

# Health, Housing, & Equity

TH 310

Thursday 6/21/18 8:45am-9:45am

HSW

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# Speakers List

- Bon Ku, MD
- Catherine Ross, PhD
- Chris Kochtitzsky, MSP
- Liz York, FAIA

# Course / Learning Objectives

- **Discuss where chronic disease can be solved through low-cost built environment initiatives.**
- **Determine the connection between work, productivity losses, and buildings in effort to design public health interventions.**
- **Apply lessons learned from healthy building certification systems to embed health specifically for low income residential properties.**
- **Examine how these solutions can be applied to create sustainable, healthy, and more equitable communities.**

# Health, Housing, and Equity

## Introduction to Market Forces and Needs

Dr. Catherine Ross

Harry West Professor, School of City & Regional Planning

Director of Center for Quality Growth & Regional Development

Georgia Institute of Technology



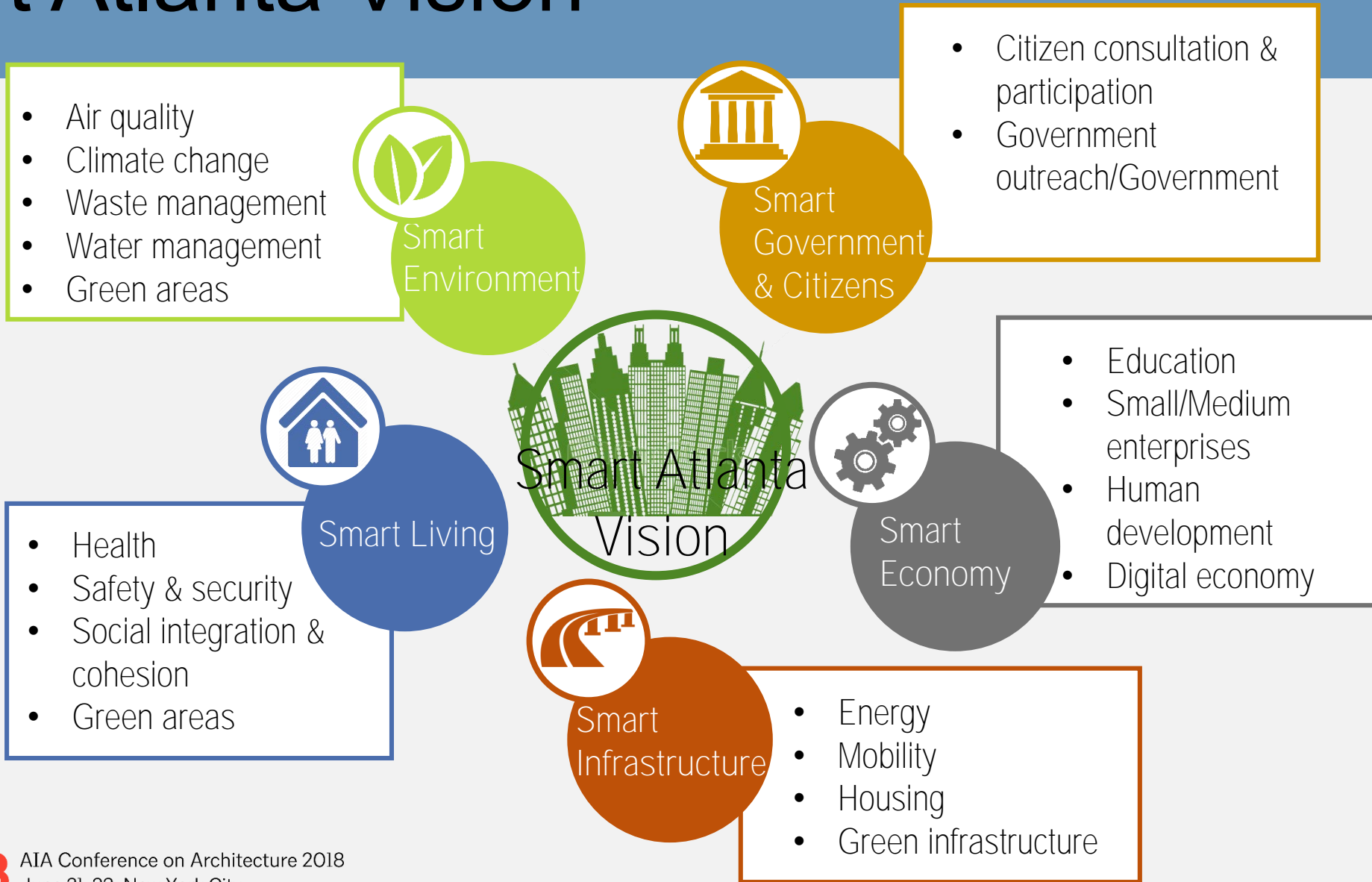
# Trends

- The sharing economy
- Temporary, tall, small, sustainable, new, regeneration
- Health in all places
- Health in all design
- The Internet of spaces
- Housing variety fosters health
- Universal design
- Et al.





# Smart Atlanta Vision





# Livable Centers Initiative (LCI)

- ◆ LCI programs by Atlanta Regional Commission (ARC):
  - have supported plans that link to transportation improvement and mixed-land use development since 1999.
- ◆ LCI authorization
  - \$13 million for the studies, \$ 500 million for the implementations
- ◆ 2008 National Award for Smart Growth from EPA
- ◆ 2009 National Planning Excellent Award from APA



*Impacts of Smart Growth Strategies on Housing Price  
(Wang & Immergluck)*

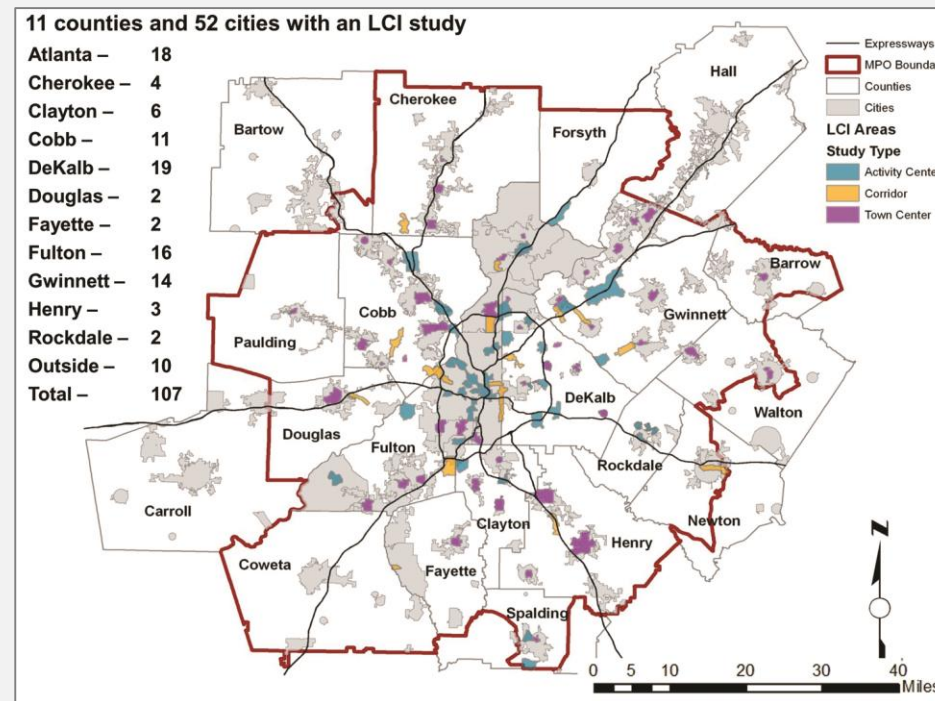
# Livable Centers Initiative (LCI)

- ◆ Type of LCI programs
  - Activity Center, Town Center, and Corridor

Type	Description
<b>Town Center</b>	The historic center of a community with a mix of commercial and civic uses
<b>Activity Center</b>	A community center with a mixture of office, retail, service, and residential or civic uses
<b>Corridor</b>	Roadways classified as a major collector in length (approximately ½ to 4 miles) focusing on corridors developing at an urban scale
<b>Emerging Regional Center or Corridor</b>	Not yet fully developed as a center or corridor, but are experiencing strong growth pressures

Source: ARC, 2009.

[http://www.atlantaregional.com/documents/LCI\\_APPLICATION\\_2010.pdf](http://www.atlantaregional.com/documents/LCI_APPLICATION_2010.pdf)



*Impacts of Smart Growth Strategies on Housing Price (Wang & Immergluck)*

# Livable Centers Initiative (LCI)

- ◆ Town center LCI in suburban area (high income / less dense)
  - Positive effects on housing sales & prices within the target area
  - Lower values in nearby areas
- ◆ Activity center LCI in suburban area (lower income / more dense)
  - Positive effects on housing sales & prices within the target area
  - Positive effects on housing sales & prices in nearby areas

Smart-growth development programs may contribute to **revitalizing old suburban downtown centers**, but that the effects of **smaller-scale efforts may result in predominantly zero-sum effects**, in which higher values within the target area are accompanied by lower values in adjacent areas.

*Impacts of Smart Growth Strategies on Housing Price (Wang & Immergluck)*

# Small Houses

- Big health advantages to living in tiny houses, particularly when located in tiny house communities called villages.
- Sustainable building design and healthy building materials for tiny houses.
- Reduce the housing cost burden on residents while still providing a benefit to the community. Health care facilities, elderly accommodations, affordable housing, workforce housing, mitigate displacement

MICROHOUSE



<https://smallhousebliss.com/2016/08/11/microhouse-tangletown-adu/>



# The Sharing Economy

- Shared housing is able to lower the cost of living
- Introduce more affordable housing
- The impact of Airbnb on housing market
- Affordable rental housing
- Innovative planning and policy tools

**Airbnb guests support local business throughout New York's diverse neighborhoods.**

**57%**  
of visitor spending occurs in the neighborhood where she stays.

**\$740**  
Amount the average visitor spends in the neighborhood where she stays.



# Summary

- Urban regeneration at smaller footprint
- Smart city initiative
- Livable Centers Initiative
- The sharing economy introduces new models
- Build effective and sustainable partnership around housing and health



<https://www.urban.org/research/publication/emerging-strategies-integrating-health-and-housing>

# Thank You!

Catherine L. Ross: <http://catherine.ross@design.gatech.edu>

For more information, please visit:

Center for Quality Growth and Regional Development: <https://cqgrd.gatech.edu/>

Healthy Places Research Group: <https://cqgrd.gatech.edu/healthy-places-research-group>



# National Center for Chronic Disease Prevention and Health Promotion

Division of Nutrition, Physical Activity, and Obesity



## Health, Housing & Equity:

Translating Scientific Evidence-base into  
Efficient and Effective Practice

**Chris Kochtitzky, MSP**

Senior Advisor, Physical Activity and Health Branch  
Division of Nutrition, Physical Activity, and Obesity  
Centers for Disease Control and Prevention

**A'18** AIA Conference on Architecture 2018  
June 21-23, New York City

*The findings and conclusions in this presentation are those of the author and do not necessarily represent the official position of [the Centers for Disease Control and Prevention].*



U.S.  
currently  
only scores

**59 out  
of 100**

on the  
*Healthy  
Eating Index*

**8.3%**

of preventable  
deaths in the  
U.S. are due to  
physical inactivity



# Active People, Healthy Nation

## Creating An Active America, Together

Our goal is to save lives and protect health by  
helping 4 million youth and 25 million  
Americans become more physically active

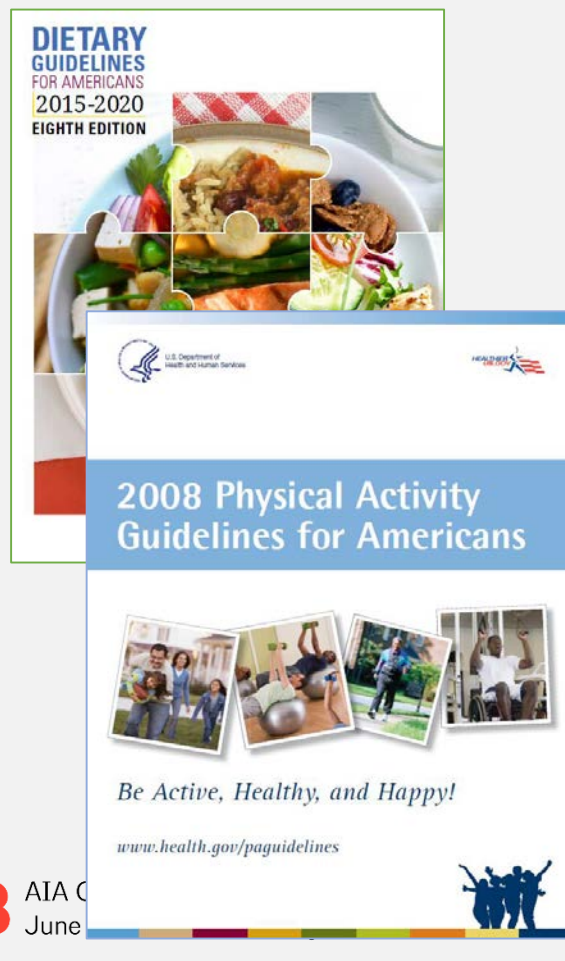






# Overarching Evidence and Guidance

## National Guidelines



## U.S. Surgeon General

The Surgeon General's Call to Action To Promote Healthy Homes

2009

STEP IT UP!  
THE SURGEON GENERAL'S CALL TO ACTION  
TO PROMOTE WALKING  
AND WALKABLE COMMUNITIES



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

## Nat. Acad. of Science

Health Risks of Indoor Exposure to  
Particulate Matter  
WORKSHOP SUMMARY



TRB SPECIAL  
REPORT  
282



Does the Built  
Environment Influence  
Physical Activity?

EXAMINING THE EVIDENCE



TRANSPORTATION RESEARCH BOARD  
INSTITUTE OF MEDICINE  
OF THE NATIONAL ACADEMIES

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June





# The “KNOWLEDGE”

from the Centers for Disease Control and Prevention &  
the General Services Administration

## Fitwel: addressing micro-environments in workplaces and multi-unit housing

### ■ Active Living

- Sample strategies in **locating in walkable neighborhoods** with nearby amenities and public transit access
- Provisions for **accessible, visible, and well-designed stairwells.**

### ■ Healthy Eating

- Strategies include **pricing incentives** for healthy snacks and
- Establishing **nutrition standards** for healthy food and beverages

### ■ Healthy Environments

- Strategies include **smoke-free building policies** and
- Providing **access to healthy drinking water**



# Fannie Mae Healthy Housing Rewards



Fannie Mae™

## Multifamily Term Sheet

### Healthy Housing Rewards™ Healthy Design

Fannie Mae Multifamily offers Healthy Housing Rewards Healthy Design, a product feature that provides lower pricing to finance affordable properties with health-promoting design and operational features.

Health-promoting design and operational features include playgrounds, fitness equipment, tobacco-free environments, green spaces, and more.



Pricing	15 basis points discount.
Term	5-30 years.
Amortization	Up to 35 years.

### Benefits

- Lower interest rate
- Reimbursement for Healthy Design Certification
- Flexible underwriting to specific affordable developments
- Flexible loan terms, and fixed- or variable-rate financing options
- Certainty and speed of execution





# The “KNOWLEDGE”

from the U.S. Community Preventive Services Task Force

## Community Guide: Combining macro-environment interventions from two categories

### Pedestrian or Bicycle Transportation Systems

- Street pattern design and connectivity
- Pedestrian infrastructure
- Bicycle infrastructure
- Transit infrastructure and access

**“Activity Friendly Routes”**

### Land Use and Environmental Design

- Mixed land use
- Increased residential density
- Community destination proximity
- Parks and recreational facilities

**“Everyday Destinations”**

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June 21-23, New York City

Guide to Community Preventive Services. Physical Activity: Built Environment Approaches Combining Transportation System Interventions with Land Use and Environmental Design. <https://www.thecommunityguide.org/findings/physical-activity-built-environment-approaches>. Page last updated: May 01, 2017. Page accessed: May 4, 2017



# TRANSLATION PRODUCTS

The Community Preventive Services Task Force's Built Environment Recommendation to Increase Physical Activity

## REAL-WORLD EXAMPLES

**What is the recommendation from the Community Preventive Services Task Force?**  
The Community Preventive Services Task Force recommends built environment approaches that combine one or more interventions to improve transportation systems (activity-friendly routes) with one or more land use and community design interventions (everyday destinations) to increase physical activity.

**What are combined built environment intervention approaches?**  
Combined approaches that connect activity-friendly routes to everyday destinations make it safe and convenient for people of all abilities to walk, run, bike, skate, or use wheelchairs.

**Activity-Friendly Routes**  
Pedestrian, Bicycle, and Transit Transportation Systems

- An activity-friendly route is one that is a direct and convenient connection with everyday destinations, offering physical protection from cars, and making it easy to cross the street.
- Components to consider for intervention include:
  - Street pattern design and connectivity
  - Pedestrian infrastructure
  - Bicycle infrastructure
  - Public transit infrastructure and access

**Everyday Destinations**  
Land Use and Environmental Design

- Everyday destinations are places people can get to from where they live by walking, bicycling, or public transit. This can include grocery stores, schools, worksites, libraries, parks, restaurants, cultural and natural landmarks, or healthcare facilities. They are often desirable, useful, and attractive.
- Components to consider for intervention include:
  - Mixed land use
  - Increased residential density
  - Proximity to community destinations
  - Parks and recreation facilities

**How do these approaches work?**  
There are several ways that these approaches can be implemented, including through local government, private industry, and community organizations.

**Why are these approaches important?**  
The following table provides examples of how these approaches can be implemented in various settings, ranging from individual neighborhoods to entire cities. The table is organized by the level of cost, complexity, or scale, with the most challenging examples at the top and the most straightforward at the bottom.

Real-World Example	Activity-Friendly Routes				Everyday Destinations			
	Street Pattern Design and Connectivity	Pedestrian Infrastructure	Bicycle Infrastructure	Public Transit Infrastructure and Access	Mixed Land Use	Increased Residential Density	Proximity to Community Destinations	Parks and Recreation Facilities
The city of El Paso, TX created a walking route between the Union Plaza District and the Downtown Arts District. These destinations of cultural and economic activity were previously divided by a locked parking lot that prohibited public and pedestrian access.	✓	✓					✓	
A neighborhood in St. Louis, MO reduced average vehicle speed by using traffic calming techniques in a busy area served by four bus stops. This improved access to buses during the day, which connected residents to community destinations.		✓		✓			✓	
In Wellesley, TX, students, school officials, and the city public works department partnered to paint a new crosswalk to connect the school to the community and the surrounding neighborhood.		✓					✓	
In Los Angeles, CA, the Watts neighborhood designed a visitor's center at the train station in a historic building along with a network of walking paths with public art to promote pedestrian traffic between the metropolitan public transit stop and cultural sites.		✓					✓	
With the mayor, more than 100 community volunteers in Cuba, NM constructed or improved 9.5 miles of trails with landscaping including shade trees, benches, parking areas, and signage. Each trail attracts different users—two trails connect the village to the Santa Fe National Forest.		✓					✓	✓
The city of Herndon, VA obtained grant funding to revitalize an old road connecting the middle and high schools that had been blocked off for years. This new pathway opened a safe route to school and allows more residents to use a newly surfaced track.	✓	✓					✓	✓
In Atlanta, GA, the BeltLine is converting abandoned railway into a combination of trails, parks, light rail transit, high-density residential buildings, and commercial development. Expected to eventually cover 22 miles of pathway, the BeltLine will connect 45 neighborhoods and Atlanta's council districts.	✓	✓	✓	✓	✓	✓	✓	✓
To improve public access to the waterfront in Houghton, MI, the remote city in the Upper Peninsula gradually acquired a stretch of shoreline property and replaced industrial ruins with parks, marinas, and paved bicycle/pedestrian trails which now connect the city center to parks and residential districts.	✓	✓	✓				✓	✓

Level of cost, complexity, or scale

The Community Preventive Services Task Force's Built Environment Recommendation to Increase Physical Activity

## IMPLEMENTATION RESOURCE GUIDE

**What is the recommendation from the Community Preventive Services Task Force?**  
The Community Preventive Services Task Force (CPSTF) recommends built environment approaches that combine one or more interventions to improve pedestrian or bicycle transportation systems (activity-friendly routes) with one or more land use and community design interventions (everyday destinations). Combined approaches that connect activity-friendly routes to everyday destinations make it safer and more convenient for people of all abilities to walk, run, bike, skate, or use wheelchairs.

**An activity-friendly route** is one that is a direct and convenient connection with everyday destinations, offering physical protection from cars, or making it easy to cross the street. These routes can include crosswalks, protected bicycle lanes, multi-use trails, and pedestrian bridges. **Everyday destinations** are places people can get to from where they live by walking, bicycling, or public transit. These destinations can include grocery stores, schools, worksites, libraries, parks, restaurants, cultural and natural landmarks, or healthcare facilities.

To increase opportunities for physical activity through the built environment, public health professionals can work in partnership with multiple sectors, particularly transportation, land use, and community planning, but also education, parks and recreation, economic development, and community organizing.

**What is this list of resources?**  
The Resource Guide includes potential steps to consider for planning and implementation. It includes implementation resources, Frequently Asked Questions (FAQs), and a "Multipurpose Resources" section for crosscutting material. For each content section, a small number of relevant resources were selected, prioritizing current, practical "how to" documents from federal agencies, national organizations, or CDC-funded partners whenever possible that are free and openly accessible to the public.

**Who can use it?**  
State and local health departments, public health professionals, and community organizations working on ways to increase physical activity can use the resources in each section to guide their implementation process as they aim to build more activity-friendly communities.

**How to find what you need:**  
Begin by using the resources for forming a cross-sector coalition, or skip ahead to the section that best describes your current stage of work. You will only need to reference the resources below that are relevant to the specific changes your community has selected.

- Form or consult with a cross-sector coalition
- Conduct or reference a baseline assessment
- Select an appropriate combination of the two components for your context:
  - Activity-Friendly Routes (i.e., Pedestrian, Bicycle, and Transit Transportation Systems) and/or
  - Everyday Destinations (i.e., Land Use and Environmental Design)
- Develop an action plan
- Whenever possible, evaluate impact
- Integrate improvements into a lasting community-wide effort

Centers for Disease Control and Prevention

For inquiries or assistance, please contact [DNPAOPolicy@cdc.gov](mailto:DNPAOPolicy@cdc.gov)

# Thank You!

For more information, visit:

[www.surgeongeneral.gov/library/calls/index.html](http://www.surgeongeneral.gov/library/calls/index.html)

[www.cdc.gov/physicalactivity/community-strategies](http://www.cdc.gov/physicalactivity/community-strategies)

[fitwel.org](http://fitwel.org)



A'18

# Design for Health

# Design for Social Equity Social Impact Social Justice

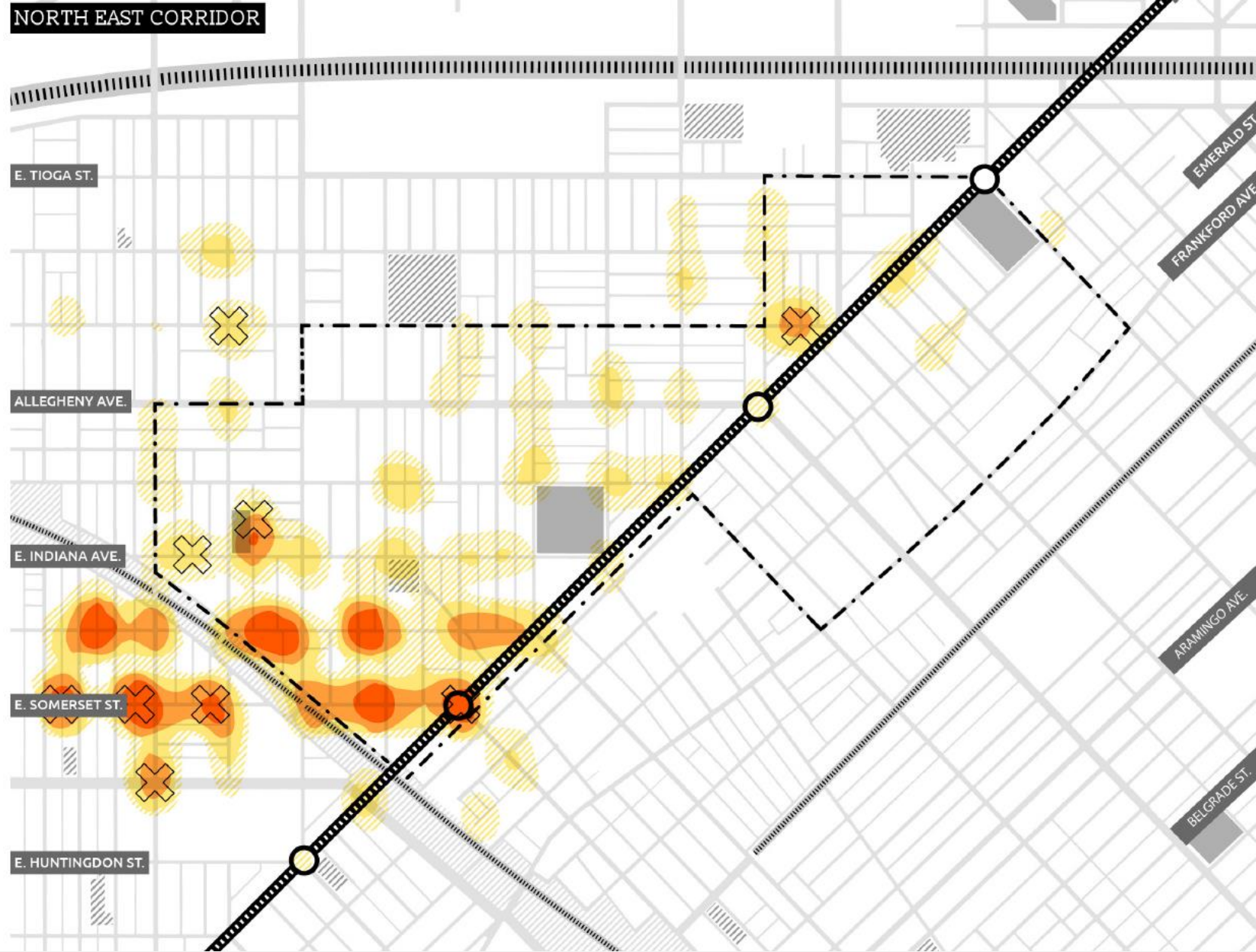


















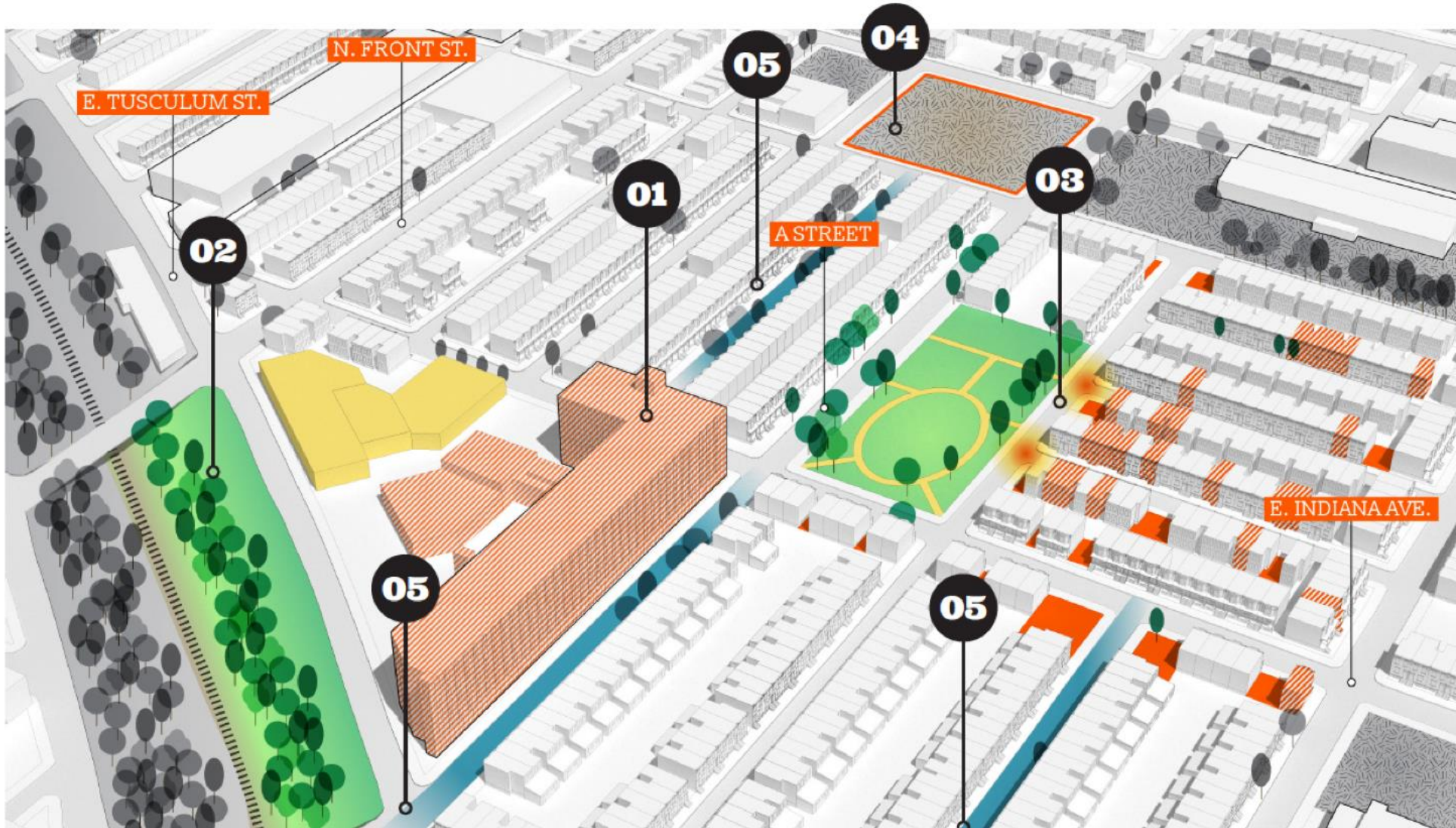
Priority  
Vacant Building

Priority  
Vacant Lot

Key Publicly  
Owned Lot

Micro-communities  
Block

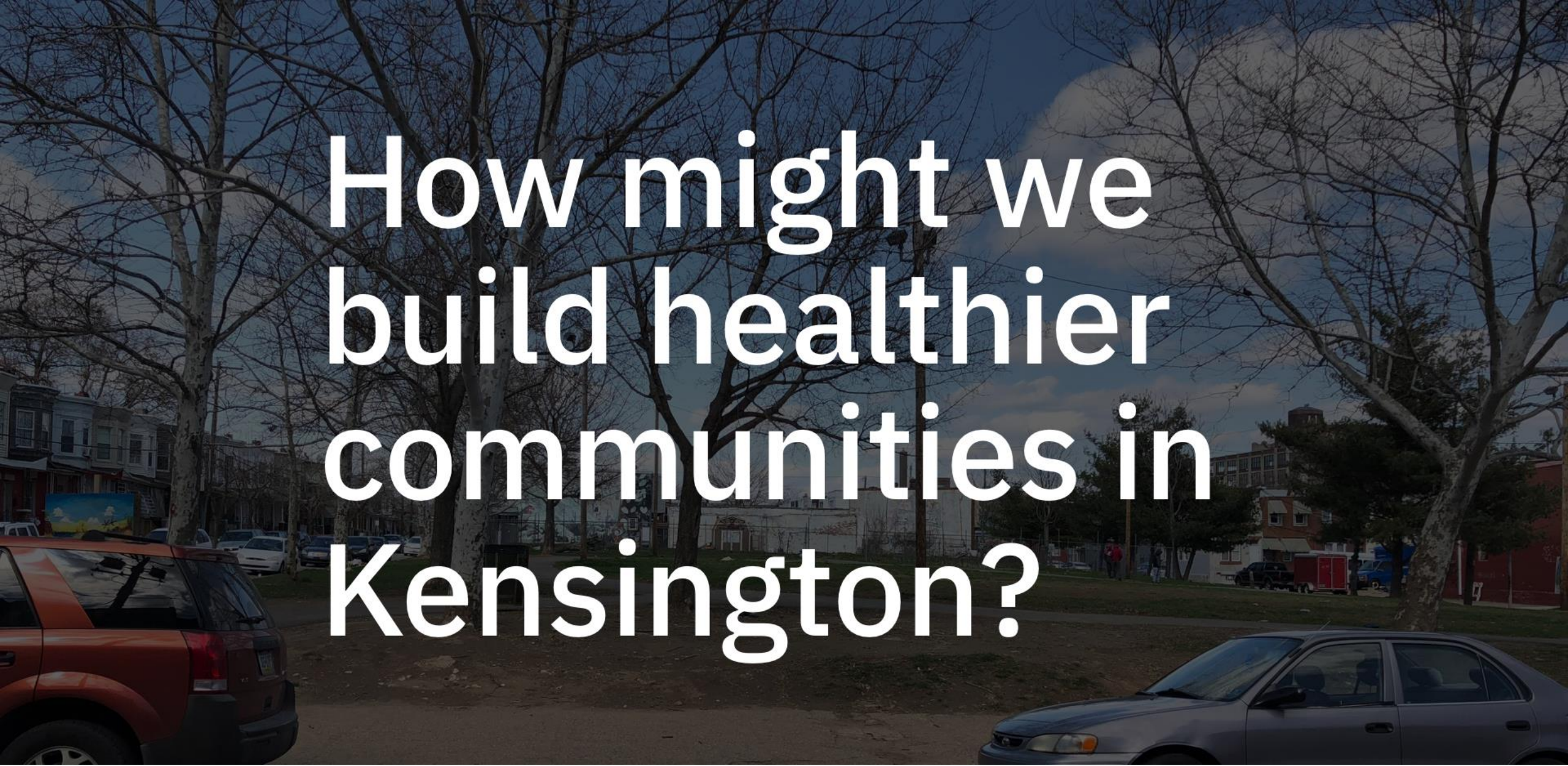
Key Crime  
Hotspot











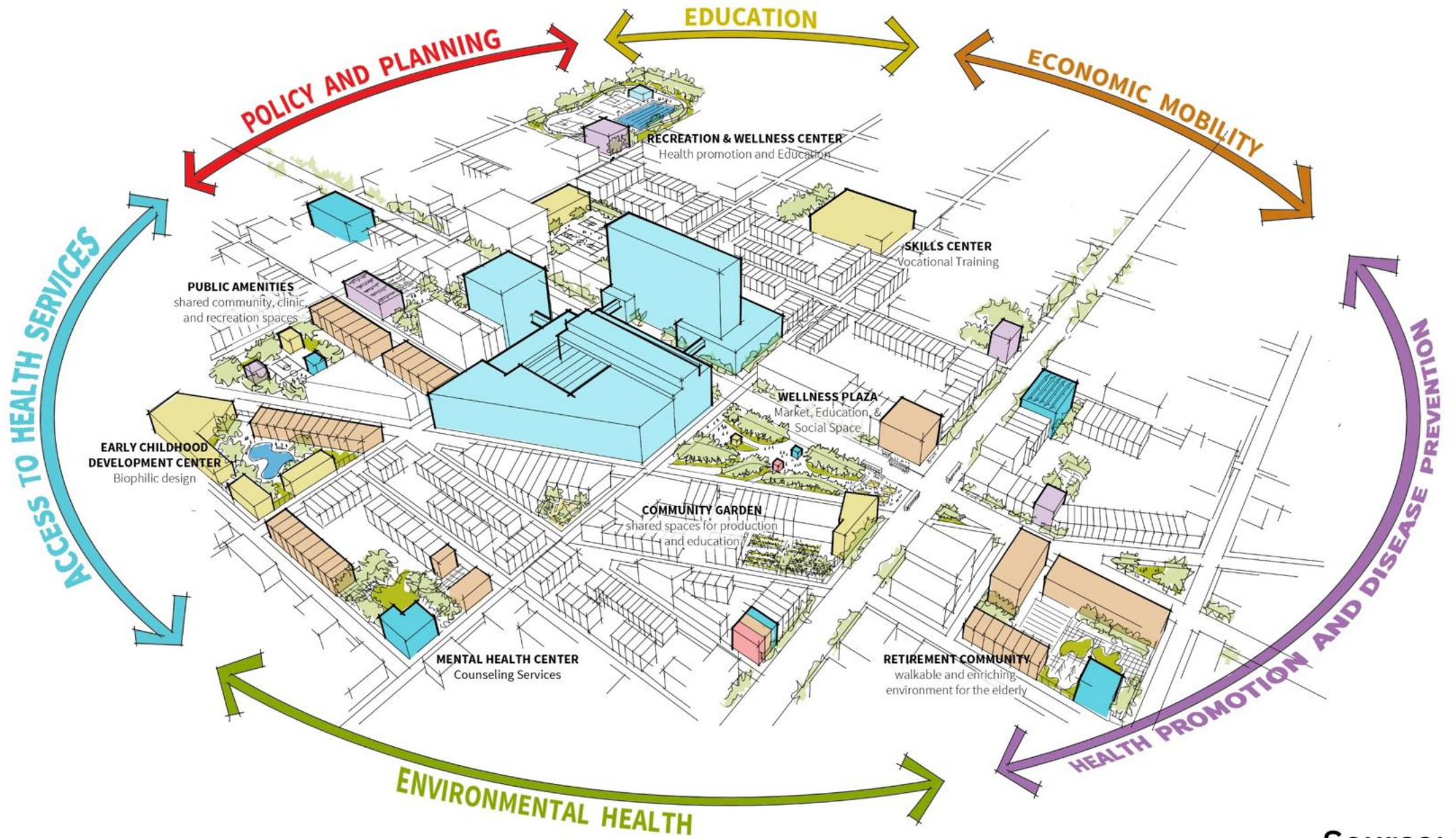
# How might we build healthier communities in Kensington?











Source: Dignity



# Strategies to Incorporate Health in Housing

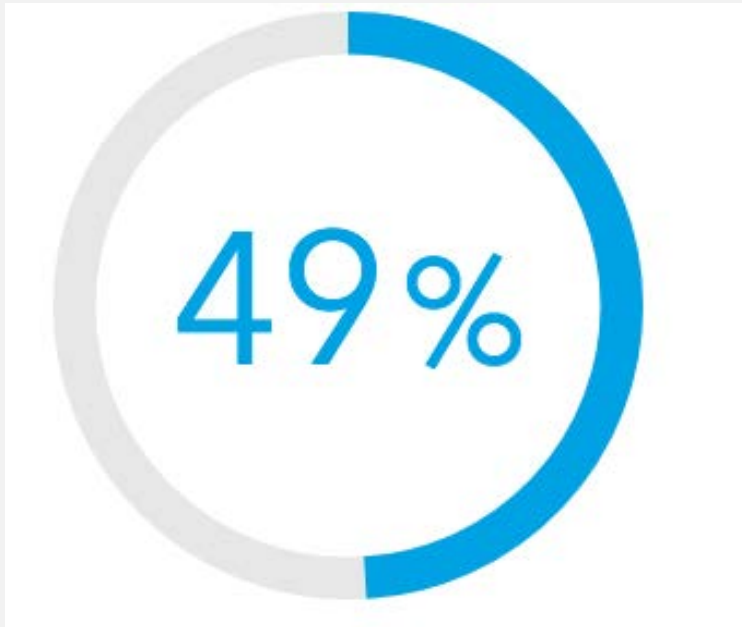
Liz York, FAIA

## Market Opportunity

71% of homeowners cited proximity to walking paths, sidewalks, and trails to be very or somewhat important in their decisions of where to live.

22% of architects and 16% of homebuilders factor these amenities into their decisions.





**49% of building owners are willing to pay more for buildings demonstrated to have a positive impact on health.**

McGraw Hill Construction. The Drive Toward Healthier Buildings The Market Drivers and Impact of Building Design and Construction on Occupant Health, Well-Being and Productivity. Smart Market Report 2014. <http://naturalleader.com/wp-content/uploads/2016/04/DriveTowardHealthierBuildingsSMR2014.pdf>.

# Market Transformation

**“Health is now an investible attribute  
of real estate” GRESB 2017**

Health and Wellness Module  
2016 – 174 participants  
2017 – 252 participants





# One example:

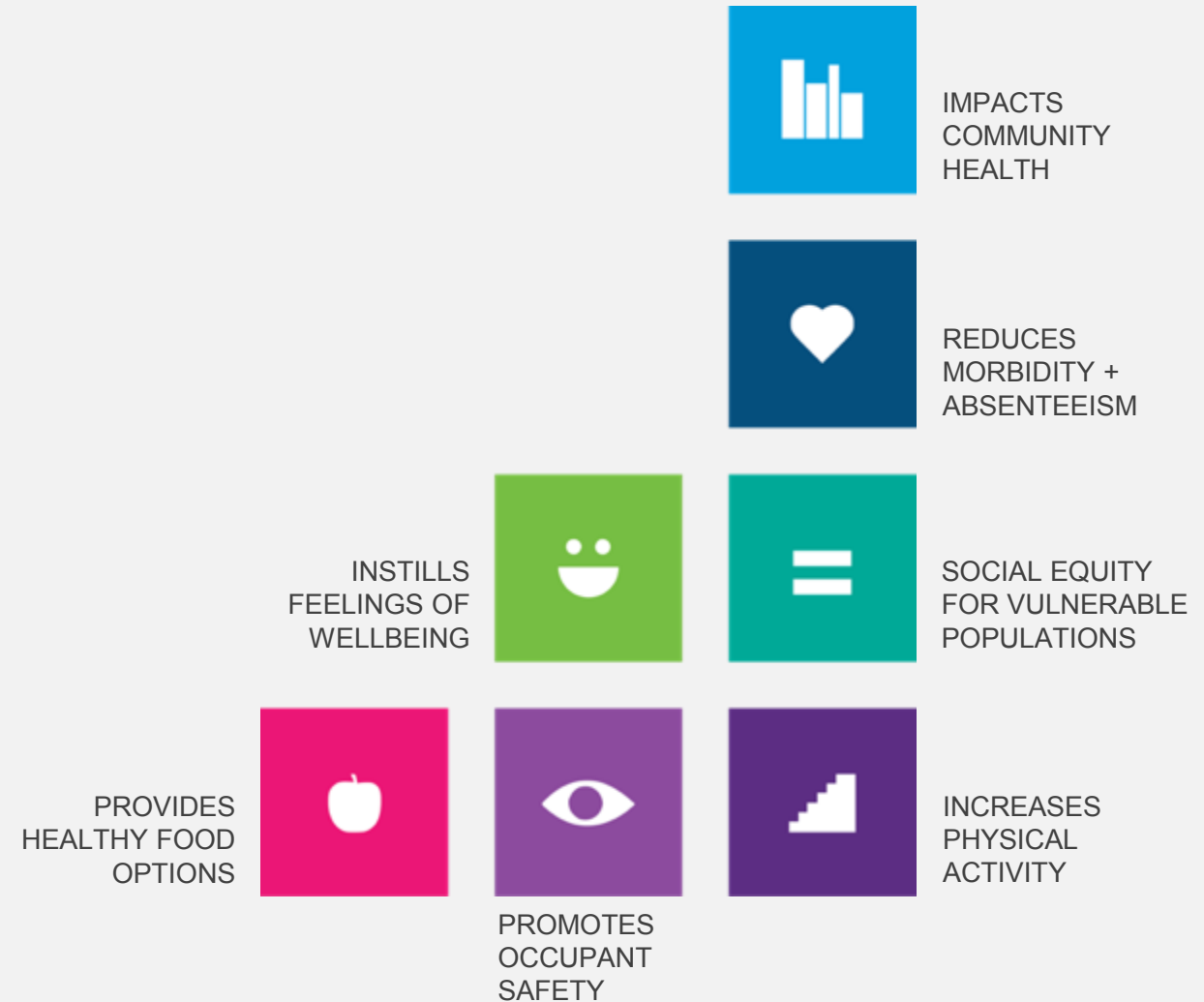


Fitwel has a vision for a healthier future where every building is enhanced to support the wellbeing of its occupants, and support healthy communities.

# Health Impact Categories

- 7 Categories
- **Linked by scientific evidence**
- **Stronger impact = more points**
- **Weighted points per strategy supports prioritization**

This robust framework enables for change, over time, as the scientific evidence evolves.



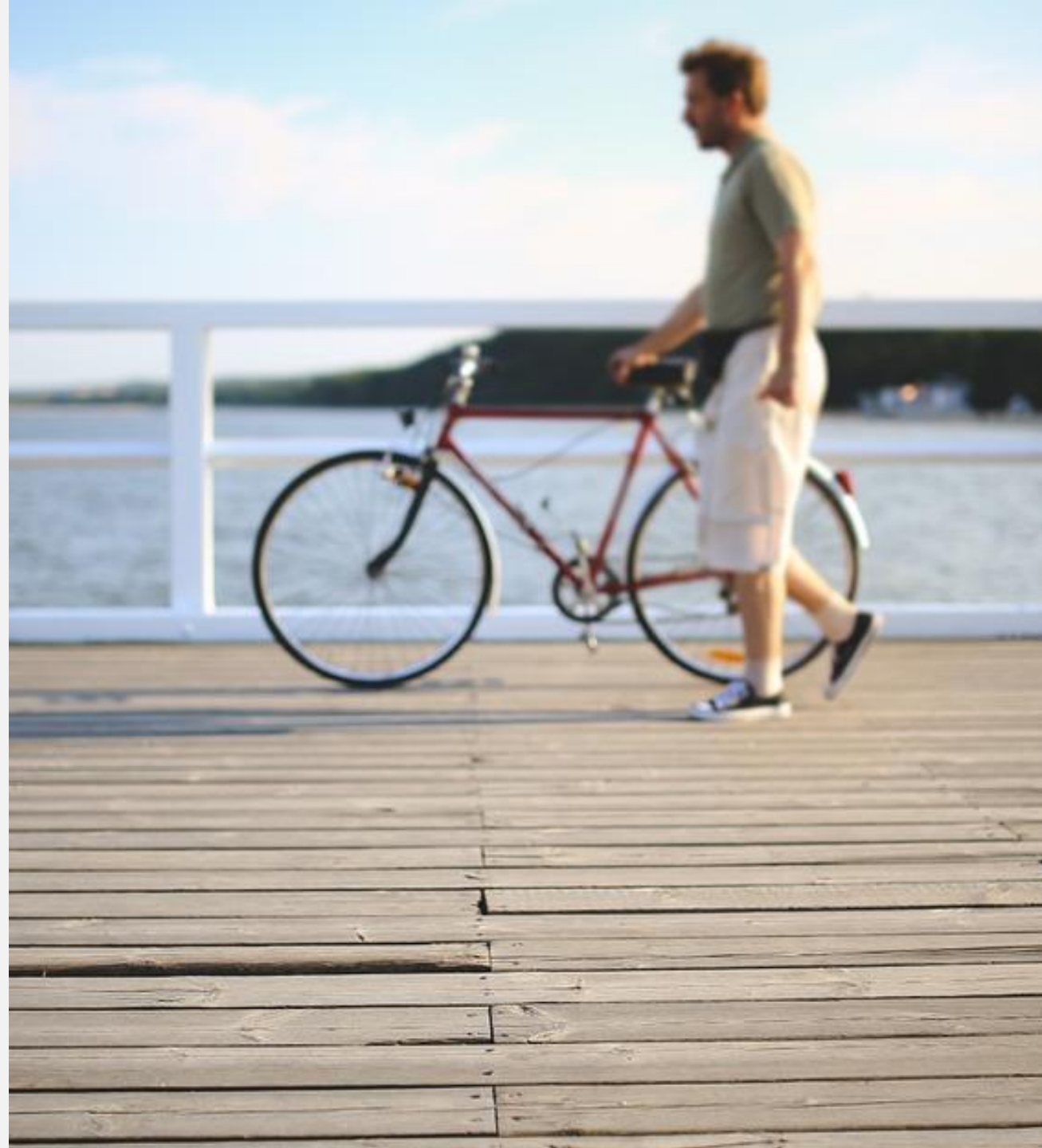
## Some examples of specific criteria:

### Interior

- Design structure to minimize exterior-sourced noises in dwelling
- Provide operable windows in majority of habitable space

### Exterior

- Provide a restorative garden accessible to all residences
- Site less than ½ mile from bike share







Healthy Housing  
Rewards™



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**12%** lower Medicaid costs  
after moving into affordable  
housing designed for health

**18%** decrease in emergency  
department visits





CASE STUDIES

Aria Apartments

Bay Terrace Community &  
Education Center

Hunter's Point Campus

Superior Court of California, San  
Benito County

Morgan Street Station

Brooklyn Bridge Park

New Settlement Community  
Campus

Brooklyn Active Transportation  
Community Planning Initiative

Zona de Juego (Play Zone)

Gammel Hellerup High School  
Gymnasium + Multipurpose Hall

Gensler Newport Beach

Greenbridge Master Plan

Blue Hole Regional Park

Sephardic Community Center

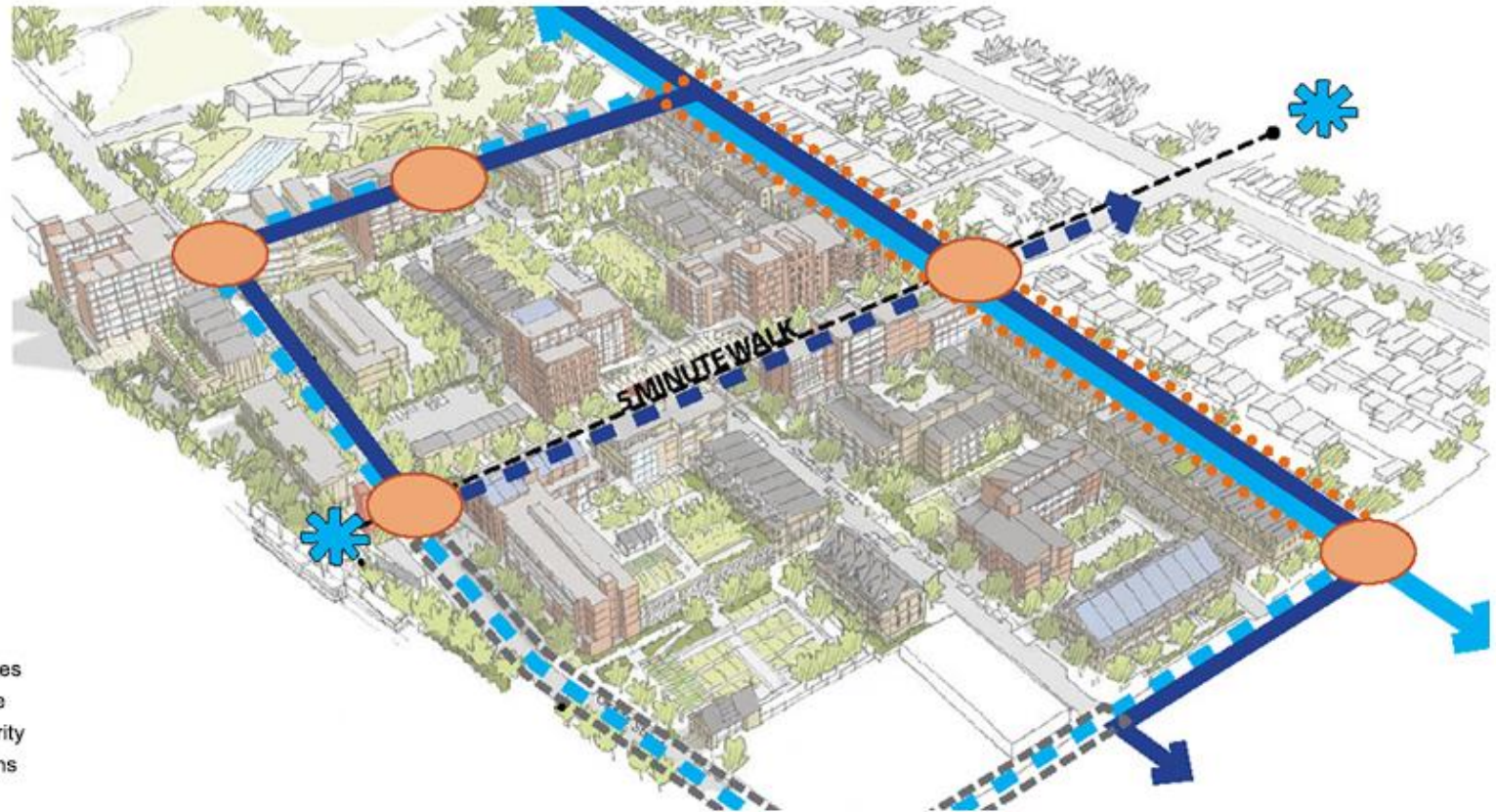
**Mariposa Redevelopment  
Master Plan and Healthy Living  
Initiative**

## Mariposa Redevelopment Master Plan and Healthy Living Initiative

+ SHARE THIS

### Legend

-  Existing Bike Route
-  Existing Bus Route
-  Proposed Bike Routes
-  Proposed Bus Route
-  Traffic Calming Priority
-  Pedestrian Attractions



The Mariposa redevelopment recognizes that sustainable, individual health is linked to a healthy environment. The neighborhood was analyzed for health determinants such as connectivity, illustrated above; Image courtesy of Mithun.





In an annual survey, Mariposa residents reported:

- Weight loss
- Decreased diabetes risk factors
- Increased social engagement
- Greater cultural awareness through food

“Sense of belonging”

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# Activity

- List 3 concepts you have learned today.

# Activity

There are 3 THEMES discussed today

1. Health
2. Equity
3. Productivity

Please write down how you can apply this theme in your own practice.

# Panel Q&A

Ex: What is one health intervention you can employ in one project?



# Thank you!