

DIAPHRAGM ELEVATION AT ABUTMENT

and I' are the moment of inertia and composite moment of inertia of the section.

and $S_{b'}$ are the non-composite and composite section modulus for the n fiber of the prestressed beam.

and S_t are the non-composite and composite section modulus for the top of the prestressed beam.

? is the moment due to dead loads on the non-composite prestressed beam. conservatively calculated at 0.5 of the span.

P is the Moment due to dead loads on composite section. is the Moment due to live load on composite section. (imp) is the Moment due to live load impact on composite section.

I	(in4)	144,117		
I'	(in4)	375,274		
Sb	(in ³)	6,834		
Sb'	(in ³)	10,963		
S _t	(in ³)	5,355		
St'	(in ³)	27,253		
<i>₽</i>	(k/')	1.201		
мP	('k)	. 977		
s P	(k/')	0.333		
Мѕ₽	('k)	271		
M Ł	('k)	669		
M (Imp)	('k)	162		
,				
INTERIOR BEAM REACTION TABLE				

INTERIOR BEAM MOMENT TABLE

0.5 Pt.

93371

COUNTY TOTAL SHEET NO. MACOUPIN 15 7

SECTION

*02-00083-00-BR

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT

INTERIOR BEAM REACTION TABLE		
		Abut.
R₽	(k)	49.1
Rs₽	(k)	12.9
R Ł	(k)	36.2
Imp.	(k)	8.8
R (Total)	(k)	107.0

SHEET TITLE	
FRAMING PLAN & DIAPHRAGM DET	AILS
C.H. 12 OVER SOLOMON CREEK	PROJECT NO. 030 SCALE
FAS ROUTE 732 SEC. 02-00083-00-BR MACOUPIN COUNTY STATION 9+90.00	DATE 2/16/ DRAWN BY
STRUCTURE NUMBER 059-3465	MRL/REG/N
COOMBE-BLOXDORF P.C.	DRAWING NO.
Engineers / Land Surveyors Springfield, Illinois	7
Design Firm License No. 184-002703	OF 15 SH

full bearing. Any excess grout the beam shall be removed. Co. Structures.	squeezed out from under st included with Concrete —Bonded Construction Jt.	The S(E) & \$1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams. Reinforcement bars designated (E) shall be epoxy coated.
N Dimer	<u>SECTION A-A</u> nsions at right angles to abutment, except as shown. * Cost included with Concrete Structures.	<u>MIN. BAR LAP</u> #6 bar = 2'-9"
<u></u>	83′-2 " BkBk. Abuts.	
7"	82'-0"	7" beam St
8" (Typ.)	 	botton (Typ.) fiber
		A It is My Mi
A L	A	M. M.
"E - 115		5.0
3 N		
Bk. W. Abutment		
Bk. W. Abutment— Bk. W. Abutment— (4)		Bk. E. Abutment
5 Beam 15'-7'2"	—48" PPC I Beam	(Тур.)
	2'-3" 2'-6 1'-3"	& Brg. & Abut.
6		
2'-42" (Typ.)		
	<u>FRAMING PLAN</u>	

4'-0"

€ Abut.—

-b(E)

. .

4-30-

IO

-a(E)

 $m_2(E)$ -

s(E) :

 $m_3(E)$ or $m_4(E)$

Beam ends shall be set on an initial ½" Min. grout (2:1 sand and portland cement, very dry mix) to provide

v₁(E) bars. See sheets 10 and 11 of 15.

(typ.)

6'-0"

10′′

−Back of Abut.♀

(Typ.)

along skew

Elev. 629.11 W. Abutment Elev. 626.96 E. Abutment

Reinforcement bars in diaphragm are billed with

Concrete in diaphragm is included with Concrete

For details of bars s(E) & $s_1(E)$ see sheet 6 of 15.

The s(E) & $s_1(E)$ bars shall be placed parallel to the

superstructure on sheet 6 of 15.

Superstructure on sheet 6 of 15.

-Bonded Const. Joints

__Level

*Concrete Nails (Flat Hd.

C.S.) 1" long at 12" cts.

Fabric Reinforced Elastomeric Mat

(See Special Provisions). Fabric mat

shall be 12" wide full length of

abutment and sealed with mastic.

⊢Bar Splicer (E) for #5 bar