ YD	1,120	1,120
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	40	40
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	22	22
44001005	HOT-MIX ASPHALT SURFACE REMOVAL	SQ YD	11	11
50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	1,188	1,188
50900905	REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	159	159
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	143	143
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	396	396
67000400	^{C/S} ENGINEER FIELD OFFICE, TYPE A	CAL MO	2	2
67100100	MOBILIZATION	L SUM	1	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1
70101835	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 22	L SUM	1	1

		100% STATE SAFETY-2A FULTON COUNTY		
CODE NO.	ITEM	UNIT	RURAL	TOTAL
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	5	5
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	800	800
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	270	270
70400100	TEMPORARY CONCRETE BARRIER	FOOT	312.5	312.5
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	312.5	312.5
*78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,800	1,800
78300100	PAVEMENT MARKING REMOVAL	SQ FT	540	540
X0320047	REMOVAL OF EXISTING PRECAST PRESTRESSED CONCRETE DECK BEAMS	SQ FT	1,188	1,188
X0325569	TEMPORARY BRIDGE TRAFFIC SIGNALS RESIDENTIAL APPROACH	EACH	1	1
X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	11	11
X7011830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	EACH	2	2
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	14	14
X7016500	TEMPORARY BRIDGE TRAFFIC SIGNALS (SPECIAL)	EACH	1	1
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2

*SPECIALTY ITEM

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE. 317	SECTION 0137-8R-101-1	COUNTY FULTON	TOTAL SHEETS 12	SHEET NO. 3		
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	PLOT DATE = #DATE#	CHECKED -	REVISED -			FED. ROAD DIST. NO. US 24 FED. AID PROJECT						
		DATE -	REVISED -									

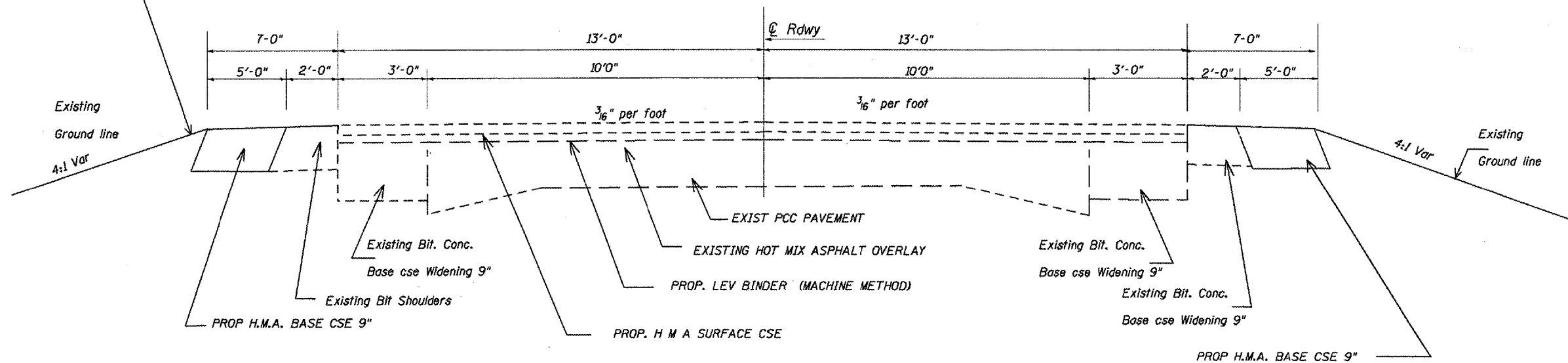
TYPICAL SECTIONS



EXISTING BRIDGE DECK

STA 1146+52 TO STA 1447+33

ANY MATERIAL, LABOR, OR EQUIPMENT COSTS REQUIRED TO TRANSITION FROM THE PROP. BIT. WIDENING TO THE EXISTING GROUND SHALL BE INCLUDED WITH THE COST OF THE PROP. BIT. WIDENING.



EXISTING PAVEMENT

STA 1443+00 TO STA 1451+00

FILE NAME =	USER NAME = jacknw	DESIGNED -	REVISED -
S:\GEN\DRFT\STD&PLNS\SQUAD10\Emergency Bridge Repair Contracts\68782\plan01.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(137-BR-UI-1	FULTON	12	4
CONTRACT NO. 68782				

SCHEDULE OF QUANTITIES

LOCATIONS STA. TO STA.	TEMPORARY CONCRETE BARRIER	RELOCATE TEMP CONC BARRIER
	FOOT	FOOT
1445+35.75 - 1448+48.25	312.5	312.5
TOTAL	312.5	312.5

LOCATIONS STA. TO STA.	EARTH EXCAV WIDENING	HOT MIX ASPHALT BASE COURSE, 9"	EROSION CONTROL BLANKET
	CU YD	SQ YD	SQ YD
1443+00 - 1451+00	280	1,120	3,388
TOTAL	280	1,120	3,388

LOCATIONS STA. TO STA.	BIT MAT (PRIME COAT)	POL LB MM IL4.75 N50
	GALLON	TON
1443+00 - 1451+00	40	11
TOTAL	40	11

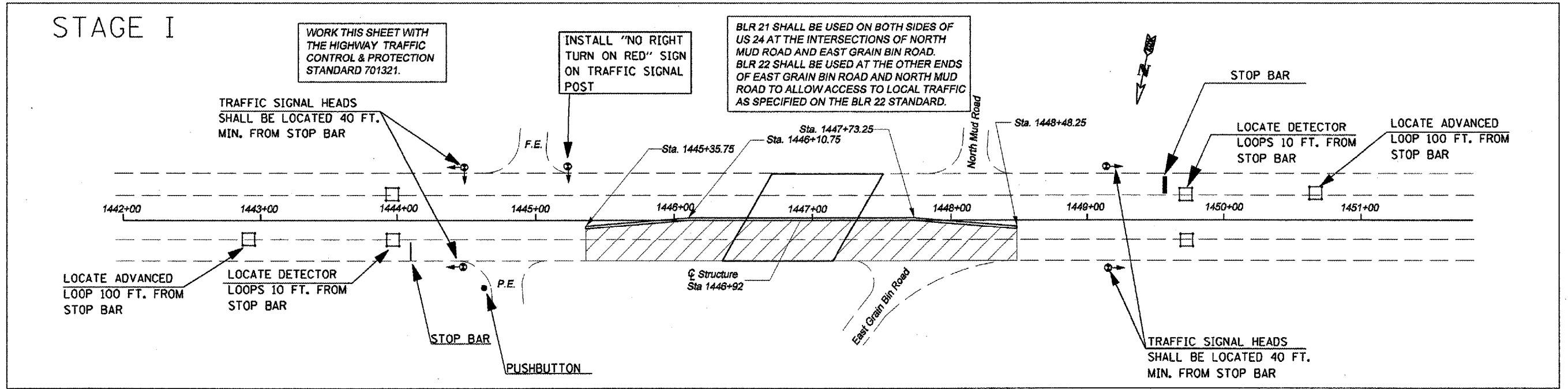
LOCATIONS STA. TO STA.	SHORT - TERM PAVEMENT MARKING	WORK ZONE PAVEMENT MARKING REMOVAL	PAINT PAVEMENT MARKING LINE 4"	PAVEMENT MARKING REMOVAL
	FOOT	SQ FT	FOOT	SQ FT
1443+00 - 1451+00	800	270	1,800	540
TOTAL	800	270	1,800	540

LOCATIONS STA. TO STA.	ENGINEER FIELD OFFICE TYPE A	MOBILIZATION	T C & PROT STANDARD BLR 21	T C & PROT STANDARD BLR 22
	CAL. MO.	L SUM	L SUM	L SUM
1443+00 - 1451+00	2	1	2	1
TOTAL	2	1	2	1

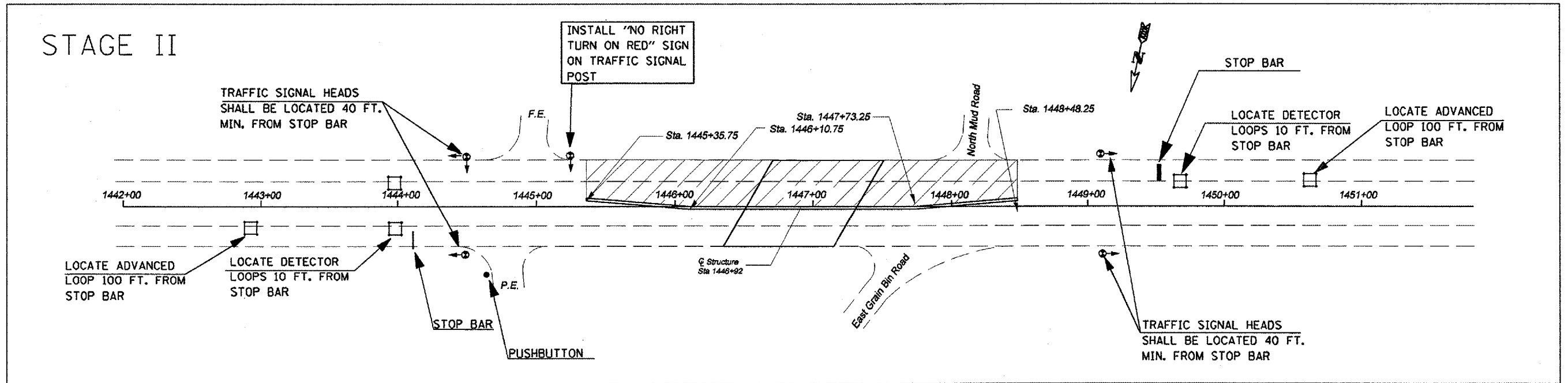
LOCATIONS STA. TO STA.	CHANGEABLE MESSAGE SIGN	TRAFFIC CONTROL SURVEILLANCE	T C & PROT STANDARD 701321	T C & PROT STANDARD 701326
	CAL DA	CAL DA	EACH	L SUM
1443+00 - 1451+00	14	5	1	1
TOTAL	14	5	1	1

LOCATIONS STA. TO STA.	IMPACT ATT TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATT RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3
	EACH	EACH
1445+35.75 - 1448+48.25	2	2
TOTAL	2	2

STAGE I

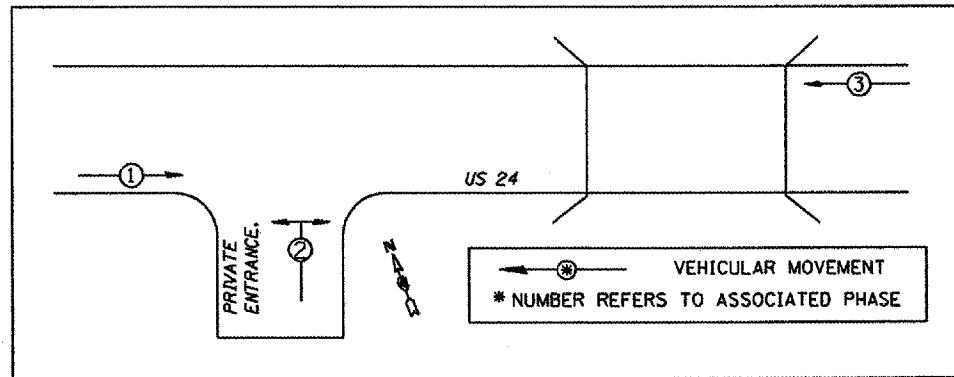


STAGE II



NOT TO SCALE

TEMPORARY PHASE DIAGRAM



PLAN SHEET SCHEDULE OF QUANTITIES		
ITEM DESCRIPTION	UNIT	QUANTITY
TEMPORARY BRIDGE TRAFFIC SIGNAL, SPECIAL	EACH	1.0
TEMPORARY BRIDGE TRAFFIC SIGNAL, RESIDENTIAL APPROACH	EACH	1.0

- LEGEND
- ⊙ TEMPORARY WOOD POLE OR POST
 - 3 SEC. SIGNAL HEAD W/ BACKPLATE
 - DETECTOR LOOP - 6' X 6' UNLESS OTHERWISE NOTED
 - ▨ WORK AREA
 - ▭ TEMPORARY CONCRETE BARRIER

NOTE: ALL ITEMS REQUIRED TO SIGNALIZE THE PRIVATE ENTRANCE SHALL BE INCLUDED IN THE PAY ITEM FOR "TEMPORARY BRIDGE TRAFFIC SIGNALS, RESIDENTIAL APPROACH" INCLUDING, BUT NOT LIMITED TO, SIGNAL HEADS, POSTS, PUSHBUTTON, ELECTRIC CABLE, CABLE SUPPORTS, INTERCONNECT CABLE, CONTROLLER AND CABINET MODIFICATIONS, SIGNING, AND ALL OTHER ITEMS REQUIRED FOR THE INSTALLATION.

- NOTES:
- AT THE CONTRACTOR'S OPTION, TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNALS MAY BE USED IN PLACE OF TEMPORARY BRIDGE TRAFFIC SIGNALS.
 - TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH STANDARD 701321 EXCEPT WHERE MODIFIED ON THIS PLAN SHEET.
 - THREE PHASE SIGNAL OPERATION IS REQUIRED. THE ENGINEER OF TRAFFIC SHALL APPROVE ALL TIMING PARAMETERS.
 - ALL TRAFFIC SIGNAL SECTIONS SHALL HAVE 12" DIAMETER LENSES.
 - THE LOCATIONS OF TRAFFIC SIGNAL POSTS, STOP BARS, AND DETECTOR LOOPS SHALL BE SUBJECT TO APPROVAL BY THE RESIDENT ENGINEER PRIOR TO INSTALLATION.
 - THE TEMPORARY TRAFFIC SIGNAL INSTALLATION SHALL CONFORM TO ALL APPLICABLE MUTCD REQUIREMENTS.
 - THE CONTRACTOR, AT HIS OPTION, MAY ELECT TO UTILIZE MICROWAVE DETECTORS IN PLACE OF DETECTOR LOOPS FOR BOTH APPROACHES ON US 24.
 - ALL LABOR AND MATERIALS REQUIRED TO COMPLY WITH THESE REQUIREMENTS AND PLAN SHEET DETAILS SHALL BE INCLUDED IN THE PRICE FOR THE TEMPORARY BRIDGE SIGNAL INSTALLATION.

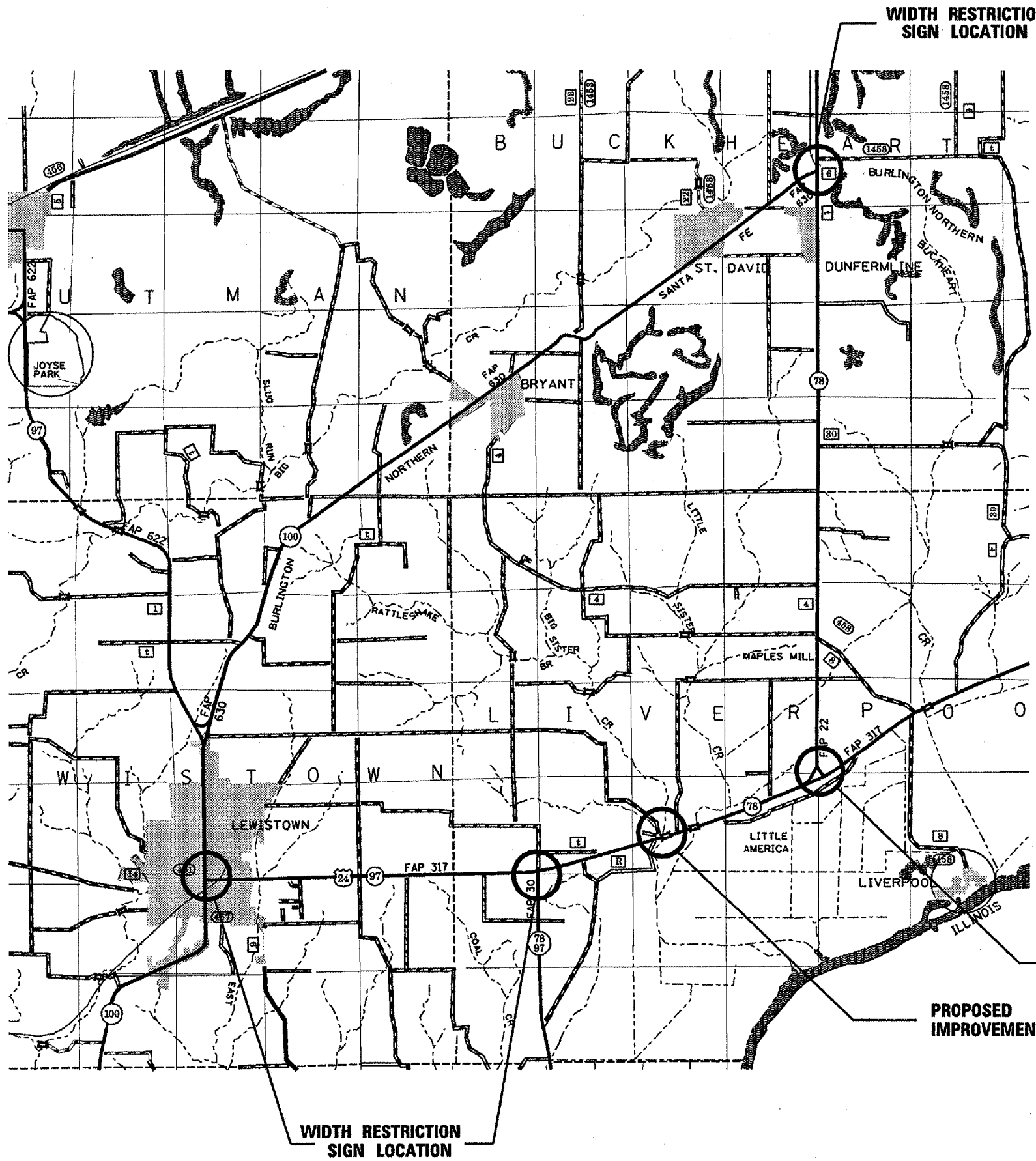
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		CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY BRIDGE TRAFFIC SIGNAL DETAIL

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(137-BR-D1-1)	FULTON	12	6

CONTRACT NO. 68782



CLOSURE OF NORTH MUD AND EAST GRAIN BIN ROAD

The Contractor shall notify the Resident Engineer three (3) weeks prior to closing North Mud Road and East Grain Bin Road. Important contact numbers are listed below.

- Liverpool Township Road Commissioner - Tom Settles (309)668-2166
- Fulton County Engineer - William Kuhn (309)647-0351
- Fulton County Sheriff - (309)547-2277
- Buckhart Fire & Rescue - (309)668-2896
- Lewistown Fire & Rescue - (309)547-3325
- Fulton County Ambulance Service - (309)647-5147
- Lewistown Community School District Transportation Manager - Marian Jugovic - (309)547-3881



NOTE:

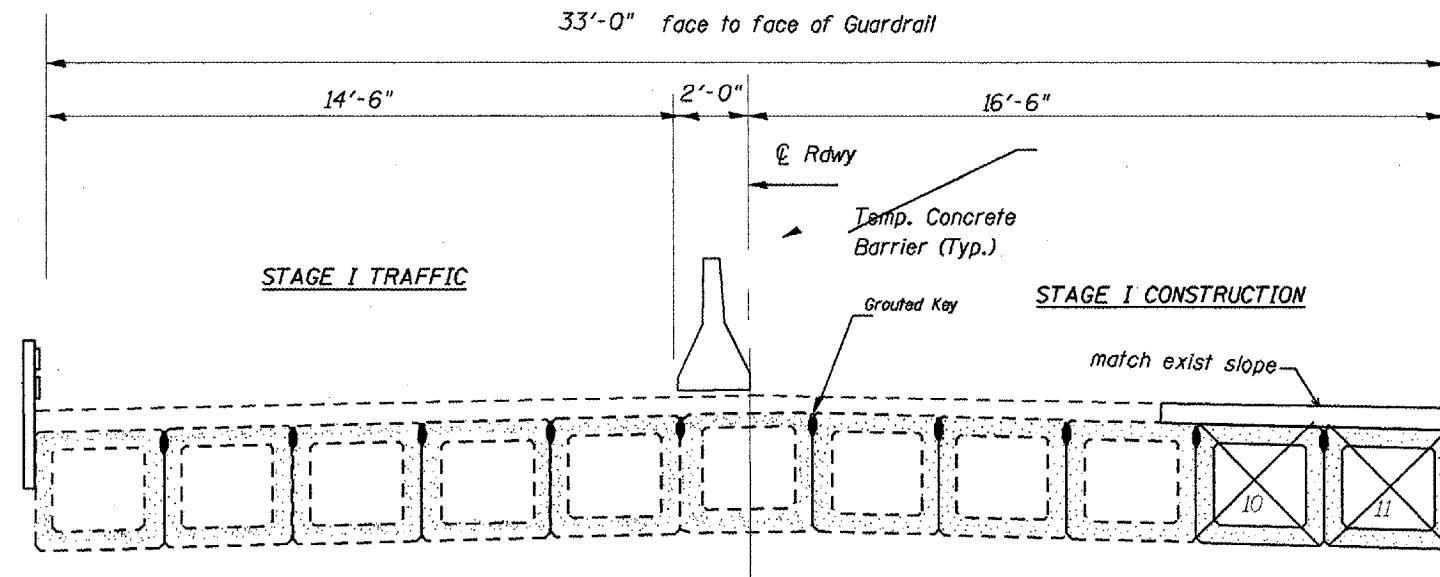
Seven W12-I103 signs, as described in the Special Provisions, will be required. Two signs shall be placed in Lewistown at the intersection of US 24 and IL 100. One sign shall be placed at the intersection of US 24 and IL 78/IL 97. Two signs shall be placed at the intersection of IL 78 and US 24. Two signs shall be placed at the intersection of IL 78 and IL 100. These signs shall be located at the direction of the Engineer. The costs shall be included with the cost of the TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

WIDTH RESTRICTION SIGN LOCATION

PROPOSED IMPROVEMENT

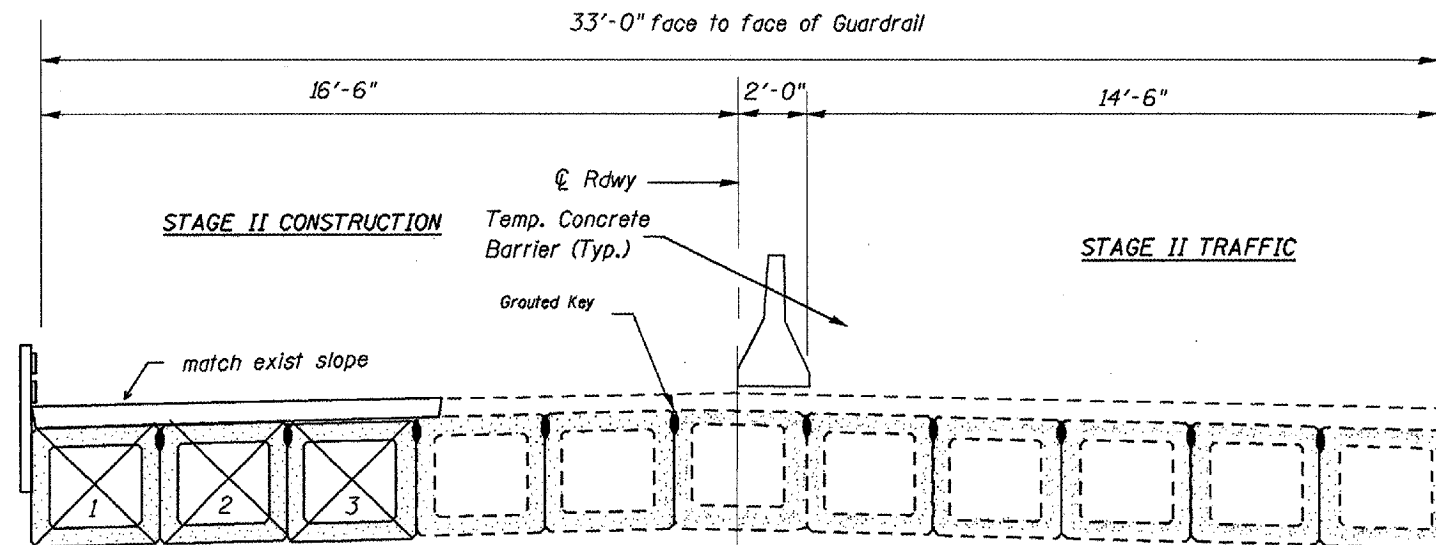
WIDTH RESTRICTION SIGN LOCATION

STAGE REMOVAL AND CONSTRUCTION



STAGE I CROSS SECTION

(Looking west)



STAGE II CROSS SECTION

(Looking west)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
FAP 317		Fulton	12	9
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract Number: 68782

GENERAL NOTES

The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures.

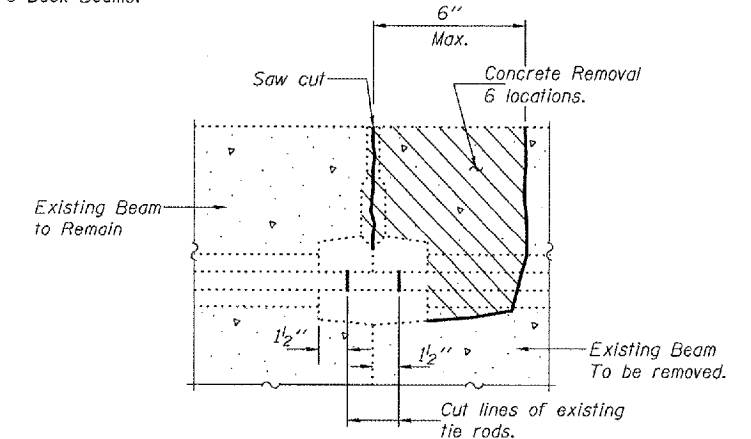
If the contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on the bridge, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the new or existing beams. To distribute load to multiple beams and protect the existing surface, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams. If heavy equipment will be placed on new PPC deck beams, the following shall be done prior to placement of the timber mats: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing the shear keys.

The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

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 barrier shall only be anchored into the overlay and not into the PPC Deck Beams.

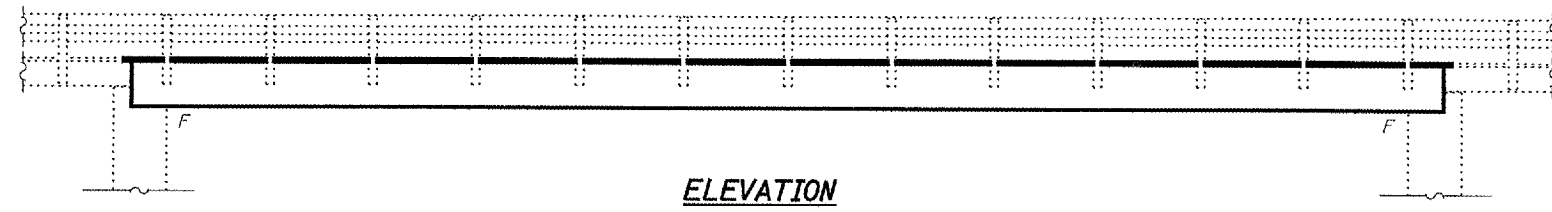
Any damage done to the bridge during beam removal shall be repaired by the Contractor. Cost to be included in the cost of Removal of Existing PPC Deck Beams.



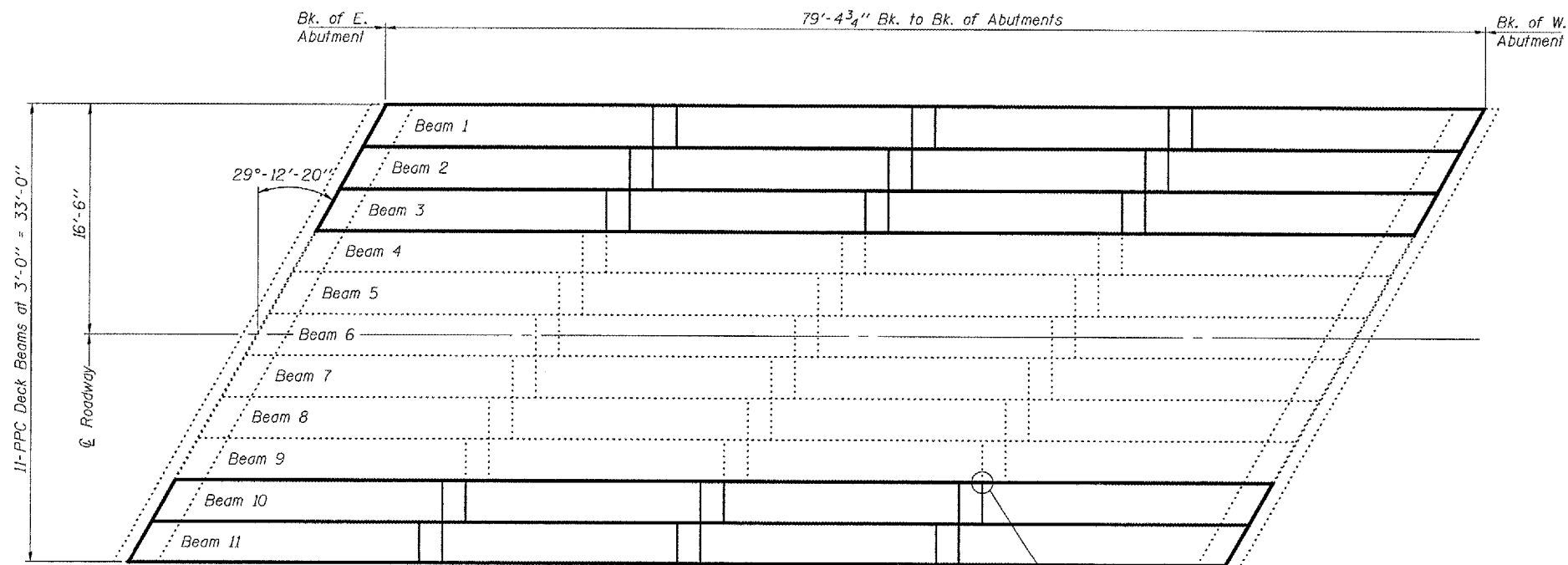
**BEAM REMOVAL DETAIL
AT TRANSVERSE TIES**

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Removal of Existing PPC Deck Beams	Sq. Ft.	1188
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	1188
Hot-Mix Asphalt Surface Removal	Sq. Yd.	10.8
HMA Surface Course Mix "D" N50	Tons	21.7
PC Mortar Fairing Course	Foot	396
Waterproofing Membrane System	Sq. Yd.	143
Removing and Re-erecting Existing Railing	Foot	159
	--	--



ELEVATION



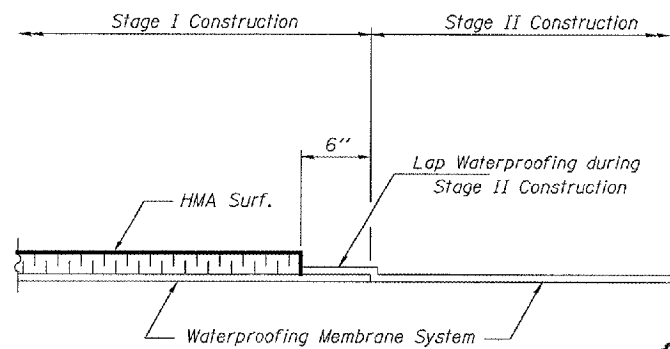
PLAN

Existing tie rod to be cut. See detail this sheet. (Typ.)

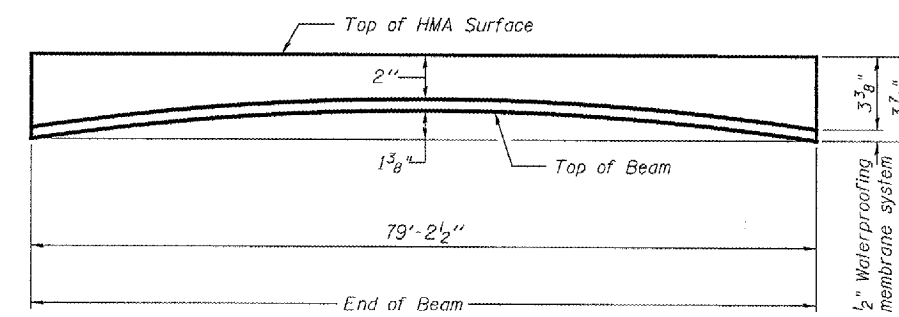
DESIGN STRESSES

PRECAST PRESTRESSED UNITS

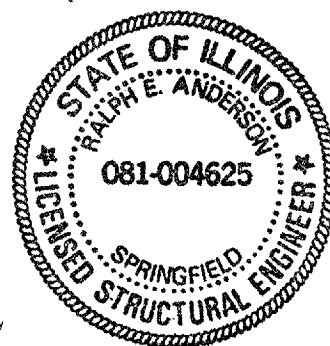
$f'c = 5,000$ psi
 $f'ci = 4,000$ psi
 $f's = 270,000$ psi ($1/2$ " ϕ low lax strands)
 $f'si = 201,960$ psi ($1/2$ " ϕ low lax strands)



**WATERPROOFING TREATMENT
AT STAGE CONSTRUCTION**



ANTICIPATED INITIAL CAMBER DIAGRAM



DESIGNED	Adrian J. Hallaway	EXAMINED	Dr. Carl Puzos
CHECKED	By [Signature]	PASSED	Ralph E. Anderson
DRAWN	Steffen		
CHECKED	ATH		

FEBRUARY 25, 2008

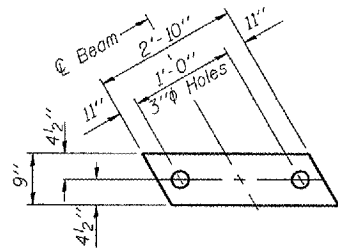
EXPIRES 11-30-2008

**PLAN & ELEVATION
SBI RT. 78
FULTON COUNTY
SN 029-0018**

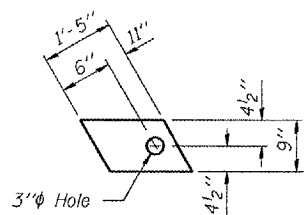
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	QUANTITY	DATE	BY	SHEET NO. 2
FAP 317		Fullon	12	10	4 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

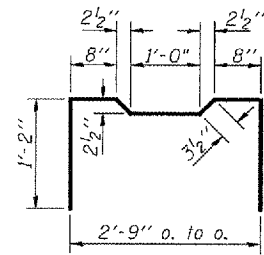
Contract Number: 68782



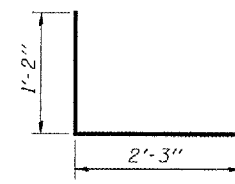
FABRIC BEARING PAD



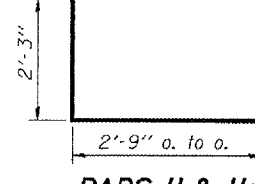
FABRIC ADJUSTING SHIM



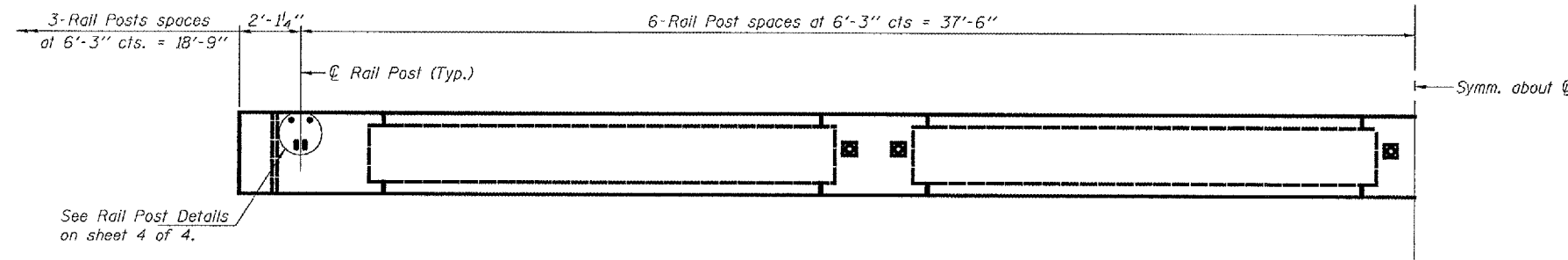
BAR A1



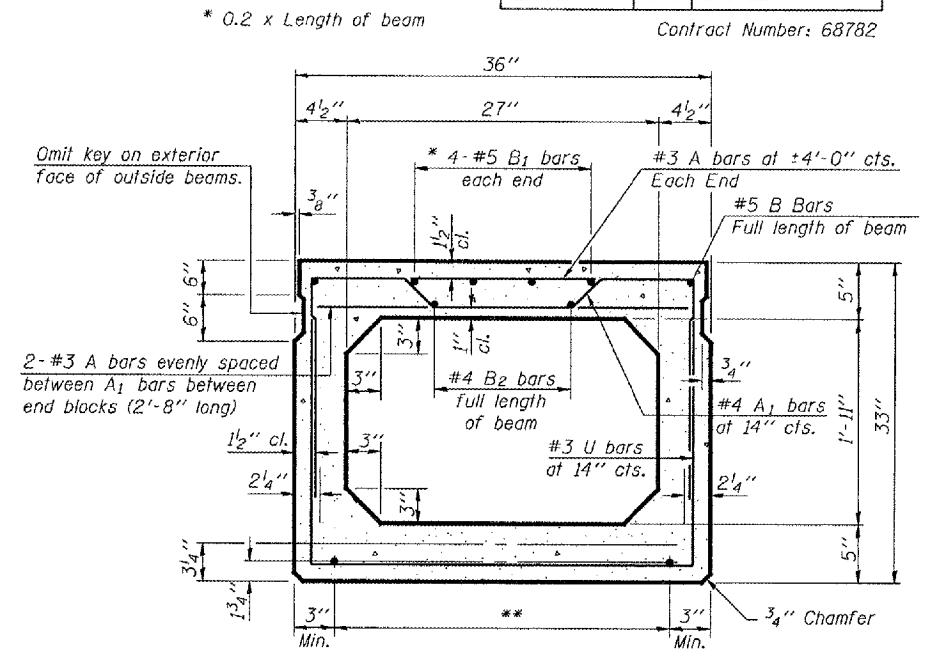
BAR D



BARS U & U1



BEAM PLAN



TYPICAL SECTION

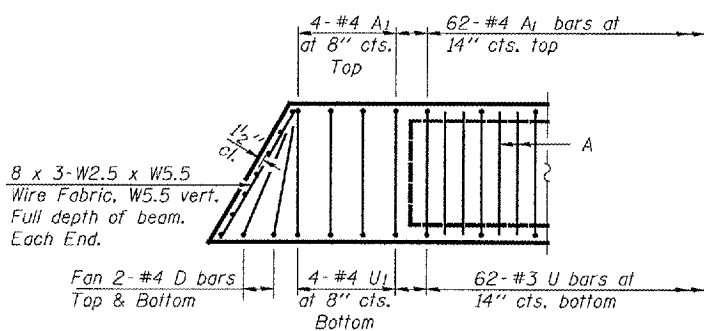
17-1/2"φ Strands, Each Strand Stressed to 30,900 Lbs.
8-Strands 1 3/4" up, 5-Strands 3/4" up, &
2-Strands 6" up, 2-Strands 9" up.

Note:
Place strands symmetrically about centerline of beam.

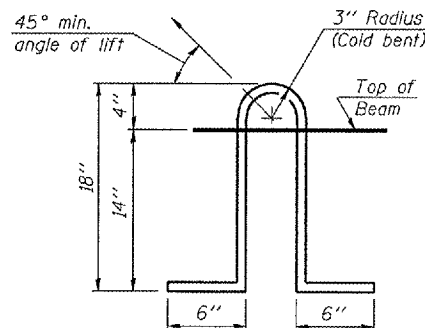
TRANSVERSE PLACEMENT GUIDELINES

1. Place strands symmetrically about centerline of beam.
2. The minimum distance from center to center of strands in all directions shall be 2".
3. The minimum clearance from strand to dowel hole shall be 1/2".
4. The minimum clearance from strand to void shall be 1/2".

Vertical placement of strands shall not be adjusted to satisfy the above guidelines.



END PLAN



LIFTING LOOP DETAIL

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 3-1/2"φ-270 ksi strands, as shown. The 1"φ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions shown shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'ci, shall be 4000 p.s.i.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms.	Sq. Ft.	1188
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DESIGNED	ATH
CHECKED	AJB
DRAWN	Steffen
CHECKED	ATH AJB

FEBRUARY 25, 2008
EXAMINED *Carl Prosser*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

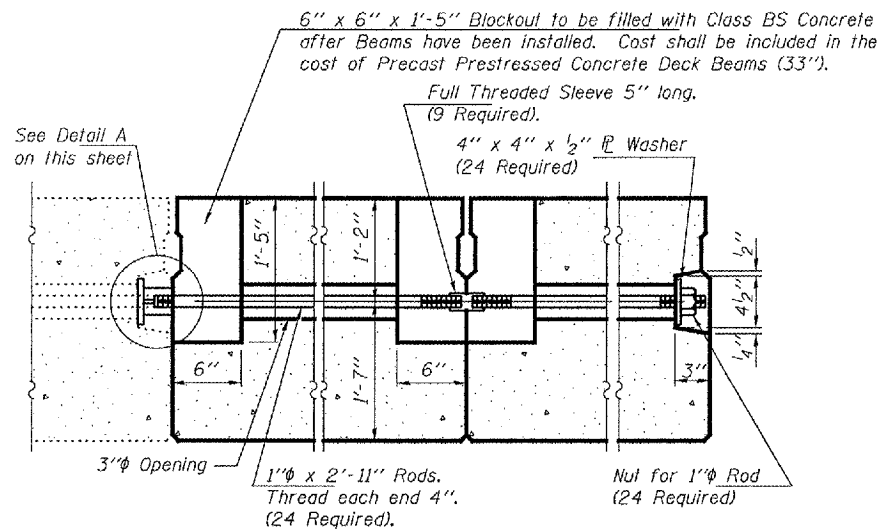
REPAIR DETAILS
SBI RT. 78
FULTON COUNTY
SN 029-0018

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

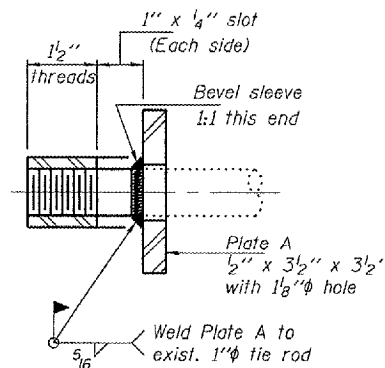
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 317		Fulton	12	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 3
4 SHEETS

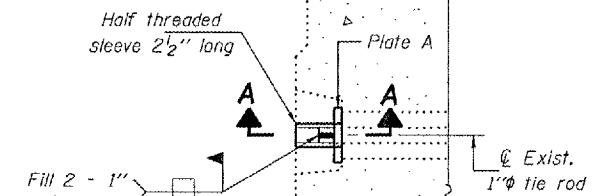
Contract Number: 68782



TYPICAL TRANSVERSE TIE ASSEMBLY



SECTION A-A
(6 Required)



DETAIL A

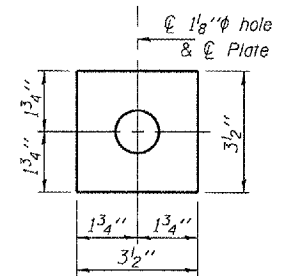
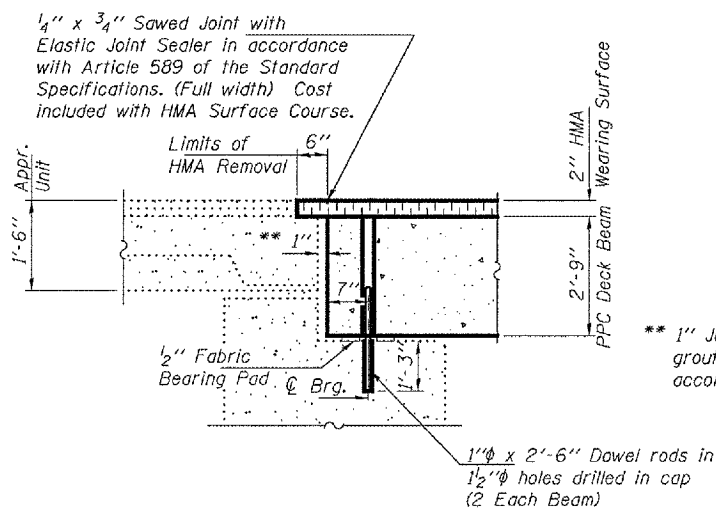
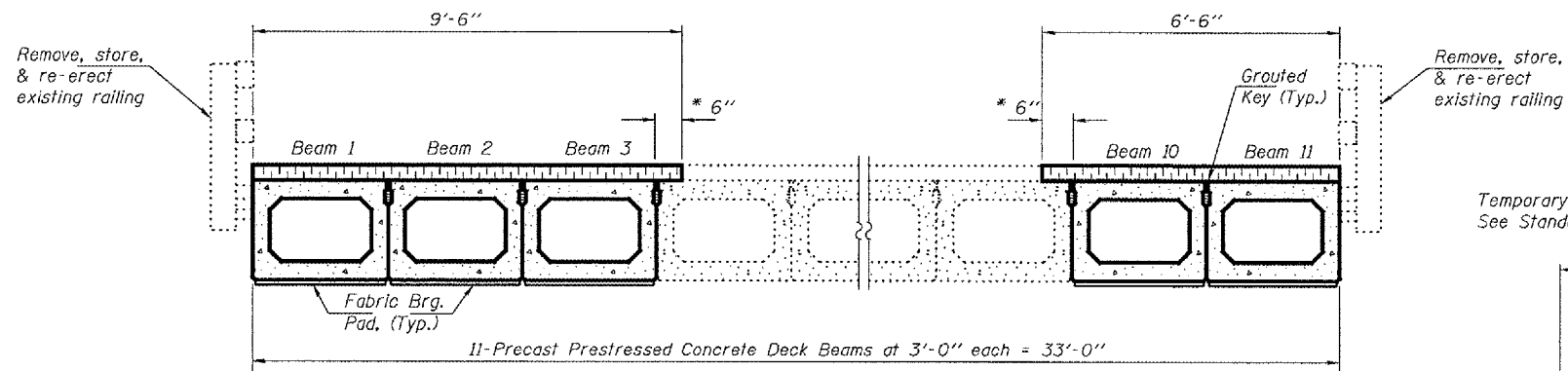


PLATE A
(6 Required)



TYPICAL SECTION AT ABUTMENTS

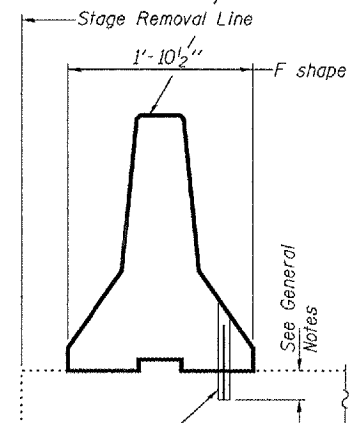
Existing Dowel Rods shall be cut off & ground flush with the top of the existing concrete. Cost included with Removal of Existing PPC Deck Beams. Proposed Dowel Rods shall be grouted after beams are in place and allowed to cure (Min. 24 hrs.) prior to grouting shear keys.



PARTIAL CROSS SECTION
(Looking West)

* Limits of HMA Surface Removal. Existing waterproofing to remain. Lap new waterproofing 6" over existing.

** 1" Joint shall be filled with non-shrink grout. This dimension may vary to accommodate tolerance in beam length.



TEMPORARY CONCRETE BARRIER

Drill 1/4" Holes in existing overlay for 1" x 10" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

DESIGNED	ATH
CHECKED	AJB
DRAWN	Steffen
CHECKED	ATH AJB

FEBRUARY 25, 2008

EXAMINED *Carl Perry*
ENGINEER OF STRUCTURAL SERVICES

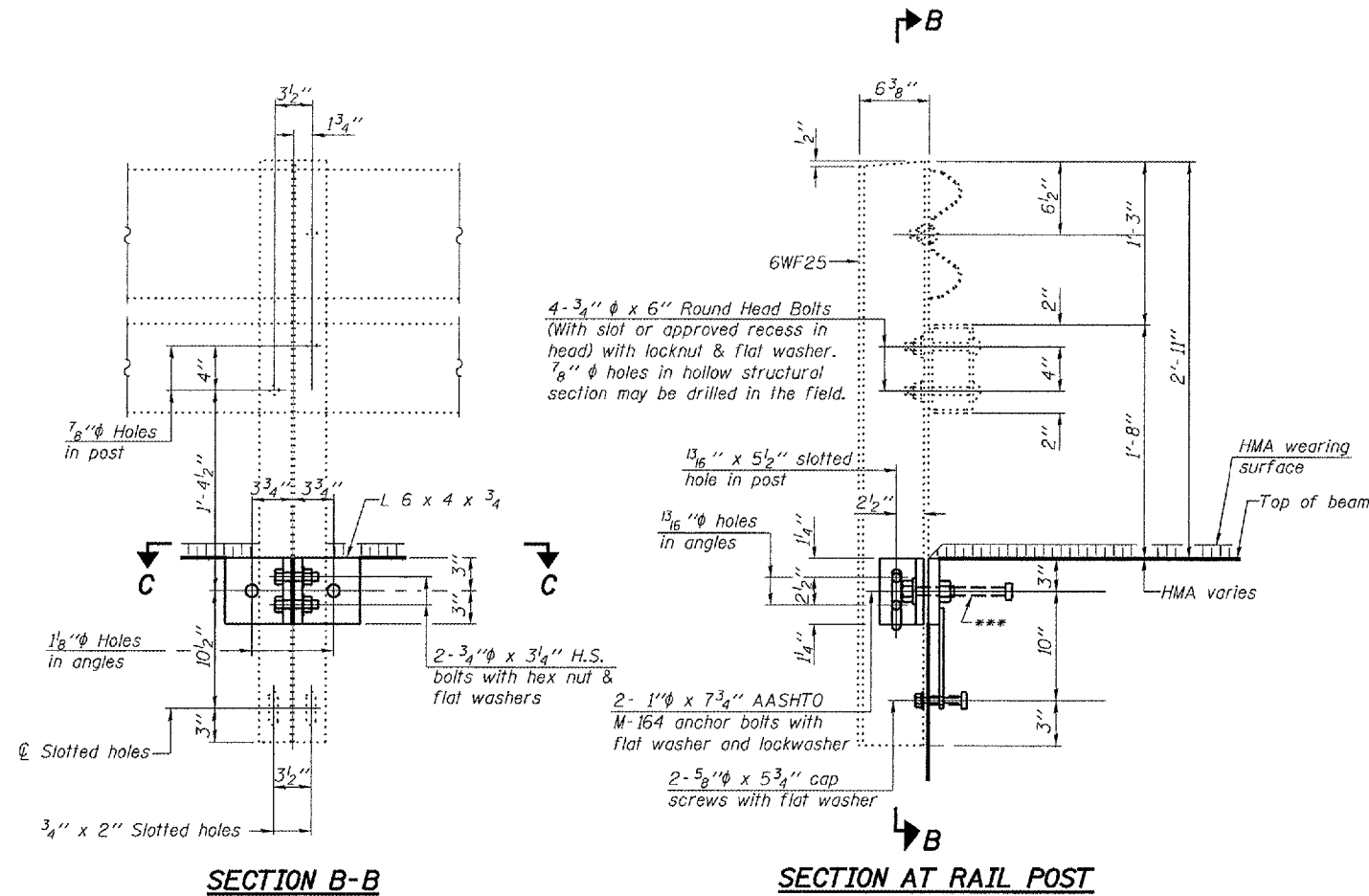
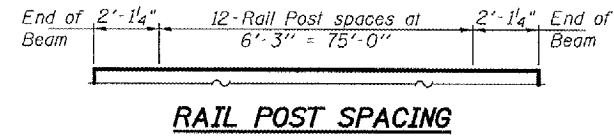
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

REPAIR DETAILS
SBI RT. 78
FULTON COUNTY
SN 029-0018

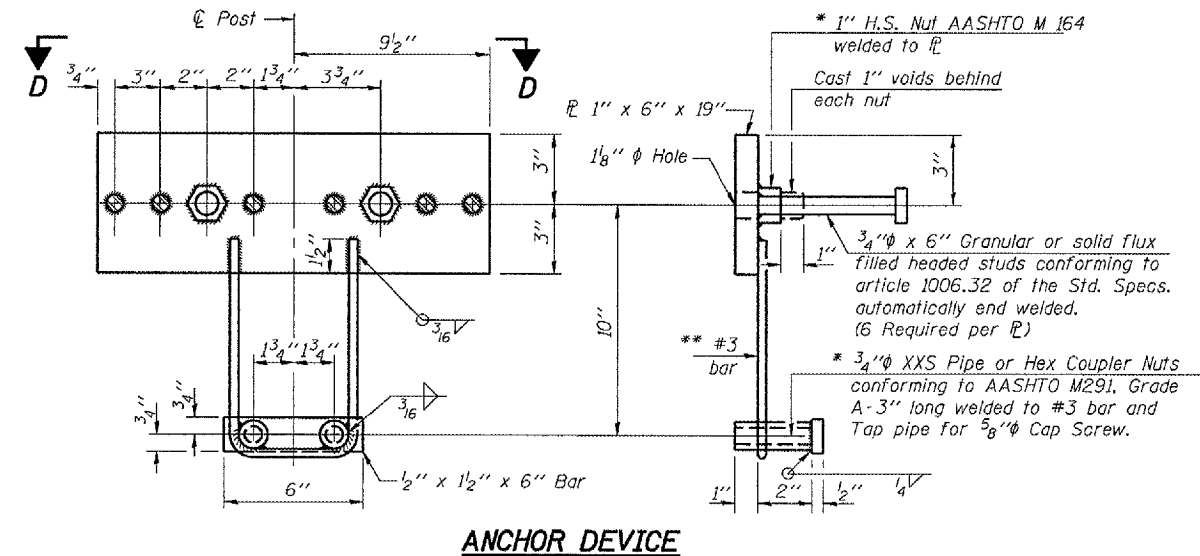
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	FEET	SHEET	SHEET NO. 4 4 SHEETS
FAP 317		Fulton	12	12	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			
Contract Number: 68782					

Notes:
All steel rail members shall be galvanized according to Article 509.05 of the Standard Specifications.

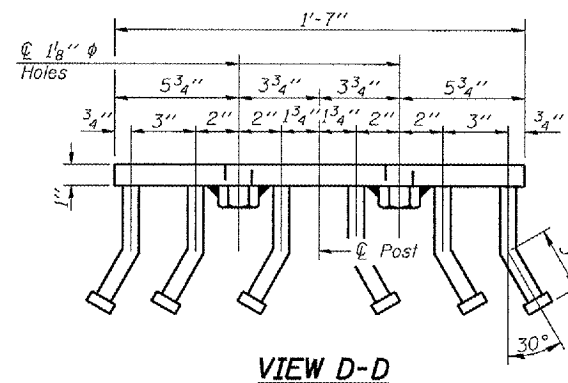
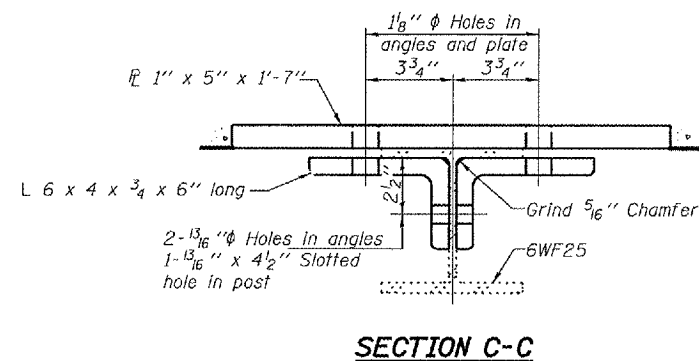


*** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



BILL OF MATERIAL

Item	Unit	Quantity
Remove and Re-erect Existing Railing	Foot	159

DESIGNED	ATH
CHECKED	AJB
DRAWN	Steffen
CHECKED	ATH AJB

FEBRUARY 25, 2008

EXAMINED *A. Carl*
ENGINEER OF STRUCTURAL SERVICES

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

REPAIR DETAILS
SBI RT. 78
FULTON COUNTY
SN 029-0018