

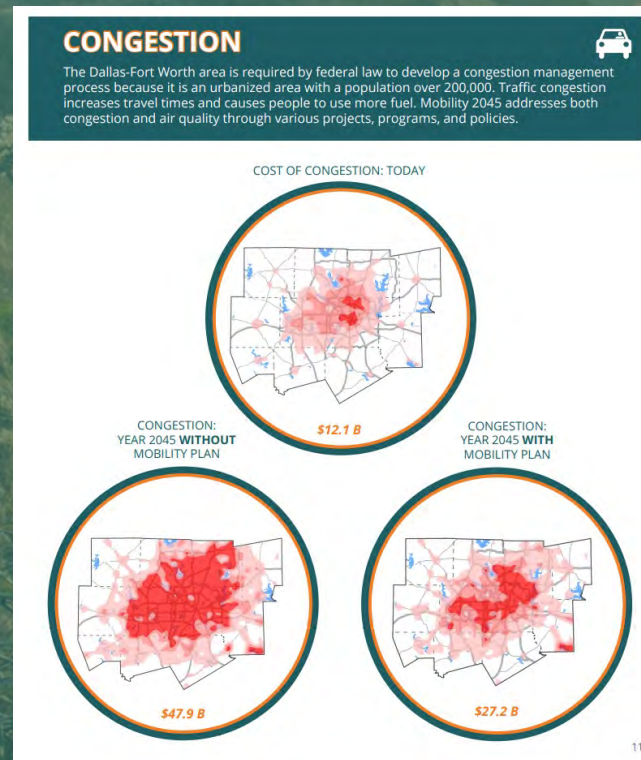


# The Need for Holistic Regional Planning

Presented by: Steven Duong



# Have you read your own community's regional plan?



### 3 GROWTH, DEVELOPMENT & LAND USE

**\$32 billion**

#### Main principles of policies, programs, and projects

ECONOMIC DEVELOPMENT	ENVIRONMENTAL PROTECTION	SOCIAL EQUITY
<p>Transportation policies often drive the maintenance and construction of transportation systems, which impact economic development.</p> <p>Transportation systems can impact:</p> <ul style="list-style-type: none"><li>• economy</li><li>• tourism</li><li>• consumer expenditures</li><li>• employment</li><li>• resource consumption</li><li>• productivity</li><li>• property values</li><li>• affordability</li><li>• wealth accumulation</li></ul>	<p>Mobility 2045 aims to improve transportation systems without causing a heavy burden on the environment.</p> <p>The type and location of infrastructure affect the transportation system process.</p> <p>Transportation systems can impact:</p> <ul style="list-style-type: none"><li>• environmental resources</li><li>• air quality</li><li>• open space</li><li>• watersheds</li></ul>	<p>Social equity is impacted when a variety of transportation systems, such as transit, sidewalks, and bike lanes, allow people to travel without the need for personal vehicles.</p> <p>Social sustainability focuses on creating:</p> <ul style="list-style-type: none"><li>• affordable housing</li><li>• environmental justice</li><li>• fair housing choice</li><li>• infill housing</li><li>• revitalization</li><li>• redevelopment</li><li>• compliance with ADA</li><li>• improved health</li><li>• local food options</li></ul>
<p><b>LAND USE - TRANSPORTATION CONNECTIONS PROGRAM</b></p> <ul style="list-style-type: none"><li>• Smart zoning ordinances and building codes</li><li>• Jobs/housing balance through strategic developments</li><li>• Financial incentives to promote sustainable developments</li></ul>	<p><b>COMMUNITY SCHOOLS AND TRANSPORTATION PROGRAM</b></p> <ul style="list-style-type: none"><li>• Coordination and communication between school districts, local governments, and transportation agencies</li><li>• Enable more children to walk and bicycle to school through the Safe Routes to School funding program</li><li>• Sustainable school siting and facility planning</li></ul>	<p><b>TRANSIT-ORIENTED DEVELOPMENT (TOD) PROGRAM</b></p> <ul style="list-style-type: none"><li>• Technical assistance to plan and implement TOD</li><li>• Regional coordination and data sharing</li><li>• Location of higher density, mixed income, and affordable housing options, as well as parking management</li></ul>

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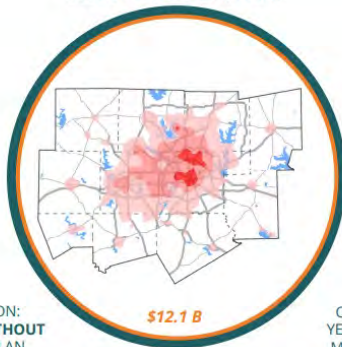
# Have you read your own community's regional plan?

## CONGESTION

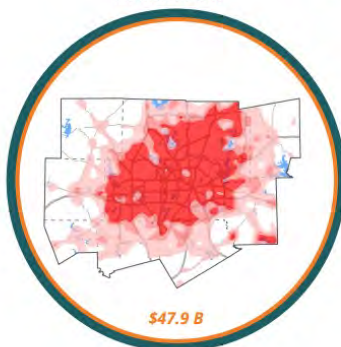


The Dallas-Fort Worth area is required by federal law to develop a congestion management process because it is an urbanized area with a population over 200,000. Traffic congestion increases travel times and causes people to use more fuel. Mobility 2045 addresses both congestion and air quality through various projects, programs, and policies.

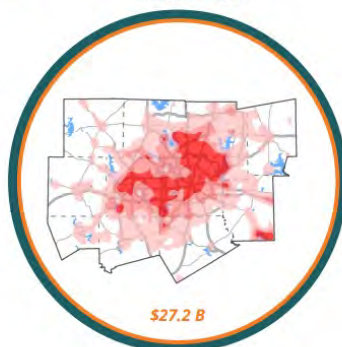
COST OF CONGESTION: TODAY



CONGESTION:  
YEAR 2045 WITHOUT  
MOBILITY PLAN



CONGESTION:  
YEAR 2045 WITH  
MOBILITY PLAN



3

## GROWTH, DEVELOPMENT & LAND USE

\$3.2 billion

### Main principles of policies, programs, and projects

#### ECONOMIC DEVELOPMENT

Transportation policies often drive the maintenance and construction of transportation systems, which impact economic development.

Transportation systems can impact:

- economy
- tourism
- consumer expenditures
- employment

- resource consumption
- productivity
- property values
- affordability
- wealth accumulation

#### ENVIRONMENTAL PROTECTION

Mobility 2045 aims to improve transportation systems without causing a heavy burden on the environment.

The type and location of infrastructure affect the transportation system process.

Transportation systems can impact:

- environmental resources
- air quality
- open space
- watersheds

#### SOCIAL EQUITY

Social equity is impacted when a variety of transportation systems, such as transit, sidewalks, and bike lanes, allow people to travel without the need for personal vehicles.

Social sustainability focuses on creating:

- affordable housing
- environmental justice
- fair housing choice
- infill housing
- revitalization
- redevelopment
- compliance with ADA
- improved health
- local food options

#### LAND USE - TRANSPORTATION CONNECTIONS PROGRAM

- Smart zoning ordinances and building codes
- Jobs/housing balance through strategic developments
- Financial incentives to promote sustainable developments

#### COMMUNITY SCHOOLS AND TRANSPORTATION PROGRAM

- Coordination and communication between school districts, local governments, and transportation agencies
- Enable more children to walk and bicycle to school through the Safe Routes to School funding program
- Sustainable school siting and facility planning

#### TRANSIT-ORIENTED DEVELOPMENT (TOD) PROGRAM

Technical assistance to plan and implement TOD  
Regional coordination and data sharing  
Location of higher density, mixed income, and affordable housing options, as well as parking management



# Case Study: Transit Oriented Development





# Why Transit Oriented *Communities* instead of *Development*?

- Holistic Urban Systems Scale vs Site Scale
- Social Outcomes Priority vs Development Density
- Applying Equity Lens to Generating Density

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Is Transit Oriented Development a **POLICY STRATEGY** or is it a **DEVELOPMENT OPPORTUNITY?**



# Typology Approach to Implementation

**Systems  
Approach to  
Broader  
Outcomes of  
Investment**





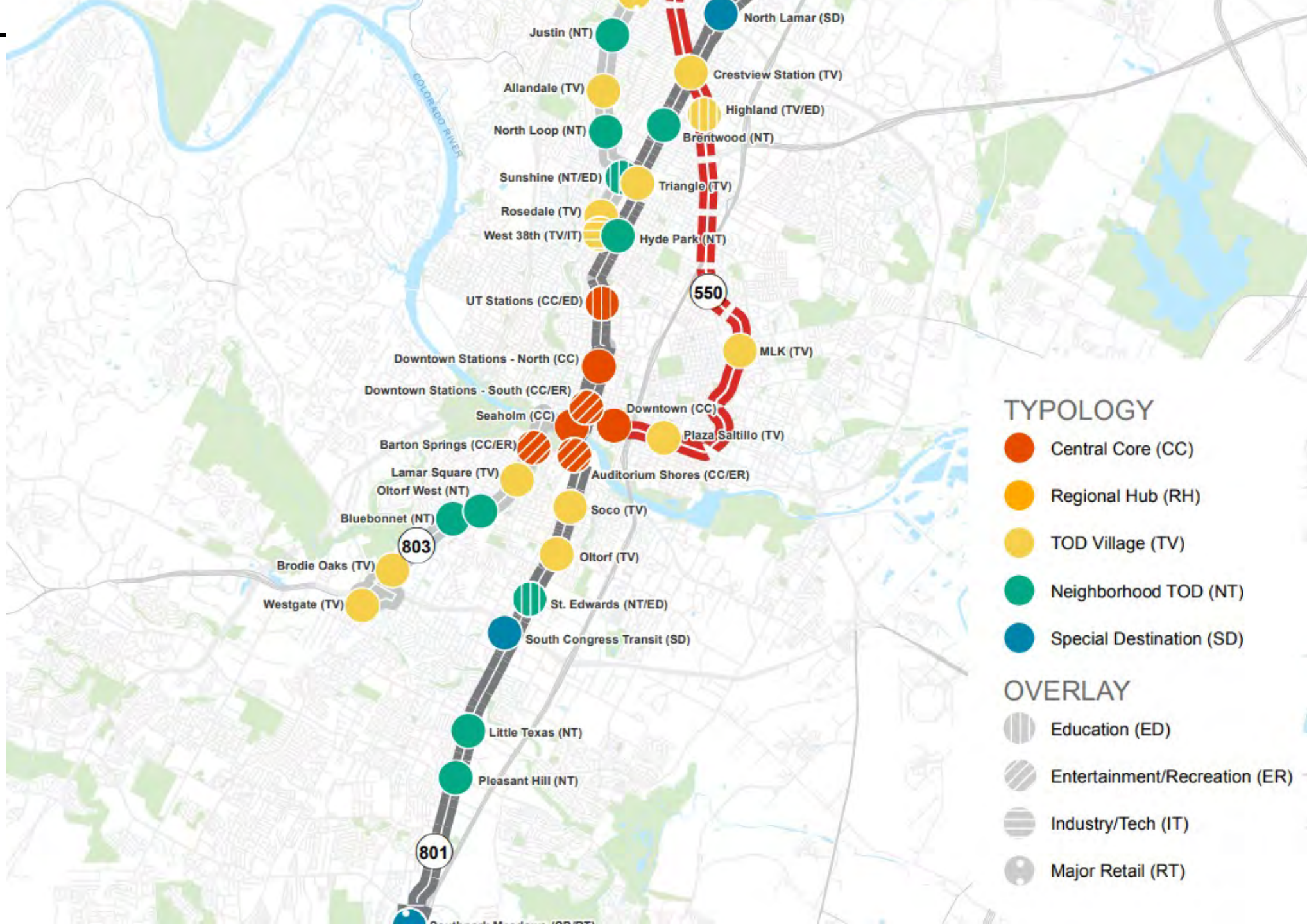
2005



2017





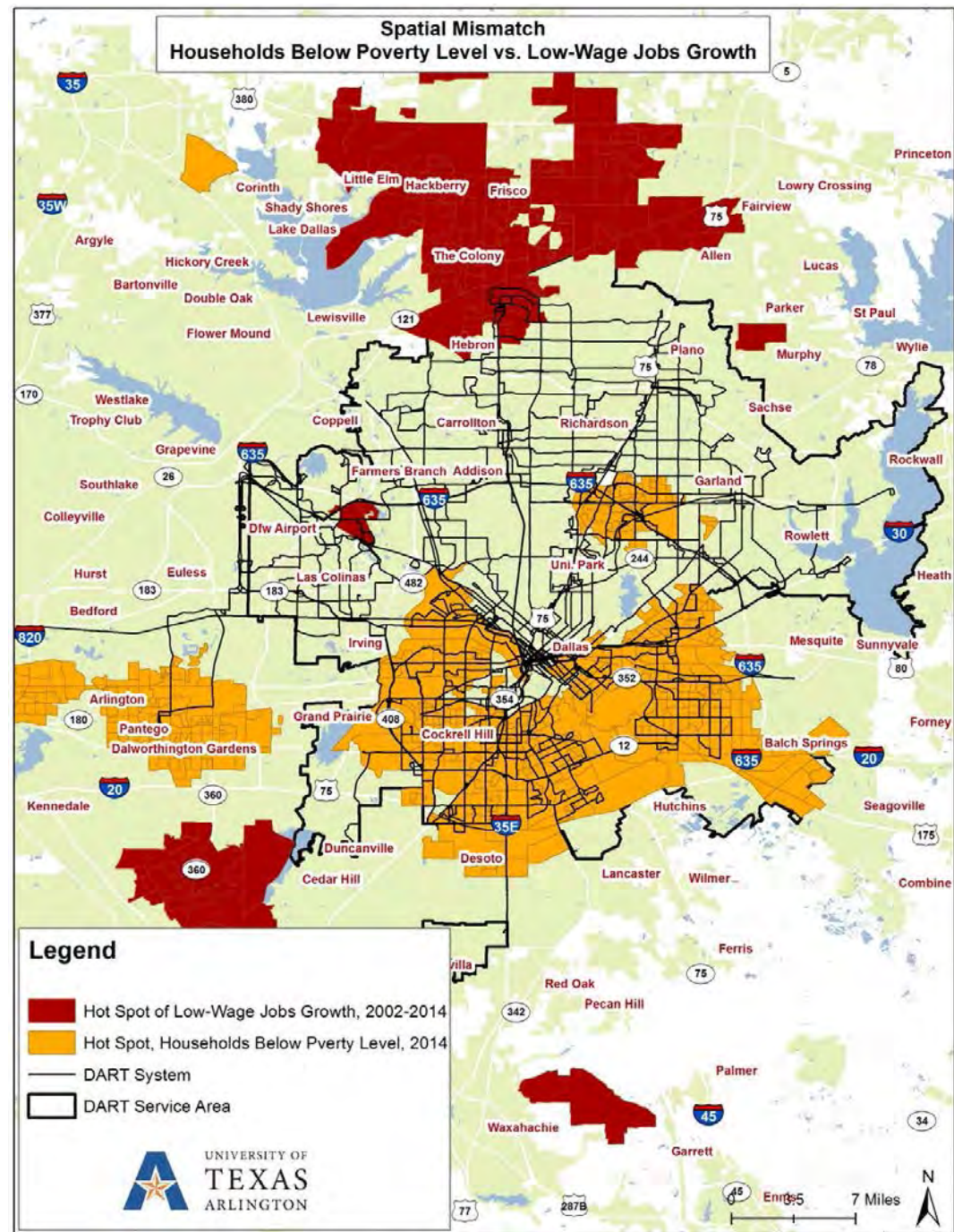




# What happens if you do not plan regionally?

	access to less than 1% of jobs	access to 1-4% of jobs	access to 4-10% of jobs	access to more than 10% of jobs
DART Service Area	37.06%	33.41%	20.31%	9.22%
City of Dallas	30.41%	24.61%	29.64%	15.34%
Transit Dependent Core	41.57%	23.83%	26.95%	7.66%

More than **65% of residents** living in the transit dependent core have access to less than **4% of regional jobs** by a 45-minute transit (and walking) commute time





# Human and Livability Centered Outcomes for Value Capture

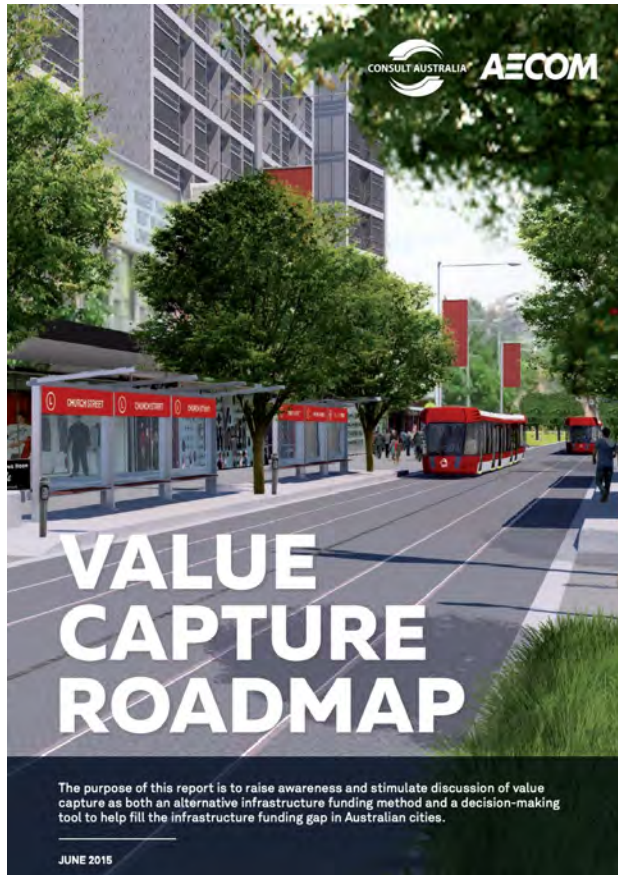
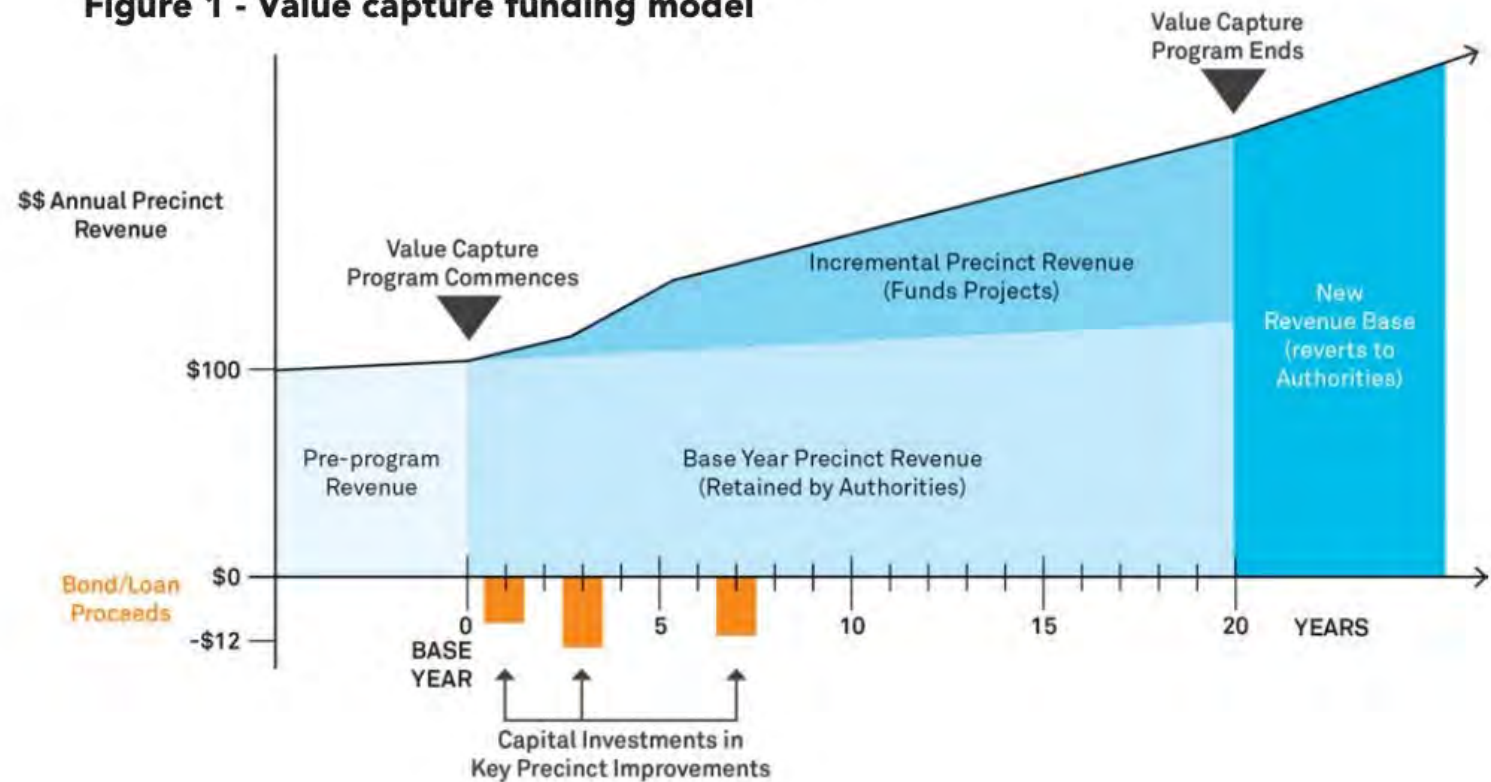


Figure 1 - Value capture funding model





## 3b. Visualizations

Option 1a from East

Simpson Avenue  
& Highland Drive



Figure 26. Option 1a Rendering



## 3b. Visualizations

Simpson Avenue  
& Highland Drive

Option 1a from East

# STILL DRIVING

Shared Amenity  
Spaces for Residents

S-Line

Shared-Use Path

Bicycle Lane

Figure 26. Option 1a Rendering



# Fiscal Impacts

**DART Headquarters**  
Buildable Area: 647,000ft<sup>2</sup>  
**+\$33MM**

**DART East Transfer Center**  
Buildable Area: 502,000 ft<sup>2</sup>  
**+\$42MM**

**New DART Headquarters**  
Buildable Area: 663,000 ft<sup>2</sup>  
**+\$40MM**

**\$42  
million**

**\$33  
million**

**DART**  
Current DART  
Headquarters  
73,000 ft<sup>2</sup>

**DART**  
DART East  
Transfer Center  
170,000 ft<sup>2</sup>

D2 Transit District  
600,000ft<sup>2</sup>

**DART**  
New DART  
Headquarters  
130,000 ft<sup>2</sup>

\*estimates based on comparable  
price/sqft projections



# Fiscal Impacts

**DART Headquarters**  
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Buildable Area: 663,000 ft<sup>2</sup>  
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**\$42**  
**million**

**PRIVATE**  
**BENEFIT**

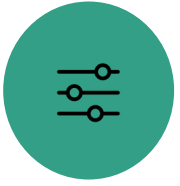
D2 Transit District  
600,000ft<sup>2</sup>

**DART**  
New DART  
Headquarters  
130,000 ft<sup>2</sup>

**DART**  
Current DART  
Headquarters  
73,000 ft<sup>2</sup>

\*estimates based on comparable  
price/sqft projections

# Improving ROI with a Broader Lens



## Five key models of social impact measurement

CBA

Cost-Benefit Analysis

SROI

Social Return on Investment

CUA

Cost-utility Analysis

CEA

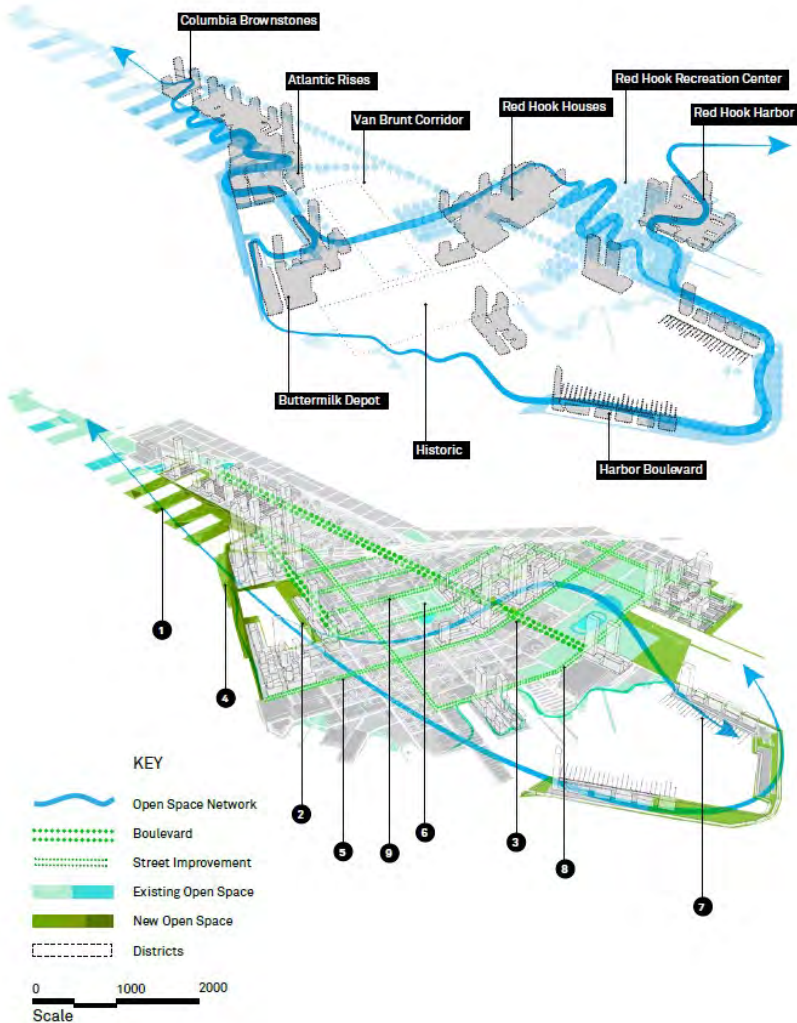
Cost-effectiveness Analysis

MCA

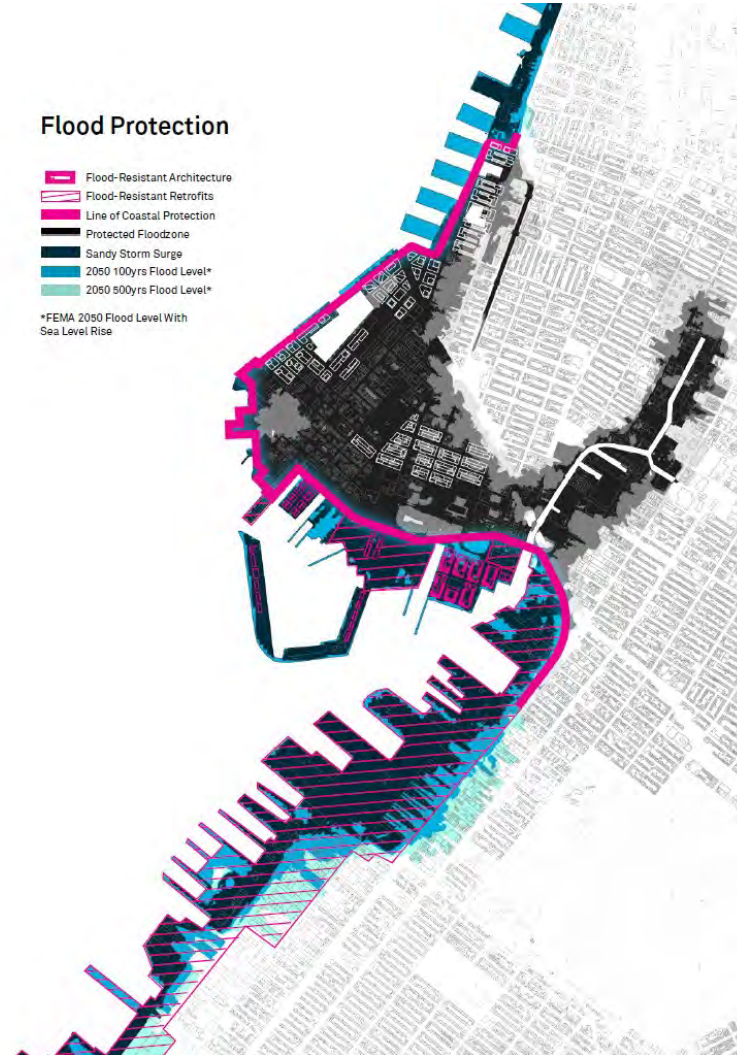
Multi-criteria Analysis



# Improving ROI with a Broader Lens

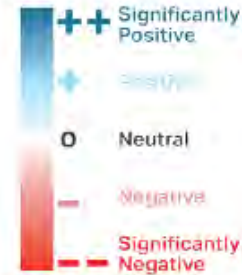
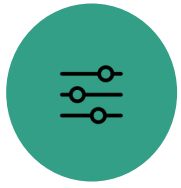


## Flood Protection





# TBL Approach to Holistic Evaluation



Social
S1 Community Resiliency
S2 Employment
S3 Parks Per Capita
S4 Pedestrian & Bicycle Environment
S5 Accessible Waterfront
S6 Access to Jobs by Transit
S7 Housing Growth
S8 Affordable Housing Growth

Environmental
E1 GHG Emissions Per Capita
E2 Water Quality
E3 Connected Habitat
E4 Green Coastal Protection
E5 Tree Coverage

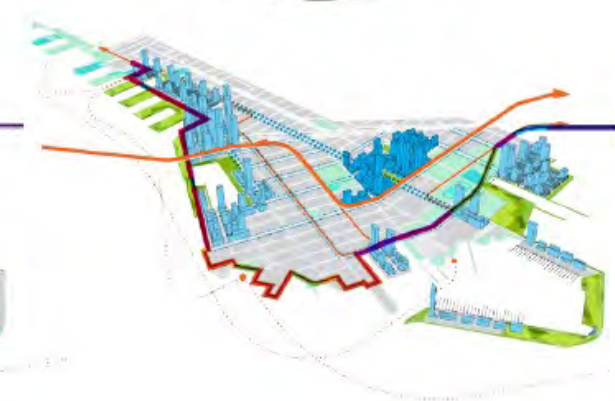
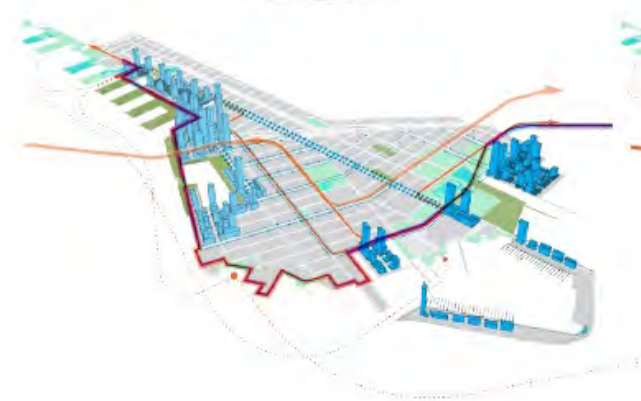
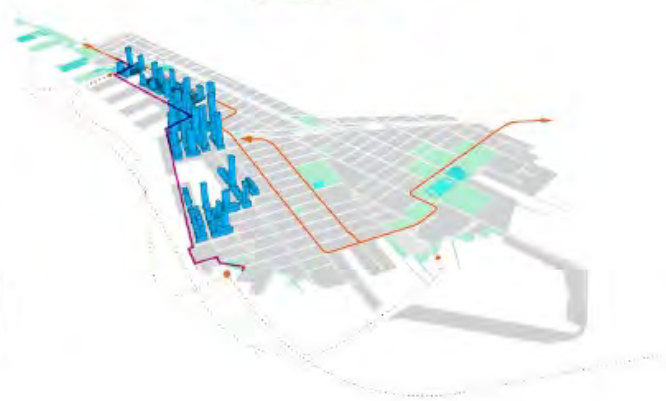
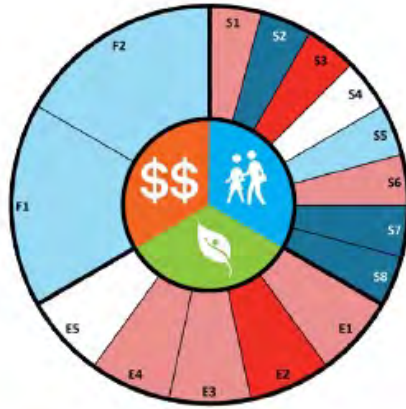
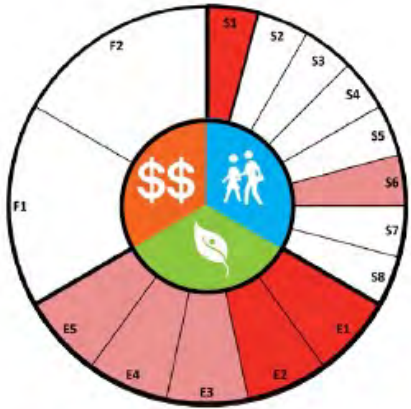
Financial
F1 Cost to Revenue Gap
F2 New Tax Revenue

Existing Condition

25M SQFT

35M SQFT

45M SQFT

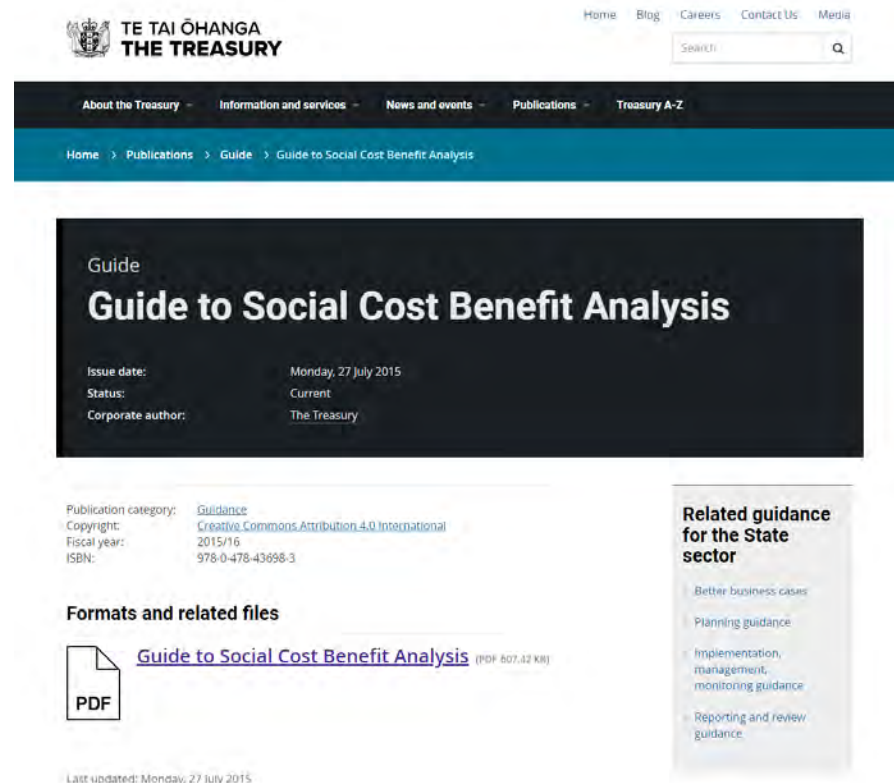
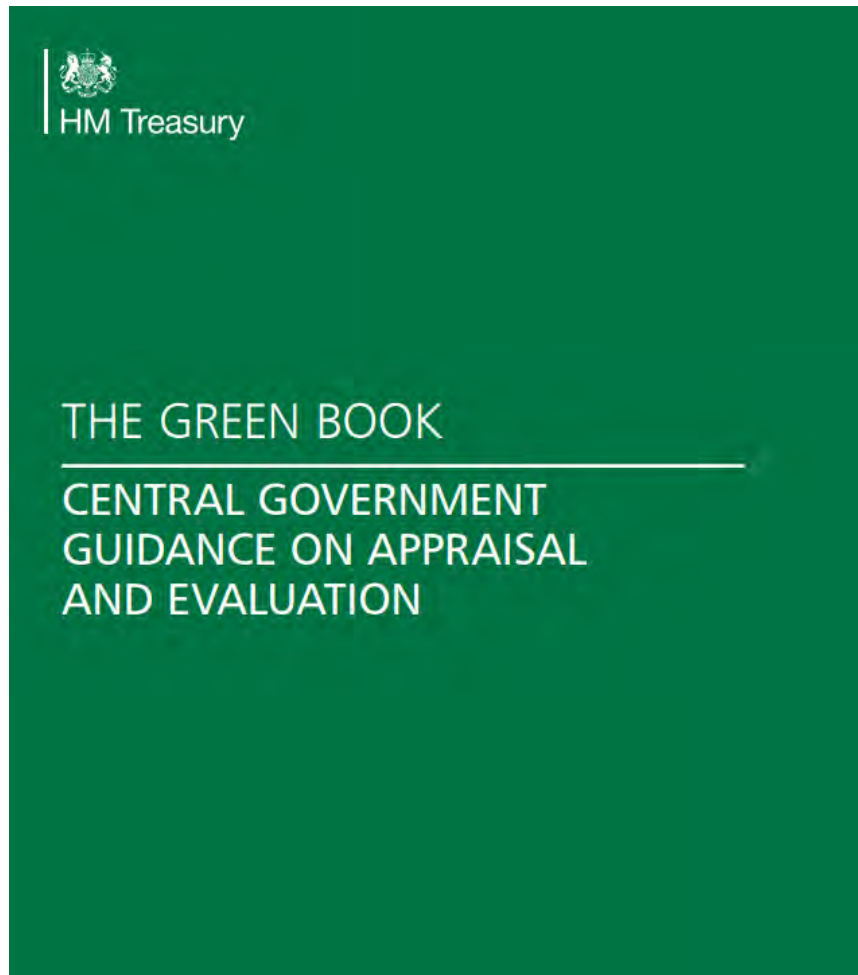




# Equity Weights in CBA Analysis

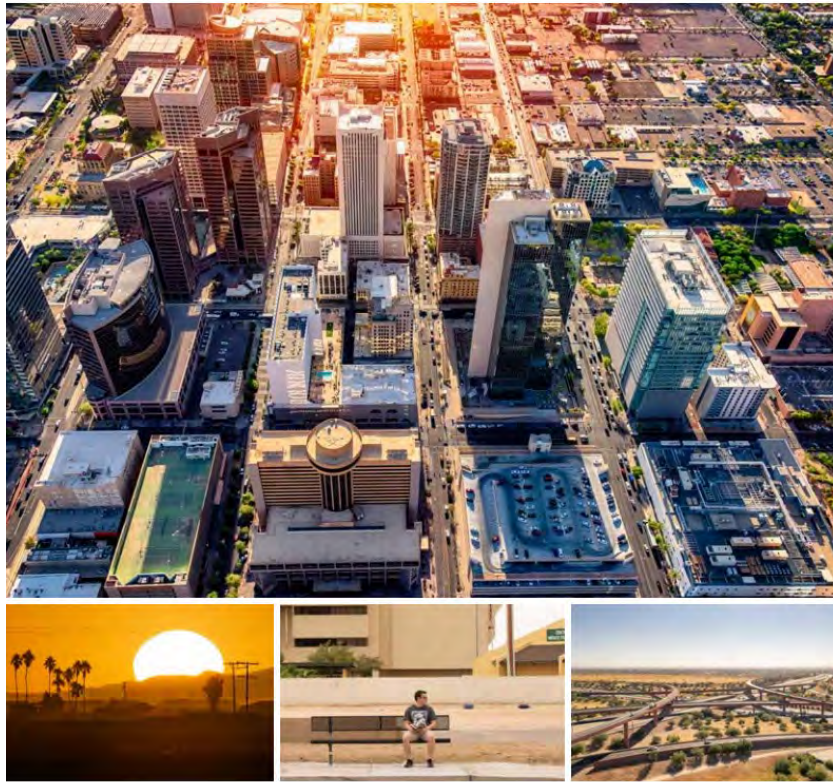


BCA has been characterized as insensitive to distributional considerations, or even hostile to equity.

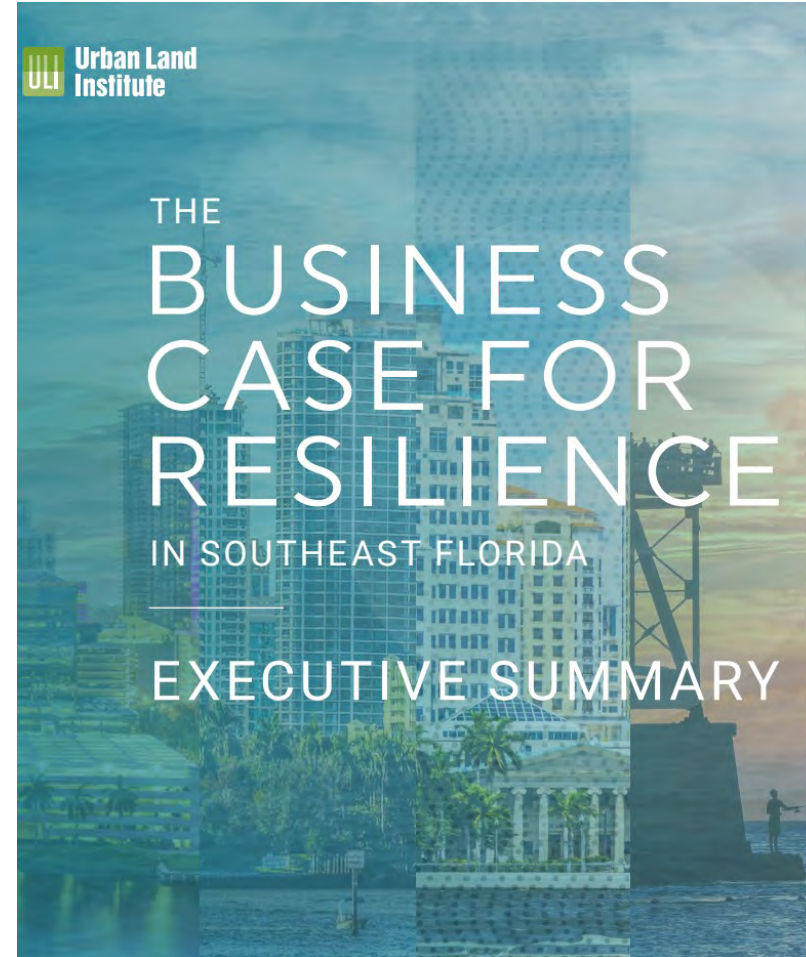




# Equity Weights in CBA Analysis



Economic Assessment of Heat  
in the Phoenix Metro Area







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