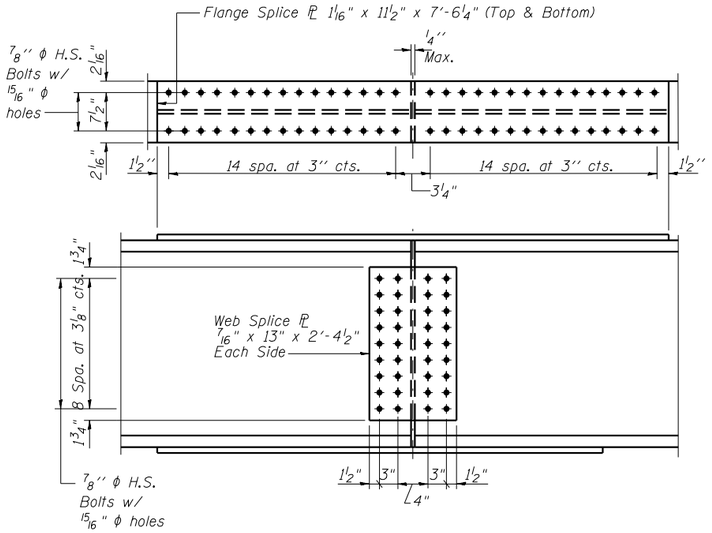
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 326	129BR -3	CHAMPAIGN		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

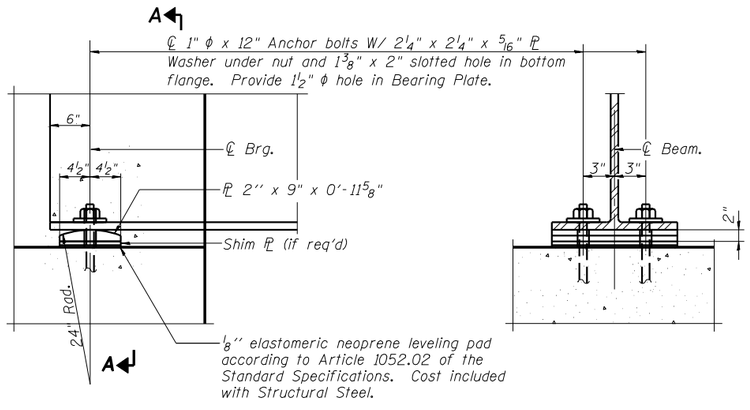
SHEET NO. 9
17 SHEETS

CONTRACT #70344



SPLICES 1 & 2

Note:
All beams and splice material shall be AASHTO M270 Gr. 50W and shall meet Notch Toughness Requirements (N.T.R.)

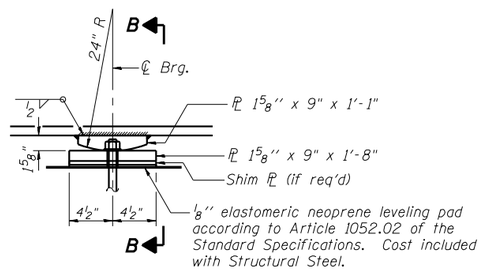


ELEVATION AT ABUTMENTS

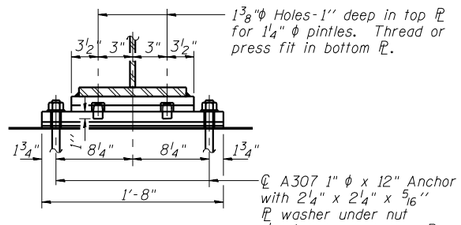
SECTION A-A

FIXED BEARING AT NORTH & SOUTH ABUTMENT

(12 Required)



ELEVATION AT PIER



SECTION B-B

INTERIOR GIRDER MOMENT TABLE					
			0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or Pier 2	0.5 Sp. 2
	Is	(in^4)	8160	8160	8160
	Ic (n)	(in^4)	19700		19700
	Ic (3n)	(in^4)	14465		14465
	Ss	(in^3)	487	487	487
	Sc (n)	(in^3)	680		680
	Sc (3n)	(in^3)	616		616
	Z	(in^3)			
	DL	(k/ft.)	0.840	1.340	0.840
	MDL	('k)	172	775	336
	sDL	(k/ft.)	0.500		0.500
	MsDL	('k)	120		242
	ML	('k)	428	315	581
	M (Imp)	('k)	115	79	135
	5/3[ML+M(Imp)]	('k)	906	657	1194
	Ma	('k)	1558	1862	2305
*	Mu	('k)	2900		3001
	fsDL non-comp	(k.s.i.)	4.2	19.1	8.3
	fsDL (comp)	(k.s.i.)	2.3		4.7
	fs 5/3(L+Imp)	(k.s.i.)	16	16.2	21.1
	fs (Overload)	(k.s.i.)	22.5	35.3	34.1
**	fs (Total)	(k.s.i.)		45.9	
	VR	(k)	56		58

** Non-Compact Section * Compact, Braced Section

INTERIOR GIRDER REACTION TABLE			
		Abut.	Pier
RDL	(k)	28.3	113.8
RL	(k)	40.6	49.3
Imp.	(k)	10.9	12.4
R (Total)	(k)	79.8	175.5

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)

VR is the maximum Live Load + Impact shear range within the composite portion of the span.

Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

Ma (Applied Moment)=1.3[MDL + MsDL + 5/3(ML + M(Imp))].

The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

MDL Moment due to dead loads on non-composite section.

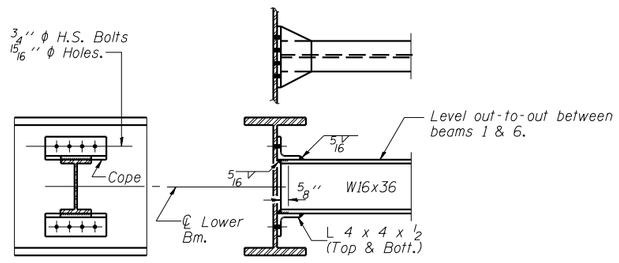
MsDL Moment due to dead loads on composite section.

ML Moment due to live load on non-composite or composite section.

M (Imp) Moment due to live load impact on non-composite or composite section

fs (Overload) is the sum of the stresses due to MDL + MsDL + 5/3(ML + M(Imp)).

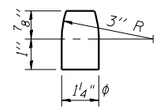
fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[MDL + MsDL + 5/3(ML + M(Imp))].



DIAPHRAGM D

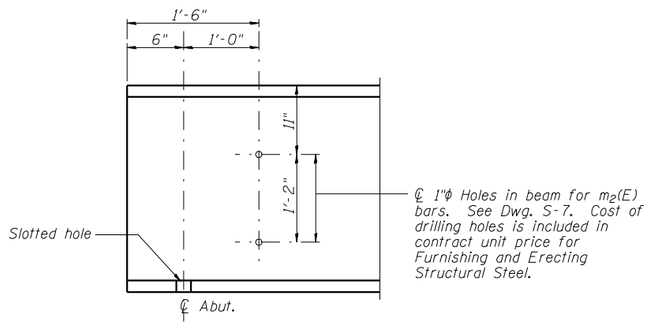
(45 Required)

Note:
Two hardened washers shall be required over all oversize holes for diaphragms.



PINTLE

Notes:
1. See Dwg. S-14 for Anchor Bolt installation.



TYPICAL END OF BEAM ELEVATION

STEEL DETAILS

IL. ROUTE 47
OVER SANGAMON RIVER
F.A.P. ROUTE 326 SEC. (129BR-3) BR
CHAMPAIGN COUNTY
STATION 746+65.00
STRUCTURE NO. 010-0281

Clark Dietz
CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENOSHA, WISCONSIN
SPRING GREEN, WISCONSIN

REVISIONS NAME	DATE

NOTE: ENGINEERING DATA. IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

ENGINEER IN:	SMM	PROJECT NO:	102287
DRAWN BY:	MEW	DATE:	5/05
CHECKED BY:	MM		
APPROVED BY:	SMM		
ACTIVITY	INITIALS		

DRAWING NUMBER
S-9