JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REPUBLIC OF THE PHILIPPINES

THE DETAILED DESIGN STUDY
ON
UPGRADING INTER-URBAN HIGHWAY SYSTEM
ALONG THE PAN-PHILIPPINE HIGHWAY
(PLARIDEL, CABANATUAN AND SAN JOSE BYPASSES)

INITIAL STAGE

UNIT PRICE ANALYSIS

FOR

CABANATUAN BYPASS PACKAGE II

December 2002

KATAHIRA & ENGINEERS INTERNATIONAL
YACHIYO ENGINEERING CO., LTD

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REPUBLIC OF THE PHILIPPINES

THE DETAILED DESIGN STUDY
ON
UPGRADING INTER-URBAN HIGHWAY SYSTEM
ALONG THE PAN-PHILIPPINE HIGHWAY
(PLARIDEL, CABANATUAN AND SAN JOSE BYPASSES)

INITIAL STAGE

UNIT PRICE ANALYSIS

FOR

CABANATUAN BYPASS PACKAGE II

December 2002

KATAHIRA & ENGINEERS INTERNATIONAL
YACHIYO ENGINEERING CO., LTD

C O N T E N T S

1. General Conditions for Cost Estimate

1) Procedure of Cost Estimation

Based on "Department Order No. 57, 2002", Department of Public Works and Highways

2) Currency Exchange Rate 1 US$ = 52.28 PP = 120.12 yen as of 23/August/2002

3) Minimum Wage for Labor

a) Wage Order No. RBIII-09, Effective from Jan. 16, 2002
National Wages and Productivity Commission, Department of Labor and Employment

4) Social Charge

a) National Health Insurance Program (NHIP)
National Health Insurance Act (Art. X, RA 7875), effective from January 1, 2002
b) Social Security System (SSS)
SSC Resolution No. 900-s2001, effective from January 1, 2002

5) Material Cost

a) "Metro Manila Construction Materials Price and Indices",
DTI, Construction Industry Authority of the Philippines (March, 2002)
b) According to inquiries, quotations, other projects, hearing survey, etc.
c) "Construction Price Book", Kensetu Bukka Chousa-kai, Japan

6) Equipment Cost

a) "Equipment Guidebook", Association of Carriers and Equipment Lessors (ACEL), INC. (Nov. 1998)
b) "Equipment Depreciation Cost Estimate Table", Japan Construction Equipment Association

7) Productivity

a) "Construction Cost Estimate Standard", Ministry of Land Development and Transportation, Japan
b) "Highway and Bridge Estimating Manual", DPWH, Bureau of Research and Standards (Dec. 1992)

8) General Basis Used for Cost Estimate

Bypass			Cabanatuan
Package No.			2
Station	Start	m	109+920.000
	End	m	119+000.000
Construction Length		m	9,080.000
Province		-	Nueva Ecija, Central Luzon
Distance from Manila		km	110.0
Construction Period		month	36.0
Minimum Wage for Labor		PP/day	224.50
Equipment Rental Extra out of Manila		%	2.0%
Mobilization Distance		km	110.0
Hauling Distance from near by material source	Soil	km	18.7
	Sand	km	5.0
	Aggregate	km	5.0
	Gravel	km	5.0
Hauling Distance for disposal	Soil	km	5.0
	Debris	km	5.0
Average Distance for Batching Plant, Fabrication Yard (= 1/4 x Construction Length)		km	2.3
AASHTO Girder	Max. L	m	35.0
	Total nos.	each	40

2. Estimated Project Cost

Project : Upgrading Inter-Urban Highway System Along the Pan-Philippine Highway - Cabanatuan Bypass Initial Stage Pacakage 2
Location: Region III Central Luzon

Explanation of columns
①, ②, ③, ④, ⑤ = Input
⑥, ⑦, ⑧ = percentage of markups
⑨ = ⑥ + ⑦ + ⑧
⑩ = ⑤ x ⑨
⑪ = (⑤ + ⑩) x VAT(10.0%)
⑫ = ⑩ + ⑪
⑬ = ⑤ + ⑫
⑭ = ⑬ ÷ ③
⑮ = ③ x ⑭

(Based on Department Order No.57, 2002 of DPWH)

Total Estimated Direct Cost of the Project (PP)		Indirect Costs (maximum)		Mob/ Demob	Markup Total
Above	up to	OCM	Profit	(max)	(max)
0	1,000,000	13.0%	15.0%	1.0%	29.0%
1,000,000	5,000,000	12.0%	14.0%	1.0%	27.0%
5,000,000	10,000,000	12.0%	13.0%	1.0%	26.0%
10,000,000	20,000,000	11.0%	12.0%	1.0%	24.0%
20,000,000	50,000,000	11.0%	11.0%	1.0%	23.0%
50,000,000		10.0%	10.0%	1.0%	21.0%

Markup percentage are determined by the following equations;

Markup	Equation	Coefficients	
		a	b
OCM =	$a \cdot N^{b}$	0.2284	-0.04660
Profit =	$a + b \cdot \log(N)$	0.2813	-0.02355
Mob/Demob =	Estimated under Item SPL 800		

where, N: Total Estimated Direct Cost (PP)
a, b : Coefficients

Adopted Markup Percentage 8.9% 7.5% 0.0% 16.4%

Value Added Tax = 10.0%

Item No.	Description	Quantity	Unit	Estimated Direct Cost (PP)	Markups (%)			Total Markup		VAT (PP)	Total Indirect Cost (PP)	Total Cost (PP)	Unit Cost (PP)	Total Cost (PP)	Remarks
					OCM	Profit	Mob/ Demob	%	Value (PP)						
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	
Part A	Facilities for the Engineer														
A(1)a	Provision of Combined Field Office/Laboratory Bldg. and Living Quarter	1.00	L.S.	2,370,000.00	8.9%	7.5%	0.0%	16.4%	388,680.00	275,868.00	664,548.00	3,034,548.00	3,034,548.00	3,034,548.00	0.419%
A(1)b	Maintenance of Field Office/Laboratory Bldg. and Living Quarter	36.00	month	3,024,000.00	8.9%	7.5%	0.0%	16.4%	495,936.00	351,993.60	847,929.60	3,871,929.60	107,554.00	3,871,944.00	0.535%
A(1)c	Provision of Furniture and Fixtures for the Field Office/Laboratory and Living Quarter	1.00	L.S.	549,000.00	8.9%	7.5%	0.0%	16.4%	90,036.00	63,903.60	153,939.60	702,939.60	702,940.00	702,940.00	0.097%
A(1)d	Provision of Equipment and Appliances for the Field Office/laboratory Bldg. and Living Quarter	1.00	L.S.	313,000.00	8.9%	7.5%	0.0%	16.4%	51,332.00	36,433.20	87,765.20	400,765.20	400,765.00	400,765.00	0.055%
A(1)e	Provision of Office Supplies and Consumable	36.00	month	597,600.00	8.9%	7.5%	0.0%	16.4%	98,006.40	69,560.64	167,567.04	765,167.04	21,255.00	765,180.00	0.106%
A(1)f	Provide/Operate/Maintain Communication Equipment	36.00	month	179,280.00	8.9%	7.5%	0.0%	16.4%	29,401.92	20,868.19	50,270.11	229,550.11	6,376.00	229,536.00	0.032%
A(2)a	Provision of vehicles (sedan) for the Engineer (Rental including operation & maintenance)	36.00	veh·m	2,574,000.00	8.9%	7.5%	0.0%	16.4%	422,136.00	299,613.60	721,749.60	3,295,749.60	91,549.00	3,295,764.00	0.455%
A(2)b	Provision of vehicles (wagon) for the Engineer (Rental including operation & maintenance)	72.00	veh·m	6,235,200.00	8.9%	7.5%	0.0%	16.4%	1,022,572.80	725,777.28	1,748,350.08	7,983,550.08	110,883.00	7,983,576.00	1.103%
A(2)c	Provision of vehicles (pick-up) for the Engineer (Rental including operation & maintenance)	108.00	veh·m	5,400,000.00	8.9%	7.5%	0.0%	16.4%	885,600.00	628,560.00	1,514,160.00	6,914,160.00	64,020.00	6,914,160.00	0.955%
A(3)	Provision of Testing Equipment, Apparatus and Publications	1.00	L.S.	1,040,000.00	8.9%	7.5%	0.0%	16.4%	170,560.00	121,056.00	291,616.00	1,331,616.00	1,331,616.00	1,331,616.00	0.184%
A(4)	Progress Photographs	2,403.00	each	281,151.00	8.9%	7.5%	0.0%	16.4%	46,108.76	32,725.98	78,834.74	359,985.74	150.00	360,450.00	0.050%
	Subtotal			22,563,231.00					3,700,369.88	2,626,360.09	6,326,729.97	28,889,960.97		28,890,479.00	3.992%
Part C	Earthwork														
100(1)	Clearing and Grubbing	51.00	ha	1,968,600.00	8.9%	7.5%	0.0%	16.4%	322,850.40	229,145.04	551,995.44	2,520,595.44	49,423.00	2,520,573.00	0.348%
100(3)	Individual Removal of Trees, small (150mm≦φ<900mm)	152.00	each	13,376.00	8.9%	7.5%	0.0%	16.4%	2,193.66	1,556.97	3,750.63	17,126.63	113.00	17,176.00	0.002%
100(4)	Individual Removal of Trees, large (φ>900mm)	19.00	each	2,299.00	8.9%	7.5%	0.0%	16.4%	377.03	267.60	644.63	2,943.63	155.00	2,945.00	0.000%
101(1)	Removal of Structures and Obstructions	1.00	L.S.	76,000.00	8.9%	7.5%	0.0%	16.4%	12,464.00	8,846.40	21,310.40	97,310.40	97,310.00	97,310.00	0.013%
101(2)a	Removal of Existing Pedestrian Bridge (San Jose, at Bridge No.2)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
101(2)b	Removal of Existing Bridge (Plaridel at Bridge No.9)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
101(3)a	Removal of Existing PCC Pavement	2,616.00	m2	237,532.80	8.9%	7.5%	0.0%	16.4%	38,955.37	27,648.82	66,604.19	304,136.99	116.00	303,456.00	0.042%
101(3)b	Removal of Existing Gravel Pavement	0.00	m2	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
101(4)a	Removal of Existing Fence (Net Fence with Barbed Wire and Wooden Posts)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
101(4)b	Removal of Existing Fence (Net Fence with Barbed Wire and Concrete Posts)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%

Item No.	Description	Quantity	Unit	Estimated Direct Cost (PP)	Markups (%)			Total Markup		VAT (PP)	Total Indirect Cost (PP)	Total Cost (PP)	Unit Cost (PP)	Total Cost (PP)	Remarks
					OCM	Profit	Mob/ Demob	%	Value (PP)						
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	
101(4)c	Removal of Existing Fence (Concrete Hollow Block)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
101(5)a	Removal of Existing Guardrails	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
101(5)b	Relocation of Existing Guardrails	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
101(7)	Removal of Existing Slope Protection	0.00	m3	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
101(8)	Removal of Existing Slope Protection (Hand-laid Rock)	0.00	m3	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
101(9)	Removal of Existing Gabion	0.00	m3	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 101(10)a	Relocation of Existing Transmission	0.00	L.S.	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 101(10)b	Shutdown Charge for the Relocation of Transmission Line	0.00	day	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
101(11)	Removal of Existing Combination Concrete Curb & Gutter/Side Strip	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
101(12)	Relocation of Existing Road Signs	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
101(13)	Removal of Existing Road Signs	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
101(14)	Removal of Existing Concrete Revetment	0.00	L.S.	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
102(1)	Unsuitable Excavation	276,500.00	m3	34,562,500.00	8.9%	7.5%	0.0%	16.4%	5,668,250.00	4,023,075.00	9,691,325.00	44,253,825.00	160.00	44,240,000.00	6.115%
102(2)	Surplus Common Excavation	0.00	m3	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
103(1)	Structure Excavation	884.00	m3	129,064.00	8.9%	7.5%	0.0%	16.4%	21,166.49	15,023.05	36,189.54	165,253.54	187.00	165,308.00	0.023%
103(2)a	Bridge Excavation above OWL (Common Soil)	1,450.00	m3	211,700.00	8.9%	7.5%	0.0%	16.4%	34,718.80	24,641.88	59,360.68	271,060.68	187.00	271,150.00	0.037%
103(2)b	Bridge Excavation above OWL (Rocky	0.00	m3	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
103(2)c	Bridge Excavation below OWL (Common Soil)	484.00	m3	532,400.00	8.9%	7.5%	0.0%	16.4%	87,313.60	61,971.36	149,284.96	681,684.96	1,408.00	681,472.00	0.094%
103(2)d	Bridge Excavation below OWL (Rocky	0.00	m3	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
103(3)a	Gravel Foundation Fill	108.00	m3	42,120.00	8.9%	7.5%	0.0%	16.4%	6,907.68	4,902.77	11,810.45	53,930.45	499.00	53,892.00	0.007%
103(3)b	Selected Sand Bedding	0.00	m3	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
103(6)	Pipe Culverts and Drain Excavation	14,406.00	m3	2,045,652.00	8.9%	7.5%	0.0%	16.4%	335,486.92	238,113.89	573,600.81	2,619,252.81	182.00	2,621,892.00	0.362%
103(7)	Granular Backfill for Pipe Culverts	7,197.00	m3	1,986,372.00	8.9%	7.5%	0.0%	16.4%	325,765.00	231,213.70	556,978.70	2,543,350.70	353.00	2,540,541.00	0.351%
104(1)	Embankment from Excavated Soil	1,852.00	m3	281,504.00	8.9%	7.5%	0.0%	16.4%	46,166.65	32,767.07	78,933.72	360,437.72	195.00	361,140.00	0.050%
104(3)	Embankment from Borrow Soil	913,920.00	m3	245,844,480.00	8.9%	7.5%	0.0%	16.4%	40,318,494.72	28,616,297.47	68,934,792.19	314,779,272.19	344.00	314,388,480.00	43.495%
104(4)	Embankment from Borrow (Selected Granular Material) for Bridge	3,458.00	m3	881,790.00	8.9%	7.5%	0.0%	16.4%	144,613.56	102,640.36	247,253.92	1,129,043.92	327.00	1,130,766.00	0.156%
105(1)	Subgrade Preparation (Common Soil)	5,811.00	m2	79,029.60	8.9%	7.5%	0.0%	16.4%	12,960.85	9,199.05	22,159.90	101,189.50	17.40	101,111.40	0.014%
105(2)	Subgrade Preparation (Existing Gravel Surface)	0.00	m2	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
	Subtotal			288,894,419.40					47,378,684.73	33,627,310.43	81,005,995.16	369,900,414.56		369,497,212.40	51.111%
Part D	Subbase and Base Course														
200(1)	Aggregate Subbase Course	45,482.00	m3	21,831,360.00	8.9%	7.5%	0.0%	16.4%	3,580,343.04	2,541,170.30	6,121,513.34	27,952,873.34	615.00	27,971,430.00	3.862%
200(2)	Aggregate Subbase Course using materials born by removal of existing gravel pavement	0.00	m3	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
201(1)	Aggregate Base Course	11,851.00	m3	5,996,606.00	8.9%	7.5%	0.0%	16.4%	983,443.38	698,004.94	1,681,448.32	7,678,054.32	648.00	7,679,448.00	1.061%
204(1)	Cement Stabilized Sand Base Course	0.00	m3	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
	Subtotal			27,827,966.00					4,563,786.42	3,239,175.24	7,802,961.66	35,630,927.66		35,650,878.00	4.923%
Part E	Surface Courses														
300(1)	Gravel Surface Course	14,841.00	m3	7,093,998.00	8.9%	7.5%	0.0%	16.4%	1,163,415.67	825,741.37	1,989,157.04	9,083,155.04	612.00	9,082,692.00	1.255%
301(1)	Prime Coat	0.00	t	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
302(1)	Tack Coat	0.00	t	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
310(1)	Bituminous Concrete Surface Course, hot laid	0.00	t	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
310(2)	Asphalt Mixture Wearing Course (t=50mm) for bridge pavement	0.00	m2	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
310(3)	Waterproofing Layer for Pampanga Deck Slab	0.00	m2	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
311(1)a	PCC Pavement (Plain), t=280mm	0.00	m2	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
311(1)b	PCC Pavement (Plain), t=250mm	74,159.00	m2	42,270,630.00	8.9%	7.5%	0.0%	16.4%	6,932,383.32	4,920,301.33	11,852,684.65	54,123,314.65	730.00	54,136,070.00	7.479%
311(1)c	PCC Pavement (Plain), t=230mm	22,685.00	m2	12,181,845.00	8.9%	7.5%	0.0%	16.4%	1,997,822.58	1,417,966.76	3,415,789.34	15,597,634.34	688.00	15,607,280.00	2.155%
311(1)d	PCC Pavement (Plain), t=180mm	0.00	m2	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 311(1)e	PCC Pavement (Lean Mix Concrete)	0.00	m3	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 311(2)	PCC Pavement (Reinforced), t=300mm (Approach Slab)	1,148.00	m2	2,364,880.00	8.9%	7.5%	0.0%	16.4%	387,840.32	275,272.03	663,112.35	3,027,992.35	2,638.00	3,028,424.00	0.418%
	Subtotal			63,911,383.00					10,481,461.89	7,439,281.49	17,920,743.38	81,832,096.38		81,854,466.00	11.307%

Item No.	Description	Quantity	Unit	Estimated Direct Cost (PP)	Markups (%)			Total Markup		VAT (PP)	Total Indirect Cost (PP)	Total Cost (PP)	Unit Cost (PP)	Total Cost (PP)	Remarks
					OCM	Profit	Mob/ Demob	%	Value (PP)						
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	
Part F	Bridge Construction														
400(3)a	Steel H Piles (450mmx260kg/m),	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
400(4)a	Precast RC Concrete Pile (400mm x 400mm), furnished	664.00	m	1,049,120.00	8.9%	7.5%	0.0%	16.4%	172,055.68	122,117.57	294,173.25	1,343,293.25	2,023.00	1,343,272.00	0.186%
400(4)b	Precast RC Concrete Pile (450mmx450mm) furnished	3,467.00	m	6,934,000.00	8.9%	7.5%	0.0%	16.4%	1,137,176.00	807,117.60	1,944,293.60	8,878,293.60	2,561.00	8,878,987.00	1.227%
400(10)a	Steel H Piles (450mmx260kg/m), driven	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
400(13)a	Precast Concrete Piles (400mm x 400mm), driven	578.00	m	190,740.00	8.9%	7.5%	0.0%	16.4%	31,281.36	22,202.14	53,483.50	244,223.50	423.00	244,494.00	0.034%
400(13)b	Precast Concrete Piles (450mm x 450mm), driven	3,022.00	m	1,057,700.00	8.9%	7.5%	0.0%	16.4%	173,462.80	123,116.28	296,579.08	1,354,279.08	448.00	1,353,856.00	0.187%
400(15)a	Test Piles (400mm x 400mm), furnished & driven	47.00	m	86,950.00	8.9%	7.5%	0.0%	16.4%	14,259.80	10,120.98	24,380.78	111,330.78	2,369.00	111,343.00	0.015%
400(15)b	Test Piles (450mm x 450mm), furnished & driven	163.00	m	373,270.00	8.9%	7.5%	0.0%	16.4%	61,216.28	43,448.63	104,664.91	477,934.91	2,932.00	477,916.00	0.066%
400(15)c	Test Piles (Steel H Piles 460mmx260kg/m), furnished & driven	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
400(16)a	Cast-in-place Concrete Bored Piles ϕ1000mm	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
400(16)b	Cast-in-place Concrete Bored Piles ϕ1200mm	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
400(16)c	Cast-in-place Concrete Bored Piles ϕ1500mm	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
400(16)d	Cast-in-place Concrete Bored Piles ϕ800mm	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
400(19)a	Pile shoes for 400mm x 400mm Piles	72.00	each	51,624.00	8.9%	7.5%	0.0%	16.4%	8,466.33	6,009.03	14,475.36	66,099.36	918.00	66,096.00	0.009%
400(19)b	Pile shoes for 450mm x 450mm Piles	367.00	each	263,139.00	8.9%	7.5%	0.0%	16.4%	43,154.79	30,629.38	73,784.17	336,923.17	918.00	336,906.00	0.047%
400(20)a	Splices for 400mm x 400mm Piles	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
400(20)b	Splices for 450mm x 450mm Piles	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
400(21)	Static Pile Load Test for ϕ1500mm Bored Piles	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 400(23)a	High Strain Dynamic Pile Test for ϕ1000mm Bored Piles	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 400(23)b	High Strain Dynamic Pile Test for ϕ1200mm Bored Piles	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 400(23)c	High Strain Dynamic Pile Test for ϕ800mm Bored Piles	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 400(24)	Pile Integrity Test for Bored Piles of various diameter	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
401(1)a	Concrete Railing Type A (Concrete Posts and Precast Beams)	477.00	m	586,710.00	8.9%	7.5%	0.0%	16.4%	96,220.44	68,293.04	164,513.48	751,223.48	1,575.00	751,275.00	0.104%
401(1)b	Concrete Railing Type B (Concrete Wall Type)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
401(2)a	Steel Railing Type A for Angat and Talavera Bridge, and Approach of Pampanga Bridge	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
401(2)b	Steel Railing Type B for Pampanga Main Bridge	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 401(3)a	Bridge Name Plate, 1000 x 600 mm for Angat Bridge	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 401(3)b	Bridge Name Plate, 1000 x 600 mm for Pampanga Bridge	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 401(3)c	Bridge Name Plate, 1000 x 600 mm for Talavera Bridge	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 401(3)d	Bridge Name Plate, 1000 x 600 mm for Interchange Ramp	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
403(3)	Structural Steel for Pampanga River Bridge, furnished and fabricated	0.00	kg	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
403(5)	Structural Steel for Pampanga River Bridge, erected	0.00	kg	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
403(8)a	Bearing Shoe for Steel Plate Girder Type 1 (Max. R=250t) in Pampanga Bridge	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%

Item No.	Description	Quantity	Unit	Estimated Direct Cost (PP)	Markups (%)			Total Markup		VAT (PP)	Total Indirect Cost (PP)	Total Cost (PP)	Unit Cost (PP)	Total Cost (PP)	Remarks
					OCM	Profit	Mob/ Demob	%	Value (PP)						
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	
403(8)b	Bearing Shoe for Steel Plate Girder Type 2 (Max. R=650t) in Pampanga Bridge	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
403(8)c	Bearing Shoe for Steel Plate Girder Type 3 (Max. R=650t) in Pampanga Bridge	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 403(9)	Steel Grating for Sunlight Opening in Underpasses	0.00	m2	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
404(1)	Reinforcement Steel Grade 40	201,777.00	kg	4,701,404.10	8.9%	7.5%	0.0%	16.4%	771,030.27	547,243.44	1,318,273.71	6,019,677.81	29.80	6,012,954.60	0.832%
404(2)	Reinforcement Steel Grade 60	256,789.00	kg	6,291,330.50	8.9%	7.5%	0.0%	16.4%	1,031,778.20	732,310.87	1,764,089.07	8,055,419.57	31.40	8,063,174.60	1.113%
405(1)a	Structural Concrete Class A (fc'=21MPa, max. aggregate 38mm) for heavily reinforced structures	1,049.00	m3	3,293,860.00	8.9%	7.5%	0.0%	16.4%	540,193.04	383,405.30	923,598.34	4,217,458.34	4,020.00	4,216,980.00	0.583%
405(1)b	Structural Concrete Class A (fc'=21MPa, max. aggregate 38mm) for small & medium bridges substructures	2,227.00	m3	4,966,210.00	8.9%	7.5%	0.0%	16.4%	814,458.44	578,066.84	1,392,525.28	6,358,735.28	2,855.00	6,358,085.00	0.879%
405(1)c	Structural Concrete Class A1 (fc'=21MPa, max. aggregate 20mm) for small & medium bridges RCDG	192.00	m3	785,280.00	8.9%	7.5%	0.0%	16.4%	128,765.92	91,406.59	220,192.51	1,005,472.51	5,237.00	1,005,504.00	0.139%
405(1)d	Structural Concrete Class A1 (fc'=21MPa, max. aggregate 20mm) for small & medium bridges PCDG	672.00	m3	2,674,560.00	8.9%	7.5%	0.0%	16.4%	438,627.84	311,318.78	749,946.62	3,424,506.62	5,096.00	3,424,512.00	0.473%
405(1)e	Structural Concrete Class AA1 (fc'=28MPa, max. aggregate 25) for long bridge substructures	0.00	m3	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
405(1)f	Structural Concrete Class AA2 (fc'=28MPa, max. aggregate 20mm) for long bridge superstructures	0.00	m3	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
405(2)	Structural Concrete Class B (fc'=17MPa, max. aggregate 50mm) for plain or lightly reinforced structures	2,660.00	m3	6,330,800.00	8.9%	7.5%	0.0%	16.4%	1,038,251.20	736,905.12	1,775,156.32	8,105,956.32	3,047.00	8,105,020.00	1.120%
405(3)	Structural Concrete Class C (fc'=21MPa, max. aggregate 12mm) for thin reinforced members	141.00	m3	362,370.00	8.9%	7.5%	0.0%	16.4%	59,428.68	42,179.87	101,608.55	463,978.55	3,291.00	464,031.00	0.064%
405(4)b	Structural Concrete Class PP (41MPa, max. agg. 20mm) for prestressed box girders in Angat Bridge	0.00	m3	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
405(4)c	Structural Concrete Class PP (41MPa, max. agg. 20mm) for prestressed hollow slab girders	0.00	m3	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
405(6)	Lean Concrete (17MPa, max. agg. 38mm), poured	351.00	m3	677,430.00	8.9%	7.5%	0.0%	16.4%	111,098.52	78,852.85	189,951.37	867,381.37	2,471.00	867,321.00	0.120%
406(1)a	Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV L=20m), fabricated & erected	15.00	each	2,745,000.00	8.9%	7.5%	0.0%	16.4%	450,180.00	319,518.00	769,698.00	3,514,698.00	234,313.00	3,514,695.00	0.486%
406(1)b	Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV L=22m), fabricated & erected	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
406(1)c	Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV L=24m), fabricated & erected	10.00	each	2,580,000.00	8.9%	7.5%	0.0%	16.4%	423,120.00	300,312.00	723,432.00	3,303,432.00	330,343.00	3,303,430.00	0.456%
406(1)d	Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV L=25m), fabricated & erected	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
406(1)e	Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV-B L=30m), fabricated & erected	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
406(1)f	Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV-B L=31m), fabricated & erected	10.00	each	3,850,000.00	8.9%	7.5%	0.0%	16.4%	631,400.00	448,140.00	1,079,540.00	4,929,540.00	492,954.00	4,929,540.00	0.681%
406(1)g	Precast Prestressed Structural Concrete Members (AASHTO Girder Type V L=29.4m), fabricated & erected	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%

Item No.	Description	Quantity	Unit	Estimated Direct Cost (PP)	Markups (%)			Total Markup		VAT (PP)	Total Indirect Cost (PP)	Total Cost (PP)	Unit Cost (PP)	Total Cost (PP)	Remarks
					OCM	Profit	Mob/ Demob	%	Value (PP)						
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	
406(1)h	Precast Prestressed Structural Concrete Member (AASHTO Girder Type V L=29.55m), fabricated & erected	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
406(1)i	Precast Prestressed Structural Concrete Members (AASHTO Girder TypeV L=33.5m), fabricated & erected	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
406(1)j	Precast Prestressed Structural Concrete Members (AASHTO Girder Type VI L=35m), fabricated & erected	5.00	each	2,685,000.00	8.9%	7.5%	0.0%	16.4%	440,340.00	312,534.00	752,874.00	3,437,874.00	687,575.00	3,437,875.00	0.475%
406(1)k	Precast Prestressed Structural Concrete Members (AASHTO Girder Type VI L=36m), fabricated & erected	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
406(1)l	Precast Prestressed Structural Concrete Members (AASHTO Girder Type VI(mod) L=39.4m), fabricated & erected	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
406(1)m	Precast Prestressed Structural Concrete Members (AASHTO Girder Type VI(mod) L=39.55m), fabricated & erected	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
406(1)n	Precast Prestressed Structural Concrete Members (AASHTO Girder Type VI(mod) L=40m), fabricated & erected	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
406(1)p	Precast Prestressed Structural Concrete (PC Deck Slab, 210 x 2000 x 9950mm)	0.00	m2	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
406(3)a	Prestressing Steel 12-T12.7 for PC Box Girders of Angat Bridge, Longitudinal	0.00	kg	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
406(3)b	Prestressing Steel 5-T12.7 for PC Box Girders of Angat Bridge, Transversal in Top Slab	0.00	kg	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
406(3)c	Prestressing Bar ϕ32mm for PC Box Girders of Angat Bridge, Transversal in Diaphragms	0.00	kg	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
406(3)d	Prestressing Bar ϕ32mm for PC Box Girders of Angat Bridge, Vertical in Webs	0.00	kg	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
406(3)e	Prestressing Steel 12-T12.7 for PC Hollow Slab Bridge for Burgol Ramp C, Longitudinal	0.00	kg	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
407(1)a	Elastomeric Bearing Pad, Duro 60 (400x300x50mm)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
407(1)b	Elastomeric Bearing Pad, Duro 60 (600x300x50mm)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
407(1)c	Elastomeric Bearing Pad, Duro 60 (600x350x50mm)	80.00	each	1,720,000.00	8.9%	7.5%	0.0%	16.4%	282,080.00	200,208.00	482,288.00	2,202,288.00	27,529.00	2,202,320.00	0.304%
407(1)d	Elastomeric Bearing Pad, Duro 60 (600x700x89mm)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
407(1)e	Elastomeric Bearing Pad, Duro 60 (600x400x60mm)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
407(1)f	Elastomeric Bearing Pad, Duro 60 (450x300x60mm)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
407(1)g	Elastomeric Bearing Pad, Duro 60 (550x300x50mm)	6.00	each	90,600.00	8.9%	7.5%	0.0%	16.4%	14,858.40	10,545.84	25,404.24	116,004.24	19,334.00	116,004.00	0.016%
407(1)h	Elastomeric Bearing Pad, Duro 60 (600x400x60mm)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
407(2)a	Expansion Joint, Multiflex M80 (Elastomeric)	140.00	m	9,240,000.00	8.9%	7.5%	0.0%	16.4%	1,515,360.00	1,075,536.00	2,590,896.00	11,830,896.00	84,506.00	11,830,840.00	1.636%
407(2)b	Expansion Joint, Multiflex M100 (Elastomeric)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
407(2)c	Expansion Joint, Multiflex M140 (Elastomeric)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
407(2)d	Expansion Joint, Multiflex M160 (Elastomeric)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
407(2)e	Expansion Joint, Multiflex M200 (Elastomeric)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%

Item No.	Description	Quantity	Unit	Estimated Direct Cost (PP)	Markups (%)			Total Markup		VAT (PP)	Total Indirect Cost (PP)	Total Cost (PP)	Unit Cost (PP)	Total Cost (PP)	Remarks
					OCM	Profit	Mob/Demob	%	Value (PP)						
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	
407(2)f	Expansion Joint, Multiflex M330 (Elastomeric)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
407(2)g	Expansion Joint, 30mmfor bridge	25.00	m	3,725.00	8.9%	7.5%	0.0%	16.4%	610.90	433.59	1,044.49	4,769.49	191.00	4,775.00	0.001%
SPL 407(3)a	Restraining Bar φ32 x 1495mm	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 407(3)b	Restraining Bar φ32 x 1900mm	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 407(3)c	Restraining Cable φ65 x 4121mm (PC 7-T15.2)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 407(3)d	Restraining Cable φ65 x 4224mm (PC 7-T15.2)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
407(4)	G.I. Drain Pipe φ150mm for Bridge Drainage	24.00	m	20,256.00	8.9%	7.5%	0.0%	16.4%	3,321.98	2,357.80	5,679.78	25,935.78	1,081.00	25,944.00	0.004%
SPL 407(5)a	Pier Protection Concrete Blocks for Angat Bridge	0.00	m2	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 407(5)b	Pier Protection Concrete Blocks for Pampanga Bridge	0.00	m2	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 407(5)c	Pier Protection Concrete Blocks for Talavera Bridge	0.00	m2	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 420(1)	Temporary Access Road Crossing Streams/Rivers	0.00	L.S.	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 420(2)	Realignment of River/Stream	0.00	L.S.	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 420(3)	False Works Required for Cantilever Construction for PC Box Girder (Angat River)	0.00	L.S.	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 420(4)a	Temporary Craneway for Angat Bridge Construction	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 420(4)b	Temporary Craneway for Pampanga Bridge Construction	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 420(4)c	Temporary Craneway for Talavera Bridge Construction	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 420(5)a	Temporary Access Road (Causeway) for Angat Bridge Construction	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 420(5)b	Temporary Access Road (Causeway) for Pampanga Bridge Construction	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 420(5)c	Temporary Access Road (Causeway) for Talavera Bridge Construction	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 420(6)a	Temporary Cofferdam for Pier Construction (Angat Bridge Type 1)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 420(6)b	Temporary Cofferdam for Pier Construction (Angat Bridge Type 2)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 420(6)c	Temporary Cofferdam for Pier Construction (Pampanga Bridge)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 420(6)d	Temporary Cofferdam for Pier Construction (Talavera Bridge)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
	Subtotal			63,611,078.60					10,432,216.87	7,404,329.54	17,836,546.41	81,447,625.01		81,447,150.20	11.254%
Part G	Drainage and Slope Protection Structures														
500(1)a3	RCPC Standard Strength (25MPa), φ460mm (18")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
500(1)a4	RCPC Standard Strength (25MPa), φ610mm (24")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
500(1)a5	RCPC Standard Strength (25MPa), φ760mm (30")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
500(1)a6	RCPC Standard Strength (25MPa), φ910mm (36")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
500(1)a7	RCPC Standard Strength (25MPa), φ1070mm (42")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
500(1)a8	RCPC Standard Strength (25MPa), φ1220mm (48")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
500(1)a9	RCPC Standard Strength (25MPa), φ1520mm (60")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
500(1)b3	RCPC Standard Strength (32MPa), φ460mm (18")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
500(1)b4	RCPC Standard Strength (32MPa), φ610mm (24")	674.00	m	808,800.00	8.9%	7.5%	0.0%	16.4%	132,643.20	94,144.32	226,787.52	1,035,587.52	1,536.00	1,035,264.00	0.143%

Item No.	Description	Quantity	Unit	Estimated Direct Cost (PP)	Markups (%)			Total Markup		VAT (PP)	Total Indirect Cost (PP)	Total Cost (PP)	Unit Cost (PP)	Total Cost (PP)	Remarks
					OCM	Profit	Mob/ Demob	%	Value (PP)						
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	
500(1)b5	RCPC Standard Strength (32MPa), φ760mm (30")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
500(1)b6	RCPC Standard Strength (32MPa), φ910mm (36")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
500(1)b7	RCPC Standard Strength (32MPa), φ1070mm (42")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
500(1)b8	RCPC Standard Strength (32MPa), φ1220mm (48")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
500(1)b9	RCPC Standard Strength (32MPa), φ1520mm (60")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
500(1)c3	RCPC Extra Strength (32MPa), φ460mm (18")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
500(1)c4	RCPC Extra Strength (32MPa), φ610mm (24")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
500(1)c5	RCPC Extra Strength (32MPa), φ760mm (30")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
500(1)c6	RCPC Extra Strength (32MPa), φ910mm (36")	2,077.00	m	6,542,550.00	8.9%	7.5%	0.0%	16.4%	1,072,978.20	761,552.82	1,834,531.02	8,377,081.02	4,033.00	8,376,541.00	1.158%
500(1)c7	RCPC Extra Strength (32MPa), φ1070mm (42")	511.00	m	2,330,160.00	8.9%	7.5%	0.0%	16.4%	382,146.24	271,230.62	653,376.86	2,983,536.86	5,839.00	2,983,729.00	0.412%
500(1)c8	RCPC Extra Strength (32MPa), φ1220mm (48")	386.00	m	1,922,280.00	8.9%	7.5%	0.0%	16.4%	315,253.92	223,753.39	539,007.31	2,461,287.31	6,376.00	2,461,136.00	0.340%
500(1)c9	RCPC Extra Strength (32MPa), φ1520mm (60")	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a1	Drop Inlet Manhole for RCPC 1-φ460 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a2	Drop Inlet Manhole for RCPC 1-φ610 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a3	Drop Inlet Manhole for RCPC 1-φ760 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a4	Drop Inlet Manhole for RCPC 1-φ910 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a5	Drop Inlet Manhole for RCPC 1-φ1070 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a6	Drop Inlet Manhole for RCPC 1-φ1220 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a7	Drop Inlet Manhole for RCPC 1-φ1520 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a12	Drop Inlet Manhole for RCPC 1-φ610 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a13	Drop Inlet Manhole for RCPC 1-φ760 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a14	Drop Inlet Manhole for RCPC 1-φ910 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a15	Drop Inlet Manhole for RCPC 1-φ1070 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a16	Drop Inlet Manhole for RCPC 1-φ1220 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a17	Drop Inlet Manhole for RCPC 1-φ1520 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a22	Drop Inlet Manhole for RCPC 2-φ610 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a23	Drop Inlet Manhole for RCPC 2-φ760 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a24	Drop Inlet Manhole for RCPC 2-φ910 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a25	Drop Inlet Manhole for RCPC 2-φ1070 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a26	Drop Inlet Manhole for RCPC 2-φ1220 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)a27	Drop Inlet Manhole for RCPC 2-φ1520 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%

Item No.	Description	Quantity	Unit	Estimated Direct Cost (PP)	Markups (%)			Total Markup		VAT (PP)	Total Indirect Cost (PP)	Total Cost (PP)	Unit Cost (PP)	Total Cost (PP)	Remarks
					OCM	Profit	Mob/ Demob	%	Value (PP)						
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	
502(2)b1	Special Junction Box Manhole for RCPC 1-φ460 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b2	Special Junction Box Manhole for RCPC 1-φ610 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b3	Special Junction Box Manhole for RCPC 1-φ760 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b4	Special Junction Box Manhole for RCPC 1-φ910 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b5	Special Junction Box Manhole for RCPC 1-φ1070 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b6	Special Junction Box Manhole for RCPC 1-φ1220 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b7	Special Junction Box Manhole for RCPC 1-φ1520 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b12	Special Junction Box Manhole for RCPC 1-φ610 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b13	Special Junction Box Manhole for RCPC 1-φ760 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b14	Special Junction Box Manhole for RCPC 1-φ910 x 1-φ610	67.00	each	864,300.00	8.9%	7.5%	0.0%	16.4%	141,745.20	100,604.52	242,349.72	1,106,649.72	16,517.00	1,106,639.00	0.153%
502(2)b15	Special Junction Box Manhole for RCPC 1-φ1070 x 1-φ610	18.00	each	259,200.00	8.9%	7.5%	0.0%	16.4%	42,508.80	30,170.88	72,679.68	331,879.68	18,438.00	331,884.00	0.046%
502(2)b16	Special Junction Box Manhole for RCPC 1-φ1220 x 1-φ610	12.00	each	194,400.00	8.9%	7.5%	0.0%	16.4%	31,881.60	22,628.16	54,509.76	248,909.76	20,742.00	248,904.00	0.034%
502(2)b17	Special Junction Box Manhole for RCPC 1-φ1520 x 1-φ610	4.00	each	119,200.00	8.9%	7.5%	0.0%	16.4%	19,548.80	13,874.88	33,423.68	152,623.68	38,156.00	152,624.00	0.021%
502(2)b21	Special Junction Box Manhole for RCPC 2-φ460 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b22	Special Junction Box Manhole for RCPC 2-φ610 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b23	Special Junction Box Manhole for RCPC 2-φ760 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b24	Special Junction Box Manhole for RCPC 2-φ910 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b25	Special Junction Box Manhole for RCPC 2-φ1070 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b26	Special Junction Box Manhole for RCPC 2-φ1220 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b27	Special Junction Box Manhole for RCPC 2-φ1520 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b32	Special Junction Box Manhole for RCPC 2-φ610 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b33	Special Junction Box Manhole for RCPC 2-φ760 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b34	Special Junction Box Manhole for RCPC 2-φ910 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b35	Special Junction Box Manhole for RCPC 2-φ1070 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)b36	Special Junction Box Manhole for RCPC 2-φ1220 x 1-φ610	4.00	each	104,000.00	8.9%	7.5%	0.0%	16.4%	17,056.00	12,105.60	29,161.60	133,161.60	33,290.00	133,160.00	0.018%
502(2)b37	Special Junction Box Manhole for RCPC 2-φ1520 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c1	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ460 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c2	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ610 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c3	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ760 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c4	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ910 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c5	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1070 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%

Item No.	Description	Quantity	Unit	Estimated Direct Cost (PP)	Markups (%)			Total Markup		VAT (PP)	Total Indirect Cost (PP)	Total Cost (PP)	Unit Cost (PP)	Total Cost (PP)	Remarks
					OCM	Profit	Mob/ Demob	%	Value (PP)						
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	
502(2)c6	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1220 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c7	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1520 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c12	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ610 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c13	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ760 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c14	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ910 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c15	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1070 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c16	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1220 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c17	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1520 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c21	Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ460 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c22	Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ610 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c23	Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ760 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c24	Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ910 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c25	Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ1070 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c26	Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ1220 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c27	Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ1520 x 1-φ460	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c32	Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ610 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c33	Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ760 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c34	Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ910 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c35	Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ1070 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c36	Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ1220 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(2)c37	Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ1520 x 1-φ610	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(3)a1	Catch Basin for RCPC 1-φ460mm	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(3)a2	Catch Basin for RCPC 1-φ610mm	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(3)a3	Catch Basin for RCPC 1-φ760mm	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(3)a4	Catch Basin for RCPC 1-φ910mm	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(3)a5	Catch Basin for RCPC 1-φ1070mm	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(3)a6	Catch Basin for RCPC 1-φ1220mm	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(3)a7	Catch Basin for RCPC 1-φ1520mm	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(3)b1	Catch Basin for RCPC 2-φ460mm	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(3)b2	Catch Basin for RCPC 2-φ610mm	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(3)b3	Catch Basin for RCPC 2-φ760mm	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(3)b4	Catch Basin for RCPC 2-φ910mm	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(3)b5	Catch Basin for RCPC 2-φ1070mm	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(3)b6	Catch Basin for RCPC 2-φ1220mm	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(3)b7	Catch Basin for RCPC 2-φ1520mm	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(4)a1	U-shaped Concrete Ditch W=0.50m x H=0.50m	5,395.00	m	7,283,250.00	8.9%	7.5%	0.0%	16.4%	1,194,453.00	847,770.30	2,042,223.30	9,325,473.30	1,729.00	9,327,955.00	1.289%
502(4)a2	U-shaped Concrete Ditch W=0.75m x H=0.50m	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(4)a3	U-shaped Concrete Ditch W=0.30m x H=0.30m	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%

Item No.	Description	Quantity	Unit	Estimated Direct Cost (PP)	Markups (%)			Total Markup		VAT (PP)	Total Indirect Cost (PP)	Total Cost (PP)	Unit Cost (PP)	Total Cost (PP)	Remarks
					OCM	Profit	Mob/ Demob	%	Value (PP)						
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	
502(4)b1	U-shaped Concrete Ditch with Grating Cover, W=0.30m x H=0.30m	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(4)b2	U-shaped Concrete Ditch with Grating Cover, W=0.50m x H=0.50m	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(6)a	V-shaped Lined Ditch H=500mm, 1:1.50	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
502(6)b	V-shaped Lined Ditch H=500mm, 1:1.00	6,159.00	m	2,167,968.00	8.9%	7.5%	0.0%	16.4%	355,546.75	252,351.48	607,898.23	2,775,866.23	451.00	2,777,709.00	0.384%
502(7)a	Trapezoidal Lined Ditch B=450mm, H=500mm, 1:1.00	2,715.00	m	705,900.00	8.9%	7.5%	0.0%	16.4%	115,767.60	82,165.76	197,934.36	903,834.36	333.00	904,095.00	0.125%
502(7)b	Trapezoidal Lined Ditch B=1000mm, H=500mm, 1:1.00	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
503(3)a	Cleaning Culvert in Place, ϕ910mm or less	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
503(3)b	Cleaning Culvert in Place, more than ϕ910mm	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
503(4)a	Cleaning Reconditioning of RCBC, Single Barrel	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
503(4)b	Cleaning Reconditioning of RCBC, Double Barrel	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
503(4)c	Cleaning Reconditioning of RCBC, Triple Barrel	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
504(5)	Grouted Riprap Class A (slope protection)	2,682.00	m3	2,137,554.00	8.9%	7.5%	0.0%	16.4%	350,558.85	248,811.29	599,370.14	2,736,924.14	1,020.00	2,735,640.00	0.378%
505(1)	Stone Masonry Retaining Wall	321.00	m3	349,890.00	8.9%	7.5%	0.0%	16.4%	57,381.96	40,727.20	98,109.16	447,999.16	1,396.00	448,116.00	0.062%
506(1)	Hand-Laid Rock Apron (Loose Boulder Apron)	582.00	m3	260,736.00	8.9%	7.5%	0.0%	16.4%	42,760.70	30,349.67	73,110.37	333,846.37	574.00	334,068.00	0.046%
507(2)a	Steel Sheet Piles (76x457x4mm), furnished & driven	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
507(2)b	Steel Sheet Piles (400x85x8mm), furnished & driven	765.00	m	1,032,750.00	8.9%	7.5%	0.0%	16.4%	169,371.00	120,212.10	289,583.10	1,322,333.10	1,729.00	1,322,685.00	0.183%
509(1)	Gabions	352.00	m3	640,640.00	8.9%	7.5%	0.0%	16.4%	105,064.96	74,570.50	179,635.46	820,275.46	2,330.00	820,160.00	0.113%
509(2)	Gabion Mattress t=300mm	0.00	m3	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
509(3)	Filter Cloth	0.00	m2	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
510(1)	Rubble Concrete Slope Protection	609.00	m3	816,060.00	8.9%	7.5%	0.0%	16.4%	133,833.84	94,989.38	228,823.22	1,044,883.22	1,716.00	1,045,044.00	0.144%
	Subtotal			28,539,638.00					4,680,500.62	3,322,013.87	8,002,514.49	36,542,152.49		36,545,353.00	5.049%
Part H	Miscellaneous Structures														
600(1)a	Concrete Curb, Type A (200x450mm)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
600(1)b	Concrete Curb, Type B (175x318mm)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
600(3)a	Combination Concrete Curb & Gutter/Side Strip, Type A (675x364mm)	3,040.00	m	1,249,440.00	8.9%	7.5%	0.0%	16.4%	204,908.16	145,434.82	350,342.98	1,599,782.98	526.00	1,599,040.00	0.221%
600(3)b	Combination Concrete Curb & Gutter/Side Strip, Type B (675x334mm)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
600(3)c	Combination Concrete Curb & Gutter, Type C (475x334mm)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
601(1)	PCC Pavement for Sidewalk (t=100mm)	0.00	m2	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
602(1)	Right-of-Way Monuments	657.00	each	231,264.00	8.9%	7.5%	0.0%	16.4%	37,927.29	26,919.13	64,846.42	296,110.42	451.00	296,307.00	0.041%
602(2)	Maintenance Marker Posts for Drainage Structure	146.00	each	120,012.00	8.9%	7.5%	0.0%	16.4%	19,681.96	13,969.40	33,651.36	153,663.36	1,052.00	153,592.00	0.021%
602(3)	Kilometer Post	10.00	each	12,300.00	8.9%	7.5%	0.0%	16.4%	2,017.20	1,431.72	3,448.92	15,748.92	1,575.00	15,750.00	0.002%
603(3)a	Metal Guardrails (Metal Beam) Type A (Embedded in Soil)	7,065.00	m	7,015,545.00	8.9%	7.5%	0.0%	16.4%	1,150,549.38	816,609.44	1,967,158.82	8,982,703.82	1,271.00	8,979,615.00	1.241%
603(3)b	Metal Guardrails (Metal Beam) Type B (Embedded in Concrete)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
604(1)	Fencing (Barbed Wire)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
604(2)	Fencing (Chain Link Fence Fabric)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
604(3)	Fencing (Chain Link Fence Fabric on Bridge Railing)	0.00	m	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
605(1)a	Warning Signs (Triangular 900mm)	22.00	each	153,120.00	8.9%	7.5%	0.0%	16.4%	25,111.68	17,823.17	42,934.85	196,054.85	8,912.00	196,064.00	0.027%
605(1)b	Warning Signs (Circular ϕ900mm)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
605(2)a	Regulatory Signs (Triangular 1039mm)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
605(2)b	Regulatory Signs (Octagonal 600mm)	6.00	each	36,960.00	8.9%	7.5%	0.0%	16.4%	6,061.44	4,302.14	10,363.58	47,323.58	7,887.00	47,322.00	0.007%
605(2)c	Regulatory Signs (Circular ϕ600mm)	29.00	each	172,550.00	8.9%	7.5%	0.0%	16.4%	28,298.20	20,084.82	48,383.02	220,933.02	7,618.00	220,922.00	0.031%
605(2)d	Regulatory Signs (Rectangular 450mmx750mm)	17.00	each	115,090.00	8.9%	7.5%	0.0%	16.4%	18,874.76	13,396.48	32,271.24	147,361.24	8,668.00	147,356.00	0.020%

Item No.	Description	Quantity	Unit	Estimated Direct Cost (PP)	Markups (%)			Total Markup		VAT (PP)	Total Indirect Cost (PP)	Total Cost (PP)	Unit Cost (PP)	Total Cost (PP)	Remarks
					OCM	Profit	Mob/ Demob	%	Value (PP)						
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	
605(3)a	Informatory Signs (Rectangular 0.75mx1.00m, single post)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
605(3)b	Informatory Signs (Type A, double post)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
605(3)c	Informatory Signs (Type B, double post)	2.00	each	98,400.00	8.9%	7.5%	0.0%	16.4%	16,137.60	11,453.76	27,591.36	125,991.36	62,996.00	125,992.00	0.017%
605(3)d	Informatory Signs (Type C, double post)	13.00	each	1,029,600.00	8.9%	7.5%	0.0%	16.4%	168,854.40	119,845.44	288,699.84	1,318,299.84	101,408.00	1,318,304.00	0.182%
605(3)e	Informatory Signs (Type D, double post)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
605(3)f	Informatory Signs (Type E, triple post)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
605(3)g	Informatory Signs (Type F, triple post)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
605(3)h	Informatory Signs (Type G, triple post)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
605(4)a	Special Signs (750x600mm)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
605(4)b	Special Signs (600x880mm)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
605(4)c	Special Signs (900x550mm)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
605(4)d	Special Signs (850x750mm)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
607(2)a	Reflectorized Pavement Studs (Raised Profile Type, one face reflective)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
607(2)b	Reflectorized Pavement Studs (Raised Profile Type, two faces reflective)	135.00	each	112,725.00	8.9%	7.5%	0.0%	16.4%	18,486.90	13,121.19	31,608.09	144,333.09	1,069.00	144,315.00	0.020%
607(3)	Chatter Bars (one side reflective)	494.00	each	904,020.00	8.9%	7.5%	0.0%	16.4%	148,259.28	105,227.93	253,487.21	1,157,507.21	2,343.00	1,157,442.00	0.160%
608(1)	Furnishing and Placing Top Soil for Plantation	53,829.00	m3	16,956,135.00	8.9%	7.5%	0.0%	16.4%	2,780,806.14	1,973,694.11	4,754,500.25	21,710,635.25	403.00	21,693,087.00	3.000%
610(1)	Sodding	277,030.00	m2	15,236,650.00	8.9%	7.5%	0.0%	16.4%	2,498,810.60	1,773,546.06	4,272,356.66	19,509,006.66	70.40	19,502,912.00	2.696%
611(1)a	Trees (Furnishing and Transplanting) Low Tree H≦1.5m	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
611(1)b	Trees (Furnishing and Transplanting) Medium Tree 1.5m<H≦3.0m	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
611(1)c	Trees (Furnishing and Transplanting) High Tree (young tree) 1.5m<H≦3.0m	773.00	each	850,300.00	8.9%	7.5%	0.0%	16.4%	139,449.20	98,974.92	238,424.12	1,088,724.12	1,408.00	1,088,384.00	0.150%
611(2)a	Trees (Transplanting) Low Tree H≦1.5m	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
611(2)b	Trees (Transplanting) Medium Tree 1.5m <H≦3.0m	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
611(2)c	Trees (Transplanting) High Tree (young tree) 1.5m<H≦3.0m	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
611(3)a	Planter Box of CHB (1.00m x 1.00m) for Road Side Plantation	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
611(3)b	Planter Box of CHB (3.00m x 1.00m) for Road Side Plantation	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
611(4)a	Planter Square Type A (1.13mx1.13m) for Road Side Plantation	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
611(4)b	Planter Square Type B (0.68mx1.70m) for Road Side Plantation	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
612(1)a	Reflectorized Thermoplastic Pavement Markings (White)	4,055.00	m2	1,832,860.00	8.9%	7.5%	0.0%	16.4%	300,589.04	213,344.90	513,933.94	2,346,793.94	579.00	2,347,845.00	0.324%
612(1)b	Reflectorized Thermoplastic Pavement Markings (Yellow)	277.00	m2	128,528.00	8.9%	7.5%	0.0%	16.4%	21,078.59	14,960.66	36,039.25	164,567.25	594.00	164,538.00	0.023%
SPL 612(2)	Removal of Existing Thermoplastic Pavement Markings	0.00	m2	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
615(1)a	Delineator (ground standing type)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
615(1)b	Delineator (attached on guardrail)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
615(2)a	Curve Mirror 1-φ600	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
615(2)b	Curve Mirror 2-φ600	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
615(3)	Dustproof Concrete Paving for Median	0.00	m2	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 620(1)a	Traffic Signal Pole Type A (Mast Arm Post H=6.7m)	2.00	each	81,000.00	8.9%	7.5%	0.0%	16.4%	13,284.00	9,428.40	22,712.40	103,712.40	51,856.00	103,712.00	0.014%
SPL 620(1)b	Traffic Signal Pole Type A (Mast Arm Post H=6.0m)	8.00	each	339,200.00	8.9%	7.5%	0.0%	16.4%	55,628.80	39,482.88	95,111.68	434,311.68	54,289.00	434,312.00	0.060%
SPL 620(1)c	Traffic Signal Pole Type B (φ114.3mm x 4.2m)	13.00	each	276,900.00	8.9%	7.5%	0.0%	16.4%	45,411.60	32,231.16	77,642.76	354,542.76	27,273.00	354,549.00	0.049%
SPL 620(1)d	Traffic Signal Pole Type C (φ114.3mm x 3.4m)	15.00	each	328,500.00	8.9%	7.5%	0.0%	16.4%	53,874.00	38,237.40	92,111.40	420,611.40	28,041.00	420,615.00	0.058%
SPL 620(1)e	Traffic Signal Pole Type D (φ114.3mm x 3.0m)	4.00	each	76,800.00	8.9%	7.5%	0.0%	16.4%	12,595.20	8,939.52	21,534.72	98,334.72	24,584.00	98,336.00	0.014%
SPL 620(2)a	Traffic Signal Lamps Type A (6 vehicle lamps)	26.00	each	5,044,000.00	8.9%	7.5%	0.0%	16.4%	827,216.00	587,121.60	1,414,337.60	6,458,337.60	248,398.00	6,458,348.00	0.892%

Item No.	Description	Quantity	Unit	Estimated Direct Cost (PP)	Markups (%)			Total Markup		VAT (PP)	Total Indirect Cost (PP)	Total Cost (PP)	Unit Cost (PP)	Total Cost (PP)	Remarks
					OCM	Profit	Mob/ Demob	%	Value (PP)						
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	
SPL 620(2)b	Traffic Signal Lamps Type B (3 vehicle lamps)	27.00	each	2,835,000.00	8.9%	7.5%	0.0%	16.4%	464,940.00	329,994.00	794,934.00	3,629,934.00	134,442.00	3,629,934.00	0.502%
SPL 620(2)c	Traffic Signal Lamps Type C (2 pedestrian lamps)	22.00	each	1,113,200.00	8.9%	7.5%	0.0%	16.4%	182,564.80	129,576.48	312,141.28	1,425,341.28	64,788.00	1,425,336.00	0.197%
SPL 620(4)a	Street Lighting Poles (single lamp)	9.00	each	433,800.00	8.9%	7.5%	0.0%	16.4%	71,143.20	50,494.32	121,637.52	555,437.52	61,715.00	555,435.00	0.077%
SPL 620(4)b	Street Lighting Poles (double lamp)	57.00	each	3,425,700.00	8.9%	7.5%	0.0%	16.4%	561,814.80	398,751.48	960,566.28	4,386,266.28	76,952.00	4,386,264.00	0.606%
SPL 620(4)c	Bridge Lighting Poles (single lamp)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 620(4)d	Street Lighting Service Pole with Panel	4.00	each	196,400.00	8.9%	7.5%	0.0%	16.4%	32,209.60	22,860.96	55,070.56	251,470.56	62,868.00	251,472.00	0.035%
SPL 620(4)e	Fluorescent Lighting for Underpass Culvert	4.00	each	3,692.00	8.9%	7.5%	0.0%	16.4%	605.48	429.75	1,035.23	4,727.23	1,182.00	4,728.00	0.001%
SPL 620(5)a	Relocation of Street Lighting Poles (Single Lamp)	0.00	each	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 620(5)b	Relocation of Street Lighting Poles (Dual Lamp)	0.00	0	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
SPL 620(6)	Toll Gate Facilities	0.00	L.S.	0.00	8.9%	7.5%	0.0%	16.4%	0.00	0.00	0.00	0.00	0.00	0.00	0.000%
	Subtotal			60,409,691.00					9,907,189.30	7,031,688.04	16,938,877.34	77,348,568.34		77,321,828.00	10.688%
Part K	Mobilization and Demobilization														
SPL 800	Mobilization and Demobilization	1.00	L.S.	1,840,000.00	8.9%	7.5%	0.0%	16.4%	301,760.00	214,176.00	515,936.00	2,355,936.00	2,355,936.00	2,355,936.00	0.326%
	Subtotal			1,840,000.00					301,760.00	214,176.00	515,936.00	2,355,936.00		2,355,936.00	0.326%
Part X	Provisional Sum														
SPL 900(1)	Provisional Sum for Traffic Management during Construction	1.00	L.S.	894,000.00	8.9%	7.5%	0.0%	16.4%	146,616.00	104,061.60	250,677.60	1,144,677.60	1,144,678.00	1,144,678.00	0.158%
SPL 900(2)	Provisional Sum for Relocation of Existing Utilities	1.00	L.S.	1,100,000.00	8.9%	7.5%	0.0%	16.4%	180,400.00	128,040.00	308,440.00	1,408,440.00	1,408,440.00	1,408,440.00	0.195%
SPL 900(3)	Provisional Sum for Geotechnical Investigation	1.00	L.S.	1,610,000.00	8.9%	7.5%	0.0%	16.4%	264,040.00	187,404.00	451,444.00	2,061,444.00	2,061,444.00	2,061,444.00	0.285%
SPL 900(4)	Provisional Sum for Maintenance and Repair of Existing Access Road	1.00	L.S.	421,000.00	8.9%	7.5%	0.0%	16.4%	69,044.00	49,004.40	118,048.40	539,048.40	539,048.00	539,048.00	0.074%
SPL 900(5)	Provisional Sum for Environmental Compliance Requirements	1.00	L.S.	887,000.00	8.9%	7.5%	0.0%	16.4%	145,468.00	103,246.80	248,714.80	1,135,714.80	1,135,715.00	1,135,715.00	0.157%
SPL 900(6)	Provisional Sum for Health and Safety Requirements	1.00	L.S.	728,000.00	8.9%	7.5%	0.0%	16.4%	119,392.00	84,739.20	204,131.20	932,131.20	932,131.00	932,131.00	0.129%
SPL 900(7)	Provisional Sum for Overseas Development Assistance (ODA)	1.00	L.S.	191,000.00	8.9%	7.5%	0.0%	16.4%	31,324.00	22,232.40	53,556.40	244,556.40	244,556.00	244,556.00	0.034%
SPL 900(8)	Provisional Sum for Contingency	1.00	L.S.	1,800,000.00	8.9%	7.5%	0.0%	16.4%	295,200.00	209,520.00	504,720.00	2,304,720.00	2,304,720.00	2,304,720.00	0.318%
	Subtotal			7,631,000.00					1,261,484.00	888,248.40	2,139,732.40	9,770,732.40		9,770,732.00	1.350%
	Total			565,228,377.00					92,697,453.71	65,792,583.10	158,490,036.81	723,718,413.81		723,334,034.60	100.000%

Prepared/Submitted By:

Recommending Approval:

Approved:

3. Summary of Direct Cost

Item No.	Description	Unit	Quantity	Unit Rate						Amount						Remarks
				Component (%)					Total (PP)	Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
Part A	Facilities for the Engineer															
A(1)a	Provision of Combined Field Office/Laboratory Bldg. and Living Quarter	L.S.	1.00	7.0%	76.1%	16.9%	52.6%	47.4%	2,370,000.00	165,045.03	1,803,833.34	401,121.63	1,247,765.75	1,122,234.25	2,370,000.00	
A(1)b	Maintenance of Field Office/Laboratory Bldg. and Living Quarter	month	36.00	85.8%	14.0%	0.2%	6.3%	93.7%	84,000.00	2,594,035.63	424,853.04	5,111.33	190,254.90	2,833,745.10	3,024,000.00	
A(1)c	Provision of Furniture and Fixtures for the Field Office/Laboratory and Living Quarter	L.S.	1.00	0.1%	99.1%	0.8%	33.5%	66.5%	549,000.00	815.35	543,836.14	4,348.51	183,972.49	365,027.51	549,000.00	
A(1)d	Provision of Equipment and Appliances for the Field Office/laboratory Bldg. and Living Quarter	L.S.	1.00	0.1%	99.1%	0.8%	63.7%	36.3%	313,000.00	464.85	310,055.94	2,479.21	199,463.99	113,536.01	313,000.00	
A(1)e	Provision of Office Supplies and Consumable	month	36.00	0.3%	98.1%	1.6%	36.0%	64.0%	16,600.00	1,757.65	586,468.24	9,374.12	214,851.22	382,748.78	597,600.00	
A(1)f	Provide/Operate/Maintain Communication Equipment	month	36.00	0.3%	99.3%	0.4%	58.5%	41.5%	4,980.00	509.95	178,060.03	710.02	104,825.39	74,454.61	179,280.00	
A(2)a	Provision of vehicles (sedan) for the Engineer (Rental including operation & maintenance)	veh·m	36.00	17.8%	8.0%	74.2%	68.2%	31.8%	71,500.00	458,112.82	205,758.11	1,910,129.07	1,754,676.54	819,323.46	2,574,000.00	
A(2)b	Provision of vehicles (wagon) for the Engineer (Rental including operation & maintenance)	veh·m	72.00	14.7%	6.7%	78.6%	71.1%	28.9%	86,600.00	916,742.05	417,200.90	4,901,257.05	4,430,766.94	1,804,433.06	6,235,200.00	
A(2)c	Provision of vehicles (pick-up) for the Engineer (Rental including operation & maintenance)	veh·m	108.00	25.4%	11.2%	63.4%	61.1%	38.9%	50,000.00	1,371,141.34	604,251.76	3,424,606.89	3,298,065.64	2,101,934.36	5,400,000.00	
A(3)	Provision of Testing Equipment, Apparatus and Publications	L.S.	1.00	0.1%	99.6%	0.3%	72.6%	27.4%	1,040,000.00	776.12	1,035,601.99	3,621.89	755,242.36	284,757.64	1,040,000.00	
A(4)	Progress Photographs	each	2,403.00	3.4%	96.1%	0.5%	25.2%	74.8%	117.00	9,651.45	270,160.73	1,338.81	70,811.72	210,339.28	281,151.00	
Part C	Earthwork															
100(1)	Clearing and Grubbing	ha	51.00	35.4%	5.4%	59.3%	35.6%	64.4%	38,600.00	695,977.06	106,108.61	1,166,514.34	700,399.69	1,268,200.31	1,968,600.00	
100(3)	Individual Removal of Trees, small (150mm≦ ϕ <900mm)	each	152.00	92.6%	0.7%	6.7%	4.1%	95.9%	88.00	12,385.19	99.08	891.73	544.95	12,831.05	13,376.00	
100(4)	Individual Removal of Trees, large (ϕ >900mm)	each	19.00	92.6%	0.7%	6.7%	4.1%	95.9%	121.00	2,128.70	17.03	153.27	93.66	2,205.34	2,299.00	
101(1)	Removal of Structures and Obstructions	L.S.	1.00	11.3%	8.2%	80.5%	48.9%	51.1%	76,000.00	8,607.59	6,237.03	61,155.39	37,201.30	38,798.70	76,000.00	
101(2)a	Removal of Existing Pedestrian Bridge (San Jose, at Bridge No.2)	each	0.00	12.3%	8.4%	79.4%	48.4%	51.6%	66,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
101(2)b	Removal of Existing Bridge (Plaridel at Bridge No.9)	each	0.00	12.3%	8.4%	79.4%	48.4%	51.6%	102,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
101(3)a	Removal of Existing PCC Pavement	m2	2,616.00	8.2%	8.9%	82.9%	50.8%	49.2%	90.80	19,579.99	21,128.14	196,824.67	120,702.25	116,830.55	237,532.80	
101(3)b	Removal of Existing Gravel Pavement	m2	0.00	15.4%	12.6%	72.0%	47.3%	52.7%	36.80	0.00	0.00	0.00	0.00	0.00	0.00	
101(4)a	Removal of Existing Fence (Net Fence with Barbed Wire and Wooden Posts)	m	0.00	72.4%	4.1%	22.5%	14.9%	84.1%	18.60	0.00	0.00	0.00	0.00	0.00	0.00	
101(4)b	Removal of Existing Fence (Net Fence with Barbed Wire and Concrete Posts)	m	0.00	65.7%	5.0%	29.3%	19.2%	80.8%	21.10	0.00	0.00	0.00	0.00	0.00	0.00	
101(4)c	Removal of Existing Fence (Concrete Hollow Block)	m	0.00	48.3%	5.3%	46.4%	28.7%	71.3%	89.90	0.00	0.00	0.00	0.00	0.00	0.00	
101(5)a	Removal of Existing Guardrails	m	0.00	68.8%	6.2%	25.0%	17.6%	82.4%	41.70	0.00	0.00	0.00	0.00	0.00	0.00	
101(5)b	Relocation of Existing Guardrails	m	0.00	95.2%	2.9%	1.9%	2.6%	97.4%	124.00	0.00	0.00	0.00	0.00	0.00	0.00	
101(7)	Removal of Existing Slope Protection	m3	0.00	12.4%	7.6%	80.1%	48.4%	51.6%	769.00	0.00	0.00	0.00	0.00	0.00	0.00	
101(8)	Removal of Existing Slope Protection (Hand-laid Rock)	m3	0.00	13.4%	11.8%	74.7%	48.3%	51.7%	180.00	0.00	0.00	0.00	0.00	0.00	0.00	
101(9)	Removal of Existing Gabion	m3	0.00	19.1%	11.1%	69.8%	45.2%	54.8%	192.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 101(10)a	Relocation of Existing Transmission	L.S.	0.00	6.5%	74.4%	19.1%	57.6%	42.4%	1,430,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 101(10)b	Shutdown Charge for the Relocation of Transmission Line	day	0.00	0.4%	99.1%	0.5%	49.6%	50.4%	2,040,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
101(11)	Removal of Existing Combination Concrete Curb & Gutter/Side Strip	m	0.00	25.3%	14.8%	59.8%	42.0%	58.0%	135.00	0.00	0.00	0.00	0.00	0.00	0.00	
101(12)	Relocation of Existing Road Signs	each	0.00	34.5%	26.8%	38.7%	32.6%	67.4%	1,290.00	0.00	0.00	0.00	0.00	0.00	0.00	
101(13)	Removal of Existing Road Signs	each	0.00	26.0%	10.6%	63.4%	41.3%	58.7%	421.00	0.00	0.00	0.00	0.00	0.00	0.00	
101(14)	Removal of Existing Concrete Revetment	L.S.	0.00	11.3%	8.2%	80.5%	48.9%	51.1%	62,800.00	0.00	0.00	0.00	0.00	0.00	0.00	

Item No.	Description	Unit	Quantity	Unit Rate						Amount						Remarks
				Component (%)					Total (PP)	Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
102(1)	Unsuitable Excavation	m3	276,500.00	6.9%	13.6%	79.5%	52.0%	48.0%	125.00	2,385,748.25	4,700,600.66	27,476,151.09	17,982,177.01	16,580,322.99	34,562,500.00	
102(2)	Surplus Common Excavation	m3	0.00	6.9%	13.6%	79.5%	52.0%	48.0%	125.00	0.00	0.00	0.00	0.00	0.00	0.00	
103(1)	Structure Excavation	m3	884.00	6.8%	10.5%	82.6%	51.8%	48.2%	146.00	8,830.50	13,583.12	106,650.38	66,805.79	62,258.21	129,064.00	
103(2)a	Bridge Excavation above OWL (Common Soil)	m3	1,450.00	6.8%	10.6%	82.6%	51.8%	48.2%	146.00	14,492.13	22,391.01	174,816.86	109,586.49	102,113.51	211,700.00	
103(2)b	Bridge Excavation above OWL (Rocky	m3	0.00	5.0%	9.2%	85.8%	52.6%	47.4%	278.00	0.00	0.00	0.00	0.00	0.00	0.00	
103(2)c	Bridge Excavation below OWL (Common Soil)	m3	484.00	9.2%	29.4%	61.5%	49.6%	50.4%	1,100.00	48,847.25	156,375.38	327,177.37	263,946.89	268,453.11	532,400.00	
103(2)d	Bridge Excavation below OWL (Rocky	m3	0.00	8.6%	26.4%	65.0%	50.0%	50.0%	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
103(3)a	Gravel Foundation Fill	m3	108.00	24.8%	12.9%	62.3%	39.0%	61.0%	390.00	10,455.49	5,444.45	26,220.07	16,419.69	25,700.31	42,120.00	
103(3)b	Selected Sand Bedding	m3	0.00	34.0%	15.1%	50.9%	33.1%	66.9%	276.00	0.00	0.00	0.00	0.00	0.00	0.00	
103(6)	Pipe Culverts and Drain Excavation	m3	14,406.00	7.6%	12.4%	79.9%	51.5%	48.5%	142.00	155,585.90	254,626.58	1,635,439.52	1,054,284.79	991,367.21	2,045,652.00	
103(7)	Granular Backfill for Pipe Culverts	m3	7,197.00	30.8%	16.1%	53.1%	35.0%	65.0%	276.00	612,362.41	318,949.18	1,055,060.41	694,478.69	1,291,893.31	1,986,372.00	
104(1)	Embankment from Excavated Soil	m3	1,852.00	5.2%	10.9%	83.9%	52.7%	47.3%	152.00	14,666.01	30,594.45	236,243.54	148,255.12	133,248.88	281,504.00	
104(3)	Embankment from Borrow Soil	m3	913,920.00	6.3%	20.5%	73.3%	48.8%	51.2%	269.00	15,420,562.86	50,285,985.55	180,137,931.59	119,859,895.10	125,984,584.90	245,844,480.00	
104(4)	Embankment from Borrow (Selected Granular Material) for Bridge	m3	3,458.00	10.7%	17.4%	72.0%	45.7%	54.3%	255.00	94,003.32	153,252.81	634,533.87	403,082.39	478,707.61	881,790.00	
105(1)	Subgrade Preparation (Common Soil)	m2	5,811.00	7.1%	8.3%	84.6%	51.4%	48.6%	13.60	5,615.25	6,540.73	66,873.62	40,598.23	38,431.37	79,029.60	
105(2)	Subgrade Preparation (Existing Gravel Surface)	m2	0.00	7.1%	8.3%	84.6%	51.4%	48.6%	13.60	0.00	0.00	0.00	0.00	0.00	0.00	
Part D	Subbase and Base Course															
200(1)	Aggregate Subbase Course	m3	45,482.00	8.4%	13.3%	78.2%	48.4%	51.6%	480.00	1,840,950.25	2,908,634.61	17,081,775.14	10,568,427.28	11,262,932.72	21,831,360.00	
200(2)	Aggregate Subbase Course using materials born by removal of existing gravel pavement	m3	0.00	7.0%	8.5%	84.5%	51.4%	48.6%	150.00	0.00	0.00	0.00	0.00	0.00	0.00	
201(1)	Aggregate Base Course	m3	11,851.00	8.5%	13.1%	78.4%	48.5%	51.5%	506.00	508,518.16	786,498.94	4,701,588.90	2,908,324.92	3,088,281.08	5,996,606.00	
204(1)	Cement Stabilized Sand Base Course	m3	0.00	6.1%	41.3%	52.6%	51.7%	48.3%	595.00	0.00	0.00	0.00	0.00	0.00	0.00	
Part E	Surface Courses															
300(1)	Gravel Surface Course	m3	14,841.00	9.7%	14.0%	76.3%	47.8%	52.2%	478.00	687,690.28	995,253.70	5,411,054.02	3,392,044.04	3,701,953.96	7,093,998.00	
301(1)	Prime Coat	t	0.00	0.5%	98.6%	0.9%	64.5%	35.5%	23,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
302(1)	Tack Coat	t	0.00	0.6%	98.5%	0.9%	64.4%	35.6%	23,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
310(1)	Bituminous Concrete Surface Course, hot laid	t	0.00	0.7%	93.2%	6.1%	63.8%	36.2%	3,020.00	0.00	0.00	0.00	0.00	0.00	0.00	
310(2)	Asphalt Mixture Wearing Course (t=50mm) for bridge pavement	m2	0.00	0.7%	93.3%	6.0%	63.8%	36.2%	365.00	0.00	0.00	0.00	0.00	0.00	0.00	
310(3)	Waterproofing Layer for Pampanga Deck Slab	m2	0.00	30.8%	64.9%	4.3%	44.3%	55.7%	32.10	0.00	0.00	0.00	0.00	0.00	0.00	
311(1)a	PCC Pavement (Plain), t=280mm	m2	0.00	7.2%	64.2%	28.5%	53.9%	46.1%	616.00	0.00	0.00	0.00	0.00	0.00	0.00	
311(1)b	PCC Pavement (Plain), t=250mm	m2	74,159.00	7.6%	63.3%	29.1%	53.7%	46.3%	570.00	3,225,709.72	26,754,447.15	12,290,473.13	22,688,961.85	19,581,668.15	42,270,630.00	
311(1)c	PCC Pavement (Plain), t=230mm	m2	22,685.00	7.9%	62.5%	29.5%	53.5%	46.5%	537.00	967,775.13	7,616,627.03	3,597,442.84	6,516,942.00	5,664,903.00	12,181,845.00	
311(1)d	PCC Pavement (Plain), t=180mm	m2	0.00	8.9%	60.3%	30.8%	53.0%	47.0%	457.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 311(1)e	PCC Pavement (Lean Mix Concrete)	m3	0.00	12.9%	47.6%	39.6%	49.2%	50.8%	2,460.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 311(2)	PCC Pavement (Reinforced), t=300mm (Approach Slab)	m2	1,148.00	11.8%	74.2%	14.0%	53.8%	46.2%	2,060.00	278,434.01	1,754,737.51	331,708.48	1,272,342.53	1,092,537.47	2,364,880.00	
Part F	Bridge Construction															
400(3)a	Steel H Piles (450mmx260kg/m),	m	0.00	2.3%	80.9%	16.8%	65.3%	34.7%	6,720.00	0.00	0.00	0.00	0.00	0.00	0.00	
400(4)a	Precast RC Concrete Pile (400mm x 400mm), furnished	m	664.00	11.8%	71.1%	17.1%	54.2%	45.8%	1,580.00	124,042.10	745,906.28	179,171.63	568,257.97	480,862.03	1,049,120.00	
400(4)b	Precast RC Concrete Pile (450mmx450mm) furnished	m	3,467.00	11.9%	71.1%	17.0%	54.2%	45.8%	2,000.00	821,698.67	4,931,627.89	1,180,673.44	3,755,493.08	3,178,506.92	6,934,000.00	
400(10)a	Steel H Piles (450mmx260kg/m), driven	m	0.00	6.6%	33.6%	59.8%	54.6%	45.4%	623.00	0.00	0.00	0.00	0.00	0.00	0.00	
400(13)a	Precast Concrete Piles (400mm x 400mm), driven	m	578.00	8.7%	12.5%	78.8%	51.3%	48.7%	330.00	16,598.31	23,859.51	150,282.18	97,836.84	92,903.16	190,740.00	
400(13)b	Precast Concrete Piles (450mm x 450mm), driven	m	3,022.00	8.7%	12.5%	78.8%	51.3%	48.7%	350.00	92,101.81	132,380.60	833,217.59	542,503.81	515,196.19	1,057,700.00	
400(15)a	Test Piles (400mm x 400mm), furnished & driven	m	47.00	11.4%	62.5%	26.1%	53.8%	46.2%	1,850.00	9,896.28	54,346.68	22,707.05	46,754.44	40,195.56	86,950.00	
400(15)b	Test Piles (450mm x 450mm), furnished & driven	m	163.00	11.5%	63.8%	24.7%	53.8%	46.2%	2,290.00	42,819.97	238,145.07	92,304.96	200,935.15	172,334.85	373,270.00	
400(15)c	Test Piles (Steel H Piles 460mmx260kg/m), furnished & driven	m	0.00	2.6%	77.1%	20.2%	64.6%	35.4%	7,120.00	0.00	0.00	0.00	0.00	0.00	0.00	

Item No.	Description	Unit	Quantity	Unit Rate						Amount						Remarks
				Component (%)					Total (PP)	Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
400(16)a	Cast-in-place Concrete Bored Piles ϕ1000mm	m	0.00	7.8%	44.3%	47.9%	57.1%	42.9%	12,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
400(16)b	Cast-in-place Concrete Bored Piles ϕ1200mm	m	0.00	8.3%	48.2%	43.5%	57.1%	42.9%	16,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
400(16)c	Cast-in-place Concrete Bored Piles ϕ1500mm	m	0.00	8.4%	50.4%	41.3%	57.0%	43.0%	24,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400(16)d	Cast-in-place Concrete Bored Piles ϕ800mm	m	0.00	7.7%	39.0%	53.3%	57.2%	42.8%	11,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
400(19)a	Pile shoes for 400mm x 400mm Piles	each	72.00	6.5%	89.9%	3.6%	62.0%	38.0%	717.00	3,353.37	46,388.45	1,882.18	32,026.32	19,597.68	51,624.00	
400(19)b	Pile shoes for 450mm x 450mm Piles	each	367.00	6.5%	89.9%	3.6%	62.0%	38.0%	717.00	17,092.88	236,452.22	9,593.90	163,245.25	99,893.75	263,139.00	
400(20)a	Splices for 400mm x 400mm Piles	each	0.00	0.5%	98.3%	1.2%	69.2%	30.8%	1,310.00	0.00	0.00	0.00	0.00	0.00	0.00	
400(20)b	Splices for 450mm x 450mm Piles	each	0.00	0.5%	98.3%	1.2%	69.2%	30.8%	1,310.00	0.00	0.00	0.00	0.00	0.00	0.00	
400(21)	Static Pile Load Test for ϕ1500mm Bored Piles	each	0.00	30.4%	13.8%	55.8%	43.6%	56.4%	121,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 400(23)a	High Strain Dynamic Pile Test for ϕ1000mm Bored Piles	each	0.00	30.4%	13.8%	55.8%	43.6%	56.4%	123,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 400(23)b	High Strain Dynamic Pile Test for ϕ1200mm Bored Piles	each	0.00	30.4%	13.8%	55.9%	43.6%	56.4%	126,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 400(23)c	High Strain Dynamic Pile Test for ϕ800mm Bored Piles	each	0.00	30.4%	13.8%	55.8%	43.6%	56.4%	120,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 400(24)	Pile Integrity Test for Bored Piles of various diameter	each	0.00	30.3%	13.8%	55.9%	43.7%	56.3%	163,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
401(1)a	Concrete Railing Type A (Concrete Posts and Precast Beams)	m	477.00	26.8%	64.4%	8.7%	38.5%	61.5%	1,230.00	157,522.73	378,092.95	51,094.31	225,858.55	360,851.45	586,710.00	
401(1)b	Concrete Railing Type B (Concrete Wall Type)	m	0.00	25.2%	63.1%	11.7%	38.6%	61.4%	1,370.00	0.00	0.00	0.00	0.00	0.00	0.00	
401(2)a	Steel Railing Type A for Angat and Talavera Bridge, and Approach of Pampanga Bridge	m	0.00	7.2%	74.5%	18.3%	62.4%	37.6%	2,740.00	0.00	0.00	0.00	0.00	0.00	0.00	
401(2)b	Steel Railing Type B for Pampanga Main Bridge	m	0.00	2.1%	71.1%	3.7%	50.9%	26.0%	2,740.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 401(3)a	Bridge Name Plate, 1000 x 600 mm for Angat Bridge	each	0.00	5.1%	85.4%	9.5%	65.0%	35.0%	32,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 401(3)b	Bridge Name Plate, 1000 x 600 mm for Pampanga Bridge	each	0.00	5.1%	85.4%	9.5%	65.0%	35.0%	32,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 401(3)c	Bridge Name Plate, 1000 x 600 mm for Talavera Bridge	each	0.00	5.1%	85.4%	9.5%	65.0%	35.0%	32,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 401(3)d	Bridge Name Plate, 1000 x 600 mm for Interchange Ramp	each	0.00	5.1%	85.4%	9.5%	65.0%	35.0%	32,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
403(3)	Structural Steel for Pampanga River Bridge, furnished and fabricated	kg	0.00	2.7%	76.8%	20.5%	66.3%	33.7%	74.50	0.00	0.00	0.00	0.00	0.00	0.00	
403(5)	Structural Steel for Pampanga River Bridge, erected	kg	0.00	6.0%	58.1%	35.9%	50.7%	49.3%	11.60	0.00	0.00	0.00	0.00	0.00	0.00	
403(8)a	Bearing Shoe for Steel Plate Girder Type 1 (Max. R=250t) in Pampanga Bridge	each	0.00	0.4%	98.2%	1.4%	69.4%	30.6%	300,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
403(8)b	Bearing Shoe for Steel Plate Girder Type 2 (Max. R=650t) in Pampanga Bridge	each	0.00	0.1%	98.7%	1.2%	69.6%	30.4%	782,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
403(8)c	Bearing Shoe for Steel Plate Girder Type 3 (Max. R=650t) in Pampanga Bridge	each	0.00	0.1%	98.7%	1.2%	69.6%	30.4%	782,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 403(9)	Steel Grating for Sunlight Opening in Underpasses	m2	0.00	6.5%	78.1%	15.3%	62.0%	38.0%	5,820.00	0.00	0.00	0.00	0.00	0.00	0.00	
404(1)	Reinforcement Steel Grade 40	kg	201,777.00	15.2%	77.0%	7.8%	54.0%	46.0%	23.30	713,994.98	3,620,334.26	367,074.86	2,538,520.05	2,162,884.05	4,701,404.10	
404(2)	Reinforcement Steel Grade 60	kg	256,789.00	14.5%	77.9%	7.7%	54.5%	45.5%	24.50	909,905.52	4,898,771.09	482,653.89	3,427,530.25	2,863,800.25	6,291,330.50	
405(1)a	Structural Concrete Class A (fc'=21MPa, max. aggregate 38mm) for heavily reinforced structures	m3	1,049.00	25.4%	57.4%	17.2%	35.6%	64.4%	3,140.00	837,089.71	1,889,956.12	566,814.17	1,174,061.16	2,119,798.84	3,293,860.00	
405(1)b	Structural Concrete Class A (fc'=21MPa, max. aggregate 38mm) for small & medium bridges substructures	m3	2,227.00	12.6%	65.2%	22.2%	47.3%	52.7%	2,230.00	627,390.85	3,236,618.24	1,102,200.91	2,347,970.05	2,618,239.95	4,966,210.00	
405(1)c	Structural Concrete Class A1 (fc'=21MPa, max. aggregate 20mm) for small & medium bridges RCDG	m3	192.00	26.0%	56.6%	17.4%	36.0%	64.0%	4,090.00	204,391.18	444,302.18	136,586.64	282,871.29	502,408.71	785,280.00	

Item No.	Description	Unit	Quantity	Unit Rate						Amount						Remarks
				Component (%)					Total (PP)	Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
405(1)d	Structural Concrete Class A1 (fc'=21MPa, max. aggregate 20mm) for small & medium bridges PCDG	m3	672.00	21.2%	58.2%	20.6%	39.4%	60.6%	3,980.00	568,278.51	1,556,697.11	549,584.38	1,053,100.86	1,621,459.14	2,674,560.00	
405(1)e	Structural Concrete Class AA1 (fc'=28MPa, max. aggregate 25) for long bridge substructures	m3	0.00	11.0%	67.9%	21.1%	49.4%	50.6%	2,350.00	0.00	0.00	0.00	0.00	0.00	0.00	
405(1)f	Structural Concrete Class AA2 (fc'=28MPa, max. aggregate 20mm) for long bridge superstructures	m3	0.00	21.6%	59.0%	19.4%	39.3%	60.7%	4,430.00	0.00	0.00	0.00	0.00	0.00	0.00	
405(2)	Structural Concrete Class B (fc'=17MPa, max. aggregate 50mm) for plain or lightly reinforced structures	m3	2,660.00	22.3%	58.0%	19.7%	38.2%	61.8%	2,380.00	1,412,666.67	3,670,842.05	1,247,291.28	2,415,508.39	3,915,299.61	6,330,800.00	
405(3)	Structural Concrete Class C (fc'=21MPa, max. aggregate 12mm) for thin reinforced members	m3	141.00	16.5%	64.6%	18.9%	43.6%	56.4%	2,570.00	59,901.49	233,971.79	68,496.71	158,006.84	204,363.16	362,370.00	
405(4)b	Structural Concrete Class PP (41MPa, max. agg. 20mm) for prestressed box girders in Angat Bridge	m3	0.00	26.8%	52.5%	20.7%	39.1%	60.9%	4,160.00	0.00	0.00	0.00	0.00	0.00	0.00	
405(4)c	Structural Concrete Class PP (41MPa, max. agg. 20mm) for prestressed hollow slab girders	m3	0.00	28.2%	55.4%	16.5%	37.0%	63.0%	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
405(6)	Lean Concrete (17MPa, max. agg. 38mm), poured	m3	351.00	8.6%	68.1%	23.4%	49.7%	50.3%	1,930.00	57,951.92	461,021.49	158,456.59	336,685.80	340,744.20	677,430.00	
406(1)a	Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV L=20m), fabricated & erected	each	15.00	11.4%	81.1%	7.5%	57.6%	42.4%	183,000.00	311,782.97	2,226,831.49	206,385.54	1,580,803.56	1,164,196.44	2,745,000.00	
406(1)b	Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV L=22m), fabricated & erected	each	0.00	11.5%	80.9%	7.6%	57.4%	42.6%	196,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
406(1)c	Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV L=24m), fabricated & erected	each	10.00	10.2%	83.4%	6.4%	59.2%	40.8%	258,000.00	263,480.17	2,152,171.32	164,348.51	1,527,758.45	1,052,241.55	2,580,000.00	
406(1)d	Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV L=25m), fabricated & erected	each	0.00	10.3%	83.3%	6.4%	59.1%	40.9%	266,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
406(1)e	Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV-B L=30m), fabricated & erected	each	0.00	9.3%	82.7%	8.0%	59.8%	40.2%	377,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
406(1)f	Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV-B L=31m), fabricated & erected	each	10.00	9.4%	82.6%	8.0%	59.8%	40.2%	385,000.00	360,282.22	3,181,011.93	308,705.86	2,300,756.98	1,549,243.02	3,850,000.00	
406(1)g	Precast Prestressed Structural Concrete Members (AASHTO Girder Type V L=29.4m), fabricated & erected	each	0.00	10.3%	81.1%	8.6%	58.5%	41.5%	432,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
406(1)h	Precast Prestressed Structural Concrete Member (AASHTO Girder Type V L=29.55m), fabricated & erected	each	0.00	10.3%	81.1%	8.6%	58.5%	41.5%	434,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
406(1)i	Precast Prestressed Structural Concrete Members (AASHTO Girder TypeV L=33.5m), fabricated & erected	each	0.00	9.8%	82.1%	8.1%	59.2%	40.8%	485,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
406(1)j	Precast Prestressed Structural Concrete Members (AASHTO Girder Type VI L=35m), fabricated & erected	each	5.00	9.7%	81.7%	8.6%	59.2%	40.8%	537,000.00	259,310.83	2,194,206.29	231,482.88	1,588,707.09	1,096,292.91	2,685,000.00	
406(1)k	Precast Prestressed Structural Concrete Members (AASHTO Girder Type VI L=36m), fabricated & erected	each	0.00	9.7%	81.7%	8.6%	59.1%	40.9%	550,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
406(1)l	Precast Prestressed Structural Concrete Members (AASHTO Girder Type VI(mod) L=39.4m), fabricated & erected	each	0.00	10.4%	80.8%	8.7%	58.2%	41.8%	710,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
406(1)m	Precast Prestressed Structural Concrete Members (AASHTO Girder Type VI(mod) L=39.55m), fabricated & erected	each	0.00	10.4%	80.8%	8.7%	58.2%	41.8%	711,000.00	0.00	0.00	0.00	0.00	0.00	0.00	

Item No.	Description	Unit	Quantity	Unit Rate						Amount						Remarks
				Component (%)					Total (PP)	Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
406(1)n	Precast Prestressed Structural Concrete Members (AASHTO Girder Type VI(mod) L=40m), fabricated & erected	each	0.00	9.9%	81.2%	8.8%	58.7%	41.3%	644,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
406(1)p	Precast Prestressed Structural Concrete (PC Deck Slab, 210 x 2000 x 9950mm)	m2	0.00	9.9%	83.8%	6.3%	60.4%	39.6%	6,730.00	0.00	0.00	0.00	0.00	0.00	0.00	
406(3)a	Prestressing Steel 12-T12.7 for PC Box Girders of Angat Bridge, Longitudinal	kg	0.00	8.8%	86.3%	4.9%	63.5%	36.5%	226.00	0.00	0.00	0.00	0.00	0.00	0.00	
406(3)b	Prestressing Steel 5-T12.7 for PC Box Girders of Angat Bridge, Transversal in Top Slab	kg	0.00	12.8%	78.9%	8.2%	59.3%	40.7%	219.00	0.00	0.00	0.00	0.00	0.00	0.00	
406(3)c	Prestressing Bar ϕ32mm for PC Box Girders of Angat Bridge, Transversal in Diaphragms	kg	0.00	7.2%	87.3%	5.5%	65.0%	35.0%	262.00	0.00	0.00	0.00	0.00	0.00	0.00	
406(3)d	Prestressing Bar ϕ32mm for PC Box Girders of Angat Bridge, Vertical in Webs	kg	0.00	7.8%	85.6%	6.5%	65.0%	35.0%	379.00	0.00	0.00	0.00	0.00	0.00	0.00	
406(3)e	Prestressing Steel 12-T12.7 for PC Hollow Slab Bridge for Burgal Ramp C, Longitudinal	kg	0.00	10.1%	85.4%	4.5%	62.1%	37.9%	185.00	0.00	0.00	0.00	0.00	0.00	0.00	
407(1)a	Elastomeric Bearing Pad, Duro 60 (400x300x50mm)	each	0.00	2.8%	96.0%	1.2%	63.0%	37.0%	11,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
407(1)b	Elastomeric Bearing Pad, Duro 60 (600x300x50mm)	each	0.00	1.7%	97.1%	1.2%	63.9%	36.1%	19,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
407(1)c	Elastomeric Bearing Pad, Duro 60 (600x350x50mm)	each	80.00	1.5%	97.3%	1.2%	64.0%	36.0%	21,500.00	25,775.97	1,673,988.74	20,235.29	1,101,125.80	618,874.20	1,720,000.00	
407(1)d	Elastomeric Bearing Pad, Duro 60 (600x700x89mm)	each	0.00	0.4%	98.4%	1.2%	65.2%	34.8%	85,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
407(1)e	Elastomeric Bearing Pad, Duro 60 (600x400x60mm)	each	0.00	1.1%	97.8%	1.2%	64.5%	35.5%	30,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
407(1)f	Elastomeric Bearing Pad, Duro 60 (450x300x60mm)	each	0.00	1.5%	97.3%	1.2%	64.6%	35.4%	21,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
407(1)g	Elastomeric Bearing Pad, Duro 60 (550x300x50mm)	each	6.00	2.1%	96.7%	1.2%	63.4%	36.6%	15,100.00	1,928.24	87,605.88	1,065.88	57,459.00	33,141.00	90,600.00	
407(1)h	Elastomeric Bearing Pad, Duro 60 (500x400x60mm)	each	0.00	1.1%	97.7%	1.2%	64.7%	35.3%	28,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
407(2)a	Expansion Joint, Multiflex M80 (Elastomeric)	m	140.00	0.3%	98.6%	1.2%	64.8%	35.2%	66,000.00	24,023.98	9,107,230.39	108,745.63	5,983,995.46	3,256,004.54	9,240,000.00	
407(2)b	Expansion Joint, Multiflex M100 (Elastomeric)	m	0.00	0.3%	98.6%	1.2%	64.8%	35.2%	76,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
407(2)c	Expansion Joint, Multiflex M140 (Elastomeric)	m	0.00	0.2%	98.6%	1.2%	64.8%	35.2%	95,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
407(2)d	Expansion Joint, Multiflex M160 (Elastomeric)	m	0.00	0.2%	98.6%	1.2%	64.8%	35.2%	109,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
407(2)e	Expansion Joint, Multiflex M200 (Elastomeric)	m	0.00	0.2%	98.6%	1.2%	64.8%	35.2%	125,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
407(2)f	Expansion Joint, Multiflex M330 (Elastomeric)	m	0.00	0.2%	98.6%	1.2%	64.8%	35.2%	255,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
407(2)g	Expansion Joint, 30mmfor bridge	m	25.00	10.8%	88.5%	0.7%	53.5%	46.5%	149.00	401.06	3,298.13	25.82	1,992.52	1,732.48	3,725.00	
SPL 407(3)a	Restraining Bar ϕ32 x 1495mm	each	0.00	6.4%	88.4%	5.2%	61.8%	38.2%	6,170.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 407(3)b	Restraining Bar ϕ32 x 1900mm	each	0.00	6.0%	88.8%	5.2%	62.2%	37.8%	6,590.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 407(3)c	Restraining Cable ϕ65 x 4121mm (PC 7-T15.2)	each	0.00	2.8%	94.3%	3.0%	65.9%	34.1%	26,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 407(3)d	Restraining Cable ϕ65 x 4224mm (PC 7-T15.2)	each	0.00	3.2%	93.8%	3.0%	65.3%	34.7%	22,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
407(4)	G.I. Drain Pipe ϕ150mm for Bridge Drainage	m	24.00	10.5%	87.4%	2.0%	53.8%	46.2%	844.00	2,133.96	17,709.05	412.99	10,900.80	9,355.20	20,256.00	
SPL 407(5)a	Pier Protection Concrete Blocks for Angat Bridge	m2	0.00	13.6%	55.4%	31.0%	50.0%	50.0%	796.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 407(5)b	Pier Protection Concrete Blocks for Pampanga Bridge	m2	0.00	13.6%	55.4%	31.0%	50.0%	50.0%	797.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 407(5)c	Pier Protection Concrete Blocks for Talavera Bridge	m2	0.00	13.7%	55.9%	30.4%	50.1%	49.9%	832.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 420(1)	Temporary Access Road Crossing Streams/Rivers	L.S.	0.00	9.3%	30.5%	60.2%	50.0%	50.0%	1,830,000.00	0.00	0.00	0.00	0.00	0.00	0.00	

Item No.	Description	Unit	Quantity	Unit Rate						Amount						Remarks
				Component (%)					Total (PP)	Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
SPL 420(2)	Realignment of River/Stream	L.S.	0.00	0.0%	0.0%	0.0%	0.0%	0.0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 420(3)	False Works Required for Cantilever Construction for PC Box Girder (Angat River)	L.S.	0.00	7.7%	7.4%	84.8%	54.6%	45.4%	32,000,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 420(4)a	Temporary Craneway for Angat Bridge Construction	m	0.00	1.6%	93.1%	5.3%	49.6%	50.4%	120,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 420(4)b	Temporary Craneway for Pampanga Bridge Construction	m	0.00	1.4%	94.4%	4.3%	49.7%	50.3%	132,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 420(4)c	Temporary Craneway for Talavera Bridge Construction	m	0.00	1.9%	91.8%	6.2%	49.5%	50.5%	105,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 420(5)a	Temporary Access Road (Causeway) for Angat Bridge Construction	m	0.00	6.3%	17.4%	76.3%	50.0%	50.0%	7,950.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 420(5)b	Temporary Access Road (Causeway) for Pampanga Bridge Construction	m	0.00	6.4%	17.3%	76.3%	50.0%	50.0%	6,540.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 420(5)c	Temporary Access Road (Causeway) for Talavera Bridge Construction	m	0.00	6.3%	17.4%	76.2%	50.0%	50.0%	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 420(6)a	Temporary Cofferdam for Pier Construction (Angat Bridge Type 1)	each	0.00	9.5%	44.7%	45.8%	48.2%	51.8%	2,310,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 420(6)b	Temporary Cofferdam for Pier Construction (Angat Bridge Type 2)	each	0.00	10.1%	42.0%	47.9%	48.1%	51.9%	2,970,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 420(6)c	Temporary Cofferdam for Pier Construction (Pampanga Bridge)	each	0.00	10.1%	40.8%	49.1%	48.1%	51.9%	2,410,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 420(6)d	Temporary Cofferdam for Pier Construction (Talavera Bridge)	each	0.00	8.8%	45.4%	45.9%	48.5%	51.5%	1,700,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
Part G	Drainage and Slope Protection Structures															
500(1)a3	RCPC Standard Strength (25MPa), φ460mm (18")	m	0.00	19.9%	50.4%	29.7%	46.7%	53.3%	728.00	0.00	0.00	0.00	0.00	0.00	0.00	
500(1)a4	RCPC Standard Strength (25MPa), φ610mm (24")	m	0.00	17.7%	53.8%	28.5%	48.3%	51.7%	1,120.00	0.00	0.00	0.00	0.00	0.00	0.00	
500(1)a5	RCPC Standard Strength (25MPa), φ760mm (30")	m	0.00	17.0%	55.7%	27.3%	48.9%	51.1%	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
500(1)a6	RCPC Standard Strength (25MPa), φ910mm (36")	m	0.00	14.7%	55.2%	30.1%	50.2%	49.8%	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
500(1)a7	RCPC Standard Strength (25MPa), φ1070mm (42")	m	0.00	14.4%	56.4%	29.2%	50.5%	49.5%	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
500(1)a8	RCPC Standard Strength (25MPa), φ1220mm (48")	m	0.00	13.9%	57.4%	28.7%	50.8%	49.2%	3,940.00	0.00	0.00	0.00	0.00	0.00	0.00	
500(1)a9	RCPC Standard Strength (25MPa), φ1520mm (60")	m	0.00	13.1%	57.8%	29.1%	51.3%	48.7%	5,830.00	0.00	0.00	0.00	0.00	0.00	0.00	
500(1)b3	RCPC Standard Strength (32MPa), φ460mm (18")	m	0.00	19.7%	53.0%	27.3%	47.3%	52.7%	781.00	0.00	0.00	0.00	0.00	0.00	0.00	
500(1)b4	RCPC Standard Strength (32MPa), φ610mm (24")	m	674.00	17.5%	56.1%	26.4%	48.7%	51.3%	1,200.00	141,612.46	454,009.02	213,178.53	394,051.59	414,748.41	808,800.00	
500(1)b5	RCPC Standard Strength (32MPa), φ760mm (30")	m	0.00	17.0%	57.2%	25.8%	49.1%	50.9%	1,630.00	0.00	0.00	0.00	0.00	0.00	0.00	
500(1)b6	RCPC Standard Strength (32MPa), φ910mm (36")	m	0.00	14.7%	57.1%	28.2%	50.5%	49.5%	2,650.00	0.00	0.00	0.00	0.00	0.00	0.00	
500(1)b7	RCPC Standard Strength (32MPa), φ1070mm (42")	m	0.00	14.4%	57.9%	27.7%	50.6%	49.4%	3,290.00	0.00	0.00	0.00	0.00	0.00	0.00	
500(1)b8	RCPC Standard Strength (32MPa), φ1220mm (48")	m	0.00	14.0%	59.1%	26.9%	51.0%	49.0%	4,160.00	0.00	0.00	0.00	0.00	0.00	0.00	
500(1)b9	RCPC Standard Strength (32MPa), φ1520mm (60")	m	0.00	13.2%	59.5%	27.3%	51.5%	48.5%	6,140.00	0.00	0.00	0.00	0.00	0.00	0.00	
500(1)c3	RCPC Extra Strength (32MPa), φ460mm (18")	m	0.00	18.1%	55.7%	26.2%	48.4%	51.6%	949.00	0.00	0.00	0.00	0.00	0.00	0.00	
500(1)c4	RCPC Extra Strength (32MPa), φ610mm (24")	m	0.00	16.6%	57.5%	25.9%	49.3%	50.7%	1,350.00	0.00	0.00	0.00	0.00	0.00	0.00	
500(1)c5	RCPC Extra Strength (32MPa), φ760mm (30")	m	0.00	16.0%	59.1%	25.0%	49.8%	50.2%	1,950.00	0.00	0.00	0.00	0.00	0.00	0.00	
500(1)c6	RCPC Extra Strength (32MPa), φ910mm (36")	m	2,077.00	14.1%	58.6%	27.3%	50.9%	49.1%	3,150.00	921,112.23	3,835,257.71	1,786,180.06	3,332,124.80	3,210,425.20	6,542,550.00	

Item No.	Description	Unit	Quantity	Unit Rate						Amount						Remarks
				Component (%)					Total (PP)	Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
500(1)c7	RCPC Extra Strength (32MPa), φ1070mm (42")	m	511.00	13.8%	60.9%	25.3%	51.4%	48.6%	4,560.00	321,628.70	1,418,023.70	590,507.60	1,197,027.48	1,133,132.52	2,330,160.00	
500(1)c8	RCPC Extra Strength (32MPa), φ1220mm (48")	m	386.00	13.5%	60.4%	26.1%	51.4%	48.6%	4,980.00	258,902.39	1,160,917.46	502,460.15	987,973.29	934,306.71	1,922,280.00	
500(1)c9	RCPC Extra Strength (32MPa), φ1520mm (60")	m	0.00	12.9%	61.8%	25.3%	52.0%	48.0%	8,430.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a1	Drop Inlet Manhole for RCPC 1-φ460 x 1-φ460	each	0.00	31.4%	59.5%	9.1%	33.1%	66.9%	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a2	Drop Inlet Manhole for RCPC 1-φ610 x 1-φ460	each	0.00	31.3%	59.3%	9.3%	33.0%	67.0%	7,130.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a3	Drop Inlet Manhole for RCPC 1-φ760 x 1-φ460	each	0.00	31.5%	59.0%	9.5%	32.6%	67.4%	8,520.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a4	Drop Inlet Manhole for RCPC 1-φ910 x 1-φ460	each	0.00	31.6%	58.8%	9.6%	32.3%	67.7%	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a5	Drop Inlet Manhole for RCPC 1-φ1070 x 1-φ460	each	0.00	31.6%	58.6%	9.7%	32.2%	67.8%	11,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a6	Drop Inlet Manhole for RCPC 1-φ1220 x 1-φ460	each	0.00	31.9%	58.3%	9.8%	31.8%	68.2%	13,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a7	Drop Inlet Manhole for RCPC 1-φ1520 x 1-φ460	each	0.00	32.1%	58.0%	10.0%	31.4%	68.6%	16,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a12	Drop Inlet Manhole for RCPC 1-φ610 x 1-φ610	each	0.00	31.2%	59.4%	9.5%	33.1%	66.9%	7,830.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a13	Drop Inlet Manhole for RCPC 1-φ760 x 1-φ610	each	0.00	31.3%	59.1%	9.7%	32.8%	67.2%	9,330.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a14	Drop Inlet Manhole for RCPC 1-φ910 x 1-φ610	each	0.00	31.4%	58.8%	9.8%	32.5%	67.5%	11,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a15	Drop Inlet Manhole for RCPC 1-φ1070 x 1-φ610	each	0.00	31.4%	58.7%	9.9%	32.3%	67.7%	12,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a16	Drop Inlet Manhole for RCPC 1-φ1220 x 1-φ610	each	0.00	31.6%	58.4%	10.0%	32.0%	68.0%	14,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a17	Drop Inlet Manhole for RCPC 1-φ1520 x 1-φ610	each	0.00	31.8%	58.1%	10.1%	31.7%	68.3%	17,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a22	Drop Inlet Manhole for RCPC 2-φ610 x 1-φ610	each	0.00	30.4%	59.5%	10.0%	33.7%	66.3%	11,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a23	Drop Inlet Manhole for RCPC 2-φ760 x 1-φ610	each	0.00	30.7%	59.1%	10.2%	33.3%	66.7%	14,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a24	Drop Inlet Manhole for RCPC 2-φ910 x 1-φ610	each	0.00	30.9%	58.9%	10.3%	32.9%	67.1%	17,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a25	Drop Inlet Manhole for RCPC 2-φ1070 x 1-φ610	each	0.00	30.9%	58.7%	10.4%	32.8%	67.2%	20,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a26	Drop Inlet Manhole for RCPC 2-φ1220 x 1-φ610	each	0.00	31.2%	58.4%	10.4%	32.4%	67.6%	24,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)a27	Drop Inlet Manhole for RCPC 2-φ1520 x 1-φ610	each	0.00	31.5%	58.1%	10.5%	31.9%	68.1%	31,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b1	Special Junction Box Manhole for RCPC 1-φ460 x 1-φ460	each	0.00	33.1%	60.8%	6.1%	33.6%	66.4%	7,640.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b2	Special Junction Box Manhole for RCPC 1-φ610 x 1-φ460	each	0.00	33.0%	60.6%	6.4%	33.4%	66.6%	8,770.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b3	Special Junction Box Manhole for RCPC 1-φ760 x 1-φ460	each	0.00	33.0%	60.1%	6.8%	33.0%	67.0%	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b4	Special Junction Box Manhole for RCPC 1-φ910 x 1-φ460	each	0.00	33.0%	59.8%	7.2%	32.7%	67.3%	11,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b5	Special Junction Box Manhole for RCPC 1-φ1070 x 1-φ460	each	0.00	33.2%	59.5%	7.3%	32.4%	67.6%	13,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b6	Special Junction Box Manhole for RCPC 1-φ1220 x 1-φ460	each	0.00	33.3%	59.1%	7.6%	32.0%	68.0%	15,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b7	Special Junction Box Manhole for RCPC 1-φ1520 x 1-φ460	each	0.00	27.2%	64.6%	8.2%	38.9%	61.1%	27,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b12	Special Junction Box Manhole for RCPC 1-φ610 x 1-φ610	each	0.00	32.8%	60.7%	6.6%	33.6%	66.4%	9,590.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b13	Special Junction Box Manhole for RCPC 1-φ760 x 1-φ610	each	0.00	32.8%	60.2%	7.0%	33.1%	66.9%	11,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b14	Special Junction Box Manhole for RCPC 1-φ910 x 1-φ610	each	67.00	32.9%	59.8%	7.3%	32.7%	67.3%	12,900.00	284,540.42	516,517.60	63,241.98	282,861.37	581,438.63	864,300.00	

Item No.	Description	Unit	Quantity	Unit Rate						Amount						Remarks
				Component (%)					Total (PP)	Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
502(2)b15	Special Junction Box Manhole for RCPC 1-φ1070 x 1-φ610	each	18.00	32.8%	59.6%	7.5%	32.6%	67.4%	14,400.00	85,127.10	154,552.00	19,520.90	84,607.73	174,592.27	259,200.00	
502(2)b16	Special Junction Box Manhole for RCPC 1-φ1220 x 1-φ610	each	12.00	33.0%	59.2%	7.8%	32.2%	67.8%	16,200.00	64,203.47	115,122.50	15,074.03	62,611.95	131,788.05	194,400.00	
502(2)b17	Special Junction Box Manhole for RCPC 1-φ1520 x 1-φ610	each	4.00	27.1%	64.6%	8.3%	39.1%	60.9%	29,800.00	32,251.78	77,039.69	9,908.52	46,584.40	72,615.60	119,200.00	
502(2)b21	Special Junction Box Manhole for RCPC 2-φ460 x 1-φ460	each	0.00	32.6%	60.8%	6.6%	33.8%	66.2%	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b22	Special Junction Box Manhole for RCPC 2-φ610 x 1-φ460	each	0.00	32.6%	60.5%	6.9%	33.6%	66.4%	12,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b23	Special Junction Box Manhole for RCPC 2-φ760 x 1-φ460	each	0.00	32.7%	60.0%	7.3%	33.1%	66.9%	15,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b24	Special Junction Box Manhole for RCPC 2-φ910 x 1-φ460	each	0.00	32.8%	59.6%	7.6%	32.7%	67.3%	18,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b25	Special Junction Box Manhole for RCPC 2-φ1070 x 1-φ460	each	0.00	37.4%	54.8%	7.8%	26.9%	73.1%	16,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b26	Special Junction Box Manhole for RCPC 2-φ1220 x 1-φ460	each	0.00	33.1%	58.9%	8.0%	32.0%	68.0%	24,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b27	Special Junction Box Manhole for RCPC 2-φ1520 x 1-φ460	each	0.00	27.4%	64.2%	8.5%	38.6%	61.4%	45,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b32	Special Junction Box Manhole for RCPC 2-φ610 x 1-φ610	each	0.00	32.3%	60.6%	7.2%	33.8%	66.2%	13,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b33	Special Junction Box Manhole for RCPC 2-φ760 x 1-φ610	each	0.00	32.4%	60.1%	7.5%	33.3%	66.7%	16,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b34	Special Junction Box Manhole for RCPC 2-φ910 x 1-φ610	each	0.00	32.4%	59.7%	7.8%	33.0%	67.0%	19,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b35	Special Junction Box Manhole for RCPC 2-φ1070 x 1-φ610	each	0.00	32.4%	59.6%	8.0%	32.9%	67.1%	22,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)b36	Special Junction Box Manhole for RCPC 2-φ1220 x 1-φ610	each	4.00	32.6%	59.1%	8.2%	32.4%	67.6%	26,000.00	33,954.93	61,492.84	8,552.23	33,680.39	70,319.61	104,000.00	
502(2)b37	Special Junction Box Manhole for RCPC 2-φ1520 x 1-φ610	each	0.00	27.2%	64.2%	8.6%	38.8%	61.2%	48,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c1	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ460 x 1-φ460	each	0.00	34.5%	52.8%	12.7%	32.0%	68.0%	3,940.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c2	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ610 x 1-φ460	each	0.00	34.2%	52.7%	13.1%	32.2%	67.8%	4,330.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c3	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ760 x 1-φ460	each	0.00	34.2%	52.5%	13.3%	32.2%	67.8%	4,740.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c4	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ910 x 1-φ460	each	0.00	34.0%	52.5%	13.5%	32.3%	67.7%	5,110.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c5	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1070 x 1-φ460	each	0.00	33.9%	52.4%	13.7%	32.4%	67.6%	5,550.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c6	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1220 x 1-φ460	each	0.00	33.8%	52.3%	13.9%	32.5%	67.5%	5,930.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c7	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1520 x 1-φ460	each	0.00	33.7%	52.1%	14.2%	32.5%	67.5%	6,720.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c12	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ610 x 1-φ610	each	0.00	34.0%	52.6%	13.4%	32.3%	67.7%	4,760.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c13	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ760 x 1-φ610	each	0.00	33.8%	52.5%	13.8%	32.5%	67.5%	5,170.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c14	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ910 x 1-φ610	each	0.00	33.8%	52.3%	13.9%	32.4%	67.6%	5,610.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c15	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1070 x 1-φ610	each	0.00	33.6%	52.2%	14.2%	32.6%	67.4%	6,030.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c16	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1220 x 1-φ610	each	0.00	33.6%	52.2%	14.3%	32.6%	67.4%	6,480.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c17	Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1520 x 1-φ610	each	0.00	33.4%	52.0%	14.6%	32.7%	67.3%	7,340.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c21	Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ460 x 1-φ460	each	0.00	33.9%	52.4%	13.7%	32.4%	67.6%	5,370.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c22	Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ610 x 1-φ460	each	0.00	33.8%	52.2%	14.0%	32.5%	67.5%	6,260.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c23	Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ760 x 1-φ460	each	0.00	33.7%	52.0%	14.3%	32.6%	67.4%	7,170.00	0.00	0.00	0.00	0.00	0.00	0.00	

Item No.	Description	Unit	Quantity	Unit Rate						Amount						Remarks
				Component (%)					Total (PP)	Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
502(2)c24	Junction Box Converted to Curb Inlet Manhole for RCPC 2-ϕ910 x 1-ϕ460	each	0.00	33.6%	51.9%	14.5%	32.6%	67.4%	8,060.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c25	Junction Box Converted to Curb Inlet Manhole for RCPC 2-ϕ1070 x 1-ϕ460	each	0.00	33.5%	51.9%	14.6%	32.7%	67.3%	9,080.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c26	Junction Box Converted to Curb Inlet Manhole for RCPC 2-ϕ1220 x 1-ϕ460	each	0.00	33.5%	51.7%	14.8%	32.7%	67.3%	9,980.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c27	Junction Box Converted to Curb Inlet Manhole for RCPC 2-ϕ1520 x 1-ϕ460	each	0.00	33.4%	51.6%	15.0%	32.7%	67.3%	11,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c32	Junction Box Converted to Curb Inlet Manhole for RCPC 2-ϕ610 x 1-ϕ610	each	0.00	33.5%	52.1%	14.4%	32.6%	67.4%	6,850.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c33	Junction Box Converted to Curb Inlet Manhole for RCPC 2-ϕ760 x 1-ϕ610	each	0.00	33.4%	52.0%	14.7%	32.7%	67.3%	7,820.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c34	Junction Box Converted to Curb Inlet Manhole for RCPC 2-ϕ910 x 1-ϕ610	each	0.00	33.2%	51.9%	14.9%	32.9%	67.1%	8,810.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c35	Junction Box Converted to Curb Inlet Manhole for RCPC 2-ϕ1070 x 1-ϕ610	each	0.00	33.1%	51.8%	15.1%	32.9%	67.1%	9,880.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c36	Junction Box Converted to Curb Inlet Manhole for RCPC 2-ϕ1220 x 1-ϕ610	each	0.00	33.0%	51.7%	15.2%	33.0%	67.0%	10,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(2)c37	Junction Box Converted to Curb Inlet Manhole for RCPC 2-ϕ1520 x 1-ϕ610	each	0.00	32.9%	51.6%	15.5%	33.0%	67.0%	12,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(3)a1	Catch Basin for RCPC 1-ϕ460mm	each	0.00	27.1%	60.3%	12.7%	35.8%	64.2%	11,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(3)a2	Catch Basin for RCPC 1-ϕ610mm	each	0.00	27.1%	60.2%	12.7%	35.8%	64.2%	14,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(3)a3	Catch Basin for RCPC 1-ϕ760mm	each	0.00	27.1%	60.2%	12.7%	35.8%	64.2%	16,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(3)a4	Catch Basin for RCPC 1-ϕ910mm	each	0.00	27.1%	60.2%	12.7%	35.8%	64.2%	19,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(3)a5	Catch Basin for RCPC 1-ϕ1070mm	each	0.00	27.1%	60.2%	12.8%	35.8%	64.2%	23,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(3)a6	Catch Basin for RCPC 1-ϕ1220mm	each	0.00	27.1%	60.2%	12.8%	35.8%	64.2%	26,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(3)a7	Catch Basin for RCPC 1-ϕ1520mm	each	0.00	27.0%	60.2%	12.8%	35.8%	64.2%	33,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(3)b1	Catch Basin for RCPC 2-ϕ460mm	each	0.00	26.3%	60.6%	13.1%	36.6%	63.4%	16,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(3)b2	Catch Basin for RCPC 2-ϕ610mm	each	0.00	26.1%	60.7%	13.2%	36.7%	63.3%	20,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(3)b3	Catch Basin for RCPC 2-ϕ760mm	each	0.00	26.0%	60.7%	13.2%	36.8%	63.2%	25,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(3)b4	Catch Basin for RCPC 2-ϕ910mm	each	0.00	26.0%	60.7%	13.3%	36.8%	63.2%	30,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(3)b5	Catch Basin for RCPC 2-ϕ1070mm	each	0.00	25.9%	60.8%	13.4%	36.9%	63.1%	36,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(3)b6	Catch Basin for RCPC 2-ϕ1220mm	each	0.00	25.8%	60.8%	13.4%	37.0%	63.0%	43,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(3)b7	Catch Basin for RCPC 2-ϕ1520mm	each	0.00	25.7%	60.9%	13.5%	37.1%	62.9%	57,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(4)a1	U-shaped Concrete Ditch W=0.50m x H=0.50m	m	5,395.00	28.2%	58.3%	13.6%	34.5%	65.5%	1,350.00	2,053,082.25	4,242,954.43	987,213.32	2,515,019.27	4,768,230.73	7,283,250.00	
502(4)a2	U-shaped Concrete Ditch W=0.75m x H=0.50m	m	0.00	26.7%	59.0%	14.3%	36.1%	63.9%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(4)a3	U-shaped Concrete Ditch W=0.30m x H=0.30m	m	0.00	27.4%	58.9%	13.7%	35.5%	64.5%	935.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(4)b1	U-shaped Concrete Ditch with Grating Cover, W=0.30m x H=0.30m	m	0.00	22.1%	68.6%	9.3%	43.8%	56.2%	1,480.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(4)b2	U-shaped Concrete Ditch with Grating Cover, W=0.50m x H=0.50m	m	0.00	21.7%	69.2%	9.1%	44.3%	55.7%	2,050.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(6)a	V-shaped Lined Ditch H=500mm, 1:1.50	m	0.00	30.3%	49.5%	20.2%	39.6%	60.4%	376.00	0.00	0.00	0.00	0.00	0.00	0.00	
502(6)b	V-shaped Lined Ditch H=500mm, 1:1.00	m	6,159.00	30.3%	49.5%	20.2%	39.6%	60.4%	352.00	656,268.17	1,072,802.75	438,897.08	859,129.24	1,308,838.76	2,167,968.00	
502(7)a	Trapezoidal Lined Ditch B=450mm, H=500mm, 1:1.00	m	2,715.00	30.3%	49.5%	20.2%	39.6%	60.4%	260.00	213,683.83	349,309.33	142,906.84	279,736.29	426,163.71	705,900.00	
502(7)b	Trapezoidal Lined Ditch B=1000mm, H=500mm, 1:1.00	m	0.00	30.3%	49.5%	20.2%	39.6%	60.4%	366.00	0.00	0.00	0.00	0.00	0.00	0.00	
503(3)a	Cleaning Culvert in Place, ϕ910mm or less	m	0.00	64.6%	5.6%	29.8%	19.8%	80.2%	24.50	0.00	0.00	0.00	0.00	0.00	0.00	
503(3)b	Cleaning Culvert in Place, more than ϕ910mm	m	0.00	57.4%	7.2%	35.4%	23.9%	76.1%	34.00	0.00	0.00	0.00	0.00	0.00	0.00	
503(4)a	Cleaning Reconditioning of RCBC, Single Barrel	m	0.00	46.0%	9.8%	44.2%	30.3%	69.7%	48.20	0.00	0.00	0.00	0.00	0.00	0.00	
503(4)b	Cleaning Reconditioning of RCBC, Double Barrel	m	0.00	37.7%	11.6%	50.7%	35.0%	65.0%	67.50	0.00	0.00	0.00	0.00	0.00	0.00	
503(4)c	Cleaning Reconditioning of RCBC, Triple Barrel	m	0.00	29.5%	13.4%	57.1%	39.7%	60.3%	101.00	0.00	0.00	0.00	0.00	0.00	0.00	
504(5)	Grouted Riprap Class A (slope protection)	m3	2,682.00	16.0%	59.6%	24.4%	47.7%	52.3%	797.00	342,224.94	1,273,025.85	522,303.21	1,019,440.58	1,118,113.42	2,137,554.00	
505(1)	Stone Masonry Retaining Wall	m3	321.00	15.3%	65.1%	19.6%	48.6%	51.4%	1,090.00	53,523.47	227,821.34	68,545.20	170,181.35	179,708.65	349,890.00	

Item No.	Description	Unit	Quantity	Unit Rate						Amount						Remarks
				Component (%)					Total (PP)	Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
506(1)	Hand-Laid Rock Apron (Loose Boulder Apron)	m3	582.00	8.5%	13.0%	78.6%	48.5%	51.5%	448.00	22,032.77	33,781.20	204,922.03	126,498.55	134,237.45	260,736.00	
507(2)a	Steel Sheet Piles (76x457x4mm), furnished & driven.	m	0.00	2.3%	79.3%	18.4%	65.3%	34.7%	713.00	0.00	0.00	0.00	0.00	0.00	0.00	
507(2)b	Steel Sheet Piles (400x85x8mm), furnished & driven	m	765.00	1.5%	88.0%	10.5%	67.3%	32.7%	1,350.00	15,397.01	908,523.26	108,829.73	694,651.80	338,098.20	1,032,750.00	
509(1)	Gabions	m3	352.00	14.8%	52.3%	32.9%	37.3%	62.7%	1,820.00	94,569.59	335,302.57	210,767.84	239,043.45	401,596.55	640,640.00	
509(2)	Gabion Mattress t=300mm	m3	0.00	9.0%	71.1%	20.0%	32.8%	67.2%	3,010.00	0.00	0.00	0.00	0.00	0.00	0.00	
509(3)	Filter Cloth	m2	0.00	2.1%	96.2%	1.8%	58.6%	41.4%	91.70	0.00	0.00	0.00	0.00	0.00	0.00	
510(1)	Rubble Concrete Slope Protection	m3	609.00	7.0%	56.7%	36.3%	52.5%	47.5%	1,340.00	57,217.84	462,683.83	296,158.32	428,031.24	388,028.76	816,060.00	
Part II	Miscellaneous Structures															
600(1)a	Concrete Curb, Type A (200x450mm)	m	0.00	10.0%	53.2%	6.8%	22.8%	77.2%	347.00	0.00	0.00	0.00	0.00	0.00	0.00	
600(1)b	Concrete Curb, Type B (175x318mm)	m	0.00	41.7%	52.1%	6.3%	21.0%	79.0%	231.00	0.00	0.00	0.00	0.00	0.00	0.00	
600(3)a	Combination Concrete Curb & Gutter/Side Strip, Type A (675x364mm)	m	3,040.00	31.5%	59.0%	9.5%	31.8%	68.2%	411.00	393,322.06	737,090.30	119,027.64	396,990.49	852,449.51	1,249,440.00	
600(3)b	Combination Concrete Curb & Gutter/Side Strip, Type B (675x334mm)	m	0.00	31.0%	59.3%	9.7%	32.3%	67.7%	389.00	0.00	0.00	0.00	0.00	0.00	0.00	
600(3)c	Combination Concrete Curb & Gutter, Type C (475x334mm)	m	0.00	34.2%	57.2%	8.7%	28.9%	71.1%	355.00	0.00	0.00	0.00	0.00	0.00	0.00	
601(1)	PCC Pavement for Sidewalk (t=100mm)	m2	0.00	17.8%	62.7%	13.0%	45.3%	48.2%	470.00	0.00	0.00	0.00	0.00	0.00	0.00	
602(1)	Right-of-Way Monuments	each	657.00	46.1%	46.6%	7.4%	22.7%	77.3%	352.00	106,532.62	107,700.55	17,030.83	52,397.79	178,866.21	231,264.00	
602(2)	Maintenance Marker Posts for Drainage Structure	each	146.00	52.5%	35.4%	12.1%	22.3%	77.7%	822.00	62,983.65	42,495.10	14,533.25	26,739.73	93,272.27	120,012.00	
602(3)	Kilometer Post	each	10.00	44.4%	47.6%	8.1%	24.5%	75.5%	1,230.00	5,460.41	5,849.10	990.48	3,011.78	9,288.22	12,300.00	
603(3)a	Metal Guardrails (Metal Beam) Type A (Embedded in Soil)	m	7,065.00	16.4%	71.6%	12.0%	53.7%	46.3%	993.00	1,150,413.02	5,024,079.46	841,052.51	3,768,606.70	3,246,938.30	7,015,545.00	
603(3)b	Metal Guardrails (Metal Beam) Type B (Embedded in Concrete)	m	0.00	15.0%	70.7%	14.3%	54.2%	45.8%	801.00	0.00	0.00	0.00	0.00	0.00	0.00	
604(1)	Fencing (Barbed Wire)	m	0.00	24.8%	72.5%	2.7%	11.4%	88.6%	203.00	0.00	0.00	0.00	0.00	0.00	0.00	
604(2)	Fencing (Chain Link Fence Fabric)	m	0.00	14.6%	73.2%	12.1%	54.5%	45.5%	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
604(3)	Fencing (Chain Link Fence Fabric on Bridge Railing)	m	0.00	14.7%	73.9%	11.4%	55.0%	45.0%	977.00	0.00	0.00	0.00	0.00	0.00	0.00	
605(1)a	Warning Signs (Triangular 900mm)	each	22.00	8.3%	90.3%	1.4%	57.6%	42.4%	6,960.00	12,704.42	138,301.82	2,113.76	88,148.69	64,971.31	153,120.00	
605(1)b	Warning Signs (Circular ϕ900mm)	each	0.00	5.3%	93.6%	1.1%	60.2%	39.8%	10,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
605(2)a	Regulatory Signs (Triangular 1039mm)	each	0.00	6.7%	92.1%	1.2%	59.0%	41.0%	8,610.00	0.00	0.00	0.00	0.00	0.00	0.00	
605(2)b	Regulatory Signs (Octagonal 600mm)	each	6.00	9.4%	89.1%	1.5%	56.7%	43.3%	6,160.00	3,462.63	32,947.25	550.12	20,943.12	16,016.88	36,960.00	
605(2)c	Regulatory Signs (Circular ϕ600mm)	each	29.00	9.7%	88.8%	1.5%	56.4%	43.6%	5,950.00	16,733.06	153,191.50	2,625.45	97,275.26	75,274.74	172,550.00	
605(2)d	Regulatory Signs (Rectangular 450mmx750mm)	each	17.00	8.5%	90.1%	1.4%	57.4%	42.6%	6,770.00	9,818.14	103,655.97	1,615.88	66,025.13	49,064.87	115,090.00	
605(3)a	Informatory Signs (Rectangular 0.75mx1.00m, single post)	each	0.00	4.6%	94.4%	1.0%	60.8%	39.2%	12,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
605(3)b	Informatory Signs (Type A, double post)	each	0.00	6.5%	92.3%	1.2%	59.1%	40.9%	16,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
605(3)c	Informatory Signs (Type B, double post)	each	2.00	2.2%	97.0%	0.8%	62.6%	37.4%	49,200.00	2,157.05	95,475.69	767.26	61,627.88	36,772.12	98,400.00	
605(3)d	Informatory Signs (Type C, double post)	each	13.00	1.7%	97.6%	0.7%	63.1%	36.9%	79,200.00	17,134.24	1,004,869.40	7,596.36	650,174.47	379,425.53	1,029,600.00	
605(3)e	Informatory Signs (Type D, double post)	each	0.00	1.5%	97.8%	0.7%	63.2%	36.8%	111,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
605(3)f	Informatory Signs (Type E, triple post)	each	0.00	2.6%	96.6%	0.8%	61.9%	38.1%	59,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
605(3)g	Informatory Signs (Type F, triple post)	each	0.00	1.7%	97.5%	0.8%	62.9%	37.1%	109,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
605(3)h	Informatory Signs (Type G, triple post)	each	0.00	1.4%	97.9%	0.7%	63.2%	36.8%	176,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
605(4)a	Special Signs (750x600mm)	each	0.00	7.8%	91.0%	1.2%	58.3%	41.7%	8,360.00	0.00	0.00	0.00	0.00	0.00	0.00	
605(4)b	Special Signs (600x880mm)	each	0.00	6.8%	92.0%	1.2%	59.0%	41.0%	9,530.00	0.00	0.00	0.00	0.00	0.00	0.00	
605(4)c	Special Signs (900x550mm)	each	0.00	7.3%	91.6%	1.2%	58.7%	41.3%	8,970.00	0.00	0.00	0.00	0.00	0.00	0.00	
605(4)d	Special Signs (850x750mm)	each	0.00	5.9%	93.0%	1.1%	59.8%	40.2%	11,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
607(2)a	Reflectorized Pavement Studs (Raised Profile Type, one face reflective)	each	0.00	4.5%	94.1%	1.5%	57.2%	42.8%	774.00	0.00	0.00	0.00	0.00	0.00	0.00	
607(2)b	Reflectorized Pavement Studs (Raised Profile Type, two faces reflective)	each	135.00	4.1%	94.4%	1.5%	57.2%	42.8%	835.00	4,663.70	106,419.67	1,641.63	64,508.45	48,216.55	112,725.00	
607(3)	Chatter Bars (one side reflective)	each	494.00	1.9%	96.7%	1.5%	58.6%	41.4%	1,830.00	17,083.52	873,771.14	13,165.34	529,528.82	374,491.18	904,020.00	
608(1)	Furnishing and Placing Top Soil for Plantation	m3	53,829.00	25.5%	18.0%	56.5%	38.6%	61.4%	315.00	4,328,424.93	3,046,841.63	9,580,868.44	6,537,525.97	10,418,609.03	16,956,135.00	
610(1)	Sodding	m2	277,030.00	42.7%	55.4%	1.9%	5.7%	94.3%	55.00	6,507,080.13	8,436,557.37	293,012.50	863,060.64	14,373,589.36	15,236,650.00	
611(1)a	Trees (Furnishing and Transplanting) Low Tree H≦1.5m	each	0.00	11.6%	82.0%	6.4%	10.3%	89.7%	268.00	0.00	0.00	0.00	0.00	0.00	0.00	

Item No.	Description	Unit	Quantity	Unit Rate						Amount						Remarks
				Component (%)					Total (PP)	Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
611(1)b	Trees (Furnishing and Transplanting) Medium Tree 1.5m<H≦3.0m	each	0.00	11.3%	83.4%	5.3%	9.6%	90.4%	614.00	0.00	0.00	0.00	0.00	0.00	0.00	
611(1)c	Trees (Furnishing and Transplanting) High Tree (young tree) 1.5m<H≦3.0m	each	773.00	17.1%	77.8%	5.1%	9.1%	90.9%	1,100.00	145,083.12	661,599.24	43,617.65	77,234.23	773,065.77	850,300.00	
611(2)a	Trees (Transplanting) Low Tree H≦1.5m	each	0.00	53.2%	8.4%	29.3%	21.3%	69.6%	58.50	0.00	0.00	0.00	0.00	0.00	0.00	
611(2)b	Trees (Transplanting) Medium Tree 1.5m <H≦3.0m	each	0.00	56.8%	7.6%	26.5%	19.3%	71.6%	122.00	0.00	0.00	0.00	0.00	0.00	0.00	
611(2)c	Trees (Transplanting) High Tree (young tree) 1.5m<H≦3.0m	each	0.00	65.5%	5.7%	19.7%	14.4%	76.5%	286.00	0.00	0.00	0.00	0.00	0.00	0.00	
611(3)a	Planter Box of CHB (1.00m x 1.00m) for Road Side Plantation	each	0.00	37.0%	57.8%	5.2%	24.7%	75.3%	1,570.00	0.00	0.00	0.00	0.00	0.00	0.00	
611(3)b	Planter Box of CHB (3.00m x 1.00m) for Road Side Plantation	each	0.00	34.3%	60.4%	5.3%	25.8%	74.2%	3,720.00	0.00	0.00	0.00	0.00	0.00	0.00	
611(4)a	Planter Square Type A (1.13mx1.13m) for Road Side Plantation	each	0.00	47.7%	36.4%	15.9%	30.3%	69.7%	927.00	0.00	0.00	0.00	0.00	0.00	0.00	
611(4)b	Planter Square Type B (0.68mx1.70m) for Road Side Plantation	each	0.00	51.6%	32.8%	15.6%	27.4%	72.6%	386.00	0.00	0.00	0.00	0.00	0.00	0.00	
612(1)a	Reflectorized Thermoplastic Pavement Markings (White)	m2	4,055.00	4.8%	87.2%	8.0%	60.8%	39.2%	452.00	87,648.11	1,598,522.15	146,689.73	1,114,101.22	718,758.78	1,832,860.00	
612(1)b	Reflectorized Thermoplastic Pavement Markings (Yellow)	m2	277.00	4.7%	87.5%	7.8%	60.9%	39.1%	464.00	5,989.20	112,489.88	10,048.92	78,251.36	50,276.64	128,528.00	
SPL 612(2)	Removal of Existing Thermoplastic Pavement Markings	m2	0.00	95.7%	1.9%	2.4%	2.4%	97.6%	71.90	0.00	0.00	0.00	0.00	0.00	0.00	
615(1)a	Delineator (ground standing type)	each	0.00	2.3%	97.7%	0.0%	58.6%	41.4%	1,480.00	0.00	0.00	0.00	0.00	0.00	0.00	
615(1)b	Delineator (attached on guardrail)	each	0.00	2.2%	97.8%	0.0%	58.7%	41.3%	577.00	0.00	0.00	0.00	0.00	0.00	0.00	
615(2)a	Curve Mirror 1-φ600	each	0.00	6.3%	92.3%	1.4%	55.5%	44.5%	13,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
615(2)b	Curve Mirror 2-φ600	each	0.00	2.7%	96.3%	1.0%	58.3%	41.7%	24,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
615(3)	Dustproof Concrete Paving for Median	m2	0.00	17.5%	60.9%	21.5%	47.2%	52.8%	130.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 620(1)a	Traffic Signal Pole Type A (Mast Arm Post H=6.7m)	each	2.00	10.9%	65.1%	24.0%	53.7%	46.3%	40,500.00	8,797.97	52,759.19	19,442.84	43,534.28	37,465.72	81,000.00	
SPL 620(1)b	Traffic Signal Pole Type A (Mast Arm Post H=6.0m)	each	8.00	11.6%	65.0%	23.4%	53.0%	47.0%	42,400.00	39,472.26	220,471.44	79,256.30	179,850.88	159,349.12	339,200.00	
SPL 620(1)c	Traffic Signal Pole Type B (φ114.3mm x 4.2m)	each	13.00	14.7%	57.0%	28.3%	48.8%	51.2%	21,300.00	40,758.43	157,825.27	78,316.31	135,071.19	141,828.81	276,900.00	
SPL 620(1)d	Traffic Signal Pole Type C (φ114.3mm x 3.4m)	each	15.00	15.4%	56.8%	27.8%	47.9%	52.1%	21,900.00	50,709.45	186,574.74	91,215.81	157,444.42	171,055.58	328,500.00	
SPL 620(1)e	Traffic Signal Pole Type D (φ114.3mm x 3.0m)	each	4.00	14.8%	56.5%	28.7%	48.8%	51.2%	19,200.00	11,343.81	43,385.67	22,070.53	37,512.32	39,287.68	76,800.00	
SPL 620(2)a	Traffic Signal Lamps Type A (6 vehicle lamps)	each	26.00	1.1%	97.0%	2.0%	54.8%	45.2%	194,000.00	53,057.48	4,890,586.22	100,356.30	2,762,808.20	2,281,191.80	5,044,000.00	
SPL 620(2)b	Traffic Signal Lamps Type B (3 vehicle lamps)	each	27.00	1.2%	96.4%	2.4%	54.7%	45.3%	105,000.00	34,112.53	2,732,534.14	68,353.33	1,550,904.74	1,284,095.26	2,835,000.00	
SPL 620(2)c	Traffic Signal Lamps Type C (2 pedestrian lamps)	each	22.00	1.6%	94.7%	3.7%	54.5%	45.5%	50,600.00	17,314.97	1,054,219.80	41,665.22	607,213.43	505,986.57	1,113,200.00	
SPL 620(4)a	Street Lighting Poles (single lamp)	each	9.00	10.6%	69.0%	20.4%	53.0%	47.0%	48,200.00	45,977.27	299,291.76	88,530.97	230,105.03	203,694.97	433,800.00	
SPL 620(4)b	Street Lighting Poles (double lamp)	each	57.00	9.1%	72.0%	18.9%	54.0%	46.0%	60,100.00	312,825.45	2,465,793.22	647,081.33	1,850,119.64	1,575,580.36	3,425,700.00	
SPL 620(4)c	Bridge Lighting Poles (single lamp)	each	0.00	8.9%	72.1%	19.0%	55.8%	44.2%	34,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 620(4)d	Street Lighting Service Pole with Panel	each	4.00	8.5%	80.9%	10.6%	50.3%	49.7%	49,100.00	16,641.90	158,896.76	20,861.33	98,862.93	97,537.07	196,400.00	
SPL 620(4)e	Fluorescent Lighting for Underpass Culvert	each	4.00	5.6%	92.6%	1.8%	54.2%	45.8%	923.00	206.45	3,418.81	66.74	2,001.23	1,690.77	3,692.00	
SPL 620(5)a	Relocation of Street Lighting Poles (Single Lamp)	each	0.00	21.2%	49.7%	29.1%	43.8%	56.2%	10,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 620(5)b	Relocation of Street Lighting Poles (Dual Lamp)		0.00	22.7%	48.8%	28.6%	43.0%	57.0%	11,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPL 620(6)	Toll Gate Facilities	L.S.	0.00	6.3%	72.6%	21.1%	77.4%	22.6%	86,500,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
Part X	**Mobilization and Demobilization**															
SPL 800	Mobilization and Demobilization	L.S.	1.00	9.7%	39.8%	50.6%	47.6%	52.4%	1,840,000.00	177,655.52	731,909.76	930,434.72	876,574.15	963,425.85	1,840,000.00	
Part X	**Provisional Sum**															
SPL 900(1)	Provisional Sum for Traffic Management during Construction	L.S.	1.00	56.3%	6.2%	37.6%	24.2%	75.8%	894,000.00	503,060.90	55,215.74	335,723.36	216,494.29	677,505.71	894,000.00	
SPL 900(2)	Provisional Sum for Relocation of Existing Utilities	L.S.	1.00	17.0%	44.5%	38.5%	48.1%	51.9%	1,100,000.00	187,215.44	489,523.96	423,260.60	529,382.30	570,617.70	1,100,000.00	

Item No.	Description	Unit	Quantity	Unit Rate						Amount						Remarks
				Component (%)					Total (PP)	Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
SPL 900(3)	Provisional Sum for Geotechnical Investigation	L.S.	1.00	22.3%	10.5%	67.2%	46.7%	53.3%	1,610,000.00	359,441.49	168,783.59	1,081,774.92	751,333.33	858,666.67	1,610,000.00	
SPL 900(4)	Provisional Sum for Maintenance and Repair of Existing Access Road	L.S.	1.00	20.8%	16.4%	62.8%	41.2%	58.8%	421,000.00	87,716.47	69,037.17	264,246.36	173,439.51	247,560.49	421,000.00	
SPL 900(5)	Provisional Sum for Environmental Compliance Requirements	L.S.	1.00	50.2%	49.0%	0.8%	0.8%	99.2%	887,000.00	445,126.80	434,916.34	6,956.86	6,956.86	880,043.14	887,000.00	
SPL 900(6)	Provisional Sum for Health and Safety Requirements	L.S.	1.00	10.0%	55.0%	35.0%	40.0%	60.0%	728,000.00	72,800.00	400,400.00	254,800.00	291,200.00	436,800.00	728,000.00	
SPL 900(7)	Provisional Sum for Overseas Development Assistance (ODA)	L.S.	1.00	2.3%	95.0%	2.6%	62.8%	37.2%	191,000.00	4,427.41	181,532.21	5,040.38	119,983.61	71,016.39	191,000.00	
SPL 900(8)	Provisional Sum for Contingency	L.S.	1.00	15.0%	45.0%	40.0%	50.0%	50.0%	1,800,000.00	270,000.00	810,000.00	720,000.00	900,000.00	900,000.00	1,800,000.00	
	Total									61,730,483.37	205,310,050.25	298,187,843.37	273,587,068.24	291,641,308.76	565,228,377.00	
	Component									10.9%	36.3%	52.8%	48.4%	51.6%	100.0%	