

Department of Public Works and Highways

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

PROGRAM OF WORK

(For all types of Project)

NAME/LOCATION OF PROJECT :		Appropriation : P 160,000,000.00
Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO		Source of Funds : CY-2018
PROJECT CATEGORY : NATIONAL ROAD		Issued Obligated Authority Released
PROJECT DESCRIPTION :		Cal. Days to Complete : 360.00 Cal. Days
Scope of Work : Paved to Concrete		Desirable Starting Date : Upon Approval
Road Width : 6.70 m.		Mode of Implementation :
Roadbed Width : 12.00 m.		
Subbase Course : 0.30 mtrs thick		
Surface Course : 0.15 mtrs thick		
NET LENGTH :		Net Length : 1.62 lane km
		Sta. 1938+722.00 - Sta. 1938+810.00
		Sta. 1945+740.00 - Sta. 1946+460.00
Net Length : 1.62 lane km		Net Length : 808.00 In.m. / 0.808 km

MINIMUM EQUIPMENT REQUIREMENT : TECHNICAL PERSONNEL REQUIRED :

DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION	NO.
Dumptruck (10 Wheeler)	10	Water Pump	1	Project Engineer	1
Bulldozer	2	Portable Screed	1	Materials Engineer	1
Backhoe	3	Concrete Vibrator	2	Geometric Control	1
Road Grader	2	Concrete Cutter	2	Foreman	1
Road Roller	2	Bar Cutter	1	Materials Lab. Tech	1
Pay Loader	4	Bar Bender	1	Mason	10
Water Truck	2	Conc. Mixer (1-Bagger)	2	Carpenter	6
Water Tank	2	Plate Compactor	1	Laborers (Skilled)	10
Transit Mixer	4			Laborers (Unskilled)	20

ESTIMATED COST OF PROPOSED WORK

ITEM NO.	DESCRIPTION	% OF TOTAL	UNIT	QUANTITY	DIRECT COST	
					TOTAL	UNIT COST
102(2)	Surplus Common Excavation	64.270	cu.m.	438,144.00	79,006,217.36	180.32
103 (1)a	Structure Excavation	0.162	cu.m.	864.00	198,819.92	230.12
103(3)	Foundation Fill	0.002	cu.m.	2.00	2,015.40	1,007.70
103(6)a	Pipe Culvert and Drain Excavation	0.004	cu.m.	20.00	4,602.31	230.12
105 (1)a	Subgrade Preparation	0.108	sq.m.	8,629.00	132,298.39	15.33
200 (1)	Aggregate Subbase Course	4.233	cu.m.	2,846.00	5,203,885.39	1,828.49
300 (1)	Aggregate Surface Course	0.064	cu.m.	46.00	78,810.01	1,713.26
311 (1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	7.739	sq.m.	5,825.00	9,512,807.90	1,633.10
311 (1)a	Portland Cement Concrete Pavement, 0.15m. Thick	1.581	sq.m	2,168.00	1,943,894.41	896.63
404(1)a	Reinforcing Steel Bar, Grade 40	0.710	kg.	17,476.00	872,614.06	49.93
405 (1) a3	Structural Concrete, Class A	2.950	cu.m	501.00	3,626,924.22	7,239.37
500(1)b3	Pipe Culvert & Storm Drain	0.043	In.m	14.00	52,679.01	3,762.79
505(5)	Grouted Riprap, Class A	0.008	cu.m	2.00	9,314.62	4,657.31
506(1)	Stone Masonry	0.073	cu.m	19.00	90,045.54	4,739.24
612(1)	ReflectORIZED Thermoplastic Pavement Markings (White)	0.120	sq.m	203.00	147,949.30	728.81
612(2)	ReflectORIZED Thermoplastic Pavement Markings (Yellow)	0.015	sq.m	23.00	18,603.80	808.86
622(1)b	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 700)	4.307	sq.m	36,158.00	5,293,967.27	146.41
622(2)b	Bio-Engineered Erosion Coco Logs/Fascine Control System	0.985	In.m	2,300.00	1,210,505.79	526.31
622(3)a	Bio-Engineered Erosion Control System Vegetation	10.476	sq.m	36,158.00	12,878,206.84	356.16
A.1.1 (3)	Const. of Field Office for the Engineer	0.330	LS	1.00	406,002.49	406,002.49

A.1.1(11)	Prov. Of Furniture, Equipment and Appliances for Field Engineer	0.208	LS	1.00	255,743.32	255,743.32
A.1.2(5)	Operation & Maintenance of Gov't. Service Vehicle	0.377	L.S	1.00	463,440.00	463,440.00
B.5	Project Billboard	0.004	Unit	2.00	4,420.90	2,210.45
B.7	Occupational Safety & Health Program	0.229	L.S	1.00	282,057.60	282,057.60
B.9	Mobilization and Demobilization	0.968	L.S	1.00	1,190,360.00	1,190,360.00
B.4(1)	Construction Survey and Staking	0.034	Km.	0.81	41,589.26	51,471.86
TOTAL		100.000			P 122,927,775.11	

Name of Project : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Station Limits : Sta. 1938+722.00 - Sta. 1938+810.00
Sta. 1945+740.00 - Sta. 1946+460.00

BREAKDOWN OF ESTIMATED EXPENDITURES	% OF TOTAL	AMOUNT
I. ESTIMATED COST		
A. DIRECT COST		
A.1 Materials	23.14	37,021,722.55
A.2 Labor	1.66	2,663,453.65
A.3 Equipment Expenses	52.03	83,242,598.91
SUB-TOTAL (DIRECT COST)	76.83	122,927,775.11
B. INDIRECT COST (Per DO # 197 s. 2016)		
B.1 Overhead, Contingency & Misc. (10% Max. of D.C.)	7.55	12,073,617.42
B.2 Profit (8% Max. D.C.)	6.05	9,681,458.54
C. VAT (5% of D.C. and I.C. per D.O. # 197)	4.52	7,234,142.55
SUB-TOTAL (CONTRACT COST)	94.95	151,916,993.62
II. ESTIMATED GOVERNMENT EXPENDITURES		
1 Engineering and Administrative Overhead (3.5%)	3.50	5,600,000.00
2 Detailed Engineering (1%)	1.55	2,483,006.38
3 Reserved for the Payment of RRWW	0.00	
4 Physical Reserved		
TOTAL ESTIMATED PROJECT COST	100.00	160,000,000.00

Prepared by:


JERALD R. BARRERA
Engineer II

Submitted by:


JEONCIO B. SOLAMILLO
Chief, Construction Division

Recommending Approval:


CAYAMOMBAO D. DIA
Assistant Regional Director

APPROVED:


JORGE U. SEBASTIAN, JR.
Regional Director

Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

A. COVERED BUDGET FOR THE CONTRACT

Station Limits : Sta. 1938+722.00 - Sta. 1938+810.00 : 808.00 l.m.
Length : 808.00 l.m.
Contract Duration : 360.00 Calendar Days

Item No.	Description	Quantity	Unit	Estimated Direct Cost	MARK-UP IN PERCENT	OCM	PROFIT	%	VALUE	VAT	TOTAL INDIRECT COST	TOTAL COST	TOTAL COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) = (5)+(7)+(8)	(10) = [(5)+(9)]*5%	(11) = (9) + (10)	(12) = (5) + (11)	(13) = (12) / (3)	
PART A FACILITIES FOR THE ENGINEER													
A.1(3)	Const. of Field Office for the Engineer	1.00	LS	406,002.49	10.00	8.00	18.00	73,080.45	23,954.15	97,034.60	503,037.09	503,037.09	
A.1.1(11)	Prov. Of Furniture, Equipment and Appliances for Field Engineer	1.00	LS	255,743.32	0.00	0.00	0.00	-	12,787.17	12,787.17	268,530.49	268,530.49	
A.1.2(5)	Operation & Maintenance of Govt. Service Vehicle	1.00	LS	463,440.00	0.00	0.00	0.00	-	23,172.00	23,172.00	486,612.00	486,612.00	
TOTAL OF PART A				1,125,185.81				73,080.45	59,913.31	132,993.76	1,258,179.57		
PART B OTHER GENERAL REQUIREMENTS													
B.5	Project Billboard	2.00	Unit	4,420.90	10.00	8.00	18.00	795.76	260.83	1,056.60	5,477.50	2,738.75	
B.7	Occupational Safety & Health Program	1.00	LS	282,057.60	0.00	8.00	8.00	22,564.61	15,231.11	37,795.72	319,853.32	319,853.32	
B.9	Mobilization and Demobilization	1.00	LS	1,190,360.00	0.00	0.00	0.00	-	59,518.00	59,518.00	1,249,878.00	1,249,878.00	
B.4(1)	Construction Survey and Staking	0.81	Km.	41,589.26	10.00	8.00	18.00	7,486.07	2,453.77	9,939.83	51,529.09	63,773.63	
TOTAL OF PART B				1,518,427.76				30,846.44	77,463.71	108,310.15	1,626,737.91		
PART C EARTHWORKS													
102(2)	Surplus Common Excavation	438,144.00	cum.	79,006,217.36	10.00	8.00	18.00	14,221,119.12	4,661,366.82	18,882,485.95	97,888,703.31	223,42	
103(1)a	Structure Excavation	864.00	cum.	198,819.92	10.00	8.00	18.00	35,787.59	11,730.38	47,517.96	246,337.88	285.11	
103(3)	Foundation Fill	2.00	cum.	2,015.40	10.00	8.00	18.00	362.77	118.91	481.68	2,497.08	1,248.54	
103(6)a	Pipe Culvert and Drain Excavation	20.00	cum.	4,602.31	10.00	8.00	18.00	828.42	271.54	1,099.95	5,702.27	285.11	
105(1)a	Subgrade Preparation	8,629.00	sq.m.	132,298.39	10.00	8.00	18.00	23,813.71	7,805.61	31,619.32	163,917.71	19.00	
TOTAL OF PART C				79,343,953.38				14,281,911.61	4,681,293.25	18,963,204.86	98,307,158.24		
200(1)	Aggregate Subbase Course	2,846.00	cum.	5,203,885.39	10.00	8.00	18.00	936,699.37	307,029.24	1,243,728.61	6,447,613.99	2,265.50	
TOTAL OF PART D				5,203,885.39				936,699.37	307,029.24	1,243,728.61	6,447,613.99		
PART E SURFACE COURSES													
300(1)	Aggregate Surface Course	46.00	cum.	78,810.01	10.00	8.00	18.00	14,185.80	4,649.79	18,835.59	97,645.60	2,122.73	
31(1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	5,825.00	sq.m.	9,512,807.90	10.00	8.00	18.00	1,712,305.42	561,255.67	2,273,561.09	11,786,368.99	2,023.41	
31(1)c	Portland Cement Concrete Pavement, 0.15m. Thick	2,168.00	sq.m.	1,943,894.41	10.00	8.00	18.00	349,900.99	114,689.77	464,590.76	2,408,485.17	1,110.92	
TOTAL OF PART E				11,535,512.31				2,076,392.22	680,595.23	2,756,987.44	14,292,499.75		
PART F BRIDGE CONSTRUCTION													
404(1)c	Reinforcing Steel Bar, Grade 40	17,476.00	kg.	872,614.06	10.00	8.00	18.00	157,070.53	51,484.23	208,554.76	1,081,168.82	61.87	
405(1)c3	Structural Concrete, Class A	501.00	cum.	3,626,924.22	10.00	8.00	18.00	652,846.36	213,988.53	866,834.89	4,493,759.11	8,969.58	
TOTAL OF PART F				4,499,538.28				809,916.89	265,472.76	1,075,389.65	5,574,927.93		
PART G DRAINAGE AND SLOPE PROTECTION STRUCTURES													
500(1)b3	Pipe Culvert & Storm Drain	14.00	l.m.	52,679.01	10.00	8.00	18.00	9,482.22	3,108.06	12,590.28	65,269.29	4,662.09	
505(5)	Grouted Riprap, Class A	2.00	cum.	9,314.62	10.00	8.00	18.00	1,674.63	549.56	2,224.20	11,540.82	5,770.41	
506(1)	Stone Masonry	19.00	cum.	90,045.54	10.00	8.00	18.00	16,208.20	5,312.69	21,520.88	111,566.43	5,871.92	
TOTAL OF PART G				152,039.18				27,367.05	8,970.31	36,337.36	188,376.54		
PART H MISCELLANEOUS STRUCTURES													
612(1)	Reflectized Thermoplastic Pavement Markings (White)	203.00	sq.m.	147,949.30	10.00	8.00	18.00	26,630.87	8,729.01	35,359.88	183,309.19	903.00	
612(2)	Reflectized Thermoplastic Pavement Markings (Yellow)	23.00	sq.m.	18,603.80	10.00	8.00	18.00	3,348.68	1,097.62	4,446.31	23,050.11	1,002.18	
622(1)b	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 700)	36,158.00	sq.m.	5,293,967.27	10.00	8.00	18.00	952,914.11	312,344.07	1,265,258.18	6,569,225.44	181.40	
622(2)b	Bio-Engineered Erosion Coco Log/Foscheck Control System	2,300.00	l.m.	1,210,505.79	10.00	8.00	18.00	217,691.04	71,419.84	289,110.88	1,499,816.68	652.09	
622(3)c	Bio-Engineered Erosion Control System Vegetation	36,158.00	sq.m.	12,878,076.84	10.00	8.00	18.00	2,318,077.23	759,814.20	3,077,891.43	15,956,098.27	441.29	
TOTAL OF PART H				19,549,233.00				3,518,861.94	1,153,404.75	4,672,266.69	24,221,499.69		
TOTAL				122,927,775.11				21,755,075.96	6,927,113.32	28,989,218.51	151,916,993.63		

Prepared by:

BELEN A. SAPALEDA
Head TWG, BAC

Recommending Approval:

CAYAMOMBAO D. BIA
Assistant Regional Director

APPROVED:

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

SUMMARY

Name of Project : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No.	Description	Quantity	Unit	Labor	Equipment	Materials	OCM	Profit	VAT	TOTAL
102(2)	Surplus Common Excavation	438,144.00	cu.m.	1,076,830.16	77,929,387.20	-	7,900,621.74	6,320,497.39	4,661,366.82	97,888,703.31
103 (1)a	Structure Excavation	864.00	cu.m.	8,848.66	189,971.27	-	19,881.99	15,905.59	11,730.38	246,337.88
103(3)	Foundation Fill	2.00	cu.m.	396.18	236.00	1,383.22	201.54	161.23	118.91	2,497.08
103(6)a	Pipe Culvert and Drain Excavation	20.00	cu.m.	204.83	4,397.48	-	460.23	368.19	271.54	5,702.27
105 (1)a	Subgrade Preparation	8,629.00	sq.m.	4,661.10	127,637.29	-	13,229.84	10,583.87	7,805.61	163,917.71
200 (1)	Aggregate Subbase Course	2,846.00	cu.m.	9,223.89	357,173.00	4,837,488.50	520,388.54	416,310.83	307,029.24	6,447,613.99
300 (1)	Aggregate Surface Course	46.00	cu.m.	149.09	4,082.50	74,578.42	7,881.00	6,304.80	4,649.79	97,645.60
311(1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	5,825.00	sq.m.	81,918.48	1,215,191.66	8,215,697.76	951,280.79	761,024.63	561,255.67	11,786,368.99
311(1)a	Portland Cement Concrete Pavement, 0.15m. Thick	2,168.00	sq.m.	16,390.79	254,440.25	1,673,063.37	194,389.44	155,511.55	114,689.77	2,408,485.17
404 (1)a	Reinforcing Steel Bar, Grade 40	0.00	kg.	-	-	-	-	-	-	-
404(1)a	Reinforcing Steel Bar, Grade 40	17,476.00	kg.	51,411.48	39,134.10	782,068.48	87,261.41	69,809.12	51,484.23	1,081,168.82
405 (1) a3	Structural Concrete, Class A	501.00	cu.m.	430,920.84	214,252.11	2,981,751.27	362,692.42	290,153.94	213,988.53	4,493,759.11
500(1)b3	Pipe Culvert & Storm Drain	14.00	ln.m	5,017.74	12,121.77	35,539.50	5,267.90	4,214.32	3,108.06	65,269.29
505(5)	Grouted Riprap, Class A	2.00	cu.m	847.25	1,885.56	6,581.81	931.46	745.17	549.56	11,540.82
506(1)	Stone Masonry	19.00	cu.m	6,439.08	6,094.02	77,512.44	9,004.55	7,203.64	5,312.69	111,566.43
612(1)	ReflectORIZED Thermoplastic Pavement Markings (White)	203.00	sq.m	3,605.04	12,125.19	132,219.08	14,794.93	11,835.94	8,729.01	183,309.19
612(2)	ReflectORIZED Thermoplastic Pavement Markings (Yellow)	23.00	sq.m	408.45	1,373.79	16,821.56	1,860.38	1,488.30	1,097.62	23,050.11
622(1)b	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 700)	36,158.00	sq.m	302,808.79	473,216.38	4,517,942.10	529,396.73	423,517.38	312,344.07	6,559,225.44
622(2)b	Bio-Engineered Erosion Coco Logs/Fascine Control System	2,300.00	ln.m	64,205.27	6,420.53	1,139,880.00	121,050.58	96,840.46	71,419.84	1,499,816.68
622(3)a	Bio-Engineered Erosion Control System Vegetation	36,158.00	sq.m	93,750.46	1,166,890.98	11,617,565.40	1,287,820.68	1,030,256.55	759,814.20	15,956,098.27
A.1.1(3)	Const. of Field Office for the Engineer	1.00	LS	53,245.60	31,804.56	320,952.33	40,600.25	32,480.20	23,954.15	503,037.09
A.1.1(11)	Prov. Of Furniture, Equipment and Appliances for Field Engineer	1.00	LS	-	-	255,743.32	-	-	12,787.17	268,530.49
A.1.2(5)	Operation & Maintenance of Govt. Service Vehicle	1.00	L.S	159,552.00	-	303,888.00	-	-	23,172.00	486,612.00
B.5	Project Billboard	2.00	Unit	434.90	-	3,986.00	442.09	353.67	260.83	5,477.50
B.7	Occupational Safety & Health Program	1.00	L.S	269,697.60	-	12,360.00	-	22,564.61	15,231.11	319,853.32
B.9	Mobilization and Demobilization	1.00	L.S	-	1,190,360.00	-	-	-	59,518.00	1,249,878.00
B.4(1)	Construction Survey and Staking	0.81	Km.	22,485.99	4,403.27	14,700.00	4,158.93	3,327.14	2,453.77	51,529.09
TOTAL				2,663,453.65	83,242,598.91	37,021,722.55	12,073,617.42	9,681,458.54	7,234,142.55	151,916,993.62

Name of Project	Net Length	Unit	Cost
Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zambonga del Norte 1st DCO	808.00	km.	

Item No.	Description	Quantity	Unit	DURATION # OF DAYS	WEEKS (6 WORKING DAYS)
102(2)	Surplus Common Excavation	438.144.00	cum.	228.20	TOTAL NO. OF WORKING DAYS : 240
103 (1) a	Structure Excavation	864.00	cum.	5.40	INCLEMENT WEATHER & CURING TIME : 80
103(3)	Foundation Fill	2.00	cum.	0.20	NUMBER OF SUNDAYS : 40
103(6)a	Pipe Culvert and Drain Excavation	20.00	cum.	0.13	TOTAL NO. CALENDAR DAYS : 360
105 (1) a	Subgrade Preparation	8,629.00	sq.m.	3.60	
200 (1)	Aggregate Subbase Course	2,846.00	cum.	7.12	
300 (1)	Aggregate Surface Course	46.00	cum.	0.12	
311(1) e1 a	Portland Cement Concrete Pavement-Using Conventional Method, 0.28m thick	5,825.00	sq.m.	12.62	
311 (1) a	Portland Cement Concrete Pavement, 0.15m. Thick	2,168.00	sq.m.	2.52	
404(1) a	Reinforcing Steel Bar, Grade 40	17,476.00	kg.	12.14	
405 (1) a3	Structural Concrete, Class A	501.00	cum.	44.73	
500(1)b3	Pipe Culvert & Storm Drain	14.00	ln.m	1.75	
505(5)	Grouted Riprap, Class A	2.00	cum.	0.20	
506(1)	Stone Masonry	19.00	cum.	1.52	
612(1)	ReflectORIZED Thermoplastic Pavement Markings (White)	203.00	sq.m	1.02	
612(2)	ReflectORIZED Thermoplastic Pavement Markings (Yellow)	23.00	sq.m	0.12	
622(1)b	Bio-Engineered Erosion Coco Fiber Erosion Control Mat (CGN 700)	36,158.00	sq.m	90.40	
622(2)b	Bio-Engineered Erosion Coco Logs/Fascine Control System	2,300.00	ln.m	19.17	
622(3)a	Bio-Engineered Erosion Control System Vegetation	36,158.00	sq.m	72.32	
A.1.(1)3	Const. of Field Office for the Engineer	1.00	LS	10.00	
A.1.(1)1	Prov. Of Furniture, Equipment and Appliances for Field Engineer	1.00	LS		
A.1.2(5)	Operation & Maintenance of Gov't. Service Vehicle	1.00	LS	360.00	
B.5	Project Billboard	2.00	Unit	0.25	
B.7	Occupational Safety & Health Program	1.00	LS	240.00	
B.9	Mobilization and Demobilization	1.00	LS	4.00	
B.4(1)	Construction Survey and Staking	0.81	Km.	10.77	

Prepared by:

~~JERALD R. BARRERA~~
~~Engineer II~~

Submitted by:

LEONCIO B. SOLAMILLO
Chief, Construction Division

APPROVED:

FORGE U. BERGMAN, JR., CEO III
Regional Director

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME

: Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No./Description

: 102(2) Surplus Common Excavation

Unit of Measurement

: cu.m.

Output per hour

: 60.00

Quantity

: 438,144.0

Note: Use Four (4) gangs

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	228.20	611.92	139,640.14
b. Laborer	12	228.20	342.24	937,190.02
Sub-total for A				P 1,076,830.16
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEI Rates)				
a. Bulldozer	4	228.20	27,032.00	24,674,809.60
b. Payloader	4	228.20	13,864.00	12,655,059.20
c. Payloader	4	171.15	13,864.00	9,491,294.40
d. Dumptruck	12	228.20	11,360.00	31,108,224.00
Sub-total for B				P 77,929,387.20
Total (A+B)				P 79,006,217.36
D. Output/day 1,920.00 cu.m /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Sub-total for E				P 0.00
F. Direct Cost (C+E)				79,006,217.36
G. Overhead, Contingencies and Miscellaneous			10% per D.O 197 s 2016	7,900,621.74
H. Contractor's Profit (CP)			8% per D.O 197 s 2016	6,320,497.39
I. Value Added Tax (VAT)			5% per D.O 197 s 2016	4,661,366.82
J. Total Unit Cost				223.42

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

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

Unit of Measurement : cu.m.

Output per hour : 20.00

Quantity : 864.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	5.40	611.92	3,304.37
b. Laborers	3	5.40	342.24	5,544.29
Sub-total for A				P 8,848.66
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Dumptruck	2	5.40	11,360.00	122,688.00
b. Backhoe	1	5.40	12,296.00	66,398.40
Minor Tools (10% of Labor)				884.87
Sub-total for B				P 189,971.27
Total (A+B)				P 198,819.92
D. Output/day	160.00	cu.m /day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Sub-total for E				P 0.00
Direct Cost (C+E)				198,819.92
G. Overhead, Contingencies and Miscellaneous	10% per D.O 197 s 2016			19,881.99
H. Contractor's Profit (CP)	8% per D.O 197 s 2016			15,905.59
I. Value Added Tax (VAT)	5% per D.O 197 s 2016			11,730.38
J. Total Unit Cost				285.11

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

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

Unit of Measurement : cu.m.

Output per hour : 1.25

Quantity : 2.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	0.20	611.92	122.38
b. Laborer	4	0.20	342.24	273.79
Sub-total for A				P 396.18
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Plate Compactor	1	0.20	984.00	196.80
b. Water Truck	1	0.00	19,600.00	39.20
c. Minor Tools (10% of Labor)				
Sub-total for B				P 236.00
Total (A+B)				P 632.18
D. Output/day 10.00 cu.m. /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Filling Materials	2.30	cu.m.	601.40	1,383.22
Sub-total for E				P 1,383.22
Direct Cost (C+E)				2,015.40
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016 201.54
Contractor's Profit (CP)				8% per D.O 197 s 2016 161.23
Value Added Tax (VAT)				5% per D.O 197 s 2016 118.91
Total Unit Cost				1,248.54

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

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

Unit of Measurement : cu.m.

Output per hour : 20.00

Quantity : 20.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	0.13	611.92	76.49
b. Laborer	3	0.13	342.24	128.34
Sub-total for A				P 204.83
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Dumptruck	2	0.13	11,360.00	2,840.00
b. Backhoe	1	0.13	12,296.00	1,537.00
Minor Tools (10% of Labor)				20.48
Sub-total for B				P 4,397.48
Total (A+B)				P 4,602.31
D. Output/day 160.00 cu.m /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a.				
Sub-total for E				P 0.00
Direct Cost (C+E)				4,602.31
Overhead, Contingencies and Miscellaneous			10% per D.O 197 s 2016	460.23
Contractor's Profit (CP)			8% per D.O 197 s 2016	368.19
Value Added Tax (VAT)			5% per D.O 197 s 2016	271.54
Total Unit Cost				285.11

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (\$01059MN) Zamboanga del Norte 1st DEO

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

Unit of Measurement : sq.m.

Output per hour : 300.00

Quantity : 8,629.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	3.60	611.92	2,200.11
b. Laborer	2	3.60	342.24	2,460.99
Sub-total for A				P 4,661.10
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Road Grader	1	3.60	17,384.00	62,502.72
b. Road Roller	1	3.60	13,216.00	47,517.03
c. Water Truck	1	0.90	19,600.00	17,617.54
Sub-total for B				P 127,637.29
Total (A+B)				P 132,298.39
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 0.00
Direct Cost (C+E)				132,298.39
Overhead, Contingencies and Miscellaneous			10% per D.O 197 s 2016	13,229.84
Contractor's Profit (CP)			8% per D.O 197 s 2016	10,583.87
Value Added Tax (VAT)			5% per D.O 197 s 2016	7,805.61
Total Unit Cost				19.00

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No./Description : 200 (1) Aggregate Subbase Course

Unit of Measurement : cu.m.

Output per hour : 50.00

Quantity : 2,846.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	7.12	611.92	4,353.81
b. Laborer	2	7.12	342.24	4,870.08
Sub-total for A				P 9,223.89
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Road Grader	1	7.12	17,384.00	123,687.16
b. Road Roller	1	7.12	13,216.00	94,031.84
c. Water Truck	1	7.12	19,600.00	139,454.00
Sub-total for B				P 357,173.00
Total (A+B)				P 366,396.89
D. Output/day	400.00	cu.m. /day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Aggregate Subbase Course (w/ Shrinkage of 15%)	3,557.50	cu.m.	1,359.80	4,837,488.50
Sub-total for E				P 4,837,488.50
Direct Cost (C+E)				5,203,885.39
Overhead, Contingencies and Miscellaneous			10% per D.O 197 s 2016	520,388.54
Contractor's Profit (CP)			8% per D.O 197 s 2016	416,310.83
Value Added Tax (VAT)			5% per D.O 197 s 2016	307,029.24
Total Unit Cost				2,265.50

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No./Description : 300 (1) Aggregate Surface Course

Unit of Measurement : cu.m.

Output per hour : 50.00

Quantity : 46.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	0.12	611.92	70.37
b. Laborer	2	0.12	342.24	78.72
Sub-total for A				P 149.09
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Road Grader	1	0.12	17,384.00	1,999.16
b. Road Roller	1	0.12	13,216.00	1,519.84
c. Water Truck	1	0.03	19,600.00	563.50
Sub-total for B				P 4,082.50
Total (A+B)				P 4,231.59
D. Output/day	400.00	cu.m.	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Aggregate Surface Course (w/ shrinkage of 15%)	52.90	cu.m.	1,409.80	74,578.42
Sub-total for E				P 74,578.42
Direct Cost (C+E)				78,810.01
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016
Contractor's Profit (CP)				8% per D.O 197 s 2016
Value Added Tax (VAT)				5% per D.O 197 s 2016
Total Unit Cost				2,122.73

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No./Description : 31111e1a Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick

Unit of Measurement : sq.m.

Output per hour : 57.70

Quantity : 5,825.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	12.62	611.92	7,721.91
b. Skilled	4	12.62	443.20	22,371.23
c. Laborer	12	12.62	342.24	51,825.34
Sub-total for A				81,918.48
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Transit Mixer	4	12.62	10,544.00	532,225.30
b. Concrete Vibrator	2	12.62	730.00	18,423.96
c. Batching Plant	1	12.62	14,076.00	177,627.17
d. Pay Loader	1	12.62	13,864.00	174,951.91
e. Concrete Screeder	1	12.62	4,360.00	55,019.50
f. Water Truck	1	12.62	19,600.00	247,335.36
g. Concrete Saw	1	12.62	261.04	3,294.10
h. Bar Cutter	1	1.26	1,758.00	2,218.45
Minor Tools (5% of labor)				4,095.92
Sub-total for B				1,215,191.66
Total (A+B)				1,297,110.14
C. Output/day	461.60	sq.m.	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Reinforcing Steel Bar	2,912.50	kg	41.00	119,412.50
b. Curing Compound	1,689.25	lit	40.00	67,570.00
c. Asphalt Sealant	990.25	lit	75.00	74,268.75
d. Sand	897.05	cu.m	1,219.80	1,094,221.59
e. Gravel	1,631.00	cu.m	1,389.80	2,266,763.80
f. Cement	15,494.50	bag	285.18	4,418,704.13
g. Concrete Saw	0.87	pc	8,000.00	6,990.00
h. Pipe Sleeve, 2" dia.	45.44	l.m	133.00	6,042.86
i. Grease/Tar	45.44	lit	21.00	954.14
j. Steel Forms	2,679.50	lit	60.00	160,770.00
Sub-total for E				8,215,697.76
Direct Cost (C+E)				9,512,807.90
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016
Contractor's Profit (CP)				8% per D.O 197 s 2016
Value Added Tax (VAT)				5% per D.O 197 s 2016
Total Unit Cost				2,023.41

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

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

Unit of Measurement : sq.m

Output per hour : 107.33

Quantity : 2,168.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	2.52	611.92	1,545.05
b. Skilled	4	2.52	443.20	4,476.18
c. Laborer	12	2.52	342.24	10,369.56
Sub-total for A				P 16,390.79
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Transit Mixer	4	2.52	10,544.00	106,491.16
b. Concrete Vibrator	2	2.52	730.00	3,686.39
c. Batching Plant	1	2.52	14,076.00	35,540.82
d. Pay Loader	1	2.52	13,864.00	35,005.53
e. Concrete Screeder	1	2.52	4,360.00	11,008.66
f. Water Truck	1	2.52	19,600.00	49,488.49
g. Concrete Saw	1	2.52	261.04	659.11
h. Bar Cutter	1	0.25	1,758.00	443.88
Minor Tools (5% of Labor)				12,116.20
Sub-total for B				P 254,440.25
Total (A+B)				P 270,831.04
C. Output/day	858.64	sq.m /day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Reinforcing Steel Bar	715.44	kg	41.00	29,333.04
b. Curing Compound	628.72	lit	40.00	25,148.80
c. Asphalt Sealant	260.16	lit	75.00	19,512.00
d. Steel Form	997.28	l.m	40.00	39,891.20
e. Sand	178.86	cu.m	1,219.80	218,173.43
f. Gravel	325.20	cu.m	1,389.80	451,962.96
g. Cement	3,100.24	bag	285.18	884,122.97
h. Concrete Saw	0.33	pc	8,000.00	2,601.60
i. Pipe Sleeve, 1" dia.	16.91	l.m	133.00	2,249.08
j. Grease/Tar	3.25	lit	21.00	68.29
Sub-total for E				P 1,673,063.37
Direct Cost (C+E)				1,943,894.41
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016 194,389.44
Contractor's Profit (CP)				8% per D.O 197 s 2016 155,511.55
Value Added Tax (VAT)				5% per D.O 197 s 2016 114,689.77
Total Unit Cost				1,110.92

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO
Item No./Description : 404(1)a Reinforcing Steel Bar, Grade 40
Unit of Measurement : kg.
Output per hour : 180.00
Quantity : 17.47%⁰⁰

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	12.14	611.92	7,426.33
b. Skilled	2	12.14	443.20	10,757.45
c. Laborer	8	12.14	342.24	33,227.70
Sub-total for A				P 51,411.48
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Bar Cutter	1	6.07	1,758.00	10,667.64
b. Bar Bender	1	6.07	2,812.00	17,063.37
c. Cargo Truck	1	1.82	6,264.00	11,403.09
Sub-total for B				P 39,134.10
Total (A+B)				P 90,545.58
D. Output/day	1,440.00	kg. /day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Tie Wire	367.00	kgs	81.00	29,726.68
b. Reinforcing Steel Bar, Grade 60	18,349.80	kgs	41.00	752,341.80
Sub-total for E				P 782,068.48
Direct Cost (C+E)				872,614.06
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016 87,261.41
Contractor's Profit (CP)				8% per D.O 197 s 2016 69,809.12
Value Added Tax (VAT)				5% per D.O 197 s 2016 51,484.23
Total Unit Cost				61.87

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

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

Unit of Measurement : cu.m

Output per hour : 1.40

Quantity : 501.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	44.73	611.92	27,372.49
b. Skilled Laborer	4	44.73	443.20	79,301.14
c. Laborer	8	44.73	342.24	122,473.03
<i>Installation/Removal of Form Works</i>				
a. Skilled Laborer	4	44.73	443.20	79,301.14
b. Laborer	8	44.73	342.24	122,473.03
Sub-total for A				P 430,920.84
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. One Bagger Mixer	1	44.73	1,376.00	61,551.43
b. Concrete Vibrator	1	44.73	972.00	43,479.64
c. Water Truck	1	4.47	19,600.00	87,675.00
Minor Tools (5% of Labor)				21,546.04
Sub-total for B				P 214,252.11
Total (A+B)				P 645,172.95
D. Output/day	11.20	cu.m	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Form Lumber	8,767.50	bd.ft	42.00	368,235.00
b. Plywood	200.40	pc	1,173.00	235,069.20
c. Assorted CW Nails	350.70	kg.	55.00	19,288.50
d. Portland Cement	4,759.50	bag	285.18	1,357,308.87
e. Sand	250.50	cu.m	1,219.80	305,559.90
f. Gravel	501.00	cu.m	1,389.80	696,289.80
Sub-total for E				P 2,981,751.27
Direct Cost (C+E)				3,626,924.22
G. Overhead, Contingencies and Miscellaneous	10%	per D.O 197 s 2016		362,692.42
H. Contractor's Profit (CP)	8%	per D.O 197 s 2016		290,153.94
I. Value Added Tax (VAT)	5%	per D.O 197 s 2016		213,988.53
Total Unit Cost				8,969.58

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No./Description : 500(1)b3 Pipe Culvert & Storm Drain

Unit of Measurement : In.m

Output per hour : 1.00

Quantity : 14.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	1.75	611.92	1,070.86
b. Skilled Laborer	2	1.75	443.20	1,551.20
c. Laborer	4	1.75	342.24	2,395.68
Sub-total for A				5,017.74
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Backhoe	1	0.88	12,296.00	10,759.00
b. Plate Compactor	1	0.88	984.00	861.00
Minor Tools (10% of Labor)				501.77
Sub-total for B				12,121.77
Total (A+B)				17,139.51
D. Output/day	8.00	In.m	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Portland Cement	15.12	bag	285.18	4,311.90
b. Sand	0.85	cu.m	1,219.80	1,041.71
c. RC Pipes (910 mm dia.)	14.00	pc	2,000.00	28,000.00
d. Sand Bedding	1.79	cu.m	1,219.80	2,185.88
Sub-total for E				35,539.50
Direct Cost (C+E)				52,679.01
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016
Contractor's Profit (CP)				8% per D.O 197 s 2016
Value Added Tax (VAT)				5% per D.O 197 s 2016
Total Unit Cost				3,108.06
				4,662.09

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No./Description : 505(5) Grouted Riprap, Class A

Unit of Measurement : cu.m

Output per hour : 1.25

Quantity : 2.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	0.20	611.92	122.38
b. Skilled Laborer	2	0.20	443.20	177.28
c. Laborer	8	0.20	342.24	547.58
Sub-total for A				P 847.25
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. One Bagger Mixer	1	0.20	1,376.00	275.20
b. Water Truck	1	0.08	19,600.00	1,568.00
Minor Tools (5% of Labor)				42.36
Sub-total for B				P 1,885.56
Total (A+B)				P 2,732.81
D. Output/day	10.00	cu.m	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Cement	6.00	bag	285.18	1,711.07
b. Sand	0.50	cu.m	1,219.80	609.90
c. Gravel Fill	0.03	cu.m	1,389.80	41.69
d. Weep Holes (PVC), 2" dia.	0.60	ln.m	133.00	79.80
e. Filter Cloth	0.03	sq.m	160.00	4.80
f. Boulders	2.10	cu.m	1,937.80	4,069.38
Miscellaneous (1% of Materials)				65.17
Sub-total for E				P 6,581.81
Direct Cost (C+E)				9,314.62
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016 931.46
Contractor's Profit (CP)				8% per D.O 197 s 2016 745.17
Value Added Tax (VAT)				5% per D.O 197 s 2016 549.56
Total Unit Cost				5,770.41

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No./Description : 506(1) Stone Masonry

Unit of Measurement : cu.m

Output per hour : 1.56

Quantity : 19.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	1.52	611.92	930.12
b. Skilled Laborer	2	1.52	443.20	1,347.33
c. Laborer	8	1.52	342.24	4,161.64
Sub-total for A				P 6,439.08
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. One Bagger Mixer	1	1.52	1,376.00	2,091.52
b. Water Truck	1	0.08	19,600.00	1,489.60
c. Backhoe	1	0.15	12,296.00	1,868.99
Minor Tools (10% of Labor)				643.91
Sub-total for B				P 6,094.02
Total (A+B)				P 12,533.11
D. Output/day 12.50 cu.m /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Cement	104.50	bag	285.18	29,801.19
b. Sand	5.70	cu.m	1,219.80	6,952.86
c. Gravel Fill	0.38	cu.m	1,389.80	528.12
d. Weep Holes (PVC)	5.70	ln.m	133.00	758.10
e. Filter Cloth	0.29	sq.m	160.00	45.60
f. Boulders	19.95	cu.m	1,937.80	38,659.11
Miscellaneous (1% of Materials)				767.45
Sub-total for E				P 77,512.44
Direct Cost (C+E)				90,045.54
G. Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		9,004.55
H. Contractor's Profit (CP)		8% per D.O 197 s 2016		7,203.64
I. Value Added Tax (VAT)		5% per D.O 197 s 2016		5,312.69
J. Total Unit Cost				5,871.92

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

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

Unit of Measurement : sq.m

Output per hour : 25.00

Quantity : 203.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	1.02	611.92	621.10
b. Skilled Laborer	2	1.02	443.20	899.70
c. Laborer	6	1.02	342.24	2,084.24
Sub-total for A				P 3,605.04
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Cargo Truck/Delivery Truck	1	1.02	9,696.00	9,841.44
b. Applicator Machine	1	1.02	750.00	761.25
c. Kneading Machine	1	1.02	1,500.00	1,522.50
Minor Tools (10% of labor)				
Sub-total for B				P 12,125.19
Total (A+B)				P 15,730.23
D. Output/day	200.00	sq.m	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Thermoplastic Paint (white)	65.98	bag	1,585.00	104,570.38
b. Glass Beads	6.70	bag	2,500.00	16,747.50
c. Primer	24.36	liter	180.00	4,384.80
d. LPG (50 kg.)	0.81	cyl	90.00	73.08
e. LPG (12 kg.)	0.41	cyl	50.00	20.30
f. Calsumine	25.38	kg	5.00	126.88
Miscellaneous (5% of Materials)				6,296.15
Sub-total for E				P 132,219.08
Direct Cost (C+E)				147,949.30
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016 14,794.93
Contractor's Profit (CP)				8% per D.O 197 s 2016 11,835.94
Value Added Tax (VAT)				5% per D.O 197 s 2016 8,729.01
Total Unit Cost				903.00

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

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

Unit of Measurement : sq.m

Output per hour : 25.00

Quantity : 23.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	0.12	611.92	70.37
b. Skilled Laborer	2	0.12	443.20	101.94
c. Laborer	6	0.12	342.24	236.15
Sub-total for A				408.45
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Cargo Truck/Delivery Truck	1	0.12	9,696.00	1,115.04
b. Applicator Machine	1	0.12	750.00	86.25
c. Kneading Machine	1	0.12	1,500.00	172.50
Minor Tools (10% of labor)				
Sub-total for B				1,373.79
Total (A+B)				1,782.24
D. Output/day	200.00	sq.m	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Thermoplastic Paint (yellow)	7.48	bag	1,800.00	13,455.00
b. Glass Beads	0.76	bag	2,500.00	1,897.50
c. Primer	2.76	liter	233.00	643.08
d. LPG (50 kg.)	0.09	cyl	90.00	8.28
e. LPG (12 kg.)	0.05	cyl	50.00	2.30
f. Calsumine	2.88	kg	5.00	14.38
Miscellaneous (5% of Materials)				801.03
Sub-total for E				16,821.56
Direct Cost (C+E)				18,603.80
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016
Contractor's Profit (CP)				8% per D.O 197 s 2016
Value Added Tax (VAT)				5% per D.O 197 s 2016
Total Unit Cost				1,002.18

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No./Description : 622(1)b Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 700)

Unit of Measurement : sq.m

Output per hour : 50.00

Quantity : 36,158.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	90.40	611.92	55,314.51
b. Laborer	8	90.40	342.24	247,494.28
Sub-total for A				P 302,808.79
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Water Truck	1	22.60	19,600.00	442,935.50
Minor Tools (10% of Labor)				30,280.88
Sub-total for B				P 473,216.38
Total (A+B)				P 776,025.17
D. Output/day 400.00 sq.m /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Erosion Control Net CGN 700 w/ 5% wastage (Price includes bamboo pegs)	37,965.90	sq.m	119.00	4,517,942.10
Sub-total for E				P 4,517,942.10
Direct Cost (C+E)				5,293,967.27
G. Overhead, Contingencies and Miscellaneous	10% per D.O 197 s 2016			529,396.73
H. Contractor's Profit (CP)	8% per D.O 197 s 2016			423,517.38
I. Value Added Tax (VAT)	5% per D.O 197 s 2016			312,344.07
J. Total Unit Cost				181.40

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No./Description : 622(2)b Bio-Engineered Erosion Coco Logs/Fascine Control System

Unit of Measurement : In.m

Output per hour : 15.00

Quantity : 2,300.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	19.17	611.92	11,728.47
b. Laborer	8	19.17	342.24	52,476.80
Sub-total for A				P 64,205.27
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACCEL Rates) Minor Tools (10% of Labor)				6,420.53
Sub-total for B				P 6,420.53
Total (A+B)				P 70,625.79
C. Output/day	120.00	In.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)	2,415.00	In.m	472.00	1,139,880.00
Sub-total for E				P 1,139,880.00
Direct Cost (C+E)				1,210,505.79
G. Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		121,050.58
H. Contractor's Profit (CP)		8% per D.O 197 s 2016		96,840.46
I. Value Added Tax (VAT)		5% per D.O 197 s 2016		71,419.84
J. Total Unit Cost				652.09

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No./Description : 622(3)a Bio-Engineered Erosion Control System Vegetation

Unit of Measurement : sq.m

Output per hour : 62.50

Quantity : 36,158.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	72.32	611.92	44,251.61
b. Laborer	2	72.32	342.24	49,498.86
Sub-total for A				P 93,750.46
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Hydroseeding Machine	1	72.32	7,616.00	550,758.66
b. Water Truck	1	72.32	8,520.00	616,132.32
Sub-total for B				P 1,166,890.98
Total (A+B)				P 1,260,641.44
C. Output/day	500.00	sq.m	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Grass Cover (Price includes grass seeds, mulch, cocopeat & binding agent for hydroseeding)	37,965.90	sq.m	306.00	11,617,565.40
Sub-total for E				P 11,617,565.40
Direct Cost (C+E)				12,878,206.84
G. Overhead, Contingencies and Miscellaneous	10% per D.O 197 s 2016			1,287,820.68
H. Contractor's Profit (CP)	8% per D.O 197 s 2016			1,030,256.55
I. Value Added Tax (VAT)	5% per D.O 197 s 2016			759,814.20
J. Total Unit Cost				441.29

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No./Description : A.1.1(3) Const. of Field Office for the Engineer

Unit of Measurement : LS

Output per hour :

Quantity : 1.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	10.00	611.92	6,119.20
b. Masons	3	10.00	443.20	13,296.00
c. Carpenters	3	10.00	443.20	13,296.00
d. Laborers	6	10.00	342.24	20,534.40
Sub-total for A			P	53,245.60
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Bagger Mixer	1	5.00	1,376.00	6,880.00
b. Water Truck	1	1.00	19,600.00	19,600.00
Minor Tools (10% of Labor)			P	5,324.56
Sub-total for B			P	31,804.56
C.			P	85,050.16
D. Output/day	0.00	LS	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
I. Earthworks (Excavation, Embankment, Bedding)				
a. Gravel Bedding	3.50	cu.m	1,389.80	4,864.30
b. Selected Fill	10.00	cu.m	601.40	6,014.00
c. Soil Poisoning	2.50	lit	1,900.00	4,750.00
II. Concrete Works (Footing, Columns, Beams & Slab on Grade)				
a. Portland Cement	90.00	bag	285.18	25,666.10
b. Crushed Gravel	20.00	cu.m	1,389.80	27,796.00
c. Washed Sand	17.00	cu.m	1,219.80	20,736.60
III. Reinforcing Bars(Footing Columns, Beams, & Slabs on Grade)				
a. Deformed Round Bar, Grade 40	500.00	kg	40.00	20,000.00
b. No. 16 GI Tie Wire	20.00	kg	68.00	1,360.00
IV. Formworks (Columns & Beams)				
a. Coco Lumber	400.00	bd.ft	15.00	6,000.00
b. Ordinary Plywood, 1/4"x4"x8'	18.00	pc	520.00	9,360.00
c. CWN, Assorted	5.00	kg	44.00	220.00
V. Masonry Works (masonry walls & plastering)				
a. CHB 6" thk	650.00	pc	18.00	11,700.00
b. Portland Cement	50.00	bag	285.18	14,258.94
c. Washed Sand	10.00	cu.m	1,219.80	12,198.00
d. 10mm dia. X 6m RSB	75.00	kg	43.00	3,225.00
e. No. 16 GI Tie Wire	2.50	kg	81.00	202.50
VI. Doors and Windows				
a. D-1, Hollow Core Flush Type swing door, complete w/ accessories, 0.90mx2.1m	2.00	set	1,765.27	3,530.54
b. W-1, Jalousie window, 1.4m x 1.2m	2.00	set	924.00	1,848.00
c. W-2, Jalousie window, 2.8m x 1.2m	2.00	set	1,848.00	3,696.00
Sub-Total for E			P	177,425.98
Sub-total for E			P	320,952.33
F. Direct Cost (C+E)				406,002.49
G. Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		40,600.25
H. Contractor's Profit (CP)		8% per D.O 197 s 2016		32,480.20
I. Value Added Tax (VAT)		5% per D.O 197 s 2016		23,954.15
J. Total Unit Cost				503,037.09

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No./Description : A.1.1(3) Const. of Field Office for the Engineer

Unit of Measurement : LS

Output per hour :

Quantity : 1.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	16.00	611.92	
b. Masons	3	16.00	443.20	
c. Carpenters	3	16.00	443.20	
d. Laborers	6	16.00	342.24	
Sub-total for A				P 0.00
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Bagger Mixer	1	5.00	1,376.00	
b. Water Truck	1	1.00	19,600.00	
Minor Tools (10% of Labor)				
Sub-total for B				P 0.00
Total (A+B)				P 0.00
D. Output/day	0.00 LS /day			
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
VII Steel Works				
a. 65 x 65 x 6mm. L	300.00	kg	48.00	14,400.00
b. 50 x 50 x 6mm. L	200.00	kg	48.00	9,600.00
c. 50 x 50 x 4mm. L	100.00	kg	48.00	4,800.00
d. Purlins C- 150 x 50 x 3mm.	19.00	kg	45.00	855.00
e. 16mm dia. Cross bracing	32.00	kg	50.00	1,600.00
f. 16mm dia. Turn buckle	15.00	pc	123.00	1,845.00
g. 12mm thk base plate	22.00	kg	45.00	990.00
h. 10mm thk batten plate	15.00	kg	45.00	675.00
i. 10mm dia. Sag rod	7.50	kg	50.00	375.00
j. 20mm dia. X 350 mm anchor bolts	7.00	pc	60.00	420.00
k. Welding Rod	12.50	kg	125.00	1,562.50
l. Primer, Zinc Cromate	5.00	gal	531.00	2,655.00
VII Roofing Works				
a. Pre-painted GI Roofing Sheet long span	55.00	sq.m	420.00	23,100.00
b. Pre-painted ridge roll ga 24, 0.60m width	10.00	ln.m	189.00	1,890.00
c. Pre-painted flashing, ga. 24	2.00	ln.m	189.00	378.00
d. Teackscrew 1 1/2"	500.00	pc	1.25	625.00
e. Roof Sealant	2.00	lit	242.84	485.68
IX. Carpentry Works				
a. Rough Lumber, sun dried tangulle	350.00	bd.ft	37.00	12,950.00
b. Plywood, ordinary 1/4" x 4' x 8'	30.00	pc	350.00	10,500.00
c. Finishing Nails	5.00	kg	74.00	370.00
d. Common Wire Nails	10.00	kg	74.00	740.00
e. Wood Preservative Brown	5.00	lit	900.00	4,500.00
Sub-Total for E				95,316.18
Sub-total for E				P 95,316.18
Direct Cost (C+E)				
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016
Contractor's Profit (CP)				8% per D.O 197 s 2016
Value Added Tax (VAT)				5% per D.O 197 s 2016
Total Unit Cost				

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No./Description : A.1.1(3) Const. of Field Office for the Engineer

Unit of Measurement : LS

Output per hour :

Quantity : 1.00

Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
X. Electrical Works				
a. 2 x 40w Fluorescent lighting fixtures	5.00	set	1,500.00	7,500.00
b. Porcelain Ceiling Outlet w/ female	2.00	pc	50.00	100.00
c. duplex Convenience outlet	3.00	pc	170.00	510.00
d. two gang switch	3.00	pc	132.00	396.00
e. 3.5mm2 thw	3.00	roll	3,600.00	10,800.00
f. 8.00mm2 thw	25.00	m	69.33	1,733.25
g. 15mm dia. PVC pipe	20.00	pc	76.00	1,520.00
h. 15mm dia. PVC Coupling	25.00	pc	27.00	675.00
i. 15mm dia. PVC Elbow	25.00	pc	26.00	650.00
j. 15mm dia. PVC Clamp	55.00	pc	8.00	440.00
k. 20mm dia. RSC Pipe	4.00	pc	240.00	960.00
l. 20mm dia. RSC Coupling	3.00	pc	36.00	108.00
m. 20mm dia. RSC elbow	3.00	pc	30.00	90.00
n. 20mm dia. RSC Clamp	10.00	pc	18.00	180.00
o. 20mm dia. Service entrance cap	2.00	pc	101.49	202.98
p. wire holder	2.00	pc	50.00	100.00
q. utility box	7.00	pc	32.00	224.00
r. octagonal box	8.00	pc	34.00	272.00
s. electrical tape (big)	7.00	pc	28.00	196.00
t. panel board (side main w/ braches)	2.00	set	3,000.00	6,000.00
XI. Plumbing Works				
a. Water Closet (include, Fitting & Accessories)	1.00	set	7,631.94	7,631.94
b. Lavatory (include fitting & Accessories)	1.00	set	5,000.00	5,000.00
c. 1/2" GI Pipe S-40	2.00	pc	292.00	584.00
d. 1/2" Water Faucet	2.00	pc	165.00	330.00
e. 1/2" Assorted Connector	8.00	pc	19.00	152.00
f. 4" PVC series 1000	1.00	pc	640.00	640.00
g. 2" PVC series 1000	1.00	pc	305.00	305.00
h. 4" PVC assorted Connector	6.00	pc	77.00	462.00
i. 2" PVC assorted Connector	8.00	pc	56.00	448.00
Sub-Total for E				48,210.17
Sub-total for E		P		48,210.17
F. Direct Cost (C+E)				
G. Overhead, Contingencies and Miscellaneous				
		10% 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		
J. Total Unit Cost				

PROJECT NAME

: Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

DETAILED UNIT PRICE ANALYSIS

Item No./Description

: A.1.1(11) Prov. Of Furniture, Equipment and Appliances for Field Engineer

Unit of Measurement

: LS

Output per hour

:

Quantity

: 1.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A.				
Sub-total for A				
			P	0.00
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B.				
Sub-total for B				
			P	0.00
Total (A+B)				
			P	0.00
D. Output/day	0.00	LS	/day	
Name and Specifications				
	Quantity	Unit	Unit Cost	Amount
E. Materials				
Office Equipment/Facilities & Supplies				
a. Office Table, Executive type w/ chair	2.00	unit	7,000.00	14,000.00
b. 1/2" wooden office table	2.00	each	2,830.00	5,660.00
c. Drawing Table	2.00	unit	5,000.00	10,000.00
d. Electric Desk Fan	3.00	unit	1,370.00	4,110.00
e. Folding Beds, Good Quality	3.00	each	2,700.00	8,100.00
f. 6" sleeping beds w/ pillows and blanket	3.00	each	5,000.00	15,000.00
g. Double burner gas stove (Gasul)	1.00	unit	3,700.00	3,700.00
h. 10 cups Rice Cooker	1.00	unit	2,500.00	2,500.00
i. Aluminum Cookware	1.00	set	3,500.00	3,500.00
j. Plate, Glass, Spoon and fork	1.00	dozen	2,000.00	2,000.00
k. 6 seater dining table	1.00	each	2,800.00	2,800.00
l. Monoblock Backrest chair	2.00	dozen	2,500.00	5,000.00
m. Plastic Pail & Basin	2.00	pc	500.00	1,000.00
n. White Board	3.00	Unit	7,000.00	21,000.00
o. Bond Paper (Long)	20.00	ream	300.00	6,000.00
p. Bond Paper (Short)	20.00	ream	270.00	5,400.00
q. Yellow Pad	6.00	pad	35.00	210.00
r. White Board Marker	10.00	pc	75.00	750.00
s. Sign Pen (assorted color)	2.00	dozen	650.00	1,300.00
t. Ballpen (assorted color)	4.00	box	180.00	720.00
u. Mechanical Pencil	6.00	unit	350.00	2,100.00
v. Pencil Lead, No. 5	4.00	box	145.00	580.00
w. Puncher	1.00	Unit	253.32	253.32
x. Staple Pad w/ wire	2.00	Unit	275.00	550.00
y. Cutter Blade	2.00	box	240.00	480.00
z. Scotch Tape	10.00	roll	45.00	450.00
aa Brown Envelop	7.00	dozen	125.00	875.00
bb Folder, Long	7.00	dozen	85.00	595.00
cc Folder, Short	7.00	dozen	70.00	490.00
dd Data File Folder	12.00	pc	85.00	1,020.00
ee Desktop w/ complete accessories	1.00	unit	60,000.00	60,000.00
ff Printer (3in1)	1.00	unit	20,000.00	20,000.00
gg Camera	2.00	unit	15,000.00	30,000.00
Lighting/Water Fixtures				
a. Electric Bill	8.00	mons	1,200.00	9,600.00
b. Water Bill	8.00	mons	1,000.00	8,000.00
c. LPG Gasul (11 kg)	8.00	mons	1,000.00	8,000.00
Sub-Total for E				255,743.32
Sub-total for E				255,743.32
			P	255,743.32
F. Direct Cost (C+E)				
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	12,787.17
J. Total Unit Cost				268,530.49

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No./Description : A.1.2(5) Operation & Maintenance of Gov't. Service Vehicle

Unit of Measurement : L.S

Output per hour : :

Quantity : 1.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Service Driver	1	360.00	443.20	159,552.00
Sub-total for A				
			P	159,552.00
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
Sub-total for B				
			P	0.00
Total (A+B)				
			P	159,552.00
D. Output/day	0.00	L.S	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Liters, Diesel Fuel	3,600.00	liters	35.00	126,000.00
b. Engine Oil & Lubricants	1.00	ls	39,888.00	39,888.00
c. Tires	4.00	pcs	9,500.00	38,000.00
d. Spare parts etc.	1.00	ls	100,000.00	100,000.00
Sub-total for E				
			P	303,888.00
Direct Cost (C+E)				
				463,440.00
Overhead, Contingencies and Miscellaneous				
		0% per D.O 197 s 2016		0.00
Contractor's Profit (CP)				
		0% per D.O 197 s 2016		0.00
Value Added Tax (VAT)				
		5% per D.O 197 s 2016		23,172.00
Total Unit Cost				
				486,612.00

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No./Description : B.5 Project Billboard

Unit of Measurement : Unit

Output per hour :

Quantity : 2.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction 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 Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
Sub-total for B				P 0.00
Total (A+B)				P 434.90
D. Output/day	0.00	Unit /day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Marine Plywood 3/16" thk. X 4' x 8'	2.00	pc	388.00	776.00
b. Tarpaulin (4' x 8')	2.00	pc	800.00	1,600.00
c. Assorted Sizes Lumber	100.00	bd. Ft	15.00	1,500.00
d. Assorted Sizes CW Nails	2.00	kg	55.00	110.00
Sub-total for E				P 3,986.00
Direct Cost (C+E)				4,420.90
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016 442.09
Contractor's Profit (CP)				8% per D.O 197 s 2016 353.67
Value Added Tax (VAT)				5% per D.O 197 s 2016 260.83
Total Unit Cost				2,738.75

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

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

Unit of Measurement : L.S

Output per hour :

Quantity : 1.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Safety Practitioner	1	180.00	611.92	110,145.60
b. First Aider	1	360.00	443.20	159,552.00
Sub-total for A				P 269,697.60
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
Sub-total for B				P 0.00
Total (A+B)				P 269,697.60
D. Output/day	0.00	L.S /day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Pairs, Rubber Boots Men, Long with Steel Toe, Black	24.00	pair	400.00	9,600.00
b. Pairs, Working Gloves (Maong Materials)	24.00	pair	15.00	360.00
c. Pcs. Rain Coats (Rain Forced, Hip Length Small, Medium & Large)	24.00	pcs	100.00	2,400.00
Sub-total for E				P 12,360.00
Direct Cost (C+E)				282,057.60
G. Overhead, Contingencies and Miscellaneous				per D.O 197 s 2016 0.00
H. Contractor's Profit (CP)				8% per D.O 197 s 2016 22,564.61
I. Value Added Tax (VAT)				5% per D.O 197 s 2016 15,231.11
J. Total Unit Cost				319,853.32

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

Item No./Description : B.9 Mobilization and Demobilization

Unit of Measurement : L.S

Output per hour :

Quantity : 1.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
Sub-total for A				P 0.00
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Low Bed Trailer	2	4.00	34,043.00	272,344.00
b. Water Truck	2	4.00	19,600.00	156,800.00
c. Backhoe	2	4.00	12,296.00	98,368.00
d. Payloader	2	4.00	13,864.00	110,912.00
e. Dumptruck	2	4.00	11,360.00	90,880.00
f. Bulldozer	2	4.00	27,032.00	216,256.00
g. Road Roller	2	4.00	13,216.00	105,728.00
h. Road Grader	2	4.00	17,384.00	139,072.00
Sub-total for B				P 1,190,360.00
Total (A+B)				P 1,190,360.00
D. Output/day	0.00	L.S /day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Sub-total for E				P 0.00
Direct Cost (C+E)				1,190,360.00
G. Overhead, Contingencies and Miscellaneous		per D.O 197 s 2016		0.00
H. Contractor's Profit (CP)		per D.O 197 s 2016		0.00
I. Value Added Tax (VAT)		5% per D.O 197 s 2016		59,518.00
J. Total Unit Cost				1,249,878.00

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01059MN) Zamboanga del Norte 1st DEO

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

Unit of Measurement : Km.

Output per hour : 0.04

Quantity : 0.81

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor (For Field Works)				
a. Geodetic Engineer	1	2.69	833.31	2,244.38
b. Skilled Laborer	3	2.69	443.20	3,581.06
c. Laborer	3	2.69	342.24	2,765.30
(For Office Works)				
a. Geodetic Engineer	1	8.08	833.31	6,733.14
b. Skilled Laborer	2	8.08	443.20	7,162.11
Sub-total for A			P	22,485.99
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Total Station w/ complete accessories Minor Tools (10% of labor)	1	2.69	800.00	2,154.67
				2,248.60
Sub-total for B			P	4,403.27
Total (A+B)			P	26,889.26
Output/day 0.30 Km. /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Standard Stake Plan (800 mm x 910 mm)	35.00	pcs	200.00	7,000.00
b. Blue Printing	175.00	pcs	40.00	7,000.00
Miscellaneous (5% of Materials)				700.00
Sub-total for E			P	14,700.00
Direct Cost (C+E)				41,589.26
Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		4,158.93
Contractor's Profit (CP)		8% per D.O 197 s 2016		3,327.14
Value Added Tax (VAT)		5% per D.O 197 s 2016		2,453.77
Total Unit Cost				63,773.63

UNIT COST ANALYSIS FOR HAULING COST FOR ALL AGGREGATES

Hauling Cost from the District Office to Site

Item No : ALL AGGREGATES Terrain : Flat to Rolling
Quantity : 1,000.00 Unit : cu.m.
Hauling Distance : 5.00 km.
Effective Working Hours : 8.00 hrs.

Hauling : Using 10.00 cu.m. capacity Dumptruck : 16,000.00 kgs
Weight of Dumptruck (cap. 10.00 cu.m.) : 1,640.00 kg/cu.m.
Unit Weight of Fine Aggregates : 1,534.00 kg/cu.m.
Unit Weight of Course Aggregates

Maximum Volume to be Carried per DT : 11.57 cu.m.

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

Speed when loaded : 30.00 kph
Speed when unloaded : 40.00 kph

$$\text{Loaded Running} = \frac{5.00 \times 60.00}{30.00} = 10 \text{ mins.}$$

$$\text{Unloaded Running} = \frac{5.00 \times 60.00}{40.00} = 7.5 \text{ mins.}$$

Loading & Unloading = 5.00 mins.

Capacity of Dumptruck = 10.00 cu.m.

Total Cycle Time = 22.50 mins.

$$\text{No. of trips for Dumptruck per day} = \frac{8.00 \times 60.00}{22.50} = 21.33 \text{ trips}$$

$$\begin{aligned} \text{Dumptruck Daily Output} &= 10.00 \times 21.33 = 213.33 \text{ cu.m.} \\ \text{Using 4 Dumptruck} &= 213.33 \times 4.00 = 853.33 \text{ cu.m.} \end{aligned}$$

$$\text{No. of Days for Dumptruck} = \frac{1,000.00}{853.33} = 1.17 \text{ days}$$

EQUIPMENT USED: (2009 ACEL RATES)

$$4.00 - \text{Unit Dumptruck} @ \text{P } 10,816.00 / \text{day} \times 1.17 \text{ days} = \text{P } 50,700.00$$

Estimated Quantity = 1,000.00 cu.m.

Unit Cost **P 10.14 /cu.m/km. (unit cost hauling per cu.m. per km.)**

Grand Total P 50,700.00

Equipment P 50,700.00

Labor P

Equipment P

ZAMBOANGA DEL NORTE 1ST DEO (using 2nd Quarter 2017)

	Hauling Distance	Unit Cost per cu.m/km	Hauling Cost per km.	Unit Price	Unit cost per cu.m.
Cost of Fine Aggregates	70.00	X 10.14 =	709.80 +	510.00 =	1,219.80
Cost of Coarse Aggregates	70.00	X 10.14 =	709.80 +	680.00 =	1,389.80
Cost of Item 200 Materials	70.00	X 10.14 =	709.80 +	650.00 =	1,359.80
Cost of Item 201 Materials	70.00	X 10.14 =	709.80 +	625.00 =	1,334.80
Cost of Item 300 Materials	70.00	X 10.14 =	709.80 +	700.00 =	1,409.80
Cost of Boulders	70.00	X 10.14 =	709.80 +	1,228.00 =	1,937.80
Cost of Embankment, Common Borrow	10.00	X 10.14 =	101.40 +	340.00 =	441.40
Cost of Embankment, Selected Borrow	10.00	X 10.14 =	101.40 +	500.00 =	601.40

UNIT COST DERIVATION FOR PORTLAND CEMENT

TOTAL QUANTITY REQUIREMENTS FOR PORTLAND CEMENT

Description	Quantity (Bags)
Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	15,494.50
Portland Cement Concrete Pavement, 0.15m. Thick	3,100.24
Structural Concrete, Class A	4,759.50
Grouted Riprap, Class A	6.00
Stone Masonry	104.50
Const. of Field Office for the Engineer	90.00
	50.00
Concrete Structure (Lean Concrete)	-
TOTAL	23,604.74

Quantity = 23,604.74 Bags

Delivery Charge = P 0.12 /bag/km

SITE	HAULING DISTANCE
Zamboanga del Norte 1st DEO	
PROJECT SITE	75.00

* Average Hauling Distance from source to assumed stockpiling area:
say 75.00 km.

Delivery Charge = P 0.12 X 75.00
Delivery Charge = P 9.00 /bag

* Delivery Truck : 23,604.74 bags (hauling works)
20,000.00 kgs., (capacity per haul)
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 = $\frac{75.00 \times 60.00}{30.00}$ = 150 mins.

Unloading Running = $\frac{75.00 \times 60.00}{40.00}$ = 112.5 mins.

Loading & Unloading = 45.00 mins.

Capacity of Dumptruck = 8.00 cu.m.

Total Cycle Time = $\frac{500.00 \text{ bags}}{500.00 \text{ bags}}$ = 307.50 mins.

$$\text{No. of trips for Dumptruck per day} = \frac{8.00}{307.50} \times \frac{60.00}{1.56} = \text{trips}$$

$$\begin{aligned} \text{Dumptruck Daily Outpout} &= 500.00 \times 1.56 = 780.49 \text{ cu.m.} \\ \text{Using 4 Dumptruck} &= 780.49 \times 4.00 = 3,121.95 \text{ cu.m.} \end{aligned}$$

$$\text{No. of Days for Dumptruck} = \frac{23,604.74}{3,121.95} = 7.56 \text{ days}$$

$$\text{No. of Days for Labor for unloading} = \text{complimentary to D.Truck days} = 7.56 \text{ days}$$

DELIVERY COST:

$$23,604.74 \text{ Bags, Portland Cement} @ \text{ P } 9.00 \text{ /bag} = \text{P } 212,442.66$$

$$\text{Sub-total} \underline{\hspace{1cm}} \text{212,442.66}$$

LABOR:

$$\begin{aligned} 1 \text{ Foreman} @ \text{ P } 558.00 \text{ /day} & \times 7.56 \text{ days} = \text{P } 4,218.98 \\ 10 \text{ Laborers} @ \text{ P } 312.24 \text{ /day} & \times 7.56 \text{ days} = \text{P } 23,608.13 \\ \text{Sub-total} & \underline{\hspace{1cm}} \text{27,827.11} \end{aligned}$$

MATERIALS:

$$23,604.74 \text{ Bags, Portland Cement} @ \text{ P } 275.00 \text{ /bag} = \text{P } 6,491,303.50$$

$$\text{Sub-total} \underline{\hspace{1cm}} \text{6,491,303.50}$$

Estimated Quantity : 23,604.74 Bags

Unit Cost	P	285.18
Grand Total	P	6,731,573.27
Delivery Cost	P	212,442.66
Labor	P	27,827.11
Materials	P	6,491,303.50