

# Complete Streets Overview

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Transportation  
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**EAST-WEST GATEWAY**  
Council of Governments

# Today's Agenda

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- Why do we need bikeable and walkable communities?
- Design considerations
- Lunch --
- Small group exercise
- Getting it done

# Introductions

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- Name
- Organization
- What do you most want to learn about bikeable and walkable communities?



HELLO

My name is

# A Complete Street is

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## What are Complete Streets?

Complete Streets are streets for everyone, no matter who they are or how they travel.





Why do we need  
Complete Streets?

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# Why do we need Complete Streets?

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# Why do we need Complete Streets?

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# Who needs Complete Streets?

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47%

of older Americans say it is unsafe to cross a major street near their home.

55%

of older Americans living in inhospitable neighborhoods say they would walk and bike more often if the built environment improved.

56%

express strong support for adoption of Complete Streets policies.

# Who wants Complete Streets?

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**66%**

of Americans want more transportation options so they have the freedom to choose how to get where they need to go.

**73%**

currently feel they have no choice but to drive as much as they do.



**53%**

of Americans would prefer to live in communities within easy walking distance of the community's amenities

# Benefits

# What are the benefits?

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- Mobility for all
- Health
- Economic Development
- Social Equity & Opportunity
- Safety





# Mobility for All

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1/3

of the US  
population  
does NOT have  
a drivers license



How are we  
accommodating  
them?

# Health

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- We are moving without *moving*
- 60% are at risk for diseases associated with inactivity:
  - *Diabetes*
  - *High Blood Pressure*
  - *Other chronic diseases*

22 MIN. OF WALKING



DAILY WALKING TIME  
Recommended by CDC

19 MIN. OF WALKING



MEDIAN TRANSIT USER  
in America

06 MIN. OF WALKING



AVERAGE PERSON  
in America, includes drivers

# Economic Development

- Lancaster, CA

## Reconstruction Project

- \$11.6m public investment
- 48 new businesses
- 802 new jobs
- Vacancy Rate: 4%
- Sales tax revenue: ▲ 96%

3 years later (2013)

- Total collisions fell by ~1/3
- Injuries among all users  
▼ 67%



# Economic Development: Property Values

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+1 point on  
the Walk  
Score scale

=

+\$500 - \$3,000 in  
home value

# Social Equity & Opportunity

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- Complete Streets give people more control over expenses
  - Transportation is the second largest expense for families: ~18% of their budget
  - Low-income households can spend up to 55% of budget on transportation

# Tremendous Potential

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Of all Trips:

**78%**

are less than  
3 miles

**80%**

are less than  
1 mile



yet of these trips...

**65%**

are driven





## Safety

- ↓ 88% with sidewalks
- ↓ 69% with hybrid beacons
- ↓ 39% with medians
- ↓ 29% with street conversions

Sources: <http://safety.fhwa.dot.gov/provencountermeasures>, San Diego, CA – Dan Burden



# Safety

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**32,166** Total fatal crashes in 2016

Motor vehicle crashes were the **leading cause** of death for children age 10 and young people 16 to 23.



# Safety

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**5,376**

Pedestrians  
were killed in  
2016

On average, a  
pedestrian  
was killed  
every

**1.5 hrs**

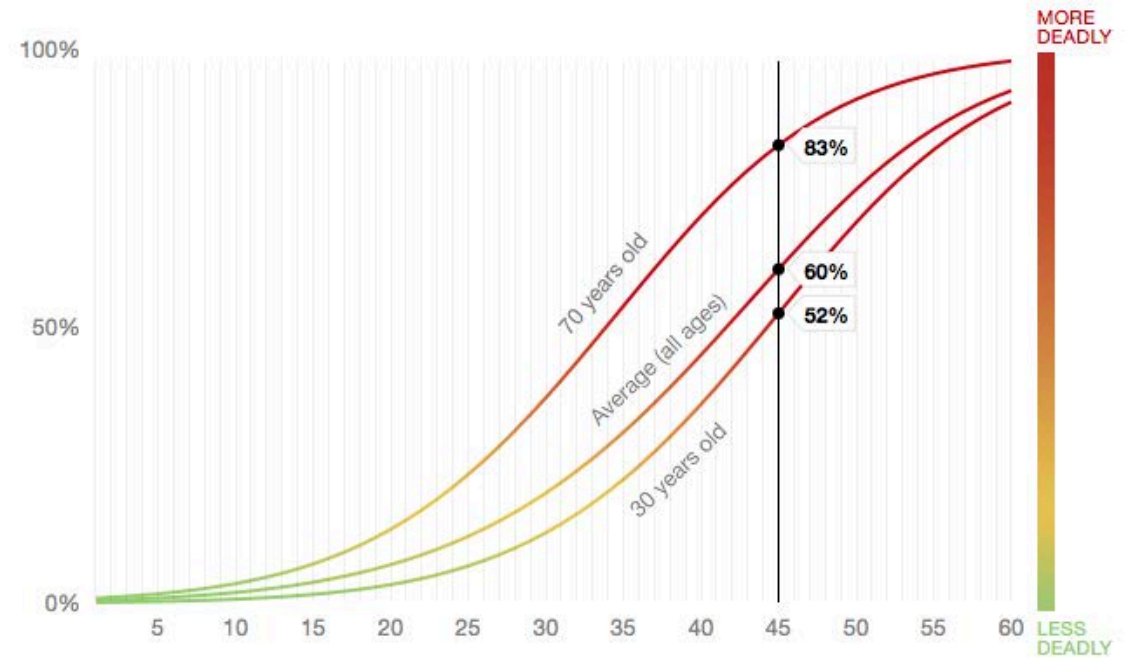
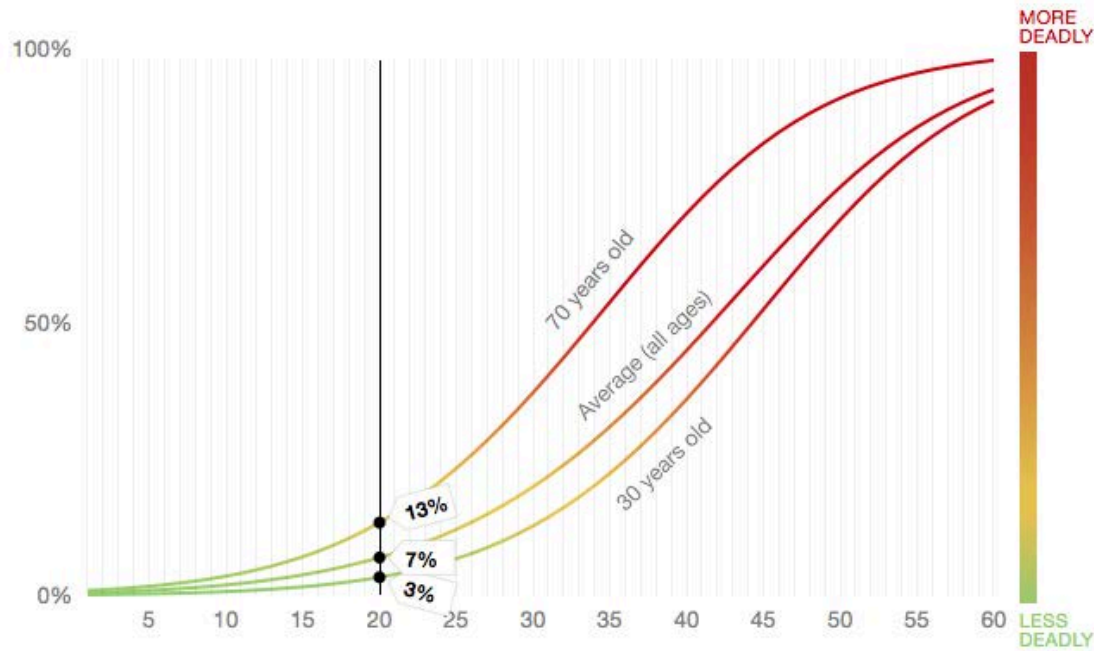
in traffic  
crashes.

**2.2%**

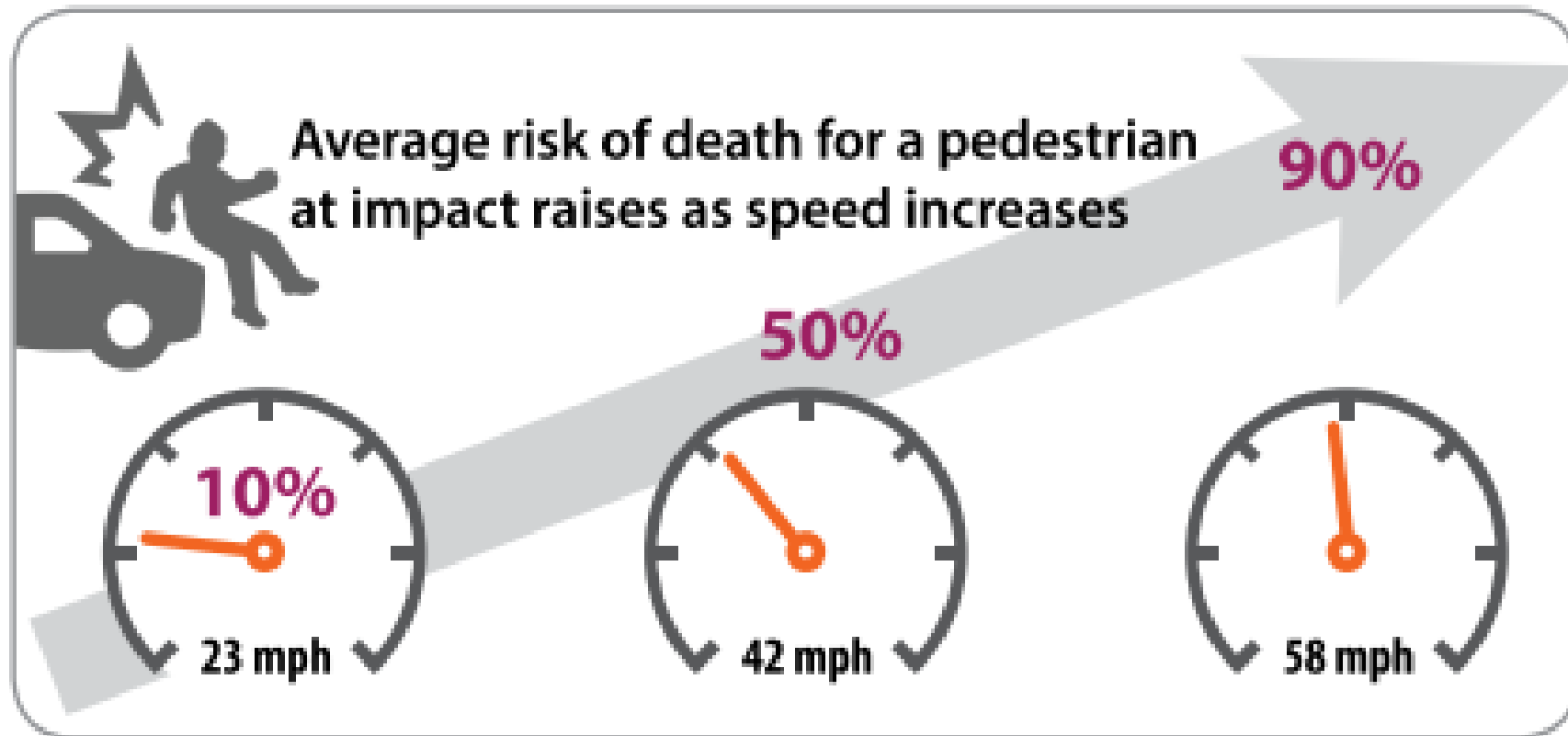
of all motor  
vehicle traffic  
fatalities were  
cyclists

# Speed

# People walking and biking are 14-times more likely to be killed or severely injured



# Higher speeds increase risk of death

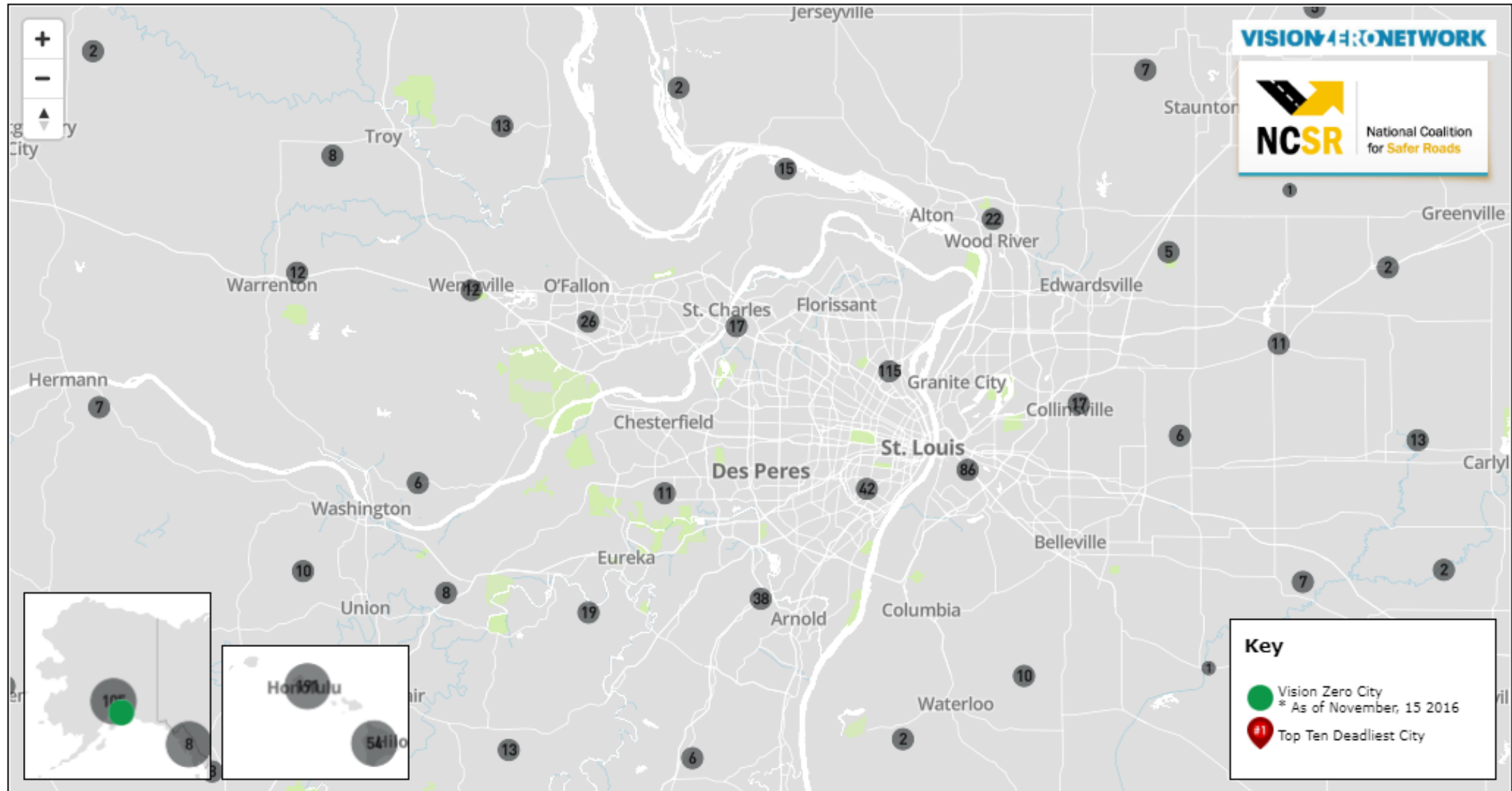


AAA Foundation for Traffic Safety, Impact Speed and the Pedestrian's Risk of Severe Injury or Death, September 2011.

# NATIONAL SPEED FATALITY MAP HIGHLIGHTS TRAGIC LOSSES

Elevating safety over speed would save thousands of lives each year

Fatal traffic crashes involving speed in the United States, 2010-2015 (zoom in for details)



# Benchmarking



## Should address what people want from their transportation systems:

- Convenience
- Safety
- Comfort
- Access
- Reasonable travel time
- Low cost
- Reliability
- Speed?



# Basics of project evaluation

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Agree to goals and objectives



Determine best measures for goals



Collect data

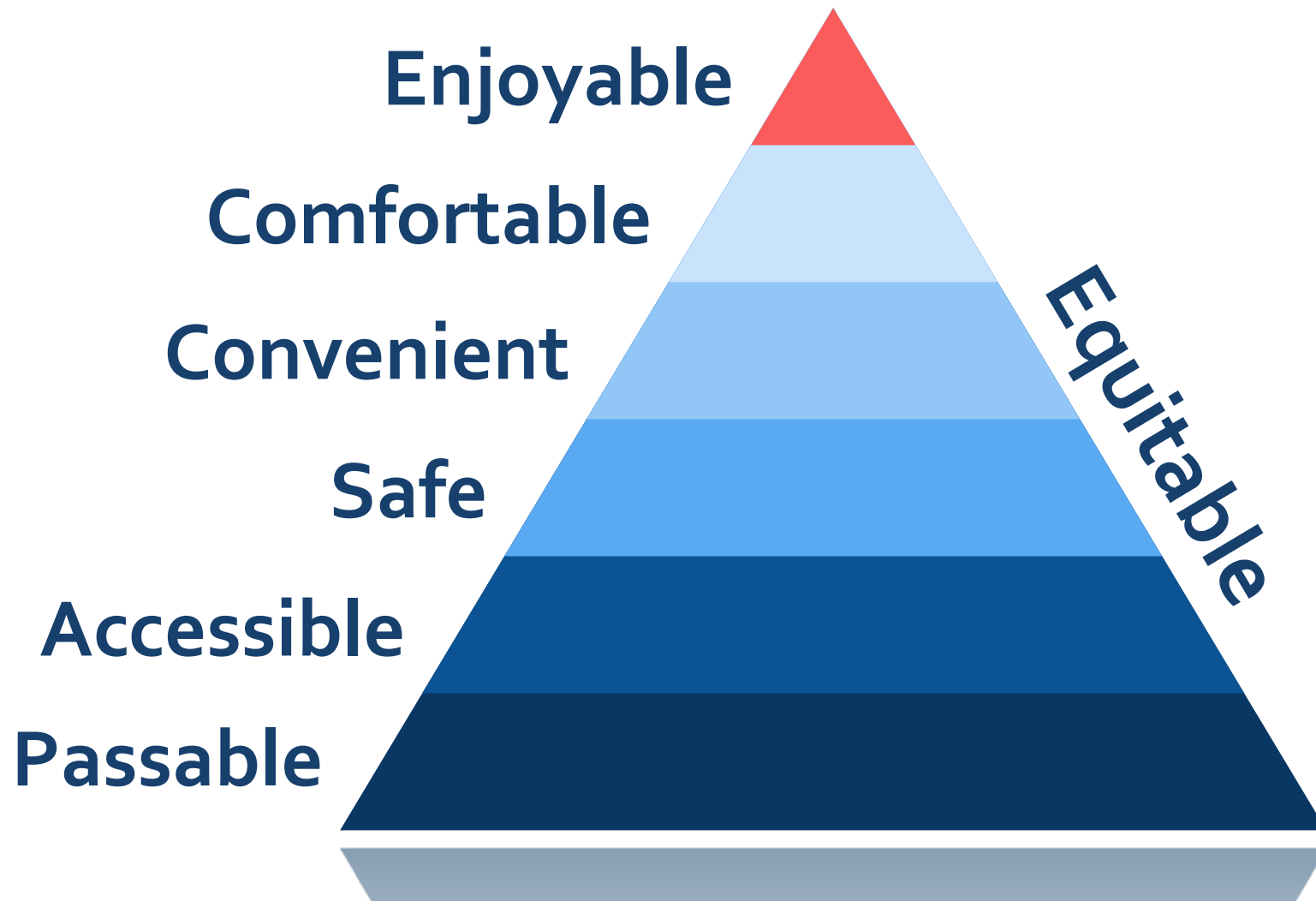


Share results



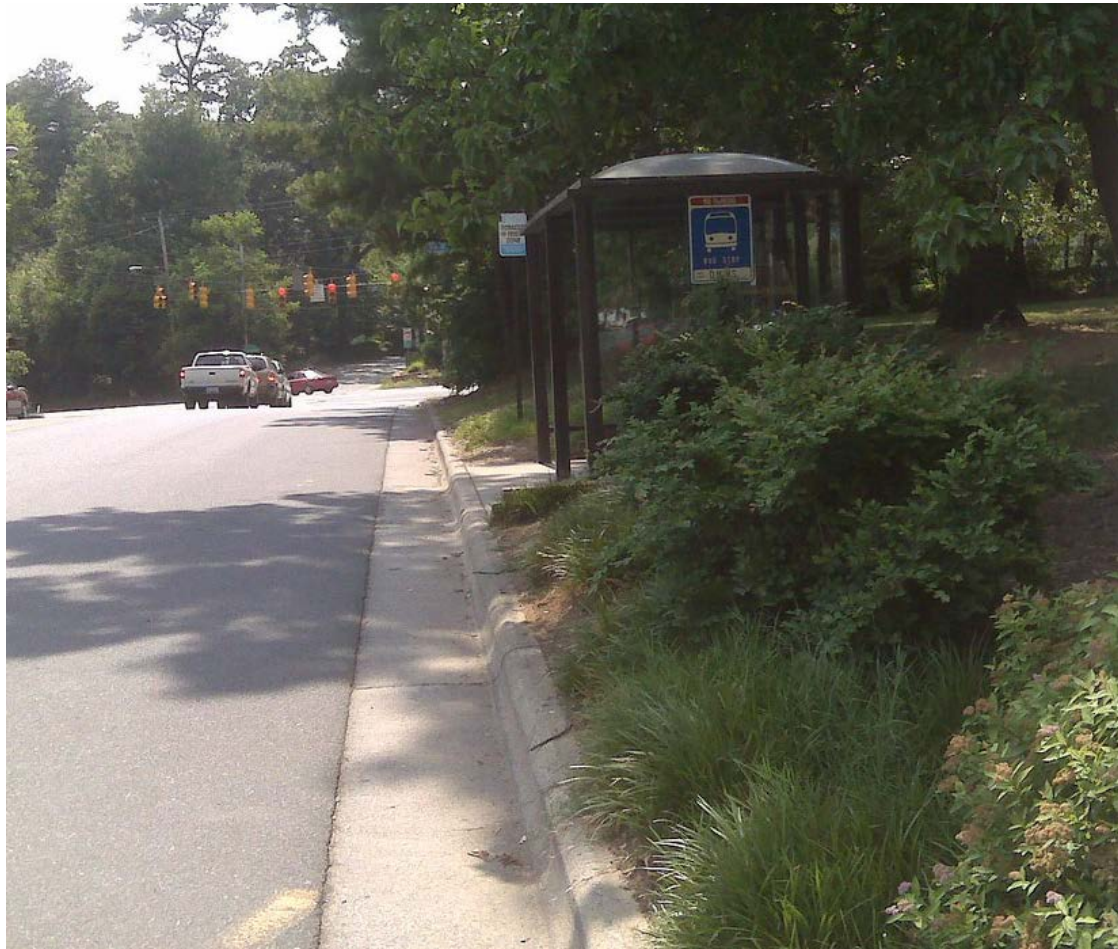
# Measuring Success

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# Measuring Success

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**Passable**

# Measuring Success

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**Accessible**



# Metrics

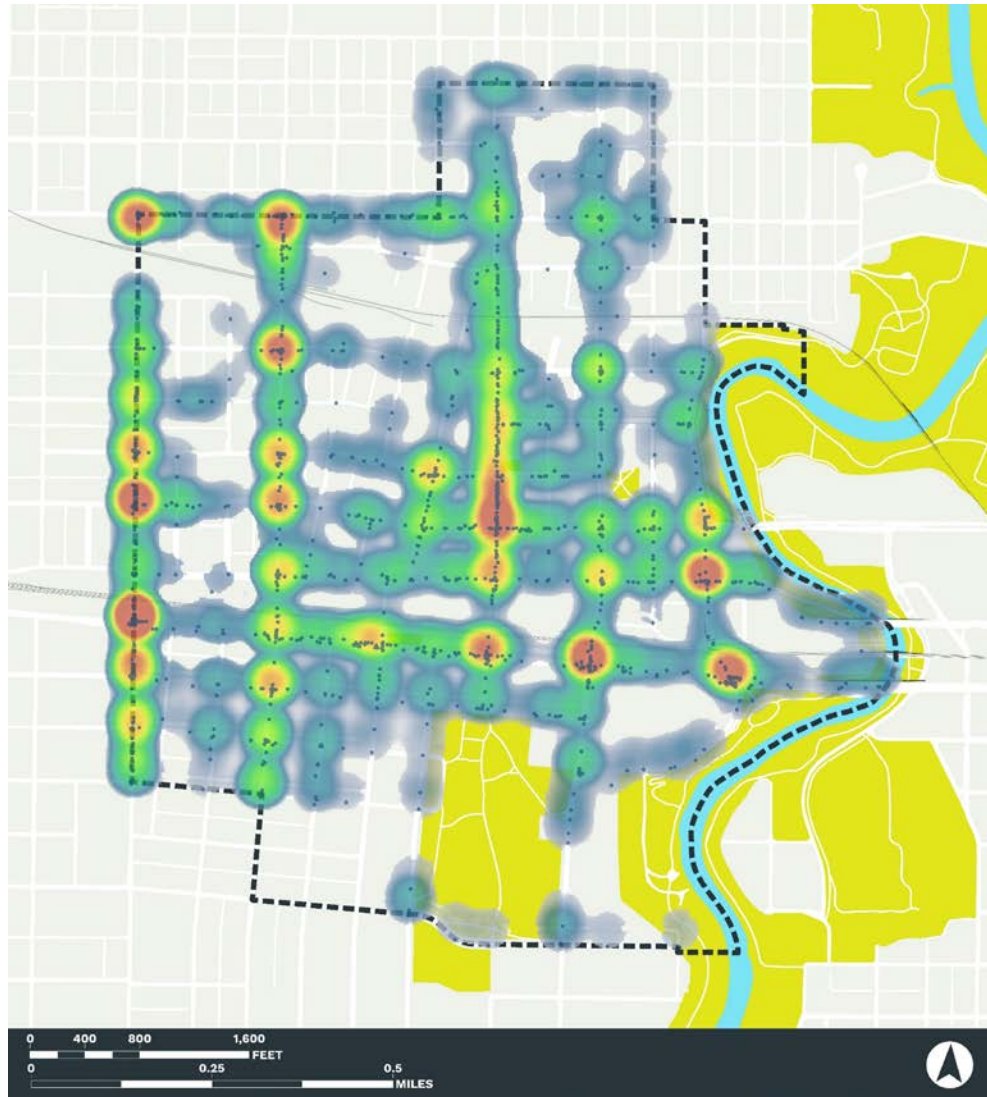
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## Access

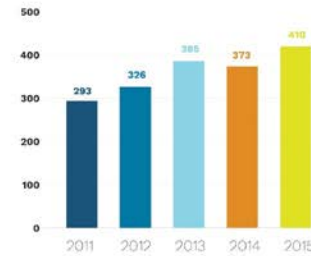
- Person trips, by mode
  - All trips, commute-only
- Community connections - # people residing or working within set distance of facilities
- Presence of facilities, new and upgraded/refurbished
- Trip time and reliability



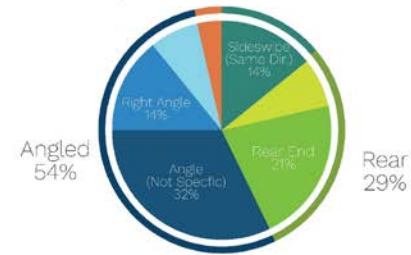
# Measuring Success



All Crashes 2011-2015



Crash Types  
Broadway & 1st Avenue



Crash Data  
2011-2015

Source: City of Fargo

 **CONCENTRATION OF CRASH DATA (All Crashes 2011-2015)**

 **ALL CRASHES**

 **RAIL**

 **OPEN SPACE**

 **DOWNTOWN FOCUS AREA**





# Metrics

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## Safety

- Injurious and fatal crashes, total and rate per mile, mode or user group
- Compliance with speed limit
- Adequate lighting
- Personal security, as measured by survey, number of crimes or calls for service



# Measuring Success

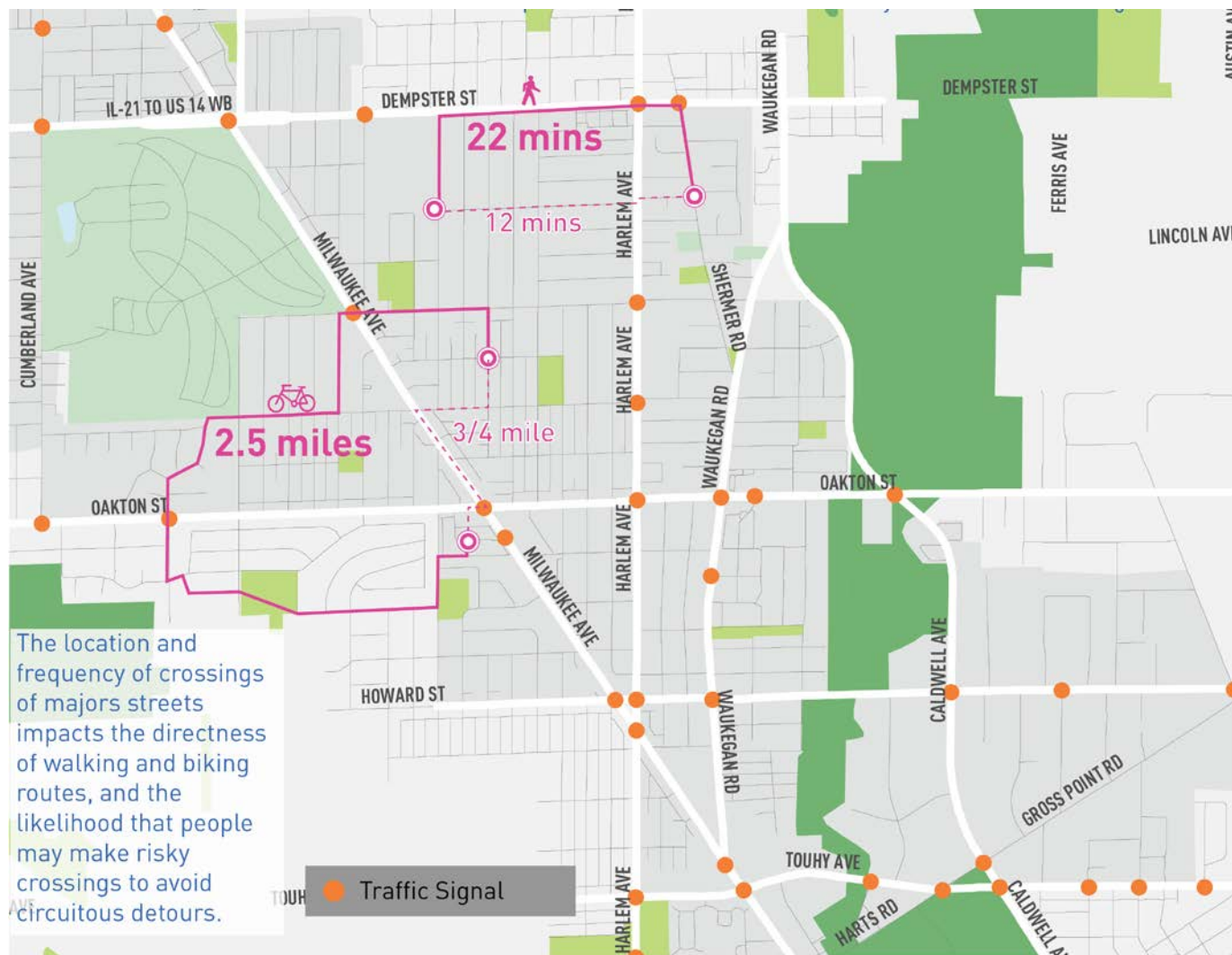
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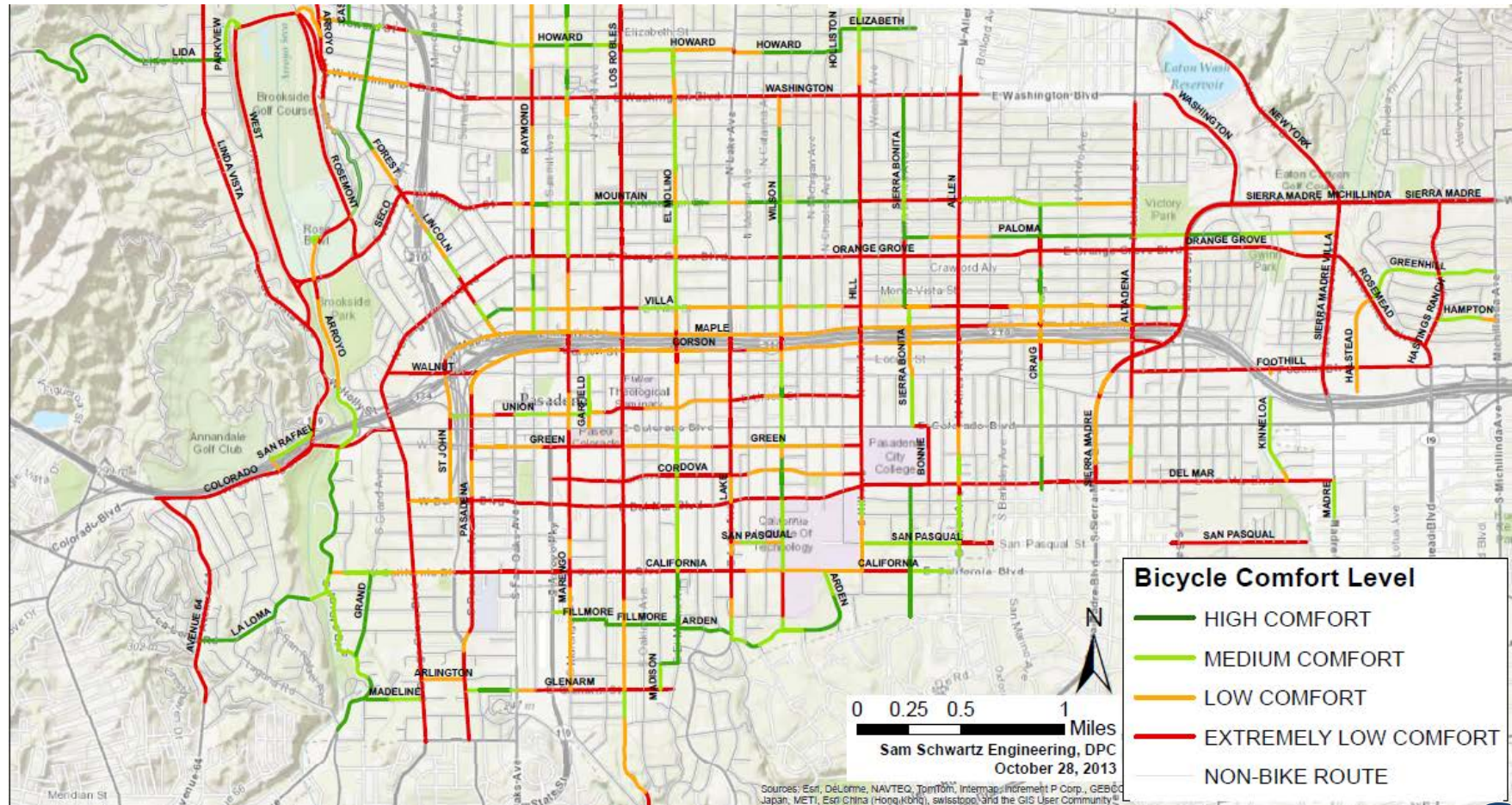
- Trip time and reliability
- Connectivity of networks
- Frequency of crossings

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- Connectivity of networks
- Frequency of crossings





# Measuring Success



# What is comfortable?

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**LTS 1:**  
“suitable for children”



**LTS 2:**  
“interested but concerned”

# What is comfortable?

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**LTS 3:**  
“enthused and confident”

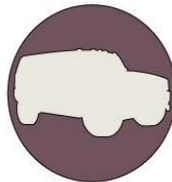


**LTS 4:**  
“strong and fearless”

# Metrics

## Comfort

- Level of traffic stress
- Tree coverage
- Pedestrian comfort, based on survey data



Strong and Fearless - 1%

Enthusied and Confident - 6%

Interested, But Concerned - 60%

No Interest - 33%



# Measuring Success

## Project for Public Spaces *Placemaking Checklist*

### Accessibility

- | YES                      | NO                       |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Is the entrance visible from a distance?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Is it easy to identify what is going on in the place?   |
| <input type="checkbox"/> | <input type="checkbox"/> | Is the primary use or mission of the tenant agencies easily identifiable? That is, are there signs or other visual cues that convey information about it? |
| <input type="checkbox"/> | <input type="checkbox"/> | Is there adequate directional signage, maps and location information?   |
| <input type="checkbox"/> | <input type="checkbox"/> | Can people easily get there (e.g. they don't have to dart through traffic)?   |
| <input type="checkbox"/> | <input type="checkbox"/> | Do sidewalks, paths, or roads match up with the directions in which people wish to go?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Can people use a variety of transportation options (bus, train, car, bicycle) to get to the place?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Does the place function for people with special needs (is it ADA-compliant)?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Do vehicles dominate pedestrian use of the space, or prevent them from getting to it?   |

CHECKLIST



### Uses & Activities

- | YES                      | NO                       |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Are people present?   |
| <input type="checkbox"/> | <input type="checkbox"/> | Is the place used by a range of ages and types of people?   |
| <input type="checkbox"/> | <input type="checkbox"/> | Do people tend to use the space alone, or do they cluster in groups?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Do several types of activities occur – for example, walking, eating, relaxing, reading, socializing, meetings, etc.?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Are many or most parts of the space used?   |
| <input type="checkbox"/> | <input type="checkbox"/> | Are there obvious choices of things to do – that is, evidence of events and activities that take place (e.g. a schedule, a stage)? Is there information about whom is responsible for events? |
| <input type="checkbox"/> | <input type="checkbox"/> | Does the place's design relate to and support events that take place there?   |
| <input type="checkbox"/> | <input type="checkbox"/> | Is there a management presence or other evidence that someone is in charge of the place?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Do the uses and activities benefit building visitors and employees?   |

CHECKLIST



### Comfort & Image

- | YES                      | NO                       |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Does the place make a good first impression, both from afar and upon entering it? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are there more women present than men?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Is there a choice of places to sit (for example, either in the sun or shade)?     |
| <input type="checkbox"/> | <input type="checkbox"/> | Is there appropriate weather protection (umbrellas, shelters)?                    |
| <input type="checkbox"/> | <input type="checkbox"/> | Is the space clean and free of litter?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Does the space and the surrounding area feel safe?                                |
| <input type="checkbox"/> | <input type="checkbox"/> | Does the place meet the needs of the people using it?                             |

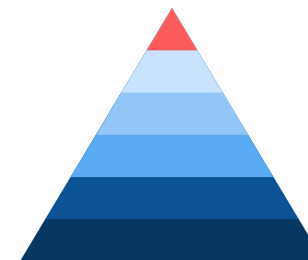
CHECKLIST



### Sociability

- | YES                      | NO                       |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Would you choose to meet your friends in this place?                                     |
| <input type="checkbox"/> | <input type="checkbox"/> | Are people talking with each other?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Are they smiling?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Do people seem to know each other by face or by name?                                    |
| <input type="checkbox"/> | <input type="checkbox"/> | Do they bring visitors to this place?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Do strangers make eye contact with each other?   |
| <input type="checkbox"/> | <input type="checkbox"/> | Is there a mix of ages and ethnic groups that generally reflects the community at large? |
| <input type="checkbox"/> | <input type="checkbox"/> | Do people tend to pick up litter when they see it?                                       |
| <input type="checkbox"/> | <input type="checkbox"/> | Do building employees volunteer to help program or maintain the place?                   |

CHECKLIST



# Enjoyable

# Metrics

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## Place

- Public art
- Quality of environment for different modes and user groups
- Resident engagement in process
- Satisfaction among residents, merchants, visitors
- Seating available





# Metrics

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## Economy

- Access to jobs
- Temporary and permanent jobs created by project, including use of local workforce
- Investments leveraged from other sectors
- Land value
- Parking utilization
- Retail vibrancy





# Metrics

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## Equity

- Examine the distribution of **impacts AND benefits** on specific populations:
  - Age
  - Disability status
  - Income
  - Neighborhood
  - Race
  - Ethnicity
  - Gender





# Examples

# Complete Streets is NOT:

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- One “special” street project
- A design prescription
- A mandate for immediate retrofit
- Only accomplished with special funding sources
- A silver bullet: other initiatives must be address:
  - Land Use (proximity, mixed-use, connectivity)
  - Environmental Concerns
  - Transportation Demand Management

# There is no magic design formula

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- One size doesn't fit all
- Doesn't mean every street has sidewalks, bike lanes and transit
- Fits the context of the community; land use and transportation needs



# Types of Complete Streets

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**Low-speed  
shared streets**





# Types of Complete Streets

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**Low-speed  
shared streets**



# Types of Complete Streets

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Shoulders on a  
rural roadway





# Types of Complete Streets

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**Sidepaths on a  
rural roadway**



# Types of Complete Streets

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## Residential skinny streets





# Types of Complete Streets

## Commercial main street





# Types of Complete Streets

## Commercial main street





# Types of Complete Streets

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Suburban  
thoroughfare





# Types of Complete Streets



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Suburban  
thoroughfare



**Questions and Discussion?**