

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 : CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE		Appropriation : P 120,000,000.00 Source of Funds : CY-2018 Issued Obligated Authority : Released : Cal. Days to Complete : 264 Calendar Days Desirable Starting Date : Upon Approval Mode of Implementation :
PROJECT CATEGORY : FLOOD CONTROL		
PROJECT DESCRIPTION : Scope of Work : Construction of Flood Control		NET LENGTH : Upstream Side: Beg. Of Project 0 + 000.00 End Of Project 0 + 221.24 (BARRA SIDE) Beg. Of Project 0 + 600.00 End Of Project 0 + 857.50
		Net Length : 479.04000 In.m.

TECHNICAL PERSONNEL REQUIRED :

MINIMUM EQUIPMENT REQUIREMENT :		No.		Description	No.		Description	No.	
Description	No.								
Dumptruck (10-Wheeler)	12			Water Pump	1		Project Engineer	1	
Drop Hammer	4			Cutting Outfit	1		Materials Engineer	1	
Crawler Crane	2			Concrete Vibrator	2		Geometric Surveyor	1	
Truck mounted Crane	1			Air compressor	2		Foreman	1	
Road Grader	2			Bar Cutter	1		Materials Lab. Tech.	1	
Road Roller	2			Bar Bender	1		Mason	10	
Payloader	4			Conc. Mixer (1-Bagger)	2		Carpenter	6	
Water Truck	2			Plate Compactor	1		Laborers (Skilled)	10	
Water Tank	2			Jack Hammer	1		Laborers (Unskilled)	20	
Backhoe with breaker	1			Diesel Hammer	1				
Vibro Hammer	1			Service Truck	1				

ESTIMATED COST OF PROPOSED WORK

ITEM NO.	DESCRIPTION	% OF TOTAL	UNIT	QUANTITY	DIRECT COST	
					TOTAL	UNIT COST
PART B - OTHER GENERAL REQUIREMENTS						
A.1.1 (3)	Construction of Field Office for the Engineer	0.501	L. S.	1.00	469,161.56	469,161.56
A.1.1 (11)	Provision of Furnitures/Fixtures, Equipment & Appliances for the Field Office for the Engineer	0.210	L. S.	1.00	196,288.00	196,288.00
A.1.2 (5)	Operation & Maintenance of Go'vt Service Vehicle	0.405	L.S.	1.00	378,650.60	378,650.60
B.4(1)	Construction Survey and Staking	0.054	k.m.	0.479	50,769.75	105,982.28
B.5	Project Billboard	0.007	units	2.00	6,568.90	3,284.45
B.7	Occupational Safety and Health Program	0.536	L. S.	1.00	501,308.00	501,308.00
B.9	Mobilization & Demobilization	0.582	L. S.	1.00	544,688.00	544,688.00
PART C - EARTHWORKS						
1702(1)	Structure Excavation	0.079	cu.m.	322.00	74,097.24	230.12
200(1)	Aggregate Subbase Course	0.275	cu.m.	305.00	257,489.51	844.23
PART J - FLOOD CONTROL AND DRAINAGE						
404(1)a	Reinforcing Steel, (Grade 40)	1.434	kg.	27,228.00	1,342,356.73	49.30
404(1)b	Reinforcing Steel, (Grade 60)	0.374	kg.	6,803.00	349,714.40	51.41
405(1)b3	Structural Concrete, fc" = 27.58 MPA	6.790	cu.m.	1,066.00	6,355,741.87	5,962.23
1716(6)	Structural Steel Sheet Piles, Furnished	45.116	In.m.	13,086.00	42,230,867.94	3,227.18
1716(12)	Structural Steel Sheet Piles, Driven	10.024	In.m.	13,086.00	9,382,736.43	717.01
1716(16)	Steel Sheet Test Piles, Furnished and Driven	0.128	In.m.	22.00	119,364.07	5,425.64
PART G - DRAINAGE AND SLOPE PROTECTION						
1710(5)	Grouted Riprap, Class "A"	7.063	cu.m.	1,354.00	6,611,563.19	4,882.99
508(1)	Handlaid Rock Embankment	26.423	cu.m.	17,039.00	24,733,235.31	1,451.57
TOTAL					P	93,604,601.49

NAME OF PROJECT :

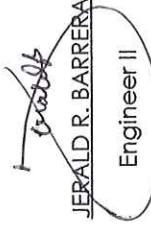
CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE
SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER
BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

BREAKDOWN OF ESTIMATED EXPENDITURES	% OF TOTAL	AMOUNT
I. ESTIMATED COST		
A. DIRECT COST		
A.1. Materials	62.30	74,757,616.49
A.2. Labor	4.49	5,388,103.47
A.3. Equipment Expenses	11.22	13,458,881.54
SUB-TOTAL (DIRECT COST)	78.00	93,604,601.49
B. INDIRECT COST (Per D.O. # 57)		
B.1. Overhead, Contingency & Misc. (10 % Max. of D.C.)	7.67	9,198,366.69
B.2. Profit (8 % Max. of D.C.)	6.18	7,414,501.03
C. VAT (5 % of D.C. and I.C. per D. O. 197 S. 2016)	4.59	5,510,873.46
SUBTOTAL (CONTRACT COST)	96.44	115,728,342.68
II. ESTIMATED GOVERNMENT EXPENDITURES		
1. Engineering and Administrative Overhead (3.5%)	3.50	4,200,000.00
2. Detailed Engineering (1%)	0.00	
3. Reserved for the Payment of RROW	0.06	71,657.32
4. Provisional Sum	0.00	
TOTAL ESTIMATED PROJECT COST	100.00	120,000,000.00

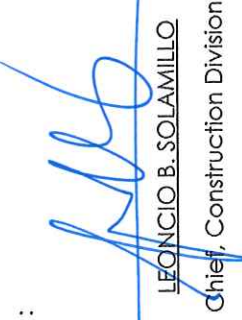
Prepared :

Checked :


JOSEPHINE B. RENGGUNO
Engineer II


JERALD R. BARRERA
Engineer II

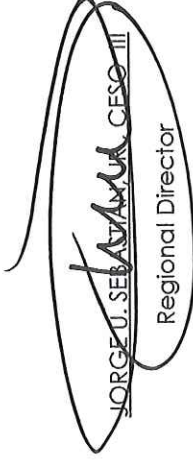
Submitted :


LEONCIO B. SOLAMILLO
Chief, Construction Division

Recommending Approval:


CAYAMOMBAO D. DIA
Assistant Regional Director

Approved:


JORGE U. SEBASTIAN, CFSQ III
Regional Director

APPROVED BUDGET FOR THE CONTRACT

CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLONG RIVER BASIN, DIPOLONG CITY, ZAMBANGA DEL NORTE

Project Name and Location

Stations: Upstream Side:

Length: 479.04000

Contract Duration: 264 Calendar Days

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN				TOTAL MARK-UPS				VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST							
					PERCENT	OCM	PROFIT	%	VALUE	PERCENT	OCM	PROFIT					%						
																		(6)	(7)	(8)	(9)	(10)	(11)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)							
A.1.(3)	Construction of Field Office for the Engineer	1.00	L. S.	469,161.56	10.00	8.00	18.00	84,449.08	27,680.53	112,129.61	581,291.17												
A.1.(11)	Provision of Furniture/Fixtures, Equipment & Appliances for the Field Office for the Engineer	1.00	L. S.	196,288.00		8.00	8.00	15,703.04	10,599.55	26,302.59	222,590.59												
A.1.2 (5)	Operation & Maintenance of Gov't Service Vehicle	1.00	L.S.	378,650.60				-	18,932.53	18,932.53	397,583.13												
B.4(1)	Construction Survey and Staking	0.48	k.m.	50,769.75	10.00	8.00	18.00	9,138.56	2,995.42	12,133.97	62,903.72												
B.5	Project Billboard	2.00	units	6,568.90	10.00	8.00	18.00	1,182.40	387.57	1,569.97	8,138.87												
B.7	Occupational Safety and Health Program	1.00	L. S.	501,308.00		8.00	8.00	40,104.64	27,070.63	67,175.27	568,483.27												
B.9	Mobilization & Demobilization	1.00	L. S.	544,688.00			0.00	-	27,234.40	27,234.40	571,922.40												
PART C - EARTHWORKS																							
1702(1)	Structure Excavation	322.00	cum.	74,097.24	10.00	8.00	18.00	13,337.50	4,371.74	17,709.24	91,806.48												
200(1)	Aggregate Subbase Course	305.00	cum.	257,489.51	10.00	8.00	18.00	46,348.11	15,191.88	61,539.99	319,029.50												
PART J - FLOOD CONTROL AND DRAINAGE																							
404(1)c	Reinforcing Steel, (Grade 40)	27,228.00	kg.	1,342,356.73	10.00	8.00	18.00	241,624.21	79,199.05	320,823.26	1,663,179.98												
404(1)b	Reinforcing Steel, (Grade 60)	6,803.00	kg.	349,714.40	10.00	8.00	18.00	62,948.59	20,633.15	83,581.74	433,296.14												
405(1)b3	Structural Concrete, (c' = 27.58 MPa)	1,066.00	cum.	6,355,741.87	10.00	8.00	18.00	1,144,033.54	374,988.77	1,519,022.31	7,874,764.17												
1716(6)	Structural Steel Sheet Piles, Furnished	13,086.00	ln.m.	42,230,867.94	10.00	8.00	18.00	7,601,556.23	2,491,621.21	10,093,177.44	52,324,045.38												
1716(12)	Structural Steel Sheet Piles, Driven	13,086.00	ln.m.	9,382,736.43	10.00	8.00	18.00	1,688,892.56	553,581.45	2,242,474.01	11,625,210.44												
1716(16)	Steel Sheet Test Piles, Furnished and Driven	22.00	ln.m.	119,364.07	10.00	8.00	18.00	21,485.53	7,042.48	28,528.01	147,892.08												
PART G - DRAINAGE AND SLOPE PROTECTION																							
1710(5)	Grouted Riprap, Class "A"	1,354.00	cum.	6,611,563.19	10.00	8.00	18.00	1,190,081.37	390,082.23	1,580,163.60	8,191,726.79												
508(1)	Handlaid Rock Embankment	17,039.00	cum.	24,733,235.31	10.00	8.00	18.00	4,451,982.36	1,459,260.88	5,911,243.24	30,644,478.55												
				93,604,601.49				16,612,867.72	5,510,873.46	22,123,741.18	115,728,342.68												

Recommending Approval:

CAYAMANO D. DIA
Assistant Regional Director

JORGE U. STEPHAN
Regional Director

Prepared /Submitted by :

BELEN A. SARALLA
Engineer IV, Chairman Estimating Committee

PROJECT : CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPLOG RIVER BASIN, DIPLOG CITY, ZAMBOANGA DEL NORTE

LIMITS : 0

NET LENGTH : 479.04

WORK PROGRAMME/SCHEDULE

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	DURATION NO. OF DAYS	WEEKS (6 WORKING DAYS)																																									
					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		
PART B - OTHER GENERAL REQUIREMENTS																																														
A.1.1(3)	Construction of Field Office for the Engineer	1.00	L.S.	15.00																																										
A.1.1(1)	Equipment & Appliances for the Field	1.00	L.S.	254.00																																										
A.1.2 (5)	Operation & Maintenance of Govt Service Vehicle	1.00	L.S.	254.00																																										
B.4(1)	Construction Survey and Staking	0.48	k.m.	4.79																																										
B.5	Project Billboard	2.00	units	0.25																																										
B.7	Occupational Safety and Health Program	1.00	L.S.	254.00																																										
PART B - EARTHWORKS																																														
1702(1)	Structure Excavation	322.00	cu.m.	2.01																																										
200(1)	Aggregate Subbase Course	305.00	cu.m.	0.76																																										
PART J - FLOOD CONTROL AND DRAINAGE																																														
1716(6)	Structural Steel Sheet Piles, Furnished	13,086.00	ln.m.	17.04																																										
1716 (12)	Structural Steel Sheet Piles, Driven	13,086.00	ln.m.	81.79																																										
1716(16)	Steel Sheet Test Piles, Furnished and Driven	22.00	ln.m.	0.34																																										
404(1)a	Reinforcing Steel, (Grade 40)	27,228.00	kg.	9.45																																										
404(1)b	Reinforcing Steel, (Grade 40)	6,803.00	kg.	2.36																																										
405(1)b3	Structural Concrete, f'c = 27.58 MPa	1,066.00	cu.m.	31.73																																										
PART G - DRAINAGE AND SLOPE PROTECTION																																														
1710(s)	Grouted Riprap, Class "A"	1,354.00	cu.m.	45.13																																										
508(1)	Handlad Rock Embankment	17,039.00	cu.m.	68.16																																										
DEMobilization																																														

Prepared:

JOSEPHINE B. BENGQUILLO
Engineer II

Submitted:

TEONCIO B. SOLAMILLO
Chief, Construction Division

Approved:

JORGE U. SEBASTIAN JR. CASSILLO
Regional Director

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

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

Output per hour:

Quantity: 1.00

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, (2014 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
Total (A+B)					154,014.76
C. Output/day					
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
Gravel Bedding		0.00	cu.m.	680.00	-
Selected Fill		0.00	cu. m.	500.00	-
Soil Poisoning		0.00	lit.	1,900.00	-
Portland Cement		220.00	bag	275.00	60,500.00
Crushed gravel		15.00	cu.m.	680.00	10,200.00
Washed Sand		25.00	cu.m.	680.00	17,000.00
Deformed Bars, Grade 60		800.00	kg.	43.00	34,400.00
No. #16 G.I. Tie Wire		35.00	kg.	68.00	2,380.00
Coco Lumber		600.00	bd.ft.	15.00	9,000.00
Ordinary Plywood, 1/4" x 4' x8"		0.00	pcs.	656.67	-
CWN, Assorted		20.00	kg.	44.00	880.00
CHB 6" thick		850.00	pc.	20.00	17,000.00
10mm dia. X 6m RSB		150.00	kg.	43.00	6,450.00
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		400.00	kg.	48.00	19,200.00
50 x 50 x 6mm Angle Bar		200.00	kg.	48.00	9,600.00
50 x 50 x 4mm Angle Bar		120.00	kg.	48.00	5,760.00
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	209,295.20
Total Cost For Materials					315,146.80
Direct Cost (C + E)					469,161.56
F. Overhead, Contingencies and Miscellaneous			10% per D.O. 197 S. 2016		46,916.16
G. Contractor's Profit (CP)			8% per D.O. 197 S. 2016		37,532.92
H. Value Added Tax (VAT)			5% per D.O. 197 S. 2016		27,680.53
Total Unit Cost					581,291.17

icbr

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

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

Unit of Measurement: L.S.

Output per hour:

Quantity: 1.00

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				P	-
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2014 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				P	-
Total (A+B)					-
C. Output/day					-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
10mm dia. Sag rod		15.00	kg.	41.00	615.00
20mm dia. X 350mm Anchor Bolts		15.00	pc.	150.00	2,250.00
Welding Rod		25.00	kg.	135.00	3,375.00
Primer, Zinc Chromate		5.00	gal.	531.00	2,655.00
Pre-painted G.I. Roofing Shit. Long span		55.00	sq.m.	420.00	23,100.00
Pre-painted flashing Ridge Roll GA24,0.60m w		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		700.00	bd.ft.	37.00	25,900.00
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		2.00	roll	3,600.00	7,200.00
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	86,660.60
F. Direct Cost (C + E)					86,660.60
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					

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

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

Output per hour:
Quantity: 1.00

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				

jcbr

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

Item No./Description:

A.1.1(11)

Provision of Furnitures/Fixtures, Equipment & Appliances for the Field Office for

Unit of Measurement:

L. S.

the Engineer

Output per hour:

1.00

Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Office Equipment/Facilities& Supplies				
White Board , 3' x 6'	1	each.	2,000.00	-
8-seater Monoblock Dining Table	1	unit	3,000.00	-
Monoblock Backrest Chair	12	pcs.	500.00	-
Plastic Pail & Basin	2	set	300.00	2,000.00
Aluminum Cookware	1	set	3,000.00	3,000.00
each Plate, Glass, Spoon & Fork	1	doz	1,900.00	6,000.00
6" Sleeping Bed, Good Quality w/ pillows & blanket	3	each.	5,000.00	600.00
Office Table, Jr. Executive type	1	each.	7,000.00	3,000.00
w/ chair				1,900.00
Drawing Table	1	each.	5,000.00	15,000.00
Computer Table	1	each.	3,000.00	7,000.00
Cartridge(Computer Printer/Ink)	6	sets	1,800.00	-
CD RW	15	pc.	35.00	5,000.00
DVD Recordable & Writer	2	pc.	55.00	3,000.00
Bond paper (Long)	16	ream	330.00	3,000.00
Bond paper (Short)	15	ream	270.00	10,800.00
Yellow pad	6	pads	34.00	525.00
Scotch Tape	6	rolls	45.00	110.00
Masking Tape	6	rolls	134.00	5,280.00
Batteries" Energizer"	15	pc.	48.00	4,050.00
Ballpen	4	box	200.00	204.00
Pencil Lead, No. 5	4	box	150.00	270.00
Paper Clip(Plastic coated)	4	box	40.00	804.00
Fastener(plastic coated)	6	box	60.00	720.00
Eraser(Ink, pencil)	6	box	20.00	800.00
Staple wire	6	box	250.00	600.00
Cutter blade	3	box	250.00	160.00
Glue, 130 grams	6	bottle	85.00	360.00
Correction Fluid Pen	6	bottle	50.00	120.00
Brown Envelope, Long & Short	5	doz.	85.00	1,500.00
Expanded Envelope, long	5	doz.	125.00	750.00
Colored Pencil, 12's	6	set	145.00	510.00
Folder, short	6	doz.	90.00	300.00
Folder, long	6	doz.	95.00	425.00
Pentel pen (Assorted colors)	6	pcs.	60.00	870.00
White Board Marker(Assorted colors)	6	pcs.	85.00	540.00
Letter Envelope, White(Long)	1	box	100.00	570.00
Data File Folder	6	pcs.	100.00	360.00
Sign Pen, Assorted Colors	2	doz.	900.00	510.00
				100.00
				600.00
				1,800.00
				-
Sub-total for E			P	80,763.00
F. Direct Cost (C + E)				196,288.00
G. Overhead, Contingencies and Miscellaneous				-
H. Contractor's Profit(CP)		8% per D.O. 197 S. 2016		15,703.04
I. Value Added Tax (VAT)		5% per D.O. 197 S. 2016		10,599.55
L. Total Unit Cost				222,590.59

icbr

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

Item No./Description:

A.1.1(11)

Provision of Furnitures/Fixtures, Equipment & Appliances for the Field Office for
the Engineer

Unit of Measurement:

L.S.

Quantity: 1.00

[illegible]

icbr

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

Item No./Description:	A.1.2 (5)	Operation & Maintenance of Go'vt Service Vehicle

Unit of Measurement: L.S.

Output per hour:

Quantity: 1.00

[illegible]

jcbr

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

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

Unit of Measurement: k.m.

Output per hour:

Quantity: 0.48

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
For Fieldworks:				
(assumed output = 300 In.m.)				
a. Geodetic Engineer	1	1.60	833.31	1,330.63
b. Skilled Laborer	1	1.60	443.20	707.70
c. Laborer	1	1.60	342.24	546.49
				-
For Office works:				
(assumed output = 100 In.m.)				
a. Geodetic Engineer	1	4.79	833.31	3,991.89
b. Skilled Laborer	1	4.79	443.20	2,123.11
				-
				-
Sub-total for A				8,699.81
			P	
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2014 ACEL Rates)				
a. Total Station complete w/ accessories	1	1.60	800.00	1,277.44
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for B				1,277.44
			P	
C. Total (A+B)				9,977.25
D. Output/day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Standard Stake Plan (800mm x 910mm plotting)	105.00	sheets	200.00	21,000.00
				-
b. blue print as stake plan	525.00	pcs.	34.00	17,850.00
				1,942.50
miscellaneous(5% of Materials)				-
				-
				-
				-
				-
				-
				-
Sub-total for E				40,792.50
			P	
F. Direct Cost (C + E)				50,769.75
G. Overhead, Contingencies and Miscellaneous		10% per D.O. 197 S. 2016		5,076.98
H. Contractor's Profit(CP)		8% per D.O. 197 S. 2016		4,061.58
I. Value Added Tax (VAT)		5% per D.O. 197 S. 2016		2,995.42
L. Total Unit Cost				131,312.05

jcbr

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

B.5 Project Billboard

Unit of Measurement: units

Output per hour:

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, (2014 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	pc.	423.00	846.00
b.	Tarpaulin (4' x 8')	2.00	pc.	800.00	1,600.00
c.	Assorted Sizes Lumber	100.00	bd. ft.	36.00	3,600.00
d.	Assorted Sizes C.W. Nails	2.00	kg.	44.00	88.00
					-
					-
					-
					-
					-
					-
					-
				P	6,134.00
	Sub-total for E				
F.	Direct Cost (C + E)				
G.	Overhead, Contingencies and Miscellaneous	10% per D.O. 197 S. 2016			6,568.90
H.	Contractor's Profit(CP)	8% per D.O. 197 S. 2016			525.51
I.	Value Added Tax (VAT)	5% per D.O. 197 S. 2016			387.57
L.	Total Unit Cost				4,069.43

jcbor

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

Item No./Description:

Occupational Safety and Health Program

Unit of Measurement: L.S.

L.S.

Output per hour:

Quantity: 1.00

1.00

[illegible]

icbr

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

Item No./Description:
Unit of Measurement:
Output per hour:
Quantity:

Mobilization & Demobilization

L.S.

Output per hour:
Quantity: 1.00

[illegible]

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

Item No./Description:	1702(1)	Structure Excavation
-----------------------	---------	----------------------

Unit of Measurement: cu.m.

Output per hour: 20.00 cu.m./hr.

Quantity: 322.00

[illegible]

jcbor

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

Item No./Description:

Aggregate Subbase Course

Unit of Measurement: cu.m.

cu.m.
50.00

Output per hour: 50.00

Quantity:

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
a.	Const. Foreman	1	0.76	611.92	466.59
b.	Laborers	2	0.76	342.24	521.92
-					-
-					-
-					-
-					-
-					-
-					-
-					-
-					-
-					-
Sub-total for A					P 988.51
B.	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
	Equipment, (2014 ACEL Rates)				
a.	Road Grader	1	0.76	17,384.00	13,255.30
b.	Road Roller	1	0.76	14,768.00	11,260.60
c.	Water Truck/Pump	1	0.19	19,600.00	3,736.25
	Minor Tools (10% of labor)				98.85
-					-
-					-
-					-
-					-
-					-
-					-
Sub-total for B					P 28,351.00
C.	Total (A+B)				29,339.51
D.	Output/day	400.00 cu.m./day			
E.	Name and Specifications	Quantity	Unit	Unit Cost	Amount
	Materials				
a.	Aggregate Subbase Course (w/ 15% shrinkage Factor)	351.00	cu.m.	650.00	228,150.00
-					-
-					-
-					-
-					-
-					-
-					-
-					-
-					-
-					-
Sub-total for E					P 228,150.00
F.	Direct Cost (C + E)				257,489.51
G.	Overhead, Contingencies and Miscellaneous	10% per D.O. 197 S. 2016			25,748.95
H.	Contractor's Profit(CP)	8% per D.O. 197 S. 2016			20,599.16
I.	Value Added Tax (VAT)	5% per D.O. 197 S. 2016			15,191.88
L.	Total Unit Cost				1,046.00

jcbor

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

Item No./Description:	404(1)a	Reinforcing Steel, (Grade 40)

Unit of Measurement: ka.

Output per hour: 180.00

Quantity: 27,228.00

Use 2 gangs of labor & equipment

[illegible]

jcbor

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

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

Unit of Measurement: kg.

Output per hour: 180.00 kg./hr.

Quantity:	6,803.00	Use 2 gangs of labor* equipment
-----------	----------	---------------------------------

[illegible]

jcbbr

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

Item No./Description: 405(1)b3 Structural Concrete, fc" = 27.58 MPA

Unit of Measurement: cu.m.

Output per hour: 1.40 cu.m./hr.

Quantity: 1,066.00

Use 3 gangs of equipment & labor

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Foreman	1	31.73	611.92	19,413.89
b. Skilled	12	31.73	443.20	168,732.57
c. Unskilled	24	31.73	342.24	260,591.31
Installation/Removal of Formworks				
b. Skilled	6	31.73	443.20	84,366.29
c. Unskilled	12	31.73	342.24	130,295.66
				-
				-
Sub-total for A				P 663,399.72
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2014 ACEL Rates)				
a. One bagger mixer	3	31.73	1,376.00	130,965.71
b. Concrete vibrator	3	31.73	730.00	69,480.36
c. Water truck	3	3.17	19,600.00	186,550.00
Minor Tools (5% of Labor)				33,169.99
				-
				-
				-
				-
				-
Sub-total for B				P 420,166.06
Total (A+B)				1,083,565.78
C. Output/day	33.60	In.m./day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Portland Cement	11,726.00	bag	275.00	3,224,650.00
b. Fine Aggregates	533.00	cu.m.	680.00	362,440.00
c. Coarse Aggregates	1,066.00	pc.	680.00	724,880.00
d. Form lumber	18,655.00	pc.	36.00	671,580.00
e. Plywood	427.00	pc.	656.67	280,398.09
f. Assorted CWNails	187.00	pc.	44.00	8,228.00
				-
				-
				-
				-
				-
				-
Sub-total for E				P 5,272,176.09
Direct Cost (C + E)				6,355,741.87
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				7,387.21

jcbr

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

Item No./Description:

Structural Steel Sheet Piles, Furnished

Unit of Measurement: In.m.

n.m.
48
ln.m./hr.

In.m./hr.

Output per hour:	48	ln.m./hr.
Quantity:	13,086.00	Use 2 gangs of labor & equipment

[illegible]

jcbor

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

Item No./Description:	1716 (12)	Structural Steel Sheet Piles, Driven

Unit of Measurement: In.m.

Output per hour: 10.00
In.m./hr.

Quantity: 13,086.00

Use 2 gangs for labor & equipment

[illegible]

jcbor

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

Item No./Description:

1716(16)

Steel Sheet Test Piles, Furnished and Driven

Unit of Measurement: In.m.

In.m.

Output per hour:

8.000

ln.m./hr.

Quantity:

[illegible]

jcbor

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

Item No./Description: 1716(16) Steel Sheet Test Piles, Furnished and Driven

Unit of Measurement: In.m.

Output per hour: 8.000 In.m./hr.

Quantity: 22.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
	a. Const. Foreman	1	0.34	611.92	210.35
	b. Skilled	6	0.34	443.20	914.10
	c. Laborers, Unskilled	6	0.34	342.24	705.87
Sub-total for A					1,830.32
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2014 ACEL Rates)					
	a. Truck Mounted Crane	1	0.34	20,848.00	7,166.50
	b. Vibro Hammer	1	0.34	16,984.00	5,838.25
	c. Gen. Set	1	0.34	10,373.36	3,565.84
	d. Welding Machine	1	0.34	2,968.00	1,020.25
	e. Cutting Outfit	1	0.17	363.60	183.03
Sub-total for B					-
Total (A+B)				P	17,773.87
C. Output/day					19,604.19
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
	a. Coco logs	18.70	m.	410.00	7,667.00
	b. Good Lumber	88.00	bd.ft.	36.00	3,168.00
	c. Nail/Spike	3.52	kg.	42.00	147.84
	d. Steel Sheet Pile	22.00	m.	3,998.48	87,966.56
	e. Welding Rod	0.53	kg.	135.00	71.28
	f. Oxy/Acetylene	0.21	set	3,500.00	739.20
Sub-total for E					-
Total (C + E)				P	99,759.88
F. Direct Cost (C + E)					119,364.07
G. Overhead, Contingencies and Miscellaneous				10% per D.O. 197 S. 2016	11,936.41
H. Contractor's Profit (CP)				8% per D.O. 197 S. 2016	9,549.13
I. Value Added Tax (VAT)				5% per D.O. 197 S. 2016	7,042.48
L. Total Unit Cost					6,722.37

jcbr

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

Item No./Description: 1710(5) Grouted Riprap, Class "A"

Unit of Measurement: cu.m.

Output per hour: 1.25 cu.m./hr.

Quantity: 1,354.00 Use 3 gangs for labor & equipment

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	45.13	611.92	27,617.99
b. Skilled laborer	6	45.13	443.20	120,018.56
c. Unskilled Laborer	24	45.13	342.24	370,714.37
				-
				-
				-
				-
				-
				-
Sub-total for A				518,350.92
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2014 ACEL Rates)				
a. One bagger mixer	3	45.13	1,376.00	186,310.40
b. Water truck	3	45.13	19,600.00	2,653,840.00
Minor Tools (10% of Labor)				-
				51,835.09
				-
				-
				-
				-
				-
Sub-total for B				2,891,985.49
Total (A+B)				3,410,336.41
C. Output/day	30.00	cu.m./day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Portland Cement	4,062.00	bag	275.00	1,117,050.00
b. Fine Aggregates	339.00	cu.m.	680.00	230,520.00
c. Gravel Fill	20.31	cu.m.	680.00	13,810.80
d. Weep Holes	406.00	m.	144.67	58,734.67
e. Filter Cloth	20.00	sq.m.	160.00	3,200.00
f. Boulders	1,422.00	cu.m.	1,228.00	1,746,216.00
Miscellaneous (1% Materials)				31,695.31
				-
				-
				-
				-
				-
Sub-total for E				3,201,226.78
Direct Cost (C + E)				6,611,563.19
Sub-total for F				6,611,563.19
F. Direct Cost (C + E)				
G. Overhead, Contingencies and Miscellaneous	10% per D.O. 197 S. 2016			661,156.32
H. Contractor's Profit (CP)	8% per D.O. 197 S. 2016			528,925.06
I. Value Added Tax (VAT)	5% per D.O. 197 S. 2016			390,082.23
L. Total Unit Cost				6,050.02

jcbcr

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF FLOOD CONTROL STRUCTURE ALONG DIPOLOG RIVER BASIN, DIPOLOG CITY, ZAMBOANGA DEL NORTE

Item No./Description:	508(1)	Handlaid Rock Embankment

Unit of Measurement: cu.m.

Output per hour: 3.125 cu.m./hr.

Quantity: 17,039.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
a.	Const. Foreman	1	68.16	611.92	41,706.02
b.	Skilled laborer	20	68.16	443.20	604,134.78
c.	Unskilled Laborer	80	68.16	342.24	1,866,056.76
					-
					-
					-
					-
					-
					-
					-
Sub-total for A					P 2,511,897.56
B.	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
	Equipment, (2014 ACEL Rates)				
	Minor Tools(10% of Labor)				251,189.76
					-
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for B					P 251,189.76
C.	Total (A+B)				2,763,087.31
D.	Output/day 250.00	cu.m./day			
E.	Name and Specifications	Quantity	Unit	Unit Cost	Amount
a.	Materials				
	Boulders	17,891.00	cu.m.	1,228.00	21,970,148.00
					-
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for E					P 21,970,148.00
F.	Direct Cost (C + E)				24,733,235.31
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197 S. 2016		2,473,323.53
H.	Contractor's Profit(CP)		8% per D.O. 197 S. 2016		1,978,658.83
I.	Value Added Tax (VAT)		5% per D.O. 197 S. 2016		1,459,260.88
L.	Total Unit Cost				1,798.49

icbr

UNIT COST DERIVATION FOR PORTLAND CEMENT

TOTAL QUANTITY REQUIREMENTS FOR PORTLAND CEMENT

DESCRIPTION	QUANTITY (Bags)
Portland Cement Concrete Pavement, 0.28 m. thick	18.70
Reinforced Concrete Culvert Pipe, 910 mm. (36") diameter	0.00
Structural Concrete, fc" = 27.58 MPA	11,726.00
Elastomeric Bearing Pad	0.00
Grouted Riprap, Class "A"	1,224.00
Construction of Field Office for the Engineer	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	13,597.88

Quantity = 13,597.88 Bags

Delivery Charge = P 0.120 / bag / km.

S I T E	HAULING DISTANCE
Zamboanga DEL Norte 1ST DEO	0.00
PROJECT SITE	

*Average hauling distance from Source to assumed Stockpiling area :

say 0.00 km.

Delivery Charge = P 0.120 x 0.00
= P 0.00 / bag

*Delivery Truck : 13,597.88 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 = $\frac{0.00 \times 60}{30.00}$ = 0.00 mins.

$$\text{Unloaded running} = \frac{0.00 \times 60}{40.00} = 0.00 \text{ mins.}$$

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

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

$$: 500.00 \text{ bags}$$

$$\text{Total Cycle time} : 45.00 \text{ mins.}$$

$$\text{No. of trips for Dumptruck per day} = \frac{8.0 \times 60.00}{45.00} = 10.67 \text{ say } 10.67 \text{ trip}$$

$$\text{Dumptruck daily output} = 500 \times 10.67 = 5,333.33 \text{ cu.m.}$$

$$\text{Using (4) Dumptrucks} = 4 \times 5333.33 = 21,333.33 \text{ cu.m.}$$

$$1. \text{ No. of days for Delivery Truck} = \frac{13,597.88}{21,333.33} = 0.64 \text{ say } 0.00 \text{ days}$$

$$2. \text{ No. of days for Labor, for unloading} = \text{complimentary to D. Truck days} = 0.00 \text{ days}$$

DELIVERY COST :

13,597.88 - Bags, Portland Cement	@ P	0.00	/ bag	= P	0.00
			Sub - Total	P	0.00

LABOR :

1 - Foreman	@ P	611.92 /day	x	0.00 days	= P	0.00
10 - Laborers, unloading	@ P	342.24 /day	x	0.00 days	= P	0.00
			Sub - Total	P	0.00	

MATERIALS :

13,597.88 - Bags, Portland Cement	@ P	275.00	/ bag	= P	3,739,417.00
(Pick-Up Price)			Sub - Total	P	3,739,417.00

Estimated Quantity		13,597.88 Bags			
Unit Cost	P	275.00 / Bag,	say P	275.00 / Bag	
Grand Total	P	3,739,417.00			
Delivery Cost	P	0.00			
Labor	P	0.00			
Materials	P	3,739,417.00			

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
-------------------------------	-----------------------------	-----------------	------

EQUIPMENT USED : (2009 ACEL RATES)

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

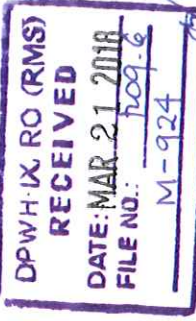
Estimated Quantity		1,000.00 cu.m.
Unit Cost	P	10.65 / cu. m./km. (Unit Cost, Hauling per cu.m.per km.)
Grand Total	P	53,250.00
Equipment	P	53,250.00
Labor	P	
Materials	P	

ZAMBOANGA DEL NORTE 1ST 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:	-	X 10.65	= - +	680.00	= 680.00
Cost of Coarse Aggregates:	-	X 10.65	= - +	680.00	= 680.00
Cost of Item 200 Materials:	-	X 10.65	= - +	650.00	= 650.00
Cost of Item 201 Materials:	-	X 10.65	= - +	625.00	= 625.00
Cost of Item 300 Materials:	-	X 10.65	= - +	700.00	= 700.00
Cost of Boulders:	-	X 10.65	= - +	1,228.00	= 1,228.00
Cost of Embankmen, Common Borrow:	-	X 10.65	= - +	340.00	= 340.00
Cost of Embankmen, Selected Borrow:	-	X 10.65	= - +	500.00	= 500.00



CERTUSO Structural Specialists
303 Lee Business Corner, Juan Luna St., Davao City, Philippines
Fax: +6382-2210577, Phone: +6382-2275215
Email: info@certuso.com.ph



MARCH 20, 2018

FORMAL QUOTATION

RD JORGE U. SEBASTIAN JR.
Regional Director - DPWH Region 9 Office
Tetuan, Zamboanga City

CC: DPWH Design and Planning Division
DPWH Region 9 Office
Tetuan, Zamboanga City

Subject : Steel Sheet Pile Quotation

Dear Sir Jorge,

I am pleased to offer you my best price below items, subject to our standard terms and conditions of sale, as follows:

Description	Unit Price	Price per kg	Qty	Total Amount	REMARKS
HOT ROLLED Type 2 x 12m (U TYPE) 400mm x 100mm x 10.5mm x 48 kg/m x 12meters SECTION MODULUS: 874 CM3/M Steel Grade: SY 295	Php 38,016.00	Php 66.00	1000 pcs	Php 38,016,000.00	READILY AVAILABLE
HOT ROLLED Type 3 x 12m (U TYPE) 400mm x 125mm x 13mm x 60 kg/m x 12meters SECTION MODULUS: 1340 CM3/M Steel Grade: SY 295	Php 47,520.00	Php 66.00	1000 pcs	Php 47,520,000.00	READILY AVAILABLE
COLD FORMED MMU 9-4 x 12m 600mm x 355mm x 7mm x 53.4 kg/m x 12meters SECTION MODULUS: 947 CM3/M Steel Grade: Q235 B	Php 48,060.00	Php 75.00	667 pcs	Php 32,056,020.00	READILY AVAILABLE
COLD FORMED MMU 12-3 x 12m 600mm x 310mm x 9.5mm x 68.1 kg/m x 12meters SECTION MODULUS: 1240 CM3/M Steel Grade: Q235 B	Php 70,279.20	Php 75.00	667 pcs	Php 46,876,226.40	READILY AVAILABLE

PRODUCT SPECS AND STEEL GRADE:

- STEEL GRADES AVAILABLE: SY 295 / Q235B / S 355
- MILL CERTIFICATE INCLUDED

TERMS AND CONDITIONS FOR SHEET PILE:

Price above is Delivered ZAMBOANGA CITY PORT
Payment Terms – 50% DOWNPAYMENT 50% BALANCE BEFORE DELIVERY
Lead time is 14-21 days from date of confirmed order and SUBJECT TO AVAILABILITY OF VESSEL
All orders must be supported with a formal Purchase Order
Offer is valid within 15 days from date above
All other terms and conditions to be mutually agreed prior to confirmation of order.

Thank you and we look forward to receiving your valued order soon.

Very truly yours,

CERTUSO Structural Specialists

JAY LANCE KERWIN L. CINCO
Sales Manager



noy.g/m-924
03.22.6557



Davao Golden Hardware, Inc.

Goldcrest Building, Km. 3, MacArthur Highway, Matina, 8000 Davao City
Phone: (+63 82) 298-5849 / 298-5850 / 296-0878
Fax: (+63 82) 297-7700 Email: davgol168@yahoo.com

SALES QUOTATION

March 20, 2018

RD JORGE U. SEBASTIAN JR.
Regional Director - DPWH Region 9 Office
Tetuan, Zamboanga City

CC: DPWH Design and Planning Division
DPWH Region 9 Office
Tetuan, Zamboanga City

Subject : Steel Sheet Pile Quotation

Dear RD Jorge,

Please see our offer for steel sheet piles:

Description	Unit Price
STEEL SHEET PILES 400mm x 100mm x 10.5mm x 48 kg/m x 12meters SECTION MODULUS: 874 CM ³ /M	Php 38,432.00
STEEL SHEET PILES 400mm x 125mm x 13mm x 60 kg/m x 12meters SECTION MODULUS: 1340 CM ³ /M	Php 47,860.00
STEEL SHEET PILES 600mm x 355mm x 7mm x 53.4 kg/m x 12meters SECTION MODULUS: 947 CM ³ /M	Php 48,164.40
STEEL SHEET PILES 600mm x 310mm x 9.5mm x 68.1 kg/m x 12meters SECTION MODULUS: 1240 CM ³ /M	Php 70,280.20

TERMS AND CONDITION:

- Vat Inclusive and Cash before delivery
- Delivered Zamboanga City Port
- Subject to change without prior notice
- Subject to availability
- Price validity 7 days

Thank you.

Very truly yours,


ARTURO A. YUTIG, JR.
Sales Manager