Governments and Growth: How to Cope Successfully
November 17-19, 2004 Atlanta, GA

Breakout Session Group I-5
Street Design, Connectivity and Traffic Calming

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Glatting Jackson Kercher Anglin Lopez Rinehart, Inc.
In the Beginning...

Grin & Bear It  By Fred Wagner

“We’re gonna need roads... lots of 'em!”
... we were asked to move more cars.
AND YET TRAFFIC STILL SEEMS NOT TO BE MOVING.
WITH CANADA AND MEXICO WE COULD ADD A FEW MORE Lanes IN EACH DIRECTION.

NOW WHERE WAS IT? WE WERE GOING?
New Approach - Considering a Variety of Transportation Options

- More Lanes
- More Roads
- System Management
- ITS
  - More People, Not Cars
  - Improve Quality of Travel
    - More Efficiency
    - Move Less People, Fewer Miles
      - Manage, Not “Solve”
        - Lane Limits
        - Change Standards
      - Telecommuting/E-Commerce
        - Pricing
        - Road Network
        - Personal Security
        - Traffic Calming
        - Business Friendly
        - User View and Comfort
  - HOV/HOT Lanes
    - Transit
    - Bicycling
    - Walking
  - Land Use
- More Cars
- More Pavement

Conventional Approach

Lateral Approach
New Approach - Considering a Variety of Transportation Options

- Transit
- Bicycling
- Walking
- HOV/HOT Lanes

More Pavement
- More Lanes
- More Roads
- System Management
- ITS

More Efficiency
- More People, Not Cars
- Improve Quality of Travel

Move Less People, Fewer Miles
- Move People, Not Cars

User View and Comfort
- Business Friendly
- Traffic Calming
- Personal Security

Land Use
- Road Network
- Pricing
- Telecommuting/E-Commerce

Manage, Not “Solve”
- Lane Limits
- Change Standards

Conventional Approach

Lateral Approach
The Bone Structure determines...

Block Pattern

Streetscape

Building Stock
Disjointed and unconnected network
Benefits of network

Network

Sparse Hierarchy

Same Lane-Miles

Greater Capacity
Benefits of network

- Same Total Lanes
- More Capacity
  - Vehicles Miles Traveled
  - Turns
  - Signal Phase
  - Resiliency
Taming the "Big Road"
Capacity of Streets
<table>
<thead>
<tr>
<th>SPEED</th>
<th>$p(\text{killing pedestrian})$</th>
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</thead>
<tbody>
<tr>
<td>15 mph</td>
<td>3.5%</td>
</tr>
<tr>
<td>31 mph</td>
<td>37.0%</td>
</tr>
<tr>
<td>44 mph</td>
<td>83.0%</td>
</tr>
</tbody>
</table>
Maximum Volume 25-30 Miles Per Hour
Fair Oaks Avenue, South Pasadena
Fair Oaks Avenue, South Pasadena
Fair Oaks Avenue, South Pasadena
Fair Oaks Avenue, South Pasadena
Riverfront Parkway, Chattanooga
Riverfront Parkway, Chattanooga
Riverfront Parkway, Chattanooga
Network Creates Opportunities
Untie the Confluence
Untie the Confluence
Untie the Confluence
Untie the Confluence
Untie the Confluence
Untie the Confluence
Untie the Confluence

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Untie the Confluence
US 17-92 and Winter Park Village
Orlando Avenue, Winter Park, FL

- Suburban area north of Orlando
- High incomes in surrounding neighborhoods
- Orlando Avenue is the original north-south regional road
- Congestion on Orlando Avenue comes from Lee/Webster intersection
North-South and East-West trips share roadway.
The Problem Intersection

- Lee Road
- Orlando Avenue
- Webster Avenue

Opposing lefts too close
More on a Particular Topic

- More Network Examples: Rt 73 in Mount Laurel, East Gate Mall
- Road Diets on Community Roads
- Street Design Elements
  - Raised Crossings
  - Roundabouts
  - Back-in Angle Parking
  - Valley Gutters
  - Bicycle Lanes
  - Flush Medians
- What belongs where?
- Rural Traffic Calming
- Neighborhood Traffic Calming
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