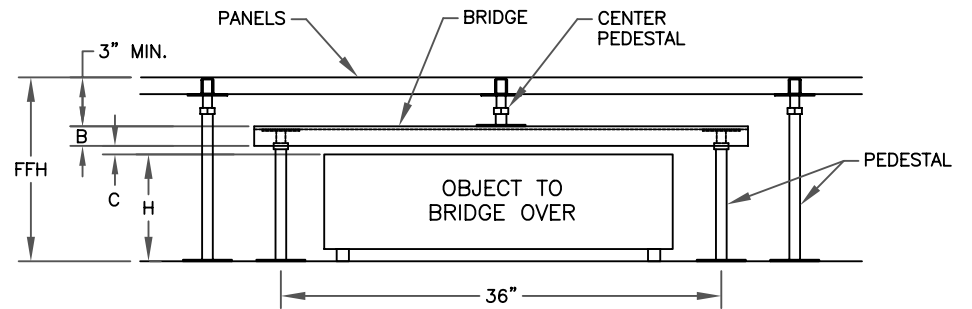


H = HEIGHT OF OBJECT TO BRIDGE OVER  
 C = CLEARANCE BETWEEN OBJECT AND BRIDGE  
 B = HEIGHT OF BRIDGE BEAM



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**CONSIDERATIONS FOR SELECTING PROPER BRIDGE BEAM MATERIAL:**

1. IS THERE ENOUGH SPACE BETWEEN TOP OF OBJECT AND BOTTOM OF ACCESS FLOOR PANELS?
2. IS BRIDGE TO SUPPORT FULL WEIGHT OF 1, 2 OR 4 PANEL CONCENTRATED LOAD CAPACITY?
3. WHAT IS THE ALLOWABLE DEFLECTION OF BEAM UNDER FULL CAPACITY LOAD?

## Deflection Of Standard Structural Iron "C"-Channel When Used As A Bridge Beam

(Numbers in **RED** are greater than 1/240 of span)

"C" Channel Size	Leg Thickness	Leg Length	Span	Concentrated Load In Pounds At Center Of Bridge												
				500	1,000	1,500	2,000	2,500	3,000	4,000	5,000	6,000	8,000	10,000		
4" x 5.4	x 0.296	x 1.584	x 24 =	0.025	0.050	0.075	0.100	<b>0.124</b>	<b>0.149</b>	<b>0.199</b>	<b>0.249</b>	<b>0.299</b>	<b>0.398</b>	<b>0.498</b>		
			x 30 =	0.049	0.097	<b>0.146</b>	<b>0.195</b>	<b>0.243</b>	<b>0.292</b>	<b>0.389</b>	<b>0.486</b>	<b>0.584</b>	<b>0.778</b>	<b>0.973</b>		
			x 36 =	0.084	<b>0.168</b>	<b>0.252</b>	<b>0.336</b>	<b>0.420</b>	<b>0.504</b>	<b>0.672</b>	<b>0.840</b>	<b>1.008</b>				
			x 48 =	0.199	<b>0.398</b>	<b>0.598</b>	<b>0.797</b>	<b>0.996</b>	<b>1.195</b>							
4" x 7.25	x 0.296	x 1.721	x 24 =	0.019	0.039	0.058	0.078	0.097	<b>0.116</b>	<b>0.155</b>	<b>0.194</b>	<b>0.233</b>	<b>0.311</b>	<b>0.388</b>		
			x 30 =	0.038	0.076	0.114	<b>0.152</b>	<b>0.190</b>	<b>0.227</b>	<b>0.303</b>	<b>0.379</b>	<b>0.455</b>	<b>0.607</b>	<b>0.758</b>		
			x 36 =	0.066	0.131	<b>0.197</b>	<b>0.262</b>	<b>0.328</b>	<b>0.393</b>	<b>0.524</b>	<b>0.655</b>	<b>0.786</b>	<b>1.048</b>			
			x 48 =	0.155	<b>0.311</b>	<b>0.466</b>	<b>0.621</b>	<b>0.776</b>	<b>0.932</b>	<b>1.242</b>						
5" x 6.7	x 0.320	x 1.750	x 36 =	0.058	0.115	<b>0.173</b>	<b>0.231</b>	<b>0.288</b>	<b>0.346</b>	<b>0.461</b>	<b>0.576</b>	<b>0.692</b>	<b>0.922</b>	<b>1.153</b>		
			x 48 =	0.137	<b>0.273</b>	<b>0.410</b>	<b>0.546</b>	<b>0.683</b>	<b>0.820</b>	<b>1.093</b>						
5" x 9.0	x 0.320	x 1.885	x 36 =	0.046	0.092	0.138	<b>0.184</b>	<b>0.231</b>	<b>0.277</b>	<b>0.369</b>	<b>0.461</b>	<b>0.553</b>	<b>0.738</b>	<b>0.922</b>		
			x 48 =	0.109	<b>0.219</b>	<b>0.328</b>	<b>0.437</b>	<b>0.547</b>	<b>0.656</b>	<b>0.875</b>	<b>1.093</b>					
6" x 8.2	x 0.343	x 1.920	x 36 =	0.041	0.081	0.122	<b>0.163</b>	<b>0.204</b>	<b>0.244</b>	<b>0.326</b>	<b>0.407</b>	<b>0.489</b>	<b>0.651</b>	<b>0.814</b>		
			x 48 =	0.097	0.193	<b>0.290</b>	<b>0.386</b>	<b>0.483</b>	<b>0.579</b>	<b>0.772</b>	<b>0.965</b>	<b>1.158</b>				
6" x 10.5	x 0.343	x 2.043	x 36 =	0.034	0.068	0.101	0.135	<b>0.169</b>	<b>0.203</b>	<b>0.270</b>	<b>0.338</b>	<b>0.406</b>	<b>0.541</b>	<b>0.676</b>		
			x 48 =	0.080	0.160	<b>0.240</b>	<b>0.320</b>	<b>0.401</b>	<b>0.481</b>	<b>0.641</b>	<b>0.801</b>	<b>0.961</b>	<b>1.282</b>			
6" x 13.0	x 0.343	x 2.157	x 36 =	0.029	0.057	0.086	0.115	0.144	<b>0.172</b>	<b>0.230</b>	<b>0.287</b>	<b>0.345</b>	<b>0.459</b>	<b>0.574</b>		
			x 48 =	0.068	0.136	<b>0.204</b>	<b>0.272</b>	<b>0.340</b>	<b>0.408</b>	<b>0.545</b>	<b>0.681</b>	<b>0.817</b>	<b>1.089</b>			
8" x 11.5	x 0.390	x 2.260	x 36 =	0.022	0.044	0.066	0.088	0.110	0.132	<b>0.176</b>	<b>0.220</b>	<b>0.263</b>	<b>0.351</b>	<b>0.439</b>		
			x 48 =	0.052	0.104	0.156	<b>0.208</b>	<b>0.260</b>	<b>0.312</b>	<b>0.416</b>	<b>0.520</b>	<b>0.625</b>	<b>0.833</b>	<b>1.041</b>		
8" x 13.75	x 0.390	x 2.343	x 48 =	0.047	0.093	0.140	0.187	<b>0.234</b>	<b>0.280</b>	<b>0.374</b>	<b>0.467</b>	<b>0.561</b>	<b>0.747</b>	<b>0.934</b>		
<b><u>4" High - Wide Flange I-Beam</u></b>																
W4" x 13.0	x 0.345	x 4.16	x 48 =	0.009	0.019	0.028	0.038	0.047	0.057	0.075	0.094	0.113	0.151	0.189		