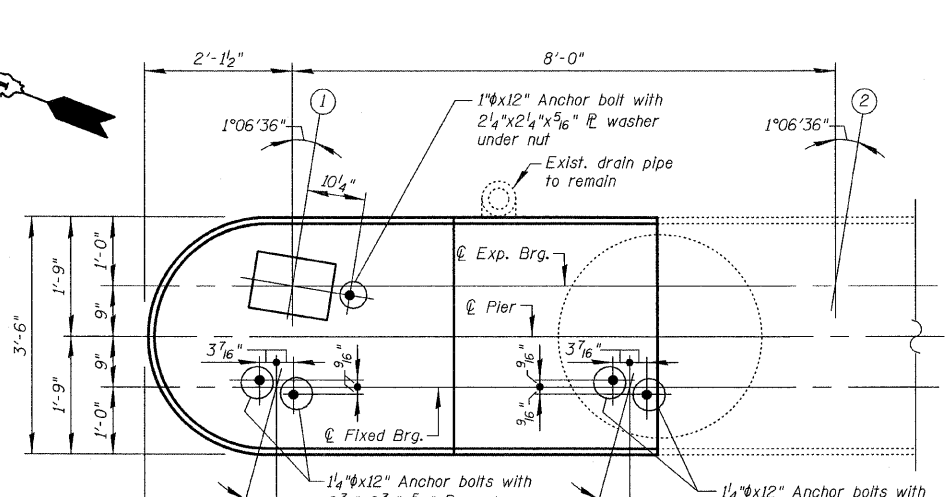
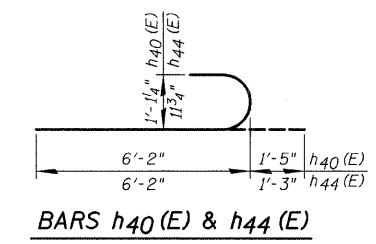


TOP PLAN

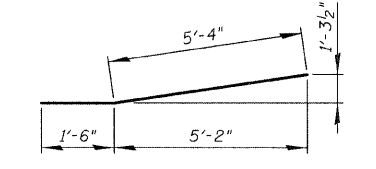
Note "A"
Bearings are both bolted and welded to bottom flange of beams. However, when reinstalling bearings, the bearings must only be bolted to the beams. No field welding is allowed.



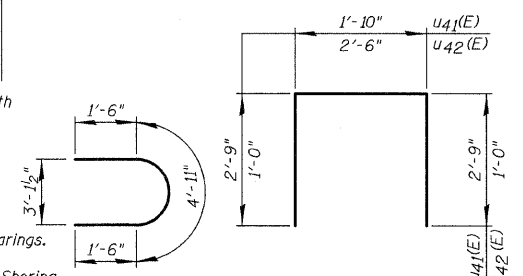
ANCHOR BOLT LAYOUT



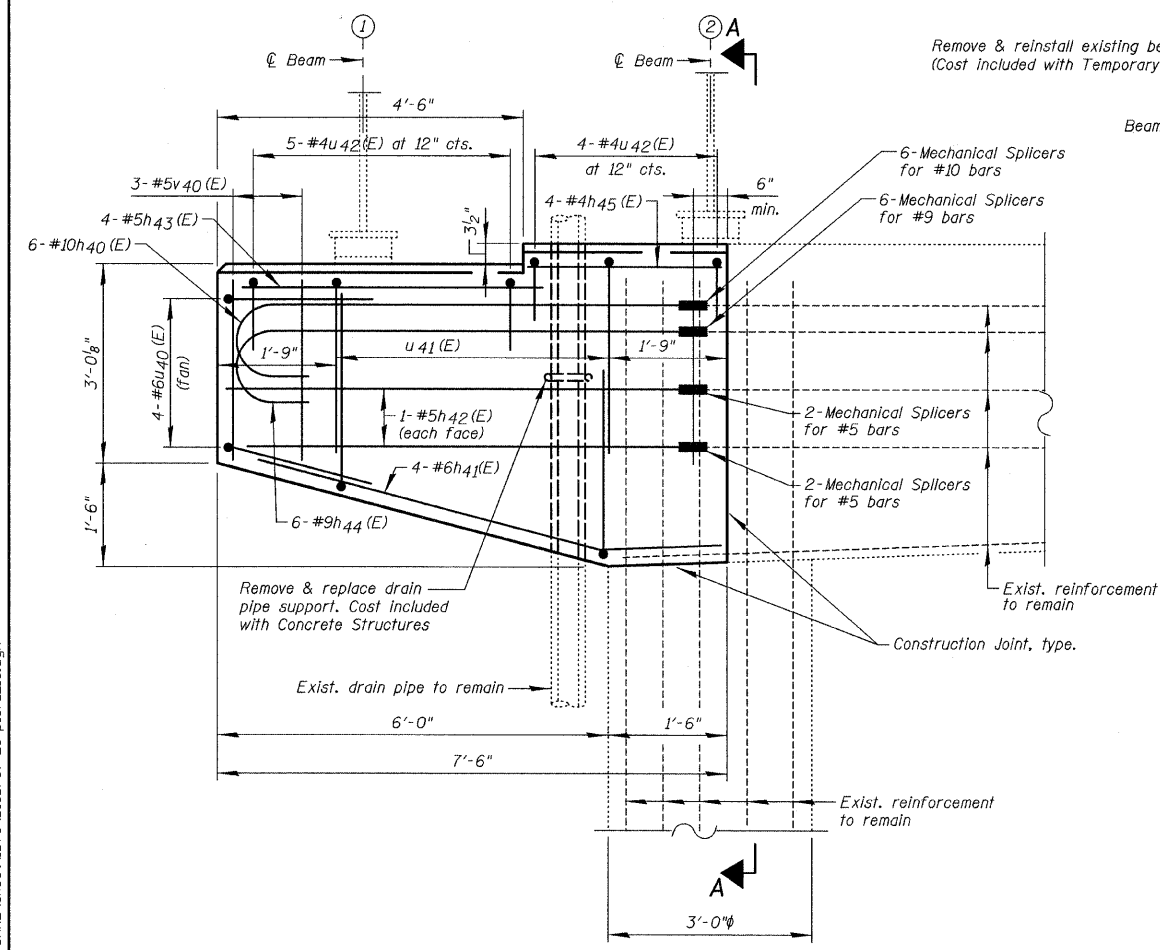
BARS h40 (E) & h44 (E)



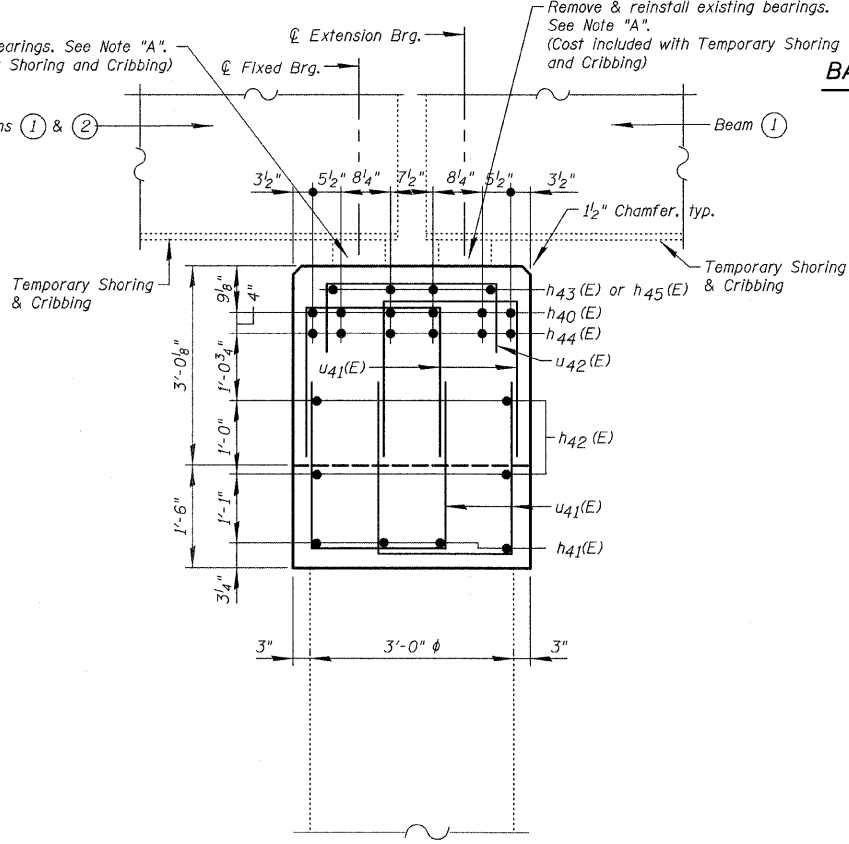
BAR h41 (E)



BARS u41 (E) & u42 (E)



ELEVATION - NORTH END
(Looking East)



SECTION A-A

Notes:
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.
It shall be the Contractor's responsibility to verify all dimensions between the bottom of the bridge beams and the top of the bearing seats, in the field, prior to construction or ordering of materials.
The Contractor shall supply additional shim plates, if required, to bring devices to grade. Cost included with Concrete Structures.
Anchor bolts must be installed in holes drilled after supported member is in place. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications. Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade and diameter specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Temporary shoring and cribbing, as described in the Special Provisions, is to be installed prior to any concrete removal.
Existing reinforcement bars projecting from the pier column to remain. The existing reinforcement bars shall be cleaned, straightened and incorporated into the new construction. Cost included with "Concrete Removal".
Existing reinforcement bars projecting from the pier cap shall be cut 6" minimum from the concrete removal line. Cost included with "Concrete Removal".
Any reinforcement bars that are damaged during the concrete removal operation shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with "Concrete Removal".
If the analysis submitted to the Contractor for the jacking/temporary support system to be used shows temporary stiffeners are required to prevent web crippling or buckling, the stiffeners shall be steel and bolted to the web. If stiffeners are not required, hardwood timbers shall be installed tightly between the top and bottom flange to prevent flange rotation.
Reinforcement bars shall conform to the requirements of ASTM A 706, Gr. 60. See Special Provisions. Reinforcement bars designated (E) shall be epoxy coated.

BEAM REACTION TABLE			
	at Expansion Bearings	at Fixed Bearings	
R _l	(k)	31.1	48.1
R _s	(k)	12.5	17.9
R _t	(k)	45.6	48.0
R _r	(k)	11.6	10.5
R _{total}	(k)	100.8	124.5
Minimum Jack Capacity		80 tons	95 tons

Girder reactions shown are from the existing plan Bearing Data Tables, At Roadway E.N. & Ramp E.S. from S. Prairie Ave. to S. Lake Shore Dr. F.A.I. Rte. I-55, dated June 18, 1991.

BILL OF MATERIAL				
Bar	No.	Size	Length	Shape
h40 (E)	6	#10	7'-7"	U
h41 (E)	4	#6	6'-10"	U
h42 (E)	4	#5	6'-2"	U
h43 (E)	4	#5	5'-0"	U
h44 (E)	6	#9	7'-5"	U
h45 (E)	4	#5	2'-9"	U
u40 (E)	4	#6	7'-11"	U
u41 (E)	20	#5	7'-4"	U
u42 (E)	9	#4	4'-6"	U
v40 (E)	3	#5	2'-9"	U
Concrete Removal		Cu. Yd.	3.2	
Concrete Structures		Cu. Yd.	3.2	
Reinforcement Bars, Epoxy Coated		Pound	680	
Anchor Bolts, 1"		Each	1	
Anchor Bolts, 1 1/4"		Each	4	
Mechanical Splicers		Each	16	
Temporary Shoring and Cribbing		Each	3	

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CHRISTIAN-ROGE & ASSOCIATES, INC.

USER NAME == IDOT	DESIGNED - J.C.N./B.N.S.	REVISED -
PLOT SCALE = 50.0000' / IN.	CHECKED - B.N.S./J.C.N.	REVISED -
PLOT DATE == 10/12/2011	DRAWN - F.M.	REVISED -
	DATE - OCTOBER 12, 2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER E16 REPAIRS
STRUCTURE NO. 016-1075
SHEET NO. S28 OF S41 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2011-031-BR	COOK	41	28
CONTRACT NO. 60P37				
ILLINOIS FED. AID PROJECT				