

Republic of the Philippines
Department of Public Works and Highways

Bureau : DPWH
Region : IX
District/City : Zamboanga City

PROGRAM OF WORK
(For all types of Project)

Date :

NAME/LOCATION OF PROJECT : PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE	Appropriation : P 250,000,000.00 Source of Funds : CY-2018 Issued Obligated Authority : Released : Cal. Days to Complete : 440 Calendar Days Desirable Starting Date : Upon Approval Mode of Implementation :
PROJECT CATEGORY : NATIONAL ROAD	
PROJECT DESCRIPTION : Scope of Work : Road Upgrading(Unpaved to Paved) Road Width : 6.70 mtrs. (PCCP thick .28m) Roadbed Width : 12.00 mtrs. Subbase Course : 0.30 m. thick Surface Course : 0.15 m. thick	NET LENGTH : Chainage 4000 - Chainage 5411.66 Chainage 5441.53 - Chainage 9029.87 Net Length : 5,000.000 In.m. (10.00 lane km.)

MINIMUM EQUIPMENT REQUIREMENT :

TECH

Description	No.	Description	No.	Description	No.
Dumptruck (10-Wheeler)	12	Water Pump	1	Project Engineer	1
Transit Mixer	4	Concrete Vibrator	2	Materials Engineer	1
Bulldozer	2	Concrete Cutter	2	Geometric Surveyor	1
Backhoe	4	Bar Cutter	1	Foreman	1
Road Grader	2	Bar Bender	1	Materials Lab. Tech.	1
Road Roller	2	Conc. Mixer (1-Bagger)	2	Mason	10
Payloader	4	Plate Compactor	1	Carpenter	6
Water Truck	2	Batching Plant	1	Laborers (Skilled)	10
Water Tank	2	Backhoe with Breaker	4	Laborers (Unskilled)	20

ESTIMATED COST OF PROPOSED WORK

ITEM NO.	DESCRIPTION	% OF TOTAL	UNIT	QUANTITY	DIRECT COST	
					TOTAL	UNIT COST
PART A - FACILITIES FOR THE ENGINEER						
A.1.1(3)	Construction of Field Office for the Engineer (7.0m. X 9.0m.)	0.234	L. S.	1.00	462,694.93	462,694.93
A.1.1(11)	Provision of Furnitures/Fixtures,Equipment and Appliances for theField Office for the Engineers	0.102	L. S.	1.00	200,598.00	200,598.00
A. 1.2	Operation and Maintenance of Gov't Service Vehicle	0.275	L.S.	1.00	543,174.67	543,174.67
PART B - OTHER GENERAL REQUIREMENTS						
B.5	Project Billboard/Signboard	0.004	units	2.00	7,264.90	3,632.45
B.7	Occupational Safety and Health Program	0.116	L. S.	1.00	229,787.60	229,787.60
B.4 (1)	Construction Survey and Staking	0.068	km.	5.00	134,441.00	26,888.20
B.9	Mobilization & Demobilization	0.276	L. S.	1.00	544,688.00	544,688.00
PART C - EARTHWORK						
101(4)c	Removal of Structures & Obstructions(Removal of Extg. RCCP,910mmdia.)	0.004	ln.m.	13.00	7,228.67	556.05
102(2)	Surplus Common Excavation	29.275	cu.m.	409,190.00	57,856,453.91	141.39
102(3)b	Surplus Rock Excavation	5.101	cu.m.	51,752.00	10,080,765.15	194.79
103(1)a	Structure Excavation	0.253	cu.m.	2,172.00	499,811.19	230.12
103(3)	Foundation Fill	0.006	cu. m.	14.00	12,052.21	860.87
103(6)a	Pipe Culvert and Drain Excavation	0.004	cu.m.	38.00	8,744.39	230.12
104(1)a1	Embankment from Excavation	9.997	cu.m.	95,786.00	19,756,564.61	206.26
105(1)a	Subgrade Preparation	0.260	sq.m.	32,204.00	514,571.61	15.98
PART D - SUBBASE AND BASE COURSE						
200(1)	Aggregate Subbase Course, 0.30 m. thick	7.575	cu. m.	18,560.00	14,969,957.76	806.57
PART E - SURFACE COURSES						
300(1)	Gravel Surface Course, 0.15m. Thick	0.358	cu. m.	734.00	707,664.81	964.12
311(1)e1	Portland Cement Concrete Pavement, 0.28 m. thick	27.242	sq. m.	36,777.00	53,837,218.85	1,463.88
311(1)a	Portland Cement Concrete Pavement, 0.15 m thick	4.600	sq. m.	11,229.00	9,091,711.91	809.66
PART F - BRIDGE CONSTRUCTION						
404(1)a	Reinforcing Steel, (Grade 40)	1.144	kg.	43,933.00	2,260,008.32	51.44
405(1)a3	Structural Concrete, Class"A"	3.643	cu.m.	1,155.00	7,199,942.00	6,233.72
PART G - DRAINAGE AND SLOPE PROTECTION STRUCTURES						
500(1)b3	Reinf. Conc. Culvert Pipe, 910mm dia.	0.134	ln. m.	95.00	265,556.54	2,795.33
505(2)a	Grouted Riprap, Class "A"	0.052	cu. m.	34.00	102,989.13	3,029.09
506	Stone Masonry	0.160	cu. m.	85.00	317,138.13	3,731.04
PART E - MISCELLANEOUS STRUCTURES						
612(1)	Reflectorized Thermoplastic Pavement Marking, White	0.486	sq.m.	1,251.00	961,267.92	768.40
612(2)	Reflectorized Thermoplastic Pavement Marking, Yellow	0.063	sq.m.	144.00	124,512.55	864.67
622(1)a	Coco-net (CGN 400)	0.812	sq.m.	11,437.00	1,604,864.60	140.32
622(1)b	Coco-net (CGN 700)	3.650	sq.m.	47,500.00	7,213,856.83	151.87
622(2)b	Coco-logs/Fascine	1.458	ln.m.	6,285.00	2,881,365.54	458.45
622(3)a	Vegetation	2.647	sq.m.	58,937.00	5,231,188.33	88.76
TOTAL		100.000			P 197,628,084.05	

NAME OF PROJECT :

PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST
COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL
NORTE

Chainage 4000 - Chainage 5411.66

Chainage 5441.53 - Chainage
9029.87

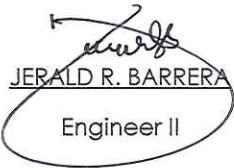
BREAKDOWN OF ESTIMATED EXPENDITURES	% OF TOTAL	AMOUNT
I. ESTIMATED COST		
A. DIRECT COST		
A.1. Materials	35.93	89,829,624.01
A.2. Labor	1.73	4,324,544.53
A.3. Equipment Expenses	41.39	103,473,915.51
SUB-TOTAL (DIRECT COST)	79.05	P 197,628,084.05
B. INDIRECT COST (Per D.O. # 57)		
B.1. Overhead, Contingency & Misc. (10 % Max. of D.C.)	6.28	15,688,786.86
B.2. Profit (8 % Max. of D.C.)	6.29	15,723,217.71
C. VAT (5 % of D.C. and I.C. Per D.O. # 197 S.2016)	4.58	11,452,004.43
SUBTOTAL (CONTRACT COST)	96.20	P 240,492,093.05
II. ESTIMATED GOVERNMENT EXPENDITURES		
1. Engineering and Administrative Overhead (3.5%)	3.50	8,750,000.00
2. Detailed Engineering (1%)	0.00	
3. Reserved for the Payment of RROW	0.30	757,906.95
4. Provisional Sum	0.00	
TOTAL ESTIMATED PROJECT COST	100.00	P 250,000,000.00

Prepared :

Checked :



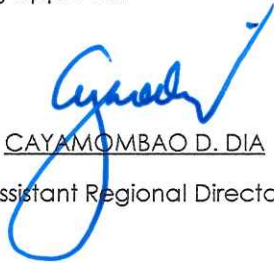
JOSEPHINE B. RENGQUINO
Engineer II



JERALD R. BARRERA
Engineer II



LEONCIO B. SOLAMILLO
Chief, Construction Division



CAYAMOMBAO D. DIA
Assistant Regional Director



JORGE U. SEBASTIAN, JR., CESO III
Regional Director

APPROVED BUDGET FOR THE CONTRACT

PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LUMPAFA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Project Name and Location

Stations: Chainage 4000 - Chainage 5411.66 Chainage 5441.53 - Chainage 9029.87
Length: 5,000.00

Contract Duration: 440 Calendar Days

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN PERCENT		TOTAL MARK-UPS			VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
PART A - FACILITIES FOR THE ENGINEER													
A.1.1(3)	Construction of Field Office for the Engineer (7.0m. X 9.0 m.)	1.00	L. S.	462,694.93	8.00	8.00	16.00	74,031.19	26,836.31	100,867.49	563,562.42	563,562.42	
A.1.1(11)	Provision of Furnitures/Fixtures,Equipment and Appliances for theField Office for the Engineer.	1.00	L. S.	200,598.00		8.00	8.00	16,047.84	10,832.29	26,880.13	227,478.13	227,478.13	
A. 1.2	Operation and Maintenance of Gov't Service Vehicle	1.00	L.S.	543,174.67			0.00	-	27,158.73	27,158.73	570,333.40	570,333.40	
PART B - OTHER GENERAL REQUIREMENTS													
B.5	Project Billboard/Signboard	2.00	units	7,264.90	8.00	8.00	16.00	1,162.38	421.36	1,583.75	8,848.65	4,424.32	
B.7	Occupational Safety and Health Program	1.00	L. S.	229,787.60		8.00	8.00	18,383.01	12,408.53	30,791.54	260,579.14	260,579.14	
B.4 (1)	Construction Survey and Staking	5.00	Km.	134,441.00	8.00	8.00	16.00	21,510.56	7,797.59	29,308.14	163,749.14	32,749.83	
B.9	Mobilization & Demobilization	1.00	L. S.	544,688.00			0.00	-	27,234.40	27,234.40	571,922.40	571,922.40	
PART C - EARTHWORK													
101(4)c	Removal of Structures & Obstructions(Removal of	13.00	ln.m.	7,228.67	8.00	8.00	16.00	1,156.59	419.26	1,575.85	8,804.52	677.27	
102(2)	Surplus Common Excavation	409,190.00	cu.m.	57,856,453.91	8.00	8.00	16.00	9,257,032.63	3,355,674.33	12,612,706.95	70,469,160.86	172.22	
102(3)b	Surplus Rock Excavation	51,752.00	cu.m.	10,080,765.15	8.00	8.00	16.00	1,612,922.42	584,684.38	2,197,606.80	12,278,371.95	237.25	
103(1)a	Structure Excavation	2,172.00	cu.m.	499,811.19	8.00	8.00	16.00	79,969.79	28,989.05	108,958.84	608,770.03	280.28	
103(3)	Foundation Fill	14.00	cu. m.	12,052.21	8.00	8.00	16.00	1,928.35	699.03	2,627.38	14,679.59	1,048.54	
103(6)a	Pipe Culvert and Drain Excavation	38.00	cu.m.	8,744.39	8.00	8.00	16.00	1,399.10	507.17	1,906.28	10,650.67	280.28	
104(1) a1	Embankment from Excavation	95,786.00	cu.m.	19,756,564.61	8.00	8.00	16.00	3,161,050.34	1,145,880.75	4,306,931.09	24,063,495.70	251.22	
105(1)a	Subgrade Preparation	32,204.00	sq.m.	514,571.61	8.00	8.00	16.00	82,331.46	29,845.15	112,176.61	626,748.23	19.46	
PART D - SUBBASE AND BASE COURSE													
200(1)	Aggregate subbase Course, 0.30 m. thick	18,560.00	cu. m.	14,969,957.76	8.00	8.00	16.00	2,395,193.24	868,257.55	3,263,450.79	18,233,408.55	982.40	
PART E - SURFACE COURSES													
300(1)	Gravel Surface Course, 0.15m. Thick	734.00	cu. m.	707,664.81	8.00	8.00	16.00	113,226.37	41,044.56	154,270.93	861,935.74	1,174.30	
311(1)e1	Portland Cement Concrete Pavement, 0.28 m. thick	36,777.00	sq. m.	53,837,218.85	8.00	8.00	16.00	8,613,955.02	3,122,558.69	11,736,513.71	65,573,732.56	1,783.01	
311(1)a	Portland Cement Concrete Pavement, 0.15 m. thick	11,229.00	sq. m.	9,091,711.91	8.00	8.00	16.00	1,454,673.91	527,319.29	1,981,993.20	11,073,705.11	986.17	
PART F - BRIDGE CONSTRUCTION													
404(1)a	Reinforcing Steel, (Grade 40)	43,933.00	kg.	2,260,008.32	8.00	8.00	16.00	361,601.33	131,080.48	492,681.81	2,752,690.13	62.66	
405(1)a3	Structural Concrete, Class "A"	1,155.00	cu.m.	7,199,942.00	8.00	8.00	16.00	1,151,990.72	417,596.64	1,569,587.36	8,769,529.35	7,592.67	
PART G- DRAINAGE AND SLOPE PROTECTION STRUCTURES													
500(1)b3	Relinf. Conc. Culvert Pipe, 910mm dia.	95.00	ln. m.	265,556.54	8.00	8.00	16.00	42,489.05	15,402.28	57,891.33	323,447.86	3,404.71	
505(2)a	Grouted Riprap, Class "A"	34.00	cu. m.	102,989.13	8.00	8.00	16.00	16,478.26	5,973.37	22,451.63	125,440.76	3,689.43	
506	Stone Masonry	85.00	cu. m.	317,138.13	8.00	8.00	16.00	50,742.10	18,394.01	69,136.11	386,274.24	4,544.40	
PART E - MISCELLANEOUS STRUCTURES													
612(1)	Reflectarized Thermoplastic Pavement Marking.	1,251.00	sq.m.	961,267.92	8.00	8.00	16.00	153,802.87	55,753.54	209,556.41	1,170,824.32	935.91	
612(2)	Reflectarized Thermoplastic Pavement Marking.	144.00	sq.m.	124,512.55	8.00	8.00	16.00	19,922.01	7,221.73	27,143.74	151,656.29	1,053.17	
622(1)a	Coco-net (CGN 400)	11,437.00	sq.m.	1,604,864.60	8.00	8.00	16.00	256,778.34	93,082.15	349,860.48	1,954,725.09	170.91	
622(1)b	Coco-net (CGN 700)	47,500.00	sq.m.	7,213,856.83	8.00	8.00	16.00	1,154,217.09	418,403.70	1,572,620.79	8,786,477.61	184.98	
622(2)b	Coco-logs/Fascine	6,285.00	ln.m.	2,881,365.54	8.00	8.00	16.00	461,018.49	167,119.20	628,137.69	3,509,503.22	558.39	
622(3)a	Vegetation	58,937.00	sq.m.	5,231,188.33	8.00	8.00	16.00	836,990.13	303,408.92	1,140,399.06	6,371,587.39	108.11	

197,628,084.05

Prepared /Submitted by :

Recommending Approval:

Approved :

240,492,096.45

Engineer IV - Chairman Estimating Committee

Assistant Regional Director

Regional Director

NET LENGTH : 5,000.00

[illegible]

Approved: _____

JOSEPH M. SEASITAN, JR., CEO III
Regional Director

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: A.1.1(3) Construction of Field Office for the Engineer (7.0m. X 9.0 m.)

Unit of Measurement: L. S.

Output per hour:

Quantity: 1.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	15.00	611.92	9,178.80
b. Masons	4	15.00	443.20	26,592.00
c. Carpenters	4	15.00	443.20	26,592.00
d. Laborers	8	15.00	342.24	41,068.80
Sub-total for A				P 103,431.60
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
a. Bagger Mixer	1	15.00	1,376.00	20,640.00
b. Water Truck	1	1.00	19,600.00	19,600.00
c. Minor Tools, 10% of Labor				10,343.16
Sub-total for B				P 50,583.16
C. Total (A+B)				154,014.76
D. Output/day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Gravel Bedding	0.00	cu.m.	850.00	-
Selected Fill	0.00	cu. m.	456.50	-
Soil Poisoning	0.00	lit.	1,900.00	-
Portland Cement	220.00	bag	299.33	65,853.37
Crushed gravel	15.00	cu.m.	850.00	12,750.00
Washed Sand	25.00	cu.m.	850.00	21,250.00
Deformed Bars, Grade 60	800.00	kg.	42.00	33,600.00
No. #16 G.I. Tie Wire	35.00	kg.	70.00	2,450.00
Coco Lumber	250.00	bd.ft.	15.00	3,750.00
Ordinary Plywood, 1/4" x 4' x8"	0.00	pcs.	650.00	-
CWN, Assorted	20.00	kg.	80.00	1,600.00
CHB 6" thick	700.00	pc.	25.00	17,500.00
10mm dia. X 6m RSB	150.00	kg.	43.00	6,450.00
D-1,Hollow Core Flush Type swing door,complete w/ accessories	1.00	set	1,495.20	1,495.20
W-1,Jalousie window, 1.4mx 1.2m.	0.00	set	1,176.00	-
W-2, Jalousie window, 2.8m x 1.2m	0.00	set	2,352.00	-
65 x 65 x 6mm Angle Bar	370.00	kg.	52.00	19,240.00
50 x 50 x 6mm Angle Bar	160.00	kg.	52.00	8,320.00
50 x 50 x 4mm Angle Bar	110.00	kg.	52.00	5,720.00
Purlins C-150x50x3mm	35.00	kg.	52.00	1,820.00
16mm dia. Cross Bracing	65.00	kg.	50.00	3,250.00
16mm dia. Turn Buckle	30.00	pc.	230.00	6,900.00
12mm thk. Base plate	45.00	kg.	50.00	2,250.00
10mmthk batten plate	30.00	kg.	50.00	1,500.00
Sub-total for E				P 215,698.57
Total Cost For Materials				308,680.17
F. Direct Cost (C + E)				462,694.93
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		37,015.59
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		37,015.59
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		26,836.31
L. Total Unit Cost				563,562.42

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: A.1.1(3) Construction of Field Office for the Engineer (7.0m. X 9.0 m.)

Unit of Measurement: L.S.

Output per hour:

Quantity: 1.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
a.	Const. Foreman	1		611.92	-
b.	Masons	4		443.20	-
c.	Carpenters	6		443.20	-
d.	Laborers	10		342.24	-
Sub-total for A				P	-
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2009 ACEL Rates)				
a.	Bagger Mixer	1		1,376.00	-
b.	Water Truck	1		19,600.00	-
c.	Minor Tools, 10% of Labor			0.00	-
Sub-total for B				P	-
C.	Total (A+B)				-
D.	Output/day				
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	10mm dia. Sag rod	15.00	kg.	48.00	720.00
	20mm dia. X 350mm Anchor Bolts	15.00	pc.	150.00	2,250.00
	Welding Rod	25.00	kg.	130.00	3,250.00
	Primer, Zinc Cromate	5.00	gal.	531.00	2,655.00
	Pre-painted G.I. Roofing Sh. Long span	55.00	sq.m.	420.00	23,100.00
	Pre-painted flashing Ridge Roll GA24,0.60m width	10.00	ln.m.	189.00	1,890.00
	Pre-painted flashing, GA 24	2.00	ln.m.	189.00	378.00
	Teckscrew 1-1/2"	1,000.00	pc.	1.25	1,250.00
	Roof Sealant	2.00	lit.	230.00	460.00
	Rough Lumber, Sun dries Tanguile	450.00	bd.ft.	37.00	16,650.00
	Finishing Nails	5.00	kg.	280.00	1,400.00
	Wood Preservative Brown	-	lit.	7,245.00	-
	2 x 40w Flourescent lighting fixtures	5.00	set	1,450.00	7,250.00
	Porcelain Ceiling Outlet w/female	2.00	pc.	50.00	100.00
	Duplex Convenience Outlet	3.00	pc.	170.00	510.00
	Two gang Switch	3.00	pc.	132.00	396.00
	3.50mm2 THW	1.00	roll	3,600.00	3,600.00
	8.00mm2 THW	20.00	m.	69.33	1,386.60
	15mm dia. PVC pipe	20.00	pc.	76.00	1,520.00
	15mm dia. PVC Coupling	20.00	pc.	27.00	540.00
	15mm dia. PVC Elbow	20.00	pc.	26.00	520.00
	15mm dia. PVC Clamp	50.00	pc.	8.00	400.00
	20mm dia. RSC Pipe	4.00	pc.	240.00	960.00
	20mm dia. RSC Coupling	3.00	pc.	36.00	108.00
	20mm dia. RSC Elbow	3.00	pc.	30.00	90.00
	20mm dia. RSC Clamp	10.00	pc.	18.00	180.00
	20mm dia. Service Entrance Cap	2.00	pc.	101.50	203.00
	Wire Holder	2.00	pc.	50.00	100.00
	Utility Box	7.00	pc.	32.00	224.00
	Octagon Box	50.00	pc.	34.00	1,700.00
Sub-total for E				P	73,790.60
F.	Direct Cost (C + E)				73,790.60
G.	Overhead, Contingencies and Miscellaneous				8% per D.O.197 s 2016
H.	Contractor's Profit(CP)				8% per D.O.197 s 2016
I.	Value Added Tax (VAT)				5% per D.O.197 s 2016
L.	Total Unit Cost				

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: A.1.1(3) Construction of Field Office for the Engineer (7.0m. X 9.0 m.)

Unit of Measurement: L. S.

Output per hour:

Quantity: 1.00

Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
Electrical Tape(big)		7.00	pc.	28.00	196.00
Panel Board9Side main w/ branches)		2.00	set	2,750.00	5,500.00
Water Closet(include,fitting&Accessories)		1	set	6,062.00	6,062.00
Lavatory(include fitting & accessories)		1	set	4,512.00	4,512.00
1/2' GI Pipe S-40		2	pc.	292.00	584.00
1/2' Water Faucet		2	pc.	165.00	330.00
1/2' Assorted Connector		8	pc.	19.00	152.00
4" PVC Series 1000		1	pc.	640.00	640.00
2" PVC Series 1000		1	pc.	305.00	305.00
4" PVC Assorted Connector		6	pc.	77.00	462.00
2" PVC Assorted Connector		8	pc.	56.00	448.00
					-
					-
Sub-total for E				P	19,191.00
F.	Direct Cost (C + E)				19,191.00
G.	Overhead, Contingencies and Miscellaneous				-
H.	Contractor's Profit(CP)				
I.	Value Added Tax (VAT)				
L.	Total Unit Cost				

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: A.1.1(11) Provision of Furnitures/Fixtures,Equipment and Appliances for theField Office for the Engineers

Unit of Measurement: L. S.

Output per hour: 1.00

Quantity: 1.00

Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
<i>Office Equipment/Facilities, Materials Testing Apparatus& Supplies</i>				-
Electric Bill	0.00	mo.	0.00	-
Water Bill	0.00	mo.	0.00	-
White Board , 3' x 6'	1	each.	2,000.00	2,000.00
8-seater Monoblock Dining Table	1	unit	3,000.00	3,000.00
Monoblock Backrest Chair	12	pcs.	500.00	6,000.00
Plastic Pail & Basin	2	set	300.00	600.00
Aluminum Cookware	1	set	3,000.00	3,000.00
each Plate, Glass, Spoon & Fork	1	doz	1,900.00	1,900.00
6" Sleeping Bed, Good Quality w/ pillows & blanket	3	each.	5,000.00	15,000.00
Office Table, Jr. Executive type	1	each.	7,000.00	7,000.00
w/ chair				-
Drawing Table	1	each.	5,000.00	5,000.00
Computer Table	1	each.	3,000.00	3,000.00
Cartridge(Computer Printer/Ink)	6	sets	1,800.00	10,800.00
CD RW	15	pc.	35.00	525.00
DVD Recordable & Writer	2	pc.	55.00	110.00
Bond paper (Long)	16	ream	330.00	5,280.00
Bond paper (Short)	15	ream	270.00	4,050.00
Yellow pad	6	pads	34.00	204.00
Scotch Tape	6	rolls	45.00	270.00
Masking Tape	6	rolls	134.00	804.00
Batteries" Energizer"	15	pc.	48.00	720.00
Ballpen	4	box	200.00	800.00
Pencil Lead, No. 5	4	box	150.00	600.00
Paper Clip(Plastic coated)	4	box	40.00	160.00
Fastener(plastic coated)	6	box	60.00	360.00
Eraser(Ink, pencil)	6	box	20.00	120.00
Staple wire	6	box	250.00	1,500.00
Cutter blade	3	box	250.00	750.00
Glue, 130 grams	6	bottle	85.00	510.00
Correction Fluid Pen	6	bottle	50.00	300.00
Brown Envelope, Long & Short	5	doz.	85.00	425.00
Expanded Envelope, long	5	doz.	125.00	625.00
Colored Pencil, 12's	6	set	145.00	870.00
Folder, short	6	doz.	90.00	540.00
Folder, long	6	doz.	95.00	570.00
Pentel pen (Assorted colors)	6	pcs.	60.00	360.00
White Board Marker(Assorted colors)	6	pcs.	85.00	510.00
Letter Envelope, White(Long)	1	box	100.00	100.00
Data File Folder	6	pcs.	100.00	600.00
Sign Pen, Assorted Colors	2	doz.	900.00	1,800.00
				-
Sub-total for E			P	80,763.00
F. Direct Cost (C + E)				200,598.00
G. Overhead, Contingencies and Miscellaneous		per D.O.197 s 2016		-
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		16,047.84
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		10,832.29
L. Total Unit Cost				227,478.13

PROJECT NAME:	PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE	
Item No./Description:	A.1.1(11)	Provision of Furnitures/Fixtures,Equipment and Appliances for the Field Office for
Unit of Measurement:	L. S.	the Engineers
Output per hour:		
Quantity:	1.00	

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:	PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE	
Item No./Description:	A. 1.2	Operation and Maintenance of Gov't Service Vehicle
Unit of Measurement:	L.S.	
Output per hour:		
Quantity:	1.00	

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a. Service Driver		1	440.00	443.20	195,008.00
					-
					-
					-
					-
					-
					-
					-
Sub-total for A					P 195,008.00
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.					
a. SERVICE VEHICLE (4 x 4)		1	14.67		-
					-
					-
					-
					-
					-
					-
Sub-total for B					P -
C. Total (A+B)					195,008.00
D. Output/day					
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a. liters, Diesel Fuel		4,400.00	liter	50.00	220,000.00
b. Engine Oil & Lubricants		1.00	l.s.	33,000.00	33,000.00
b. Tires		5.00	pcs.	9,500.00	47,500.00
b. Spare parts etc.		1.00	l.s.	47,666.67	47,666.67
					-
					-
					-
					-
					-
Sub-total for E					P 348,166.67
F. Direct Cost (C + E)					543,174.67
G. Overhead, Contingencies and Miscellaneous per D.O.197 s 2016					-
H. Contractor's Profit(CP) per D.O.197 s 2016					-
I. Value Added Tax (VAT) 5% per D.O.197 s 2016					27,158.73
L. Total Unit Cost					570,333.40

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: B.4 (1) Construction Survey and Staking

Unit of Measurement: km.

Output per hour:

Quantity: 5.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
For Fieldworks: (assumed output =0.300 km.)				
a. Geodetic Engineer	1	16.67	833.31	13,888.50
b. Skilled Laborer	1	16.67	443.20	7,386.67
c. Laborer	1	16.67	342.24	5,704.00
				-
For Office works: (assumed output =0.100km.)				
a. Geodetic Engineer	1	50.00	833.31	41,665.50
b. Skilled Laborer	1	50.00	443.20	22,160.00
				-
				-
Sub-total for A			P	90,804.67
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
a. Total Station complete w/ accessories	1	16.67	800.00	13,333.33
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for B			P	13,333.33
C. Total (A+B)				104,138.00
D. Output/day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Standard Stake Plan (800mm x 910mm plotting)	78.00	sheets	200.00	15,600.00
				-
b. blue print as stake plan	390.00	pcs.	34.00	13,260.00
				-
miscellaneous(5% of Materials)				1,443.00
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	30,303.00
F. Direct Cost (C + E)				134,441.00
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		10,755.28
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		10,755.28
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		7,797.58
L. Total Unit Cost				32,749.83

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: B.5 Project Billboard/Signboard

Unit of Measurement: units

Output per hour:

Quantity: 2.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Foreman	1	0.25	611.92	152.98
b.	Carpenters	1	0.25	443.20	110.80
c.	Laborer	2	0.25	342.24	171.12
					-
					-
					-
					-
					-
					-
Sub-total for A				P	434.90
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
a.					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for B				P	-
C.	Total (A+B)				434.90
D. Output/day					
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a.	Marine Plywood 3/16" thk 4' x 8'	2.00	pc.	435.00	870.00
b.	Tarpaulin (4' x 8')	2.00	pc.	800.00	1,600.00
c.	Assorted Sizes Lumber	100.00	bd. ft.	42.00	4,200.00
d.	Assorted Sizes C.W. Nails	2.00	kg.	80.00	160.00
					-
					-
					-
					-
					-
					-
					-
Sub-total for E				P	6,830.00
F. Direct Cost (C + E)					7,264.90
G. Overhead, Contingencies and Miscellaneous			8% per D.O.197 s 2016		581.19
H. Contractor's Profit(CP)			8% per D.O.197 s 2016		581.19
I. Value Added Tax (VAT)			5% per D.O.197 s 2016		421.36
L. Total Unit Cost					4,424.32

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: B.7 Occupational Safety and Health Program

Unit of Measurement: L. S.

Output per hour:

Quantity: 1.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Safety Practitioner	1	110.00	443.20	48,752.00
b.	First Aider	1	440.00	342.24	150,585.60
					-
					-
					-
					-
					-
					-
					-
Sub-total for A				P	199,337.60
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
a.					-
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for B				P	-
C. Total (A+B)					199,337.60
D. Output/day					
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a.	Medical Supplies	0.00	set	5,000.00	-
b.	Pairs, Rubber Boots Men, Long, with Steel Toe, Black	30.00	pair	400.00	12,000.00
c.	Pairs, Working Gloves (Maong Materials)	30.00	pair	15.00	450.00
d.	Pcs., Rain Coats (Rainforced, Hip Length Small, Medium, & Large)	30.00	pcs.	100.00	3,000.00
e.	Barricades/Signboards	1.00	L.S	15,000.00	15,000.00
					-
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					-
Sub-total for E				P	30,450.00
F. Direct Cost (C + E)					229,787.60
G. Overhead, Contingencies and Miscellaneous per D.O.197 s 2016					
H. Contractor's Profit(CP) 8% per D.O.197 s 2016					18,383.01
I. Value Added Tax (VAT) 5% per D.O.197 s 2016					12,408.53
L. Total Unit Cost					260,579.14

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description:

B.9 Mobilization & Demobilization

Unit of Measurement:

L. S.

Output per hour:

Quantity:

1.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					-
Sub-total for A					-
P					-
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
a.	Low Bed trailer	4	4.00	34,043.00	544,688.00
	Water Truck	2	0.00	19,600.00	-
	Backhoe	2	0.00	12,296.00	-
	Payloader	2	0.00	13,864.00	-
	Dumptrucks	10	0.00	7,384.00	-
	Road Roller	2	0.00	9,011.60	-
	Road grader	1	0.00	17,384.00	-
	Transit Mixer	4	0.00	10,544.00	-
	Portable Screed	1	0.00	2,834.00	-
	Concrete Vibrator	2	4.00	0.00	-
	Concrete Cutter	2	4.00	0.00	-
	Bar Cutter	1	4.00	0.00	-
	Conc. Mixer(1 Bagger)	1	4.00	0.00	-
	Plate Compactor	2	4.00	0.00	-
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Item No./Description: 101(4)c

Unit of Measurement: In.m.

Output per hour: 4.00

Quantity: 13.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Const. Foreman	1	0.41	611.92	248.59
b.	Laborers	2	0.41	342.24	278.07
					-
					-
					-
					-
					-
					-
					-
Sub-total for A				P	526.66
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
a.	Backhoe	1	0.41	12,296.00	4,995.25
b.	Boom Truck	1	0.20	8,143.20	1,654.09
					-
	Minor Tools (10% of Labor)				52.67
					-
					-
					-
					-
					-
Sub-total for B				P	6,702.00
C. Total (A+B)					7,228.67
D. Output/day		32.00	ln.m./day		556.05
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a.					-
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for E				P	-
F. Direct Cost (C + E)					7,228.67
G. Overhead, Contingencies and Miscellaneous			8% per D.O.197 s 2016		578.29
H. Contractor's Profit(CP)			8% per D.O.197 s 2016		578.29
I. Value Added Tax (VAT)			5% per D.O.197 s 2016		419.26
L. Total Unit Cost					677.27

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 102(2) Surplus Common Excavation

Unit of Measurement: cu.m.

Output per hour: 60.00 cu.m./hr.

Quantity: 409,190.00

Use 6 gangs for labor & equipment

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Const. Foreman	1	142.08	611.92	86,941.51
b.	Laborers	12	142.08	342.24	583,504.94
					-
					-
					-
					-
					-
					-
					-
Sub-total for A				P	670,446.45
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
a.	Bulldozer	6	142.08	27,032.00	23,044,216.83
b.	Payloader	6	142.08	13,864.00	11,818,771.17
c.	Payloader	6	35.52	13,864.00	2,954,692.79
d.	Dump truck	12	142.08	11,360.00	19,368,326.67
					-
					-
					-
					-
					-
					-
Sub-total for B				P	57,186,007.46
C. Total (A+B)					57,856,453.91
D. Output/day		2,880.00	cu.m./day		141.39
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a.					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for E				P	-
F. Direct Cost (C + E)					57,856,453.91
G. Overhead, Contingencies and Miscellaneous			8% per D.O.197 s 2016		4,628,516.31
H. Contractor's Profit(CP)			8% per D.O.197 s 2016		4,628,516.31
I. Value Added Tax (VAT)			5% per D.O.197 s 2016		3,355,674.33
L. Total Unit Cost					172.22

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description:102(3)bSurplus Rock Excavation

Unit of Measurement:cu.m.

Output per hour:56.00cu.m./hr.

Quantity:51,752.00

Use 4 gangs for labor & equipment

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Const. Foreman	1	28.88	611.92	17,671.92
b.	Laborers, Unskilled	8	28.88	342.24	79,069.66
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for A				P	96,741.58
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
a.	Bulldozer w/ ripper	4	28.88	31,086.80	3,591,080.52
b.	Payloader	4	28.88	13,864.00	1,601,539.57
c.	Payloader	4	5.78	13,864.00	320,307.91
d.	Dump truck	8	28.88	11,360.00	2,624,565.71
a.	Backhoe w/ attachment	4	28.88	15,984.80	1,846,529.84
					-
					-
Sub-total for B				P	9,984,023.56
C. Total (A+B)					10,080,765.15
D. Output/day		1,792.00	cu.m./day		194.79
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for E				P	-
F. Direct Cost (C + E)					10,080,765.15
G. Overhead, Contingencies and Miscellaneous			8% per D.O.197 s 2016		806,461.21
H. Contractor's Profit(CP)			8% per D.O.197 s 2016		806,461.21
I. Value Added Tax (VAT)			5% per D.O.197 s 2016		584,684.38
L. Total Unit Cost					237.25

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 103(1)a Structure Excavation

Unit of Measurement: cu.m.

Output per hour: 20 cu.m./hr.

Quantity: 2,172.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	13.58	611.92	8,306.81
b. Laborers	3	13.58	342.24	13,937.72
				-
				-
				-
				-
				-
				-
				-
Sub-total for A			P	22,244.54
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
a. Dumptruck	2	13.58	11,360.00	308,424.00
b. Backhoe	1	13.58	12,296.00	166,918.20
Minor Tools(10% of Labor)				2,224.45
				-
				-
				-
				-
				-
				-
Sub-total for B			P	477,566.65
C. Total (A+B)				499,811.19
D. Output/day	160.00	cu.m./day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a.				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	-
F. Direct Cost (C + E)				499,811.19
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		39,984.90
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		39,984.90
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		28,989.05
L. Total Unit Cost				280.28

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 103(3) Foundation Fill

Unit of Measurement: cu. m.

Output per hour: 1.25 cu.m./hr.

Quantity: 14.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	1.40	611.92	856.69
b. Laborers	4	1.40	342.24	1,916.54
				-
				-
				-
				-
				-
				-
Sub-total for A			P	2,773.23
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
a. Plate Compactor	1	1.40	984.00	1,377.60
b. Water Truck	1	0.0140	19,600.00	274.40
Minor tools (10% of labor)				277.32
				-
				-
				-
				-
				-
				-
Sub-total for B			P	1,929.32
C. Total (A+B)				4,702.56
D. Output/day	10.00	cu.m./day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Filling Materials	16.10	cu. m.	456.50	7,349.65
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	7,349.65
F. Direct Cost (C + E)				12,052.21
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		964.18
H. Contractor's Profit (CP)		8% per D.O.197 s 2016		964.18
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		699.03
L. Total Unit Cost				1,048.54

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 103(6)a Pipe Culvert and Drain Excavation

Unit of Measurement: cu.m.

Output per hour: 20.00 cu.m./hr.

Quantity: 38.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Const. Foreman	1	0.24	611.92	145.33
b.	Laborers	3	0.24	342.24	243.85
					-
					-
					-
					-
					-
					-
Sub-total for A				P	389.18
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
a.	Backhoe	1	0.24	12,296.00	2,920.30
b.	Dumptruck	2	0.24	11,360.00	5,396.00
	Minor Tools, 10% of Labor				38.92
					-
					-
					-
					-
					-
					-
Sub-total for B				P	8,355.22
C. Total (A+B)					8,744.39
D. Output/day		160.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a.					-
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for E				P	-
F. Direct Cost (C + E)					8,744.39
G. Overhead, Contingencies and Miscellaneous			8% per D.O.197 s 2016		699.55
H. Contractor's Profit (CP)			8% per D.O.197 s 2016		699.55
I. Value Added Tax (VAT)			5% per D.O.197 s 2016		507.17
L. Total Unit Cost					280.28

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description:104(1)a1Embankment from Excavation

Unit of Measurement:cu.m.

Output per hour:50.00cu.m./hr.

Quantity:95,786.00

Use 3 gangs for labor & equipment

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
For ExcavationWork:					
a.	Const. Foreman	1	66.25	611.92	40,540.91
b.	Laborers	6	66.25	342.24	136,044.47
					-
For Spreading and Compaction:					
a.	Const. Foreman	1	79.82	611.92	48,844.47
b.	Laborers	6	79.82	342.24	163,909.00
					-
					-
					-
					-
Sub-total for A				P	389,338.86
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
For Excavation Work:					
a.	Bulldozer	3	54.99	27,032.00	4,459,399.80
b.	Payloader	3	54.99	13,864.00	2,287,108.57
c.	Dump Truck	6	54.99	11,360.00	3,748,060.20
Spreading and Compaction:					
a.	Road grader	3	79.82	17,384.00	4,162,859.56
b.	Road Roller	3	79.82	14,768.00	3,536,419.12
c.	Water truck	3	19.96	19,600.00	1,173,378.50
					-
					-
					-
					-
Sub-total for B				P	19,367,225.75
C. Total (A+B)					19,756,564.61
D. Output/day		1,200.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a.					-
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for E				P	-
F. Direct Cost (C + E)					19,756,564.61
G. Overhead, Contingencies and Miscellaneous			8% per D.O.197 s 2016		1,580,525.17
H. Contractor's Profit(CP)			8% per D.O.197 s 2016		1,580,525.17
I. Value Added Tax (VAT)			5% per D.O.197 s 2016		1,145,880.75
L. Total Unit Cost					251.22

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 105(1)a Subgrade Preparation

Unit of Measurement: sq.m.

Output per hour: 300 sq.m./hr.

Quantity: 32,204.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Const. Foreman	1	13.42	611.92	8,210.95
b.	Laborers	2	13.42	342.24	9,184.58
					-
					-
					-
					-
					-
					-
Sub-total for A				P	17,395.53
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
a.	Road Grader	1	13.42	17,384.00	233,264.31
b.	Road Roller	1	13.42	14,768.00	198,161.95
c.	Water Truck	1	3.35	19,600.00	65,749.83
					-
					-
					-
					-
					-
					-
Sub-total for B				P	497,176.09
C. Total (A+B)					514,571.61
D. Output/day		2,400.00	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a.					-
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for E				P	-
F. Direct Cost (C + E)					514,571.61
G. Overhead, Contingencies and Miscellaneous			8% per D.O.197 s 2016		41,165.73
H. Contractor's Profit (CP)			8% per D.O.197 s 2016		41,165.73
I. Value Added Tax (VAT)			5% per D.O.197 s 2016		29,845.15
L. Total Unit Cost					19.46

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 200(1) Aggregate Subbase Course, 0.30 m. thick

Unit of Measurement: cu. m.

Output per hour: 50.00 cu.m./hr.

Quantity: 18,560.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Const. Foreman	1	46.40	611.92	28,393.09
b.	Laborers	2	46.40	342.24	31,759.87
					-
					-
					-
					-
					-
					-
Sub-total for A				P	60,152.96
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
b.	Road Grader	1	46.40	17,384.00	806,617.60
c.	Road Roller	1	46.40	14,768.00	685,235.20
i.	Water Truck	1	11.60	19,600.00	227,360.00
Sub-total for B				P	1,719,212.80
C. Total (A+B)					1,779,365.76
D. Output/day		400.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a.	Agg. Subbase Course (w/ shrinkage of 15 %)	21,344.00	cu.m.	618.00	13,190,592.00
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for E				P	13,190,592.00
F. Direct Cost (C + E)					14,969,957.76
G. Overhead, Contingencies and Miscellaneous			8% per D.O.197 s 2016		1,197,596.62
H. Contractor's Profit(CP)			8% per D.O.197 s 2016		1,197,596.62
I. Value Added Tax (VAT)			5% per D.O.197 s 2016		868,257.55
L. Total Unit Cost					982.40

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 300(1) Gravel Surface Course, 0.15m. Thick

Unit of Measurement: cu. m.

Output per hour: 50.00 cu.m./hr.

Quantity: 734.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Const. Foreman	1	1.84	611.92	1,122.87
b.	Laborers	2	1.84	342.24	1,256.02
					-
					-
					-
					-
					-
					-
Sub-total for A				P	2,378.89
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
b.	Road Grader	1	1.84	17,384.00	31,899.64
c.	Road Roller	1	1.84	14,768.00	27,099.28
i.	Water Truck	1	0.46	19,600.00	8,991.50
Sub-total for B				P	67,990.42
C. Total (A+B)					70,369.31
D. Output/day		400.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a.	Agg. Subbase Course (w/ shrinkage of 15 %)	844.10	cu.m.	755.00	637,295.50
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for E				P	637,295.50
F. Direct Cost (C + E)					707,664.81
G. Overhead, Contingencies and Miscellaneous			8% per D.O.197 s 2016		56,613.19
H. Contractor's Profit(CP)			8% per D.O.197 s 2016		56,613.19
I. Value Added Tax (VAT)			5% per D.O.197 s 2016		41,044.56
L. Total Unit Cost					1,174.30

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 311(1)e1 Portland Cement Concrete Pavement, 0.28 m. thick

Unit of Measurement: sq. m.

Output per hour: 57.50 sq.m./hr.

Quantity: 36,777.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	79.95	611.92	48,923.00
b. Skilled	4	79.95	443.20	141,735.36
c. Laborers, Unskilled	12	79.95	342.24	328,345.06
				-
				-
				-
				-
				-
				-
Sub-total for A				P 519,003.42
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
a. Transit Mixer	4	79.95	10,544.00	3,371,971.20
b. Concrete Vibrator	2	8.00	730.00	11,672.70
c. Batching Plant	1	79.95	14,076.00	1,125,376.20
d. Payloader	1	79.95	13,864.00	1,108,426.80
e. Concrete Screeder	1	79.95	4,360.00	348,582.00
f. Water Truck	1	79.95	19,600.00	1,567,020.00
g. Concrete Saw	1	79.95	261.04	20,870.15
h. Bar Cutter	1	8.00	1,758.00	14,055.21
Minor Tools (5% of labor)				25,950.17
				-
Sub-total for B				P 7,593,924.43
C. Total (A+B)				8,112,927.85
D. Output/day	460.00	sq.m./day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Portland Cement (Type 1)	97,827.00	Bags	299.33	29,282,898.00
b. Fine Aggregates	5,664.00	cu. m.	850.00	4,814,400.00
c. Coarse Aggregates	10,298.00	cu. m.	850.00	8,753,300.00
d. Reinforcing Steel Bars	18,389.00	kgs	43.00	790,727.00
e. Asphalt Sealant	6,253.00	ltr	75.00	468,975.00
f. Curing Compound	10,666.00	ltr.	40.00	426,640.00
g. Concrete Saw	6.00	pcs.	8,000.00	48,000.00
h. Pipe Sleeve, 2" dia.	287.00	l.m.	133.00	38,171.00
i. Grease/Tar	287.00	lit.	300.00	86,100.00
j. Steel Forms (rental)	16,918.00	l.m.	60.00	1,015,080.00
				-
Sub-total for E				P 45,724,291.00
F. Direct Cost (C + E)				53,837,218.85
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		4,306,977.51
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		4,306,977.51
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		3,122,558.69
L. Total Unit Cost				1,783.01

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 311(1)a Portland Cement Concrete Pavement, 0.15 m thick

Unit of Measurement: sq. m.

Output per hour: 107.33 sq.m./hr.

Quantity: 11,229.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Const. Foreman	1	13.08	611.92	8,002.48
b.	Skilled	4	13.08	443.20	23,184.07
c.	Laborers, Unskilled	12	13.08	342.24	53,708.37
					-
					-
					-
					-
					-
					-
Sub-total for A				P	84,894.92
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
a.	Transit Mixer	4	13.08	10,544.00	551,563.29
b.	Payloader	1	13.08	13,864.00	181,308.65
c.	Water Truck	1	13.08	19,600.00	256,322.09
d.	Concrete Cutter	1	13.08	261.04	3,413.79
e.	Concrete Vibrator	2	13.08	730.00	19,093.38
f.	Bar Cutter	1	1.31	1,758.00	2,299.05
g.	Concrete Screeder	1	13.08	4,360.00	57,018.59
h.	Batching plant	1	13.08	14,076.00	184,081.11
	Minor Tools(5% of labor)				4,244.75
					-
Sub-total for B				P	1,259,344.70
C. Total (A+B)					1,344,239.62
D. Output/day		858.64	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a.	Portland Cement (Type 1)	16,058.00	Bags	299.33	4,806,697.29
b.	Fine Aggregates	927.00	cu. m.	850.00	787,950.00
c.	Coarse Aggregates	1,685.00	cu. m.	850.00	1,432,250.00
d.	Reinforcing Steel Bars	3,706.00	kgs	43.00	159,358.00
e.	Asphalt Sealant	1,348.00	ltr	75.00	101,100.00
f.	Curing Compond	3,257.00	ltr.	40.00	130,280.00
g.	Steel Forms	5,166.00	ln.m.	60.00	309,960.00
h.	Concrete Saw	2.00	pcs.	8,000.00	16,000.00
i.	Pipe Sleeve, 1" dia.	88.00	l.m.	40.00	3,520.00
j.	Grease/Tar	17.00	lit.	21.00	357.00
					-
					-
Sub-total for E				P	7,747,472.29
F. Direct Cost (C + E)					9,091,711.91
G. Overhead, Contingencies and Miscellaneous			8% per D.O.197 s 2016		727,336.95
H. Contractor's Profit(CP)			8% per D.O.197 s 2016		727,336.95
I. Value Added Tax (VAT)			5% per D.O.197 s 2016		527,319.29
L. Total Unit Cost					986.17

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 404(1)a Reinforcing Steel, (Grade 40)

Unit of Measurement: kg.

Output per hour: 180.00 kg./hr.

Quantity: 43,933.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Foreman	1	15.25	611.92	9,334.54
b.	Skilled	4	15.25	443.20	27,043.20
c.	Laborers, Unskilled	16	15.25	342.24	83,531.28
					-
					-
					-
					-
					-
					-
Sub-total for A				P	119,909.02
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
a.	Bar Cutter	2	7.63	1,758.00	26,817.44
b.	Bar Bender	2	7.63	2,812.00	42,895.69
c.	Cargo Truck	2	1.14	9,696.00	22,186.17
					-
					-
					-
					-
					-
					-
Sub-total for B				P	91,899.29
C. Total (A+B)					211,808.32
D. Output/day		2,880.00	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a.	Reinforcing Steel Bars, Grade 40	46,130.00	kgs.	43.00	1,983,590.00
b.	Tie Wire	923.00	kgs.	70.00	64,610.00
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for E				P	2,048,200.00
F. Direct Cost (C + E)					2,260,008.32
G. Overhead, Contingencies and Miscellaneous			8% per D.O.197 s 2016		180,800.67
H. Contractor's Profit(CP)			8% per D.O.197 s 2016		180,800.67
I. Value Added Tax (VAT)			5% per D.O.197 s 2016		131,080.48
L. Total Unit Cost					62.66

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 405(1)a3 Structural Concrete, Class"A"

Unit of Measurement: cu.m.

Output per hour: 1.40 cu.m./hr.

Quantity: 1,155.00

Use 3 gangs of equipment & labor

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Foreman	1	34.38	611.92	21,034.75
b. Skilled	12	34.38	443.20	182,820.00
c. Unskilled	24	34.38	342.24	282,348.00
Installation/Removal of Formworks				
b. Skilled	12	34.38	443.20	182,820.00
c. Unskilled	24	34.38	342.24	282,348.00
				-
				-
Sub-total for A			P	951,370.75

Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
a. One bagger mixer	3	34.38	1,376.00	141,900.00
b. Concrete vibrator	3	34.38	730.00	75,281.25
c. Water truck	3	3.44	19,600.00	202,125.00
Minor Tools (5% of Labor)				47,568.54
				-
				-
				-
				-
				-
				-
Sub-total for B			P	466,874.79

C. Total (A+B)				1,418,245.54
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D. Output/day	33.60	ln.m./day		
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Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Portland Cement	10,973.00	bag	299.33	3,284,586.46
b. Fine Aggregates	577.50	cu.m.	850.00	490,875.00
c. Coarse Aggregates	1,155.00	pc.	850.00	981,750.00
d. Form lumber	20,212.50	pc.	42.00	848,925.00
e. Plywood	462.00	pc.	345.00	159,390.00
f. Assorted CWNails	202.13	pc.	80.00	16,170.00
				-
				-
				-
				-
				-
				-
Sub-total for E			P	5,781,696.46

F. Direct Cost (C + E)				7,199,942.00
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G. Overhead, Contingencies and Miscellaneous	8% per D.O.197 s 2016			575,995.36
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H. Contractor's Profit(CP)	8% per D.O.197 s 2016			575,995.36
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I. Value Added Tax (VAT)	5% per D.O.197 s 2016			417,596.64
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L. Total Unit Cost				7,592.67
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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 405(1)a3 Structural Concrete, Class"A"

Unit of Measurement: cu.m.

Output per hour: 1.40 cu.m./hr.

Quantity: 1,155.00

Use 3 gangs of equipment & labor

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Foreman	1	34.38	611.92	21,034.75
b. Skilled	12	34.38	443.20	182,820.00
c. Unskilled	24	34.38	342.24	282,348.00
Installation/Removal of Formworks				
b. Skilled	12	34.38	443.20	182,820.00
c. Unskilled	24	34.38	342.24	282,348.00
				-
				-
Sub-total for A			P	951,370.75
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
a. One bagger mixer	3	34.38	1,376.00	141,900.00
b. Concrete vibrator	3	34.38	730.00	75,281.25
c. Water truck	3	3.44	19,600.00	202,125.00
Minor Tools (5% of Labor)				47,568.54
				-
				-
				-
				-
				-
				-
Sub-total for B			P	466,874.79
C. Total (A+B)				1,418,245.54
D. Output/day	33.60	In.m./day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Portland Cement	10,973.00	bag	299.33	3,284,586.46
b. Fine Aggregates	577.50	cu.m.	850.00	490,875.00
c. Coarse Aggregates	1,155.00	pc.	850.00	981,750.00
d. Form lumber	20,212.50	pc.	42.00	848,925.00
e. Plywood	462.00	pc.	345.00	159,390.00
f. Assorted CWNails	202.13	pc.	80.00	16,170.00
				-
				-
				-
				-
				-
				-
Sub-total for E			P	5,781,696.46
F. Direct Cost (C + E)				7,199,942.00
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		575,995.36
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		575,995.36
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		417,596.64
L. Total Unit Cost				7,592.67

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 500(1)b3 Reinf. Conc. Culvert Pipe, 910mm dia.

Unit of Measurement: In. m.

Output per hour: 1 In.m./hr.

Quantity: 95.00 Use 2 gangs for labor & equipment

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Foreman	1	3.38	611.92	2,070.97
b.	Skilled	4	3.38	443.20	5,999.82
c.	Unkilled	8	3.38	342.24	9,266.15
					-
					-
					-
					-
					-
					-
Sub-total for A					P 17,336.93
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
a.	Backhoe	2	0.98	12,296.00	24,136.28
b.	Plate Compactor	2	0.98	984.00	1,931.53
c.	Minor Tools, 10% of Labor				1,733.69
					-
					-
					-
					-
					-
					-
Sub-total for B					P 27,801.50
C. Total (A+B)					45,138.44
D. Output/day		16.00	In.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a.	Portland Cement	103.00	bag	299.33	30,831.35
b.	Fine Aggregate	5.80	cu.m.	850.00	4,925.75
c.	910 mm. Dia. R. C. Pipes	95.00	pc.	1,835.00	174,325.00
d.	Sand Bedding	12.16	pc.	850.00	10,336.00
					-
					-
					-
					-
					-
					-
					-
Sub-total for E					P 220,418.10
F. Direct Cost (C + E)					265,556.54
G. Overhead, Contingencies and Miscellaneous			8% per D.O.197 s 2016		21,244.52
H. Contractor's Profit (CP)			8% per D.O.197 s 2016		21,244.52
I. Value Added Tax (VAT)			5% per D.O.197 s 2016		15,402.28
L. Total Unit Cost					3,404.71

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 505(2)a Grouted Riprap, Class "A"

Unit of Measurement: cu. m.

Output per hour: 1.25 cu.m./hr.

Quantity: 34.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Foreman	1	3.40	611.92	2,080.53
b. Masons	2	3.40	443.20	3,013.76
c. Unkilled	8	3.40	342.24	9,308.93
				-
				-
				-
				-
				-
				-
Sub-total for A			P	14,403.22
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
a. Bagger Mixer	1	3.40	1,376.00	4,678.40
b. Water Truck	1	0.17	19,600.00	3,332.00
c. Minor Tools, 5% of labor				720.16
				-
				-
				-
				-
				-
				-
Sub-total for B			P	8,730.56
C. Total (A+B)				23,133.78
D. Output/day	10.00	cu.m./day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Portland Cement	102.00	bag	299.33	30,532.02
b. Fine Aggregate	9.00	cu.m.	850.00	7,650.00
c. Boulders	36.00	cu. m.	1,100.00	39,600.00
d. 50 mm. (2") Dia. PVC Pipe	10.00	l.m.	106.33	1,063.33
e. Gravel Fill	1.00	cu. m.	850.00	850.00
f. Filter Cloth	1.00	sq.m.	160.00	160.00
				-
				-
				-
				-
				-
Sub-total for E			P	79,855.35
F. Direct Cost (C + E)				102,989.13
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		8,239.13
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		8,239.13
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		5,973.37
L. Total Unit Cost				3,689.43

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:	PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE	
Item No./Description:	506	Stone Masonry
Unit of Measurement:	cu. m.	
Output per hour:	1.5625	cu.m./hr.
Quantity:	85.00	

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Foreman	1	6.80	611.92	4,161.06
b.	Masons	2	6.80	443.20	6,027.52
c.	Unskilled	8	6.80	342.24	18,617.86
					-
					-
					-
					-
					-
					-
Sub-total for A					P 28,806.43
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
a.	Bagger Mixer	1	6.80	1,376.00	9,356.80
b.	Water Truck	1	0.34	19,600.00	6,664.00
c.	Backhoe(Wheel Type)	1	0.68	7,376.00	5,015.68
Minor Tools, 10% of labor					2,880.64
					-
					-
					-
					-
					-
Sub-total for B					P 23,917.12
Total (A+B)					52,723.56
Output/day		12.50 cu.m./day			620.28
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a.	Portland Cement	468.00	bag	299.33	140,088.08
b.	Fine Aggregate	25.50	cu.m.	850.00	21,675.00
c.	Boulders	89.25	cu. m.	1,100.00	98,175.00
d.	50 mm. (2") Dia. PVC Pipe	25.50	ln.m.	106.33	2,711.50
e.	Gravel Fill	1.70	cu. m.	850.00	1,445.00
f.	Filter Cloth	2.00	sq.m.	160.00	320.00
					-
					-
					-
					-
					-
Sub-total for E					P 264,414.58
F. Direct Cost (C + E)					317,138.13
G. Overhead, Contingencies and Miscellaneous			8% per D.O.197 s 2016		25,371.05
H. Contractor's Profit(CP)			8% per D.O.197 s 2016		25,371.05
I. Value Added Tax (VAT)			5% per D.O.197 s 2016		18,394.01
J. Total Unit Cost					4,544.40

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 612(1) ReflectORIZED Thermoplastic Pavement Marking, White

Unit of Measurement: sq.m.

Output per hour: 25.00 sq.m./hr.

Quantity: 1,251.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	6.26	611.92	3,827.56
b. Skilled laborer	2	6.26	443.20	5,544.43
c. Unskilled Laborer	6	6.26	342.24	12,844.27
				-
				-
				-
				-
				-
				-
Sub-total for A			P	22,216.26
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
a. Cargo Truck	1	6.26	9,696.00	60,648.48
b. Applicator Machine	1	6.26	750.00	4,691.25
c. Kneading Machine	1	6.26	1,500.00	9,382.50
Minor Tools(10% of Labor)				2,221.63
				-
				-
				-
				-
				-
				-
Sub-total for B			P	76,943.86
C. Total (A+B)				99,160.11
D. Output/day 200.00 each/day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Thermoplastic Paint(white)	407.00	bag	1,585.00	645,095.00
b. Glass Beads	42.00	bag	2,500.00	105,000.00
c. Primer	150.12	liter	240.00	36,028.80
d. LPG (50kg)	6.00	cyl.	4,500.00	27,000.00
e. LPG (12kg)	3.00	cyl.	1,080.00	3,240.00
f. Calcumine	156.38	kg.	30.00	4,691.25
Miscellaneous(5% Materials)				41,052.75
				-
				-
				-
				-
				-
Sub-total for E			P	862,107.80
F. Direct Cost (C + E)				961,267.92
G. Overhead, Contingencies and Miscellaneous 8% per D.O.197 s 2016				76,901.43
H. Contractor's Profit(CP) 8% per D.O.197 s 2016				76,901.43
I. Value Added Tax (VAT) 5% per D.O.197 s 2016				55,753.54
L. Total Unit Cost				935.91

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 612(2) ReflectORIZED Thermoplastic Pavement Marking, Yellow

Unit of Measurement: sq.m.

Output per hour: 25.00 sq.m./hr.

Quantity: 144.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	0.72	611.92	440.58
b. Skilled laborer	2	0.72	443.20	638.21
c. Unskilled Laborer	6	0.72	342.24	1,478.48
				-
				-
				-
				-
				-
				-
Sub-total for A			P	2,557.27
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
a. Cargo Truck	1	0.72	9,696.00	6,981.12
b. Applicator Machine	1	0.72	750.00	540.00
c. Kneading Machine	1	0.72	1,500.00	1,080.00
Minor Tools(10% of Labor)				255.73
				-
				-
				-
				-
				-
				-
Sub-total for B			P	8,856.85
C. Total (A+B)				11,414.11
D. Output/day	200.00	each/day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Thermoplastic Paint(Yellow)	47.00	bag	1,800.00	84,600.00
b. Glass Beads	5.00	bag	2,500.00	12,500.00
c. Primer	17.28	liter	260.00	4,492.80
d. LPG (50kg)	1.00	cyl.	4,500.00	4,500.00
e. LPG (12kg)	1.00	cyl.	1,080.00	1,080.00
f. Calcumine	18.00	kg.	30.00	540.00
Miscellaneous(5% Materials)				5,385.64
				-
				-
				-
				-
				-
Sub-total for E			P	113,098.44
F. Direct Cost (C + E)				124,512.55
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		9,961.00
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		9,961.00
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		7,221.73
L. Total Unit Cost				1,053.17

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 622(1)a Coco-net (CGN 400)

Unit of Measurement: sq.m.

Output per hour: 50.00 sq.m./hr.

Quantity: 11,437.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	14.30	611.92	8,748.16
b. Unskilled Laborer	16	14.30	342.24	78,283.98
				-
				-
				-
				-
				-
				-
Sub-total for A			P	87,032.14
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
a. Water truck	2	3.57	19,600.00	140,103.25
				-
				-
Minor Tools(10% of Labor)				8,703.21
				-
				-
				-
				-
				-
Sub-total for B			P	148,806.46
C. Total (A+B)				235,838.60
D. Output/day	800.00	sq.m./day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Erosion Control Net CGN 400 w/ 5% wastage (Price includes bamboo pegs)	12,009.00	sq.m.	114.00	1,369,026.00
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	1,369,026.00
F. Direct Cost (C + E)				1,604,864.60
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		128,389.17
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		128,389.17
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		93,082.15
L. Total Unit Cost				170.91

622(1)b

sq.m.

50.00

47,500.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Const. Foreman	1	59.38	611.92	36,332.75
b.	Unskilled Laborer	16	59.38	342.24	325,128.00
					-
					-
					-
					-
					-
					-
Sub-total for A					P 361,460.75
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
a.	Water truck	2	14.84	19,600.00	581,875.00
					-
					-
Minor Tools(10% of Labor)					36,146.08
					-
					-
					-
					-
Sub-total for B					P 618,021.08
C. Total (A+B)					979,481.83
D. Output/day 800.00 sq.m./day					
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
Erosion Control Net CGN 700 w/ 5% wastage (Price includes bamboo pegs)		49,875.00	sq.m.	125.00	6,234,375.00
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for E					P 6,234,375.00
F. Direct Cost (C + E)					7,213,856.83
G. Overhead, Contingencies and Miscellaneous			8% per D.O.197 s 2016		577,108.55
H. Contractor's Profit(CP)			8% per D.O.197 s 2016		577,108.55
I. Value Added Tax (VAT)			5% per D.O.197 s 2016		418,403.70
L. Total Unit Cost					184.98

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 622(2)b Coco-logs/Fascine

Unit of Measurement: ln.m.

Output per hour: 15.00 ln.m./hr.

Quantity: 6,285.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Const. Foreman	1	26.19	611.92	16,024.66
b.	Unskilled Laborer	16	26.19	342.24	143,398.56
					-
					-
					-
					-
					-
					-
Sub-total for A				P	159,423.22
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					-
					-
					-
Minor Tools(10% of Labor)					15,942.32
					-
					-
					-
					-
					-
Sub-total for B				P	15,942.32
C. Total (A+B)					175,365.54
D. Output/day		240.00	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a.	Coco Fiber Roll (CGR 200) (Price includes nylon ropes and live stakes)	6,600.00	ln.m.	410.00	2,706,000.00
					-
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for E				P	2,706,000.00
F. Direct Cost (C + E)					2,881,365.54
G. Overhead, Contingencies and Miscellaneous			8% per D.O.197 s 2016		230,509.24
H. Contractor's Profit(CP)			8% per D.O.197 s 2016		230,509.24
I. Value Added Tax (VAT)			5% per D.O.197 s 2016		167,119.20
L. Total Unit Cost					558.39

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - SO1166MN, ZAMBOANGA DEL NORTE

Item No./Description: 622(3)a Vegetation

Unit of Measurement: sq.m.

Output per hour: 62.50 sq.m./hr.

Quantity: 58,937.00

[illegible]

jcbr

Unloaded running	=	$\frac{105.00 \times 60}{40.00}$	=	157.50 mins.
Loading and Unloading	:	45.00 mins.		
Capacity of Dumptruck	:	8.00 cu.m.		
	:	500.00 bags		
Total Cycle time	:	412.50 mins.		
No. of trips for Dumptruck per day	=	$\frac{8.0 \times 60.00}{412.50}$	=	1.16 say 1.16 trip
Dumptruck daily output	=	500 x 1.16	=	581.82 cu.m.
Using (4) Dumptrucks	=	4 x 581.82	=	2,327.27 cu.m.

1. No. of days for Delivery Truck	=	$\frac{110,205.18}{2,327.27}$	=	47.35 say 47.35 days
2. No. of days for Labor, for unloading	=	complimentary to D. Truck days	=	47.35 days

DELIVERY COST :

110,205.18 - Bags, Portland Cement	@ P	12.60 / bag	= P	1,388,585.27
		Sub - Total	P	1,388,585.27

LABOR :

1 - Foreman	@ P	611.92 /day	x 47.35 days	= P	28,976.73
10 - Laborers, unloading	@ P	342.24 /day	x 47.35 days	= P	162,063.61
		Sub - Total		P	191,040.34

MATERIALS :

110,205.18 - Bags, Portland Cement	@ P	285.00 / bag	= P	31,408,476.30
(Pick-Up Price)		Sub - Total	P	31,408,476.30

Estimated Quantity		110,205.18 Bags		
Unit Cost	P	299.33 / Bag,	say P	299.33 / Bag
Grand Total	P	32,988,101.90		
Delivery Cost	P	1,388,585.27		
Labor	P	191,040.34		
Materials	P	31,408,476.30		

UNIT COST DERIVATION FOR PORTLAND CEMENT

TOTAL QUANTITY REQUIREMENTS FOR PORTLAND CEMENT

DESCRIPTION	QUANTITY (Bags)
Portland Cement Concrete Pavement, 0.28 m. thick	97,827.00
Reinforced Concrete Culvert Pipe, 910 mm. (36") diameter	103.00
Structural Concrete, Class"A"	10,973.00
Reinf. Conc. Culvert Pipe, 910mm dia.	103.00
Grouted Riprap, Class "A"	102.00
Stone Masonry	468.00
Construction of Field Office for the Engineer (7.0m. X 9.0 m.)	220.00
RCCP, 610 mm dia.	14.00
Catch Basin	4.00
Concrete Cover	1.00
Concrete Curb & Gutter	157.38
Sidewalk	231.80
Informatory Signs	1.00
T O T A L	110,205.18

Quantity = 110,205.18 Bags

Delivery Charge = P 0.120 / bag / km.

S I T E	HAULING DISTANCE
Zamboanga del Norte 2nd DEO	105.00
PROJECT SITE	

*Average hauling distance from Source to assumed Stockpiling area :

say 105.00 km.

Delivery Charge = P 0.120 x 105.00
= P 12.60 / bag

*Delivery Truck : 110,205.18 bags., (hauling works)
20,000.00 kgs., (capacity per haul)
or 500.00 bags, (capacity per haul)

*Capacity of Laborers unloading bags of Cement from Delivery Truck :

Assume (10) laborers can unload 500.00 bags of Cement.

*Dumptruck (10 Wheeler) days computation : **TIME-MOTION ANALYSIS**

Speed when loaded : 30.00 kph

Speed when unloaded : 40.00 kph

Loaded running = $\frac{105.00 \times 60}{30.00}$ = 210.00 mins.