

AUTOMATED GUIDEWAY TRANSIT (AGT) SYSTEM

1. AGT Project Specifications and R&D Cost

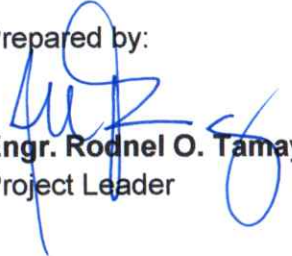
The following information are derived from actual prototypes of AGT developed by the DOST. Corresponding costs are development costs only.

Track System and Station	AGT UP (smaller prototype)	AGT Bicutan (bigger prototype)
Length	465m	372m
Elevation from NGL	5m	5-10m
Column dimension	0.8m x 0.8m	1.0m x 1.0m
Construction Method	Cast-in-Place	Cast-in-Place
Passenger Station	2	temporary platform only

Vehicle/Capacity	AGT UP (smaller prototype)	AGT Bicutan (bigger prototype)
Number of Coaches	2, articulated	2, articulated
Coach Dimension	8.5m (L) x 2.1m (W)	12m (L) x 2.5m (W)
Capacity per Coach (passenger)	60	120
Primary Power	2 motors x 60HP, Inverter Duty	2 motors x 60HP, Inverter Duty
Number of Bogies per Coach	2, Single Axle, Double Tire	2, Single Axle, Double Tire
Load Tires	Rubber Pneumatic	Rubber Pneumatic
Coach Body Panel	Fiberglass Reinforce Plastic (FRP); Pre-coated Steel Sheets	Fiberglass Reinforce Plastic (FRP); Pre-coated Steel Sheets
Top Speed	45kph	60kph

Development Cost (in '000)	AGT UP (smaller prototype)	AGT Bicutan (bigger prototype)
Train set (two coaches per set)	14,000	22,000
Elevated Track	22,000/ 465 meters	39,000/ 372 meters
Retaining Assembly	2,680/ 465 meters	2,400/ 372 meters
Passenger Station	16,600/ 2 stations	no existing passenger station

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2. Feasibility study result

The following information are taken from the feasibility study conducted by Systra Philippines, Incorporated (SPI) funded by the National Economic and Development Authority (NEDA). Based on the actual specifications and costs in Item #1, the following "Virtual AGT" operating characteristics and costs were derived.

Characteristic	AGT
Maximum speed	50 kph (with safety factor)
Average Commercial Speed	25-28 kph
Dimension (L x W) per train/bus/cabin	24 m x 2.5 m
Capacity (5pax/m ²)	300 pax
Construction	100% viaduct
Station Platform Length	40 m
Recommended headway	3 min
Station dwell time	20-30 seconds
Rolling Stock (peak hour operation)	10 trains (20 cars)
Reserve	2 trains (4 cars)
Total Rolling Stock	12 trains (24 cars)
Maximum ridership	5,000-6,000 PPHPD
Fare (boarding fee + per kilometer)	Php 11+1
Length one way	6 km
Length whole round trip	12 km
Number of stations	2 terminal stations and 6 intermediate stations (total of 7 inter-stations)
Average distance between stations	Around 850 meters

Item	Cost
Civil Works	2,625,944,815.06
Stations	927,000,000.00
Depot	618,000,000.00
ElectroMechanical works	1,193,600,000.00
Rolling Stock	264,000,000.00
Right of way	1,080,000,000.00
Contingencies (10%)	670,854,481.51
Engineering (CS)	168,856,344.45
TOTAL CAPITAL COSTS	7,548,255,641.02
Cost/km (two-way)	1,258,042,606.84

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