## Smart Growth 101: Making the Connections

### Paul Zykofsky, AICP Local Government Commission

New Partners for Smart Growth Conference

San Diego, CA February 2, 2012

- Nonprofit membership organization based in Sacramento, CA of local government officials – elected and staff
- Founded in 1979 to work on energy issues
- During 1980s expanded to work on pollution prevention, waste management, hazardous waste
- 1991: Started working on land use issues



### The Ahwahnee Principles, 1991

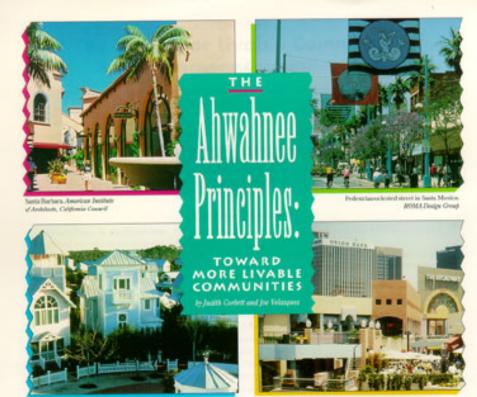
- Response to our members' concerns over sprawling, poorly planned development in their communities
- Assembled with assistance from leading architects and planners working on innovative solutions





### 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



Seade, Florida, 197 architecte

Horton Plaza --- Where the snall was sited downtown. City of Son Diego

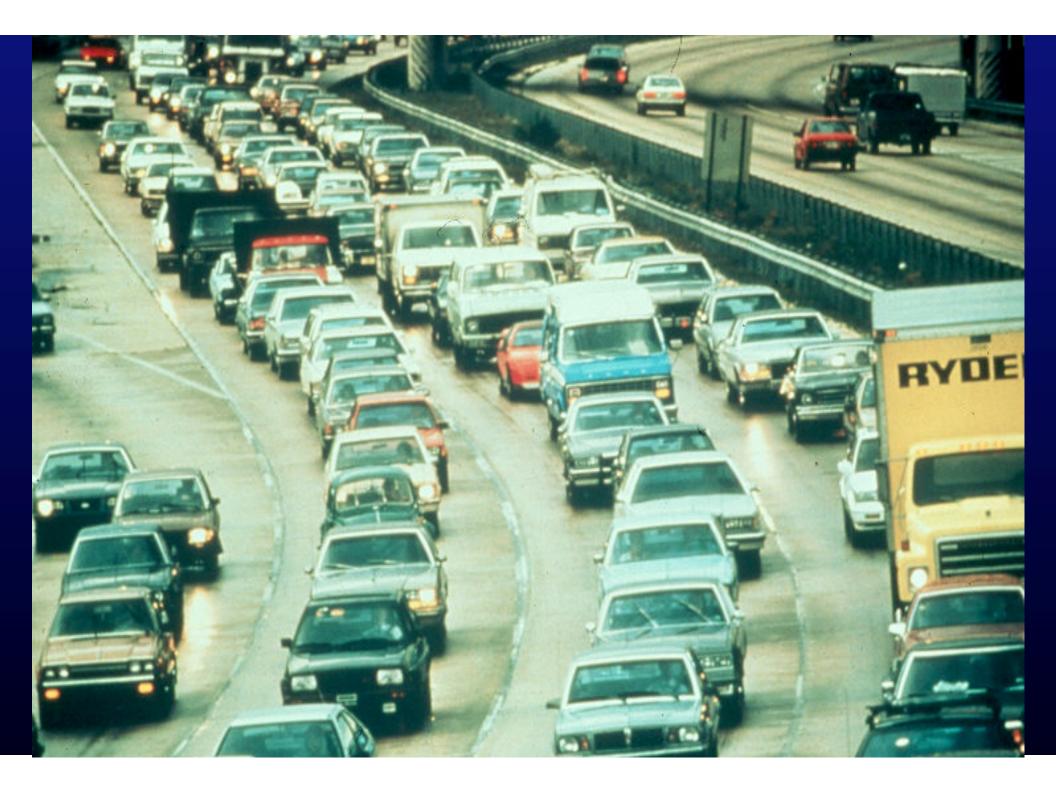
Ities everywhere are facing similar problems – increasing traffic congestion and worsening air pollution, the continuing loss of open space, the need for costly improvements to road and public services, the inequitable distribution of economic resources, and the loss of a sense of community. The problems 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.

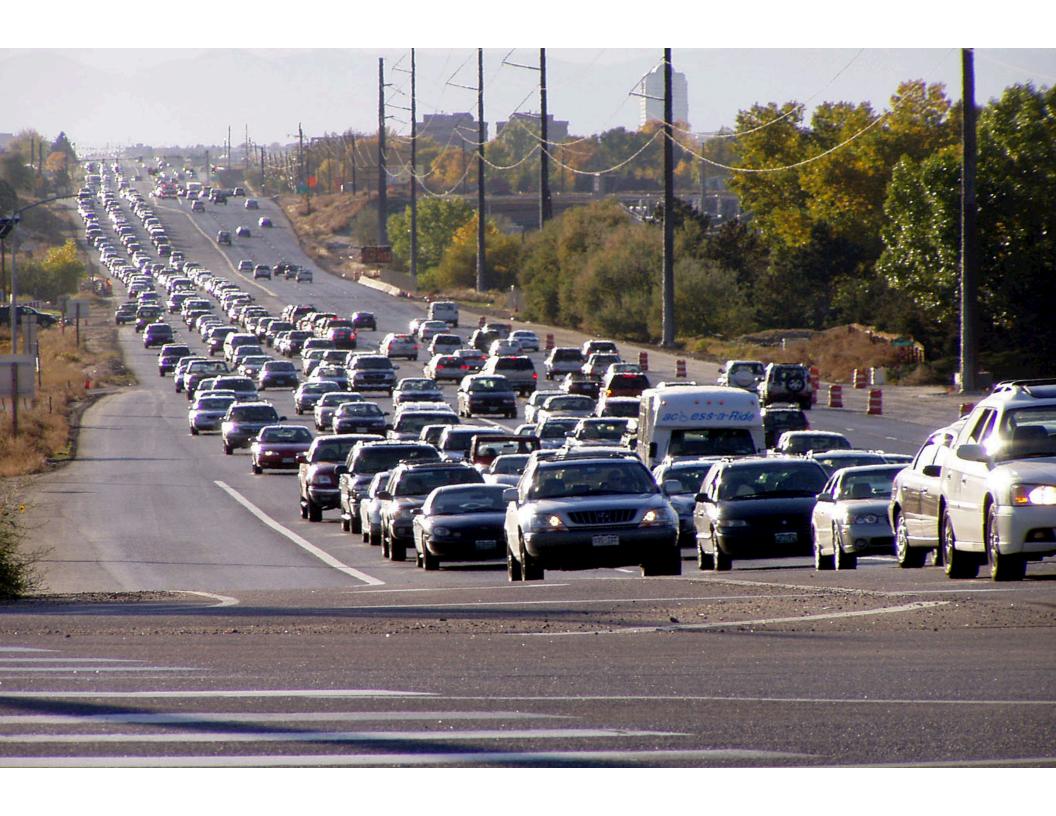
Many of our social, economic and enviroomental problems can be traced to land use practices adopted sisce World War II. In the lane 1940s we began to adopt a notion that life would be better and we would all have more freedom if we planned and built our communities around the antoenoble. Gradually, rather 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 palles of emils, drive the chiltres to Little League practice, even spend part of the hunch hour driving to a place to eat. And as roads become nerrossingly cloged and services farther from our horne, we spend our time as anonymous individuals waining for the traffic light to change rather than charting with friends at the cernor stare or playing hall on the lower with the neighborisod kids.

LEAGUE OF CALIFORNIA CITIES

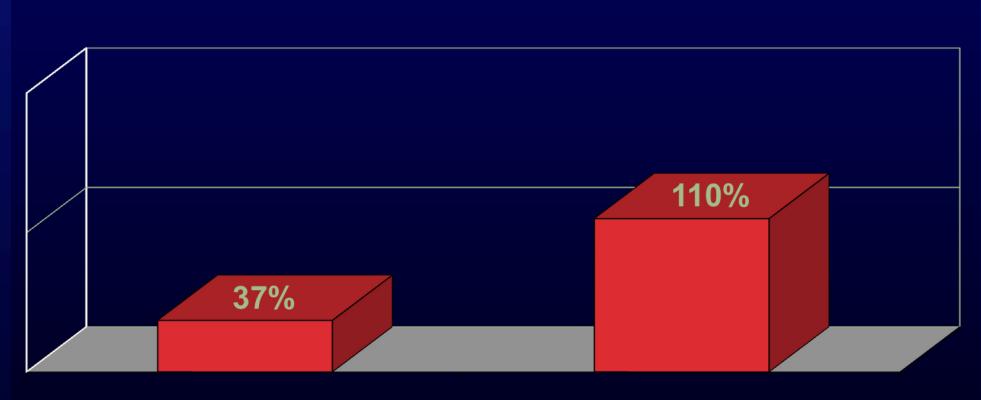








# U.S. Population Growth and Transportation – 1977-2007



**Population Growth** 

**Vehicle Miles Traveled** 

# Will 23 lanes be enough?

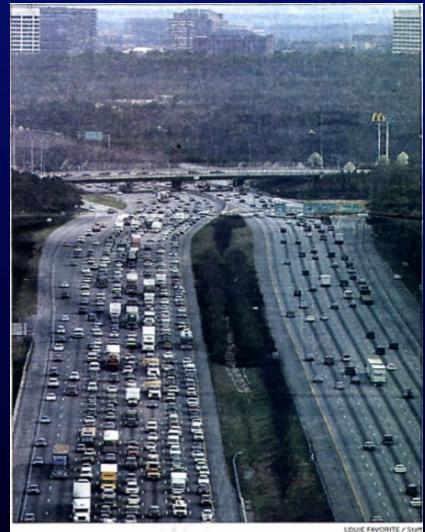
#### Proposal would put I-75 among country's biggest

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.

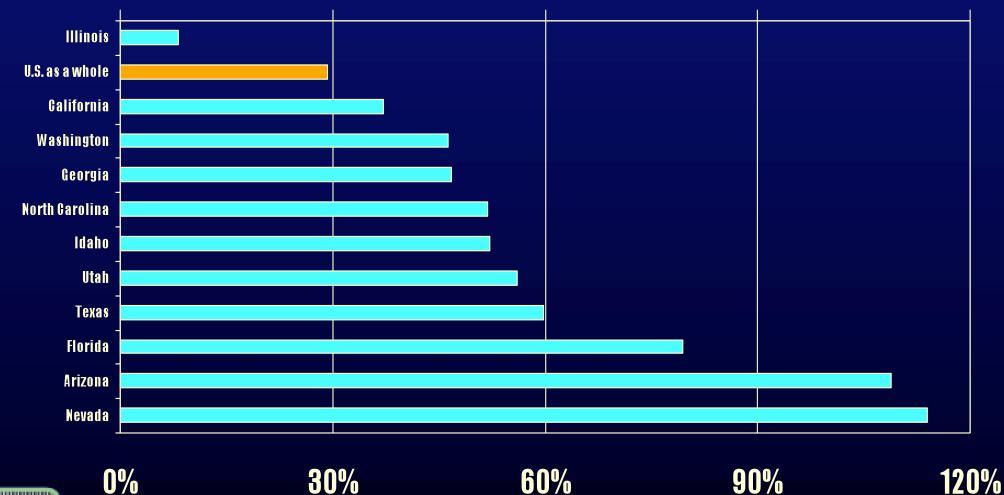
and I-57	<b>IES:</b> The state Department of 5 in Cobb and Cherokee cour dy Hill roads on I-75.	f Transpor nties. The	tation is p 23-lane st	lanning to expand I-75 (below retch would be between Del	() k	
H						
Truck	General purpose lanes	HOV	lanes	General purpose lanes	Truck	
Trucks pay toll.	Southbound		Northbound		lanes	
	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.

# Projected Population Growth Rates in the U.S. (2000-2030)



Source: U.S. Dept. of Commerce, Census Bureau



## **Smart Growth/Livable Communities**

#### Common Themes

- Efficient use of land
  - Fill in older parts of communities before spreading out
  - Build new communities in more compact way
- Mix of uses
  - Mix commercial and retail uses with residential
  - Support/create town and neighborhood centers
  - More destinations in walking/bicycling distance
- Support walking, bicycling and transit use
- Create strong local and regional economies
- Involve residents in planning process



### **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	<u>Not</u> against cars and roads
Vibrant cities, suburbs and towns	<u>Not</u> anti-suburban
Wider variety of housing choices	<u>Not</u> about telling people where or how to live
Well-planned growth that improves quality of life	Not against growth

Courtesy: Smart Growth America

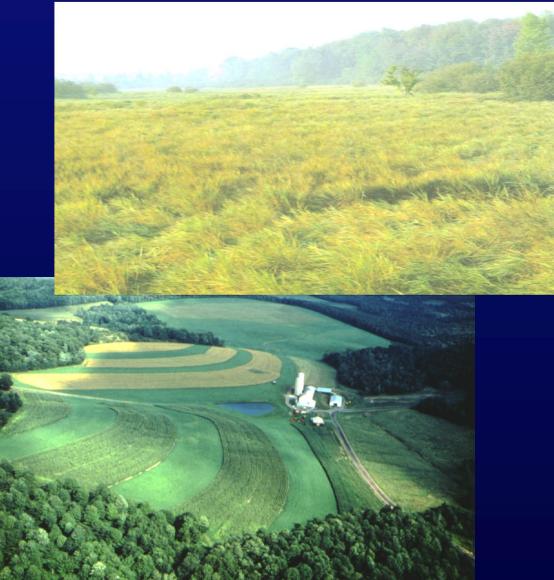
## Principles of Smart Growth/ Livable Communities

### **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
- 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 estimates that 27 acres of tree cover are lost in the region <u>every day</u>
- Without transit-supportive and higher-density land use patterns, the Conservancy estimates that 200,000 acres of tree cover will be lost by 2020



### Charlantingham: Welcome to the big city

#### By Maurice Tamman mtamman@ajc.com

Charlotte — Over the past 40 years, satellite lenses have clicked away, 450 miles high, capturing the nation's night lights.

In the 1970s, those lenses detected only a few blips from Georgia, Alabama, Tennessee, and the Carolinas. Today, the region glows like a wheel-shaped constellation, with Atlanta at its hub.

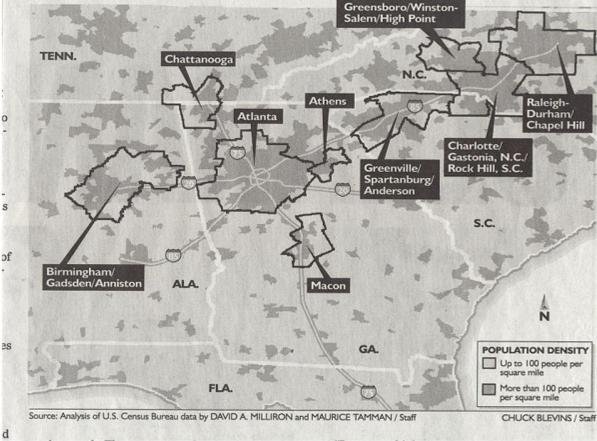
grown from 1.39 millio five counties to 4.11 mi counties; it pushes out 20, 75 and 85 toward B tanooga, Macon, Green Charlotte. All the while markets boomed, exter aries toward Atlanta. According to the 200

During that time, me

lion people live in the r Piedmont megalopolis,

#### **PIEDMONT MEGALOPOLIS**

Atlanta is the hub of what has been called the Piedmont megalopolis, stretching along I-20, I-75 and I-85 from Birmingham to Greenville, S.C., Charlotte and even Raleigh and from Chattanooga to Macon. This shows how the areas are growing together as people move to areas along the interstates. A look at those metropolitan statistical areas and their populations:



Atlanta Journal-Constitution, April 15, 2001

# Analyze where you can accommodate future growth

unniversar

edition



IAN L. MCHARG

Mapping Method Developed by Ian McHarg

#### Geology

Hydrology

Geology

Hydrology

Slope

Slope

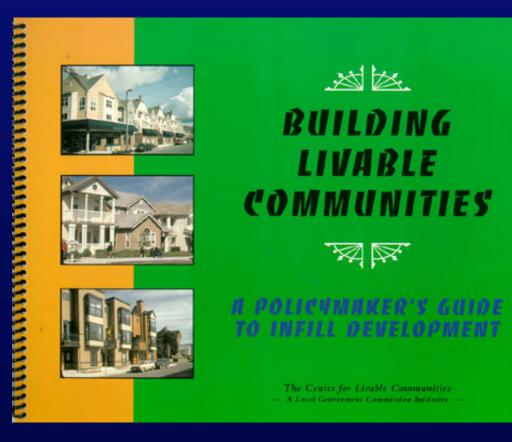
Soils



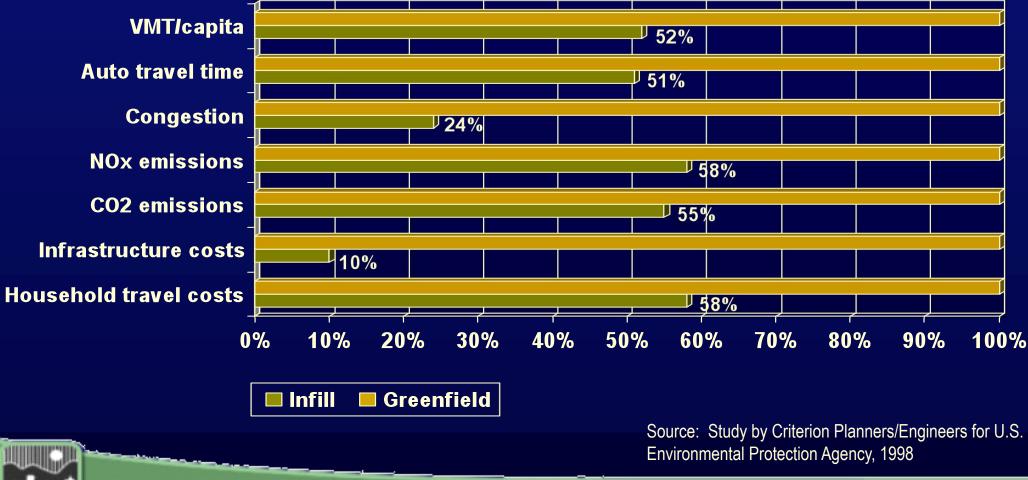
Woodland

# 2. Strengthen, and direct development towards, existing communities

- Use incentives to achieve clean-up and re-use of "brownfield" and "grayfield" sites
- Preserve and repair historic buildings as part of redevelopment plans
- Build on the resources and amenities of existing communities



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



Local

## Potential benefits of infill

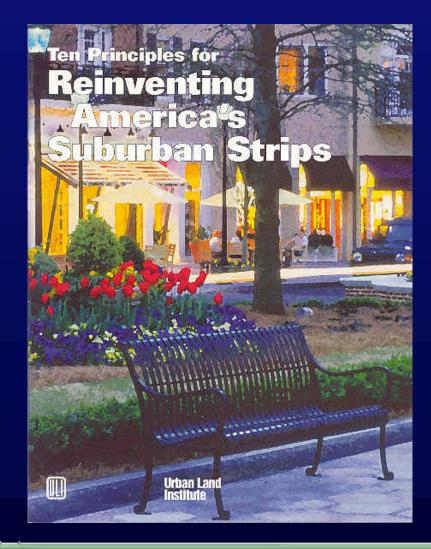
- Revitalize town centers, neighborhoods
- Provide more housing options
- Support transit service
- More efficient use of land
- Reduced costs for infrastructure/services
- Preserve agriculture
- Conserve open space



### **Commercial Strips** — The Next Frontier

#### ULI's Principles to Reinvent Suburban Strips

- Ignite Leadership/Nurture Partnership
- Anticipate Evolution
- Know The Market
- Prune Back Retail-Zoned Land
- Establish Pulse Nodes of Development
- Tame the Traffic
- Create the Place
- Diversify the Character
- Eradicate the Ugliness
- Put Your Money (and Regulations) Where Your Policy Is



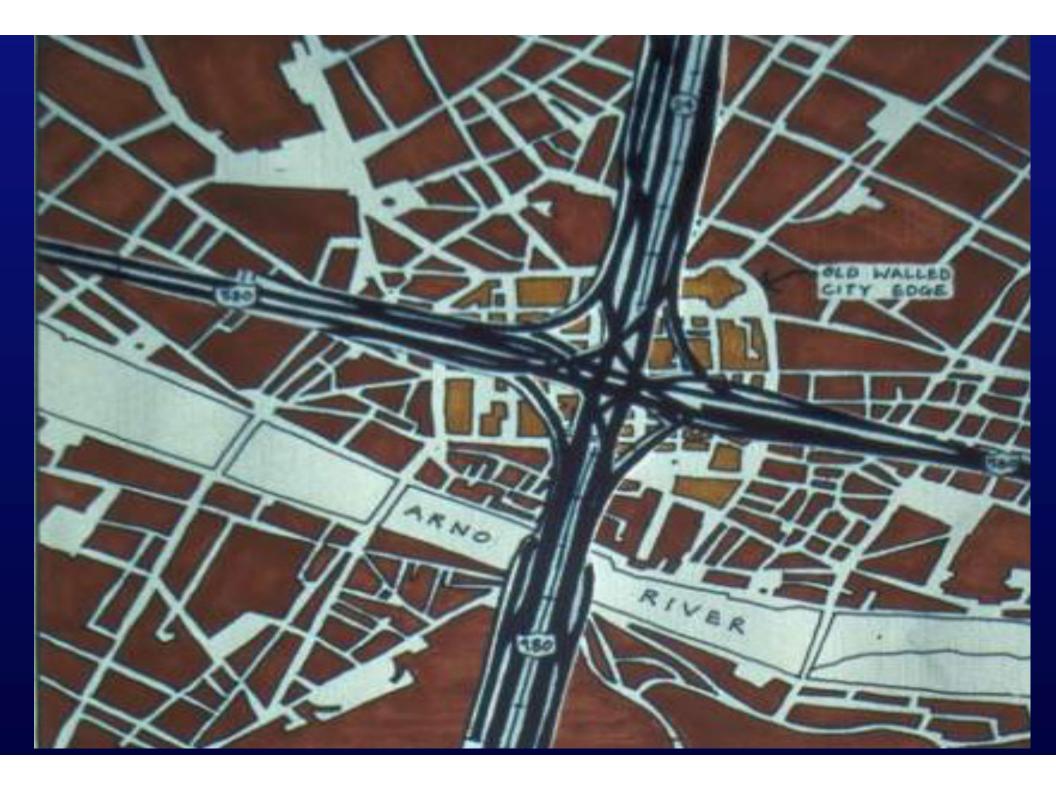


# 3. Take advantage of compact building design

 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?







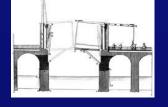
### Lower Cost of Infrastructure

### 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**

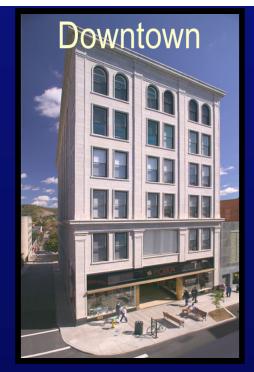
\*Duncan, James et al, *The Search for Efficient Urban Growth Patterns.* Florida Department of Community Affairs, 1989. \*\*Burchell, Robert, *Economic and Fiscal Impacts of Alternative Land Use Patterns*, Rutgers University, 1996.





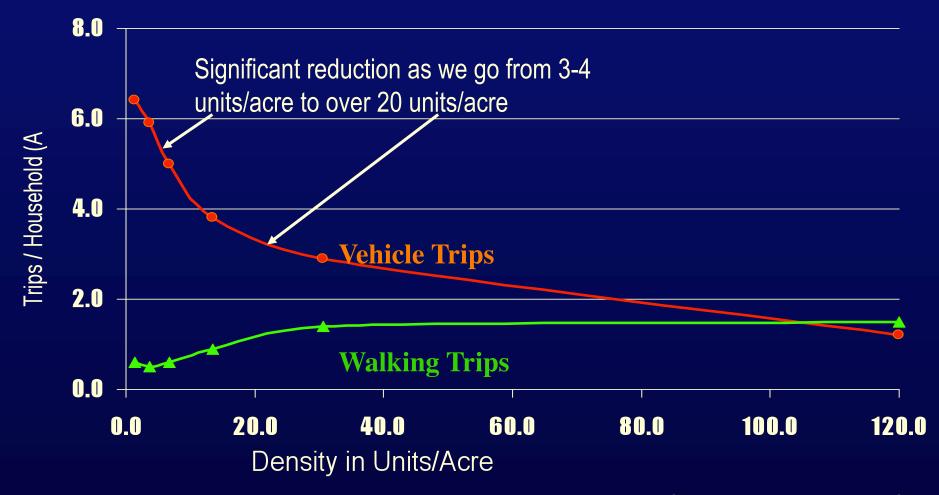
Public Interest Projects, Inc. Joseph Minicozzi, AICP Joem@pubintproj.com





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

For Light Rail Service 18-25 units/ acre in

urban area For Bus

Service

 7 units/ acre (every 30 minutes)



### Land Use Pattern Affects Travel — Density to Support Retail

For a 10,000 sq.ft. Convenience Store 7 units/acre

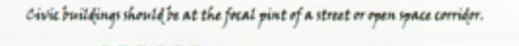
For a 25,000 sq.ft. Small Supermarket 18 units/acre



#### Compact Development in Appropriate Locations

Traditional Neighborhood Code

Knoxville, TN

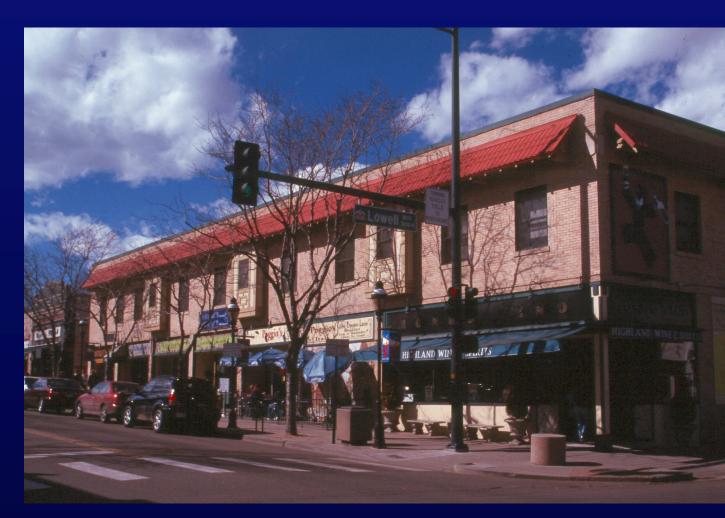




The intensity of uses should gravitate away from the neighborhood center. In these cases where a TND is berdered by an arterial street, higher intensity uses such as medium density housing can be used in creating the edge

### 4. Mix land uses

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

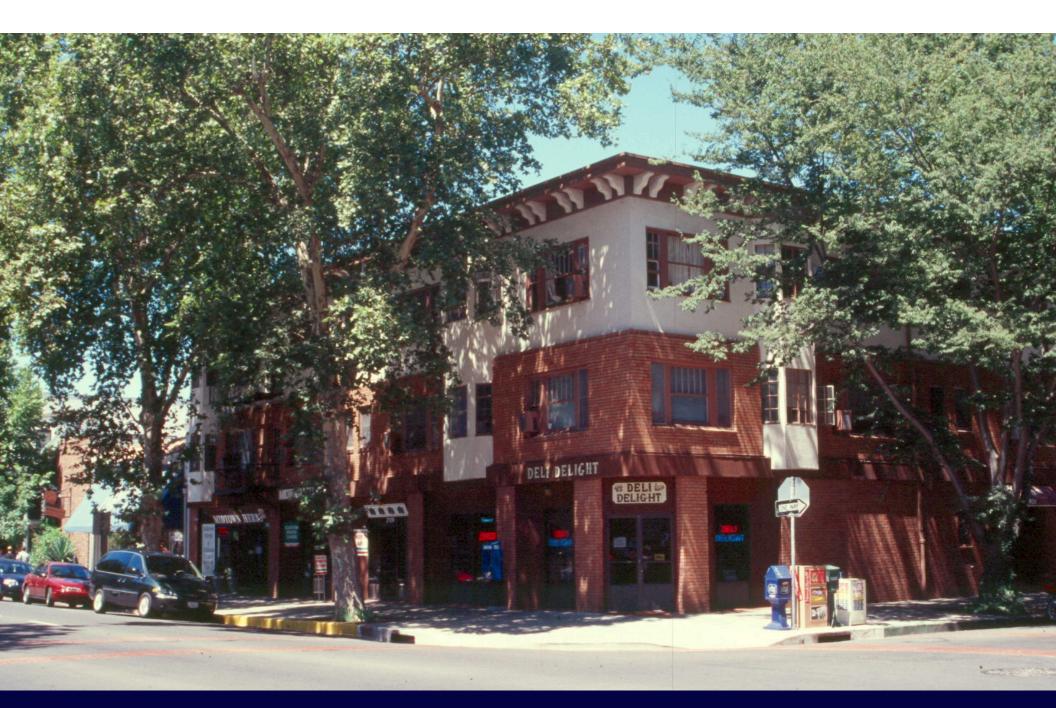


### **Alternative Patterns of Development**



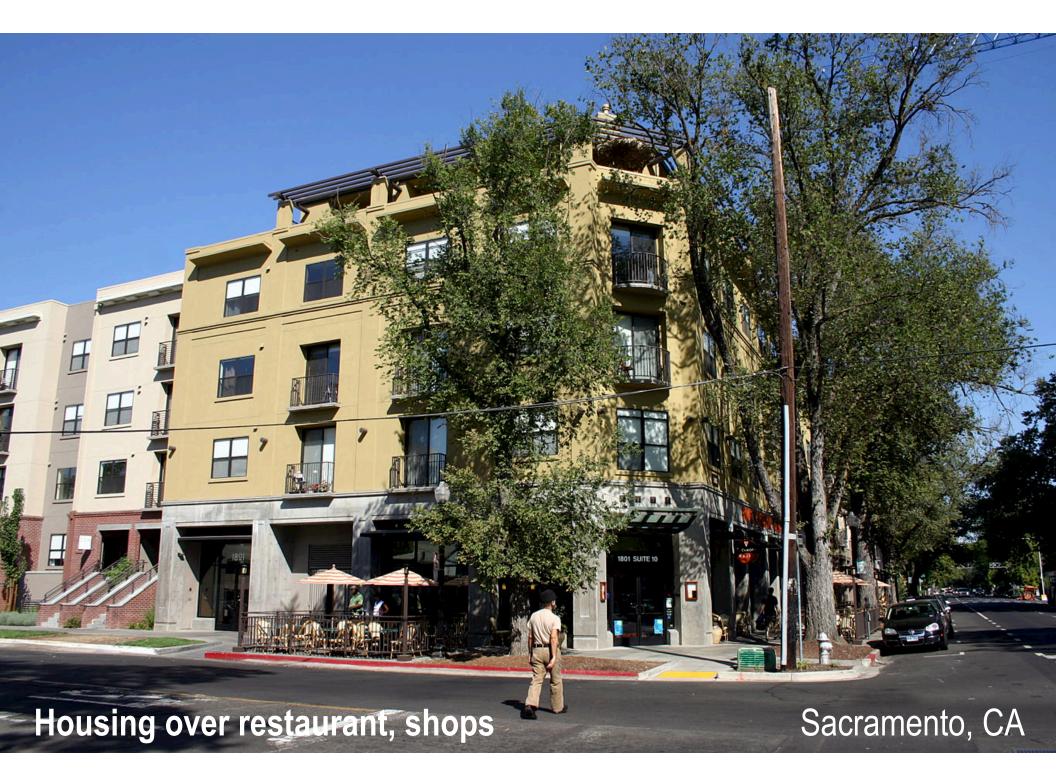
#### Traditional

Conventional



## Housing over retail shops







## Housing next to retail



## 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



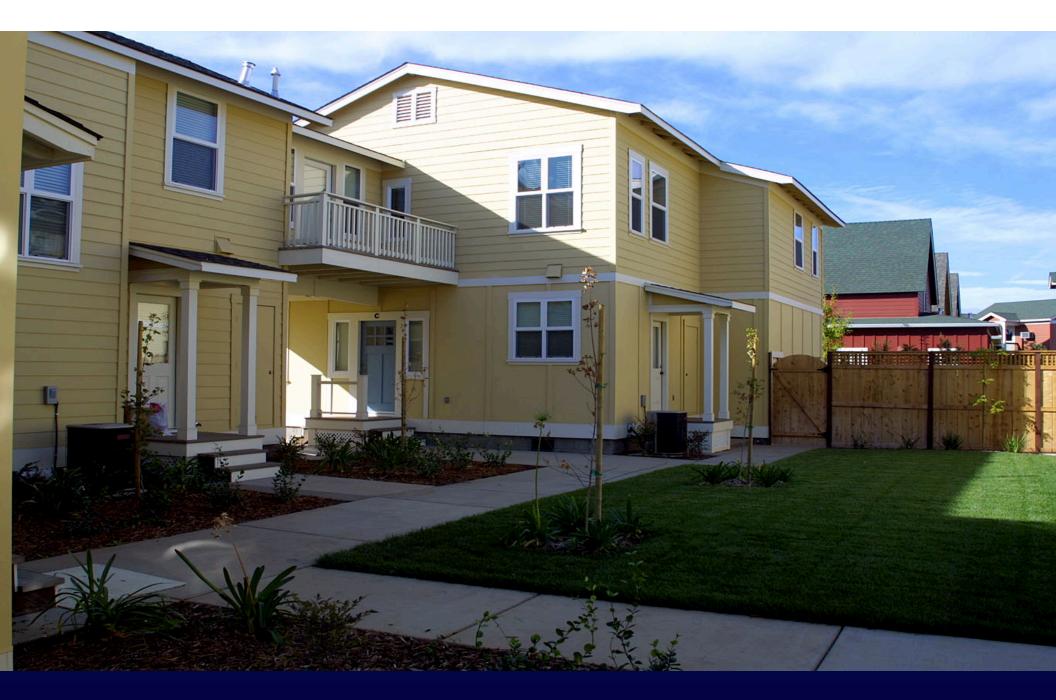
#### **Live-Work Units**

## Little Italy, San Diego, CA



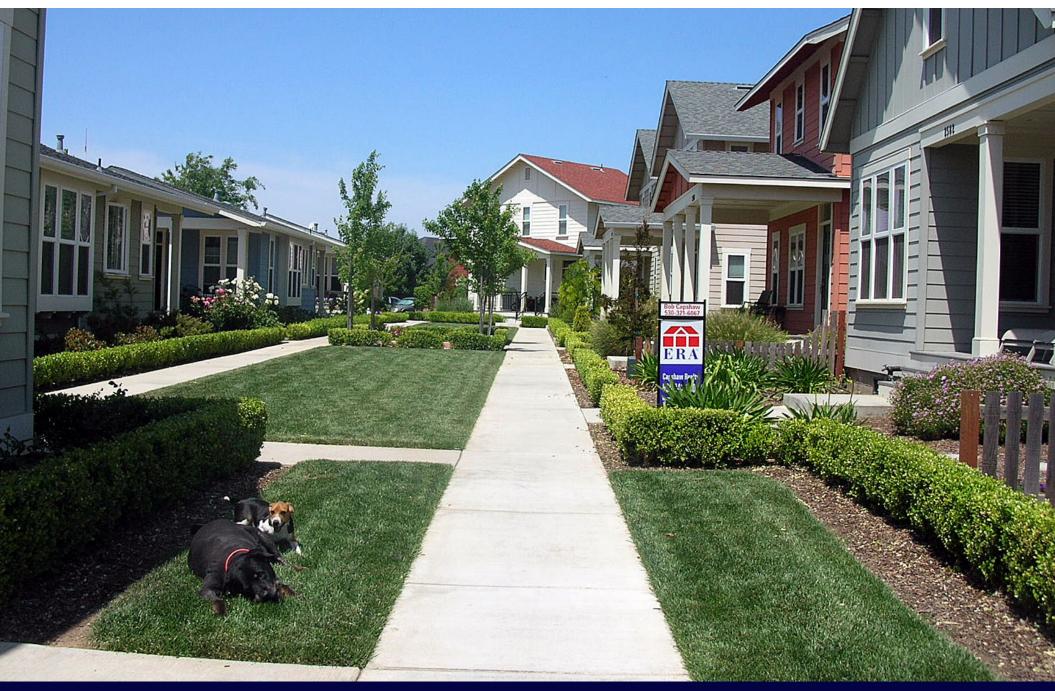
## Mixed housing types

#### Doe Mill, Chico, CA



## Doe Mill







## Bungalow Court

## 6. Provide a variety of transportation choices

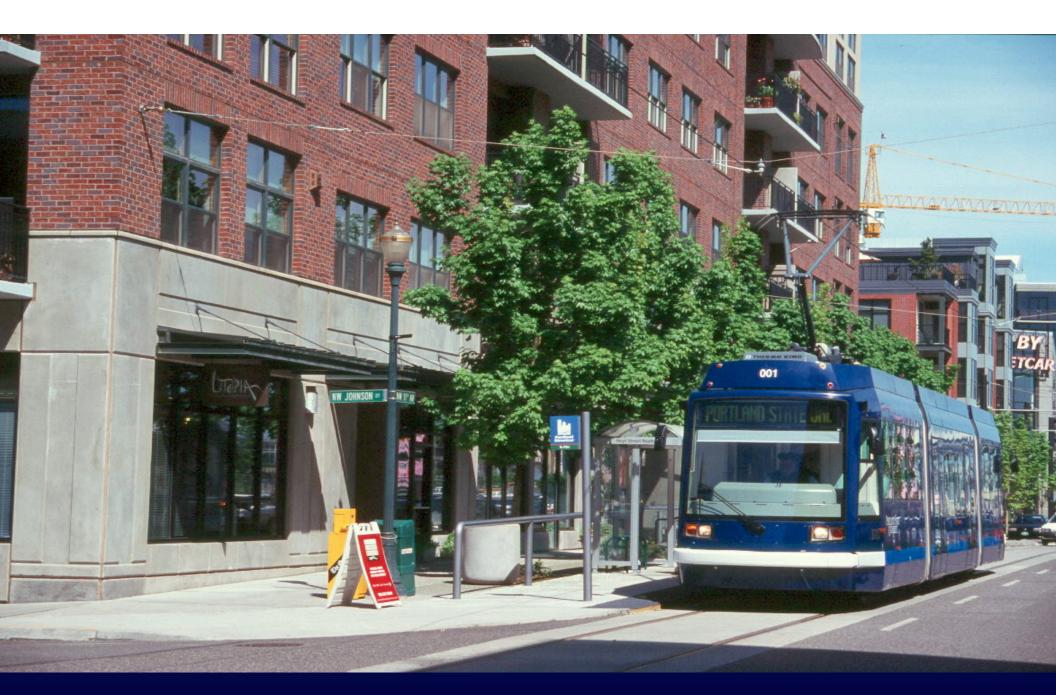
- Coordinate land use and transportation investment
- Increase high-quality transit service
- Connect pedestrian,
   bike, transit, and
   road facilities





**Transit-Oriented Development** 

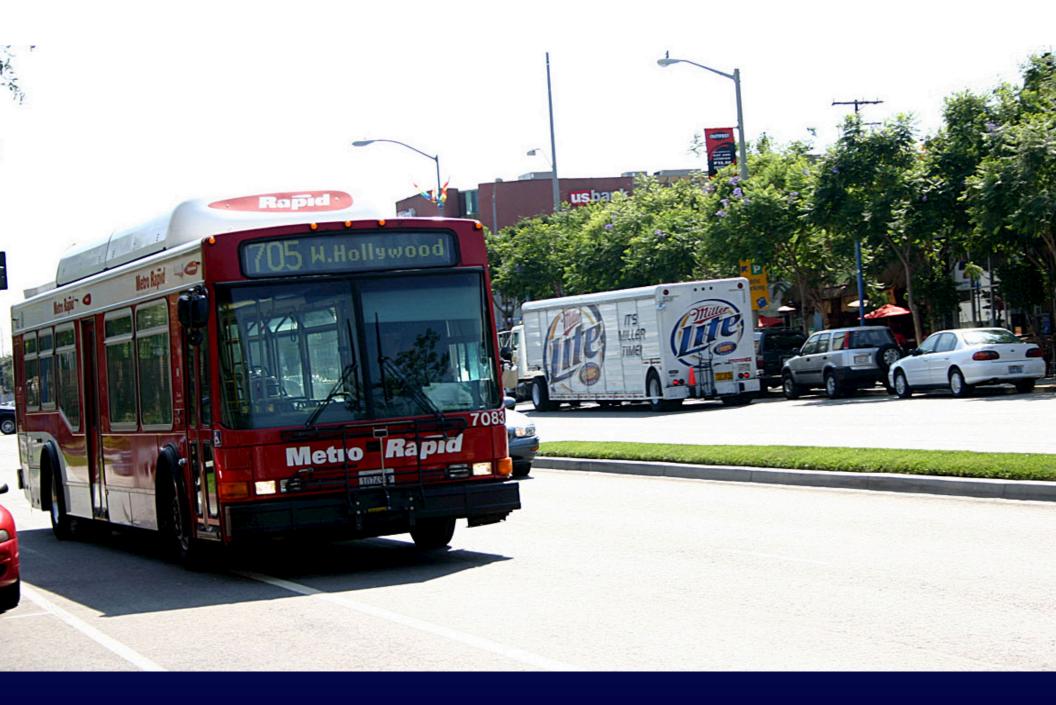




#### **Portland Streetcar**



## **Portland Bus Mall**



## Los Angeles Metro Rapid Bus

## 7. Create walkable communities

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

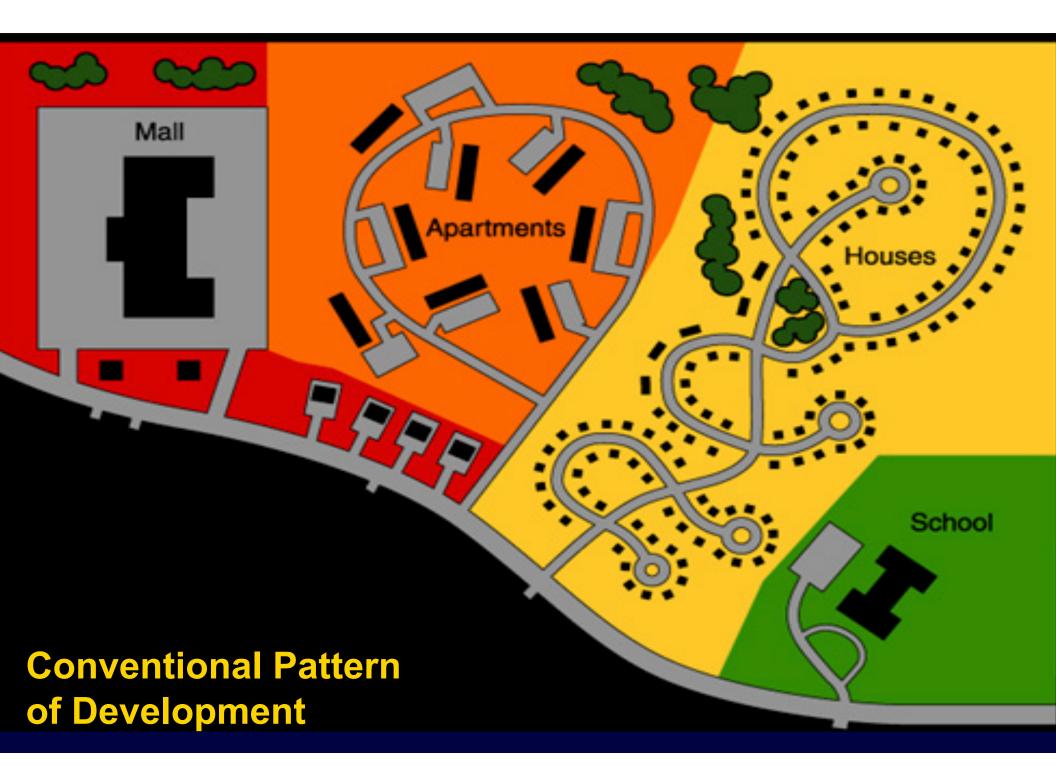


## Street Design

#### Influences trip choices

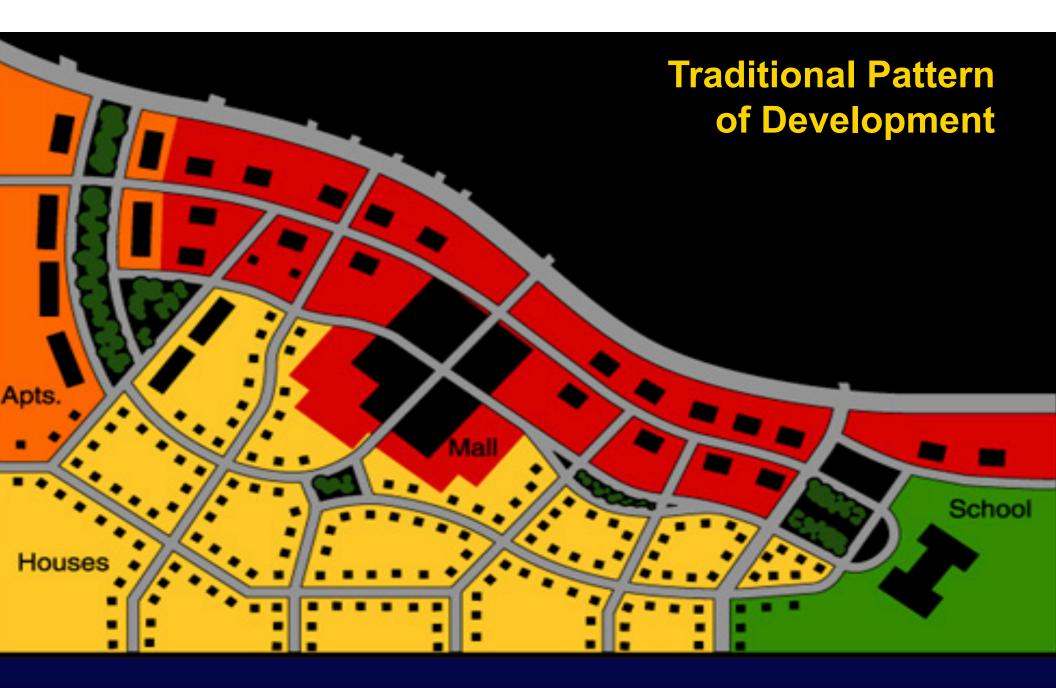
 Safe, quiet, slow, shaded streets encourage people to walk, ride bicycle or take transit instead of driving a car

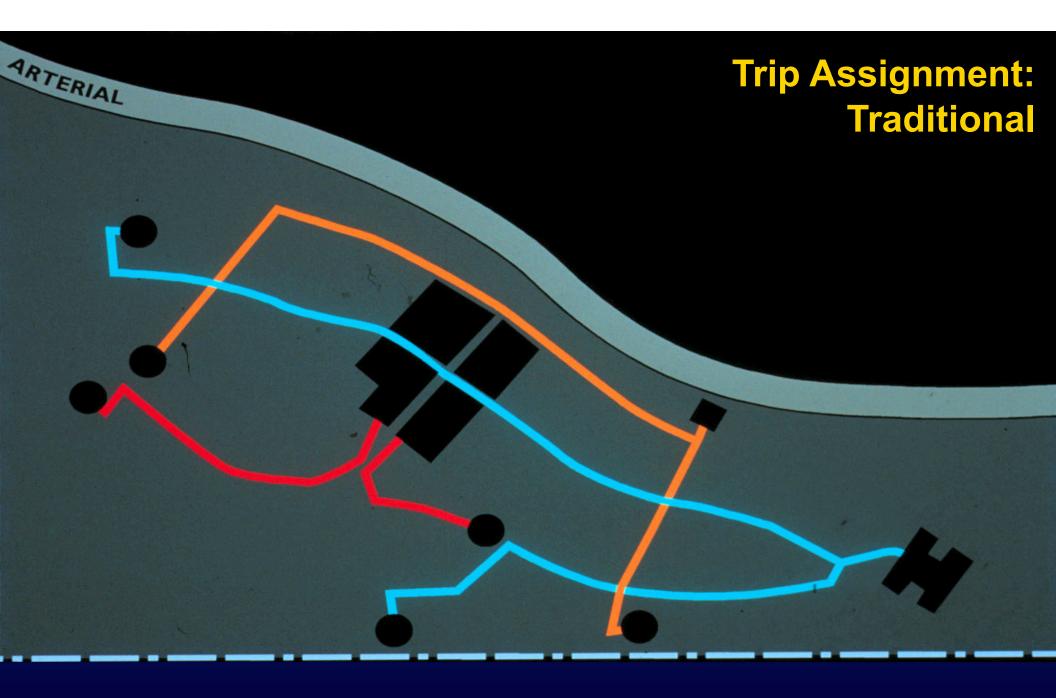




Trip Assignment: Conventional

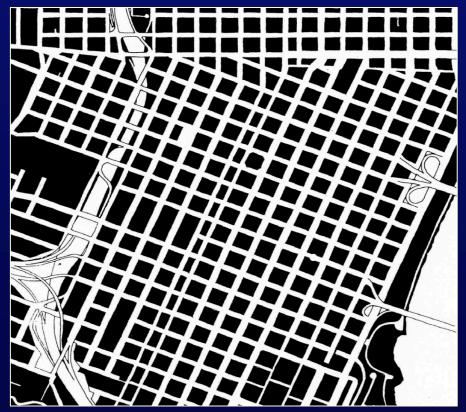
ARTERIAL





## 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



## Principles of Safe, Walkable Streets

#### Narrower streets are slower and safer

- Longmont, CO study of 20,000 accidents
  - Found street width had the greatest relationship to injury accidents
- Accidents/mile/year were higher on wider streets

40-foot wide street	2.23 a/m/y
36-foot wide street	1.21 a/m/y
24-foot wide street	0.32 a/m/y

Source: "Residential Street Typology and Injury Accident Frequency," Swift and Associates, Longmont, CO, 1997

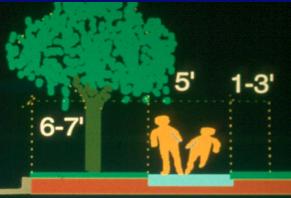
## Safe Streets Need Good Sidewalks

- Detached from curb
- At least 5 feet wide

 Planting strip helps shade street and sidewalk

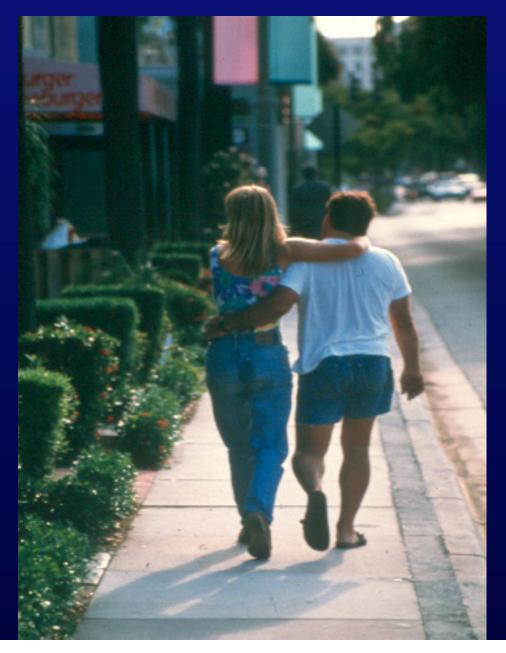
#### SIDEWALK FEATURES

- Width (minimum 5')
- 6 feet if at back-of-curb (AASHTO)
- Crossfall 1:50
- Pedestrians need a 2 foot wide buffer to all edges, curb, buildings, bridge railings etc.
- Buffer to motor vehicles (4-10'), nature-strip 7 feet wide to plant trees
- Street lighting, shade
- Pavers can be used for enhancement





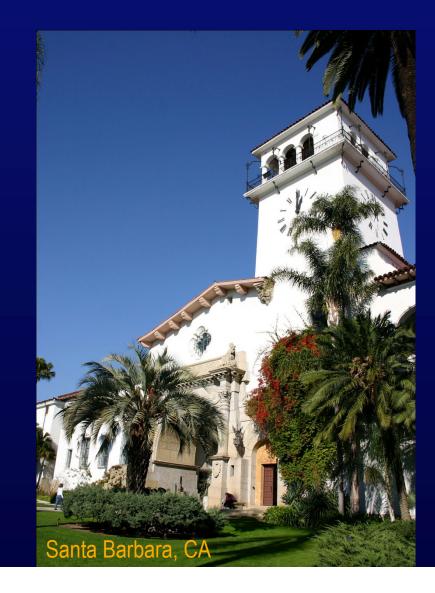
## Safe Streets Need Good Sidewalks





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

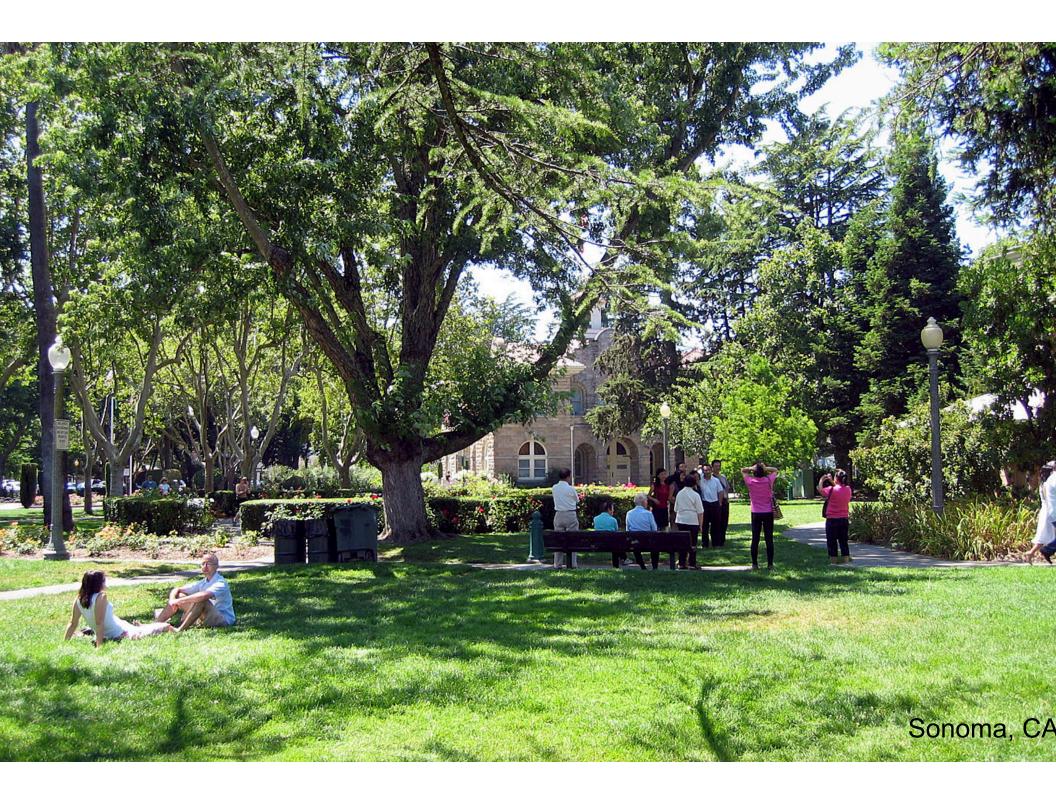


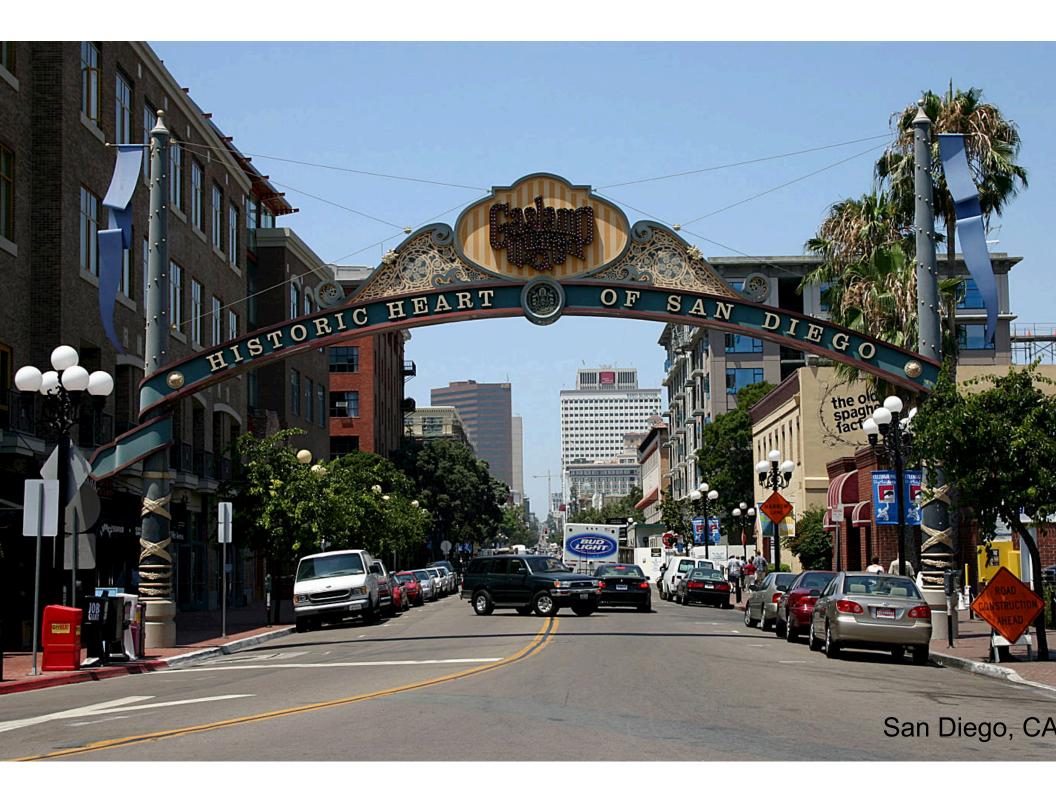




"There is little sense of having arrived anywhere, because everyplace looks like no place in particular."

— James Howard Kunstler, *The Geography of Nowhere* 





# 9. Encourage community and stakeholder collaboration in development decisions

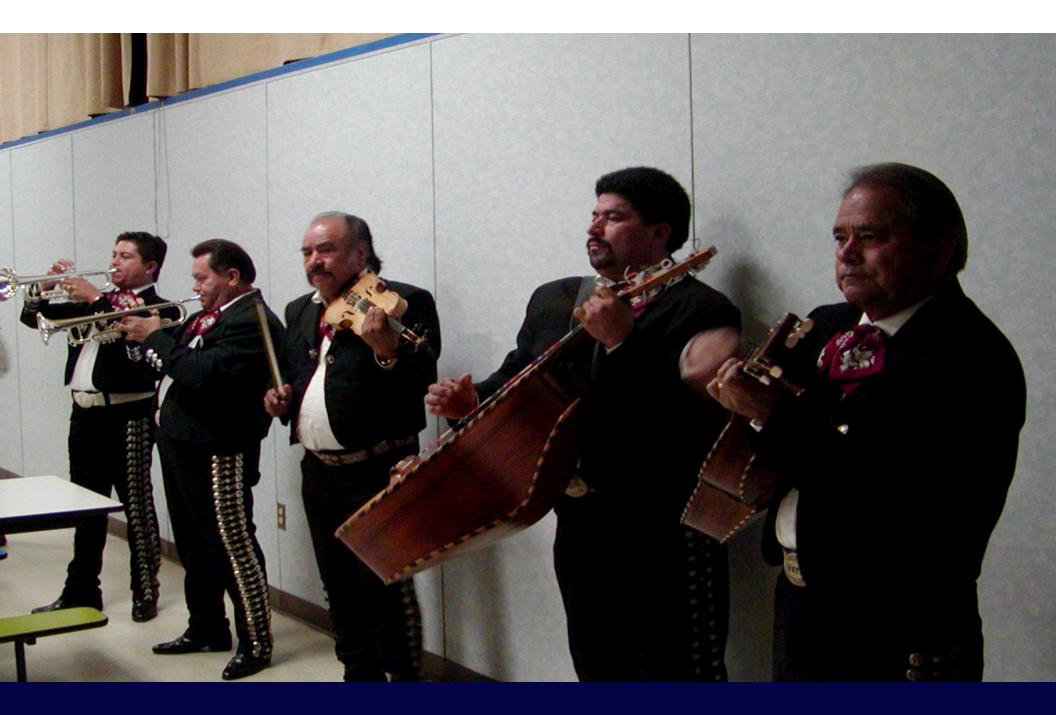
 The private sector does most of the development, but residents and other stakeholders collaborate in this process to ensure it is consistent with community needs and concerns.







## Cutler-Orosi Design Charrette – Opening Night Workshop











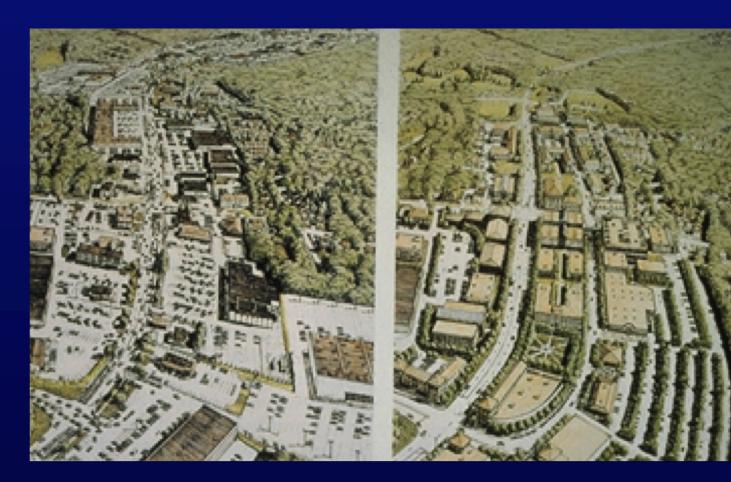
### Implementation – Public Participation is Key

- 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



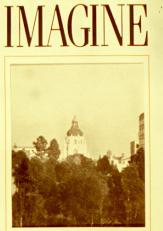
# 10. Make development decisions predictable, fair and cost-effective

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



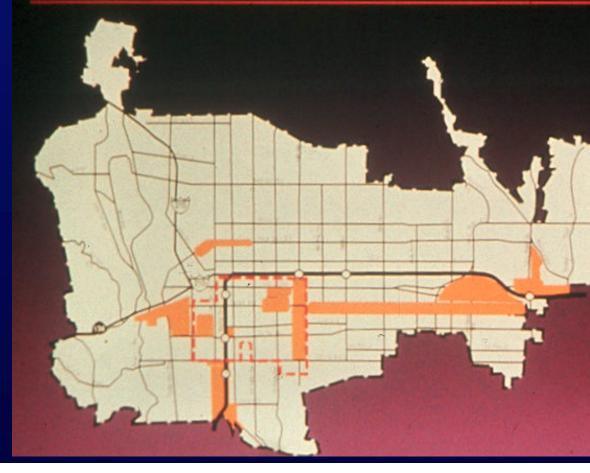
## Plan proactively Develop a Vision for Community

Pasadena General Plan





#### Point of Agreement: Targeted Growth



#### Strategy Areas

- Directed Development Areas
  - **Transition Areas**
  - Enhancement Areas
  - **Areas to Stabilize**
- Central District (Area 19)

#### Light Rail

- Light Rail Route
- Light Rail Stations

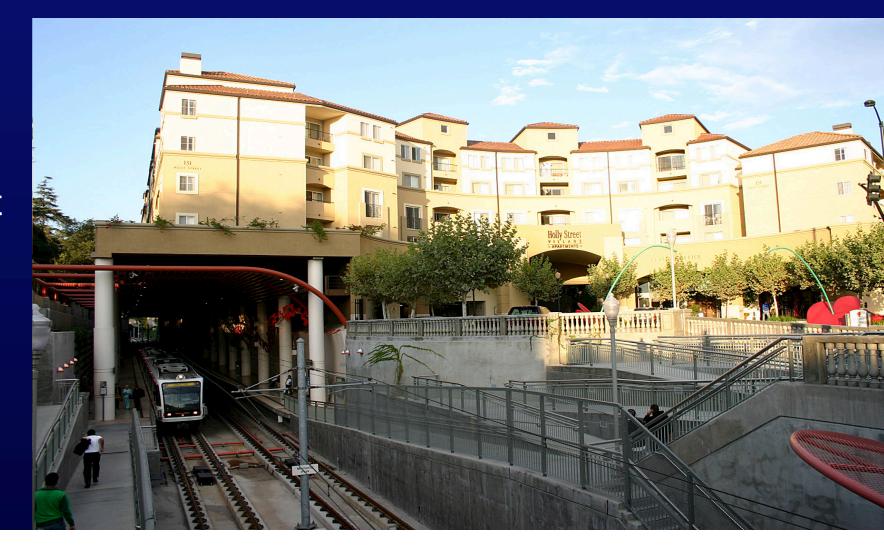
## Plan proactively Develop a Vision for Community

Pasadena General Plan

Holly Street Village

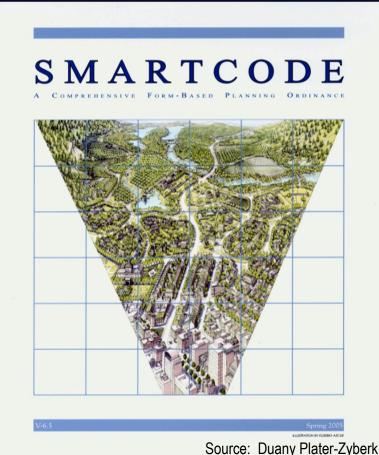
Infill, mixed use rental housing

Model: Early 1990s



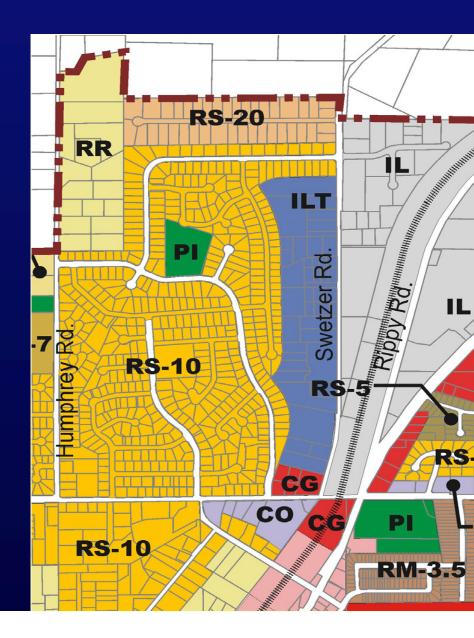
## Implementing the Vision

- 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



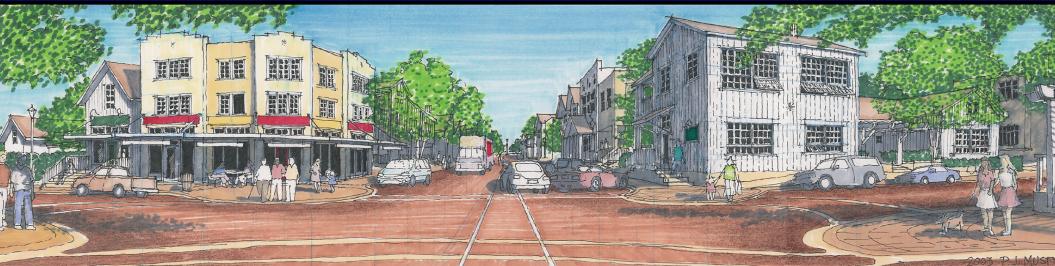
#### The Problem with Conventional Zoning

From making places to making maps — Crayola Zoning

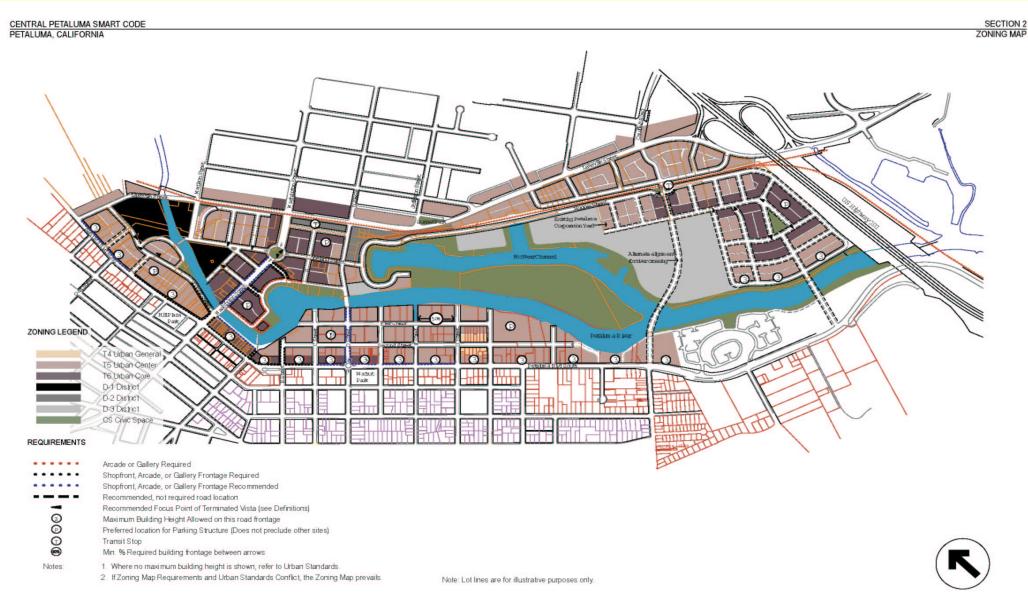


#### Form-based Codes: Case Study Central Petaluma



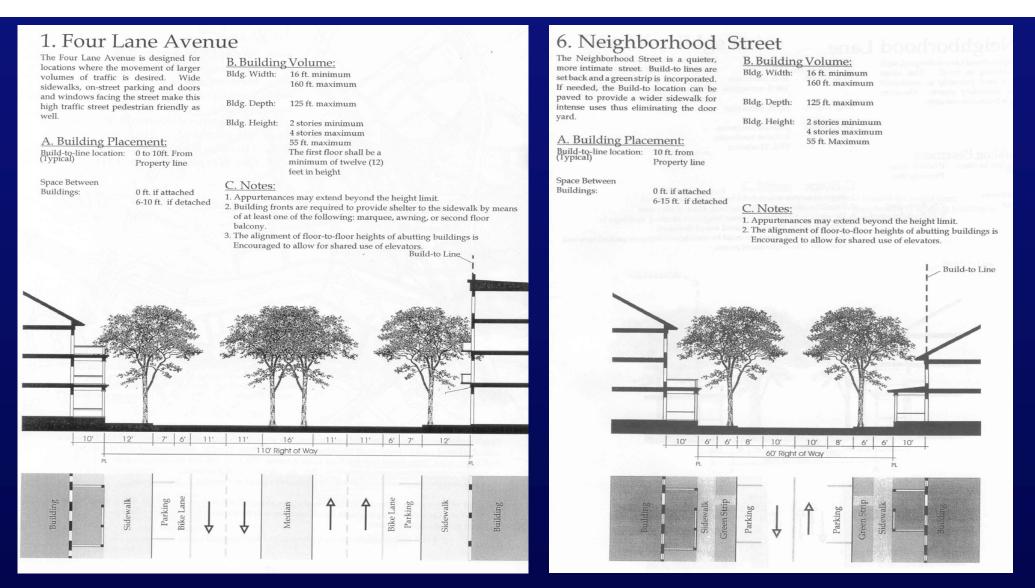


Source: Fisher & Hall Urban Design



2

#### Central Petaluma Smart Code — Zoning Map



#### Hercules, CA — Form-Based Code

Street type determines location, height, features of buildings

### **Additional Resources**

Smart Growth Network
www.smartgrowth.org
Smart Growth America
Local Government Commission

www.lgc.org

Congress for the New Urbanism

www.cnu.org

### Contact Us

John W. Frece US EPA Office of Sustainable Communities frece.John@epa.gov

Paul Zykofsky Local Government Commission pzykofsky@lgc.org