

06-15-12 LETTING ITEM 102

FOR INDEX OF SHEETS SEE SHEET 2

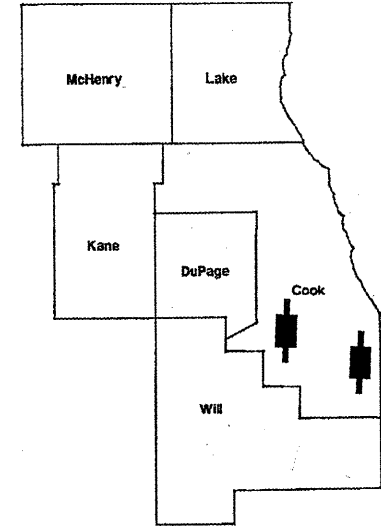
IMPROVEMENTS ARE LOCATED IN THE VILLAGES OF BURNHAM AND FOREST VIEW.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 348 & 358	2012-032BR	COOK	10	1

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

CONTRACT NO 60T55

D-91-388-12



LOCATION OF IMPROVEMENT INDICATED THUS: [Marker]

LOC. 1) FAP ROUTE 348: IL 43 NB (HARLEM AVE.)  
 OVER CN & MWRD (SLUDGE) RR (SN 016-0314)  
 LOC. 2) FAP ROUTE 358: TORRENCE AVE.  
 OVER GRAND CAL. RIVER (SN 016-0934)  
 SECTION: 2012-032 BR  
 PCC DECK BEAM SUPPORTS  
 COOK COUNTY  
 C-91-388-12

**SEE LOCATION MAPS SHEETS 4 & 5**

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

SUBMITTED: May 3, 2012  
*Diane M. O'Keefe*  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 11, 2012  
*John D. Baranzelli, PE*  
 actmy ENGINEER OF DESIGN AND ENVIRONMENT

May 11, 2012  
*William R. Frey, Jr*  
 actmy DIRECTOR, DIVISION OF HIGHWAYS

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

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

**PROJECT ENGINEER ROBERT BORO (847) 705-4237**

**PROJECT MANAGER ISSAM RAYYAN**

**CONTRACT NO. 60T55**

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 348 & 358	2012-032BR	COOK	10	2

CONTRACT NO 60T55

**INDEX OF SHEETS**

1	TITLE SHEET
2	INDEX OF SHEETS, STATE STANDARDS, GENERAL NOTES
3	SUMMARY OF QUANTITIES
4 - 5	LOCATION MAPS
6 - 7	BRIDGE REPAIRS (SN 016-0314) LOCATION 1
8 - 9	BRIDGE REPAIRS (SN 016-0934) LOCATION 2
10	ARTERIAL ROAD INFORMATION SIGN (TC-22)

**STATE STANDARDS**

701301 - 04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701426 - 04	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS > 45 MPH
701606 - 08	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701601 - 07	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701901 - 02	TRAFFIC CONTROL DEVICES

**GENERAL NOTES**

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 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 VILLAGE OF FOREST VIEW.

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 348 & 358	2012-032BR	COOK	10	3

CONTRACT NO.: 60T55

SUMMARY OF QUANTITIES		CONSTRUCTION TYPE CODE: 0014			
CODE NO.	ITEMS	UNITS	100% STATE URBAN TOTAL QUANTITIES	LOC. 1 SN 016-0314	LOC. 2 SN 016-0934
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	58,240	41,830	16,410
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	0	1
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1	0
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	51.4	25.7	25.7
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	LSUM	1	1	0

*Rev .*

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SUMMARY OF QUANTITIES**

**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.

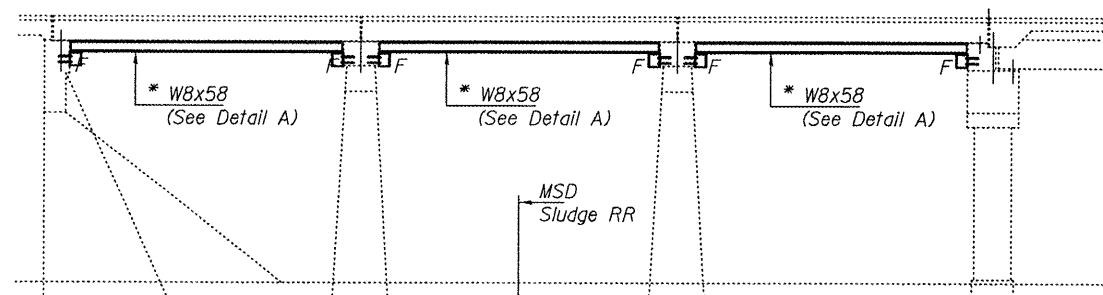
The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractors responsibility to account for the condition of the beams when developing construction procedures.

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

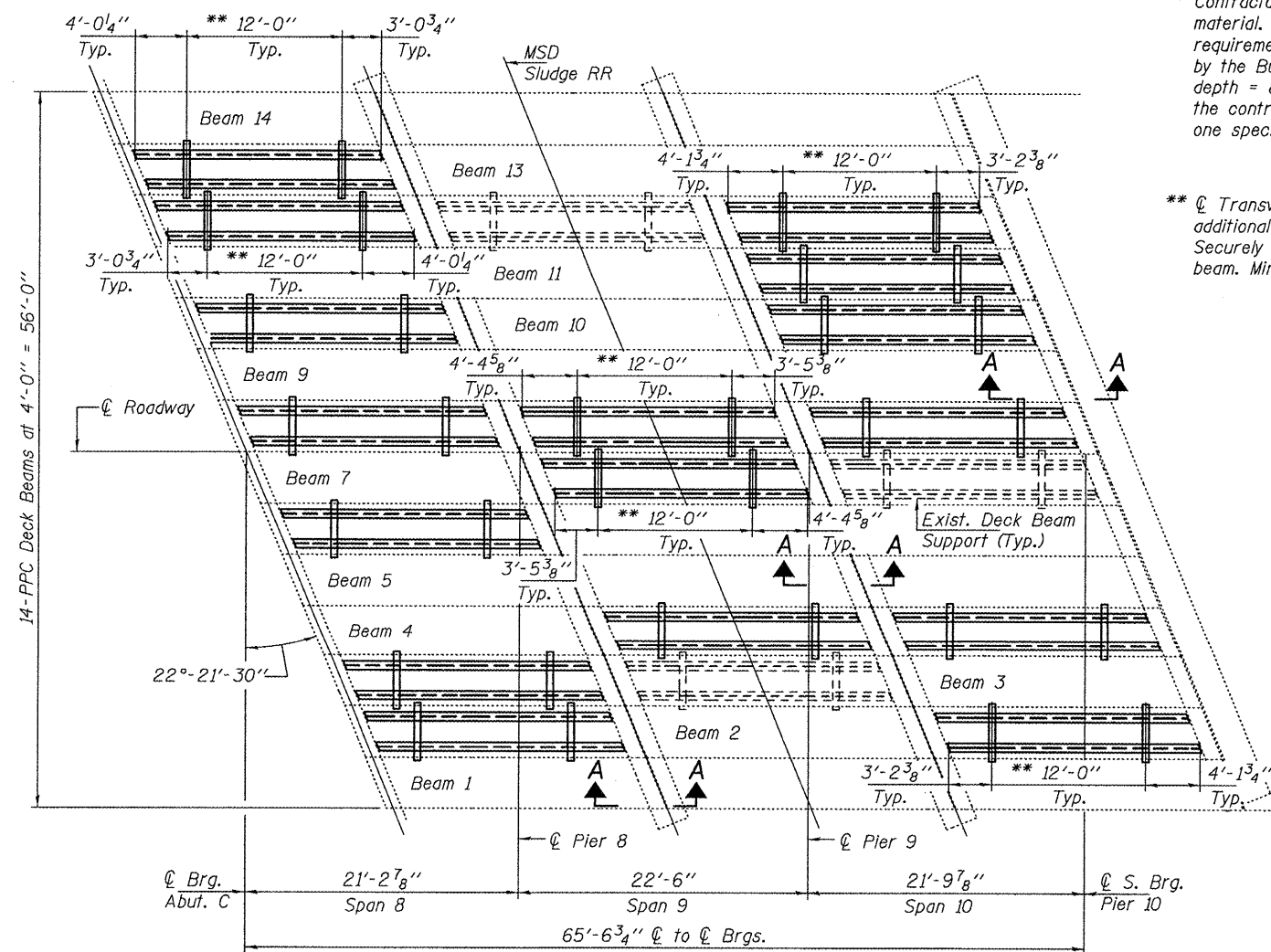
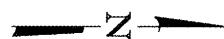
If the contractor's procedure for placement of beams involves placement of cranes or other heavy equipment on the bridge, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying 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 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**

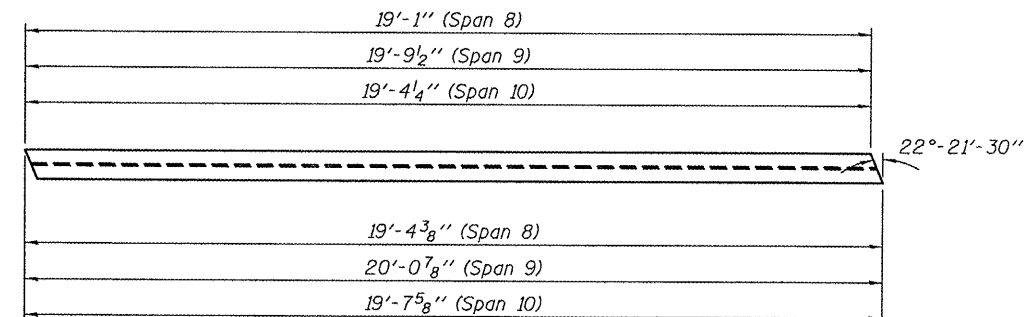


**PLAN**

For Section A-A, see sheet 2 of 2.

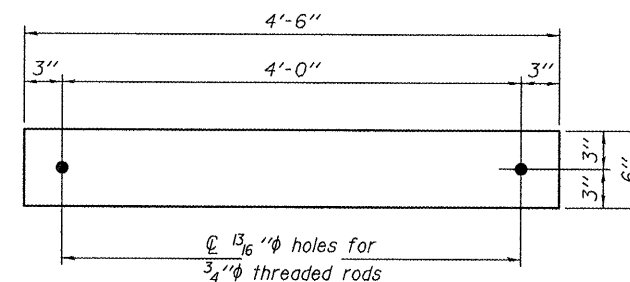
\* Contractor is to verify beam length prior to ordering material. Other sections meeting the section modulus requirements shown may be allowed subject to approval by the Bureau of Bridges and Structures. Maximum Girder depth = 8". No additional payment will be allowed if the contractor chooses a heavier steel section than the one specified in the plans. (Min.  $S_x = 52 \text{ in}^3$ )

\*\*  $\varnothing$  Transverse tie  $\bar{r}$ 's (2 per span). Place additional shims at midpoints between tie  $\bar{r}$ 's. Securely weld shims to top flange of support beam. Minimum shim size is 6" x flange width.



**DETAIL A**

W8x58 x 19'-4 3/8" (14 Req'd)  
W8x58 x 20'-0 7/8" (6 Req'd)  
W8x58 x 19'-7 5/8" (12 Req'd)



**TRANSVERSE TIE  $\bar{r}$ 'S**

$\bar{r}$  A 1 1/2" x 4'-6" x 6" (32 Req'd)

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	41,830



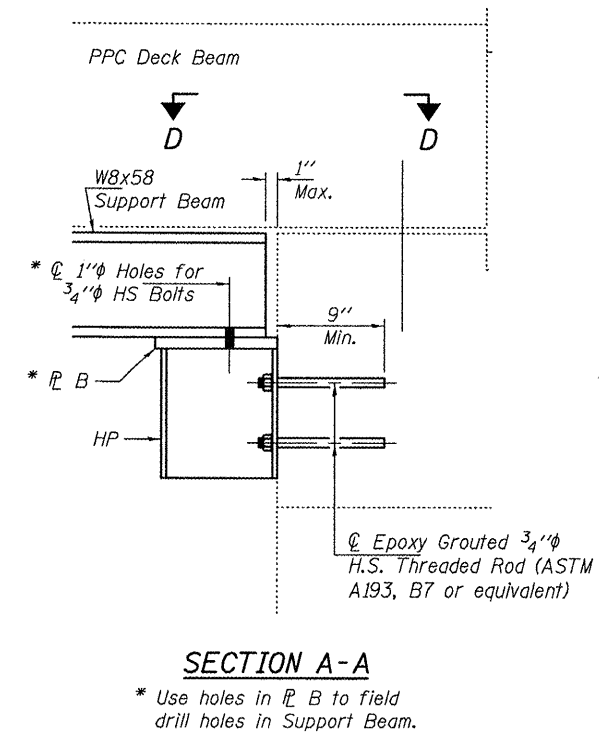
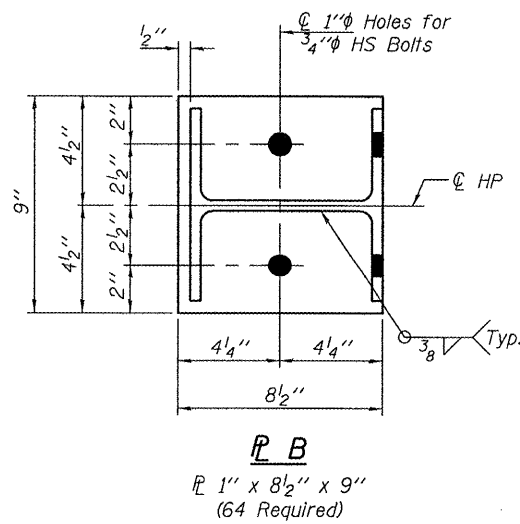
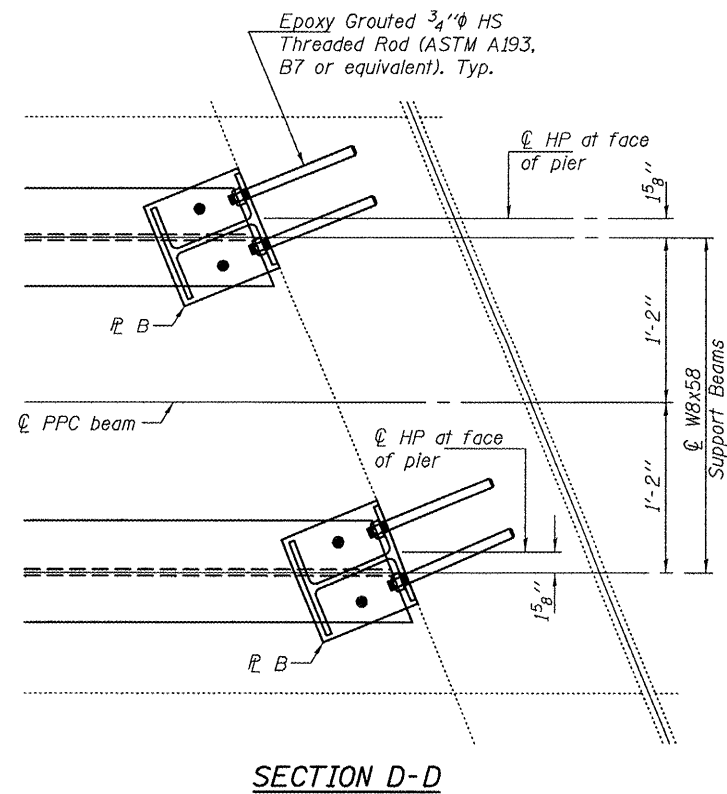
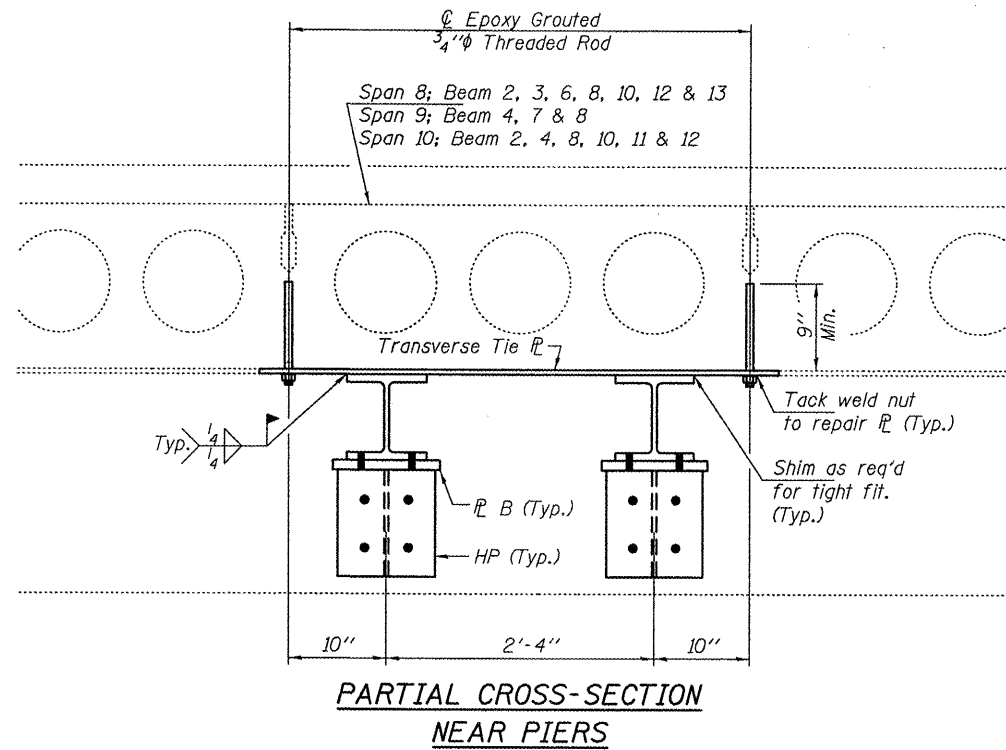
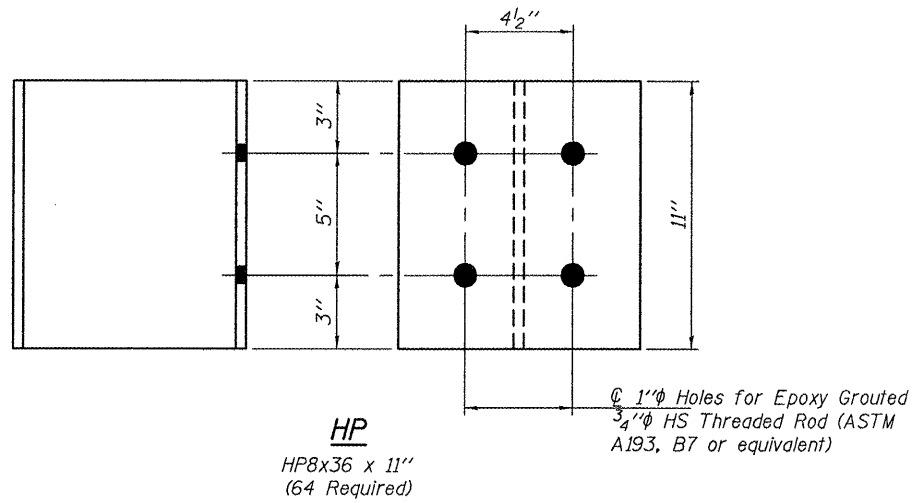
DESIGNED: <i>Victor H. Volitz</i>	EXAMINED: <i>John F. ...</i>	DATE: MAY 22, 2012
CHECKED: <i>Kyle M. Steffen</i>	PASSED: <i>...</i>	
DRAWN: <i>V.P.</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

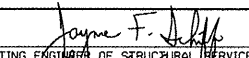
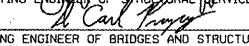
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION  
016-0314

SHEET NO. 1 OF 2 SHEETS

F.A.P. RTE. 348	SECTION 2012-032BR	COUNTY COOK	TOTAL SHEETS 10	SHEET NO. 6
CONTRACT NO. 60T55				
ILLINOIS FED. AID PROJECT				



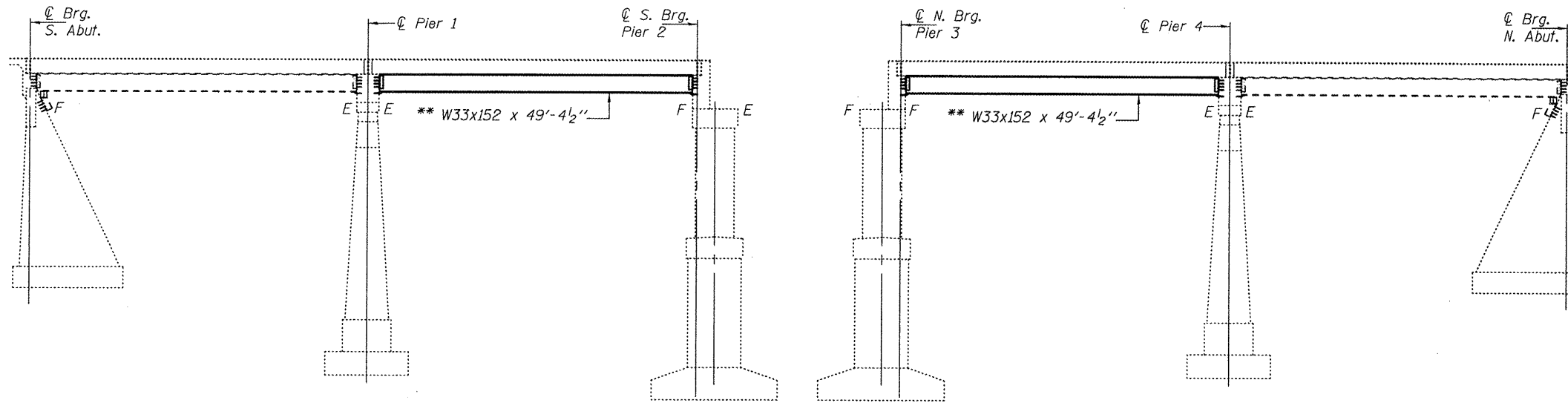
DESIGNED VP	EXAMINED	DATE MAY 22, 2012
CHECKED VHV	 ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN Kyle M. Steffen	PASSED	 ACTING ENGINEER OF BRIDGES AND STRUCTURES
CHECKED VP VHV		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

REPAIR DETAILS  
SN 016-0314

SHEET NO. 2 OF 2 SHEETS

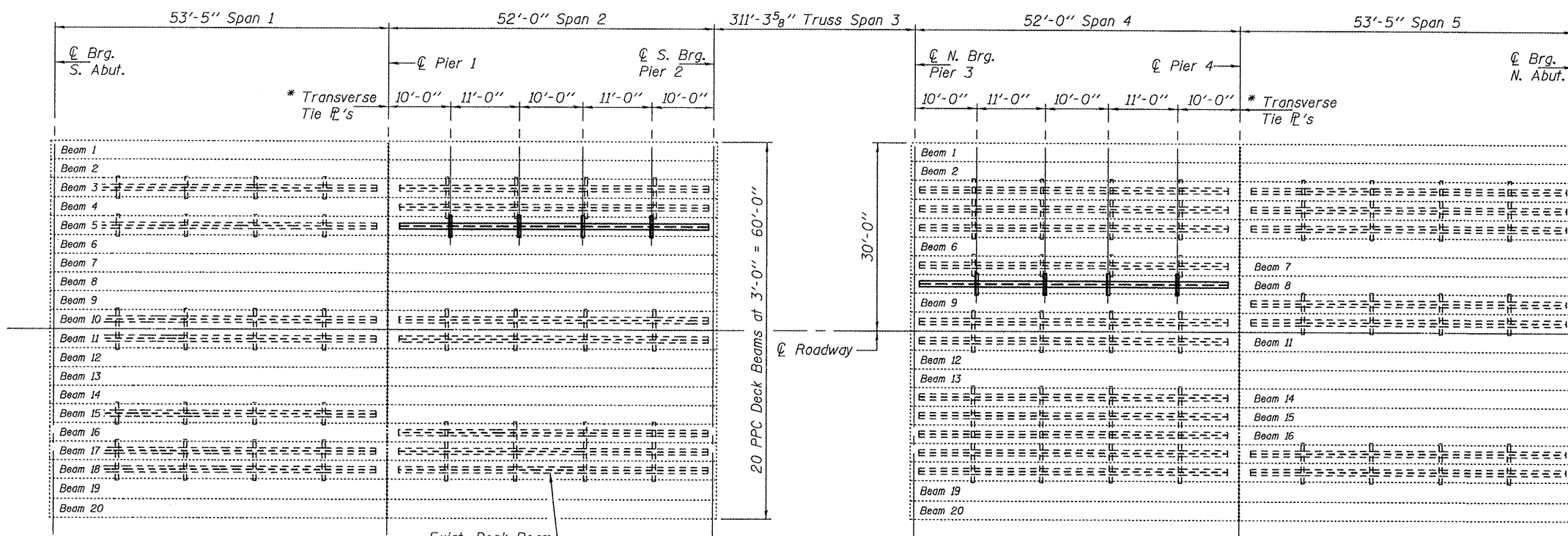
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2012-0328R	COOK	10	7
CONTRACT NO. 60T55				
ILLINOIS FED. AID PROJECT				



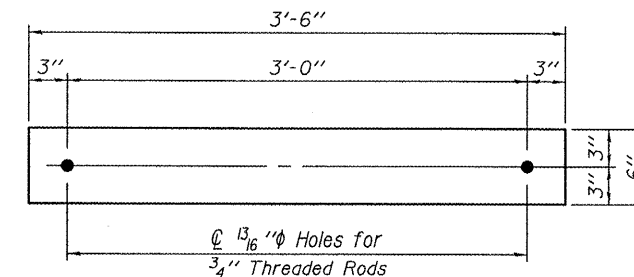
ELEVATION

\* C 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.

\*\* 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. (Min. Sx = 487 in<sup>3</sup>)



PLAN



TRANSVERSE TIE R  
R 1/2" x 3'-6" x 6" (8 Req'd)

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.

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.



Expires: November 30, 2012

DESIGNED - DAB  
CHECKED - VHV  
DRAWN - Kyle M. Steffen  
CHECKED - DAB

EXAMINED - Jay F. J...  
PASSED - VHV

DATE - MAY 22, 2012

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

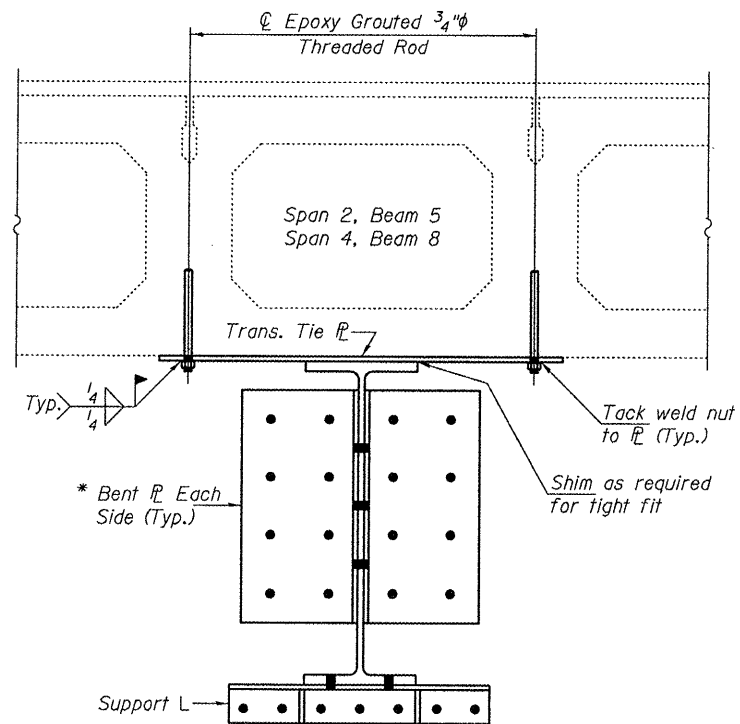
GENERAL PLAN & ELEVATION  
TORRENCE AVENUE OVER GRAND CALUMET RIVER  
SN 016-0934

SHEET NO. 1 OF 2 SHEETS

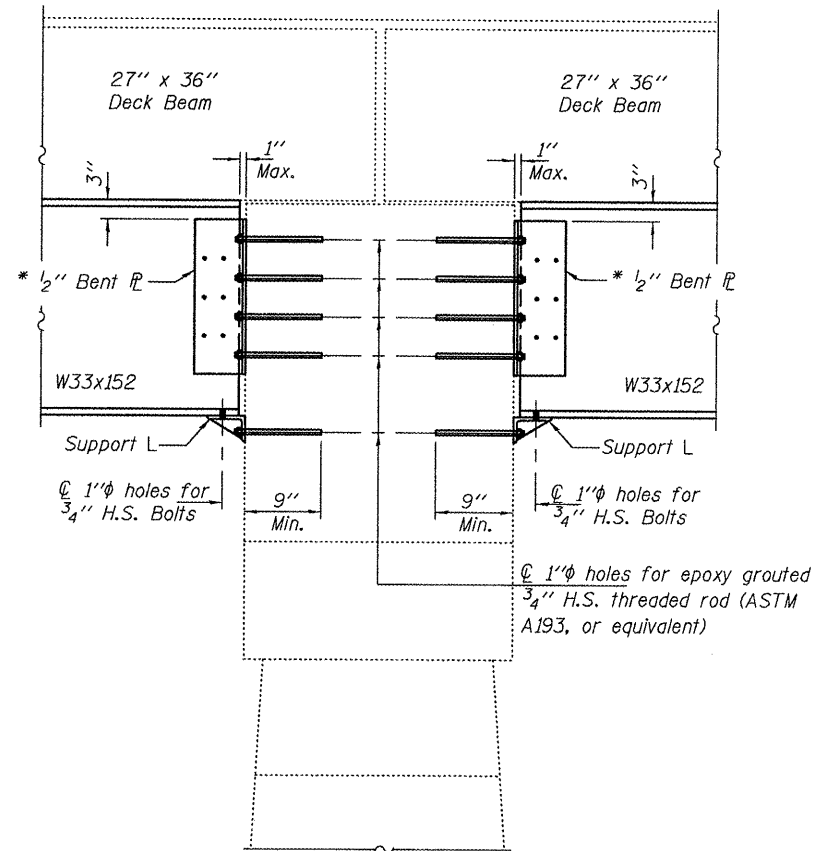
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	2012-032BR	COOK	10	8
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

TOTAL BILL OF MATERIAL

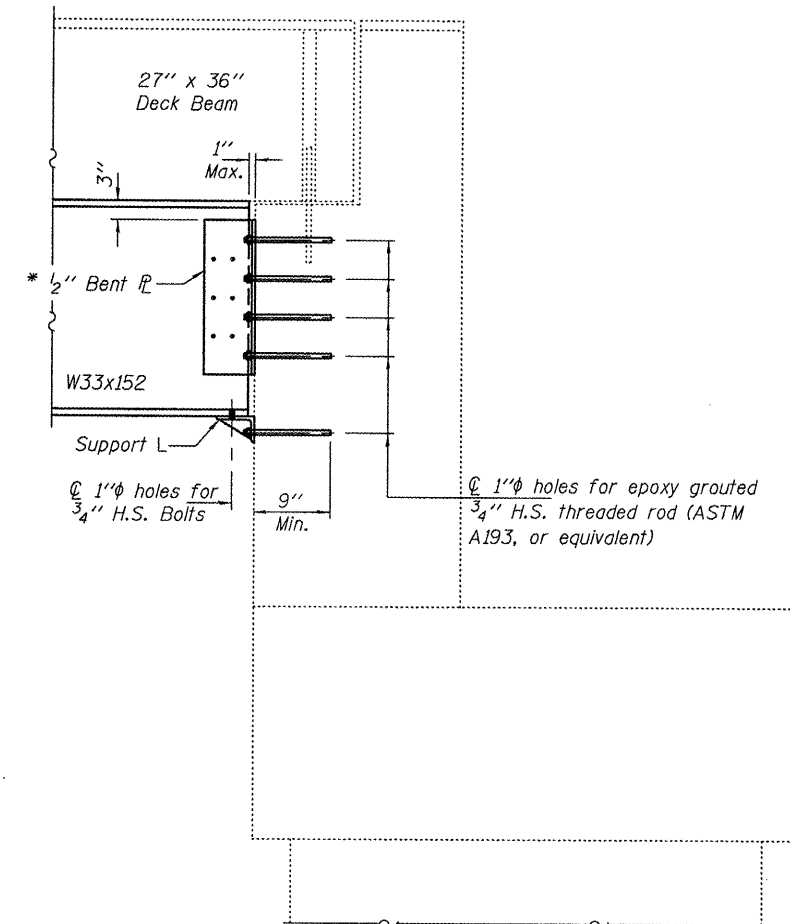
ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	16,410



**SECTION THRU SPAN 2,  
BEAM 5 & SPAN 4, BEAM 8**

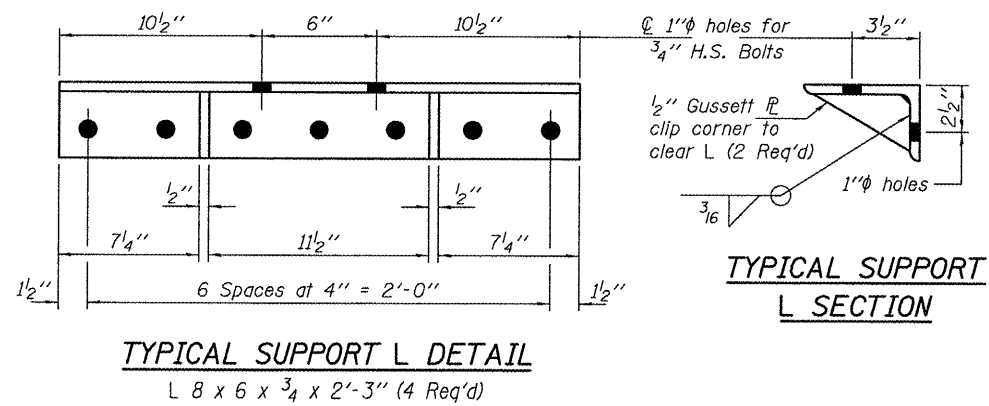


**TYPICAL PIER 1 AND 4 SECTION**



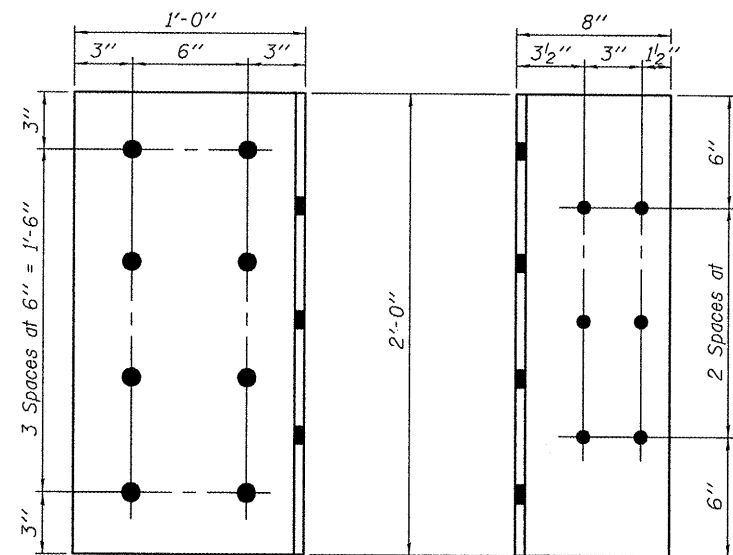
**TYPICAL PIER 2 AND 3 SECTION**

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



**TYPICAL SUPPORT L DETAIL**  
L 8 x 6 x 3/4 x 2'-3" (4 Req'd)

**TYPICAL SUPPORT  
L SECTION**



**BENT REBAR DETAILS**  
Rebar 1/2" x 1'-8" x 2'-0"  
(8 Required)

DESIGNED - DAB  
CHECKED - VHV  
DRAWN - Kyle M. Steffen  
CHECKED - DAB VHV

EXAMINED  
PASSED  
DATE - MAY 22, 2012  
ACTING ENGINEER OF STRUCTURAL SERVICES  
ACTING ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

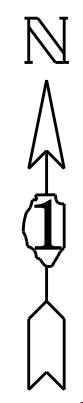
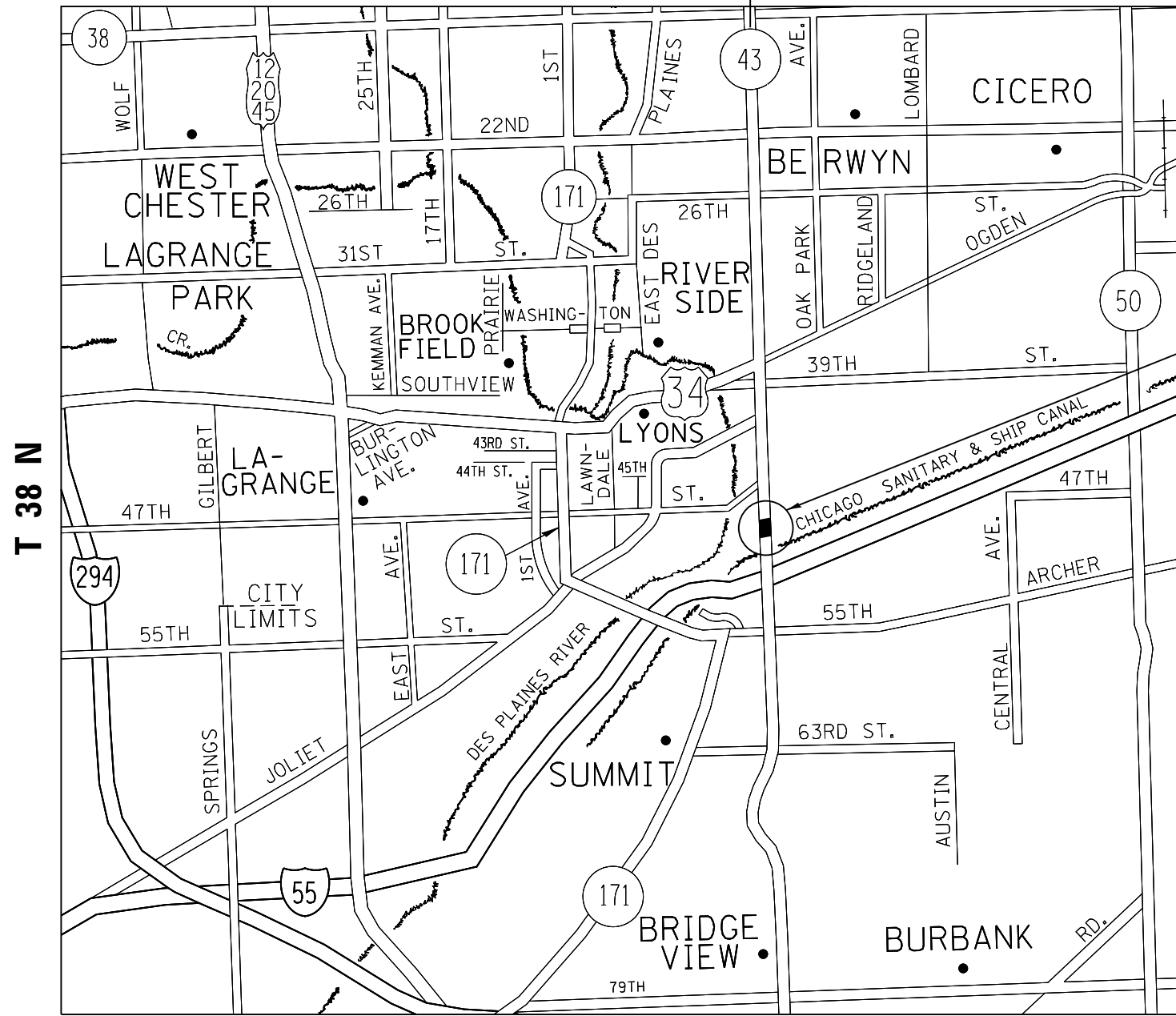
REPAIR DETAILS  
SN 016-0934

SHEET NO. 2 OF 2 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	2012-032BR	COOK	10	9
CONTRACT NO.				

ILLINOIS FED. AID PROJECT

R 12 E R 13 E



LOCATION OF IMPROVEMENT  
SN 016-0314, LOCATION 1

**TRAFFIC DATA**  
2009 ADT = 38,000  
POSTED SPEED LIMIT = 40 MPH

**STICKNEY TOWNSHIP**

\* = FAP 348 & 358

FILE NAME =	USER NAME = pyrzenowski	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LOCATION MAP (SN 016-0314) IL 43 NB (HARLEM AVE.) OVER SN &amp; MWRD (SLUDGE) RR</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -			<b>CONTRACT NO. 60T55</b>					
	PLOT DATE = 5/4/2012	DATE -	REVISED -			SCALE:	SHEET	OF	SHEETS	STA.	TO
ILLINOIS FED. AID PROJECT											



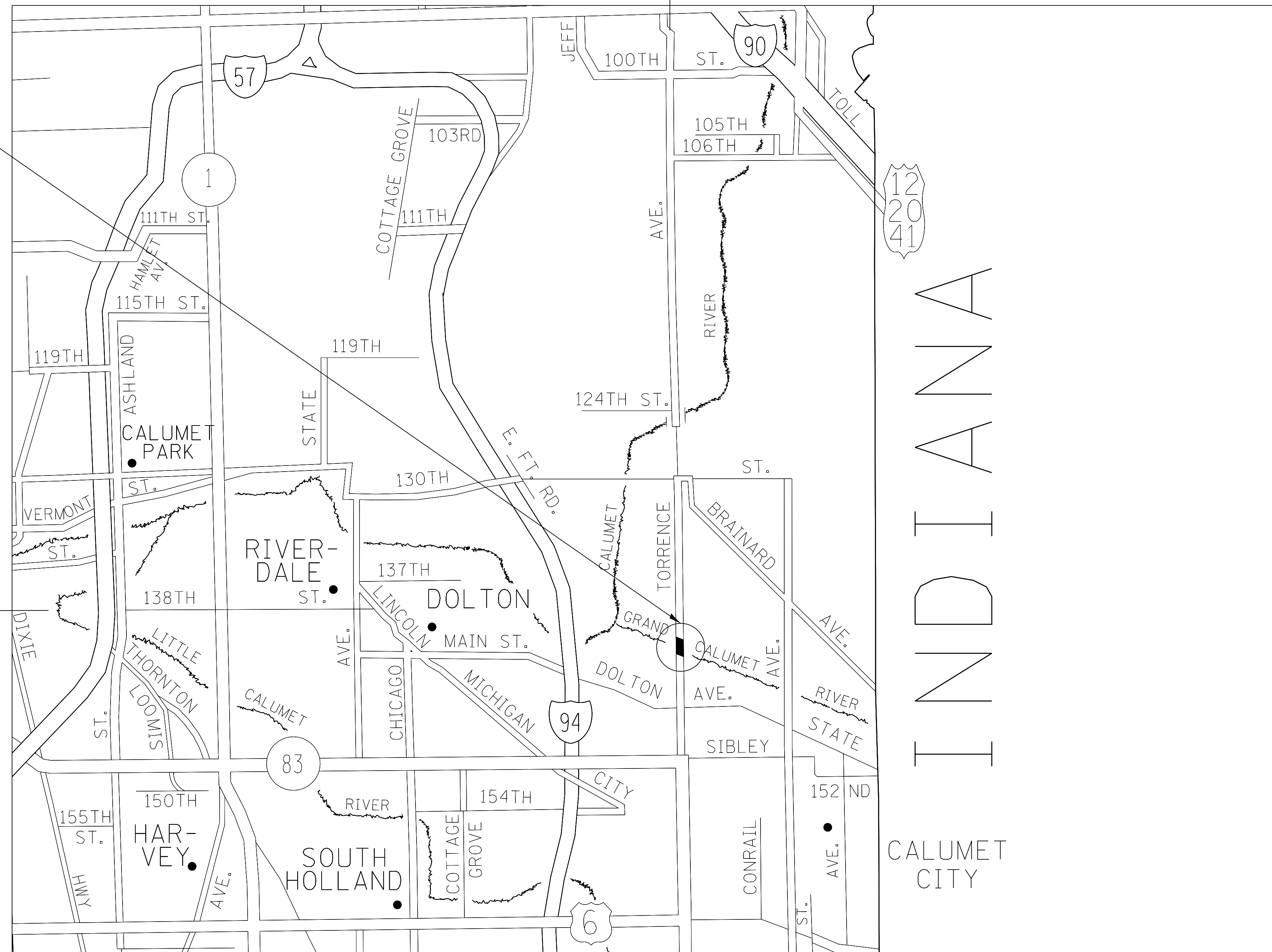
**LOCATION OF IMPROVEMENT  
SN 016-0934, LOCATION 2**

**TRAFFIC DATA**

2010 ADT = 12,700  
POSTED SPEED LIMIT = 40 MPH

T 36 N T 37 N

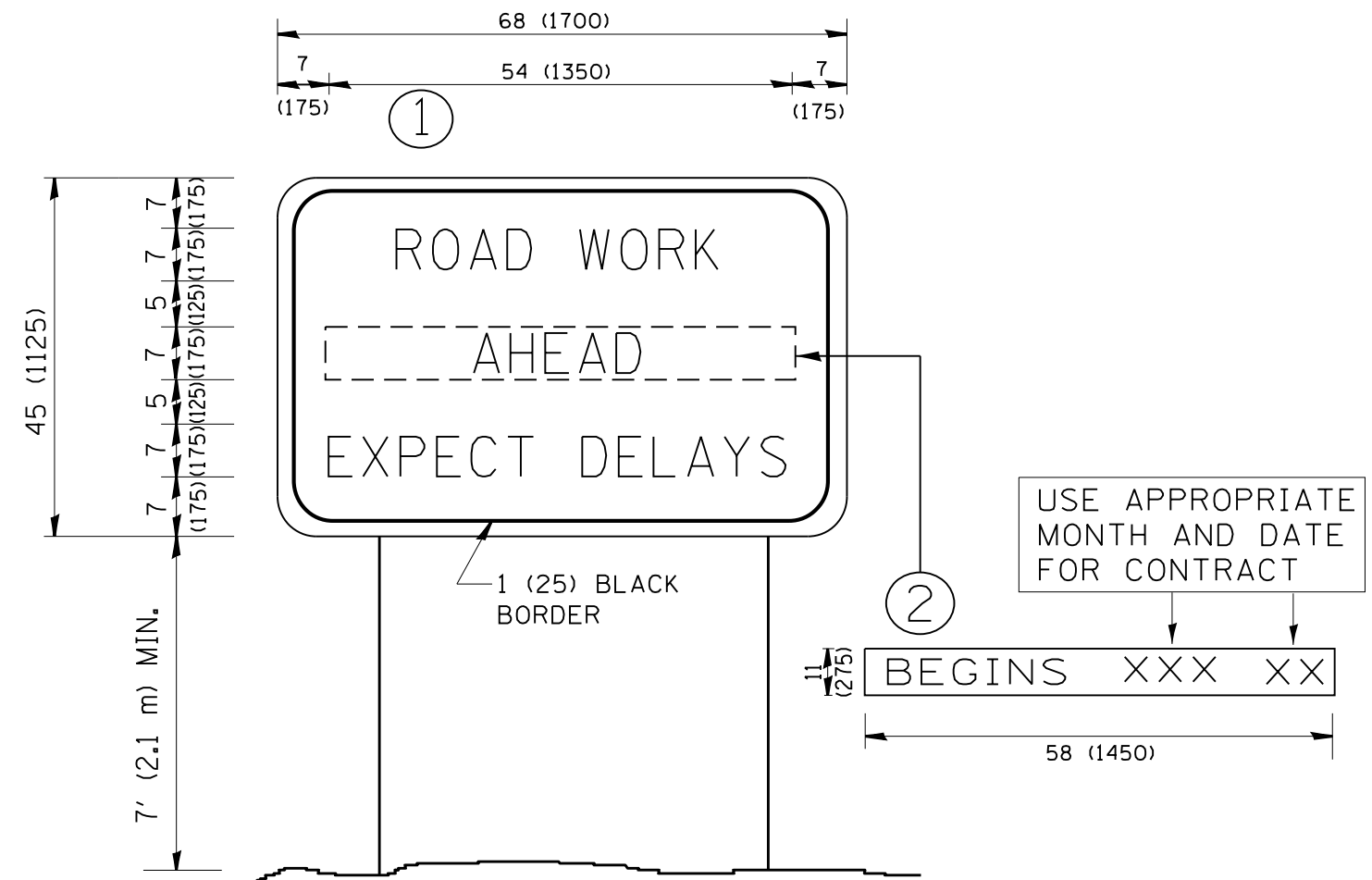
R 14 E R 15 E



**CALUMET CITY TOWNSHIP**

\* = FAP 348 & 358

FILE NAME =	USER NAME = pyrzenowski	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LOCATION MAP (SN 016-0934) TORRENCE AVE. OVER GRAND CALUMET RIVER</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
et:\pw\work\p\dot\pyrzenowski\bd028349	ND162511-sht\plan.dgn	DRAWN -	REVISED -			*	2012-032BR	COOK	10	5	
	PLOT SCALE = 50.0000' / 1" =	CHECKED -	REVISED -			CONTRACT NO. 60T55					
	PLOT DATE = 5/3/2012	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
					SCALE:	SHEET OF SHEETS		STA.	TO STA.		



**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.

\* = FAP 348 & 358

FILE NAME =	USER NAME = pyrzezowski	DESIGNED -	REVISED - R. MIRS 09-15-97
et:\pw\work\p\dot\pyrzezowski\bd028349\DistStd.dgn		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 5/4/2012	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD  
INFORMATION SIGN**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	2012-032BR	COOK	10	10
TC-22			CONTRACT NO. 60T55	
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				