Traffic Calming – Fatalities on the Rise
Smart Growth America Thoughts

- **Dangerous by Design** ranks Metro areas yearly Ped deaths - risen every year since 2009
- 46% > in fatalities from 2009-2016
- The # and rate of fatalities are BOTH increasing
NHTSA says that a pedestrian is killed every 2 hours and injured every 7 minutes somewhere in the country.
• Arterial roads most dangerous for pedestrians
• Crash information does not include personal mobility devices
• 6,000 fatalities in U.S. last year
• Hit & run crashes – 20% of total
My opinion, based on my observations, not crossing at crosswalk, dark clothing are **major issues everywhere**
2-3 X more likely to die when hit by SUV or Pickup truck

Size does matter

SUV front ends are taller, so they strike pedestrians higher on their bodies. That means they are more likely to kill a pedestrian than a car that would strike a person's leg.
Speed vs. risk of death

As the speed of any vehicle increases, the risk of death increases.

- 20 mph: 5% probability of death
- 30 mph: 45% probability of death
- 40 mph: 85% probability of death
Nearly As many FATALS as Arterials
Suggested Improvements to Improve Pedestrian Safety

1. Install Pedestrian counting devices temporary or permanent.

2. Adjustments to pedestrian crossing timing
3. IN-ROAD LED lighting
4. Dynamic pedestrian sensing devices
5. Install high quality mid-block crossings.
69% Less
Extend Walk Time Phase if pedestrians detected at corner or still in the crosswalk
Leading Pedestrian Signal Phase

Can Reduce Ped Crashes by 60%
By giving pedestrians a head start, less likely that there will be conflict between pedestrians and turning vehicles.
Thermal Detectors

Vehicle & bicycle presence detection

On-crossing pedestrian detection
Right Turn Designs

Figure 2.1 Right-turn lane designs (Source: Fitzpatrick et al. 2006a).
Right Turn on Red Restriction: Reduces injury crashes by 38%
YES to TRAFFIC CALMING
Calming Designs
Mini using paint
Typical Mini $250k
**TABLE 2-1. VOLUME IMPACTS OF COMMON TRAFFIC CALMING MEASURES**

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>AVERAGE % REDUCTION IN TRAFFIC VOLUME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed Humps</td>
<td>20</td>
</tr>
<tr>
<td>Speed Tables</td>
<td>12</td>
</tr>
<tr>
<td>Traffic Circles</td>
<td>5</td>
</tr>
<tr>
<td>Lane Closures</td>
<td>10</td>
</tr>
<tr>
<td>Diagonal Diverter</td>
<td>44</td>
</tr>
<tr>
<td>Diagonal Diverter</td>
<td>42</td>
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<tr>
<td></td>
<td>35</td>
</tr>
</tbody>
</table>

*Source: R. Ewing, Traffic Calming: State of the Practice (Washington, DC: Institute of Transportation Engineers/ Federal Highway Administration, 1999).*
Raised Crosswalks can reduce Ped Crashes 46%
Best Type of Device to help with Calming!!
Type of Studies

• Traffic Volume
• Turning Movement Counts
• Speed Studies
• Cut Through Studies
• Constituent Studies
• Truck Studies
• License Plate Tracking
Road Diet
Do we really NEED all the lanes?
Jeff Speck Design #1: The 3-to-2 Road Diet
Jeff Speck Design #2: The 4-to-3 Road Diet
Urban Street Design Guide

National Association of City Transportation Officials
Shopping by Bicycle Leads to Smaller Trips and More Visits

People who arrive to a business on a bike spend less per visit than people who arrive by car, resulting in more money spent per month.

<table>
<thead>
<tr>
<th></th>
<th>Average spending per trip</th>
<th>Average spending per month</th>
</tr>
</thead>
<tbody>
<tr>
<td>By car</td>
<td>$13.70</td>
<td>$61.03</td>
</tr>
<tr>
<td>By bike</td>
<td>$10.66</td>
<td>$75.66</td>
</tr>
</tbody>
</table>

Source: "Protected Bike Lanes Mean Business," PeopleForBikes and the Alliance for Biking & Walking.
Bike tracks increase retail sales
A Successful Complete Streets Policy requires a VISION
Policy needs to compliment the Community Context.
Street Connectivity – A MUST: Adjoining Neighborhood will Fight this!
Need latest & best design criteria
Needs to be Flexible
Needs to be ADOPTED by agencies
Performance Standards Need to be Established

Specific next steps to implement
Back-In Angle Parking

1. Signal
2. Stop
3. Reverse
All of these Options to Foster......

**Vision Zero** is a multi-national road traffic safety project that aims to achieve a highway system with no fatalities or serious injuries involving road traffic.
Q&A and FEEDBACK

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