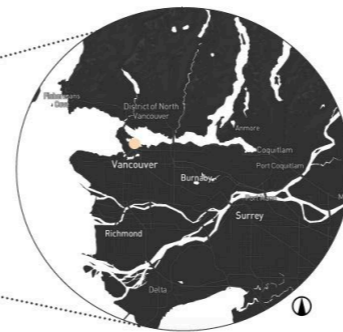


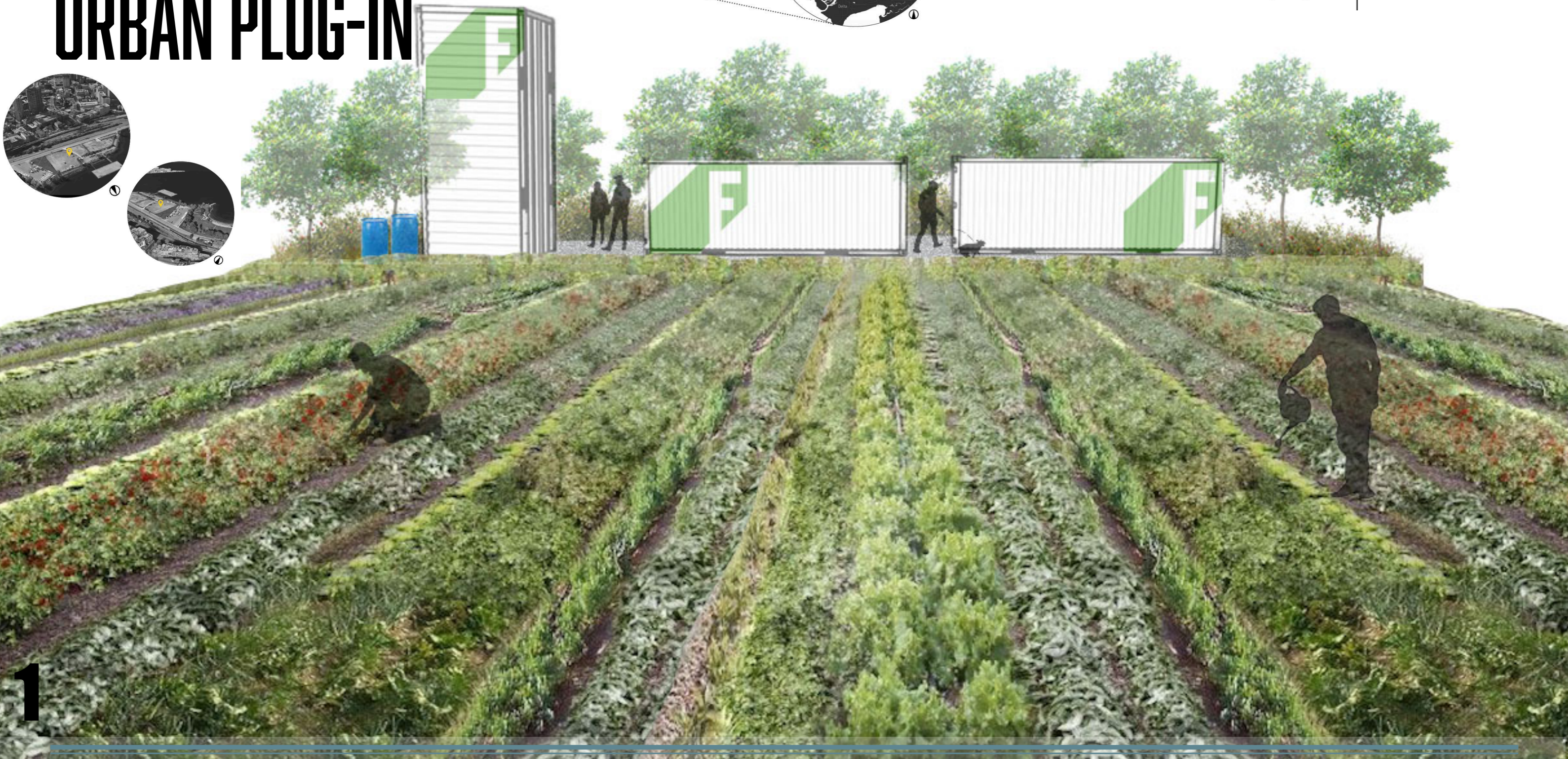
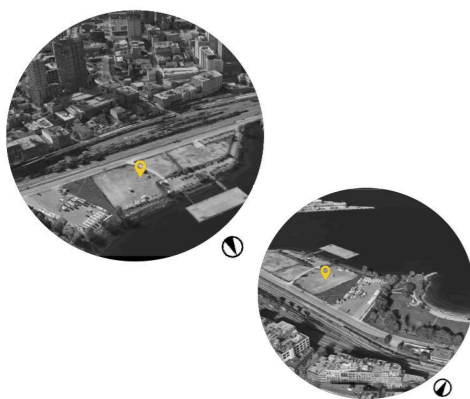
GASTOWN URBAN PLUG-IN

VANCOUVER, BC
49° 17'9.10"N
123° 6'21.04"W



EFFECTS OF CLIMATE CHANGE ON VANCOUVER

- Coastal flooding
- Low-lying agricultural lands becoming too saline for cultivation
- Drinking water decreasing in quality and quantity
- Increased rainfall
- Droughts and soil erosion
- Worsened growing seasons



1

Country / City	Canada, Guelph
University / School	University of Guelph
Academic year	2020
Title of the project	Gastown Urban Plug-In
Authors	Chloé Brown



TECHNICAL DOSSIER

Title of the project	Gastown Urban Plug-In
Authors	Chloé Brown
Title of the course	Capstone Design
Academic year	2020
Teaching Staff	Nadia Amoroso and Sean Kelly
Department/Section/Program of belonging	Bachelor of Landscape Architecture
University/School	University of Guelph



Written statement, short description of the project in English, no more than 250 words

The Gastown Urban Plug-In is to become a center for urban agriculture in the City of Vancouver. Urban agriculture provides many benefits, such as greening the city, improving biodiversity, making use of under-utilized spaces, and producing food closer to home. Urban farming also enhances the local food economy by creating green jobs, building skills, and shortening food supply chains. The Plug-in is not only an urban farm, but it is a trendy area for people to escape from the city. The Plug-In also incorporates many technologies to help the site function, such as rainwater barrels, vertical farming, hydroponics, solar panels, and an app. Through the use of recycled shipping containers, a market place was created where people can shop and enjoy the site. Within these shipping containers, there are also hydroponic farms so that in the winter months, food can still be grown. Local artists also display their art on the containers to maintain the aesthetics of the space. This space is a destination for events, leisure, and more within the various seasons. By planting various species on the site, it is rich in biodiversity and has become a space for not only the people of Vancouver but also many other species. Through the implementation of the Plug-in, many issues will be addressed, including food security, lessening the effects of air pollution, and increased rainfall. The Plug-In being an adaptable design that can be seen in Vancouver and other cities around the world.

For further information
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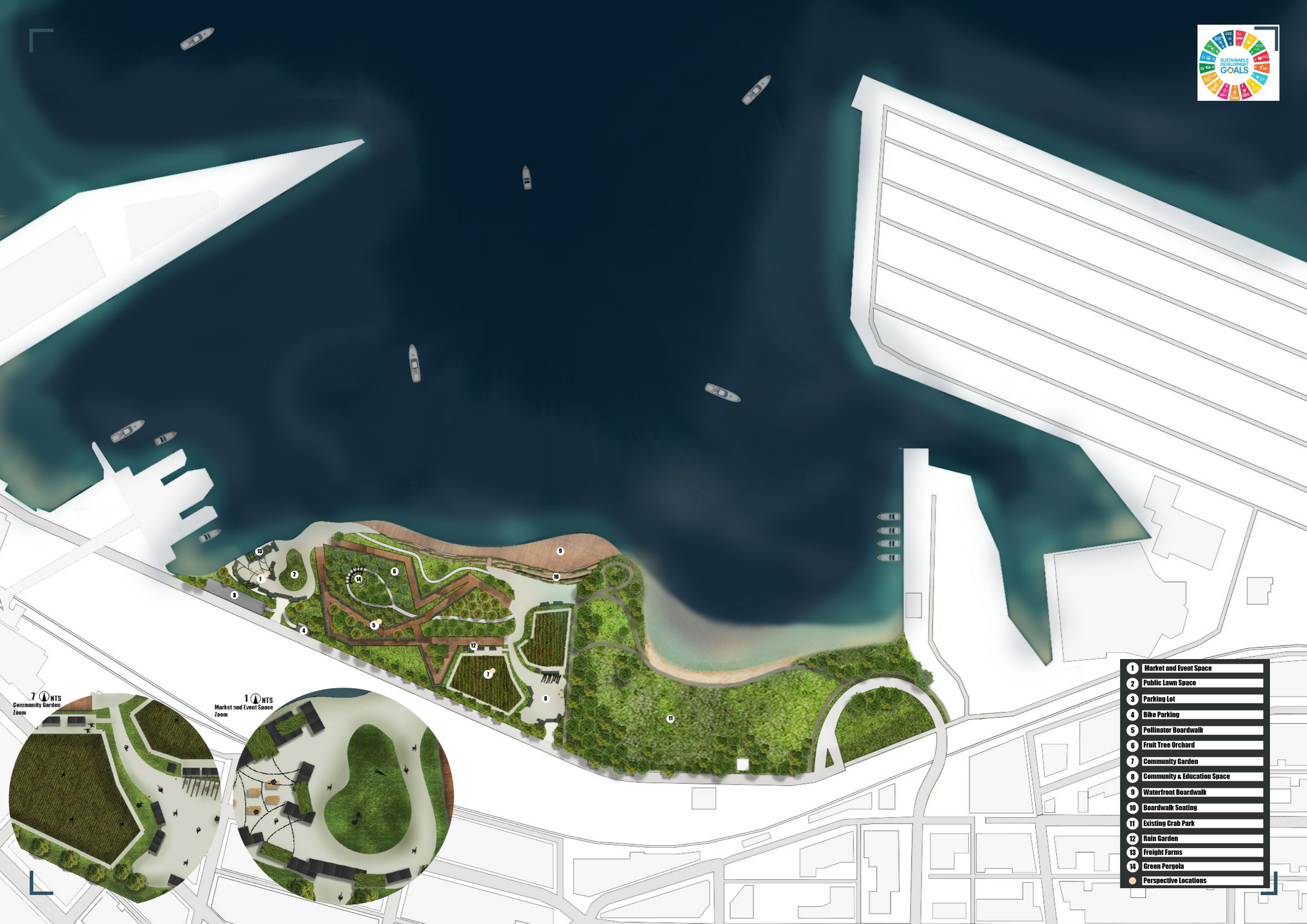
Máster d'Arquitectura del Paisatge -DUOT - UPC
ETSAB- Escola Tècnica Superior
d'Arquitectura de Barcelona
Avenida Diagonal, 649 piso 5
08028 Barcelona-Spain



CLIMATE CHANGE AGAIN

11th International Biennial Landscape Barcelona

Barcelona September 2020
SCHOOL PRIZE



- 1 Market and Event Space
- 2 Public Lawn Space
- 3 Parking Lot
- 4 Bike Parking
- 5 Pollinator Boardwalk
- 6 Fruit Tree Orchard
- 7 Community Garden
- 8 Community & Education Space
- 9 Waterfront Boardwalk
- 10 Boardwalk Seating
- 11 Existing Crab Park
- 12 Rain Garden
- 13 Freight Farms
- 14 Green Pergola
- Perspective Locations



THE PLUG-IN



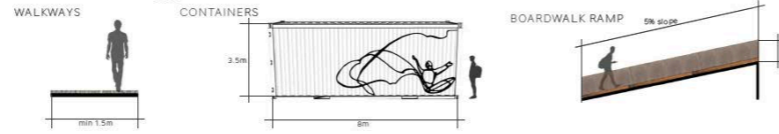
ACTIVITIES

- Container Farming & Market Place
S S I W
- Pollinator Boardwalk & Orchard
S S I W
- Waterfront Boardwalk
S S I W
- Community Garden
S S I W

GOALS

- Support Local Artists
- Promote Community Engagement & Provide Food Security
- Enhance Biodiversity
- Urban Agriculture Education
- Reduce Impacts of Climate Change

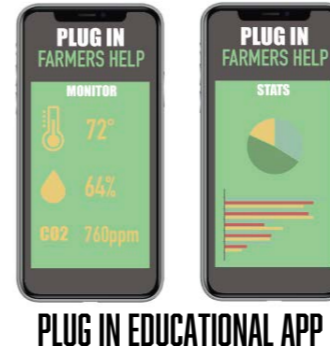
DETAILS



MATERIALS

- Recycled Steel (Siding of Boardwalk)
- Recycled Plastic (Boardwalks)
- Permeable Pavers (All walkways)

TECHNOLOGIES



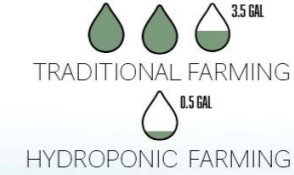
PLUG IN EDUCATIONAL APP



FREIGHT FARMS
CONTAINER FARMS
HYDROPONIC FARMING COMPANY

HYDROPONIC FARMING DEFINITION
"THE CULTIVATION OF PLANTS BY PLACING THE ROOTS IN LIQUID NUTRIENT SOLUTIONS RATHER THAN IN SOIL; SOILLESS GROWTH OF PLANTS"
365 PERFECT DAYS OF GROWTH

AMOUNT OF WATER TO GROW ONE HEAD OF LETTUCE



PRODUCE

- Carrots (*Daucus carota*)
- Tomatoes (*Solanum lycopersicum*)
- Kale (*Brassica oleracea*)
- Lettuce (*Lactuca sativa*)
- Peas (*Pisum sativum*)
- Cherry Tomatoes (*Solanum lycopersicum*)
- Asparagus (*Asparagus officinalis*)
- Cabbage (*Brassica oleracea var. capitata*)
- Apples (*Malus domestica*)
- Strawberries (*Fragaria x ananassa*)
- Peaches (*Prunus persica*)
- Chards (*Beta vulgaris*)



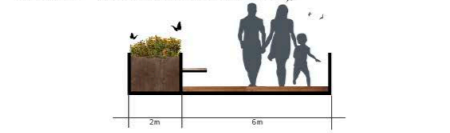
URBAN AGRICULTURE



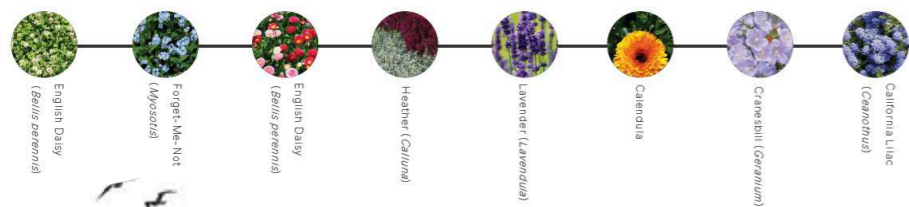
SECTION AA' COMMUNITY FIELDS NTS



SECTION CC' - BOARDWALK AND SEATING NTS



SECTION DD' - POLLINATOR BOARDWALK NTS



WINTER INTEREST

SPECIES

VEGETATION

1 COMMUNITY FIELDS

The Community Garden reflects traditional urban agriculture and community engagement. This is a space where visitors can go and have a hands on experience, and learn more about agriculture. Visitors can also come and pick their own produce to take home

2 MARKET SPACE/CONTAINER FARMS

The Market Place is the main attraction on the site. It is multi-use and multi-seasonal space where visitors can relax, get some food and learn more about urban agriculture

3 POLLINATOR BOARDWALK

The Pollinator Boardwalk maintains connectivity throughout the site while also educating visitors on pollinator plants and their biological benefits.



URBAN AGRICULTURE

Eating locally grown food reduces ecological footprints, decreases waste from packaging, and eases concerns about food safety. Local food is also often fresher, more nutritious, and better tasting.

VANCOUVER'S COMMUNITY GARDENING ORGANIZATIONS



VANCOUVER'S GREENEST CITY PLAN

5/ ACCESS TO NATURE

7/ LOCAL FOOD

8/ CLEAN AIR



BENEFITS

SOCIAL: Youth Development & Education, Food Security, Safe Space

HEALTH: Healthy Foods, Physical Activity, Healthy Eating, Improving Mental Health

ECONOMIC: Local Economic Simulation, Job Growth, Food Affordability

ECOLOGICAL: Conservation, Stormwater Management, Biodiversity Improvement, Reducing Effects of Climate Change

