# Boise's *Transportation Action Plan*

## New Partners for Smart Growth Conference 2018

**Ben Rosenblatt, AICP, CFA**

Senior Planner | City Strategies


Sam Schwartz Engineering D.P.C.

February 2, 2018

# Today's topics

1) Boise context

2) National and peer city context

3) The Boise TAP: an overview

4) The Boise TAP: its impact

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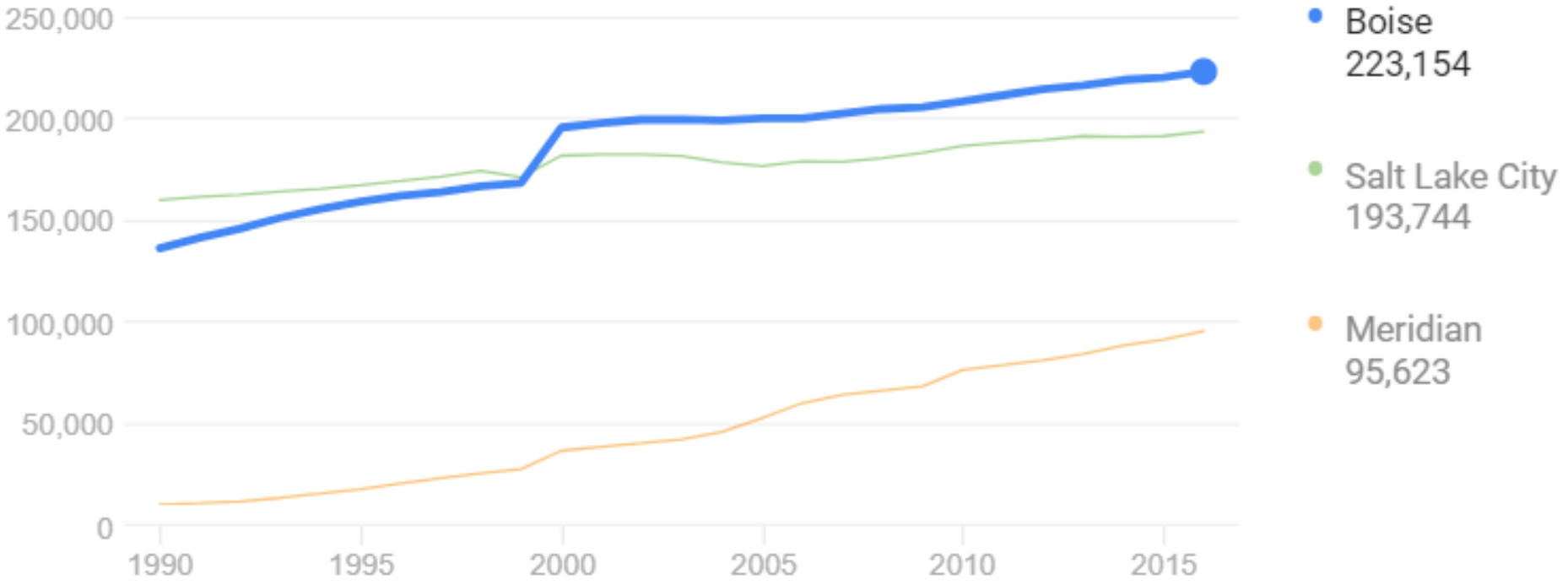
BOISE
CITY OF TREES


MATADOR
MATADOR
BAMBOCK

Boise / Population

# 223,154 (2016)

**64% growth since 1990**



# City of Boise

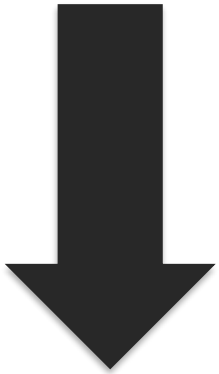
...SO, WHO IS IN CONTROL HERE!?

Transportation Planning & Ideation

# City of Boise

...SO, WHO IS IN CONTROL HERE!?

Transportation Planning & Ideation



## Ada County Highway District (ACHD)

Project Execution, Maintenance, & Asset Ownership

# Today's topics

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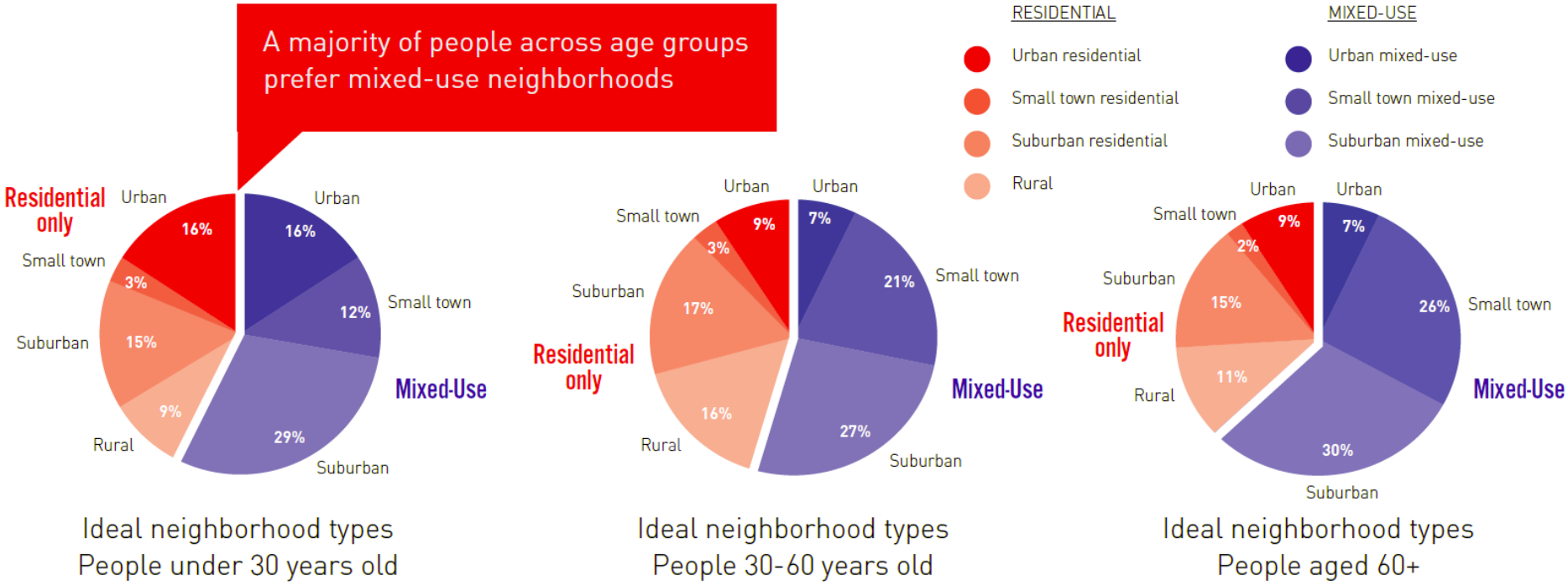
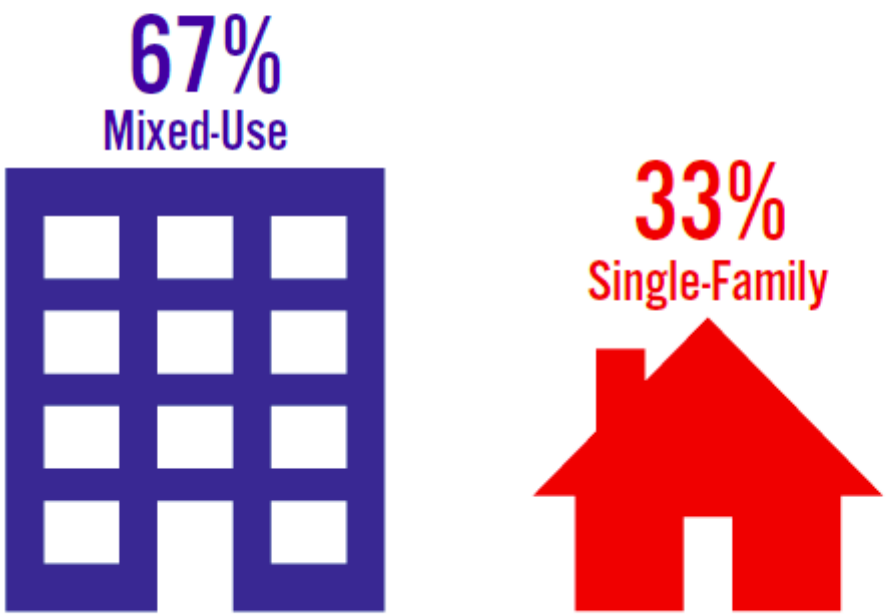
# Changing preferences…
# Hype vs. reality




Sources: Transportation for America survey of Millenials; "Who's On Board," TransitCenter, September 2014.

**All images that follow are from Boise's *Transportation Action Plan* except where otherwise noted**

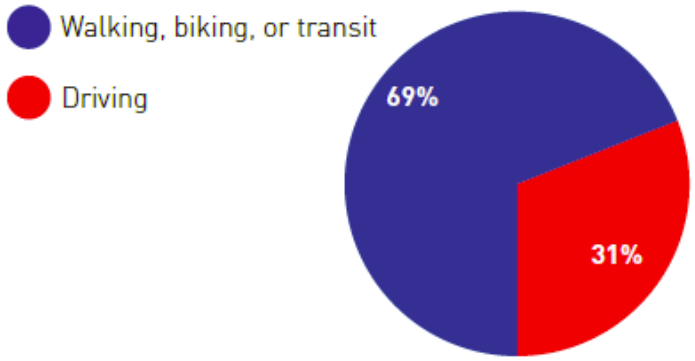
Mixed-use urban centers and villages are growing faster than other neighborhood types.




2010 Seattle Population Increase

Source: Seattle Department of Planning and Development
Decennial Census, 2000 and 2010

## Millenials' preferred travel modes, 2011

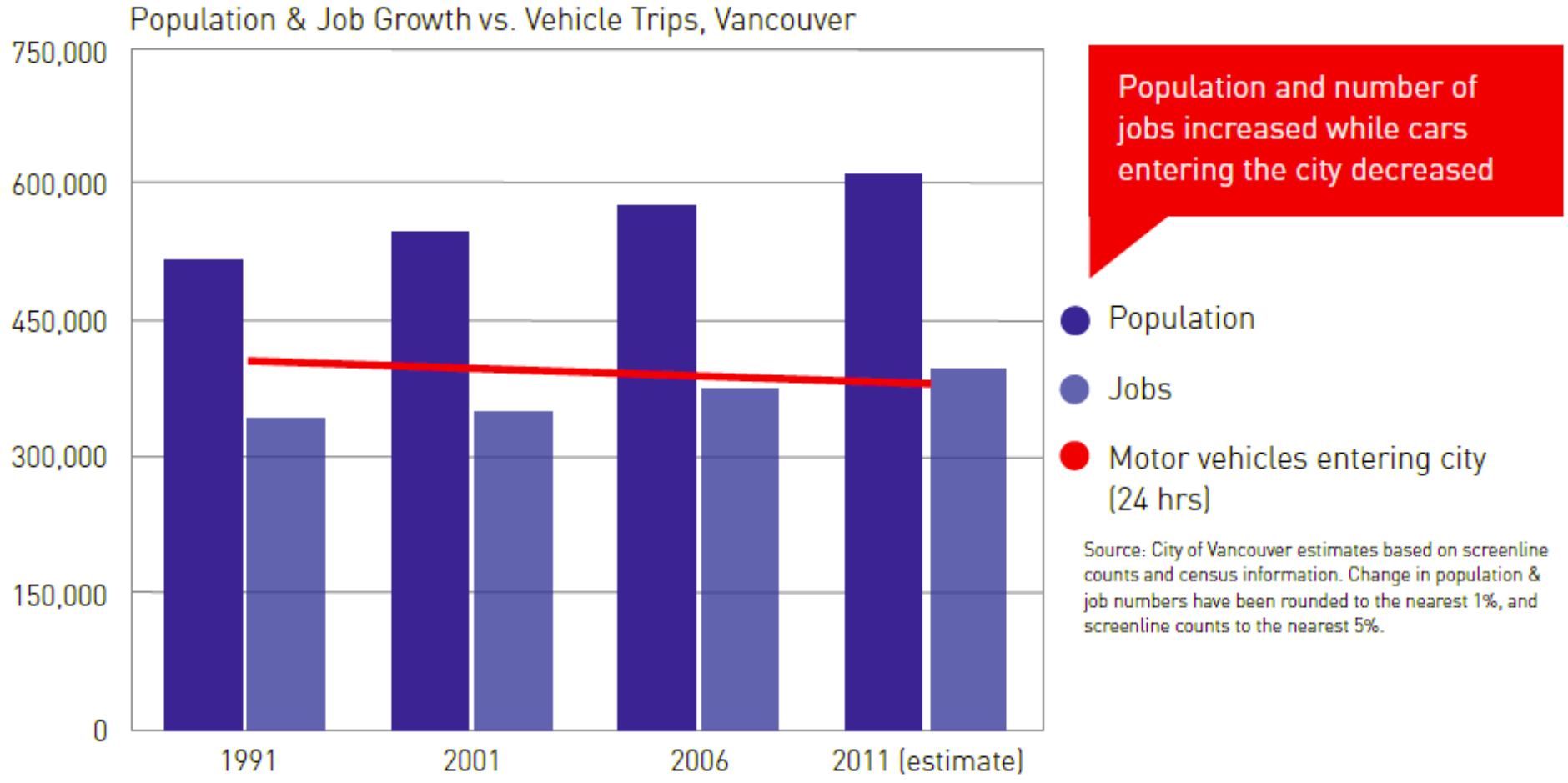


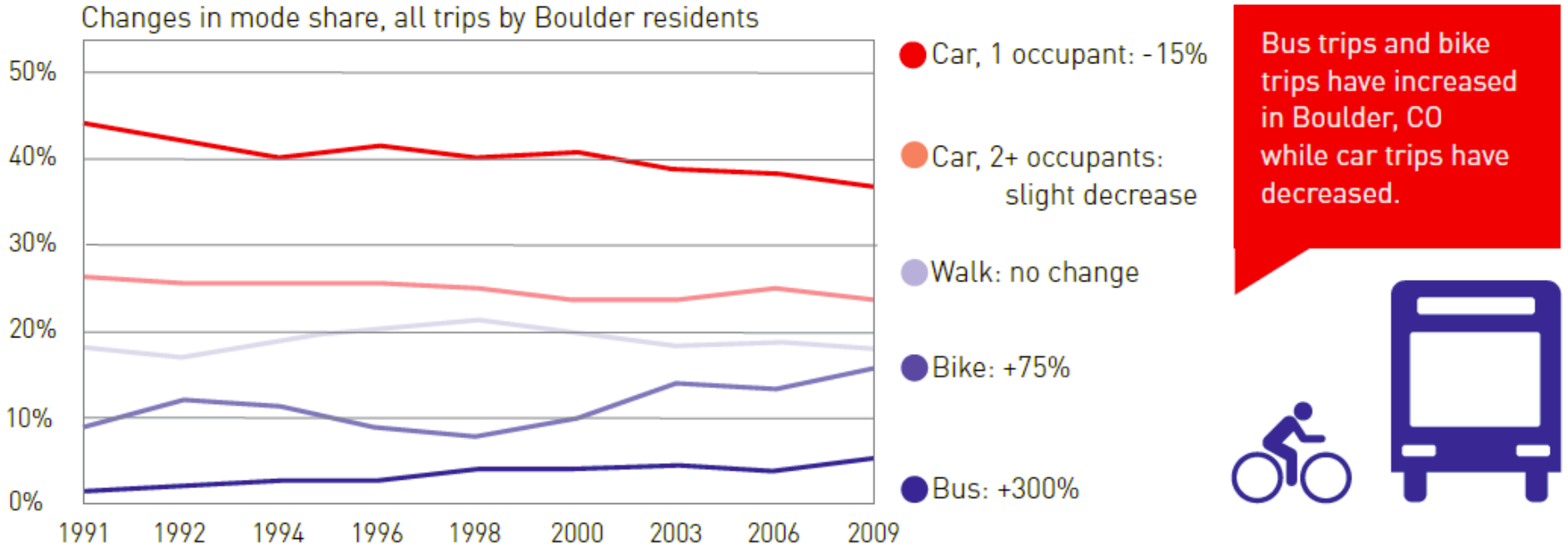

## Changes in trips among 16 to 34 year-olds
National per capita trips, 2001-2009


Source for above two charts: U.S. Public Interest Research Group's 2014 report, *Millennials in Motion*.

# HOW MANY PROTECTED BIKE LANES ARE THERE IN THE U.S.?


Source: Green Lane Project


Population & Job Growth vs. Vehicle Trips, Vancouver
750,000
600,000
450,000
300,000
150,000
0
1991
2001
2006
2011 (estimate)
Population and number of jobs increased while cars entering the city decreased
Population
Jobs
Motor vehicles entering city (24 hrs)
Source: City of Vancouver estimates based on screenline counts and census information. Change in population & job numbers have been rounded to the nearest 1%, and screenline counts to the nearest 5%.

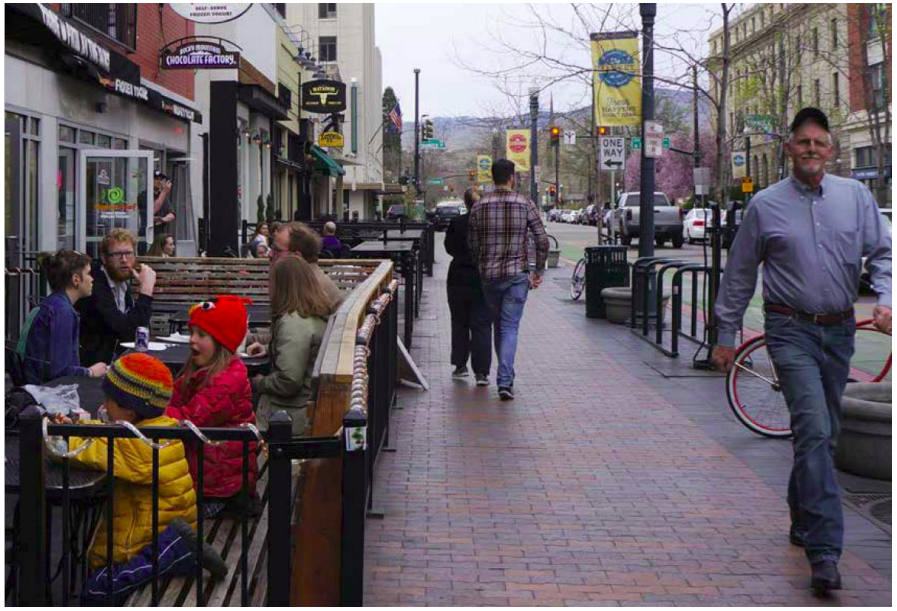



Source: City of Boulder Modal Shift Reports (Travel Diary of Boulder Residents).

**Only one third of suburban residents can conveniently walk to a grocery store.**

**60% of Boise residents aged 65-79 will have poor access to transit in 2015.**

Source: Transportation for America's 2011 report, *Aging in Place – Stuck without Options: Fixing the Mobility Crisis Facing the Baby Boom Generation.*




**22** MIN. OF WALKING

DAILY WALKING TIME
Recommended by CDC

**19** MIN. OF WALKING

MEDIAN TRANSIT USER
in America

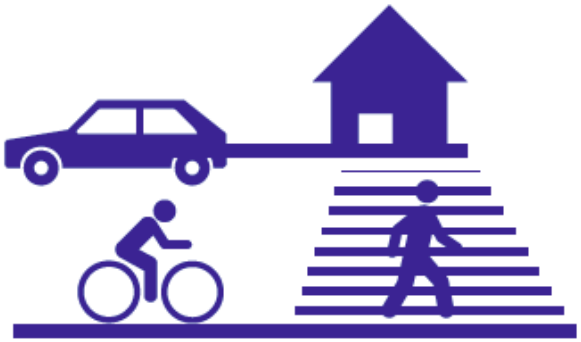
**06** MIN. OF WALKING

AVERAGE PERSON
in America, includes drivers

Source: Litman, T. Evaluation of Public Transportation Health Benefits, Victoria Transport Policy Institute (VTPI), 2015.

## DECISION

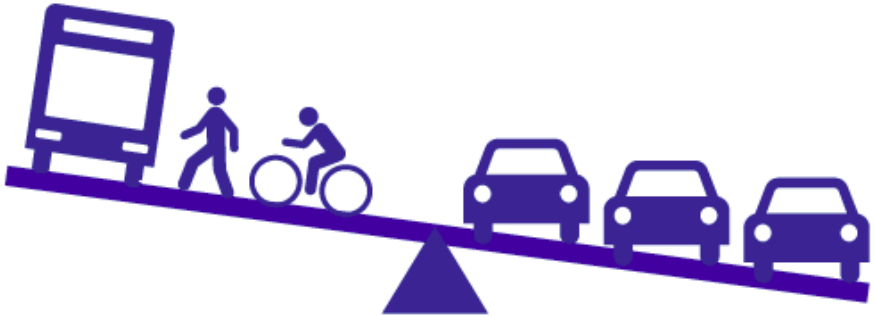
### TRANSPORTATION AND LAND USE PLANNING DECISIONS



Parking Spaces, Bike Lanes, Road Width, Housing Locations

## INDIVIDUAL CHOICES

### AUTO TRIPS GENERATED



Versus trips via public transit, walking, biking

## COMBINED EFFECTS

### REGIONAL: VMT PER CAPITA

Regional Air Quality
Greenhouse Gas Emissions
Time Spent Driving

### LOCAL: TRAFFIC VOLUMES

Air Quality: Local Hot Spots
Noise Levels
Livability, Social Cohesion
Pedestrian And Bike Quality And Safety

## HEALTH IMPACTS

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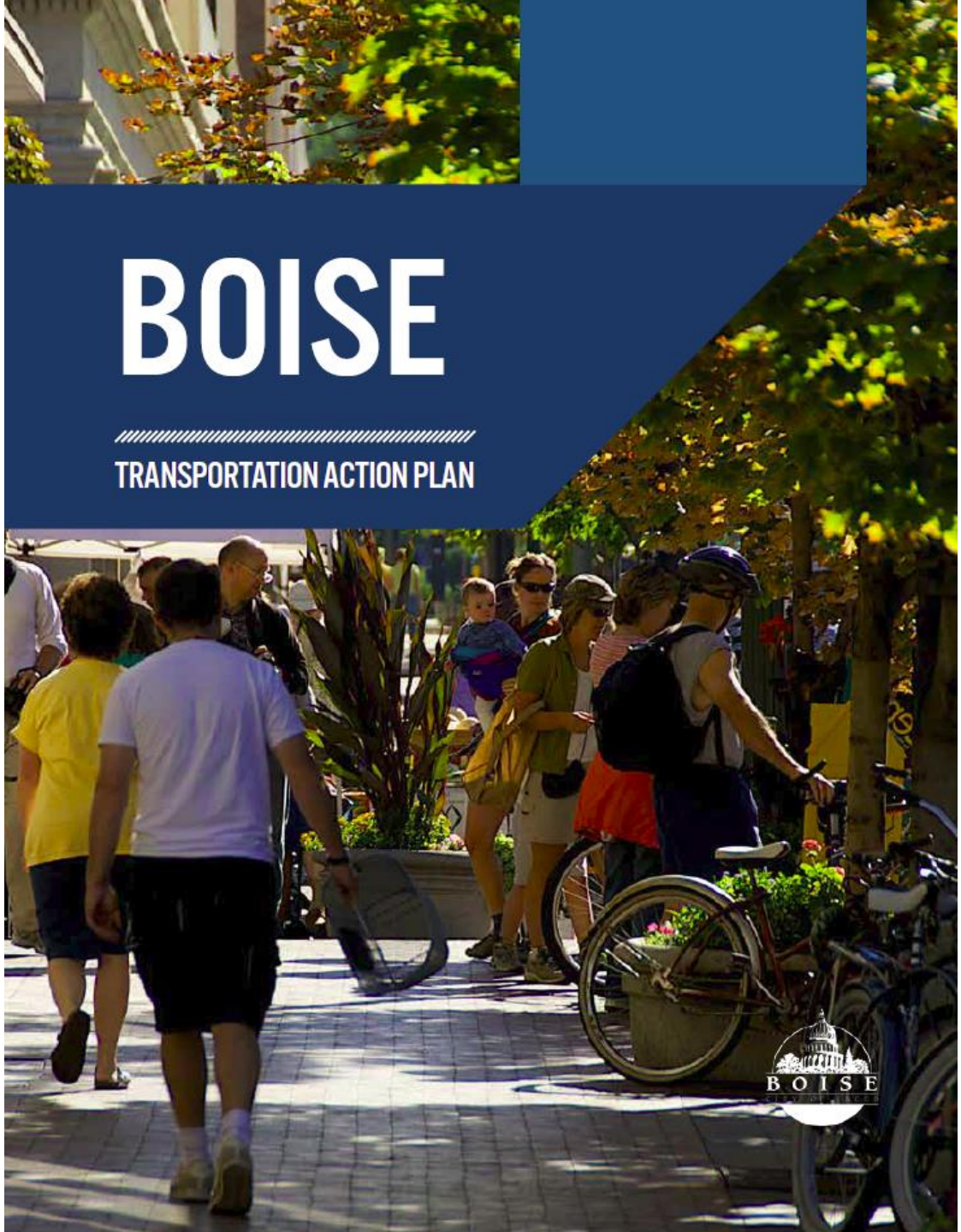
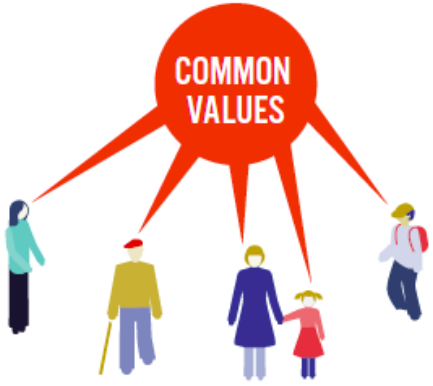


# BOISE

## TRANSPORTATION ACTION PLAN

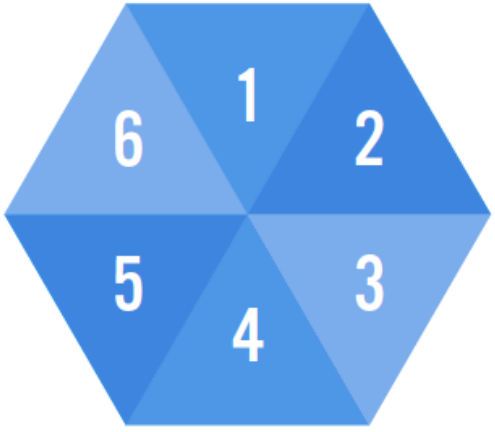
This plan provides a vision for what Boise's transportation system could be...

p.36




...based on Boise's shared values for a high quality of life...

p.34




...focused into six catalytic moves or actions that prioritize the city's work ahead...

p.46

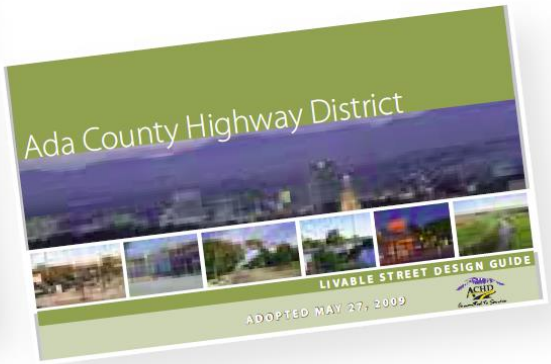
...which will need tools and best practices to be realized.

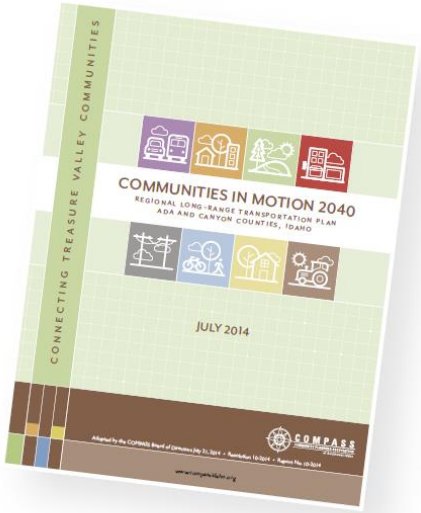
p.62

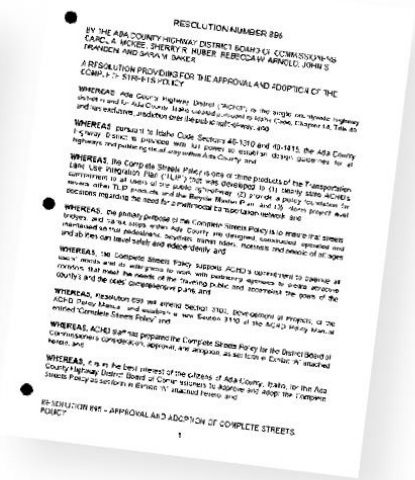
"Boise has indicated a desire... for a connected Treasure Valley that provides safe and efficient facilities for pedestrians, bicycles, vehicles and transit."

*- Blueprint Boise*

# Transportation Plans



RESOLUTION NUMBER 886

BY THE ADA COUNTY HIGHWAY DISTRICT BOARD OF COMMISSIONERS

A RESOLUTION PROVIDING FOR THE APPROVAL AND ADOPTION OF THE COMPLETE STREETS POLICY

WHEREAS, Ada County Highway District ("ACHD"), is the single jurisdictional highway district in and for Ada County, Idaho created pursuant to Idaho Code, Chapter 14, Title 40, and has exclusive jurisdiction over the public rights-of-way; and

WHEREAS, pursuant to Idaho Code Sections 40-1310 and 40-1415, the Ada County Highway District is provided with full powers to establish design guidelines for all highways and public rights-of-way within Ada County; and

WHEREAS, the Complete Streets Policy is one of three products of the Transportation Land Use Integration Plan ("TLIP") that was developed to (1) identify ways ACHD's commitment to all users of the public rights-of-way (2) provide a policy framework to address other TLIP products, and the Bicycle Master Plan; and (3) form present and future decisions regarding the need for a multimodal transportation network; and

WHEREAS, the primary purpose of the Complete Streets Policy is to ensure that streets are designed, constructed, operated and maintained so that pedestrians, bicyclists, transit riders, motorists and persons of all ages and abilities can travel safely and independently; and

WHEREAS, the Complete Streets Policy supports ACHD's commitment to improve all users' needs and to work with partners to address all modes of travel on all roadways to make the most efficient use of the existing public and private transportation system; and

WHEREAS, Resolution 886 will amend Section 3100, Development of Property, of the ACHD Policy Manual and establish a new Section 3110 of the ACHD Policy Manual entitled "Complete Streets Policy"; and

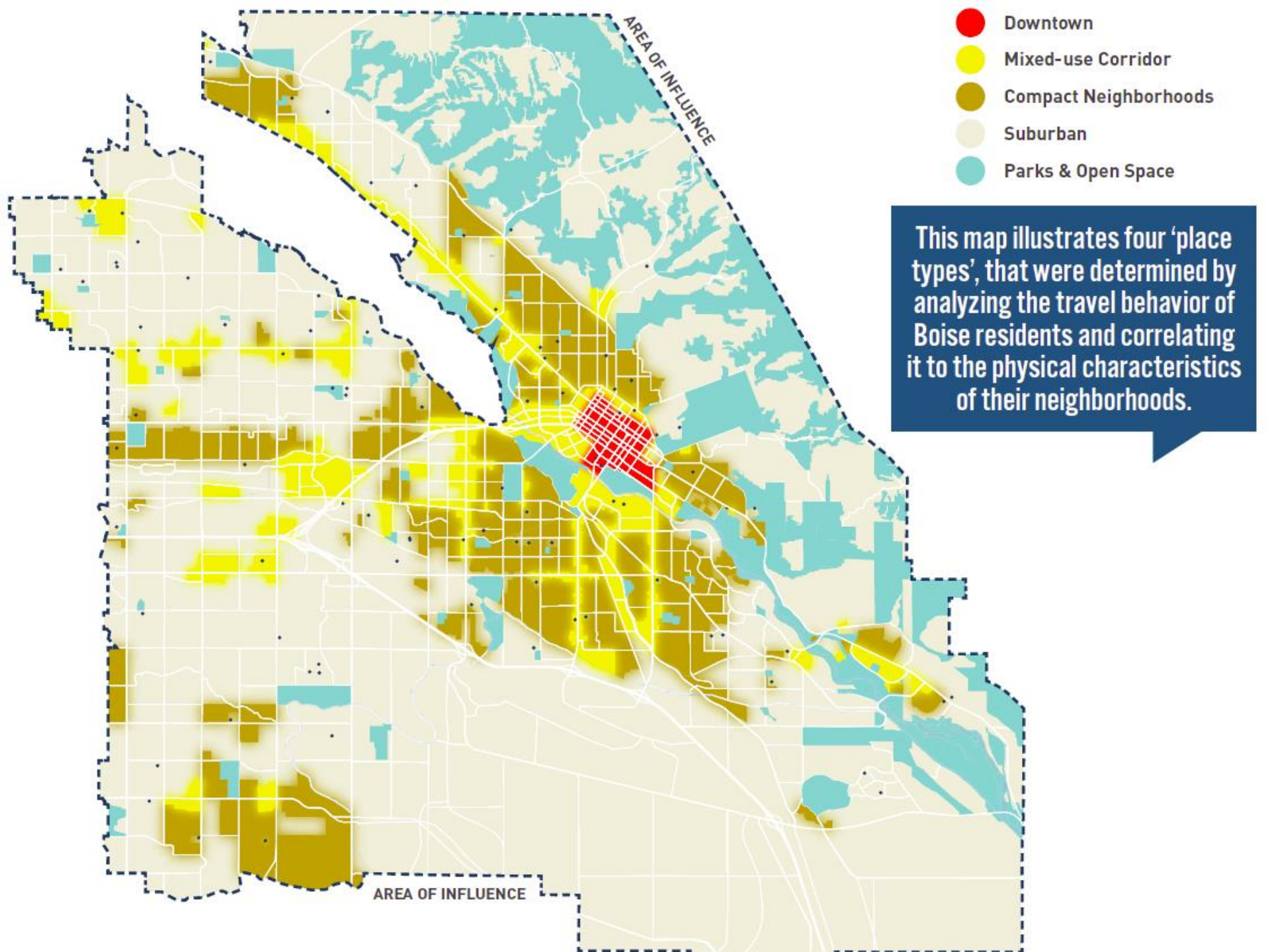
WHEREAS, ACHD staff has prepared the Complete Streets Policy for the District Board of Commissioner's consideration, approval, and adoption, as set forth in Exhibit "A" attached hereto; and

WHEREAS, it is in the best interest of the citizens of Ada County, Idaho, for the Ada County Highway District Board of Commissioners to approve and adopt the Complete Streets Policy as set forth in Exhibit "A" attached hereto; and

RESOLUTION 886 – APPROVAL AND ADOPTION OF COMPLETE STREETS POLICY

1

# One city, many Place Types


AREA OF INFLUENCE
AREA OF INFLUENCE
Downtown
Mixed-use Corridor
Compact Neighborhoods
Suburban
Parks & Open Space
This map illustrates four 'place types', that were determined by analyzing the travel behavior of Boise residents and correlating it to the physical characteristics of their neighborhoods.

# Downtown

**Focus: Walking and biking**
With its walkable, human-scaled street grid, historic buildings, and diverse civic life, Boise's downtown has the bones of a vibrant community and regional center. With such a high density of jobs and commuters, it is important to enhance alternatives to driving.

# Mixed-use corridors

**Focus: Transit - oriented development**
Mixed use corridors are characterized by frontages on commercial arterials with large parking lots separating the buildings from the street. Multiple driveways increase conflict points between cars, pedestrians, and bicycles and high speeds decrease safety for all users. Opportunities exist for infill development within parking lots, and the addition of dedicated transit lanes to the street.

# Compact neighborhoods

**Focus: Safety and livability**
Compact neighborhoods have the highest household density of all place types and typically, a walkable, human-scaled grid. Many streets lack sidewalks, and have room to add them or be slow, safe streets that do not require sidewalks on both sides. These neighborhoods support a high density of active commuters, and it is important to support their safety.

# Suburban

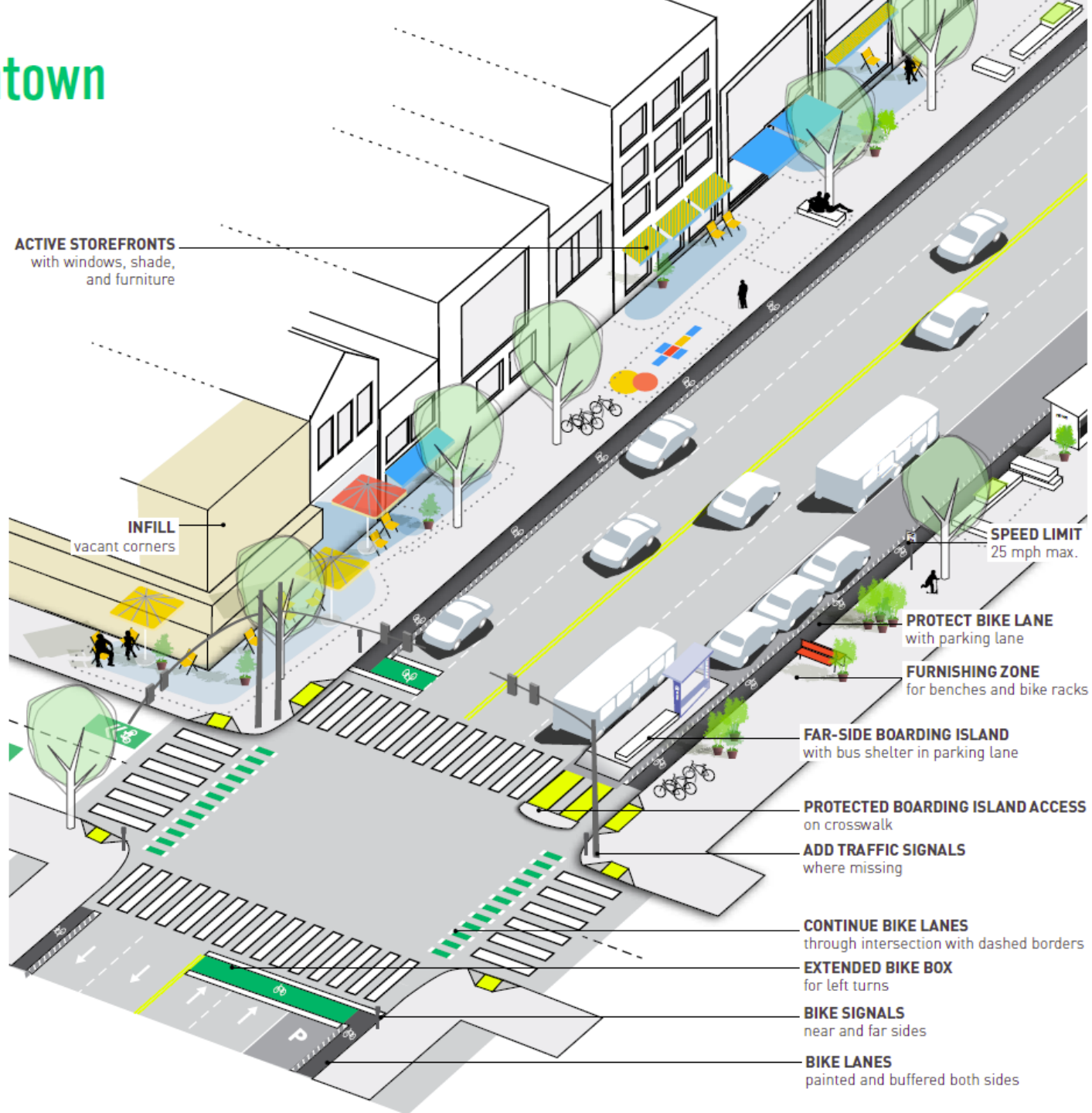
**Focus: Support Active mobility**
Low-density suburban neighborhoods usually do not offer multiple "real" mobility options: the only viable mode for most journeys is the automobile. However, arterials present an opportunity to provide a minimum grid of low-stress bike facilities, walking paths, and sidewalks that connect to the city and regional network.

# Vision for Mobility

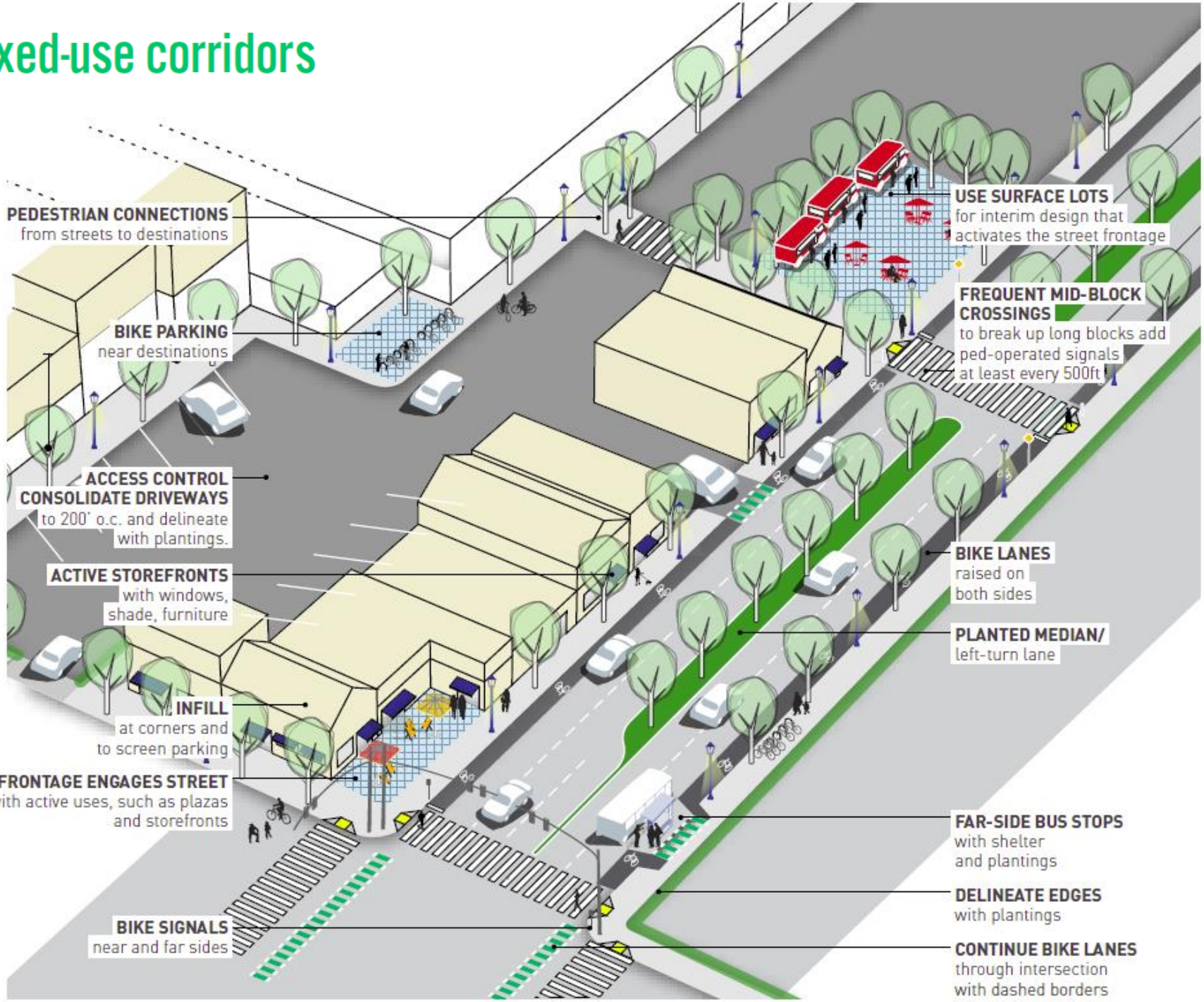
## (Where we want to go)

We envision a city where all people enjoy real transportation choices that offer safety, optimize infrastructure, and support vibrant neighborhoods.

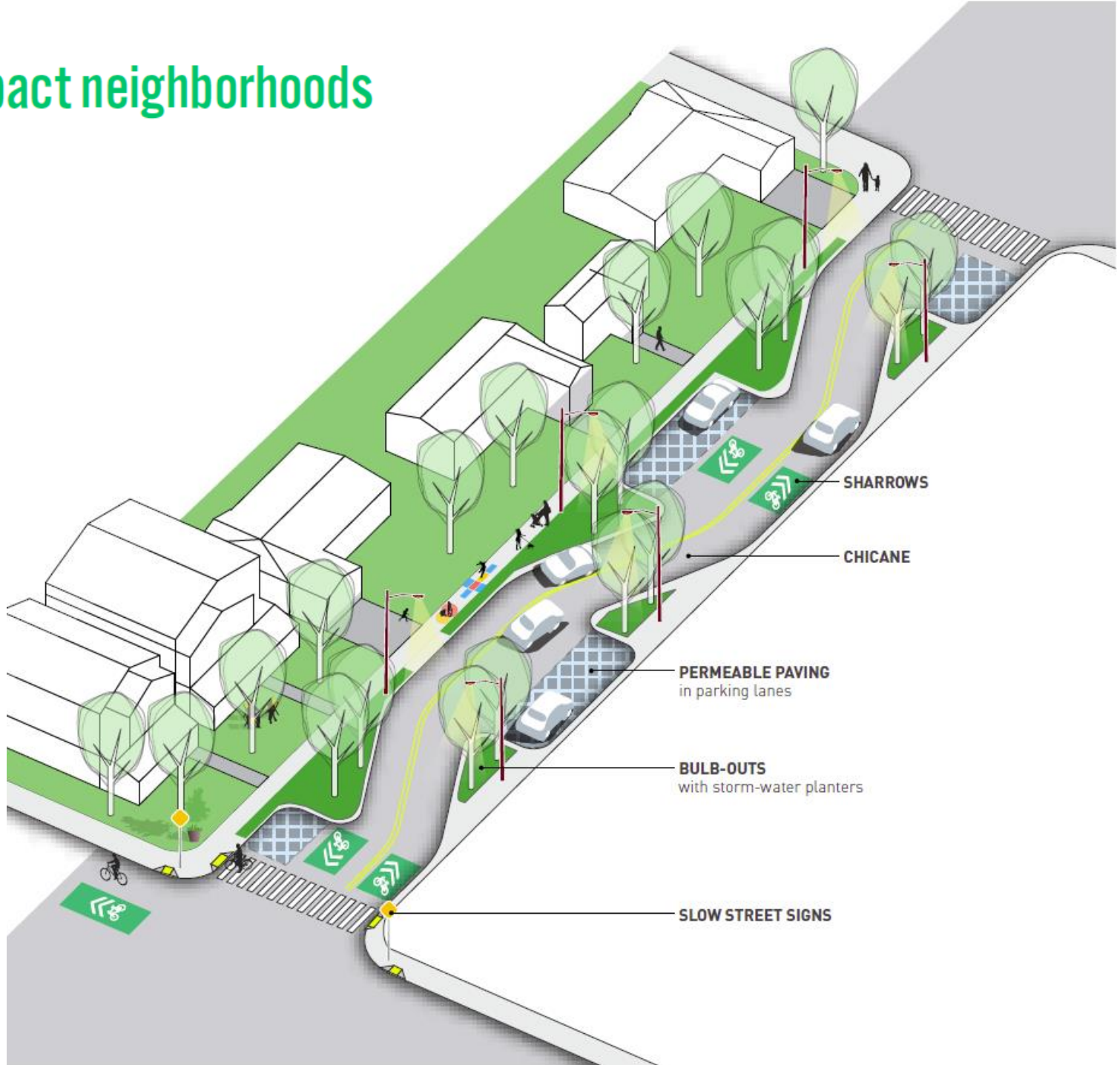
# Downtown


ACTIVE STOREFRONTS
with windows, shade, and furniture
INFILL
vacant corners
SPEED LIMIT
25 mph max.
PROTECT BIKE LANE
with parking lane
FURNISHING ZONE
for benches and bike racks
FAR-SIDE BOARDING ISLAND
with bus shelter in parking lane
PROTECTED BOARDING ISLAND ACCESS
on crosswalk
ADD TRAFFIC SIGNALS
where missing
CONTINUE BIKE LANES
through intersection with dashed borders
EXTENDED BIKE BOX
for left turns
BIKE SIGNALS
near and far sides
BIKE LANES
painted and buffered both sides
P

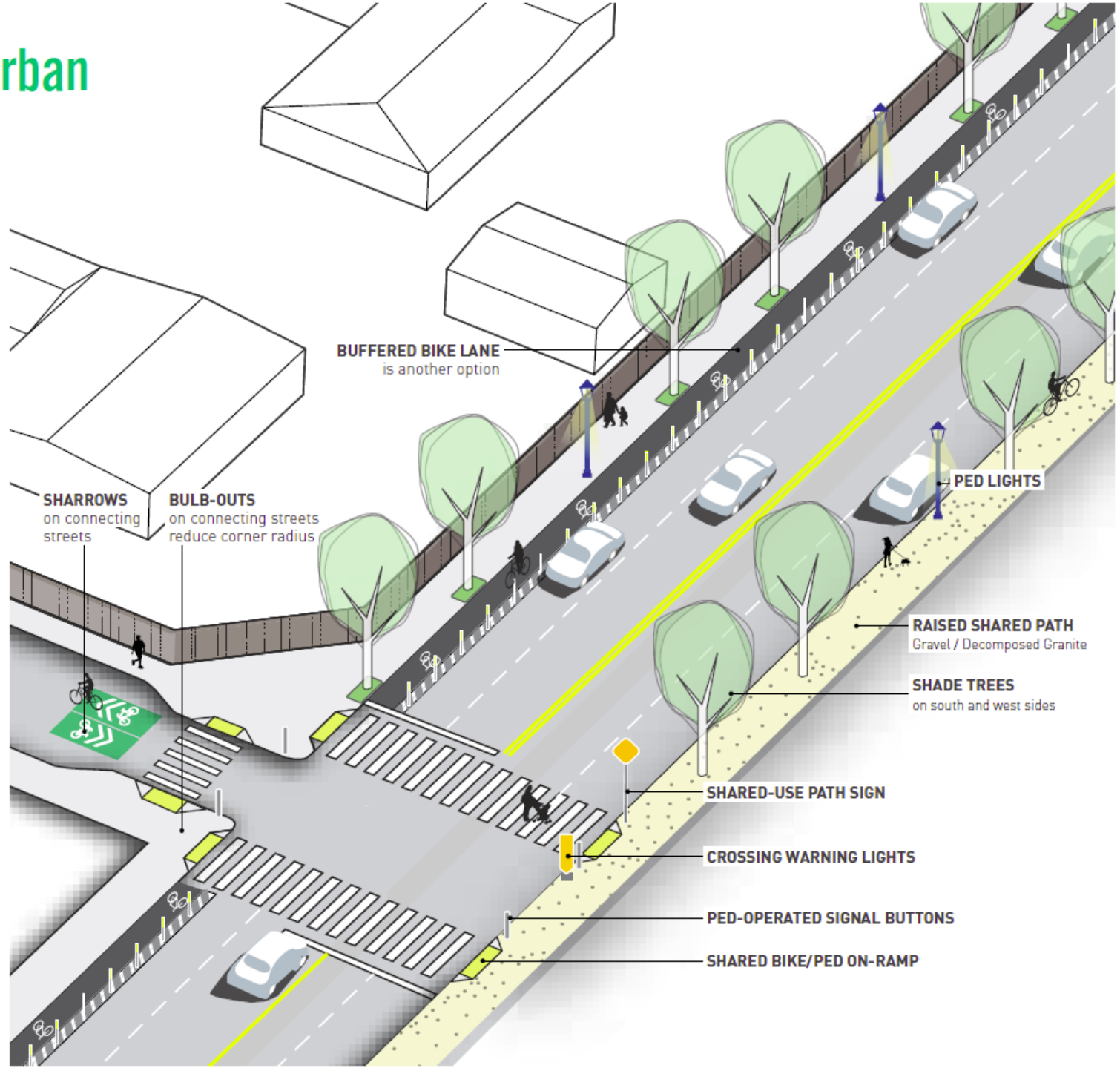
# Mixed-use corridors



# Compact neighborhoods

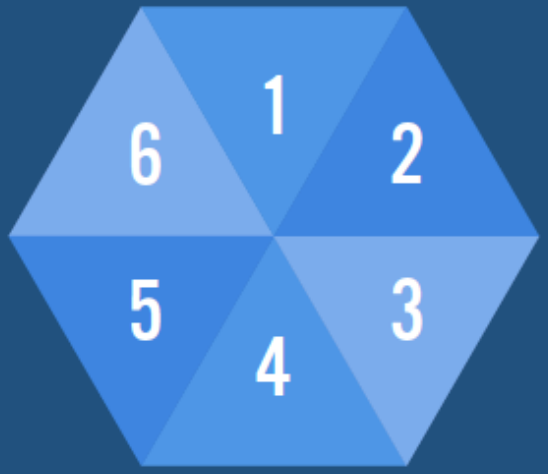


# Suburban


BUFFERED BIKE LANE
is another option
SHARROWS
on connecting streets
BULB-OUTS
on connecting streets
reduce corner radius
PED LIGHTS
RAISED SHARED PATH
Gravel / Decomposed Granite
SHADE TREES
on south and west sides
SHARED-USE PATH SIGN
CROSSING WARNING LIGHTS
PED-OPERATED SIGNAL BUTTONS
SHARED BIKE/PED ON-RAMP

# Actions

## (How we get there)



## 1 Safety for All

## 2 Walk and Bike to the Store


## 3 Low-Stress Bike Network


## 4 Active Routes to School

## 5 Park Once


## 6 Three Best-In-Class Transit Routes

# Infrastructure

**Focus Areas:** Roads within the Pedestrian and Bicycle High-Injury Network (see map on facing page).

**Add pedestrian safety improvements to dangerous intersections** such as pedestrian bulb-outs, continental crosswalks, pedestrian scrambles, advance stop bars, Rapid Flashing Beacons, High-Intensity Activated Crosswalks (HAWK Signals) for suburban arterials. Change signal timing to give pedestrians enough time to cross

**Add protected bike infrastructure** based on recommendations for the Low Stress Bike Network (Move 5).

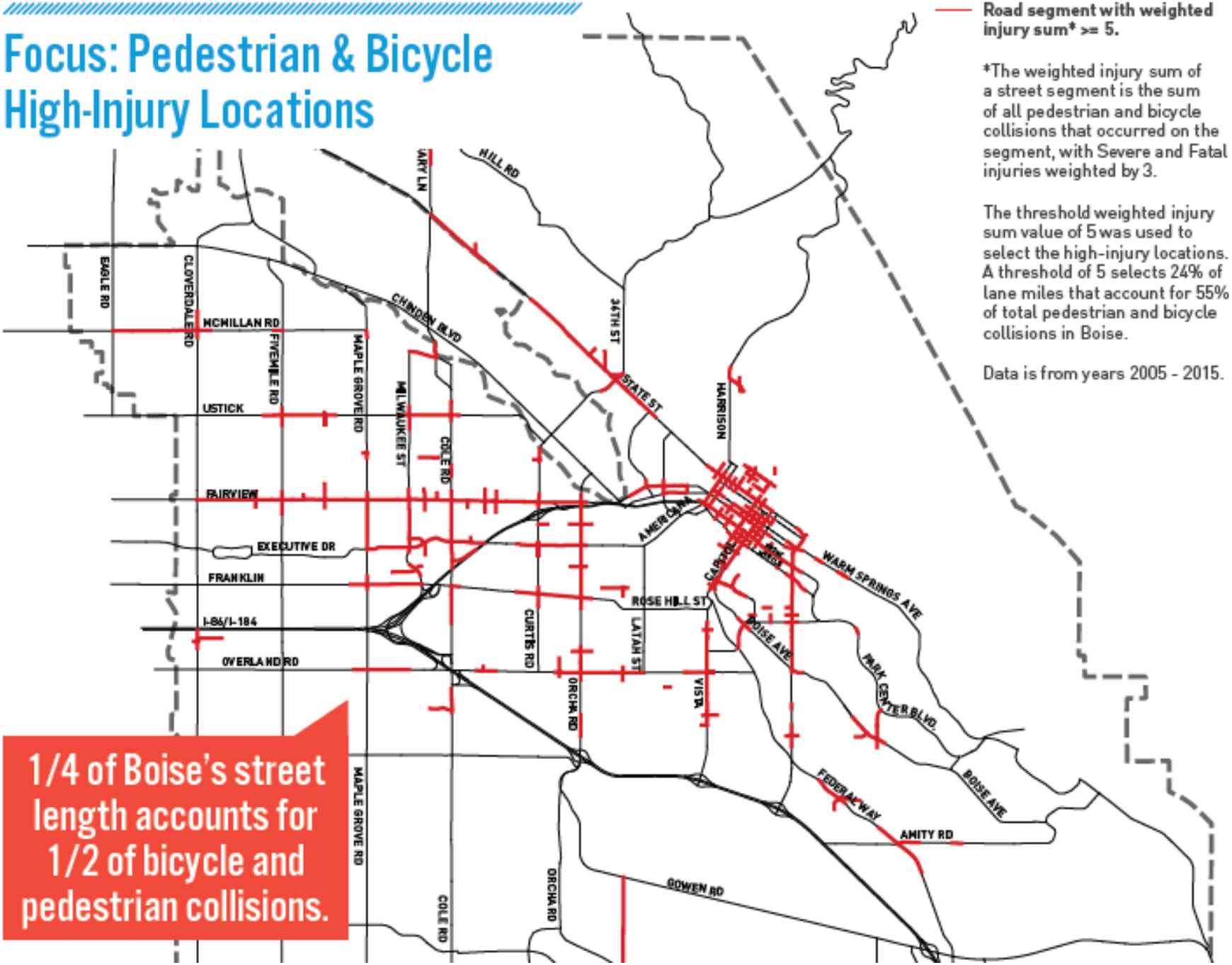
**Add bicycle intersection treatments** such as signal timing, designated striping zones, turn lanes, bike boxes. Add warning lights that detect cyclists and warn motorists in advance.

**Implement traffic calming and access management strategies** such as low-speed zones, road diets, and lane-width reductions. In low-traffic areas implement speed bumps, chicanes, and diversions. Consolidate driveways. Convert one-way streets to two-way streets.

# Programs

1. **Monitor, collect, and publish data** to track progress towards objectives.
2. **Produce a map of high-injury locations and use it to prioritize projects.**
3. **Evaluate the impact and safety for all modes** when considering increases to roadway capacity.
4. **Implement a document that provides safety design guidelines** including speed limits, average daily traffic targets,spacing of pedestrian crossings on arterials, etc.
5. **Establish a Safety for All Committee and inter-agency task force** with teams from Planning, Transportation, Public Works, first responders, etc. to engage the public and track progress in achieving goals.
6. **Establish enforcement programs** for police to target traffic violations that result in injury or death.
7. **Provide road safety training for all modes** (including bus drivers) on sharing the road Provide education on the Idaho Stop Law as a part of safety education for divers and cyclists.
8. **Adopt the Vision Zero Framework** to integrate hardware and software initiatives.

# Focus: Pedestrian & Bicycle High-Injury Locations



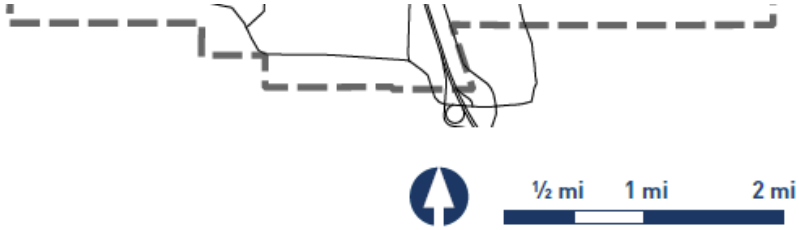
# Metrics

**How the streets change:**

- Improved safety infrastructure for arterial crossings within walking and biking distances of schools.
- Low-stress bike infrastructure built on all arterials within 1/2 mile of schools (see Move 5).

**How people's behavior changes:**

- Increased number of students walking and biking to school.
- Reduced traffic congestion.
- Reduced travel times to school due to decreased traffic.




# Long Term Impact

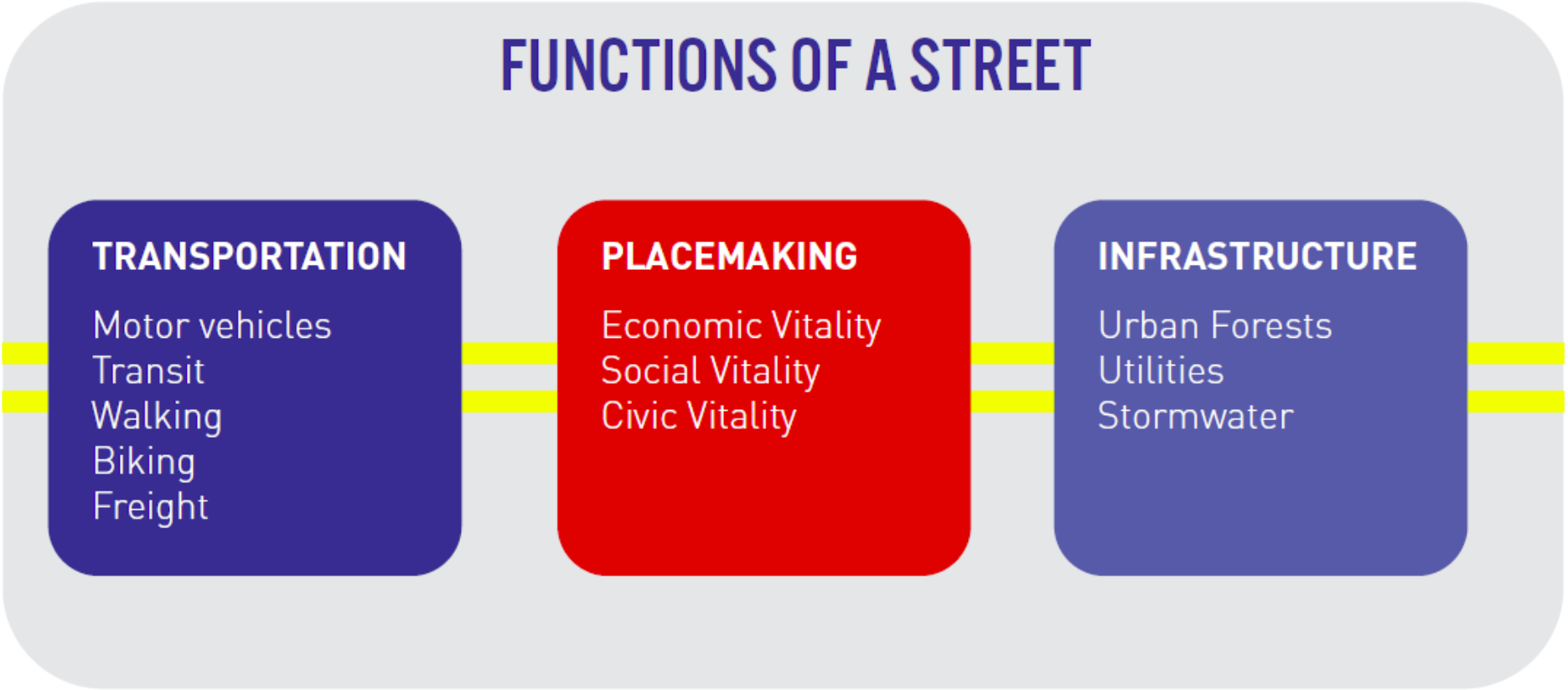
**All students can safely walk and bike to school. Arterials near schools are safe for all modes. Health and wellbeing of students is improved across Boise.**

# Mobility Toolbox

## (Tools for moving forward)

1. Expand Measures of Street Quality
2. Connecting Mobility Values to Metrics
3. Create Great Places
4. Expedite Change with Interim Design
5. Increase Mobility Access
6. Benefits of Shared Mobility
7. Apply Current Best Practices in Street Design
8. Street Design Reference Manuals
9. Adopt a Prioritization Framework
10. Prioritizing Projects Aligned with the City's Values

# FUNCTIONS OF A STREET




URBAN FOREST
Vehicular Level of Service only looks at one aspect of a street's functions.
COMMERCE
VEHICLES
BICYCLISTS
PEDESTRIAN EXPERIENCE
ACCESSIBILITY
BIKE SAFETY
PEDESTRIAN SAFETY
STORMWATER MANAGEMENT

## 1 Make narrower lanes for safer roads

- On urban streets, lane widths of 10 to 10.5 feet have been shown to be safer than wider lanes, with no measurable decrease in traffic capacity and throughput.
- Narrower lanes create safety benefits by serving as traffic-calming elements that discourage speeding and decrease crashes.
- Narrower lanes also make space available for other uses, such as wider sidewalks and bike lanes, while reducing pedestrian crossing distances.
- Citywide, use a 10' width for travel lanes; on streets with frequent bus or truck traffic, use an 11' width for the outermost travel lane and 10' for inner travel lanes.

## 2 Design for a 20 mph or 25 mph target speed, not for a higher speed limit


- Urban streets should neither explicitly allow nor implicitly encourage excessive speeds.
- Design streets in Downtown, as well as local residential streets, with a target speed and speed limit of 20 mph.
- Design all other streets, other than limited access roadways, with a target speed and speed limit of 20 mph or 25 mph.

## 3 Manage turning conflicts through proactive, safe design

- Implement smaller corner radii to slow turning vehicles.
- Remove dedicated right-turn lanes (which increase pedestrian crossing distance and provide fewer benefits than left-turn lanes) unless absolutely necessary.
- Do not design streets with free-flow turn lanes (or "slip lanes") because they encourage fast turns, are detrimental to pedestrian safety, and are unfriendly to pedestrians.

## 4 Normalize intersections and minimize crossing distances

- Urban intersections should be designed for low speeds and walkable conditions.
- Design intersections to minimize the number of legs, "square" them so turns are as close to 90 degrees as possible, and minimize crossing distances through installation of sidewalk extensions and median islands.
- On all streets with a curbside parking lane, include curb extensions at corners.

## 5 Provide high-quality pedestrian accommodation

- Provide marked pedestrian crossings at all intersection legs except where completely infeasible.
- Include raised medians or median islands at intersections on 2-way streets with 4 or more moving lanes, wherever possible.
- Widen sidewalks where existing sidewalk width is generally too narrow (less than 5 feet) or unable to effectively serve existing pedestrian volumes in downtown or commercial areas.

| | |
|---|---|
| 1 NACTO: Urban Street Design Guide (2013) | Comprehensive toolbox for street design, including sample cross sections and plans, definition of design strategies, and design controls. Supported by USDOT, as referenced in July 25, 2014, FHWA guidance on "Design Flexibility for Pedestrian and Bicycle Facilities." |
| 2 NACTO: Urban Bikeway Design Guide (2014) | Toolbox of design options for on-street bicycle facilities including separated bike lanes (cycle tracks). Includes intersection treatments, signals, signs and markings guidance. Supported by USDOT, as referenced in August 20, 2013, FHWA guidance on "Bicycle and Pedestrian Facility Design Flexibility" memorandum. |
| 3 NACTO: Transit Street Design Guide (2016) | Detailed guidance on the design of transit lanes and transitways, stations and stops, intersections, and system-wide approaches to improving on-street transit performance, all in the context of the principle that urban transit streets are linear public spaces. |
| 4 FHWA: Separated Bike Lane Planning + Design Guide (2015) | Comprehensive guide to separated bike lanes (cycle tracks) with design guidance on directional and width characteristics, forms of separation, midblock considerations, intersection design, and signs and markings. Includes lessons learned from case studies nationwide. |
| 5 US Access Board: Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (2011) | Accessibility guidelines for the design, construction, and alteration of pedestrian facilities in the public right-of-way. The guidelines ensure that sidewalks, pedestrian street crossings, pedestrian signals, and other facilities for pedestrian circulation are readily accessible to and usable by pedestrians with disabilities. |
| 6 Center for Active Design: Active Design Guidelines (2010) | Urban design strategies for creating neighborhoods, streets, and outdoor spaces that encourage walking, bicycling, and active transportation and recreation. |

# A palette of interim design projects

Traffic calming

Protected bike lane

Interim public plaza

# Today's topics

1) Boise context

2) National and peer city context

3) The Boise TAP: an overview

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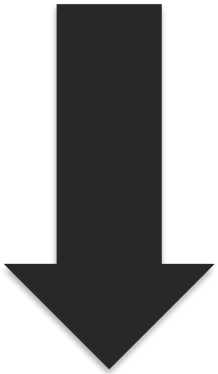
# City of Boise

Transportation Planning & Ideation

**The TAP provides…**



- Land use principles
- Mobility principles
- Project prioritization
- Communications piece

# Ada County Highway District (ACHD)

Project Execution, Maintenance, & Asset Ownership

**"You are taking something human scale and putting in something scaled for automobiles. That seems contrary to what the city values."**

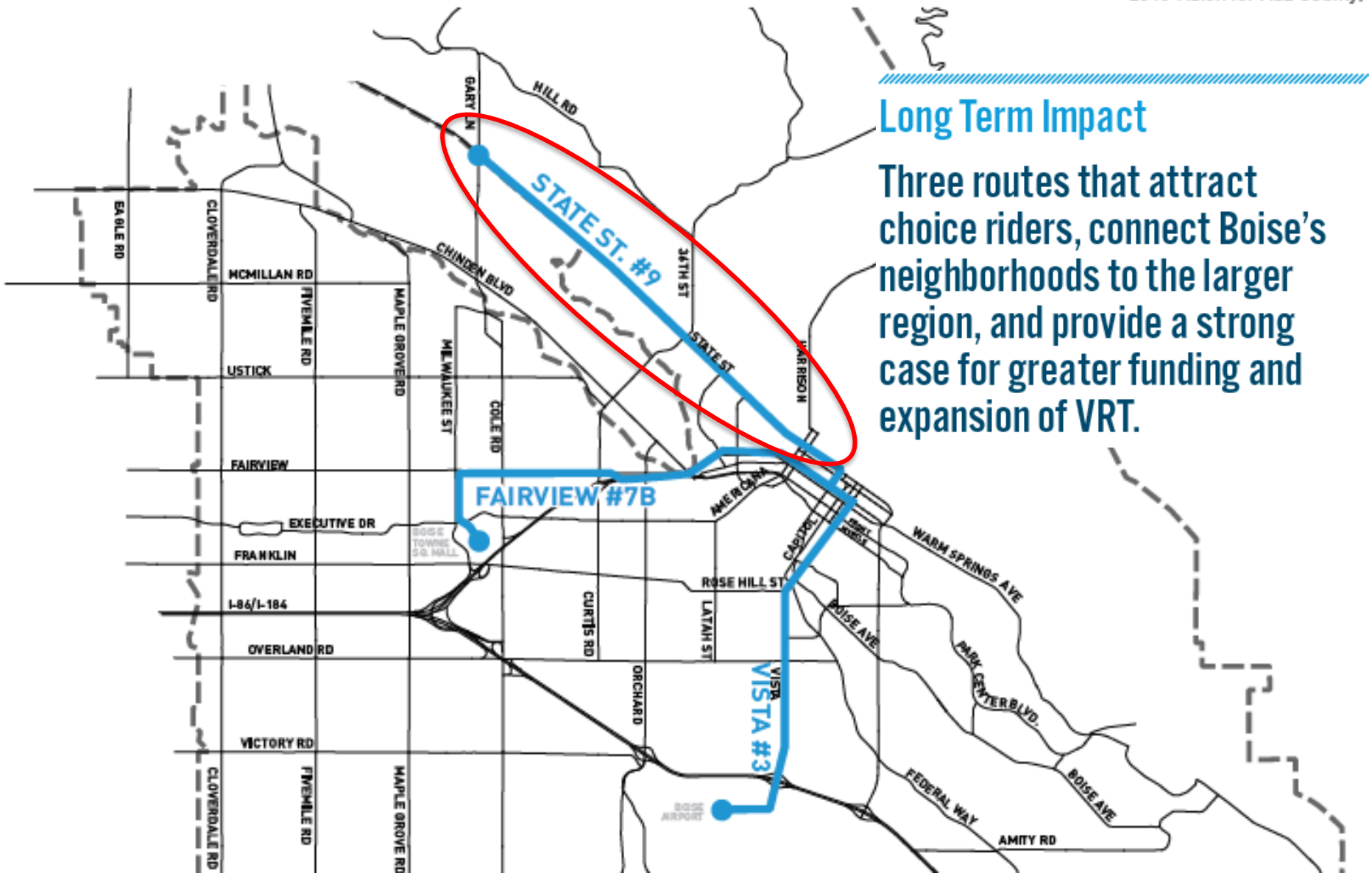
Boise has more than doubled in size since 1980, and the growth is luring in chain retailers. // Boise Metro Chamber of Commerce/Flickr

# Booming Boise Picks a Fight With CVS

# CVS vs Boise: Boise wins!

- Significant community opposition (to parking waiver) resulted in removal of application
  - Attempted to increase parking in C-2 zone despite a Downtown-adjacent “Compact Neighborhood” place designation
- Ripple effect on entities trying to exploit holes in the zoning code. TAP provides clarity.
- But not a permanent solution: The TAP is partially a land use plan, but enacting changes in the zoning code itself is still needed.

# Focus: Premium Service Routes




## Long Term Impact

**Three routes that attract choice riders, connect Boise's neighborhoods to the larger region, and provide a strong case for greater funding and expansion of VRT.**

# Best in Class Transit: State St BRT

- Biggest focus since 2016 TAP release
- State Street BRT in advanced planning, with ACHD starting to build out stations and intersection improvements
- TAP transit “Move” has motivated Boise City Council to come up with additional funds for VRT to supplement service frequency
- TAP created the “leg to stand on” for funding outside the general fund
  - $1 million/year allocated, on only $7 million typical operating budget: 14% increase

# Adopt a prioritization framework

**Step 1: Identify Projects of Significant Capital Investment**

**Step 2: Score Capital Projects based on Values, Moves, and Long-term vision for Boise**

**Step 3: Rank based on score and cost-effectiveness**

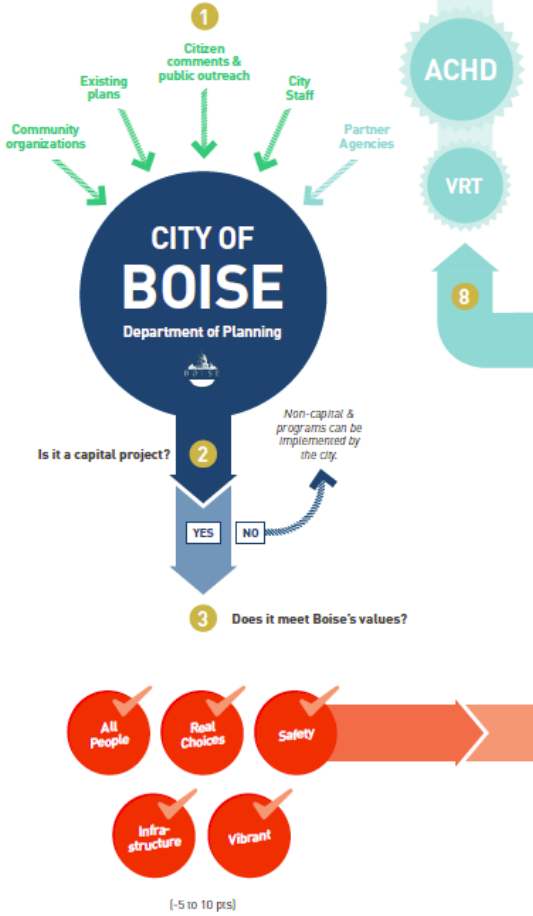
# How Boise Prioritizes Transportation Projects

## Funding is limited. This is how we prioritize projects.

**1 Transportation projects come from many sources.**
Project ideas can come from citizen input, recommendations by the Planning Department, or as part of realizing Boise's other planning frameworks. The Planning Department collects all potential projects, briefly describes their scope, and holds them to be evaluated biannually.

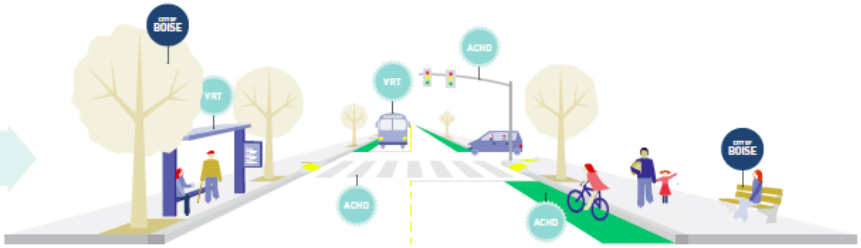
**2 Is it a capital project?**
**A pool of potential capital projects is kept by the city.**
Because Boise's street network and is built and maintained by Ada County, only capital (construction) projects are prioritized for referral to the County for implementation. Other programs can be administered directly by the City.

**3 Does the project meet Boise's values?**
The first stage of prioritization scores potential projects based on how well they meet Boise's mobility values as expressed in the TAP. Projects can score between -5 and 10 points on these five criteria.





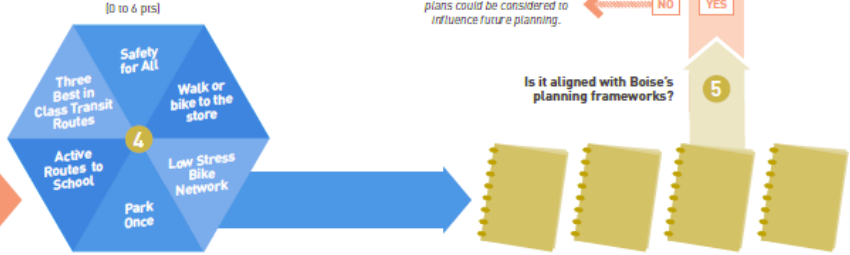





**8 City recommends its ranking to partner agencies for implementation.**
The City provides its project rankings, scopes, and objectives to the implementing agency, usually Ada County Highway District **(ACHD)** or Valley Regional Transit **(VRT)**

**7 Rankings are adjusted by cost.**
Projects are then re-ranked based on available budgets in the current funding cycle. Projects may be broken into phases or combined to make them feasible, or delayed until funding is available.

**6 Projects are ranked by merit.**
An initial list ranks the "best" projects irrespective of cost. This allows the City to consider long range priorities, phasing, and fundraising possibilities.


**4 Does it support the moves?**
Projects that have scored well on Boise's mobility values are tested to see if they also support one or more of the six Moves. Projects score higher if they fulfill multiple Moves.

**5 Is it aligned with Boise's planning frameworks?**
All projects that support Boise's mobility values and fulfill one or more Moves must also comply with the planning frameworks governing development in Boise. Only qualifying projects move to the final stage.

# Scoring Example: Emerald - Orchard St. to Americana

The project involves a road diet and addition of painted buffered bike lanes on both sides. It will fill gaps in the sidewalk network, provide Americans with Disabilities Act improvements, upgrade pedestrian crossings, upgrade traffic signals, and add continuous overhead lighting. The #5 VRT Route travels through mixed-use corridors and compact neighborhoods along this corridor. There are two schools within a 1/2 mile of the project.

**45 / 100**

## Mobility Values

**35 / 76**

- All People ✓✓
- Real Choices ✓✓✓
- Safety ✓✓
- Optimize Infrastructure ✓
- Vibrant Neighborhoods ✓

**Why this score?**
The project expands transportation options by providing an enhanced bike connection and improved sidewalks. The project increases mobility choices, and enhances safety while making use of the existing road infrastructure.

## Mobility Moves

**8 / 24**

- Safety for All
- Walk and Bike to the Store — YES
- All Ages Bike Network — YES
- Active Routes to School — YES
- Park Once
- Three Best-In-Class Transit Routes

**Why this score?**
The project contains bike infrastructure that meets All Ages standards within a 1/2 mile of schools and within 1/2 mile from an Activity Center. While the project includes safety measures, it did not get additional points under the Moves, because it is not located near a high-injury hotspot.


# Challenges Moving Forward

- Following through on urban-style development in activity centers (avoiding low-density, auto-centric waivers!)
- Achieving a critical mass of transit riders to justify major system investment
- Changing cultural expectations around "traffic" to support reallocation of street space: traffic sometimes just means growth
- Additional dedicated City funding to better dictate projects? How?

# Partners Needed to Achieve TAP







++ Other Private Investment Partners

# Thank you!

**Ben Rosenblatt, AICP, CFA**

Senior Planner | City Strategies

brosenblatt@samschwartz.com