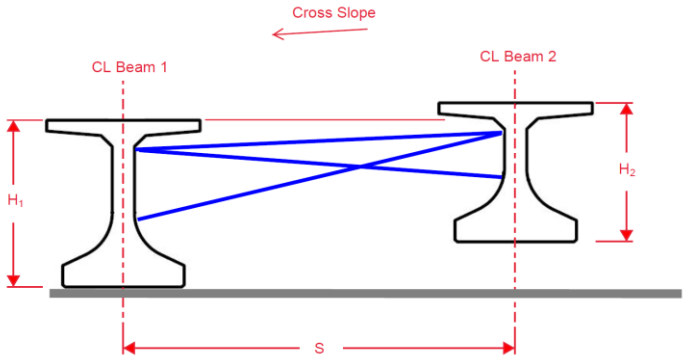
Analysis #1

Bridge 1

A2B ENGINEERING, LLC CONSULTING ENGINEERS	Subject: Girder Bracing Design		
	Comp by: MLS	Date: 09/13/18	Sheet Number: of
	Check by: PRS	Job Number: 135-17-1	



Analysis No. =	1				
Description =	Bridge 1				
Left Girder Height =	96	[in]	Overturning Moment =	69.33	[ft*kip]
Right Girder Height =	96	[in]	Horizontal Force =	14.16	[kip]
Girder Spacing =	6.667	[ft]			
Distance from top of left girder to bracing =	12.96	[in]	Brace E =	29000	[ksi]
Distance from bot. of left girder to bracing =	25.56	[in]	Brace A =	2	[in^2]
Distance from bot. of right girder to bracing =	12.96	[in]	Brace I =	2.85	[in^4]
Distance from bot. of right girder to bracing =	25.56	[in]			
Cross Slope =	0				

Brace Type =	HDPB 5'-9'
Lines of horizontal Bracing per brace line =	8
Lines of diagonal bracing per brace line =	8

	Member		
	1	2	3
Tensile Strength	6.000	7.258	7.258
Compressive Strenght	9.000	6.000	7.154
Member Force (Stage 2 H)	-3.683	-2.355	-10.736
Member Force (Stage 3 OM)	9.504	6.069	-17.944
Member Force Per Brace (Stage 2 H)	-0.460	-0.294	-1.342
Member Force Per Brace (Stage 3 OM)	1.188	0.759	-2.243
Bracing lines Multiplier (stage 2 H)	1	1	1
Bracing Lines Multiplier (Stage 3 OM)	1	1	1

Bracing Lines Multiplier Required =	1	
Stiffness =	630233	[kip-ft/rad]
Span Length =	202	[ft]
Bracing Point Type =	Quarter Points	
Empirical Scale Factor =	1.7	
Pu =	75	[psf]
Pavg =	37.5	[psf]
Beam Weight =	1277.6875	[plf]
C0 =	1.079974184	
C =	0.987016161	>1
Check =	NG	