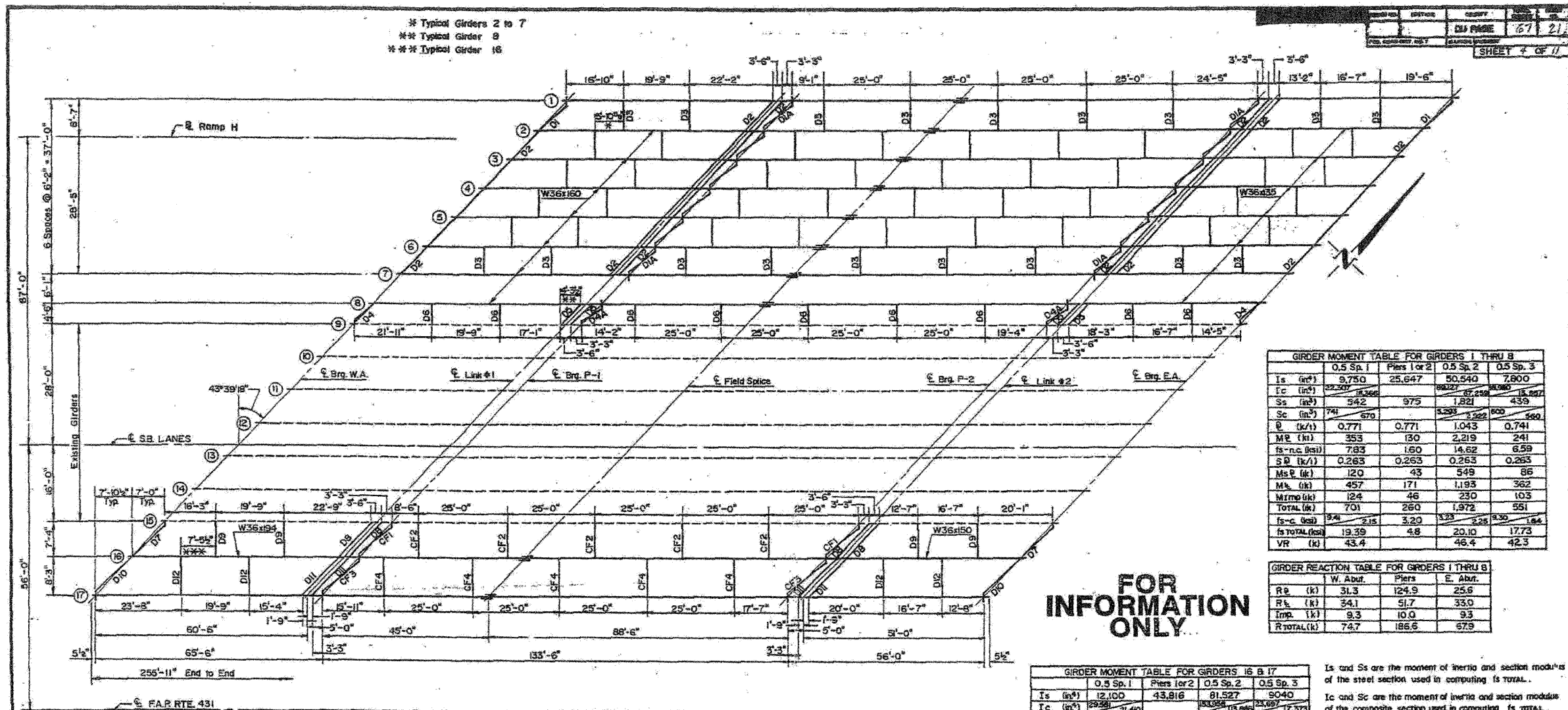


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



GIRDER MOMENT TABLE FOR GIRDERS 1 THRU 8

	0.5 Sp. 1	Piers 1 or 2	0.5 Sp. 2	0.5 Sp. 3
I _s (in ⁴)	9,750	25,647	50,540	7,600
I _c (in ⁴)	22,207	18,266	34,227	15,897
S _s (in ³)	542	975	1,821	439
S _c (in ³)	741	670	1,293	300
ρ (k/ft)	0.771	0.771	1.043	0.741
M _R (k)	353	130	2,219	241
f _{s-n.c.} (ksi)	7.83	1.60	14.62	6.59
S _D (k/ft)	0.263	0.263	0.263	0.263
M _{sR} (k)	120	43	549	86
M _n (k)	457	171	1,193	362
M _{imp} (k)	124	46	230	103
TOTAL (k)	701	260	1,972	551
f _{s-c} (ksi)	9.4	2.15	3.20	2.35
f _s TOTAL (ksi)	19.39	4.8	20.10	17.73
VR (k)	43.4	46.4	42.3	

GIRDER REACTION TABLE FOR GIRDERS 1 THRU 8

	W. Abut.	Piers	E. Abut.
R _g (k)	31.3	124.9	25.6
R _h (k)	34.1	51.7	33.0
Imp. (k)	9.3	10.0	9.3
R _{TOTAL} (k)	74.7	186.6	67.9

FOR INFORMATION ONLY

GIRDER MOMENT TABLE FOR GIRDERS 16 & 17

	0.5 Sp. 1	Piers 1 or 2	0.5 Sp. 2	0.5 Sp. 3
I _s (in ⁴)	12,100	43,816	81,527	30,400
I _c (in ⁴)	29,281	21,460	33,956	15,697
S _s (in ³)	664	1,342	2,352	504
S _c (in ³)	945	848	1,694	366
ρ (k/ft)	1.07	1.07	1.28	1.02
M _R (k)	490	167	2,964	329
f _{s-n.c.} (ksi)	8.85	1.49	14.62	7.84
S _D (k/ft)	0.25	0.25	0.25	0.25
M _{sR} (k)	113	41	555	81
M _n (k)	578	226	1,592	467
M _{imp} (k)	156	44	307	130
TOTAL (k)	847	313	2,454	668
f _{s-c} (ksi)	9.32	1.90	2.80	2.31
f _s TOTAL (ksi)	19.77	4.28	19.17	18.87
VR (k)	54.8	61.5	53.5	

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing I_s TOTAL.
I_c and S_c are the moment of inertia and section modulus of the composite section used in computing I_s TOTAL.
VR is the maximum Impact shear range in span.
f_{s-n.c.} is the stress in the steel of the non-composite section.
f_{s-c} is the stress in the steel of the composite section.
Values affected by the modular ratio n are shown as: $\frac{f_s}{n}$

FRAMING PLAN
South Bound

TABLE OF ELEVATIONS
(For Fabrication Only)

GIRDERS LOCATION	SOUTH BOUND									
	1	2	3	4	5	6	7	8	16	17
Brg. W. Abut.	748.00	748.28	748.51	748.73	748.95	749.17	749.25	749.24	750.60	750.56
Link #1 (W Sect.)		746.91	747.13	747.36	747.57	747.79	747.88	747.86	749.27	
Link #1 (Gird Sect.)	746.62	746.84	747.06	747.28	747.50	747.72	747.78	747.79	749.20	749.20
Brg. Pier #1	748.57	748.79	749.01	749.22	749.48	749.67	749.73	749.78	749.12	749.35
Field Splice	746.63	746.05	746.27	746.49	746.71	746.94	747.00	747.01	748.29	748.30
Brg. Pier #2	743.74	743.95	744.19	744.40	744.62	744.84	744.90	744.91	746.29	746.29
Link #2 (Gird Sect.)	743.58	743.80	744.02	744.24	744.46	744.68	744.74	744.75	746.15	746.15
Link #2 (W Sect.)		743.87	744.09	744.31	744.53	744.75	744.81	744.82	746.33	
Brg. E. Abut.	742.60	742.87	743.10	743.32	743.54	743.76	743.82	743.83	745.19	745.15

For Girder Elevations, See Sheets 15 & 16
For Detail of Diaphragms & Cross Frames, See Sheets 15, 16, & 18.

For Camber Diagram, See Sheet 19.
Elevations of Links and field splice have been adjusted for camber.

For details of Links #1 & #2 for proposed girder see sheets 15 & 16.

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

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

FRAMING PLAN
SOUTH BOUND LANES
F.A.P. RTE. 431 SEC. 22-118-9
DUPAGE CO.
STATION 2203+00
STR. NO. 022-0138

EXISTING PLAN INFORMATION 7 OF 21
STRUCTURE NO. 022-0138

FOR INFORMATION ONLY

benesch

alfred benesch & company
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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0460 Job No. 10050

SHEET NO. 24 290	F.A.I. RTE. 355	SECTION 22(1, 1-1, 2&3)RS-7	COUNTY DUPAGE	TOTAL SHEETS 546	SHEET NO. 399
	38 SHEETS	CONTRACT NO. 60G51		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

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