CONCEPT

AN INITIAL IDEA AND INFINITE POSSIBILITY, ALSO SUSTAINABLE AND ENERGY-SUFFICIENT.

URBAN SKYFARM

Design Studio | Aprilli **Location** | Seoul, S. Korea **Area** | Sky farm (144,450 m2), Hydroponic Farm (13,350 m2) **Height** | Sky farm (160 m), Hydroponic Farm (45 m)

The Urban Skyfarm is a vertical farm design proposal for a site located in downtown Seoul, right adjacent to the Cheonggyecheon stream which is a heavily populated dense urban area within the central business district. Inspired by the ecological system of giant trees, the Urban Skyfarm is a prototype vertical farm project which would mainly support local food production and distribution while at the same time contribute to improving the environmental quality through water, air filtration and renewable energy production.

Through lifting the main food production field high up in the air, the vegetations gain more exposure toward the natural sunlight and fresh air while the ground level becomes more freed up with nicely shaded open spaces which could be enjoyed by the public. The bio mimicry of the tree form gives many structural and environmental advantages to form a

light weight efficient space frame which could host diverse farming activities. The four major components which are the root, trunk, branch and leaf each have their own spatial characteristics which are suitable for various farming conditions.

While the upper portions provide open to air farming decks for medium based vegetations, the lower portions enclosed by the structural skin provide more controlled environments for solution based leafy productions. During daytime the photovoltaic panels generate electricity to be used for night time lighting and heating to support farming. The Urban Skyfarm creates a mini ecosystem which brings balance back to the urban community.

The Tree-like form creates a strong iconic figure in the prominent location and becomes a symbol of well being and sustainable development. Together with the Cheonggyecheon stream, the Urban Skyfarm will become a nice destination place for people seeking for fresh food, air and relaxation within their busy urban life.