Complete Streets Overview

JUNE 5TH 2018
Today’s Agenda

• Why do we need bikeable and walkable communities?

• Design considerations

-- Lunch --

• Small group exercise

• Getting it done
Introductions

• Name
• Organization
• What do you most want to learn about bikeable and walkable communities?
A Complete Street is
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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Who needs Complete Streets?

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.

Planning Complete Streets for the Aging of America, AARP
Who wants Complete Streets?

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?

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

Only one third of suburban residents can conveniently walk to a grocery store.
Mobility for All

1/3 of the US population does NOT have a drivers license

How are we accommodating them?
Health

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

T. Litman, *Evaluation of Public Transportation Health Benefits*
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

+1 point on the Walk Score scale = +$500 - $3,000 in home value
Social Equity & Opportunity

• 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

Of all Trips:

- 78% are less than 3 miles
- 80% are less than 1 mile

Yet of these trips...

65% are driven

2017 National Household Travel Survey
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

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

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

Average risk of death for a pedestrian at impact raises as speed increases:
- 10% at 23 mph
- 50% at 42 mph
- 90% at 58 mph

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

1. Agree to goals and objectives
2. Determine best measures for goals
3. Collect data
4. Share results
Measuring Success

- Enjoyable
- Comfortable
- Convenient
- Safe
- Accessible
- Passable

Equitable
Measuring Success
Measuring Success
Metrics

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

Crash Data 2011-2015

Source: City of Fargo

CONCENTRATION OF CRASH DATA (All Crashes 2011-2015)

- ALL CRASHES
- RAIL
- OPEN SPACE
- DOWNTOWN FOCUS AREA

Crash Types
Broadway & 1st Avenue

Angles 54%
Rear 29%
Front 27%
Side 22%

Metrics

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
Metrics

Convenience

• Trip time and reliability
• Connectivity of networks
• Frequency of crossings
Measuring Success

Bicycle Comfort Level
- HIGH COMFORT
- MEDIUM COMFORT
- LOW COMFORT
- EXTREMELY LOW COMFORT
- NON-BIKE ROUTE

Sam Schwartz Engineering, DPC
October 28, 2013
What is comfortable?

LTS 1: “suitable for children”

LTS 2: “interested but concerned”
What is comfortable?

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%
- Enthused and Confident - 6%
- Interested, But Concerned - 60%
- No Interest - 33%
Measuring Success

Project for Public Spaces

Placemaking Checklist

Accessibility

- Is the entrance visible from a distance? [YES] [NO]
- Is it easy to identify what is going on in the place? [YES] [NO]
- Is the primary use or mission of the place easily identifiable? [YES] [NO]
- Is there signage or other visual cues that convey information about it? [YES] [NO]
- Is there adequate directional signage, maps, and location information? [YES] [NO]
- Can people easily get there (e.g., they don’t have to dart through traffic)? [YES] [NO]
- Do sidewalks, paths, or roads match up with the directions in which people want to go? [YES] [NO]
- Can people use a variety of transportation options (bus, train, car, bicycle) to get to the place? [YES] [NO]
- Does the place function for people with special needs (i.e., ADA-compliant)? [YES] [NO]
- Do vehicles downstream pedestrian use of the space, or protect them from getting to it? [YES] [NO]

Uses & Activities

- Are people present? [YES] [NO]
- Is the place used by a range of ages and types of people? [YES] [NO]
- Do people need to use the space alone, or do they cluster in groups? [YES] [NO]
- Do several types of activities occur – for example, walking, eating, relaxing, reading, socializing, meetings, etc.? [YES] [NO]
- Are any or most parts of the space used? [YES] [NO]
- Are there obvious choices of things to do – that is, evidence of events and activities that take place (e.g., a schematic, a stage)? [YES] [NO]
- Is there interaction about whom is responsible for events? [YES] [NO]
- Does the place’s design relate to and support events that take place there? [YES] [NO]
- Is there management presence or other evidence that someone is in charge of the place? [YES] [NO]
- Do the uses and activities benefit building visitors and employees? [YES] [NO]

Comfort & Image

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

Sociability

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

Place

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

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
Examine the distribution of **impacts AND benefits** on specific populations:

- Age
- Disability status
- Income
- Neighborhood
- Race
- Ethnicity
- Gender
Examples
Complete Streets is NOT:

• 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

• 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

Low-speed shared streets
Types of Complete Streets

Low-speed shared streets
Types of Complete Streets

Shoulders on a rural roadway
Types of Complete Streets

Sidepaths on a rural roadway
Types of Complete Streets

Residential skinny streets
Types of Complete Streets

Commercial main street
Types of Complete Streets

- Commercial main street
Types of Complete Streets

Suburban thoroughfare
Types of Complete Streets

Suburban thoroughfare
Questions and Discussion?