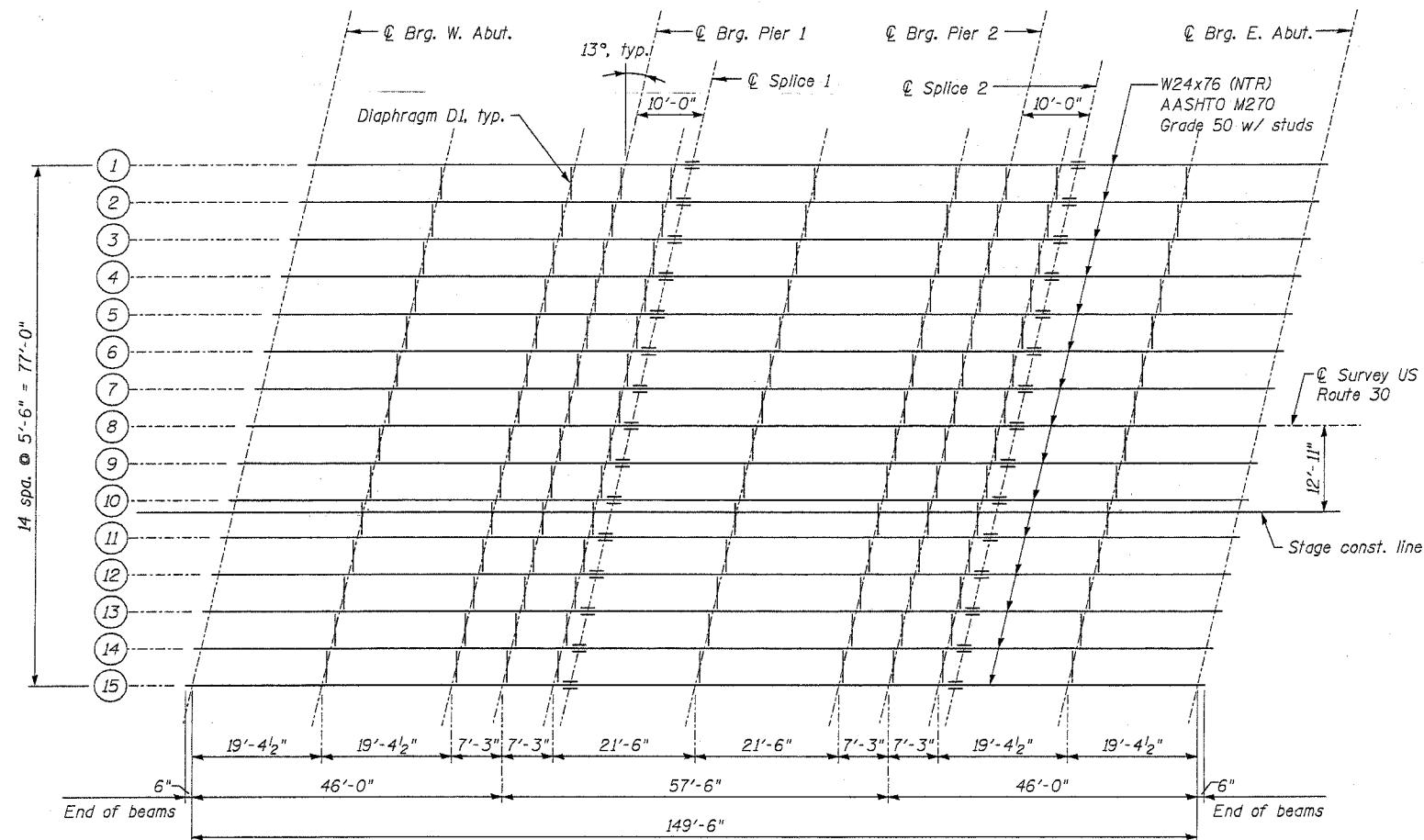


Contract No. 62098



**FRAMING PLAN**

**NOTES:**

- (NTR) = indicates notch toughness requirements.
- See sheet S-16 for typical beam elevation and framing details.

**TOP OF BEAM ELEVATIONS**

BEAM NO.	W. ABUT.	PIER 1	SPLICE 1	SPLICE 2	PIER 2	E. ABUT.
1	599.608	599.729	599.755	599.747	599.720	599.600
2	599.711	599.836	599.864	599.859	599.833	599.715
3	599.815	599.943	599.971	599.971	599.946	599.831
4	599.919	600.051	600.079	600.083	600.059	599.946
5	600.023	600.157	600.187	600.195	600.172	600.062
6	600.127	600.264	600.294	600.307	600.284	600.177
7	600.230	600.371	600.401	600.419	600.396	600.292
8	600.334	600.477	600.509	600.530	600.509	600.408
9	600.218	600.364	600.395	600.422	600.401	600.303
10	600.102	600.250	600.282	600.313	600.293	600.199
11	599.986	600.136	600.169	600.204	600.184	600.094
12	599.870	600.022	600.056	600.095	600.076	599.989
13	599.753	599.908	599.942	599.986	599.968	599.885
14	599.637	599.794	599.828	599.877	599.859	599.780
15	599.521	599.680	599.714	599.767	599.751	599.675

(For fabrication use only)

DESIGNED	MJM
CHECKED	WHE
DRAWN	EAB
CHECKED	WHE

**INTERIOR BEAM MOMENT TABLE**

	UNITS	0.4 SPAN 1 & 3	PIER	0.5 SPAN 2
Is	in <sup>4</sup>	2100	2100	2100
Ic(n)	in <sup>4</sup>	6104	-	6104
Ic(3n)	in <sup>4</sup>	4617	-	4617
Ss	in <sup>3</sup>	176	176	176
Sc(n)	in <sup>3</sup>	265	-	265
Sc(3n)	in <sup>3</sup>	241	-	241
Z	in <sup>3</sup>	-	200	-
DL	k/ft	0.66	1.05	0.66
SDL	k/ft	0.39	-	0.39
MDL	Ft-k	95.6	266.7	93.2
MSDL	Ft-k	65.0	-	75.2
MLL	Ft-k	238.4	130.9	271.6
Mimp, (I)	Ft-k	69.6	37.1	74.4
5/3(MLL+I)	Ft-k	513	280	577
Ma	Ft-k	877	711	969
Mu	Ft-k	1391	825	1391
fsDL	ksi	6.5	18.2	6.4
fsSDL	ksi	3.2	-	3.7
fs5/3(MLL+I)	ksi	23.2	19.1	26.1
fs(Overload)	ksi	32.9	37.3	36.2
fs(Total)	ksi	-	-	-
VR	k	44	-	34

- \* Compact, braced section
- \*\* Non-compact section

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total and 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. (See AASHTO 10.3B).

VR is the maximum LL + impact shear range within the composite portion of the span.

Z is the plastic section modulus used to determine the Fully Plastic Moments in the non-composite areas.

The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1

fs (Total) is the sum of the stresses due to 1.3[MDL + MSDL + 5/3 (MLL + M(Imp))]  
 fs (Overload) is the sum of the stresses due to MDL + MSDL + 5/3 (MLL + M (Imp))

MDL - Moment due to dead loads on non-composite section.

MSDL - Moment due the dead loads on composite section.

MLL - Moment due to live load on non-composite or composite section.

M(Imp) - Moment due to live load impact on non-composite or composite section.

Ma (Applied Moment) = 1.3[MDL + MSDL + 5/3 (MLL + M(Imp))]

**INTERIOR BEAM REACTION TABLE**

	UNITS	ABUTMENT	PIER
RDL	k	18.4	60.3
RLL	k	32.1	36.5
IMPACT	k	9.4	10.4
R(Total)	k	59.9	107.2

**LOWCO, INC.**  
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**FRAMING PLAN**  
 US ROUTE 30 (LINCOLN HIGHWAY)  
 OVER LILY CACHE CREEK  
 WILL COUNTY  
 F.A.P. ROUTE 0575 SEC. 14BR  
 STATION 28+22.14 NEW STRUCTURE NO. 099-4648  
 DATE 03/24/05