

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) 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.

Anchor bolts for Type II bearings shall be placed in holes in the concrete drilled through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

BEARING REPLACEMENT NOTES:

The Contractor shall submit plans for jacking the existing superstructure for approval by the Engineer prior to commencing any work with the bearings. The submittal shall be prepared and sealed by a Licensed Structural Engineer in Illinois. It shall be the Contractor's responsibility to verify all dimensions between the bottom of the bridge beams and the top of the bearing seat in the field prior to construction or ordering of materials.

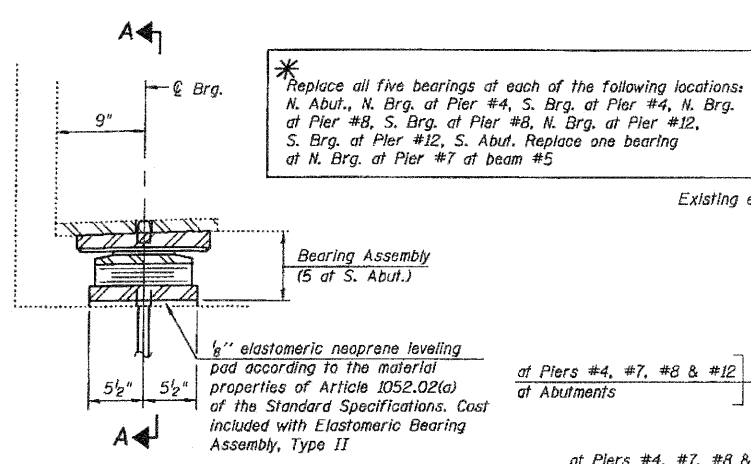
Jacking and Removing of existing bearings shall be done before the new overlay is poured.

The Contractor shall supply additional shim plates, if required, to bring devices to grade. Cast included with Elastomeric Bearing Assembly, Type II.

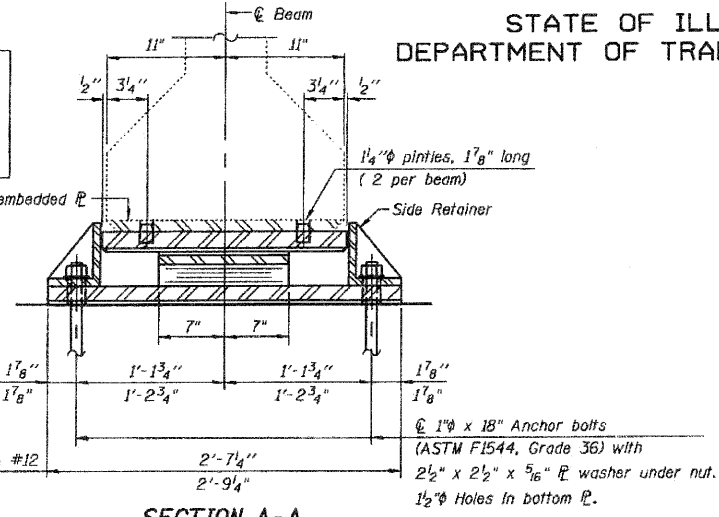
BEAM REACTION TABLE

	N. Abut.	N. Brg. at Piers #4, #8 & #12	S. Brg. at Piers #4, #8 & #12	N. Brg. at Pier #7 Beam #5	S. Abut.
R ₀	(k)	45.4	45.4	45.4	49.6
R ₁	(k)	37.6	37.6	37.6	44.1
R ₂	(k)	9.8	9.8	9.8	11.5
R _{Total}	(k)	92.8	92.8	92.8	105.2

Minimum jack capacity at each bearing = 40 tons

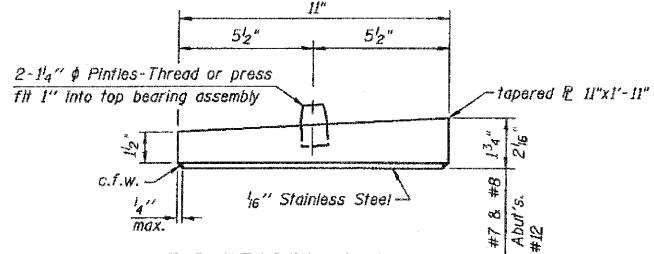


SECTION AT ABUT.
(similar at Piers #4, #7, #8 & #12)

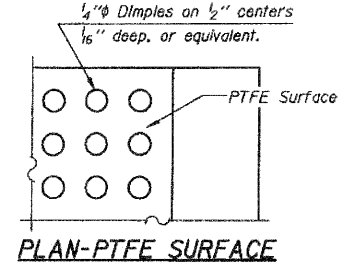


SECTION A-A

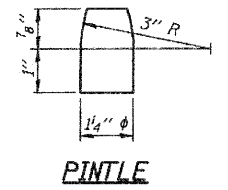
TYPE II ELASTOMERIC EXP. BRG.
*(41 required)



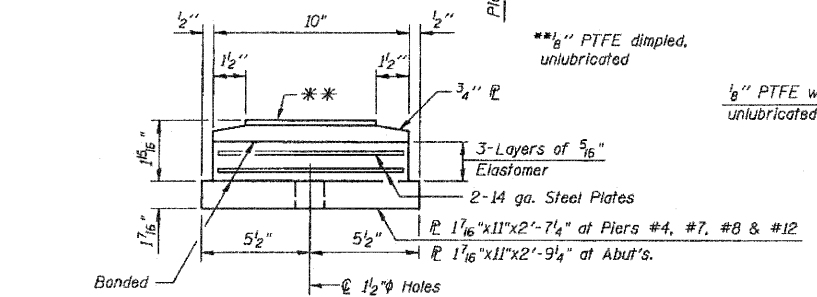
TOP BEARING ASSEMBLY



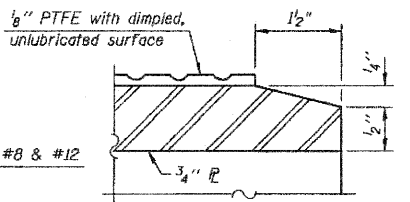
PLAN-PTFE SURFACE



PINTLE

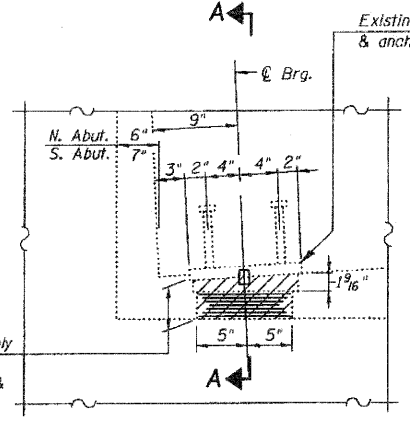


BOTTOM BEARING ASSEMBLY

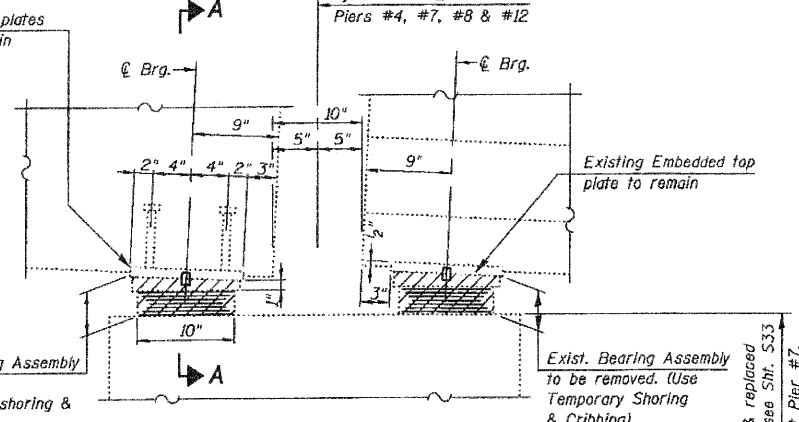


SECTION THRU PTFE

Existing Bearing Assembly to be removed. (Use temporary shoring & cribbing)



SECTION AT ABUT.
(Looking East at N. Abut.)



SECTION AT PIERS #4, #7, #8 & #12
(Looking East)

NOTE:

The inside face of the exterior bearings, on the abutments, at Beams #1 & #5, the existing anchor bolts shall be burned flush with the existing concrete surface, grind smooth and sealed with epoxy.

EXISTING BEARING REMOVAL DETAILS

Cost of bearing removal at Pier #7 included with Structural Repair of Concrete (Depth Greater than 5 inches).
Cost of bearing removal at Piers #4, #8 & #12 included with Concrete Removal.

BILL OF MATERIAL

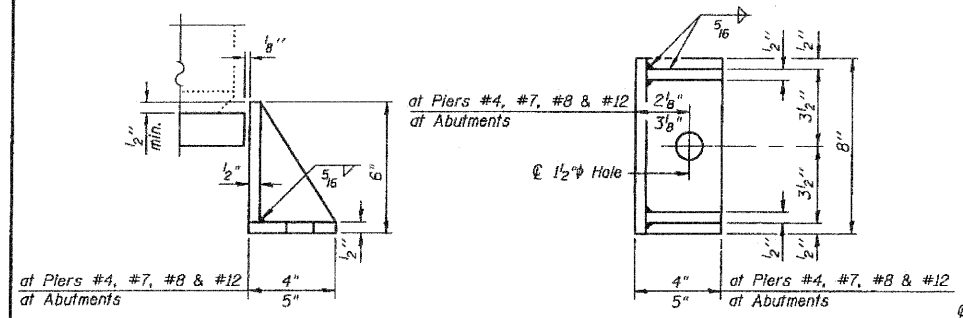
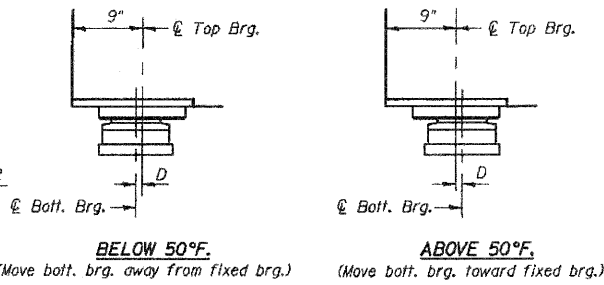
Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	41
Anchor Bolts, 1"	Each	82
Jack and Remove Existing Bearings	Each	10

Includes bearings at abutments only.

BEARING REPLACEMENT DETAILS
IL. RTE. 251 OVER IL. RTE. 38
C&N W. R.R. AND B.N. R.R.
E.A.P. RTE. 740 (IL. RTE. 251)
SECTION (108HVB)M
OGLE COUNTY
STA. 856+44.00
STRUCTURE NO. 071-0066

SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

DESIGNED	2010
CHECKED	EXAMINED
DRAWN	PASSED
CHECKED	ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. S30	F.A.P. RTE. 740	SECTION (108HVB)M	COUNTY OGLE	TOTAL SHEETS 55	SHEET NO. 37
S43 SHEETS	CONTRACT NO. 64G24		ILLINOIS FED. AID PROJECT		

CHRISTIAN-ROGE & ASSOCIATES, INC.
ENGINEERS-PLANNERS-SURVEYORS
211 WEST WACKER DRIVE
CHICAGO, ILLINOIS 60606
PHONE: (312)372-2023 FAX: (312)372-5274

Pier caps to be removed & replaced at Piers #4, #8 & #12, see Sht. S33
Pier cap to be repaired at Pier #7, see Sht. S35