Sustainable Design for Sustainable Mobility

Moderator
Michael Townes, CEO
Hampton Roads Transit
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Sustainable Mobility Panel

• David Taylor – Director of Sustainable Transportation Solutions, HDR Tampa
• Janet Attarian – Project Director, Chicago Department of Transportation
• Randy Neufeld – Chief Strategic Officer, Chicagoland Bicycle Federation
• Kathy Leotta – Lead Transportation Planner, PB, Seattle
### Accelerating Change and Sustainable Solutions

<table>
<thead>
<tr>
<th>Concept:</th>
<th>1900</th>
<th>1970</th>
<th>2000</th>
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<tbody>
<tr>
<td>Overcome Nature</td>
<td>Regulate Deterioration</td>
<td>Best &amp; Highest Values</td>
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<tr>
<td>Implementation Drivers:</td>
<td>Industrial Development</td>
<td>After-the-Fact Consideration</td>
<td>Competitive Communities</td>
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<td>Performance Factors:</td>
<td>Man-Made Dominance</td>
<td>Legal Compliance</td>
<td>Quality of Life</td>
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**Rail-Volution**

Building Livable Communities with Transit
Land Use, Mobility & Sustainability

- **Quality of Life**
  - Transit Can Influence New Settlement Patterns and Promote Community Revitalization
  - Complete Streets Promote Multiple Modes and Uses

- **Economic Development**
  - Transit Can Help Unleash Economic Potential

- **Environmental Policy**
  - Transit is an Environmentally Responsible Mode
  - Green Facilities and Infrastructure Provide Positive Cumulative Effects
Sustainability - The Triple Bottom Line

- **Environmental** – Stewardship and Minimize the Environmental Footprint

- **Social** – Equity, Diversity and Community

- **Economic** – Cost-effective, Mixed Use and Affordable
Sustainable Development Trends

Smart Growth

- Efficient Use of Land
- Protection of Natural Resources
- Development of Mixed Use Activity Centers
- Coordination of Service Delivery
- Creation of Multi-Modal Systems
Sustainable Development Trends

Regional Growth Management
- Provide Urban/Rural Separation
- Contain Urban Sprawl
- Use Land Resources Wisely
- Sustain Economic Vitality
- Provide Modal Choices
- Promote TOD
Building Livable Communities with Transit

Sustainable Development Trends

The New Urbanism
- Defined Geographic Area
- Infill and Near Suburban Locations
- Mixed Uses Within Blocks and Buildings
- Hierarchy of Street Types
- Civic Buildings and Squares
- Walkability and Connectivity
- Form-based Codes
- Accepts Transit at Core
Toward Sustainable Development

• Re-balancing Community and Mobility Needs
• Slowing Sprawl and Rapid Consumption of Land
• Changing Settlement Patterns
• Maintaining Environmental Systems
• Providing Multi-modal Choices
Sustainable Mobility

- Use Sustainability and Public Transit to Transform Transportation into Mobility
- Focus on Community Building
  - Stress Quality of Life
  - Offer Multi-modal Streets
  - Develop “Transit-ready” Places
- Translate Transportation and Land Use Planning into Community Planning
- Design and Construct Environmentally Responsive Infrastructure
Sustainable Public Transit

• Planning
  - System Planning
  - Corridor Planning
  - Multi-modal Applications
  - Transit-supportive Policies
  - Transit-oriented Design
  - Transit/Land Use Planning Coordination
  - Public Involvement
Sustainable Public Transit

• Operations
  - Environmental Management Systems
  - HAZMAT Management
  - Recycling/Water Reuse
  - Increased Miles/Gallon - Vehicle Modifications and Adjustments
  - Alternative Fuels/GHG Reductions
  - Route Consolidations/Adjustments
  - New Technologies and Propulsion Systems
Sustainable Public Transit

• Facilities and Infrastructure
  - Green/LEED Buildings – Offices, Maintenance Facilities, Stations, and Terminals
  - Site Development
    • Permeable Parking
    • Stormwater Management
Sustainable Mobility
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Sustainable Mobility
What is a Complete Street?

A Complete Street is safe, comfortable and convenient for travel via automobile, foot, bicycle, and transit.
A Checklist to Track Sustainability

• To Plan, Design, Construct, and Operate Transit Facilities and Services More Sustainably
• To Deliberate on Most Critical Sustainability Features
• To Develop Sustainability Design Guidelines
• To Monitor Planned Progress Toward Sustainability