

The diagram illustrates the cross-section of a bridge parapet wall and deck. The parapet wall is constructed from rubble masonry (1:6) and is 12 feet high. It is finished with a 15-foot wide cement plaster (1:4). The bridge deck is made of reinforced (vibrated) concrete (1:2:4) and is 55 feet wide. The center of the bridge is marked as 'C.C. of the bridge'. The ground on either side of the bridge is sloped. The total width of the bridge deck is 40 feet. The diagram also shows a bracket for fixing wiremesh and a reinforced concrete section. The dimensions are given in feet: 12, 15, 5, 4, 55, 40, and 63-9 (32).

Technical drawing of a bridge plate, showing dimensions and a callout for the material.

Dimensions:

- Top view: 80 (total width), 55 (inner width), 40 (inner width), 35 (inner width), 5 (gap), 25 (gap), 12 (gap), 26 (gap).
- Side view: 30 (height), 50 (height), 50 (height), 10 (height), 50 (height), 140 (height).

Callout:

63 (32) Brass bridge plate
11/18/13 300/260, 16 gauge

Labels:

- Centre line of bridge

- 1) Wind the main cables 3 times around the drum before clamping.
- 2) Erect the deck before casting the third layer of reinforced concrete 1:2:4 (excluding wiremesh and fixation cable)
- 3) Do not allow persons to cross the bridge before casting and curing of the third layer of reinforced concrete 1:2:4
- 4) Required additional cable length for anchorage on one bank (from front of foundation):- Handrail cable: 3.30m,
Main cables: for front drum cable: 13.20m.
for other cables: 17.60m.
- 5) Make rough construction and working joints.

$B = \dots$ m. $L = \dots$ m. $H_1 = \dots$ m. $H_2 = \dots$ m.

$h_p = \text{.....m.}$

hp =	m.	vo Quantity (m ³)	Cement	
			bags/m ³	No of bags
Reinforced concrete 1:2:4			6.40	
Vo = 15.052 + 0.88 hp				
Plumb concrete 1:3:6 + 40% boulders			2.64	
Vo = L [(H ₁ + H ₂) $\frac{B}{2}$ - 0.12]				
Cement plaster 1:4			9.12	
Vo = 0.025 L (B - 1.20) - 0.026				
Rubble masonry 1:6			1.50	
Vo = (B L - 1.20 L - 16.25) 0.95				
Total volume: Vtotal = BL / 2 (H ₁ + H ₂ + 1.95) - 1.29L + 0.88 hp - 0.412				
		No. of cement bags		

	Quantity
Formwork: $F_0 = (H_1 + H_2)(B + L) \frac{1}{2} + 5.40 \text{ hp} + 1.944$

SECTION A-A

Full coaltar filling

Cable to be painted with coaltar

1.50

Concrete

Main cables

Main cable saddle

Cover plate

Front of foundation

- 1) Wrap whole plate in plastic .
- 2) Assemble bolts and nuts.
- 3) Attach assembled plate at innerside of formwork , then cast in concrete.
- 4) Remove plastic after concrete setting .

	Minimum	Maximum
B	7.90	11.00
L	3.30	6.50
H ₁	2.00	4.50
H ₂	1.20	4.50

MoLD / DoLIDAR / Trail Bridge Section Long Span Trail Bridge Standard	
Bridge No:	Name:
Span:	
Structural Drawing :	
Main Foundation on Soil	
Related drawings : 62 & 63 ⁽³²⁾	
4 Main cables \varnothing	<div style="border: 1px solid black; padding: 2px; display: inline-block;">mm</div> (36 / 40mm)
2 Handrail cables \varnothing	32 mm
2 Fixation cables \varnothing	13 mm
Date: August 2004	Drawing No. 62/1(32)