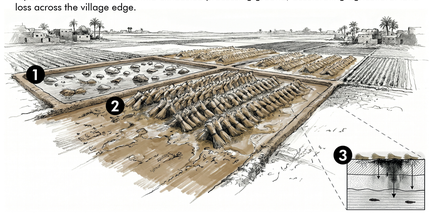
FLAX DRYING & RETTING SYSTEM **SPATIAL PERCEPTION**

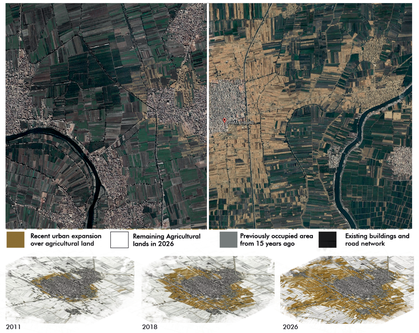
PROBLEM STATEMENT:

Shubramelles is responsible for nearly 90% of Egypt's flax production, yet the village's agricultural land is being steadily consumed by the industry's own processing methods.
After retting, flax bundles are spread over fertile land for drying, carrying pollutants and residues that degrade the soil and often leave it unfit for cultivation again. Over time, this repeated use turns farmland into exhausted processing ground, accelerating agricultural land loss across the village edge.



ENVIRONMENTAL IMPACT:

Flax production in Shubramelles is creating a cycle of land exhaustion.
Fields once used for cultivation are increasingly occupied by post-harvest processing.
Contaminated drying practices reduce soil quality, weaken productivity, and gradually erase the agricultural landscape that originally sustained the craft.



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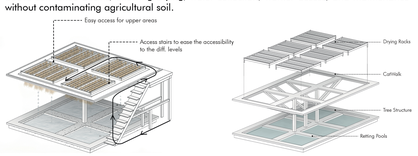
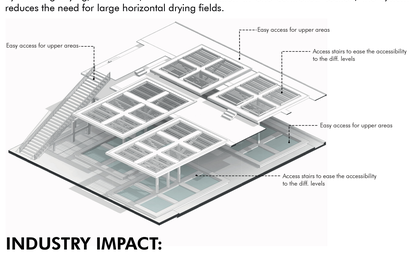
SOLUTION:

ELEVATED DRYING UNIT: SEPARATING FLAX FROM SOIL.
The project replaces ground drying with a modular elevated system where flax is suspended above controlled basins, allowing drying, water collection, worker access, and maintenance without contaminating agricultural soil.



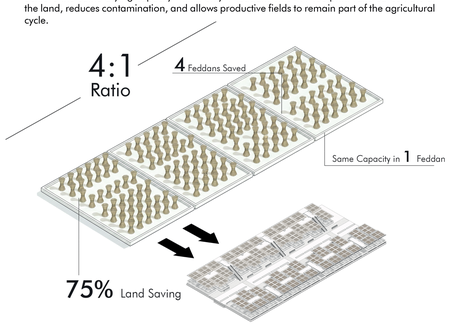
By stacking drying, circulation, and water collection in one controlled section, the system reduces the need for large horizontal drying fields.



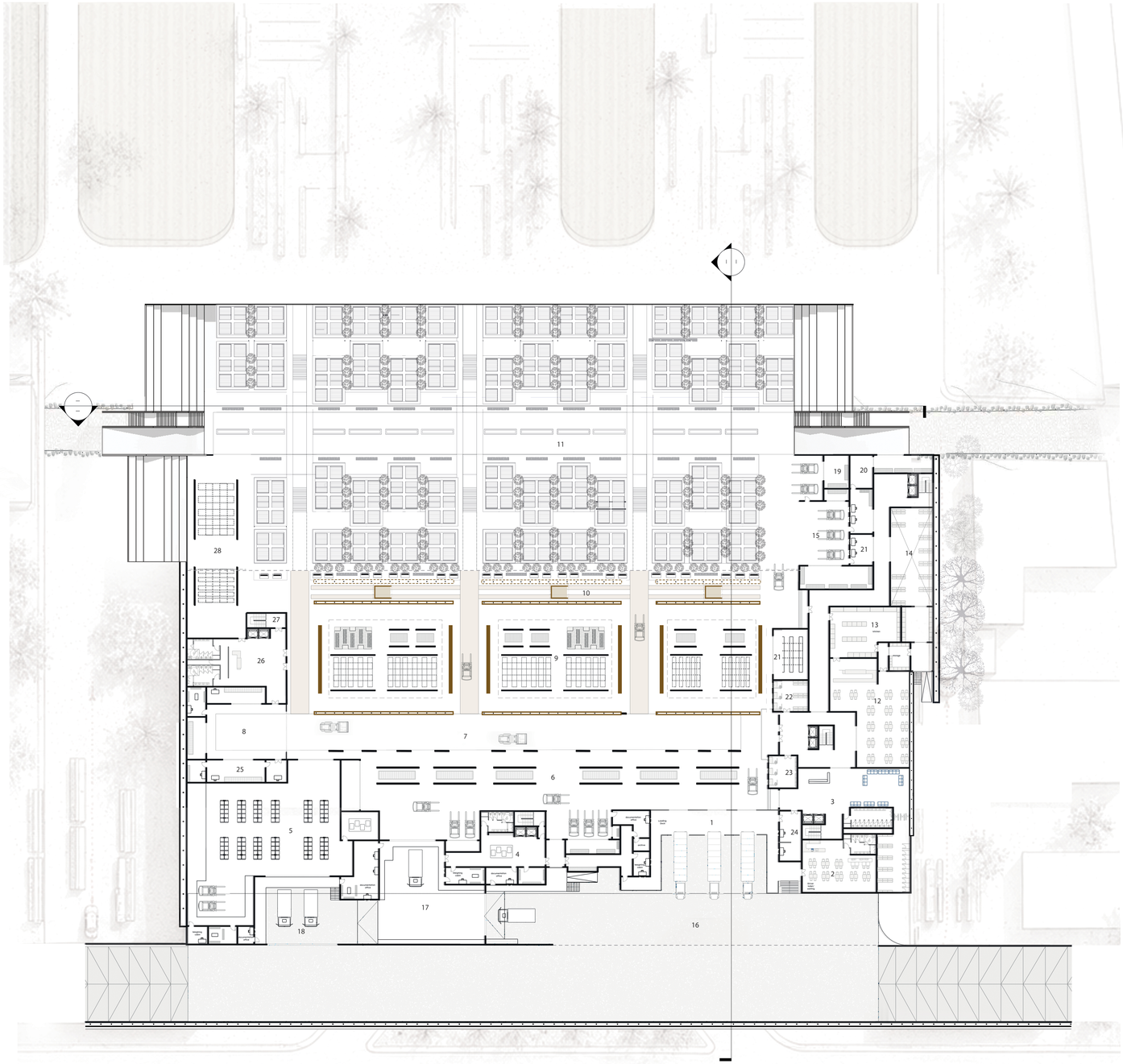
INDUSTRY IMPACT:

A 4:1 drying footprint ratio that transforms flax processing from land-consuming practice into land-saving infrastructure.

The proposed system changes the spatial economy of flax drying. Instead of occupying 4 feddans of agricultural land through horizontal ground drying, the elevated drying units achieve the same drying capacity within only 1 feddan. This 4:1 footprint ratio saves 75% of the land, reduces contamination, and allows productive fields to remain part of the agricultural cycle.

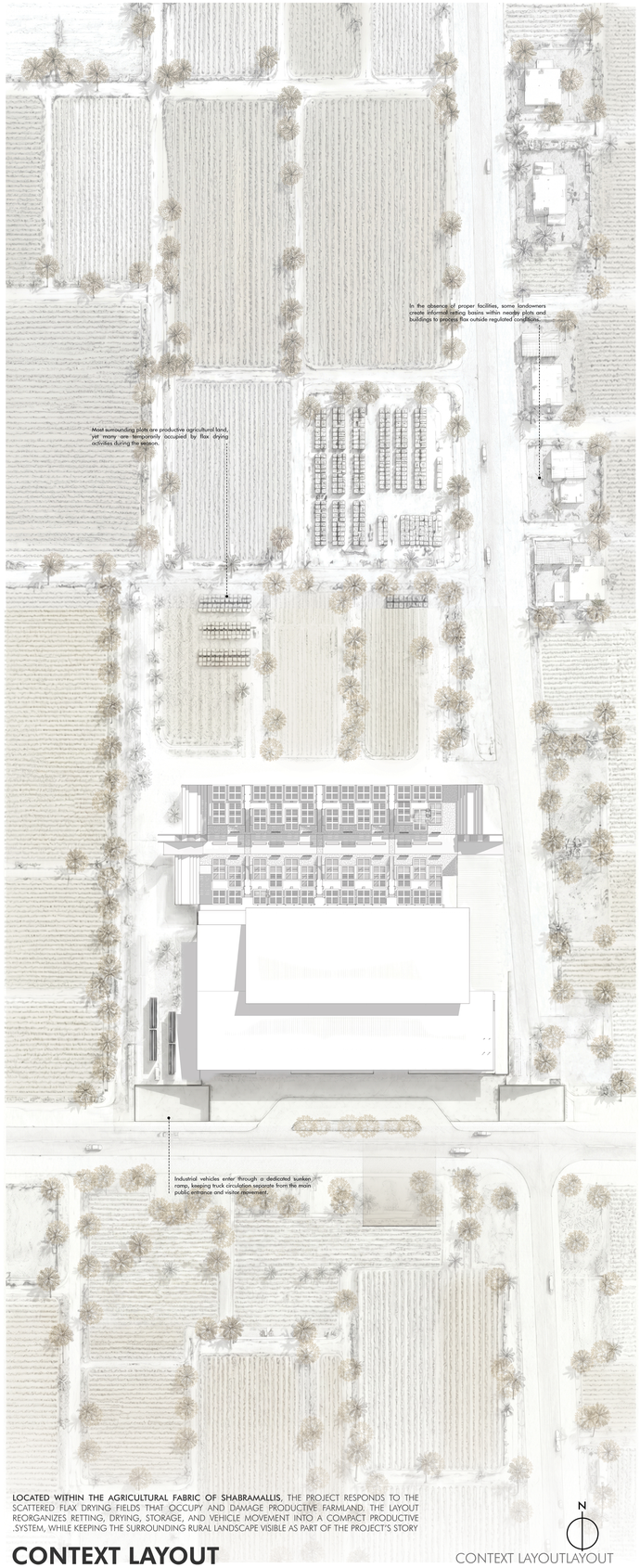


Instead of spreading flax across multiple agricultural plots for long drying periods, the proposed system concentrates the same drying capacity within a single site. This reduces the required drying footprint from 4 feddans to 1 feddan, saving 75% of the occupied land and allowing more agricultural fields to remain productive.



1- Loading Dock
2- Drivers waiting
3- Lounge
4- Service Core & Offices
5- Seeds Storage
6- Temporary Storage
7- Tractors lane
8- Tractor Servives
9- Flax Storage
10- Wind Catcher
11- Retting Zone
12- Workers Resting Room
13- Kitchen
14- Kitchen Storage
15- Forkleft Zone
16- Tractor Zone
17- Car unloading zone
18- Seed loading zone
19- Forkleft Service
20- Operation Offives
21- Service Room
22- Operation Offices
23- Archive Office
24- Security Room
25- Tractor Managment Room
26- Service Core 2
27- Service 2 Stairs
28- Final Product Storage

-5M UNDERGROUND PLAN SCALE 1:200 | ENTRY LEVEL FLOOR PLAN



LOCATED WITHIN THE AGRICULTURAL FABRIC OF SHABRAMALLIS, THE PROJECT RESPONDS TO THE SCATTERED FLAX DRYING FIELDS THAT OCCUPY AND DAMAGE PRODUCTIVE FARMLAND. THE LAYOUT REORGANIZES RETTING, DRYING, STORAGE, AND VEHICLE MOVEMENT INTO A COMPACT PRODUCTIVE SYSTEM, WHILE KEEPING THE SURROUNDING RURAL LANDSCAPE VISIBLE AS PART OF THE PROJECT'S STORY

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CONTEXT LAYOUT

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