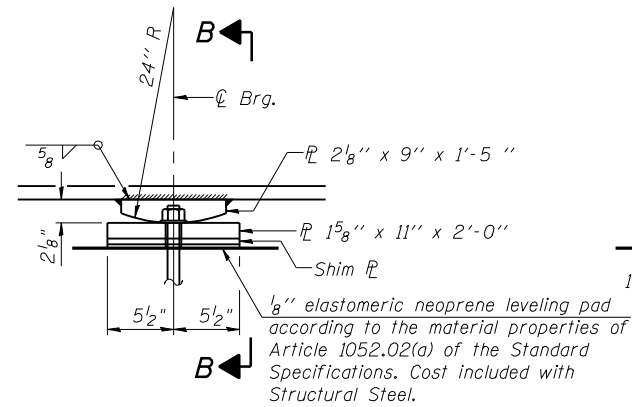
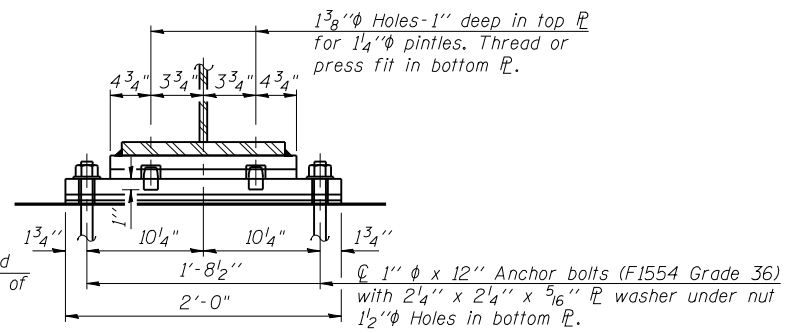


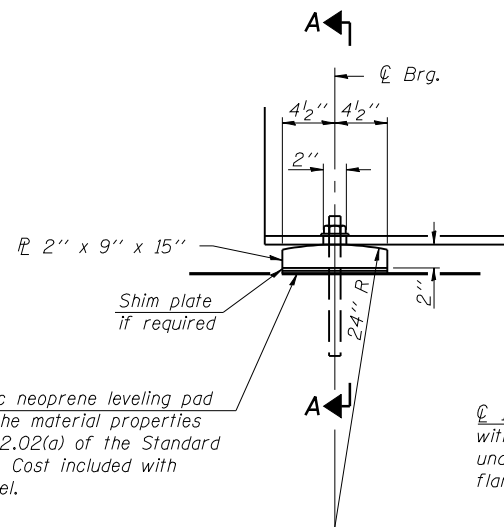
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



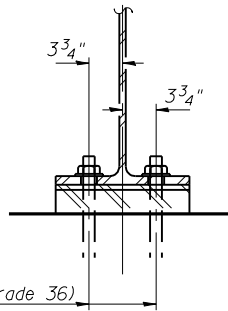
ELEVATION AT PIER



SECTION B-B

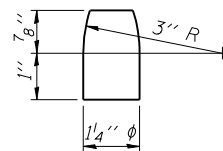


ELEVATION AT ABUTMENT



SECTION A-A

FIXED BEARING



PINTLE

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 at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

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

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

All bearing plates shall be M270 Grade 50.

INTERIOR GIRDER MOMENT TABLE			
	0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or Pier 2	0.5 Sp. 2
I_s	(in ⁴) 8230	8230	8230
$I_c(n)$	(in ⁴) 21710	-	21710
$I_c(3n)$	(in ⁴) 15833	-	15833
S_s	(in ³) 541	541	541
$S_c(n)$	(in ³) 780	-	780
$S_c(3n)$	(in ³) 706	-	706
DC1	(k/')	1.031	1.031
M _{DC1}	(k)	93	624
DC2	(k/')	0.173	0.173
M _{DC2}	(k)	22	88
DW	(k/')	0.363	0.363
M _{DW}	(k)	47	184
M _L + IM	(k)	662	658
M _U (Strength I)	(k)	1373	2318
$\phi_r M_n$, $\phi_r M_{nc}$	(k)	3770	2529
f_s DC1	(ksi)	2.06	13.84
f_s DC2	(ksi)	0.37	1.95
f_s DW	(ksi)	0.80	4.08
f_s 1.3(L+IM)	(ksi)	13.24	18.97
f_s (Service II)	(ksi)	16.47	38.84
V _f	(k)	47.9	46.8

* Compact sections

INTERIOR GIRDER REACTION TABLE		
	Abut.	Pier
R _{DC1}	(k) 16.2	86.4
R _{DC2}	(k) 2.9	14.2
R _{DW}	(k) 6.0	29.7
R _L + IM	(k) 83.3	121.4
R _{Total}	(k) 108.4	251.7

I_s , S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in⁴ and in³).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads (in⁴ and in³).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in⁴ and in³).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_L + IM: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_U (Strength I): Factored design moment (kip-ft.).

$1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_L + IM$

$\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

$\phi_r M_{nc}$: Compact non-composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).

$M_{DC1} + M_{DC2} + M_{DW} + 1.3 M_L + IM$

V_f: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	48

BEARING DETAILS
STRUCTURE NO. 057-0249

	SHEET NO. 16	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	26 SHEETS	55	(57-7HB-2)BR	MCLEAN	153	93
			CONTRACT NO. 70520			
			ILLINOIS FED. AID PROJECT			