



THE VERTICAL FARM

What is a vertical farm?

As the world's population grows, so does the land required to produce the needed food. The concept of a vertical farm was developed to remedy this crisis.

A vertical farm are farms stacked on top of one another, instead of branching out horizontally. Developed in 1999 by Professor Dickson Despommier, the farm uses conventional farming methods such as hydroponics and aeroponics to produce more yields faster.

How would this benefit New York?

New York imports nearly all of it's food products from hundreds of miles away. Since land is extremely expensive, there isn't land to grow crops. It can keep affording to import it's food since it's rich, however the environment, the Earth can't afford this.

A vertical farm would enable the growth of fresh fruits and vegetables in New York while reducing its carbon footprint.

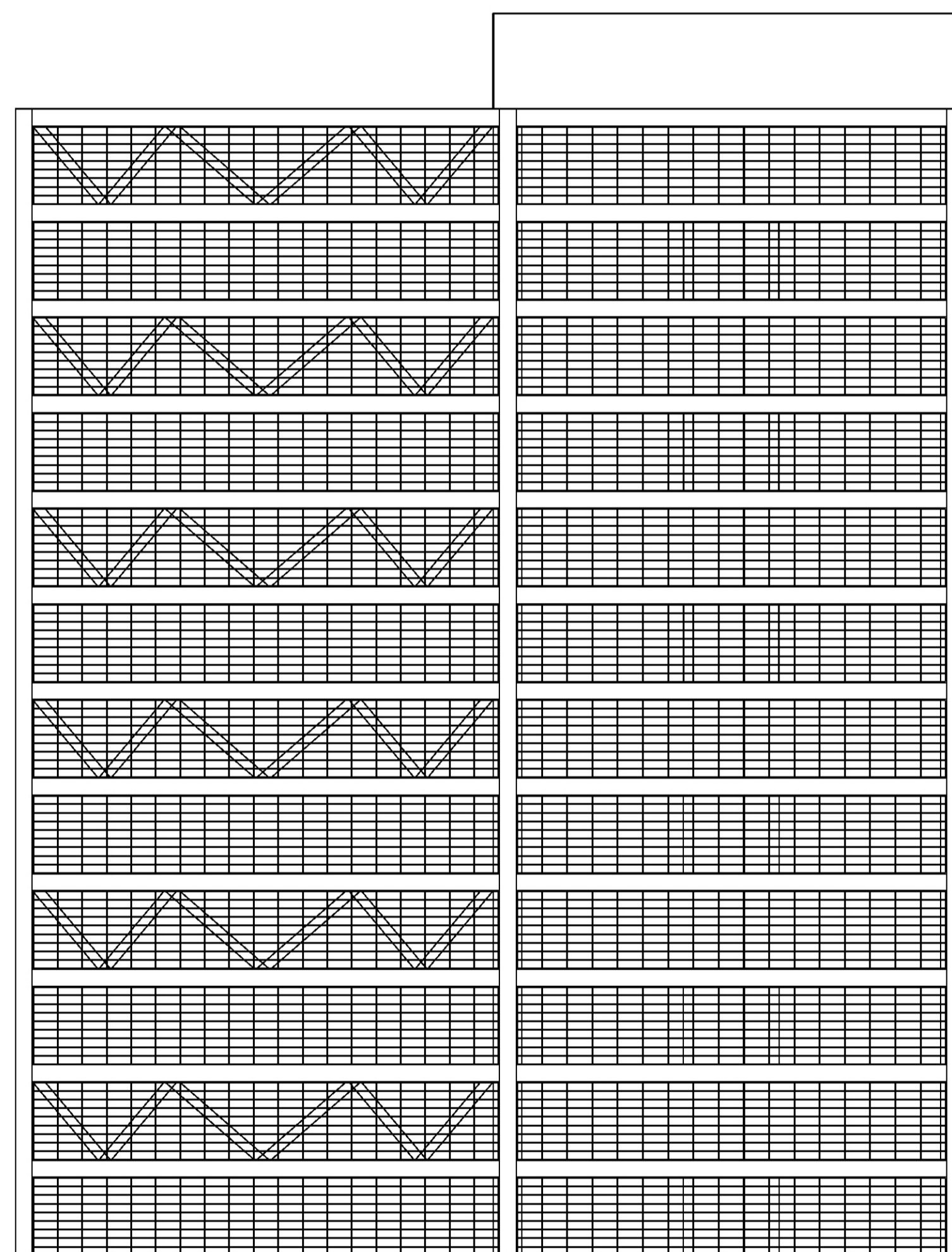
The vertical farm would also take advantage of the black and gray water of New York, as it would have blackwater treatment systems to recycle these wastes.

The vertical farms aims to be sustainable, it uses free energy from the sun, recycled water and biowaste (methane) to generate electricity.

What is its program?

The strategy for this vertical farm is to maximise sunlight penetration and provide facilities for the public and commercial sectors.

The crops areas are placed on top and envisaged to the south, to take advantage of the southern sun. A scaffold frame structure and mesh to keep the farm area light.



Trafficable roof for those that enjoy New York scenery.

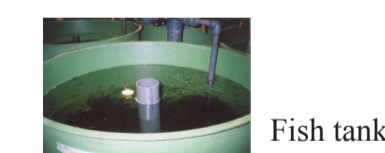


Commercial areas are on the higher levels for higher exposure to sunlight. Grown vegetable and fruits will be sold on site or be transported to various locations.



Hydroponic Aeroponic

New York doesn't have allocated plots for the community to grow their garden vegetables. The vertical farm provides areas for the community to harness the contemporary methods of growing crops.



Fish tank

Fish water contains nutrients that are highly beneficial for plants.

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Educational facilities for the community to learn methods of growing crops.

A market on the ground floor is to take advantage of the public locality of the building and for circulation efficiency.

