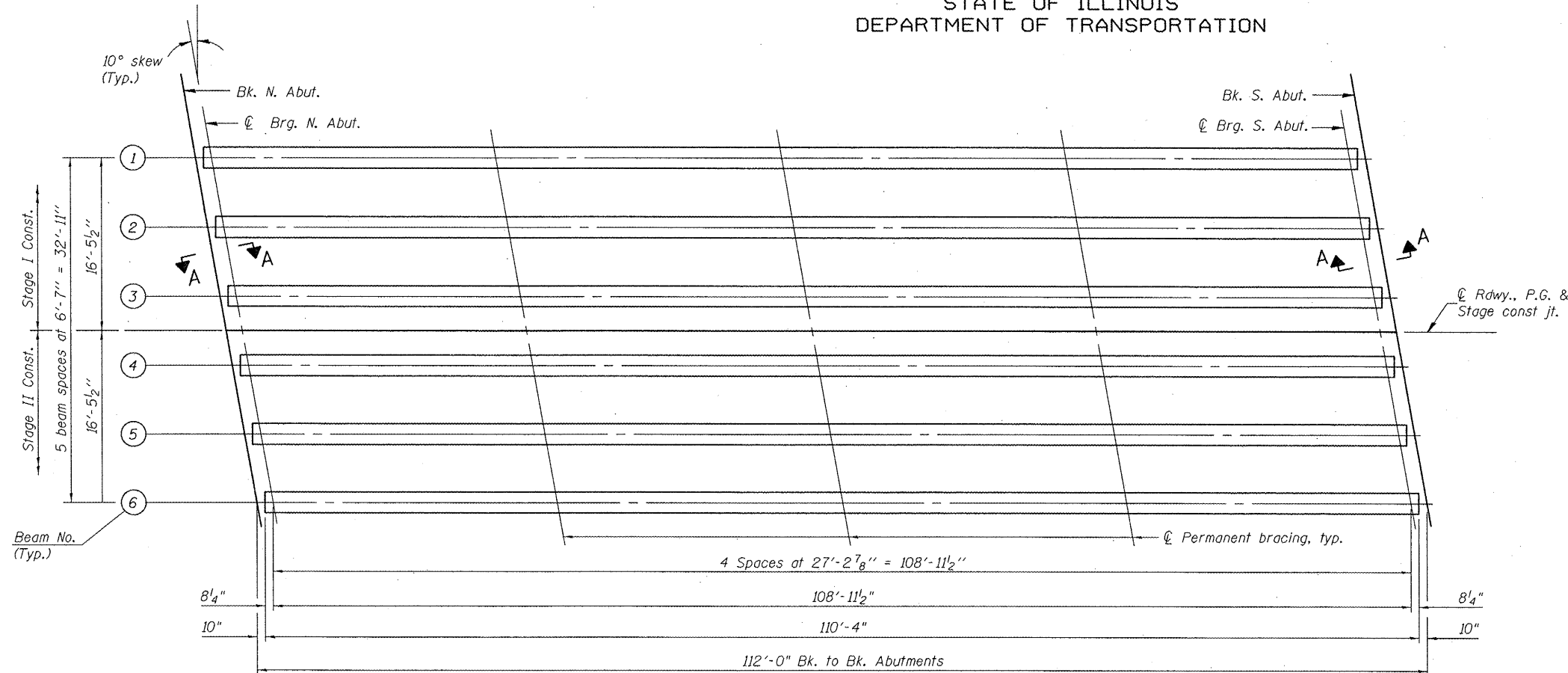


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 12
FAS 1190	(125BY)BR	KNOX	94	5A	20 SHEETS
FED. ROAD DIST. NO. 7	ILL. NO. 18	FED. AID PROJECT-			

Contract No. 68087



Notes:
See Sheet 9 of 20 for Section A-A.
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.
Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams.

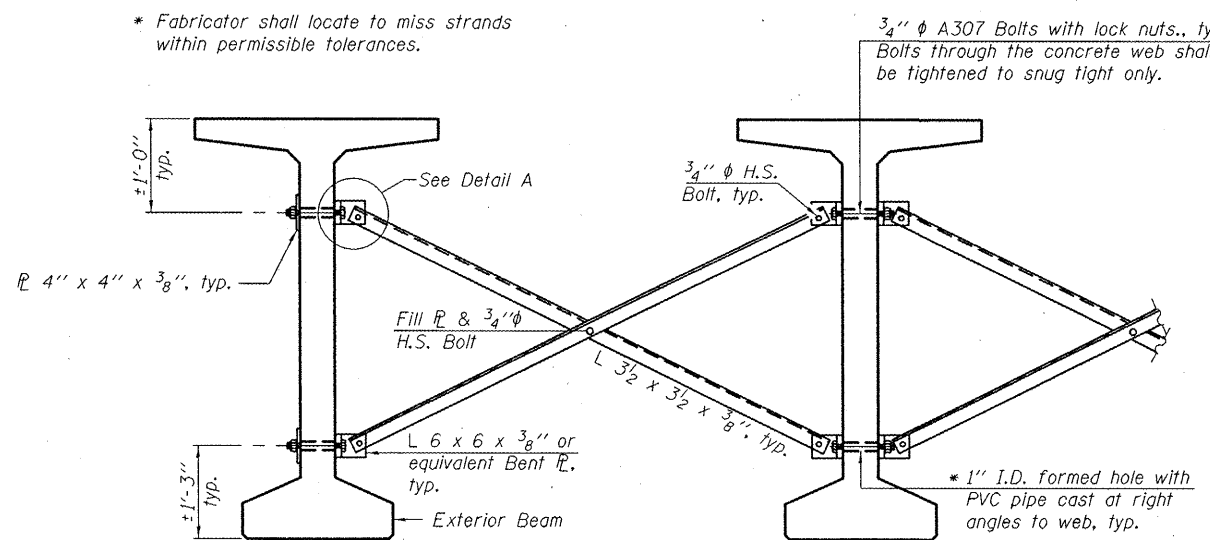
FRAMING PLAN

	0.5 Span
I	(in ⁴) 392,638
I'	(in ⁴) 725,731
S _b	(in ³) 12,224
S _b '	(in ³) 15,943
S _t	(in ³) 12,715
S _t '	(in ³) 41,518
Q	(k/ft) 1.464
M _D	(k) 2.173
s _D	(k/ft) 0.479
M _{sD}	(k) 711
M _L	(k) 1,009
M (Imp)	(k) 212

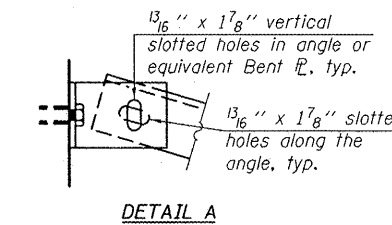
	Abut.
R _D	(k) 79.8
R _{sD}	(k) 26.1
R _L	(k) 39.4
Imp.	(k) 8.3
R (Total)	(k) 153.6

I: Non-composite moment of inertia of beam section (in⁴).
I': Composite moment of inertia of beam section (in⁴).
S_b: Non-composite section modulus for the bottom fiber of the prestressed beam (in³).
S_b': Composite section modulus for the bottom fiber of the prestressed beam (in³).
S_t: Non-composite section modulus for the top fiber of the prestressed beam (in³).
S_t': Composite section modulus for the top fiber of the prestressed beam (in³).
Q: Un-factored non-composite dead load (kips/ft.).
M_D: Un-factored moment due to non-composite dead load conservatively taken at 0.5 of the span (kip-ft.).
s_D: Un-factored long-term composite (superimposed) dead load (kips/ft.).
M_{sD}: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
M_L: Un-factored live load moment on the composite section (kip-ft.).
M (Imp): Un-factored moment due to impact on the composite section (kip-ft.).

DESIGNED	SMR
CHECKED	FT
DRAWN	JMI, DEH
CHECKED	SMR/FT



PERMANENT BRACING DETAILS
FOR BULB-T BEAMS



DETAIL A

US ROUTE 150 OVER HENDERSON CREEK
F.A.S. ROUTE 1190 - SEC. (125BY)BR
KNOX COUNTY
STATION 150+71.00
STRUCTURE NO. 048-0088

FRAMING PLAN