National Trust *for* Historic Preservation
Save the past. Enrich the future.

Preservation Green Lab and ReUrbanism:

Adapting Older Buildings to Foster More Resilient Communities

Resilient Nation Partnership Network , Washington DC 2017

National Trust *for* **Historic Preservation**

Preservation Green Lab

The Preservation Green Lab promotes the conservation, reuse, and retrofitting of existing buildings as a powerful strategy for supporting community health, equity, and resilience.

"I believe that historic preservation can be—and must be—a key component of any effort to promote sustainable development. Indeed, preservation is sustainability."
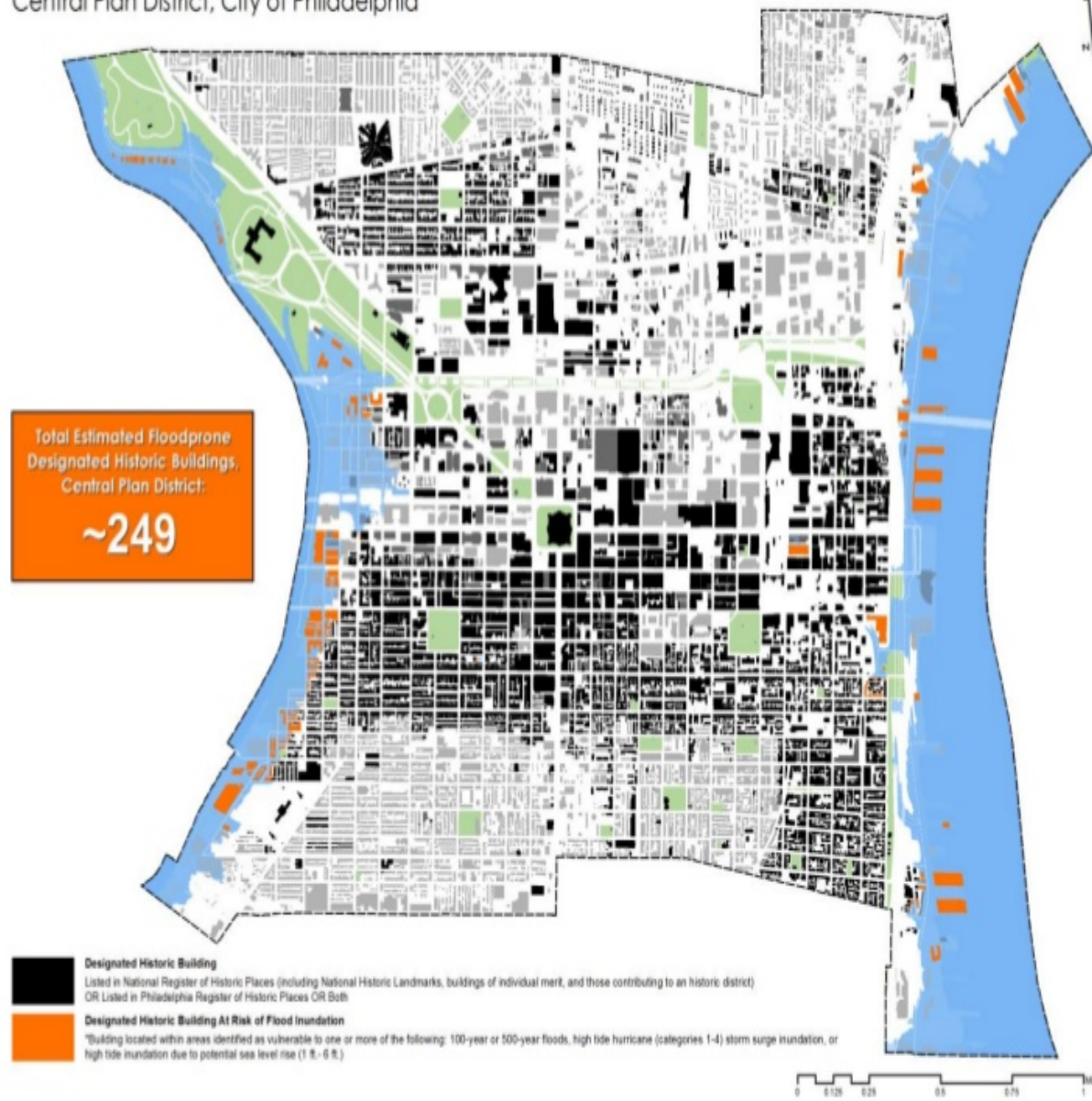
-Richard Moe, *Historic Preservation's Essential Role in Fighting Climate Change, 2008*
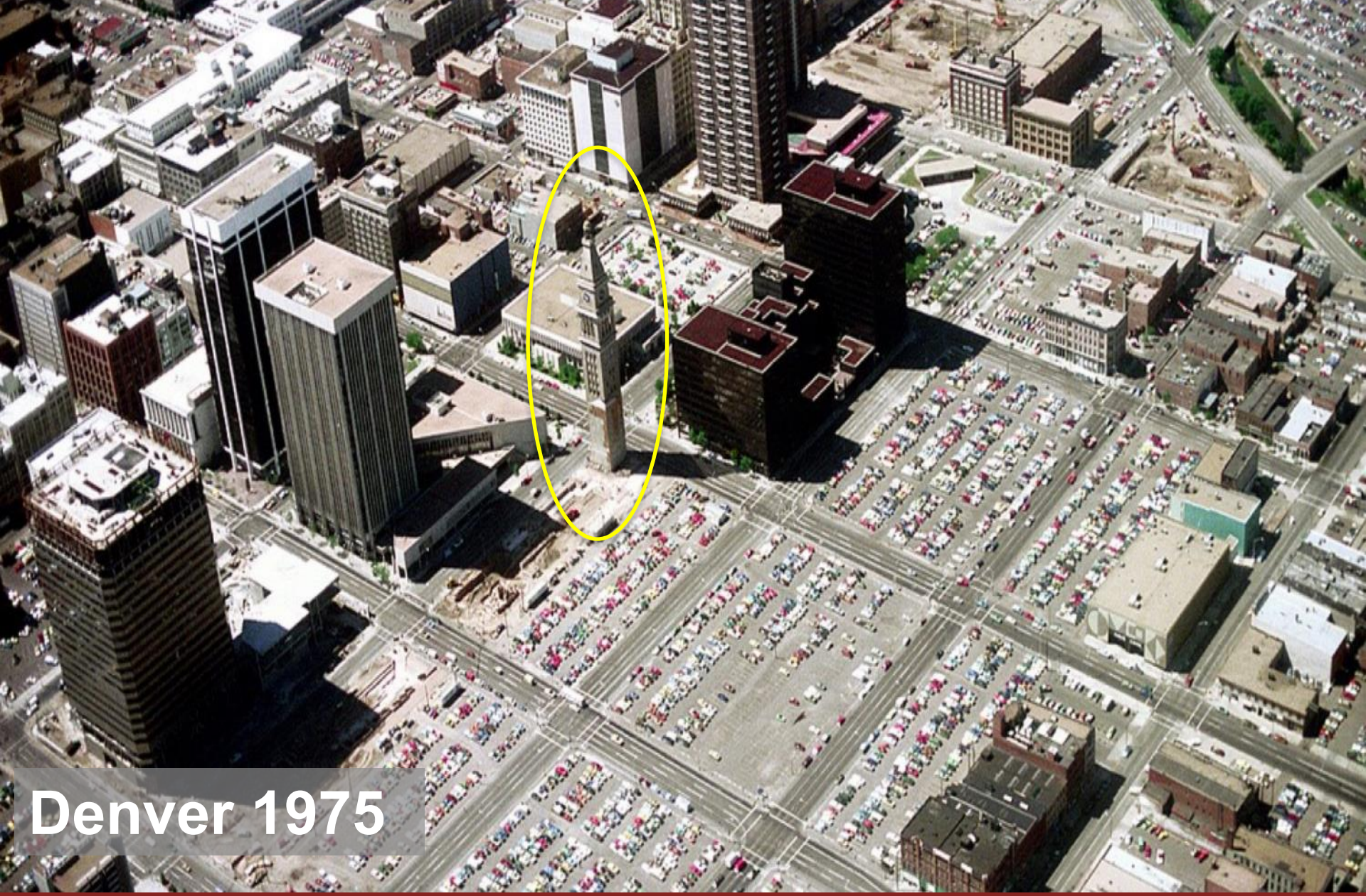
KEEPING HISTORY ABOVE WATER

Central Plan District, City of Philadelphia

Total Estimated Floodprone Designated Historic Buildings, Central Plan District:

~249

Designated Historic Building
Listed in National Register of Historic Places (including National Historic Landmarks, buildings of individual merit, and those contributing to an historic district) OR Listed in Philadelphia Register of Historic Places OR Both

Designated Historic Building At Risk of Flood Inundation
*Building located within areas identified as vulnerable to one or more of the following: 100-year or 500-year floods, high tide hurricane (categories 1-4) storm surge inundation, or high tide inundation due to potential sea level rise (1 ft.- 6 ft.)

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REURBANISM

Shaping Communities Through Reuse

Denver 1930

Denver 1975
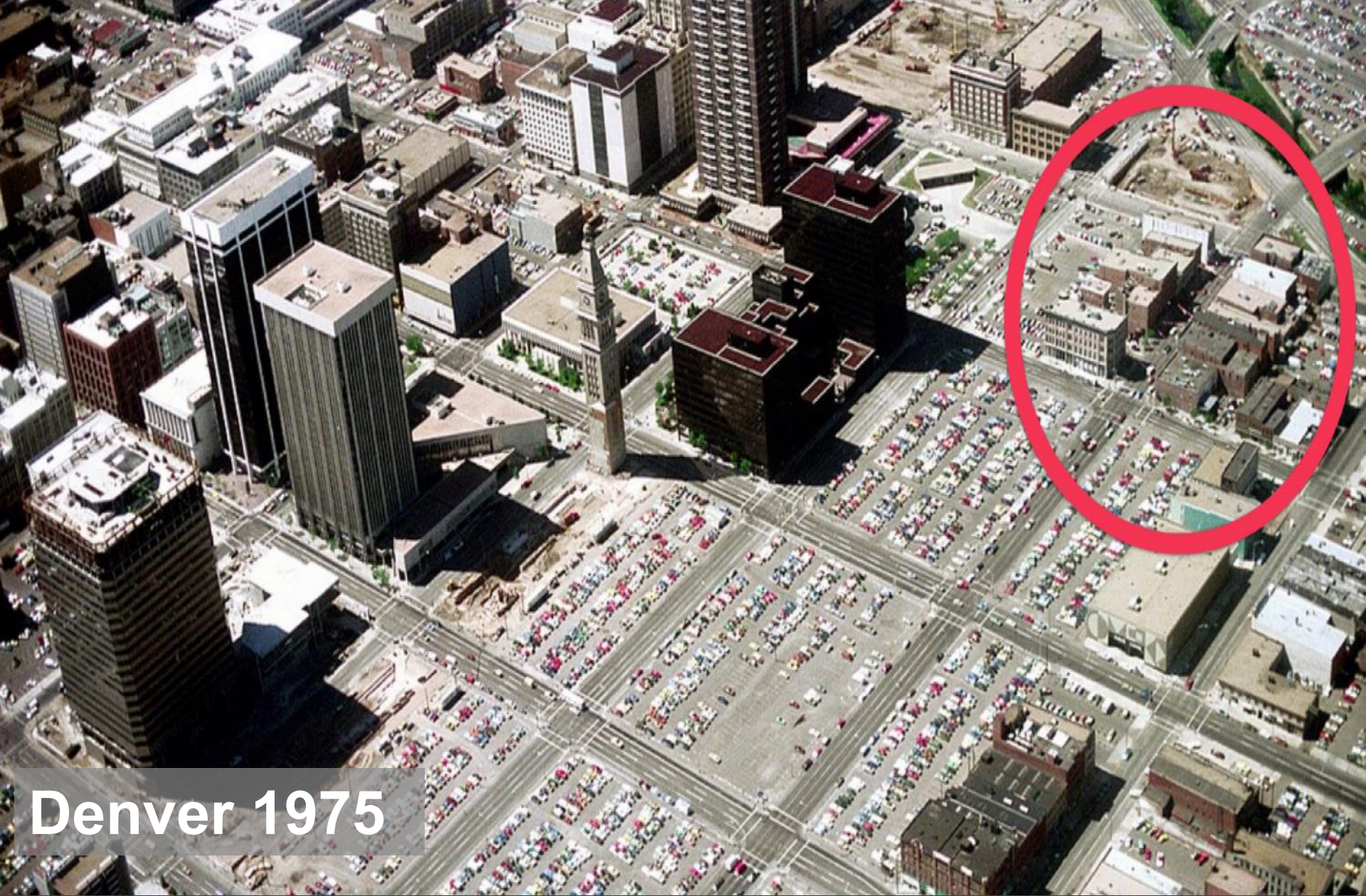
Denver 1975

ReUrbanism
is about great cities.

Larimer Square

Cities that are *for people,* not cars, that are *diverse, authentic* and *vibrant.*

Larimer Square

Cities that *conserve* and *reuse* older buildings to create a more *sustainable, equitable* future.

Larimer Square

Challenges for cities

affordability and *displacement*

loss of character and *diversity*

climate change and *sea level rise*

Baltimore

Make reuse the default choice for cities and demolition the last resort

Cincinnati

Principles of ReUrbanism

We believe reuse should be the default, and demolition the option of last resort.

When older buildings are destroyed, the engine that keeps neighborhoods growing, innovating, and thriving is disrupted. They are a key and irreplaceable component of our future, and we are richer and stronger when they remain.

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Cities are only successful when they work for everyone. People are at the center of our work. Preservation projects can create opportunities for community residents at all income levels to live, work, and play in a diverse and thriving environment.

Older places provide the distinctiveness and character that engender success. Older buildings give cities a sense of identity, history, and authenticity — which is the most important competitive advantage they can have in today's economy.

Older neighborhoods are economic engines. Research shows that neighborhoods with a mix of older and newer buildings perform better along a number of social, economic, cultural, and environmental metrics than areas with only new buildings.

New ideas, and the New Economy, thrive in older buildings. All over America, the most innovative companies of the 21st century are choosing to make their homes in older buildings. These buildings tend readily by being distinctive, characterful, endlessly adaptable, and often low cost.

Preservation is adaptive reuse. Adaptive reuse is preservation. Historic preservation is not just about keeping old buildings around. It is about keeping them alive, in active use, and relevant to the needs of the people that surround them.

Preservation is about managing change. Healthy, dynamic neighborhoods are always in the process of change. Historic preservation is about managing change, unleashing the enormous potential of older buildings to improve health, affordability, prosperity, and well being.

Cities are for people, not vehicles. Reclaiming city streets and making them more amenable to pedestrian and mass transit use can help neighborhoods recapture activity and thrive once more.

The greenest building is the one that's already built. It takes energy to construct a new building — it saves energy to preserve an old one. It simply does not make sense to recycle cans and newspapers and not recycle buildings.

There are many ways to achieve density. Areas with a mix of older and newer fabric tend to be denser than newly neighborhoods, and they achieve that density at a human scale.

Every community has stories and places that matter. The places worth saving are those where communities choose to come together, and that represent the local stories they treasure and wish to see preserved.

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How ReUrbanism Works

Conduct new research

Test on the ground

Develop better tools

Share best practices

Diverse · Equitable · Vibrant
Healthy · Resilient

"The greenest building is one that already exists"
-Carl Elefante

Philadelphia

The Greenest Building:
Quantifying the Environmental
Value of Building Reuse

A REPORT BY:

Preservation Green Lab
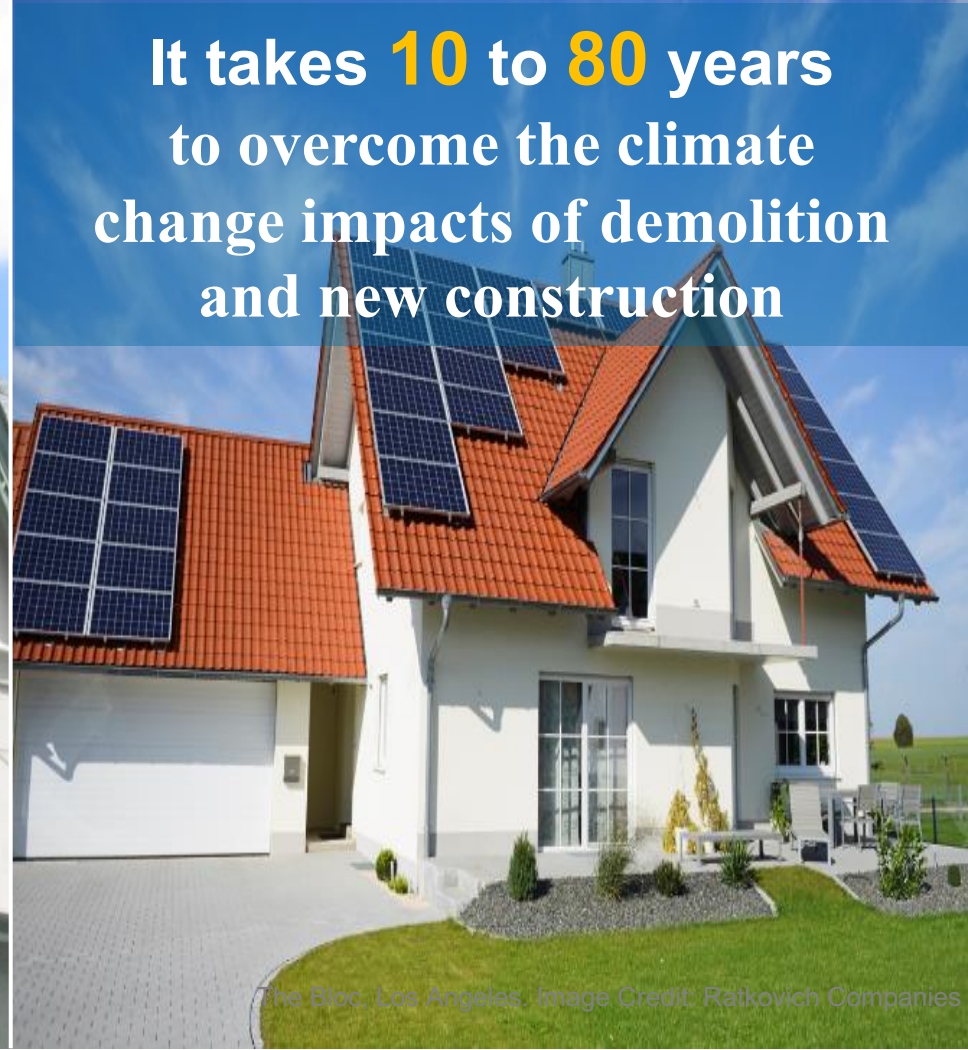NATIONAL TRUST FOR HISTORIC PRESERVATION

WITH SUPPORT FROM:

THE SUMMIT FOUNDATION

IN PARTNERSHIP WITH:

CASCADIA

SKANSKA

Green Building Service

Quantis

ReUrbanism Research

It takes **10** to **80** years to overcome the climate change impacts of demolition and new construction

The Bloc, Los Angeles. Image Credit: Ratkovich Companies

Reusing existing buildings is green

© James Gulliver Hancock

"Cities need old buildings"
-Jane Jacobs

Older, Smaller, Better
Measuring how the character of buildings
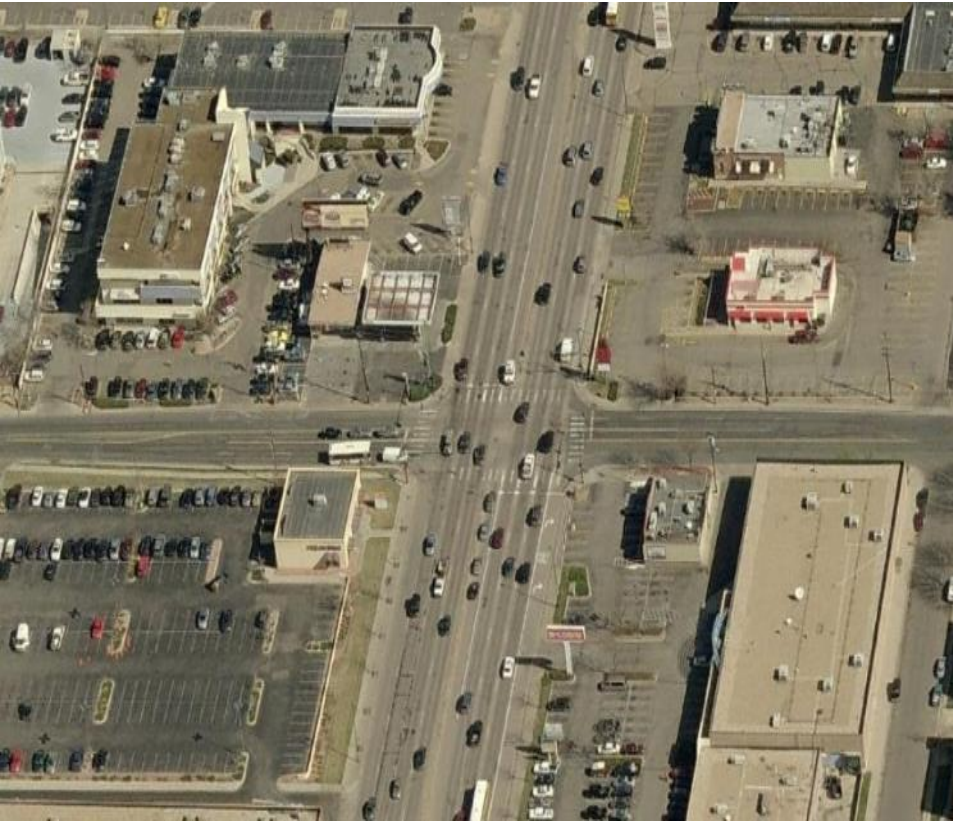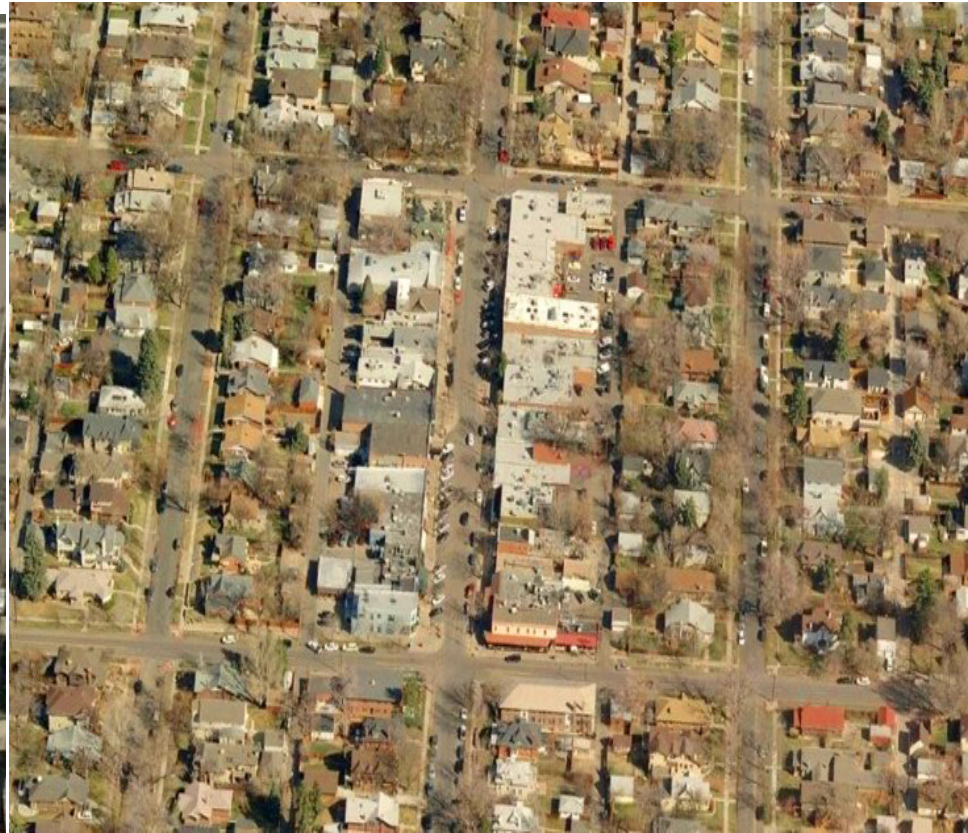and blocks influences urban vitality

ReUrbanism Research

Does built character matter?

- Street life and walkability
- Restaurants and small business
- Employment
- Diversity
- Affordability
- Residential density
- Energy efficiency

Newer, larger, similar-age
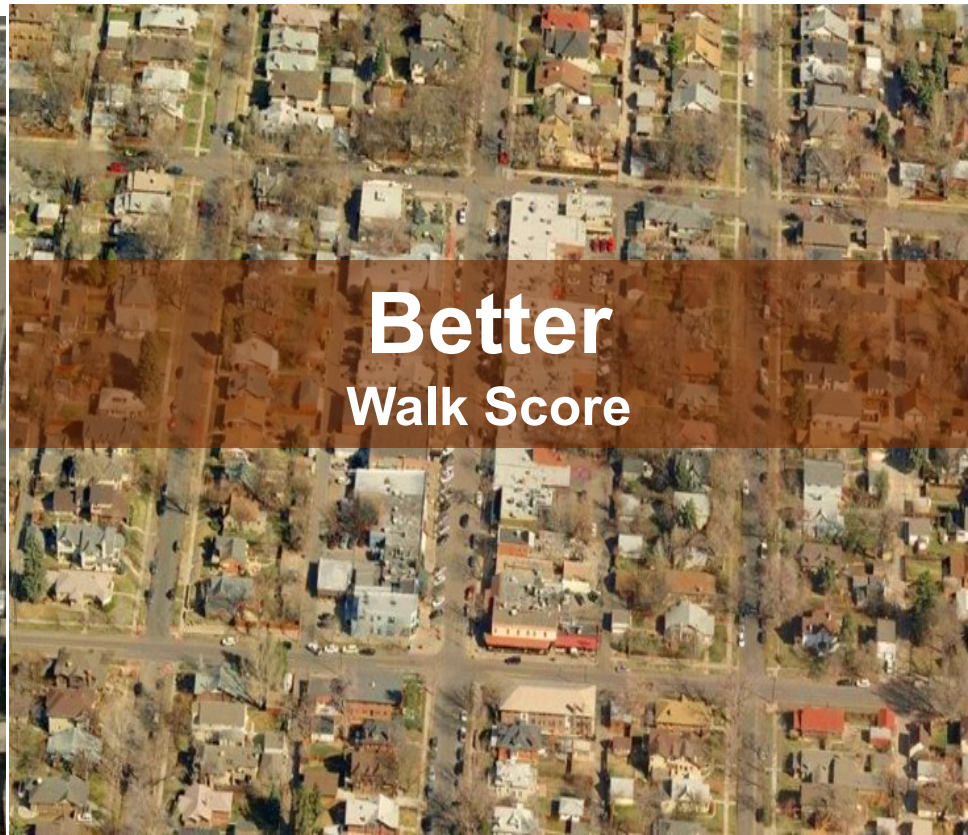
Older, smaller, mixed-age

Does built character matter?

Google maps Illustration images: Denver

Newer, larger, similar-age
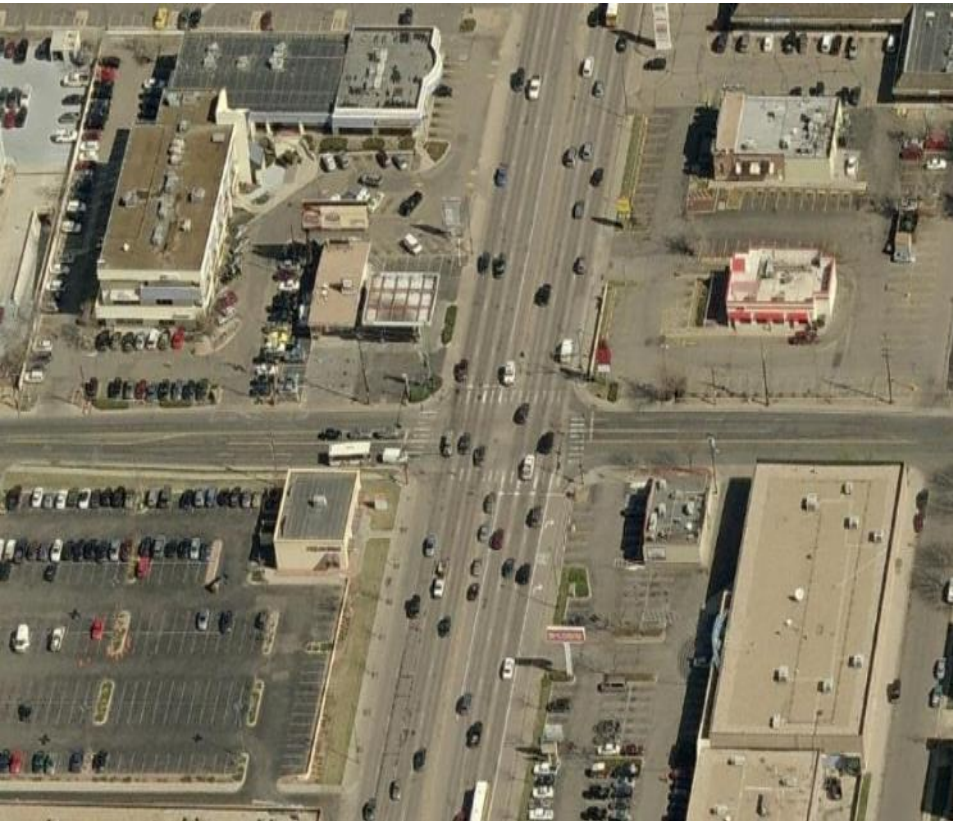
Older, smaller, mixed-age

Better
Walk Score

Healthy and connected

Google maps Illustration images: Denver

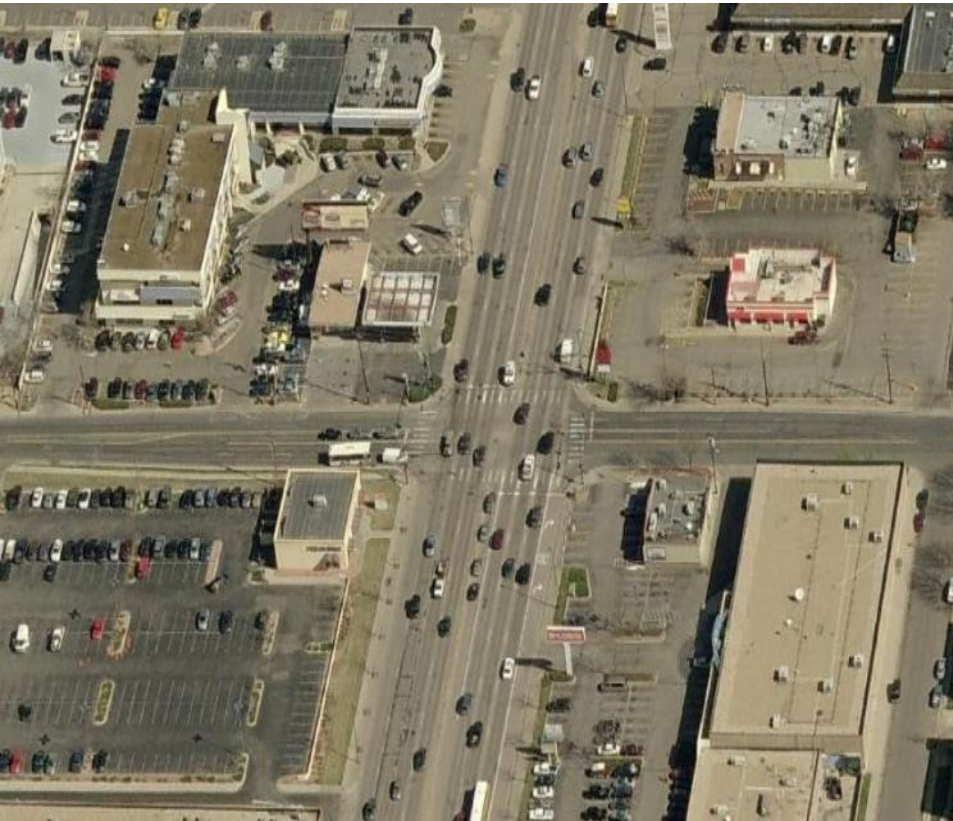Newer, larger, similar-age

Older, smaller, mixed-age

More
Small and local businesses

Economically diverse

Google maps Illustration images: Denver

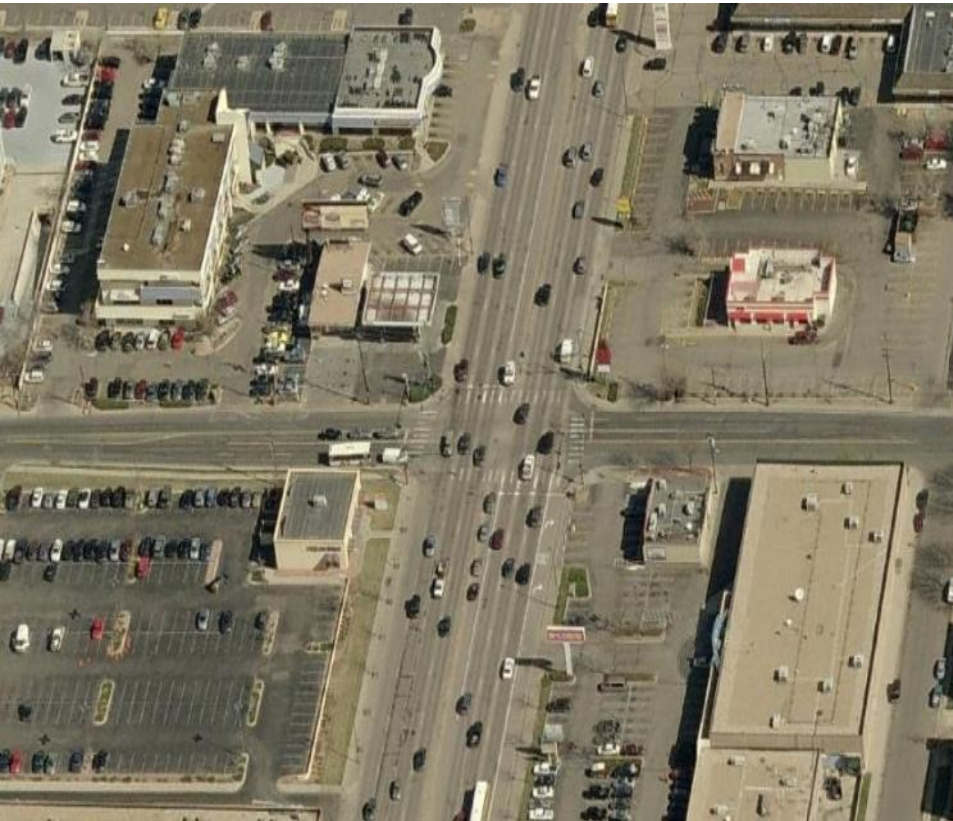Newer, larger, similar-age

Older, smaller, mixed-age

More
Woman- and minority-owned businesses

Socially inclusive

Google maps Illustration images: Denver

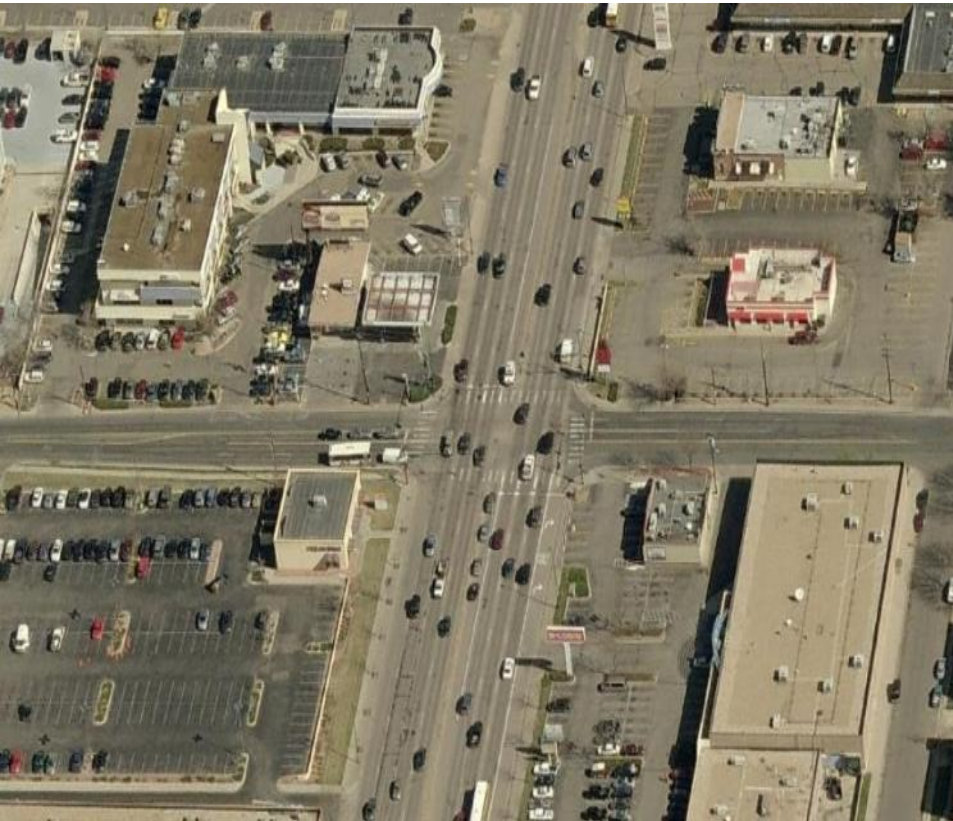Newer, larger, similar-age

Older, smaller, mixed-age

More jobs
per square foot

Economically vibrant

Google maps Illustration images: Denver

Newer, larger, similar-age

Older, smaller, mixed-age

Less energy use
per square foot

Energy efficient

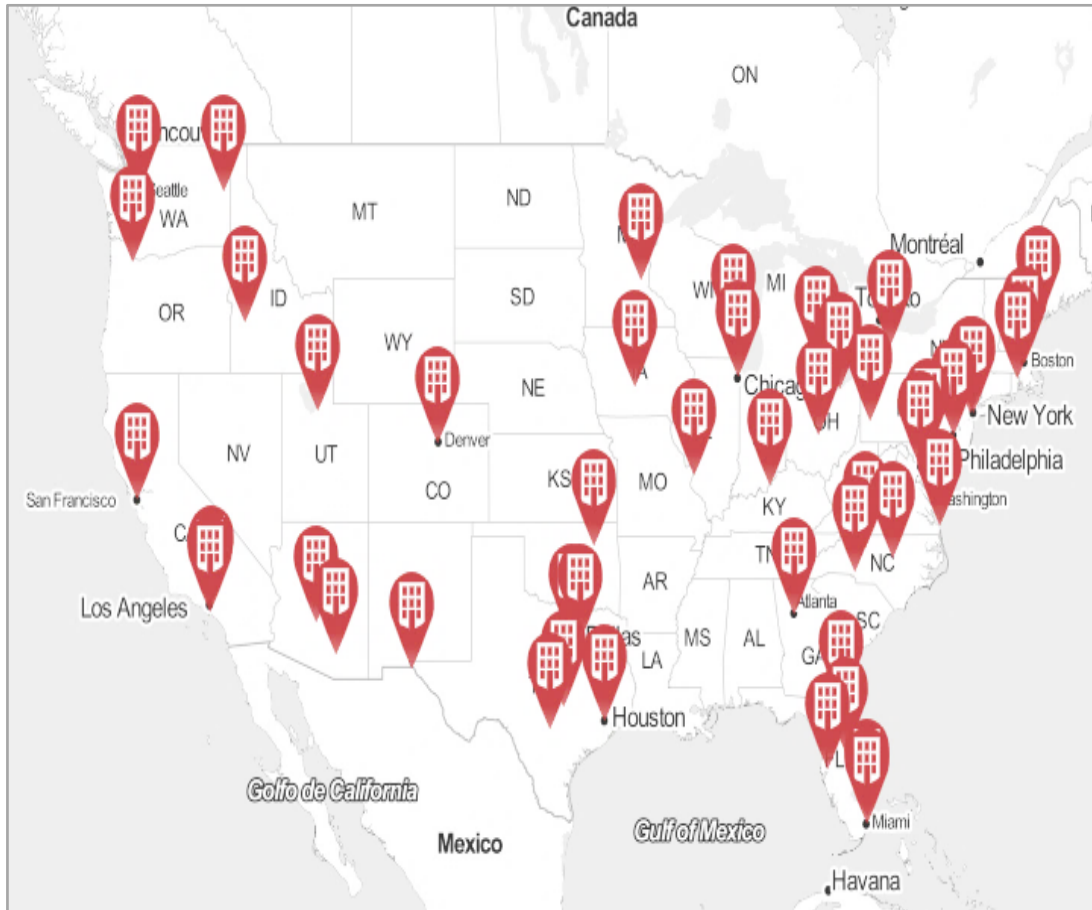Google maps Illustration images: Denver

Character counts

Cities need old buildings

East and west sides of same block, same day and hour: 2nd Street, San Francisco
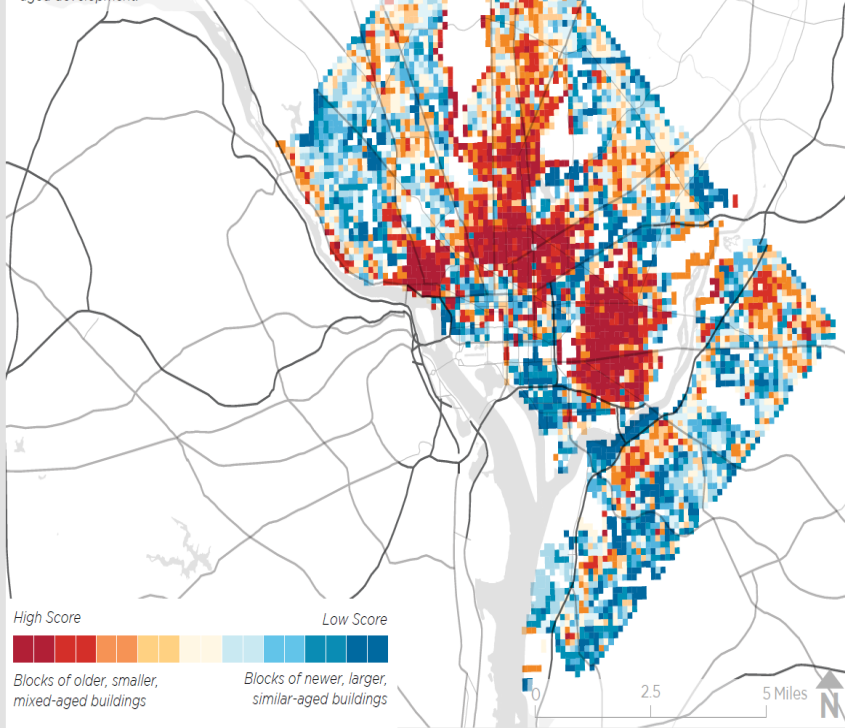
Atlas of ReUrbanism

50 Cities

- Buildings & blocks
- Designations
- Economics
- Demographics
- Performance

Built Character in Washington, D.C.

61.1 mi² | **Pop: 672,228** | **22nd** Most Populous U.S. City | **Est. 1801**

*The Atlas of ReUrbanism uses the Character Score to classify building stock by age and size. Higher scoring areas in **red** represent blocks of older, smaller, mixed-aged buildings. Lower scoring areas in **blue** represent newer, larger, similar-aged development.*

High Score — Low Score

Blocks of older, smaller, mixed-aged buildings — *Blocks of newer, larger, similar-aged buildings*

0   2.5   5 Miles

Building and Preservation Facts

Parcels/Buildings	Washington	50-City Average
Total	134,309	204,038
Per Square Mile	2,197	1,436
Median Year Built	1930	1952
On Nat'l Register of Historic Places	18.7%	6.8%
Locally Designated	19.4%	4.3%
Historic Tax Credit Projects	47	27.5

Year Built By Period, **Washington** | 50-City Average

- **42.4%** | 22.2% — 1920-1945
- **17.5%** | 27.9% — 1945-1967 (50+ Years)
- **10.5%** | 34.2% — 1967-2017
- **29.6%** | 15.7% — Pre-1920

134,309 Buildings

High v. Low Character Score

Use the table below to compare high- and low-character score areas in terms of their density and diversity, inclusiveness, and economic vitality.

High Character Score Areas — Low Character Score Areas

Density & Diversity

	High	Low
Avg. Population/Grid Square†	142.1	79.6
Median Age (Years)†	38.3	40.6
Avg. Between Age 18-34†	30.4%	25.0%
Avg. Foreign Born††	13.5%	11.3%
Avg. New to County††	7.4%	7.7%
Avg. People of Color†	63.1%	67.2%
Avg. Housing Units/Grid Square†	70.8	39.5
Avg. Vacant Homes†	9.4%	8.9%
Avg. Owned Homes†	56.3%	52.4%

Inclusiveness

	High	Low
Total Women and Minority-Owned Businesses†††	3,800	3,319
Avg. Affordable Rental Housing Units†	62.3%	67.9%

Economic Vitality

	High	Low
Total Jobs in Small Businesses††††	32,478	25,625
Total Jobs in New Businesses††††	8,438	4,378
Total Jobs in Creative Industries††††	54,266	82,428

†Data from the 2010 Census
††Data from the 2010-2014 5-Year Estimates of the American Community Survey
†††Data from Dun & Bradstreet, 2016.
††††Data from LEHD LODES, 2014

Washington, DC
Buildings by the Numbers

134,309 buildings

65.2% 50 years or older

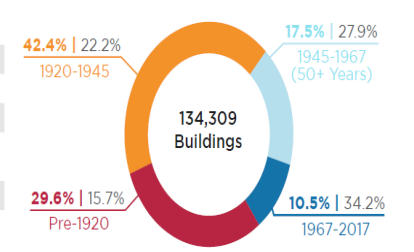**51.8%** built pre-1945

1930 median year built

18.7% on National Register

19.4% locally designated

In **Washington**, compared to areas with large, new structures, character-rich **blocks of older, smaller, mixed-age buildings** contain...

Nearly 80% greater population density

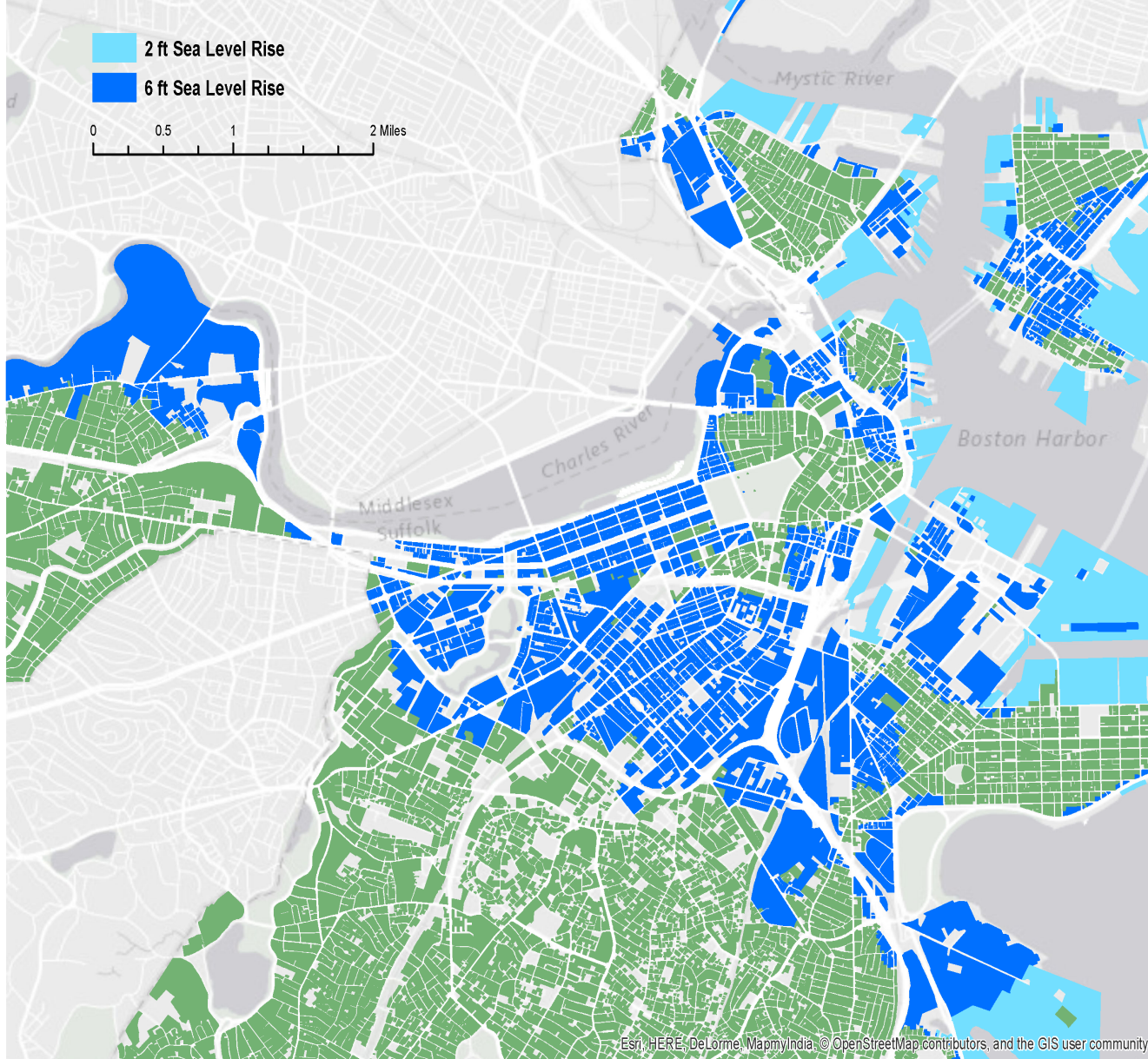**93% more jobs in small businesses and 27% more jobs in new businesses**

More than half of a billion dollars in private investment through the federal historic tax credit
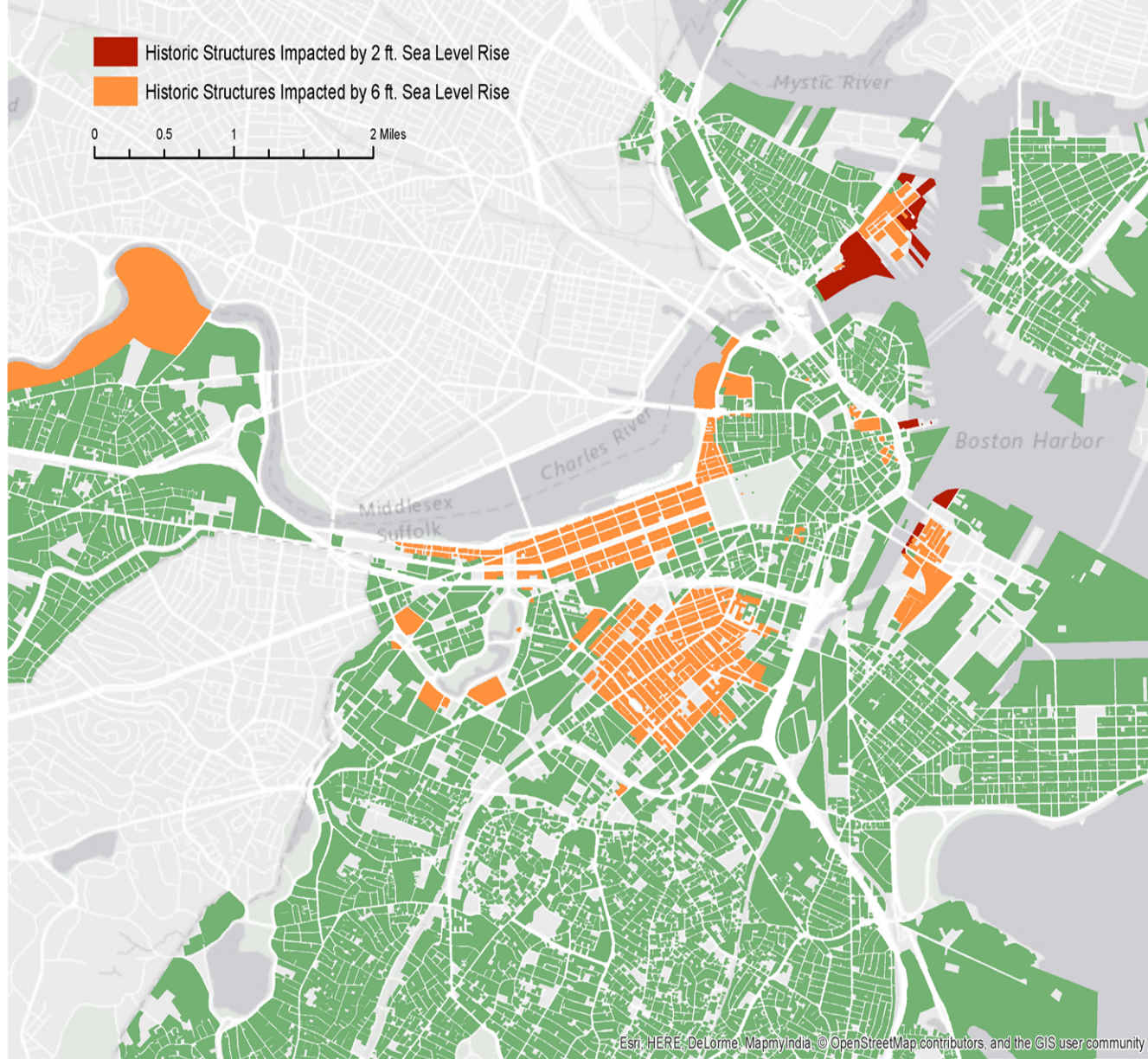
Green Lab Research and Solutions
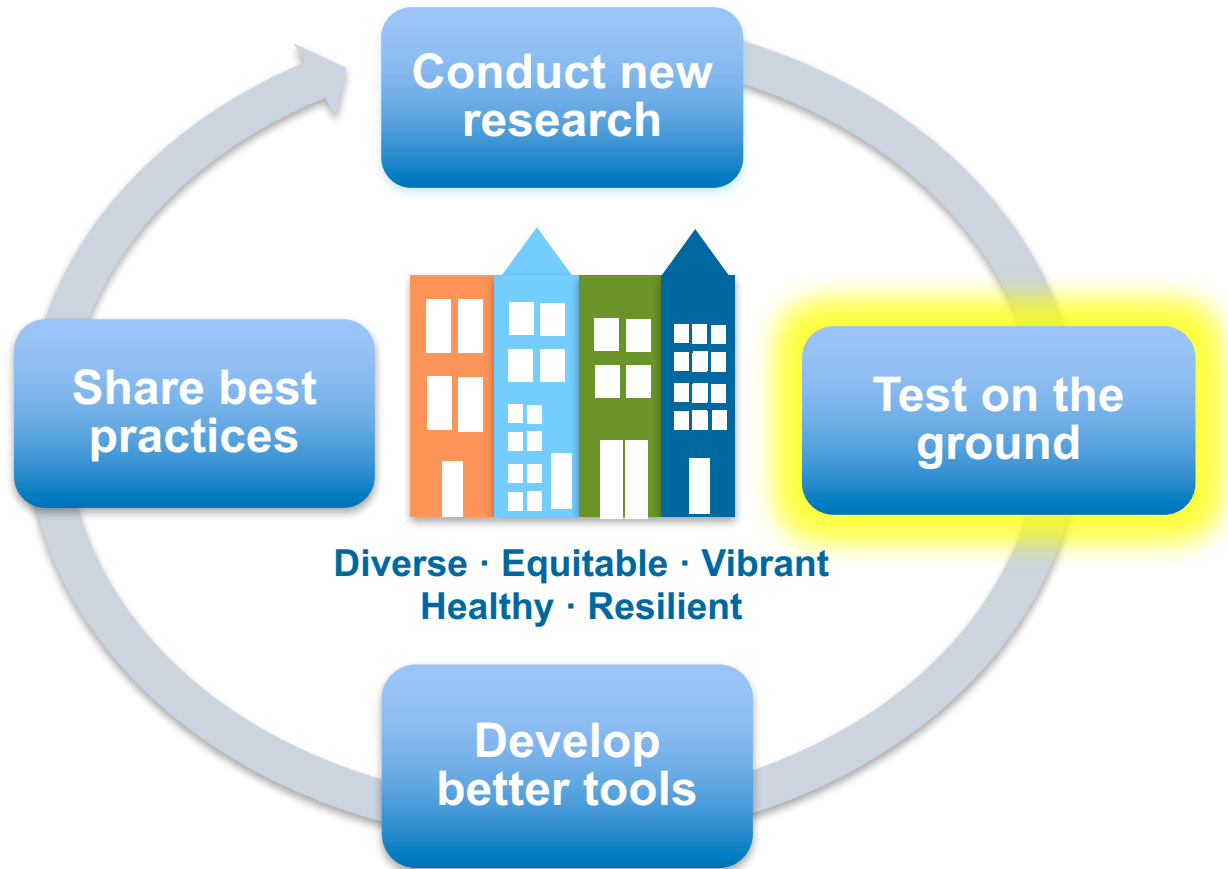## Climate Change + Resilience

- 2015-2017: Convened meetings with NTHP, Union of Concerned Scientists, Society for American Archaeology, J.M. Kaplan Fund, and others

- Climate Heritage listserv

- "America's Eroding Edges"

- Climate change and resilience preservation conferences

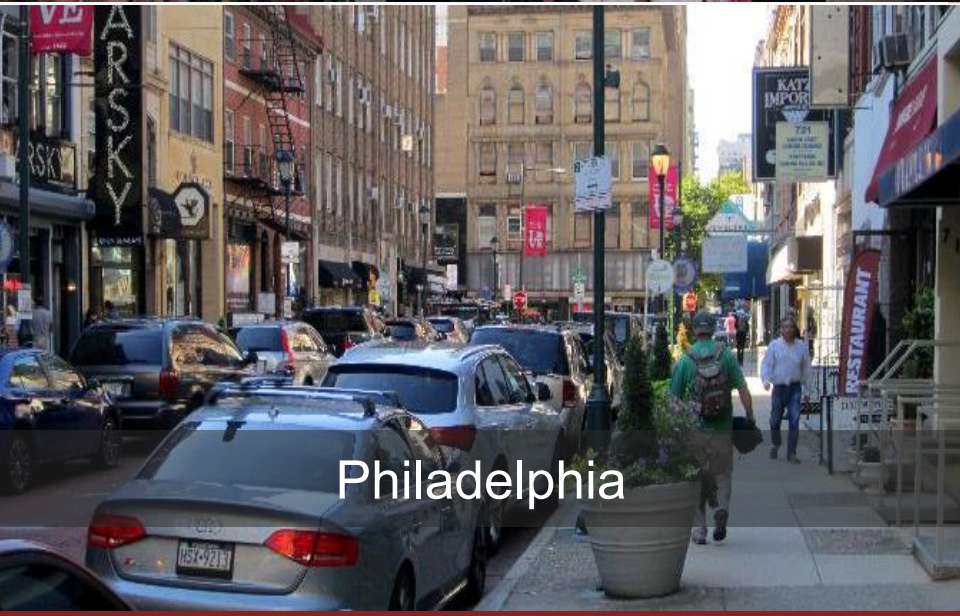- Coming soon: Identifying Solutions for URMS

2 ft Sea Level Rise

6 ft Sea Level Rise

0   0.5   1   2 Miles

Mystic River

Charles River

Middlesex
Suffolk

Boston Harbor

Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

Historic Structures Impacted by 2 ft. Sea Level Rise
Historic Structures Impacted by 6 ft. Sea Level Rise

How ReUrbanism Works

Conduct new research

Test on the ground

Share best practices

Develop better tools

Diverse · Equitable · Vibrant
Healthy · Resilient

Detroit

Louisville

Philadelphia

Miami

How ReUrbanism Works

Conduct new research

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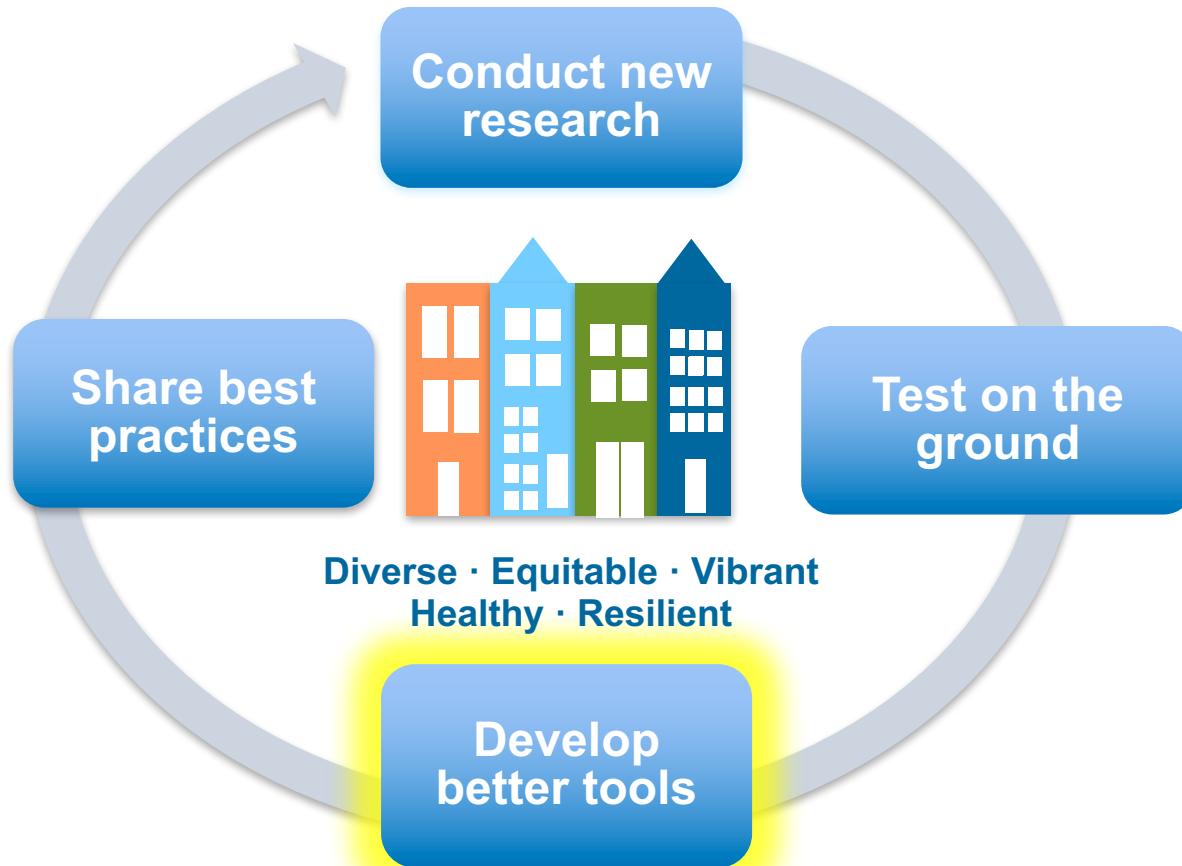Develop better tools

Share best practices

Diverse · Equitable · Vibrant
Healthy · Resilient

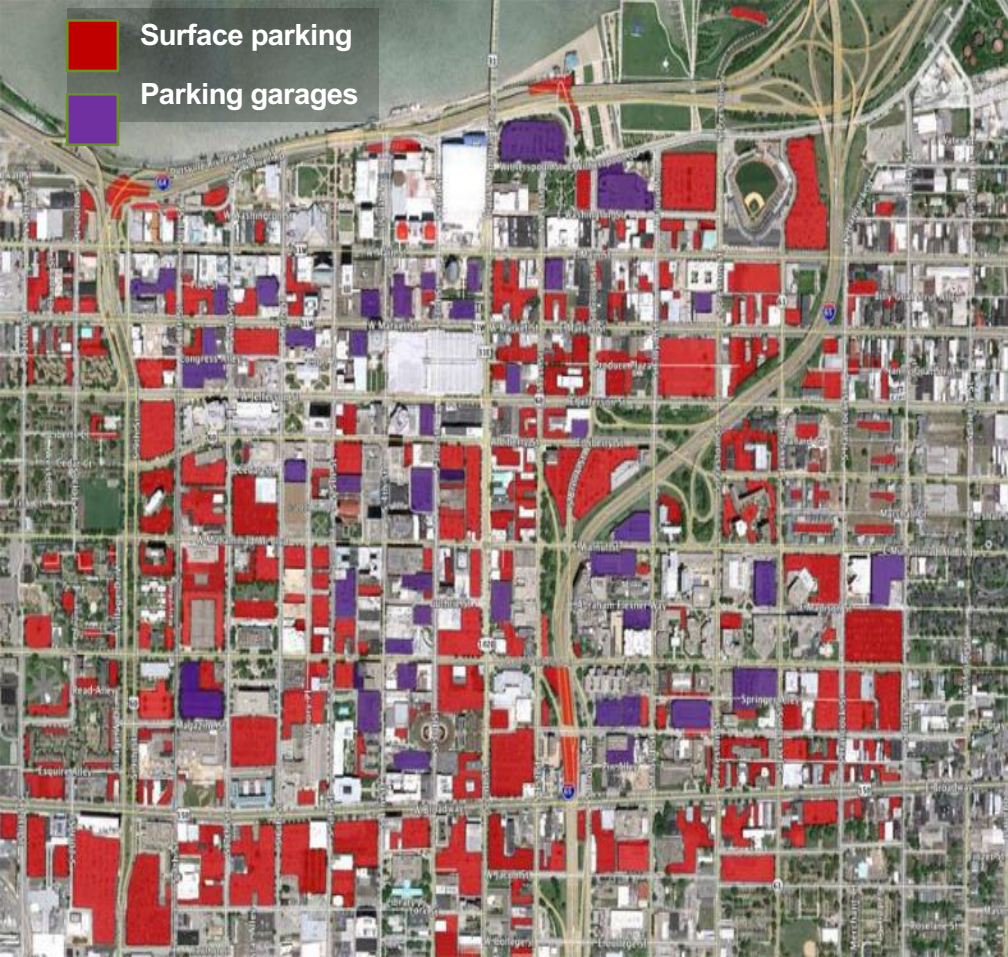NTHP Illustration images: Colfax Avenue, Denver

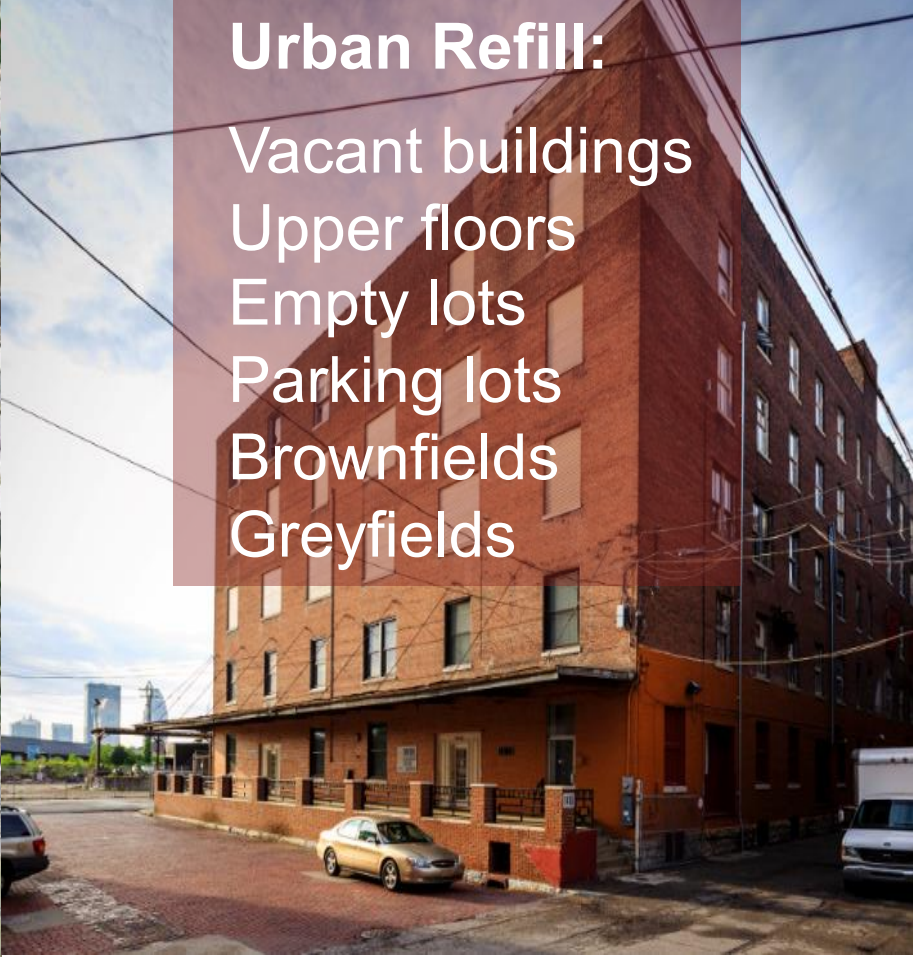# Old Codes

NTHP Illustration images: Colfax Avenue, Denver

Better Codes

Phoenix Adaptive Reuse Ordinance

- Regulatory relief, expedited plan reviews
- Fee waivers
- 85+ projects completed

Surface parking

Parking garages

Urban Refill:

Vacant buildings
Upper floors
Empty lots
Parking lots
Brownfields
Greyfields

Left: Downtown Louisville, KY. Map credit: Erik Weber

Right: Louisville, KY. Image credit: Andy Snow
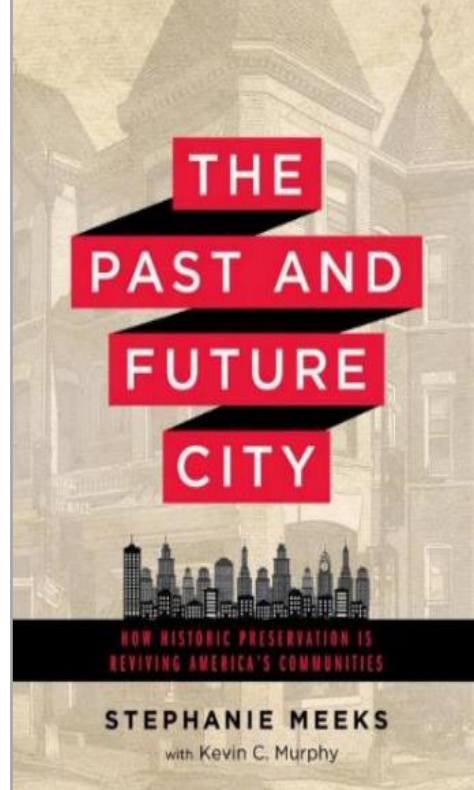
Density without Demolition

How ReUrbanism Works

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Healthy · Resilient

Share Best Practices
Promote ReUrbanism

National Trust for Historic Preservation:
www.savingplaces.org/reurbanism

Preservation Green Lab Research Reports:
www.savingplaces.org/preservation-green-lab

Atlas of ReUrbanism:
www.atlasofreurbanism.com

Contact: Anthony Veerkamp, Director of Policy, PGL
aveerkamp@savingplaces.org