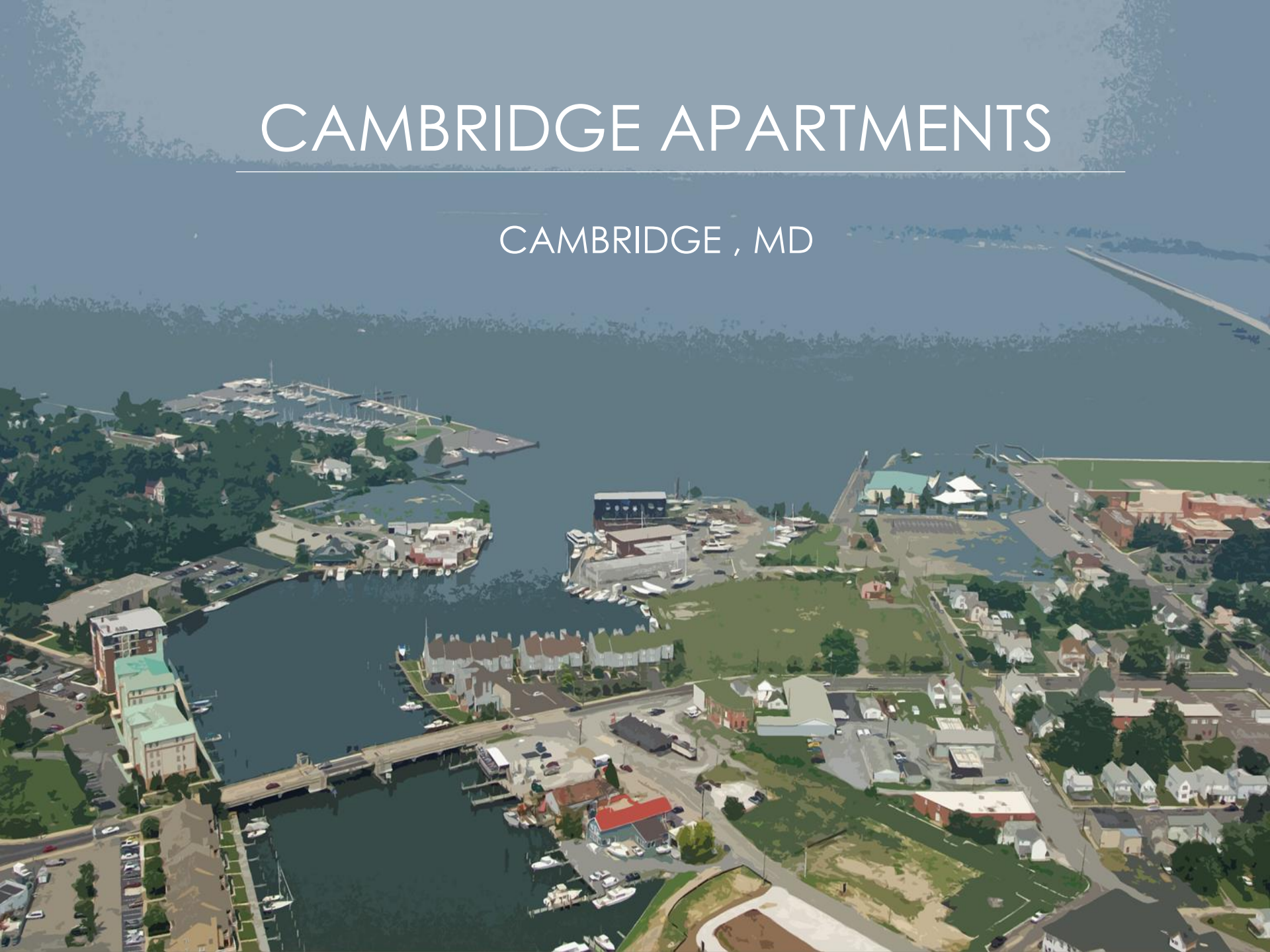
CAMBRIDGE APARTMENTS

CAMBRIDGE , MD



CAMBRIDGE APARTMENTS

CONCEPT

The overall concept for the apartment complex was to create a beacon or landmark for the community as you enter the county. Comparable to the Guggenheim Museum in Bilbao Spain, the design seeks to encourage and welcome an increased number of visitors to the community to experience the regional culture while simultaneously creating an economic stimulus for locals through the creation of new jobs.

The design aims to establish a multi family housing system that is unorthodox in plan, but able to respond to the needs of both the displaced (due to sea level rise) and those in the existing Cambridge community.

The design also seeks to address climate change through the lens of sea level rise, in particular, impact it will have on the site. In accordance with the embracing of water concept, a stairway of an absorbent planting system will be created on the water's edge to help temporarily mitigate the flooding in addition to a retaining/flood wall.

CAMBRIDGE APARTMENTS

DISPLACED COMMUNITY RESEARCH

MADISON, MD

The Madison community was chosen as it is an exceedingly high risk area with regards to sea water inundation into homes within the next 5 years.

The existing Madison community homes have a relatively scatter shot placement, with each household having their own private land as seen in Figure 1.

The Madison residents between the ages of 65-84 years old account for over 40% (Table 1) of the existing population which was taken into consideration when creating the programming for the site.

GOAL:

To provide residents with the qualities of a private house with functional outdoor space and exposure to light and air.

Figure 1

Madison Age Breakdown

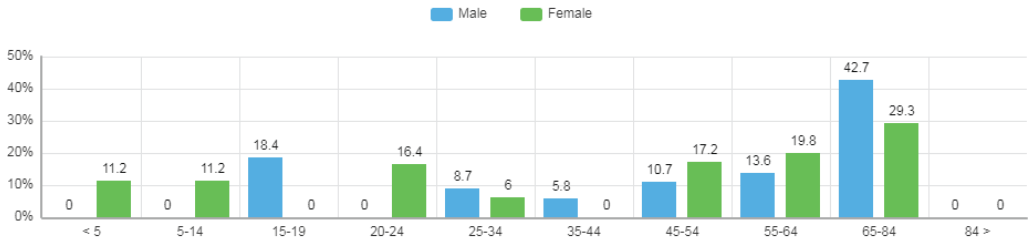
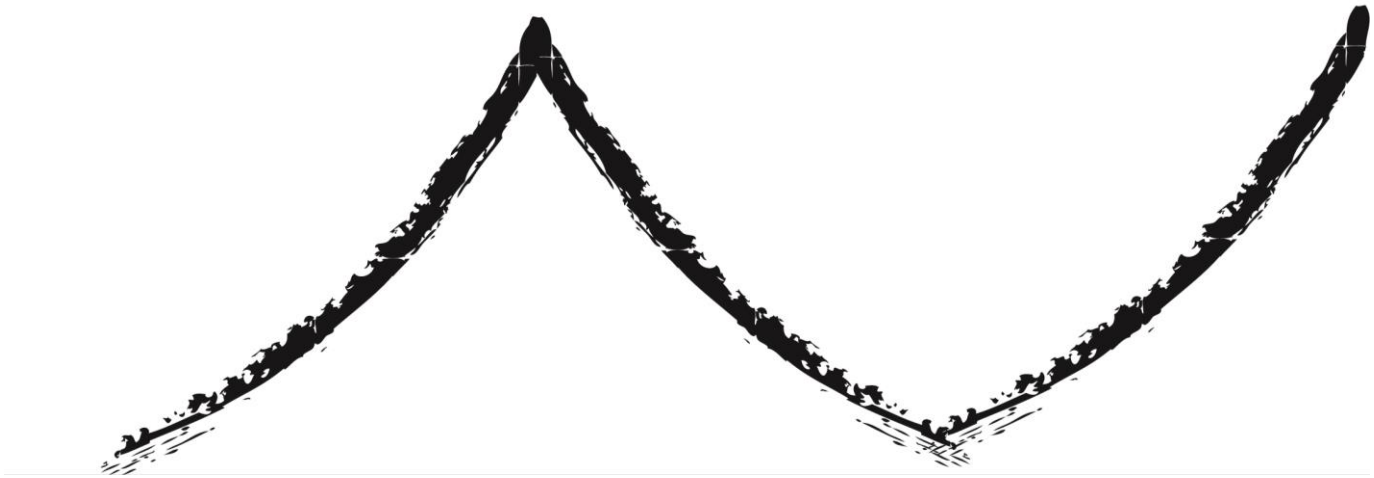


Table 1

CAMBRIDGE APARTMENTS

PARTI



The main concept was to **embrace the water** while **providing jobs for the community** and creating a **sense of safety for the displaced**. The overall shape of the multifamily housing project will mimic the sail pavilion that can be seen at the Dorchester County Visitor Center

CAMBRIDGE APARTMENTS

SITE ANALYSIS

PARKING LOTS

The surrounding land mostly consists of parking lots rather than focusing on community development. For optimal use of the site in terms of programming, the parking lot was placed below grade.

SUN PATH

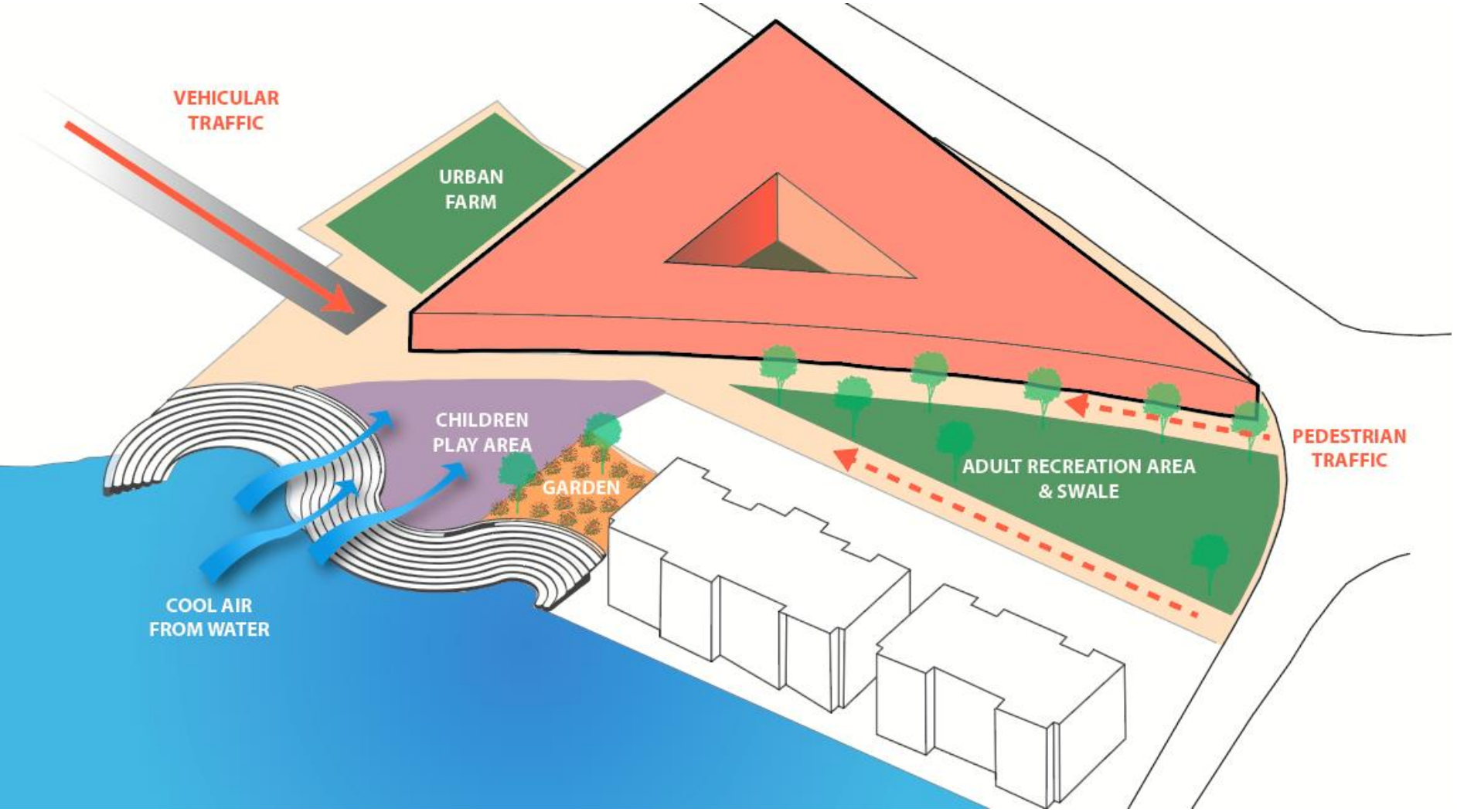
This determined the orientation of the building form and programming

2070 - 6 FOOT RISE

This determined the orientation of the building form and programming

CAMBRIDGE APARTMENTS

SITE MASSING PROGRAM



CAMBRIDGE APARTMENTS

PRECEDENTS

Hallmark House Hotel, Johannesburg
David Adjaye
2016

8 House , Copenhagen, Denmark
Bjarke Ingels Group
2006

CAMBRIDGE APARTMENTS

PRECEDENTS

The Sail, Indonesia
Atelier 6 Arsitek
2009

The White Walls, Cyprus
Ateliers Jean Nouvel
2015

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MATERIALS

Multicolored Pavers
At front entrance

Insulated Glass
On curtain wall

White Brick
On exterior walls

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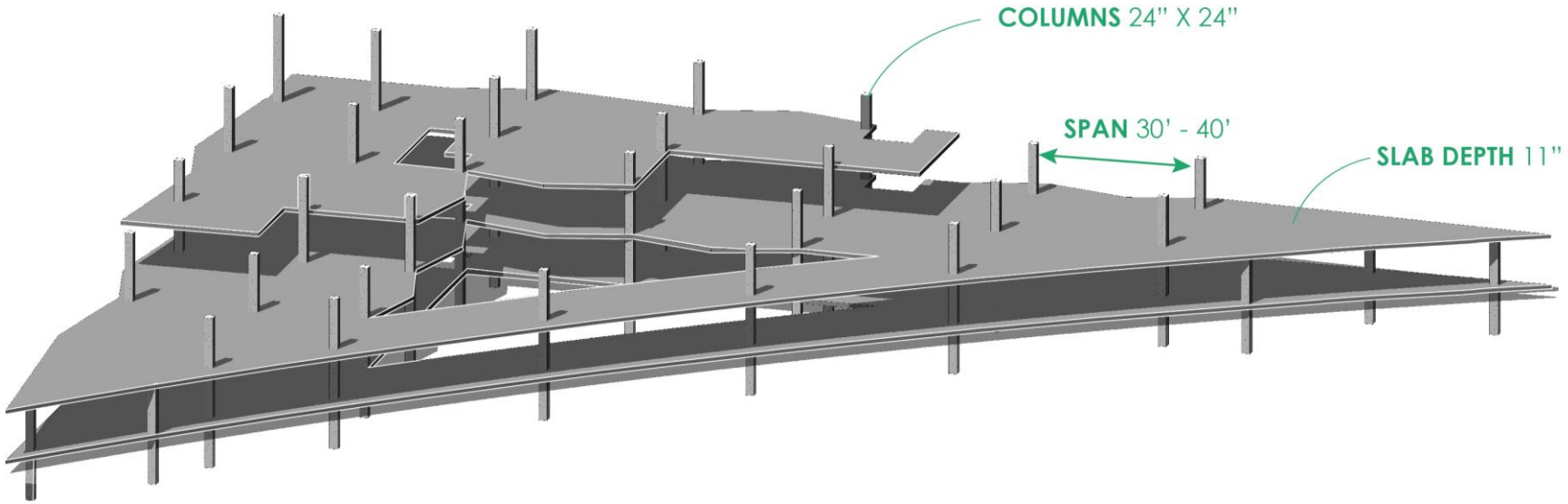
SITE PLAN

CAMBRIDGE APARTMENTS

STRUCTURAL SYSTEM

SITE CAST CONCRETE TWO-WAY FLAT PLATE

- Most economical concrete framing systems
- Simple to construct and easy to finish
- Well suited to the moderate live loads, and the flexibility of its column placements permits greater ease of unit planning and layout
- Good for irregular building form
- Minimizes floor thickness



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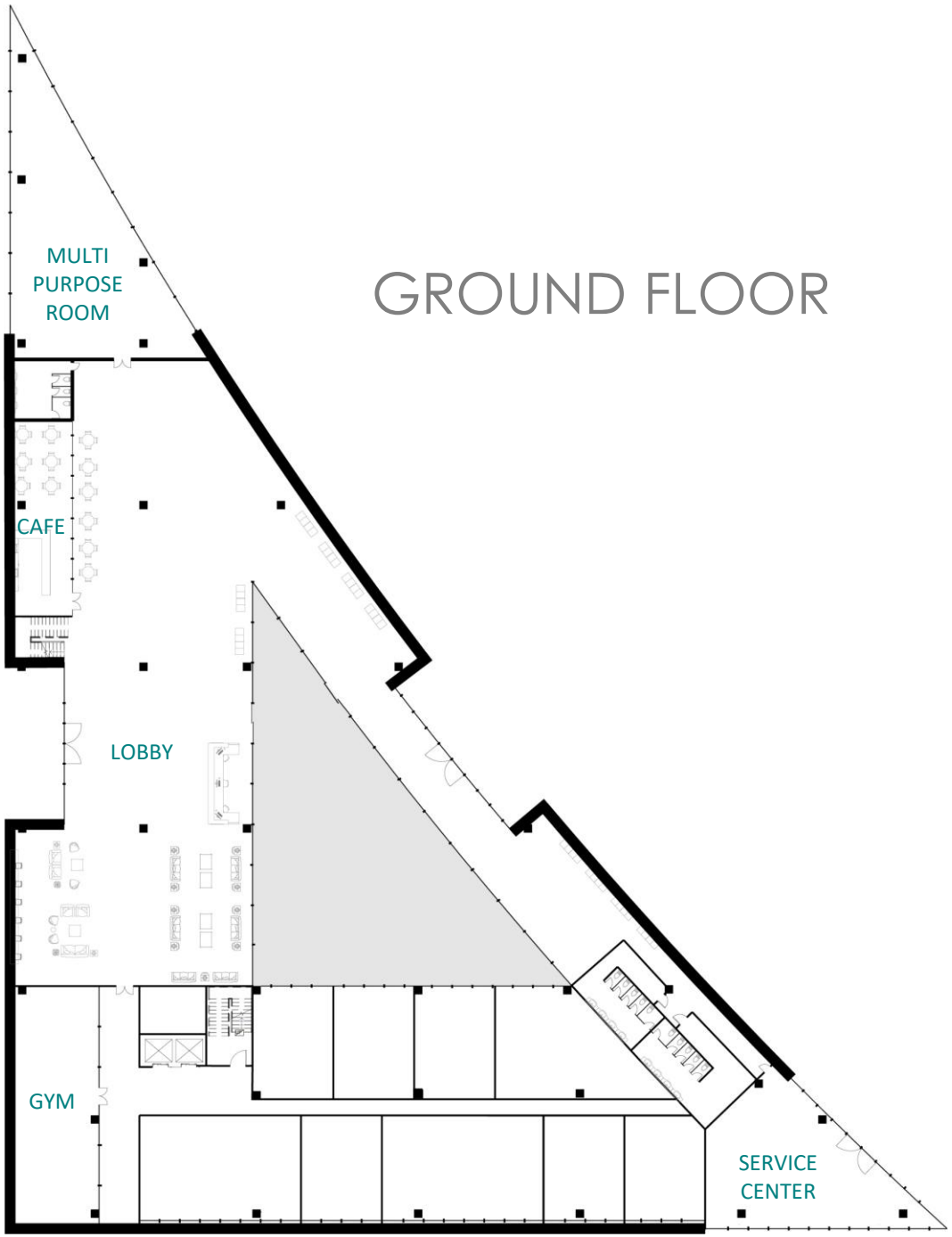
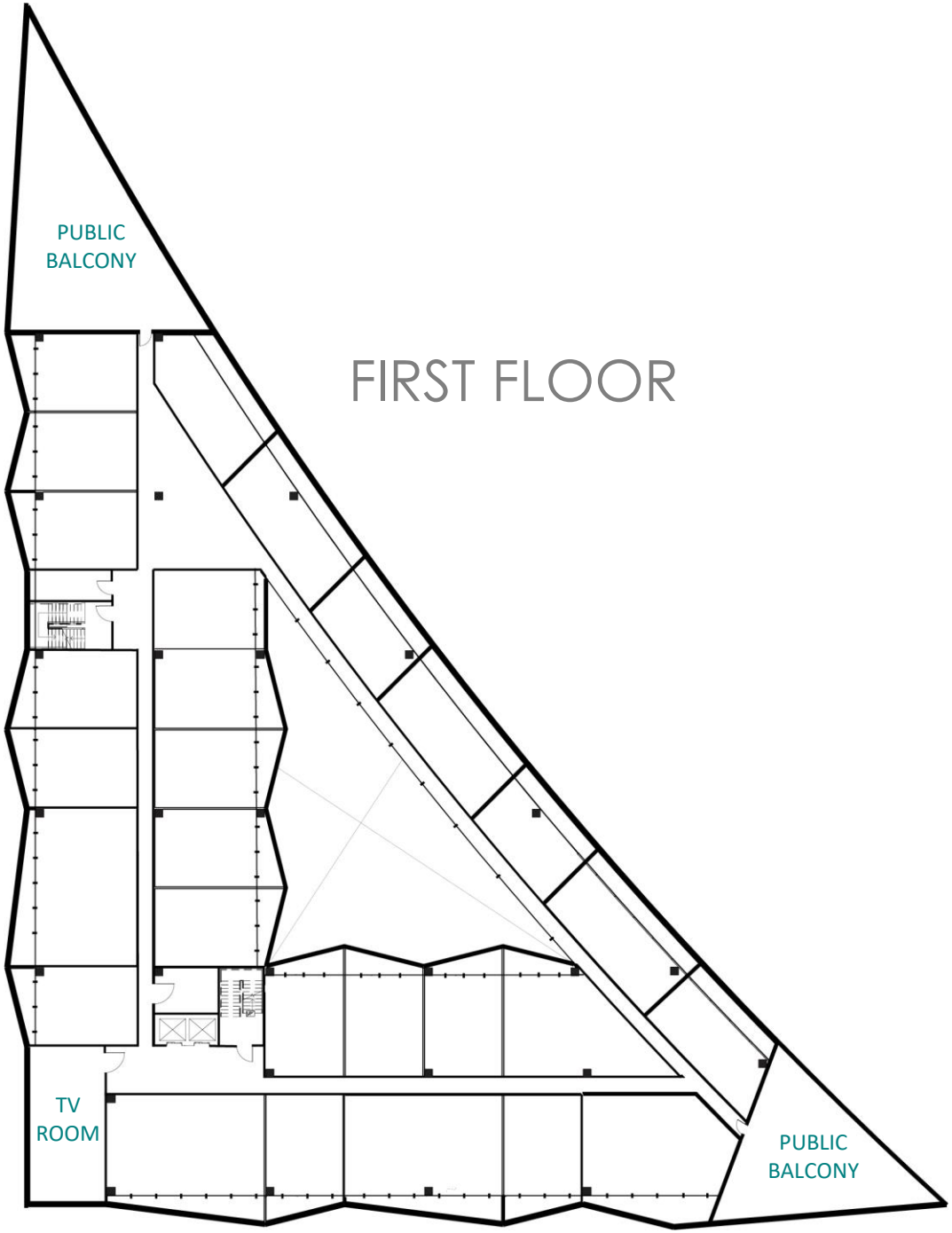
FLOOR PLANS

BASEMENT/ PARKING

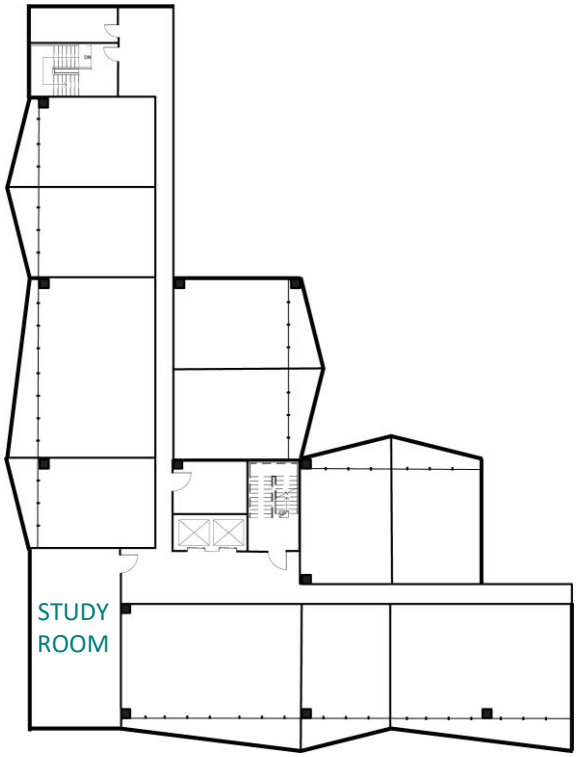
GROUND FLOOR





FIRST FLOOR

SECOND FLOOR



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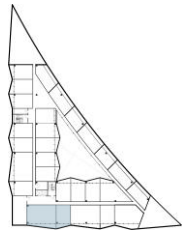
UNIT PLANS



TWO BEDROOM

ONE BEDROOM

PUBLIC

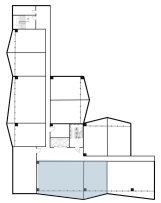
PRIVATE

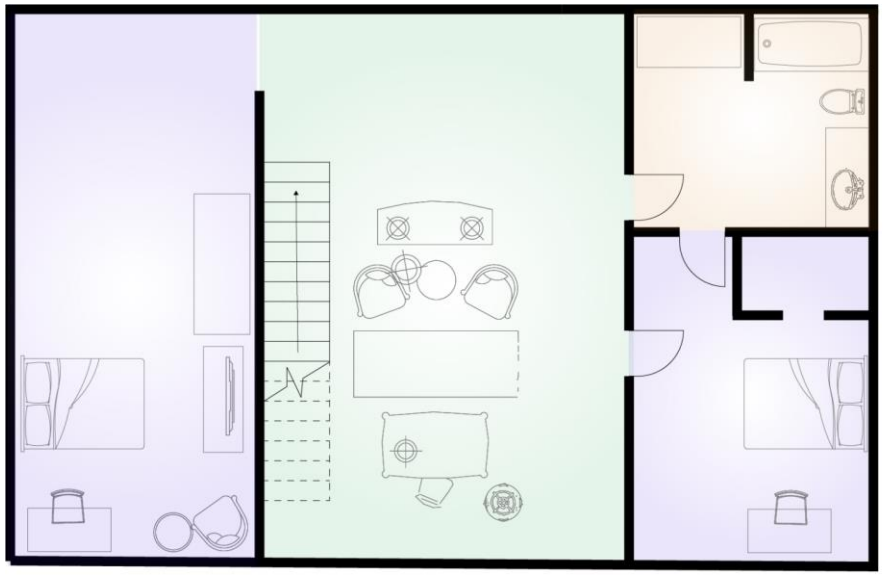
SEMIPRIVATE

CAMBRIDGE APARTMENTS

UNIT PLANS

DOUBLE HEIGHT FOUR BEDROOM





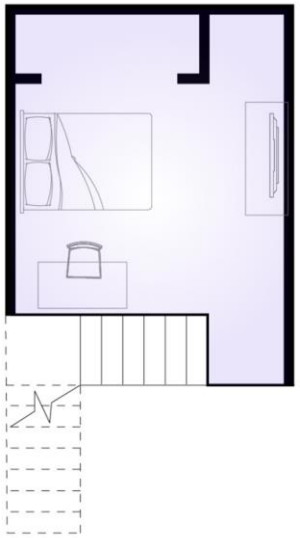
UPPER LEVEL

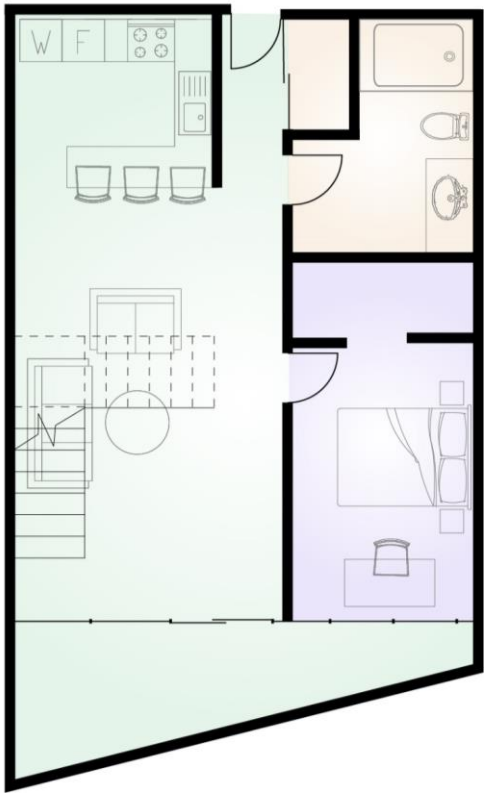
LOWER LEVEL

CAMBRIDGE APARTMENTS

UNIT PLANS

DOUBLE HEIGHT TWO BEDROOM





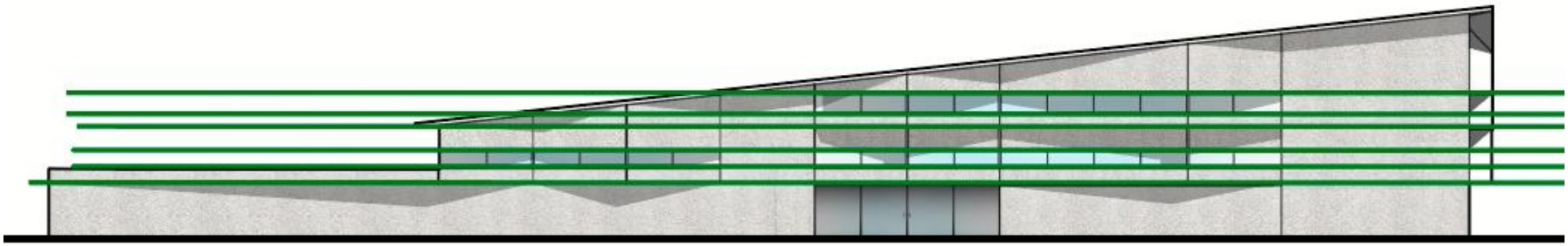
PUBLIC
PRIVATE
SEMIPRIVATE

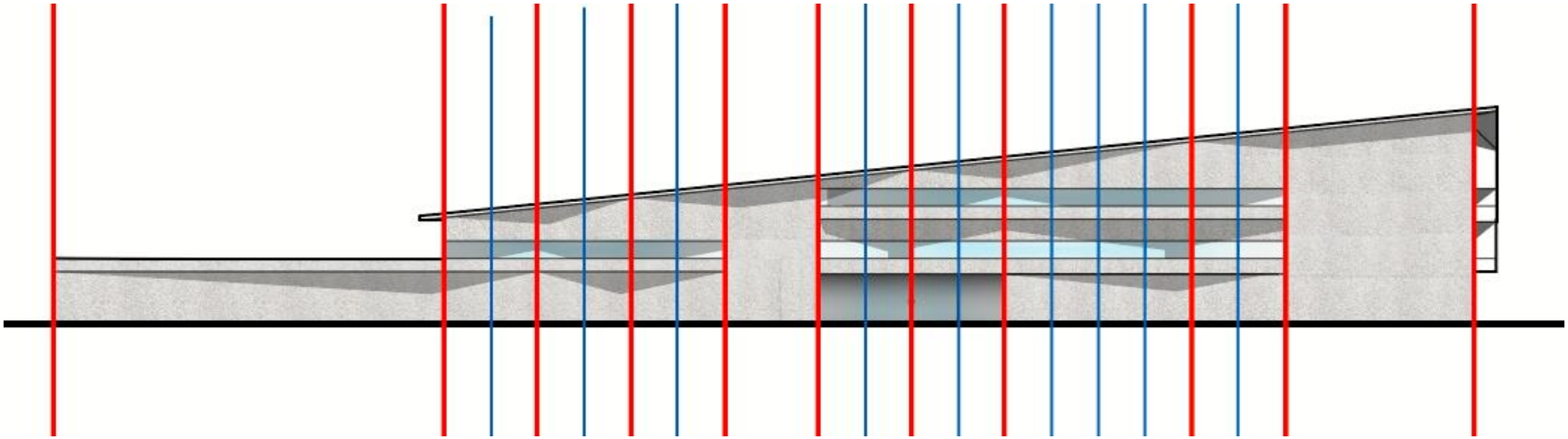
UPPER LEVEL

LOWER LEVEL

CAMBRIDGE APARTMENTS

FAÇADE ANALYSIS





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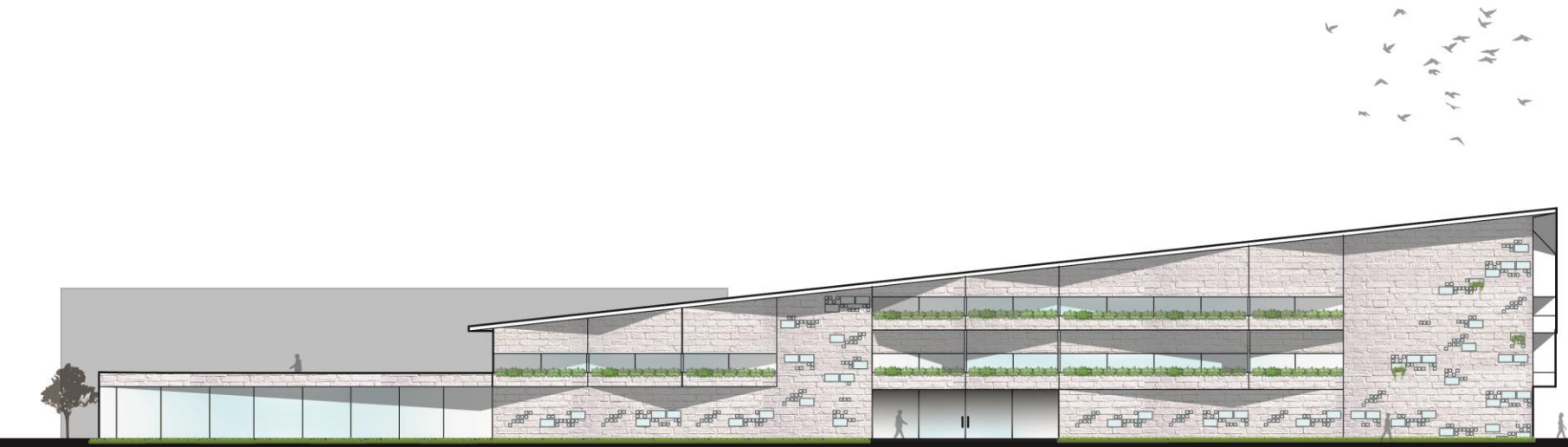
WEST ELEVATION



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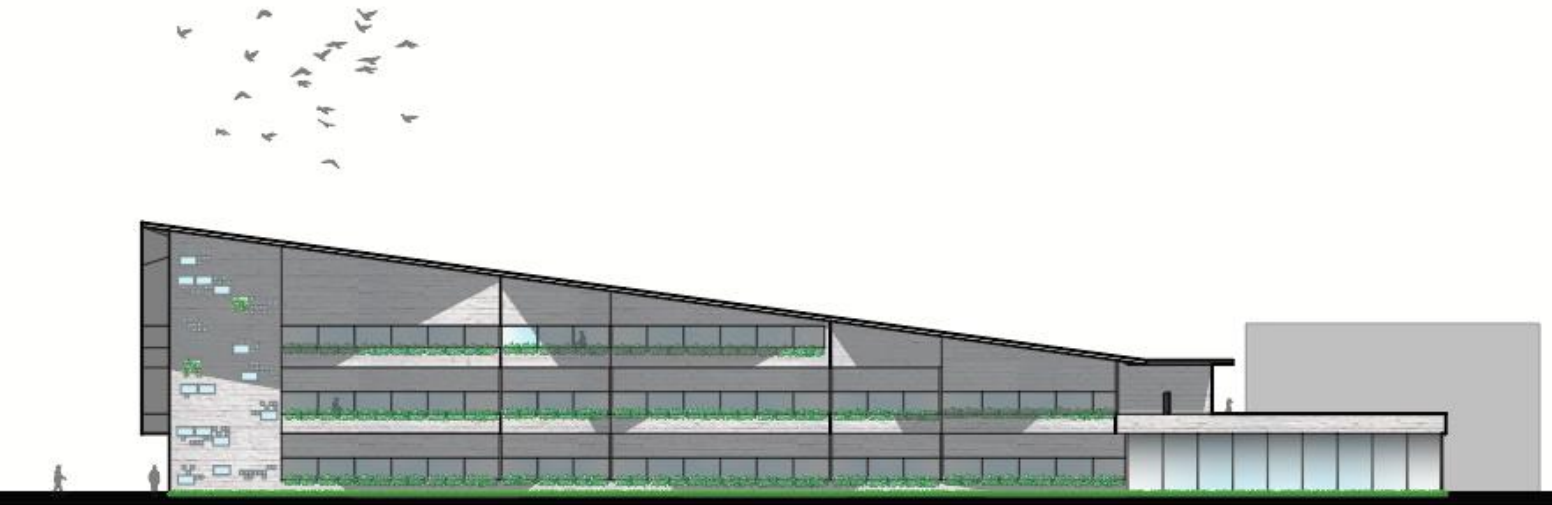
EAST ELEVATION

CAMBRIDGE APARTMENTS

SOUTH ELEVATION



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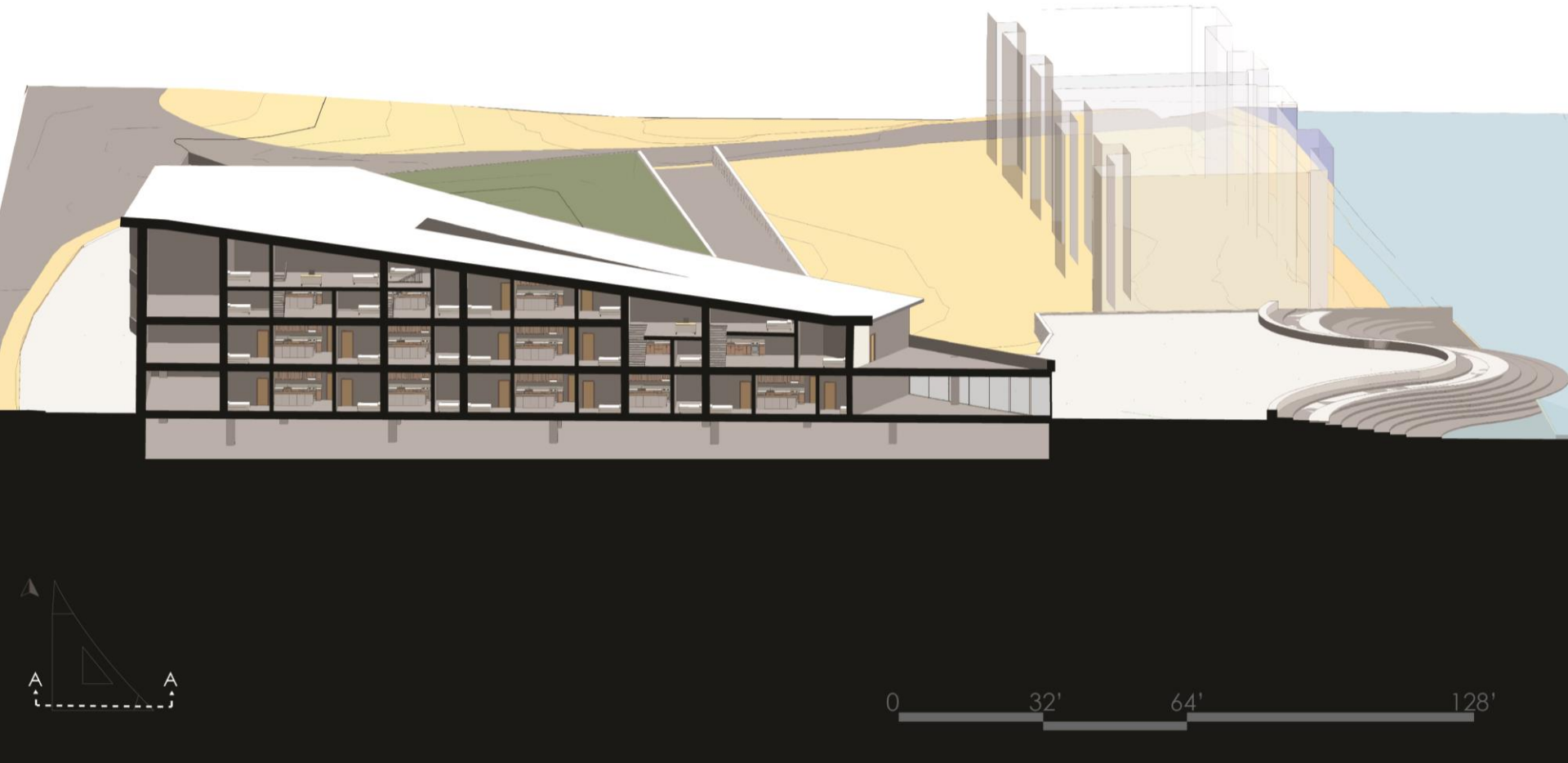
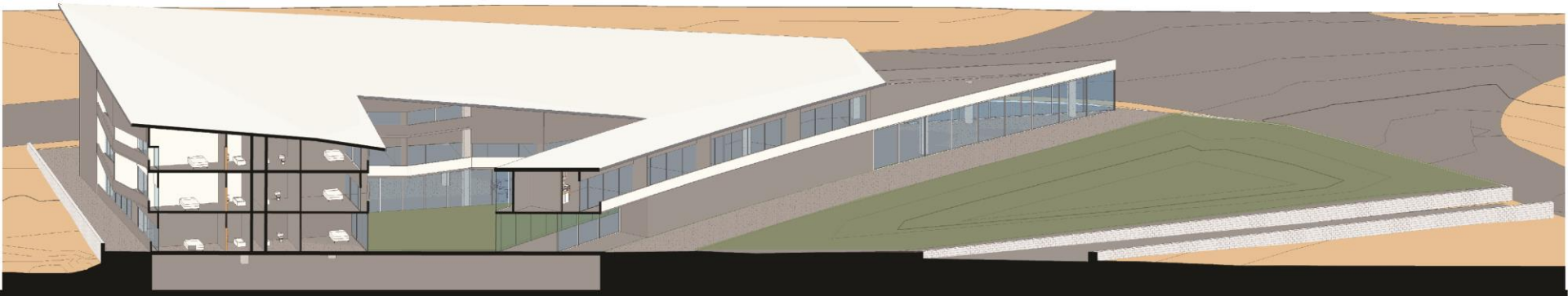
SECTION AA



CAMBRIDGE APARTMENTS

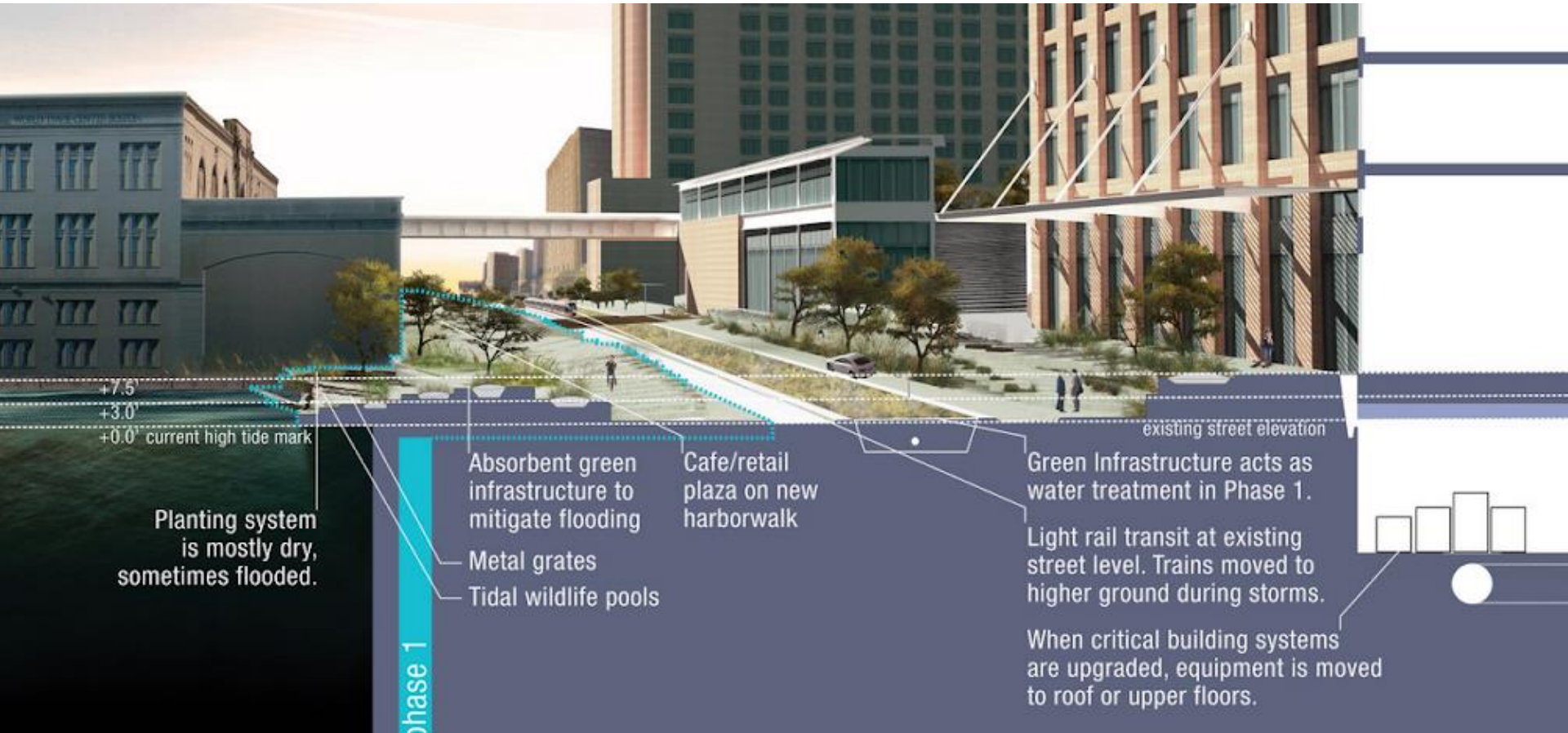
SECITON BB



CAMBRIDGE APARTMENTS

RESILIENT DESIGN PRECEDENTS

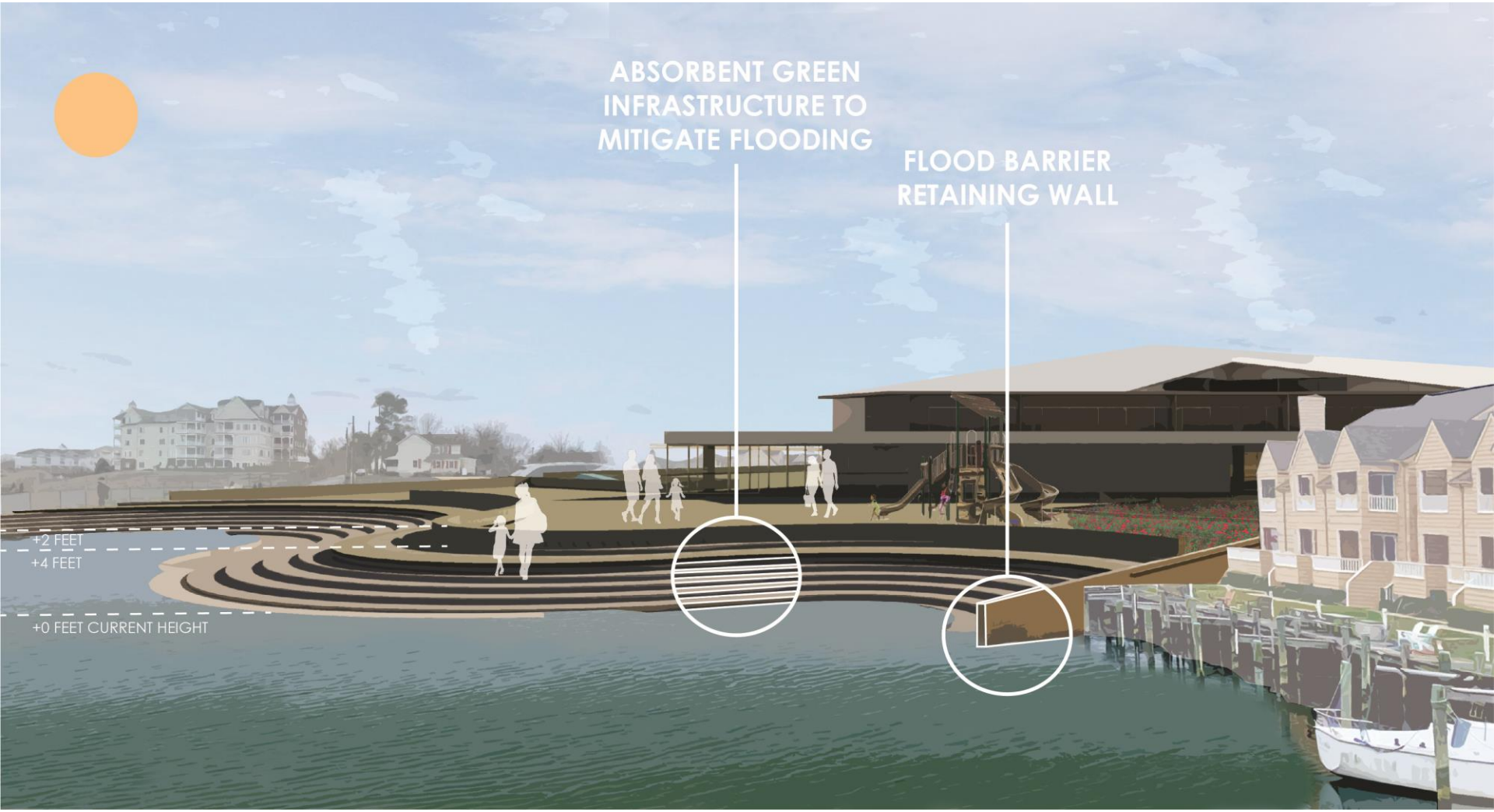
According to a report by Urban Land Institute and Arrowstreet on Revere Beach, MA, they proposed to raise the HarborWalk boardwalk so it can absorb water and respond to shifting tides while also providing recreational public space. The shifting topography invites water in strategically to create tidal pools and canals that punctuate a new recreational infrastructure along the existing Harborwalk.



CAMBRIDGE APARTMENTS

PROPOSED RESILIENT DESIGN

PLANNING FOR SEA LEVEL RISE OF 6 FEET IN 2070



CAMBRIDGE APARTMENTS

ENTRANCE VIEW

CAMBRIDGE APARTMENTS

ENTRANCE VIEW

CAMBRIDGE APARTMENTS

PRIVATE BALCONY VIEW

CAMBRIDGE APARTMENTS

PUBLIC BALCONY VIEW TO CREEK

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LOBBBY VIEW