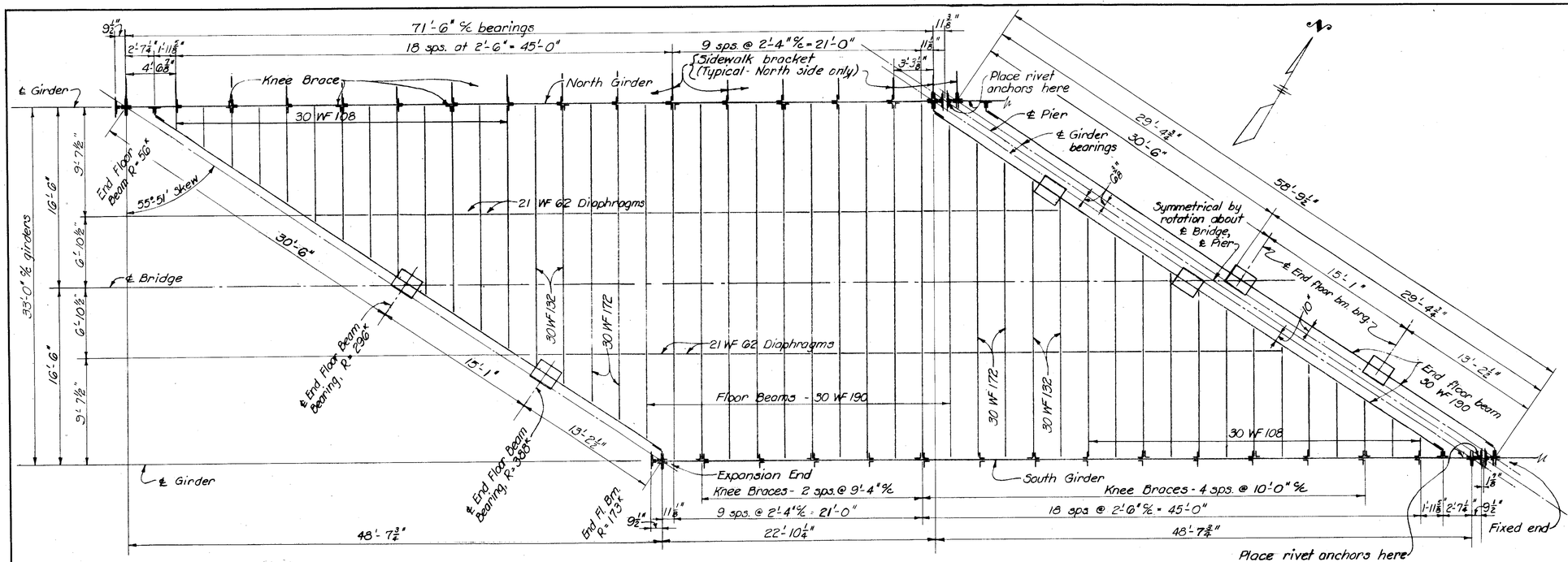
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

96
100

LAK-640-2.56

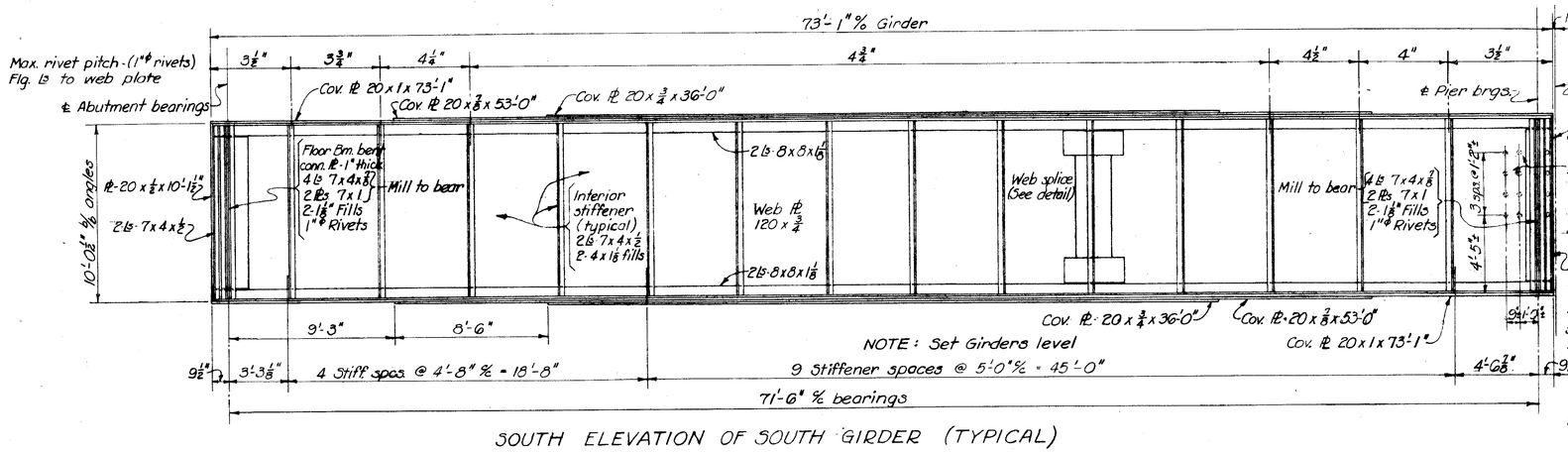


PART STRUCTURAL FRAMING PLAN

DESIGN SCHEDULE

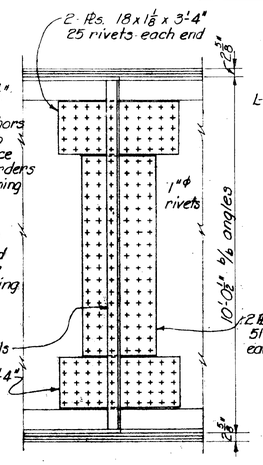
MEMBER	LOAD	MOMENT FT. KIPS	SHEAR KIPS	SECTION
Typical Floor Beam 33'-0" Span 2'-4" %	D.L.	131	15	Req. Sec. Mod. = 550 in.³
	L.L.	420	42	Use 30 WF 190
	Imp.	274	28	Sec. Mod. = 586.1 in.³
	Total	825	85	
End Floor Beam - 28'-4" Span	D.L.	172	23	Req. Sec. Mod. = 517 in.³
	L.L.	364	80	Use 30 WF 190
	Imp.	241	53	
	Total	777	156	
End Floor Beam 15'-1" Span	D.L.	94	27	Req. Sec. Mod. = 441 in.³
	L.L.	341	95	Use 30 WF 190
	Imp.	227	63	
	Total	662	185	
End Floor Beam 13'-2½" Span	D.L.	102	29	Req. Sec. Mod. = 457 in.³
	L.L.	351	114	Use 30 WF 190
	Imp.	232	76	
	Total	685	219	
GIRDER 71'-6" Span 33'-0" %	D.L.	4475	252	SECTION OF GIRDER 1 Web Pl. 120" x ¾" 4 Flg. Ls 8 x 8 x 1⅛ 2 Cov. Pls. 20" x 1" x 73'-1" 2 Cov. Pls. 20" x ⅞" x 53'-0" 2 Cov. Pls. 20" x ¾" x 36'-0" 2 End Cov. Pls. 20" x ½" x 10'-1½"
	L.L.	6390	405	
	Imp.	3566	226	
	Total	14431	883	

I		Section Modulus	Unit Stress	Actual	Allowable
Gross	730,280	11,615	Flange compr.	14,900	17,950
Net	625,196	9,944	Flange tension	17,500	18,000
			Web shear	9,800	11,000

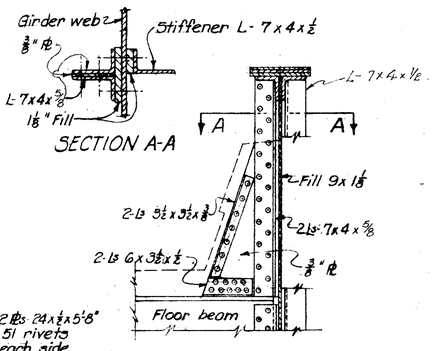


SOUTH ELEVATION OF SOUTH GIRDER (TYPICAL)

NOTE: Set Girders level



DETAIL OF WEB SPLICE



DETAIL OF KNEE BRACE

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

SUPERSTRUCTURE DETAILS

BRIDGE NO. LAK-640-0286
N.Y.C. & St. L.R.R. over SR 640
LAKE COUNTY Sta. 150+86.66

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
NEY	NEY		WCK	BFS	8-3-59	10-1-59