

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

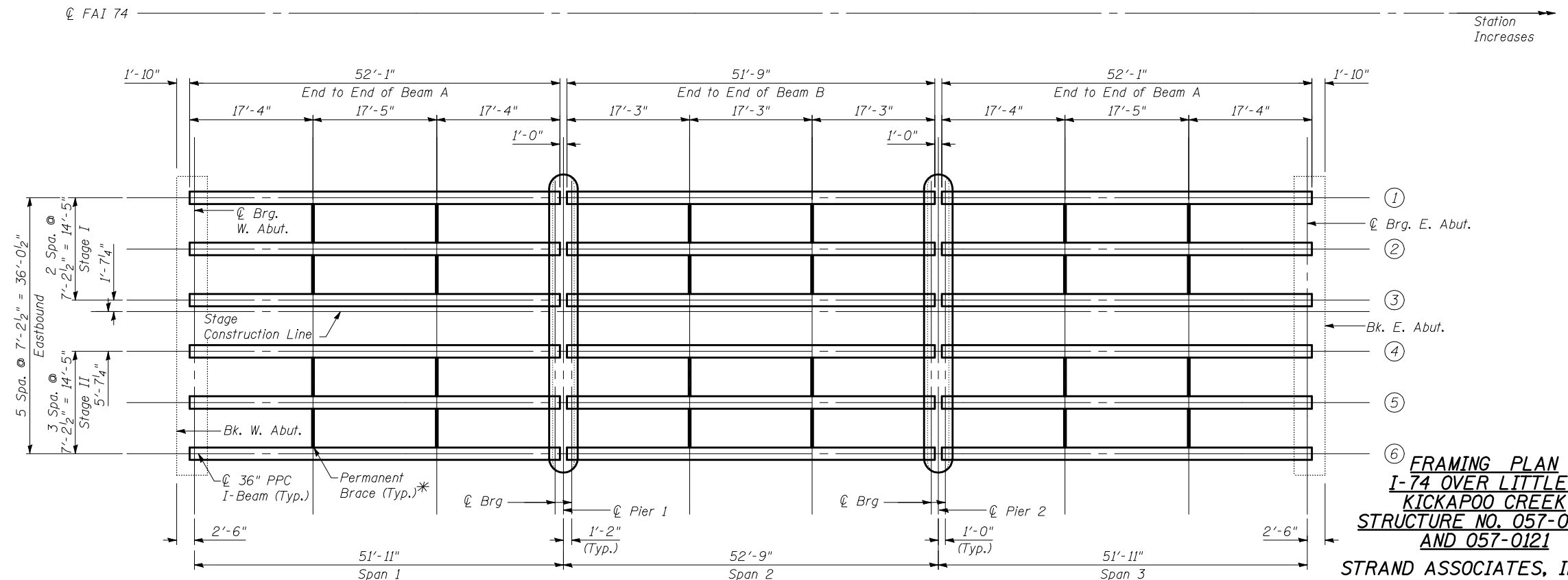
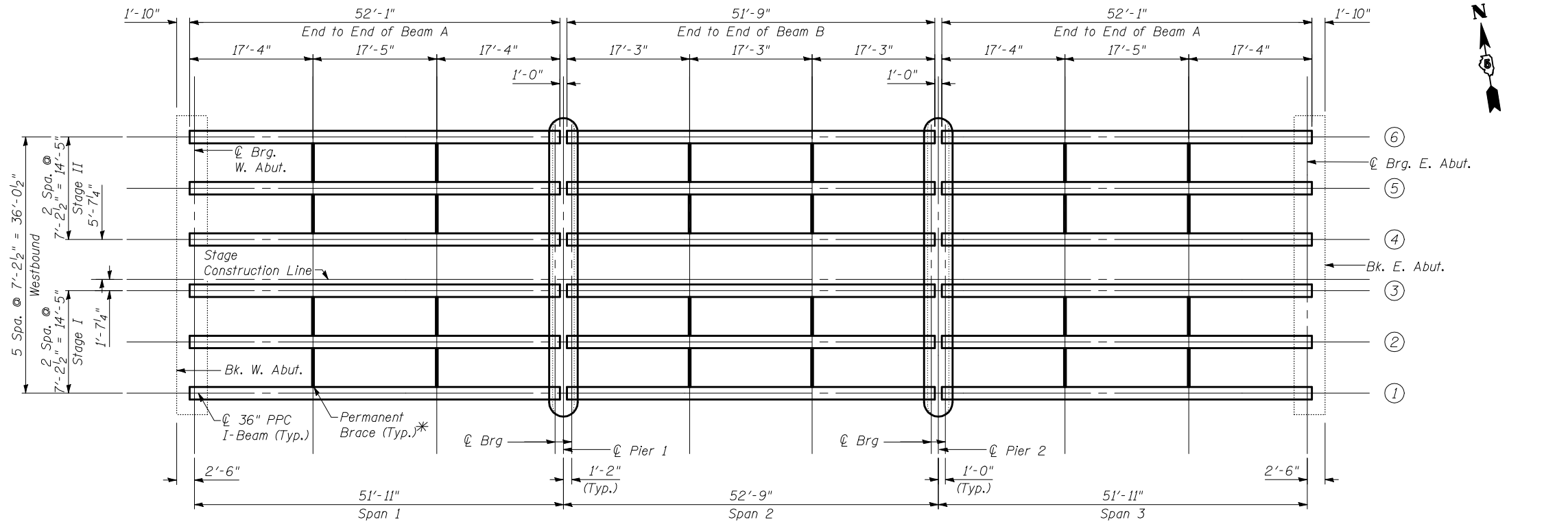


	0.4 Sp. 1 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
I	(in ⁴) 48,648	48,648	48,648
I'	(in ⁴) 108,726	108,726	108,726
S_b	(in ³) 3,165.1	3,165.1	3,165.1
S_b'	(in ³) 6,010.1	6,010.1	6,010.1
S_t	(in ³) 2,358.1	2,358.1	2,358.1
S_t'	(in ³) 30,478.5	30,478.5	30,478.5
$DC1$	(k/ft) 1.14	1.14	1.14
M_{DC1}	(k) 372.1	0	387.6
$DC2$	(k/ft) 0.15	0.15	0.15
M_{DC2}	(k) 32.1	-41.0	11.1
DW	(k/ft) 0.33	0.33	0.33
M_{DW}	(k) 74.9	-95.7	26.0
$M_L + IM$	(k) 875.7	-643.2	710.6

	Abut.	Pier 1 Span 1 Pier 2 Span 3	Pier 1 Span 2 Pier 2 Span 2
R_{DC1}	(k) 29.7	29.7	30.1
* R_{DC2}	(k) 3.1	4.7	4.0
* R_{DW}	(k) 7.2	10.9	9.2
* $R_L + IM$	(k) 90.7	105.0	100.2
R_{Total}	(k) 130.7	150.3	143.5

* The total R_{DC2} , R_{DW} and $R_L + IM$ 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 (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.).
- $M_L + IM$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).



DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

* Cost included in Furnishing and Erecting Precast Prestressed I-Beams, 36 in.

FRAMING PLAN

**FRAMING PLAN
I-74 OVER LITTLE
KICKAPOO CREEK
STRUCTURE NO. 057-0120
AND 057-0121
STRAND ASSOCIATES, INC.**

SHEET NO. 13 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 25
	FRAMING PLAN		CONTRACT NO. 70641		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					