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# RETROFITTING

URBAN DESIGN SOLUTIONS *for* REDESIGNING SUBURBS

# SUBURBIA

UPDATED  
EDITION

WITH A NEW UPDATE BY THE AUTHORS AND A FOREWORD BY RICHARD FLORIDA

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# CASE STUDIES IN RETROFITTING SUBURBIA

URBAN DESIGN STRATEGIES FOR URGENT CHALLENGES

JANUARY  
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*Suburban retrofits enable communities to address the 21<sup>st</sup> Century challenges that 20<sup>th</sup> Century suburban development patterns were never designed for*

**Disrupt auto-dependence**

**Support an aging population**

**Leverage social capital for equity**

**Add water and energy resilience**

**Compete for jobs**

**Improve Public Health**

# Disrupt Auto Dependence

- Car-owners pay \$25/day on average to own, operate, insure, park, maintain a car

**Walkability & Mix of Uses**

**Multi-Modal Systems & Trails**

**Transit-Oriented Development**

**Road Diets**

**Street Networks**

**Parking Districts**

**Car Sharing**

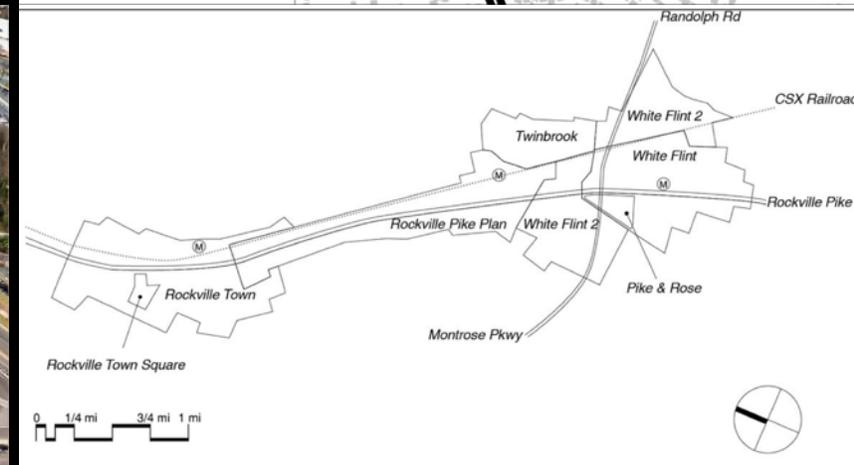
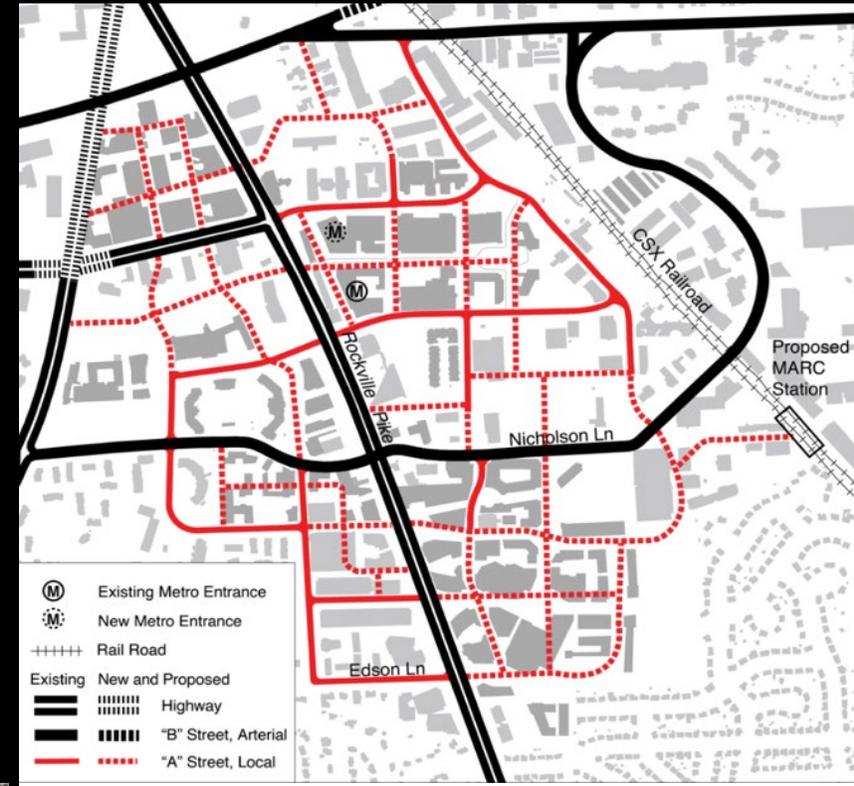
# Increasing mobility with a street network, road diet, and Bus Rapid Transit

## The Pike District, Montgomery County, MD: White Flint Partnership, Montgomery County, Glatting Jackson

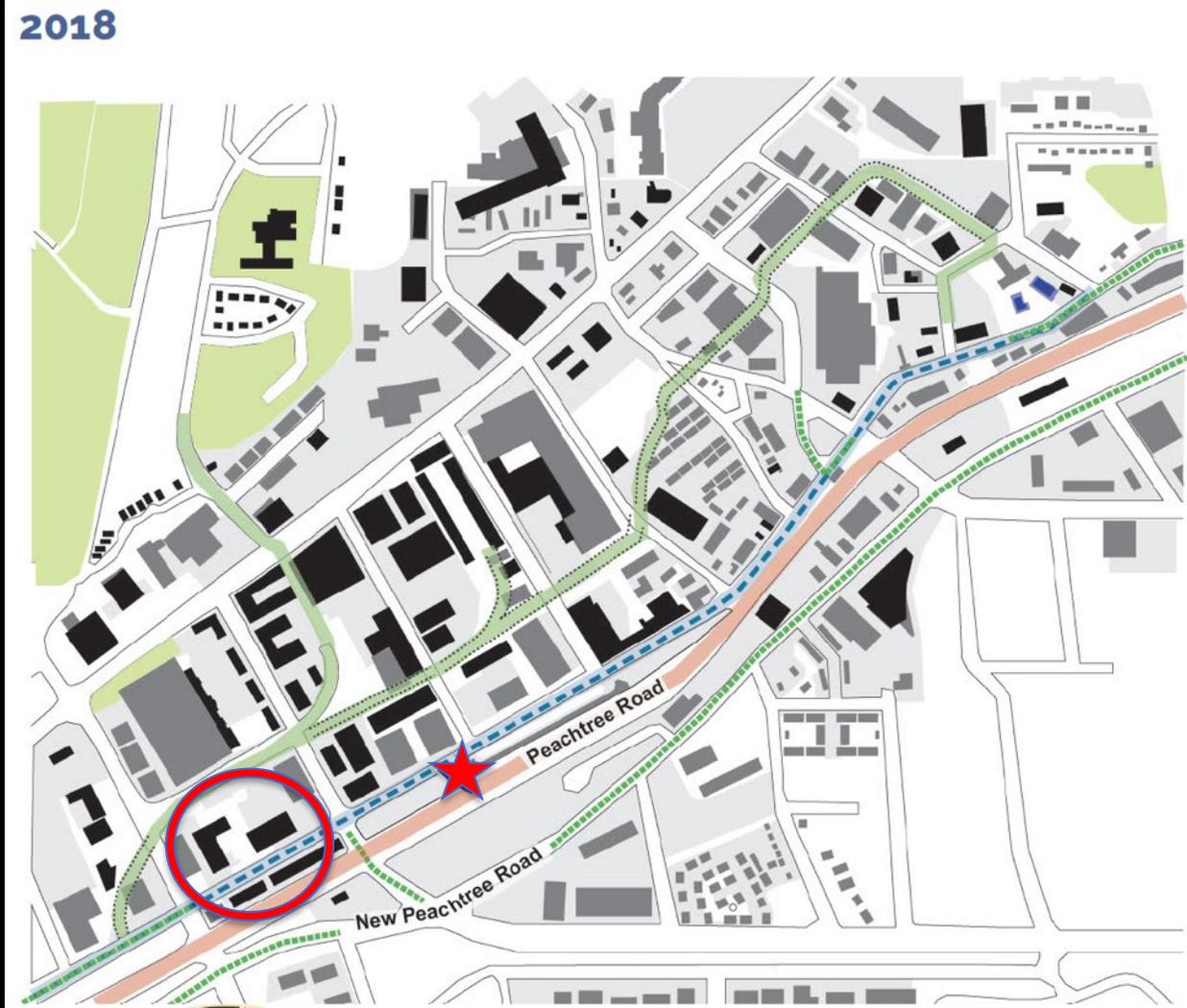
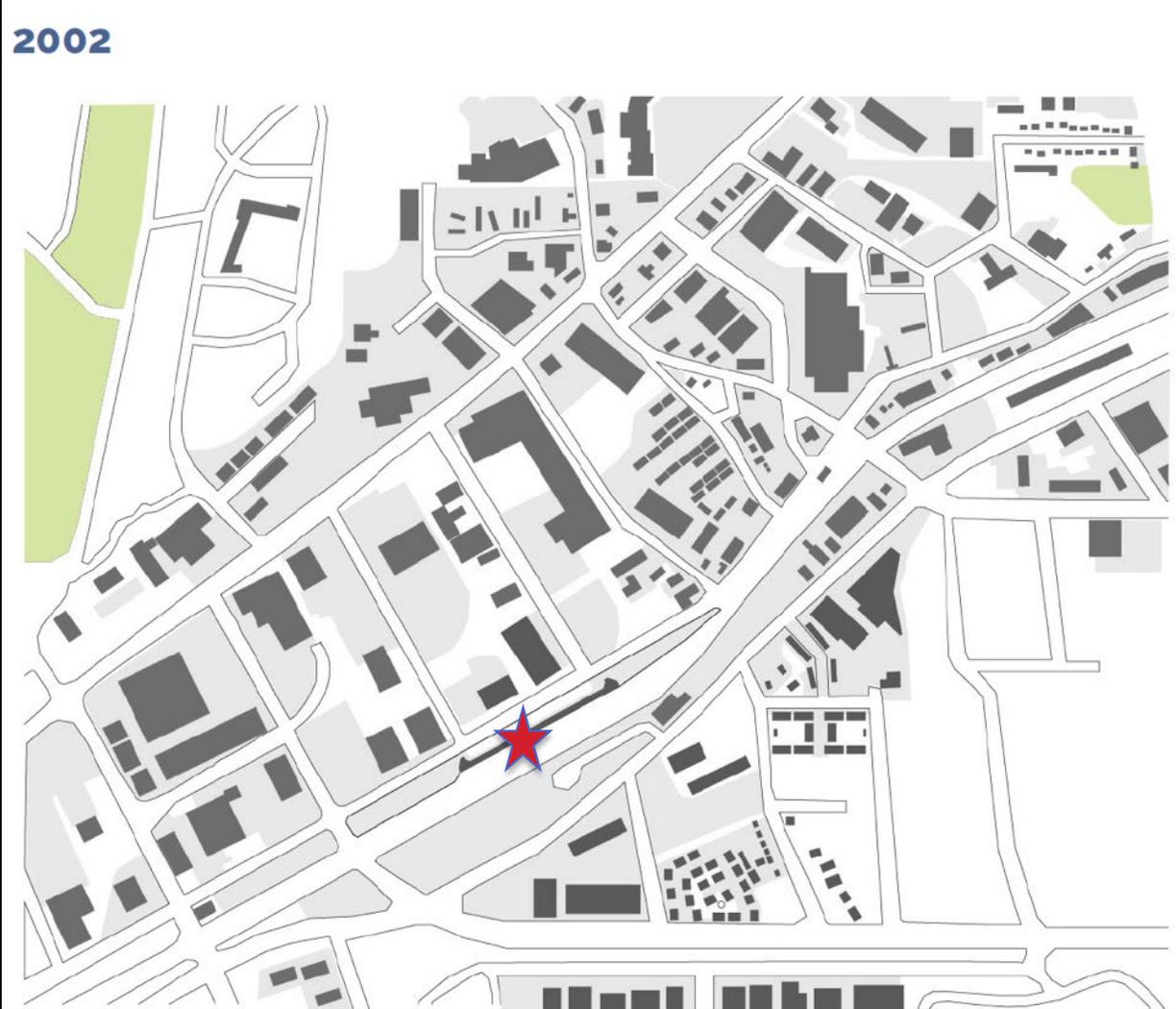
- high-rise “Corridor City” over 20 years, \$6-7 bil tax revenue, 10k residents, 25% affordable

## Pike & Rose, North Bethesda, MD: Federal Realty Investment Trust

- 30-acre strip mall redeveloped into dense, walkable mix of uses w public streets



**Attracting young adults w transit, apts on former parking lots, increased walkability– and adaptive re-use  
Downtown Chamblee, Chamblee, GA**



# Support an Aging Population

Percent of the US population over age 65:  
2010: 13%  
2050: 20%

## Plan for “Lifelong Communities”

- Allow “missing middle” dwelling types that allow seniors to downsize without leaving their neighborhood.
- Allow Accessory Dwelling Units (ADUs) to enable seniors to better afford to age-in-place or with family
- Facilitate social engagement by encouraging front porches, stoops, and front gardens.
- Adopt Complete Street standards and mixed-use zoning to allow for safe access to everyday needs

**Plan senior care as essential community infrastructure**

**Integrate senior housing into walkable neighborhoods**

## ***Vacant warehouse replaced with senior housing and medical care in a walkable TOD***

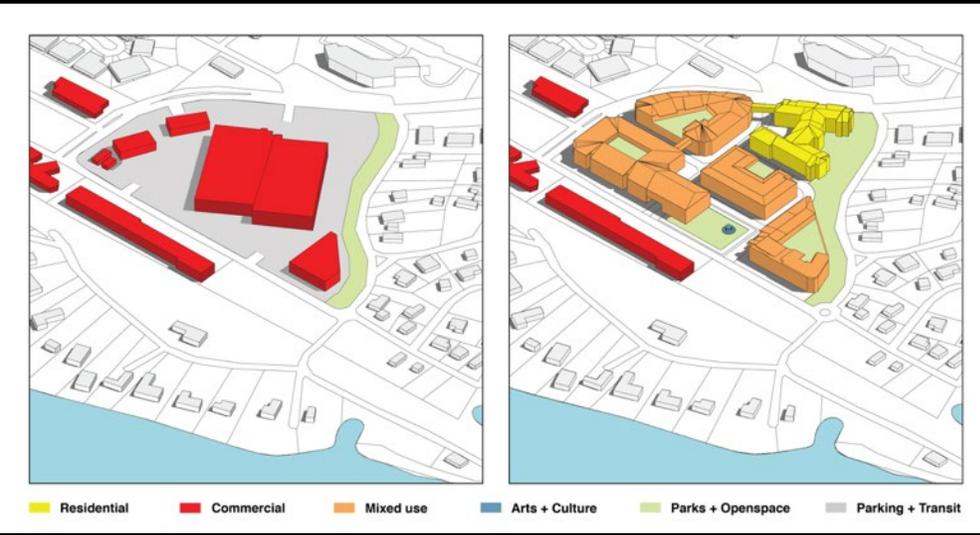
**Mercy Park, Chamblee, GA:** Mercy Care, Mercy Housing SE, Parkside Partners, Smith Dalia Architects, Sylvatica Studio

- Affordable housing and affordable healthcare designed and financed together w public funds and donations
- meeting LEED Gold and Silver certification



# from dead mall to senior housing town center on Main St w/ geothermal energy and zero stormwater runoff

Promenade at Wayzata, Wayzata, MN: City of Wayzata, Presbyterian Homes, LHB, DIAP, InSite



# Build Equity with Social Infrastructure

- “Suburbs aren’t getting poorer just because poor people are moving in. **They’re often structurally less resilient than cities** in adapting to economic recession, deindustrialization, and unsustainable development and maintenance costs.”

See Scott Allard, Places in Need, 2017

**Build economic resilience, often through **rehabilitation**:**

- Education & Job Training
- Child care & family planning
- Local jobs
- Healthy food and health care
- Affordable transportation

**Add public spaces to build social capital to serve today’s demographics (esp. 1-2 person households)**

- **regreened** actively programmed small parks
- Local activation of underused spaces
- Diverse activities and uses

**Expand affordability for all to stay or move into **redeveloped** areas:**

- Inclusionary zoning
- Zoning to allow missing middle and multi-family
- Replacement units
- Real estate transaction fees
- Land Trusts
- Preservation of affordable housing policies

## Building social infrastructure with after-school programs in apartment complexes

**Willow Branch Apartments, Clarkston, GA:** Marjorie Stagmeier, Tri-Star, Star-C

- Provides summer school, after-school programs, health care, meals for children, community gardens and security guards to the 700 residents who pay less than \$575/month rent
- Targeting similar garden apts in the worst-performing elementary school districts



Fulton County lost approx. 9,000 garden apartment units from 2008-2016, average year of construction 1959.

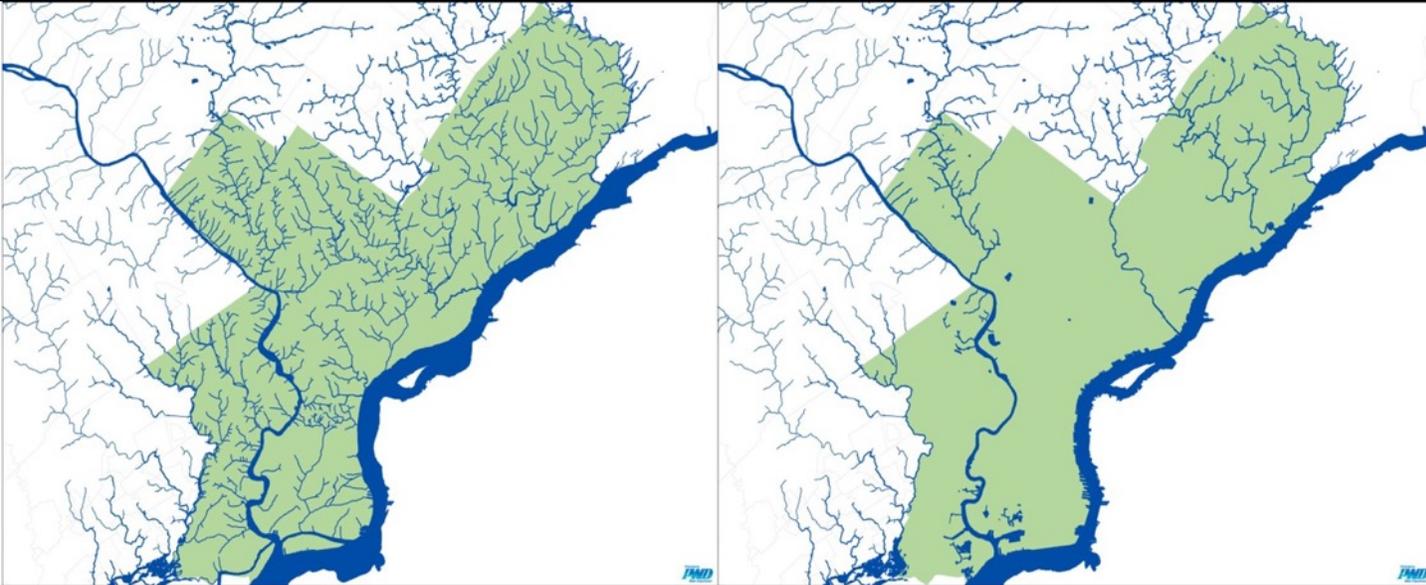
# ***Cityhood triggers redevelopment: Target store to mixed-use civic center and gathering space***

**City Springs, Sandy Springs, GA: City of Sandy Springs, Goody Clancy, Carter & Selig, Rosser Int'l, RJTR**

- \$229M Public Private Partnership: City Hall, City Green Park, Performing Arts Center, 20k sf retail and restaurants
- 275 apartments, 19 townhomes with rents from \$1,385 to \$3,910



# Add Water Resilience



Philadelphia's historic streams before and after suburbanization

## Water Quality:

- Daylight culverted creeks
- Reconstruct wetlands
- Cleanse, infiltrate & slow runoff

## Too little water:

- Capture for reuse
- Conserve
- Replenish groundwater

## Too much water:

- Green roofs, cisterns, water recycling and increased infiltration
- Shift from gray to blue/green infrastructure
- Treat water as a resource
  - Demolish buildings in flood plains, build stormwater parks
- *Buildings and infrastructure that can take a bath*
- *Planned retreat*

## ***17-acres of parking lots regreened into a stormwater park, triggering adjacent redevelopment***

**Historic 4<sup>th</sup> Ward Park, Atlanta, GA: City of Atlanta, HDR, Trust for Public Land, Markham Smith, Bill Eisenhauer**



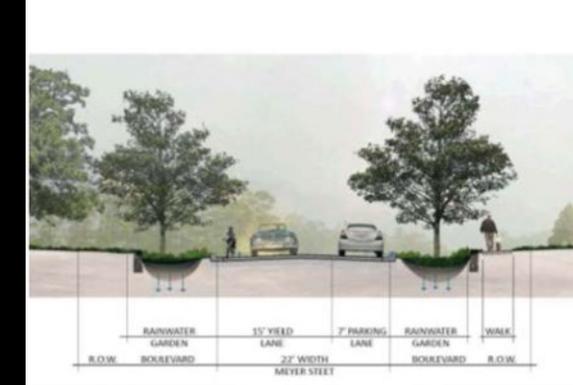
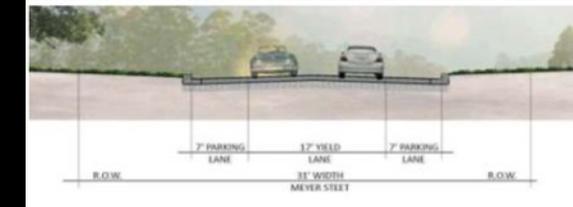
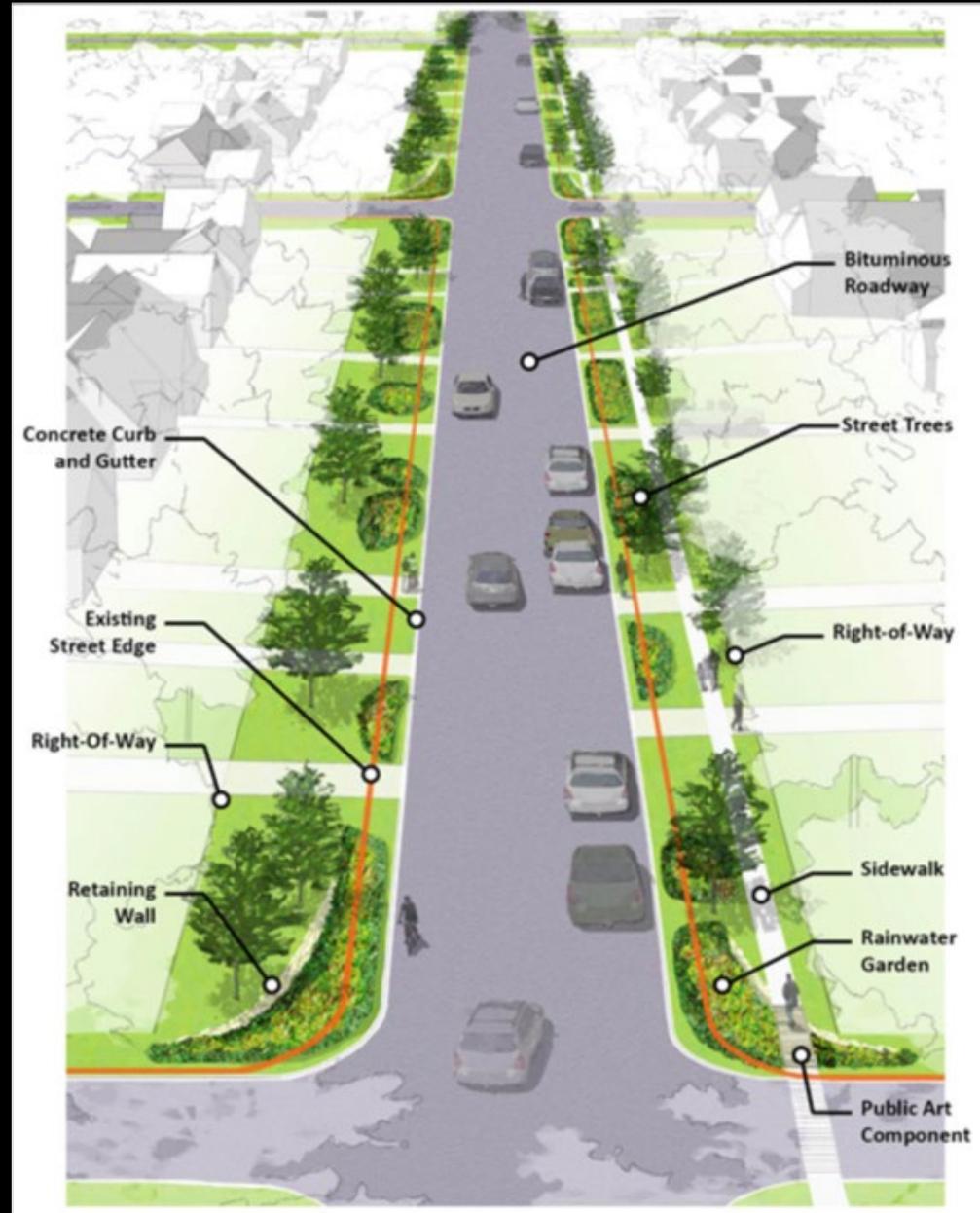
- Retains stormwater for a 300-acre drainage basin, enabling new development to avoid on-site detention.
- Cost \$24 million instead of the \$40 million originally proposed for an underground tank while providing a neighborhood amenity that has triggered so much redevelopment that gentrification has replaced flooding and sewer overflows as the main concern.



# Improving water quality, walkability, and pollinator habitat with "Living Streets"

**Maplewood Living Streets**, Maplewood, MN: Ramsey-Washington Metro Watershed District, City of Maplewood, Barr Eng'g, Kimley-Horn & Assoc.

- As streets come up for repaving, the city narrows the pavement from 31' to 24', invites homeowners to adopt rain gardens, plants trees and builds sidewalks.
- 50% of rainwater runoff is filtered or infiltrated, 40% evaporates and only 10% of the water runs directly into storm sewers. 95% of homeowners maintain their gardens.
- Cost: \$4.3 million in 2012. In 2016, city of 30k pop. has 700 rain gardens, national recognition and has inspired rain garden movements in Kansas City, Lexington KY, Toledo OH.



# Compete for Jobs

Density correlates with patents/capita.

**Urbanism is the new amenity for office**

**Infill office parks with housing and more diverse uses**

**Creative office, Maker Space & innovation districts**

**Light industrial, automated, mixed-use manufacturing**

**Reinhabitation incubators for small entrepreneurs**

**Education for middle-skill, middle wage labor shortage**

# “Millennial Housing” and bike-to-work trails help attract employees to aging office park

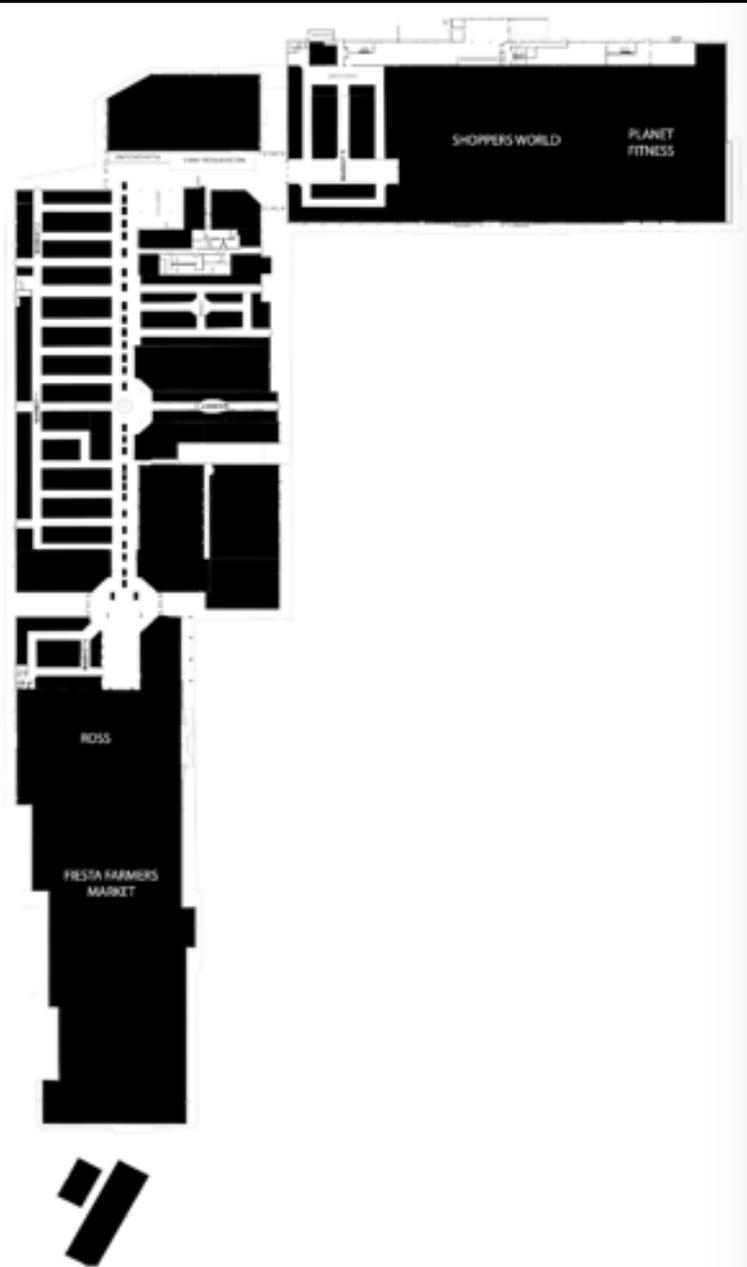
**Peachtree Corners, GA:** City of Peachtree Corners, Lord Aeck Sargent, Pond & Co., Alta

- Trail hubs target properties city wants redeveloped. Trail ordinance encourages land donation along creeks in exchange for 3X density credit to be used or sold within the 1,450-acre “central business district”  
Successfully attracted first new residential development in the 500-acre office park.



# From Buford Clairmont Mall to Oriental Garden to Plaza Fiesta w mercado of 140 small vendors

Plaza Fiesta, Atlanta, GA: RAM Devel, Vincent Riggio, Arturo Adonay, Jose Legaspi



# Improve Public Health

Chronic diseases kill 3X more people than infectious diseases. There is no vaccine for sprawl.

Planners can do more to keep people healthy than doctors can.

Dr. Richard Jackson, former Director at the Centers for Disease Control

**Reduce the stresses of income inequality**

**Reduce social isolation**

**Improve access to healthcare**

**Improve safety from crime, fire, flood, vehicle accidents, and toxic exposures**

**Encourage physical activity (walking, biking, exercising)**

**Improve access to healthy food**

**Increase access to parks, trees, “nature”**

**Improve air, water, and soil quality**

# Reduced UHI and car crashes w road diet while revitalizing Main St, adding aff hsg, arts, and solar

**The BLVD, Lancaster, CA** :City of Lancaster, CT/KDF Community Dev. Partners, RBF, FHS, Moule & Polyzoides, Peter Swift  
2009-2012: \$106mil in New Markets Tax Credits for redevelopment for local entrepreneurs; 50 new businesses; 10% increase in downtown property values; 50% cut in traffic collisions, significant cooling from shade and light permeable paving, immeasurable mental health from community building



# 75%

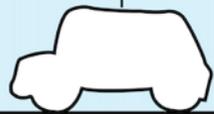
of residential land in American cities is zoned exclusively for single-family detached dwellings. Yet, if retrofitted with sidewalks and bike lanes nearly half of the trips they generate would not need to be made by car.

**39** average person miles/day

**19,642** annual VMT/household  
(up from 12,000 in the 1970s)

**28** minute average commute

80% increase in  
deliveries since 2009



Typical  
suburban house  
generates  
trips/day **9.4**

**46%** of trips  $\leq 3$  miles  $\approx$  18-minute bike ride

**35%** of trips  $\leq 2$  miles  $\approx$  8-minute e-scooter ride

**21%** of trips  $\leq 1$  miles  $\approx$  20-minute walk

69% are non-work trips



1

2

3 miles

Data Sources :

Institute of Traffic Engineers Trip Generation Manual (10th Edition, 2017)

US 2017 National Household Travel Survey & Travel Day data

Badger, E., Bui, Q., "Cities Start to Question an American Ideal: A House with a Yard on Every Lot," *New York Times*, 18 June 2019