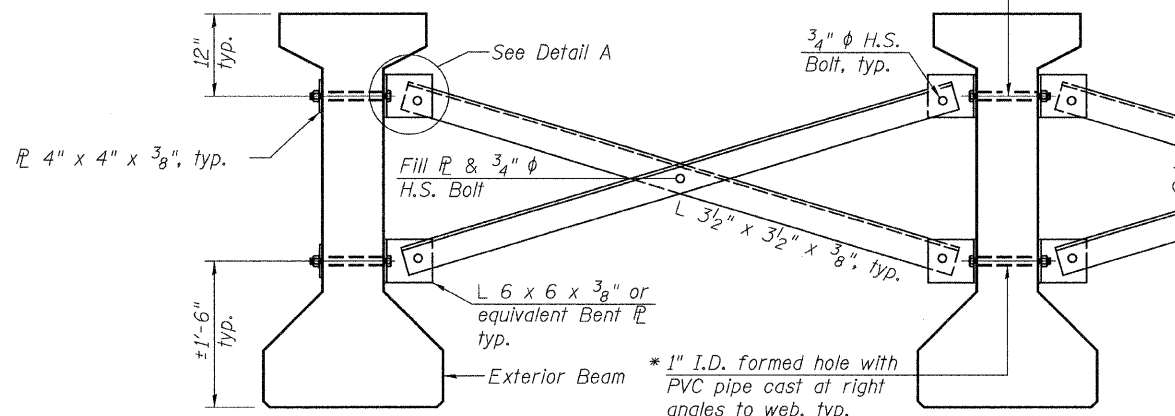


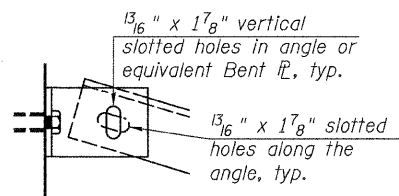
* Fabricator shall locate to miss strands within permissible tolerances.

$\frac{3}{4}$ " ϕ A307 Bolts with lock nuts., typ.
Bolts through the concrete web shall be tightened to snug tight only.



Notes:

All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
Two hardened washers are required for each set of oversized holes.
All holes shall be $\frac{1}{16}$ " ϕ unless otherwise noted.
 $\frac{5}{16}$ " x 3" x 3" plate washers are required over all slotted holes.
All bolts shall be galvanized according to AASHTO M232.
Bracing shall be installed as beams are erected and tightened as soon as possible during erection.



DETAIL A

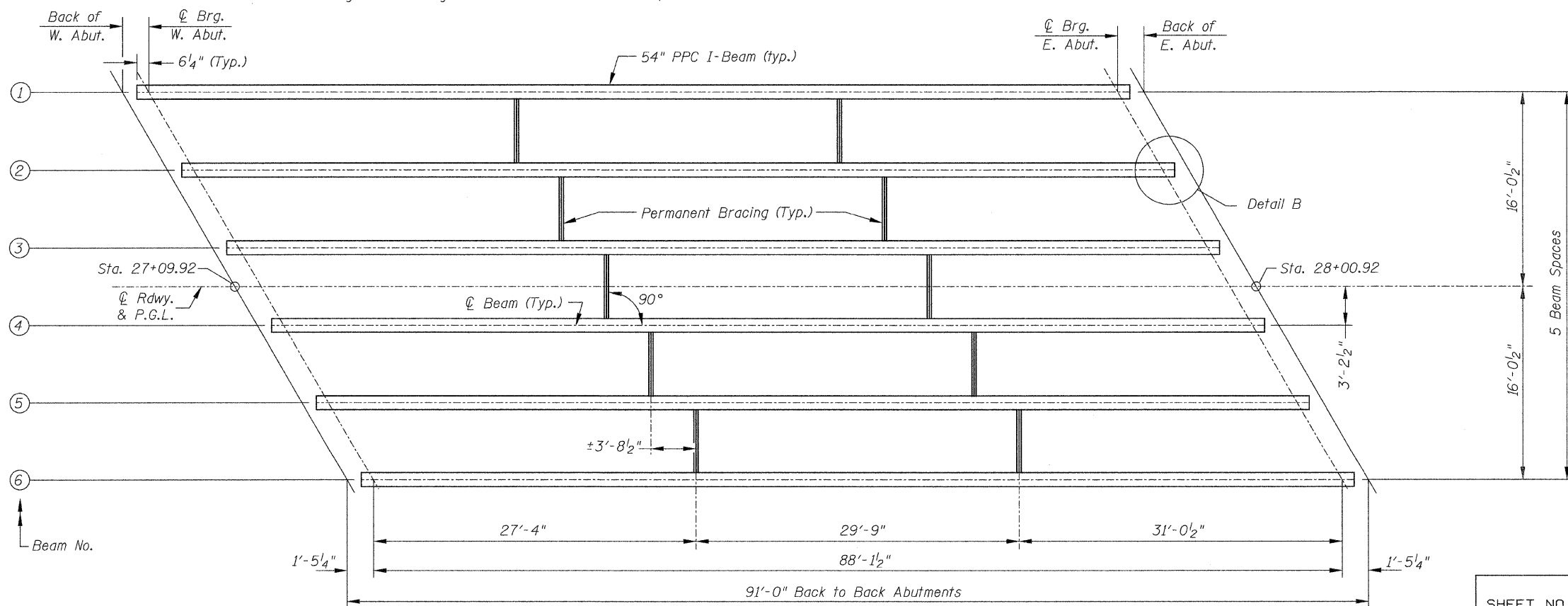
- I: Non-composite moment of inertia of beam section (in.⁴).
- I': Composite moment of inertia of beam section (in.⁴).
- S_b: Non-composite section modulus for the bottom fiber of the prestressed beam (in.³).
- S_b': Composite section modulus for the bottom fiber of the prestressed beam (in.³).
- S_t: Non-composite section modulus for the top fiber of the prestressed beam (in.³).
- S_t': Composite section modulus for the top fiber of the prestressed beam (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 + Imp}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

INTERIOR BEAM MOMENT TABLE		
		0.5 Sp. 1
I	(in. ⁴)	213,715
I'	(in. ⁴)	503,707
S _b	(in. ³)	8,559
S _b '	(in. ³)	12,752
S _t	(in. ³)	7,362
S _t '	(in. ³)	34,739
DC1	(k/ft)	1.32
M _{DC1}	(k)	1,279
DC2	(k/ft)	0.03
M _{DC2}	(k)	32
DW	(k/ft)	0.32
M _{DW}	(k)	312
M _{L + Imp}	(k)	1,393

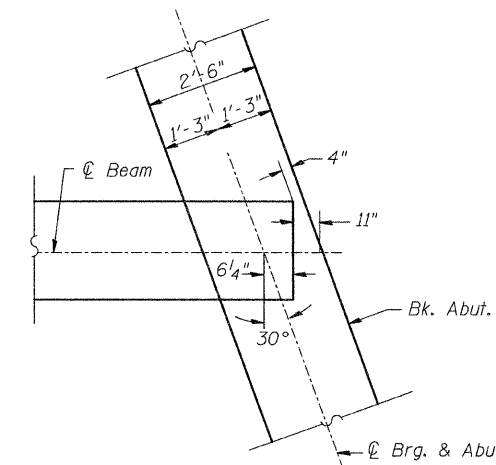
INTERIOR BEAM REACTION TABLE		
		Abut.
R _{DC1}	(k)	58.1
R _{DC2}	(k)	1.5
R _{DW}	(k)	14.1
R _{L + Imp}	(k)	89.0
R _{Total}	(k)	162.7

PERMANENT BRACING DETAILS

Permanent bracing shall not be paid for separately but shall be included with Furnishing and Erecting Precast Prestressed I-Beams, 54".



FRAMING PLAN



DETAIL B
(Typical @ Abutments)

FRAMING PLAN
C.H. 12 OVER HICKS CREEK
SECTION 07-00090-00-BR
MACOUPIN COUNTY

SHEET NO. 11 19 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 12	07-00090-00-BR	MACOUPIN	77	21
	SN 059-3556		CONTRACT NO. 9 8 5 3 8		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0732(148)		