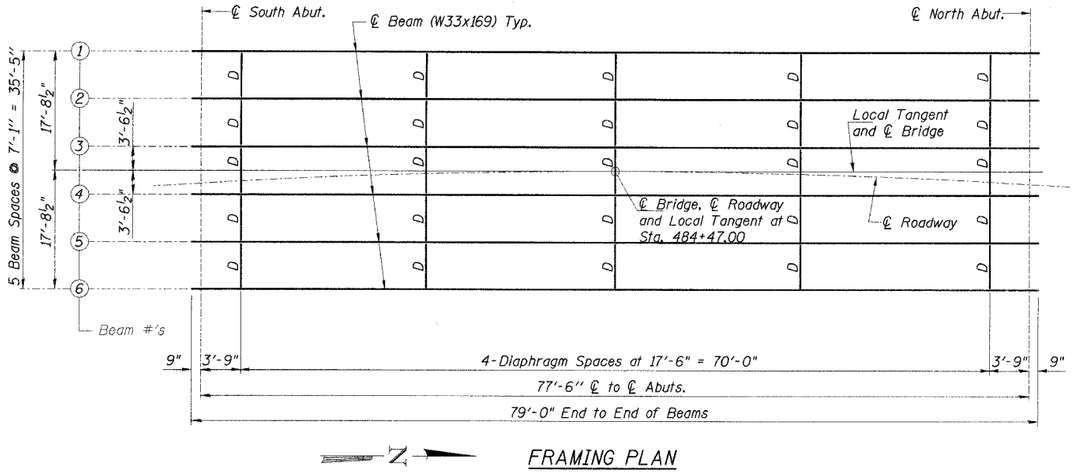
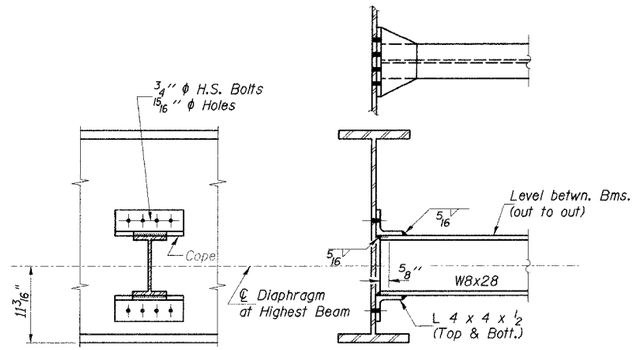
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8015	03-00167-04-FP	SANGAMON	109	71
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Sheet 7 of 11



FRAMING PLAN



DIAPHRAGM D

25 Required

INTERIOR GIRDER MOMENT TABLE		
		0.5
Is	(in⁴)	9290
Ic n	(in⁴)	22053
Ic 3n	(in⁴)	16221
Ss	(in³)	549.5
Sc n	(in³)	758.8
Sc 3n	(in³)	688.0
D	(K/ft.)	0.88
MD	('K)	660
sD	(K/ft.)	0.37
MsD	('K)	281
ML	('K)	718
M (Imp)	('K)	177
S3(ML+I)	('K)	1492
Ma	('K)	3163
Mu	('K)	3677
fsD non-comp	(k.s.i.)	14.4
fsD (comp)	(k.s.i.)	4.9
fsS3(L+I)	(k.s.i.)	23.6
fs (Overload)	(k.s.i.)	42.9
VR	(K)	57.0

INTERIOR GIRDER REACTION TABLE		
		Abut.
RD	(K)	48.5
RL	(K)	45.6
Imp.	(K)	11.3
R (Total)	(K)	105.4

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

Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs (Total & Overload).

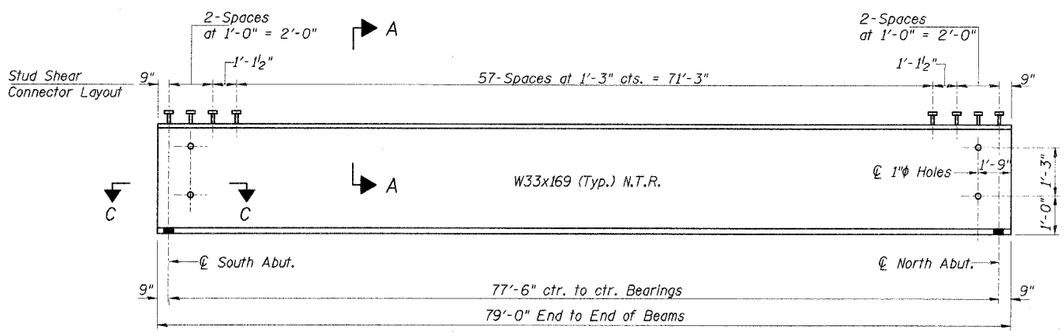
VR is the maximum Live Load + Impact shear range in span.

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

Ma (Applied Moment)=1.3[MD + MsD + S3(ML + I)].

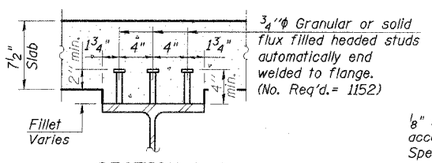
Mu is the Full Plastic Moment Capacity for Compact, Braced section.

fs (Overload) is the sum of the stresses due to MD + MsD + S3(ML + I).

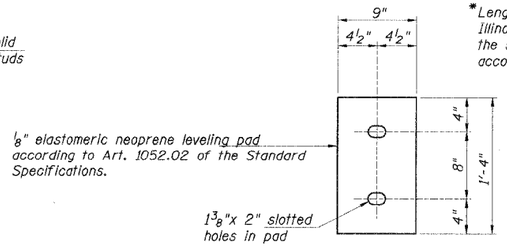


GIRDER ELEVATION

"NTR" denotes members to which notch toughness requirements are applicable.

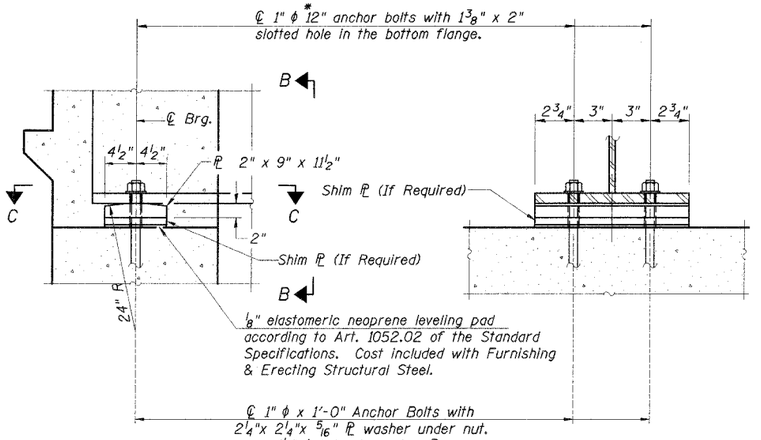


SECTION A-A



PLAN-ELASTOMERIC NEOPRENE LEVELING PAD

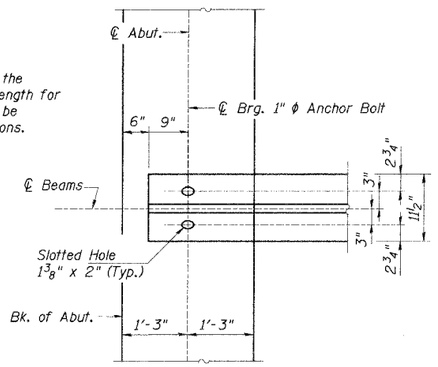
(At Abutments)



ELEVATION AT ABUTMENT

SECTION B-B

*Length shown is the required total length for the Illinois Coil Anchor Bolt. The required total length for the sealed capsule alternate anchor bolt shall be according to the manufacturer's recommendations.



SECTION C-C

Note:
Anchor bolts may be built into the masonry.
See sheet 9 of 11 for Anchor Bolt installation.
All Bearing Plates, Pintles & Shim Plates shall be AASHTO M270 Grade 50 W.

STRUCTURAL STEEL FRAMING DETAILS
CARDINAL ROAD over BLACK BRANCH CREEK
SECTION 03-00167-04-FP
SANGAMON COUNTY
STATION 484+47
STRUCTURE NO. 084-3640

HANSON

JOB NO. 03S2035B

DATE 6/21/06

LAYOUT	M.W.M.	3/13/06
DRAWN	Rad	3/15/06
REVIEWED	G.S.R.	3/20/06

07:27:2006
10:47:28 AM
I:\03JOBS\03s2035b\structures\Black Branch Creek\Bridge Plans\FDT-FramingDetails.dgn