



Jordan University of Science & Technology
Faculty of Science and Arts Department of Humanities
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Eco- bus shelter

Introduction:

A large proportion of our communities lie on public transportation for daily commuting. However, there is a lack of bus stops that provide adequate and a safe sheltering for users. This project aims at providing sustainable and adequate shelters for bus stops throughout the region. This project will fulfill goal number 11 of the SDG titled as "sustainable cities and communities" which predominantly aims to make cities and human settlements inclusive, safe, resilient and sustainable.

Target group:

This project will primarily benefit people who use public transportation for their daily destinations such as college students, private and public employees.

Step 1: Detect the jobs of the target customers:

Primary customers:

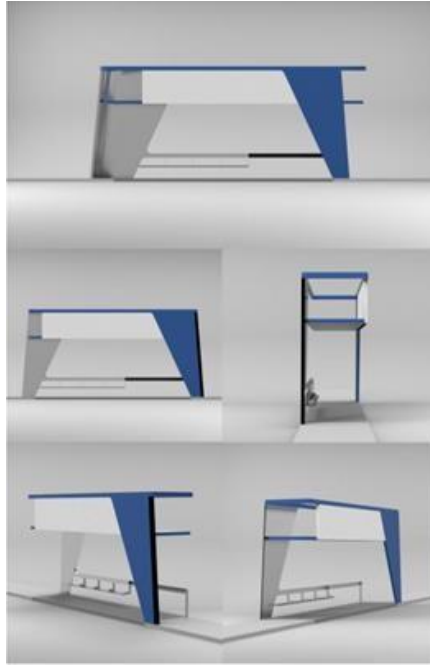
- Daily commuters: School/college student
- working professionals
- senior citizen
- house wife

Secondary customers:

- pedestrian
- Bus drivers and conductors

Stakeholders:

- clients
- Municipal corporation
- advertised brands
- transport corporation



Step 2: Troubles of the target customer:

1. Issues related to gender may arise due to social and cultural barriers.
2. Elderly who are illiterate may find it hard to read the direction panels.
3. absence of informative city map design and bus route.



Step 3: Description of target customer gains

1. The shelter will facilitate public transport experience by providing adequate waiting spaces and providing shading in summer and rainwater protection in winter.
2. The project will encourage more users to use public transport and therefore limiting the private transportation reliance.



Step 4: promoting your product:

Environmental value:

- The Eco-shelter aims to reduce CO2 emissions within busy cities while also encouraging people to use the bus. It is manufactured using sustainable and recyclable materials allowing it to have minimal environmental impact.
- The Eco shelter harnesses renewable energy gathered from both wind and solar power. The energy gathered enables modern displays and lighting within the shelter to run 24/7 while not producing any CO2 emissions.
- The eco- shelter will be planted with a mix of native wildflowers and sedum plants that are ideal food sources and habitats for pollinating insects. It will also be fitted with solar panels to activate the electrical direction panels.
- Wind Turnips and solar panels will be generating electrical energy for electric plug spaces for **phone charging services**.

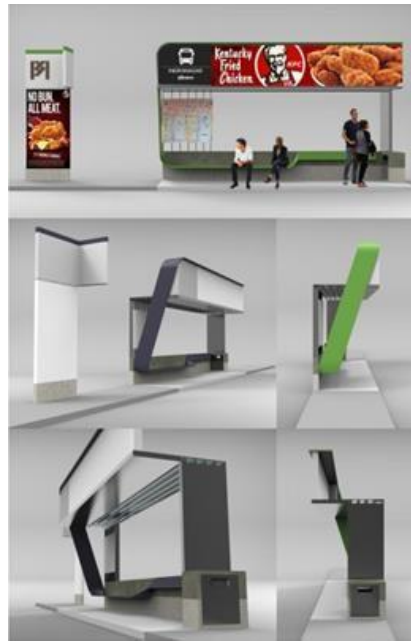
Physical value: The design of this Bus Stop is not only thought as a sheltering structure, but also as eye-catching and recognizable Urban Landmark.

Social value: Encourage interaction among users.



Step 5: Put on pain relievers

1. The shelter will provide a seating area that can provide options to users of where to sit or stand which may reduce gender issues in the shelter space.
2. The shelter will be providing with LED lighting in the evening which will enhance the shelter safety.
3. The shelter will reduce the time and the effort consumed to get to their destinations as the shelter panels will inform the time of bus arrivals.
4. The shelter will be provided with speakers to alarm users with the time and of bus arrival and leaving which will solve elderly who are illiterate or users who cannot read maps and signs.
5. a space that offer a safeguard commuters from weather conditions and offer people a place to rest



Step 6: Earning creation scheme

1. Safety and accessibility for the user

The users have easy access on the view of the oncoming traffic. the bus shelter is designed with careful consideration on human ergonomics and anthropometry according to human needs.

2. Capacity

The bus shelter seats can accommodate 6-7 people. Users can occupy the bus shelter with comfortable setting and standing space at a time.

3. Materiality

The durability and the strength of building material is the main consideration. the structural properties and characteristic of material have to suite the purpose of the building structure.

4. Weather resistance

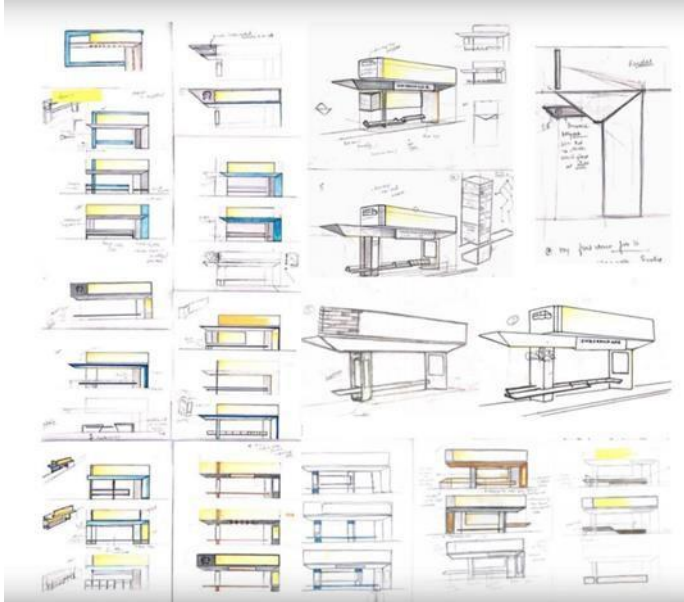
The bus shelter is designated to resist the hot and the humid weather. impact of direct sunlight penetration and minimize the rainfall into the shelter is achieved with cantilevered roof structure and materials finishing. Thermal comfort of users is consider with natural ventilation.

5. Sustainability

Minimal maintenance is required to keep the optimal performance of the bus shelter. Priorities given to building materials, which have minimal impact to the environment

6. stability

The structure dimensions are carefully allocated to resist the live load, dead load and wind load.



Part 2: VPC

