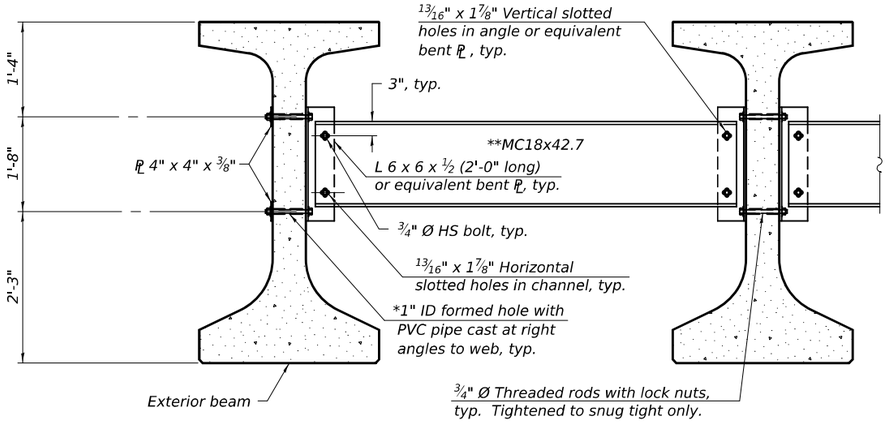


INTERIOR BEAM MOMENT TABLE		
		0.5 Sp. 1
I	(in^4)	441,689
I'	(in^4)	1,152,686
S_b	(in^3)	17,294
S_b'	(in^3)	26,621
S_t	(in^3)	11,791
S_t'	(in^3)	58,512
$DC1$	($k/'$)	1.926
M_{DC1}	('k)	4065.2
$DC2$	($k/'$)	0.175
M_{DC2}	('k)	369.4
DW	($k/'$)	0.446
M_{DW}	('k)	941.4
$LLDF$		0.716
M_{L+IM}	('k)	2928

INTERIOR BEAM REACTION TABLE		
		Abutments
$LLDF$		0.878
OCF		1.036
R_{DC1}	(k)	125.1
R_{DC2}	(k)	11.4
R_{DW}	(k)	29.0
R_L	(k)	98.6
R_{IM}	(k)	20.1
R_{Total} (Strength I)(Impact)	(k)	421.9
R_{Total} (Strength I)(No Impact)	(k)	386.7

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" Ø unless otherwise noted.

5/16" x 3" x 3" plate washers are required over all slotted holes.

All bolts, threaded rods, and hardware shall be galvanized according to AASHTO M232.

Threaded rods shall be ASTM F 1554 Grade 55.

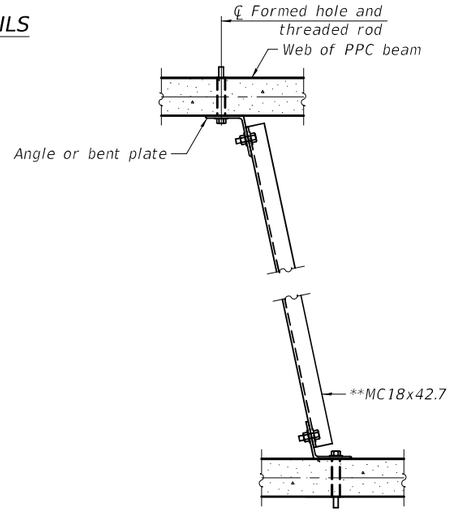
Bracing shall be installed as beams are erected and tightened as soon as possible during erection.

Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete Beams.

* *Fabricator shall locate to miss strands within permissible tolerances.*

** *Alternate MC18x45.8 channels are permitted to facilitate material acquisition.*

PERMANENT BRACING DETAILS



PLAN

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.).*

$LLDF$: *Live Load Distribution Factor for moment and shear computed according to Article 4.6.2.2 and further IDOT provisions.*

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

OCF: *Obtuse Correction Factor computed according to Article 4.6.2.2.3c or as further simplified by IDOT provisions.*

R_{DC1}: *Un-factored reaction due to non-composite dead load (kip).*

R_{DC2}: *Un-factored reaction due to long-term composite (superimposed excluding future wearing surface) dead load (kip).*

R_{DW}: *Un-factored reaction due to long-term composite (superimposed future wearing surface only) dead load (kip).*

R_L: *Un-factored live load reaction (kip).*

R_{IM}: *Un-factored dynamic load allowance (impact) (kip).*

R_{Total} (Strength I)(Impact): *Total factored reaction including dynamic load allowance (impact) (kip).*

R_{Total} (Strength I)(No Impact): *Total factored reaction not including dynamic load allowance (impact) (kip).*

1 *"Entire Sheet Revised"*

⚠ REVISED SHEET 8-27-2025

DESIGNED -	MARTIN FIGUEROA	EXAMINED	ENGINEER OF BRIDGE DESIGN
CHECKED -	RYAN P. NEGANGARD	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
DRAWN -	DENNIS A. POP	DATE -	August 20, 2025
CHECKED -	R.P.N. / A.M.D.	REVISED 1	08/26/2025 R.P.N.
8/26/2025	2:42:00 PM	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING DETAILS
STRUCTURE NO. 025-0113
SHEET 15 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	25-8BR	EFFINGHAM	96	49
		CONTRACT NO. 74A04		
		ILLINOIS	FED. AID PROJECT	

MODEL: 025O113-74A04-015.dgn
FILE NAME: pw://idot-pw.bentley.com:PWIDOT/Documents/IDOT Offices/Bureau of Bridges and Structures/OBM Projects/0250113/CADData/Bridge/0250113-74A04-Design.dgn