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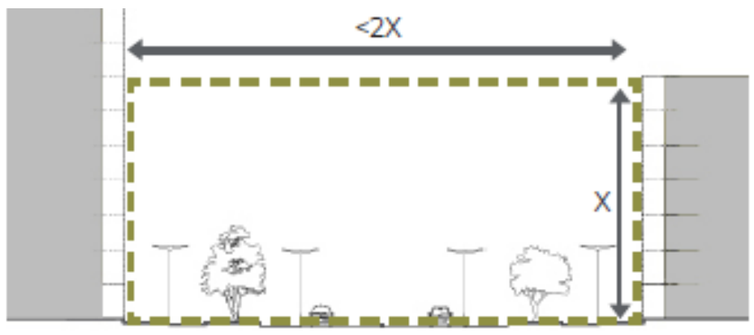
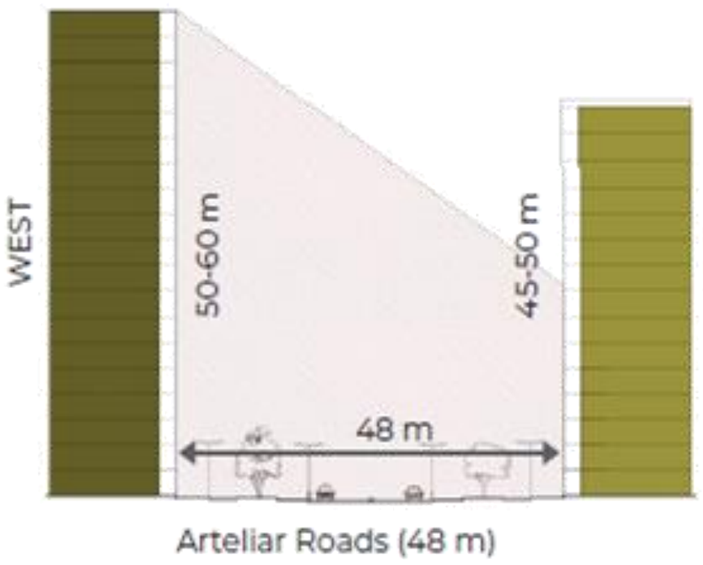
619050-EPP-1-2020-1-DE-EPPKA2-CBHE-JP

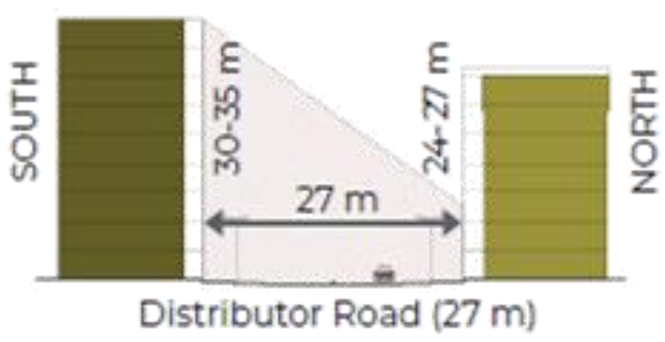
CLIMATE AND BUILDING DESIGN STRATEGIES

Building Heights: Enclosure and Orientation

1) Enclosure - Minimum ratio of 1:2 of building heights to street widths need to be achieved specially for major arteliar and sub-arteliar roads to achieve enclosure.

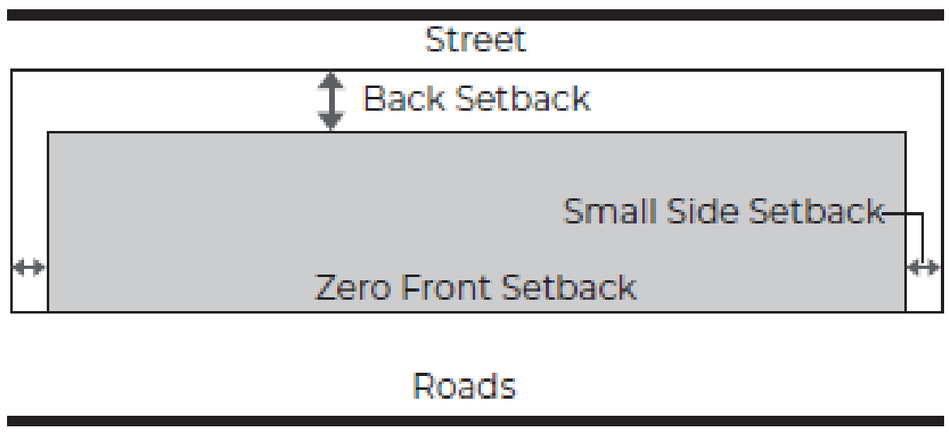






Light and Shadow configuration for different sizes of roads.

There should be no front setback from the main roads and access should be given through streets at the backside of the built form



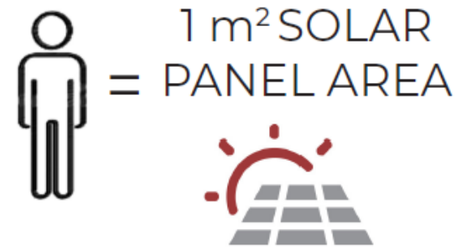
Renewable Energy System

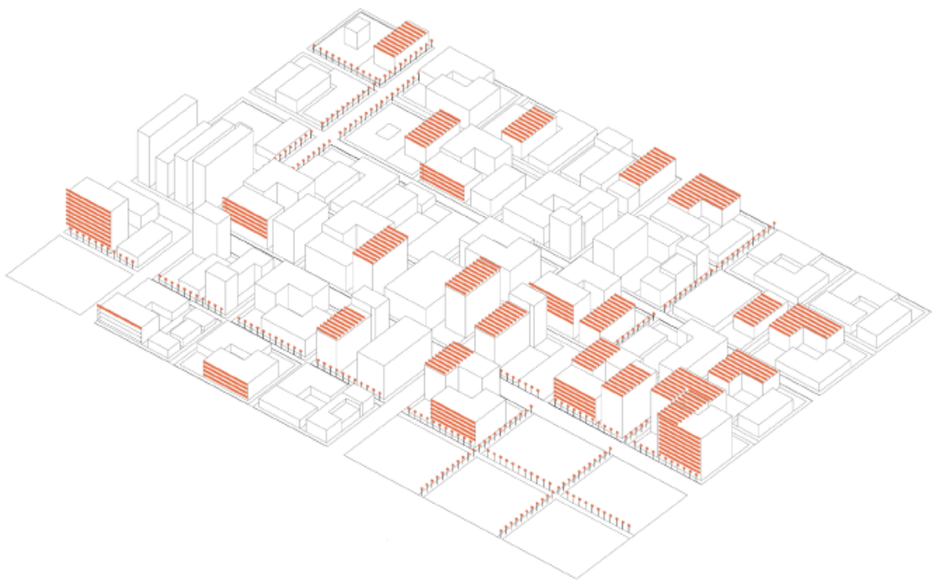
1) Calculating Area for Solar Energy Production

Energy consumption per capita per day is = 1.5 kWh

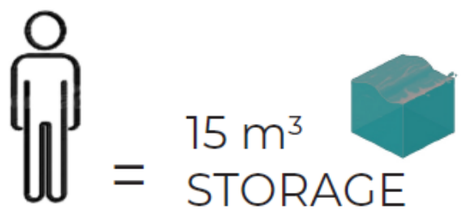
Energy produced by 1m x 2m 360W solar panel in a day = 360 x 8 = 2880 Wh = 2.8 kWh

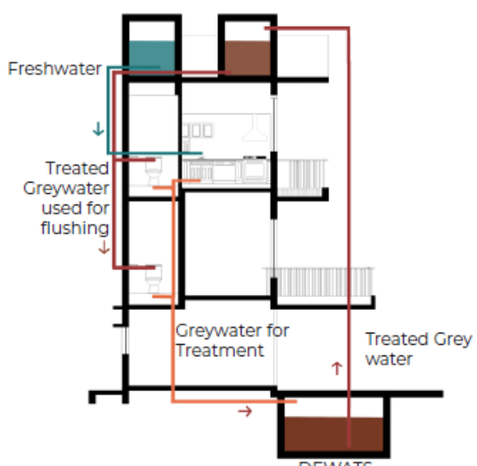
Area required for one person energy production is = $\frac{(1.5\ kWh \times 2m^2)}{(2.8\ kWh)}$ = 1.07 ~ 1 m²

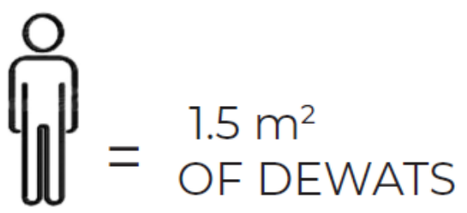




Water

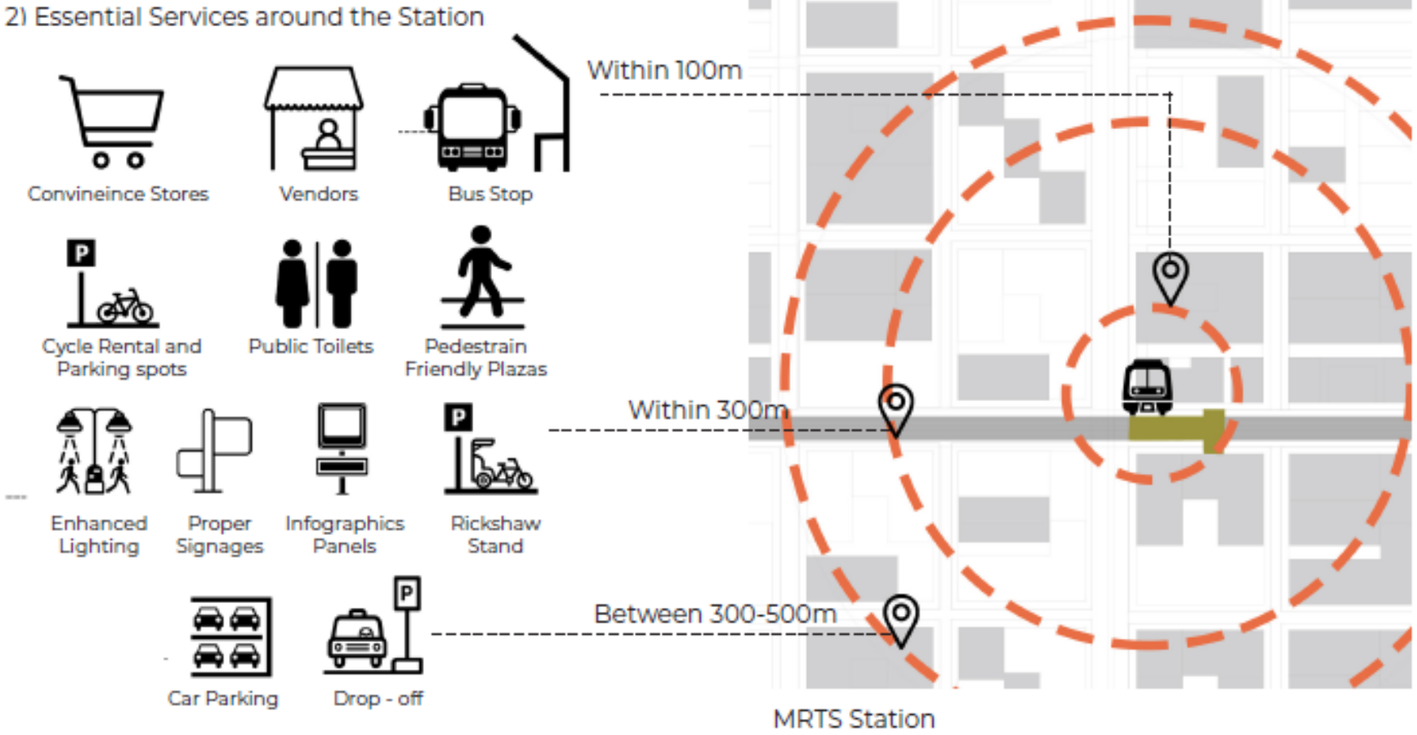


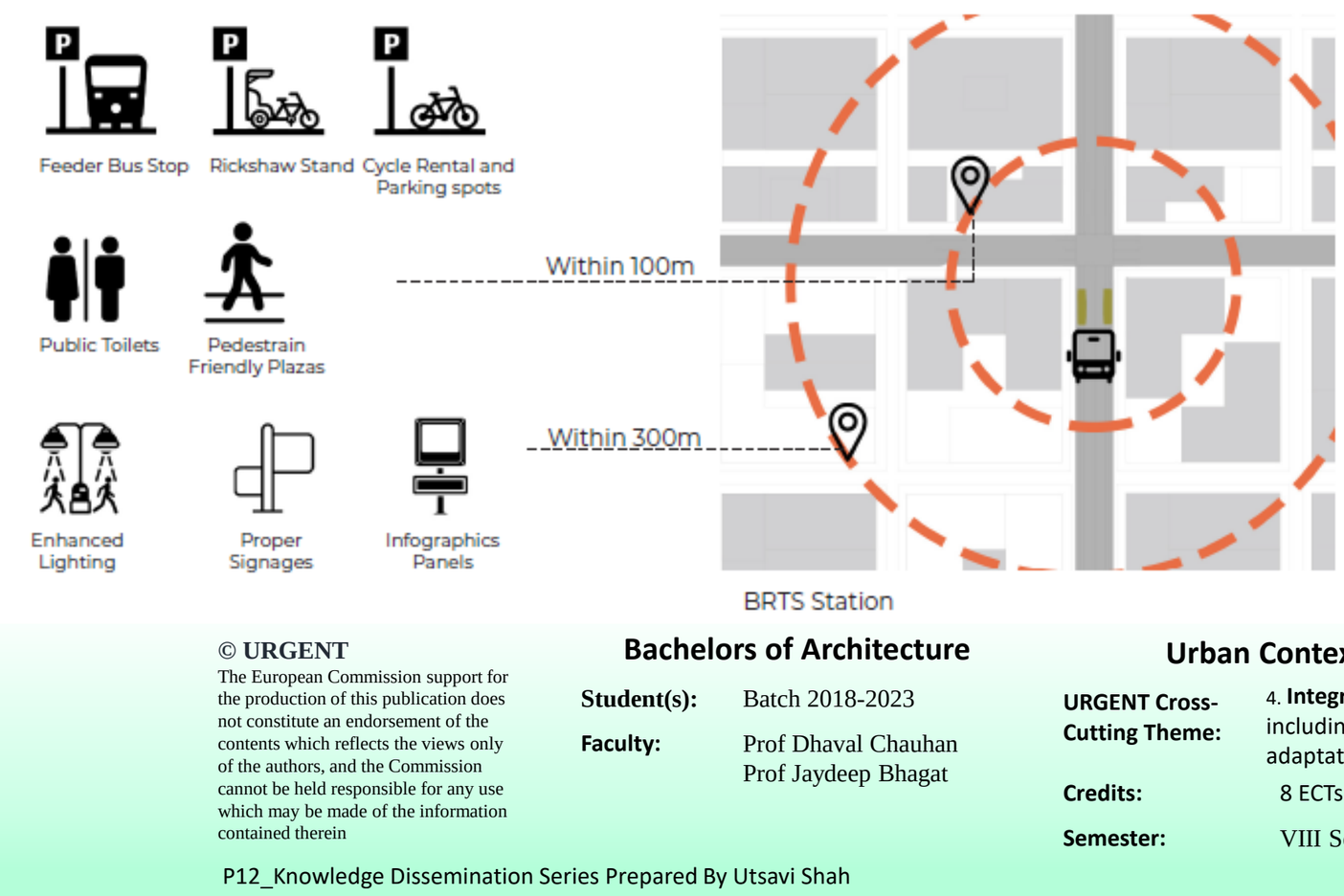




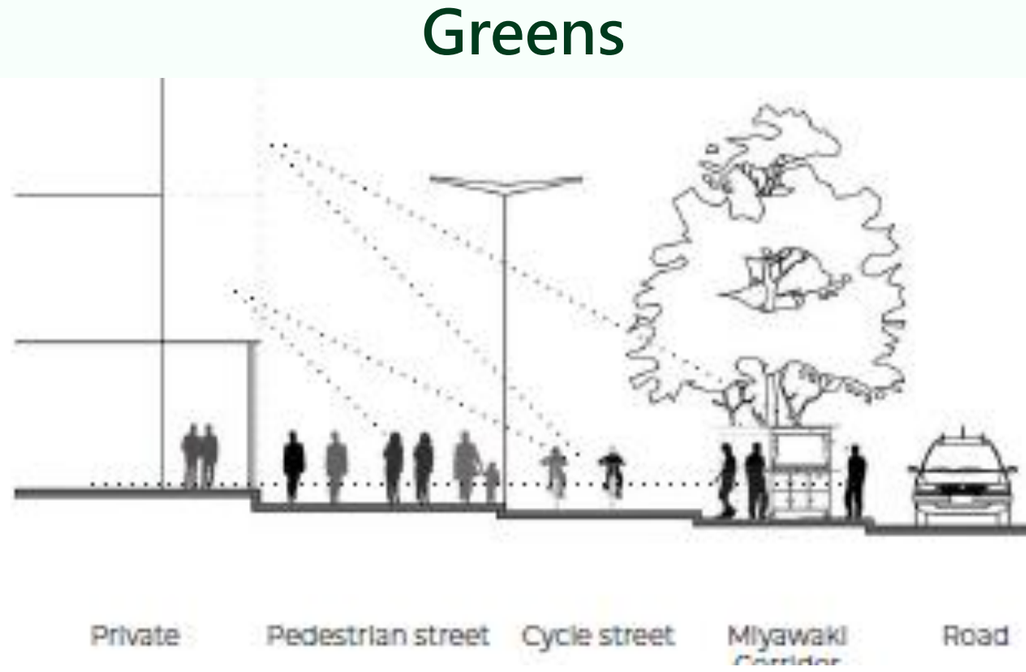
Last Mile Connectivity and Infrastructure Development

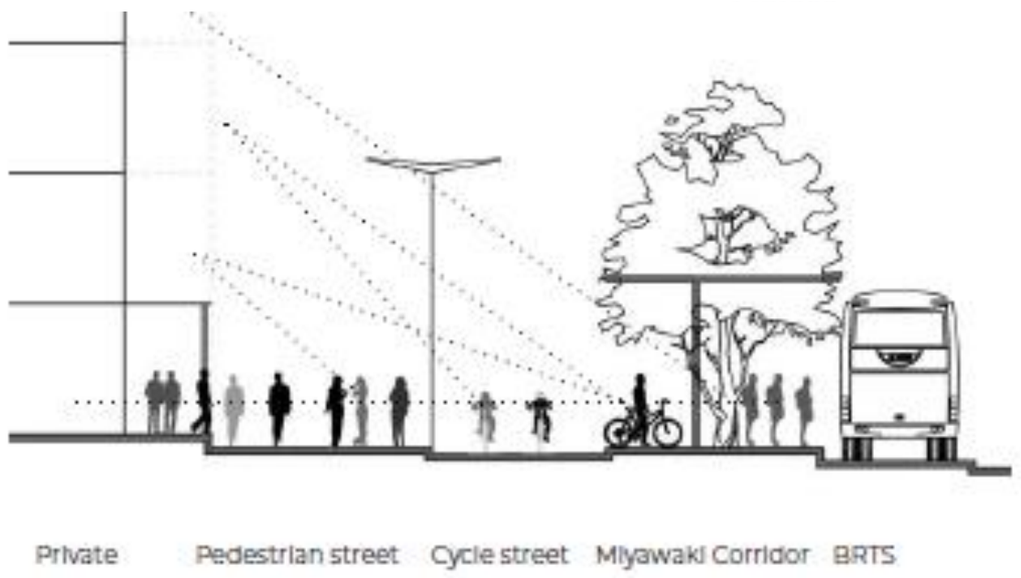
2) Essential Services around the Station





Road Sections With Integrated Greens





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Prof Jaydeep Bhagat

Urban Context Studio (Updated Course)

URGENT Cross-Cutting Theme: 4. **Integrative Smart Green & Blue Urban Planning**, including science, policy and management for adaptation, mitigation and urban NBS

Credits: 8 ECTs **Type of Course:** Studio

Semester: VIII Sem **Year** 2022

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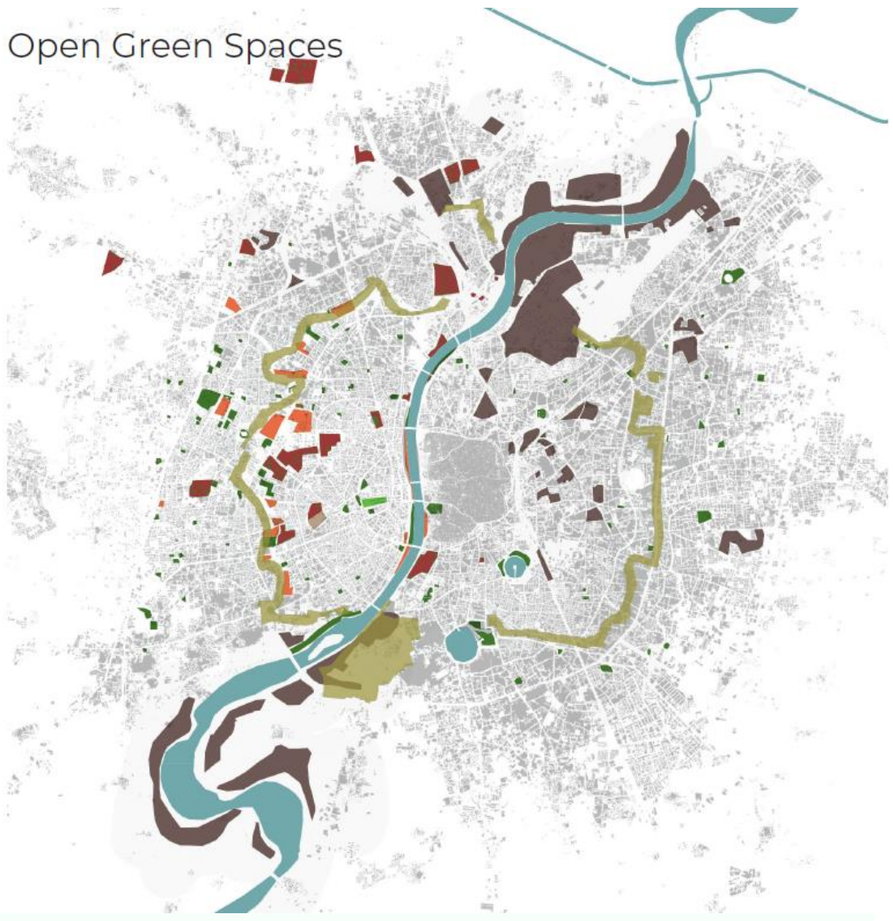
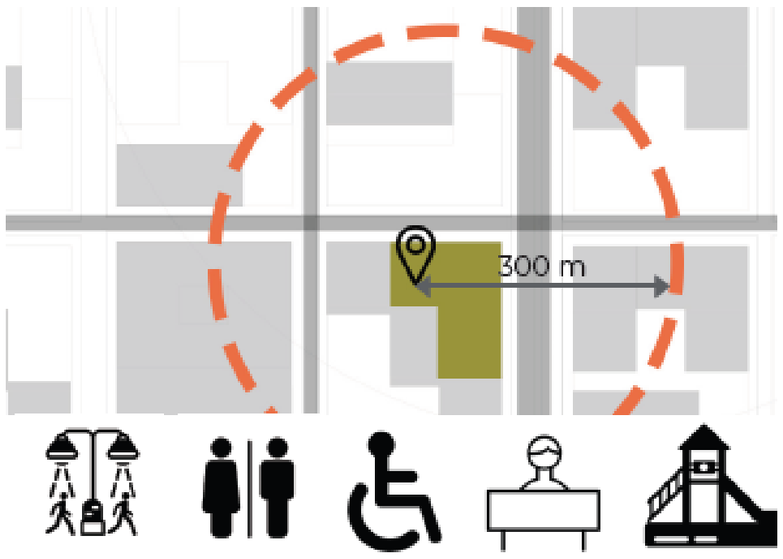
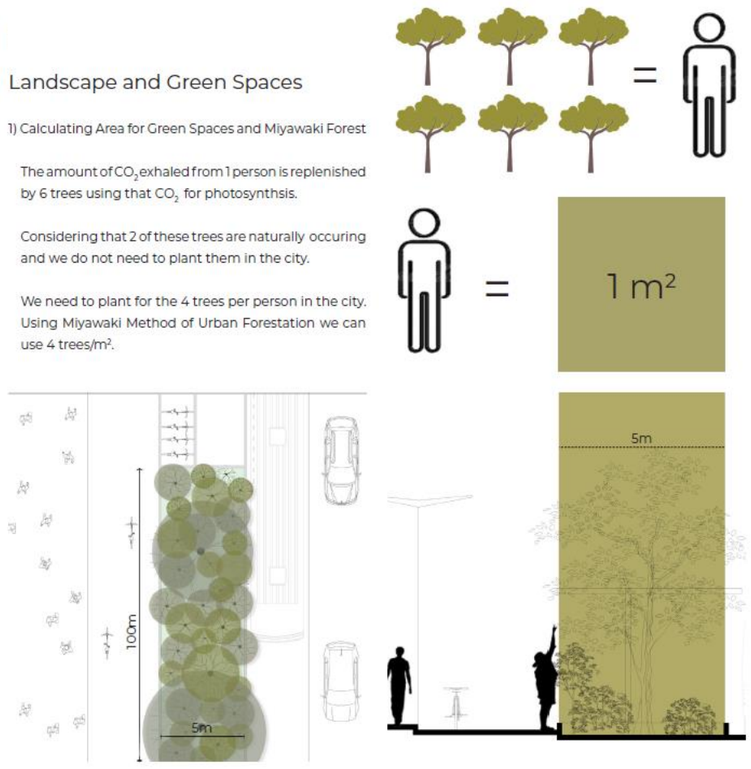
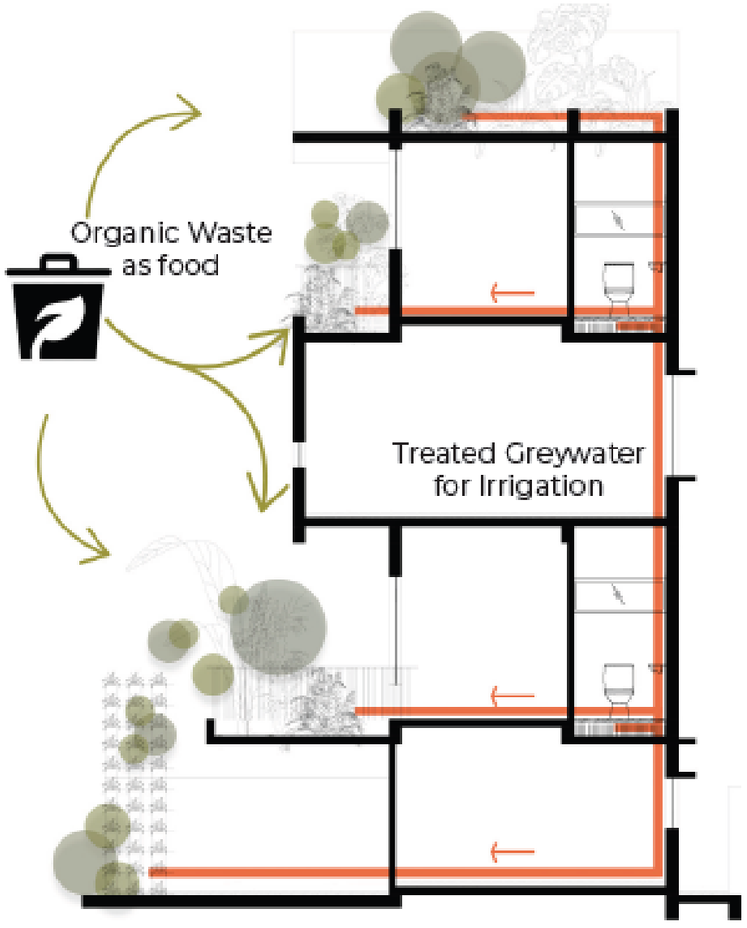
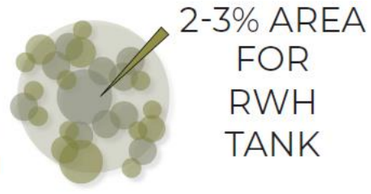


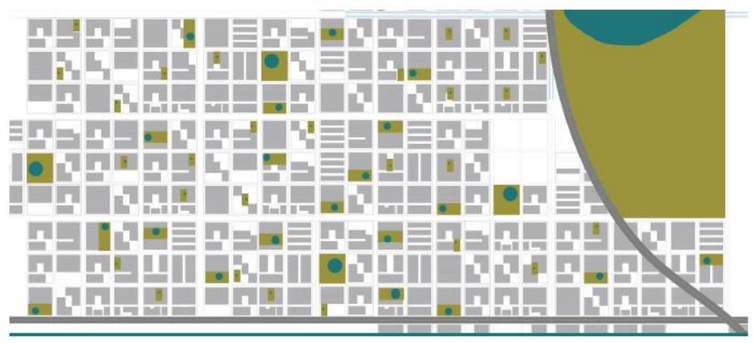


Ecology









Spaces/ Types for UA

Composting

Community Farming

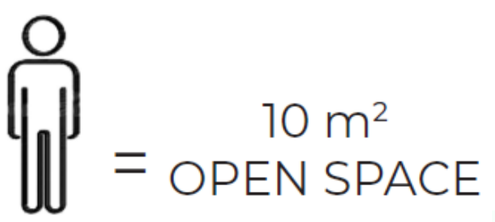
Balcony and Window

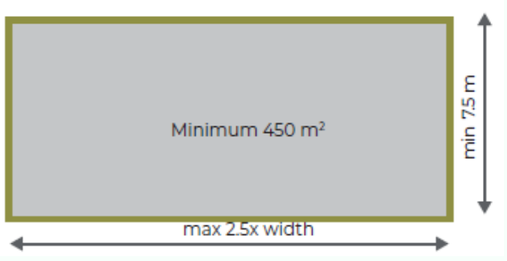
Urban Forestry

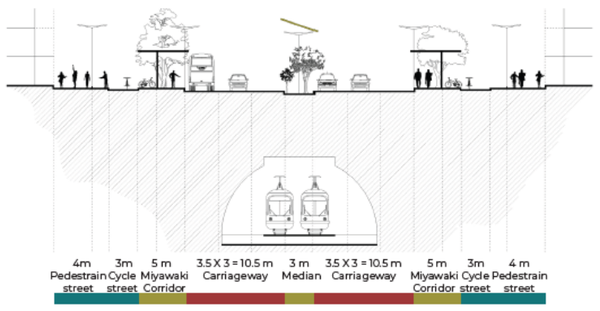
Rooftop Farming

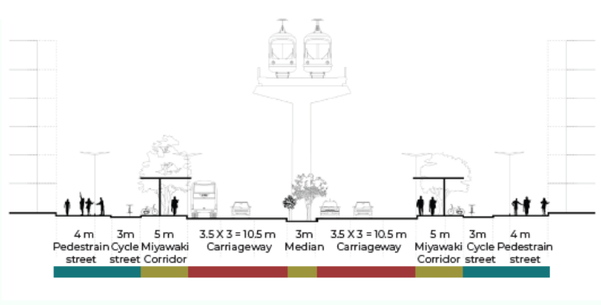
Vertical Farming

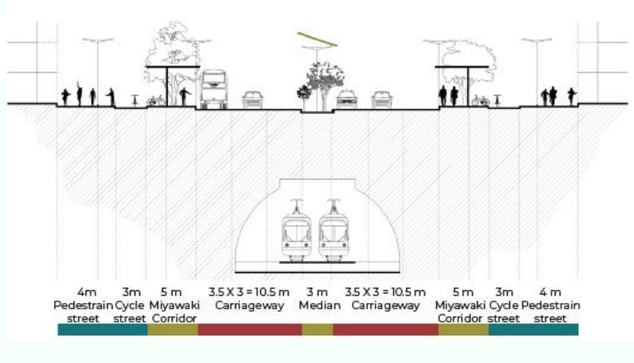
Open Spaces, Urban Agriculture and Ecology

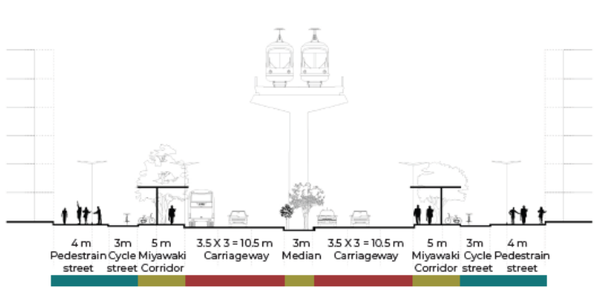




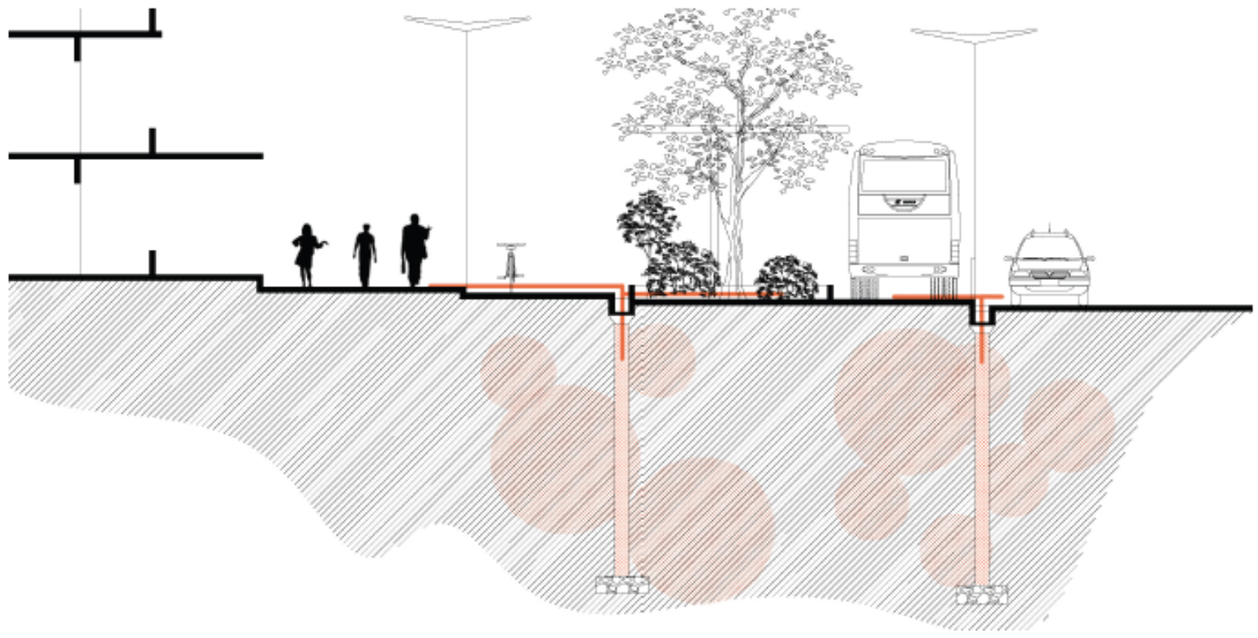








Sizes and Hierarchy of open spaces
The basic approximate areas of open space according to their hierarchy are:
Housing Area Park
5000 m²
Neighbourhood Park
10000 m²
Community Park
50000 m²
* Any building line to be atleast 3 m away from the boundry of the community park



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