

Republic of the Philippines
Department of Public Works and Highways

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

PROGRAM OF WORK

(For all types of Project)

Date : _____

NAME OF PROJECT : Road Widening - Secondary Road Zamboanga City - Labuan - Limpapa Road LOCATION: Zamboanga City 1st LD PROJECT CATEGORY : NATIONAL ROAD PROJECT DESCRIPTION : Scope of Work : Road Widening Road Width : 6.70 m. Roadbed Width : 12.00 m. Subbase Course : 0.30 m. thk.	Appropriation : P 114,596,000.00 Source of Funds : CY-2018 GAA Issued Obligated Authority : Released : Cal. Days to Complete : 190 Calendar Days Desirable Starting Date : upon approval Mode of Implementation : by contract Station Limits: 1973+790.00 - 1973+976.00 BS 1974+485.00 - 1978+000.00 BS Net Length: 3,690.00 In.m. / 3.69 km. Lane Kilometer: 7.38 km.
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MINIMUM EQUIPMENT REQUIREMENT :

TECHNICAL PERSONNEL REQUIRED :

Description	No.	Description	No.	Description	No.
Dump Truck	12	Water Pump	1	Project Engineer	1
Transti Mixer	4	Concrete Screeder	1	Materials Engineer	1
Bulldozer	2	Concrete Vibrator	2	Geometric Surveyor	1
Backhoe	3	Concrete Cutter	2	Foreman	1
Road Grader	2	Bar Cutter	1	Materials Lab. Tech.	1
Road Roller	2	Bar Bender	1	Mason	12
Payloader	4	One Bagger Mixer	2	Carpenter	8
Water Truck	2	Batching Plant	1	Laborers (Skilled)	20
Water Tank	2	Plate Compactor	1	Laborers (Unskilled)	30
Kneading Machine	1	Cargo Truck	1	Safety Practitioner	1
Applicator Machine	1				

ESTIMATED COST OF PROPOSED WORK

ITEM NO.	DESCRIPTION	% OF TOTAL	UNIT	QUANTITY	DIRECT COST	
					TOTAL	UNIT COST
PART A - FACILITIES FOR THE ENGINEER						
A.1.1 (3)	Construction of Field Office for the Engineer	0.45	L.S.	1.00	389,961.51	389,961.51
A.1.1 (11)	Provision of Furnitures/Fixtures, Equipment and Appliances for the Field Office for the Field Engineer	0.33	L.S.	1.00	286,173.33	286,173.33
A.1.2(5)	Operation and Maintenance of 4x4 Pick Up Type Service Vehicle for the Engineer	0.25	month	6.33	217,975.80	34,417.23
PART B - OTHER GENERAL REQUIREMENTS						
B.4(1)	Construction Survey & Staking	0.17	km.	3.69	152,530.05	41,336.06
B.5	Project Billboard/Signboard	0.01	each	2.00	10,809.20	5,404.60
B.7	Occupation Safety and Health Program	0.26	month	6.33	229,100.40	36,173.75
B.9	Mobilization & Demobilization	0.86	L.S.	1.00	749,543.00	749,543.00
PART C - EARTHWORKS						
101 (3)b1	Removal of Actual Structures/Obstruction	0.03	Sq.m	274.00	25,314.07	92.39
102(2)	Surplus Common Excavation	4.00	cu.m.	24,088.00	3,490,035.05	144.89
103(1)a	Structure Excavation	0.21	cu.m.	801.00	184,322.64	230.12
103(3)	Foundation Fill	0.05	cu.m.	27.00	43,036.82	1,593.96
103(6)a	Pipe Culverts and Drain Excavation	0.02	cu.m.	65.00	14,957.52	230.12
104(1)a	Embankment from Roadway Excavation	6.86	cu.m.	25,950.00	5,983,141.77	230.56
105(1)a	Subgrade Preparation	0.51	sq.m.	27,983.00	447,126.37	15.98

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(For all types of Project)

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ESTIMATED COST OF PROPOSED WORK

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PART A - FACILITIES FOR THE ENGINEER						
A.1.1(3)	Construction of Field Office for the Engineer	0.45	L.S.	1.00	389,961.51	389,961.51
A.1.1(11)	Provision of Furnitures/Fixtures, Equipment and Appliances for the Field Office for the Field Engineer	0.33	L.S.	1.00	286,173.33	286,173.33
A.1.2(5)	Operation and Maintenance of 4x4 Pick Up Type Service Vehicle for the Engineer	0.25	month	6.33	217,975.80	34,417.23
PART B - OTHER GENERAL REQUIREMENTS						
B.4(1)	Construction Survey & Staking	0.17	km.	3.69	152,530.05	41,336.06
B.5	Project Billboard/Signboard	0.01	each	2.00	10,809.20	5,404.60
B.7	Occupation Safety and Health Program	0.26	month	6.33	229,100.40	36,173.75
B.9	Mobilization & Demobilization	0.86	L.S.	1.00	749,543.00	749,543.00
PART C - EARTHWORKS						
101(3)b1	Removal of Actual Structures/Obstruction	0.03	Sq.m	274.00	25,314.07	92.39
102(2)	Surplus Common Excavation	4.00	cu.m.	24,088.00	3,490,035.05	144.89
103(1)a	Structure Excavation	0.21	cu.m.	801.00	184,322.64	230.12
103(3)	Foundation Fill	0.05	cu.m.	27.00	43,036.82	1,593.96
103(6)a	Pipe Culverts and Drain Excavation	0.02	cu.m.	65.00	14,957.52	230.12
104(1)a	Embankment from Roadway Excavation	6.86	cu.m.	25,950.00	5,983,141.77	230.56
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ITEM NO.	DESCRIPTION	% OF TOTAL	UNIT	QUANTITY	DIRECT COST	
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PART D - SUBBASE AND BASE COURSE						
200(1)	Aggregate Subbase Course	19.70	cu.m.	13,866.00	17,176,701.62	1,238.76
PART E - SURFACE COURSES						
300(1)	Gravel Surface Course	2.73	cu.m.	1,826.00	2,377,477.56	1,302.01
311(1)e1	Portland Cement Concrete Pavement	45.00	sq.m.	24,723.00	39,233,536.18	1,586.92
PART G - DRAINAGE AND SLOPE PROTECTION STRUCTURES						
404(1)a	Reinforcing Steel Bar, Grade 40	0.72	kg.	13,264.62	625,010.84	47.12
404(1)b	Reinforcing Steel Bar, Grade 60	0.83	kg.	14,738.11	725,389.71	49.22
405(1)a3	Structural Concrete, Class A	6.19	cu.m.	786.00	5,399,792.07	6,869.96
407(8)	Concrete Structures (Lean Concrete)	0.03	cu.m.	10.76	27,438.32	2,550.03
500(1)a1	Reinforced Concrete Culvert Pipe (610mm dia.)	0.08	Ln.m	38.00	68,281.39	1,796.88
500(1)a3	Reinforced Concrete Culvert Pipe (910mm dia.)	0.15	Ln.m	46.00	128,054.73	2,783.80
500(1)a5	Reinforced Concrete Culvert Pipe (1220mm dia.)	0.59	Ln.m	93.00	512,073.99	5,506.17
505(5)	Grouted Riprap, Class A	0.38	cu.m	93.00	333,082.20	3,581.53
506(1)	Stone Masonry	0.61	cu.m	156.00	528,780.91	3,389.62
PART H - MISCELLANEOUS STRUCTURES						
603(3)a1	Metal Guardrail (Metal Beam) Including Post	6.09	Ln.m	1,236.00	5,307,927.02	4,294.44
612(1)	Reflectorized Thermoplastic Pavement Markings (White)	0.78	sq.m.	923.00	682,212.13	739.12
622 (1)a	Coco-net	0.73	sq.m.	4,628.00	633,860.41	136.96
622 (1)b	Coco-net	0.18	sq.m.	1,116.00	152,849.66	136.96
622 (2)c	Coco-logs/Fascine	0.41	ln.m	710.00	357,276.88	503.21
622 (3)b	Vegetation	0.79	sq.m.	5,743.00	690,653.67	120.26
TOTAL		100.00			P 87,184,426.79	

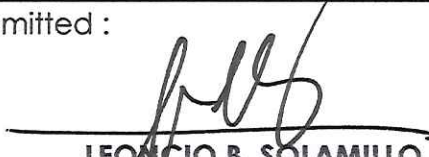
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622 (2)c	Coco-logs/Fascine	0.41	ln.m	710.00	357,276.88	503.21
622 (3)b	Vegetation	0.79	sq.m.	5,743.00	690,653.67	120.26
TOTAL		100.00			P 87,184,426.79	

NAME OF PROJECT : Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Zamboanga City

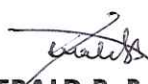
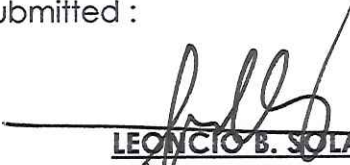
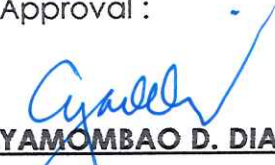
BREAKDOWN OF ESTIMATED EXPENDITURES	% OF TOTAL	AMOUNT
I. ESTIMATED COST		
A. DIRECT COST		
A.1. Labor	1.91	2,187,967.22
A.2. Equipment Expenses	15.82	18,126,729.05
A.3. Materials	58.35	66,869,730.51
SUB-TOTAL (DIRECT COST)	76.08	P 87,184,426.79
B. INDIRECT COST (Per D.O. # 197, s. 2016)		
B.1. Overhead, Contingency & Misc. (10 % Max. of D.C.)	7.48	8,570,163.43
B.2. Profit (8 % Max. of D.C.)	6.02	6,897,352.64
C. VAT (5% of D.C. and I.C. Per D.O. # 197, s. 2016)	4.48	5,132,597.14
SUBTOTAL (CONTRACT COST)	94.06	P 107,784,540.00
II. ESTIMATED GOVERNMENT EXPENDITURES		
1. Engineering and Administrative Overhead (3.5%)	3.50	4,010,860.00
2. Detailed Engineering (1%)		
3. Reserved for the Payment of RROW	2.44	2,800,600.00
4. Physical Reserved	0.00	-
TOTAL ESTIMATED PROJECT COST	100.00	P 114,596,000.00

Prepared :  MARK ANTHON P. REBOLLOS Engineer II	Checked :  JERALD R. BARRERA Engineer II
Submitted :  LEONCIO B. SOLAMILLO Chief, Construction Division	Recommending Approval :  CAYAMOMBAO D. DIA Assistant Regional Director
Approved : JORGE U. SEBASTIAN, JR., CESO III Regional Director	

NAME OF PROJECT : Road widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Zamboanga City

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Submitted :  LEONCIO B. SOLAMILLO Chief, Construction Division	Recommending Approval :  CAYAMOMBAO D. DIA Assistant Regional Director
Approved :  JORGE U. SEBASTIAN, JR., CESO III Regional Director	

APPROVED BUDGET FOR THE CONTRACT

Road Widening - Secondary Road

Stations: 1973+790.00 to 1973+976.00
1974+485.00 1978+000.00
0+000.00 0+000.00

Length: 3,690.00 m.

Contract Duration: 190 CD

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN %	PROFIT	%	TOTAL MARK-UPS VALUE	VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
								(5) x (8)	5%[(5) + (9)]	(9) + (10)	(5) + (11)	(12) / (3)
PART A - FACILITIES FOR THE ENGINEER												
A.1.1(3)	Construction of Field Office for the Engineer	1.00	L.S.	389,961.51	10.00	8.00	18.00	70,193.07	23,007.73	93,200.80	483,162.31	483,162.31
A.1.1(11)	Provision of Furniture/Fixtures, Equipment and Appliances for the Field Office for the Field Engineer	1.00	L.S.	286,173.33	-	8.00	8.00	22,893.87	15,453.36	38,347.23	324,520.56	324,520.56
A.1.2(5)	Operation and Maintenance of 4x4 Pick Up Type Service Vehicle for the Engineer	6.33	month	217,975.80	-	-	-	-	10,898.79	10,898.79	228,874.59	36,138.09
TOTAL OF PART A				894,110.64				93,086.94	49,359.88	142,446.82	1,036,557.46	
PART B - OTHER GENERAL REQUIREMENTS												
B.4(1)	Construction Survey & Staking	3.69	km.	152,530.05	10.00	8.00	18.00	27,455.41	8,999.27	36,454.68	188,984.74	51,215.38
B.5	Project Billboard/Signboard	2.00	each	10,809.20	10.00	8.00	18.00	1,945.66	637.74	2,583.40	13,392.60	6,696.30
B.7	Occupation Safety and Health Program	6.33	month	229,100.40	-	8.00	8.00	18,328.03	12,371.42	30,699.45	259,799.85	41,021.03
B.9	Mobilization & Demobilization	1.00	L.S.	749,543.00	-	-	-	-	37,477.15	37,477.15	787,020.15	787,020.15
TOTAL OF PART B				1,141,982.65				47,729.10	59,485.59	107,214.68	1,249,197.34	
PART C - EARTHWORKS												
101(3)b1	Removal of Actual Structures/Obstruction	274.00	Sqm	25,314.07	10.00	8.00	18.00	4,556.53	1,493.53	6,050.06	31,364.13	114.47
102(2)	Surplus Common Excavation	24,088.00	cu.m.	3,490,035.05	10.00	8.00	18.00	628,206.31	205,912.07	834,118.38	4,324,153.42	179.51
103(1)a	Structure Excavation	801.00	cu.m.	184,322.64	10.00	8.00	18.00	33,178.07	10,875.04	44,053.11	228,375.75	285.11
103(3)	Foundation Fill	27.00	cu.m.	43,036.82	10.00	8.00	18.00	7,746.63	2,539.17	10,285.80	53,322.62	1,974.91
103(6)a	Pipe Culverts and Drain Excavation	65.00	cu.m.	14,957.52	10.00	8.00	18.00	2,692.35	882.49	3,574.85	18,532.36	285.11
104(1)a	Embankment from Roadway Excavation	25,950.00	cu.m.	5,983,141.77	10.00	8.00	18.00	1,076,965.52	343,005.36	1,429,970.88	7,413,112.65	285.67
105(1)a	Subgrade Preparation	27,983.00	sq.m.	447,126.37	10.00	8.00	18.00	80,482.75	26,380.46	106,863.20	553,989.57	19.80
TOTAL OF PART C				10,187,934.22				1,833,828.16	601,088.12	2,434,916.28	12,622,850.50	
PART D - SUBBASE AND BASE COURSE												
200(1)	Aggregate Subbase Course	13,866.00	cu.m.	17,176,701.62	10.00	8.00	18.00	3,091,806.29	1,013,425.40	4,105,231.69	21,281,933.31	1,534.83
TOTAL OF PART D				17,176,701.62				3,091,806.29	1,013,425.40	4,105,231.69	21,281,933.31	
PART E - SURFACE COURSES												
300(1)	Gravel Surface Course	1,826.00	cu.m.	2,377,477.56	10.00	8.00	18.00	427,945.96	140,271.18	568,217.14	2,945,694.70	1,613.20
311(1)e	Portland Cement Concrete Pavement	24,723.00	sq.m.	39,233,536.18	10.00	8.00	18.00	7,062,036.51	2,314,778.63	9,376,815.15	48,610,351.32	1,966.20
TOTAL OF PART E				41,611,013.74				7,489,982.47	2,455,049.81	9,945,032.28	51,556,046.02	
PART G - DRAINAGE AND SLOPE PROTECTION STRUCTURES												
404(1)a	Reinforcing Steel Bar, Grade 40	13,264.62	kg.	625,010.84	10.00	8.00	18.00	112,501.95	36,875.64	149,377.59	774,388.43	58.38
404(1)b	Reinforcing Steel Bar, Grade 60	14,738.11	kg.	725,389.71	10.00	8.00	18.00	130,570.15	42,797.99	173,368.14	898,757.86	60.98
405(1)a3	Structural Concrete, Class A	786.00	cu.m.	5,399,792.07	10.00	8.00	18.00	971,962.57	318,587.73	1,290,550.30	6,690,342.37	8,511.89
407(8)	Concrete Structures (Lean Concrete)	10.76	cu.m.	27,438.32	10.00	8.00	18.00	4,938.90	1,618.86	6,557.76	33,996.08	3,159.49
500(1)a1	Reinforced Concrete Culvert Pipe (610mm dia.)	38.00	Ln.m	68,281.39	10.00	8.00	18.00	12,290.65	4,028.60	16,319.25	84,600.64	2,226.33
500(1)a3	Reinforced Concrete Culvert Pipe (910mm dia.)	46.00	Ln.m	128,054.73	10.00	8.00	18.00	23,049.85	7,555.23	30,605.08	158,659.81	3,449.13
500(1)a5	Reinforced Concrete Culvert Pipe (1220mm dia.)	93.00	Ln.m	512,073.99	10.00	8.00	18.00	92,173.32	30,212.37	122,385.68	634,459.67	6,822.15
505(5)	Grouted Riprap, Class A	93.00	cu.m	333,082.20	10.00	8.00	18.00	59,954.80	19,651.85	79,606.65	412,688.84	4,437.51
506(1)	Stone Masonry	156.00	cu.m	528,780.91	10.00	8.00	18.00	95,180.56	31,198.07	126,378.64	655,159.54	4,199.74
TOTAL OF PART G				8,347,904.15				1,502,622.75	452,526.34	1,955,149.09	10,343,053.24	

APPROVED BUDGET FOR THE CONTRACT

Road Widening - Secondary Road

Stations: 1973+790.00 to 1973+976.00
 1974+485.00 1978+000.00
 0+000.00 0+000.00

Length: 3,690.00 m.m.

Contract Duration: 190 CD

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN % OCM	PROFIT	%	TOTAL MARK-UPS VALUE	VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
								(5) x (8)	5%[(3) + (9)]	(9) + (10)	(5) + (11)	(12) / (3)
PART A - FACILITIES FOR THE ENGINEER												
A.1.1(3)	Construction of Field Office for the Engineer	1.00	L.S.	389,961.51	10.00	8.00	18.00	70,193.07	23,007.73	93,200.80	483,162.31	483,162.31
A.1.1(1)	Provision of Furnitures/Fixtures, Equipment and Appliances for the Field Office for the Field Engineer	1.00	L.S.	286,173.33	-	8.00	8.00	22,893.87	15,453.36	38,347.23	324,520.56	324,520.56
A.1.2(5)	Operation and Maintenance of 4x4 Pick Up Type Service Vehicle for the Engineer	6.33	month	217,975.80	-	-	-	-	10,898.79	10,898.79	228,874.59	36,138.09
	TOTAL OF PART A			894,110.64				93,086.94	49,359.89	142,446.82	1,036,557.46	
PART B - OTHER GENERAL REQUIREMENTS												
B.4(1)	Construction Survey & Staking	3.69	km.	152,530.05	10.00	8.00	18.00	27,455.41	8,999.27	36,454.68	188,984.74	51,215.38
B.5	Project Billboard/Sign Board	2.00	each	10,809.20	10.00	8.00	18.00	1,945.66	637.74	2,583.40	13,392.60	6,696.30
B.7	Occupational Safety and Health Program	6.33	month	229,100.40	-	8.00	8.00	18,328.03	12,371.42	30,699.45	259,799.85	41,021.03
B.9	Mobilization & Demobilization	1.00	L.S.	749,543.00	-	-	-	-	37,477.15	37,477.15	787,020.15	787,020.15
	TOTAL OF PART B			1,141,982.65				47,729.10	59,485.59	107,214.68	1,249,197.34	
PART C - EARTHWORKS												
101(3)b1	Removal of Actual Structures/Obstruction	274.00	Sqm	25,314.07	10.00	8.00	18.00	4,556.53	1,493.53	6,050.06	31,364.13	114.47
102(2)	Surplus Common Excavation	24,088.00	cum.	3,490,035.05	10.00	8.00	18.00	628,912.07	205,912.07	834,118.38	4,324,153.42	179.51
103(1)a	Structure Excavation	801.00	cum.	184,322.64	10.00	8.00	18.00	33,178.07	10,875.04	44,053.11	228,375.75	285.11
103(3)	Foundation Fill	27.00	cum.	43,036.82	10.00	8.00	18.00	7,746.63	2,539.17	10,285.80	53,322.62	1,974.91
103(6)a	Pipe Culverts and Drain Excavation	45.00	cum.	14,957.52	10.00	8.00	18.00	2,692.35	882.49	3,574.85	18,532.36	285.11
104(1)a	Embankment from Roadway Excavation	25,950.00	cum.	5,983,141.77	10.00	8.00	18.00	1,076,965.52	353,005.36	1,429,970.88	7,413,112.65	285.67
105(1)a	Subgrade Preparation	27,983.00	sqm.	447,126.37	10.00	8.00	18.00	80,482.75	26,380.46	106,863.20	553,989.57	19.80
	TOTAL OF PART C			10,137,934.22				1,833,828.16	601,088.12	2,434,916.28	12,622,850.50	
PART D - SUBBASE AND BASE COURSE												
200(1)	Aggregate Subbase Course	13,866.00	cum.	17,176,701.62	10.00	8.00	18.00	3,091,806.29	1,013,425.40	4,105,231.69	21,281,933.31	1,534.83
	TOTAL OF PART D			17,176,701.62				3,091,806.29	1,013,425.40	4,105,231.69	21,281,933.31	
PART E - SURFACE COURSES												
300(1)	Gravel Surface Course	1,826.00	cum.	2,377,477.56	10.00	8.00	18.00	427,945.96	140,271.18	568,217.14	2,945,694.70	1,613.20
311(1)e	Portland Cement Concrete Pavement	24,723.00	sqm.	39,233,536.18	10.00	8.00	18.00	7,062,036.51	2,314,778.63	9,376,815.15	48,610,351.32	1,966.20
	TOTAL OF PART E			41,611,013.74				7,489,982.47	2,455,049.81	9,945,032.28	51,556,046.02	
PART F - DRAINAGE AND SLOPE PROTECTION STRUCTURES												
404(1)a	Reinforcing Steel Bar, Grade 40	13,264.62	kg.	625,010.84	10.00	8.00	18.00	112,501.95	36,875.64	149,377.59	774,388.43	58.38
404(1)b	Reinforcing Steel Bar, Grade 60	14,738.11	kg.	725,389.71	10.00	8.00	18.00	130,570.15	42,797.99	173,368.14	898,757.86	60.98
405(1)a3	Structural Concrete, Class A	786.00	cum.	5,399,792.07	10.00	8.00	18.00	971,962.57	318,587.73	1,290,550.30	6,690,342.37	8,511.89
407(8)	Concrete Structures (Lean Concrete)	10.7%	cum.	27,438.32	10.00	8.00	18.00	4,938.90	1,618.86	6,557.76	33,996.08	3,159.49
500(1)a1	Reinforced Concrete Culvert Pipe (610mm dia.)	38.00	Ln.m	68,281.39	10.00	8.00	18.00	12,290.65	4,028.60	16,319.25	84,600.64	2,226.33
500(1)a3	Reinforced Concrete Culvert Pipe (910mm dia.)	46.00	Ln.m	128,054.73	10.00	8.00	18.00	23,049.85	7,555.23	30,605.08	158,659.81	3,449.13
500(1)a5	Reinforced Concrete Culvert Pipe (1220mm dia.)	93.00	Ln.m	512,073.99	10.00	8.00	18.00	92,173.32	30,212.37	122,385.68	634,459.67	6,822.15
505(5)	Groufed Riprap, Class A	93.00	cum	333,082.20	10.00	8.00	18.00	59,954.80	19,651.85	79,606.65	412,688.84	4,437.51
506(1)	Stone Masonry	156.00	cum	528,780.91	10.00	8.00	18.00	95,180.56	31,198.07	126,378.64	655,159.54	4,199.74
	TOTAL OF PART F			8,347,904.15				1,502,622.75	452,526.34	1,995,149.09	10,343,053.24	

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN %		TOTAL MARK-UPS		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(5) x (8)	5%[(5) + (9)]	(11) (9) + (10)	(12) (5) + (11)	(13) (12) / (3)
PART H - MISCELLANEOUS STRUCTURES												
603(3)a	Metal Guardrail (Metal Beam) Including Post	1,236.00	Ln.m	5,307,927.02	10.00	8.00	18.00	955,426.86	313,167.69	1,268,594.56	6,576,521.57	5,320.81
612(1)	Reflectorized Thermoplastic Pavement Markings (White)	923.00	sq.m.	682,212.13	10.00	8.00	18.00	122,798.18	40,250.52	1,63,048.70	845,260.82	915.78
622 (1)a	Coco-net	4,628.00	sq.m.	633,860.41	10.00	8.00	18.00	114,094.87	37,397.76	151,492.64	785,353.05	169.70
622 (1)b	Coco-net	1,116.00	sq.m.	152,849.66	10.00	8.00	18.00	27,512.94	9,018.13	36,531.07	189,380.73	169.70
622 (2)c	Coco-logs/Fascine	710.00	Ln.m	357,276.88	10.00	8.00	18.00	64,309.84	21,079.34	85,389.17	442,666.05	623.47
622 (3)b	Vegetation	5,743.00	sq.m.	690,653.67	10.00	8.00	18.00	124,317.66	40,748.57	1,65,066.23	855,719.90	149.00
	TOTAL OF PART H			7,824,779.76				1,408,440.36	461,662.01	1,870,122.36	9,694,902.13	
	TOTAL			87,784,426.79				15,467,516.06	5,132,597.14	20,600,113.21	107,784,540.00	

Prepared by :

BELEN A. SAPALLIDA
Head, BAC Technical Working Group

Submitted by :

LEONCIO B. SOLAMICO
Head, Construction Division

Recommending Approval:

CAYANOMBABO D. DIA
Assistant, Regional Director

Approved by :

JOSUE U. SEBASTIAN JR., CESO III
Regional Director

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN %		TOTAL MARK-UPS		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
								(5) x (8)	5%[(5) + (9)]	(9) + (10)	(5) + (11)	(12) / (3)
PART H - MISCELLANEOUS STRUCTURES												
603(3)a	Metal Guardrail (Metal Beam) Including Post	1,236.00	Ln.m	5,307,927.02	10.00	8.00	18.00	955,426.86	313,167.69	1,268,594.56	6,576,521.57	5,320.81
612(1)	ReflectORIZED Thermoplastic Pavement Markings (White)	923.00	sq.m.	482,212.13	10.00	8.00	18.00	122,798.18	40,250.52	163,048.70	845,260.82	915.78
622 (1)a	Coco-nel	4,628.00	sq.m.	433,860.41	10.00	8.00	18.00	114,094.87	37,397.76	151,492.64	785,353.05	169.70
622 (1)b	Coco-nel	1,116.00	sq.m.	152,849.66	10.00	8.00	18.00	27,512.94	9,018.13	36,531.07	189,380.73	169.70
622 (2)c	Coco-logs/Fascine	710.00	Ln.m	357,276.88	10.00	8.00	18.00	64,309.84	21,079.34	85,389.17	442,666.05	623.47
622 (3)b	Vegetation	5,743.00	sq.m.	690,653.67	10.00	8.00	18.00	124,317.66	40,748.57	165,066.23	855,719.90	149.00
	TOTAL OF PART H			7,824,779.76				1,408,460.36	461,662.01	1,870,122.36	9,694,902.13	
	TOTAL			87,184,426.79				15,467,516.06	5,132,597.14	20,600,113.21	107,784,540.00	

Prepared by :

BELEN A. SAPALLIDA
Head, BAC Technical Working Group

Submitted by :

FRANCISCO B. SOLAMILLO
Chief, Construction Division

Recommending Approval:

CAYAMONBAO D. DIAZ
Assistant Regional Director

Approved by :

JOSE II. SEBASTIAN, JR., CESO III
Regional Director

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

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

Unit of Measurement: L.S.

Output per hour:

Quantity: 1.00

*7.00 m. x 9.00 m., 1 - Classroom, for
Government Field Office, fully furnished as
shown on plans*

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	8.00	611.92	4,895.36
	b. Mason	3	8.00	443.20	10,636.80
	c. Carpenter	3	8.00	443.20	10,636.80
	d. Laborer	6	8.00	342.24	16,427.52
Sub-total for A				P	42,596.48
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	6.00	1,376.00	8,256.00
	b. Water Truck	1	1.00	19,600.00	19,600.00
	Minor Tools 10% of Labor				4,259.65
Sub-total for B				P	32,115.65
C.	Total (A+B)				74,712.13
D.	Output/day	- L.S./day			
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	I. Earthworks (Excavation, Embankment, Bedding)				
	a. Gravel Bedding	3.50	cu.m.	1,214.82	4,251.87
	b. Selected Fill	10.00	cu.m.	388.35	3,883.50
	c. Soil Poisoning	2.50	L	1,900.00	4,750.00
	II. Concrete Works (Footings, Columns, Beams & Slab on Grade)				
	a. Portland Cement	90.00	bag	286.00	25,740.00
	b. Crushed Gravel	21.00	cu.m.	1,214.82	25,511.22
	c. Washed Sand	18.00	cu.m.	1,214.82	21,866.76
	III. Reinforcing Bars (Footings, Columns, Beams, & Slabs on Grade)				
	a. Deformed Round Bar, Grade 40	435.00	kg.	38.00	16,530.00
	b. No. 16 GI Tie Wire	20.00	kg.	80.00	1,600.00
	IV. Formworks (Columns & Beams)				
	a. Coco Lumber	400.00	bd.ft.	24.50	9,800.00
	b. Ordinary Plywood, 1/4"x4'x8'	18.00	pc.	385.00	6,930.00
	c. CWN, Assorted	5.00	kg.	65.00	325.00
	V. Masonry Works (masonry walls & plastering)				
	a. CHB 6" thk	650.00	pc.	16.00	10,400.00
	b. Portland Cement	45.00	bag	286.00	12,870.00
	c. Washed Sand	8.00	cu.m.	1,214.82	9,718.56
	d. 10mm dia. X 6m RSB	65.00	kg.	38.00	2,470.00
	e. No. 16 GI Tie Wire	2.50	kg.	80.00	200.00
	VI. Doors and Windows				
	a. D-1, Hollow Core Flush Type swing door, complete w/ accessories, 0.90mx2.1m	2.00	set	1,765.26	3,530.52
	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	165,921.43
Sub-total for E (I + II + III)				P	315,249.38
F.	Direct Cost (C + E)				389,961.51
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		38,996.15
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		31,196.92
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		23,007.73
J.	Total Unit Cost				483,162.31

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: A.1.1(3) Bunkhouse, 7.00 m. x 9.00 m.

Unit of Measurement: L.S.

Output per hour:

Quantity: 1.00

*For Government Field Office, fully furnished
as shown on plans*

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
Sub-total for A				P	-
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				-
Sub-total for B				P	-
C.	Total (A+B)				-
D.	Output/day	-	L.S./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	VII. Steel Works				
	a. 65 x 65 x 6mm. L	350.00	kg.	48.00	16,800.00
	b. 50 x 50 x 6mm. L	250.00	kg.	48.00	12,000.00
	c. 50 x 50 x 4mm. L	100.00	kg.	48.00	4,800.00
	d. Purlins C- 150 x 50 x 3mm.	18.00	kg.	48.00	864.00
	e. 16mm dia. Cross bracing	35.00	kg.	38.00	1,330.00
	f. 16mm dia. Turn buckle	20.00	pc.	118.00	2,360.00
	g. 12mm thk base plate	25.00	kg.	47.00	1,175.00
	h. 10mm thk batten plate	15.00	kg	47.00	705.00
	i. 10mm dia. Sag rod	10.00	kg.	38.00	380.00
	j. 20mm dia. X 350 mm anchor bolts	10.00	pc.	36.00	360.00
	k. Welding Rod	15.00	kg.	166.33	2,494.95
	l. Primer, Zinc Chromate	5.00	gal.	531.00	2,655.00
	VIII 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.	113.00	1,130.00
	c. Pre-painted flashing, ga. 24	2.00	ln.m.	113.00	226.00
	d. Teckscrew 1 1/2"	1,000.00	pc.	1.25	1,250.00
	e. Roof Sealant	2.00	L	250.00	500.00
	IX. Carpentry Works				
	a. Rough Lumber, sun dried tanguile	500.00	bd.ft.	37.00	18,500.00
	b. Plywood, ordinary 1/4" x 4' x 8'	30.00	pc.	385.00	11,550.00
	c. Finishing Nails	5.00	kg.	100.00	500.00
	d. Common Wire Nails	10.00	kg.	65.00	650.00
	e. Wood Preservative Brown	5.00	L	400.00	2,000.00
Sub-total for E				P	105,329.95
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				

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: A.1.1(3) Bunkhouse, 7.00 m. x 9.00 m.
Unit of Measurement: L.S.
Output per hour:
Quantity: 1.00

*For Government Field Office, fully furnished
as shown on plans*

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
Sub-total for A				P	-
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
Sub-total for B				P	-
C.	Total (A+B)				-
D.	Output/day	-	L.S./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	X. Electrical Works				
	a. 2 x 40w Flourescent lighting fixtures	5.00	set	1,030.00	5,150.00
	b. Porcelain Ceiling Outlet w/ female socket	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	170.00	510.00
	e. 3.5mm2 thw	3.00	roll	3,600.00	10,800.00
	f. 8.00mm2 thw	25.00	m	70.00	1,750.00
	g. 15mm dia. PVC pipe	20.00	pc	73.00	1,460.00
	h. 15mm dia. PVC Coupling	25.00	pc	5.00	125.00
	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	9.00	27.00
	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	100.00	200.00
	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	31.00	217.00
	t. panel board (side main w/ braches)	2.00	set	1,627.00	3,254.00
	XI. Plumbing Works				
	a. Water Closet (include. Fitting & Accessories)	1.00	set	7,375.00	7,375.00
	b. Lavatory (include fitting & Accessories)	1.00	set	6,615.00	6,615.00
	c. 1/2" GI Pipe S-40	2.00	pc	166.00	332.00
	d. 1/2" Water Faucet	2.00	pc	321.00	642.00
	e. 1/2" Assorted Connector	8.00	pc	20.00	160.00
	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				P	43,998.00
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				

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

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

Unit of Measurement: L.S.

Output per hour:

Quantity: 1.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
Sub-total for A				P	-
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
Sub-total for B				P	-
C.	Total (A+B)				-
D.	Output/day	-	L.S./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Office Equipment/Facilities & Supplies				
	Electric Desk Fan	2.00	unit	1,370.00	2,740.00
	Folding Beds, Good Quality	2.00	each	2,700.00	5,400.00
	pillows w/ pillow cases, fitted sheets and blanket	2.00	each	5,000.00	10,000.00
	Double burner gas stove (Gasul)	1.00	unit	3,700.00	3,700.00
	10 cups Rice Cooker	1.00	unit	2,500.00	2,500.00
	Various Office Supply	1.00	L.S.	45,000.00	45,000.00
	(Folders, Bond Paper, Yellow Pads, Ball Pens, Pencil, Envelopes, etc.)				
	Kitchenware	1.00	L.S.	30,000.00	30,000.00
	(Plates, Spoons & Forks, Glasses, etc.)				
	Dining Table	1.00	set	8,000.00	8,000.00
	Digital Camera	2.00	set	12,000.00	24,000.00
	Cellphone	4.00	set	15,000.00	60,000.00
	Desktop Computer	1.00	set	60,000.00	60,000.00
	Lighting/Water Fixtures				
	a. Electrical Bill	6.33	mos.	3,000.00	19,000.00
	b. Water Bill	6.33	mos.	1,500.00	9,500.00
	c. LPG (11 kg)	6.33	mos.	1,000.00	6,333.33
Sub-total for E				P	286,173.33
F.	Direct Cost (C + E)				286,173.33
G.	Overhead, Contingencies and Miscellaneous		per D.O. 197, s. 2016		-
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		22,893.87
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		15,453.36
J.	Total Unit Cost				324,520.56

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: A.1.2(5) Operation and Maintenance of 4x4 Pick Up Type Service Vehicle for the Engineer

Unit of Measurement: month

Output per hour:

Quantity: 6.33

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Driver	1	190	422.32	80,240.80
Sub-total for A				P	80,240.80
Name and Capacity		No. of Equipment	No. of Months	Monthly Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
Sub-total for B				P	-
C.	Total (A+B)				80,240.80
D.	Output/day	-	L.S./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Diesel	1,900.00	L	31.00	58,900.00
	b. Spare Parts	1.00	L.S.	40,000.00	40,000.00
	c. Engine Oil & Lubricants	1.00	L.S.	8,835.00	8,835.00
	d. Miscellaneous	1.00	L.S.	30,000.00	30,000.00
Sub-total for E				P	137,735.00
F.	Direct Cost (C + E)				217,975.80
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		10,898.79
J.	Total Unit Cost				36,138.09

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: B.4(1) Construction Survey & Staking
Unit of Measurement: km.
Output per hour: 0.04
Quantity: 3.690

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	For Field Works				
	a. Geodetic Engineer	1	11.53	833.31	9,609.11
	b. Skilled Laborer	3	11.53	443.20	15,331.95
	c. Laborer	3	11.53	342.24	11,839.37
	For Office Works				
	a. Geodetic Engineer	1	34.59	833.31	28,827.32
	b. Skilled Laborer	2	34.59	443.20	30,663.90
Sub-total for A				P	96,271.64
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Total Station w/ complete accessories	1	11.53	800.00	9,225.00
	Minor Tools 10% of Labor				9,627.16
Sub-total for B				P	18,852.16
C.	Total (A+B)				115,123.80
D.	Output/day 0.32 km./day				
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Standard as-Stake Plan (800 mm x 910 mm)	75.00	pc	400.00	30,000.00
	b. Blue Printing	375.00	pc	15.00	5,625.00
	Miscellaneous 5% of Materials Cost				1,781.25
Sub-total for E				P	37,406.25
F.	Direct Cost (C + E)				152,530.05
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		15,253.01
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		12,202.40
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		8,999.27
J.	Total Unit Cost				51,215.38

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: B.5 Project Billboard/Signboard
Unit of Measurement: each
Output per hour: 2.00
Quantity: 2.00

Per D.O. 141, s. 2016

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	2.00	611.92	1,223.84
	b. Skilled Labor	1	2.00	443.20	886.40
	c. Unskilled Labor	2	2.00	342.24	1,368.96
Sub-total for A					P 3,479.20
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
Sub-total for B					P -
C.	Total (A+B)				3,479.20
D.	Output/day	-	each/day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Ordinary Plywood 1/2" thk. x 4' x 8'	2.00	pc.	750.00	1,500.00
	b. Tarpaulin (4' x 8')	2.00	pc.	1,000.00	2,000.00
	c. Assorted Lumber	100.00	bd.ft.	37.00	3,700.00
	d. Assorted CW Nails	2.00	kg.	65.00	130.00
Sub-total for E					P 7,330.00
F.	Direct Cost (C + E)				10,809.20
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		1,080.92
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		864.74
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		637.74
J.	Total Unit Cost				6,696.30

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: B.7 Occupation Safety and Health Program
Unit of Measurement: month
Output per hour:
Quantity: 6.33

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Safety Practioner	1	95.00	611.92	58,132.40
	b. First Aider	1	190.00	443.20	84,208.00
Sub-total for A					P 142,340.40
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Warning Signs and Barricades				60,000.00
Sub-total for B					P 60,000.00
C.	Total (A+B)				202,340.40
D.	Output/day	-	L.S./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Rubber Boots (Long w/ steel toe, Black)	24.00	pair	400.00	9,600.00
	b. Working Gloves (Maong Material)	24.00	pair	15.00	360.00
	c. Rain Coats (Reinforced, Hip Length)	24.00	pc.	100.00	2,400.00
	d. Safety Hats	24.00	pc,	600.00	14,400.00
Sub-total for E					P 26,760.00
F.	Direct Cost (C + E)				229,100.40
G.	Overhead, Contingencies and Miscellaneous		per D.O. 197, s. 2016		-
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		18,328.03
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		12,371.42
J.	Total Unit Cost				41,021.03

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

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

Unit of Measurement: L.S.

Output per hour:

Quantity: 1.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
Sub-total for A				P	-
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
a.	Low Bed Trailer	1	5.00	34,043.00	170,215.00
b.	Water Truck	2	3.00	19,600.00	117,600.00
c.	Backhoe	4	3.00	12,296.00	147,552.00
e.	Dumptruck	4	3.00	11,360.00	136,320.00
f.	Payloader	2	2.00	13,864.00	55,456.00
g.	Grader	2	2.00	17,384.00	69,536.00
h.	Road Roller	2	2.00	13,216.00	52,864.00
Sub-total for B				P	749,543.00
C.	Total (A+B)				749,543.00
D.	Output/day	-	L.S./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
Sub-total for E				P	-
F.	Direct Cost (C + E)				749,543.00
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		37,477.15
J.	Total Unit Cost				787,020.15

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: 101(3)b1 Removal of Actual Structures/Obstruction

Unit of Measurement: Sq.m

Output per hour: 50.00

Quantity: 274.00

Removal of existing paved shoulder

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	0.69	611.92	419.17
	b. Unskilled Labor	2	0.69	342.24	468.87
Sub-total for A				P	888.03
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Backhoe w/ Pavement Breaker (0.80 cu.m.)	1	0.69	15,984.80	10,949.59
	b. Payloader (1.50 cu.m.), LX80-2C	1	0.69	13,864.00	9,496.84
	c. Dump Truck (12 cu.yd.)	1	0.34	11,360.00	3,890.80
	Minor Tools 10% of Labor Cost				88.80
Sub-total for B				P	24,426.03
C.	Total (A+B)				25,314.07
D.	Output/day	400.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
Sub-total for E				P	-
F.	Direct Cost (C + E)				25,314.07
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		2,531.41
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		2,025.13
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		1,493.53
J.	Total Unit Cost				114.47

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: 102(2) Surplus Common Excavation
Unit of Measurement: cu.m.
Output per hour: 80.00
Quantity: 24,088.00

For Disposal

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	37.64	611.92	23,031.14
	c. Unskilled Labor	2	37.64	342.24	25,762.12
Sub-total for A					P 48,793.26
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Bulldozer, D6H SERIES II PSDS/DD	1	37.64	27,032.00	1,017,416.90
	b. Payloader (1.50 cu.m.)	1	37.64	13,864.00	521,806.30
	c. Payloader (1.50 cu.m.) - at disposal area	1	11.29	13,864.00	156,541.89
	d. Dump Truck (12 cu.yd.)	3	37.64	11,360.00	1,282,686.00
	e. Backhoe (0.80 cu.m)	1	37.64	12,296.00	462,790.70
Sub-total for B					P 3,441,241.79
C.	Total (A+B)				3,490,035.05
D.	Output/day	640.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
Sub-total for E					P -
F.	Direct Cost (C + E)				3,490,035.05
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		349,003.50
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		279,202.80
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		205,912.07
J.	Total Unit Cost				179.51

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

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

Unit of Measurement: cu.m.

Output per hour: 20.00

Quantity: 801.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	5.01	611.92	3,063.42
	c. Unskilled Labor	3	5.01	342.24	5,140.02
Sub-total for A				P	8,203.44
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Dump Truck (12 cu.yd.)	2	5.01	11,360.00	113,742.00
	e. Backhoe (0.80 cu.m)	1	5.01	12,296.00	61,556.85
	Minor Tools 10% of Labor Cost				820.34
Sub-total for B				P	176,119.19
C.	Total (A+B)				184,322.64
D.	Output/day	160.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
Sub-total for E				P	-
F.	Direct Cost (C + E)				184,322.64
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		18,432.26
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		14,745.81
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		10,875.04
J.	Total Unit Cost				285.11

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: 103(3) Foundation Fill
Unit of Measurement: cu.m.
Output per hour: 5.00
Quantity: 27.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	0.68	611.92	413.05
	c. Unskilled Labor	16	0.68	342.24	3,696.19
Sub-total for A					P 4,109.24
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Plate Compactor (5 hp)	1	0.68	984.00	664.20
	b. Water Truck/Pump (16000 L)	1	0.007	19,600.00	132.30
	Minor Tools 10% of Labor Cost				410.92
Sub-total for B					P 1,207.42
C.	Total (A+B)				5,316.66
D.	Output/day	40.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Filling Materials (well-graded sand)	31.05	cu.m.	1,214.82	37,720.16
Sub-total for E					P 37,720.16
F.	Direct Cost (C + E)				43,036.82
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		4,303.68
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		3,442.95
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		2,539.17
J.	Total Unit Cost				1,974.91



DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: 103(6)a Pipe Culverts and Drain Excavation
Unit of Measurement: cu.m.
Output per hour: 20.00
Quantity: 65.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	0.41	611.92	248.59
	b. Unskilled Labor	3	0.41	342.24	417.11
Sub-total for A					P 665.70
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Dump Truck (12 cu.yd.)	2	0.41	11,360.00	9,230.00
	b. Backhoe (0.80 cu.m.)	1	0.41	12,296.00	4,995.25
	Minor Tools 10% of Labor Cost				66.57
Sub-total for B					P 14,291.82
C.	Total (A+B)				14,957.52
D.	Output/day	160.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
Sub-total for E					P -
F.	Direct Cost (C + E)				14,957.52
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		1,495.75
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		1,196.60
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		882.49
J.	Total Unit Cost				285.11

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: 104(1)a Embankment from Roadway Excavation

Unit of Measurement: cu.m.

Output per hour: 50.00

Quantity: 25,950.00

Compacted Volume

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	For Excavation Work				
	a. Const. Foreman	1	53.85	611.92	32,949.60
	c. Unskilled Laborer	2	53.85	342.24	36,856.68
	Spreading and Compaction				
	a. Const. Foreman	1	64.88	611.92	39,698.31
	c. Unskilled Laborer	2	64.88	342.24	44,405.64
Sub-total for A				P	153,910.23
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	For Excavation Work				
	a. Bulldozer, D6H Series II PSDS/DD	1	53.85	27,032.00	1,455,571.83
	b. Payloader (1.50 cu.m.)	1	53.85	13,864.00	746,524.41
	c. Dump Truck (12 cu.yd.)	2	53.85	11,360.00	1,223,386.80
	Spreading and Compaction				
	a. Motorized Road Grader (140 hp), G170A	1	64.88	17,384.00	1,127,787.00
	b. Vibratory Roller (10 mt), SD100C	1	64.88	14,768.00	958,074.00
	c. Water Truck/Pump (16000 L)	1	16.22	19,600.00	317,887.50
Sub-total for B				P	5,829,231.54
C.	Total (A+B)				5,983,141.77
D.	Output/day	400.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
Sub-total for E				P	-
F.	Direct Cost (C + E)				5,983,141.77
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		598,314.18
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		478,651.34
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		353,005.36
J.	Total Unit Cost				285.67

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: 105(1)a Subgrade Preparation
Unit of Measurement: sq.m.

Output per hour: 300.00

Quantity: 27,983.00

Variable Width

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	11.66	611.92	7,134.73
	b. Unskilled Laborer	2	11.66	342.24	7,980.75
Sub-total for A				P	15,115.48
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Motorized Road Grader (140 hp), G710A	1	11.66	17,384.00	202,690.20
	b. Vibratory Roller (10 mt), SD100DC	1	11.66	14,768.00	172,188.73
	c. Water Truck/Pump (16000 L)	1	2.91	19,600.00	57,131.96
Sub-total for B				P	432,010.88
C.	Total (A+B)				447,126.37
D.	Output/day	2,400.00	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
Sub-total for E				P	-
F.	Direct Cost (C + E)				447,126.37
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		44,712.64
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		35,770.11
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		26,380.46
J.	Total Unit Cost				19.80

dk

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: 200(1) Aggregate Subbase Course
Unit of Measurement: cu.m.

Output per hour: 50.00

Quantity: 13,866.00

0.30 m. thk., Compacted Volume

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	34.67	611.92	21,212.21
	b. Unskilled Labor	2	34.67	342.24	23,727.50
Sub-total for A				P	44,939.71
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Motorized Road Grader (140 hp), G710A	1	34.67	17,384.00	602,616.36
	b. Vibratory Roller (10 mt), SD100DC	1	34.67	14,768.00	511,932.72
	c. Water Truck/Pump (16000 L)	1	8.67	19,600.00	169,858.50
Sub-total for B				P	1,284,407.58
C.	Total (A+B)				1,329,347.29
D.	Output/day	400.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Aggregate Subbase Course (w/ 15% Shrinkage Factor)	15,945.90	cu.m.	993.82	15,847,354.34
Sub-total for E				P	15,847,354.34
F.	Direct Cost (C + E)				17,176,701.62
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		1,717,670.16
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		1,374,136.13
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		1,013,425.40
J.	Total Unit Cost				1,534.83

AR

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: 300(1) Gravel Surface Course
Unit of Measurement: cu.m.

Output per hour: 50.00
Quantity: 1,826.00

*0.15 m. thk. For shouldering, Compacted
Volume*

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	4.57	611.92	2,793.41
	b. Unskilled Labor	2	4.57	342.24	3,124.65
Sub-total for A					P 5,918.07
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Motorized Road Grader (140 hp), G710A	1	4.57	17,384.00	79,357.96
	b. Vibratory Roller (10 mt), SD100DC	1	4.57	14,768.00	67,415.92
	c. Water Truck/Pump (16000 L)	1	1.14	19,600.00	22,368.50
Sub-total for B					P 169,142.38
C.	Total (A+B)				175,060.45
D.	Output/day	400.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Uncrushed Aggregate Surface Course (w/ 15% Shrinkage Factor)	2,099.90	cu.m.	1,048.82	2,202,417.12
Sub-total for E					P 2,202,417.12
F.	Direct Cost (C + E)				2,377,477.56
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		237,747.76
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		190,198.21
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		140,271.18
J.	Total Unit Cost				1,613.20

AK

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: 311(1)e1 Portland Cement Concrete Pavement
Unit of Measurement: sq.m.
Output per hour: 57.50
Quantity: 24,723.00

0.28 m. thick, includes widening

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	53.75	611.92	32,888.04
	b. Skilled Labor	4	53.75	443.20	95,280.29
	c. Unskilled Labor	12	53.75	342.24	220,726.94
Sub-total for A				P	348,895.28
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Transit Mixer (5 cu.m.)	4	53.75	10,544.00	2,266,776.63
	b. Concrete Vibrator	2	53.75	730.00	78,468.65
	c. Concrete Batch Plant (30 cu.m.)	1	53.75	14,076.00	756,523.80
	d. Payloader (1.50 cu.m.), LX80-2C	1	53.75	13,864.00	745,129.72
	e. Concrete Screeder (5.5 hp)	1	53.75	4,360.00	234,331.04
	f. Water truck/Pump (16000 L)	1	53.75	19,600.00	1,053,414.78
	g. Concrete Saw (7.5 hp), 14" Blade Ø	1	53.75	261.04	14,029.77
	h. Bar Cutter, Single-Phase	1	5.37	1,758.00	9,448.49
	Minor Tools 5% of Labor				17,444.76
Sub-total for B				P	5,175,567.64
C.	Total (A+B)				5,524,462.92
D.	Output/day	460.00	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Reinforcing Steel Bar	12,361.50	kg.	38.00	469,737.00
	b. Curing Compound	7,169.67	L	35.00	250,938.45
	c. Asphalt Sealant	4,202.91	L	100.00	420,291.00
	d. Steel Forms (Rental)	11,372.58	m	60.00	682,354.80
	e. Sand	3,807.34	cu.m.	1,214.82	4,625,235.21
	f. Gravel	6,922.44	cu.m.	1,214.82	8,409,518.56
	g. Cement	65,763.18	bag	286.00	18,808,269.48
	h. Concrete Saw (Diamond Blade 14" Ø)	3.71	pc.	2,500.00	9,271.13
	i. Pipe Sleeve, 2" Ø	192.84	m.	61.00	11,763.20
	j. Grease/Tar	192.84	L	112.50	21,694.43
Sub-total for E				P	33,709,073.26
F.	Direct Cost (C + E)				39,233,536.18
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		3,923,353.62
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		3,138,682.89
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		2,314,778.63
J.	Total Unit Cost				1,966.20

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening and Construction of Four (4) Lanes Concreting Road Zamboanga City By-Pass Road (Culianan-Patalon Section) Zamboanga City

Item No./Description: 404(1)a Reinforcing Steel Bar, Grade 40
Unit of Measurement: kg.

Output per hour: 180.00

Quantity: 13,264.62

For lined canal

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	9.21	611.92	5,636.73
	b. Skilled Labor	2	9.21	443.20	8,165.11
	c. Unskilled Labor	8	9.21	342.24	25,220.46
Sub-total for A					P 39,022.30
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Bar Cutter	1	4.61	1,758.00	8,096.95
	b. Bar Bender	1	4.61	2,812.00	12,951.43
	c. Cargo Truck (9-10 mt)	1	1.38	9,696.00	13,397.27
Sub-total for B					P 34,445.64
C.	Total (A+B)				73,467.94
D.	Output/day	1,440.00	kg./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Tie Wire (2% of RSB)	278.56	kg.	80.00	22,284.56
	b. Reinforcing Steel Bar, Grade 40 (w/ 5% Wastage)	13,927.85	kg.	38.00	529,258.34
Sub-total for E					P 551,542.90
F.	Direct Cost (C + E)				625,010.84
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		62,501.08
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		50,000.87
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		36,875.64
J.	Total Unit Cost				58.38

AR

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening and Construction of Four (4) Lanes Concreting Road Zamboanga City By-Pass Road (Culianan-Patalon Section) Zamboanga City

Item No./Description: 404(1)b Reinforcing Steel Bar, Grade 60

Unit of Measurement: kg.

Output per hour: 180.00

Quantity: 14,738.11

For RCBC

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	10.23	611.92	6,262.88
	b. Skilled Labor	2	10.23	443.20	9,072.13
	c. Unskilled Labor	8	10.23	342.24	28,022.06
Sub-total for A					P 43,357.06
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Bar Cutter	1	5.12	1,758.00	8,996.39
	b. Bar Bender	1	5.12	2,812.00	14,390.13
	c. Cargo Truck (9-10 mt)	1	1.54	9,696.00	14,885.49
Sub-total for B					P 38,272.01
C.	Total (A+B)				81,629.07
D.	Output/day	1,440.00	kg./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Tie Wire (2% of RSB)	309.50	kg.	80.00	24,760.02
	b. Reinforcing Steel Bar, Grade 60 (w/ 5% Wastage)	15,475.02	kg.	40.00	619,000.62
Sub-total for E					P 643,760.64
F.	Direct Cost (C + E)				725,389.71
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		72,538.97
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		58,031.18
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		42,797.99
J.	Total Unit Cost				60.98

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening and Construction of Four (4) Lanes Concreting Road Zamboanga City By-Pass Road (Culianan-Patalon Section) Zamboanga City

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

Unit of Measurement: cu.m.

Output per hour: 2.80

Quantity: 786.00

For lateral drainage and cross drains at junctions

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	35.09	611.92	21,471.84
	b. Leadman	2	35.09	561.36	39,395.44
	c. Skilled Labor	8	35.09	443.20	124,412.57
	d. Unskilled Labor	16	35.09	342.24	192,143.31
	Installation/Removal of Formworks				
	a. Leadman	2	35.09	561.36	39,395.44
	b. Skilled Labor	8	35.09	443.20	124,412.57
	c. Unskilled Labor	16	35.09	342.24	192,143.31
	use double gang of labor & equipment				
Sub-total for A					P 733,374.49
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	2	35.09	1,376.00	96,565.71
	b. Concrete Vibrator	2	35.09	730.00	51,230.36
	c. Water Truck/Pump (16000 L)	2	3.51	19,600.00	137,550.00
	Minor Tools 5% of Labor Cost				36,668.72
Sub-total for B					P 322,014.80
C.	Total (A+B)				1,055,389.29
D.	Output/day	22.40	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Lumber, Good - 4 uses	55,020.00	bd.ft.	37.00	508,935.00
	b. Marine Plywood (1/2" x 4' x 8') - 4 uses	1,257.60	pc.	880.00	276,672.00
	c. Assorted CWN (1 kg/100 bd.ft. of Lumber)	550.20	kg.	65.00	35,763.00
	d. Cement	7,467.00	bag	280.00	2,090,760.00
	e. Sand	393.00	cu.m.	1,214.82	477,424.26
	f. Gravel	786.00	cu.m.	1,214.82	954,848.52
Sub-total for E					P 4,344,402.78
F.	Direct Cost (C + E)				5,399,792.07
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		539,979.21
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		431,983.37
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		318,587.73
J.	Total Unit Cost				8,511.89

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening and Construction of Four (4) Lanes Concreting Road Zamboanga City By-Pass Road (Culanan-Patalon Section) Zamboanga City

Item No./Description: 407(8) Concrete Structures (Lean Concrete)

Unit of Measurement: cu.m.

Output per hour: 1.40

Quantity: 10.76

For RCBC

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	0.96	611.92	587.88
	c. Skilled Labor	1	0.96	443.20	425.79
	d. Unskilled Labor	2	0.96	342.24	657.59
Sub-total for A					P 1,671.26
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	0.96	1,376.00	1,321.94
	b. Concrete Vibrator	1	0.96	730.00	701.32
	c. Water Truck/Pump (16000 L)	1	0.10	19,600.00	1,883.00
Sub-total for B					P 3,906.26
C.	Total (A+B)				5,577.52
D.	Output/day	11.20	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cement	102.22	bag	280.00	7,155.40
	b. Sand	5.38	cu.m.	1,214.82	1,633.93
	c. Gravel	10.76	cu.m.	1,214.82	13,071.46
Sub-total for E					P 21,860.80
F.	Direct Cost (C + E)				27,438.32
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		2,743.83
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		2,195.07
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		1,618.86
J.	Total Unit Cost				3,159.49

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: 500(1)a1 Reinforced Concrete Culvert Pipe (610mm dia.)
Unit of Measurement: Ln.m

Output per hour: 1.00
Quantity: 38.00

Class IV, Wall B, AASHTO M-170-85

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	2.09	611.92	1,278.91
	b. Skilled Labor	2	2.09	443.20	1,852.58
	c. Unskilled Labor	4	2.09	342.24	2,861.13
Sub-total for A					P 5,992.62
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Backhoe (0.80 cu.m.)	1	0.46	12,296.00	5,653.70
	b. Plate Compactor (5hp)	1	0.46	984.00	452.44
	Minor Tools 10% of Labor				599.26
Sub-total for B					P 6,705.41
C.	Total (A+B)				12,698.02
D.	Output/day	8.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cement	29.41	bag	286.00	8,411.83
	b. Sand	1.67	cu.m.	1,214.82	2,031.18
	c. RC Pipes (610 mm dia.)	38.00	pc.	1,081.00	41,078.00
	d. Sand Bedding/Selected Sandy Soil	3.34	cu.m.	1,214.82	4,062.36
Sub-total for E					P 55,583.37
F.	Direct Cost (C + E)				68,281.39
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		6,828.14
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		5,462.51
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		4,028.60
J.	Total Unit Cost				2,226.33

AR

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: 500(1)a3 Reinforced Concrete Culvert Pipe (910mm dia.)

Unit of Measurement: Ln.m

Output per hour: 1.00

Quantity: 46.00

Class IV, Wall B, AASHTO M-170-85

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	2.71	611.92	1,656.77
	b. Skilled Labor	2	2.71	443.20	2,399.93
	c. Unskilled Labor	4	2.71	342.24	3,706.46
Sub-total for A					P 7,763.16
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Backhoe (0.80 cu.m.)	1	0.79	12,296.00	9,654.51
	b. Plate Compactor (5hp)	1	0.79	984.00	772.61
	Minor Tools 10% of Labor				776.32
Sub-total for B					P 11,203.44
C.	Total (A+B)				18,966.60
D.	Output/day	8.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cement	49.68	bag	286.00	14,208.48
	b. Sand	2.81	cu.m.	1,214.82	3,408.78
	c. RC Pipes (910 mm dia.)	46.00	pc.	1,833.00	84,318.00
	d. Sand Bedding/Selected Sandy Soil	5.89	cu.m.	1,214.82	7,152.86
Sub-total for E					P 109,088.13
F.	Direct Cost (C + E)				128,054.73
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		12,805.47
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		10,244.38
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		7,555.23
J.	Total Unit Cost				3,449.13

AR

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: 500(1)a5 Reinforced Concrete Culvert Pipe (1220mm dia.)
Unit of Measurement: Ln.m
Output per hour: 1.00
Quantity: 93.00

Class IV, Wall B, AASHTO M-170-85

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	3.80	611.92	2,325.30
	b. Skilled Labor	2	3.80	443.20	3,368.32
	c. Unskilled Labor	4	3.80	342.24	5,202.05
Sub-total for A					P 10,895.66
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Backhoe (0.80 cu.m.)	1	1.52	12,296.00	18,689.92
	b. Plate Compactor (5hp)	1	1.52	984.00	1,495.68
	Minor Tools 10% of Labor				1,089.57
Sub-total for B					P 21,275.17
C.	Total (A+B)				32,170.83
D.	Output/day	8.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cement	130.57	bag	286.00	37,343.59
	b. Sand	7.44	cu.m.	1,214.82	9,038.26
	c. RC Pipes (1220 mm dia.)	93.00	pc.	4,455.00	414,315.00
	d. Sand Bedding/Selected Sandy Soil	15.81	cu.m.	1,214.82	19,206.30
Sub-total for E					P 479,903.16
F.	Direct Cost (C + E)				512,073.99
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		51,207.40
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		40,965.92
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		30,212.37
J.	Total Unit Cost				6,822.15

AK

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

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

Unit of Measurement: cu.m

Output per hour: 1.25

Quantity: 93.00

For slope protection and HW apron

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	9.30	611.92	5,690.86
	b. Skilled Labor	2	9.30	443.20	8,243.52
	c. Unskilled Labor	8	9.30	342.24	25,462.66
Sub-total for A				P	39,397.03
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	9.30	1,376.00	12,796.80
	b. Water truck/pump (16000 L)	1	0.47	19,600.00	9,114.00
	Minor Tools 5% of Labor				1,969.85
Sub-total for B				P	23,880.65
C.	Total (A+B)				63,277.68
D.	Output/day	10.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cement	279.00	bag	286.00	79,794.00
	b. Sand	23.25	cu.m.	1,214.82	28,244.57
	c. Gravel Fill	1.40	cu.m.	1,214.82	1,694.67
	d. weepholes (PVC)	27.90	m	305.00	8,509.50
	e. Filter Cloth	1.40	sq.m	160.00	223.20
	f. Boulders (15-25 kg)	97.65	cu.m.	1,522.45	148,667.24
	Miscellaneous (1% of Materials Cost)				2,671.33
Sub-total for E				P	269,804.51
F.	Direct Cost (C + E)				333,082.20
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		33,308.22
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		26,646.58
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		19,651.85
J.	Total Unit Cost				4,437.51

MR

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

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

Unit of Measurement: cu.m

Output per hour: 1.60

Quantity: 156.00

For headwall and wingwall

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	12.19	611.92	7,457.78
	b. Skilled Labor	2	12.19	443.20	10,803.00
	c. Unskilled Labor	8	12.19	342.24	33,368.40
Sub-total for A					P 51,629.18
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	12.19	1,376.00	16,770.00
	b. Water truck/pump (16000 L)	1	0.61	19,600.00	11,943.75
	c. Backhoe (Wheel type 0.28 cu.m)	1	0.12	7,376.00	898.95
	Minor Tools 5% of Labor				2,581.46
Sub-total for B					P 32,194.16
C.	Total (A+B)				83,823.33
D.	Output/day 12.80	cu.m./day			
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cement	511.50	bag	286.00	146,289.00
	b. Sand	27.90	cu.m.	1,214.82	33,893.48
	c. Gravel Fill	1.86	cu.m.	1,214.82	2,259.57
	d. weepholes (PVC)	27.90	m	305.00	8,509.50
	e. Filter Cloth	1.40	sq.m	160.00	223.20
	f. Boulders (15-25 kg)	163.80	cu.m.	1,522.45	249,377.31
	Miscellaneous (1% of Materials Cost)				4,405.52
Sub-total for E					P 444,957.57
F.	Direct Cost (C + E)				528,780.91
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		52,878.09
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		42,302.47
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		31,198.07
J.	Total Unit Cost				4,199.74

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: 603(3)a1 Metal Guardrail (Metal Beam) Including Post
Unit of Measurement: Ln.m
Output per hour: 4.20
Quantity: 1,236.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	36.79	611.92	22,509.91
	b. Skilled Labor	2	36.79	443.20	32,606.86
	c. Unskilled Labor	4	36.79	342.24	50,358.17
Sub-total for A				P	105,474.94
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Cargo Truck (9-10 mt.)	1	9.20	9,696.00	89,168.57
	Minor Tools 10% of Labor				10,547.49
Sub-total for B				P	99,716.07
C.	Total (A+B)				205,191.01
D.	Output/day	33.60	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cement	179.93	bag	286.00	51,459.41
	b. Sand	12.85	cu.m	1,214.82	15,612.87
	c. Gravel	25.70	cu.m	1,214.82	31,225.73
	d. M.F.B.G. Class B 3.34mm	1,236.00	ln.m	3,350.00	4,140,600.00
	e. Bolt, Nut, & Washer 5/8" dia. X 9"	459.00	pc	28.00	12,852.00
	f. Bolt, Nut, & Washer 5/8" dia. X 1"	1,836.00	pc	21.00	38,556.00
	g. Guardrail Post 4" X 5' with dowels	459.00	pc	1,770.00	812,430.00
Sub-total for E				P	5,102,736.01
F.	Direct Cost (C + E)				5,307,927.02
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		530,792.70
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		424,634.16
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		313,167.69
J.	Total Unit Cost				5,320.81

dk

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Road Widening - Secondary Road
Zamboanga City - Labuan - Limpapa Road

Item No./Description: 612(1) ReflectORIZED Thermoplastic Pavement Markings (White)
Unit of Measurement: sq.m.

Output per hour: 25.00

Quantity: 923.00

White for centerline and edgeline

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	4.62	611.92	2,824.01
	b. Skilled Labor	2	4.62	443.20	4,090.74
	c. Unskilled Labor	6	4.62	342.24	9,476.63
Sub-total for A					P 16,391.37
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Cargo Truck/Delivery Truck (2-5 mt)	1	4.62	6,264.00	28,908.36
	b. Applicator Machine	1	4.62	750.00	3,461.25
	c. Kneading Machine	1	4.62	1,500.00	6,922.50
	Minor Tools 10% of Labor				1,639.14
Sub-total for B					P 40,931.25
C.	Total (A+B)				57,322.62
D.	Output/day	200.00	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Thermoplastic Paint (White)	299.98	bag	1,585.00	475,460.38
	b. Glass Beads	30.46	bag	2,500.00	76,147.50
	c. Primer	110.76	L	160.00	17,721.60
	d. LPG (50 kg)	3.69	cyl.	3,450.00	12,737.40
	e. LPG (12 kg)	1.85	cyl.	828.00	1,528.49
	f. Calsumine	115.38	kg.	100.00	11,537.50
	Miscellaneous 5% of Materials Cost				29,756.64
Sub-total for E					P 624,889.51
F.	Direct Cost (C + E)				682,212.13
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		68,221.21
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		54,576.97
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		40,250.52
J.	Total Unit Cost				915.78

AK

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction/Improvement of Access Roads, Leading to Trades, Industries and Economic Zones - Access Road at Sitio Anuling, Pamucutan to Sta. Rita in Support of High Value Crops (Abaca, Cacao, Rubber and Coffee) Upper La Paz, Zamboanga City

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

Unit of Measurement: sq.m.

Output per hour: 50.00

Quantity: 4,628.00

CGN 400, for slope protection work (cut section)

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	11.57	611.92	7,079.91
	c. Unskilled Labor	8	11.57	342.24	31,677.73
Sub-total for A					P 38,757.65
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Water truck /pump (16000 L)	1	2.89	19,600.00	56,693.00
	Minor tools 10% of labor cost				3,875.76
Sub-total for B					P 60,568.76
C.	Total (A+B)				99,326.41
D.	Output/day	400.00	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Erosion Control Net CGN 400 with 5% wastage (price includes bamboo pegs)	4,859.40	sq.m	110.00	534,534.00
Sub-total for E					P 534,534.00
F.	Direct Cost (C + E)				633,860.41
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		63,386.04
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		50,708.83
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		37,397.76
J.	Total Unit Cost				169.70

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction/Improvement of Access Roads, Leading to Trades, Industries and Economic Zones - Access Road at Sifio Anuling, Pamucutan to Sta. Rita in Support of High Value Crops (Abaca, Cacao, Rubber and Coffee) Upper La Paz, Zamboanga City

Item No./Description: 622 (1)b Coco-net

Unit of Measurement: sq.m.

Output per hour: 50.00

Quantity: 1,116.00

CGN 700, for slope protection work (fill section)

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	2.79	611.92	1,707.26
	c. Unskilled Labor	8	2.79	342.24	7,638.80
Sub-total for A				P	9,346.05
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Water truck /pump (16000 L)	1	0.70	19,600.00	13,671.00
	Minor tools 10% of labor cost				934.61
Sub-total for B				P	14,605.61
C.	Total (A+B)				23,951.66
D.	Output/day	400.00	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Erosion Control Net CGN 400 with 5% wastage (price includes bamboo pegs)	1,171.80	sq.m	110.00	128,898.00
Sub-total for E				P	128,898.00
F.	Direct Cost (C + E)				152,849.66
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		15,284.97
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		12,227.97
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		9,018.13
J.	Total Unit Cost				169.70

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction/Improvement of Access Roads, Leading to Trades, Industries and Economic Zones - Access Road at Sitio Anuling, Pamucutan to Sta. Rita in Support of High Value Crops (Abaca, Cacao, Rubber and Coffee) Upper La Paz, Zamboanga City

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

Unit of Measurement: In.m

Output per hour: 15.00

Quantity: 710.00 CN 300, For Slope Protection

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	5.92	611.92	3,620.53
	d. Unskilled Labor	8	5.92	342.24	16,199.36
Sub-total for A					P 19,819.89
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	Minor tools 10% of labor cost				1,981.99
Sub-total for B					P 1,981.99
C.	Total (A+B)				21,801.88
D.	Output/day	120.00	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Coco fiber roll (CGR 300) (price includes nylon ropes and live stakes)	745.50	m	450.00	335,475.00
Sub-total for E					P 335,475.00
F.	Direct Cost (C + E)				357,276.88
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		35,727.69
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		28,582.15
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		21,079.34
J.	Total Unit Cost				623.47

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction/Improvement of Access Roads, Leading to Trades, Industries and Economic Zones - Access Road at Sitio Anuling, Pamucutan to Sta. Rita in Support of High Value Crops (Abaca, Cacao, Rubber and Coffee) Upper La Paz, Zamboanga City

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

Unit of Measurement: sq.m.

Output per hour: 35.00

Quantity: 5,743.00 *For slope protection*

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	20.51	611.92	12,550.92
	c. Unskilled Labor	8	20.51	342.24	56,156.69
Sub-total for A				P	68,707.61
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Water truck /pump (16000 L)	1	10.26	19,600.00	201,005.00
	Minor tools 10% of labor cost				6,870.76
Sub-total for B				P	6,870.76
C.	Total (A+B)				75,578.37
D.	Output/day	280.00	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Vetiver grass system (price includes cocopeat fertilizer)	6,030.15	sq.m	102.00	615,075.30
Sub-total for E				P	615,075.30
F.	Direct Cost (C + E)				690,653.67
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		69,065.37
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		55,252.29
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		40,748.57
J.	Total Unit Cost				149.00

dre

PROJECT : Road Widening - Secondary Road
LOCATION : Zamboanga City
LIMITS :

1973+790.00 - 1973+976.00
1974+485.00 - 1978+000.00

net length : 3,690.00 m.m.

SUMMARY OF DETAILED ESTIMATES

ITEM NO.	DESCRIPTION	QTY.	UNIT	LABOR	EQUIPMENT	MATERIALS	OCM	PROFIT	VAT	TOTAL
PART A - FACILITIES FOR THE ENGINEER										
A.1.1(3)	Construction of Field Office for the Engineer	1.00	L.S.	42,596.48	32,115.65	315,249.38	38,996.15	31,196.92	23,007.73	483,162.31
A.1.1(11)	Provision of Furnitures/Fixtures, Equipment and Appliances for the Field Office for the Field Engineer	1.00	L.S.	-	-	286,179.33	-	22,893.87	15,453.36	324,520.56
A.1.2(5)	Operation and Maintenance of 4x4 Pick Up Type Service Vehicle for the Engineer	6.33	month	80,240.80	-	137,735.00	-	-	10,898.79	228,874.59
TOTAL OF PART A										
				122,837.28	32,115.65	739,157.71	38,996.15	54,090.79	49,359.88	1,036,557.46
PART B - OTHER GENERAL REQUIREMENTS										
B.4(1)	Construction Survey & Staking	3.69	km.	96,271.64	18,852.16	37,406.25	15,253.01	12,202.40	8,999.27	188,984.74
B.5	Project Billboard/Signboard	2.00	each	3,479.20	-	7,330.00	1,080.92	864.74	637.74	13,392.60
B.7	Occupation Safety and Health Program	6.33	month	142,340.40	60,000.00	26,760.00	-	18,328.03	12,371.42	259,799.85
B.9	Mobilization & Demobilization	1.00	L.S.	-	749,543.00	-	-	-	37,477.15	787,020.15
TOTAL OF PART B										
				242,091.24	828,395.16	71,496.25	16,333.93	31,395.17	59,485.59	1,249,197.34
PART C - EARTHWORKS										
101(3)b1	Removal of Actual Structures/Obstruction	274.00	Sq.m	888.03	24,426.03	-	2,531.41	2,025.13	1,493.53	31,364.13
102(2)	Surplus Common Excavation	24,088.00	cu.m.	48,793.26	3,441,241.79	-	349,003.50	279,202.80	205,912.07	4,324,153.42
103(1)a	Structure Excavation	801.00	cu.m.	8,203.44	176,119.19	-	18,432.26	14,745.81	10,875.04	228,375.75
103(3)	Foundation Fill	27.00	cu.m.	4,109.24	1,207.42	37,720.16	4,303.68	3,442.95	2,539.17	53,322.62
103(6)a	Pipe Culverts and Drain Excavation	65.00	cu.m.	665.70	14,291.82	-	1,495.75	1,196.60	882.49	18,532.36
104(1)a	Embankment from Roadway Excavation	25,950.00	cu.m.	153,910.23	5,829,231.54	-	598,314.18	478,451.34	353,005.36	7,413,112.65
105(1)a	Subgrade Preparation	27,983.00	sq.m.	15,115.48	432,010.88	-	44,712.64	35,770.11	26,380.46	553,989.57
TOTAL OF PART C										
				231,685.38	9,918,528.68	37,720.16	1,018,793.42	815,034.74	601,088.12	12,622,850.50
PART D - SUBBASE AND BASE COURSE										
200(1)	Aggregate Subbase Course	13,866.00	cu.m.	44,939.71	1,284,407.58	15,847,354.34	1,717,670.16	1,374,136.13	1,013,425.40	21,281,933.31
TOTAL OF PART D										
				44,939.71	1,284,407.58	15,847,354.34	1,717,670.16	1,374,136.13	1,013,425.40	21,281,933.31
PART E - SURFACE COURSES										
300(1)	Gravel Surface Course	1,826.00	cu.m.	5,918.07	169,142.38	2,202,417.12	237,747.76	190,198.21	140,271.18	2,945,694.70
311(1)e1	Portland Cement Concrete Pavement	24,723.00	sq.m.	348,895.28	5,175,567.64	33,709,073.26	3,923,353.62	3,138,462.89	2,314,778.63	48,610,351.32
TOTAL OF PART E										
				354,813.34	5,344,710.02	35,911,490.38	4,161,101.37	3,328,881.10	2,455,049.81	51,556,046.02
PART G - DRAINAGE AND SLOPE PROTECTION STRUCTURES										
404(1)a	Reinforcing Steel Bar, Grade 40	13,264.62	kg.	39,022.30	34,445.64	551,542.90	62,501.08	50,000.87	36,875.64	774,388.43
404(1)b	Reinforcing Steel Bar, Grade 60	14,738.11	kg.	43,357.06	38,272.01	643,760.64	72,538.97	58,031.18	42,797.99	898,757.86
405(1)a3	Structural Concrete, Class A	786.00	cu.m.	733,374.49	322,014.80	4,344,402.78	539,979.21	431,983.37	318,587.73	6,690,342.37
407(8)	Concrete Structures (Lean Concrete)	10.76	cu.m.	1,671.26	3,906.26	21,860.80	2,743.83	2,195.07	1,618.86	33,996.08
500(1)a1	Reinforced Concrete Culvert Pipe (610mm dia.)	38.00	Ln.m	5,992.62	6,705.41	55,583.37	6,828.14	5,462.51	4,028.60	84,600.64
500(1)a3	Reinforced Concrete Culvert Pipe (910mm dia.)	46.00	Ln.m	7,763.16	11,203.44	109,088.13	12,805.47	10,244.38	7,555.23	158,659.81
500(1)a5	Reinforced Concrete Culvert Pipe (1220mm dia.)	93.00	Ln.m	10,895.66	21,275.17	479,903.16	51,207.40	40,963.92	30,212.37	634,459.67
505(5)	Grouted Riprap, Class A	93.00	cu.m	39,397.03	23,880.65	269,804.51	33,308.22	26,446.58	19,651.85	412,688.84
506(1)	Stone Masonry	156.00	cu.m	51,629.18	32,194.16	444,957.57	52,878.09	42,302.47	31,198.07	655,159.54
TOTAL OF PART G										
				933,102.76	493,897.53	6,920,903.86	834,790.41	667,832.33	492,526.34	10,343,053.24
PART H - MISCELLANEOUS STRUCTURES										
603(3)a1	Metal Guardrail (Metal Beam) Including Post	1,236.00	Ln.m	105,474.94	99,716.07	5,102,736.01	530,792.70	424,634.16	313,167.69	6,576,521.57
612(1)	ReflectORIZED Thermoplastic Pavement Markings (White)	923.00	sq.m.	16,391.37	40,931.25	624,889.51	68,221.21	54,576.97	40,250.52	845,260.82
622 (1)a	Coco-net	4,629.00	sq.m.	38,757.65	60,568.76	534,534.00	50,708.04	37,397.76	9,018.13	785,353.05
622 (1)b	Coco-net	1,116.00	sq.m.	9,346.05	14,605.61	128,898.00	15,284.97	12,227.97	9,018.13	189,380.73
622 (2)c	Coco-log/Fascine	710.00	Ln.m	19,819.89	1,981.99	335,475.00	35,727.69	28,582.15	21,079.34	442,666.05
622 (3)b	Vegetation	5,743.00	sq.m.	68,707.61	6,870.76	615,075.30	69,065.37	55,252.29	40,748.57	855,719.90
TOTAL OF PART H										
				258,497.52	224,674.43	7,341,607.81	782,477.98	625,982.38	461,662.01	9,694,902.13
T O T A L										
				2,187,967.22	18,126,729.05	66,869,730.51	8,570,163.43	6,897,352.64	5,132,597.14	107,784,540.00

Name of Project	: Road Widening - Secondary Road
Station Limits	: 1973+790.00 - 1973+976.00
	1974+485.00 - 1978+000.00

Net Length : 3,690.00 In.m.

Item No.	Description	Quantity	Unit	DURATION # OF DAYS
PART A - FACILITIES FOR THE ENGINEER				
A.1.1(3)	Construction of Field Office for the Engineer	1.00	L.S.	8.00
A.1.1(11)	Provision of Furnitures/Fixtures, Equipment and Appliances for	1.00	L.S.	190
A.1.2(5)	Operation and Maintenance of 4x4 Pick Up Type Service Ve	6.33	month	190
PART B - OTHER GENERAL REQUIREMENTS				
B.4(1)	Construction Survey & Staking	3.69	km.	34.59
B.5	Project Billboard/Signboard	2.00	each	2.00
B.7	Occupation Safety and Health Program	6.33	month	190
B.9	Mobilization & Demobilization	1.00	L.S.	5.00
PART C - EARTHWORKS				
101(3)b1	Removal of Actual Structures/Obstruction	274.00	Sq.m	0.69
102(2)	Surplus Common Excavation	24,088.00	cum.	37.64
103(1)a	Structure Excavation	801.00	cum.	5.01
103(3)	Foundation Fill	27.00	cum.	0.68
103(3)a	Pipe Culverts and Drain Excavation	65.00	cum.	0.41
104(1)a	Embankment from Roadway Excavation	25,950.00	cum.	64.88
105(1)a	Subgrade Preparation	27,983.00	sq.m.	11.66
PART D - SUBBASE AND BASE COURSE				
200(1)	Aggregate Subbase Course	13,866.00	cum.	34.67
PART E - SURFACE COURSES				
300(1)	Gravel Surface Course	1,826.00	cum.	4.57
311(1)e1	Portland Cement Concrete Pavement	24,723.00	sq.m.	53.75
PART G - DRAINAGE AND SLOPE PROTECTION STRUCTURES				
404(1)a	Reinforcing Steel Bar, Grade 40	13,264.62	kg.	9.21
404(1)b	Reinforcing Steel Bar, Grade 60	14,738.11	kg.	10.23
405(1)a3	Structural Concrela, Class A	786.00	cum.	35.09
407(8)	Concrete Structures (Lean Concrete)	10.76	cum.	0.96
500(1)a1	Reinforced Concrete Culvert Pipe (610mm dia.)	38.00	Ln.m	2.09
500(1)a3	Reinforced Concrete Culvert Pipe (910mm dia.)	46.00	Ln.m	2.71
500(1)a5	Reinforced Concrete Culvert Pipe (1220mm dia.)	93.00	Ln.m	3.80
505(5)	Grouted Riprap, Class A	93.00	cum	9.30
506(1)	Stone Masonry	156.00	cum	12.19
PART H - MISCELLANEOUS STRUCTURES				
603(3)a1	Metal Guardrail (Metal Beam) Including Post	1,236.00	Ln.m	36.79
612(1)	ReflectORIZED Thermoplastic Pavement Markings (White	923.00	sq.m.	4.62
622(1)a	Coco-net	4,628.00	sq.m.	11.57
622(1)b	Coco-net	1,116.00	sq.m.	2.79
622(2)c	Coco-logs/Fascine	710.00	Ln.m	5.92
622(3)b	Vegetation	5,743.00	sq.m.	20.51

Prepared by:

Submitted by:

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UNIT COST ANALYSIS FOR HAULING COST FOR ALL AGGREGATES

Hauling Cost from the Quarry to Batching plant

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 Aggregates : 1,640.00 kg/m³
 Unit weight of Coarse Aggregates : 1,534.00 kg/m³
 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	
Loaded running	=	$\frac{5.00 \times 60}{30.00}$	=	10.00 mins.
Unloaded running	=	$\frac{5.00 \times 60}{40.00}$	=	7.50 mins.
Loading and Unloading	:	5.00	mins.	
allowance for delay/traffic	:	3.00	mins.	
Capacity of Dumptruck	:	10.00	cu.m.	
Total Cycle time	:	25.50	mins.	
No. of trips for Dumptruck per day	=	$\frac{8 \times 60.00}{25.50}$	=	18.82 say 18.82 trips
Dumptruck daily output	=	10 x 18.82	=	188.24 cu.m.
Using { 5 } Dumptrucks	=	5 x 188.24	=	941.18 cu.m.
1. No. of days for Dumptrucks	=	$\frac{1,000.00}{941.18}$	=	1.06 say 1.06 days

EQUIPMENT USED : (2009 ACCEL RATES)

5	- Unit Dumptruck	@ P	11,360.00 /day	x	1.06 days	= P	60,350.00
					Sub - Total	P	60,350.00

Estimated Quantity		1,000.00	cu.m.
Unit Cost	P	12.07	/cu. m./km. (Unit Cost, Hauling per cu.m.per km.)
Grand Total	P	60,350.00	
Equipment	P	60,350.00	
Labor	P		
Materials	P		

	Hauling Distance		Unit Cost per cu.m./km.		Hauling Cost per cu.m.		Unit Price		Unit Cost per cu.m.
Cost of Fine Aggregates:	26.00	x	12.07	=	313.82	+	901.00	=	1,214.82
Cost of Coarse Aggregates:	26.00	x	12.07	=	313.82	+	901.00	=	1,214.82
Cost of Item 200 Materials:	26.00	x	12.07	=	313.82	+	680.00	=	993.82
Cost of Item 300 Materials:	26.00	x	12.07	=	313.82	+	735.00	=	1,048.82
Cost of Boulders:	35.00	x	12.07	=	422.45	+	1,100.00	=	1,522.45
Cost of Embankment, Common Borrow:	5.00	x	12.07	=	60.35	+	328.00	=	388.35

DR

UNIT COST ANALYSIS FOR HAULING COST FOR PORTLAND CEMENT

TOTAL QUANTITY REQUIREMENTS FOR PORTLAND CEMENT

DESCRIPTION	QUANTITY (Bags)
Portland Cement Concrete Pavement	65,763.18
Structural Concrete, Class A	7,467.00
Concrete Structures (Lean Concrete)	102.22
Reinforced Concrete Culvert Pipe (610mm dia.)	29.41
Reinforced Concrete Culvert Pipe (910mm dia.)	49.68
Reinforced Concrete Culvert Pipe (1220mm dia.)	130.57
Grouted Riprap, Class A	279.00
Stone Masonry	511.50
Metal Guardrail (Metal Beam) Including Post	179.93
Construction of Field Office for the Engineer	135.00
T O T A L	74,647.49

Quantity = **74,647.49** Bags

Delivery Charge = P 0.120 / bag / km.

S I T E	HAULING DISTANCE
Zamboanga City DEO	40.00
Batching plant	

*Average hauling distance from Source to assumed Stockpiling area :
say 40.00 km.

Delivery Charge = P 0.120 x 40.00
= P **4.80** / bag

*Delivery Truck : 74,647.49 bags., (hauling works)
20,000.00 kgs., (capacity per haul)
or 500.00 bags., (capacity per haul)

*Capacity of Laborers unloading bags of Cement from Delivery Truck :
Assume (10) laborers can unload 500.00 bags of Cement.

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

Speed when loaded : 30.00 kph
Speed when unloaded : 40.00 kph
Loaded running = $\frac{40.00 \times 60}{30.00} = 80.00$ mins.
Unloaded running = $\frac{40.00 \times 60}{40.00} = 60.00$ mins.
Loading and Unloading : 45.00 mins.
allowance for delay/traffic : 3.00 mins.
Capacity of Dumptruck : 8.00 cu.m.
: 500.00 bags
Total Cycle time : 188.00 mins.
No. of trips for Dumptruck per day = $\frac{8.0 \times 60.00}{188.00} = 2.55$ say 2.55 trip
Dumptruck daily output = $500 \times 2.55 = 1,276.60$ cu.m.
Using (3) Dumptrucks = $3 \times 1,276.60 = 3,829.79$ cu.m.

1. No. of days for Delivery Truck = $\frac{74,647.49}{3,829.79} = 19.49$ say 19.49 days
2. No. of days for Labor, for unloading = complimentary to D. Truck days = 19.49 days

DELIVERY COST :

74,647.49 - Bags, Portland Cement @ P 4.80 / bag = P 358,307.96
Sub - Total P 358,307.96

LABOR :

1 - Foreman @ P 611.92 /day x 19.49 days = P 11,927.11
10 - Laborers, unloading @ P 342.24 /day x 19.49 days = P 66,706.99
Sub - Total P 78,634.10

MATERIALS :

74,647.49 - Bags, Portland Cement @ P 280.00 / bag = P 20,901,297.76
(Pick-Up Price) **Sub - Total P 20,901,297.76**

Estimated Quantity 74,647.49 Bags
Unit Cost P 285.85 / Bag, say P 286.00 / Bag
Grand Total P 21,338,239.82
Delivery Cost P 358,307.96
Labor P 78,634.10
Materials P 20,901,297.76

MR