

## 1:1000 REFINED SITE DRAWINGS: CIRCULATION+ACTIVITY NODE+SHADOW ANALYSIS

## PROBLEM STATEMENT AND DESIGN CONTEXT

## Problem Statement

Despite a relatively low presence of people during the day, the pavilion in the centre of the plane spotting site in Changi Business Park (CBP) is mostly left abandoned. Due to the presence of a large tree blocking the view from the pavilion, plane spotters often opt to take photographs from the nearby field, where they can capture the full descent path of the aircraft. Meanwhile, the pavilion is not interesting enough to attract resting drivers and joggers. Due to these, our **problem statement** will be “how can we incentivise all the users, from plane spotters to those resting at site, to come and use the pavilion both day and night.”

## Design Goal

Taking into consideration URA's vision of the Changi Region to be a “vibrant live-work-play-learn ecosystem” and more specifically the CBP district as a centre of innovation for freight transportation and aviation industries[1], as well as Glow 2.0's focus on inspiring social interaction through the use of light, our **design goal** for this project is to **introduce interactive light-based activities to provide an incentive for all groups of users to gather and interact in the currently underutilised pavilion.**

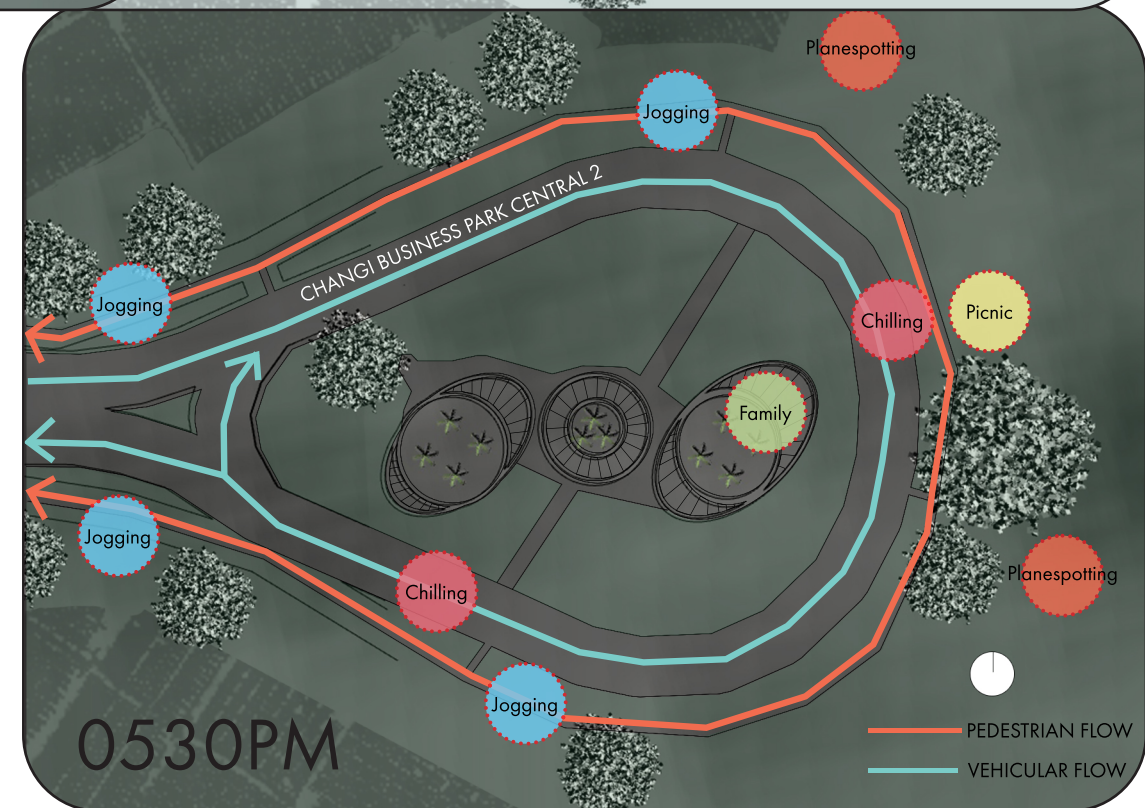
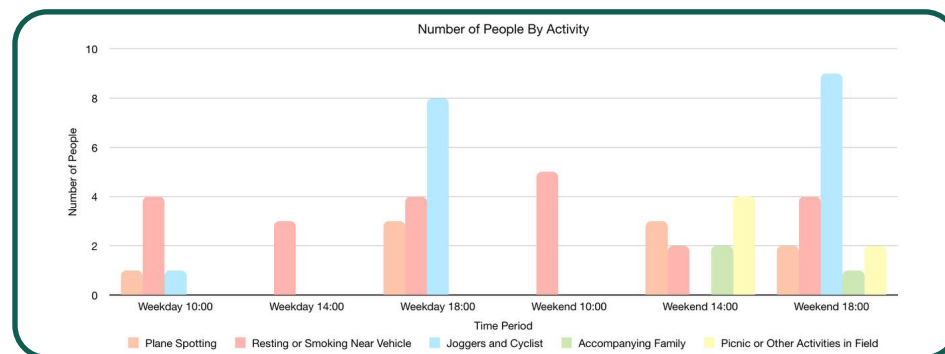
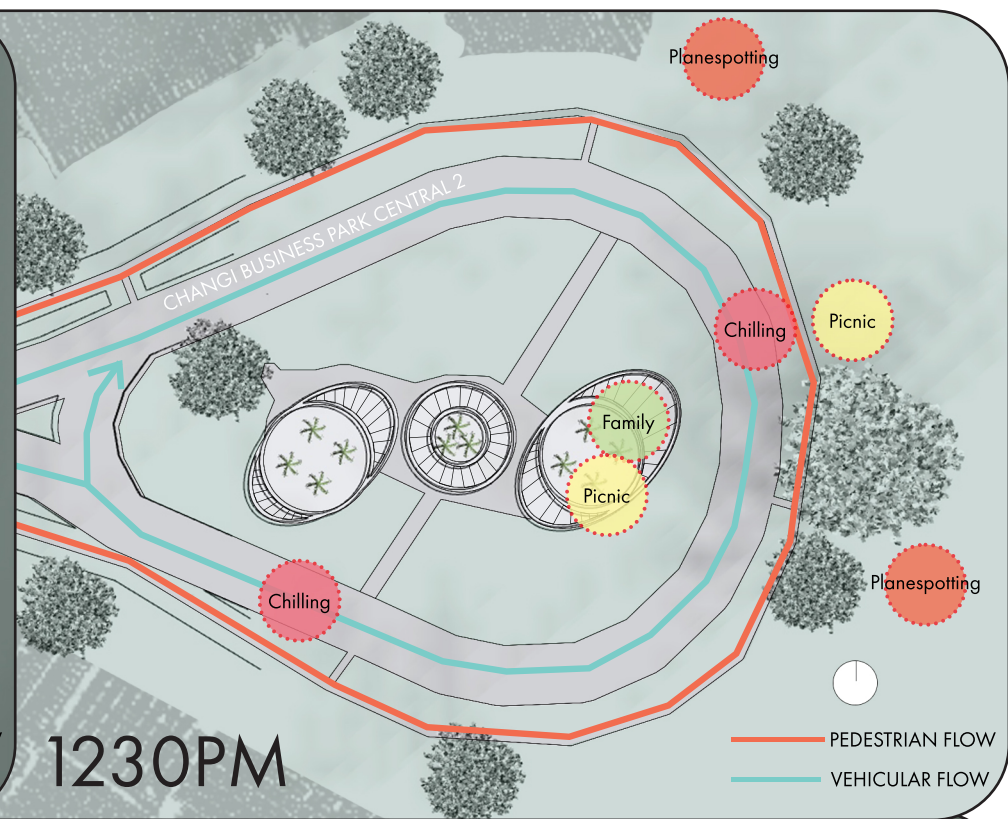
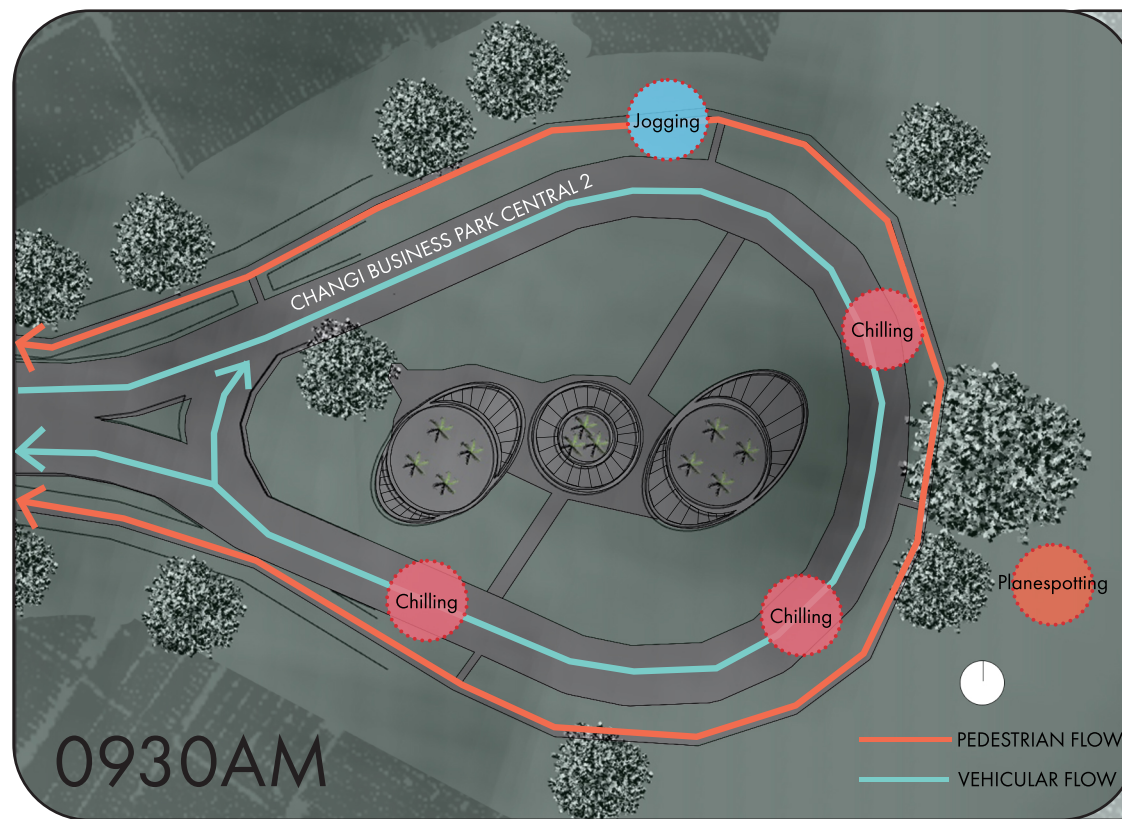
## Requirements and Constraints

As the location is intended for plane spotting, we aim for our ideas to be in line with an aviation theme, ideally educating people about Singapore's aviation industry and history. Our ideas must also be able to cater to the entire family, be it the plane-enthusiast child, the accompanying parents, or the energetic younger children. While we aim to encourage more activities in the site, our ideas should also integrate a peaceful resting area to accommodate the drivers and joggers and be built upon the existing infrastructure. We must also consider the aerial perspective of the lights we deploy, such that it will not be mistaken by pilots as something unintended (Night lighting control). Another constraint would be BCA Requirement for light installations and frequencies of wearables should not affect aviation operations.

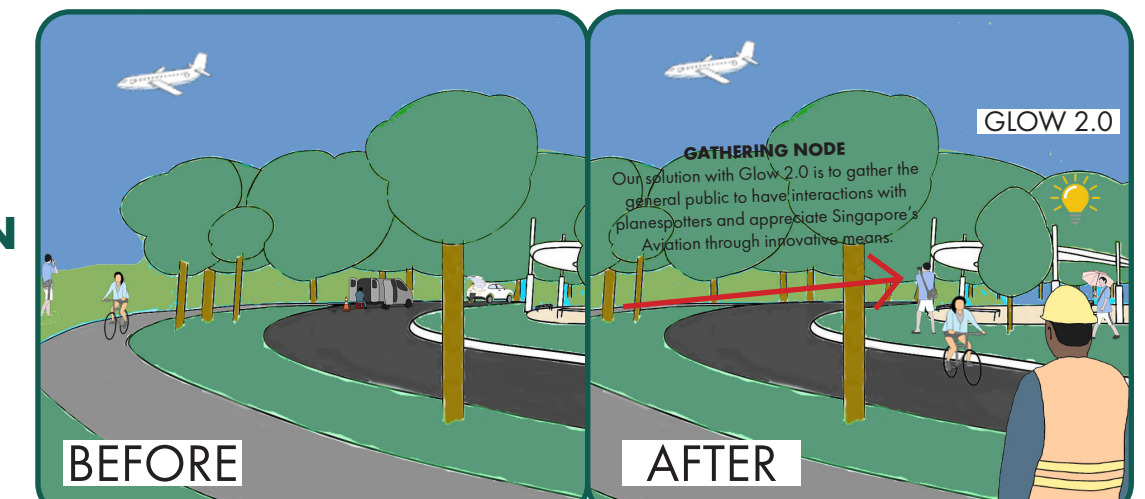
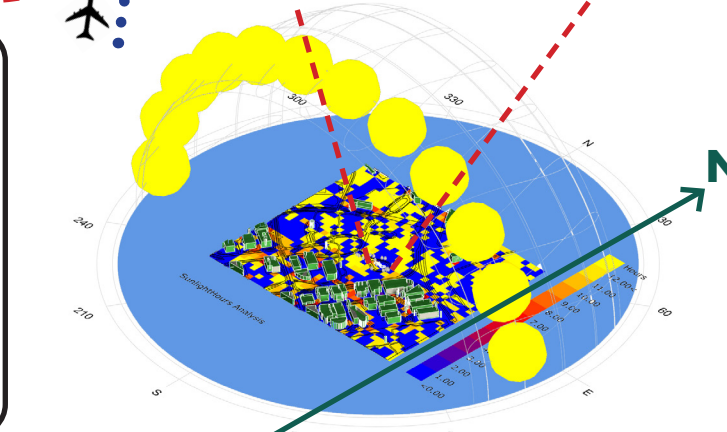
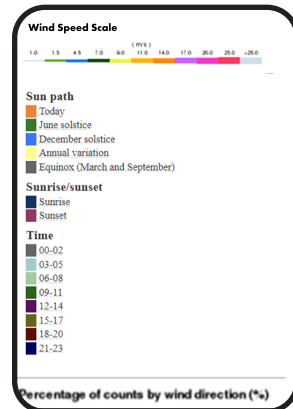
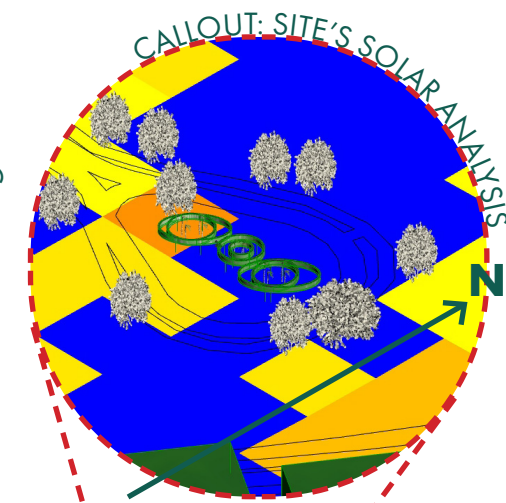
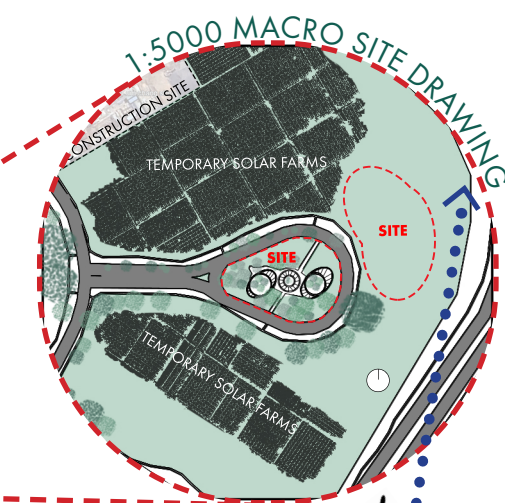
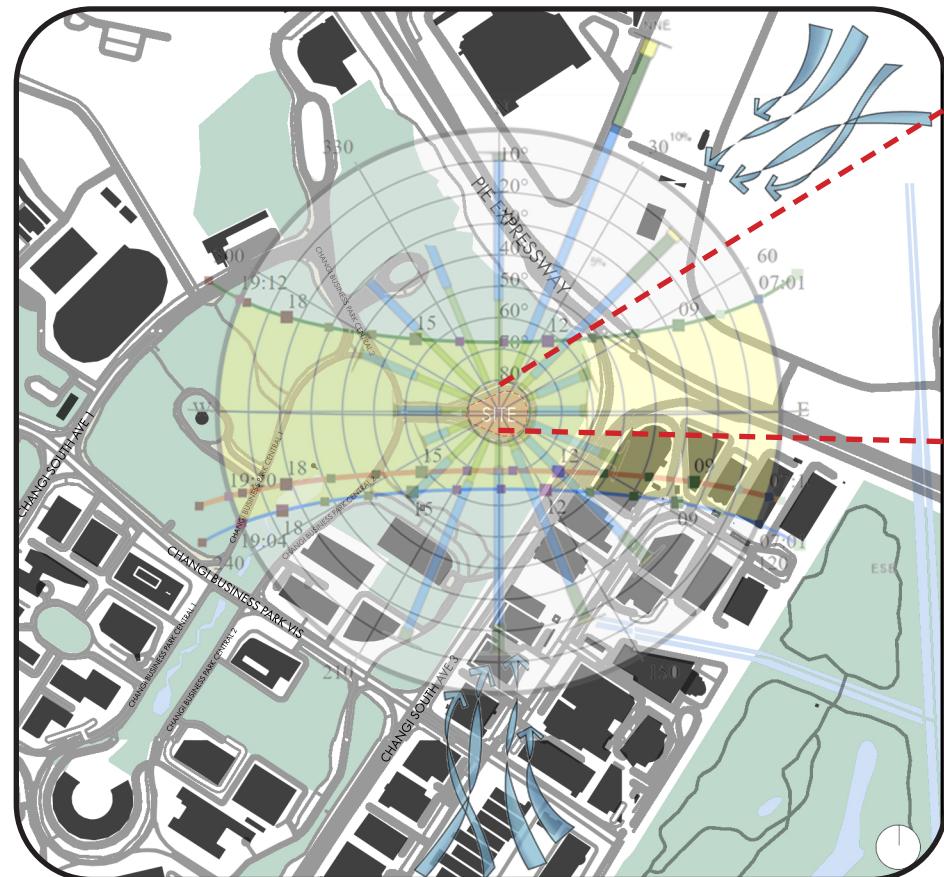
## Impact of Solution

We hope that through the implementation of our ideas, we will not only be able to revitalise the pavilion as a vibrant social gathering spot, but also spark an interest in aviation, turning the site into an “attractive lifestyle destination for those near and far”[1].

[1] <https://www.ura.gov.sg/Corporate/Planning/Master-Plan/Master-Plan-2019/Urban-Transformations/Changi-Region>



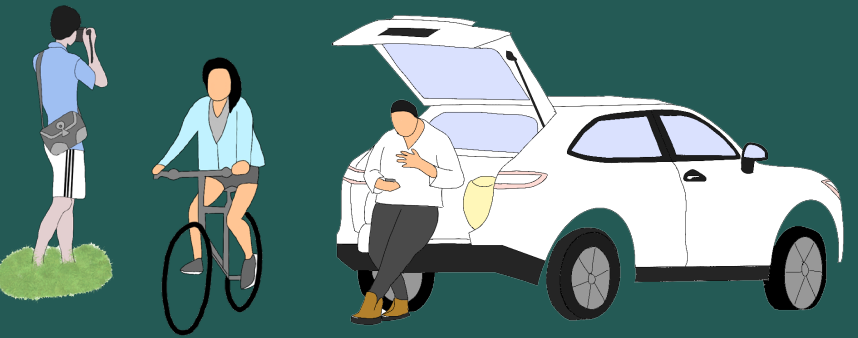
## 1:10000 MACRO SITE DRAWING: SUN AND WIND PATH





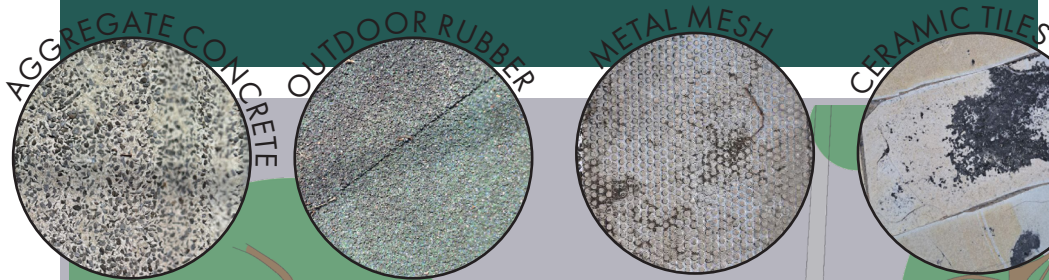
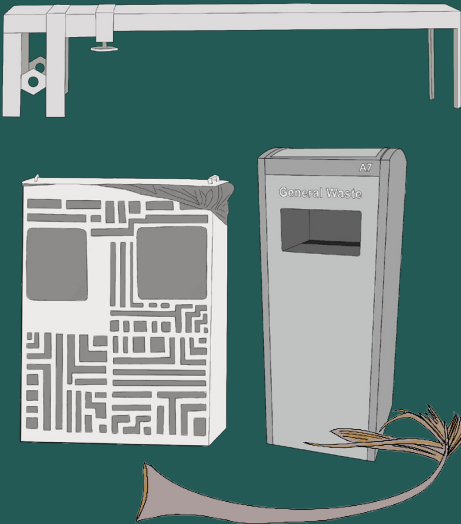
(A)ctivities

We observed that throughout the day, many people come to the Plane spotting site for different reasons. The majority who come are people from a variety of age groups, who often come to this site to planespot, taking photos of planes landing in Singapore with professional cameras for hours at a time. Others groups who come to this site are drivers of Class 4 vehicles and above, who park their vehicles along the road and smoke or rest by the roadside, joggers and cyclists, who typically use the site as a rest spot before carrying on their journey, and foreign workers, who settle under the shade of the trees to consume their lunch.



(O)bjects

The site itself is populated with numerous shiny metal benches, with trashcans and palm trees seen within the site itself. The consistent strong winds at the site blow down dead branches and leaves from the surrounding vegetation, leaving the ground at the site covered with dead branches, palm leaves and fibrous husks. The site also has a multitude of lights attached to the steel body of the structure at the site, yet all these lights are not turned on at night, leading to inadequate lighting at the structure and its surroundings.



STRUCTURE'S MATERIALS

Since we are looking at light installations as a GLOW 2.0 solution, we look for potential utility of existing materials and how our solution matches the site to save materials.

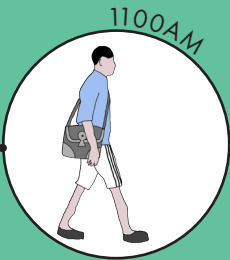
NO (I)nteraction between people and space

With the pavilion underutilised by the general public and not functioning as a planespotting spot, the interaction of this space has lost its placemaking leading to an opportunity to design this space in becoming an innovative aviation space, a possible place for the general public to play.

(U)SER JOURNEY MAP 1: DAY IN THE LIFE OF JOHN ON A WEEKEND  
MR JOHN TAN, AVID PHOTOGRAPHER  
AGE: 36



**ACTIVITY 1**  
John does his preparations prior to leaving to the photo site.



**ACTIVITY 2**  
John arrives at site on foot after traveling via public transport. (I: Photographer tends to arrive solo with his gear)

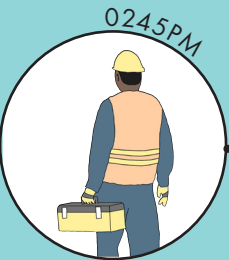


**ACTIVITY 3**  
John starts to take pictures of planes (A/I: Photographer usually stations himself at the grass patch opposite the pavillion as that spot would allow him to capture the pictures better. He stays at a certain spot within the field once he has found a perfect spot.)



**ACTIVITY 4**  
Dark clouds loom and the weather turns bad suddenly. John packs up his gear and leaves hastily. He is annoyed over the lack of shelter and runs to the nearest office building to seek shelter instead. (E: Lack of proper shelter within the area)

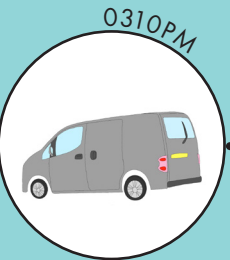
(U)SER JOURNEY MAP 2: DAY IN THE LIFE OF MUTHU ON A WEEKDAY  
MR MUTHU S/O AKUSH, MAINTANENCE WORKER  
AGE: 44



**ACTIVITY 1**  
Upon completion of a routine maintainance task, Muthu wants to find a spot where he could park and rest.



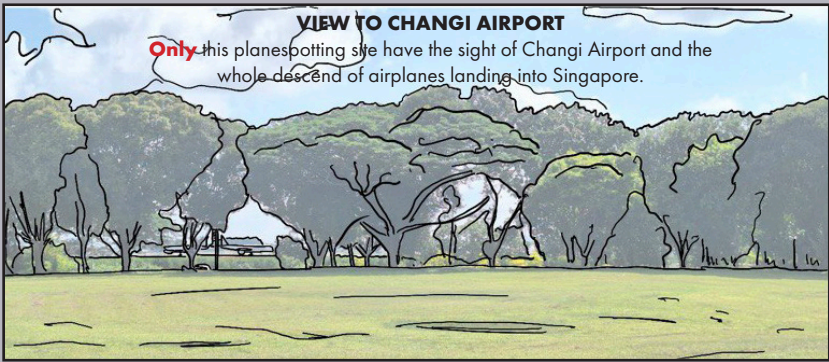
**ACTIVITY 2**  
He drives round and chanced upon the pavilion area and decided that he would park up and rest there. (I: Usually finds spot alone)



**ACTIVITY 3**  
He finds a shaded spot and parks his vehicle along the roadside.



**ACTIVITY 4**  
He sets up a deck chair at the back of his vehicle and rests, as he admires the surrounding peaceful greenery (I: Engages in his own activities; does not utilise the nearby pavilion area)



(E)nvironment

The planspotting site chosen is located at the far end of the area of Changi Buisness Park (CBP), close to the Pan-Island Expressway. The planespotting site provides a relatively open location from which users of the site can observe and photograph the planes landing at Changi Airport. However, the users who come to the site do not appear to use the planespotting site, as the thick surrounding vegetation blocks the view of the planes. Hence, planespotters use the open field infront of the site itself to wait and watch planes land. The structure at the site is built from steel, with a concrete and tile flooring, with palm trees dotted within and on the outskirts of the site. The open nature of the structure does not provide users of the site any protection from the elements and from dead palm leaves dropping to the ground. The lack of landscaping in the site leads to unkempt grass patches and piles of dead leaf litter throughout the site.

This unique site chosen to implement GLOW 2.0 has a great potential to bring out innovative aviation placemaking and create opportunities for commuters and tourists to explore beyond CBP Park.