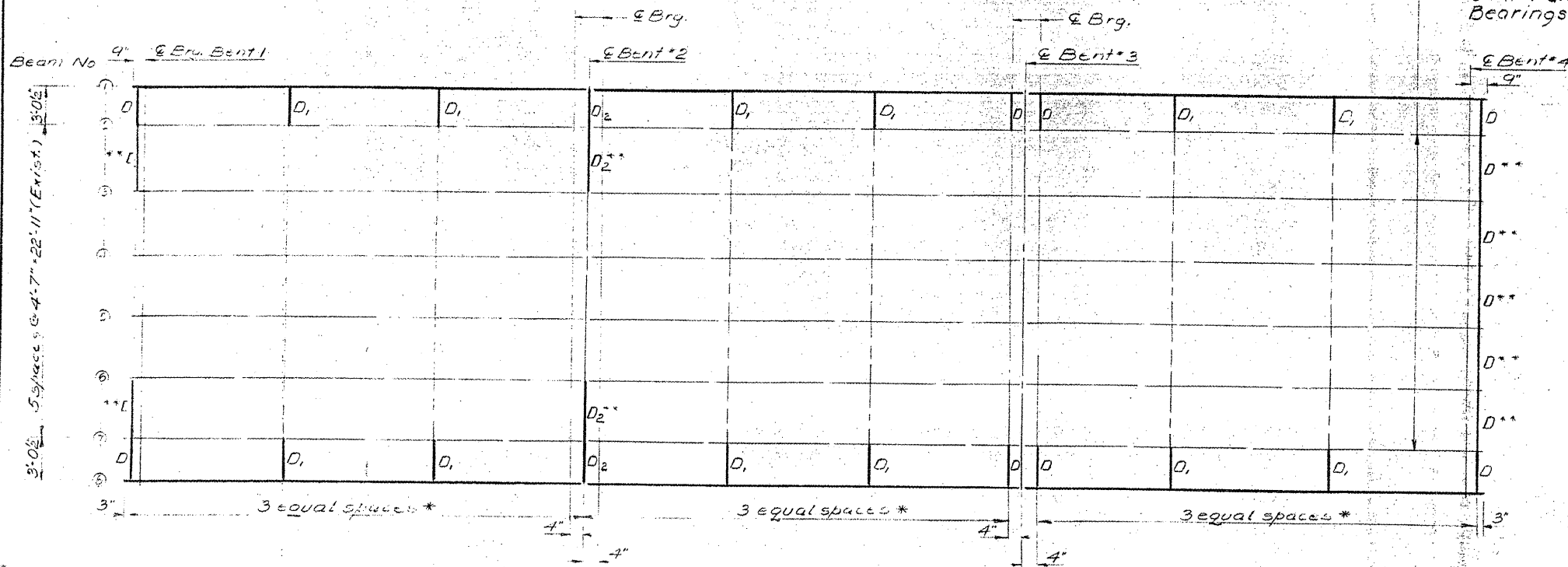


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

VARIOUS ROUTES
D9 BRIDGE PAINTING FY 09-1
VARIOUS COUNTIES
CONTRACT 78093
FOR INFORMATION ONLY
SHEET 27 OF 31

Bms. 2 thru 7 shall be jacked and cribbed during reconstruction of Bent 4 and placement of New Bearings See Special Provisions.

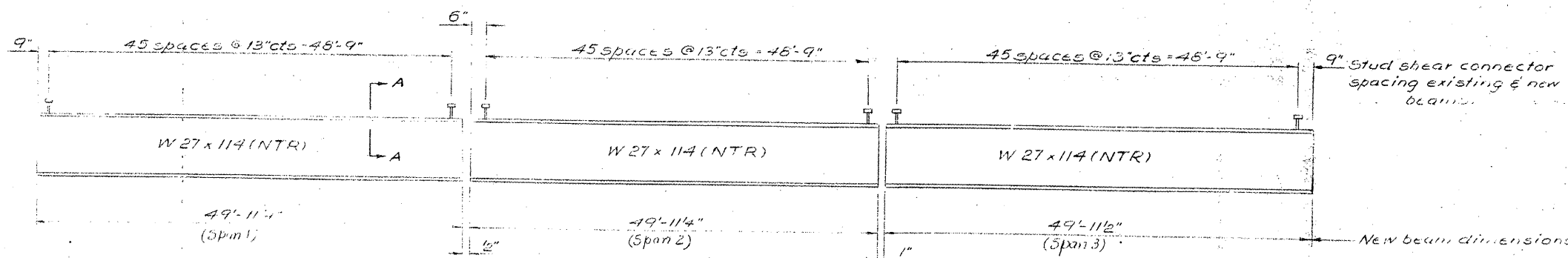


FRAMING PLAN

* Holes for Diaphragms shall be field drilled to match existing Diaphragm holes
** Existing Diaphragms to be removed and replaced with new Diaphragms. Cost included with "Remove & Replace Diaphragms".
All contact surfaces of joints for the diaphragms shall be free of paint or lacquer.

	Exist. beams	Beam 1&8
I_s (in ⁴)	3711	4090
I_c (in ⁴)	8389	8396
I_c (in ⁴)	6445	6107
S_s (in ³)	265.1	300
S_c (in ³)	366.2	398.2
S_c (in ³)	331.4	356.1
Q (K/i)	.537	.423
M_Q (I-K)	164	129
f_s (Non-Comp) (ksi)	7.4	5.2
S_Q (K/i)	.05	.05
M_{SQ} (I-K)	15	15
f_s (superimposed) (ksi)	.5	.5
M_{\pm} (I-K)	308	308
M_{imp} (I-K)	89	89
$M_{\pm + imp}$ (I-K)	397	397
f_s (live load) (ksi)	13.0	12.0
f (total stress) (ksi)	20.9	17.7
V_r (K)	37.7	37.7

I_c & S_c are the section modulus and moment of inertia of the composite section. (where the modular Ratio = 1, used in computing f_s (Non-Comp) and f_s (Live Load))
 I_c & S_c are the section modulus and moment of inertia of the composite section (where the modular Ratio = 30, used in computing f_s (Superimposed)).

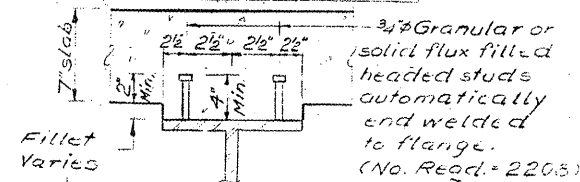


ELEVATION

TOP OF FLANGE ELEVATIONS (FOR FABRICATION PURPOSES ONLY)

Location Girder	± Brg. Bent #1	± Brg. Bent #2		± Brg. Bent #3	± Brg. Bent #4
	Span 1	Span 2	Span 2	Span 3	Bent #4
1	385.22	385.30	385.30	385.30	385.30
8	385.22	385.30	385.30	385.30	385.30

The main load carrying members of steel bridges subject to tensile stresses shall conform to the Supplemental Requirements in Hatch Toughness (Section 2). Tensile members are the beams and are designated by NTR.



SECTION A-A

REACTION TABLE
(Beams 1&8)

	Bent 1&4	Bent 2&3
R_Q (K)	11.7	11.7
R_{\pm} (K)	29.2	29.2
R_{IMP} (K)	8.5	8.5
R_{TOTAL} (K)	49.4	49.4

REACTION TABLE
(Existing Beams)

	Bent 1&4	Bent 2&3
R_Q (K)	14.5	14.5
R_{\pm} (K)	29.2	29.2
R_{IMP} (K)	8.4	8.4
R_{TOTAL} (K)	52.1	52.1

STRUCTURAL STEEL
SPANS 1, 2 & 3

F.A.RTE. 857-SECTION 101 BR-2

WHITE COUNTY

STA. 268 +25.75

DESIGNED	Steve A. Meyer
CHECKED	
DRAWN	V.F.I.
CHECKED	

EXAMINED	JAN 13 1991
PASSED	
APPROVED	

BRIDGE NO. 4