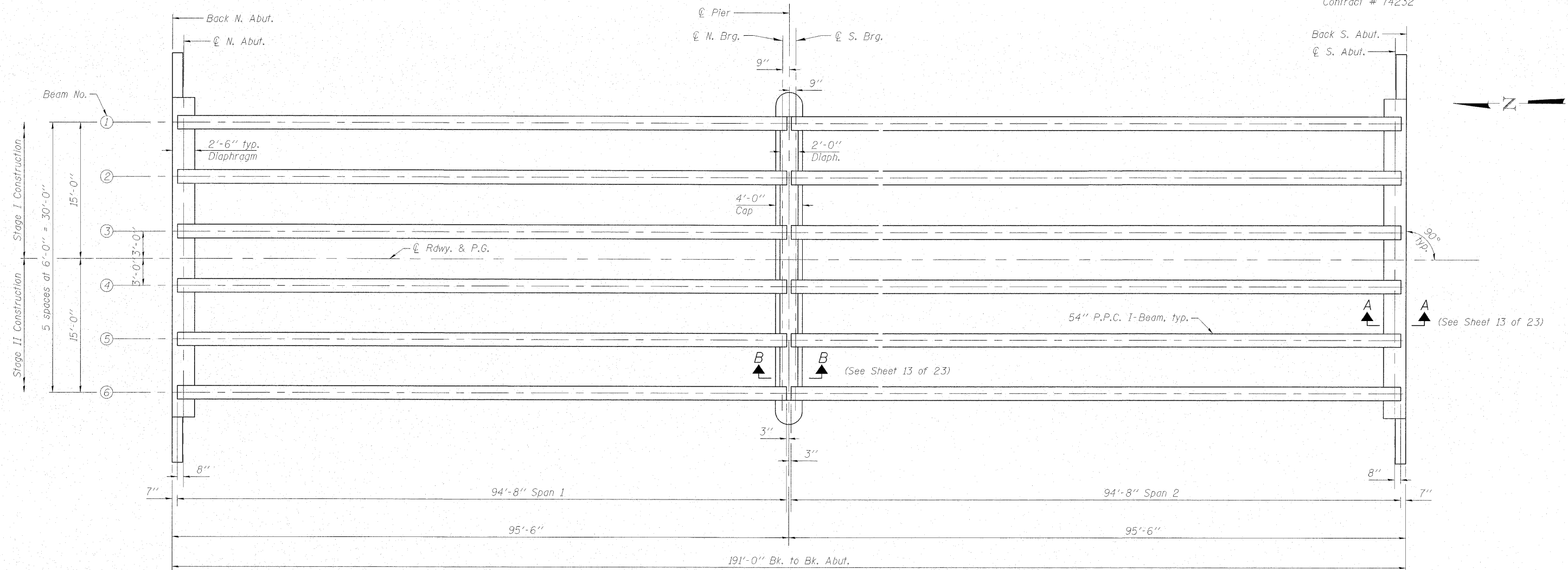


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 2801 IL 128	(102B) B-1	EFFINGHAM	51	36
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 14
23 SHEETS

Contract # 74232



FRAMING PLAN

	0.4 Sp. 1 0.6 Sp. 2	Pier
I	(in ⁴) 213715	213715
I'	(in ⁴) 481040	—
S_b	(in ³) 8559	8559
S_b'	(in ³) 12537	—
S_t	(in ³) 7362	7362
S_t'	(in ³) 30777	—
$DC1$	(k/ft) 1.245	1.245
M_{DC1}	(k) 1327.1	—
$DC2$	(k/ft) 0.150	0.150
M_{DC2}	(k) 93.3	166.6
DW	(k/ft) 0.267	0.267
M_{DW}	(k) 166.0	296.5
M_{L+Imp}	(k) 1148.8	1185.0

- 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).
- $DC1$: 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+Imp} : Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

	M. Abut.	Pier		S. Abut.
		Span 1	Span 2	
R_{DC1}	(k) 58.7	58.7	58.7	58.7
* R_{DC2}	(k) 5.3	8.8	8.8	5.3
* R_{DW}	(k) 9.4	15.7	15.7	9.4
* R_{L+Imp}	(k) 74.0	67.3	67.3	74.0
R_{Total}	(k) 147.4	150.5	150.5	147.4

* The total R_{DC2} , R_{DW} and R_{L+Imp} 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.



DESIGNED - BAS
CHECKED - KEF
DRAWN - SGM
CHECKED - RJA

FRAMING PLAN
IL ROUTE 128 OVER WOLF CREEK
F.A.S. RTE. 2801 - SECTION (102B)B-1
EFFINGHAM COUNTY
STATION 974+76.00
STRUCTURE NO. 025-0105