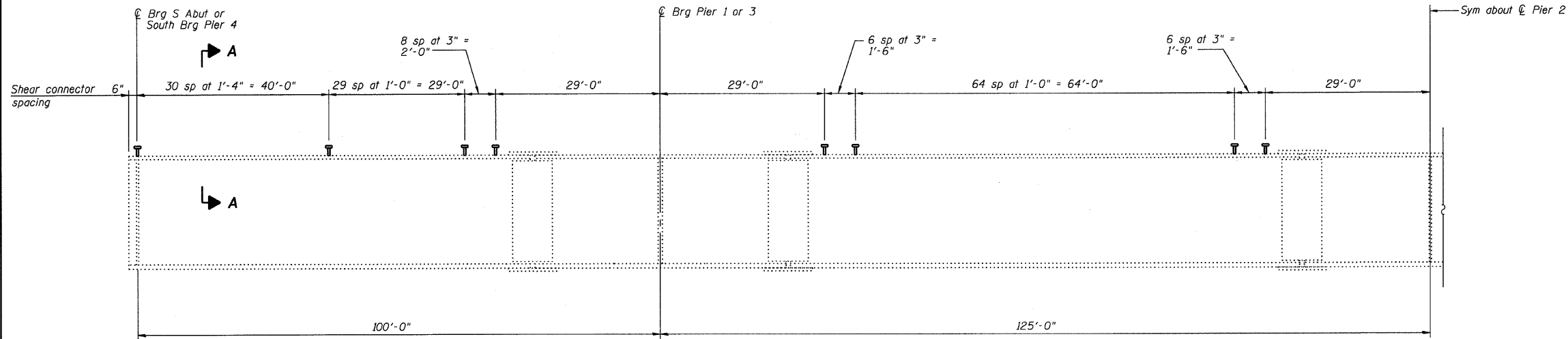
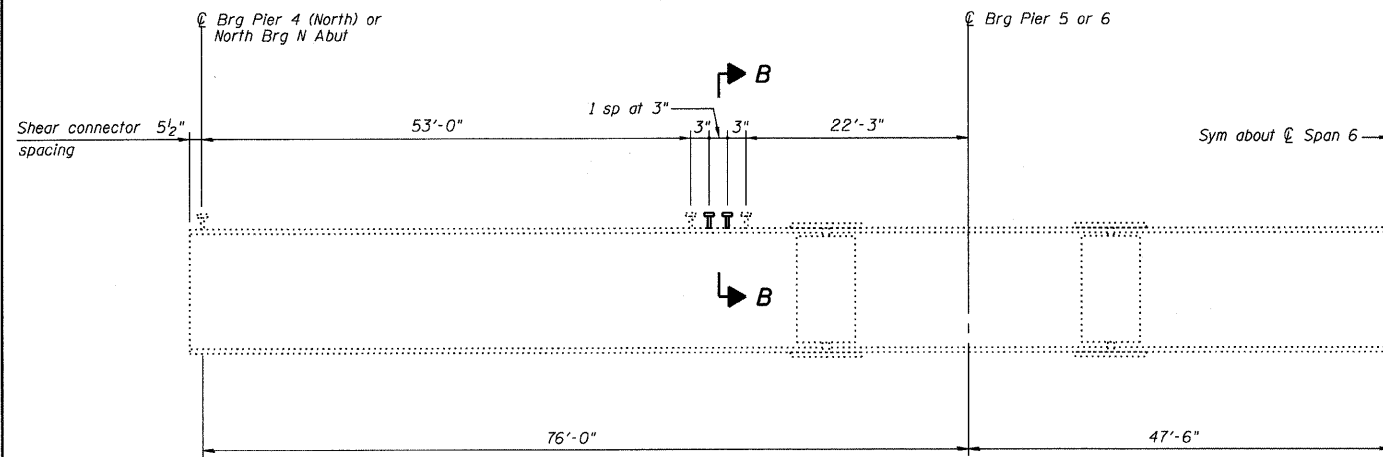


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1539	•	MACON	57	18
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		

•00-00155-00-BR



EXISTING GIRDER ELEVATION - SPANS 1 THRU 4 (SOUTH)



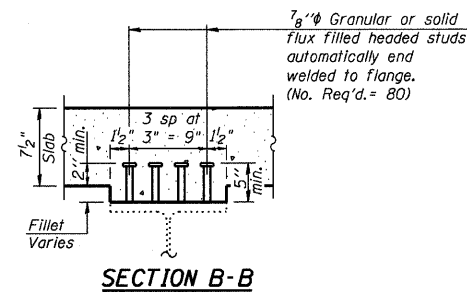
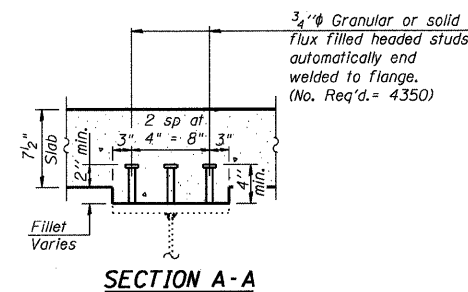
EXISTING BEAM ELEVATION - SPANS 5 THRU 7 (NORTH)

	0.4 Sp. 1 0.6 Sp. 4	Pier 1 & 3	0.5 Sp. 2 0.5 Sp. 3	Pier 2
Is (in ⁴)	36180	57015	36180	57015
Ic (in ⁴)	76510		76510	
Ic (3n) (in ⁴)	58140		58140	
Ss (in ³)	1162	1788	1162	1788
Sc (n) (in ³)	1473		1473	
Sc (3n) (in ³)	1368		1368	
Z (in ³)				
Q (k/ft.)	0.97	1.41	0.97	1.41
M _P (k)	633	1784	557	1827
s _P (k/ft.)	0.36		0.36	
M _{sP} (k)	251		242	
M _L (k)	926	869	971	954
M (Imp) (k)	206	183	194	191
5 ₃ [M _L +M(Imp)] (k)	1887	1753	1942	1908
M _a (k)	3602	4598	3563	4856
M _u (k)	4964		5791	
f _{sP} non-comp (k.s.i.)	6.5	12.0	5.8	12.3
f _{sP} (comp) (k.s.i.)	2.2		2.1	
f _{s5₃} (k+Imp) (k.s.i.)	15.4	11.8	15.8	12.8
f _s (Overload) (k.s.i.)	24.1	23.8	23.7	25.1
f _s (Total) (k.s.i.)		30.9		32.6
VR (k)	52.6	67.8	54.2	67.1

	0.4 Sp. 5 0.6 Sp. 7	Pier 5 & 6	0.5 Sp. 6
Is (in ⁴)	10660	17500	10660
Ic (n) (in ⁴)	28490		28490
Ic (3n) (in ⁴)	20500		20500
Ss (in ³)	534	919	534
Sc (n) (in ³)	920		920
Sc (3n) (in ³)	837		837
Z (in ³)			
Q (k/ft.)	0.95	1.41	0.95
M _P (k)	356	759	319
s _P (k/ft.)	0.39		0.39
M _{sP} (k)	160		165
M _L (k)	666	516	716
M (Imp) (k)	166	123	163
5 ₃ [M _L +M(Imp)] (k)	1387	1065	1465
M _a (k)	2474	2371	2534
M _u (k)	2808		3064
f _{sP} non-comp (k.s.i.)	8.0	9.9	7.2
f _{sP} (comp) (k.s.i.)	2.3		2.4
f _{s5₃} (k+Imp) (k.s.i.)	18.1	13.9	19.1
f _s (Overload) (k.s.i.)	28.4	23.8	28.7
f _s (Total) (k.s.i.)		31.0	
VR (k)	49.3	65.2	51.8

	S. Abut. S. Brg Pier 4	Pier 1 Pier 3	Pier 2
R _P (k)	49.4	169.0	169.2
R _L (k)	46.4	80.6	83.6
Imp. (k)	10.3	17.0	16.7
R (Total) (k)	106.2	266.6	269.5

	N. Brg Pier 4 or N. Abut	Pier 5 Pier 6
R _P (k)	38.2	129.9
R _L (k)	44.8	65.0
Imp. (k)	11.1	15.4
R (Total) (k)	94.2	210.3



Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).
 Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
 Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads.
 VR is the maximum Live Load + Impact shear range in span.
 Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.
 Ma (Applied Moment) = 1.3[M_P + M_{sP} + 5₃(M_L + M(Imp))].
 The Plastic Moment Capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.
 fs (Overload) is the sum of the stresses due to M_P + M_{sP} + 5₃(M_L + M(Imp)).
 fs (Total) (Non-compaction section) is the sum of the stresses due to 1.3[M_P + M_{sP} + 5₃(M_L + M(Imp))].

BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	4430

WYCKLES ROAD OVER THE SANGAMON RIVER

STRUCTURAL STEEL DETAILS AND MOMENT TABLES

REVISIONS	FAS 1539	SECTION 00-00155-00-BR	DRAWN BY DATE
1		SN 058-3030	R. KING 9/08
2		MACON COUNTY	CHECKED BY DATE
3			JMB 9/08
4			BOOK NUMBER
5			PROJECT NO.
6			4698
7			SHEET NO.
8			
9			
10			

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