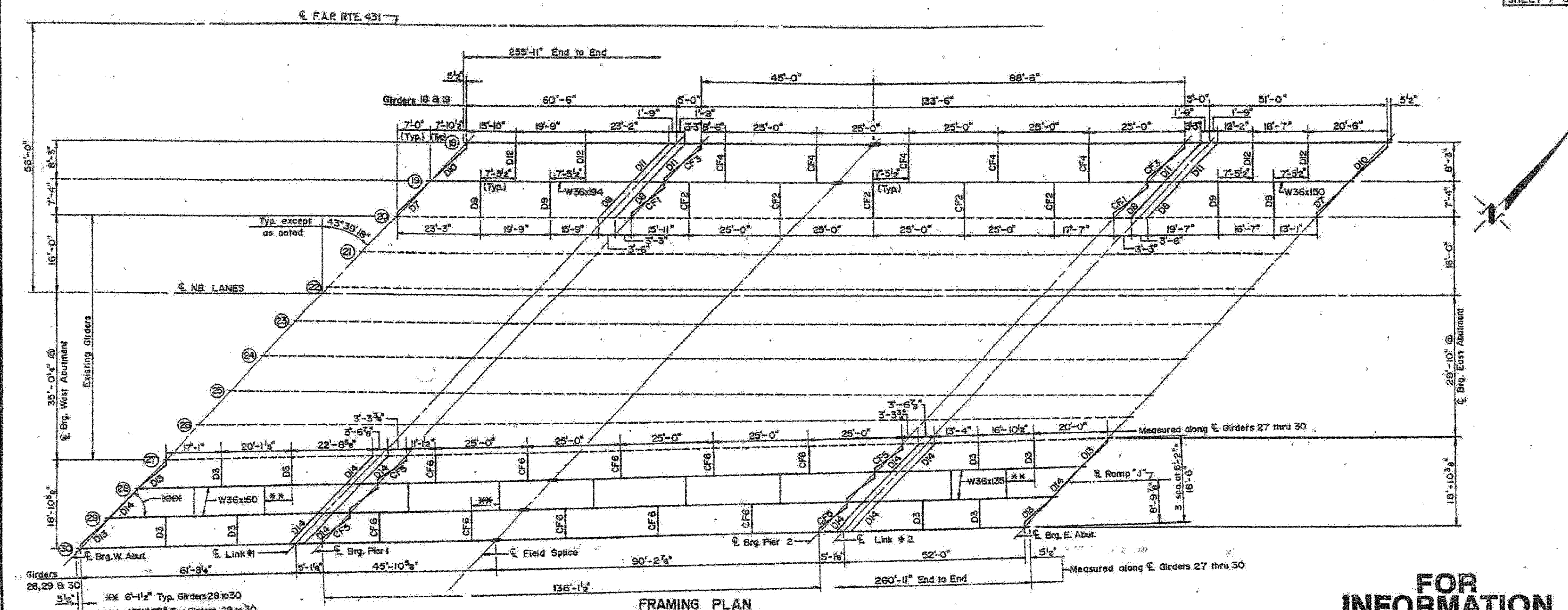
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COUNTY	TOTAL SHEETS	SHEET NO.
DU PAGE	67	24

SHEET 7 OF 11



FRAMING PLAN
North Bound

FOR INFORMATION ONLY

TABLE OF ELEVATIONS
(For Fabrication only)

LOCATION \ GIRDERS	NORTH BOUND				
	18	19	28	29	30
℄ Brg. W. Abut.	751.43	751.81	752.03	751.89	751.69
℄ Link #1 (W.Sect.)	——	750.52	750.93	750.80	——
℄ Link #1 (Gird.Sect.)	750.13	750.46	750.86	750.73	750.60
℄ Brg. Pier 1	750.05	750.38	750.82	750.70	750.57
℄ Field Splice	749.28	749.59	750.22	750.13	750.04
℄ Brg. Pier 2	747.35	747.68	748.48	748.47	748.43
℄ Link #2 (Gird.Sect.)	747.22	747.55	748.35	748.35	748.31
℄ Link #2 (W.Sect.)	——	747.62	748.42	748.42	——
℄ Brg. E. Abut.	746.26	746.64	747.47	747.46	747.39

Elevations are given to top of Web for ℄ Girder Section & Top of Flange of W. Sections.

Elevations at Links & Field Splice have been adjusted for camber.

GIRDER MOMENT TABLE FOR GIRDERS 18 & 19	0.5 Sp. 1	Piers 1 or 2	0.5 Sp. 2	0.5 Sp. 3
Is (in.⁴)	12,100	43,816	81,527	9,040
Ic (in.⁴)	29,581 / 21,40		153,958 / 113,866	23,887 / 17,373
Ss (in.³)	664	1,342	2,352	504
Sc (in.³)	945 / 848		2843 / 4074	756 / 685
℄ (k/')	1.07	1.07	1.28	1.02
M℄ ('K)	490	167	2,864	329
fs-n.c. (ksi)	8.85	1.49	14.62	7.84
S℄ (k/')	0.25	0.25	0.25	0.25
Ms℄ ('K)	113	41	555	81
ML ('K)	578	228	1,592	457
MImp ('K)	156	44	307	130
TOTAL ('K)	847	313	2,454	668
fs-c (ksi)	3.52 / 1.60	2.80	2.11 / 1.64	5.57 / 1.46
fs TOTAL (ksi)	19.77	4.29	19.17	18.87
VR (k)	54.8		61.5	53.5

GIRDER REACTION TABLE FOR GIRDERS 18 & 19	W. Abut.	Piers	E. Abut.
R℄ (k)	39.9	147.6	32.1
RL (k)	43.1	69.1	41.7
Imp (k)	11.7	13.3	11.8
RTOTAL (k)	94.7	230.0	85.6

GIRDER MOMENT TABLE FOR GIRDERS 28 THRU 30	0.5 Sp. 1	Piers 1 or 2	0.5 Sp. 2	0.5 Sp. 3
Is (in.⁴)	9,750	43,816	63,779	7,800
Ic (in.⁴)	22,307 / 16,366		118,313 / 88,220	18,980 / 13,957
Ss (in.³)	542	1,342	2,468	439
Sc (in.³)	741 / 670		2,933 / 2,727	800 / 560
℄ (k/')	0.771	0.771	1.12	0.741
M℄ ('K)	366	136	2,481	250
fs-n.c. (ksi)	8.12	1.22	12.06	6.83
S℄ (k/')	0.234	0.234	0.234	0.234
Ms℄ ('K)	111	40	508	79
ML ('K)	468	182	1,219	372
MImp ('K)	128	35	233	101
TOTAL ('K)	705	257	1,960	552
fs-c (ksi)	9.62 / 1.99	2.30	5.94 / 2.24	8.46 / 1.89
fs TOTAL (ksi)	19.73	3.52	20.24	17.98
VR (k)	43.5		46.5	42.5

GIRDER REACTION TABLE FOR GIRDERS 28 Thru 30	W. Abut.	Piers	E. Abut.
R℄ (k)	31.0	123.4	25.4
RL (k)	34.3	53.6	33.2
Imp (k)	9.2	10.3	9.3
RTOTAL (k)	74.5	187.3	67.9

For Girder Elevations, See Sheet 18.

For Details of Diaphragms & Cross Frames, See Sheets 15, 16 & 18.

For Camber Diagram, See Sheet 19.

For details of Links #1 & #2 for proposed girders see sheet 16.

For reconstruction details of Links #1 & #2 for existing girders see sheet 34.

fs-n.c. is the stress in the steel of the non-composite section.

fs-c. is the stress in the steel of the composite section.

Values affected by the modular ratio n are shown as: n=9 / n=27

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs TOTAL.

Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs TOTAL.

VR is the maximum L + Impact shear range in span.

FRAMING PLAN
NORTH BOUND LANES
F.A.P. RTE. 431 SEC. 22-5HB-1
DU PAGE CO.
STATION 1250+83.16
STR. NO. 022-0137

HSIONG ASSOCIATES LTD.

EXISTING PLAN INFORMATION 6 OF 17
STRUCTURE NO. 022-0137

FOR INFORMATION ONLY

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SHEET NO. 21	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
32 SHEETS	290/355	22(1, 1-1, 2&3)RS-7	DUPAGE	546	434
			CONTRACT NO. 60G51		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		