



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
COMPUTATION OF HAULING COST - AGGREGATES

Implementing Office: DPWH Bukidnon 1st District Engineering Office
Address: San Victores St., Malaybalay City, Bukidnon
Project Name: Construction of Classrooms, Tag-Illano Elementary School, City of Malaybalay, Bukidnon

Project Location: City of Malaybalay, Bukidnon

MATERIAL :	Sand & Gravel		
UNIT :	cu.m.		
Material's Source :	Pulangi River Quarry, Brgy. Nabag-o, Valencia City, Bukidnon		
Hauling Distance :	= 25.10 km		
Less	= 3.00 km (Free Hauling for the First 3 km)		
Hauling Distance :	= 22.10 km		
	Flat (Paved)	Rolling (Paved)	Mountainous (UnPaved)
	14.37 km	6.63 km	1.11 km
CYCLE TIME :			
A. Without Load			
where:			
distance	= 14.37 km.	6.63 km.	1.11 km.
velocity	= 55 km./hr.	40 km./hr.	25 km./hr.
	14.365 km.	6.63 km.	1.105 km.
time	= 55 km./hr.	40 km./hr.	25 km./hr.
	= 0.260 hr.	0.16575 hr.	0.0442 hr.
Total Time	= 0.470 hr.		
B. With Load			
where:			
distance	= 14.365 km.	6.63 km.	1.105 km.
velocity	= 35 km./hr.	30 km./hr.	15 km./hr.
	14.365 km.	6.63 km.	1.105 km.
time	= 35 km./hr.	30 km./hr.	15 km./hr.
	= 0.410 hr.	0.221 hr.	0.0736667 hr.
Total Time	= 0.705 hr.		
C. Allowance for Delay			
	= [A + B] x 10.00%		
	= [0.46995 + 0.7047] x 10.00%		
	= 6.600 min.		
	= 0.110 hr.		
D. Allowance for Manuever			
	= 15.00 min.		
	= 0.250 hr.		
E. Total Cycle Time			
Total	= A + B + C + D		
	= 0.460 + 0.700 + 0.110 + 0.25		
Total Cycle Time, T =	1.5200 hr.		
Using Dump Truck:			
Capacity of DT :	= 10 cu.m. of Aggregates		
Rental Rate of Dump Truck per hour	= 1,420.00		
	= 1.5200 x 1,420.00		
P	= 2,158.40		
P	= 215.84 Cost Per cu.m.	(HAULING COST ONLY)	

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