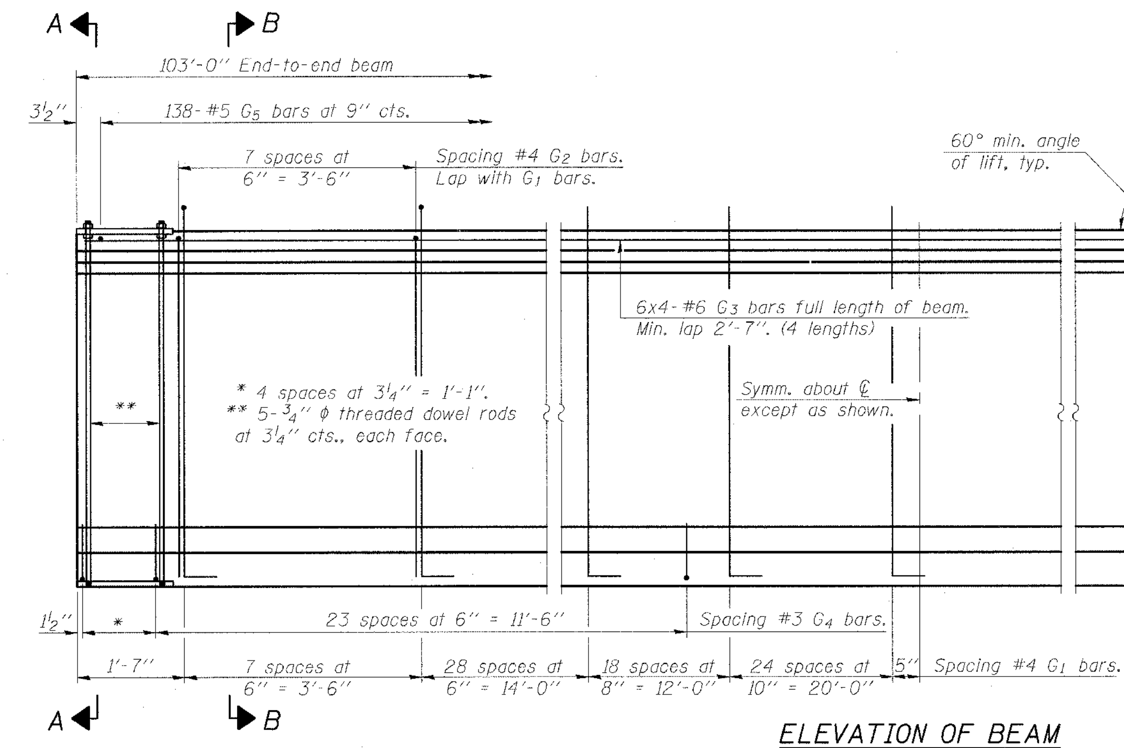
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	*	EFFINGHAM	95	52
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

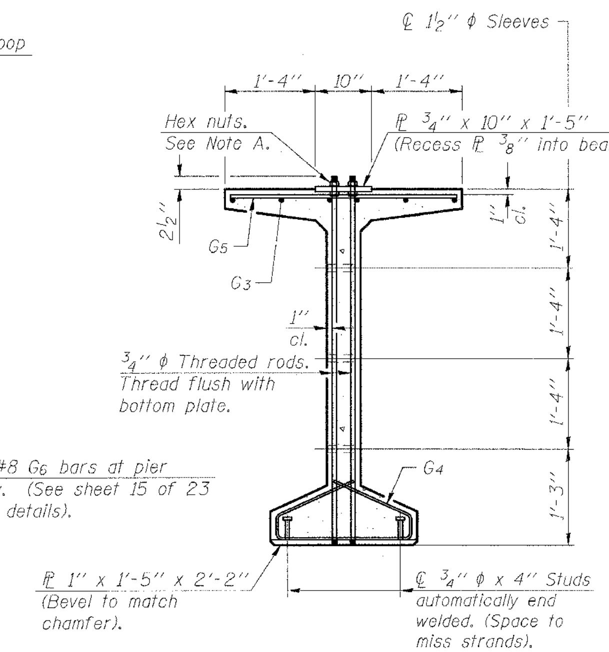
SHEET NO. 14
23 SHEETS

Contract #95503
* 03-00098-00-BR

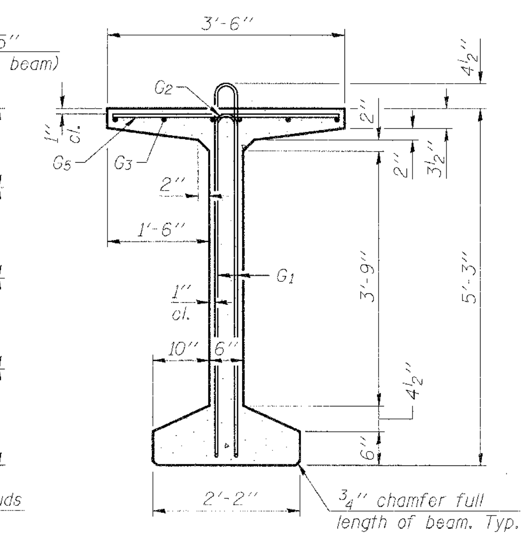


ELEVATION OF BEAM
(Showing reinforcement & dimensions)

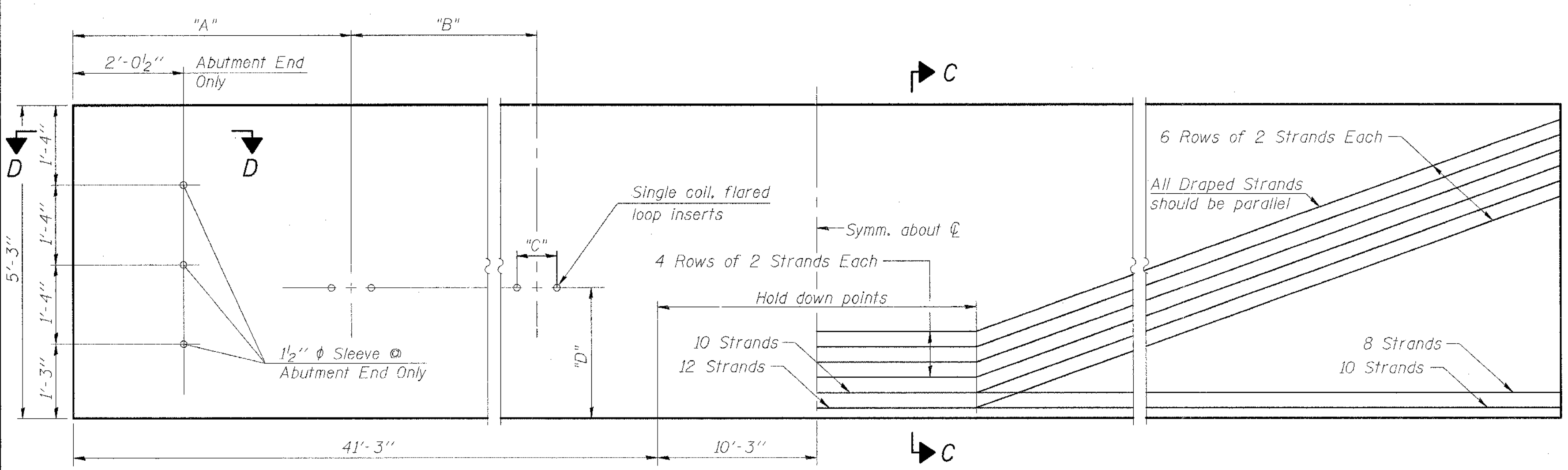
Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



SECTION A-A

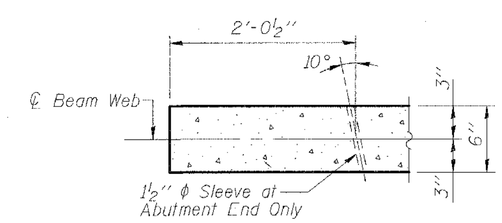


SECTION B-B

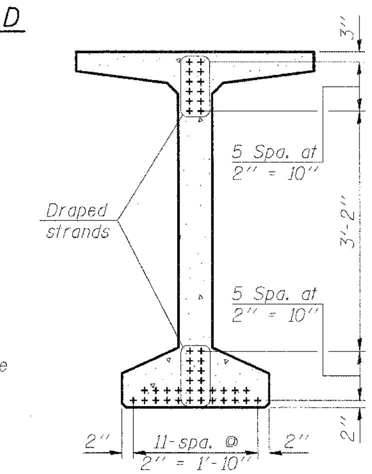


"C" - As required by pipe clamp
"D" - Locate as required to miss strand pattern

ELEVATION OF BEAM
(Showing prestressing steel)



SECTION D-D



SECTION C-C

*** BAR LIST
ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1	156	#4	11'-11"	
G_2	16	#4	10'-2"	
G_3	24	#6	27'-9"	
G_4	56	#3	4'-11"	
G_5	138	#5	3'-4"	
G_6	3	#8	3'-9"	

*** For information only

Notes:
See sheet 15 of 23 for additional details and Bill of Material.
Required release strength, f'ci, shall be 5000 psi.

DIMENSION FROM ABUTMENT END OF BEAM TO ℄ FLOOR DRAIN

Span	Beam	"A"	"B"
1	1	14'-6¼"	15'-0"
1	5	17'-9⅜"	-
2	1	12'-11¾"	15'-0"
2	5	18'-3½"	-

INTERIOR BEAM MOMENT TABLE			
		0.4 Sp. 1 0.6 Sp. 2	Pier 1
I	(in^4)	392638	
I'	(in^4)	774483	
S_b	(in^3)	12224	
S_b'	(in^3)	16353	
S_t	(in^3)	12715	
S_t'	(in^3)	49519	
DL	(k/')	1.563	
M DL	('k)	1943.6	
s DL	(k/')	0.582	0.582
M_s DL	('k)	429.5	738.1
M LL	('k)	862.1	789.2
M_{Imp}	('k)	190.5	174.4

INTERIOR BEAM REACTION TABLE			
		Abut.	Pier 1 Span 1 Pier 1 Span 2
R DL	(k)	79.8	79.8
* R_s DL	(k)	22.4	37.3
* R LL	(k)	43.8	37.0
* Imp.	(k)	9.7	8.2
R_{Total}	(k)	155.7	162.3

* The total R_s DL, R LL, and impact reactions are assumed to be distributed evenly to each bearing line at a pier regardless of the span ratios. The bearing design at a pier is based on the maximum reactions of either span.

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).
DL: Un-factored non-composite dead load (kips/ft.).
M DL: Un-factored moment due to non-composite dead load conservatively taken at 0.5 of the span (kip-ft.).
s DL: Un-factored long-term composite (superimposed) dead load (kips/ft.).
M_s DL: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
M LL: 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.).

63" PPC BULB T-BEAM
OUTER BELT WEST OVER TRIBUTARY
TO LITTLE WABASH RIVER
LOCAL ROAD SEC. 03-00098-00-BR
EFFINGHAM COUNTY
STATION 415+66.00
STRUCTURE NO. 025-6009

HANSON

JOB NO. 05S2071
DATE 03/29/07

03/29/2007, 10:34 AM