

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 3 Excavation/Backfill/Trimming
Quantity : 649.06
Unit of Measurement : cu.m.
Output per day :

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	10.83	600.00	6,500.00
	b. Skilled Labor	4	10.83	450.00	19,500.00
	c. Unskilled Labor	15	10.83	320.00	52,000.00
	Sub - Total for A				78,000.00
	Name and Capacity	No of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Backhoe	1	10.83	17,000.00	184,166.67
	b. Dump Truck	1	10.83	10,816.00	117,173.33
	Sub - Total for B				301,340.00
C.	Total (A + B)				379,340.00
	Name and Specification	Unit	Quantity	Unit Cost	Amount
D.	Materials				
	Sub - Total for D				0.00
E.	Direct Cost (E + F)				379,340.00
F.	Overhead, Contingencies & Miscellaneous (OCM)		12% of E		45,520.80
G.	Contractor's Profit (CP)		8% of E		30,347.20
H.	Value Added Tax (VAT)		5% of (E + F + G)		22,760.40
I.	Total Cost		(E + F + G + H)		477,968.40
J.	Unit Cost				736.40

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 4 Concreting Works
 Quantity : 670.79
 Unit of Measurement : cu.m.
 Output per day :

Designation		No. of Person	No. of Days	Daily Rate	Amount
A. Labor					
a. Construction Foreman		1	134.07	600.00	80,444.57
b. Skilled Labor		15	134.07	450.00	905,001.36
c. Unskilled Labor		60	134.07	320.00	2,574,226.10
Sub - Total for A					3,559,672.03
Name and Capacity		No of Units	No. of Days	Daily Rate	Amount
B. Equipment					
a. Concrete Mixer		1	74.49	1,376.00	102,492.34
b. Concrete Vibrator		1	74.49	1,094.00	81,487.37
Sub - Total for B					183,979.70
C. Total (A + B)					3,743,651.73
Name and Specification		Unit	Quantity	Unit Cost	Amount
D. Materials					
a. Cement		bags	6,338.95	320.00	2,028,464.42
b. Sand, Washed and Screened		cu.m.	352.16	1,200.00	422,596.76
c. Gravel, Washed and Screened		cu.m.	704.33	1,200.00	845,193.51
d. Aggregates Base Course		cu.m.	940.00	650.00	611,000.00
e. Reinforcing Steel Bars		kgs	109,441.00	55.00	6,019,255.00
f. 2" x 2" x 12' Coco Lumber		pcs	127.00	80.00	10,160.00
g. 2" x 3" x 12' Coco Lumber		pcs	509.00	120.00	61,080.00
h. Wooden Poles, 3 -4" dia.		pcs	1,175.00	40.00	47,000.00
i. Assorted CWN's		boxes	25.00	1,500.00	37,500.00
j. #16 Tying Wire		rolls	10.00	2,750.00	27,500.00
k. 1/2" Phenolic Forms		pcs	130.00	2,000.00	260,000.00
l. 200L Plastic Drums		pcs	4.00	1,400.00	5,600.00
m. 30L Empty Plastic Container		pcs	6.00	250.00	1,500.00
n. No. 100 Nylon String		kgs	8.00	350.00	2,800.00
Sub - Total for D					10,379,649.69
E. Direct Cost (E + F)					14,123,301.42
F. Overhead, Contingencies & Miscellaneous (OCM)			12% of E		1,694,796.17
G. Contractor's Profit (CP)			8% of E		1,129,864.11
H. Value Added Tax (VAT)			5% of (E + F + G)		847,398.09
I. Total Cost				(E + F + G + H)	17,795,359.79
J. Unit Cost					26,529.02

d

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 5 Masonry Works
 Quantity : 2,257.50
 Unit of Measurement : sq.m.
 Output per day :

Designation		No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	88.60	600.00	53,159.34
	b. Skilled Labor	15	88.60	450.00	598,042.58
	c. Unskilled Labor	25	88.60	320.00	708,791.21
	Sub - Total for A				1,359,993.13
Name and Capacity		No of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	Sub - Total for B				0.00
C.	Total (A + B)				1,359,993.13
Name and Specification		Unit	Quantity	Unit Cost	Amount
D.	Materials				
	a. Cement	bags	1,289.00	320.00	412,480.00
	b. Sand, Washed and Screened	cu.m.	178.00	1,200.00	211,200.00
	c. CHB, 6"	pcs	21,340.00	20.00	426,800.00
	d. CHB, 4"	pcs	11,420.00	18.00	205,560.00
	e. No. 16 Tying Wire	rolls	66.00	2,750.00	181,500.00
	f. Reinforcing Steel Bar	kgs	5,845.00	55.00	321,475.00
	g. Waterproofing	gals	15.00	1,200.00	18,000.00
	h. Glazed Tiles	pcs	3,264.00	450.00	1,468,800.00
	i. Ceramic Styles	pcs	3,791.00	230.00	871,930.00
	j. Tile Adhesive	bags	278.00	550.00	152,900.00
	k. Tile Grout	packs	47.00	65.00	3,055.00
	Sub - Total for D				4,273,700.00
E.	Direct Cost (E + F)				5,633,693.13
F.	Overhead, Contingencies & Miscellaneous (OCM)		12% of E		676,043.18
G.	Contractor's Profit (CP)		8% of E		450,695.45
H.	Value Added Tax (VAT)		5% of (E + F + G)		338,021.59
I.	Total Cost		(E + F + G + H)		7,098,453.35
J.	Unit Cost				3,144.39

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DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 6 Carpentry Works
 Quantity : 1.00
 Unit of Measurement : lot
 Output per day :

Designation		No. of Person	No. of Days	Daily Rate	Amount
A. Labor					
a. Construction Foreman		1	90.00	600.00	54,000.00
b. Skilled Labor		3	90.00	450.00	121,500.00
c. Unskilled Labor		12	90.00	320.00	345,600.00
Sub - Total for A					521,100.00
Name and Capacity		No of Units	No. of Days	Daily Rate	Amount
B. Equipment					
Sub - Total for B					0.00
C. Total (A + B)					521,100.00
Name and Specification		Unit	Quantity	Unit Cost	Amount
D. Materials					
a. Wooden Doors and Jambs with Complete Acc		sets	4.00	10,000.00	40,000.00
b. Aluminum Frame Glass Awning Windows		sq.ft.	761.22	620.00	471,956.40
c. Cementitious Waterproofing		sq.m.	124.50	1,200.00	149,400.00
d. Ramp and Stair Railings Tubular Type		lot	1.00	250,000.00	250,000.00
e. Comfort Room Cubicles		sets	6.00	20,000.00	120,000.00
f. 1/4" x 2" Angle Bar		pcs.	45.00	1,450.00	65,250.00
g. 1/4" x 1 1/2" Angle Bar		pcs	41.00	1,150.00	47,150.00
h. 2" x 4" C- Purlins (1.2)		pcs	506.00	850.00	430,100.00
i. Color Roof Rib Type (.5mm)		l.m.	1,895.00	550.00	1,042,250.00
j. Ridge Roll (18") (.5mm)		pcs	15.00	650.00	9,750.00
k. Tek Screw		pcs	1,800.00	3.50	6,300.00
l. Silicon Sealant		pcs	18.00	250.00	4,500.00
Sub - Total for D					2,636,656.40
E. Direct Cost (E + F)					3,157,756.40
F. Overhead, Contingencies & Miscellaneous (OCM)			12% of E		378,930.77
G. Contractor's Profit (CP)			8% of E		252,620.51
H. Value Added Tax (VAT)			5% of (E + F + G)		189,465.38
I. Total Cost					3,978,773.06
J. Unit Cost					3,978,773.06

d

Backup Computation
Construction of Looc Public Market

Item No. : **3**
Description : **Excavation/Backfill/Trimming**
Quantity : - cu.m.

Footings Excavation

F1 (1)	=	1.50 x 1.50 x 1.50	F2 (1)	=	1.70 x 1.70 x 2.00
	=	3.38		=	5.78
F1 (53)	=	3.38 x 53.00	F2 (46)	=	5.78 x 46.00
	=	178.88 cu.m.		=	265.88 cu.m.

Tied Beams Excavation

Total Length of Beams

= (24.00 x 12.00) + (4.00 x 10.00) + (24.00 x 2.00) + (42.00 x 6.00)
+ (3.00 x 2.00) + (47.00 x 1.00)
= 681.00 l.m.

Volume of Tie Beams (First Layer)

= 681.00 x 0.30 x 1.00
= 204.30 cu.m.

Total Excavation

= 178.88 + 265.88 + 204.30
= **649.06 cu.m.**

Item No. : **4**
Description : **Concreting Works**
Quantity : 670.79 cu.m.

Footings

F1 (1)	=	1.50 x 1.50 x 0.30	F2 (1)	=	1.70 x 1.70 x 0.35
	=	0.68		=	1.01
F1 (53)	=	0.68 x 53.00	F2 (46)	=	1.01 x 46.00
	=	35.78 cu.m.		=	46.53 cu.m.

Columns

Building 1

C1 (1)	=	0.35 x 0.35 x (5.00 + 1.20)	C2 (1)	=	0.40 x 0.40 x (5.00 + 1.65)
	=	0.76		=	1.06
C1 (53)	=	0.76 x 53.00	C2 (22)	=	1.06 x 22.00
	=	40.25 cu.m.		=	23.41 cu.m.

Building 2

C2 (1)	=	0.40 x 0.40 x (9.00 + 1.65)
	=	1.70
C2 (24)	=	1.70 x 24.00
	=	40.90 cu.m.

Footing Tie Beam (First Layer)

Total Length of Beams

$$\begin{aligned} &= (24.00 \times 12.00) + (4.00 \times 10.00) + (24.00 \times 2.00) + (42.00 \times 6.00) \\ &\quad + (3.00 \times 2.00) + (47.00 \times 1.00) \\ &= 681.00 \text{ l.m.} \end{aligned}$$

Volume of Tie Beams (First Layer)

$$\begin{aligned} &= 681.00 \times 0.30 \times 0.30 \\ &= 61.29 \text{ cu.m.} \end{aligned}$$

Footing Tie Beam (Second Layer)

Total Length of Beams

$$\begin{aligned} &= (24.00 \times 12.00) + (4.00 \times 9.00) + (24.00 \times 2.00) + (42.00 \times 6.00) \\ &\quad + (3.00 \times 2.00) + (47.00 \times 1.00) \\ &= 677.00 \text{ l.m.} \end{aligned}$$

Volume of Tie Beams (Second Layer)

$$\begin{aligned} &= 677.00 \times 0.30 \times 0.30 \\ &= 60.93 \text{ cu.m.} \end{aligned}$$

Beam 1

Total Length of Beams (B-1, First Layer)

$$\begin{aligned} &= 677.00 - 96.00 \\ &= 581.00 \text{ l.m.} \end{aligned}$$

Volume of Beams (B-1, First Layer)

$$\begin{aligned} &= 581.00 \times 0.30 \times 0.35 \\ &= 61.01 \text{ cu.m.} \end{aligned}$$

Beam 2

Total Length of Beams (B-2, First Layer)

$$\begin{aligned} &= 677.00 - 581.00 \\ &= 96.00 \text{ l.m.} \end{aligned}$$

Volume of Beams (B-2, First Layer)

$$\begin{aligned} &= 96.00 \times 0.30 \times 0.35 \\ &= 10.08 \text{ cu.m.} \end{aligned}$$

Beam 1

Total Length of Beams (B-1, Second Layer)

Volume of Beams (B-1, First Layer)

$$\begin{aligned} &= 96.00 \times 0.30 \times 0.35 \\ &= 10.08 \text{ cu.m.} \end{aligned}$$

Slab

Total Area of Slab

$$\begin{aligned} &= (28.00 \times 20.00) + (24.00 \times 42.00) + (3.00 \times 4.00) + (4.00 \times 19.00) + (4.00 \times 8.00) \\ &= 1,688.00 \text{ sq.m.} \end{aligned}$$

Volume of Slab

$$= 1,688.00 \times 0.15$$
$$= 253.20 \text{ cu.m.}$$

Sewerage Treatment Tank

$$= (3.30 \times 6.30 \times 0.15) + (3.30 \times 6.30 \times 0.10) + (6.30 \times 2.30 \times 2.00 \times 0.15) + (3.30 \times 2.30 \times 2.00 \times 0.15)$$
$$= 14.10 \text{ cu.m.}$$

Cistern Tank

$$= (5.30 \times 2.30 \times 0.15) + (5.30 \times 2.30 \times 0.10) + (1.80 \times 5.30 \times 0.10 \times 2.00) + (2.00 \times 1.80 \times 0.10 \times 2.00)$$
$$= 5.68 \text{ cu.m.}$$

Septic Tank

$$= (3.50 \times 1.40 \times 0.15 \times 2.00) + (1.40 \times 1.10 \times 2.00 \times 0.15) + (3.50 \times 1.40 \times 4.00 \times 0.15)$$
$$= 4.87 \text{ cu.m.}$$

Ramp

$$= (2.00 \times (6.05 + 6.23 + 1.20) \times 0.10)$$
$$= 2.70$$

Total Volume of Concrete

$$= \text{Footing} + \text{Column} + \text{FTB} + \text{Beams} + \text{Slab} + \text{Tanks} + \text{Ramp}$$
$$= \mathbf{670.79 \text{ cu.m.}}$$

Item No. : **5**
Description : **Masonry Works**
Quantity : 2,257.50 sq.m.

External Walls

Building - Length

$$= ((5.00) \times (3.00 + 24.00 + 42.00 + 28.00 + 19.00)) + (((9.00 \times 4.00 \times 5.00) + (8.00 \times 4.00)) \times 4.00) + ((28.00 + 20.00 + 24.00) \times 8.00) + (2.00 \times 11.00 \times 3.00) + (4.00 \times 20.00)$$
$$= 2,150.00 \text{ sq.m.}$$

For Allowance = $2,150.00 \times 1.05$
= **2,257.50 sq.m.**

Item No. : **6**
Description : **Carpentry Works**
Quantity : - cu.m.

Doors and Windows

	Dim	Area	Qty	Total Area	
D1	0.90 x 2.10	1.89	4.00	7.56	
W1	4.60 x 1.20	5.52	8.00	44.16	
W2	3.60 x 1.20	4.32	5.00	21.60	
W3	1.80 x 0.50	0.90	2.00	1.80	
W4	2.00 x 1.20	1.00	1.00	1.00	
W5	1.80 x 1.20	2.16	1.00	2.16	
				70.72	761.22

d

	sq.m.	sq.ft.
C - Purlins		
(1a - 1l) - (6a - 6l)	(8g - 8h) - (9g - 9h)	
= 40.00 x 42.00	= 10.00 x 5.00	
= 1,680.00	= 50.00	
(3l - 3m) - (4l - 4m)	(6a - 13a) - (6g - 13g)	
= 10.00 x 4.00	= 36.00 x 28.00	
40.00	= 1008.00	
(6g - 6j) - (7g - 7j)		
= 9.00 x 12.00		
= 108.00		

Total Number of Purlins Req'd = $\frac{2,886.00}{6.00} \times 1.05$
= 505.05 pcs

Roofing Sheets

(1a - 1l) - (6a - 6l)

Span = 12.00 m
Height = 2.00 m
Projection = 1.00 m
Total Length = 13.25 m

Total Roofing Net Length = $13.25 \times 45.00 \times 2.00$
= 1,192.50 l.m.

(3l - 3m) - (4l - 4m)

Span = 3.00 m
Height = 1.00 m
Projection = 1.00 m
Total Length = 4.29 m

Total Roofing Net Length = $4.29 \times 4.00 \times 2.00$
= 34.32 l.m.

(8g - 8h) - (9g - 9h)

Span = 3.00 m
Height = 1.00 m
Projection = 1.00 m
Total Length = 4.29 m

Total Roofing Net Length = $4.29 \times 4.00 \times 2.00$
= 34.32 l.m.

(6a - 13a) - (6g - 13g)

Span = 10.00 m
Height = 2.00 m
Projection = 1.00 m
Total Length = 11.29 m

Total Roofing Net Length = $11.29 \times 28.00 \times 2.00$
= 632.24

TOTAL ROOFING LENGTH REQUIRED = $1,192.50 + 34.32 + 34.32 + 632.24$
= **1,893.38 l.m.**

Ridge Roll/Cap

Total Length of Ridge (with allowance)
= $45.00 + 4.00 + 30.00 + 4.00$
= 83.00 l.m.

In pieces = $83.00/3.00$
= 27.666667 ~ 28.00 pcs

Trusses

H - 1

50mm x 50mm

= $2.00 \times (12.20 + 2.00 + 13.153 + 0.30 + 0.80 + 0.30)$
= 57.506 l.m.

38mm x 38mm
= 2.00 x (2.33 + 1.82 + 2.18 + 1.63 + 2.02 + 1.45 + 1.88 + 1.26 + 1.74 + 1.08
+ 1.62 + 0.89 + 1.50 + 0.71 + 1.39 + 0.52 + 1.31 + 0.33 + 0.85)
= 53.02 l.m.

H - 2
50mm x 50mm
= 2.00 x (16.80 + 2.00 + 16.92) (autocad)
= 71.44 l.m.

38mm x 38mm
= 2.00 x (32.6897 + 0.1429) (autocad)
= 65.67 l.m.

H - 3
50mm x 50mm
= 2.00 x (26.2916) (autocad)
= 52.58 l.m.

38mm x 38mm
= 2.00 x (28.8503) (autocad)
= 57.70 l.m.

H - 4
50mm x 50mm
= 2.00 x (24.2629) (autocad)
= 48.53 l.m.

38mm x 38mm
= 2.00 x (21.7128) (autocad)
= 43.43 l.m.

FT - 3
50mm x 50mm
= 2.00 x (12.3246) (autocad)
= 24.65 l.m.

38mm x 38mm
= 2.00 x (3.8833 + 1.00) (autocad)
= 9.77 l.m.

Total Length of 50 x 50 L bar
= 57.506 + 71.44 + 52.58 + 48.53 + 24.65
= 254.706 ~ 267.4413 ~ 268.00 ~ 45.00 pcs
w/allowance

Total Length of 38 x 38 L bar
= 53.02 + 65.67 + 57.70 + 43.43 + 9.77
= 229.59 ~ 241.0695 ~ 242.00 ~ 41.00 pcs
w/allowance

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