

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 358	1112.1BR-3	COOK	8	1

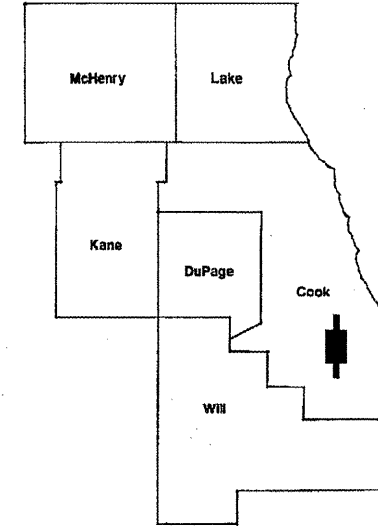
FOR INDEX OF SHEETS SEE SHEET 2

IMPROVEMENT IS LOCATED
IN THE CITY OF CHICAGO.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DISTRICT ONE
PROPOSED HIGHWAY PLANS

CONTRACT NO 60J18

D-91-205-10



FAP ROUTE 358: TORRENCE AVE
OVER GRAND CALUMET RIVER
SECTION 1112.1BR-3
PCC DECK BEAM SUPPORTS
COOK COUNTY
C-91-205-10

LOCATION OF IMPROVEMENT
SN 016-0934

R 14 E R 15 E

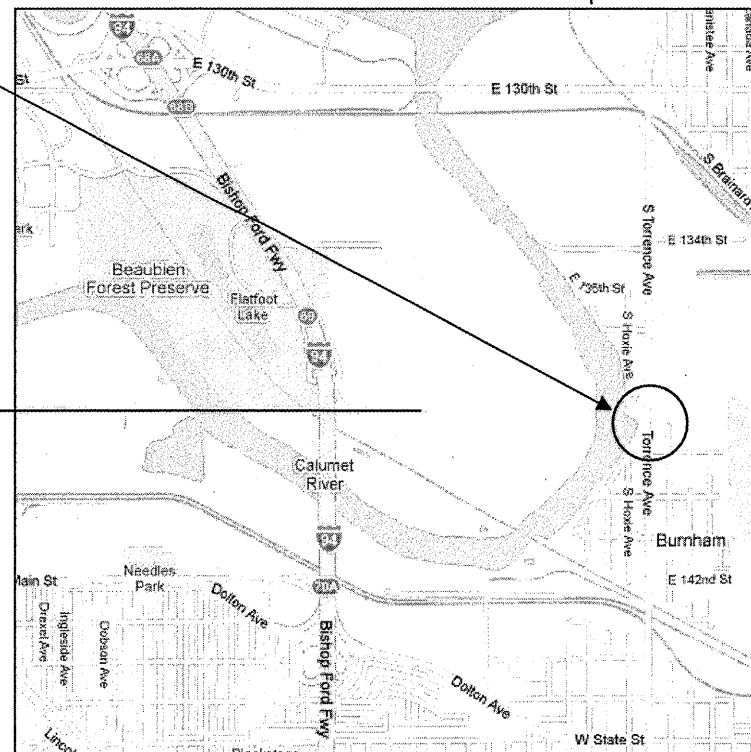
LOCATION OF IMPROVEMENT INDICATED THUS:

TRAFFIC DATA

2006 ADT = 12,800

POSTED SPEED LIMIT = 40 MPH

T 37 N
HYDE PARK TWP
T 36 N
THORNTON TWP



THORNTON TOWNSHIP



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
SUBMITTED: FEBRUARY 11, 2010
Diane M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
March 19, 2010
Scott E. Still, P.E. RD
Acting ENGINEER OF DESIGN AND ENVIRONMENT
March 19, 2010
Christine M. Reed RD
DIRECTOR, DIVISION OF HIGHWAYS

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OF THE STATE OF ILLINOIS

C.U.A.N.
CHICAGO UTILITY ALERT NETWORK
(312) 744-7000

CONTRACT NO. 60J18

DISTRICT ONE - DESIGN - PLAN PREPARATION ENGINEER
KEN ENG / ROBERT BORO (847)-705-4178

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 358	1112.1BR-3	COOK	8	2

CONTRACT NO 60J18

INDEX OF SHEETS

- 1 TITLE SHEET
- 2 INDEX OF SHEETS, STATE STANDARDS, GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4 - 7 BRIDGE REPAIRS
- 8 ARTERIAL ROAD INFORMATION SIGN

STATE STANDARDS

- 701426 - 03 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS > 45 MPH
- 701606 - 06 URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
- 701901 - 01 TRAFFIC CONTROL DEVICES

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "C.U.A.N." (CHICAGO UTILITY ALERT NETWORK) AT (312)744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. (48 HOUR NOTIFICATION IS REQUIRED).

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF CHICAGO.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 741- 4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM BRIDGE INSPECTORS.

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

ILLINOIS DEPARTMENT OF TRANSPORTATION
INDEX OF SHEETS
LIST OF STATE STANDARDS
GENERAL NOTES

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 358	1112.1BR-3	COOK	8	3

CONTRACT NO.: 60J18

SUMMARY OF QUANTITIES		CONSTRUCTION TYPE CODE:		
CODE NO.	ITEMS	UNITS	URBAN TOTAL QUANTITIES	100% STATE SFTY - 2A
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	271,070	271,070
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4
67100100	MOBILIZATION	L SUM	1	1
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	51.4	51.4

ILLINOIS DEPARTMENT OF TRANSPORTATION
TORRENCE AVE
SN 016-0934
SUMMARY OF QUANTITIES

Rev.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**Contractor is to verify beam length prior to ordering material. Other sections meeting the section modulus requirements shown may be allowed subject to approval by the Bureau of Bridges and Structures. Maximum Girder depth = 36". No additional payment will be allowed if the contractor chooses a heavier steel section than the one specified in the plans.

*Transverse tie R's (4 per span). Place additional shims at midpoints between tie R's. Securely weld shims to top flange of support beam. Minimum shim size is 6" x flange width.

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 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.

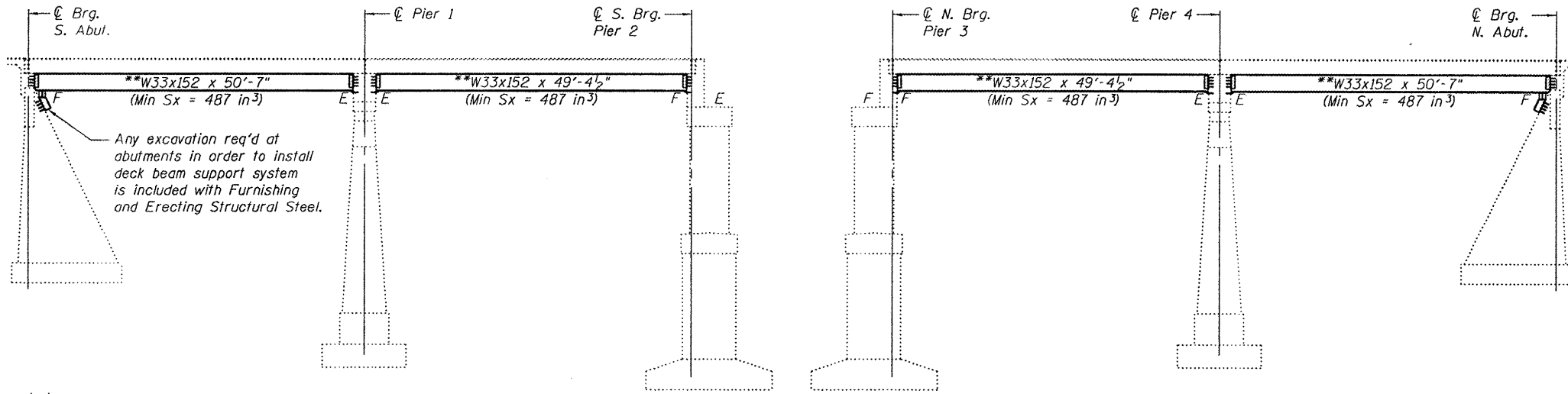
The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures.

See Section 584 of the Standard Specifications for Epoxy Grouting of Threaded Rods; Minimum embedment 9".

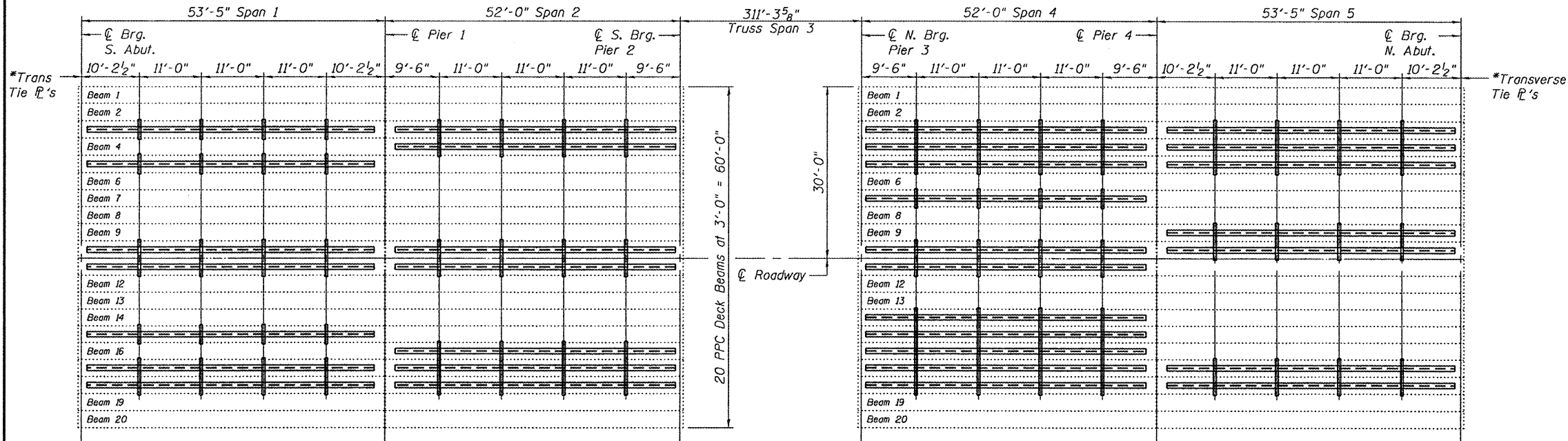
If the contractor's procedure for placement of beams involves placement of cranes or other heavy equipment on the bridge, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the 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.

The cost of epoxy grouting threaded rods on the pier cap, abutments and beams shall be included with Furnishing and Erecting Structural Steel.

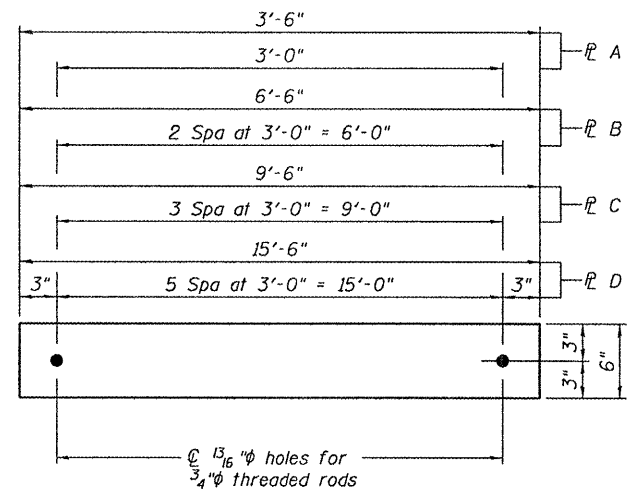
The Contractor has the option of using used steel. See Special Provisions.



ELEVATION



PLAN



TRANSVERSE TIE R'S

- R A 1/2" x 3'-6" x 6" (16 Req'd)
- R B 1/2" x 6'-6" x 6" (28 Req'd)
- R C 1/2" x 9'-6" x 6" (12 Req'd)
- R D 1/2" x 15'-6" x 6" (4 Req'd)

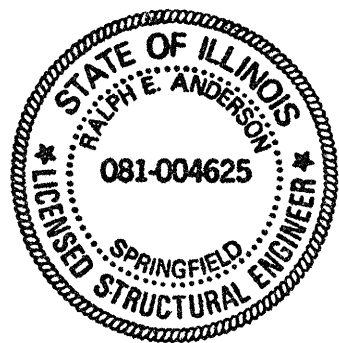
TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	271,070

PLAN AND ELEVATION

SN 016-0934

SHEET NO. 1	F.A.U. RTE. 2937	SECTION 1112.1 BR-2	COUNTY Cook	TOTAL SHEETS	SHEET NO.
				8	4
4 SHEETS			CONTRACT NO. 60J18		
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT	

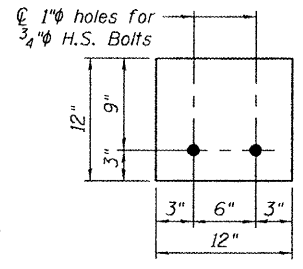
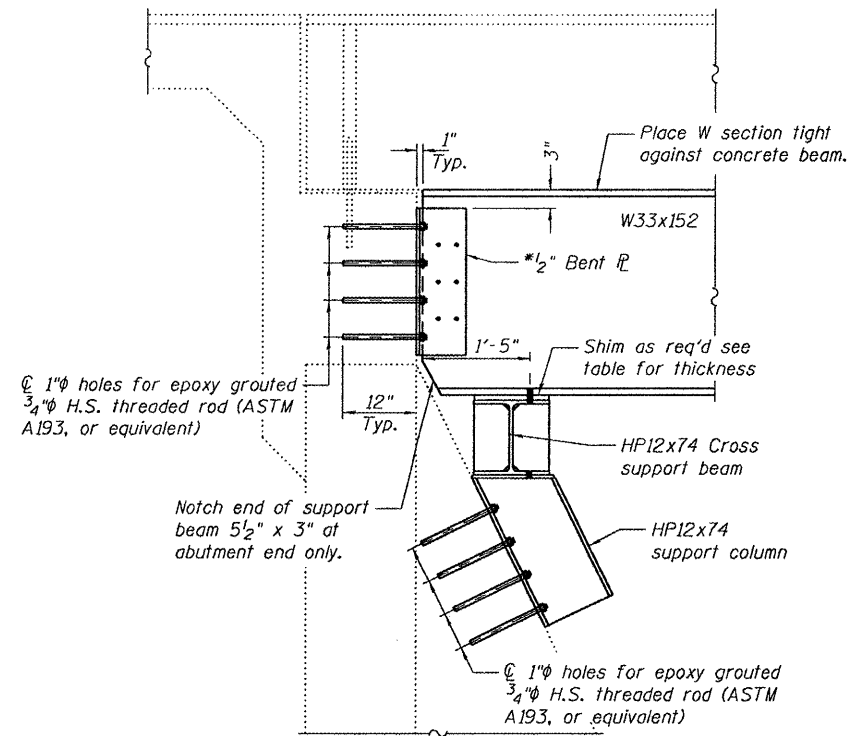


DESIGNED *Vicki H. Veltz* March 3, 2010
 CHECKED *Wanda Holloway*
 DRAWN *[Signature]*
 CHECKED *VHV ATH*
 EXAMINED *[Signature]*
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

Expires: November 30, 2010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

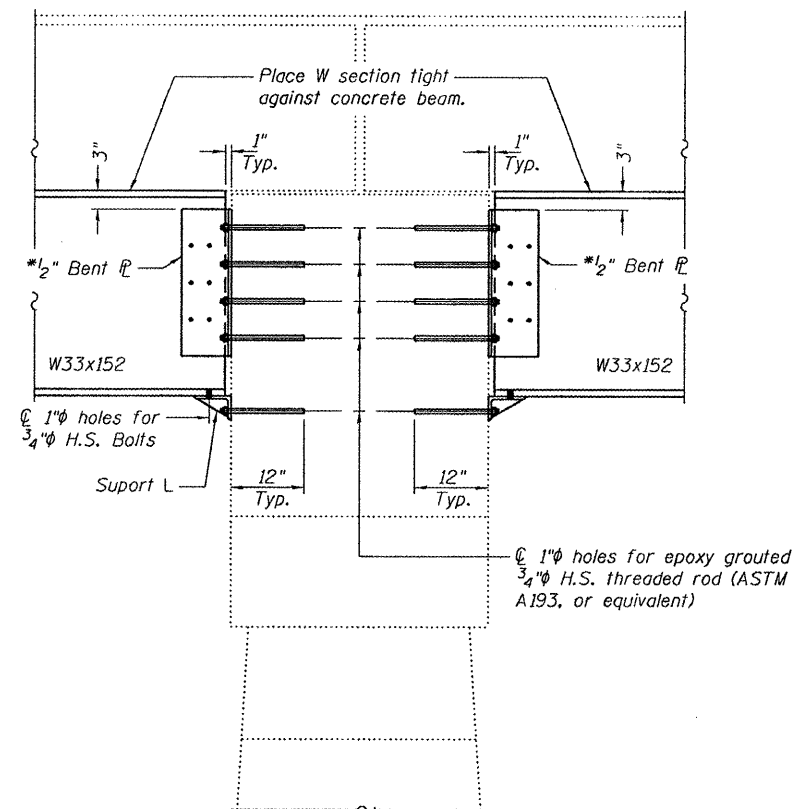
*Where necessary remove loose concrete in areas where bent \bar{r} 's are to be placed. Non-shrink grout shall be placed in order to ensure proper sitting of the bent \bar{r} 's. Cost of loose concrete removal and grout is included in the cost of Furnishing and Erecting Structural Steel



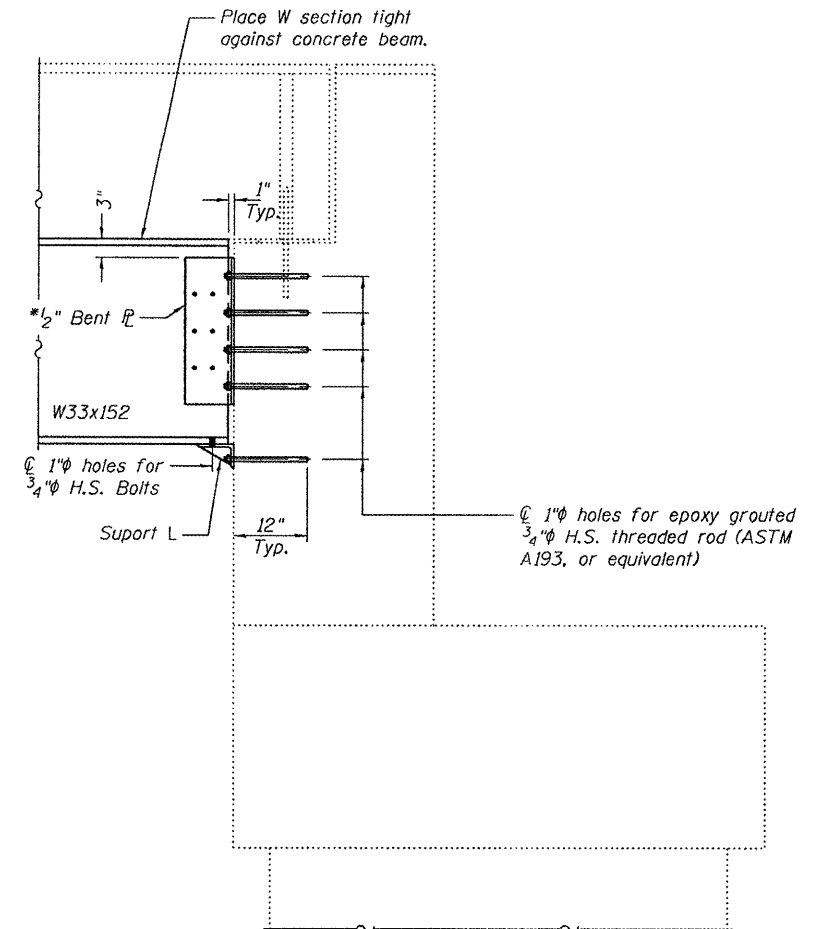
TYPICAL SHIM

SHIM \bar{r} THICKNESS

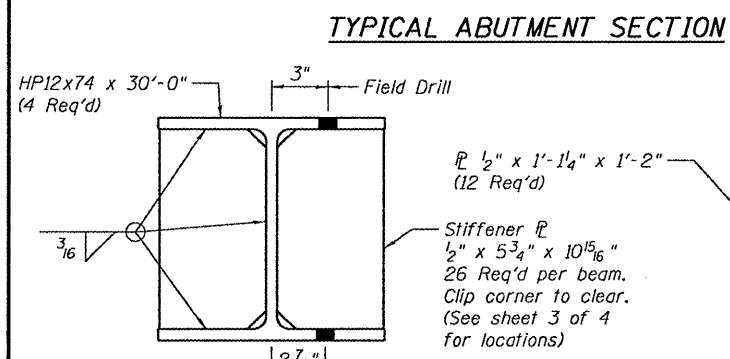
\bar{r} 12" x 12" x t	
Deck Beam	"t"
1 & 20	0
2 & 19	1/2"
3 & 18	1"
4 & 17	1 5/8"
5 & 16	2 1/8"
6 & 15	2 5/8"
7 & 14	3 1/8"
8 & 13	3 3/4"
9 & 12	4 1/4"
10 & 11	4 3/4"



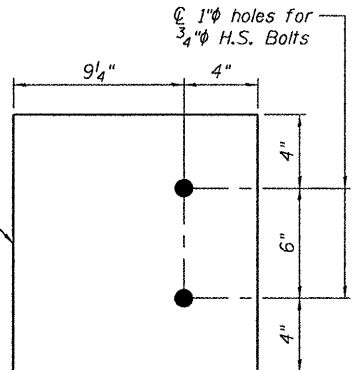
TYPICAL PIER 1 AND 4 SECTION



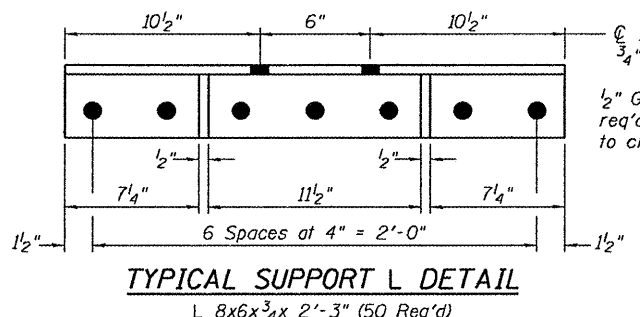
TYPICAL PIER 2 AND 3 SECTION



TYPICAL CROSS SUPPORT BEAM SECTION

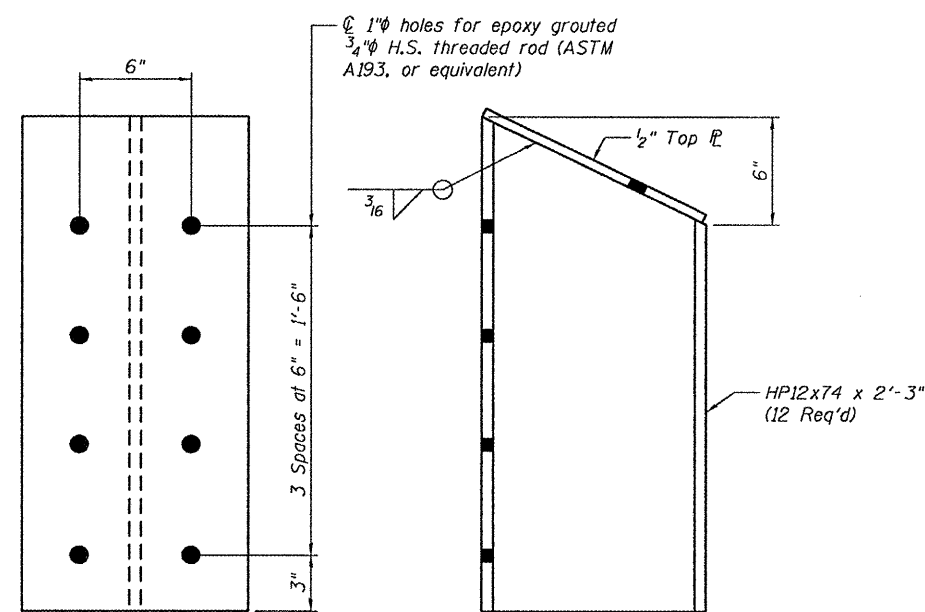


SUPPORT COLUMN HP TOP \bar{r}

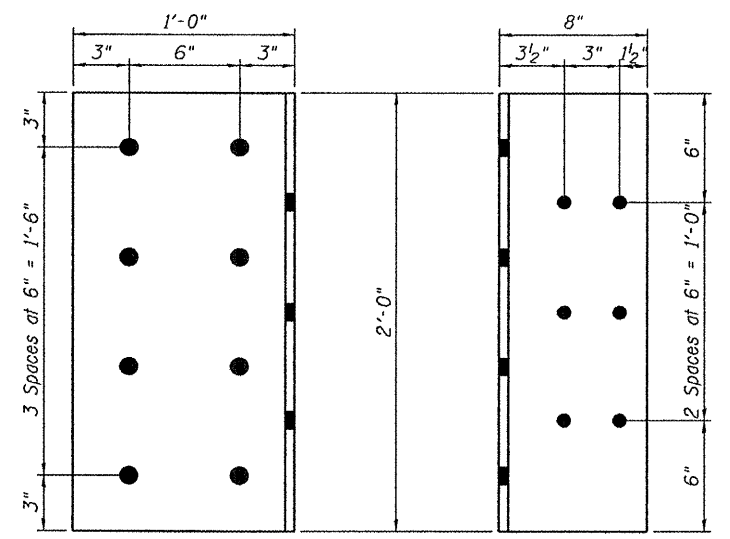


TYPICAL SUPPORT L DETAIL

TYPICAL SUPPORT L SECTION



HP SUPPORT COLUMN



BENT \bar{r} DETAILS

\bar{r} 1/2" x 1'-8" x 2'-0" (128 Req'd)

DETAILS SN 016-0934

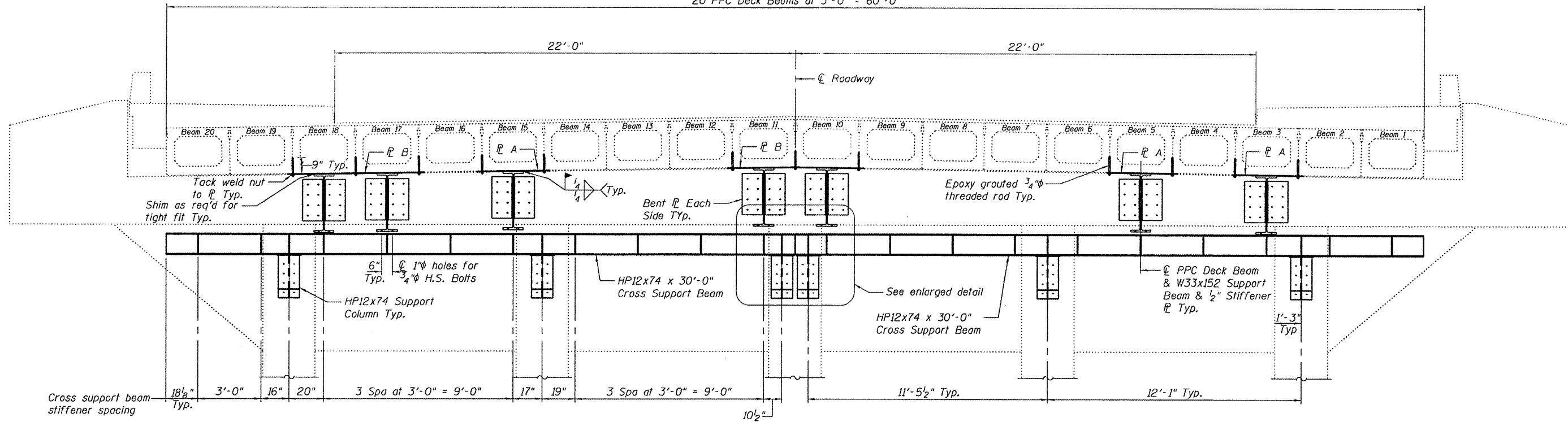
DESIGNED	V.H.V.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	V.H.V. A.T.H.

EXAMINED	March 3, 2010
PASSED	Carl Proyer ENGINEER OF STRUCTURAL SERVICES
	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

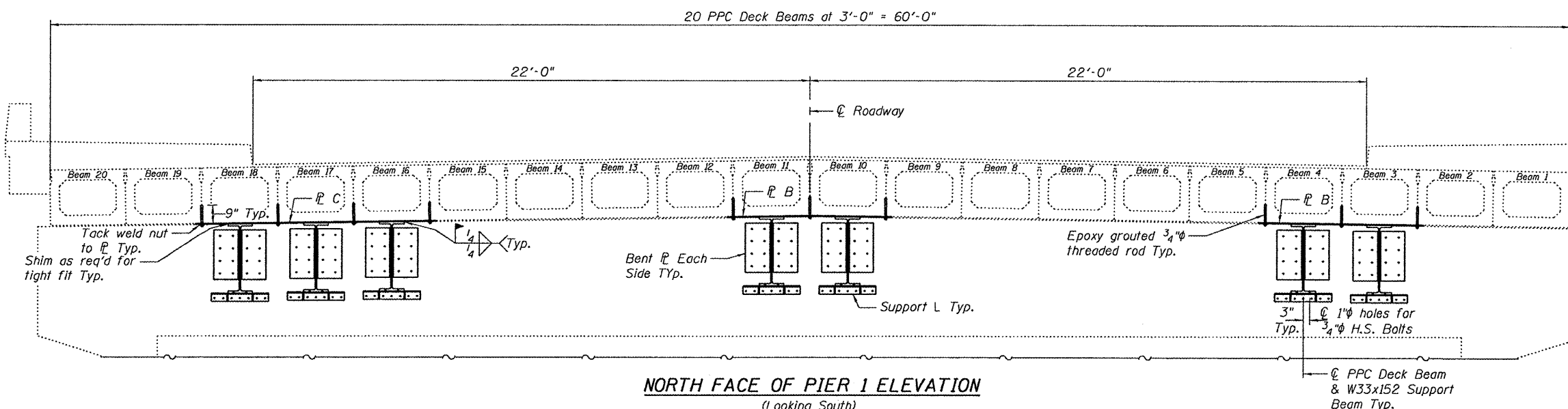
SHEET NO. 2	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2937	1112.1 BR-2	Cook	8	5
4 SHEETS	FED. ROAD DIST. NO. ILLINOIS		CONTRACT NO. 60J18		
FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

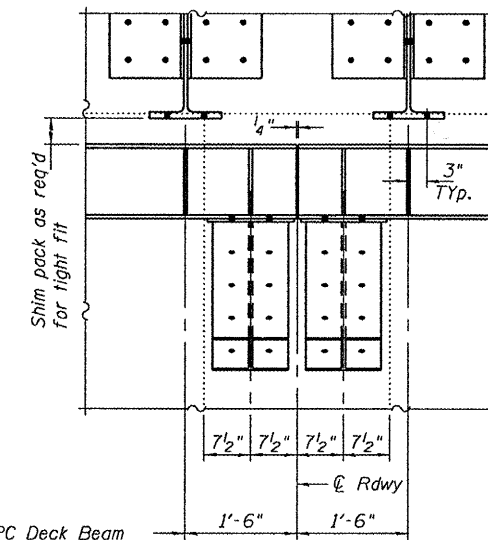
20 PPC Deck Beams at 3'-0" = 60'-0"



SOUTH ABUTMENT ELEVATION
(Looking South)



NORTH FACE OF PIER 1 ELEVATION
(Looking South)
(South face of Pier 2 similar by mirroring)



PPC Deck Beam & W33x152 Support Beam & 1/2" Stiffener P Typ.

ENLARGED ABUTMENT DETAIL

DESIGNED	V.H.V.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	V.H.V. A.T.H.

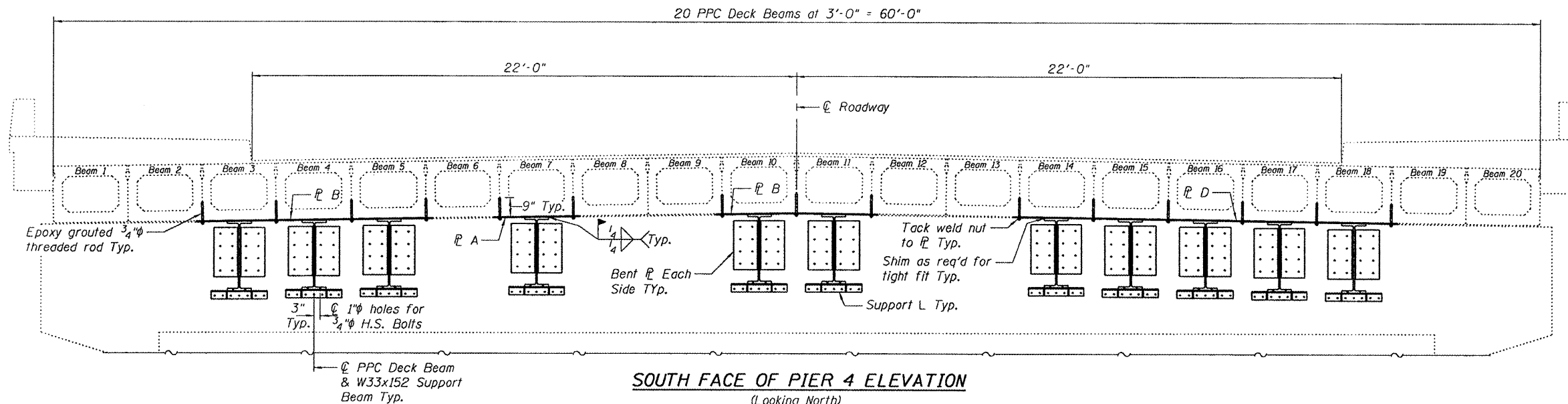
March 3, 2010

EXAMINED	<i>Carl Proyer</i> ENGINEER OF STRUCTURAL SERVICES
PASSED	<i>Ralph E. Anderson</i> ENGINEER OF BRIDGES AND STRUCTURES

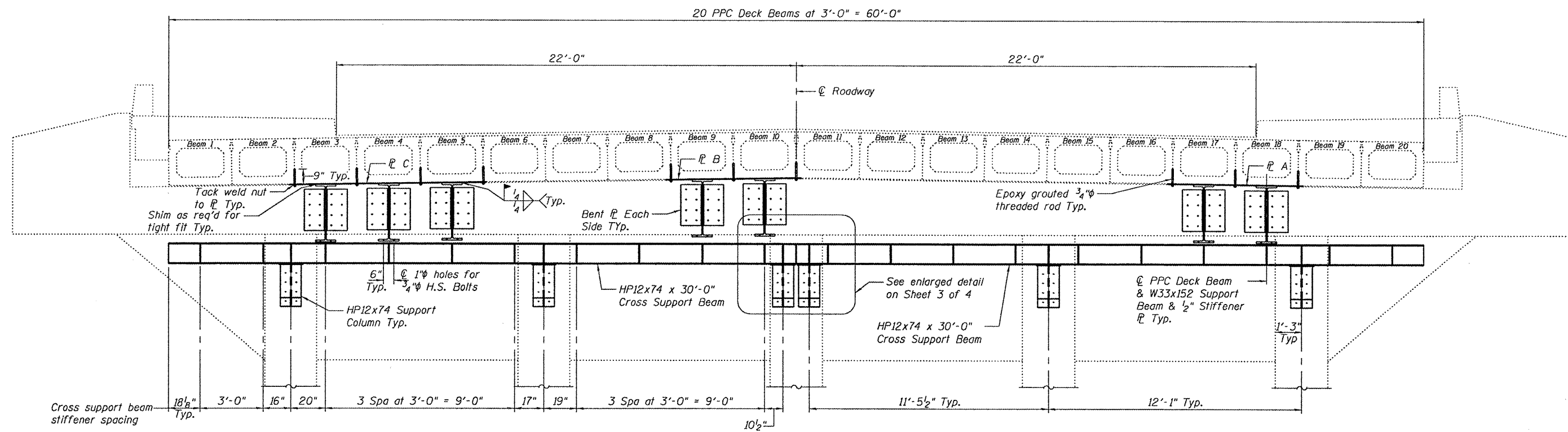
DETAILS
SN 016-0934

SHEET NO. 3	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2937	1112.1 BR-2	Cook	8	6
4 SHEETS	FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		
			CONTRACT NO. 60J18		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SOUTH FACE OF PIER 4 ELEVATION
(Looking North)
(North face of Pier 3 similar by mirroring)



NORTH ABUTMENT ELEVATION
(Looking North)

DESIGNED	V.H.V.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	V.H.V. A.T.H.

March 3, 2010

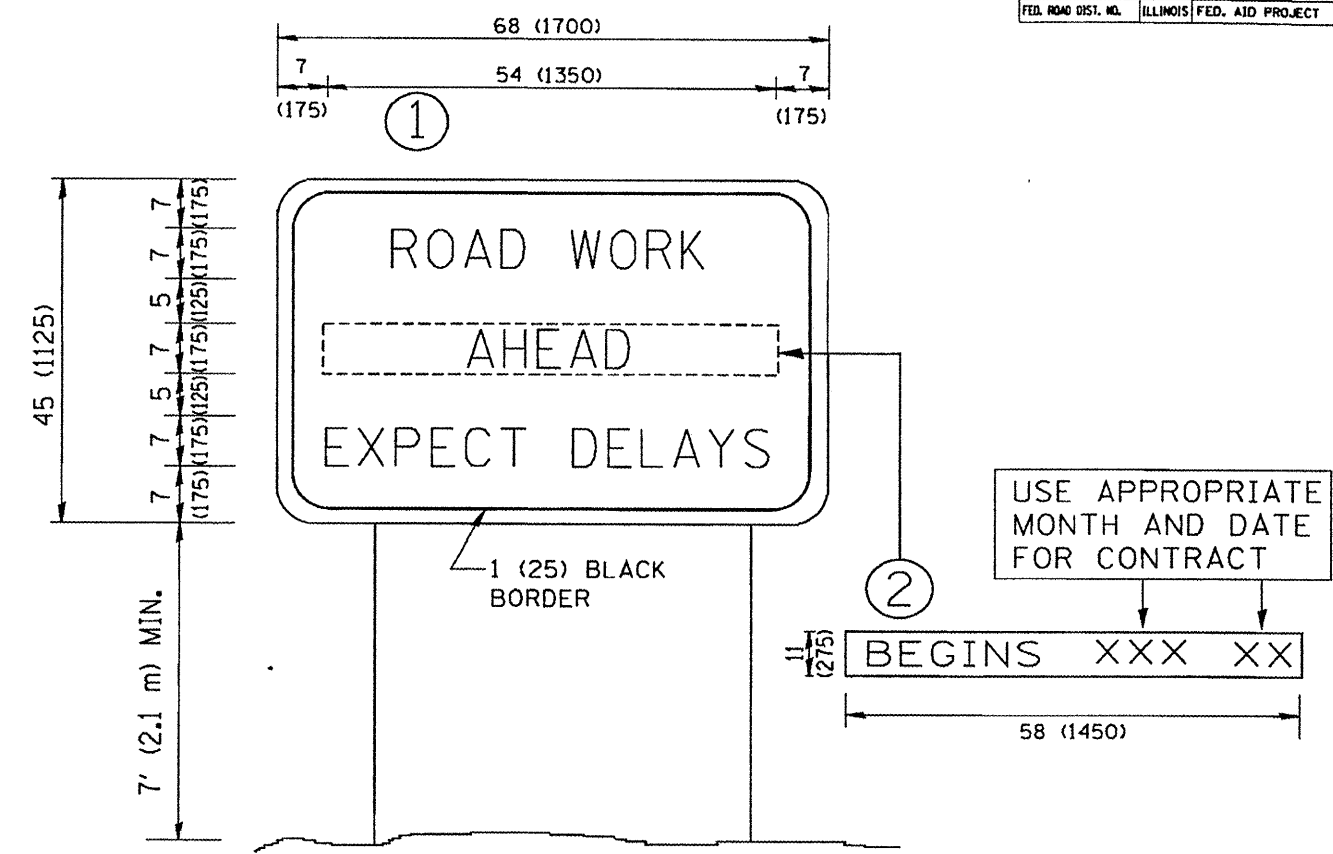
EXAMINED	<i>Carl Hoyer</i> ENGINEER OF STRUCTURAL SERVICES
PASSED	<i>Ralph E. Anderson</i> ENGINEER OF BRIDGES AND STRUCTURES

DETAILS
SN 016-0934

SHEET NO. 4 4 SHEETS	F.A.U. RTE. 2937	SECTION 1112.1 BR-2	COUNTY Cook	TOTAL SHEETS 8	SHEET NO. 7
	FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		
			CONTRACT NO. 60J18		

CONTRACT NO. 60718

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
35B	112.1BR-3	COOK	8	8
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	12-11-97
T. RAMMACHER	2-2-98
C. JUCIUS	1-31-07

ILLINOIS DEPARTMENT OF TRANSPORTATION
 ARTERIAL ROAD
 INFORMATION SIGN
 SCALE: NONE
 DRAWN BY DESIGN
 CHECKED BY
 TC22

PLOT DATE: 3/10/98
 PLOT SCALE: 1/8" = 1'-0"
 USER NAME: S:\user\1