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 : **Paving of Unpaved Roads - Secondary Roads Rizal - Dakak - Dapitan Coastal Loop Road**	Aproriation : P 108,760,000.00 Source of Funds : CY-2018 Issued Obligated Authority : Released : Cal. Days to Complete : 207.00 Cal. Days
PROJECT CATEGORY : NATIONAL ROAD	Desirable Starting Date : Upon Approval Mode of Implementation :
PROJECT DESCRIPTION : Scope of Work : Paving of Unpaved Road Road Width : 6.70 m. Roadbed Width : 12.00 m. Subbase Course : 0.30 mtrs thick Surface Course : 0.15 mtrs thick	NET LENGTH : K1849+601.00 - K1852+010.19 K1854+026.00 - K1854+860.00 Net Length : **6.49** lane km Net Length : **3,243.00** ln.m. / **3.243** 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
100(3)a2	Individual Removal of Trees	0.001	each	1.00	957.66	957.66
100(3)a3	Individual Removal of Trees	0.002	each	2.00	1,915.31	957.66
100(4)	Individual Removal of Trees	0.001	each	1.00	957.66	957.66
101(3b2)	Removal of Existing PCCP	0.379	sq.m	2,644.00	320,720.51	121.30
101(4)a1	Removal of Existing RCPC	0.017	ln.m	40.00	14,720.00	368.00
101(2)b	Removal of Existing Headwall	0.003	each	8.00	2,894.05	361.76
102(2)	Surplus Common Excavation	9.894	cu.m.	25,923.50	8,363,929.96	322.64
102(3)a	Surplus Rock Excavation	4.868	cu.m.	5,030.50	4,115,540.68	818.12
103 (1)a	Structure Excavation	0.194	cu.m.	711.50	163,727.28	230.12
103(3)	Foundation Fill	0.020	cu.m.	16.50	16,627.02	1,007.70
103(6)a	Pipe Culvert and Drain Excavation	0.030	cu.m.	111.50	25,657.89	230.12
104(1)a1	Embankment from Roadway Excavation	3.603	cu.m.	13,151.00	3,045,564.21	231.58
105 (1)a	Subgrade Preparation	0.429	sq.m.	23,648.00	362,567.19	15.33
200 (1)	Aggregate Subbase Course	22.006	cu.m.	12,837.00	18,602,302.09	1,449.12
300 (1)	Aggregate Surface Course	1.587	cu.m.	889.50	1,341,353.55	1,507.99
311(1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	43.671	sq.m.	23,315.50	36,917,034.40	1,583.37
311(1)a	Portland Cement Concrete Pavement, 0.15m. Thick	4.726	sq.m	4,592.00	3,995,140.16	870.02
404 (1)a	Reinforcing Steel Bar, Grade 40	0.849	kg.	14,445.00	717,326.26	49.66
405 (1) a3	Structural Concrete, Class A	3.145	cu.m	357.00	2,658,412.24	7,446.53

500(1)b3	Pipe Culvert & Storm Drain	0.577	ln.m	123.00	487,994.21	3,967.43
505(2)a	Grouted Riprap, Class A	0.139	cu.m	28.50	117,772.14	4,132.36
506(1)	Stone Masonry	0.505	cu.m	101.00	427,154.22	4,229.25
612(1)	Reflectorized Thermoplastic Pavement Markings (White)	0.669	sq.m	775.50	565,195.49	728.81
612(2)	Reflectorized Thermoplastic Pavement Markings (Yellow)	0.202	sq.m	211.50	171,074.11	808.86
A.1.1(3)	Const. of Field Office for the Engineer	0.474	LS	1.00	401,083.78	401,083.78
A.1.1(11)	Prov. Of Furniture, Equipment and Appliances for Field Engineer	0.290	LS	1.00	244,863.32	244,863.32
A.1.2(5)	Operation & Maintenance of Gov't. Service Vehicle	0.385	L.S	1.00	325,128.00	325,128.00
B.5	Project Billboard	0.005	Unit	2.00	4,312.90	2,156.45
B.7	Occupational Safety & Health Program	0.198	L.S	1.00	167,436.12	167,436.12
B.9	Mobilization and Demobilization	0.985	L.S	1.00	832,248.00	832,248.00
B.4(1)	Construction Survey and Staking	0.145	Km.	3.24	122,623.11	37,811.63
TOTAL		**100.000**			**P 84,534,233.51**	

Name of Project : **Paving of Unpaved Roads - Secondary Roads Rizal - Dakak - Dapitan Coastal Loop Road**

Station Limits : K1849+601.00 - K1852+010.19
K1854+026.00 - K1854+860.00

BREAKDOWN OF ESTIMATED EXPENDITURES	% OF TOTAL		AMOUNT
I. ESTIMATED COST			
A. DIRECT COST			
A.1 Materials	55.25		60,085,287.25
A.2 Labor	1.60		1,744,003.89
A.3 Equipment Expenses	20.88		22,704,942.37
SUB-TOTAL (DIRECT COST)	77.73	P	84,534,233.51
B. INDIRECT COST (Per DO # 197 s. 2016)			
B.1 Overhead, Contingency & Misc. (10% Max. of D.C.)	7.63		8,296,455.81
B.2 Profit (8% Max. D.C.)	6.11		6,650,559.54
C. VAT (5% of D.C. and I.C. per D.O. # 197)	4.57		4,974,062.44
SUB-TOTAL (CONTRACT COST)	96.04	P	104,455,311.30
II. ESTIMATED GOVERNMENT EXPENDITURES			
1 Engineering and Administrative Overhead (3.5%)	3.50		3,806,600.00
2 Detailed Engineering (1%)			
3 Reserved for the Payment of RROW)	0.46		498,088.70
4 Physical Reserved	0.00		
TOTAL ESTIMATED PROJECT COST	100.00	P	108,760,000.00

Prepared by:

JERALD R. BARRERA
Engineer II

Submitted by:

LEONCIO B. SOLAMILLO
Chief, Construction Division

Recommending Approval:

CAYAMOMBAO D. DIA
Assistant Regional Director

APPROVED:

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

APPROVED ET FOR THE CONTRACT

Paving of Unpaved Roads - Secondary Roads Rizal - Dakak - Dapitan Coastal Loop Road

Project Name and Location

Station Limits : K1849+601.00 - K1852+010.19 K1854+026.00 - K1854+860.00

Length : 3,243.00 ln.m. Contract Duration : 207.00 Calendar Days

Item No.	Description	Quantity	Unit	Estimated Direct Cost	MARK-UP IN PERCENT OCM	PROFIT	TOTAL MARK-UPS %	VALUE	VAT	TOTAL INDIRECT COST	TOTAL COST	TOTAL COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) = (5)X(8)	(10) = [(5)+(9)]*5%	(11) = (9) + (10)	(12) = (5) + (11)	(13) = (12) / (3)
PART A	FACILITIES FOR THE ENGINEER				10.00	8.00	18.00					
A.1.1(3)	Const. of Field Office for the Engineer	1.00	LS	401,083.78	10.00	8.00	18.00	72,195.08	23,663.94	95,859.02	496,942.80	496,942.80
A.1.1(11)	Prov. Of Furniture, Equipment and Appliances for Field Engineer	1.00	LS	244,863.32	0.00	0.00	0.00	-	12,243.17	12,243.17	257,106.49	257,106.49
A.1.2(5)	Operation & Maintenance of Gov't. Service Vehicle	1.00	L.S	325,128.00	0.00	0.00	0.00	-	16,256.40	16,256.40	341,384.40	341,384.40
	TOTAL OF PART A			971,075.10				72,195.08	52,163.51	124,358.59	1,095,433.69	
PART B	OTHER GENERAL REQUIREMENTS											
B.5	Project Billboard	2.00	Unit	4,312.90	10.00	8.00	18.00	776.32	254.46	1,030.78	5,343.68	2,671.84
B.7	Occupational Safety & Health Program	1.00	L.S	167,436.12	0.00	8.00	8.00	13,394.89	9,041.55	22,436.44	189,872.56	189,872.56
B.9	Mobilization and Demobilization	1.00	L.S	832,248.00	0.00	0.00	0.00	-	41,612.40	41,612.40	873,860.40	873,860.40
B.4(1)	Construction Survey and Staking	3.24	Km.	122,623.11	10.00	8.00	18.00	22,072.16	7,234.76	29,306.92	151,930.03	46,848.61
	TOTAL OF PART B			1,126,620.13				36,243.37	58,143.17	94,386.55	1,221,006.67	
PART C	EARTHWORKS											
100(3)a2	Individual Removal of Trees	1.00	each	957.66	10.00	8.00	18.00	172.38	56.50	228.88	1,186.54	1,186.54
100(3)a3	Individual Removal of Trees	2.00	each	1,915.31	10.00	8.00	18.00	344.76	113.00	457.76	2,373.07	1,186.54
100(4)	Individual Removal of Trees	1.00	each	957.66	10.00	8.00	18.00	172.38	56.50	228.88	1,186.54	1,186.54
101(3b2)	Removal of Existing PCCP	2,644.00	sq.m	320,720.51	10.00	8.00	18.00	57,729.69	18,922.51	76,652.20	397,372.71	150.29
101(4)a1	Removal of Existing RCPC	40.00	ln.m	14,720.00	10.00	8.00	18.00	2,649.60	868.48	3,518.08	18,238.08	455.95
101(2)b	Removal of Existing Headwall	8.00	each	2,894.05	10.00	8.00	18.00	520.93	170.75	691.68	3,585.73	448.22
102(2)	Surplus Common Excavation	25,923.50	cu.m.	8,363,929.96	10.00	8.00	18.00	1,505,507.39	493,471.87	1,998,979.26	10,362,909.22	399.75
102(3)a	Surplus Rock Excavation	5,030.50	cu.m.	4,115,540.68	10.00	8.00	18.00	740,797.32	242,816.90	983,614.22	5,099,154.91	1,013.65
103 (1)a	Structure Excavation	711.50	cu.m.	163,727.28	10.00	8.00	18.00	29,470.91	9,659.91	39,130.82	202,858.11	285.11
103(3)	Foundation Fill	16.50	cu.m.	16,627.02	10.00	8.00	18.00	2,992.86	980.99	3,973.86	20,600.87	1,248.54
103(6)a	Pipe Culvert and Drain Excavation	111.50	cu.m.	25,657.89	10.00	8.00	18.00	4,618.42	1,513.82	6,132.24	31,790.13	285.11
104(1)a1	Embankment from Roadway Excavation	13,151.00	cu.m.	3,045,564.21	10.00	8.00	18.00	548,201.56	179,688.29	727,889.85	3,773,454.05	286.93
105 (1)a	Subgrade Preparation	23,648.00	sq.m.	362,567.19	10.00	8.00	18.00	65,262.10	21,391.46	86,653.56	449,220.75	19.00
	TOTAL OF PART C			16,435,779.42				2,958,440.30	969,710.99	3,928,151.28	20,363,930.71	
PART D	SUBBASE AND BASE COURSE											
200 (1)	Aggregate Subbase Course	12,837.00	cu.m.	18,602,302.09	10.00	8.00	18.00	3,348,414.38	1,097,535.82	4,445,950.20	23,048,252.29	1,795.45
	TOTAL OF PART D			18,602,302.09				3,348,414.38	1,097,535.82	4,445,950.20	23,048,252.29	
PART E	SURFACE COURSES											
300 (1)	Aggregate Surface Course	889.50	cu.m.	1,341,353.55	10.00	8.00	18.00	241,443.64	79,139.86	320,583.50	1,661,937.04	1,868.39
311(1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	23,315.50	sq.m.	36,917,034.40	10.00	8.00	18.00	6,645,066.19	2,178,105.03	8,823,171.22	45,740,205.62	1,961.79
311(1)a	Portland Cement Concrete Pavement, 0.15m. Thick	4,592.00	sq.m	3,995,140.16	10.00	8.00	18.00	719,125.23	235,713.27	954,838.50	4,949,978.66	1,077.96
	TOTAL OF PART E			42,253,528.11				7,605,635.06	2,492,958.16	10,098,593.22	52,352,121.33	
PART F	BRIDGE CONSTRUCTION											
404 (1)a	Reinforcing Steel Bar, Grade 40	14,445.00	kg.	717,326.26	10.00	8.00	18.00	129,118.73	42,322.25	171,440.98	888,767.24	61.53
405 (1) a3	Structural Concrete, Class A	357.00	cu.m	2,658,412.24	10.00	8.00	18.00	478,514.20	156,846.32	635,360.53	3,293,772.77	9,226.25
	TOTAL OF PART F			3,375,738.50				607,632.93	199,168.57	806,801.50	4,182,540.01	
PART G	DRAINAGE AND SLOPE PROTECTION STRUCTURES											
500(1)b3	Pipe Culvert & Storm Drain	123.00	ln.m	487,994.21	10.00	8.00	18.00	87,838.96	28,791.66	116,630.62	604,624.83	4,915.65
505(2)a	Grouted Riprap, Class A	28.50	cu.m	117,772.14	10.00	8.00	18.00	21,198.98	6,948.56	28,147.54	145,919.68	5,119.99
506(1)	Stone Masonry	101.00	cu.m	427,154.22	10.00	8.00	18.00	76,887.76	25,202.10	102,089.86	529,244.07	5,240.04
	TOTAL OF PART G			1,032,920.56				185,925.70	60,942.31	246,868.01	1,279,788.57	
PART H	MISCELLANEOUS STRUCTURES											
612(1)	Reflectorized Thermoplastic Pavement Markings (White)	775.50	sq.m	565,195.49	10.00	8.00	18.00	101,735.19	33,346.53	135,081.72	700,277.21	903.00
612(2)	Reflectorized Thermoplastic Pavement Markings (Yellow)	211.50	sq.m	171,074.11	10.00	8.00	18.00	30,793.34	10,093.37	40,886.71	211,960.82	1,002.18
	TOTAL OF PART H			736,269.60				132,528.53	43,439.91	175,968.43	912,238.04	
	TOTAL			84,534,233.51				14,947,015.34	3,876,526.62	19,921,077.79	104,455,311.30	

Prepared by:

BELEN A. SAPALLEDA
Head TWG, BAC

Recommending Approval:

CAYAMOMBAO D. DIA
Assistant Regional Director

APPROVED:

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

APPROVED ET FOR THE CONTRACT

Paving of Unpaved Roads - Secondary Roads Rizal - Dakak - Dapitan Coastal Loop Road

Project Name and Location

Station Limits : K1849+601.00 - K1852+010.19 K1854+026.00 - K1854+860.00

Length : 3,243.00 ln.m.

Contract Duration : 207.00 Calendar Days

Item No.	Description	Quantity	Unit	Estimated Direct Cost	MARK-UP IN PERCENT		TOTAL MARK-UPS		VAT	TOTAL INDIRECT COST	TOTAL COST	TOTAL COST
					OCM	PROFIT	%	VALUE				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) = (5)X(8)	(10) = [(5)+(9)]*5%	(11) = (9) + (10)	(12) = (5) + (11)	(13) = (12) / (3)
PART A	**FACILITIES FOR THE ENGINEER**				10.00	8.00	18.00					
A.1.1(3)	Const. of Field Office for the Engineer	1.00	LS	401,083.78	10.00	8.00	18.00	72,195.08	23,663.94	95,859.02	496,942.80	496,942.80
A.1.1(11)	Prov. Of Furniture, Equipment and Appliances for Field Engineer	1.00	LS	244,863.32	0.00	0.00	0.00	-	12,243.17	12,243.17	257,106.49	257,106.49
A.1.2(5)	Operation & Maintenance of Gov't. Service Vehicle	1.00	L.S	325,128.00	0.00	0.00	0.00	-	16,256.40	16,256.40	341,384.40	341,384.40
	TOTAL OF PART A			971,075.10				72,195.08	52,163.51	124,358.59	1,095,433.69	
PART B	**OTHER GENERAL REQUIREMENTS**											
B.5	Project Billboard	2.00	Unit	4,312.90	10.00	8.00	18.00	776.32	254.46	1,030.78	5,343.68	2,671.84
B.7	Occupational Safety & Health Program	1.00	L.S	167,436.12	0.00	8.00	8.00	13,394.89	9,041.55	22,436.44	189,872.56	189,872.56
B.9	Mobilization and Demobilization	1.00	L.S	832,248.00	0.00	0.00	0.00	-	41,612.40	41,612.40	873,860.40	873,860.40
B.4(1)	Construction Survey and Staking	3.24	Km.	122,623.11	10.00	8.00	18.00	22,072.16	7,234.76	29,306.92	151,930.03	46,848.61
	TOTAL OF PART B			1,126,620.13				36,243.37	58,143.17	94,386.55	1,221,006.67	
PART C	**EARTHWORKS**											
100(3)a2	Individual Removal of Trees	1.00	each	957.66	10.00	8.00	18.00	172.38	56.50	228.88	1,186.54	1,186.54
100(3)a3	Individual Removal of Trees	2.00	each	1,915.31	10.00	8.00	18.00	344.76	113.00	457.76	2,373.07	1,186.54
100(4)	Individual Removal of Trees	1.00	each	957.66	10.00	8.00	18.00	172.38	56.50	228.88	1,186.54	1,186.54
101(3b2)	Removal of Existing PCCP	2,644.00	sq.m	320,720.51	10.00	8.00	18.00	57,729.69	18,922.51	76,652.20	397,372.71	150.29
101(4)a1	Removal of Existing RCPC	40.00	ln.m	14,720.00	10.00	8.00	18.00	2,649.60	868.48	3,518.08	18,238.08	455.95
101(2)b	Removal of Existing Headwall	8.00	each	2,894.05	10.00	8.00	18.00	520.93	170.75	691.68	3,585.73	448.22
102(2)	Surplus Common Excavation	25,923.50	cu.m.	8,363,929.96	10.00	8.00	18.00	1,505,507.39	493,471.87	1,998,979.26	10,362,909.22	399.75
102(3)a	Surplus Rock Excavation	5,030.50	cu.m.	4,115,540.68	10.00	8.00	18.00	740,797.32	242,816.90	983,614.22	5,099,154.91	1,013.65
103 (1)a	Structure Excavation	711.50	cu.m.	163,727.28	10.00	8.00	18.00	29,470.91	9,659.91	39,130.82	202,858.11	285.11
103(3)	Foundation Fill	16.50	cu.m.	16,627.02	10.00	8.00	18.00	2,992.86	980.99	3,973.86	20,600.87	1,248.54
103(6)a	Pipe Culvert and Drain Excavation	111.50	cu.m.	25,657.89	10.00	8.00	18.00	4,618.42	1,513.82	6,132.24	31,790.13	285.11
104(1)a1	Embankment from Roadway Excavation	13,151.00	cu.m.	3,045,564.21	10.00	8.00	18.00	548,201.56	179,688.29	727,889.85	3,773,454.05	286.93
105 (1)a	Subgrade Preparation	23,648.00	sq.m.	362,567.19	10.00	8.00	18.00	65,262.10	21,391.46	86,653.56	449,220.75	19.00
	TOTAL OF PART C			16,435,779.42				2,958,440.30	969,710.99	3,928,151.28	20,363,930.71	
PART D	**SUBBASE AND BASE COURSE**											
200 (1)	Aggregate Subbase Course	12,837.00	cu.m.	18,602,302.09	10.00	8.00	18.00	3,348,414.38	1,097,535.82	4,445,950.20	23,048,252.29	1,795.45
	TOTAL OF PART D			18,602,302.09				3,348,414.38	1,097,535.82	4,445,950.20	23,048,252.29	
PART E	**SURFACE COURSES**											
300 (1)	Aggregate Surface Course	889.50	cu.m.	1,341,353.55	10.00	8.00	18.00	241,443.64	79,139.86	320,583.50	1,661,937.04	1,868.39
311(1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	23,315.50	sq.m.	36,917,034.40	10.00	8.00	18.00	6,645,066.19	2,178,105.03	8,823,171.22	45,740,205.62	1,961.79
311(1)a	Portland Cement Concrete Pavement, 0.15m. Thick	4,592.00	sq.m	3,995,140.16	10.00	8.00	18.00	719,125.23	235,713.27	954,838.50	4,949,978.66	1,077.96
	TOTAL OF PART E			42,253,528.11				7,605,635.06	2,492,958.16	10,098,593.22	52,352,121.33	
PART F	**BRIDGE CONSTRUCTION**											
404 (1)a	Reinforcing Steel Bar, Grade 40	14,445.00	kg.	717,326.26	10.00	8.00	18.00	129,118.73	42,322.25	171,440.98	888,767.24	61.53
405 (1) a3	Structural Concrete, Class A	357.00	cu.m	2,658,412.24	10.00	8.00	18.00	478,514.20	156,846.32	635,360.53	3,293,772.77	9,226.25
	TOTAL OF PART F			3,375,738.50				607,632.93	199,168.57	806,801.50	4,182,540.01	
PART G	**DRAINAGE AND SLOPE PROTECTION STRUCTURES**											
500(1)b3	Pipe Culvert & Storm Drain	123.00	ln.m	487,994.21	10.00	8.00	18.00	87,838.96	28,791.66	116,630.62	604,624.83	4,915.65
505(2)a	Grouted Riprap, Class A	28.50	cu.m	117,772.14	10.00	8.00	18.00	21,198.98	6,948.56	28,147.54	145,919.68	5,119.99
506(1)	Stone Masonry	101.00	cu.m	427,154.22	10.00	8.00	18.00	76,887.76	25,202.10	102,089.86	529,244.07	5,240.04
	TOTAL OF PART G			1,032,920.56				185,925.70	60,942.31	246,868.01	1,279,788.57	
PART H	**MISCELLANEOUS STRUCTURES**											
612(1)	Reflectorized Thermoplastic Pavement Markings (White)	775.50	sq.m	565,195.49	10.00	8.00	18.00	101,735.19	33,346.53	135,081.72	700,277.21	903.00
612(2)	Reflectorized Thermoplastic Pavement Markings (Yellow)	211.50	sq.m	171,074.11	10.00	8.00	18.00	30,793.34	10,093.37	40,886.71	211,960.82	1,002.18
	TOTAL OF PART H			736,269.60				132,528.53	43,439.91	175,968.43	912,238.04	
	TOTAL			84,534,233.51				14,947,015.34	3,876,526.62	19,921,077.79	104,455,311.30	

Prepared by:

BELEN A. SAPALLEDA
Head TWG, BAC

Recommending Approval:

CAYAMOMBAO D. DIA
Assistant Regional Director

APPROVED:

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

SUMMARY

Project : **Paving of Unpaved Roads - Secondary Roads Rizal - Dakak - Dapitan Coastal Loop Road**

o.	Description	Quantity	Unit	Labor	Equipment	Materials	OCM	Profit	VAT	TOTAL
	Individual Removal of Trees	1.00	each	217.45	660.21	80.00	95.77	76.61	56.50	1,186.54
	Individual Removal of Trees	2.00	each	434.90	1,320.41	160.00	191.53	153.22	113.00	2,373.07
	Individual Removal of Trees	1.00	each	217.45	660.21	80.00	95.77	76.61	56.50	1,186.54
	Removal of Existing PCCP	2,644.00	sq.m	10,711.51	310,009.00	-	32,072.05	25,657.64	18,922.51	397,372.71
	Removal of Existing RCPC	40.00	ln.m	1,080.33	13,639.67	-	1,472.00	1,177.60	868.48	18,238.08
	Removal of Existing Headwall	8.00	each	140.01	2,754.04	-	289.41	231.52	170.75	3,585.73
	Surplus Common Excavation	25,923.50	cu.m.	71,974.44	8,291,955.52	-	836,393.00	669,114.40	493,471.87	10,362,909.22
	Surplus Rock Excavation	5,030.50	cu.m.	301,439.54	2,199,310.65	1,614,790.50	411,554.07	329,243.25	242,816.90	5,099,154.91
	Structure Excavation	711.50	cu.m.	7,286.83	156,440.46	-	16,372.73	13,098.18	9,659.91	202,858.11
	Foundation Fill	16.50	cu.m.	3,268.45	1,947.00	11,411.57	1,662.70	1,330.16	980.99	20,600.87
	Pipe Culvert and Drain Excavation	111.50	cu.m.	1,141.93	24,515.97	-	2,565.79	2,052.63	1,513.82	31,790.13
	Embankment from Roadway Excavation	13,151.00	cu.m.	77,998.98	2,967,565.23	-	304,556.42	243,645.14	179,688.29	3,773,454.05
	Subgrade Preparation	23,648.00	sq.m.	12,773.86	349,793.33	-	36,256.72	29,005.38	21,391.46	449,220.75
	Aggregate Subbase Course	12,837.00	cu.m.	41,604.72	1,611,043.50	16,949,653.88	1,860,230.21	1,488,184.17	1,097,535.82	23,048,252.29
	Aggregate Surface Course	889.50	cu.m.	2,882.87	78,943.13	1,259,527.55	134,135.35	107,308.28	79,139.86	1,661,937.04
a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	23,315.50	sq.m.	327,891.90	4,864,000.21	31,725,142.29	3,691,703.44	2,953,362.75	2,178,105.03	45,740,205.62
	Portland Cement Concrete Pavement, 0.15m. Thick	4,592.00	sq.m	34,717.03	538,925.10	3,421,498.04	399,514.02	319,611.21	235,713.27	4,949,978.66
	Reinforcing Steel Bar, Grade 40	14,445.00	kg.	42,494.78	32,346.77	642,484.71	71,732.63	57,386.10	42,322.25	888,767.24
3	Structural Concrete, Class A	357.00	cu.m	307,063.35	152,670.67	2,198,678.23	265,841.22	212,672.98	156,846.32	3,293,772.77
	Pipe Culvert & Storm Drain	123.00	ln.m	44,084.43	106,498.44	337,411.34	48,799.42	39,039.54	28,791.66	604,624.83
	Grouted Riprap, Class A	28.50	cu.m	12,073.28	26,869.26	78,829.59	11,777.21	9,421.77	6,948.56	145,919.68
	Stone Masonry	101.00	cu.m	34,228.82	32,394.53	360,530.87	42,715.42	34,172.34	25,202.10	529,244.07
	Reflectorized Thermoplastic Pavement Markings (White)	775.50	sq.m	13,771.95	46,320.62	505,102.93	56,519.55	45,215.64	33,346.53	700,277.21
	Reflectorized Thermoplastic Pavement Markings (Yellow)	211.50	sq.m	3,755.99	12,632.90	154,685.23	17,107.41	13,685.93	10,093.37	211,960.82
	Const. of Field Office for the Engineer	1.00	LS	53,245.60	31,804.56	316,033.62	40,108.38	32,086.70	23,663.94	496,942.80
	Prov. Of Furniture, Equipment and Appliances for Field Engineer	1.00	LS	-	-	244,863.32	-	-	12,243.17	257,106.49
	Operation & Maintenance of Gov't. Service Vehicle	1.00	L.S	91,742.40	-	233,385.60	-	-	16,256.40	341,384.40
	Project Billboard	2.00	Unit	434.90	-	3,878.00	431.29	345.03	254.46	5,343.68
	Occupational Safety & Health Program	1.00	L.S	155,076.12	-	12,360.00	-	13,394.89	9,041.55	189,872.56
	Mobilization and Demobilization	1.00	L.S	-	832,248.00	-	-	-	41,612.40	873,860.40
	Construction Survey and Staking	3.24	Km.	90,250.10	17,673.01	14,700.00	12,262.31	9,809.85	7,234.76	151,930.03
	TOTAL			***1,744,003.89***	***22,704,942.37***	***60,085,287.25***	***8,296,455.81***	***6,650,559.54***	***4,974,062.44***	***104,455,311.30***

: **Paving of Unpaved Roads - Secondary Roads Rizal - Dakak - Dapitan Coastal Loop Road**

: 3,243.00 ln.m.

Description	Quantity	Unit	DURATION # OF DAYS
ual Removal of Trees	1.00	each	0.13
ual Removal of Trees	2.00	each	0.25
ual Removal of Trees	1.00	each	0.13
al of Existing PCCP	2,644.00	sq.m	8.26
al of Existing RCPC	40.00	ln.m	0.83
al of Existing Headwall	8.00	each	0.11
Common Excavation	25,923.50	cu.m.	27.00
Rock Excavation	5,030.50	cu.m.	59.89
re Excavation	711.50	cu.m.	4.45
ation Fill	16.50	cu.m.	1.65
ulvert and Drain Excavation	111.50	cu.m.	0.70
kment from Roadway Excavation	13,151.00	cu.m.	27.29
de Preparation	23,648.00	sq.m.	9.85
gate Subbase Course	12,837.00	cu.m.	32.09
gate Surface Course	889.50	cu.m.	2.22
l Cement Concrete Pavement-using Conventional , 0.28m thick	23,315.50	sq.m.	50.51
l Cement Concrete Pavement, 0.15m. Thick	4,592.00	sq.m	5.35
cing Steel Bar, Grade 40	14,445.00	kg.	10.03
al Concrete, Class A	357.00	cu.m	31.88
ulvert & Storm Drain	123.00	ln.m	15.38
d Riprap, Class A	28.50	cu.m	2.85
Masonry	101.00	cu.m	8.08
orized Thermoplastic Pavement Markings (White)	775.50	sq.m	3.88
orized Thermoplastic Pavement Markings (Yellow)	211.50	sq.m	1.06
of Field Office for the Engineer	1.00	LS	10.00
of Furniture, Equipment and Appliances for Field er	1.00	LS	
ion & Maintenance of Gov't. Service Vehicle	1.00	L.S	207.00
Billboard	2.00	Unit	0.25
ational Safety & Health Program	1.00	L.S	138.00
ation and Demobilization	1.00	L.S	4.00
uction Survey and Staking	3.24	Km.	43.24

WEEKS (6 WORKING DAYS): 1 – 60

TOTAL NO. OF WORKING DAYS	:	138
INCLEMENT WEATHER & CURING TIME	:	46
NUMBER OF SUNDAYS	:	23
TOTAL NO. CALENDAR DAYS	:	**207**

Prepared by:

JERALD R. BARRERA
Engineer II

Submitted by:

LEONCIO B. SOLAMILLO
Chief, Construction Division

APPROVED:

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

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 100(3)a2 Individual Removal of Trees
Unit of Measurement : each
Output per hour : 1.00
Quantity : 1.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	0.13	611.92	76.49
	b. Skilled Laborer	1	0.13	443.20	55.40
	c. Laborer	2	0.13	342.24	85.56
	Sub-total for A			P	217.45
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Backhoe	1	0.03	12,296.00	384.25
	b. Dumptruck	1	0.02	11,360.00	241.40
	c. Chain Saw	1	0.02	602.88	12.81
	Minor Tools (5% of Labor Cost)				21.75
	Sub-total for B			P	660.21
C.	Total (A+B)			P	877.66
D.	Output/day 8.00 each /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Rope, 1" dia.	4.00	m	20.00	80.00
	Sub-total for E			P	80.00
F.	Direct Cost (C+E)				957.66
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		95.77
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		76.61
I.	Value Added Tax (VAT)		5%		56.50
J.	Total Unit Cost				1,186.54

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 100(3)a3 Individual Removal of Trees
Unit of Measurement : each
Output per hour : 1.00
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. Skilled Laborer	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)				
	a. Backhoe	1	0.06	12,296.00	768.50
	b. Dumptruck	1	0.04	11,360.00	482.80
	c. Chain Saw	1	0.04	602.88	25.62
	Minor Tools (5% of Labor Cost)				43.49
	Sub-total for B			P	1,320.41
C.	Total (A+B)			P	1,755.31
D.	Output/day 8.00 each /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Rope, 1" dia.	8.00	m	20.00	160.00
	Sub-total for E			P	160.00
F.	Direct Cost (C+E)				1,915.31
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		191.53
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		153.22
I.	Value Added Tax (VAT)		5%		113.00
J.	Total Unit Cost				1,186.54

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 100(4) Individual Removal of Trees
Unit of Measurement : each
Output per hour : 1.00
Quantity : 1.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	0.13	611.92	76.49
b. Skilled Laborer	1	0.13	443.20	55.40
c. Laborer	2	0.13	342.24	85.56
Sub-total for A			P	217.45
Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B Equipment, (2014 ACEL Rates)				
a. Backhoe	1	0.03	12,296.00	384.25
b. Dumptruck	1	0.02	11,360.00	241.40
c. Chain Saw	1	0.02	602.88	12.81
Minor Tools (5% of Labor Cost)				21.75
Sub-total for B			P	660.21
C. Total (A+B)			P	877.66
D. Output/day 8.00 each /day				
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Rope, 1" dia.	4.00	m	20.00	80.00
Sub-total for E			P	80.00
F. Direct Cost (C+E)				957.66
G. Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		95.77
H. Contractor's Profit (CP)		8% per D.O 197 s 2016		76.61
I. Value Added Tax (VAT)		5%		56.50
J. Total Unit Cost				1,186.54

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 101(3b2) Removal of Existing PCCP
Unit of Measurement : sq.m
Output per hour : 40.00
Quantity : 2,644.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	8.26	611.92	5,055.99
b. Laborer	2	8.26	342.24	5,655.52
Sub-total for A			P	10,711.51
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Backhoe	1	8.26	12,296.00	101,595.70
b. Payloader	1	8.26	13,864.00	114,551.30
c. Dumptruck	1	8.26	11,360.00	93,862.00
Sub-total for B			P	310,009.00
C. Total (A+B)			P	320,720.51
D. Output/day 320.00 sq.m /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Sub-total for E			P	0.00
F. Direct Cost (C+E)				320,720.51
G. Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		32,072.05
H. Contractor's Profit (CP)		8% per D.O 197 s 2016		25,657.64
I. Value Added Tax (VAT)		5%		18,922.51
J. Total Unit Cost				150.29

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 101(4)a1 Removal of Existing RCPC
Unit of Measurement : ln.m
Output per hour : 6.00
Quantity : 40.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	0.83	611.92	509.93
b. Laborer	2	0.83	342.24	570.40
Sub-total for A			P	1,080.33
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Backhoe	1	0.83	12,296.00	10,246.67
b. Boom Truck	1	0.42	8,143.20	3,393.00
Sub-total for B			P	13,639.67
C. Total (A+B)			P	14,720.00
D. Output/day 48.00 ln.m /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Sub-total for E			P	0.00
F. Direct Cost (C+E)				14,720.00
G. Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		1,472.00
H. Contractor's Profit (CP)		8% per D.O 197 s 2016		1,177.60
I. Value Added Tax (VAT)		5%		868.48
J. Total Unit Cost				455.95

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 101(2)b Removal of Existing Headwall
Unit of Measurement : cu.m
Output per hour : 10.00
Quantity : 8.00 each
8.64

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	0.11	611.92	66.09
b. Laborer	2	0.11	342.24	73.92
Sub-total for A			P	140.01
Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B Equipment, (2014 ACEL Rates)				
a. Backhoe w/ breaker	1	0.05	15,984.80	863.18
b. Backhoe	1	0.05	12,296.00	663.98
c. Dumptruck	1	0.11	11,360.00	1,226.88
Sub-total for B			P	2,754.04
C. Total (A+B)			P	2,894.05
D. Output/day 80.00 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)				2,894.05
G. Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	289.41
H. Contractor's Profit (CP)		8%	per D.O 197 s 2016	231.52
I. Value Added Tax (VAT)		5%	per D.O 197 s 2016	170.75
J. Total Unit Cost				448.22

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 102(2) Surplus Common Excavation
Unit of Measurement : cu.m.
Output per hour : 60.00
Quantity : 25,923.5

Use Two (2) gangs

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	27.00	611.92	16,524.07
b. Laborer	6	27.00	342.24	55,450.37
Sub-total for A			P	71,974.44
Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B Equipment, (2014 ACEL Rates)				
a. Bulldozer	2	27.00	27,032.00	1,459,925.11
b. Payloader	2	27.00	13,864.00	748,757.09
c. Payloader	2	20.25	13,864.00	561,567.82
d. Dumptruck	18	27.00	11,360.00	5,521,705.50
Sub-total for B			P	8,291,955.52
C. Total (A+B)			P	8,363,929.96
D. Output/day 960.00 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)				8,363,929.96
G. Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	836,393.00
H. Contractor's Profit (CP)		8%	per D.O 197 s 2016	669,114.40
I. Value Added Tax (VAT)		5%		493,471.87
J. Total Unit Cost				399.75

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 102(3)a Surplus Rock Excavation
Unit of Measurement : cu.m.
Output per hour : 4.20
Quantity : 5,030.5

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	Drilling				
	a. Construction Foreman	1	59.89	611.92	36,645.99
	b. Skilled Laborer	2	59.89	443.20	53,083.75
	c. Laborer	4	59.89	342.24	81,982.78
	Blasting				
	a. Construction Foreman	1	29.94	611.92	18,323.00
	b. Skilled Laborer	1	29.94	443.20	13,270.94
	c. Laborer	2	29.94	342.24	20,495.69
	Disposal				
	a. Construction Foreman	1	59.89	611.92	36,645.99
	b. Laborer	2	59.89	342.24	40,991.39
	Sub-total for A			P	301,439.54
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Backhoe	1	29.94	15,984.80	478,640.10
	b. Payloader	1	22.46	13,864.00	311,352.02
	c. Payloader	1	7.49	13,864.00	103,784.01
	d. Dumptruck	1	59.89	11,360.00	680,315.24
	e. Pneumatic Drilling Machine	2	59.89	1,360.00	162,892.38
	f. Air Compressor	1	59.89	7,720.00	462,326.90
	Sub-total for B			P	2,199,310.65
C.	Total (A+B)			P	2,500,750.18
D.	Output/day 33.60 cu.m /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Dynamite	2,012.20	kg	250.00	503,050.00
	b. Detonation Cord	10,061.00	m	75.00	754,575.00
	c. Detonator	754.58	pc	250.00	188,643.75
	d. Ammonium Sulfate	1,006.10	kg	70.00	70,427.00
	e. Blasting Cap	2,012.20	pc	40.00	80,488.00
	f. Safety Fuse	503.05	m	35.00	17,606.75
	Sub-total for E			P	1,614,790.50
F.	Direct Cost (C+E)				4,115,540.68
G.	Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	411,554.07
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	329,243.25
I.	Value Added Tax (VAT)		5%		242,816.90
J.	Total Unit Cost				1,013.65

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 103 (1)a Structure Excavation
Unit of Measurement : cu.m.
Output per hour : 20.00
Quantity : 711.50

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	4.45	611.92	2,721.13
	b. Laborers	3	4.45	342.24	4,565.70
	Sub-total for A			P	7,286.83
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Dumptruck	2	4.45	11,360.00	101,033.00
	b. Backhoe	1	4.45	12,296.00	54,678.78
	Minor Tools (10% of Labor)				728.68
	Sub-total for B			P	156,440.46
C.	Total (A+B)			P	163,727.28
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
F.	Direct Cost (C+E)				163,727.28
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		16,372.73
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		13,098.18
I.	Value Added Tax (VAT)		5%		9,659.91
J.	Total Unit Cost				285.11

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 103(3) Foundation Fill
Unit of Measurement : cu.m.
Output per hour : 1.25
Quantity : 16.50

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	1.65	611.92	1,009.67
	b. Laborer	4	1.65	342.24	2,258.78
	Sub-total for A			P	3,268.45
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Plate Compactor	1	1.65	984.00	1,623.60
	b. Water Truck	1	0.02	19,600.00	323.40
	c. Minor Tools (10% of Labor)				
	Sub-total for B			P	1,947.00
C.	Total (A+B)			P	5,215.45
D.	Output/day 10.00 cu.m. /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Filling Materials	18.98	cu.m.	601.40	11,411.57
	Sub-total for E			P	11,411.57
F.	Direct Cost (C+E)				16,627.02
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		1,662.70
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		1,330.16
I.	Value Added Tax (VAT)		5%		980.99
J.	Total Unit Cost				1,248.54

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 103(6)a Pipe Culvert and Drain Excavation
Unit of Measurement : cu.m.
Output per hour : 20.00
Quantity : 111.50

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	0.70	611.92	426.43
b. Laborer	3	0.70	342.24	715.50
Sub-total for A			P	1,141.93
Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B Equipment, (2014 ACEL Rates)				
a. Dumptruck	2	0.70	11,360.00	15,833.00
b. Backhoe	1	0.70	12,296.00	8,568.78
Minor Tools (10% of Labor)				114.19
Sub-total for B			P	24,515.97
C. Total (A+B)			P	25,657.89
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
F. Direct Cost (C+E)				25,657.89
G. Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	2,565.79
H. Contractor's Profit (CP)		8%	per D.O 197 s 2016	2,052.63
I. Value Added Tax (VAT)		5%		1,513.82
J. Total Unit Cost				285.11

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 104(1)a1 Embankment from Roadway Excavation
Unit of Measurement : cu.m.
Output per hour : 50.00
Quantity : 13,151.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
For Excavation Work				
a. Construction Foreman	1	27.29	611.92	16,698.27
b. Laborer	2	27.29	342.24	18,678.31
Spreading & Compaction				
a. Construction Foreman	1	32.88	611.92	20,118.40
b. Laborer	2	32.88	342.24	22,503.99
Sub-total for A			P	77,998.98
Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B Equipment, (2014 ACEL Rates)				
For Excavation Work				
a. Bulldozer	1	27.29	27,032.00	737,658.00
b. Payloader	1	27.29	13,864.00	378,325.34
c. Dumptruck	2	27.29	11,360.00	619,990.74
Spreading and Compaction				
a. Road Grader	1	32.88	17,384.00	571,542.46
b. Road Roller	1	32.88	13,216.00	434,509.04
c. Water Truck	1	11.51	19,600.00	225,539.65
Sub-total for B			P	2,967,565.23
C. Total (A+B)			P	3,045,564.21
D. Output/day 400.00 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)				3,045,564.21
G. Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		304,556.42
H. Contractor's Profit (CP)		8% per D.O 197 s 2016		243,645.14
I. Value Added Tax (VAT)		5%		179,688.29
J. Total Unit Cost				286.93

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	: Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO
Item No./Description	: 105 (1)a Subgrade Preparation
Unit of Measurement	: sq.m.
Output per hour	: 300.00
Quantity	: 23,648.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	9.85	611.92	6,029.45
	b. Laborer	2	9.85	342.24	6,744.41
	Sub-total for A			P	12,773.86
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Road Grader	1	9.85	17,384.00	171,290.35
	b. Road Roller	1	9.85	13,216.00	130,221.65
	c. Water Truck	1	2.46	19,600.00	48,281.33
	Sub-total for B			P	349,793.33
C.	Total (A+B)			P	362,567.19
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
F.	Direct Cost (C+E)				362,567.19
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		36,256.72
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		29,005.38
I.	Value Added Tax (VAT)		5%		21,391.46
J.	Total Unit Cost				19.00

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 200 (1) Aggregate Subbase Course
Unit of Measurement : cu.m.
Output per hour : 50.00
Quantity : 12,837.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	32.09	611.92	19,638.04
	b. Laborer	2	32.09	342.24	21,966.67
	Sub-total for A			P	41,604.72
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Road Grader	1	32.09	17,384.00	557,896.02
	b. Road Roller	1	32.09	13,216.00	424,134.48
	c. Water Truck	1	32.09	19,600.00	629,013.00
	Sub-total for B			P	1,611,043.50
C.	Total (A+B)			P	1,652,648.22
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%)	16,046.25	cu.m.	1,056.30	16,949,653.88
	Sub-total for E			P	16,949,653.88
F.	Direct Cost (C+E)				18,602,302.09
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		1,860,230.21
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		1,488,184.17
I.	Value Added Tax (VAT)		5%		1,097,535.82
J.	Total Unit Cost				1,795.45

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO
Item No./Description	:	300 (1) Aggregate Surface Course
Unit of Measurement	:	cu.m.
Output per hour	:	50.00
Quantity	:	889.50

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	2.22	611.92	1,360.76
	b. Laborer	2	2.22	342.24	1,522.11
	Sub-total for A			P	2,882.87
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Road Grader	1	2.22	17,384.00	38,657.67
	b. Road Roller	1	2.22	13,216.00	29,389.08
	c. Water Truck	1	0.56	19,600.00	10,896.38
	Sub-total for B			P	78,943.13
C.	Total (A+B)			P	81,825.99
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%)	1,022.93	cu.m.	1,231.30	1,259,527.55
	Sub-total for E			P	1,259,527.55
F.	Direct Cost (C+E)				1,341,353.55
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		134,135.35
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		107,308.28
I.	Value Added Tax (VAT)		5%		79,139.86
J.	Total Unit Cost				1,868.39

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 311(1)e1a Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick

Unit of Measurement : sq.m.

Output per hour : 57.70

Quantity : 23,315.50

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	50.51	611.92	30,908.19
b. Skilled	4	50.51	443.20	89,544.45
c. Laborer	12	50.51	342.24	207,439.26
Sub-total for A			P	327,891.90
Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B Equipment, (2014 ACEL Rates)				
a. Transit Mixer	4	50.51	10,544.00	2,130,317.44
b. Concrete Vibrator	2	50.51	730.00	73,744.87
c. Batching Plant	1	50.51	14,076.00	710,981.32
d. Pay Loader	1	50.51	13,864.00	700,273.16
e. Concrete Screeder	1	50.51	4,360.00	220,224.39
f. Water Truck	1	50.51	19,600.00	989,999.57
g. Concrete Saw	1	50.51	261.04	13,185.18
h. Bar Cutter	1	5.05	1,758.00	8,879.69
Minor Tools (5% of labor)				16,394.59
Sub-total for B			P	4,864,000.21
C. Total (A+B)			P	5,191,892.11
D. Output/day 461.60 sq.m.	/day			
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Reinforcing Steel Bar	11,657.75	kg	41.00	477,967.75
b. Curing Compound	6,761.50	lit	40.00	270,459.80
c. Asphalt Sealant	3,963.64	lit	75.00	297,272.63
d. Sand	3,590.59	cu.m	1,206.30	4,331,325.10
e. Gravel	6,528.34	cu.m	1,156.30	7,548,719.54
f. Cement	62,019.23	bag	291.84	18,099,904.50
g. Concrete Saw	3.50	pc	8,000.00	27,978.60
h. Pipe Sleeve, 2" dia.	181.86	l.m	133.00	24,187.50
i. Grease/Tar	181.86	lit	21.00	3,819.08
j. Steel Forms	10,725.13	lit	60.00	643,507.80
Sub-total for E			P	31,725,142.29
F. Direct Cost (C+E)				36,917,034.40
G. Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	3,691,703.44
H. Contractor's Profit (CP)		8%	per D.O 197 s 2016	2,953,362.75
I. Value Added Tax (VAT)		5%		2,178,105.03
J. Total Unit Cost				1,961.79

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd 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 : 4,592.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	5.35	611.92	3,272.54
	b. Skilled	4	5.35	443.20	9,480.92
	c. Laborer	12	5.35	342.24	21,963.56
	Sub-total for A			P	34,717.03
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Transit Mixer	4	5.35	10,544.00	225,556.92
	b. Concrete Vibrator	2	5.35	730.00	7,808.07
	c. Batching Plant	1	5.35	14,076.00	75,278.34
	d. Pay Loader	1	5.35	13,864.00	74,144.56
	e. Concrete Screeder	1	5.35	4,360.00	23,317.25
	f. Water Truck	1	5.35	19,600.00	104,820.65
	g. Concrete Saw	1	5.35	261.04	1,396.04
	h. Bar Cutter	1	0.53	1,758.00	940.18
	Minor Tools (5% of Labor)				25,663.10
	Sub-total for B			P	538,925.10
C.	Total (A+B)			P	573,642.12
D.	Output/day 858.64 sq.m /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Reinforcing Steel Bar	1,515.36	kg	41.00	62,129.76
	b. Curing Compound	1,331.68	lit	40.00	53,267.20
	c. Asphalt Sealant	551.04	lit	75.00	41,328.00
	d. Steel Form	2,112.32	l.m	40.00	84,492.80
	e. Sand	378.84	cu.m	1,206.30	456,994.69
	f. Gravel	688.80	cu.m	1,156.30	796,459.44
	g. Cement	6,566.56	bag	291.84	1,916,407.36
	h. Concrete Saw	0.69	pc	8,000.00	5,510.40
	i. Pipe Sleeve, 1" dia.	35.82	l.m	133.00	4,763.74
	j. Grease/Tar	6.89	lit	21.00	144.65
	Sub-total for E			P	3,421,498.04
F.	Direct Cost (C+E)				3,995,140.16
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		399,514.02
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		319,611.21
I.	Value Added Tax (VAT)		5%		235,713.27
J.	Total Unit Cost				1,077.96

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 404 (1)a Reinforcing Steel Bar, Grade 40
Unit of Measurement : kg.
Output per hour : 180.00
Quantity : 14,445.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	10.03	611.92	6,138.32
	b. Skilled Laborer	2	10.03	443.20	8,891.70
	c. Laborer	8	10.03	342.24	27,464.76
	Sub-total for A			P	42,494.78
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2009 ACEL Rates)				
	a. Bar Cutter	1	5.02	1,758.00	8,817.47
	b. Bar Bender	1	5.02	2,812.00	14,103.94
	c. Cargo Truck	1	1.50	6,264.00	9,425.36
	Sub-total for B			P	32,346.77
C.	Total (A+B)			P	74,841.55
D.	Output/day 1,440.00 kg. /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Tie Wire	303.35	kg	68.00	20,627.46
	b. Reinforcing Steel Bar, Grade 40	15,167.25	kg	41.00	621,857.25
	Sub-total for E			P	642,484.71
F.	Direct Cost (C+E)				717,326.26
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		71,732.63
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		57,386.10
I.	Value Added Tax (VAT)		5%		42,322.25
J.	Total Unit Cost				61.53

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 405 (1) a3 Structural Concrete, Class A
Unit of Measurement : cu.m
Output per hour : 1.40
Quantity : 357.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	31.88	611.92	19,504.95
	b. Skilled Laborer	4	31.88	443.20	56,508.00
	c. Laborer	8	31.88	342.24	87,271.20
	Installation/Removal of Form Works				
	a. Skilled Laborer	4	31.88	443.20	56,508.00
	b. Laborer	8	31.88	342.24	87,271.20
	Sub-total for A			P	307,063.35
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	31.88	1,376.00	43,860.00
	b. Concrete Vibrator	1	31.88	972.00	30,982.50
	c. Water Truck	1	3.19	19,600.00	62,475.00
	Minor Tools (5% of Labor)				15,353.17
	Sub-total for B			P	152,670.67
C.	Total (A+B)			P	459,734.02
D.	Output/day 11.20 cu.m /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Form Lumber	8,330.00	bd.ft	40.00	333,200.00
	b. Plywood	190.40	pc	1,211.00	230,574.40
	c. Assorted CW Nails	249.90	kg.	68.00	16,993.20
	d. Portland Cement	3,391.50	bag	291.84	989,786.98
	e. Sand	178.50	cu.m	1,206.30	215,324.55
	f. Gravel	357.00	cu.m	1,156.30	412,799.10
	Sub-total for E			P	2,198,678.23
F.	Direct Cost (C+E)				2,658,412.24
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		265,841.22
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		212,672.98
I.	Value Added Tax (VAT)		5%		156,846.32
J.	Total Unit Cost				9,226.25

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 500(1)b3 Pipe Culvert & Storm Drain
Unit of Measurement : ln.m
Output per hour : 1.00
Quantity : 123.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	15.38	611.92	9,408.27
	b. Skilled Laborer	2	15.38	443.20	13,628.40
	c. Laborer	4	15.38	342.24	21,047.76
	Sub-total for A			P	44,084.43
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Backhoe	1	7.69	12,296.00	94,525.50
	b. Plate Compactor	1	7.69	984.00	7,564.50
	Minor Tools (10% of Labor)				4,408.44
	Sub-total for B			P	106,498.44
C.	Total (A+B)			P	150,582.87
D.	Output/day 8.00 ln.m /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Portland Cement	132.84	bag	291.84	38,768.48
	b. Sand	7.50	cu.m	1,206.30	9,050.87
	c. RC Pipes (910 mm dia.)	123.00	pc	2,200.00	270,600.00
	d. Sand Bedding	15.74	cu.m	1,206.30	18,991.99
	Sub-total for E			P	337,411.34
F.	Direct Cost (C+E)				487,994.21
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		48,799.42
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		39,039.54
I.	Value Added Tax (VAT)		5%		28,791.66
J.	Total Unit Cost				4,915.65

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 505(2)a Grouted Riprap, Class A
Unit of Measurement : cu.m
Output per hour : 1.25
Quantity : 28.50

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	2.85	611.92	1,743.97
	b. Skilled Laborer	2	2.85	443.20	2,526.24
	c. Laborer	8	2.85	342.24	7,803.07
	Sub-total for A			P	12,073.28
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	2.85	1,376.00	3,921.60
	b. Water Truck	1	1.14	19,600.00	22,344.00
	Minor Tools (5% of Labor)				603.66
	Sub-total for B			P	26,869.26
C.	Total (A+B)			P	38,942.55
D.	Output/day 10.00 cu.m /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cement	85.50	bag	291.84	24,952.61
	b. Sand	7.13	cu.m	1,206.30	8,594.89
	c. Gravel Fill	0.43	cu.m	1,156.30	494.32
	d. Weep Holes (PVC), 2" dia.	8.55	ln.m	133.00	1,137.15
	e. Filter Cloth	0.43	sq.m	160.00	68.40
	f. Boulders	29.93	cu.m	1,430.30	42,801.73
	Miscellaneous (1% of Materials)				780.49
	Sub-total for E			P	78,829.59
F.	Direct Cost (C+E)				117,772.14
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		11,777.21
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		9,421.77
I.	Value Added Tax (VAT)		5%		6,948.56
J.	Total Unit Cost				5,119.99

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 506(1) Stone Masonry
Unit of Measurement : cu.m
Output per hour : 1.56
Quantity : 101.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	8.08	611.92	4,944.31
b. Skilled Laborer	2	8.08	443.20	7,162.11
c. Laborer	8	8.08	342.24	22,122.39
Sub-total for A			P	34,228.82
Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B Equipment, (2014 ACEL Rates)				
a. One Bagger Mixer	1	8.08	1,376.00	11,118.08
b. Water Truck	1	0.40	19,600.00	7,918.40
c. Backhoe	1	0.81	12,296.00	9,935.17
Minor Tools (10% of Labor)				3,422.88
Sub-total for B			P	32,394.53
C. Total (A+B)			P	66,623.35
D. Output/day 12.50 cu.m /day				
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Cement	555.50	bag	291.84	162,119.02
b. Sand	30.30	cu.m	1,206.30	36,550.89
c. Gravel Fill	2.02	cu.m	1,156.30	2,335.73
d. Weep Holes (PVC)	30.30	ln.m	133.00	4,029.90
e. Filter Cloth	1.52	sq.m	160.00	242.40
f. Boulders	106.05	cu.m	1,430.30	151,683.32
Miscellaneous (1% of Materials)				3,569.61
Sub-total for E			P	360,530.87
F. Direct Cost (C+E)				427,154.22
G. Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		42,715.42
H. Contractor's Profit (CP)		8% per D.O 197 s 2016		34,172.34
I. Value Added Tax (VAT)		5%		25,202.10
J. Total Unit Cost				5,240.04

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO
Item No./Description	:	612(1) Reflectorized Thermoplastic Pavement Markings (White)
Unit of Measurement	:	sq.m
Output per hour	:	25.00
Quantity	:	775.50

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	3.88	611.92	2,372.72
	b. Skilled Laborer	2	3.88	443.20	3,437.02
	c. Laborer	6	3.88	342.24	7,962.21
	Sub-total for A			P	13,771.95
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Cargo Truck/Delivery Truck	1	3.88	9,696.00	37,596.24
	b. Applicator Machine	1	3.88	750.00	2,908.13
	c. Kneading Machine	1	3.88	1,500.00	5,816.25
	Minor Tools (10% of labor)				
	Sub-total for B			P	46,320.62
C.	Total (A+B)			P	60,092.56
D.	Output/day 200.00 sq.m /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Thermoplastic Paint (white)	252.04	bag	1,585.00	399,479.44
	b. Glass Beads	25.59	bag	2,500.00	63,978.75
	c. Primer	93.06	liter	180.00	16,750.80
	d. LPG (50 kg.)	3.10	cyl	90.00	279.18
	e. LPG (12 kg.)	1.55	cyl	50.00	77.55
	f. Calsumine	96.94	kg	5.00	484.69
	Miscellaneous (5% of Materials)				24,052.52
	Sub-total for E			P	505,102.93
F.	Direct Cost (C+E)				565,195.49
G.	Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	56,519.55
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	45,215.64
I.	Value Added Tax (VAT)		5%		33,346.53
J.	Total Unit Cost				903.00

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : 612(2) Reflectorized Thermoplastic Pavement Markings (Yellow)
Unit of Measurement : sq.m
Output per hour : 25.00
Quantity : 211.50

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	1.06	611.92	647.11
	b. Skilled Laborer	2	1.06	443.20	937.37
	c. Laborer	6	1.06	342.24	2,171.51
	Sub-total for A			P	3,755.99
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Cargo Truck/Delivery Truck	1	1.06	9,696.00	10,253.52
	b. Applicator Machine	1	1.06	750.00	793.13
	c. Kneading Machine	1	1.06	1,500.00	1,586.25
	Minor Tools (10% of labor)				
	Sub-total for B			P	12,632.90
C.	Total (A+B)			P	16,388.88
D.	Output/day 200.00 sq.m /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Thermoplastic Paint (yellow)	68.74	bag	1,800.00	123,727.50
	b. Glass Beads	6.98	bag	2,500.00	17,448.75
	c. Primer	25.38	liter	233.00	5,913.54
	d. LPG (50 kg.)	0.85	cyl	90.00	76.14
	e. LPG (12 kg.)	0.42	cyl	50.00	21.15
	f. Calsumine	26.44	kg	5.00	132.19
	Miscellaneous (5% of Materials)				7,365.96
	Sub-total for E			P	154,685.23
F.	Direct Cost (C+E)				171,074.11
G.	Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	17,107.41
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	13,685.93
I.	Value Added Tax (VAT)		5%		10,093.37
J.	Total Unit Cost				1,002.18

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd 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)				5,324.56
	Sub-total for B			P	31,804.56
C.	Total (A+B)			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	1,156.30	4,047.05
	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	291.84	26,265.91
	b. Crushed Gravel	20.00	cu.m	1,156.30	23,126.00
	c. Washed Sand	17.00	cu.m	1,206.30	20,507.10
	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	291.84	14,592.17
	c. Washed Sand	10.00	cu.m	1,206.30	12,063.00
	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				172,507.27
	Sub-total for E			P	316,033.62
F.	Direct Cost (C+E)				401,083.78
G.	Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	40,108.38
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	32,086.70
I.	Value Added Tax (VAT)		5%		23,663.94
J.	Total Unit Cost				496,942.80

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd 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
C.	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. Teckscrew 11/2"	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 tanguile	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
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%		
J.	Total Unit Cost				

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd 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 Flourescent lighting fixtures	5.00	set	1,500.00	7,500.00
	b. Porcelain Ceiling Outlet w/ femal	2.00	pc	50.00	100.00
	c. douplex Convinience 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%		
J.	Total Unit Cost				

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

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
C. 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 dinning 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	4.60	mons	1,200.00	5,520.00
b. Water Bill	4.60	mons	1,000.00	4,600.00
c. LPG Gasul (11 kg)	4.60	mons	1,000.00	4,600.00
Sub-Total for E				244,863.32
Sub-total for E			P	244,863.32
F. Direct Cost (C+E)				244,863.32
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%		12,243.17
J. Total Unit Cost				257,106.49

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd 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	207.00	443.20	91,742.40
	Sub-total for A			P	91,742.40
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	Sub-total for B			P	0.00
C.	Total (A+B)			P	91,742.40
D.	Output/day 0.00 L.S	/day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Liters, Diesel Fuel	2,070.00	liters	35.00	72,450.00
	b. Engine Oil & Lubricants	1.00	ls	22,935.60	22,935.60
	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	233,385.60
F.	Direct Cost (C+E)				325,128.00
G.	Overhead, Contingencies and Miscellaneous		0%	per D.O 197 s 2016	0.00
H.	Contractor's Profit (CP)		0%	per D.O 197 s 2016	0.00
I.	Value Added Tax (VAT)		5%		16,256.40
J.	Total Unit Cost				341,384.40

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd 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
C.	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	345.00	690.00
	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	44.00	88.00
	Sub-total for E			P	3,878.00
F.	Direct Cost (C+E)				4,312.90
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		431.29
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		345.03
I.	Value Added Tax (VAT)		5%		254.46
J.	Total Unit Cost				2,671.84

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd 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	103.50	611.92	63,333.72
	b. First Aider	1	207.00	443.20	91,742.40
	Sub-total for A			P	155,076.12
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	Sub-total for B			P	0.00
C.	Total (A+B)			P	155,076.12
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
F.	Direct Cost (C+E)				167,436.12
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	13,394.89
I.	Value Added Tax (VAT)		5%		9,041.55
J.	Total Unit Cost				189,872.56

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd 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	1	4.00	19,600.00	78,400.00
c. Backhoe	1	4.00	12,296.00	49,184.00
d. Payloader	2	4.00	13,864.00	110,912.00
e. Dumptruck	2	4.00	11,360.00	90,880.00
f. Bullduzer	1	4.00	27,032.00	108,128.00
g. Road Roller	1	4.00	13,216.00	52,864.00
h. Road Grader	1	4.00	17,384.00	69,536.00
Sub-total for B			P	832,248.00
C. Total (A+B)			P	832,248.00
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
F. Direct Cost (C+E)				832,248.00
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%		41,612.40
J. Total Unit Cost				873,860.40

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Road Rizal - Dakak - Dapitan Coastal Loop Road, Zamboanga del Norte 3rd DEO

Item No./Description : B.4(1) Construction Survey and Staking
Unit of Measurement : Km.
Output per hour : 0.04
Quantity : 3.24

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	(For Field Works)				
	a. Geodetic Engineer	1	10.81	833.31	9,008.08
	b. Skilled Laborer	3	10.81	443.20	14,372.98
	c. Laborer	3	10.81	342.24	11,098.84
	(For Office Works)				
	a. Geodetic Engineer	1	32.43	833.31	27,024.24
	b. Skilled Laborer	2	32.43	443.20	28,745.95
	Sub-total for A			P	90,250.10
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Total Station w/ complete accessories	1	10.81	800.00	8,648.00
	Minor Tools (10% of labor)				9,025.01
	Sub-total for B			P	17,673.01
C.	Total (A+B)			P	107,923.11
D.	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
F.	Direct Cost (C+E)				122,623.11
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		12,262.31
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		9,809.85
I.	Value Added Tax (VAT)		5%		7,234.76
J.	Total Unit Cost				46,848.61

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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*

Weight of Dumptruck (cap. 10.00 cu.m.)	: *16,000.00*	kgs
Unit Weight of Fine Aggrgates	: *1,640.00*	kg/cu.m.
Unit Weight of Course Aggrgates	: *1,534.00*	kg/cu.m.
Maximum Volumeto 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

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

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

Loading & Unloading = *5.00* *mins.*

Capacity of Dumptruck = *10.00* *cu.m.*

Total Cycle Time = *22.50* *mins.*

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

Dumptruck Daily Outpout = *10.00* X *21.33* = *213.33* cu.m.

Using 4 Dumptruck = *213.33* X *4.00* = *853.33* cu.m.

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

EQUIPMENT USED: (2009 ACEL RATES)

4.00 - Unit Dumptruck @ P 10,816.00 / day X 1.17 days = P 50,700.00

Sub-Total **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 3RD 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	45.00	X	10.14	=	456.30	+	750.00	=	1,206.30
Cost of Coarse Aggregates	45.00	X	10.14	=	456.30	+	700.00	=	1,156.30
Cost of Item 200 Materails	45.00	X	10.14	=	456.30	+	600.00	=	1,056.30
Cost of Item 201 Materails	45.00	X	10.14	=	456.30	+	650.00	=	1,106.30
Cost of Item 300 Materails	45.00	X	10.14	=	456.30	+	775.00	=	1,231.30
Cost of Boulders	45.00	X	10.14	=	456.30	+	974.00	=	1,430.30
Cost of Embankment, Common Borrow	10.00	X	10.14	=	101.40	+	400.00	=	501.40
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	62,019.23
Portland Cement Concrete Pavement, 0.15m. Thick	6,566.56
Structural Concrete, Class A	3,391.50
Grouted Riprap, Class A	85.50
Stone Masonry	555.50
Const. of Field Office for the Engineer	90.00
	50.00
Concrete Structure (Lean Concrete)	-
TOTAL	***72,758.29***

Quantity = 72,758.29 Bags

Delivery Charge = P 0.12 /bag/km

SITE	*HAULING DISTANCE*
Zamboanga del Norte 3rd DEO PROJECT SITE	50.00

* Average Hauling Distance from source to assumed stockpilling area:
say 50.00 km.

Delivery Charge = P 0.12 X 50.00
Delivery Charge = P 6.00 /bag

* Delivery Truck : 72,758.29 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 $= \frac{50.00 \times 60.00}{30.00} =$ 100 mins.

Unloading Running $= \frac{50.00 \times 60.00}{40.00} =$ 75 mins.

Loading & Unloading = *45.00 mins.*
Capacity of Dumptruck = *8.00 cu.m.*
500.00 bags
Total Cycle Time = *220.00 mins.*

No. of trips for Dumptruck per day	=	$\frac{8.00 \times 60.00}{220.00}$	=	2.18	trips
Dumptruck Daily Outpout	=	*500.00 X 2.18*	=	*1,090.91*	cu.m.
Using 4 Dumptruck	=	*1,090.91 X 4.00*	=	*4,363.64*	cu.m.
No. of Days for Dumptruck	=	$\frac{72{,}758.29}{4{,}363.64}$	=	16.67	days
No. of Days for Labor for unloading	=	complimentary to D.Truck days	=	16.67	days

DELIVERY COST:

72,758.29	Bags, Portland Cement	@	P	6.00	/bag	=	P	436,549.74
					Sub-total			**436,549.74**

LABOR:

1	Foreman	@	P	558.00	/day	X	16.67	days	=	P	9,303.97
10	Laborers	@	P	312.24	/day	X	16.67	days	=		52,062.19
								Sub-total			**61,366.16**

MATERIALS:

72,758.29	Bags, Portland Cement	@	P	285.00	/bag	=	P	20,736,112.65
					Sub-total			**20,736,112.65**

Estimated Quantity : 72,758.29 Bags

Unit Cost	P	291.84
Grand Total	P	21,234,028.55
Delivery Cost	P	436,549.74
Labor	P	61,366.16
Materials	P	20,736,112.65