

Republic of the Philippines
Department of Public Works and Highways
Bureau : DPWH
Region : IX
District/City : Zamboanga City
PROGRAM OF WORK
(For all types of Project)

Date :

NAME/LOCATION OF PROJECT :		Appropriation : P 100,000,000.00	
CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL NORTE		Source of Funds : CY-2018	
PROJECT CATEGORY :		Issued Obligated Authority :	
NATIONAL ROAD		Released :	
PROJECT DESCRIPTION :		Cal. Days to Complete : 209 Calendar Days	
Scope of Work : Road Upgrading(Unpaved to Paved)		Desirable Starting Date : Upon Approval	
Road Width : 6.70 mtrs. (PCCP thick .23m)		Mode of Implementation :	
Roadbed Width : 12.00 mtrs.		NET LENGTH :	
Subbase Course : 0.30 m. thick		Beg. Of Project : 0 + 000.00	
Surface Course : 0.15 m. thick		End Of Project : 1 + 530.00	
MINIMUM EQUIPMENT REQUIREMENT :		Net Length : 1,530.000 In.m. (3.06 lane km.)	
TECH			
Description	No.	Description	No.
Dumptruck (10-Wheeler)	12	Water Pump	1
Transit Mixer	4	Concrete Vibrator	2
Bulldozer	2	Concrete Cutter	2
Backhoe	4	Bar Cutter	1
Road Grader	2	Bar Bender	1
Road Roller	2	Conc. Mixer (1-Bogger)	2
Payloader	4	Plate Compactor	1
Water Truck	2	Batching Plant	1
Water Tank	2	Backhoe with Breaker	4
		Project Engineer	1
		Materials Engineer	1
		Geometric Surveyor	1
		Foreman	1
		Materials Lab. Tech.	1
		Mason	10
		Carpenter	6
		Laborers (Skilled)	10
		Laborers (Unskilled)	20

ESTIMATED COST OF PROPOSED WORK						
ITEM NO.	DESCRIPTION	% OF TOTAL	UNIT	QUANTITY	DIRECT COST	
					TOTAL	UNIT COST
PART A - FACILITIES FOR THE ENGINEER						
A.1.1(3)	Construction of Field Office for the Engineer (7.0m. X 9.0 m.)	0.598	L. S.	1.00	465,555.88	465,555.88
A.1.1(11)	Provision of Furnitures/Fixtures,Equipment and Appliances for theField Office for the Engineers	0.258	L. S.	1.00	200,598.00	200,598.00
A. 1.2	Operation and Maintenance of Gov't Service Vehicle	0.342	L.S.	1.00	266,106.88	266,106.88
PART B - OTHER GENERAL REQUIREMENTS						
B.5	Project Billboard/Signboard	0.009	units	2.00	7,300.90	3,650.45
B.7	Occupational Safety and Health Program	0.161	L. S.	1.00	125,135.36	125,135.36
B.4 (1)	Construction Survey and Staking	0.056	km.	1.53	43,521.23	28,445.25
B.9	Mobilization & Demobilization	0.700	L. S.	1.00	544,688.00	544,688.00
PART C - EARTHWORK						
100(1)	Clearing and Grubbing	0.096	ha.	2.75	74,949.19	27,254.25
104(1)a	Embankment from Excavation	0.691	cu.m.	2,610.00	538,331.63	206,26
104(2)a	Embankment (Common Borrow)	52.534	cu.m.	58,533.00	40,906,506.35	698.86
PART D - SUBBASE AND BASE COURSE						
200(1)	Aggregate Subbase Course, 0.30 m. thick	4.736	cu. m.	3,507.00	3,687,684.15	1,051.52
PART E - SURFACE COURSES						
311(1)c1	Portland Cement Concrete Pavement, 0.23 m. thick	15.120	sq. m.	9,333.92	11,773,233.61	1,261.34
311(1)a	Portland Cement Concrete Pavement, 0.15 m thick	7.095	sq. m.	6,579.00	5,524,437.36	839.71
PART G - DRAINAGE AND SLOPE PROTECTION STRUCTURES						
500(1)b1	Pipe Culverts 610 mm dia.	6.612	ln. m.	2,897.00	5,148,863.49	1,777.31
502	Catch Basins 1300 mm x 1850 mm	5.886	each	122.00	4,582,873.88	37,564.54
502	Catch Basins 1800 mm x 2150 mm	1.829	each	28.00	1,424,014.83	50,857.67
600(3)	Curb and Gutter	3.279	ln.m.	3,060.00	2,553,151.15	834.36
TOTAL					P 77,866,951.89	

NAME OF PROJECT :

CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS
INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF
BOULEVARD, LILOY, ZAMBOANGA DEL NORTE

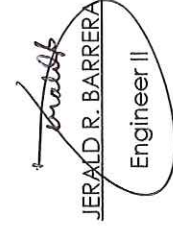
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BREAKDOWN OF ESTIMATED EXPENDITURES	% OF TOTAL	AMOUNT
I. ESTIMATED COST		
A. DIRECT COST		
A.1. Materials	66.26	66,259,930.18
A.2. Labor	1.64	1,640,152.28
A.3. Equipment Expenses	9.97	9,966,869.43
SUB-TOTAL (DIRECT COST)	77.87	77,866,951.89
B. INDIRECT COST (Per D.O. # 57)		
B.1. Overhead, Contingency & Misc. (10 % Max. of D.C.)	7.67	7,673,042.37
B.2. Profit (8 % Max. of D.C.)	6.16	6,164,492.56
C. VAT (5 % of D.C. and I.C. Per D.O. # 197 S.2016)	4.59	4,585,224.34
SUBTOTAL (CONTRACT COST)	96.29	96,289,711.16
II. ESTIMATED GOVERNMENT EXPENDITURES		
1. Engineering and Administrative Overhead (3.5%)	3.50	3,500,000.00
2. Detailed Engineering (1%)	0.00	
3. Reserved for the Payment of RROW	0.00	
4. Provisional Sum	0.21	210,288.84
TOTAL ESTIMATED PROJECT COST	100.00	100,000,000.00

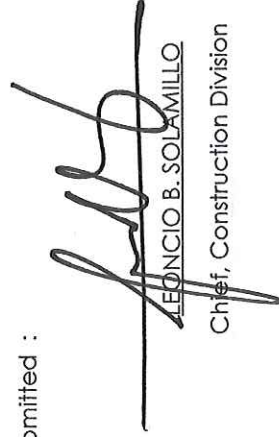
Prepared :


JOSEPHINE B. PENGQUINO
Engineer II

Checked :


JERALD R. BARRERA
Engineer II

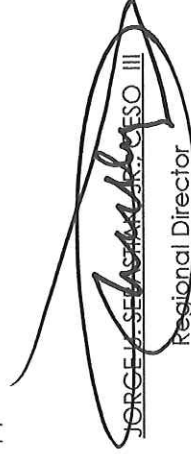
Submitted :


LEONCIO B. SOLAMILLO
Chief, Construction Division

Recommending Approval:


CAYAMON BAO D. DIA
Assistant Regional Director

Approved:


JORGE L. SEBASTIAN
Regional Director

APPROVED BUDGET FOR THE CONTRACT

CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILYO, ZAMBOANGA DEL NORTE

Project Name and Location

Stations: Beg. Of Project: Length: 1,530.00

Contract Duration : 209 Calendar Days

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN PERCENT	OCM PROFIT	%	VALUE	VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
PART A - FACILITIES FOR THE ENGINEER												
A.1.1(3)	Construction of Field Office for the Engineer (7.0m. X 9.0m.)	1.00	L.S.	465,555.88	10.00	8.00	18.00	83,800.06	27,467.80	111,267.86	576,823.74	
A.1.1(11)	Provision of Furnitures/Fixtures/Equipment and Appliances, for the Office for the Engineers	1.00	L.S.	200,598.00		8.00	8.00	16,047.84	10,832.29	26,880.13	227,478.13	
A.1.2	Operation and Maintenance of Gov't Service Vehicle	1.00	L.S.	266,106.88			0.00		13,305.34	13,305.34	279,412.22	
PART B - OTHER GENERAL REQUIREMENTS												
B.5	Project Billboard/signboard	2.00	units	7,300.90	10.00	8.00	18.00	1,314.16	430.75	1,744.92	9,045.82	
B.7	Occupational Safety and Health Program	1.00	L.S.	125,135.36		8.00	8.00	10,010.83	6,757.31	16,768.14	141,903.50	
B.4 (1)	Construction Survey and Staking	1.53	km	43,521.23	10.00	8.00	18.00	7,833.82	2,567.75	10,401.57	53,922.80	
B.9	Mobilization & Demobilization	1.00	L.S.	544,688.00			0.00		27,234.40	27,234.40	571,922.40	
PART C - EARTHWORK												
100(1)	Clearing and Grubbing	2.75	ha.	74,949.19	10.00	8.00	18.00	13,490.85	4,422.00	17,912.86	92,862.04	
104(1) a	Embankment from Excavation	2,610.00	cu.m.	538,331.63	10.00	8.00	18.00	96,899.69	31,761.57	128,661.26	666,992.89	
104(2) a	Embankment (Common Borrow)	58,533.00	cu.m.	40,906,506.35	10.00	8.00	18.00	7,363,171.14	2,413,483.87	9,776,655.02	50,683,161.37	
PART D - SUBBASE AND BASE COURSE												
200(1)	Aggregate Subbase Course, 0.30 m. thick	3,507.00	cu. m.	3,687,684.15	10.00	8.00	18.00	663,783.15	217,573.36	881,356.51	4,569,040.66	
PART E - SURFACE COURSES												
311(1) c1	Portland Cement Concrete Pavement, 0.23 m. thick	9,333.92	sq. m.	11,773,233.61	10.00	8.00	18.00	2,119,182.05	694,620.78	2,813,802.83	14,587,036.44	
311(1) c	Portland Cement Concrete Pavement, 0.15 m. thick	6,579.00	sq. m.	5,524,437.36	10.00	8.00	18.00	994,398.72	325,941.80	1,320,340.53	6,844,777.89	
PART G - DRAINAGE AND SLOPE PROTECTION STRUCTURES												
500(1) b1	Pipe Culvert 610 mm dia.	2,897.00	ln. m.	5,148,863.49	10.00	8.00	18.00	926,795.43	303,782.95	1,230,578.38	6,379,441.87	
502	Catch Basins 1300 mm x 1850 mm	122.00	each	4,582,873.88	10.00	8.00	18.00	824,917.30	270,389.56	1,095,306.86	5,678,180.74	
502	Catch Basins 1800 mm x 2150 mm	28.00	each	1,424,014.83	10.00	8.00	18.00	256,322.67	84,016.88	340,339.55	1,764,354.38	
600(3)	Curb and Gutter	3,060.00	ln.m.	2,553,151.15	10.00	8.00	18.00	459,567.21	150,635.92	610,203.12	3,163,354.27	
				77,866,951.89								
				96,289,711.16								

Recommending Approval:

CAYAMANGA, D. DIA
Assistant Regional Director

FORGE U. ESTABLANCA, JR.
Regional Director

Approved :

Prepared /Submitted by :

BELEN A. SAPALIEDA
Engineer IV - Chairman Estimating Committee

PROJECT : CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILROY, ZAMBOANGA DEL NORTE

LIMITS : 0 + 000 to 1 + 530.00

NET LENGTH : 1,530.00

WORK PROGRAMME/SCHEDULE

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	DURATION NO. OF DAYS	WEEKS (6 WORKING DAYS)																																									
	MOBILIZATION				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
100(1)	Clearing and Grubbing	2.75	ha.	1.72																																										
104(1) to 104(2)a	Embankment from Excavation	2,610.00	cu.m.	1.81																																										
200	Aggregate Subbase Course	3,507.00	cu. m.	8.77																																										
311a	Portland Cement Concrete Pavement, 0.23 m. thick	9,333.92	sq. m.	16.67																																										
311b	Portland Cement Concrete Pavement, 0.15 m thick	6,579.00	sq. m.	7.66																																										
500(1a)	Reinforced Concrete Culvert Pipe, 910 mm. Diameter	2,897.00	ln. m.	79.67																																										
600(3)	Curb and Gutter	3,060.00	ln.m.	37.14																																										
A.1.1(3)	Construction of Field Office for the Provision of Furniture, Equipment and Appliances for the Field Office for Operation and Maintenance of Govt Service Vehicle	1.00	L.S.	15.00																																										
A.1.1(1)		1.00	L.S.	0.00																																										
A.1.1(1)		2.00	units	0.25																																										
B.5	Project Billboard	1.00	L.S.	209.00																																										
B.7	Const. Safety and Health Program	1.00	L.S.	15.30																																										
B.4 (1)	Construction Survey and Staking	1.53	km.																																											
	DEMOLITION																																													

Submitted:

Approved:

JOSEPHINE R. RENGGUJO
Engineer II

REGENCIO B. SOLAMILLO
Chief, Construction Division

JOSE U. SERRANO JR. CRD III
Regional Director

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL A.1.1(3) Construction of Field Office for the Engineer (7.0m. X 9.0 m.)

Item No./Description: A.1.1(3) L. S.

Unit of Measurement: L. S.

Output per hour: 1.00

Quantity: 1.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a. Const. Foreman		1	15.00	611.92	9,178.80
b. Masons		4	15.00	443.20	26,592.00
c. Carpenters		4	15.00	443.20	26,592.00
d. Laborers		8	15.00	342.24	41,068.80
Sub-total for A				P	103,431.60
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)					
a. Bagger Mixer		1	15.00	1,376.00	20,640.00
b. Water Truck		1	1.00	19,600.00	19,600.00
c. Minor Tools, 10% of Labor				P	10,343.16
Sub-total for B					50,583.16
C. Total (A+B)					154,014.76
D. Output/day					
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
Gravel Bedding		0.00	cu.m.	1,063.00	-
Selected Fill		0.00	cu. m.	563.00	-
Soil Poisoning		0.00	lit.	1,900.00	-
Portland Cement		220.00	bag	285.88	62,894.32
Crushed gravel		15.00	cu.m.	1,063.00	15,945.00
Washed Sand		25.00	cu.m.	1,063.00	26,575.00
Deformed Bars, Grade 60		800.00	kg.	42.00	33,600.00
No. #16 G.I. Tie Wire		35.00	kg.	70.00	2,450.00
Coco Lumber		250.00	bd.ft.	15.00	3,750.00
Ordinary Plywood, 1/4" x 4' x8"		0.00	pcs.	577.00	-
CWN, Assorted		20.00	kg.	110.00	2,200.00
CHB 6" thick		700.00	pc.	25.00	17,500.00
10mm dia. X 6m RSB		150.00	kg.	40.00	6,000.00
D-1,Hollow Core Flush Type swing door,complete w/ accessories		1.00	set	1,495.20	1,495.20
W-1,Jalousie window, 1.4mx 1.2m.		0.00	set	1,176.00	-
W-2,Jalousie window, 2.8m x 1.2m		0.00	set	2,352.00	-
65 x 65 x 6mm Angle Bar		370.00	kg.	48.00	17,760.00
50 x 50 x 6mm Angle Bar		160.00	kg.	48.00	7,680.00
50 x 50 x 4mm Angle Bar		110.00	kg.	48.00	5,280.00
Purlins C-150x50x3mm		35.00	kg.	48.00	1,680.00
16mm dia. Cross Bracing		65.00	kg.	50.00	3,250.00
16mm dia. Turn Buckle		30.00	pc.	230.00	6,900.00
12mm thk. Base plate		45.00	kg.	48.00	2,160.00
10mmthk batten plate		30.00	kg.	48.00	1,440.00
Sub-total for E				P	218,559.52
Total Cost For Materials					311,541.12
Direct Cost (C + E)					465,555.88
G. Overhead, Contingencies and Miscellaneous			10% per D.O.197 s 2016		46,555.59
H. Contractor's Profit(CP)			8% per D.O.197 s 2016		37,244.47
I. Value Added Tax (VAT)			5% per D.O.197 s 2016		27,467.80
L. Total Unit Cost					576,823.74

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE
INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL
Item No./Description: A.1.1(3) Construction of Field Office for the Engineer (7.0m. X 9.0 m.)

Unit of Measurement: L.S.
Output per hour: 1.00
Quantity: 1.00

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

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL A.1.1(11)
 Unit of Measurement: L.S. Provision of Furnitures/Fixtures,Equipment and Appliances for thefield Office for the Engineers
 Output per hour: 1.00
 Quantity: 1.00

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

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE

INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL

Item No./Description:

A.1.1(11)

Unit of Measurement: L. S. the Engineers

L.S.

Output per hour:

1.00

Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials Office Equipment/Facilities, Materials Testing Apparatus& Supplies				
Desktop Computer	1	unit	60,000.00	60,000.00
Digital Camera (12 MP)	1	unit	10,000.00	10,000.00
Computer Printer (Scanner & Xerox)	1	unit	5,000.00	5,000.00
USB (16GB)	2	pcs.	800.00	1,600.00
Water Dispenser	1	unit	7,000.00	7,000.00
Electric Fan	2	pcs.	1,500.00	3,000.00
Steel Cabinet	1	unit	4,500.00	4,500.00
Gas Stove w/tank stove tank refill	1	set	3,500.00	3,500.00
Wall Clock	10	tanks	890.00	8,900.00
Rice Cooker	2	pcs.	350.00	700.00
Scientific Calculator	1	unit	1,200.00	1,200.00
Electric Airpot	1	pc.	2,500.00	2,500.00
water container	1	unit	1,500.00	1,500.00
puncher	4	pcs.	200.00	800.00
Stapler no. 35	1	pc.	250.00	250.00
Bulletin/Cork Board 2' x 3"	2	pcs.	350.00	700.00
Scissors	2	pc.	500.00	1,000.00
Record Book (500 leaves)	5	pcs.	35.00	175.00
Folding beds	6	pcs.	110.00	660.00
Bedsheets (Single)	2	pcs.	1,700.00	3,400.00
Rechargeable Lamps	6	pcs.	200.00	1,200.00
-	3	unit	750.00	2,250.00
-				-
-				-
-				-
-				-
-				-
-				-
-				-
-				-
-				-
-				-
Sub-total for E			P	119,835.00
F. Direct Cost (C + E)				119,835.00
G. Overhead, Contingencies and Miscellaneous				-
H. Contractor's Profit(CP)				
I. Value Added Tax (VAT)				
L. Total Unit Cost				

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL A.1.1(3)

Unit of Measurement: L. S.

Output per hour:

Quantity: 1.00

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

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL B.4 (1) km.
 Item No./Description: Construction Survey and Staking
 Unit of Measurement: 1.53
 Output per hour: 1.53
 Quantity: 1.53

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
For Fieldworks: (assumed output =0.300 km.)				
a. Geodetic Engineer	1	5.10	833.31	4,249.88
b. Skilled Laborer	1	5.10	443.20	2,260.32
c. Laborer	1	5.10	342.24	1,745.42
For Office works: (assumed output =0.100km.)				
a. Geodetic Engineer	1	15.30	833.31	12,749.64
b. Skilled Laborer	1	15.30	443.20	6,780.96
				-
				-
Sub-total for A				P 27,786.23
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
a. Total Station complete w/ accessories	1	5.10	800.00	4,080.00
				-
				-
				-
				-
				-
				-
				-
Sub-total for B				P 4,080.00
Total (A+B)				31,866.23
D. Output/day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Standard Stake Plan (800mm x 910mm plotting)	30.00	sheets	200.00	6,000.00
b. blue print as stake plan	150.00	pcs.	34.00	5,100.00
miscellaneous(5% of Materials)				555.00
				-
				-
				-
				-
				-
				-
				-
Sub-total for E				P 11,655.00
Direct Cost (C + E)				43,521.23
G. Overhead, Contingencies and Miscellaneous		10% per D.O.197 s 2016		4,352.12
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		3,481.70
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		2,567.75
L. Total Unit Cost				35,243.66

Quantity: 2.00

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
a.	Foreman	1	0.25	611.92	152.98
b.	Carpenters	1	0.25	443.20	110.80
c.	Laborer	2	0.25	342.24	171.12
-					-
-					-
-					-
-					-
-					-
-					-
-					-
P					434.90
	Sub-total for A				
B.	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
a.	Equipment, (2009 ACEL Rates)				
-					-
-					-
-					-
-					-
-					-
-					-
-					-
-					-
-					-
P					-
	Sub-total for B				
C.	Total (A+B)				434.90
D.	Output/day				
E.	Name and Specifications	Quantity	Unit	Unit Cost	Amount
a.	Materials				
a.	Marine Plywood 3/16" thk 4' x 8'	2.00	p.c.	423.00	846.00
b.	Tarpsaulin (4' x 8')	2.00	p.c.	800.00	1,600.00
c.	Assorted Sizes Lumber	100.00	bd. ft.	42.00	4,200.00
d.	Assorted Sizes C.W. Nails	2.00	kg.	110.00	220.00
-					-
-					-
-					-
-					-
-					-
-					-
-					-
P					-
	Sub-total for E				
F.	Direct Cost (C + E)				6,866.00
G.	Overhead, Contingencies and Miscellaneous				7,300.90
H.	Contractor's Profit(CP)		10% per D.O.197 s 2016		730.09
I.	Value Added Tax (VAT)		8% per D.O.197 s 2016		584.07
J.			5% per D.O.197 s 2016		430.75
K.	Total Unit Cost				4,522.91

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DETAILED UNIT PRICE ANALYSIS

Item No./Description:	PROJECT NAME:
B.7 Occupational Safety and Health Program	CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL

Item No./Description:

Unit of Measurement: L.S.

Output per hour:

Quantity: 1.00

[illegible]

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DETAILED UNIT PRICE ANALYSIS

Item No./Description:	PROJECT NAME:
100(1) Clearing and Grubbing	CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL

Item No./Description:

Unit of Measurement: ha.

Output per hour: 0.05 ha/hr.

Quantity: 2.75

[illegible]

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL 104(1)a
 Unit of Measurement: cu.m.
 Output per hour: 50.00
 Quantity: 2,610.00
 Use 3 gangs for labor & equipment
 cu.m./hr.

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
For Excavation Work:				
a. Const. Foreman	1	1.81	611.92	1,104.67
b. Laborers	6	1.81	342.24	3,706.97
				-
For Spreading and Compaction:				
a. Const. Foreman	1	2.18	611.92	1,330.93
b. Laborers	6	2.18	342.24	4,466.23
				-
				-
				-
Sub-total for A				10,608.80
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
For Excavation Work:				
a. Bulldozer	3	1.50	27,032.00	121,510.80
b. Payloader	3	1.50	13,864.00	62,319.69
c. Dump Truck	6	1.50	11,360.00	102,128.05
Spreading and Compaction:				-
a. Road grader	3	2.18	17,384.00	113,430.60
b. Road Roller	3	2.18	14,768.00	96,361.20
c. Water truck	3	0.54	19,600.00	31,972.50
				-
				-
				-
				-
Sub-total for B				527,722.83
Total (A+B)				538,331.63
C.				
D. Output/day	1,200.00	cu.m./day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a.				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E				-
Sub-total for E				538,331.63
F. Direct Cost (C + E)				538,331.63
G. Overhead, Contingencies and Miscellaneous		10% per D.O.197 s 2016		53,833.16
H. Contractor's Profit (CP)		8% per D.O.197 s 2016		43,066.53
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		31,761.57
L. Total Unit Cost				255.55

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE
 INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL
 104(2)a
 Unit of Measurement: cu.m.
 Output per hour: 50.00
 Quantity: 58,533.00
 Use 2 gangs for labor & equipment
 cu.m./hr.

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	73.17	611.92	44,771.89
b. Laborers	4	73.17	342.24	100,161.67
				-
				-
				-
Sub-total for A				144,933.56
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
a. Road grader	2	73.17	17,384.00	2,543,844.18
b. Road Roller	2	73.17	14,768.00	2,161,038.36
c. Water truck	2	18.29	19,600.00	717,029.25
				-
				-
				-
				-
				-
				-
Sub-total for B				5,421,911.79
Total (A+B)				5,566,845.35
D. Output/day	800.00 cu.m./day			
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Common Borrow (w/ 25% shrinkage)	73,167.00	cu.m.	483.00	35,339,661.00
				-
				-
				-
				-
				-
				-
Sub-total for E				35,339,661.00
Sub-total for F				40,906,506.35
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			
Total Unit Cost				865.89

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL 200(1)
 Item No./Description: cu. m.
 Unit of Measurement: 50.00
 Output per hour: cu.m./hr.
 Quantity: 3,507.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	8.77	611.92	5,365.01
b. Laborers	2	8.77	342.24	6,001.18
				-
				-
				-
				-
				-
				-
				-
Sub-total for A				11,366.19
			P	
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
b. Road Grader	1	8.77	17,384.00	152,414.22
c. Road Roller	1	8.77	14,768.00	129,478.44
i. Water Truck	1	2.19	19,600.00	42,960.75
Sub-total for B				324,853.41
			P	
C. Total (A+B)				336,219.60
D. Output/day	400.00	cu.m./day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Agg. Subbase Course (w/ shrinkage of 15 %)	4,033.05	cu.m.	831.00	3,351,464.55
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E				3,351,464.55
			P	
F. Direct Cost (C + E)				3,687,684.15
G. Overhead, Contingencies and Miscellaneous		10% per D.O.197 s 2016		368,768.41
H. Contractor's Profit (CP)		8% per D.O.197 s 2016		295,014.73
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		217,573.36
L. Total Unit Cost				1,302.83

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE
INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL
311(1)c1
Item No./Description: sq. m.
Unit of Measurement: 70.00
Output per hour: sq.m./hr.
Quantity: 9,333.92

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	16.67	611.92	10,199.31
b. Skilled	4	16.67	443.20	29,548.52
c. Laborers, Unskilled	12	16.67	342.24	68,452.30
				-
				-
				-
				-
				-
				-
Sub-total for A				108,200.13
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
a. Transit Mixer	4	16.67	10,544.00	702,977.52
b. Concrete Vibrator	2	1.67	730.00	2,433.49
c. Batching Plant	1	16.67	14,076.00	234,614.75
d. Payloader	1	16.67	13,864.00	231,081.19
e. Concrete Screeder	1	16.67	4,360.00	72,671.23
f. Water Truck	1	16.67	19,600.00	326,687.20
g. Concrete Saw	1	16.67	261.04	4,350.94
h. Bar Cutter	1	1.67	1,758.00	2,930.18
Minor Tools (5% of labor)				5,410.01
				-
Sub-total for B				1,583,156.51
Total (A+B)				1,691,356.64
Output/day	560.00 sq.m./day			
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Portland Cement (Type 1)	20,442.00	Bags	285.88	5,844,025.97
b. Fine Aggregates	1,181.00	cu. m.	1,063.00	1,255,403.00
c. Coarse Aggregates	2,147.00	cu. m.	1,063.00	2,282,261.00
d. Reinforcing Steel Bars	4,667.00	kgs	43.00	200,681.00
e. Asphalt Sealant	1,121.00	ltr	75.00	84,075.00
f. Curing Compound	2,707.00	ltr.	40.00	108,280.00
g. Concrete Saw	2.00	pcs.	8,000.00	16,000.00
h. Pipe Sleeve, 2" dia.	67.00	l.m.	133.00	8,911.00
i. Grease/Tar	82.00	lit.	300.00	24,600.00
j. Steel Forms (rental)	4,294.00	l.m.	60.00	257,640.00
				-
Sub-total for E				10,081,876.97
Direct Cost (C + E)				11,773,233.61
Overhead, Contingencies and Miscellaneous				10% per D.O.197 s 2016
Contractor's Profit (CP)				8% per D.O.197 s 2016
Value Added Tax (VAT)				5% per D.O.197 s 2016
Total Unit Cost				1,562.80

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL SUR
 Item No./Description: 311(1)a
 Unit of Measurement: sq. m.
 Output per hour: 107.33
 Quantity: 6,579.00 sq.m./hr.

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	7.66	611.92	4,688.60
b. Skilled	4	7.66	443.20	13,583.40
c. Laborers, Unskilled	12	7.66	342.24	31,467.39
				-
				-
				-
				-
				-
				-
Sub-total for A				49,739.40
B. Equipment, (2009 ACEL Rates)	No. of Equipment	No. of Days	Daily Rate	Amount
a. Transit Mixer	4	7.66	10,544.00	323,157.44
b. Payloader	1	7.66	13,864.00	106,227.59
c. Water Truck	1	7.66	19,600.00	150,177.49
d. Concrete Cutter	1	7.66	261.04	2,000.12
e. Concrete Vibrator	2	7.66	730.00	11,186.69
f. Bar Cutter	1	0.77	1,758.00	1,347.00
g. Concrete Screeder	1	7.66	4,360.00	33,406.83
h. Batchng plant	1	7.66	14,076.00	107,851.96
Minor Tools(5% of labor)				2,486.97
				-
Sub-total for B				737,842.08
C. Total (A+B)				787,581.48
D. Output/day	858.64	sq.m./day		
E. Materials	Quantity	Unit	Unit Cost	Amount
a. Portland Cement (Type 1)	9,408.00	Bags	285.88	2,689,589.88
b. Fine Aggregates	543.00	cu. m.	1,063.00	577,209.00
c. Coarse Aggregates	987.00	cu. m.	1,063.00	1,049,181.00
d. Reinforcing Steel Bars	2,172.00	kgs	43.00	93,396.00
e. Asphalt Sealant	790.00	ltr	75.00	59,250.00
f. Curing Compound	1,908.00	ltr.	40.00	76,320.00
g. Steel Forms	3,027.00	ln.m.	60.00	181,620.00
h. Concrete Saw	1.00	pcs.	8,000.00	8,000.00
i. Pipe Sleeve, 1" dia.	52.00	l.m.	40.00	2,080.00
j. Grease/Tar	10.00	lit.	21.00	210.00
				-
				-
Sub-total for E				4,736,855.88
F. Direct Cost (C + E)				5,524,437.36
G. Overhead, Contingencies and Miscellaneous				
H. Contractor's Profit (CP)				
I. Value Added Tax (VAT)				
L. Total Unit Cost				1,040.40

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL SUR

Item No./Description: 500(1)b1

Unit of Measurement: In. m.

Output per hour: 1

Quantity: 2,897.00 In.m./hr. Use 2 gangs for labor & equipment

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor	Foreman	1	79.67	611.92	48,750.14
	Skilled	4	79.67	443.20	141,234.54
	Unskilled	8	79.67	342.24	218,123.24
					-
Sub-total for A					408,107.92
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)	Backhoe	2	17.53	12,296.00	431,020.30
	Plate Compactor	2	17.53	984.00	34,492.84
	Minor Tools, 10% of Labor				40,810.79
					-
Sub-total for B					506,323.93
Total (A+B)					914,431.85
Output/day		16.00 In.m./day			
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials	Portland Cement	2,243.00	bag	285.88	641,236.19
	Fine Aggregate	127.47	cu.m.	1,063.00	135,498.48
	910 mm. Dia. R. C. Pipes	2,897.00	pc.	1,100.00	3,186,700.00
	Sand Bedding	254.94	pc.	1,063.00	270,996.97
Sub-total for E					-
Sub-total for E					4,234,431.64
Direct Cost (C + E)					5,148,863.49
Overhead, Contingencies and Miscellaneous		10% per D.O.197 s 2016			
Contractor's Profit (CP)		8% per D.O.197 s 2016			
Value Added Tax (VAT)		5% per D.O.197 s 2016			
Total Unit Cost					2,202.09

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PROJECT NAME:	CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL
Item No./Description:	502 Catch Basins 1300 mm x 1850 mm

PROJECT NAME:	CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL
Item No./Description:	502 Catch Basins 1300 mm x 1850 mm

Item No./Description:	502	each	
Unit of Measurement:		0.50	
Output per hour:		122.00	
Quantity:			

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Foreman	1	30.50	611.92	18,663.56
b. Skilled Laborers	4	30.50	443.20	54,070.40
c. Unskilled laborers	8	30.50	342.24	83,506.56
				-
b. Skilled Laborers	4	30.50	443.20	54,070.40
c. Unskilled laborers	8	30.50	342.24	83,506.56
				-
				-
				-
Sub-total for A				293,817.48
B. Equipment, (2009 ACEL Rates)				
a. Bagger Mixer	1	30.50	1,376.00	41,968.00
b. Water Truck	1	3.05	19,600.00	59,780.00
c. Concrete Vibrator	1	30.50	730.00	14,690.87
				-
				-
				-
				-
				-
				-
Sub-total for B				116,438.87
C. Total (A+B)				410,256.35
D. Output/day	4.00 each/day			
E. Materials				
a. Portland Cement	2,978.00	bag	285.88	851,360.40
b. Fine Aggregate	156.72	cu.m.	1,063.00	166,598.61
c. Coarse Aggregates	313.45	cu. m.	1,313.00	411,559.69
d. Form Lumber	5,486.00	bd.ft.	106.33	583,344.67
e. Plywood	126.00	pc.	1,063.00	133,938.00
f. Assorted Nails	54.86	kg.	160.00	8,777.60
g. Reinforcing Steel Bars	47,492.16	kg.	41.00	1,947,178.56
h. G.I. Tire Wire #16	998.00	kg.	70.00	69,860.00
				-
				-
				-
				-
Sub-total for E				4,172,617.53
F. Direct Cost (C + E)				4,582,873.88
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			
L. Total Unit Cost				46,542.47

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:	CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL
Item No./Description:	502 Catch Basins 1800 mm x 2150 mm

Item No./Description:	502	each
Unit of Measurement:		0.25
Output per hour:		28.00
Quantity:		

Quantity: 20.000					
Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Foreman	1	14.00	611.92	8,566.88
b.	Skilled Laborers	4	14.00	443.20	24,819.20
c.	Unskilled laborers	8	14.00	342.24	38,330.88
					-
b.	Skilled Laborers	4	14.00	443.20	24,819.20
c.	Unskilled laborers	8	14.00	342.24	38,330.88
					-
					-
Sub-total for A					134,867.04
P					
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.					
a.	Equipment, (2009 ACEL Rates)				
b.	Bagger Mixer	1	14.00	1,376.00	19,264.00
	Water Truck	1	0.70	19,600.00	13,720.00
c.	Backhoe(Wheel Type)	1	1.40	7,376.00	10,326.40
	Minor Tools, 10% of labor				13,486.70
					-
					-
					-
					-
					-
Sub-total for B					56,797.10
C.	Total (A+B)			P	191,664.14
2.00 cu.m./day					6,845.15
D. Output/day					
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.					
Materials					
a.	Portland Cement	983.00	bag	285.88	281,023.26
b.	Fine Aggregate	51.73	cu.m.	1,063.00	54,987.30
c.	Coarse Aggregates	103.46	cu. m.	1,313.00	135,838.80
d.	Form Lumber	1,811.00	bd.ft.	106.33	192,569.67
e.	Plywood	42.00	pc.	1,063.00	44,646.00
f.	Assorted Nails	18.11	kg.	160.00	2,897.60
g.	Reinforcing Steel Bars	12,251.90	kg.	41.00	502,328.06
h.	G.I. Tire Wire #16	258.00	kg.	70.00	18,060.00
					-
					-
					-
Sub-total for E					1,232,350.69
P					1,424,014.83
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					
63,012.66					

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:	CONSTRUCTION/REPAIR/REHABILITATION/IMPROVEMENT OF VARIOUS INFRASTRUCTURE INCLUDING LOCAL PROJECTS - CONSTRUCTION OF BOULEVARD, LILOY, ZAMBOANGA DEL
Item No./Description:	600(3) Curb and Gutter

Item No./Description:

Unit of Measurement: In.m.

Output per hour: 10.30 ln.m./hr.

Quantity: 3,060.00

Bidding Item						
	Designation	No. of Persons	No. of Days	Daily Rate	Amount	
A.	Labor					
a.	Foreman	1	37.14	611.92	22,724.21	
b.	Masons	2	37.14	443.20	32,917.28	
c.	Unskilled	8	37.14	342.24	101,675.18	
					-	
					-	
					-	
					-	
					-	
					-	
					-	
				P	157,316.68	
	Sub-total for A					
B.	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount	
a.	Equipment, (2009 ACEL Rates)					
b.	Concrete Vibrator	1	1.48	730.00	1,080.83	
c.	Bagger Mixer	1	1.48	1,376.00	2,037.28	
d.	Water Truck	1	0.07	19,600.00	1,450.97	
e.	Minor Tools (10% of labor)				15,731.67	
					-	
					-	
					-	
					-	
					-	
				P	20,300.75	
C.	Sub-total for B				177,617.43	
	Total (A+B)				58.04	
D.	Output/day	82.40	In.m./day			
E.	Name and Specifications	Quantity	Unit	Unit Cost	Amount	
a.	Materials					
b.	Portland Cement	3,948.00	bag	285.88	1,128,667.18	
c.	Fine Aggregate	214.20	cu.m.	1,063.00	227,694.60	
d.	Coarse Aggregate	428.40	cu.m.	1,063.00	455,389.20	
e.	Marine Plywood	183.60	pcs.	783.00	143,758.80	
f.	form lumber	8,774.55	bd.ft.	42.00	368,531.10	
	C.W. Nails	87.75	kl.	56.00	4,913.75	
	Miscellaneous(2% of Materials)				46,579.09	
					-	
					-	
					-	
					-	
					-	
				P	2,375,533.72	
	Sub-total for E					
F.	Direct Cost (C + E)				2,553,151.15	
G.	Overhead, Contingencies and Miscellaneous		10% per D.O.197 s 2016		255,315.11	
H.	Contractor's Profit(CP)		8% per D.O.197 s 2016		204,252.09	
I.	Value Added Tax (VAT)		5% per D.O.197 s 2016		150,635.92	
J.	Total Unit Cost				1,033.78	

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UNIT COST DERIVATION FOR PORTLAND CEMENT

TOTAL QUANTITY REQUIREMENTS FOR PORTLAND CEMENT

DESCRIPTION	QUANTITY (Bags)
Portland Cement Concrete Pavement, 0.28 m. thick	20,442.00
Reinforced Concrete Culvert Pipe, 910 mm. (36") diameter	2,243.00
Structural Concrete, Class"A"	0.00
Pipe Culverts 610 mm dia.	2,243.00
Grouted Riprap, Class "A"	2,978.00
Stone Masonry	0.00
Construction of Field Office for the Engineer (7.0m. X 9.0 m.)	220.00
RCCP, 610 mm dia.	14.00
Catch Basin	4.00
Concrete Cover	1.00
Concrete Curb & Gutter	157.38
Sidewalk	231.80
Informatory Signs	1.00
T O T A L	28,535.18

Quantity = 28,535.18 Bags

Delivery Charge = P 0.120 / bag / km.

S I T E	HAULING DISTANCE
Zamboanga del Norte 2nd DEO	20.00
PROJECT SITE	

*Average hauling distance from Source to assumed Stockpiling area :
say 20.00 km.

Delivery Charge = P 0.120 x 20.00
= P 2.40 / bag

*Delivery Truck : 28,535.18 bags., (hauling works)
20,000.00 kgs., (capacity per haul)
or 500.00 bags. (capacity per haul)

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

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

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

Speed when loaded : 30.00 kph
Speed when unloaded : 40.00 kph
loaded running $\frac{20.00 \times 60}{30.00} = 40.00$ mins.

$$\text{Unloaded running} = \frac{20.00 \times 60}{40.00} = 30.00 \text{ mins.}$$

$$\text{Loading and Unloading} : 45.00 \text{ mins.}$$

$$\text{Capacity of Dumptruck} : 8.00 \text{ cu.m.}$$

$$: 500.00 \text{ bags}$$

$$: 115.00 \text{ mins.}$$

$$\text{Total Cycle time} = \frac{8.0 \times 60.00}{115.00} = 4.17 \text{ say } 4.17 \text{ trip}$$

$$\text{No. of trips for Dumptruck per day} = 500 \times 4.17 = 2,086.96 \text{ cu.m.}$$

$$\text{Using (4) Dumptrucks} = 4 \times 2086.96 = 8,347.83 \text{ cu.m.}$$

$$1. \text{ No. of days for Delivery Truck} = \frac{28,535.18}{8,347.83} = 3.42 \text{ say } 3.42 \text{ days}$$

$$2. \text{ No. of days for Labor, for unloading} = \text{complimentary to D. Truck days} = 3.42 \text{ days}$$

DELIVERY COST :

28,535.18 - Bags, Portland Cement	@ P	2.40	/ bag	= P	68,484.43
Sub - Total				P	68,484.43

LABOR :

1 - Foreman	@ P	611.92 /day	x	3.42 days	= P	2,091.71
10 - Laborers, unloading	@ P	342.24 /day	x	3.42 days	= P	11,698.71
Sub - Total				P	13,790.42	

MATERIALS :

28,535.18 - Bags, Portland Cement	@ P	283.00	/ bag	= P	8,075,455.94
Sub - Total				P	8,075,455.94

(Pick-Up Price)

Estimated Quantity	28,535.18 Bags			
Unit Cost	P	285.88 / Bag,	say	P 285.88 / Bag
Grand Total	P	8,157,730.79		
Delivery Cost	P	68,484.43		
Labor	P	13,790.42		
Materials	P	8,075,455.94		

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 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.
Capacity of Dumptruck	: 10.00	cu.m.
Total Cycle time	: 22.50	mins.
No. of trips for Dumptruck per day	= $\frac{8 \times 60.00}{22.50}$	= 21.33 say 21.33 trips
Dumptruck daily output	= 10 x 21.33	= 213.33 cu.m.
Using (4) Dumptrucks	= 4 x 213.33	= 853.33 cu.m.

1. No. of days for Dumptrucks	= $\frac{1,000.00}{853.33}$	= 1.17 say 1.17	days
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EQUIPMENT USED : (2009 ACEL RATES)

4	- Unit Dumptruck	@ P	11,360.00 /day	x	1.17 days = P	53,250.00
					Sub - Total	53,250.00
					P	

Estimated Quantity		1,000.00 cu.m.
Unit Cost	P	10.65 / cu. m./km. (Unit Cost, Hauling per cu.m.per km.)
Grand Total	P	53,250.00
Equipment	P	53,250.00
Labor	P	
Materials	P	

ZAMBOANGA DEL NORTE 2ND DEO

	Ave. Hauling Distance	Unit Cost per cu.m./km.	Hauling Cost per cu.m.	Unit Price	Unit Cost per cu.m.
Cost of Fine Aggregates:	20.00 x	10.65 =	213.00 +	850.00 =	1,063.00
Cost of Coarse Aggregates:	20.00 x	10.65 =	213.00 +	850.00 =	1,063.00
Cost of Item 200 Materials:	20.00 x	10.65 =	213.00 +	618.00 =	831.00
Cost of Item 201 Materials:	20.00 x	10.65 =	213.00 +	663.00 =	876.00
Cost of Item 300 Materials:	20.00 x	10.65 =	213.00 +	755.00 =	968.00
Cost of Boulders:	20.00 x	10.65 =	213.00 +	1,100.00 =	1,313.00
Cost of Embankmen, Common Borrow:	20.00 x	10.65 =	213.00 +	270.00 =	483.00
Cost of Embankmen, Selected Borrow:	20.00 x	10.65 =	213.00 +	350.00 =	563.00