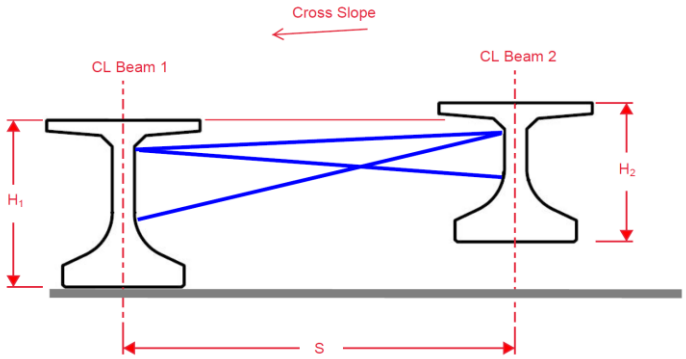
Analysis #1

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 =	78	[in]	Overturning Moment =	115.17	[ft*kip]
Right Girder Height =	78	[in]	Horizontal Force =	8.31	[kip]
Girder Spacing =	7.5	[ft]			
Distance from top of left girder to bracing =	12	[in]	Brace E =	29000	[ksi]
Distance from bot. of left girder to bracing =	27	[in]	Brace A =	2	[in^2]
Distance from bot. of right girder to bracing =	12	[in]	Brace I =	2.85	[in^4]
Distance from bot. of right girder to bracing =	27	[in]			
Cross Slope =	0				

Brace Type =	HDPB 5'-9'
Lines of horizontal Bracing per brace line =	1
Lines of diagonal bracing per brace line =	1

	Member		
	1	2	3
Tensile Strength	6.000	6.821	6.821
Max Tension	19.828	16.477	-6.250
Lines Required	4	3	1
Compressive Strength	9.000	6.000	7.787
Max Compression	-1.485	-1.234	-38.219
Lines Required	1	1	5

Lines of bracing required =	5	
Stiffness =	44963	[kip-ft/rad]
Span Length =	37.75	[ft]
Bracing Point Type =	Quarter Points	
Empirical Scale Factor =	1.7	
Pu =	75	[psf]
Pavg =	37.5	[psf]
Beam Weight =	1146	[plf]
C0 =	18.26274547	
C =	26.8737886	>1
Check =	OK	