

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 OF CONCRETE ROAD (UNPAVED TO PAVED) OF ZAMBOANGA WEST COASTAL ROAD (LIMPAPA-SIBUCO SECTION) Including RROW, ZAMBOANGA DEL NORTE	Appropriation : P 100,000,000.00 Source of Funds : CY-2018 Issued Obligated Authority : Released : Cal. Days to Complete : 319 Calendar Days Desirable Starting Date : Upon Approval Mode of Implementation :
PROJECT CATEGORY : NATIONAL ROAD	
PROJECT DESCRIPTION : Scope of Work : Road Upgrading (Unpaved to Paved) Road Width : 6.70 mtrs. (PCCP thick .28m) Roadbed Width : 12.00 mtrs. Subbase Course : 0.30 m. thick Surface Course : 0.15 m. thick	NET LENGTH : K 1980 + 076.00 - K 1980 + 981.79, L = 905.79 In.m., K 1984 + 920.00 - K 1985 + 830.00, L = 910.00 In.m. Net Length : 1,815.790 In.m. (3.63 lane km.)

MINIMUM EQUIPMENT REQUIREMENT :				TECH	
Description	No.	Description	No.	Description	No.
Dumptruck (10-Wheeler)	12	Water Pump	1	Project Engineer	1
Transit Mixer	4	Concrete Vibrator	2	Materials Engineer	1
Bulldozer	2	Concrete Cutter	2	Geometric Surveyor	1
Backhoe	4	Bar Cutter	1	Foreman	1
Road Grader	2	Bar Bender	1	Materials Lab. Tech.	1
Road Roller	2	Conc. Mixer (1-Bagger)	2	Mason	10
Payloader	4	Plate Compactor	1	Carpenter	6
Water Truck	2	Batching Plant	1	Laborers (Skilled)	10
Water Tank	2	Backhoe with Breaker	4	Laborers (Unskilled)	20

ESTIMATED COST OF PROPOSED WORK

ITEM NO.	DESCRIPTION	% OF TOTAL	UNIT	QUANTITY	DIRECT COST		
					TOTAL	UNIT COST	
PART A - FACILITIES FOR THE ENGINEER							
A.1.1(3)	Construction of Field Office for the Engineer (7.0m. X 9.0 m.)	0.599	L. S.	1.00	461,434.96	461,434.96	
A.1.1(11)	Provision of Furnitures/Fixtures, Equipment and Appliances for the Field Office for the Engineers	0.260	L. S.	1.00	200,598.00	200,598.00	
A. 1.2	Operation and Maintenance of Gov't Service Vehicle	0.545	L.S.	1.00	419,972.47	419,972.47	
PART B - OTHER GENERAL REQUIREMENTS							
B.5	Project Billboard/Signboard	0.009	units	2.00	7,300.90	3,650.45	
B.7	Occupational Safety and Health Program	0.227	L. S.	1.00	174,969.76	174,969.76	
B.4 (1)	Construction Survey and Staking	0.066	km.	1.82	51,027.55	28,102.12	
B.9	Mobilization & Demobilization	0.757	L. S.	1.00	582,776.00	582,776.00	
PART C - EARTHWORK							
101(4)c	Removal of Structures & Obstructions (Removal of Ext	0.023	In.m.	32.00	17,793.64	556.05	
102(2)	Surplus Common Excavation	23.251	cu.m.	126,612.50	17,907,455.82	141.44	
102(3)	Surplus Rock Excavation	18.488	cu.m.	73,101.00	14,239,334.00	194.79	
103(1)a	Structure Excavation	0.363	cu.m.	1,216.00	279,820.63	230.12	
103(3)	Foundation Fill	0.009	cu. m.	7.00	6,927.70	989.67	
103(6)a	Pipe Culvert and Drain Excavation	0.031	cu.m.	103.50	23,816.97	230.12	
104(1)a1	Embankment from Excavation	0.869	cu.m.	3,238.50	669,475.41	206.72	
105(1)a	Subgrade Preparation	0.429	sq.m.	20,673.50	330,331.52	15.98	
PART D - SUBBASE AND BASE COURSE							
200(1)	Aggregate Subbase Course, 0.30 m. thick	8.407	cu. m.	6,894.50	6,474,683.55	939.11	
PART E - SURFACE COURSES							
300(1)	Aggregate Surface Course, 0.15m. Thick	0.276	cu. m.	212.00	212,500.00	1,002.36	
311(1)e1	Portland Cement Concrete Pavement, 0.28 m. thick	25.761	sq. m.	13,441.00	19,840,872.17	1,476.15	
311(1)a	Portland Cement Concrete Pavement, 0.15 m thick	4.850	sq. m.	4,576.00	3,735,428.88	816.31	
PART F - BRIDGE CONSTRUCTION							
404(1)a	Reinforcing Steel, (Grade 40)	1.465	kg.	23,363.00	1,128,286.92	48.29	
404(1)b	Reinforcing Steel, (Grade 60)	0.416	kg.	6,404.00	320,344.75	50.02	
405(1)a3	Structural Concrete, Class "A"	5.164	cu.m.	634.00	3,977,422.85	6,273.54	
407	Lean Concrete	0.030	cu.m.	5.00	22,850.27	4,570.05	
PART G - DRAINAGE AND SLOPE PROTECTION STRUCTURES							
500(1)b3	Reinf. Conc. Culvert Pipe, 910mm dia.	0.215	In. m.	59.00	165,302.36	2,801.73	
505(2)a	Grouted Riprap, Class "A"	0.032	cu. m.	8.00	24,829.85	3,103.73	
506	Stone Masonry	0.463	cu. m.	95.00	356,384.24	3,751.41	
PART E - MISCELLANEOUS STRUCTURES							
612(1)	ReflectORIZED Thermoplastic Pavement Marking, White	0.392	sq.m.	392.50	302,259.06	770.09	
612(2)	ReflectORIZED Thermoplastic Pavement Marking, Yellow	0.221	sq.m.	199.50	170,218.45	853.23	
622(1)a	Coco-net (CGN 400)	3.217	sq.m.	17,554.00	2,477,993.00	141.16	
622(1)b	Coco-net (CGN 700)	0.176	sq.m.	756.00	135,325.32	179.00	
622(2)	Coco-logs/Fascine	0.857	In.m.	1,430.00	659,730.82	461.35	
622(3)	Vegetation	2.130	sq.m.	18,310.00	1,640,130.09	89.58	
TOTAL					P	77,017,597.91	

NAME OF PROJECT : CONSTRUCTION OF CONCRETE ROAD (UNPAVED TO PAVED) OF ZAMBOANGA WEST COASTAL ROAD (LIMPAPA-SIBUCO SECTION) Including RROW, ZAMBOANGA DEL NORTE

K 1980 + 076.00 - K 1980 + 981.79, L = 905.79 Inm.,
1985 + 830.00, L = 910.00 In.m.

K 1984 + 920.00 - K

BREAKDOWN OF ESTIMATED EXPENDITURES	% OF TOTAL	AMOUNT
I. ESTIMATED COST		
A. DIRECT COST		
A.1. Materials	35.75	35,745,550.09
A.2. Labor	1.96	1,964,925.95
A.3. Equipment Expenses	39.31	39,307,121.87
SUB-TOTAL (DIRECT COST)	77.02	P 77,017,597.91
B. INDIRECT COST (Per D.O. # 57)		
B.1. Overhead, Contingency & Misc. (10 % Max. of D.C.)	7.56	7,563,928.17
B.2. Profit (8 % Max. of D.C.)	6.08	6,081,187.96
C. VAT (5 % of D.C. and I.C. Per D.O. # 197 S.2016)	4.53	4,533,135.70
SUBTOTAL (CONTRACT COST)	95.20	P 95,195,849.73
II. ESTIMATED GOVERNMENT EXPENDITURES		
1. Engineering and Administrative Overhead (3.5%)	3.50	3,500,000.00
2. Detailed Engineering (1%)	0.00	
3. Reserved for the Payment of RROW	1.30	1,304,150.27
4. Provisional Sum	0.00	
TOTAL ESTIMATED PROJECT COST	100.00	P 100,000,000.00

Prepared :

Checked :

JOSEPHINE B. RENGQUIJO

Engineer II

JERALD R. BARRERA

Engineer II

Submitted :

Recommending Approval:

LEONCIO B. SOLAMILLO

Chief, Construction Division

CAYAMOMBAO D. DIA

OIC-Assistant Regional Director

Approved:

JORGE U. SEBASTIAN, JR., CESO III

Regional Director

APPROVED BUDGET FOR THE CONTRACT

CONSTRUCTION OF CONCRETE ROAD (UNPAVED TO PAVED) OF ZAMBOANGA WEST COASTAL ROAD (LIMPAPA-SIBUCO SECTION) Including RROW, ZAMBOANGA DEL NORTE

Project Name and Location

Stations : K 1980 + 076.00 - K 1980 + 981.79, L = 905.79 Inm., K 1984 + 920.00 - K 1985 + 830.00, L = 910.00 In.m.
 Length : 1,815.79

Contract Duration : **319 Calendar Days**

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN PERCENT		TOTAL MARK-UPS		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
					(6)	(7)	(8)	(9) x (8)	5%(5 + 9)	(9) + (10)	(5) + (11)	(12) / (3)
PART A - FACILITIES FOR THE ENGINEER												
A.1.1(3)	Construction of Field Office for the Engineer (7.0m. X 9.0 m.)	1.00	L. S.	461,434.96	10.00	8.00	18.00	83,058.29	27,224.66	110,282.95	571,717.91	571,717.91
A.1.1(11)	Provision of Furnitures/Fixtures,Equipment and Appliances for theField Office for the Engineers	1.00	L. S.	200,598.00		8.00	8.00	16,047.84	10,832.29	26,880.13	227,478.13	227,478.13
A. 1.2	Operation and Maintenance of Gov't Service Vehicle	1.00	L.S.	419,972.47			0.00	-	20,998.62	20,998.62	440,971.09	440,971.09
PART B - OTHER GENERAL REQUIREMENTS												
B.5	Project Billboard/Signboard	2.00	units	7,300.90	10.00	8.00	18.00	1,314.16	430.75	1,744.92	9,045.82	4,522.91
B.7	Occupational Safety and Health Program	1.00	L. S.	174,969.76		8.00	8.00	13,997.58	9,448.37	23,445.95	198,415.71	198,415.71
B.4 (1)	Construction Survey and Staking	1.82	km.	51,027.55	10.00	8.00	18.00	9,184.96	3,010.63	12,195.58	63,223.13	34,818.53
B.9	Mobilization & Demobilization	1.00	L. S.	582,776.00			0.00	-	29,138.80	29,138.80	611,914.80	611,914.80
PART C - EARTHWORK												
101(4)c	Removal of Structures & Obstructions(Removal of Exta. RCCP 910mm dia.)	32.00	In.m.	17,793.64	10.00	8.00	18.00	3,202.86	1,049.82	4,252.68	22,046.32	688.95
102(2)	Surplus Common Excavation	126,612.50	cu.m.	17,907,455.82	10.00	8.00	18.00	3,223,342.05	1,056,539.89	4,279,881.94	22,187,337.76	175.24
102(3)	Surplus Rock Excavation	73,101.00	cu.m.	14,239,334.00	10.00	8.00	18.00	2,563,080.12	840,120.71	3,403,200.83	17,642,534.83	241.34
103(1)a	Structure Excavation	1,216.00	cu.m.	279,820.63	10.00	8.00	18.00	50,367.71	16,509.42	66,877.13	346,697.76	285.11
103(3)	Foundation Fill	7.00	cu. m.	6,927.70	10.00	8.00	18.00	1,246.99	408.73	1,655.72	8,583.42	1,226.20
103(6)a	Pipe Culvert and Drain Excavation	103.50	cu.m.	23,816.97	10.00	8.00	18.00	4,287.05	1,405.20	5,692.26	29,509.23	285.11
104(1) a1	Embankment from Excavation	3,238.50	cu.m.	669,475.41	10.00	8.00	18.00	120,505.57	39,499.05	160,004.62	829,480.04	256.13
105(1)a	Subgrade Preparation	20,673.50	sq.m.	330,331.52	10.00	8.00	18.00	59,459.67	19,489.56	78,949.23	409,280.75	19.80
PART D - SUBBASE AND BASE COURSE												
200(1)	Aggregate Subbase Course, 0.30 m. thick	6,894.50	cu. m.	6,474,683.55	10.00	8.00	18.00	1,165,443.04	382,006.33	1,547,449.37	8,022,132.92	1,163.56
PART E - SURFACE COURSES												
300(1)	Aggregate Surface Course, 0.15m. Thick	212.00	cu. m.	212,500.00	10.00	8.00	18.00	38,250.00	12,537.50	50,787.50	263,287.50	1,241.92
311(1)e1	Portland Cement Concrete Pavement, 0.28 m. thick	13,441.00	sq. m.	19,840,872.17	10.00	8.00	18.00	3,571,356.99	1,170,611.46	4,741,968.45	24,582,840.62	1,828.94
311(1)a	Portland Cement Concrete Pavement, 0.15 m thick	4,576.00	sq. m.	3,735,428.88	10.00	8.00	18.00	672,377.20	220,390.30	892,767.50	4,628,196.38	1,011.41
PART F - BRIDGE CONSTRUCTION												
404(1)a	Reinforcing Steel, (Grade 40)	23,363.00	kg.	1,128,286.92	10.00	8.00	18.00	203,091.65	66,568.93	269,660.57	1,397,947.49	59.84
404(1)b	Reinforcing Steel, (Grade 60)	6,404.00	kg.	320,344.75	10.00	8.00	18.00	57,662.06	18,900.34	76,562.40	396,907.15	61.98
405(1)a3	Structural Concrete, Class"A"	634.00	cu.m.	3,977,422.85	10.00	8.00	18.00	715,936.11	234,667.95	950,604.06	4,928,026.91	7,772.91
407	Lean Concrete	5.00	cu.m.	22,850.27	10.00	8.00	18.00	4,113.05	1,348.17	5,461.22	28,311.49	5,662.30
PART G- DRAINAGE AND SLOPE PROTECTION STRUCTURES												
500(1)b3	Reinf. Conc. Culvert Pipe, 910mm dia.	59.00	In. m.	165,302.36	10.00	8.00	18.00	29,754.42	9,752.84	39,507.26	204,809.62	3,471.35
505(2)a	Grouted Riprap, Class "A"	8.00	cu. m.	24,829.85	10.00	8.00	18.00	4,469.37	1,464.96	5,934.33	30,764.18	3,845.52
506	Stone Masonry	95.00	cu. m.	356,384.24	10.00	8.00	18.00	64,149.16	21,026.67	85,175.83	441,560.08	4,648.00
PART E - MISCELLANEOUS STRUCTURES												
612(1)	Reflectronized Thermoplastic Pavement Marking, White	392.50	sq.m.	302,259.06	10.00	8.00	18.00	54,406.63	17,833.28	72,239.91	374,498.97	954.14
612(2)	Reflectronized Thermoplastic Pavement Marking, Yellow	199.50	sq.m.	170,218.45	10.00	8.00	18.00	30,639.32	10,042.89	40,682.21	210,900.67	1,057.15
622(1)a	Coco-net (CGN 400)	17,554.00	sq.m.	2,477,993.00	10.00	8.00	18.00	446,038.74	146,201.59	592,240.33	3,070,233.33	174.90
622(1)b	Coco-net (CGN 700)	756.00	sq.m.	135,325.32	10.00	8.00	18.00	24,358.56	7,984.19	32,342.75	167,668.07	221.78
622(2)	Coco-logs/Fascine	1,430.00	In.m.	659,730.82	10.00	8.00	18.00	118,751.55	38,924.12	157,675.67	817,406.49	571.61
622(3)	Vegetation	18,310.00	sq.m.	1,640,130.09	10.00	8.00	18.00	295,223.42	96,767.68	391,991.09	2,032,121.18	110.98
											77,017,597.91	95,195,849.73

Prepared /Submitted by :

Recommending Approval:

Approved :

BELEN A. SAPALLEDA
 Engineer IV - Chairman Estimating Committee

CAYAMOMBAO D. DIA
 OIC - Assistant Regional Director

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