DEFENSIVE LANDSCAPES_

A4

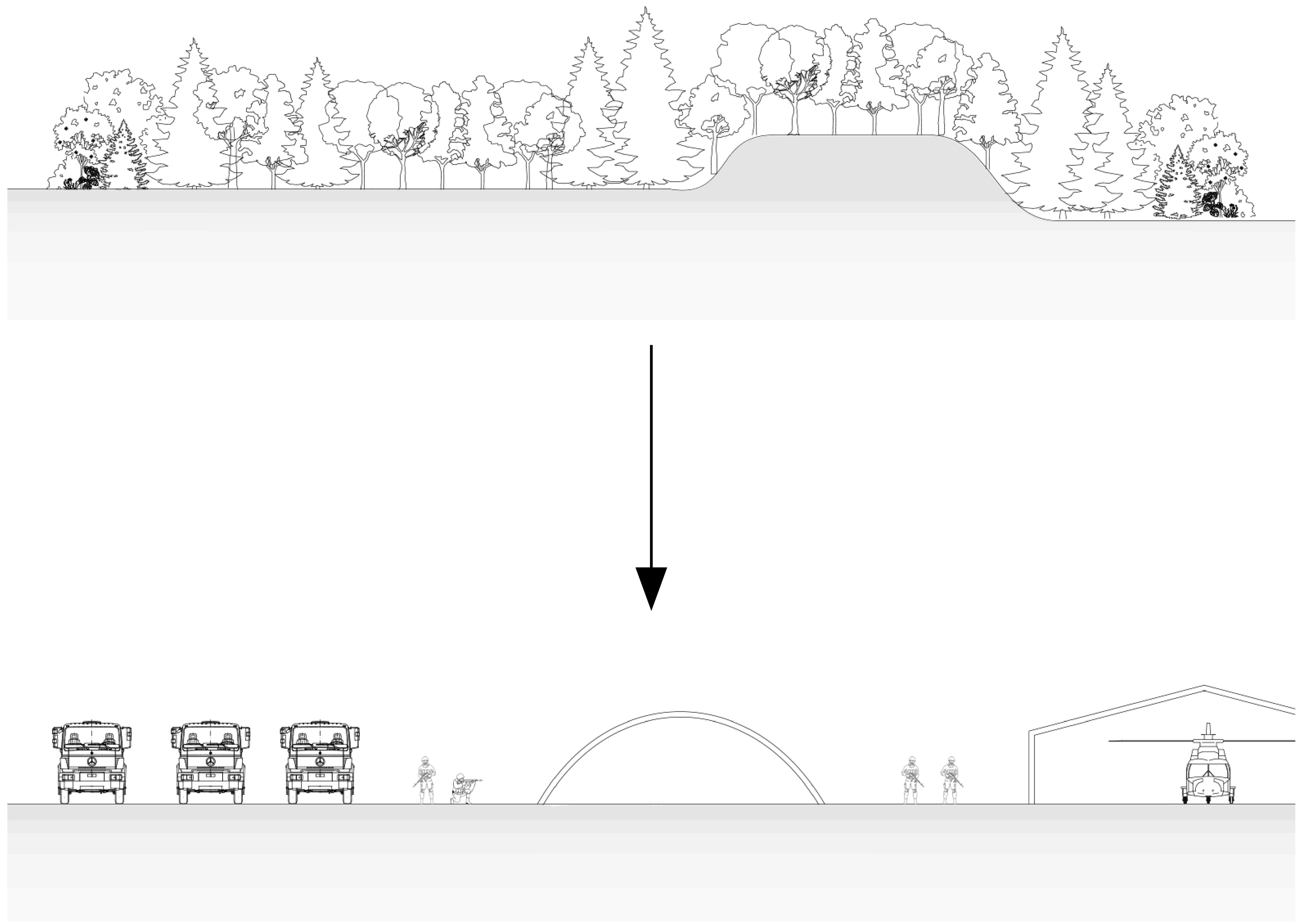
Bart Wegh
[redacted]

EXTREME Graduation Studio
2026

Supervisors:
Freek Speksnijder
Ulrich Knaack

PROBLEMSTATEMENT

DETACHMENT



PROBLEMSTATEMENT

DETACHMENT

RESEARCH

“How can landscape and ecological systems in Lithuania operate as defensive typologies, positioning nature itself as a form of protection?”

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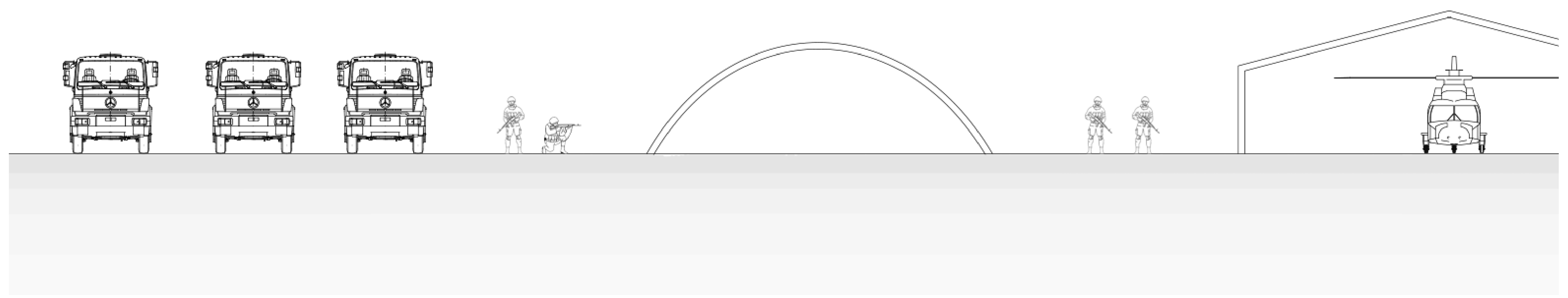


RESEARCH

"How can landscape and ecological systems in Lithuania operate as defensive typologies, positioning nature itself as a form of protection?"

DESIGN

To design a military base in which landscape and ecological systems operate as defensive typologies, positioning nature itself as a form of protection.

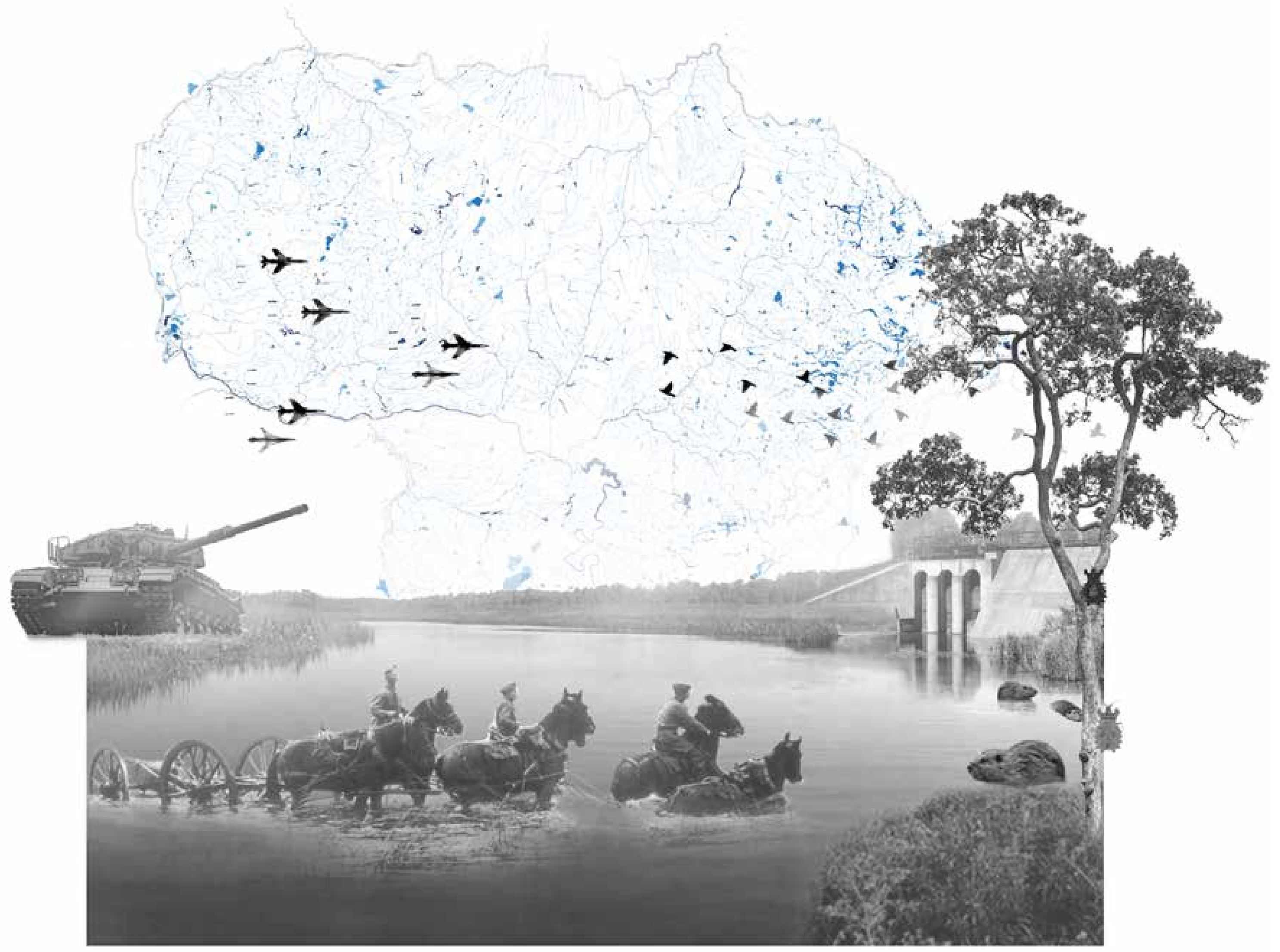
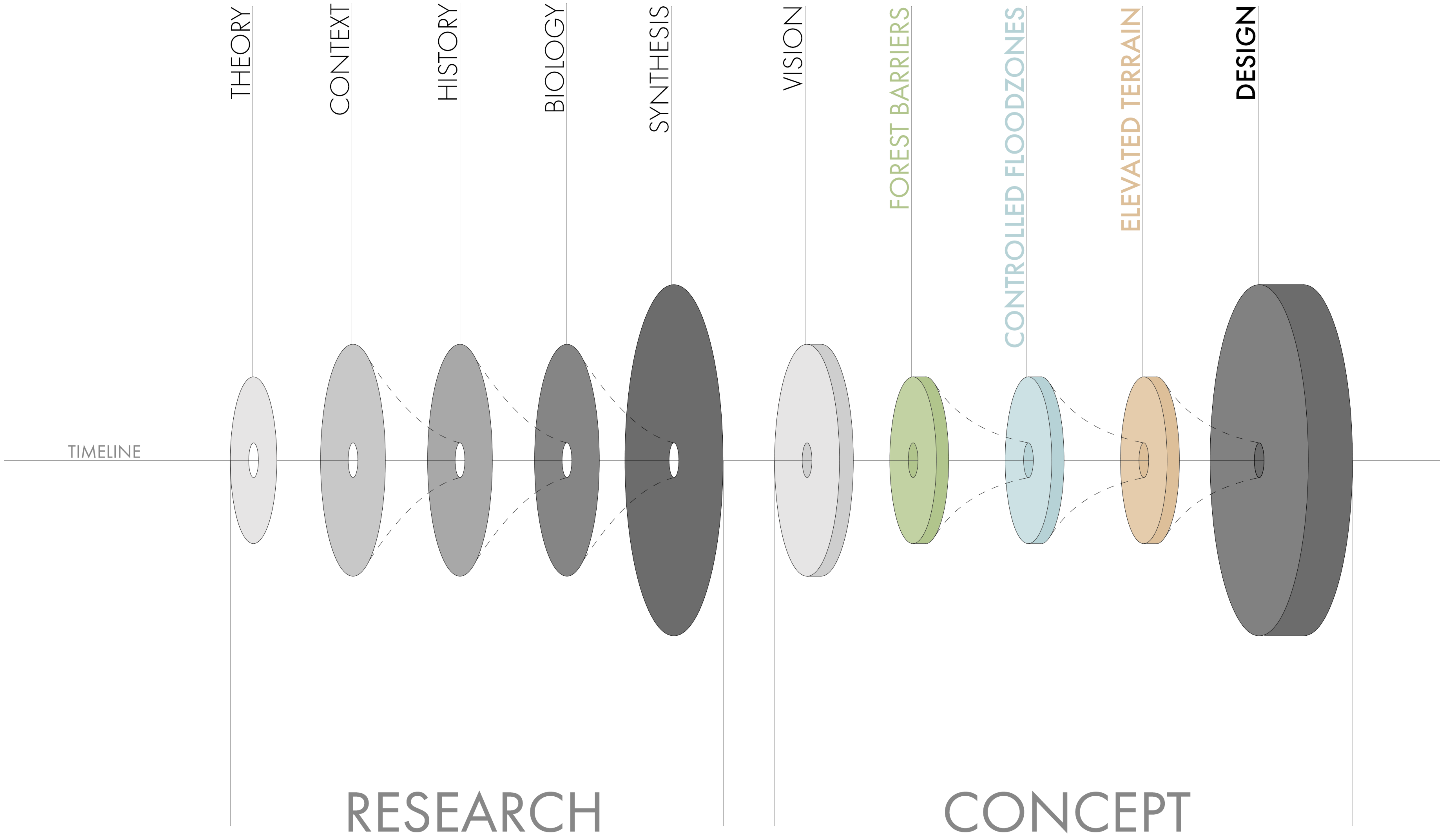
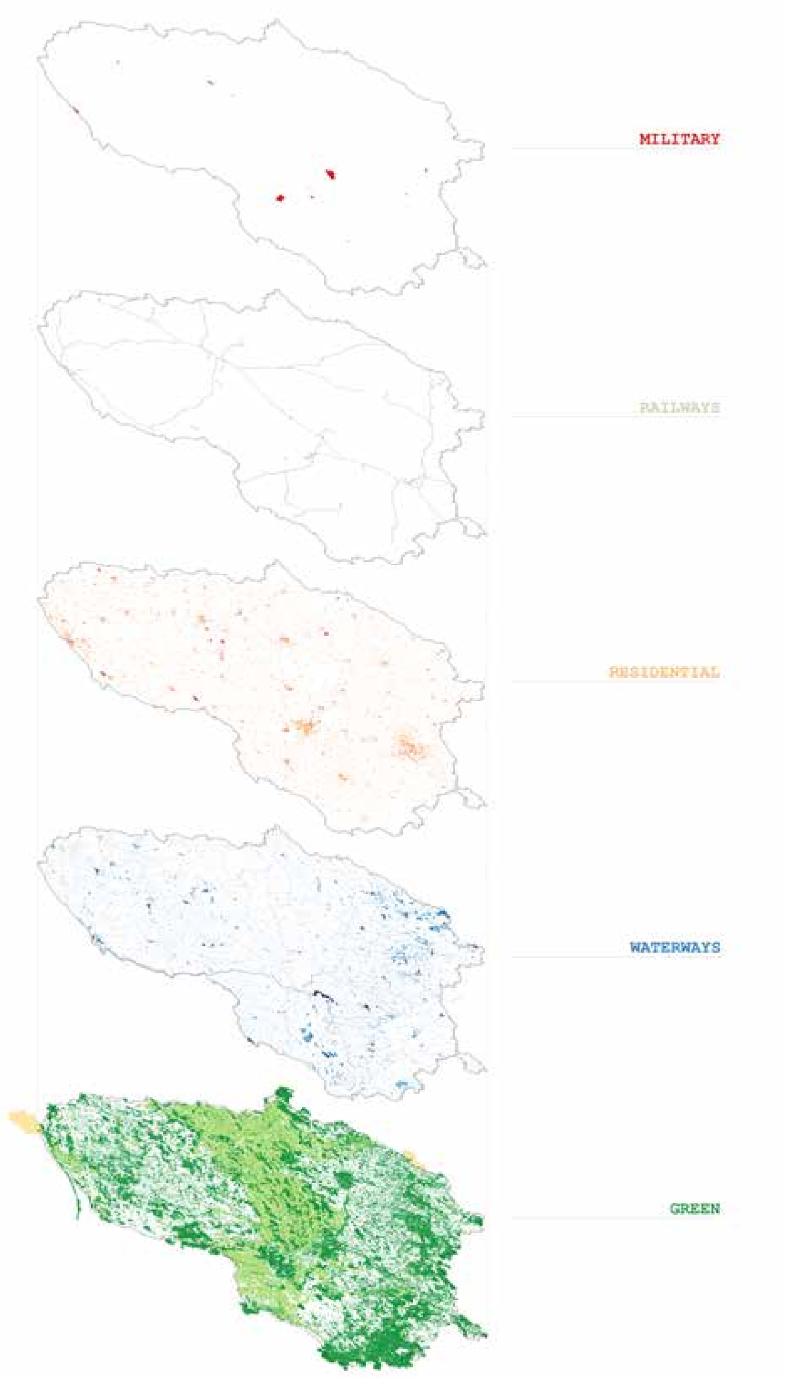


TABLE OF CONTENT

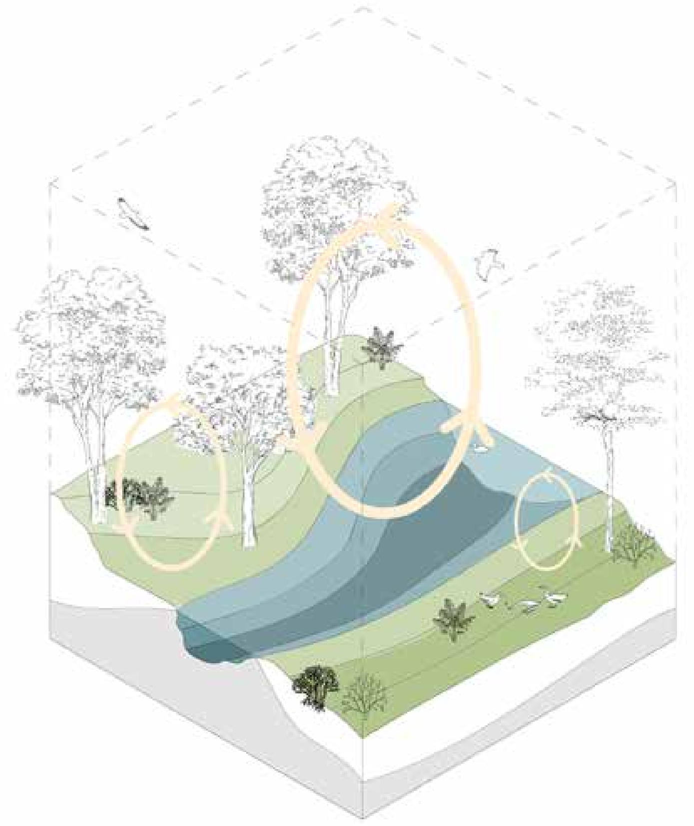


RESEARCH
SYNTHESIS



CONTEXT

HISTORY



BIOLOGY

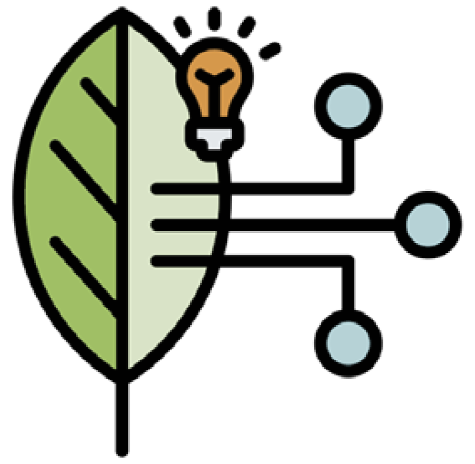
DESIGN

To design a military base in which landscape and ecological systems operate as defensive typologies, positioning nature itself as a form of protection.

VISION - GOALS

EMBEDDED

ADAPTABLE



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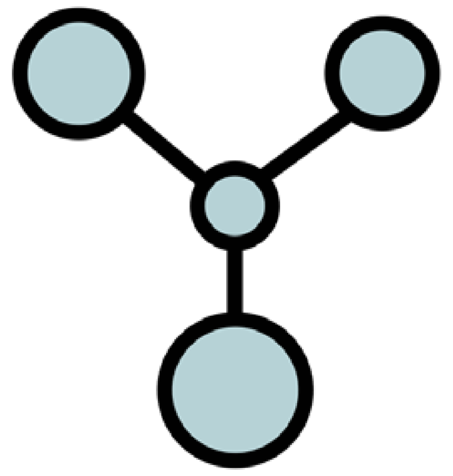


LAYERED

DESIGN

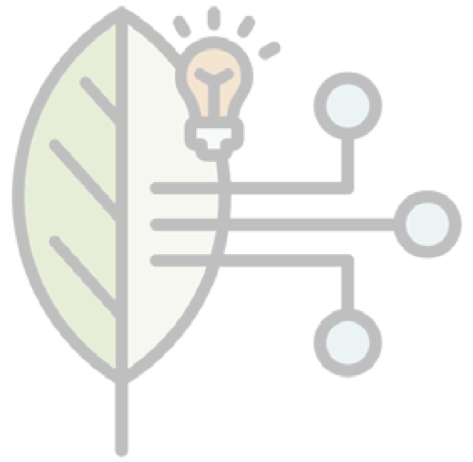
To design a military base in which landscape and ecological systems operate as defensive typologies, positioning nature itself as a form of protection.

CONCEPT

VISION - GOALS

EMBEDDED

ADAPTABLE



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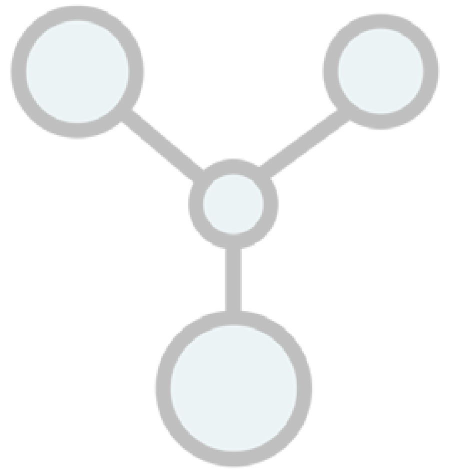


LAYERED

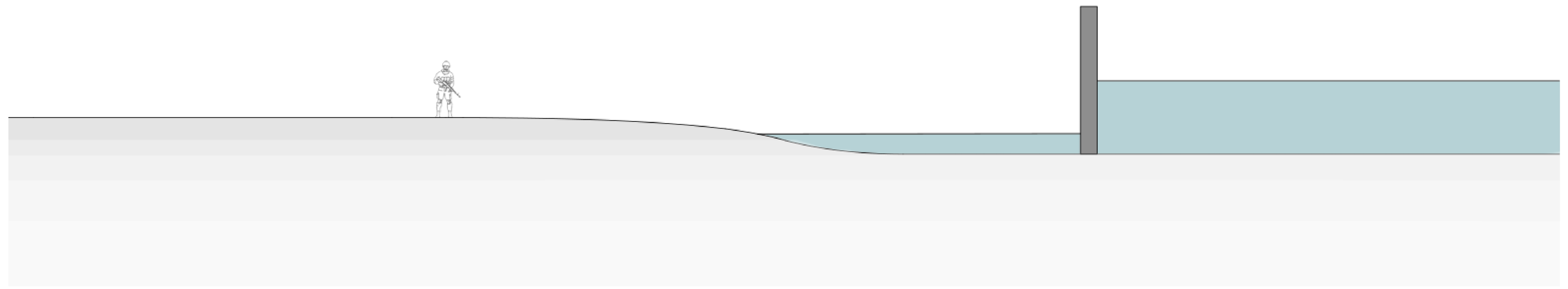
DESIGN

To design a military base in which landscape and ecological systems operate as defensive typologies, positioning nature itself as a form of protection.

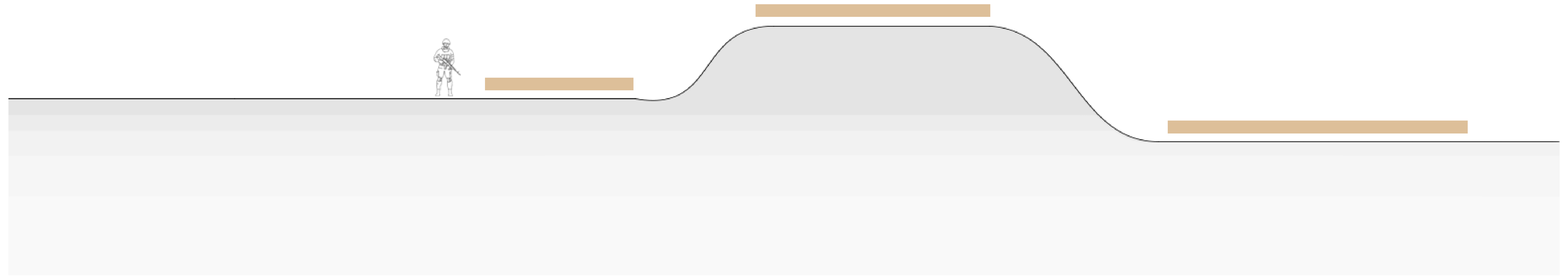
CONCEPT

PRINCIPLES

FOREST BARRIERS



CONTROLLED FLOODZONES



ELEVATED TERRAIN

DESIGN

To design a military base in which landscape and ecological systems operate as defensive typologies, positioning nature itself as a form of protection.

CONCEPT
PRINCIPLES

DESIGN

To design a military base in which landscape and ecological systems operate as defensive typologies, positioning nature itself as a form of protection.

DESIGN

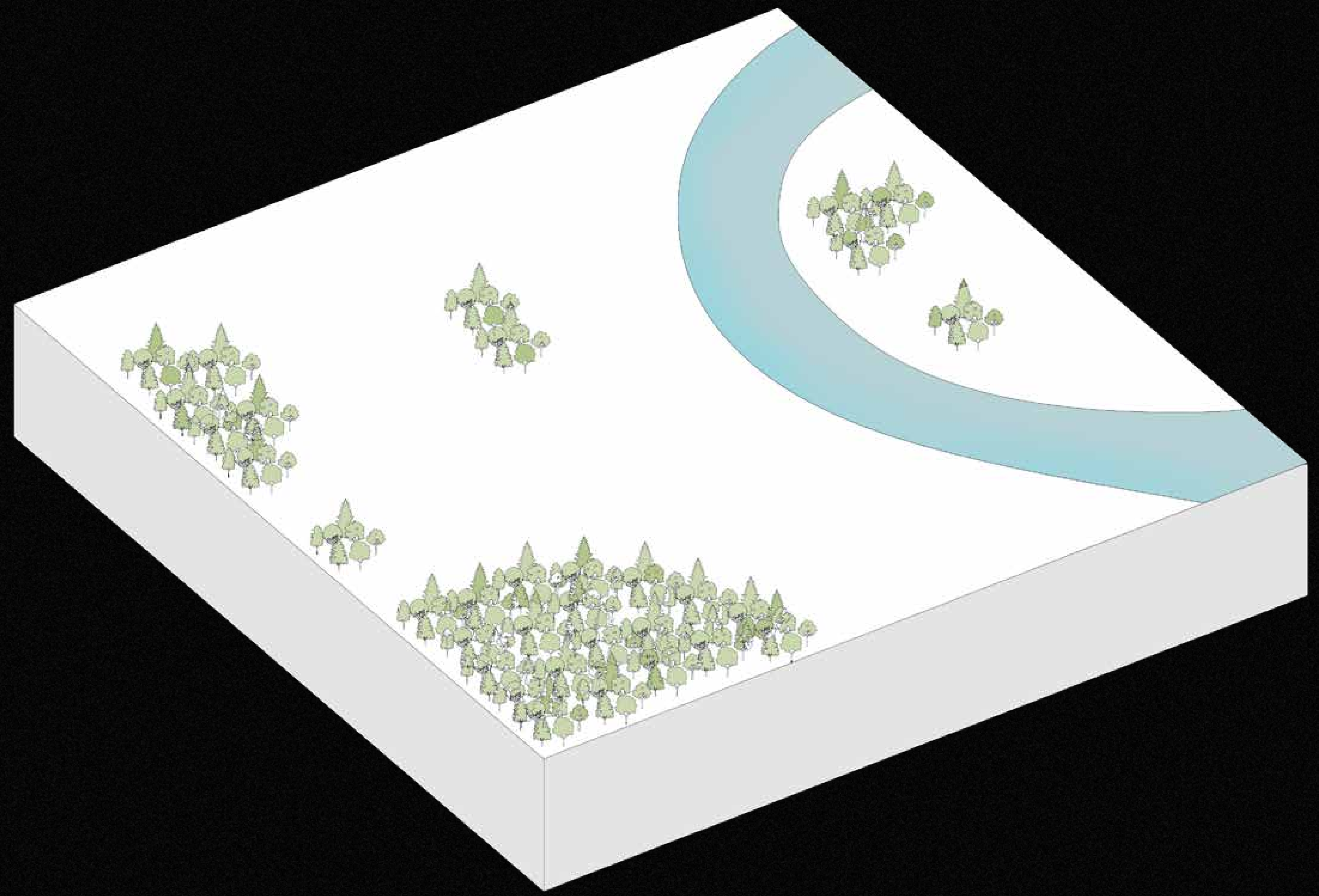
SITE MAP 1:50000

DESIGN

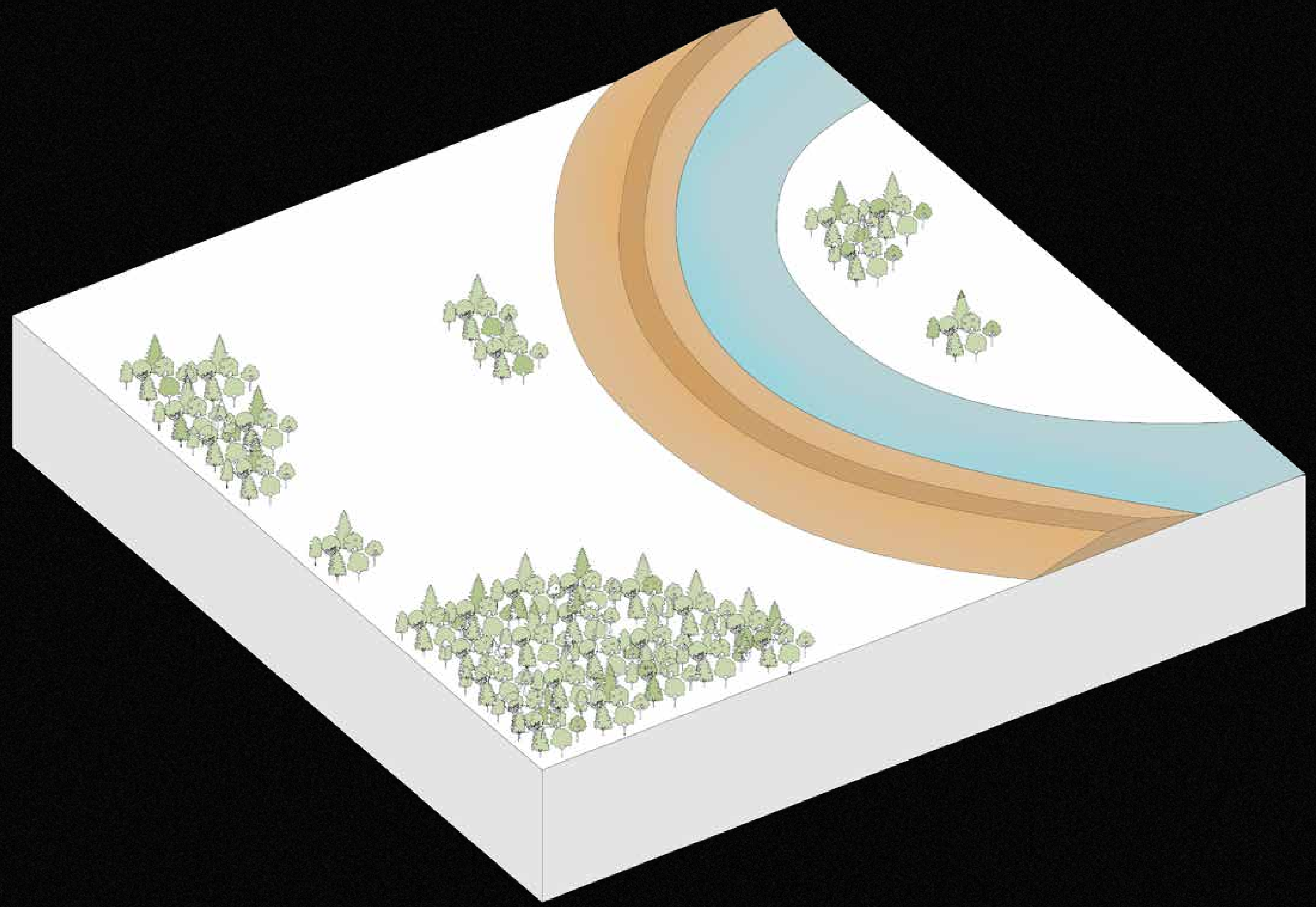
SITE MAP 1:5000

DESIGN

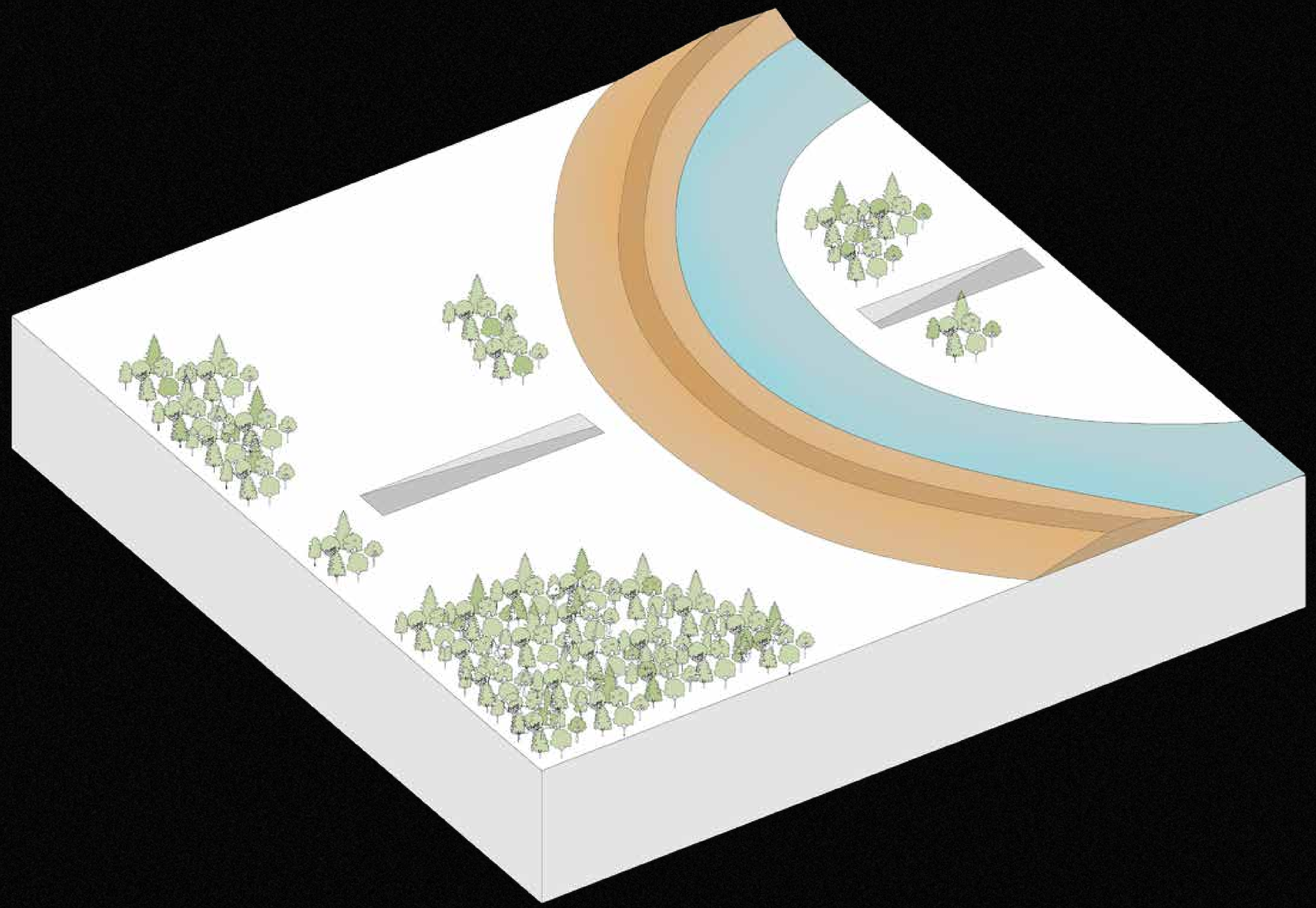
LANDSCAPE INTERVENTIONS



SITE



DIKE

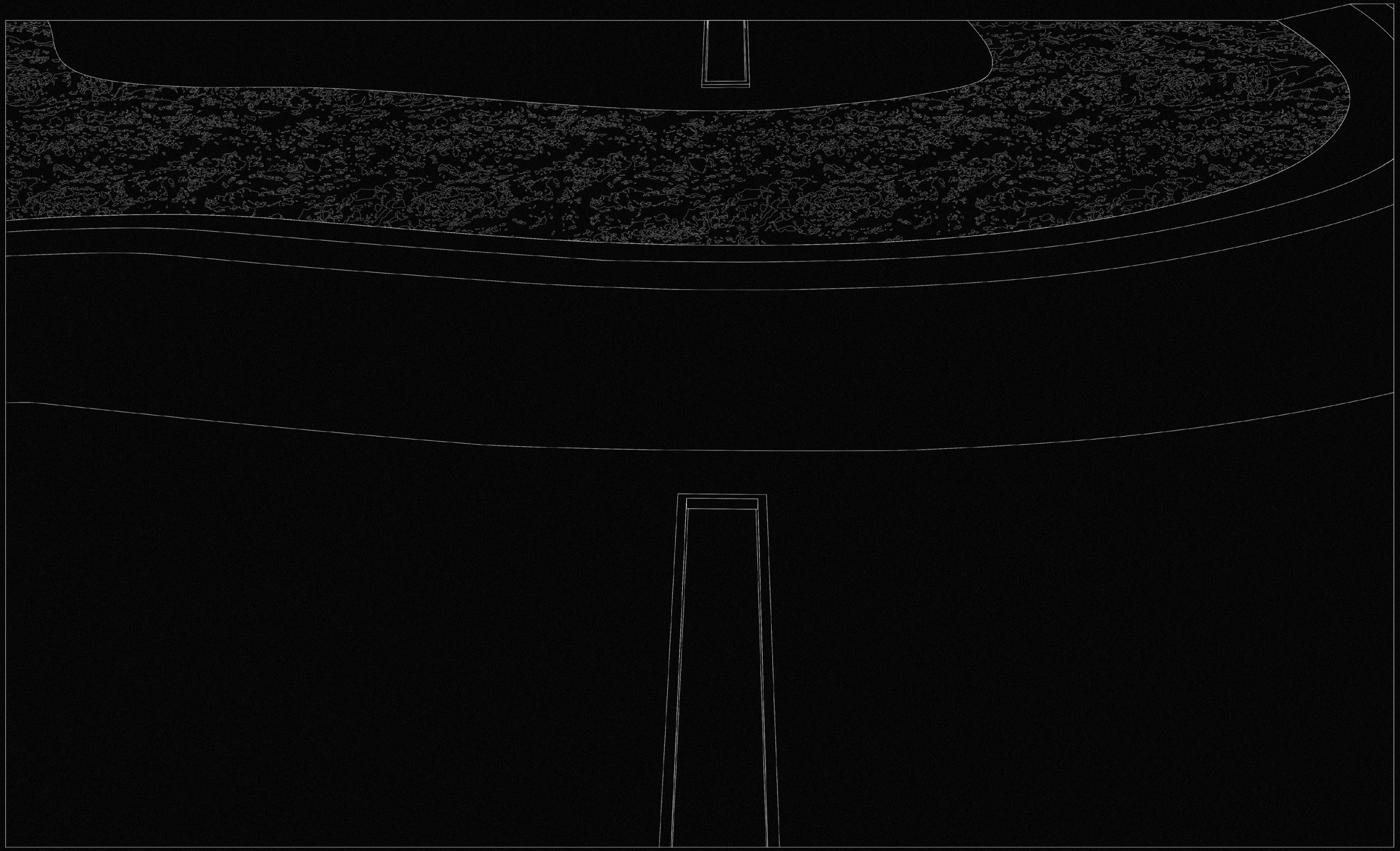


TUNNEL

DESIGN

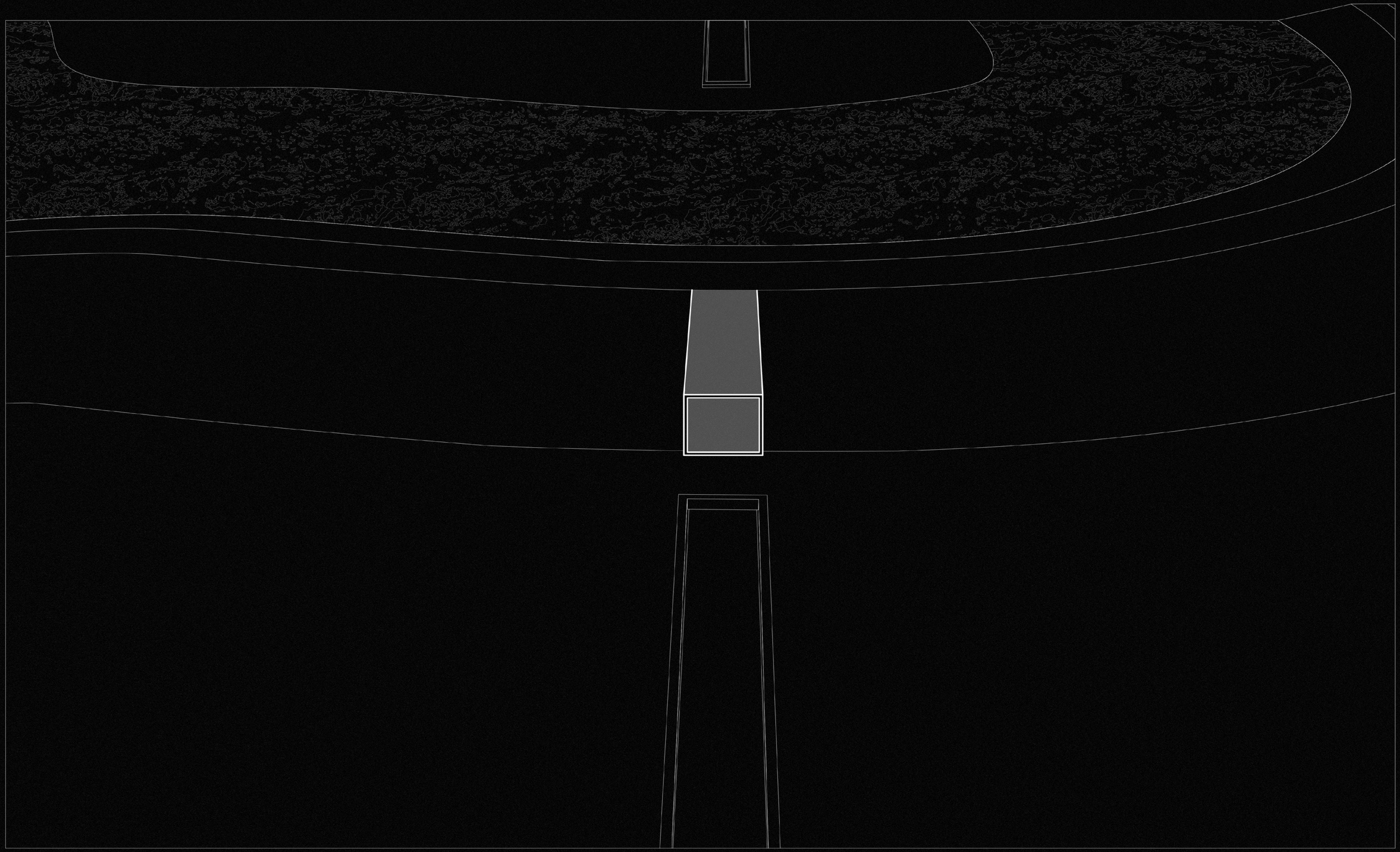
FORM STUDY

BASE



FORM STUDY

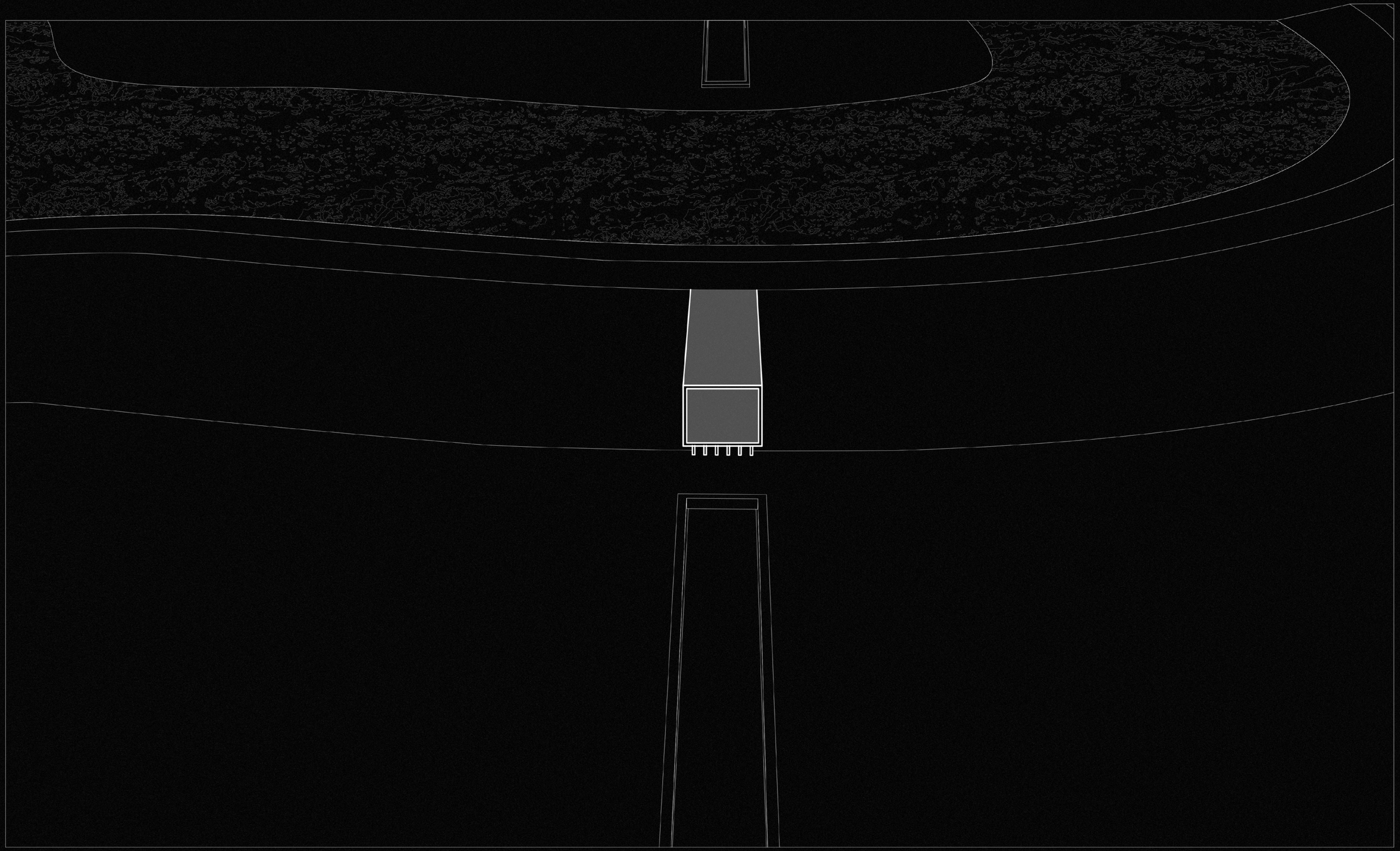
TUNNEL



DESIGN

FORM STUDY

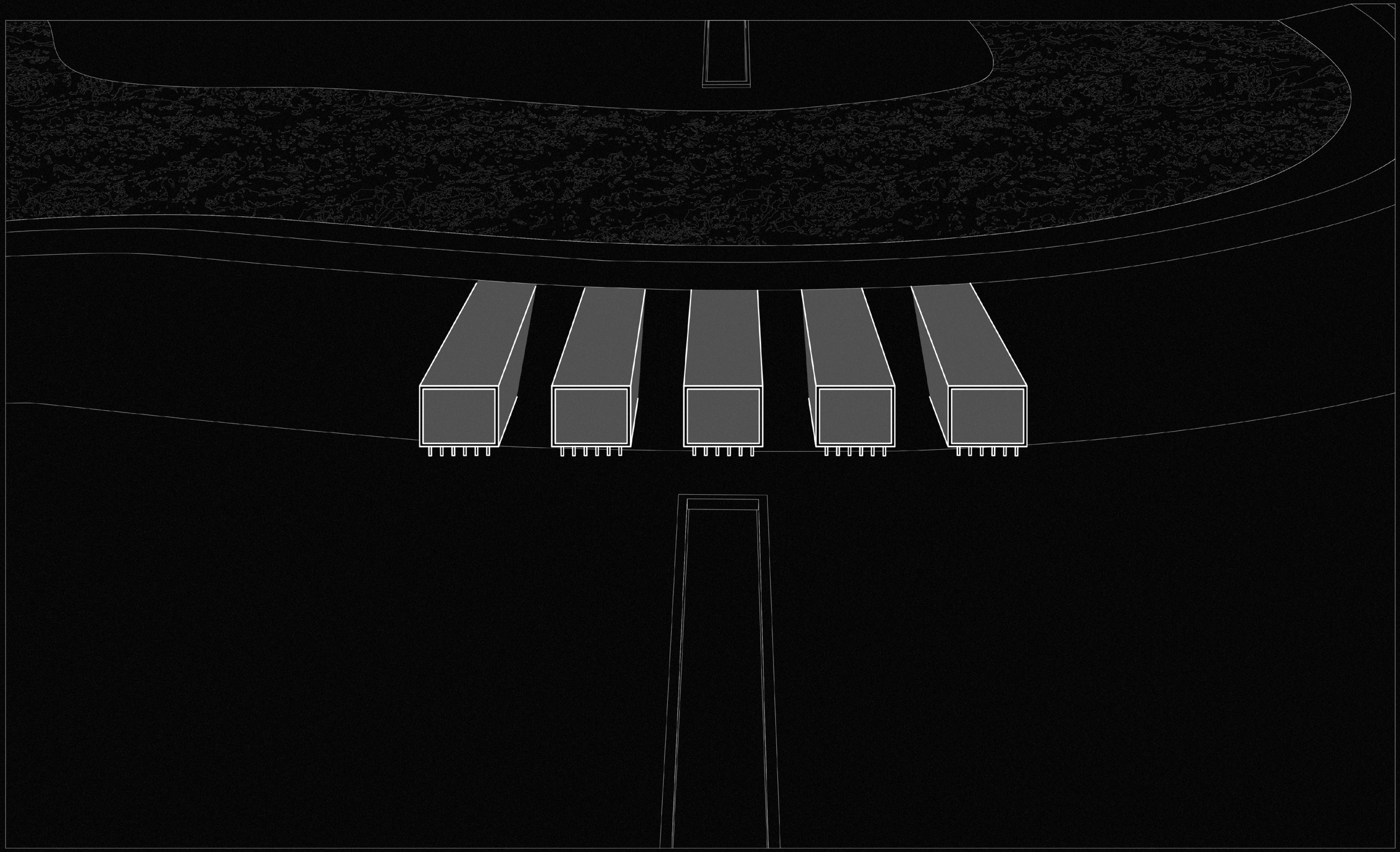
TREES



DESIGN

FORM STUDY

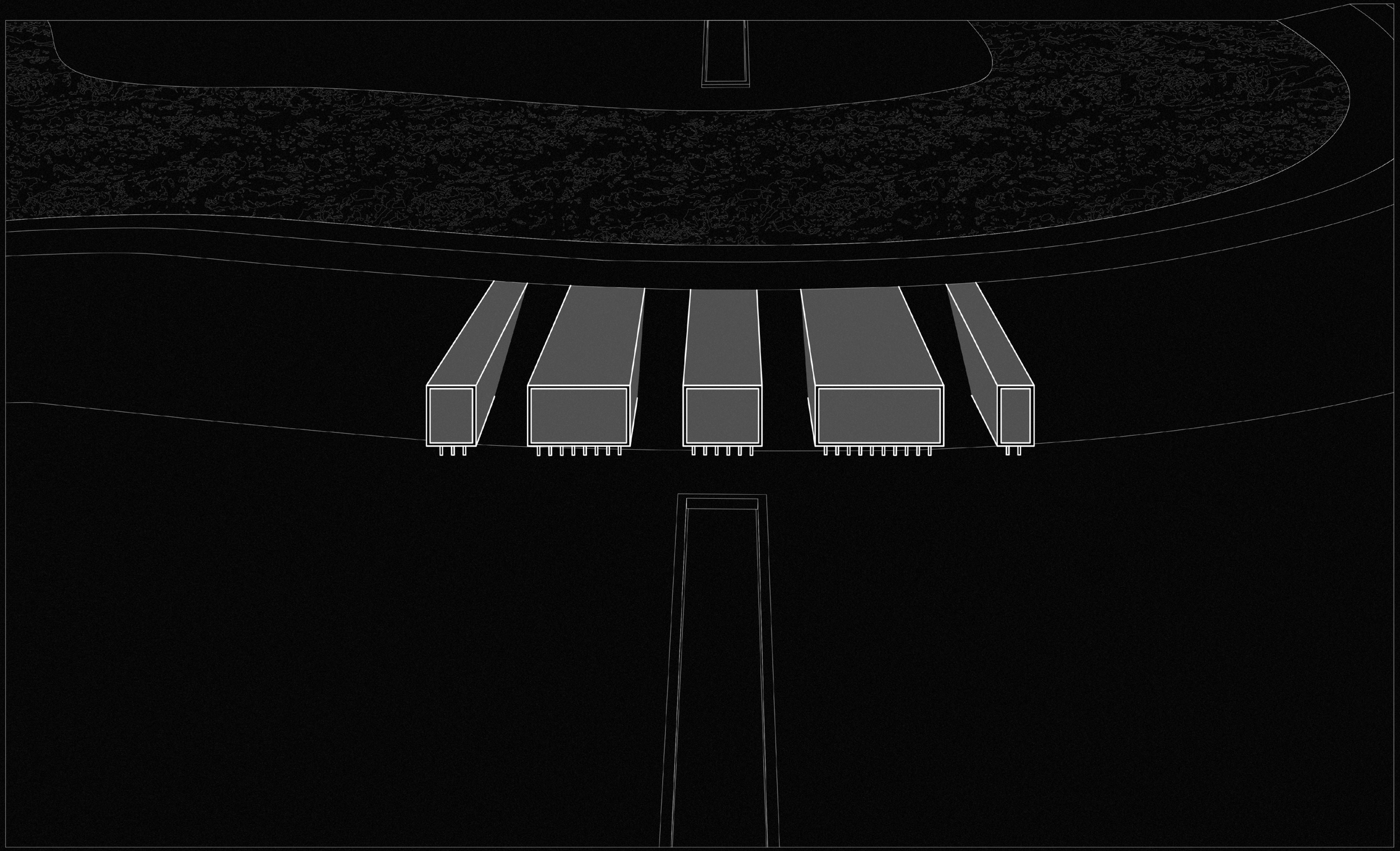
PROGRAM



DESIGN

FORM STUDY

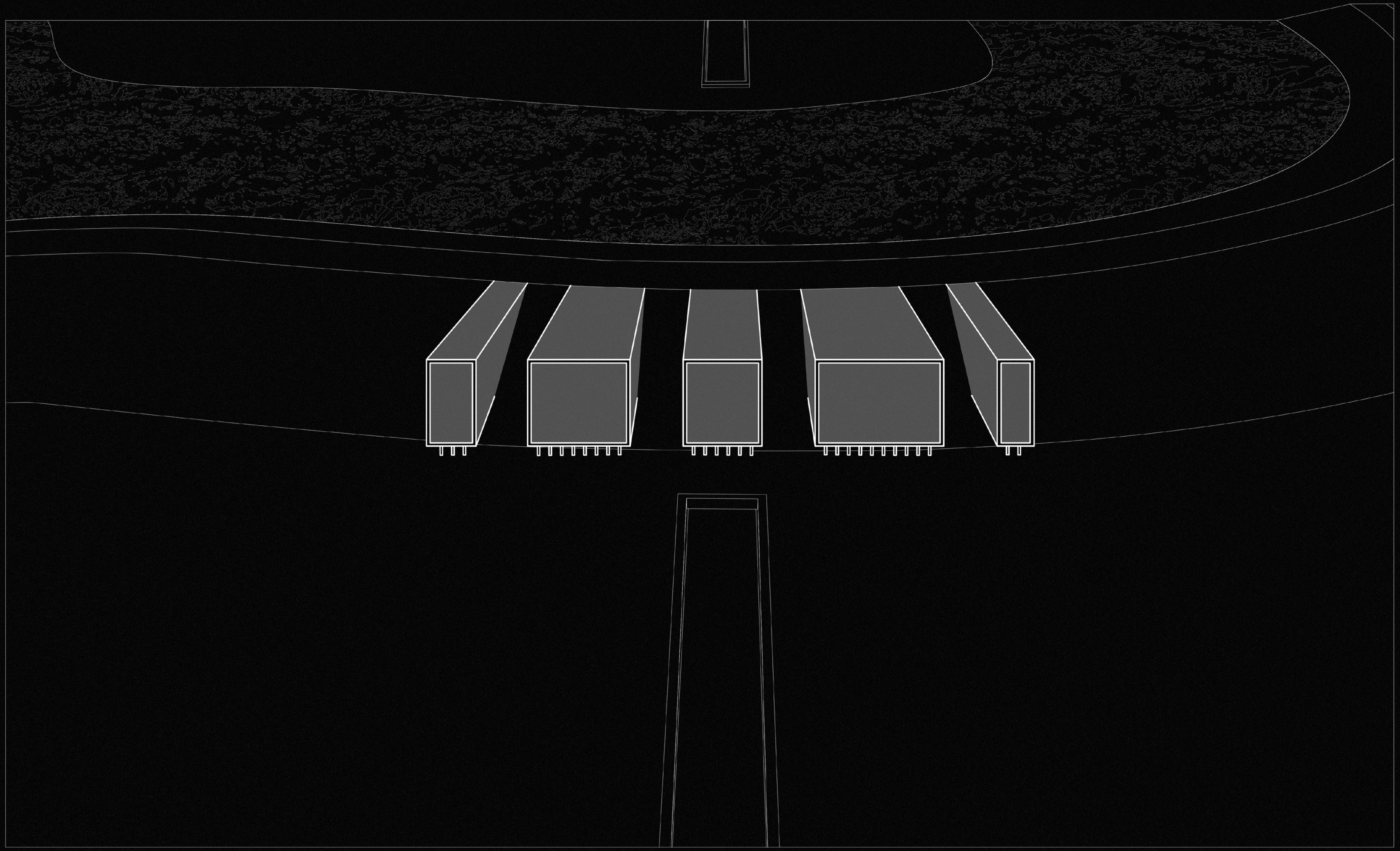
FUNCTION



DESIGN

FORM STUDY

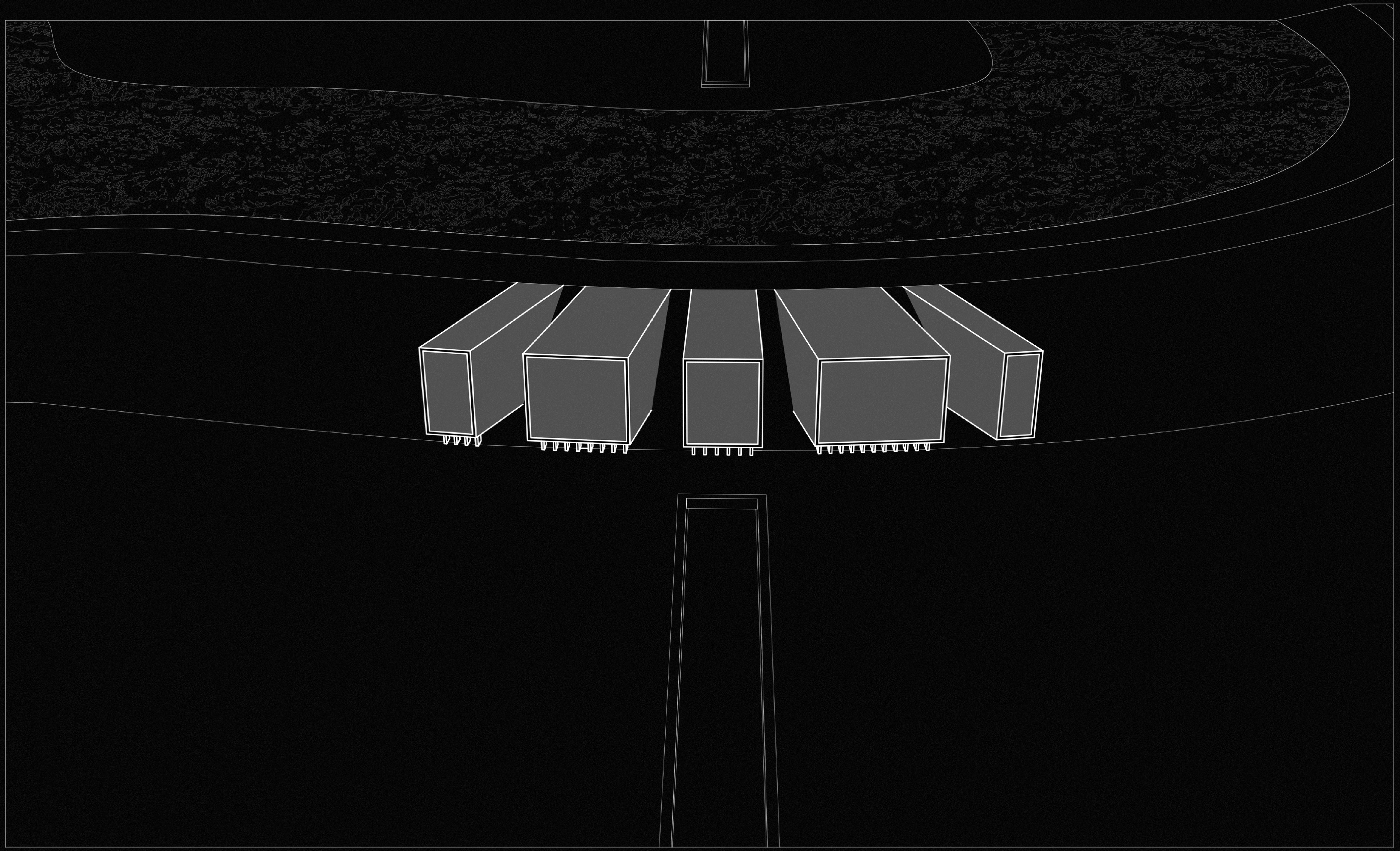
DIKE SLOPE



DESIGN

FORM STUDY

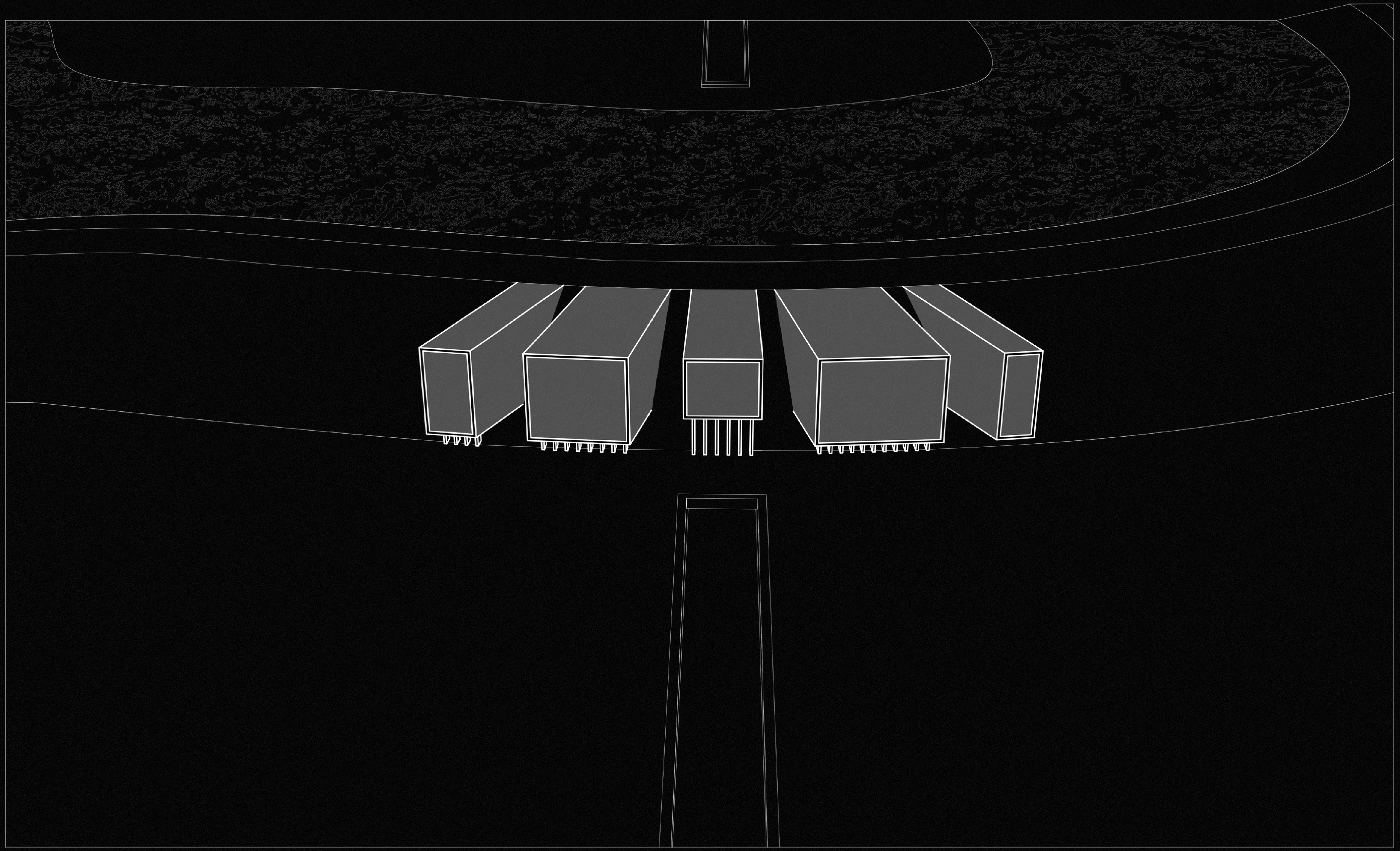
DIKE ANGLE



DESIGN

FORM STUDY

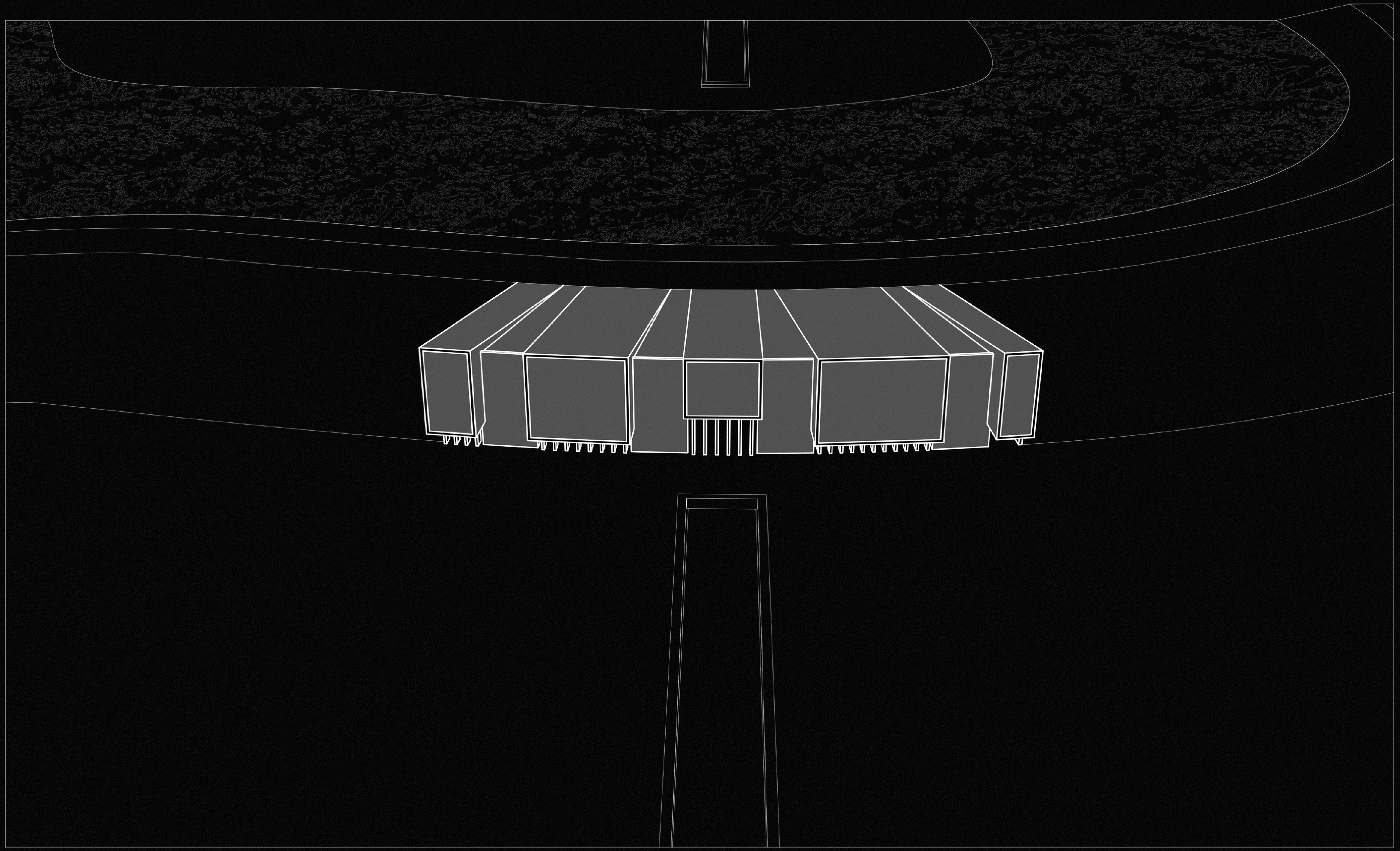
ENTRANCE



DESIGN

FORM STUDY

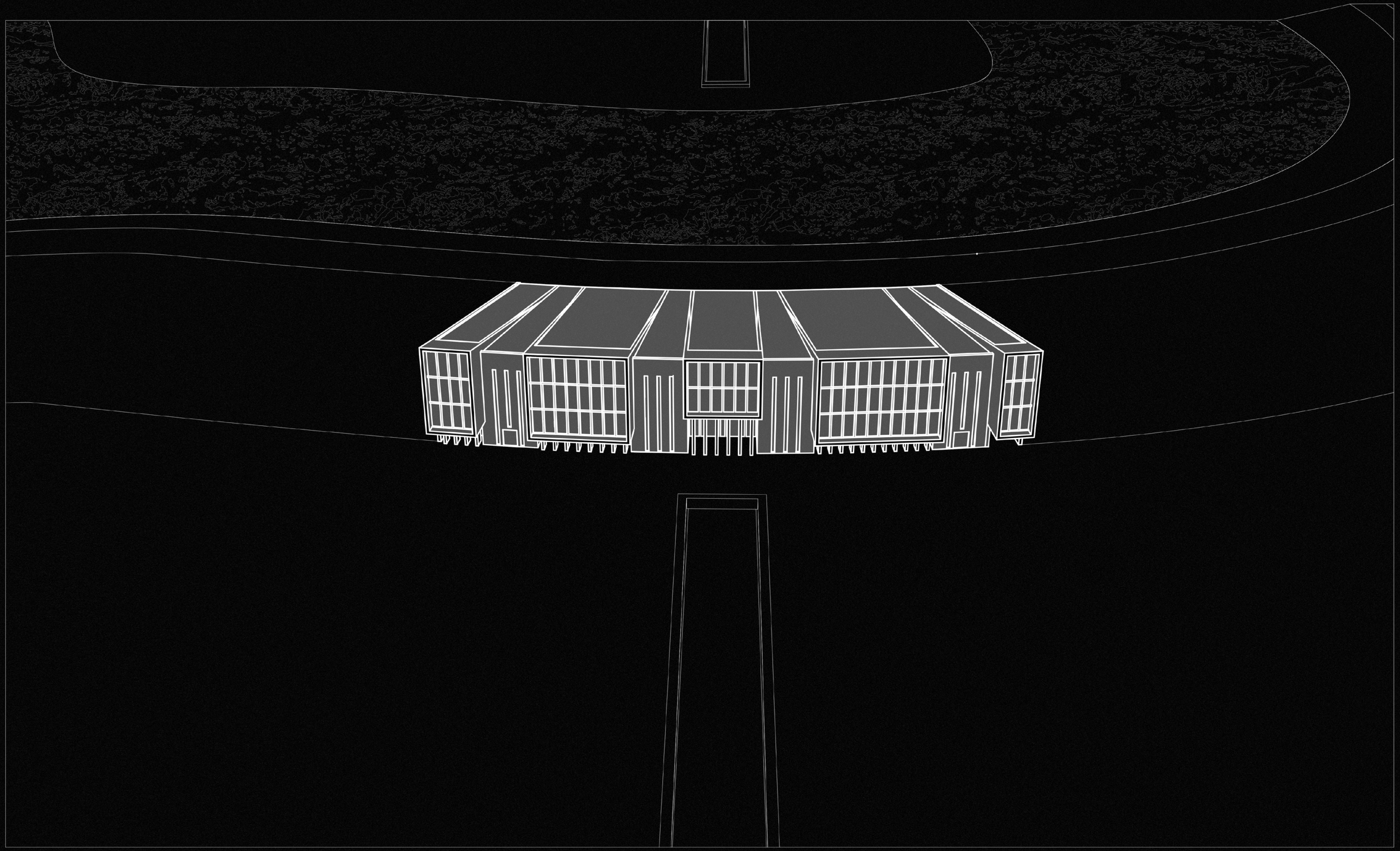
CONNECTION



DESIGN

FORM STUDY

BUILDING



DESIGN

SITE MAP 1:500

PROGRAM OF REQUIREMENTS

RUDNINKAI OUTPOST
(25-50 personnel)

± 300 – 400 m²
LOUNGE / FITNESS

± 800 – 900 m²
DINING / SLEEPING

± 400 m²
FOYER / AUDITORIUM

± 900 – 1000 m²
OFFICES / MEETING- & CLASSROOMS

± 200 – 300 m²
COMMUNICATION

DESIGN

ISOMETRIC VIEW

DESIGN

SECTION B

PRE-CONFLICT 1:100

DESIGN

SECTION A

PRE-CONFLICT 1:100


a
b
c
d
e
f
g
h
i
j
k
l
14m
7m
0m
3.5m
0m
5m
10m

DESIGN

SECTION A

PRE-CONFLICT 1:100

DESIGN

FLOORPLAN GROUNDFLOOR

PRE-CONFLICT 1:100

DESIGN

FLOORPLAN GROUNDFLOOR

PUBLIC AREA

DESIGN

FLOORPLAN GROUNDFLOOR

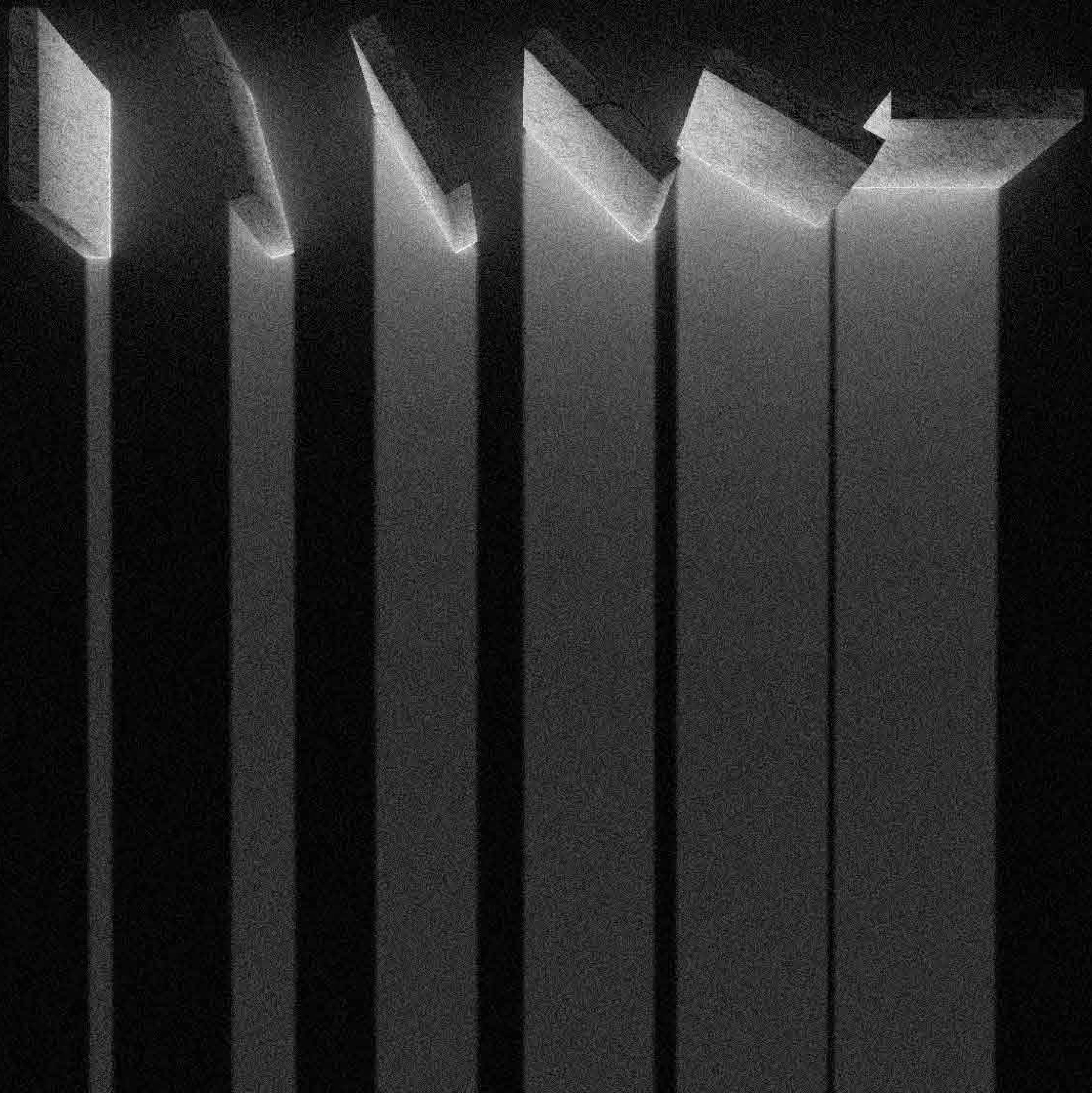
PRE-CONFLICT 1:100

I. Foyer
II. Reception
III. Auditorium
IV. Classrooms
V. Meetingrooms
VI. Toilets
VII. Storage
VIII. Gearroom
IX. Dininghall
X. Kitchen
XI. Bedrooms
XII. Bathrooms
XIII. Laundry
XIV. Lounge
XV. Fitness
XVI. Offices
XVII. Communication
XVIII. Director

DESIGN

BLAST PROTECTIVE PIVOTING DOORS

PRE- TO DURING CONFLICT



DESIGN

FLOORPLAN GROUNDFLOOR

PRE-CONFLICT 1:100

DESIGN

FLOORPLAN GROUNDFLOOR

DURING-CONFLICT 1:100

I. Foyer
II. Reception
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DESIGN

FLOORPLAN GROUNDFLOOR

PRE-CONFLICT 1:100

I. Foyer
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DESIGN

FLOORPLAN GROUNDFLOOR

DURING-CONFLICT 1:100

I. Foyer
II. Reception
III. Auditorium
IV. Classrooms
V. Meetingrooms
VI. Toilets
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XV. Fitness
XVI. Offices
XVII. Communication
XVIII. Director

DESIGN

FLOORPLAN GROUNDFLOOR

POST-CONFLICT 1:100

DESIGN

PERSPECTIVE FRONT VIEW

PRE-CONFLICT

DESIGN

PERSPECTIVE FRONT VIEW

PRE-CONFLICT

DESIGN

NORTH ELEVATION AND SECTION C

PRE-CONFLICT 1:100

DESIGN

NORTH ELEVATION AND SECTION C

POST-CONFLICT 1:100

DESIGN

SOUTH ELEVATION

POST-CONFLICT 1:100

DESIGN

SOUTH ELEVATION

PRE-CONFLICT 1:100

DESIGN

FLOORPLAN GROUNDFLOOR

PRE- AND POST-CONFLICT

DESIGN

EXPLODED AXO: CONCRETE

PRE-CONFLICT

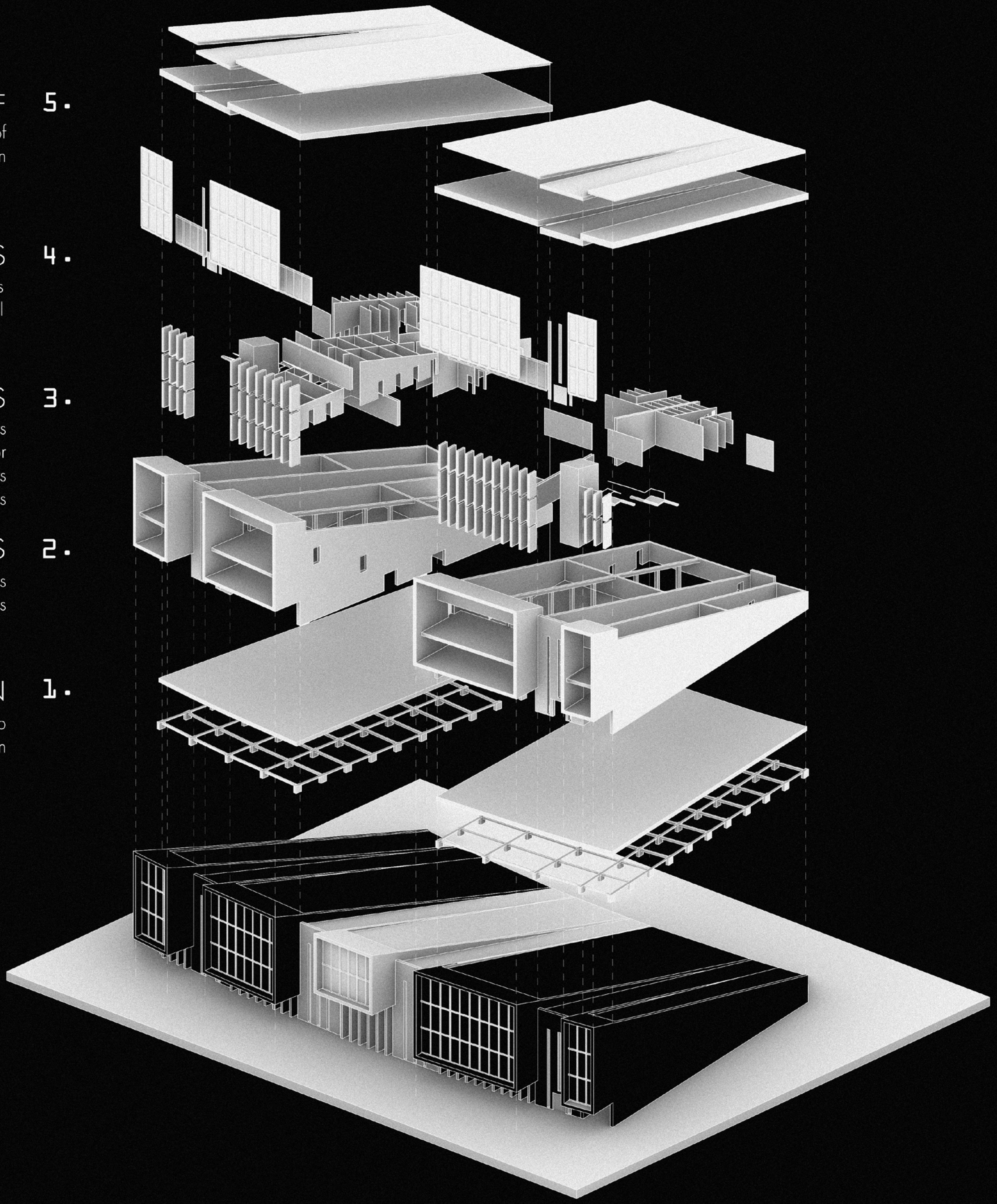
ROOF 5.
substrate / green roof
timber construction

WINDOWS 4.
windowframes
glass curtain wall

SUPPORTING STRUCTURES 3.
concrete shell blast-protective pivoting doors
elevator
concrete stairs
timber walls

MAIN STRUCTURES 2.
loadbaring concrete walls
concrete floor, columns and beams

FOUNDATION 1.
concrete floor slab
concrete foundation



DESIGN

EXPLODED AXO: TIMBER

PRE-CONFLICT

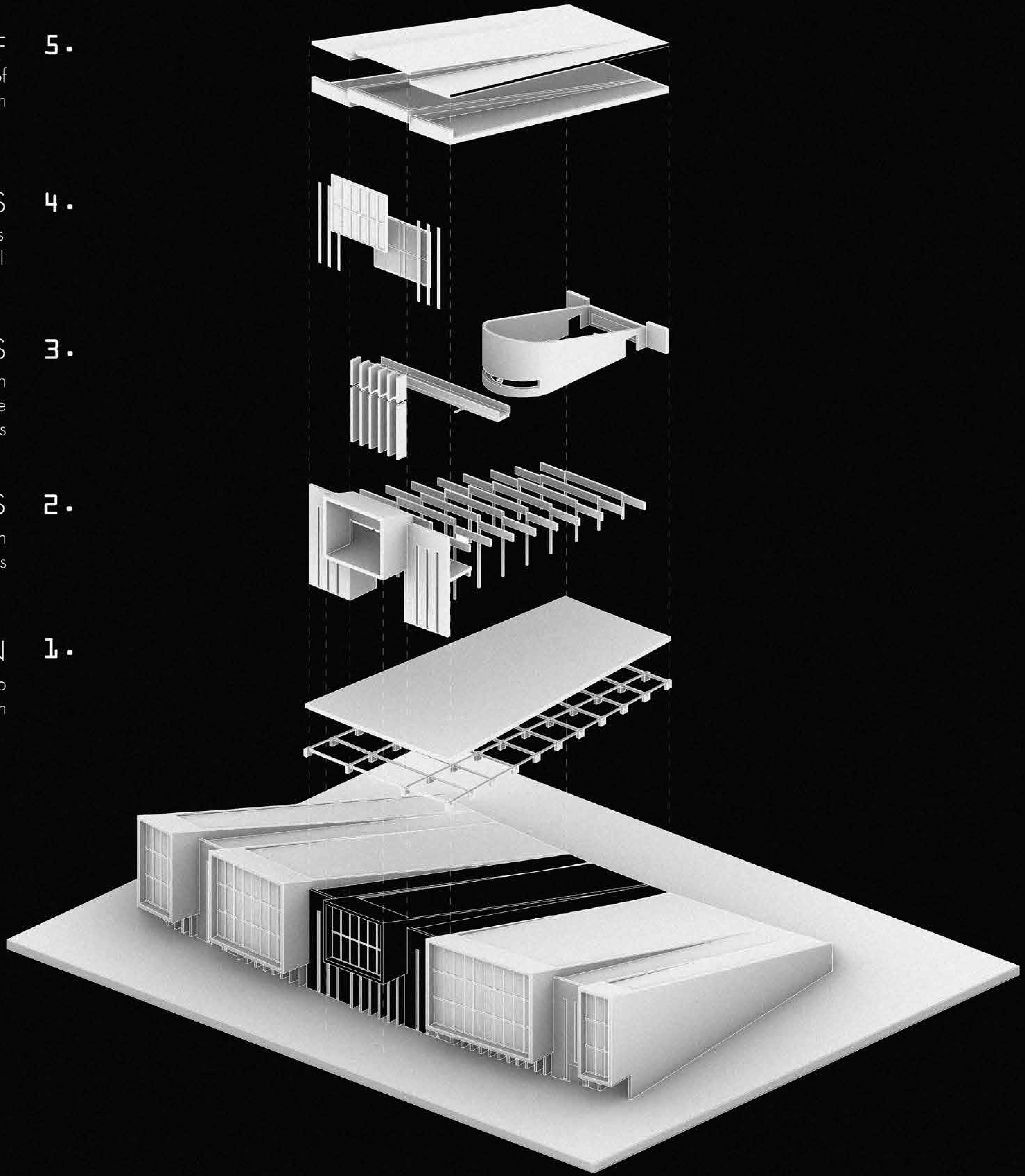
ROOF 5.
substrate / green roof
timber construction

WINDOWS 4.
windowframes
glass curtain wall

SUPPORTING STRUCTURES 3.
pivoting timber doors with concrete finish
timber bridge
timber walls

MAIN STRUCTURES 2.
timber exterior walls with concrete finish
timber floor, columns and beams

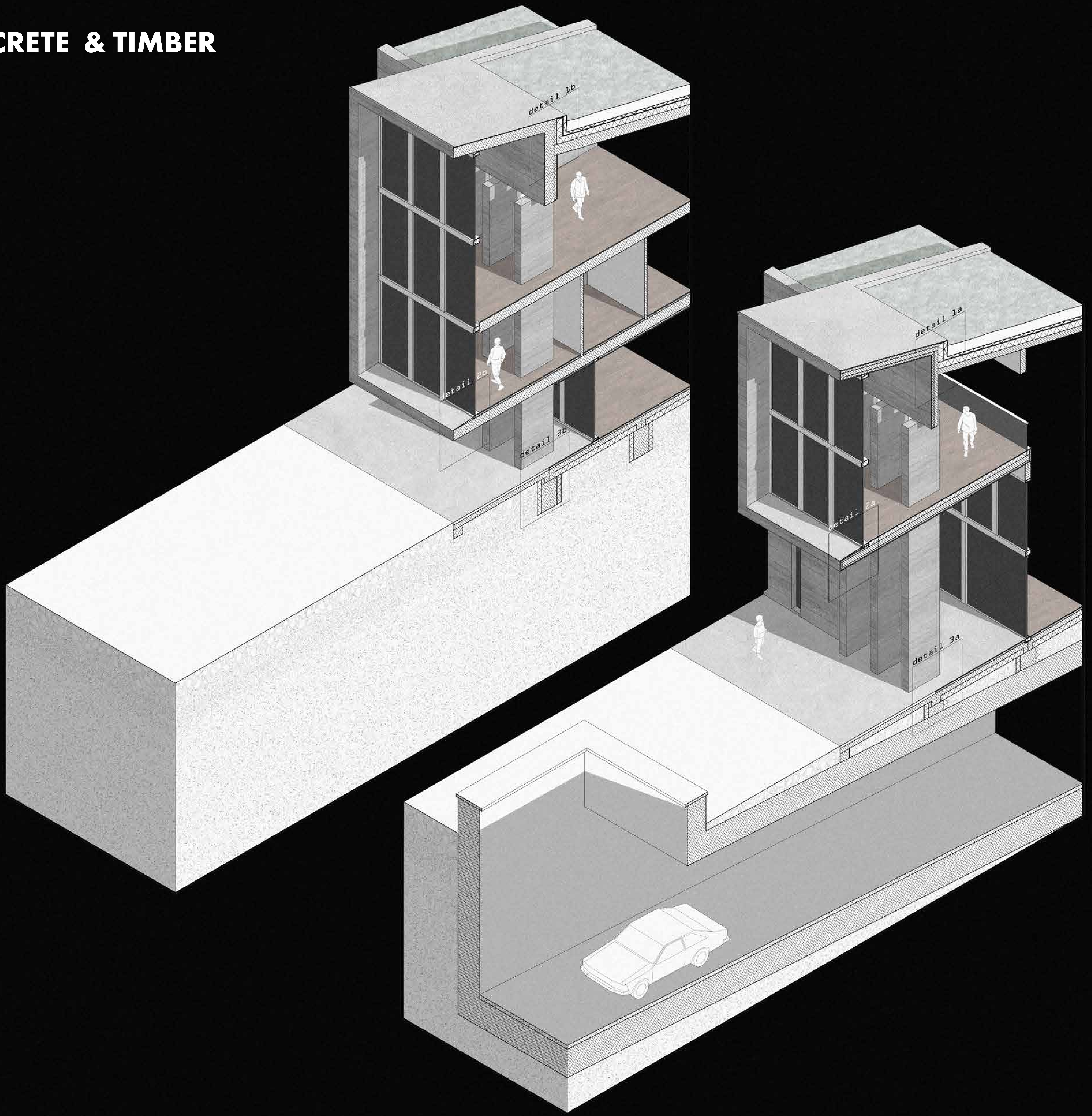
FOUNDATION 1.
concrete floor slab
concrete foundation



DESIGN

ISOMETRIC DETAIL: CONCRETE & TIMBER

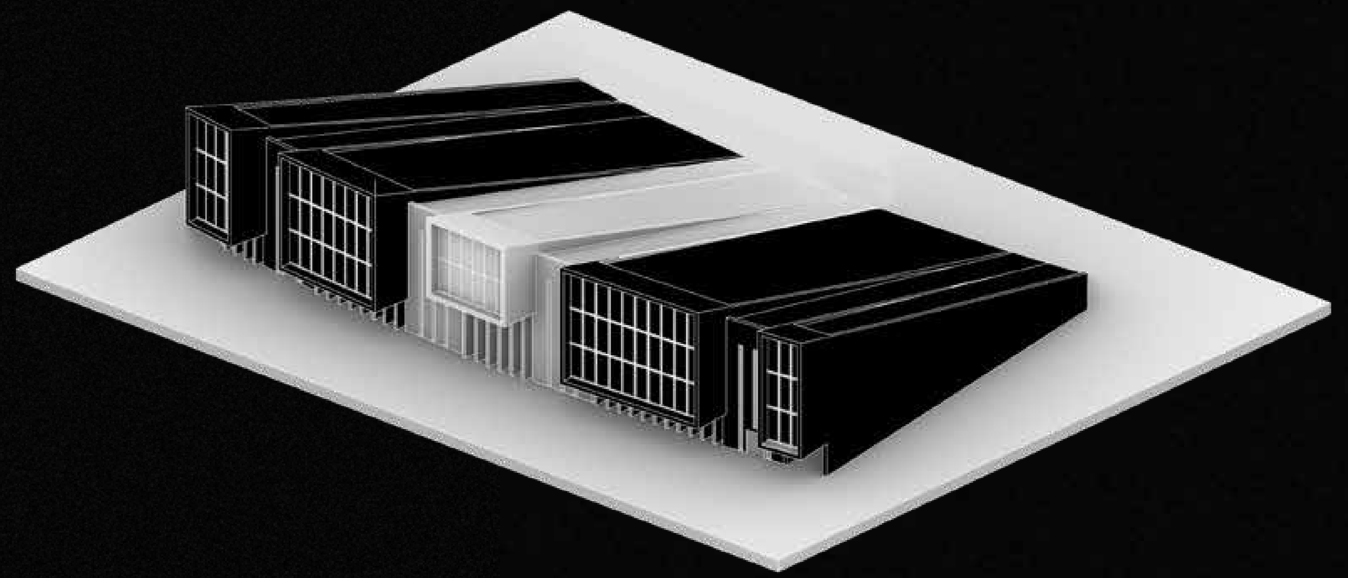
PRE-CONFLICT 1:20

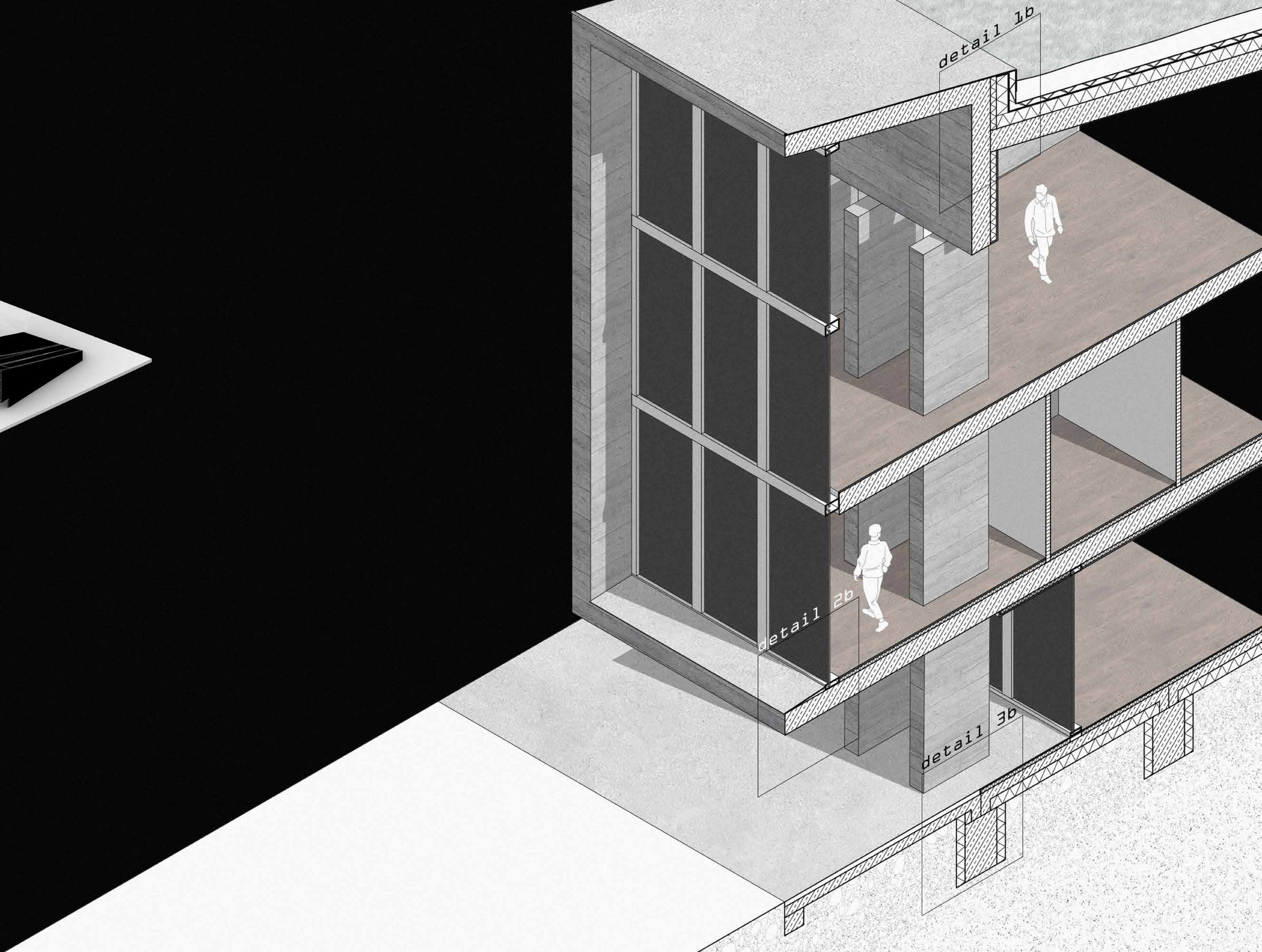


DESIGN

ISOMETRIC DETAIL: CONCRETE

PRE-CONFLICT 1:20

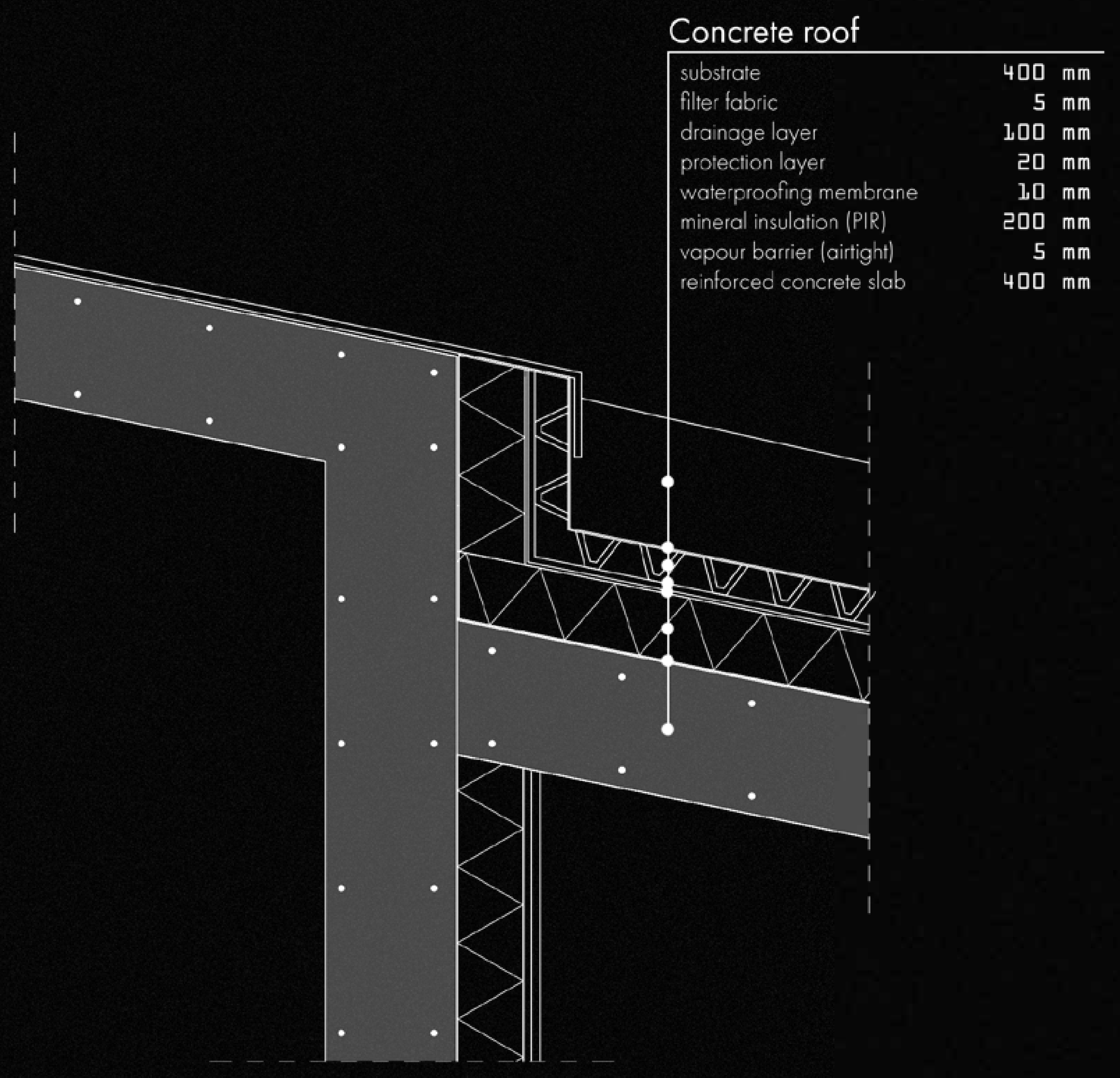




DESIGN

ISOMETRIC DETAIL: CONCRETE

PRE-CONFLICT 1:20 & 1:5



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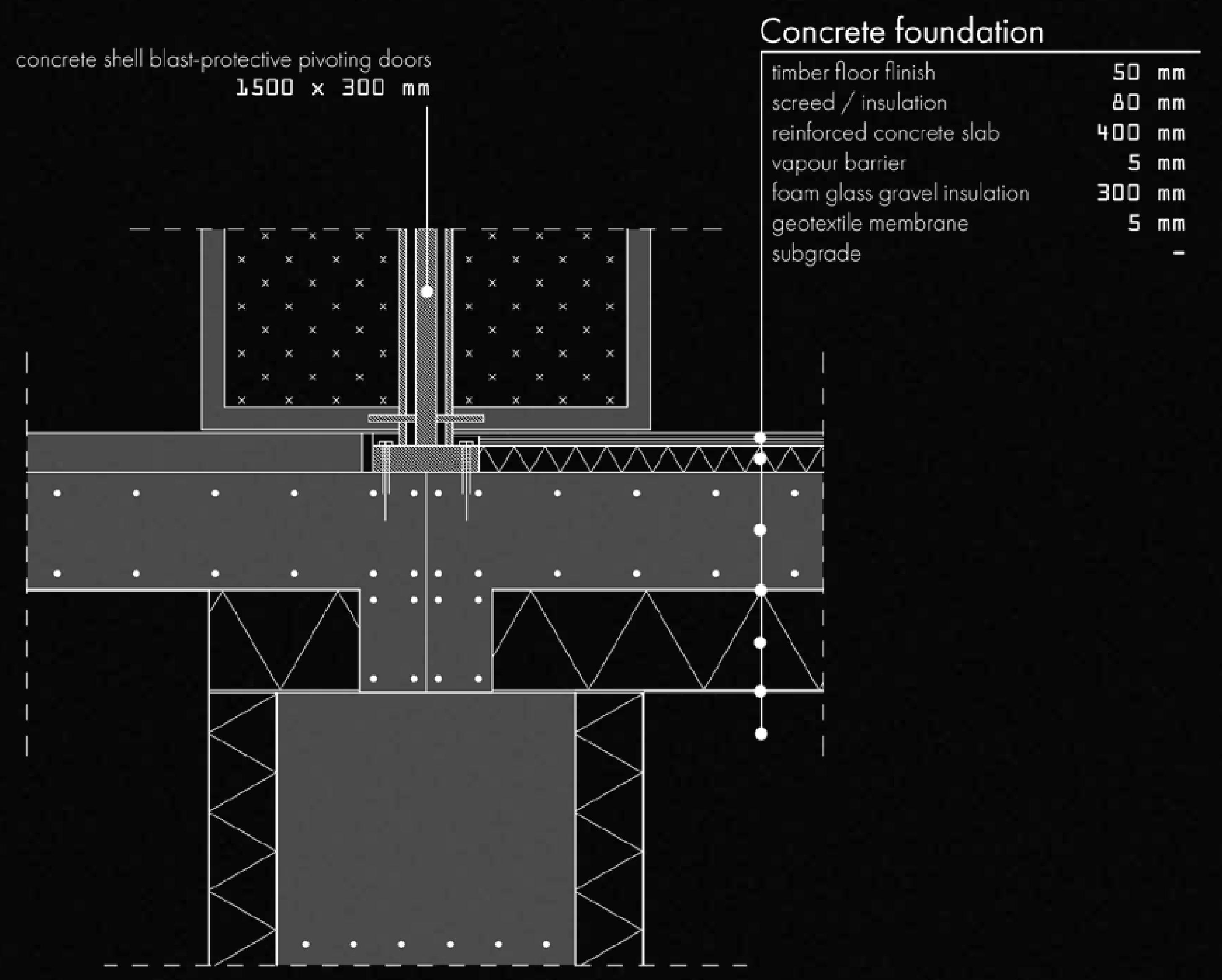

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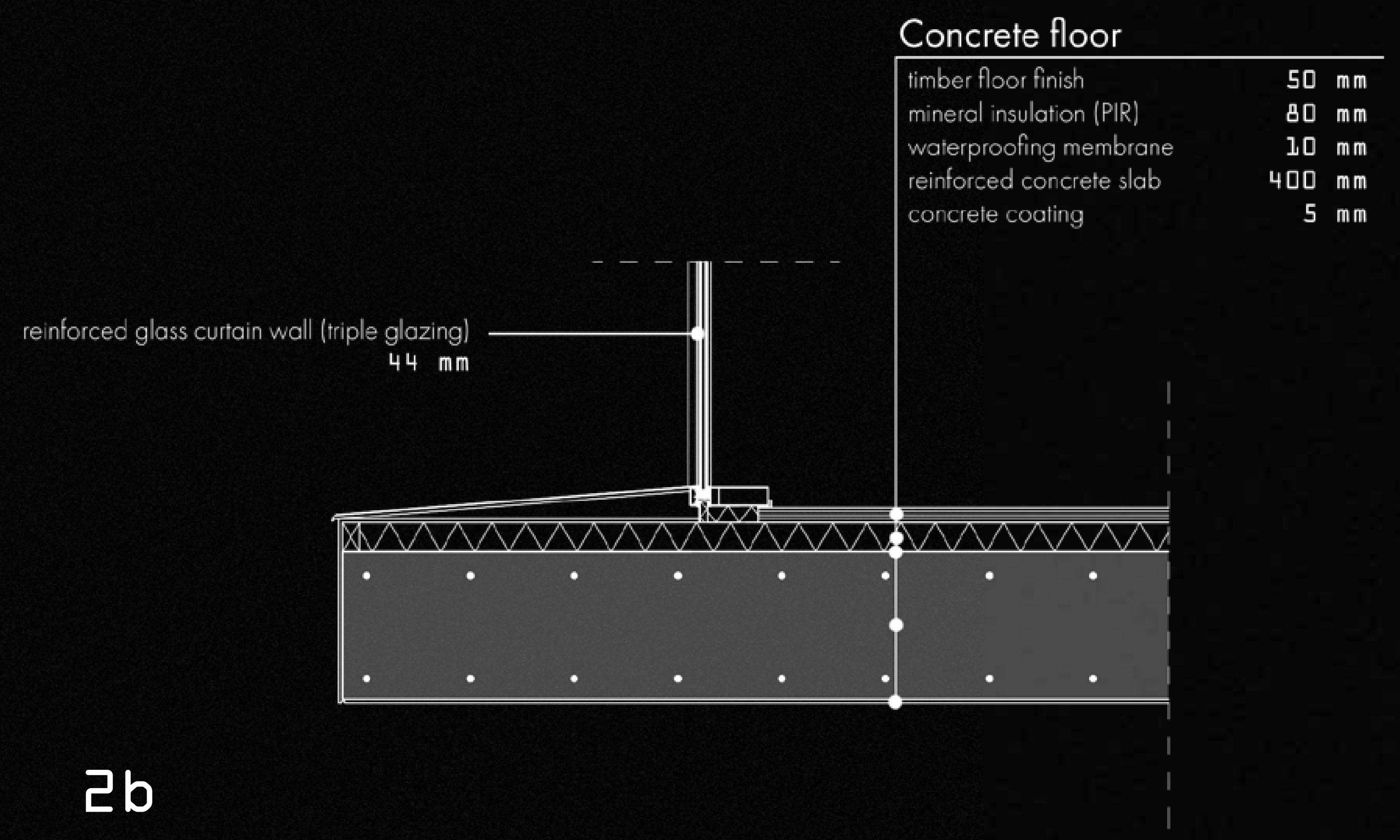

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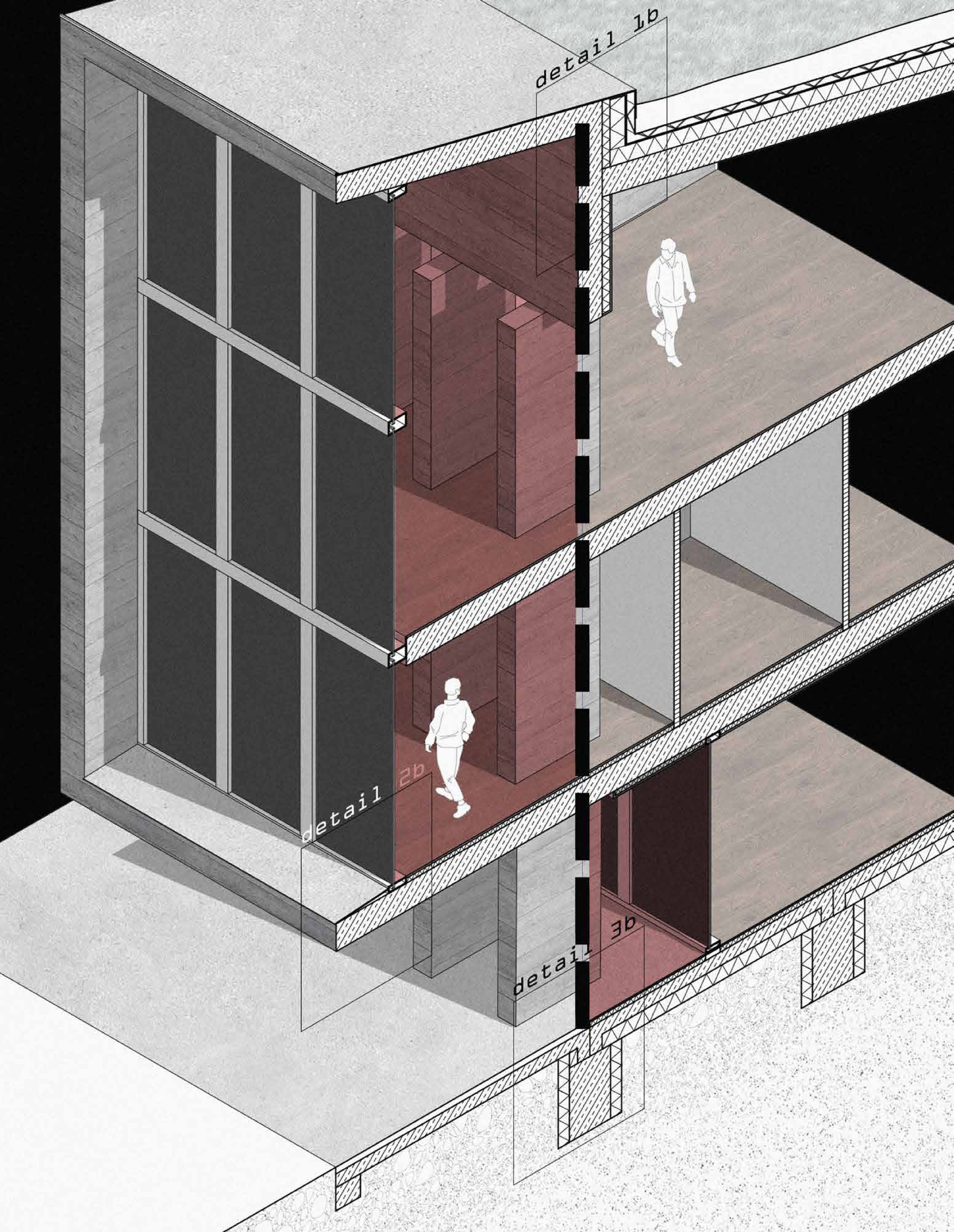
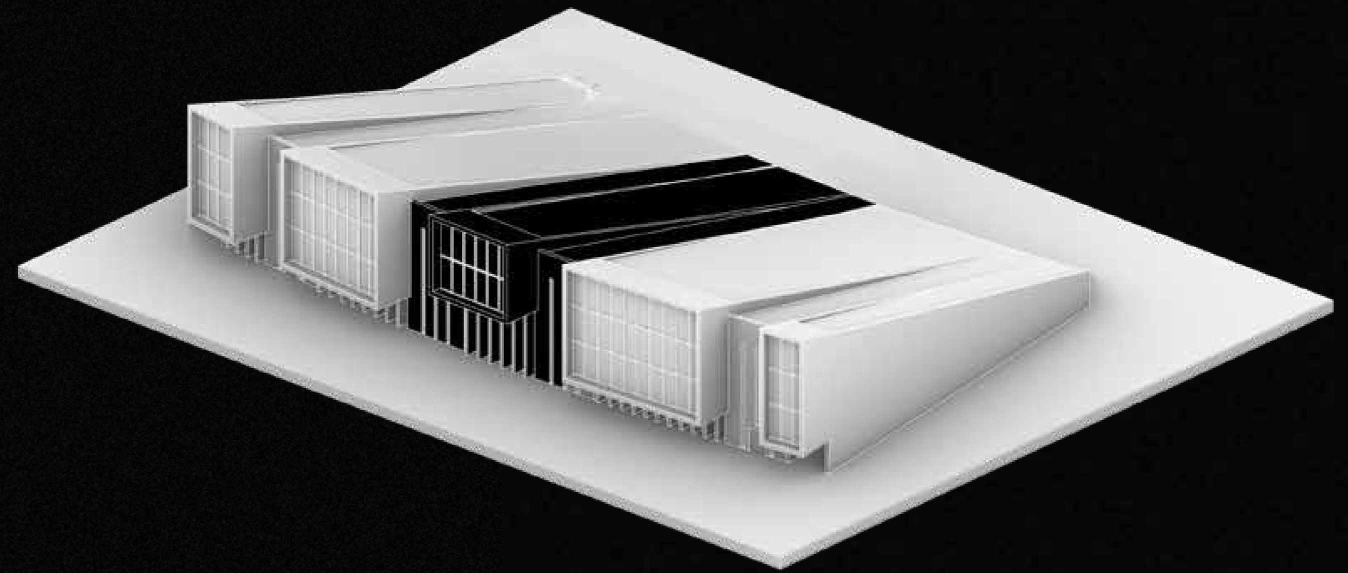
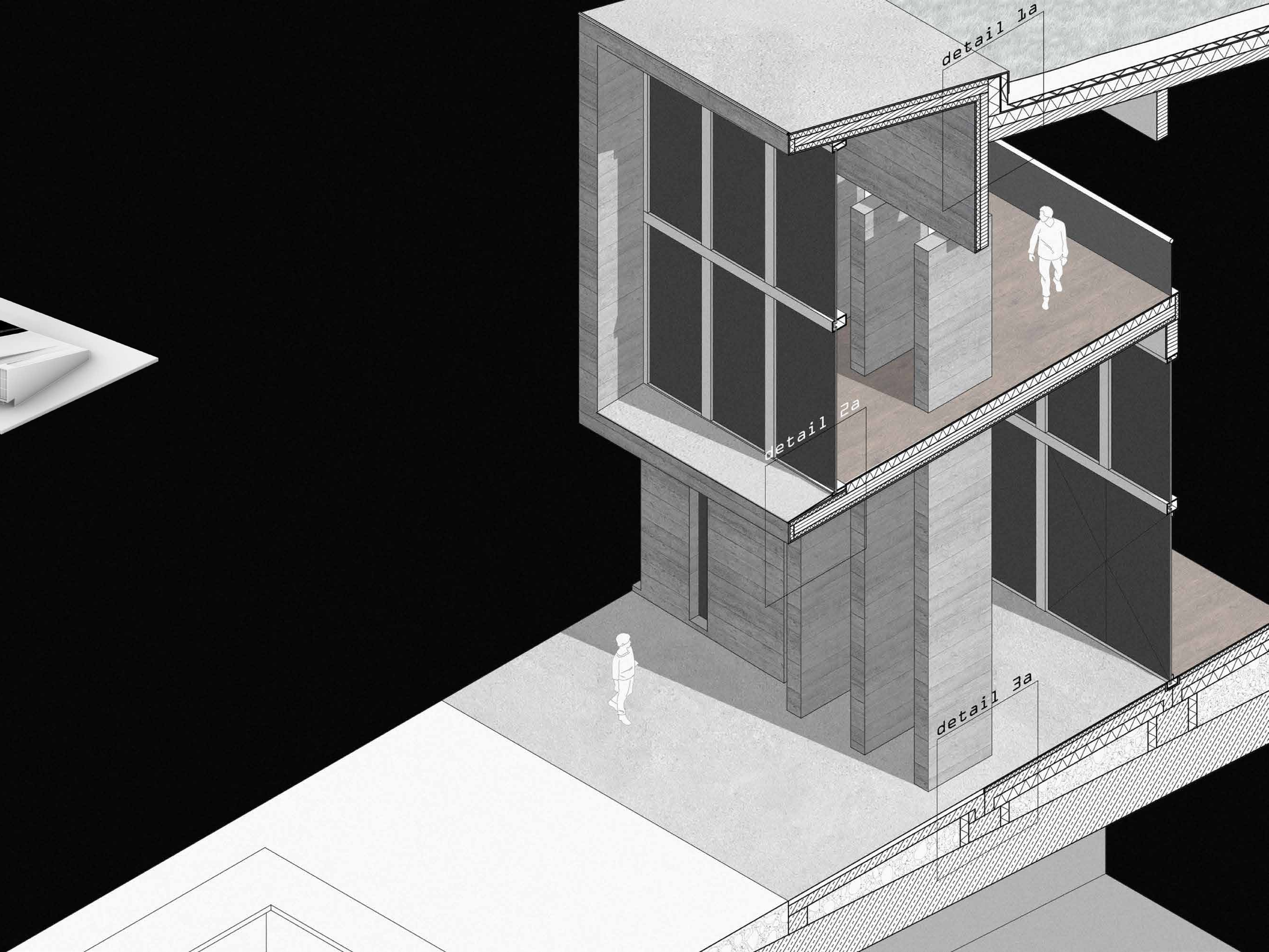


DESIGN

ISOMETRIC DETAIL: TIMBER

PRE-CONFLICT 1:20





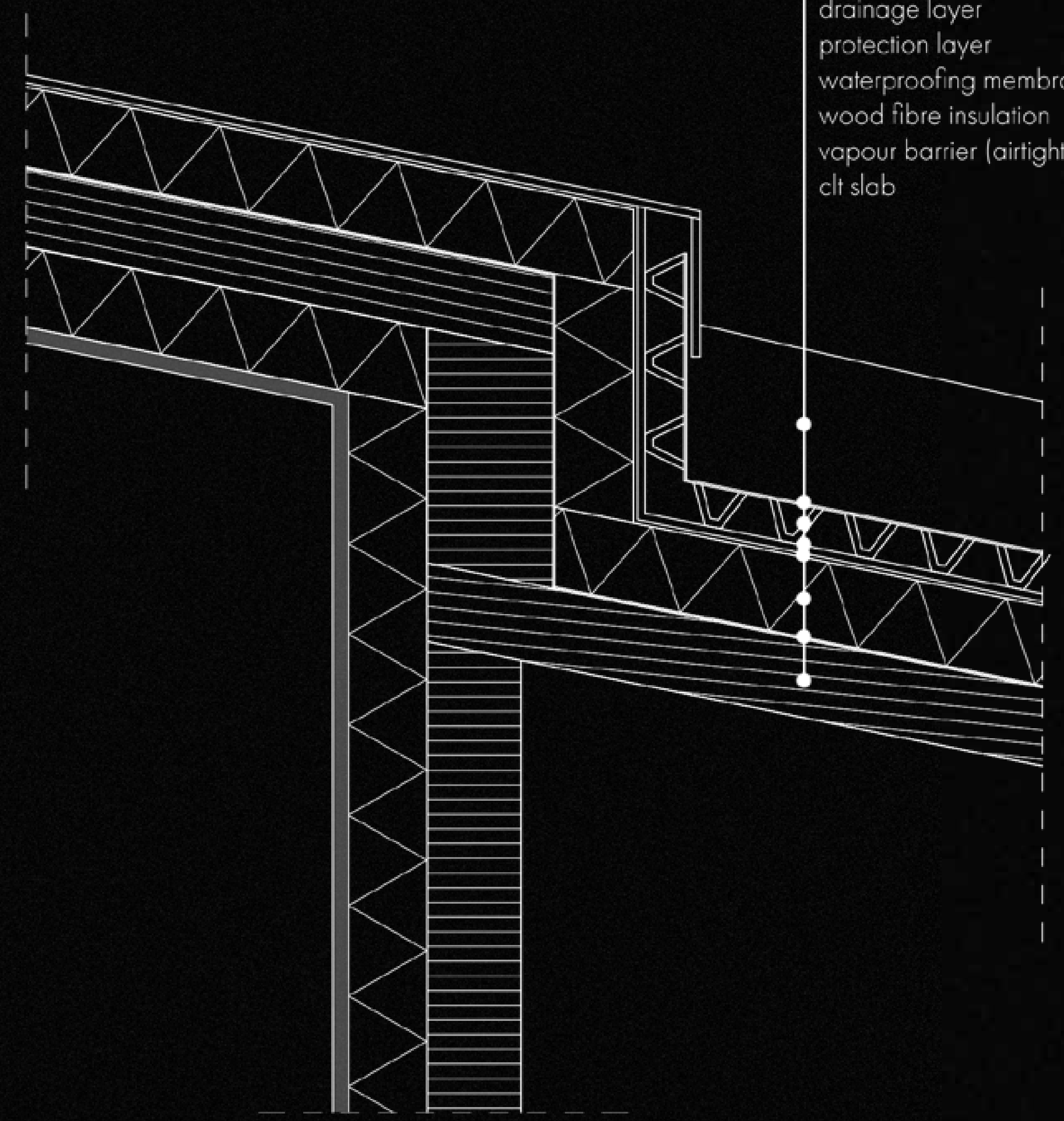
DESIGN

ISOMETRIC DETAIL: TIMBER

PRE-CONFLICT 1:20 & 1:5

Timber roof

substrate	400 mm
filter fabric	5 mm
drainage layer	100 mm
protection layer	20 mm
waterproofing membrane	10 mm
wood fibre insulation	250 mm
vapour barrier (airtight)	5 mm
clt slab	200 mm



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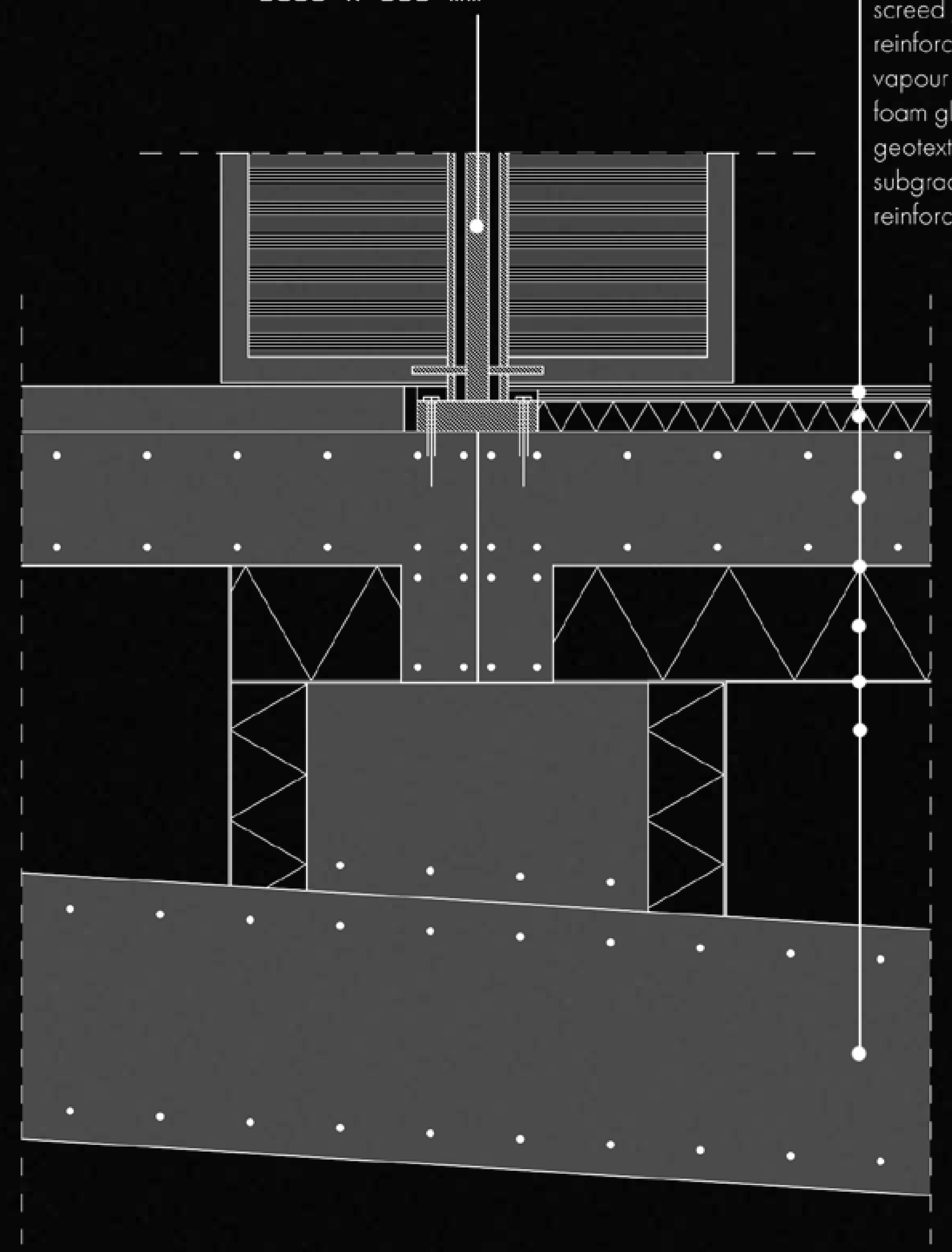


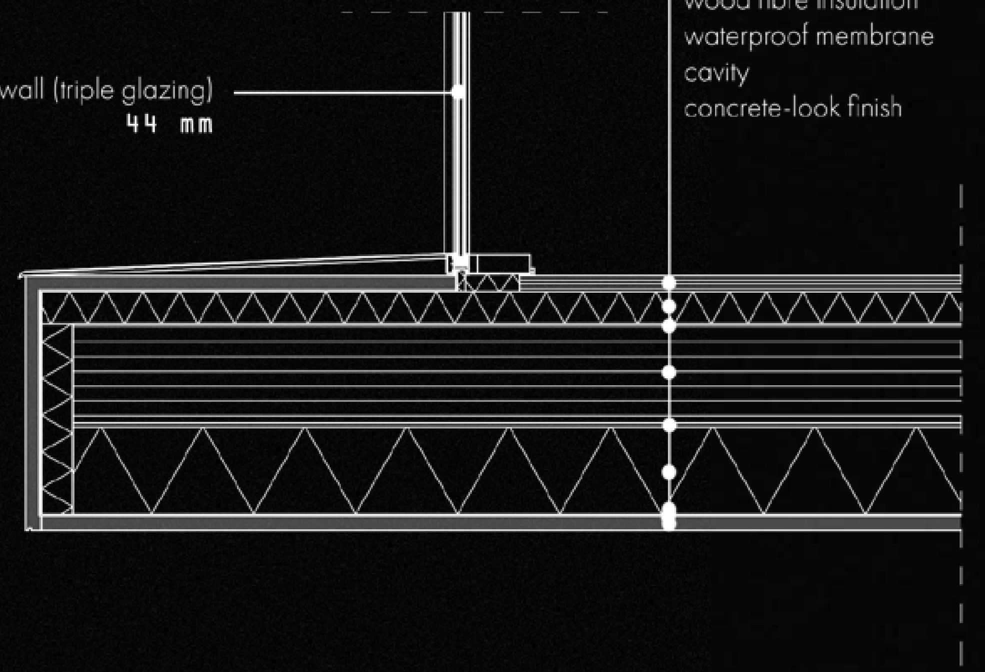
Concrete foundation

timber floor finish	50 mm
screed / insulation	80 mm
reinforced concrete slab	400 mm
vapour barrier	5 mm
foam glass gravel insulation	300 mm
geotextile membrane	5 mm
subgrade	-
reinforced concrete tunnel	800 mm

3b

Timber floor

timber floor finish	50 mm
wood fibre insulation	80 mm
waterproofing membrane	10 mm
clt slab	200 mm
vapour barrier (airtight)	5 mm
wood fibre insulation	180 mm
waterproof membrane	5 mm
cavity	10 mm
concrete-look finish	40 mm



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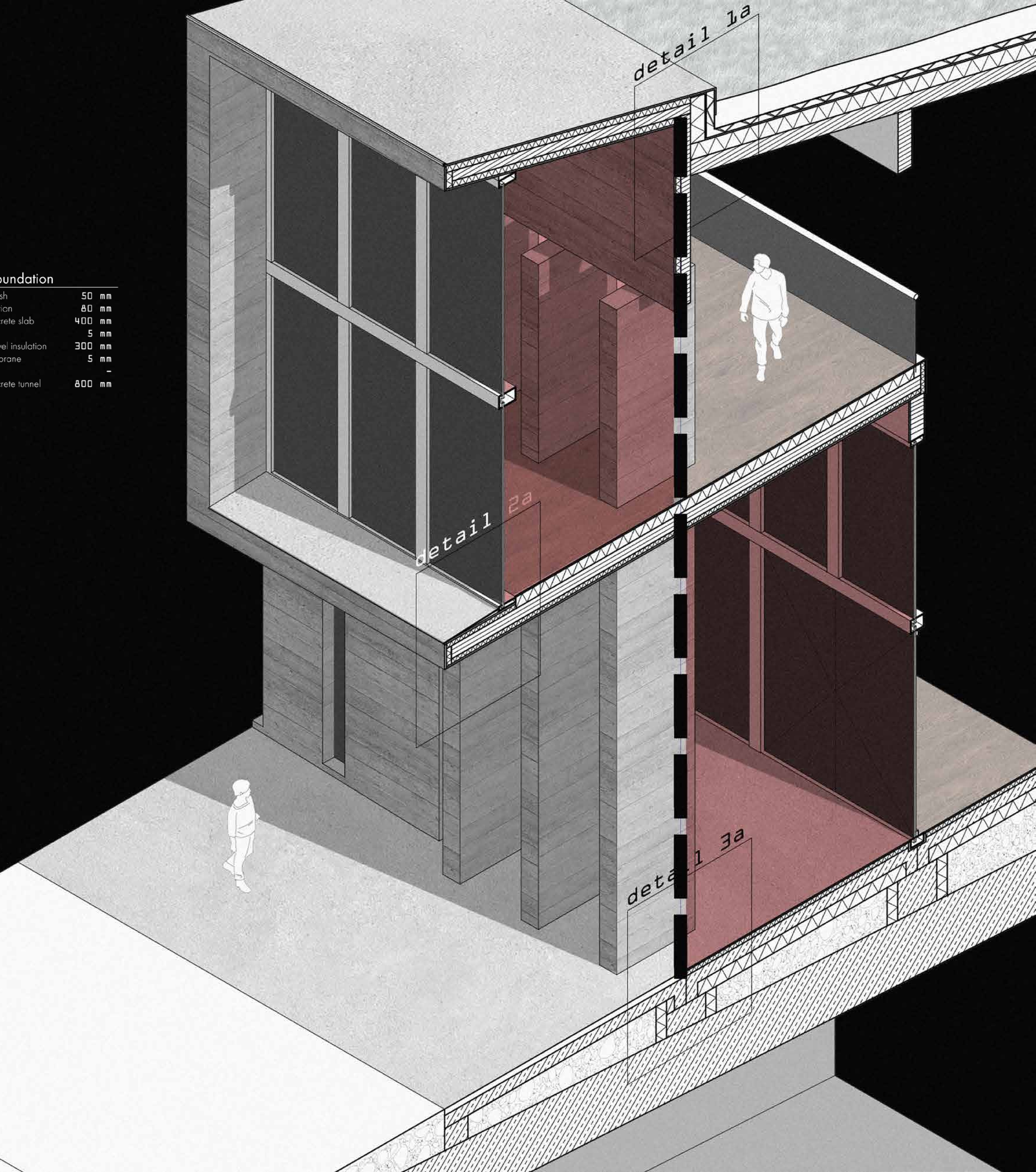
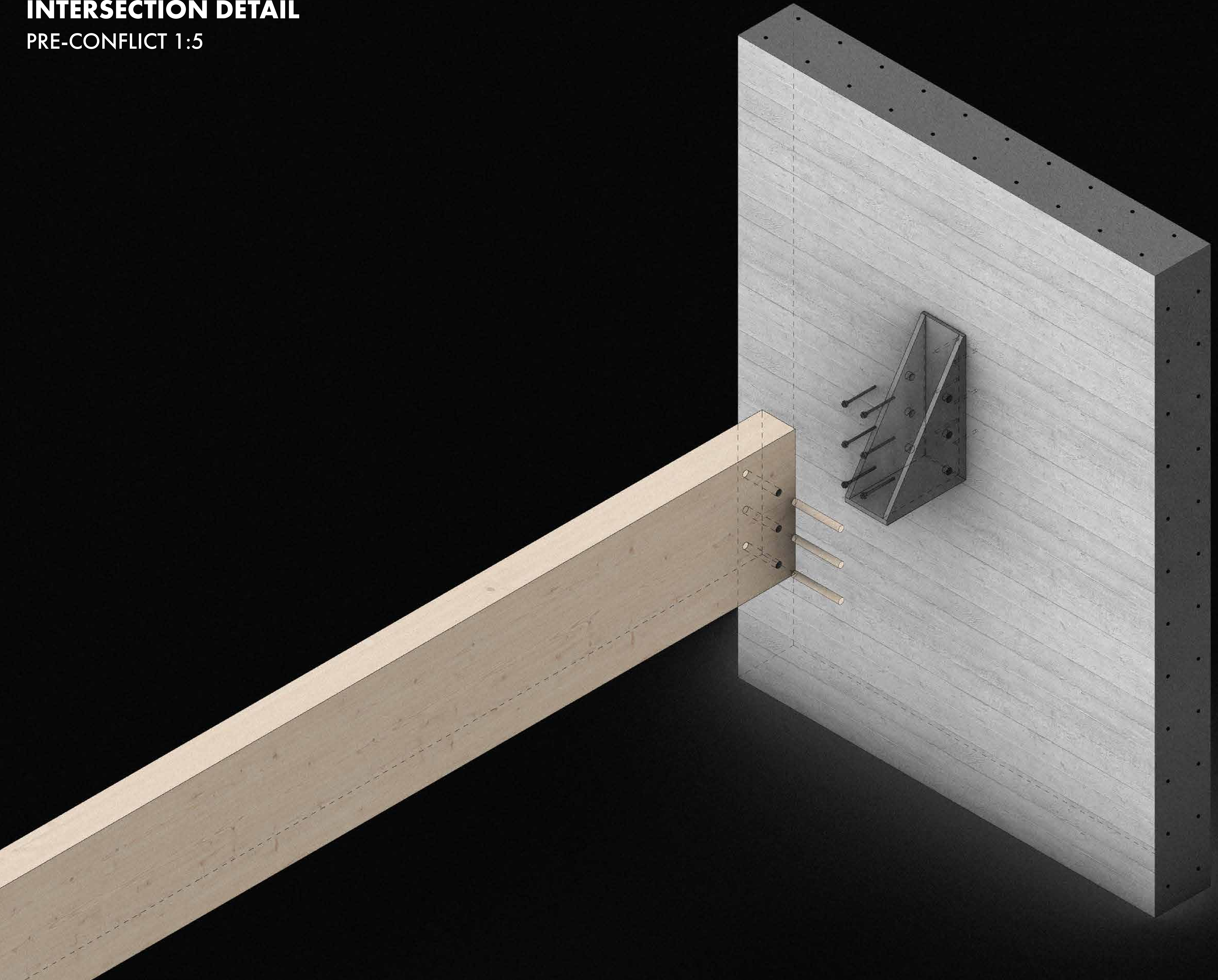


DESIGN

INTERSECTION DETAIL

PRE-CONFLICT 1:5



DESIGN

IMPRESSION EXTERIOR

AI ENHANCED

DESIGN

INTERIOR RENDER TIMBER

AI ENHANCED

DESIGN

INTERIOR RENDER CONCRETE

AI ENHANCED

DESIGN

INTERIOR RENDER CONCRETE

AI ENHANCED

DESIGN

INTERIOR RENDER CONCRETE

AI ENHANCED


THANKYOU