

Cost Estimate for
Proposed Pedestrian Bridge at
Sandow Road
Verdun, S.A.

for the Walking Federation of SA Inc.

Project No.13569

February, 2014

This project involves the construction of a new 3.0m wide pedestrian bridge spanning the Onkaparinga River and being supported upon fabricated steel columns and concrete abutment walls. New approach ramps are to be constructed with compacted quarry rubble. This cost estimate refers to option 1 shown on drawing 13569-1 Rev. B.

Notes:

This cost estimate is for budgeting purposes only, and should not be considered as comparable to a tender price for the works.

This cost estimate is based on Rawlinson's Australian Construction Handbook (2012), Rawlinsons Construction Cost Guide 2014 and rates obtained from local contractors.

The estimate has been compiled with all due care, however Magryn & Associates Pty Ltd accepts no liability for the accuracy of the estimate.

PEDESTRIAN BRIDGE *Sandow Road, Verdun, S.A.*

ITEM DESCRIPTION	AMOUNT	UNITS	RATE	TOTAL	ITEM TOTAL
Excavator					
filling to river bed 3.0m deep	general fill material	144	m ³	\$ 25	\$ 3,600
excavator hire & labour to fill	place & compact	144	m ³	\$ 77	\$ 11,088
drain pipes to temporary dam	supply and install	1	item	\$ 2,000	\$ 2,000
excavate 4 off pad footings	machine hire & labour	200	m ²	\$ 63	\$ 12,600
backfill over pad excavation	machine hire & labour	90	m ³	\$ 78	\$ 7,020
quarry rubble approach ramps	material	80	m ³	\$ 40	\$ 3,200
quarry rubble approach ramps	machine, place & compact	80	m ³	\$ 52	\$ 4,160
					\$ 43,668
Footings					
N32 concrete to 4 off pads	material	40	m ³	\$ 250	\$ 10,000
concrete pump x 2 set up	plant hire	1	item	\$ 3,000	\$ 3,000
reinforcing to pads	supply & fix	1	item	\$ 5,400	\$ 5,400
concrete to 4 off pads	place & compact	40	m ³	\$ 38	\$ 1,520
hold down bolts & templates	supply & install	4	each	\$ 375	\$ 1,500
surveying initial & bolt set up	supply	1	item	\$ 1,000	\$ 1,000
					\$ 22,420
Abutment walls					
N32 concrete to 2 off walls	supply	7	m ³	\$ 250	\$ 1,750
concrete pump x 2 set up	plant hire	1	item	\$ 2,500	\$ 2,500
formwork, propping	supply & erect	1	item	\$ 5,700	\$ 5,700
reinforcing to walls	supply & fix	1	item	\$ 3,000	\$ 3,000
concrete to 2 off walls	labour to place & vibrate	1	item	\$ 1,000	\$ 1,000
					\$ 13,950
Structural Steelworker					
4 / 355.6 x 9.5 CHS columns	fabricate	4	item	\$ 4,400	\$ 17,600
4 / 355.6 x 9.5 CHS columns	treat & paint	4	item	\$ 1,200	\$ 4,800
4 / 355.6 x 9.5 CHS columns	transport & erection	4	item	\$ 3,700	\$ 14,800
non shrink grout	labour & materials	1	item	\$ 600	\$ 600
densotape lagging	supply & install	1	item	\$ 1,000	\$ 1,000
					\$ 38,800
Bridge deck					
precast head beams	supply	2	item	\$ 1,000	\$ 2,000
precast head beams	crane & erect	2	item	\$ 1,000	\$ 2,000
prestressed concrete planks	supply	9	item	\$ 3,000	\$ 27,000
prestressed concrete planks	crane & erect	9	item	\$ 945	\$ 8,505
scaffolding & work platforms	supply & erect	1	item	\$ 9,000	\$ 9,000
non shrink grout	labour & materials	1	item	\$ 3,500	\$ 3,500
concrete topping	supply, place & finish	4.6	m ³	\$ 1,200	\$ 5,520
					\$ 57,525
Metalworker					
balustrade & handrail x 2.4m	fabricate and deliver	30	item	\$ 800	\$ 24,000
scaffolding	supply & erect	1	item	\$ 10,000	\$ 10,000
balustrade & handrail x 2.4m	install	30	item	\$ 320	\$ 9,600
bollards	supply & install	6	item	\$ 400	\$ 2,400
					\$ 46,000
Siteworks					
concrete drainpipe	supply & install	4	m	\$ 800	\$ 3,200
clean & contour to original	machine hire & labour	1	item	\$ 1,100	\$ 1,100
					\$ 4,300

PEDESTRIAN BRIDGE (continued) *Sandow Road, Verdun, S.A.*

SUBTOTAL		\$ 226,663
Allow Preliminaries	10%	\$ 20,806
Contingencies	10%	\$ 20,806
GST	10%	\$ 24,967
TOTAL		\$ <u>293,242</u>

ADDENDUM: Source: email from Christiane Husmann

REVISED COST FOLLOWING THE PEER REVIEW BY JAMES PIERCE AND MATT WITTWER

We have reviewed the cost estimate with regard to the amendments proposed by council, i.e. the steel headstock in lieu of concrete, the wire balustrade and the extension of the concrete piers to above nominal river level. This will slightly increase the costing for the bridge, so that the overall ballpark figure is **\$303,575** instead of \$293,242. Therefore, the increase in cost is marginal and items such as a wire balustrade should be discussed before the final decision is made. However, the steel headstock and extension of concrete piers will ease the construction and maintenance of the bridge and thus, should be considered in the detailed design. Please note that our cost estimate is based on concrete planks and not the steel beam option, but I believe we have already decided that this solution is more straightforward. We haven't changed the drawing to reflect council's suggestions regarding the construction of the bridge, because the final layout and construction details are still being discussed.