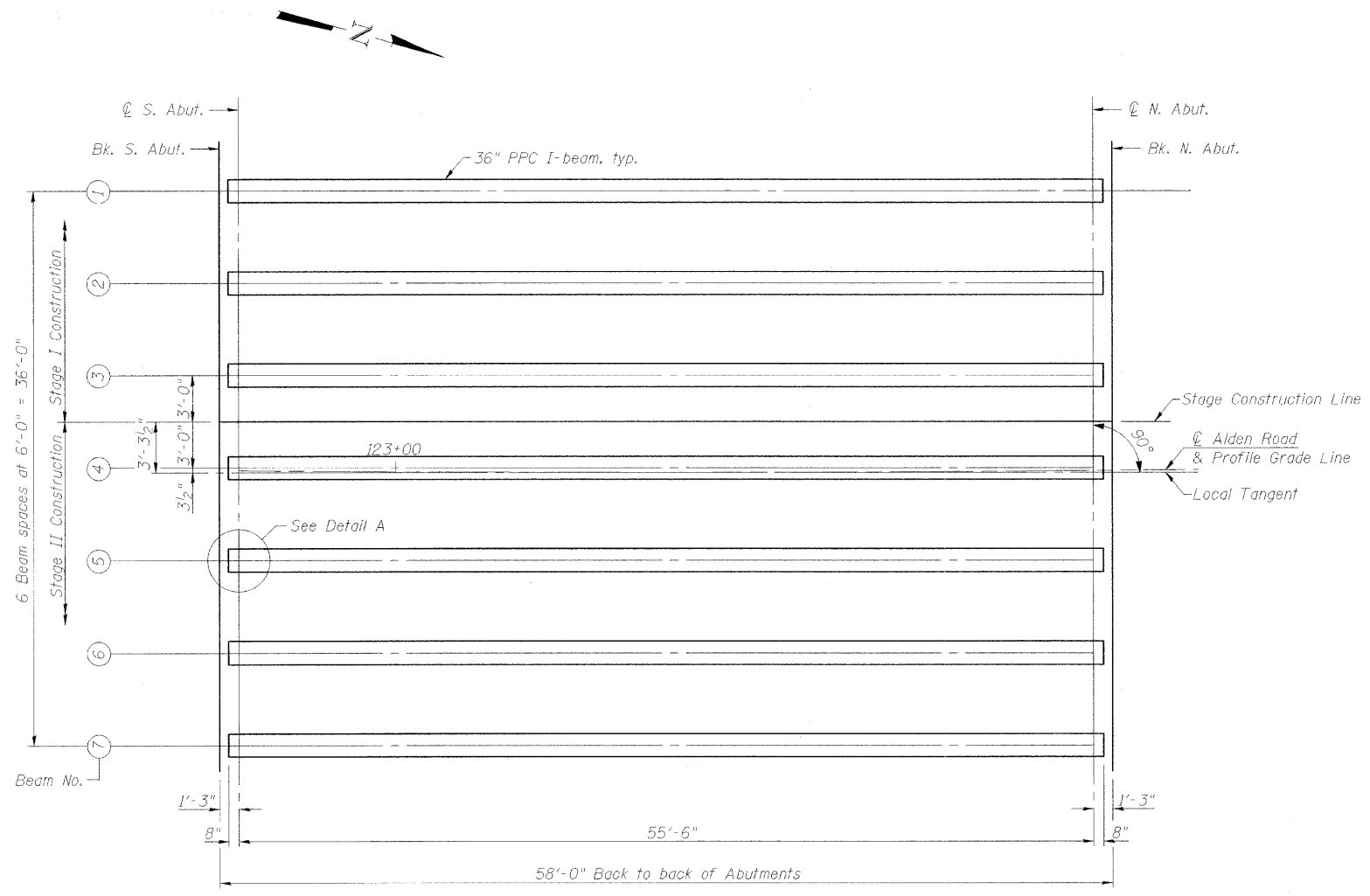
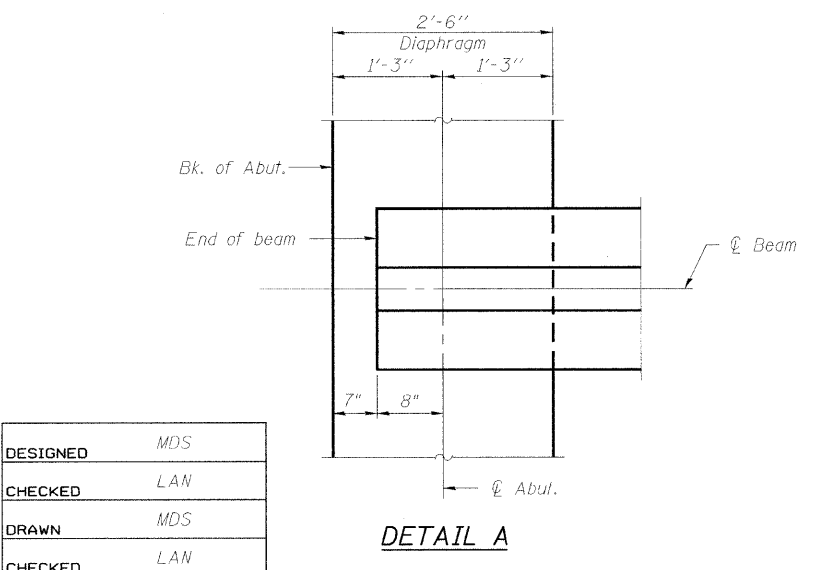


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



FRAMING PLAN

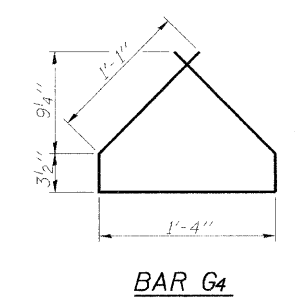


DETAIL A

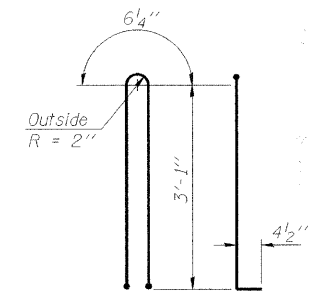
INTERIOR BEAM MOMENT TABLE		
0.5 Sp.		
$I$	(in <sup>4</sup> )	48,647.6
$I'$	(in <sup>4</sup> )	170,276
$S_b$	(in <sup>3</sup> )	3165.1
$S_b'$	(in <sup>3</sup> )	5884
$S_t$	(in <sup>3</sup> )	2358.1
$S_t'$	(in <sup>3</sup> )	24,118
$\phi$	(k/')	0.985
$M\phi$	(k)	379
$s\phi$	(k/')	0.391
$M_s\phi$	(k)	151
$M_l$	(k)	396
$M_{imp}$	(k)	111

INTERIOR BEAM REACTION TABLE		
Abut.		
$R_R$	(k)	27.3
$R_L$	(k)	10.9
$R_L'$	(k)	32.7
$imp.$	(k)	9.2
$R_{Total}$	(k)	80.1

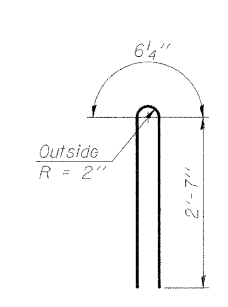
- $I$ : Non-composite moment of inertia of beam section (in<sup>4</sup>).
- $I'$ : Composite moment of inertia of beam section (in<sup>4</sup>).
- $S_b$ : Non-composite section modulus for the bottom fiber of the prestressed beam (in<sup>3</sup>).
- $S_b'$ : Composite section modulus for the bottom fiber of the prestressed beam (in<sup>3</sup>).
- $S_t$ : Non-composite section modulus for the top fiber of the prestressed beam (in<sup>3</sup>).
- $S_t'$ : Composite section modulus for the top fiber of the prestressed beam (in<sup>3</sup>).
- $\phi$ : Un-factored non-composite dead load (kips/ft.).
- $M\phi$ : Un-factored moment due to non-composite dead load conservatively taken at 0.5 of the span (kip-ft.).
- $s\phi$ : Un-factored long-term composite (superimposed) dead load (kips/ft.).
- $M_s\phi$ : 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.).



BAR G4



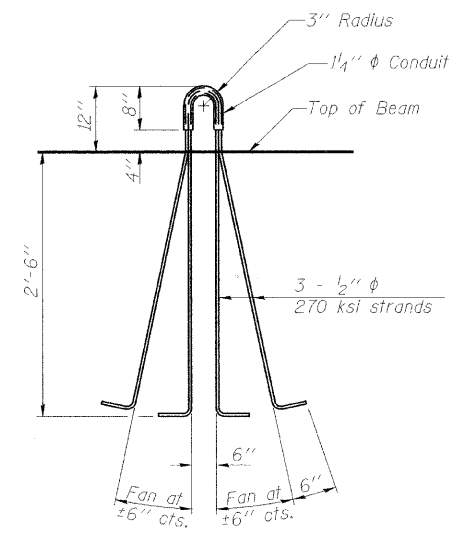
BAR G1



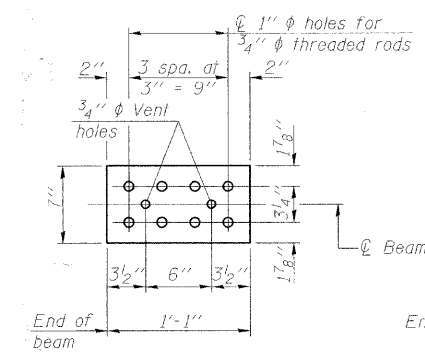
BAR G2

NOTES

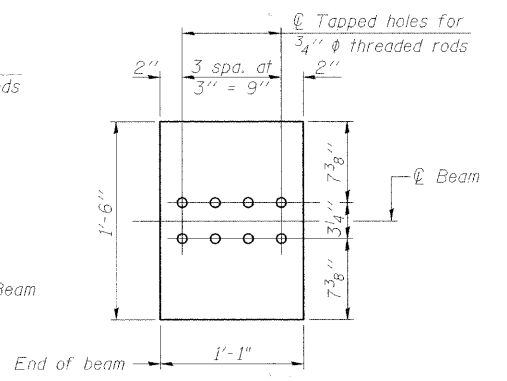
Inserts for 3/4"  $\phi$  threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions). A minimum 2 1/2"  $\phi$  lifting pin shall be used to engage the lifting loops during handling. The top and bottom plates shall be AASHTO M270 Grade 50. The bottom plates and studs shall be galvanized according to AASHTO M111. Threaded rods shall be ASTM F 1554 Grade 55.



LIFTING LOOP DETAIL



TOP PLATE



BOTTOM PLATE

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36"	Ft.	398

36" PPC I-BEAM DETAILS  
STRUCTURE NO. 056-3174

DESIGNED	MDS
CHECKED	LAN
DRAWN	MDS
CHECKED	LAN

**TranSystems**  
1051 Perimeter Drive, Suite 1025  
Schaumburg, IL 60173-5058  
Phone: (847) 605-9600  
Fax: (847) 605-9610

SHEET NO. 16	F.A.S. RTE. 0026	SECTION 02-00269-00-BR	COUNTY McHENRY	TOTAL SHEETS 153	SHEET NO. 108
22 SHEETS	CONTRACT NO. 63212		ILLINOIS FED. AID PROJECT		

lanelson 5/28/2009 E:\608 PM - gp\04\0083\structure\sheet\36ppc\012.dwg