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 : **Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur**	Approriation : P 300,000,000.00 Source of Funds : CY-2018 Issued Obligated Authority : Released : Cal. Days to Complete : 318.00 Cal. Days Desirable Starting Date : Upon Approval Mode of Implementation :
PROJECT CATEGORY : NATIONAL ROAD	
PROJECT DESCRIPTION : Scope of Work : Construction of By-Pass Road Width : 6.70 m. Roadbed Width : 12.00 m. Subbase Course : 0.30 mtrs thick Surface Course : 0.15 mtrs thick	NET LENGTH : Sta. 1656+469.75 - Sta. 1657+880.00 Sta. 1658+180.00 - Sta. 1662+617.26 Sta. 1655+427.51 - Sta. 1655+980.00 Net Length : **12.80** lane km Net Length : **6,400.00** ln.m. / **6.400** 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
102(2)	Surplus Common Excavation	25.508	cu.m.	305,370.00	50,686,771.59	165.98
103 (1)a	Structure Excavation	0.083	cu.m.	714.00	164,302.57	230.12
103(3)	Foundation Fill	0.005	cu.m.	10.00	9,858.48	985.85
103(6)a	Pipe Culvert and Drain Excavation	0.018	cu.m.	153.00	35,207.69	230.12
104(1)a1	Embankment from Roadway Excavation	1.698	cu.m.	14,884.00	3,373,968.08	226.68
105 (1)a	Subgrade Preparation	0.465	sq.m.	60,280.00	924,202.91	15.33
200 (1)	Aggregate Subbase Course	18.669	cu.m.	25,247.00	37,096,578.46	1,469.35
300 (1)	Aggregate Surface Course	1.781	cu.m.	2,336.00	3,539,848.26	1,515.35
311(1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	36.946	sq.m.	45,511.00	73,415,606.53	1,613.14
311(1)a	Portland Cement Concrete Pavement, 0.15m. Thick	2.473	sq.m	5,549.00	4,913,224.39	885.43
404(1)a	Reinforcing Steel Bar, Grade 40	0.752	kg.	30,584.00	1,495,011.34	48.88
405 (1) a3	Structural Concrete, Class A	2.705	cu.m	756.00	5,375,707.24	7,110.72
500(1)b3	Reinf. Concrete Culvert Pipe, (910mm dia	0.190	ln.m	98.00	377,621.26	3,853.28
505(2)a	Grouted Riprap, Class A	0.051	cu.m	28.00	101,597.97	3,628.50
506(1)	Stone Masonry	0.133	cu.m	62.00	264,659.17	4,268.70
611(1)	Trees (Furnishing and Transplanting)	1.361	each	642.00	2,704,068.69	4,211.95
612(1)	Reflectorized Thermoplastic Pavement Markings (White)	0.559	sq.m	1,523.00	1,109,984.18	728.81
612(2)	Reflectorized Thermoplastic Pavement Markings (Yellow)	0.155	sq.m	422.00	308,309.06	730.59
622(1)	Bio-Engineered Erosion Coco Fiber Erosion Control Net	2.508	sq.m	13,354.00	4,983,873.85	373.21
622(2)	Bio-Engineered Erosion Coco Logs/Fascine Control System	0.801	ln.m	2,480.00	1,591,814.29	641.86

622(3)a	Bio-Engineered Erosion Control System Vegetation	1.451	sq.m	13,354.00	2,882,709.82	215.87
500 (1)a1	RC Culvert Pipe, 610 mm	0.021	ln.m	18.00	41,377.63	2,298.76
502(3)a	Manhole	0.007	each	6.00	13,749.78	2,291.63
502(4)a	Concrete Cover	0.003	each	6.00	5,789.21	964.87
503 (1)	Metal Frame & Grating	0.004	set	6.00	7,189.17	1,198.20
600(3)	Concrete Curb and Gutter	0.055	ln.m	122.00	109,274.34	895.69
601	Sidewalk	0.071	sq.m.	244.00	141,754.15	580.96
605(2)z2	Informatory Signs	0.007	units	2.00	14,531.40	7,265.70
A.1.1(3)	Const. of Field Office for the Engineer	0.204	LS	1.00	405,631.26	405,631.26
A.1.1(11)	Prov. Of Furniture, Equipment and Appliances for Field Engineer	0.126	LS	1.00	251,263.32	251,263.32
A.1.2(5)	Operation & Maintenance of Gov't. Service Vehicle	0.214	L.S	1.00	425,472.00	425,472.00
B.5	Project Billboard	0.002	Unit	2.00	4,358.90	2,179.45
B.7	Occupational Safety & Health Program	0.126	L.S	1.00	250,592.88	250,592.88
B.9	Mobilization and Demobilization	0.734	L.S	1.00	1,458,468.00	1,458,468.00
B.4(1)	Construction Survey and Staking	0.115	Km.	6.40	227,684.23	35,575.66
TOTAL		**100.000**			**P 198,712,062.10**	

Name of Project : **Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur**

Station Limits : Sta. 1656+469.75 - Sta. 1657+880.00
Sta. 1658+180.00 - Sta. 1662+617.26
Sta. 1655+427.51 - Sta. 1655+980.00

BREAKDOWN OF ESTIMATED EXPENDITURES	% OF TOTAL	AMOUNT
I. ESTIMATED COST		
A. DIRECT COST		
A.1 Materials	41.07	123,209,264.01
A.2 Labor	1.18	3,529,267.30
A.3 Equipment Expenses	23.99	71,973,530.79
SUB-TOTAL (DIRECT COST)	66.24	P 198,712,062.10
B. INDIRECT COST (Per DO # 197 s. 2016)		
B.1 Overhead, Contingency & Misc. (8% Max. of D.C.)	5.24	15,706,101.27
B.2 Profit (8% Max. D.C.)	5.24	15,726,148.70
C. VAT (5% of D.C. and I.C. per D.O. # 197)	3.84	11,507,215.60
SUB-TOTAL (CONTRACT COST)	80.55	P 241,651,527.68
II. ESTIMATED GOVERNMENT EXPENDITURES		
1 Engineering and Administrative Overhead (3.5%)	3.50	10,500,000.00
2 Detailed Engineering (1%)		
3 Reserved for the Payment of RROW)	15.95	47,848,472.32
4 Physical Reserved	0.00	
TOTAL ESTIMATED PROJECT COST	100.00	P 300,000,000.00

Prepared by:

JERALD R. BARRERA
Engineer II

Submitted by:

LEONCIO B. SOLAMILLO
Chief, Construction Division

Recommending Approval:

CAYAMOMBAO D. DIA
OIC-Assistant Regional Director

APPROVED:

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

APPROVED BU[illegible] FOR THE CONTRACT

Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Project Name and Location

Station Limits : Sta. 1656+469.75 - Sta. 1657+880.00 Sta. 1658+180.00 - Sta. 1662+417.26 Sta. 1655+427.51 - Sta. 1655+980.00
Length : 6400.00 ln.m.

Contract Duration : 318.00 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**											
A.1.1(3)	Const. of Field Office for the Engineer	1.00	LS	405,631.26	8.00	8.00	16.00	64,901.00	23,526.61	88,427.62	494,058.88	494,058.88
A.1.1(11)	Prov. Of Furniture, Equipment and Appliances for Field Engineer	1.00	LS	251,263.32	0.00	0.00	0.00	-	12,563.17	12,563.17	263,826.49	263,826.49
A.1.2(5)	Operation & Maintenance of Gov't. Service Vehicle	1.00	L.S	425,472.00	0.00	0.00	0.00	-	21,273.60	21,273.60	446,745.60	446,745.60
	TOTAL OF PART A			1,082,366.58				64,901.00	57,363.38	122,264.38	1,204,630.96	
PART B	**OTHER GENERAL REQUIREMENTS**											
B.5	Project Billboard	2.00	Unit	4,358.90	8.00	8.00	16.00	697.42	252.82	950.24	5,309.14	2,654.57
B.7	Occupational Safety & Health Program	1.00	L.S	250,592.88	0.00	8.00	8.00	20,047.43	13,532.02	33,579.45	284,172.33	284,172.33
B.9	Mobilization and Demobilization	1.00	L.S	1,458,468.00	0.00	0.00	0.00	-	72,923.40	72,923.40	1,531,391.40	1,531,391.40
B.4(1)	Construction Survey and Staking	6.40	Km.	227,684.23	8.00	8.00	16.00	36,429.48	13,205.69	49,635.16	277,319.40	43,331.16
	TOTAL OF PART B			1,941,104.01				57,174.33	99,913.92	157,088.25	2,098,192.26	
PART C	**EARTHWORKS**											
102(2)	Surplus Common Excavation	305,370.00	cu.m.	50,686,771.59	8.00	8.00	16.00	8,109,883.45	2,939,832.75	11,049,716.21	61,736,487.80	202.17
103 (1)a	Structure Excavation	714.00	cu.m.	164,302.57	8.00	8.00	16.00	26,288.41	9,529.55	35,817.96	200,120.54	280.28
103(3)	Foundation Fill	10.00	cu.m.	9,858.48	8.00	8.00	16.00	1,577.36	571.79	2,149.15	12,007.63	1,200.76
103(6)a	Pipe Culvert and Drain Excavation	153.00	cu.m.	35,207.69	8.00	8.00	16.00	5,633.23	2,042.05	7,675.28	42,882.97	280.28
104(1)a1	Embankment from Roadway Excavation	14,884.00	cu.m.	3,373,968.08	8.00	8.00	16.00	539,834.89	195,690.15	735,525.04	4,109,493.12	276.10
105 (1)a	Subgrade Preparation	60,280.00	sq.m.	924,202.91	8.00	8.00	16.00	147,872.47	53,603.77	201,476.24	1,125,679.15	18.67
	TOTAL OF PART C			55,194,311.33				8,831,089.81	3,201,270.06	12,032,359.87	67,226,671.20	
PART D	**SUBBASE AND BASE COURSE**											
200 (1)	Aggregate Subbase Course	25,247.00	cu.m.	37,096,578.46	8.00	8.00	16.00	5,935,452.55	2,151,601.55	8,087,054.10	45,183,632.57	1,789.66
	TOTAL OF PART D			37,096,578.46				5,935,452.55	2,151,601.55	8,087,054.10	45,183,632.57	
PART E	**SURFACE COURSES**											
300 (1)	Aggregate Surface Course	2,336.00	cu.m.	3,539,848.26	8.00	8.00	16.00	566,375.72	205,311.20	771,686.92	4,311,535.18	1,845.69
311(1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	45,511.00	sq.m.	73,415,606.53	8.00	8.00	16.00	11,746,497.04	4,258,105.18	16,004,602.22	89,420,208.75	1,964.80
311(1)a	Portland Cement Concrete Pavement, 0.15m. Thick	5,549.00	sq.m	4,913,224.39	8.00	8.00	16.00	786,115.90	284,967.01	1,071,082.92	5,984,307.31	1,078.45
	TOTAL OF PART E			81,868,679.17				13,098,988.67	4,748,383.39	17,847,372.06	99,716,051.23	
PART F	**BRIDGE CONSTRUCTION**											
404(1)a	Reinforcing Steel Bar, Grade 40	30,584.00	kg.	1,495,011.34	8.00	8.00	16.00	239,201.81	86,710.66	325,912.47	1,820,923.81	59.54
405 (1) a3	Structural Concrete, Class A	756.00	cu.m	5,375,707.24	8.00	8.00	16.00	860,113.16	311,791.02	1,171,904.18	6,547,611.42	8,660.86
	TOTAL OF PART F			6,870,718.58				1,099,314.97	398,501.68	1,497,816.65	8,368,535.23	
PART G	**DRAINAGE AND SLOPE PROTECTION STRUCTURES**											
500 (1)a1	RC Culvert Pipe, 610 mm	18.00	ln.m	41,377.63	8.00	8.00	16.00	6,620.42	2,399.90	9,020.32	50,397.96	2,799.89
502(3)a	Manhole	6.00	each	13,749.78	8.00	8.00	16.00	2,199.97	797.49	2,997.45	16,747.23	2,791.21
502(4)a	Concrete Cover	6.00	each	5,789.21	8.00	8.00	16.00	926.27	335.77	1,262.05	7,051.26	1,175.21
503 (1)	Metal Frame & Grating	6.00	set	7,189.17	8.00	8.00	16.00	1,150.27	416.97	1,567.24	8,756.41	1,459.40
500(1)b3	Reinf. Concrete Culvert Pipe, (910mm dia.)	98.00	ln.m	377,621.26	8.00	8.00	16.00	60,419.40	21,902.03	82,321.43	459,942.69	4,693.29
505(2)a	Grouted Riprap, Class A	28.00	cu.m	101,597.97	8.00	8.00	16.00	16,255.68	5,892.68	22,148.36	123,746.33	4,419.51
506(1)	Stone Masonry	62.00	cu.m	264,659.17	8.00	8.00	16.00	42,345.47	15,350.23	57,695.70	322,354.86	5,199.27
	TOTAL OF PART G			811,984.19				129,917.47	47,095.08	177,012.55	988,996.74	
PART H	**MISCELLANEOUS STRUCTURES**											
600(3)	Concrete Curb and Gutter	122.00	ln.m	109,274.34	8.00	8.00	16.00	17,483.89	6,337.91	23,821.81	133,096.14	1,090.95
601	Sidewalk	244.00	sq.m.	141,754.15	8.00	8.00	16.00	22,680.66	8,221.74	30,902.41	172,656.56	707.61
605(2)z2	Informatory Signs	2.00	units	14,531.40	8.00	8.00	16.00	2,325.02	842.82	3,167.84	17,699.24	8,849.62
611(1)	Trees (Furnishing and Transplanting)	642.00	each	2,704,068.69	8.00	8.00	16.00	432,650.99	156,835.98	589,486.97	3,293,555.66	5,130.15
612(1)	Reflectorized Thermoplastic Pavement Markings (White)	1,523.00	sq.m	1,109,984.18	8.00	8.00	16.00	177,597.47	64,379.08	241,976.55	1,351,960.73	887.70
612(2)	Reflectorized Thermoplastic Pavement Markings (Yellow)	422.00	sq.m	308,309.06	8.00	8.00	16.00	49,329.45	17,881.93	67,211.37	375,520.43	889.86
622(1)	Bio-Engineered Erosion Coco Fiber Erosion Control Net	13,354.00	sq.m	4,983,673.85	8.00	8.00	16.00	797,419.82	289,064.68	1,086,484.50	6,070,358.35	454.57
622(2)	Bio-Engineered Erosion Coco Logs/Fascine Control System	2,480.00	ln.m	1,591,814.29	8.00	8.00	16.00	254,690.29	92,325.23	347,015.51	1,938,829.80	781.79
622(3)a	Bio-Engineered Erosion Control System Vegetation	13,354.00	sq.m	2,882,709.82	8.00	8.00	16.00	461,233.57	167,197.17	628,430.74	3,511,140.56	262.93
	TOTAL OF PART H			13,846,319.77				2,215,411.16	803,086.55	3,018,497.71	16,864,817.48	
	TOTAL			198,712,062.10				31,432,249.97	9,355,614.05	42,939,465.58	241,651,527.68	

Prepared by:

BELEN A. SAPALLEDA
Head TWG, BAC

Recommending Approval:

CAYAMOMBAO D. DIA
OIC-Assistant Regional Director

APPROVED:

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

IMMARY

Name of Project : **Construction of ~~By~~-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur**

Item No.	Description	Quantity	Unit	Labor	Equipment	Materials	OCM	Profit	VAT	TOTAL
102(2)	Surplus Common Excavation	305,370.00	cu.m.	782,951.72	49,903,819.88	-	4,054,941.73	4,054,941.73	2,939,832.75	61,736,487.80
103 (1)a	Structure Excavation	714.00	cu.m.	7,312.43	156,990.14	-	13,144.21	13,144.21	9,529.55	200,120.54
103(3)	Foundation Fill	10.00	cu.m.	1,980.88	1,180.00	6,697.60	788.68	788.68	571.79	12,007.63
103(6)a	Pipe Culvert and Drain Excavation	153.00	cu.m.	1,566.95	33,640.74	-	2,816.62	2,816.62	2,042.05	42,882.97
104(1)a1	Embankment from Roadway Excavation	14,884.00	cu.m.	88,277.45	3,285,690.63	-	269,917.45	269,917.45	195,690.15	4,109,493.12
105 (1)a	Subgrade Preparation	60,280.00	sq.m.	32,561.25	891,641.67	-	73,936.23	73,936.23	53,603.77	1,125,679.15
200 (1)	Aggregate Subbase Course	25,247.00	cu.m.	81,825.53	2,240,671.25	34,774,081.69	2,967,726.28	2,967,726.28	2,151,601.55	45,183,632.57
300 (1)	Aggregate Surface Course	2,336.00	cu.m.	7,570.98	207,320.00	3,324,957.28	283,187.86	283,187.86	205,311.20	4,311,535.18
311(1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	45,511.00	sq.m.	642,259.15	9,527,373.66	63,245,973.72	5,873,248.52	5,873,248.52	4,258,105.18	89,420,208.75
311(1)a	Portland Cement Concrete Pavement, 0.15m. Thick	5,549.00	sq.m	41,952.26	651,240.28	4,220,031.85	393,057.95	393,057.95	284,967.01	5,984,307.31
404(1)a	Reinforcing Steel Bar, Grade 40	30,584.00	kg.	89,973.03	68,486.92	1,336,551.38	119,600.91	119,600.91	86,710.66	1,820,923.81
405 (1) a3	Structural Concrete, Class A	756.00	cu.m	629,599.50	322,269.98	4,423,837.77	430,056.58	430,056.58	311,791.02	6,547,611.42
500(1)b3	Reinf. Concrete Culvert Pipe, (910mm dia.)	98.00	ln.m	35,124.18	84,852.42	257,644.66	30,209.70	30,209.70	21,902.03	459,942.69
505(2)a	Grouted Riprap, Class A	28.00	cu.m	11,861.47	7,189.87	82,546.62	8,127.84	8,127.84	5,892.68	123,746.33
611(1)	Trees (Furnishing and Transplanting)	642.00	each	139,602.90	2,289,850.29	274,615.50	216,325.50	216,325.50	156,835.98	3,293,555.66
506(1)	Stone Masonry	62.00	cu.m	21,011.75	19,885.75	223,761.66	21,172.73	21,172.73	15,350.23	322,354.86
612(1)	Reflectorized Thermoplastic Pavement Markings (White)	1,523.00	sq.m	27,046.65	90,968.79	991,968.74	88,798.73	88,798.73	64,379.08	1,351,960.73
612(2)	Reflectorized Thermoplastic Pavement Markings (Yellow)	422.00	sq.m	7,494.21	25,955.48	274,859.36	24,664.72	24,664.72	17,881.93	375,520.43
622(1)	Bio-Engineered Erosion Coco Fiber Erosion Control Net	13,354.00	sq.m	111,834.41	174,769.94	4,697,269.50	398,709.91	398,709.91	289,064.68	6,070,358.35
622(2)	Bio-Engineered Erosion Coco Logs/Fascine Control System	2,480.00	ln.m	85,922.08	8,592.21	1,497,300.00	127,345.14	127,345.14	92,325.23	1,938,829.80
622(3)a	Bio-Engineered Erosion Control System Vegetation	13,354.00	sq.m	40,017.13	430,960.29	2,411,732.40	230,616.79	230,616.79	167,197.17	3,511,140.56
500 (1)a1	RC Culvert Pipe, 610 mm	18.00	ln.m	2,867.28	6,926.73	31,583.63	3,310.21	3,310.21	2,399.90	50,397.96
502(3)a	Manhole	6.00	each	6,354.36	1,469.44	5,925.99	1,099.98	1,099.98	797.49	16,747.23
502(4)a	Concrete Cover	6.00	each	2,118.12	628.81	3,042.28	463.14	463.14	335.77	7,051.26
503 (1)	Metal Frame & Grating	6.00	set	1,304.70	2,476.47	3,408.00	575.13	575.13	416.97	8,756.41
600(3)	Concrete Curb and Gutter	122.00	ln.m	7,584.49	5,248.56	96,441.29	8,741.95	8,741.95	6,337.91	133,096.14
601	Sidewalk	244.00	sq.m.	9,899.69	7,828.72	124,025.74	11,340.33	11,340.33	8,221.74	172,656.56
605(2)z2	Informatory Signs	2.00	units	434.90	451.97	13,644.53	1,162.51	1,162.51	842.82	17,699.24
A.1.1(3)	Const. of Field Office for the Engineer	1.00	LS	53,245.60	31,804.56	320,581.10	32,450.50	32,450.50	23,526.61	494,058.88
A.1.1(11)	Prov. Of Furniture, Equipment and Appliances for Field Engineer	1.00	LS	-	-	251,263.32	-	-	12,563.17	263,826.49
A.1.2(5)	Operation & Maintenance of Gov't. Service Vehicle	1.00	L.S	140,937.60	-	284,534.40	-	-	21,273.60	446,745.60
B.5	Project Billboard	2.00	Unit	434.90	-	3,924.00	348.71	348.71	252.82	5,309.14
B.7	Occupational Safety & Health Program	1.00	L.S	238,232.88	-	12,360.00	-	20,047.43	13,532.02	284,172.33
B.9	Mobilization and Demobilization	1.00	L.S	-	1,458,468.00	-	-	-	72,923.40	1,531,391.40
B.4(1)	Construction Survey and Staking	6.40	Km.	178,106.88	34,877.35	14,700.00	18,214.74	18,214.74	13,205.69	277,319.40
	TOTAL			***3,529,267.30***	***71,973,530.79***	***123,209,264.01***	***15,706,101.27***	***15,726,148.70***	***11,507,215.60***	***241,651,527.68***

Name of Project : **Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur**
Net Length : 6,400.00 ln.m.

Item No.	Description	Quantity	Unit	DURATION # OF DAYS
102(2)	Surplus Common Excavation	305,370.00	cu.m.	212.06
103 (1)a	Structure Excavation	714.00	cu.m.	4.46
103(3)	Foundation Fill	10.00	cu.m.	1.00
103(6)a	Pipe Culvert and Drain Excavation	153.00	cu.m.	0.96
104(1)a1	Embankment from Roadway Excavation	14,884.00	cu.m.	30.88
105 (1)a	Subgrade Preparation	60,280.00	sq.m.	25.12
200 (1)	Aggregate Subbase Course	25,247.00	cu.m.	63.12
300 (1)	Aggregate Surface Course	2,336.00	cu.m.	5.84
311(1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	45,511.00	sq.m.	98.94
311(1)a	Portland Cement Concrete Pavement, 0.15m. Thick	5,549.00	sq.m	6.46
404(1)a	Reinforcing Steel Bar, Grade 40	30,584.00	kg.	21.24
405 (1) a3	Structural Concrete, Class A	756.00	cu.m	33.75
500(1)b3	Reinf. Concrete Culvert Pipe, (910mm dia.)	98.00	ln.m	12.25
505(2)a	Grouted Riprap, Class A	28.00	cu.m	2.80
506(1)	Stone Masonry	62.00	cu.m	4.96
611(1)	Trees (Furnishing and Transplanting)	642.00	each	80.25
612(1)	Reflectorized Thermoplastic Pavement Markings (White)	1,523.00	sq.m	7.62
612(2)	Reflectorized Thermoplastic Pavement Markings (Yellow)	422.00	sq.m	2.11
622(1)	Bio-Engineered Erosion Coco Fiber Erosion Control Net	13,354.00	sq.m	33.39
622(2)	Bio-Engineered Erosion Coco Logs/Fascine Control System	2,480.00	ln.m	20.67
622(3)a	Bio-Engineered Erosion Control System Vegetation	13,354.00	sq.m	26.71
500 (1)a1	RC Culvert Pipe, 610 mm	18.00	ln.m	1.00
502(3)a	Manhole	6.00	each	1.50
502(4)a	Concrete Cover	6.00	each	0.50
503 (1)	Metal Frame & Grating	6.00	set	0.75
600(3)	Concrete Curb and Gutter	122.00	ln.m	1.48
601	Sidewalk	244.00	sq.m.	1.53
605(2)z2	Informatory Signs	2.00	units	0.25
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	318.00
B.5	Project Billboard	2.00	Unit	0.25
B.7	Occupational Safety & Health Program	1.00	LS	198.00
B.9	Mobilization and Demobilization	1.00	LS	6.00
B.4(1)	Construction Survey and Staking	6.40	Km.	21.33

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 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

TOTAL NO. OF WORKING DAYS	:	198
INCLEMENT WEATHER & CURING TIME	:	80
NUMBER OF SUNDAYS	:	40
TOTAL NO. CALENDAR DAYS	:	**318**

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 : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

Item No./Description : 102(2) Surplus Common Excavation

Unit of Measurement : cu.m.

Output per hour : 60.00

Quantity : 305,370.0

Note: Use Three (3) gangs

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	212.06	611.92	129,765.29
	b. Laborer	9	212.06	342.24	653,186.43
	Sub-total for A			P	782,951.72
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Bullduzer	3	212.06	27,032.00	17,197,420.50
	b. Payloader	3	212.06	13,864.00	8,820,103.50
	c. Payloader	3	53.02	13,864.00	2,205,025.88
	d. Dumptruck	9	212.06	11,360.00	21,681,270.00
	Sub-total for B			P	49,903,819.88
C.	Total (A+B)			P	50,686,771.59
D.	Output/day 1,440.00 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)				50,686,771.59
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	4,054,941.73
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	4,054,941.73
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	2,939,832.75
J.	Total Unit Cost				202.17

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

Item No./Description : 103 (1)a Structure Excavation
Unit of Measurement : cu.m.
Output per hour : 20.00
Quantity : 714.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	4.46	611.92	2,730.69
	b. Laborers	3	4.46	342.24	4,581.74
	Sub-total for A			P	7,312.43
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Dumptruck	2	4.46	11,360.00	101,388.00
	b. Backhoe	1	4.46	12,296.00	54,870.90
	Minor Tools (10% of Labor)				731.24
	Sub-total for B			P	156,990.14
C.	Total (A+B)			P	164,302.57
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)				164,302.57
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	13,144.21
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	13,144.21
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	9,529.55
J.	Total Unit Cost				280.28

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	:	103(3) Foundation Fill
Unit of Measurement	:	cu.m.
Output per hour	:	1.25
Quantity	:	10.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	1.00	611.92	611.92
	b. Laborer	4	1.00	342.24	1,368.96
	Sub-total for A			P	1,980.88
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Plate Compactor	1	1.00	984.00	984.00
	b. Water Truck	1	0.01	19,600.00	196.00
	c. Minor Tools (10% of Labor)				
	Sub-total for B			P	1,180.00
C.	Total (A+B)			P	3,160.88
D.	Output/day 10.00 cu.m. /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Filling Materials	11.50	cu.m.	582.40	6,697.60
	Sub-total for E			P	6,697.60
F.	Direct Cost (C+E)				9,858.48
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	788.68
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	788.68
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	571.79
J.	Total Unit Cost				1,200.76

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	:	103(6)a Pipe Culvert and Drain Excavation
Unit of Measurement	:	cu.m.
Output per hour	:	20.00
Quantity	:	153.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	0.96	611.92	585.15
	b. Laborer	3	0.96	342.24	981.80
	Sub-total for A			P	1,566.95
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Dumptruck	2	0.96	11,360.00	21,726.00
	b. Backhoe	1	0.96	12,296.00	11,758.05
	Minor Tools (10% of Labor)				156.69
	Sub-total for B			P	33,640.74
C.	Total (A+B)			P	35,207.69
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)				35,207.69
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	2,816.62
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	2,816.62
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	2,042.05
J.	Total Unit Cost				280.28

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

Item No./Description : 104(1)a1 Embankment from Roadway Excavation
Unit of Measurement : cu.m.
Output per hour : 50.00
Quantity : 14,884.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	For Excavation Work				
	a. Construction Foreman	1	30.88	611.92	18,898.72
	b. Laborer	2	30.88	342.24	21,139.69
	Spreading & Compaction				
	a. Construction Foreman	1	37.21	611.92	22,769.54
	b. Laborer	2	37.21	342.24	25,469.50
	Sub-total for A			P	88,277.45
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	For Excavation Work				
	a. Bulldozer	1	30.88	27,032.00	834,864.40
	b. Payloader	1	30.88	13,864.00	428,179.94
	c. Dumptruck	2	30.88	11,360.00	701,691.30
	Spreading and Compaction				
	a. Road Grader	1	37.21	17,384.00	646,858.64
	b. Road Roller	1	37.21	13,216.00	491,767.36
	c. Water Truck	1	9.30	19,600.00	182,329.00
	Sub-total for B			P	3,285,690.63
C.	Total (A+B)			P	3,373,968.08
D.	Output/day 400.00 cu.m. /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Sub-total for E			P	0.00
F.	Direct Cost (C+E)				3,373,968.08
G.	Overhead, Contingencies and Miscellaneous		8% per D.O 197 s 2016		269,917.45
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		269,917.45
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		195,690.15
J.	Total Unit Cost				276.10

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	:	105 (1)a Subgrade Preparation
Unit of Measurement	:	sq.m.
Output per hour	:	300.00
Quantity	:	60,280.00

Note: Provision of Turnouts

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	25.12	611.92	15,369.39
	b. Laborer	2	25.12	342.24	17,191.86
	Sub-total for A			P	32,561.25
	Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B	Equipment, (2014 ACEL Rates)				
	a. Road Grader	1	25.12	17,384.00	436,628.13
	b. Road Roller	1	25.12	13,216.00	331,941.87
	c. Water Truck	1	6.28	19,600.00	123,071.67
	Sub-total for B			P	891,641.67
C.	Total (A+B)			P	924,202.91
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)				924,202.91
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	73,936.23
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	73,936.23
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	53,603.77
J.	Total Unit Cost				18.67

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

Item No./Description : 200 (1) Aggregate Subbase Course
Unit of Measurement : cu.m.
Output per hour : 50.00
Quantity : 25,247.00

Note: Provision of Turnouts

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	63.12	611.92	38,622.86
	b. Laborer	2	63.12	342.24	43,202.67
	Sub-total for A			P	81,825.53
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Road Grader	1	63.12	17,384.00	1,097,234.62
	b. Road Roller	1	63.12	13,216.00	834,160.88
	c. Water Truck	1	15.78	19,600.00	309,275.75
	Sub-total for B			P	2,240,671.25
C.	Total (A+B)			P	2,322,496.78
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%)	29,034.05	cu.m.	1,197.70	34,774,081.69
	Sub-total for E			P	34,774,081.69
F.	Direct Cost (C+E)				37,096,578.46
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	2,967,726.28
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	2,967,726.28
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	2,151,601.55
J.	Total Unit Cost				1,789.66

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	:	300 (1) Aggregate Surface Course
Unit of Measurement	:	cu.m.
Output per hour	:	50.00
Quantity	:	2,336.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	5.84	611.92	3,573.61
b. Laborer	2	5.84	342.24	3,997.36
Sub-total for A			P	7,570.98
Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B Equipment, (2014 ACEL Rates)				
a. Road Grader	1	5.84	17,384.00	101,522.56
b. Road Roller	1	5.84	13,216.00	77,181.44
c. Water Truck	1	1.46	19,600.00	28,616.00
Sub-total for B			P	207,320.00
C. Total (A+B)			P	214,890.98
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%)	2,686.40	cu.m.	1,237.70	3,324,957.28
Sub-total for E			P	3,324,957.28
F. Direct Cost (C+E)				3,539,848.26
G. Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	283,187.86
H. Contractor's Profit (CP)		8%	per D.O 197 s 2016	283,187.86
I. Value Added Tax (VAT)		5%	per D.O 197 s 2016	205,311.20
J. Total Unit Cost				1,845.69

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	:	311(1)e1a Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick
Unit of Measurement	:	sq.m.
Output per hour	:	57.50
Quantity	:	45,511.00

Note: Provision of Turnouts

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	98.94	611.92	60,541.50
	b. Skilled	4	98.94	443.20	175,395.44
	c. Laborer	12	98.94	342.24	406,322.21
	Sub-total for A			P	642,259.15
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Transit Mixer	4	98.94	10,544.00	4,172,765.08
	b. Concrete Vibrator	2	98.94	730.00	144,447.96
	c. Batching Plant	1	98.94	14,076.00	1,392,636.60
	d. Pay Loader	1	98.94	13,864.00	1,371,661.97
	e. Concrete Screeder	1	98.94	4,360.00	431,365.13
	f. Water Truck	1	98.94	19,600.00	1,939,164.35
	g. Concrete Saw	1	98.94	261.04	25,826.50
	h. Bar Cutter	1	9.89	1,758.00	17,393.12
	Minor Tools (5% of labor)				32,112.96
	Sub-total for B			P	9,527,373.66
C.	Total (A+B)			P	10,169,632.80
D.	Output/day 460.00 sq.m. /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Reinforcing Steel Bar	22,755.50	kg	40.00	910,220.00
	b. Curing Compound	13,198.19	lit	40.00	527,927.60
	c. Asphalt Sealant	7,736.87	lit	75.00	580,265.25
	d. Sand	7,008.69	cu.m	1,267.70	8,884,921.38
	e. Gravel	12,743.08	cu.m	1,357.70	17,301,279.72
	f. Cement	121,059.26	bag	278.18	33,675,975.16
	g. Concrete Saw	6.83	pc	8,000.00	54,613.20
	h. Pipe Sleeve, 2" dia.	354.99	l.m	133.00	47,213.11
	i. Grease/Tar	354.99	lit	21.00	7,454.70
	j. Steel Forms	20,935.06	lit	60.00	1,256,103.60
	Sub-total for E			P	63,245,973.72
F.	Direct Cost (C+E)				73,415,606.53
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	5,873,248.52
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	5,873,248.52
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	4,258,105.18
J.	Total Unit Cost				1,964.80

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	: Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	: 311(1)a Portland Cement Concrete Pavement, 0.15m. Thick
Unit of Measurement	: sq.m
Output per hour	: 107.33
Quantity	: 5,549.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	6.46	611.92	3,954.56
	b. Skilled	4	6.46	443.20	11,456.80
	c. Laborer	12	6.46	342.24	26,540.90
	Sub-total for A			P	41,952.26
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Transit Mixer	4	6.46	10,544.00	272,564.32
	b. Concrete Vibrator	2	6.46	730.00	9,435.32
	c. Batching Plant	1	6.46	14,076.00	90,966.79
	d. Pay Loader	1	6.46	13,864.00	89,596.73
	e. Concrete Screeder	1	6.46	4,360.00	28,176.70
	f. Water Truck	1	6.46	19,600.00	126,665.89
	g. Concrete Saw	1	6.46	261.04	1,686.98
	h. Bar Cutter	1	0.65	1,758.00	1,136.12
	Minor Tools (5% of Labor)				31,011.44
	Sub-total for B			P	651,240.28
C.	Total (A+B)			P	693,192.54
D.	Output/day 858.64 sq.m /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Reinforcing Steel Bar	1,831.17	kg	40.00	73,246.80
	b. Curing Compound	1,609.21	lit	40.00	64,368.40
	c. Asphalt Sealant	665.88	lit	75.00	49,941.00
	d. Steel Form	2,552.54	l.m	40.00	102,101.60
	e. Sand	457.79	cu.m	1,267.70	580,343.55
	f. Gravel	832.35	cu.m	1,357.70	1,130,081.60
	g. Cement	7,935.07	bag	278.18	2,207,358.78
	h. Concrete Saw	0.83	pc	8,000.00	6,658.80
	i. Pipe Sleeve, 1" dia.	43.28	l.m	133.00	5,756.53
	j. Grease/Tar	8.32	lit	21.00	174.79
	Sub-total for E			P	4,220,031.85
F.	Direct Cost (C+E)				4,913,224.39
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	393,057.95
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	393,057.95
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	284,967.01
J.	Total Unit Cost				1,078.45

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	:	404(1)a Reinforcing Steel Bar, Grade 40
Unit of Measurement	:	kg.
Output per hour	:	180.00
Quantity	:	30,584.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	21.24	611.92	12,996.50
	b. Skilled	2	21.24	443.20	18,826.15
	c. Laborer	8	21.24	342.24	58,150.38
	Sub-total for A			P	89,973.03
	Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B	Equipment, (2014 ACEL Rates)				
	a. Bar Cutter	1	10.62	1,758.00	18,668.98
	b. Bar Bender	1	10.62	2,812.00	29,861.88
	c. Cargo Truck	1	3.19	6,264.00	19,956.06
	Sub-total for B			P	68,486.92
C.	Total (A+B)			P	158,459.95
D.	Output/day 1,440.00 kg. /day				
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Tie Wire	642.26	kgs	81.00	52,023.38
	b. Reinforcing Steel Bar, Grade 40	32,113.20	kgs	40.00	1,284,528.00
	Sub-total for E			P	1,336,551.38
F.	Direct Cost (C+E)				1,495,011.34
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	119,600.91
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	119,600.91
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	86,710.66
J.	Total Unit Cost				59.54

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	:	405 (1) a3 Structural Concrete, Class A
Unit of Measurement	:	cu.m
Output per hour	:	1.40
Quantity	:	756.00

Note: Use Two (2) gangs

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	33.75	611.92	20,652.30
b. Skilled Laborer	8	33.75	443.20	119,664.00
c. Laborer	16	33.75	342.24	184,809.60
Installation/Removal of Form Works				
a. Skilled Laborer	8	33.75	443.20	119,664.00
b. Laborer	16	33.75	342.24	184,809.60
Sub-total for A			P	629,599.50
Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B Equipment, (2014 ACEL Rates)				
a. One Bagger Mixer	2	33.75	1,376.00	92,880.00
b. Concrete Vibrator	2	33.75	972.00	65,610.00
c. Water Truck	2	3.38	19,600.00	132,300.00
Minor Tools (5% of Labor)				31,479.98
Sub-total for B			P	322,269.98
C. Total (A+B)			P	951,869.48
D. Output/day 22.40 cu.m	/day			
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Form Lumber	13,230.00	bd.ft	39.00	515,970.00
b. Plywood	302.40	pc	1,220.00	368,928.00
c. Assorted CW Nails	529.20	kg.	67.00	35,456.40
d. Portland Cement	7,182.00	bag	278.18	1,997,871.57
e. Sand	378.00	cu.m	1,267.70	479,190.60
f. Gravel	756.00	cu.m	1,357.70	1,026,421.20
Sub-total for E			P	4,423,837.77
F. Direct Cost (C+E)				5,375,707.24
G. Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	430,056.58
H. Contractor's Profit (CP)		8%	per D.O 197 s 2016	430,056.58
I. Value Added Tax (VAT)		5%	per D.O 197 s 2016	311,791.02
J. Total Unit Cost				8,660.86

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	:	500(1)b3 Reinf. Concrete Culvert Pipe, (910mm dia.)
Unit of Measurement	:	ln.m
Output per hour	:	1.00
Quantity	:	98.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	12.25	611.92	7,496.02
	b. Skilled Laborer	2	12.25	443.20	10,858.40
	c. Laborer	4	12.25	342.24	16,769.76
	Sub-total for A			P	35,124.18
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Backhoe	1	6.13	12,296.00	75,313.00
	b. Plate Compactor	1	6.13	984.00	6,027.00
	Minor Tools (10% of Labor)				3,512.42
	Sub-total for B			P	84,852.42
C.	Total (A+B)			P	119,976.60
D.	Output/day 8.00 ln.m	/day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Portland Cement	105.84	bag	278.18	29,442.32
	b. Sand	5.98	cu.m	1,267.70	7,578.31
	c. RC Pipes (910 mm dia.)	98.00	pc	2,089.00	204,722.00
	d. Sand Bedding	12.54	cu.m	1,267.70	15,902.03
	Sub-total for E			P	257,644.66
F.	Direct Cost (C+E)				377,621.26
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	30,209.70
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	30,209.70
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	21,902.03
J.	Total Unit Cost				4,693.29

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

Item No./Description : 505(2)a Grouted Riprap, Class A
Unit of Measurement : cu.m
Output per hour : 1.25
Quantity : 28.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	2.80	611.92	1,713.38
	b. Skilled Laborer	2	2.80	443.20	2,481.92
	c. Laborer	8	2.80	342.24	7,666.18
	Sub-total for A			P	11,861.47
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	2.80	1,376.00	3,852.80
	b. Water Truck/Pump	1	0.14	19,600.00	2,744.00
	Minor Tools (5% of Labor)				593.07
	Sub-total for B			P	7,189.87
C.	Total (A+B)			P	19,051.35
D.	Output/day 10.00 cu.m /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Portland Cement	84.00	bag	278.18	23,366.92
	b. Sand	7.00	cu.m	1,267.70	8,873.90
	c. Gravel Fill	0.42	cu.m	1,357.70	570.23
	d. Weep Holes	8.40	m	133.00	1,117.20
	e. Filter Cloth	0.42	sq.m	160.00	67.20
	f. Boulders	29.40	cu.m	1,517.70	44,620.38
	Miscellaneous (1% of Materials Cost)				3,930.79
	Sub-total for E			P	82,546.62
F.	Direct Cost (C+E)				101,597.97
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	8,127.84
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	8,127.84
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	5,892.68
J.	Total Unit Cost				4,419.51

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	:	506(1) Stone Masonry
Unit of Measurement	:	cu.m
Output per hour	:	1.56
Quantity	:	62.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	4.96	611.92	3,035.12
	b. Skilled Laborer	2	4.96	443.20	4,396.54
	c. Laborer	8	4.96	342.24	13,580.08
	Sub-total for A			P	21,011.75
	Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	4.96	1,376.00	6,824.96
	b. Water Truck	1	0.25	19,600.00	4,860.80
	c. Backhoe	1	0.50	12,296.00	6,098.82
	Minor Tools (10% of Labor)				2,101.18
	Sub-total for B			P	19,885.75
C.	Total (A+B)			P	40,897.50
D.	Output/day 12.50 cu.m /day				
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Cement	341.00	bag	278.18	94,858.56
	b. Sand	18.60	cu.m	1,267.70	23,579.22
	c. Gravel Fill	1.24	cu.m	1,357.70	1,683.55
	d. Weep Holes (PVC)	18.60	ln.m	133.00	2,473.80
	e. Filter Cloth	0.93	sq.m	160.00	148.80
	f. Boulders	65.10	cu.m	1,517.70	98,802.27
	Miscellaneous (1% of Materials)				2,215.46
	Sub-total for E			P	223,761.66
F.	Direct Cost (C+E)				264,659.17
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	21,172.73
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	21,172.73
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	15,350.23
J.	Total Unit Cost				5,199.27

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

Item No./Description : 611(1) Trees (Furnishing and Transplanting)
Unit of Measurement : each
Output per hour : 1.00
Quantity : 642.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	80.25	611.92	49,106.58
	b. Skilled Laborer	1	80.25	443.20	35,566.80
	c. Laborer	2	80.25	342.24	54,929.52
	Sub-total for A			P	139,602.90
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Cargo Truck	1	80.25	6,264.00	502,686.00
	b. Backhoe	1	80.25	12,296.00	986,754.00
	c. Water Truck/Pump	1	40.13	19,600.00	786,450.00
	Minor Tools (10% of Labor)				13,960.29
	Sub-total for B			P	2,289,850.29
C.	Total (A+B)			P	2,429,453.19
D.	Output/day 8.00 each	/day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Trees	642.00	pc	27.00	17,334.00
	b. Fertilizers	1,926.00	kg	10.00	19,260.00
	c. Bamboo Pole	1,926.00	pc	40.00	77,040.00
	d. Polyethylene Sheets	1,926.00	cu.m.	81.00	156,006.00
	e. Tie Wire	160.50	kg	31.00	4,975.50
	Sub-total for E			P	274,615.50
F.	Direct Cost (C+E)				2,704,068.69
G.	Overhead, Contingencies and Miscellaneous		8% per D.O 197 s 2016		216,325.50
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		216,325.50
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		156,835.98
J.	Total Unit Cost				5,130.15

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	: Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	: 612(1) Reflectorized Thermoplastic Pavement Markings (White)
Unit of Measurement	: sq.m
Output per hour	: 25.00
Quantity	: 1,523.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	7.62	611.92	4,659.77
	b. Skilled Laborer	2	7.62	443.20	6,749.94
	c. Laborer	6	7.62	342.24	15,636.95
	Sub-total for A			P	27,046.65
	Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B	Equipment, (2014 ACEL Rates)				
	a. Cargo Truck/Delivery Truck	1	7.62	9,696.00	73,835.04
	b. Applicator Machine	1	7.62	750.00	5,711.25
	c. Kneading Machine	1	7.62	1,500.00	11,422.50
	Minor Tools (10% of labor)				
	Sub-total for B			P	90,968.79
C.	Total (A+B)			P	118,015.44
D.	Output/day 200.00 sq.m /day				
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Thermoplastic Paint (white)	494.98	bag	1,585.00	784,535.38
	b. Glass Beads	50.26	bag	2,500.00	125,647.50
	c. Primer	182.76	liter	180.00	32,896.80
	d. LPG (50 kg.)	6.09	cyl	90.00	548.28
	e. LPG (12 kg.)	3.05	cyl	50.00	152.30
	f. Calsumine	190.38	kg	5.00	951.88
	Miscellaneous (5% of Materials)				47,236.61
	Sub-total for E			P	991,968.74
F.	Direct Cost (C+E)				1,109,984.18
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	88,798.73
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	88,798.73
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	64,379.08
J.	Total Unit Cost				887.70

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	: Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	: 612(2) Reflectorized Thermoplastic Pavement Markings (Yellow)
Unit of Measurement	: sq.m
Output per hour	: 25.00
Quantity	: 422.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	2.11	611.92	1,291.15
	b. Skilled Laborer	2	2.11	443.20	1,870.30
	c. Laborer	6	2.11	342.24	4,332.76
	Sub-total for A			P	7,494.21
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Cargo Truck/Delivery Truck	1	2.11	9,696.00	20,458.56
	b. Applicator Machine	1	2.11	750.00	1,582.50
	c. Kneading Machine	1	2.11	1,500.00	3,165.00
	Minor Tools (10% of Labor)				749.42
	Sub-total for B			P	25,955.48
C.	Total (A+B)			P	33,449.69
D.	Output/day 200.00 sq.m	/day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Thermoplastic Paint (yellow)	137.15	sq.m	1,585.00	217,382.75
	b. Glass Beads	13.93	25.00	2,500.00	34,815.00
	c. Primer	50.64	422.00	180.00	9,115.20
	d. LPG (50 kg)	1.69	0.00	90.00	151.92
	e. LPG (12 kg)	0.84	0.00	50.00	42.20
	f. Calsumine	52.75	0.00	5.00	263.75
	Miscellaneous (5% of Materials)				13,088.54
	Sub-total for E			P	274,859.36
F.	Direct Cost (C+E)				308,309.06
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	24,664.72
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	24,664.72
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	17,881.93
J.	Total Unit Cost				889.86

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	: Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	: 622(1) Bio-Engineered Erosion Coco Fiber Erosion Control Net
Unit of Measurement	: sq.m
Output per hour	: 50.00
Quantity	: 13,354.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	33.39	611.92	20,428.95
	b. Laborer	8	33.39	342.24	91,405.46
	Sub-total for A			P	111,834.41
	Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B	Equipment, (2014 ACEL Rates)				
	a. Water Truck	1	8.35	19,600.00	163,586.50
	Minor Tools (10% of Labor)				11,183.44
	Sub-total for B			P	174,769.94
C.	Total (A+B)			P	286,604.35
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)	14,021.70	sq.m	335.00	4,697,269.50
	Sub-total for E			P	4,697,269.50
F.	Direct Cost (C+E)				4,983,873.85
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	398,709.91
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	398,709.91
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	289,064.68
J.	Total Unit Cost				454.57

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	:	622(2) Bio-Engineered Erosion Coco Logs/Fascine Control System
Unit of Measurement	:	ln.m
Output per hour	:	15.00
Quantity	:	2,480.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	20.67	611.92	12,646.35
	b. Laborer	8	20.67	443.20	73,275.73
	Sub-total for A			P	85,922.08
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	Minor Tools (10% of Labor)				8,592.21
	Sub-total for B			P	8,592.21
C.	Total (A+B)			P	94,514.29
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)	2,604.00	ln.m	575.00	1,497,300.00
	Sub-total for E			P	1,497,300.00
F.	Direct Cost (C+E)				1,591,814.29
G.	Overhead, Contingencies and Miscellaneous		8% per D.O 197 s 2016		127,345.14
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		127,345.14
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		92,325.23
J.	Total Unit Cost				781.79

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	:	622(3)a Bio-Engineered Erosion Control System Vegetation
Unit of Measurement	:	sq.m
Output per hour	:	62.50
Quantity	:	13,354.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	26.71	611.92	16,343.16
	b. Laborer	2	26.71	443.20	23,673.97
	Sub-total for A			P	40,017.13
	Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B	Equipment, (2014 ACEL Rates)				
	a. Hydroseeding Machine	1	26.71	7,616.00	203,408.13
	b. Water Truck	1	26.71	8,520.00	227,552.16
	Sub-total for B			P	430,960.29
C.	Total (A+B)			P	470,977.42
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)	14,021.70	sq.m	172.00	2,411,732.40
	Sub-total for E			P	2,411,732.40
F.	Direct Cost (C+E)				2,882,709.82
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	230,616.79
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	230,616.79
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	167,197.17
J.	Total Unit Cost				262.93

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

Item No./Description : 500 (1)a1 RC Culvert Pipe, 610 mm
Unit of Measurement : ln.m
Output per hour : 2.25
Quantity : 18.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	1.00	611.92	611.92
	b. Skilled Laborer	2	1.00	443.20	886.40
	c. Laborer	4	1.00	342.24	1,368.96
	Sub-total for A			P	2,867.28
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Backhoe	1	0.50	12,296.00	6,148.00
	b. Plate Compactor	1	0.50	984.00	492.00
	Minor Tools (10% of Labor)				286.73
	Sub-total for B			P	6,926.73
C.	Total (A+B)			P	9,794.01
D.	Output/day 18.00 ln.m /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Portland Cement	13.93	bag	278.18	3,875.57
	b. Sand	0.79	cu.m	1,267.70	1,004.02
	c. RC Pipes (610 mm dia.)	18.00	pc	1,372.00	24,696.00
	d. Sand Bedding	1.58	cu.m	1,267.70	2,008.04
	Sub-total for E			P	31,583.63
F.	Direct Cost (C+E)				41,377.63
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	3,310.21
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	3,310.21
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	2,399.90
J.	Total Unit Cost				2,799.89

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

Item No./Description : 502(3)a Manhole
Unit of Measurement : each
Output per hour : 1.00
Quantity : 6.00

(Note: for the Provision of turn-out)

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	1.50	611.92	917.88
b. Skilled Foreman	2	1.50	443.20	1,329.60
c. Laborer	8	1.50	342.24	4,106.88
Sub-total for A			P	6,354.36
Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B Equipment, (2014 ACEL Rates)				
a. Concrete Mixer (1 bagger)	1	0.25	1,376.00	344.00
b. Water Truck	1	0.03	19,600.00	490.00
Minor Tools, 10% of labor				635.44
Sub-total for B			P	1,469.44
C. Total (A+B)			P	7,823.80
D. Output/day 4.00 each /day				
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Portland Cement	4.00	bag	278.18	1,112.71
b. Fine Aggregates	0.25	cu.m	1,267.70	316.93
c. Course Aggregates	0.50	cu.m	1,357.70	678.85
d. Form Lumber	20.00	bd.ft	39.00	780.00
e. # 16 GI Tie Wire	1.50	kls	81.00	121.50
f. 14pc-10mm dia. Std. def. bars	51.80	kgs	55.00	2,849.00
g. CW Nails	1.00	kls	67.00	67.00
Sub-total for E			P	5,925.99
F. Direct Cost (C+E)				13,749.78
G. Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	1,099.98
H. Contractor's Profit (CP)		8%	per D.O 197 s 2016	1,099.98
I. Value Added Tax (VAT)		5%	per D.O 197 s 2016	797.49
J. Total Unit Cost				2,791.21

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

Item No./Description : 502(4)a Concrete Cover
Unit of Measurement : each
Output per hour :
Quantity : 6.00

(Note: for the Provision of turn-out)

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	0.50	611.92	305.96
	b. Skilled Foreman	2	0.50	443.20	443.20
	c. Laborer	8	0.50	342.24	1,368.96
	Sub-total for A			P	2,118.12
	Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B	Equipment, (2014 ACEL Rates)				
	a. Concrete Mixer (1 Bagger)	1	0.13	1,376.00	172.00
	b. Water Truck	1	0.01	19,600.00	245.00
	c. Minor Tools, 10% of Laborer)				211.81
	Sub-total for B			P	628.81
C.	Total (A+B)			P	2,746.93
D.	Output/day 0.00 each /day				
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Portland Cement	1.00	bag	278.18	278.18
	b. Fine Aggregates	0.25	cu.m	1,267.70	316.93
	c. Coarse Aggregates	0.25	cu.m	1,357.70	339.43
	d. Form Lumber	20.00	bd.ft	39.00	780.00
	e. # 16 GI Tie Wire	1.00	kls	81.00	81.00
	f. 1-pc-10mm dia. Std. def. bars	22.20	kgs	55.00	1,221.00
	g. CW Nails	0.50	kls	44.00	22.00
	h. Water	0.25	cu.m	15.00	3.75
	Sub-total for E			P	3,042.28
F.	Direct Cost (C+E)				5,789.21
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	463.14
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	463.14
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	335.77
J.	Total Unit Cost				1,175.21

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

Item No./Description : 503 (1) Metal Frame & Grating

Unit of Measurement : set

Output per hour :

Quantity : 6.00

(Note: for the Provision of turn-out)

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	0.75	611.92	458.94
	b. Skilled Foreman	1	0.75	443.20	332.40
	c. Laborer	2	0.75	342.24	513.36
	Sub-total for A			P	1,304.70
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Welding Machine	1	0.75	3,128.00	2,346.00
	Minor Tools, 10% of Laborer)				130.47
	Sub-total for B			P	2,476.47
C.	Total (A+B)			P	3,781.17
D.	Output/day 0.00 set /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Angle Bar (75mm X 75mm x 9 mm)	1.00	pc	3,040.00	3,040.00
	b. Flat Bar (25mm X 65 mm X 3 mm)	1.00	pc	170.00	170.00
	c. Weldind Rod	1.50	kg	132.00	198.00
	Sub-total for E			P	3,408.00
F.	Direct Cost (C+E)				7,189.17
G.	Overhead, Contingencies and Miscellaneous		8% per D.O 197 s 2016		575.13
H.	Contractor's Profit (CP)		8% per D.O 197 s 2016		575.13
I.	Value Added Tax (VAT)		5% per D.O 197 s 2016		416.97
J.	Total Unit Cost				1,459.40

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

Item No./Description : 600(3) Concrete Curb and Gutter
Unit of Measurement : ln.m
Output per hour : 10.30
Quantity : 122.00

(Note: for the Provision of turn-out)

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	1.48	611.92	906.00
	b. Skilled Foreman	4	1.48	443.20	2,624.78
	c. Laborer	8	1.48	342.24	4,053.72
	Sub-total for A			P	7,584.49
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	a. Concrete Vibrator	1	1.48	730.00	1,080.83
	b. Bagger Mixer	1	1.48	1,376.00	2,037.28
	c. Water Truck	1	0.07	19,600.00	1,372.00
	Minor Tools, 10% of Labor				758.45
	Sub-total for B			P	5,248.56
C.	Total (A+B)			P	12,833.05
D.	Output/day 82.40 ln.m /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Portland Cement	157.38	bag	278.18	43,779.59
	b. Fine Aggregates	8.54	cu.m	1,267.70	10,826.16
	c. Coarse Aggregates	17.08	cu.m	1,357.70	23,189.52
	d. Marine Plywood	7.32	pcs	393.00	2,876.76
	e. Form Lumber	349.84	bd.ft	39.00	13,643.76
	f. CW Nails	3.50	kls	67.00	234.50
	Miscellaneous (2% of Materails)				1,891.01
	Sub-total for E			P	96,441.29
F.	Direct Cost (C+E)				109,274.34
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	8,741.95
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	8,741.95
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	6,337.91
J.	Total Unit Cost				1,090.95

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

Item No./Description : 601 Sidewalk

Unit of Measurement : sq.m.

Output per hour : 20.00

Quantity : 244.00

(Note: for the Provision of turn-out)

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	1.53	611.92	933.18
	b. Skilled Foreman	4	1.53	443.20	2,703.52
	c. Laborer	12	1.53	342.24	6,262.99
	Sub-total for A			P	9,899.69
	Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B	Equipment, (2014 ACEL Rates)				
	a. Concrete Vibrator	1	1.53	730.00	1,113.25
	b. Bagger Mixer	1	1.53	1,376.00	2,098.40
	c. Water Truck	1	0.19	19,600.00	3,724.00
	d. Concrete Saw	1	1.53	261.04	398.09
	Minor Tools, 5% of Labor				494.98
	Sub-total for B			P	7,828.72
C.	Total (A+B)			P	17,728.41
D.	Output/day 160.00 sq.m. /day				
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Curing Compound	70.76	lit	40.00	2,830.40
	b. Asphalt Sealant	29.28	lit	75.00	2,196.00
	c. Forms	112.24	l.m	39.00	4,377.36
	d. Sand	13.42	cu.m	1,267.70	17,012.53
	e. Gravel	24.40	cu.m	1,357.70	33,127.88
	f. Cement	231.80	bag	278.18	64,481.57
	Sub-total for E			P	124,025.74
F.	Direct Cost (C+E)				141,754.15
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	11,340.33
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	11,340.33
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	8,221.74
J.	Total Unit Cost				707.61

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	:	605(2)z2 Informatory Signs
Unit of Measurement	:	units
Output per hour	:	
Quantity	:	2.00

(Note: for the Provision of turn-out)

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	0.25	611.92	152.98
	b. Mason	1	0.25	443.20	110.80
	c. Laborer	2	0.25	342.24	171.12
	Sub-total for A			P	434.90
	Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B	Equipment, (2014 ACEL Rates)				
	a. Stake Truck	1	0.06	6,808.00	408.48
	Minor Tools, 10% of Labor				43.49
	Sub-total for B			P	451.97
C.	Total (A+B)			P	886.87
D.	Output/day 0.00 units /day				
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Informative Signs	2.00	set	3,000.00	6,000.00
	b. Portland Cement	1.00	bags	278.18	278.18
	c. Fine Aggregates	0.25	cu.m	1,267.70	316.93
	d. Coarse Aggregates	0.25	cu.m	1,357.70	339.43
	e. Highway Traffic Sign post with Dowel	2.00	each	3,355.00	6,710.00
	Sub-total for E			P	13,644.53
F.	Direct Cost (C+E)				14,531.40
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	1,162.51
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	1,162.51
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	842.82
J.	Total Unit Cost				8,849.62

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
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	1,357.70	4,751.95
b. Selected Fill	10.00	cu.m	582.40	5,824.00
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	278.18	25,035.98
b. Crushed Gravel	20.00	cu.m	1,357.70	27,154.00
c. Washed Sand	17.00	cu.m	1,267.70	21,550.90
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	81.00	1,620.00
IV. Formworks (Columns & Beams)				
a. Coco Lumber	400.00	bd.ft	15.00	6,000.00
b. Ordinary Plywood, 1/4"x4'x8'	18.00	pc	520.00	9,360.00
c. CWN, Assorted	5.00	kg	44.00	220.00
V. Masonry Works (masonry walls & plastering)				
a. CHB 6" thk	650.00	pc	18.00	11,700.00
b. Portland Cement	50.00	bag	278.18	13,908.88
c. Washed Sand	10.00	cu.m	1,267.70	12,677.00
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				177,054.75
Sub-total for E			P	320,581.10
F. Direct Cost (C+E)				405,631.26
G. Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	32,450.50
H. Contractor's Profit (CP)		8%	per D.O 197 s 2016	32,450.50
I. Value Added Tax (VAT)		5%	per D.O 197 s 2016	23,526.61

J.	Total Unit Cost	494,058.88

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

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		8%	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 : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

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		8%	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 : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

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	6.60	mons	1,200.00	7,920.00
	b. Water Bill	6.60	mons	1,000.00	6,600.00
	c. LPG Gasul (11 kg)	6.60	mons	1,000.00	6,600.00
	Sub-Total for E				251,263.32
	Sub-total for E			P	251,263.32
F.	Direct Cost (C+E)				251,263.32
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	12,563.17
J.	Total Unit Cost				263,826.49

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
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	318.00	443.20	140,937.60
	Sub-total for A			P	140,937.60
	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	140,937.60
D.	Output/day 0.00 L.S /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Liters, Diesel Fuel	3,180.00	liters	35.00	111,300.00
	b. Engine Oil & Lubricants	1.00	ls	35,234.40	35,234.40
	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	284,534.40
F.	Direct Cost (C+E)				425,472.00
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	21,273.60
J.	Total Unit Cost				446,745.60

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

Item No./Description : B.5 Project Billboard

Unit of Measurement : Unit

Output per hour :

Quantity : 2.00

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	0.25	611.92	152.98
	b. Carpenters	1	0.25	443.20	110.80
	c. Laborer	2	0.25	342.24	171.12
	Sub-total for A			P	434.90
	Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B	Equipment, (2014 ACEL Rates)				
	Sub-total for B			P	0.00
C.	Total (A+B)			P	434.90
D.	Output/day 0.00 Unit /day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Marine Plywood 3/16" thk. X 4' x 8'	2.00	pc	345.00	690.00
	b. Tarpaulin (4' x 8')	2.00	pc	800.00	1,600.00
	c. Assorted Sizes Lumber	100.00	bd. Ft	15.00	1,500.00
	d. Assorted Sizes CW Nails	2.00	kg	67.00	134.00
	Sub-total for E			P	3,924.00
F.	Direct Cost (C+E)				4,358.90
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	348.71
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	348.71
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	252.82
J.	Total Unit Cost				2,654.57

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur

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	159.00	611.92	97,295.28
	b. First Aider	1	318.00	443.20	140,937.60
	Sub-total for A			P	238,232.88
	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	238,232.88
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)				250,592.88
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	20,047.43
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	13,532.02
J.	Total Unit Cost				284,172.33

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
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	6.00	34,043.00	408,516.00
	b. Water Truck	1	6.00	19,600.00	117,600.00
	c. Backhoe	2	6.00	12,296.00	147,552.00
	d. Payloader	2	6.00	13,864.00	166,368.00
	e. Dumptruck	4	6.00	11,360.00	272,640.00
	f. Bulldozer	1	6.00	27,032.00	162,192.00
	g. Road Roller	1	6.00	13,216.00	79,296.00
	h. Road Grader	1	6.00	17,384.00	104,304.00
	Sub-total for B			P	1,458,468.00
C.	Total (A+B)			P	1,458,468.00
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)				1,458,468.00
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	72,923.40
J.	Total Unit Cost				1,531,391.40

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME	:	Construction of By-Pass and Diversion Roads Labangan - Pagadian City - Dumalinao ZDS By-Pass Road, including ROW, Zamboanga del Sur
Item No./Description	:	B.4(1) Construction Survey and Staking
Unit of Measurement	:	Km.
Output per hour	:	0.04
Quantity	:	6.40

	Designation	No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	(For Field Works)				
	a. Geodetic Engineer	1	21.33	833.31	17,777.28
	b. Skilled Laborer	3	21.33	443.20	28,364.80
	c. Laborer	3	21.33	342.24	21,903.36
	(For Office Works)				
	a. Geodetic Engineer	1	64.00	833.31	53,331.84
	b. Skilled Laborer	2	64.00	443.20	56,729.60
	Sub-total for A			P	178,106.88
	Name and Capacity	**No. of Equip.**	**No. of Days**	**Daily Rate**	**Amount**
B	Equipment, (2014 ACEL Rates)				
	a. Total Station w/ complete accessories	1	21.33	800.00	17,066.67
	Minor Tools (10% of labor)				17,810.69
	Sub-total for B			P	34,877.35
C.	Total (A+B)			P	212,984.23
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)				227,684.23
G.	Overhead, Contingencies and Miscellaneous		8%	per D.O 197 s 2016	18,214.74
H.	Contractor's Profit (CP)		8%	per D.O 197 s 2016	18,214.74
I.	Value Added Tax (VAT)		5%	per D.O 197 s 2016	13,205.69
J.	Total Unit Cost				43,331.16

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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 DEL SUR 2ND 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	55.00	X	10.14	=	557.70	+	710.00	=	1,267.70
Cost of Coarse Aggregates	55.00	X	10.14	=	557.70	+	800.00	=	1,357.70
Cost of Item 200 Materails	55.00	X	10.14	=	557.70	+	640.00	=	1,197.70
Cost of Item 201 Materails	55.00	X	10.14	=	557.70	+	640.00	=	1,197.70
Cost of Item 300 Materails	55.00	X	10.14	=	557.70	+	680.00	=	1,237.70
Cost of Boulders	55.00	X	10.14	=	557.70	+	960.00	=	1,517.70
Cost of Embankment, Common Borrow	10.00	X	10.14	=	101.40	+	328.00	=	429.40
Cost of Embankment, Selected Borrow	10.00	X	10.14	=	101.40	+	481.00	=	582.40

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	121,059.26
Portland Cement Concrete Pavement, 0.15m. Thick	7,935.07
Structural Concrete, Class A	7,182.00
Trees (Furnishing and Transplanting)	642.00
Stone Masonry	341.00
Manhole	4.00
Concrete Cover	1.00
Concrete Curb and Gutter	157.38
Sidewalk	231.80
Informatory Signs	1.00
RC Culvert Pipe, 610 mm	13.93
Const. of Field Office for the Engineer	90.00
	50.00
Concrete Structure (Lean Concrete)	-
TOTAL	***137,708.44***

Quantity = 137,708.44 Bags

Delivery Charge = P 0.12 /bag/km

SITE	*HAULING DISTANCE*
Zamboanga del Sur 2nd DEO	60.00
PROJECT SITE	

* Average Hauling Distance from source to assumed stockpilling area:
say 60.00 km.

Delivery Charge = P 0.12 X 60.00
Delivery Charge = P 7.20 /bag

* Delivery Truck : 137,708.44 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 $= \dfrac{60.00 \times 60.00}{30.00} =$ 120 mins.

Unloading Running $= \dfrac{60.00 \times 60.00}{40.00} =$ 90 mins.

Loading & Unloading = *45.00 mins.*
Capacity of Dumptruck = *8.00 cu.m.*
500.00 bags
Total Cycle Time = *255.00 mins.*

No. of trips for Dumptruck per day	=	$\frac{8.00 \times 60.00}{255.00}$	=	1.88	trips
Dumptruck Daily Outpout	=	*500.00 X 1.88*	=	*941.18*	cu.m.
Using 4 Dumptruck	=	*941.18 X 4.00*	=	*3,764.71*	cu.m.
No. of Days for Dumptruck	=	$\frac{137,708.44}{3,764.71}$	=	36.58	days
No. of Days for Labor for unloading	=	complimentary to D.Truck days	=	36.58	days

DELIVERY COST:

137,708.44	Bags, Portland Cement	@ P	7.20	/bag	=	P	991,500.78
				Sub-total			**991,500.78**

LABOR:

1	Foreman	@ P	558.00	/day	X	36.58	days	= P	20,410.97
10	Laborers	@ P	312.24	/day	X	36.58	days	=	114,213.66
							Sub-total		**134,624.63**

MATERIALS:

137,708.44	Bags, Portland Cement	@ P	270.00	/bag	=	P	37,181,279.34
				Sub-total			**37,181,279.34**

Estimated Quantity : 137,708.44 Bags

Unit Cost	P	278.18
Grand Total	P	38,307,404.76
Delivery Cost	P	991,500.78
Labor	P	134,624.63
Materials	P	37,181,279.34