

**Republic of the Philippines**  
**DEPARTMENT OF AGRICULTURE**  
Regional Field Unit No. 5  
San Agustin, Pili, Camarines Sur

**Project Title:** CONSTRUCTION OF SAN ANTONIO SWIP  
**Project Location:** Brgy. San Antonio, Ocampo, Camarines Sur  
**Appropriation:** ₱15,500,000.00  
**Source of fund :**  
**Subject:** BILL OF QUANTITIES AND COST PROPOSAL

**Classification:** Irrigation Facility  
**Number of Unit:** 1  
**Net Length:**  
**Project Duration :** 150 C.D.  
**Starting Date:** upon receipt of NTP

**Scope of Work:**  
-Road Opening with Compacted Gravel Surfacing for the Access of Equipment and Materials,  
-Construction of Earth Embankment Dam (Rainwater Harvesting Facility), Spillway and Bridge, Diversion of Creek, Outlet Works,  
-Handlaid Riprap, Sprigging and Sodding, Construction of Concrete Canal Lining, Flume and RCPC Road Crossing

**MINIMUM EQUIPMENT REQUIREMENT**

Description	No.	Description
Dump Truck All Model	3	3-5 m <sup>3</sup>
Sheepfoot Roller	1	20 tons
Vibratory Roller, CA-25	1	25 tons
Bulldozer, D6C LGP/ PS	1	140 HP
Bulldozer, D4 PS	1	75 HP
Water Truck All Model	1	3,000 gallons
Wheel Loader, 944A	1	1.34 m <sup>3</sup>
Backhoe	2	0.75-1.00 m <sup>3</sup>
Low Bed Trailer	1	

**MINIMUM EQUIPMENT REQUIREMENT**

Description	No.	Description
Mechanical Tamper	1	3-5 hp
Concrete Mixer	1	2-bagger
Hand Tools	Enough	

**TECHNICAL PERSONNEL REQUIRED**

Description	No.
Foreman	1
L.E. & H.E. Operator	12

COST OF PROPOSED WORK					
Item	Description	Quantity	Unit	Unit Cost (PhP)	Total Amount (PhP)
1.0	<b>General Requirements</b>				
	1.1.	Project Signboard/ Billboard	1	L.S.	
	1.2.	Permanent Project Marker	1	e.a.	
	1.3.	Construction Safety and Health	1	L.S.	
<b>Sub-total</b>					
2.0	<b>Construction of Camp, Other Temporary Facilities, and Movement of Equipment</b>		1	L.S.	
<b>Sub-total</b>					
3.0	<b>Access Road</b>				
	3.1.	Road Opening Works	700.00	l.m.	
		2,100.00 -Excavation (cu.m.) 630.00 -Gravel Surfacing (cu.m.)			
	3.2.	Reinforce Concrete Pipe Culvert (600mm Diameter)	27.00	pcs.	
	3.3.	Concrete Class "A" w/ Forms	10.00	cu. m.	
3.4.	Reinforcing Steel Bar	420.00	kgs.		
<b>Sub-total</b>					
4.0	<b>Diversion Water and Care of Creek</b>				
	4.1.	Excavation (Equipment)	520.00	cu. m.	
	4.2.	Compacted Earth Fill (at 95% Compaction)	550.00	cu. m.	
	4.3.	Concrete Class "A" w/ Forms	3.50	cu. m.	
	4.4.	Leveling Course	5.00	cu. m.	
	4.5.	Reinforcing Steel Bar	260.00	kgs.	
4.6.	Reinforce Concrete Pipe Culvert (750mm Diameter)	65.00	pcs.		
<b>Sub-total</b>					
5.0	<b>Reservoir and Borrow Area</b>		3,650.00	sq.m.	
5.1.	Clearing and Grubbing				
<b>Sub-total</b>					
6.0	<b>Dam</b>				
	6.1.	<b>Excavation</b>		2,415.00	
		6.1.1.	Stripping	1,825.00	cu.m.
		6.6.2.	Core Trench	590.00	cu.m.
	6.2.	<b>Compacted Embankment Fill (at 95% Compaction)</b>		25,333.00	
		6.2.1.	Side Borrow	17,361.05	cu.m.
		6.2.2.	Borrow Haul	3,799.95	cu.m.
		6.2.3.	Core Trench & Spillway Excavation	4,172.00	cu.m.
	6.3.	Gravel Blanket		203.00	cu.m.
	6.4.	Handlaid Riprap		405.00	cu.m.
	6.5.	Sprigging and sodding		1,900.00	sq.m.
	6.6.	Gravel Surfacing		85.50	cu.m.
	6.7.	<b>Toe Drain</b>			
	6.7.1.	Rock Toe (Boulders)	165.00	cu.m.	
	6.7.2.	Gravel and Sand Transition	75.00	cu.m.	
	6.7.3.	Fine Sand Transition	70.00	cu.m.	
<b>Sub-Total</b>					

7.0	<b>Brigde and Spillway</b>				
	7.1.	Excavation (Equipment)	3,582.00	cu.m.	
	7.2.	Structural Backfill	20.00	cu.m.	
	7.3.	Concrete Class "A" w/ Forms	85.00	cu.m.	
	7.4.	Concrete Class "A" w/out Forms	198.00	cu.m.	
	7.5.	Reinforcing Steel Bar	12,735.00	kgs.	
	7.6.	Leveling Course	62.00	cu.m.	
	7.7.	Grouted Riprap	35.00	cu.m.	
	7.8a.	50 mm PVC Pipe Weep Hole	47.00	l.m.	
	7.8b.	10mm thk. PVC Water Stop	55.00	l.m.	
	7.9.	2"ø S40, G.I. Pipe Side Railing	1	L.S.	
					<b>Sub-Total</b>
8.0	<b>Outlet Works</b>				
	8.1.	Excavation (Equipment)	127.00	cu. m.	
	8.2.	Compacted Earth Fill (at 95% Compaction)	115.00	cu. m.	
	8.3.	Concrete Class "A" w/ Forms	6.00	cu. m.	
	8.4.	Reinforcing Steel Bar	270.00	kgs.	
	8.5.	Leveling Course	2.00	cu. m.	
	8.6.	Seamless Black Iron Steel Pipe, 12" Dia. x 6 m	9.00	pcs.	
	8.7.	Gate Valve 12" Diameter	1	assy.	
	8.8.	Trashrack, Fishscreen and Flashboard	1	L.S.	
					<b>Sub-Total</b>
9.0	<b>Irrigation Canal (0.5x0.5)</b>		<i>l.m.</i>	<i>755.00</i>	
	9.1.	Excavation (Manual)	151.00	cu.m.	
	9.2.	Structural Backfill	37.75	cu.m.	
	9.3.	Concrete Class "A" w/ Forms	75.50	cu.m.	
	9.4.	Concrete Class "A" w/out Forms	60.40	cu.m.	
	9.5.	Reinforcing Steel Bar	6,040.00	kgs.	
	9.6.	Road Crossing 600mm Dia. RCPC	10.00	pcs.	
	9.7.	Leveling Course	37.00	cu.m.	
					<b>Sub-Total</b>
10.0	<b>Flume / Elevated Canal</b>		<i>l.m.</i>	<i>20.00</i>	
	10.1.	Excavation (Manual)	6.00	cu. m.	
	10.2.	Structural Backfill	4.50	cu. m.	
	10.3.	Concrete Class "A" w/ Forms	5.00	cu. m.	
	10.4.	Concrete Class "A" w/out Forms	1.50	cu. m.	
	10.5.	Reinforcing Steel Bar	270.00	kgs.	
	10.6.	Leveling Course	0.50	cu. m.	
					<b>Sub-Total</b>
11.0	<b>Division Box (1-units), Turn-out (5-units) and Tractor Ramp (4-units)</b>				
	11.1.	Excavation (Manual)	5.00	cu. m.	
	11.2.	Structural Backfill	3.00	cu. m.	
	11.3.	Concrete Class "A" w/ Forms	1.50	cu. m.	
	11.4.	Concrete Class "A" w/out Forms	3.00	cu. m.	
	11.5.	Reinforcing Steel Bar	198.00	kgs.	
	11.6.	Leveling Course	1.00	cu. m.	
					<b>Sub-Total</b>
					<b>Sub-Total</b>
<b>TOTAL PROJECT COST</b>					~

Note: All taxes, contractor's profit and hauling cost are included in unit cost per item.

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NAME AND SIGNATURE OF BIDDER