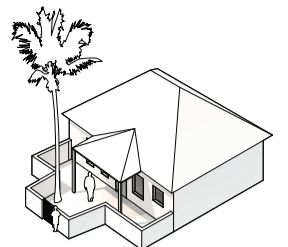


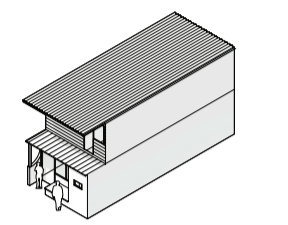
**A. High Density
Traditional Kampung**
Density 32.000 km²
Low to mid-income

B. Communal Kampung
Density 24.000 km²
Low to mid-income

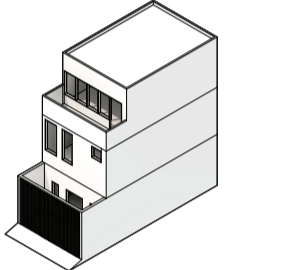
C. Main infrastructural site
Density 16.000 km²
Mid to high-income and commercial sites



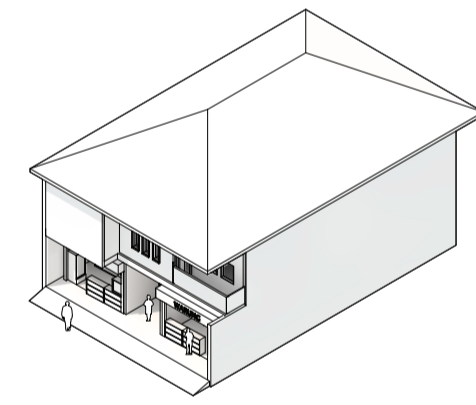
1 Layer - Batawi house
Traditional Single layer house build from wood and cheap bricks. Usually with a garden. From 2 to 12 inhabitants.



2 Layers - New kampung house
Build from cheap bricks and steel-plating. Houses one or two families.



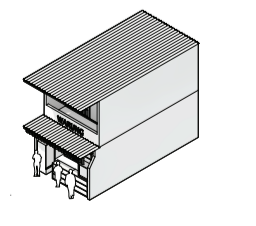
3 Layers - Mid income house
Expansive mid to higher mid income house as found in the inner city kampungs. Build from concrete or a combination of a concrete structure with brick walls. Side walls are always closed due to neighbor that attaches his house onto this wall



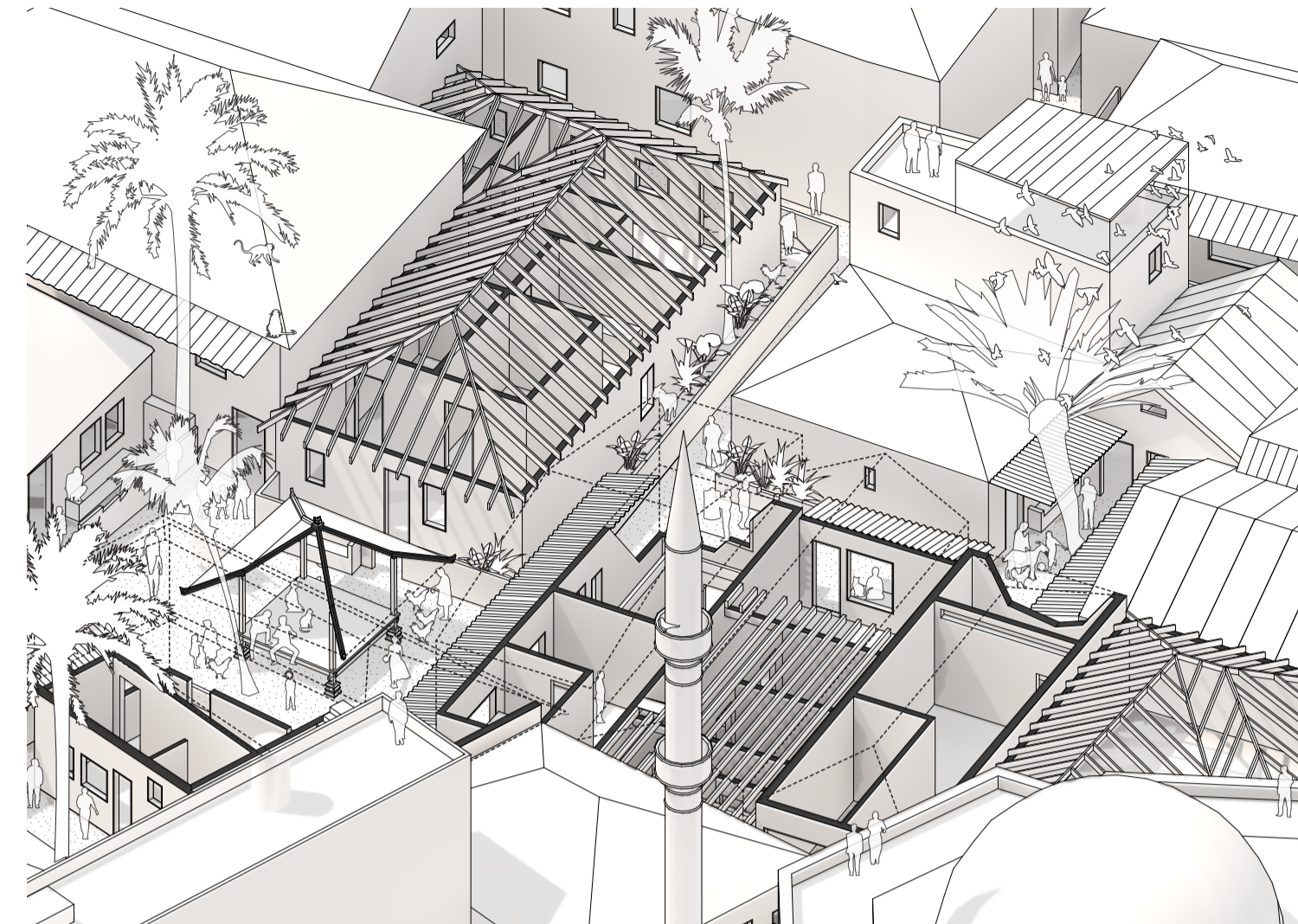
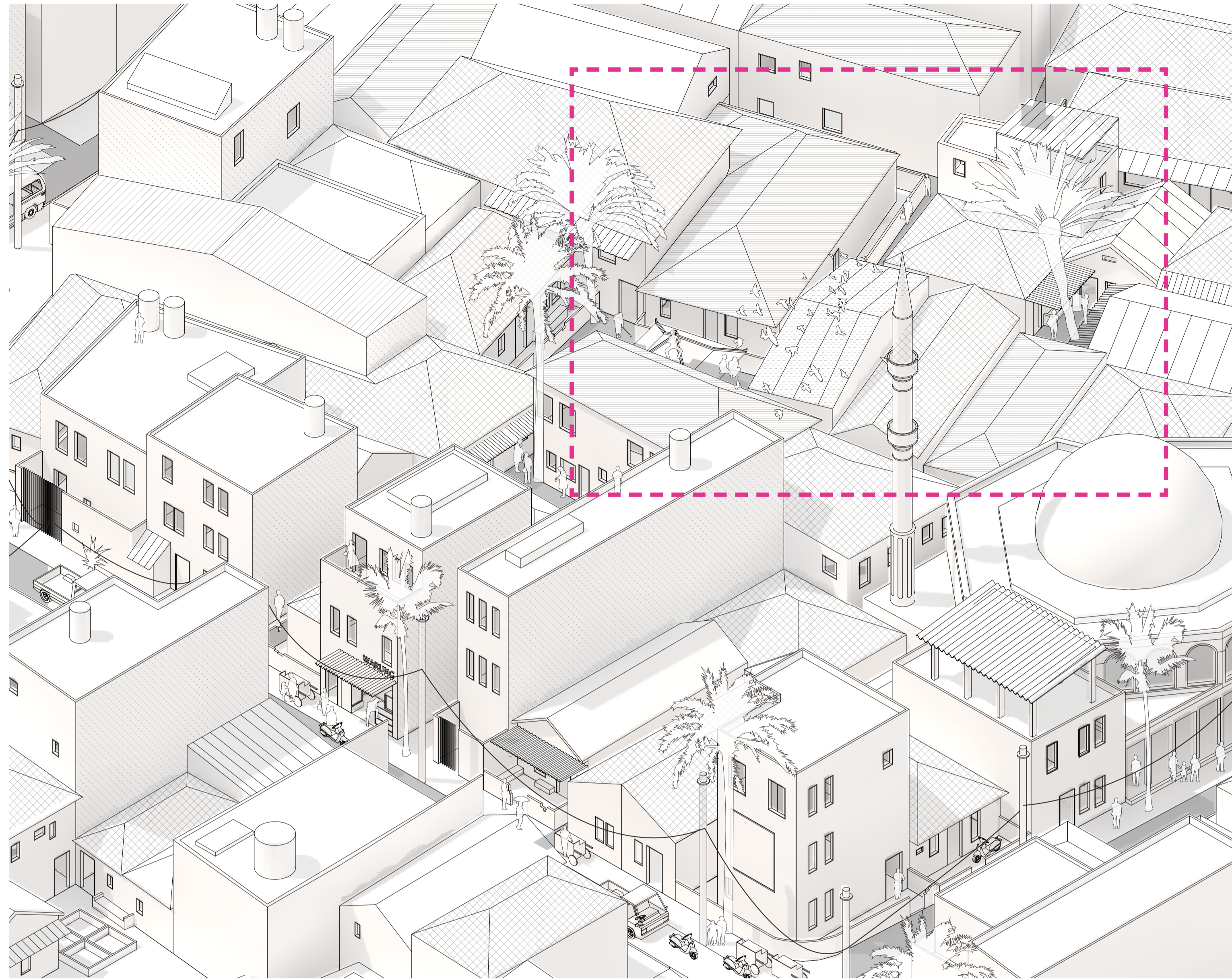
2 to 4 Layers - Kost
A kost is a housing complex for the jakarta workforce. Houses immigrants, people that live in the suburbs and other people from out of town. A kost can have many rooms, a kost like this around 16 rooms for 1 to 2 people.



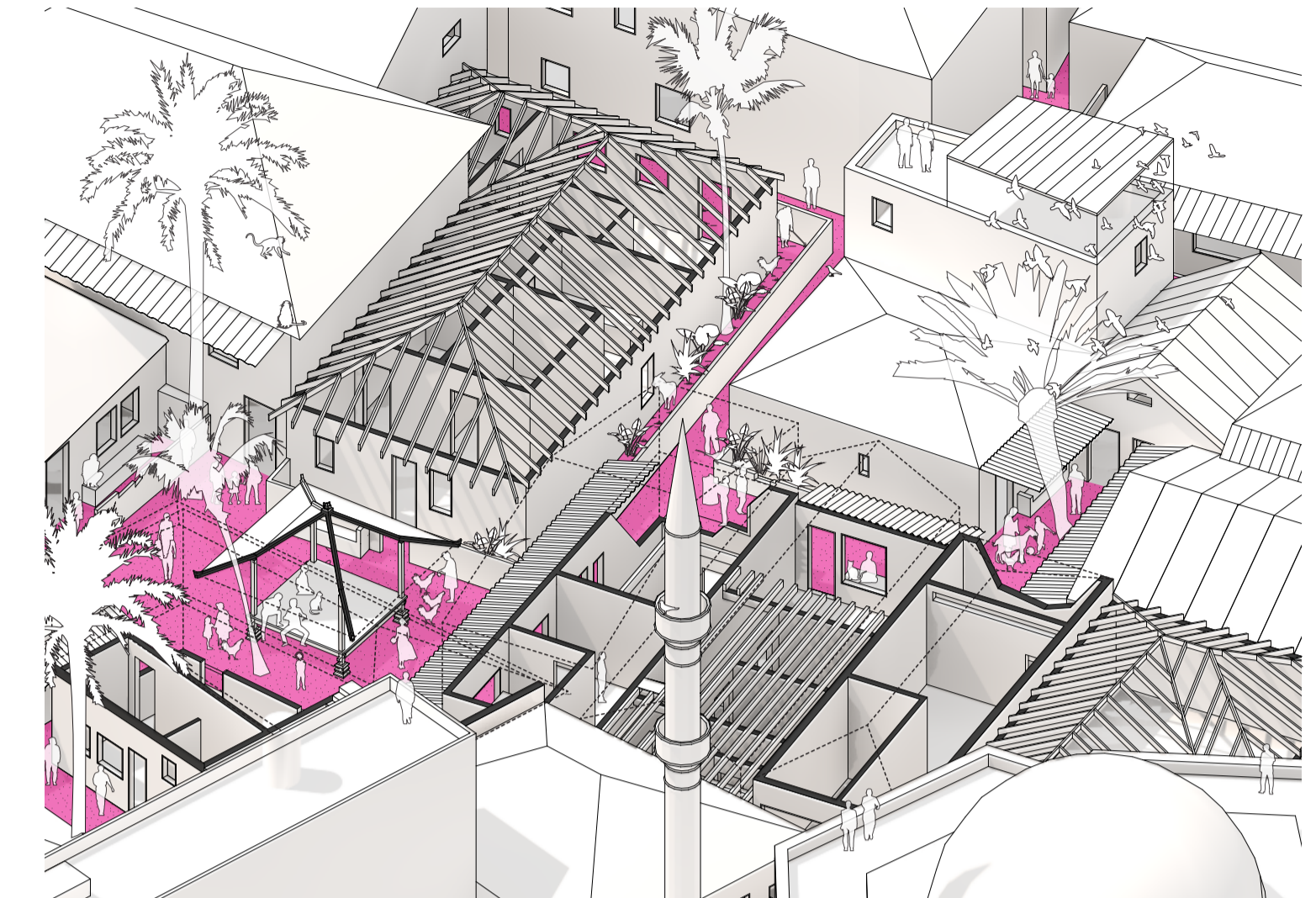
3 to 4 Layers - Shop house
Larger shop house build from a concrete structure with brick walls. Build by a mid income entrepreneur with a large warung.



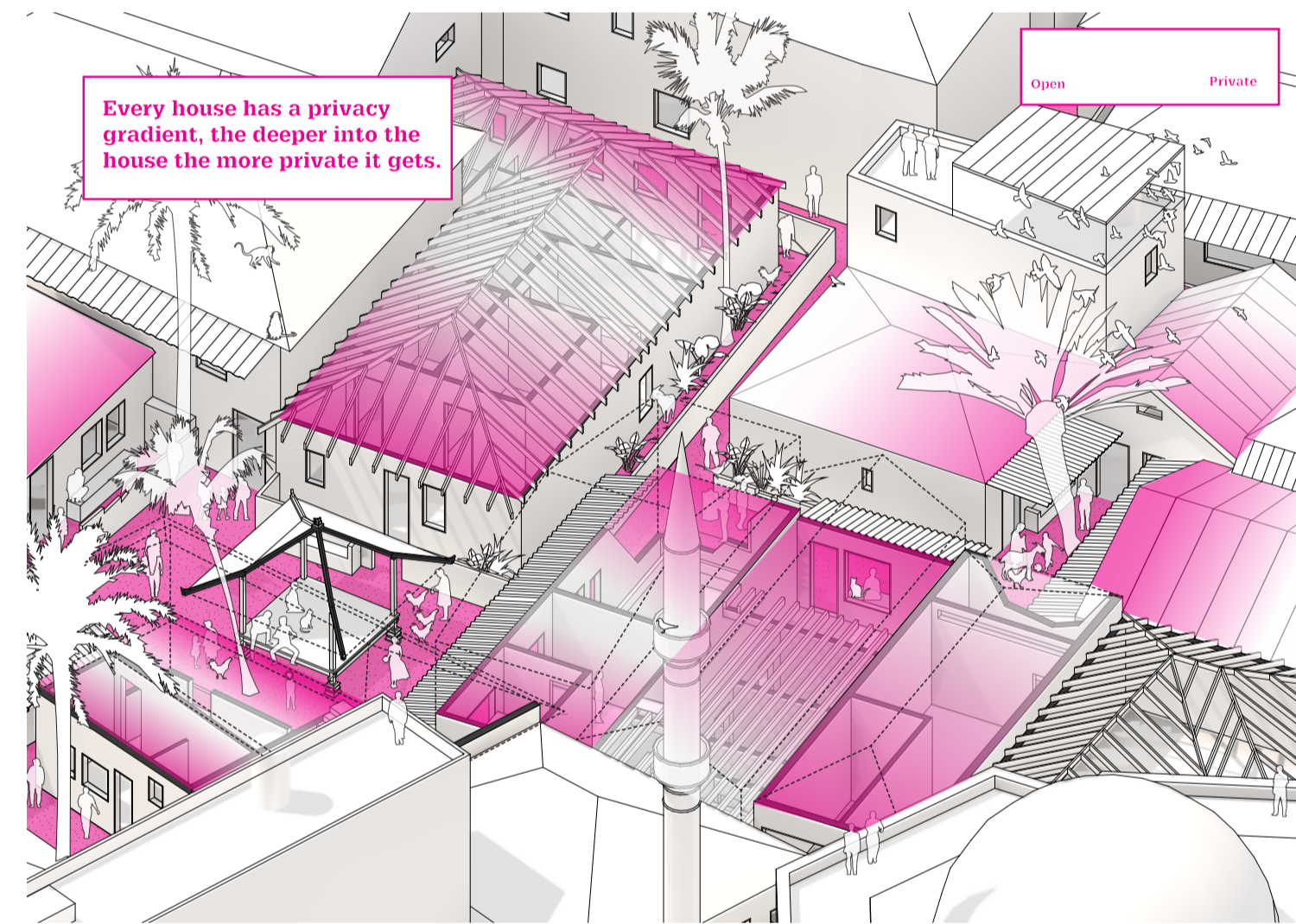
2 layer - Kampung chophouse
Low Mid income family with a shop (warung) at the ground floor. Build from bricks and steel-plating.



Materials



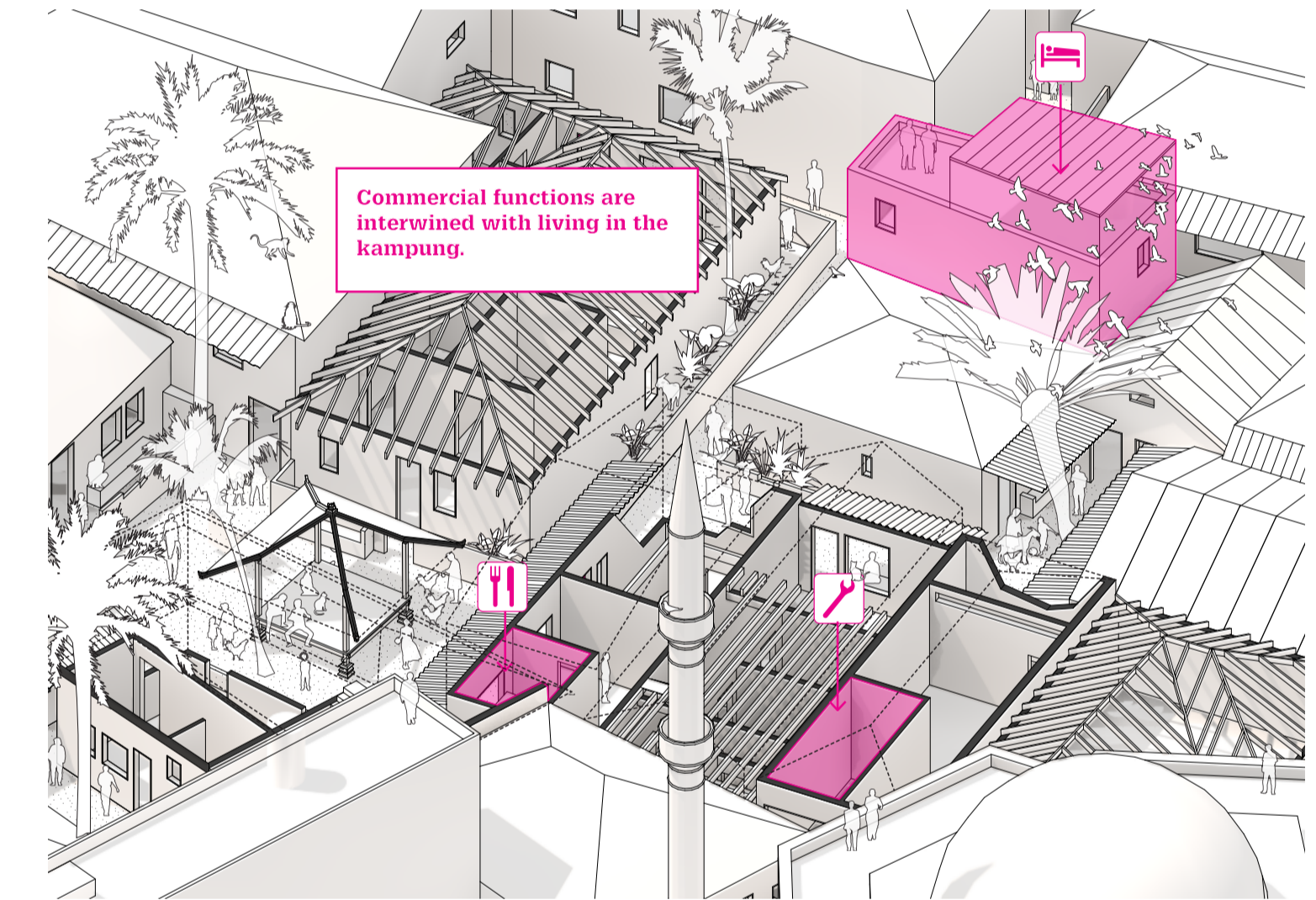
Public space



Every house has a privacy gradient, the deeper into the house the more private it gets.

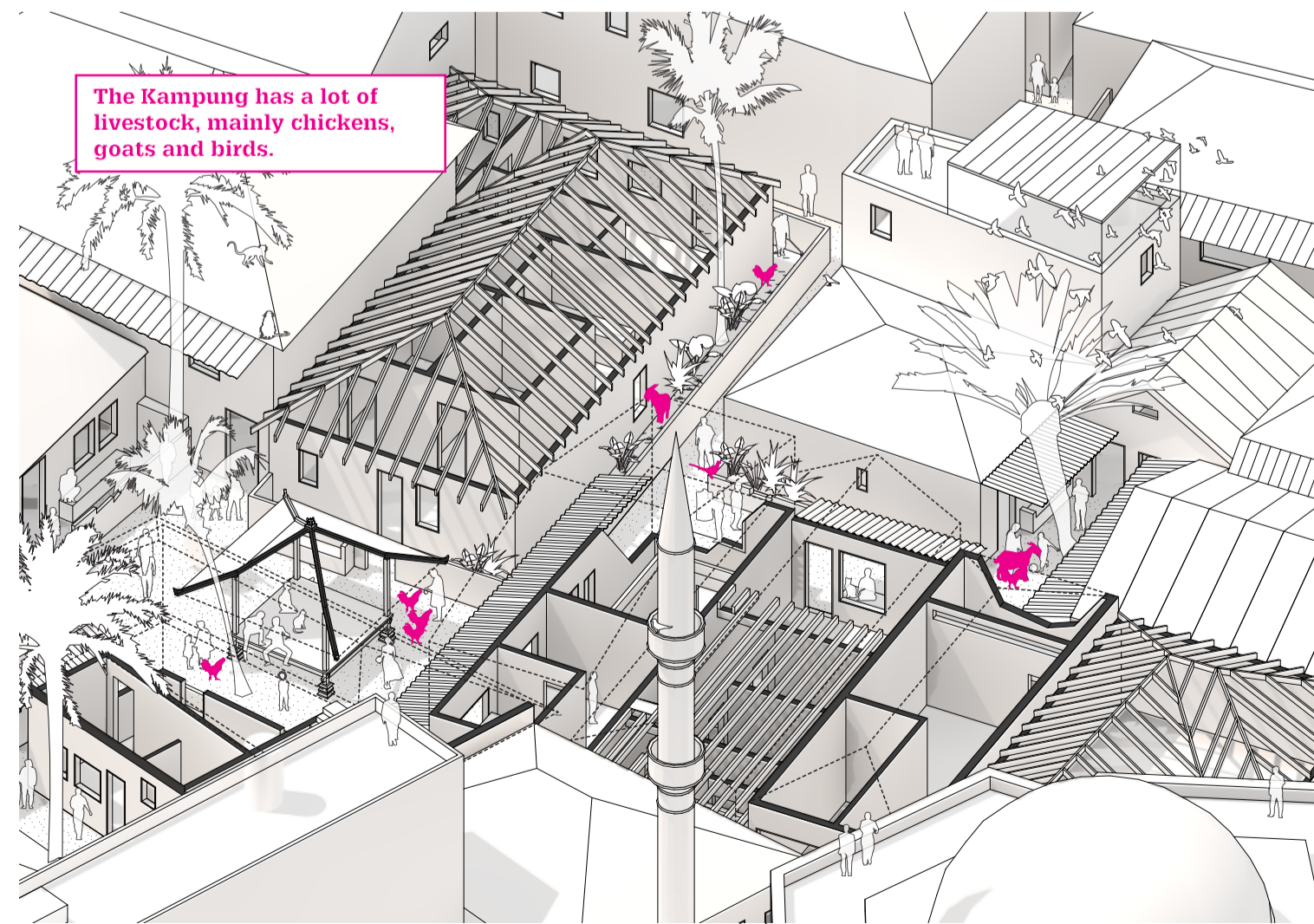
Open Private

Privacy gradient



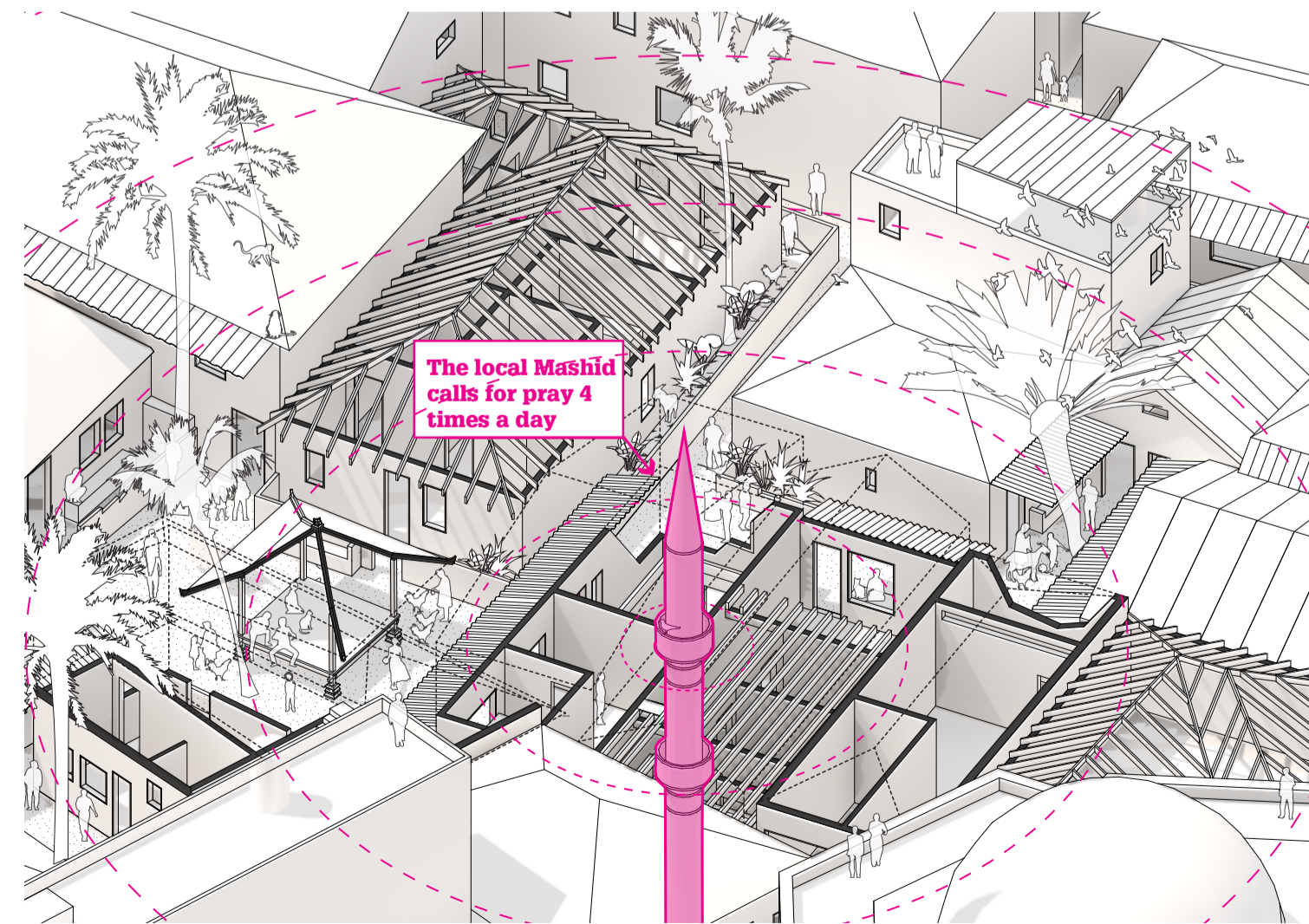
Commercial functions are intertwined with living in the kampung.

Commercial functions



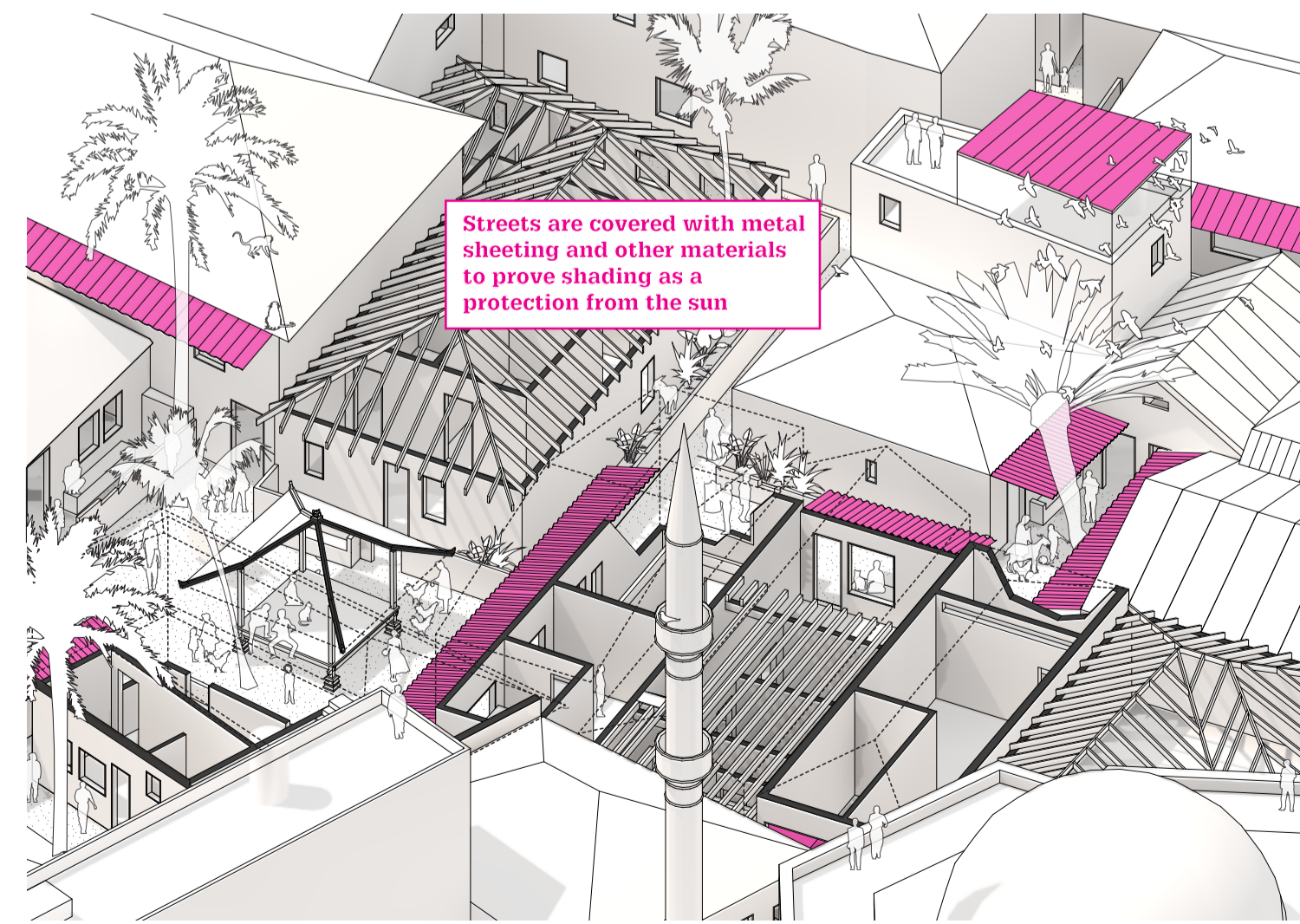
The Kampung has a lot of livestock, mainly chickens, goats and birds.

Livestock



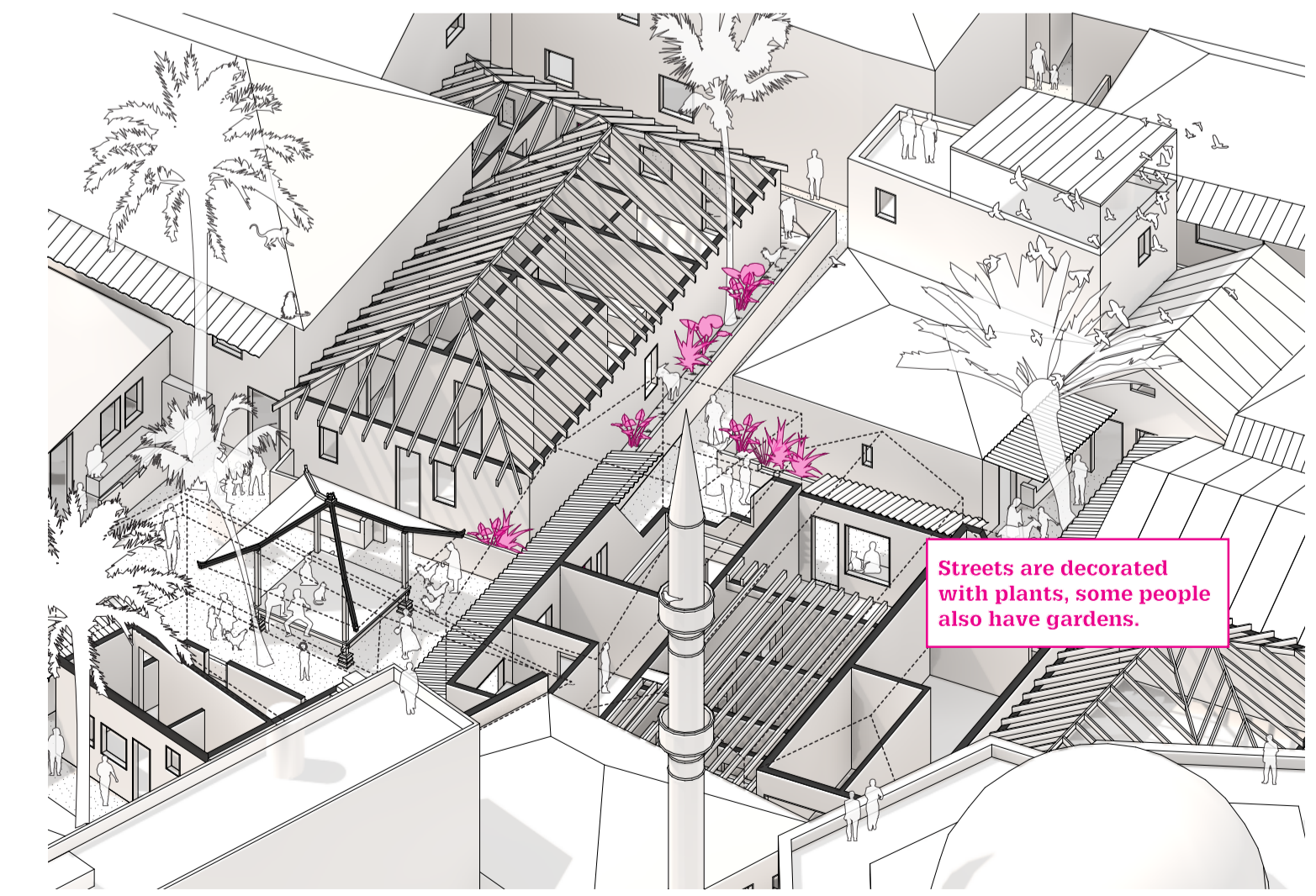
The local Masjid calls for pray 4 times a day

Religion



Streets are covered with metal sheeting and other materials to provide shading as a protection from the sun

Sun Shading



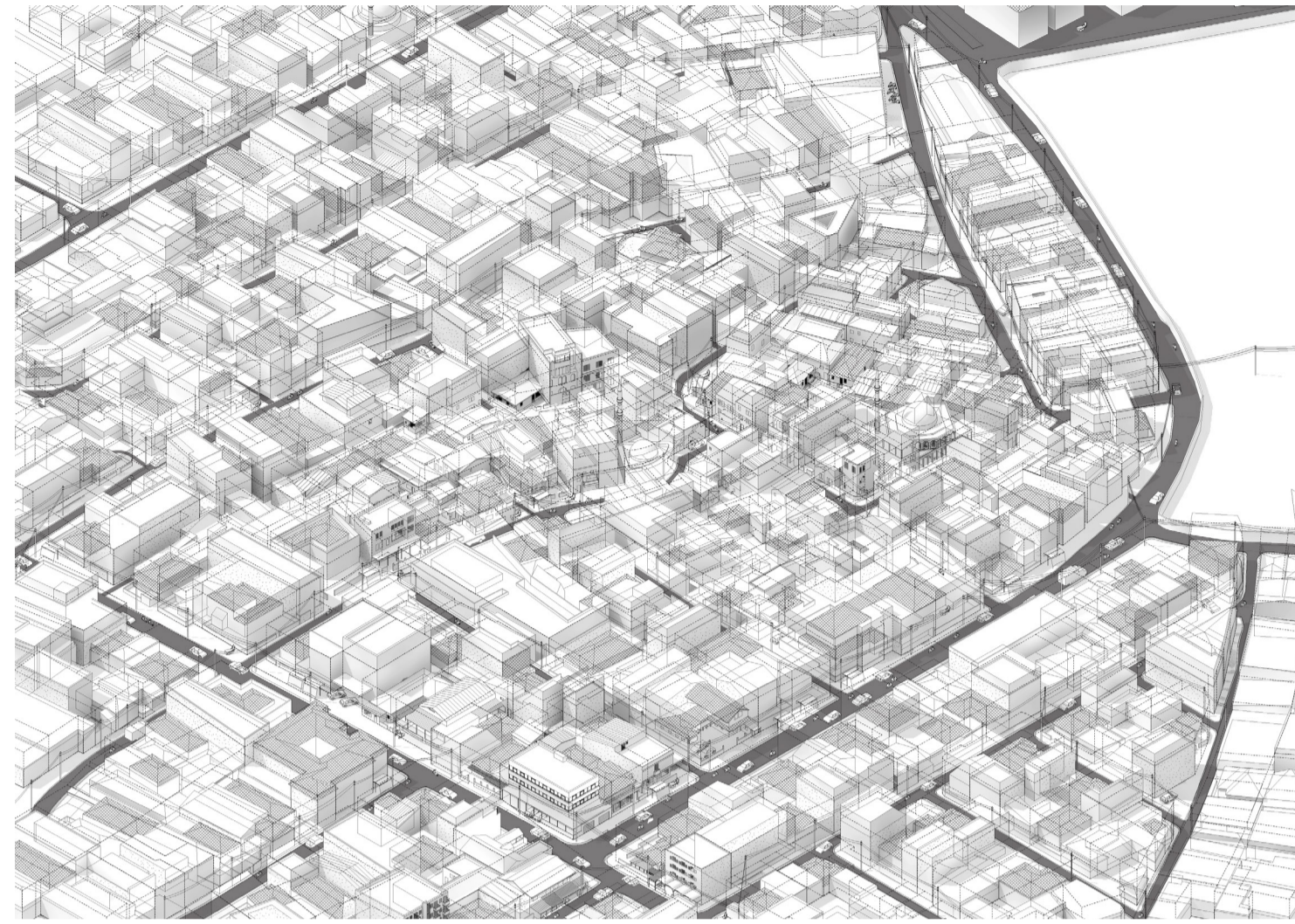
Streets are decorated with plants, some people also have gardens.

Kampung Decoration

Density need, capacity and capability

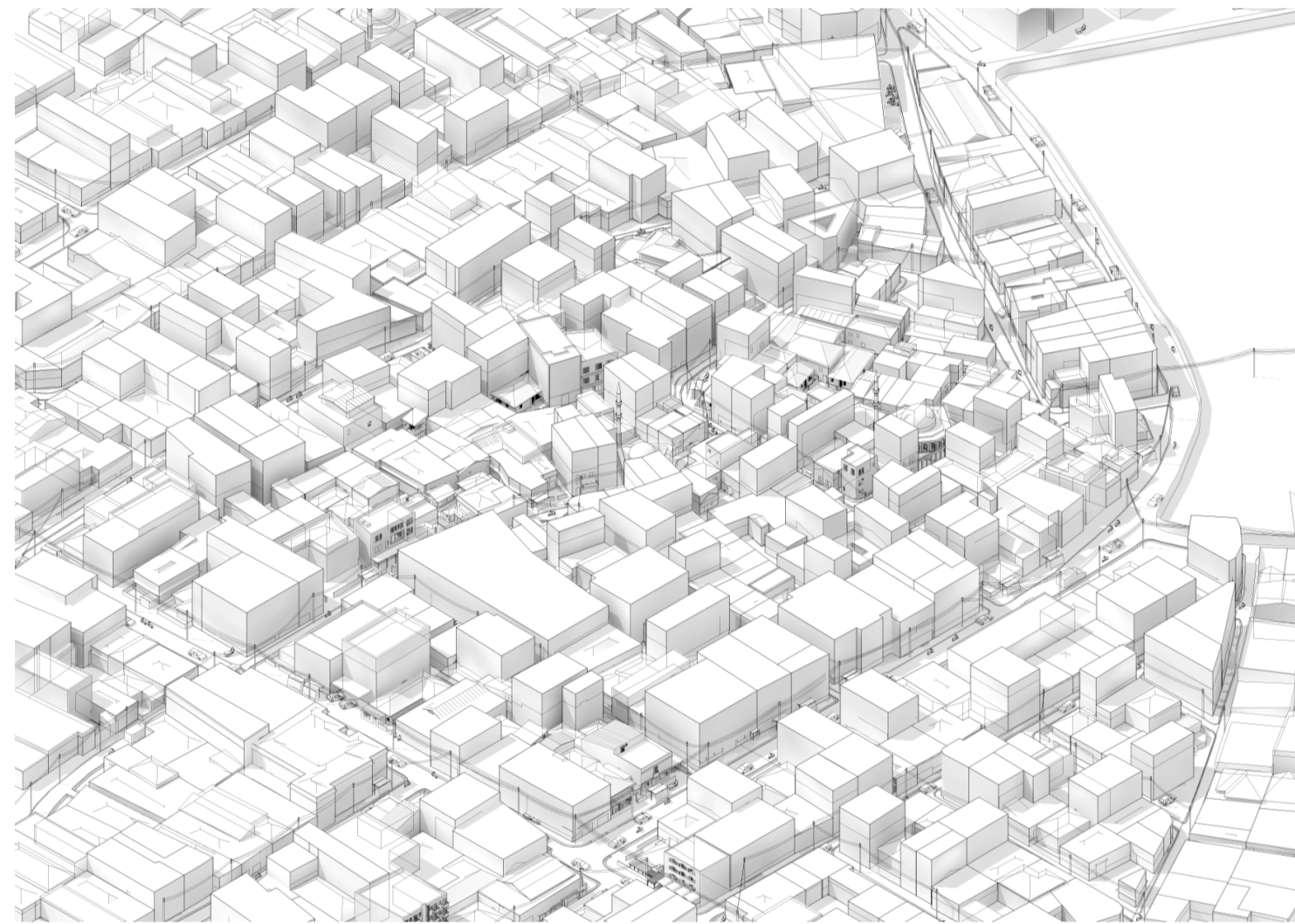
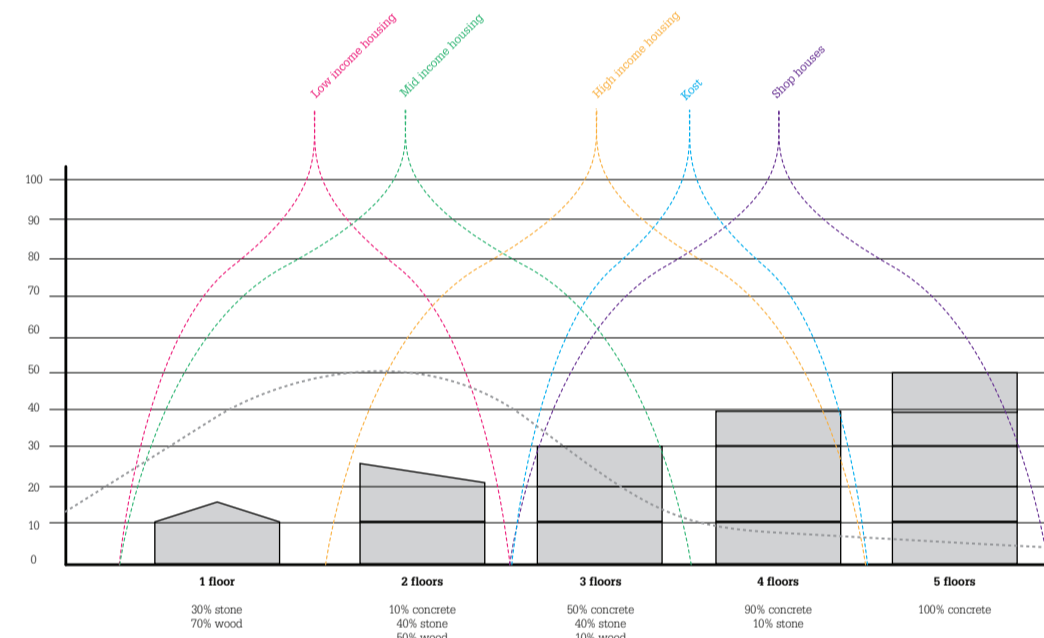
Density need according to Jakarta's goals

ADD NUMBERS



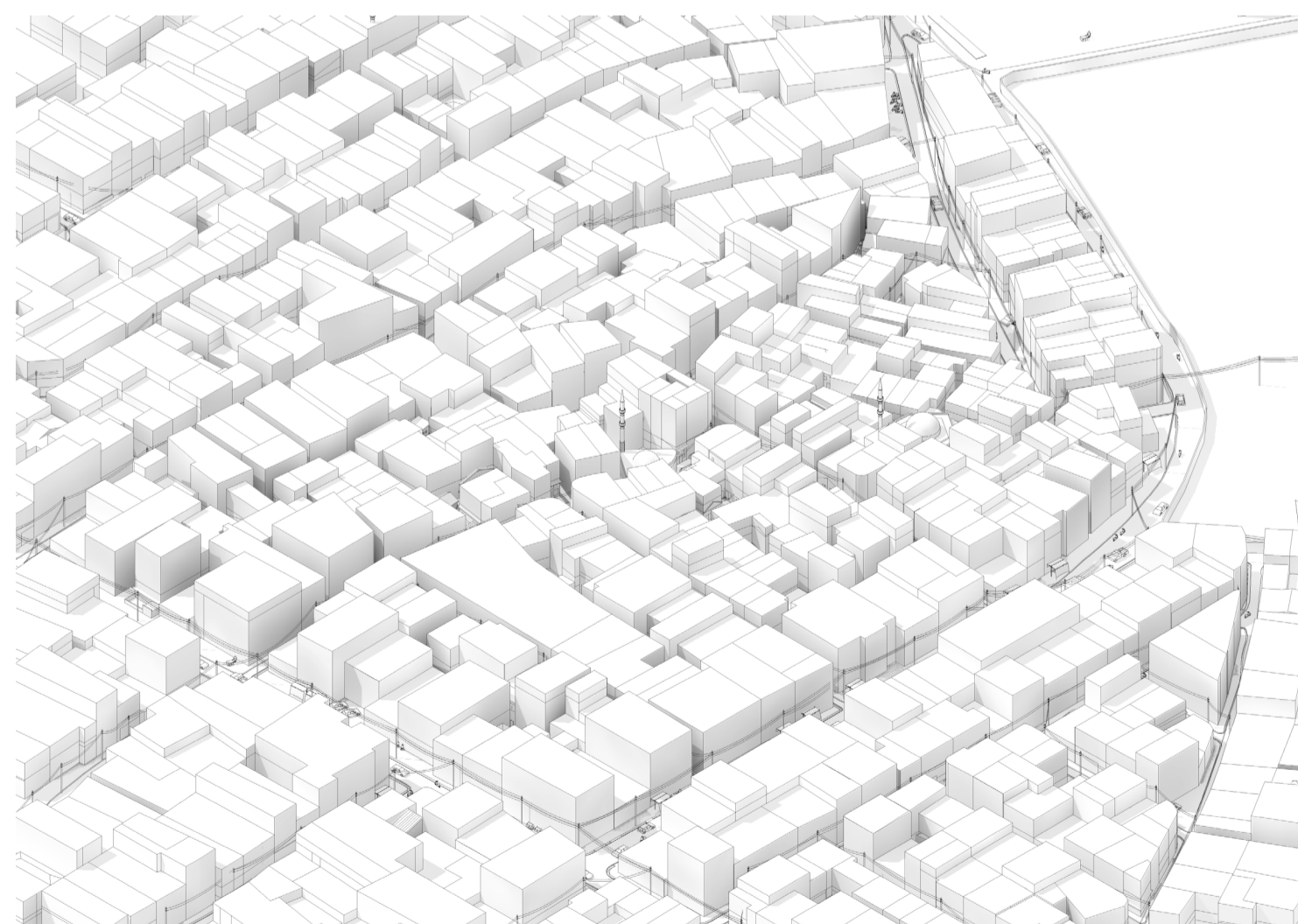
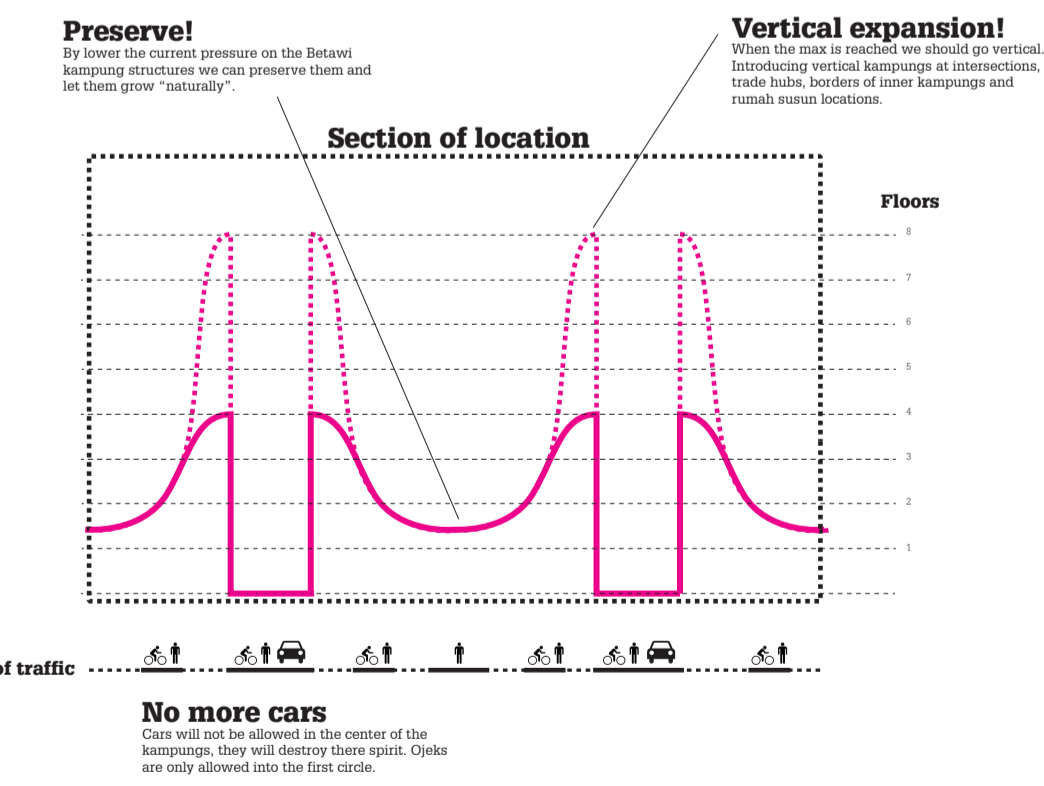
Height needed for Jajakarta (av. floorheight 4 floors, equal spread).

Capacity of the Kampung



The current capacity for growth from the kampung

A new Density spread.



New density pattern with an average floorheight of 4 floors, varying from 3 to 6 floors.

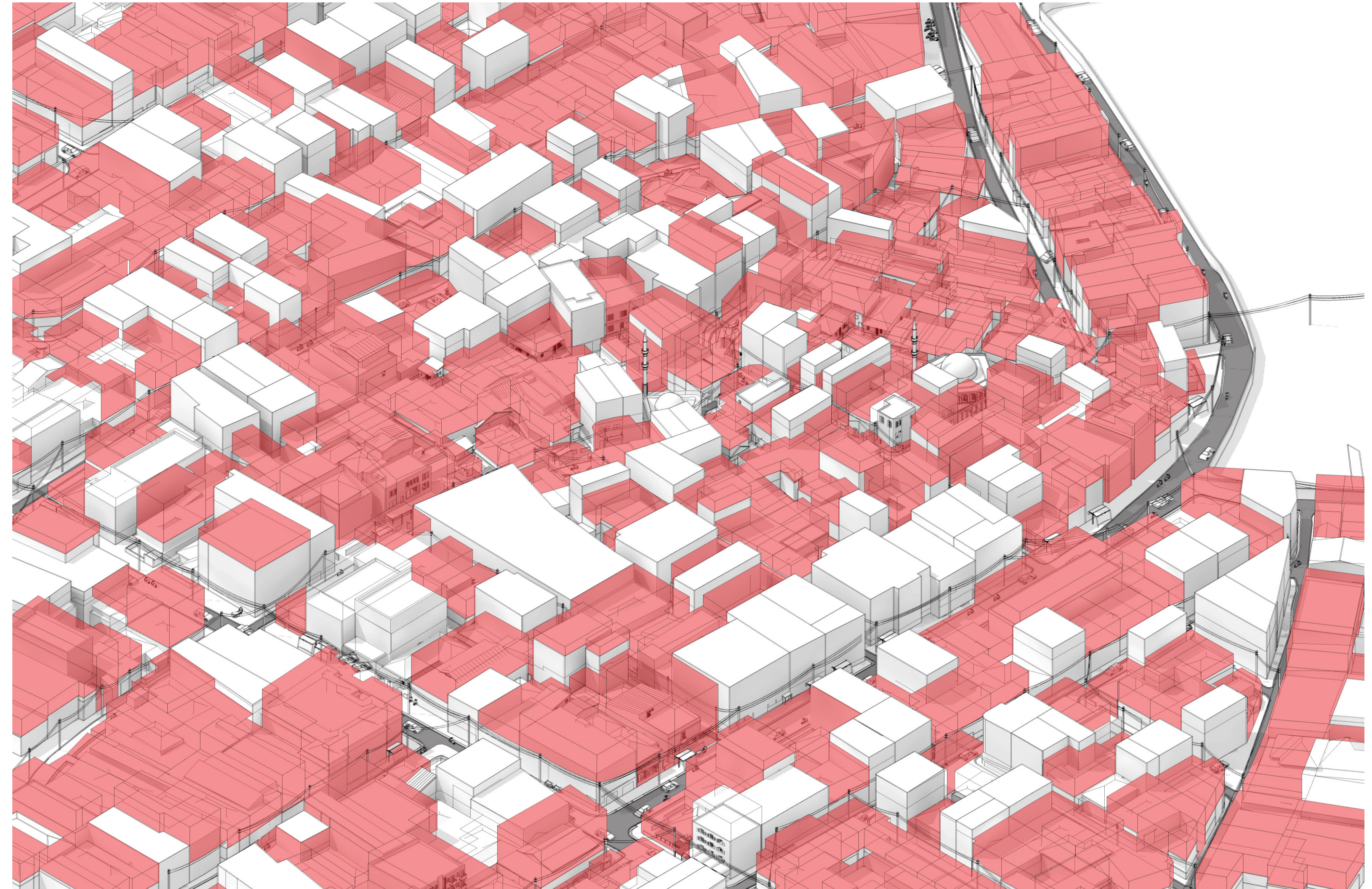
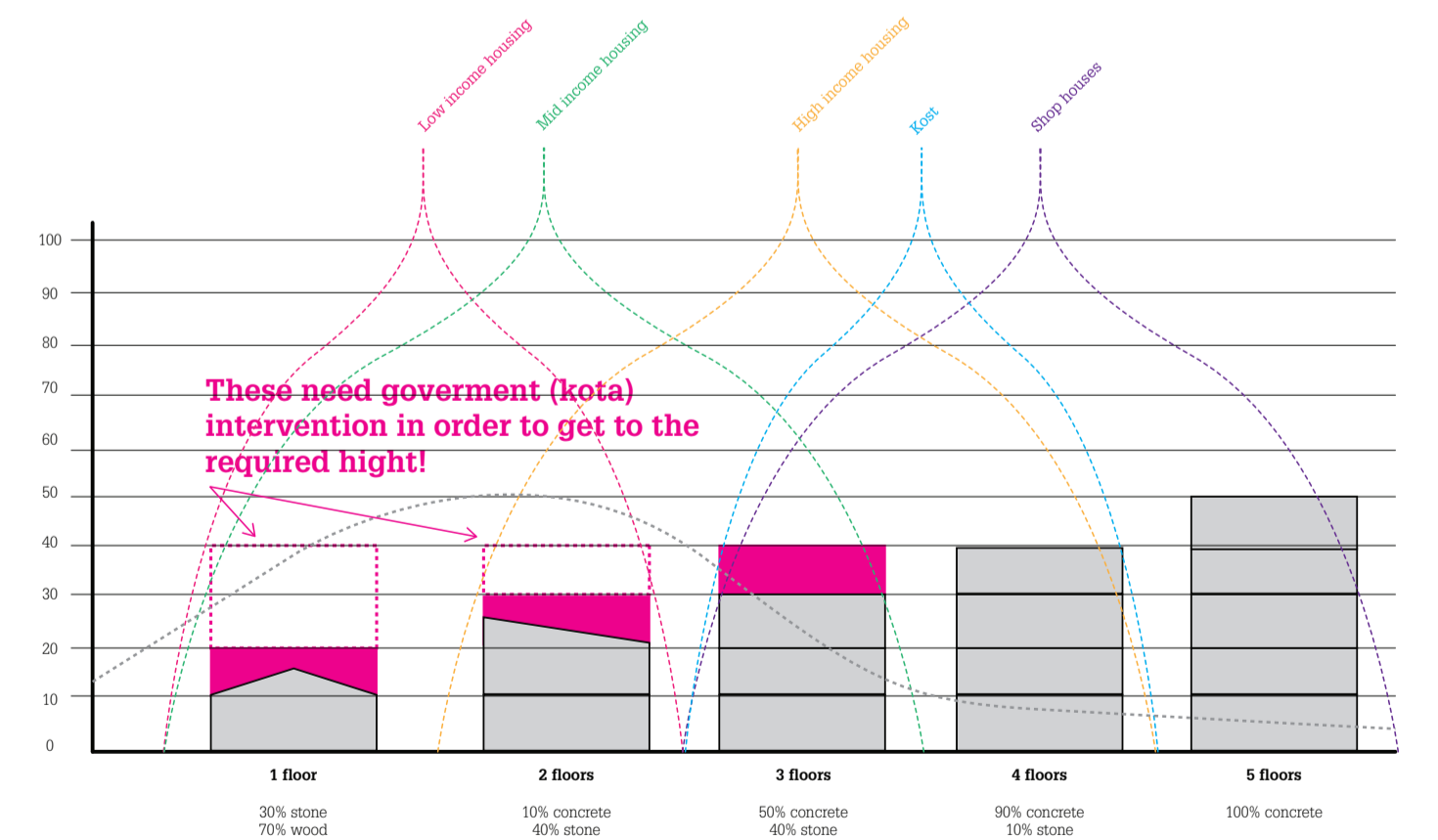


Diagram of the volumes required by the 230% increase of the current poluation density. The white volumes resemble the maximum volume reachable by the kampung. Red volumes represent the volumes which can't be built by the individual kampung inhabitants. The project focusses on these red areas and formulated various tools, strategies and typologies in order to bridge this gab.

Hypothesis:

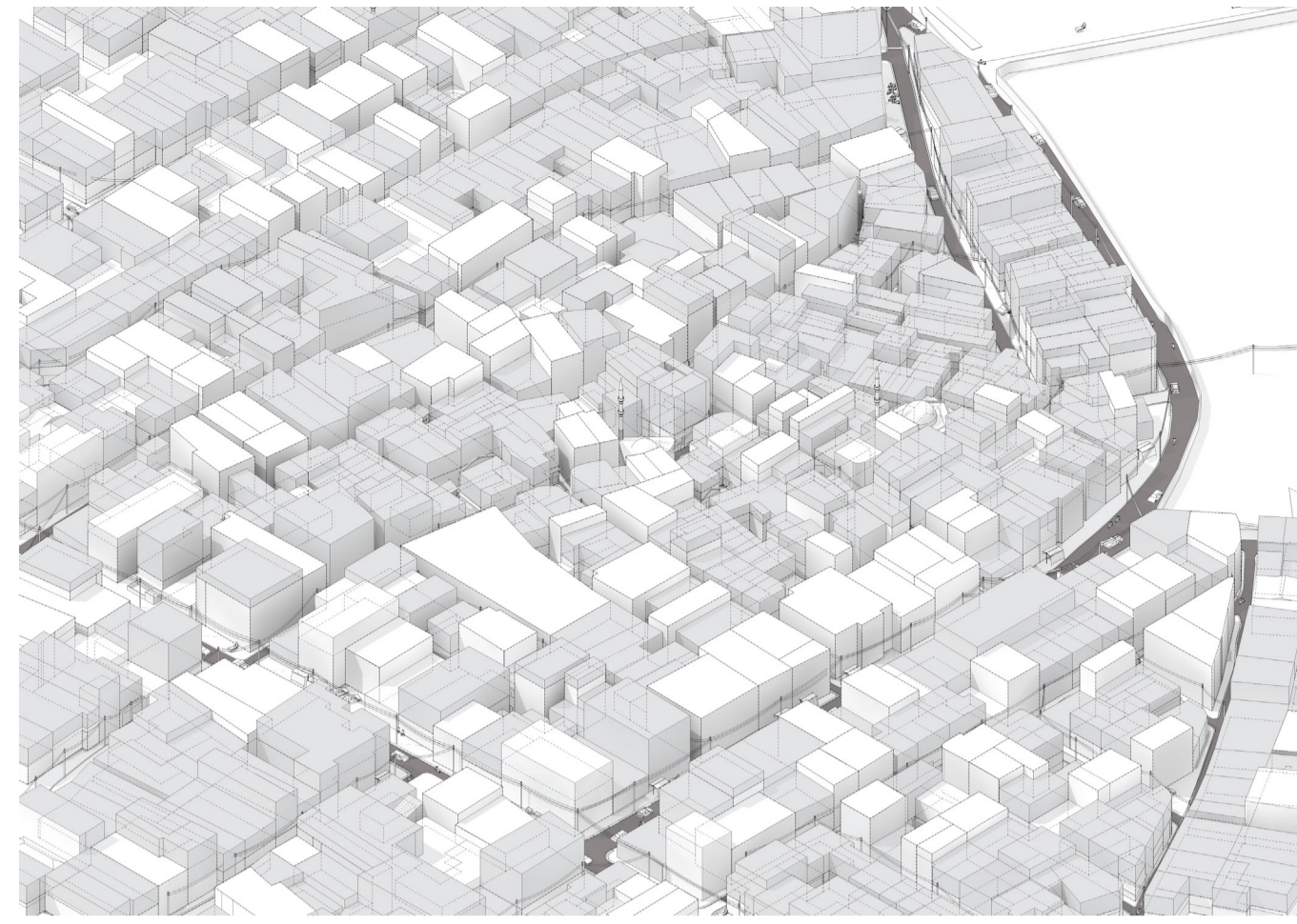
The bottum-up designed kampung has a limit to its size of roughly 1,3x its current size. Theirfor top-down Kota should provide assistance to allow a doubling of density to happen, as a new form of the kampung improvement program (KIP). This KIP 2.0 should consist of various rules, infrastructural tools and architectural elements, a toolbox for densification.



Tools on the Large scale



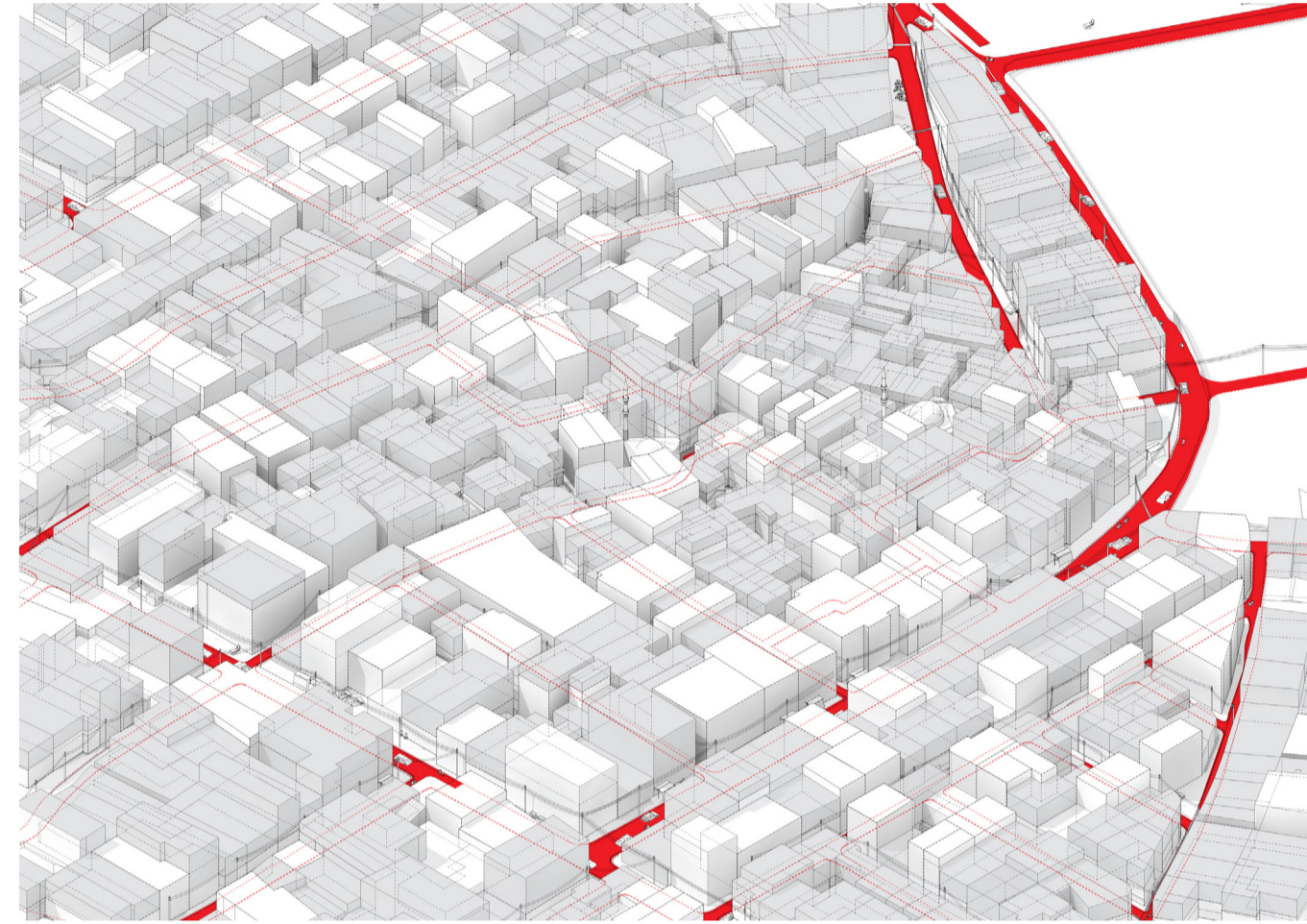
Streetview Needed volume for Jajakarta



Needed Volume for Jajakarta



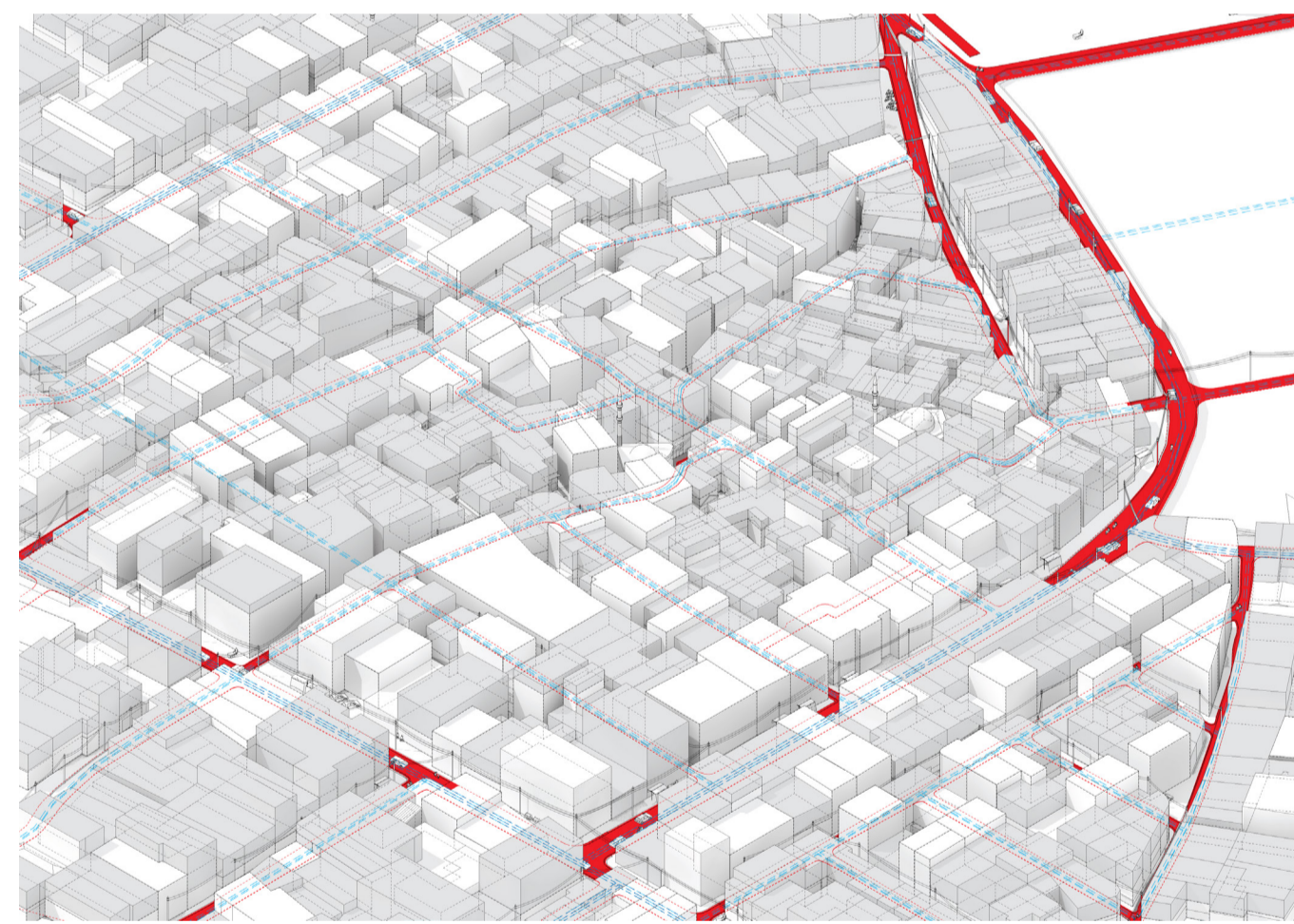
Streetview new infrastructural system



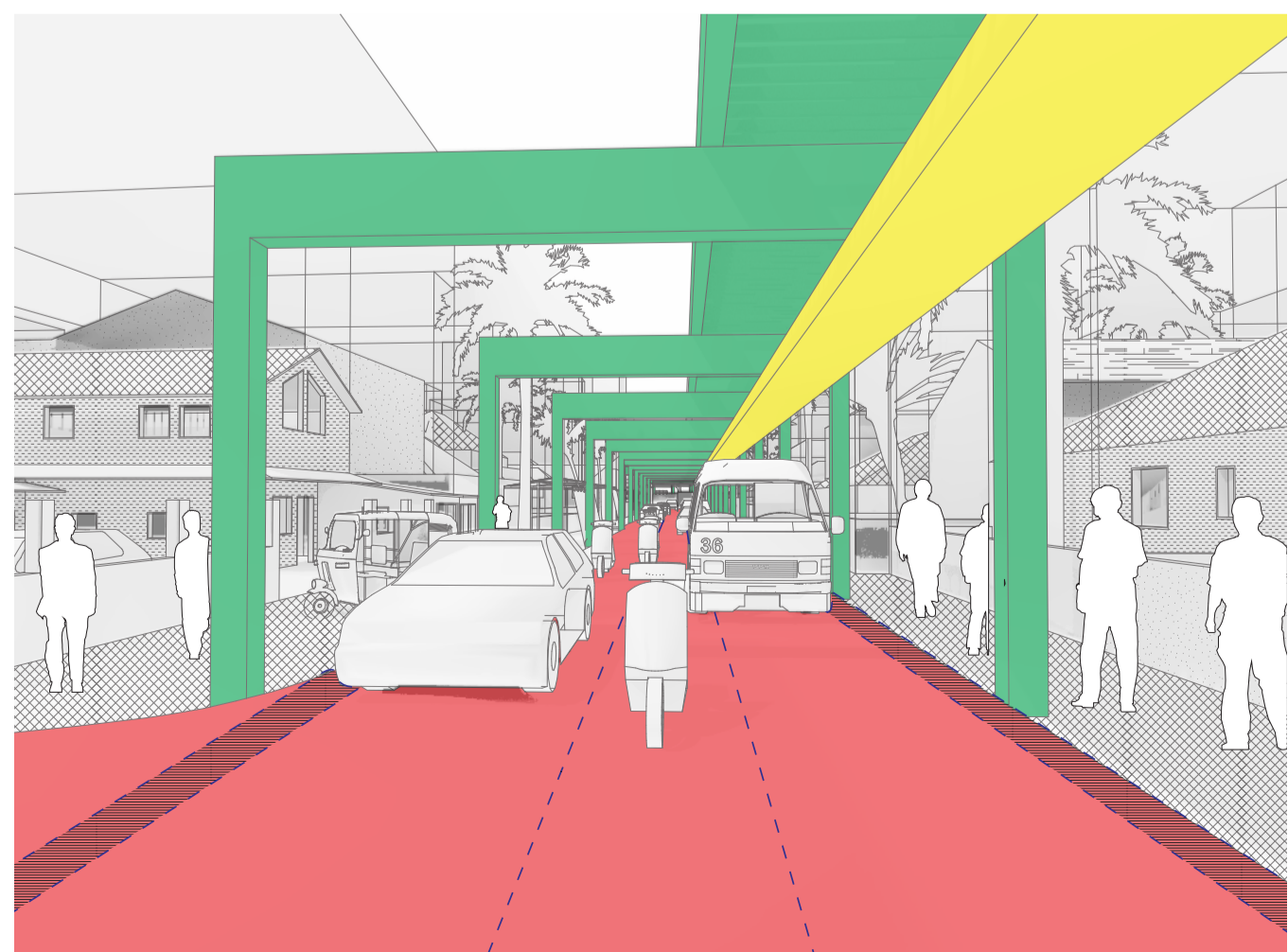
New infrastructural system



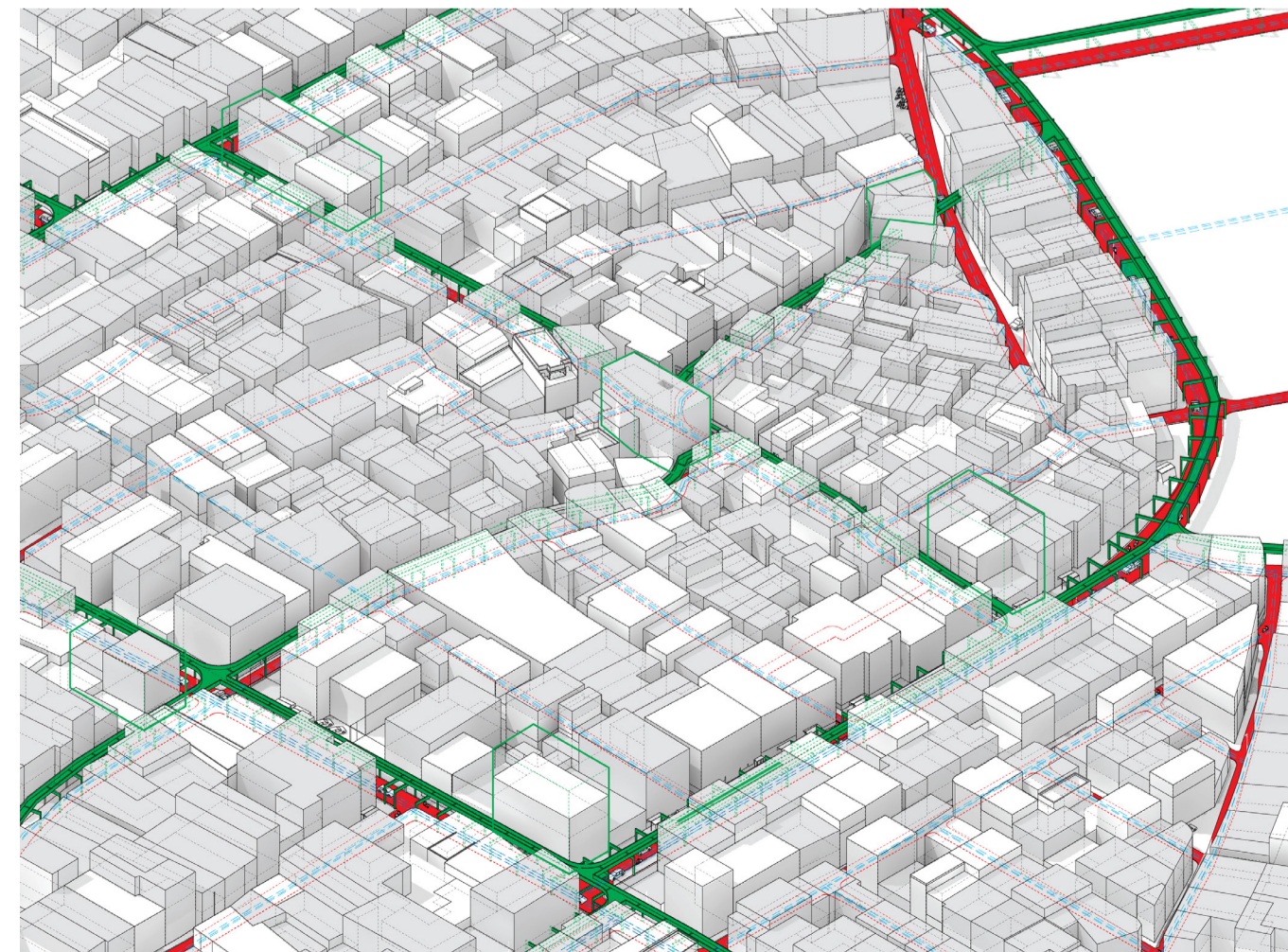
Streetview sewage systems



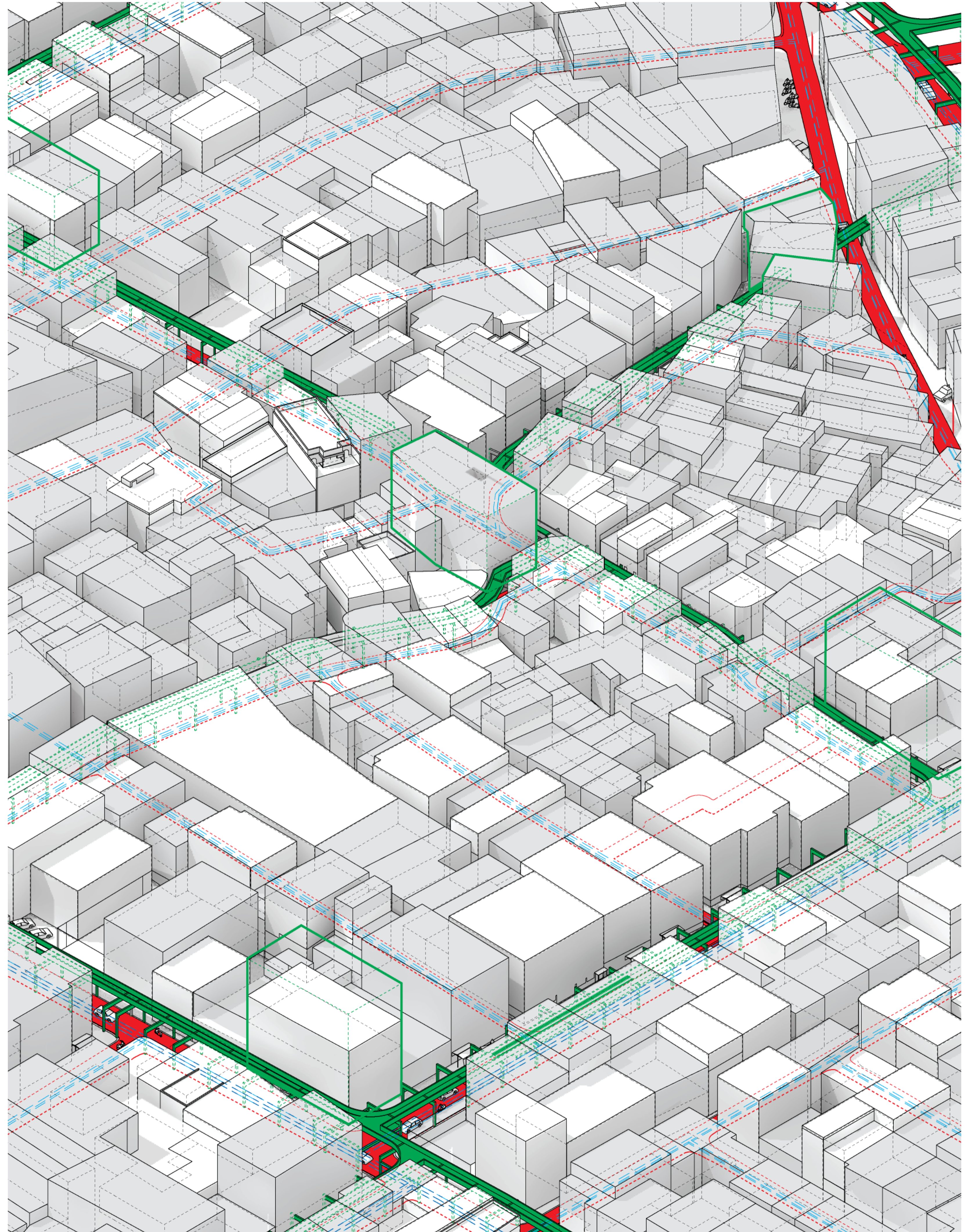
New sewage system



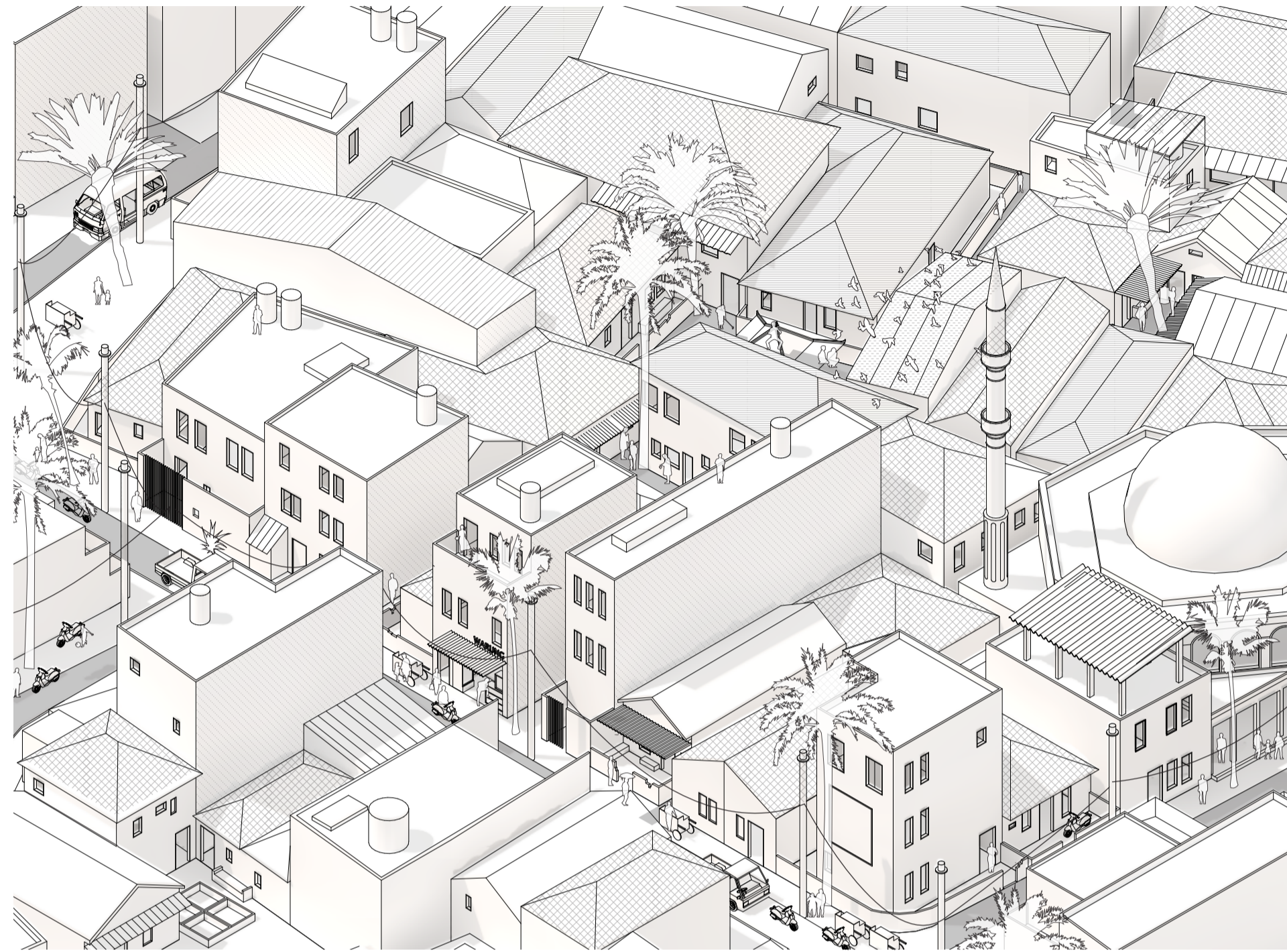
Streetview Electric Ojek Highway



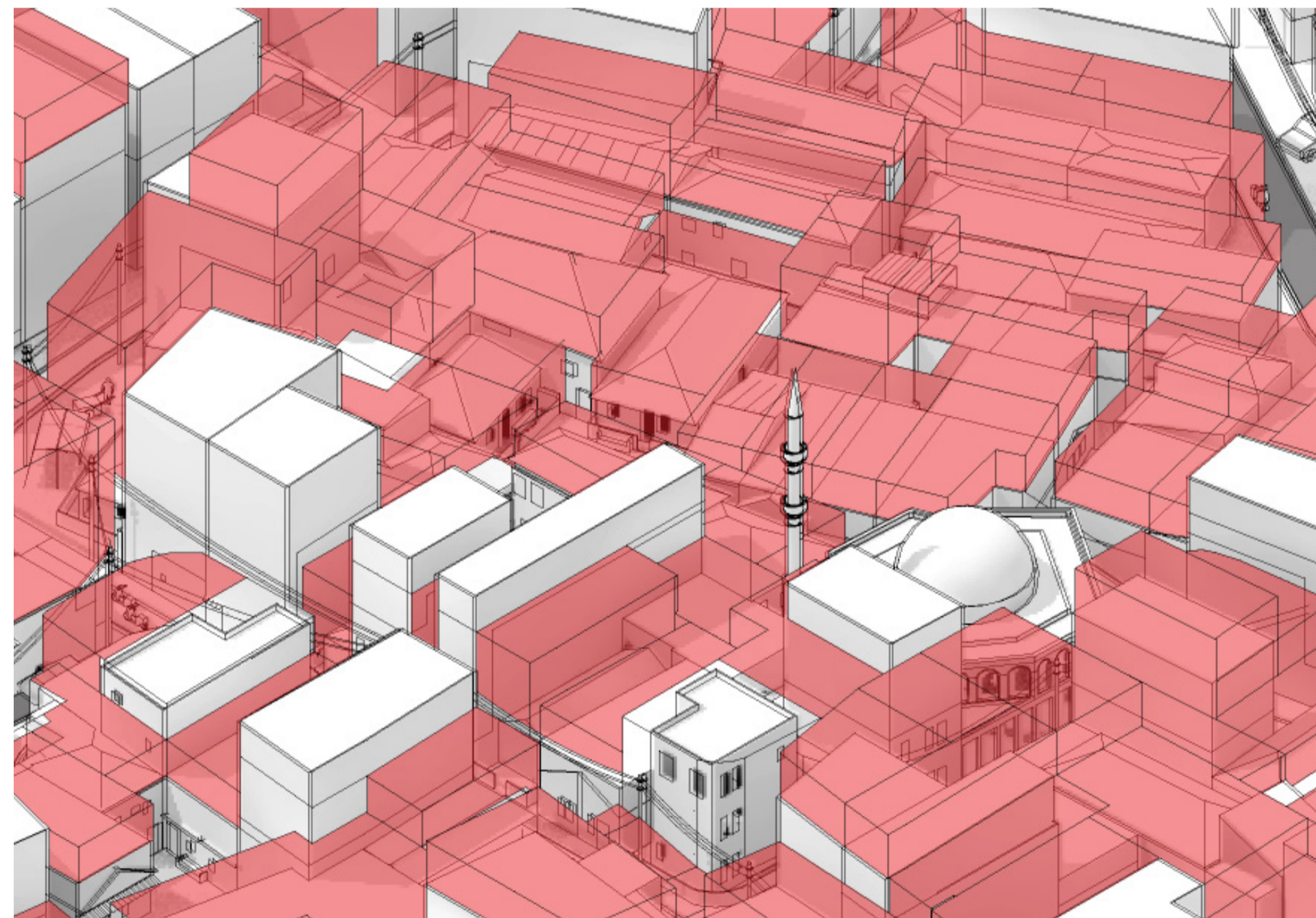
Electric Ojek Highways



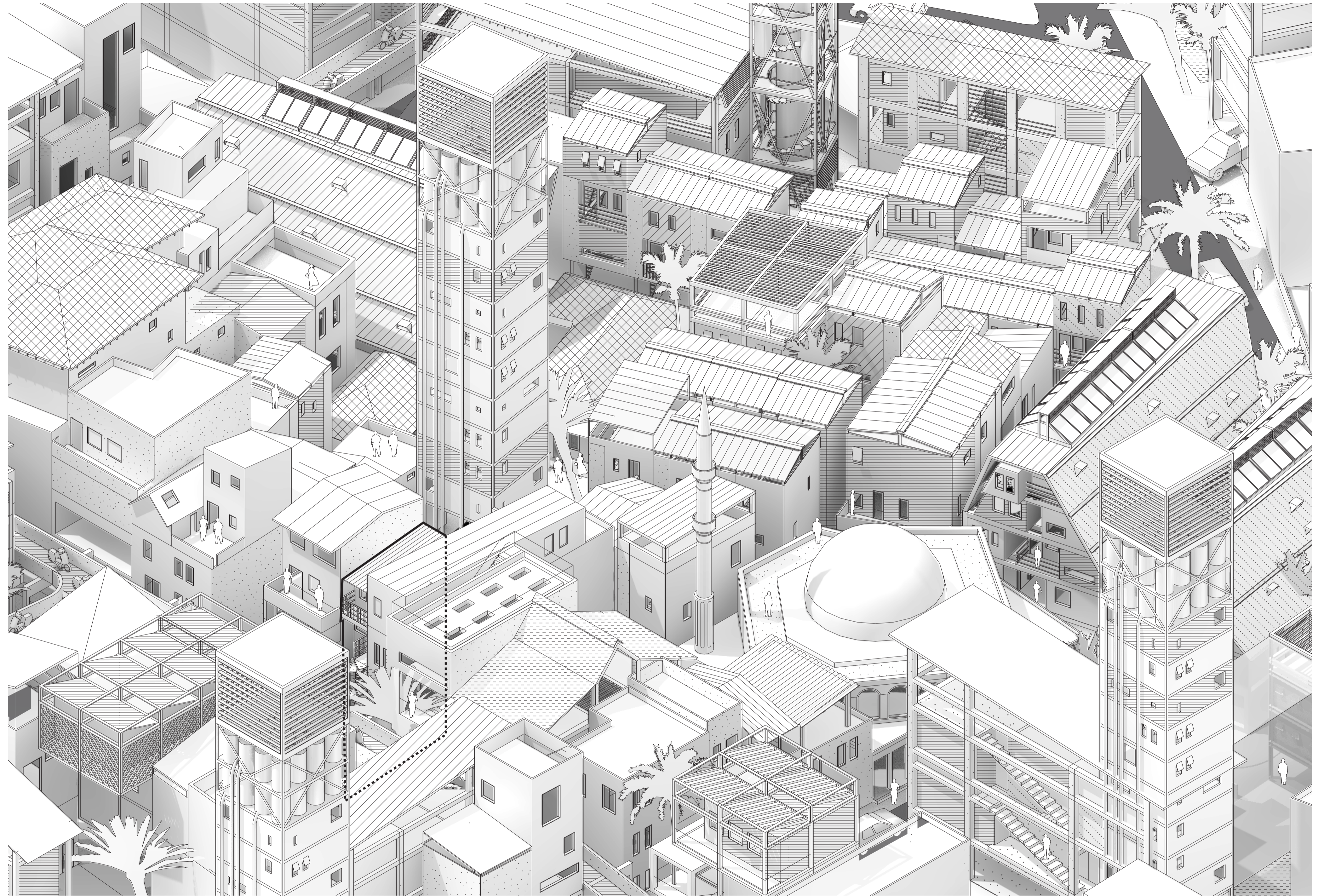
Overview 1:500



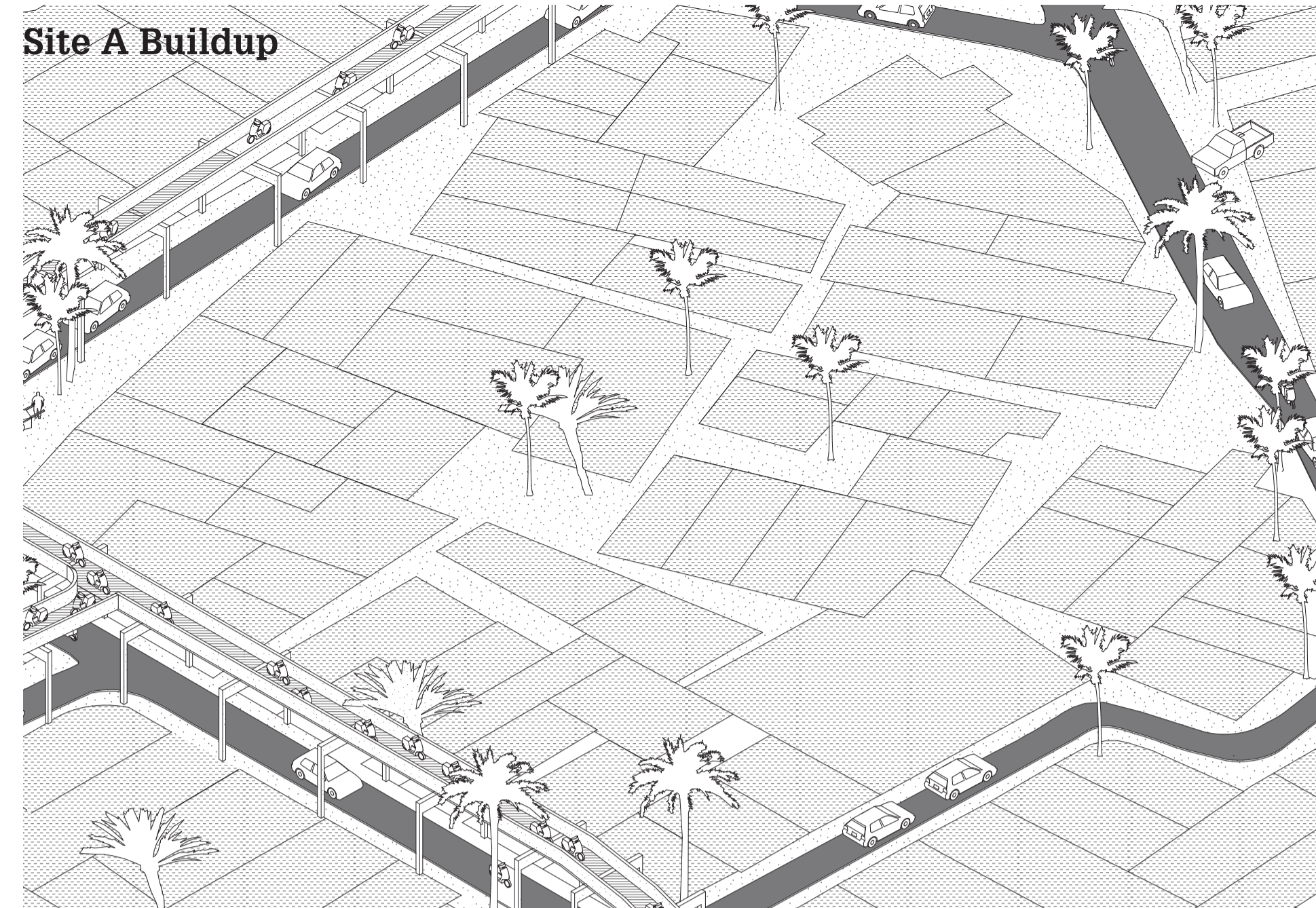
Current situation Site A



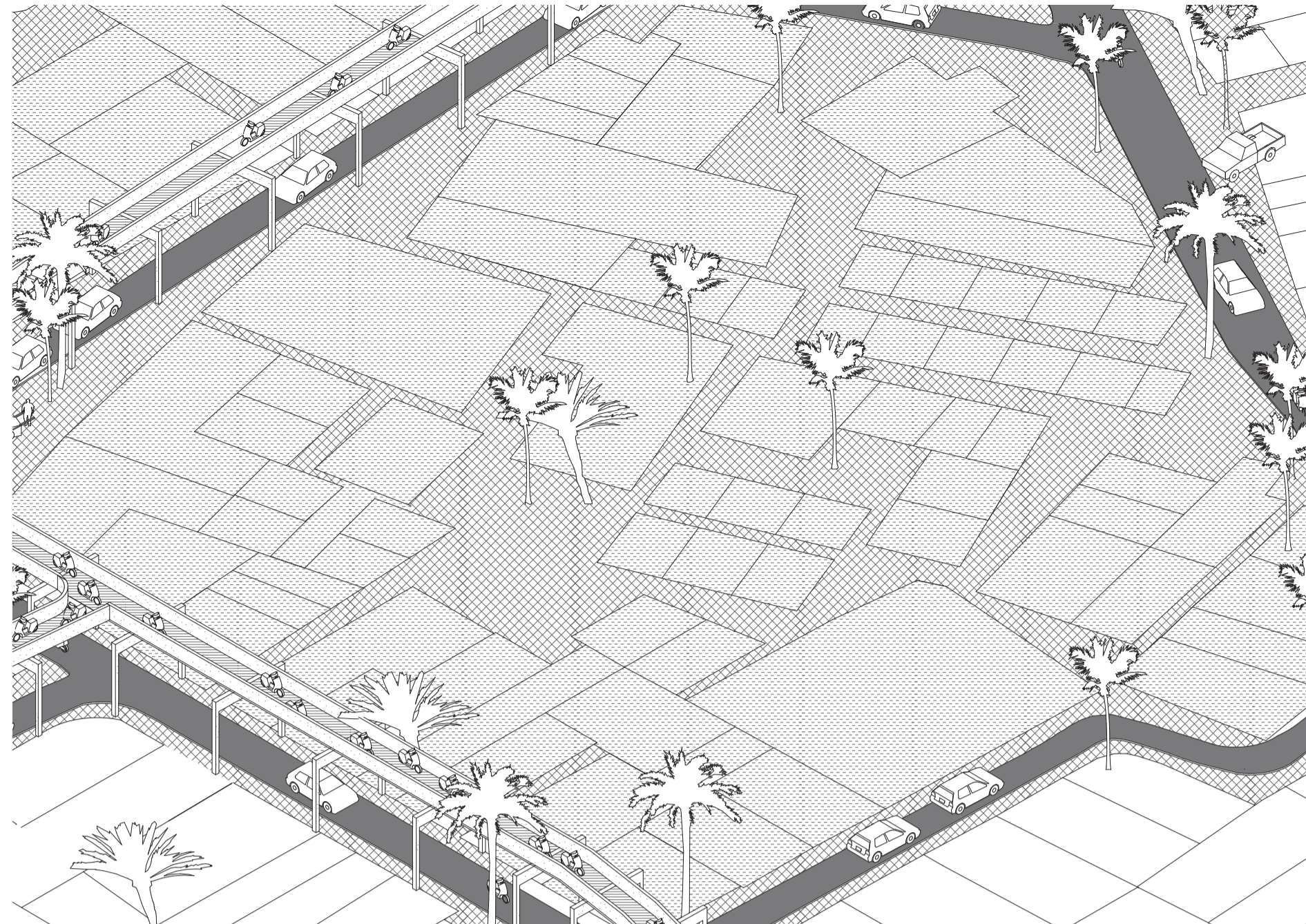
Required Density spread and capacity



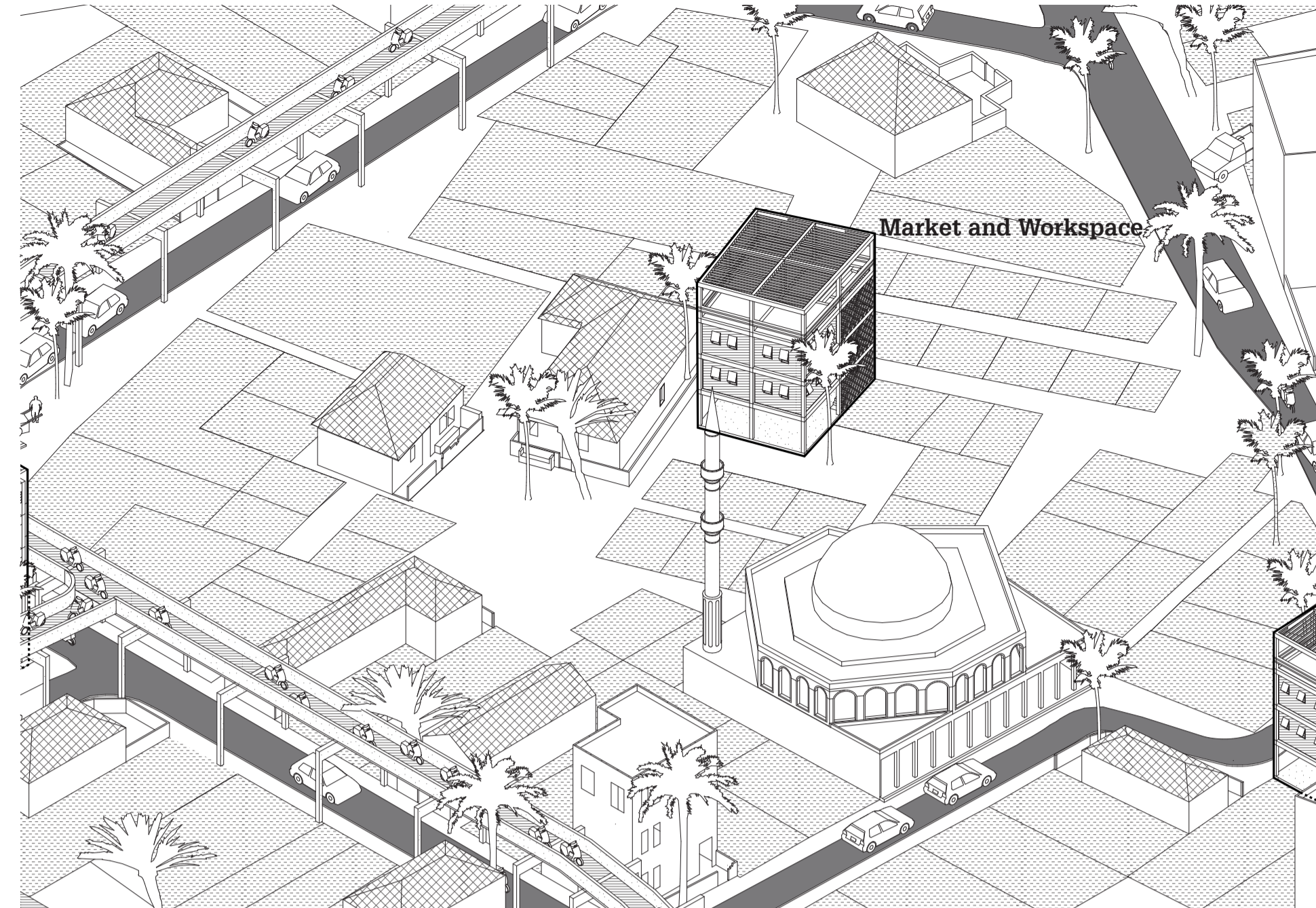
Future situation site a



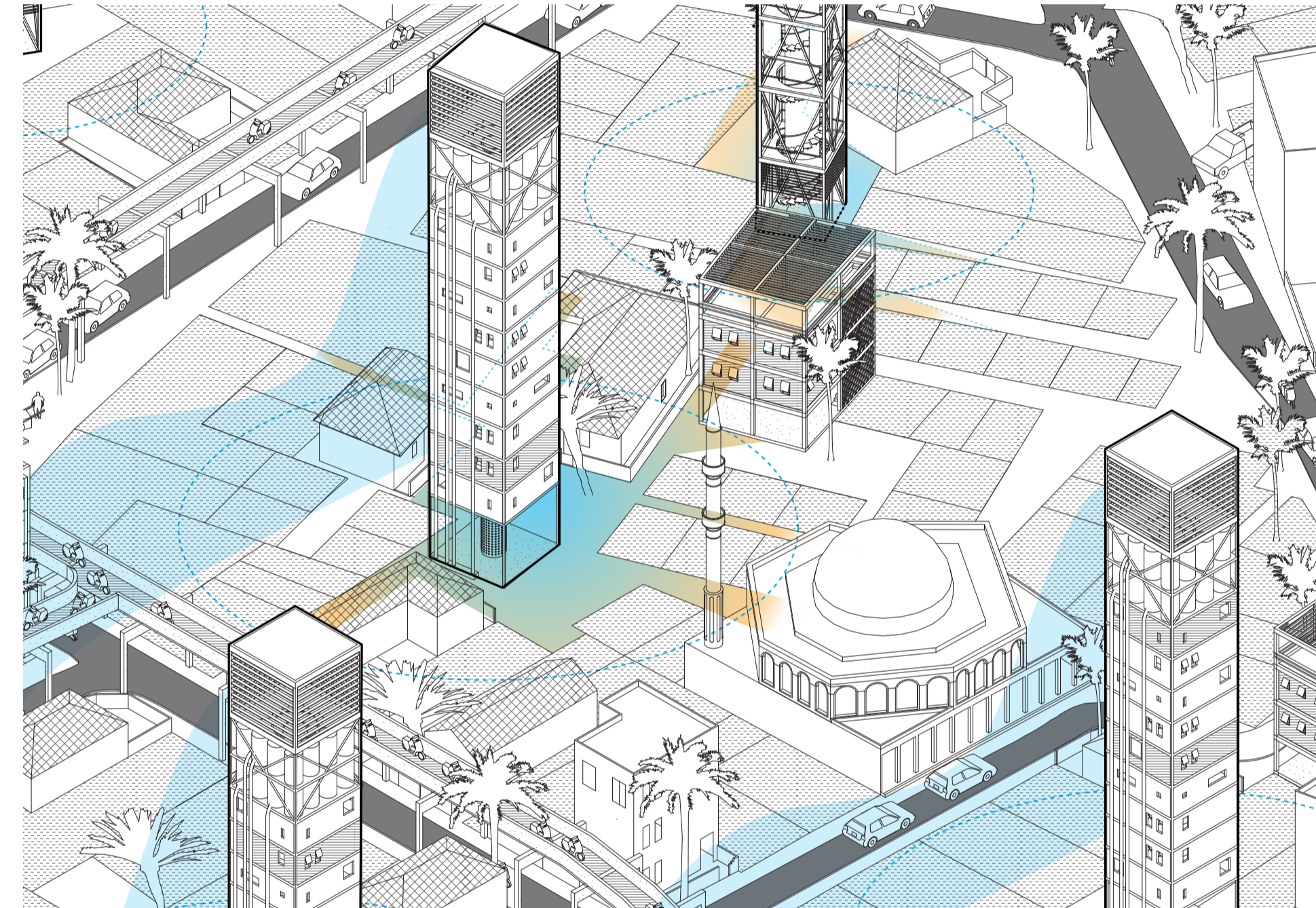
1. Current plot division



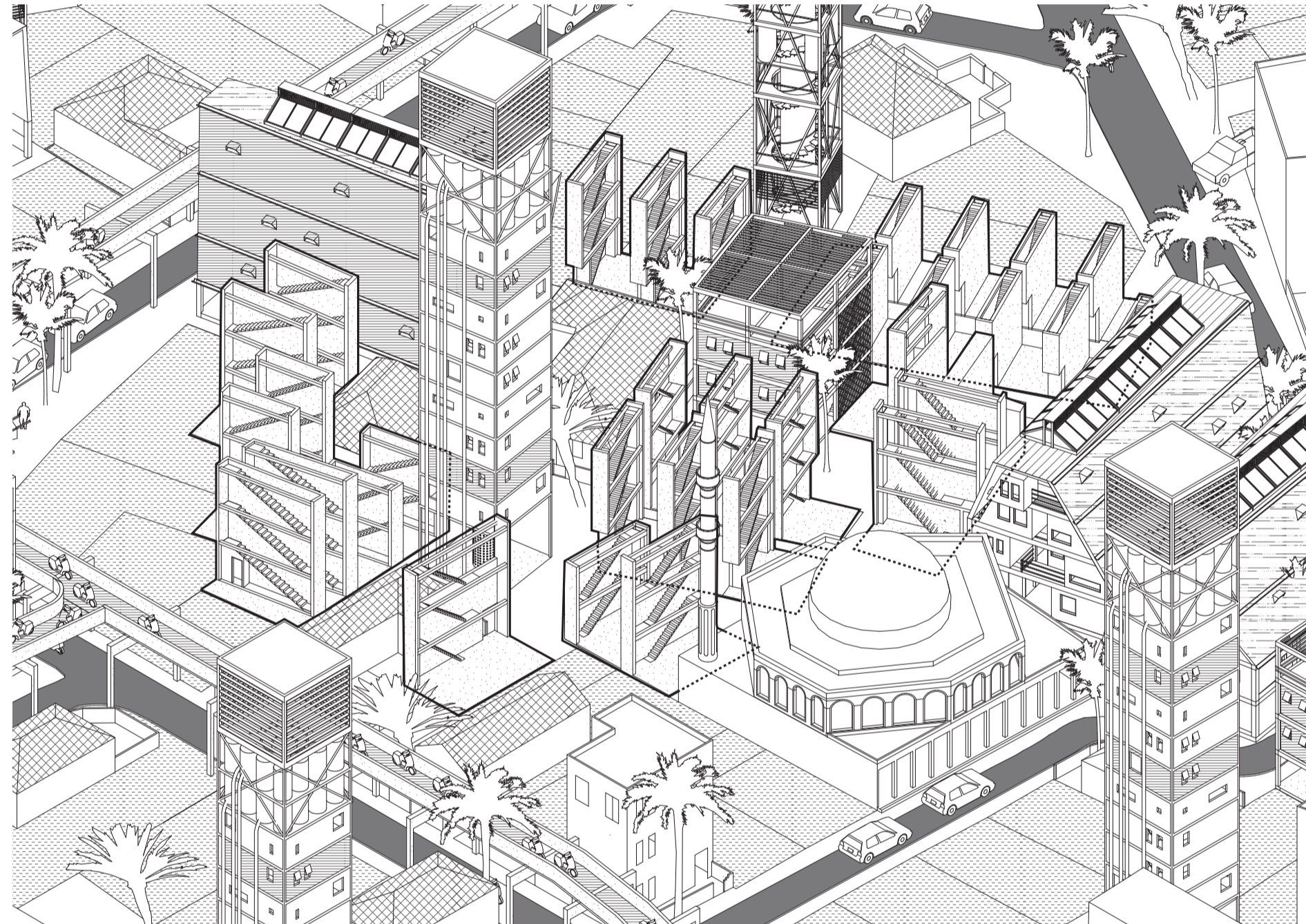
2. Future plot division, Goal to increase the amount of open space and semi public streets.



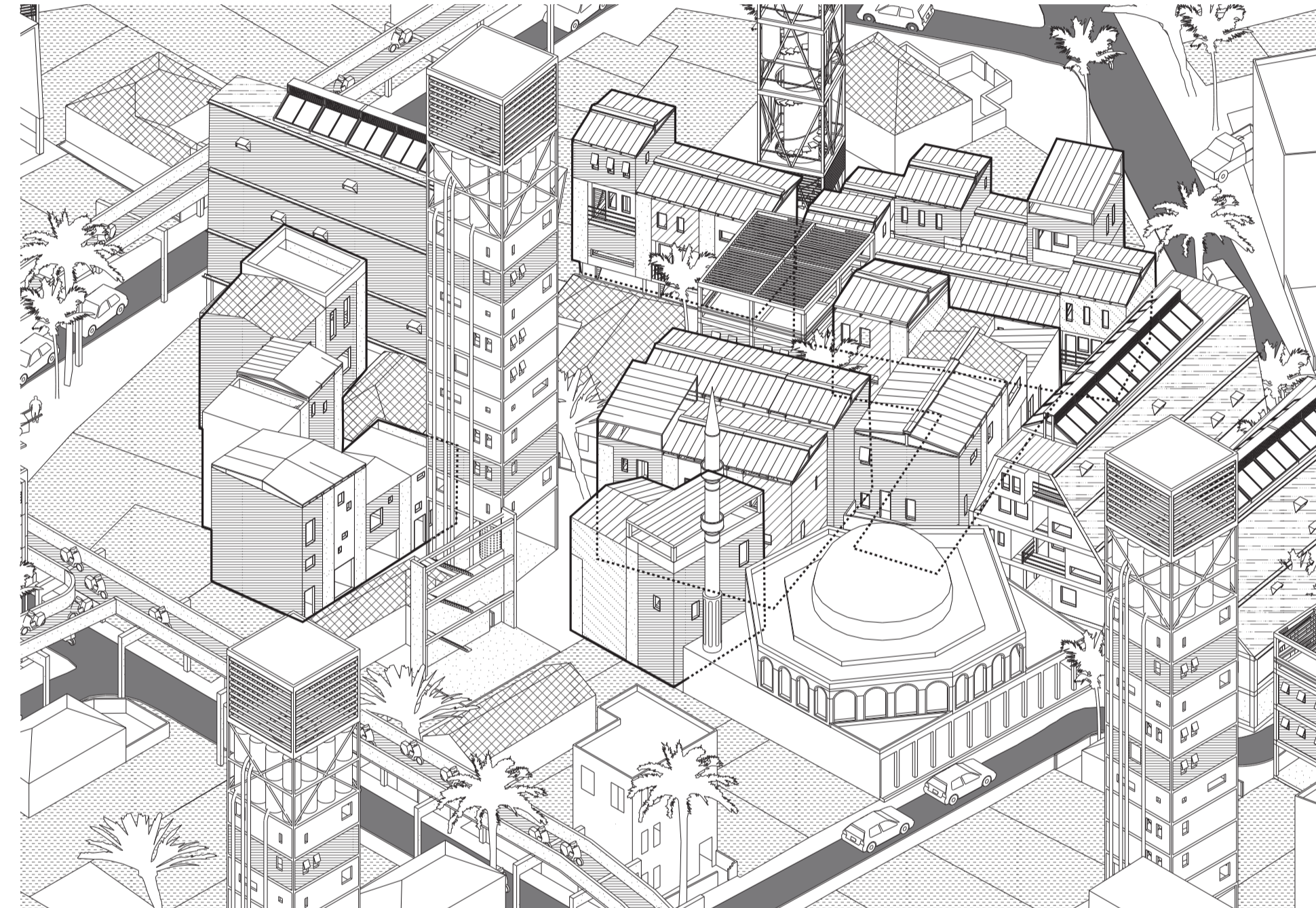
3. Service buildings and cultural heritage



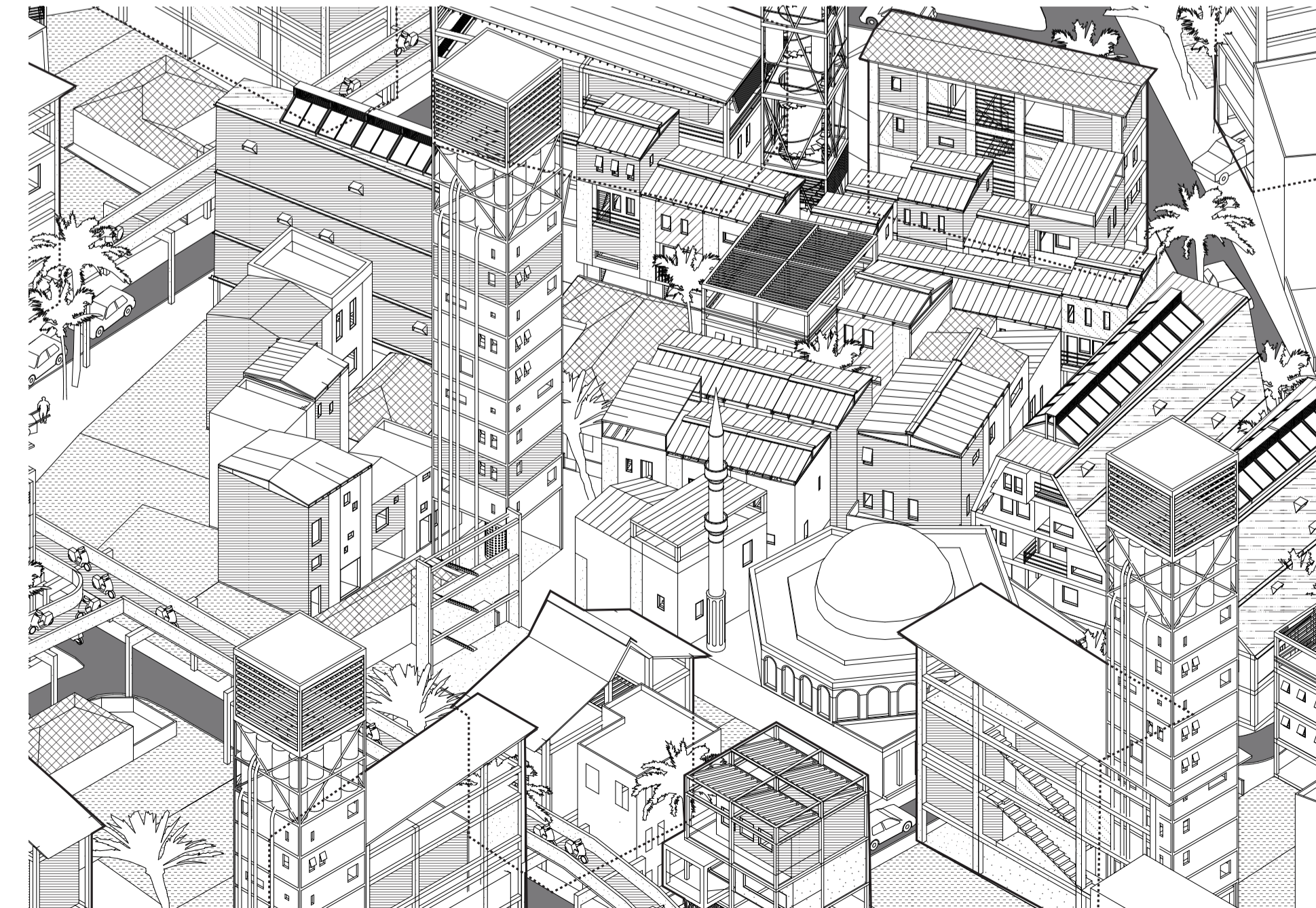
3. Windcatchers



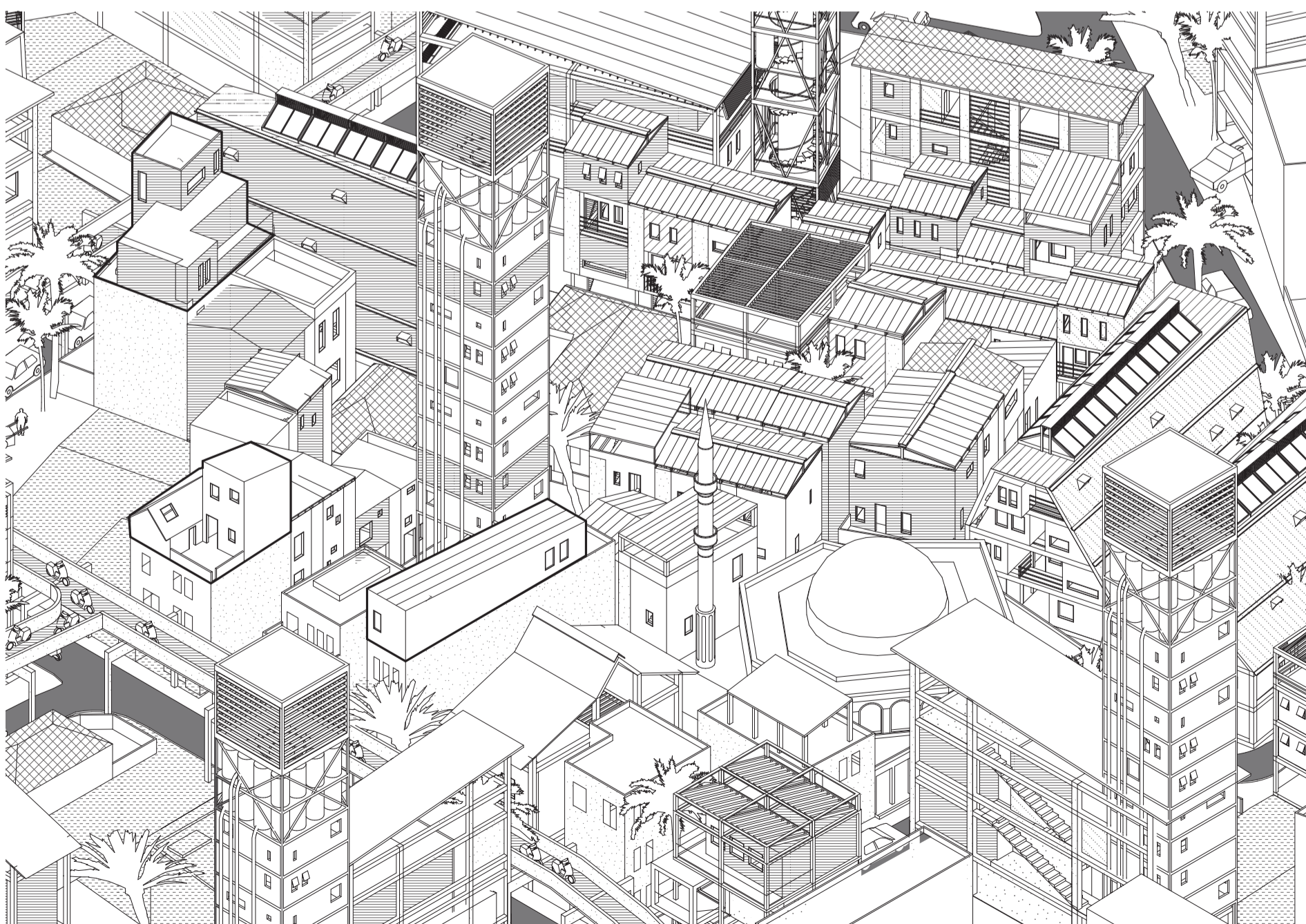
4. Vertical Kampung House, Base by Government



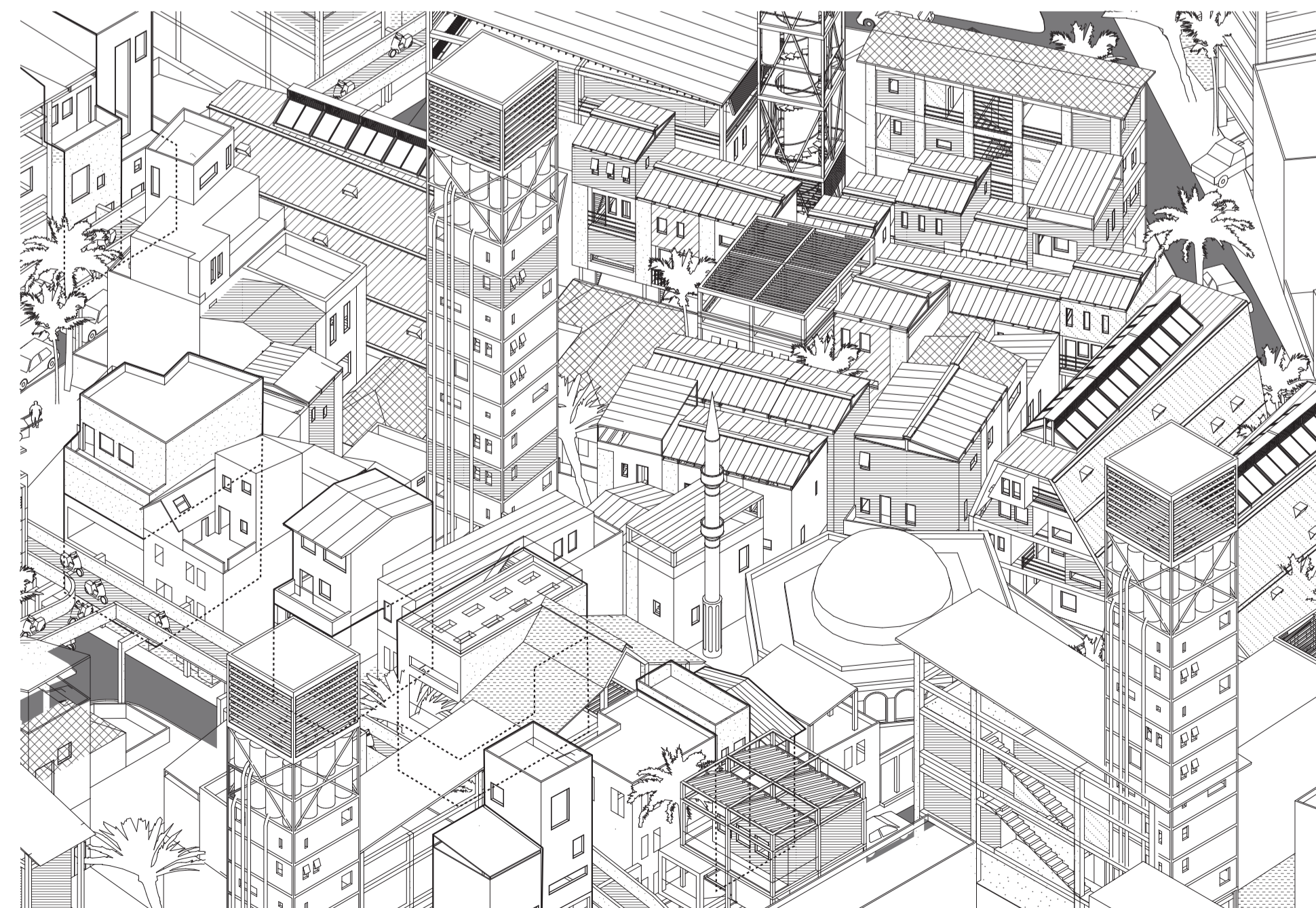
5. Vertical Kampung House, filled in by kampung



7. Vertical Family House, Construction by government, filled in by large kampung families



8 Rooftop additions



9. Split buildings

Sections Site A



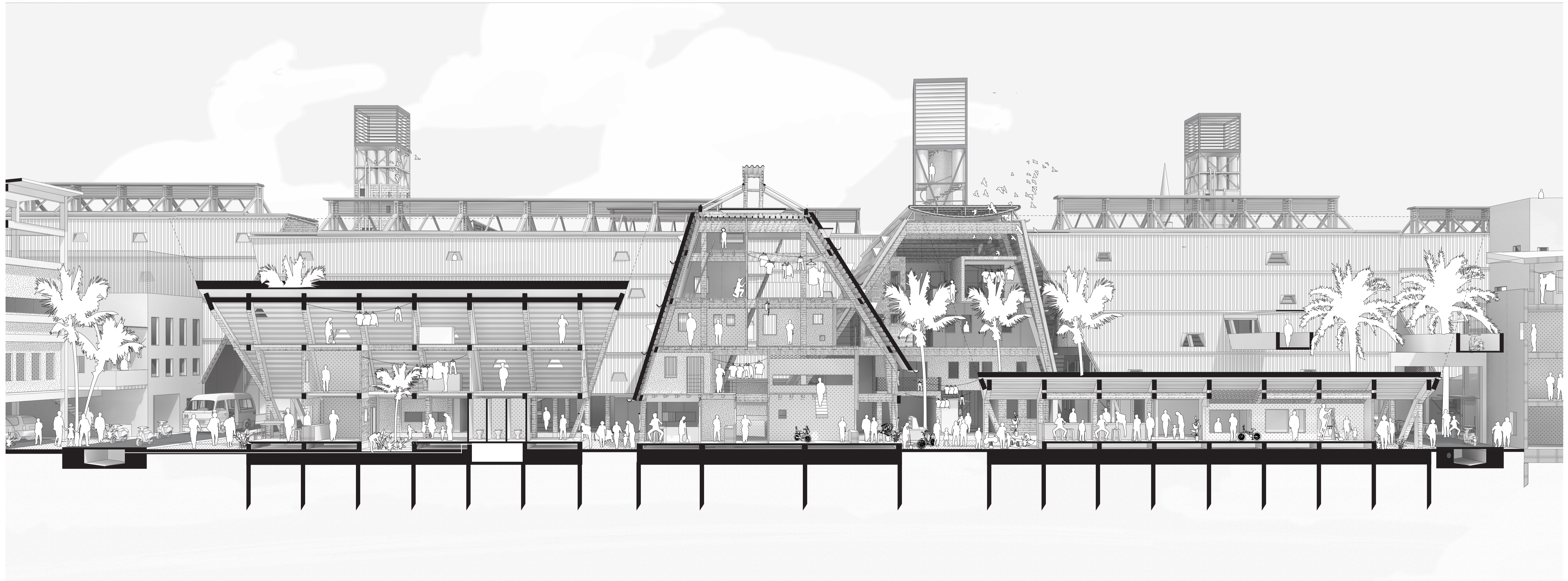
Section A - Current



Section A - 230%



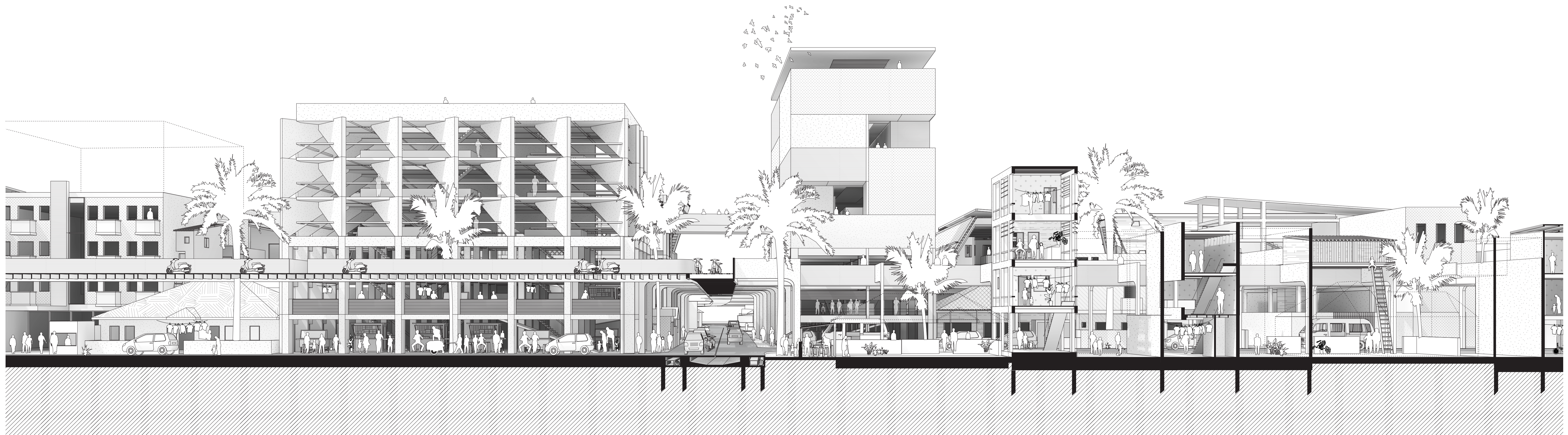
Section A - Current



Section A - 230%



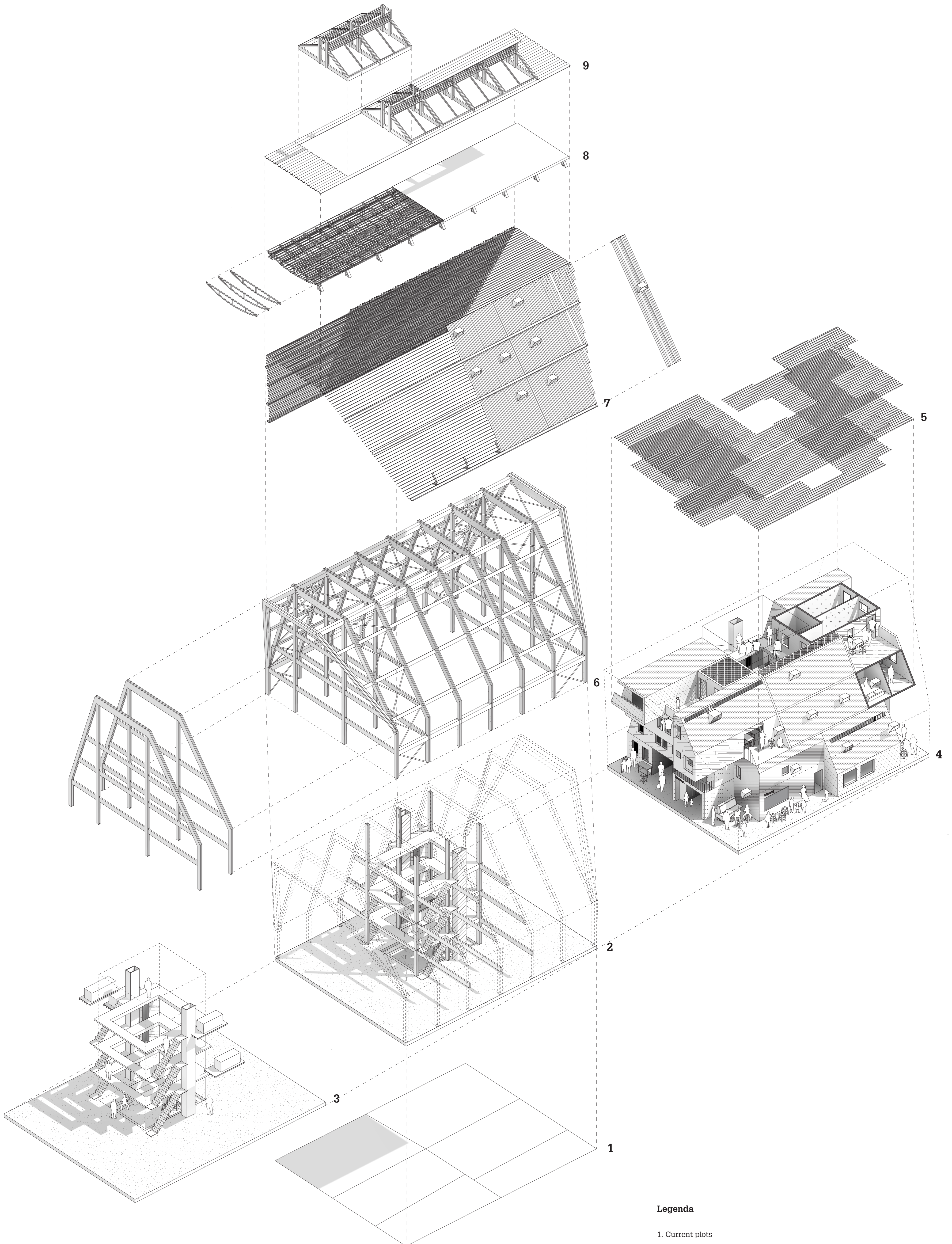
Section A - Current



Section A - 230%

Communal Roof

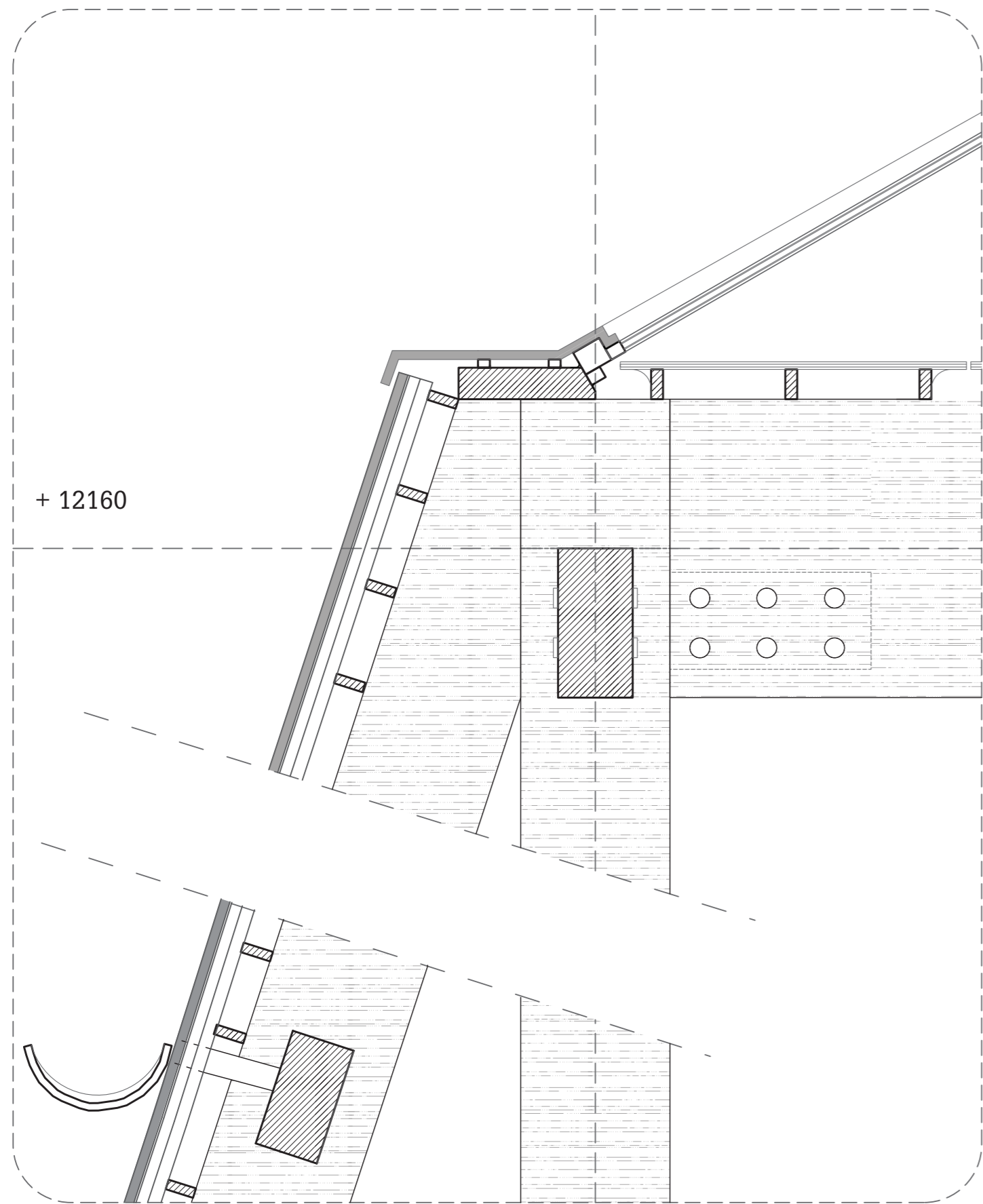
Exploded Axonometrie



Legenda

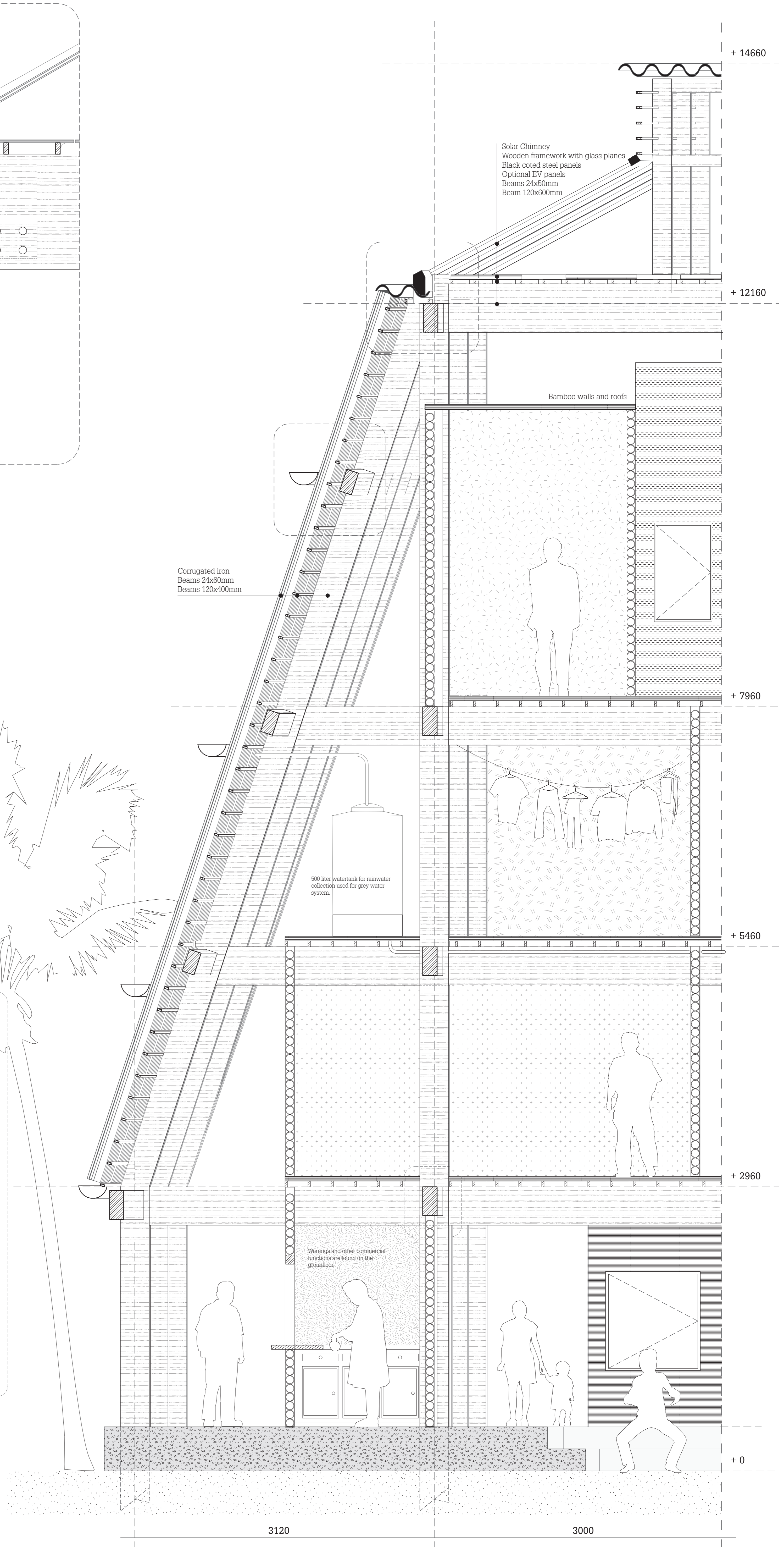
1. Current plots
2. Concrete base structure
3. Communal elements in central core including toilets, stair and vertical shafts
4. Kampung houses build into the roof structure
5. Wooden main structure
6. Floors by kampung inhabitants
7. Roof structure
8. Option 1. Wing Wind Catcher
9. Option 2. Solar Chimney

Details Communal Roof



+ 12160

2D 1:10



+ 14660

+ 12160

+ 7960

+ 5460

+ 2960

+ 0

Solar Chimney
 Wooden framework with glass planes
 Black coted steel panels
 Optional EV panels
 Beams 24x50mm
 Beam 120x600mm

Bamboo walls and roofs

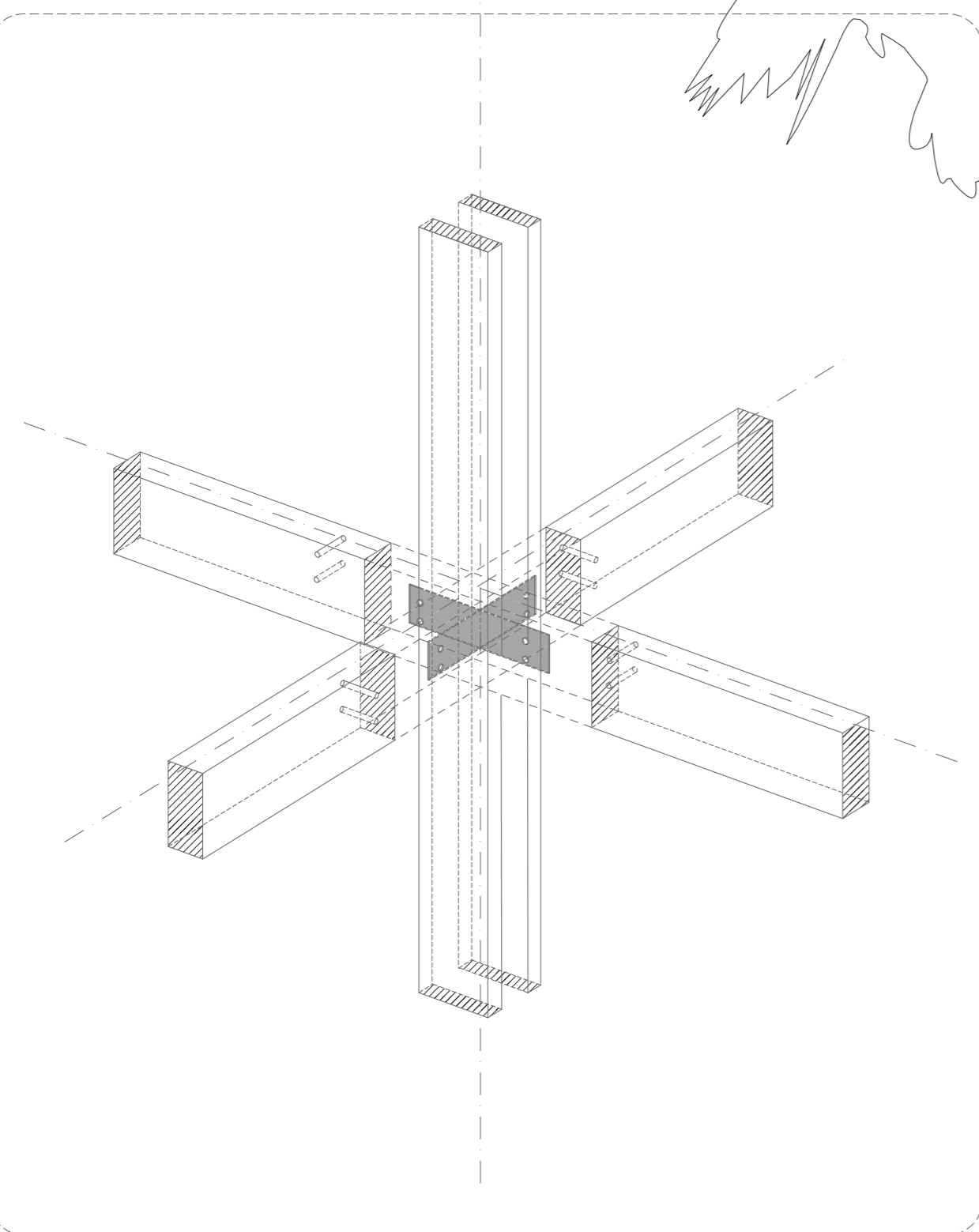
Corrugated iron
 Beams 24x60mm
 Beams 120x400mm

500 liter watertank for rainwater
 collection used for grey water
 system.

Warungas and other commercial
 functions are found on the
 groundfloor.

3120

3000



3D 1:10

Construction detail of the main
 wooden construction. Secondary
 beams are held in place by steel
 plates mounted in between the
 main koloms keeping the beam
 lengths short.

BT of 5 buildings

Water

Total

Sun & Ventilation

Kota Structure

Kota Kampung Structure

+

+

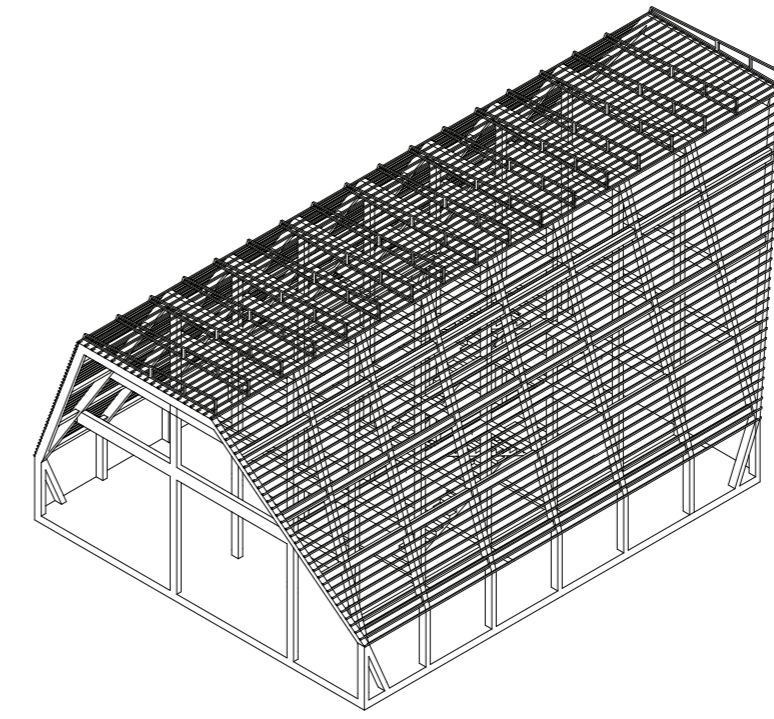
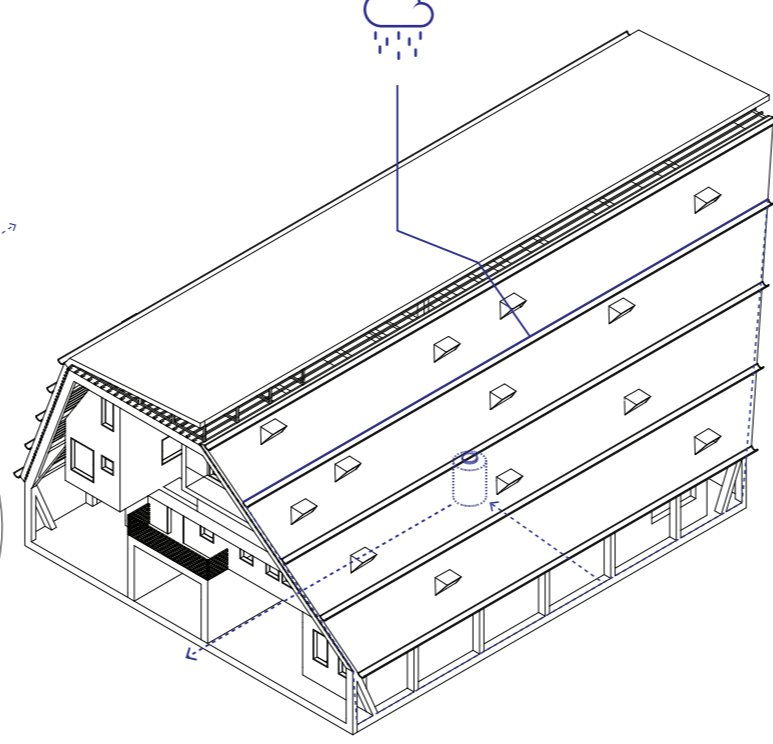
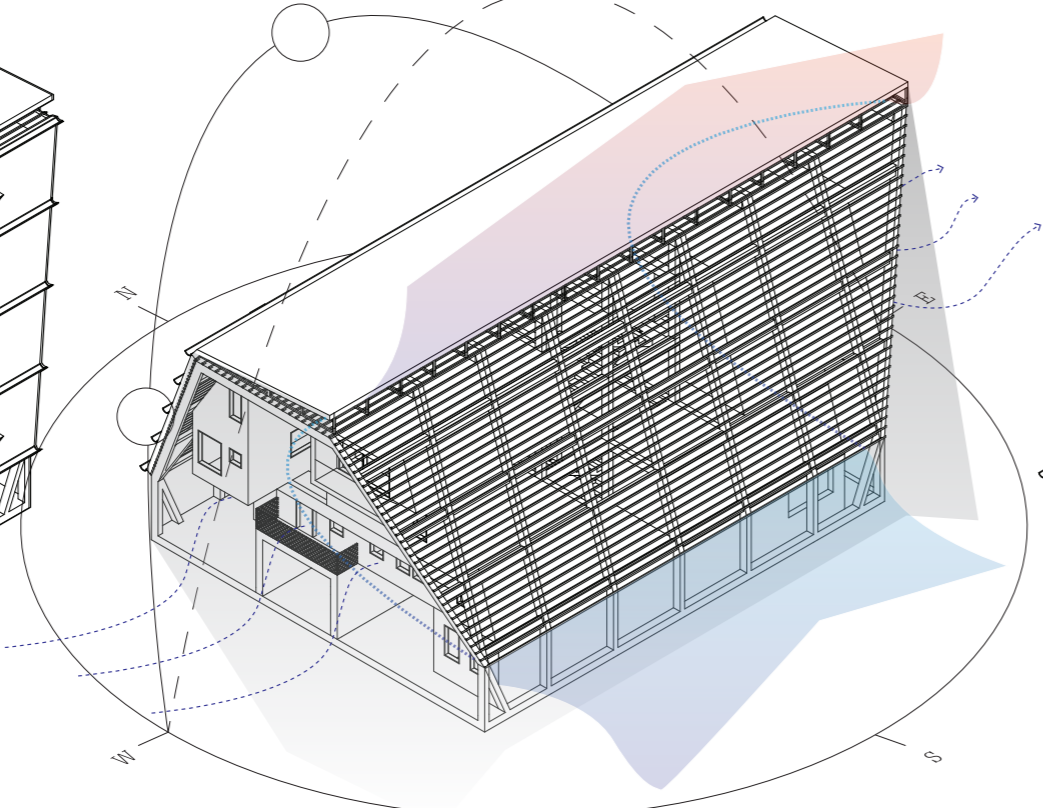
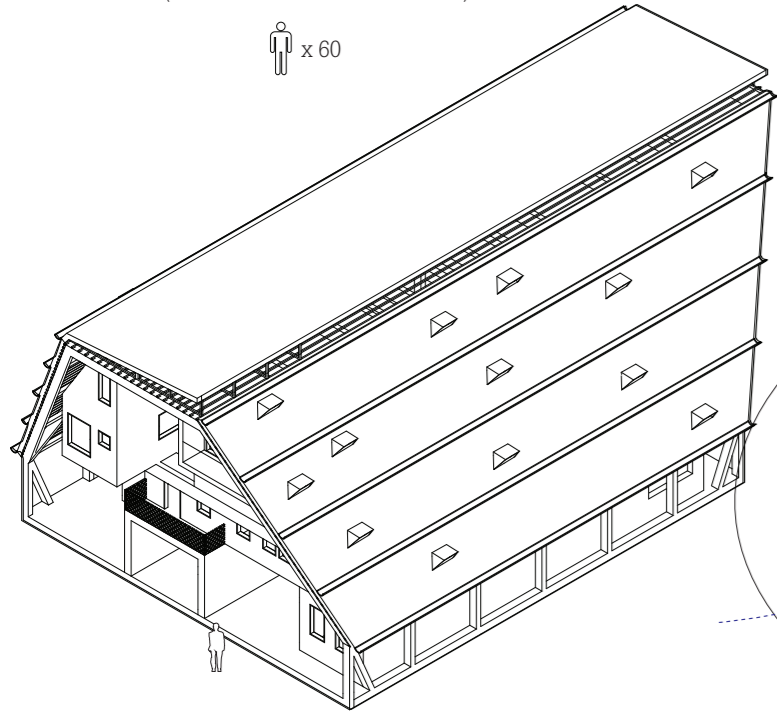
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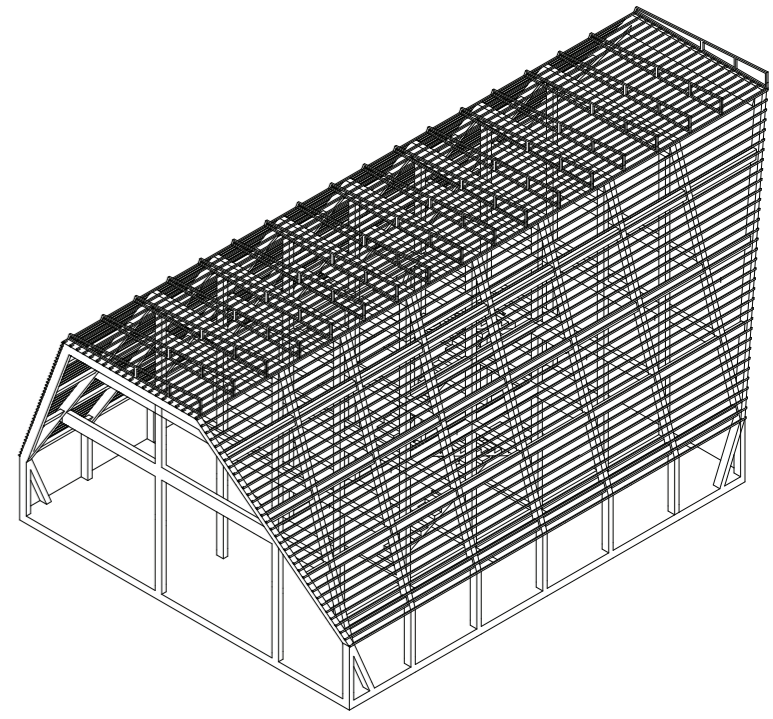
+

1. Communal Roof
(low to mid-income 14 x 25 m²)

x 60



Prefab steel beams. Wooden secondary structure on top of a concrete slab-cast-in-site



Wooden secondary structure

+

+

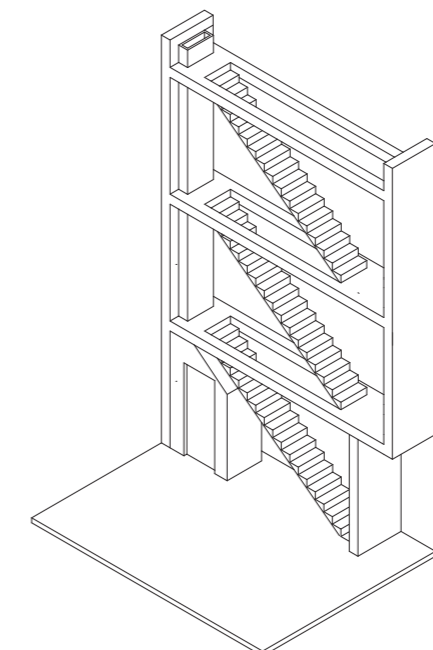
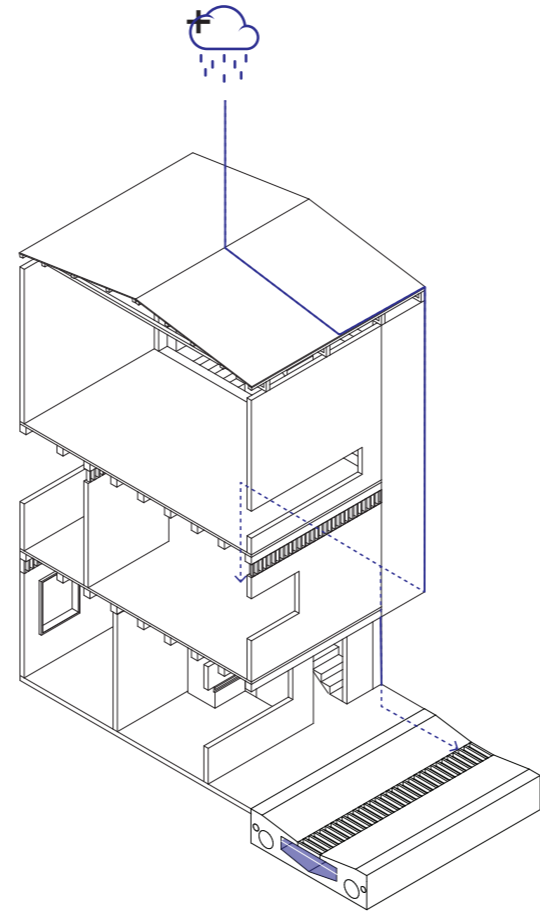
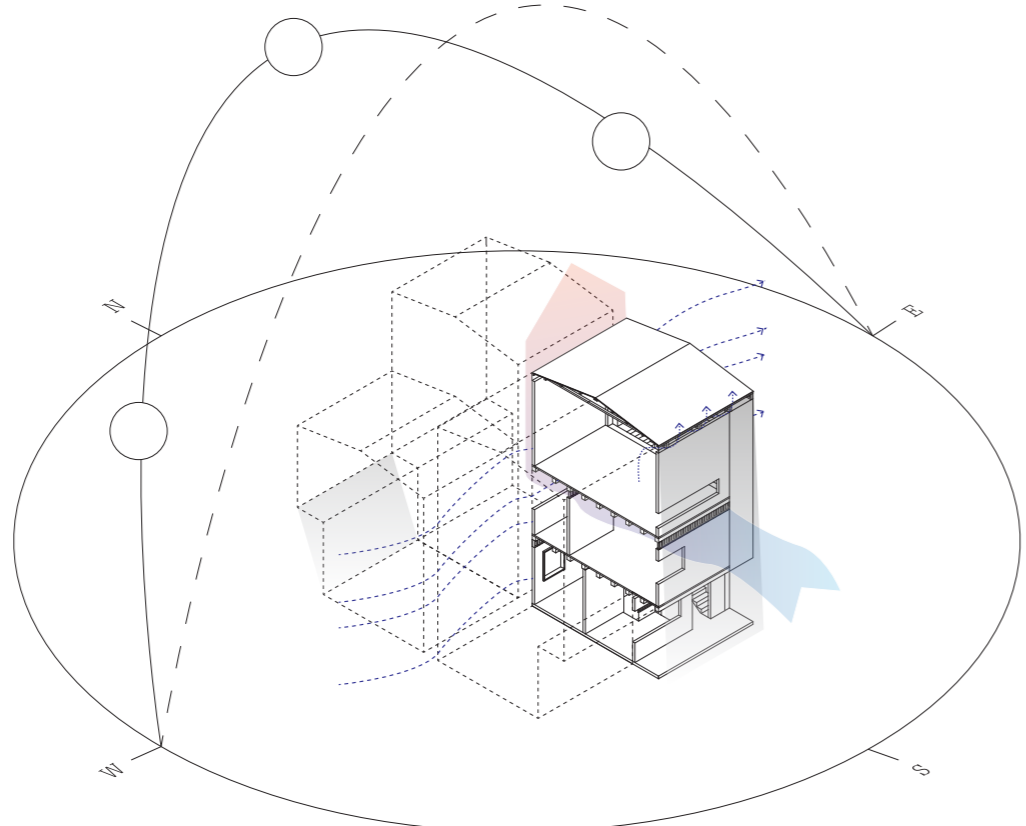
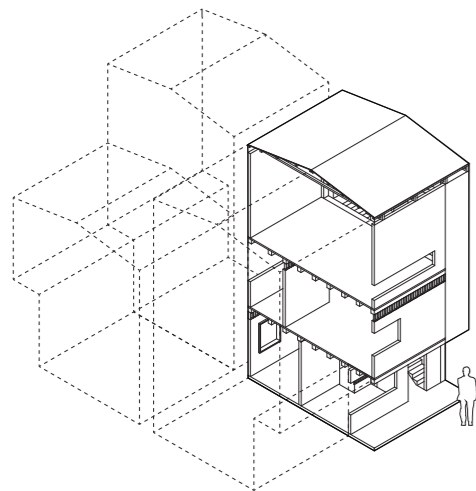
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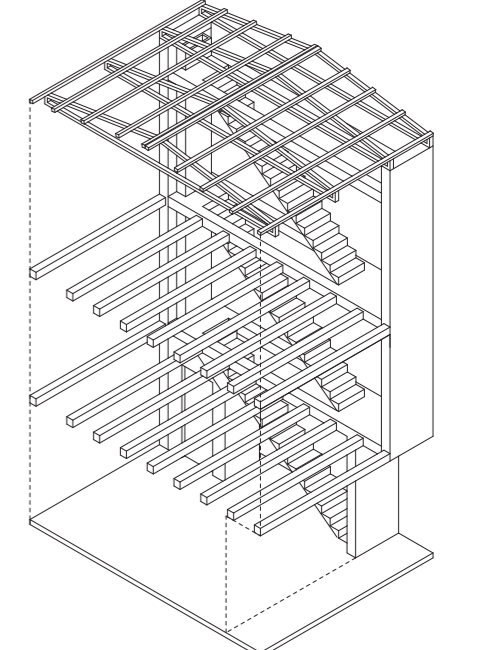
+

2. Individual vertical kampung house
(low to mid-income 40 m²)

x 4,2



Concrete base, cast in site concrete columns and pillars. Prefab stairs. Built-in toilet and shaft.



Wooden secondary structure. Prefab roof from rumah material

+

+

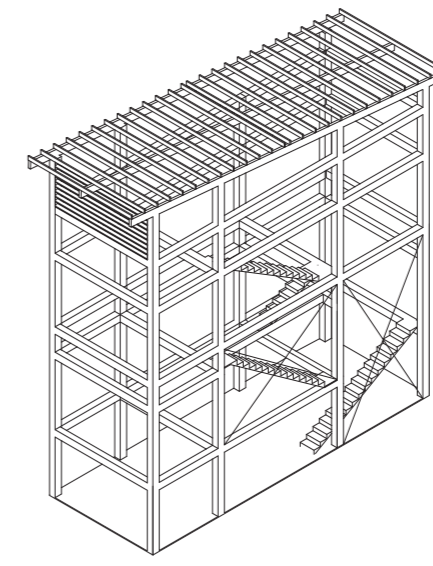
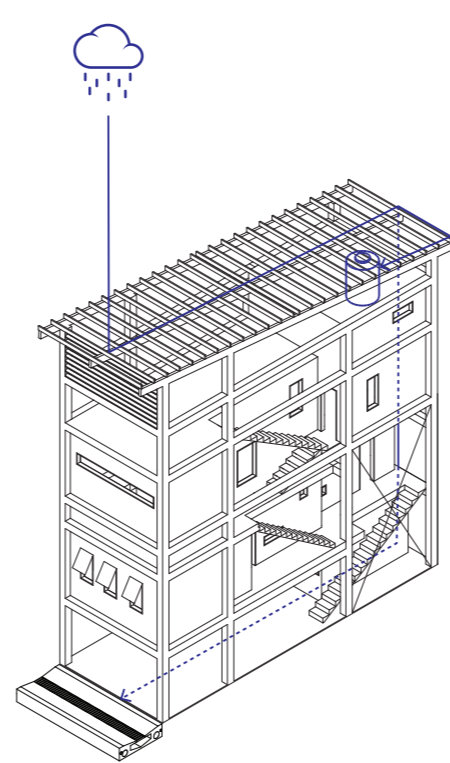
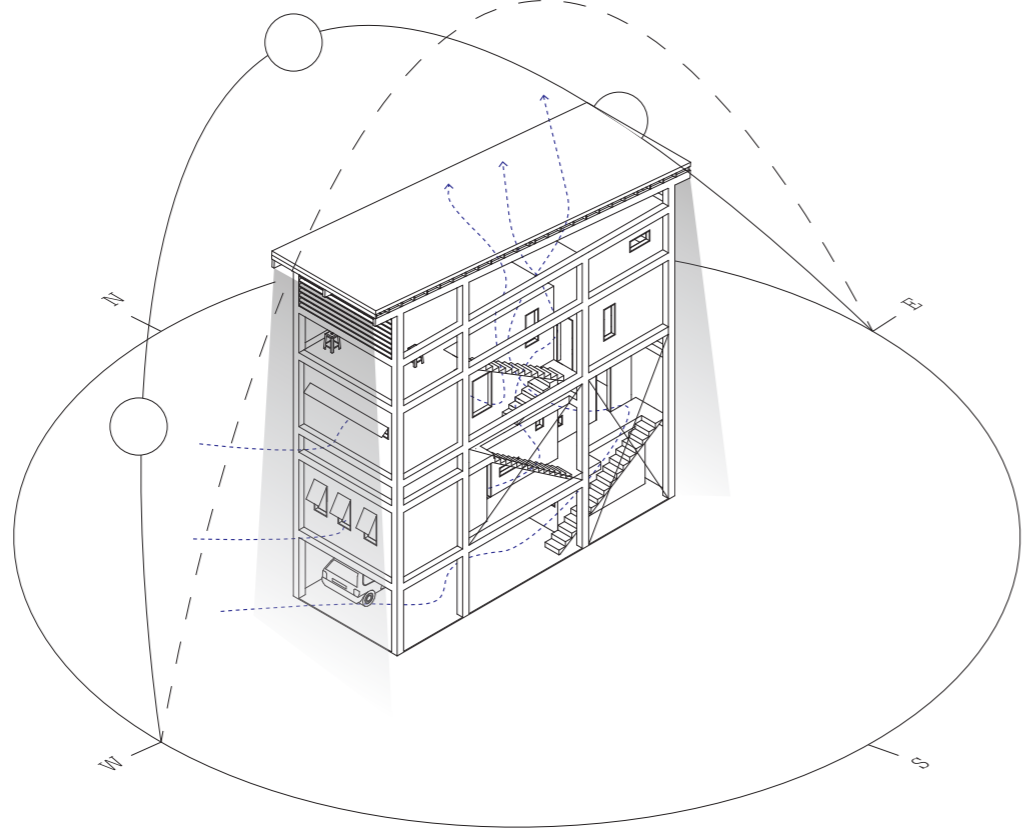
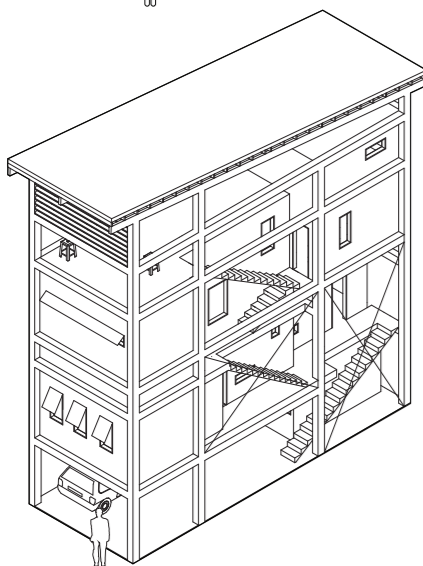
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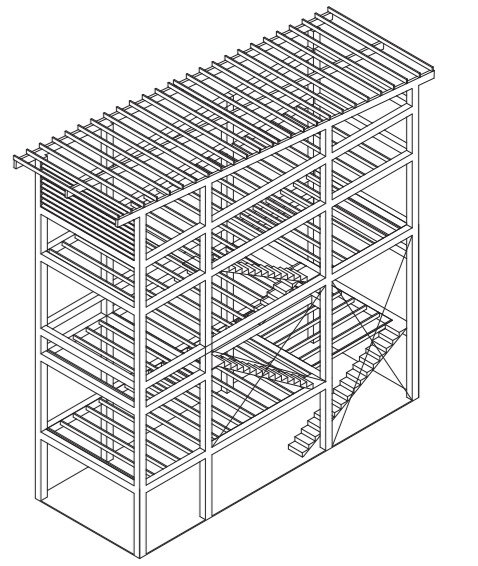
+

3. Family vertical kampung house
(low mid-income 5 x 25 m²)

x 21



Concrete base, cast in site concrete columns and pillars. Prefab stairs. Built-in toilet and shaft. Wooden roof



Wooden secondary structure

+

+

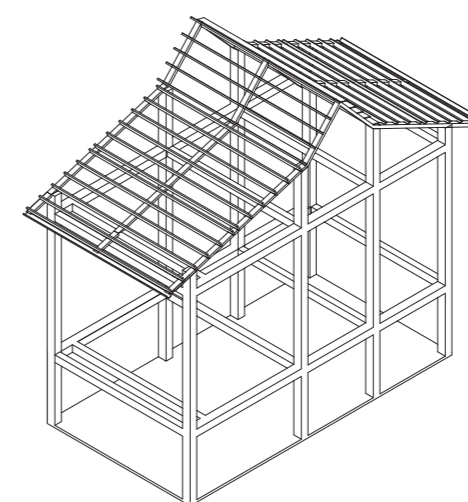
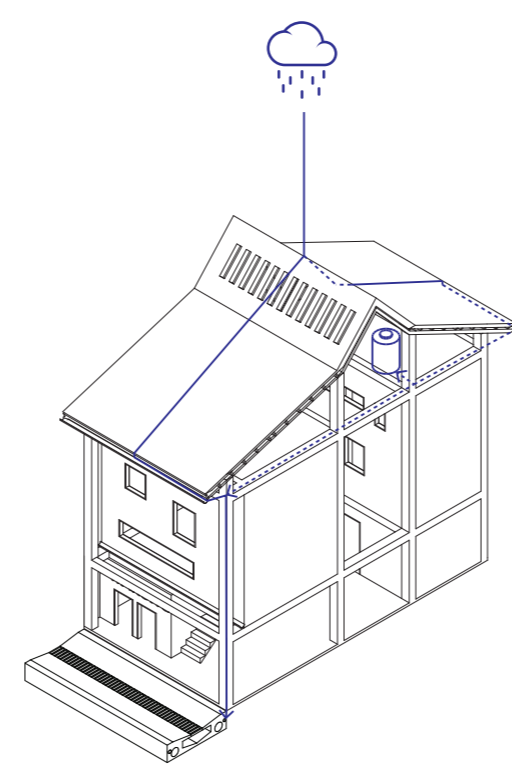
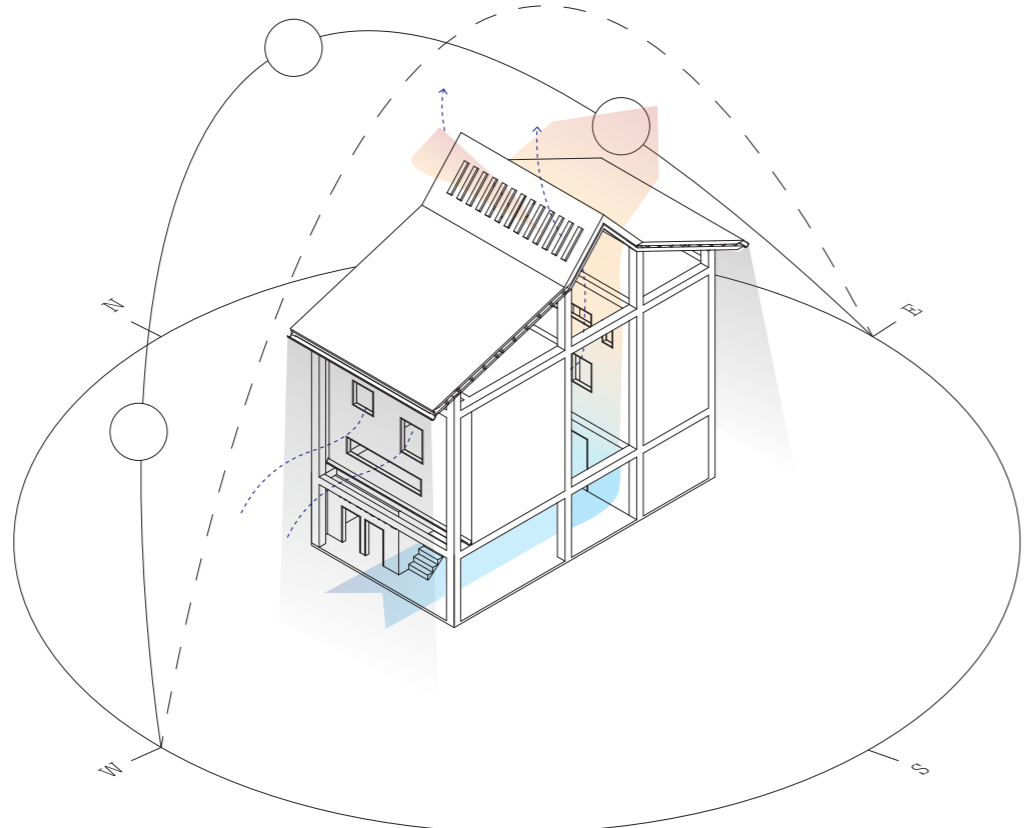
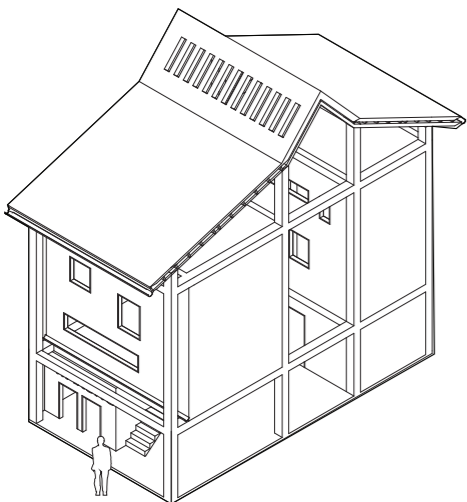
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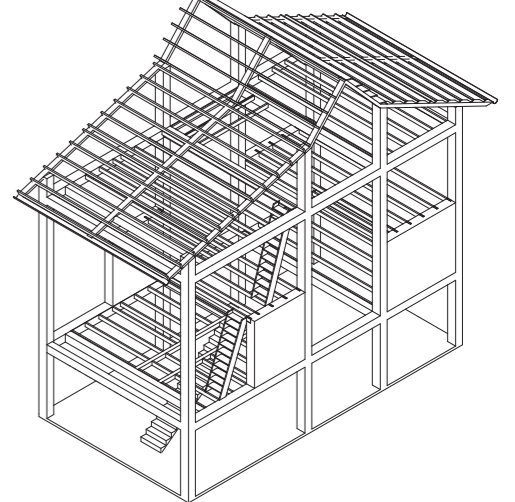
+

4. Street extension house
(mid-income 2 x 40 m²)

x 8,4



Concrete base, cast in site concrete columns and pillars. Wooden roof



Wooden secondary structure. Stairs from rumah material

+

+

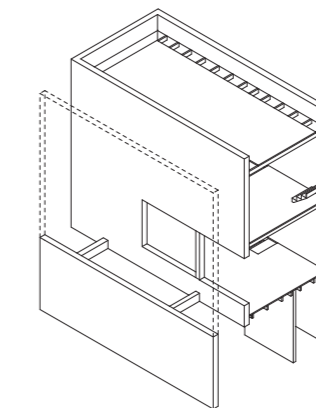
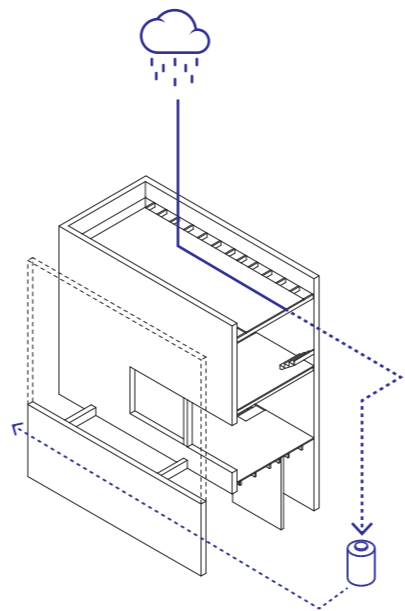
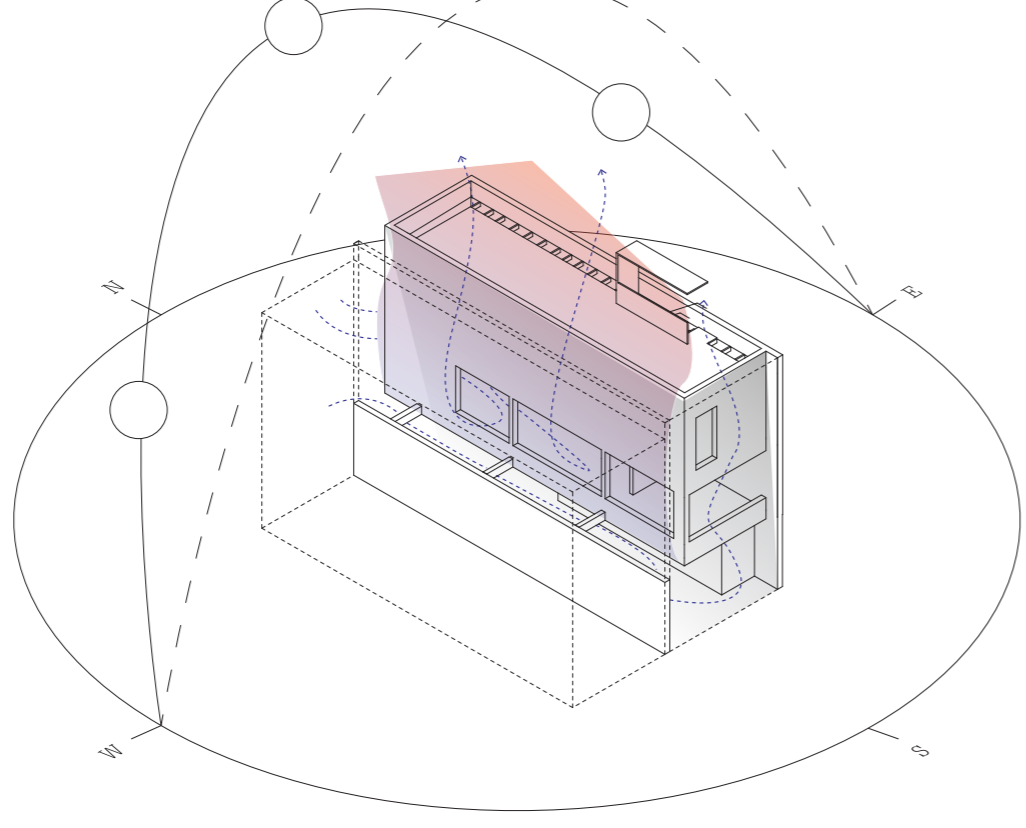
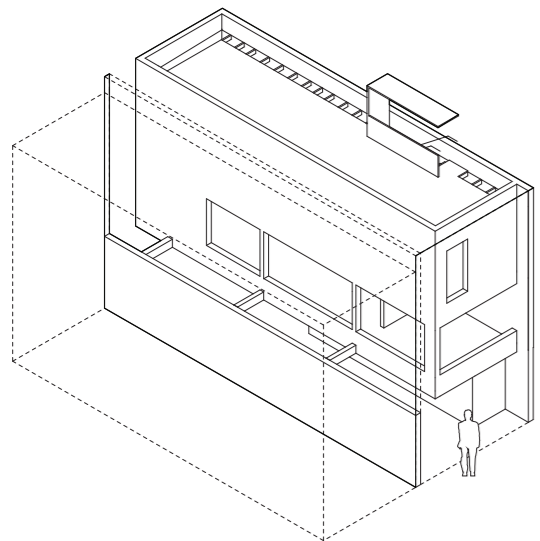
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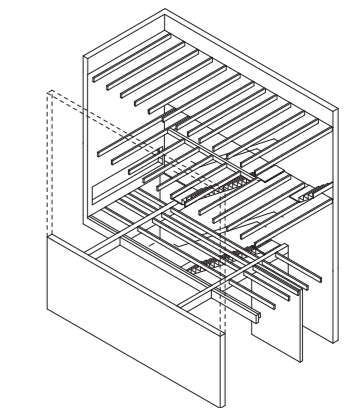
+

5. Split house
(mid & high-income 80 m²)

x 4,2



Concrete base, cast in site concrete walls. Main beams concrete, secondary beams wood.



Wooden or concrete secondary structure

+

+

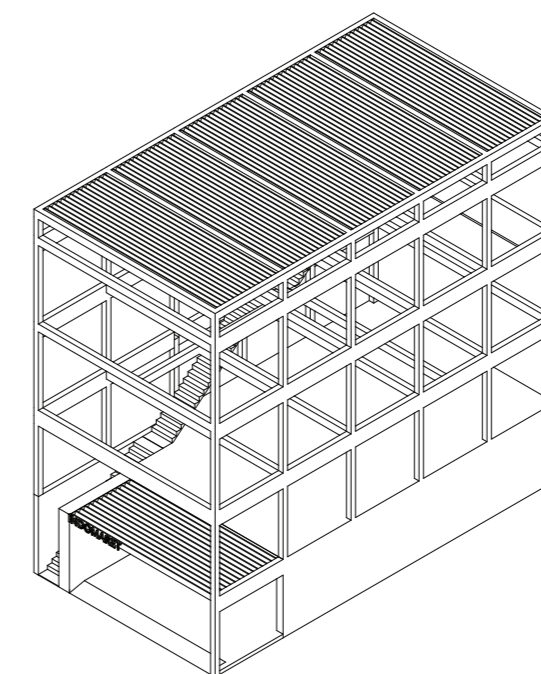
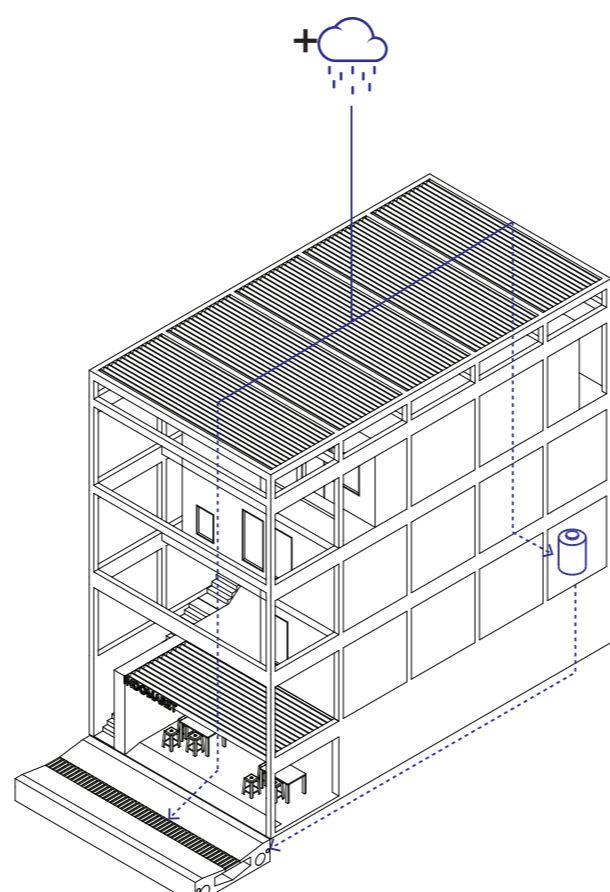
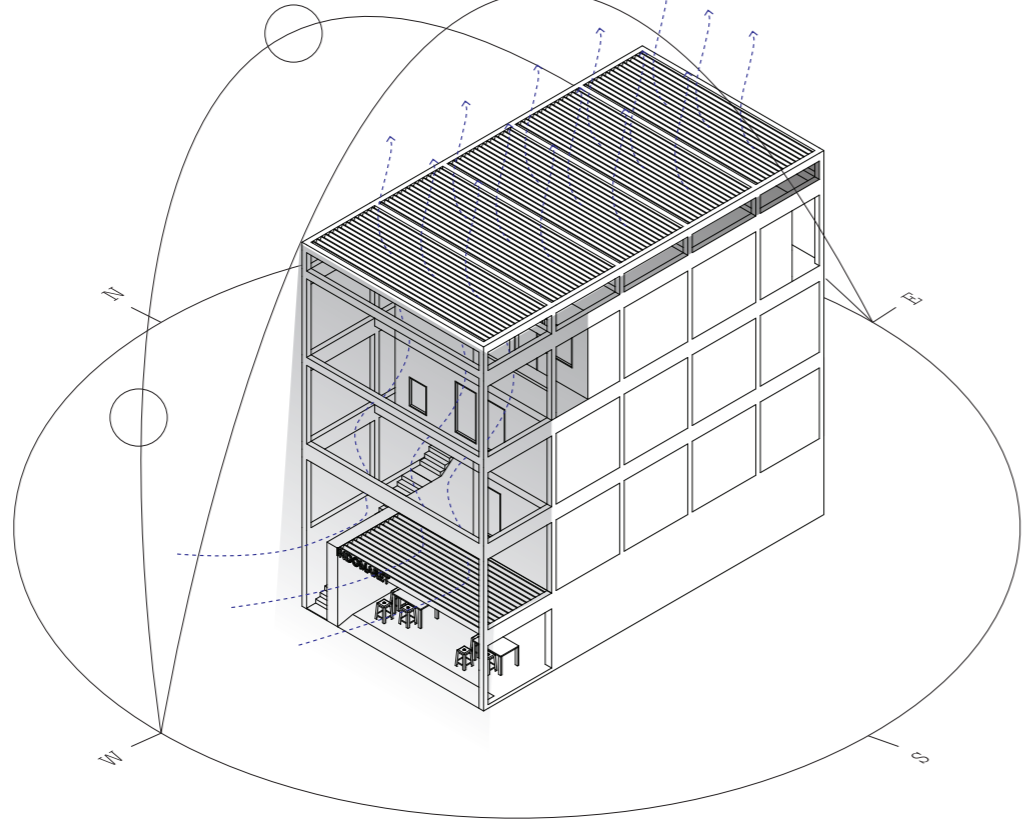
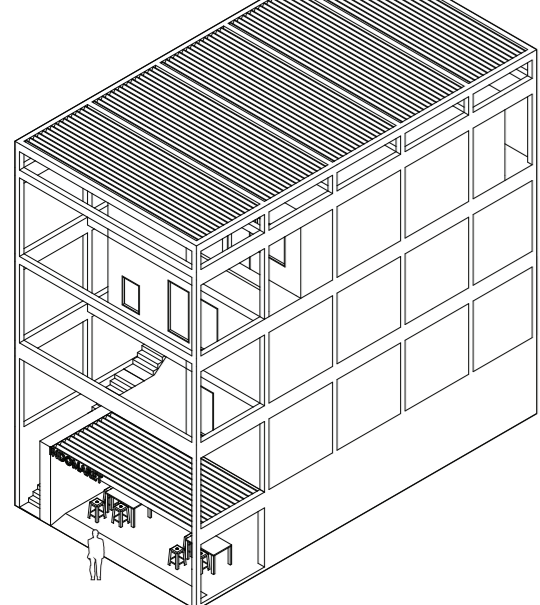
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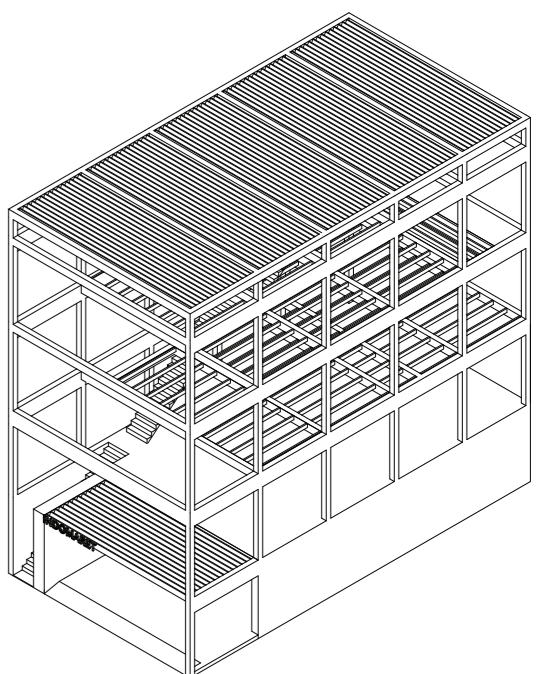
+

6. Shop house
(Low and mid-income 3 x 30m² / 1 x 60 m²)

x 16,8



Concrete base, cast in site concrete columns and pillars. Wooden roof



Wooden or concrete secondary structure