



Our Ref : CCV/01/EIL
Your Ref :
Date : 29TH March 2011

Concrete Canvas Ltd
 Unit 3, Block A22
 Severn Road
 Treforest Industrial Estate
 Pontypridd
 CF37 5SP.

For the attention of Mr Will Crawford

Dear Sirs,

CONCRETE CANVAS LTD
COMPARISON OF CONSTRUCTION COSTS

Engineers Incorporated Ltd (EIL) were commissioned by Concrete Canvas Ltd (CCL) to prepare a comparison of costs for lining a open, trapezoidal ditch 900 x 900 x 900mm, 500m in length.

The comparison for construction costs requested, were:-

- In Situ concrete lining, average thickness 150mm.
- Precast Concrete Paving Slabs, laid on sand / cement screed.
- Sprayed Concrete (Gunit) average thickness 100mm with mesh.
- Concrete Canvas CC8.

We have provided a rate build up for each of the options under consideration and these are appended to this letter report.

Below is a summary of the results:-

COST COMPARISON FOR DITCH LINING

Lining Materials	Materials £/sqm	Labour and Plant £/sqm	Total (inc o/heads) £/sqm	Installation time Sqm/day
1. Insitu concrete	£16.02	£18.13	£42.25	40
2. Precast concrete paving slabs	£19.76	£12.98	£40.51	40
3. Spayed concrete (Gunit)	£42.53	£4.84	£58.61	130
4. Concrete Cloth CC8	£29.40	£0.99	£37.60	412

The above rates assume that the initial ditch excavation to form the trapezoidal shape is complete prior to commencement of lining and therefore has been excluded in the costs.

The above rates assume that the site has tarmac access for pouring in-situ concrete, delivery of sprayed concrete and paving slabs.



We trust that the above is self explanatory, however should you require any further information or seek any clarification, please do not hesitate to contact us by telephone or email, p.hunt@engineersinc.co.uk .

Yours faithfully

for **ENGINEERS INCORPORATED LTD**

A handwritten signature in blue ink, appearing to read 'P.C. Hunt', with a large, sweeping flourish extending from the end of the name.

P.C.HUNT
DIRECTOR
CONTRACT MANAGEMENT AND MEASUREMENT



INSITU CONCRETE LINING

	Rate	Qty	£/hr	
A. GANG RATE				
Labour Ganger	£14.60 /hr	1	£14.60	
Gen Ops	£13.10 /hr	4	£52.40	
Total/hr			£67.00	
Total Labour/day		9		£603.00 /day
Plant 6tn Dumper	£145.00 /week			£29.00 /day
Single tool comp plus poker	£40.00 /week			£8.00 /day
Small tool etc-allow	£5.00 /day			£5.00 /day
2.5t Excavator	£400.00 /week			£80.00 /day
Total Labour and Plant				£725.00 /day
B. MATERIAL SUPPLY COST				
C30N SR Concrete (150mm thick)	£88.00 /m3	0.15		£13.20 /m2
Wastage (10%)	10%			£1.32 /m2
Allow construction joints/consumables	£10.00 /m3			£1.50 /m2
Total Material /m2				£16.02 /m2
C. OUTPUT RATE CALCULATION				
Ditch lining volume (3x0.9x0.15)	0.405 m3/lm			
Average rate	6.0 m3/day			40.0 m2/day
A. Labour and Plant	£725.00 /day			£18.13 /m2
B. Materials	£16.02 /m2			£16.02 /m2
Total Per SQM Cost				£34.15
Add prelims- supervision/transport/welfare	10.0%			£37.56 /m2
Add overheads and profit	12.5%			£42.25 /m2

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PRECAST CONCRETE PAVING SLABS

	Rate	Qty	£/hr	
A. GANG RATE				
Labour Ganger	£14.60 /hr	1	£14.60	
Gen Ops	£13.10 /hr	3	£39.30	
Total/hr			£53.90	
Total Labour/day		9		£485.10 /day
Plant 6tn Dumper	£145.00 /week			£29.00 /day
Small tool etc-allow	£5.00 /day			£5.00 /day
Total Labour and Plant				£519.10 /day
B. MATERIAL SUPPLY COST				
900x600x50 slabs	£5.50 each			£10.19 /m2
Wastage (0%)	0%			£0.00
Sand /cement screed (3:1) (60mm thick)	£145.00 /m3			£8.70 /m2
Wastage (10%)	10%			£0.87 /m2
Total Material /m2				£19.76 /m2
C. OUTPUT RATE CALCULATION				
Average rate	6.0 m3/day			40.0 m2/day
A. Labour and Plant	£519.10 /day			£12.98 /m2
B. Materials	£19.76 /m2			£19.76 /m2
Total Per SQM Cost				£32.73
Add prelims- supervision/transport/welfare	10.0%			£36.01 /m2
Add overheads and profit	12.5%			£40.51 /m2

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SPRAYED CONCRETE (GUNITE)

	Rate	Qty	£/hr	
A. GANG RATE				
Labour	Ganger	1	£14.60 /hr	£14.60
	Gen Ops	3	£13.10 /hr	£39.30
	Total/hr			£53.90
	Total Labour/day	9		£485.10 /day
Plant	Mobilisation		£1,500.00	£144.44 /day
Total Labour and Plant				£629.54 /day
B. MATERIAL SUPPLY COST				
	Spray concrete (includes equipment costs)		£28.00 /m2	£28.00 /m2
	Steel mesh		£12.50 /m2	£12.50 /m3
	Wastage (5%)		5%	£2.03 /m2
Total Material /m2				£42.53 /m2
C. OUTPUT RATE CALCULATION				
	Average rate		130 m2/day	130.0 m2/day
A.	Labour and Plant		£629.54 /day	£4.84 /m2
B.	Materials		£42.53 /m2	£42.53 /m2
Total Per SQM Cost				£47.37
	Add prelims- supervision/transport/welfare		10.0%	£52.10 /m2
Add overheads and profit			12.5%	£58.62 /m2

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CONCRETE CLOTH – TYPE CC8

		Rate	Qty	£/hr	
A. GANG RATE					
Labour	Ganger	£14.60 /hr	1	£14.60	
	Gen Ops	£13.10 /hr	2	£26.20	
	Total/hr			£40.80	
	Total Labour/day		9		£367.20 /day
Plant	6tn Dumper	£145.00 /week			£29.00 /day
	Water Bowser plus hoses	£25.00 /week			£5.00 /day
	Small tool etc-allow	£5.00 /day			£5.00 /day
Total Labour and Plant					£406.20 /day
B. MATERIAL SUPPLY COST					
	Concrete Cloth type CC8	£28.00 /m2			£28.00 /m2
	Wastage (5%)	5%			£1.40 /m2
Total Material /m2					£29.40 /m2
C. OUTPUT RATE CALCULATION					
	Average rate (based on actual from Bam Nuttall)	412 m2/day			412.0 m2/day
A.	Labour and Plant	£406.20 /day			£0.99 /m2
B.	Materials	£29.40 /m2			£29.40 /m2
Total Per SQM Cost					£30.39
	Add prelims- supervision/transport/welfare	10.0%			£33.42 /m2
Add overheads and profit		12.5%			£37.60 /m2

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