



BLUE ZONES™

*live longer, better**

Building Healthy Montana Communities by Design



Your Presenters

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Innovation**

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Dan



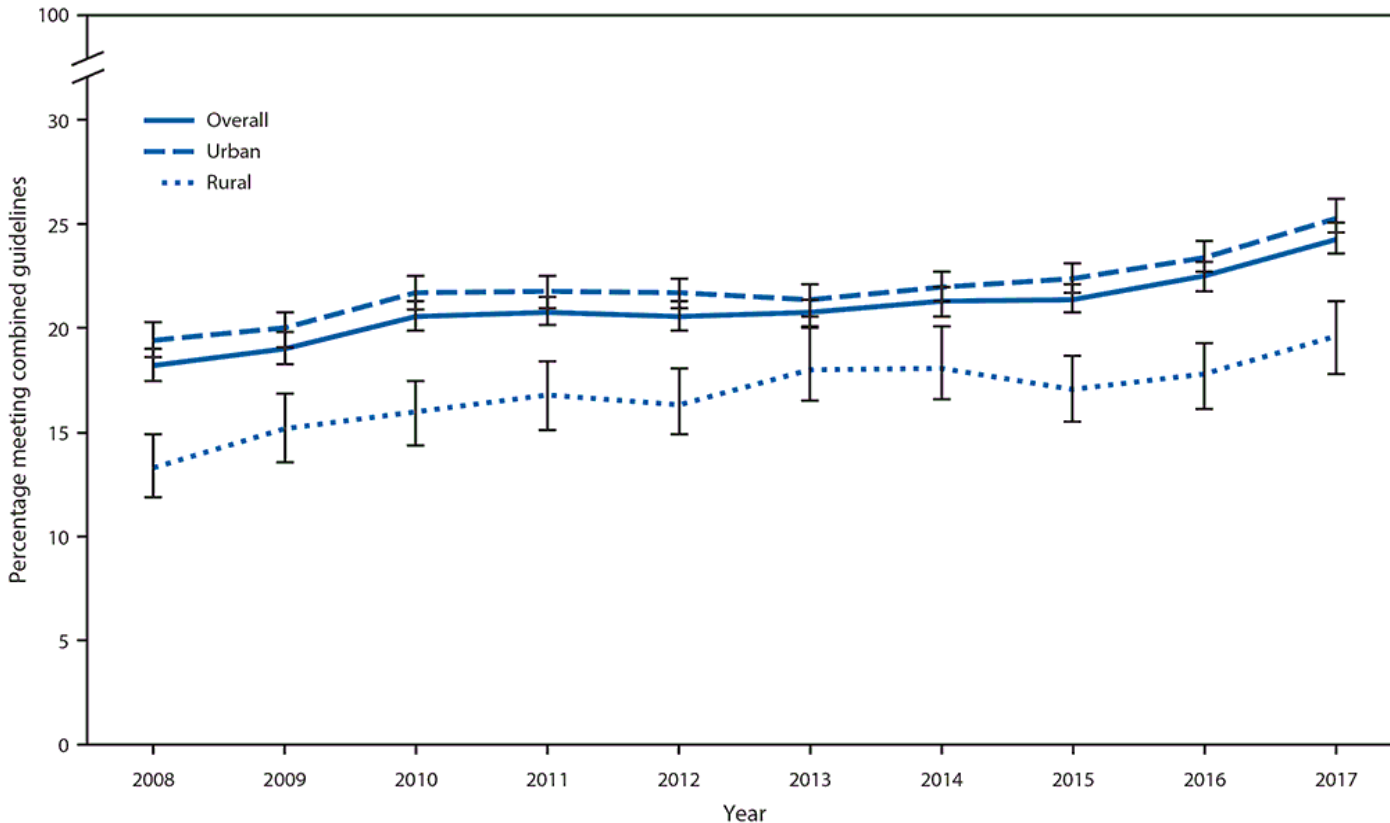
Mark

Key points . . .

1. Physical activity is more important than ever.
2. Encouraging is not enough; “active environments” are needed.
3. Keys to success:
 - Truly interdisciplinary and inclusive collaboration.
 - Demonstrations and low-cost installations to build momentum.
 - Policy & systems change as the ultimate goal.
4. Intervention must happen on three scales:
 - Macro: Land use comes first, connectivity, mix of uses, efficiency & scale.
 - Meso: The network must be complete, *and* target safe, humane vehicle speeds to truly support walking, bicycling & transit.
 - Micro: Street level design, place-making, functional details must be on a human scale (e.g. from street furnishings to intersection designs).

% Meeting Full PA Guidelines

Whitfield et.al. *MMWR*; 68(23);513–518; June 2019



Guidelines - at least:

- 150 mins/week of moderate physical activity (30 min/d)
- Muscle strengthening several days/wk.



Red Lodge

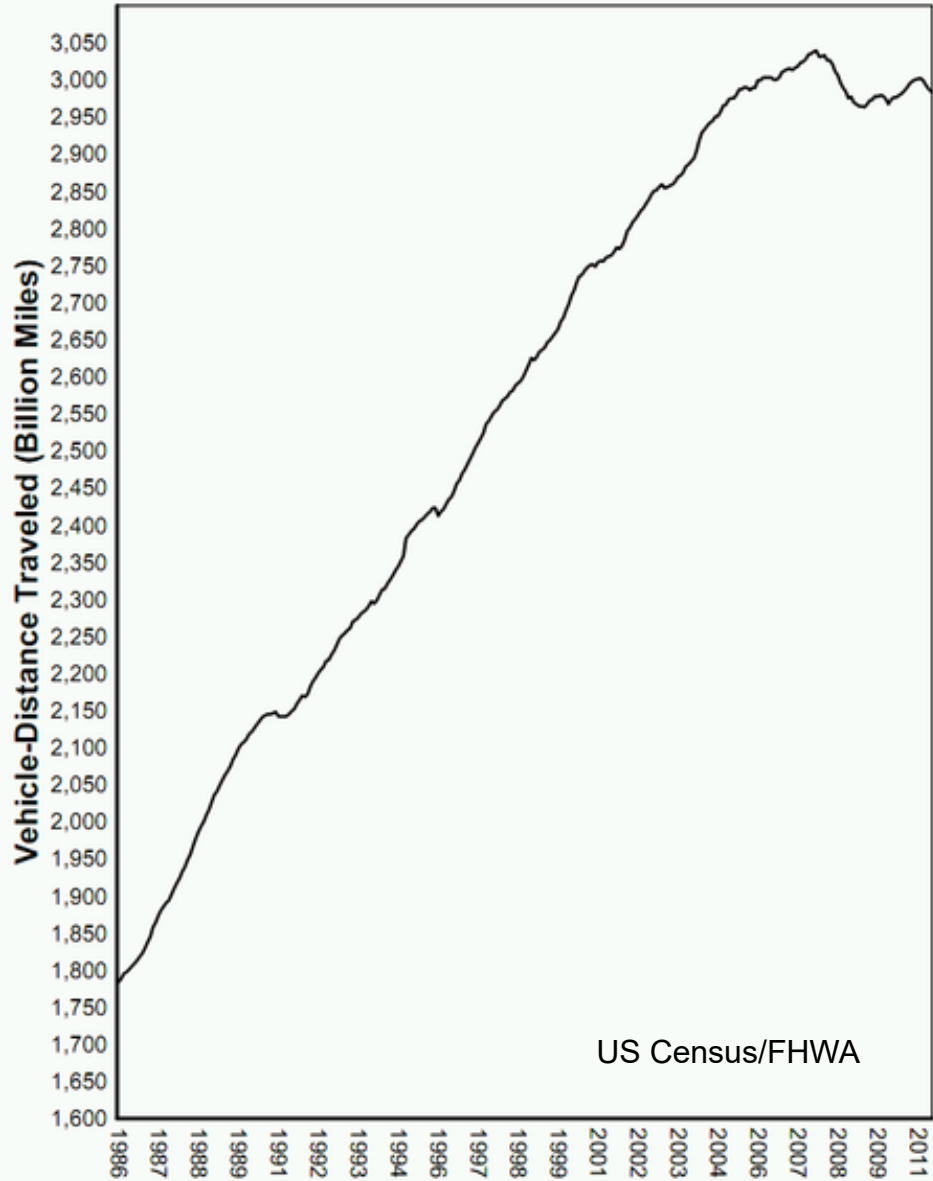


Shelby



Livingston

Butte



Vehicle Miles Traveled have risen inexorably for decades, with a slight slow down at \$4/gallon gas and the Great Recession.



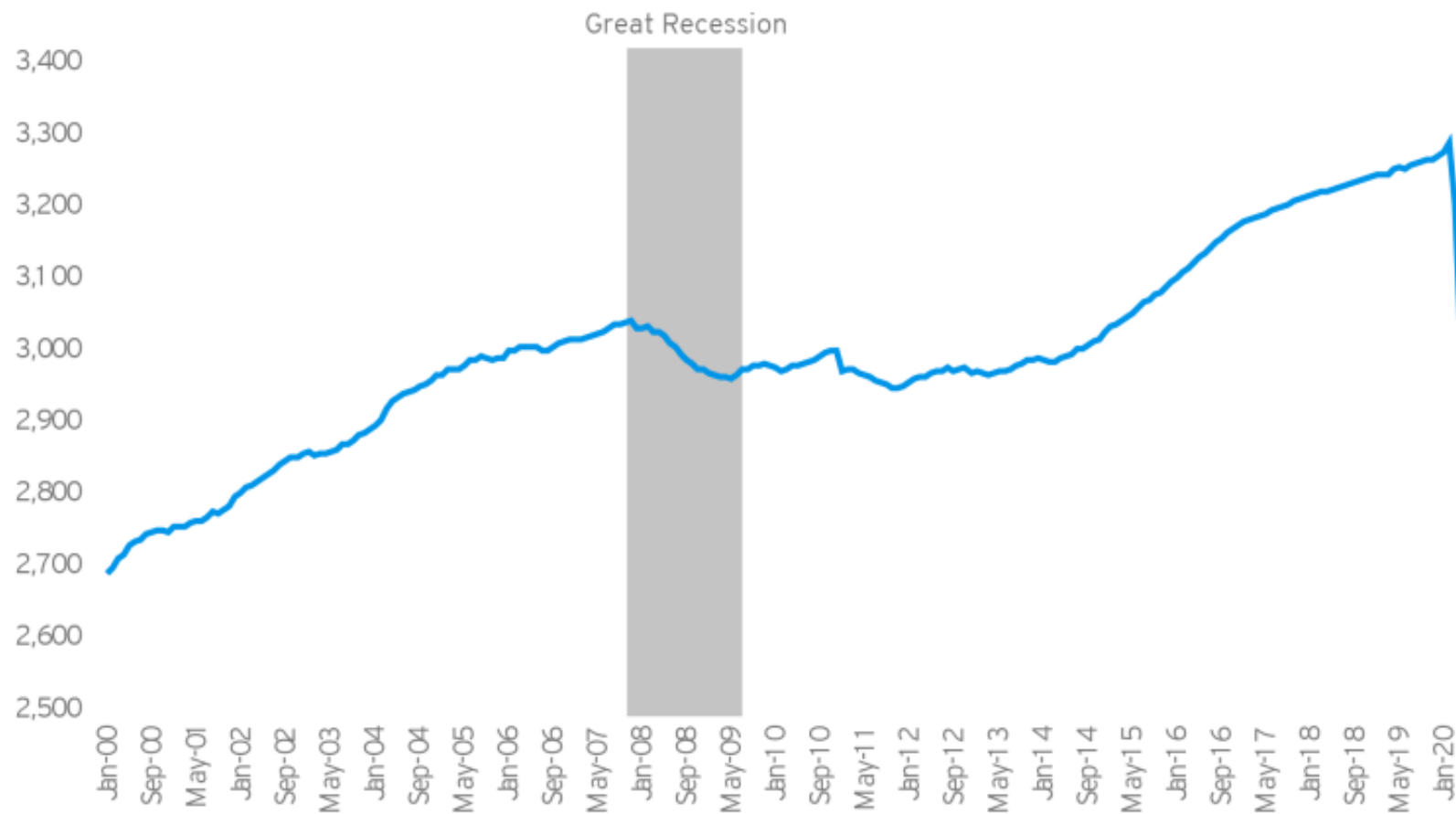
Per-capita vehicle miles traveled



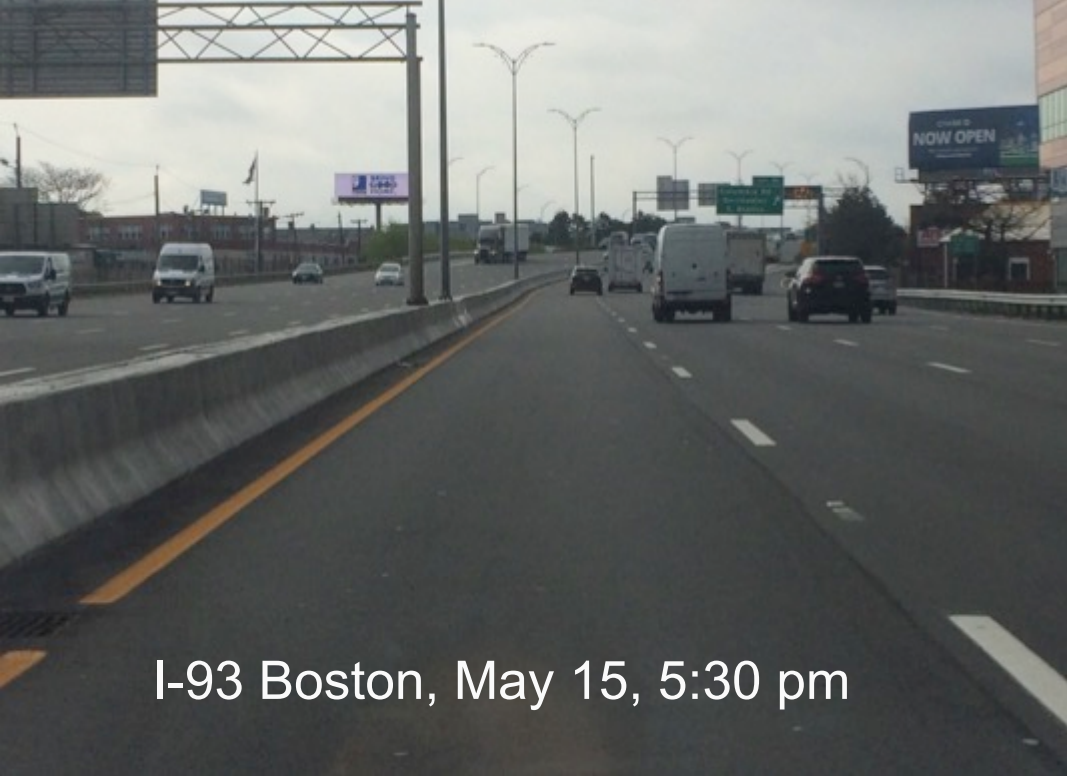
Created by Yonah Freemark @ The Transport Politic | Source: FHWA/U.S. Census

National vehicle miles traveled (in billions), 12-month increments

January 2000 - April 2020

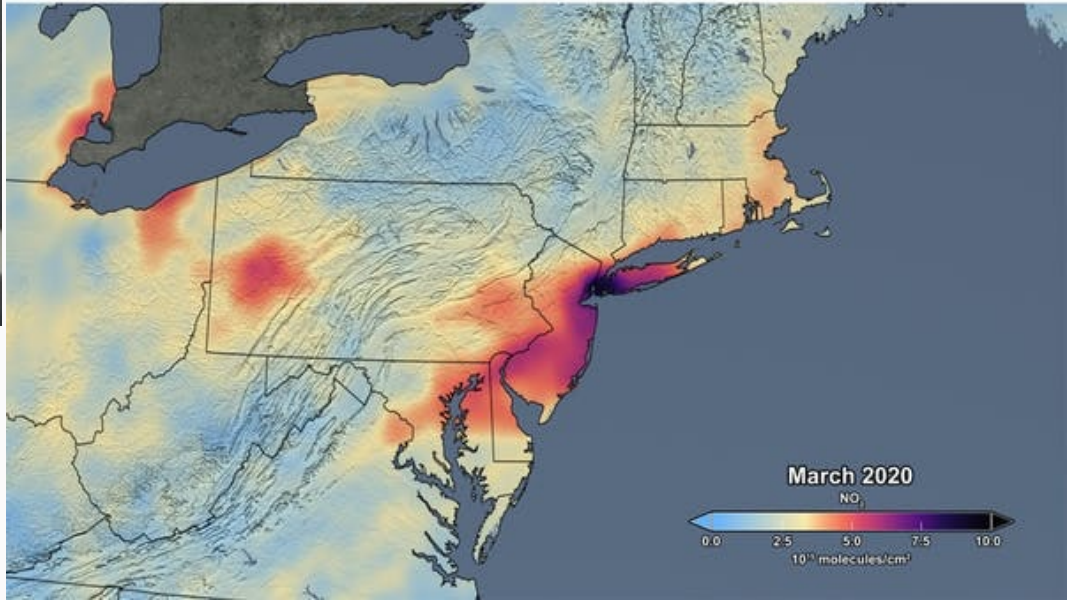
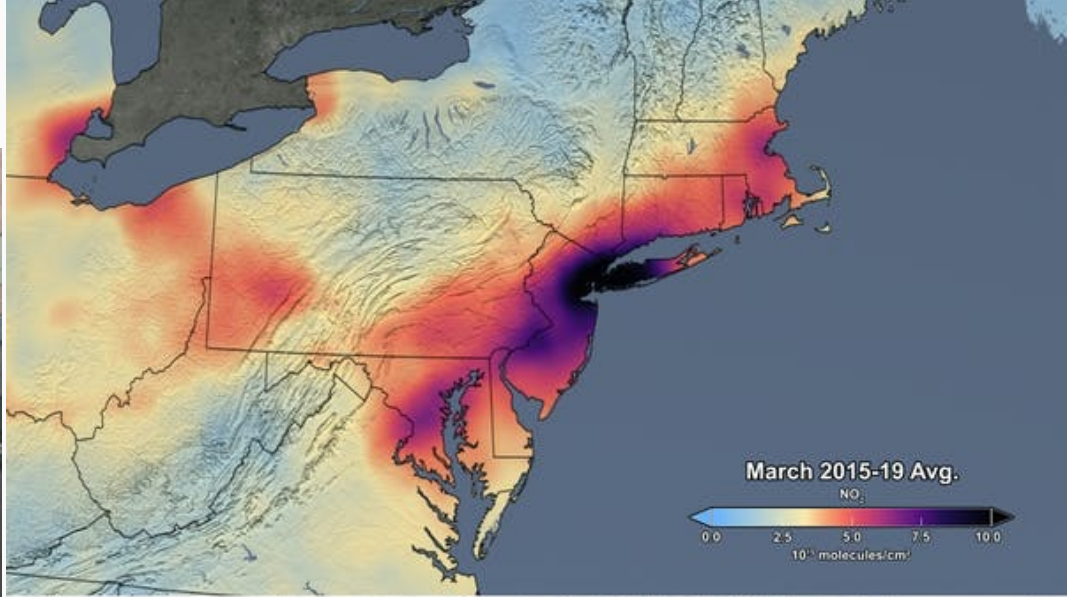


Source: Brookings analysis of Federal Highway Administration data (January 2000 - January 2020); Streetlight Data data (January 2020 - April 2020).



I-93 Boston, May 15, 5:30 pm

www.nasa.gov/feature/goddard/2020/drop-in-air-pollution-over-northeast





Washington DC, June 7, 2020



Poll results: Which will be the greatest root cause of death in the US in 2020?

- Seasonal flu (typical)
- Opioid overdose
- Coronavirus (est.)
- Tobacco use
- Pedestrian collisions
- Inactivity/poor nutrition
- Motor vehicle collisions

Poll: Greatest cause of premature death?

Root causes

- Pedestrian collisions
- Seasonal flu (typical)
- Motor vehicle collisions
- Opioid overdose
- Coronavirus
- Inactivity/poor nutrition
- Tobacco use

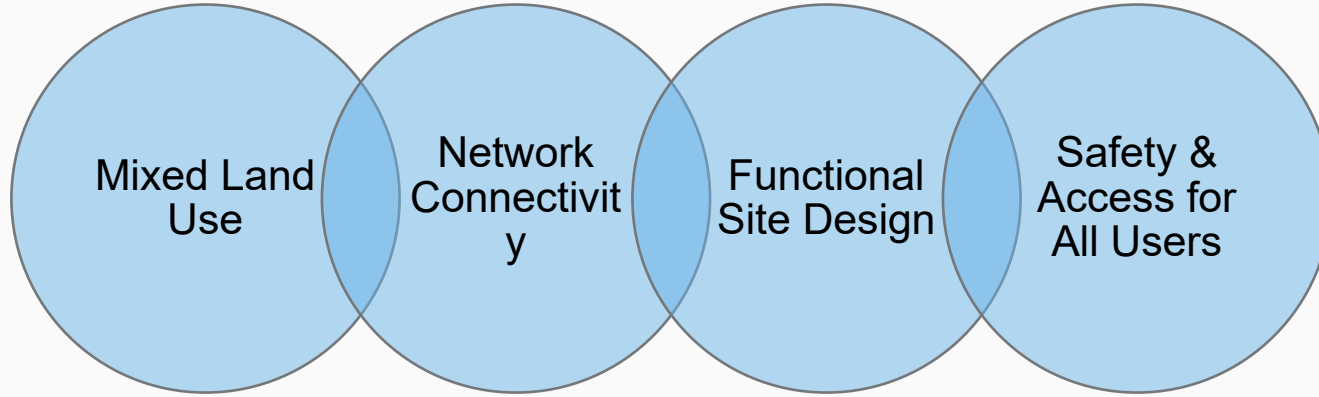
US annual deaths (typ.)

- **5,000-6,000**
- **34,000**
- **37,000**
- **67,000**
- **200,000-400,000 (est.)**
- **400,000**
- **480,000**

Why does the built environment matter?

- We almost shut down the economy to keep an infectious disease that will likely kill 200,000+ Americans from killing many thousands more.
- Each year we suffer over 800,000 premature deaths to “lifestyle” risk factors (tobacco, physical inactivity, and poor nutrition).
- As little as 30 minutes of physical a day reduces risk for CVD, stroke, Type II diabetes, hypertension, obesity, osteoporosis, clinical depression, dementia in old age, and many cancers.
- Many chronic conditions dramatically increase risk for adverse COVID-19 outcomes.
- Both chronic and infectious disease are disproportionately burdening people of color and of low income across the US.

Four elements support active modes





1. Mixed destinations: Live, work, shop, play, learn, pray.





2. Connected Network for Walking, Biking & Transit

Sidewalks, on-road bike facilities, multi-use pathways and trails, transit.



3. Functional, Inviting, and Accessible Site Design



Street trees,
lighting, plantings,
seating.

Shared space,
way-finding,
public art.



Street front
buildings,
windows,
awnings.

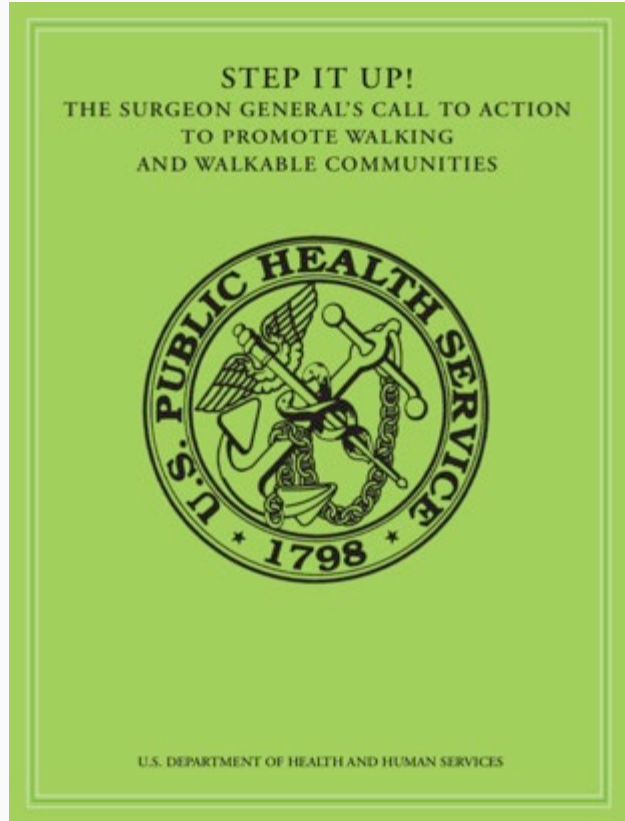
4. Safety & Access for All Users



Increasing pedestrian & bike trips decreases injury & fatality risk per mile of exposure.

(Jacobsen, Pucher)

“Active routes to everyday destinations.”



www.cdc.gov

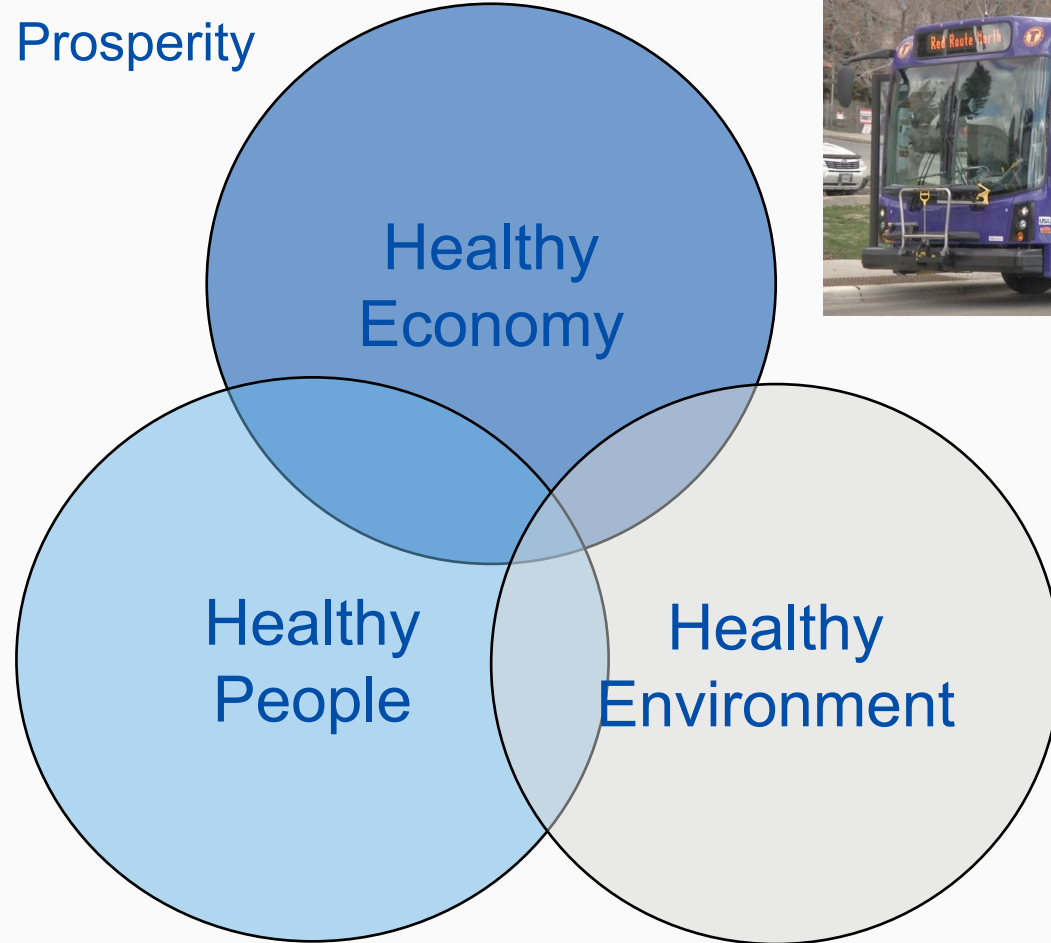
Healthy design yields a triple bottom line.



People



Prosperity

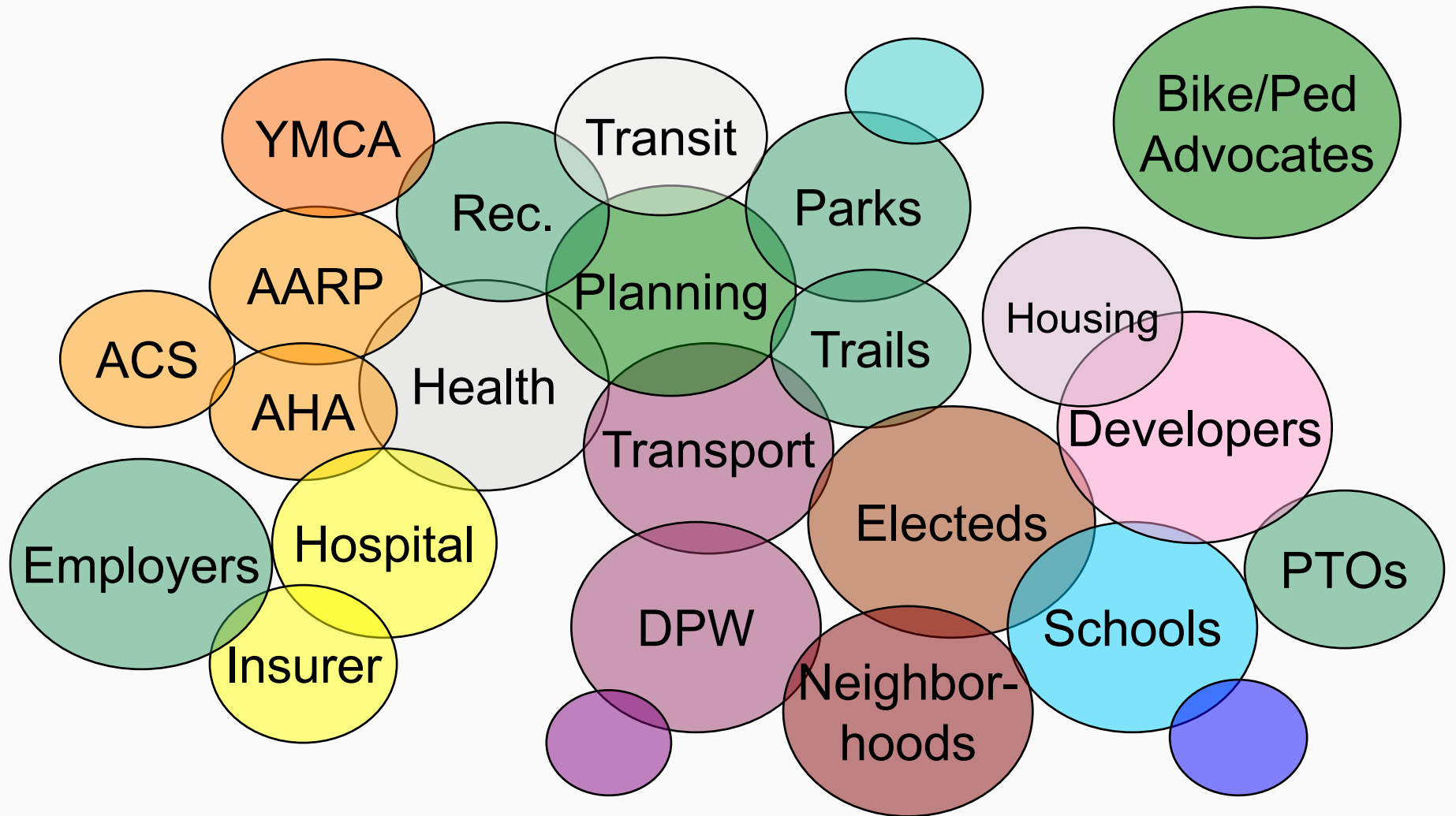


Planet

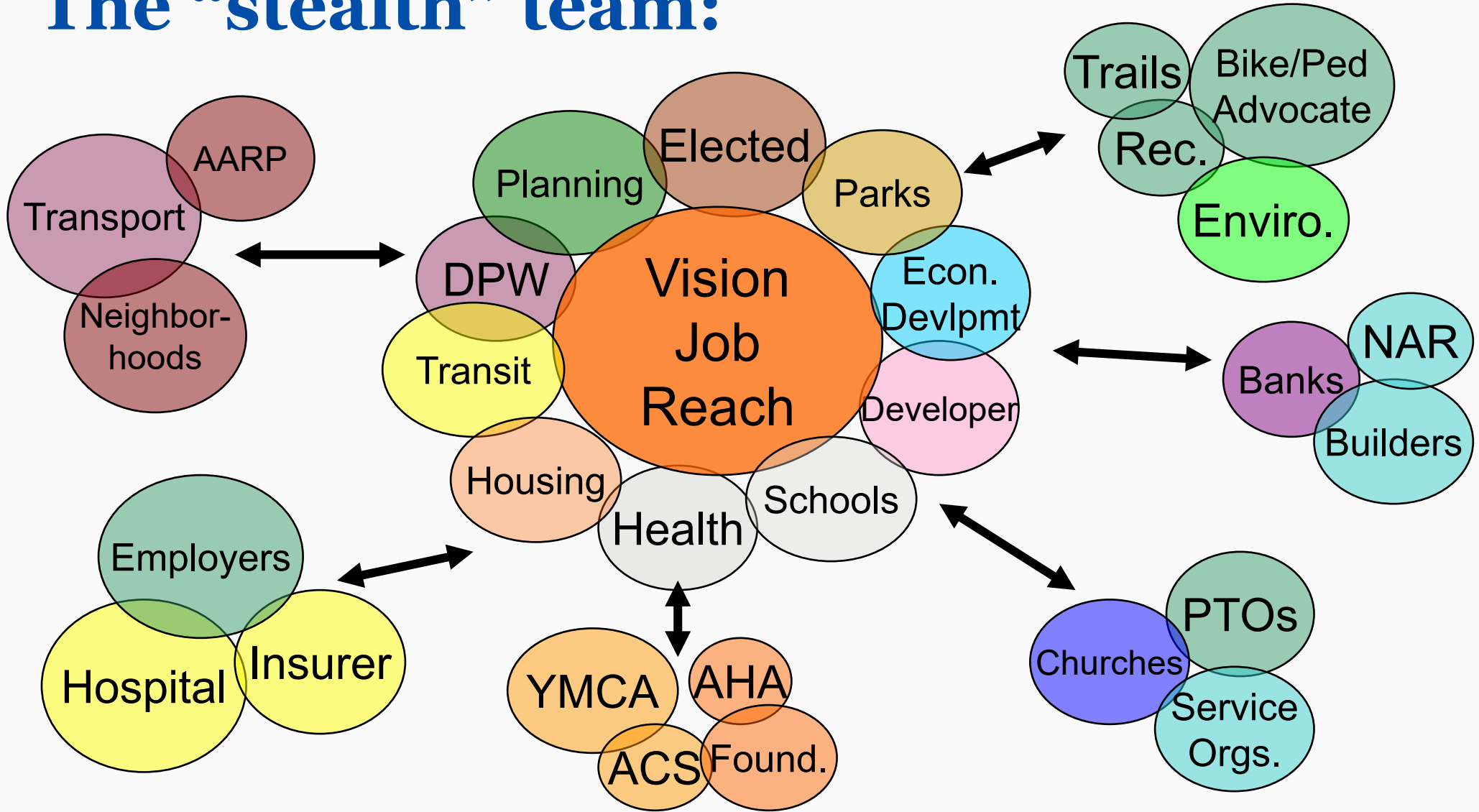
Healthy communities with “2020” vision . . .

- **Truly inclusive**, interdisciplinary teams can make great progress; may need a facilitating entity.
- **Low-cost demonstrations & pop-ups** can answer questions, overcome fears, support detailed plans.
- Ultimate goal is policy and systems level change: **Complete Streets** policy; **growth plans & zoning ordinances** protecting open space and encouraging walkable centers; **school transportation plans** focused on walking & bicycling.

Typical “coalition:”



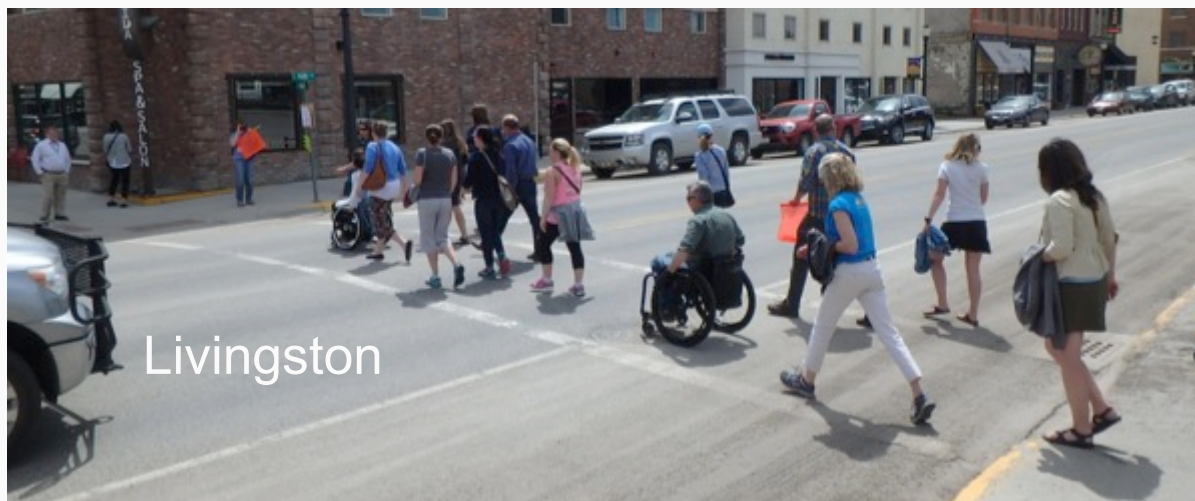
The “stealth” team:



Fully inclusive community engagement



ruralinstitute.umt.edu



Pop-up & demonstrations can help. (Walk/bike to school week.)



Whitefish MT



Pop-up curb extensions



Leadership walk audit





2016

Billings MT

In this session we wish to:

- Provide pathways to health
- Build sustainable, resilient urban places
- Make active transportation the easy choice
- Cover basic principles on why we must return to past town making principles
- Stop squandering the resources of future generations
- Develop a sense of urgency





Recommendations:

- Formally adopt *NACTO Street Design Guide*, with the potential to later create a guide unique to Salinas.
- Formally adopt a *Complete Streets Policy* for the City of Salinas.
- Create a *Complete Streets Implementation Plan*.
- Set *Target Speeds* on principal roads.

Recommendations:

- Adopt an *Urban Design Manual* to simplify and streamline current code alignment.
- Support implementation of *Parking Management Plan*.
- Pursue citywide *Transportation Demand Management* strategies.
- Promote *housing diversity, affordability and infill* through ADU-focused policy efforts.

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- Develop a *Salinas Safe Routes to School Master Plan*.



Land Use



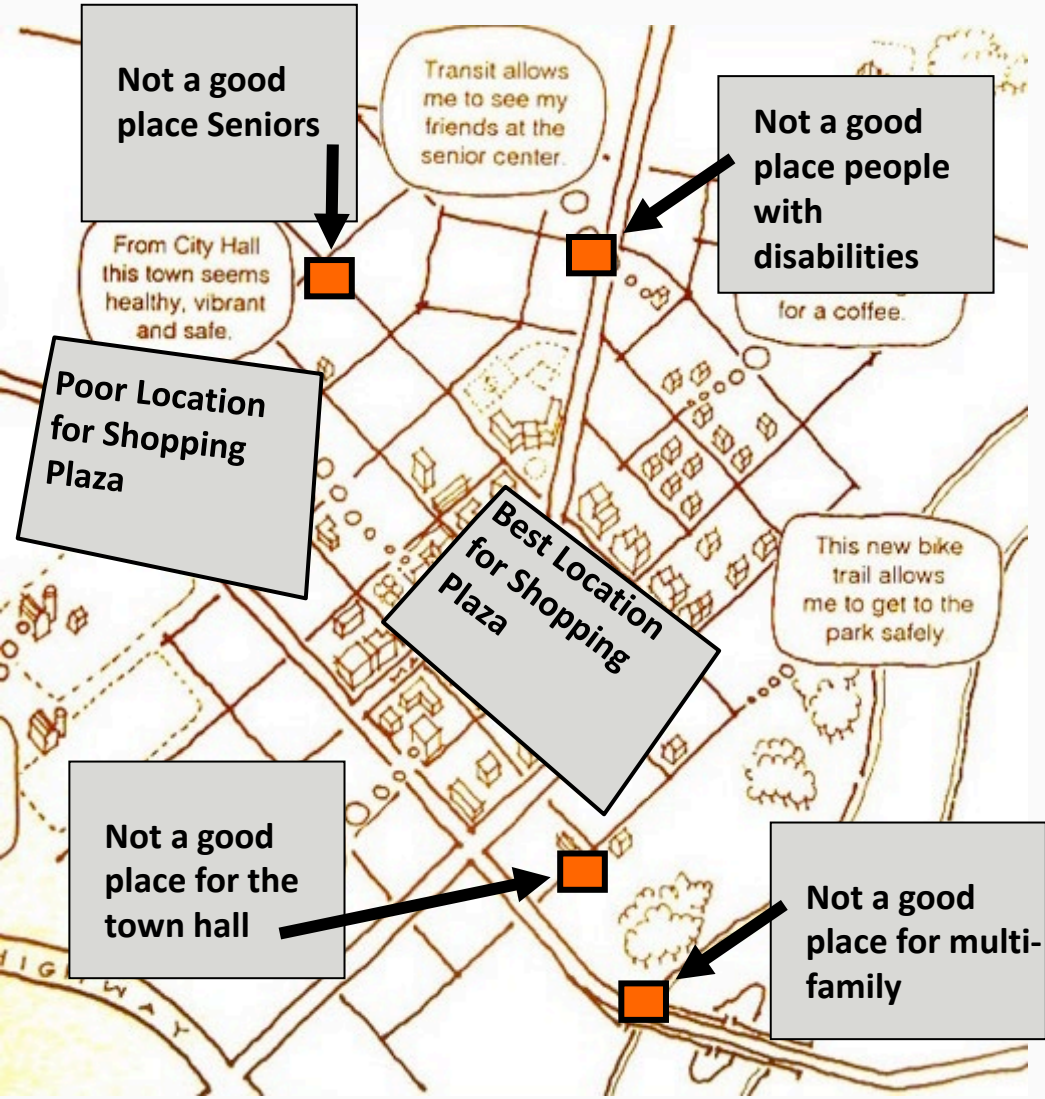


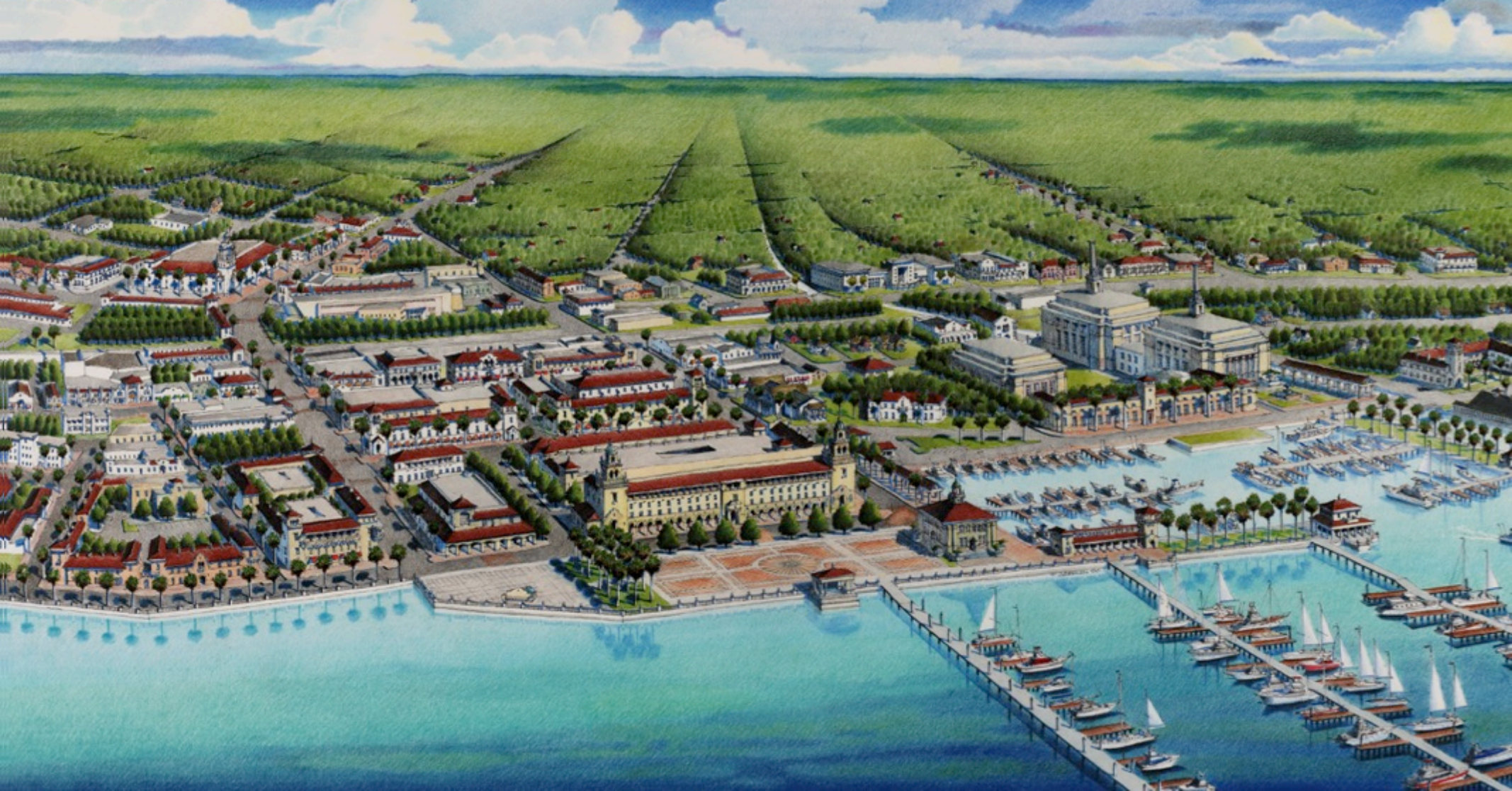
The simple needs of automobiles are more easily understood and satisfied than the complex needs of cities.

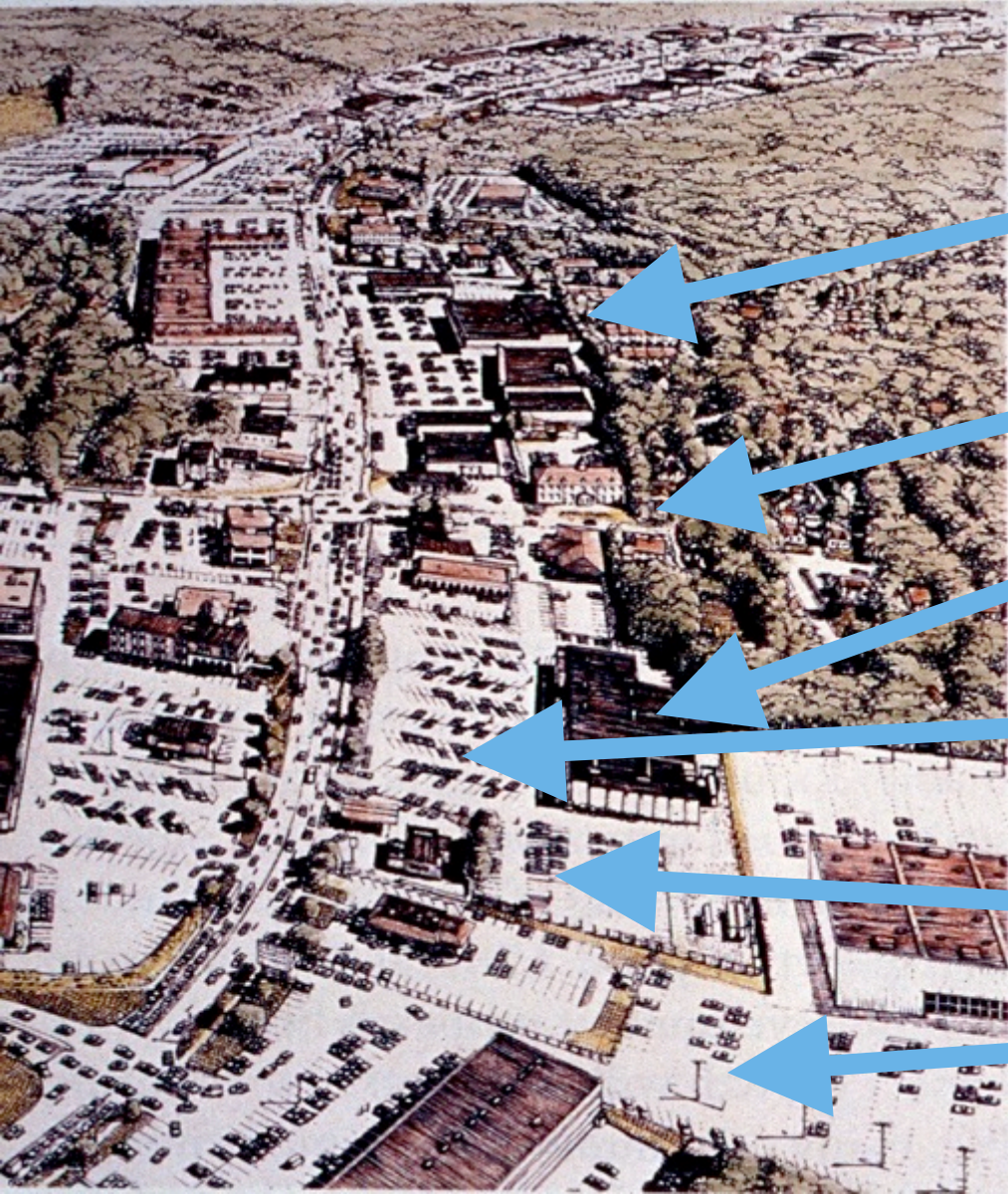
Jane Jacobs, Death and Life of Great American Cities , 1961



Locational Efficiency







Low Internal Capture Rate

Low Connectivity

Low/No Mix of Uses

Light Density, Low Yield/Acre

High Parking Requirements

Solar Heat Sinks, Little Space for Green



High Internal Capture Rate

High Connectivity

High Mix of Uses

Moderate Density, Good Yield/Acre

Moderate Parking Requirements

Space for Green



Not Walkable



Walkable

**1550 Feet from
NOTHING**

Orlando, Florida





Transportation

A Balanced Transportation System -

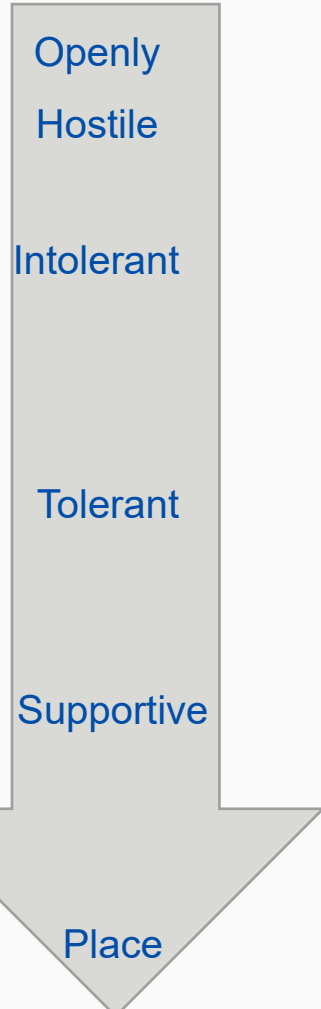
Allows *all* people of *all* ages and abilities full access to all parts of their community. Switching from one mode of travel to another is seamless.

To achieve this requires a close partnership with land use *and* transportation.

Quality of life and health increase as policies, programs, and people are considered in each and every decision, and budget, we set in motion.



Complete Streets Support Livability



Complete Streets accomplishments are a matter of degree (from hostile to place).

Streets that are openly hostile to walking and livability suffer from reduced land value. Under most state income streams, this robs from taxpayer paid funding.

Centerline Removal

Roadway centerlines are required by the Manual on Uniform Traffic Control Devices for roadway volumes over 6,000 vehicles per day. On lower volume roads, consider dropping the center line, then adding edge lines spaced 18 feet apart from one another. This practice can have several desired effects. Motorists tend to slow their speed, give a wider berth to bicyclists, pedestrians and people exiting their cars. The centreline should remain at curves and where visibility is limited. Also note the added value off “double facing” crossing signs.



ACTIVE TRANSPORTATION BASICS

Target Speed

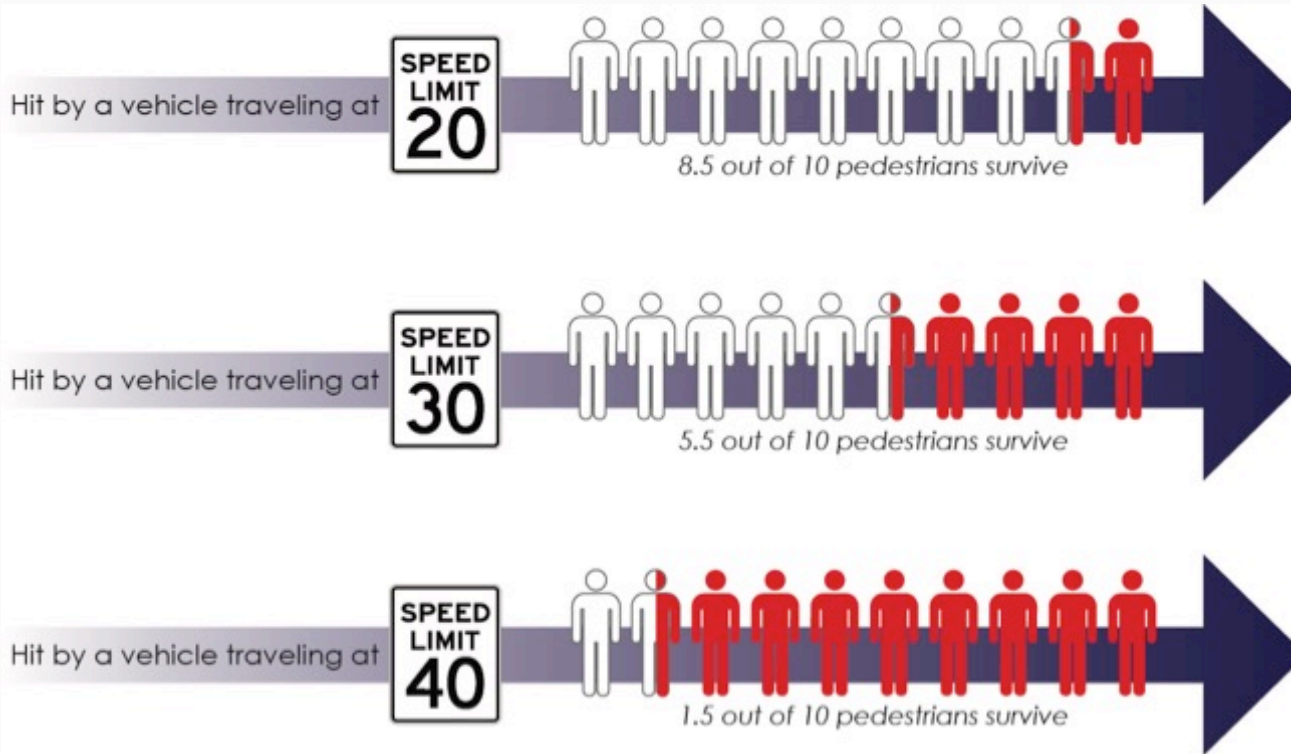
Local Streets and Bicycle Boulevards

Collector Streets and Road Diets

Arterial Roads

Getting Across the Street

Why Speed Matters



The concern of residents regarding traffic speeds is based on their perception of threat. This perceived danger is supported by the traffic crash science, presented in this chart. Harm increases exponentially as speed increases.

A pedestrian's survival rate drastically changes if hit by a vehicle traveling at 20, 30 or 40 miles per hour.

For residential areas, a posted speed limit of 25 miles per hour or lower is appropriate. When streets are designed to allow higher speeds, higher speeds are induced.

Streets should provide a safe and comfortable travel for all modes.

As a general rule, Complete Streets bring a road back into a form preferred by residents, allocating only as much space needed by motorists, and applying other space to residents, placemaking, nature, drainage, people using transit, walking or bicycling.



Width Varies

10' feet

Sidewalk
5' feet wide

Edge

7'
feet

6' feet

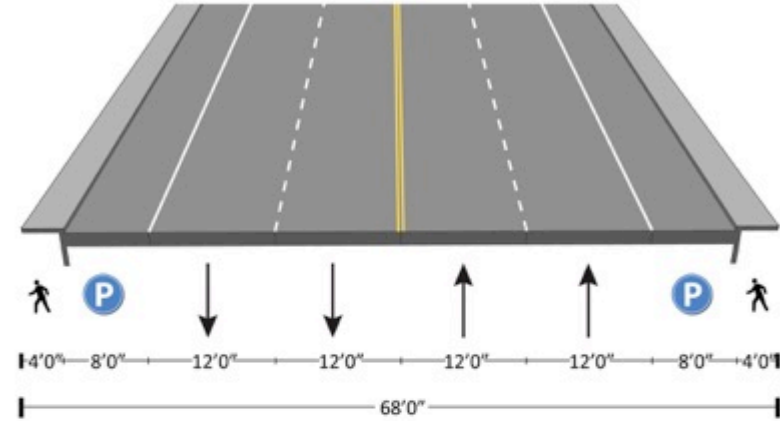


Both streets are “collectors.”
Which design adds the
greatest value to a home,
and hence the tax base?

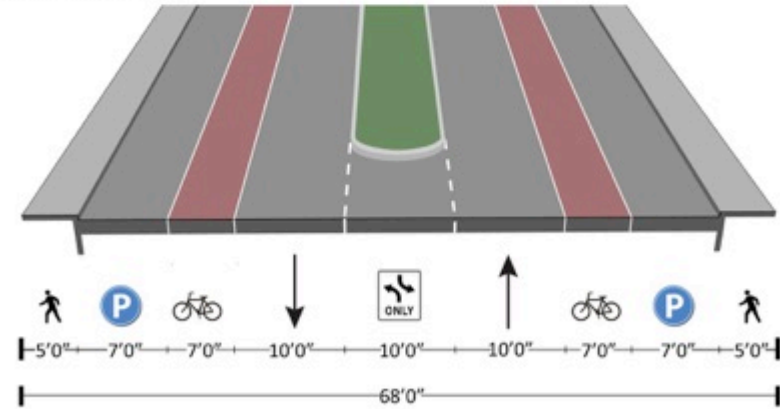
Design for People Road Diets

The wider a roadway, the faster people tend to drive. In many downtowns, the desire to speed motorists out of town at the end of the workday led to roads being built too wide, with too many lanes. This is detrimental to commercial activity and walkability. One possible solution is a road diet.

Before Road Diet



After Road Diet






To Green Lake Center
To Northgate


64
Green Lake Center
Northgate

NE





RIGHT
LANE
FOR
BICYCLES
ONLY

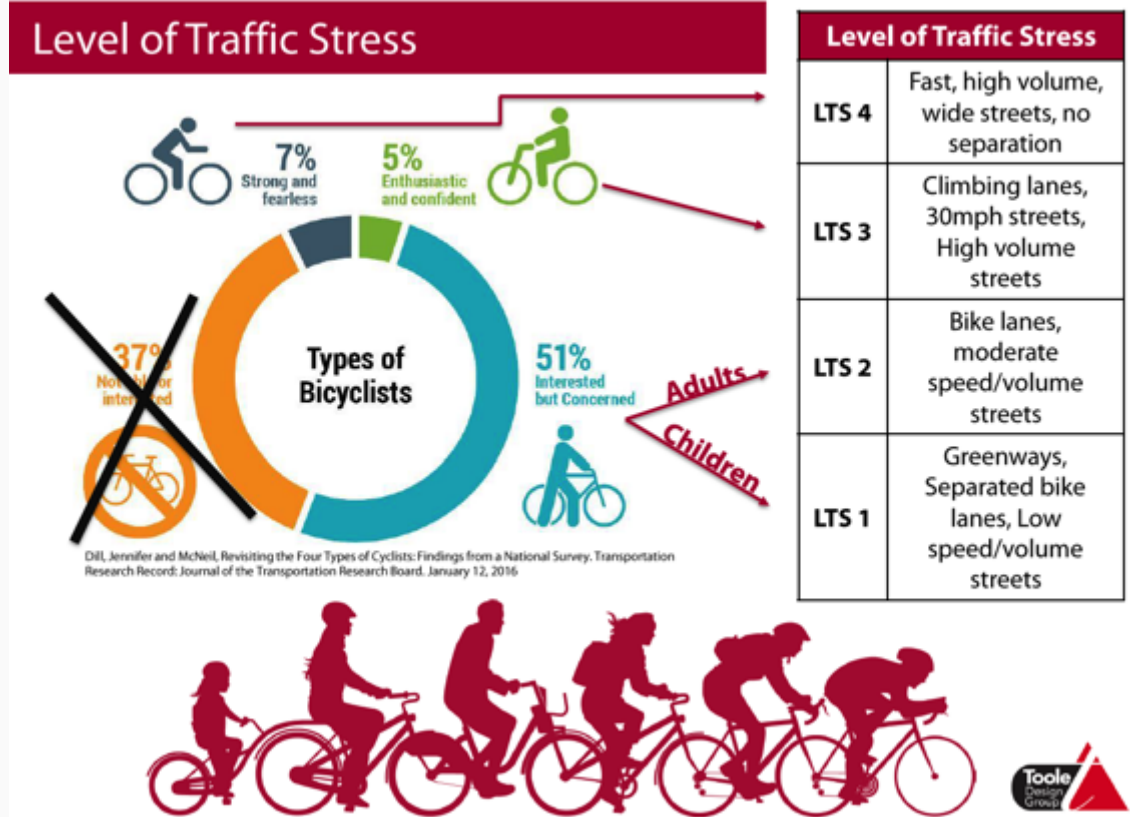
Sun-Scoutland

026 310

FLORIDA

4x4

Level of Traffic Stress



Thirty-seven percent of the public self rate their interest to bike at zero. This leaves sixty-three percent who are looking for more active transportation supports than we are providing today. The Strong and Fearless and Enthusiastic and Confident crowds are being served. Infrastructural investments should support the fifty-one percent who are Interested but Concerned.







10
km/h

300 HARBOR RD
ARME
VICTORIA
HOSPITAL CLINIC
A BURNING CLINIC





**Bike Lane Buffer
(Works 24-7)**





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Effective Public Engagement for Systems Change



Why do so many neighborhood plans fail to get off of the shelves?

Successful public engagement is essential if we are to reverse decades of incentivizing auto trips over the needs of a neighborhood. In the scene to the left, the Michigan DOT realized that a crucial sidewalk was missing (where the homes are). They scheduled an open house style meeting. The result: 300 people showed up to oppose the sidewalk. Why? They wanted to look rural and sidewalks, they said, “are an urban thing.”

To move forward, The Heights neighborhood must build and defend its own vision. There will be opposition. Those who take part in advancing the future must become informed, and then work tirelessly to get their plan on the ground.

Summary

- **Active environments** support environmental, economic, and public health. More important now than ever.
- **Interdisciplinary teams** w/ community vision are key.
- **Pop-ups & demonstrations** educate & build momentum; but the ultimate goal must be **policy & systems level change**.
- **Land Use comes first**, the right connectivity, mix of uses, locational efficiency are essential.
- **Target Speeds matter**; if our streets are only for regional travel we cannot support walking, bicycling and transit
- **Getting across the street** requires compact intersection designs, mid-block crossings, roundabouts – human scale!



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