

Dubai Roads and Transport Authority Turnkey tramway system

Dubai tram is the first turnkey tramway system in the Gulf. It is also the world's first tram line 100% catenary-free. The tramway offers state-of-the-art technologies. It was specifically designed to meet the transport needs of Dubai and to be effectively inserted into the urban environment.



KEY BENEFITS

A full turnkey integrated solution

allowing simplified management, strict budget control and optimized schedule for global system performance and safety.

A tram specially adapted to the customer's needs

with full low-floor CITADIS vehicles offering three different classes. Dubai tram was designed for extreme weather conditions and benefits from state-of-the-art security and communication systems, on board and in stations. It is the first system equipped with platform screen doors and fully enclosed air-conditioned stations.

The world's first tram line 100%

catenary-free, preserving the landscape. The tram is powered by APS, an intrinsically safe power supply solution installed in the ground, already service-proven in many cities worldwide.

Country..... United Arab Emirates

Context..... Since November 2014, the Dubai tramway connects the Dubai metro and the Palm Jumeirah monorail, along Al Sufouh Road and Jumeirah Beach Road from Mall of the Emirates to the Dubai Marina. This 10.6 km line is linking 11 air-conditioned stations and will be extended up to 14.7 km in a second phase, including also an option for 14 additional trams. The tram system is expected to serve about 27,000 passengers per day and is anticipated to hit about 66,000 by 2020.

Scope..... Alstom, leader of the consortium and system integrator, delivered with its civil partner a full design & built solution, 2 months ahead of contract schedule, meeting customer demanding requirements and expectations. Alstom has integrated the whole urban transport solution including the civil works and the urban insertion. This turnkey contract includes the design and supply of Citadis trams, track laying, electrification, URBALIS CBTC signalling, security and communication systems, ICONIS integrated operation control centre, platform screen doors, ticketing system and signalling at road junctions. Alstom is also responsible for the maintenance of the transport system for a period of 13 years. The Dubai tram can carry up to 408 passengers in "Gold", "Silver", and "Women & Children" classes. The tram front nose is diamond-shaped and its external livery suggests the sand dunes of the Emirates.

PROJECT HIGHLIGHTS

Citadis tram length	44 meters
Citadis tram number	11
Maximum operating speed	50 km/h
Capacity	408 passengers
Three Classes	Air-conditioned "Gold", "Silver", "Women & Children" classes
Security	On-board and trackside surveillance camera (CCTV) Access control
Passenger information	On-board video and dynamic route map
Front-end	Styled in a diamond shape
Track works	14.6 km at grade, 5 km on viaduct, including noise and vibrations solutions
Electrification	10 km of APS ground-level power supply (on full main line) Overhead catenary in depot 8 traction power substations , 5 lighting power substations
Stations	11 fully enclosed air-conditioned stations Platform screen doors Surveillance camera (CCTV) Passenger information system, internet kiosk, contactless ticketing, Public Address, Video Broadcasting System
Depot	Washing machines, lifting jacks, sand-filling stations, painting tunnel, underfloor wheel lathe & railroad vehicle
Operation control center	ICONIS operation control center: - Automatic Train Supervision & SCADA - CCTV/security screens - Dedicated police control room - Automatic Vehicle Localization System (AVLS) - Building Management System (BMS) - Maintenance Management System (MMS)
Train control & interlocking	URBALIS 400 Communication Based Train Control (CBTC) SMARTLOCK Computer-based interlocking
Road signalling	23 road junctions equipped with Traffic Logic Controllers for full priority to tramways over road vehicles
Maintenance	13-year maintenance contract



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