

CASE STUDY 2.0
REBUILDING LOS ANGELES

*A Visionary
Catalog for
Resilient and
Sustainable
Homes*



COMPANY / FIRM SUMMARY



Minimal Standard is the research and development practice of Jesse Gates, AIA.

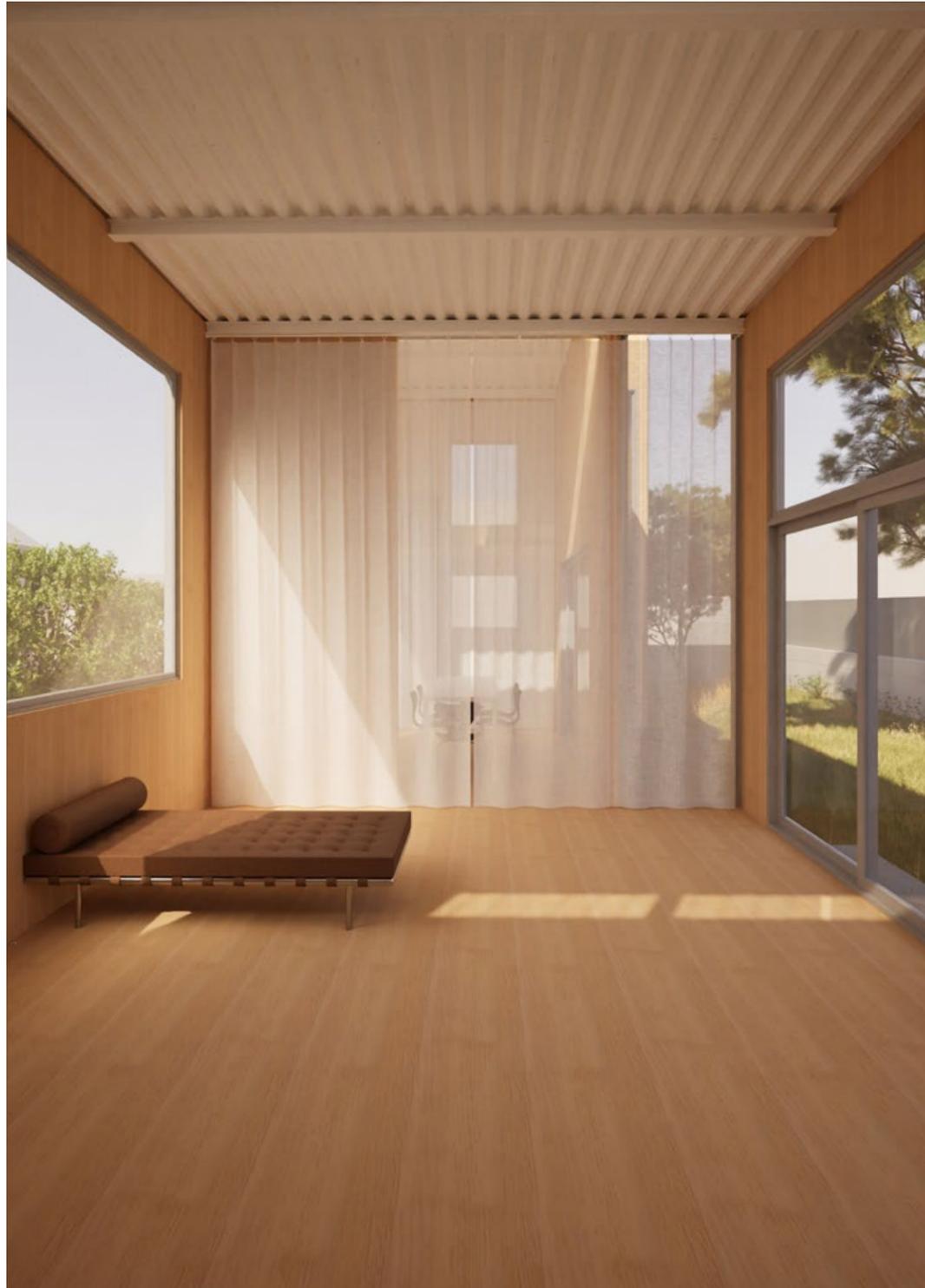
Founded to two main principles: minimal impact on the site and focus on standardization.

Minimal Standard is an evolution of the legal term *minimum standard* which determines the threshold at which the quality of a particular space is acceptable, adequate, or compliant.

Minimal Standard works in the space directly above or around this threshold to raise standards of living while balancing the competing demands of cost, use, efficiency, maintenance, scarcity, abundance, consumption, re-use, economy, and materiality.

Minimal Standard is also focused on leveraging technology to produce innovations in the built environment. Software and automation are integral tools in the practice, along with a deep research practice developing an archive of references and proven applications in the architecture space.

PROJECT NARRATIVE



The proposal addresses three primary concerns: minimum impact on the land, standardized and flexible layouts, and ease and speed of installation. The proposal is a system of inherently un-programmed volumes that will be configured for each property and each owner's specific wants.

The volumes are made of cross laminated timber walls and floors, with metal insulated roofs, aluminum framed windows and doors, and grounded on either a concrete foundation or helical pile ground screws.

The ground screw foundation can be installed in a day, and the cross laminated timber floors and walls can be delivered to site and installed on the second day. Ground screws require no digging and no grading to achieve a raised floor condition. The building floats lightly over the site aiming to be a quickly deployable, low impact solution for owners who want to move in quickly and maintain a close connection to the land.

The un-programmed nature of the module system means that space is inherently flexible and interconnected, providing the owner with an unusual amount of control over the interior space. Modules are proportioned to be either compact and tall, or long and wide creating a compression and expansion of space across the home and creating a gradient of privacy for the family.

The project presents a menu of 5 main volumes:

- 3 story tower
- 2 story tower
- Kitchen bar
- Living room
- Flex Space

Each volume is configurable for each project's specific requests and can be arrayed on site to maximize or minimize the following properties:

Privacy	--●-----	Street Access
Sunlight	-----●---	Shaded Area
Distance	-----●-----	Direct Access
Footprint	-----●----	Garden Space

A software interface for configuring and evaluating each project will be included in the planning stages and allow a project to be intentionally added to and expanded over time.

Should the project be a temporary stop-gap housing solution for a site, individual modules can be picked up, disassembled, or relocated entirely to other sites nearby for a fraction of the cost and environmental impact of typical redevelopment.

PARCEL INFO & DIAGRAMS

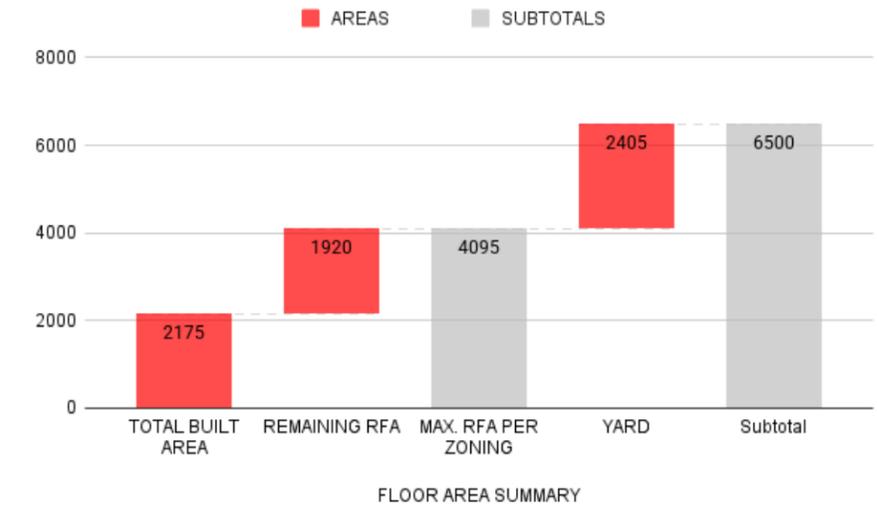
ADDRESS: 1037 N ILLIFF STREET



BUILDING AREAS

BUILDING AREAS	
RESIDENTIAL FLOOR AREA	
FLOOR	
BASEMENT	248.00 SF
LEVEL 1	1,183.00 SF
LEVEL 2	496.00 SF
LEVEL 3	248.00 SF
SUBTOTAL	2,175.00 SF
COVERED EXTERIOR	375.00 SF
MAXIMUM ALLOWED	2,600.00

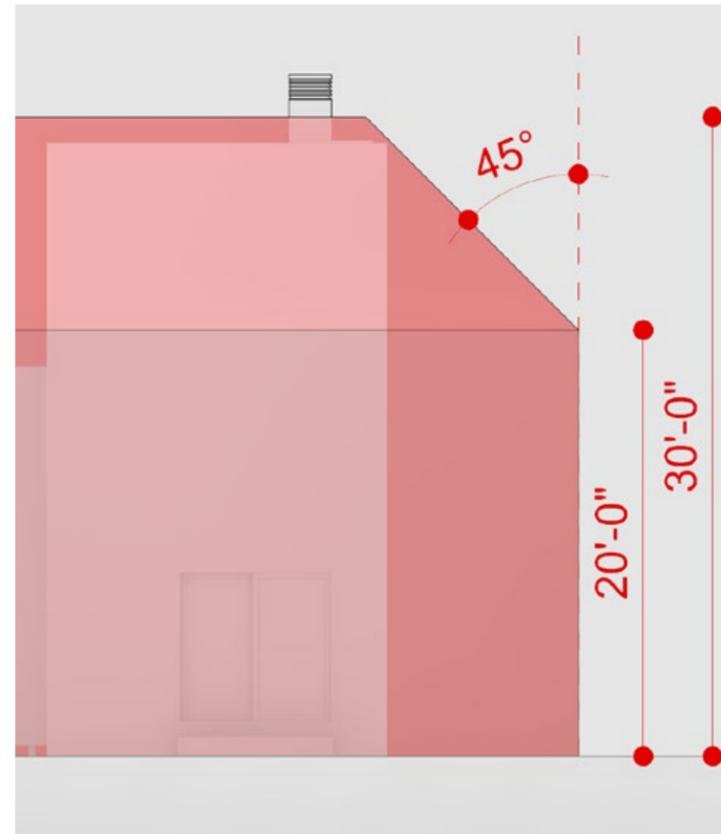
FLOOR AREA SUMMARY



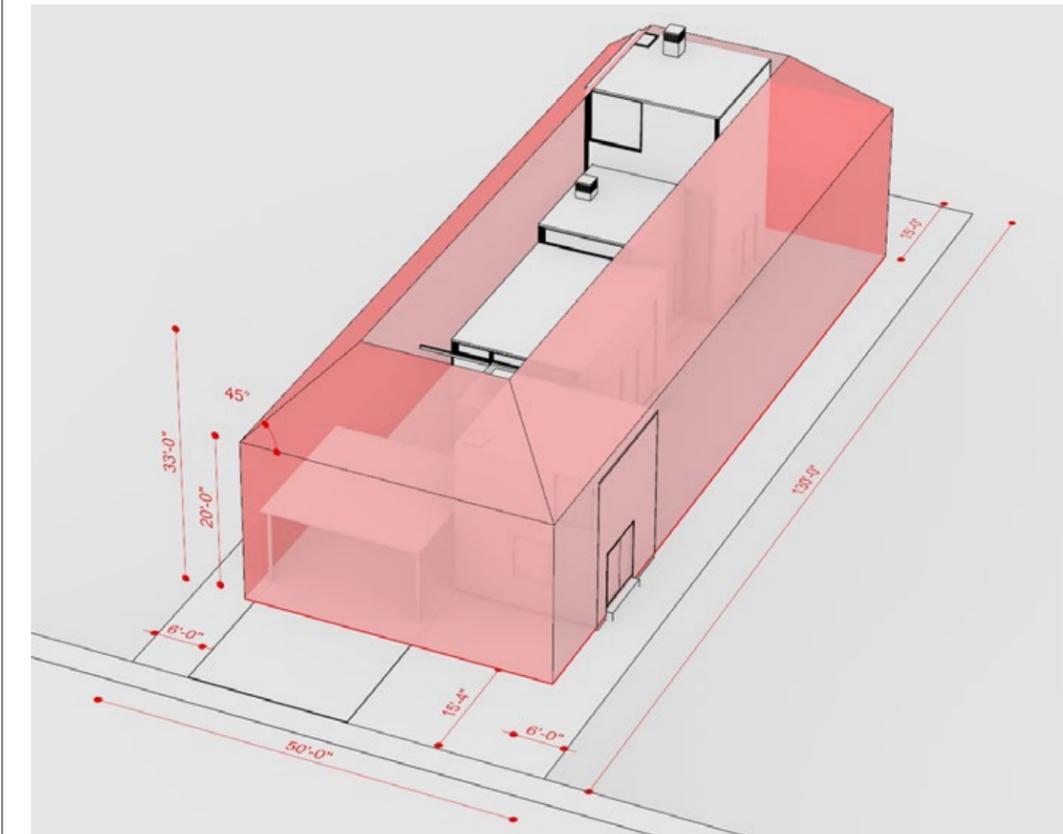
PROJECT DATA

PROJECT DATA	
SITE ADDRESS:	1037 N ILLIF ST
LOT AREA:	6,500 SF
ZONED:	R1-V1
MAXIMUM ENVELOPE HEIGHT:	28' - 0" MAX. ABOVE GRADE
L.A.M.C. 12.21 C.10 [D][1][I]:	33' - 0" MAX. ABOVE GRADE FOR VARIED ROOFS
SETBACK REQUIREMENTS:	FRONT YARD: 15' - 4"
	REAR YARD: 15' - 0"
	SIDE YARD: 6' - 0"
PARKING REQUIREMENTS:	2 COVERED SPACES
LOT COVERAGE (FLAT):	MAX. ALLOWABLE: 48% TOTAL LOT AREA
LOT COVERAGE (HILLSIDE):	MAX. ALLOWABLE: 40% TOTAL LOT AREA
BUILDING AREAS:	MAX. ALLOWABLE: 40% TOTAL LOT AREA

BUILDING HEIGHT DIAGRAM



BUILDING ENVELOPE AND SETBACK DIAGRAM



DESIGN FEATURES



FIRE RESISTANCE

Cross Laminated Timber achieves building Type III level fire rating. Mass timber structures begin to form a char when exposed to flame and self protect for an extended period of time compared to conventional stick-framing.



ROOFING

Roofing and roof structure is all metal. Ventilation through-holes and roof mounted equipment are protected with specifically designed all metal shrouds to prevent fire embers gathering and penetrating the envelope.



BUILDING SIDING

Cross Laminated Timber acts as its own finish material. The natural warmth of wood allows the building to age gracefully and generate an outward display of permanence and longevity.



WINDOWS & DOORS

Windows are inserted into the loose connections between modular units of varying proportions. Windows cutting through the CLT walls are massive and oversized. All connections are surface mounted on the exterior for ease of installation and maintenance.



DEFENSIBLE SPACE INTEGRATION

The building is infinitely flexible and reconfigurable and can be set back from selected plantings or trees to maintain defensible space. Clearing brush around the house keeps its visual presence tidy and preserves the slight floating quality.



VENTS

By eliminating all encapsulated spaces attic and gable vents are made redundant. The envelope is engineered to a Passivehaus certified level. All vents are mechanically controlled and carefully sized to prevent any fire intrusion.



EMBER-RESISTANT FEATURES

Complete lack of overhangs prevents the collection of flammable materials and swirling embers during a firestorm. By eliminating overhangs and encapsulated spaces, almost all ember risk is eliminated.



SUSTAINABILITY

Cross Laminated Timber acts as a carbon sink, trapping carbon into the structure of the building. The modules can be disassembled, or moved entirely to other sites, eliminating the waste stream and increasing service life. Additionally, the helical pile foundation is a zero impact foundation system which protects fragile ecosystems.



DESIGN QUALITIES

The proposal creates a design system of abstract boxes of varying proportions laid out according to each owner's specific preferences. The interconnected spaces of the cubic volumes play with light, space, and air within the home.



CONSTRUCTION METHODOLOGY

Structural systems have been selected for absolute flexibility and speed on site. By minimizing installation timelines and pre-manufacturing all components off site, the proposal achieves maximum build quality while saving on cost and time.



EFFICIENCY

The proposal uses no redundant materials or spaces. The design system achieves extreme construction efficiency by using repeated and mass customized components. The interconnected spaces create energy efficiencies through passive airflow and minimal need for any mechanical ventilation.



STYLE FEATURES

The design system is inherently flexible and invites owner curation. While undeniably minimalist, the design system also invites experimental forms of living, and conjures spaces both futuristic and pre-modern.



ADDITIONAL SPECIAL FEATURES

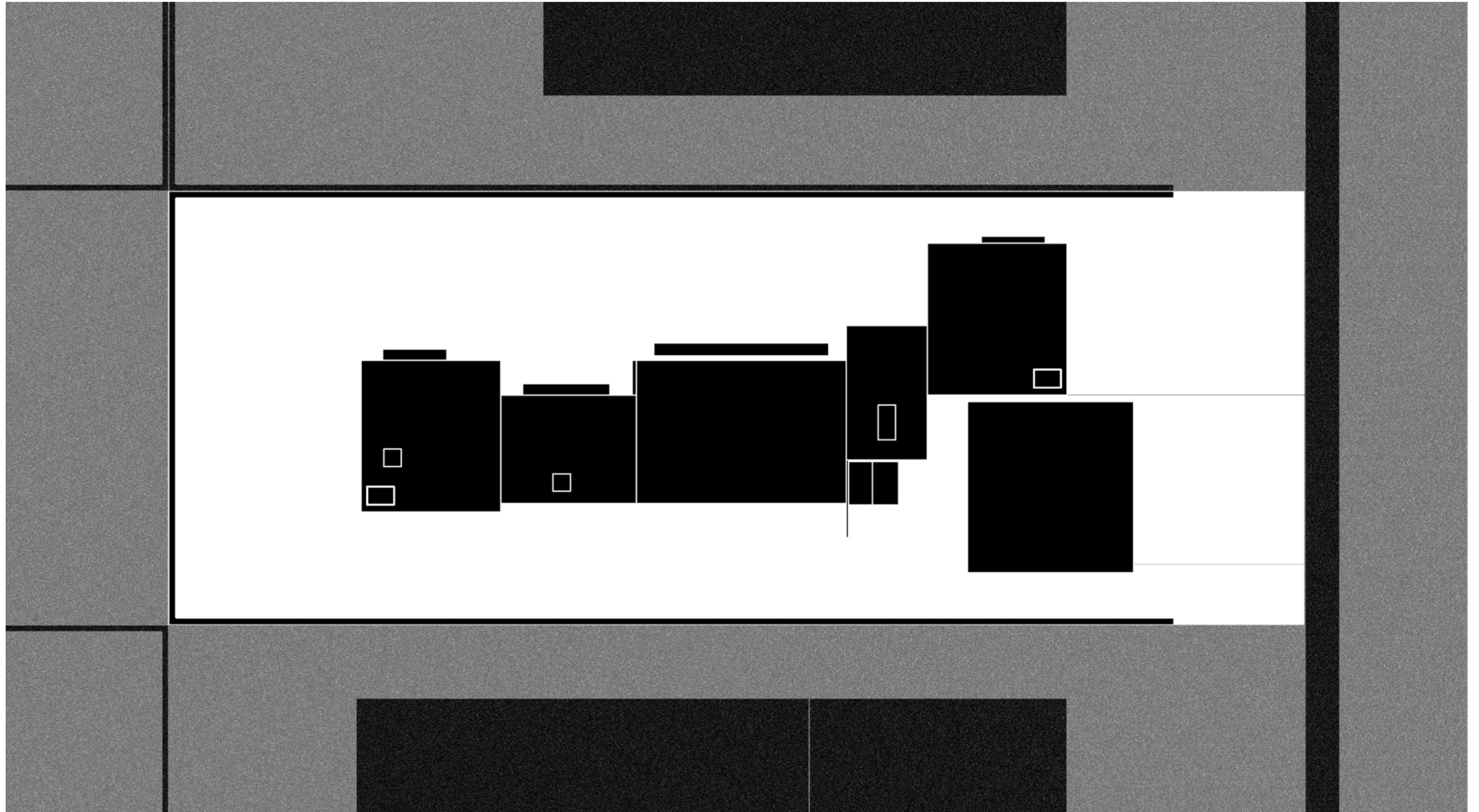
Features are intended to be added by the owner at their leisure. The design system strips the home to its most essential components, allowing unlimited flexibility of special features to be included.



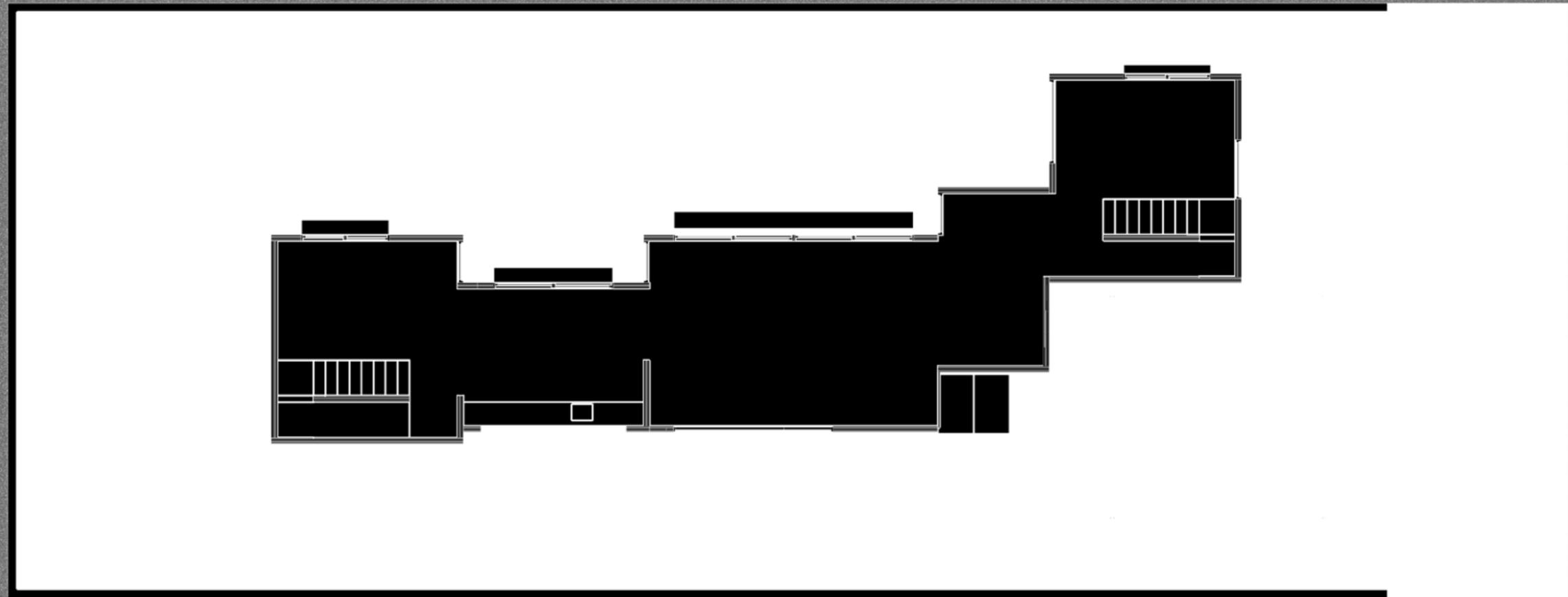
CUSTOMIZATION POTENTIAL

The design system is completely flexible to any site, any terrain, any square footage, and to any stage of recovery and site development. The owner's use of the design system drives the customization.

SITE PLAN



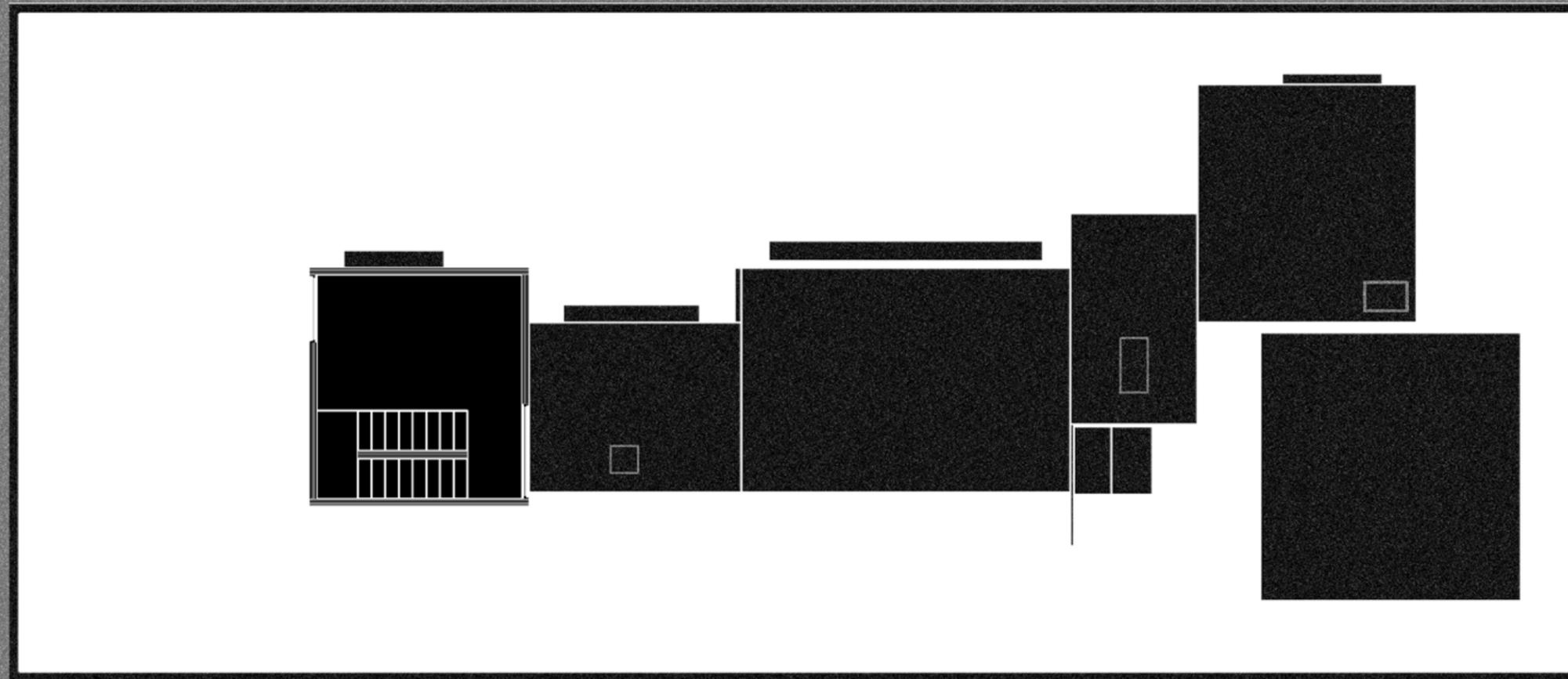
GROUND LEVEL



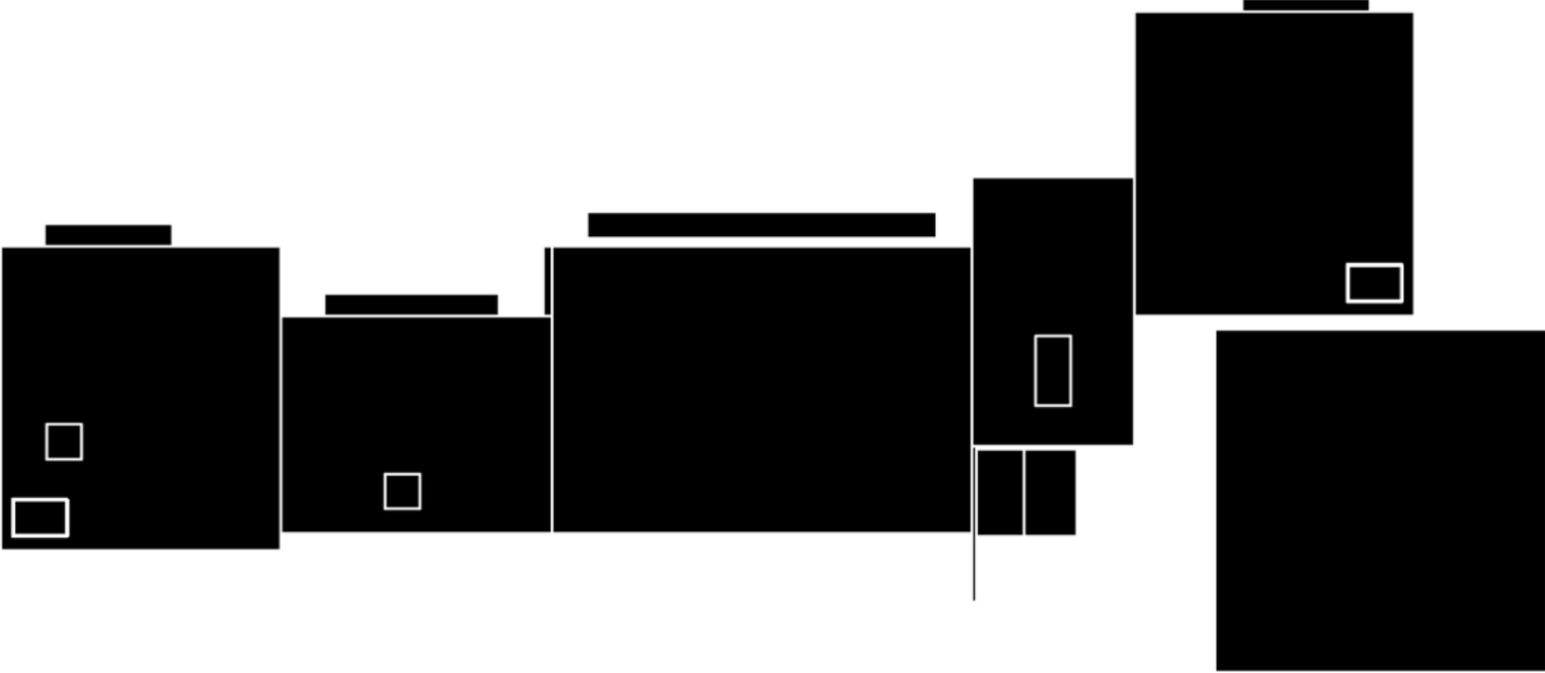
SECOND LEVEL



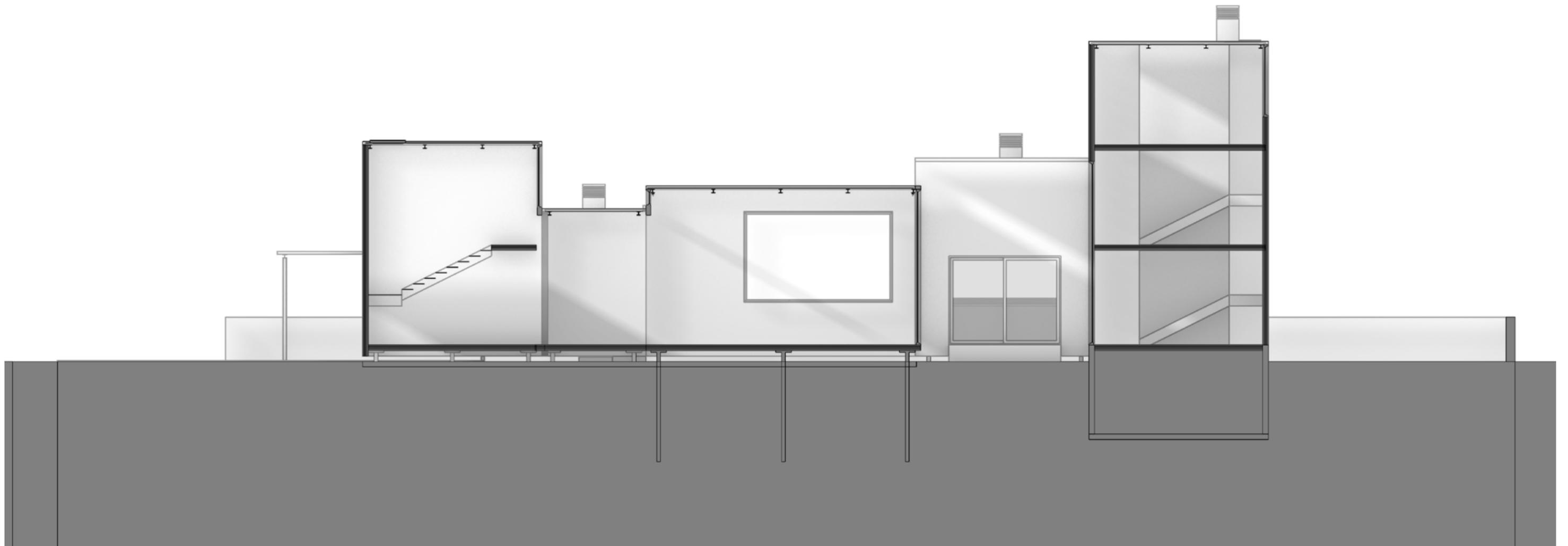
THIRD LEVEL

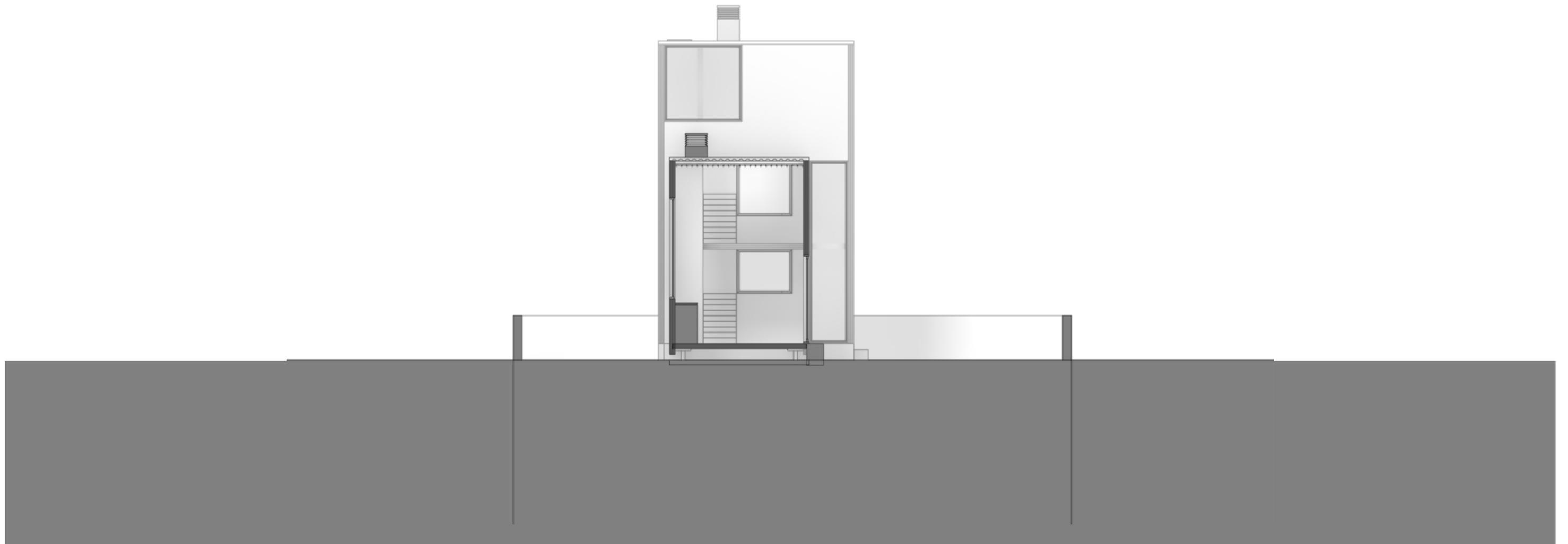


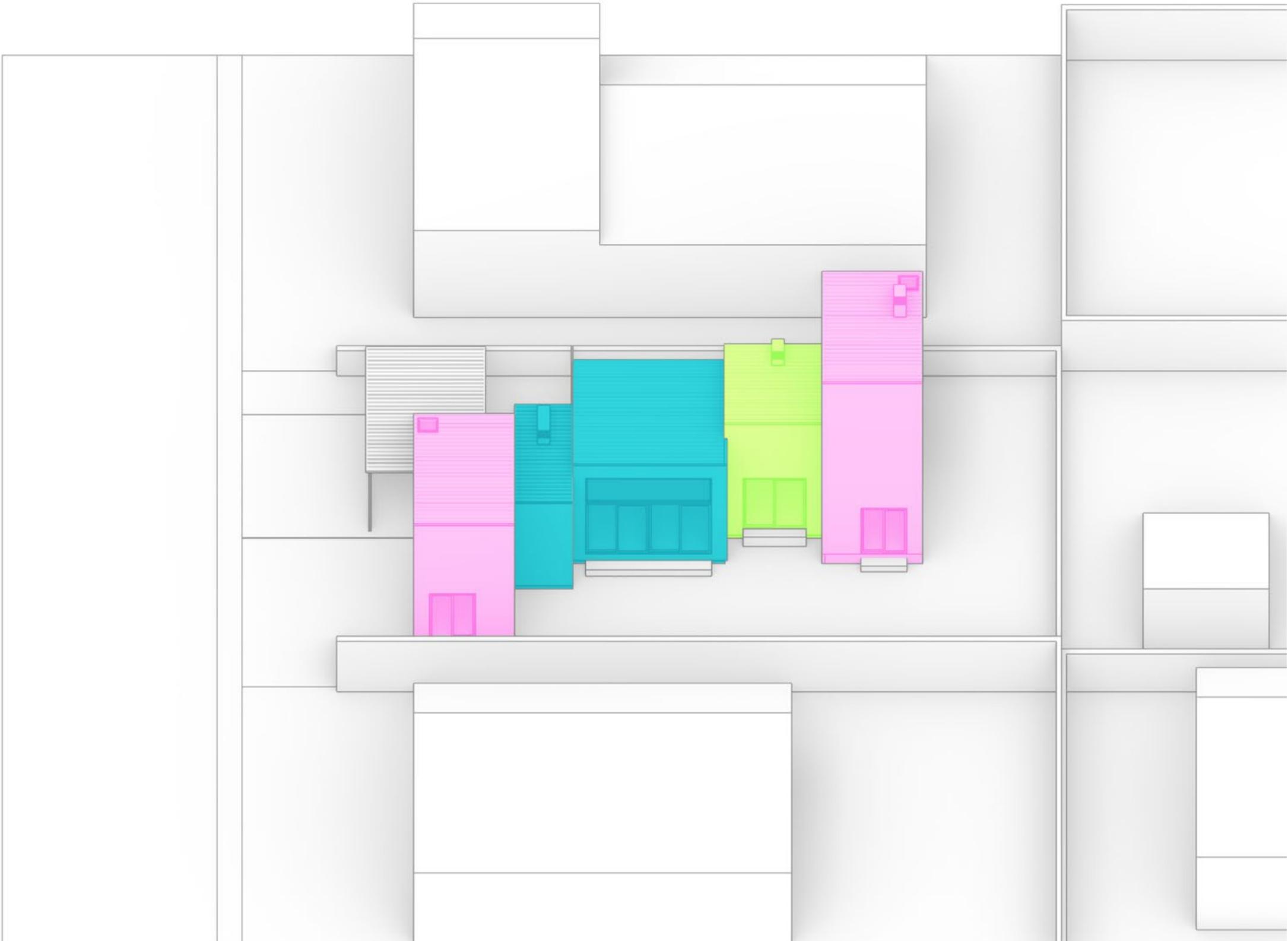
ROOF



LONGITUDE

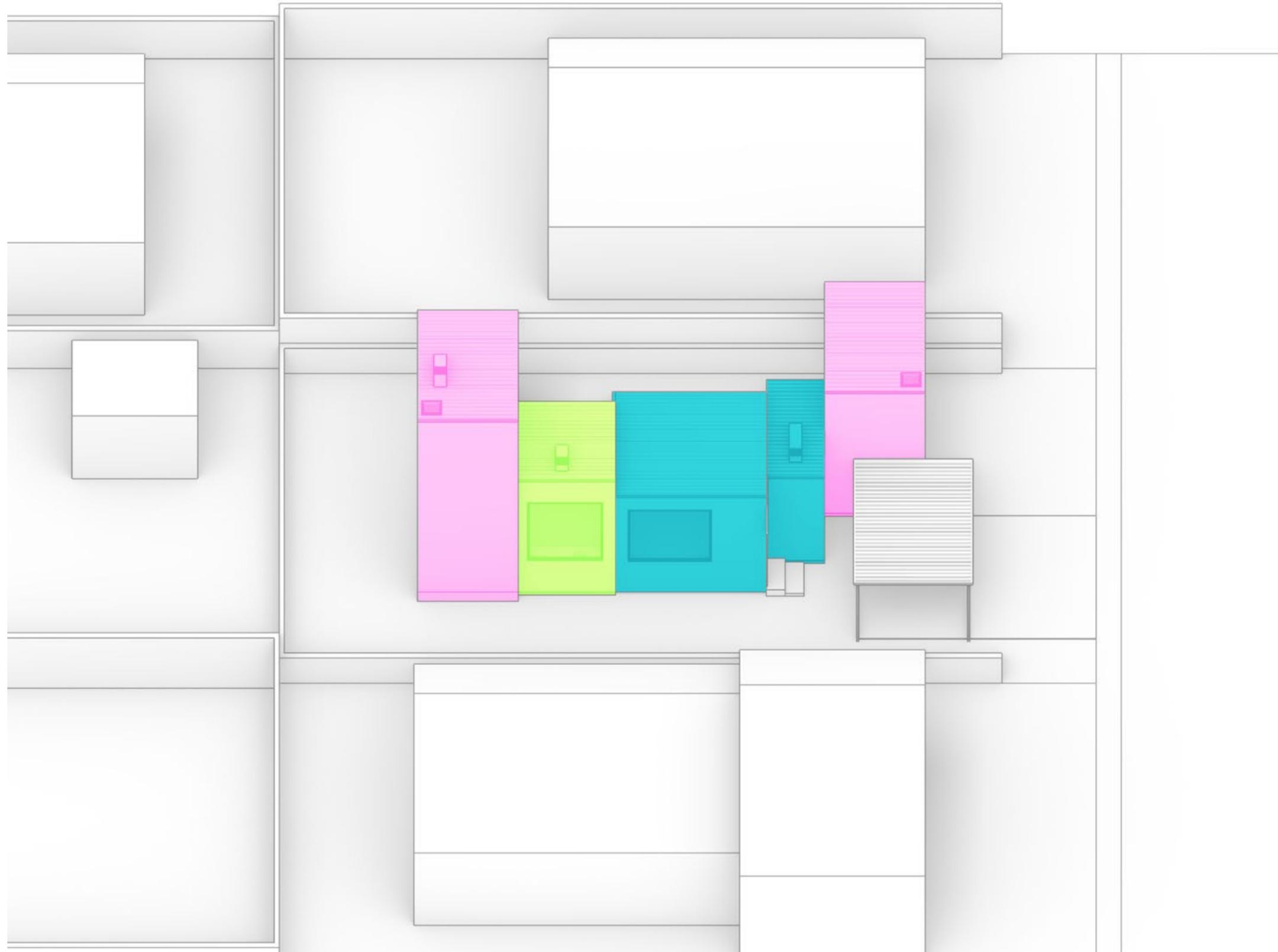




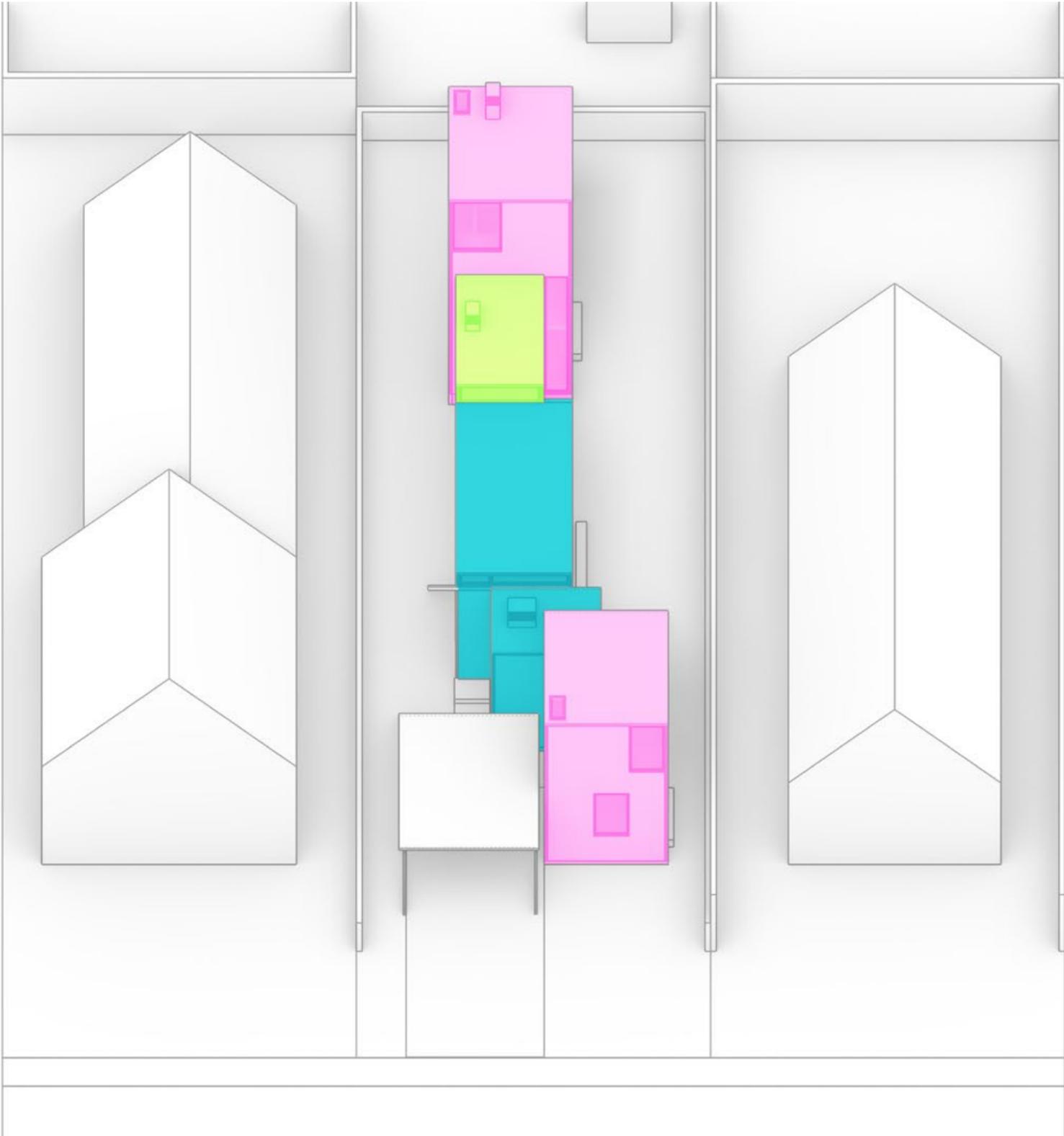


PROGRAM LEGEND	
SLEEPING AND BATHING	
KITCHEN	
LIVING AND STORAGE	

SOUTH

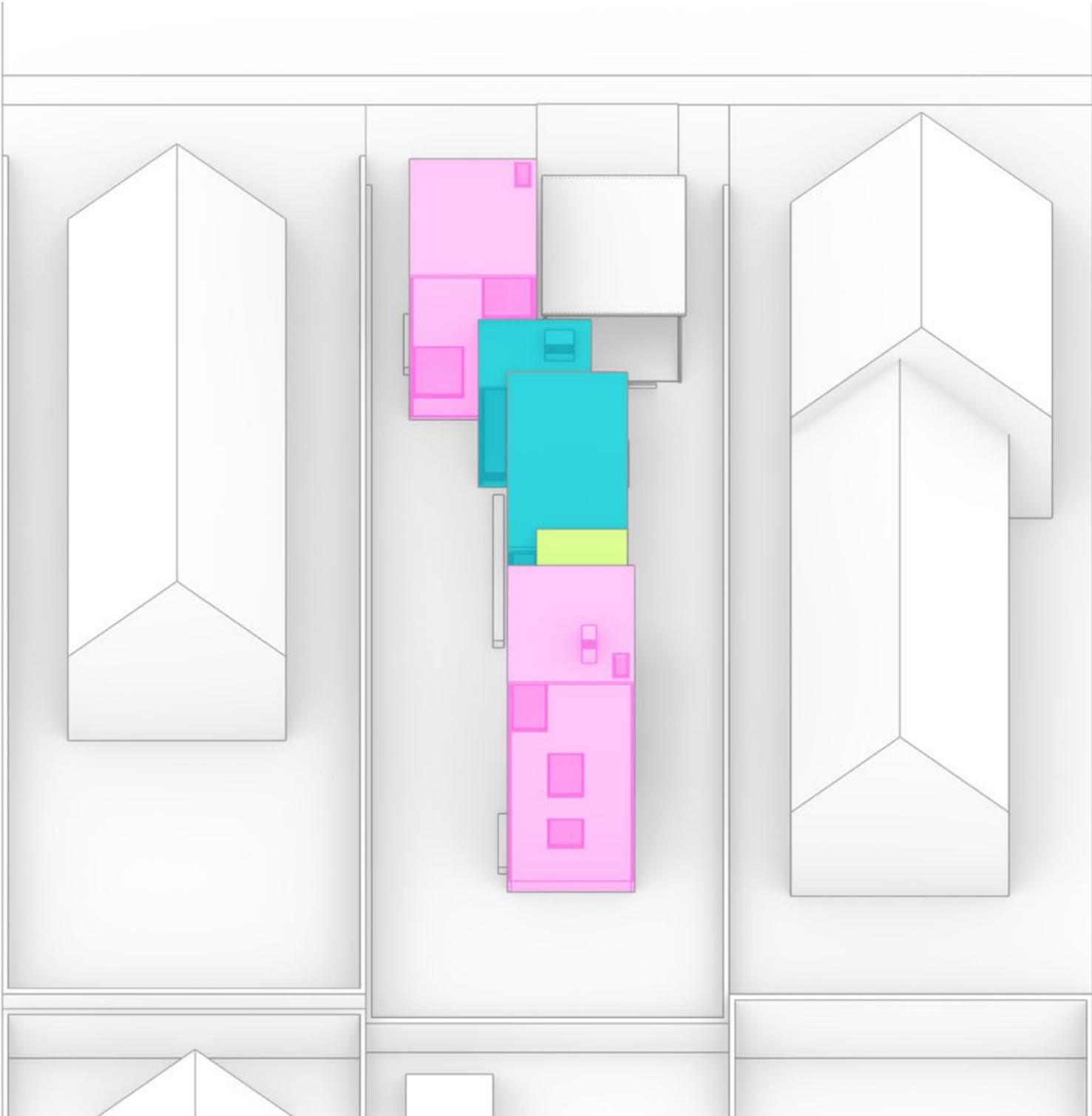


PROGRAM LEGEND	
SLEEPING AND BATHING	
KITCHEN	
LIVING AND STORAGE	



PROGRAM LEGEND	
SLEEPING AND BATHING	
KITCHEN	
LIVING AND STORAGE	

WEST



PROGRAM LEGEND	
SLEEPING AND BATHING	
KITCHEN	
LIVING AND STORAGE	



















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OPPENHEIM
ARCHITECTURE



PLUS DEVELOPMENT