

# United Nations Environmental Council - UN-ECO

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Building technology: Huib Plomp  
External examiner: Daniel Jauslin

## Introduction

### 01 Location

### 02 Masterplan

Key values masterplan

Solve the security risk from FDR drive

Create an uninterrupted Manhattan Greenway

Include UN PLaza building

Respect the nature of the existing architectural organism  
and the vision of the Board of Design

Find balance in the composition between existing and new

Revitalise the waterfront along the UN Territories

Connect to new developments

### 03 building design

Key values building design

Create a functional whole with the existing building elements

Merge the different user flows with the existing building

Merge sustainability aspects with the architectural experience

### 04 Building technology

Structure

Climate control

Atrium Lobby

Office atrium

Office space

Details office facade

Assembly of the photo-bio facade

“sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”



People, planet, profit



People, planet, profit



authority  
United Nations Environmental Council

# 01 Location

United States of America  
New York  
Manhattan



United States of America  
New York  
Manhattan







42ND STREET

Grand Central Station  
Chrysler building  
Times Square

47TH STREET

Hammar skjold  
Plaza

48TH STREET

Rockefeller  
Centre  
Times Square



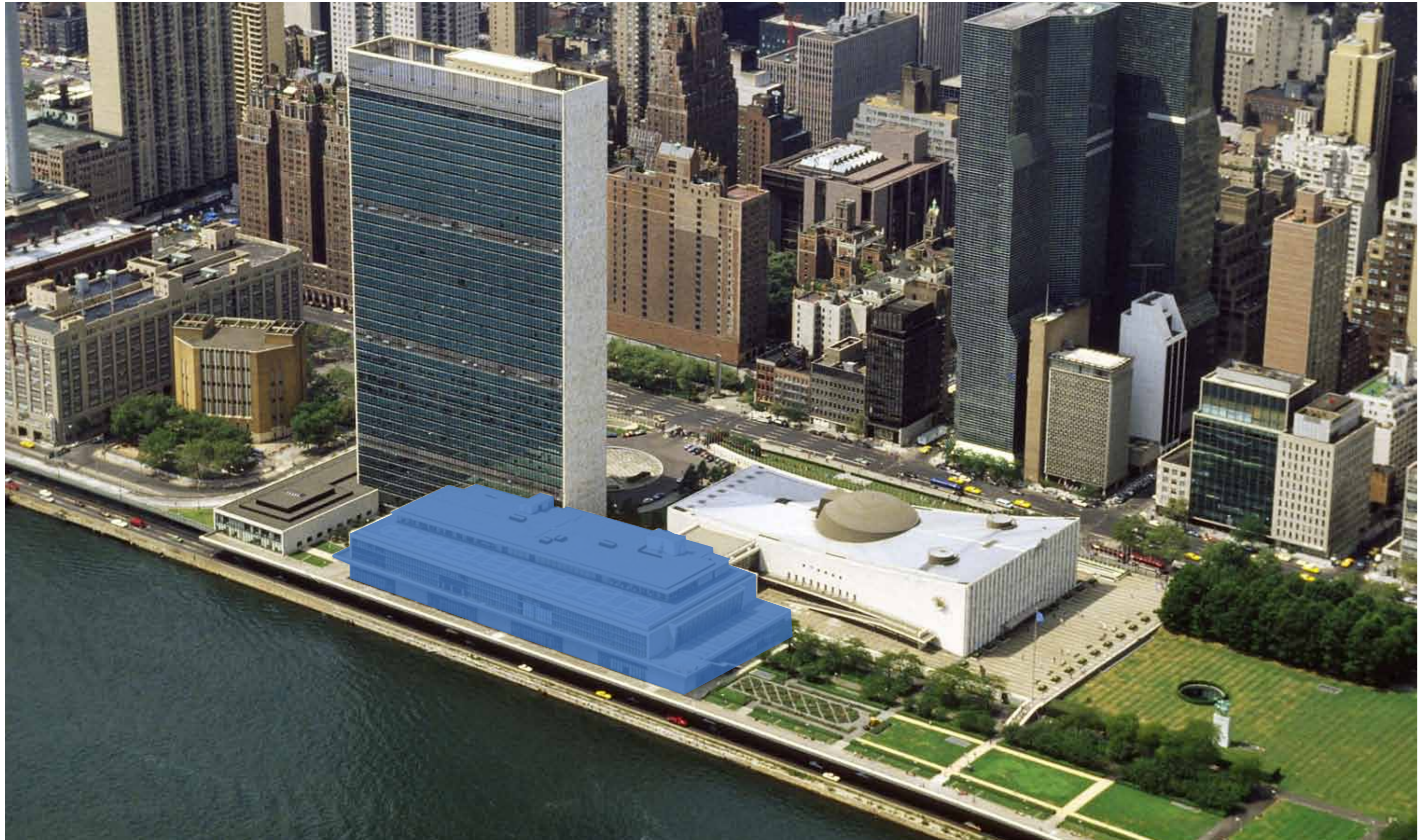
# United Nations Territories



# United Nations Territories General Assembly



# United Nations Territories Council Volume



# United Nations Territories Secretariat Slab





# United Nations Organisation Structure

**General Assembly**

**International court of justice**

**Economic and Social Council**

**Trusteeship Council**

**Security Council**

**Secretariat**

**The Haque - NL**

**United Nations Territories - Manhattan - New York - USA**



# United Nations Organisation Structure

**General Assembly**

**International court of justice**

**Economic and Social Council**

**Trusteeship Council**

**Security Council**

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**Secretariat**

**The Haque - NL**

**United Nations Territories - Manhattan - New York - USA**

# 02 Masterplan

Key values masterplan

Solve the security risk from FDR drive

Create an uninterrupted Manhattan Greenway

Include UN PLaza building

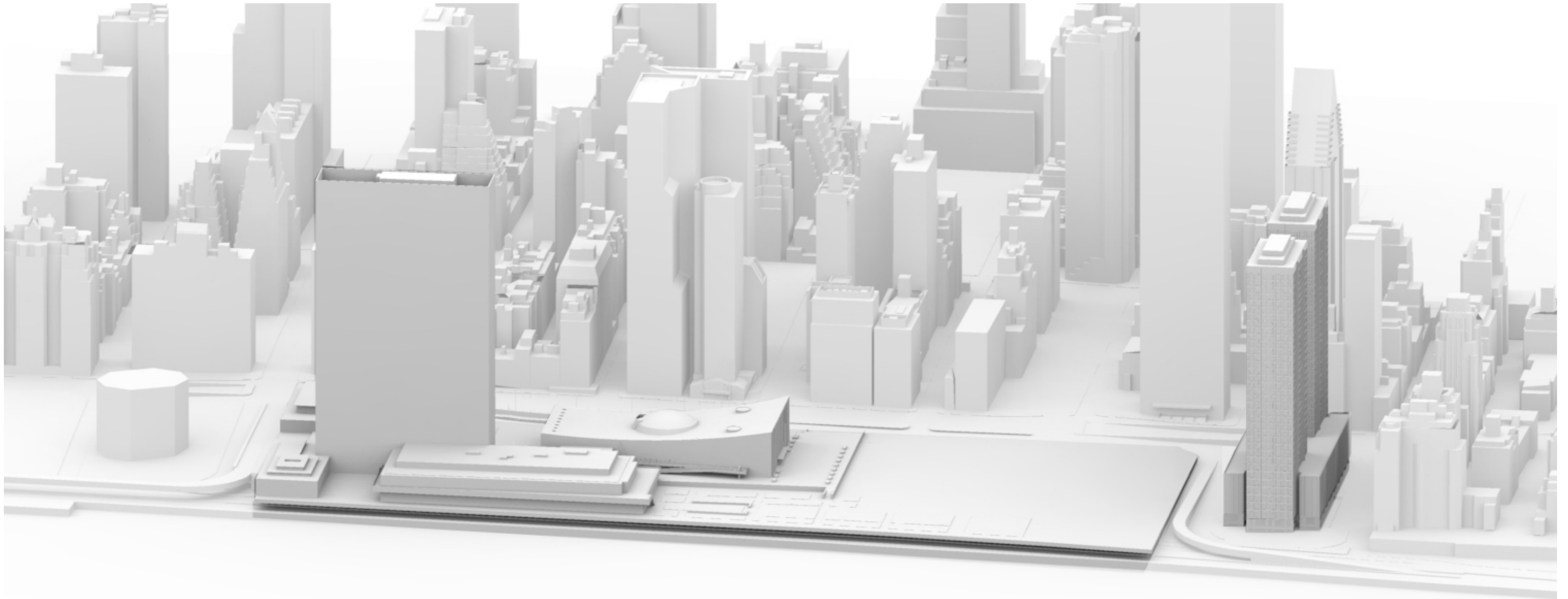
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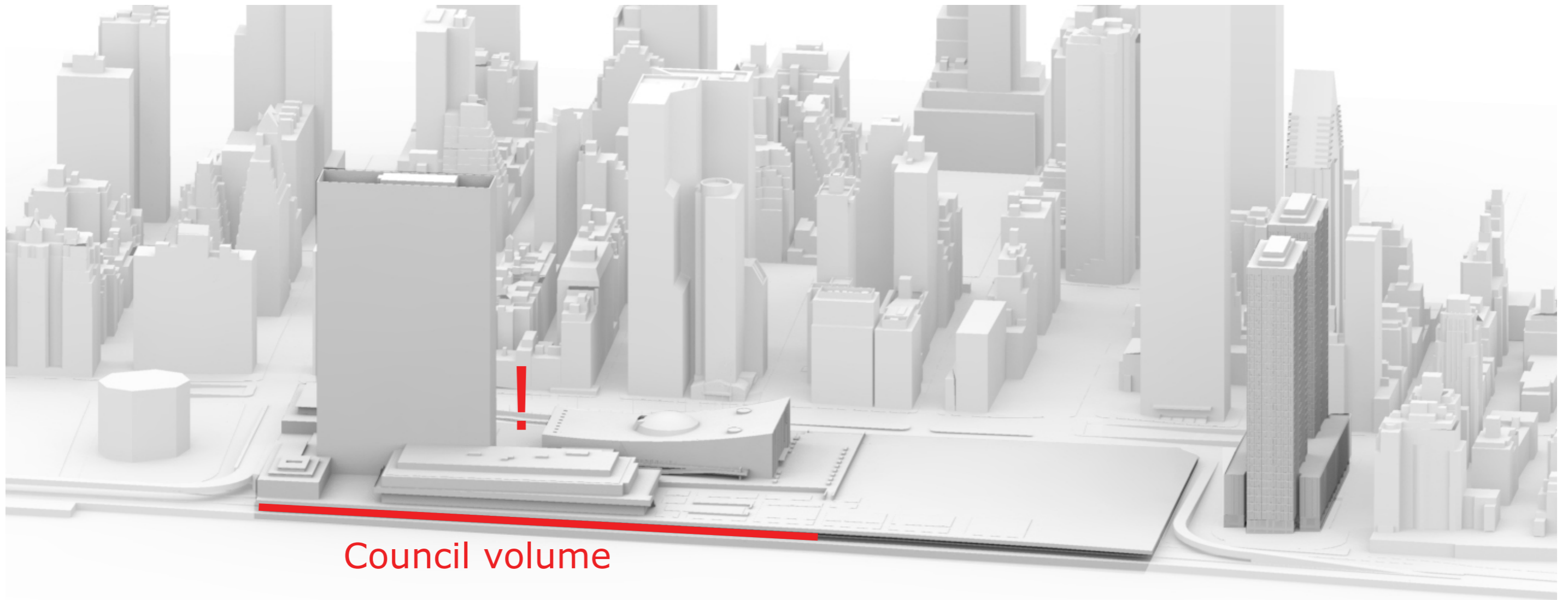
Revitalise the waterfront along the UN Territories

Connect to new developments

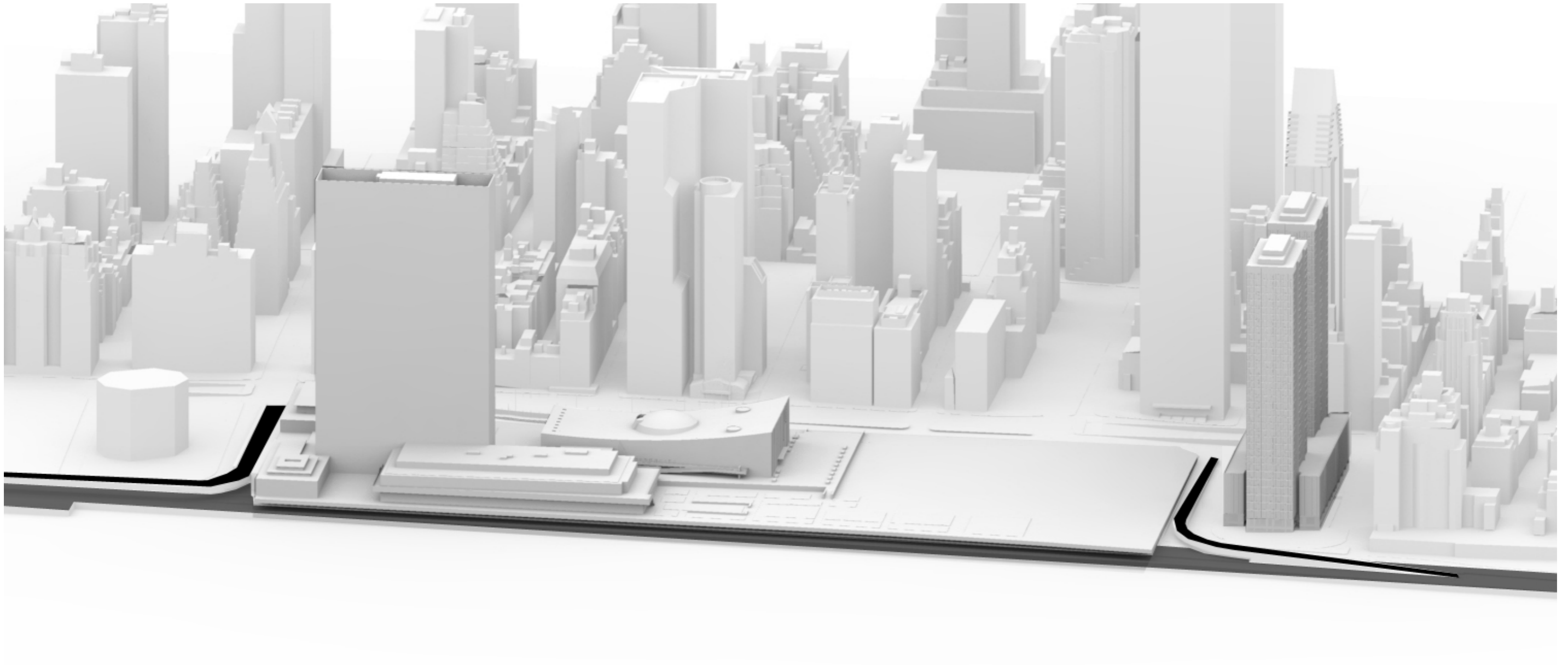
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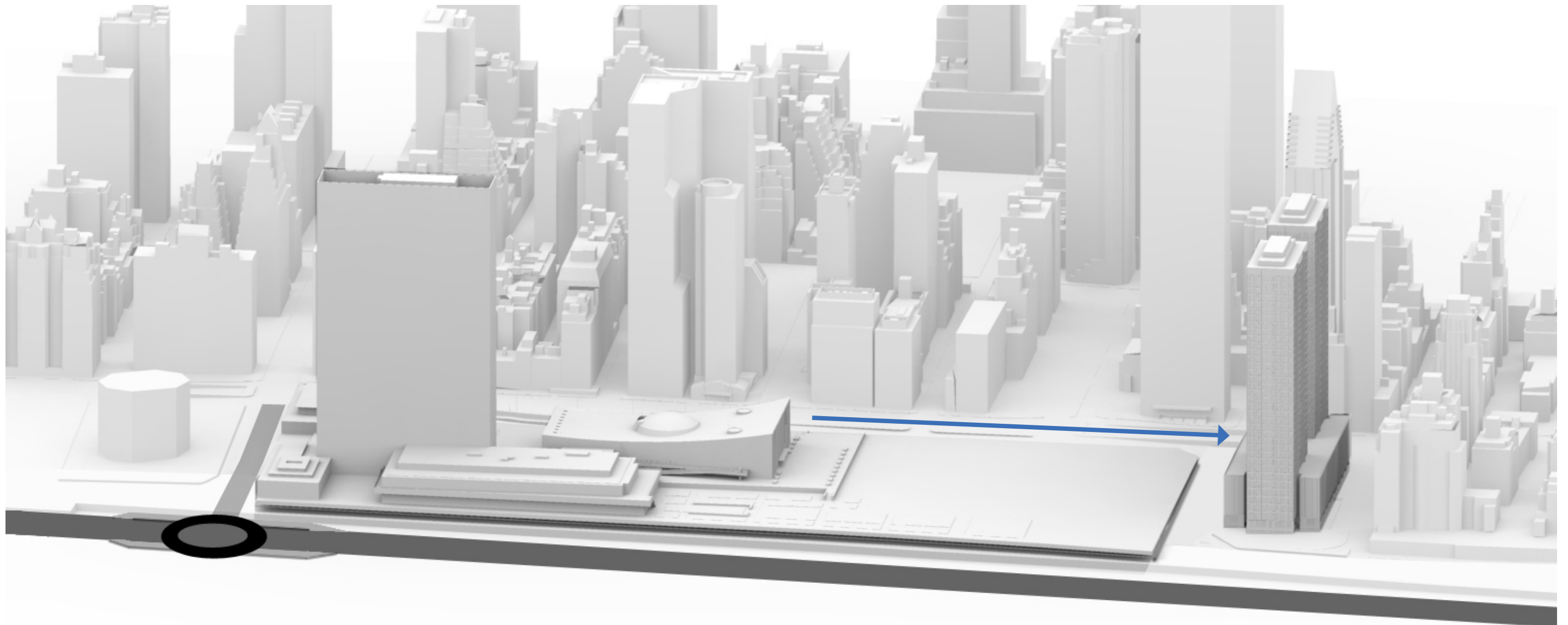


exit lane

The FDR  
and its exit and access lanes  
are removed

access lane

# Solve the security risk from FDR drive



The FDR is placed back  
with a safe distance from UNHQ

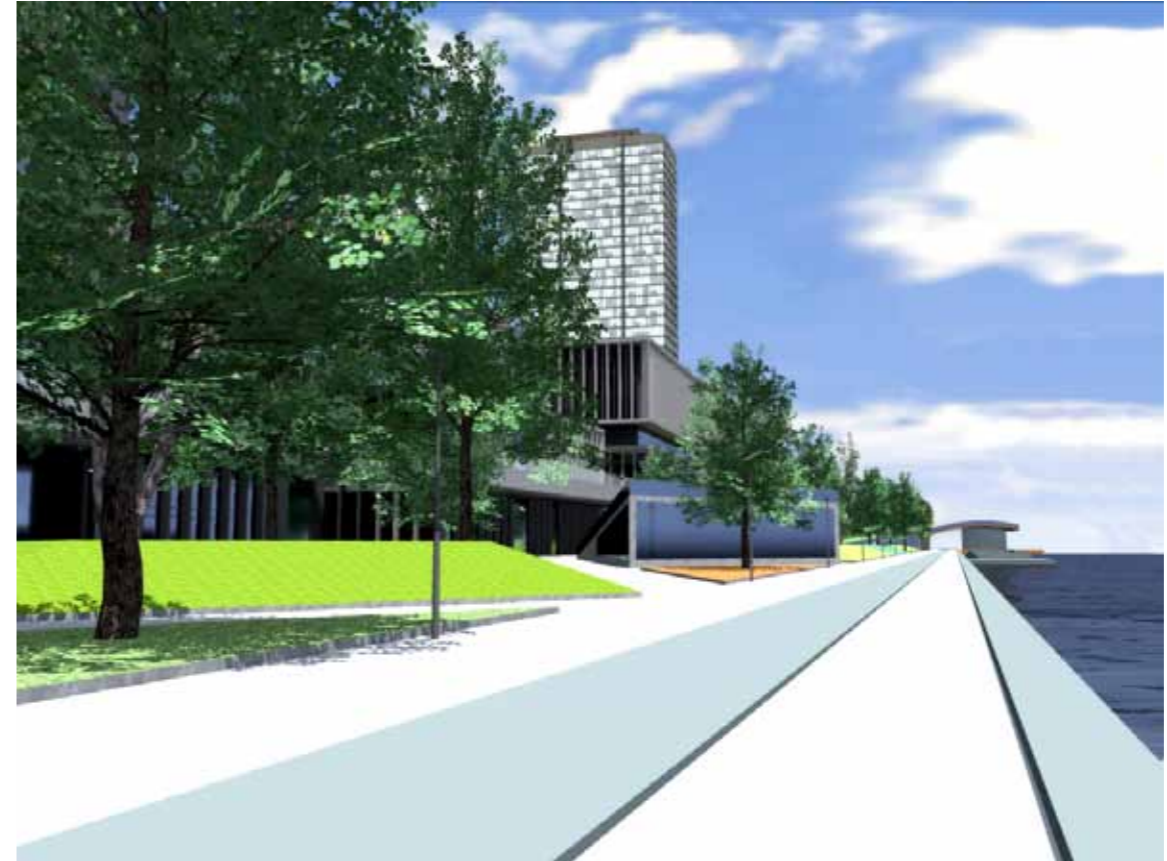
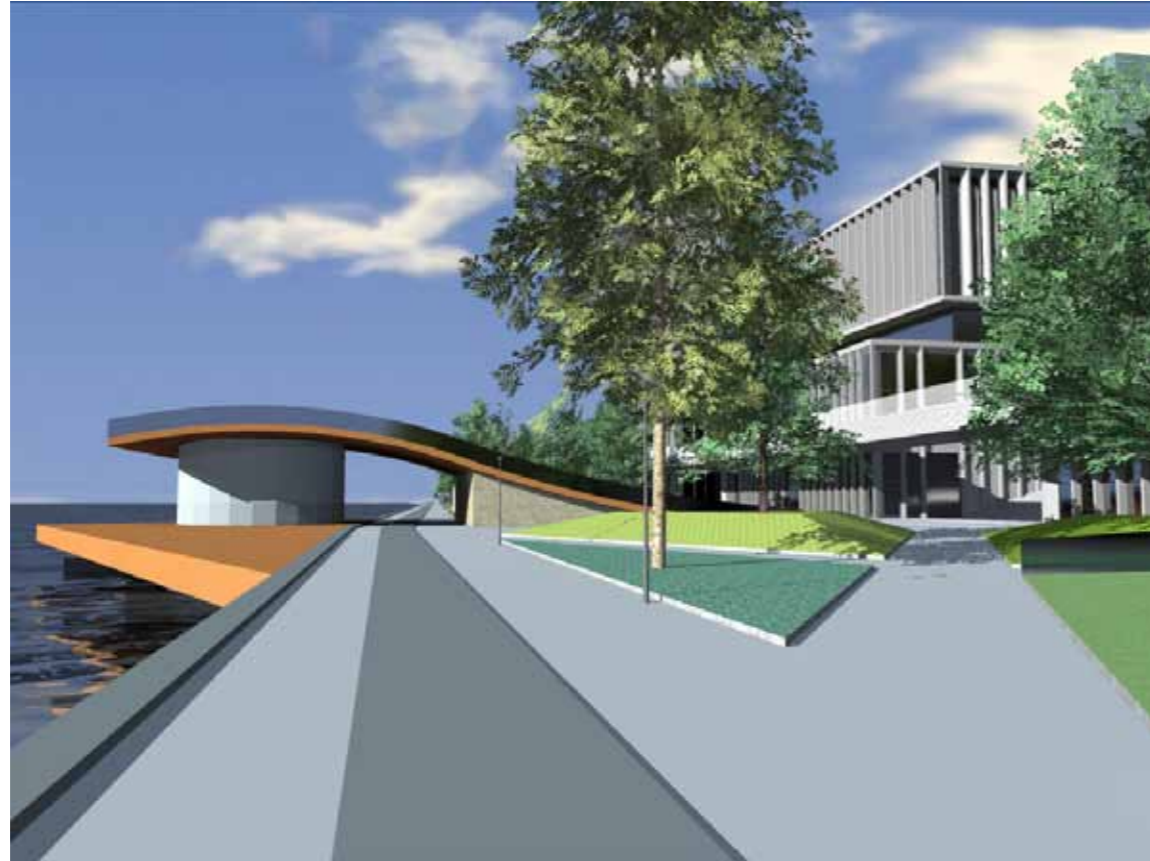
A new traffic node is  
connecting the FDR to 42th street  
which is a main artery towards downtown  
and the first avenue tunnel is extended

# Create an uninterrupted Manhattan Greenway

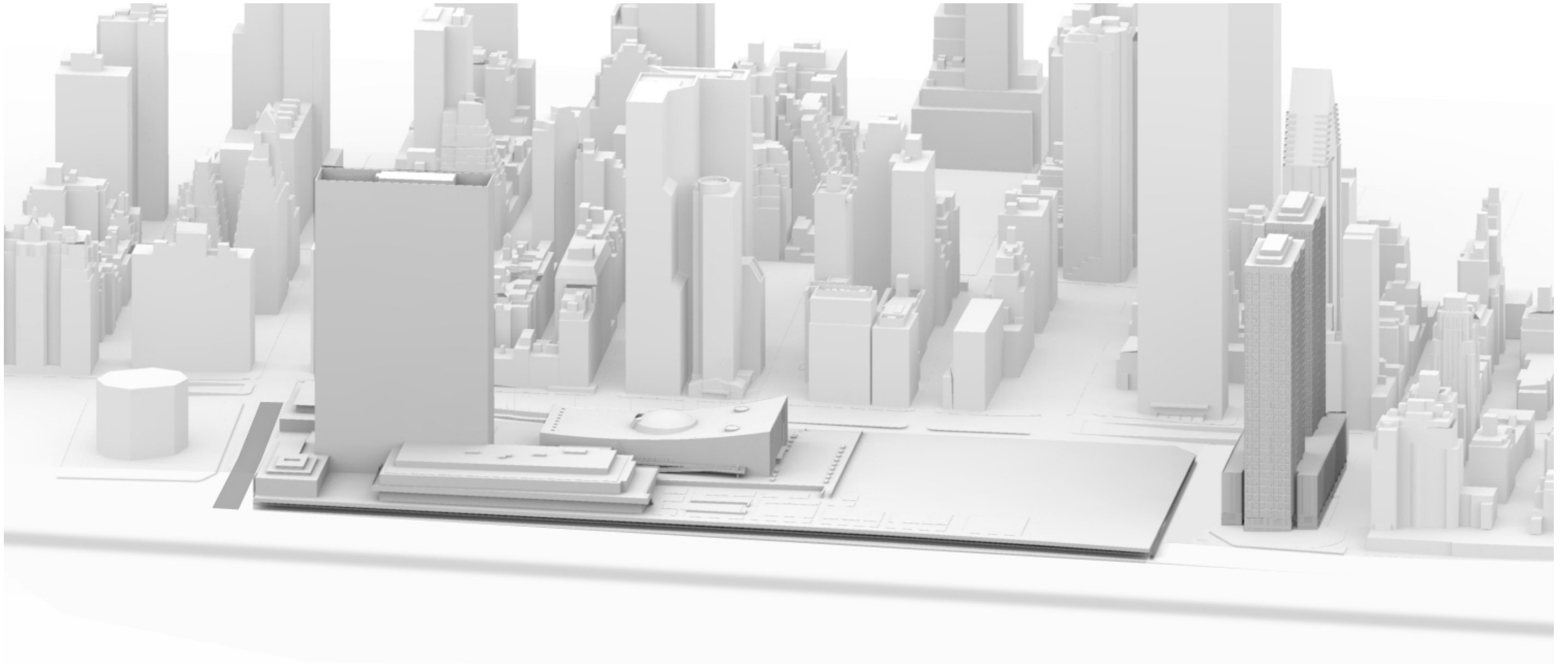




# Create an uninterrupted Manhattan Greenway

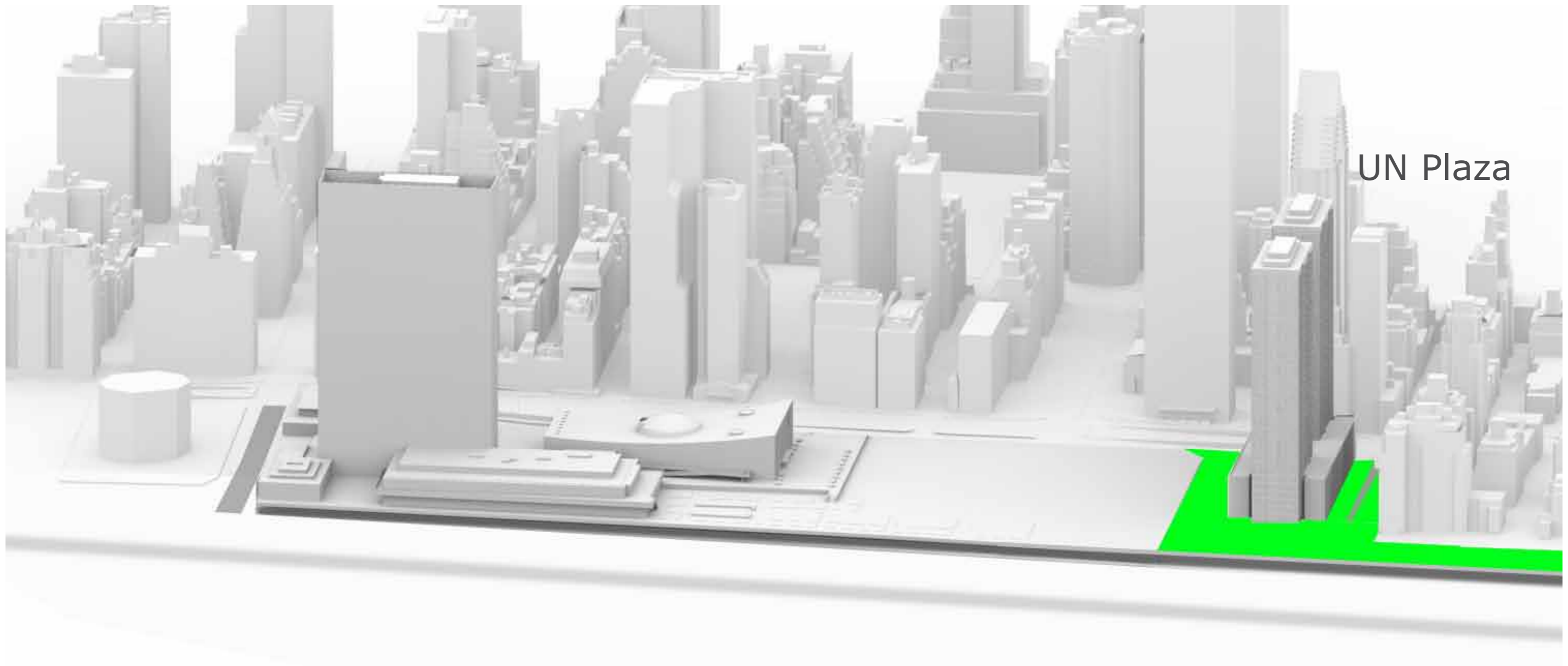


# Create an uninterrupted Manhattan Greenway



The FDR is covered to make it possible to continue the Manhattan Greenway uninterrupted

# Include UN PLaza building



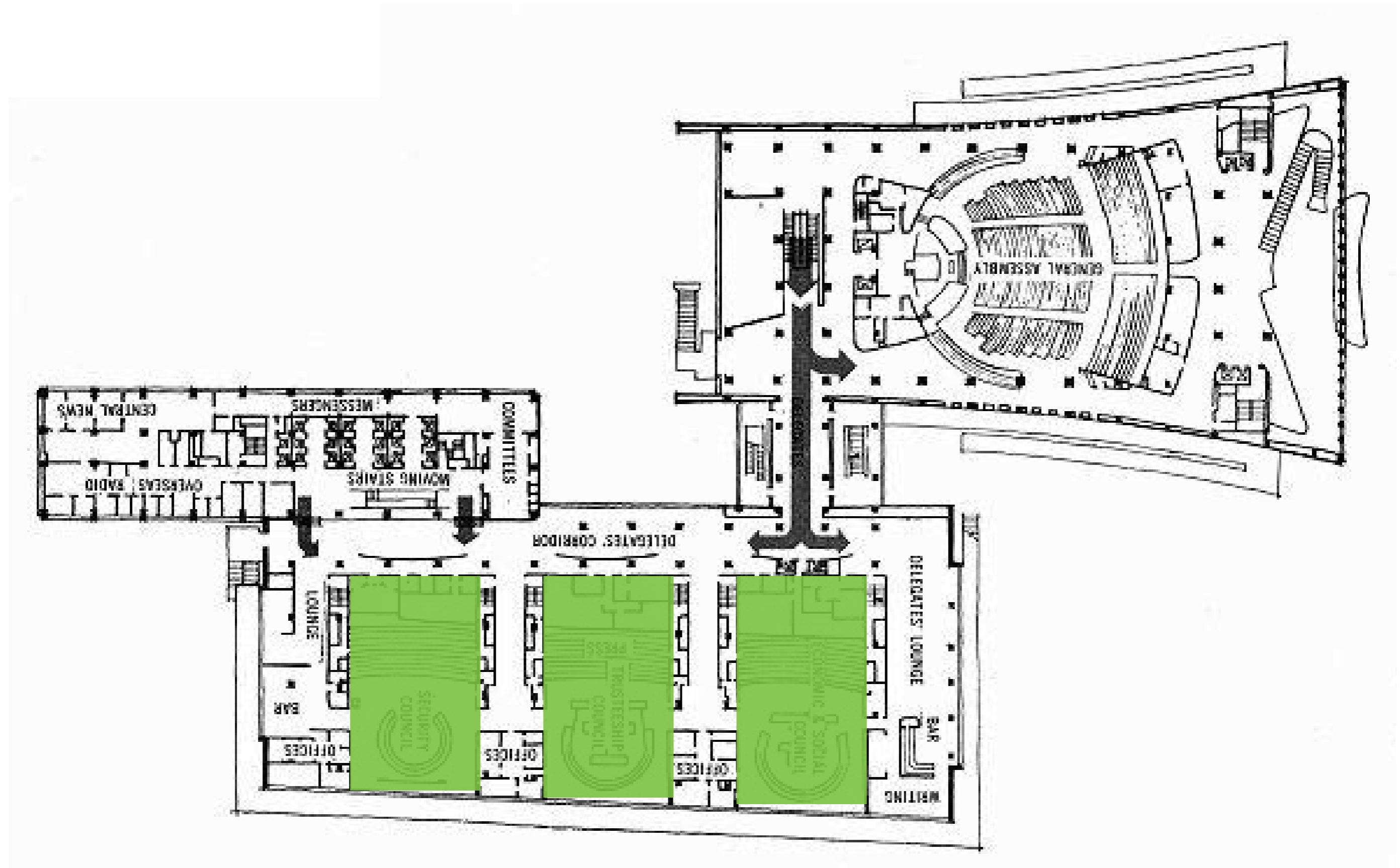
The FDR deck is cut off and extended  
to include the UN Plaza  
UN Plaza was part of the original design

# Revitalise the waterfront along the UN Territories

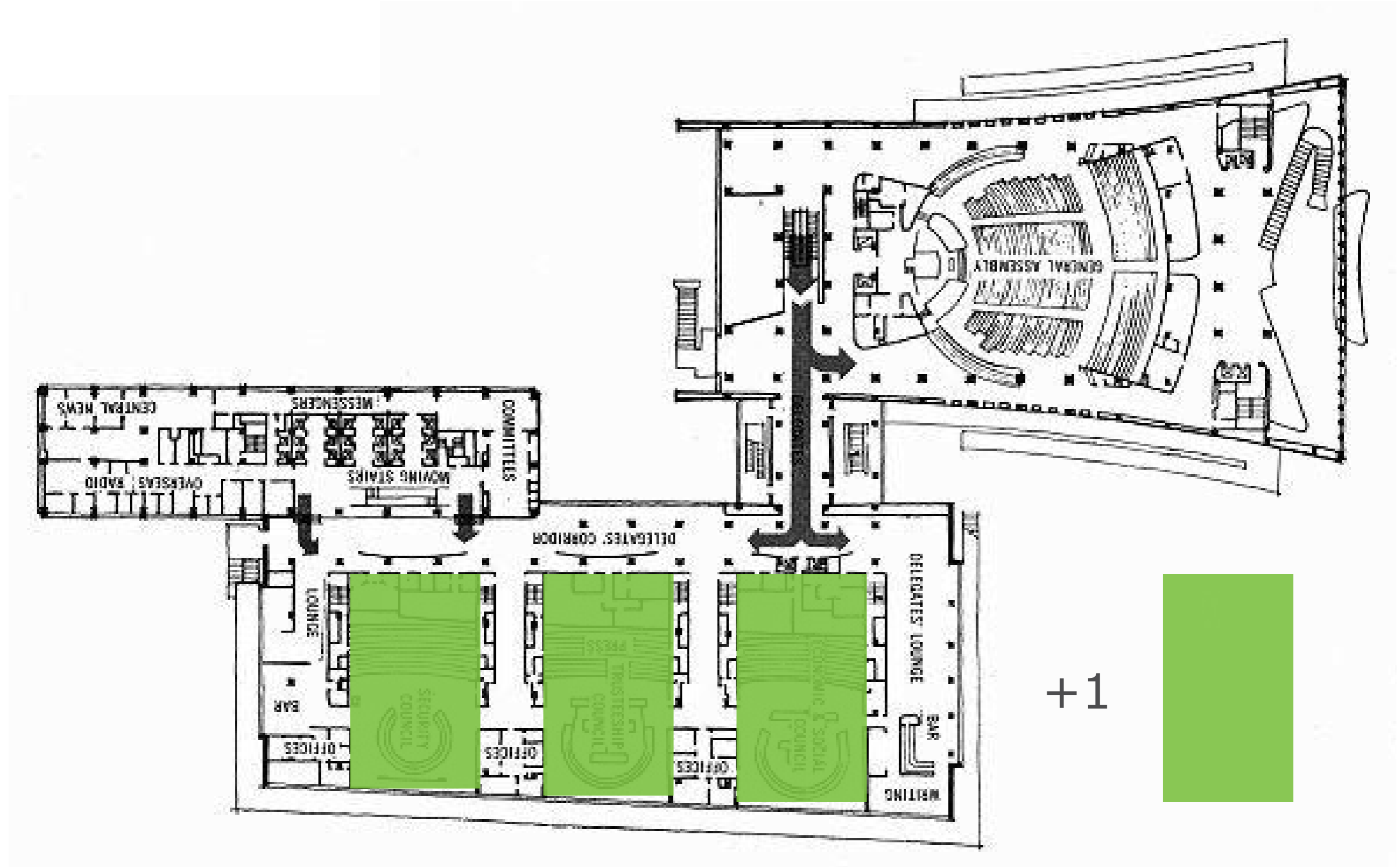


The space from the former FDR could be used to house functions that can enhance the Manhattan Greenway

# Respect the nature of the existing architectural organism and the vision of the Board of Design



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Respect the nature of the existing architectural organism  
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**REPORT**  
**TO THE**  
**GENERAL ASSEMBLY**  
**OF THE**  
**UNITED NATIONS**  
**BY THE**  
**SECRETARY-GENERAL**  
**ON**

The  
**Permanent Headquarters**  
of the  
**United Nations**



UNITED NATIONS • LAKE SUCCESS • NEW YORK • JULY 1947

## Future Expansion

It is possible that the functions of the United Nations may ultimately expand, requiring new organs to be created, or the personnel to grow even beyond present maximum estimates.

## Conference Area

The General Assembly Hall must be planned for the full anticipated capacity of seventy Members.

The basic horizontality of the Council chambers, conference and committee rooms makes possible their extension in a horizontal plane.

## Library

The library must be planned for continuous growth and easy extension or, possibly, for removal to a separate structure close to the other buildings. This structure might be erected on some of the reserved space, for example along the southern end of the site, where it might replace the present New York City Housing Authority Building.

## Secretariat Building

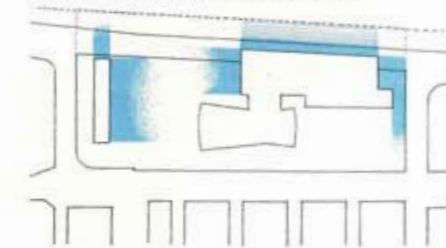
Since the Secretariat Building is a skyscraper structure, to which vertical additions would be economically impractical, it must be planned with ample space for expansion within

the building itself. Allowance will be made for an expansion of possibly 55 to 90 per cent over the Secretariat personnel initially occupying the building. This excess space can, in the first few years, house such offices of delegations and specialized agencies as may be placed on the site prior to the construction of separate accommodations in the reserved area. The expansion of the Secretariat should coincide roughly with the removal of these other units to their permanent offices.

## Headquarters of Delegations and Specialized Agencies

At this writing, information regarding the establishment of headquarters on the site by delegations of Member States or by the specialized agencies is too limited for the detailed planning of their accommodations. The entire northern part of the site has been left open for such developments.

Direction of Possible Future Expansion





# Respect the nature of the existing architectural organism and the vision of the Board of Design

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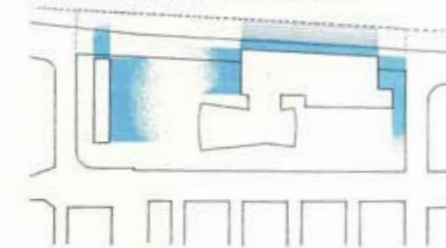
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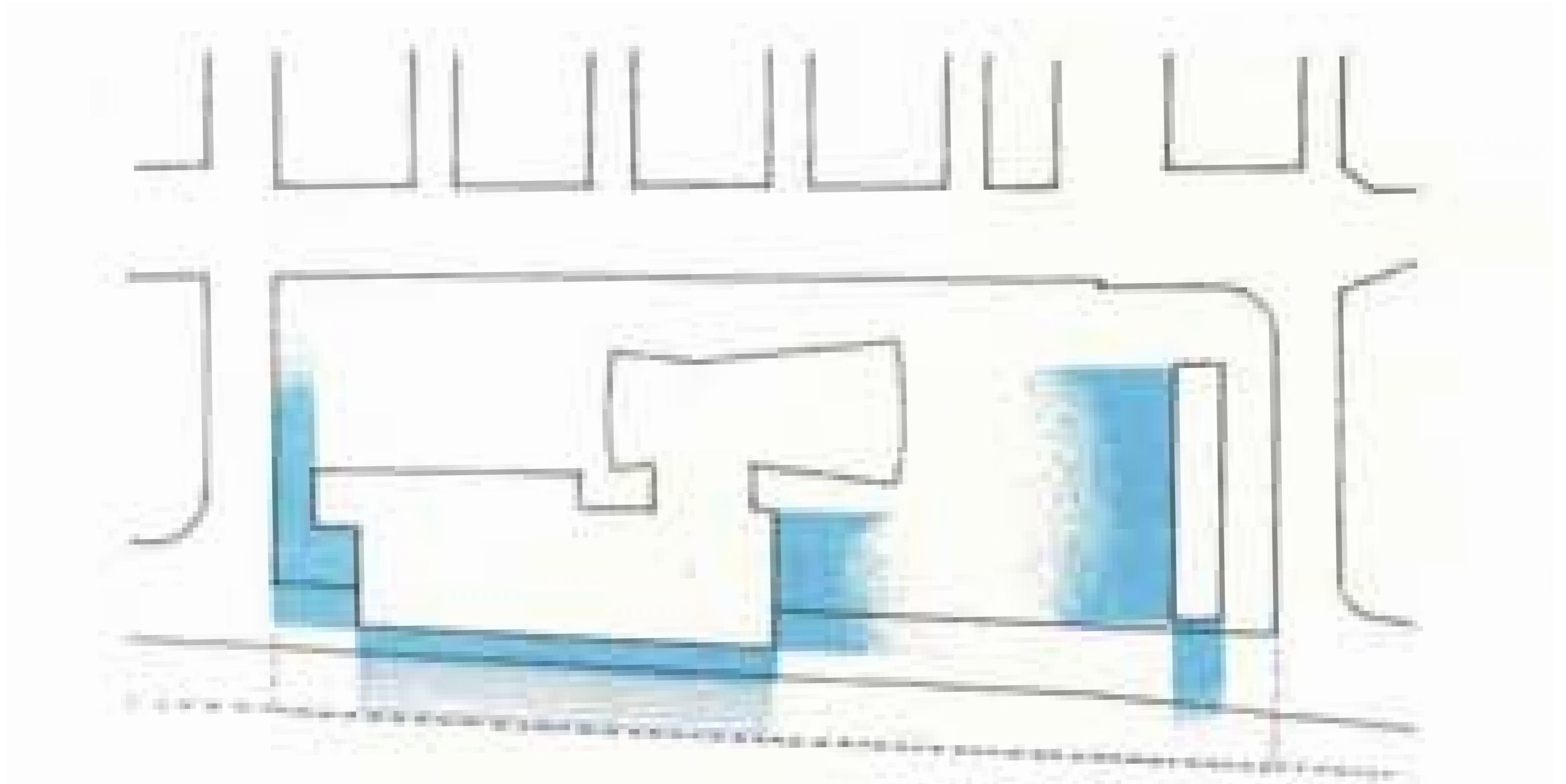


## Conference Area

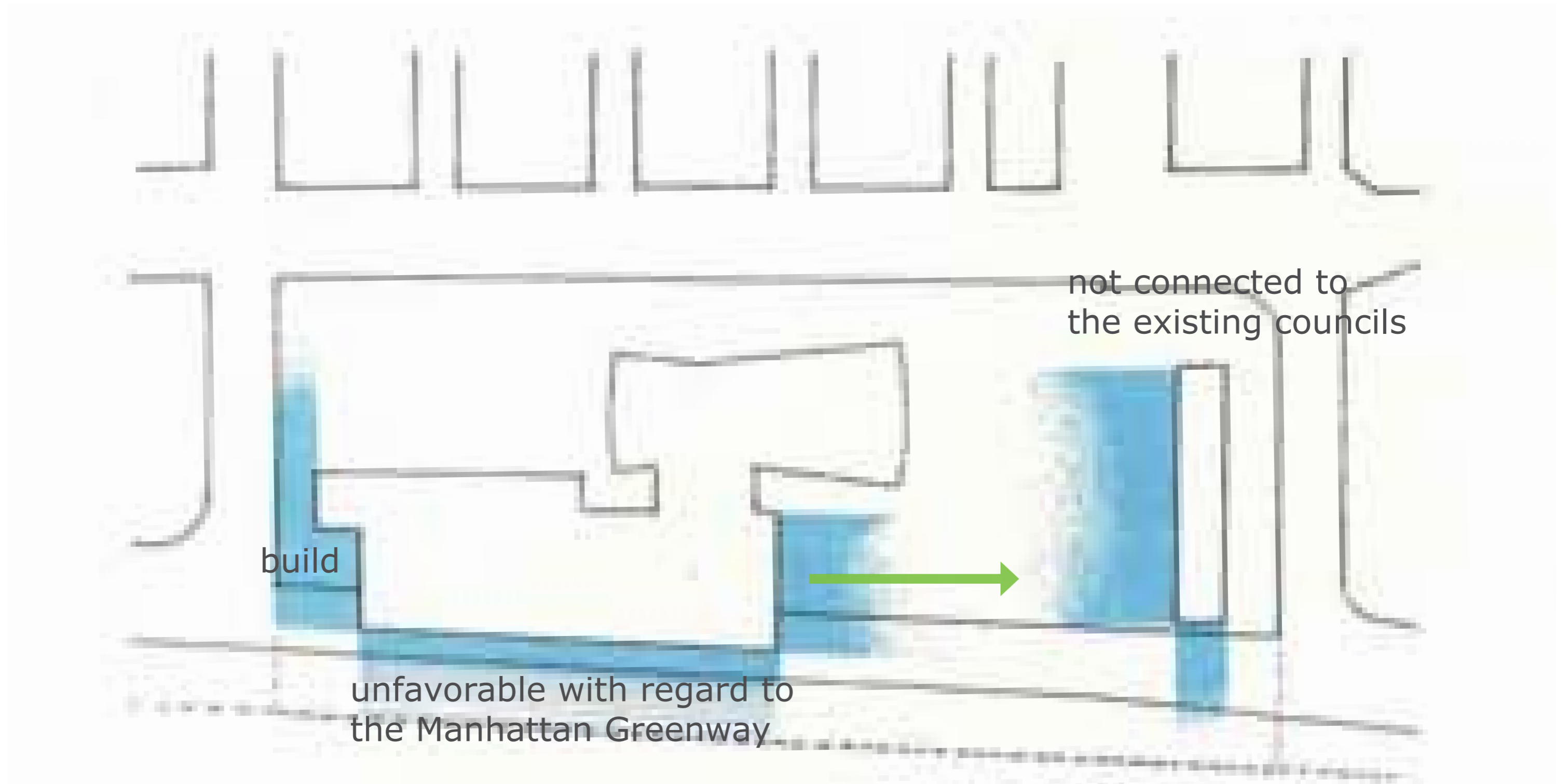
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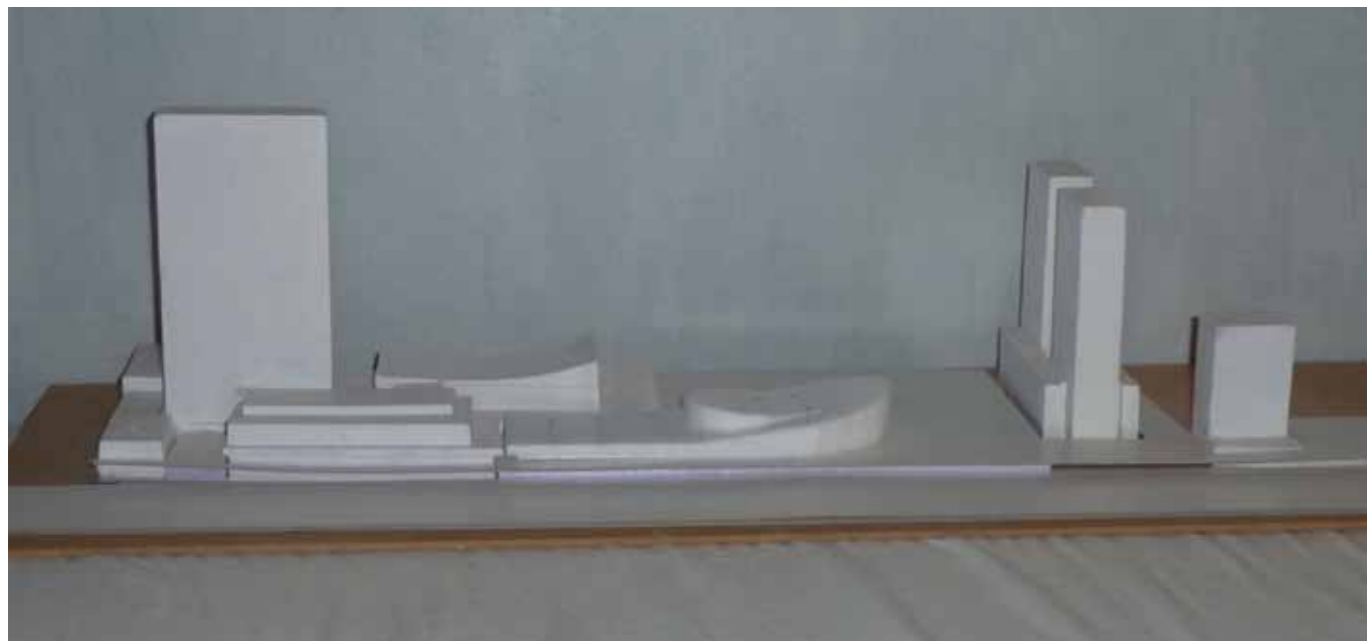
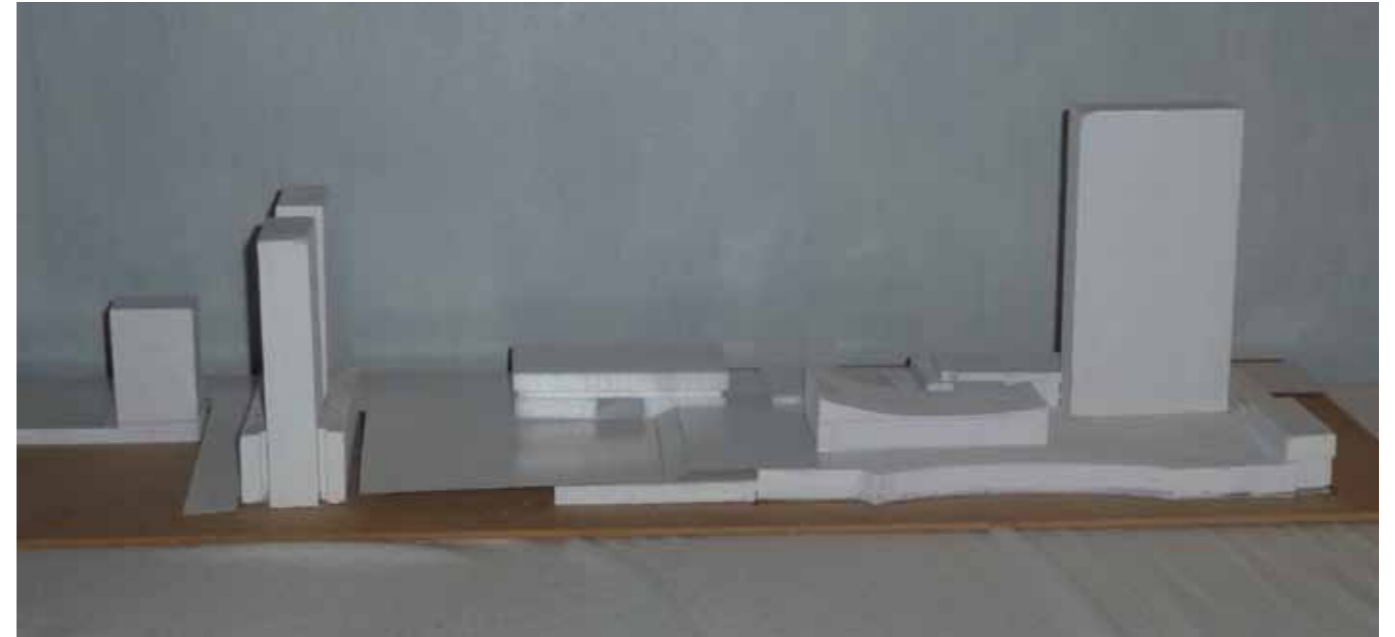
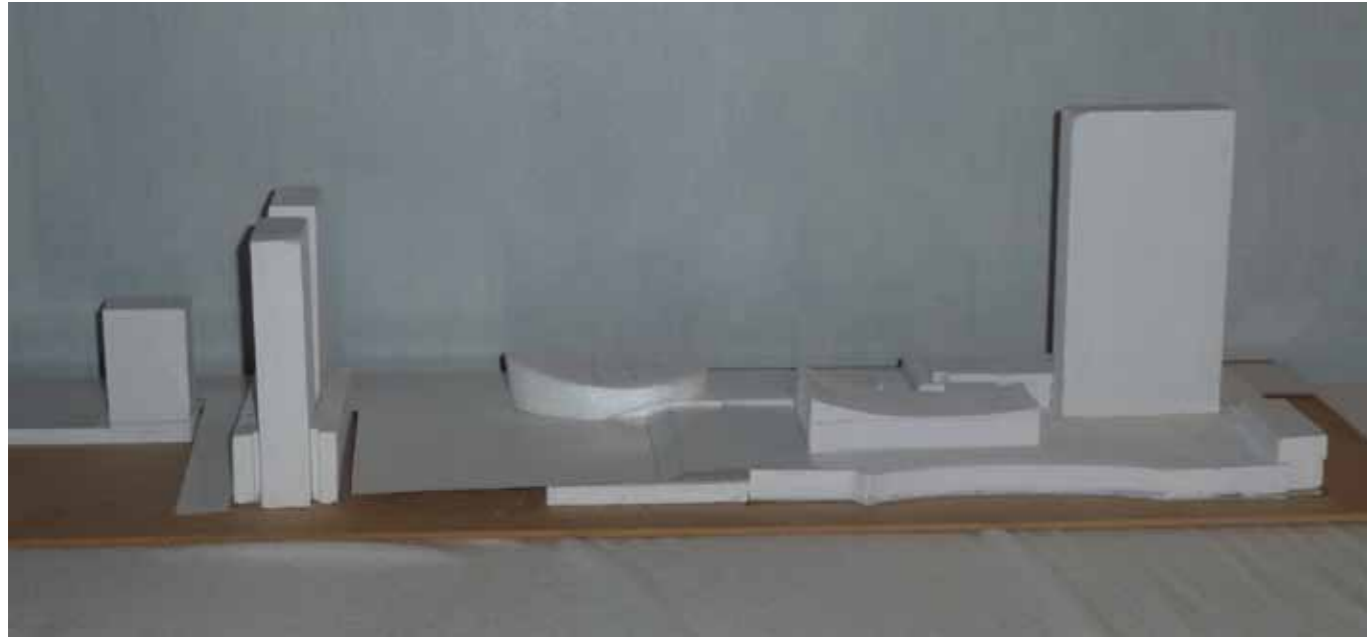
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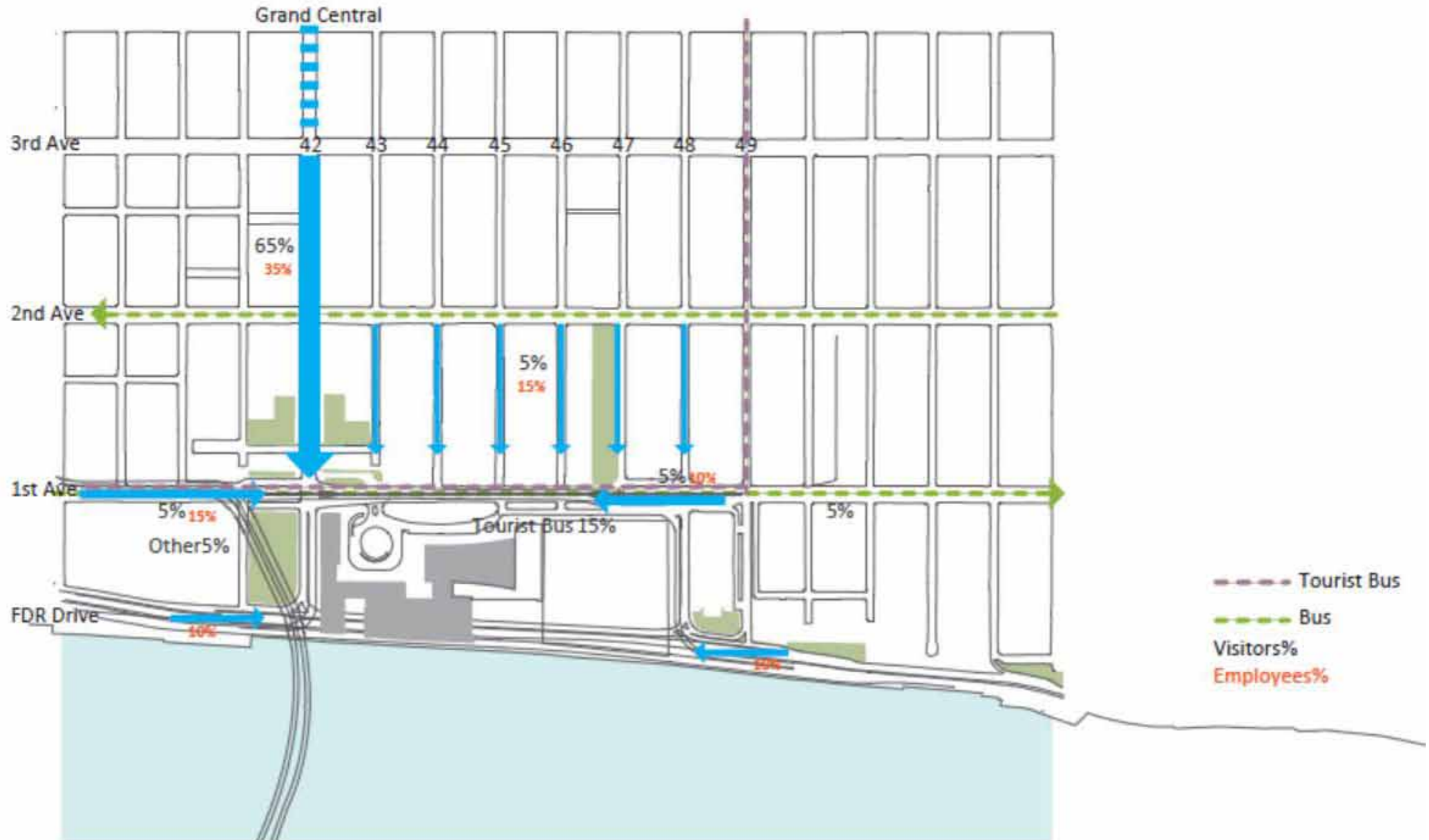
Find balance in the composition between existing and new



Find balance in the composition between existing and new

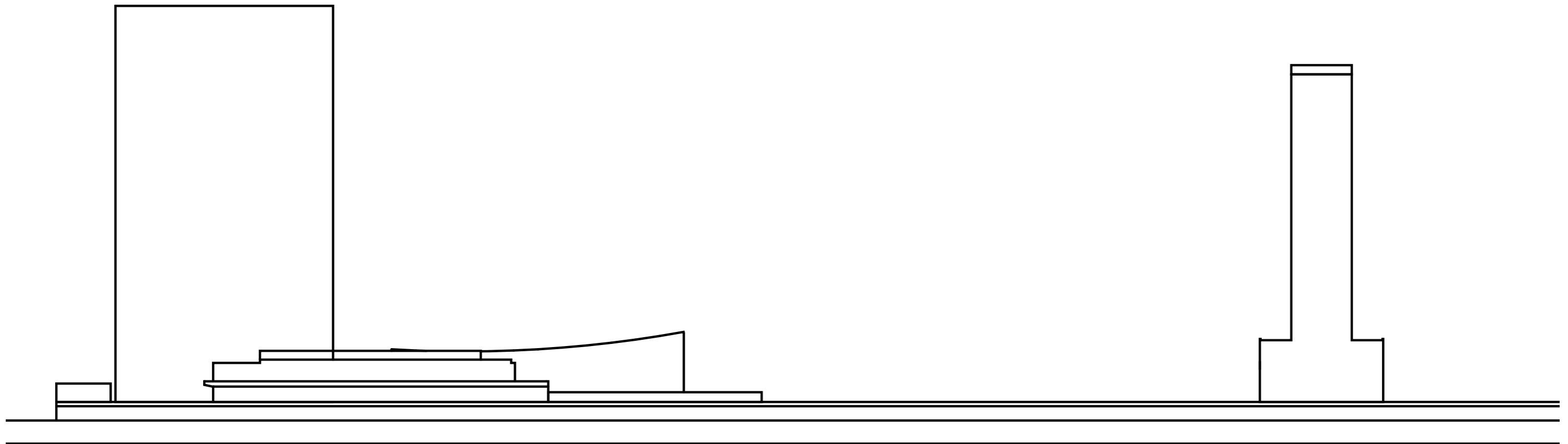


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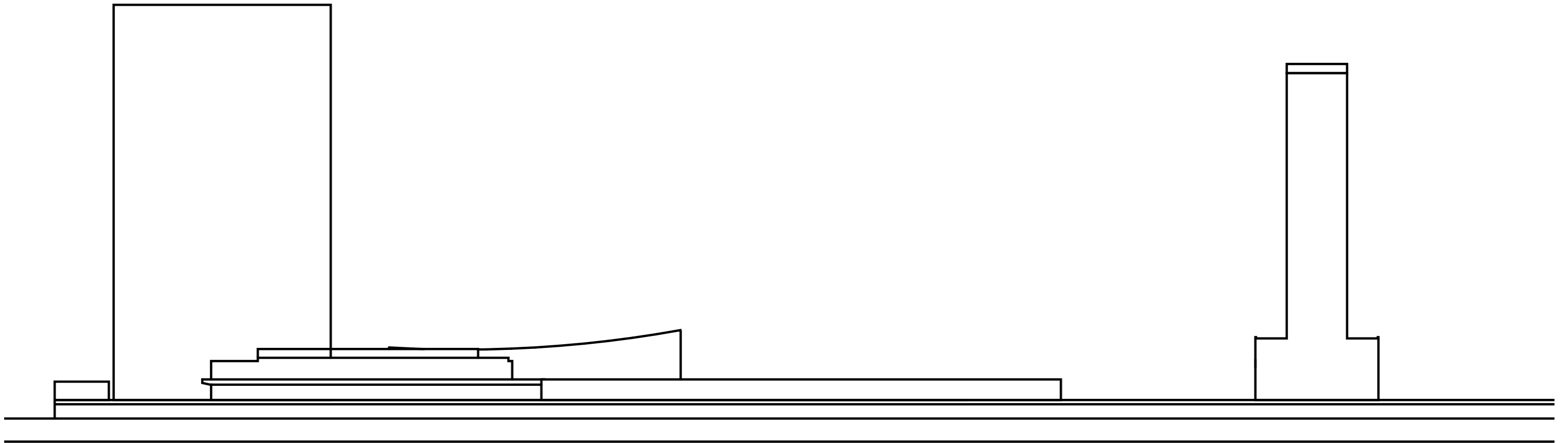
Explaining the balance



Current situation

Find balance in the composition between existing and new

Explaining the balance

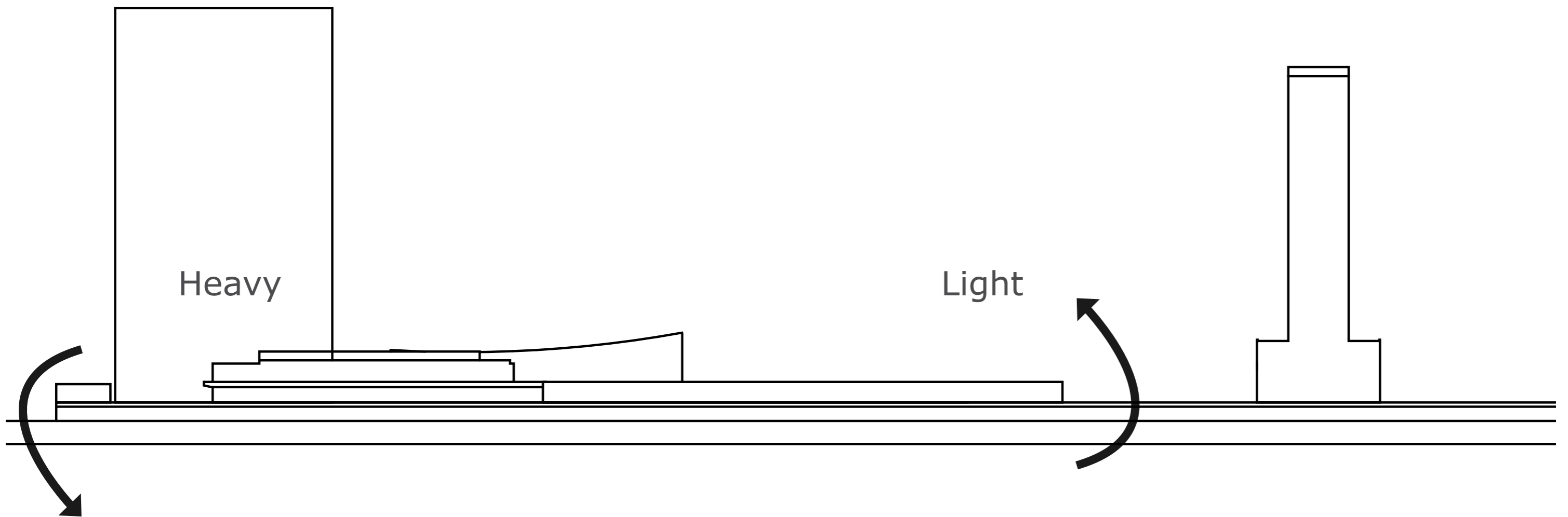


Extending the program reaches till this point



Find balance in the composition between existing and new

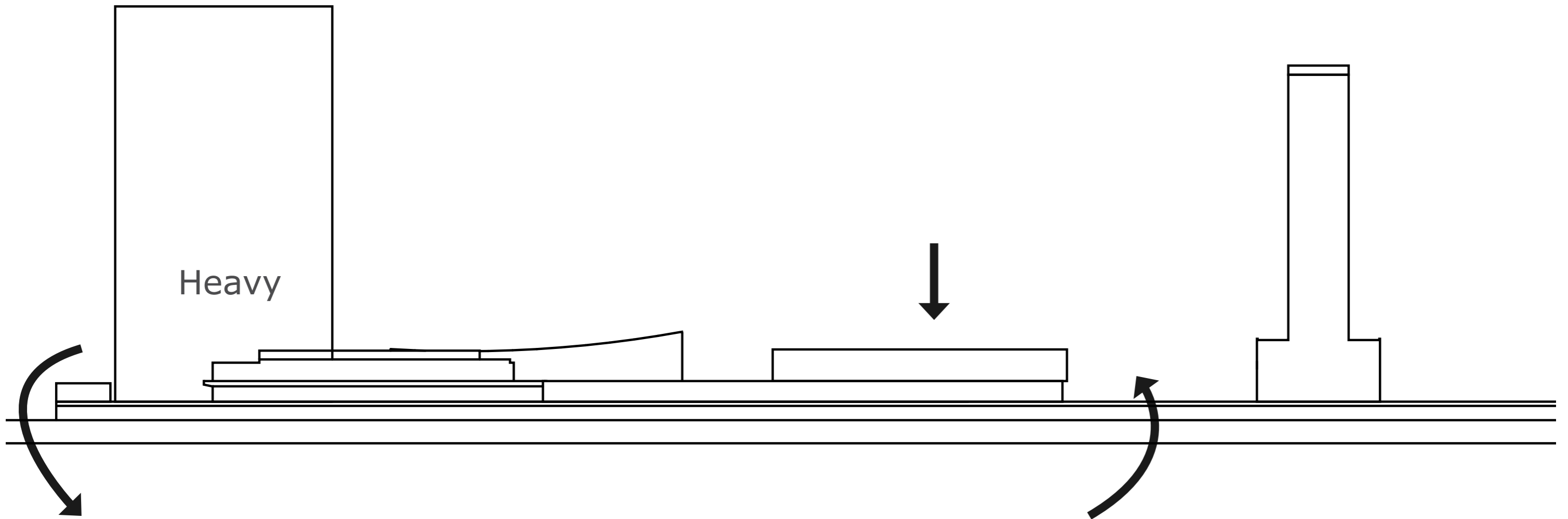
Explaining the balance



Creating a in balanced composition

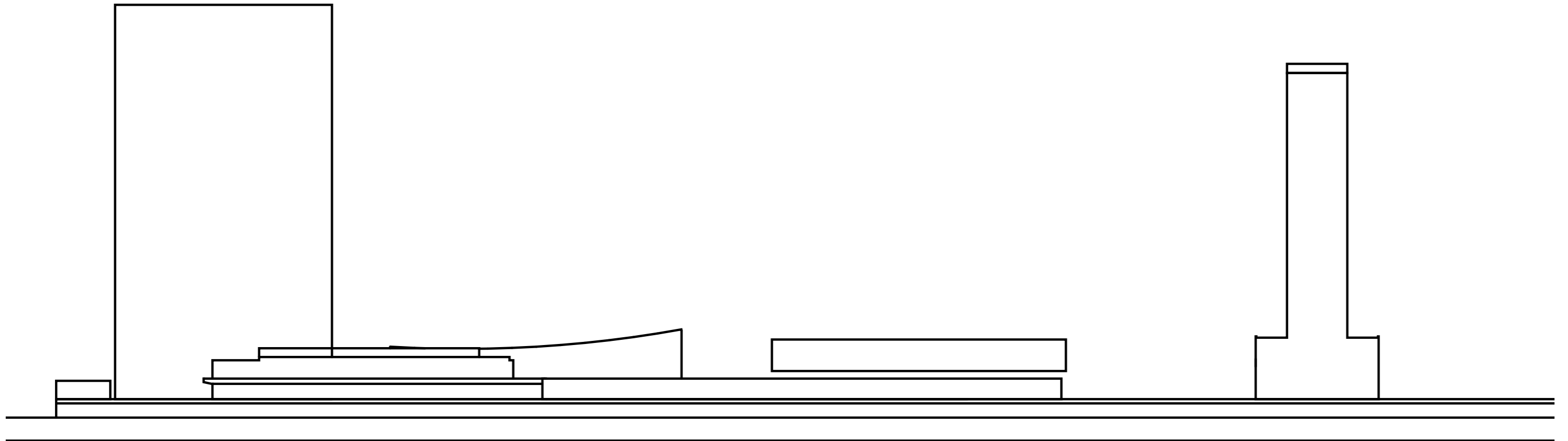
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Explaining the balance



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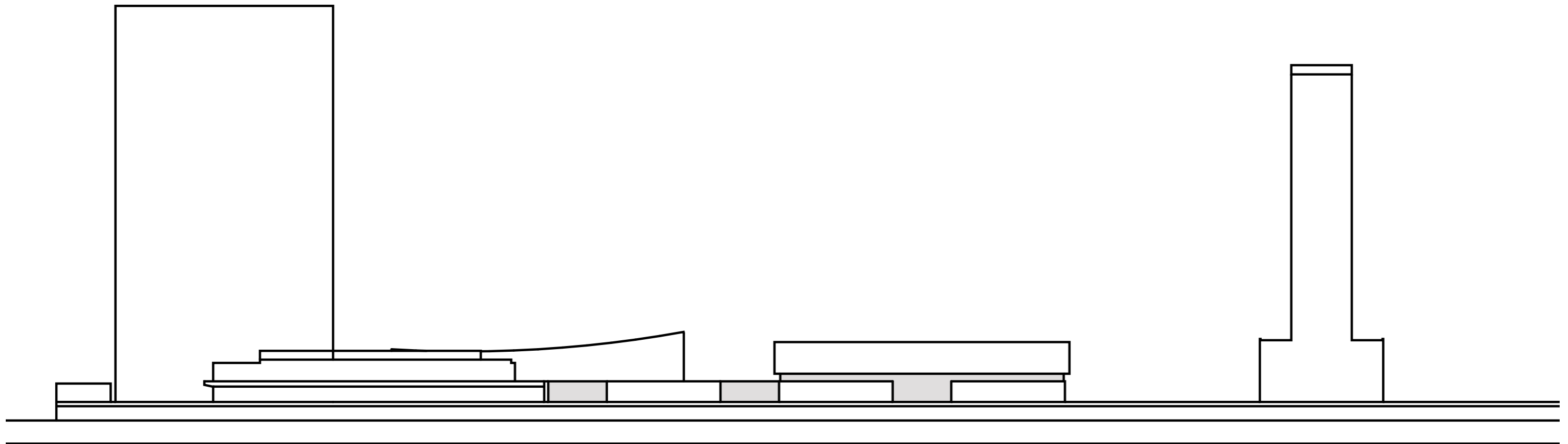
Explaining the balance



By lifting the block  
the block seems heavier and  
the expression becomes stronger

Find balance in the composition between existing and new

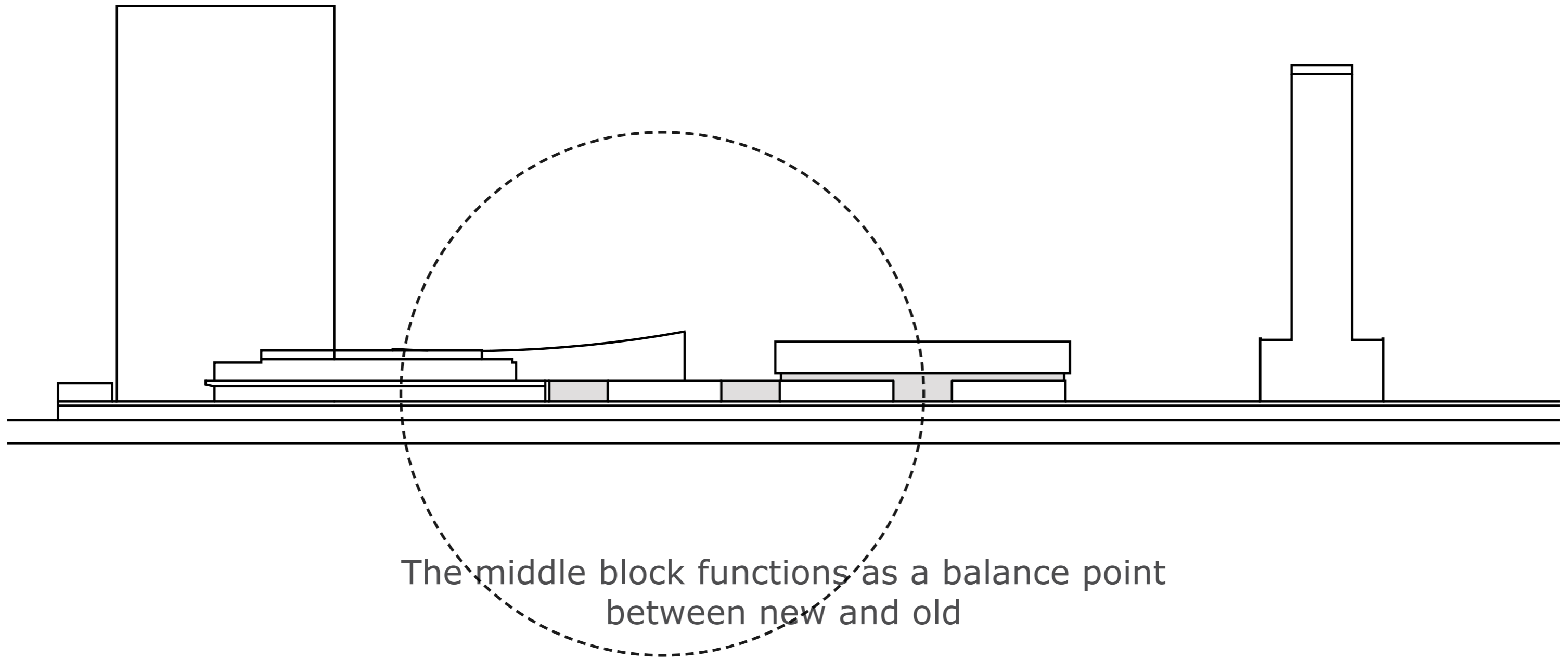
Explaining the balance



Re shifting the program requires openings  
forming 3 lower blocks with a big slab

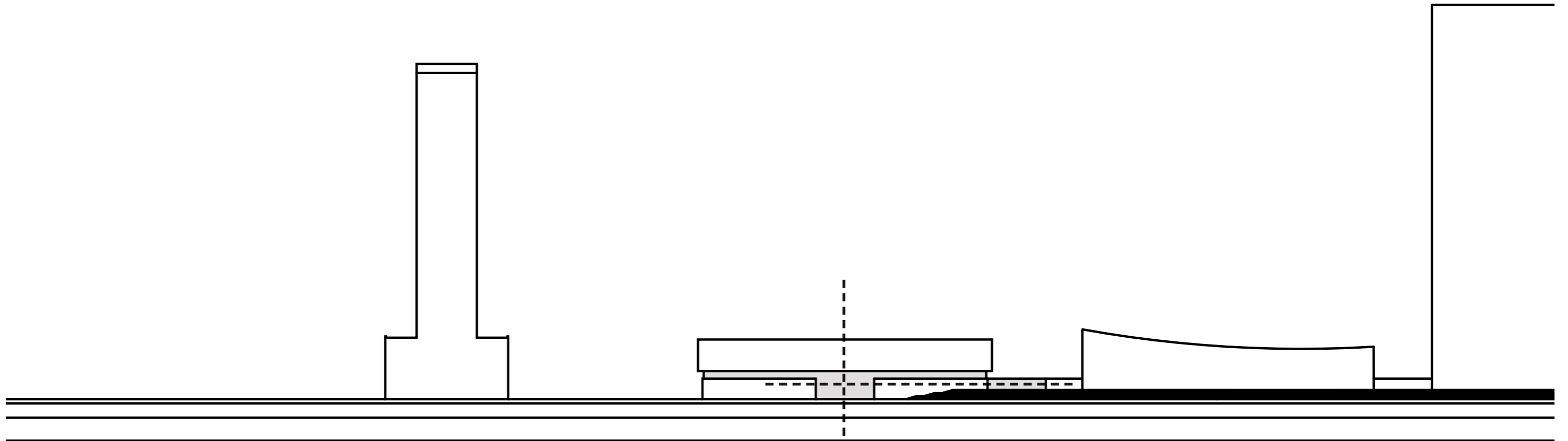
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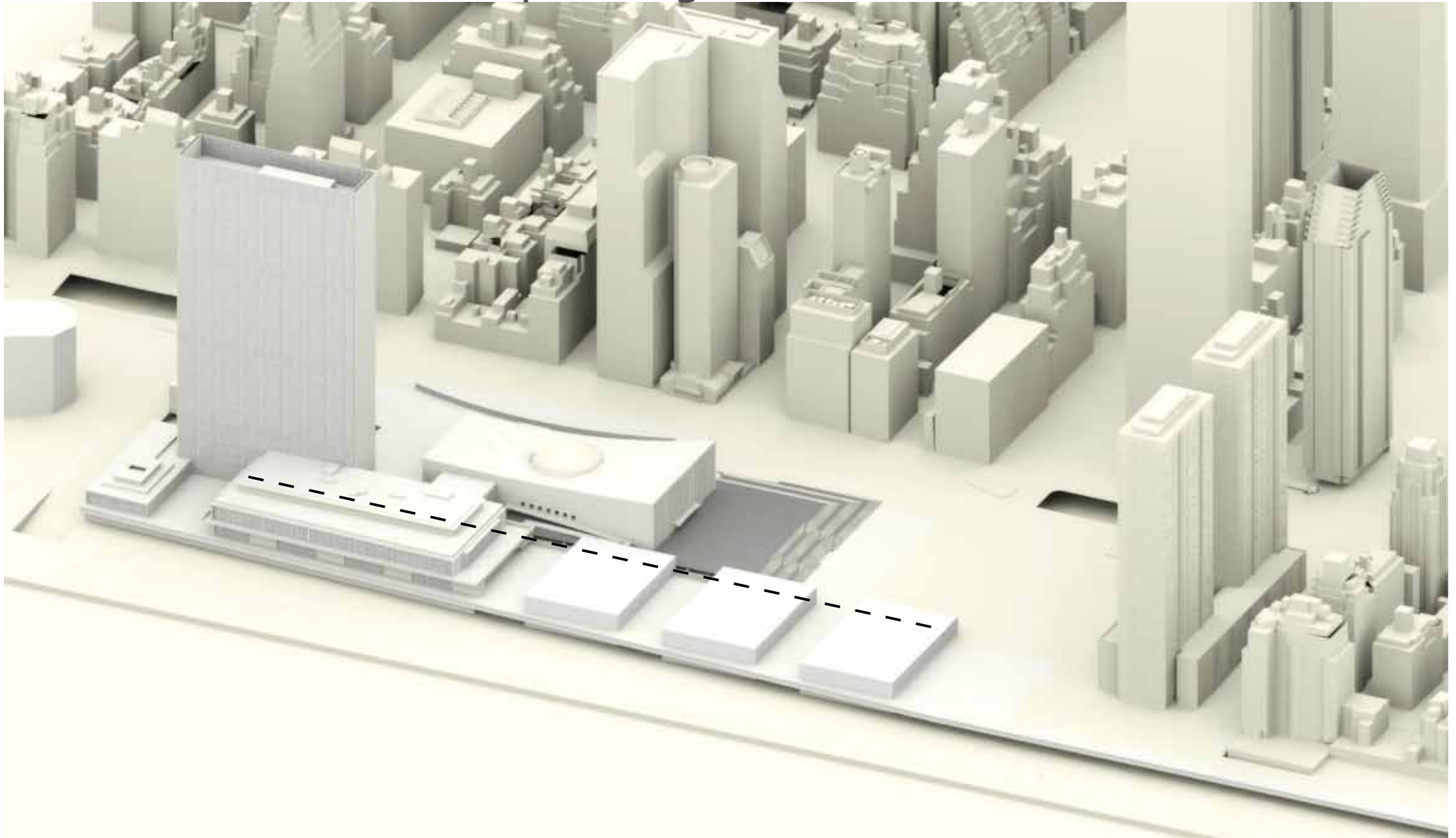
Explaining the balance



Extending the plateau forms a balance  
and a hierarchy between the two entrances

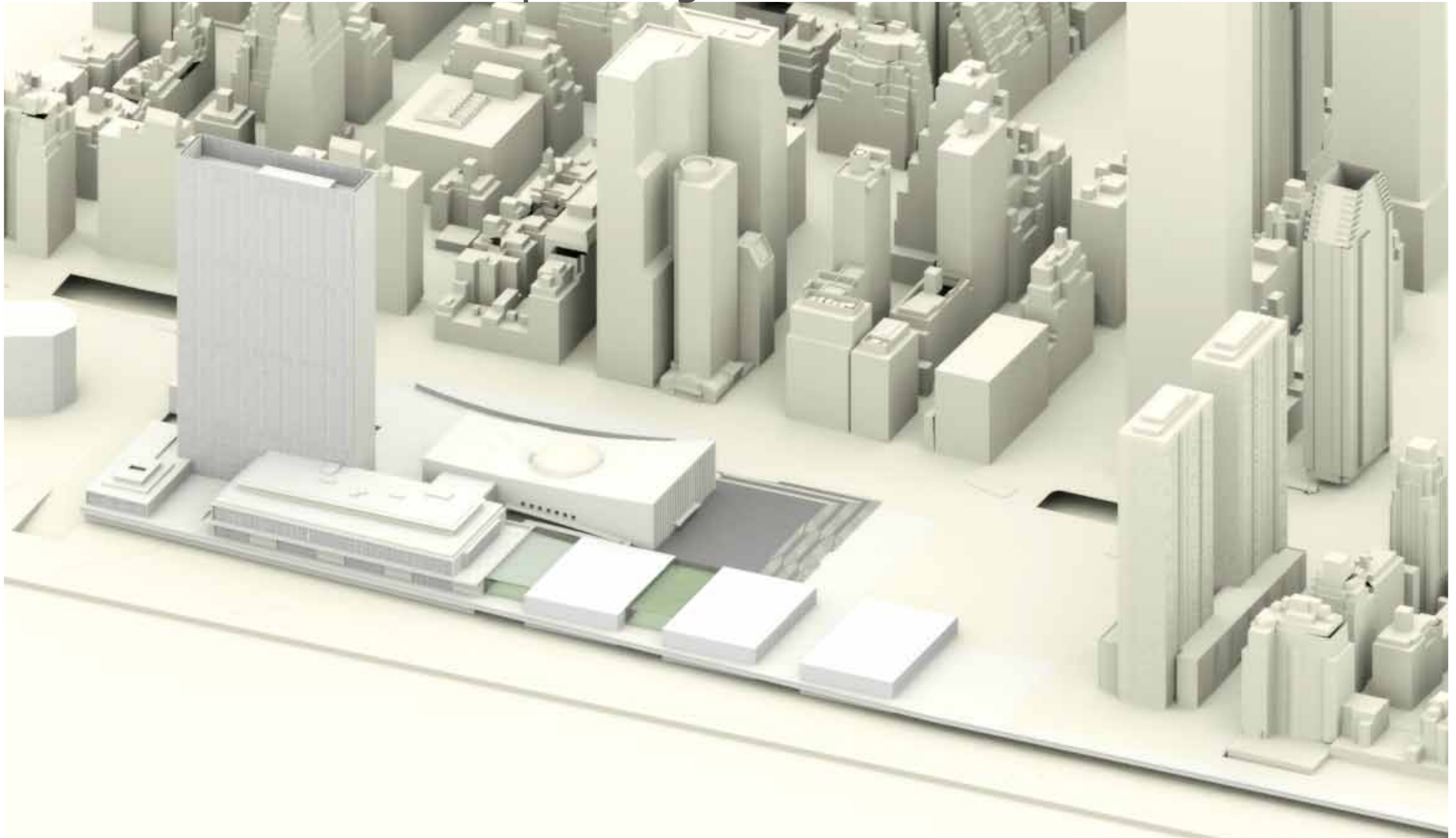
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Explaining the balance



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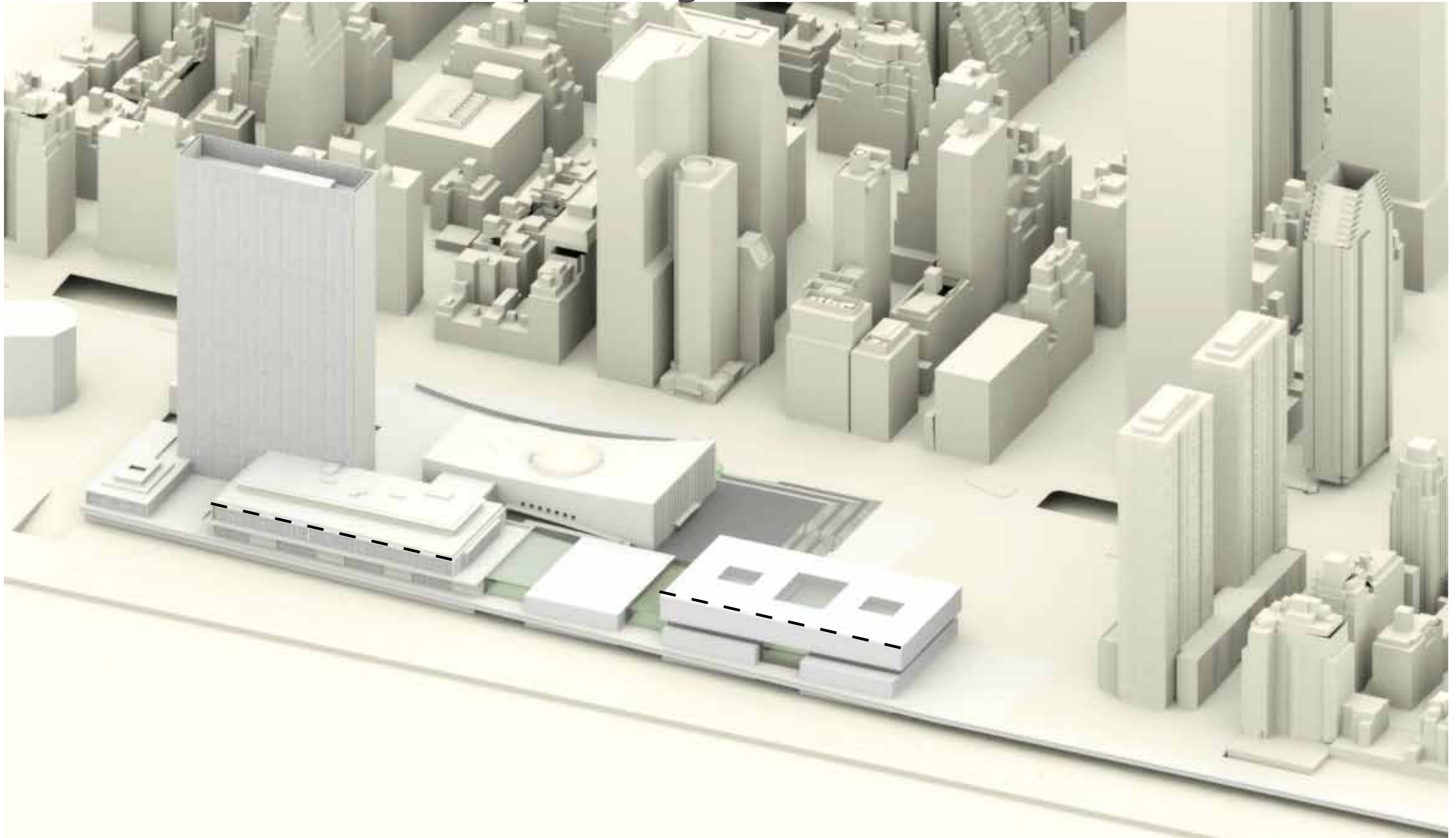
Explaining the balance





Find balance in the composition between existing and new

Explaining the balance

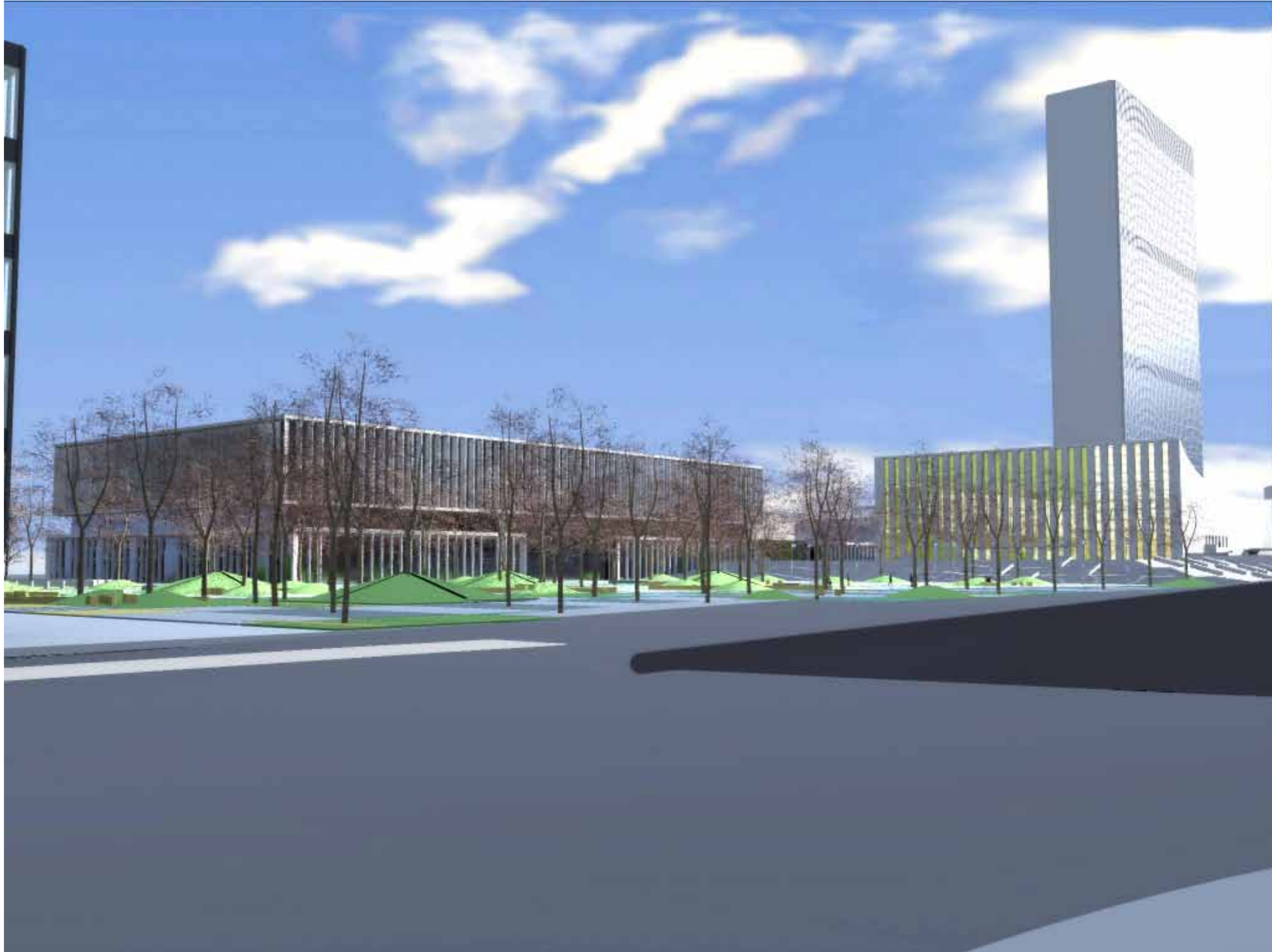


Find balance in the composition between existing and new

Explaining the balance



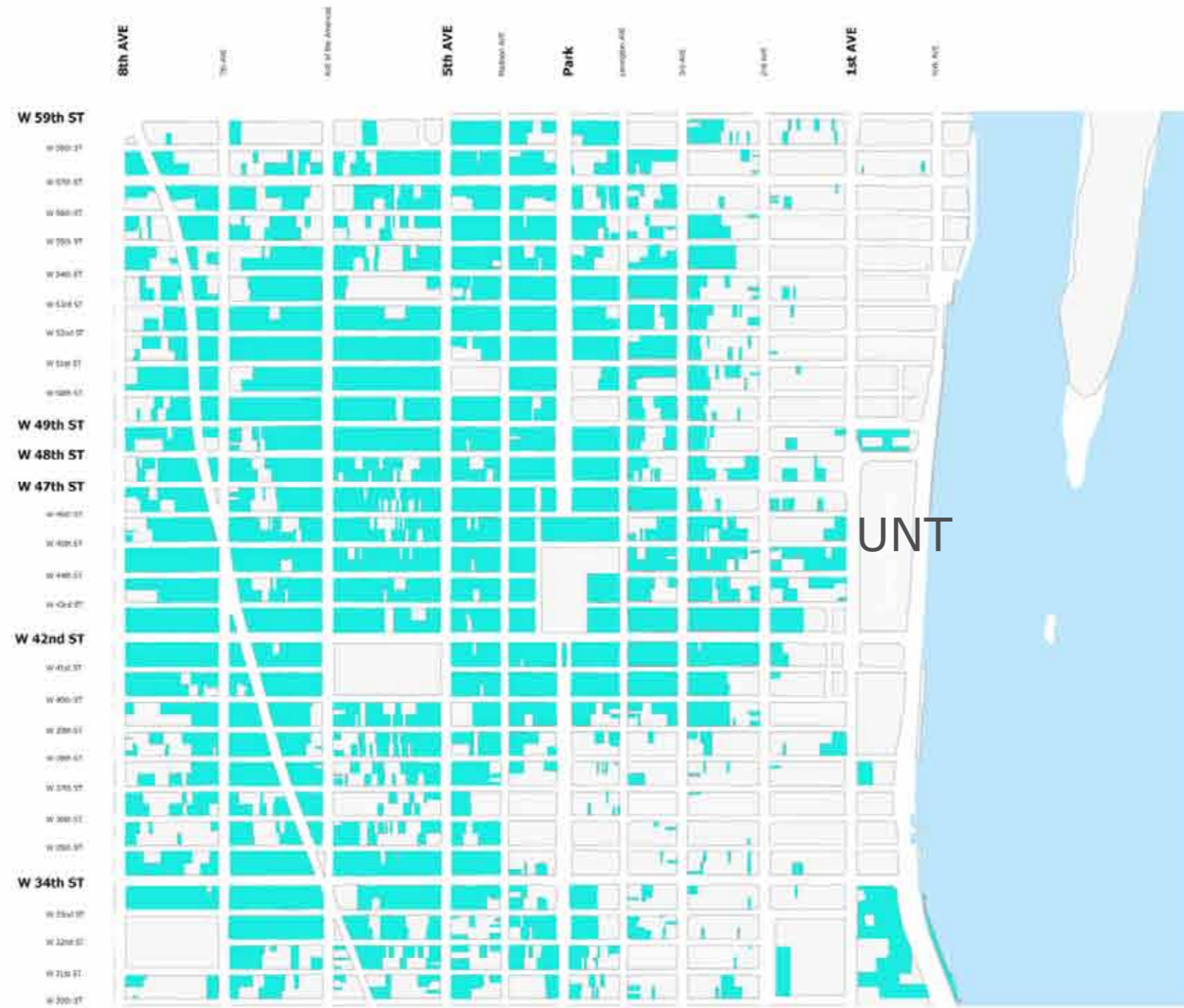
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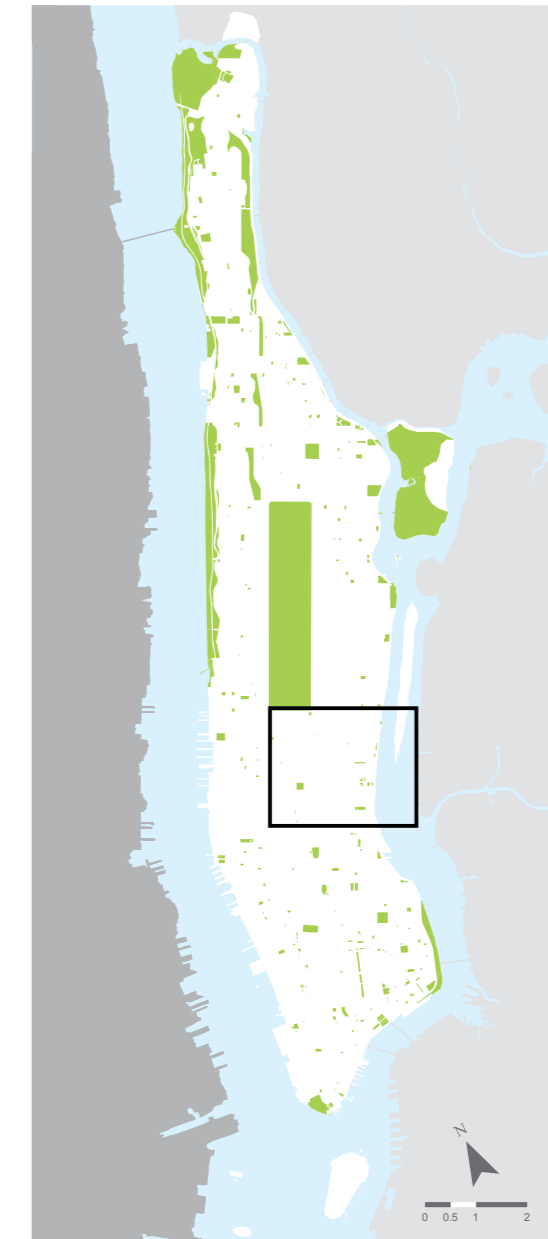
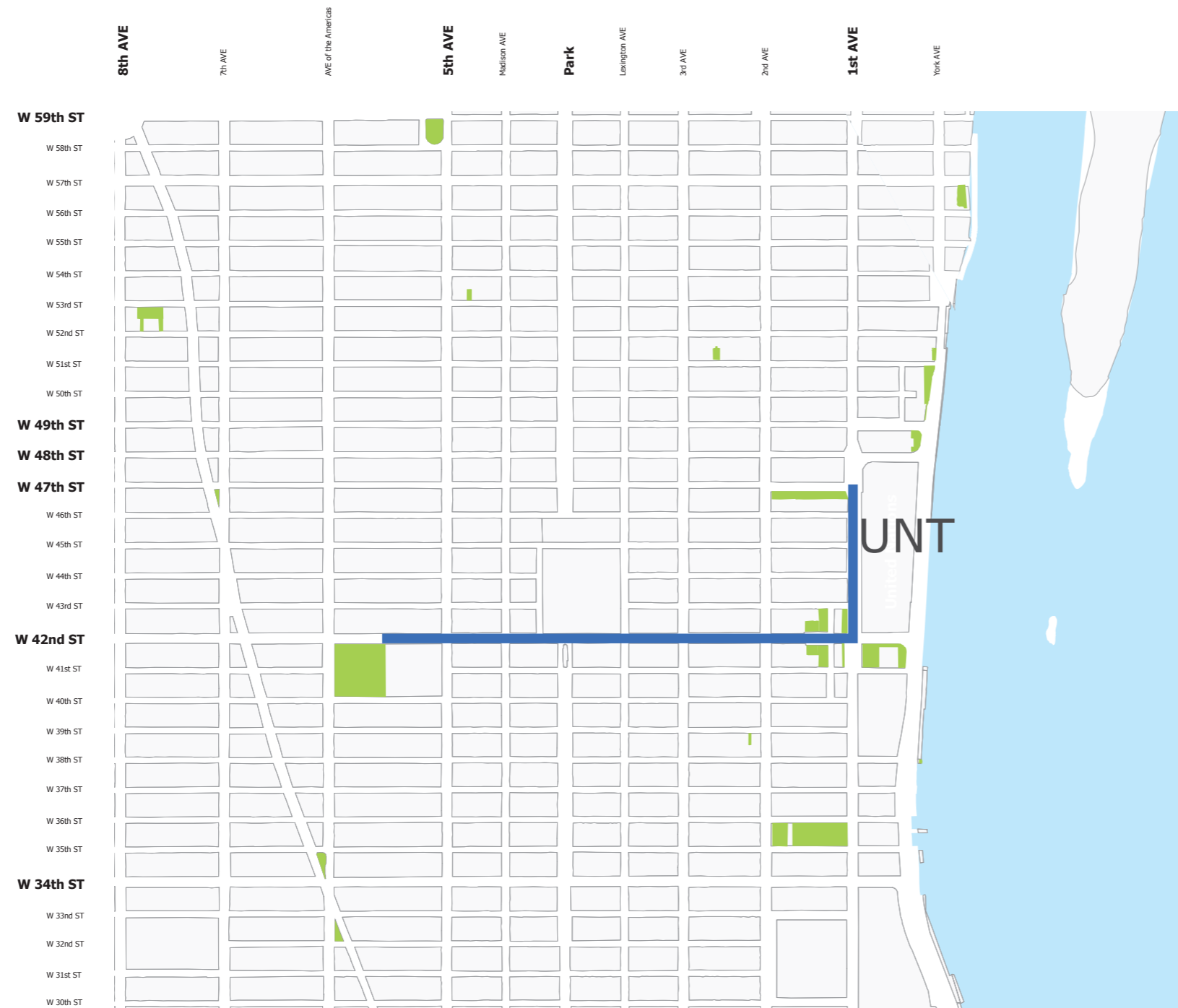
# Revitalise the waterfront along the UN Territories



commercial use Offices and Retail



# Connect to new developments

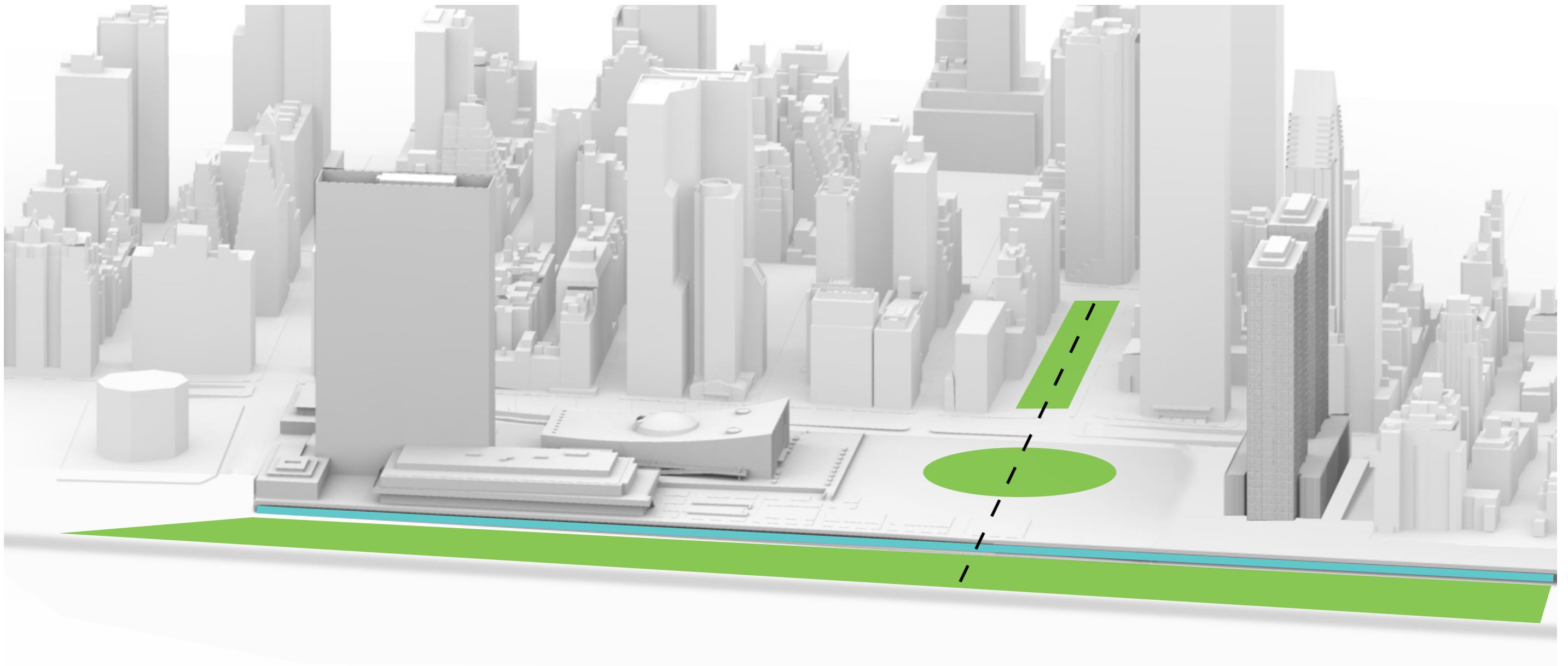


Green public parks and nature preserves

Distance to central park 2,12 km

Distance to Bryant park 1,7 km

# Connect to new developments



Retail space will occupy the former FDR  
the plot must form a link between  
Hammar skjold plaza and the Manhattan  
Greenway

# Connect to new developments





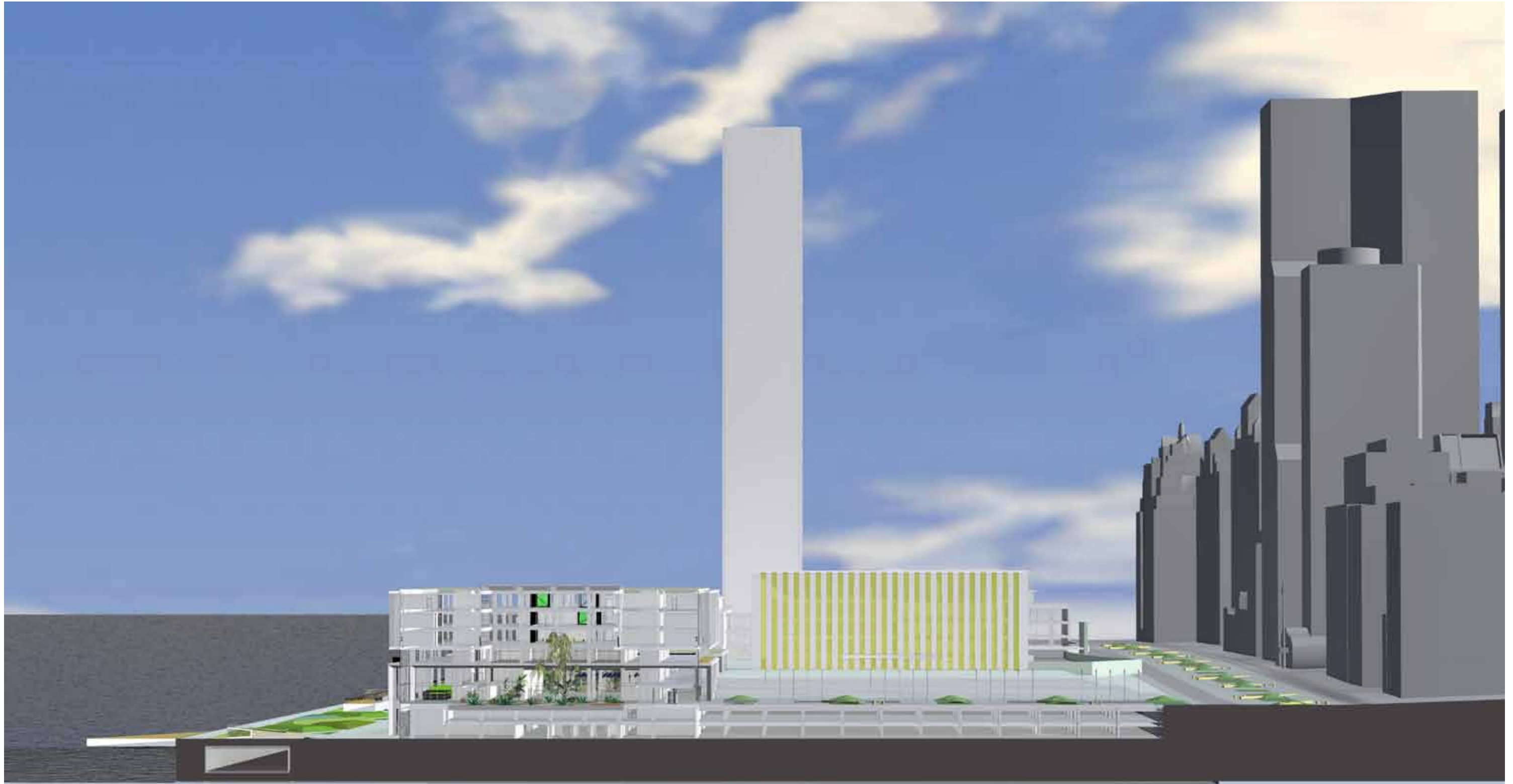
Connect to new developments

New urban plan

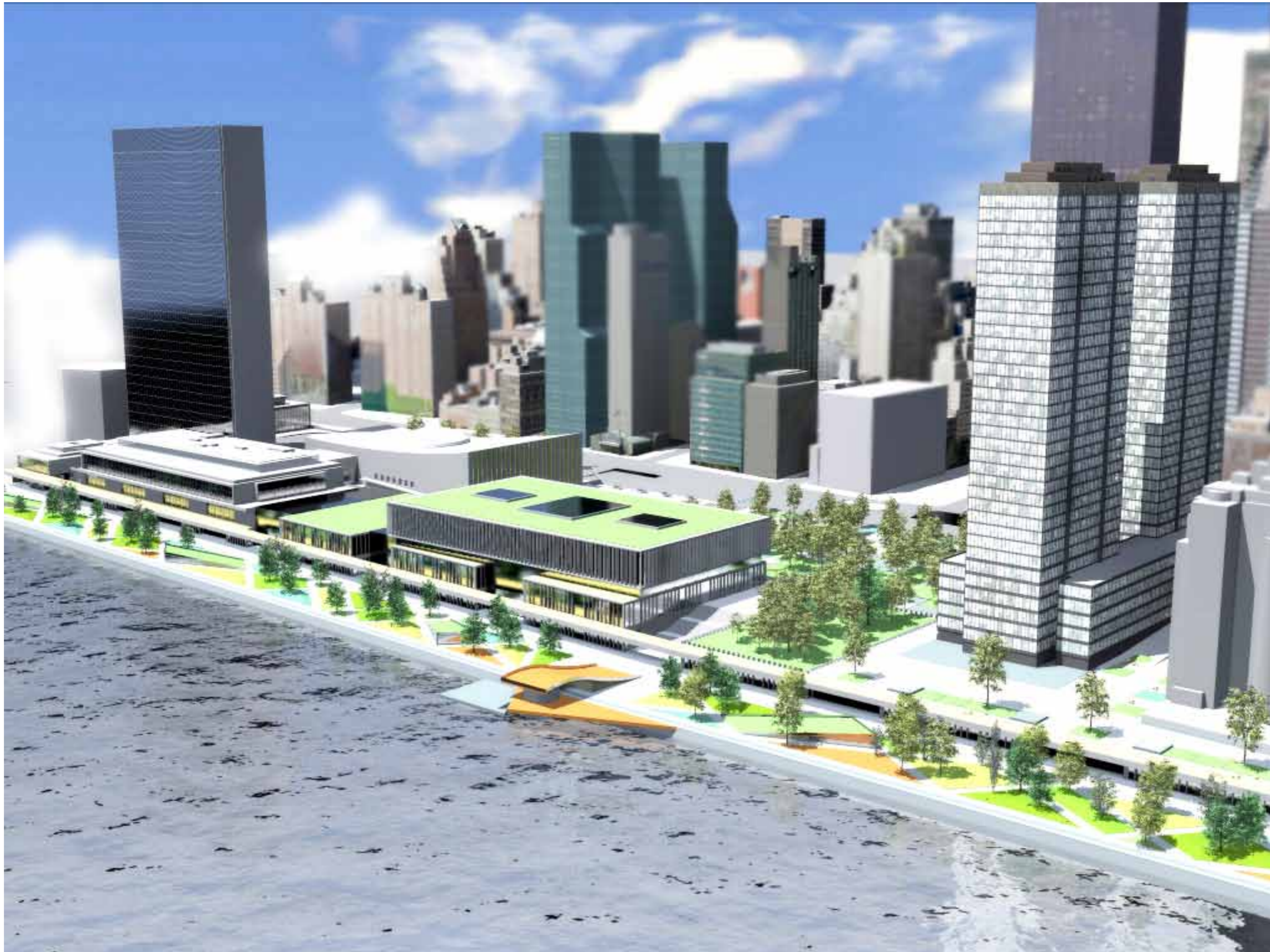


# Connect to new developments

## New urban plan



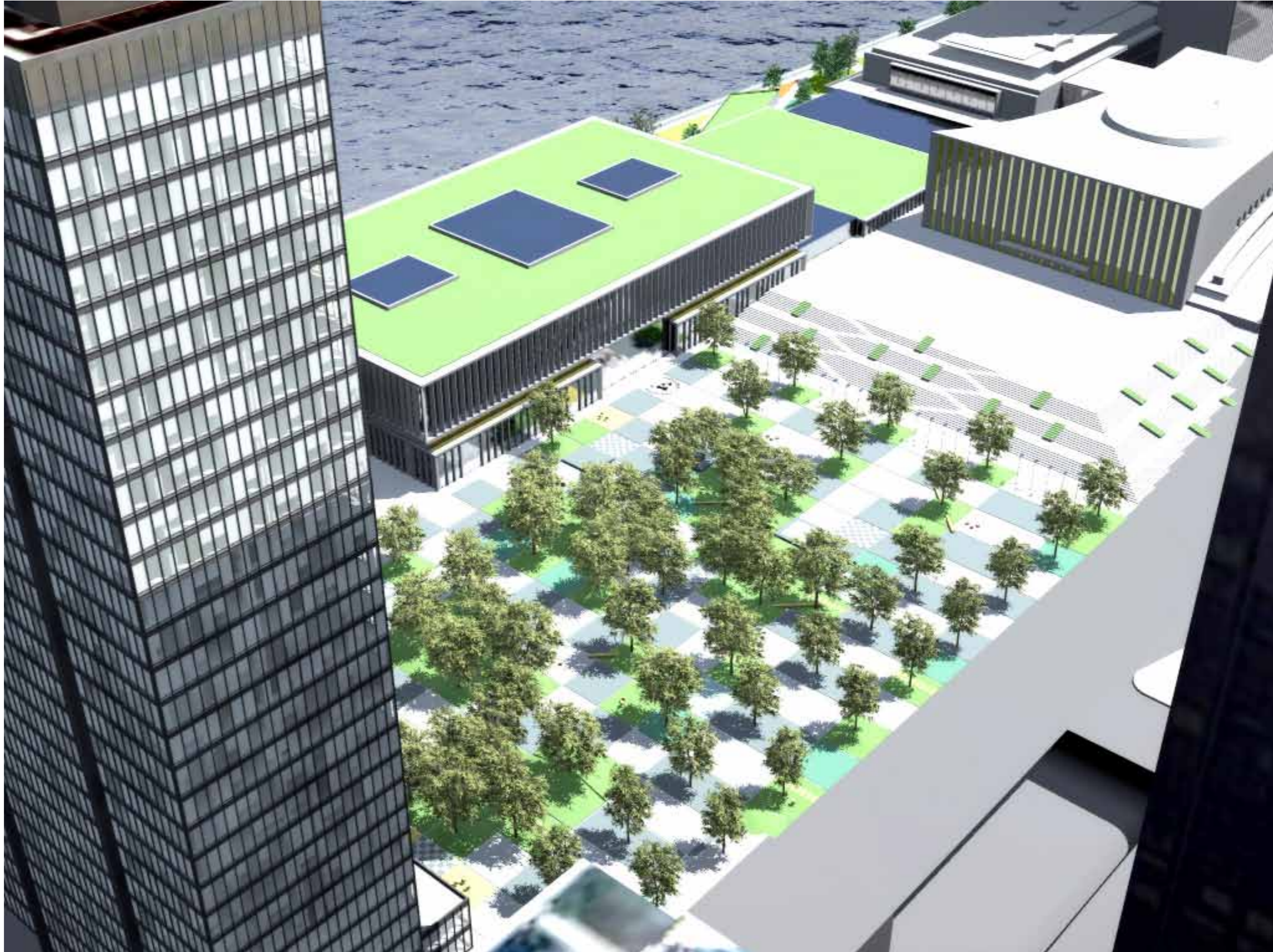
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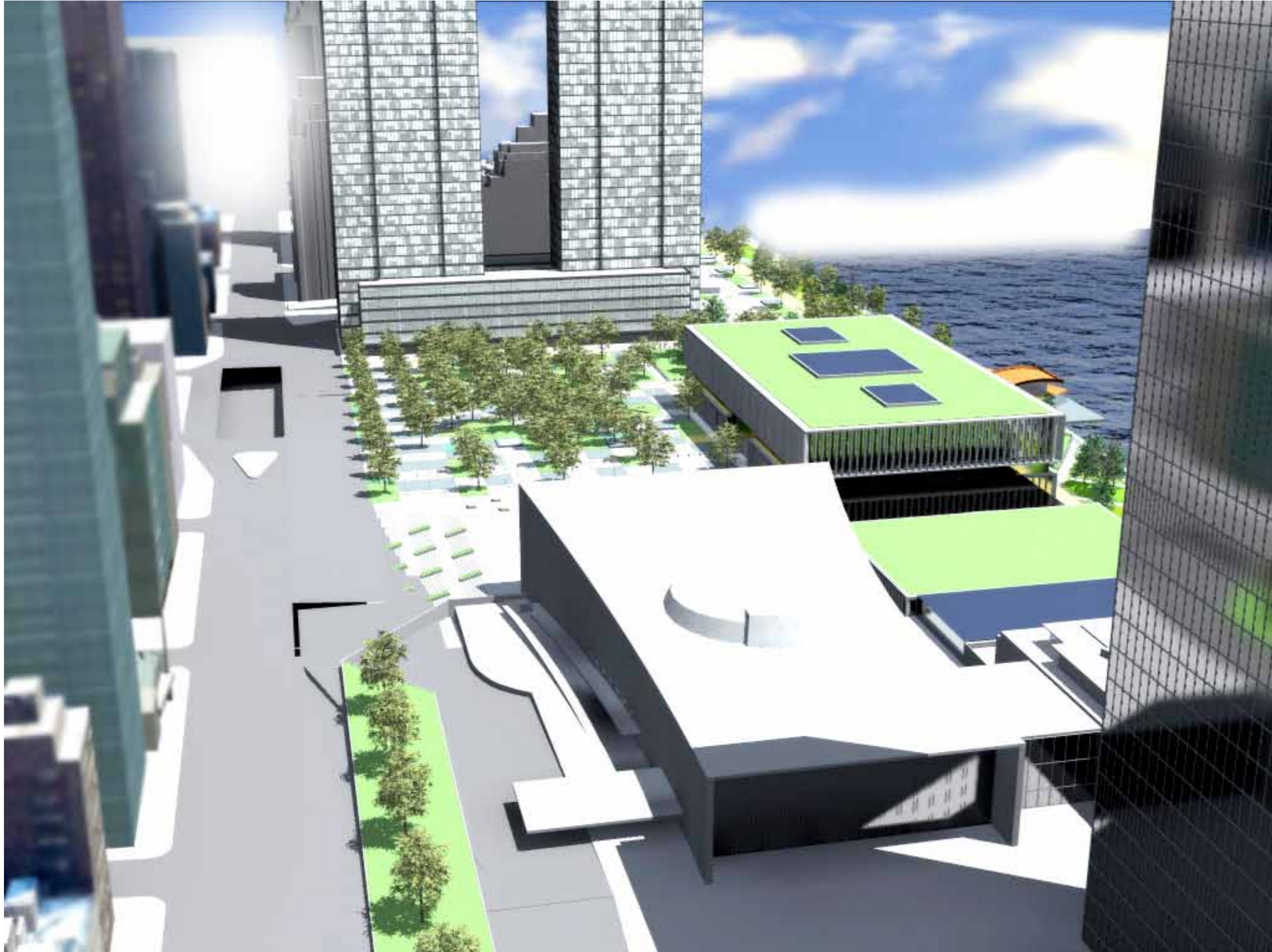
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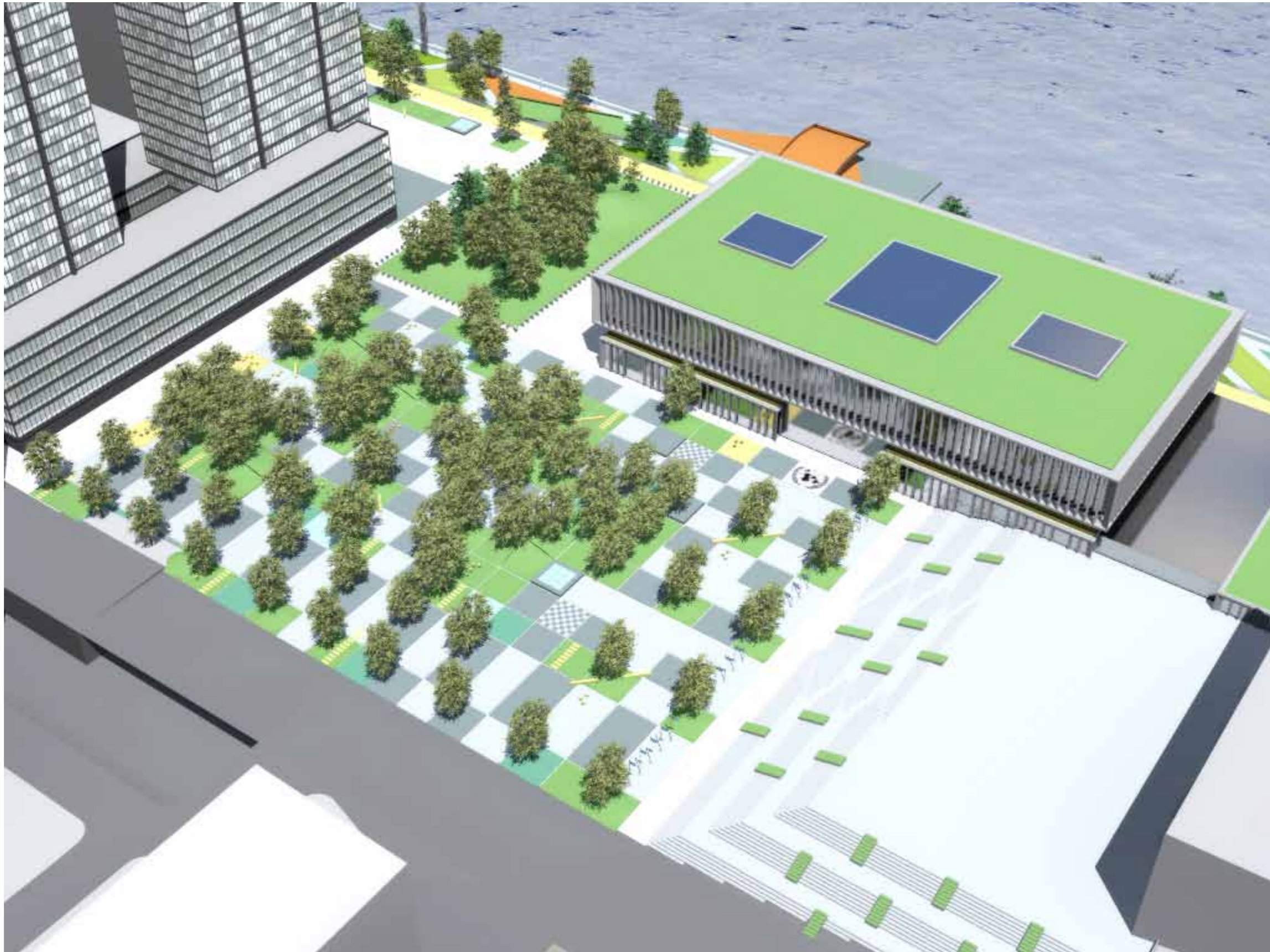
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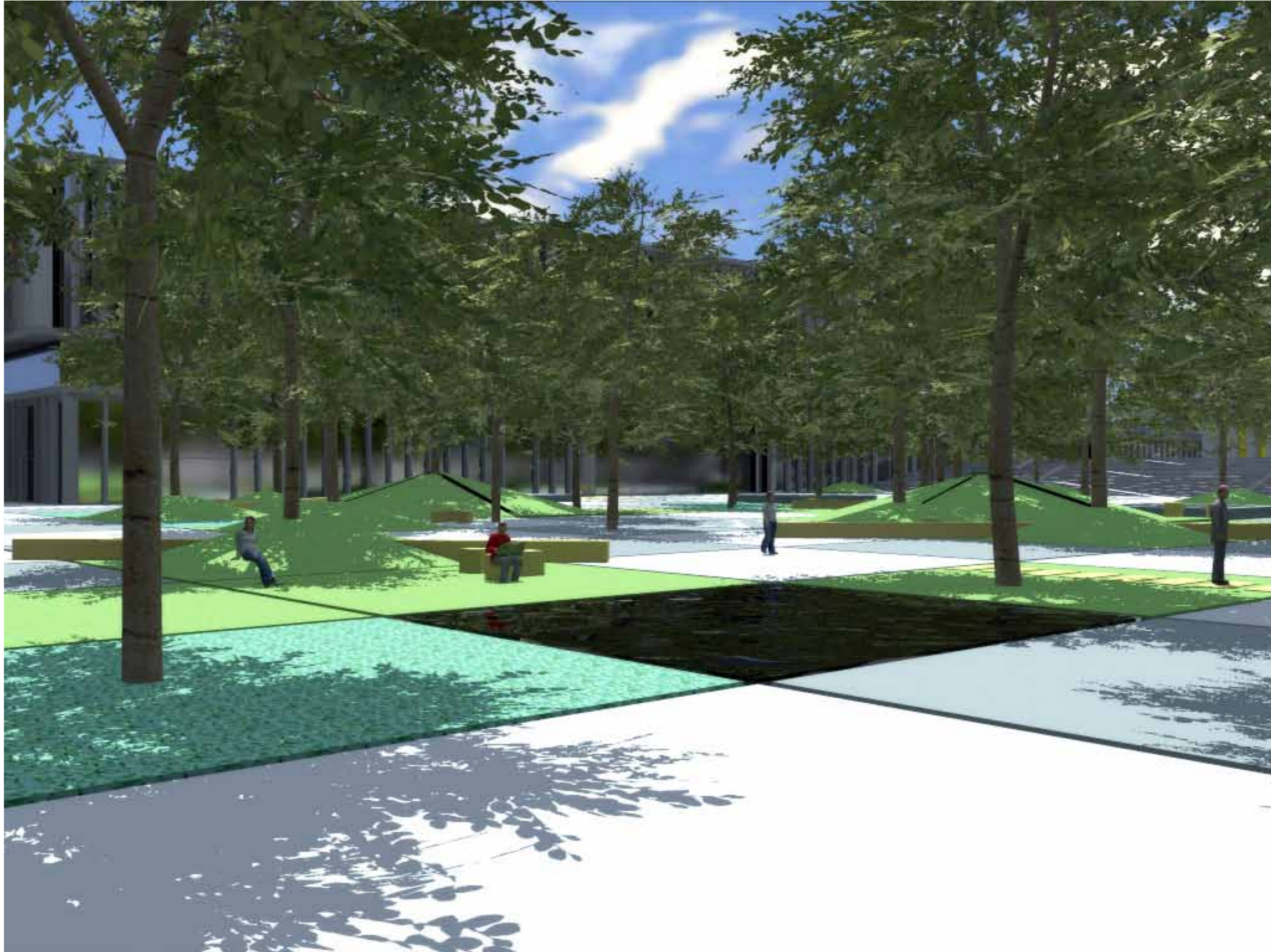
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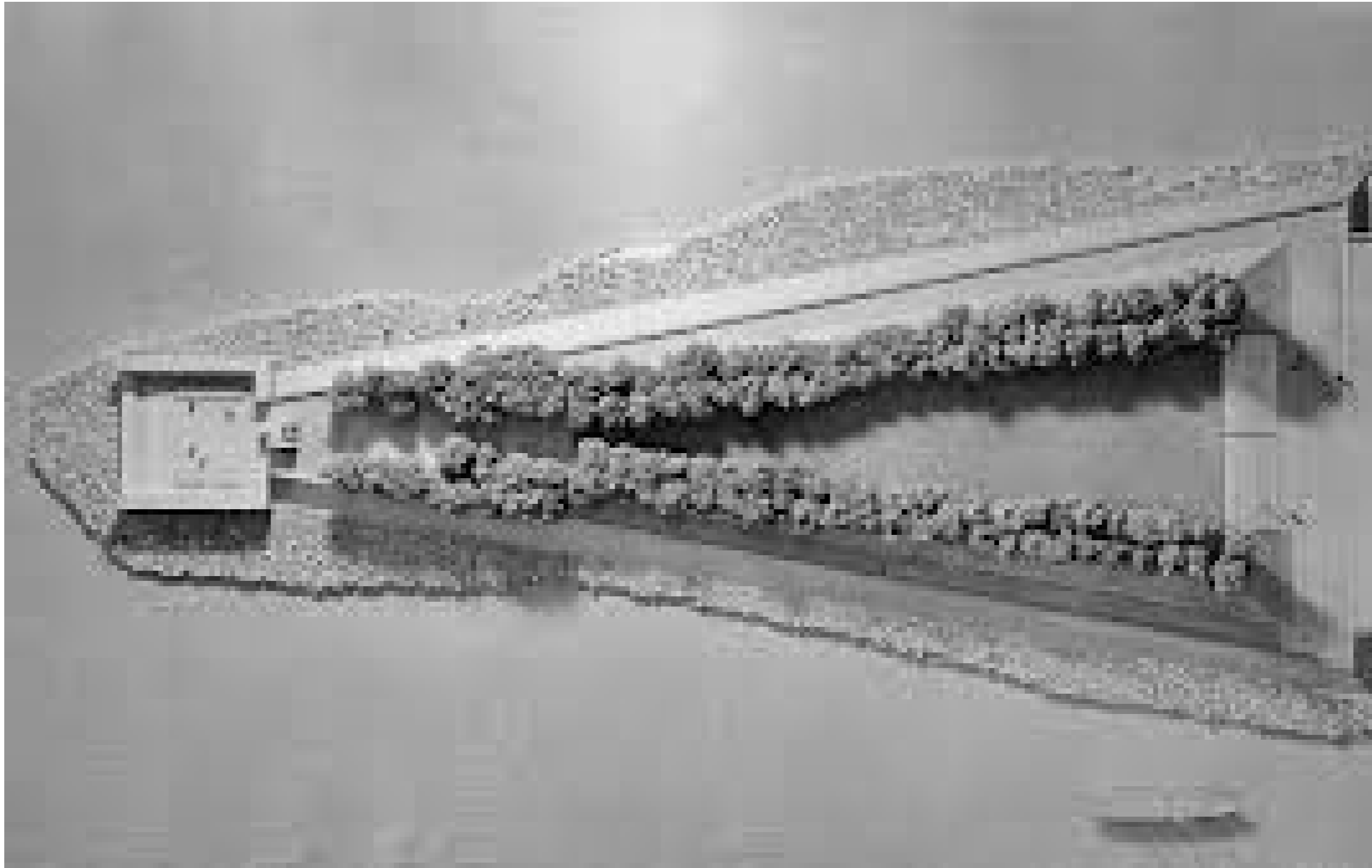
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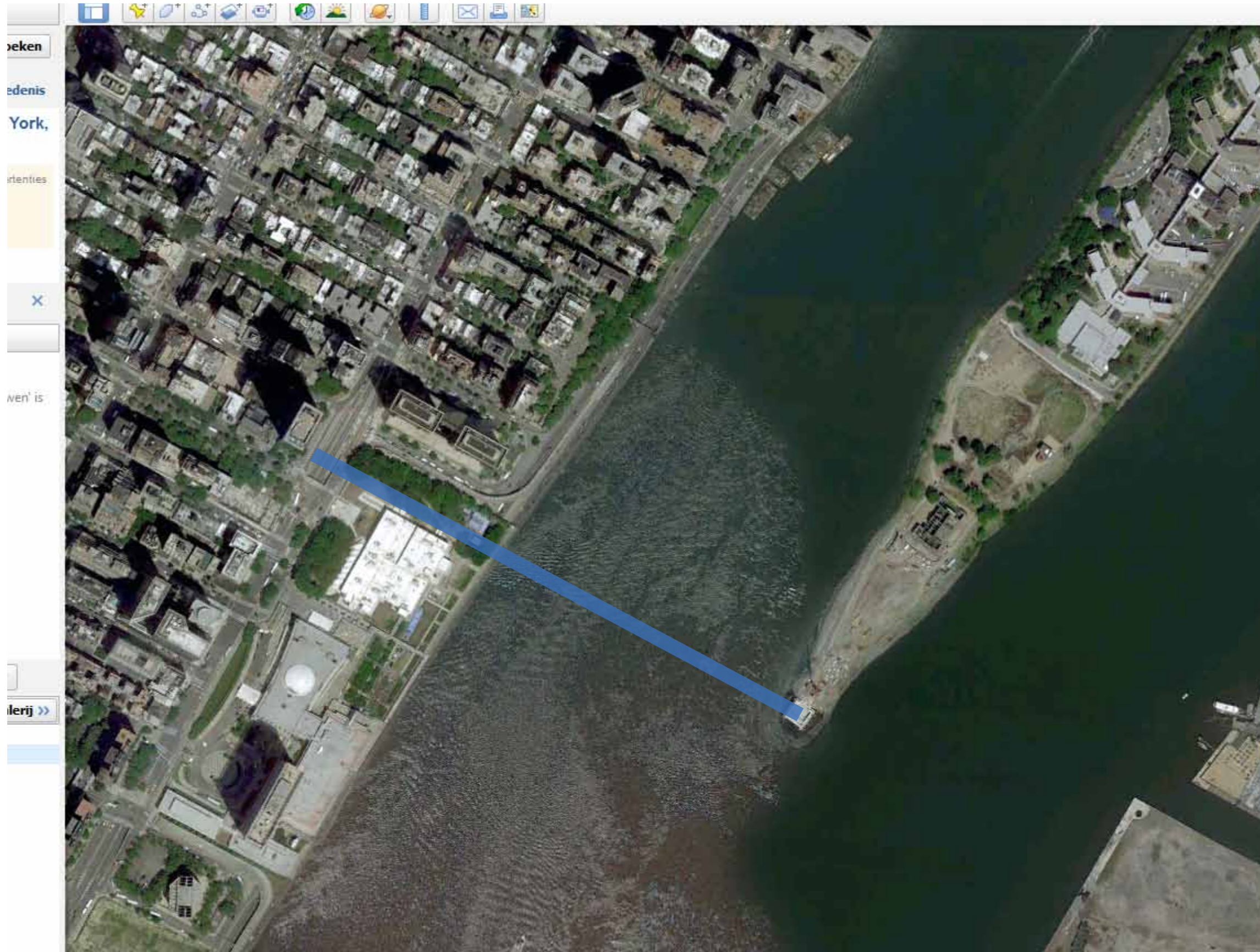
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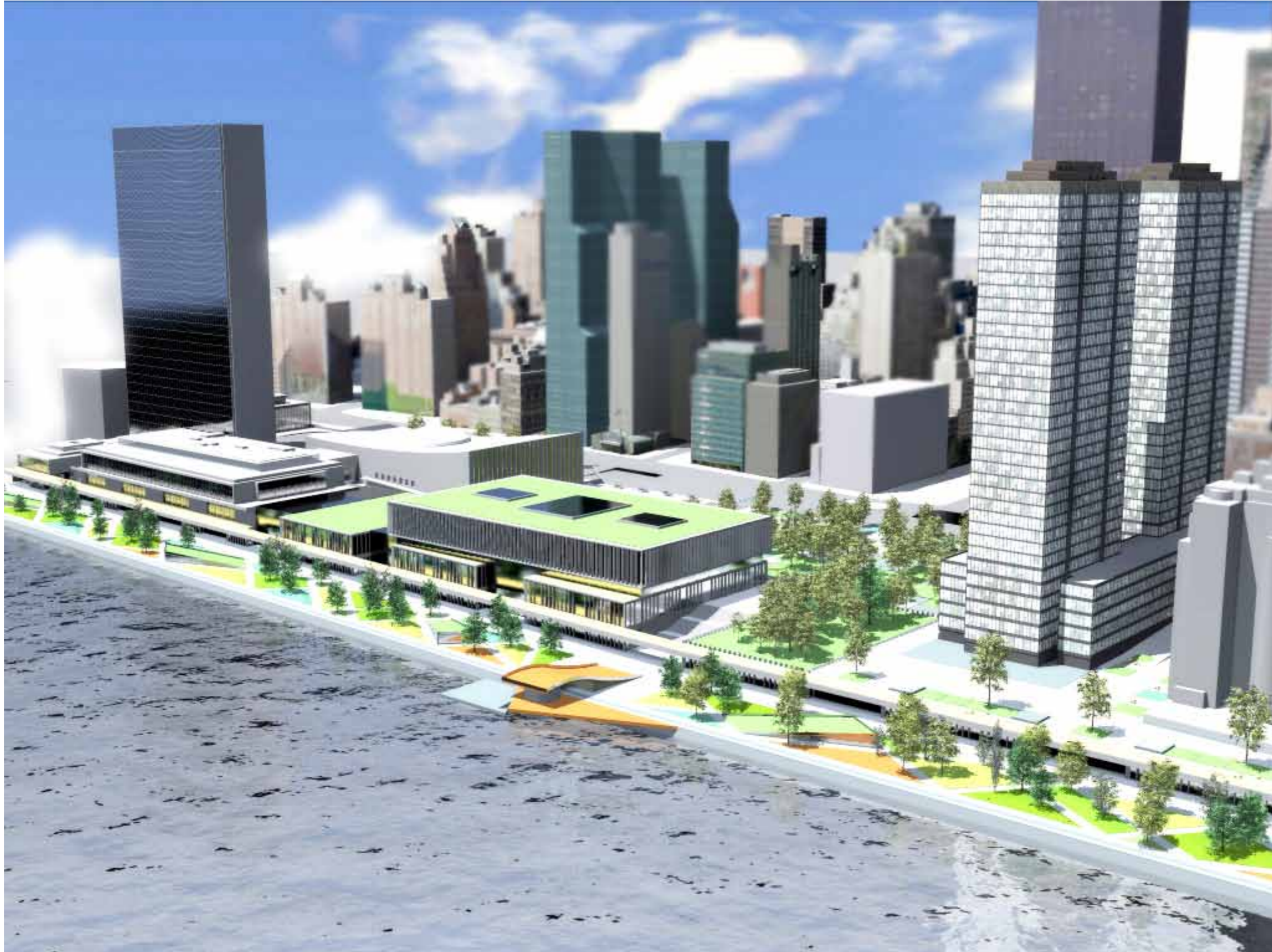
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# 03 Building design

Key values building design

Create a functional whole with the existing building elements

Merge the different user flows with the existing building

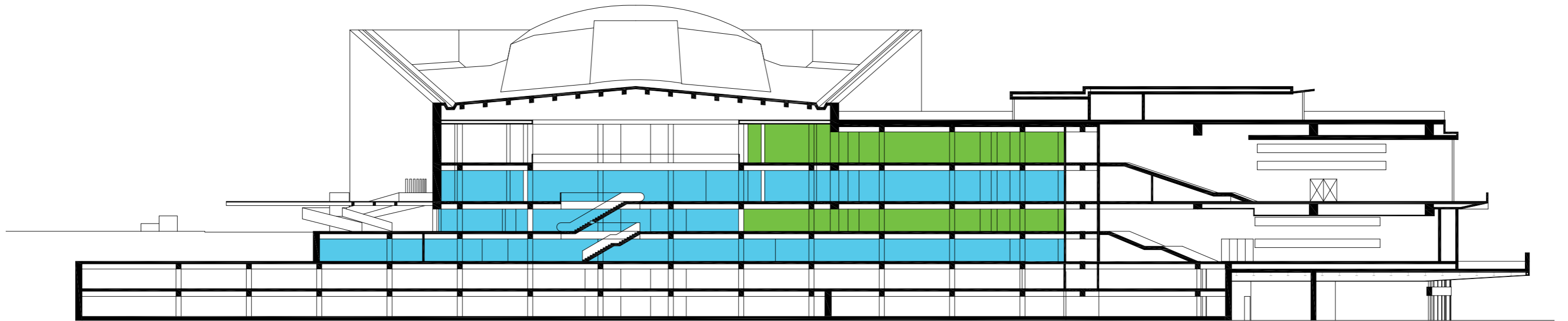
Merge sustainability aspects with the architectural experience

Create a functional whole with the existing building elements

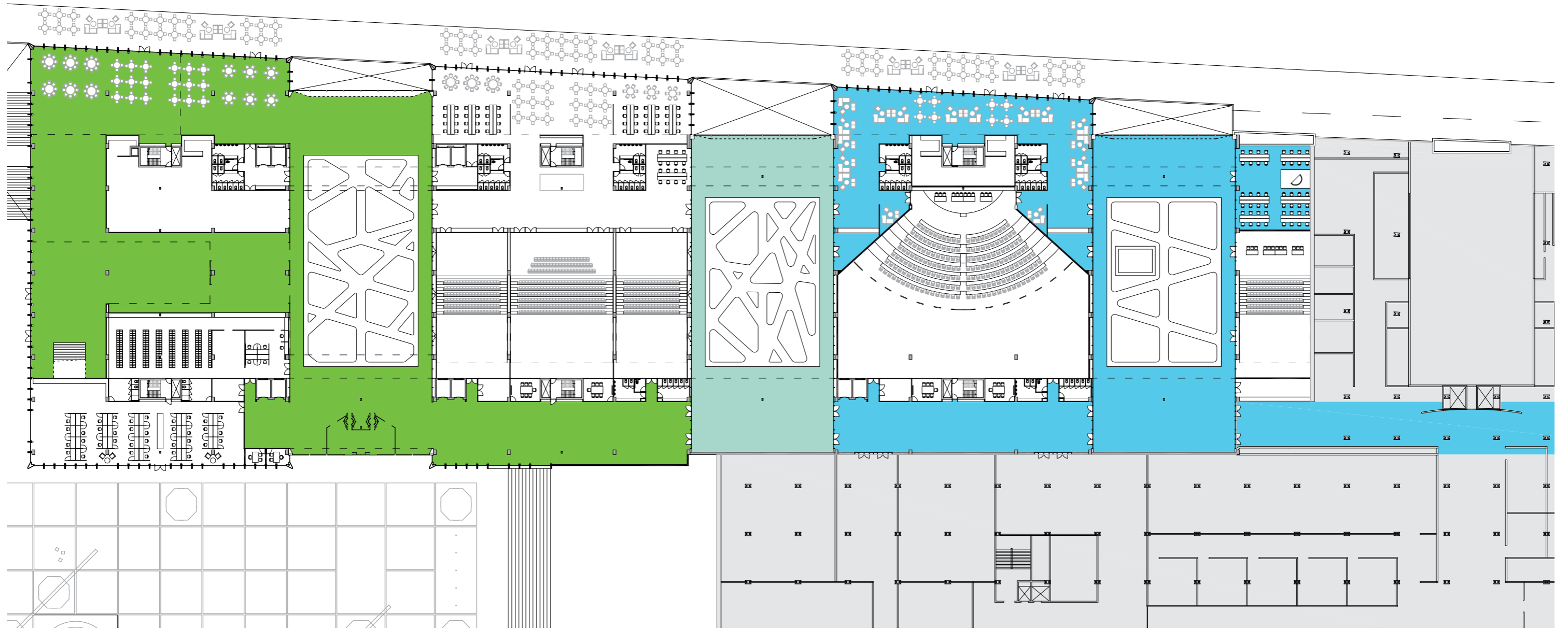
plattegrond stedenbouw met doorsnede lijn



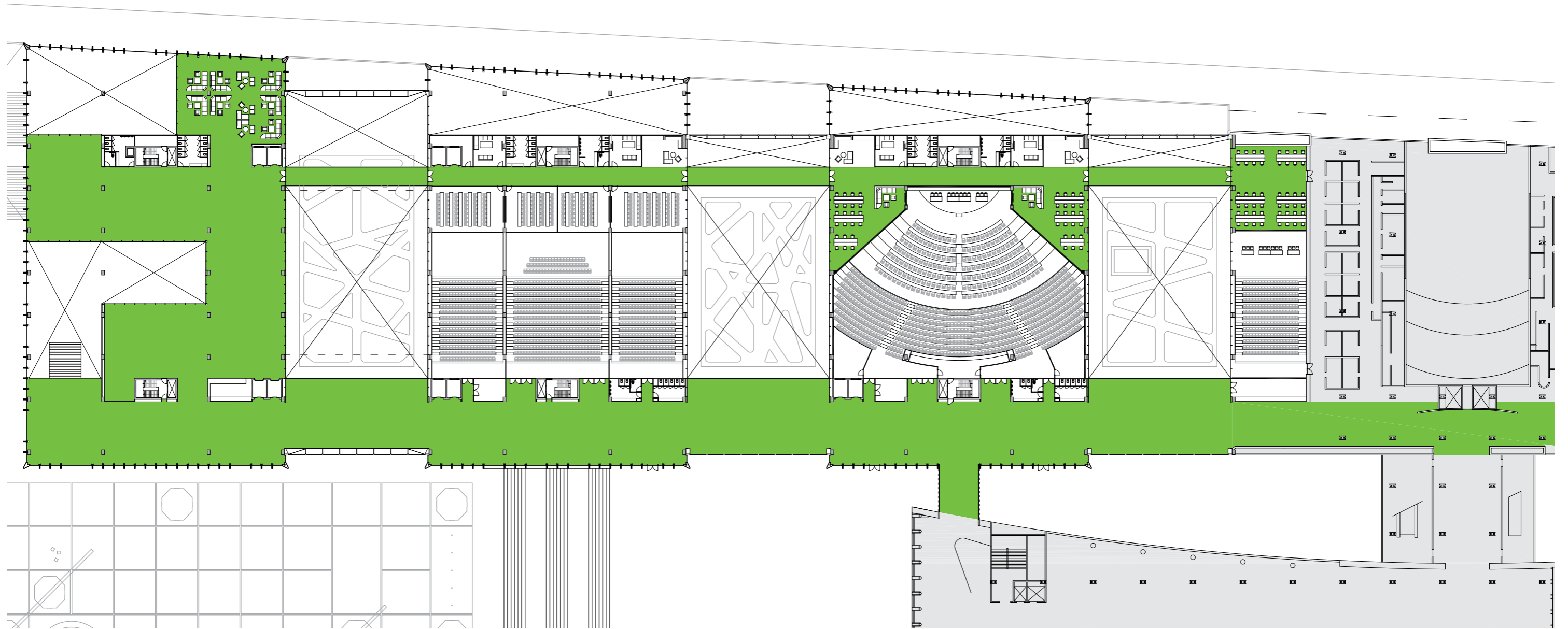
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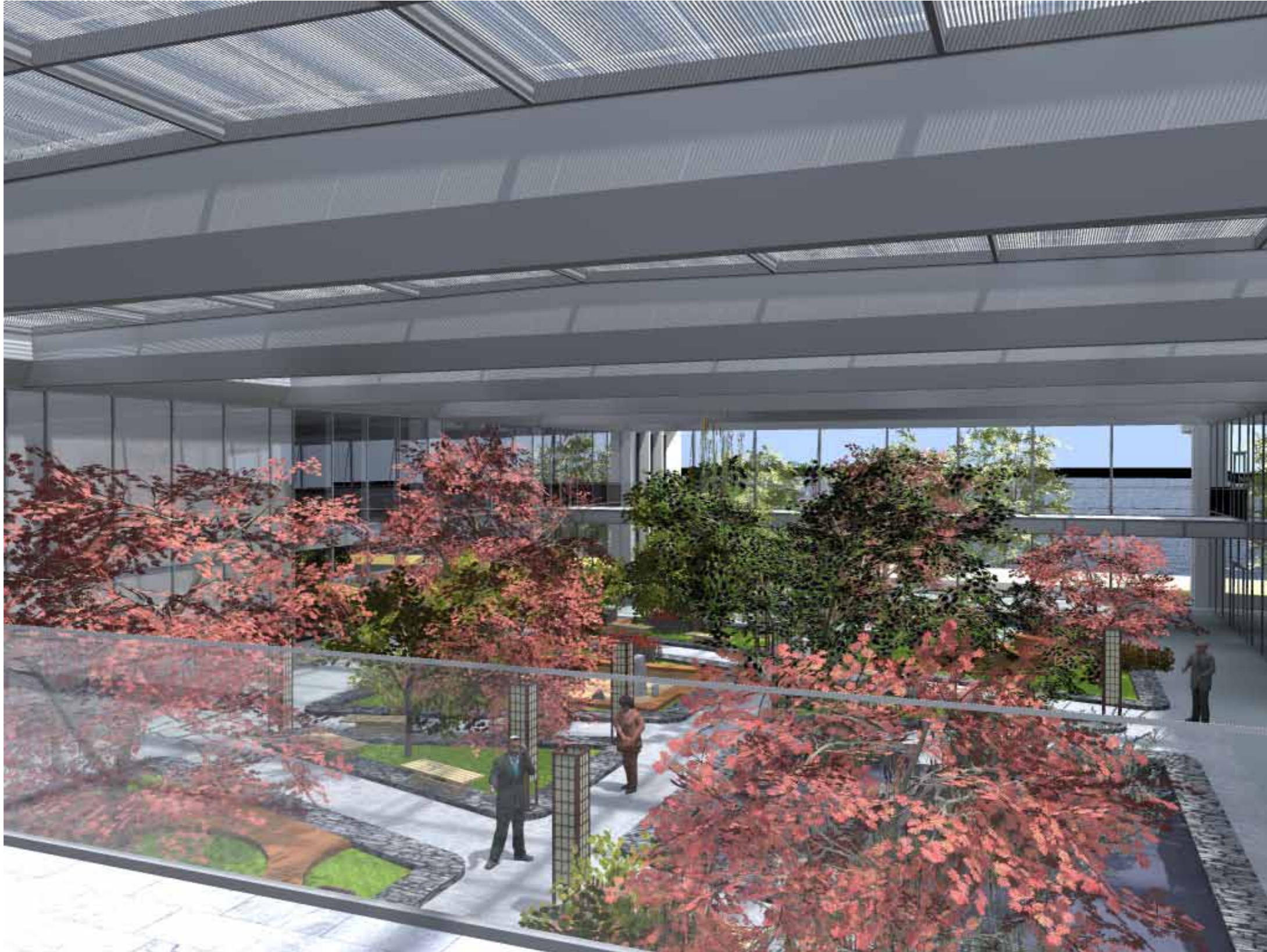
# Merge the different user flows with the existing building



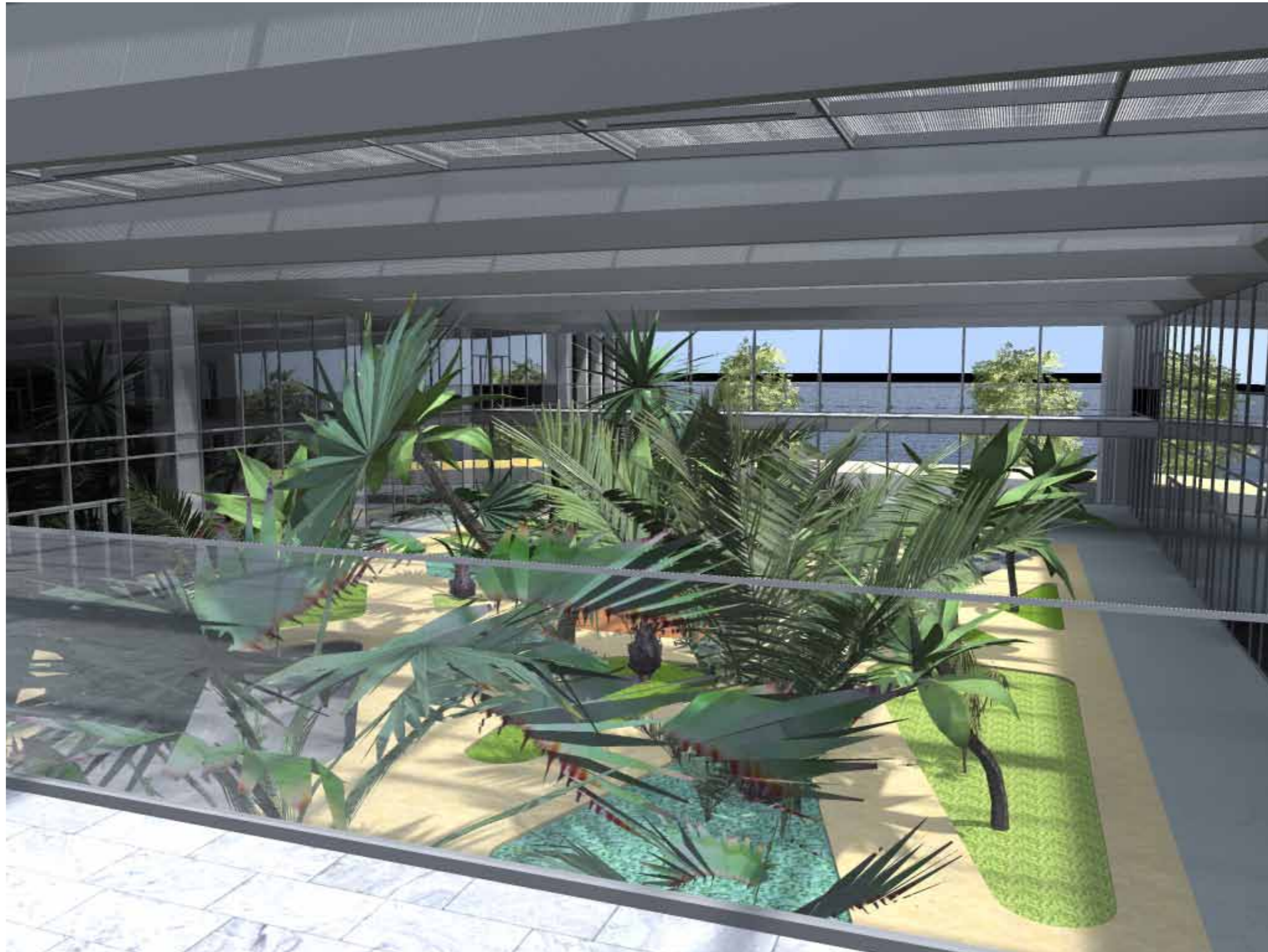
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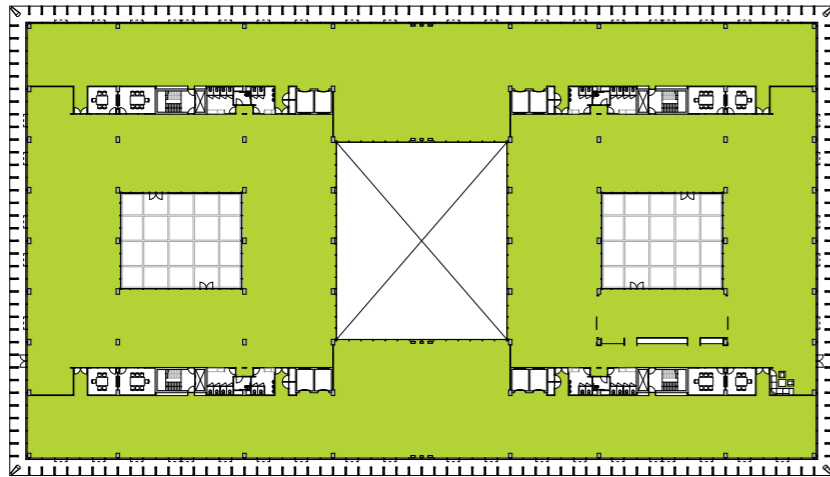
## program distribution



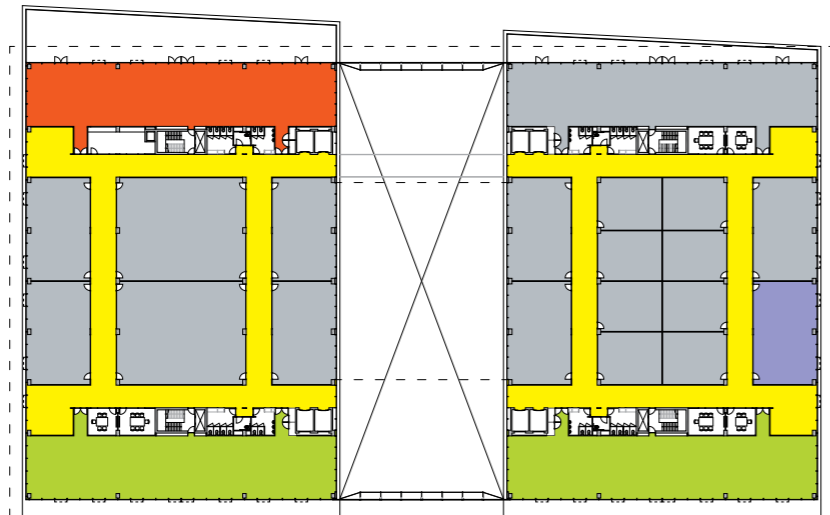
# Merge the different user flows with the existing building

## program distribution

4th floor



3th floor

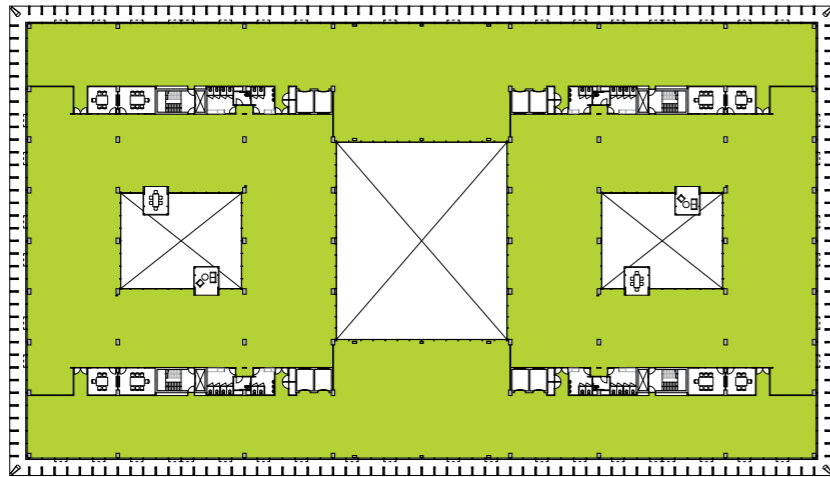


- circulation and lobbies
- office/flexspace
- press studio
- support functions space
- library
- expo/shop
- meeting/lecture rooms
- restaurant/bars
- expedition
- installations
- storage
- retail

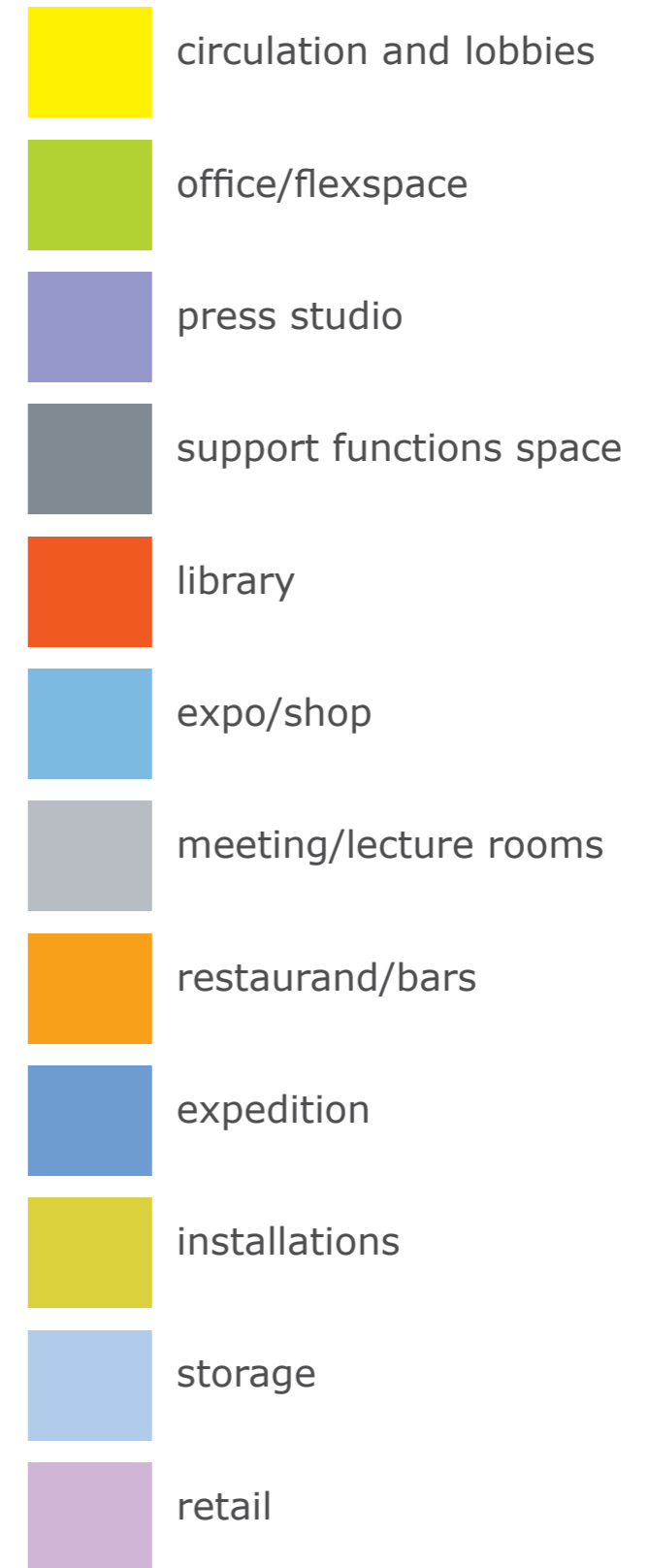
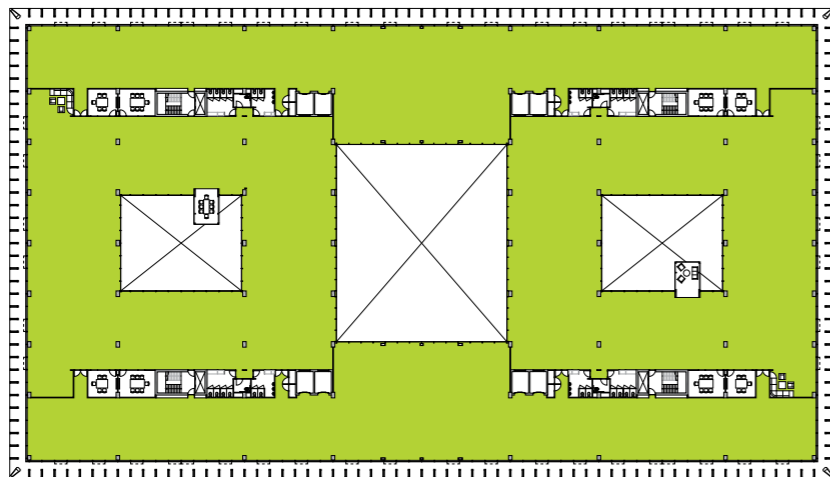
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## program distribution

6th floor



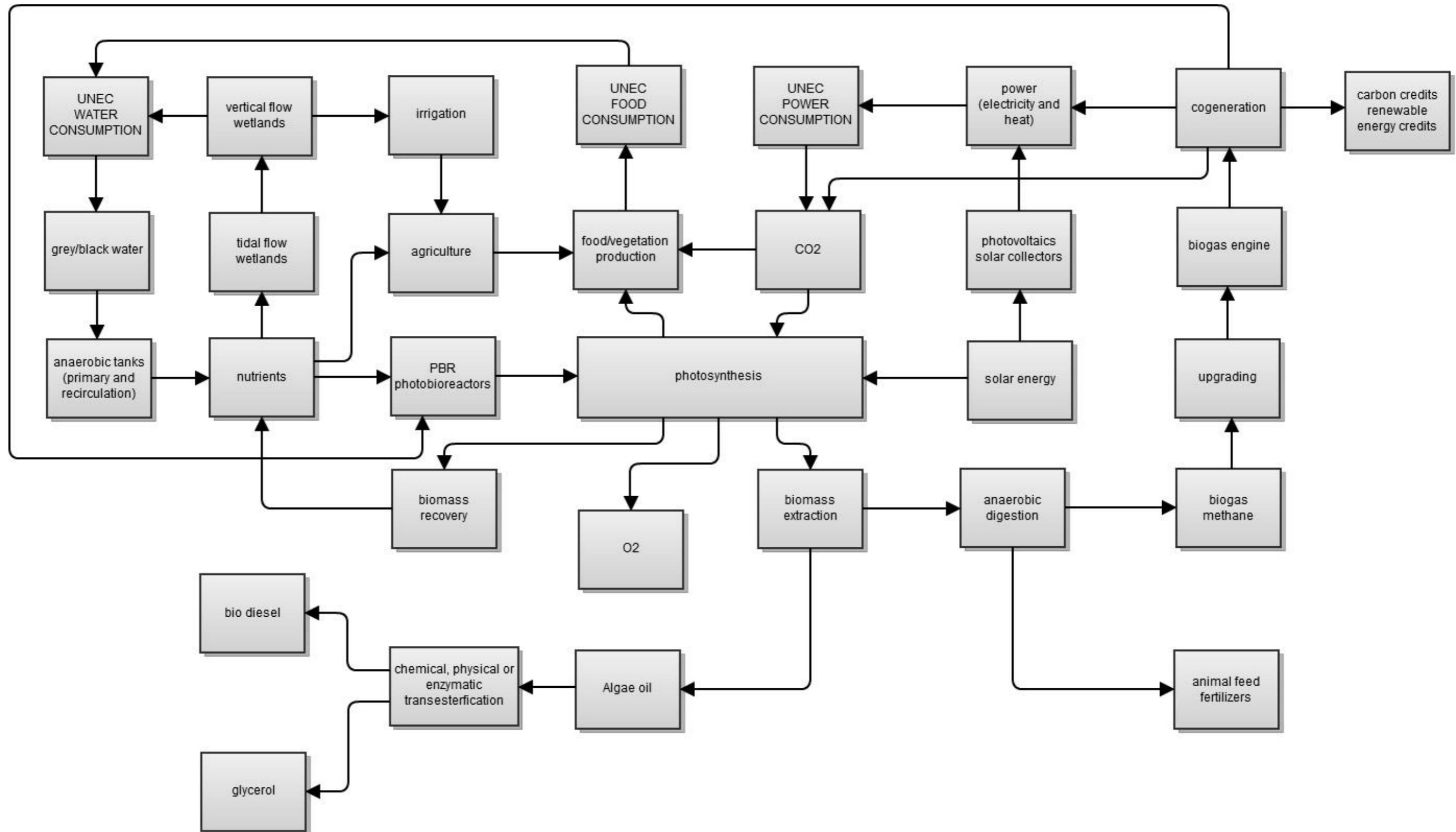
5th floor





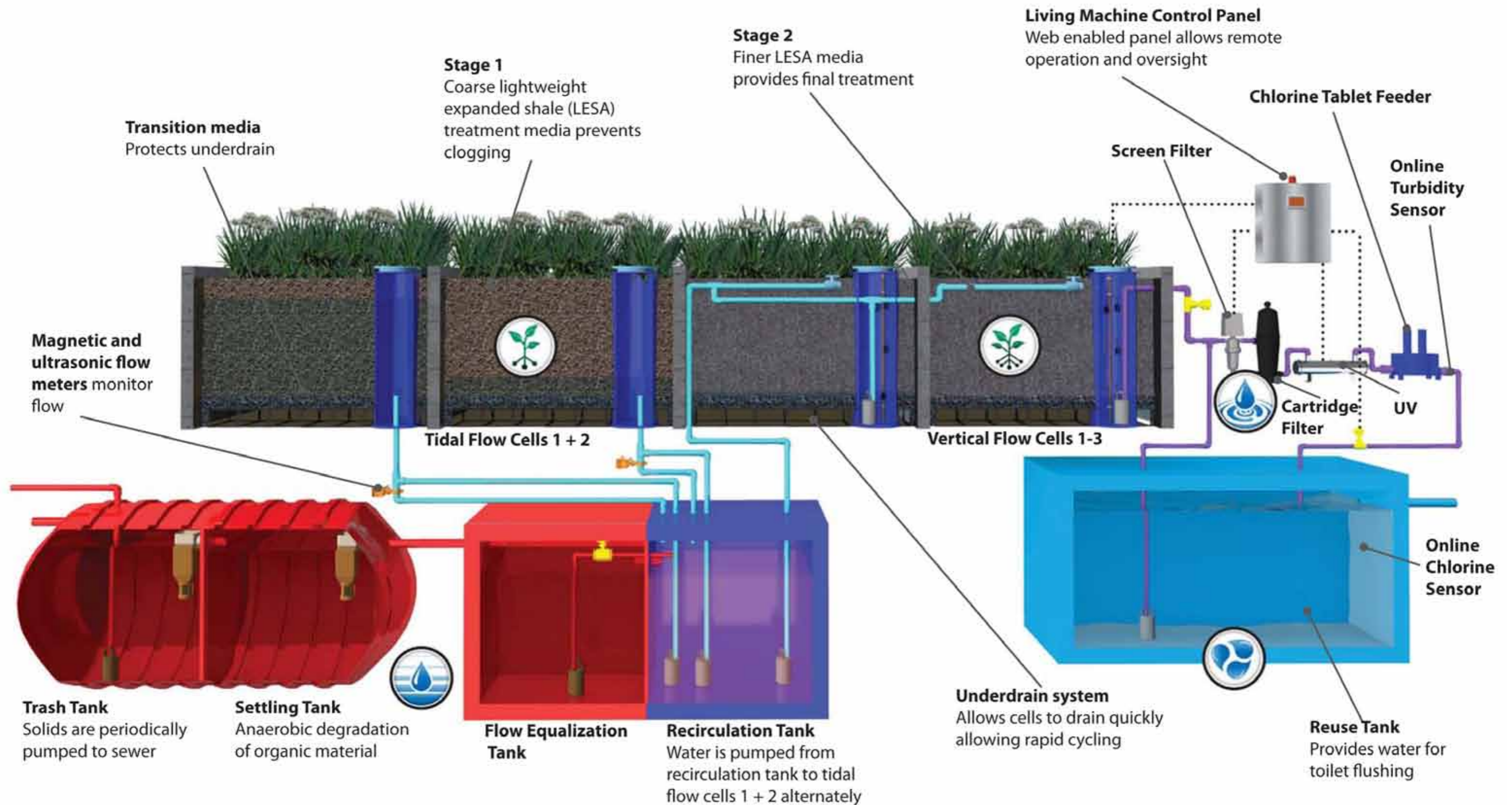
# Merge sustainability aspects with the architectural experience

## Building eco-schematic



# Merge sustainability aspects with the architectural experience

## Living machines



# Merge sustainability aspects with the architectural experience

## Living machines



# Merge sustainability aspects with the architectural experience

## Photo bio-reactor facades



# Merge sustainability aspects with the architectural experience



# Merge sustainability aspects with the architectural experience



# Merge sustainability aspects with the architectural experience



# 04 Building technology



Structure

Climate control

Atrium Lobby

Office atrium

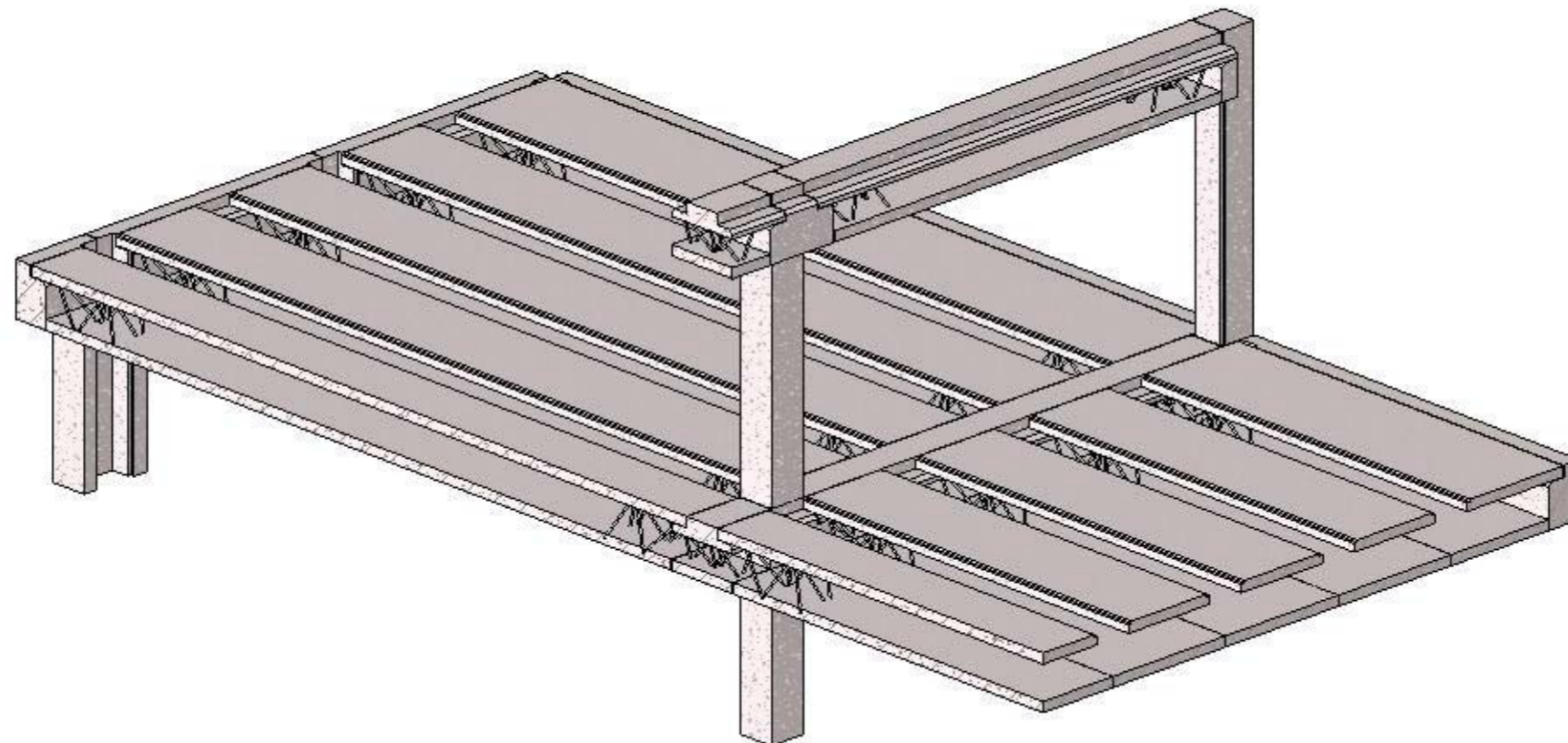
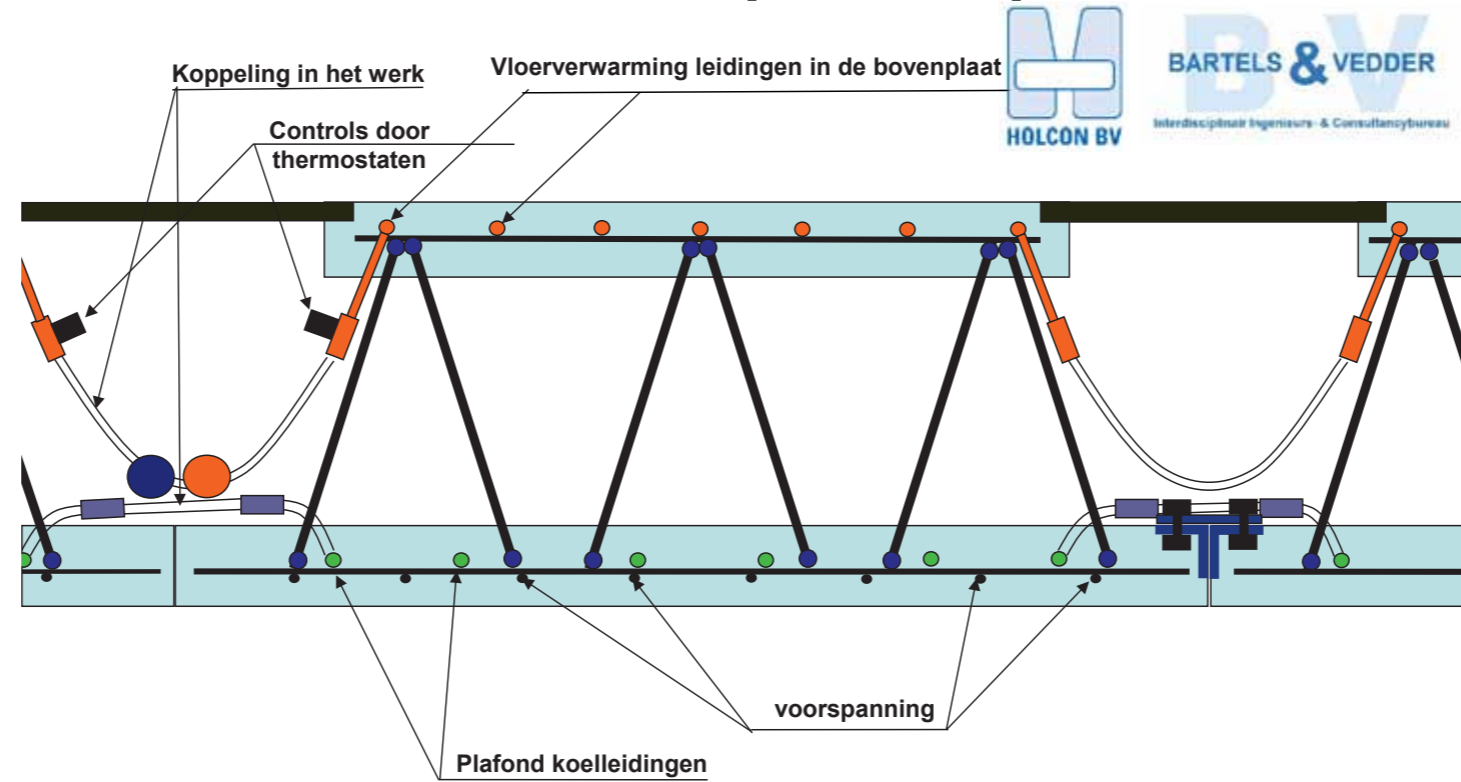
Office space

Details office facade

Assembly of the photo-bio facade

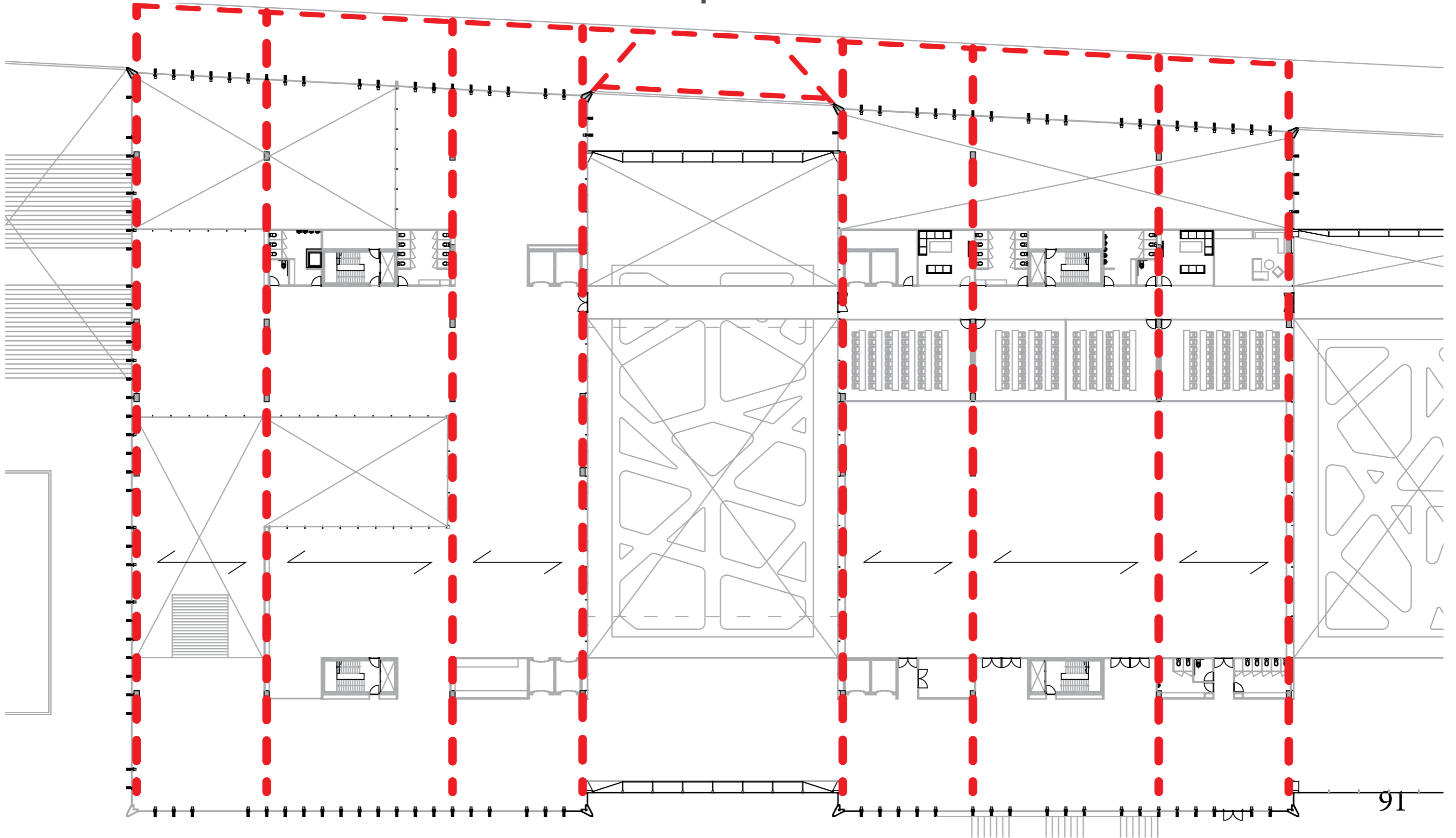
# Structure

## Holcon principle



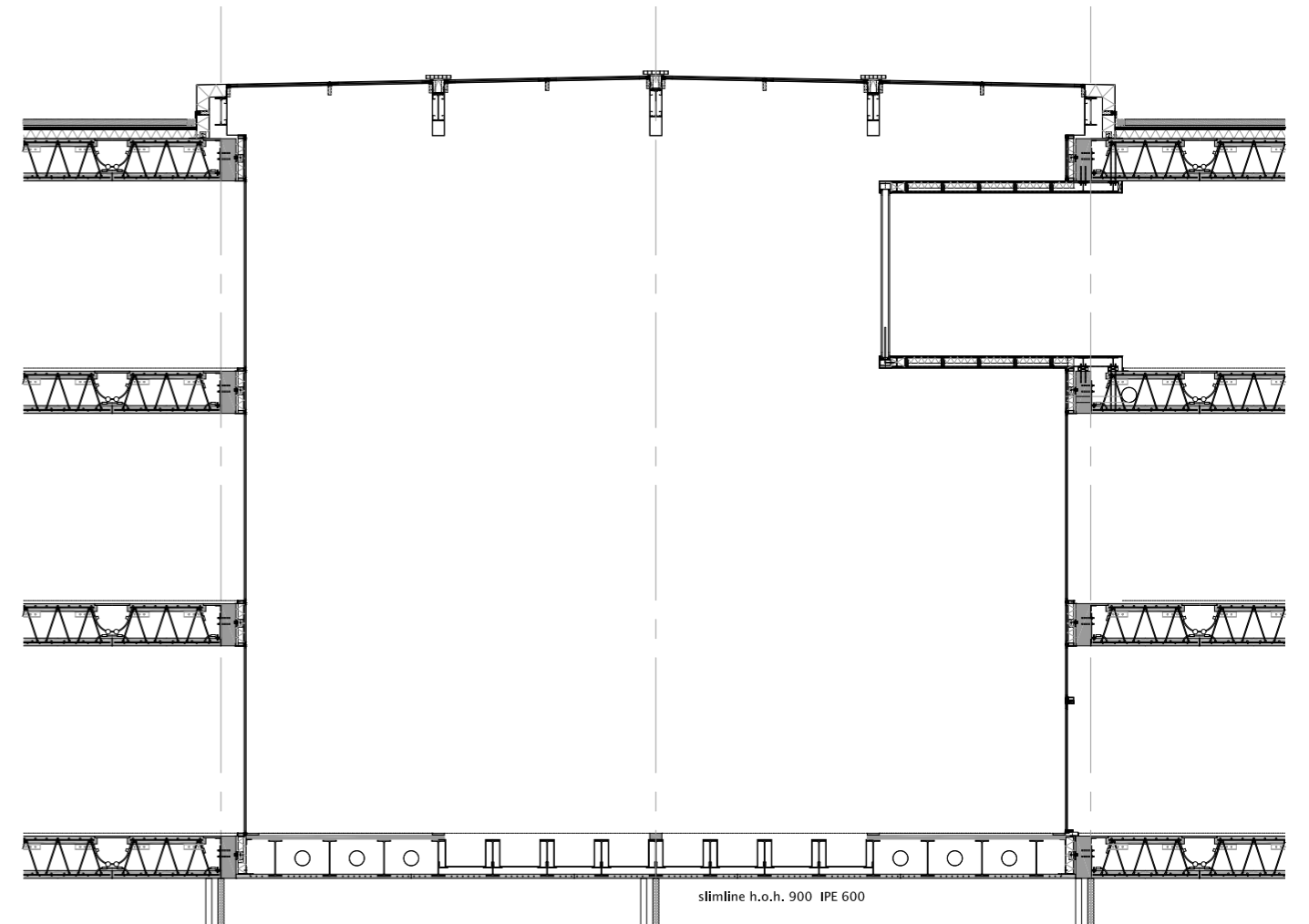
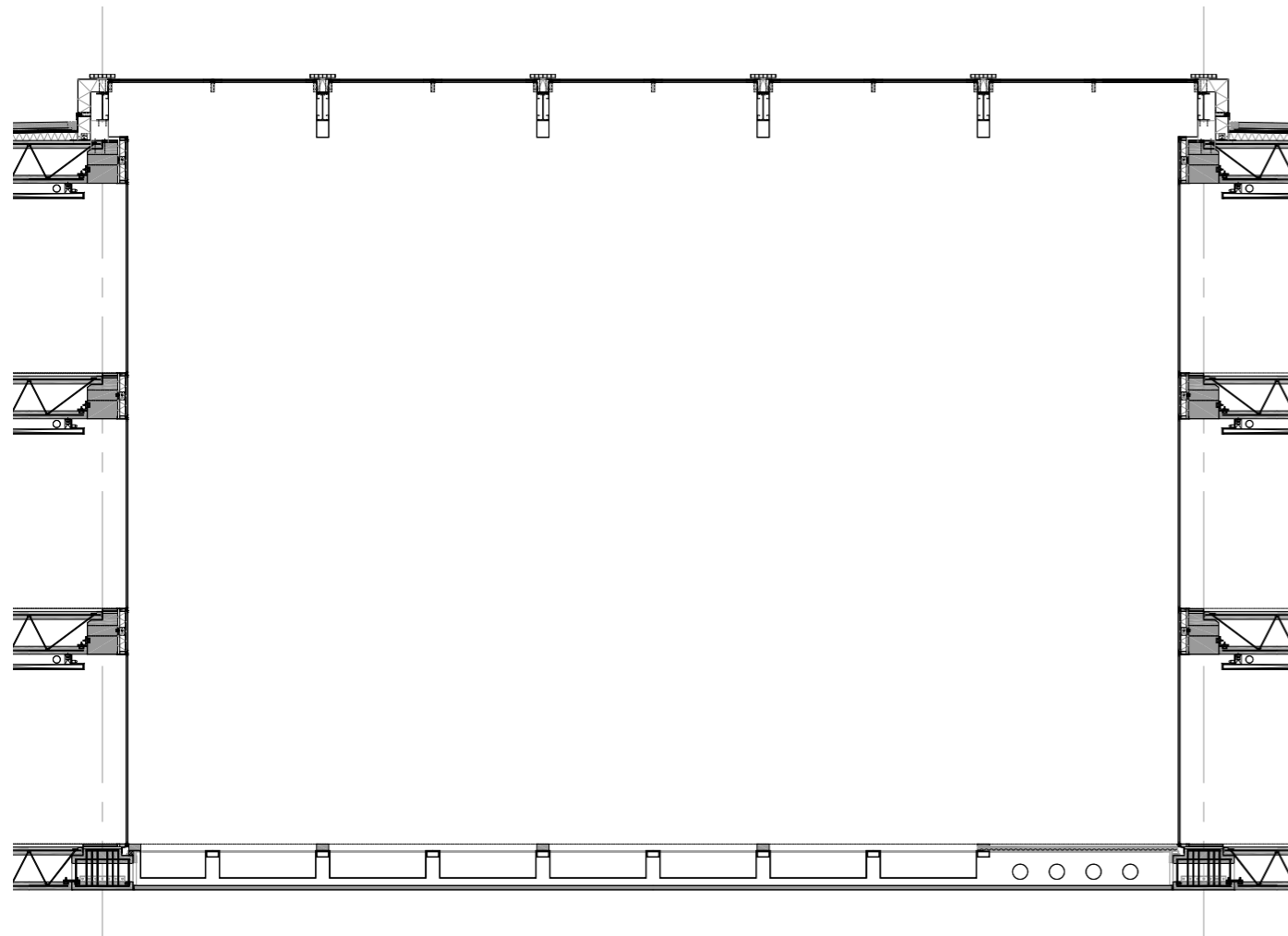
# Structure

## Span



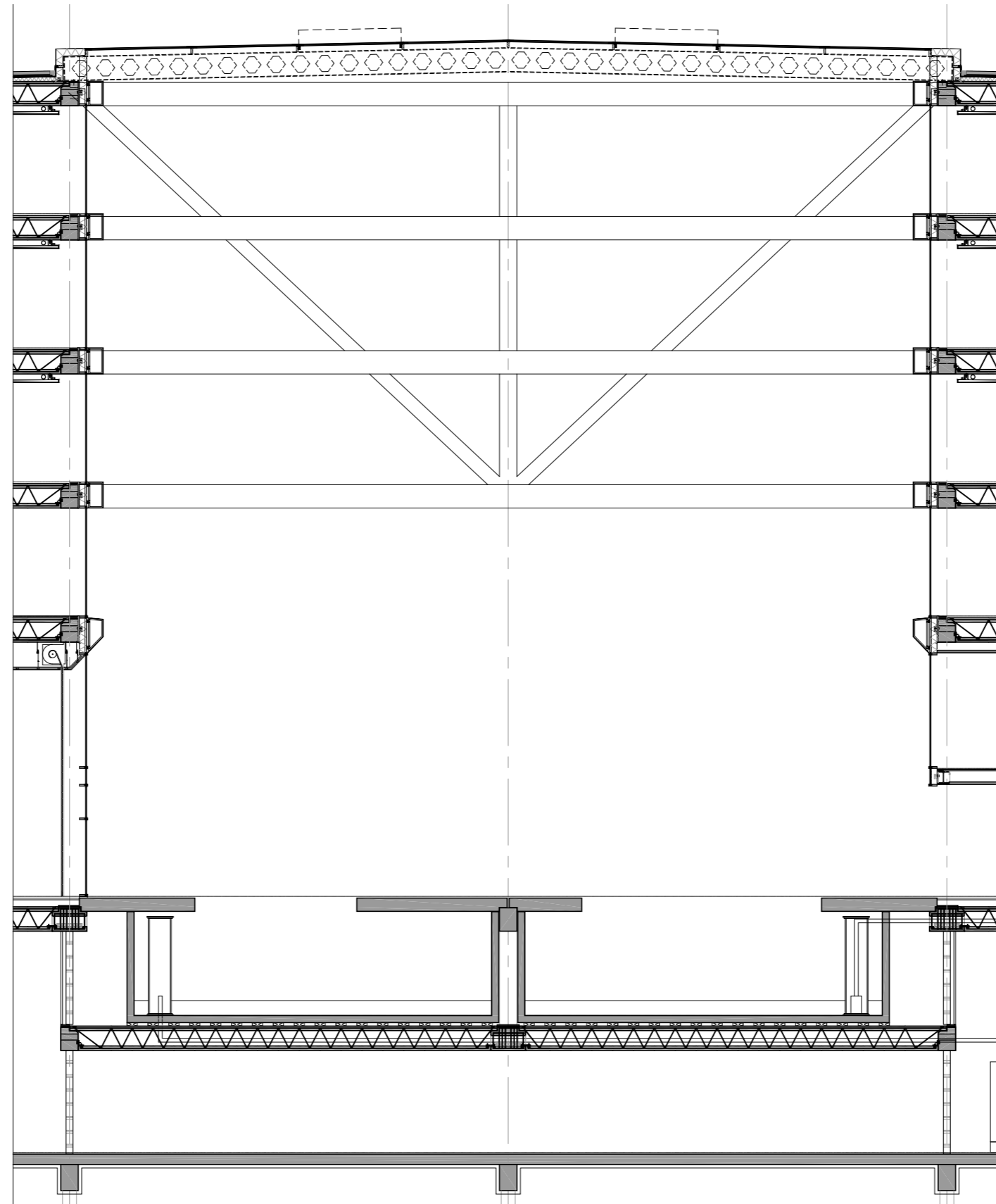
# Structure

## Deviations



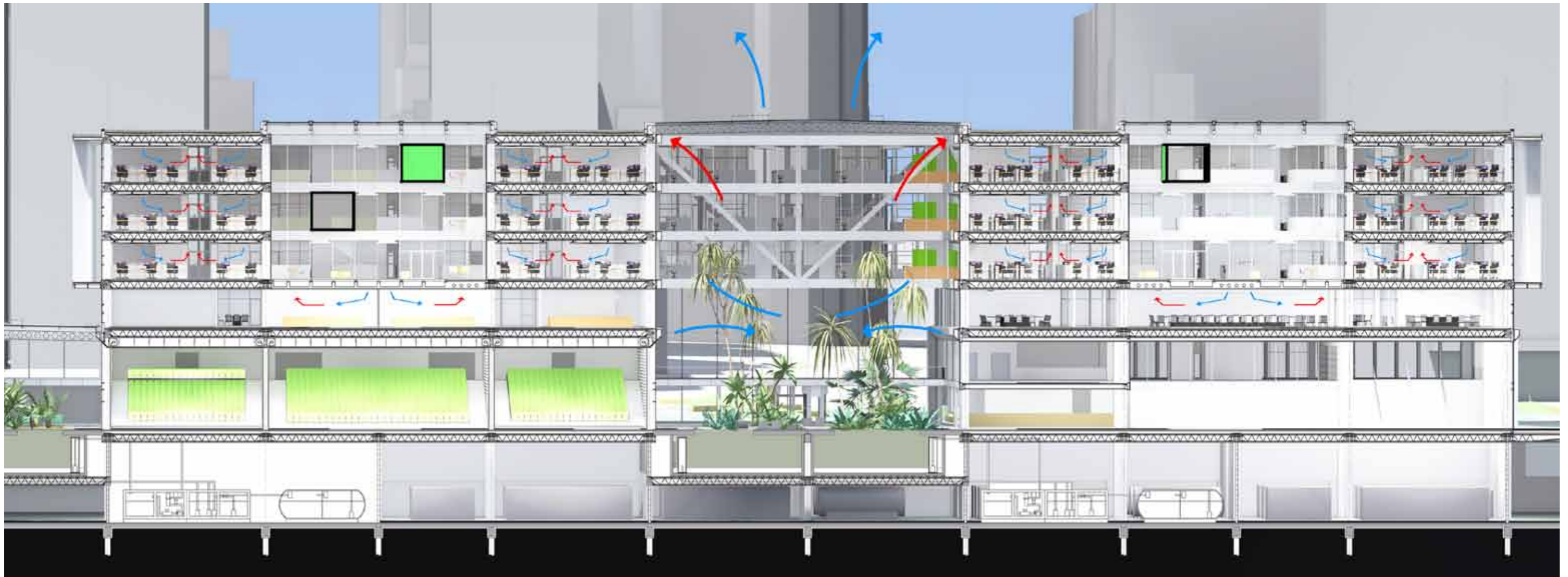
# Structure

## Deviations



# Merge sustainability aspects with the architectural experience

## Climate control



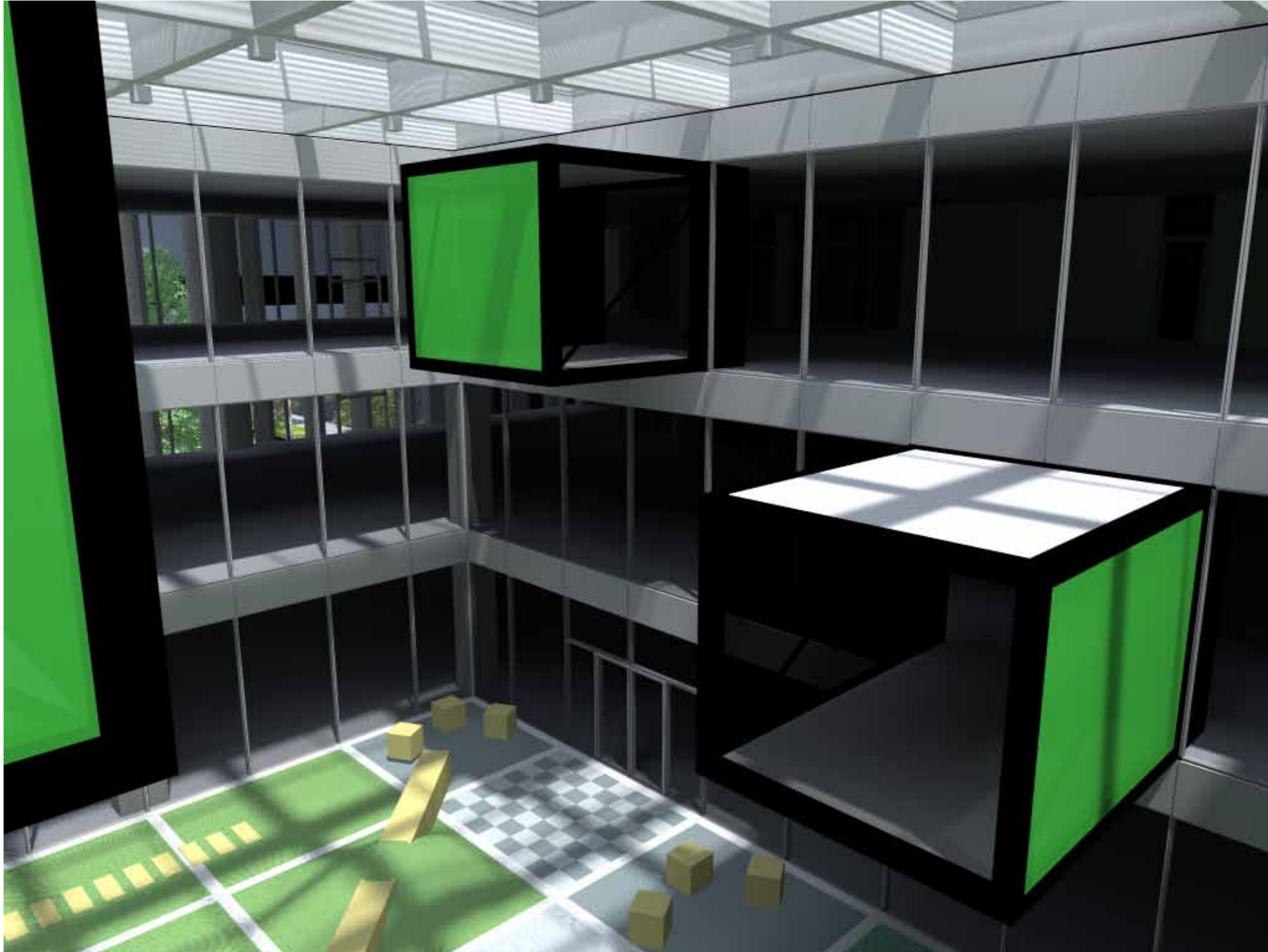
# Merge sustainability aspects with the architectural experience

## Atrium lobby



# Merge sustainability aspects with the architectural experience

## Office atrium





# Merge sustainability aspects with the architectural experience

## Office space



# Merge sustainability aspects with the architectural experience

## Office space



# Merge sustainability aspects with the architectural experience

## Office space



# Merge sustainability aspects with the architectural experience

## Office space



# Assembly of the photo-bio facade



# Assembly of the photo-bio facade

