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 : **Road Widening - Primary Road - Lanao - Pagadian - Zamboanga City Road**	Approriation : P 130,000,000.00 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 : Road Widening Road Width : 6.70 m. Roadbed Width : 12.00 m. Subbase Course : 0.30 mtrs thick Surface Course : 0.15 mtrs thick	NET LENGTH : K1740+498.63 - K1744+551.63 Net Length : **8.11** lane km Net Length : **4,053.00** ln.m. / **4.053** 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
101(1)	Removal of Structures/Obstruction	0.506	LS	1.00	500,000.00	500,000.00
101(2)a	Removal of Actual Structures/Obstructions	0.008	each	23.00	8,320.41	361.76
101(2)b	Removal of Actual Structures/Obstruction	0.060	each	63.00	59,525.24	944.85
101(2)c	Removal of Actual Structures/Obstruction	0.037	each	39.00	36,848.96	944.85
101(8)	Removal of Existing Guardrails	0.074	ln.m	2,660.50	72,715.59	27.33
101(9)	Removal of Existing Guardrails Post	0.019	each	699.00	19,104.75	27.33
101(10)	Removal of Existing Road Signs	0.025	each	66.00	24,288.00	368.00
103(1)a	Structure Excavation	0.434	cu.m.	789.00	429,081.08	543.83
103(3)	Foundation Fill	0.016	cu.m.	16.00	15,479.17	967.45
103(6)a	Pipe Culvert and Drain Excavation	0.031	cu.m.	134.50	30,950.55	230.12
104(1)a1	Embankment from Roadway Excavation	5.100	cu.m.	21,779.50	5,043,788.74	231.58
104(2)a	Embankment from Borrow	8.314	cu.m.	10,279.50	8,223,507.48	799.99
105 (1)a	Subgrade Preparation	0.540	sq.m.	34,854.50	534,383.38	15.33
200 (1)	Aggregate Subbase Course	22.945	cu.m.	14,777.50	22,694,412.63	1,535.74
300 (1)	Aggregate Surface Course	2.066	cu.m.	1,498.50	2,043,101.35	1,363.43
311(1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	44.818	sq.m.	26,399.00	44,327,225.59	1,679.13
311(1)a	Portland Cement Concrete Pavement, 0.15m. Thick	2.477	sq.m	2,657.00	2,449,468.34	921.89
404 (1)a	Reinforcing Steel Bar, Grade 40	1.069	kg.	22,106.50	1,056,936.94	47.81
405 (1) a3	Structural Concrete, Class A	3.966	cu.m	527.00	3,922,275.47	7,442.65
500(1)b3	Pipe Culvert & Storm Drain	0.161	ln.m	44.00	159,562.57	3,626.42
500(1)b4	Pipe Culvert & Storm Drain	0.391	ln.m	88.00	386,683.93	4,394.14
505(2)a	Grouted Riprap, Class A	0.225	cu.m	55.50	222,822.19	4,014.81

506	Stone Masonry	0.650	cu.m	154.00	643,350.66	4,177.60
612(1)	Reflectorized Thermoplastic Pavement Markings (White)	0.981	sq.m	1,331.00	970,051.83	728.81
622(1)a	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 400)	0.120	sq.m	940.00	118,874.34	126.46
622(1)b	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 700)	0.570	sq.m	3,852.00	563,979.26	146.41
622(2)b	Bio-Engineered Erosion Coco Logs/Fascine Control System	0.293	ln.m	551.50	290,258.24	526.31
622(3)a	Bio-Engineered Erosion Control System Vegetation	1.726	sq.m	4,792.00	1,706,741.72	356.16
A.1.1(3)	Const. of Field Office for the Engineer	0.415	LS	1.00	410,032.17	410,032.17
A.1.1(11)	Prov. Of Furniture, Equipment and Appliances for Field Engineer	0.248	LS	1.00	244,863.32	244,863.32
A.1.2(5)	Operation & Maintenance of Gov't. Service Vehicle	0.329	L.S	1.00	325,128.00	325,128.00
B.5	Project Billboard	0.005	Unit	2.00	4,570.90	2,285.45
B.7	Occupational Safety & Health Program	0.169	L.S	1.00	167,436.12	167,436.12
B.9	Mobilization and Demobilization	1.062	L.S	1.00	1,050,712.00	1,050,712.00
B.4(1)	Construction Survey and Staking	0.151	Km.	4.05	149,578.92	36,905.73
TOTAL		**100.000**			**P 98,906,059.84**	

Name of Project : Road Widening - Primary Road - Lanao - Pagadian - Zamboanga City Road

Station Limits : K1740+498.63 - K1744+551.63
K1876+377.00 - K1877+534.00

BREAKDOWN OF ESTIMATED EXPENDITURES	% OF TOTAL		AMOUNT
I. ESTIMATED COST			
A. DIRECT COST			
A.1 Materials	61.88		80,441,182.52
A.2 Labor	1.39		1,811,509.77
A.3 Equipment Expenses	12.81		16,653,367.55
SUB-TOTAL (DIRECT COST)	76.08	P	98,906,059.84
B. INDIRECT COST (Per DO # 197 s. 2016)			
B.1 Overhead, Contingency & Misc. (10% Max. of D.C.)	7.47		9,711,792.04
B.2 Profit (8% Max. D.C.)	5.99		7,782,828.52
C. VAT (5% of D.C. and I.C. per D.O. # 197)	4.48		5,820,034.02
SUB-TOTAL (CONTRACT COST)	94.02	P	122,220,714.42
II. ESTIMATED GOVERNMENT EXPENDITURES			
1 Engineering and Administrative Overhead (3.5%)	3.50		4,550,000.00
2 Detailed Engineering (1%)			
3 Reserved for the Payment of RROW)	2.48		3,229,285.58
4 Physical Reserved	0.00		
TOTAL ESTIMATED PROJECT COST	100.00	P	130,000,000.00

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 BUDGET FOR THE CONTRACT

Road Widening - Primary Road - Lanao - Pagadian - Zamboanga City Road

Project Name and Location

Station Limits : K1740+498.63 - K1744+551.63

Length : 4,053.00 ln.m.

Contract Duration : 207.00 Calendar Days

Item No.	Description	Quantity	Unit	Estimated Direct Cost	MARK-UP IN PERCENT OCM	MARK-UP IN PERCENT PROFIT	TOTAL MARK-UPS %	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	410,032.17	10.00	8.00	18.00	73,805.79	24,191.90	97,997.69	508,029.86	508,029.86
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	LS	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			**980,023.49**				**73,805.79**	**52,691.46**	**126,497.25**	**1,106,520.75**	
PART B	**OTHER GENERAL REQUIREMENTS**											
B.5	Project Billboard	2.00	Unit	4,570.90	10.00	8.00	18.00	822.76	269.68	1,092.45	5,663.35	2,831.67
B.7	Occupational Safety & Health Program	1.00	LS	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	LS	1,050,712.00	0.00	0.00	0.00	-	52,535.60	52,535.60	1,103,247.60	1,103,247.60
B.4(1)	Construction Survey and Staking	4.05	Km.	149,578.92	10.00	8.00	18.00	26,924.21	8,825.16	35,749.36	185,328.28	45,726.20
	TOTAL OF PART B			**1,372,297.94**				**41,141.86**	**70,671.99**	**111,813.85**	**1,484,111.79**	
PART C	**EARTHWORKS**											
101(1)	Removal of Structures/Obstruction	1.00	LS	500,000.00	10.00	8.00	18.00	90,000.00	29,500.00	119,500.00	619,500.00	619,500.00
101(2)a	Removal of Actual Structures/Obstructions	23.00	each	8,320.41	10.00	8.00	18.00	1,497.67	490.90	1,988.58	10,308.98	448.22
101(2)b	Removal of Actual Structures/Obstruction	63.00	each	59,525.24	10.00	8.00	18.00	10,714.54	3,511.99	14,226.53	73,751.77	1,170.66
101(2)c	Removal of Actual Structures/Obstruction	39.00	each	36,848.96	10.00	8.00	18.00	6,632.81	2,174.09	8,806.90	45,655.86	1,170.66
101(8)	Removal of Existing Guardrails	2,660.50	ln.m.	72,715.59	10.00	8.00	18.00	13,088.81	4,290.22	17,379.03	90,094.61	33.86
101(9)	Removal of Existing Guardrails Post	699.00	each	19,104.75	10.00	8.00	18.00	3,438.86	1,127.18	4,566.04	23,670.79	33.86
101(10)	Removal of Existing Road Signs	66.00	each	24,288.00	10.00	8.00	18.00	4,371.84	1,432.99	5,804.83	30,092.83	455.95
103(1)a	Structure Excavation	789.00	cu.m.	429,081.08	10.00	8.00	18.00	77,234.59	25,315.78	102,550.38	531,631.46	673.80
103(3)	Foundation Fill	16.00	cu.m.	15,479.17	10.00	8.00	18.00	2,786.25	913.27	3,699.52	19,178.69	1,198.67
103(6)a	Pipe Culvert and Drain Excavation	134.50	cu.m.	30,950.55	10.00	8.00	18.00	5,571.10	1,826.08	7,397.18	38,347.74	285.11
104(1)a1	Embankment from Roadway Excavation	21,779.50	cu.m.	5,043,788.74	10.00	8.00	18.00	907,881.97	297,583.54	1,205,465.51	6,249,254.25	286.93
104(2)a	Embankment from Borrow	10,279.50	cu.m.	8,223,507.48	10.00	8.00	18.00	1,480,231.35	485,186.94	1,965,418.29	10,188,925.77	991.19
105 (1)a	Subgrade Preparation	34,854.50	sq.m.	534,383.38	10.00	8.00	18.00	96,189.01	31,528.62	127,717.63	662,101.01	19.00
	TOTAL OF PART C			**14,997,993.35**				**2,699,638.80**	**884,881.61**	**3,584,520.41**	**18,582,513.76**	
PART D	**SUBBASE AND BASE COURSE**											
200 (1)	Aggregate Subbase Course	14,777.50	cu.m.	22,694,412.63	10.00	8.00	18.00	4,084,994.27	1,338,970.35	5,423,964.62	28,118,377.25	1,902.78
	TOTAL OF PART D			**22,694,412.63**				**4,084,994.27**	**1,338,970.35**	**5,423,964.62**	**28,118,377.25**	
PART E	**SURFACE COURSES**											
300 (1)	Aggregate Surface Course	1,498.50	cu.m.	2,043,101.35	10.00	8.00	18.00	367,758.24	120,542.98	488,301.22	2,531,402.58	1,689.29
311(1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	26,399.00	sq.m.	44,327,225.59	10.00	8.00	18.00	7,978,900.61	2,615,306.31	10,594,206.92	54,921,432.51	2,080.44
311(1)a	Portland Cement Concrete Pavement, 0.15m. Thick	2,657.00	sq.m	2,449,468.34	10.00	8.00	18.00	440,904.30	144,518.63	585,422.93	3,034,891.27	1,142.22
	TOTAL OF PART E			**48,819,795.29**				**8,787,563.15**	**2,880,367.92**	**11,667,931.07**	**60,487,726.36**	
PART G	**DRAINAGE AND SLOPE PROTECTION STRUCTURES**											
404 (1)a	Reinforcing Steel Bar, Grade 40	22,106.50	kg.	1,056,936.94	10.00	8.00	18.00	190,248.65	62,359.28	252,607.93	1,309,544.87	59.24
405 (1) a3	Structural Concrete, Class A	527.00	cu.m	3,922,275.47	10.00	8.00	18.00	706,009.58	231,414.25	937,423.84	4,859,699.31	9,221.44
500(1)b3	Pipe Culvert & Storm Drain	44.00	ln.m	159,562.57	10.00	8.00	18.00	28,721.26	9,414.19	38,135.45	197,698.03	4,493.14
500(1)b4	Pipe Culvert & Storm Drain	88.00	ln.m	386,683.93	10.00	8.00	18.00	69,603.11	22,814.35	92,417.46	479,101.38	5,444.33
505(2)a	Grouted Riprap, Class A	55.50	cu.m	222,822.19	10.00	8.00	18.00	40,107.99	13,146.51	53,254.50	276,076.69	4,974.35
506	Stone Masonry	154.00	cu.m	643,350.66	10.00	8.00	18.00	115,803.12	37,957.69	153,760.81	797,111.47	5,176.05
	TOTAL OF PART G			**6,391,631.76**				**1,150,493.72**	**377,106.27**	**1,527,599.99**	**7,919,231.75**	
PART H	**MISCELLANEOUS STRUCTURES**											
612(1)	Reflectorized Thermoplastic Pavement Markings (White)	1,331.00	sq.m	970,051.83	10.00	8.00	18.00	174,609.33	57,233.06	231,842.39	1,201,894.22	903.00
622(1)a	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 400)	940.00	sq.m	118,874.34	10.00	8.00	18.00	21,397.38	7,013.59	28,410.97	147,285.30	156.69
622(1)b	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 700)	3,852.00	sq.m	563,979.26	10.00	8.00	18.00	101,516.27	33,274.78	134,791.04	698,770.30	181.40
622(2)b	Bio-Engineered Erosion Coco Logs/Fascine Control System	551.50	ln.m	290,258.24	10.00	8.00	18.00	52,246.48	17,125.24	69,371.72	359,629.96	652.09
622(3)a	Bio-Engineered Erosion Control System Vegetation	4,792.00	sq.m	1,706,741.72	10.00	8.00	18.00	307,213.51	100,697.76	407,911.27	2,114,652.99	441.29
	TOTAL OF PART H			**3,649,905.38**				**656,982.97**	**215,344.42**	**872,327.39**	**4,522,232.77**	
	TOTAL			**98,906,059.84**				**17,494,620.56**	**5,820,034.02**	**23,314,654.58**	**122,220,714.42**	

Prepared by:

BELEN A. SAPALLEDA
Head TWG, BAC

Recommending Approval:

CAYAMOMBAO D. DIA
Assistant Regional Director

APPROVED:

JORGE U. SEBASTIAN, Al, CESO III
Regional Director

UMMARY

Name of Project : **Road Widening - rimary Road - Lanao - Pagadian - Zamboanga Ci oad**

Item No.	Description	Quantity	Unit	Labor	Equipment	Materials	OCM	Profit	VAT	TOTAL
101(1)	Removal of Structures/Obstruction	1.00	LS	-	-	500,000.00	50,000.00	40,000.00	29,500.00	619,500.00
101(2)a	Removal of Actual Structures/Obstructions	23.00	each	402.53	7,917.87	-	832.04	665.63	490.90	10,308.98
101(2)b	Removal of Actual Structures/Obstruction	63.00	each	13,699.35	40,785.89	5,040.00	5,952.52	4,762.02	3,511.99	73,751.77
101(2)c	Removal of Actual Structures/Obstruction	39.00	each	8,480.55	25,248.41	3,120.00	3,684.90	2,947.92	2,174.09	45,655.86
101(8)	Removal of Existing Guardrails	2,660.50	ln.m	4,311.34	68,404.25	-	7,271.56	5,817.25	4,290.22	90,094.61
101(9)	Removal of Existing Guardrails Post	699.00	each	1,132.73	17,972.02	-	1,910.48	1,528.38	1,127.18	23,670.79
101(10)	Removal of Existing Road Signs	66.00	each	1,782.55	22,505.45	-	2,428.80	1,943.04	1,432.99	30,092.83
103(1)a	Structure Excavation	789.00	cu.m.	8,080.54	421,000.54	-	42,908.11	34,326.49	25,315.78	531,631.46
103 (1)a	Structure Excavation	0.00	cu.m.	-	-	-	-	-	-	-
103(3)	Foundation Fill	16.00	cu.m.	3,169.41	1,888.00	10,421.76	1,547.92	1,238.33	913.27	19,178.69
103(6)a	Pipe Culvert and Drain Excavation	134.50	cu.m.	1,377.48	29,573.07	-	3,095.06	2,476.04	1,826.08	38,347.74
104(1)a1	Embankment from Roadway Excavation	21,779.50	cu.m.	129,174.87	4,914,613.87	-	504,378.87	403,503.10	297,583.54	6,249,254.25
104(2)a	Embankment from Borrow	10,279.50	cu.m.	33,315.86	912,305.63	7,277,886.00	822,350.75	657,880.60	485,186.94	10,188,925.77
105 (1)a	Subgrade Preparation	34,854.50	sq.m.	18,827.24	515,556.15	-	53,438.34	42,750.67	31,528.62	662,101.01
200 (1)	Aggregate Subbase Course	14,777.50	cu.m.	47,893.88	1,854,576.25	20,791,942.50	2,269,441.26	1,815,553.01	1,338,970.35	28,118,377.25
300 (1)	Aggregate Surface Course	1,498.50	cu.m.	4,856.64	132,991.88	1,905,252.84	204,310.14	163,448.11	120,542.98	2,531,402.58
311(1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	26,399.00	sq.m.	371,255.95	5,507,269.48	38,448,700.16	4,432,722.56	3,546,178.05	2,615,306.31	54,921,432.51
311(1)a	Portland Cement Concrete Pavement, 0.15m. Thick	2,657.00	sq.m	20,087.79	311,830.14	2,117,550.41	244,946.83	195,957.47	144,518.63	3,034,891.27
404 (1)a	Reinforcing Steel Bar, Grade 40	22,106.50	kg.	65,033.64	49,503.21	942,400.10	105,693.69	84,554.96	62,359.28	1,309,544.87
405 (1) a3	Structural Concrete, Class A	527.00	cu.m	453,283.99	225,370.99	3,243,620.49	392,227.55	313,782.04	231,414.25	4,859,699.31
500(1)b3	Pipe Culvert & Storm Drain	44.00	ln.m	15,770.04	38,097.00	105,695.53	15,956.26	12,765.01	9,414.19	197,698.03
500(1)b4	Pipe Culvert & Storm Drain	88.00	ln.m	31,540.08	51,360.41	303,783.44	38,668.39	30,934.71	22,814.35	479,101.38
505(2)a	Grouted Riprap, Class A	55.50	cu.m	20,964.02	52,197.00	149,661.18	22,282.22	17,825.78	13,146.51	276,076.69
506	Stone Masonry	154.00	cu.m	52,190.48	49,393.64	541,766.54	64,335.07	51,468.05	37,957.69	797,111.47
612(1)	Reflectorized Thermoplastic Pavement Markings (White)	1,331.00	sq.m	23,636.96	79,500.63	866,914.24	97,005.18	77,604.15	57,233.06	1,201,894.22
622(1)a	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 400)	940.00	sq.m	7,872.12	12,302.21	98,700.00	11,887.43	9,509.95	7,013.59	147,285.30
622(1)b	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 700)	3,852.00	sq.m	32,258.96	50,412.90	481,307.40	56,397.93	45,118.34	33,274.78	698,770.30
622(2)b	Bio-Engineered Erosion Coco Logs/Fascine Control System	551.50	ln.m	15,395.31	1,539.53	273,323.40	29,025.82	23,220.66	17,125.24	359,629.96
622(3)a	Bio-Engineered Erosion Control System Vegetation	4,792.00	sq.m	12,424.70	154,647.42	1,539,669.60	170,674.17	136,539.34	100,697.76	2,114,652.99
A.1.1(3)	Const. of Field Office for the Engineer	1.00	LS	53,245.60	31,804.56	324,982.01	41,003.22	32,802.57	24,191.90	508,029.86
A.1.1(11)	Prov. Of Furniture, Equipment and Appliances for Field Engineer	1.00	LS	-	-	244,863.32	-	-	12,243.17	257,106.49
A.1.2(5)	Operation & Maintenance of Gov't. Service Vehicle	1.00	L.S	91,742.40	-	233,385.60	-	-	16,256.40	341,384.40
B.5	Project Billboard	2.00	Unit	434.90	-	4,136.00	457.09	365.67	269.68	5,663.35
B.7	Occupational Safety & Health Program	1.00	L.S	155,076.12	-	12,360.00	-	13,394.89	9,041.55	189,872.56
B.9	Mobilization and Demobilization	1.00	L.S	-	1,050,712.00	-	-	-	52,535.60	1,103,247.60
B.4(1)	Construction Survey and Staking	4.05	Km.	112,791.75	22,087.17	14,700.00	14,957.89	11,966.31	8,825.16	185,328.28
TOTAL				**1,811,509.77**	**16,653,367.55**	**80,441,182.52**	**9,711,792.04**	**7,782,828.52**	**5,820,034.02**	**122,220,714.42**

Name of Project : Road Widening - Primary Roa nao - Pagadian - Zamboanga City Road
Net Length : 4,053.00 ln.m.

Item No.	Description	Quantity	Unit	DURATION # OF DAYS
101(1)	Removal of Structures/Obstruction	1.00	LS	
101(2)a	Removal of Actual Structures/Obstructions	23.00	each	0.31
101(2)b	Removal of Actual Structures/Obstruction	63.00	each	7.88
101(2)c	Removal of Actual Structures/Obstruction	39.00	each	4.88
101(8)	Removal of Existing Guardrails	2,660.50	ln.m	3.33
101(9)	Removal of Existing Guardrails Post	699.00	each	0.87
101(10)	Removal of Existing Road Signs	66.00	each	1.38
103(1)a	Structure Excavation	789.00	cu.m.	4.93
103(3)	Foundation Fill	16.00	cu.m.	1.60
103(6)a	Pipe Culvert and Drain Excavation	134.50	cu.m.	0.84
104(1)a1	Embankment from Roadway Excavation	21,779.50	cu.m.	45.19
104(2)a	Embankment from Borrow	10,279.50	cu.m.	25.70
105 (1)a	Subgrade Preparation	34,854.50	sq.m.	14.52
200 (1)	Aggregate Subbase Course	14,777.50	cu.m.	36.94
300 (1)	Aggregate Surface Course	1,498.50	cu.m.	3.75
311(1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	26,399.00	sq.m.	57.19
311(1)a	Portland Cement Concrete Pavement, 0.15m. Thick	2,657.00	sq.m	3.09
404 (1)a	Reinforcing Steel Bar, Grade 40	22,106.50	kg.	15.35
405 (1) a3	Structural Concrete, Class A	527.00	cu.m	47.05
500(1)b3	Pipe Culvert & Storm Drain	44.00	ln.m	5.50
500(1)b4	Pipe Culvert & Storm Drain	88.00	ln.m	11.00
505(2)a	Grouted Riprap, Class A	55.50	cu.m	1.39
506	Stone Masonry	154.00	cu.m	12.32
612(1)	Reflectorized Thermoplastic Pavement Markings (White)	1,331.00	sq.m	6.66
622(1)a	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 400)	940.00	sq.m	2.35
622(1)b	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 700)	3,852.00	sq.m	9.63
622(2)b	Bio-Engineered Erosion Coco Logs/Fascine Control System	551.50	ln.m	4.60
622(3)a	Bio-Engineered Erosion Control System Vegetation	4,792.00	sq.m	9.58
A.1.1(3)	Const. of Field Office for the Engineer	1.00	LS	10.00
A.1.1(11)	Prov. Of Furniture, Equipment and Appliances for Field Engineer	1.00	LS	
A.1.2(5)	Operation & Maintenance of Gov't. Service Vehicle	1.00	LS	207.00
B.5	Project Billboard	2.00	Unit	0.25
B.7	Occupational Safety & Health Program	1.00	LS	138.00
B.9	Mobilization and Demobilization	1.00	LS	4.00
B.4(1)	Construction Survey and Staking	4.05	Km.	54.04

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**
TOTAL NO. CALENDAR DAYS	:	**276**

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 : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 101(1) Removal of Structures/Obstruction
Unit of Measurement : LS
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)				
	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				500,000.00
	Sub-total for E			P	500,000.00
F.	Direct Cost (C+E)				500,000.00
G.	Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	50,000.00
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	40,000.00
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	29,500.00
J.	Total Unit Cost				619,500.00

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 101(2)a Removal of Actual Structures/Obstructions
Unit of Measurement : cu.m
Output per hour : 10.00
Quantity : 23.00 each
24.84

	Designation	No. of Person	No. of Days	Daily Rate		Amount
A.	Labor					
	a. Construction Foreman	1	0.31	611.92		190.00
	b. Laborer	2	0.31	342.24		212.53
	Sub-total for A				P	402.53
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate		Amount
B	Equipment, (2014 ACEL Rates)					
	a. Backhoe w/ breaker	1	0.16	15,984.80		2,481.64
	b. Backhoe	1	0.16	12,296.00		1,908.95
	c. Dumptruck	1	0.31	11,360.00		3,527.28
	Sub-total for B				P	7,917.87
C.	Total (A+B)				P	8,320.41
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)					8,320.41
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016			832.04
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016			665.63
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016			490.90
J.	Total Unit Cost					448.22

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 101(2)b Removal of Actual Structures/Obstruction
Unit of Measurement : each
Output per hour : 1.00
Quantity : 63.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	7.88	611.92	4,818.87
	b. Skilled Laborer	1	7.88	443.20	3,490.20
	c. Laborer	2	7.88	342.24	5,390.28
	Sub-total for A			P	13,699.35
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Backhoe	1	1.97	12,296.00	24,207.75
	b. Dumptruck	1	1.34	11,360.00	15,208.20
	Minor Tools (5% of Labor Cost)				1,369.94
	Sub-total for B			P	40,785.89
C.	Total (A+B)			P	54,485.24
D.	Output/day 8.00 each /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Rope, 1" dia.	252.00	m	20.00	5,040.00
	Sub-total for E			P	5,040.00
F.	Direct Cost (C+E)				59,525.24
G.	Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	5,952.52
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	4,762.02
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	3,511.99
J.	Total Unit Cost				1,170.66

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 101(2)c Removal of Actual Structures/Obstruction
Unit of Measurement : each
Output per hour : 1.00
Quantity : 39.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	4.88	611.92	2,983.11
	b. Skilled Laborer	1	4.88	443.20	2,160.60
	c. Laborer	2	4.88	342.24	3,336.84
	Sub-total for A			P	8,480.55
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Backhoe	1	1.22	12,296.00	14,985.75
	b. Dumptruck	1	0.83	11,360.00	9,414.60
	Minor Tools (5% of Labor Cost)				848.06
	Sub-total for B			P	25,248.41
C.	Total (A+B)			P	33,728.96
D.	Output/day 8.00 each /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Rope, 1" dia.	156.00	m	20.00	3,120.00
	Sub-total for E			P	3,120.00
F.	Direct Cost (C+E)				36,848.96
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		3,684.90
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		2,947.92
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		2,174.09
J.	Total Unit Cost				1,170.66

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 101(8) Removal of Existing Guardrails
Unit of Measurement : ln.m
Output per hour : 100.00
Quantity : 2,660.50

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	3.33	611.92	2,035.02
	b. Laborer	2	3.33	342.24	2,276.32
	Sub-total for A			P	4,311.34
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Backhoe	1	3.33	12,296.00	40,891.89
	b. Boom Truck	1	3.33	8,143.20	27,081.23
	Minor Tools (10% of Labor Cost)				431.13
	Sub-total for B			P	68,404.25
C.	Total (A+B)			P	72,715.59
D.	Output/day 800.00 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)				72,715.59
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		7,271.56
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		5,817.25
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		4,290.22
J.	Total Unit Cost				33.86

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 101(9) Removal of Existing Guardrails Post
Unit of Measurement : each
Output per hour : 100.00
Quantity : 699.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	0.87	611.92	534.67
	b. Laborer	2	0.87	342.24	598.06
	Sub-total for A			P	1,132.73
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Backhoe	1	0.87	12,296.00	10,743.63
	b. Boom Truck	1	0.87	8,143.20	7,115.12
	Minor Tools (10% of Labor Cost)				113.27
	Sub-total for B			P	17,972.02
C.	Total (A+B)			P	19,104.75
D.	Output/day 800.00 each /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Sub-total for E			P	0.00
F.	Direct Cost (C+E)				19,104.75
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		1,910.48
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		1,528.38
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		1,127.18
J.	Total Unit Cost				33.86

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 101(10) Removal of Existing Road Signs
Unit of Measurement : each
Output per hour : 6.00
Quantity : 66.00

	Designation	No. of Person	No. of Days	Daily Rate		Amount
A.	Labor					
	a. Construction Foreman	1	1.38	611.92		841.39
	b. Laborer	2	1.38	342.24		941.16
	Sub-total for A				P	1,782.55
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate		Amount
B	Equipment, (2014 ACEL Rates)					
	a. Backhoe	1	1.38	12,296.00		16,907.00
	b. Boom Truck	1	0.69	8,143.20		5,598.45
	Sub-total for B				P	22,505.45
C.	Total (A+B)				P	24,288.00
D.	Output/day 48.00 each /day					
	Name and Specifications	Quantity	Unit	Unit Cost		Amount
E.	Materials					
	Sub-total for E				P	0.00
F.	Direct Cost (C+E)					24,288.00
G.	Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016		2,428.80
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016		1,943.04
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016		1,432.99
J.	Total Unit Cost					455.95

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 103(1)a Structure Excavation
Unit of Measurement : cu.m.
Output per hour : 20.00
Quantity : 789.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	4.93	611.92	3,017.53
	b. Laborer	3	4.93	342.24	5,063.01
	Sub-total for A			P	8,080.54
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Bulldozer	1	4.93	27,032.00	133,301.55
	b. Payloader	1	4.93	13,864.00	68,366.85
	c. Payloader	1	3.70	13,864.00	51,275.14
	d. Dumptruck	3	4.93	11,360.00	168,057.00
	Sub-total for B			P	421,000.54
C.	Total (A+B)			P	429,081.08
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)				429,081.08
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		42,908.11
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		34,326.49
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		25,315.78
J.	Total Unit Cost				673.80

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 103(3) Foundation Fill
Unit of Measurement : cu.m.
Output per hour : 1.25
Quantity : 16.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	1.60	611.92	979.07
	b. Laborer	4	1.60	342.24	2,190.34
	Sub-total for A			P	3,169.41
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Plate Compactor	1	1.60	984.00	1,574.40
	b. Water Truck	1	0.02	19,600.00	313.60
	c. Minor Tools (10% of Labor)				
	Sub-total for B			P	1,888.00
C.	Total (A+B)			P	5,057.41
D.	Output/day 10.00 cu.m.	/day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Filling Materials	18.40	cu.m.	566.40	10,421.76
	Sub-total for E			P	10,421.76
F.	Direct Cost (C+E)				15,479.17
G.	Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	1,547.92
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	1,238.33
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	913.27
J.	Total Unit Cost				1,198.67

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening Including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 103(6)a Pipe Culvert and Drain Excavation
Unit of Measurement : cu.m.
Output per hour : 20.00
Quantity : 134.50

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	0.84	611.92	514.40
	b. Laborer	3	0.84	342.24	863.09
	Sub-total for A			P	1,377.48
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Dumptruck	2	0.84	11,360.00	19,099.00
	b. Backhoe	1	0.84	12,296.00	10,336.33
	Minor Tools (10% of Labor)				137.75
	Sub-total for B			P	29,573.07
C.	Total (A+B)			P	30,950.55
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)				30,950.55
G.	Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	3,095.06
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	2,476.04
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	1,826.08
J.	Total Unit Cost				285.11

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 104(1)a1 Embankment from Roadway Excavation
Unit of Measurement : cu.m.
Output per hour : 50.00
Quantity : 21,779.50

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	For Excavation Work				
	a. Construction Foreman	1	45.19	611.92	27,654.17
	b. Laborer	2	45.19	342.24	30,933.34
	Spreading & Compaction				
	a. Construction Foreman	1	54.45	611.92	33,318.28
	b. Laborer	2	54.45	342.24	37,269.08
	Sub-total for A			P	129,174.87
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	For Excavation Work				
	a. Bulldozer	1	45.19	27,032.00	1,221,642.65
	b. Payloader	1	45.19	13,864.00	626,548.30
	c. Dumptruck	2	45.19	11,360.00	1,026,772.75
	Spreading and Compaction				
	a. Road Grader	1	54.45	17,384.00	946,537.07
	b. Road Roller	1	54.45	13,216.00	719,594.68
	c. Water Truck	1	19.06	19,600.00	373,518.43
	Sub-total for B			P	4,914,613.87
C.	Total (A+B)			P	5,043,788.74
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)				5,043,788.74
G.	Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	504,378.87
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	403,503.10
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	297,583.54
J.	Total Unit Cost				286.93

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 104(2)a Embankment from Borrow
Unit of Measurement : cu.m.
Output per hour : 50.00
Quantity : 10,279.50

	Designation	No. of Person	No. of Days	Daily Rate		Amount
A.	Labor					
	For Excavation Work					
	a. Construction Foreman	1	25.70	611.92		15,725.58
	b. Laborer	2	25.70	342.24		17,590.28
	Sub-total for A				P	33,315.86
	Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**		**Amount**
B	Equipment, (2014 ACEL Rates)					
	a. Road Grader	1	25.70	17,384.00		446,747.07
	b. Road Roller	1	25.70	13,216.00		339,634.68
	c. Water Truck	1	6.42	19,600.00		125,923.88
	Sub-total for B				P	912,305.63
C.	Total (A+B)				P	945,621.48
D.	Output/day 400.00 cu.m. /day					
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**		**Amount**
E.	Materials					
	a. Selected Borrow	12,849.38	cu.m	566.40		7,277,886.00
	Sub-total for E				P	7,277,886.00
F.	Direct Cost (C+E)					8,223,507.48
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016			822,350.75
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016			657,880.60
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016			485,186.94
J.	Total Unit Cost					991.19

gerald_0101

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 105 (1)a Subgrade Preparation
Unit of Measurement : sq.m.
Output per hour : 300.00
Quantity : 34,854.50

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	14.52	611.92	8,886.74
	b. Laborer	2	14.52	342.24	9,940.50
	Sub-total for A			P	18,827.24
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Road Grader	1	14.52	17,384.00	252,462.76
	b. Road Roller	1	14.52	13,216.00	191,932.11
	c. Water Truck	1	3.63	19,600.00	71,161.27
	Sub-total for B			P	515,556.15
C.	Total (A+B)			P	534,383.38
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)				534,383.38
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		53,438.34
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		42,750.67
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		31,528.62
J.	Total Unit Cost				19.00

gerald_0101

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 200 (1) Aggregate Subbase Course
Unit of Measurement : cu.m.
Output per hour : 50.00
Quantity : 14,777.50

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	36.94	611.92	22,606.62
	b. Laborer	2	36.94	342.24	25,287.26
	Sub-total for A			P	47,893.88
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Road Grader	1	36.94	17,384.00	642,230.15
	b. Road Roller	1	36.94	13,216.00	488,248.60
	c. Water Truck	1	36.94	19,600.00	724,097.50
	Sub-total for B			P	1,854,576.25
C.	Total (A+B)			P	1,902,470.13
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%)	18,471.88	cu.m.	1,125.60	20,791,942.50
	Sub-total for E			P	20,791,942.50
F.	Direct Cost (C+E)				22,694,412.63
G.	Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	2,269,441.26
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	1,815,553.01
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	1,338,970.35
J.	Total Unit Cost				1,902.78

gerald_0101

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 300 (1) Aggregate Surface Course
Unit of Measurement : cu.m.
Output per hour : 50.00
Quantity : 1,498.50

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	3.75	611.92	2,292.41
	b. Laborer	2	3.75	342.24	2,564.23
	Sub-total for A			P	4,856.64
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Road Grader	1	3.75	17,384.00	65,124.81
	b. Road Roller	1	3.75	13,216.00	49,510.44
	c. Water Truck	1	0.94	19,600.00	18,356.63
	Sub-total for B			P	132,991.88
C.	Total (A+B)			P	137,848.51
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%)	1,723.28	cu.m.	1,105.60	1,905,252.84
	Sub-total for E			P	1,905,252.84
F.	Direct Cost (C+E)				2,043,101.35
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		204,310.14
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		163,448.11
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		120,542.98
J.	Total Unit Cost				1,689.29

gerald_0101

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

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 : 26,399.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	57.19	611.92	34,995.83
	b. Skilled	4	57.19	443.20	101,386.80
	c. Laborer	12	57.19	342.24	234,873.32
	Sub-total for A			P	371,255.95
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Transit Mixer	4	57.19	10,544.00	2,412,054.21
	b. Concrete Vibrator	2	57.19	730.00	83,497.70
	c. Batching Plant	1	57.19	14,076.00	805,009.37
	d. Pay Loader	1	57.19	13,864.00	792,885.04
	e. Concrete Screeder	1	57.19	4,360.00	249,349.31
	f. Water Truck	1	57.19	19,600.00	1,120,928.08
	g. Concrete Saw	1	57.19	261.04	14,928.93
	h. Bar Cutter	1	5.72	1,758.00	10,054.04
	Minor Tools (5% of labor)				18,562.80
	Sub-total for B			P	5,507,269.48
C.	Total (A+B)			P	5,878,525.43
D.	Output/day 461.60 sq.m. /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Reinforcing Steel Bar	13,199.50	kg	39.00	514,780.50
	b. Curing Compound	7,655.71	lit	45.00	344,506.95
	c. Asphalt Sealant	4,487.83	lit	75.00	336,587.25
	d. Sand	4,065.45	cu.m	1,295.60	5,267,191.84
	e. Gravel	7,391.72	cu.m	1,402.60	10,367,626.47
	f. Cement	70,221.34	bag	296.58	20,826,005.47
	g. Concrete Saw	3.96	pc	8,000.00	31,678.80
	h. Pipe Sleeve, 2" dia.	205.91	l.m	133.00	27,386.32
	i. Grease/Tar	205.91	lit	21.00	4,324.16
	j. Steel Forms	12,143.54	lit	60.00	728,612.40
	Sub-total for E			P	38,448,700.16
F.	Direct Cost (C+E)				44,327,225.59
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		4,432,722.56
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		3,546,178.05
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		2,615,306.31
J.	Total Unit Cost				2,080.44

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 311(1)a Portland Cement Concrete Pavement, 0.15m. Thick
Unit of Measurement : sq.m
Output per hour : 107.33
Quantity : 2,657.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	3.09	611.92	1,893.54
	b. Skilled	4	3.09	443.20	5,485.80
	c. Laborer	12	3.09	342.24	12,708.45
	Sub-total for A			P	20,087.79
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Transit Mixer	4	3.09	10,544.00	130,510.61
	b. Concrete Vibrator	2	3.09	730.00	4,517.87
	c. Batching Plant	1	3.09	14,076.00	43,557.17
	d. Pay Loader	1	3.09	13,864.00	42,901.16
	e. Concrete Screeder	1	3.09	4,360.00	13,491.71
	f. Water Truck	1	3.09	19,600.00	60,650.80
	g. Concrete Saw	1	3.09	261.04	807.77
	h. Bar Cutter	1	0.31	1,758.00	544.00
	Minor Tools (5% of Labor)				14,849.05
	Sub-total for B			P	311,830.14
C.	Total (A+B)			P	331,917.93
D.	Output/day 858.64 sq.m /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Reinforcing Steel Bar	876.81	kg	39.00	34,195.59
	b. Curing Compound	770.53	lit	45.00	34,673.85
	c. Asphalt Sealant	318.84	lit	75.00	23,913.00
	d. Steel Form	1,222.22	l.m	40.00	48,888.80
	e. Sand	219.20	cu.m	1,295.60	283,998.76
	f. Gravel	398.55	cu.m	1,402.60	559,006.23
	g. Cement	3,799.51	bag	296.58	1,126,845.71
	h. Concrete Saw	0.40	pc	8,000.00	3,188.40
	i. Pipe Sleeve, 1" dia.	20.72	l.m	133.00	2,756.37
	j. Grease/Tar	3.99	lit	21.00	83.70
	Sub-total for E			P	2,117,550.41
F.	Direct Cost (C+E)				2,449,468.34
G.	Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	244,946.83
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	195,957.47
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	144,518.63
J.	Total Unit Cost				1,142.22

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 404 (1)a Reinforcing Steel Bar, Grade 40
Unit of Measurement : kg.
Output per hour : 180.00
Quantity : 22,106.50

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	15.35	611.92	9,394.03
	b. Skilled Laborer	2	15.35	443.20	13,607.78
	c. Laborer	8	15.35	342.24	42,031.83
	Sub-total for A			P	65,033.64
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2009 ACEL Rates)				
	a. Bar Cutter	1	7.68	1,758.00	13,494.18
	b. Bar Bender	1	7.68	2,812.00	21,584.54
	c. Cargo Truck	1	2.30	6,264.00	14,424.49
	Sub-total for B			P	49,503.21
C.	Total (A+B)			P	114,536.85
D.	Output/day 1,440.00 kg. /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Tie Wire	464.24	kg	80.00	37,138.92
	b. Reinforcing Steel Bar, Grade 40	23,211.83	kg	39.00	905,261.18
	Sub-total for E			P	942,400.10
F.	Direct Cost (C+E)				1,056,936.94
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		105,693.69
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		84,554.96
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		62,359.28
J.	Total Unit Cost				59.24

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 405 (1) a3 Structural Concrete, Class A
Unit of Measurement : cu.m
Output per hour : 1.40
Quantity : 527.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	47.05	611.92	28,793.02
b. Skilled Laborer	4	47.05	443.20	83,416.57
c. Laborer	8	47.05	342.24	128,828.91
Installation/Removal of Form Works				
a. Skilled Laborer	4	47.05	443.20	83,416.57
b. Laborer	8	47.05	342.24	128,828.91
Sub-total for A			P	453,283.99
Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B Equipment, (2014 ACEL Rates)				
a. One Bagger Mixer	1	47.05	1,376.00	64,745.71
b. Concrete Vibrator	1	47.05	972.00	45,736.07
c. Water Truck	1	4.71	19,600.00	92,225.00
Minor Tools (5% of Labor)				22,664.20
Sub-total for B			P	225,370.99
C. Total (A+B)			P	678,654.98
D. Output/day 11.20 cu.m /day				
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Form Lumber	9,222.50	bd.ft	40.00	368,900.00
b. Plywood	210.80	pc	1,345.00	283,526.00
c. Assorted CW Nails	368.90	kg.	70.00	25,823.00
d. Portland Cement	5,006.50	bag	296.58	1,484,810.69
e. Sand	263.50	cu.m	1,295.60	341,390.60
f. Gravel	527.00	cu.m	1,402.60	739,170.20
Sub-total for E			P	3,243,620.49
F. Direct Cost (C+E)				3,922,275.47
G. Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		392,227.55
H. Contractor's Profit (CP)		8% per D.O 197 s 2016		313,782.04
I. Value Added Tax (VAT)		5% per D.O 197 s 2016		231,414.25
J. Total Unit Cost				9,221.44

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 500(1)b3 Pipe Culvert & Storm Drain
Unit of Measurement : ln.m
Output per hour : 1.00
Quantity : 44.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	5.50	611.92	3,365.56
	b. Skilled Laborer	2	5.50	443.20	4,875.20
	c. Laborer	4	5.50	342.24	7,529.28
	Sub-total for A			P	15,770.04
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Backhoe	1	2.75	12,296.00	33,814.00
	b. Plate Compactor	1	2.75	984.00	2,706.00
	Minor Tools (10% of Labor)				1,577.00
	Sub-total for B			P	38,097.00
C.	Total (A+B)			P	53,867.04
D.	Output/day 8.00 ln.m	/day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Portland Cement	47.52	bag	296.58	14,093.32
	b. Sand	2.68	cu.m	1,295.60	3,477.39
	c. RC Pipes (910 mm dia.)	44.00	pc	1,837.00	80,828.00
	d. Sand Bedding	5.63	cu.m	1,295.60	7,296.82
	Sub-total for E			P	105,695.53
F.	Direct Cost (C+E)				159,562.57
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		15,956.26
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		12,765.01
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		9,414.19
J.	Total Unit Cost				4,493.14

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 500(1)b4 Pipe Culvert & Storm Drain
Unit of Measurement : ln.m
Output per hour : 1.00
Quantity : 88.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	11.00	611.92	6,731.12
	b. Skilled Laborer	2	11.00	443.20	9,750.40
	c. Laborer	4	11.00	342.24	15,058.56
	Sub-total for A			P	31,540.08
	Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B	Equipment, (2014 ACEL Rates)				
	a. Backhoe	1	3.63	12,296.00	44,634.48
	b. Plate Compactor	1	3.63	984.00	3,571.92
	Minor Tools (10% of Labor)				3,154.01
	Sub-total for B			P	51,360.41
C.	Total (A+B)			P	82,900.49
D.	Output/day 8.00 ln.m /day				
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Portland Cement	109.30	bag	296.58	32,414.63
	b. Sand	6.16	cu.m	1,295.60	7,980.90
	c. RC Pipes (1070 mm dia.)	88.00	pc	2,800.00	246,400.00
	d. Sand Bedding	13.11	cu.m	1,295.60	16,987.91
	Sub-total for E			P	303,783.44
F.	Direct Cost (C+E)				386,683.93
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		38,668.39
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		30,934.71
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		22,814.35
J.	Total Unit Cost				5,444.33

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 505(2)a Grouted Riprap, Class A
Unit of Measurement : cu.m
Output per hour : 1.25
Quantity : 55.50

Note: Use Four (4) gangs

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	1.39	611.92	849.04
	b. Skilled Laborer	8	1.39	443.20	4,919.52
	c. Laborer	32	1.39	342.24	15,195.46
	Sub-total for A			P	20,964.02
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	4	1.39	1,376.00	7,636.80
	b. Water Truck	4	0.56	19,600.00	43,512.00
	Minor Tools (5% of Labor)				1,048.20
	Sub-total for B			P	52,197.00
C.	Total (A+B)			P	73,161.02
D.	Output/day 40.00 cu.m	/day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cement	166.50	bag	296.58	49,380.00
	b. Sand	13.88	cu.m	1,295.60	17,976.45
	c. Gravel Fill	0.83	cu.m	1,402.60	1,167.66
	d. Weep Holes (PVC), 2" dia.	16.65	ln.m	133.00	2,214.45
	e. Filter Cloth	0.83	sq.m	160.00	133.20
	f. Boulders	58.28	cu.m	1,326.60	77,307.62
	Miscellaneous (1% of Materials)				1,481.79
	Sub-total for E			P	149,661.18
F.	Direct Cost (C+E)				222,822.19
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		22,282.22
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		17,825.78
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		13,146.51
J.	Total Unit Cost				4,974.35

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 506 Stone Masonry
Unit of Measurement : cu.m
Output per hour : 1.56
Quantity : 154.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	12.32	611.92	7,538.85
	b. Skilled Laborer	2	12.32	443.20	10,920.45
	c. Laborer	8	12.32	342.24	33,731.17
	Sub-total for A			P	52,190.48
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	12.32	1,376.00	16,952.32
	b. Water Truck	1	0.62	19,600.00	12,073.60
	c. Backhoe	1	1.23	12,296.00	15,148.67
	Minor Tools (10% of Labor)				5,219.05
	Sub-total for B			P	49,393.64
C.	Total (A+B)			P	101,584.12
D.	Output/day 12.50 cu.m /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cement	847.00	bag	296.58	251,200.37
	b. Sand	46.20	cu.m	1,295.60	59,856.72
	c. Gravel Fill	3.08	cu.m	1,402.60	4,320.01
	d. Weep Holes (PVC)	46.20	ln.m	133.00	6,144.60
	e. Filter Cloth	2.31	sq.m	160.00	369.60
	f. Boulders	161.70	cu.m	1,326.60	214,511.22
	Miscellaneous (1% of Materials)				5,364.03
	Sub-total for E			P	541,766.54
F.	Direct Cost (C+E)				643,350.66
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		64,335.07
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		51,468.05
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		37,957.69
J.	Total Unit Cost				5,176.05

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 612(1) Reflectorized Thermoplastic Pavement Markings (White)
Unit of Measurement : sq.m
Output per hour : 25.00
Quantity : 1,331.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	6.66	611.92	4,072.33
	b. Skilled Laborer	2	6.66	443.20	5,898.99
	c. Laborer	6	6.66	342.24	13,665.64
	Sub-total for A			P	23,636.96
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Cargo Truck/Delivery Truck	1	6.66	9,696.00	64,526.88
	b. Applicator Machine	1	6.66	750.00	4,991.25
	c. Kneading Machine	1	6.66	1,500.00	9,982.50
	Minor Tools (10% of labor)				
	Sub-total for B			P	79,500.63
C.	Total (A+B)			P	103,137.59
D.	Output/day 200.00 sq.m /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Thermoplastic Paint (white)	432.58	bag	1,585.00	685,631.38
	b. Glass Beads	43.92	bag	2,500.00	109,807.50
	c. Primer	159.72	liter	180.00	28,749.60
	d. LPG (50 kg.)	5.32	cyl	90.00	479.16
	e. LPG (12 kg.)	2.66	cyl	50.00	133.10
	f. Calsumine	166.38	kg	5.00	831.88
	Miscellaneous (5% of Materials)				41,281.63
	Sub-total for E			P	866,914.24
F.	Direct Cost (C+E)				970,051.83
G.	Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	97,005.18
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	77,604.15
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	57,233.06
J.	Total Unit Cost				903.00

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay
Item No./Description	:	622(1)a Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 400)
Unit of Measurement	:	sq.m
Output per hour	:	50.00
Quantity	:	940.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	2.35	611.92	1,438.01
	b. Laborer	8	2.35	342.24	6,434.11
	Sub-total for A			P	7,872.12
	Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B	Equipment, (2014 ACEL Rates)				
	a. Water Truck	1	0.59	19,600.00	11,515.00
	Minor Tools (10% of Labor)				787.21
	Sub-total for B			P	12,302.21
C.	Total (A+B)			P	20,174.34
D.	Output/day 400.00 sq.m /day				
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Erosion Control Net CGN 400 w/ 5% wastage (Price includes bamboo pegs)	987.00	sq.m	100.00	98,700.00
	Sub-total for E			P	98,700.00
F.	Direct Cost (C+E)				118,874.34
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		11,887.43
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		9,509.95
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		7,013.59
J.	Total Unit Cost				156.69

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 622(1)b Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 700)
Unit of Measurement : sq.m
Output per hour : 50.00
Quantity : 3,852.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	9.63	611.92	5,892.79
	b. Laborer	8	9.63	342.24	26,366.17
	Sub-total for A			P	32,258.96
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Water Truck	1	2.41	19,600.00	47,187.00
	Minor Tools (10% of Labor)				3,225.90
	Sub-total for B			P	50,412.90
C.	Total (A+B)			P	82,671.86
D.	Output/day 400.00 sq.m /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Erosion Control Net CGN 700 w/ 5% wastage (Price includes bamboo pegs)	4,044.60	sq.m	119.00	481,307.40
	Sub-total for E			P	481,307.40
F.	Direct Cost (C+E)				563,979.26
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		56,397.93
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		45,118.34
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		33,274.78
J.	Total Unit Cost				181.40

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : 622(2)b Bio-Engineered Erosion Coco Logs/Fascine Control System
Unit of Measurement : ln.m
Output per hour : 15.00
Quantity : 551.50

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	4.60	611.92	2,812.28
	b. Laborer	8	4.60	342.24	12,583.02
	Sub-total for A			P	15,395.31
	Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B	Equipment, (2014 ACEL Rates)				
	Minor Tools (10% of Labor)				1,539.53
	Sub-total for B			P	1,539.53
C.	Total (A+B)			P	16,934.84
D.	Output/day 120.00 ln.m /day				
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Coco Fiber Roll (CGR 200) (Price includes nylon ropes and live stakes)	579.08	ln.m	472.00	273,323.40
	Sub-total for E			P	273,323.40
F.	Direct Cost (C+E)				290,258.24
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		29,025.82
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		23,220.66
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		17,125.24
J.	Total Unit Cost				652.09

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay
Item No./Description	:	622(3)a Bio-Engineered Erosion Control System Vegetation
Unit of Measurement	:	sq.m
Output per hour	:	62.50
Quantity	:	4,792.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	9.58	611.92	5,864.64
	b. Laborer	2	9.58	342.24	6,560.06
	Sub-total for A			P	12,424.70
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Hydroseeding Machine	1	9.58	7,616.00	72,991.74
	b. Water Truck	1	9.58	8,520.00	81,655.68
	Sub-total for B			P	154,647.42
C.	Total (A+B)			P	167,072.12
D.	Output/day 500.00 sq.m /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Grass Cover (Price includes grass seeds, mulch, cocopeat & binding agent for hydroseeding)	5,031.60	sq.m	306.00	1,539,669.60
	Sub-total for E			P	1,539,669.60
F.	Direct Cost (C+E)				1,706,741.72
G.	Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	170,674.17
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	136,539.34
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	100,697.76
J.	Total Unit Cost				441.29

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

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	1,402.60	4,909.10
	b. Selected Fill	10.00	cu.m	566.40	5,664.00
	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	296.58	26,691.89
	b. Crushed Gravel	20.00	cu.m	1,402.60	28,052.00
	c. Washed Sand	17.00	cu.m	1,295.60	22,025.20
	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	83.33	1,666.60
	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	70.00	350.00
	V. Masonry Works (masonry walls & plastering)				
	a. CHB 6" thk	650.00	pc	18.00	11,700.00
	b. Portland Cement	50.00	bag	296.58	14,828.83
	c. Washed Sand	10.00	cu.m	1,295.60	12,956.00
	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				181,455.66
	Sub-total for E			P	324,982.01
F.	Direct Cost (C+E)				410,032.17
G.	Overhead, Contingencies and Miscellaneous		10%	per D.O 197 s 2016	41,003.22
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	32,802.57
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	24,191.90
J.	Total Unit Cost				508,029.86

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

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% per D.O 197 s 2016		
J.	Total Unit Cost				

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

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%	per D.O 197 s 2016	
J. Total Unit Cost				

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

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%	per D.O 197 s 2016	12,243.17
J.	Total Unit Cost				257,106.49

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening Including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

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%	per D.O 197 s 2016	16,256.40
J.	Total Unit Cost				341,384.40

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

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	448.00	896.00
	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	70.00	140.00
	Sub-total for E			P	4,136.00
F.	Direct Cost (C+E)				4,570.90
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		457.09
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		365.67
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		269.68
J.	Total Unit Cost				2,831.67

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

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%	per D.O 197 s 2016	9,041.55
J. Total Unit Cost				189,872.56

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay

Item No./Description : B.9 Mobilization and Demobilization
Unit of Measurement : L.S
Output per hour :
Quantity : 1.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	Sub-total for A			P	0.00
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Low Bed Trailer	2	4.00	34,043.00	272,344.00
	b. Water Truck	2	4.00	19,600.00	156,800.00
	c. Backhoe	2	4.00	12,296.00	98,368.00
	d. Payloader	2	4.00	13,864.00	110,912.00
	e. Dumptruck	4	4.00	11,360.00	181,760.00
	f. Bulldozer	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	1,050,712.00
C.	Total (A+B)			P	1,050,712.00
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)				1,050,712.00
G.	Overhead, Contingencies and Miscellaneous			per D.O 197 s 2016	0.00
H.	Contractor's Profit (CP)			per D.O 197 s 2016	0.00
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	52,535.60
J.	Total Unit Cost				1,103,247.60

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Road Widening including Drainage Lanao - Pagadian - Zamboanga City Road, Zamboanga Sibugay
Item No./Description	:	B.4(1) Construction Survey and Staking
Unit of Measurement	:	Km.
Output per hour	:	0.04
Quantity	:	4.05

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	(For Field Works)				
	a. Geodetic Engineer	1	13.51	833.31	11,258.02
	b. Skilled Laborer	3	13.51	443.20	17,962.90
	c. Laborer	3	13.51	342.24	13,870.99
	(For Office Works)				
	a. Geodetic Engineer	1	40.53	833.31	33,774.05
	b. Skilled Laborer	2	40.53	443.20	35,925.79
	Sub-total for A			P	112,791.75
	Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B	Equipment, (2014 ACEL Rates)				
	a. Total Station w/ complete accessories	1	13.51	800.00	10,808.00
	Minor Tools (10% of labor)				11,279.17
	Sub-total for B			P	22,087.17
C.	Total (A+B)			P	134,878.92
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)				149,578.92
G.	Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		14,957.89
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		11,966.31
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		8,825.16
J.	Total Unit Cost				45,726.20

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

Unloaded Running $= \frac{5.00 \times 60.00}{40.00} = 7.5$ 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 $= \frac{8.00 \times 60.00}{22.50} = 21.33$ 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 $= \frac{1,000.00}{853.33} = 1.17$ 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 SIBUGAY 1st DEO *(using 2nd Quarter 2017)*

	Hauling Distance		Unit Cost per cu.m/km		Hauling Cost per km.		Unit Price		Unit cost per cu.m.
Cost of Fine Aggregates	40.00	X	10.14	=	405.60	+	890.00	=	1,295.60
Cost of Coarse Aggregates	40.00	X	10.14	=	405.60	+	997.00	=	1,402.60
Cost of Item 200 Materails	40.00	X	10.14	=	405.60	+	720.00	=	1,125.60
Cost of Item 201 Materails	40.00	X	10.14	=	405.60	+	714.00	=	1,119.60
Cost of Item 300 Materails	40.00	X	10.14	=	405.60	+	700.00	=	1,105.60
Cost of Boulders	40.00	X	10.14	=	405.60	+	921.00	=	1,326.60
Cost of Embankment, Common Borrow	10.00	X	10.14	=	101.40	+	325.00	=	426.40
Cost of Embankment, Selected Borrow	10.00	X	10.14	=	101.40	+	465.00	=	566.40

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	70,221.34
Portland Cement Concrete Pavement, 0.15m. Thick	3,799.51
Structural Concrete, Class A	5,006.50
Grouted Riprap, Class A	166.50
Stone Masonry	847.00
Const. of Field Office for the Engineer	90.00
	50.00
Concrete Structure (Lean Concrete)	-
TOTAL	***80,180.85***

Quantity = 80,180.85 Bags

Delivery Charge = P 0.12 /bag/km

SITE	*HAULING DISTANCE*
Zamboanga Sibugay 1st DEO PROJECT SITE	48.00

* Average Hauling Distance from source to assumed stockpilling area:
say 48.00 km.

Delivery Charge = P 0.12 X 48.00
Delivery Charge = P 5.76 /bag

* Delivery Truck : 80,180.85 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 $= \frac{48.00 \times 60.00}{30.00} = 96$ mins.

Unloading Running $= \frac{48.00 \times 60.00}{40.00} = 72$ mins.

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

Total Cycle Time = *213.00 mins.*

No. of trips for Dumptruck per day	=	$\frac{8.00 \times 60.00}{213.00}$	=	2.25	trips
Dumptruck Daily Outpout	=	*500.00 X 2.25*	=	*1,126.76*	cu.m.
Using 4 Dumptruck	=	*1,126.76 X 4.00*	=	*4,507.04*	cu.m.
No. of Days for Dumptruck	=	$\frac{80{,}180.85}{4{,}507.04}$	=	17.79	days
No. of Days for Labor for unloading	=	complimentary to D.Truck days	=	17.79	days

DELIVERY COST:

80,180.85	Bags, Portland Cement	@	P	5.76	/bag	=	P	461,841.70
					Sub-total			**461,841.70**

LABOR:

1	Foreman	@	P	558.00	/day	X	17.79	days	= P	9,926.89
10	Laborers	@	P	312.24	/day	X	17.79	days	=	55,547.89
								Sub-total		**65,474.78**

MATERIALS:

80,180.85	Bags, Portland Cement	@	P	290.00	/bag	=	P	23,252,446.50
					Sub-total			**23,252,446.50**

Estimated Quantity : 80,180.85 Bags

Unit Cost	P	296.58
Grand Total	P	23,779,762.98
Delivery Cost	P	461,841.70
Labor	P	65,474.78
Materials	P	23,252,446.50