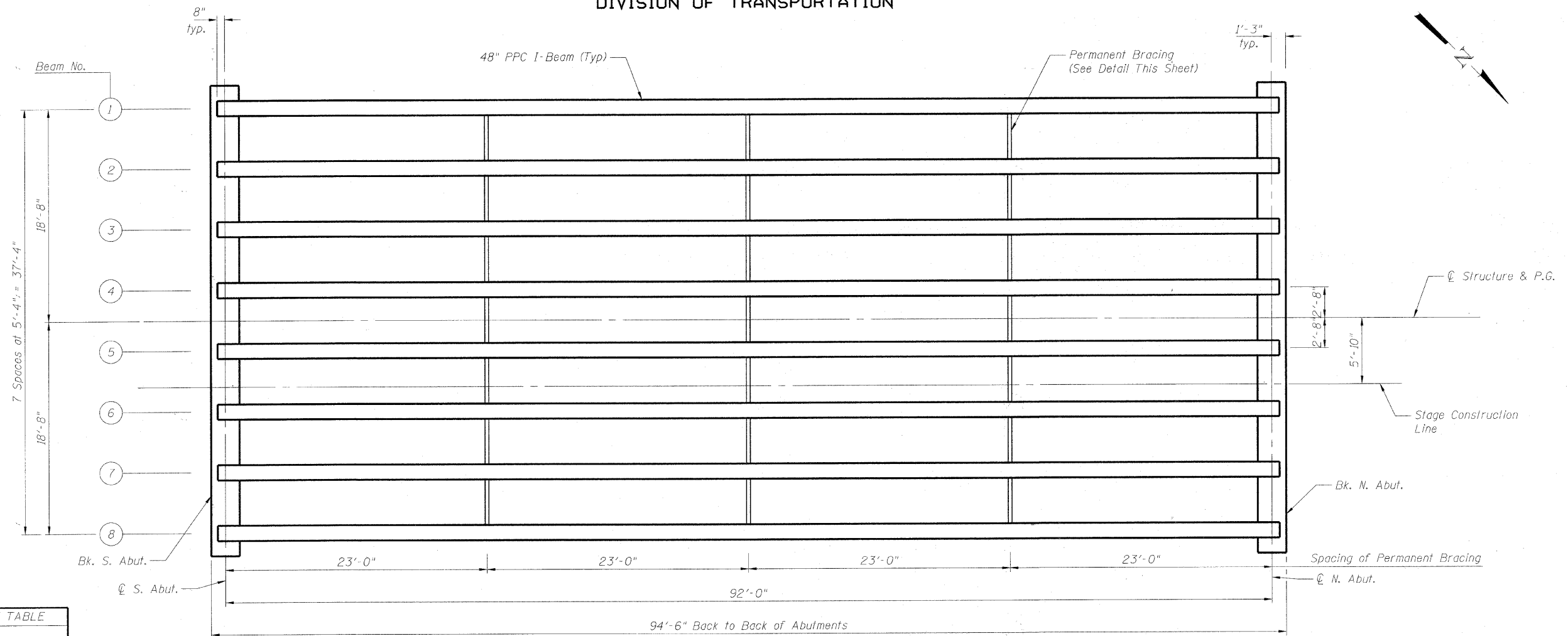


MCHENRY COUNTY
DIVISION OF TRANSPORTATION



FRAMING PLAN

INTERIOR BEAM MOMENT TABLE		
0.5 Span		
I	(in ⁴)	144117
I'	(in ⁴)	357559
S _b	(in ³)	6834
S _b '	(in ³)	10803
S _t	(in ³)	5355
S _t '	(in ³)	23996
DC1	(k/')	1.166
M _{DC1}	(k)	12.34
DC2	(k/')	0.037
M _{DC2}	(k)	39
DW	(k/')	0.267
M _{DW}	(k)	283
M _{L + IM}	(k)	1291

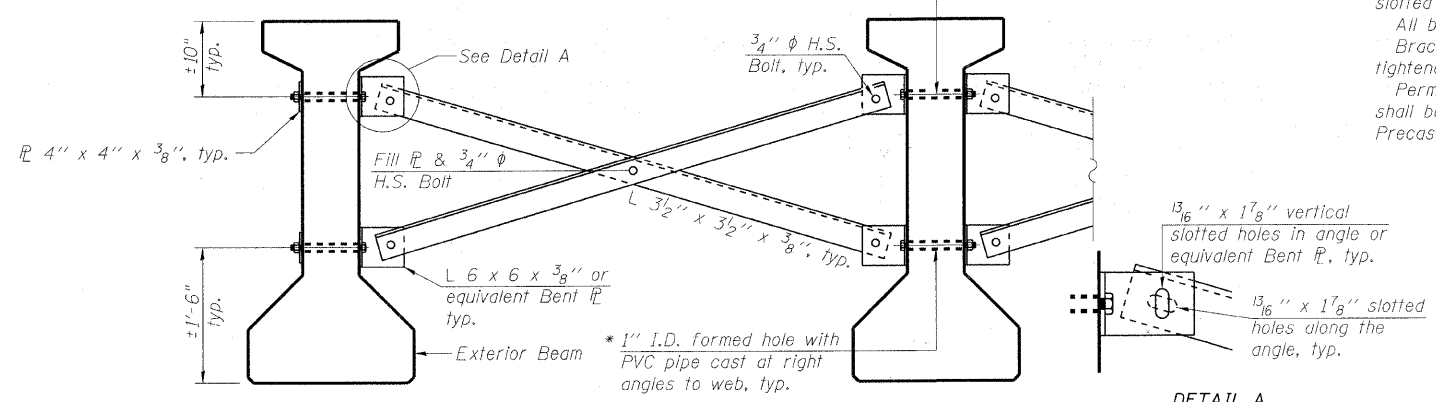
INTERIOR BEAM REACTION TABLE		
Abut.		
R _{DC1}	(k)	53.6
R _{DC2}	(k)	1.7
R _{DW}	(k)	12.2
R _{L + IM}	(k)	58.9
R _{Total}	(k)	126.4

DESIGNED	BLB
CHECKED	AS
DRAWN	BCD
CHECKED	BLB

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 + IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

* Fabricator shall locate to miss strands within permissible tolerances.

3/4" φ A307 Bolts with lock nuts., typ.
 Bolts through the concrete web shall be tightened to snug tight only.



PERMANENT BRACING DETAILS FOR
48" PPC I-BEAMS

DETAIL A

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 15/16" φ unless otherwise noted.
 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 I-Beams.

FRAMING PLAN
STRUCTURE NO. 056-3181

SHEET NO. 17 25 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0028	06-00320-01-BR	MCHENRY	70	41
CONTRACT NO. 63535					
JOB NO. C-91-139-11 ILLINOIS FED. AID PROJECT BRS-0028(107)					

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