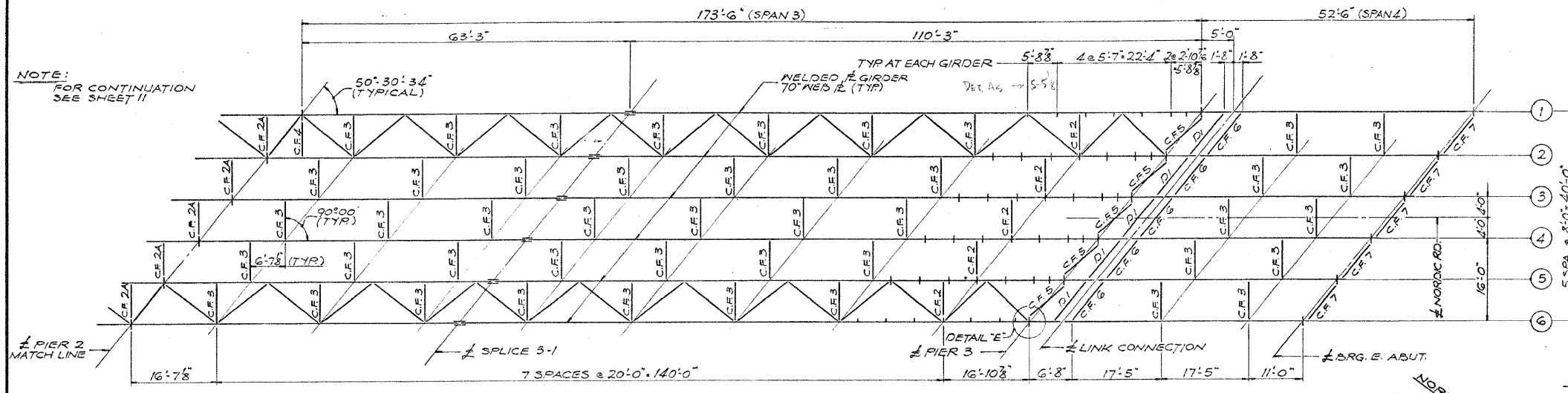


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

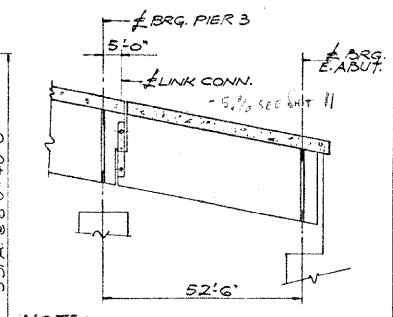
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS
F.A.I. RTE. 22-115B-3	DU PAGE	81	33
STA.	TO STA.		
F.P.R. DIST. NO. 4	ILLINOIS	PROJECT	

SHEET 12 OF 23

NOTE:
FOR CONTINUATION
SEE SHEET 11



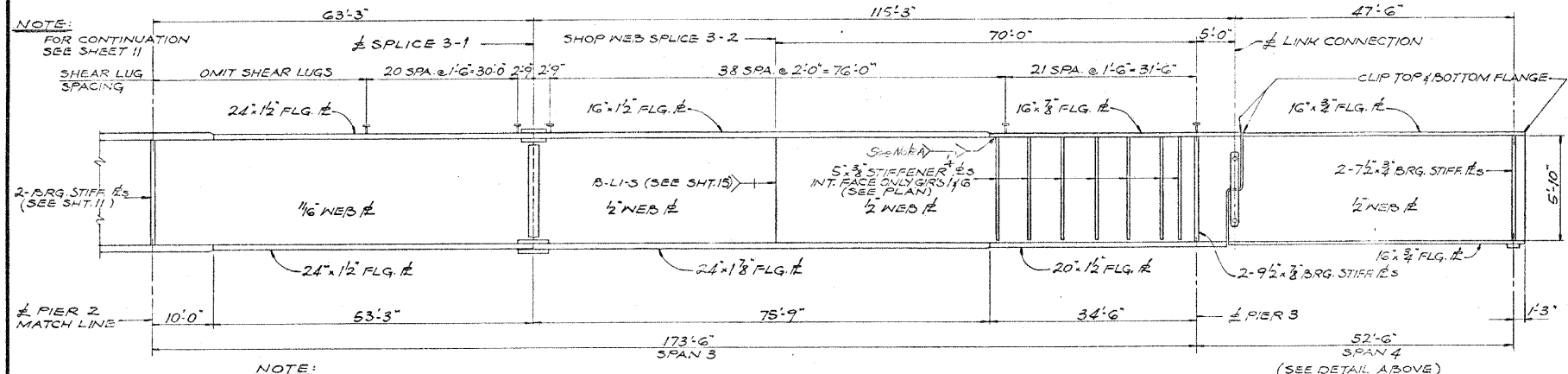
FRAMING PLAN
SCALE: 3/8" = 1'-0"



NOTE:
BEARING STIFFENER AT PIER 3, LINK CONNECTION AND BEARING STIFFENER AND END OF GIRDER AT EAST ABUTMENT TO BE TRULY VERTICAL, OTHERS AT RIGHT ANGLE TO FLANGES.

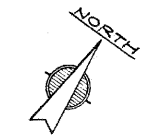
DETAIL FOR SPAN 4

NOTE:
FOR CONTINUATION
SEE SHEET 11



GIRDER ELEVATION

NOTE:
FOR SIZES OF FILLET WELDS
SEE SHEET 11
FOR BUTTWELD DETAILS SEE SHT. 15



STRESS TABLE

MOMENTS (K)							
	SPAN 1	PIER 1	SPAN 2	PIER 2	SPAN 3	PIER 3	SPAN 4
D.L.	+1495	-2592	-446	-3882	+2814	-137	+295
S.D.L.	+392	-506	+217	-725	+629	-34	+73
L.L.	+1340	-1422	+1197	-1864	+1967	-202	+424
IMP.	+255	-281	+209	-319	+330	-42	+119
SDL+LL+I	+1987	-2592	+1623	-2206	+2926	-246	+616
TOTAL	+3222	-4785	+2069	-6790	+5740	-415	+909

SECTION PROPERTIES							
STEEL SECTION	I _s	I _x	I _y	I _z	I _{yz}	I _{xy}	I _{xz}
S ₁₅	52,013	107,975	25,601	160,637	97,558	66,016	41,799
S ₁₈	1,180	2,938	1,120	4,312	2,227	1,529	1,171
S ₂₄	1,872	2,938	1,481	4,312	3,299	2,261	1,171
I _{c n=10}	35,600	---	113,109	---	192,885	---	---
E _{1c}	6,986	---	5,814	---	7,737	---	---
S _{1c}	2,585	---	2,060	---	3,968	---	---

REACTIONS (K)					
	W. ABUT.	PIER 1	PIER 2	PIER 3	E. ABUT.
D.L.	57.0	182.3	234.4	113.9	24.9
S.D.L.	14.2	41.0	48.6	25.9	6.1
L.L.	53.0	103.2	115.4	74.5	46.1
IMP.	10.0	18.9	19.7	15.7	13.0
TOTAL	134.2	325.4	418.1	230.0	90.1

Note A: Weld as shown to the compression flanges of Girders 1 & 6 only. Clip corners to clear flange to web weld.

TOP OF WEB ELEVATIONS (FOR FABRICATION ONLY)

GIRDER	BRG. WA	SP 1-1	SP 1-2	PIER 1	SP 2-1	SP 2-2	SP 2-3	PIER 2	SP 3-1	SP 3-2	PIER 3	LINK	BRG. EA
1	737.268	737.513	736.992	736.370	735.489	733.845	733.699	731.889	729.433	727.568	723.718	723.443	721.157
2	737.398	737.697	737.225	736.637	735.803	734.217	733.434	732.314	729.521	728.064	724.215	723.539	721.653
3	737.481	737.834	737.411	736.854	736.049	734.542	733.820	732.691	730.360	728.519	724.670	724.394	722.108
4	737.432	737.839	737.445	736.943	736.203	734.735	734.045	732.936	730.468	728.845	725.000	724.784	722.438
5	737.251	737.719	737.387	736.899	736.205	734.796	734.128	733.050	730.894	729.059	725.204	724.928	722.642
6	737.022	737.538	737.242	736.806	736.160	734.810	734.163	733.116	730.973	729.216	725.367	725.091	722.805

SHEAR (K)

	SPAN 1				SPAN 2					
	W. ABUT.	1/4	1/2	3/4	PIER 1	PIER 1	1/4	1/2	3/4	PIER 2
D.L.	57.0	19.6	18.3	56.5	97.5	82.8	37.4	7.0	53.6	103.6
S.D.L.	14.2	5.4	3.6	12.6	21.6	19.4	9.0	1.3	11.7	22.1
L.L.	48.8	33.4	28.0	42.0	59.3	58.8	39.4	25.6	43.3	62.9
IMP.	9.3	6.4	5.3	8.0	10.9	10.8	6.8	4.5	7.5	10.8
SDL+LL+I	72.3	45.2	36.9	62.6	91.8	89.0	55.2	31.4	62.5	95.8
TOTAL	129.3	64.8	55.2	119.1	189.3	173.8	92.6	38.1	116.1	199.4

	SPAN 3				SPAN 4					
	PIER 2	1/4	1/2	3/4	PIER 3	LINK	1/4	1/2	3/4	E. ABUT.
D.L.	130.8	74.9	20.6	32.6	82.8	24.9	16.4	2.6	16.4	24.9
S.D.L.	26.5	15.3	3.9	7.3	18.5	6.1	1.0	0.6	4.0	6.1
L.L.	67.5	46.9	28.6	35.1	56.5	42.0	33.5	19.1	33.5	42.0
IMP.	11.5	7.9	4.8	5.9	9.5	11.9	9.5	5.4	9.5	11.9
SDL+LL+I	105.5	70.1	37.3	48.3	84.5	60.0	47.0	25.1	47.0	60.0
TOTAL	236.3	145.0	57.9	80.9	167.3	82.9	63.1	27.7	63.4	81.9

FOR INFORMATION ONLY

benesch

alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-566-0450 Job No. 10032.13

SHEET NO. 17	F.A.I. RTE. 290	SECTION 2009-1151	COUNTY DUPAGE	TOTAL SHEETS 27	SHEET NO. 22
19 SHEETS	CONTRACT NO. 60J34		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

EXISTING PLAN INFORMATION 5 OF 7
STRUCTURE NO. 022-0106

FRAMING PLAN
NORDIC RD.
OVER F.A.I. RTE. 90 & F.A.P.RTE. 61
PROJECT
SECTION 22-115B-3
DU PAGE COUNTY
STATION 28+79.81

ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
10 S. WABASH AVE. CHICAGO, ILLINOIS

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