Strategic Transportation Planning:
What do Abu Dhabi and Connecticut Have in Common?

Presented by:
David Elder, AICP, GISP
Transportation Planner
Office of Strategic Planning and Projects
Bureau of Policy and Planning
Connecticut Department of Transportation

David V. Sousa, RLA, AICP
Senior Landscape Architect & Planner
CDM Smith, New Haven, CT

Photo Credits: Dave Sousa, CDM Smith
Connecticut U.S.A. vs Abu Dhabi U.A.E.

Strategic Transportation Planning: What do Abu Dhabi and Connecticut Have in Common?
## Strategic Transportation Planning: What do Abu Dhabi and Connecticut Have in Common?

<table>
<thead>
<tr>
<th></th>
<th>Connecticut</th>
<th>vs</th>
<th>Abu Dhabi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>3,596,000</td>
<td></td>
<td>2,200,000</td>
</tr>
<tr>
<td>Area</td>
<td>5,540 sq. mi.</td>
<td></td>
<td>26,000 sq. mi.</td>
</tr>
<tr>
<td>Density</td>
<td>739/sq. mi.</td>
<td></td>
<td>92/sq. mi.</td>
</tr>
<tr>
<td>Average annual population growth rate</td>
<td>0.5% (2000-2010)</td>
<td></td>
<td>7.7% (2005-2011)</td>
</tr>
<tr>
<td>Vehicles per 1,000 People</td>
<td>860</td>
<td></td>
<td>370</td>
</tr>
<tr>
<td>Road Fatalities per 100,000 Inhabitants (U.S. vs U.A.E.)</td>
<td>11.6</td>
<td></td>
<td>12.7</td>
</tr>
<tr>
<td>Road fatalities per 100,000 Vehicles (U.S. vs U.A.E.)</td>
<td>13.6</td>
<td></td>
<td>42.3</td>
</tr>
</tbody>
</table>
What are Strategic Transportation Plans?

- 50 year vision plan
- Multi-modal
- Performance Based
- Transformative for the State & Region

Strategic Transportation Planning: What do Abu Dhabi and Connecticut Have in Common?
What are Strategic Transportation Plans?

Al Gharbia Surface Transportation Master Plan

Overarching Goals:
- A Sound Economy
- A High Quality of Life
- Protection of the Environment

Image Credit: Abu Dhabi Department of Transport
Image Credit: Dave Sousa, CDM Smith
Image Credit: Dave Sousa, CDM Smith

Strategic Transportation Planning: What do Abu Dhabi and Connecticut Have in Common?
Strategic Transportation Planning: What do Abu Dhabi and Connecticut Have in Common?
Guiding Policies

Strategic Transportation Planning: What do Abu Dhabi and Connecticut Have in Common?
Public Involvement and Visioning

Extensive Public Engagement

- Full sweep of Connecticut
- Outreach online, in person, & non-traditional methods too.
- Library Partnerships

Mind Mixer website

Image Credit: CDM Smith

Strategic Transportation Planning: What do Abu Dhabi and Connecticut Have in Common?
Public Involvement and Visioning

Formal, High-Level Process

- Key Stakeholders
- Workshops held at Qasr Al Sarab 5-star desert resort
- On-line posting of progress
Strategic Transportation Planning: What do Abu Dhabi and Connecticut Have in Common?
Stakeholder and Sister Agency Engagement

**Department of Transport**
- Emirates Nuclear Energy Corporation
- Abu Dhabi Airport Company
- Abu Dhabi Ports Company
- Abu Dhabi National Oil Company

**Al Gharbia Surface Transport Master Plan**
- Critical National Infrastructure Authority
- Etihad Rail
- Environment Agency Abu Dhabi
- Abu Dhabi Authority for Cultural and Heritage
- Abu Dhabi Police
- Western Region Development Council
- Western Region Municipality
- Abu Dhabi Urban Planning Council

Photo Credit: Environment Agency – Abu Dhabi

Image Credit: CDM Smith
Needs Analysis

- Existing Conditions Report
- Baseline Forecast
  - Existing Levels of Service
  - Desired state of good repair
- Revenue Forecasting & Finance
- Evaluated a long list of options:
  - network improvements
  - transit enhancements
  - non infrastructure measures
- Options represent integrated and balanced measures that address transportation needs considering Al Gharbia’s social, environmental and economic goals.
Strategic Transportation Planning: What do Abu Dhabi and Connecticut Have in Common?

Scenario Development

1. Benchmark
   - Data Development/Benchmarking
     - Trends/Base Case
     - Vision, Goals & Objectives

2. Brainstorm
   - Scenario Development
     - Business As Usual
     - Optimize Existing Infrastructure
     - Improve Inter- & Intra-city Commerce
     - Follow the Jobs & Housing Demand
     - Sustainable Communities Scenario

3. Assess
   - Establish Indicators & Metrics
     - Assess Scenarios

4. Consider/Act
   - Evaluate Investment Options and Policy Changes

Image Credit: CDM Smith
Scenario Development

- Appraisal of scenarios considered 20 indicators in 6 categories: Connectivity, Safety, Transit, Cultural/Social, Environment, & Economic.
- Consistent methodology including quantitative and qualitative techniques.
- ‘Preferred Scenario’ also considered stakeholder commentary.
- Preferred Scenario underwent sensitivity testing before the optimal transportation plan was finalized.
- Preferred Scenario serves as a basis for implementing the overall program.
Final Products and Expected Outcomes

- Establish Vision for Future of CT
- Strategies for Achieving Long-Term Objectives
- Evaluate & Prioritize Options Based on Travel Demand and Econometric Models
- Create Strategic Management Plan to Implement Vision
- Recommend Investment Priorities and Policies for Implementation of the Strategic Plan

Strategic Transportation Planning: What do Abu Dhabi and Connecticut Have in Common?
Final Products and Expected Outcomes

Strategic Transportation Planning: What do Abu Dhabi and Connecticut Have in Common?
Jeddah, Saudi Arabia
Transportation Master Plan

- Jeddah is a city of 3.5 million residents on the Red Sea in the KSA.
- Had 1.3 million people in 1978 and will have 5.7 million by 2029.
- As the gateway to the Holy Cities, it welcomes 10 million international and domestic visitors annually.
Jeddah, Saudi Arabia
Transportation Master Plan

- There is little in the way of public transit and the car is dominant mode of travel (96%)
- Jeddah’s road accident statistics are alarmingly high.
Jeddah, Saudi Arabia
Transportation Master Plan

The Ministry of Transportation’s goals for a City-wide Transportation Master Plan include:

- Enable global connectivity
- Reduce traffic congestion
- Support economy by improving freight travel.
- Minimize the need to travel by car and improve public transit
- Minimize road accidents and fatalities.
- Promote walking and cycling
Questions?

Strategic Transportation Planning: What do Abu Dhabi and Connecticut Have in Common?
Thank You!

David Elder, AICP, GISP
Transportation Planner
Office of Strategic Planning and Projects
Bureau of Policy and Planning
Connecticut Department of Transportation
Email: david.elder@ct.gov
Website: www.transformct.info

David V. Sousa, RLA, AICP
Senior Planner/Landscape Architect
CDM Smith
195 Church Street, Suite 7A
New Haven, CT 06510-2802
Email: SousaD@CDMSmith.com
Website: cdmsmith.com

Strategic Transportation Planning: What do Abu Dhabi and Connecticut Have in Common?