

# DESIGN IDEA AND CONCEPTUALISATION

## DECONSTRUCTING THE DESIGN BRIEF TO SITE'S GENIUS LOCI

Upon deconstructing the design brief 'Glow 2.0', the essential design application to the site is to *enhance an activity from the aspects of social interactions through the use of 'light'*. This leads me to explore the degree of social interactions within my team's chosen activity of 'commute' during the first few lessons of the module 3.007 Design Thinking Innovation. Another relevant study in mind would be to understand the relationship between 'light' and 'social interactions'. The bottom right diagram is about the major pedestrian routes and transport nodes with bus routes to show the great extend of commute at the site [Pedestrian and Transport Nodes]. We chose Changi Business Park (CBP) instead of our own university campus, was to challenge ourselves to study an unfamiliar site and design for that community outside our university.

In my individual site analysis, I have found that the genius loci of CBP is a "Vibrant Park by Day and a Dead Park by Night". This was derived from Kevin Lynch's elements analysing the fundamental role of a city in its wayfinding systems to understand the character of the site, the genius loci. This genius loci that I have experienced was due to the *contrast difference of paths and nodes between the day and the night, weekdays and weekends*. The site is vibrant and lively, full of activities as commuters go about their day to work or to the food options at the site. But when evening strikes, a few stay within the reduced activity node of either the gym or the bar and paths are avoided through the dark CBP Park. Perhaps the weekends with families gathering in the vicinity would continue its vibrancy but its numbers do not match the weekdays' commuters. There are existing lighting systems and the park seems underwhelming under existing conditions yet it holds a strategic positioning in this district during my attempt studying the Urban Morphology of Changi Business Park giving rise *an opportunity for 'Glow 2.0' to revive CBP*.

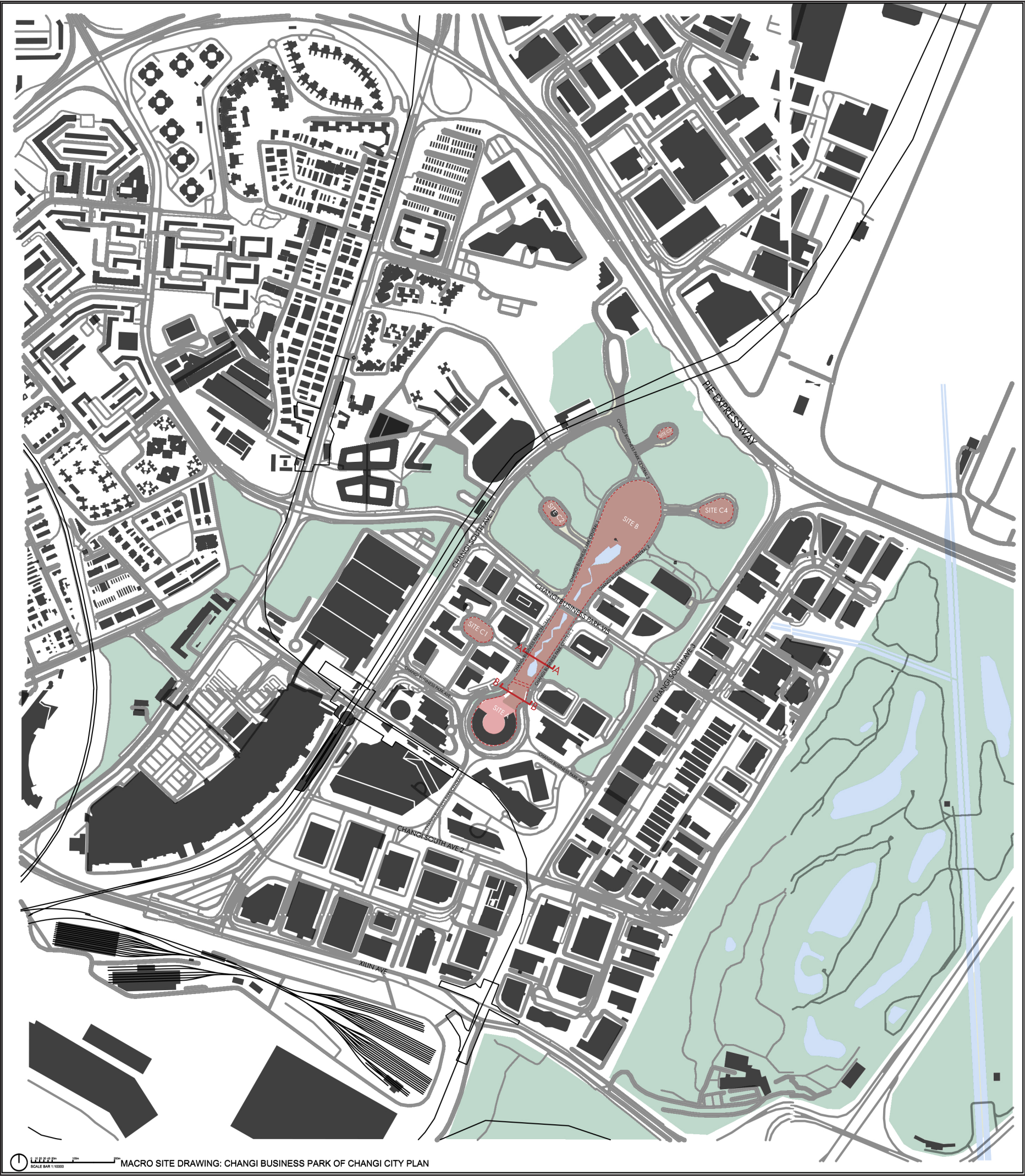
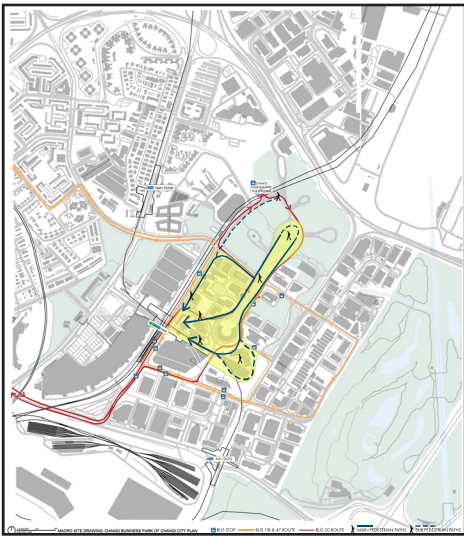
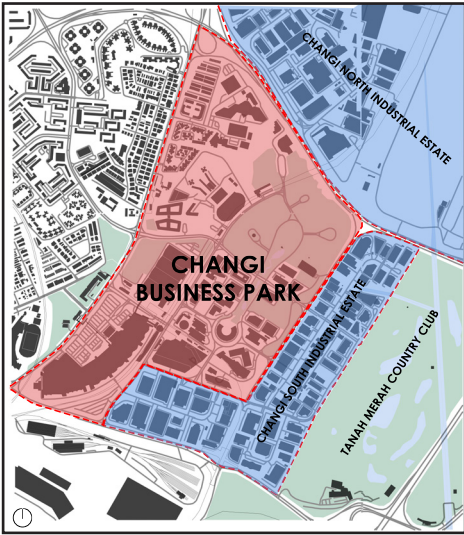
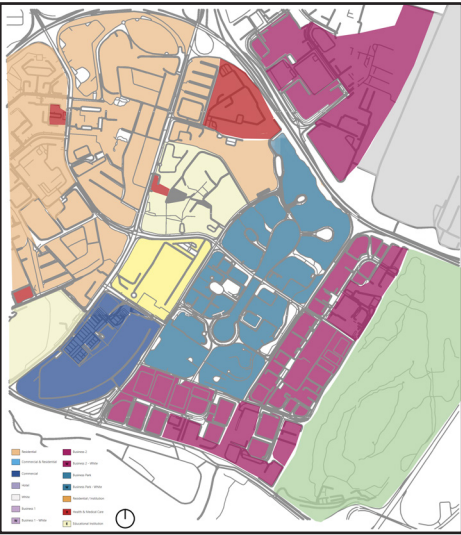
## UNDERSTANDING CHANGI BUSINESS PARK

Modern history states that CBP was planned by JTC Corporation in 1992 and was officially opened on July 1997. It was further expanded in 2012 with a large area of 71.07 hectare for a mixed-use development project. Under the Urban Redevelopment Authority (URA)'s planning for Changi Region, CBP is within the planning boundaries of 'Changi City'. CBP was to be an innovative lifestyle's business district together with SUTD by becoming an innovative ecosystem with a community living within to attract businesses and institutions involved with freight transportation, aviation related research and development including artificial intelligence and robotics technology. All these were to create a vibrant Changi region with a Live-Work-Play-Learn Ecosystem around the airport. The vision of Changi Region is to become the *Business Gateway to the World* by being a *well-connected mixed-use districts* and an *attractive lifestyle destination* for both locals and visitors. [Bottom Left Side's Top Diagram: URA's Zoning of Land Use, Bottom Right Side's Top Diagram: CBP Boundaries]

## DESIGN GOAL

My design intention is to explore 'Light' (both Artificial and Natural Daylighting) in architectural and technological means to engage commuters through *different degrees of social interaction* along their commute along CBP Park in both day and night.

Using the figure ground study seen at the Bottom Left Side's Bottom Diagram, the Urban Pattern of CBP is dominantly arranged in a grid manner with medium grains, an organisation ideal for commercial functions and *predictable navigation to promote walkability*. The other Urban Design's elements of open spaces and greenery are present at site *not only for environmental benefits as a wind corridor but also to create memorable experiences and a sense of place* in CBP. Upon observations, CBP holds a strategic position for commuting path for pedestrians and a great space to make a place for social interactions.





SITE'S MACRO AEIOU

(A)ctivities (E)nvironment (I)nteraction (O)bjects (U)sers

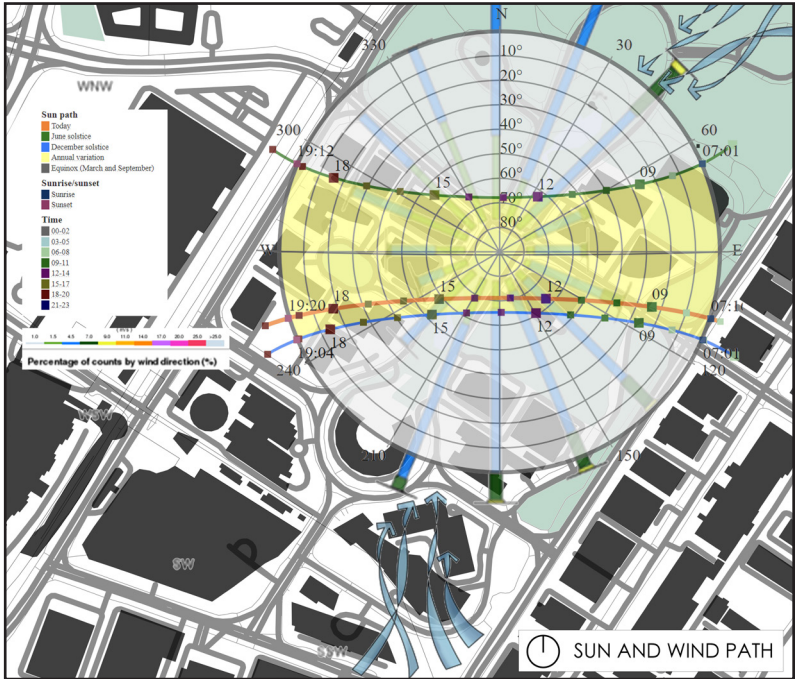
SHADOW ANALYSIS

8AM | 11AM | 5PM



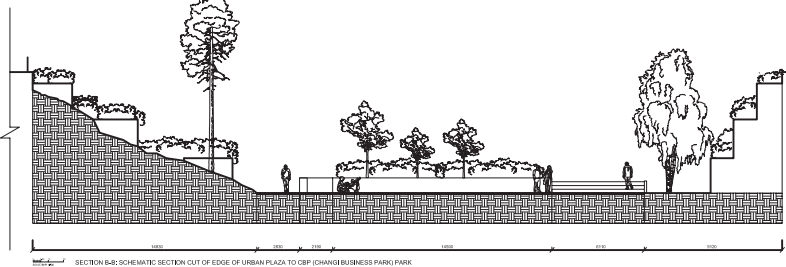
SUN AND WIND PATH

FOCUS STUDY ON CBP PARK (SITE B)

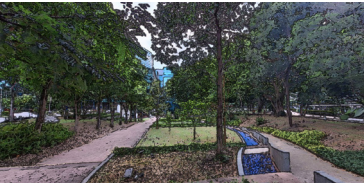


SECTION B-B

(E) In the section cut seen below, we can see the distribution of landscape (greenery such as trees and shrubs), pedestrian paths and urban furniture present at the edge of the plaza towards CBP Park. From these dimensions and urban layout, we can better understand commuters in their choices of path.



(E) This section cut also allows us to identify interactions within the components which is useful to make design decisions onto the existing furnitures in relation to light.

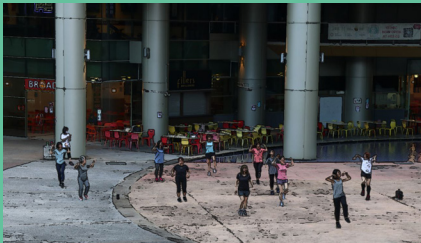
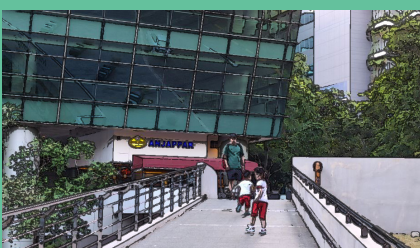


(O) Objects found at Urban Plaza during my Site Visits:



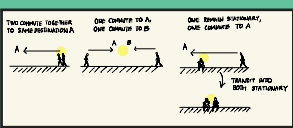
I find these objects interesting designed for a certain function. The urban furnitures within the space becomes a place for people to rest and the table is designed to hold items in the middle - how can light enhance these designs in both the day and night?

(O) Based on the placement of bins at the plaza, it is observed that many smokers would gather near them and some commuters would take an alternative path at the plaza to avoid the smokers. The urban furniture of seats at the plaza when shaded in the day allow commuters to take a seat to either engage in a conversation with others or be engaged in their activity alone such as using the phone.



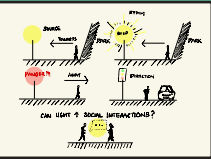
(A) The common activities at the Urban Plaza are people commuting through, dining at food stall options at the plaza (Broadway, Desi Dhabaa-Bar and Anjappar), quick purchases at the 7-11 convenience stall, gym sessions at the F45 Gym at the 2nd storey, an open area with people to socialise and a smoking area for many smokers (while socialising). These are single purpose activities and only a few have effect on other activities such as how some commuters would avoid the smokers or stay away from children playing in the area.

(A>U) Despite the common activities, there were unique scenarios found at the site. The top left picture shows a parent strolling through the park with their child during the weekend when the park is 'quiet and dead'. The top right picture shows a parent that has picked his children up and his children were playing along the ramp in the evening indicating a specific timing of sending children to school and dismissal of students at the kindergarten school. The bottom left picture was taken during the evening in one of the weekdays where a group of ladies (aged probably from the late 30s to 60s) were exercising through dancing to Korean-POP music at the plaza. The bottom right picture is a group of smokers smoking which is a common activity at the plaza but I highlight this particular photo in studying the degree of social interactions aforementioned in the design idea. This study is shown below in the 'degree of social interactions' I have drawn to better understand what is 'social interaction' along a commute.



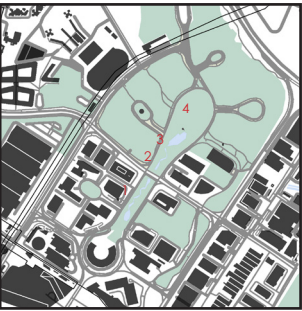
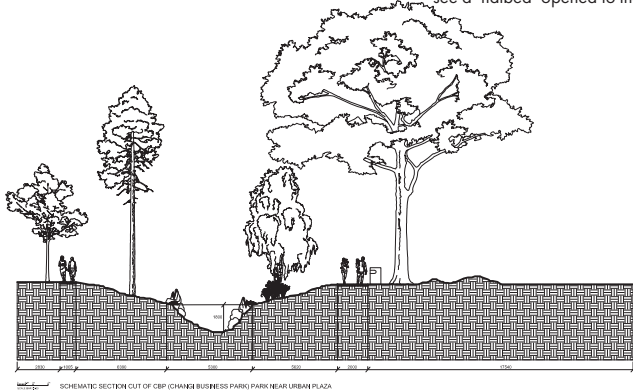
(I) Right Diagram: Different cases of light application in our lives and to wonder how can light then ignite social interactions?

(I) Left Diagram: Degrees of Social Interaction with Commute or the different scenarios for social interactions when people commute.



SECTION A-A

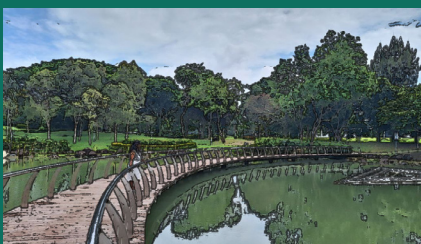
(E) This section drawing shows the dimensions of pedestrian pathways, height of trees, distances between the respective elements to the pond (water body) and existing furniture at the CBP Park. With this drawing, we can observed that the **trees on the site serve a crucial role of shade** as we can see a 'flatbed' opened to the sun from the shadow analysis at the top right



(E) Creatures found at CBP Park during my Site Visits:



(E) The CBP Park is split into 4 sections based on the water body. 1 being the Oval Shaped pond near the Urban Plaza, 2 as the downstream towards Changi Business Park Vis from the Urban Plaza, 3 as the downstream from Changi Business Park Vis towards the north end of CBP Park and 4 being the edge at the north of CBP Park. These stretch of greenery and water bodies have a certain natural ecosystem from the landscape to the pond synergy and I have identified some of the creatures found at the site on the right. (I) The interactions we can possibly enhance with light: Person to person interactions along the park, Person interactions with the greenery and water body and person interactions with creatures in the park.



(A) The main activities at CBP Park includes commuting within CBP, people sitting under the benches alone facing the water bodies, a few gather together under pavillions to chat and a resting place for the cleaners under the overhead road/ tunnel in the middle of CBP Park. However with the lighting system that is possibly down, **CBP park is in total darkness at night leading to no occurrence of any activity as people would rather walk the lighted sheltered walkway outside the park. This issue also extends to 'Island' sites and minimally affects the Urban Plaza.** Therefore, the absence of light especially at night of this site has a great impact on the social interactions at the heart of Changi Business Park and holds great opportunities for light to engage those who pass the area.

(U) The users at the site mainly commuters, there were a few cyclists and Grab deliverymen and many used CBP Park as an area to chill and rest in the midst of the day such as sitting around the park or socialise within the sheltered pavillions that are spread around the park.

SITE B: CBP (CHANGI BUSINESS PARK) PARK

SITE C: "ISLAND" SITES



(A) Sites C1 and C2 are mini green roundabouts within the Changi Business Park covered in trees and interestingly serve as a green pocket with infrastructures and landscape of a park. People would commonly use the area as a place of socialisation or a relax area to chill before heading to work. (I) One interesting sensory interaction I encountered at Site C1 was a range of echos within the heart of the structure upon conversing with my friends. Perhaps we can design light with sound?



(A) Site C3 and C4 are infrastructures built for planespotting as planes are a common sight in the vicinity with Changi Airport nearby. When I visited these sites during the weekends, I observed that there are a few who would gather to socialise and some do lookout for the incoming planes. (E) Similar to C1 and C2, these structures are hidden in a 'mini forest' as the trees hovers around them making them not easily visible in a roundabout. (U) Aside from the common users, there were joggers and cyclists around the vicinity.