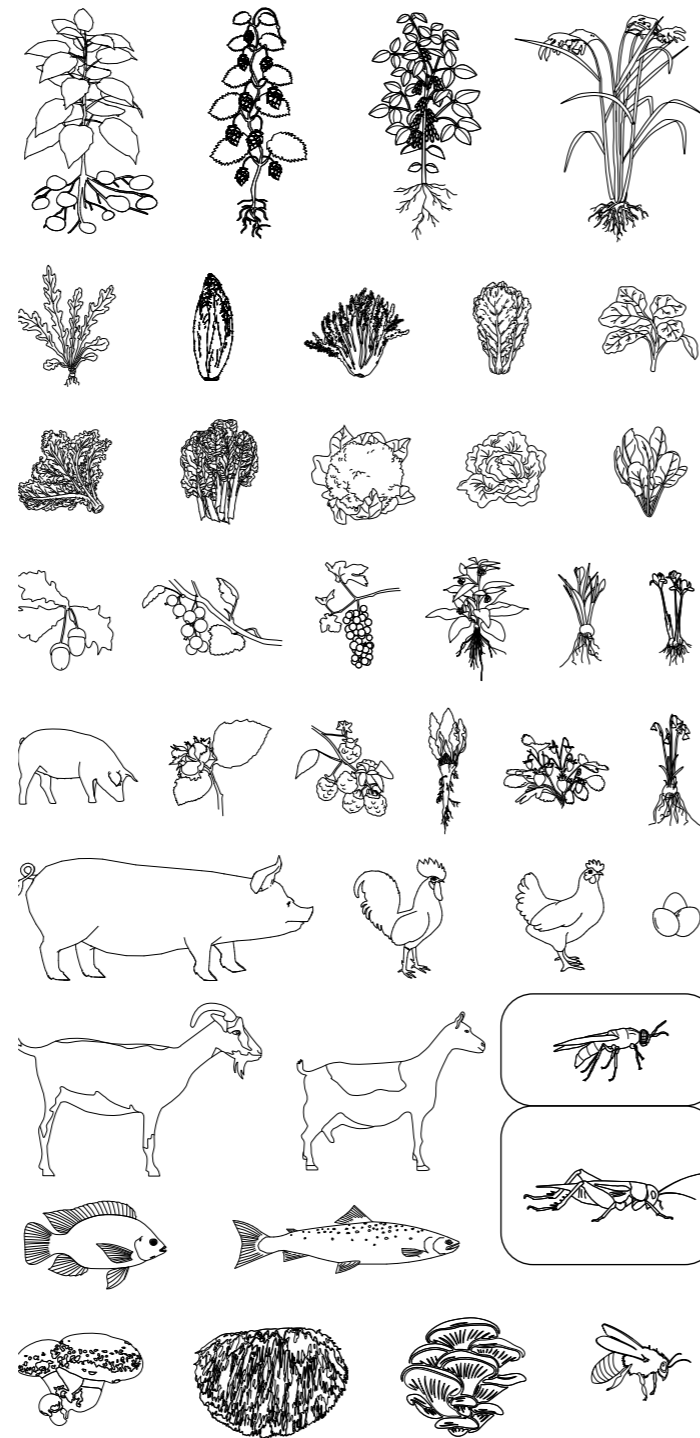


PREPUPAL

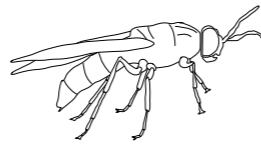
GARRY LEISBERG



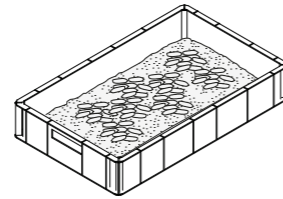
The increasing demand for protein puts pressure on agricultural land. Land scarcity and increasing population growth puts even more pressure on the agricultural land. To meet our future food demand, alternative food sources should be taking into consideration. The Entomophagy (the eating of insects) can be a solution to meet our future food demand. While eating insects is part of the menu in most Asian countries. It is still a taboo in the western world.

Prepupal is an insect farm that focuses on farming edible insects for human consumption. The agriculture consist of cultivating two types of insects (the black soldier fly and the cricket). These insects are ground into mincemeat. Then they are made into hamburger patty's. The insect farm is capable of producing 8,7 million patty's a year (24.000 a day) . Beside the patty's the insects also produce frass which can be used as compost.

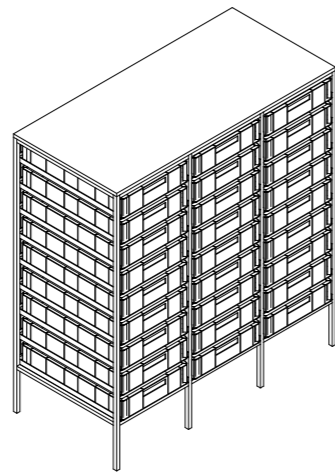
The architecture of the insect farm is an oval shaped egg building with an outergalery and boxes in the center combined with a central core. The outer ring provides a radiance to the environment and gives spaciousness, while the inner part is compact.



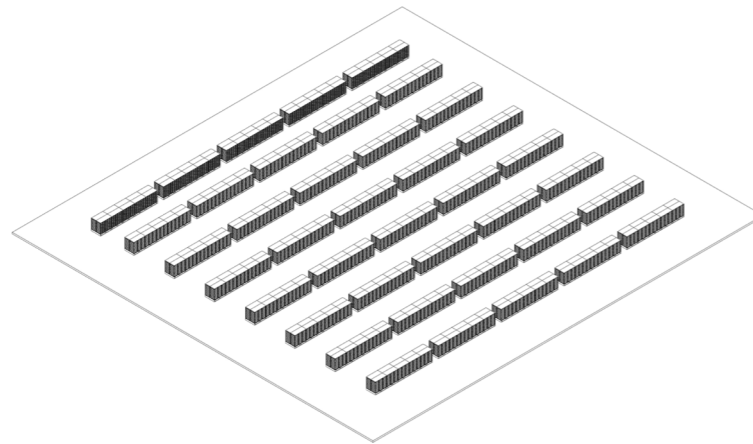
BLACKSOLDIERFLY



COMPONENT



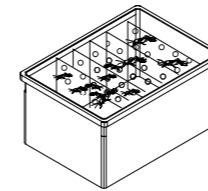
UNIT PER INSECT



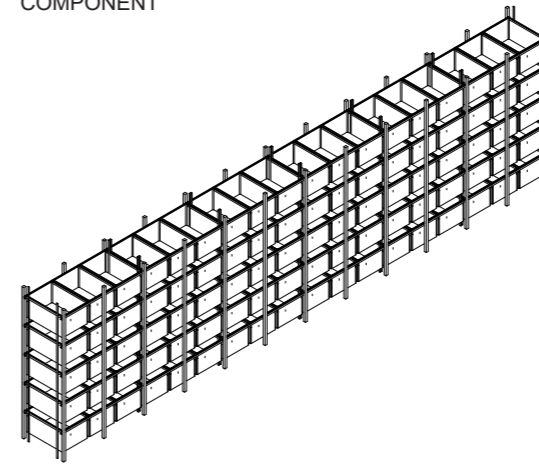
PRODUCTION FLOOR



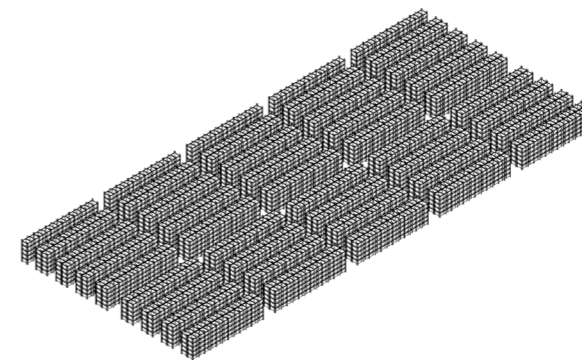
CRICKET



COMPONENT



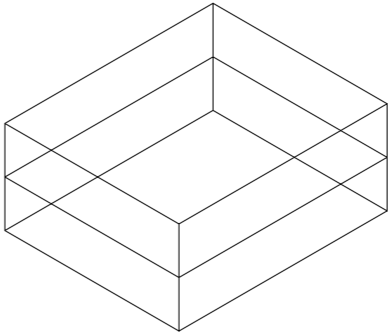
UNIT PER INSECT



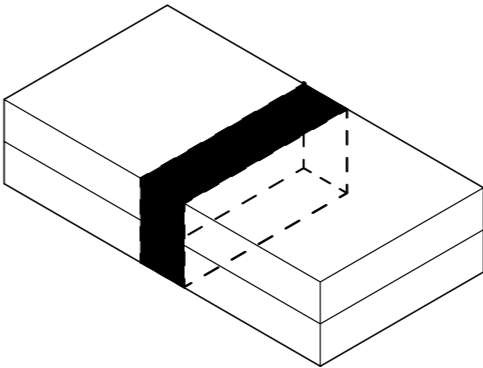
PRODUCTION FLOOR

CONCEPT

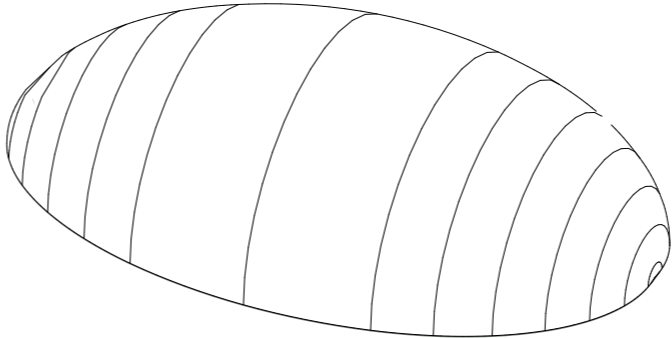
STACKING

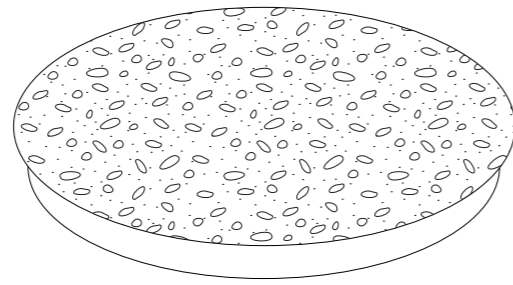


CENTRAL CORE

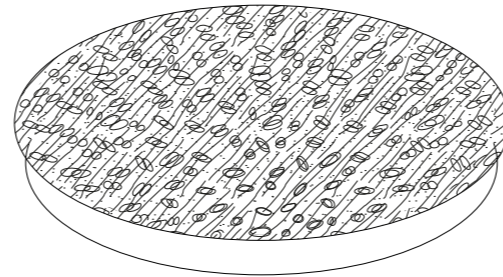


IDENTITY

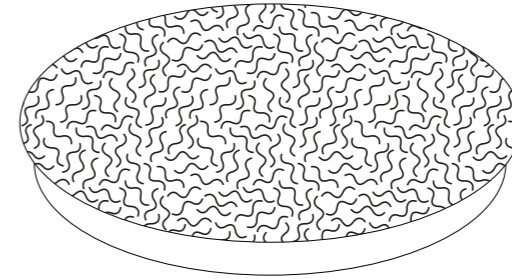




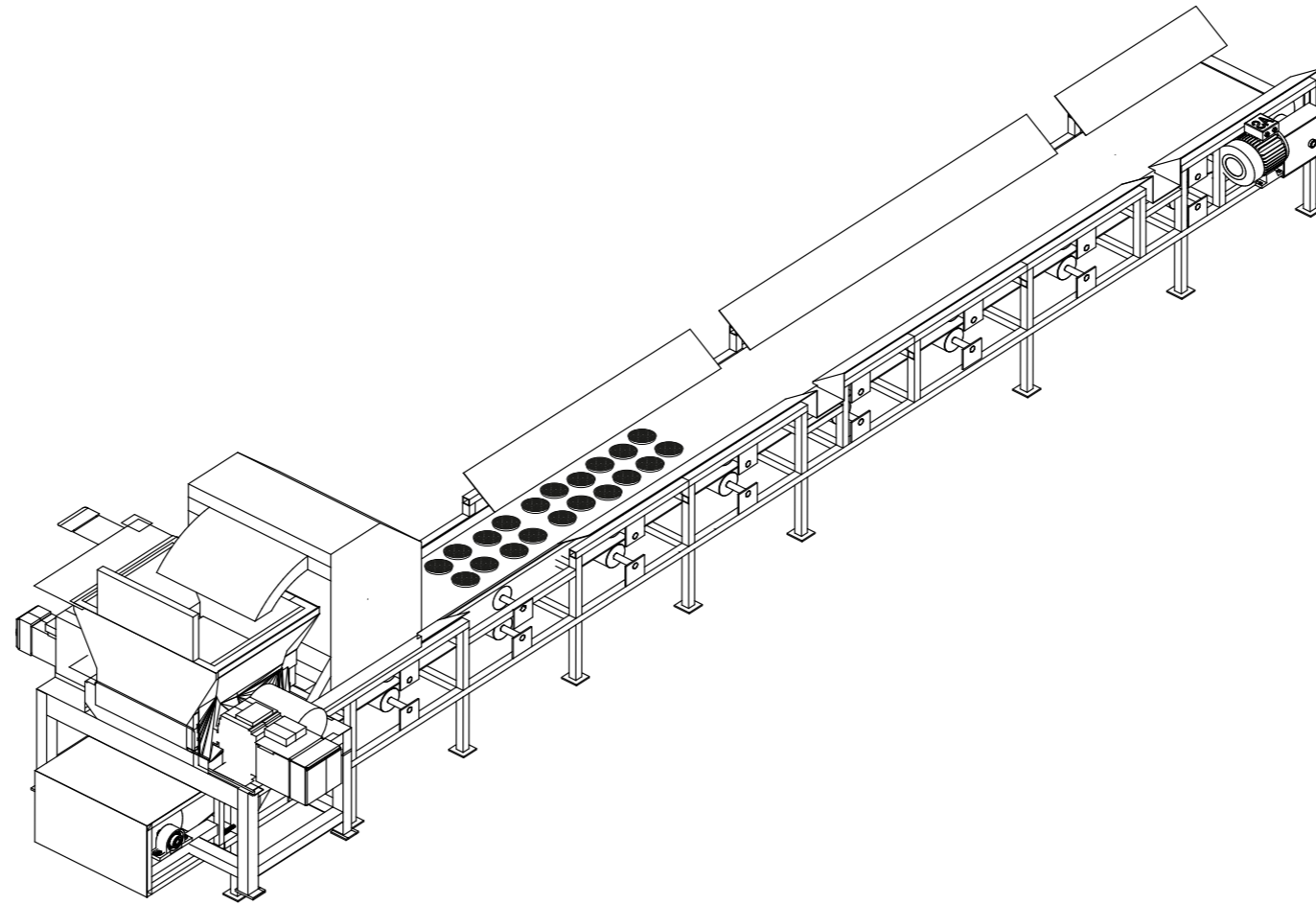
THE SOLDIER PATTY
INGREDIENTS: 95% BLACK SOLDIERFLY PROTEIN



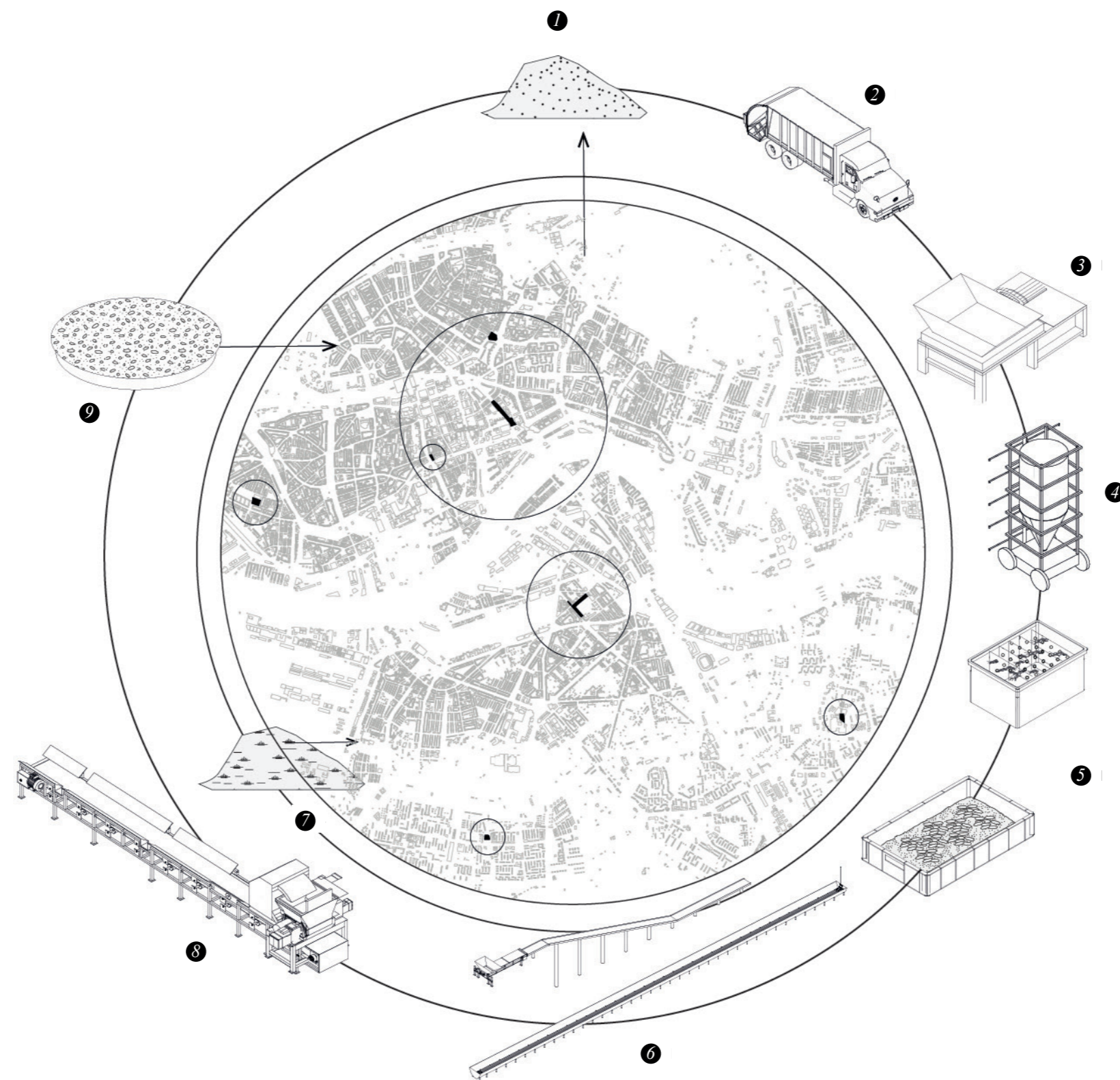
MIXED FLAVOUR PATTY
INGREDIENTS: 49% BLACK SOLDIERFLY PROTEIN
49% CRICKET PROTEIN



JIMINY PATTY
INGREDIENTS: 95% CRICKET PROTEIN

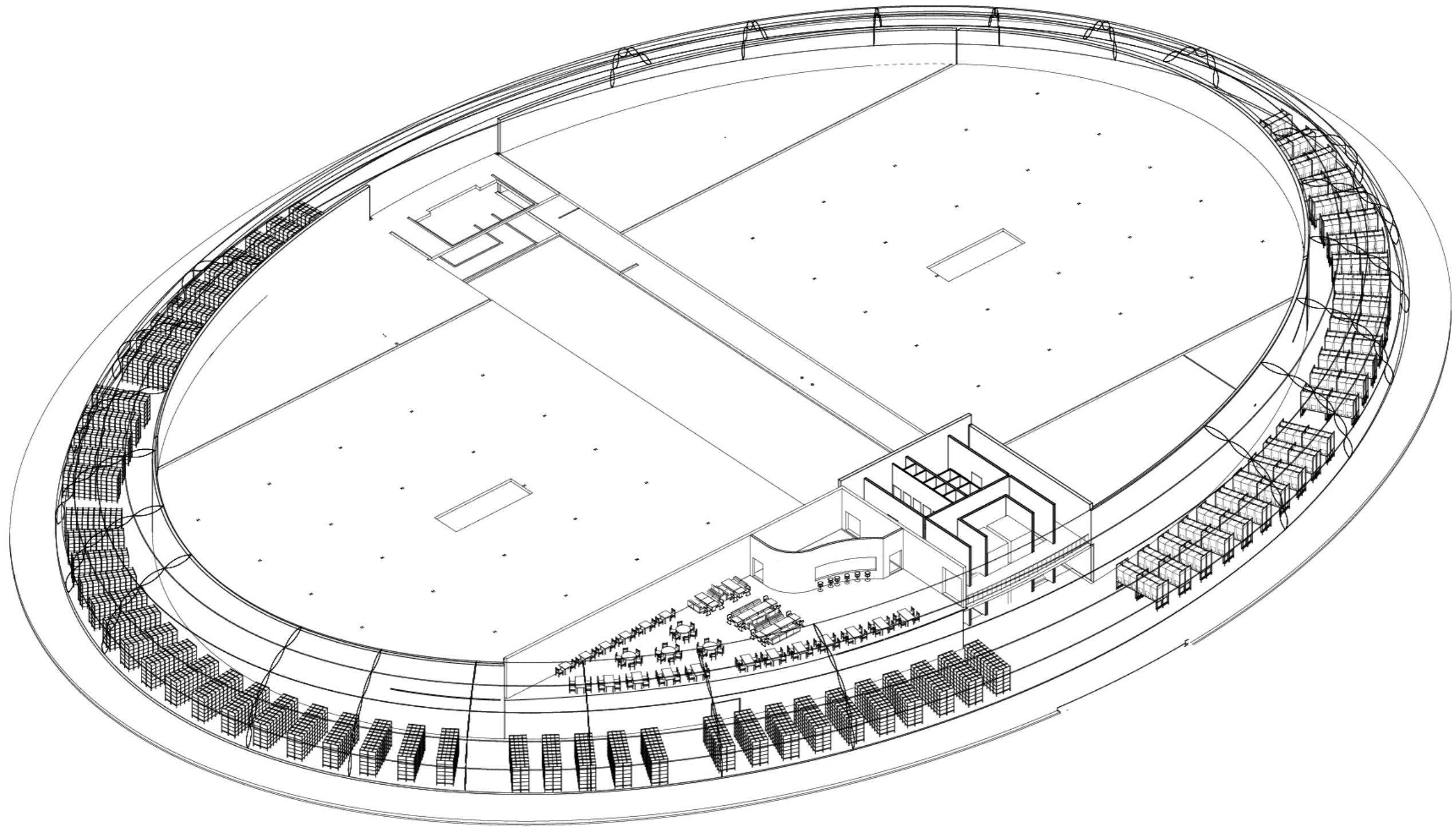


BURGER MACHINE

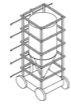


- | | | |
|------------------------|----------------------|-----------------------------------|
| 1 ORGANIC WASTE | 4 FEEDING TO INSECTS | 7 FRASS AS COMPOST TO MARKETS |
| 2 TRANSPORTING TO FARM | 5 FEEDING TO INSECTS | 8 MAKING INSECTS BURGER PATTY'S |
| 3 SHREDDING THE WASTE | 6 SEIVING | 9 PATTY'S TO THE MARKETS EN SHOPS |

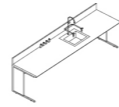
CIRCULARITY



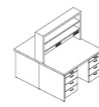
AGRI-CULTURE



MOBILE FEEDSILO



SINK



MOBILE LOVE RACK



EGG COUNTING



MOBILE COMPONENT RACK



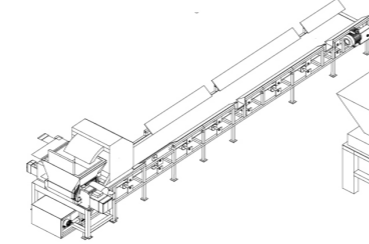
MOBILE TABLE



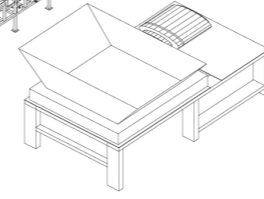
MOBILE LOVE RACK



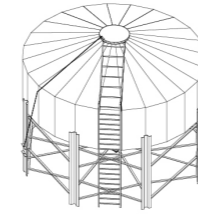
DARK CAGE



BURGER PRODUCTION LINE



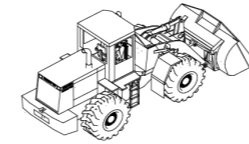
ORGANIC WASTE SHREDDER



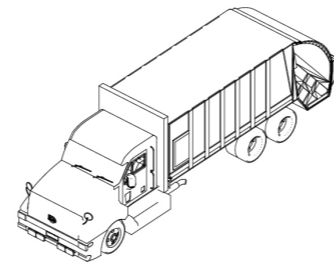
FEED SILO



FORKLIFT



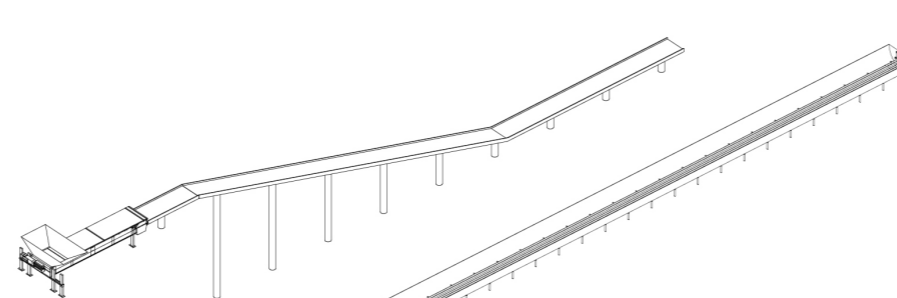
SHOVEL



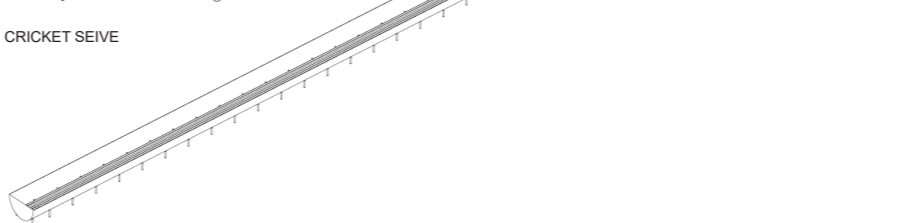
DUMPING TRUCK



DELIVERY BUS

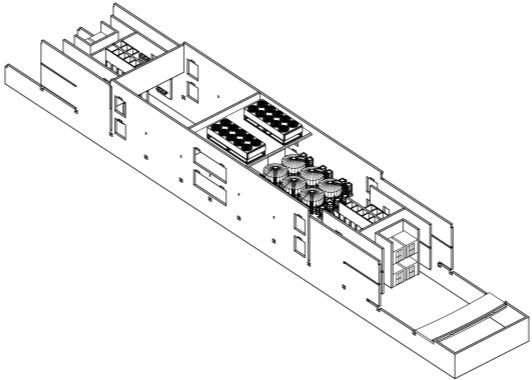


CRICKET SEIVE

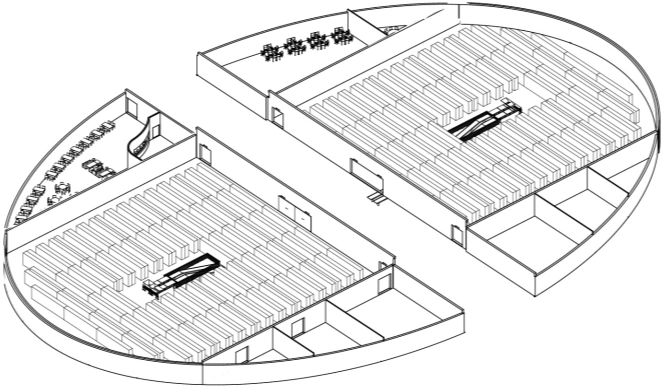


BLACK SOLDER FLY SEIVE

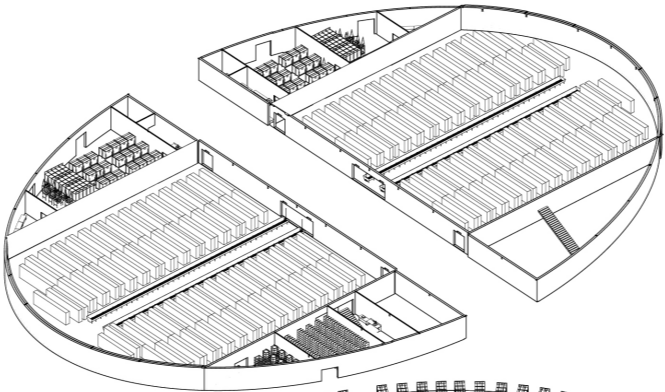
CENTRAL CORE
FACILITIES



RESTAURANT



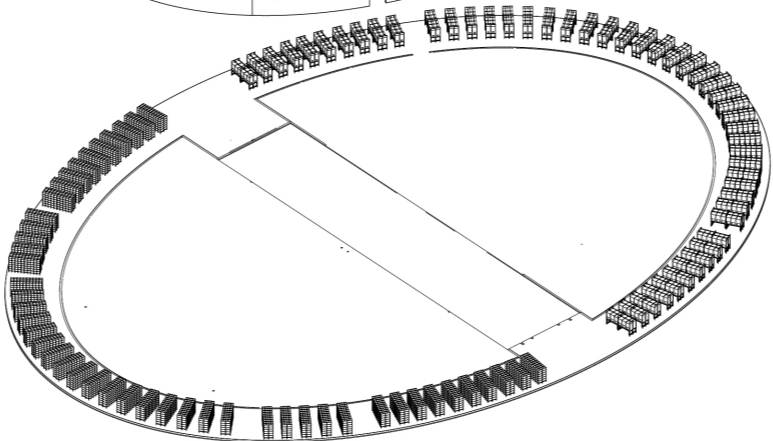
PRODUCTION CRICKET



INCUBATOR CHAMBER

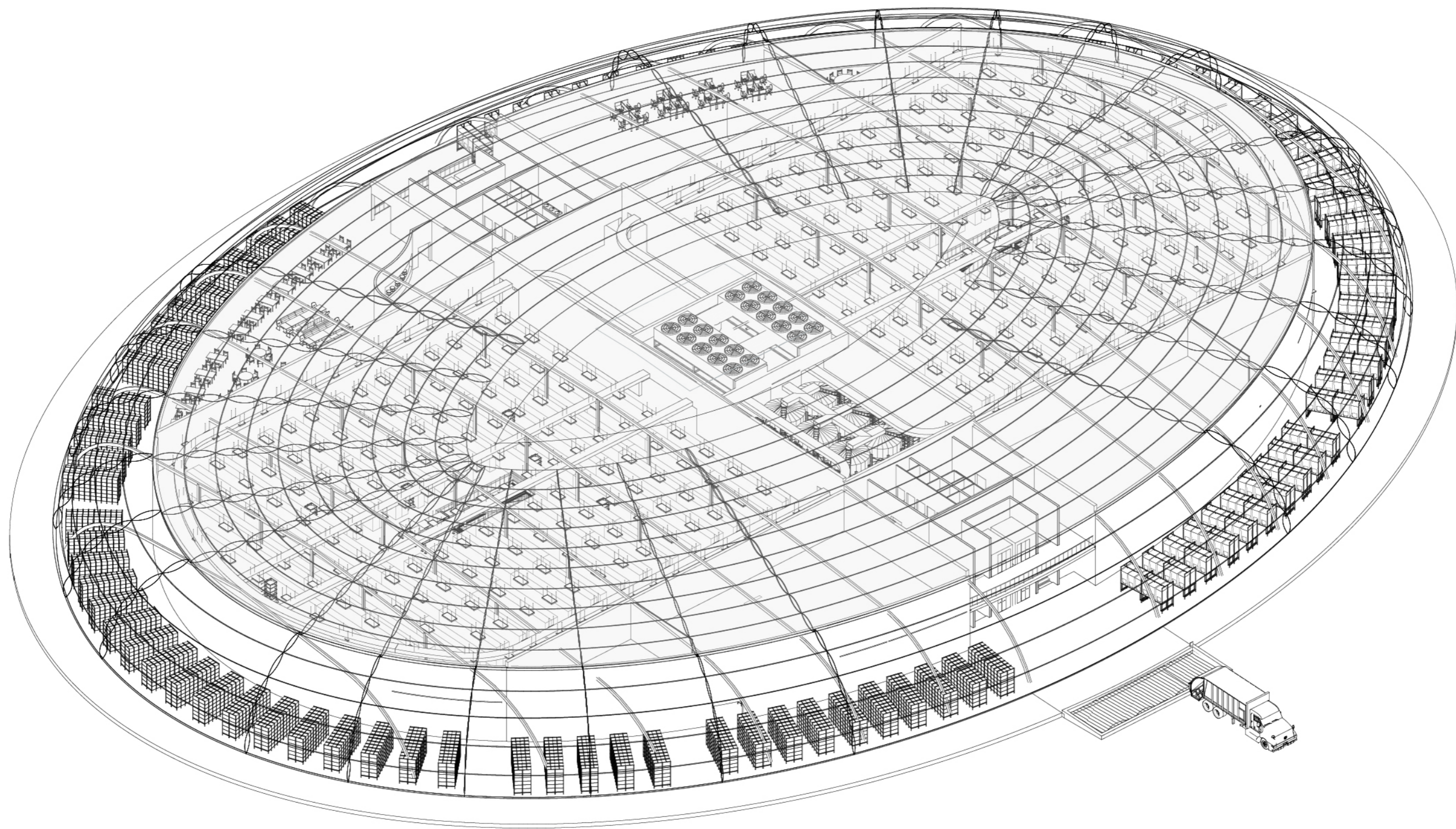
STORAGE

PRODUCTION BLACK
SOLDIER FLY

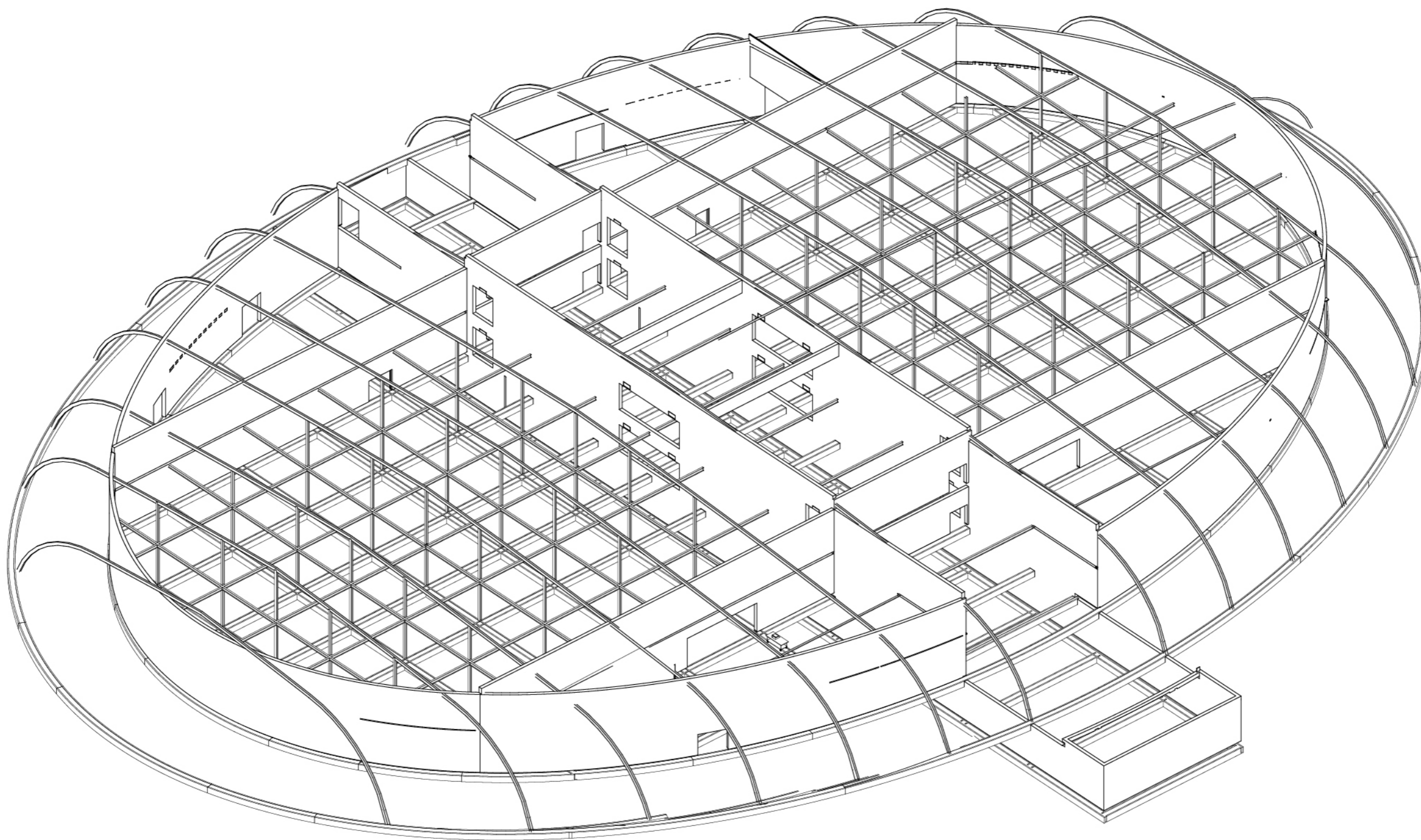


INSECT REPRODUCTION

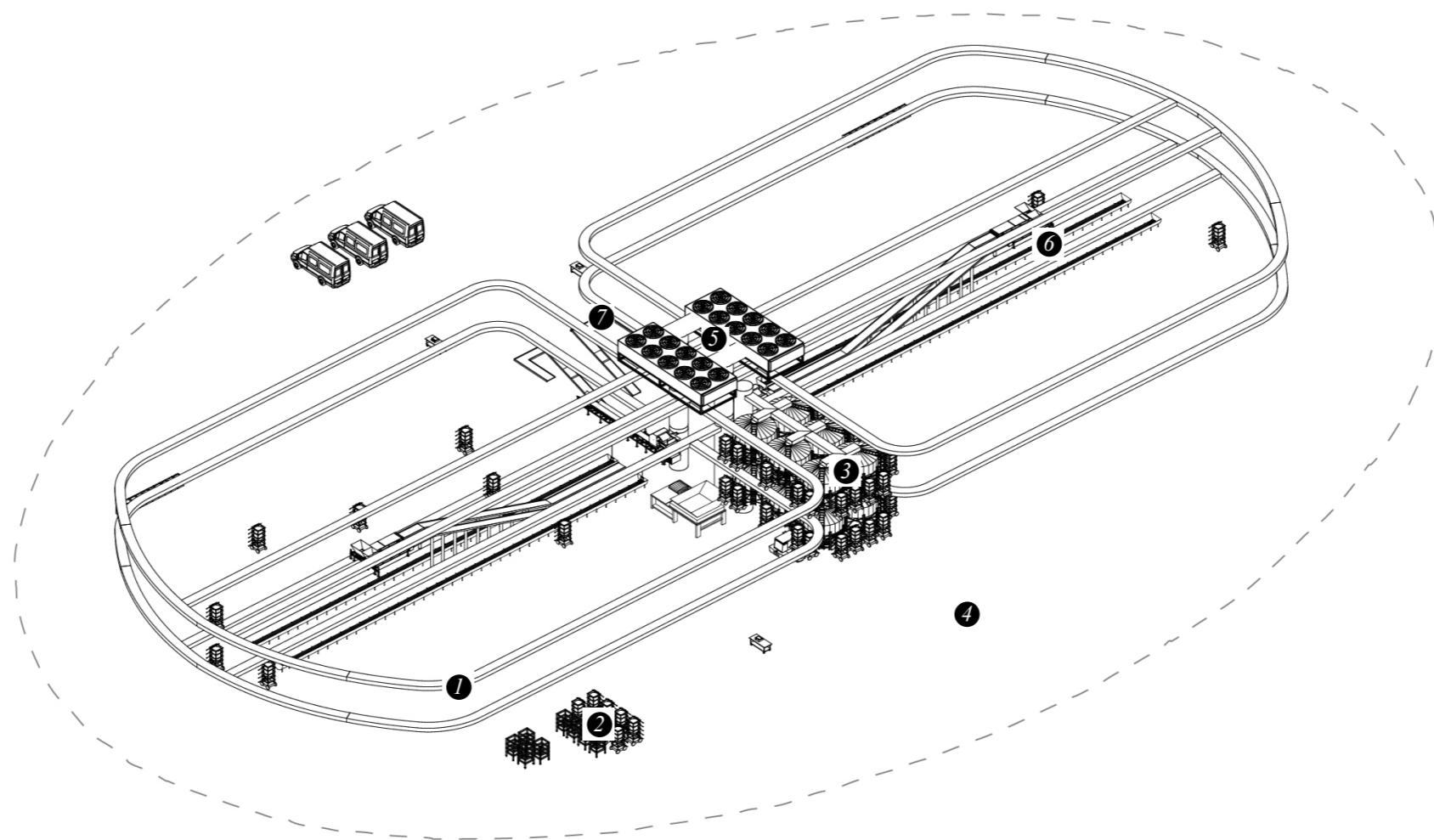
THE COMPACT MODEL



ARCHITECTURE

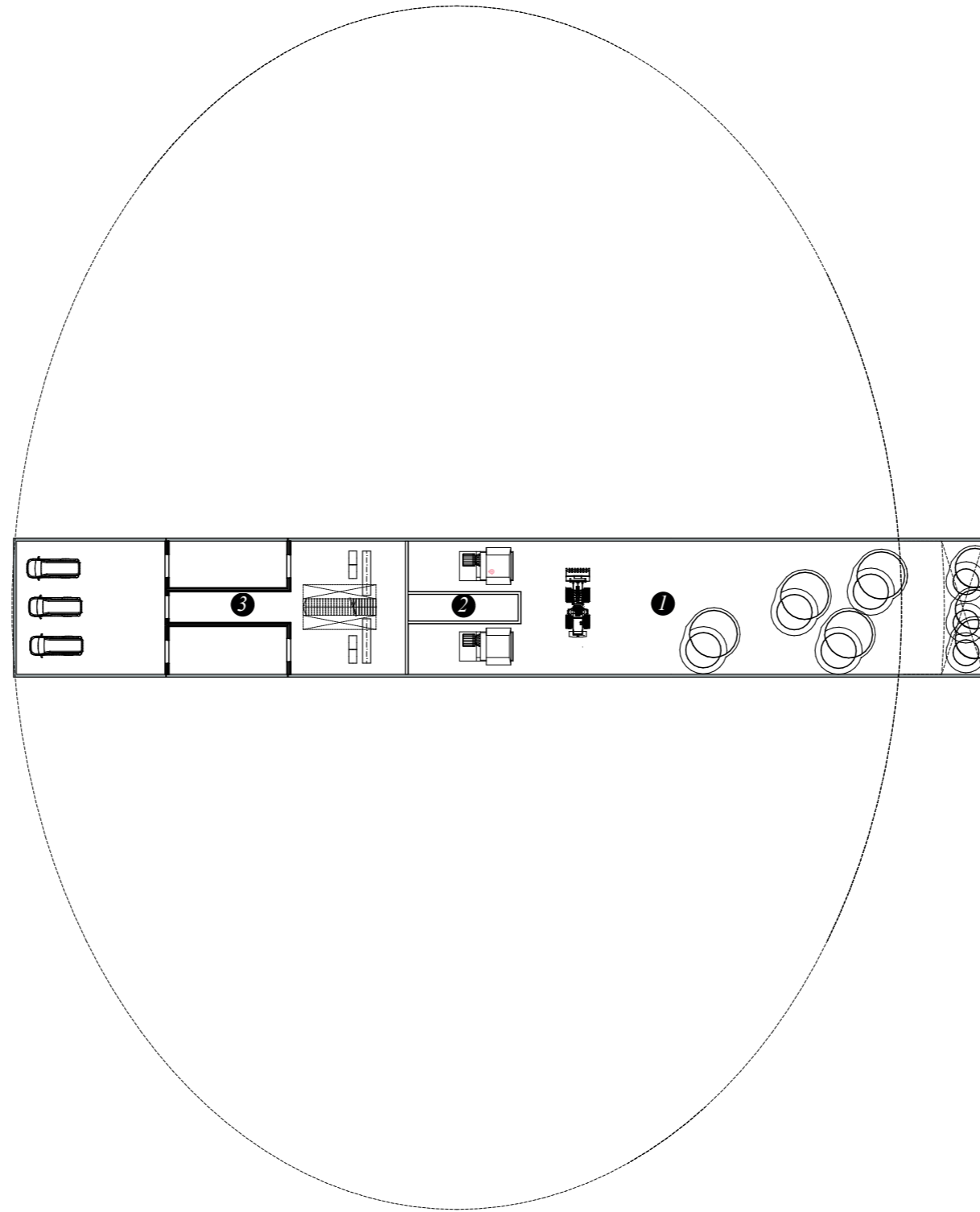


STRUCTURE



- ① VENTILATION
- ② MOBILE FEEDING SILO
- ③ FEED SILO
- ④ ORGANIC WASTE
- ⑤ VENTILATION UNIT
- ⑥ SEIVING
- ⑦ PRODUCTION LINE

INFRASTRUCTURE

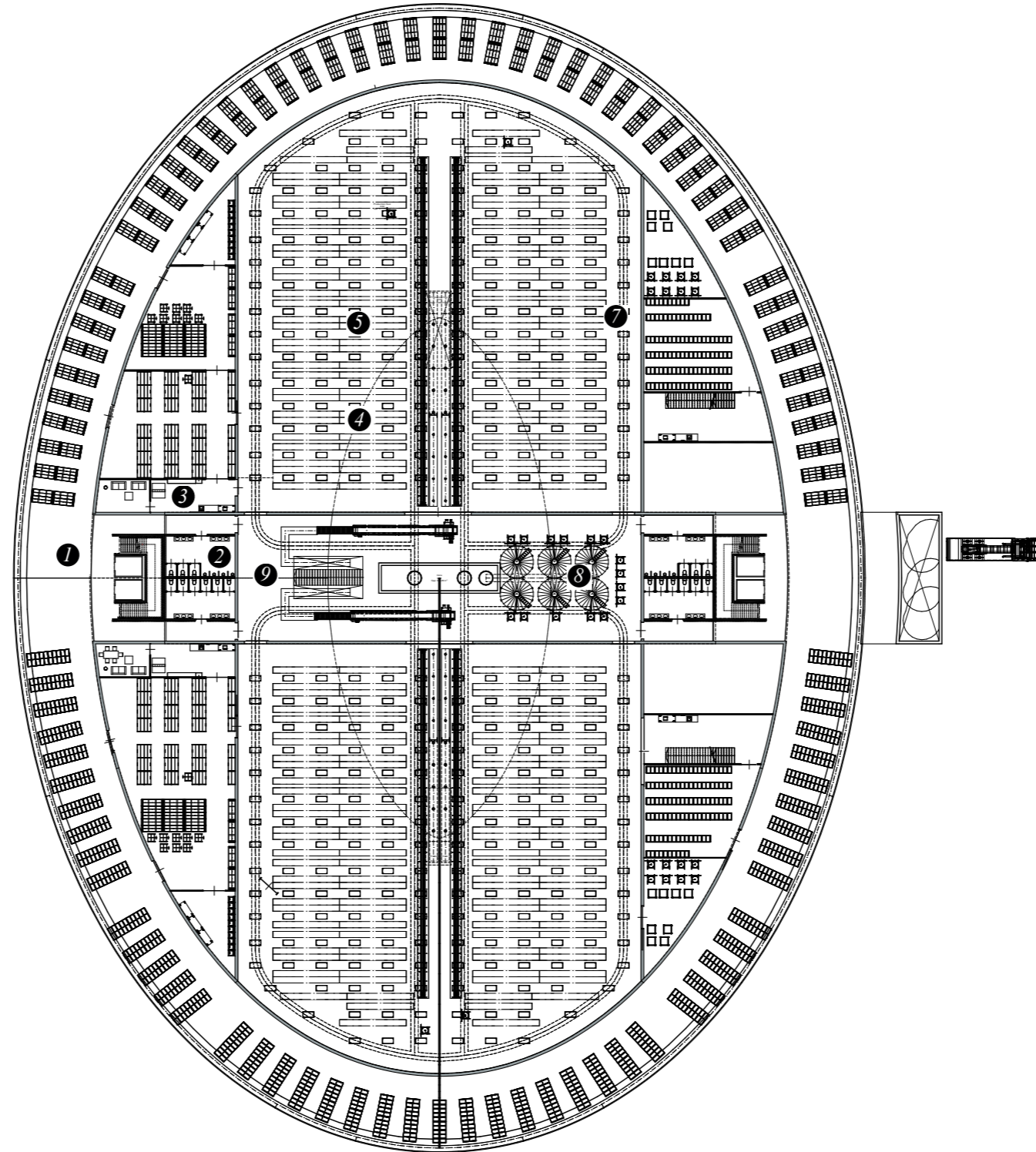


2 20

1 ORGANIC WASTE COLLECTION

2 VENTILATION SHAFT

3 PACKING/SHIPPING

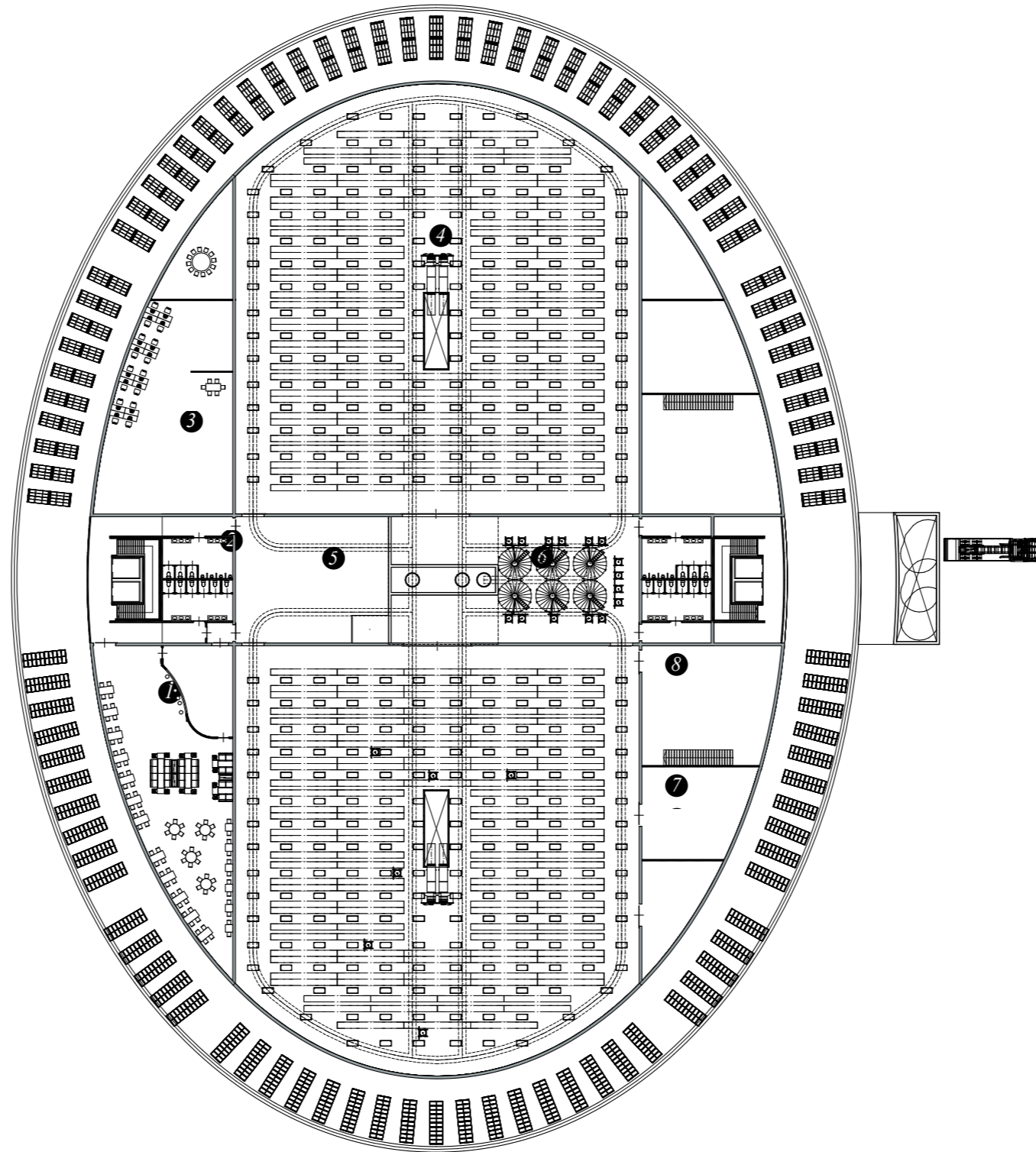


2 20

- 1 INSECT REPRODUCTION
- 2 TOILETS
- 3 LAB

- 4 INCUBATOR CHAMBER
- 5 STORAGE
- 6 LAUNDRY ROOM

- 7 PRODUCTION FLOOR BSF
- 8 FEED SILO
- 9 PRODUCTION LINE



2 20

- 1 RESTAURANT
- 2 TOILETS

- 3 OFFICE
- 4 PRODUCTION FLOOR CRICKET

- 5 KITCHEN
- 6 FEED SILO

- 7 STORAGE
- 8 PREPARATION ROOM

