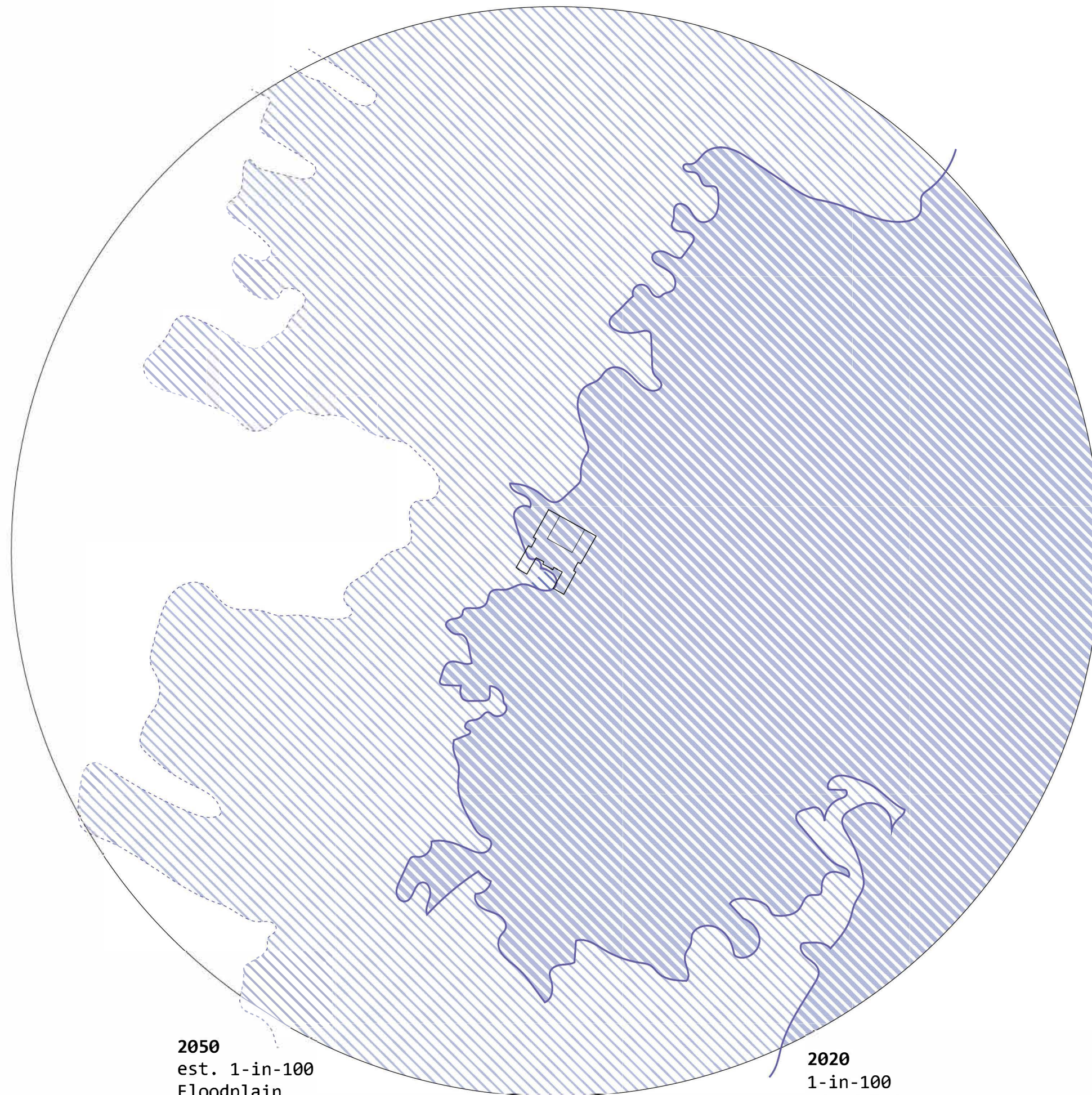


The School for Water Resilience

Ally Shahidi

Gordon Kipping

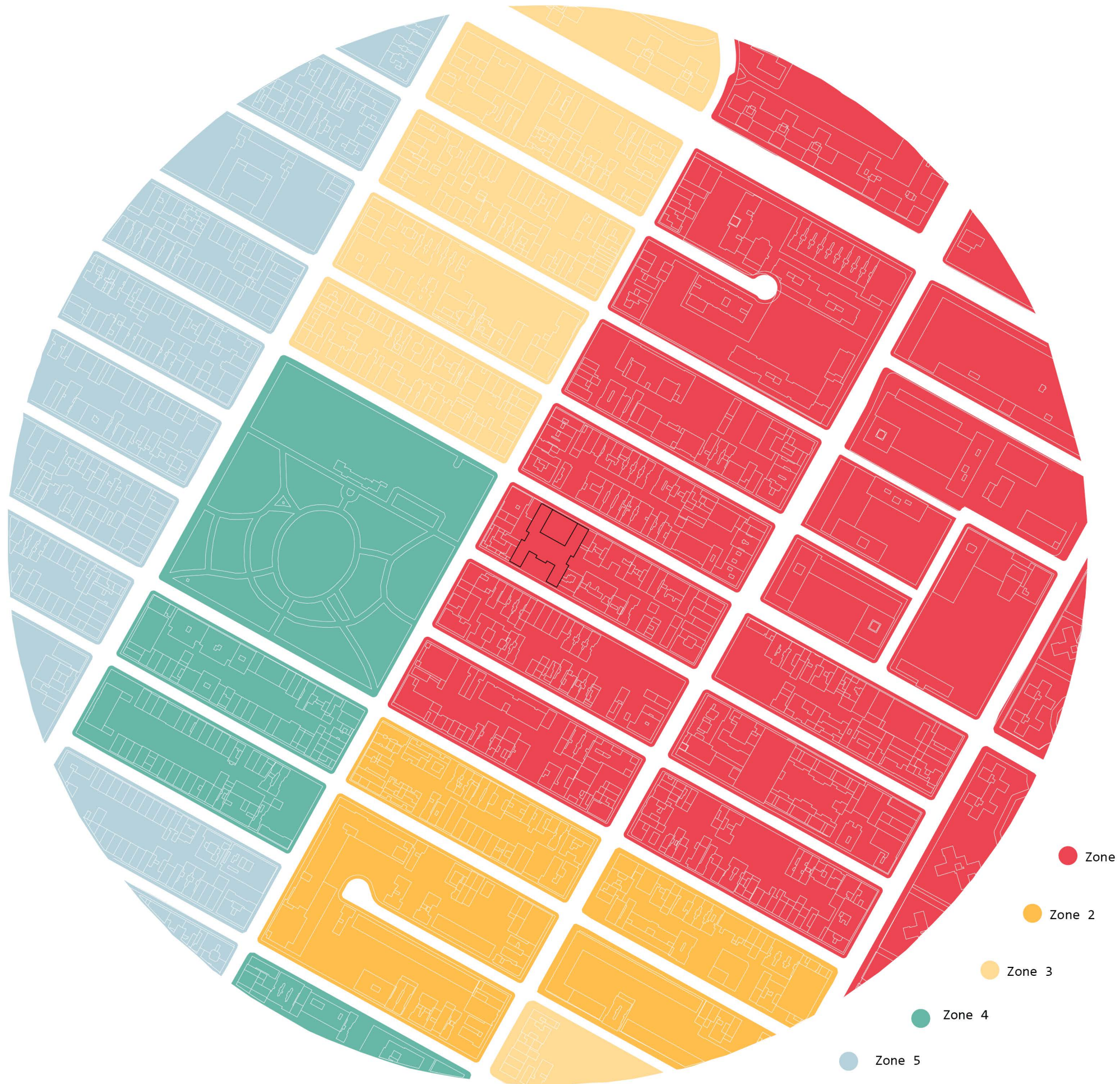




2050
est. 1-in-100
Floodplain

2020
1-in-100
Floodplain

Floodplain



Zone 1

Zone 2

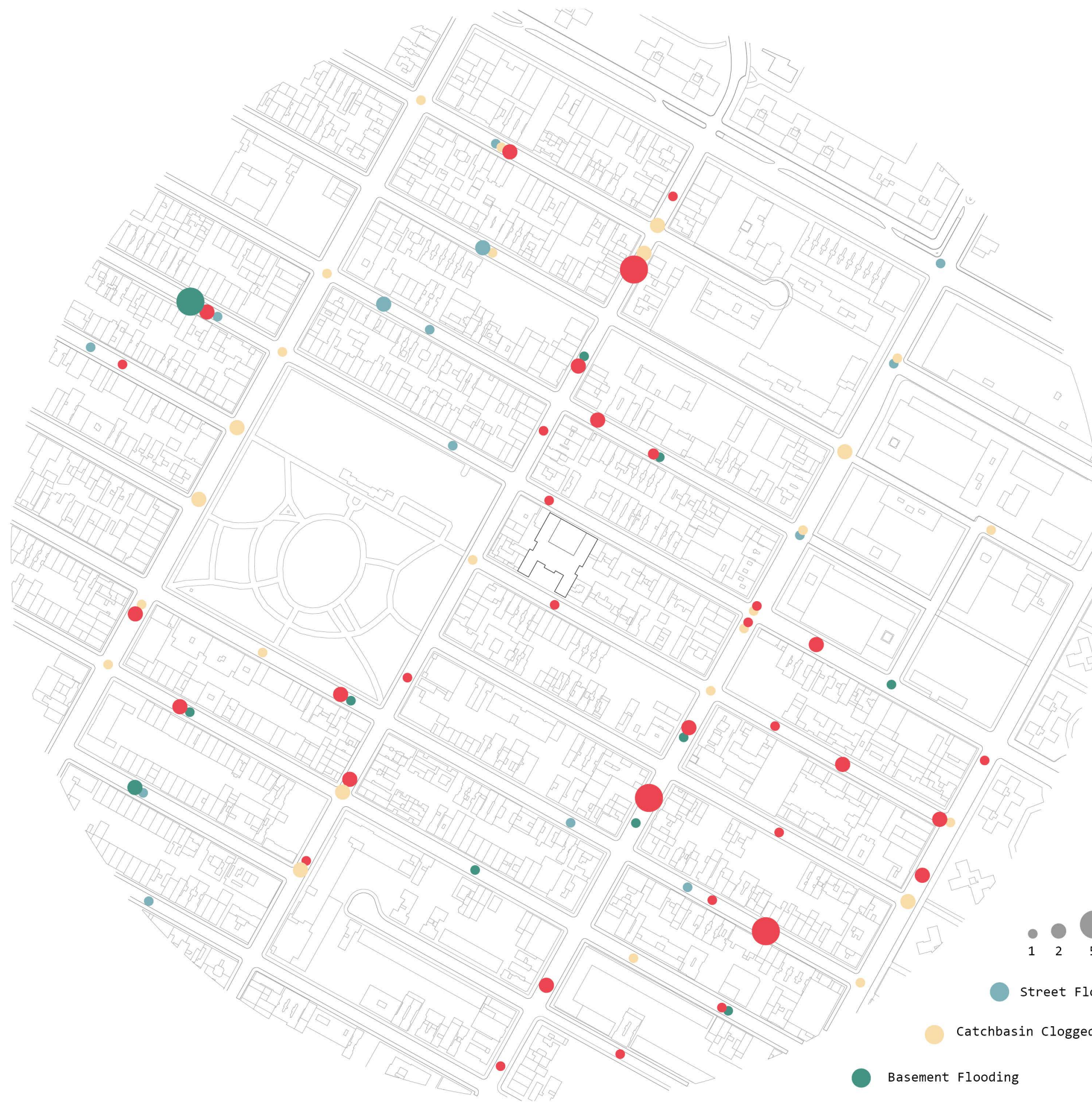
Zone 3

Zone 4

Zone 5

Zone 6

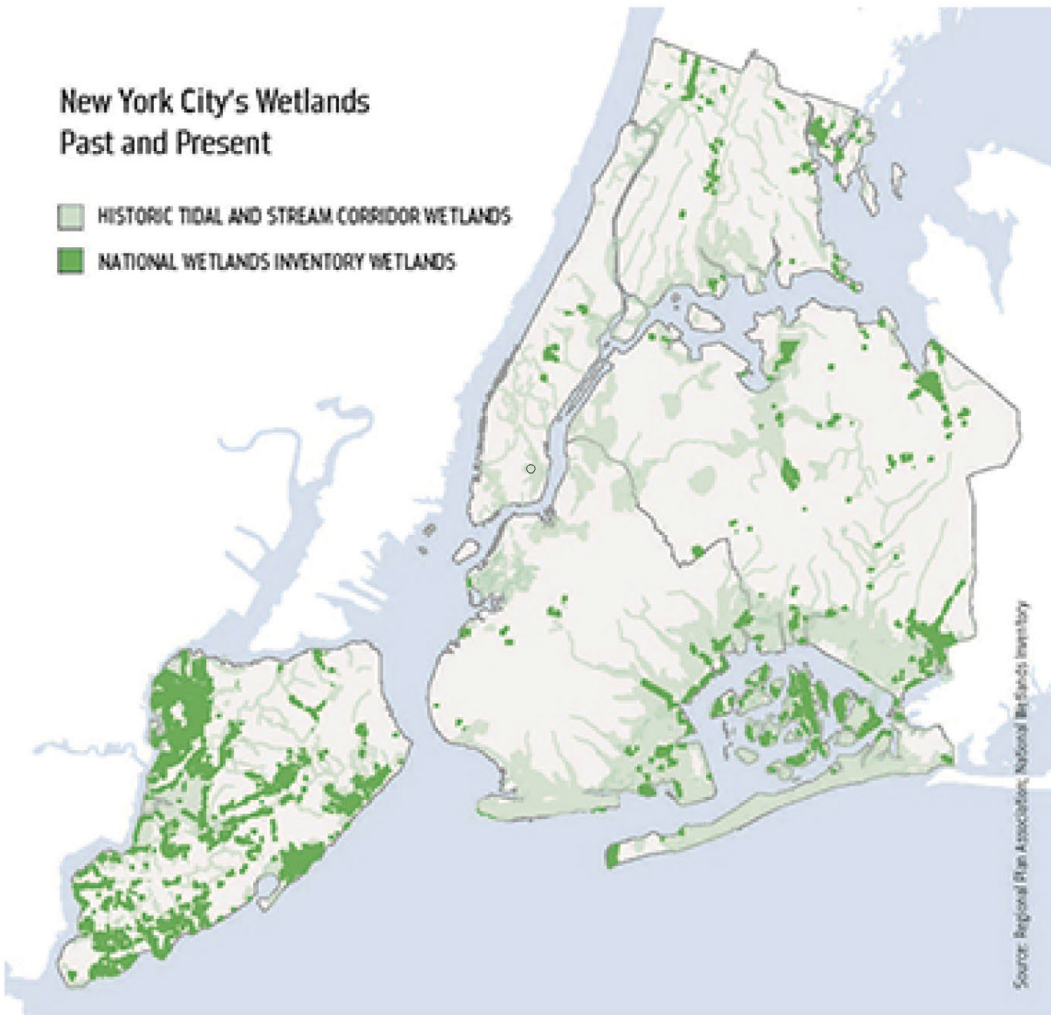
Hurricane Evacuation Zones



Sewer 311 Complaints 2011-2016

New York City's Wetlands Past and Present

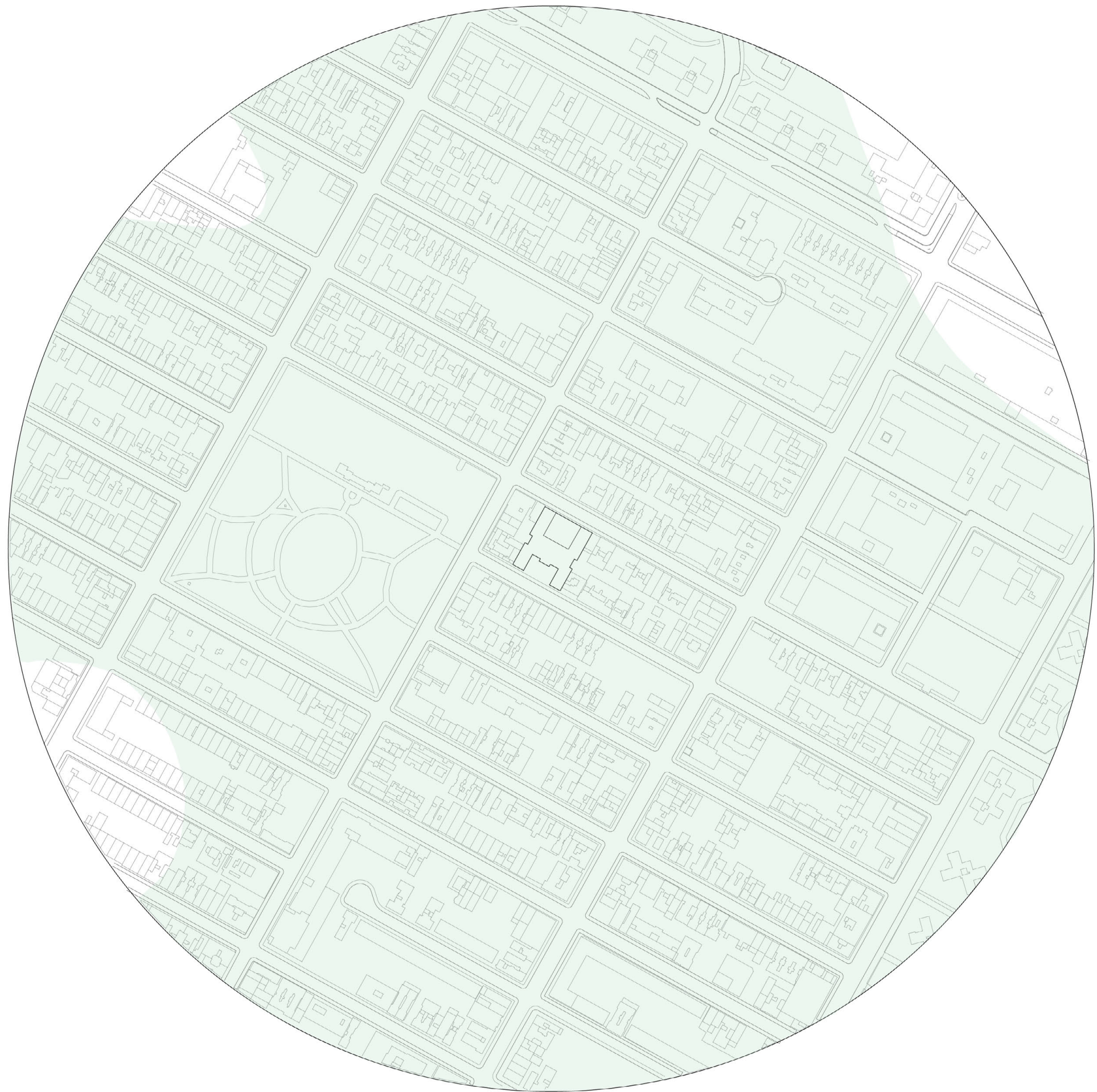
- HISTORIC TIDAL AND STREAM CORRIDOR WETLANDS
- NATIONAL WETLANDS INVENTORY WETLANDS



Source: Regional Plan Association, National Wetlands Inventory

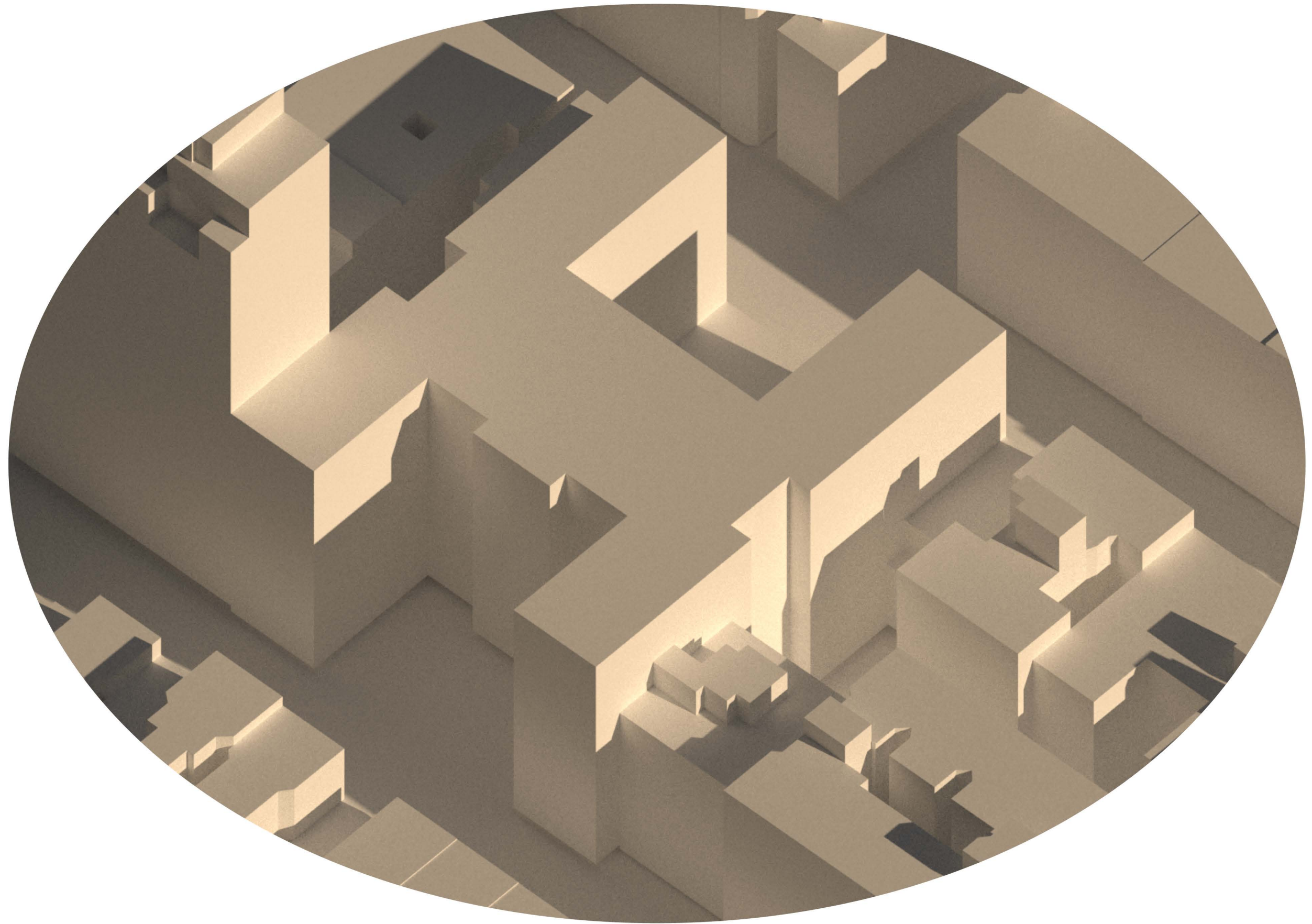


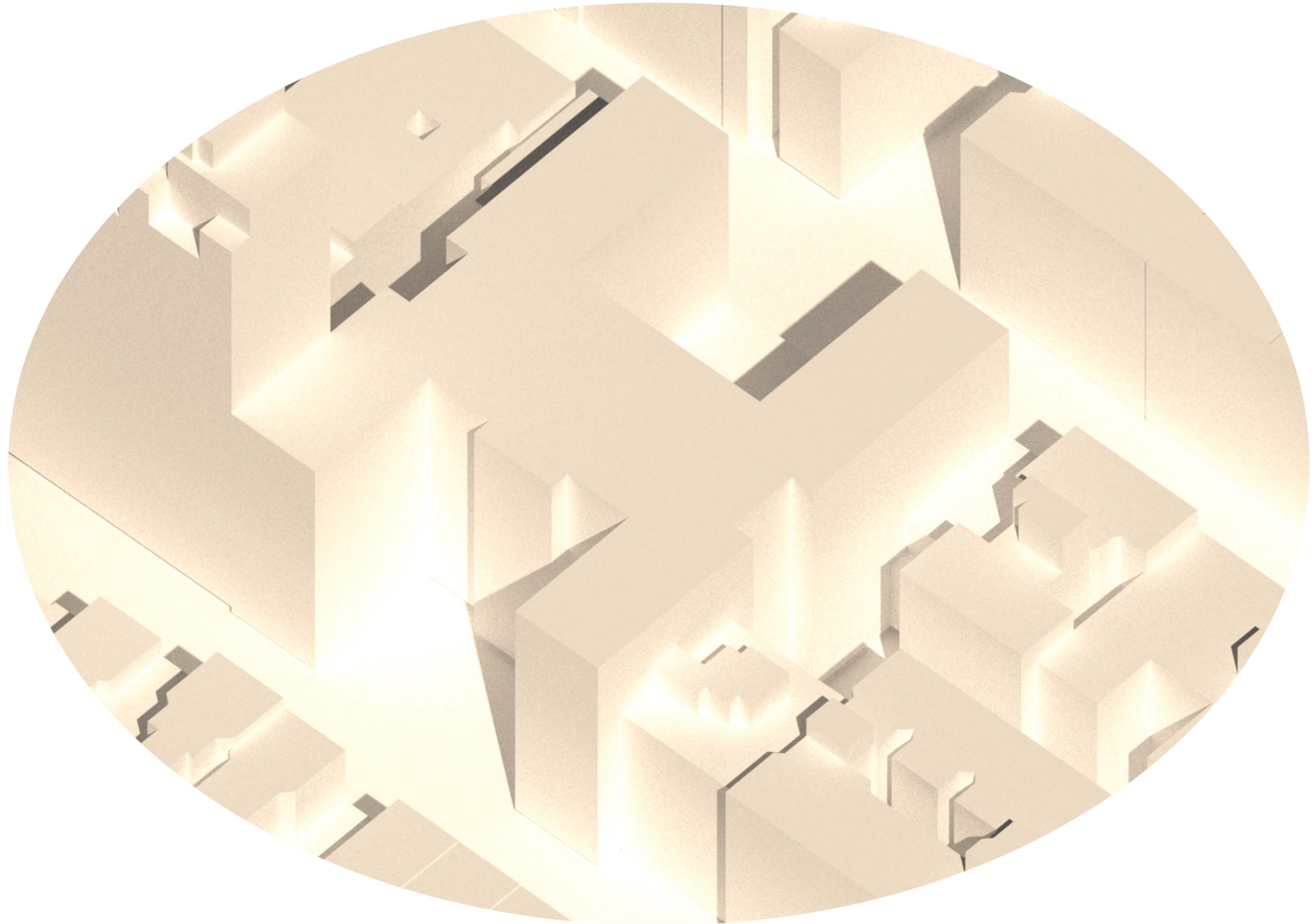
Ratzer Map, 1767

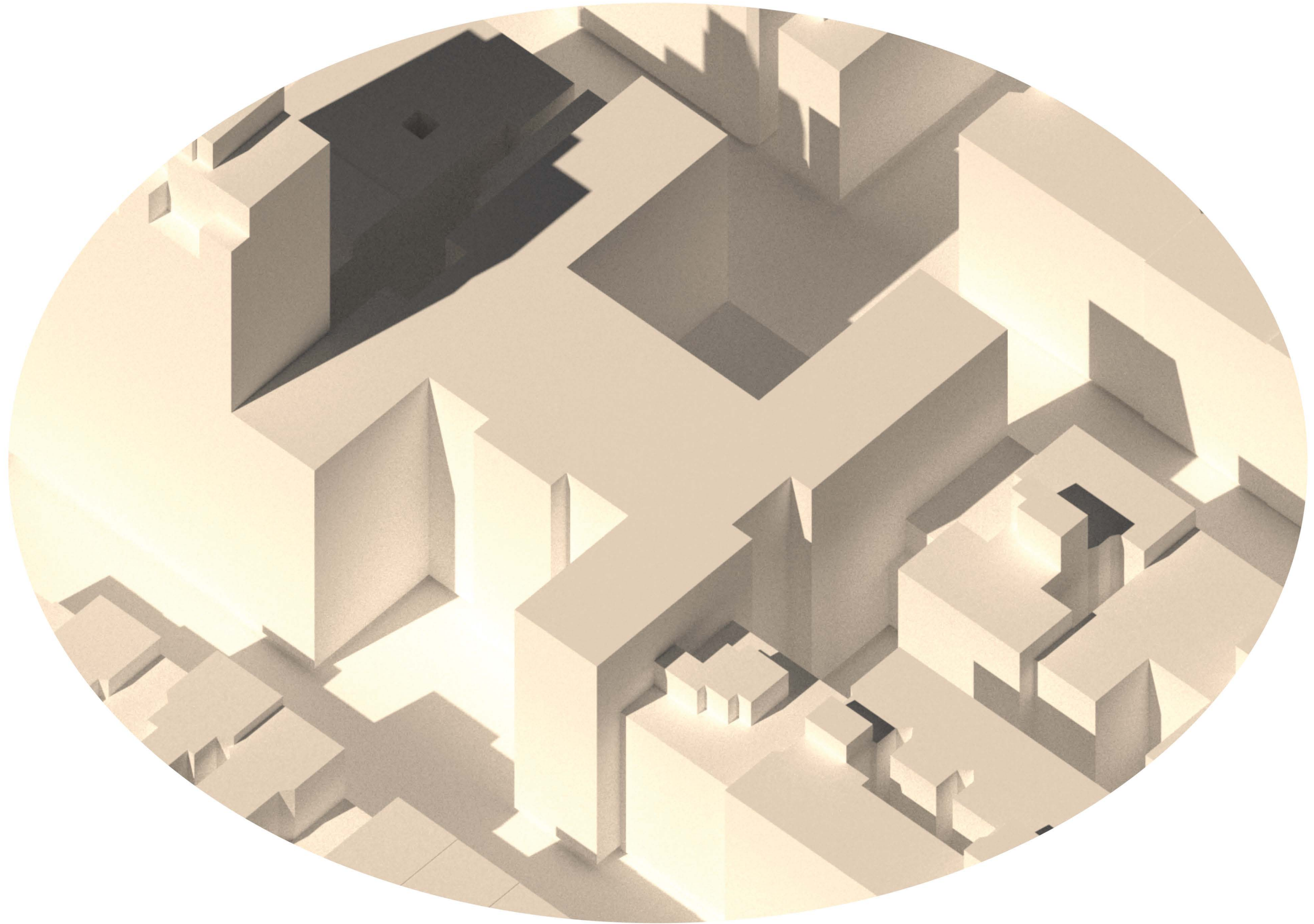


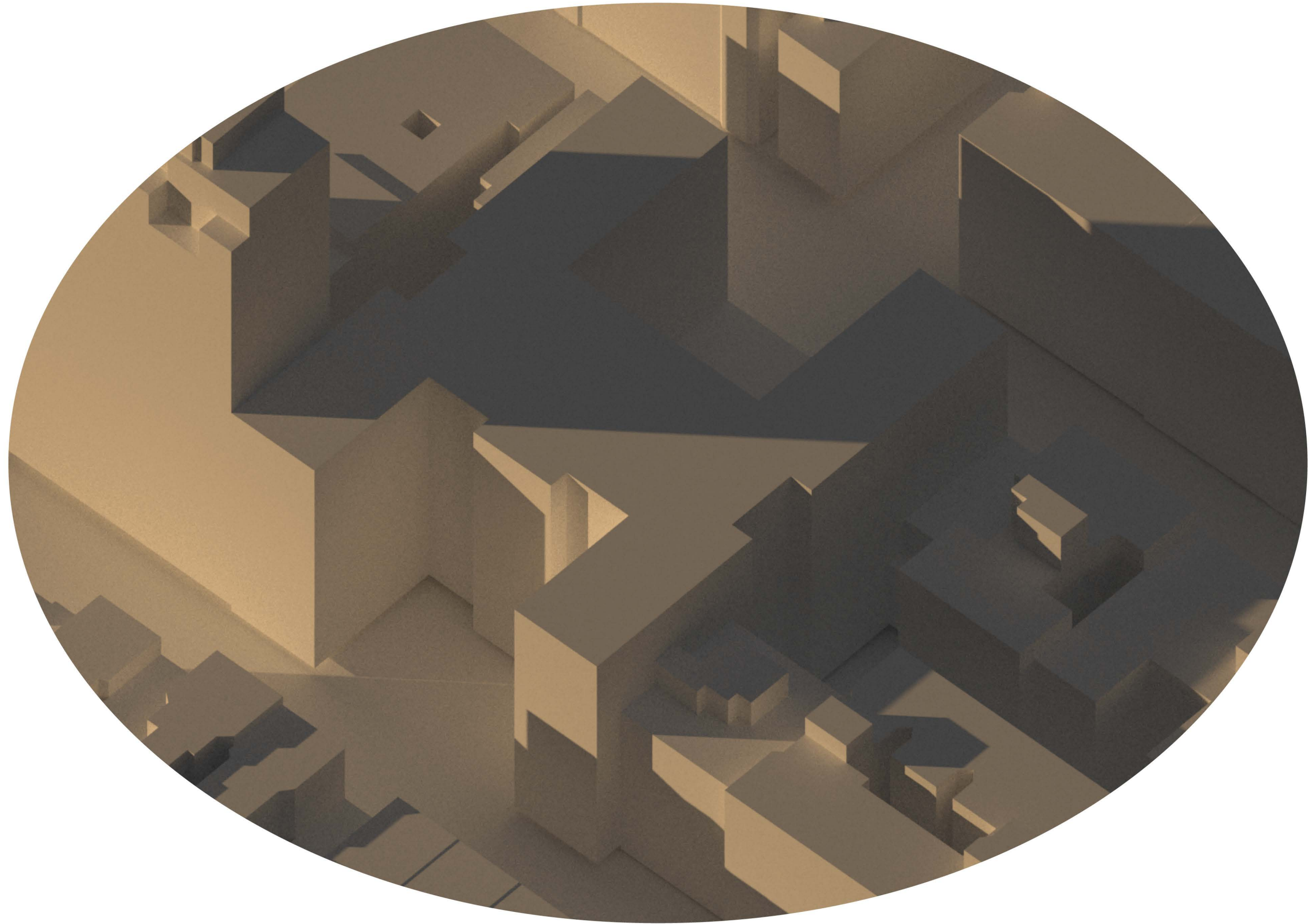
Historic Wetland

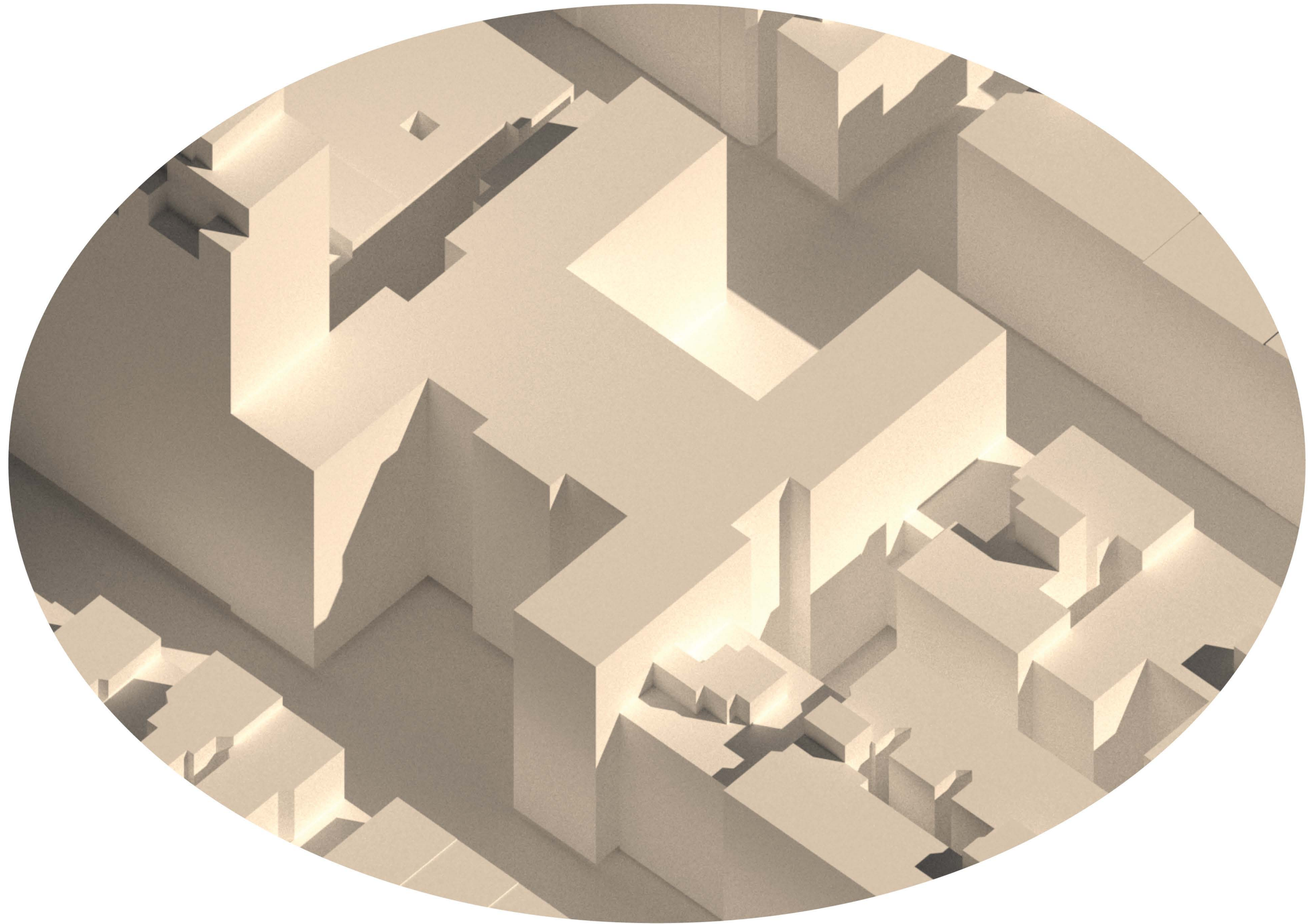
Wetland

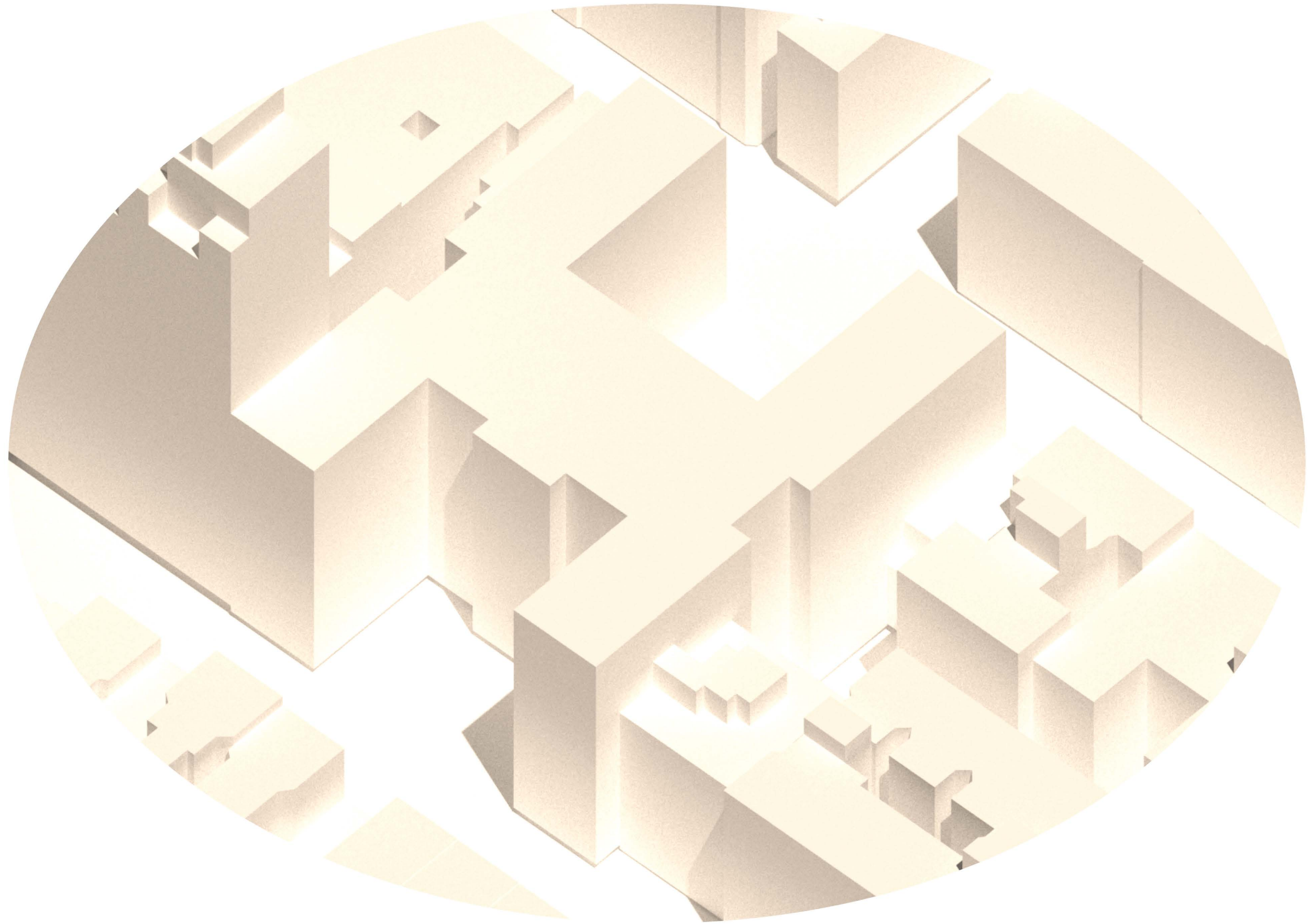


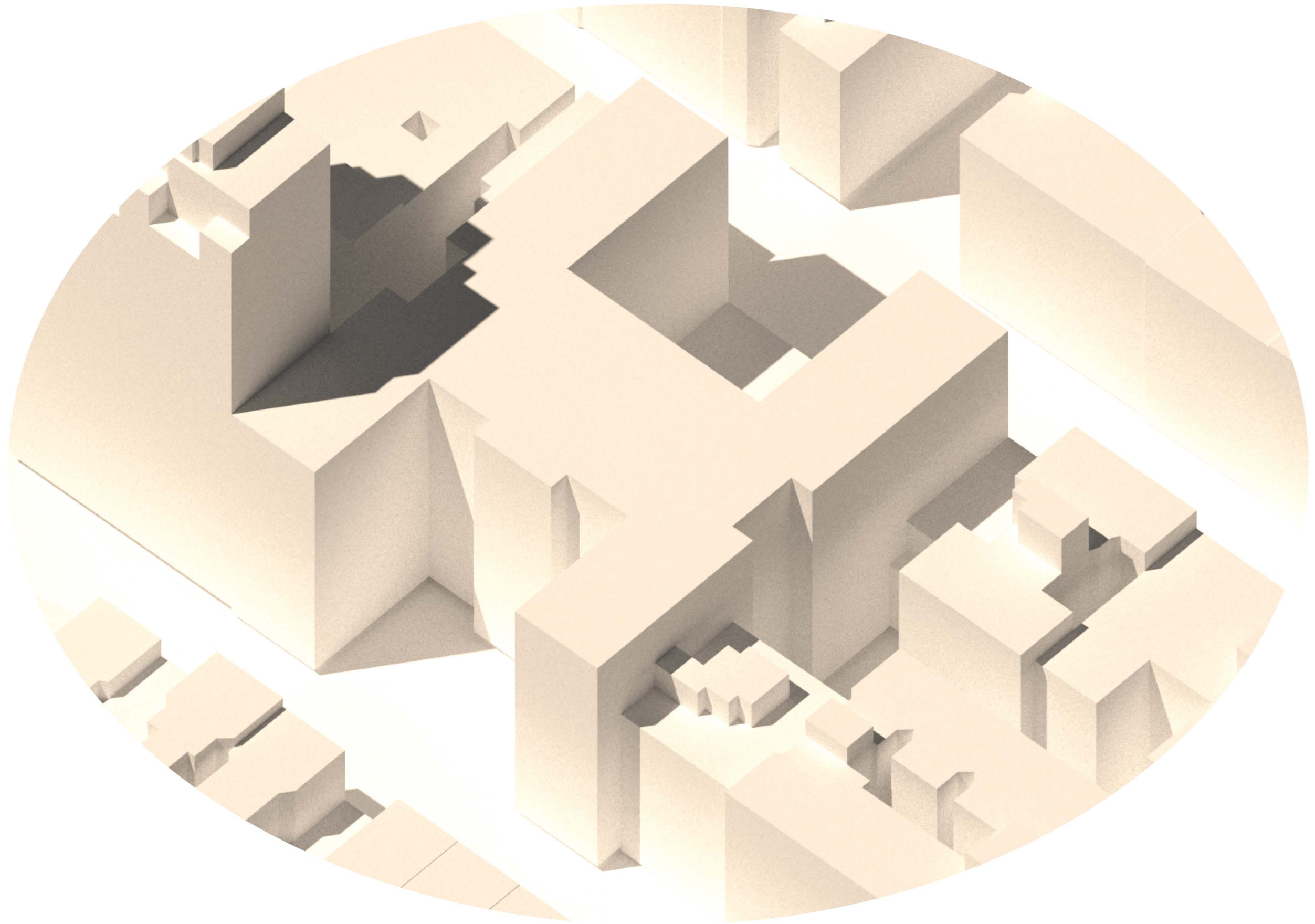


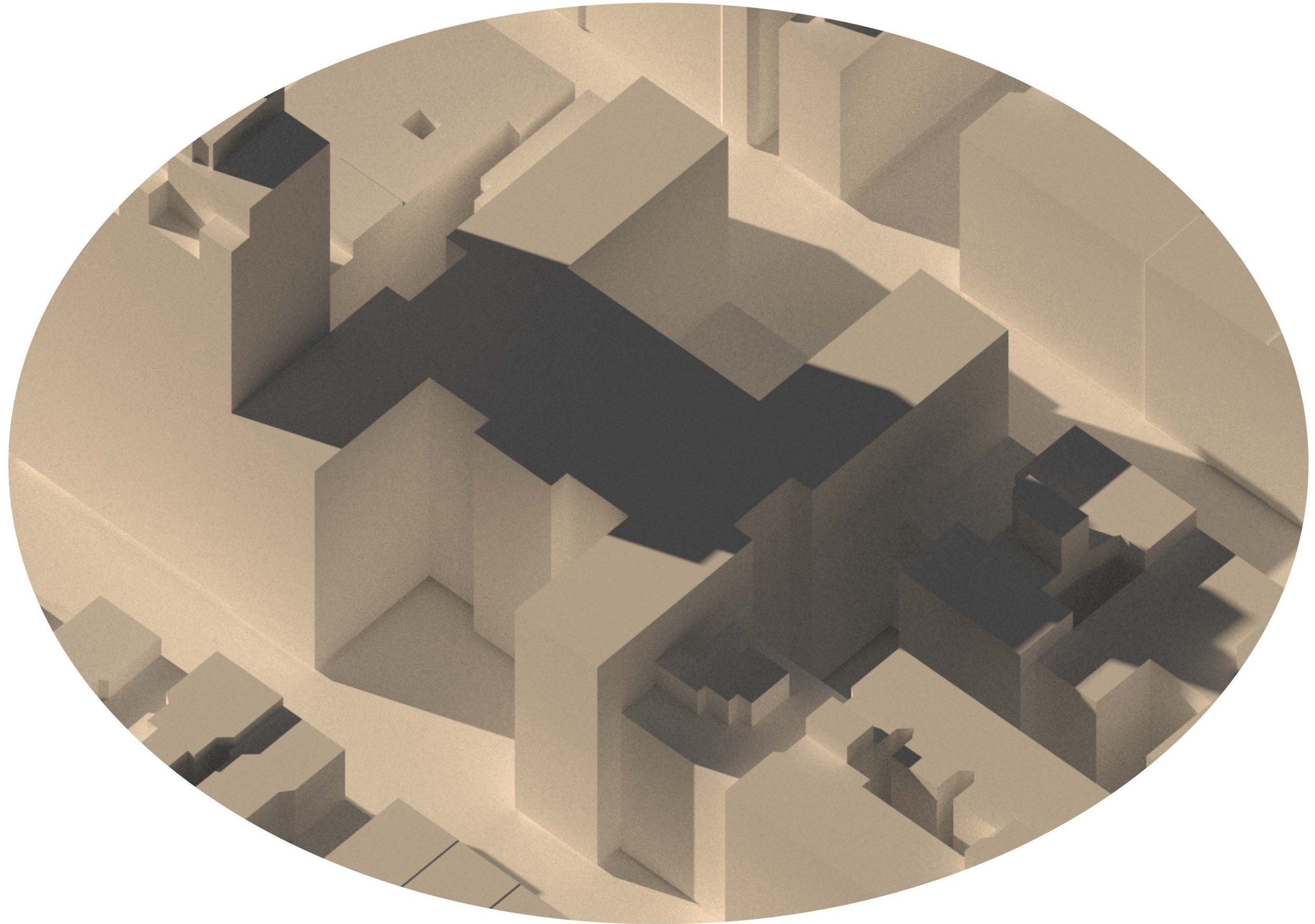


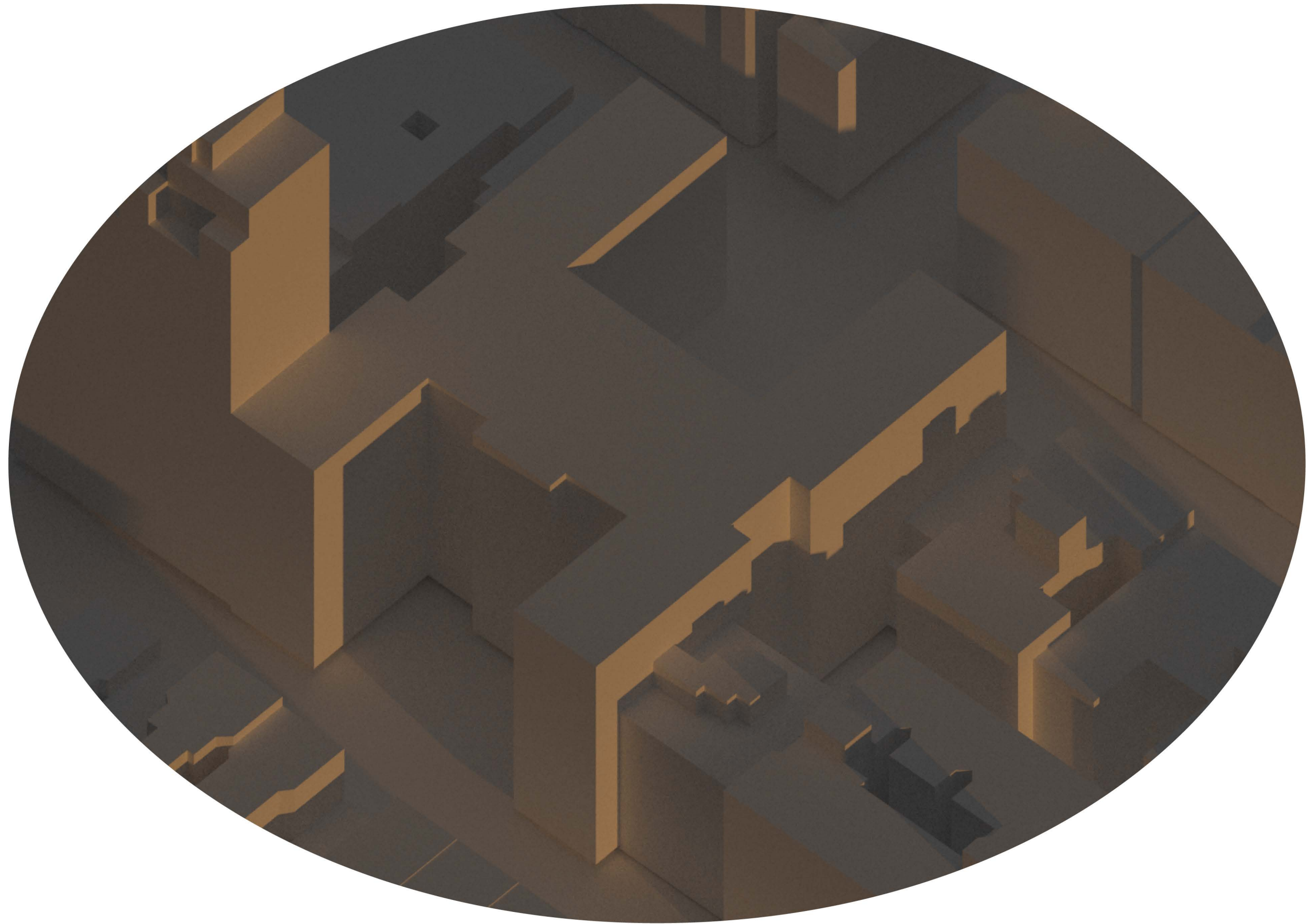


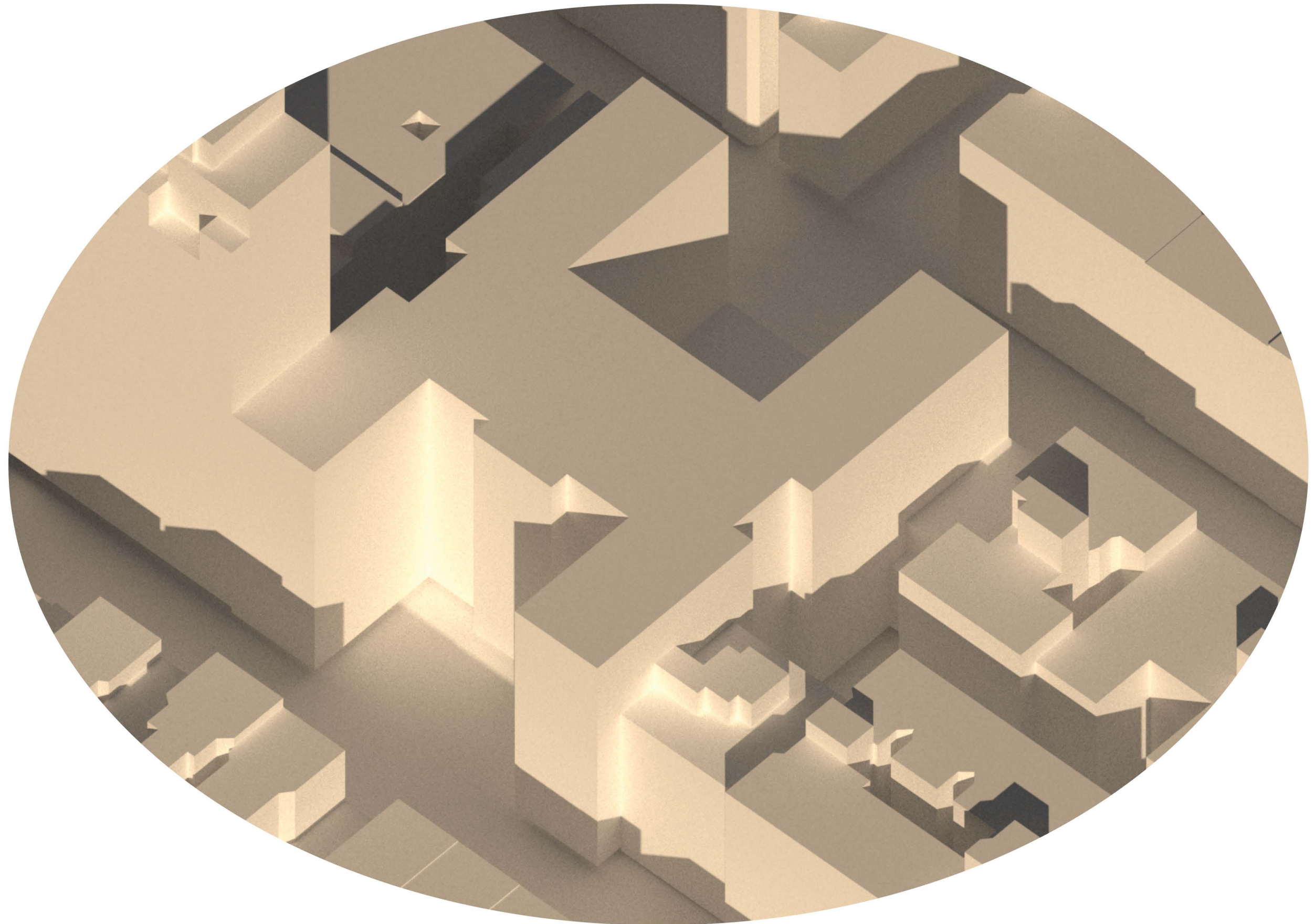


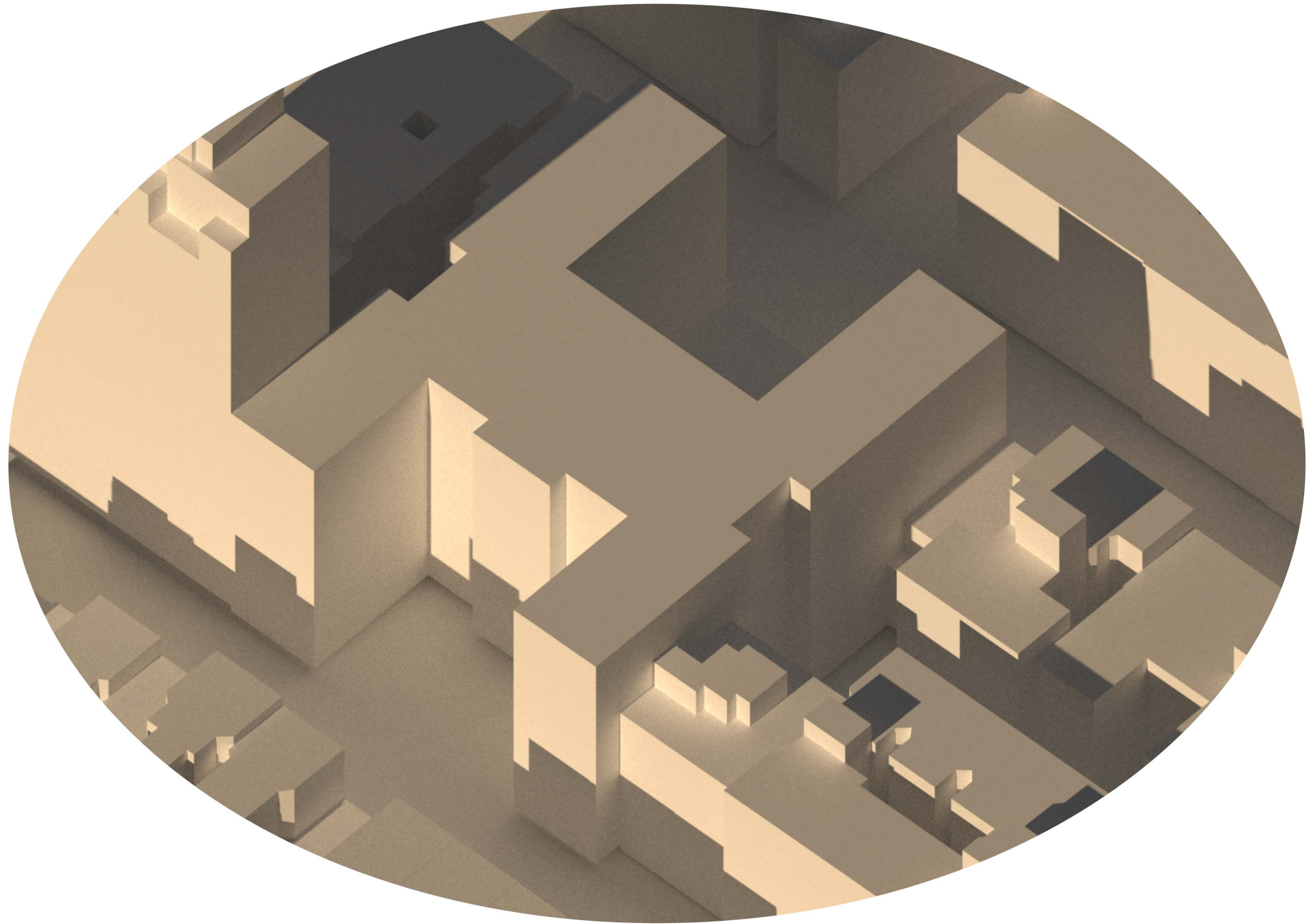


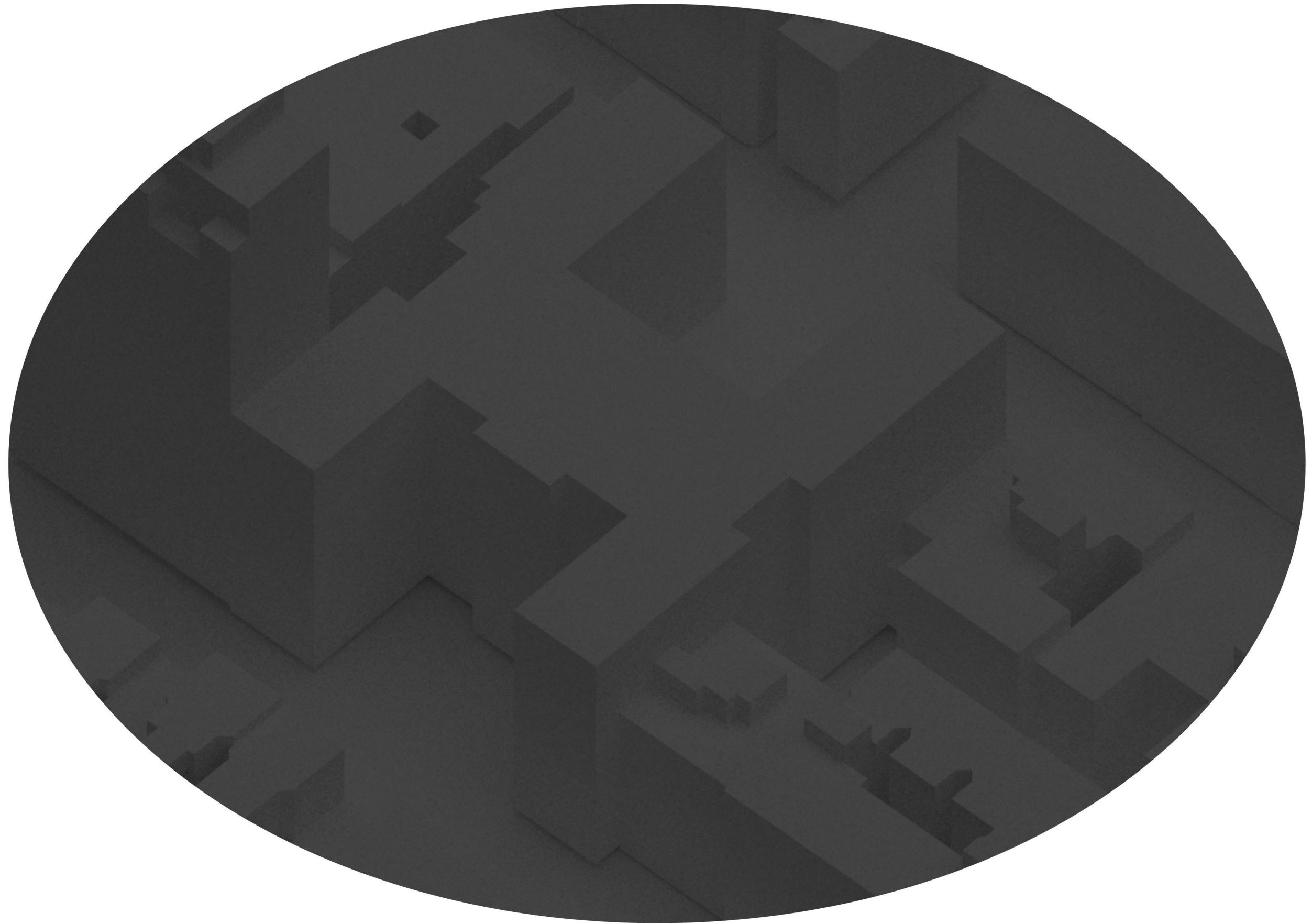


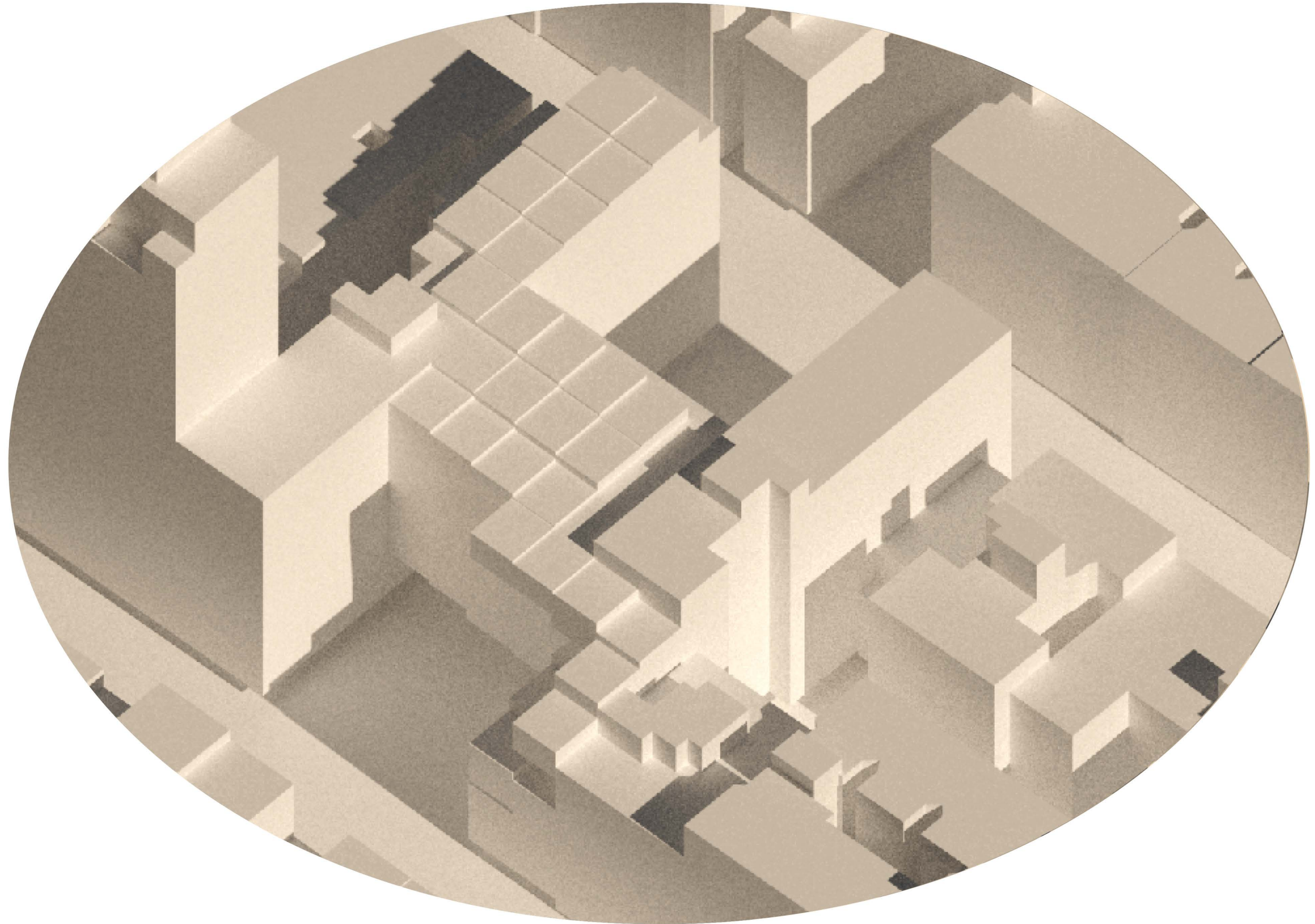


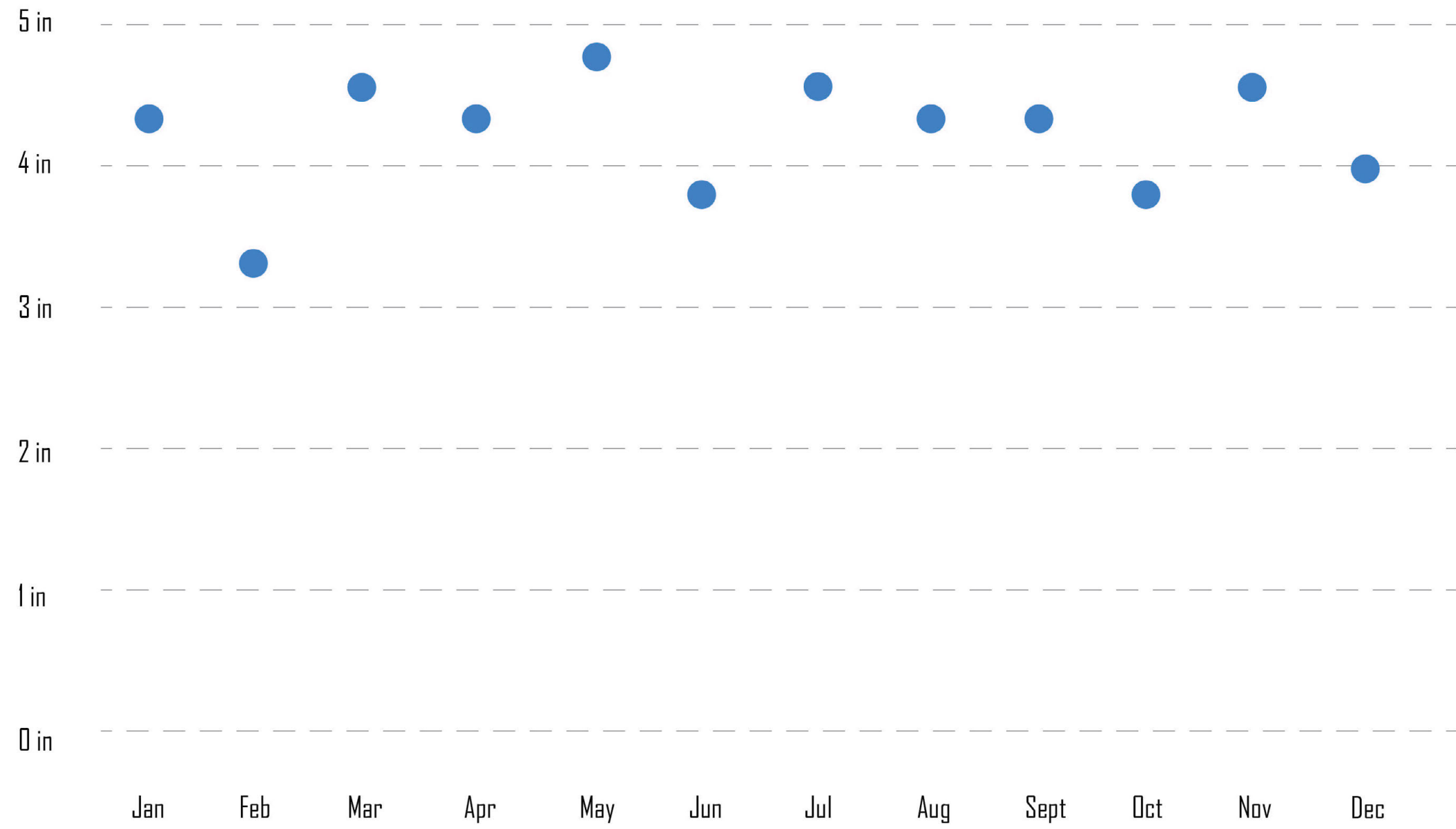




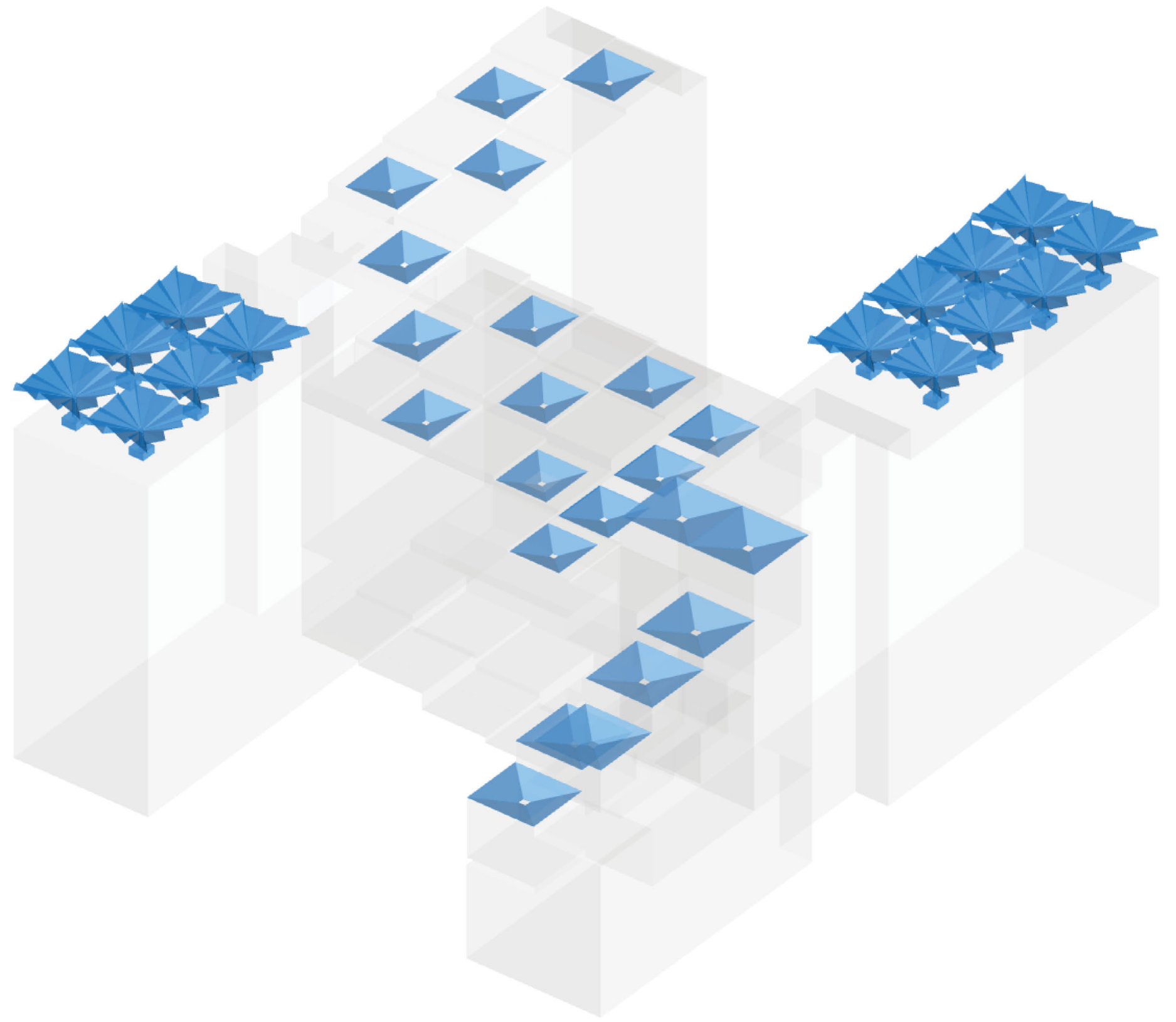








● Water Capture

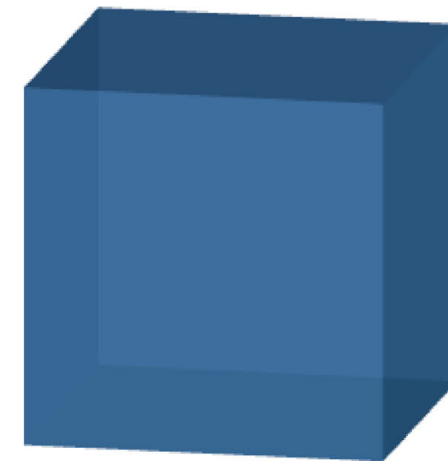




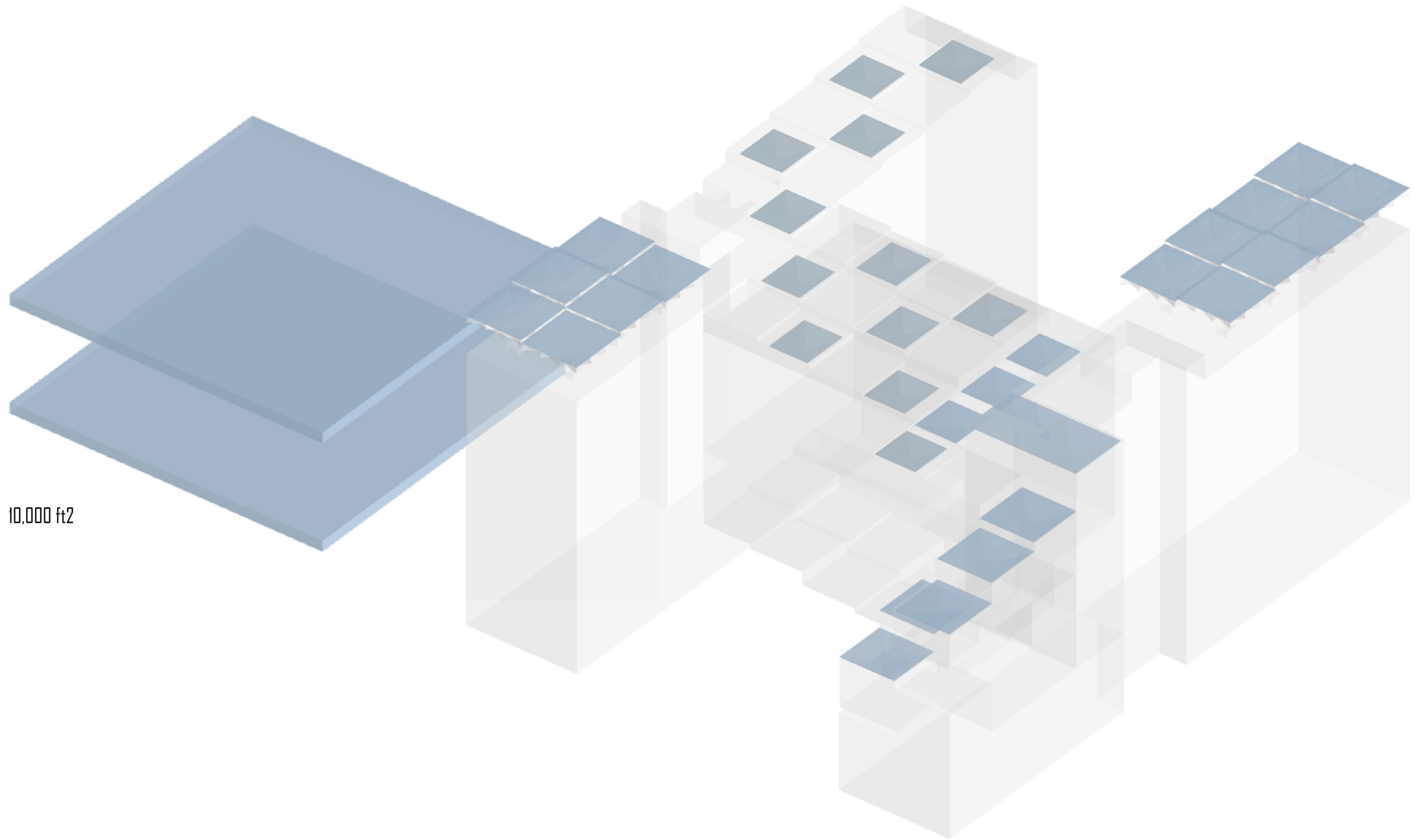
Surface Area of Capture



Volume of Water Captured



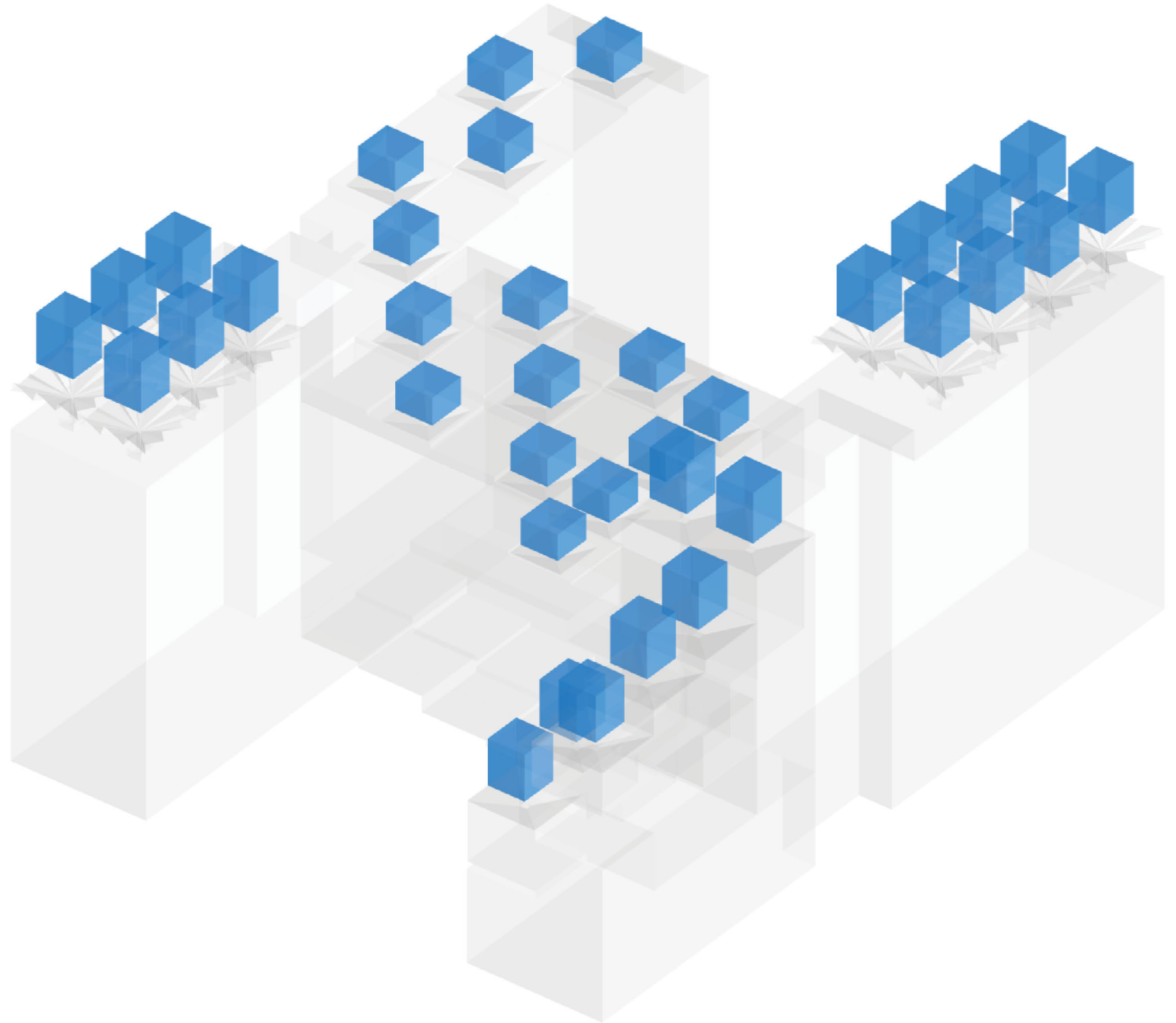
Volume of Storage Required
and Location of Storage

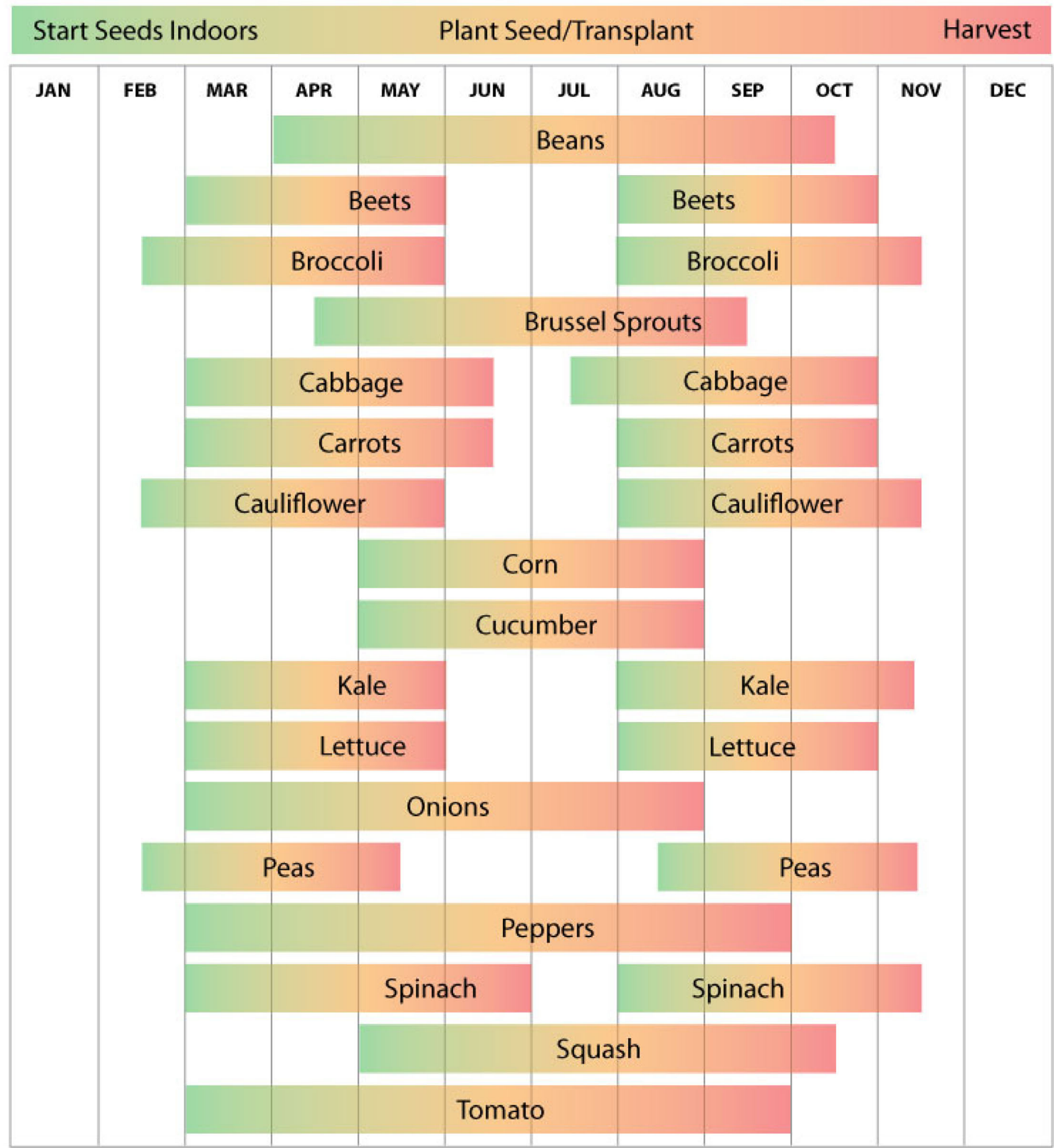


10,000 ft²

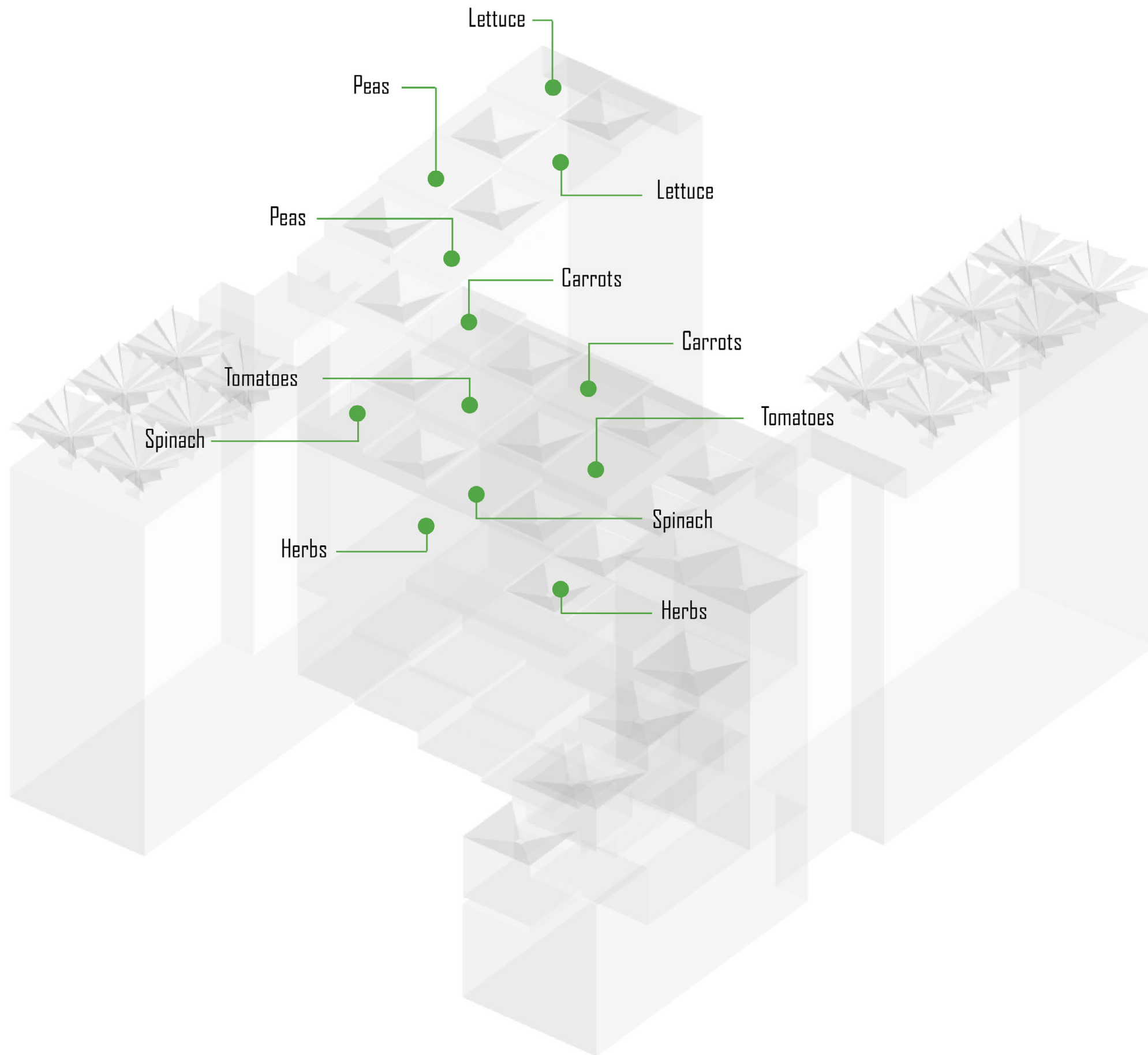


38,300 ft³

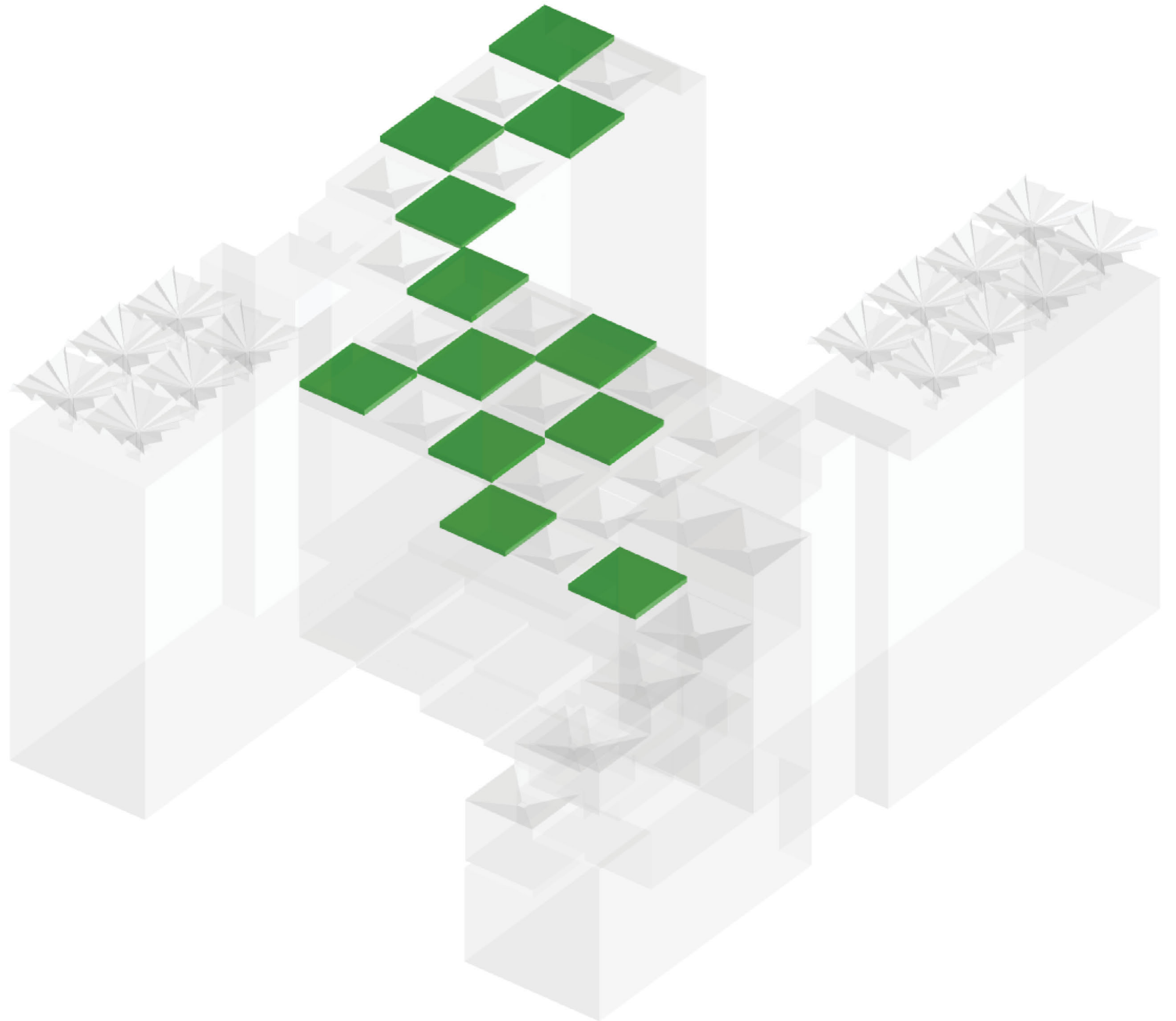




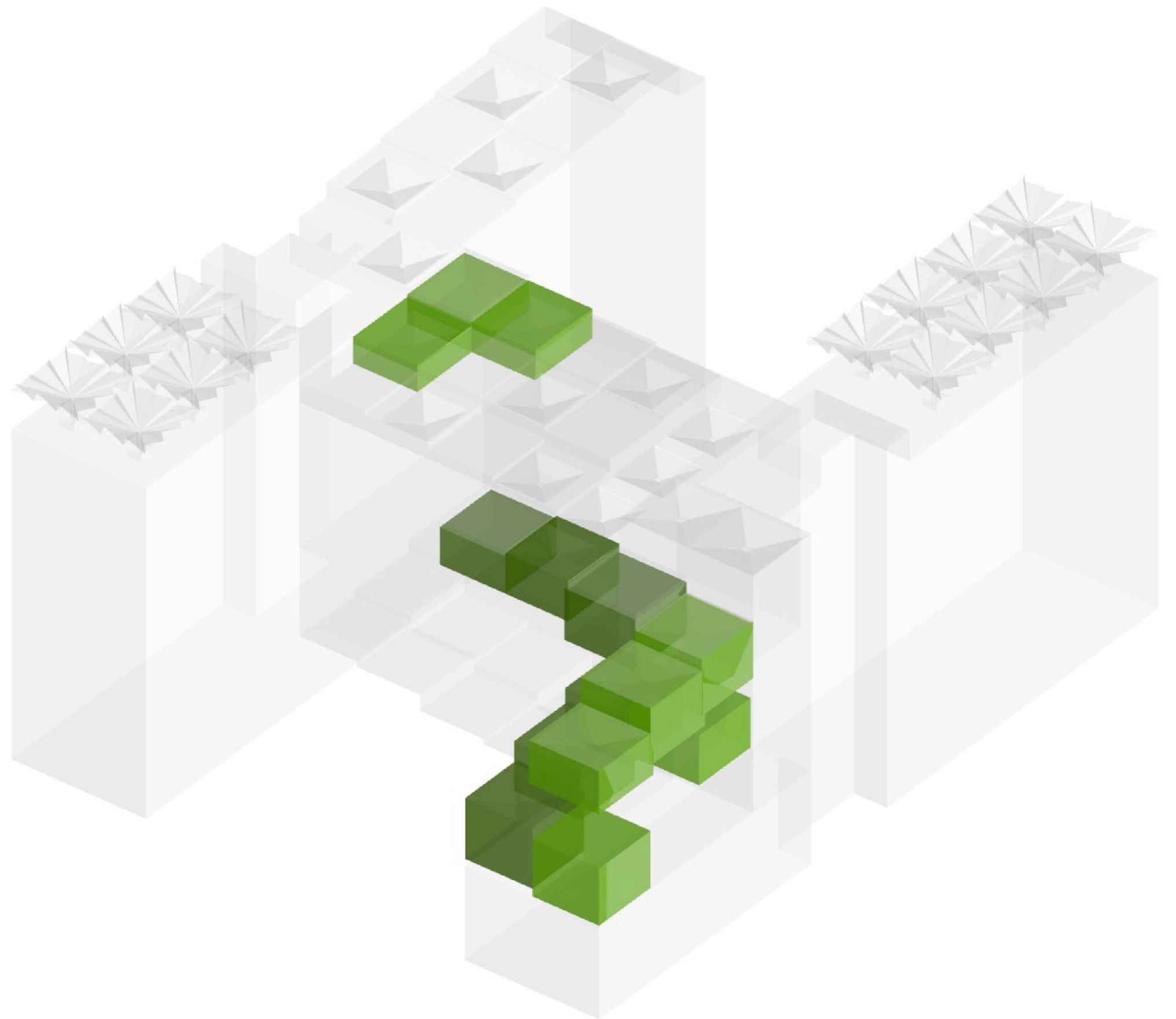
Plant	Annual Watering Needs
Carrots	3,020 gallons
Herbs	1,170 gallons
Lettuce	2,760 gallons
Peas	3,000 gallons
Spinach	3,500 gallons
Tomatoes	3,080 gallons



● Urban Farm

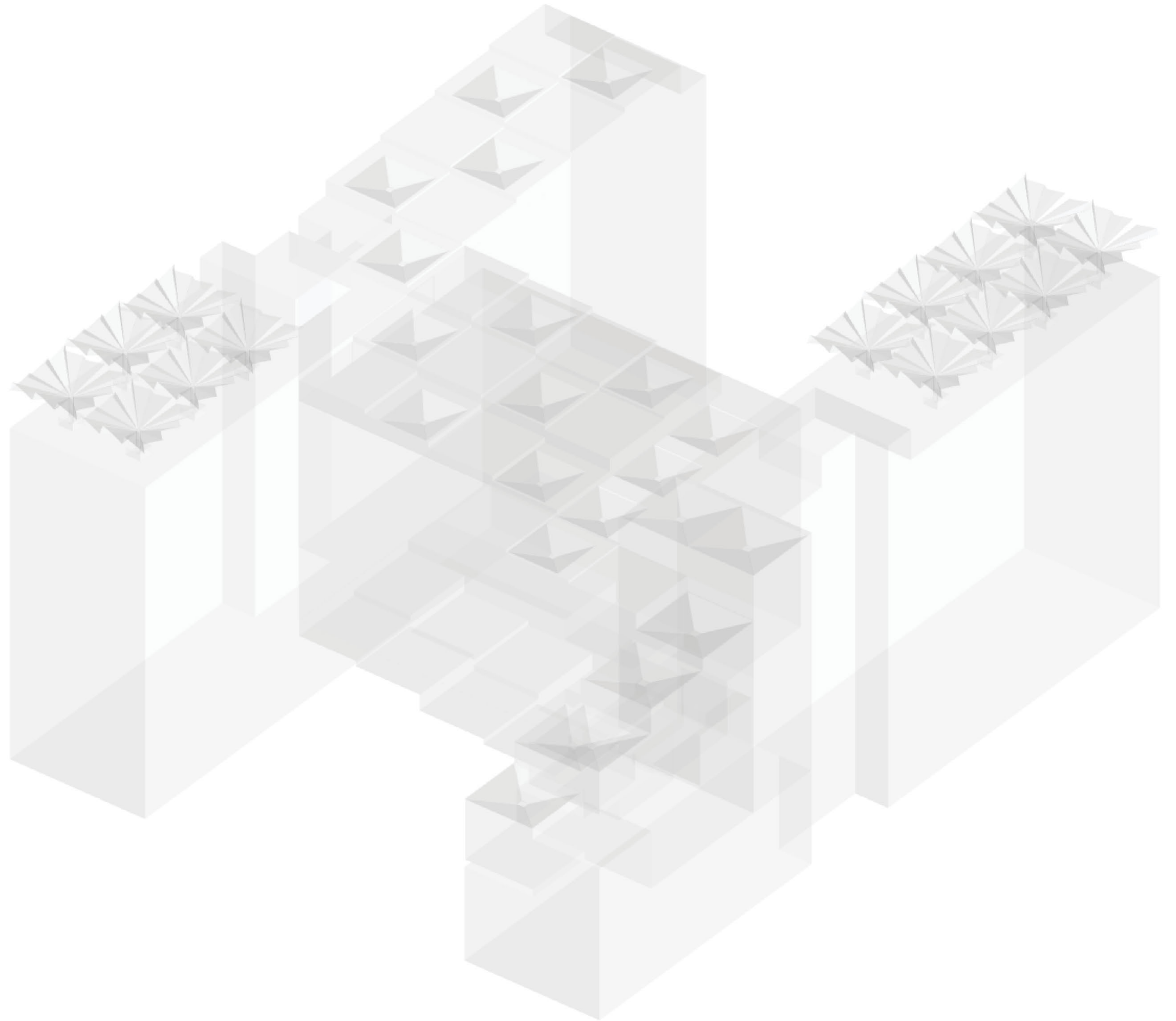


- Green Houses
- Green Labs



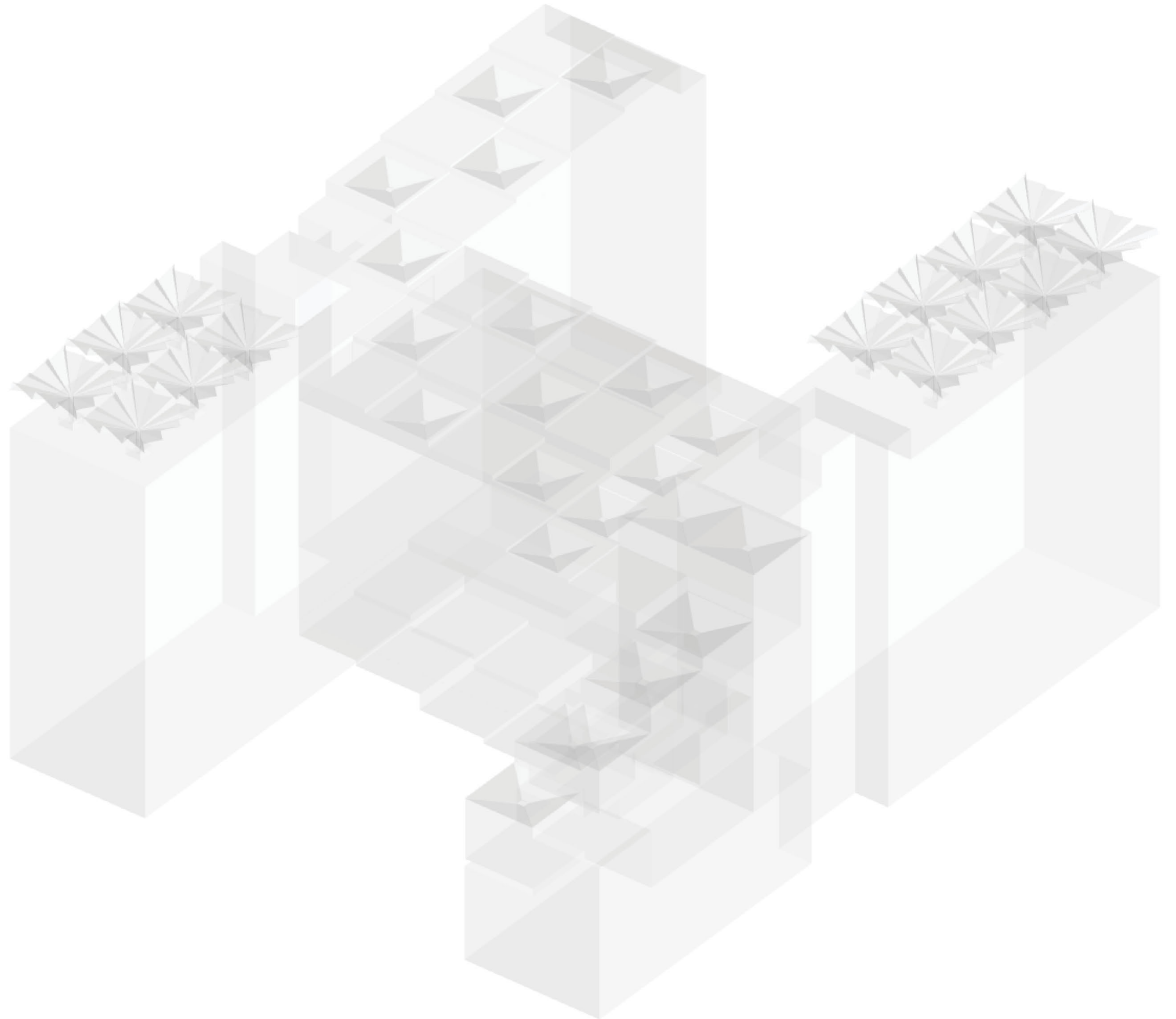


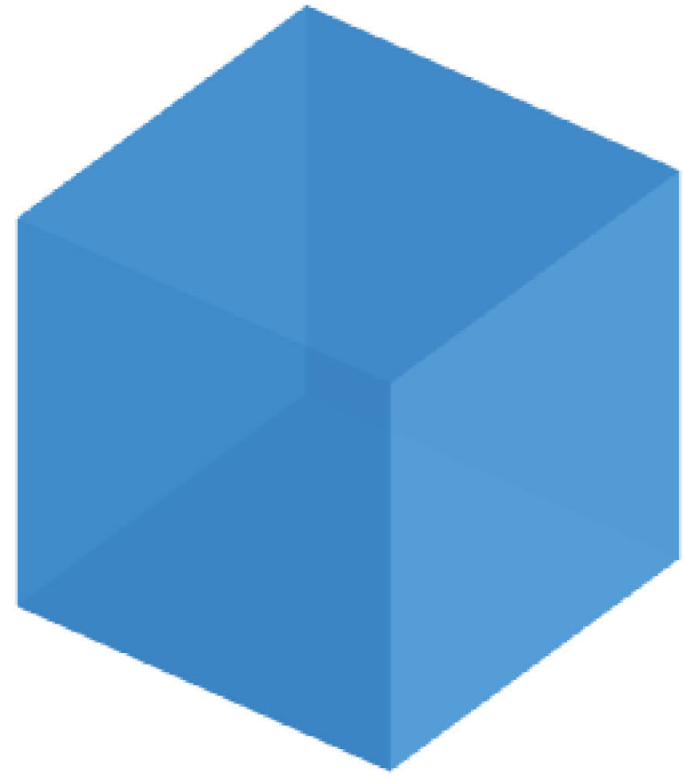
180,000 gallons



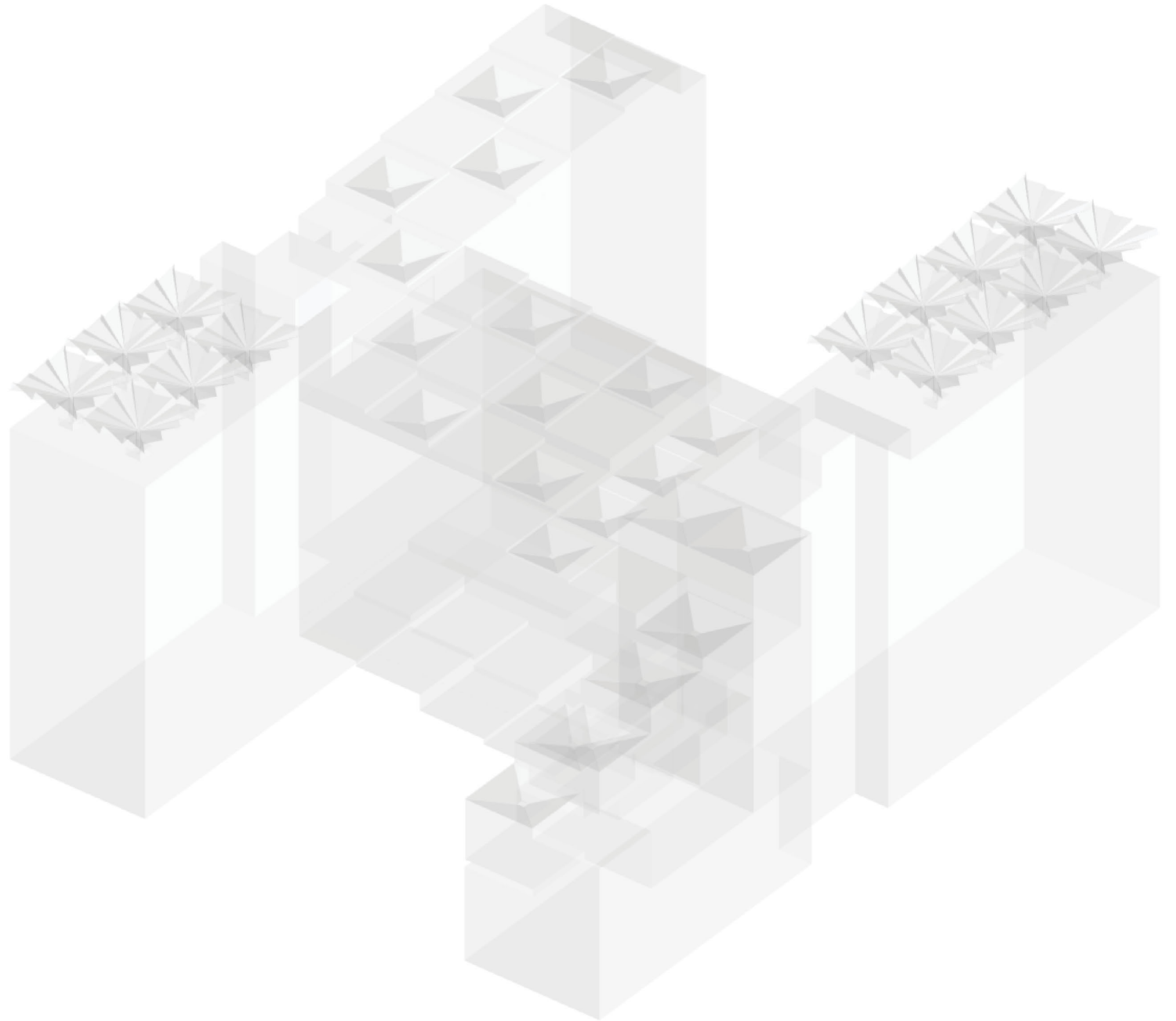


390,000 gallons



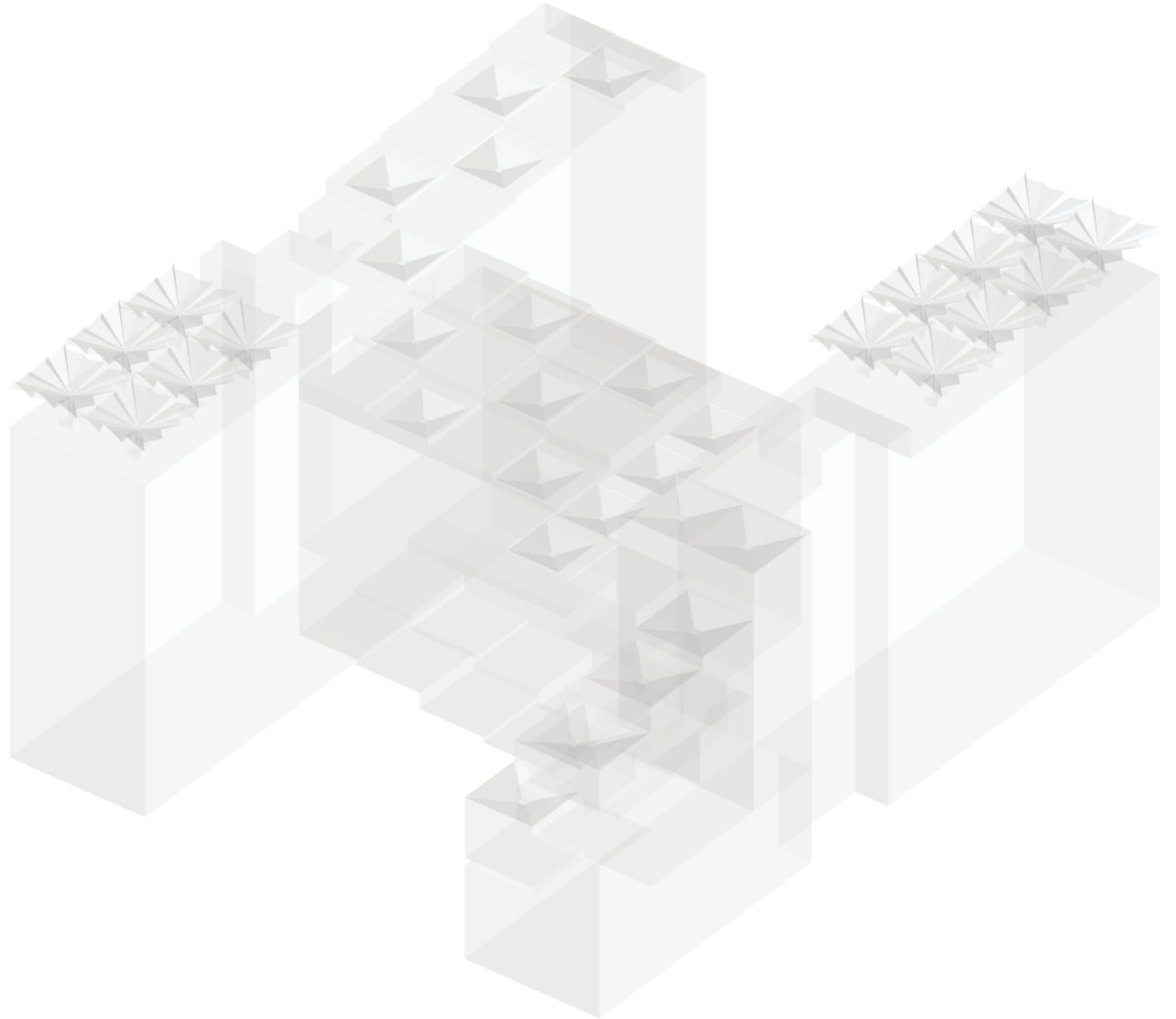


487,000 gallons

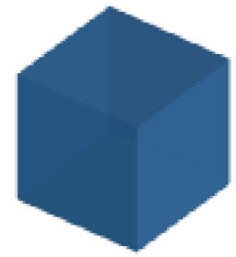




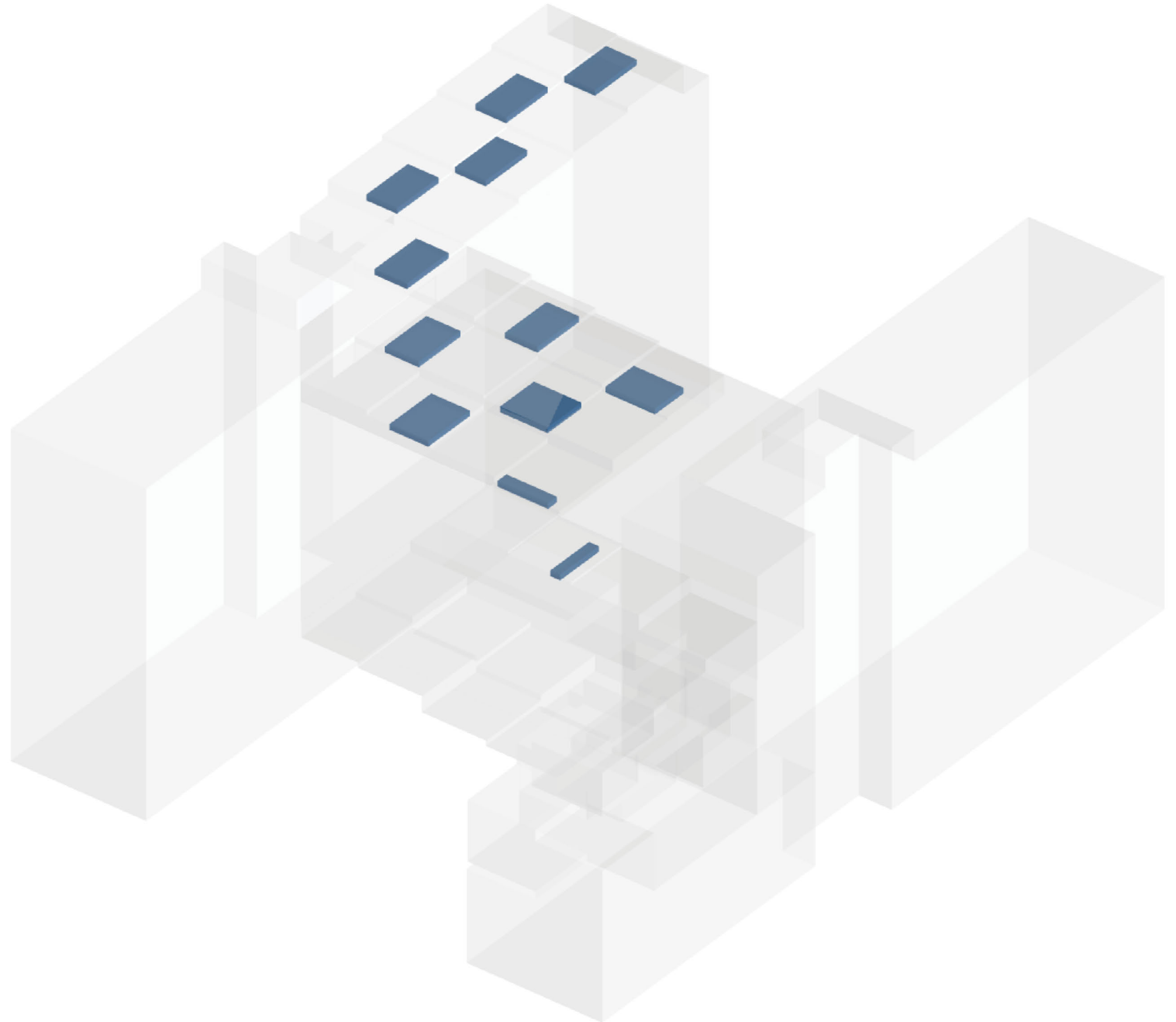
295,000 gallons



Needs of a 24-Hour XR School able to be met with Rainwater Capture / Annual Water Consumption

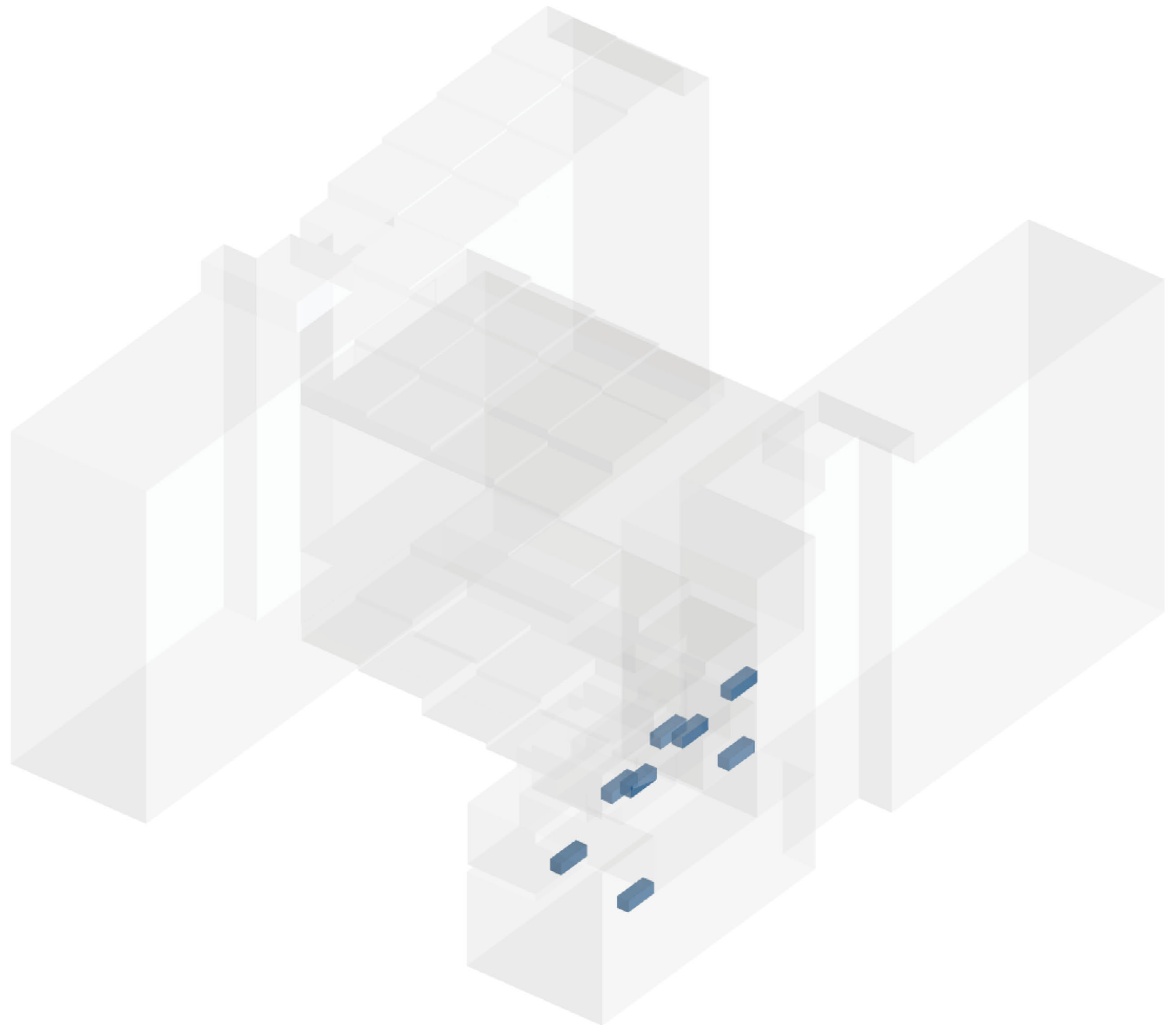


2,070 ft³





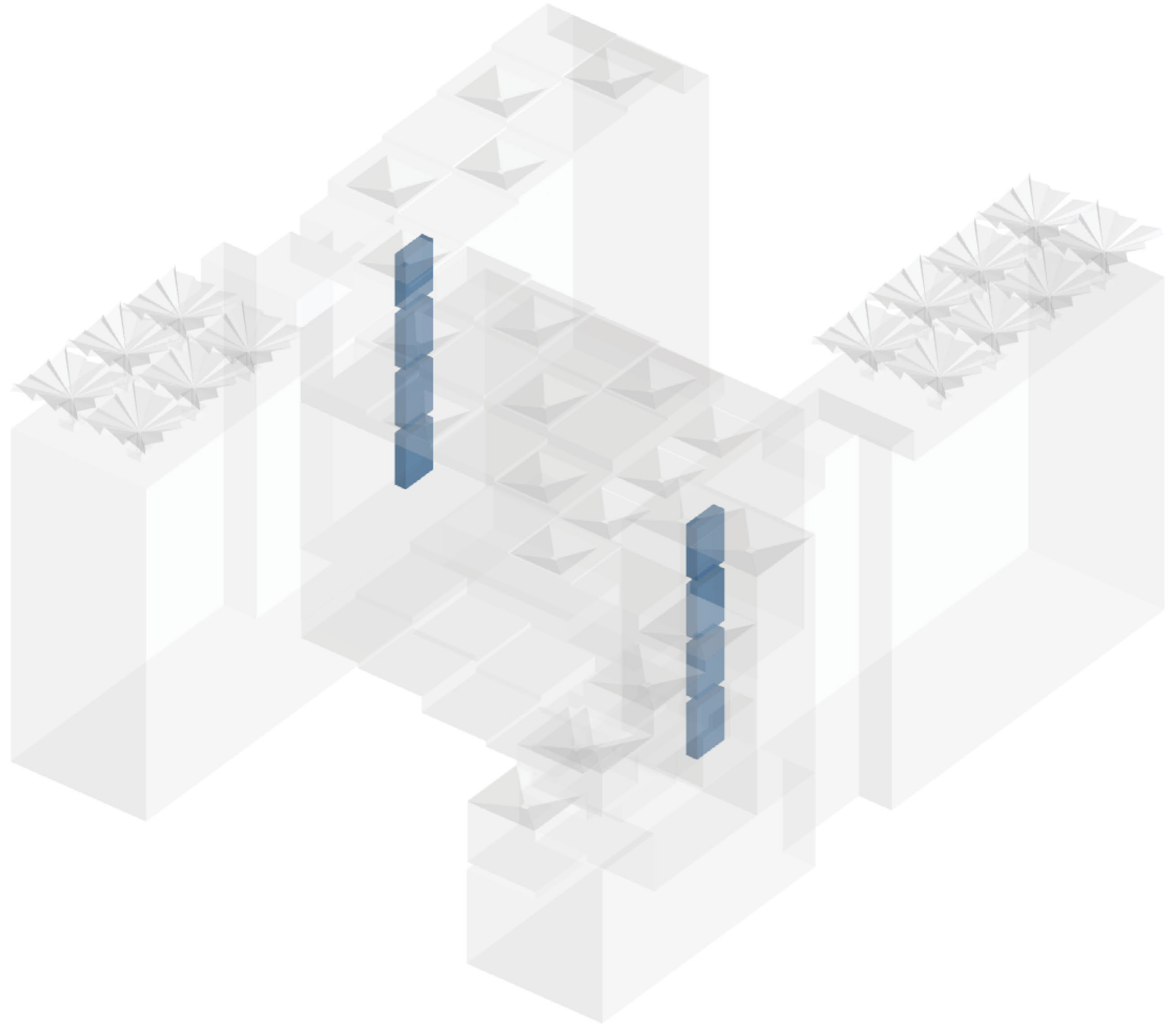
650 ft³

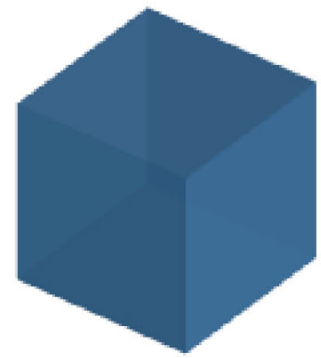


Volume of Storage Required / Green Houses and Green Labs / Rainwater Capture

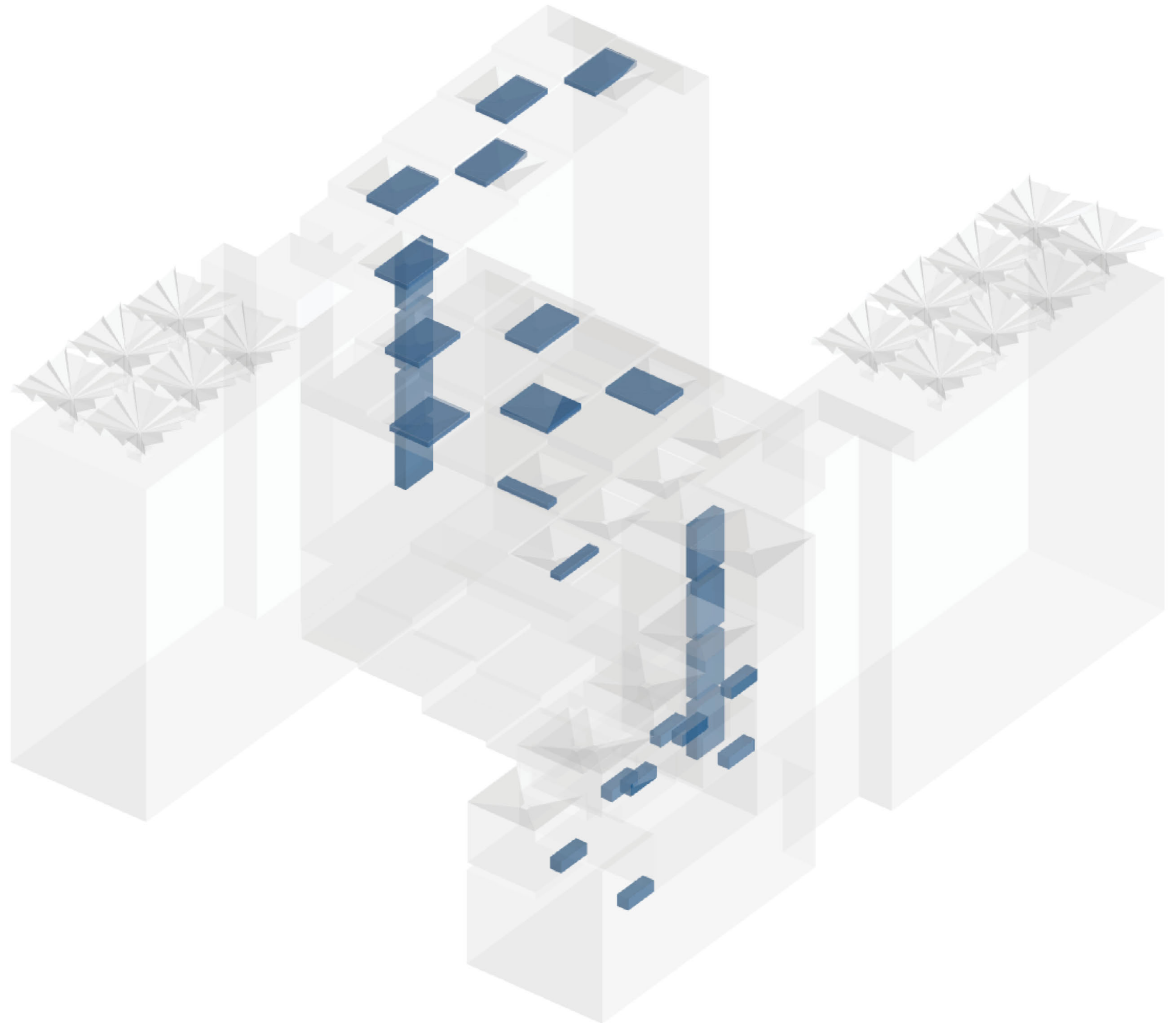


3,100 ft³



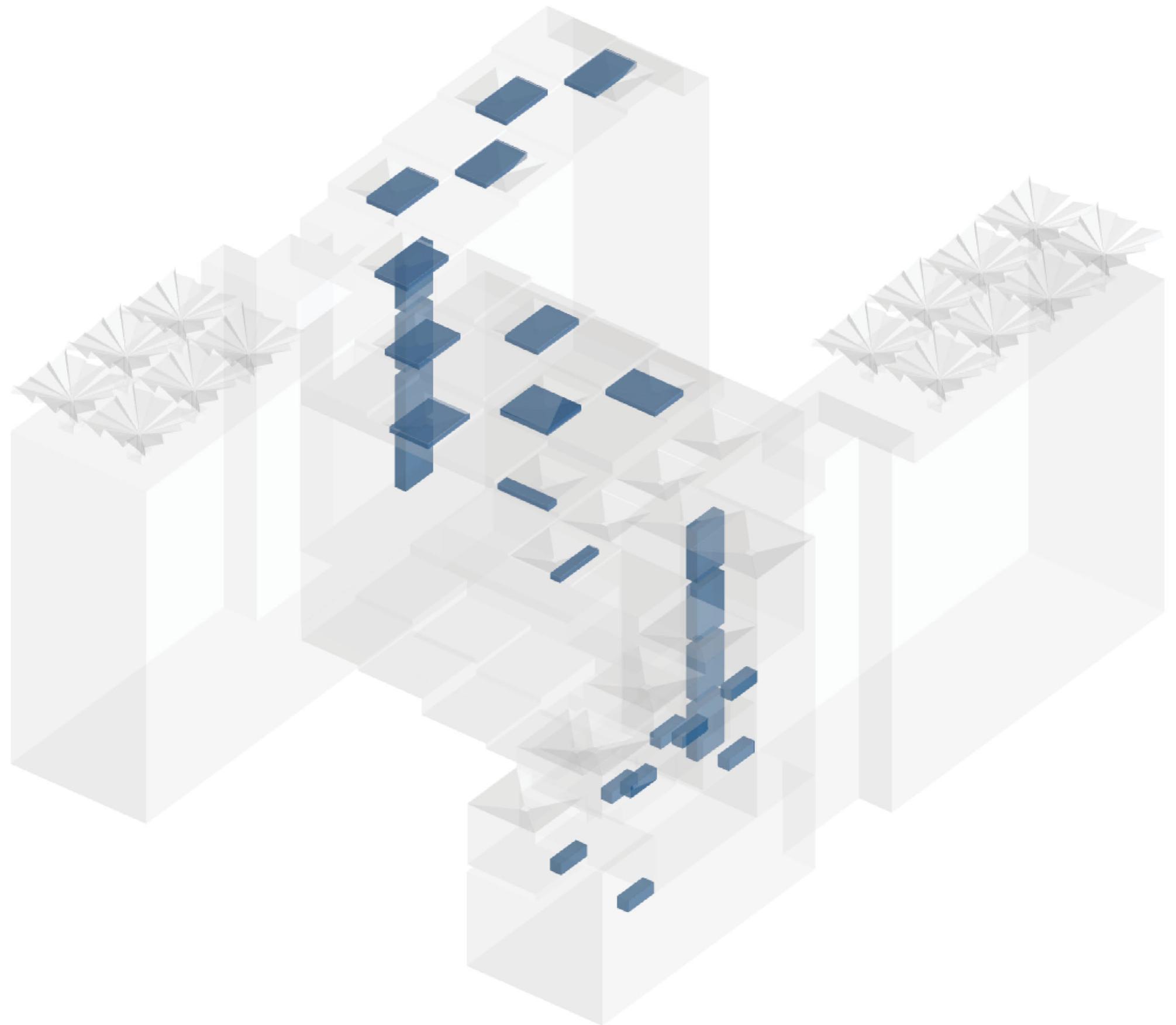


5,800 ft³

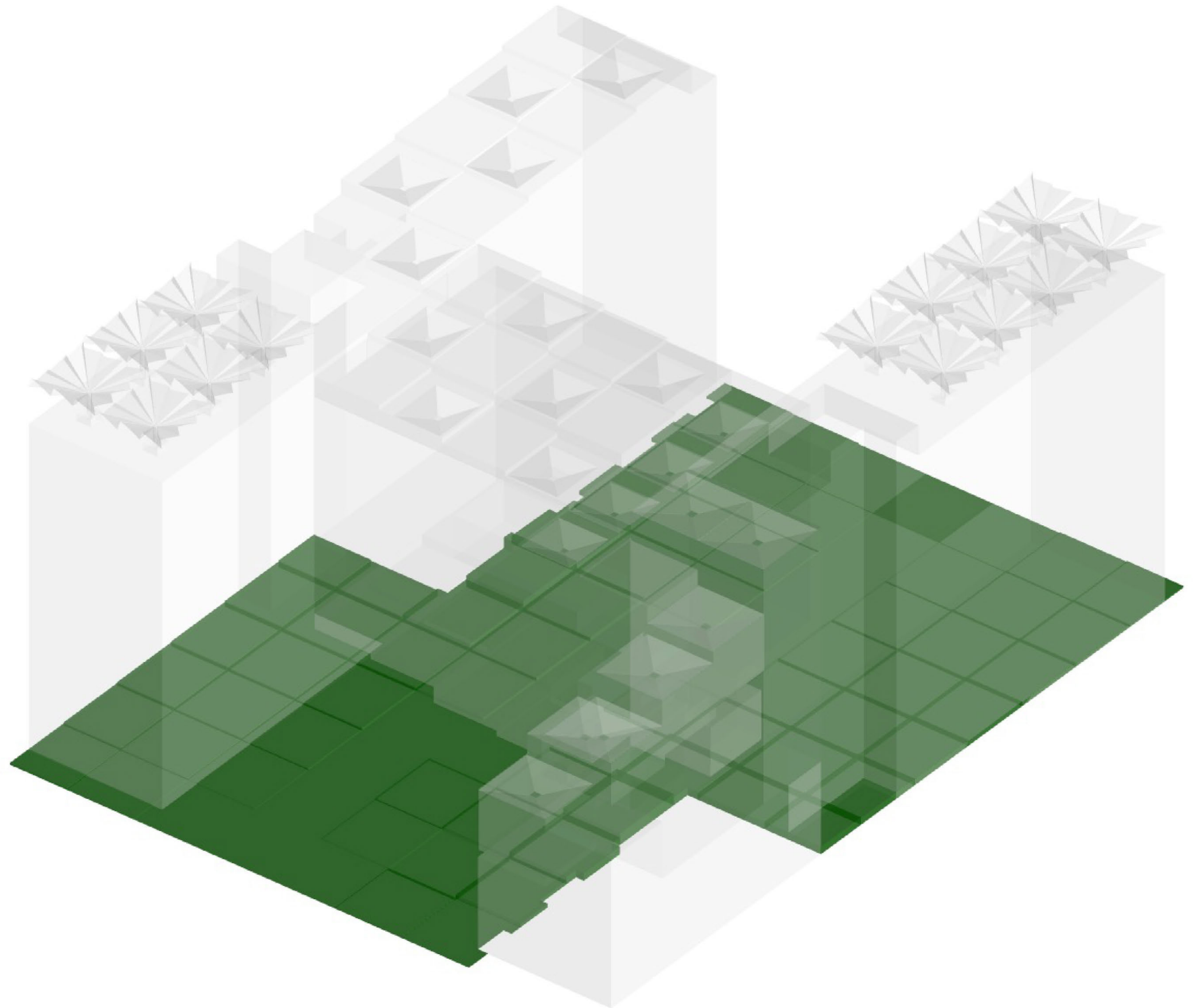


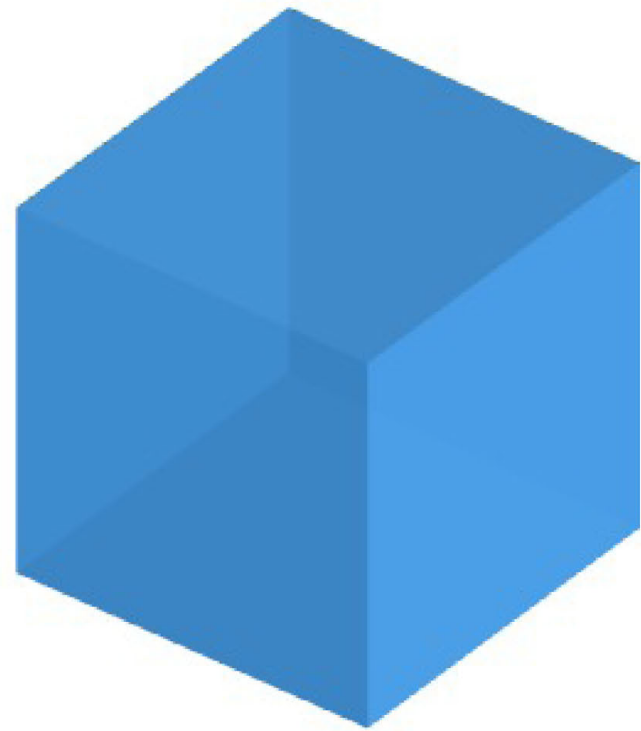
Volume of Storage Required / Rainwater Capture

● Water Storage

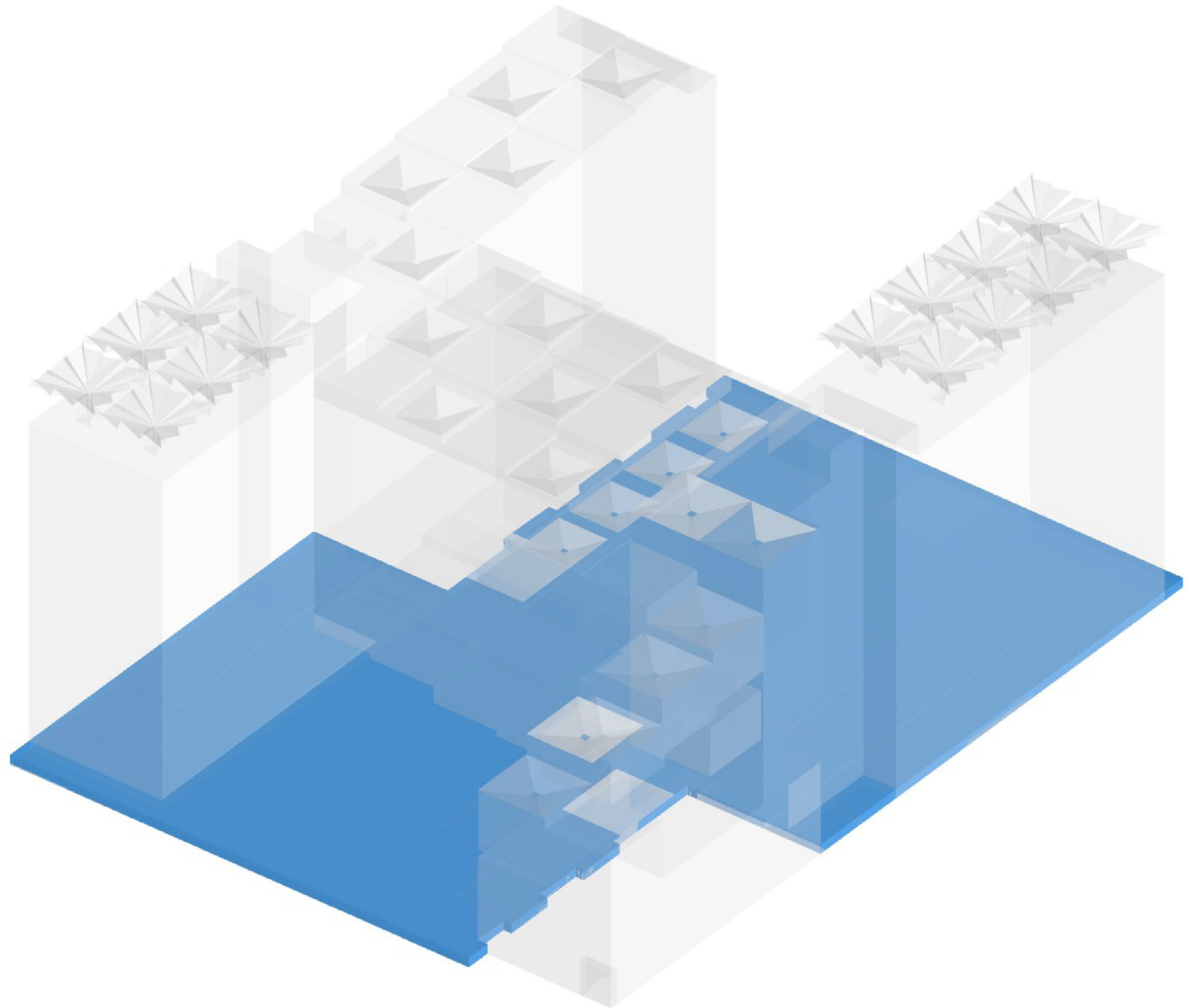


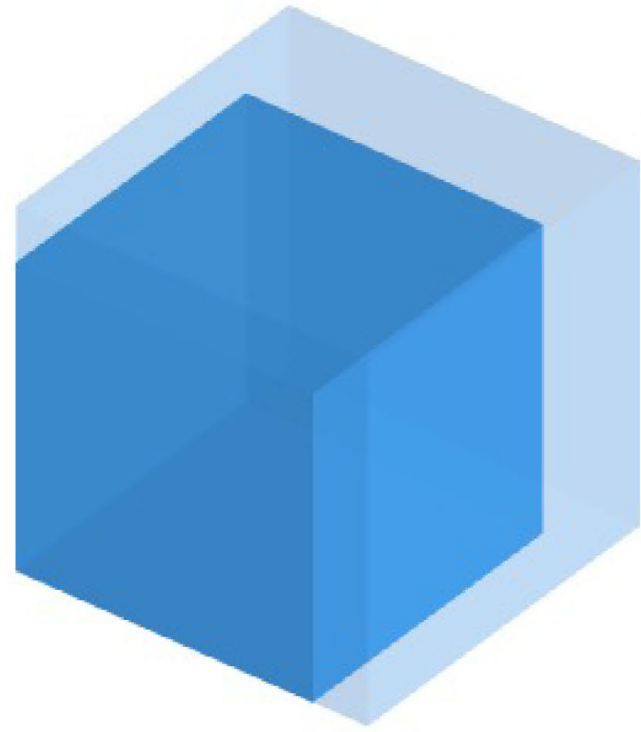
● Wetland



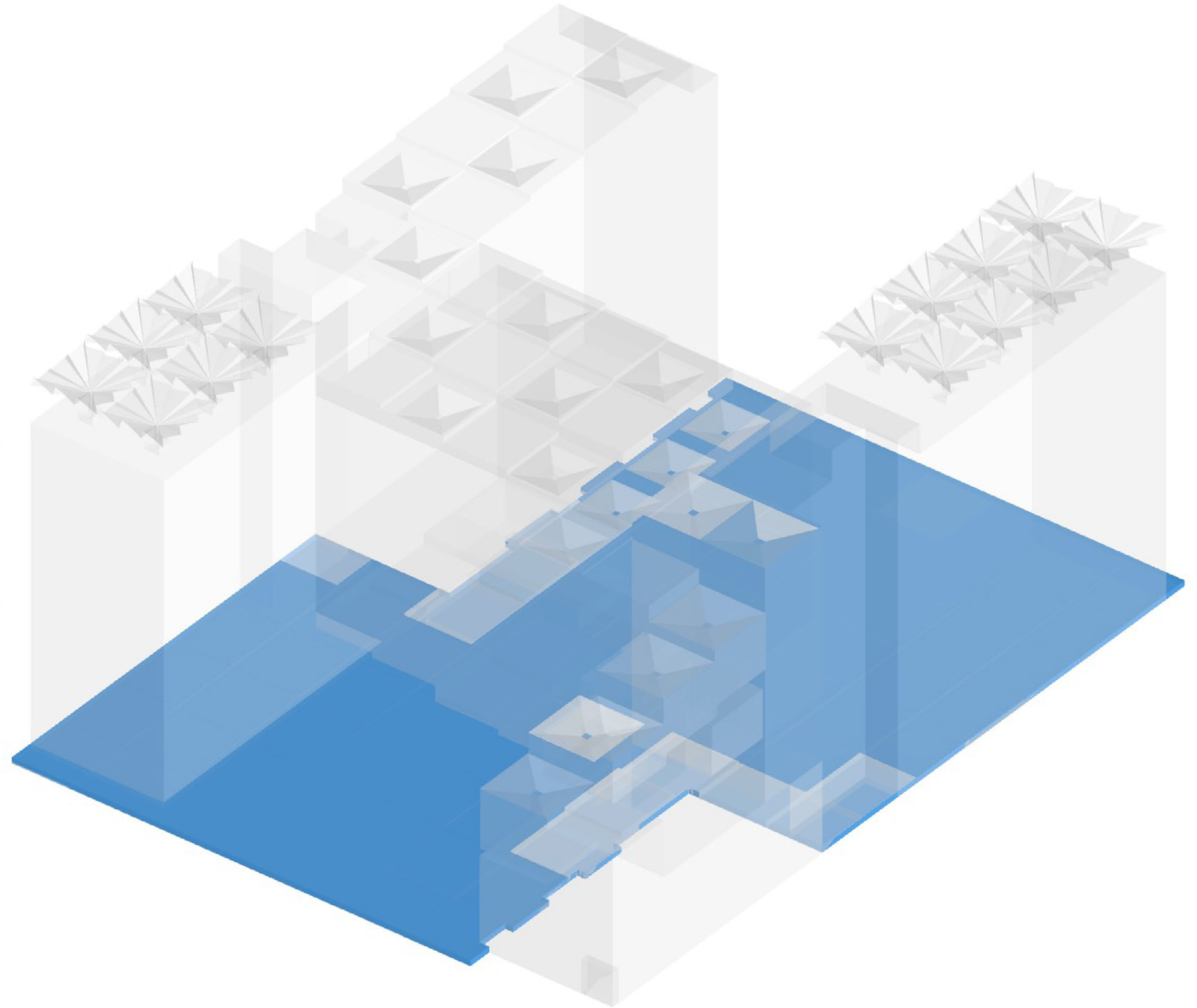


67,500 gallons

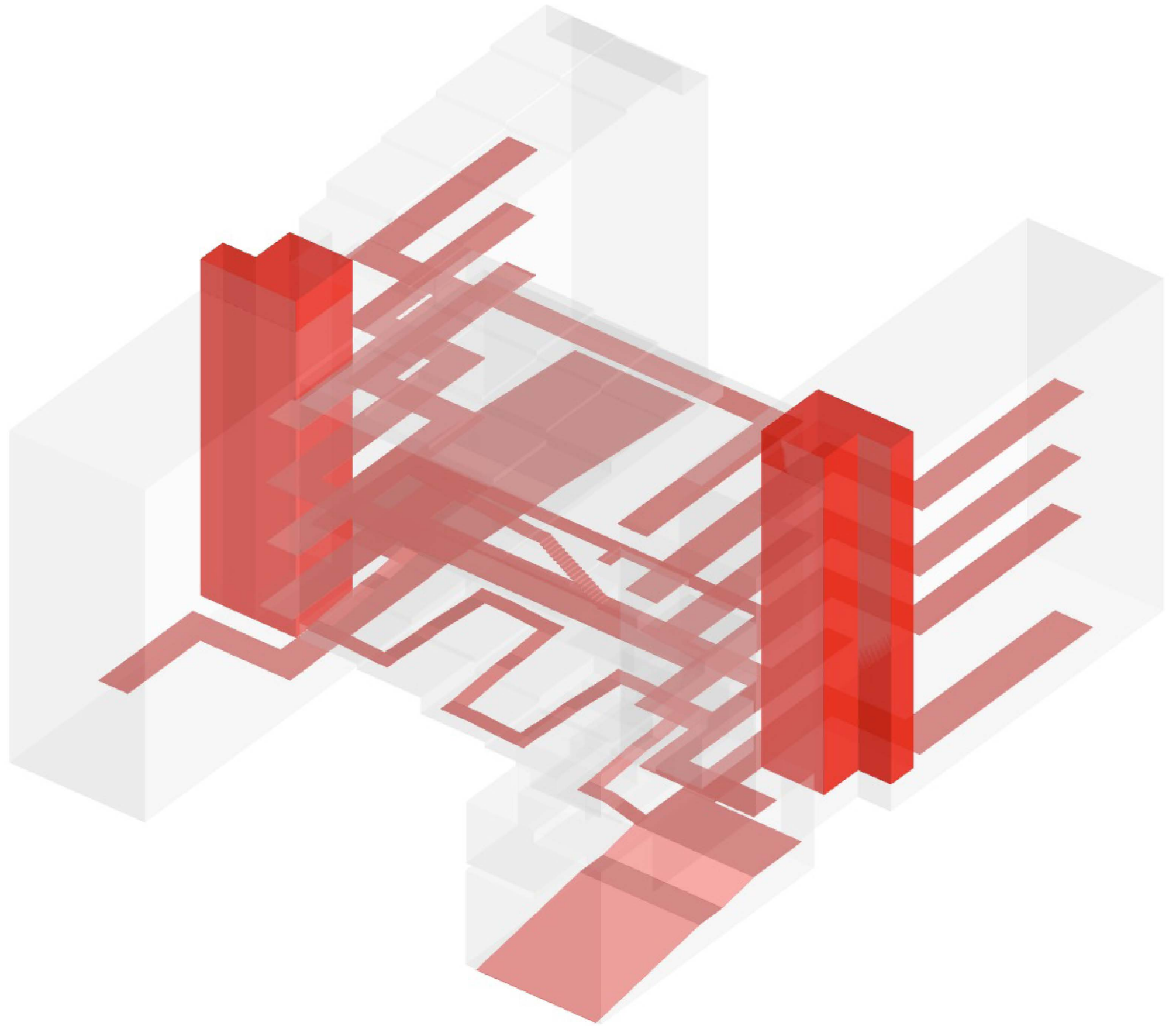




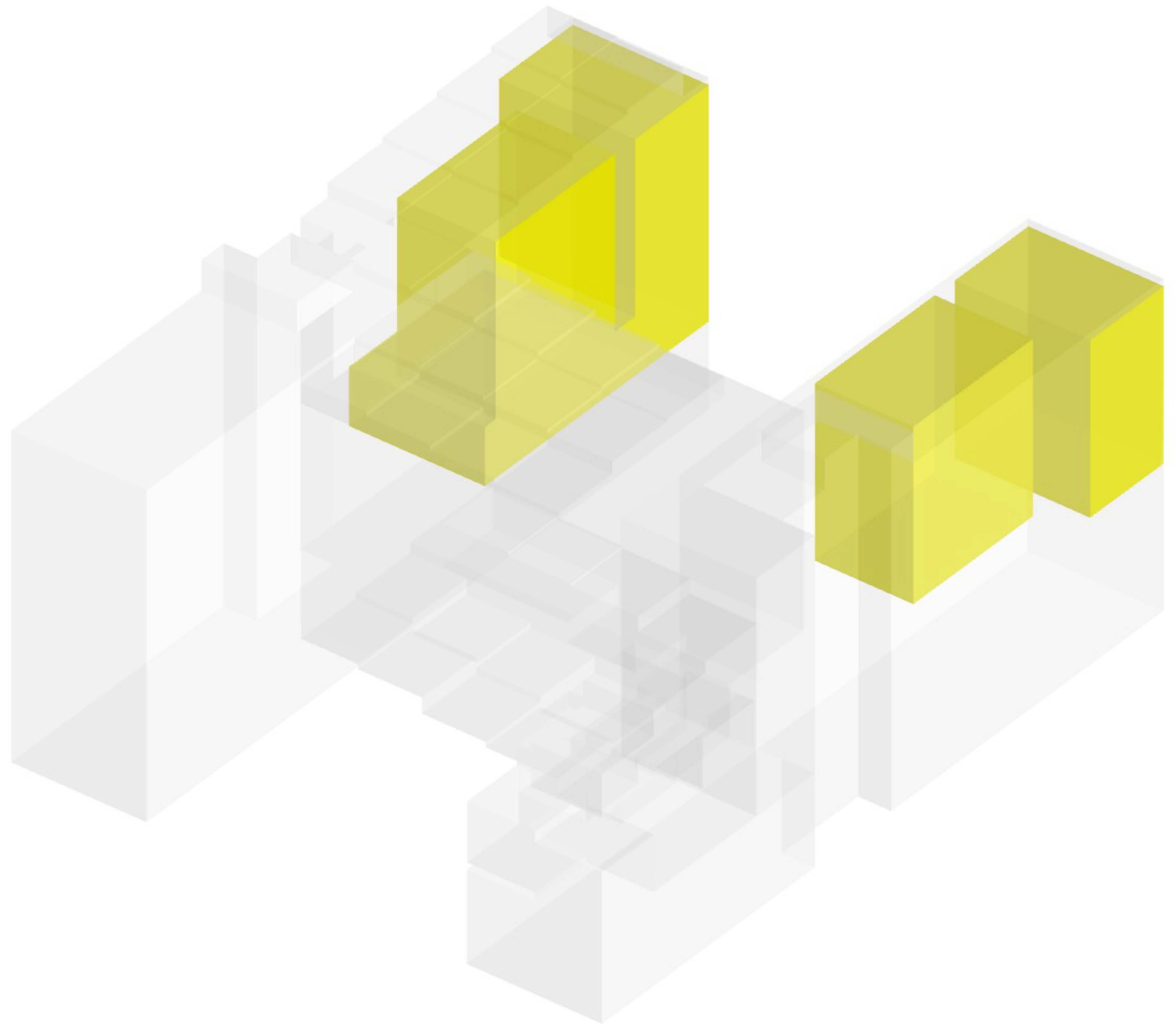
40,700 gallons



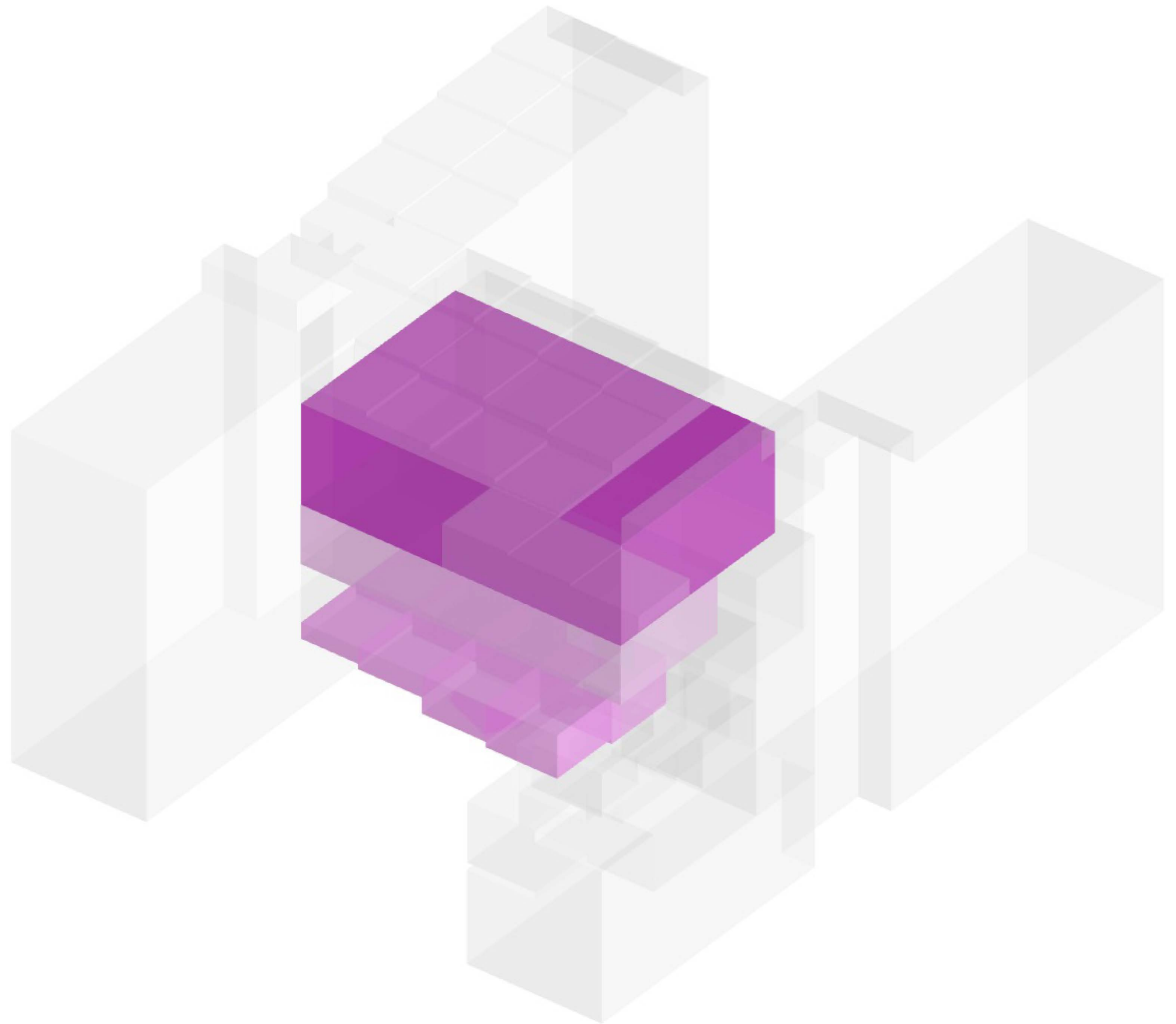
Water on Site During Hurricane Sandy if Wetland Present



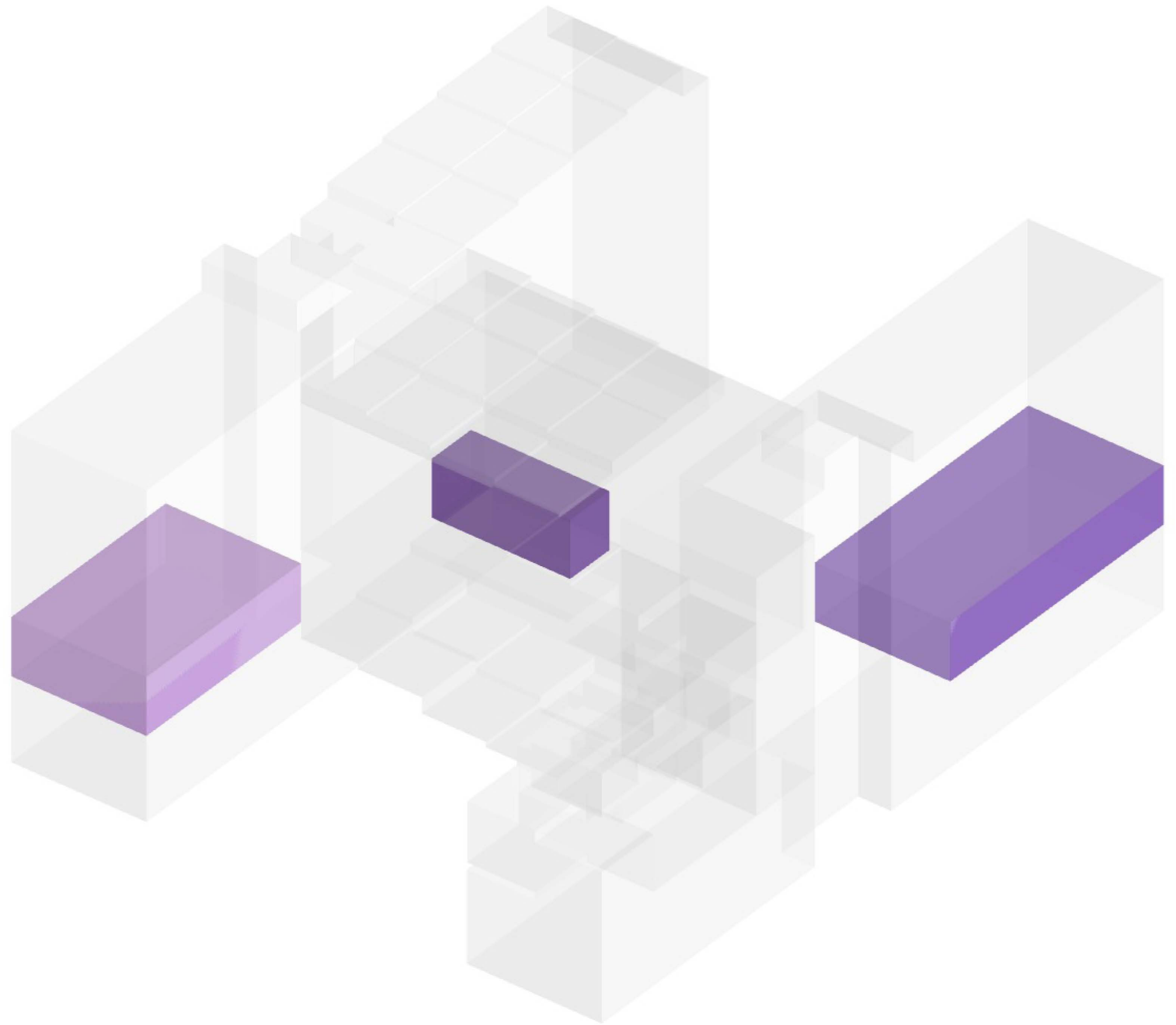
● Classrooms



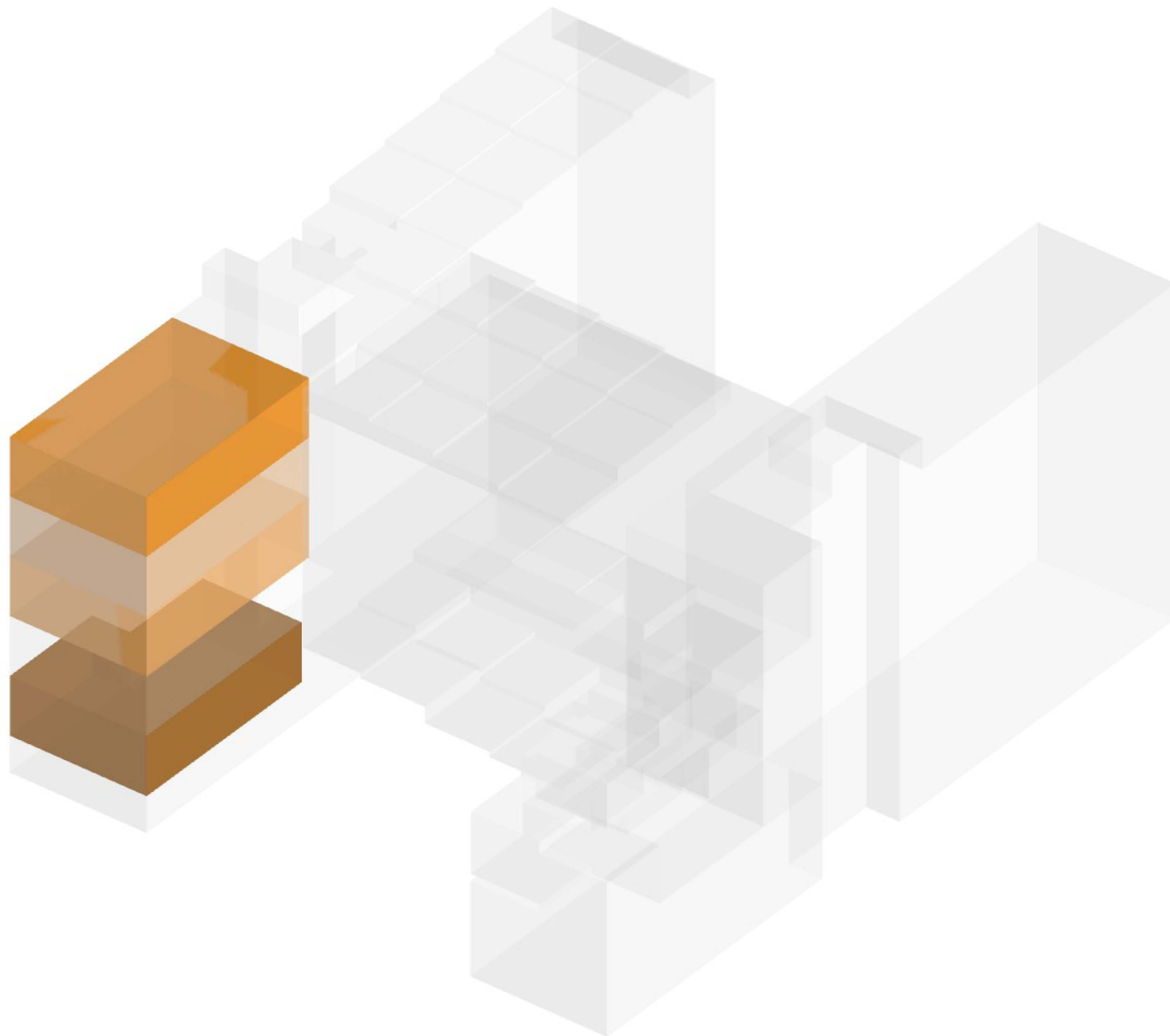
- Gymnasium
- Library
- Lobby



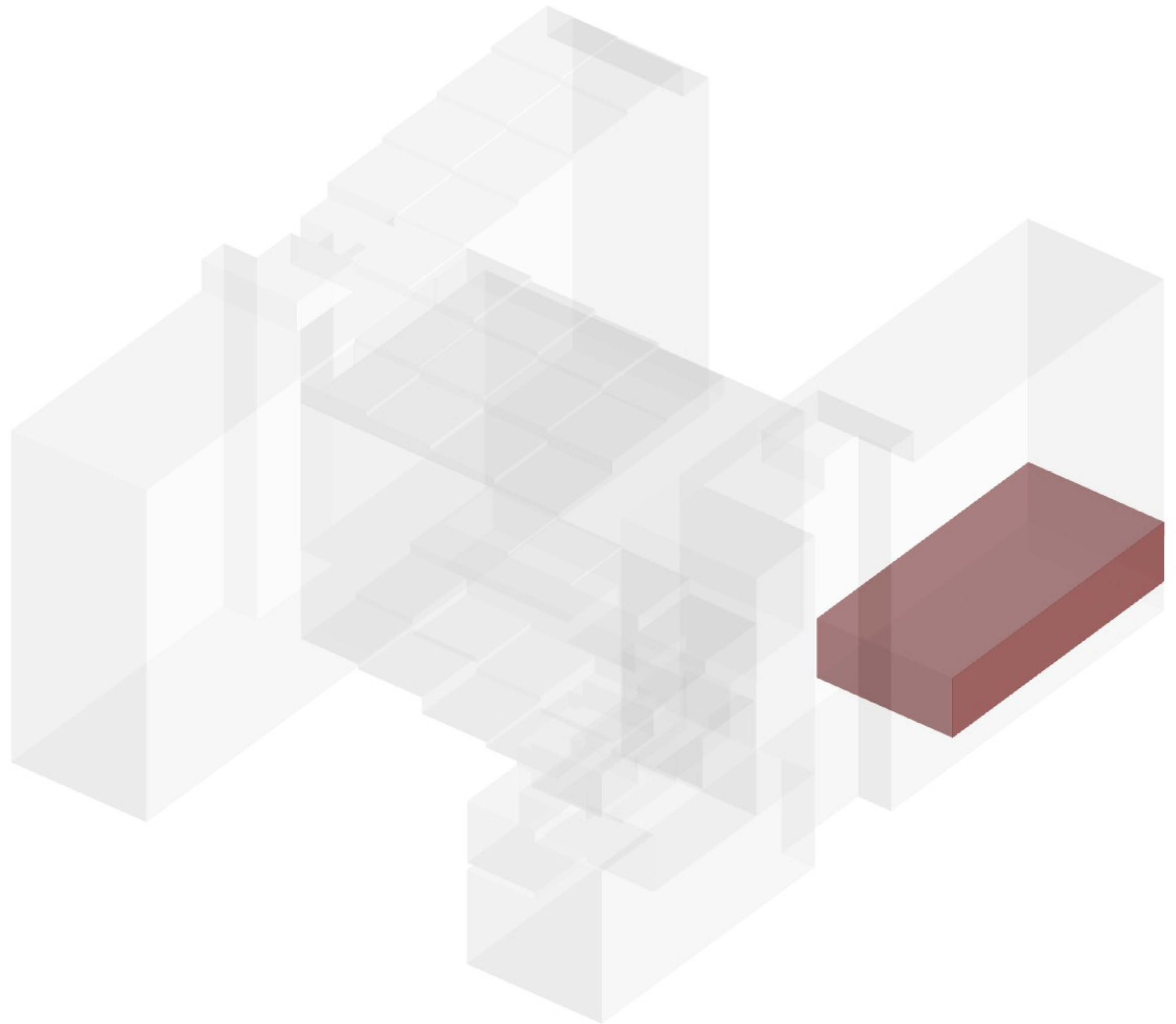
- Kitchen
- Cafe
- Cafeteria



- Art Studio
- Gymnasium Facilities
- Wood Shop
- Music Studio

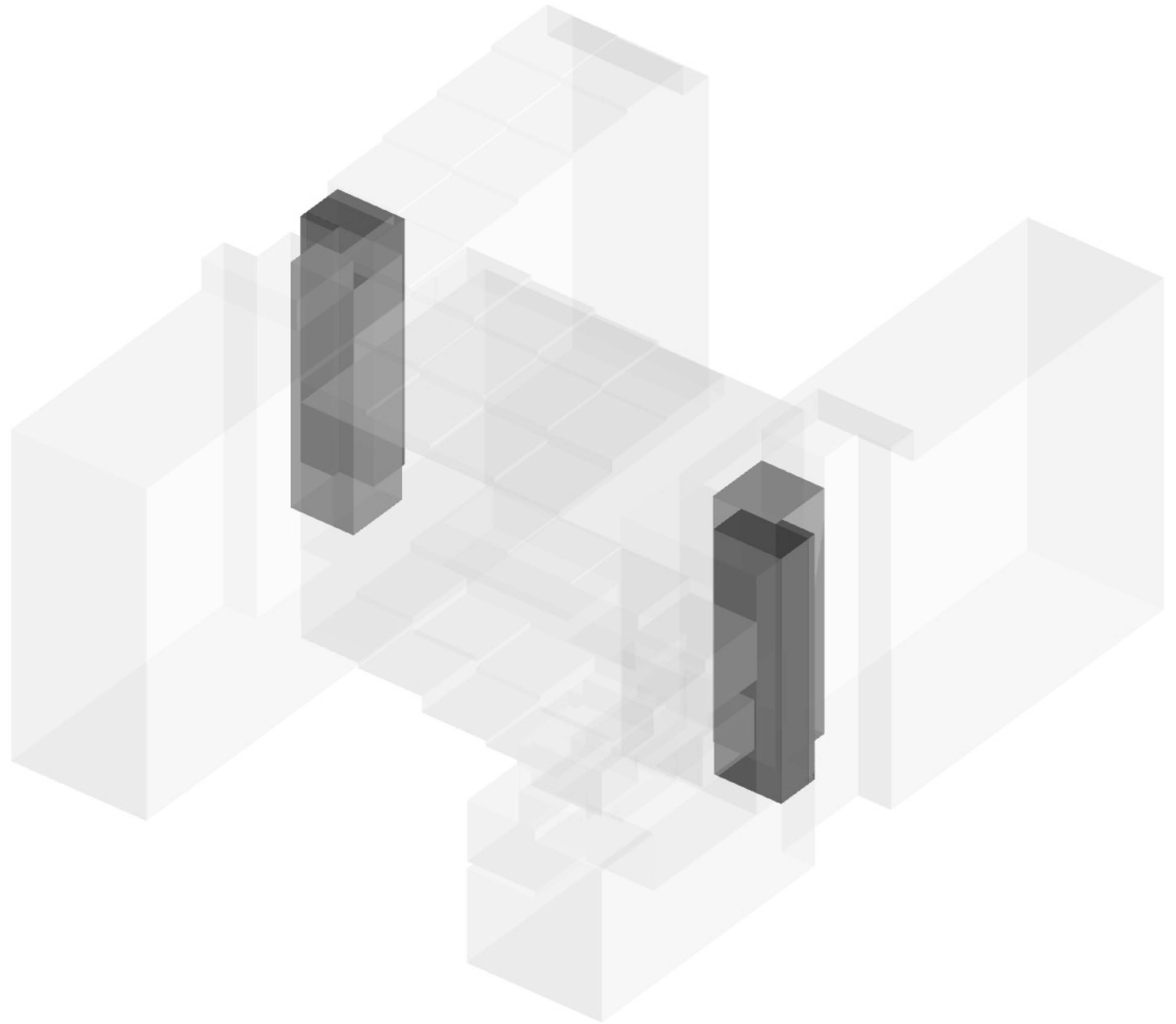


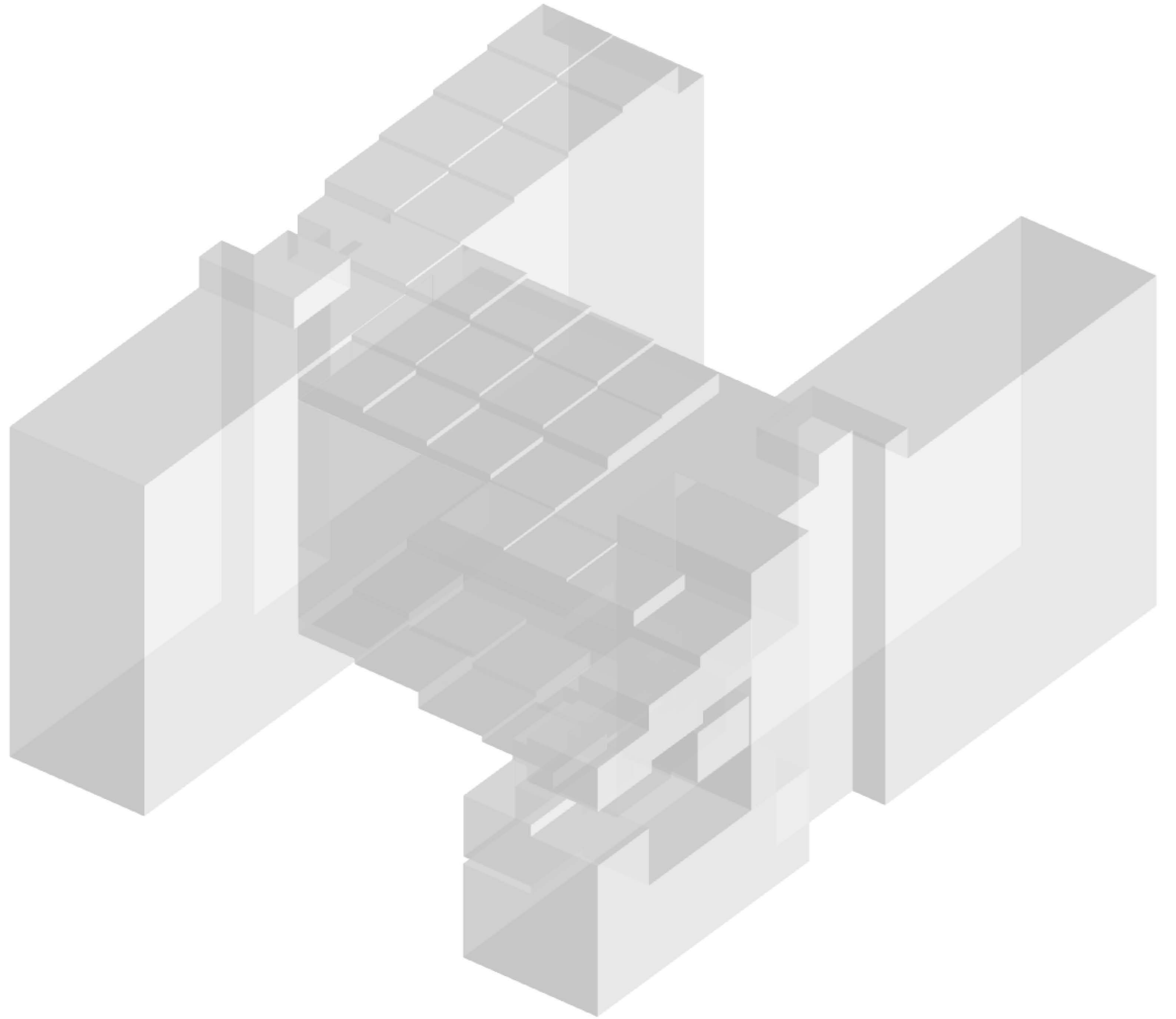
● Administrative

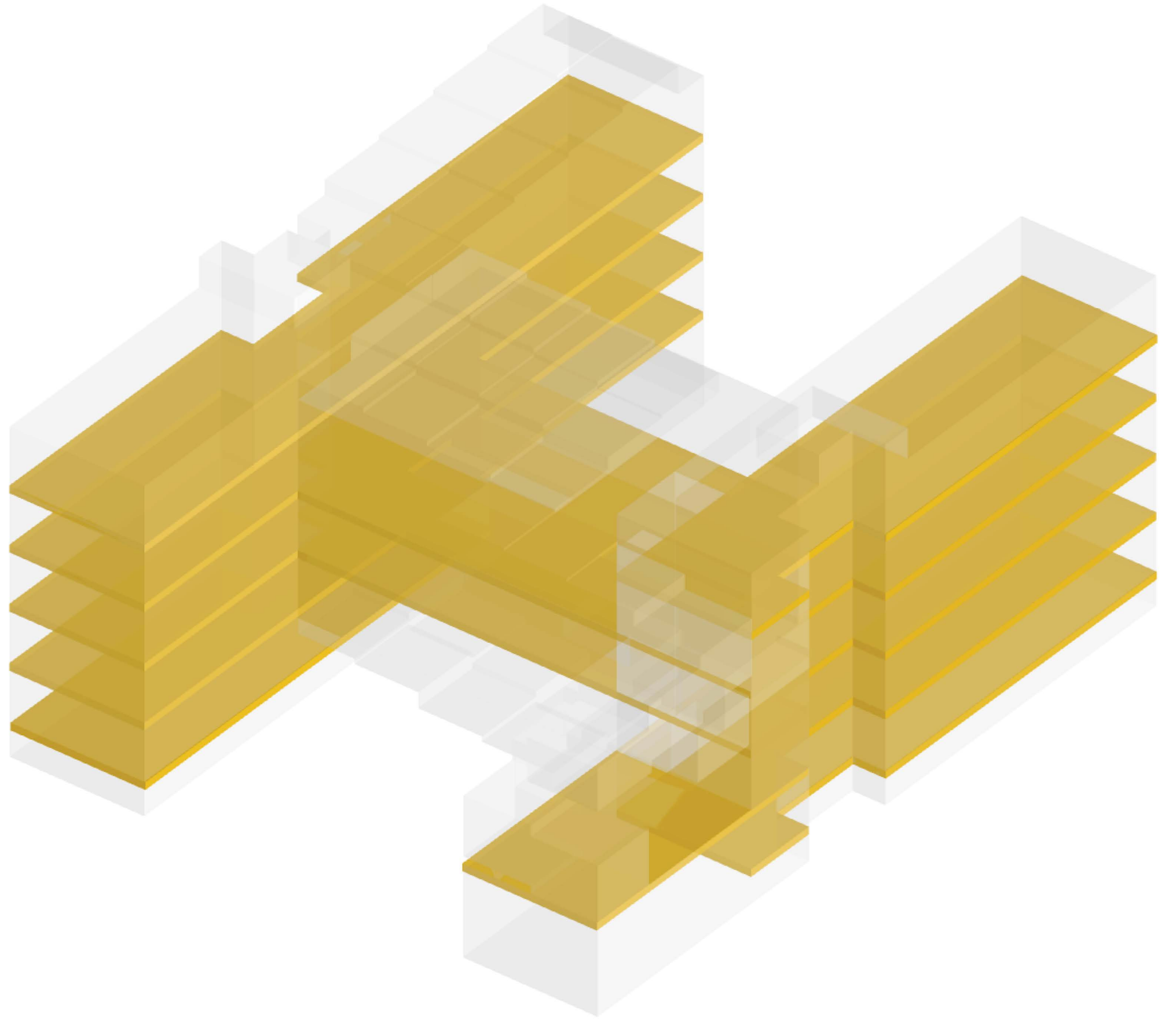


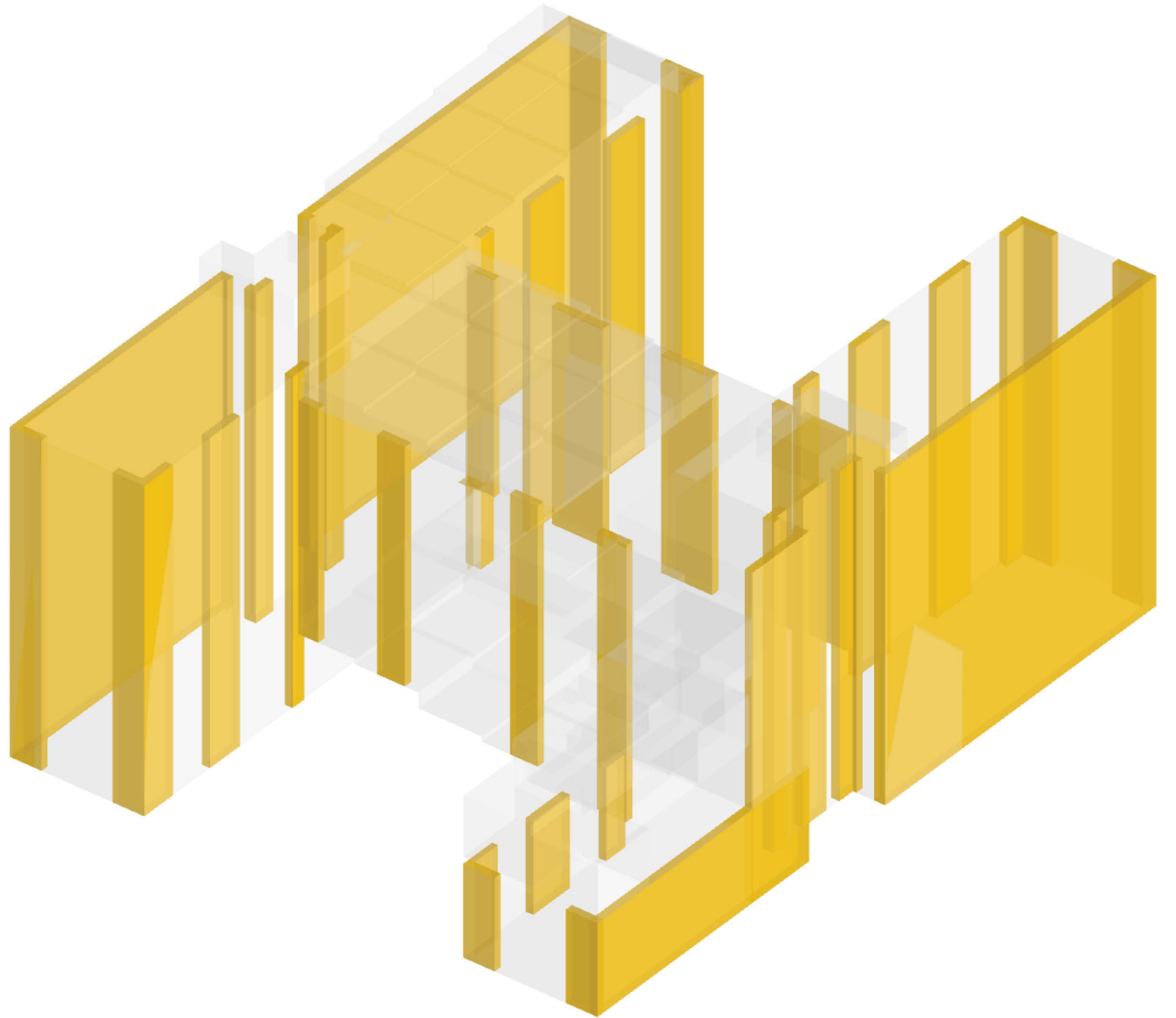
Administrative / Program

- Restrooms
- Storage

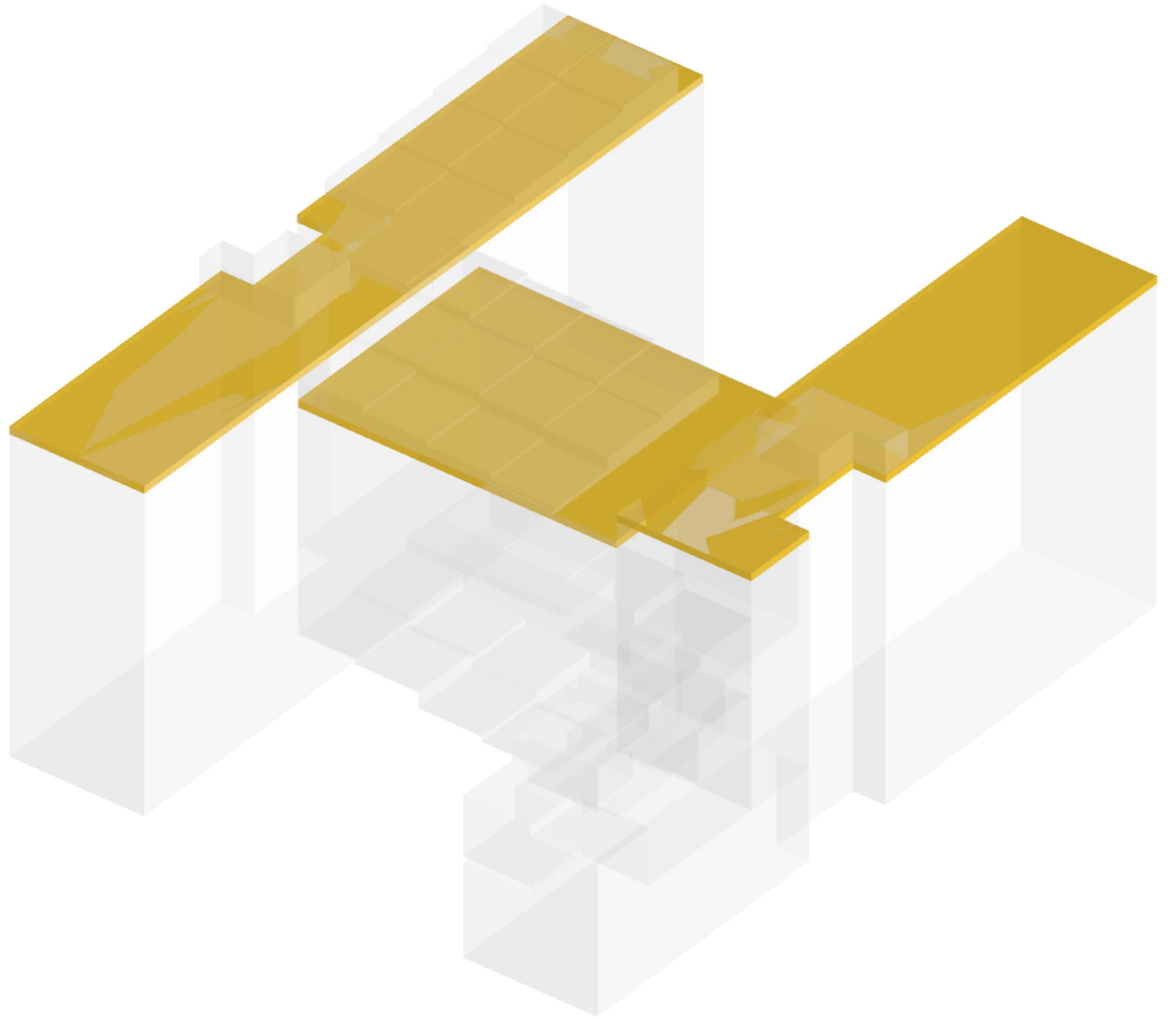


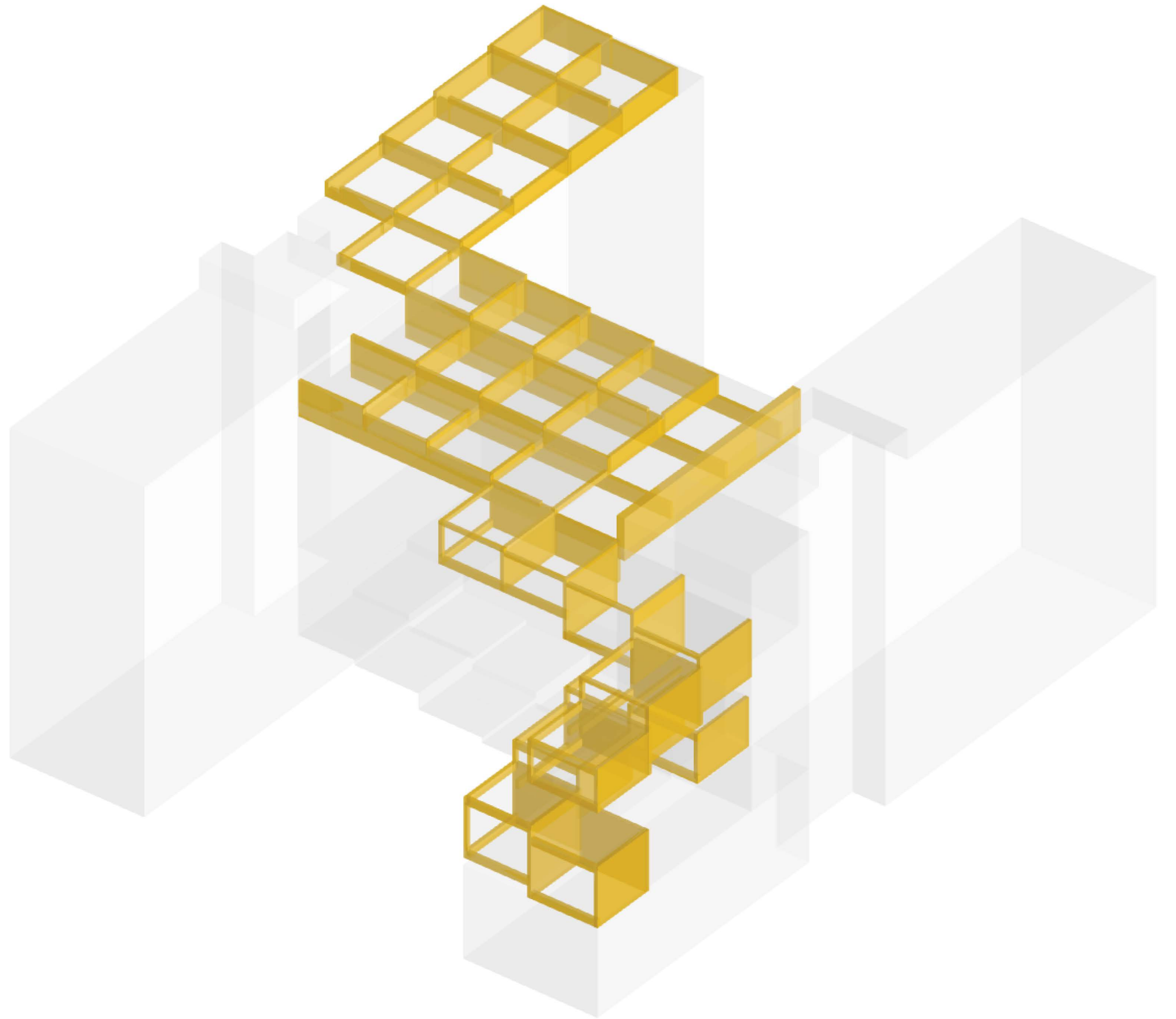


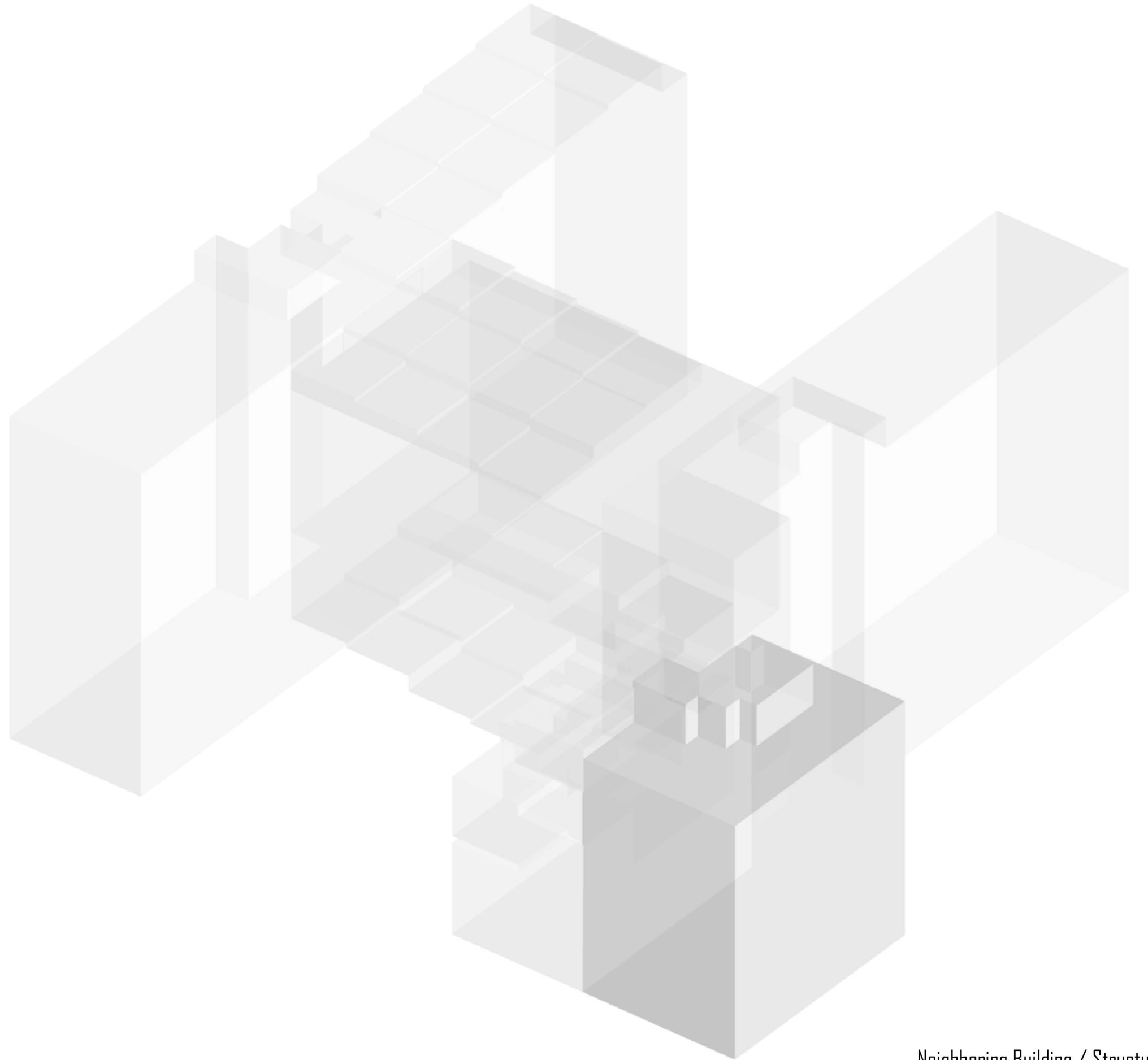


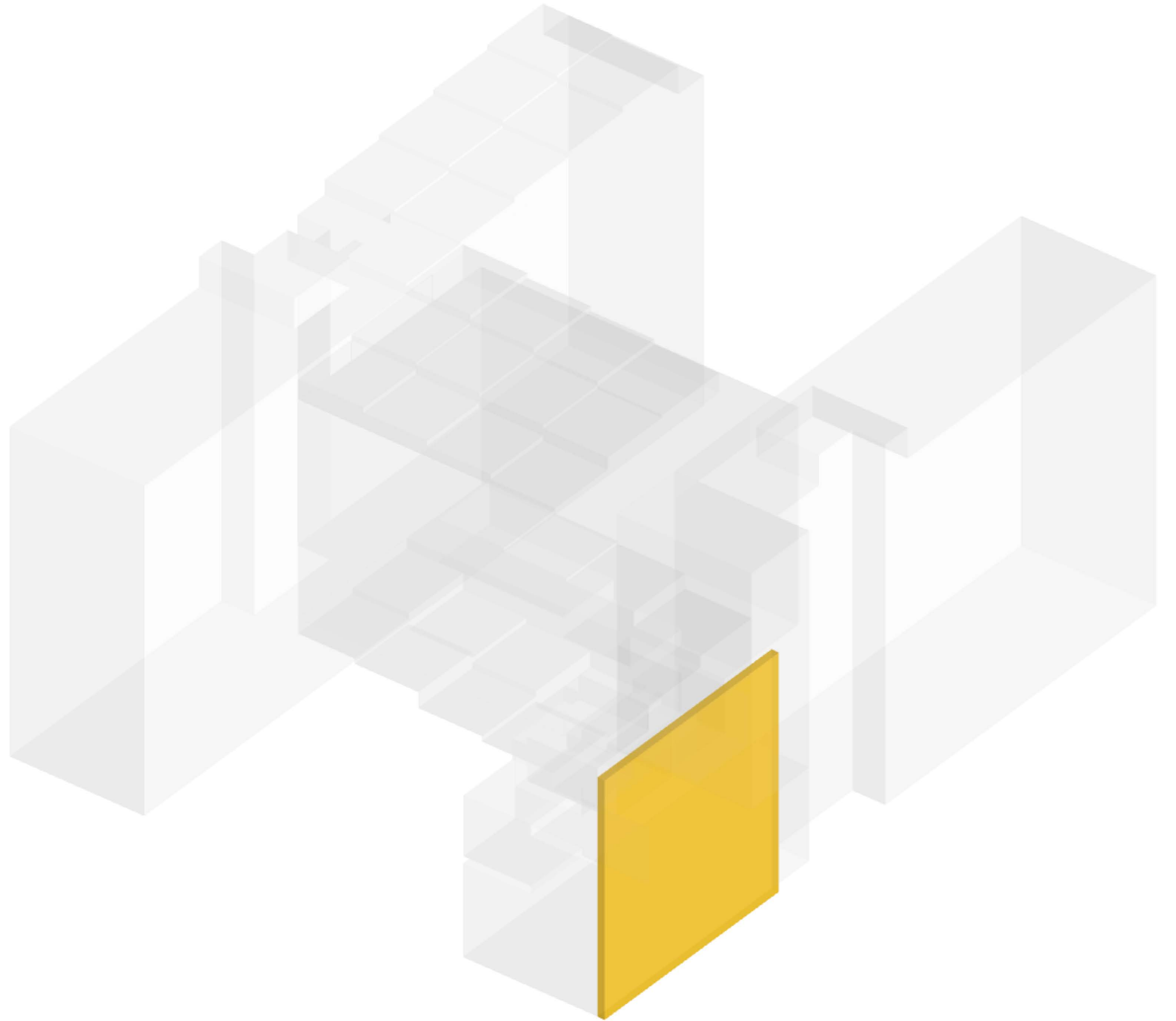


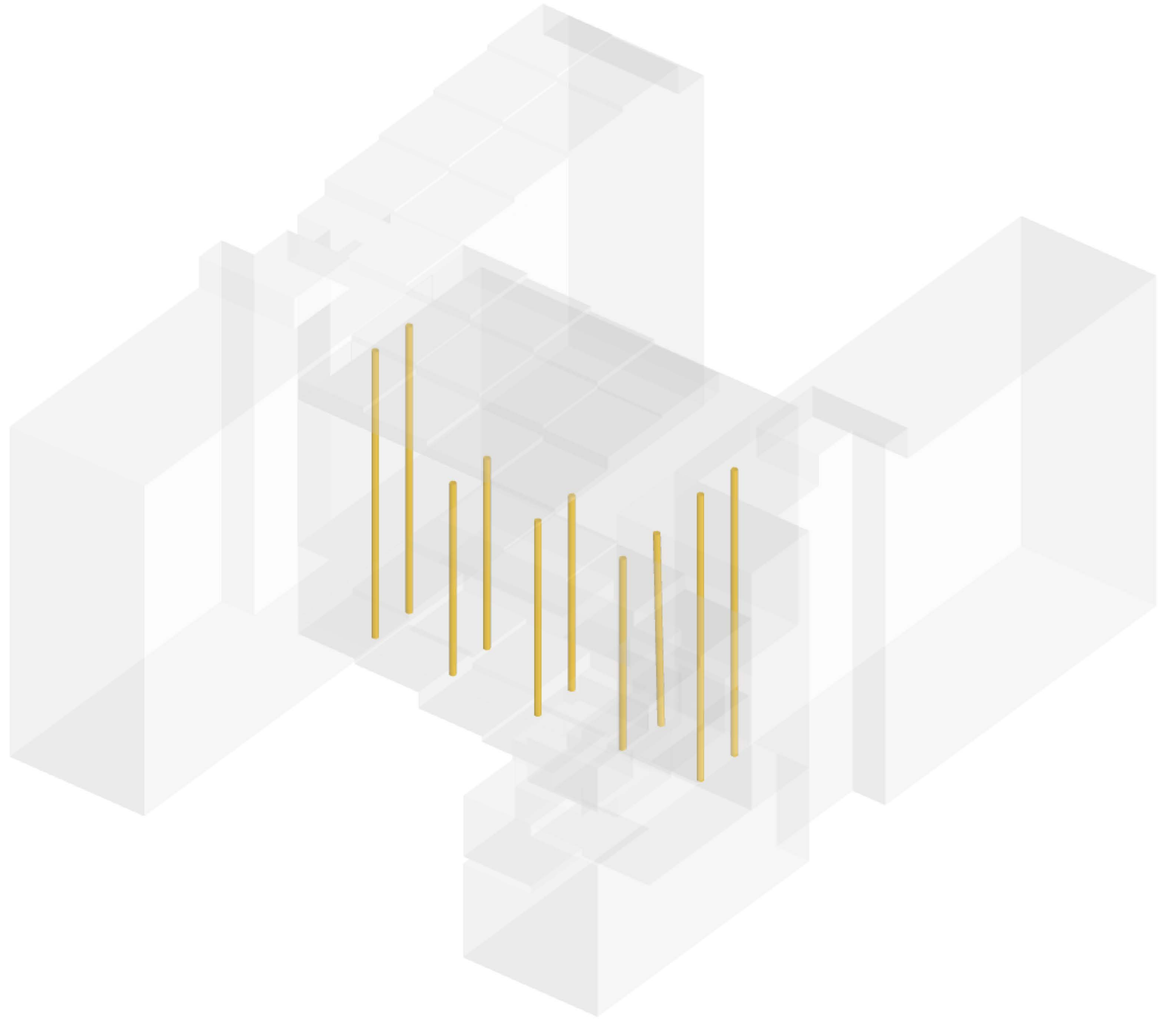
Existing Vertical Masonry / Structure

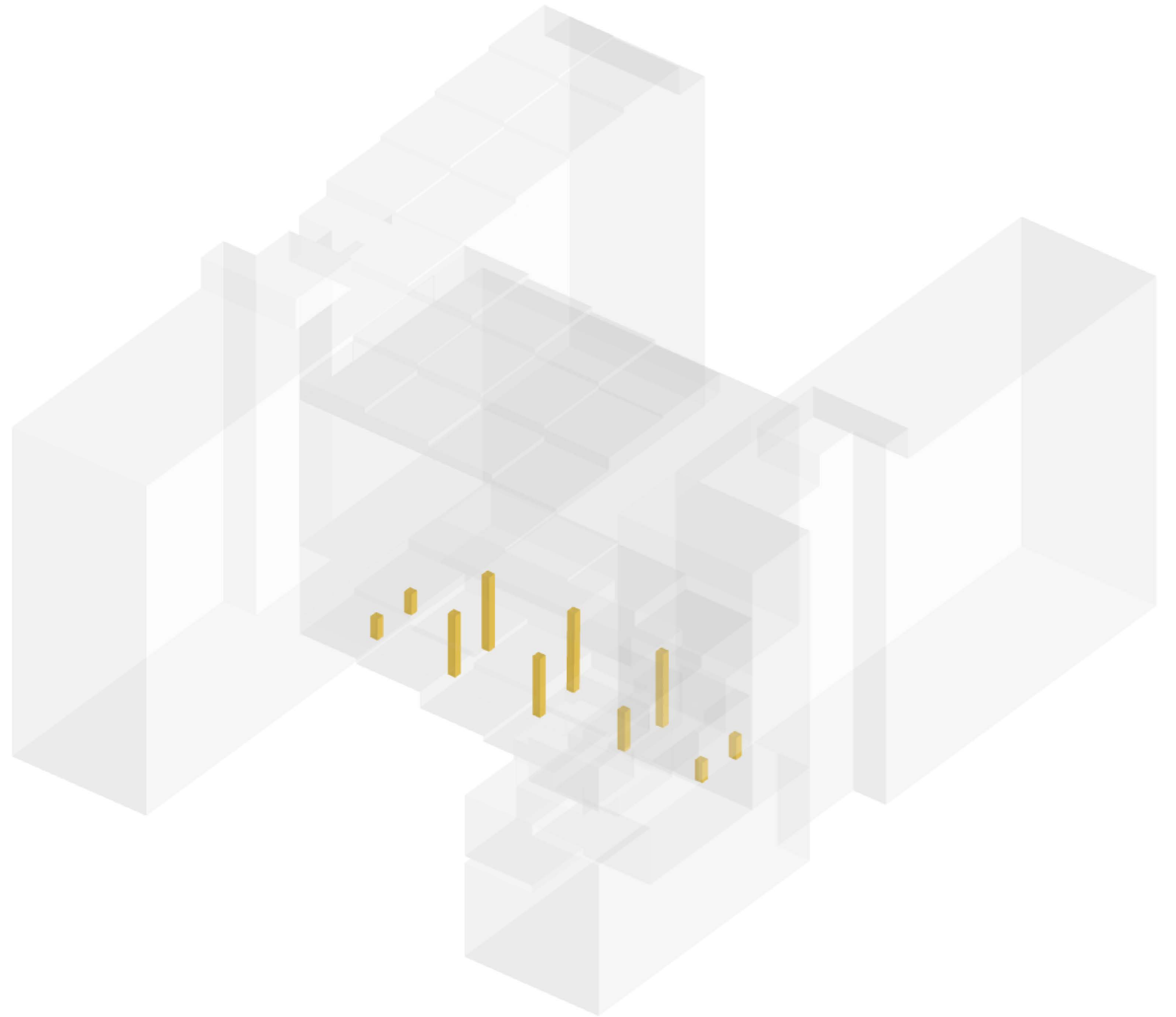


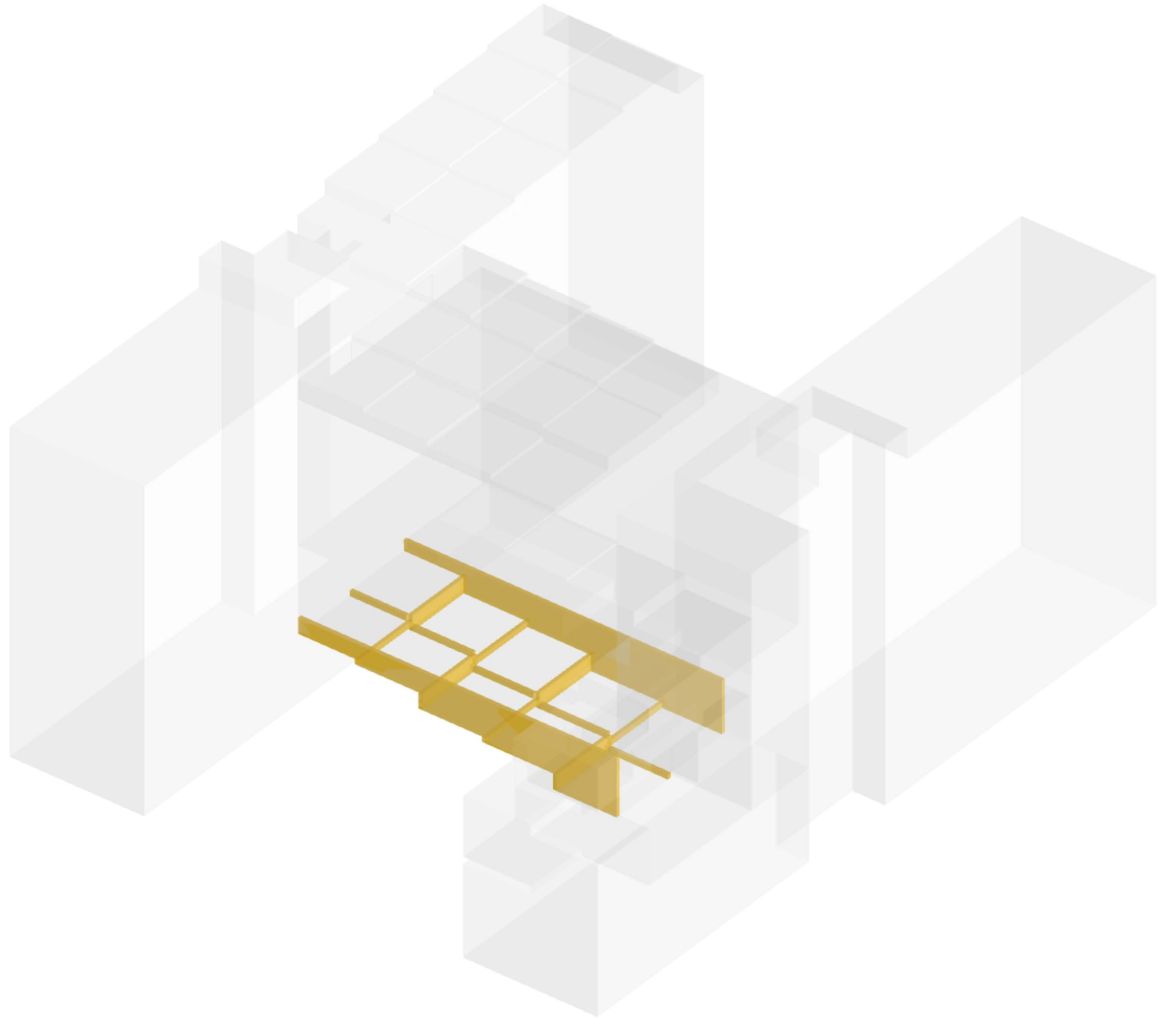


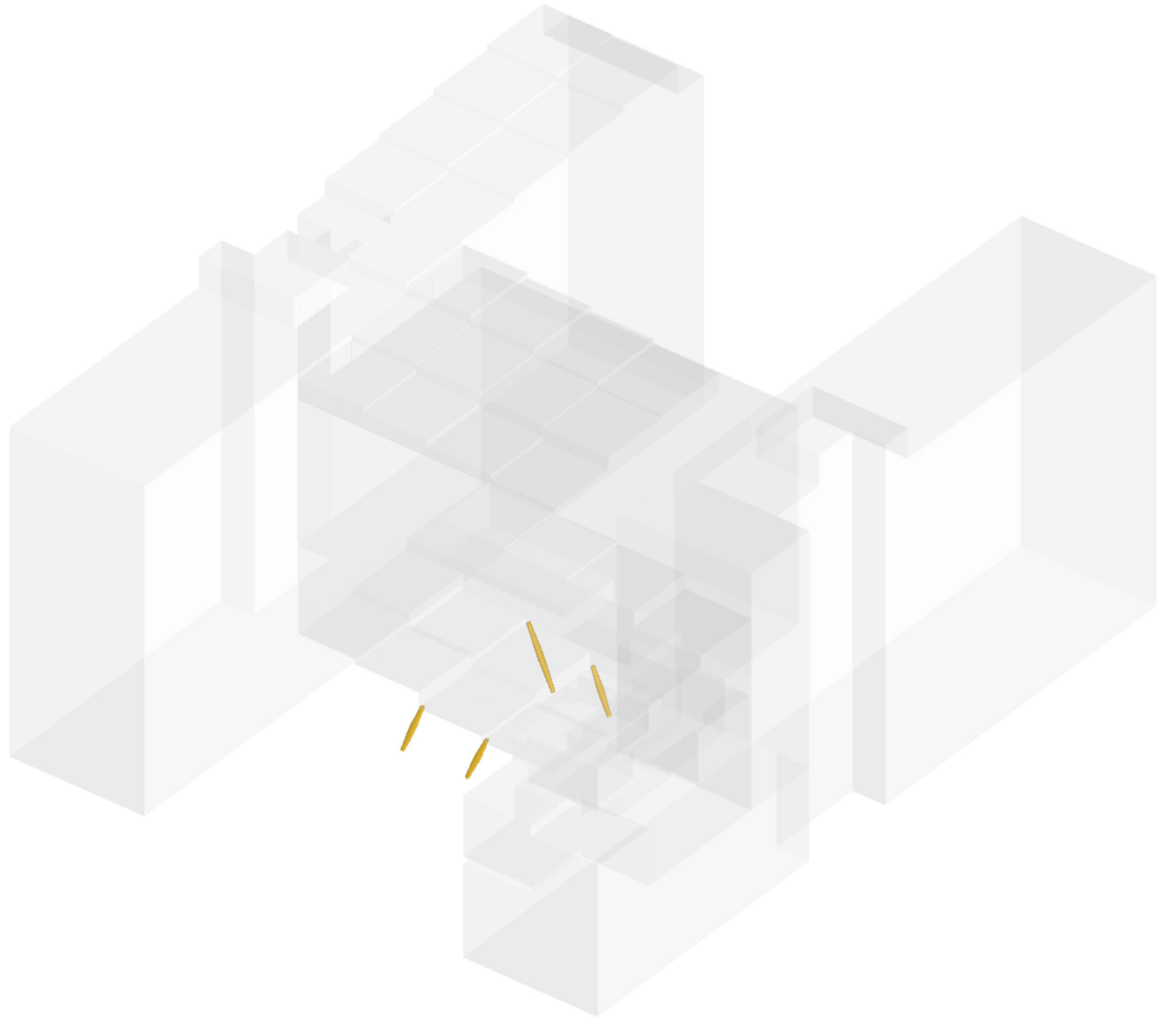


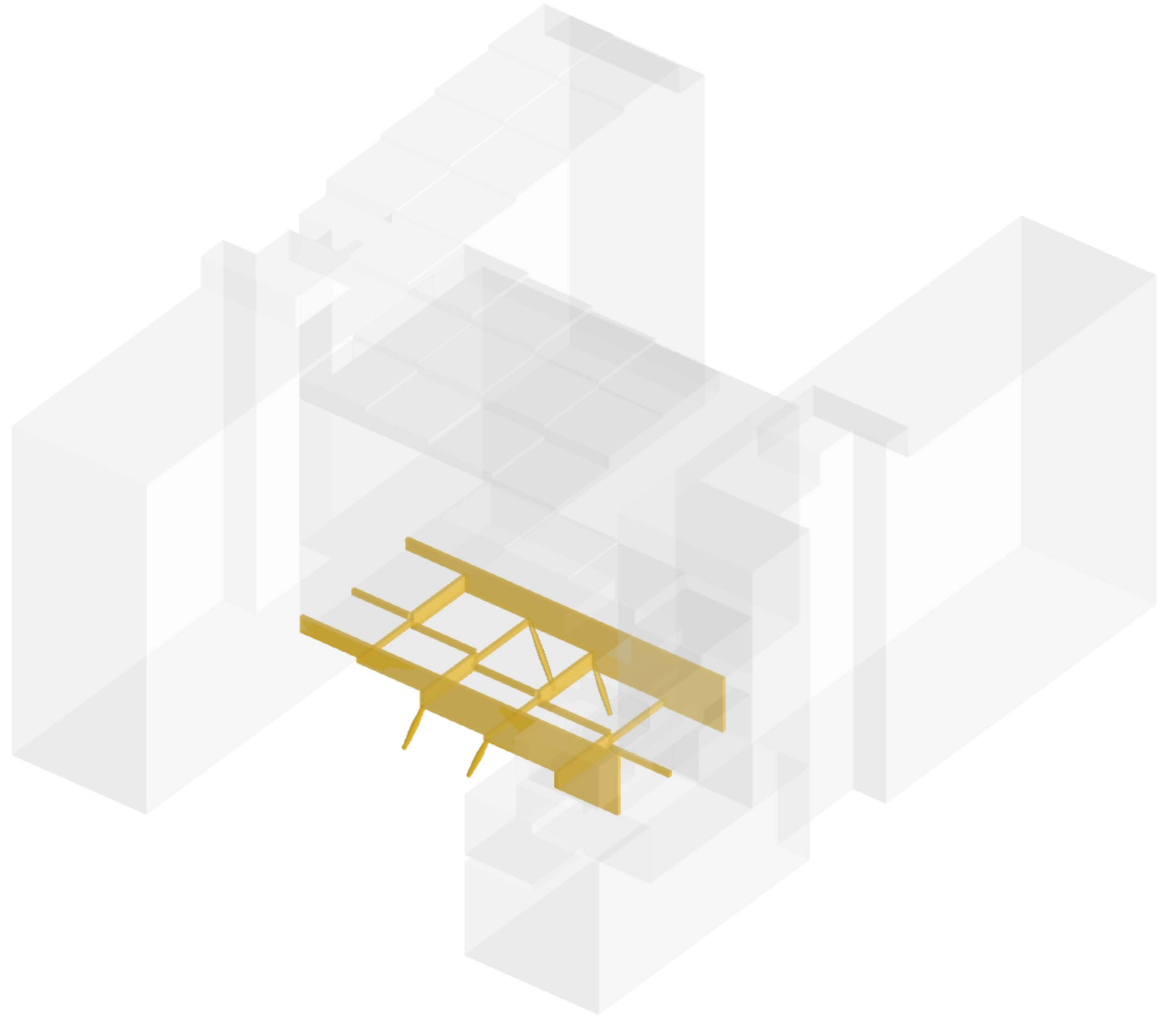


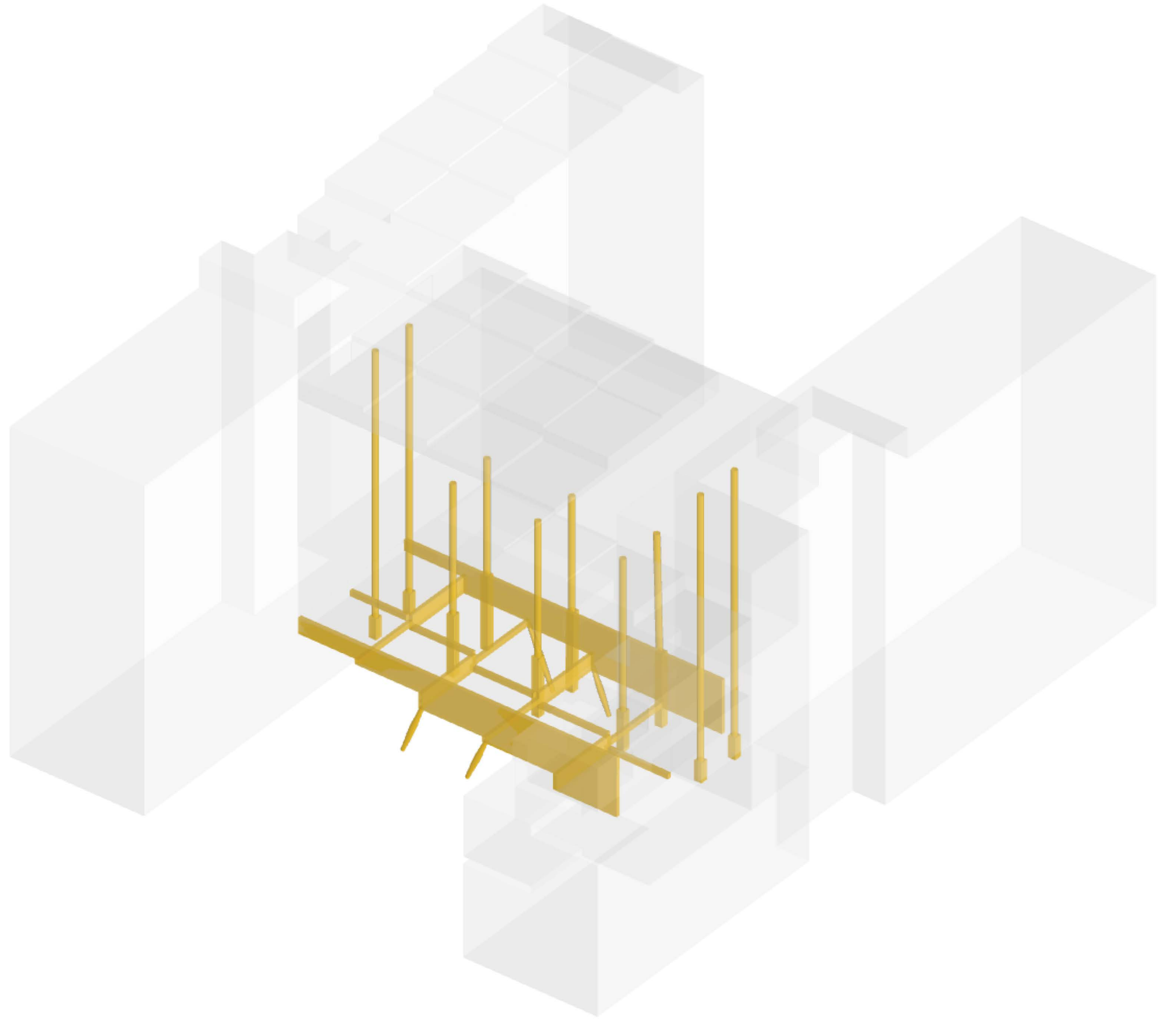


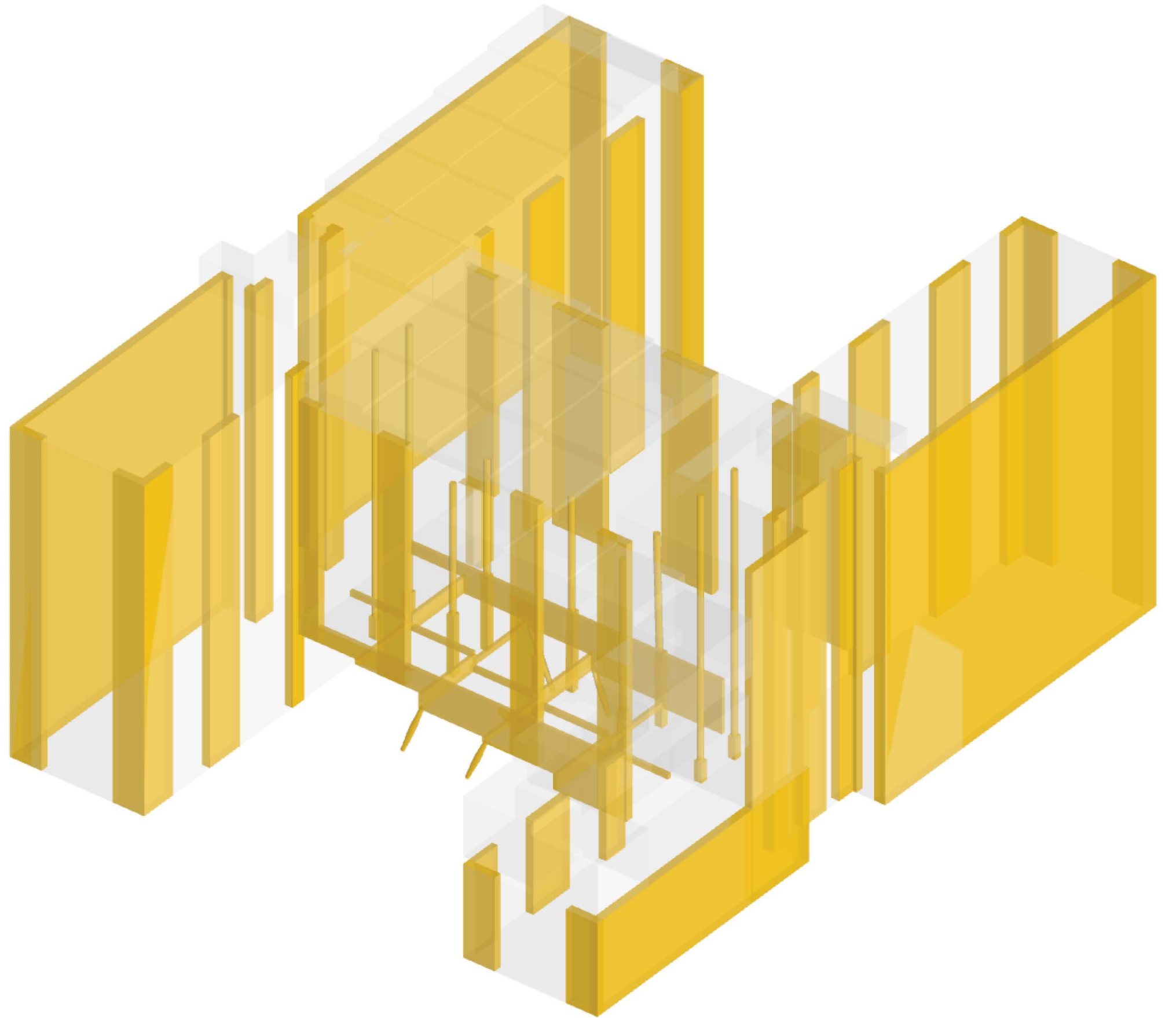


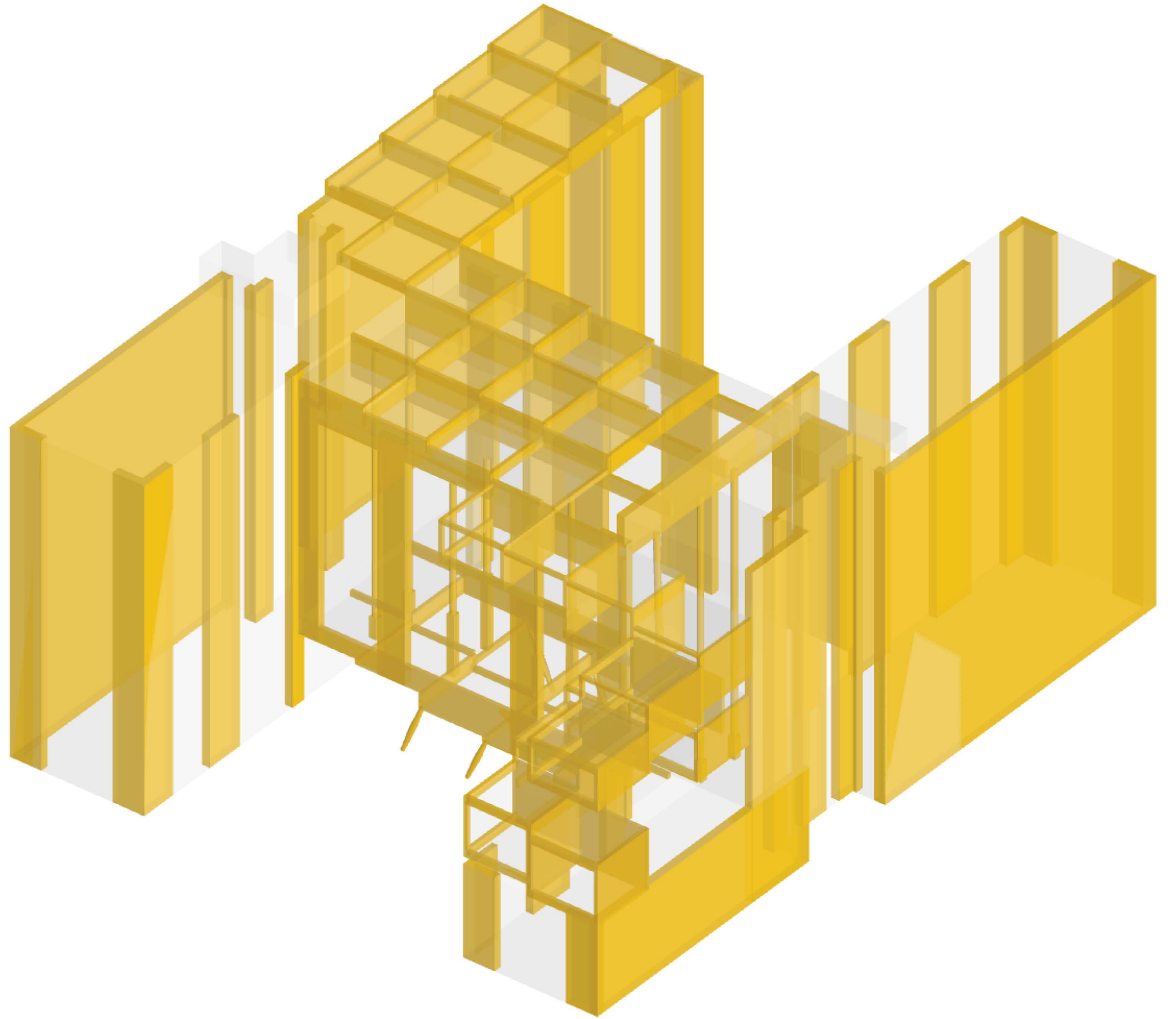


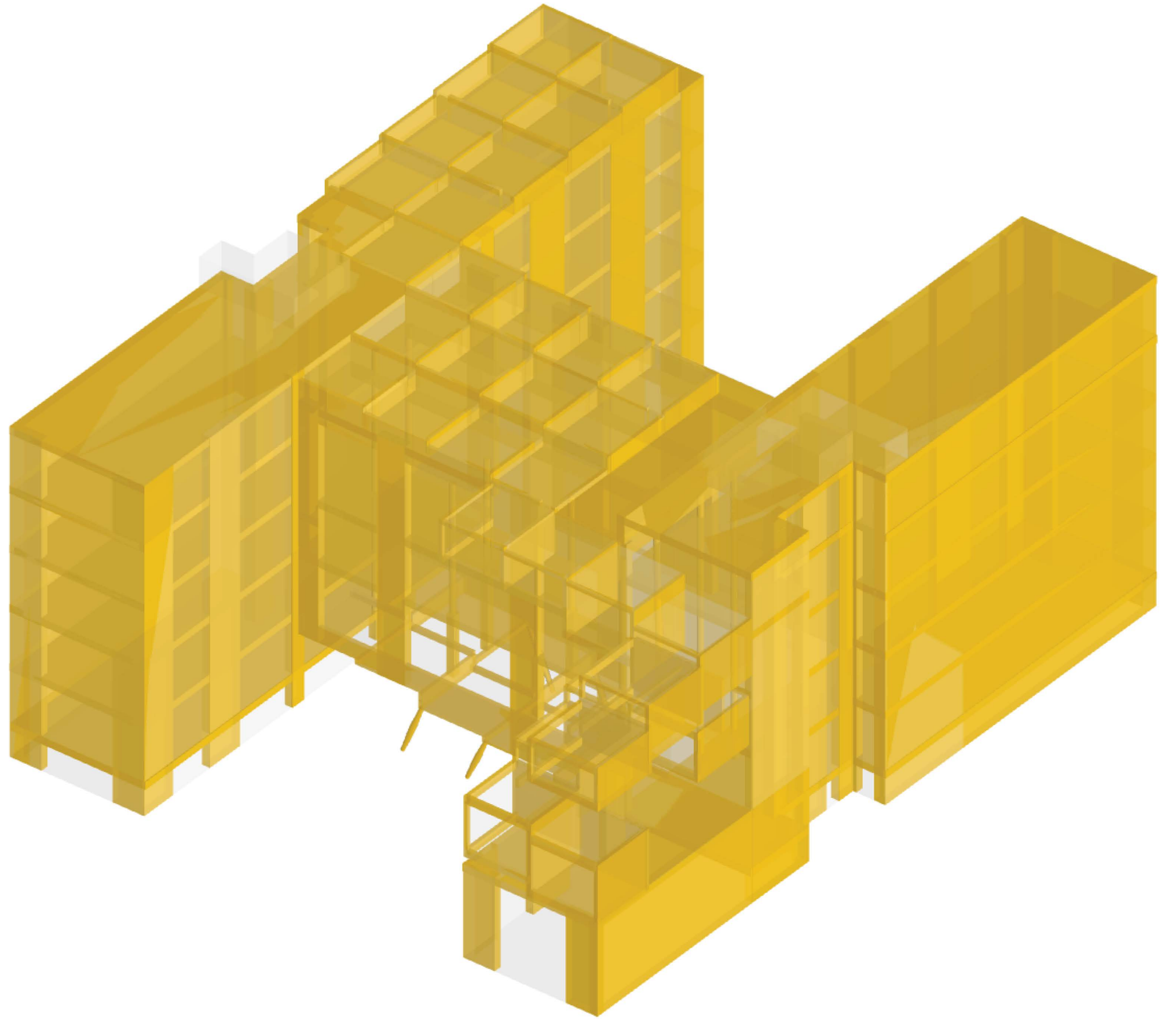




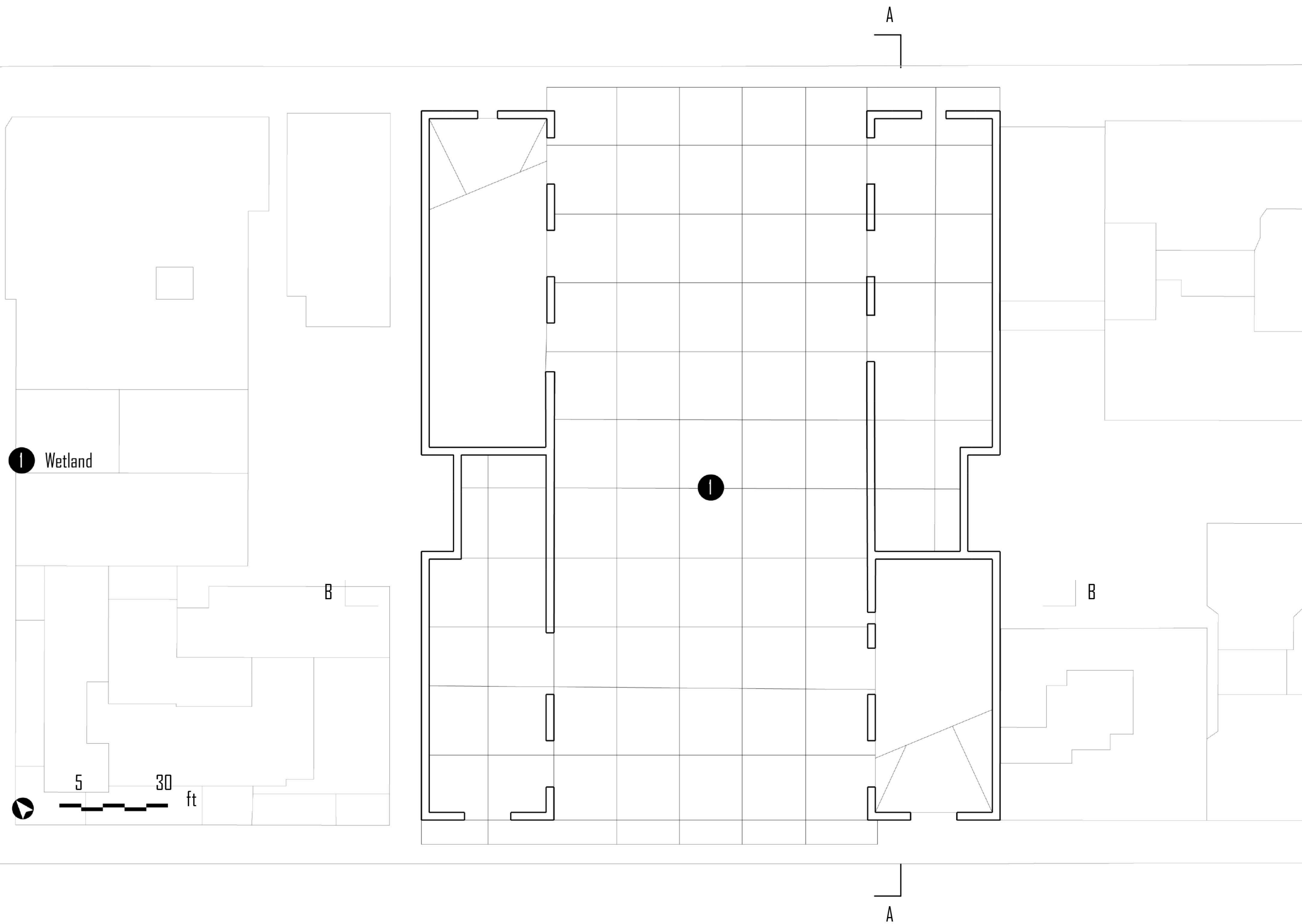




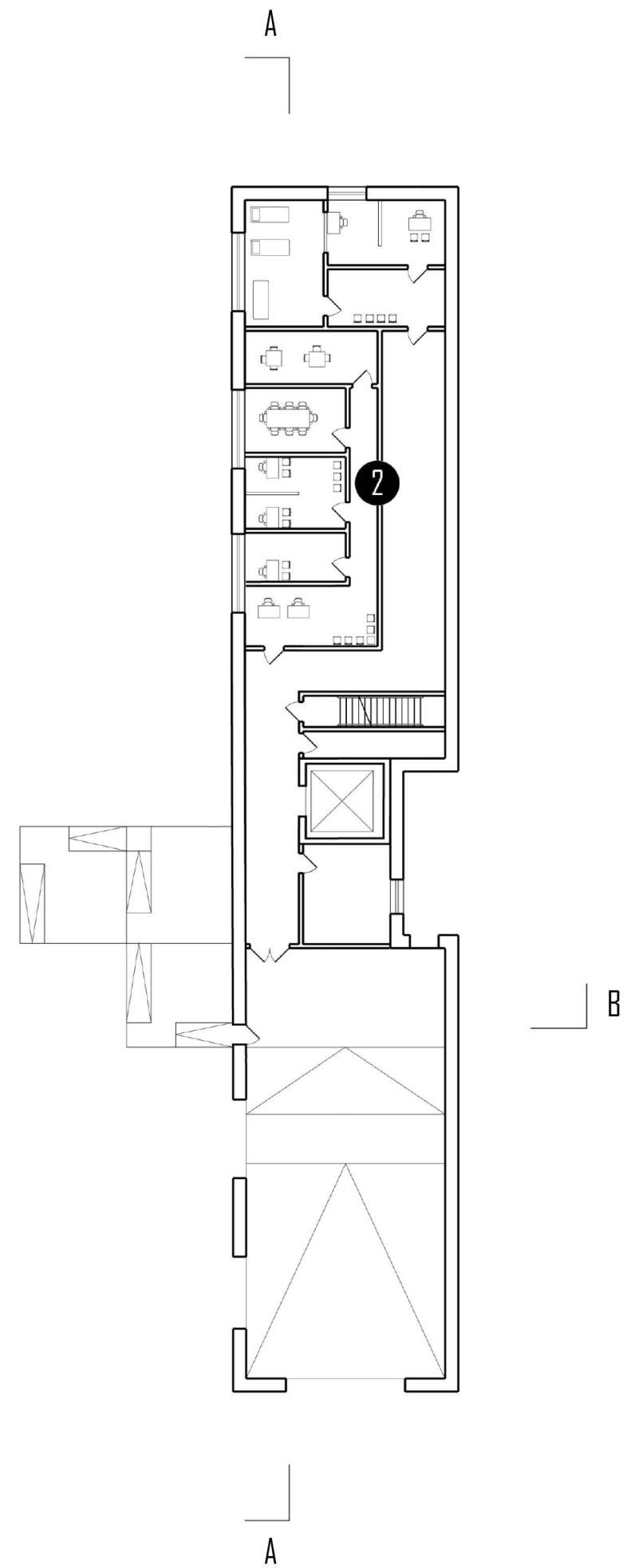
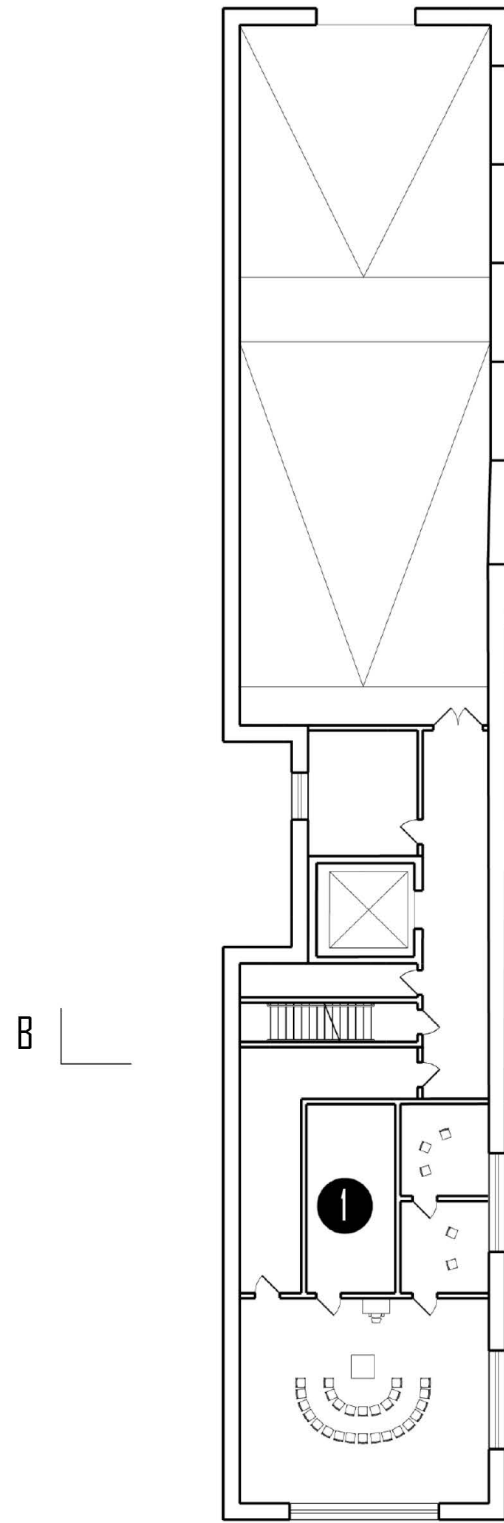
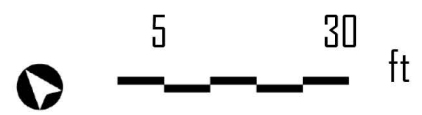




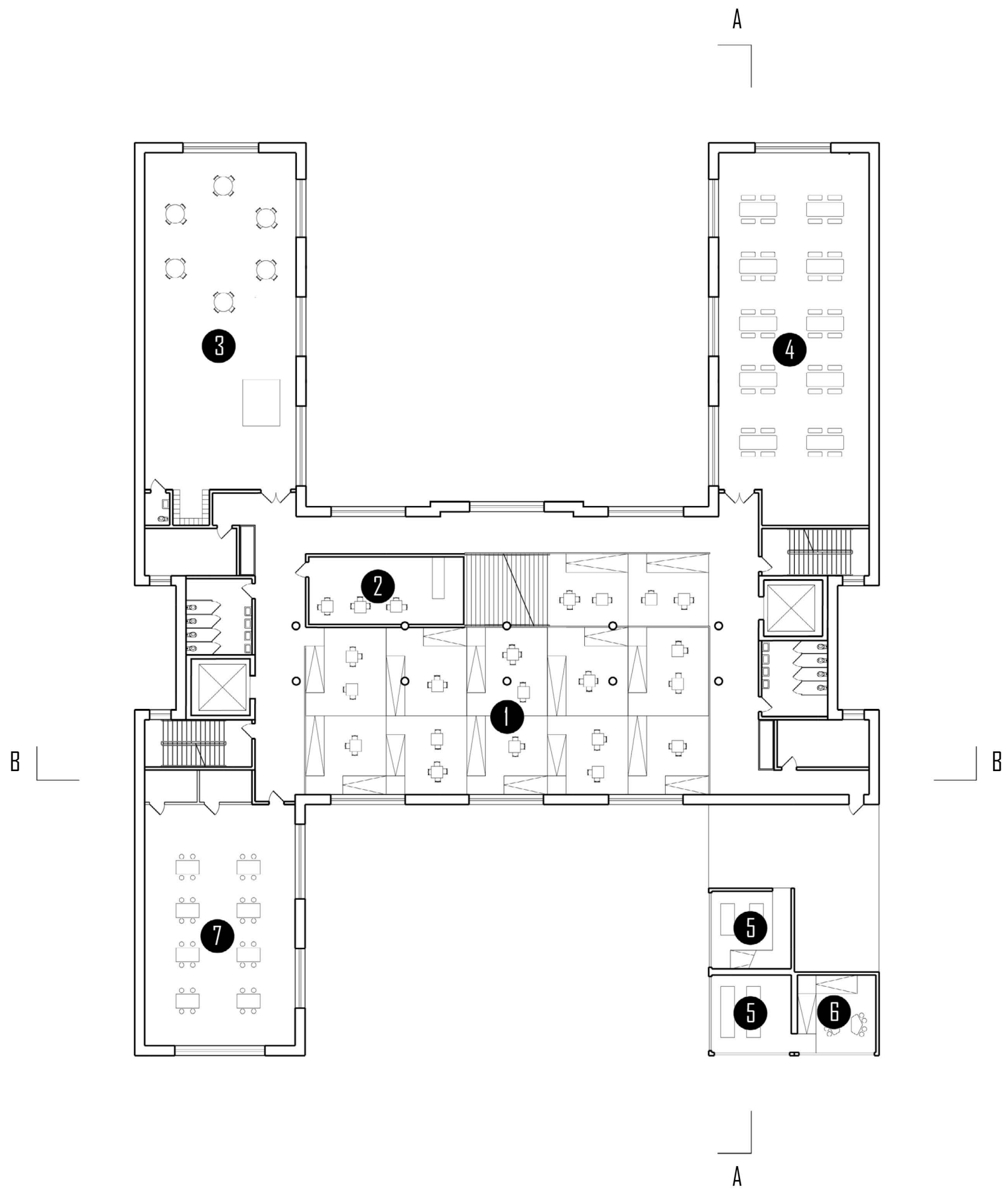
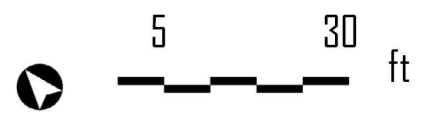




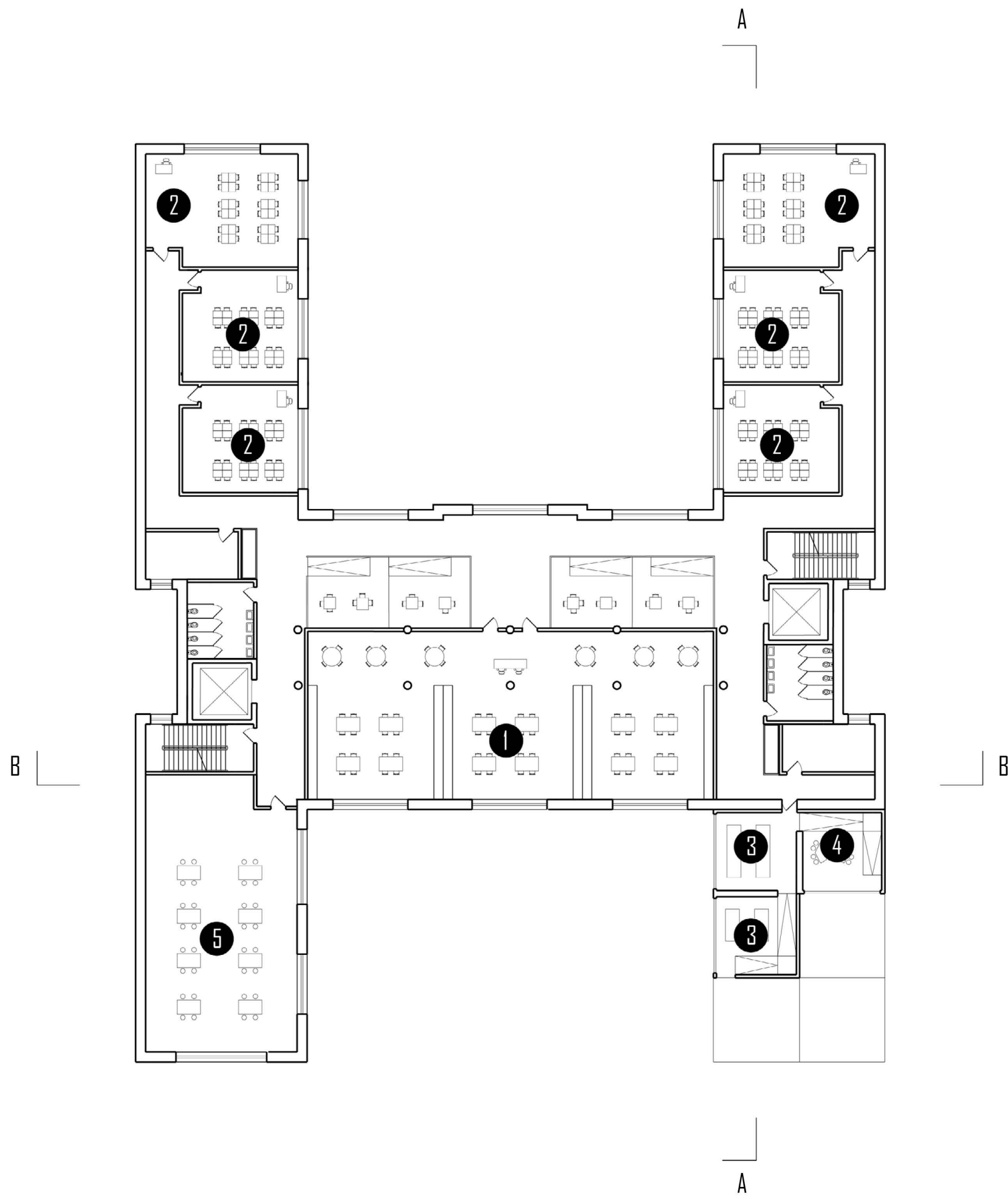
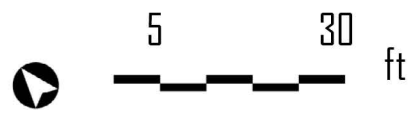
- 1 Music Studio
- 2 Administrative Suite



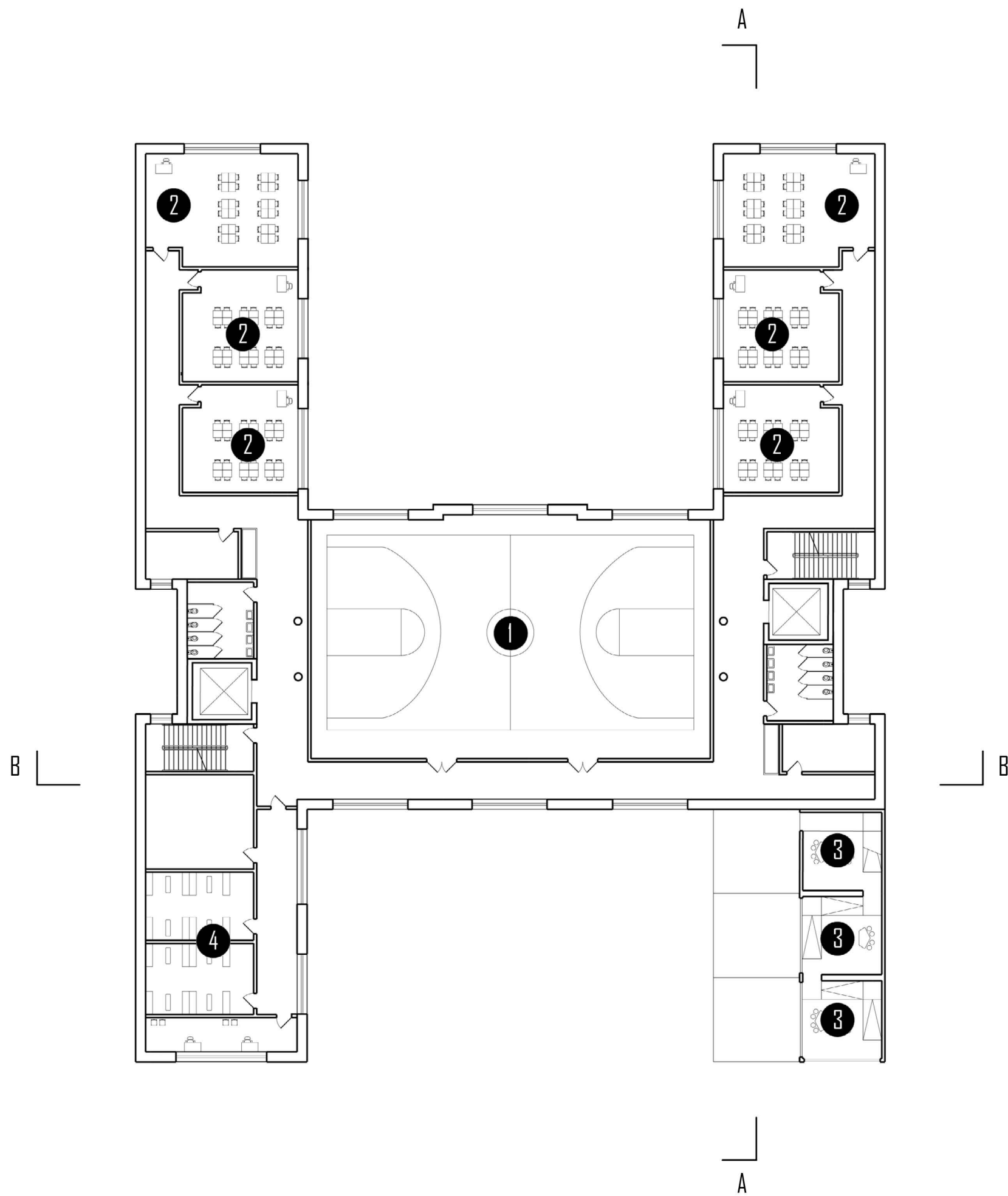
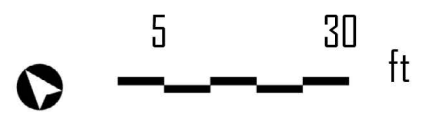
- 1 Lobby
- 2 Cafe
- 3 Kindergarden
- 4 Cafeteria
- 5 Green House
- 6 Green Lab
- 7 Kitchen



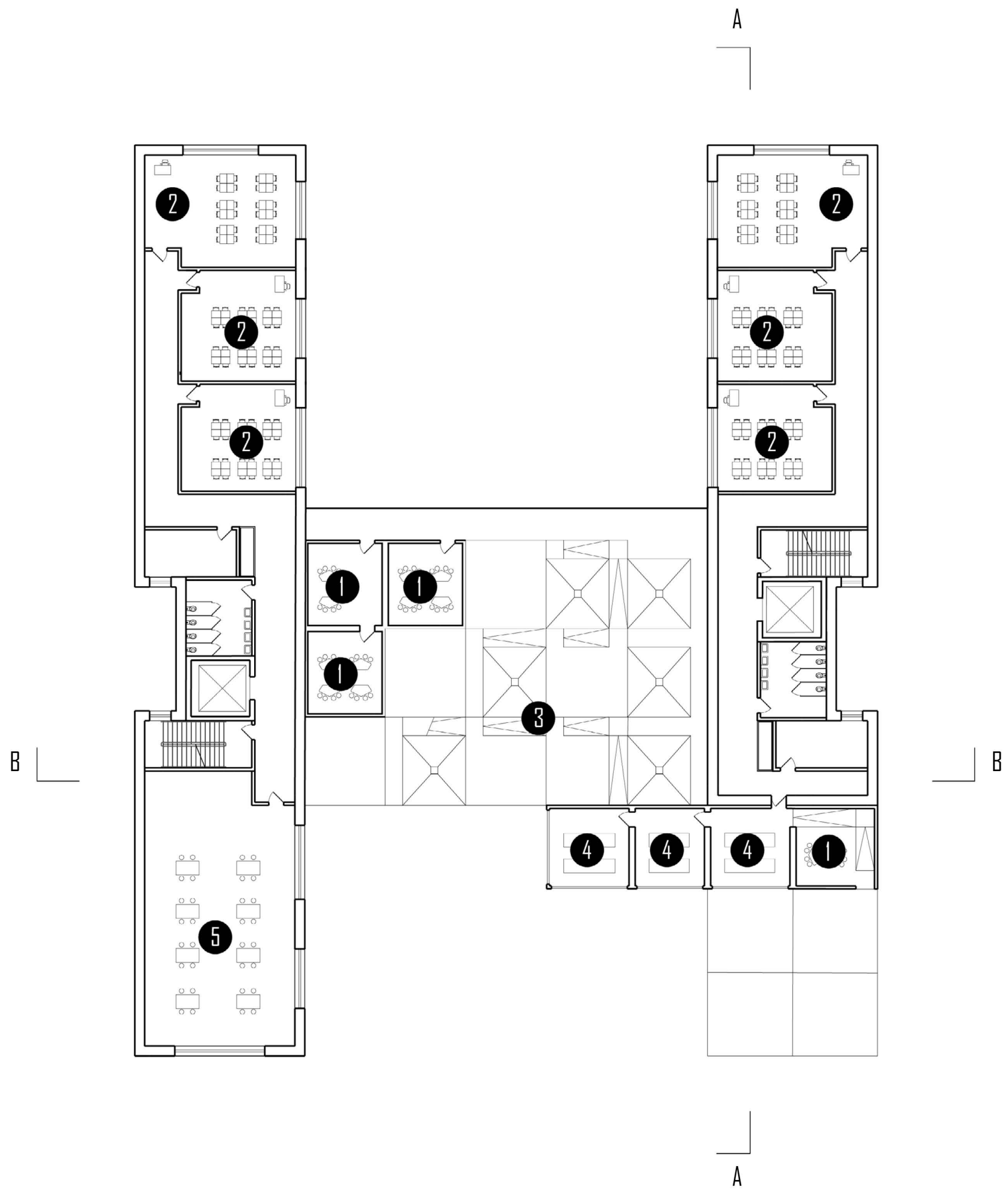
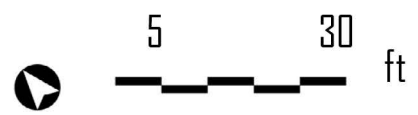
- 1 Library
- 2 Classroom
- 3 Green House
- 4 Green Lab
- 5 Wood Shop



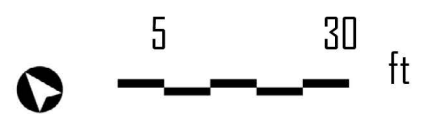
- 1 Gymnasium
- 2 Classroom
- 3 Green Lab
- 4 Gymnasium Facilities



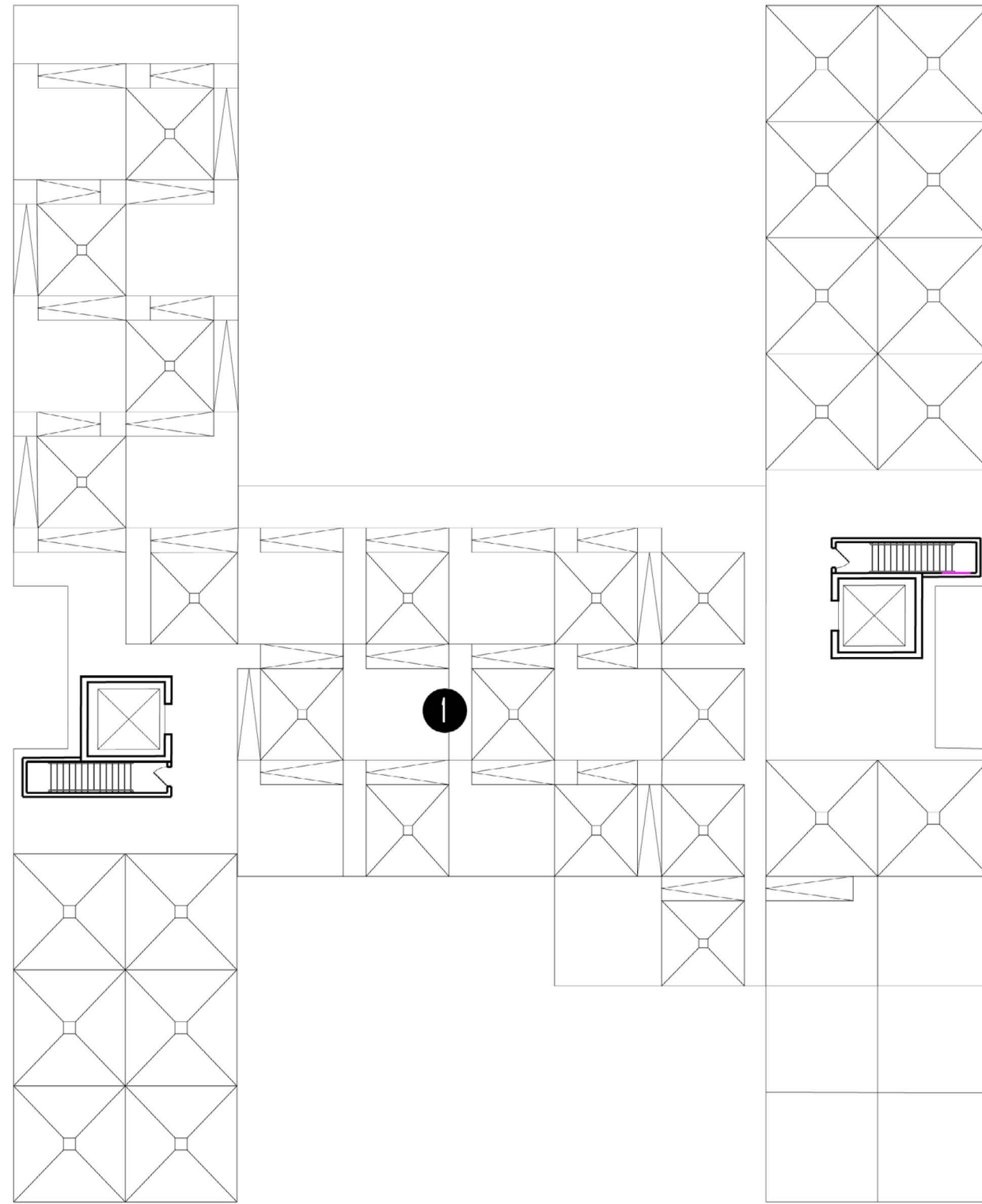
- 1 Green Lab
- 2 Classrooms
- 3 Urban Farm
- 4 Green House
- 5 Art Studio



1 Urban Farm



B

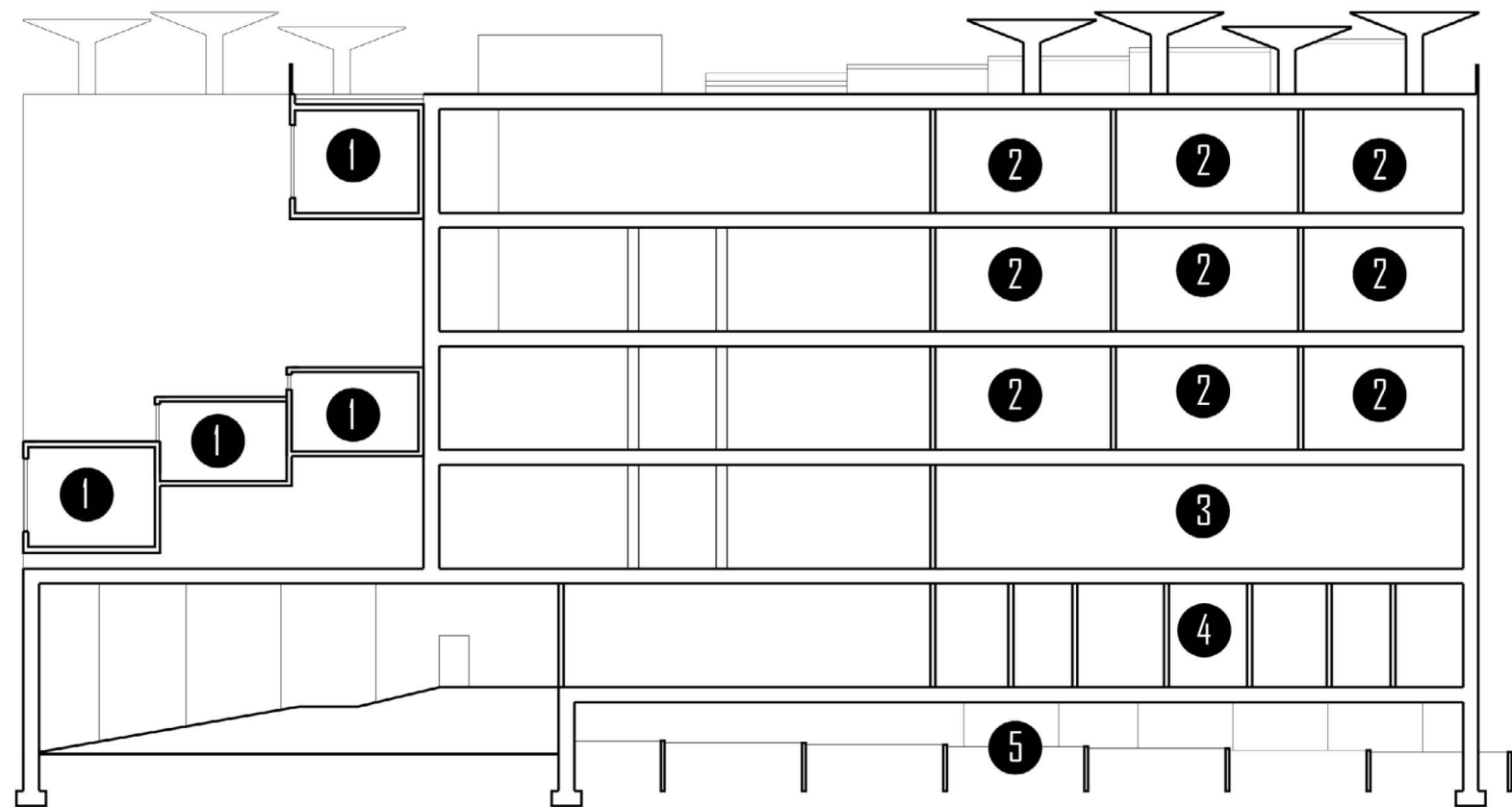


A

B

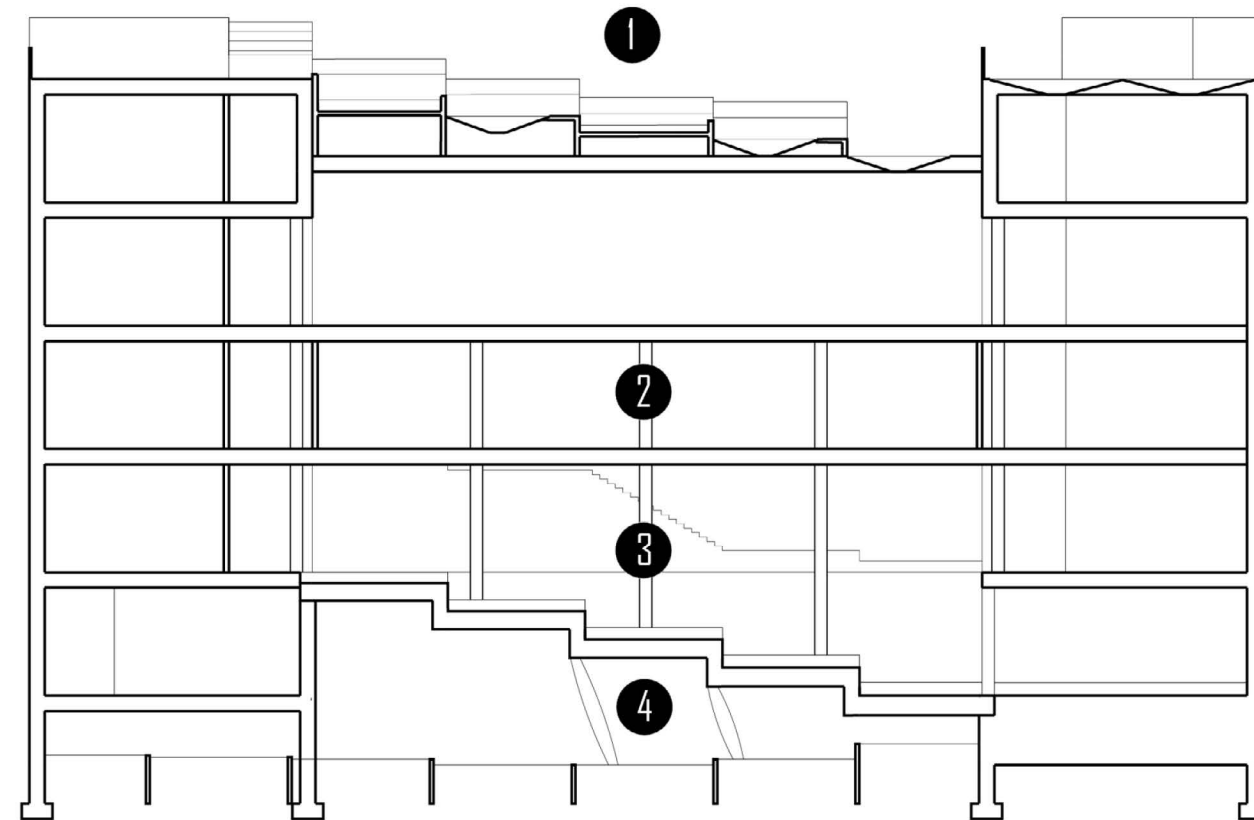
A

- ① Green Lab
- ② Classroom
- ③ Cafeteria
- ④ Administrative Suite
- ⑤ Wetland



5 30 ft

- 1 Urban Farm
- 2 Library
- 3 Lobby
- 4 Wetland



5 30 ft

Tompkins
Square
Library

E 11th St



Avenue B



Trinity
Lower
East
Side

E 10th St

E 9th St





