

AUTOMATED TRANSIT SERVICES

Planning

Design

Engineering

Facilities Design Interface

Procurement/Contract Management

Project Management

Refurbishment/Overhaul

Lea  *Elliott*



Finding the best way to move large numbers of people

from one place to another quickly, comfortably, and efficiently is essential to every airport and public transit executive—as well as to managers of many communities, universities, hospital campuses, and other large activity centers.

These decision makers know that an automated transit system is often the best solution to their people-moving needs.

Airports have become the largest users of automated transit systems. With a properly designed system, an airport can add gates and runways and reduce curbside congestion by effectively shuttling travelers from ticket counters to departure gates, from terminal to terminal, or from rental car lots, remote parking, and regional transit facilities to check-in locations.



How do you know which automated transit system will meet your needs? How much capacity does the system need over its 20-plus year life? And how can you be sure the system you choose will open on time, and operate with near 100 percent reliability?

By trusting the team that has demonstrated over and over the ability to plan, design, procure, and commission automated transit systems, and who focuses at all times on the best interests of their clients.

Lea+Elliott is this kind of consulting firm. In our nearly 30 years of automated transit system consulting, we have been involved with or participated in almost every airport and urban people mover project in the world, from simple shuttle systems to the most complex configurations. We have planned, designed, and implemented new systems, extensions, and refurbishments, all within the context of busy airport operations and urban environments.

We have earned the position as leader in the automated transit industry because we apply imagination, innovation, and responsiveness to every assignment; we work exclusively for facility owners; we focus at all times on maximizing value; and we bring unswerving integrity to every project we undertake.



Amsterdam Atlanta Baltimore Bangkok Boston Chicago Dallas/Fort Worth Denver Detroit Frankfurt Haifa Hong Kong Honolulu Houston Indianapolis Irvine Johannesburg Kansas City Kuala Lumpur Las Vegas London Los Angeles Madrid Miami Milwaukee Minneapolis/St. Paul Munich New York Newark Orlando Phoenix Pittsburgh Portland Providence Rome Salt Lake City San Diego San Francisco San Jose Seattle-Tacoma Seoul Singapore Tampa Tokyo Washington, D.C.

As the world's leading automated transit system consultant, Lea+Elliot provides a broad spectrum of services to help clients cost-effectively and efficiently manage their facilities and serve their passengers.

Planning

- Feasibility Studies
- Technology Assessments
- Ridership Demand
- Operations Analysis
- Facility Planning
- Capital and O&M Cost Estimates
- Simulation/Modeling
- Master Planning
- Major Investment Studies

Design

- Alignment and Alternatives Analysis
- Operational Simulations
- Fleet, Capacity, and Service Analysis
- Facility Requirements, Locations, and Concepts
- Preliminary Engineering

Engineering

- Safety Analysis and Certification
- Vehicle Design
- Control/Communications Systems
- Power Distribution
- Structural Analysis
- Valuation
- Value Engineering
- Conceptual Design

Facilities Design Interface

- Facilities Design Criteria
- Transit/Facilities Interface
- Escalator, Elevator, and Moving Walk Analysis
- Pedestrian Circulation Analysis
- Graphics and Signage Review

Procurement and Contract Management

- Procurement Strategies
- Performance Specifications
- Requests for Proposals
- Contract Documents (Conventional, Design-Build, and Operations & Maintenance)
- Supplier Proposal Evaluation and Selection

Project Management and Oversight

- Design Reviews
- Manufacturing Monitoring
- Quality Assurance
- Safety Review and Oversight
- Installation Oversight
- Test Plans, Procedures, and Witnessing
- Operations & Maintenance Oversight

System Refurbishment and Vehicle Overhaul

- Technical Specifications
- Procurement Strategies and Services
- Design Reviews
- Construction Management
- Acceptance Testing Services

Lea+Elliott

Lea+Elliott's expertise propels automated trans



San Francisco Airport AirTrain



Newark Airport Monorail



Houston Airport TerminalLink



San Francisco MUNI LRT



Miami Metromover



Chicago O'Hare ATS



MIA World Gateway Terminal



U.S. Senate Subway Modernization



Denver Airport AGTS



Singapore Changi Airport



DFW TrAAm Modernization



Las Colinas APT

it systems around the globe.

LEGENDS[®]

System Analysis: A Vital Tool

LEGENDS[®], the sophisticated, proprietary family of computer models developed by Lea+Elliott, is recognized throughout the industry as a leading-edge analytic tool. Using the detailed graphical output generated by LEGENDS[®], Lea+Elliott professionals can assess critical components of an automated transit system, pinpoint possible trouble spots, analyze costs, and make recommendations for optimizing system design. For large capital expenditures, modeling is invaluable since realistic variances can be applied to the system to mimic real-life conditions.

LEGENDS[®] has been enhanced by new software that provides an excellent visual presentation of the data generated by the simulation. The graphic nature of simulation allows for validation by the client during model development as well as presentation of results to nontechnical stakeholders.

We have applied LEGENDS[®] to virtually every automated transit system project in our portfolio. The models have been particularly effective for large automated transit systems such as those at Dallas/Fort Worth and Washington Dulles International airports. For example, at Dulles, LEGENDS[®] has been used to estimate ridership demand; optimize switch locations for failure management; support initial planning for a landside automated transit system that will interface with planned bus rapid transit and rapid transit systems; size station platforms; model vertical circulation; and analyze passenger walk distance and apron bus operation.



Tampa Airport Shuttle



Tampa Airport Monorail



Kuala Lumpur Airport Aerotrain



Singapore Bukit Panjang



Detroit People Mover



Minneapolis/St. Paul Hub Tram



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