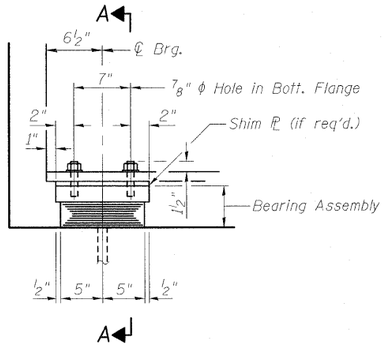
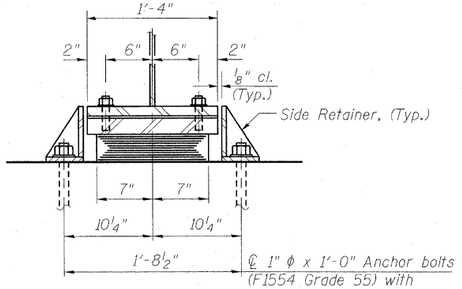
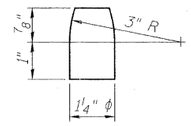


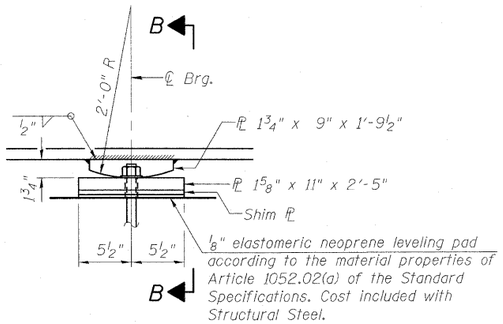
ELEVATION AT ABUT.



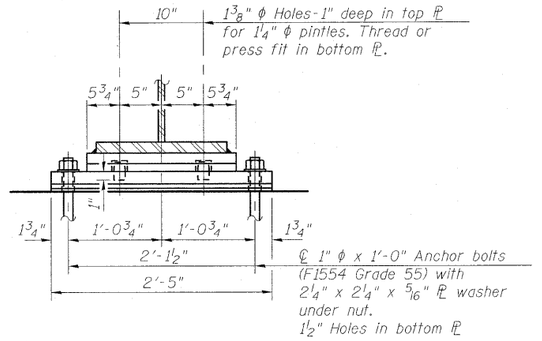
SECTION A-A



PINTLE



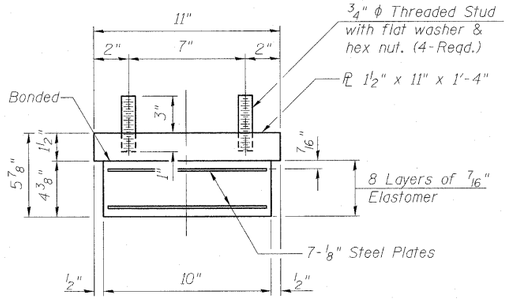
ELEVATION AT PIER



SECTION B-B

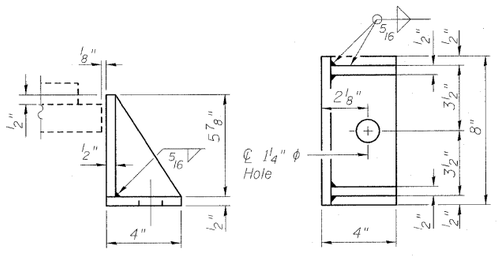
TYPE I ELASTOMERIC EXP. BRG.

(6 required)
(3 at each Abut.)



BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER

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

Notes:

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

Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.

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 elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

See sheets 22 and 24 of 46 for Anchor Bolt Location Details.

Two ⅛" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown in the bearing details.

All bearing plates shall be M270 Gr. 50.

The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.

FIXED BEARING

(3 required)

INTERIOR GIRDER MOMENT TABLE			
		0.4 Sp. 1 or 0.6 Sp. 2	Pier
I_s	(in^4)	15688	28512
$I_c(n)$	(in^4)	38157	-
$I_c(3n)$	(in^4)	27453	-
S_s	(in^3)	869	1326
$S_c(n)$	(in^3)	1108	-
$S_c(3n)$	(in^3)	981	-
DC1	(k/')	0.75	0.85
M_{DC1}	('k)	792	1951
DC2	(k/')	0.33	0.33
M_{DC2}	('k)	387	689
DW	(k/')	0.14	0.14
M_{DW}	('k)	161	286
M_L	('k)	762	882
M_U (Strength I)	('k)	3049	5272
* $\phi_f M_n$	('k)	5527	- -
f_s DC1	(ksi)	10.9	17.7
f_s DC2	(ksi)	4.7	6.2
f_s DW	(ksi)	2.0	2.6
f_s 1.3(L)	(ksi)	10.7	10.4
f_s (Service II)	(ksi)	28.4	36.9
** f_s (Total)(Strength I)	(ksi)	-	47.7
V_f	(k)	2.4	-

* compact sections
** non-compact and slender sections

INTERIOR GIRDER REACTION TABLE			
		Abut.	Pier
R_{DC1}	(k)	35.7	132.4
R_{DC2}	(k)	16.1	53.6
R_{DW}	(k)	6.7	22.2
R_L	(k)	26.7	73.9
R_{Total}	(k)	85.2	282.1

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 ($in.^4$ and $in.^3$).

$I_c(n)$, $S_c(n)$: 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 ($in.^4$ and $in.^3$).

$I_c(3n)$, $S_c(3n)$: 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 ($in.^4$ and $in.^3$).

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: Un-factored live load moment due to Pedestrian Load (kip-ft.).

M_U (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_L$

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

f_s (Service II): Sum of stresses as computed from the moments below (ksi).
$M_{DC1} + M_{DC2} + M_{DW} + 1.3\ M_L$

f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_L$

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

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6
Anchor Bolts, 1"	Each	18

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2 OAK DRIVE
MARYVILLE, ILLINOIS 62062
PHONE (618) 288-4666
FAX (618) 288-4996

Illinois Design Firm Number 184.001670

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NUMBER 025-6010
SHEET NO. 21 OF 46 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57/70	(25-3)PB	EFFINGHAM	1098	390
	SN 025-6010	CONTRACT NO. 74299		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		