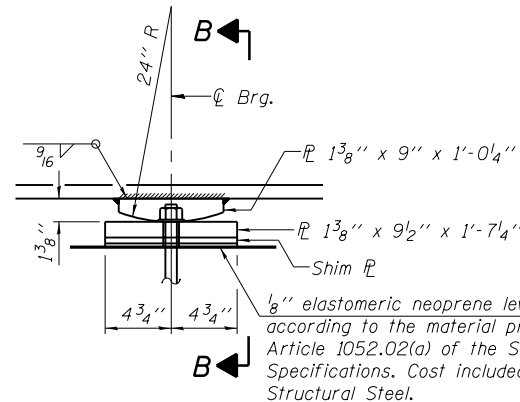
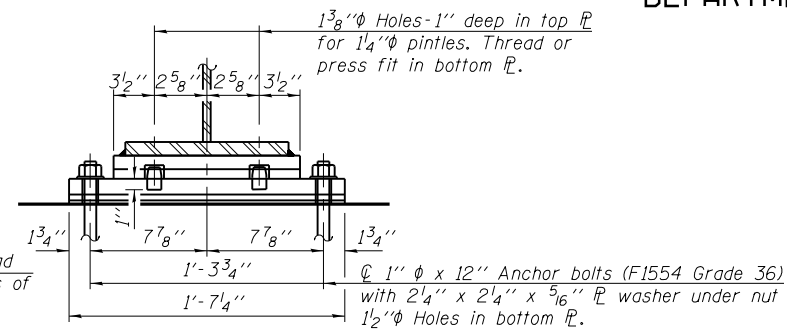


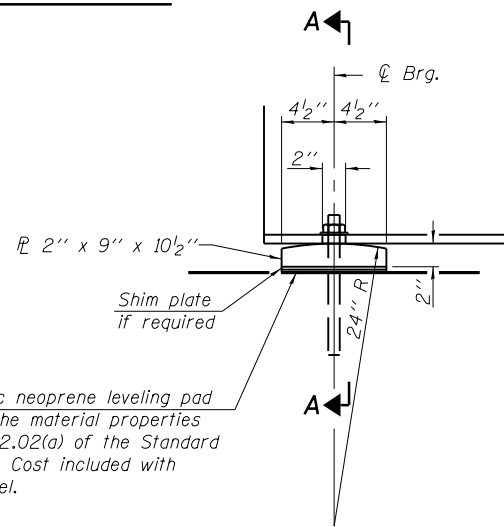
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



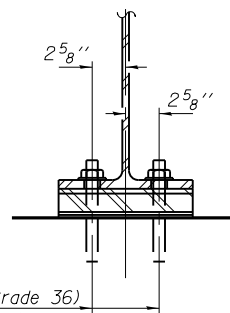
ELEVATION AT PIER



SECTION B-B

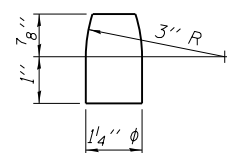


ELEVATION AT ABUTMENT



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 (F_y=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.

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) 4470	4470	4470
$I_c(n)$	(in ⁴) 13335	-	13335
$I_c(3n)$	(in ⁴) 9763	-	9763
S_s	(in ³) 299	299	299
$S_c(n)$	(in ³) 470	-	470
$S_c(3n)$	(in ³) 423	-	423
DC1	(k/ft) 0.721	0.721	0.721
M_{DC1}	(k) 118	244	137
DC2	(k/ft) 0.150	0.150	0.150
M_{DC2}	(k) 28	42	37
DW	(k/ft) 0.267	0.267	0.267
M_{DW}	(k) 50	75	65
$M_L + IM$	(k) 515	321	582
M_u (Strength I)	(k) 1159	1032	1334
* $\phi_r M_n, \phi_r M_{nc}$	(k) 2418	1126	2396
f_s DC1	(ksi) 4.74	9.79	5.50
f_s DC2	(ksi) 0.79	1.69	1.05
f_s DW	(ksi) 1.42	3.01	1.84
f_s (Service II)	(ksi) 17.09	16.75	19.32
V_f	(k) 22.1	-	15.6

* Compact sections

INTERIOR GIRDER REACTION TABLE			
		Abut.	Pier
R_{DC1}	(k) 13.8	46.5	
R_{DC2}	(k) 2.9	9.5	
R_{DW}	(k) 5.2	16.9	
$R_L + IM$	(k) 64.6	87.8	
R_{Total}	(k) 86.5	160.7	

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. 059-0512**

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 15	F.A.P. RTE. 608	SECTION 122B-2	COUNTY MACOUPIN	TOTAL SHEETS 53	SHEET NO. 33
	24 SHEETS	CONTRACT NO. 72B53			ILLINOIS FED. AID PROJECT	