

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 627	IBR	LaSALLE	46	24

ILLINOIS
CONTRACT NO. 66364
Sheet 10 of 20

	0.4 Sp. 1	Pier
	0.6 Sp. 2	
I_s	(in ⁴) 1,830	1,830
I_c	(in ⁴) 6,039	
$I_c (sn)$	(in ⁴) 4,546	
S_s	(in ³) 154	154
$S_c (n)$	(in ³) 251.8	
$S_c (sn)$	(in ³) 227.8	
M	(k/ft.) 0.665	1.120
$M\ell$	(k) 69	187
$s\ell$	(k/ft.) 0.455	
$Ms\ell$	(k) 56	
$M\ell$	(k) 201	98
$M (Imp)$	(k) 62	30
$5_3[M\ell + M(Imp)]$	(k) 438	213
Ma	(k) 732	520
Mu	(k) 1231	
$fs\ell$ non-comp (k.s.i.)	5.4	14.6
$fs\ell$ (comp) (k.s.i.)	2.9	
$fs_3(\ell + Imp)$ (k.s.i.)	20.8	16.6
fs (Overload) (k.s.i.)	29.1	31.2
fs (Total) (k.s.i.)		40.6
VR	(k) 40.5	

	Abut.	Pier
$R\ell$	(k) 16.7	52.6
$R\ell$	(k) 29.1	34.2
$Imp.$	(k) 8.7	10.3
R (Total)	(k) 54.5	97.1

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

$I_{c(n)}$ and $S_{c(n)}$ are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

$I_{c(sn)}$ and $S_{c(sn)}$ are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads.

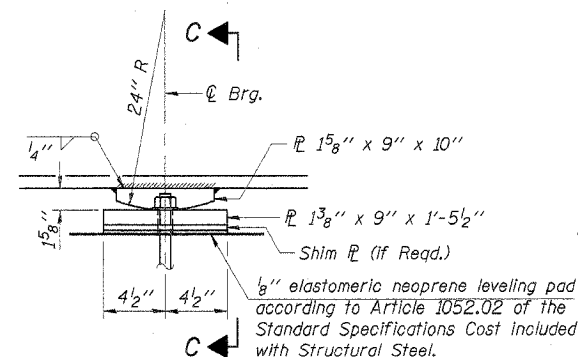
VR is the maximum Live Load + Impact shear range in span.

Ma (Applied Moment) = $1.3[M\ell + Ms\ell + 5_3(M\ell + M(Imp))]$.

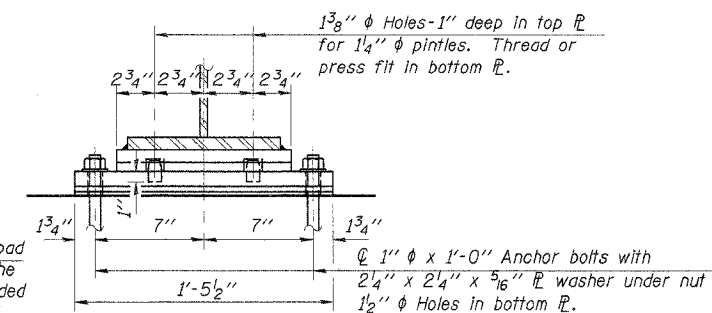
The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to $M\ell + Ms\ell + 5_3(M\ell + M(Imp))$.

fs (Total) (Non-compact section) is the sum of the stresses due to $1.3[M\ell + Ms\ell + 5_3(M\ell + M(Imp))]$.

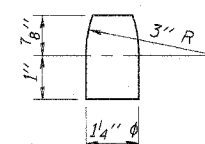


ELEVATION AT PIER

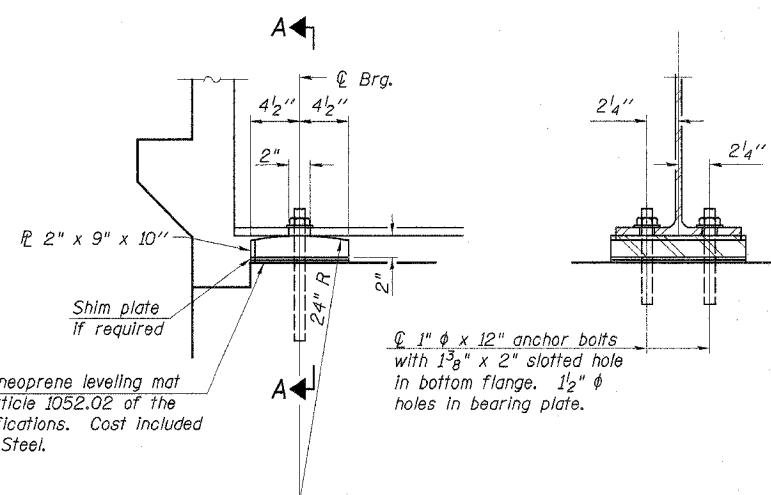


SECTION C-C

BEARING AT PIER
6 Required



PINTLE

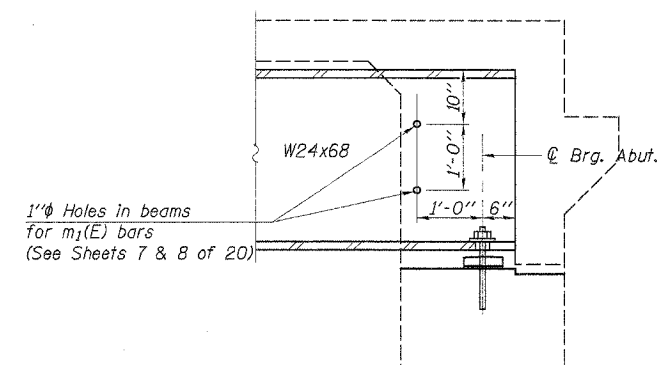


ELEVATION AT ABUTMENT

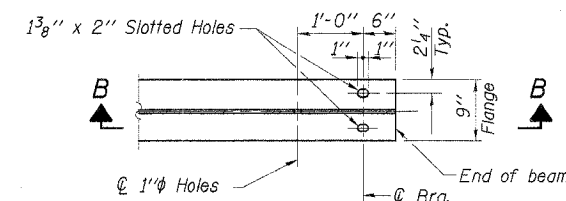
SECTION A-A

BEARING AT ABUTMENTS
12 Required

Notes: Anchor bolts at bearings may be built into the masonry.
See sheet 11 of 20 for Anchor Bolt Installation.



SECTION B-B



END OF BEAM DETAILS

DESIGNED	P.S.L.
CHECKED	A.R.K. & F.J.S.
DRAWN	K.T.R.
CHECKED	P.S.L. & A.R.K.

STRUCTURAL STEEL	
IL. RTE. 71 OVER UNNAMED STREAM F.A.P. ROUTE 627 - SECTION IBR LaSALLE COUNTY STA. 14+08.00 STR. NO. 050-0244	
4440 ASH GROVE SPRINGFIELD, IL. 62711 (217) 793-8600 oasinc@famvid.com	OZYURT AND STONE, INC. CONSULTING ENGINEERS
JOB NO.: 0306.4 FILE: STEEL02.DGN DATE: 08-31-04	