

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

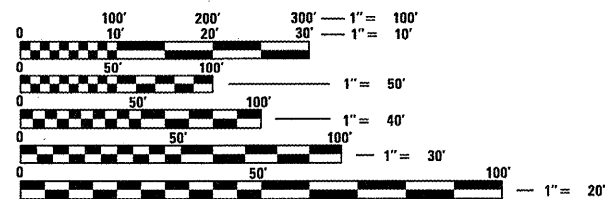
**PROPOSED
 HIGHWAY PLANS**

F.A.P. ROUTE 781 (IL RTE. 33)
 SECTION D7 BEAM REPAIR 2012-1

BRIDGE BEAM REPLACEMENT
 CRAWFORD COUNTY
 C-97-068-11

FOR INDEX OF SHEETS, SEE SHEET NO. 2

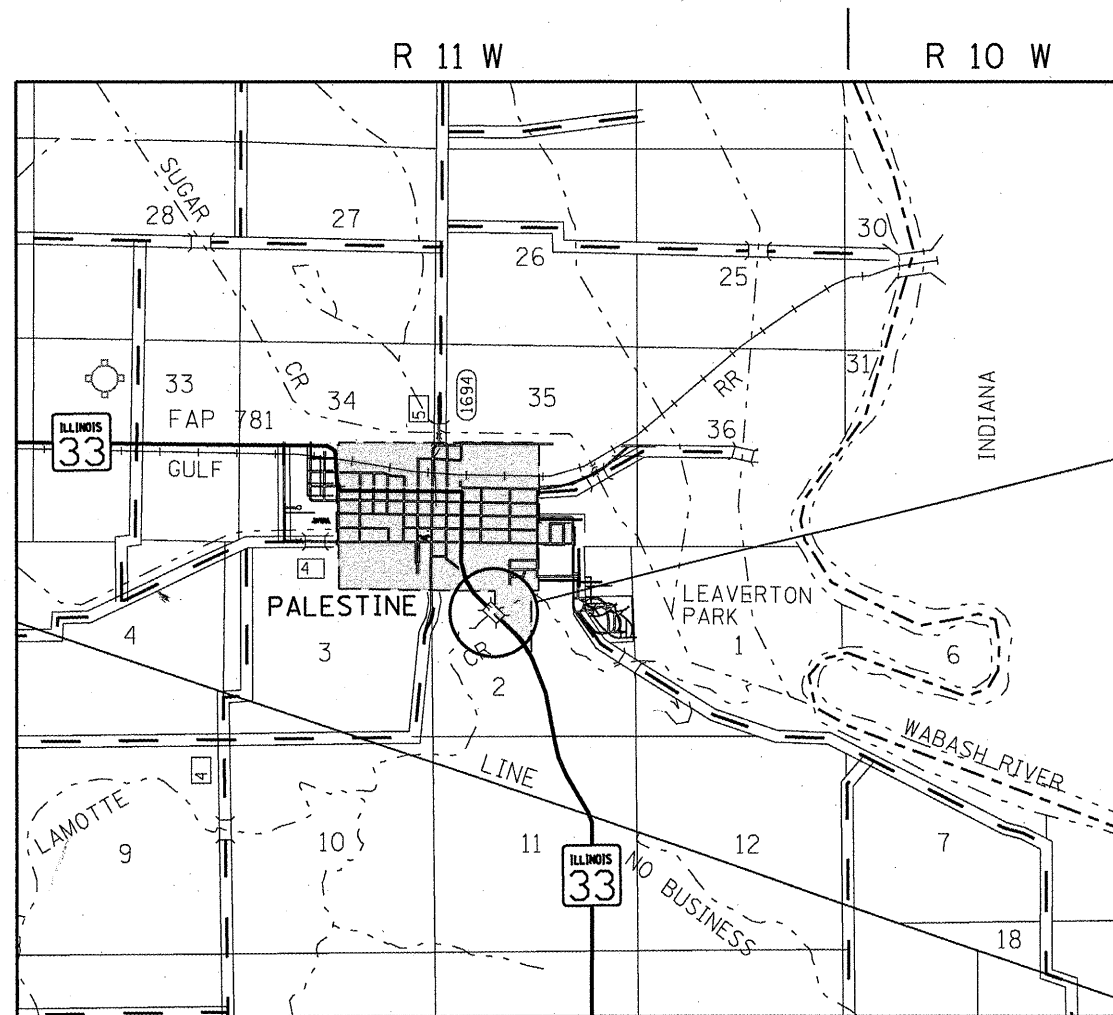
ADT = 1800 (2010)



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

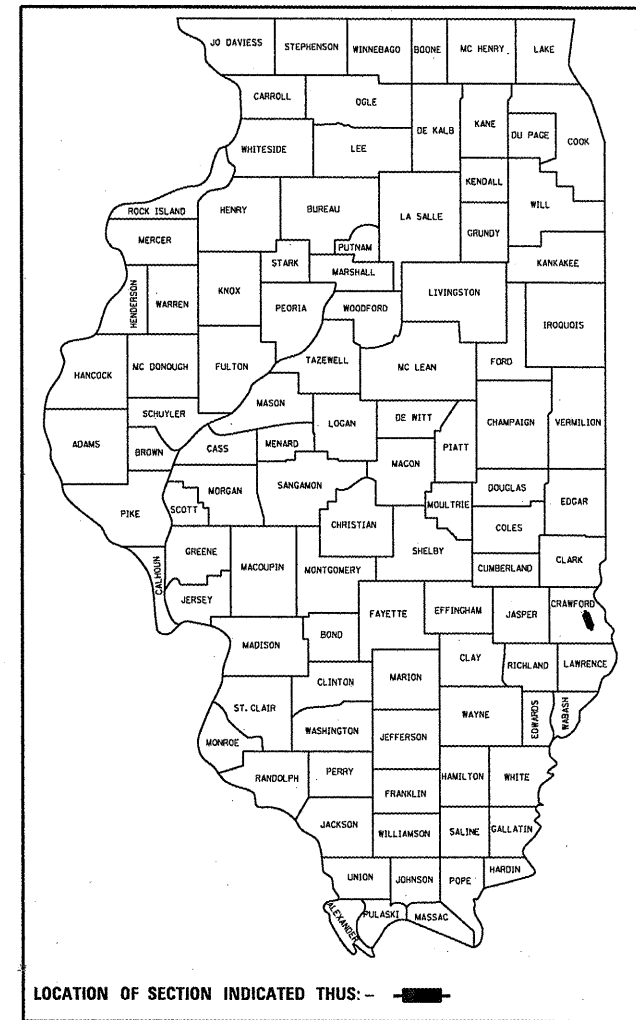
PROJECT ENGINEER: TOM RONAN
 PROJECT MANAGER: TOM RONAN
 PHONE: (217)-342-8320
 CONTRACT NO. 74523



GROSS LENGTH = 104 FT. = 0.02 MILE
 NET LENGTH = 104 FT. = 0.02 MILE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	D7 BEAM REPAIR 2012-1	CRAWFORD	10	1
		ILLINOIS	CONTRACT NO. 74523	

D-97-025-11



LOCATION OF SECTION INDICATED THUS: —

PROJECT LOCATION:
 S.N. 017-0007

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED 05-24 20 11
Roger L. Driskell
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

July 1 20 11
Sally E. Stupp
 acting ENGINEER OF DESIGN AND ENVIRONMENT

July 1 20 11
Christine M. Reed
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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 OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS AND GENERAL NOTES
3	SUMMARY OF QUANTITIES.
4	TYPICAL SECTIONS
5	STAGE I CONSTRUCTION
6-10	BRIDGE PLANS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 10:

STD. NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701001-02	OFF-RD OPERATIONS, 2L, 2W MORE THAN 15' AWAY
701006-03	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-02	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701321-11	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING FOR SPEEDS >= 45 MPH
701901-01	TRAFFIC CONTROL DEVICES
704001-06	TEMPORARY CONCRETE BARRIER
780001-02	TYPICAL PAVEMENT MARKINGS
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45MPH

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS; THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2007; AND THE SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

THE WORK INCLUDED IN THIS SECTION CONSISTS OF REHABILITATING STRUCTURE NUMBER 017-0007 BY REPLACING TWO (2) DECK BEAMS, KEYWAY REPAIRS, WATERPROOFING, AND HMA SURFACE. STRUCTURE NUMBER 017-0007 CARRIES ILLINOIS ROUTE 33 OVER LAMOTTE CREEK AT THE SOUTHEAST CORPORATE LIMITS OF PALESTINE IN CRAWFORD COUNTY.

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

THE TOTAL QUANTITY OF PAINT PAVEMENT MARKING-LINE 4" CONSISTS OF 360 FEET OF WHITE.

PAVED SHOULDER REMOVAL CONSISTS OF REMOVING THE TAPERED PORTIONS OF THE EXISTING PCC BASE COURSE WIDENING AS DETAILED IN THE PLANS. THE WIDENING TO BE REMOVED IS BELIEVED TO BE UNREINFORCED AND 8" THICK. THIS WORK SHALL CONSIST OF THE REMOVAL AND SATISFACTORY DISPOSAL OF THE PCC BASE COURSE WIDENING AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR PAVED SHOULDER REMOVAL.

PCC BASE COURSE WIDENING, 8" SHALL INCLUDE ALL EXCAVATION FOR CONSTRUCTION OF THE WIDENING. THE WIDENING SHALL REMAIN IN PLACE AT THE CONCLUSION OF THE PROJECT.

THE CONTRACTOR SHALL PROVIDE INTERNET ACCESSIBILITY TO THE HOT-MIX ASPHALT PLANT QUALITY CONTROL LAB SO THAT HOT-MIX ASPHALT PLANT REPORTS CAN BE E-MAILED TO THE DISTRICT HEADQUARTERS. THIS WORK SHALL BE INCLUDED IN THE COST OF ALL HOT-MIX ASPHALT ITEMS.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

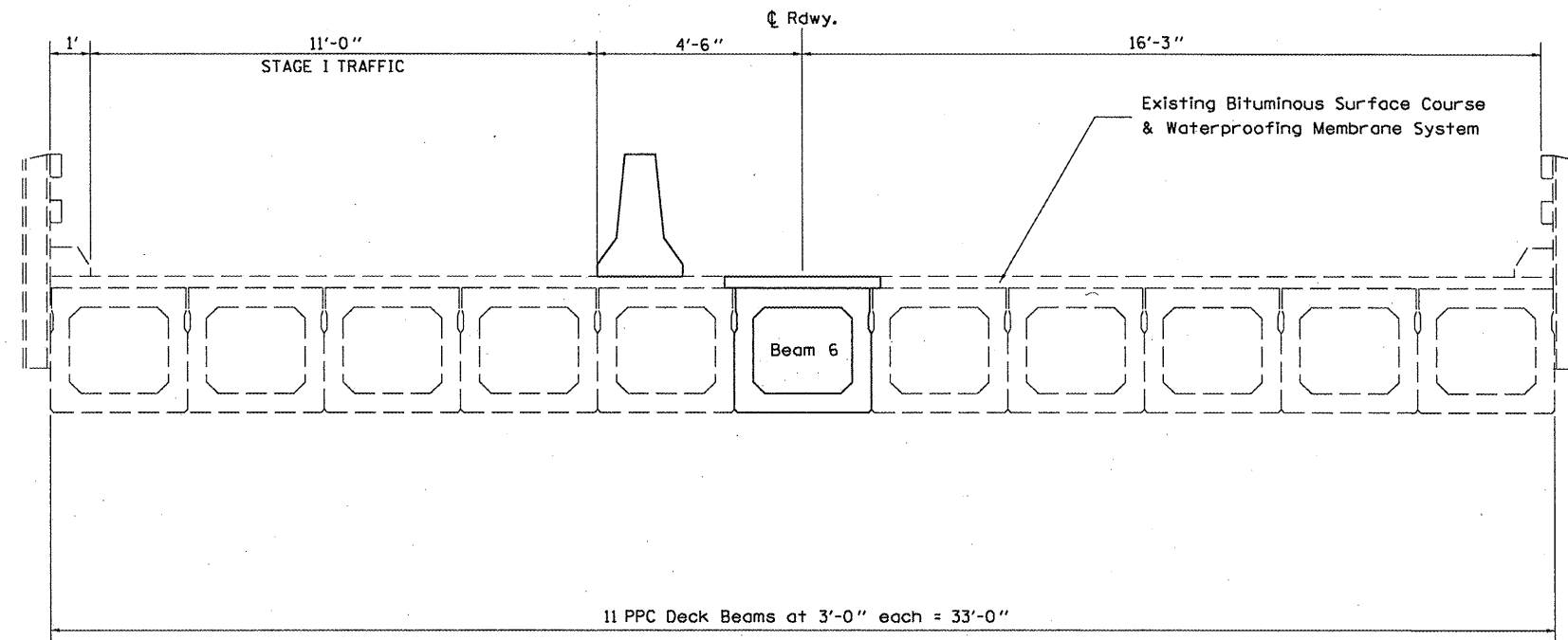
MIXTURE USE:	SURFACE COURSE (1 1/2")
PG GRADE:	PG 64-22
DESIGN AIR VOIDS:	4.0% @ NDESIGN = 70
MIXTURE COMPOSITION:	IL-9.5
FRICITION AGGREGATE:	MIXTURE C

FILE NAME =	USER NAME = swartzrw	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS AND GENERAL NOTES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\p\work\p\dot\swartzrw\d0268695\077	523-shs-index.dgn	DRAWN -	REVISED -			781	D7 BEAM REPAIR 2012-1	CRAWFORD	10	2
	PLOT SCALE = 1/8" = 1' / in.	CHECKED -	REVISED -			CONTRACT NO. 74523				
	PLOT DATE = 5/24/2011	DATE -	REVISED -			SCALE: NA	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT	

100% STATE

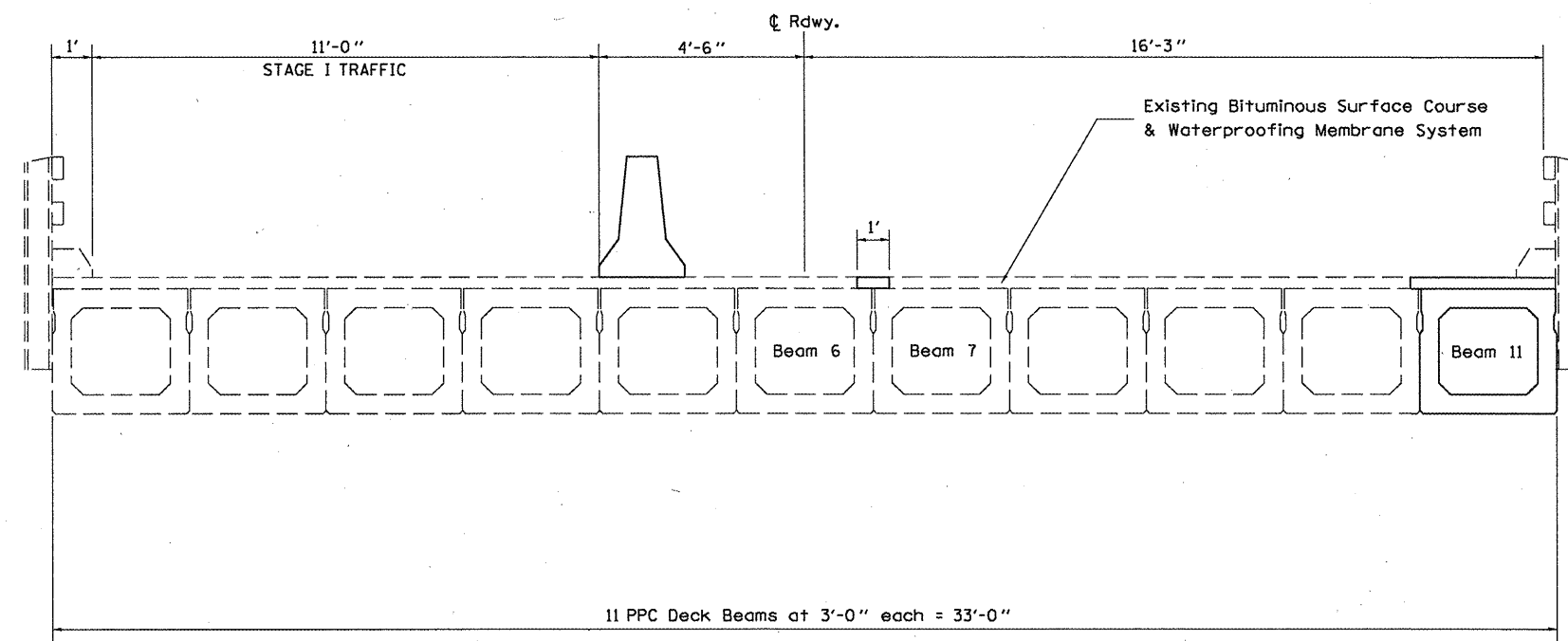
SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE
CODE NO	ITEM	UNIT		0014
35400300	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 8"	SQ YD	124	124
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	5	5
44004250	PAVED SHOULDER REMOVAL	SQ YD	34	34
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1.6	1.6
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	295	295
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	70	70
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	42	42
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	150	150
67100100	MOBILIZATION	L SUM	1	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	6	6
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	307	307
70400100	TEMPORARY CONCRETE BARRIER	FOOT	375	375
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	360	360
78300100	PAVEMENT MARKING REMOVAL	SQ FT	120	120
X0320047	REMOVAL OF EXISTING PRECAST PRESTRESSED CONCRETE DECK BEAMS	SQ FT	299	299
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	2	2
Z0004556	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	14.3	14.3
Z0007122	REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	50	50
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2
Z0032700	KEYWAY REPAIR	FOOT	50	50

*SPECIALTY ITEM



STAGE I TYPICAL
 LOOKING SOUTH
 SPAN 1

NOT TO SCALE



STAGE I TYPICAL
 LOOKING SOUTH
 SPAN 2

NOT TO SCALE

FILE NAME =	USER NAME = swartzrw	DESIGNED -	REVISED -
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	PLOT DATE = 5/24/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING TYPICAL

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	D7 BEAM REPAIR 2012-1	CRAWFORD	10	4
CONTRACT NO. 74523				
ILLINOIS FED. AID PROJECT				

PCC BASE COURSE WIDENING 8"
 LT 33+20 TO 34+30 61.1 SQ YD
 LT 35+68 TO 36+80 62.2 SQ YD
 TOTAL = 123.3 SQ YD

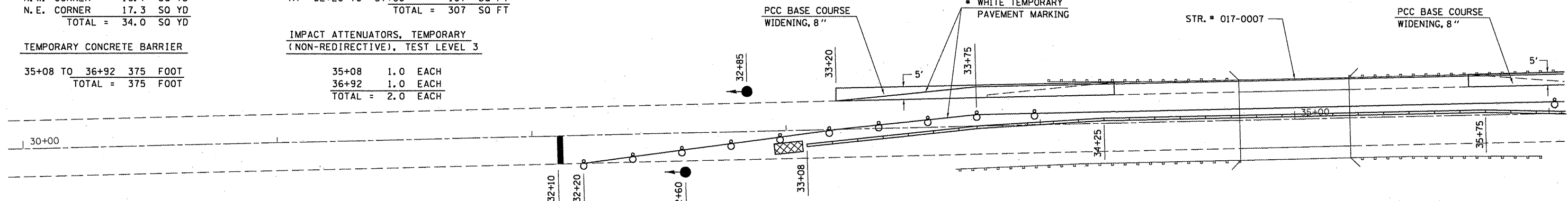
PAVEMENT MARKING REMOVAL
 LT 33+20 TO 36+80 120 SQ FT
 RT 32+20 TO 37+80 187 SQ FT
 TOTAL = 307 SQ FT

PAVED SHOULDER REMOVAL
 N. W. CORNER 16.7 SQ YD
 N. E. CORNER 17.3 SQ YD
 TOTAL = 34.0 SQ YD

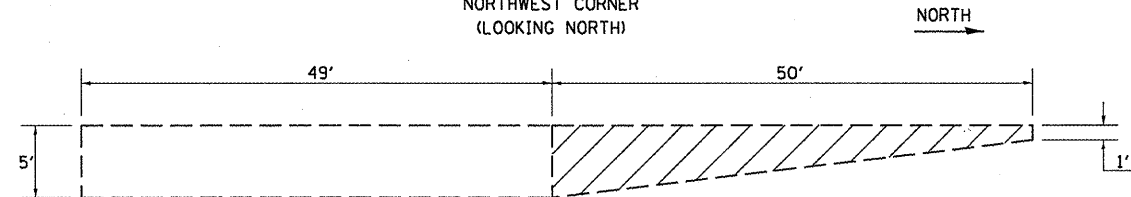
WORK ZONE PAVEMENT MARKING REMOVAL
 LT 33+20 TO 36+80 120 SQ FT
 RT 32+20 TO 37+80 187 SQ FT
 TOTAL = 307 SQ FT

TEMPORARY CONCRETE BARRIER
 35+08 TO 36+92 375 FOOT
 TOTAL = 375 FOOT

**IMPACT ATTENUATORS, TEMPORARY
 (NON-REDIRECTIVE), TEST LEVEL 3**
 35+08 1.0 EACH
 36+92 1.0 EACH
 TOTAL = 2.0 EACH



**PAVED SHOULDER DETAIL
 NORTHWEST CORNER
 (LOOKING NORTH)**

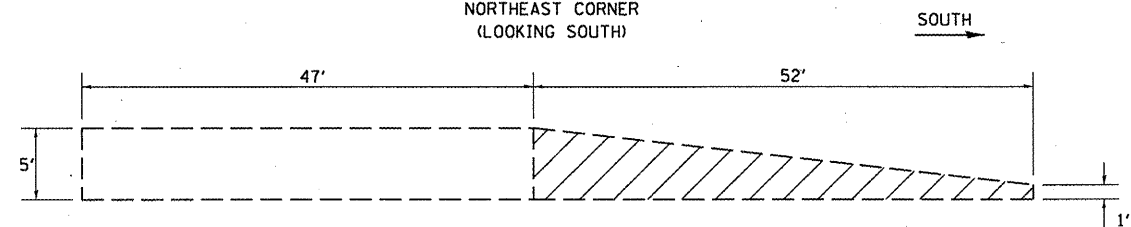


• COST INCLUDED IN STANDARD 701321, REMOVAL PAID FOR AS WORKZONE PAVEMENT MARKING REMOVAL

SYMBOLS

- STOP BAR
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TRAFFIC SIGNAL
- ⊠ TEMPORARY IMPACT ATTENUATOR
- ▬ TEMPORARY CONCRETE BARRIER

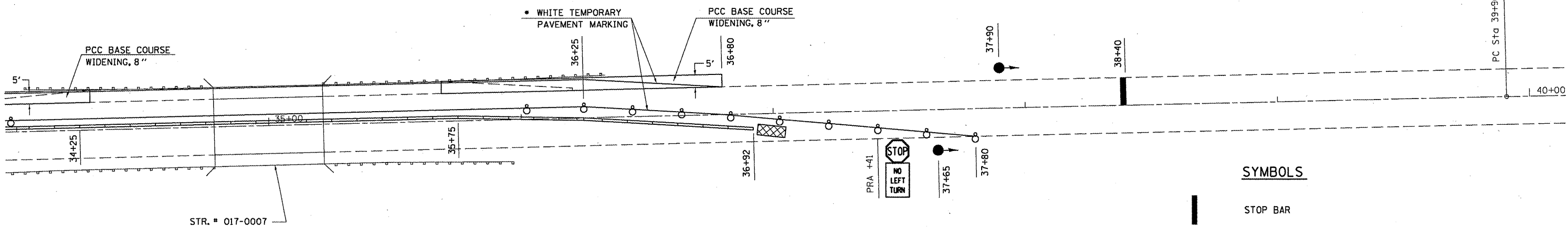
**PAVED SHOULDER DETAIL
 NORTHEAST CORNER
 (LOOKING SOUTH)**



• COST INCLUDED IN STANDARD 701321, REMOVAL PAID FOR AS WORKZONE PAVEMENT MARKING REMOVAL

SYMBOLS

- STOP BAR
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TRAFFIC SIGNAL
- ⊠ TEMPORARY IMPACT ATTENUATOR
- ▬ TEMPORARY CONCRETE BARRIER



FILE NAME =	USER NAME = swartzw	DESIGNED -	REVISED -
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	PLOT SCALE = 48.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/24/2011	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

STAGING PLAN
 SCALE: 20 SHEET NO. 1 OF 1 SHEETS STA. 30+00 TO STA. 40+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	07 BEAM REPAIR 2012-1	CRAWFORD	10	5
CONTRACT NO. 74523				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

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

Plan dimensions and details relative to existing plans are subject to nominal construction 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 at 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 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.

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.

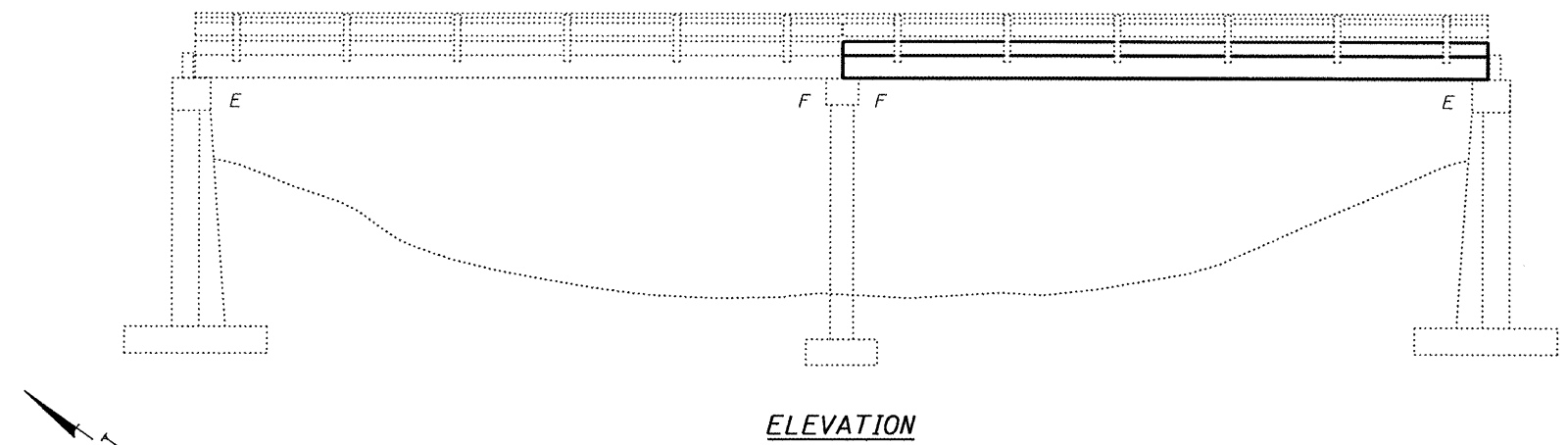
The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

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

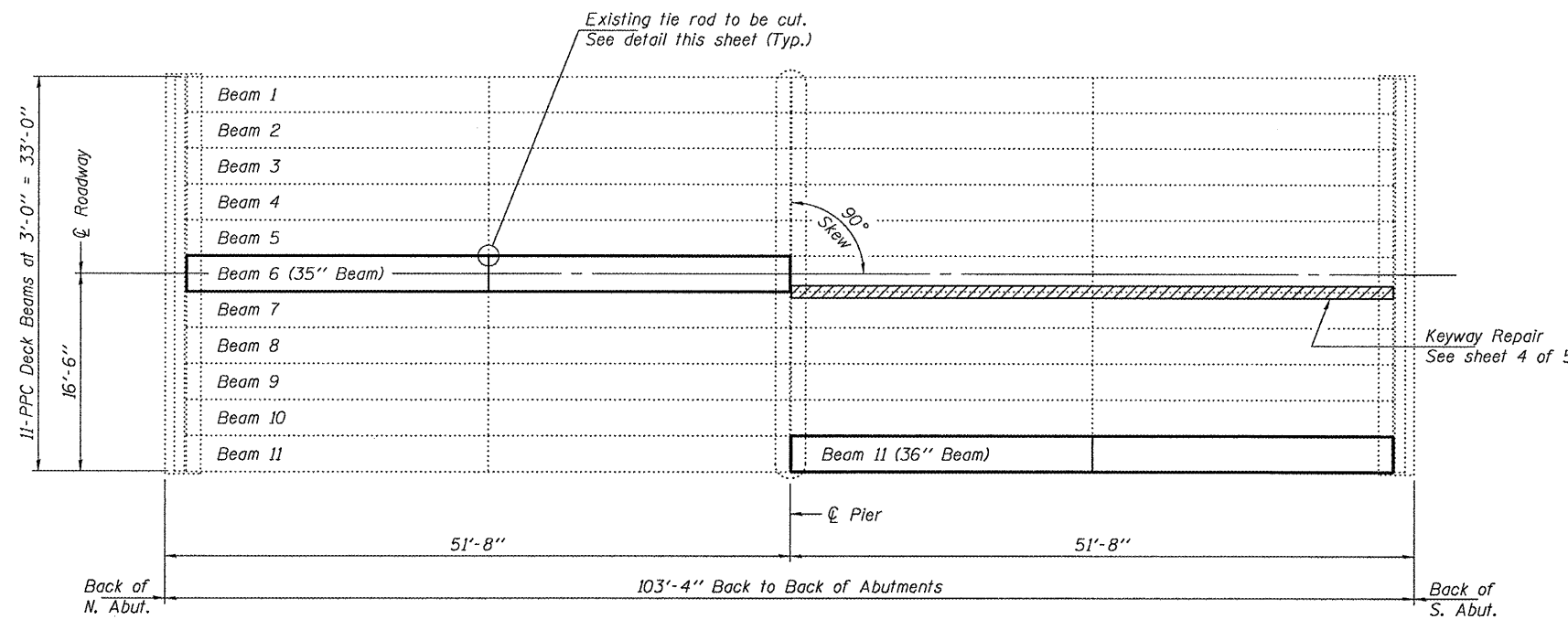
All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with PPC Deck Beams.

Reinforcement bars designated (E) shall be epoxy coated.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.



ELEVATION



PLAN

DESIGN STRESSES

PRECAST PRESTRESSED UNITS

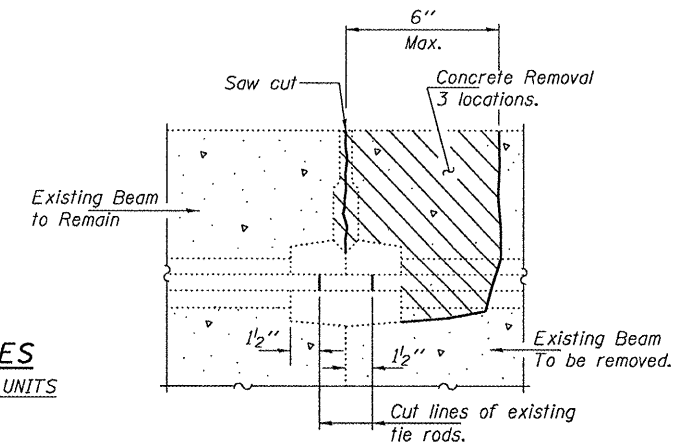
$f'_c = 6,000$ psi

$f'_{ci} = 5,000$ psi

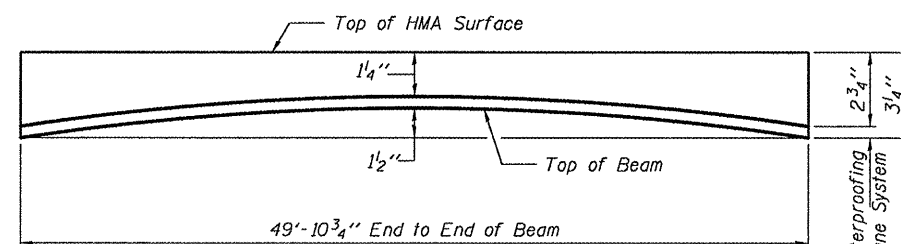
$f'_s = 270,000$ psi ($\frac{1}{2}$ " ϕ low lax strands)

$f_{si} = 201,960$ psi ($\frac{1}{2}$ " ϕ low lax strands)

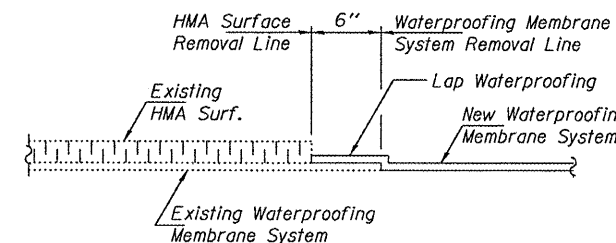
$f_y = 60,000$ psi (Reinforcement)



BEAM REMOVAL DETAIL AT TRANSVERSE TIES



ANTICIPATED INITIAL CAMBER DIAGRAM



WATERPROOFING TREATMENT

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Removal of Existing PPC Deck Beams	Sq. Ft.	299
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	295
Hot-Mix Asphalt Surface Removal	Sq. Yd.	14.3
HMA Surface Course Mix "C" N70	Tons	4.7
PC Mortar Fairing Course	Foot	150
Waterproofing Membrane System	Sq. Yd.	42.0
Asbestos Bearing Pad Removal	Each	2
Keyway Repair	Foot	50
Concrete Superstructure	Cu. Yd.	1.6
Reinforcement Bars, Epoxy Coated	Pound	70
Removing & Re-erecting Existing Railing	Foot	50



Expires: November 30, 2012

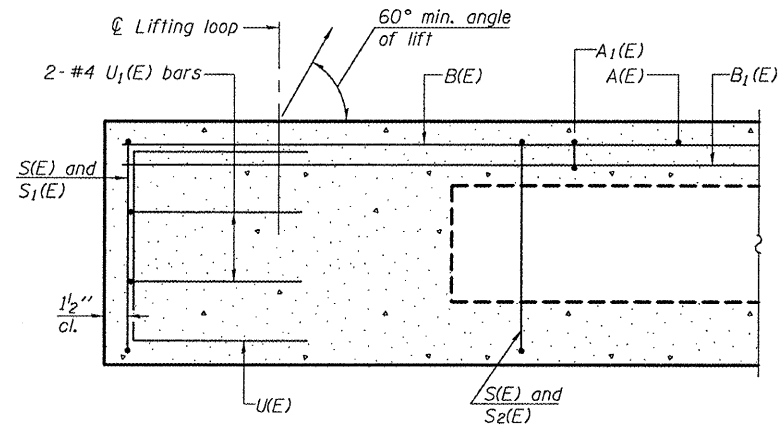
DESIGNED - <i>Aligan J. Holloway</i>	EXAMINED - <i>John F. Jelliff</i>	DATE - JUNE 23, 2011
CHECKED - <i>Kyle M. Steffen</i>	PASSED - <i>John F. Jelliff</i>	
DRAWN - <i>ATH</i>		
CHECKED - <i>ATH</i>		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

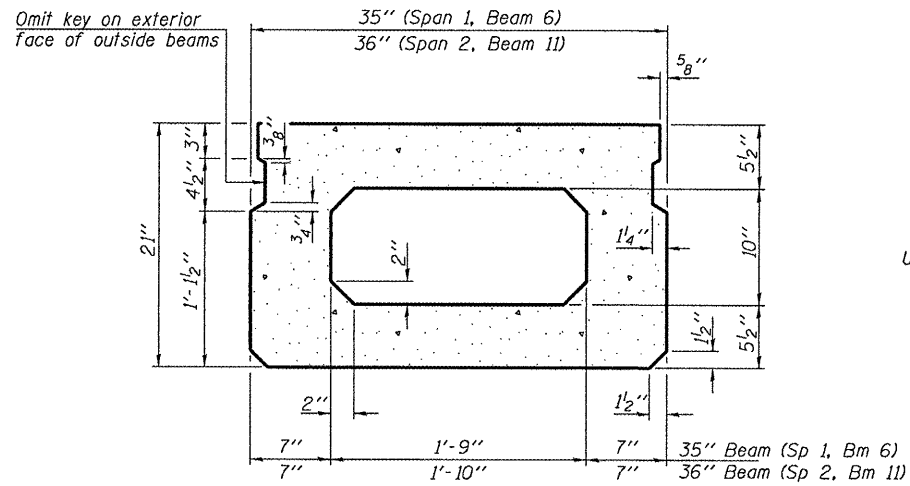
GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 33 OVER LAMOTTE CREEK
SN 017-0007

SHEET NO. 1 OF 5 SHEETS

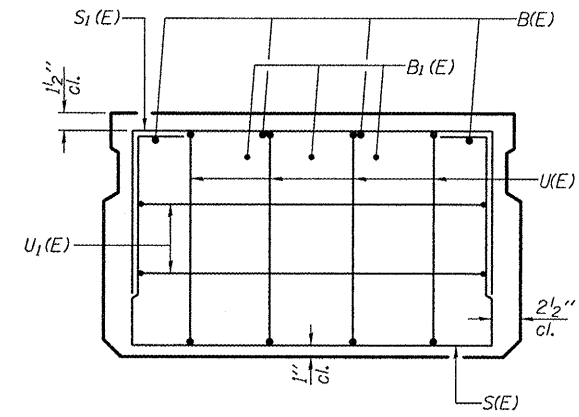
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	D-7 BEAM REPAIR 2012-1	CRAWFORD	10	6
			CONTRACT NO. 74523	
ILLINOIS FED. AID PROJECT				



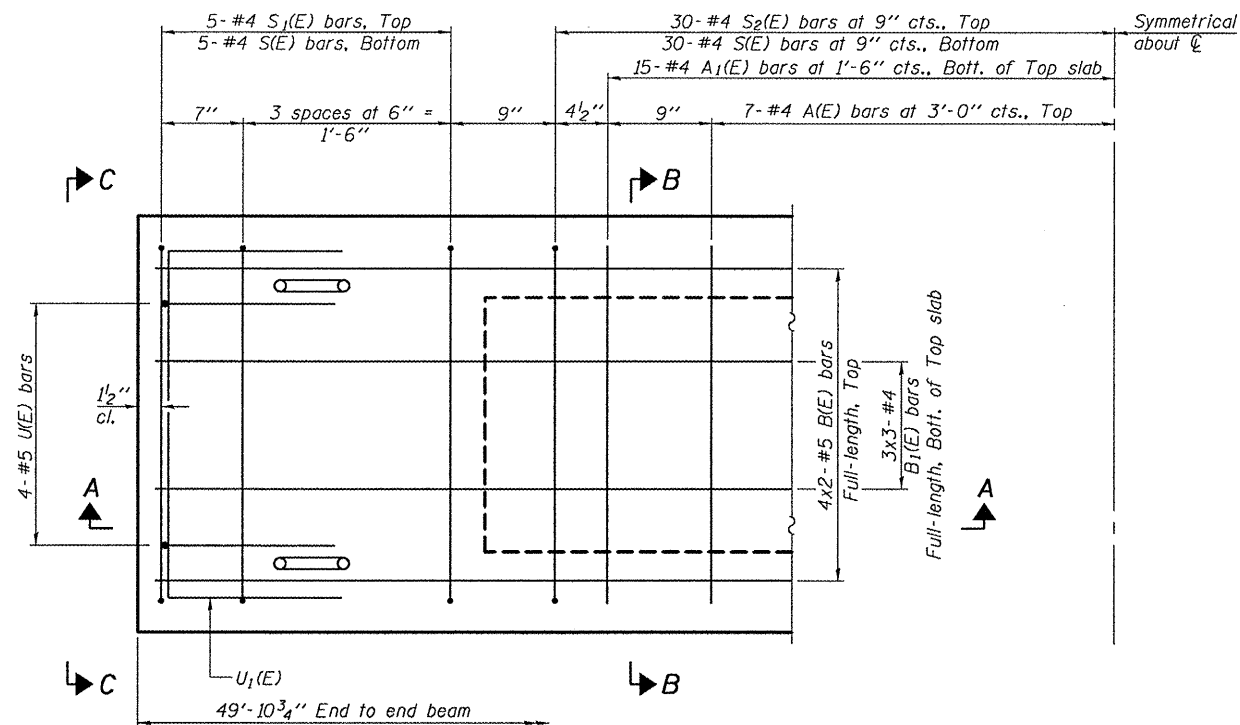
SECTION A-A



SECTION B-B
(Showing dimensions)

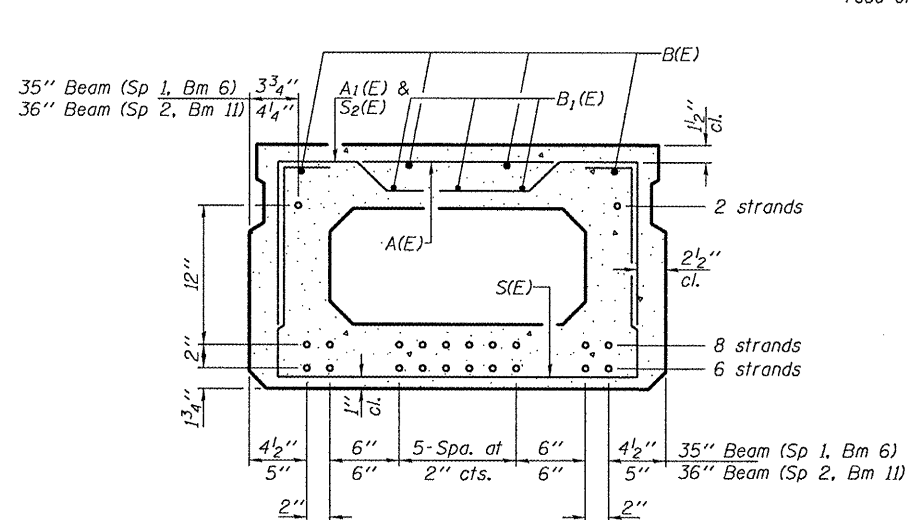


VIEW C-C



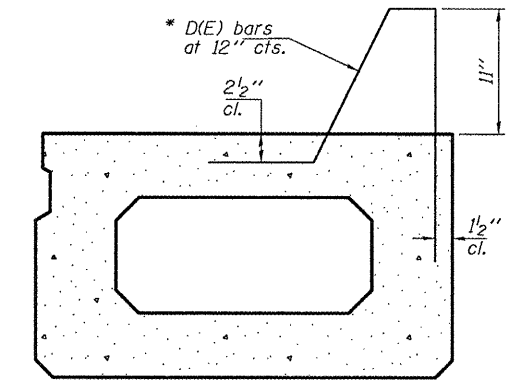
PLAN VIEW

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.



SECTION B-B
(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.



SECTION THRU FASCIA BEAM
(Showing Curb Reinforcement)

* D(E) bar to be cast into outside face of fascia beam only.

MINIMUM BAR LAP

#4 bar = 2'-0"
#5 bar = 2'-6"

BAR LIST
ONE 35" BEAM ONLY

(For information only)

Bar	No.	Size	Length	Shape
A(E)	14	#4	2'-7"	—
A ₁ (E)	30	#4	2'-9"	—
B(E)	8	#5	26'-1"	—
B ₁ (E)	9	#4	17'-11"	—
S(E)	70	#4	6'-4"	□
S ₁ (E)	10	#4	4'-10"	□
S ₂ (E)	60	#4	5'-1"	□
U(E)	8	#5	4'-0"	□
U ₁ (E)	4	#4	4'-11"	□

BAR LIST
ONE 36" BEAM ONLY

(For information only)

Bar	No.	Size	Length	Shape
A(E)	14	#4	2'-7"	—
A ₁ (E)	30	#4	2'-10"	—
B(E)	8	#5	26'-1"	—
B ₁ (E)	9	#4	17'-11"	—
D(E)	50	#5	4'-2"	∟
S(E)	70	#4	6'-5"	□
S ₁ (E)	10	#4	4'-11"	□
S ₂ (E)	60	#4	5'-2"	□
U(E)	8	#5	4'-0"	□
U ₁ (E)	4	#4	5'-0"	□

Note: See sheet 3 of 5 for additional details and Bill of Material.

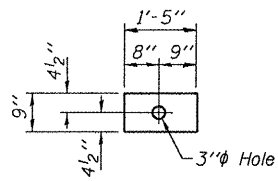
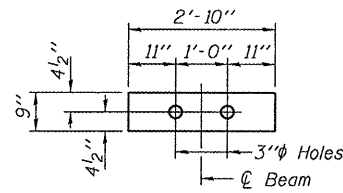
DESIGNED - ATH	EXAMINED	DATE - JUNE 23, 2011
CHECKED - GGE	PASSED	
DRAWN - Kyle M. Steffen		
CHECKED - ATH GGE		

 ACTING ENGINEER OF STRUCTURAL SERVICES	
	 ACTING ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

21" x 36" P.P.C. DECK BEAM DETAILS
SN 017-0007
SHEET NO. 2 OF 5 SHEETS

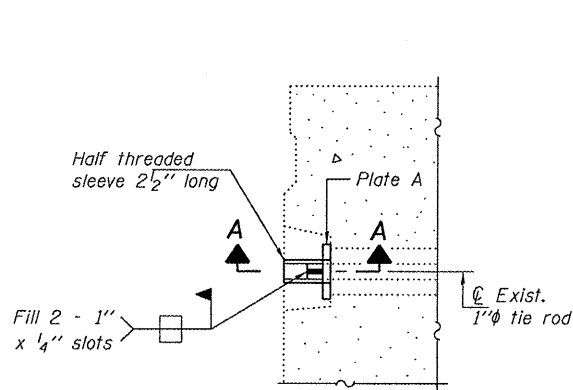
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	D-7 BEAM REPAIR 2012-1	CRAWFORD	10	7
			CONTRACT NO.	74523
ILLINOIS FED. AID PROJECT				



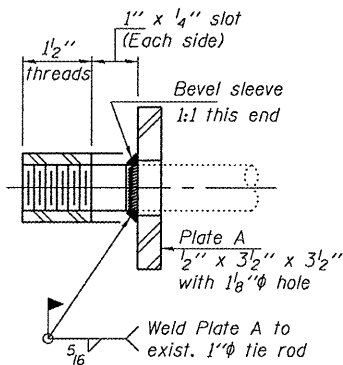
FABRIC BEARING PAD FABRIC ADJUSTING SHIM

FIXED

Note: Omit holes when using expansion bearings.



DETAIL A



SECTION A-A
(2 Required)

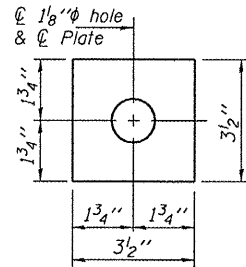
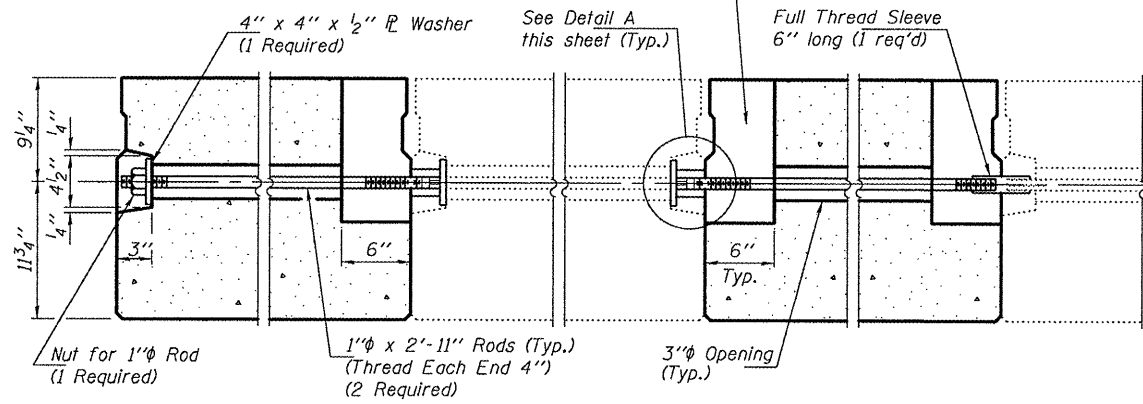
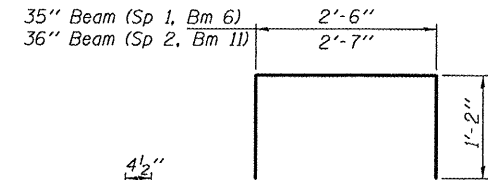


PLATE A
(2 Required)

6" x 6" x 12" Blockout to be filled with non-shrink grout as specified in the special provision Concrete Deck Beams (Min. compressive strength at 7 days = 6,000 psi) after beams have been installed. Cost shall be included in the cost of Precast Prestressed Concrete Deck Beams (21" Depth). (Typ.)

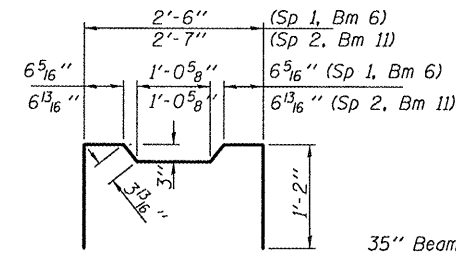


TYPICAL TRANSVERSE TIE ASSEMBLY DETAILS

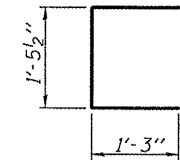


BAR S₁(E)

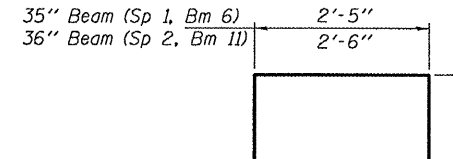
BAR S(E)



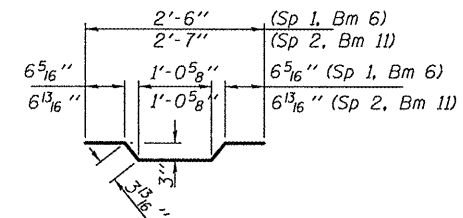
BAR S₂(E)



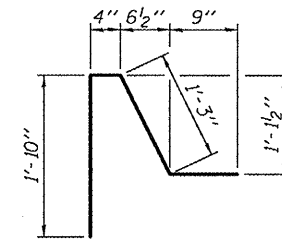
BAR U(E)



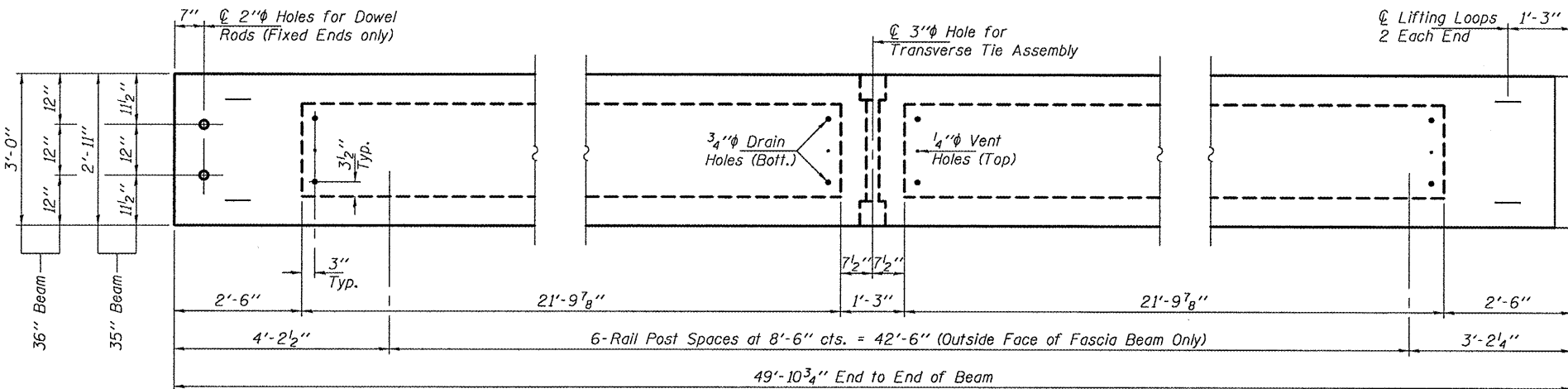
BAR U₁(E)



BAR A₁(E)



BAR D(E)

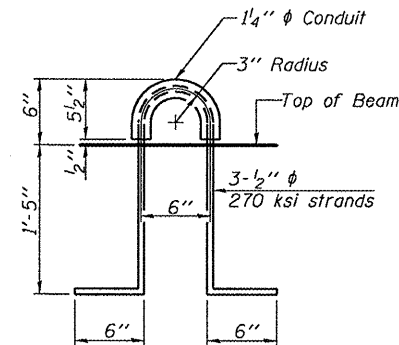


BEAM PLAN

L 4 x 4 x 1/2 x Full-width Cast into Beam. See sheet 4 of 5 for details. (Expansion End Only)

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, 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.



LIFTING LOOP DETAIL

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	295
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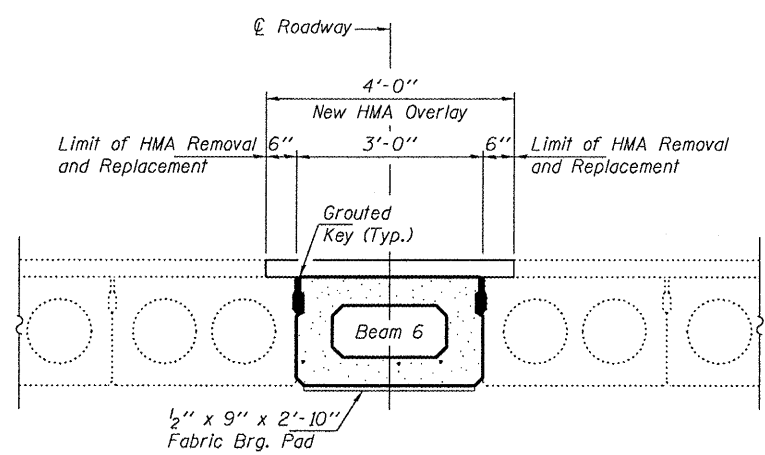
DESIGNED - ATH	EXAMINED - <i>James F. [Signature]</i>	DATE - JUNE 23, 2011
CHECKED - GGE	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Kyle M. Steffen	PASSED - <i>[Signature]</i>	
CHECKED - ATH GGE	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

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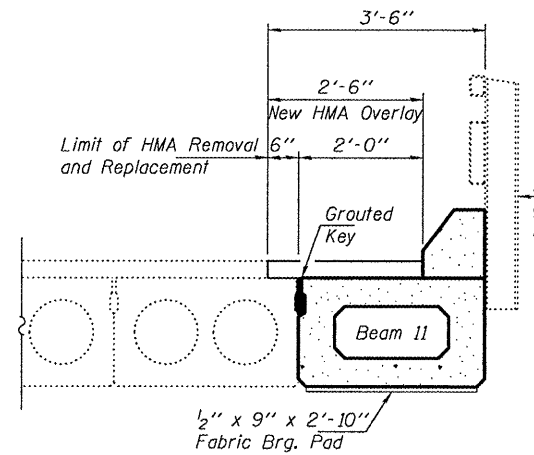
27" x 36" P.P.C. DECK BEAM DETAILS
SN 017-0007

SHEET NO. 3 OF 5 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	D-7 BEAM REPAIR 2012-1	CRAWFORD	10	8
CONTRACT NO. 74523			ILLINOIS FED. AID PROJECT	

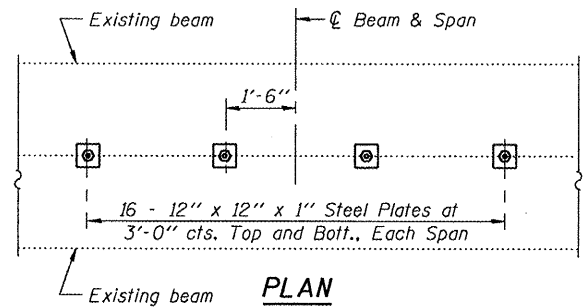


SECTION THRU SPAN 1, BEAM 6

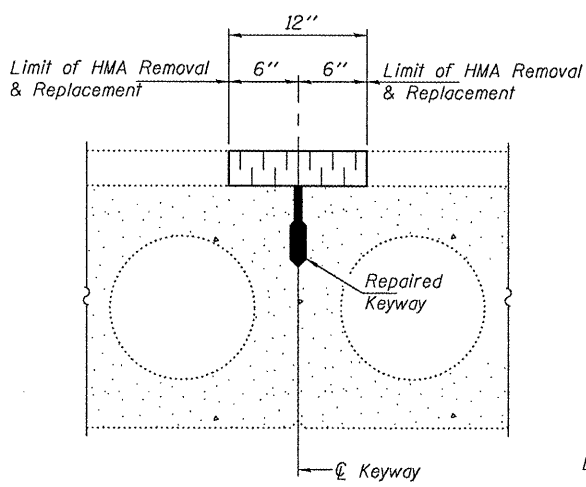


SECTION THRU SPAN 2, BEAM 11

Remove, store, & re-install existing guard rail. See sheet 5 of 5 for Rail Post Anchor Device Details.

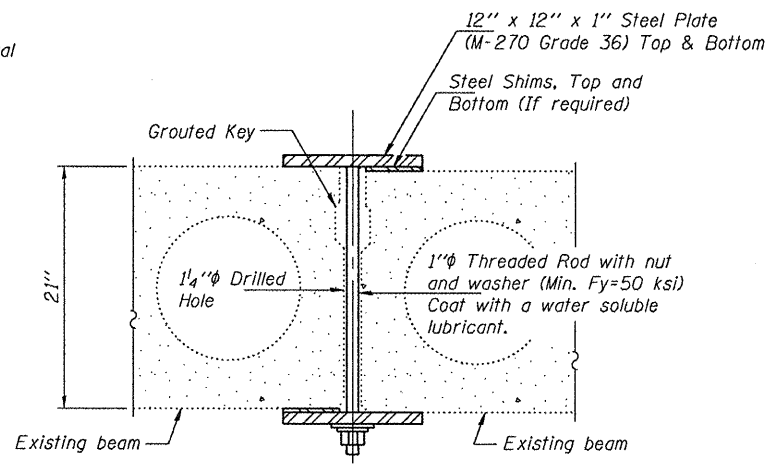


PLAN

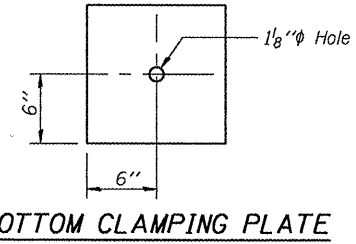


SECTION THRU KEYWAY REPAIR

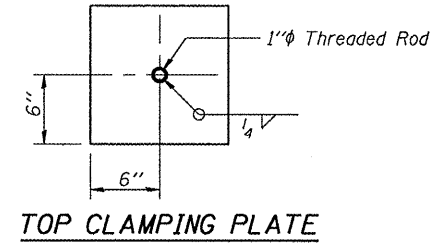
(Shear Key Clamping Device not shown for clarity.)



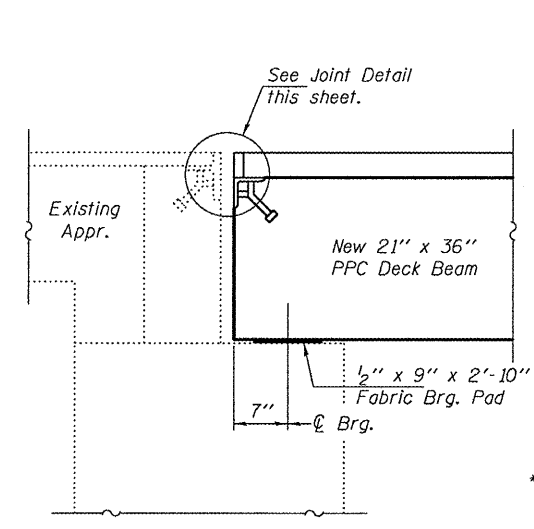
SECTION



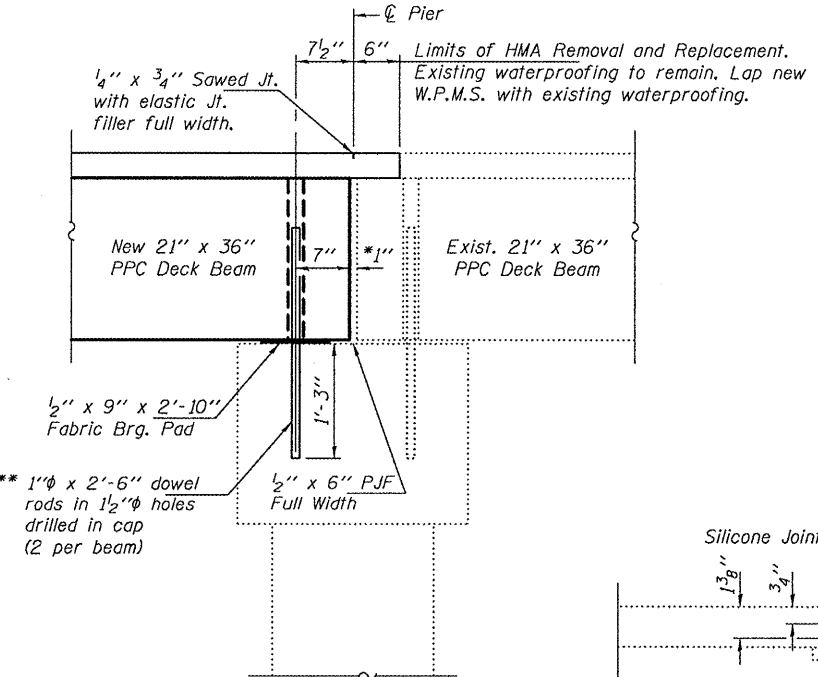
BOTTOM CLAMPING PLATE



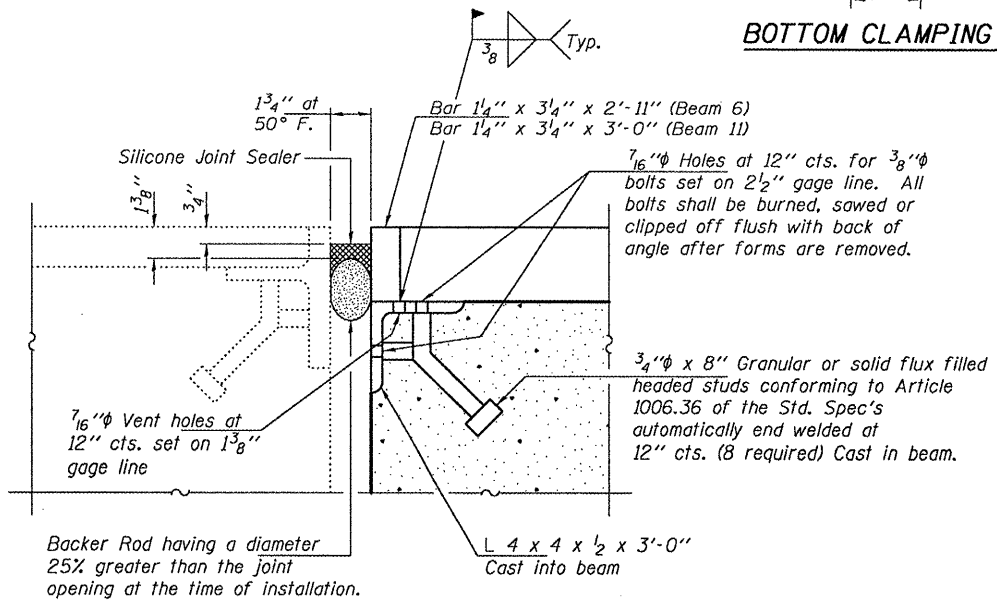
TOP CLAMPING PLATE



TYPICAL SECTION THRU ABUTMENT

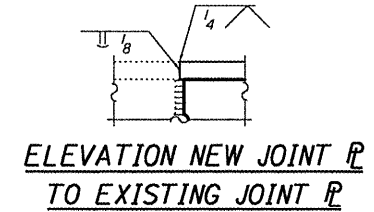


TYPICAL SECTION THRU PIER



EXPANSION JOINT DETAILS AT ABUTMENTS

(Cost included with PPC Deck Beams)



ELEVATION NEW JOINT P TO EXISTING JOINT P

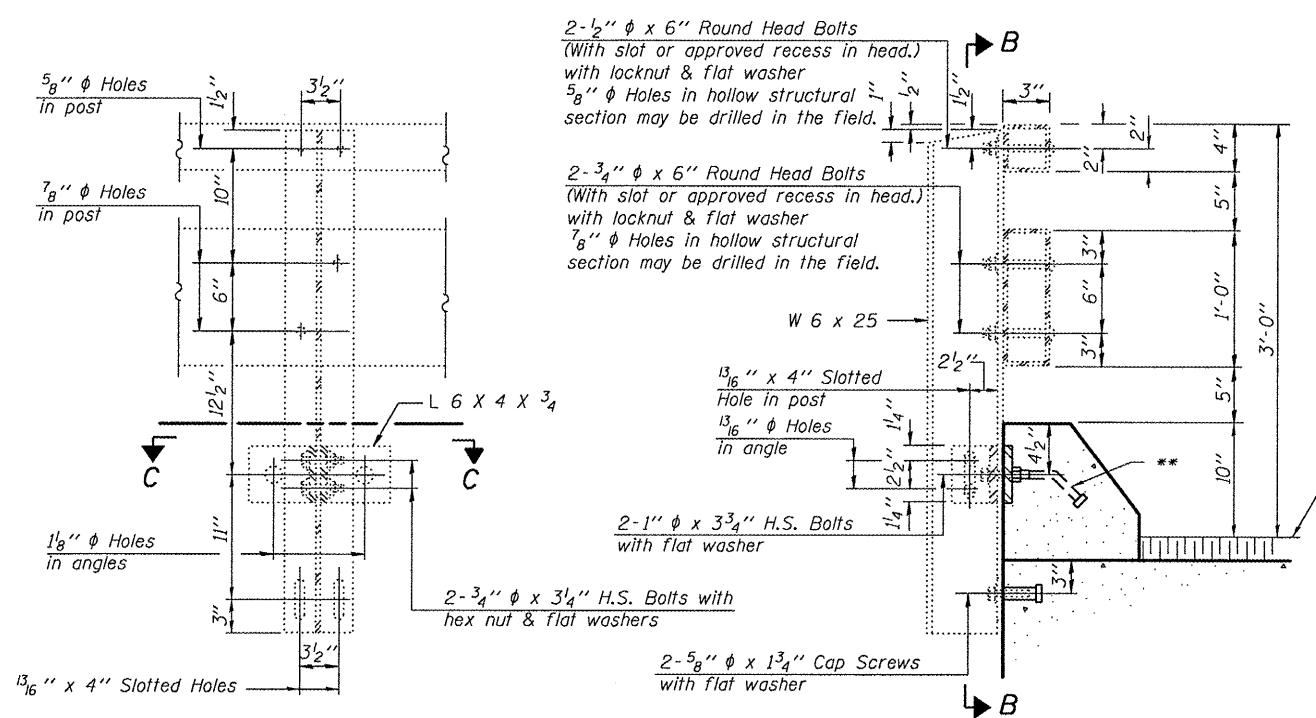
DESIGNED - ATH	EXAMINED - <i>Joyne F. Jaffe</i>	DATE - JUNE 23, 2011
CHECKED - GGE	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Kyle M. Steffen	PASSED - <i>Carl Meyer</i>	
CHECKED - ATH GGE	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR DETAILS
SN 017-0007

SHEET NO. 4 OF 5 SHEETS

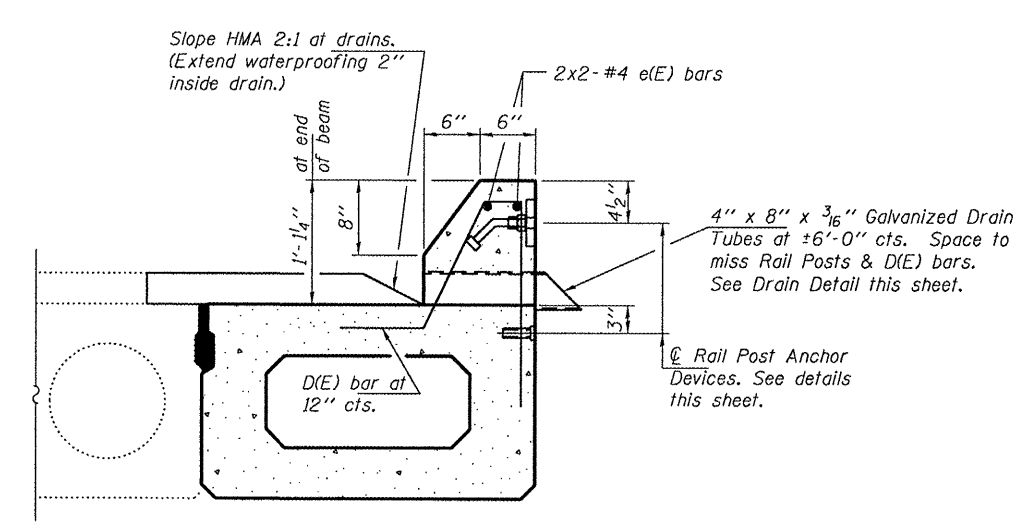
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	D-7 BEAM REPAIR 2012-1	CRAWFORD	10	9
			CONTRACT NO. 74523	
ILLINOIS FED. AID PROJECT				



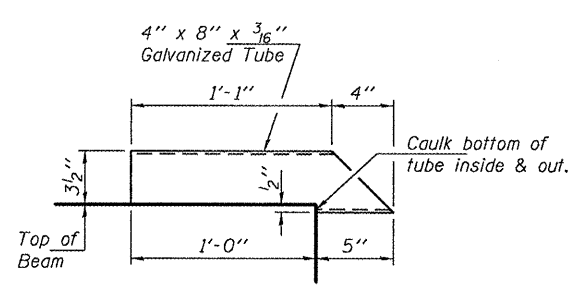
SECTION B-B

SECTION AT RAIL POST

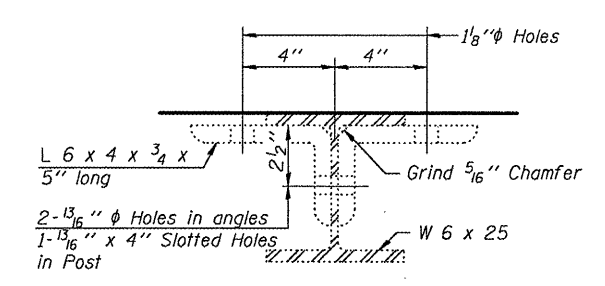
* Threaded areas shall be plugged or blocked off during casting of beam.
 ** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



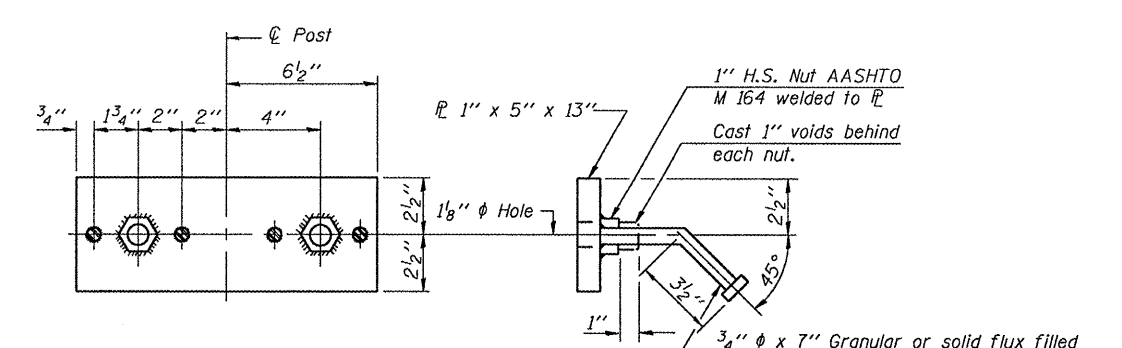
SECTION THRU CURB
 (Existing Rail Post not shown for clarity.)



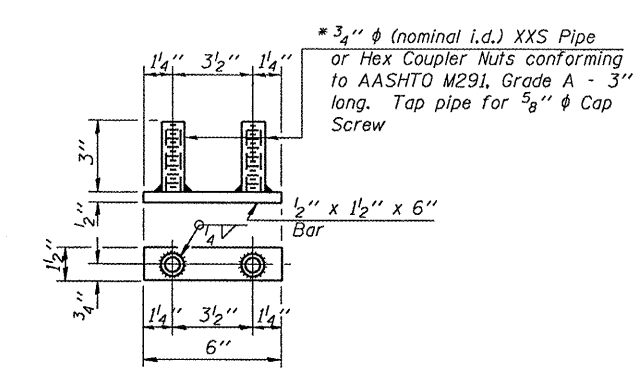
DRAIN TUBE DETAIL
 Cost included with Concrete Superstructure



SECTION C-C



TOP ANCHOR DEVICE



BOTTOM ANCHOR DEVICE

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
e(E)	4	#4	25'-11"	---
Concrete Superstructure			Cu. Yd.	1.6
Reinforcement Bars, Epoxy Coated			Pound	70

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

DESIGNED - ATH	EXAMINED - <i>Joey F. Hill</i>	DATE - JUNE 23, 2011
CHECKED - GGE	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Kyle M. Steffen	PASSED - <i>Carl Perry</i>	
CHECKED - ATH GGE	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

RAIL POST ANCHOR DEVICE & DRAIN TUBE DETAILS
 SN 017-0007

SHEET NO. 5 OF 5 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	D-7 BEAM REPAIR 2012-1	CRAWFORD	10	10
			CONTRACT NO. 74523	
ILLINOIS FED. AID PROJECT				