Neighborhood Greenways

Presented by:
Greg Raisman & Mark Lear, Portland Bureau of Transportation
PLEASE DON’T GET KILLED TODAY!
NOT ON A BICYCLE!
NOR WHILE DRIVING ON AN BIG FREEWAY
BECAUSE I’LL BE SAD
SO WILL YOUR FAMILY
YOUR FRIENDS

OK. These are my friends, but they’d be sad too. (on their way to a costume fun run)
AND

THE OTHER PEOPLE IN THE CRASH.
YOUR NEIGHBORS.
YOUR COWORKERS.
CRASH WITNESSES.
EMERGENCY RESPONDERS.
REFRAME THE ISSUE.

The value of people’s lives does not change based on travel mode.
REFRAME THE ISSUE.

This isn’t about “us” and “them.” It’s about making our neighborhoods safe, livable, equitable, healthy, fun, and inviting!
WHICH BRINGS ME TO WHY WE’RE HERE TODAY....
PORTLAND’S APPROACH to SAFETY

Comprehensive Traffic Safety Approach

- (E)ngineering
- (E)ducation
- (E)nforcement

(E)ncouragement
(E)valuation
(E)quity

Traffic Safety Account
- Violators pay for safety improvements

Focus on the Most Vulnerable First
- Children and Seniors
  - In 2008, 23% of PDX population under 18
  - In 2008, 13% of PDX population over 65
- People with disabilities

Provide for Many Travel Options

PARTNERSHIPS: transportation police, neighborhoods, schools, emergency response, business, advocates working together
Why safety is our highest priority?

“Traffic crashes are not accidents. They are preventable events. They represent personal, family and community tragedies regardless of fault.”

Joanne Fairchild, Trauma Nurses
Traffic Fatalities per 100,000 residents in Portland:
- Going down 6 times faster than USA
- Going down 3 times faster than State of Oregon

The conditions that improve multi-modal transportation improve safety for everyone: speed reduction, less DUII, better compliance with traffic rules, better organization of modes.
SAFETY IS IMPROVING FOR EVERYONE

TRAFFIC FATALITIES IN PORTLAND
by mode of travel
1996-2010

Bicycle and pedestrian traffic is estimated based on the best indicators available. For pedestrians, originating transit boardings are represented. For bicycle use, annual bicycle counts on 4 downtown bridges are represented. For bicycle use, annual bicycle counts on 4 downtown bridges are represented.
Increase active transportation declining deaths

The Netherlands: 1980 to 2005

+45% Bicycle use (distance)
+39% Car use (distance)

-235% Bicycle fatalities
-245% Car fatalities
Bike Friendly Cities are Safer for Everyone

Evidence on Why Bike-Friendly Cities are Safer for All Road Users

- High bicycle use cities show significantly lower fatal rate for all travelers
- Accomodating bicycles leads to self-reinforcing cycle
  - Lower speed
  - Higher frequency, lower severity (4-11x less likely to die if in crash)

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<thead>
<tr>
<th></th>
<th>SANTA BARBARA</th>
<th>RIALTO</th>
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<tbody>
<tr>
<td>Estimated No. of Bicyclists</td>
<td>3,319</td>
<td>183</td>
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<tr>
<td>Estimated No. of Pedestrians</td>
<td>5,993</td>
<td>1,192</td>
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<tr>
<td>Estimated No. of Drivers</td>
<td>78,367</td>
<td>88,043</td>
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<td>(estimates based upon mode share &amp; population)</td>
<td></td>
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<tr>
<td>Car Vehicle Fatalities</td>
<td>19</td>
<td>68</td>
</tr>
<tr>
<td>Vehicle Fatality Rate (avg. per year per 100,000 estimated drivers)</td>
<td>2.2</td>
<td>7.0</td>
</tr>
<tr>
<td>Pedestrian Fatalities</td>
<td>16</td>
<td>39</td>
</tr>
<tr>
<td>Pedestrian Fatality Rate (avg. per year per 100,000 estimated drivers)</td>
<td>24.3</td>
<td>297.4</td>
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<tr>
<td>Bike Bicycle Fatalities</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Bicycle Fatality Rate</td>
<td>5.5</td>
<td>49.6</td>
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Figure 3: Bicycle, Pedestrian & Vehicle Fatalities for Santa Barbara & Rialto (1996-2007)
Cost of inactive lifestyle

“Annual cost of obesity to be $147 billion and growing. That translates into $1,250 per household, mostly in taxes and insurance premiums.”

Health Affairs 2010

66% of Portlanders limit walking and bicycling due to their fears about traffic.
Neighborhood Greenways
It’s a Transportation System!

• There are no silver bullets
• People need to get from A to B
• It takes a mix of facility types
• We should strive for a “complete transportation system” that serves the widest spectrum of our communities
It’s a platform for programs

- Sunday Parkways
- Women on Bikes
- Portland by Cycle
Parents feel that streets are too dangerous

Traffic increases

Fewer children walk and bicycle to school

Parents drive their children to school

Traffic increases

Parents feel that streets are too dangerous

It’s a platform for programs
SAFE ROUTES TO SCHOOL
Using Our Streets to Implement Multiple Police Goals

Transportation
  Bike Plan, Pedestrian Plan, Safe Routes to School, Transit Plan, Freight Plan

Urban Forestry

Parks

Stormwater-Green Streets

Health / Health Equity

Climate Action Plan
We Can Implement.
Non-Residential Roadways
30% of Portland’s Road Network

Regional Trafficway (Freeways)

Major City Traffic Street

District Collector

Neighborhood Collector
Local Service (residential) Traffic Streets
70% of Portland’s Road Network
$60 Million

300 MILE bikeway network OR 1 MILE of urban freeway
Cost Examples

1 mile of European Cycle Track: about $2,750,000

Utrecht, The Netherlands
Cost Examples

1 mile of Portland Neighborhood Greenway: about $250,000
Four Basic Goals

• Less than 1,000 motor vehicles per day
  - Keep the through traffic on the through streets.
  - Protect the residential character of our neighborhoods
  - Improve safety.

• Speeds at or under 20 MPH

• Help people across busy streets

• Efficiently get people where they want to go
You don’t have to get on your bike to benefit.

<table>
<thead>
<tr>
<th>Bike Boulevard</th>
<th>Neighborhood Greenway</th>
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<tbody>
<tr>
<td>– Up to 3,000 cars/day</td>
<td>– Up to 1,000 cars/day</td>
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<tr>
<td>– Speeds under 30 mph</td>
<td>– Speeds under 20</td>
</tr>
<tr>
<td>– Crossing treatments only where gaps &lt;1 per minute peak hour</td>
<td>– Crossing treatment considered at every busy street</td>
</tr>
<tr>
<td>– Small or non-existent signs</td>
<td>– Large sharrows and guides signs</td>
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<tr>
<td></td>
<td>– Stormwater, planters, pocket parks, trees, habitat</td>
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<td></td>
<td>– Streets designed for people riding side-by-side</td>
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SAFETY RESULTS

Recent British Journal of Medicine:

20 MPH Zones associated with:

• 42% decrease in all crash activity

• 46% decrease in serious injury & fatal crashes

• Biggest decreases in pedestrian crash activity for ages 0-15

• 62% decrease in serious crashes for motor vehicle occupants

Effect of 20 mph traffic speed zones on road injuries in London, 1986-2006: controlled interrupted time series analysis
Cite: BMJ 2009;339:b4469
Neighborhood Greenway Process

Working with Neighborhoods

1) Identify Routes

2) Notify Residents

3) First Open House
   ✓ Existing Conditions
   ✓ Specific Concepts for Improvements
   ✓ Discussion with Neighbors

4) Second Open House
   ✓ Updated Plan Based on Feedback & Data

5) Approval by Transportation Director
Concord Greenway Example

Existing Ped/Bike Bridge offers existing traffic barrier

New Traffic Barrier

Beech Elementary & small park
Green Streets
Bioswales that manage traffic and stormwater

STORMWATER BECOMES A RESOURCE

More than just bike boulevards, greenways include landscaped features such as rain gardens, planters and bioswales that filter stormwater on site and reduce runoff into sewer pipes. Turning non-absorbent street pavement into natural green space allows stormwater to soak into the ground and replenish our groundwater.

The result?
A healthier Portland and Willamette River.
Greenway crossing at a jog: two-way bikeway
Another reason we can’t wait to build the network

Ultimately, the biggest barrier to affordability is insufficient supply: homes in walkable, transit-oriented neighborhoods cost too much because there are not enough of them to satisfy the growing market demand. What’s needed, then, is a supply-side solution: build more such neighborhoods.
For a lot of photos and videos, see these resources

www.gettingaroundportland.org
www.flickr.com/photos/gregraisman/collections

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