

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102-B-1)	LIVINGSTON	16	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 66810		

INDEX OF SHEETS

1. COVER SHEET
2. GENERAL NOTES
- 3.-4. SUMMARY OF QUANTITIES
5. TYPICAL SECTIONS
- 6.-8. STAGING DETAILS
9. TEMPORARY CONCRETE BARRIER
10. TYPICAL PAVEMENT MARKING
11. PLAN AND ELEVATION
- 12.-14. BEAM DETAILS
- 15.-16. REPAIR DETAILS

STANDARDS

- | | |
|-----------|--|
| 000001-05 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001006 | DECIMAL OF AN INCH AND OF A FOOT |
| 482011-03 | HMA SHOULDER STRIPS/SHOULDERS WITH RS OR WIDENING & RS PROJECTS |
| 701001-01 | OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 4.5 m (15') AWAY |
| 701006-02 | OFF-ROAD OPERATIONS 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE |
| 701011-01 | OFF-ROAD MOVING OPERATIONS 2L, 2W, DAY ONLY |
| 701201-02 | LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS P 45 MPH |
| 701206-01 | LANE CLOSURE, 2L, 2W, NIGHT ONLY, FOR SPEEDS P 45 MPH |
| 701301-02 | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS |
| 701311-02 | LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY |
| 701321-09 | LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER |
| 701326-02 | LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS P 45 MPH |
| 701901 | TRAFFIC CONTROL DEVICES |
| 704001-04 | TEMPORARY CONCRETE BARRIER |

MICROFILMED _____
 REEL NUMBER _____
 AWARDED _____
 RESIDENT ENGINEER _____
 AS BUILT CHANGES WERE MADE
 ON THE FOLLOWING SHEETS _____

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

DISTRICT 3 NO. (815) 434-6131

PROJECT ENGINEER: JOE KANNEL
 UNIT CHIEF: RON WOODSHANK

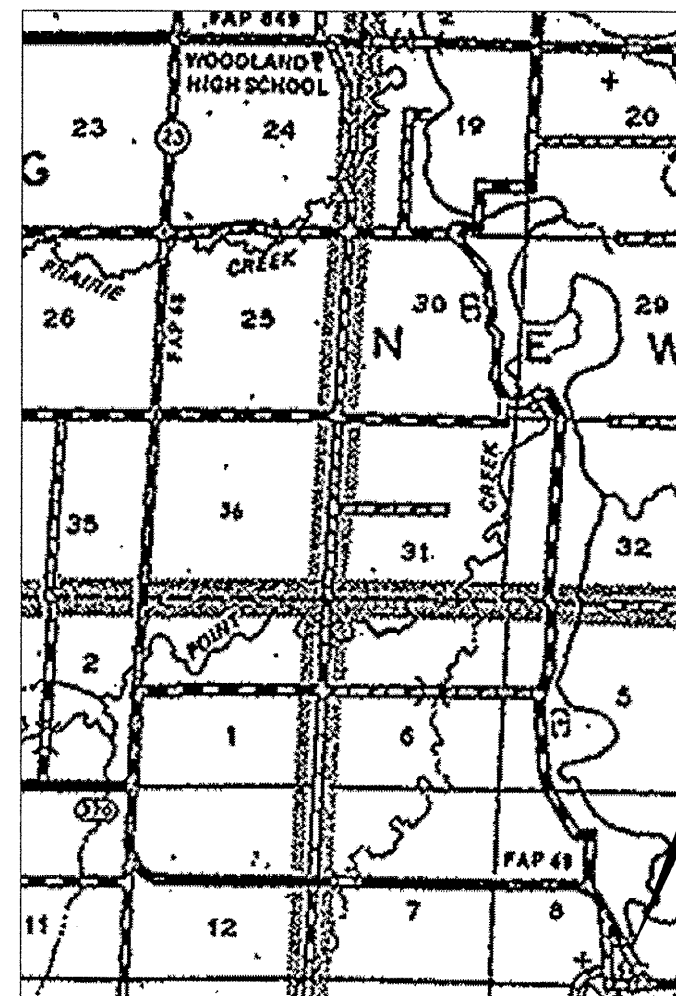
CONTRACT NO. 66810

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

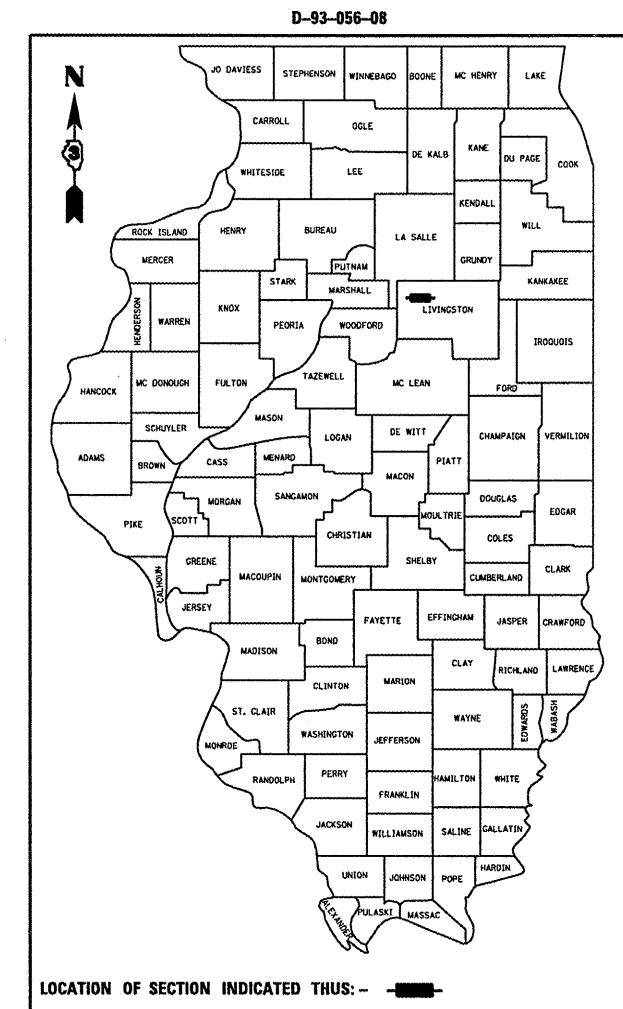
**PROPOSED
 HIGHWAY PLANS**

FAP ROUTE 68 (IL 23)
 SECTION (102-B-1)

LIVINGSTON COUNTY
 C-93-087-08
DECK BEAM REPLACEMENT



LOCATION MAP
 NOT TO SCALE
 POINT LOCATION



LOCATION OF SECTION INDICATED THUS: —

PROJECT LOCATION
 SN 053-0161
 7.31 MILES SOUTH OF IL 17

FUNCTIONAL CLASSIFICATION
 RURAL - MINOR ARTERIAL
 F.A.P. ROUTE 68 (IL 23)
 2005 ADT = 1450
 P.V = 87.2 % M.U. = 4.1 % S.U. = 8.6 %

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED 3125 20 08

George E. Ryan
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

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

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

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

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE VARIATIONS. THE CONTRACTOR SHALL FIELDS VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY FURNISHED BASED UPON THE UNIT BID FOR THE WORK.

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE "JULIE" NUMBER IS 1-800-892-0123. A MINIMUM OF FORTY-EIGHT (48) HOURS ADVANCE NOTICE IS REQUIRED.

THE COST OF ANY SAW CUTS MADE TO COMPLETE THE WORK AS DESCRIBED IN PLAN DETAILS, UNLESS OTHERWISE NOTED SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED WITH THE VARIOUS REMOVAL PAY ITEMS INVOLVED.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

THE THICKNESS OF HMA SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA IS PLACED.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

ON EXISTING PAVEMENT WHICH MAY BE SUPERELEVATED, THE NEW BITUMINOUS PAVEMENT SHALL BE BUILT WITH THE SAME SUPERELEVATION UNLESS NEW SUPERELEVATION RATES ARE GIVEN ON THE PLANS.

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

	HMA SURFACE	HMA WIDENING
PG GRADE	PG64-22	PG64-22
MAX % RAP ALLOWABLE	15%**	25%**
DESIGN AIR VOIDS	4.0% # N50	4.0% # N50
MIXTURE COMPOSITION	IL 12.5 or IL 9.5	IL 19.0
FRICTION AGGREGATE	MIXTURE C	
DENSITY CONTROL METHOD	NUCLEAR	NUCLEAR

**IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.

DATE: 3/25/08

PREPARED BY: Richard
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: Hebert K. Goggin
DISTRICT CONSTRUCTION ENGINEER

James
DISTRICT MATERIALS ENGINEER

Brian
DISTRICT OPERATIONS ENGINEER

FILE NAME =	USER NAME = woodshenr1	DESIGNED - RLW	REVISED -
c:\projects\deck beam repl 08\an 053-01	.dgn	DRAWN - RLW	REVISED -
PLOT SCALE = 103.4029 / IN.	CHECKED -	REVISED -	REVISED -
PLOT DATE = Mar 24, 2008 - 10:30:18 AM	DATE -	REVISED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GENERAL NOTES

SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102-B-11)	LIVINGSTON	16	2
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 66810	

SUMMARY OF QUANTITIES

CONSTRUCTION CODE TYPE: SFTY-2A

RURAL
100% STATE
TOTAL
QUANTITY

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
20200500	EARTH EXCAVATION (WIDENING)	CU YD	222
35600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	SQ YD	804
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	13.9
44001005	HOT-MIX ASPHALT SURFACE REMOVAL	SQ YD	14.9
50102400	CONCRETE REMOVAL	CU YD	9.3
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	895
50300255	CONCRETE SUPERSTRUCTURE	CU YD	9.3
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	103.8
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1,420
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	328
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70400100	TEMPORARY CONCRETE BARRIER	FOOT	380

CONTINUED NEXT PAGE

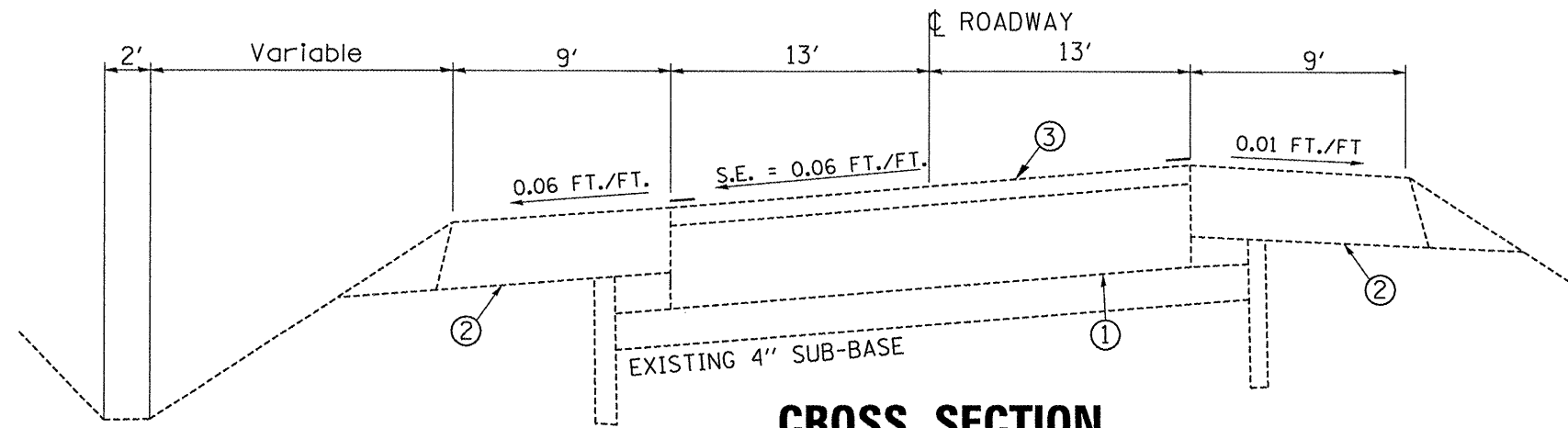
SUMMARY OF QUANTITIES (CONTINUED)

CONSTRUCTION CODE TYPE: SFTY-2A

RURAL
100% STATE
TOTAL
QUANTITY

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	380
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	730
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	167
78300100	PAVEMENT MARKING REMOVAL	SQ FT	325
X0320047	REMOVAL OF EXISTING PRECAST PRESTRESSED CONCRETE DECK BEAMS	SQ FT	901.5
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2

* SPECIALTY ITEM



CROSS SECTION

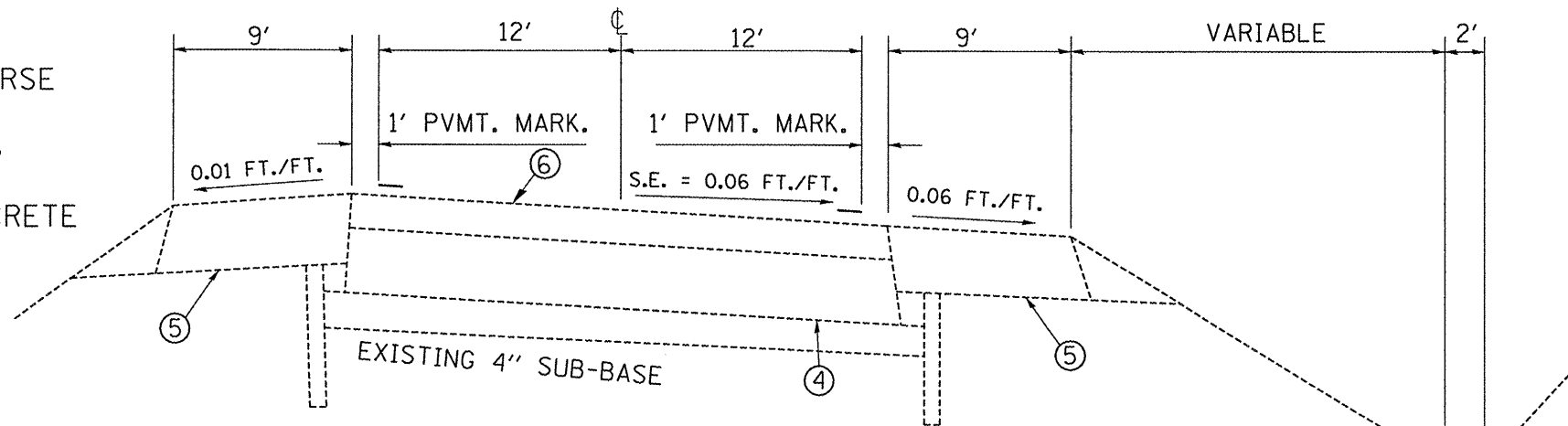
LT. STA. 624+66.08 TO STA. 625+04.08
 RT. STA. 624+86.08 TO STA. 625+16.08
 Lt. & Rt. STA. 626+51.46 TO STA. 627+01.46

LEGEND

- ① BRIDGE APPROACH PAVEMENT
- ② 8" BITUMINOUS SHOULDERS
- ③ 1 1/2" BITUMINOUS CONCRETE SURFACE COURSE

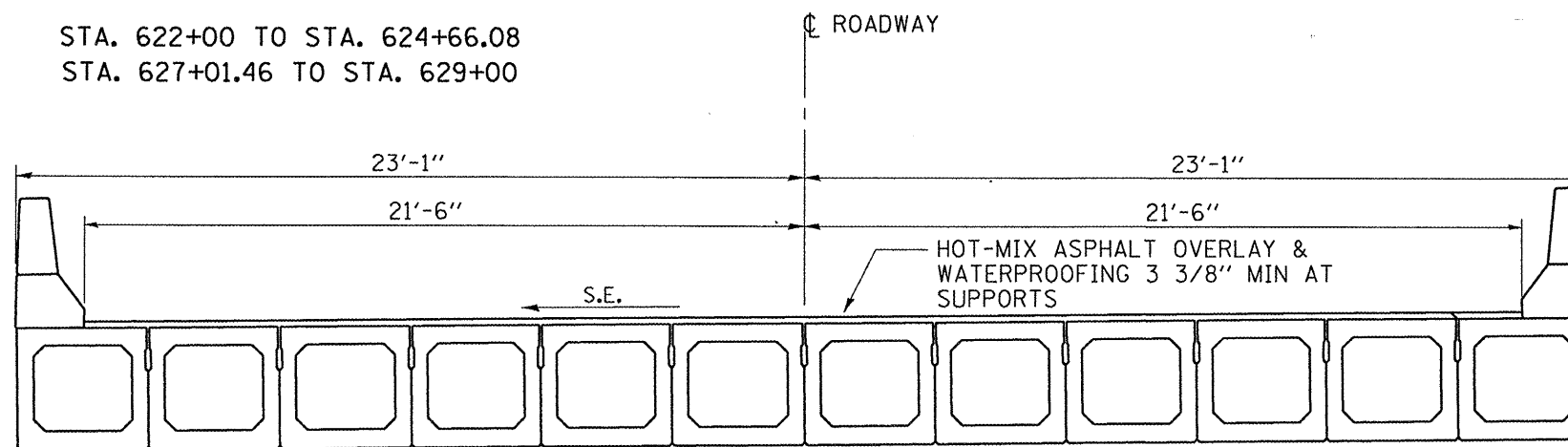
LEGEND

- ④ BITUMINOUS BASE COURSE
- ⑤ AGGREGATE SHOULDERS
- ⑥ 1 1/2" BITUMINOUS CONCRETE SURFACE COURSE



CROSS SECTION

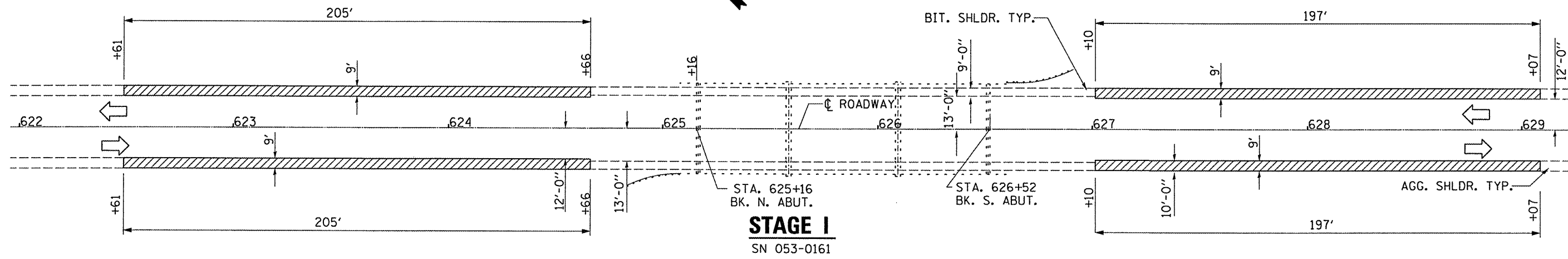
STA. 622+00 TO STA. 624+66.08
 STA. 627+01.46 TO STA. 629+00



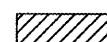
CROSS SECTION

SN 053-0161
 STA. 625+15.58 TO STA. 626+51.96

FILE NAME =	USER NAME = woodshankr1	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\projects\deck beam repl 06\sn 053-0161.dgn		DRAWN -	REVISED -			68	(102-B-11)	LIVINGSTON	16	5	
PLOT SCALE = 1/8" = 1' / IN.		CHECKED -	REVISED -			CONTRACT NO. 66B10					
PLOT DATE = Mar 18, 2008 - 08:39:03 AM		DATE -	REVISED -			SCALE:	SHEET NO.	OF	SHEETS	STA. 620+90	TO STA. 641+45



STAGE I
SN 053-0161

 EARTH EXCAVATION WIDENING & HOT-MIX ASPHALT BASE COURSE WIDENING

BILL OF MATERIALS

EARTH EXCAVATION WIDENING	CU YD	222
HOT-MIX ASPHALT BASE COURSE WIDENING	SQ YD	804

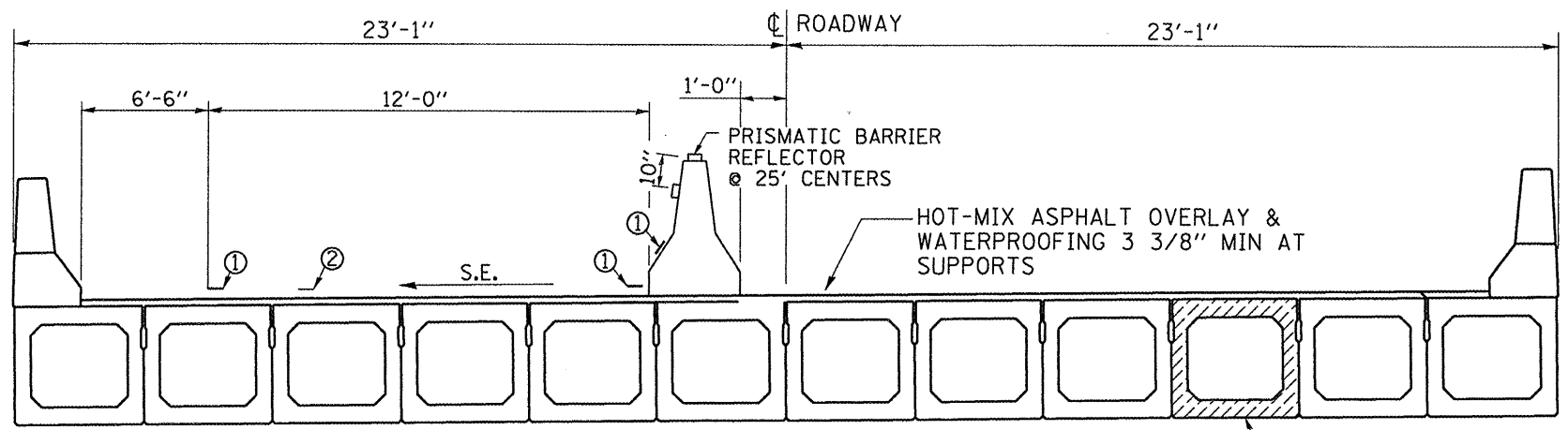
FILE NAME =	USER NAME = woodshankr1	DESIGNED -	REVISED -
as\projects\deck beam repl 08\en 053-0161.dgn		DRAWN -	REVISED -
PLOT SCALE = 1/8" = 1' IN.	CHECKED -	REVISED -	REVISED -
PLOT DATE = Mar 18, 2008 - 08:40:53 AM	DATE -	REVISED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING DETAILS - STAGE I

SCALE: SHEET NO. OF SHEETS STA. 622+00 TO STA. 629+00

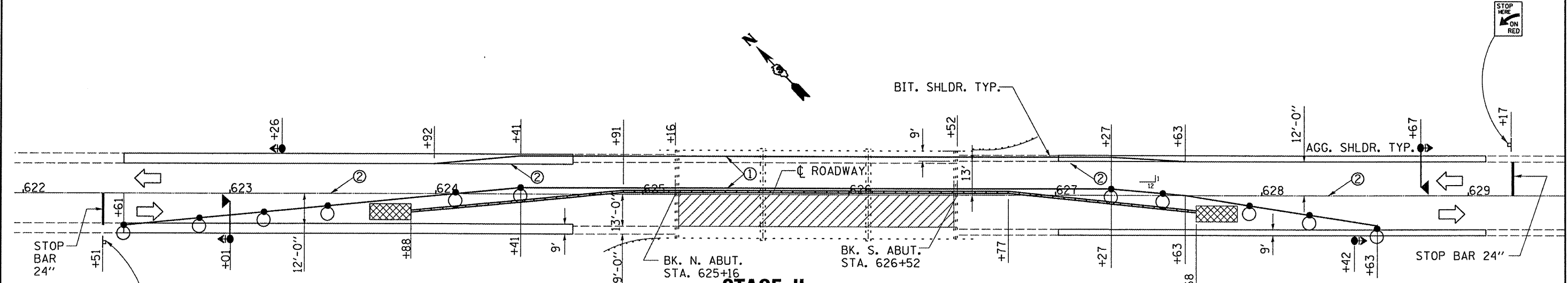
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102-B-1)I	LIVINGSTON	16	6
CONTRACT NO. 66810				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



**CROSS SECTION
SPAN 3**

SN 053-0161
STA. 625+16 TO STA. 626+52

- NOTES:
1. THE CONTRACTOR HAS THE OPTION OF USING EITHER THE LINE ON THE TEMPORARY CONCRETE BARRIER OR ON THE PAVEMENT.
 2. THE COST OF THE REFLECTORS AND THE BARRIER/PAVEMENT MARKING LINE IS INCLUDED IN THE COST OF THE TEMPORARY CONCRETE BARRIER.
 3. THE COST OF THE TEMPOARY PAVEMENT MARKING IS INCLUDED IN THE COST OF STANDARD 701321



- STAGE II**
SN 053-0161
- ① MARKING LINE 4"
 - ② PAVEMENT MARKING REMOVAL

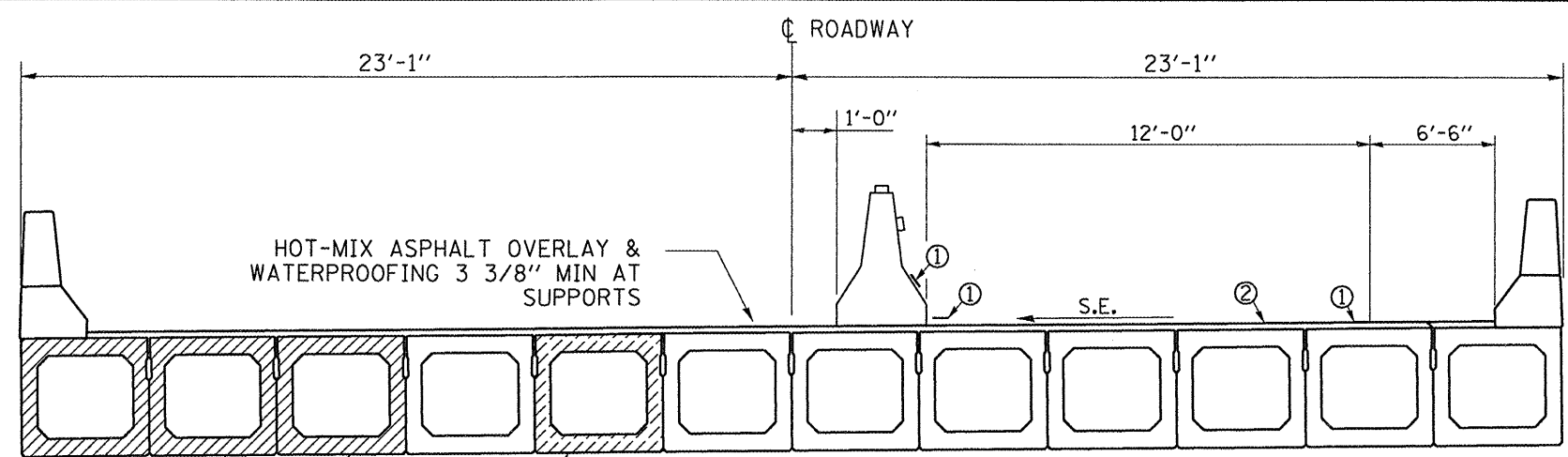
SYMBOLS

- BEAM REMOVAL - BEYOND SPAN 1
- Work area
- Sign
- Type III barricade
- Microwave detector
- Traffic signal with backplate
- Impact attenuator
- Drum with steady burning light at 25' cts.
- Temporary concrete barrier
- Double vertical panel at 25' cts.
- Crystal, bidirectional barrier wall/guardrail marker at 25' cts.
- BEAM REMOVAL - SPAN 1

BILL OF MATERIAL

PAVEMENT MARKING REMOVAL	SQ FT	205
TEMPORARY CONCRETE BARRIER	FOOT	380
IMPACT ATTENUATORS, TEMPORARY	EACH	2

SEE STANDARD 701321 FOR DETAILS NOT SHOWN



NOTES:

THE CONTRACTOR HAS THE OPTION OF USING EITHER THE LINE ON THE TEMPORARY CONCRETE BARRIER OR ON THE PAVEMENT.

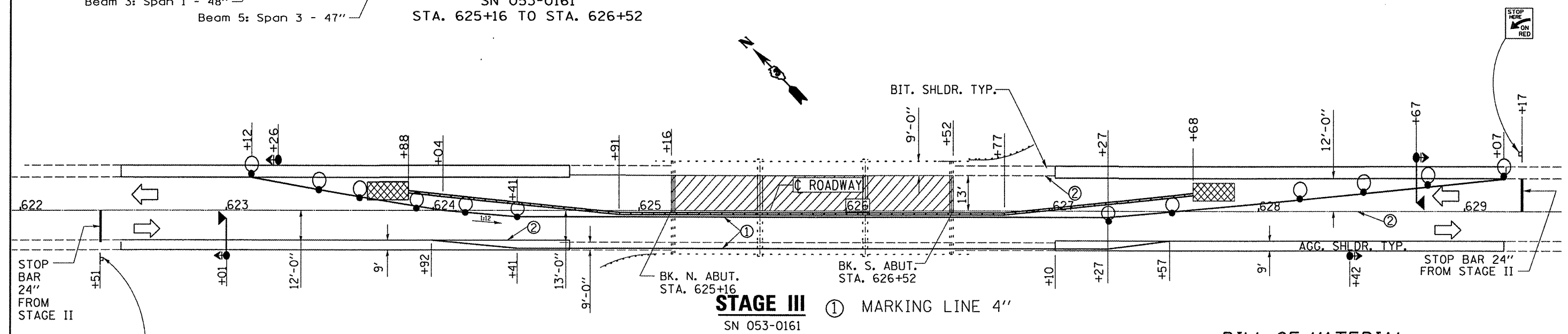
THE COST OF THE REFLECTORS AND THE BARRIER/PAVEMENT MARKING LINE IS INCLUDED IN THE COST OF THE TEMPORARY CONCRETE BARRIER.

THE COST OF THE TEMPORARY PAVEMENT MARKING IS INCLUDED IN THE COST OF STANDARD 701321

Beam 1: Span 1 & 3 - 36"
 Beam 2: Span 1 - 48"
 Beam 3: Span 1 - 48"
 Beam 5: Span 3 - 47"

**CROSS SECTION
SPAN 1 & 3**

SN 053-0161
 STA. 625+16 TO STA. 626+52



STAGE III
 SN 053-0161

- ① MARKING LINE 4"
- ② PAVEMENT MARKING REMOVAL

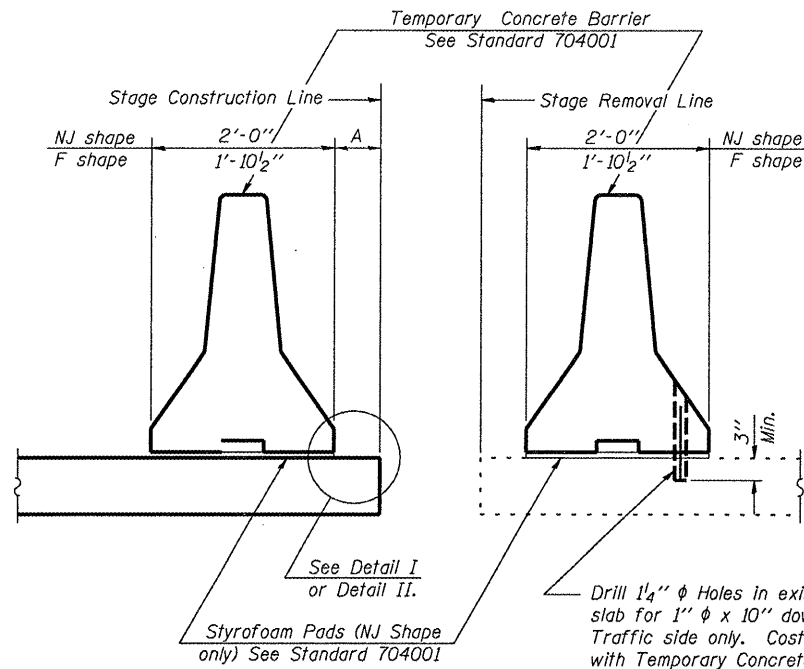
BILL OF MATERIAL

PAVEMENT MARKING REMOVAL	SQ FT	120
RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	380
RELOCATE IMPACT ATTENUATOR, (NON-REDIRECTIVE, TEST LEVEL 3)	EACH	2
THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	730
THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	167

SYMBOLS

- BEAM REMOVAL - BEYOND SPAN 1
- Work area
- Sign
- Type III barricade
- Microwave detector
- Traffic signal with backplate
- Impact attenuator
- Drum with steady burning light at 25' cts.
- Temporary concrete barrier
- Double vertical panel at 25' cts.
- Crystal, bidirectional barrier wall/guardrail marker at 25' cts.
- BEAM REMOVAL - SPAN 1

SEE STANDARD 701321 FOR DETAILS NOT SHOWN



NEW SLAB

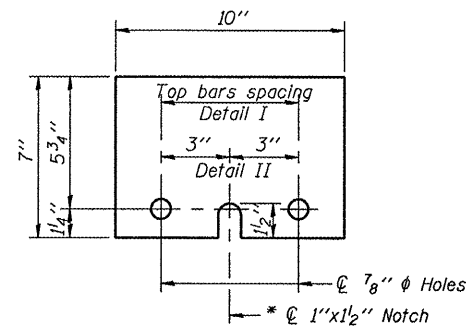
EXISTING SLAB

SECTIONS THRU SLAB

NOTES

- Detail I - With Bar Splicer or Couplers: Connect one (1) 1"x7"x10" steel plate to the top layer of couplers with 2-5/8" diameter bolts screwed to coupler at approximate center of each barrier panel.
 - Detail II - With Extended Reinforcement Bars: Connect one (1) 1"x7"x10" steel plate to the concrete slab with 2-5/8" diameter Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate center of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier.

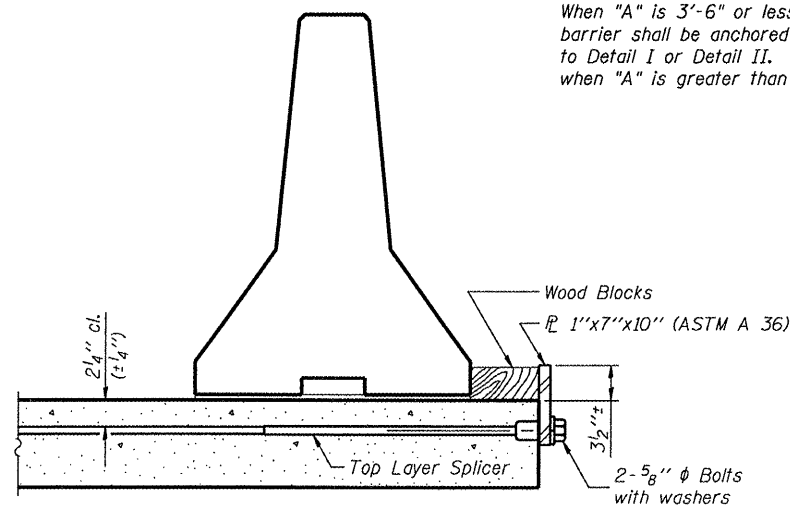
Drill 1/4" diameter Holes in existing slab for 1" diameter x 10" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.



1"x7"x10"

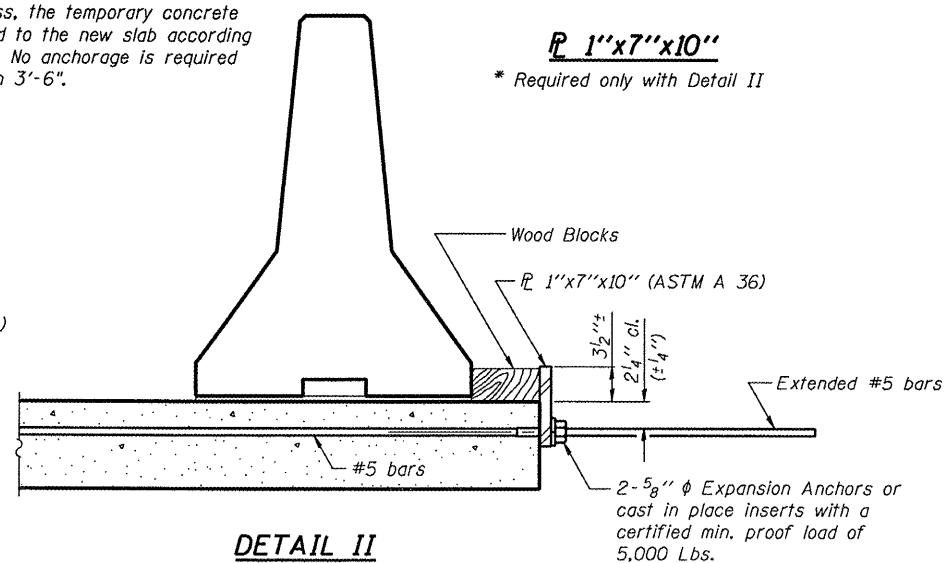
* Required only with Detail II

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



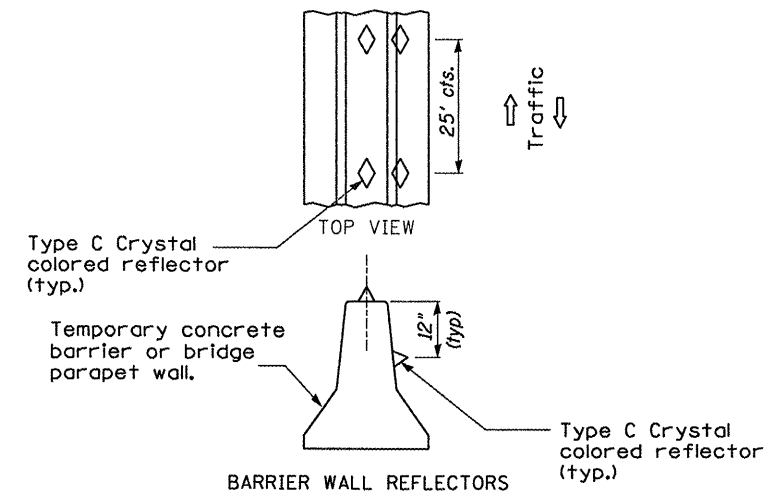
DETAIL I

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

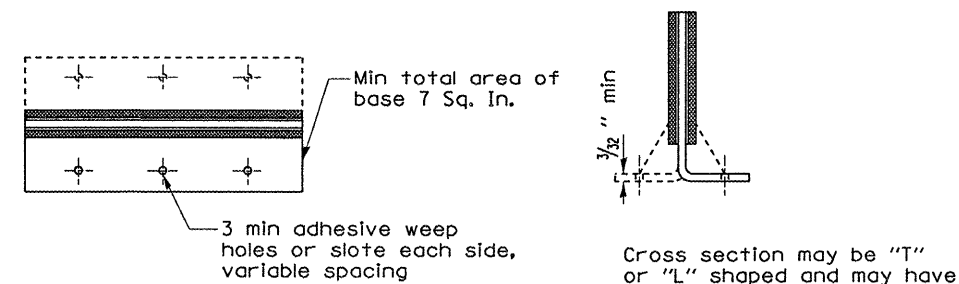
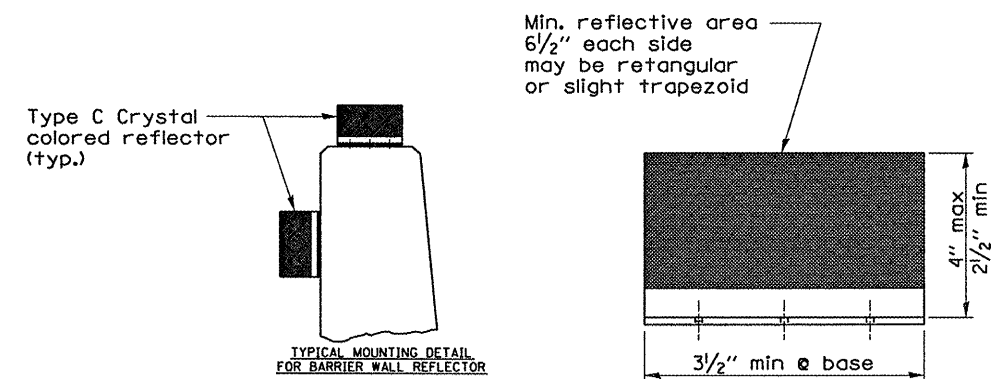


DETAIL II

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.



DETAIL A



TYPE C REFLECTOR

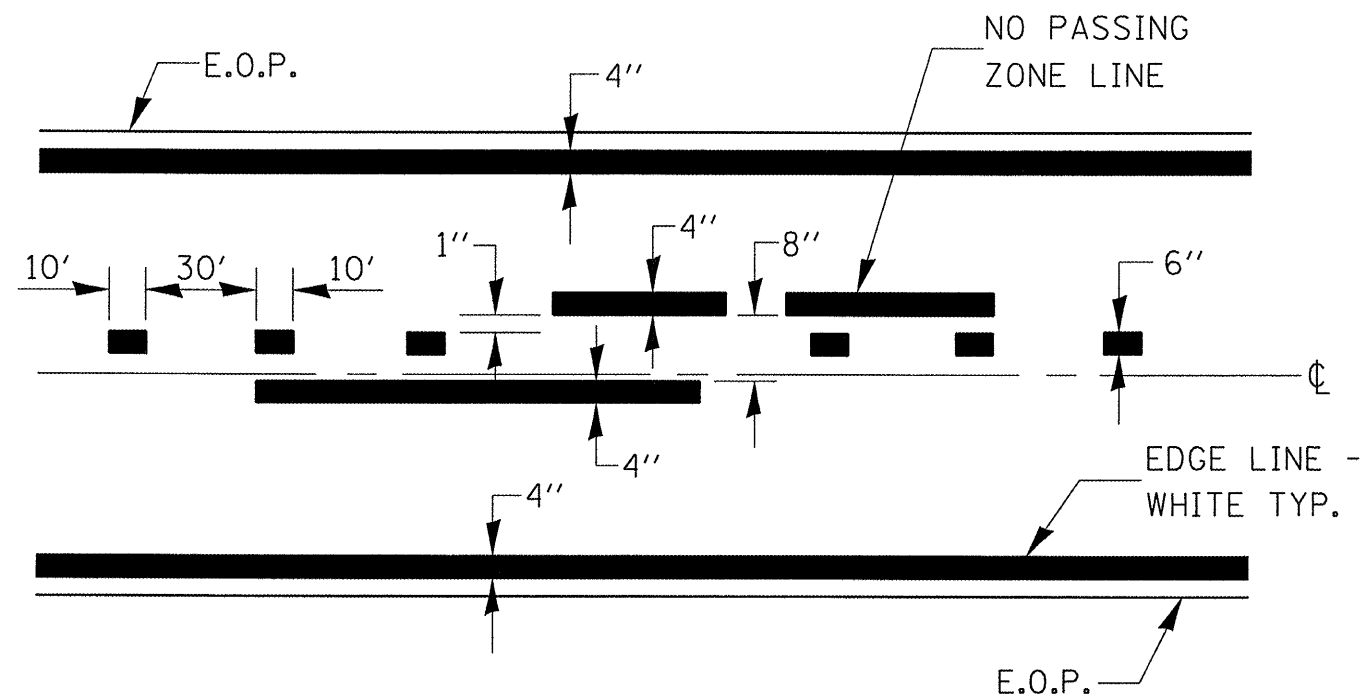
FILE NAME =	USER NAME = woodshankr1	DESIGNED -	REVISED -
c:\projects\deck beam repl 08\en 053-01.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER

SCALE: SHEET NO. OF SHEETS STA. 623+88.02 TO STA. 627+68.20

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102-B-1)	LIVINGSTON	16	9
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 66810	



CENTERLINE & NO PASSING
ZONE LINES - YELLOW

(SEE TYPICAL SECTIONS)

PAVEMENT MARKING

FILE NAME =	USER NAME = woodshankr1	DESIGNED -	REVISED -
c:\projects\deck beam repl 00\sn 053-01	.ldgn	DRAWN -	REVISED -
	PLOT SCALE = 103,4029' / IN.	CHECKED -	REVISED -
	PLOT DATE = Mar 10, 2008 - 08:42:53 AM	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL PAVEMENT MARKING

SCALE: SHEET NO. OF SHEETS STA. 622+38.58 TO STA. 629+21.67

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102-B-1)I	LIVINGSTON	16	10
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 66810	

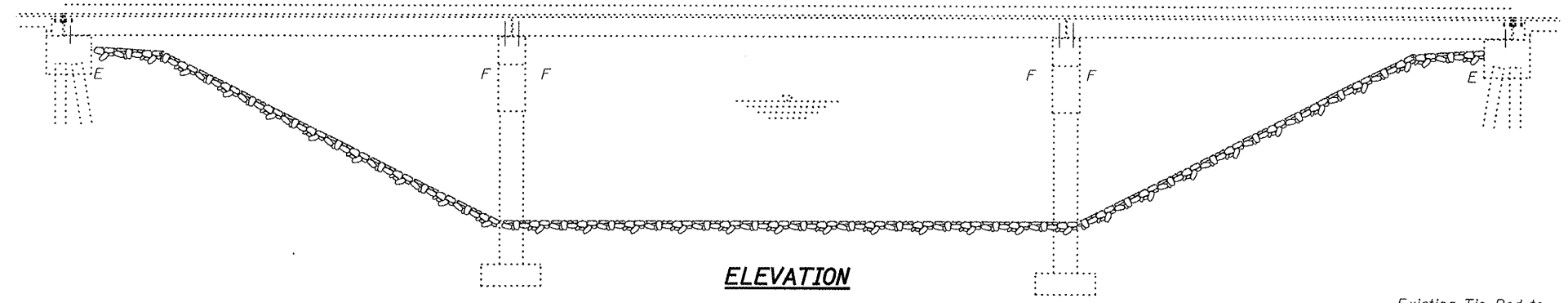
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	JOB SHEETS	SHEET NO.	SHEET NO. 1 6 SHEETS
FA 68	*	LIVINGSTON	16	11	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

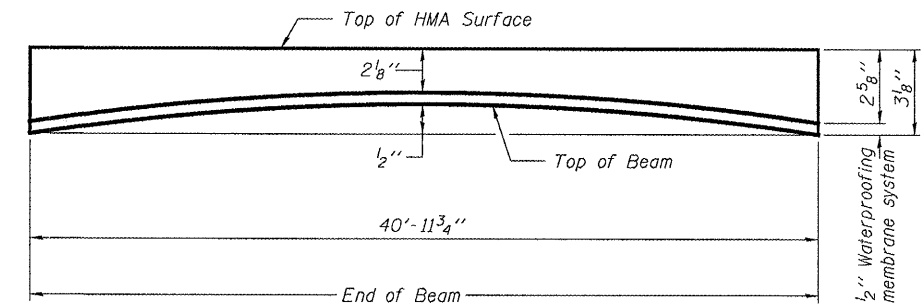
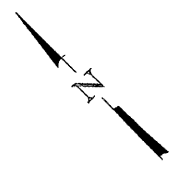
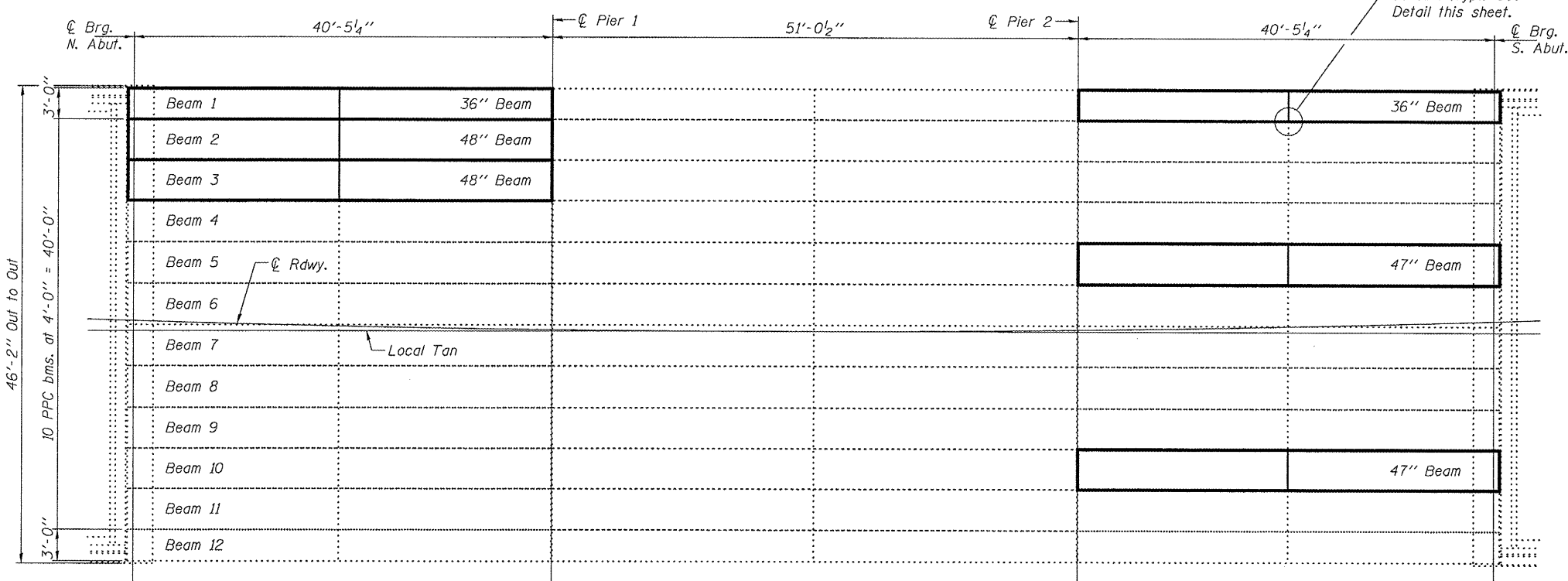
Contract Number: 66810

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 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.
 The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractors 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.
 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.
 Temporary concrete barrier shall only be anchored into the overlay and not into the PPC Deck Beams.

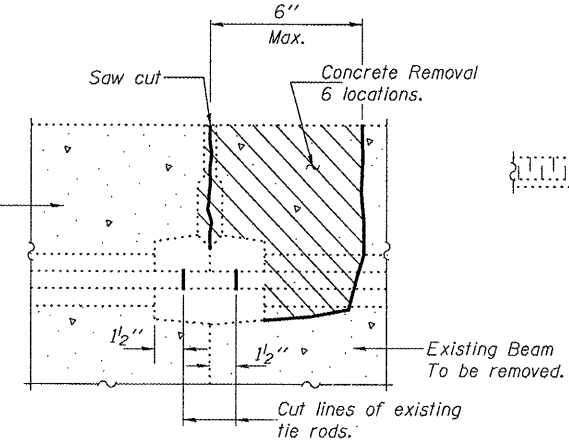


ELEVATION

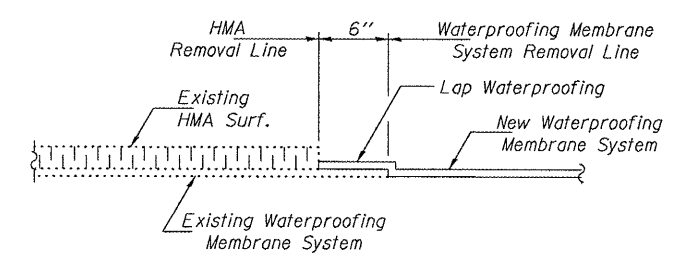


ANTICIPATED INITIAL CAMBER DIAGRAM

PLAN



BEAM REMOVAL DETAIL AT TRANSVERSE TIES



WATERPROOFING TREATMENT

DESIGN STRESSES

PRECAST PRESTRESSED UNITS
 $f'c = 6,000$ psi
 $f'ci = 5,000$ psi
 $f's = 270,000$ psi ($1/2$ " ϕ low lax strands)
 $f'si = 201,960$ psi ($1/2$ " ϕ low lax strands)

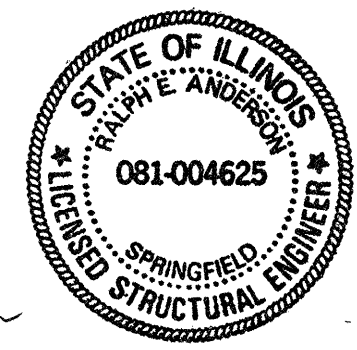
TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Removal of Existing PPC Deck Beams	Sq. Ft.	901.5
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	894.7
Hot-Mix Asphalt Surface Removal	Sq. Yd.	14.9
HMA Surface Course Mix "C" N50	Tons	13.9
Waterproofing Membrane System	Sq. Yd.	103.8
PC Mortar Fairing Course	Foot	328
Concrete Removal	Cu. Yd.	9.3
Concrete Superstructure	Cu. Yd.	9.3
Reinforcement Bars, Epoxy Coated	Pound	1420

PLAN AND ELEVATION
FA 68 OVER SHORT POINT CREEK
LIVINGSTON COUNTY
SN 053-0161

DESIGNED	<i>[Signature]</i>
CHECKED	<i>Victor A. Velazquez</i>
DRAWN	Steffen
CHECKED	VHV AIB

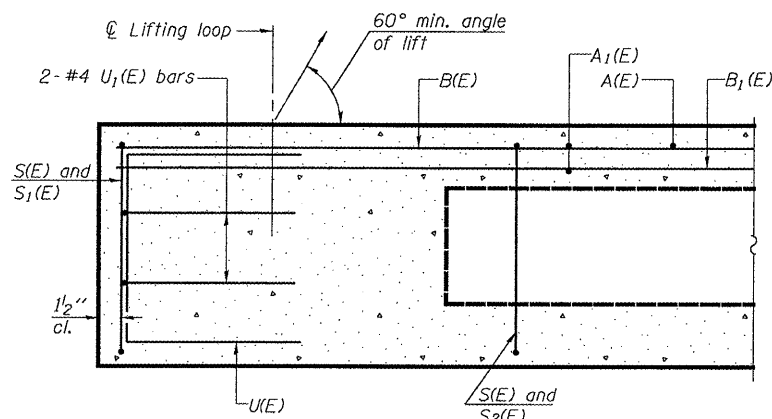
MAY 2, 2008
 EXAMINED *[Signature]*
 PASSED *[Signature]*
 ENGINEER OF BRIDGES AND STRUCTURES



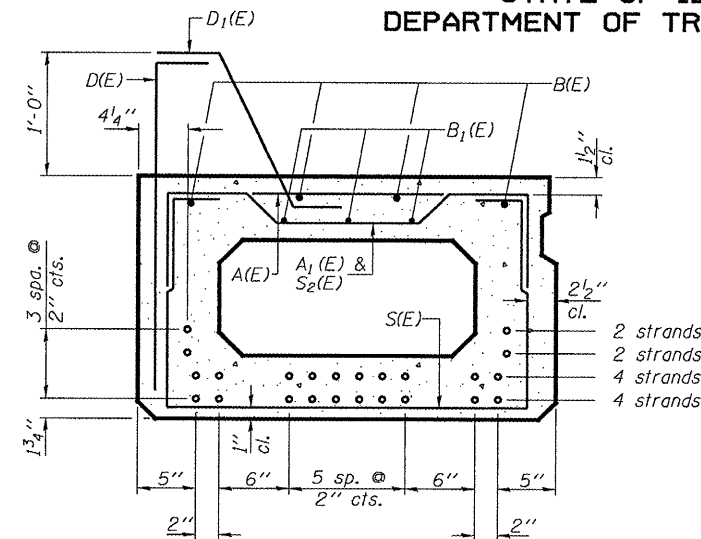
Expires: November 30, 2008

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2 6 SHEETS
FA 68	*	LIVINGSTON	16	12	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		Contract Number: 66810



SECTION C-C

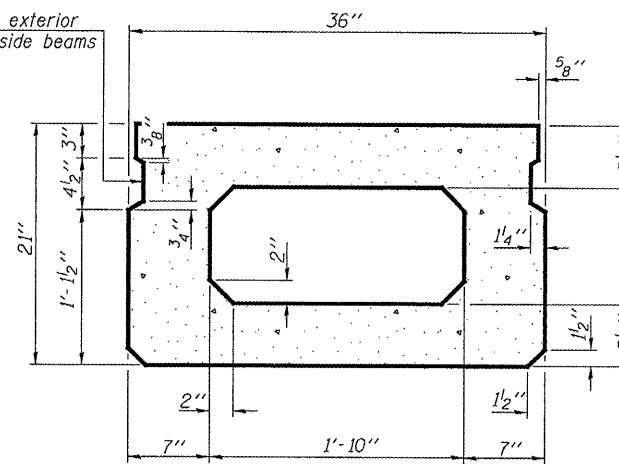


SECTION A-A

(Showing reinforcement and permissible strand locations)

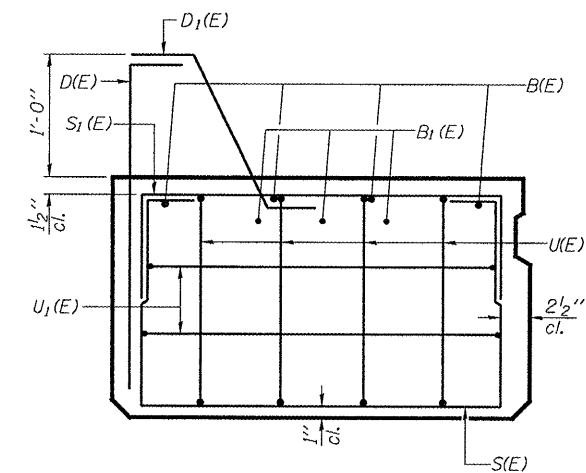
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

Omit key on exterior face of outside beams

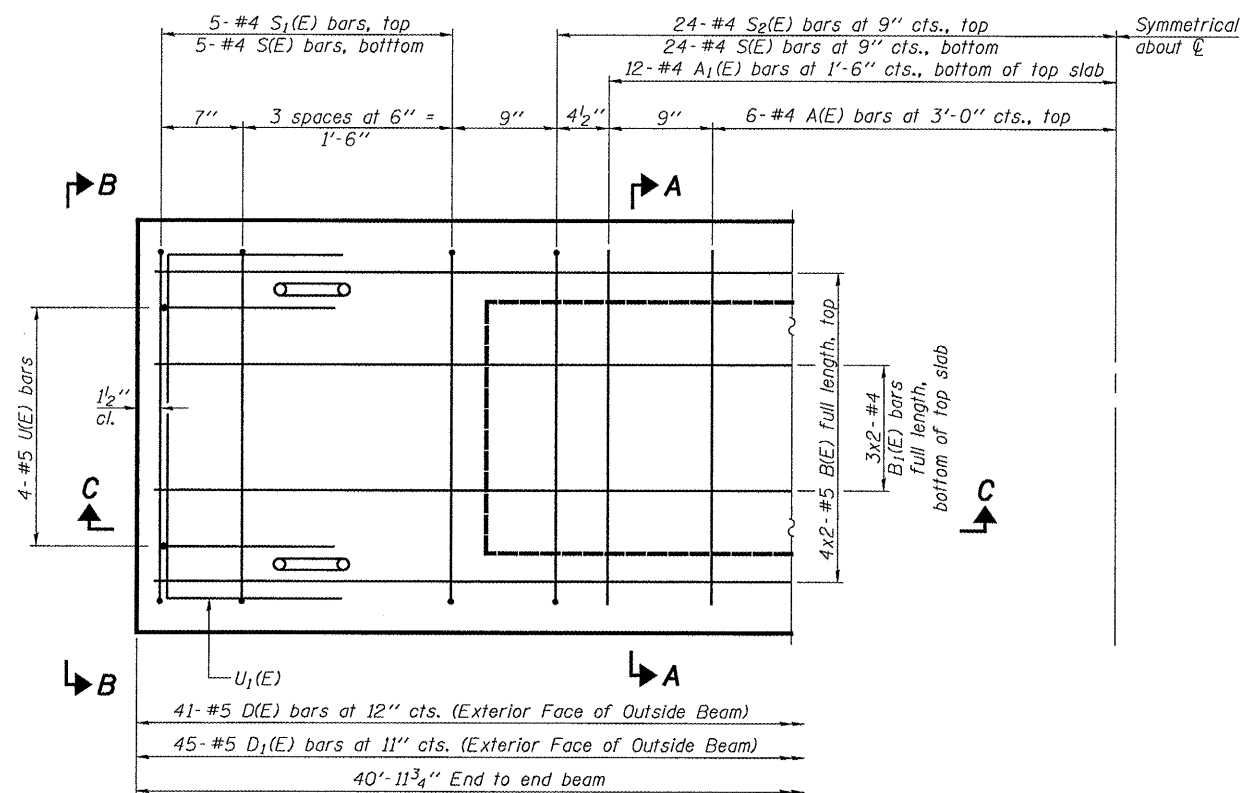


SECTION A-A

(Showing dimensions)



VIEW B-B

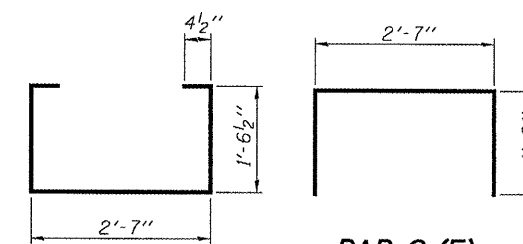


PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

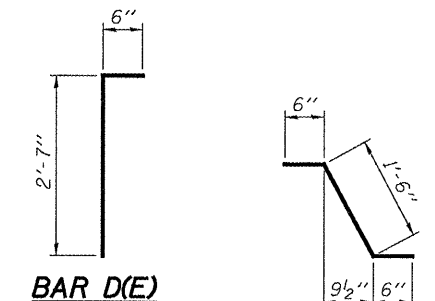
DESIGNED	AJB
CHECKED	VHV
DRAWN	Steffen
CHECKED	AJB VHV

EXAMINED	MAY 2, 2008
PASSED	Carl H. Perry ENGINEER OF STRUCTURAL SERVICES Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES



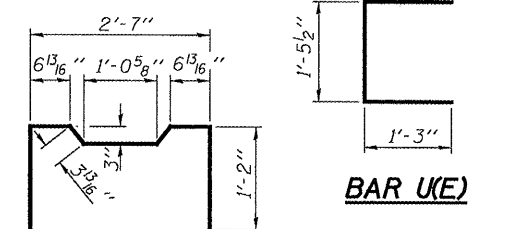
BAR S(E)

BAR S1(E)



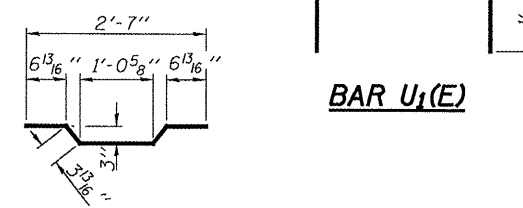
BAR D(E)

BAR D1(E)



BAR S2(E)

BAR U(E)



BAR A1(E)

BAR U1(E)

BAR LIST
ONE 36" BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	12	#4	2'-7"	—
A1(E)	24	#4	2'-11"	—
B(E)	8	#5	21'-6"	—
B1(E)	6	#4	21'-3"	—
D(E)	41	#5	3'-1"	—
D1(E)	45	#5	2'-6"	—
S(E)	58	#4	6'-5"	—
S1(E)	10	#4	4'-11"	—
S2(E)	48	#4	5'-2"	—
U(E)	8	#5	4'-0"	—
U1(E)	4	#4	5'-0"	—

Bars indicated thus 4 x 2-#5 etc. indicates 4 line of bars with 2 lengths per line.

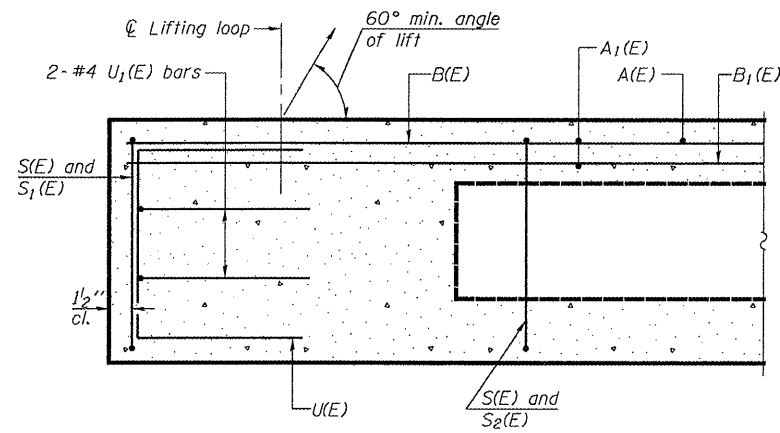
Note: See sheet 4 of 6 for additional details and Bill of Material.

BEAM DETAILS
FA 68 OVER SHORT POINT CREEK
LIVINGSTON COUNTY
SN 053-0161

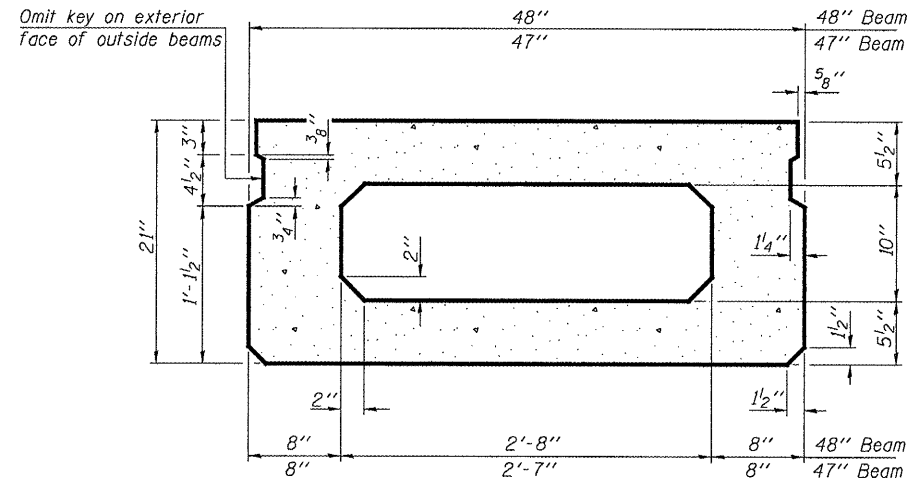
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3 6 SHEETS
FA 68		LIVINGSTON	16	13	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

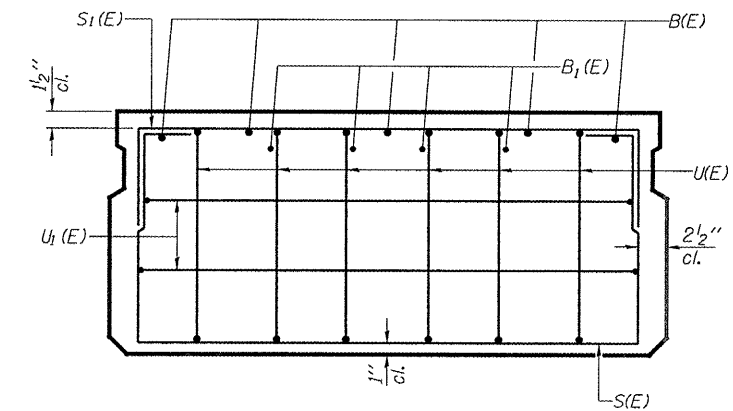
Contract Number: 66810



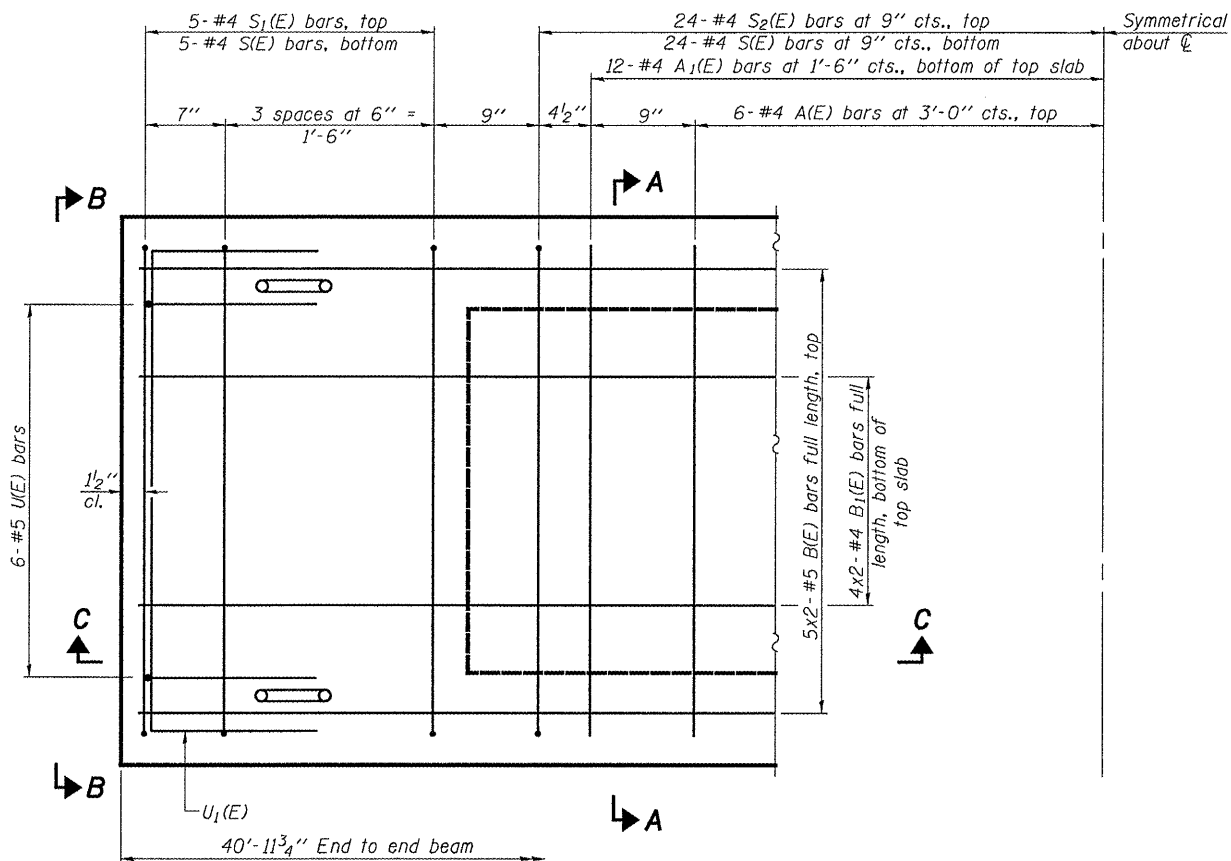
SECTION C-C



SECTION A-A
(Showing dimensions)

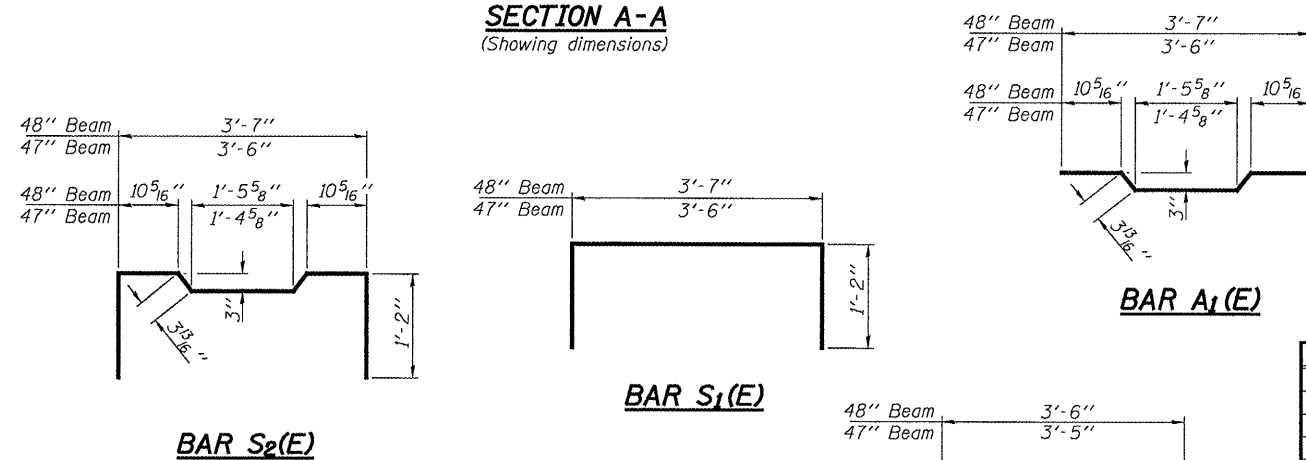


VIEW B-B



PLAN VIEW

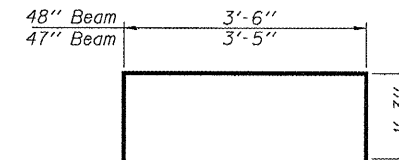
Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



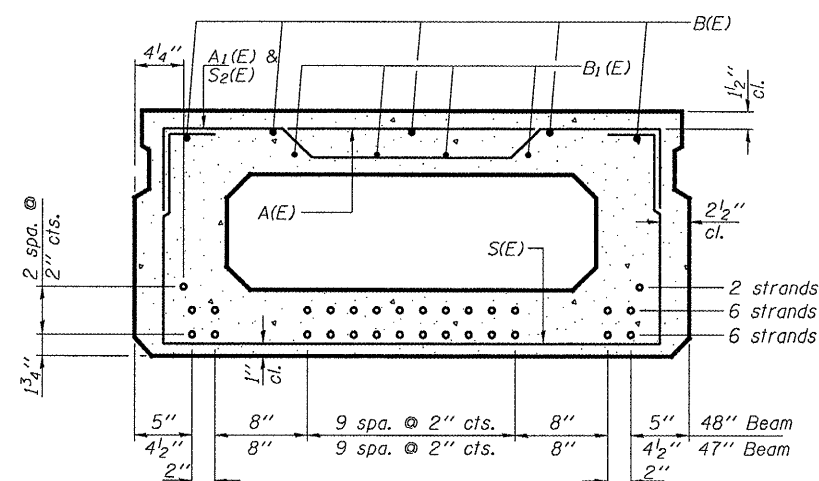
BAR S2(E)

BAR S1(E)

BAR A1(E)

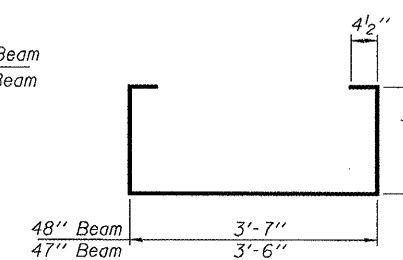


BAR U1(E)



SECTION A-A

(Showing reinforcement and permissible strand locations)
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.



BAR S(E)

BAR LIST
ONE 47" BEAM ONLY
(For Information Only)

Bar	No.	Size	Length	Shape
A(E)	12	#4	3'-6"	—
A1(E)	24	#4	3'-9"	—
B(E)	10	#5	21'-6"	—
B1(E)	8	#4	21'-3"	—
S(E)	58	#4	7'-4"	U
S1(E)	10	#4	5'-10"	U
S2(E)	48	#4	6'-1"	U
U(E)	12	#5	4'-0"	U
U1(E)	4	#4	5'-11"	U

BAR LIST
ONE 48" BEAM ONLY
(For Information Only)

Bar	No.	Size	Length	Shape
A(E)	12	#4	3'-7"	—
A1(E)	24	#4	3'-10"	—
B(E)	10	#5	21'-6"	—
B1(E)	8	#4	21'-3"	—
S(E)	58	#4	7'-5"	U
S1(E)	10	#4	5'-11"	U
S2(E)	48	#4	6'-2"	U
U(E)	12	#5	4'-0"	U
U1(E)	4	#4	6'-0"	U

Bars indicated thus 4 x 2-#5 etc. indicates 4 line of bars with 2 lengths per line.

Note: See sheet 4 of 6 for additional details and Bill of Material.

BEAM DETAILS
FA 68 OVER SHORT POINT CREEK
LIVINGSTON COUNTY
SN 053-0161

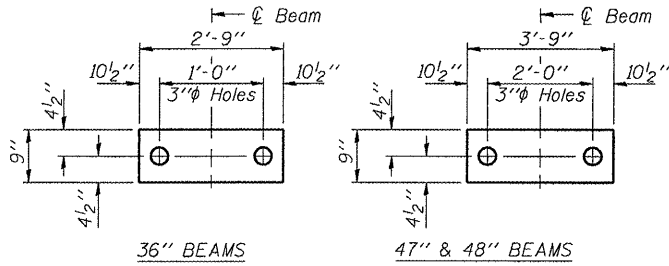
DESIGNED	AJB
CHECKED	VHV
DRAWN	Steffen
CHECKED	AJB VHV

MAY 2, 2008
EXAMINED *R. Carl Perry*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

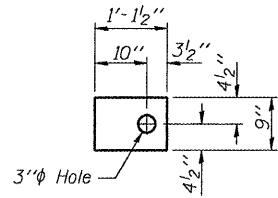
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 68	*	LIVINGSTON	16	14
Contract Number: 66810				

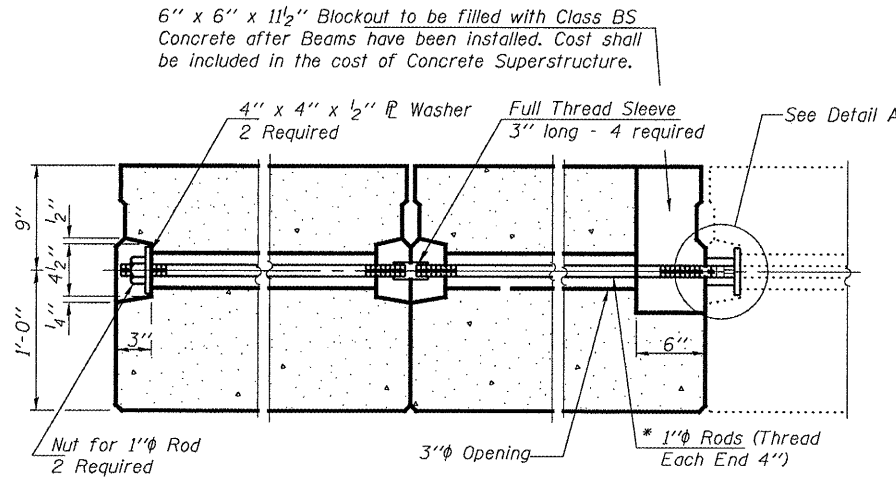
SHEET NO. 4
6 SHEETS



FABRIC BEARING PADS

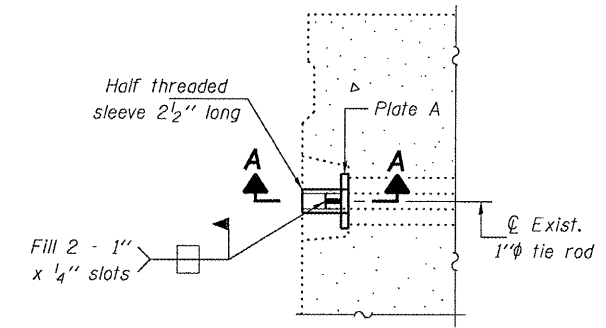


FABRIC ADJUSTING SHIM

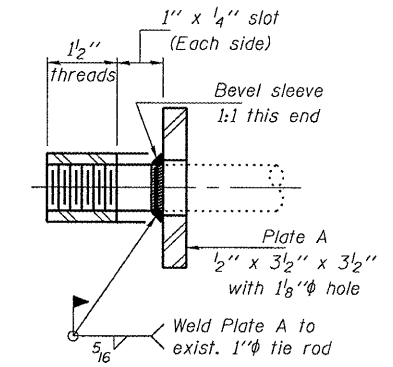


TYPICAL TRANSVERSE TIE ASSEMBLY

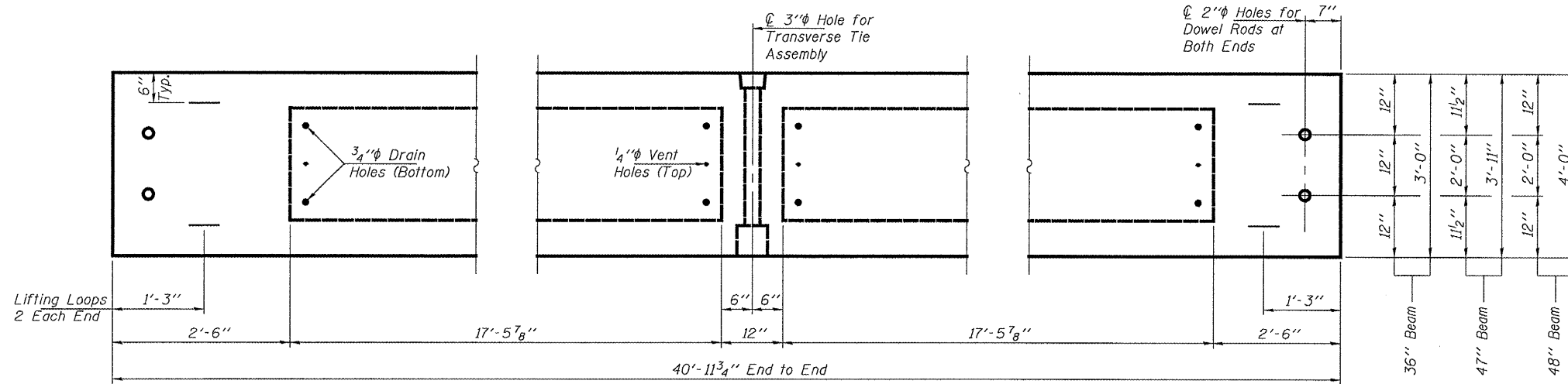
* 3'-0" for 36" Beams (2 Req'd)
3'-11" for 47" Beams (2 Req'd)
4'-0" for 48" Beams (2 Req'd)



DETAIL A



SECTION A-A
(4 Required)



BEAM PLAN

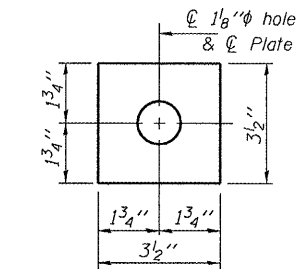
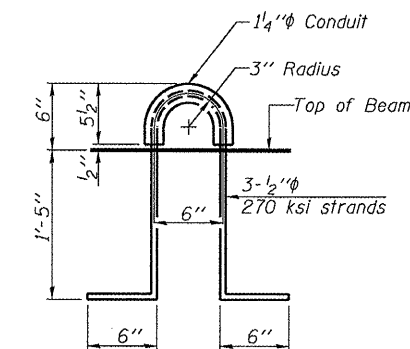


PLATE A
(4 Required)

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	894.7
---	---------	-------



LIFTING LOOP DETAIL

BEAM DETAILS
FA 68 OVER SHORT POINT CREEK
LIVINGSTON COUNTY
SN 053-0161

NOTES

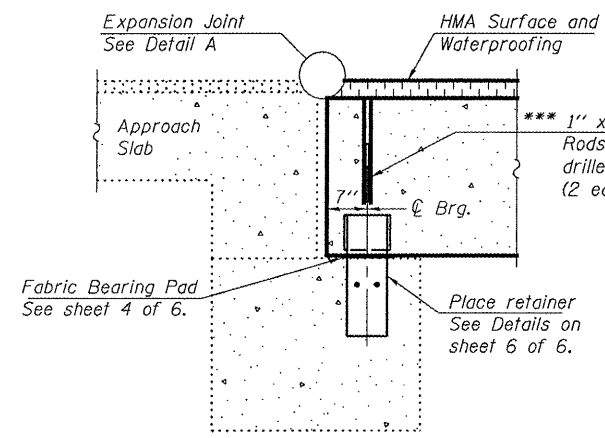
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place. Reinforcement bars shall conform to ASTM A 706 (IL MOD), Grade 60. (See Special Provisions) Two 1/8" fabric adjusting shims of the dimensions shown shall be provided for each bearing pad location. A minimum 2 1/2" lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Compressive strength of prestressed concrete, f'c, shall be 6000 psi. Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

DESIGNED	AJB
CHECKED	VHV
DRAWN	Steffen
CHECKED	AJB VHV

MAY 2, 2008
EXAMINED *Carl Perry*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

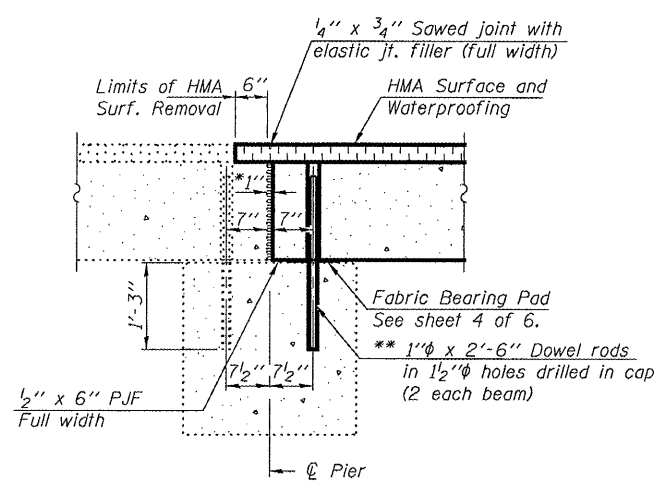
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DISTRICT SHEETS	SHEET NO.	SHEET NO. 5
FA 68	*	LIVINGSTON	16	15	6 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	
Contract Number: 66810					



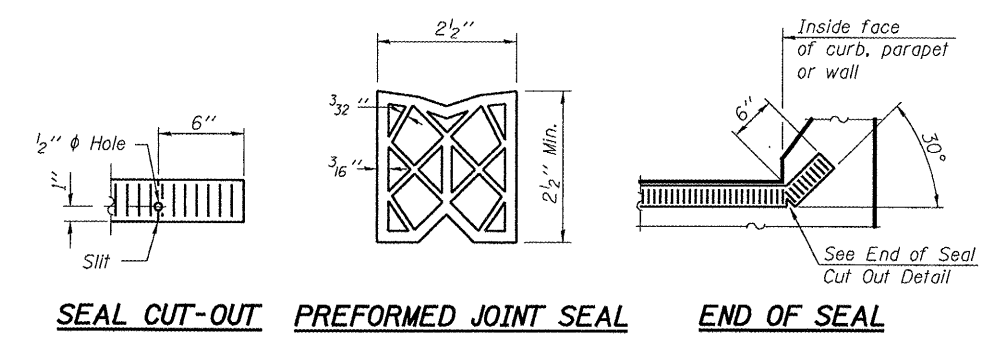
SECTION THRU ABUTMENT

Notes :
All horizontal dimensions are at right angles to beam ends.
Hatched area to be poured after beams are in place.

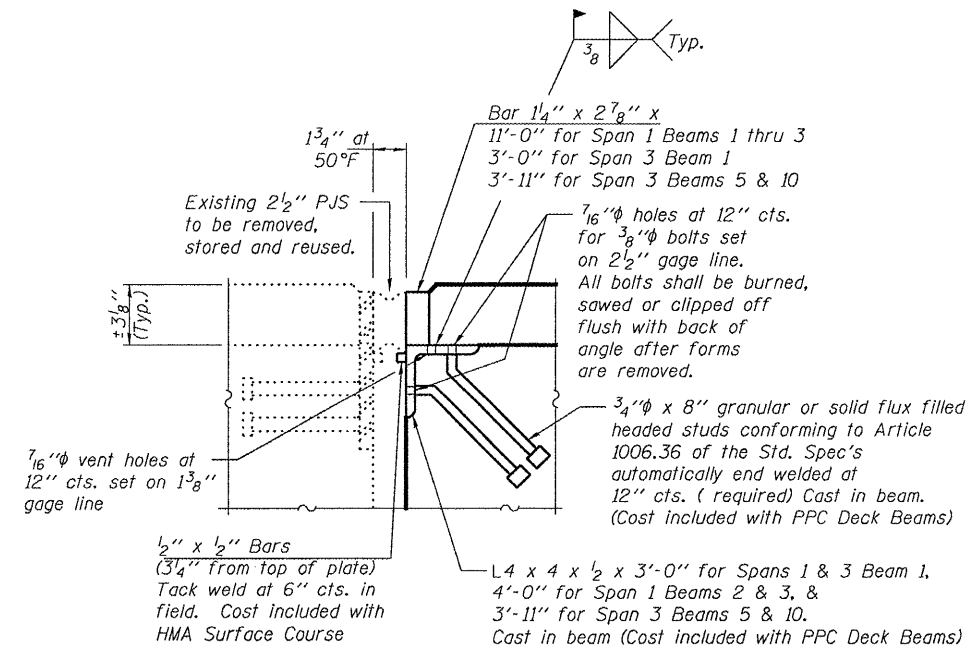


SECTION THRU FIXED PIER

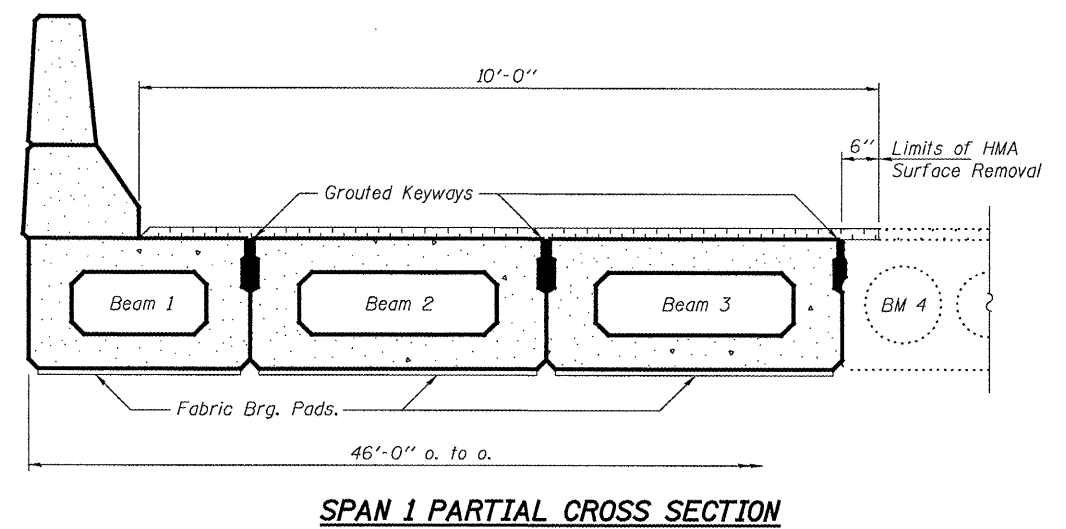
* 1" Jt. shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.
** Existing dowel rods are to be burned off, ground flush, and sealed with epoxy prior to placement of new beams. Cost included in Removal of Existing PPC Deck Beams. After beams have been erected holes shall be drilled into cap and dowel rods placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure a minimum of 24 hours prior to grouting the shear keys.



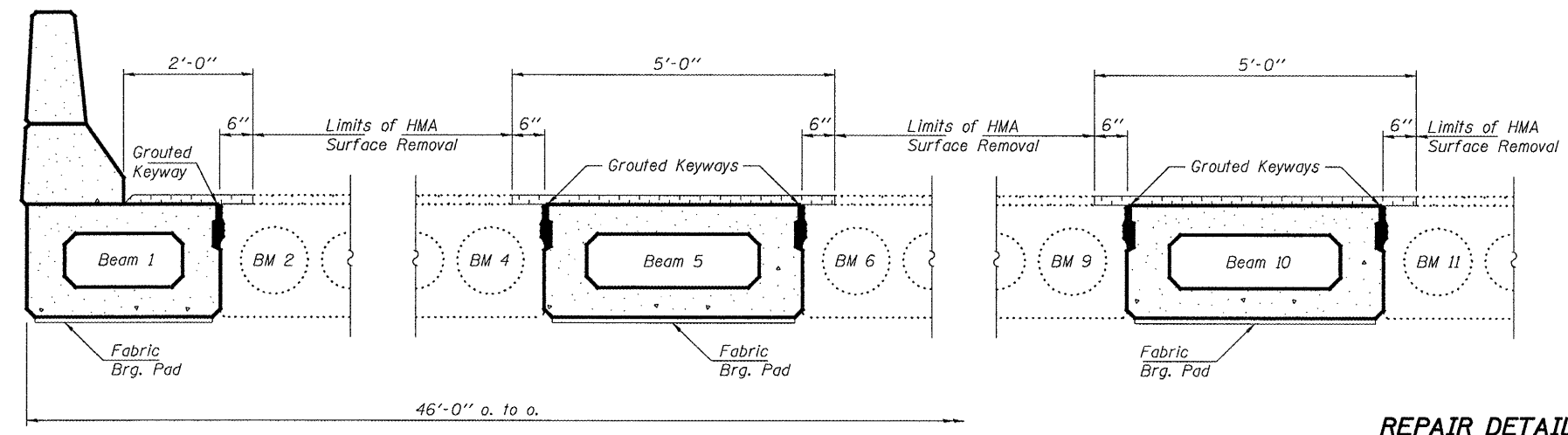
FOR INFORMATION ONLY
Existing Preformed Joint Seal to be removed and installed. Cost included with HMA Surface Course.



DETAIL A



SPAN 1 PARTIAL CROSS SECTION



SPAN 3 PARTIAL CROSS SECTION

DESIGNED	AJB
CHECKED	VHV
DRAWN	Steffen
CHECKED	AJB VHV

MAY 2, 2008

EXAMINED *Carl Perry*
ENGINEER OF STRUCTURAL SERVICES

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

REPAIR DETAILS
FA 68 OVER SHORT POINT CREEK
LIVINGSTON COUNTY
SN 053-0161

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

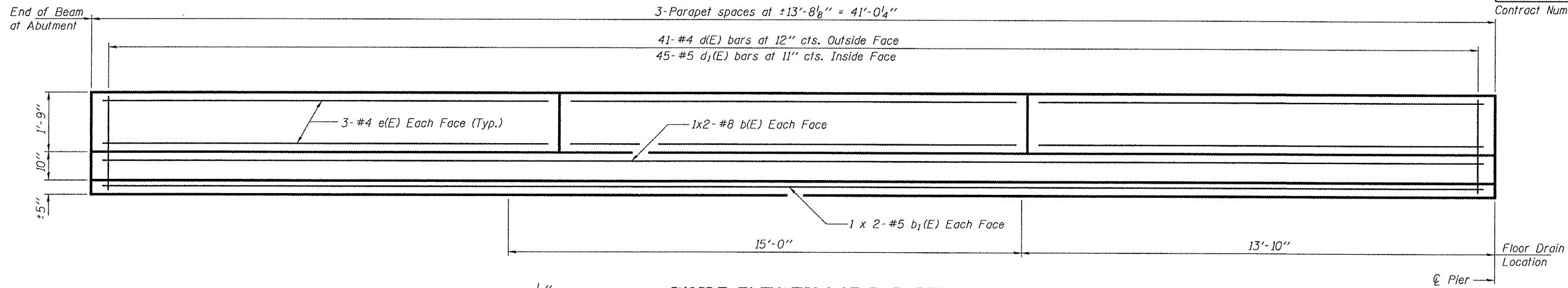
* (102-B-11)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 68	*	LIVINGSTON	16	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 6

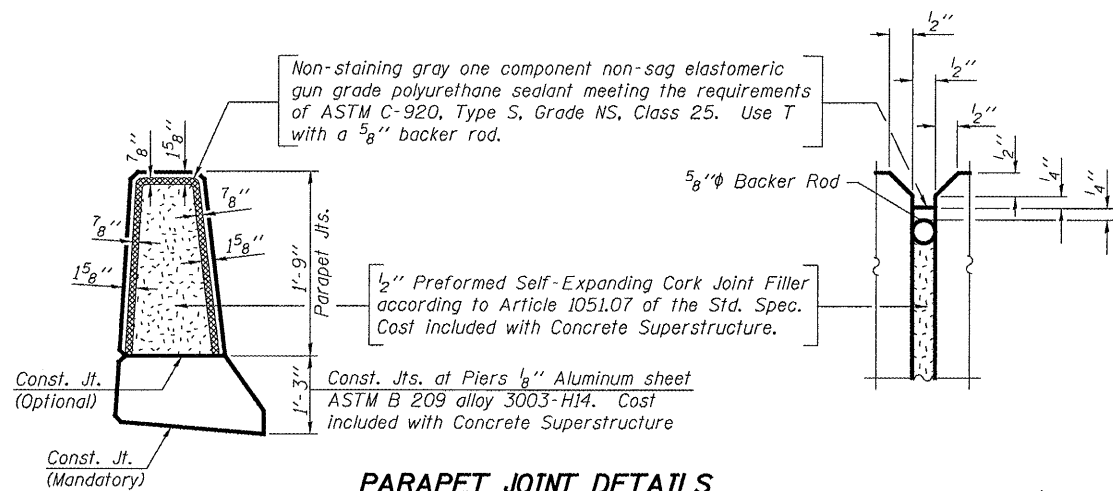
6 SHEETS

Contract Number: 66810

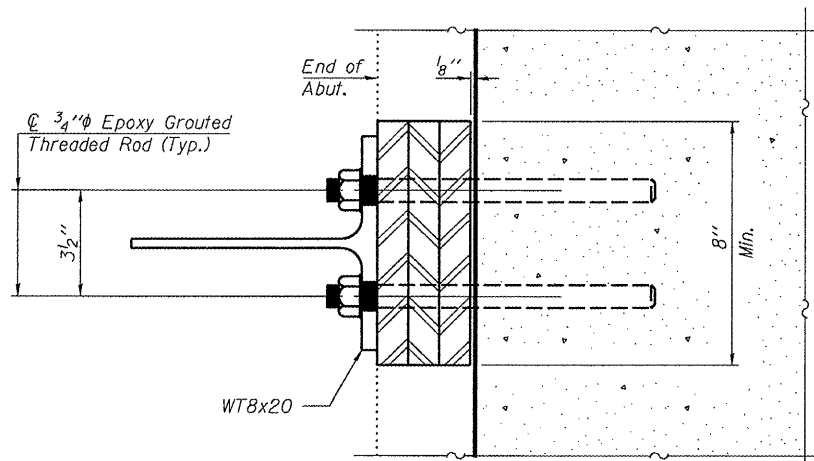


INSIDE ELEVATION OF PARAPET

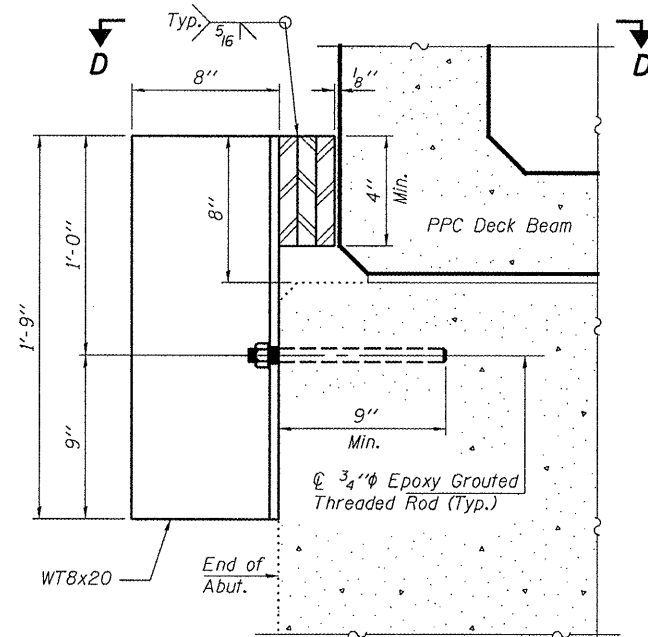
(Span 1 shown, Span 3 similar)



PARAPET JOINT DETAILS

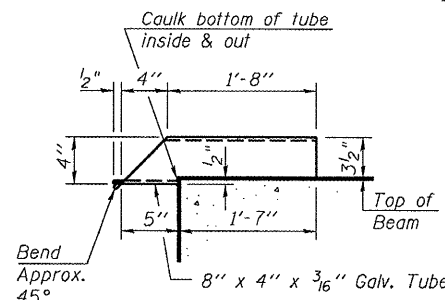


SECTION D-D

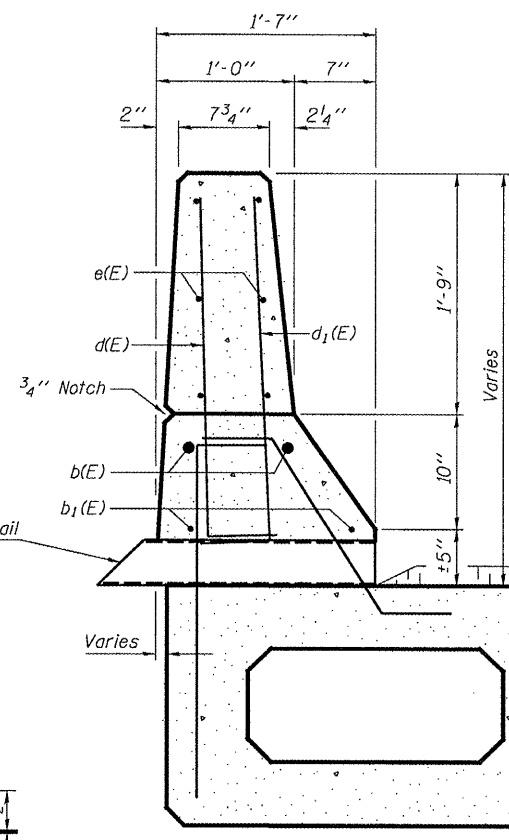


EXPANSION JOINT RETAINER DETAILS

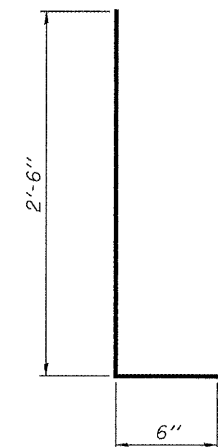
(Cost included with PPC Deck Beams)



DRAIN DETAIL



SECTION THRU PARAPET



BAR d(E) & d1(E)

MIN. BAR LAP

#5 Bar = 1'-8"
#8 Bar = 3'-5"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
b(E)	8	#8	22'-2"	—
b1(E)	8	#5	21'-3"	—
d(E)	82	#4	3'-0"	—
d1(E)	90	#5	3'-0"	—
e(E)	36	#4	13'-5"	—
Concrete Removal			Cu. Yd.	9.3
Concrete Superstructure			Cu. Yd.	9.3
Reinforcement Bars, Epoxy Coated			Pound	1420

Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.

REPAIR DETAILS
FA 68 OVER SHORT POINT CREEK
LIVINGSTON COUNTY
SN 053-0161

DESIGNED	AJB
CHECKED	VHV
DRAWN	Steffen
CHECKED	AJB VHV

MAY 2, 2008
EXAMINED *Carl Henry*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES