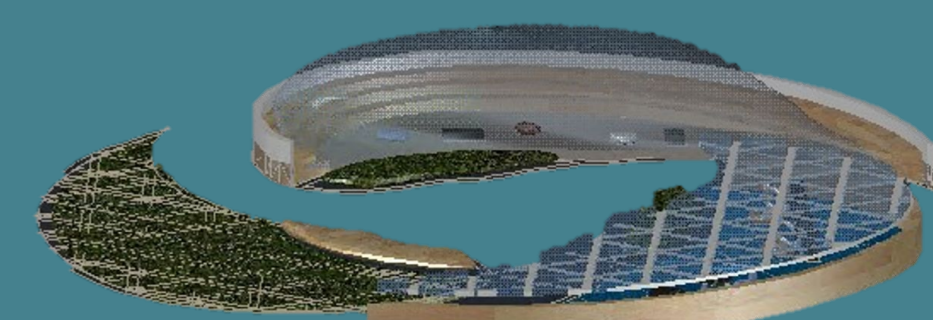
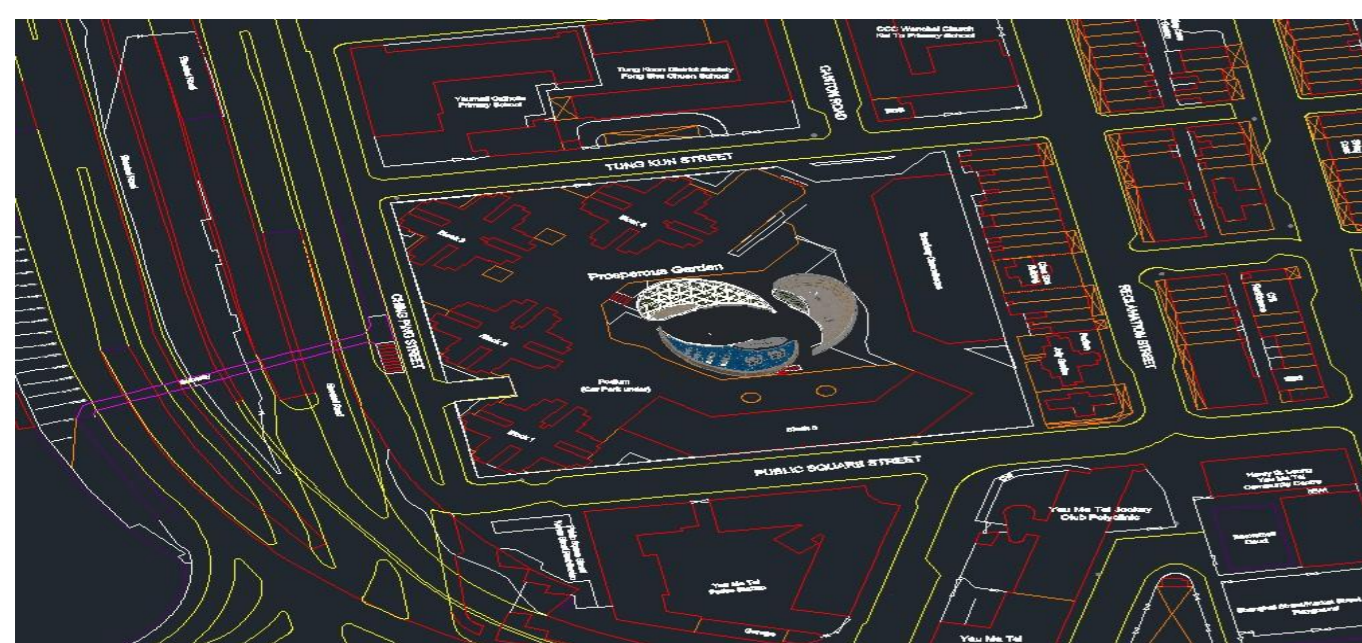


Intergenerational Play Space Design Competition

Prosperous Garden to Inspire Innovative Design & Re-imagine Public Space in Hong Kong
Energizing Prosperous Garden



Location Plan



Our aim is to maximize the usage potential and design a comfortable and meaningful environment for different generations so the residents can establish harmonious youth-elderly relationship. After reviewing the residents' idea in redeveloping the Prosperous Garden, we decided to reserve some area as multi-purpose open area for the residents to do their daily recreational activities as well as organizing communal activities while adding different facilities such as fitness equipment in the remaining area to fulfil the needs of the senior residents. Besides, we would like to introduce innovative and vibrant elements into the Garden so urban farming is included in our redevelopment plan which encourage idea and knowledge exchange between generations.



Urban Farming

Yau Ma Tei is in lack of parks and green areas. The podium of Prosperous Garden has long been considered as one of the main venues for leisure activities. With seen the significance of plants and greenery to a vivid leisure area, an urban farming area is embedded into the podium centre. Striving to provide a considerable urban farming area, the design is attached with great importance to accessibility, social cohesion and biodiversity.



Tetracera scandens (L.) Merr.



Rhodomyrtus tomentosa



Isholtzia argyi H.Lév



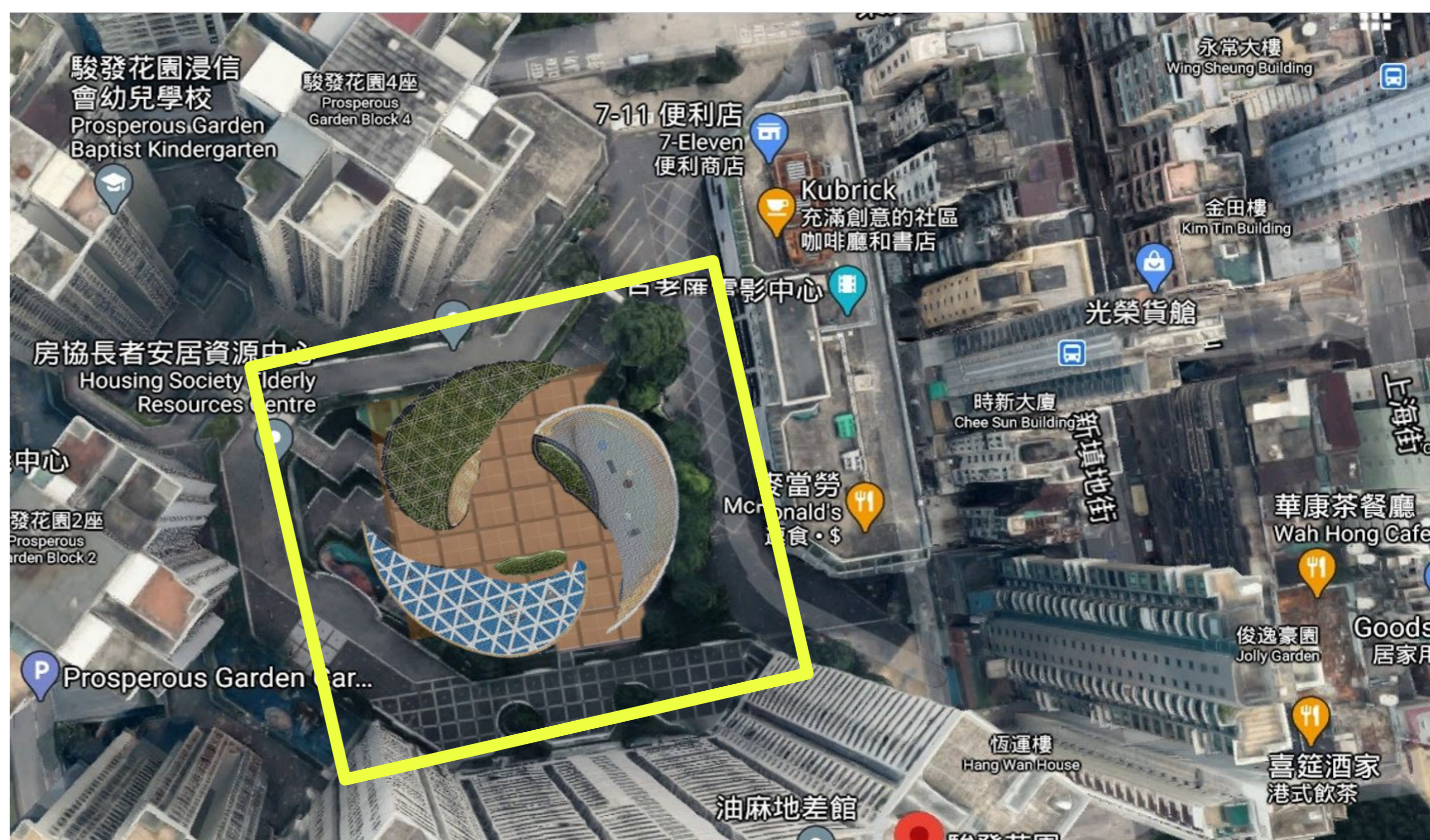
Adenosma glutinodum (L.)

Embracing local biodiversity

As an embellishment to the residential area, the urban farming area will be specialized for planting 4 kinds of local species, including Rhodomyrtus tomentosa, Tetracera scandens (L.) Merr., Isholtzia argyi H.Lév and Adenosma glutinodum (L.). While embracing the biodiversity of the city, residents can also enjoy the refreshing scent of these local herbs. Workshops could also be held in the community zone, during which the residents can craft their own sachets and artwork with the harvests from the urban farming area.

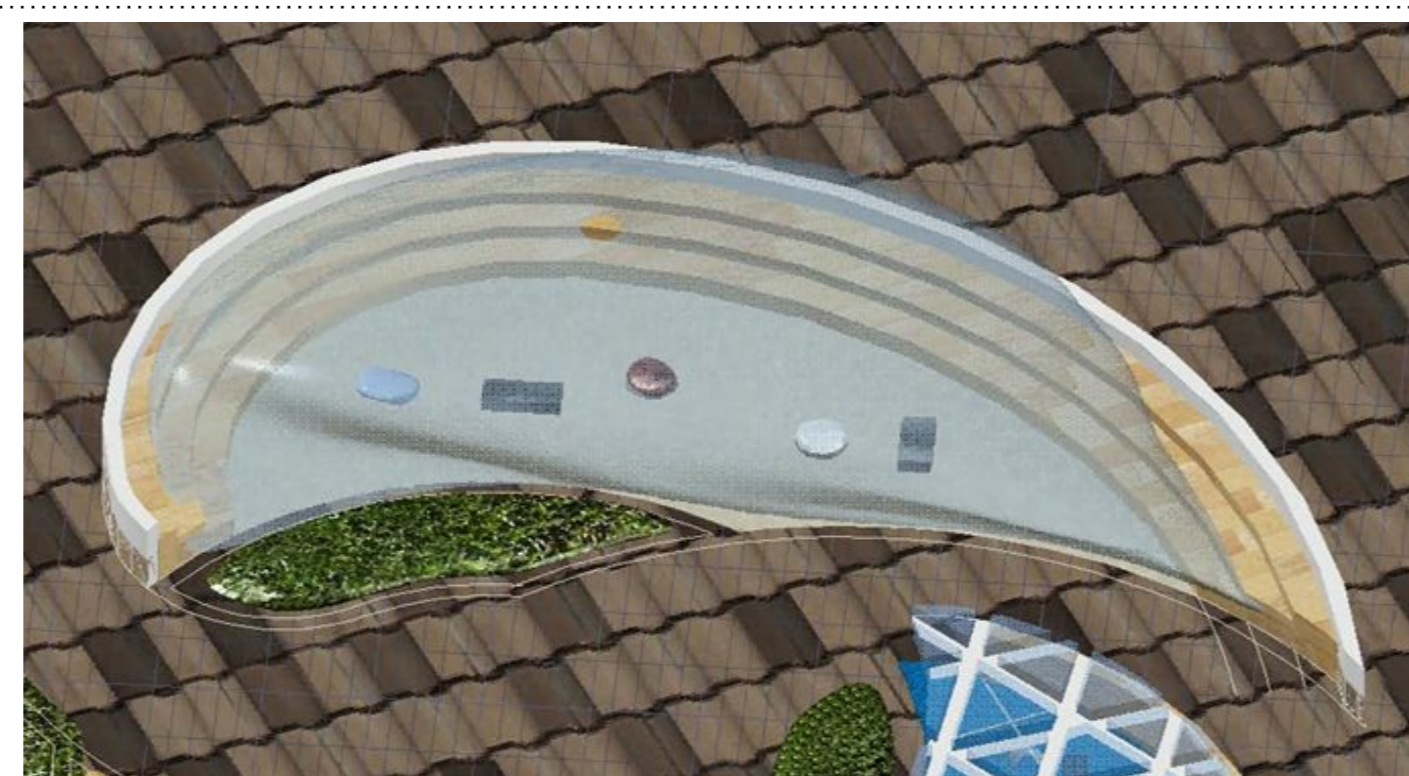
Promoting Intergenerational cohesion

Urban farming, being the common topic across generations, may help initiate conversations between residents, especially inter-generational interactions. Dialogues initiated with agricultural knowledge and experience may further wipe out borders between different age groups. Social cohesion could, therefore, be well fostered.



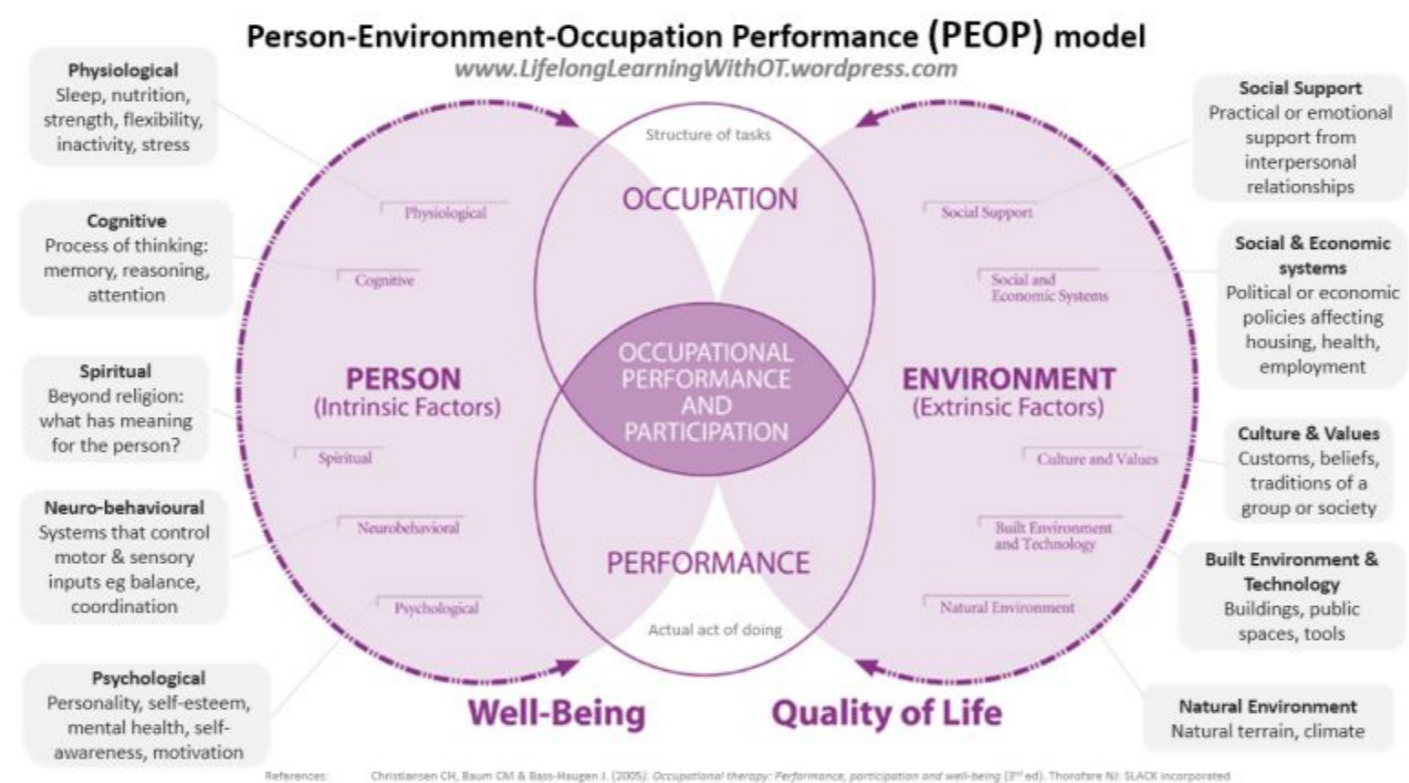
Overall Bird Eye view

The Prosperous Garden is located at the original site of the Six-Streets in Yau Ma Tei. To promote the idea of "ageing-in-place", the Elderly Resources Centre was set up by The Housing Society in 2005 and assigned 157 elderly flats within the Prosperous Garden. Inside the Garden, there are open areas for example the playground and the Garden Podium.



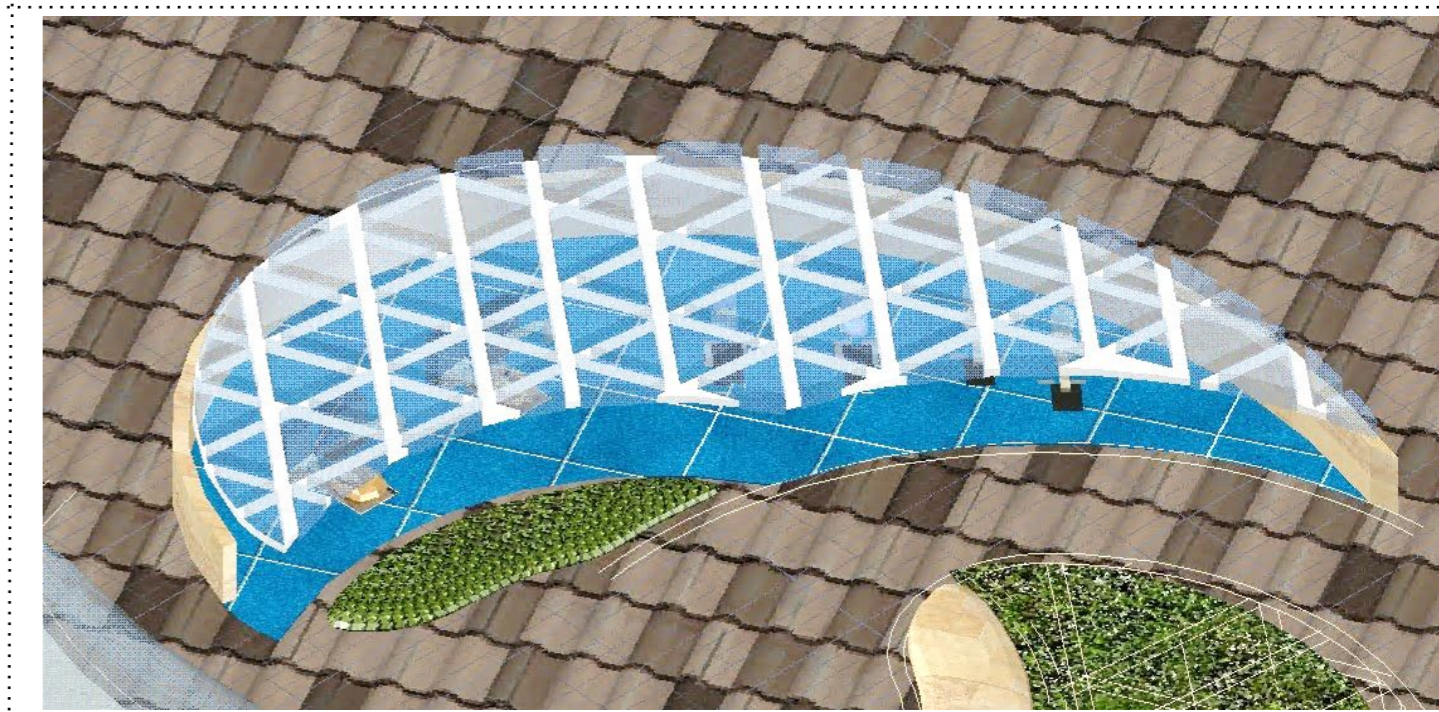
Open Area

A public open space benefits residents' well-being, including the elderly residents. It provides a location for residents to perform physical activities such as playing badminton or jogging. Besides, different communal activities can be held in the public open space to enhance residents' social interactions with each other as well as their sense of community.



Application of Social Impact Assessment into the Open Area

Figure 2: Application of PEOP model in the Urban Farming Area's SIA		
Dimensions of Impacts		Proposed Build Option
Person	Physiological	⇒ The Urban Farming Area provides residents an opportunity to have physical training in the farming process.
	Cognitive	⇒ Residents can appreciate beauty of recent life and embrace happiness.
	Spiritual	⇒ Residents can have more interactions with the nature.
	Neuro-behavioural	⇒ More applications of neuro-behavioural health training in the Sport Area rather than the Urban Farming Area.
	Psychological	⇒ Residents' psychological needs can be satisfied during the process of having interactions with the nature.
Environment	Social Support	⇒ Both the elderly and young residents can be engaged in the urban farming process, which will enhance the collaborations between two generations and the intergenerational harmony.
	Social & Economic Systems	⇒ Harvests from the farming can be regarded as one of the products circulating in the community economy.
	Culture & Values	⇒ The spirit of 'downshifting' is exposed in the urban farming.
	Built Environment & Technology	⇒ Communal area acts as hub of intergenerational interactions and help fostering neighbourhood.
	Natural Environment	⇒ More green elements are embedded in the Urban Farming Area, which would provide a cleaner and more natural environment for local residents.



Fitness Area

Exercise demonstrates promising influence on both physical and mental health among people of all ages, while doing workouts in neighborhood area is a way to boost community engagement and interaction. A semi-outdoor fitness zone occupying about one third of the park is therefore designed to enhance the physical activity of the residents.



Tai-Chi Wheels

Dual Chest press/ Lat-pulldown machine



Dual Leg-extension/ Leg-curl machine

Leg-press machine

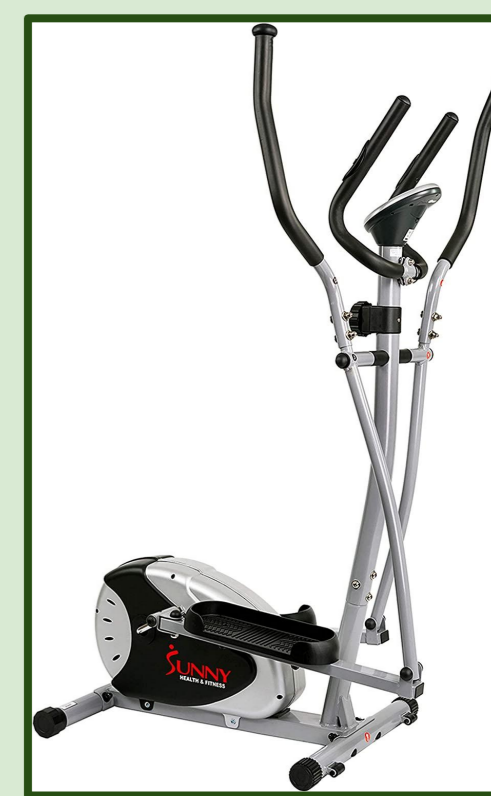
Recumbent bike



Rowing machine

Fall prevention

Protective grounding and accessible handles would be installed to reduce the risk of falling and the severity of injuries. Besides, over half of the fitness equipment pieces are designed for seated exercise.

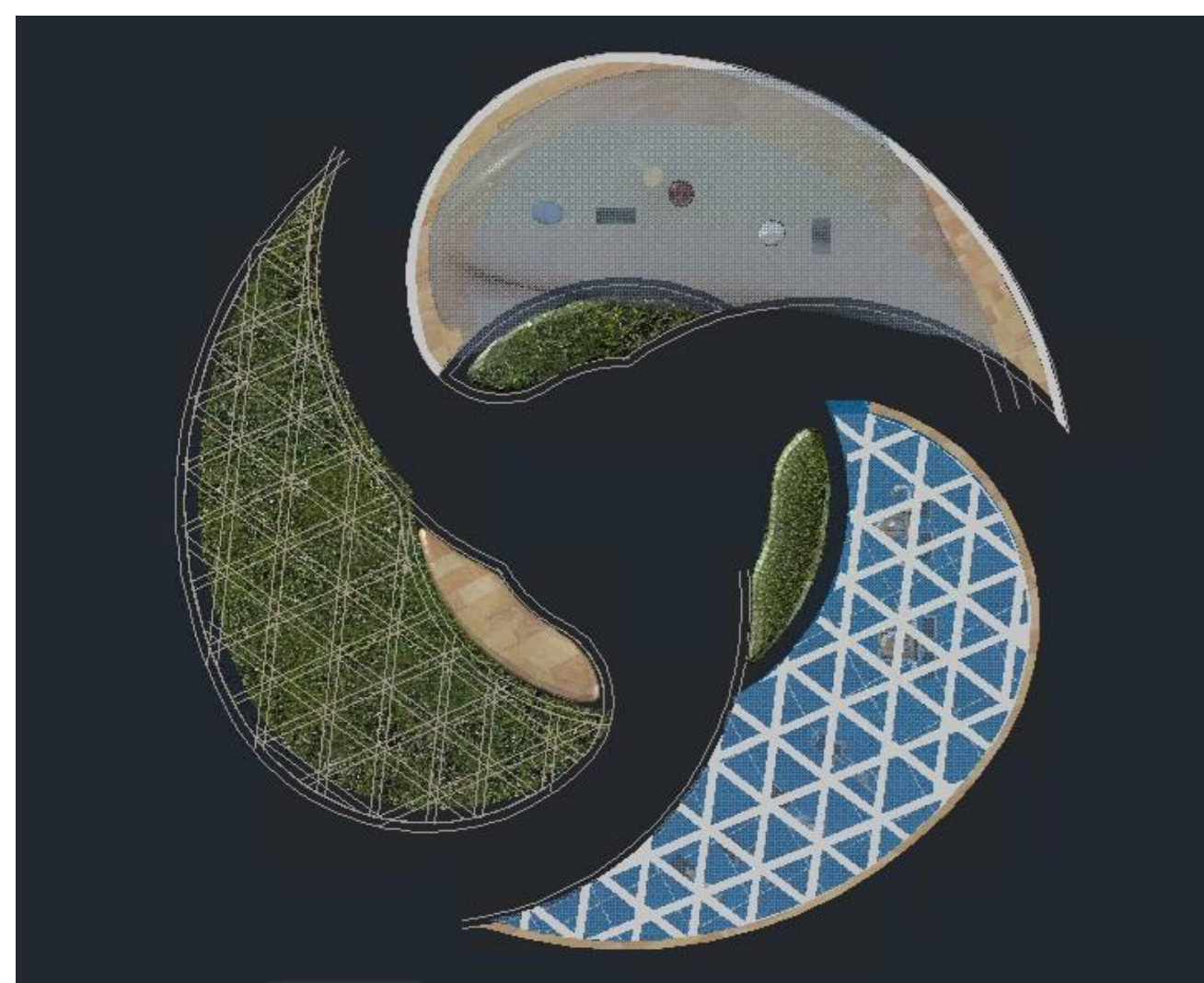
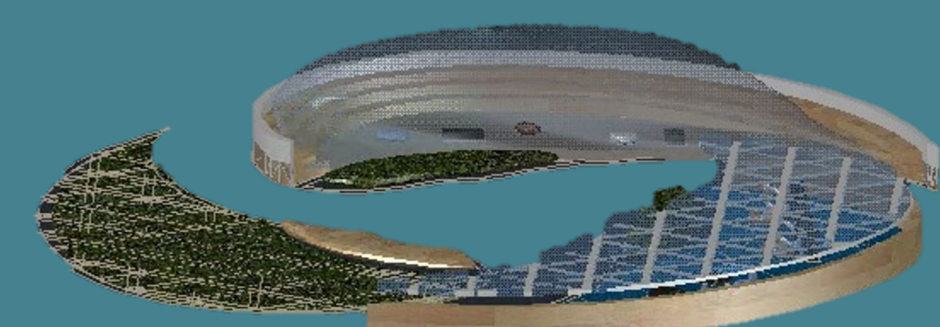


Elliptical machine

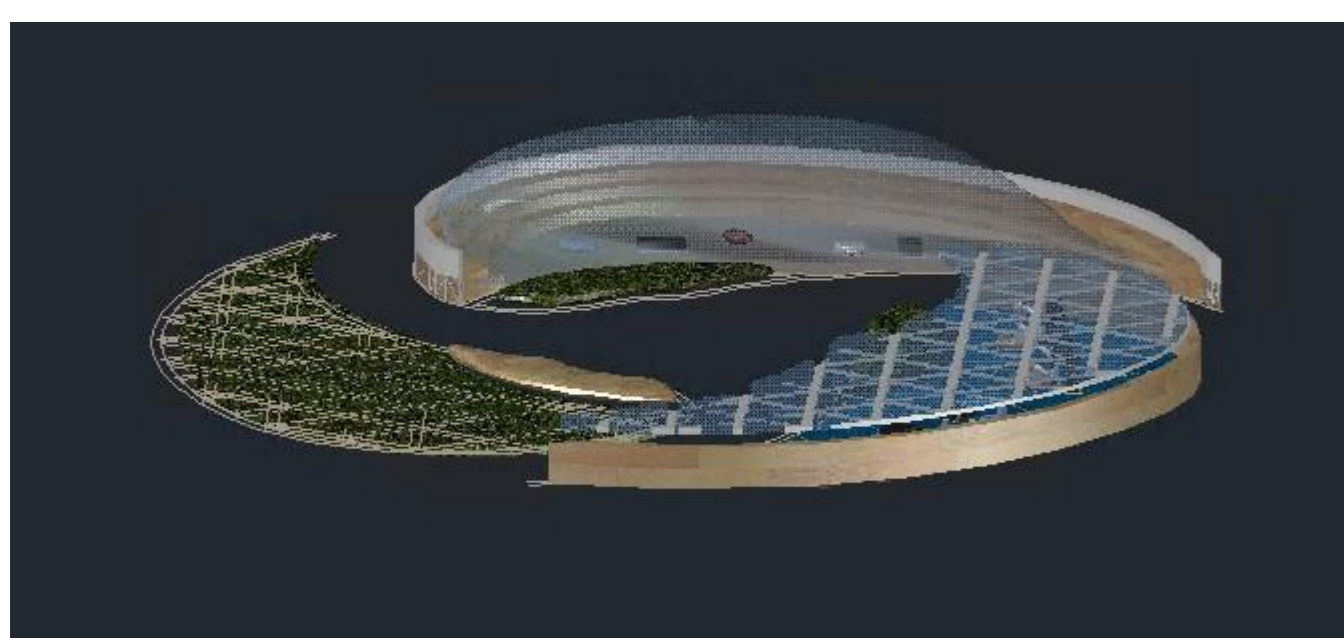
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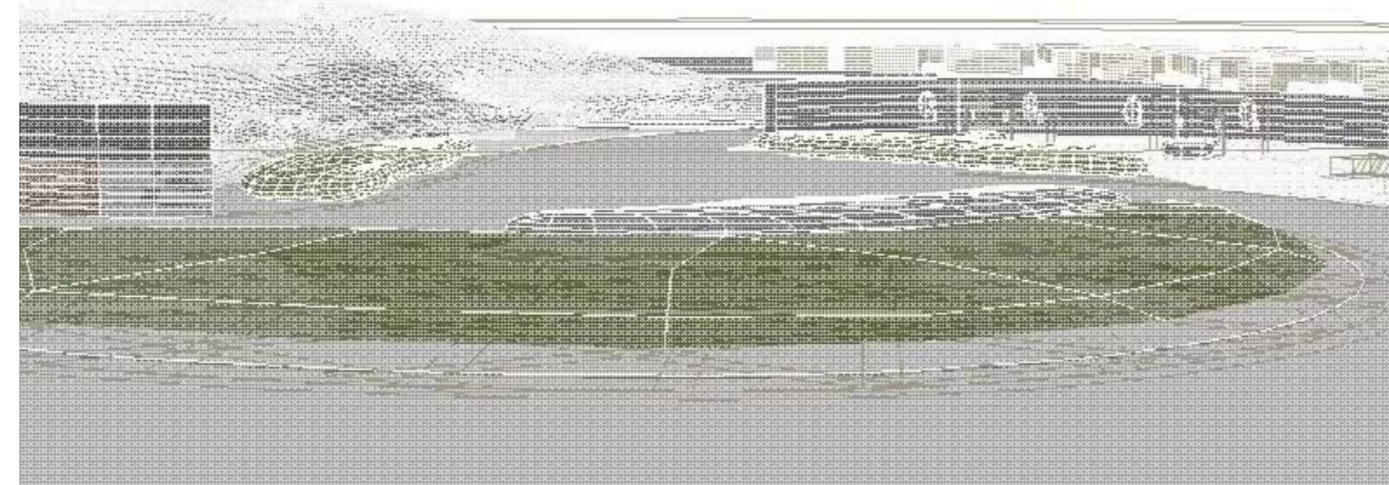
Rendered overall floor plan



Rendered overall side view

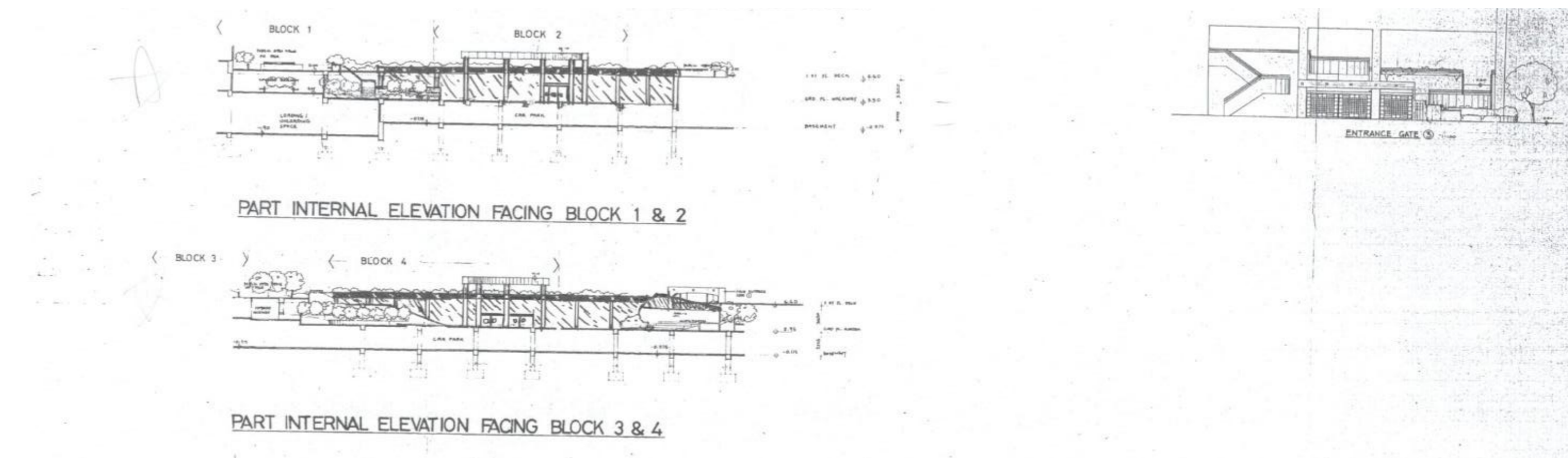
Unleash Vitality

We strive to release potential of Prosperous Garden



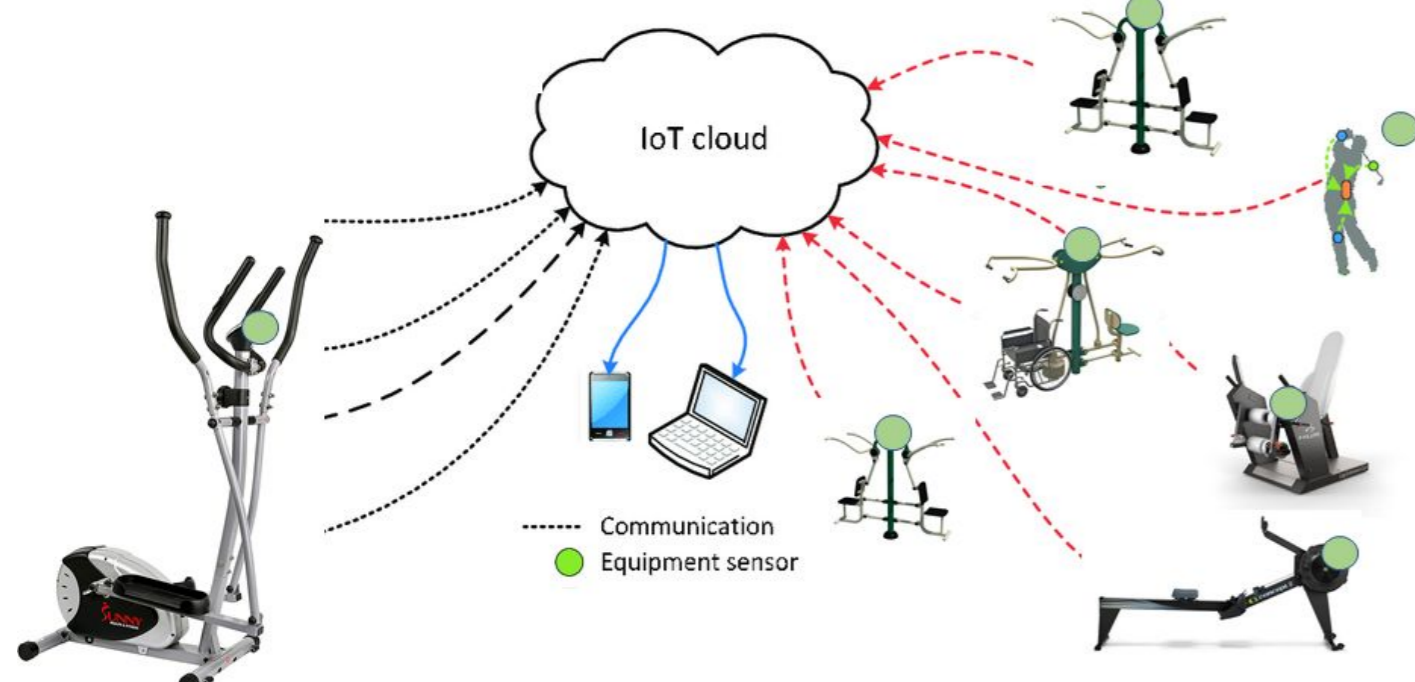
Unleash Vitality

We strive to release potential of Prosperous Garden



Perspective View:

Application of glossy, high-reflective index paint for building envelop leads to more effective reflection of IR radiation, reduction of heat gain and energy consumption in temperature regulation. Sufficient and proper shading further provides resting place for pedestrians during rainy day. Moreover, the flat design does not deprive view of residents from low-floor residential units. Needs of residents and pedestrians are well balanced.



IoT Technology

IoT would be incorporated into the fitness zone, as a tool to nudge the residents to be more physically active, while boosting their engagement in other park activities, IoT would be. With the aids of IoT, not only can the users monitor their activity level and physiological changes, they could earn some rewards upon exercising for a designated period of time at proper intensity levels



Operation Details of IoT

By scanning the QR codes labelled on fitness equipment, resident's identity can efficiently be identified. This verification process automatically triggers the function of motion sensors installed in movable parts of fitness equipment. Through recording the quantity of oscillation cycle, movement and exercising frequency of residents can be monitored. Data obtained by motion sensors are transferred to a cloud processor for analysis. Result and valuable data, including the length of exercise and calories consumed, are displayed while residents log in to their personal account in relevant website.

The application of IoT further contributes to the safety of residents during exercise. Scanning QR code proving the existence of users. When pressure sensors near the equipment record a continuous load after a shock during in-used, it is likely illustrating that the user falls from the equipment. To draw the attention of pedestrians nearby, a warning signal will be generated by buzzers in this situation.



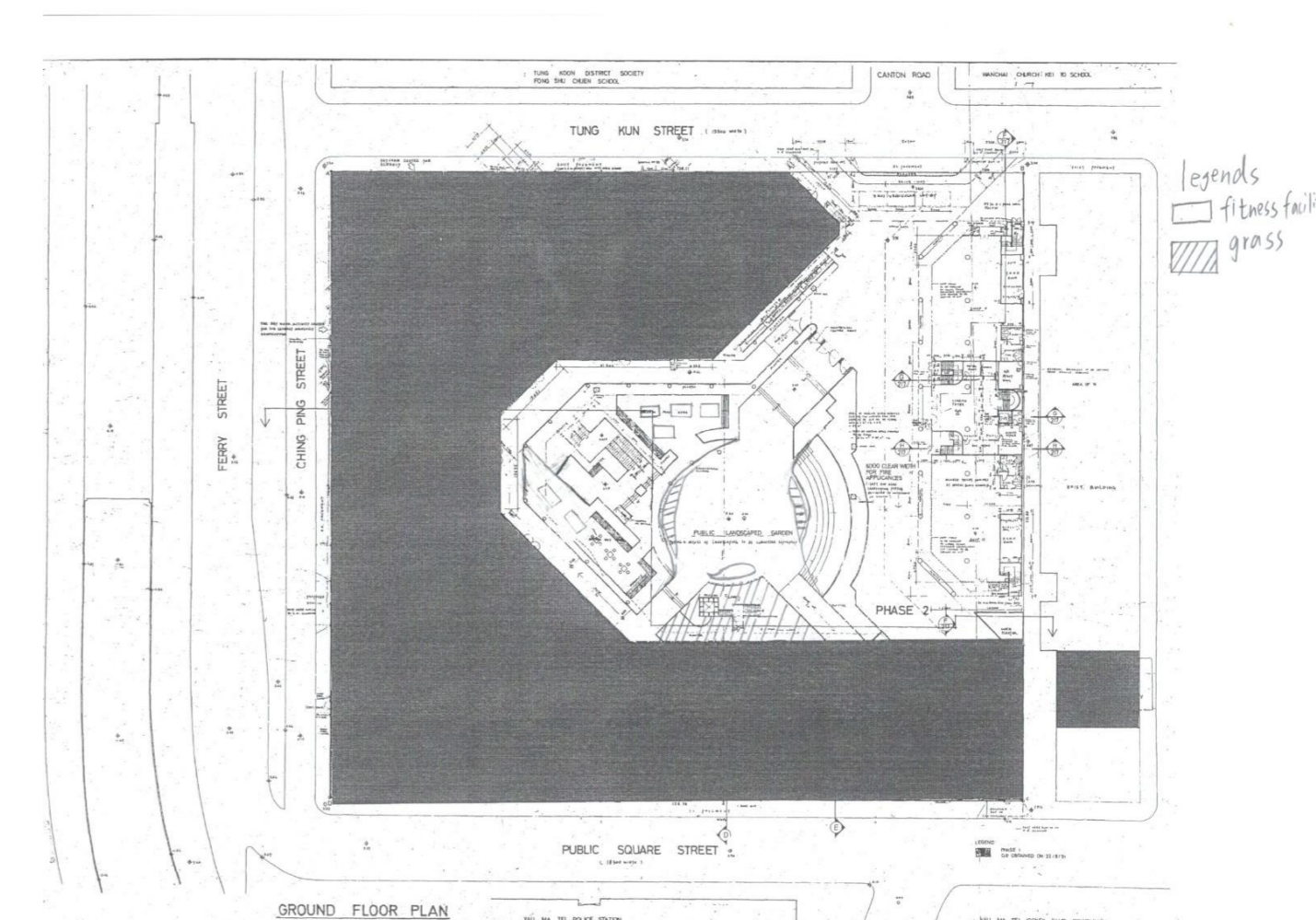
Motion sensor



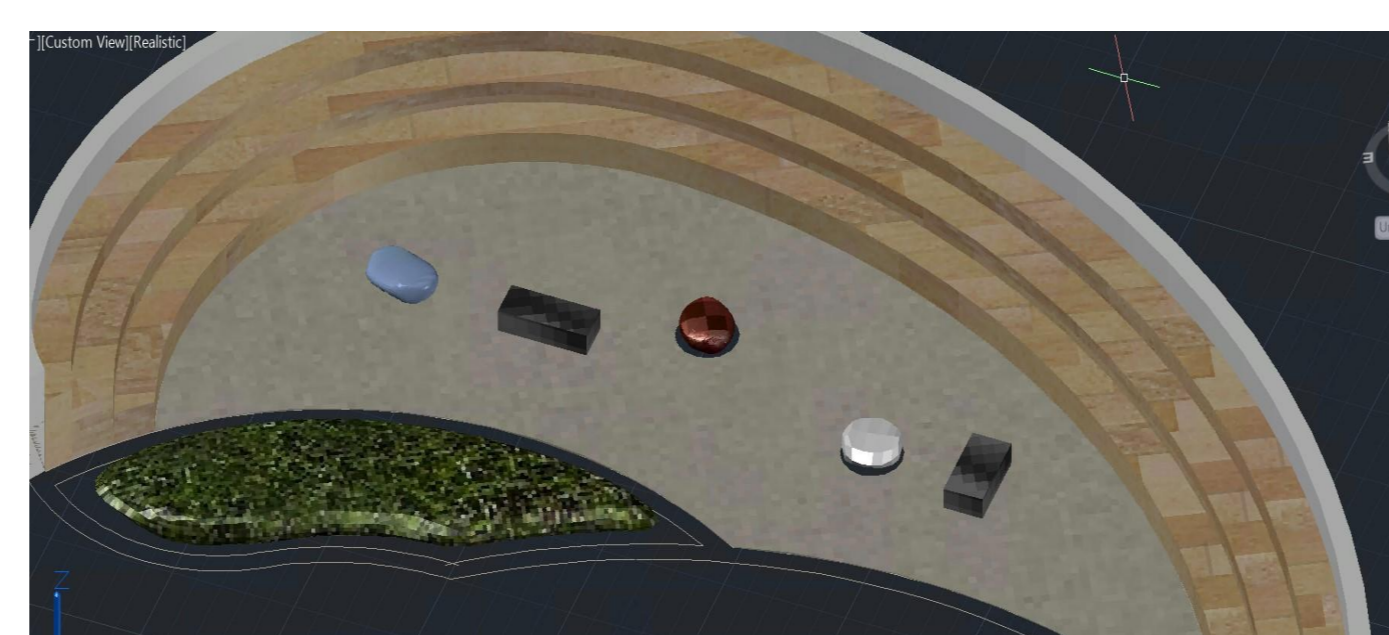
Pressure sensor



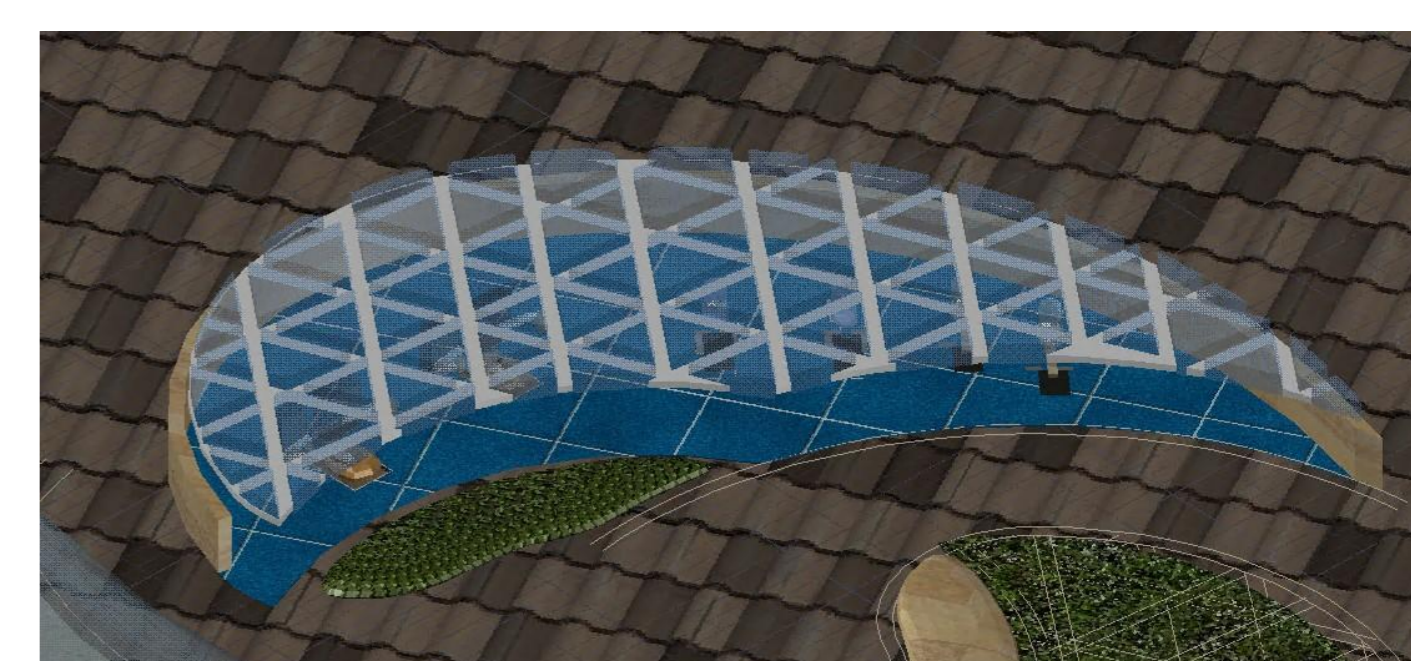
Original Floor Plan



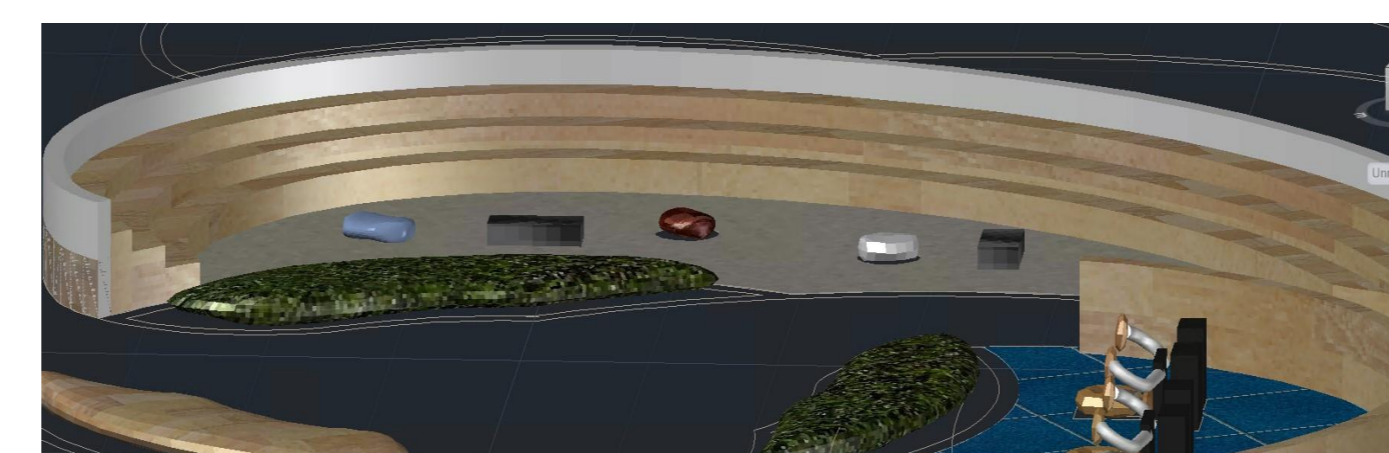
Proposed Floor Plan



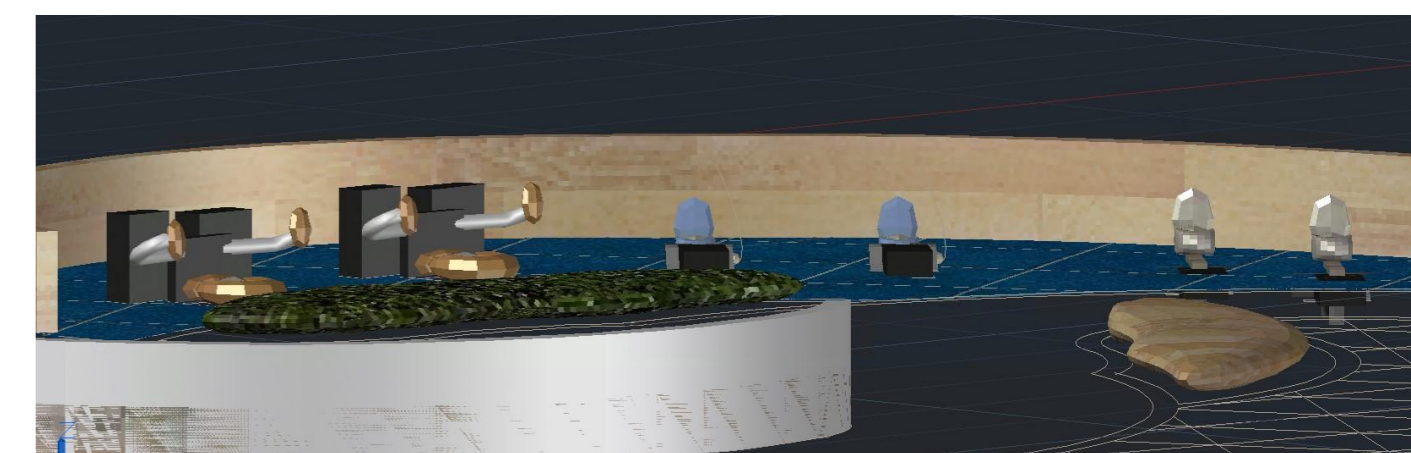
Simulation of Open Area



Simulation of Fitness Area



Side View of Open Area



Side View of Fitness Area

Artistic elements in the design

Yau Ma Tei is a location full of nostalgic features, particularly in the places such as Temple Street, the Tin Hau Temple Complex, and the Wholesale Fruit Market. It would be nice if the Open Area can blend with Yau Ma Tei's cultural characteristics in the Open Area's facilities. For instance, some murals related to Yau Ma Tei features can be painted on the stair tread as well as the inside facet of the clear-glassed cover so that residents sitting on the stair tread can relish the beautiful paintings and statues easily once they sit on the stair tread and raise their heads.

Rationale of the design

As suggested by the U.S. Department of Health and Human Services, at least 150 minutes of moderate-intensity aerobic activity and 2 days of muscle-strengthening activities are needed weekly¹. The zone is, hence, divided into 3 regions: Cardio-training, upper-body resistance training and lower-body resistance training. It is aimed to give residents, from teens to the elderly, the access to a fundamental yet functionally comprehensive range of fitness equipment. A stretching zone is also included for warm-up and cool-down.

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