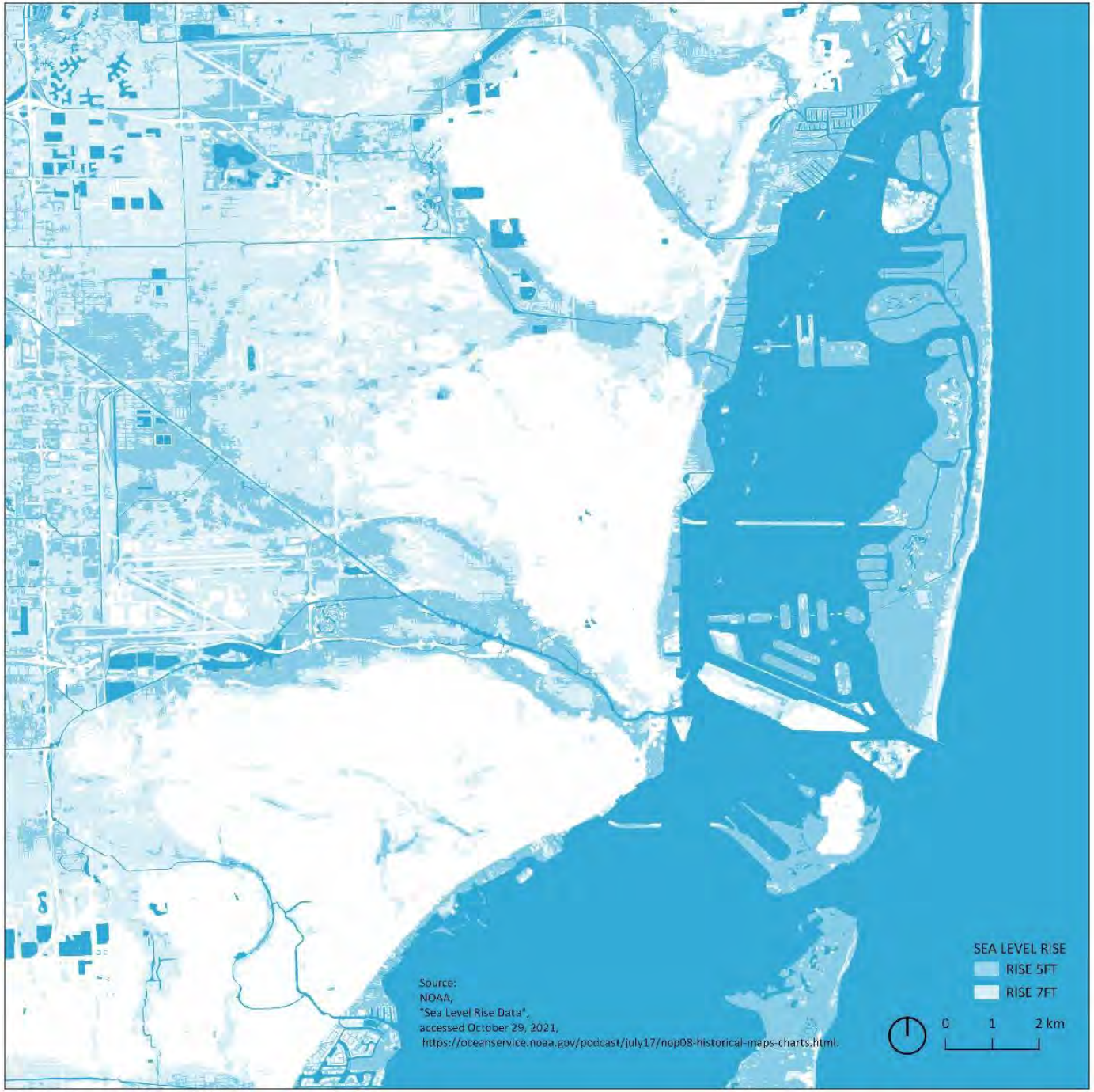


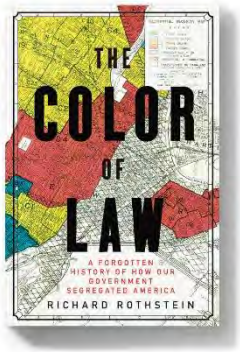
Redlining to Bluezoning

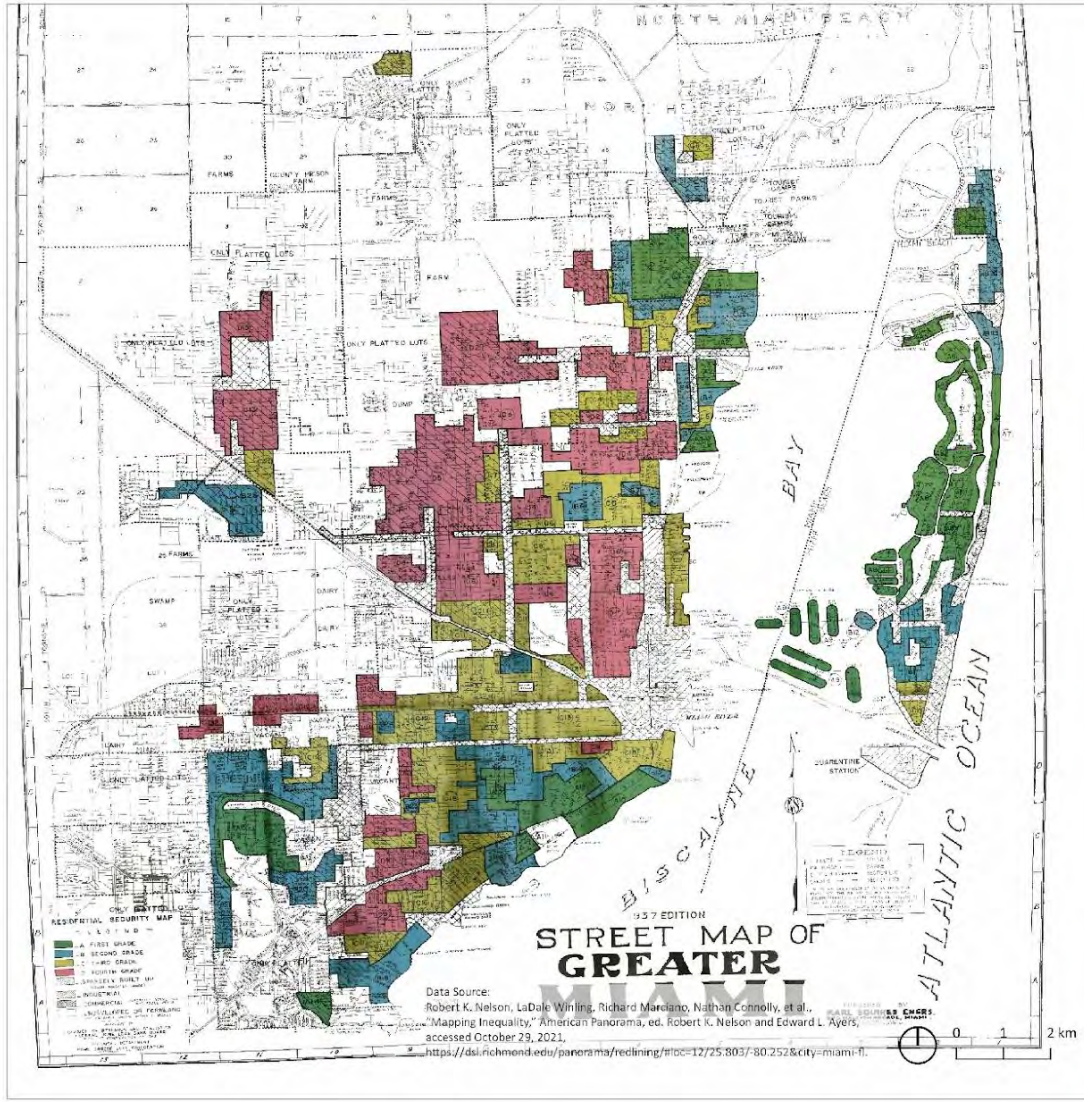
AIA Florida
Equitable and Affordable Housing
2023

Susannah C. Drake FASLA FAIA
Principal SASAKI
Professor Cooper Union

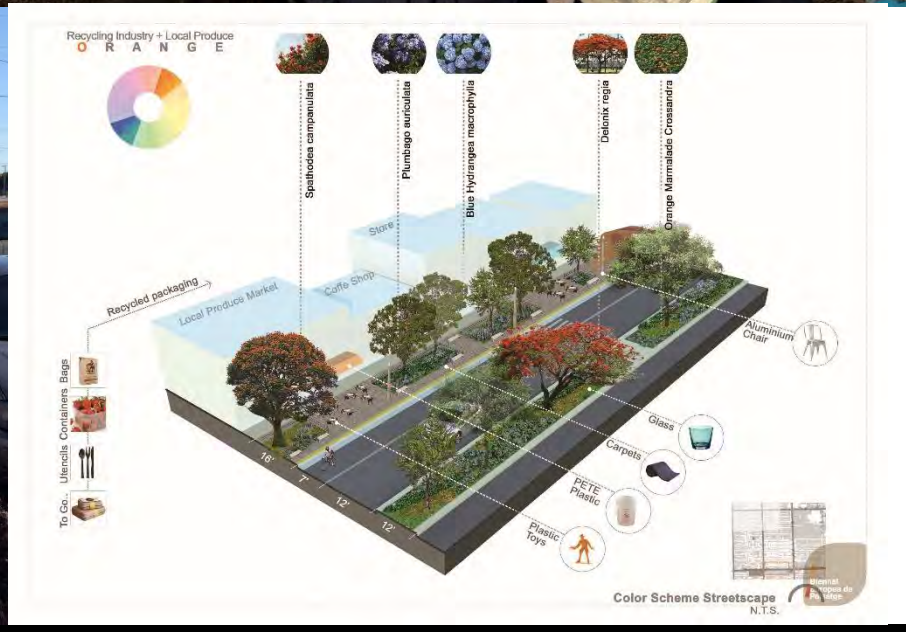
Liberty City Exhibition European Cultural Centre at FIU

+

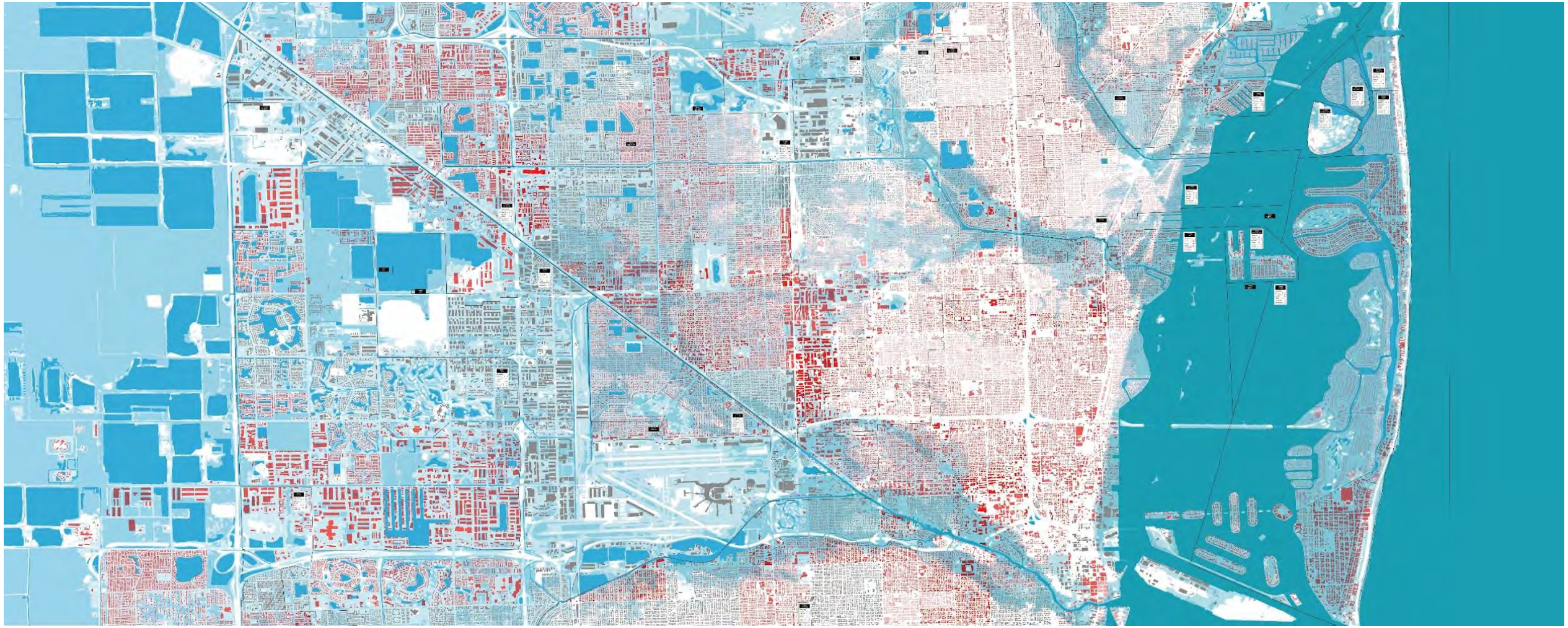




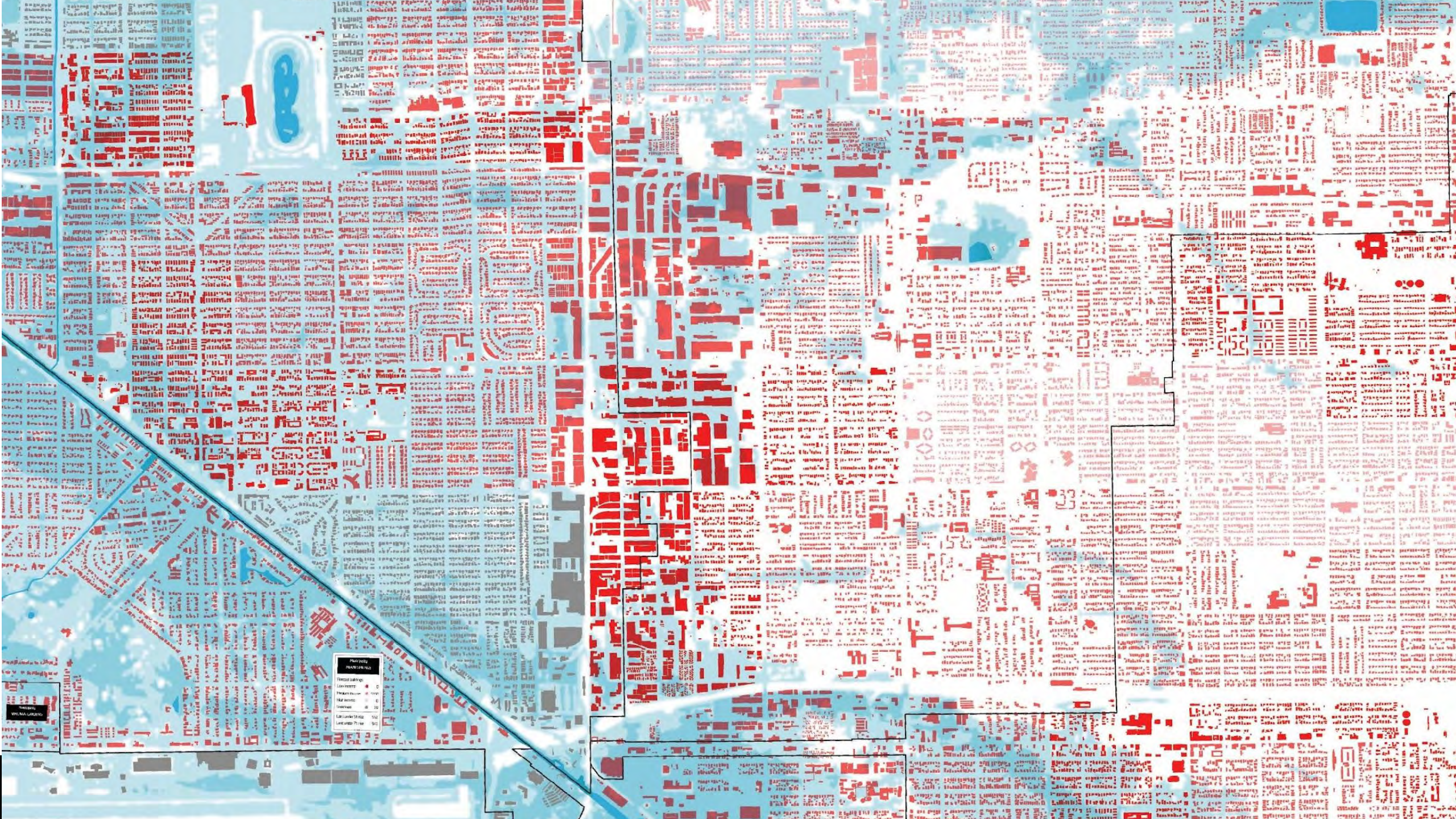
Equity and Environmental Risk, Liberty City, Miami 2100



FIU Studio - Cejas Scholar with Roberto Rovira 2013



From Redlining to Blue Zoning



Liberty City and the wall

Municipality
MEDLEY

Flooded buildings
Low income 0
Medium income 712
High income 0
Undefined 1317

Land under 5ft rise 33%
Land under 7ft rise 70%

Municipality
HIALEAH GARDENS

Affected buildings
Low income 128
Medium income 4564
High income 0
Undefined 1367

Land under 5ft rise 31%
Land under 7ft rise 80%

Municipality
MIAMI SHORES

Flooded buildings
Low income 0
Medium income 1185
High income 2451
Undefined 0

Land under 5ft rise 7%
Land under 7ft rise 14%

Municipality
SURFSIDE

Flooded buildings
Low income 0
Medium income 0
High income 1498
Undefined 0

Land under 5ft rise 64%
Land under 7ft rise 70%

Municipality
NORTH MIAMI

Flooded buildings
Low income 0
Medium income 7532
High income 2516
Undefined 1009

Land under 5ft rise 26%
Land under 7ft rise 38%

Municipality
UNINCORPORATED MIAMI-DADE

Flooded buildings
Low income 2014
Medium income 31309
High income 5505
Undefined 16686

Land under 5ft rise 15%
Land under 7ft rise 19%

Municipality
MIAMI BEACH

Flooded buildings
Low income 0
Medium income 6426
High income 6854
Undefined 112

Land under 5ft rise 75%
Land under 7ft rise 89%

Municipality
MIAMI SPRINGS

Flooded buildings
Low income 0
Medium income 5350
High income 0
Undefined 30

Land under 5ft rise 55%
Land under 7ft rise 94%

Municipality
BAL HARBOUR

Flooded buildings
Low income 0
Medium income 0
High income 806
Undefined 0

Land under 5ft rise 55%
Land under 7ft rise 69%

Municipality
MIAMI

Affected buildings
Low income 11267
Medium income 21487
High income 6076
Undefined 14911

Land under 5ft rise 11%
Land under 7ft rise 20%

Municipality
BAY HARBOR ISLANDS

Flooded buildings
Low income 0
Medium income 0
High income 809
Undefined 0

Land under 5ft rise 91%
Land under 7ft rise 100%

Municipality
NORTH BAY VILLAGE

Flooded buildings
Low income 0
Medium income 490
High income 0
Undefined 0

Land under 5ft rise 78%
Land under 7ft rise 98%

Municipality
BISCAYNE PARK

Flooded buildings
Low income 0
Medium income 506
High income 687
Undefined 0

Land under 5ft rise 11%
Land under 7ft rise 88%

Municipality
SWEETWATER

Flooded buildings
Low income 392
Medium income 1257
High income 0
Undefined 1917

Land under 5ft rise 22%
Land under 7ft rise 77%

Municipality
DORAL

Flooded buildings
Low income 0
Medium income 12656
High income 0
Undefined 15002

Land under 5ft rise 30%
Land under 7ft rise 79%

Municipality
HIALEAH

Flooded buildings
Low income 7272
Medium income 26528
High income 2784
Undefined 19827

Land under 5ft rise 18%
Land under 7ft rise 72%

Municipality
OPA-LOCKA

Flooded buildings
Low income 442
Medium income 767
High income 932
Undefined 1504

Land under 5ft rise 21%
Land under 7ft rise 69%

Municipality
CORAL GABLES

Flooded buildings
Low income 0
Medium income 329
High income 0
Undefined 533

Land under 5ft rise 17%
Land under 7ft rise 23%

Municipality
INDIAN CREEK VILLAGE

Flooded buildings
Low income 0
Medium income 0
High income 292
Undefined 0

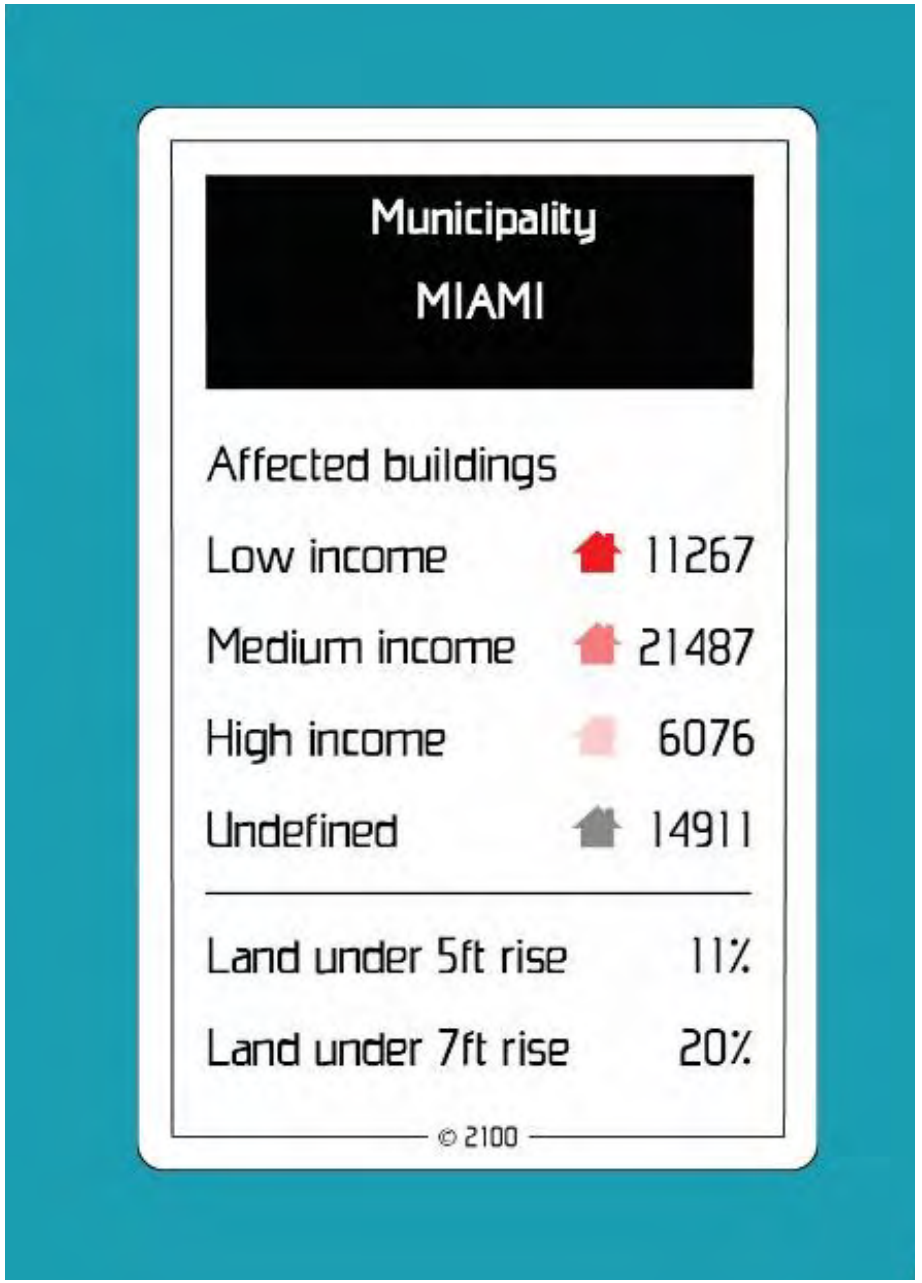
Land under 5ft rise 23%
Land under 7ft rise 49%

Neighborhood
LIBERTY CITY

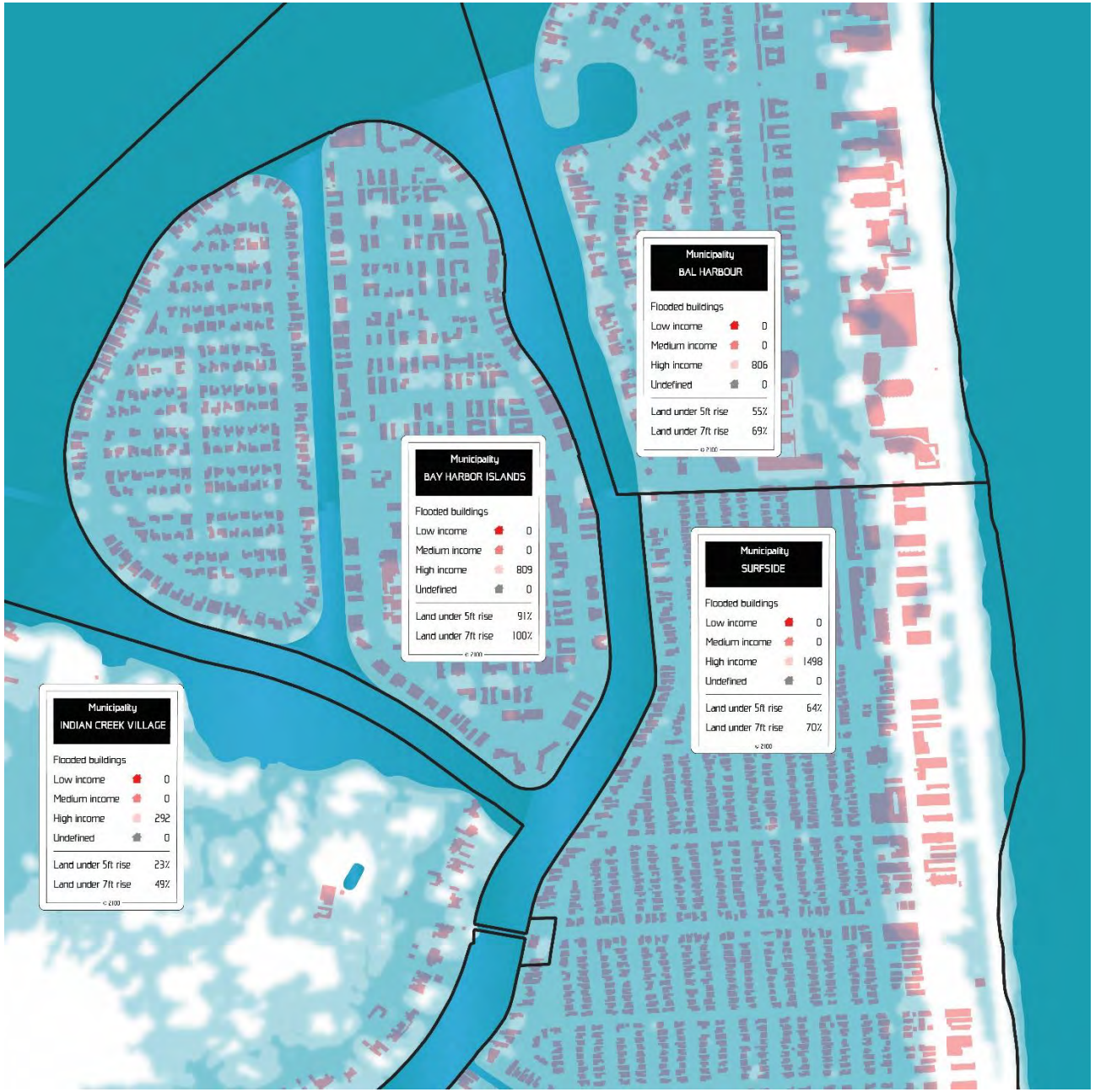
Flooded buildings
Low income 0
Medium income 0
High income 0
Undefined 0

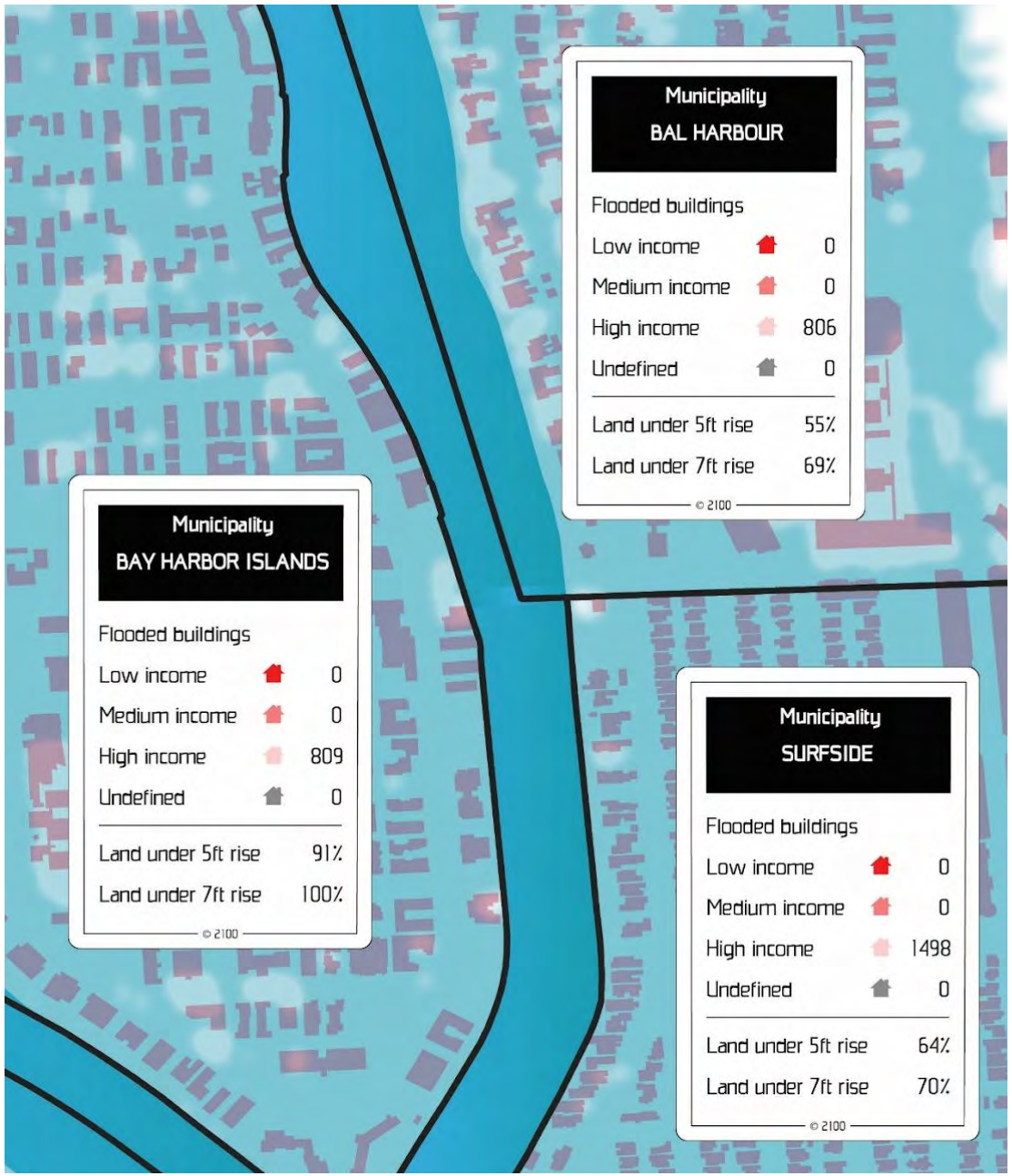
Land under 5ft rise 0%
Land under 7ft rise 2%

Value at risk made clearer with reference to Monopoly

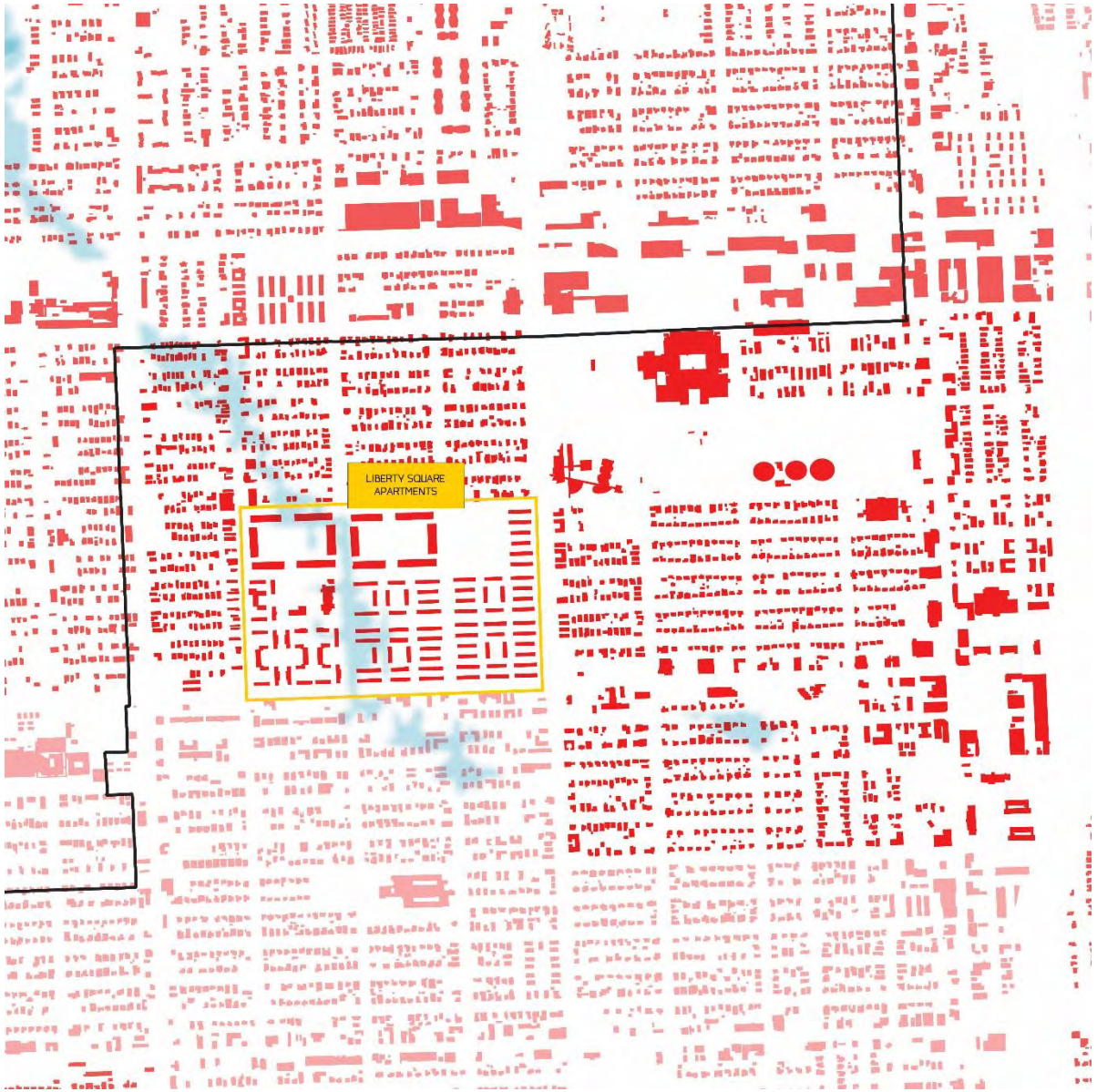


Affected buildings





Projections



Neighborhood

LIBERTY CITY

Flooded buildings

Low income	0
Medium income	0
High income	0
Undefined	0
Land under 5ft rise	0%
Land under 7ft rise	2%

© 2100

Liberty City on high ground

Liberty SQUARE

ABOUT RESIDENCES + LOCATION RESIDENTS + PRESS CONTACT US

RELATED

Related Group – Master Developer Partner

Partner Established in 1979, The Related Group is Florida's leading developer of sophisticated metropolitan living and one of the country's largest real estate conglomerates. Since its inception, the privately held company has built, rehabilitated and managed over 100,000 condominiums, rental and commercial units. The firm is one of the largest Hispanic-owned businesses in the United States with a development portfolio in excess of $40 billion in 40 years.

The Related Group has earned international status for its visionary designs and development of luxury condominiums, market-rate rentals, mixed-use centers and affordable properties – often in emerging neighborhoods that impact the lives of all demographics. The Related Group has redefined real estate by diversifying both its products and buyers, expanding internationally while also sponsoring public art installations that enhance cities' global culture and streetscapes.

TIME Magazine named Founder, Chairman and CEO of The Related Group, Jorge Pérez, one of the top 25 most influential Hispanics in the United States. Currently, The Related Group has over 70 projects in varying phases of development.

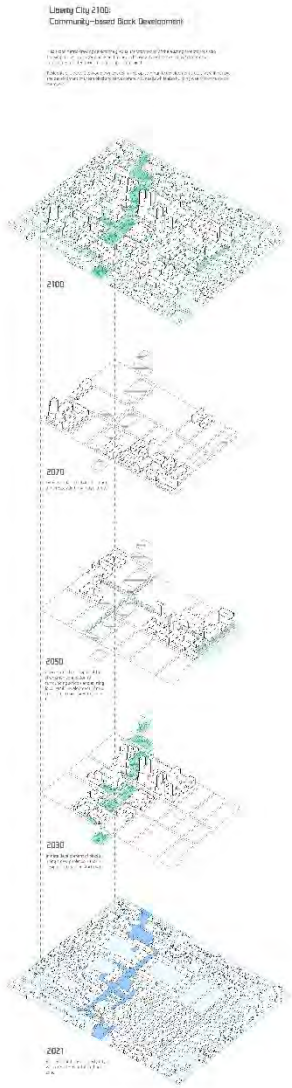
MIAMI-DADE COUNTY

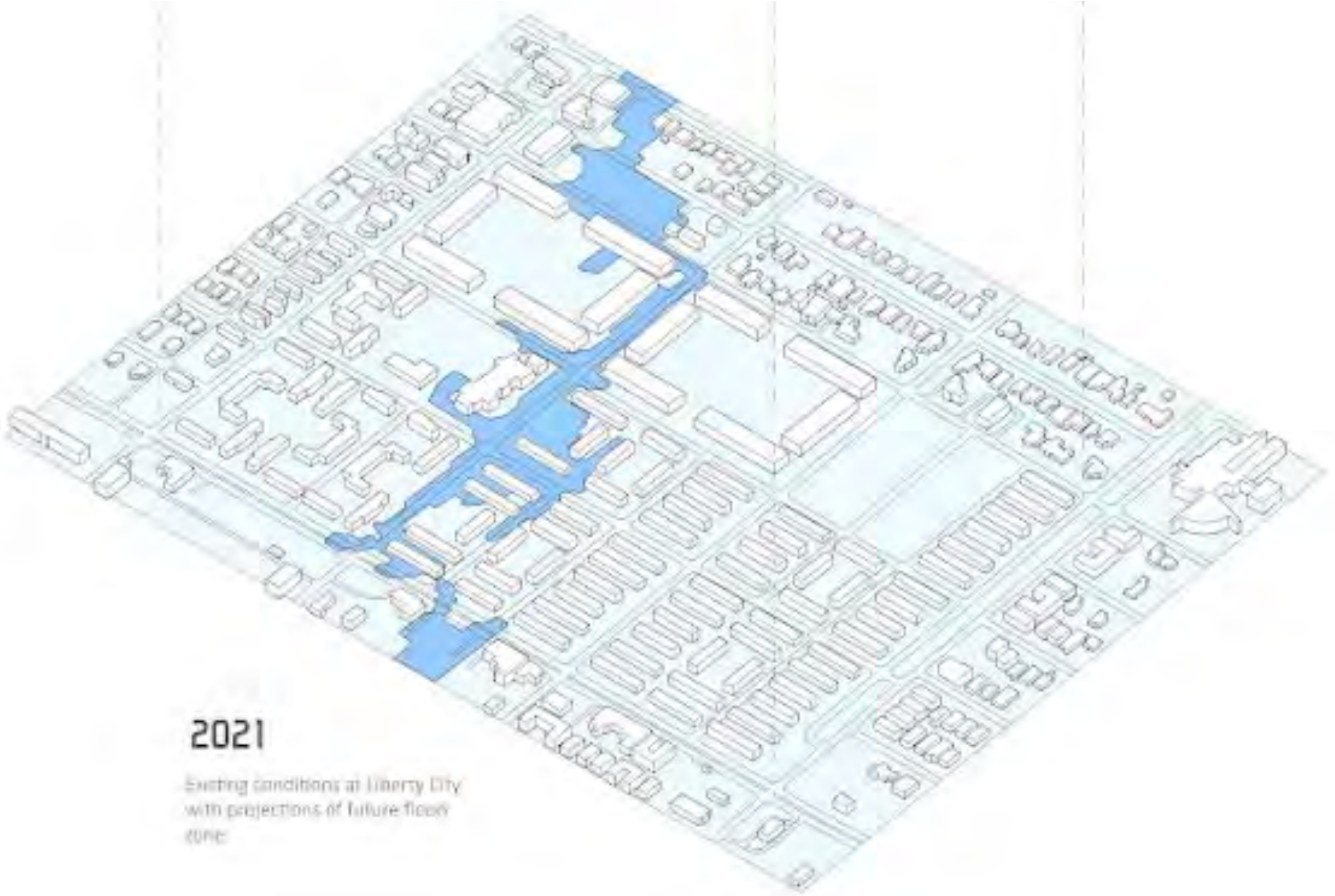
Miami-Dade Partnership

Miami-Dade County Public Housing and Community Development manages more than 8,000 public housing apartments and provide financial help through the federal Section 8 program to more than 18,000 families.

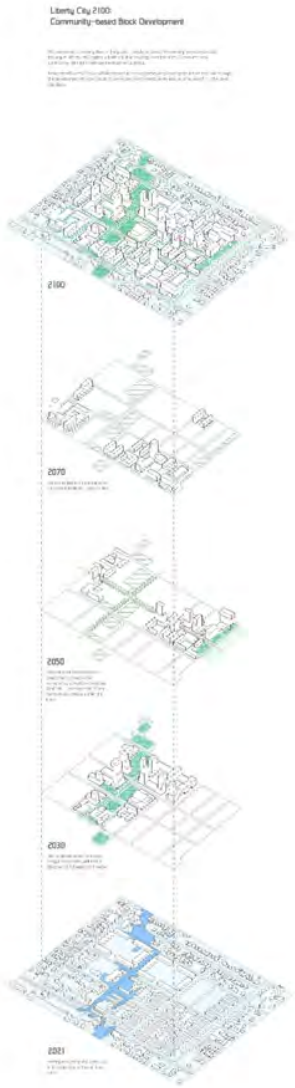
Our support services include assisted living facilities for the elderly and self-sufficiency program for our tenants. We rely on federal and state grant programs to fund our programs. We work closely with the U.S. Department of Housing and Urban Development's (HUD) on our public housing and, with the State of Florida, the development of affordable housing.

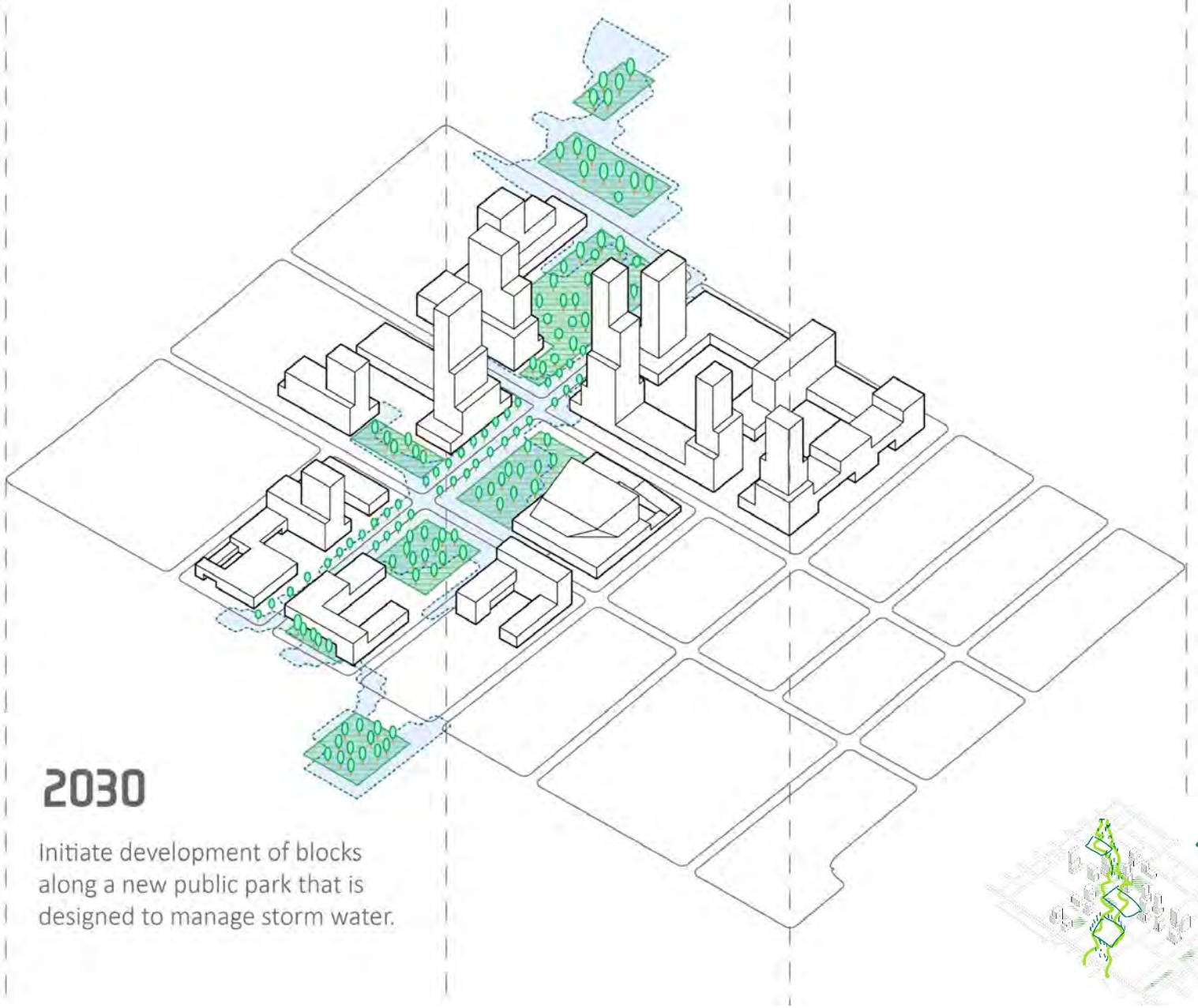
Related Redevelopment





2021 Existing conditions Liberty City with Projection of Flood Zone

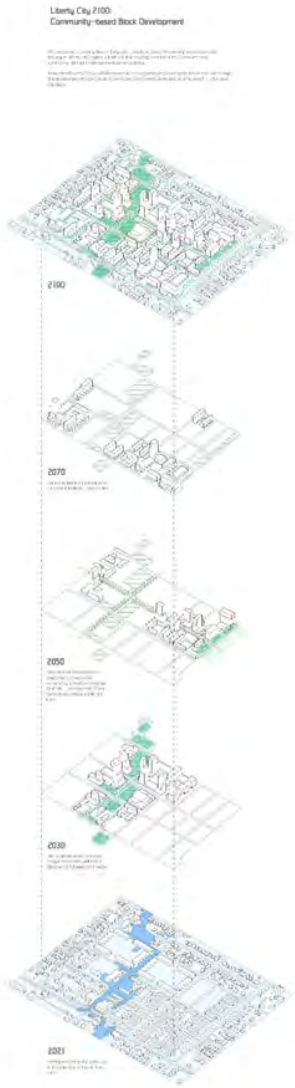


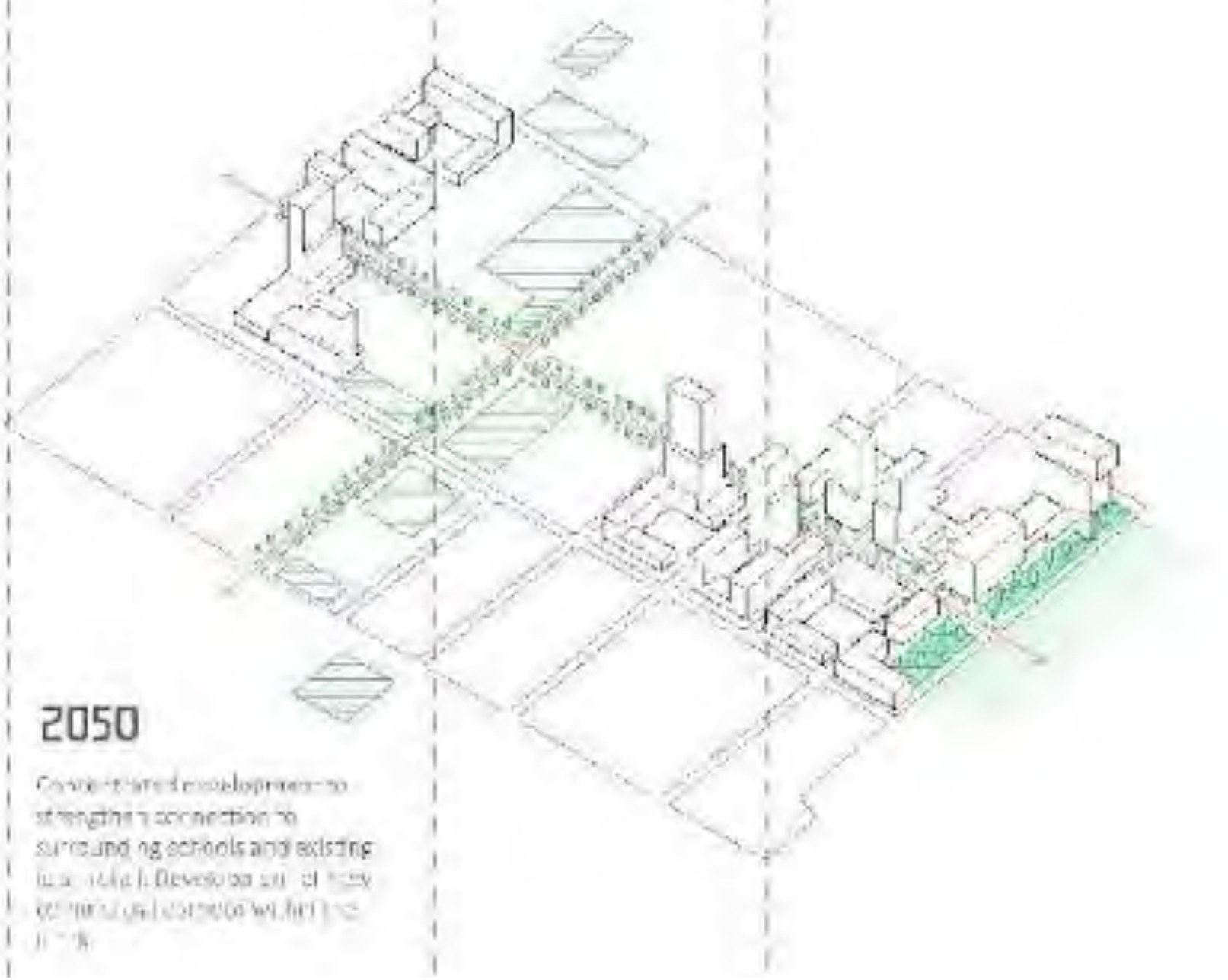


2030

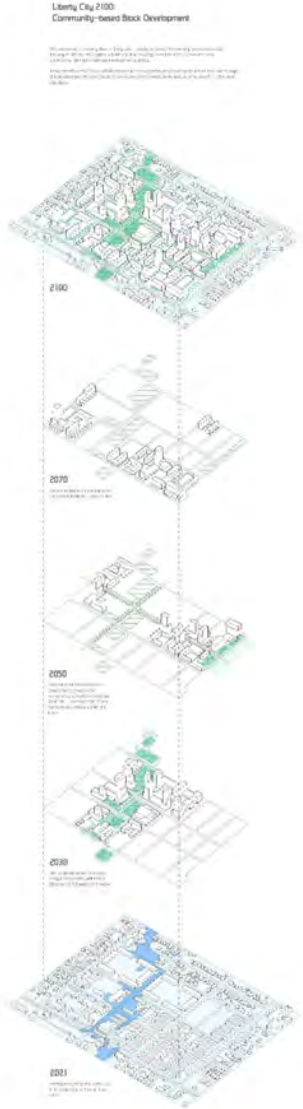
Initiate development of blocks along a new public park that is designed to manage storm water.

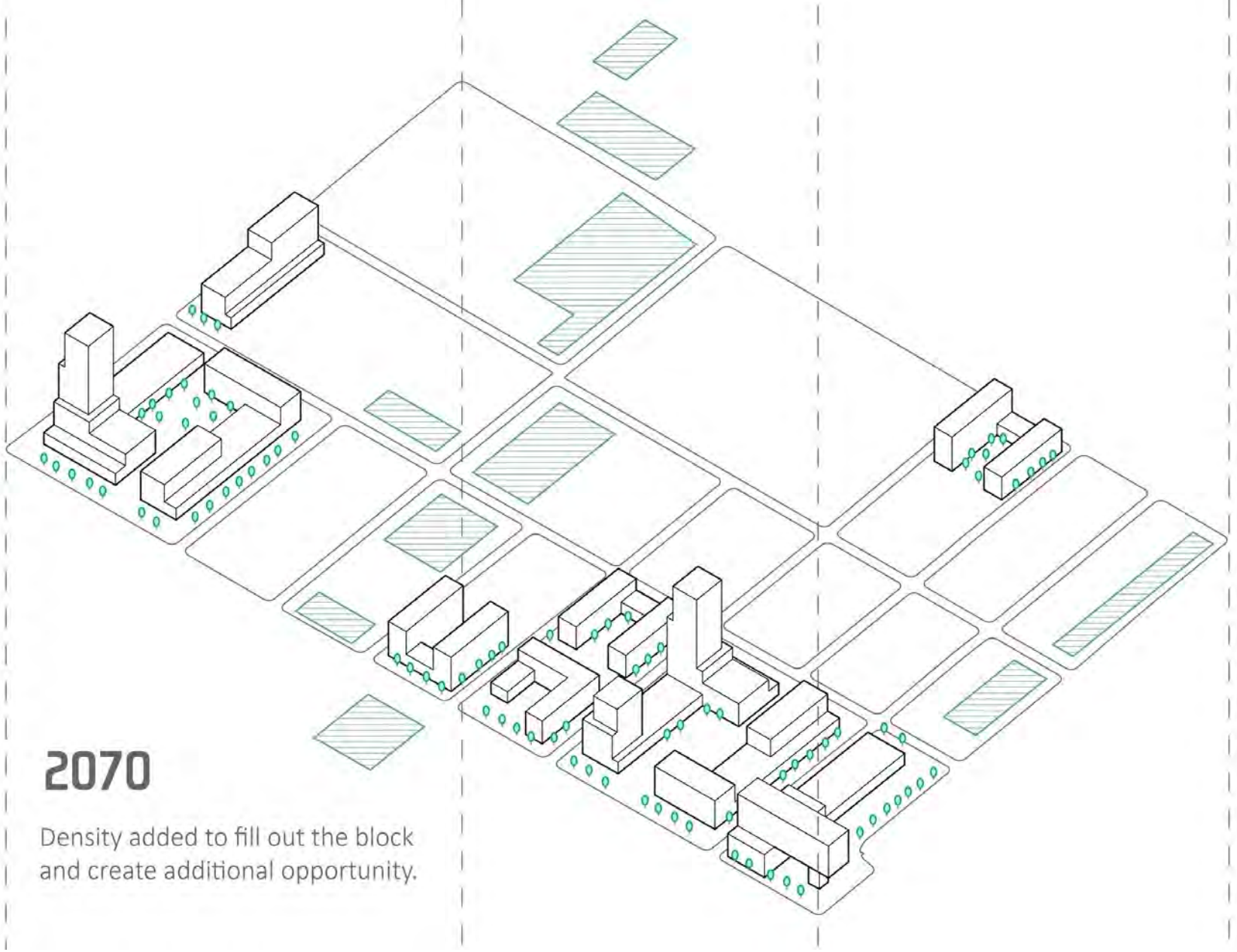
2030


Liberty City 2100
Community-based Block Development
2100
2070
2050
2030
2021


2050

2050

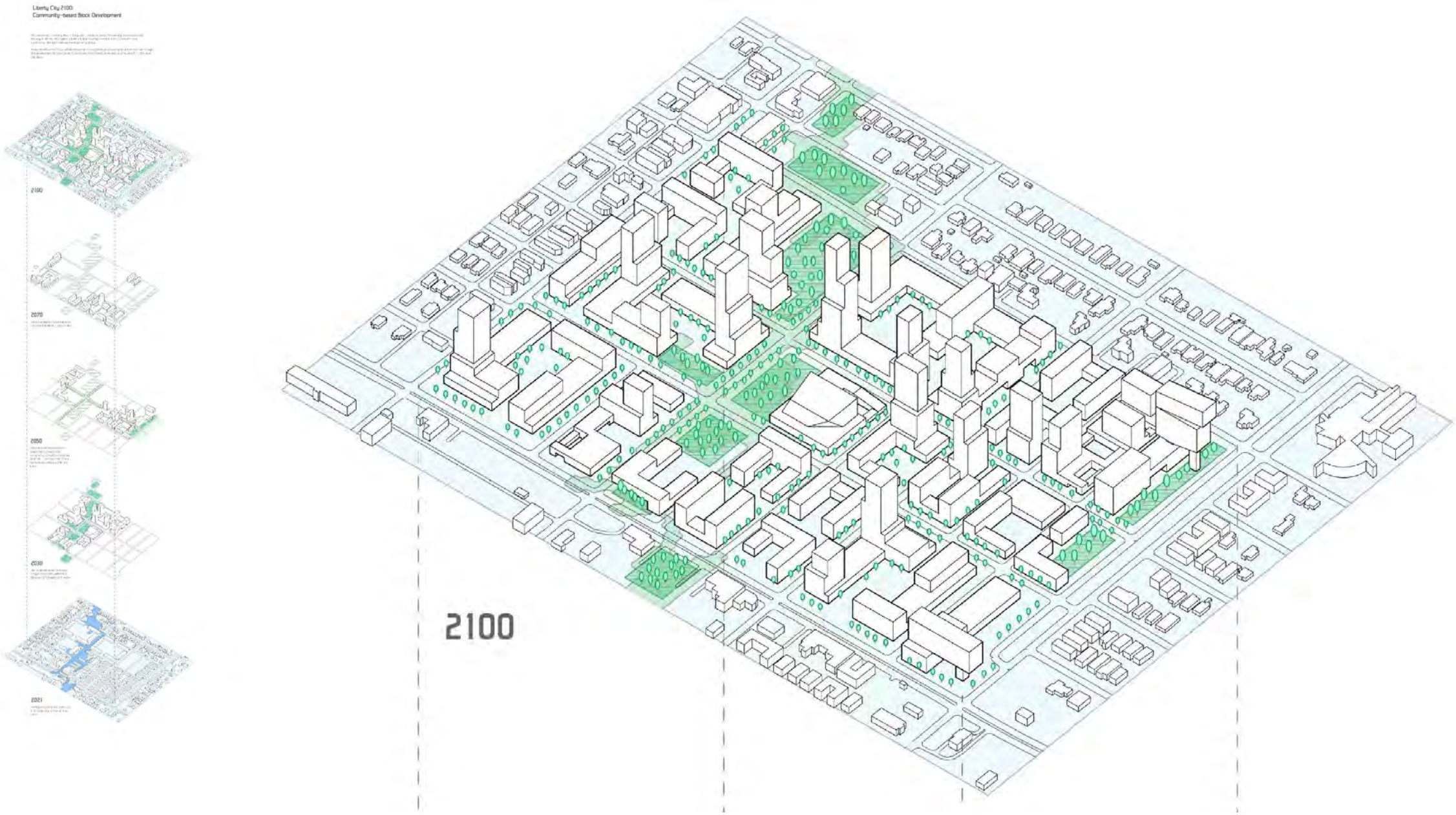




2070

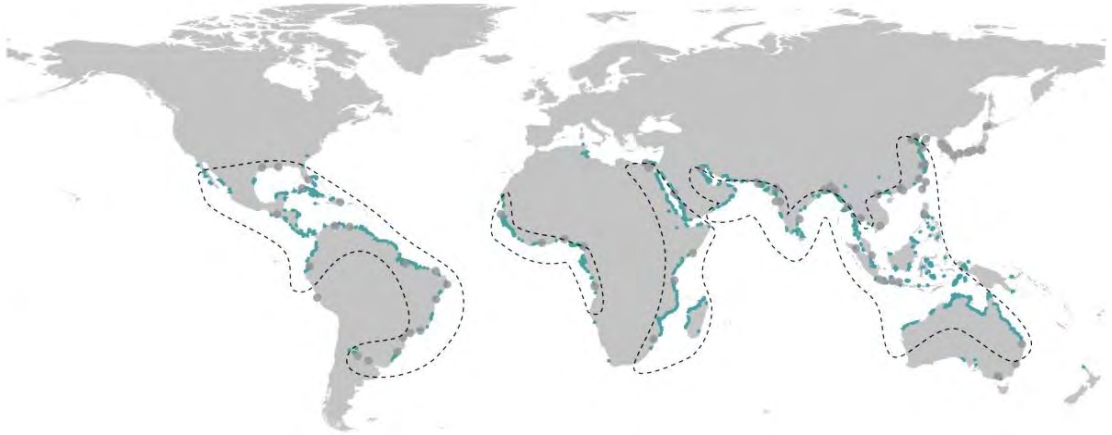
Density added to fill out the block
and create additional opportunity.

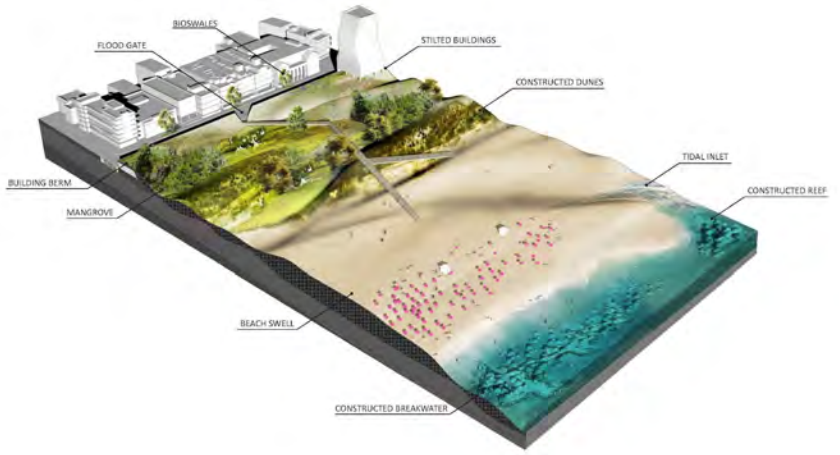
2070

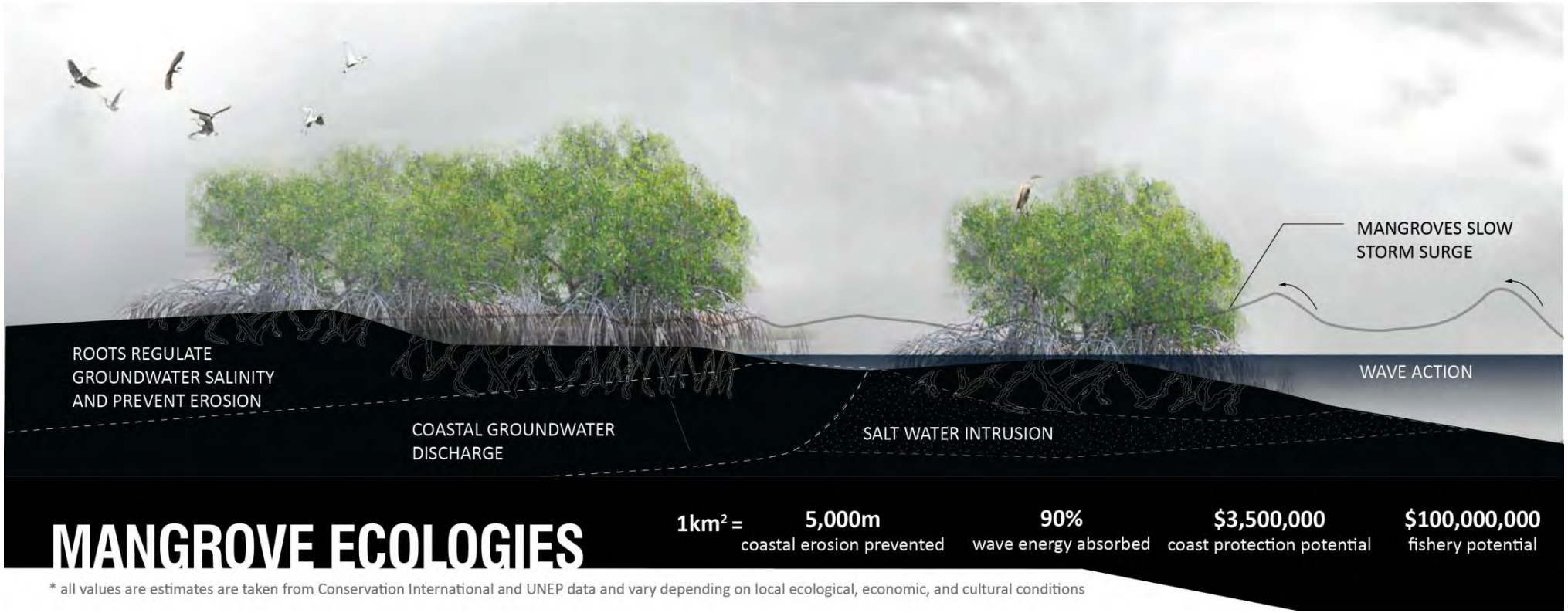

Liberty City 2100
Community-based Block Development
2100
2070
2050
2030
2021
2100

2100

Projects

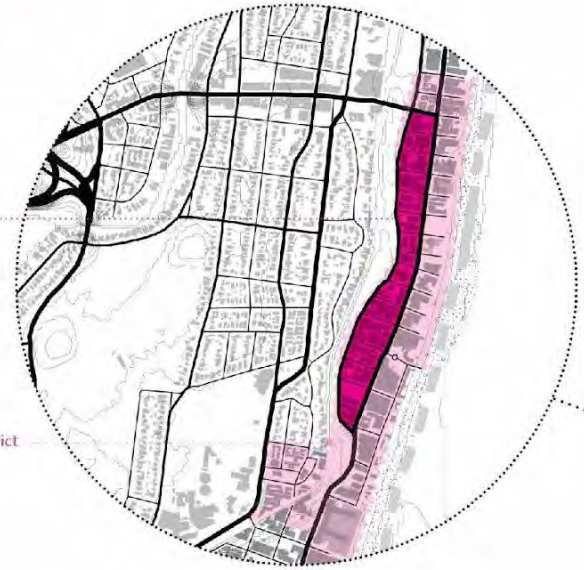






Theory to Practice

1.2 // STUDY AREAS

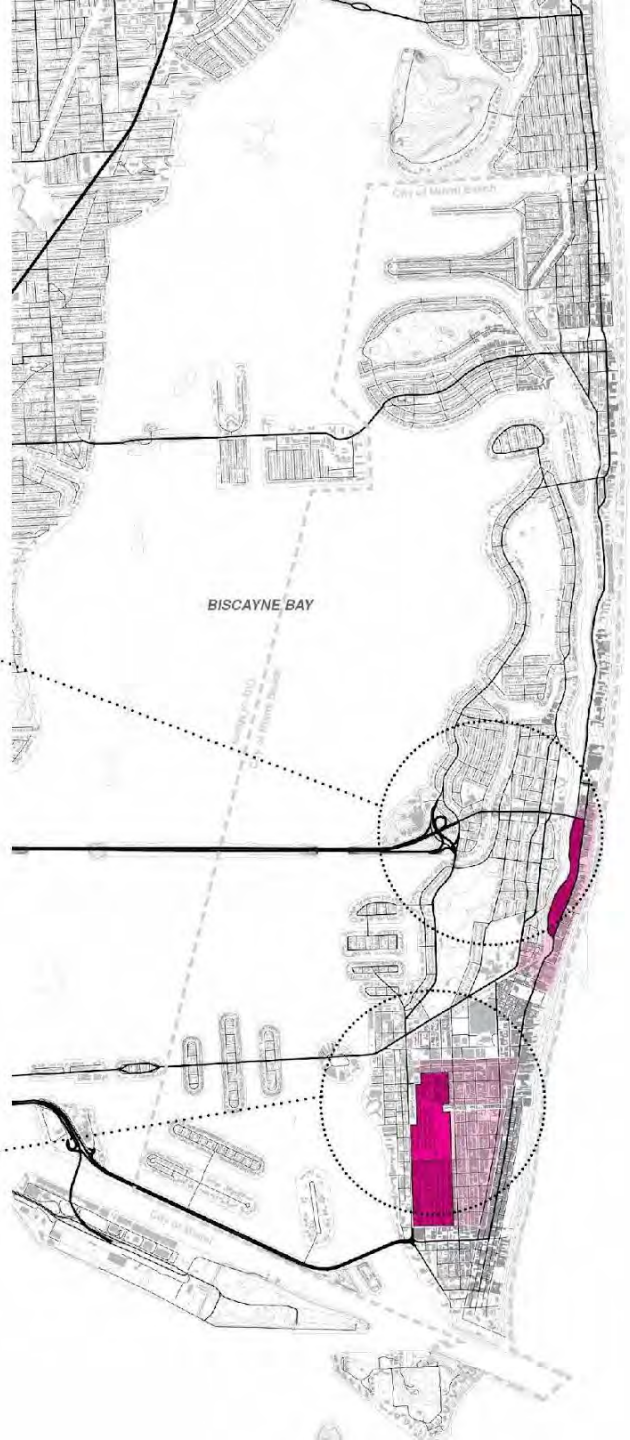


Collins Waterfront Study Area

John S. Collins Waterfront Historic District

Flamingo Park Historic District Area

Flamingo Park Study Area

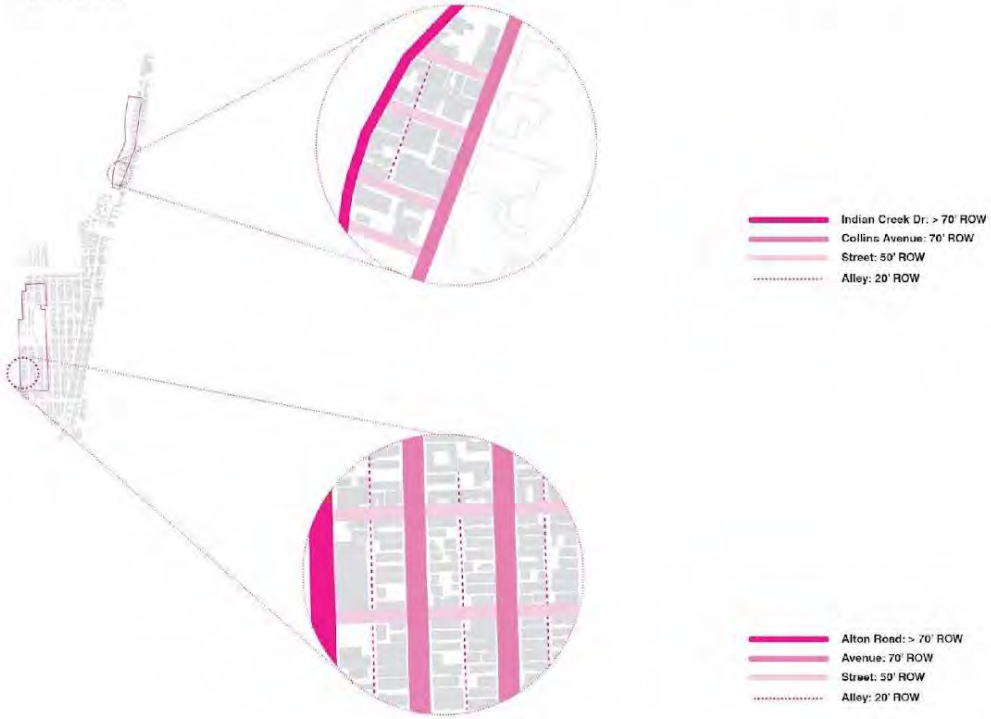


5.6 // STREETSCAPE STRATEGIES

Public Right of Ways

Miami Beach's wide avenues and streets offer excellent opportunities for increased tree canopy, green space, amenity and environmental/hydrological functions. Reducing excessive pavement in these rights of ways, the use of permeable pavements for car and bicycle parking areas, and the installation of continuous green infrastructure systems will increase water storage and recycling and reduce stormwater runoff. Reduced paved areas can still accommodate wide sidewalks, on street parking and designated bicycle lanes.

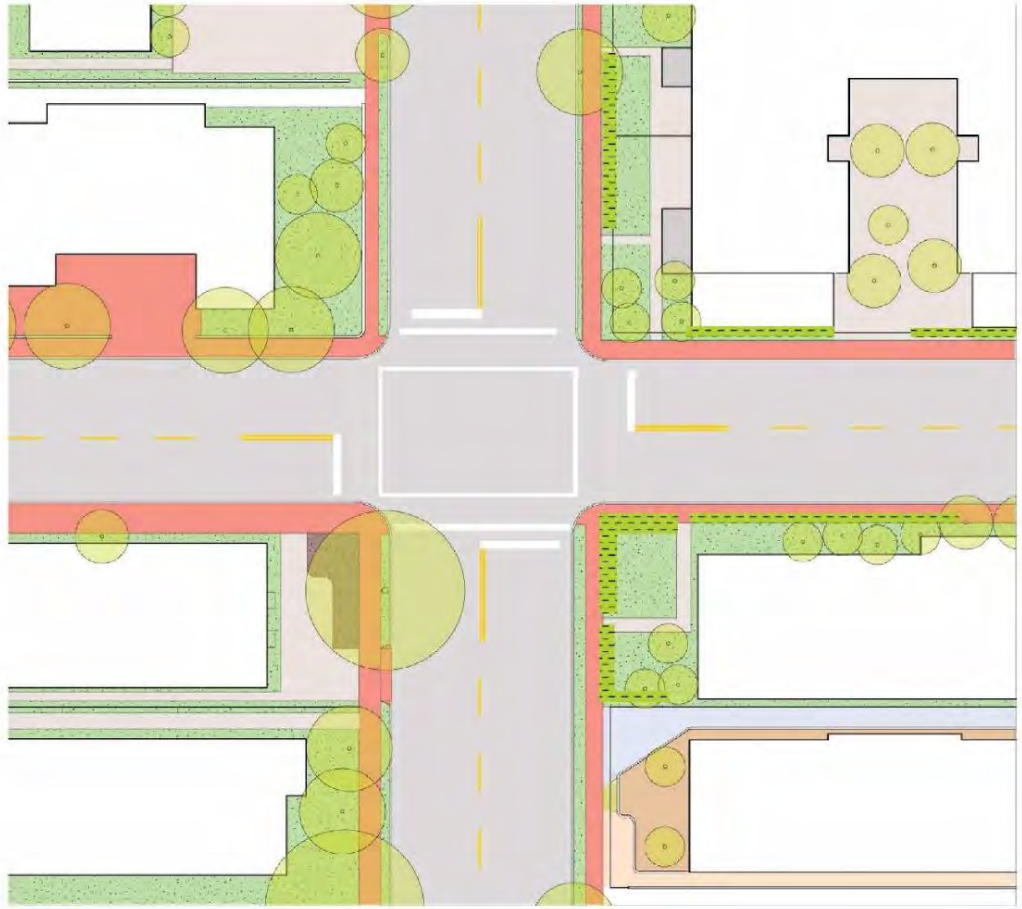
Looking to the future, provision needs to be made for accessibility between raised streets and adjacent properties. The raising of the roads and the adaptation or raising of buildings will not happen simultaneously. Indeed, there is no certainty that private properties will be raised at all. The team recommends adding a planting buffer within the public right-of-way that will allow the sidewalk and the roadway to be at different elevations. The planter buffer will provide continuous green infrastructure along the streetscape. Raised tree planters located in this planting buffer/parking zone will allow roadways or sidewalks to be repeatedly raised in the future without disturbing mature canopy trees along the avenues and streets.



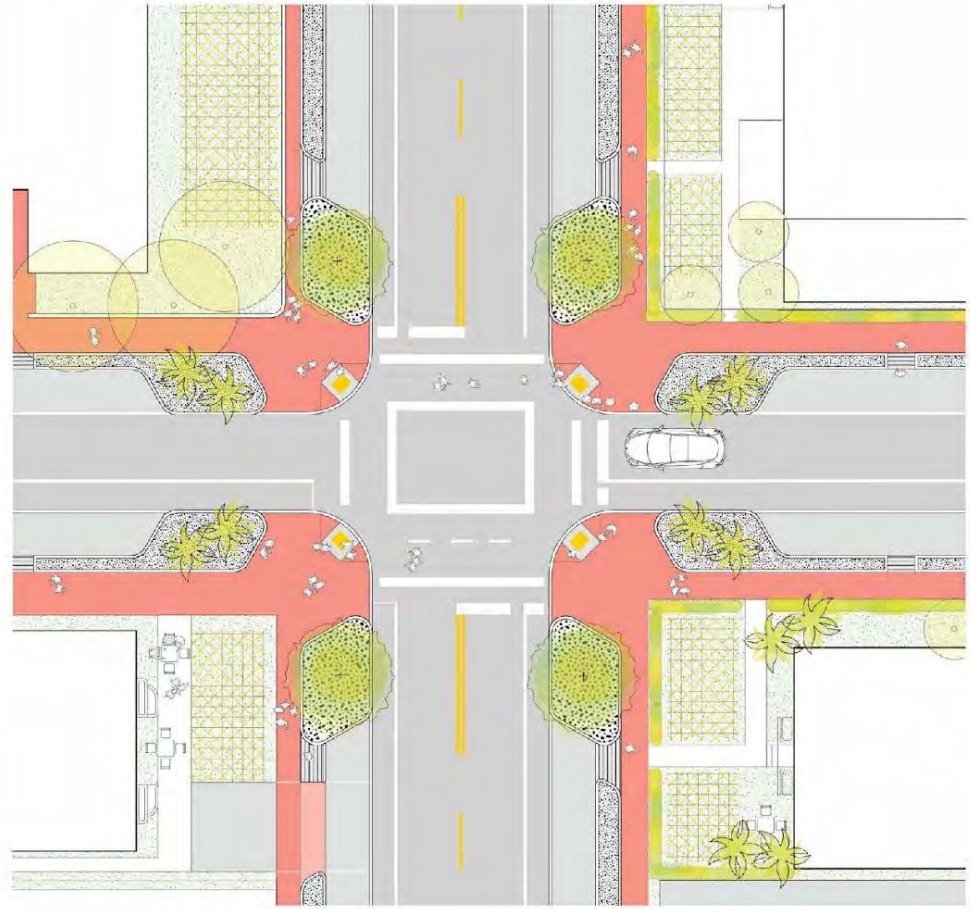
Make E-W streets one-way

Making E-W streets one-way would create space to fit both bike paths and green infrastructure along the street and mitigate raised roadway conditions.

Plan for Avenue & Street | Roadway at existing elevation



Plan for Avenue & Street | Raised Roadway at 8.5 NGVD



Individual approach | NGVD 14' | Raise building & lots (some) | Strategy 2A

Existing Avenue

Raised Avenue

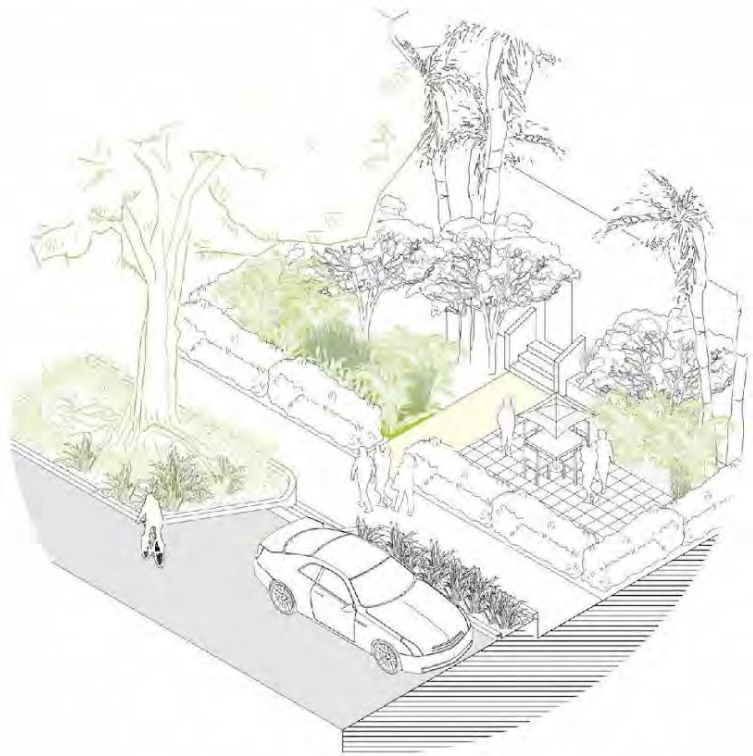
5.5 // LANDSCAPE STRATEGIES

Opportunities for Improved Ecology

Miami Beach is surrounded by the rich and diverse ecosystem of the Biscayne Bay and ocean reefs. These fragile ecologies are sensitive to stormwater runoff, which can modify the natural temperature, salinity, turbidity and chemical composition of these water bodies.

The City of Miami Beach has recently added pumping systems to trap and remove a large percentage of the debris, oil, and other pollutants that are added to stormwater runoff as it travels across the roads and yards of the city, which greatly improve the quality of runoff before it enters the Bay.

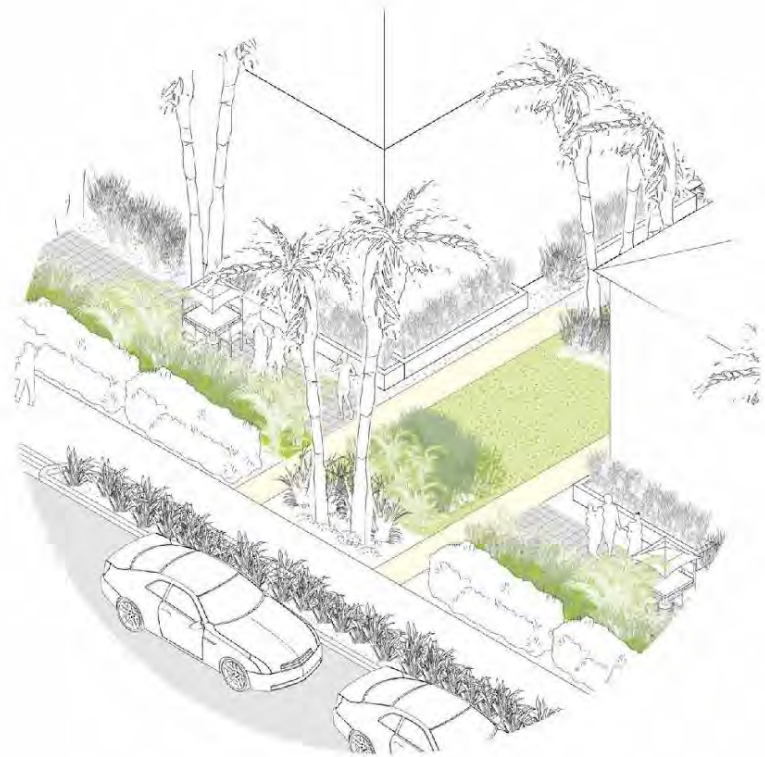
As both the City and private owners grapple with the implications of sea level rise, there is an opportunity to design in ecological measures to further treat stormwater runoff through an extensive use of green infrastructure within both private yards and along public streets.



Planting for the future

To account for future climate conditions, the plantings of Miami Beach should be chosen looking towards the future. Plantings in Miami Beach should be drought tolerant, salt tolerant, and tolerant of wind or hurricane conditions.

The choice of plantings should also facilitate local ecology. There is a benefit to native plantings in order to provide food and shelter for the pollinators and bird populations. Native plant communities including the beach dune, coastal strand and maritime hammock communities are naturally drought and salt tolerant, and are a natural fit for green infrastructure. Native and resilient plantings are the best and recommended choice for Miami Beach.



Existing road

Raised road

Equitable, Affordable, Resilient, and Sustainable

Jeffrey Huber, FAIA, ASLA

BROOKS SCARPA

What is affordable housing?

Affordable housing is housing that is attainable to low-income households based on Area Median Income or AMI. AMI is calculated regionally using a Metropolitan Statistical Area or MSA as determined by the federal government and typically includes an urban area and at least 50,000 people. AMI is the midpoint of the MSA's income distribution and sets the threshold for how much a family has to spend on housing. Typically housing costs should be within 30% of the annual gross income of an individual or family. To calculate simply divide annual gross income by 40 – this is referred to as the 40x/30% Rule. So a family making $120,000 can spend $3,000 a month on rent or a mortgage.

- ***Terms such as affordable, workforce or market-rate housing are used in relation to AMI*** *(Broward County's AMI is $82,100 for a family of four). In Broward 61.9 percent of households are cost-burdened.*

- ***Affordable housing is seen as housing developed at***
    - ***30% AMI – Extremely Low-Income*** *($24,630)*
    - ***50% AMI – Very Low-Income*** *($41,050)*
    - ***80% AMI – Low-Income*** *($65,680)*
    - ***120% AMI – Workforce*** *($98,520)*

Deerfield Beach and Delray Beach Workforce and Affordable Housing Prototypes

Deerfield Beach and Delray Beach, FL

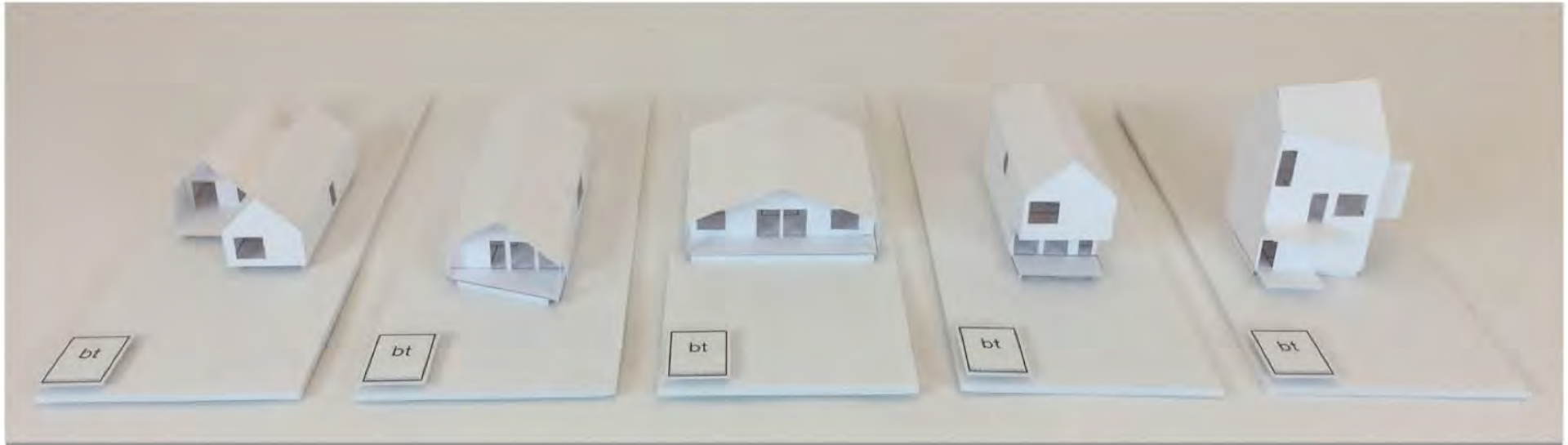
26 units

12 du/acre

BI-POLAR TYPE

DOGTROT PROTOTYPE
3 BEDROOM / 2 BATHROOM

TOWNHOUSE PROTOTYPE ALTERNATIVE



Prototype 1	Prototype 2	Prototype 3	Prototype 4	Prototype 5
modeled on the vernacular shotgun housing type (found in south florida and the bahamas), the *double-barrel shotgun* provides extensive rear and front porches as well as maximizes a central living space.	modeled on the vernacular bungalow housing type (again found in south florida and the bahamas), *the split personality* places living to one side and sleeping/ service to the other. A long living space is then streched from the front to rear of house.	modeled on the vernacular dogtrot housing type (again found in south florida and the bahamas), *the dogtrot* places living at the center and sleeping/service areas flanked to either side. A great type for extending interior space towards the outdoors with porches.	modeled on an urban townhouse type, *the mullet* places living at the ground floor and sleeping/service areas on second floor. This type can stand alone or be coupled to produce duplex to fourplex format.	modeled on an urban townhouse type, *the periscope* places living at the second floor and sleeping/ service areas on first and third floor. This type can stand alone or be coupled to produce duplex to fourplex format. This type provides varying levels of outdoor terraces.

a catalog of five single-family house types

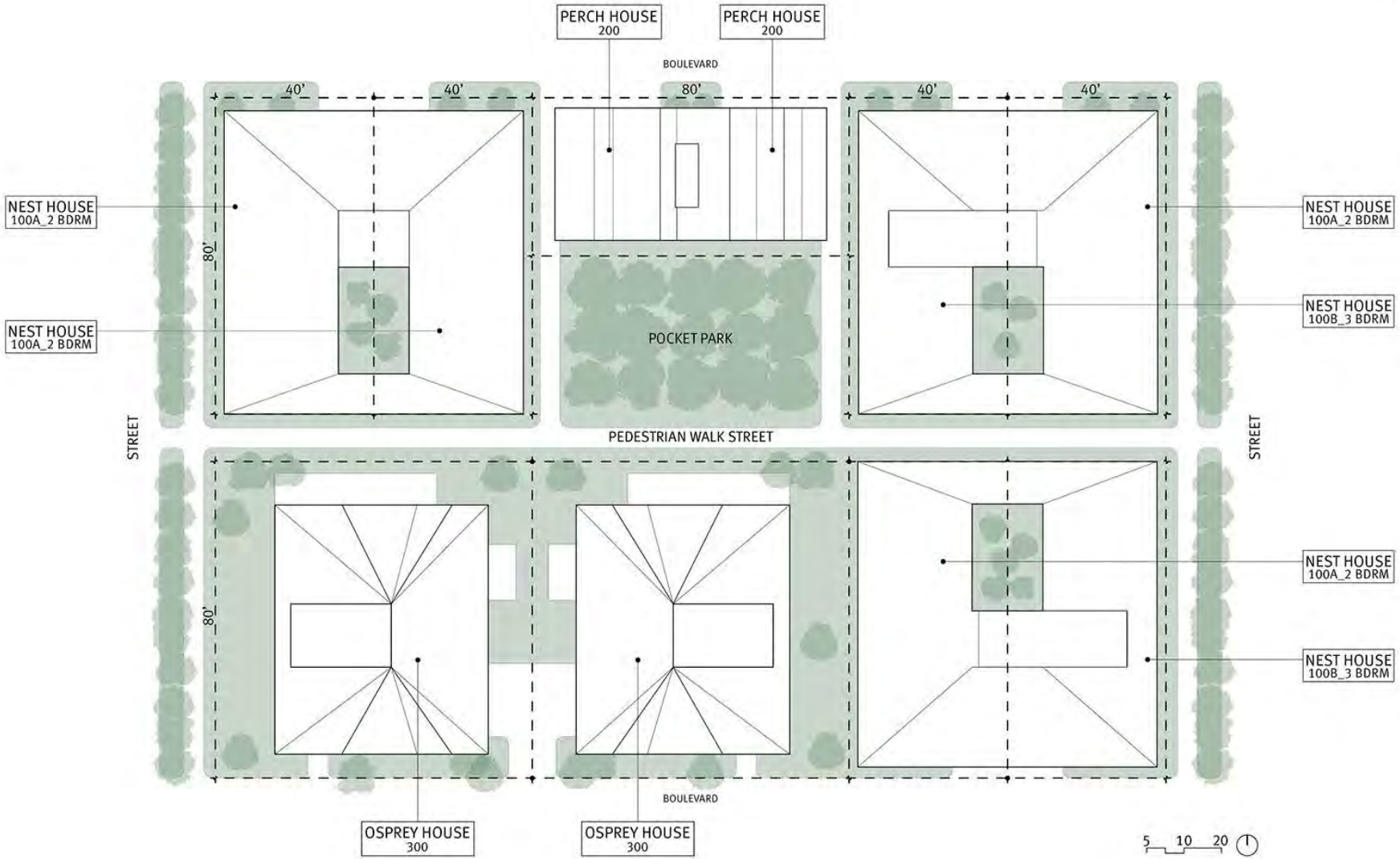
Carver Square
Workforce Housing
Block Types


STOP

Watersound Prototype Housing
Watercolor, FL

10 units
20 du/acre

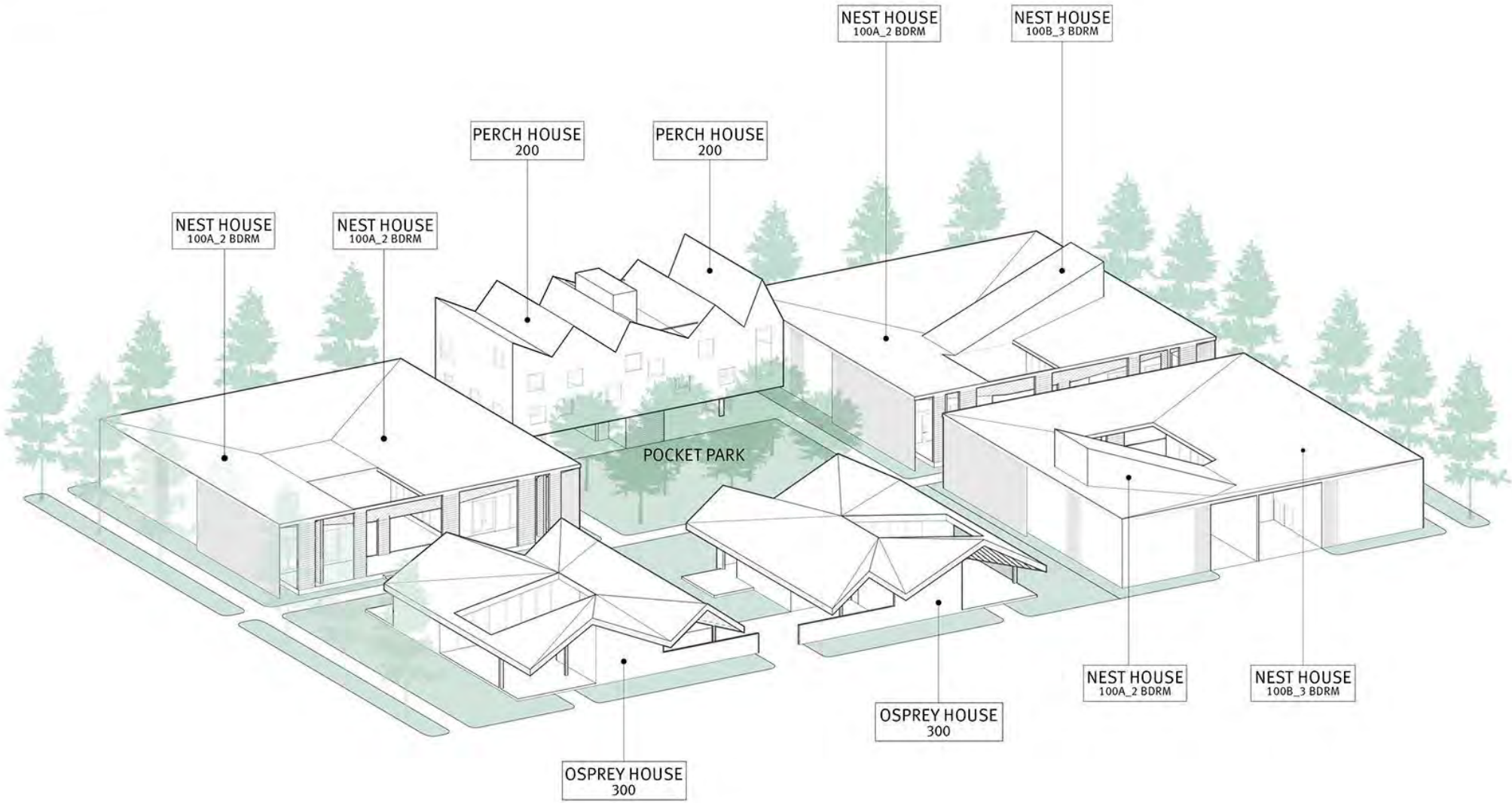
1-BLOCK PLAN



BROOKS + SCARPA ARCHITECTS

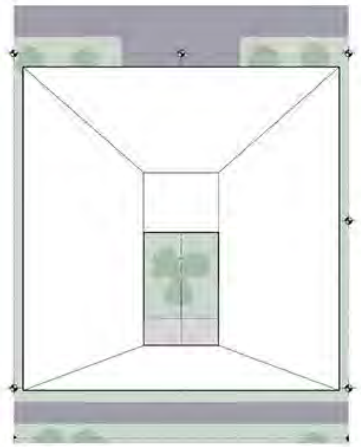
PARCEL STRATEGIES

1-BLOCK AXONOMETRIC

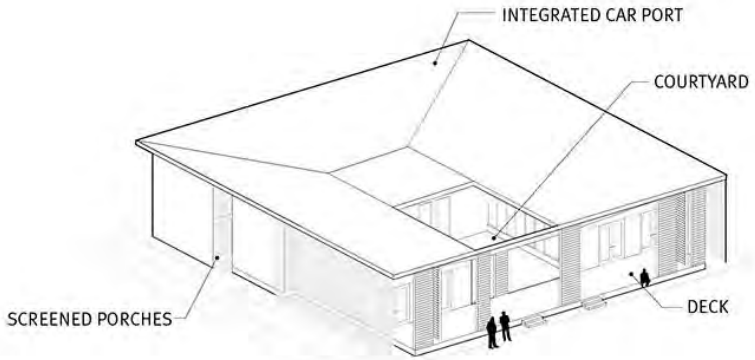


TYPE 100A: NEST HOUSE

FRONTAGE PER LT: 40'
LOT DIMENSIONS: 40' x 80'
LOT AREA: 3,200 SF



UNIT CONFIGURATION



AXONOMETRIC

100A

2 BEDROOMS
1 BATHS
1 STORY

ROOM DIMENSIONS

1 - 27'- 8" x 23'- 3"
2 - 17'- 2" x 9'- 10"
3 - 13'- 10" x 9'- 10"

SQUARE FOOTAGE

1385	CONDITIONED AREA
462	PORCHES
260	CARPORT
156	STORAGE
2263	TOTAL

1 - LIVING
2 - MASTER BEDROOM
3 - BEDROOM
4 - MASTER BATH
5 - BATHROOM
6 - LAUNDRY
7 - STORAGE
8 - STORAGE
9 - CARPORT
10 - SCREENED PATIO
11 - DECK
12 - GARDEN

FLOOR PLANS

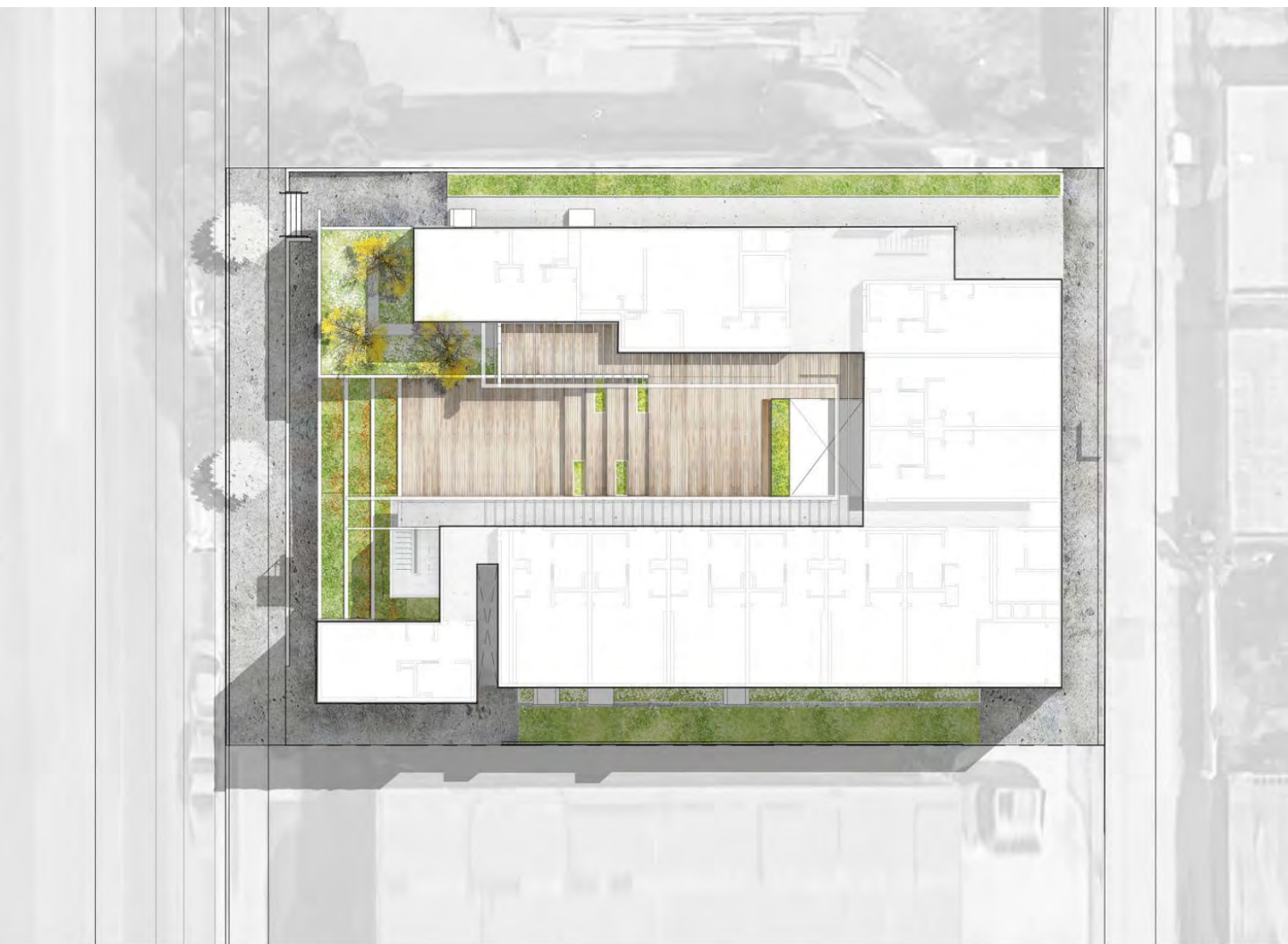
The Rose Transitional Aged Youth (TAY) Affordable Housing

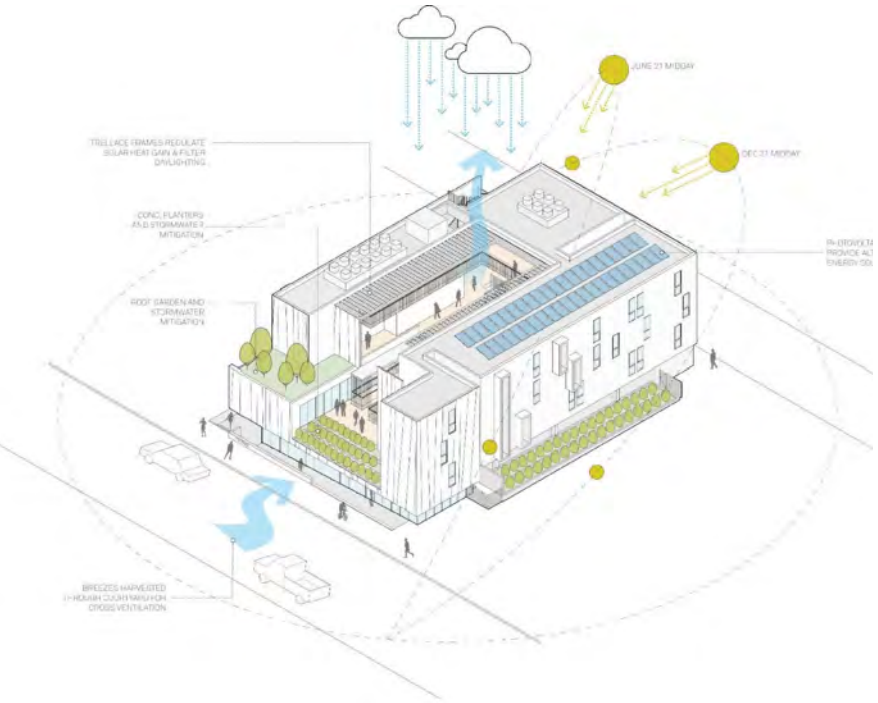
Venice, California

35 units

70 du/acre


03
04
05
02
UP
DN
04
04
04
03
01
DN
UP
02
04
04
04
04
04
05
06
07
04




JUNE 21 MIDDAY
DEC 21 MIDDAY
TRELLACE FRAMES REGULATE SOLAR HEAT GAIN & FILTER DAYLIGHTING
CONC. PLANTERS AS L.I. STORMWATER MITIGATION
ROOF GARDEN AND STORMWATER MITIGATION
BREEZES HARVESTED CROSS VENTILATION


MOTEL
MOTEL


NO PARKING
6AM to 6PM

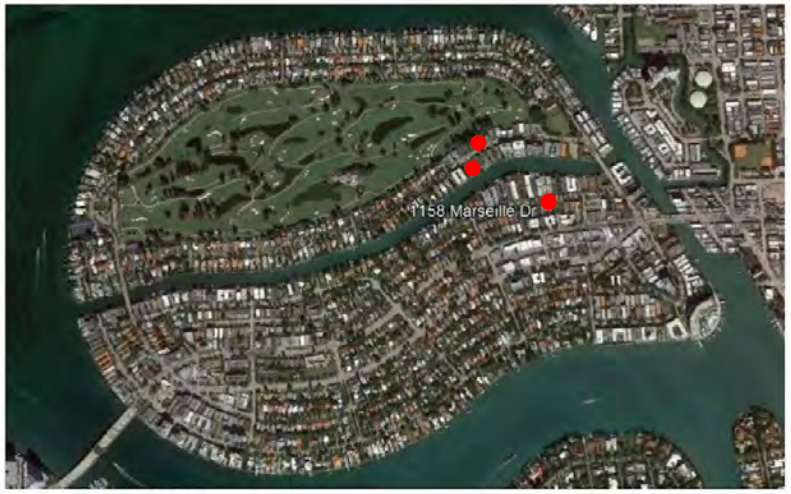
Miami Beach, Florida
139 units of Senior Affordable Housing

Vista 49 units

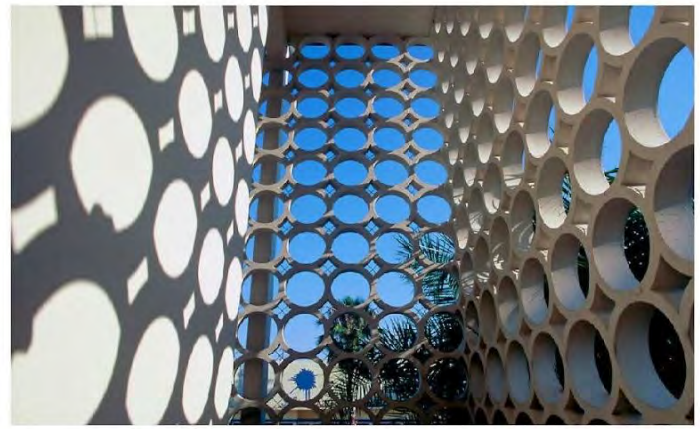
Breeze 70 units

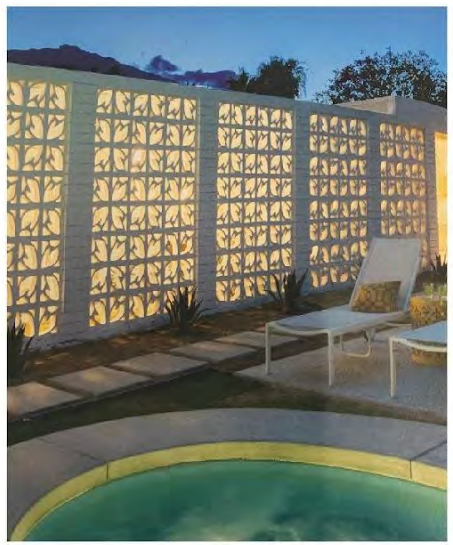
The Heron 20 units

SITE LOCATION / MAP 01

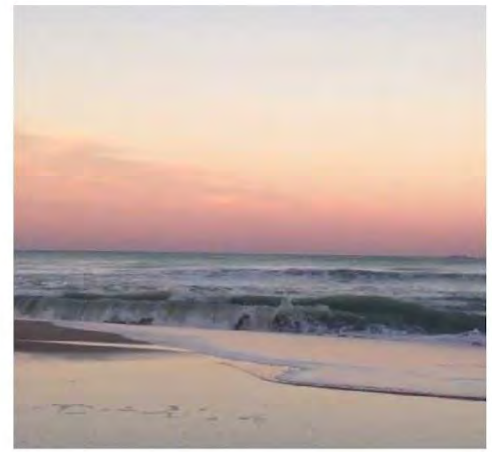


SITE LOCATION / MAP 03




MIAMI BEACH RED



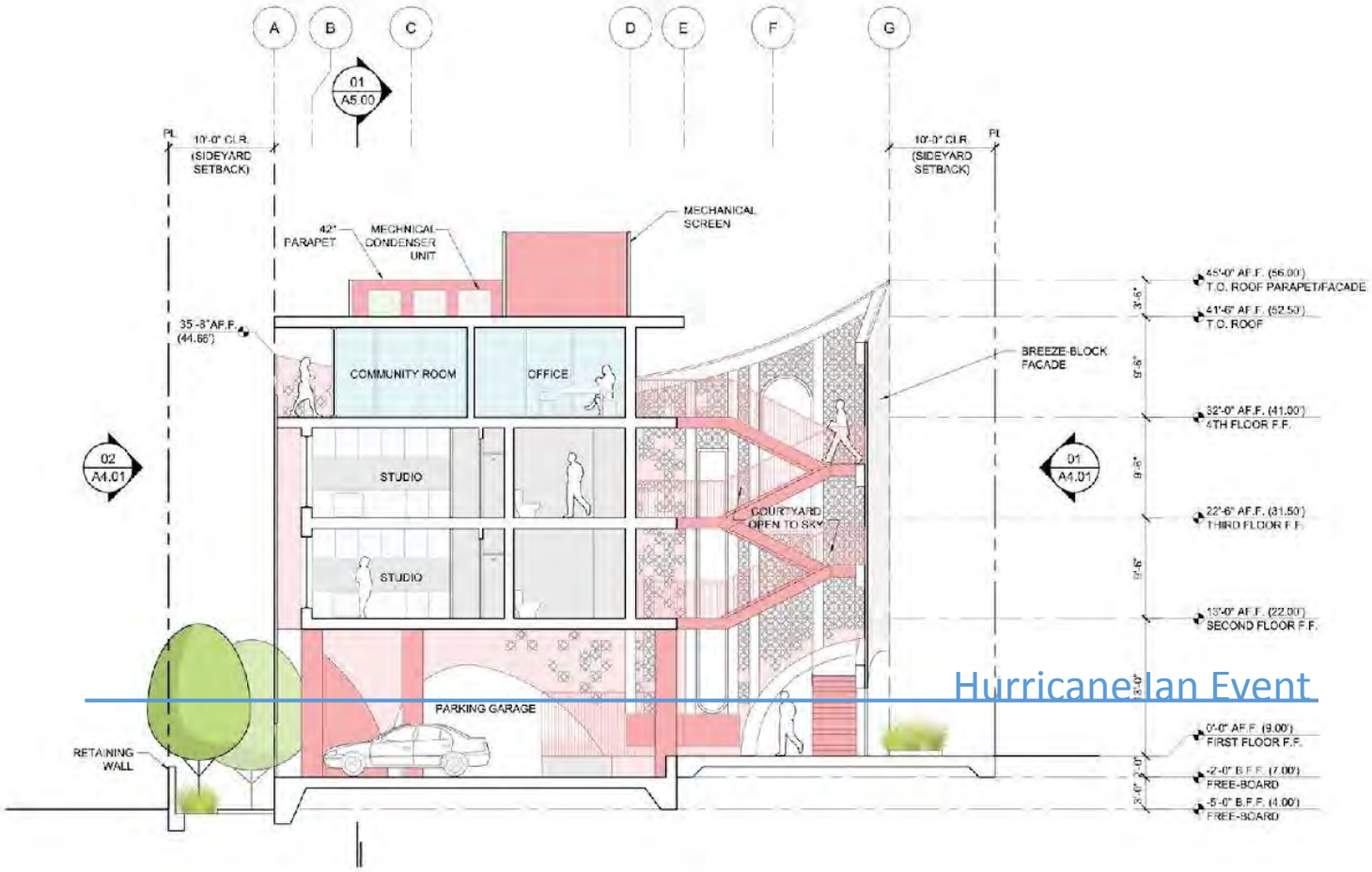
The Heron Elderly Affordable Housing

Miami Beach, FL

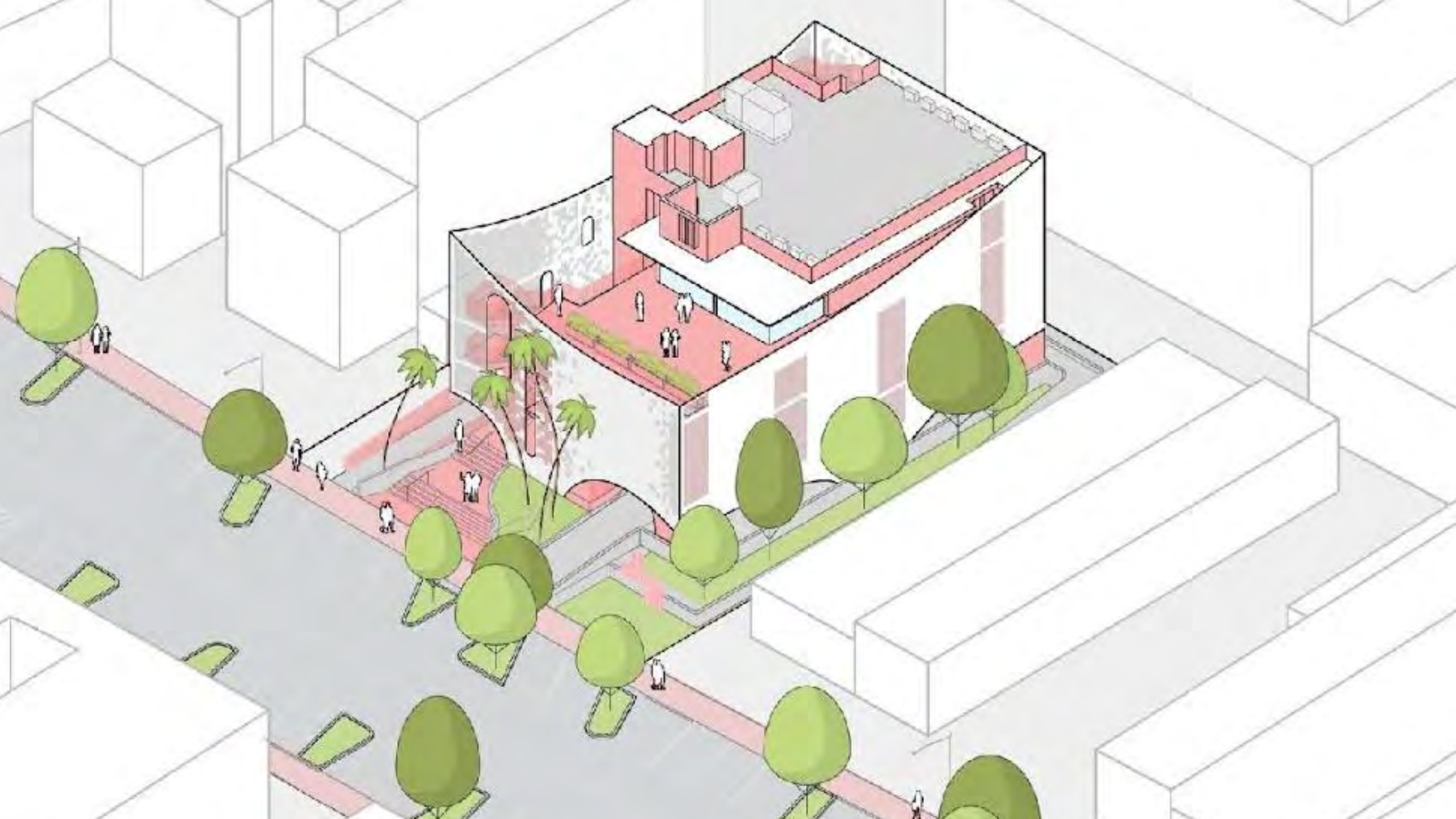
20 units

80 du/acre


the Heron
6 feet
20 feet of flood adaptation

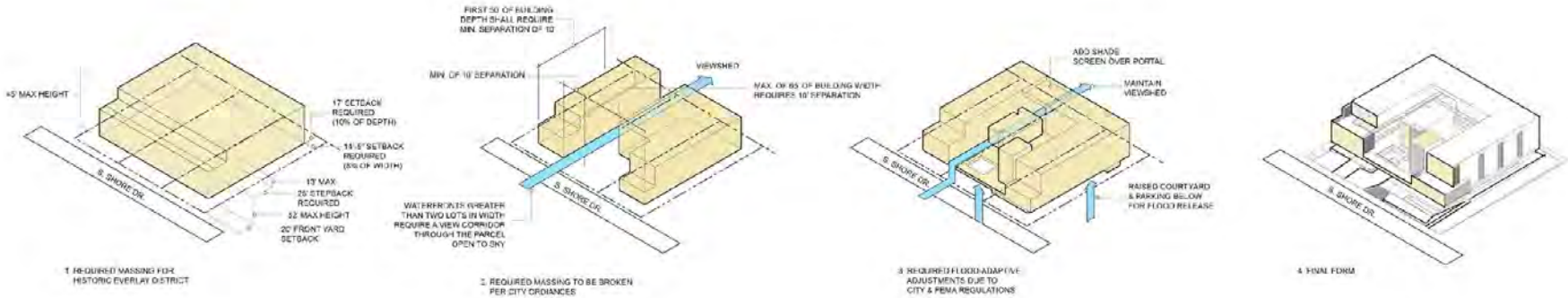


Hurricane Ian Event

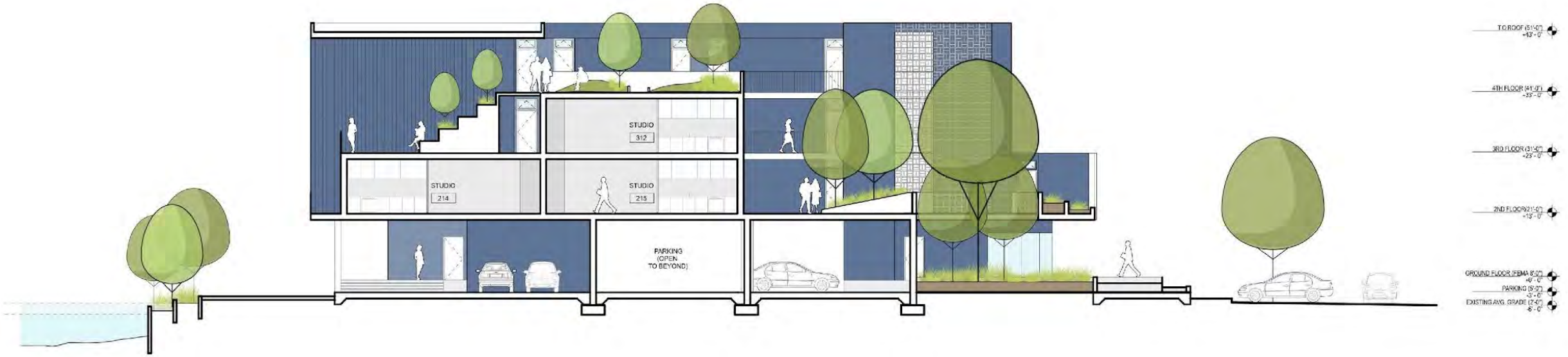


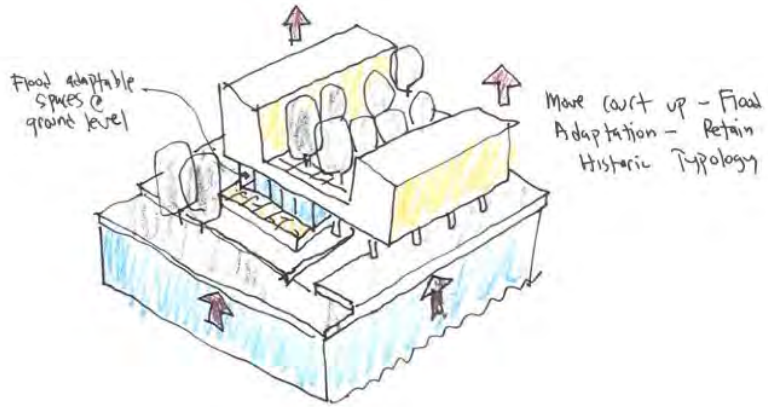
Vista Breeze Elderly Affordable Housing
Miami Beach, FL

119 units
95 du/acre

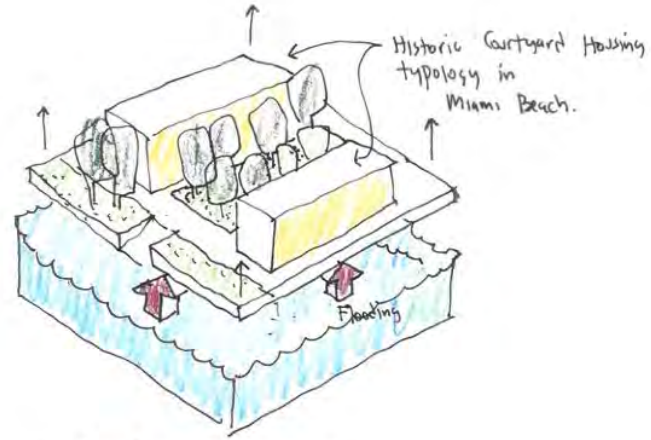

45' MAX HEIGHT
17' SETBACK REQUIRED (10% OF DEPTH)
15'-5" SETBACK REQUIRED (5% OF WIDTH)
S. SHORE DR.
15' MAX.
25' STEPBACK REQUIRED
32 MAX HEIGHT
20' FRONT YARD SETBACK
1. REQUIRED MASSING FOR HISTORIC EVERLAY DISTRICT
FIRST 50' OF BUILDING DEPTH SHALL REQUIRE MIN. SEPARATION OF 10'
MIN. OF 10' SEPARATION
VIEWSHED
MAX. OF 65' OF BUILDING WIDTH REQUIRES 10' SEPARATION
S. SHORE DR.
WATERFRONTER GREATER THAN TWO LOTS IN WIDTH REQUIRE A VIEW CORRIDOR THROUGH THE PARCEL OPEN TO SKY
2. REQUIRED MASSING TO BE BROKEN PER CITY ORDIANCES
ADD SHADE SCREEN OVER PORTAL
MAINTAIN VIEWSHED
S. SHORE DR.
RAISED COURTYARD & PARKING BELOW FOR FLOOD RELEASE
3. REQUIRED FLOOD-ADAPTIVE ADJUSTMENTS DUE TO CITY & FEMA REGULATIONS
S. SHORE DR.
4. FINAL FORM


S Shore Dr
Ray St





(2) Hybrid Historic Court Flood adaptation



(1) Miami Beach Historic Court + Flooding / Sea Rise.

Hub 32 Mixed-Use Inclusionary Housing
Chicago, IL

65 units
60 du/acre


32


HUB 32