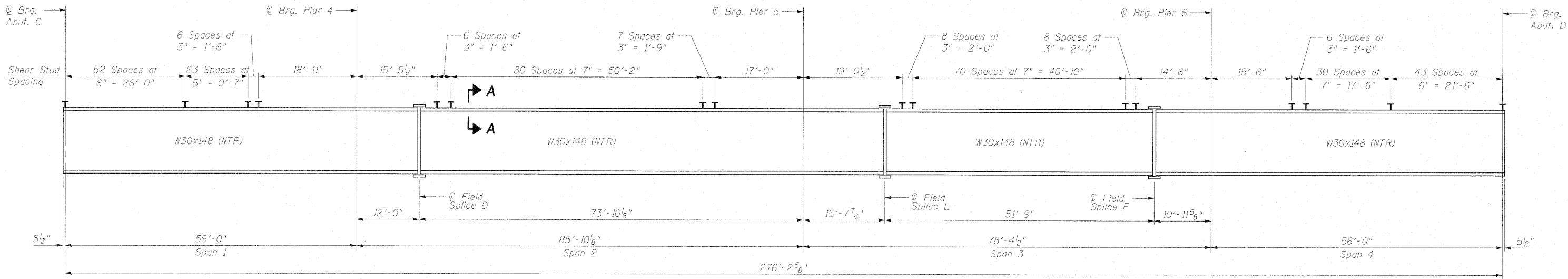
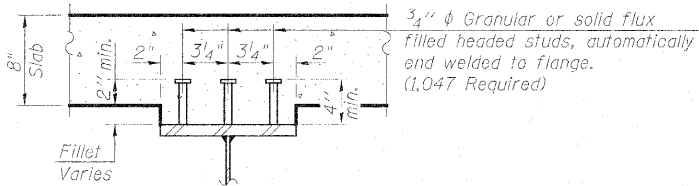


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BEAM 13 ELEVATION



SECTION A-A

BEAM 13 FASCIA MOMENT TABLE								
		0.4 Span 1	Pier 4	0.5 Span 2	Pier 5	0.5 Span 3	Pier 6	0.6 span 4
I_e	(in ⁴)	6,680	6,680	6,680	6,680	6,680	6,680	6,680
$I_e(n)$	(in ⁴)	15,400		15,400		15,400		15,400
$I_e(3n)$	(in ⁴)	11,084		11,084		11,084		11,084
S_e	(in ³)	435	435	435	435	435	435	435
$S_e(n)$	(in ³)	606		606		606		606
$S_e(3n)$	(in ³)	541		541		541		541
ϕ	(k/')	0.624	0.923	0.624	0.923	0.624	0.923	0.624
$M\phi$	(k)	101	458	218	528	153	378	124
$s\phi$	(k/')	0.299		0.299		0.299		0.299
$M_s\phi$	(k)	56		123		89		66
M_L	(k)	211	167	297	187	268	150	212
M_I	(k)	58	43	70	45	66	39	58
$\phi_3 [M_L + I]$	(k)	448	350	612	387	557	315	450
M_a	(k)	786	1,050	1,239	1,190	1,039	901	832
M_u	(k)	2,786		2,786		2,786		2,786
$f_s \phi$ non-comp	(ksi)	2.8	12.6	6.0	14.6	4.2	10.4	3.4
$f_s \phi$ (comp)	(ksi)	1.2		2.7		2.0		1.5
$f_s \phi_3 [M_L + M_I]$	(ksi)	8.9	9.7	12.1	10.7	11.0	8.7	8.9
f_s (Overload)	(ksi)	12.9	22.3	20.8	25.3	17.2	19.1	13.8
f_s (Total)	(ksi)	16.8	29.0	27.0	32.9	22.4	24.8	17.9
VR	(k)	28.4		25.3		25.3		28.0

BEAM 13 FASCIA REACTION TABLE						
	Abut. C	Pier 4	Pier 5	Pier 6	Abut. D	
$R\phi$	(k)	17.8	71.6	77.1	65.7	19.2
R_L	(k)	19.5	26.4	27.9	25.4	19.6
R_I	(k)	5.4	4.9	4.9	4.9	5.4
R_{Total}	(k)	42.7	102.9	109.9	96.0	44.2

* Compact section
** Braced non-compact and partially braced section

TOP OF BEAM ELEVATIONS
(For Fabrication Use Only)

	Abut. C	Pier 4	Field Splice D	Pier 5	Field Splice E	Field Splice F	Pier 6	Abut. D
Beam 13	591.05	590.82	590.77	590.46	590.39	590.10	590.04	589.76

DESIGNED	SPK
CHECKED	LAN
DRAWN	ASJ
CHECKED	SPK

Notes:
All material on this sheet to be AASHTO M270
Grade 50 unless otherwise noted.
Load carrying components designated "NTR" shall
conform to the Supplemental Requirement for Notch
Toughness, Zone 2.
For Field Splice Detail see sheet 32 of 77.

STEEL BEAM 13 DETAILS
STRUCTURE NO. 081-0024 (W.B.)
STRUCTURE NO. 081-0025 (E.B.)



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SHEET NO. 33	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	280	81-1(VB-1)R	ROCK ISLAND	503	369
CONTRACT NO. 64815					
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					