WHY STREETCARS AND WHY NOW?

RECONNECTING AMERICA

STREET SMART WORKSHOP #3
CHARLOTTE, NC, OCT. 11, 2007
WHY STREETCARS? BECAUSE THEY:

• serve renaissance in downtowns
• relatively inexpensive
• focus and shape development
• enable higher densities, lower parking ratios
• make development more profitable
• easily integrated into built environments
• are faster to build
• boost transit ridership
• promote walkability and vibrant streetlife
STREETCARS ARE DEVELOPMENT ORIENTED TRANSIT:

- Permanence of fixed guideway helps mitigate risk
- High densities, low parking ratios increase profit
- These densities not possible without a streetcar

**TABLE 1: Private Returns on the Public Investment**

<table>
<thead>
<tr>
<th></th>
<th>Start of Service</th>
<th>Initial Track Miles</th>
<th>Initial System Cost Per Mile</th>
<th>Initial System Cost</th>
<th>Development Investment</th>
<th>Return on Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenosha</td>
<td>2000</td>
<td>2.0</td>
<td>3.10</td>
<td>6.20</td>
<td>150</td>
<td>2319.35%</td>
</tr>
<tr>
<td>Little Rock</td>
<td>2004</td>
<td>2.5</td>
<td>7.84</td>
<td>19.60</td>
<td>200</td>
<td>920.41%</td>
</tr>
<tr>
<td>Tampa</td>
<td>2003</td>
<td>2.4</td>
<td>20.13</td>
<td>48.30</td>
<td>1000</td>
<td>1970.39%</td>
</tr>
<tr>
<td>Portland (1)</td>
<td>2001</td>
<td>4.8</td>
<td>11.50</td>
<td>55.20</td>
<td>1046</td>
<td>1794.93%</td>
</tr>
<tr>
<td>Portland (Ext.)</td>
<td>2005</td>
<td>1.2</td>
<td>14.83</td>
<td>17.80</td>
<td>1353</td>
<td>7501.12%</td>
</tr>
</tbody>
</table>

Source: Reconnecting America
A transit rider creates 65% fewer greenhouse gas emissions than an auto user for same trip.
(Source: Canadian Urban Transit Association)

Technological fixes alone won’t solve the problem
If 60% of new development was transit-oriented GHG emissions would decrease 12% by 2050

- Compact development reduces VMT 20-40%
- Doubling density reduces VMT per capita by 20%
- Residents of TOD 5 times more likely to use transit; people who work in TOD 3.5 times more likely
- 75% of TOD HHs own 1 car or no cars
- 45% of workers in half mile radius of transit walk, bike or take transit compared to 14% in neighborhoods with no transit

75% of TOD HHs own 1 car or no cars.
VMT increasing 3 x faster than population in U.S. Except in PORTLAND . . .
TOD IS AN AFFORDABILITY STRATEGY

AFFORDABILITY IS NOT JUST ABOUT HOUSING COSTS -- IT’S ABOUT THE COMBINED COST OF HOUSING AND TRANSPORTATION

- The average HH spends 51% of income on housing & transportation, and costs are rising.
- Whereas HHs in auto-oriented neighborhoods spend 25% of income on transportation, HHs in transit-oriented neighborhoods spend just 9% -- a savings of 16%.

Source: Center for TOD Housing + Transportation Affordability Index, 2004 Bureau of Labor Statistics
STREETCAR WAS A WATERSHED EVENT IN PORTLAND’S DOWNTOWN

In the Pearl:

- 100 projects worth $2.6 billion -- 7,248 housing units, 4.6 million sf retail
- 25 percent of housing is affordable
- Developers built at 90% allowable density next to line, twice as high as further away
- Portland achieved 20-year housing goal in 7 years
- Issued record number of building permits 7 years in a row

In South Waterfront

- Even more ambitious redevelopment effort – 5,000 jobs, 3,000 housing units
- Connects to downtown via streetcar, to OHSU via aerial tram
- Sustainable building practices throughout (built to LEED Platinum standards)
- Developer building streets, riverfront greenway, parks
HOVEE STUDY IN PORTLAND (2005) SHOWED:

BEFORE alignment was announced:
• Developers built at 30% of allowable density.

AFTER alignment was announced:
• Developers built at 90% of allowable density within 1 block of the alignment, 75% within 2 blocks of alignment, and 40% 3 blocks and further away.

BEFORE alignment was announced:
Land located along a block of the alignment captured 19% of all development in the CBD.

AFTER alignment was announced:
These same blocks captured 55% of all new development.
PORTLAND LESSONS LEARNED:

- Developer agreements can leverage significant public benefit
- One or more large development sites needed with owners willing to work with public sector
- Local improvement districts can help fund streetcar & improvements
- Involving stakeholders is critical

- Success of early projects demonstrate market demand for higher-densities, mixed use, less parking
- High density development does not = a livable community. Also need affordable housing, parks, public space and art.
KENOSHA: SMALL TRANSIT FOR SMALL CITIES

• As in Portland, streetcar connected downtown to large redevelopment site.
• City dusted off 1925 plan to connect waterfront to downtown with boulevard, sidewalks and streetcar, creating new higher-density neighborhood on water.
• Streetcar connects new neighborhood to commuter rail station with service into Chicago
• Kenosha growing rapidly as people leave Chicago for more affordable housing; streetcar makes it possible to accommodate growth sustainability with minimal traffic.
• Developers now proposing 14-story buildings in otherwise very low-density downtown.
• Residents have new destination park and amenities.
SAN FRANCISCO: MUSEUMS IN MOTION

- Wildly popular F Line helped in rebirth of Embarcadero as grand waterfront boulevard with streetcars and light and heavy rail

- F Line success fueled efforts to build E-Line to provide more service to more destinations using same tracks

- Muni buys historic cars from around the world and dresses them up in the livery of historic systems

- Ridership so far beyond projections - 20,000/day, limited only by capacity and service -- transit agency has scrambled to find more cars
LITTLE ROCK: ROLLING ON PRESIDENT CLINTON AVENUE

- Connects dozens of destinations along picturesque Arkansas River and to the Clinton Library
- Streetcar acts as traffic calming device and has created much more lively streetlife
- Billboard shows that developers see streetcar as a draw
- Streetcar got 6 federal earmarks totaling $16 million over 8 years; local government invested just $4 million
TAMPA: CONNECTING DISPARATE PLACES INTO “SOME PLACE”

- Streetcar helped promote modern, dense development including fashionable new high-rise residential-shopping-entertainment district called Channelside

- Tampa is not a cab town like New York, so streetcar serves large numbers of tourists and conventioneers without cars

- Connects convention center, aquarium, arena, cruise ship terminal, Ybor City historic district, Channelside

- Funded in part with revenues from tax assessment district; when it came up for annual vote last year there was no dissent

- “Streetcar is an exercise in place-making. Transportation is never about moving people from A to B. It’s a tool for creating communities.”
WHICH IS BETTER? CITIES FILLED WITH CARS OR WITH PEOPLE?

THE NEW REALITY:
• Traffic isn’t going away -- EVER!
• Gas isn’t getting any cheaper
• Growing concern about climate change, energy consumption and GHG emissions
• Financial constraints
• Diminishing natural resources
• Changing demographics -- older, smaller HHs with singles becoming new majority
• Real estate market is changing
• Transit is increasingly seen as a key place-making amenity

ONE SOLUTION: THE TRIP NOT TAKEN
Little Rock Streetcar
Little Rock
Little Rock
McKinney Avenue Trolley, Dallas
McKinney Avenue Trolley, Dallas
What does a Streetcar corridor mean to you?
Memphis
Tampa
Basel, Switzerland
Bern, Switzerland
Zurich, Switzerland
Lyon, France
Vienna
Amsterdam
Hong Kong
Hong Kong
Istanbul
Lisbon
Milan
What kind of changes could a streetcar bring to your neighborhood?
Prague
Amsterdam
Hong Kong
Alexandria, Egypt
Budapest
Tampa Streetcar at Towers
Tampa Streetcar at Station
Tampa Streetcar Fest
Portland
Not just for the young...
Seeking better-designed communities...
...served by, and organized around transit
Transformational infrastructure, supporting urban livability of Success Story Cities
Creating healthier communities

...and people
New Urban Destinations
Unprecedented new development…
Miami: Development Projects

- $8.8 billion in redevelopment
- 1.6 million sq ft of office space
- 2.2 million sq ft of retail space
- 25,500 new residential units
- 750 hotel rooms
- 47,400 parking spaces
Miami Streetcar: Connection to Other Modes of Transportation

- Enhances Downtown Circulation
- Connects to Regional Transportation – Bus Network, Baylink & Metrorail
Public Facilities & Attractions

- Enhances Downtown Circulation
- Connects to Regional Transportation – Network, future Baylink project
Miami Streetcar Simulation: NE 1st Avenue
Miami Streetcar Simulation: NE 2nd Avenue
Miami Streetcar: Miami-Dade College, Wolfson Campus
Project Delivery – DBFOM
(Public-Private Partnership)

State and Private Sources during construction

FDOT: 50%
City of Miami: 0%
Construction Loan: 40%
Private Equity: 10%
DBFOM – Primary Benefits

- Higher probability of timely completion
- Construction costs within budget
- Deferred payments from City
- Transfer financial risk to concessionaire
- Transfer risk of delay to concessionaire
- Improved long term service quality
- Higher ridership
- Higher fare collections
- Performance-based payments from City
Tucson Streetcar Project Proposed Development

- 8,733,087 sq ft Mixed use: Public and Private
- 3,936 residential units
- 22,000 parking spaces