Transportation Livability in the West
PlaceMatters 2006
Overview

- Existing context: What trends are impacting the West?
- What’s wrong with traditional planning
- Transportation livability principles
- One solution: importance of connectivity
The West
The Changing West
### Change: Major Trends

#### Mean Travel Time to Work, 2004

<table>
<thead>
<tr>
<th>State</th>
<th>Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>25</td>
</tr>
<tr>
<td>Rockies</td>
<td>22</td>
</tr>
<tr>
<td>Arizona</td>
<td>23</td>
</tr>
<tr>
<td>Colorado</td>
<td>24</td>
</tr>
<tr>
<td>Idaho</td>
<td>20</td>
</tr>
<tr>
<td>Montana</td>
<td>16</td>
</tr>
<tr>
<td>Nevada</td>
<td>23</td>
</tr>
<tr>
<td>New Mexico</td>
<td>20</td>
</tr>
<tr>
<td>Utah</td>
<td>21</td>
</tr>
<tr>
<td>Wyoming</td>
<td>17</td>
</tr>
</tbody>
</table>

#### Population Growth, 2000 to 2004

<table>
<thead>
<tr>
<th>State</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>2%</td>
</tr>
<tr>
<td>Rockies</td>
<td>7%</td>
</tr>
<tr>
<td>Arizona</td>
<td>10%</td>
</tr>
<tr>
<td>Colorado</td>
<td>5%</td>
</tr>
<tr>
<td>Idaho</td>
<td>5%</td>
</tr>
<tr>
<td>Montana</td>
<td>0%</td>
</tr>
<tr>
<td>Nevada</td>
<td>15%</td>
</tr>
<tr>
<td>New Mexico</td>
<td>2%</td>
</tr>
<tr>
<td>Utah</td>
<td>5%</td>
</tr>
<tr>
<td>Wyoming</td>
<td>0%</td>
</tr>
</tbody>
</table>
Change: More Trends

Median Home Value, 2004

- United States: $151,366
- Rockies: $162,232
- Arizona: $145,741
- Colorado: $211,740
- Idaho: $120,825
- Montana: $119,319
- Nevada: $202,937
- New Mexico: $110,788
- Utah: $157,275
- Wyoming: $119,654

Change in Median Home Value, 2000 to 2004

- United States: 15%
- Rockies: 10%
- Arizona: 10%
- Colorado: 16%
- Idaho: 4%
- Montana: 9%
- Nevada: 30%
- New Mexico: -7%
- Utah: -2%
- Wyoming: 13%
Small Towns and Rural Areas

- Cyclical economies
- Development pressure
- Ski/resort towns
  - Escalating housing prices, second homes
  - Service workers marginalized
  - Travel, mobility impacts
- Lack of good roadway networks, transit
- Rural areas struggling
- Other considerations: natural resources extraction, water
Are we running out of gas?
The stone age did not end...

...because we ran out of stones
The end of the age of...

...cheap oil
One less car: - $4,000/yr.
(net about $3,500)*

At least $50,000 in additional mortgage capacity

* assumes 2nd or 3rd car for household
Predict Growth

Widen Streets

Forecast Traffic
Proposed Units

Traffic Level of Service

Widen Roadways and Intersections
Sustainability

- Economy
- Families
- Community character
10 Principles

1. Balanced Mobility
2. Dense Street Networks - Connectivity
3. Scale & Character of Streets
4. Limited Value of Traffic Demand Forecasts
5. Public Transit = Choice, Not Congestion Relief
6. Walking & Biking = Major Markets
7. Multimodal = Multimodal Streets
8. Sustainable = Flexible
9. Public Empowerment
10. Accountability, Monitoring & Reporting
A well-connected network of small streets is safer and provides more capacity and mobility than a limited network of wide streets.
The inexorable widening of arterials represents a bad investment. Freeways have a role to play; multi-lane arterials (more than four general purpose lanes) normally do not.
Good circulation and access are more important to communities than travel capacity. Basing street design on traffic demand forecasts is self-fulfilling and self-defeating.
A Colorado Community

(adapted from GIS files)

I-25

CO 392

1 0 1 2 3 4 5 Miles
The Original Town

(adapted from GIS files)
First Tier - New Development

Traditional Town Grid

Post 1980
1990s Invasion of the “Pods”
A 40-Year Look: Collectors

I-25

CO 392

(½ mile spacing)
Lost Opportunity

Because pods take access from the arterial highway, collectors are no longer feasible.
Build Out

What will actually happen . . .

Trouble intersections
Impacts of Poor Connectivity

- Massive, congested arterials
- Increased driving/household
- Transit voids
- Inactive living
- Poor emergency service access
- Reduced travel safety
## Connectivity Standards

<table>
<thead>
<tr>
<th>Measure</th>
<th>Standard</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connectivity</td>
<td>1.4 minimum</td>
<td>Links/nodes - excludes links on perimeter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>highways</td>
</tr>
<tr>
<td>Intersections/Square Mile</td>
<td>250 minimum</td>
<td>Including perimeter intersections</td>
</tr>
<tr>
<td>Block perimeter</td>
<td>1,400 ft. Maximum</td>
<td>Measured at street centerline</td>
</tr>
<tr>
<td>Block Length</td>
<td>500 ft. Maximum</td>
<td>% of parcels that are inaccessible if one</td>
</tr>
<tr>
<td></td>
<td></td>
<td>street is blocked</td>
</tr>
<tr>
<td>Emergency Access</td>
<td>10% Maximum</td>
<td>% of parcels that are inaccessible if one</td>
</tr>
<tr>
<td></td>
<td></td>
<td>street is blocked</td>
</tr>
<tr>
<td>Proximity</td>
<td>65%</td>
<td>% of DUs within ¼ mile of village nodes</td>
</tr>
</tbody>
</table>

Roadway network connectivity. Connected networks reduce congestion and improve safety. They reduce daily miles of vehicular travel per household and improve emergency vehicle response time. It is possible to set standards for connectivity. Some examples include:

- LEED ND. Max block perimeter 1,800’ and min 300 intersections/square mile.
- Portland and Metro, Oregon. Max local intersection spacing of 530’.
- Fort Collins, Colorado. Max block size of 7 - 12 acres, depending on zoning.
- Orlando, Florida. Connectivity index = 1.4 minimum.

These and other examples are described in: Planning for Street Connectivity, published by and available from the American Planning Association. PAS 515. 2003.
Benefits of Connectivity

- Safety: pedestrians, children, emergency response, evacuation
- Travel: better mobility and mode balance, more efficient traffic flow
- Community character: supports good urban design, preserves neighborhoods, alternative to wide roads
- Cost: lower cost, easier to implement than major capacity projects
Many types of pressures on Western towns
Transportation is currently focused on building facilities instead of communities
“Livable transportation” contributes to sustainable communities
Several strategies in toolbox
Connectivity is one of the best and most important, especially for smaller towns
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Thank You