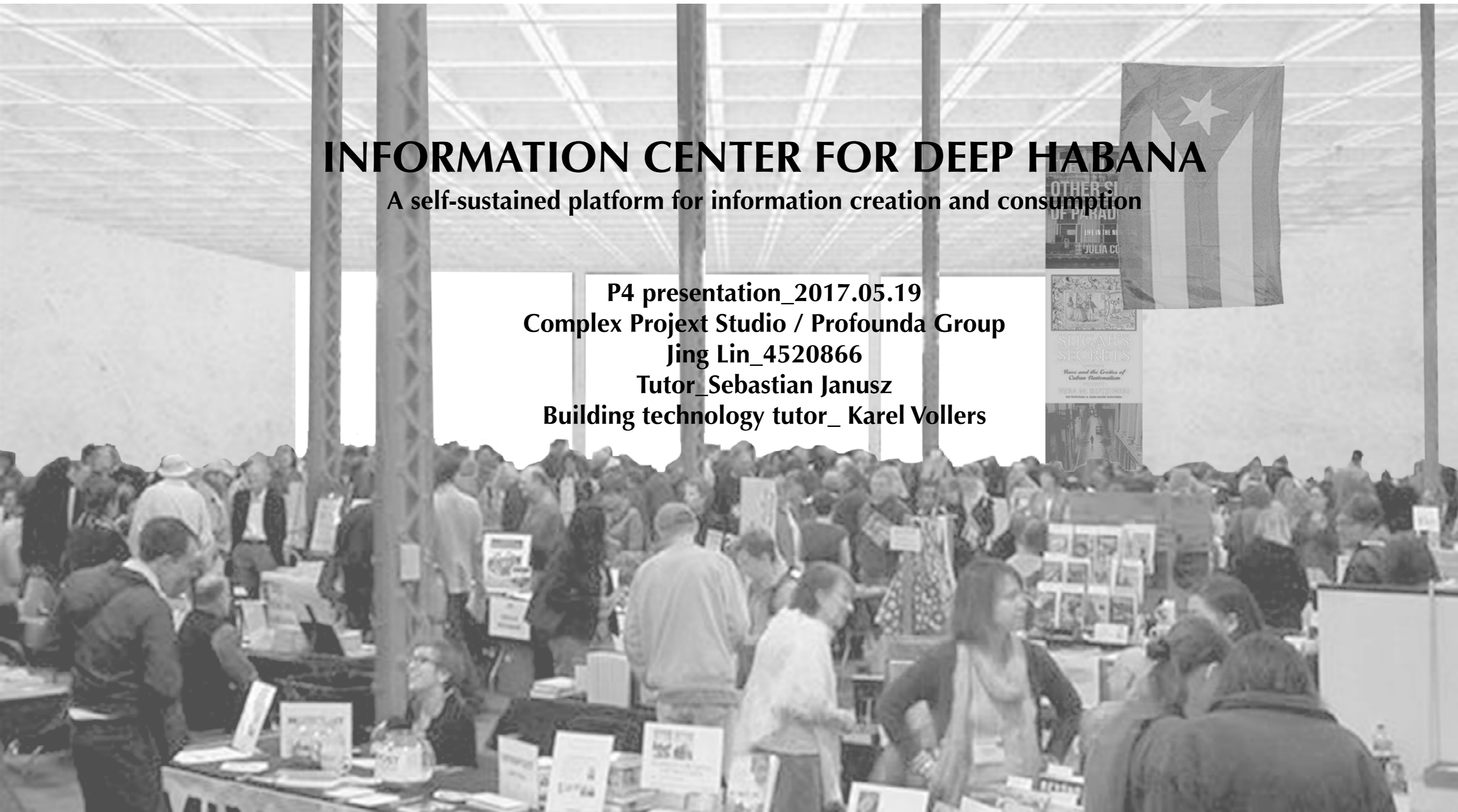
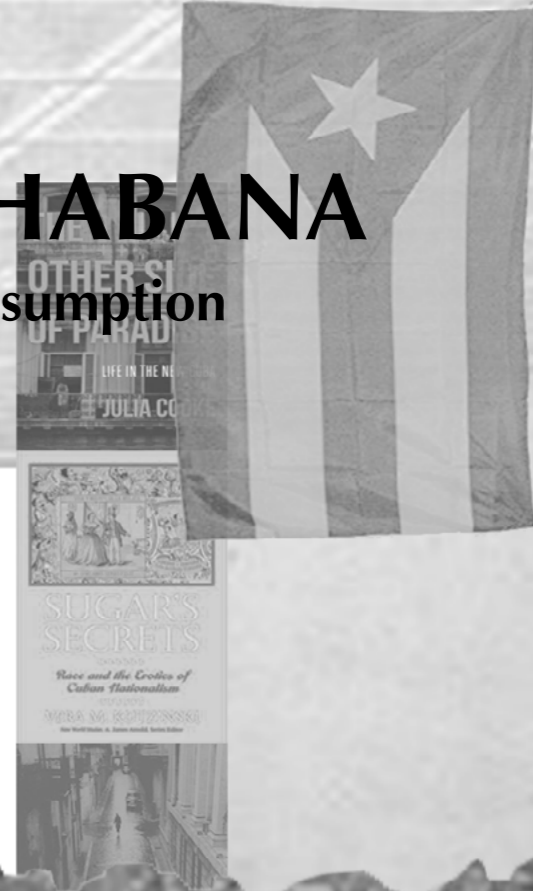


# INFORMATION CENTER FOR DEEP HABANA

A self-sustained platform for information creation and consumption

P4 presentation\_2017.05.19  
Complex Project Studio / Profounda Group  
Jing Lin\_4520866  
Tutor\_Sebastian Janusz  
Building technology tutor\_ Karel Vollers



# **PART 1: RESEARCH INTRODUCTION**

**PART 2: SITE SELECTION**

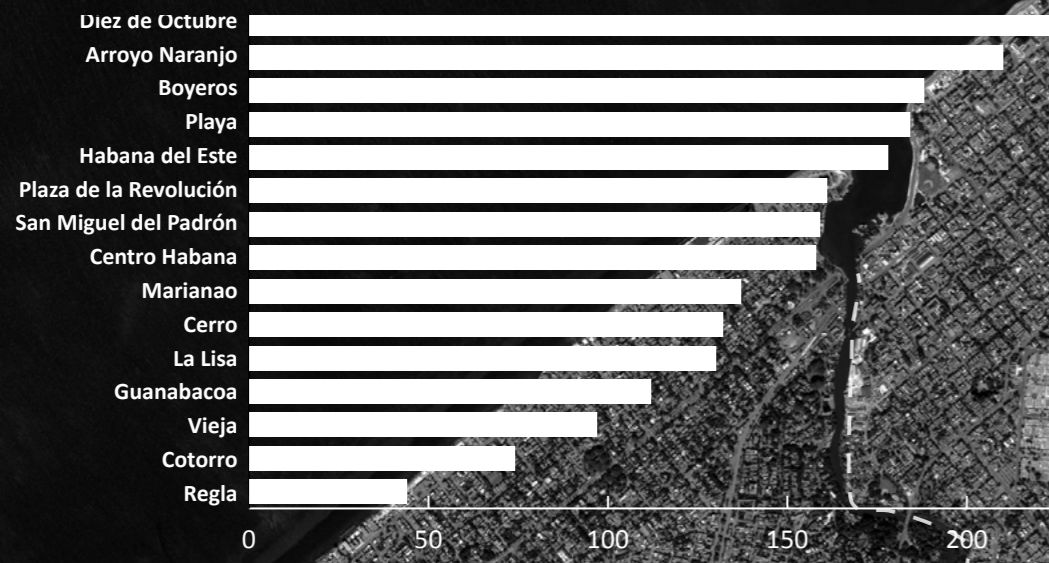
**PART 3: ARCHITECTURE DESIGN**

**PART 4: SUSTAINABILITY**



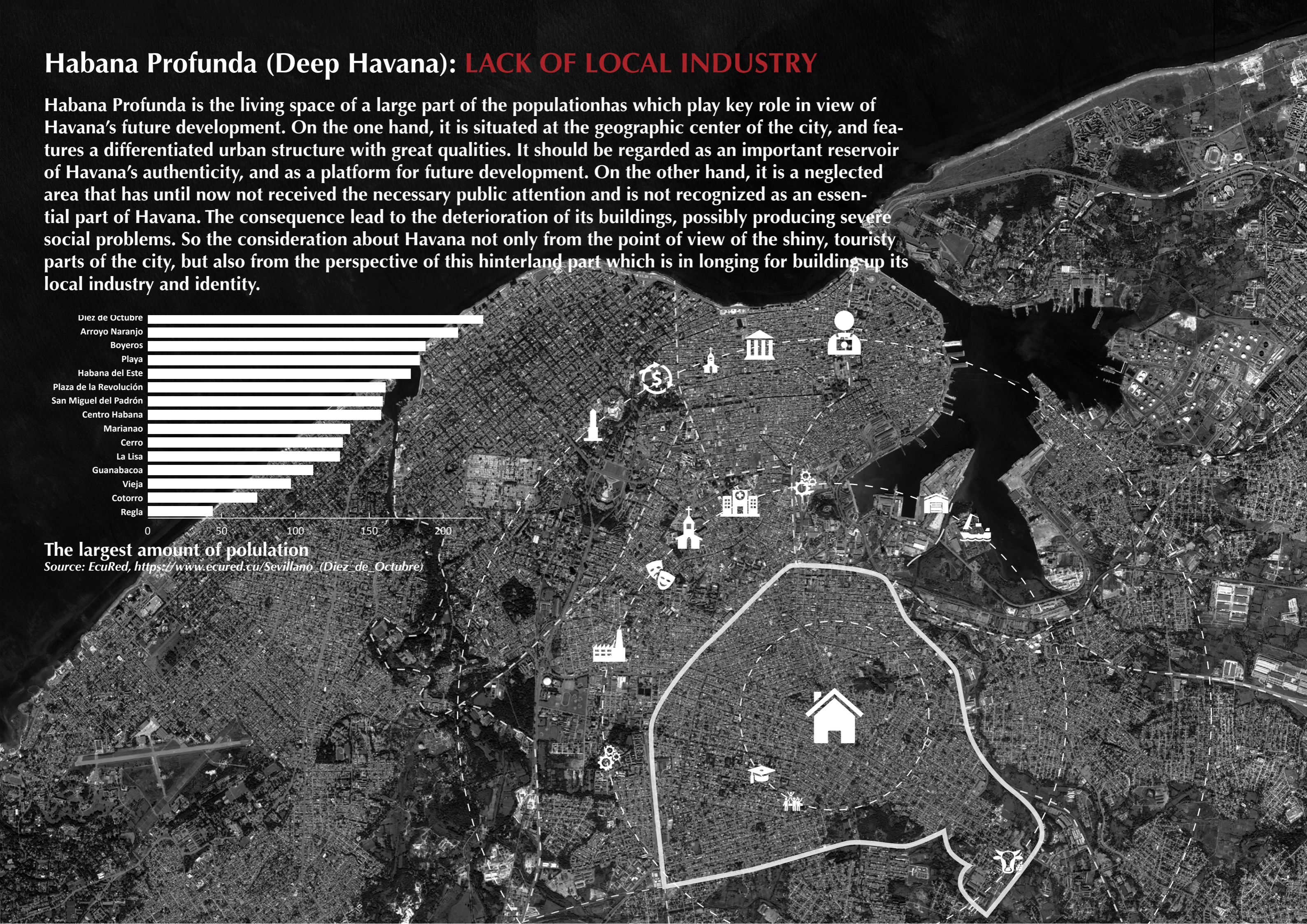
# Habana Profunda (Deep Havana): **LACK OF LOCAL INDUSTRY**

Habana Profunda is the living space of a large part of the population which plays a key role in view of Havana's future development. On the one hand, it is situated at the geographic center of the city, and features a differentiated urban structure with great qualities. It should be regarded as an important reservoir of Havana's authenticity, and as a platform for future development. On the other hand, it is a neglected area that has until now not received the necessary public attention and is not recognized as an essential part of Havana. The consequence leads to the deterioration of its buildings, possibly producing severe social problems. So the consideration about Havana not only from the point of view of the shiny, touristy parts of the city, but also from the perspective of this hinterland part which is longing for building up its local industry and identity.



The largest amount of population

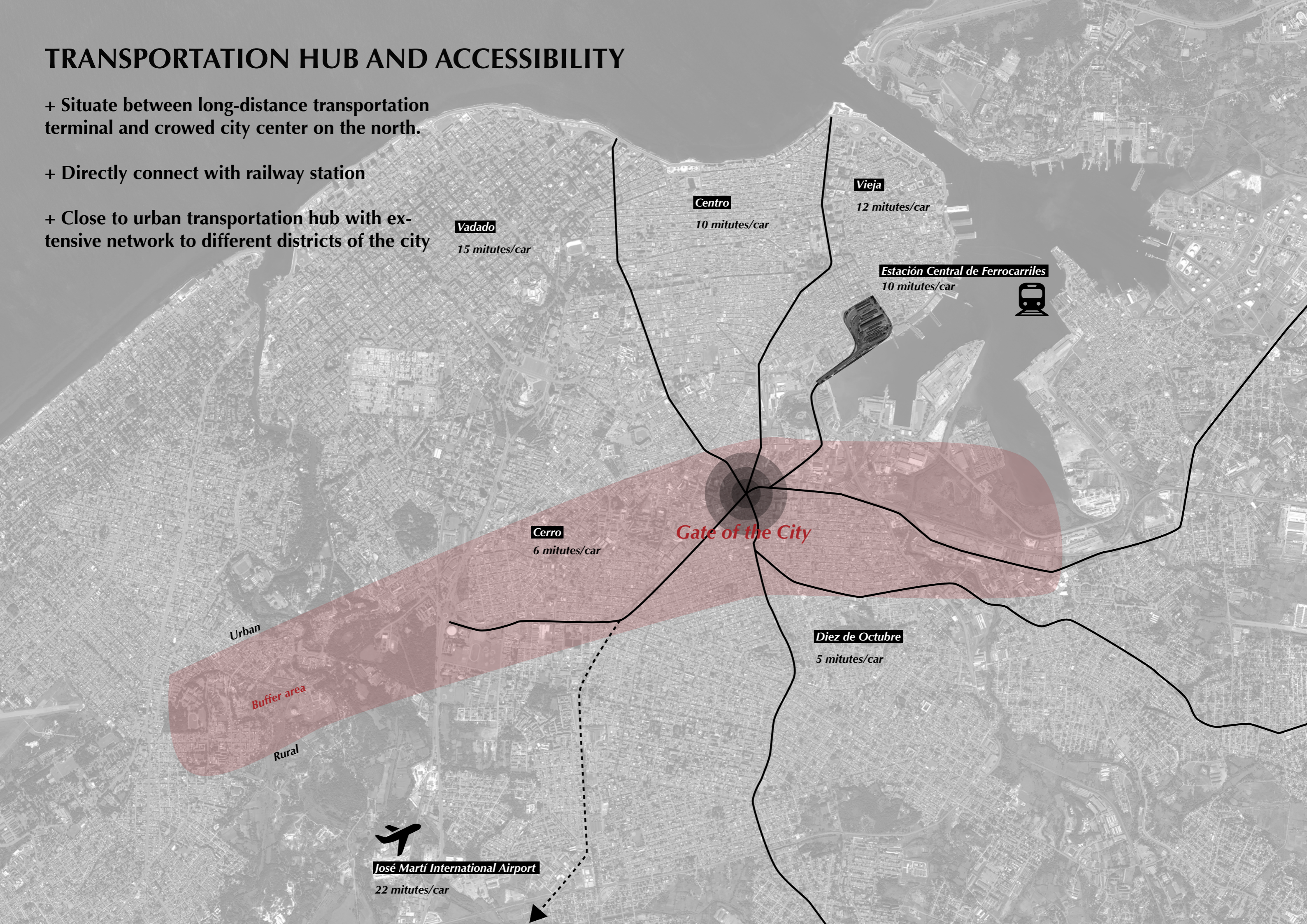
Source: EcuRed, [https://www.ecured.cu/Sevillano\\_\(Diez\\_de\\_Octubre\)](https://www.ecured.cu/Sevillano_(Diez_de_Octubre))





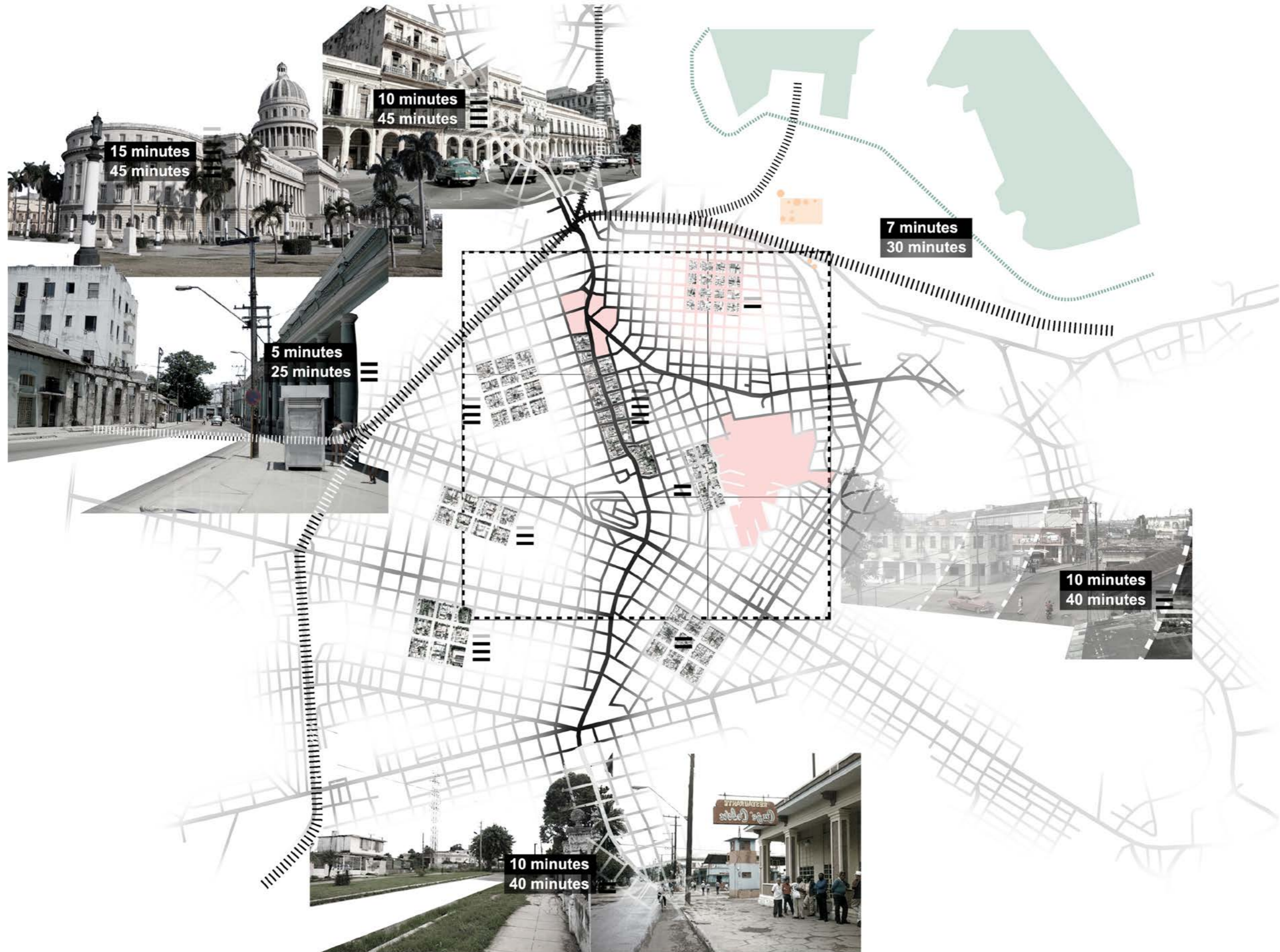
# TRANSPORTATION HUB AND ACCESSIBILITY

- + Situate between long-distance transportation terminal and crowded city center on the north.
- + Directly connect with railway station
- + Close to urban transportation hub with extensive network to different districts of the city





# INTROVERTED COMMUNITY WITH GOOD ACCESSIBILITY







Houses on both sides of the road are in a bad state of disrepair

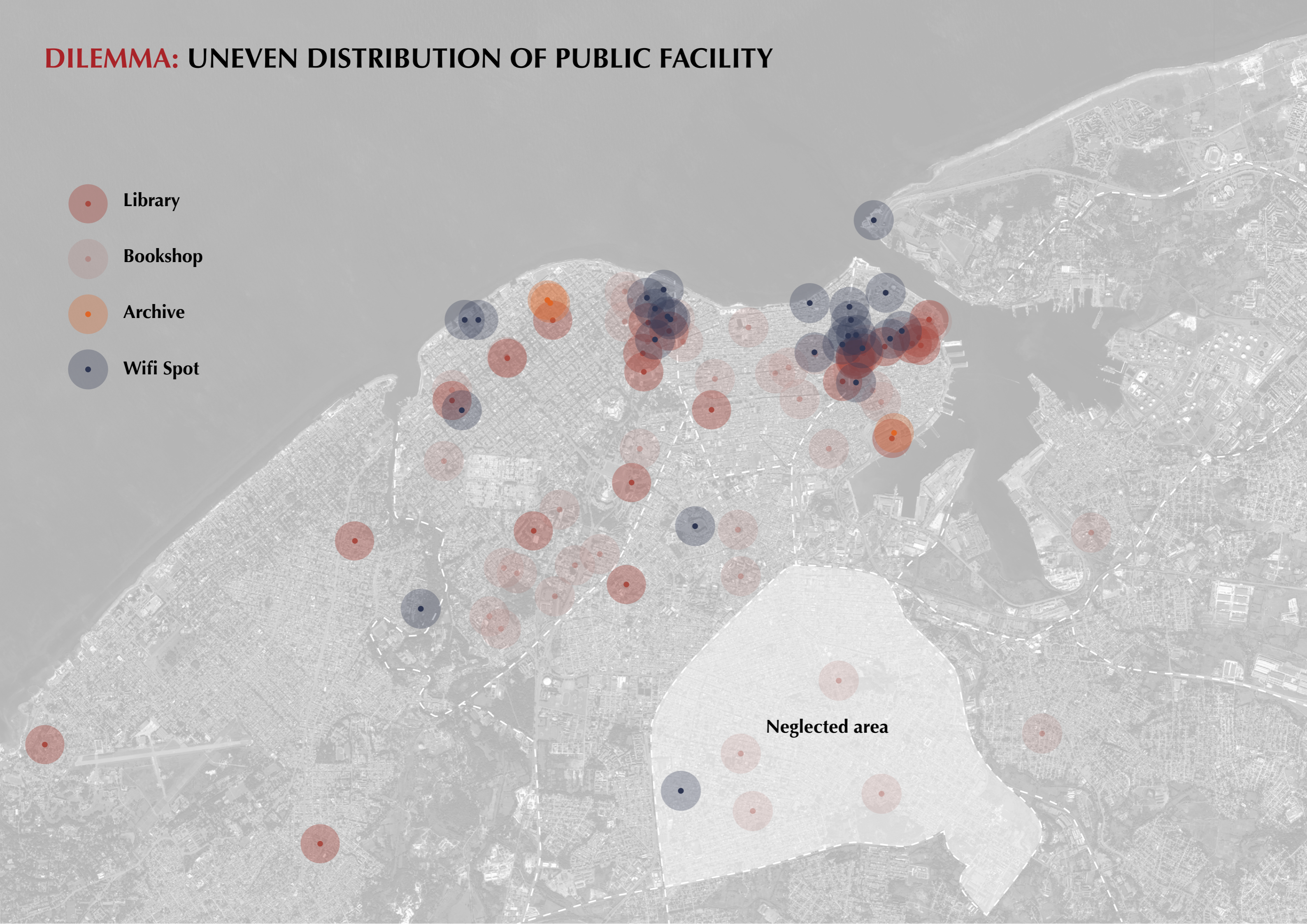
North is the direction going to the Centro habana

10 de Octubre is going through the comunidad



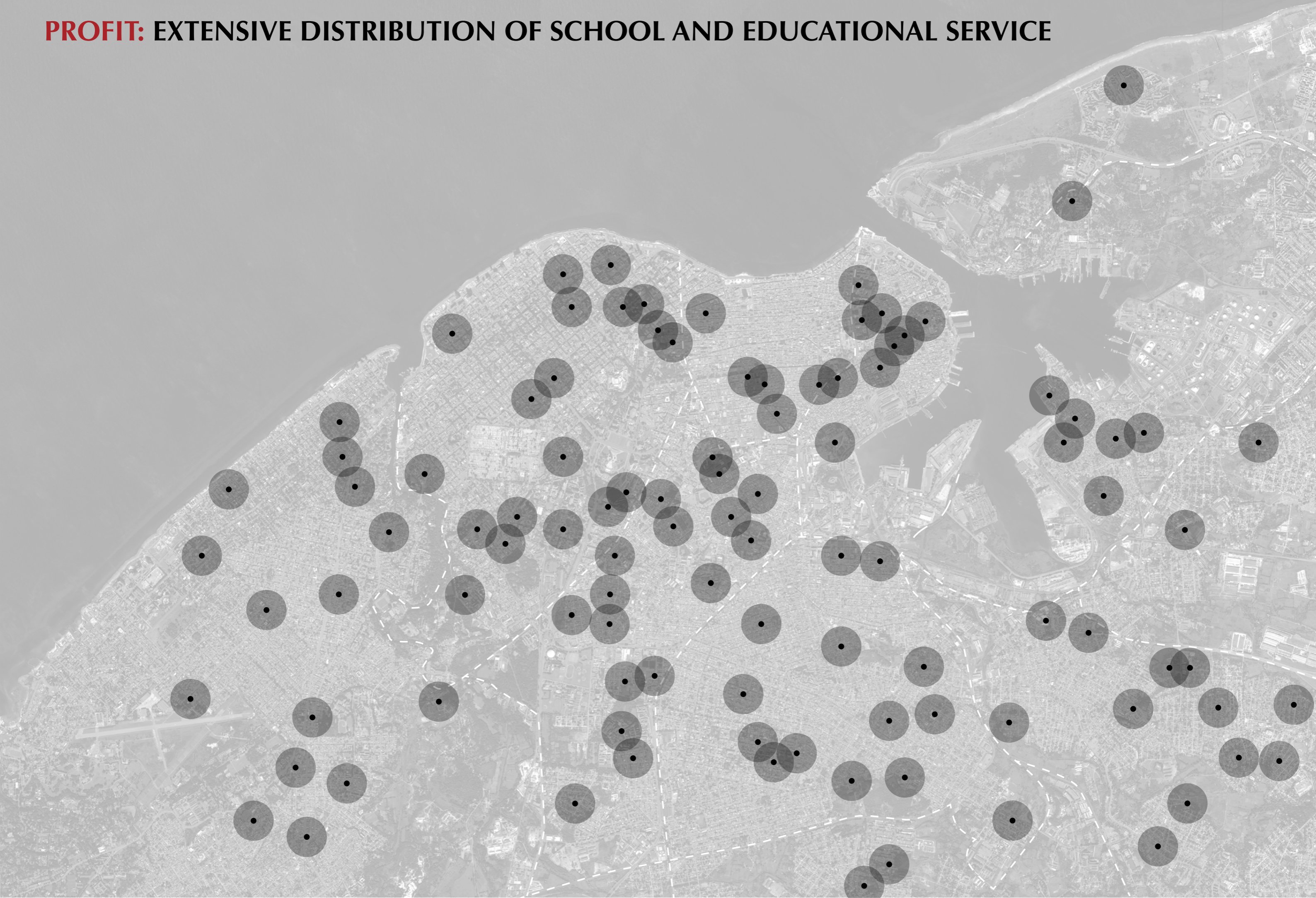
# DILEMMA: UNEVEN DISTRIBUTION OF PUBLIC FACILITY

- Library
- Bookshop
- Archive
- Wifi Spot





# PROFIT: EXTENSIVE DISTRIBUTION OF SCHOOL AND EDUCATIONAL SERVICE





1959

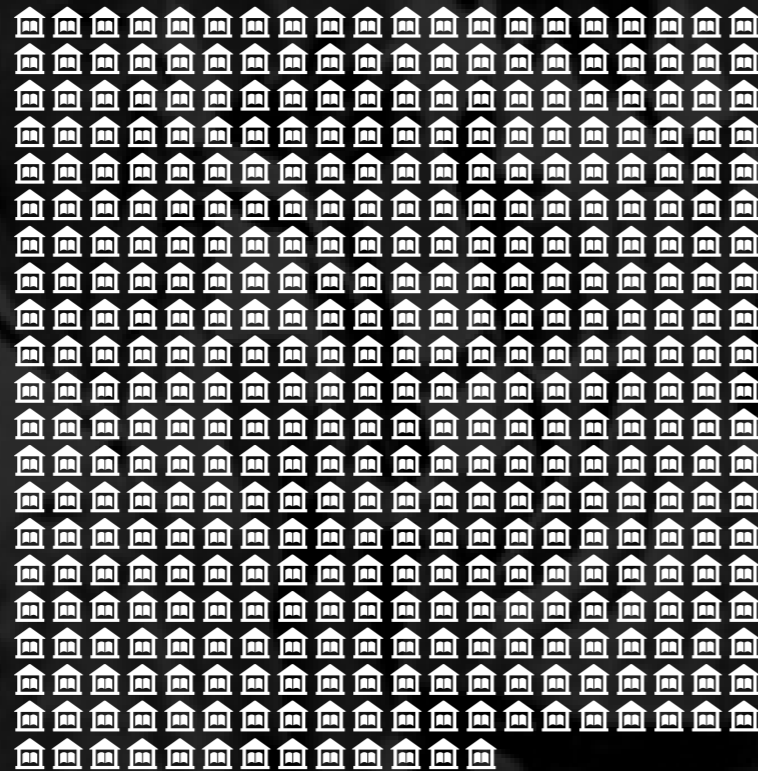


32 Public Libraries



30% literacy rate

1961



413 Public Libraries & 6000 School Libraries



territory free of illiteracy

# ON THE CONTRARY OF TRIUMPH A SCARCITY OF INFORMATION

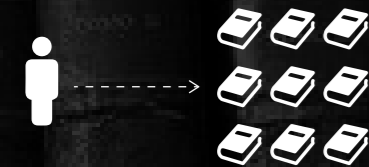
## United States



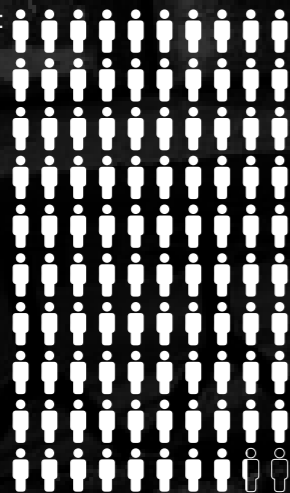
Literacy Rate: 99%

Population: 309,349,689

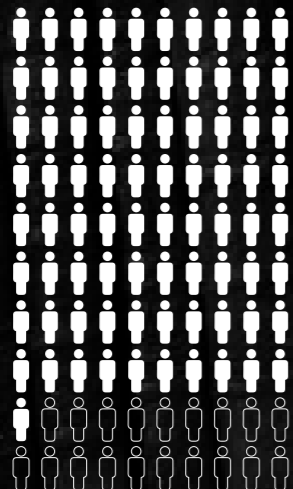
Book Publication : 2,700,000,000



Mobile phones coverage:  
98.2%



Internet coverage:  
81%



## Cuba



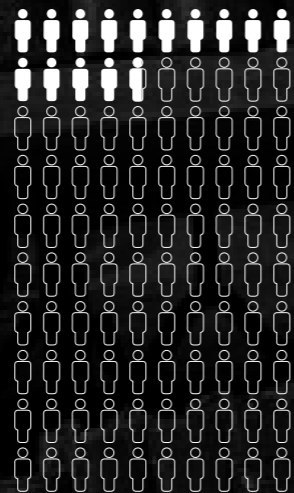
Literacy Rate: 99.8%

Population: 11,239,004

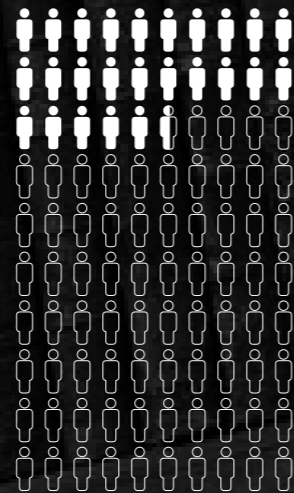
Book Publication : 25,000,000 (2/3 are textbooks)



Mobile phones coverage:  
14.9%



Internet coverage:  
25.6%



Source: Report from UNESCO 2015

Unit sales of the U.S. book market from 2010 to 2015 (in billions)

<https://www.statista.com/statistics/240088/total-book-sales-of-the-us-book-market-by-quantity/>

# Book is a rare item in Cuba

Table 6.3: Cuban imports of manufactured products from the United States, 2005–15 (million dollars)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Insecticides and similar products	0.1	(*)	(*)	0.0	0.0	0.0	0.0	0.0	0.0	6.4	12.6
Phosphates and similar products	3.2	1.1	(*)	0.0	3.1	10.2	5.9	0.0	0.0	0.0	9.2
Medical instruments	0.4	0.7	0.4	0.2	(*)	0.0	(a)	0.0	0.9	0.1	4.4
Donated articles	6.0	3.4	4.5	5.4	4.7	3.4	3.5	7.1	5.9	6.6	4.2
Printed matter	0.1	0.1	0.2	(*)	(*)	(*)	(*)	(*)	0.1	0.1	0.4
Blood products and vaccines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Heavy, self-propelled construction equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Certain medicaments	0.0	0.0	0.0	0.0	0.0	(*)	0.1	0.2	0.2	(*)	0.1
Orthopedic appliances	0.0	0.1	0.1	0.2	(*)	0.0	0.0	0.0	0.5	0.5	0.1
Certain diagnostic or laboratory reagents	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	(*)	0.1	(*)
Instruments/apparatus for physical or chemical analysis; parts	0.0	0.0	0.0	0.0	0.0	(*)	0.0	0.0	(*)	0.0	(*)
Computers and related hardware	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(*)	0.0	0.0	(*)
Instruments/apparatus for measuring liquids or gases; parts	0.0	(*)	0.0	0.0	(*)	(*)	0.0	0.0	0.0	0.0	(*)
Motor vehicle parts	0.0	0.0	0.0	0.0	0.0	(*)	(*)	(*)	0.0	0.0	(*)
Certain liquid crystal devices, lasers and optical appliances/instruments; parts	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(*)
All other	7.1	4.8	2.4	4.8	0.6	0.6	1.3	1.0	4.4	0.3	(*)
<b>Total</b>	<b>16.8</b>	<b>10.4</b>	<b>7.6</b>	<b>10.5</b>	<b>8.3</b>	<b>14.3</b>	<b>10.7</b>	<b>8.3</b>	<b>11.9</b>	<b>14.1</b>	<b>31.8</b>

Source: GTIS, Global Trade Atlas database (accessed December 29, 2015); USITC DataWeb/USDOC (accessed February 8, 2016).

Note: The categories listed are at the HS-4 level.

\* Less than \$50,000.

Because of embargo, Cuba only received a little amount of printed products in recent years.

The amount of domestic publication is 25 million per year and more than two third of these are textbooks. It means that only 7 million can be received by the 11 million population.





Second hand book stall in Centro Habana





The only bookstore in Profonda

The price of new book is around  
10 CUC



Havana International Book Fair is the only chance for Cuban people to buy foreign publication items







This is not the version I want.

Really want to use Ebook and digital media.

I saw an amazing book in the market but it's too expensive.

**'Nor can people go to libraries to find something to read, as these too are government-run, and seem to have few contemporary books or indeed books of any vintage...A school library we visited had mostly yellowing textbooks, dictionaries, propaganda and nine dog-eared copies of Hemingway's *The Old Man and the Sea*, in Scribner paperbacks vintage 1965.'**

***Lorraine Shanley, Cuba is (not) book country, Publishing Trends, 2009***

# Informal way for obtaining information





# Something is changing...



**MORE PRESS FREEDOM FROM GOVERNMENT**

**PW**  
PUBLISHERS WEEKLY®  
PublishersWeekly.com  
MARCH 14, 2016

## END THE BOOK EMBARGO AGAINST CUBA

In February 2016, a delegation of approximately 40 American publishing industry representatives met with their publishing counterparts in Havana, Cuba. The two days of meetings, held with the support of the Cuban government, represented a historic milestone. Their purpose was to build bridges of understanding and explore opportunities for greater cultural and economic collaboration.

The American delegates included authors, publishers, distributors, literary agents, service providers, consultants, and independent booksellers. Cuba was represented by officials from the Cuban Book Institute, the Ministry of Culture, and the Cuban Writers Association, as well as by Cuban authors, publishers, academics, and students.

The undersigned companies and individuals—drawn from the American delegation as well as other leading U.S. publishing industry participants—hereby call upon the U.S. Congress and President Obama to lift the economic embargo against Cuba as it pertains to books and educational materials. This call is consistent with the will of the American people, who, according to 2015 Gallup and Pew polls, overwhelmingly support the elimination of the U.S. trade embargo against Cuba.

**Our position:**

- \* We ask Congress and the president to lift the U.S. trade embargo against Cuba related to the production, distribution, and sale of books and educational materials.
- \* The U.S. trade embargo is harmful to book culture and runs counter to American ideals of free expression.
- \* Books are catalysts for greater cross-cultural understanding, economic development.

**INVESTMENT FROM ABROAD**

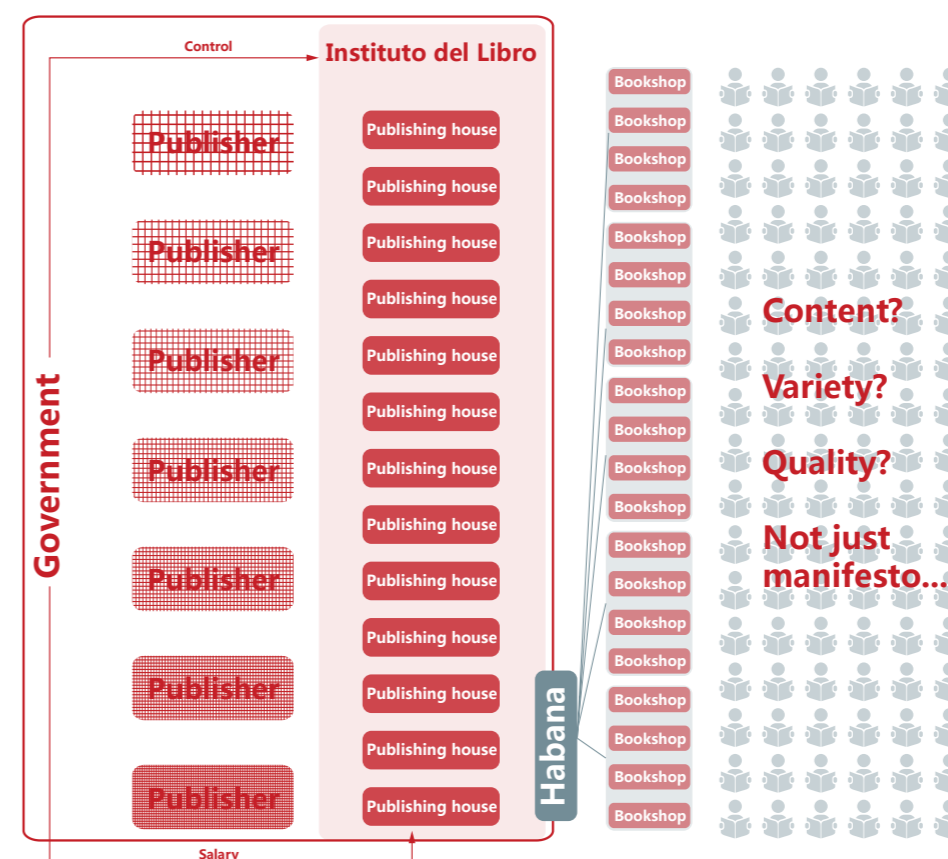


**CUBAN PUBLISHERS EAGER TO EMBRACE EBOOKS**



How to make it profitable?

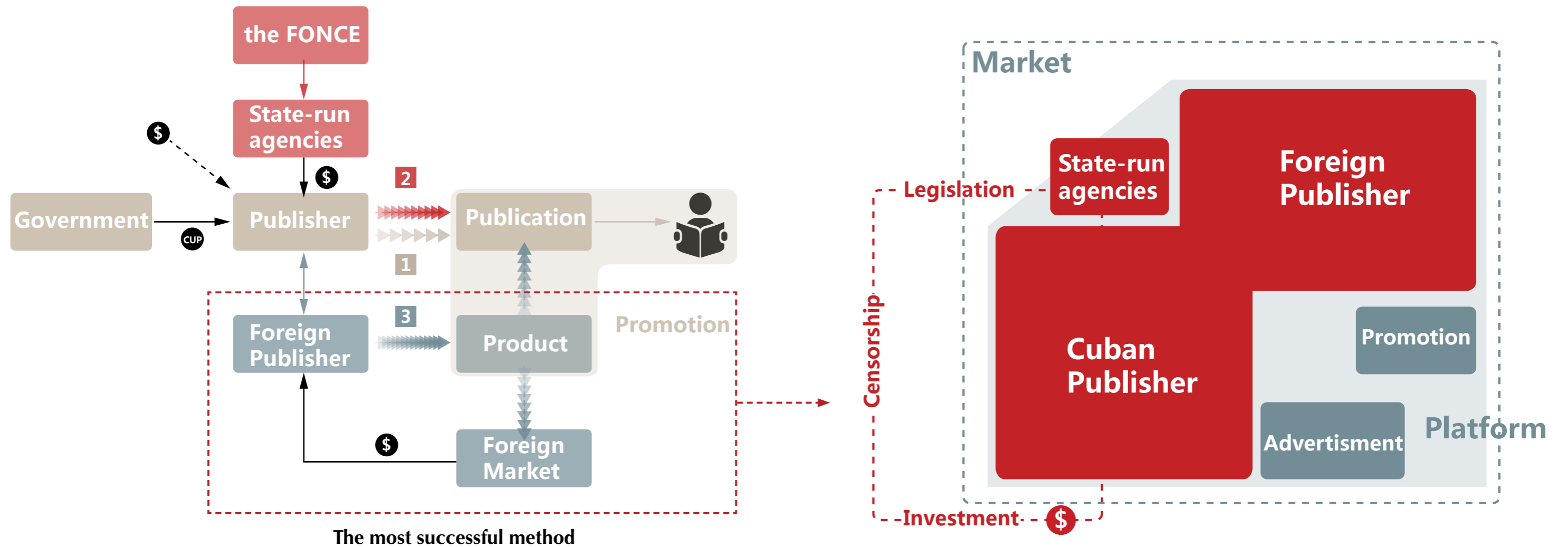
## Publication System



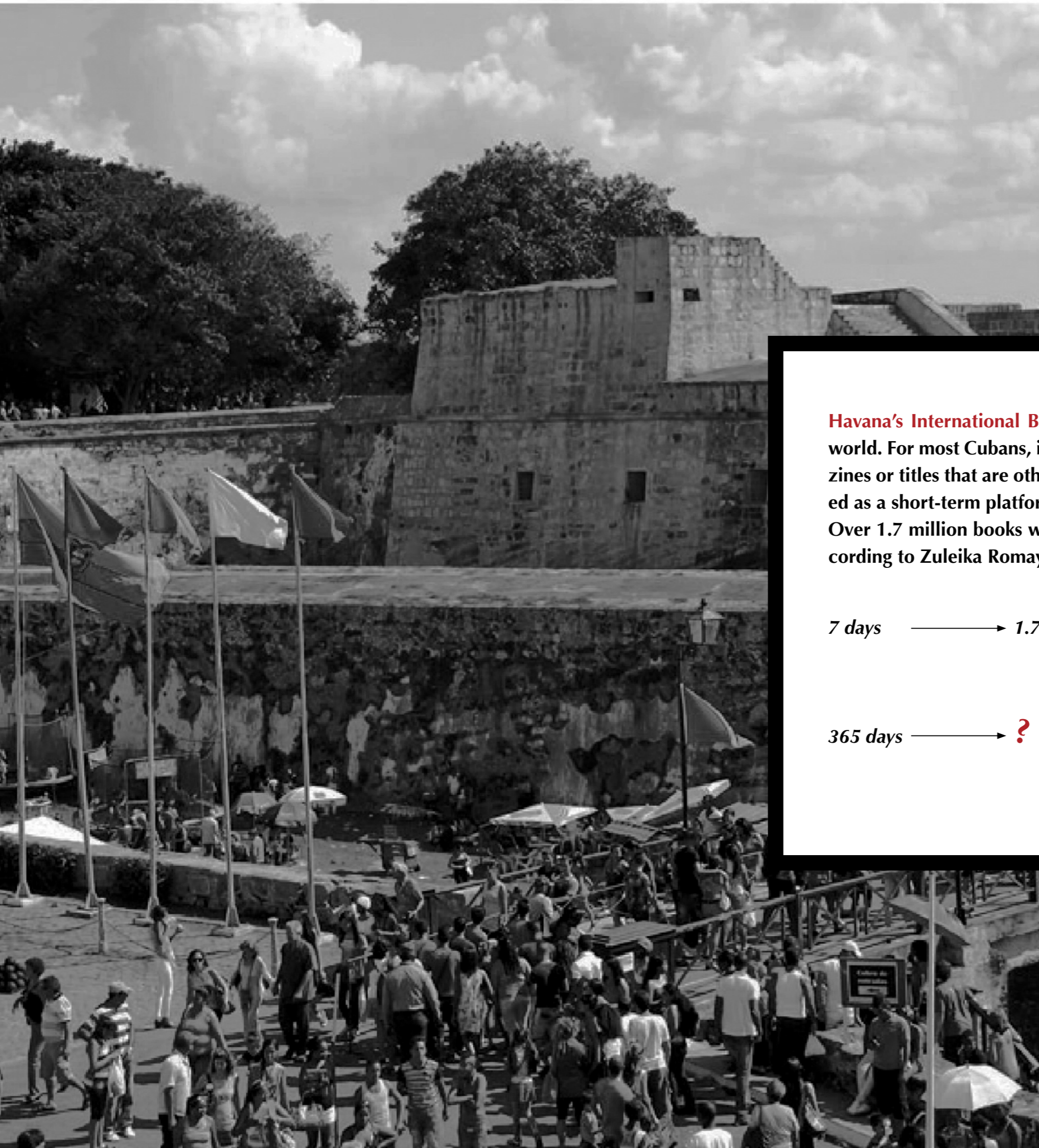
The state's policy for regulating the publication system has always disregarded presentation in favour of content, and the production quality of the books was extremely poor. One of the main reason is there is lack of connection between publishers and readers.



## Funding Strategy: A Long-term Cooperation Platform



There are now three main ways for funding the productions of publication industry. The most successful way in which Cuban publishers are now working is in co-production with foreign publishers. Since the economy has been stuck since 1996, there is a sign that the government will have to liberalise further and bring in more economic reforms. More and more foreign companies are looking forward to invest in Cuba. At the moment the publishers are looking for a strategy for funding their production in new context. One possible answer is for Cuban publishers to enter into more long-term partnerships with foreign publishers rather than looking from project to project. It might be the right time for a major foreign publisher to invest in modern printing technology in Cuba itself. A more dynamic stage should be established for better promotion and advertisement.



**Havana's International Book Fair** is one of the biggest book parties in the world. For most Cubans, it is a once-a-year opportunity to buy foreign magazines or titles that are otherwise unavailable in the country. It can be regarded as a short-term platform for Cuban publishers and foreign dealers. Over 1.7 million books were sold in the International Book Fair in 2011 according to Zuleika Romay, President of the Cuban Book Institute.

*7 days* —————→ *1.7 million books*

*365 days* —————→ **?**



# Location of Havana International Book Fair





# CONCLUSION

## Modern Library



Outdated information resource and facility can no longer meet people's demands and fail in providing them enough advanced knowledge.

**Information**

## Public Forum



The shortage of the state's policy on publication is obvious. Publishers are isolated with the market and lack of direct contact with their consumers.

**Communication**

## Open Trading Platform

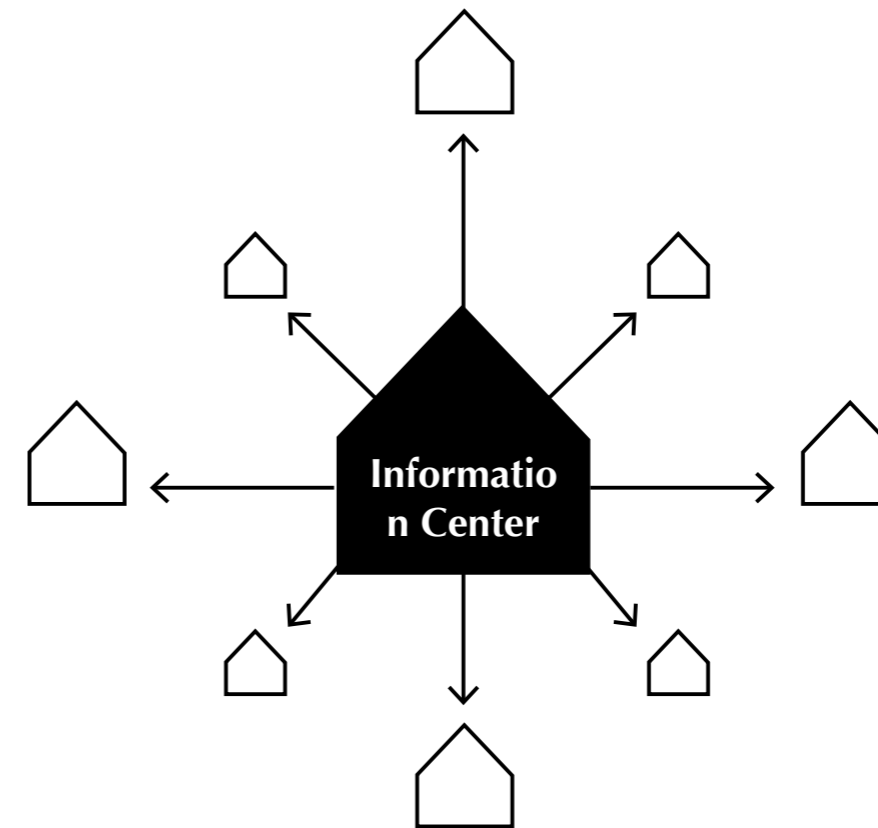
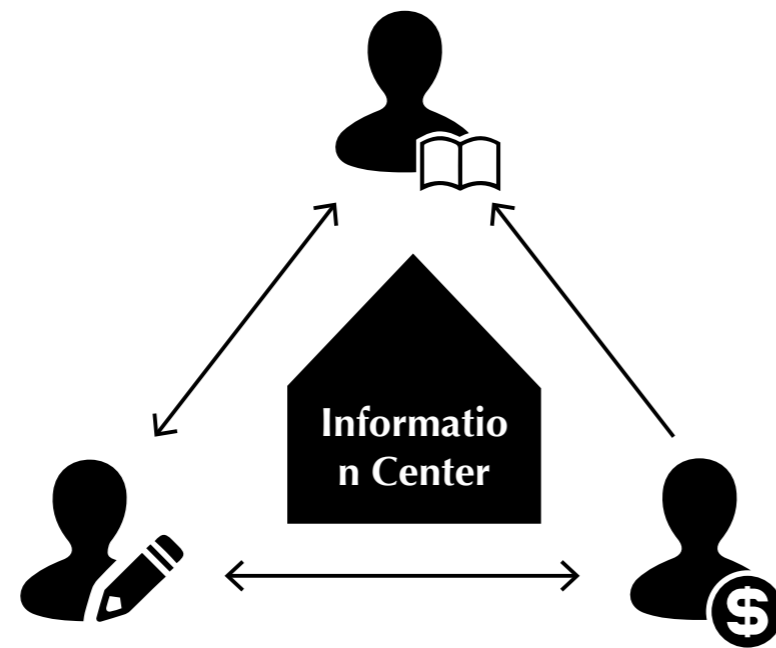


The organization of funding and cooperation system is inefficient now. There is an absent of an open platform which can build up the direct communication between cuban publishers and foreign investors in order to search a long-term partnership and carry promotion activities.

**Profit**

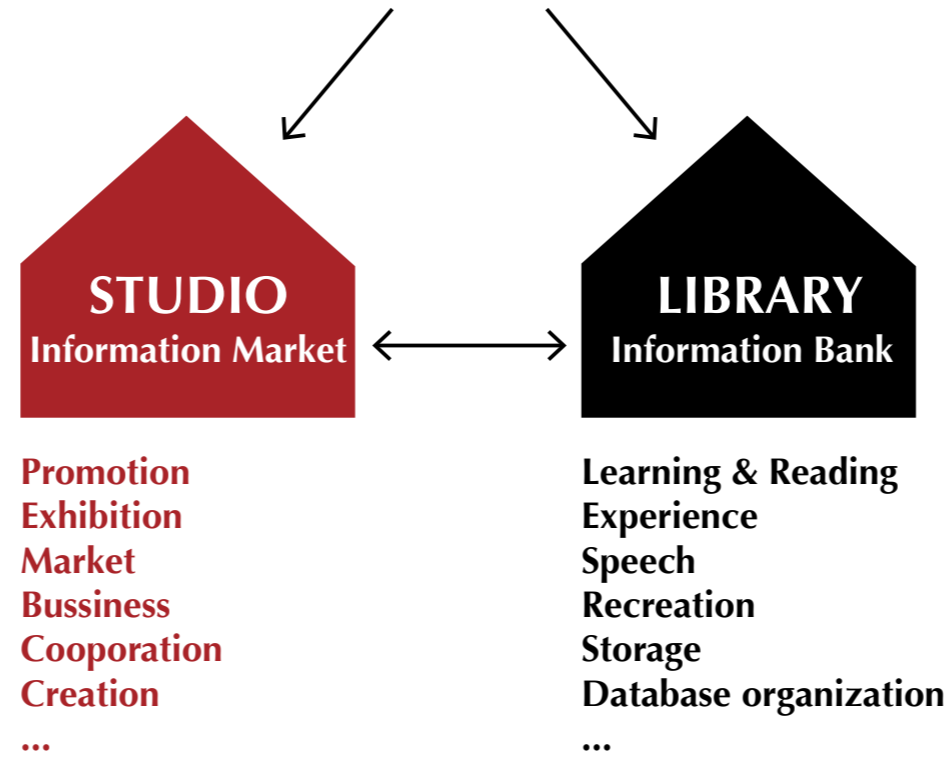


# STRATEGY: **PROBLEM STATEMENT**



**How to build up an information platform which can involve various participants to revitalize the information industry and enhance the information accessibility among the community.**



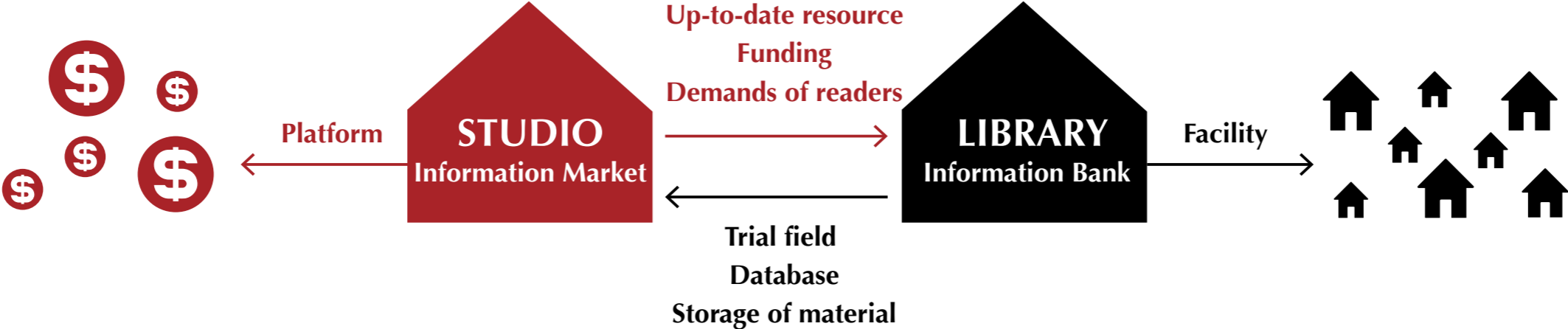


**Two main programs in the whole institute**





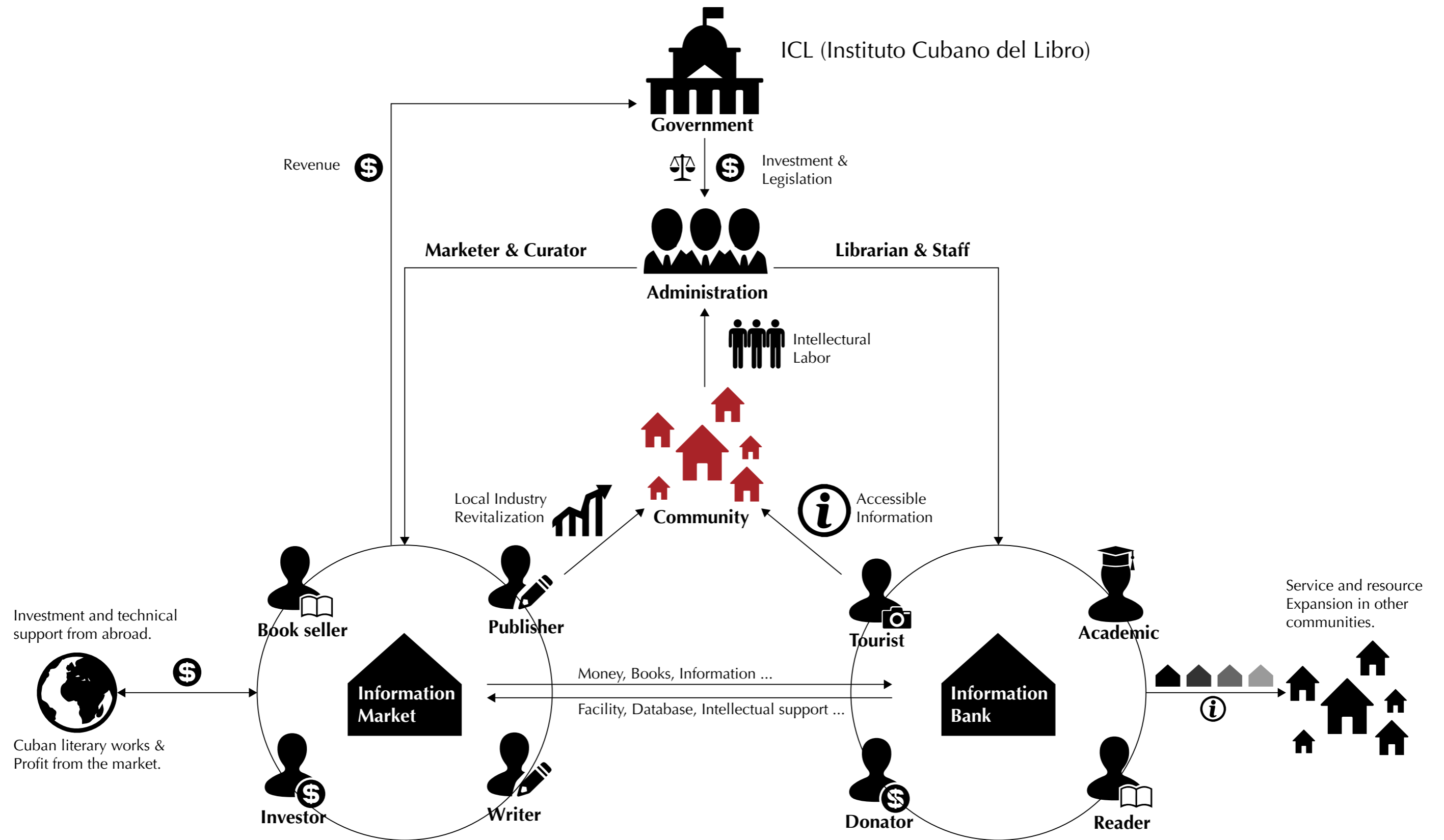
# OPERATION STRATEGY: **RECIPROCAL PLATFORM**



Among the whole integration, both of information and resource can be exchanged between the publication center and information library. This two parts are bound together to run a self-sustain system.



# OPEN FORUM UNDER NATIONAL ORGANIZATION



Organization and Participants



**STORAGE OF INFORMATION?**



**CAPACITY OF LIBRARY**



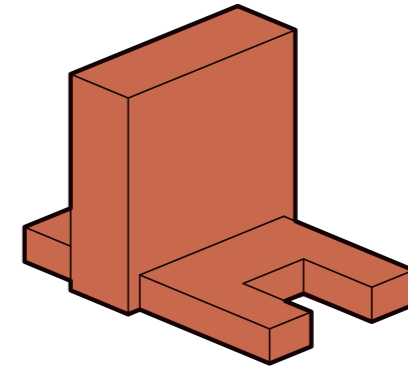
# HOW BIG THE LIBRARY SHOULD BE: **CAPACITY AND DENSITY**

## National Library José Martí, Habana, Cuba

Area: 15,450 m<sup>2</sup>

Total volumes: 4,000,000

Density: 258 volumes/m<sup>2</sup>

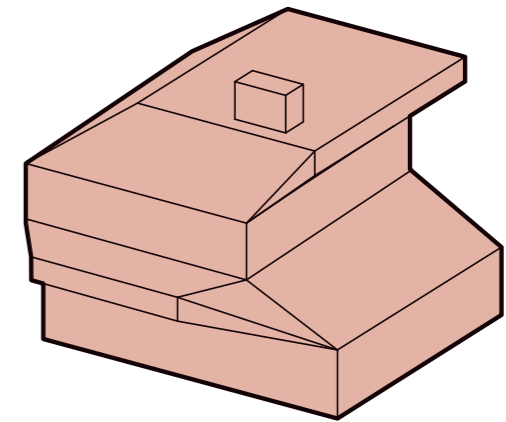


## Seattle Central Library, Washington, United States

Area: 33,722 m<sup>2</sup>

Total volumes: 1,450,000

Density: 43 volumes/m<sup>2</sup>

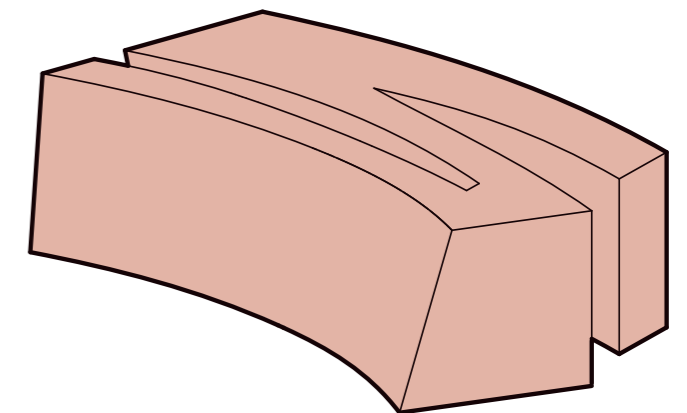
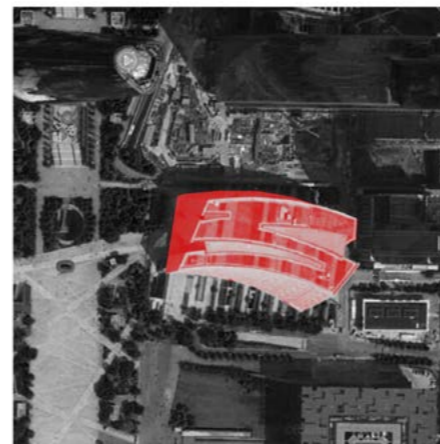


## Guangzhou Library, Guangzhou, China

Area: 100,000 m<sup>2</sup>

Total volumes: 3,800,000

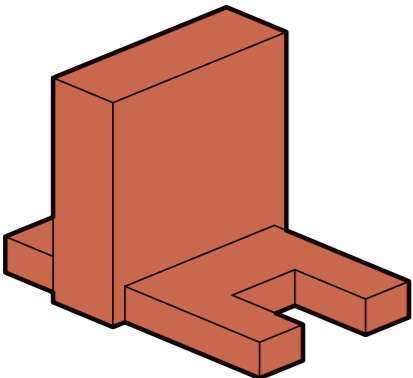
Density: 38 volumes/m<sup>2</sup>





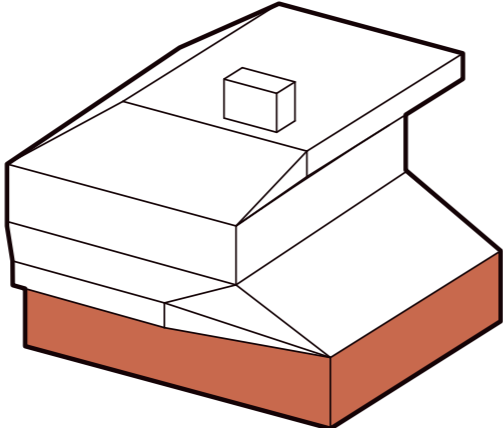
# LIBRARY FOR THE FUTURE: **LESS BOOK AND MORE SPACE**

National Library José Martí



258 volumes/m<sup>2</sup>

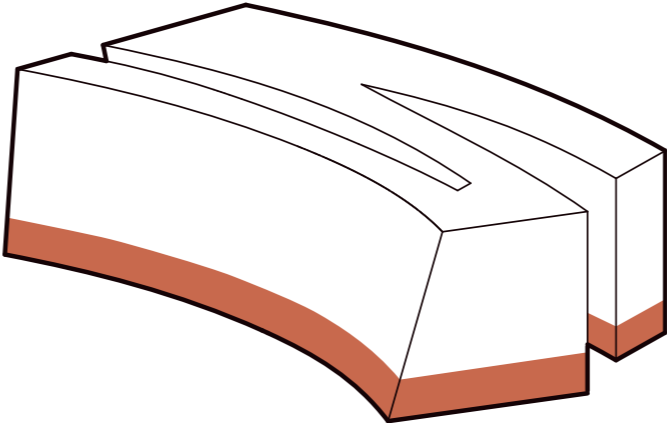
Seattle Central Library



16%: BOOKS

84%: SOFT AREA

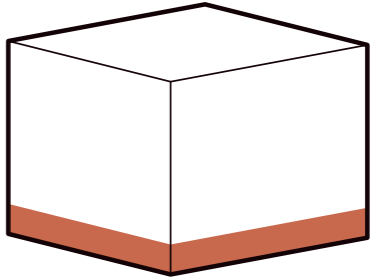
Guangzhou Library



15%: BOOKS

85%: SOFT AREA

Proposal



13%: BOOKS

87%: SOFT AREA





**PUBLIC LEARNING**



**CREATIVE ACTIVITIES**



**INDUSTRY**



PART 1: RESEARCH INTRODUCTION

# **PART 2: SITE SELECTION**

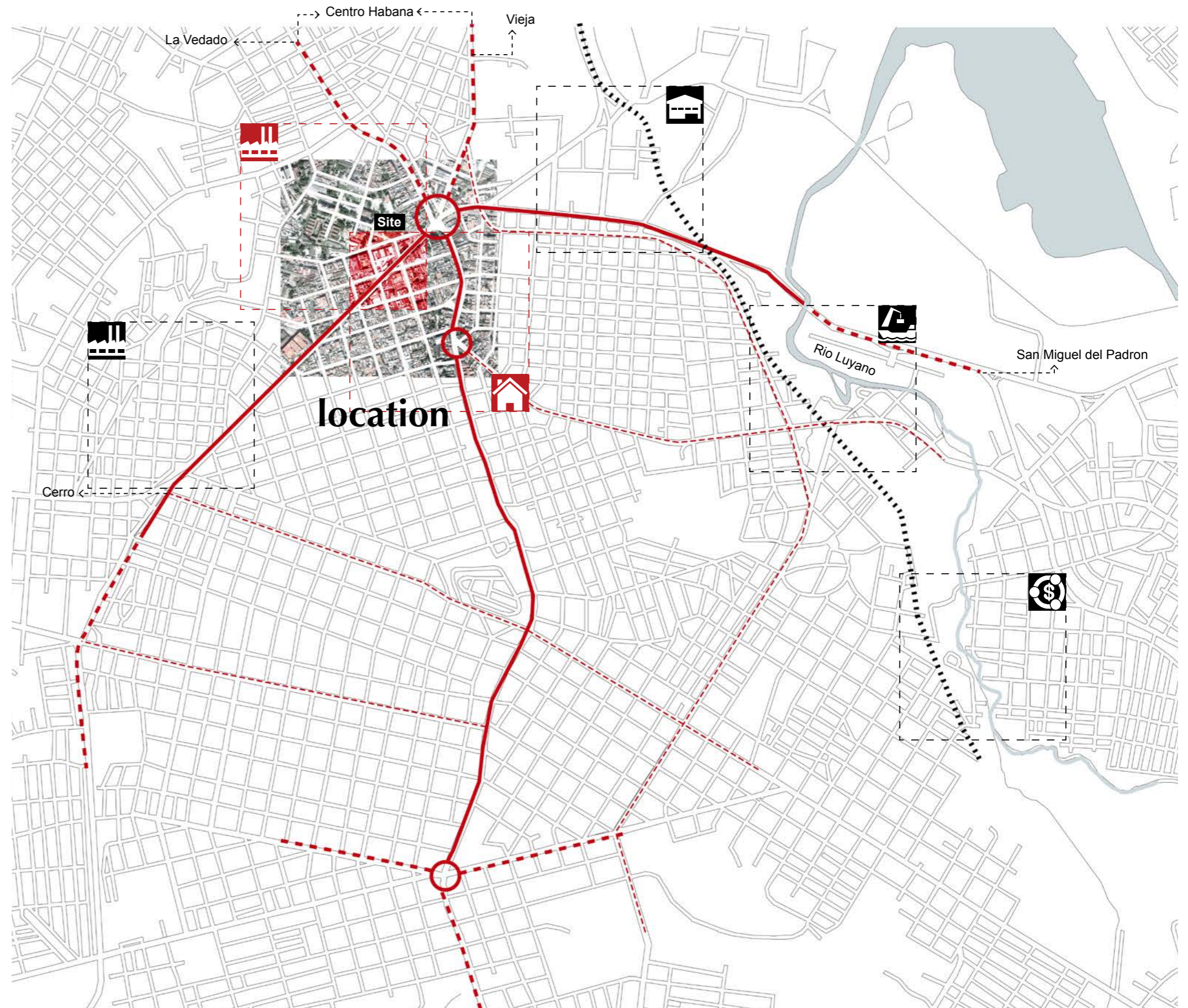
PART 3: ARCHITECTURE DESIGN

PART 4: SUSTAINABILITY



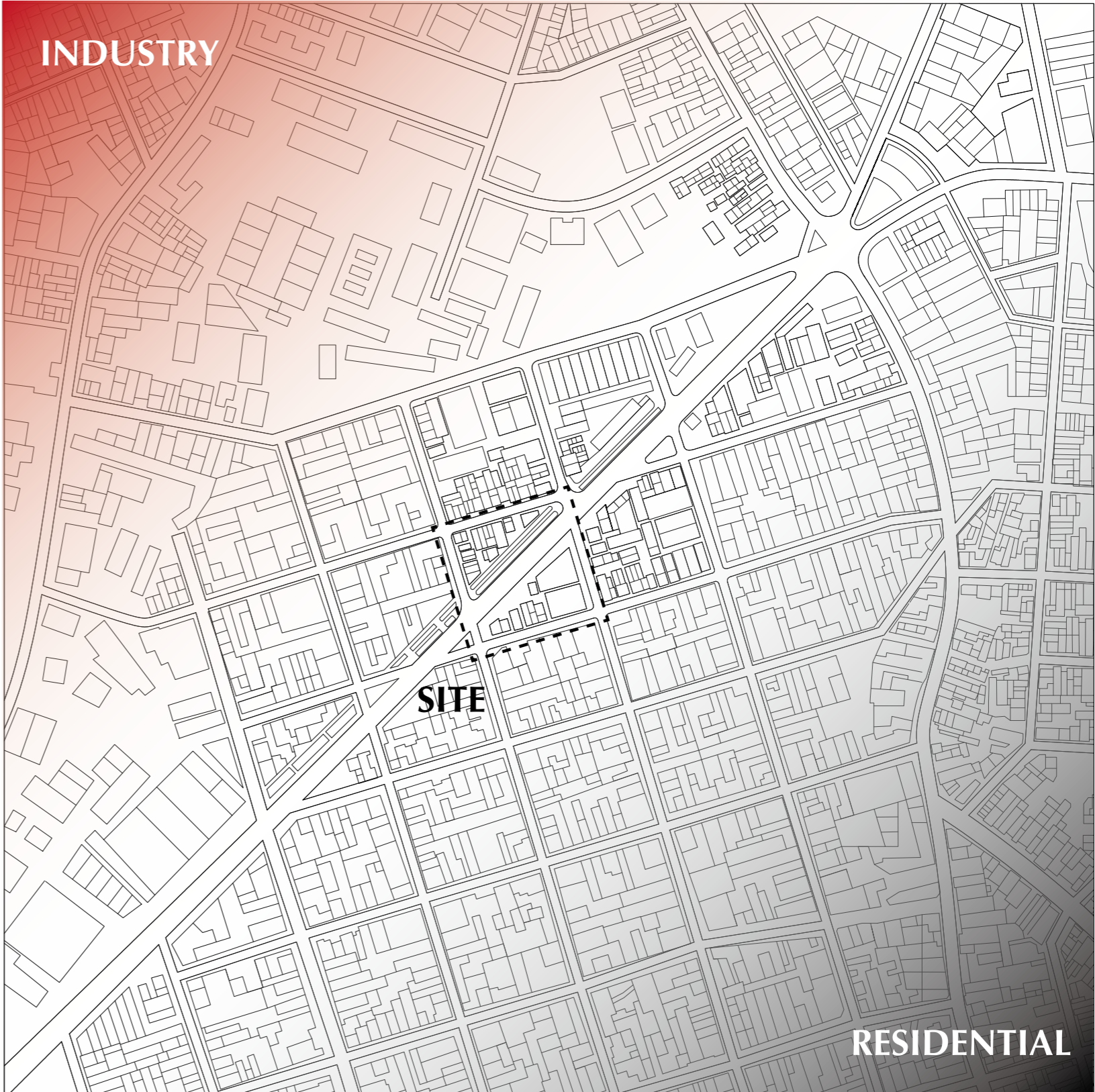
## SITE SELECTION:

- + Buffer zone with interaction
- + Be closed to transportation hub
- + Not embed but close to the residential area with well accessibility
- Be cut by urban transportation








# SITE ANALYSE: Road as an isolation





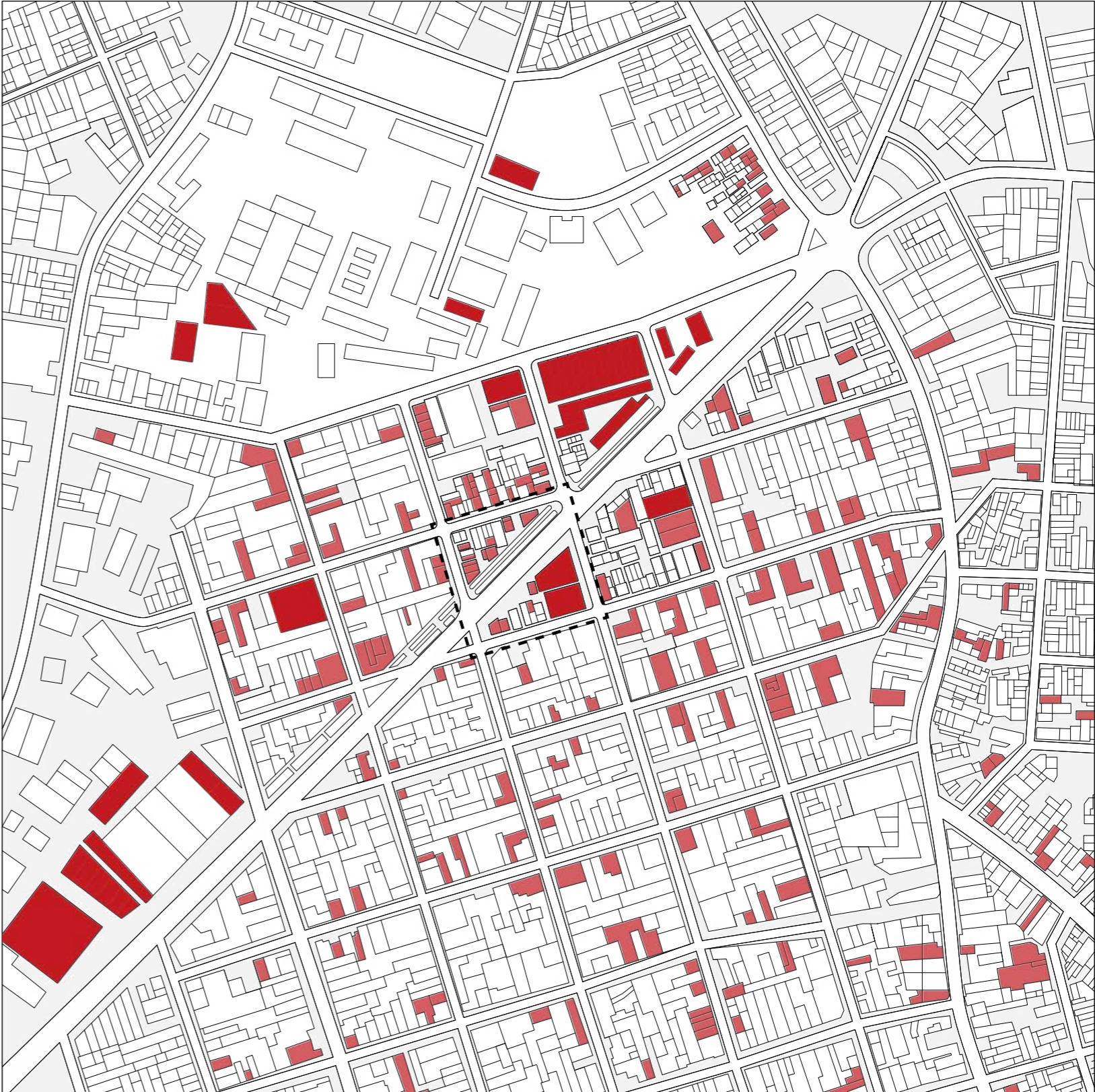
# SITE ANALYSE: Mix-used area

-  Commercial programs
-  Public facility
-  Industrial programs



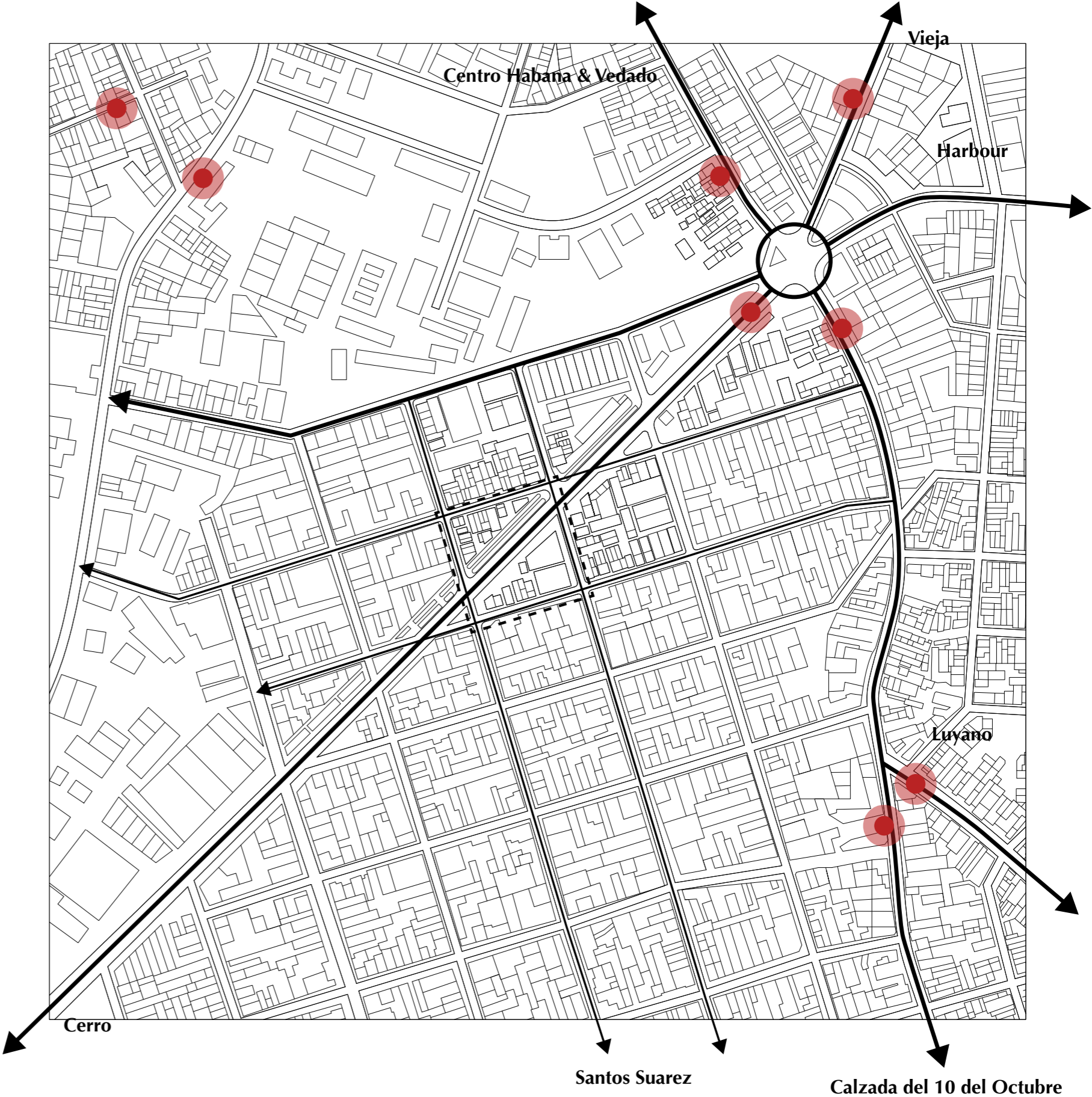


# SITE ANALYSE: Detorioration





# SITE ANALYSE: Transportation





**Border of community**



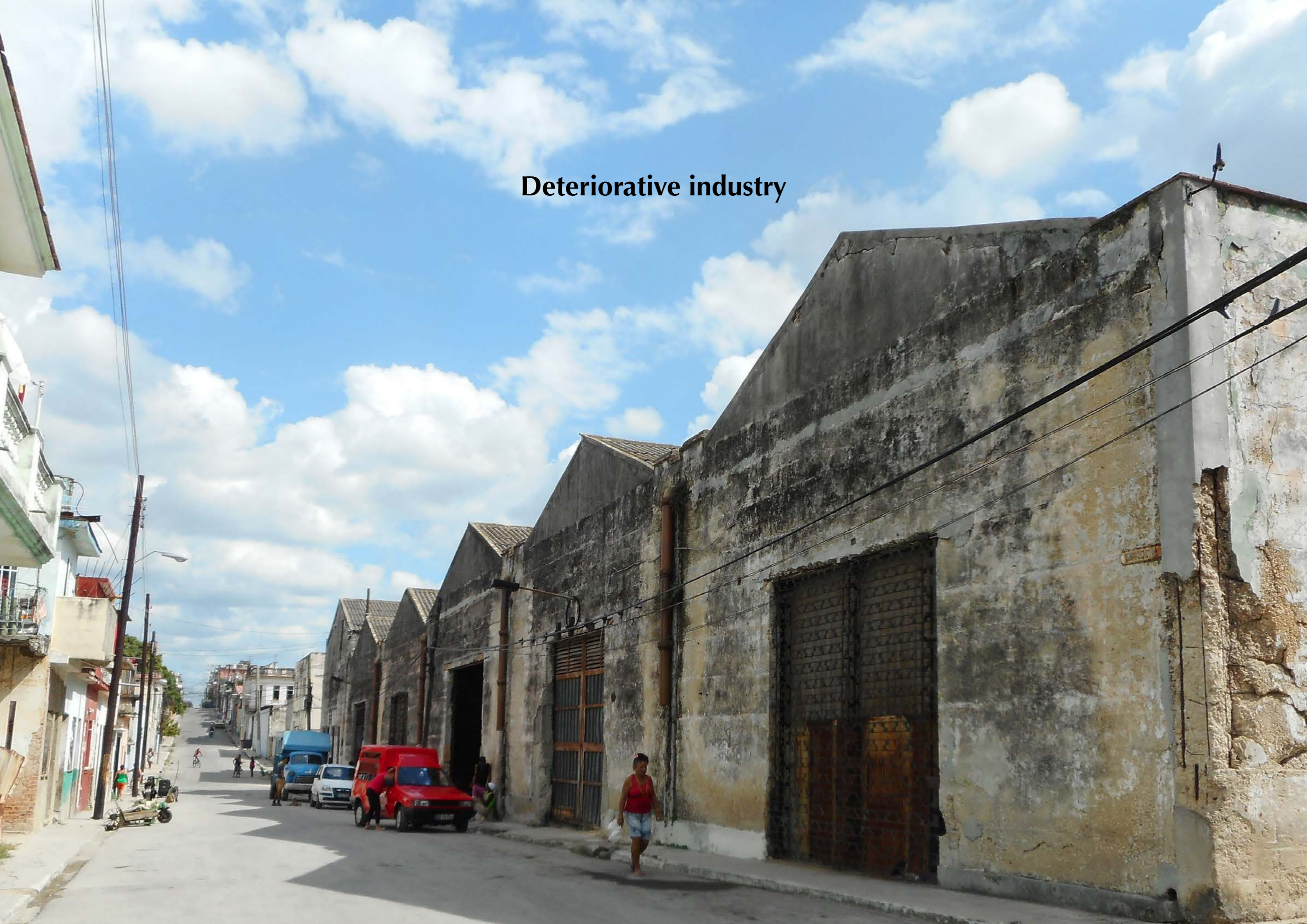


**Busy transportation hub**





**Deteriorative industry**





**Neighbourhood without vitality**





**PART 1: RESEARCH INTRODUCTION**

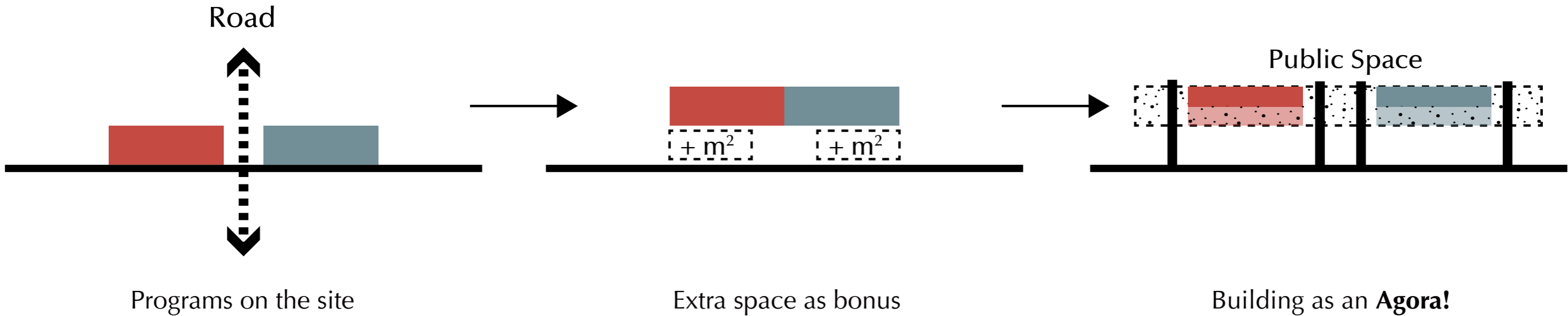
**PART 2: SITE SELECTION**

**PART 3: ARCHITECTURE DESIGN**

**PART 4: SUSTAINABILITY**

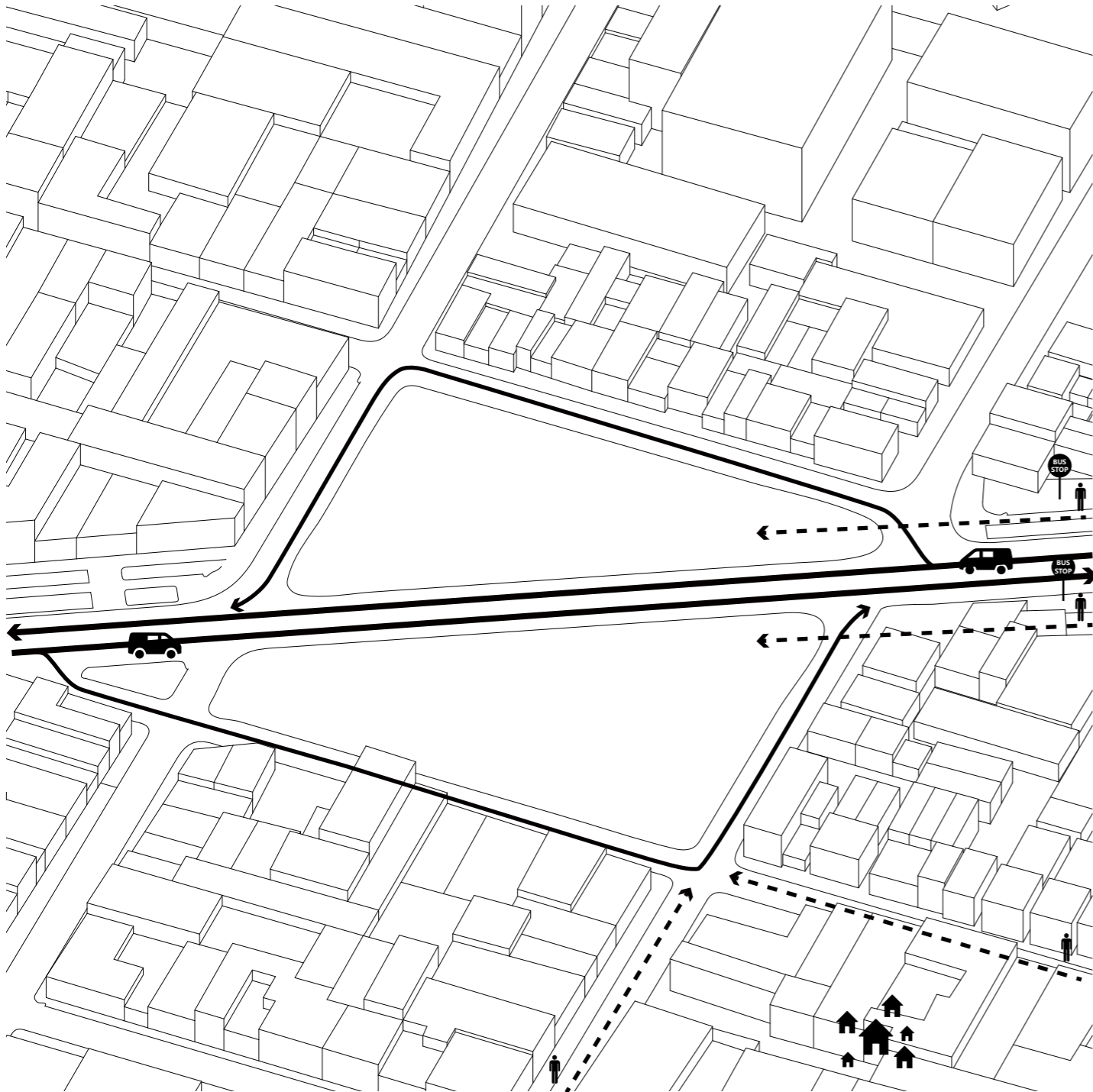


# ARCHITECTURAL CONCEPT:



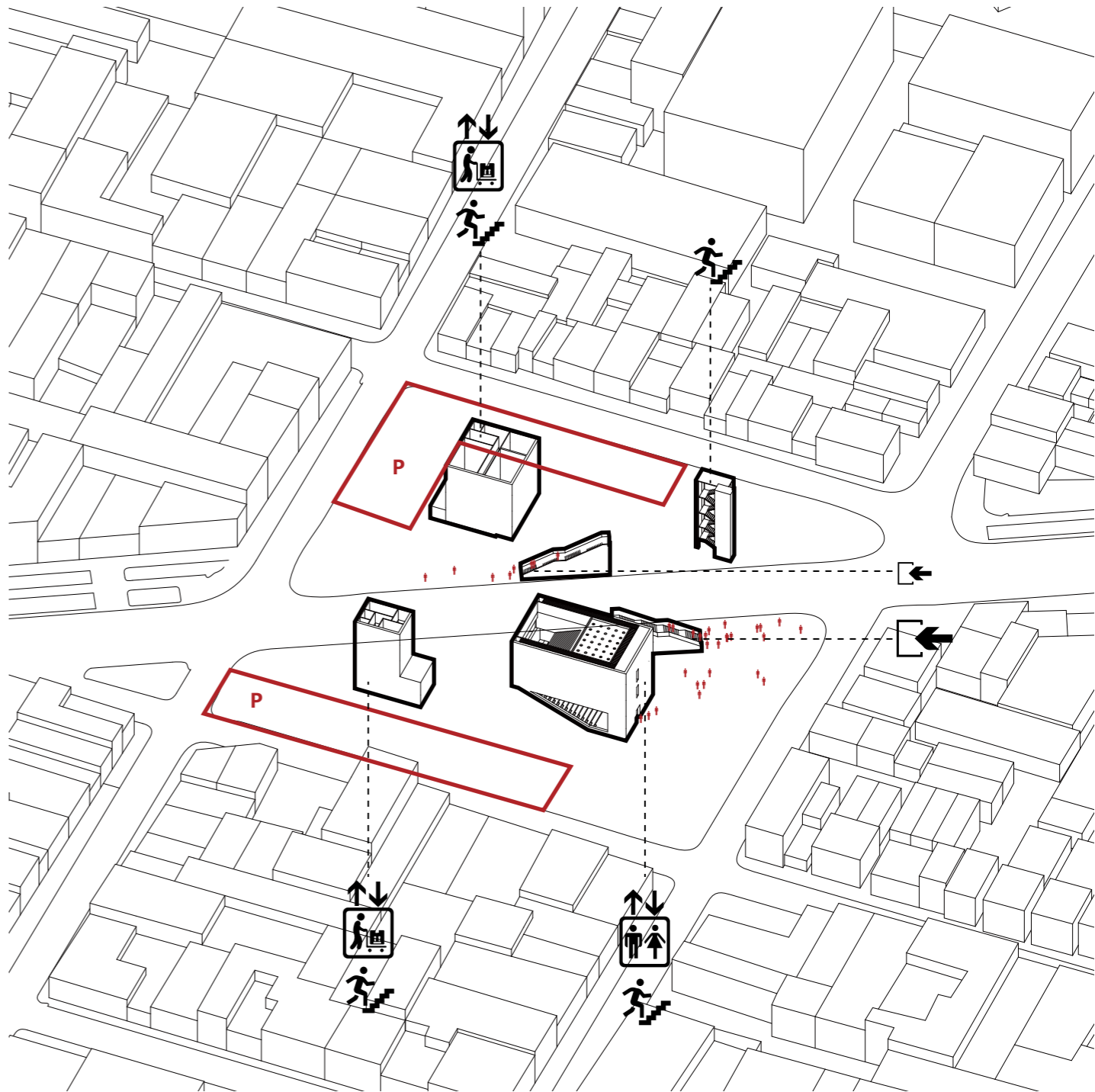
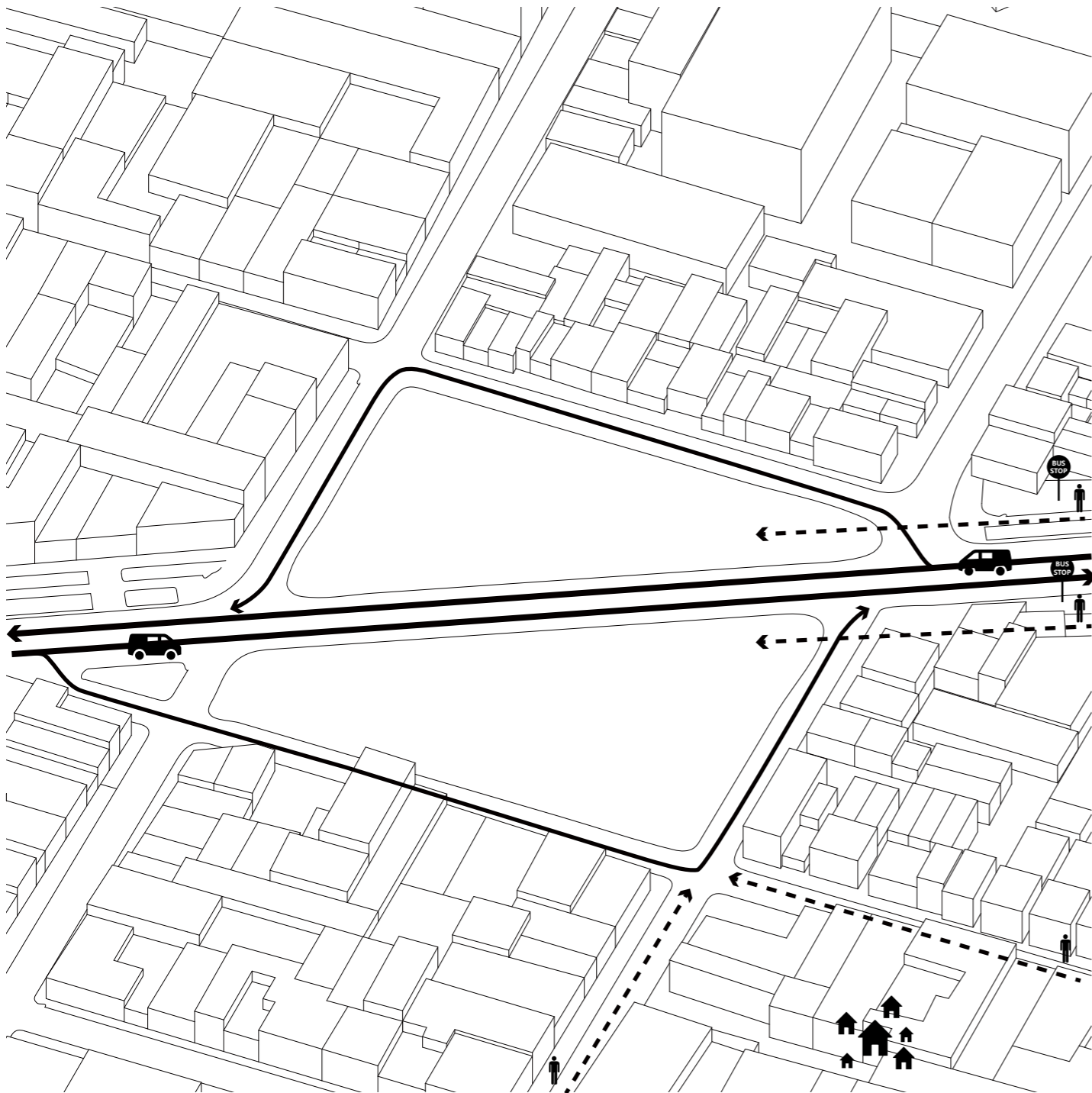


# CONTEXT: TRAFFIC AND ENTRANCE







# CONTEXT: TRAFFIC AND ENTRANCE





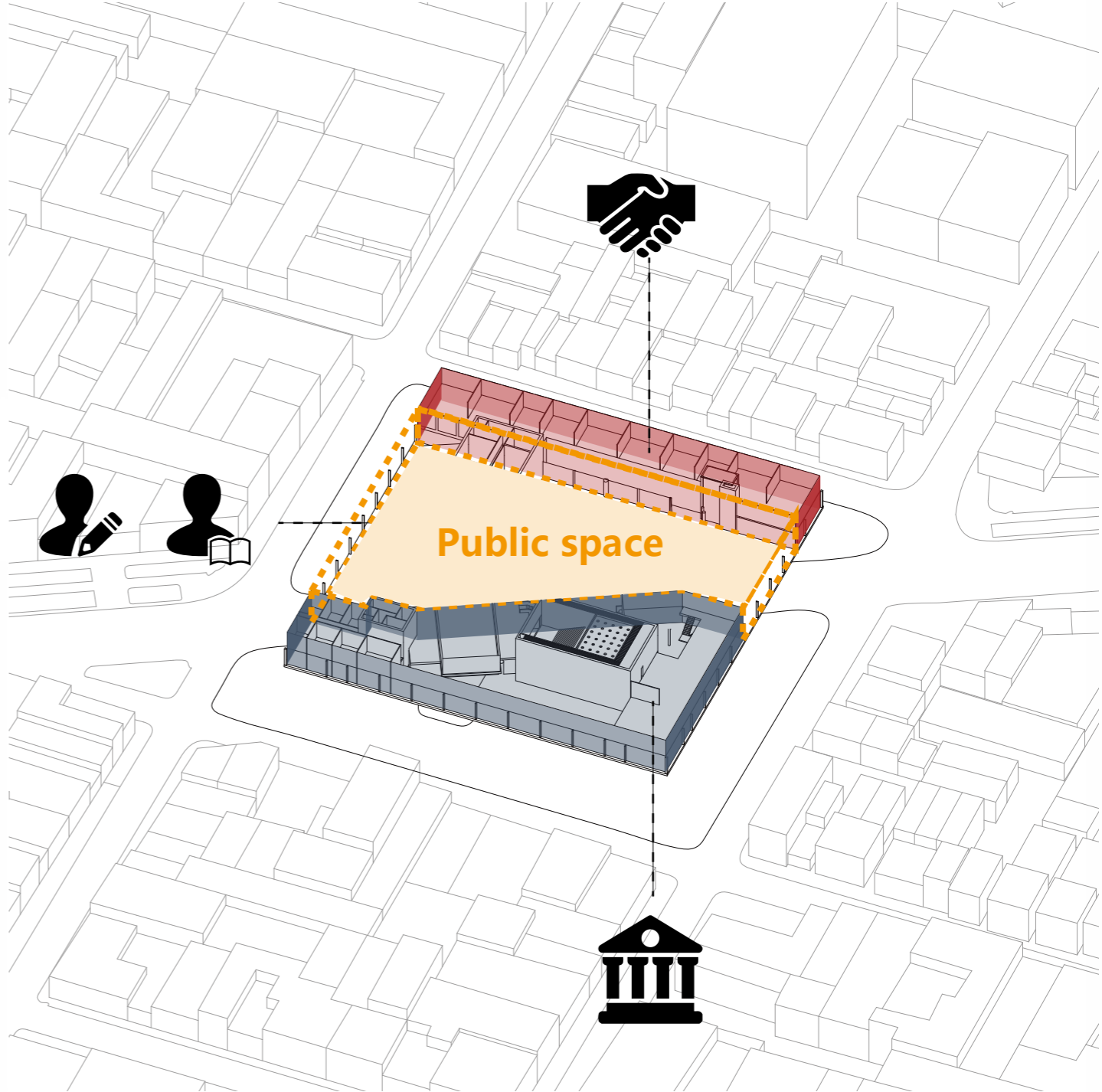
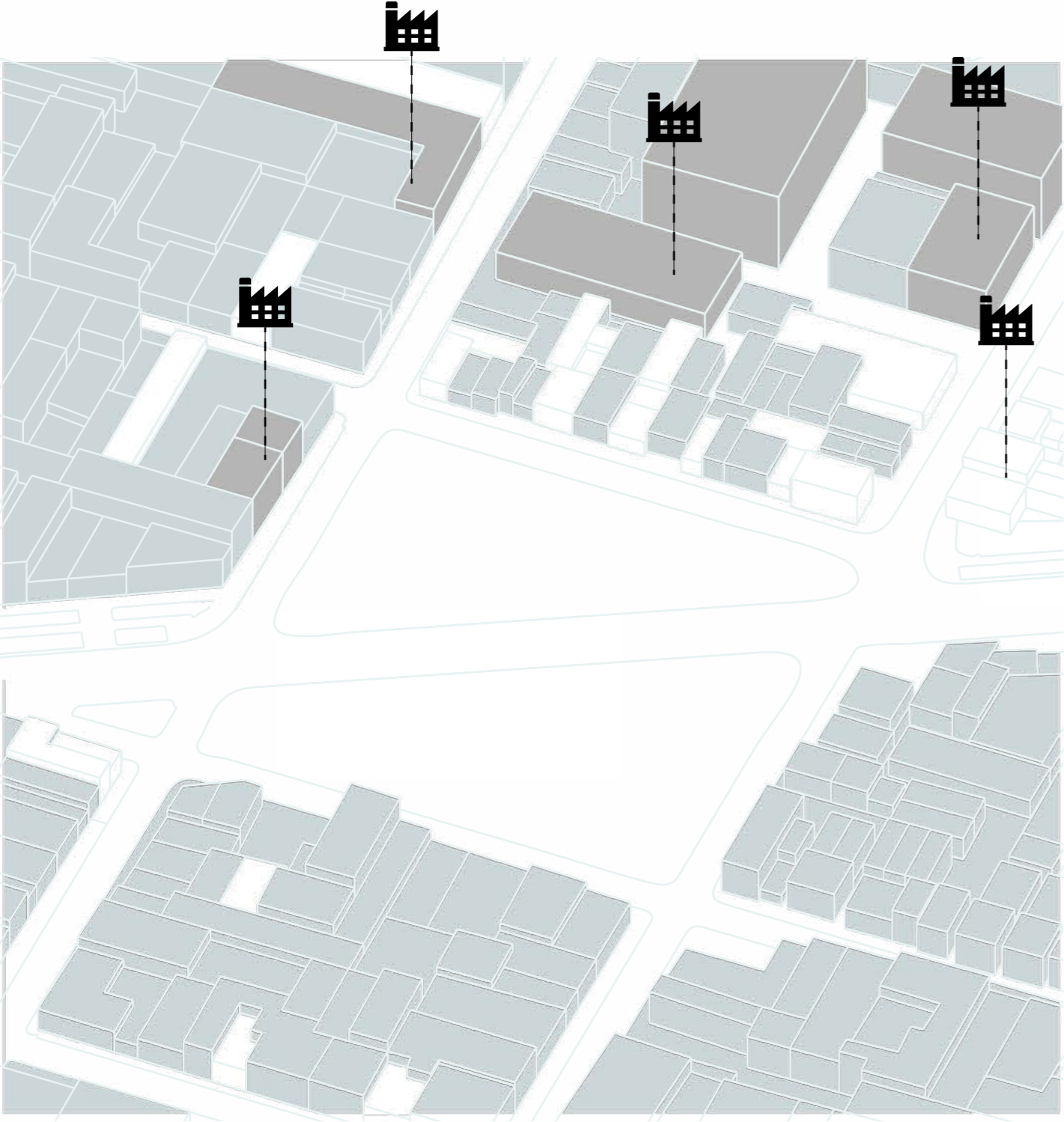
# CONTEXT: PROGRAMS AND NEIGHBOURHOOD








-  Vacant building
-  Residential building



# CONTEXT: PROGRAMS AND NEIGHBOURHOOD

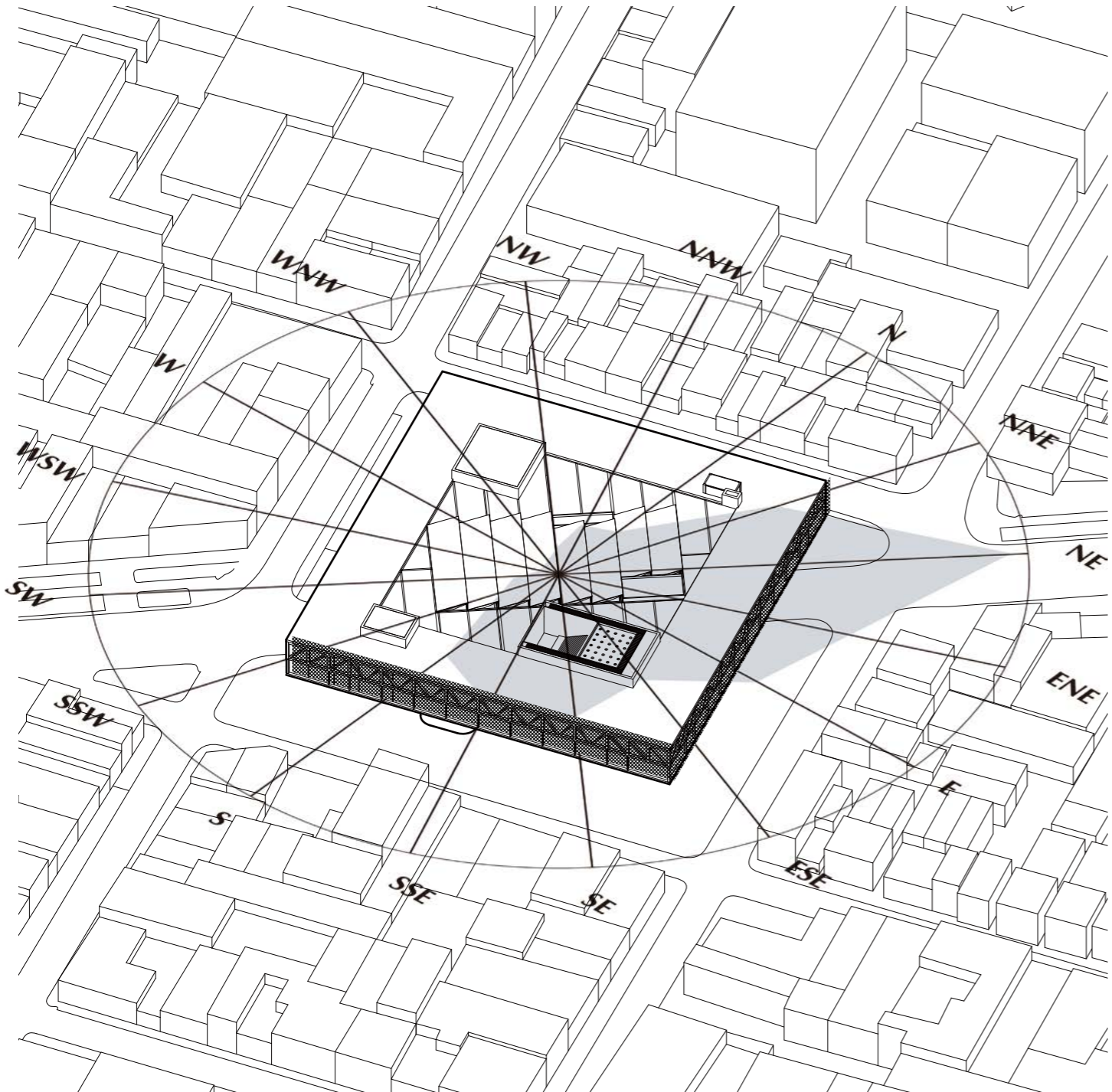


-  Vacant building
-  Residential building

-  Library
-  Public space
-  Publication center

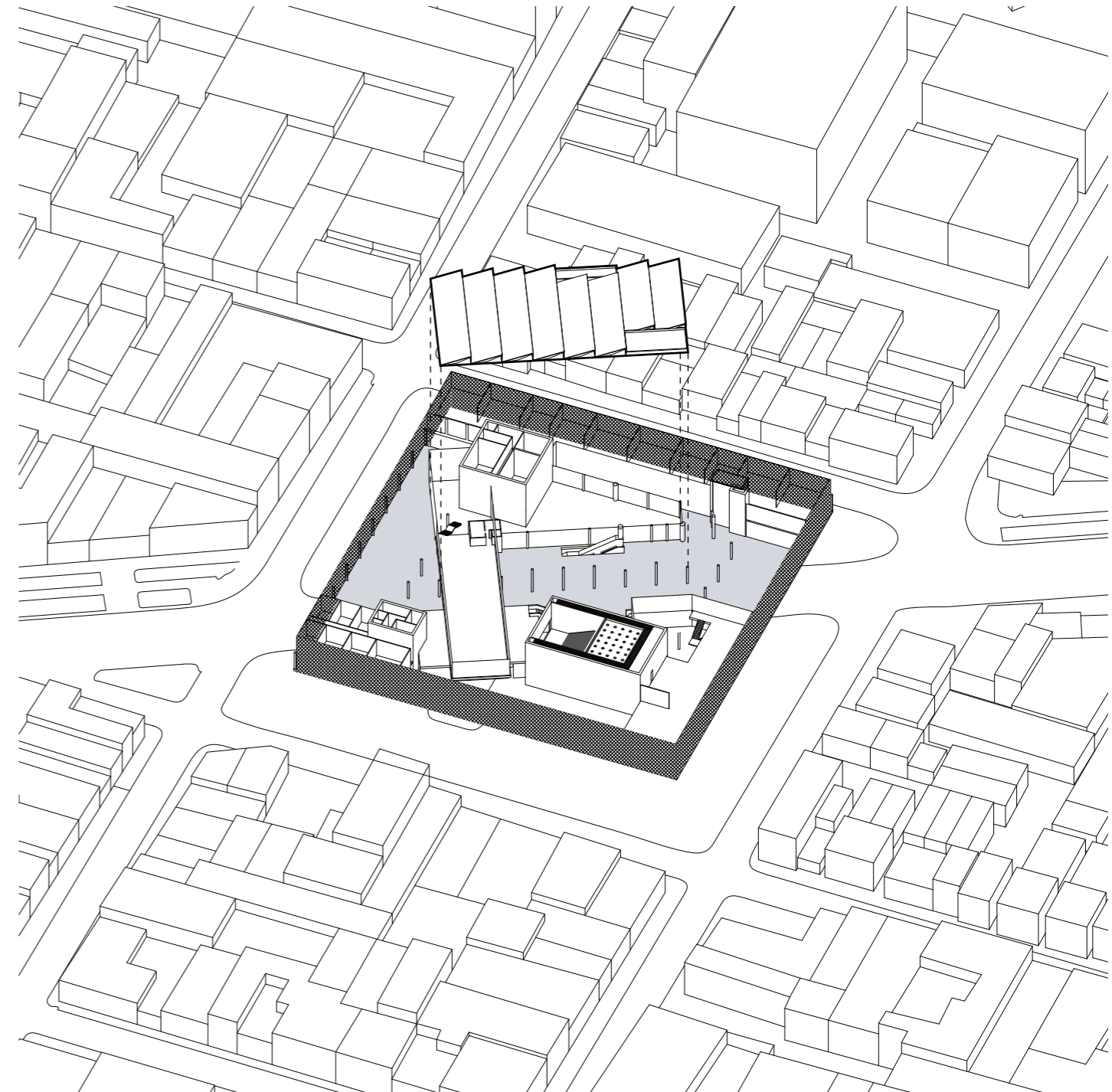
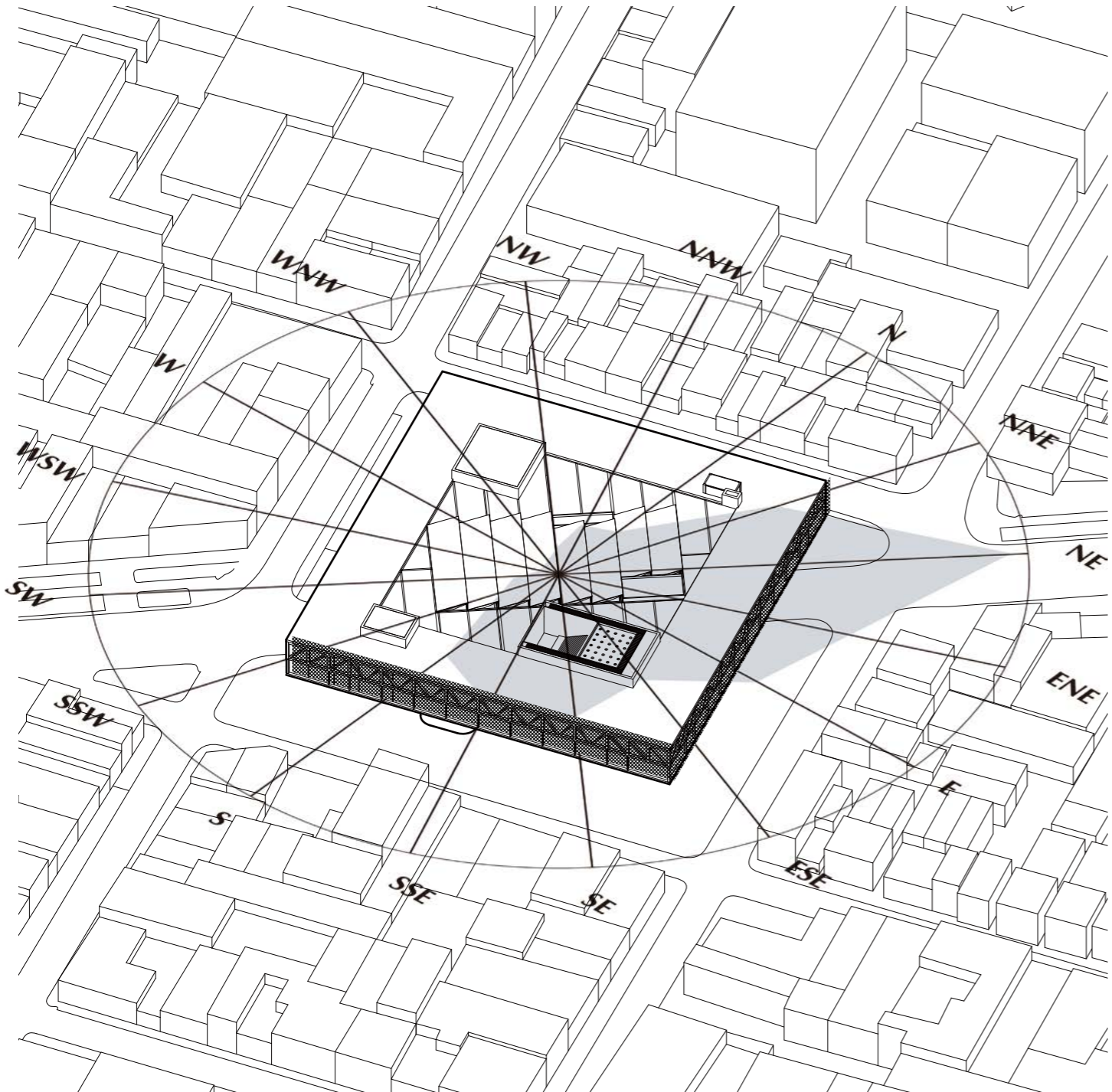


# CONTEXT: PASSIVE VENTILATION



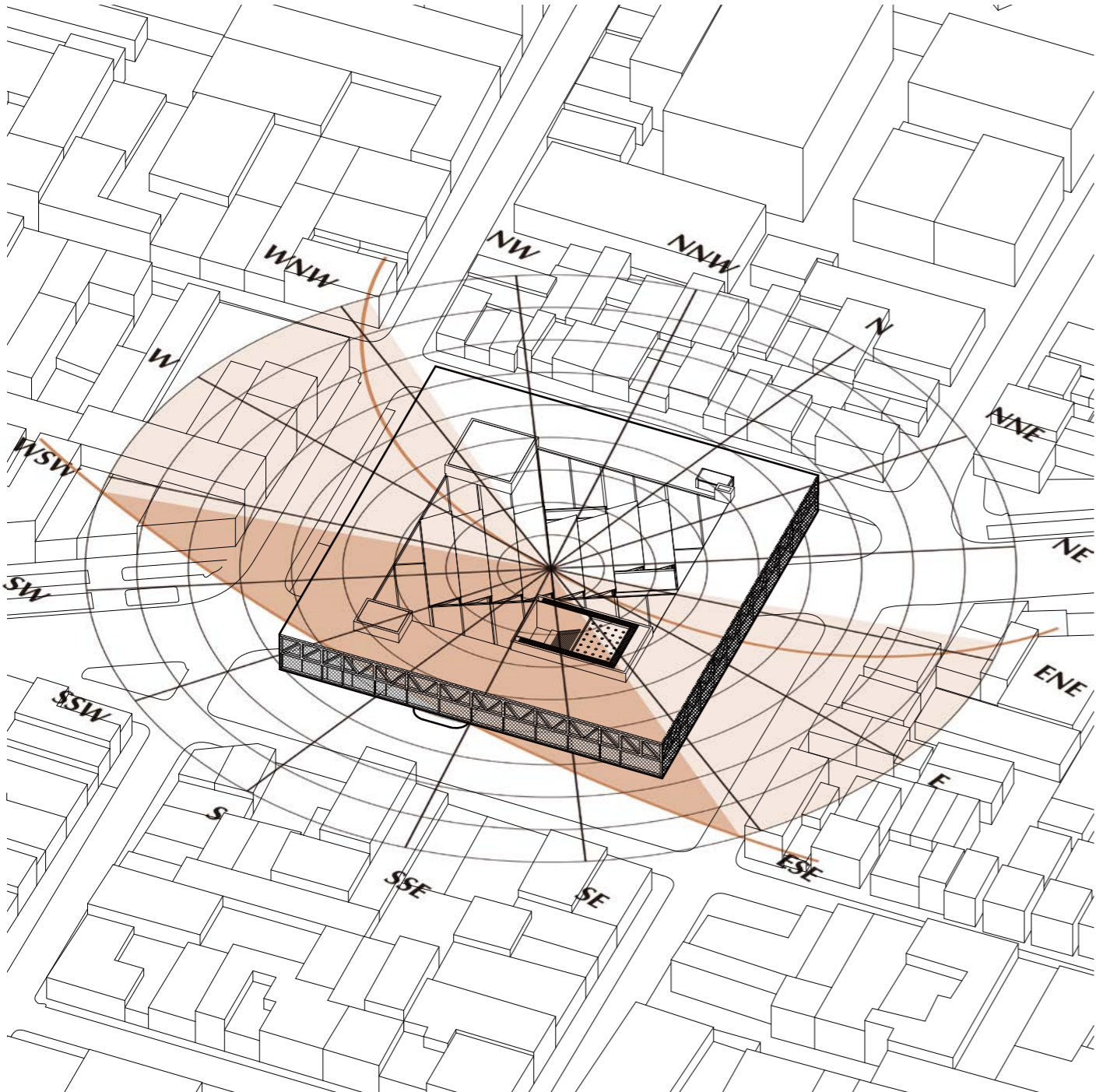


# CONTEXT: PASSIVE VENTILATION



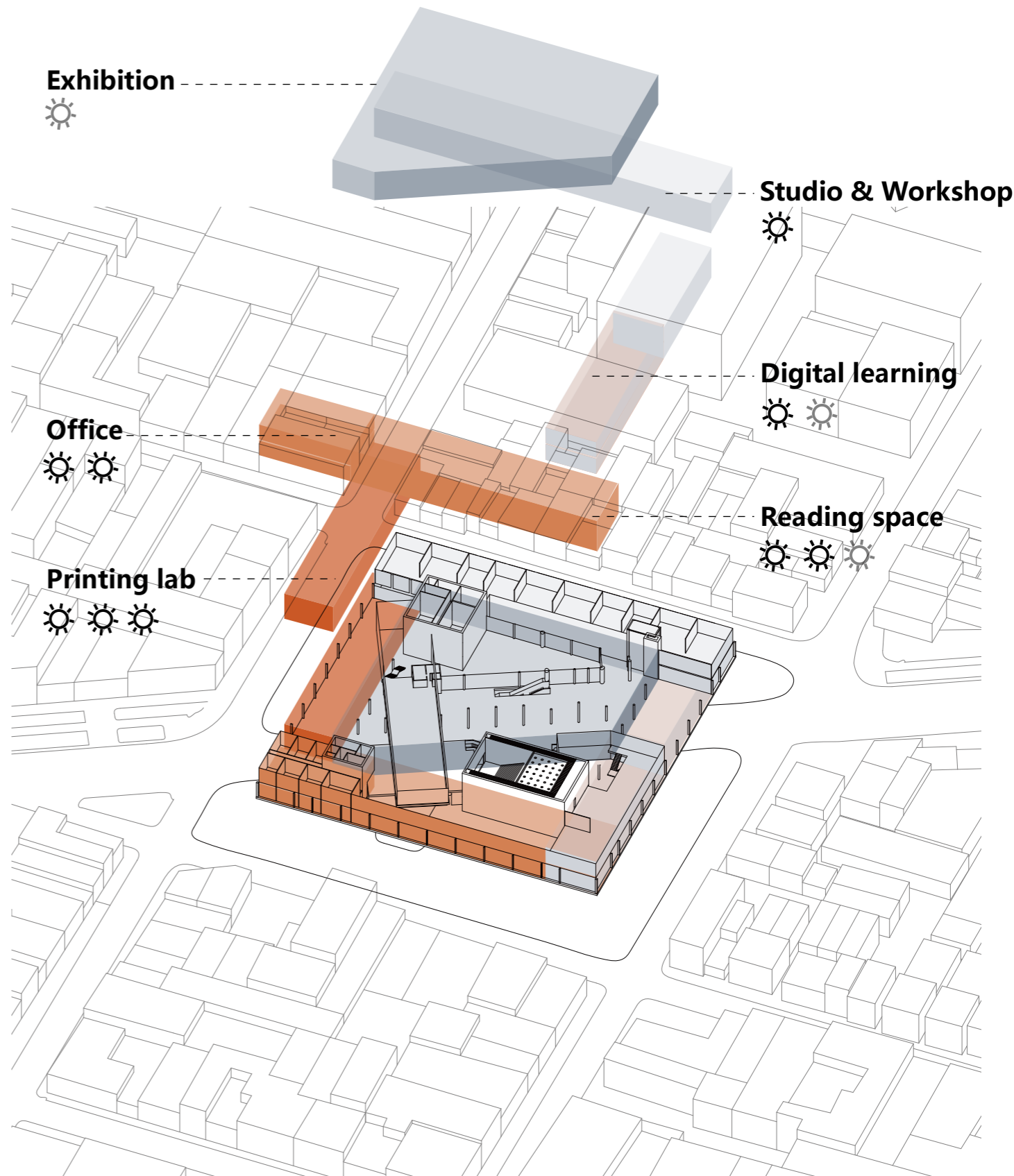
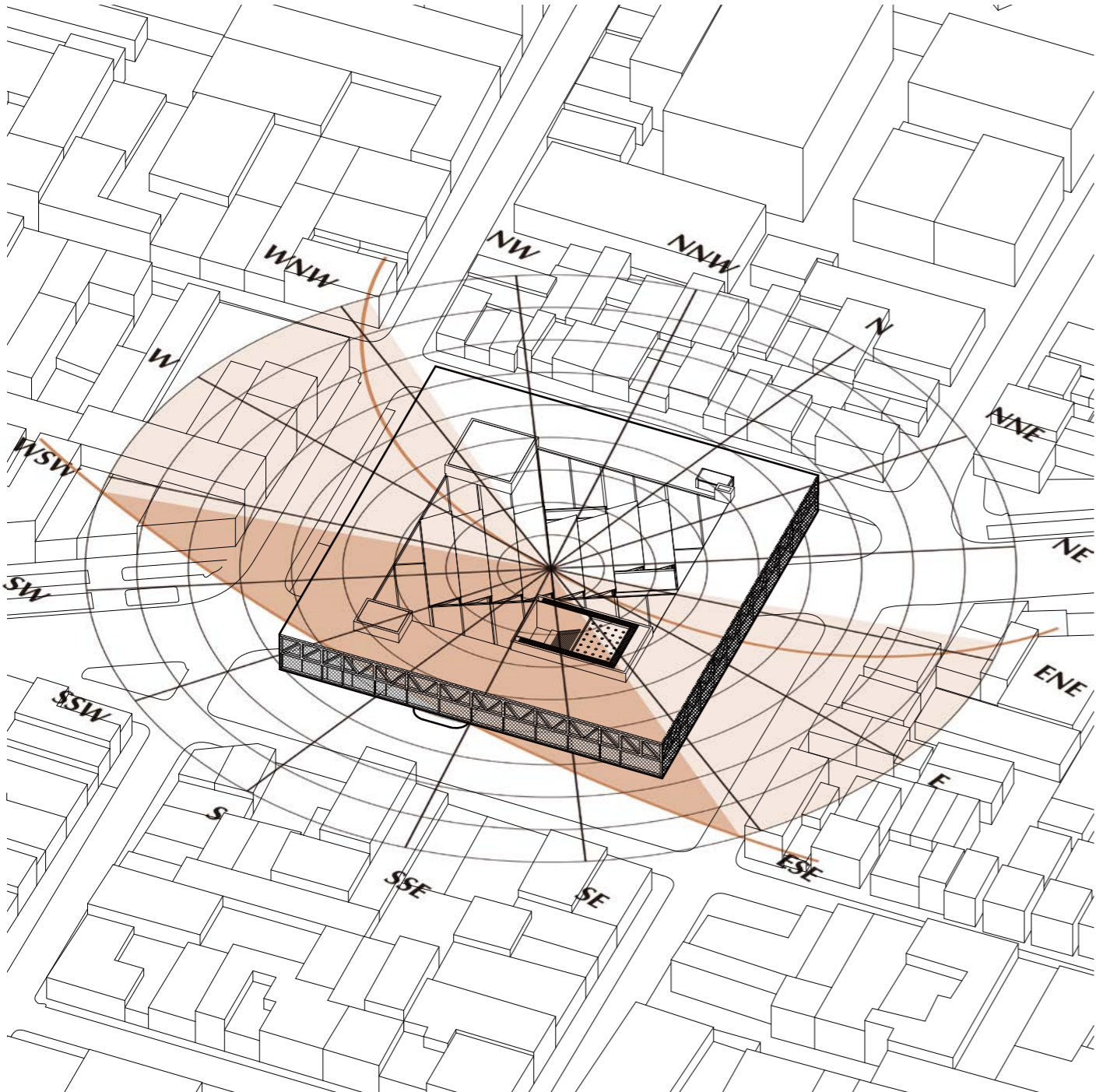


# CONTEXT: NATURAL LIGHTING



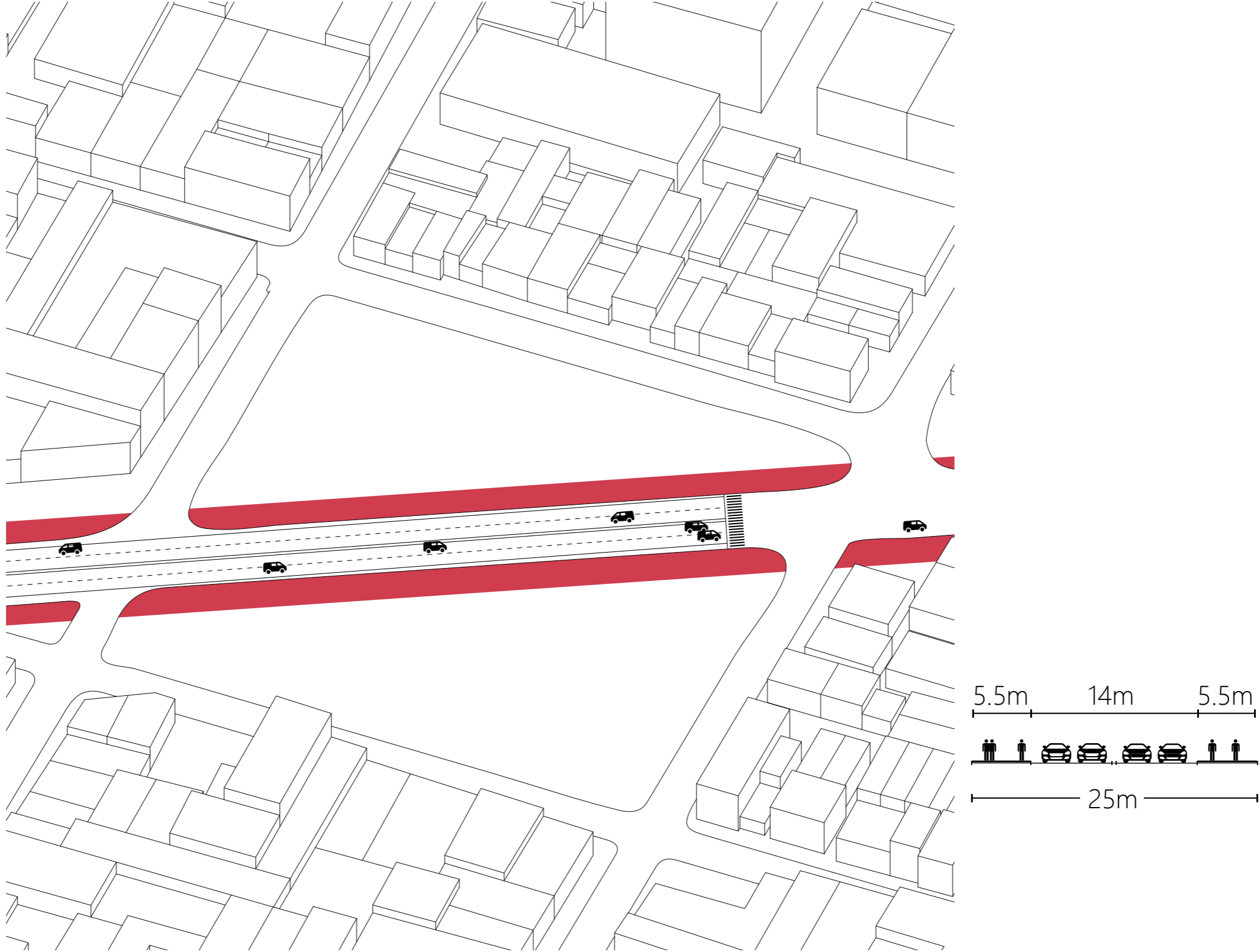


# CONTEXT: NATURAL LIGHTING





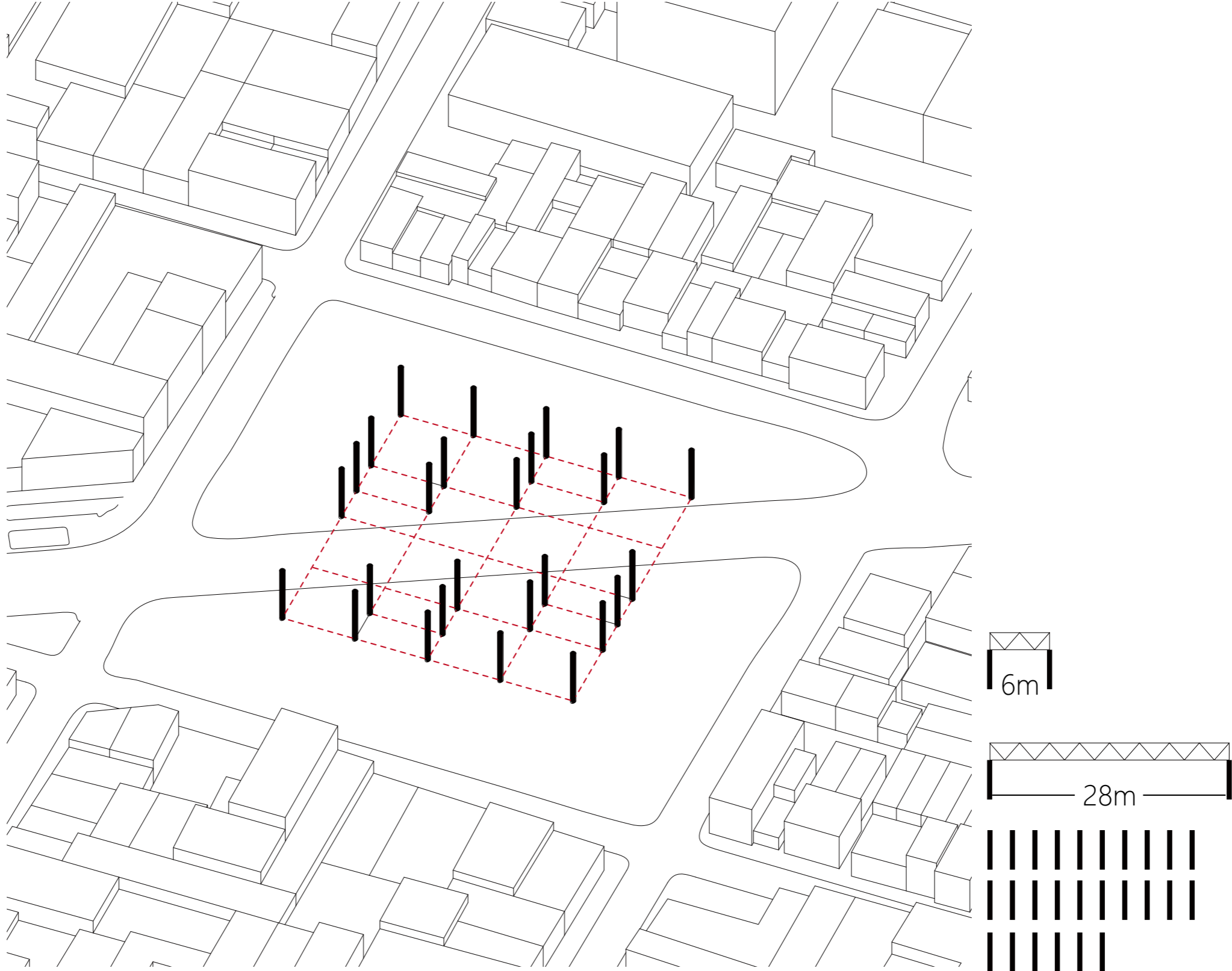
**CONTEXT: STRUCTURAL GRID**



Space without structure



**CONTEXT: STRUCTURAL GRID**



Structural grid follows edge of block



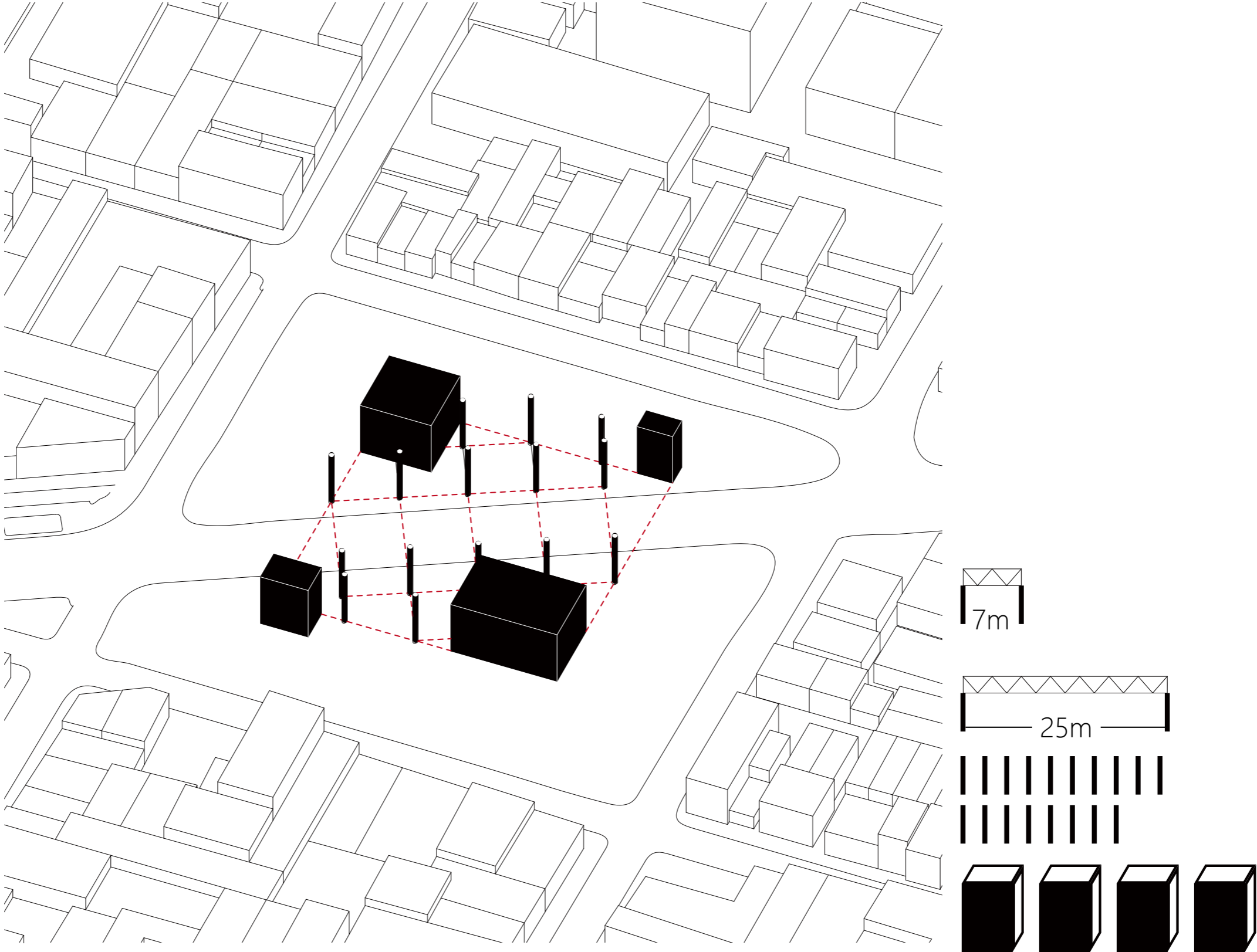
**CONTEXT: STRUCTURAL GRID**



Efficient span: perpendicular to road



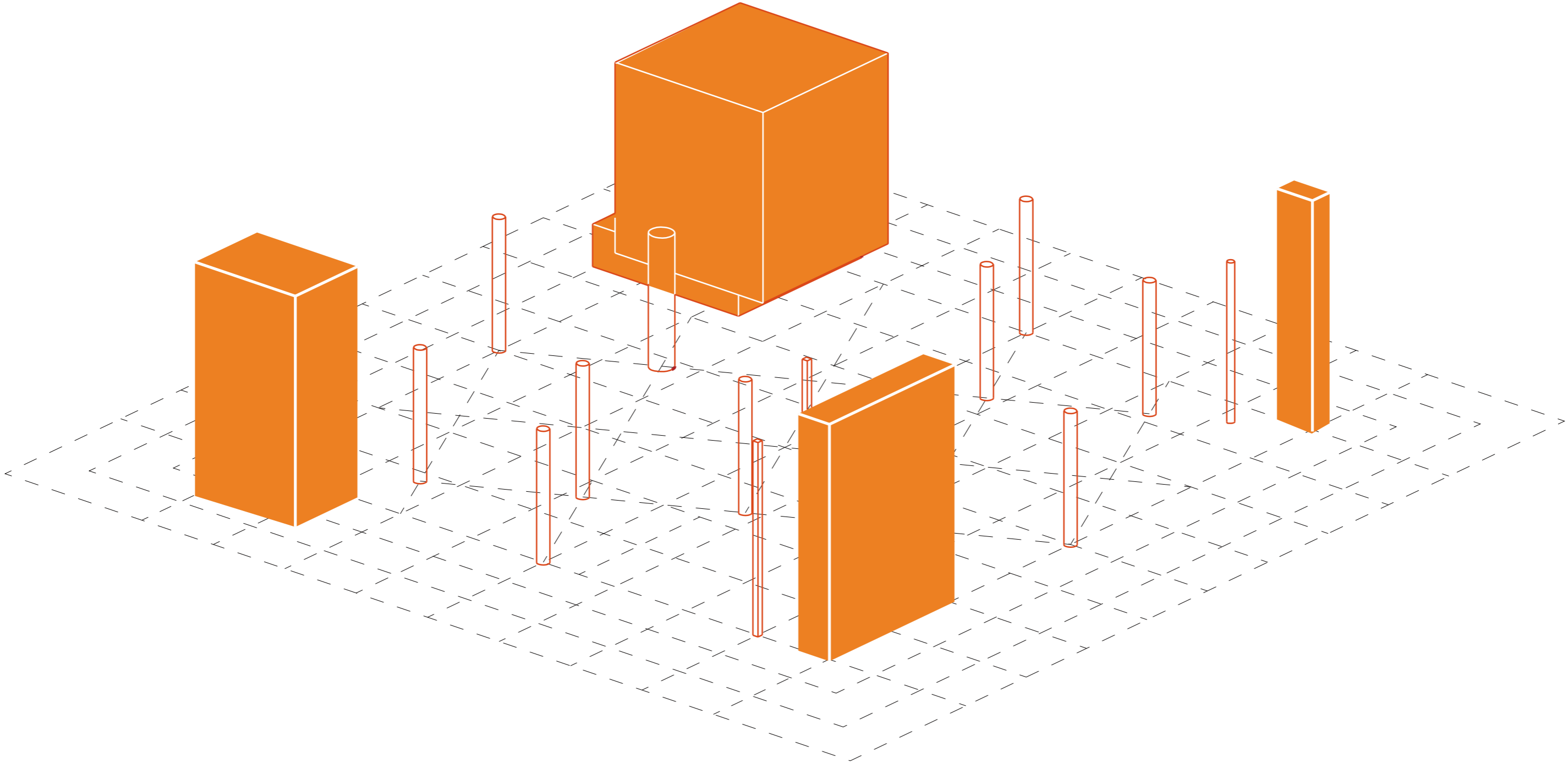
**CONTEXT: STRUCTURAL GRID**



Inside structural cores: private programs + facilities

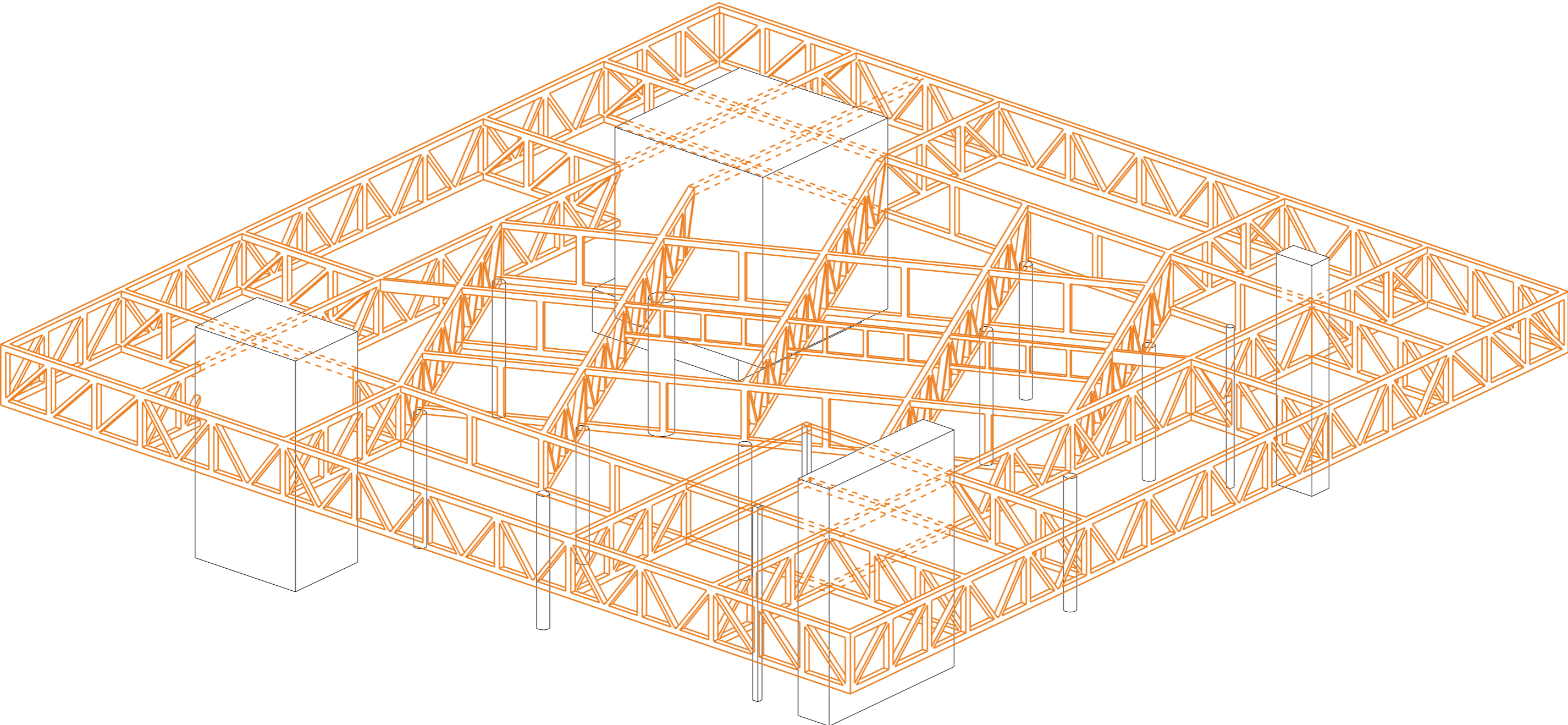


**STRUCTURE: CONCRETE CORES AND COLUMNS**



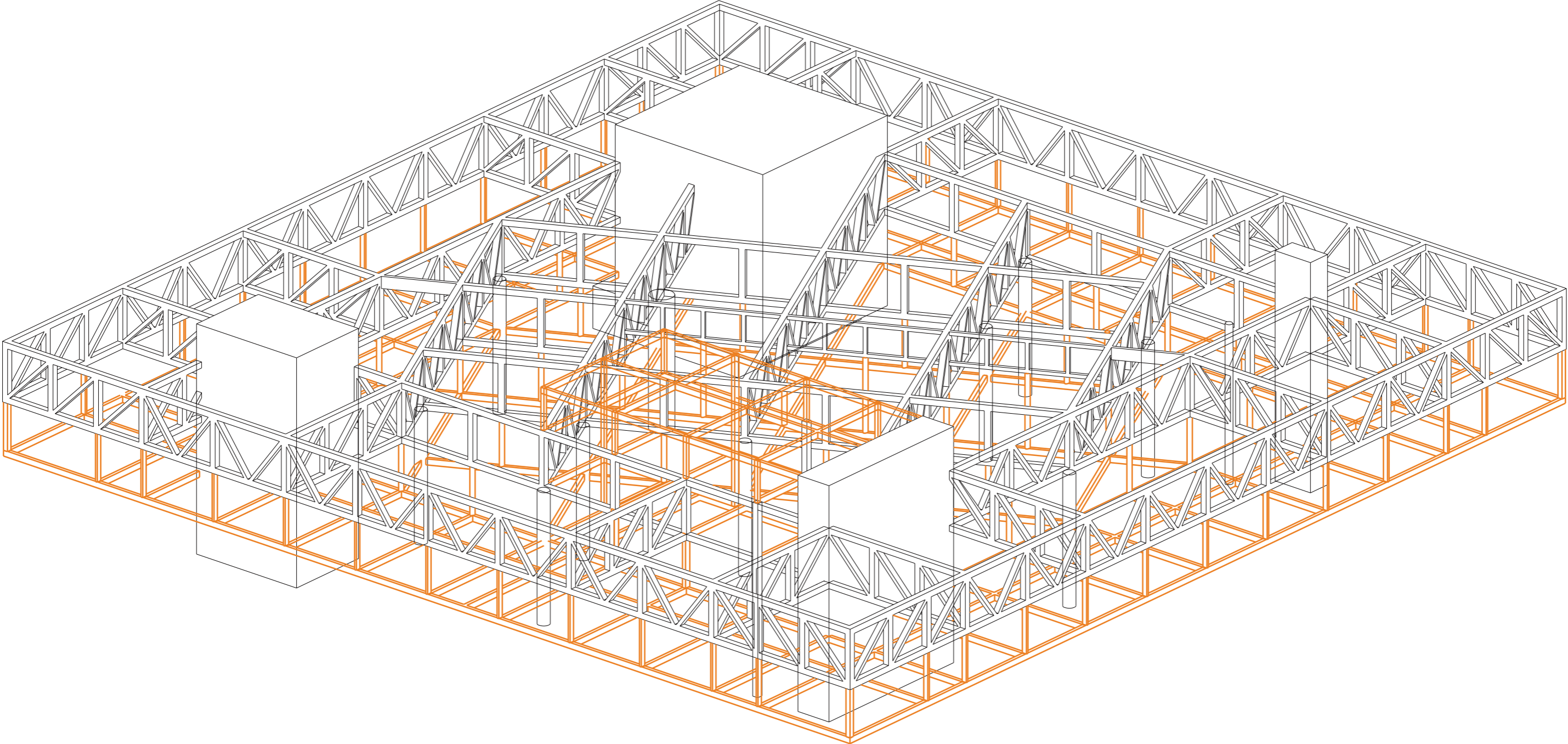


**STRUCTURE: ROOF TRUSS SYSTEM**



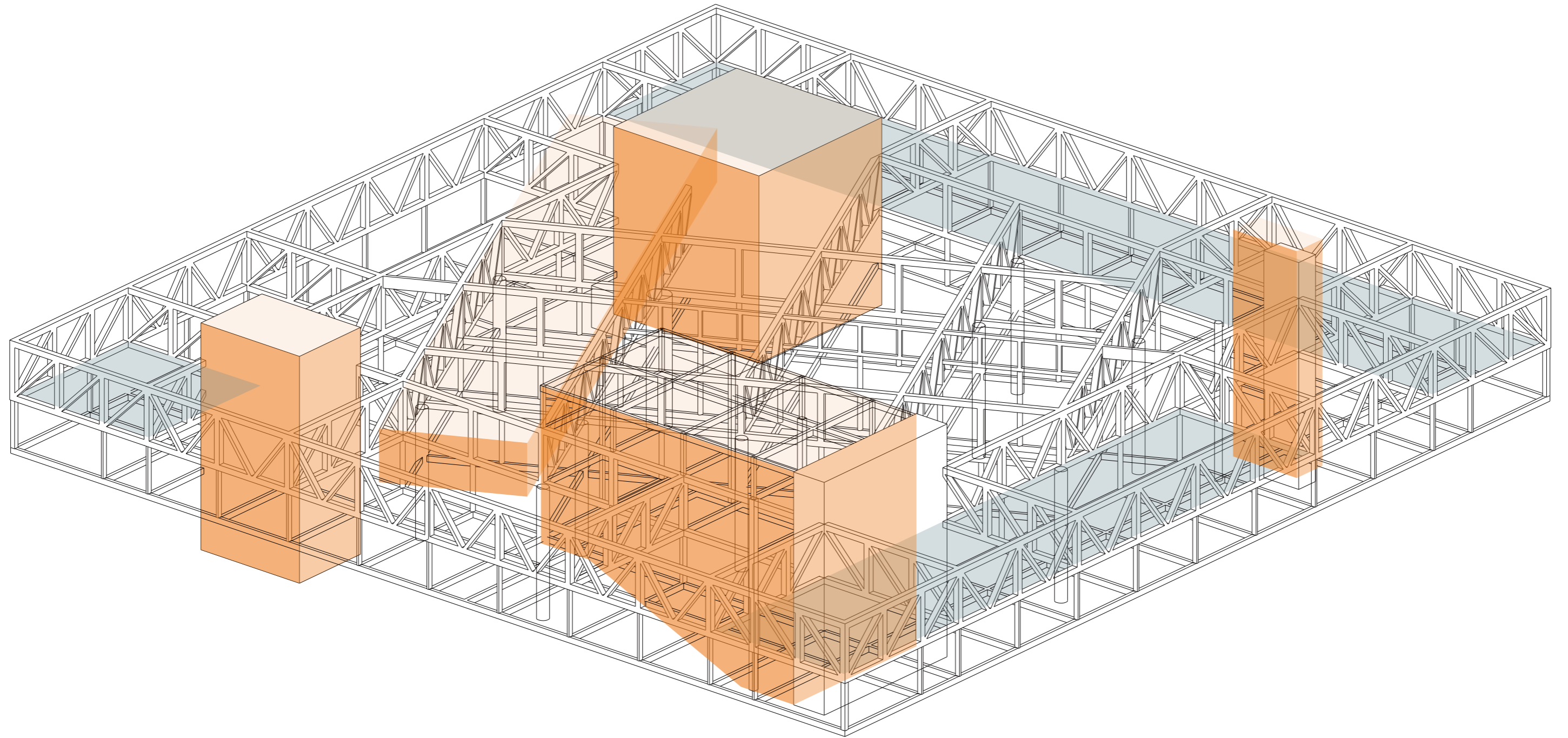


**STRUCTURE: SECOND FLOOR HANGING UNDER ROOF**



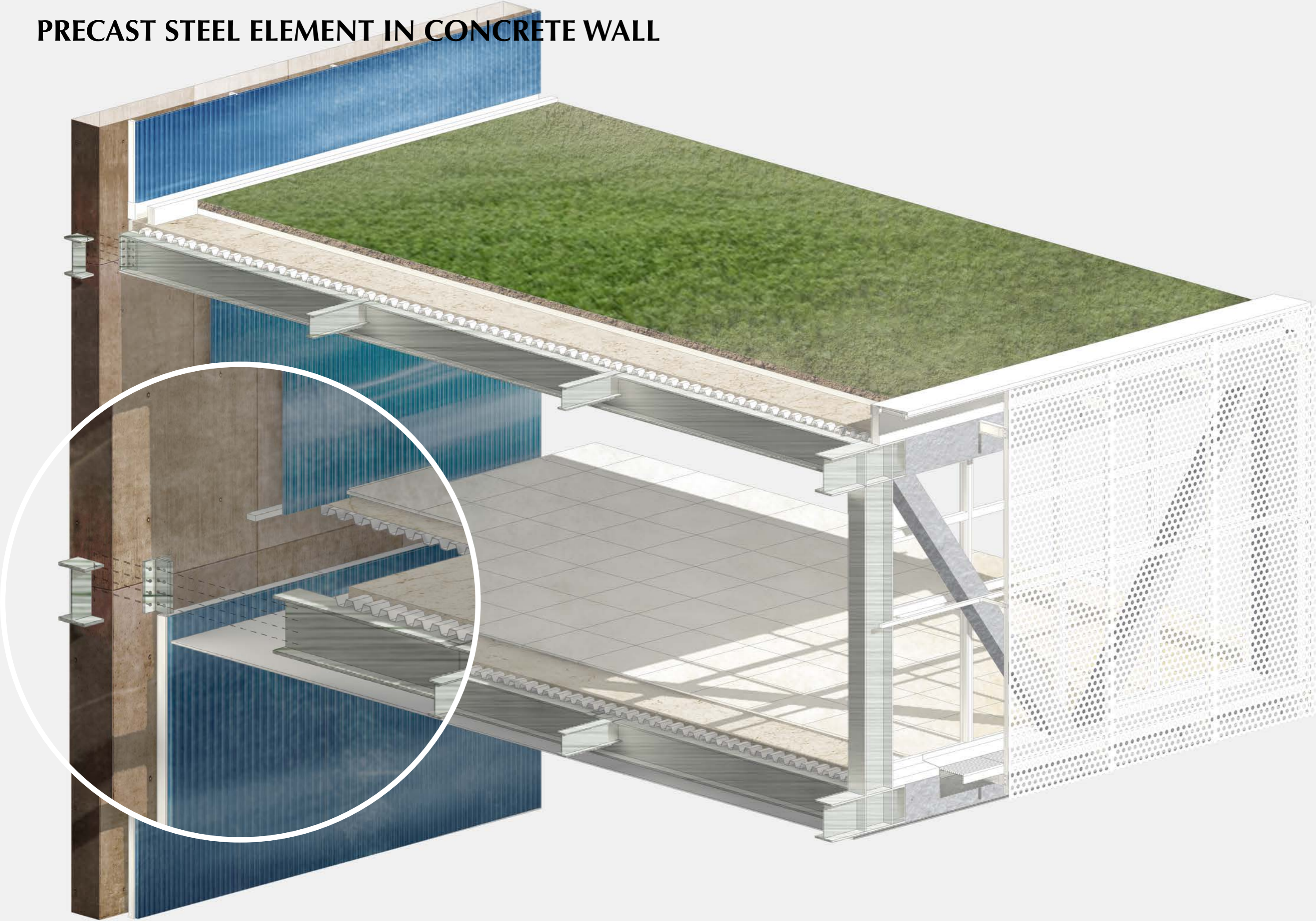


**STRUCTURE: IN ROOF: ENTRANCE TO TRANSPARENTLY ENCLOSED SPACES**



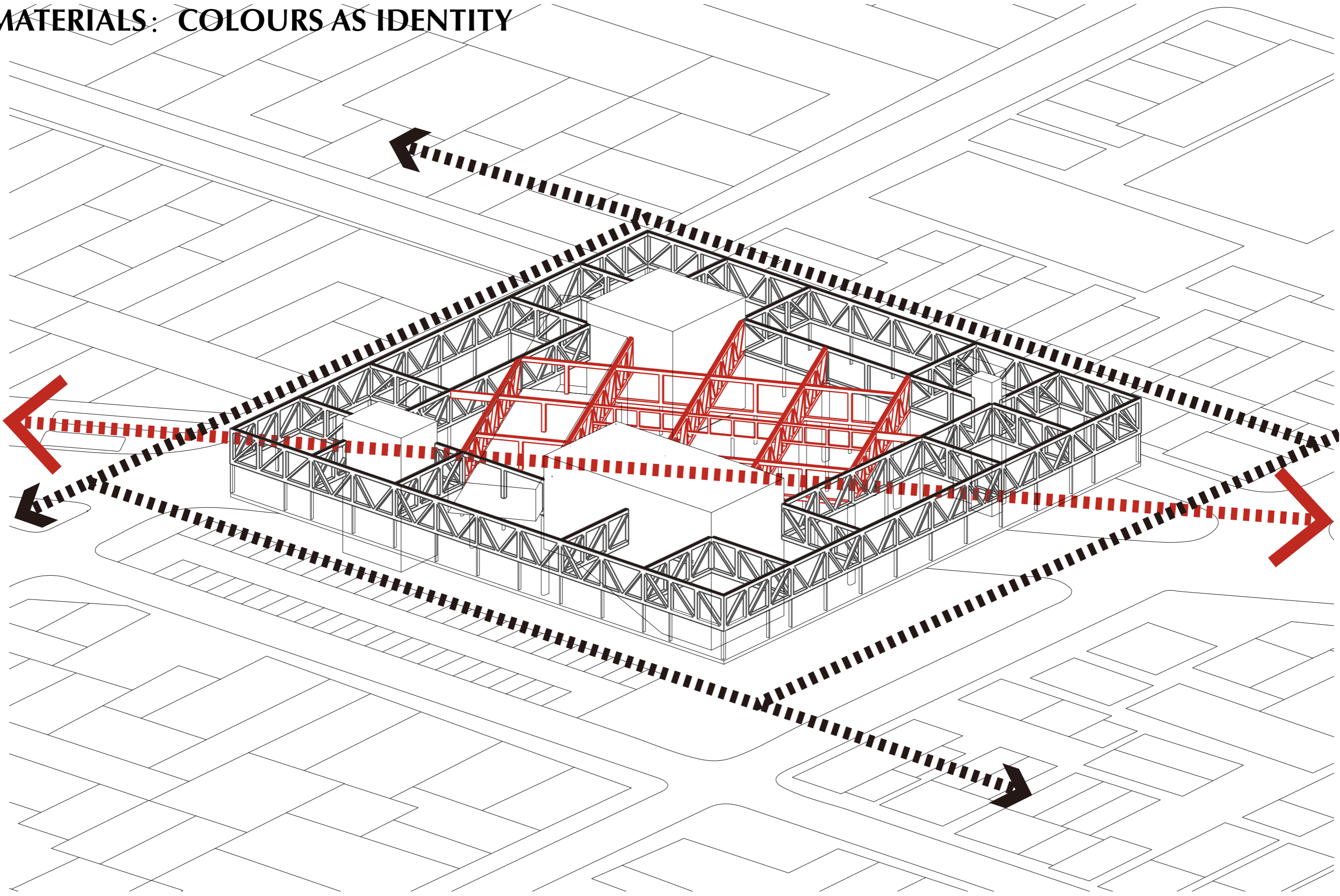


# PRECAST STEEL ELEMENT IN CONCRETE WALL



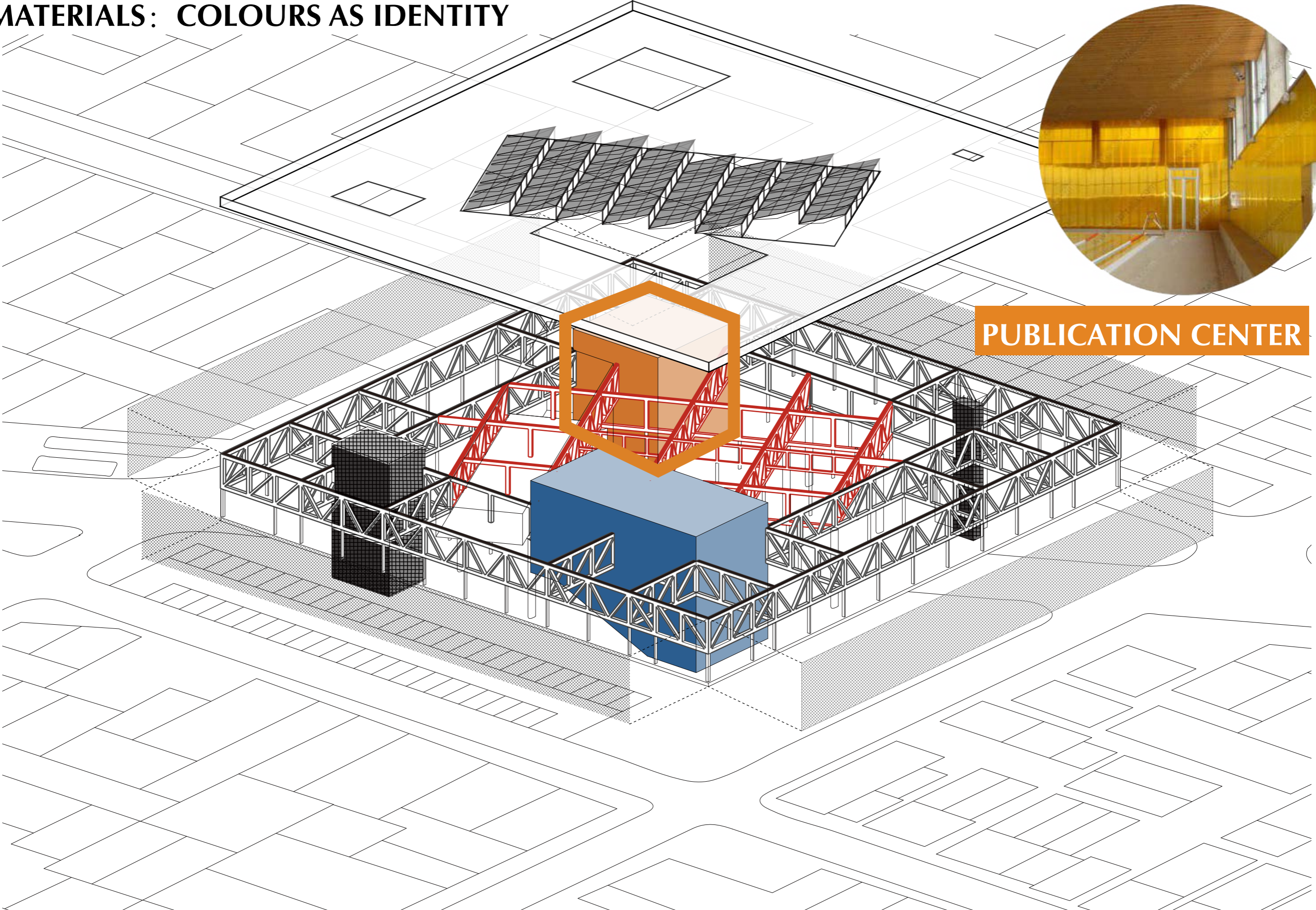


**MATERIALS: COLOURS AS IDENTITY**





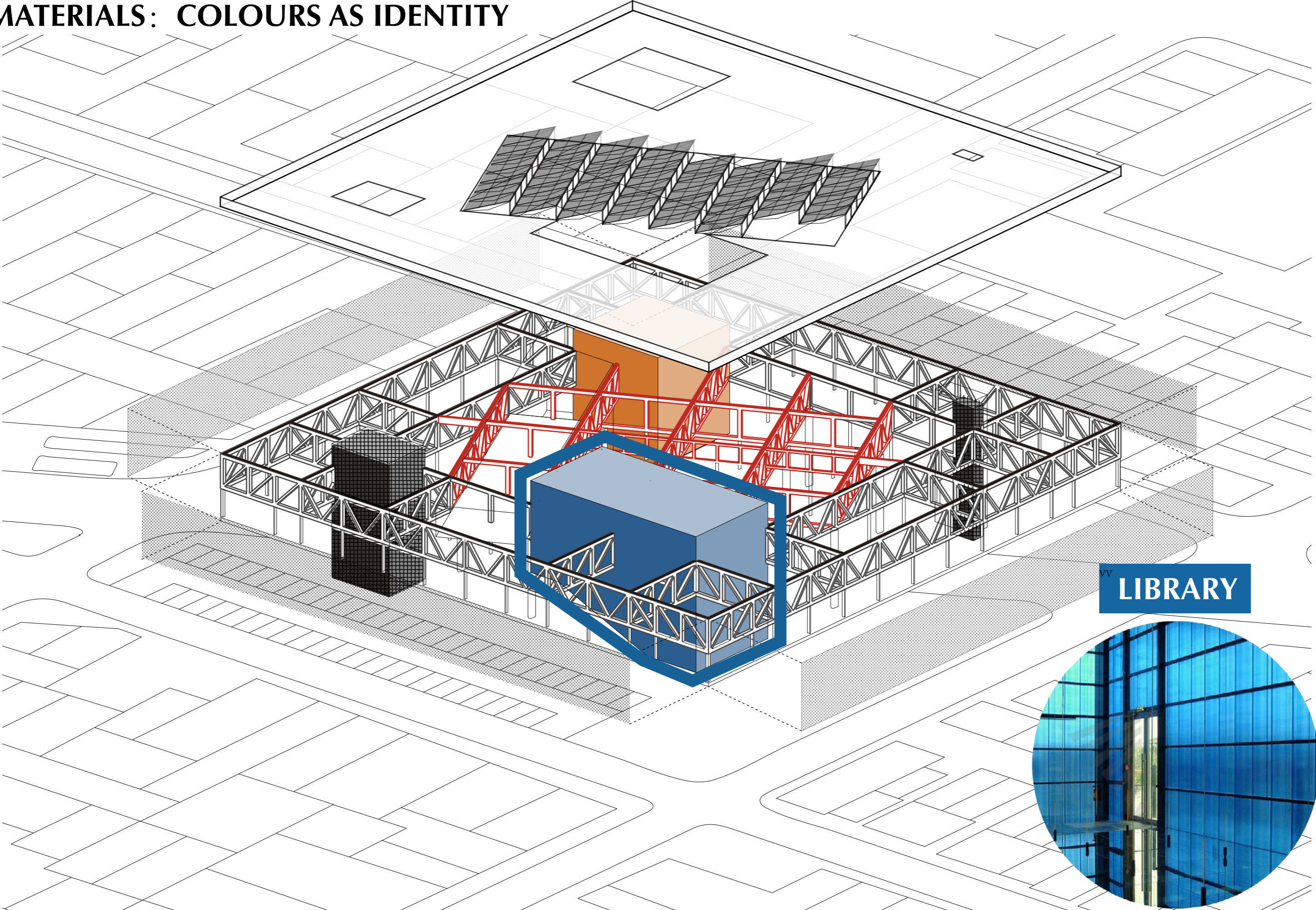
# MATERIALS: COLOURS AS IDENTITY



PUBLICATION CENTER



**MATERIALS: COLOURS AS IDENTITY**

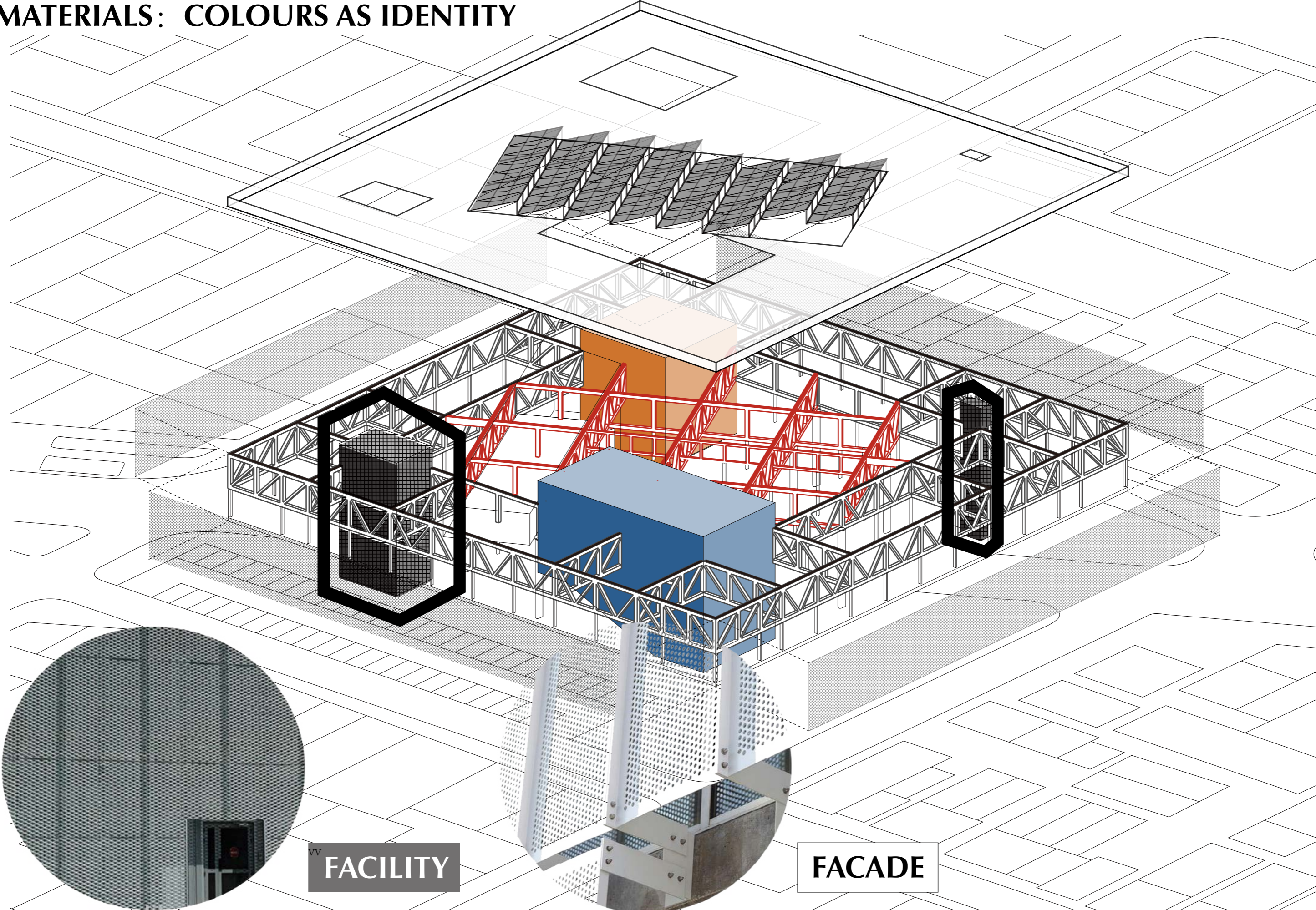


**LIBRARY**





**MATERIALS: COLOURS AS IDENTITY**

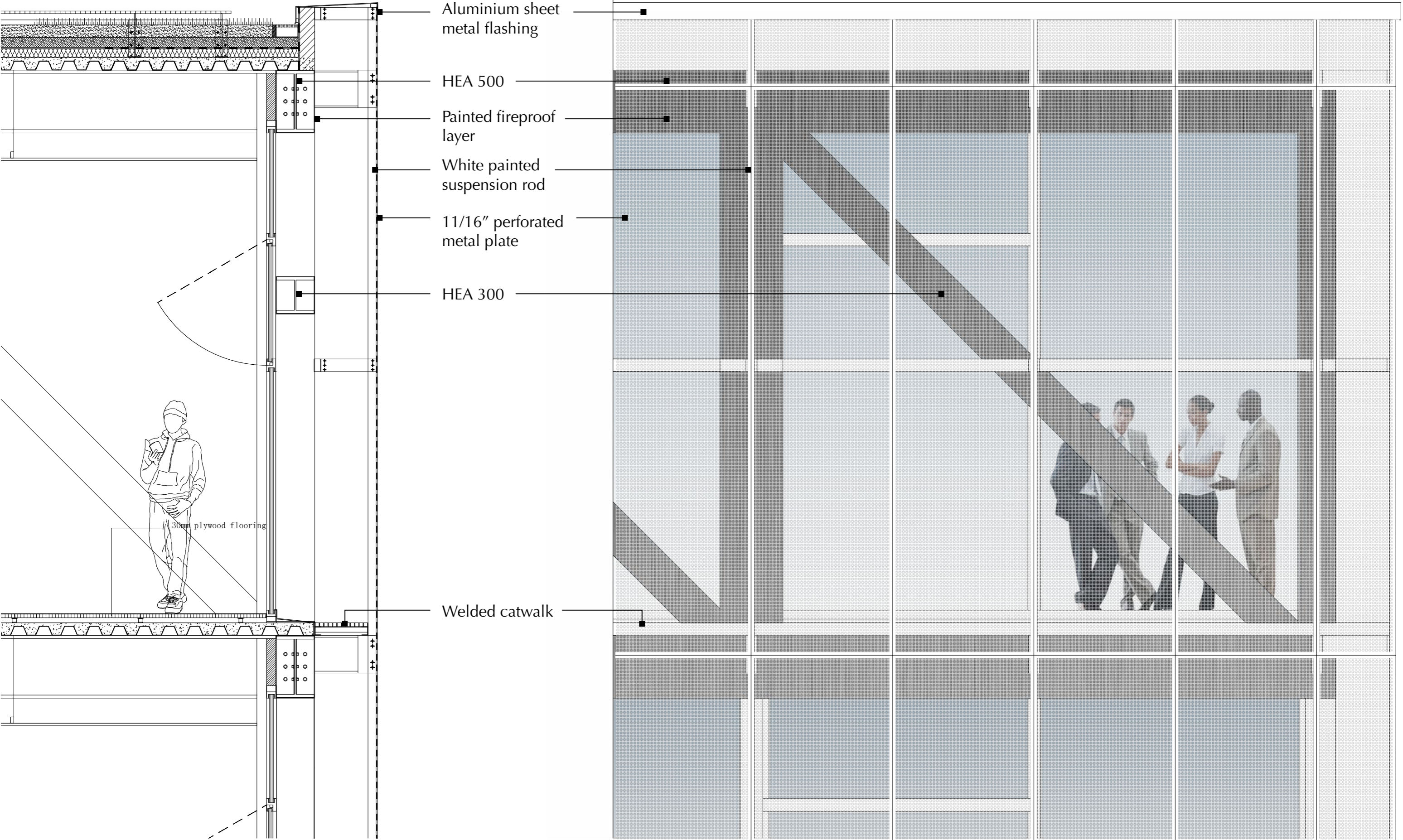


**FACILITY**

**FACADE**

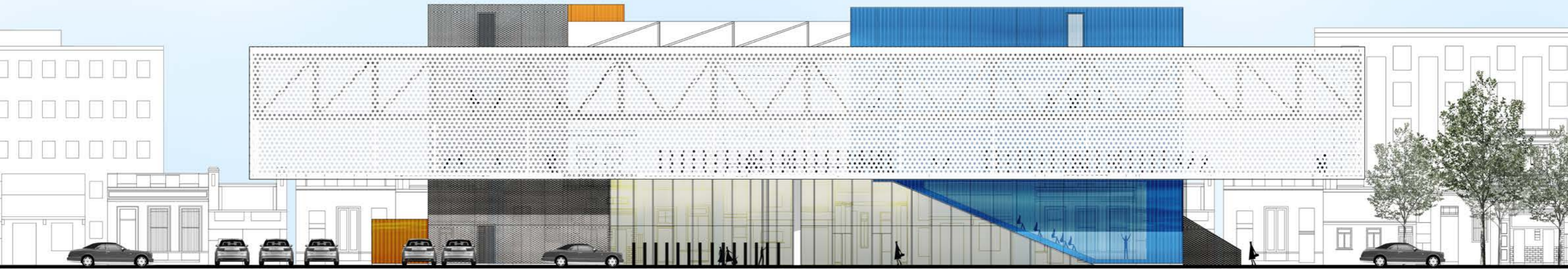


# FACADES: ACTIVITIES ARE VISIBLE

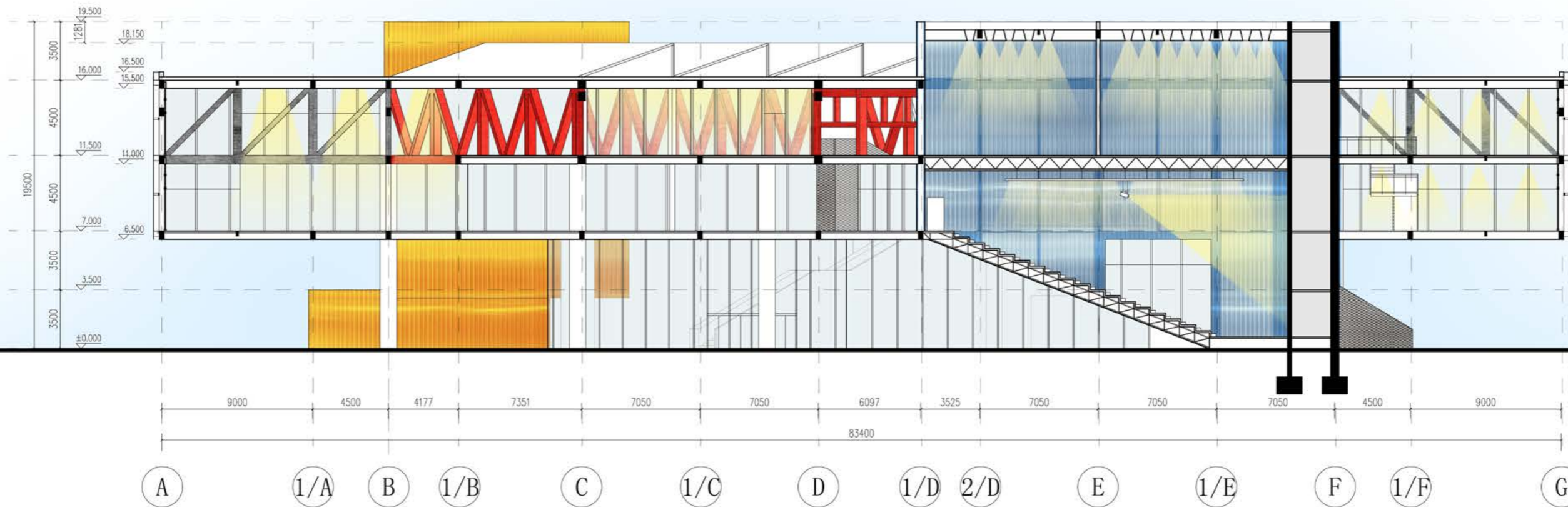




# ELEVATION & SECTION



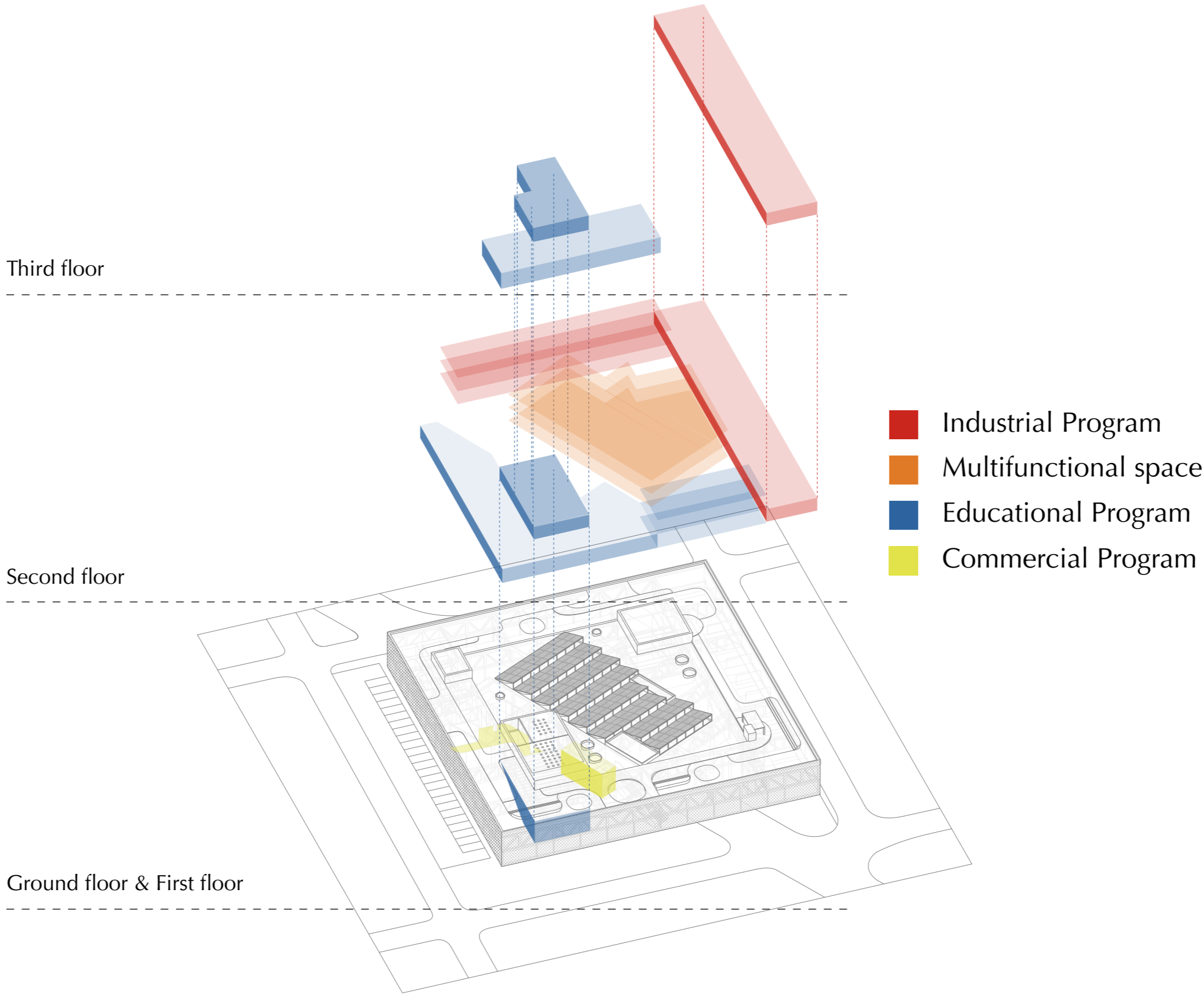
South Facade 1:200



1-1 Section 1:200

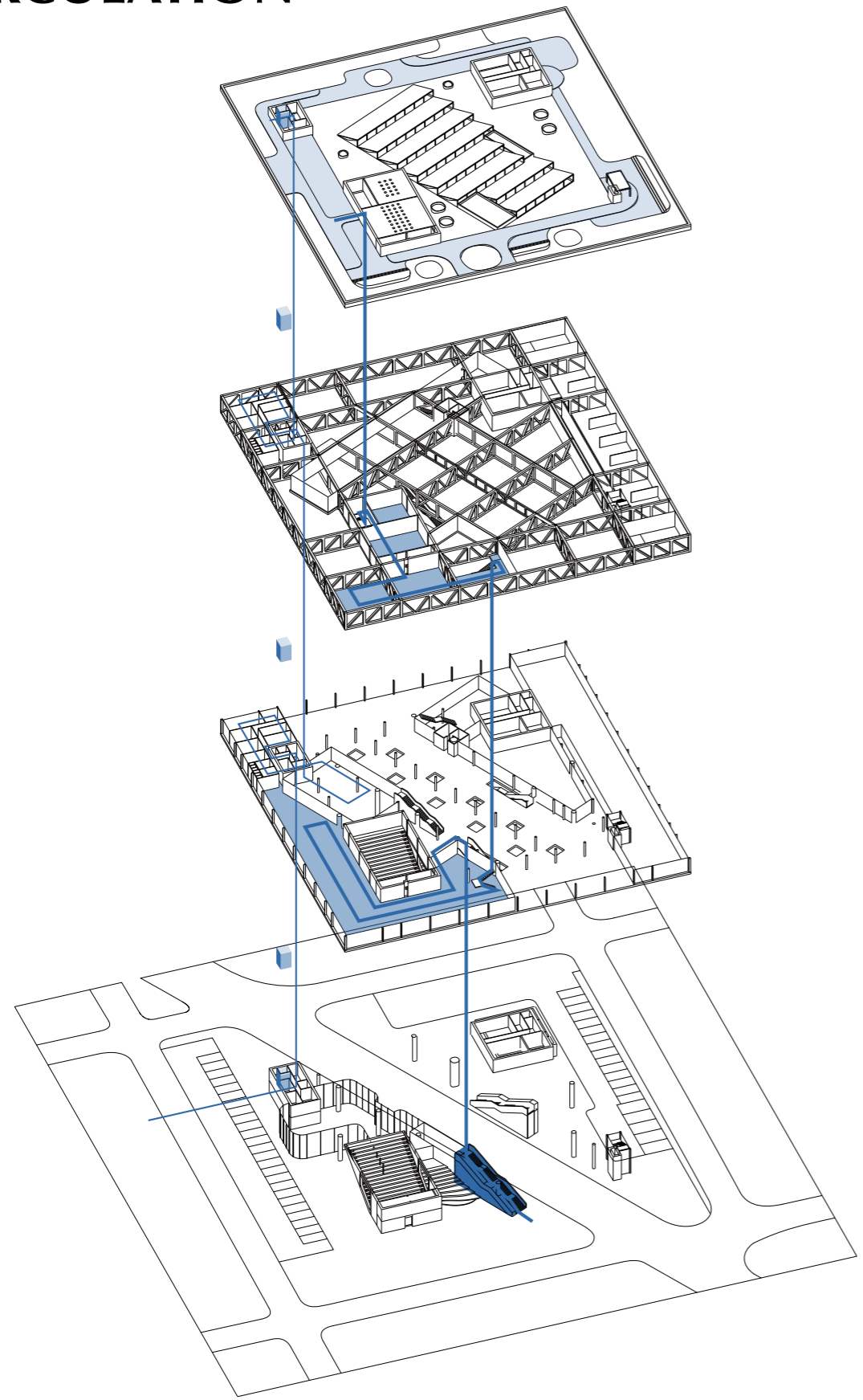


# PROGRAM: EDUCATION & INDUSTRY



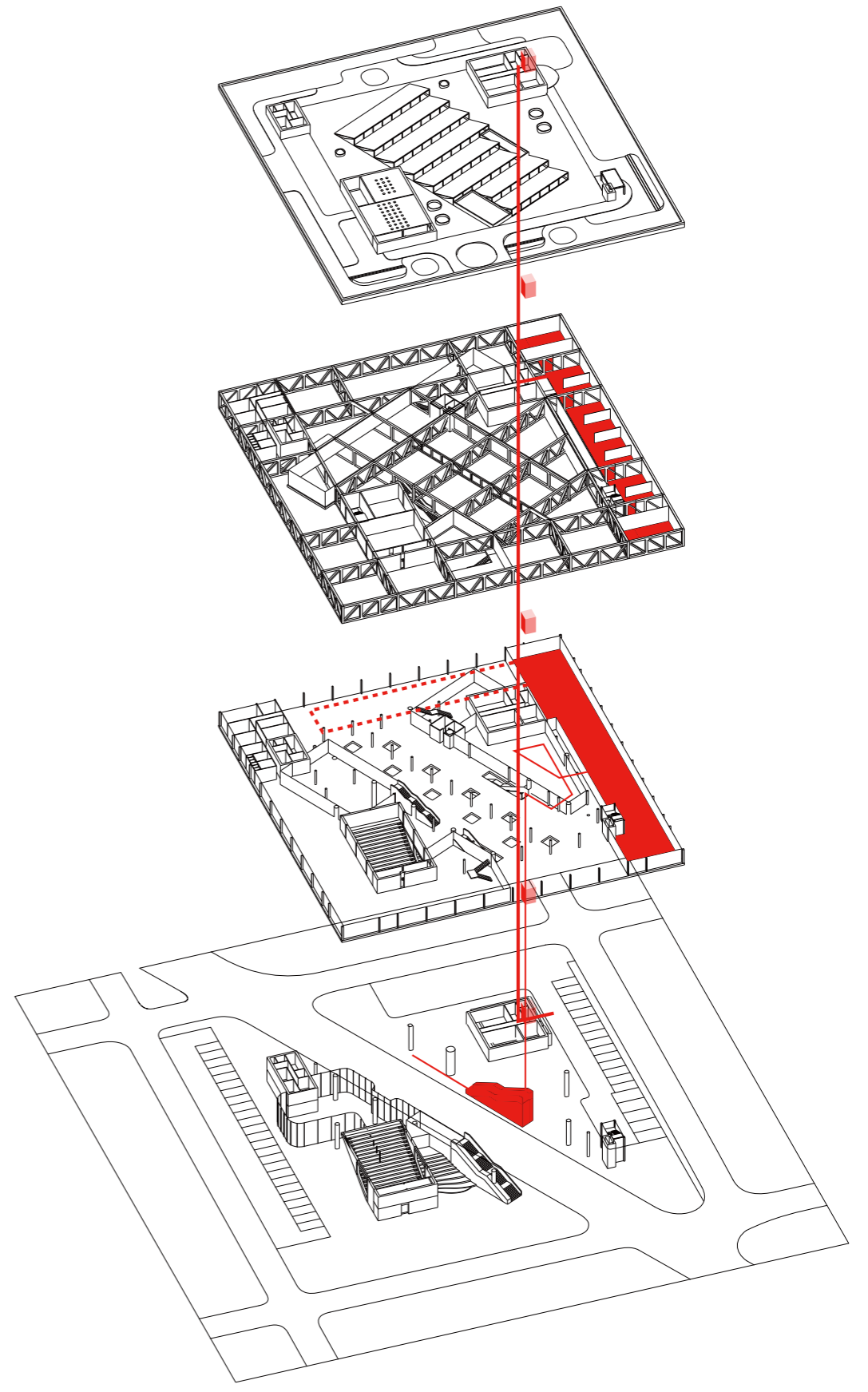


# CIRCULATION



**Library**

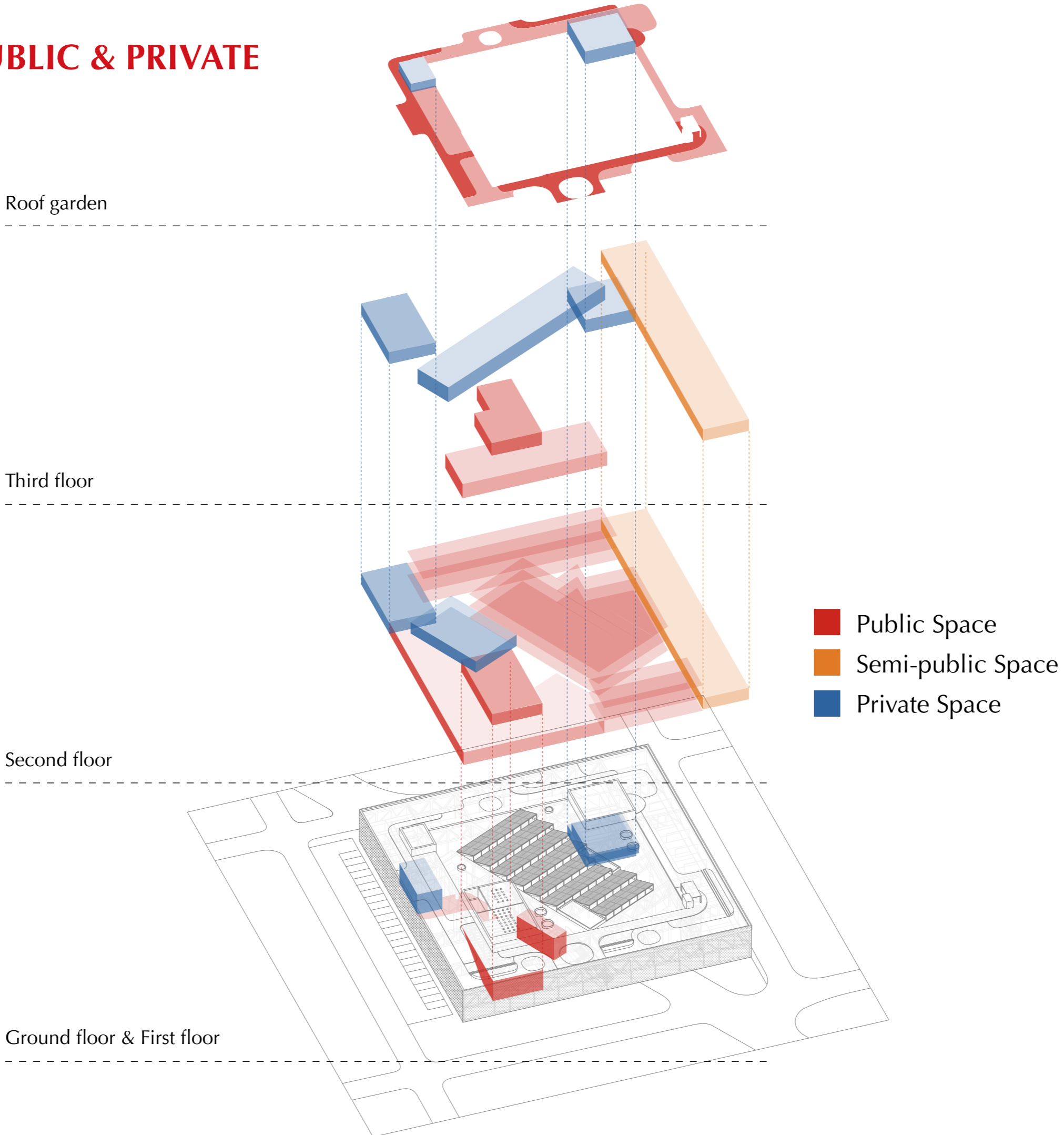
- Reader
- Logistic of library
- Library programs
- Publisher
- Visitor of Publication Center
- Publication centre programs
- Administration
- ▤ Exhibition & Display
- Administration office
- Logistic field
- Elevator
- General tourist
- - - Fire escape
- Public space



**Publication studio**



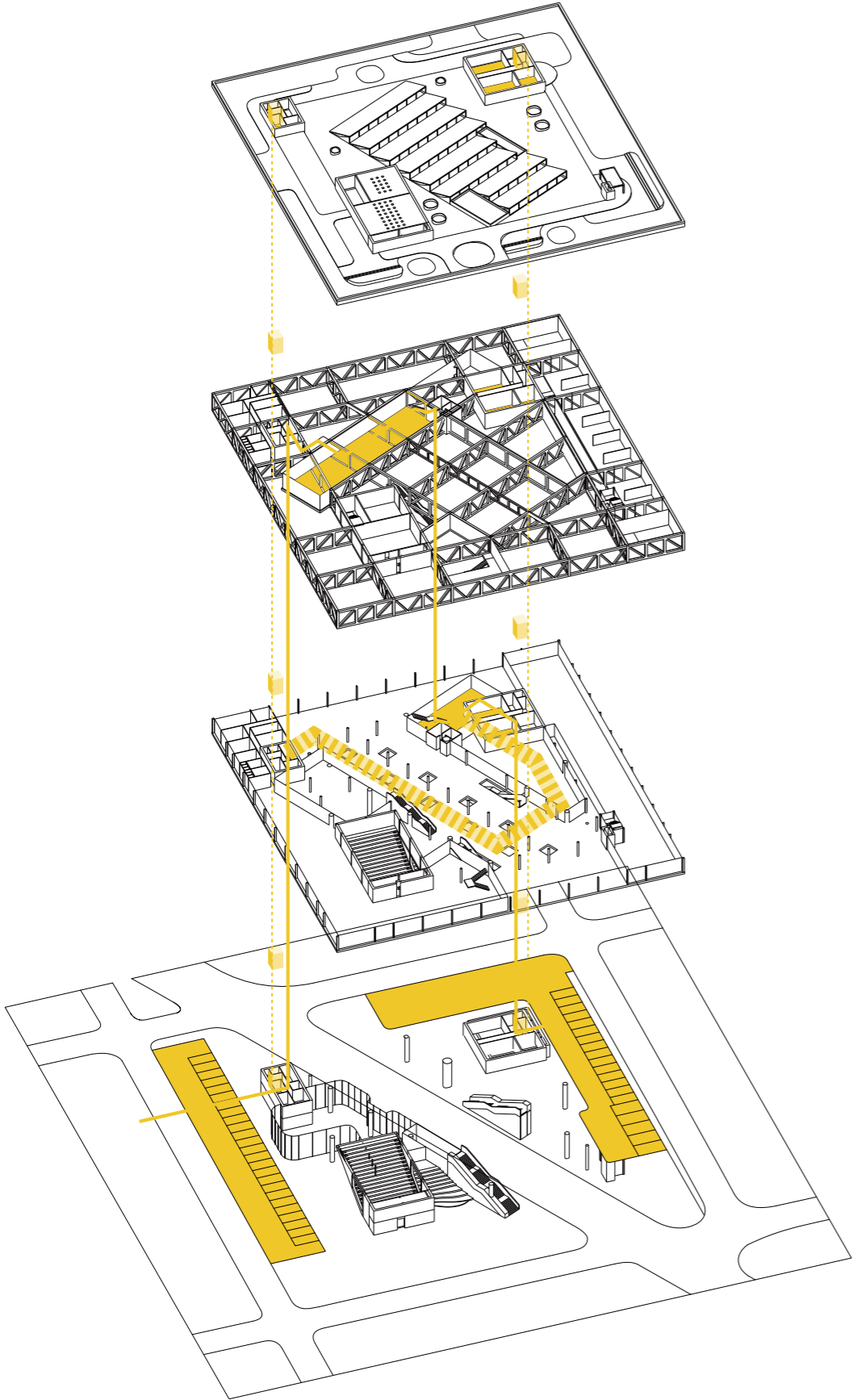
**PROGRAM: PUBLIC & PRIVATE**



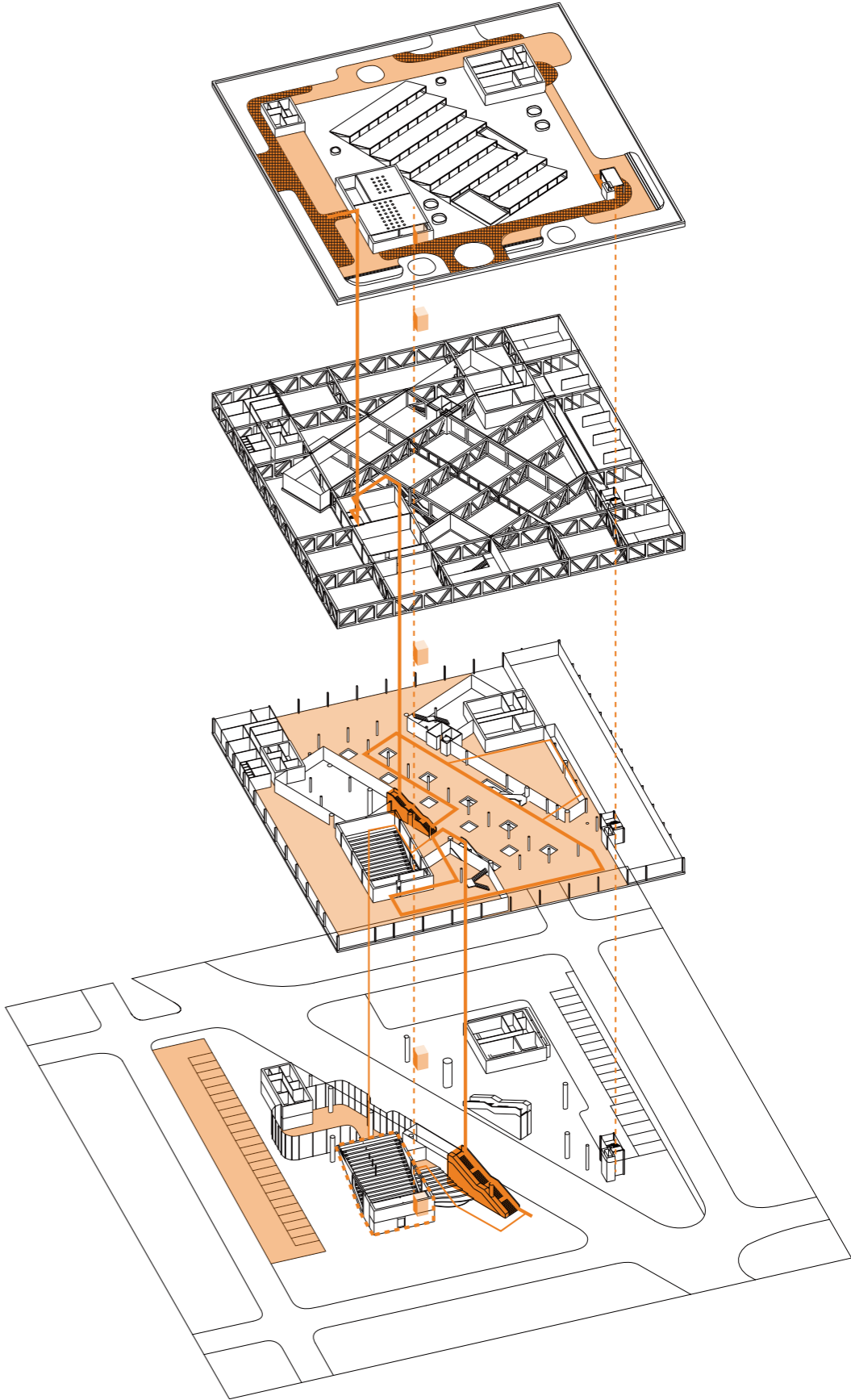


# CIRCULATION

- Reader
- Logistic of library
- Library programs
- Publisher
- Visitor of Publication Center
- Publication centre programs
- Administration
- Exhibition & Display
- Administration office
- Logistic field
- Elevator
- General tourist
- Fire escape
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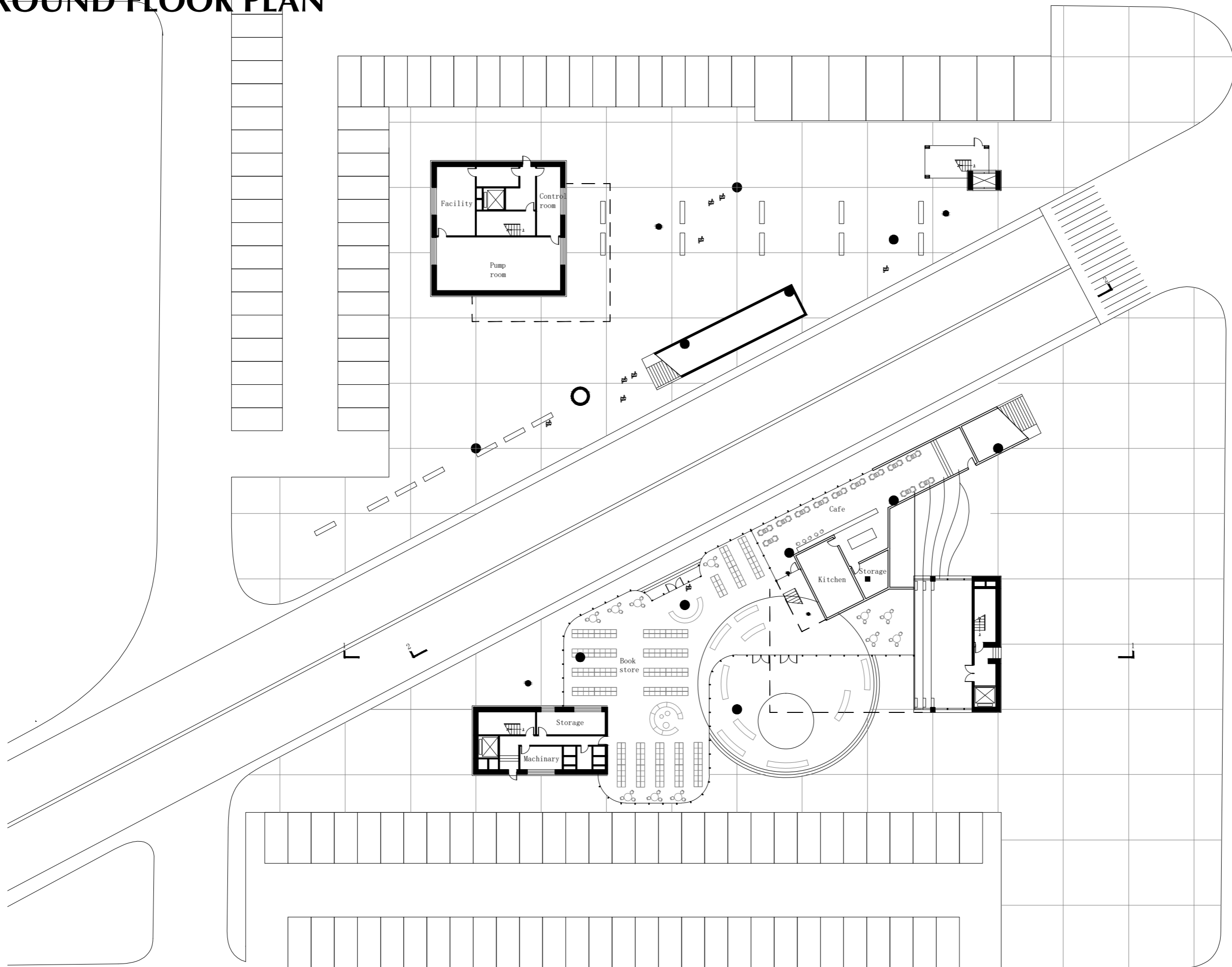
**Staff**



**Visitors**

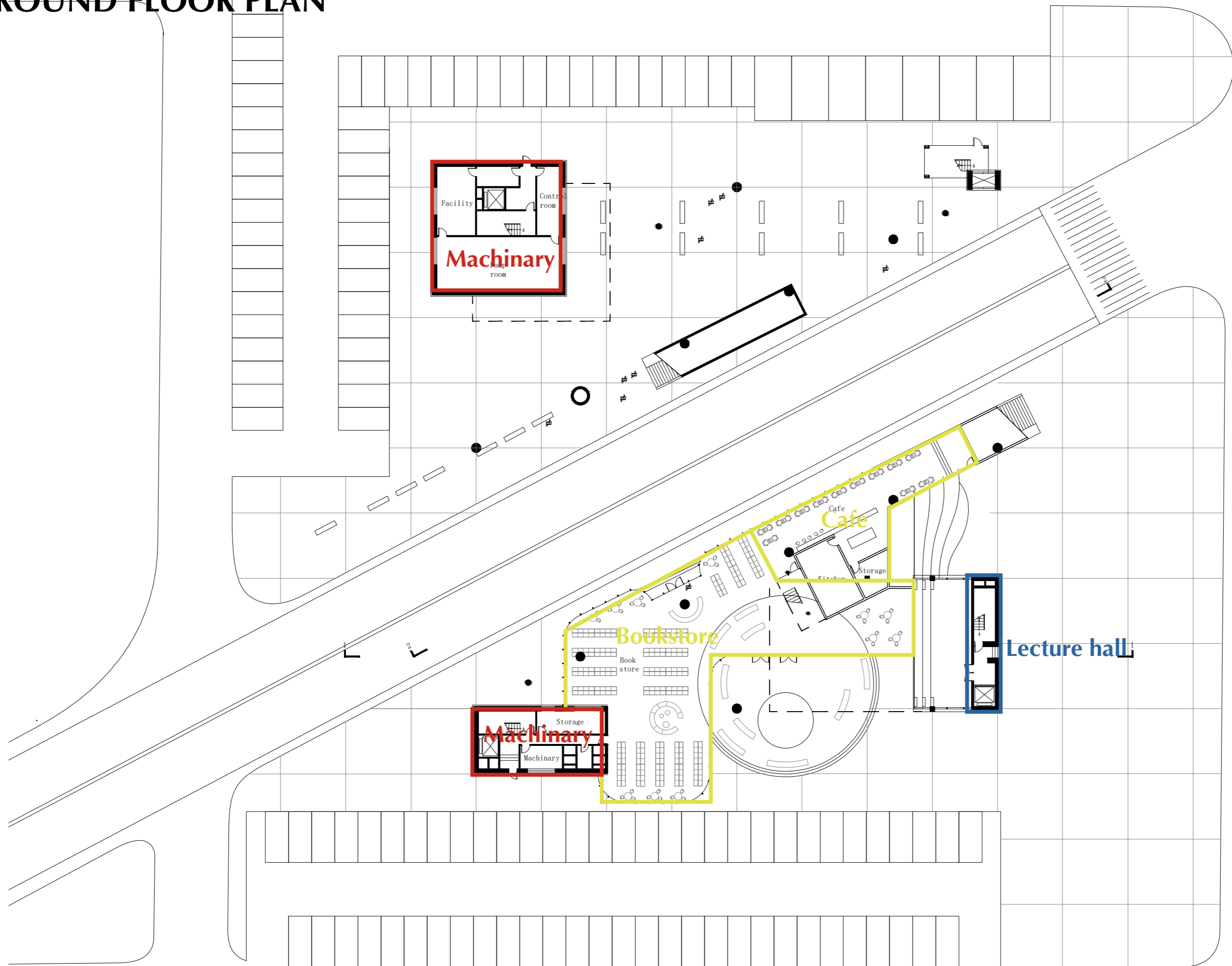


# GROUND FLOOR PLAN



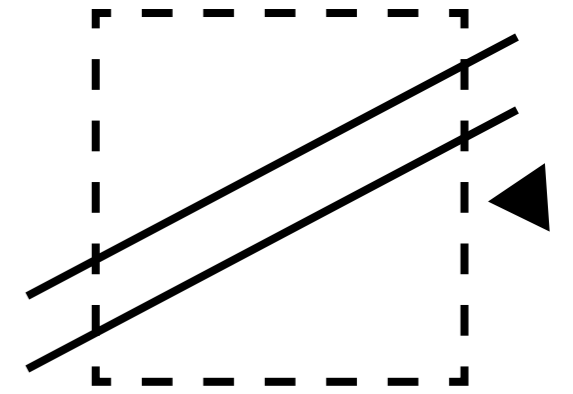


# GROUND FLOOR PLAN



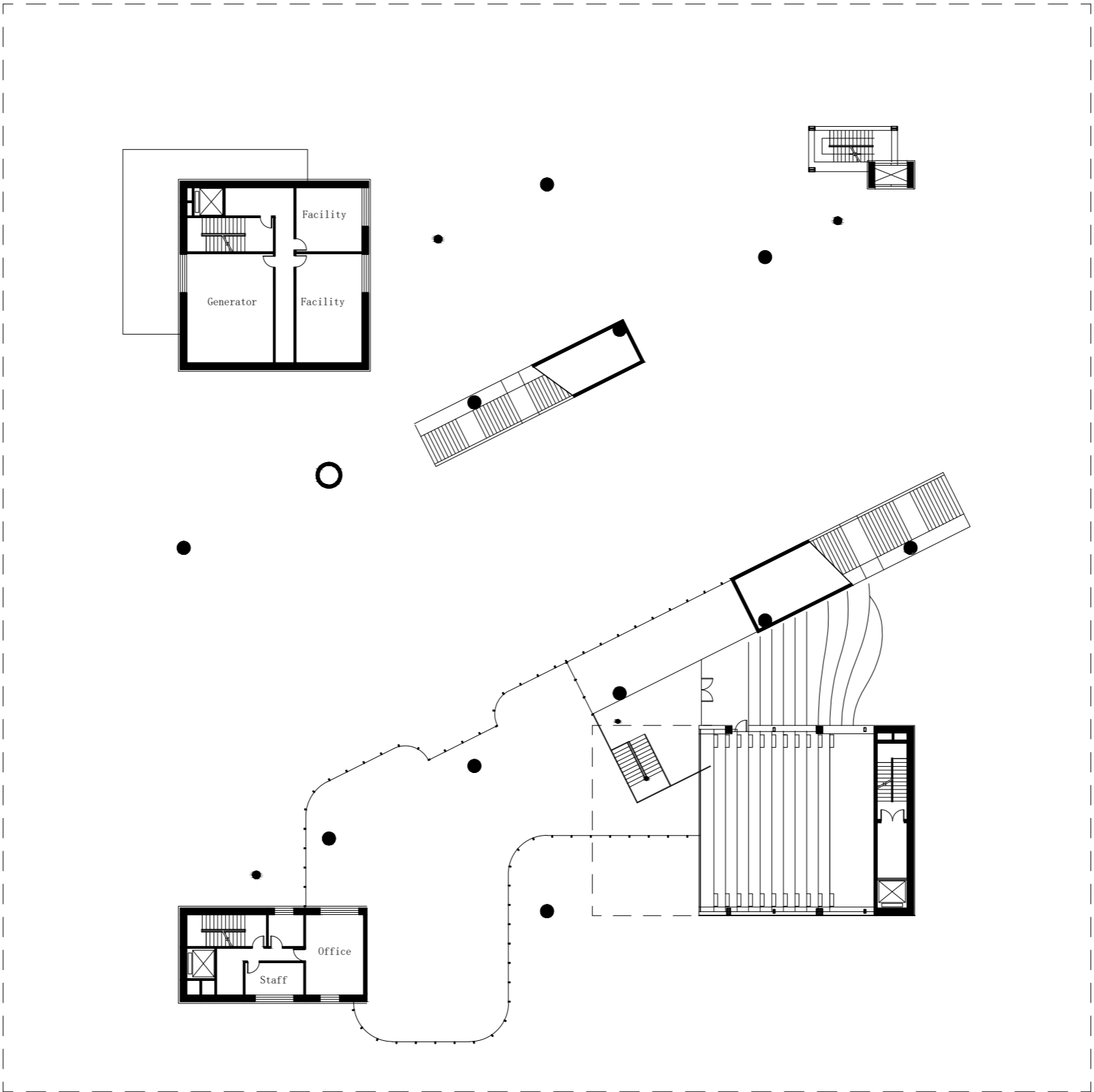


# STREET LEVEL MAIN ENTRANCE



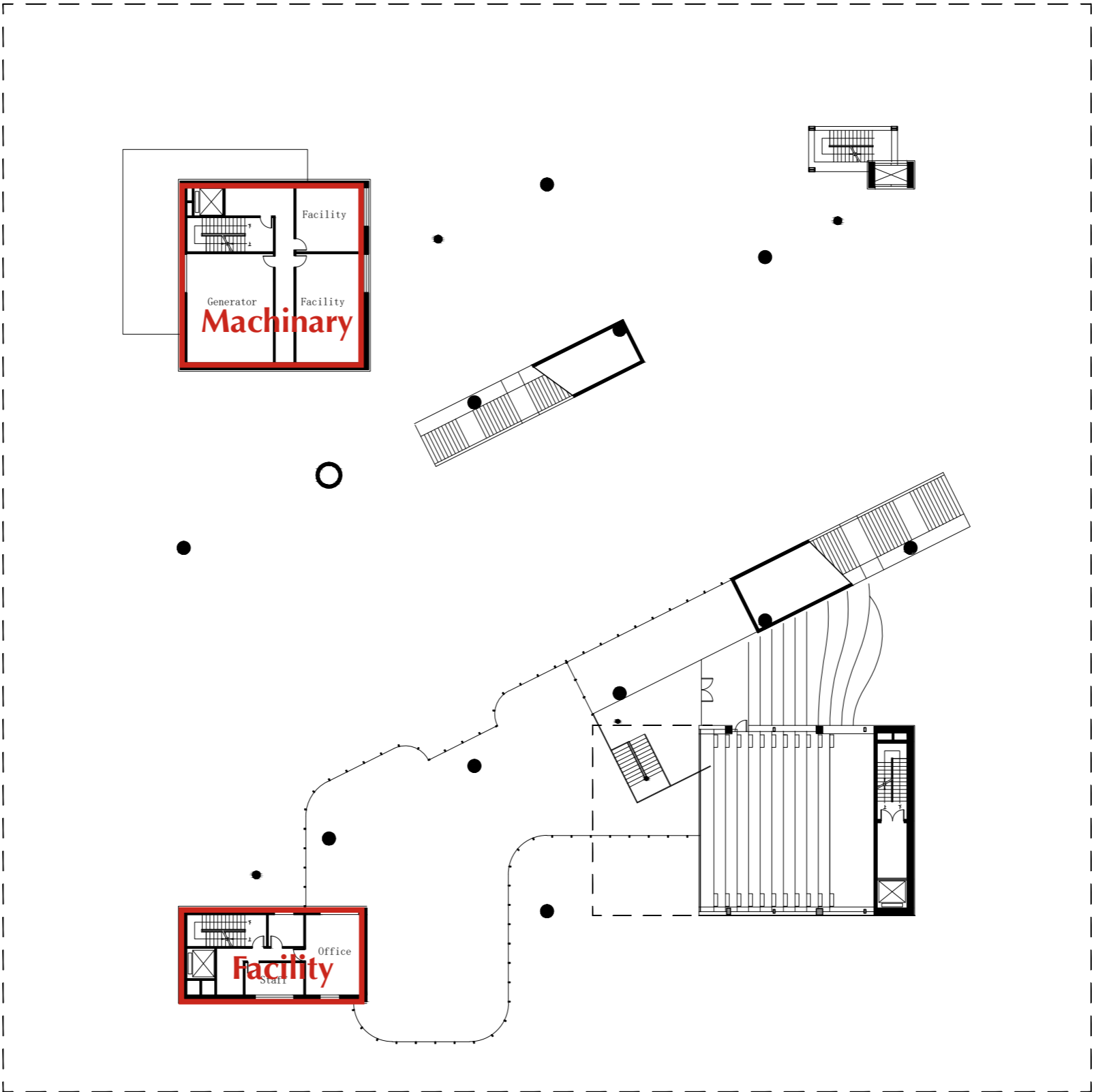


# FIRST FLOOR



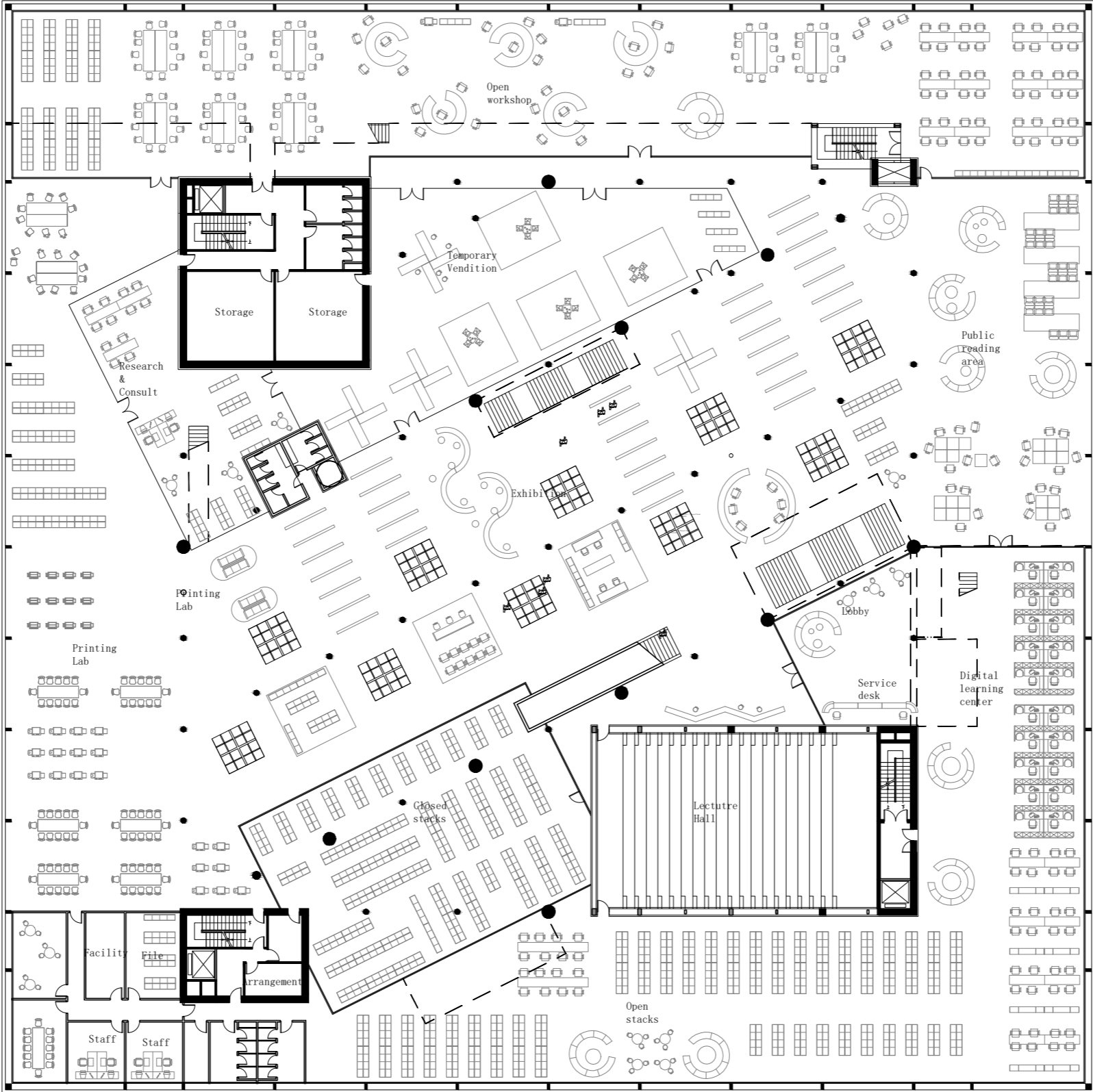


# FIRST FLOOR





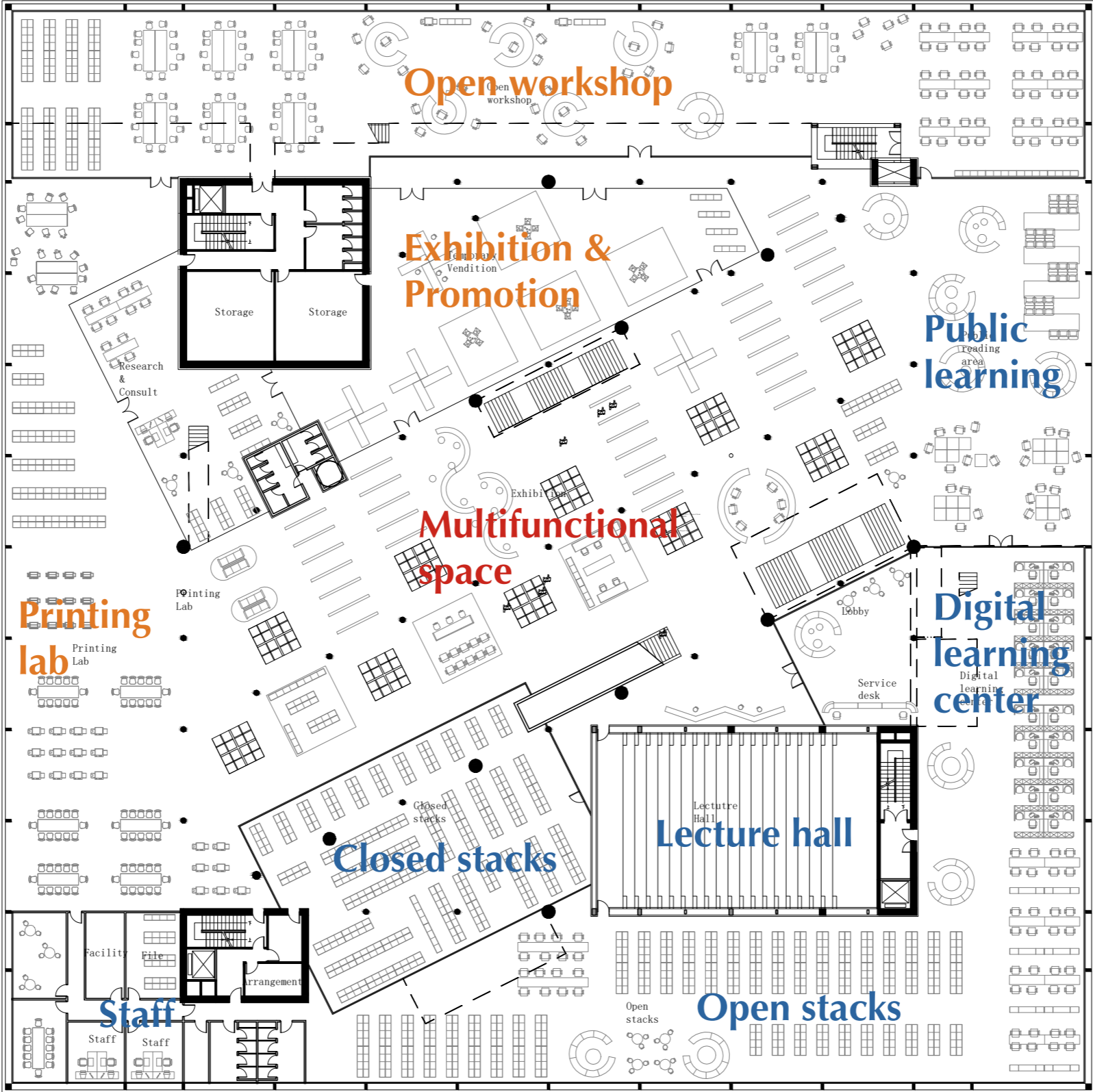
# SECOND FLOOR



Second Floor Plan 1:200



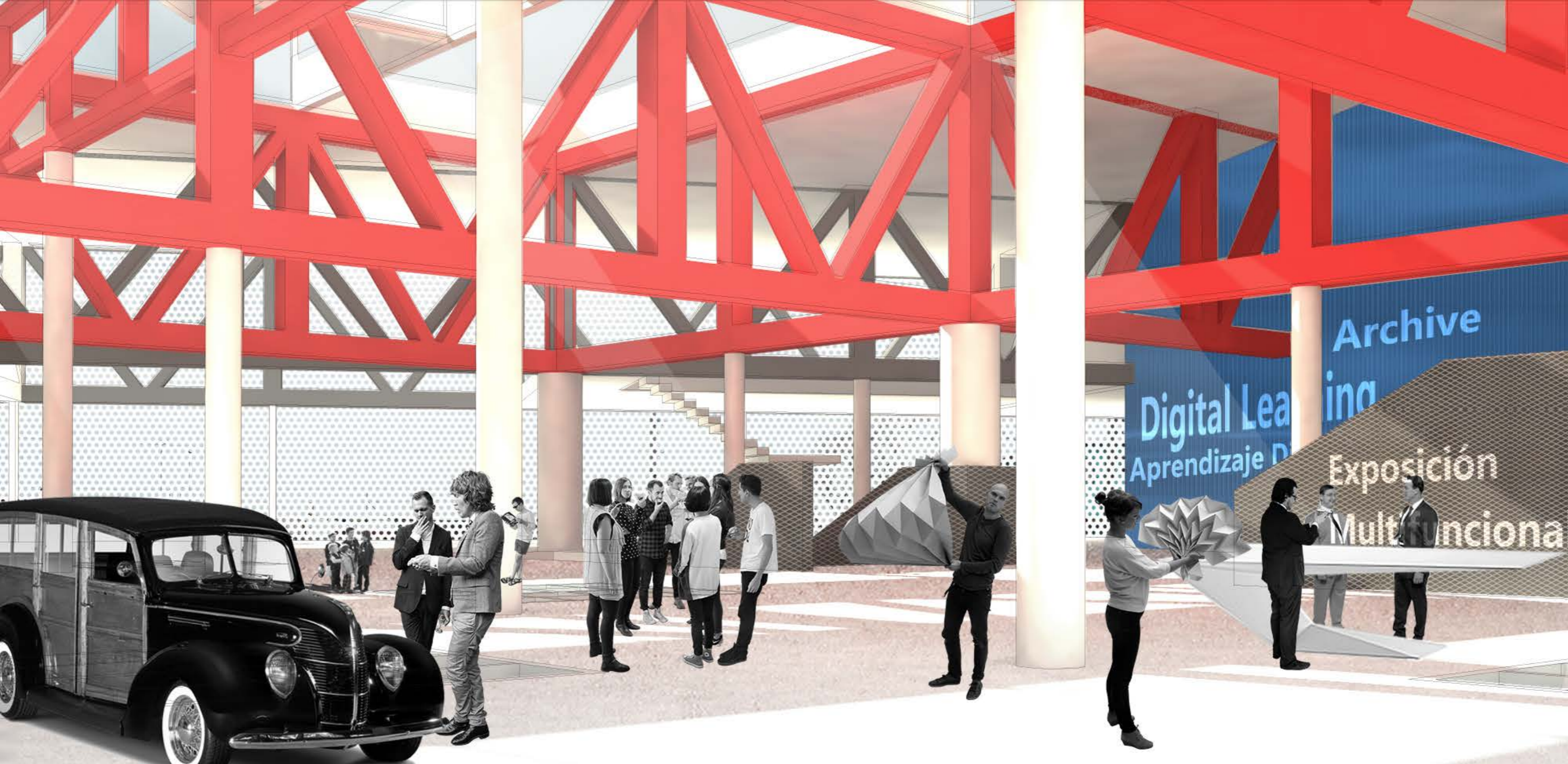
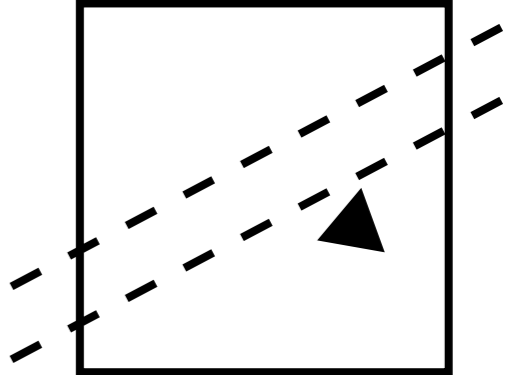
# SECOND FLOOR



Second Floor Plan 1:200

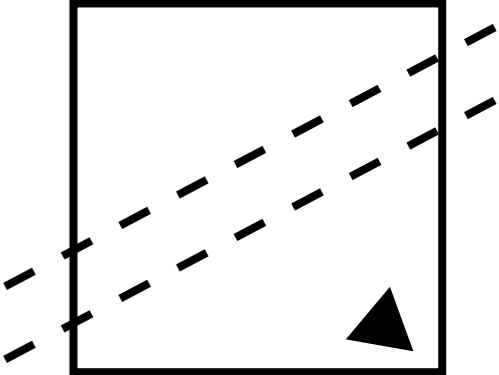


SECOND FLOOR **MULTIFUNCTIONAL SPACE**



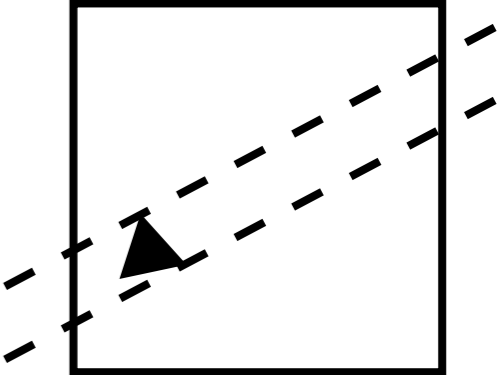


SECOND FLOOR LIBRARY



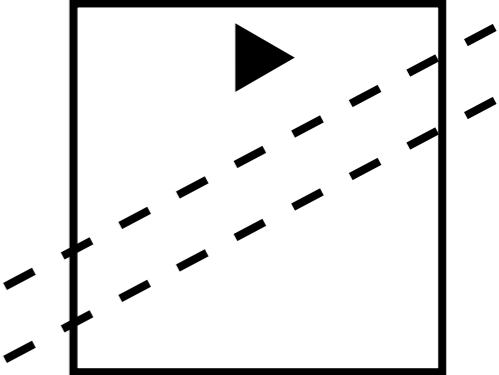


**SECOND FLOOR PRINTING LAB**



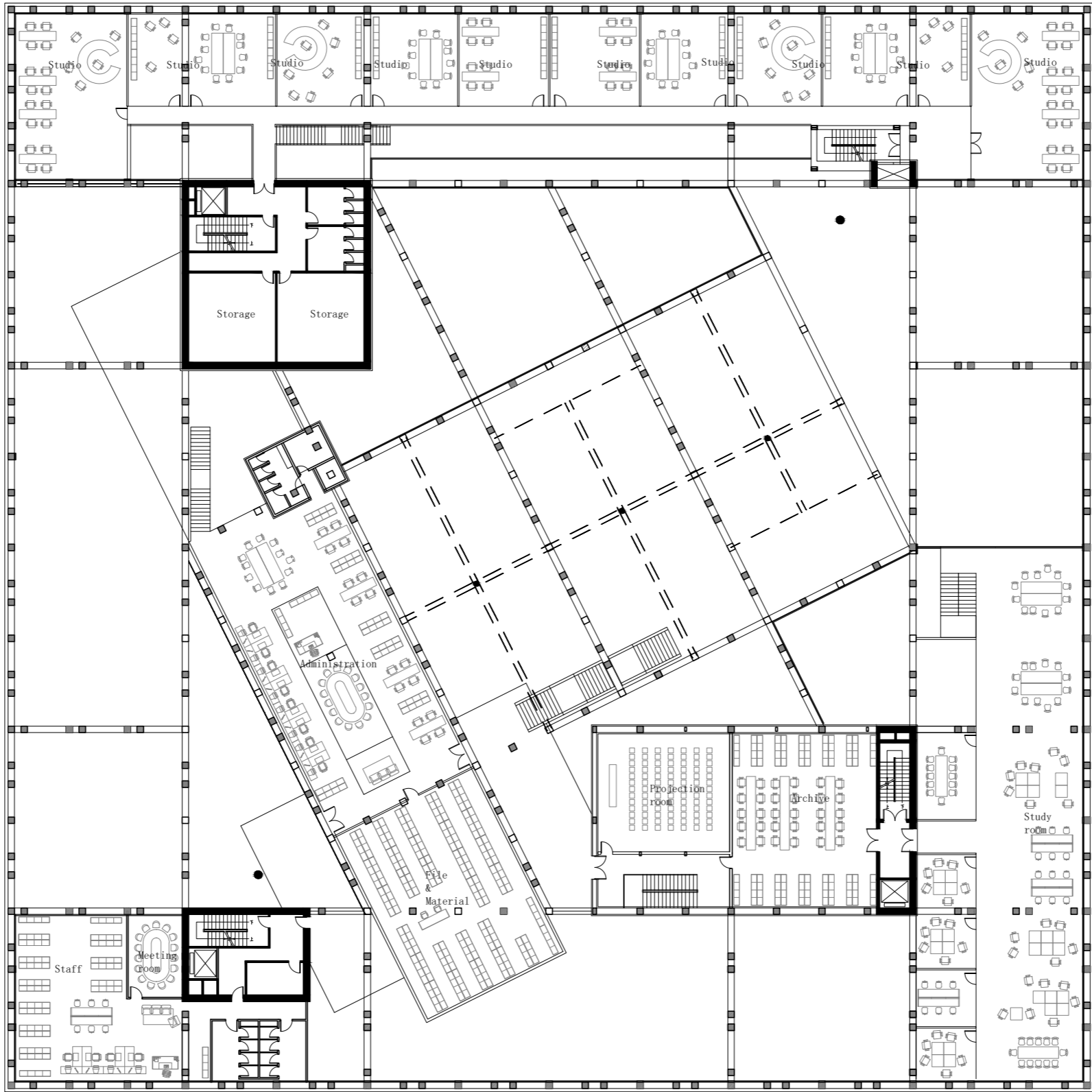


**SECOND FLOOR PUBLICATION STUDIO**





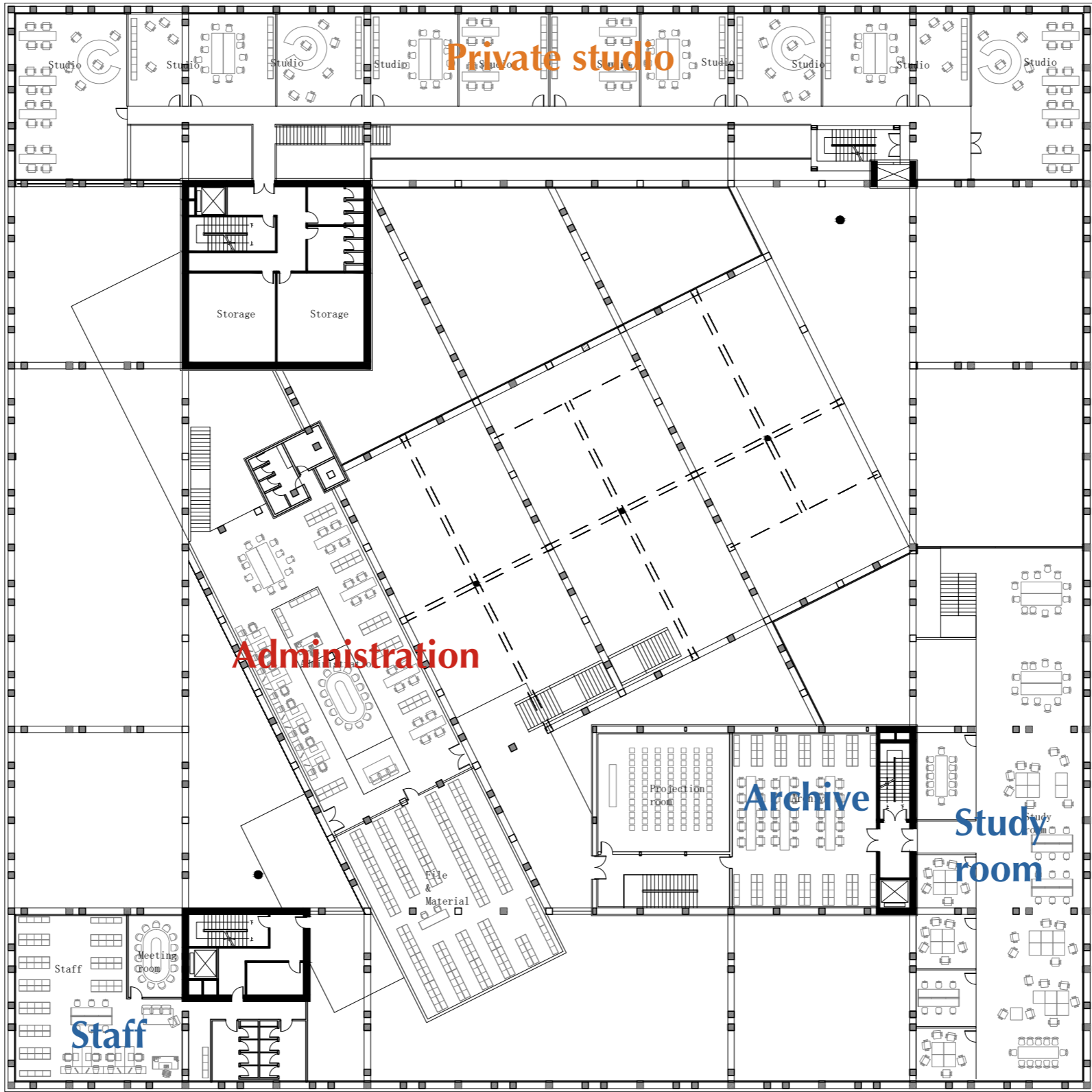
# THIRD FLOOR = ROOF MEZZANINE



Third Floor Plan 1:200

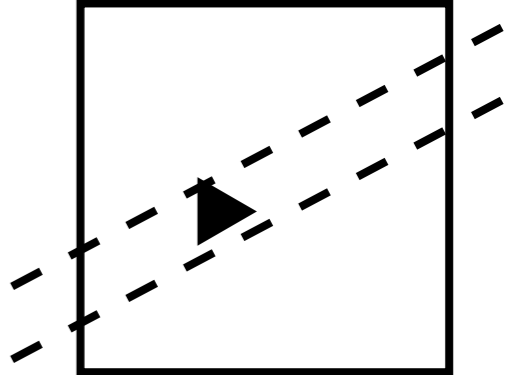


# THIRD FLOOR = ROOF MEZZANINE





**THIRD FLOOR = ROOF MEZZANINE OFFICE**

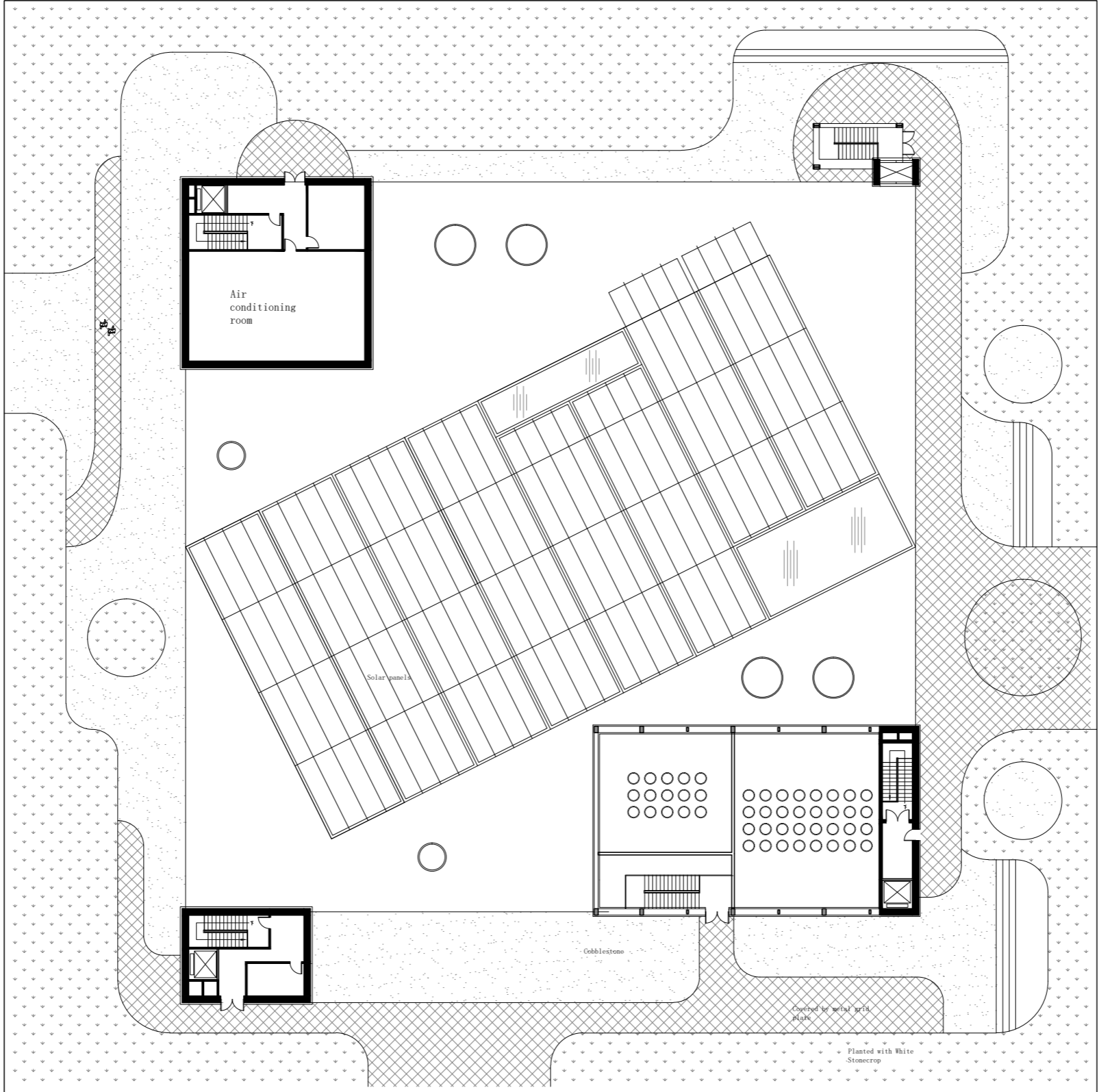


To be finished





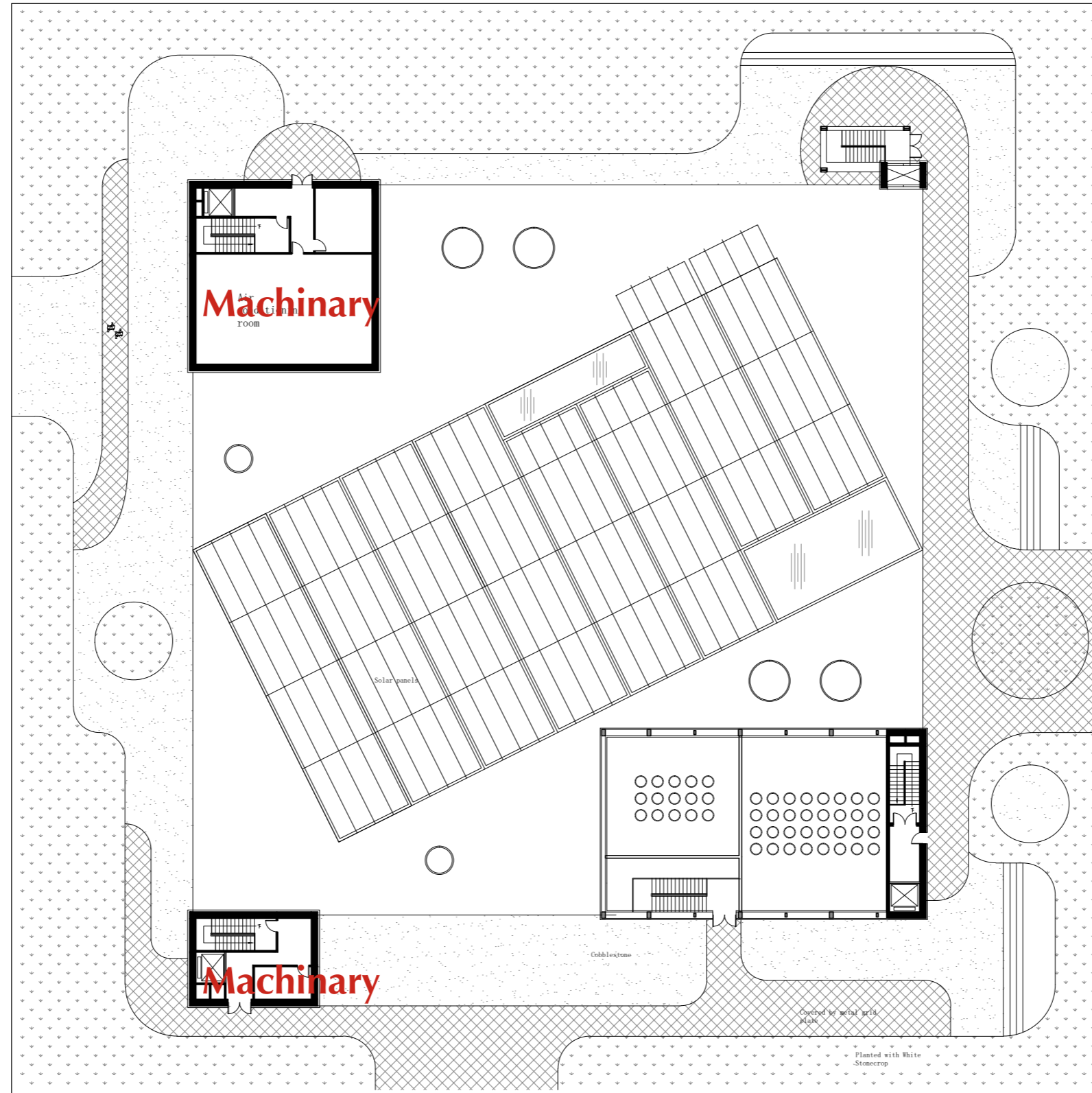
# ROOFTOP GARDEN



Roof Floor Plan 1:200



# ROOFTOP GARDEN





# ROOFTOP GARDEN





**PART 1: RESEARCH INTRODUCTION**

**PART 2: SITE SELECTION**

**PART 3: ARCHITECTURE DESIGN**

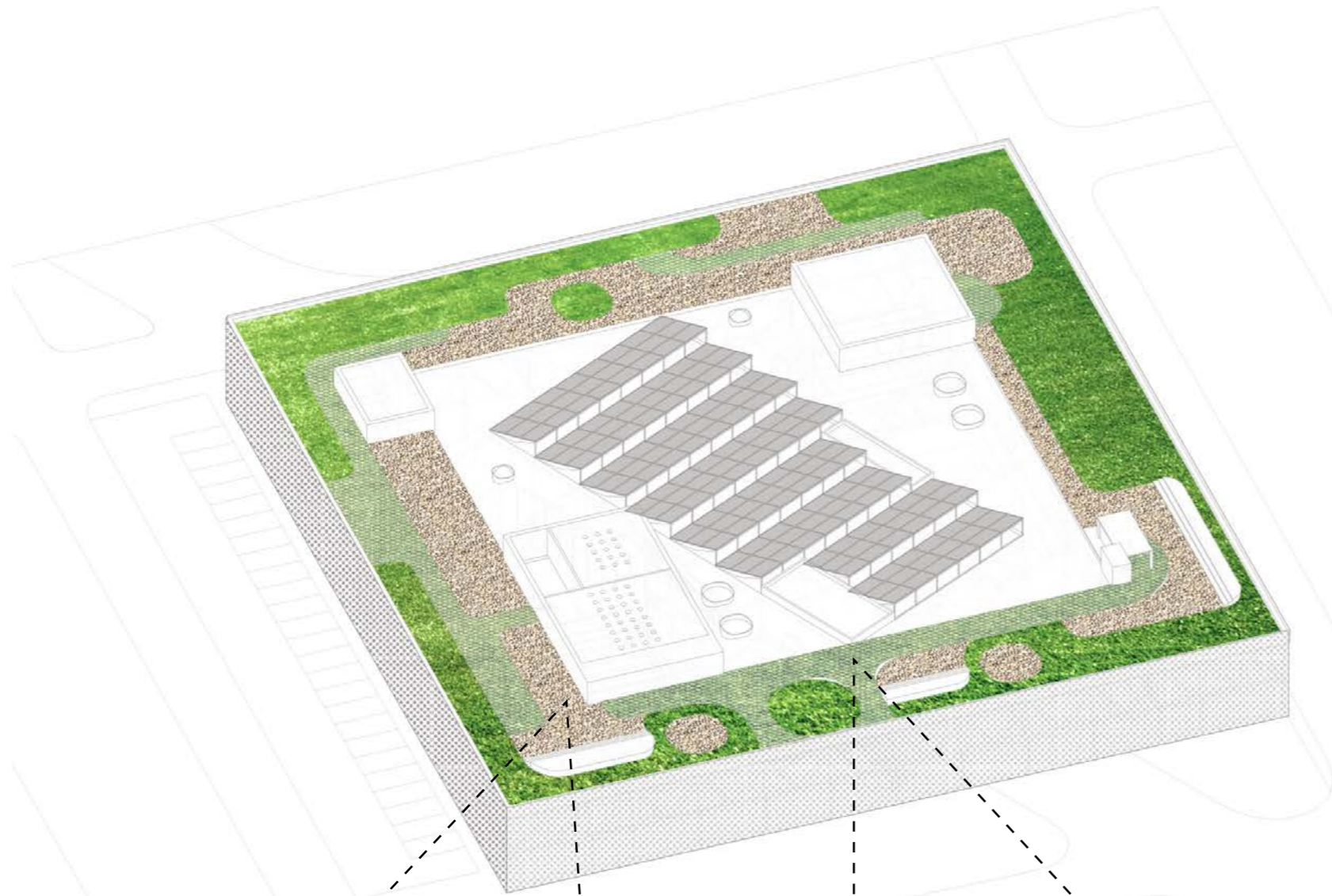
## **PART 4: SUSTAINABILITY**

**1. RAINWATER HARVESTING ROOF**

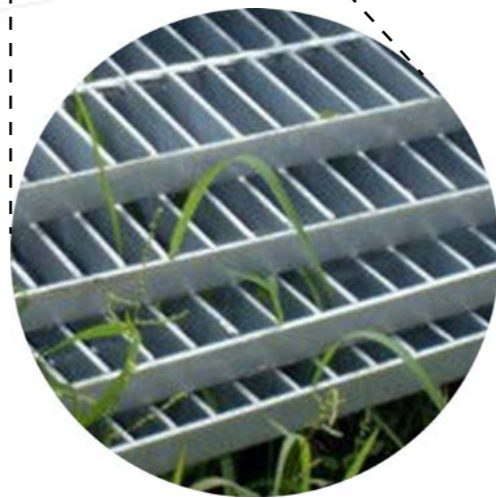
**2. CLIMATE**



# ROOF GARDEN



Beach stones



Metal mesh flooring

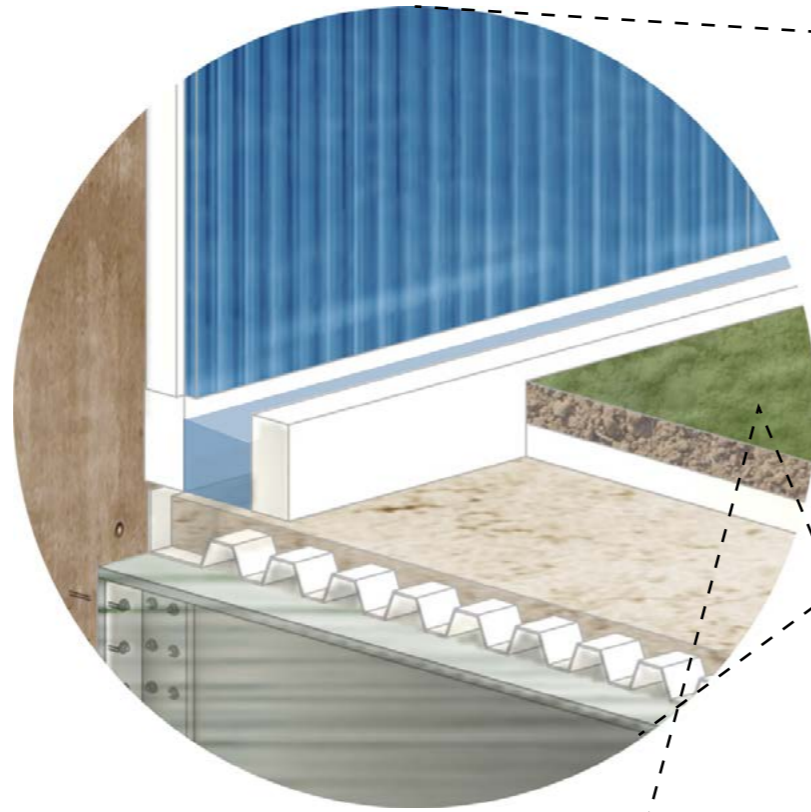
Reference:



Pattern of garden designed by Roberto Burle Marx



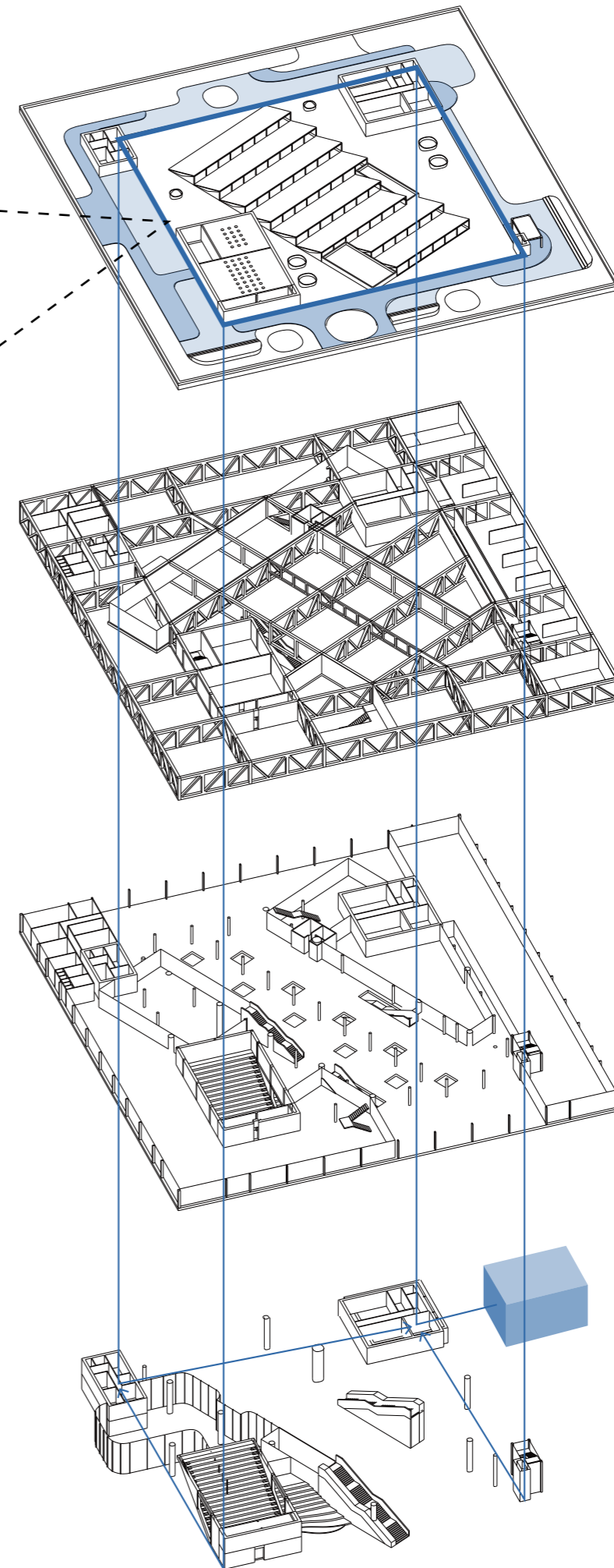
# RAINWATER HARVESTING IN RAINY SEASON



Water gathering gutter

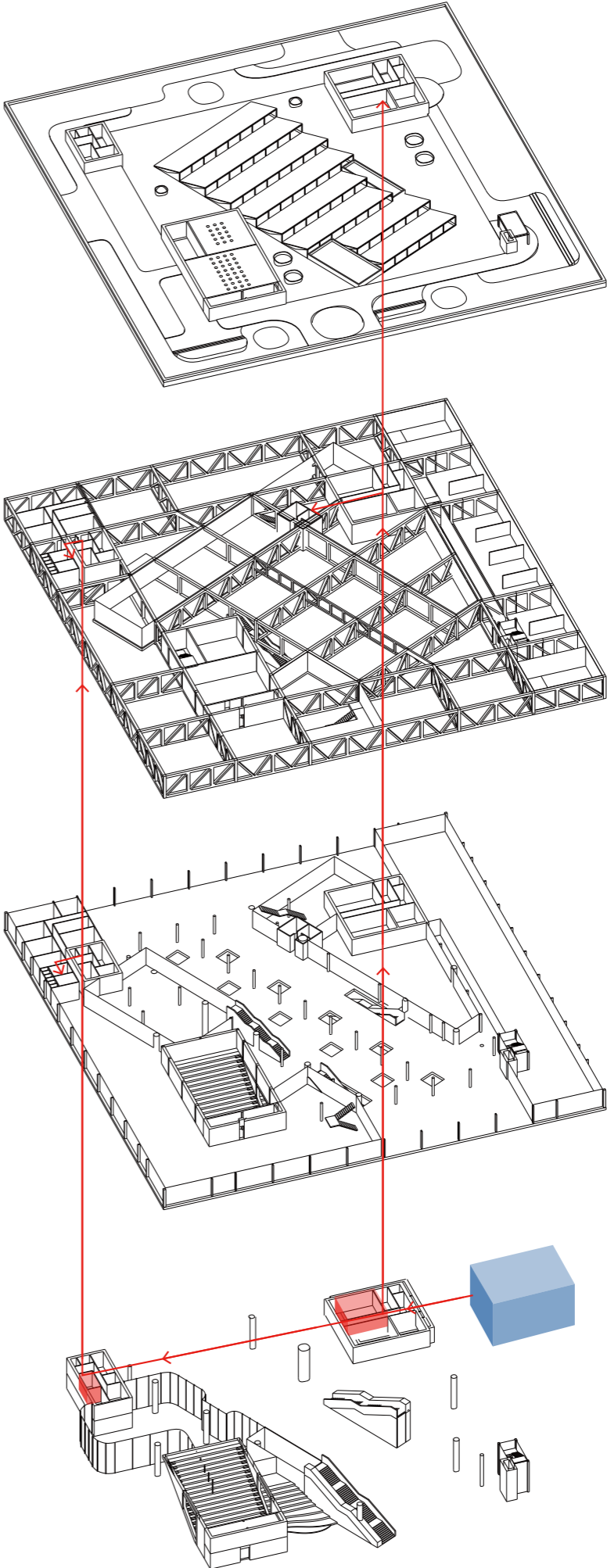


White Stonecrop



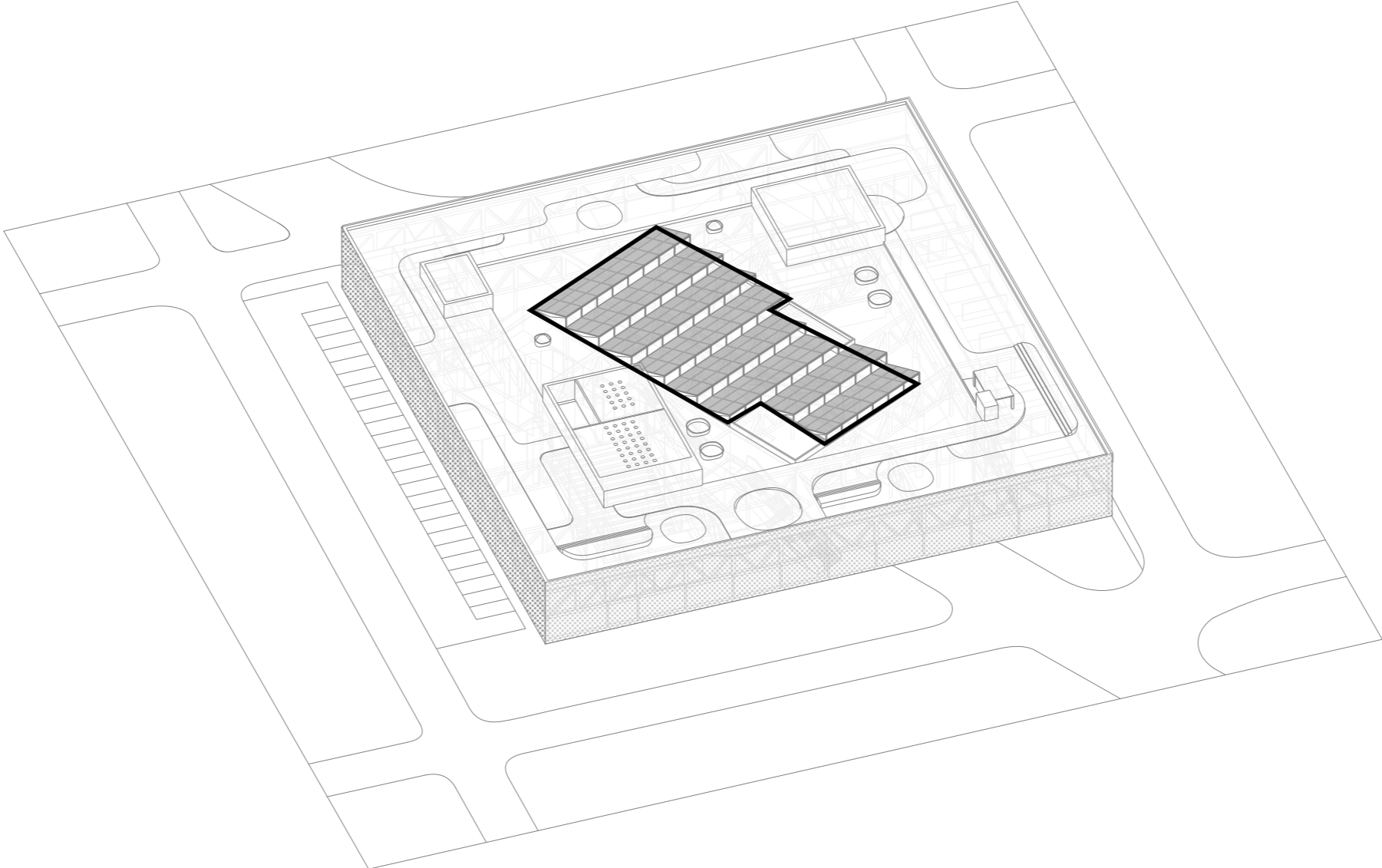


# WATER SUPPLY IN DRY SEASON



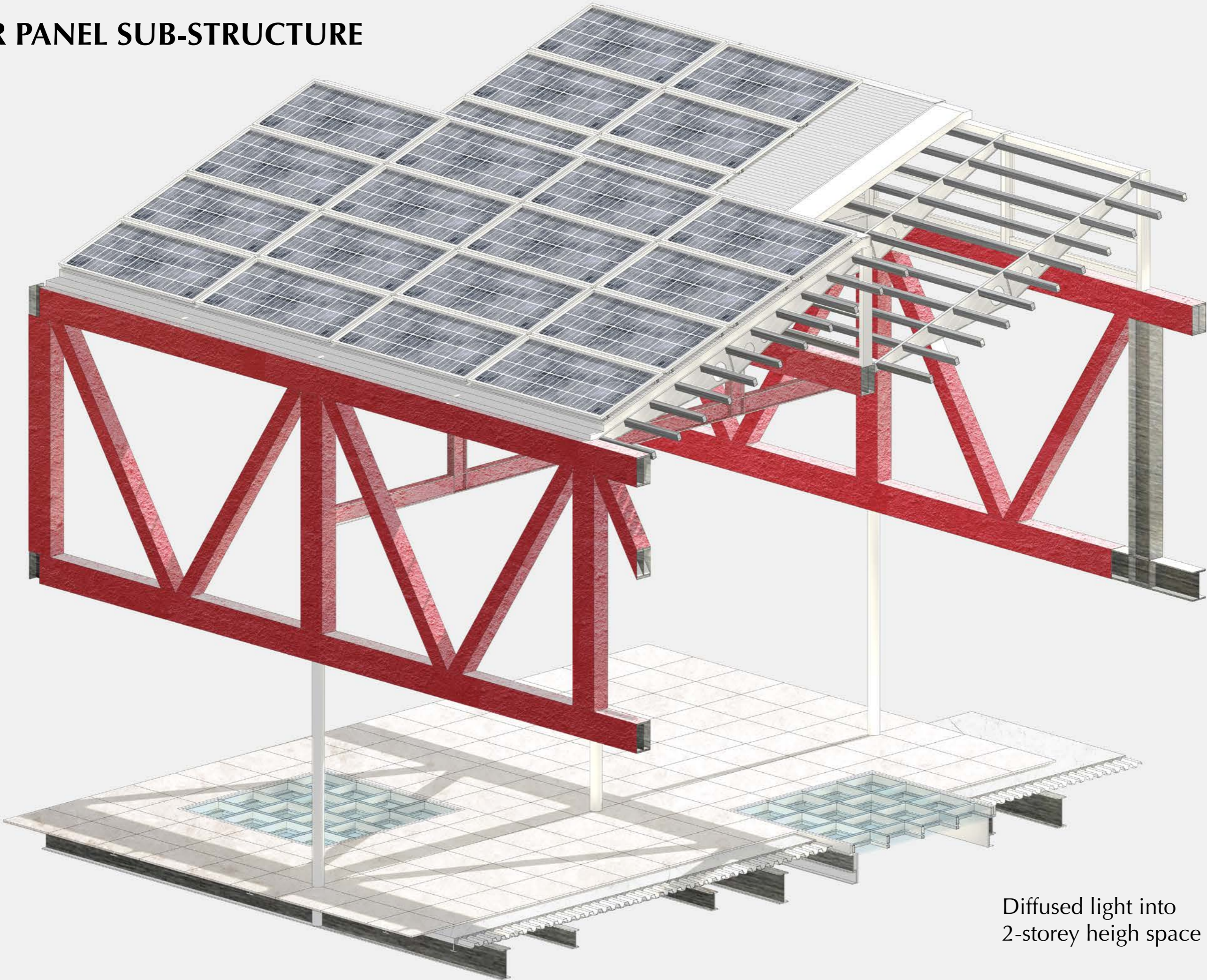


# SOLAR PANELS





# SOLAR PANEL SUB-STRUCTURE



Diffused light into  
2-storey height space below



# CLIMATE Bioclimatic Conditioned Areas

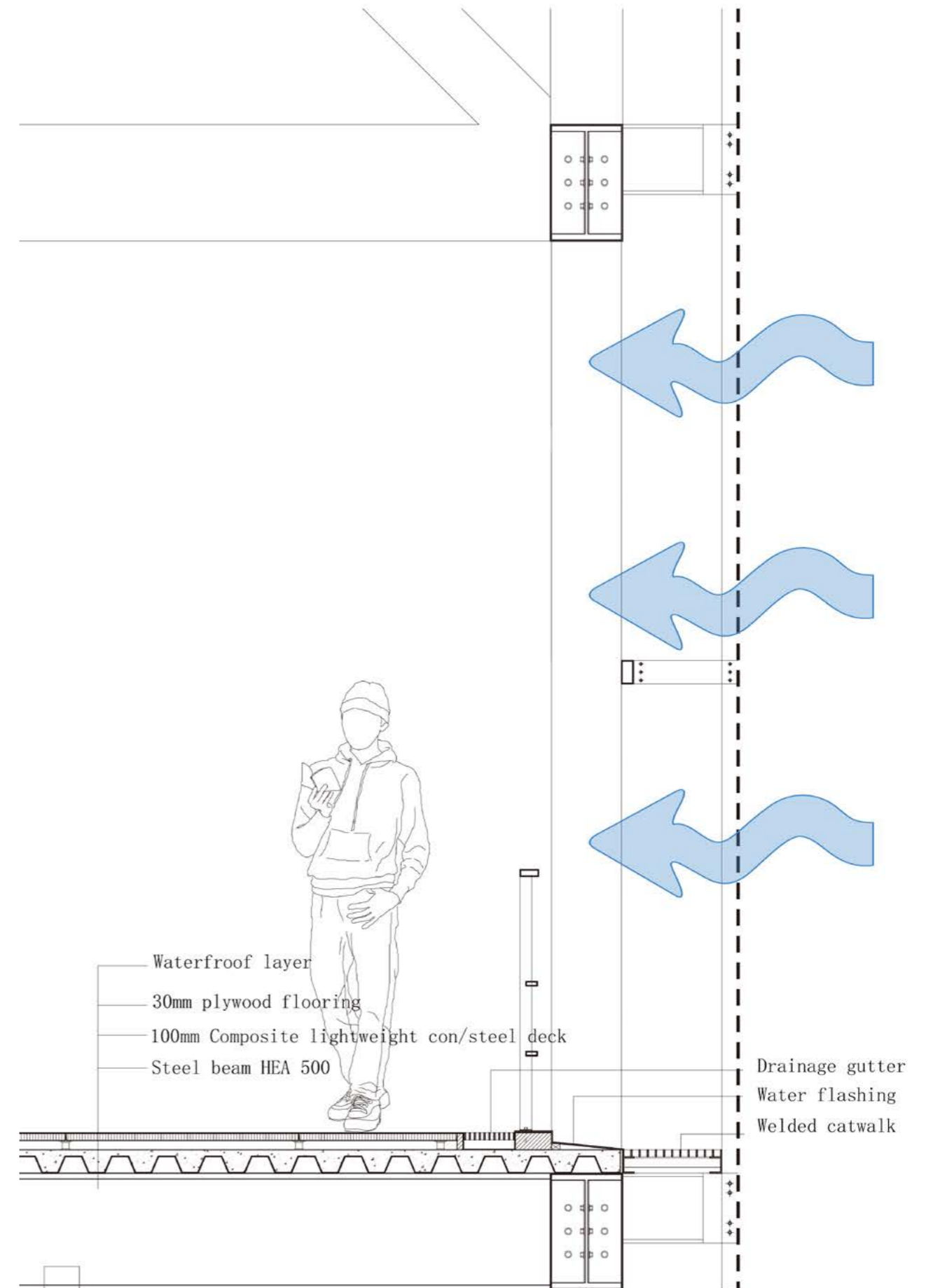
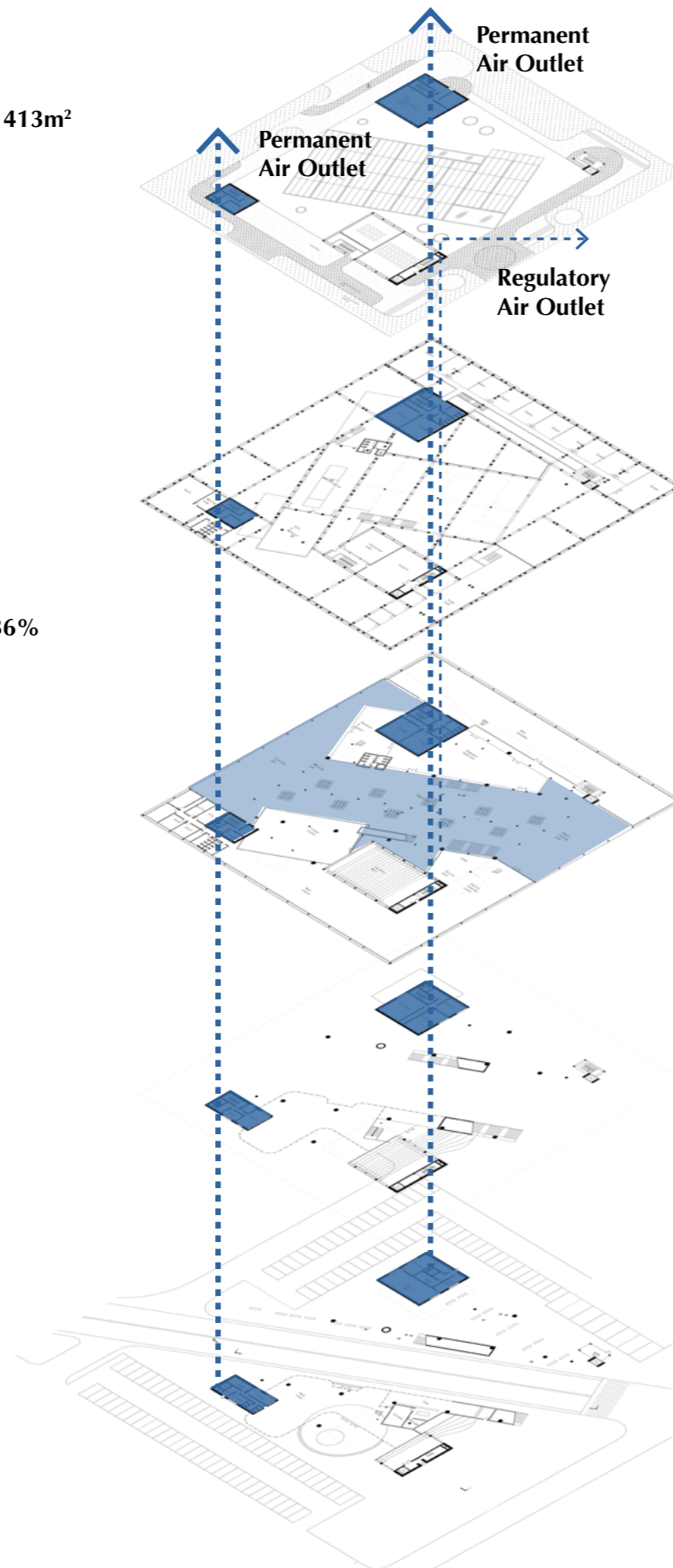
## Permanent mechanical ventilation 1413m<sup>2</sup>

Machinery 600m<sup>2</sup>  
Storage & Facility 613m<sup>2</sup>  
Others 200m<sup>2</sup>

## Natural ventilation 2063m<sup>2</sup>

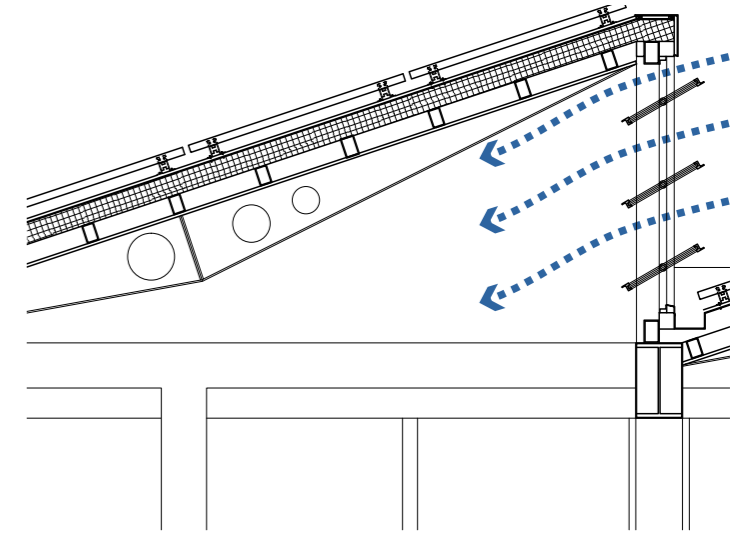
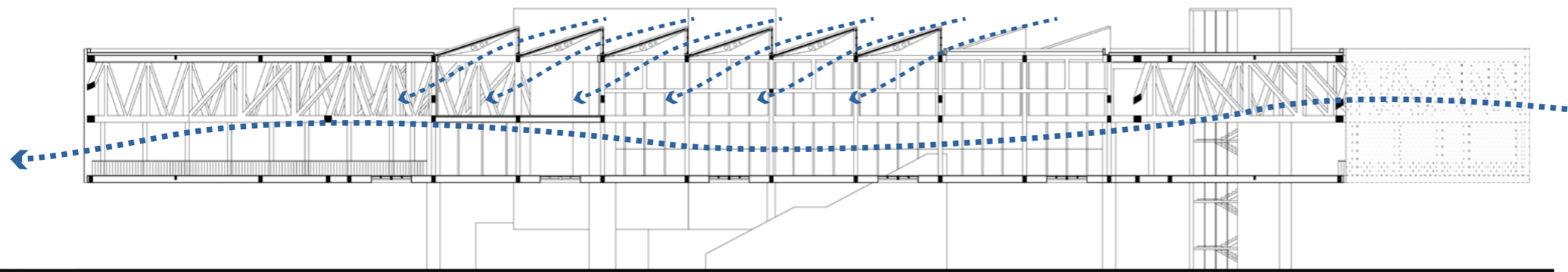
Printing lab 638m<sup>2</sup>  
Multifunctional space 1060m<sup>2</sup>  
Public learning area 365m<sup>2</sup>

**Total area: 3476m<sup>2</sup>**  
**Percentage of the whole building: 36%**

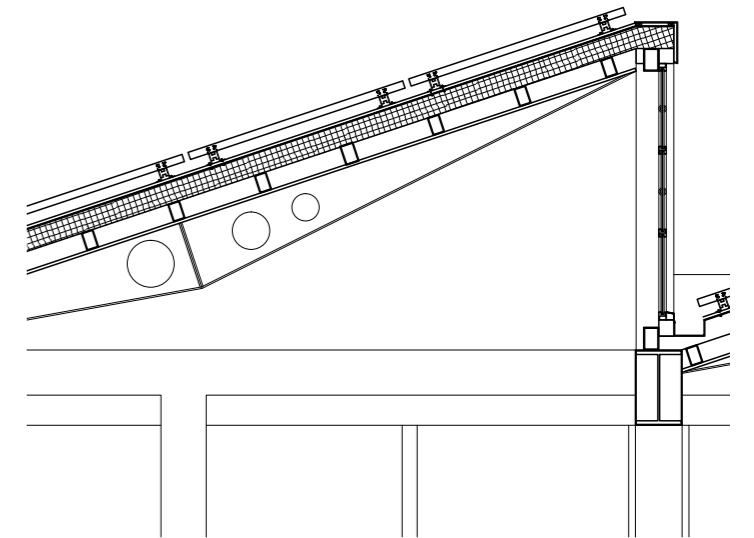




## Sunny days: passive ventilation



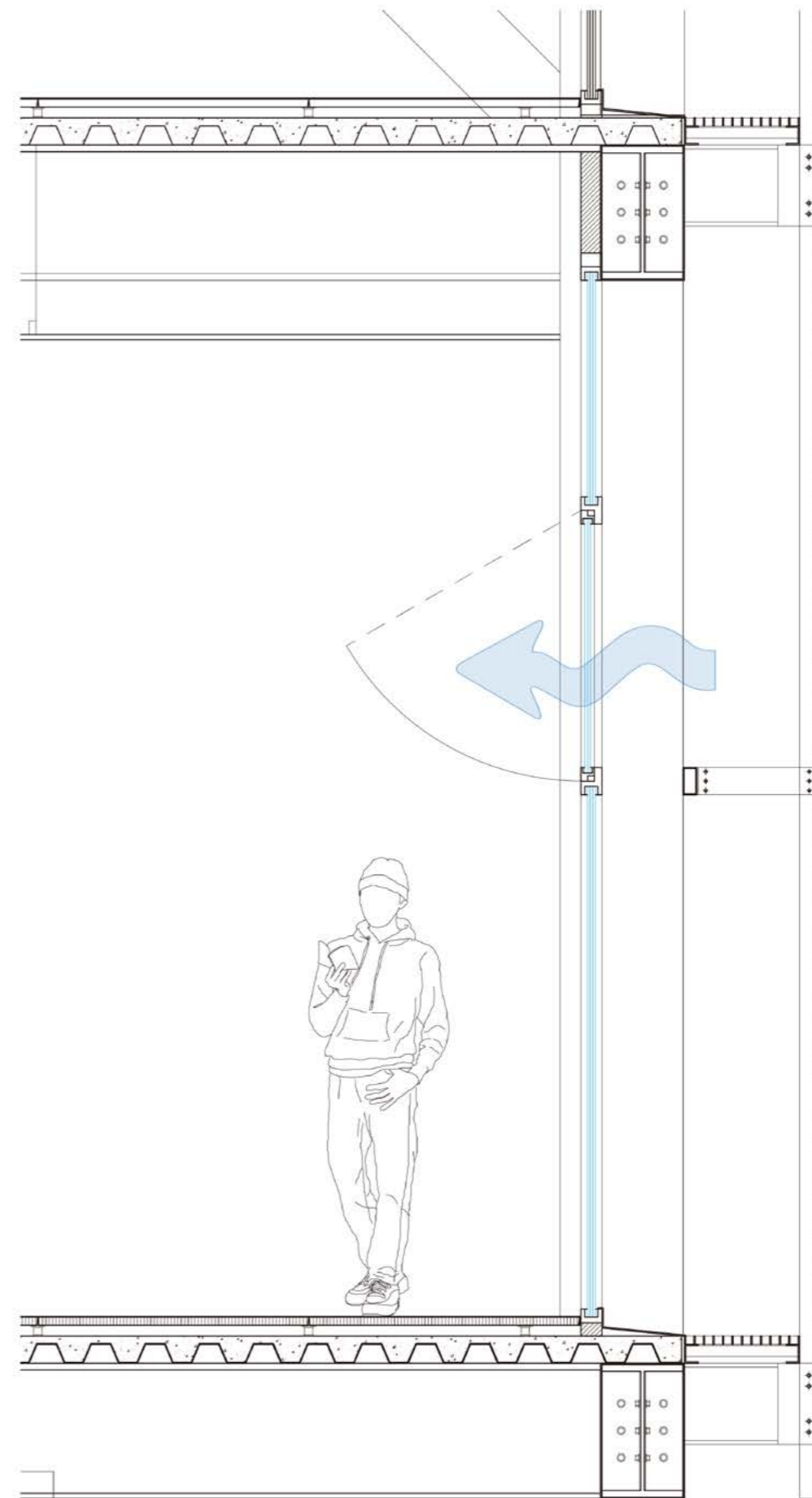
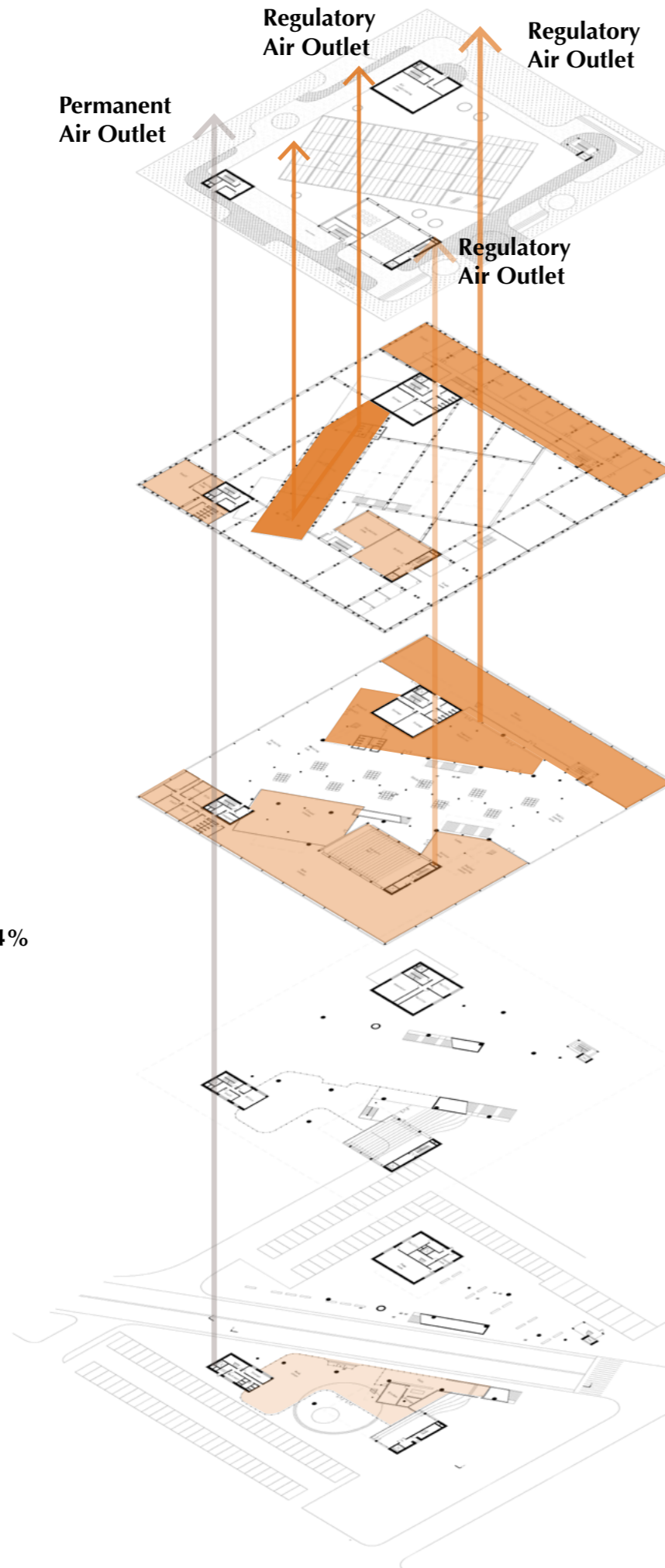
## Rainy days: mechanical ventilation





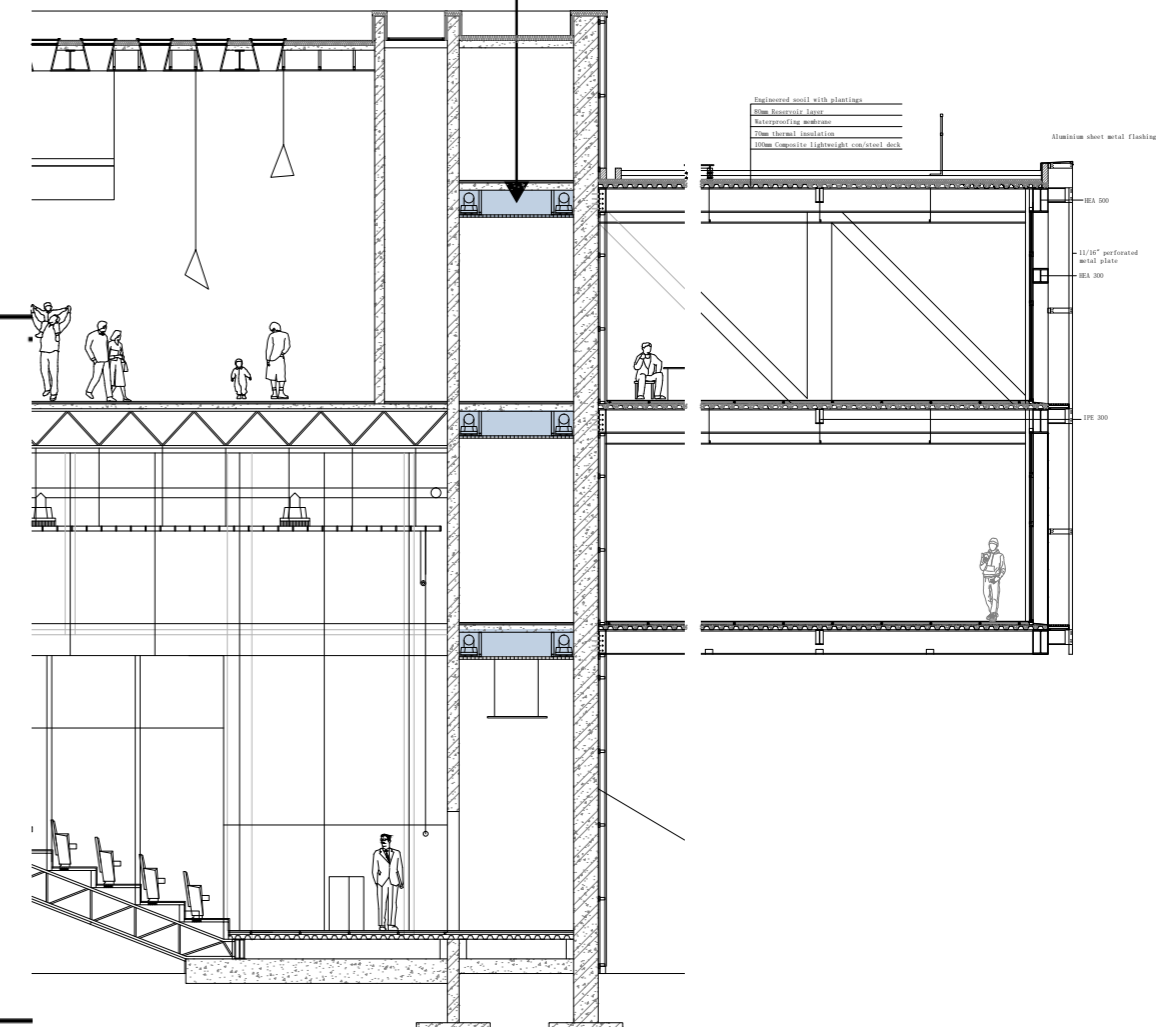
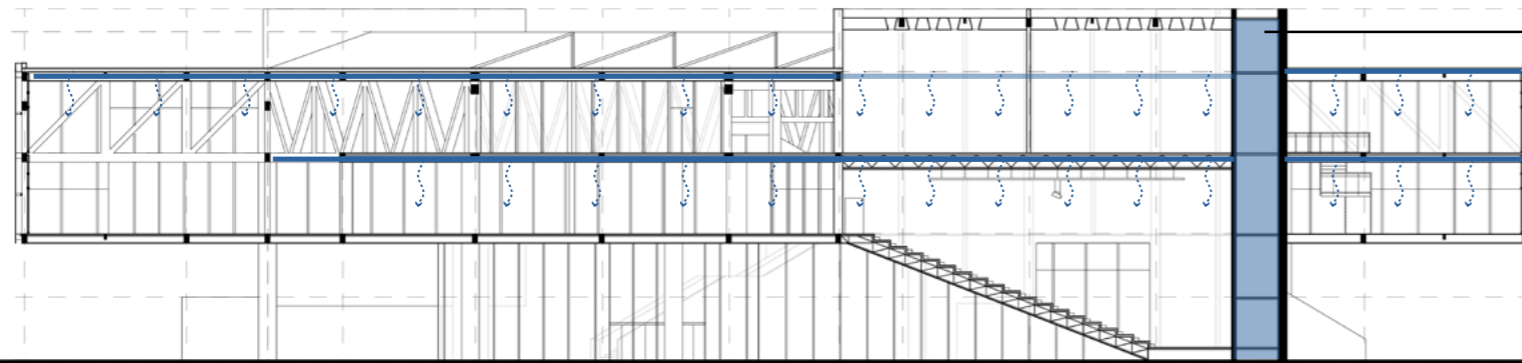
# INTERIOR CLIMATE: Regularity climate areas

- Commercial & Leisure 705m<sup>2</sup>**
    - Book store 550m<sup>2</sup>
    - Cafe 155m<sup>2</sup>
  - Library 2950m<sup>2</sup>**
    - Digital learning 560m<sup>2</sup>
    - Open stacks 850m<sup>2</sup>
    - Lobby & Service 100m<sup>2</sup>
    - Study room 446m<sup>2</sup>
    - Closed stacks 410
    - Staff & Management 325m<sup>2</sup>
    - Reference archive 153m<sup>2</sup>
    - Projection room 106m<sup>2</sup>
  - Publication center 1758m<sup>2</sup>**
    - Promotion & Exhibition 438m<sup>2</sup>
    - Open workshop 660m<sup>2</sup>
    - Private studio 660m<sup>2</sup>
  - Administration 844m<sup>2</sup>**
- Total area: 6275m<sup>2</sup>**  
**Percentage of the whole building: 64%**

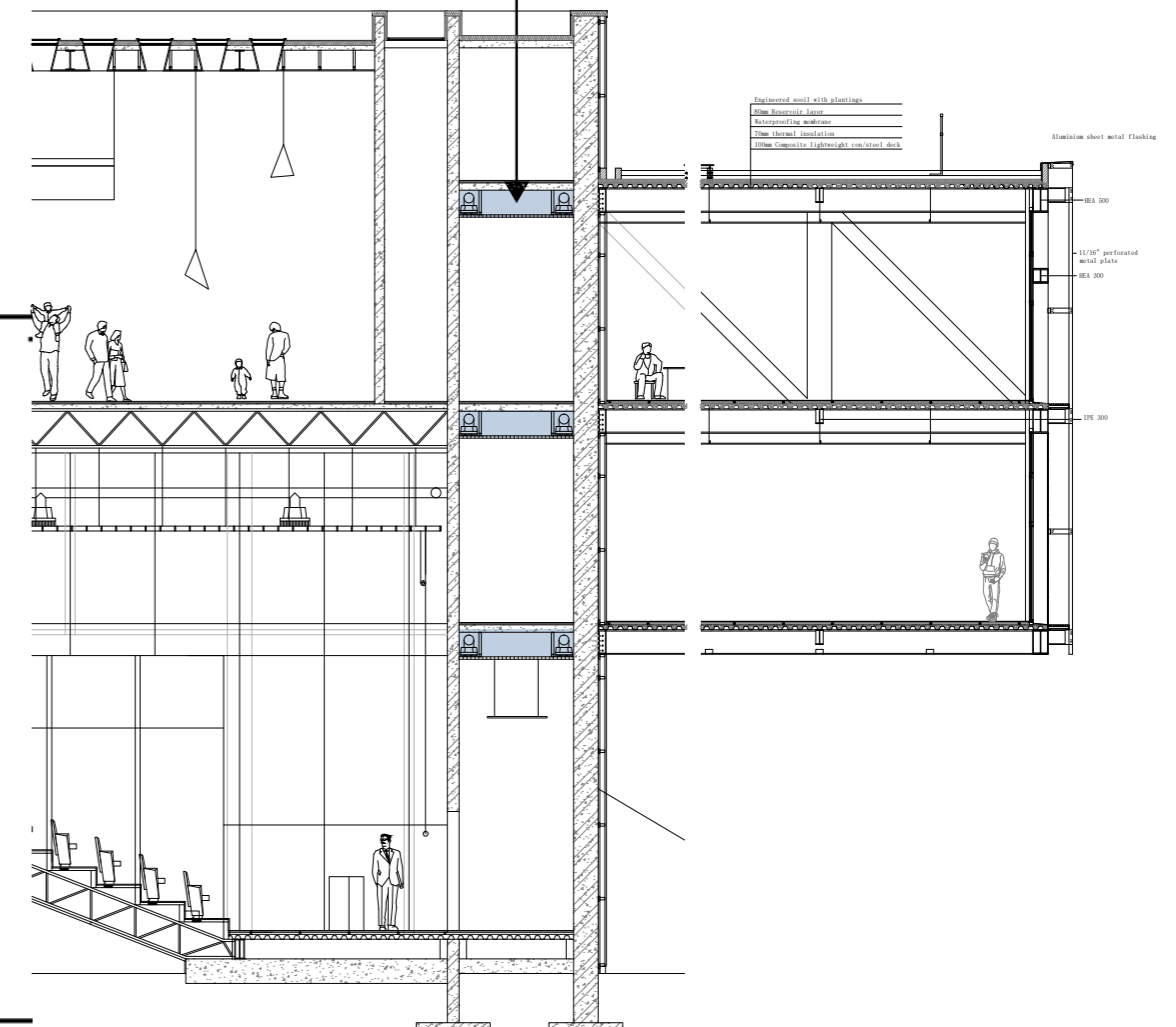
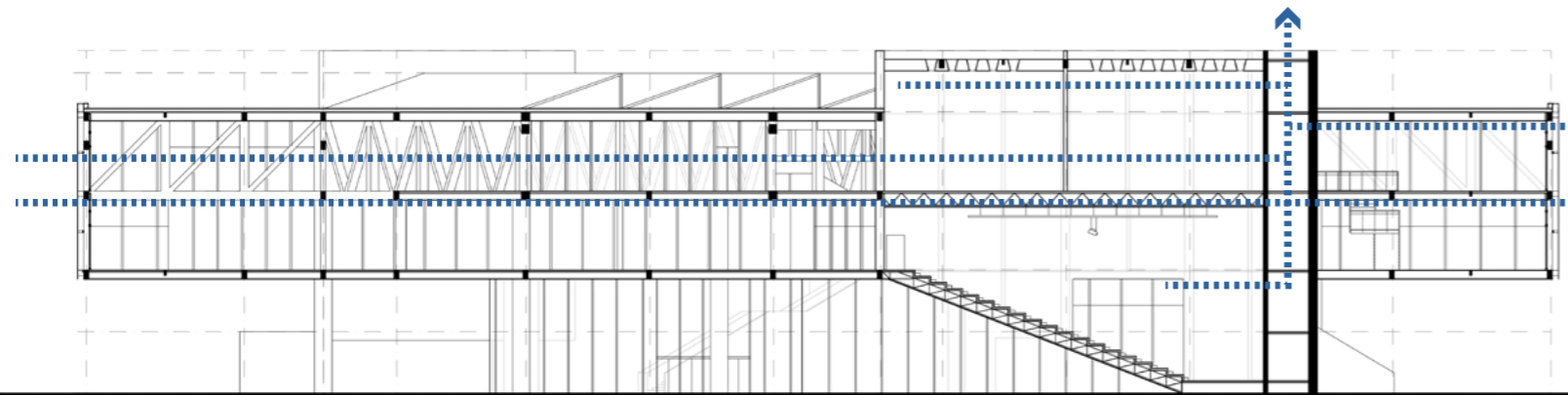




## Air conditioning in summer (26°C ~ 30°C)



## Mechanical ventilation in winter (15°C ~ 26°C)





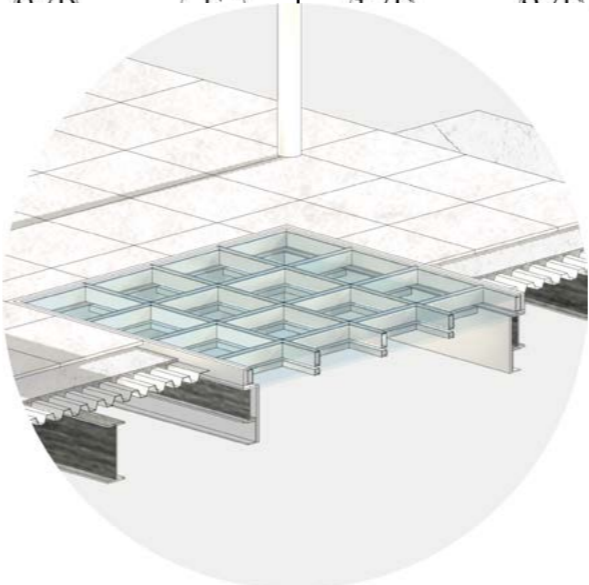
# STREET LEVEL: NATURAL LIGHTING



Skylight is used to identify the entrance



2-2 Section 1:200



Glass flooring can help to introduce more diffuse light to the ground floor





Thank you!

