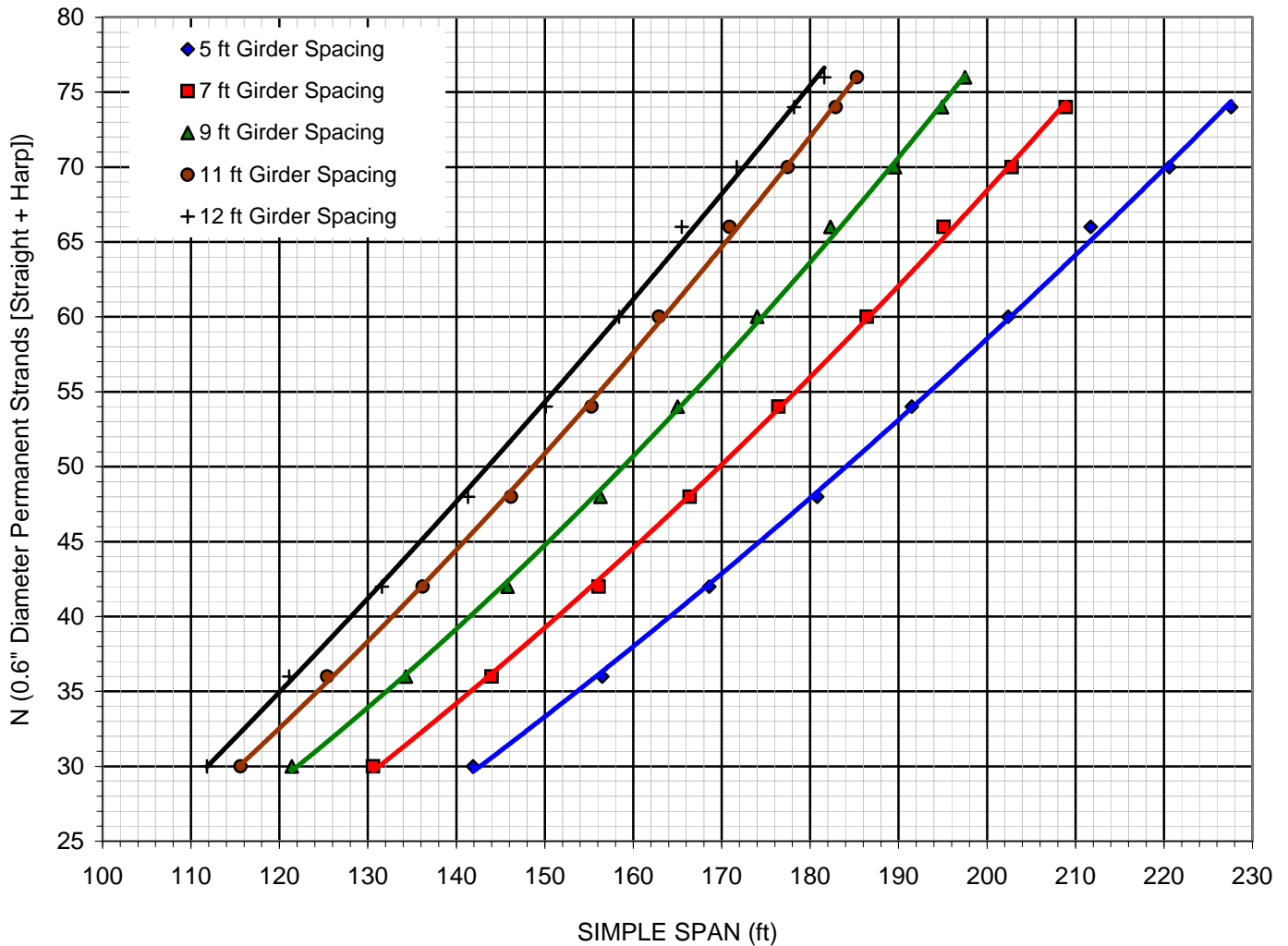
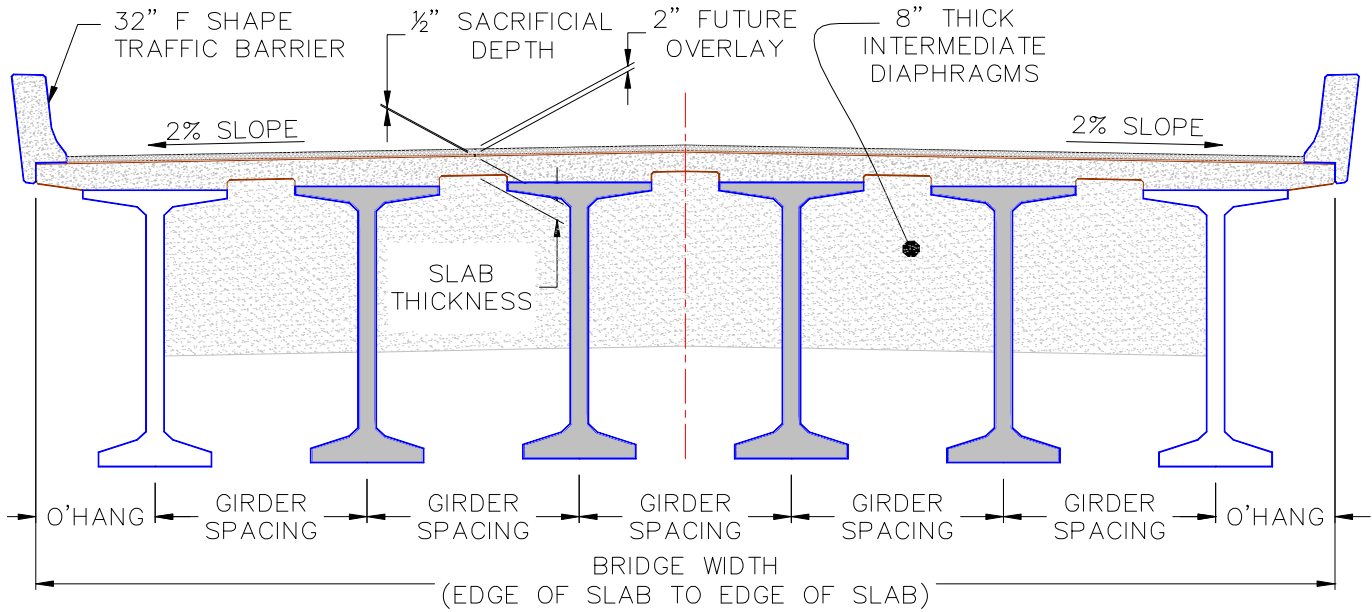




## WSDOT WF100G GIRDER

### AASHTO LRFD SPECIFICATIONS - ZERO TENSION - INTERIOR GIRDERS





## WSDOT WF100G GIRDER SERIES

### SPAN CAPABILITY DATA - INTERIOR GIRDER - 5ft SPACING

Interior Girder w/barrier load (6 girder bridge)  
 Simple Span lengths are CL bearing to CL bearing  
 Normal Exposure & 75% humidity  
 No Horizontal or Vertical Curve  
 2% roadway crown slope  
 End Type "A" Connections

Simple Span Length (ft)	Girder Length (ft)	Girder Weight (kips)	Strand Qty.			Girder $f_{ci}$ For Design (psi)	Girder $f_c$ For Design (psi)	Girder Spacing (ft)	Bridge Width (ft)	Overhang (ft)	A' Dim used for Design (in)	A' Dim Required (in)	Required $f_{ci}$ @ Release (psi)	Lift Point from Ends (ft)	Required $f_c$ @ Hauling (psi)	Bunk Point from Ends (ft)	Truck Rotational Stiffness, $K\theta$	Clear Span Between Bunks (ft)
			Straight	Harped	Temp Top													
141.90	145.32	175.0	20	10	6	7,500	10,000	5.00	31.75	3.375	9.25	9.04	2,905	3.00	4,539	18.75	40,000	107.8
156.50	159.92	192.6	24	12	6	7,500	10,000	5.00	31.75	3.375	9.25	9.16	3,444	3.00	4,985	10.00	80,000	139.9
168.60	172.02	207.1	28	14	6	7,500	10,000	5.00	31.75	3.375	9.50	9.28	4,155	5.50	5,854	10.00	80,000	152.0
180.80	184.22	221.8	32	16	6	7,500	10,000	5.00	31.75	3.375	9.50	9.40	5,004	10.25	6,760	10.00	80,000	164.2
191.50	194.92	234.7	36	18	6	7,500	10,000	5.00	31.75	3.375	9.75	9.51	5,829	14.25	7,696	10.00	80,000	174.9
202.40	205.82	247.8	40	20	8	7,500	10,000	5.00	31.75	3.375	9.50	9.41	6,535	17.75	8,507	14.75	80,000	176.3
211.70	215.12	259.0	44	22	8	7,500	10,000	5.00	31.75	3.375	9.75	9.49	7,353	21.25	9,278	22.75	80,000	169.6
220.60	224.02	269.8	46	24	8	8,000	10,000	5.00	31.75	3.375	9.25	9.13	7,863	23.75	9,844	32.75	80,000	158.5
227.60	231.02	278.2	46	28	8	8,400	10,800	5.00	31.75	3.375	9.00	8.82	8,386	26.00	10,434	41.50	80,000	148.0

Simple Span Length (ft)	Girder Length (ft)	Girder Weight (kips)	Capacity / Demand Ratios											Qty. of Intermediate Diaphragms	Lifting		Hauling	
			Service I Release	Service I Erect	Service I Stage I	Service I Stage 2	Service I Stage 3	Service IA Stage 3	Service III Stage 3	Flexure	Shear	Horizontal Shear	Longitudinal Shear		FScr	FSF	FScr	Fscroll
141.90	145.32	175.0	2.74	1.41	1.39	2.86	3.08	3.21	1.00	1.10	2.53	8.60	1.27	3	2.47	1.94	1.49	1.50
156.50	159.92	192.6	2.30	1.48	1.46	2.40	2.58	2.72	1.00	1.16	2.37	7.95	1.28	3	1.72	1.38	1.96	2.15
168.60	172.02	207.1	1.96	1.55	1.53	2.08	2.21	2.36	1.00	1.21	2.23	7.41	1.30	4	1.51	1.22	1.56	1.93
180.80	184.22	221.8	1.71	1.61	1.59	1.83	1.94	2.09	1.00	1.24	2.12	7.00	1.30	4	1.51	1.25	1.24	1.72
191.50	194.92	234.7	1.51	1.44	1.54	1.64	1.73	1.88	1.00	1.27	2.04	6.65	1.30	4	1.51	1.26	1.01	1.53
202.40	205.82	247.8	1.38	1.30	1.40	1.48	1.56	1.71	1.00	1.29	1.97	6.38	1.31	4	1.51	1.24	1.03	1.50
211.70	215.12	259.0	1.25	1.19	1.28	1.36	1.43	1.57	1.00	1.30	1.87	6.12	1.30	4	1.52	1.27	1.00	1.61
220.60	224.02	269.8	1.27	1.14	1.22	1.29	1.33	1.47	1.00	1.29	1.83	5.96	1.28	4	1.51	1.27	1.00	1.77
227.60	231.02	278.2	1.32	1.22	1.30	1.35	1.36	1.50	1.00	1.29	1.86	5.96	1.29	4	1.52	1.29	1.00	1.89



## WSDOT WF100G GIRDER SERIES

### SPAN CAPABILITY DATA - INTERIOR GIRDER - 12ft SPACING

Interior Girder w/barrier load (6 girder bridge)  
 Simple Span lengths are CL bearing to CL bearing  
 Normal Exposure & 75% humidity  
 No Horizontal or Vertical Curve  
 2% roadway crown slope  
 End Type "A" Connections

Simple Span Length (ft)	Girder Length (ft)	Girder Weight (kips)	Strand Qty.			Girder $f_{ci}$ For Design (psi)	Girder $f_c$ For Design (psi)	Girder Spacing (ft)	Bridge Width (ft)	Overhang (ft)	A' Dim used for Design (in)	A' Dim Required (in)	Required $f_{ci}$ @ Release (psi)	Lift Point from Ends (ft)	Required $f_c$ @ Hauling (psi)	Bunk Point from Ends (ft)	Truck Rotational Stiffness, $K\theta$	Clear Span Between Bunks (ft)
			Straight	Harped	Temp Top													
111.80	115.22	138.7	20	10	6	7,500	10,000	12.00	66.75	3.375	10.00	9.81	3,643	5.00	4,227	10.00	80,000	95.2
121.10	124.52	149.9	24	12	6	7,500	10,000	12.00	66.75	3.375	10.25	10.00	4,366	5.00	5,058	10.00	80,000	104.5
131.60	135.02	162.6	28	14	6	7,500	10,000	12.00	66.75	3.375	10.50	10.25	5,019	5.00	5,857	10.00	80,000	115.0
141.30	144.72	174.3	32	16	6	7,500	10,000	12.00	66.75	3.375	10.75	10.53	5,654	5.00	6,648	10.00	80,000	124.7
150.10	153.52	184.9	36	18	6	7,500	10,000	12.00	66.75	3.375	11.00	10.81	6,264	5.00	7,417	10.00	80,000	133.5
158.40	161.82	194.9	40	20	6	7,500	10,000	12.00	66.75	3.375	11.25	11.11	6,858	5.00	8,183	10.00	80,000	141.8
165.50	168.92	203.4	44	22	8	7,500	10,000	12.00	66.75	3.375	11.25	11.24	7,437	5.75	8,881	10.00	80,000	148.9
171.70	175.12	210.9	46	24	8	8,000	10,000	12.00	66.75	3.375	11.50	11.10	7,915	7.25	9,429	10.00	80,000	155.1
178.20	181.62	218.7	46	28	8	8,400	10,000	12.00	66.75	3.375	11.00	10.88	8,398	9.25	9,973	10.00	80,000	161.6
181.60	185.02	222.8	46	30	8	8,700	10,000	12.00	66.75	3.375	10.75	10.71	8,660	10.50	10,251	12.50	80,000	160.0

Simple Span Length (ft)	Girder Length (ft)	Girder Weight (kips)	Capacity / Demand Ratios											Qty. of Intermediate Diaphragms	Lifting		Hauling	
			Service I Release	Service I Erect	Service I Stage I	Service I Stage 2	Service I Stage 3	Service IA Stage 3	Service III Stage 3	Flexure	Shear	Horizontal Shear	Longitudinal Shear		F <sub>Scr</sub>	F <sub>SF</sub>	F <sub>Scr</sub>	F <sub>Scroll</sub>
111.80	115.22	138.7	2.19	1.02	1.38	2.85	3.60	3.67	1.00	1.07	1.64	4.60	1.16	1	6.35	5.10	3.92	2.96
121.10	124.52	149.9	1.82	1.02	1.45	2.40	2.96	3.09	1.00	1.14	1.61	4.22	1.20	3	4.65	3.86	3.21	2.78
131.60	135.02	162.6	1.57	1.02	1.52	2.07	2.53	2.68	1.00	1.20	1.64	3.96	1.22	3	3.40	2.88	2.55	2.59
141.30	144.72	174.3	1.39	1.08	1.57	1.83	2.21	2.37	1.00	1.25	1.59	3.74	1.24	3	2.60	2.23	2.03	2.42
150.10	153.52	184.9	1.26	1.15	1.54	1.64	1.97	2.12	1.00	1.29	1.53	3.57	1.26	3	2.07	1.79	1.64	2.26
158.40	161.82	194.9	1.14	1.14	1.40	1.49	1.77	1.93	1.00	1.32	1.48	3.42	1.27	3	1.68	1.47	1.32	2.11
165.50	168.92	203.4	1.06	1.05	1.28	1.36	1.61	1.76	1.00	1.33	1.43	3.27	1.29	4	1.54	1.31	1.35	1.99
171.70	175.12	210.9	1.08	1.00	1.22	1.29	1.49	1.65	1.00	1.31	1.39	3.17	1.27	4	1.50	1.28	1.18	1.88
178.20	181.62	218.7	1.08	0.96	1.21	1.27	1.40	1.55	1.00	1.30	1.35	3.10	1.26	4	1.49	1.28	1.04	1.76
181.60	185.02	222.8	1.10	0.94	1.20	1.26	1.35	1.50	1.00	1.29	1.34	3.06	1.25	4	1.51	1.30	1.00	1.78