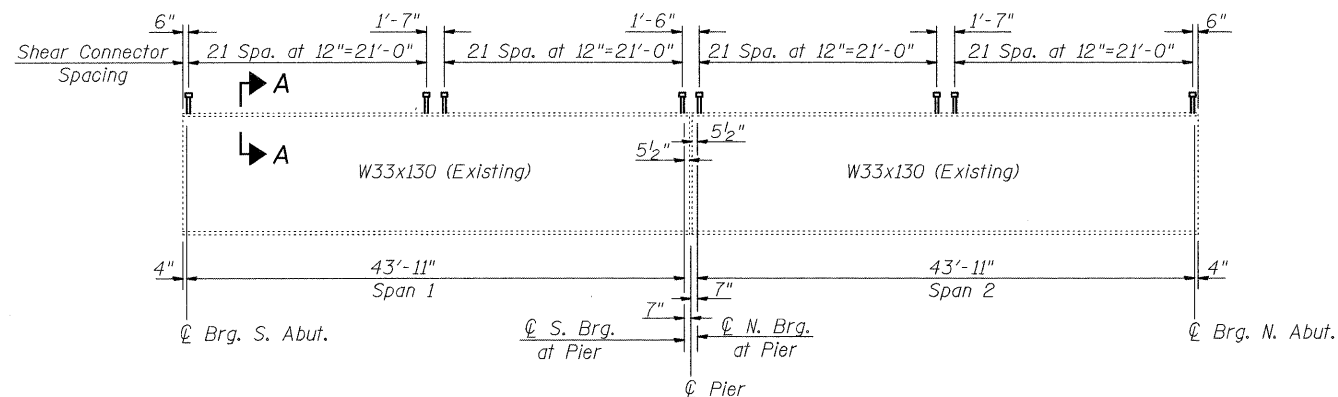
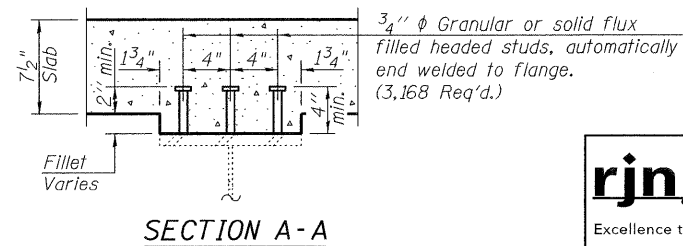


EXISTING FRAMING PLAN



EXISTING BEAM ELEVATION



SECTION A-A

INTERIOR BEAM MOMENT TABLE		
0.5 Sp. 1 & 2		
I_s	(in ⁴)	6,710
I_c (n)	(in ⁴)	17,419
I_c (3n)	(in ⁴)	12,637
S_s	(in ³)	406
S_c (n)	(in ³)	589
S_c (3n)	(in ³)	529
Z	(in ³)	-
\bar{p}	(k/ft.)	0.70
$M\bar{p}$	(k)	169
$s\bar{p}$	(k/ft.)	0.42
$Ms\bar{p}$	(k)	102
$M\bar{t}$	(k)	279
M (Imp)	(k)	82
$^5_3[M\bar{t} + M(\text{Imp})]$	(k)	602
Ma	(k)	1135
Mu	(k)	2295
$fs\bar{p}$ non-comp	(k.s.i.)	5.0
$fs\bar{p}$ (comp)	(k.s.i.)	2.3
$fs^5_3(\bar{t} + \text{Imp})$	(k.s.i.)	12.3
fs (Overload)	(k.s.i.)	19.6
fs (Total)	(k.s.i.)	-
VR	(k)	40.1

INTERIOR BEAM REACTION TABLE		
Abuts. & Pier		
$R\bar{p}$	(k)	24.6
$R\bar{t}$	(k)	34.8
$Imp.$	(k)	10.3
R (Total)	(k)	69.7

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).
 $I_c(n)$ and $S_c(n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
 $I_c(3n)$ and $S_c(3n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)
 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) = $1.3[M\bar{p} + Ms\bar{p} + ^5_3(M\bar{t} + M(\text{Imp}))]$.
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 $M\bar{p} + Ms\bar{p} + ^5_3(M\bar{t} + M(\text{Imp}))$.
 fs (Total) (Non-compact section) is the sum of the stresses due to $1.3[M\bar{p} + Ms\bar{p} + ^5_3(M\bar{t} + M(\text{Imp}))]$.

BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	3,168

rjngroup
 Excellence through Ownership
 200 West Front Street
 Wheaton, IL 60187
 DESIGNED: WJV
 CHECKED: BLB
 DATE: 04/02/09

FRAMING PLAN
 IL RTE. 56 OVER BLACKBERRY CREEK
 STATION 202+10.00
 STRUCTURE NO. 045-0026 (E.B.)
 STRUCTURE NO. 045-0027 (W.B.)

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	573	61B-BR-1	KANE	37	23
17 SHEETS					
CONTRACT NO. 62817					
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					