

Land Use Planning for Sustainability and Livability

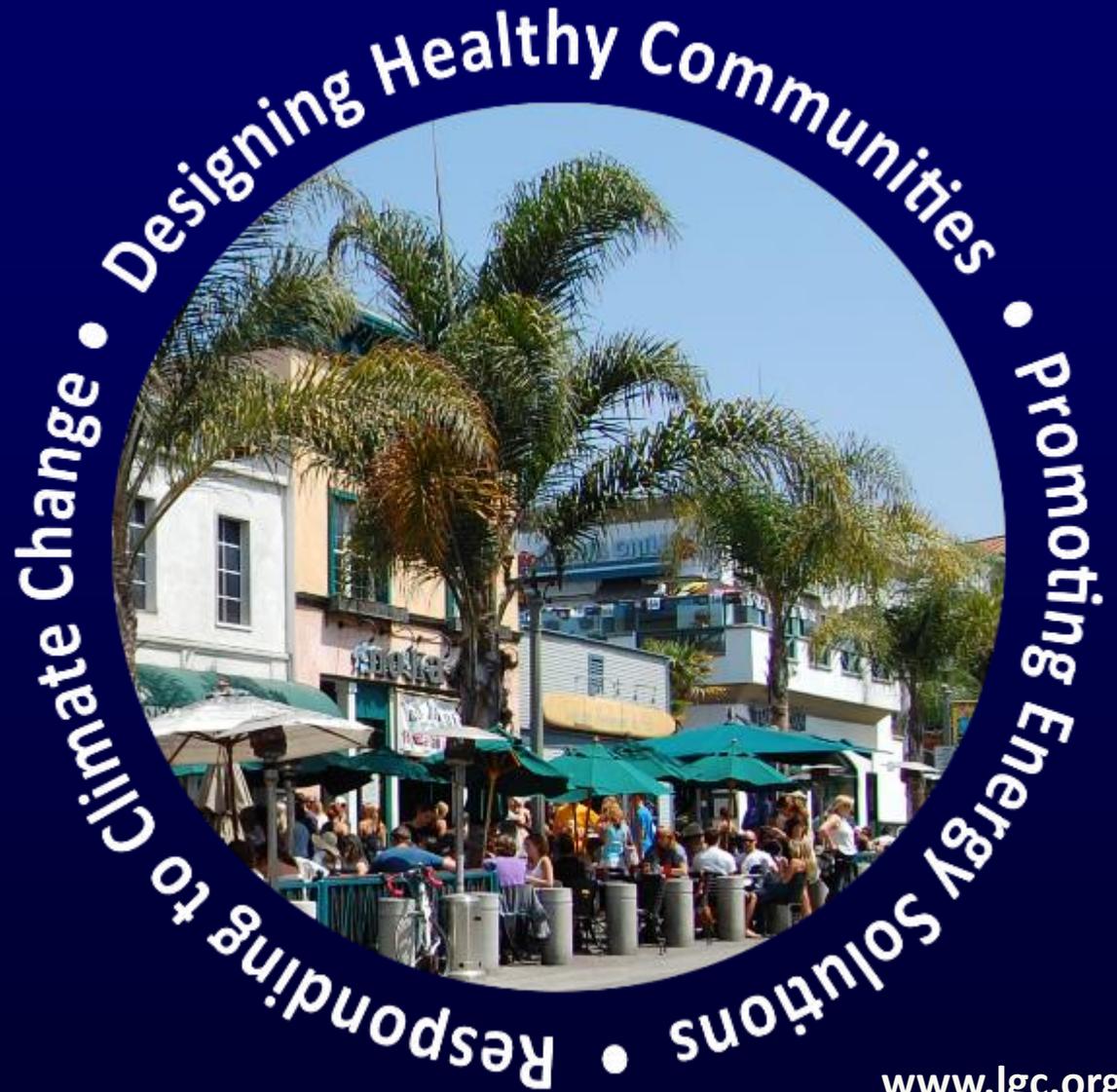
Paul Zykofsky, AICP, Assoc. AIA
Associate Director
Local Government Commission

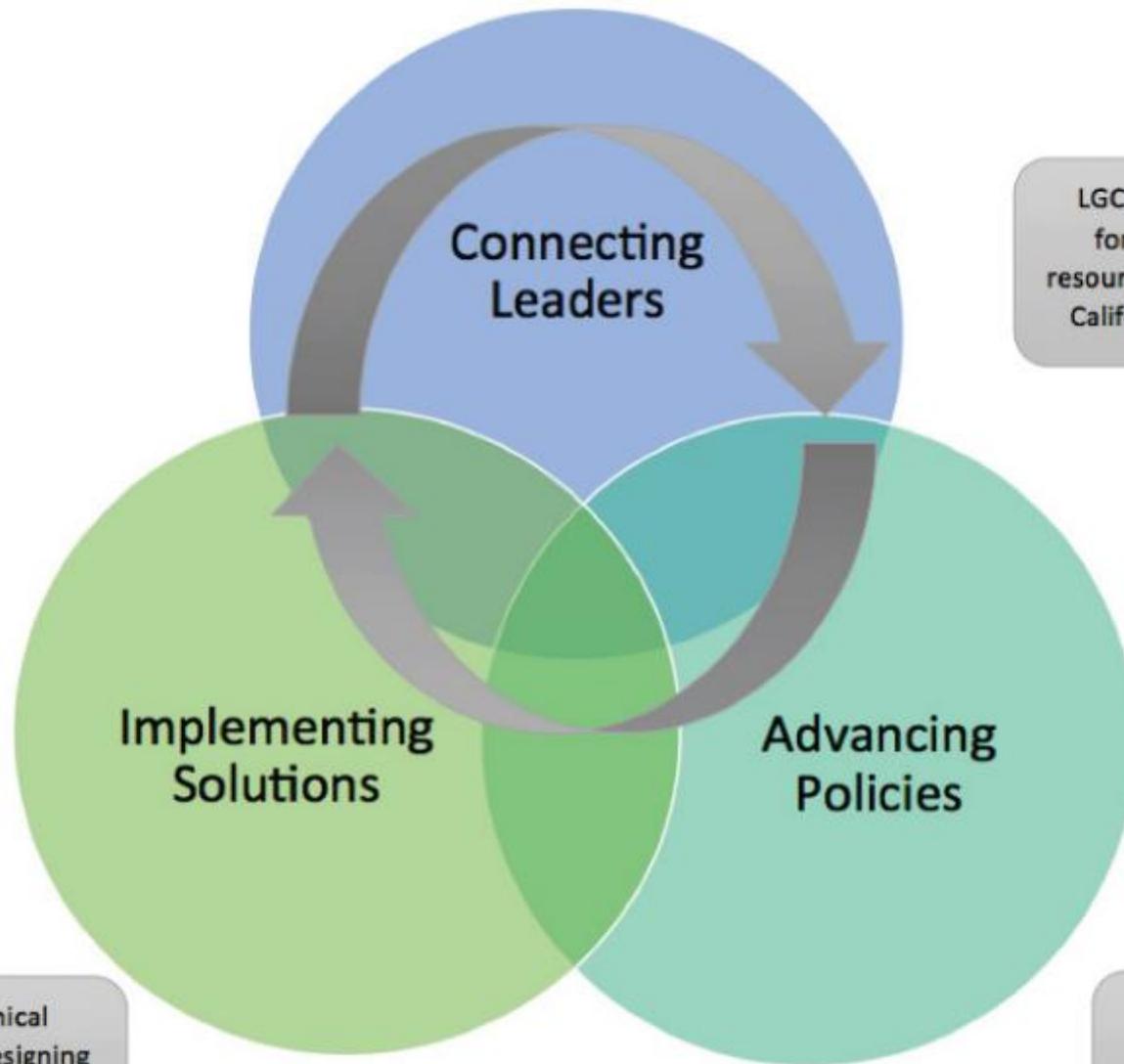
Sacramento Planning Academy

Sacramento, CA
April 23, 2018

Local Government Commission

We are a nonprofit organization that fosters innovation in local environmental sustainability, economic prosperity and social equity.





LGC offers conferences, forums, training, and resources for local leaders in California and nationally.

LGC serves as a technical assistance partner on designing projects, engaging stakeholders, and shaping local policy.

LGC participates in local, regional, state, and Federal policy conversations to support local leaders.



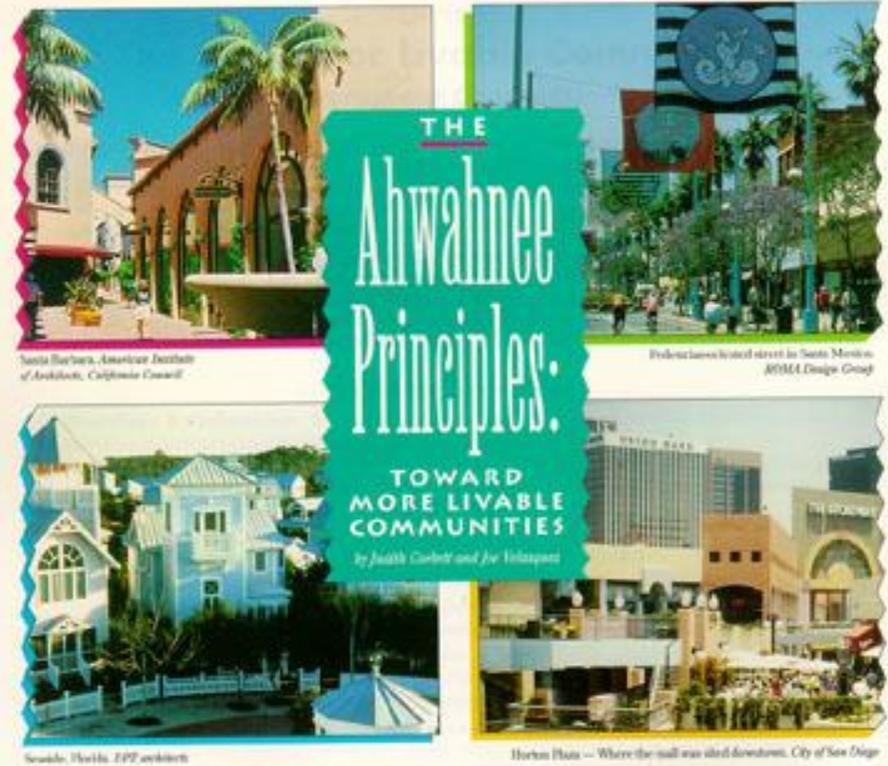
The Ahwahnee Principles, 1991

- Response to our members' concerns over sprawling, poorly planned development in their communities
- Assembled with assistance from leading architects and planners working on innovative solutions



The Ahwahnee Principles, 1991

- Revitalize existing parts of our communities through infill development
- Plan complete and integrated communities with mix of uses
 - Within walking distance of one another
 - Within walking distance of transit stops
 - With a diversity of housing types
 - With a center focus



Cities everywhere are facing similar problems – increasing traffic congestion and worsening air pollution, the continuing loss of open space, the need for costly improvements to road and public services, the inequitable distribution of economic resources, and the loss of a sense of community. The problems seem overwhelming and we suffer from their consequences every day. City character is blurred until every place becomes like every other place, and all adding up to No Place.

Many of our social, economic and environmental problems can be traced to land use practices adopted since World War II. In the late 1940s we began to adopt a notion that life would be better and we would all have more freedom if we planned and built our communities around the automobile. Gradually, rather than increasing our freedom, auto-oriented land use planning has reduced our options. Now, it takes much more time than it used to carry out our daily activities. We must go

everywhere by car – there is no other option. We must take a car to the store for a gallon of milk, drive the children to Little League practice, even spend part of the lunch hour driving to a place to eat. And as roads become increasingly clogged and services farther from our home, we spend our time as anonymous individuals waiting for the traffic light to change rather than chatting with friends at the corner store or playing ball on the lawn with the neighborhood kids.

LEAGUE OF CALIFORNIA CITIES

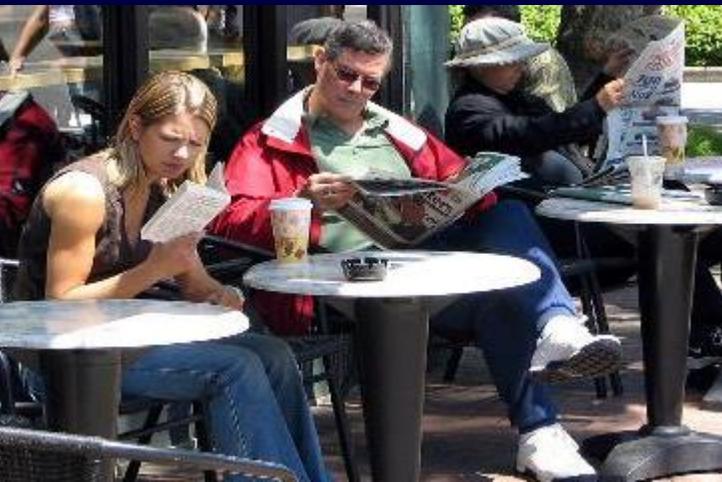


What is the Purpose of Towns and Cities?



Cities are an invention to maximize exchange (goods, culture, friendship, knowledge) and to minimize travel.

The role of transport is to maximize exchange.





A person standing in the middle of the road, circled in red.

93 NORTH
LEFT LANE

Hande's

Chevron

PUB
LIQUOR STORE

FAIRWAY

WALMART

WESTERN
FEDERAL

LAW OFFICE





Will 23 lanes be enough?

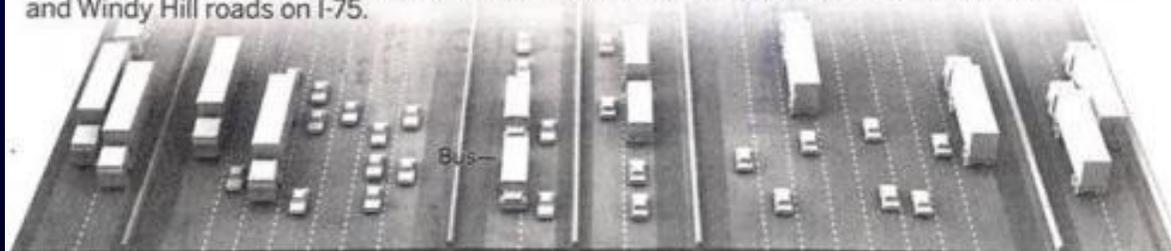
Proposal would put I-75 among country's biggest

By ARIEL HART
ahart@ajc.com

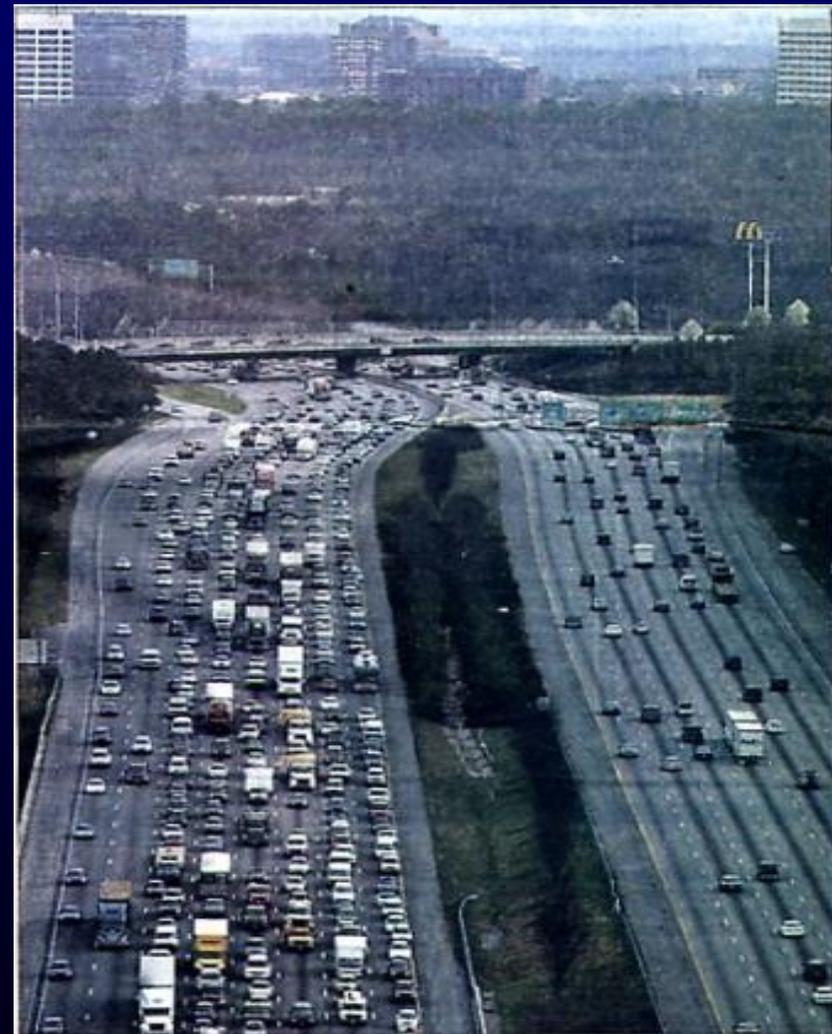
It's wider than an aircraft carrier. Far wider than the carving on Stone Mountain. Wider than the White House stretched end to end, twice.

It's the planned I-75, all 23 lanes, coming soon to Cobb County. As currently conceived it's 388 feet across, wider than a football field is long.

23 LANES: The state Department of Transportation is planning to expand I-75 (below) and I-575 in Cobb and Cherokee counties. The 23-lane stretch would be between Delk and Windy Hill roads on I-75.



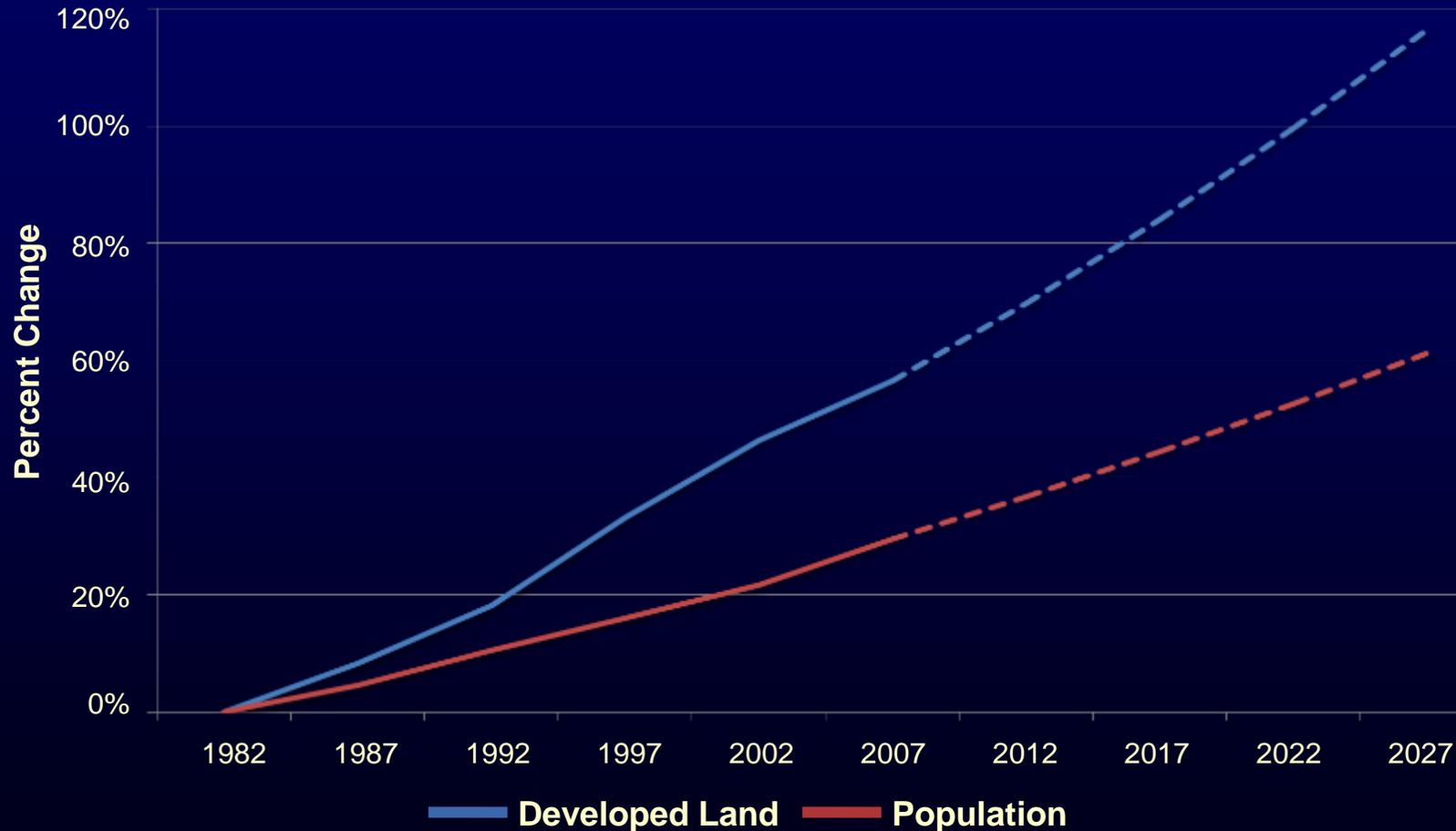
Truck lanes	General purpose lanes	HOV lanes	General purpose lanes	Truck lanes
	Southbound		Northbound	
Trucks pay toll.	Car/van pools and buses ride for free. Single-occupant vehicles must pay. Cost rises when traffic is heavier.			



Traffic heads north on I-75, just north of I-285, on Thursday. A proposal for the interstate is enough to make a road builder weep with joy, and make others wonder whether it's overkill.

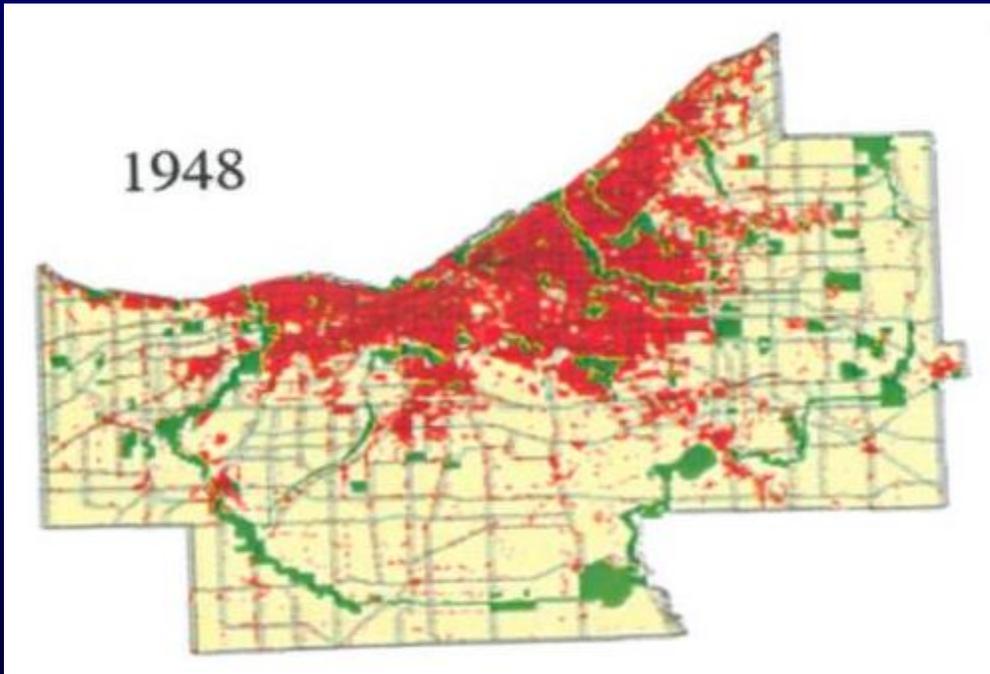
U.S. Population Growth and Land Consumption, 1982-2027

- Land area in virtually every metropolitan region in U.S. has expanded substantially since 1950
- Urbanized area increased 2.5 times faster than population growth between 1950 and 2010

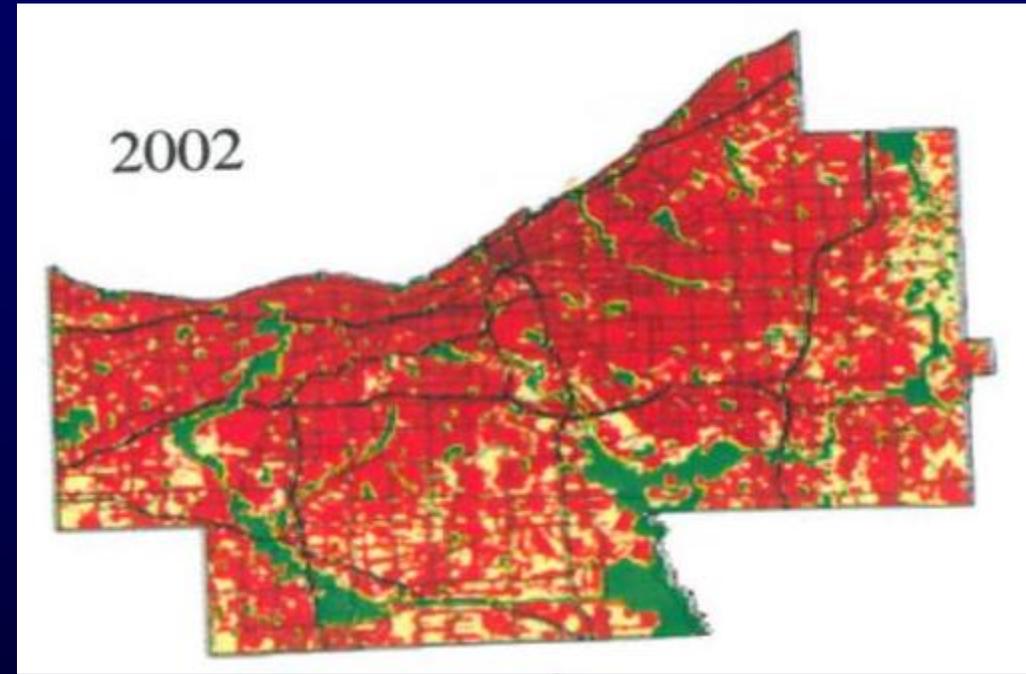


Data for 2012-2027 is extrapolated.

Expansion with Little Population Growth: Cuyahoga County, Ohio

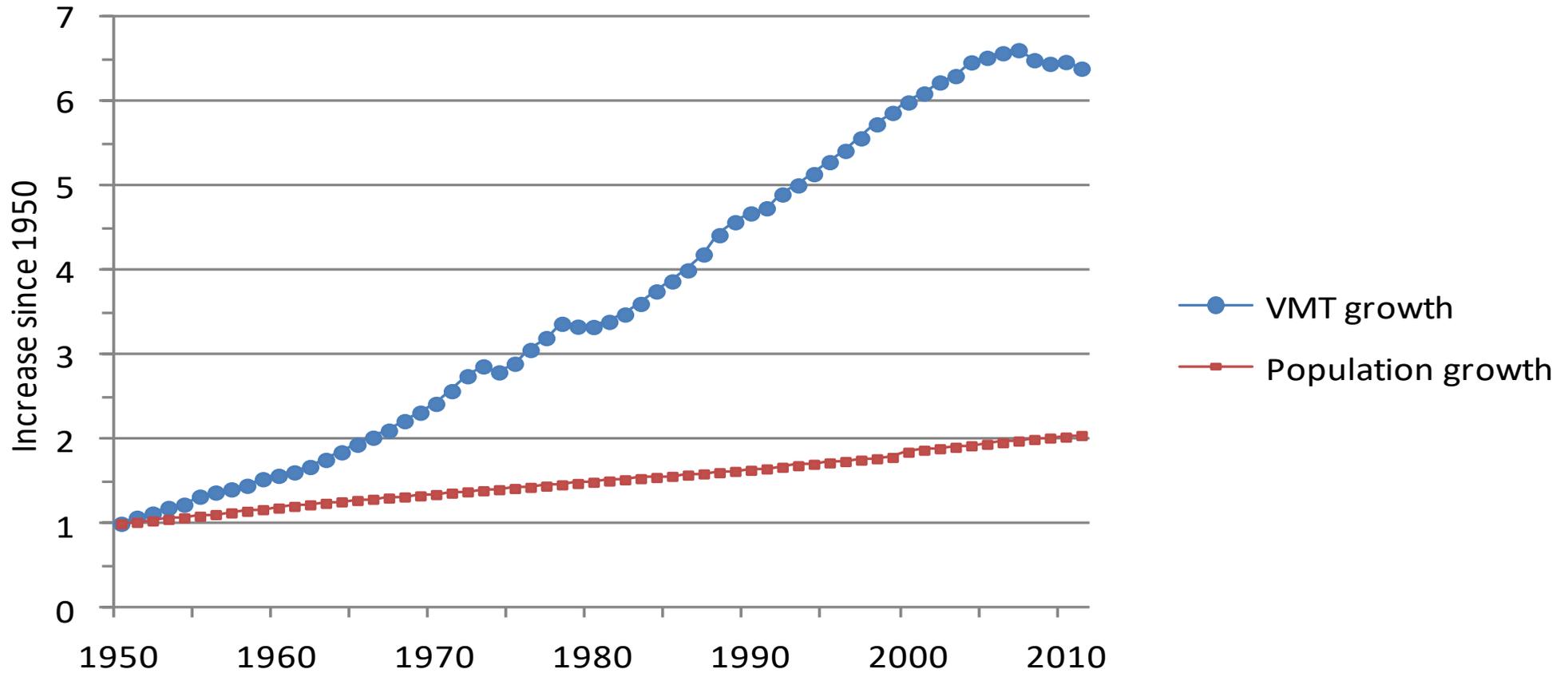


U.S. Census 1950
1,389,582 pop.



U.S. Census 2002
1,393,978 pop.

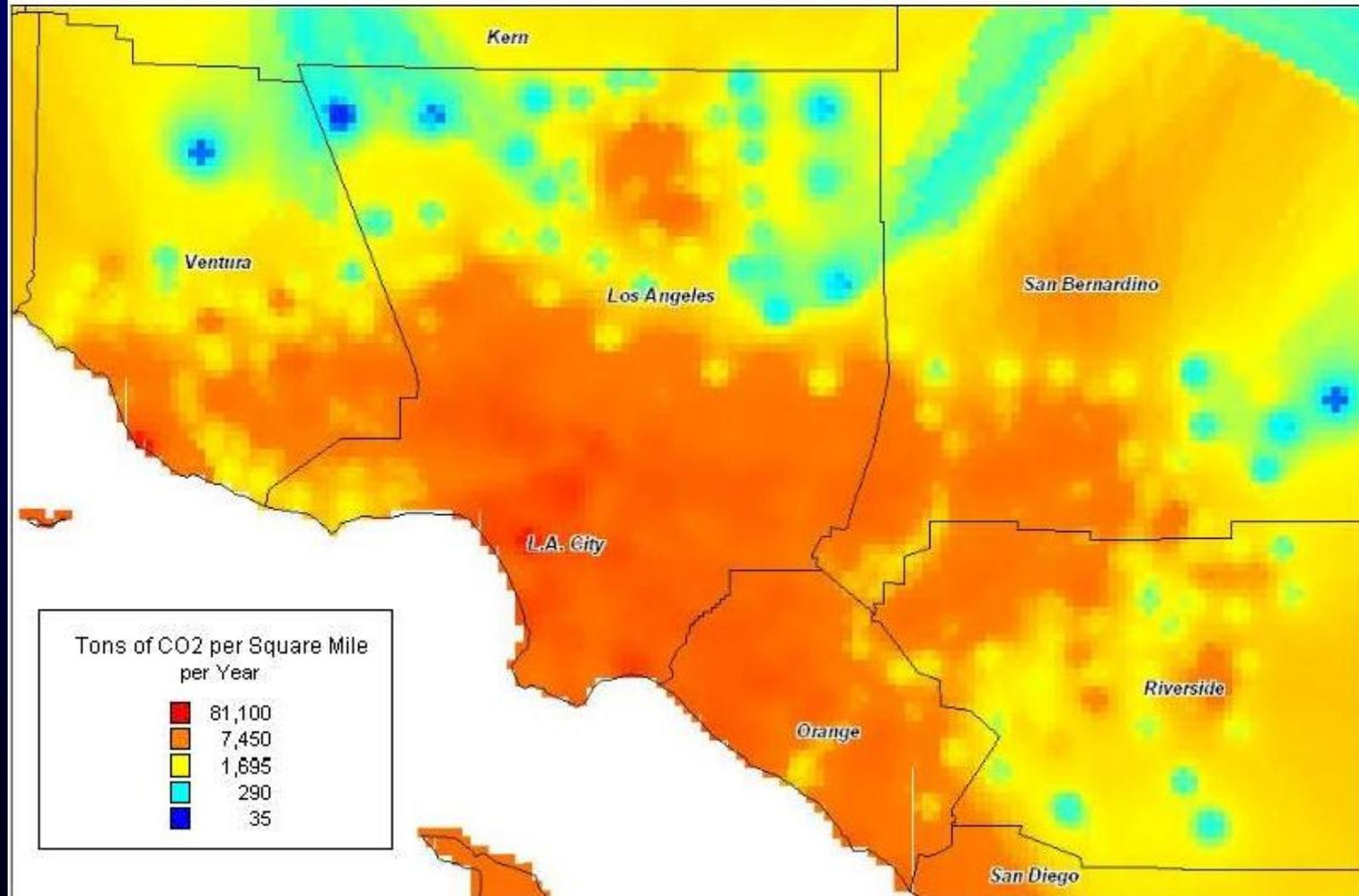
Growth in Vehicle Miles Traveled (VMT) Far Outpaces Growth in Population



Why Community Design Matters...

Traditional View:

Cities produce large amounts of GHGs.

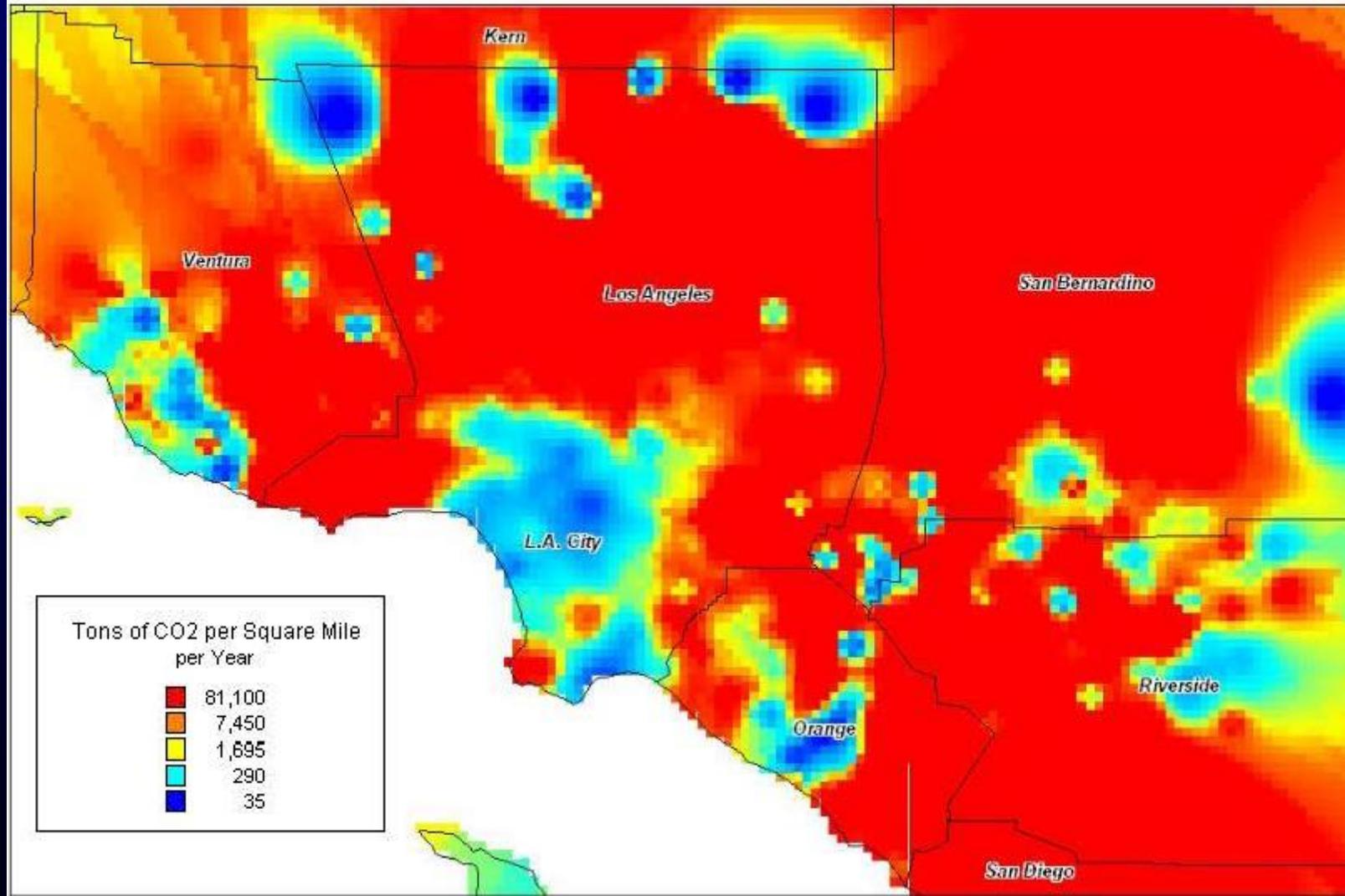


Source:
www.travelmatters.org
(Center for Neighborhood
Technology)

Why Community Design Matters...

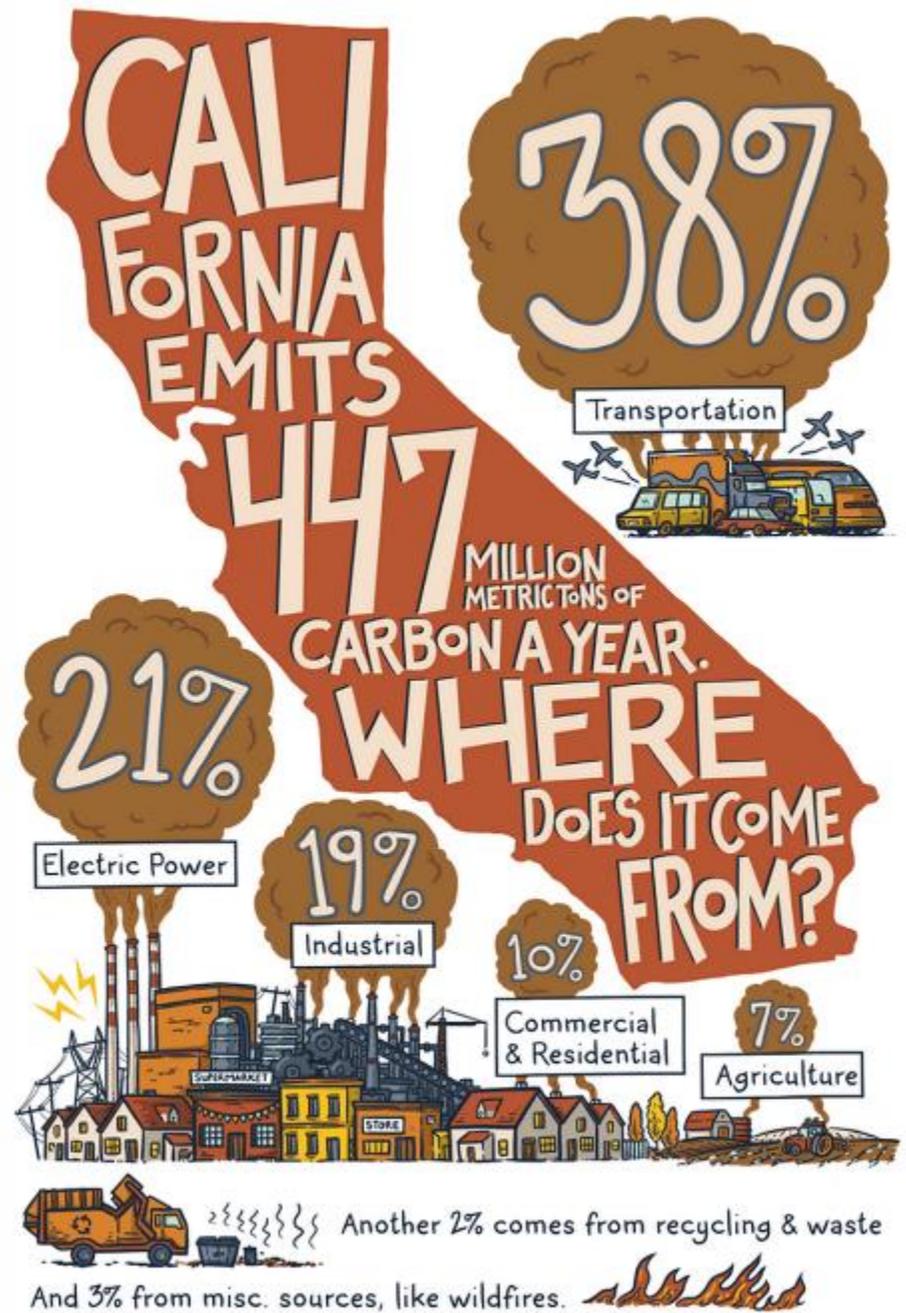
Emerging View:

City dwellers produce relatively low amounts of GHGs.



Source:
www.travelmatters.org
(Center for Neighborhood
Technology)

Transportation in California, 2012: Largest Piece of the Greenhouse Gas Emissions Pie



Based on 2010 data from the CA Air Resources Board. Illustrated by Andy Warner.

Three “E’s” or “P’s” of Sustainable Development

- Development that meets the needs of the present without compromising the ability of future generations to meet their own needs





Equality

doesn't mean

Equity

Equitable Development

- Approach to creating healthy, vibrant, communities of opportunity.
 - Equitable outcomes come about when smart, intentional strategies are put in place to ensure that everyone can **participate in and benefit from decisions that shape their neighborhoods and regions.**
 - PolicyLink developed an online toolkit with 27 tools
 - Affordable Housing
 - Economic Opportunity
 - Health Equity and Place
 - Land Use and Environment

Economic Benefits of Smart Growth

“Just as companies now compete on quality, communities will too.”

— Collaborative Economics,
Linking the New Economy to the Livable Community

“Livability isn’t some middle class luxury. It is an economic imperative.”

— Robert Solow, Nobel Prize-winning Economist



What Smart Growth “Is” And “Is Not”

**More transportation choices
and less traffic**

**Not against cars and
roads**

**Vibrant cities, suburbs
and towns**

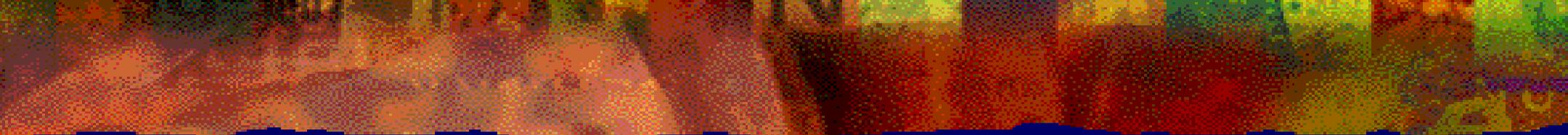
Not anti-suburban

**Wider variety of housing
choices**

**Not about telling people
where or how to live**

**Well-planned growth that
improves quality of life**

Not against growth



Principles of Smart Growth/ Livable Communities

Ten Principles of Smart Growth

1. Preserve Open Space, Farmland, Natural Beauty and Critical Environmental Areas
2. Strengthen and Direct Development Towards Existing Communities
3. Take Advantage of Compact Building Design
4. Mix Land Uses
5. Create Range of Housing Opportunities and Choices
6. Provide a Variety of Transportation Choices
7. Create Walkable Neighborhoods
8. Foster Distinctive, Attractive Communities with a Strong Sense of Place
9. Encourage Community and Stakeholder Collaboration
10. Make Development Decisions Predictable, Fair and Cost Effective

1. Preserve open space, farmland, and critical environmental areas

- Identify areas with highest priority for preservation
- Use a variety of preservation tools, including purchase, regulatory, and incentive programs

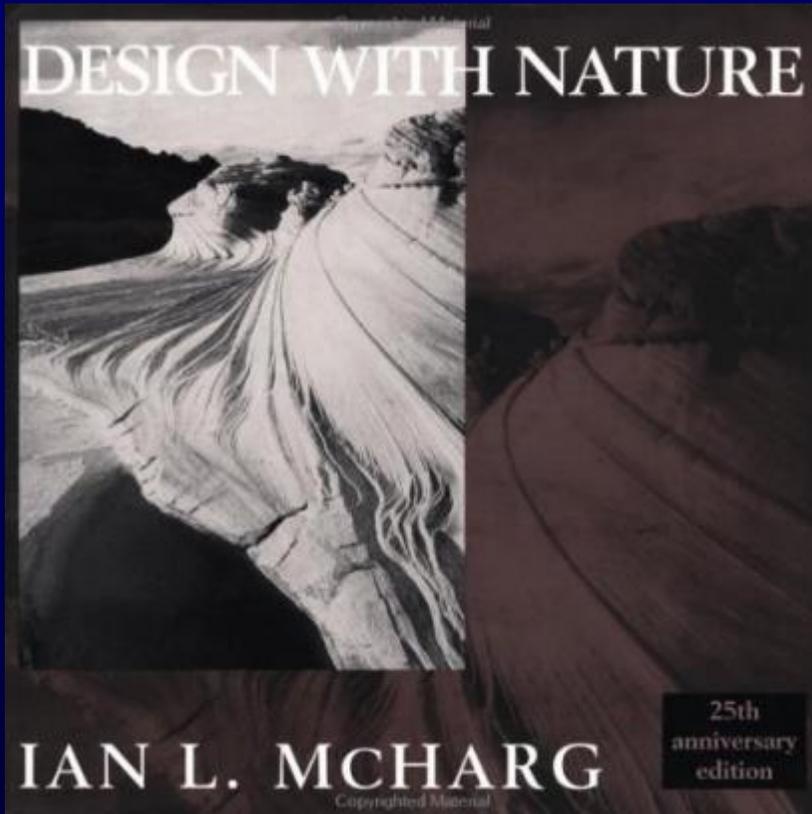


Sprawl in the Atlanta Region

- 1973-1992 forest land was reduced by 15 percent and grassland and cropland by about 6 percent
- The Georgia Conservancy estimated that 27 acres of tree cover were lost in the region every day
- Without transit-supportive and higher-density land use patterns, the Conservancy estimated that 200,000 acres of tree cover will be lost by 2020



Analyze where you can accommodate future growth



Mapping Method
Developed by Ian McHarg

Geology



Hydrology



Slope



Soils

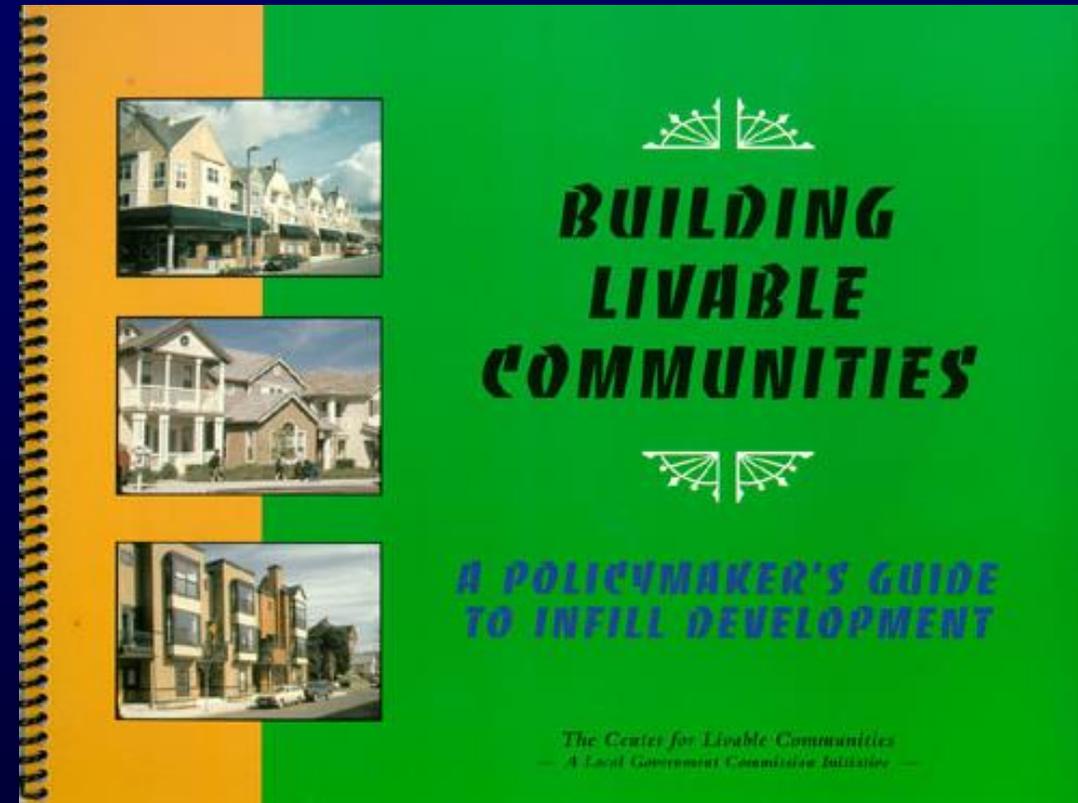


Woodland

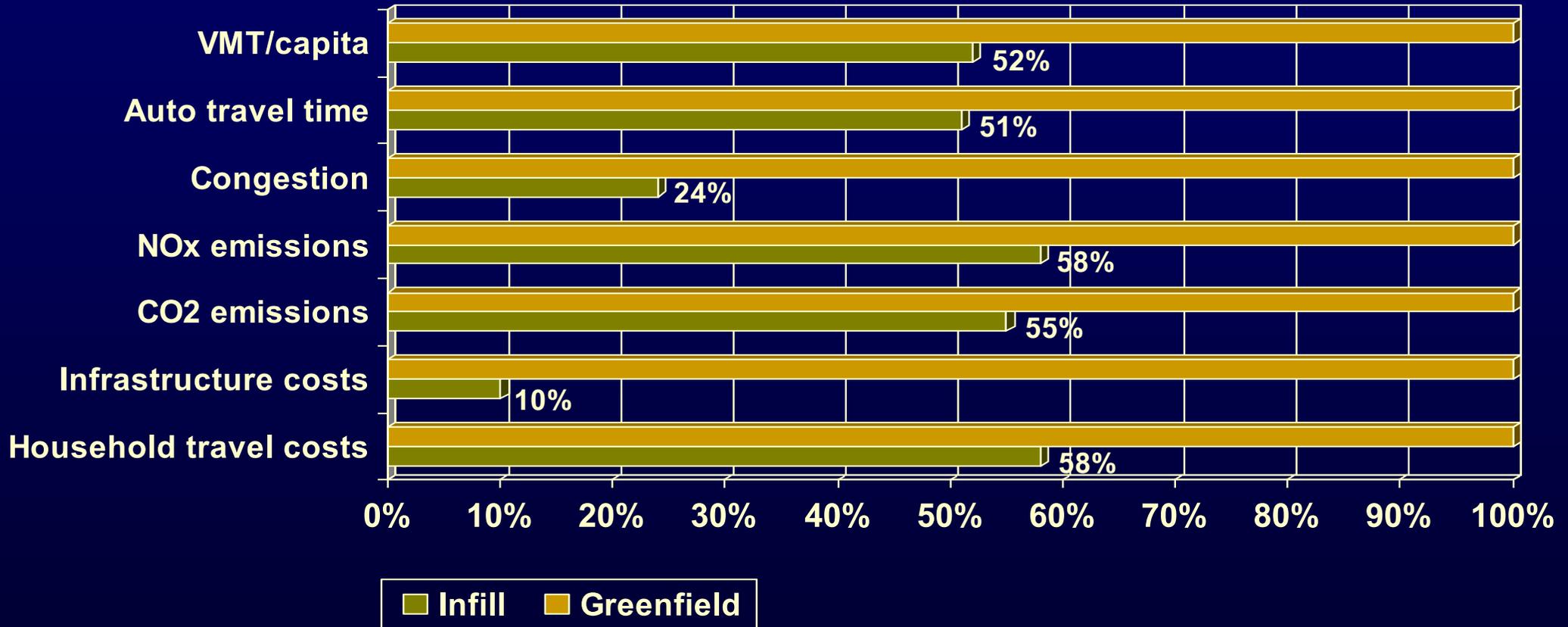


2. Strengthen, and direct development towards, existing communities

- Use incentives to clean-up and re-use “brownfield” and “grayfield” sites
- Preserve and repair historic buildings as part of revitalization efforts
- Build on resources and amenities of existing communities



Impacts of Infill vs. Greenfield Development in the San Diego Region



Source: Study by Criterion Planners/Engineers for U.S. Environmental Protection Agency, 1998

Potential benefits of infill

- Revitalize town centers, neighborhoods
- Provide more housing options
- Support transit service
- More efficient use of land
- Reduced costs for infrastructure/services (sometimes)
- Preserve agriculture
- Conserve open space



3. Take advantage of compact building design

- Grow vertically rather than horizontally to preserve green spaces and reduce cost of providing public facilities and services



What do downtown Florence, a freeway interchange and a big box store have in common?







Goleta - Costco Shopping Center



near Costco Shopping

Lower Cost of Infrastructure

Low Density vs. Compact Development

Land Consumption	45% more*
Cost for Roads	25% more**
Cost for Utilities	15% more**
Cost for Schools	5% more**
Other Costs	2% more**

*Duncan, James et al, *The Search for Efficient Urban Growth Patterns*. Florida Department of Community Affairs, 1989.

**Burchell, Robert, *Economic and Fiscal Impacts of Alternative Land Use Patterns*, Rutgers University, 1996.



Suburban

City's Annual Cost, per Household



\$3462

(Total)



Parks & Recreation
\$129



Solid Waste
\$185



Fire Department
\$406



Governance
\$297



Police
\$360



Transportation
\$171



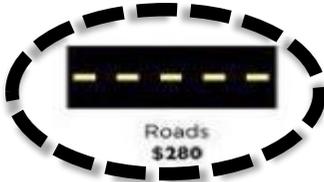
Libraries
\$72



School Bussing
\$87



Culture / Economy
\$36



Roads
\$280



Transfers to Provinces
eg. School Boards
\$435



Sidewalks & Curbs
\$194



Storm & Waste Water
\$613



Water
\$197

Urban

City's Annual Cost, per Household



\$1416

(Total)



Parks & Recreation
\$69



Solid Waste
\$185



Fire Department
\$177



Governance
\$158



Police
\$192



Transportation
\$91



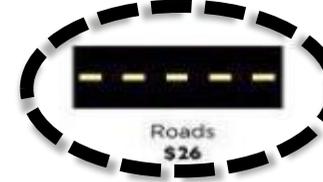
Libraries
\$38



School Bussing
\$13



Culture / Economy
\$19



Roads
\$26



Transfers to Provinces
eg. School Boards
\$232



Sidewalks & Curbs
\$27



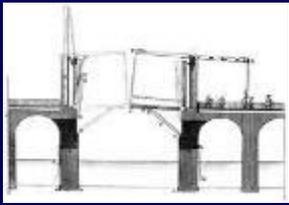
Storm & Waste Water
\$147



Water
\$42



For more data and more reports, visit thecostofsprawl.com
Data based on Halifax Regional Municipality



Public Interest
Projects, Inc.

Joseph Minicozzi, AICP
Joem@pubintproj.com



Land Consumed (Acres): 34.0

00.2

Total Property Taxes/Acre: \$ 6,500

\$634,000

City Retail Taxes/Acre: \$ 47,500

\$83,600

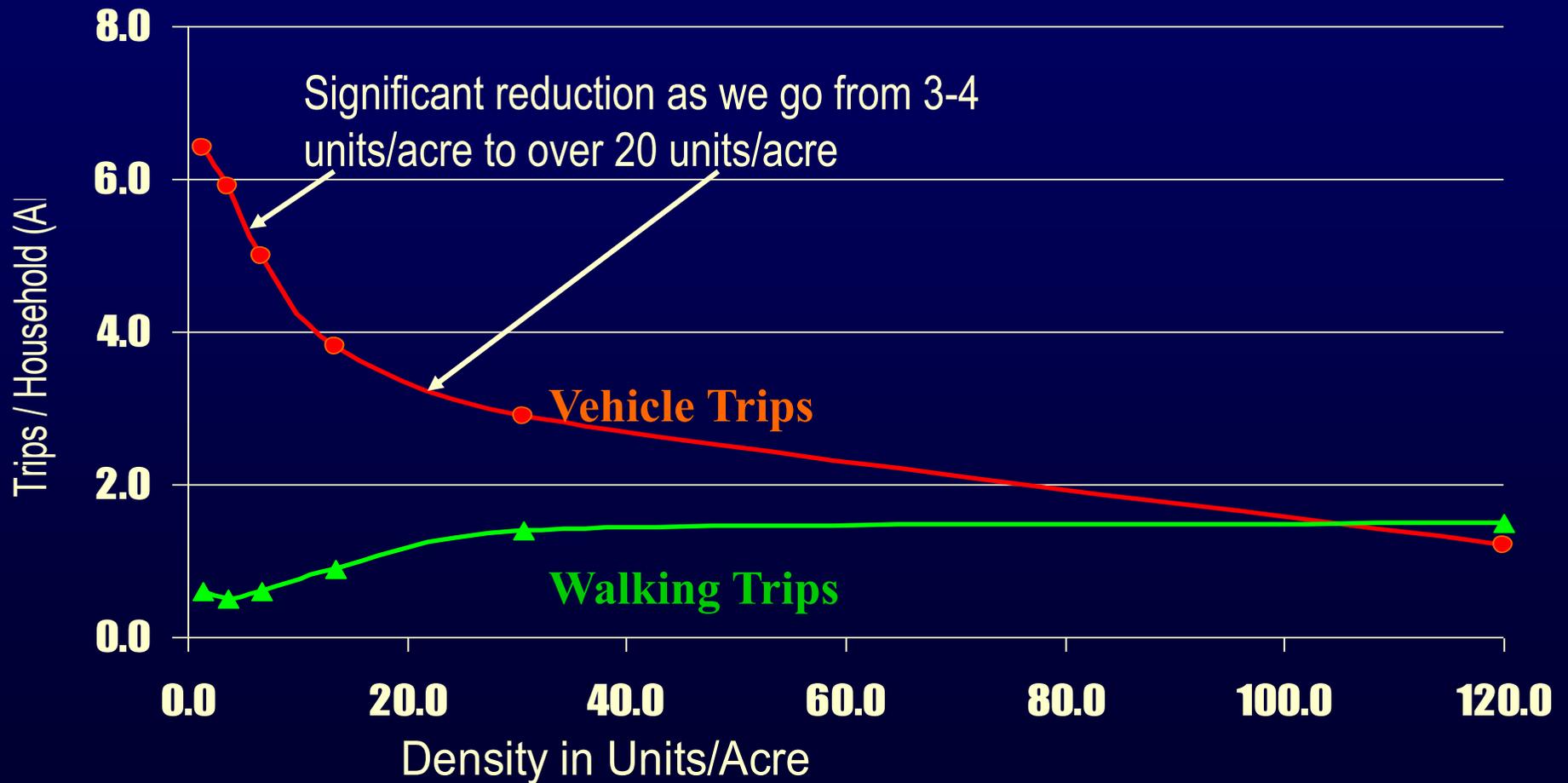
Residents per Acre: 0.0

90.0

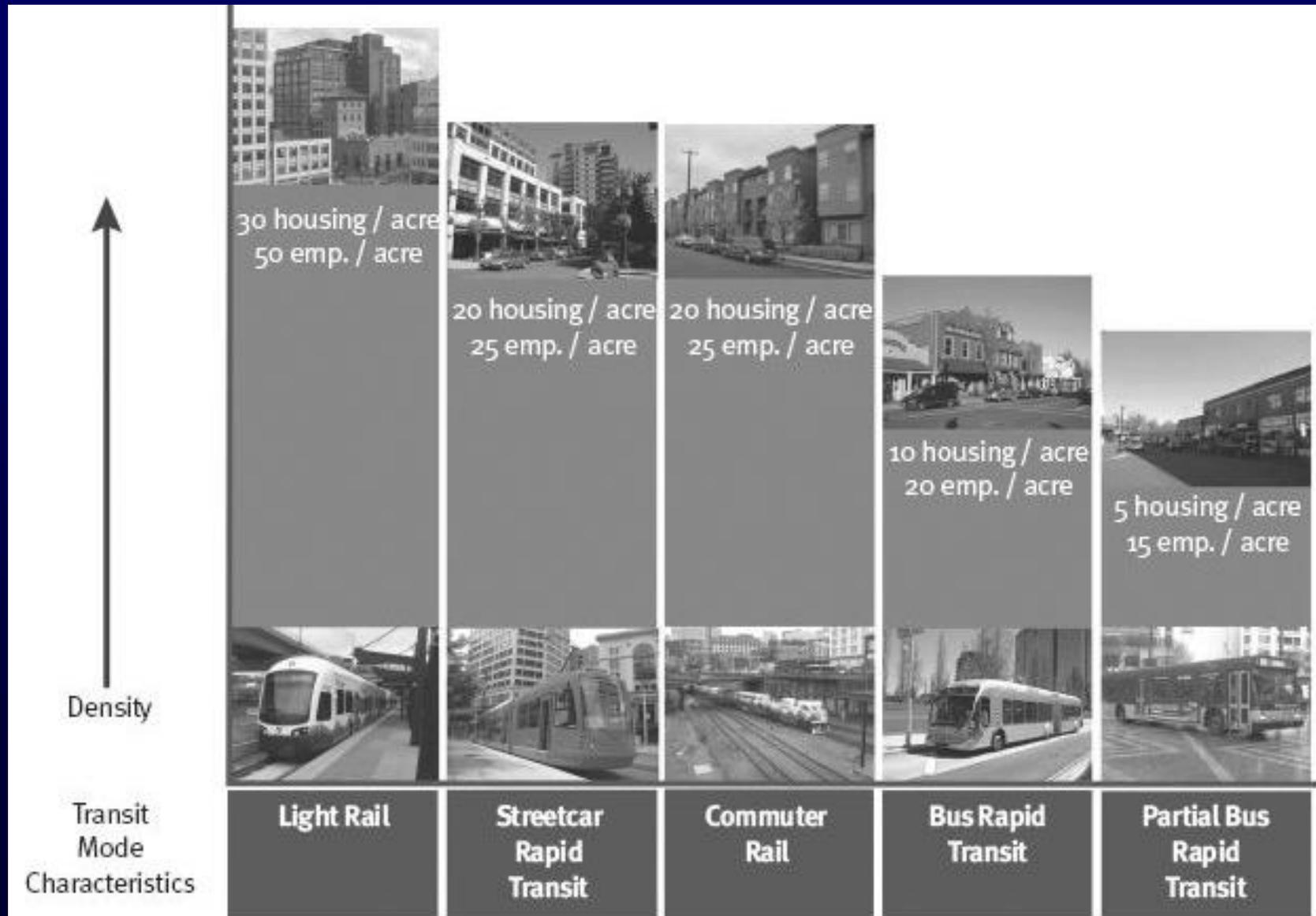
Jobs per Acre: 5.9

73.7

Land Use Pattern Affects Travel — Higher Density can reduce Vehicle Trips



Land Use Pattern Affects Travel — Density to Support Transit



Source: Jeffrey
Tumlin, Sustainable
Transportation
Planning, 2012

Land Use Pattern Affects Travel — Density to Support Retail

For a 10,000
sq.ft.
Convenience
Store

- 7 units/acre

For a 25,000
sq.ft. Small
Supermarket

- 18 units/acre



Missing Middle Housing



Scale Between Single Family Housing and Stacked Flats

© 2015 Opticos Design, Inc. |

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In 1991 there were 31.8 million people over the age of 65 in the U.S.

By 2030 that number will increase to 66 million.



Demographic Trends: Increase in Elderly Population



Moving to
downtowns and
older
neighborhoods

Driving less and
looking for other
transportation
options.



Demographic Trends: Millennials



4. Mix land uses

- Provide retail or personal services near housing
- Incorporate parks, schools, and other public facilities



Alternative Patterns of Development



Traditional

Conventional



Housing over retail

Sacramento, CA



Housing over restaurant, shops

Sacramento, CA



Housing next to retail

Salinas, CA

5. Provide housing opportunities and choices

- Provide quality housing for people of all income levels, household sizes, and stages in the life cycle.





Mixed Income Housing

Redwood City, CA



Live-Work Units

Little Italy, San Diego, CA



Mixed housing types

Single Family homes, Doe Mill, Chico, CA



Mixed housing types

Fourplex, Doe Mill, Chico, CA



Mixed housing types

Bungalow Court, Doe Mill, Chico, CA



Mixed housing types



Townhouses, Doe Mill, Chico, CA

6. Provide a variety of transportation choices

- Coordinate land use and transportation investment
- Increase high-quality transit service
- Connect pedestrian, bike, transit, and road facilities





Transit-Oriented Development

San Diego, CA



Portland, Oregon Streetcar



Portland Bus Mall, 6th Avenue

Opened in 1977, 22 blocks in downtown



Portland Bus Mall, 6th Avenue

Yellow light rail line added in 2009



Bus Rapid Transit, Mexico City Metrobus, Avenida Insurgentes line



Metrobus

Buses run every few minutes, Passengers pay when accessing platform



Protected bicycle lanes
(cycletracks) — New York City

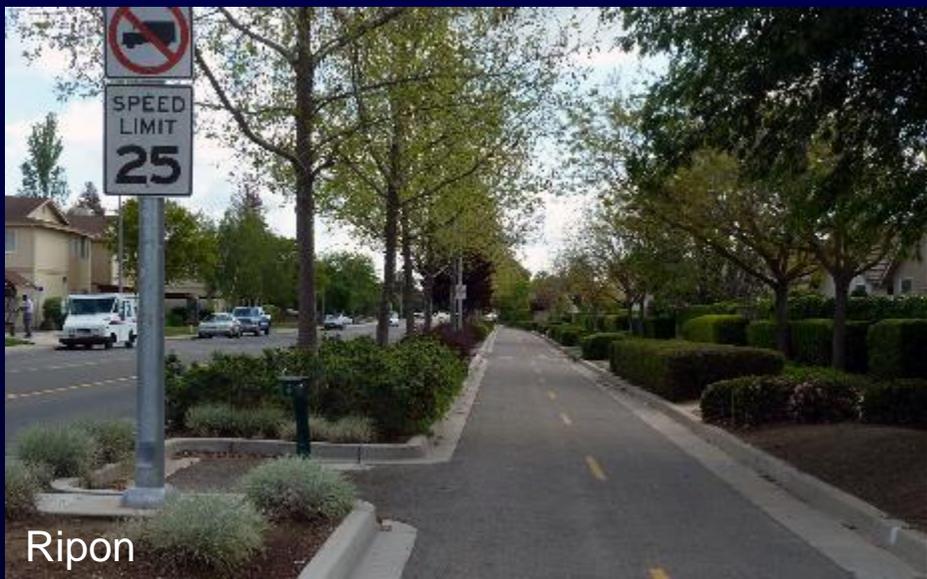
California Examples of Protected bicycle lanes



Long Beach



Long Beach



Ripon



Temple City

Bicycle Share Programs



STREET SPACE FOR 60 PEOPLE



60



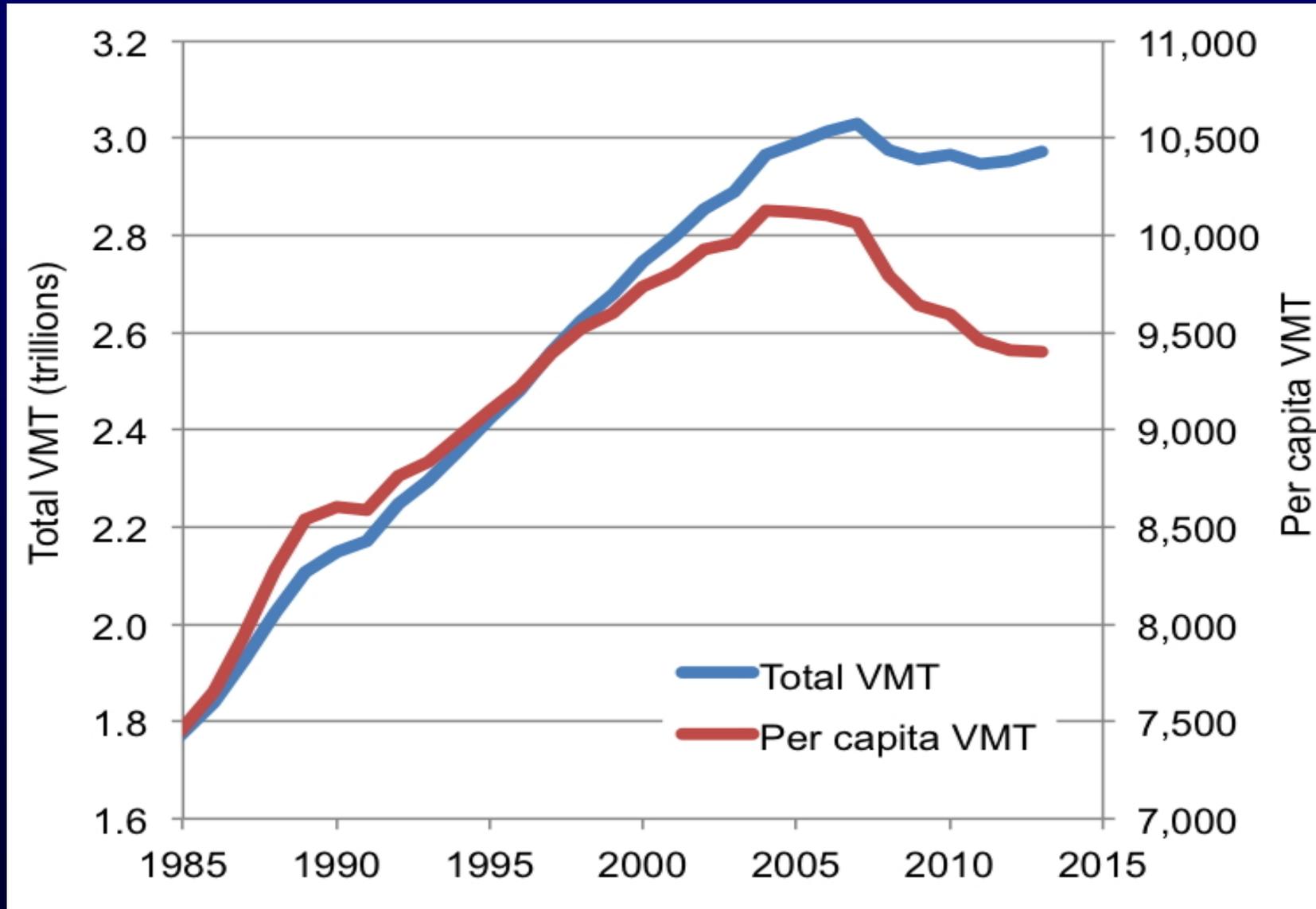
60



60

Press office, City of Münster, Germany

Will traffic volumes always increase? Maybe not

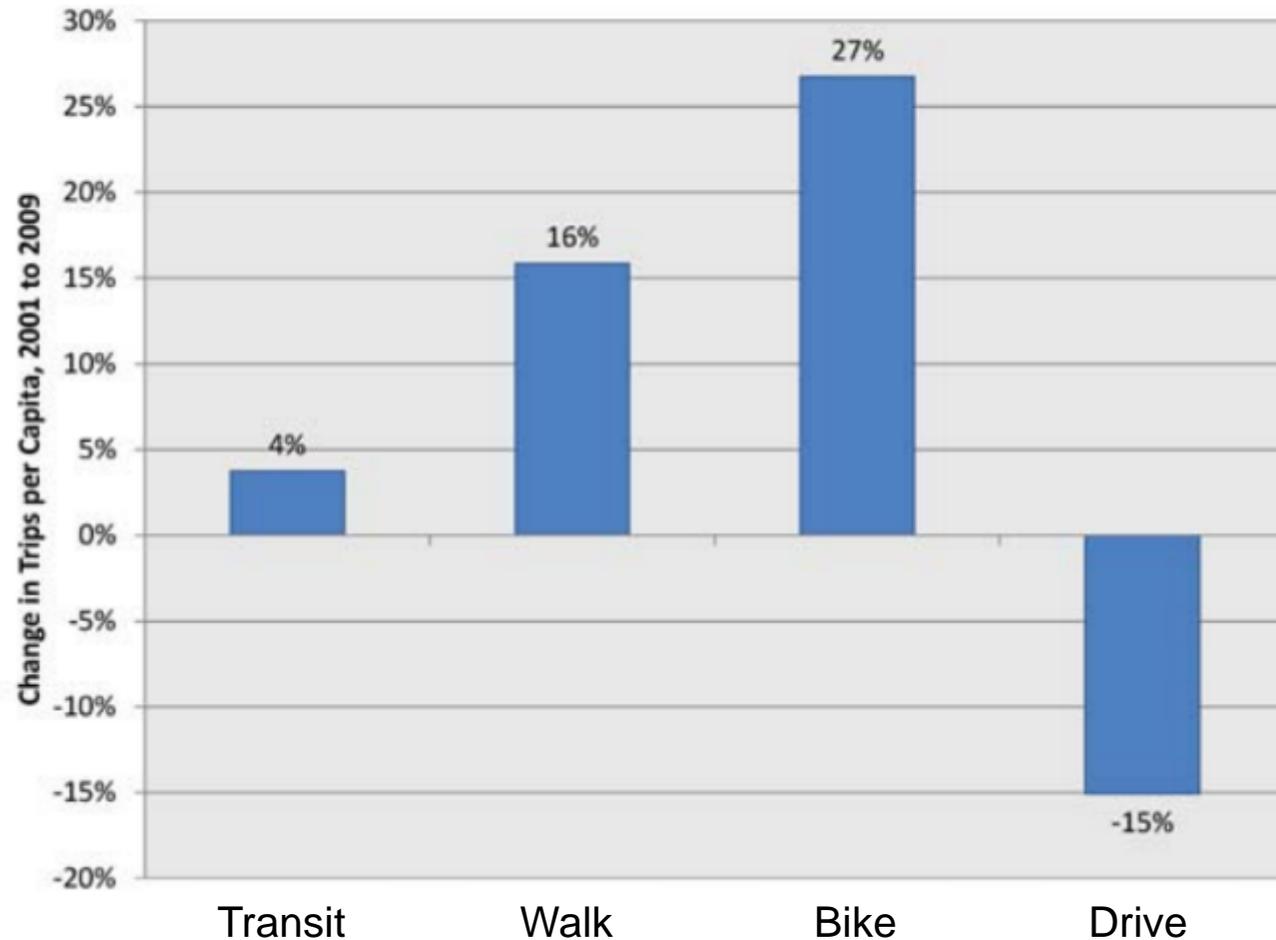


Millennials are walking/cycling more and driving less

- Moving to downtowns and older neighborhoods
- Driving less and looking for other transportation options.

www.copirg.org/sites/pirg/files/reports/Millennials%20in%20Motion%20CoPIRG.pdf

Change in Number of Trips per Capita among 16 to 34 year-olds, 2001-2009



Carsharing Vehicle Growth



Shaheen and Cohen, 2014

© UC Berkeley, 2015

Autonomous vehicles could increase VMT by **6%-90%**, depending on the percent of individually owned cars

— Joan Walker Director of Institute of Transportation Studies at UC Berkeley



7. Create walkable communities

- Mix land uses, build compactly, and provide safe and inviting pedestrian corridors
- Create “complete streets”
 - Accommodate pedestrians, bicyclists, transit users



Tremendous potential of Active Transportation

Of all trips:

50%

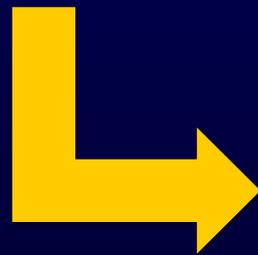
are less than
3 miles

A 15-minute
bike ride

28%

are less than
1 mile

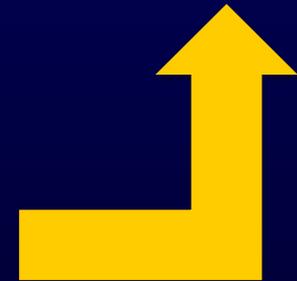
A 20-minute walk



of these trips...

60%

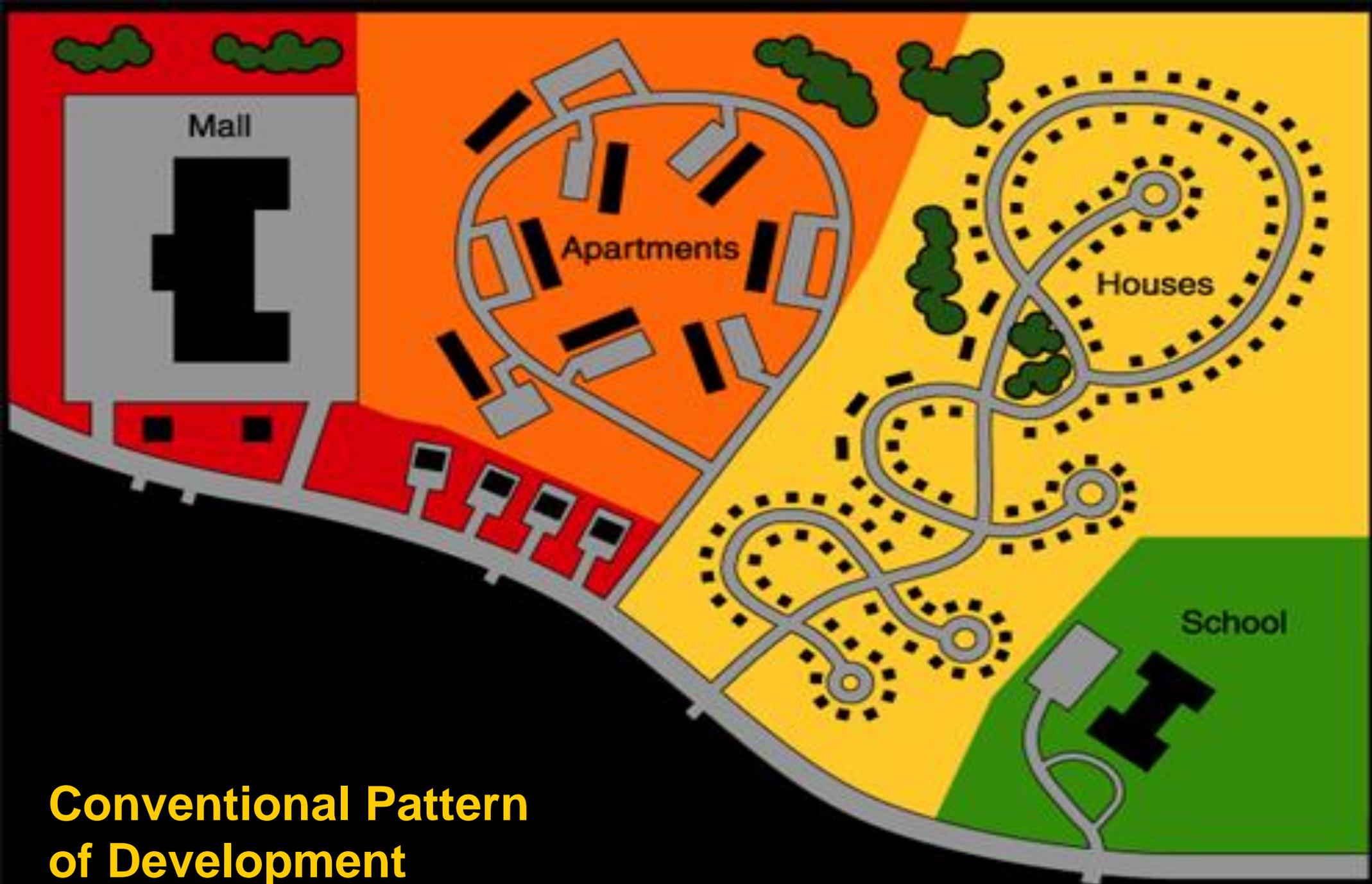
are driven



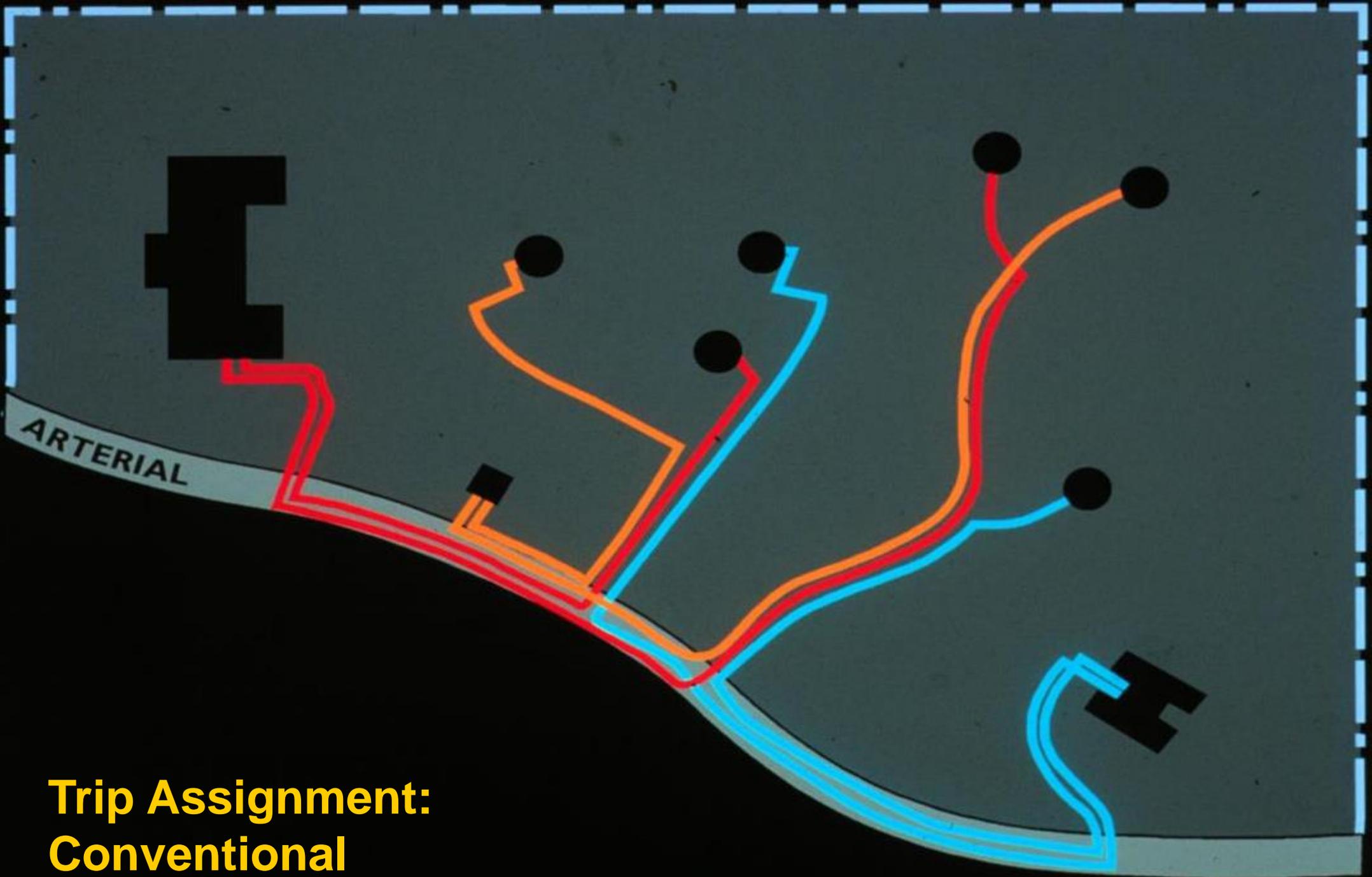
Street Design

- Influences trip choices
 - Safe, quiet, slow, shaded streets encourage people to walk, ride bicycle or take transit instead of driving a car



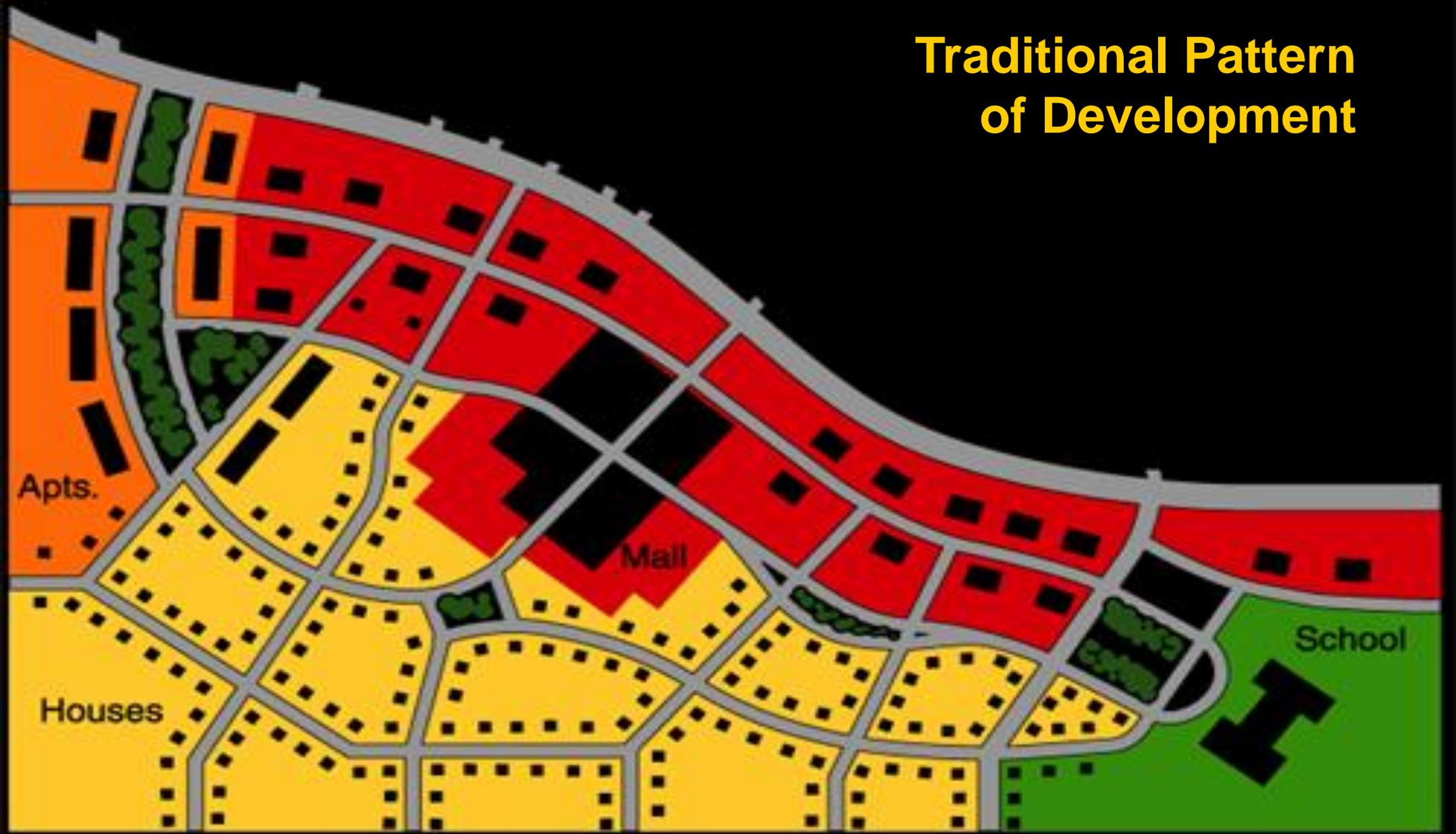


**Conventional Pattern
of Development**



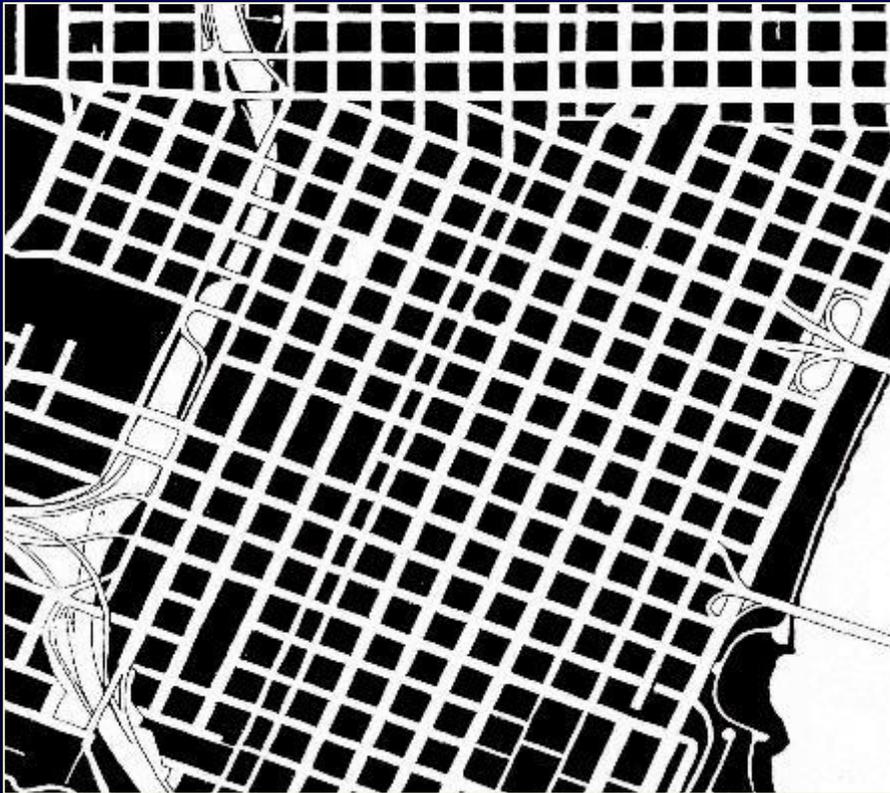
**Trip Assignment:
Conventional**

Traditional Pattern of Development



Traditional vs. Conventional

Central Business Districts at the same scale



Great Streets, Allen Jacobs

Portland, Oregon



Great Streets, Allen Jacobs

Walnut Creek, California

Principles of Safe, Walkable Streets

- Complete Streets designed for people, not just cars
- Friendly to cars, pedestrians and cyclists



Principles of Safe, Walkable Streets

- Streets designed so drivers feel comfortable at slow speeds
 - 15-25 mph on neighborhood streets
 - 25-35 mph on avenues and boulevards



Safe Streets Need Good Sidewalks



Healthy Neighborhoods Need Good Street Crossings



8. Foster Distinctive, Attractive Communities with a Strong Sense of Place



Alexandria, VA



Santa Barbara, CA



“There is little sense of having arrived anywhere, because everyplace looks like no place in particular.”

— James Howard Kunstler, *The Geography of Nowhere*

9. Encourage community and stakeholder collaboration in development decisions

- The private sector does most of the development, but residents and other stakeholders collaborate in this process to ensure it is consistent with community needs and concerns.



PLANS FOR
NEW CUTLER
DROSI





Cutler-Orosi Design Charrette – Opening Night Workshop





1. Sidewalk Finished

2. Better Lighting

3. Stop sign on Main St



Baldwin Park, CA

Cutler, CA







Implementation – Public Participation is Key

- Get Better Plans
- Engage Residents in their Community
- Good Plans Survive Political Changes
- Way to insure that residents feel not that they have access to City Hall but that they own City Hall



10. Make development decisions predictable, fair and cost-effective

- Update comprehensive plan and implementing regulations to incorporate Livable Communities, and apply regulations consistently

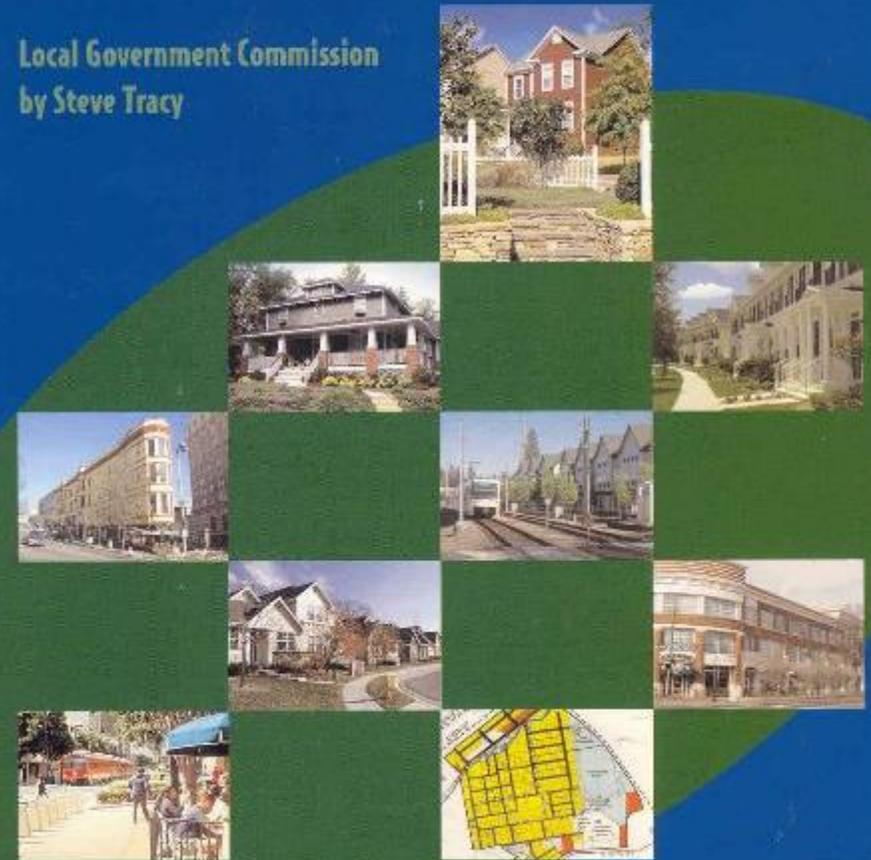


LGC's work on Smart Growth Codes

- 2003 published guide on Smart Growth Zoning Codes
- Reviewed over 250 codes and design guidelines from across the nation
- Chapters 1-3 cover comprehensive codes
 - Traditional Neighborhood Development
 - Mixed-Use/Live Work
 - Transit Area Codes

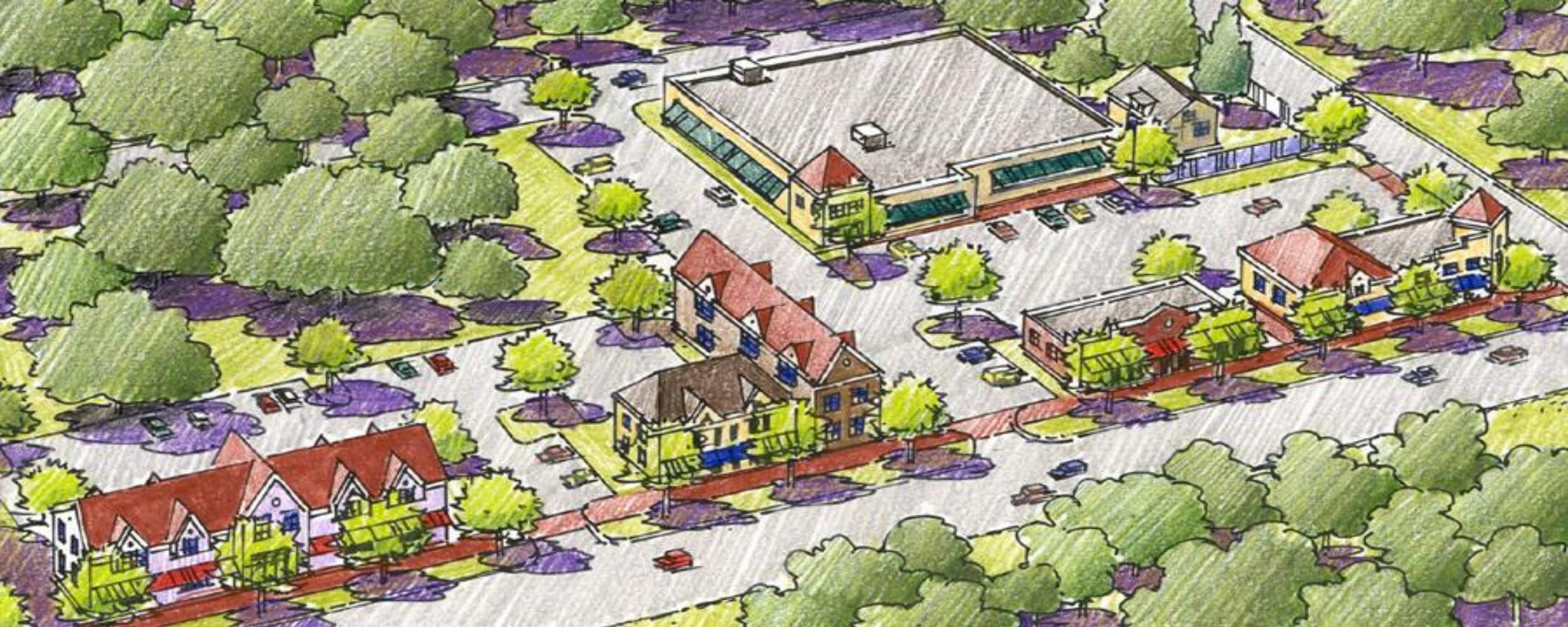
Smart Growth Zoning Codes: A Resource Guide

Local Government Commission
by Steve Tracy



Local Government Commission

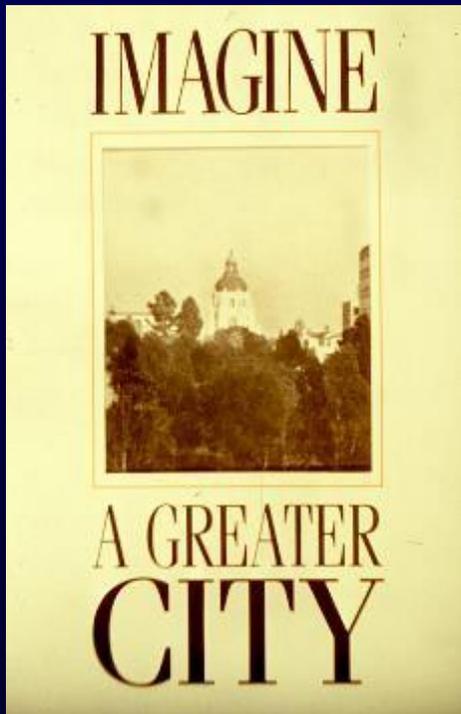
www.lgc.org



Plan proactively

Develop a Vision for Community

Pasadena
General Plan



Point of Agreement: Targeted Growth



Plan proactively

Develop a Vision for Community

Pasadena
General
Plan

Holly Street
Village

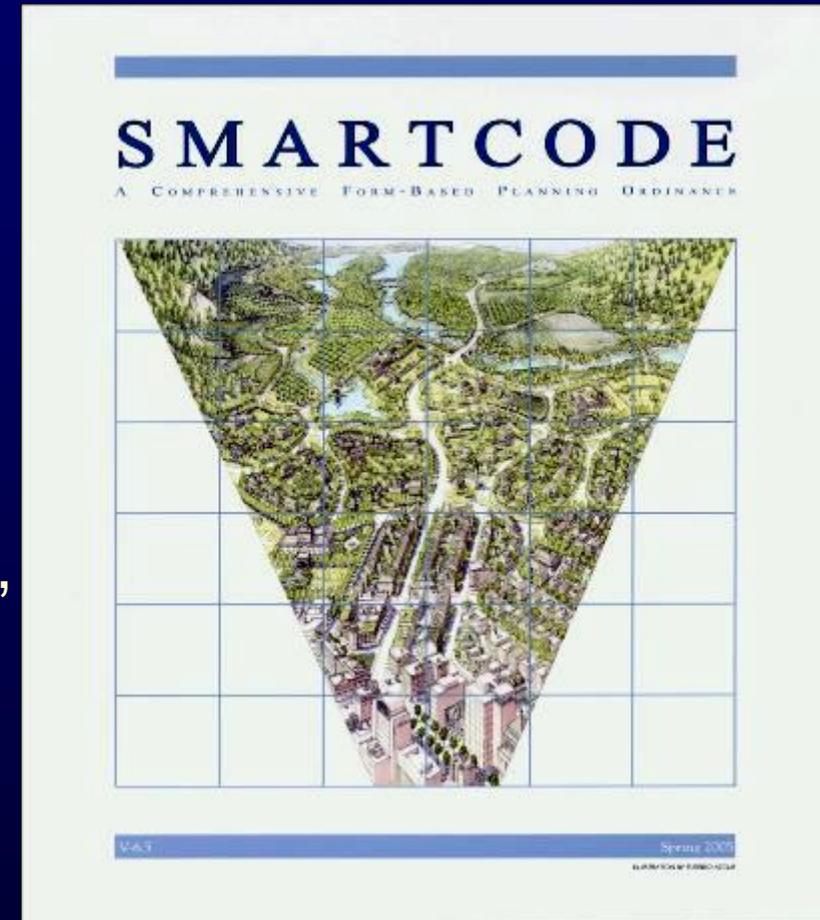
Infill, mixed
use rental
housing

Model:
Early 1990s



Implementing the Vision

- State-of-the-Art Development Codes — Form-Based Codes
 - Recognition that current zoning and land development regulations are flawed
 - New approaches to fixing them
 - New emphasis on form-based codes, SmartCode
 - Problems with conventional codes that emphasize use and intensity of development



Source: Duany Plater-Zyberk

Is there a market for Smart Growth?

Important things when deciding where to live...	Important	Not Important
Being within an easy walk of other places and things in the community	80%	20%
Sidewalks and places to take walks	86%	14%
Being within a short commute to work	74%	26%
Easy access to the highway	80%	20%
Having public transit nearby	62%	38%
Bike lanes and paths nearby	54%	46%
Separated bike paths or trails	53%	47%



NATIONAL
ASSOCIATION of
REALTORS®

2017 Survey: Q10-16. If you were deciding today where to live, how important are each of the following? www.lgc.org

Additional Resources

- Local Government Commission
 - www.lgc.org
- Smart Growth Network
 - www.smartgrowth.org
- Smart Growth America
 - www.smartgrowthamerica.org
- Congress for the New Urbanism
 - www.cnu.org
- Center for Neighborhood Technology
 - www.cnt.org

Questions/Comments

Paul Zykofsky

Local Government Commission

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