

LEE LI MING
PROGRAMME IN
AGEING URBANISM

Supporting Healthy Ageing in Place in Singapore

The Pilot Model of
Continuing Care Precinct at
Tampines Greenweave

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The rapid growing trends of ageing are seen in many societies, and Singapore is one of the fastest ageing populations in the world. According to the Sample Household Survey 2018 (HDB, 2018), over 40% of residents hope to stay in their own flat as they age, indicating a strong preference for ageing in place.

Ageing in place refers to people remain in their homes and communities, for as long as they can, as they age.¹ It promotes life satisfaction, a good quality of life, and self-esteem.² As more people prefer to age in place, Singapore has made substantial efforts in policy and infrastructure to help seniors age in place gracefully and confidently. This article presents some of the key design features of a pilot model of Continuing Care Precinct in Singapore – Tampines Greenweave – that aims to support healthy ageing in place.

¹ Overview of Ageing in Place, <https://www.ruralhealthinfo.org/toolkits/aging/1/overview>

² The Meaning of “Aging in Place” to Older People, <https://academic.oup.com/gerontologist/article/52/3/357/580905>

A City for All Ages – Live Well and Age Confidently in Place

In 2015, the Ministerial Committee of Ageing (MCA) launched the *Action Plan for Successful Ageing*, a national blueprint that promotes healthy longevity and seeks to transform the ageing experience on individual, community and national levels. One of the key initiatives is to build a “City for All Ages” – live well and age confidently in place, with five key strategies:

- Create smarter homes and senior-friendly towns;
- Transform the healthcare delivery system;
- Introduce an affordable and convenient transport network;
- Upgrade public spaces such as parks and park connectors;
- Invest in ageing-related research.

The Housing & Development Board (HDB) and the Ministry of Health (MOH) have worked closely to integrate fenceless nursing homes in HDB housing estates. The “*Continuing Care Precincts*” and “*Community Care Apartments*” are two of these new models of “Housing + Care”.

Continuing Care Precinct: The Case of Tampines Greenweave

The HDB has provided more housing options in certain new public housing estates for the older population, such as studio apartments and 2-room Flexi flats with age-friendly retrofits. The MOH complements these housing by integrating eldercare facilities and co-locating nursing homes. The aim is to provide continuum

Supporting Healthy Ageing in Place in Singapore options, from independent living to assisted nursing care facilities within the same public housing precinct.

Completed in 2019, Tampines Greenweave (a public housing precinct in Tampines North) is experimenting this Continuing Care Precinct concept (Figure 1). A unique feature of Tampines Greenweave is the provision of social support (through the Senior Activity Centre), major healthcare facilities (nursing home and polyclinic) and senior apartments in the same housing precinct.



Figure 1. Site plan for Tampines Greenweave (Source: HDB)

Enhanced accessibility to local amenities

A key design feature of Tampines Greenweave is the provision of **interweaving walkways** throughout the precinct to enhance accessibility to adjacent amenities. The elevated walkways on level 2 and 3 link residential blocks (Figure 2) and connect them to pedestrian overpass at the main road (Figure 3). For Block 609C and 609D where senior apartments are located, elevated and ground-level walkways are provided to adjacent amenities, including a nursing home, a Senior Activity Centre (SAC), a food court, and an upcoming polyclinic. It is easy to move around in this precinct as

reviews about Block 609D on Google Maps stated,³

*Clean and spacious, easy to move around.
Many greenery. Quite spacious to walk, jog around. Nice.*



Figure 2. Elevated walkways linking 609C, 609D, 610, and pedestrian overpass (Image credit: author)



Figure 3. Elevated walkways (Image credit: author)

Roof garden is another key design feature, incorporating green infrastructure on the roof of a multi-storey car park located at the centre of the precinct. Elevated walkways on level 3 link the car park to its neighbouring HDB blocks (Figure 4) to enable easy access to/from home. Long benches are installed at the roof garden for residents to rest and gather.

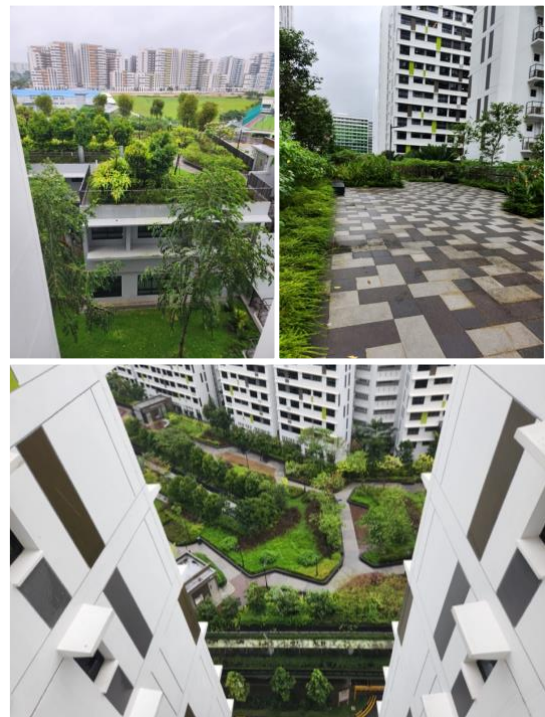


Figure 2. Elevated public space and roof garden (Image credit: author)

Social support and active ageing programmes

The SAC at Tampines Greenweave – **House of Joy (HOJ)** – provides active ageing programmes for seniors in the estate. It is set up by a charity organisation, the City Harvest Community Services Association. Located on the ground level of Blk 610, HOJ can be easily accessed by older residents living in the adjacent senior apartment blocks. The centre performs the following roles:

- Serve as the first respondent for the Alert Alarm System installed in senior apartments for Block 609C and 609D;
- Provide active ageing programmes and events to promote social

³ Tampines Greenweave Google Reviews (Part 1), https://www.google.com/maps/place/Tampines+GreenWeave/@1.3630929,103.932522,17z/data=!3m1!1e3!1s0x31da3d66869d3c49:0x808cf8a042e7b3d618m2!3d1.3630875!4d103.9350969!9m1!1b1!16s%2Fg%2F11j8_2rbvg

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connection and active living habits (Figure 5);

- Partner with community and grassroots organisations to promote healthy active ageing.



Figure 3. Active Ageing Programmes (Source: CHCSA)

HOJ proactively recruits residents living in senior apartments to invite them to participate in active ageing programmes (see Figure 6). Volunteers are mobilised to reach out to older adults in Tampines North to build connections, ensuring that they are not socially isolated. The aim is to develop “communities of care”, especially for older residents living alone (Figure 7).



Figure 4. HOJ advertisement found on the metal gate of a senior flat (Image credit: author)



Figure 5. “3-Step Connection” (Source: CHCSA)

Source: <https://www.chcsa.org.sg/>

Residents and volunteers have given positive feedbacks. Active participants generally appreciate the various activities conducted, e.g., exercise classes, baking lessons, gardening programmes. A 69-year-old resident at Tampines Greenweave shared,⁴

I join all the exercise classes: Zumba, yoga, Crossfit. Since coming here I have many activities to do, and I have made new friends. We meet here every day, it's very convenient. I would exercise every day, then I go upstairs and shower, and come back down here to read the papers.

Integration of healthcare facilities

Another key design element of Tampines Greenweave is the integration of healthcare facilities in the precinct. A nursing home and a polyclinic facilities are co-located near senior apartments within the precinct (Figure 8). This supports older residents’ independent living as they can access healthcare services from the adjacent nursing home and polyclinic when needed.

The nursing home, named **Tampines Care Home**, is Singapore’s third government-run nursing home with a 301-bed facility and was established in 2018 (Figure 9). It offers residential services, day care, and shared caregiving at affordable rates. The service approach (see Box 1) contributes to

⁴ House of Joy Tampines Greenweave Officially Opens, <https://www.citynews.sg/2022/05/31/hoj-tampines-greenweave-officially-opens/>

ageing with dignity in older residents' own living spaces. Government subsidies are available for those who qualify. The care home also works closely with the community, recruiting volunteers from the neighbourhood.

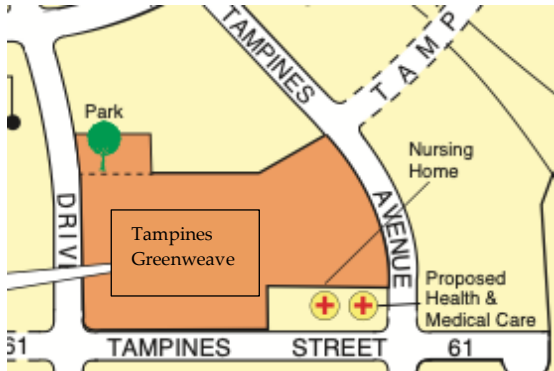


Figure 6. Co-location of nursing home and polyclinic (Source: HDB)

Box 1: The service approach of Tampines Care Home

Tampines Care Home has implemented a patient-centred approach with the aim to ensure higher levels of satisfaction among both staff and families.

The nursing home is featured by home-like "clusters" that contain both assisted and private bathrooms as well as communal areas that allow for personalisation and autonomy.

By providing a self-directed activity schedule that residents can make choices about their own care options, the nursing home aims to improve the quality of life for its residents and give them a sense of ownership over their living spaces.

Source:

<https://www.carehome.com.sg/OurCareHomes/tampines>

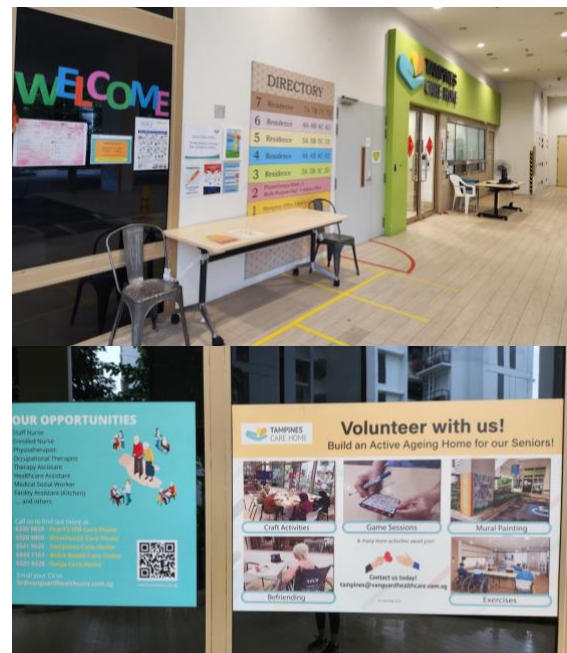


Figure 7. Tampines Care Home (Image credit: author)

In line with the "fenceless" concept, the nursing home is designed to integrate with the rest of the Tampines Greenweave precinct through shared gardens and barrier-free walkways (Figure 10). This design feature seeks to strengthen the sense of community and enhance accessibility to/from senior residents' homes. Benches are installed along the walkways, offering places for seniors to rest and enjoy the green space.



Figure 8. Walkway connecting building blocks with the nursing home (Image credit: author)

A polyclinic is completing soon, which will provide essential healthcare services

to residents (Figure 11). Similarly, barrier-free walkways will link the polyclinic to the neighbouring senior apartment blocks for easy access. This will help enable seniors' independent living with minimum external assistance to healthcare services.



Figure 9. Polyclinic under construction at Tampines Greenweave (Image credit: author)

Age-friendly features inside senior apartment buildings

Several age-friendly design features are implemented in the senior apartment buildings at Tampines Greenweave. For instance, all senior apartments are equipped with a pull-cord Alert Alarm System. Older adults can pull the cord inside the unit to activate the alarm siren when in distress.⁵ Once triggered, the 5-room flat on the same floor and the SAC will receive the alarm and be able to assist (Figure 12 and 13). The system enables older residents to live independently in their own apartments without intrusive monitoring.

⁵ The Innovation Journey of GovTech's Sensors and Internet of Things Division, <https://www.developer.tech.gov.sg/products/cate>



Figure 10. AAS device in corridor (Image credit: author)



Figure 11. AAS device in void deck (Image credit: author)

Grab bars and benches with handrails are installed in the void deck and other public spaces to assist seniors' mobility needs (Figure 14).



Figure 12. Bench with handrail and grab bar (Image credit: author)

[gories/sensor-platforms-and-internet-of-things/personal-alert-button/case-study](https://www.developer.tech.gov.sg/products/cate/gories/sensor-platforms-and-internet-of-things/personal-alert-button/case-study)

Supporting Healthy Ageing in Place in Singapore location-based feedbacks on Google Maps Review for Tampines Greenweave, the block signboard could be larger for easy navigation.⁶

*Blk signboard can be bigger.
A bit confused. Blk signboard is small.*

Conclusion

The pilot model of Continuing Care Precinct at Tampines Greenweave adopts various design strategies to better support autonomy and self-reliance among older residents. These include barrier-free elevated walkways linking senior apartment building with adjacent amenities, social support from SAC, co-location of nursing home and polyclinic within the precinct, and age-friendly features inside senior apartment buildings. These design strategies are important efforts to support healthy ageing in place, in terms of both physical and mental health. As Singapore is developing more age-friendly estates to facilitate independent living and healthy ageing in place, we can anticipate more continuing care precincts and community care apartments coming.

Tampines Greenweave could serve as a demonstration project to spark retrofitting ideas for existing HDB estates. Current senior apartments could be upgraded to *community care apartments* to facilitate better care services. Existing HDB estates could be redeveloped into *continuing care precincts* by introducing senior-friendly social services and design features. These upgrading and redevelopment schemes

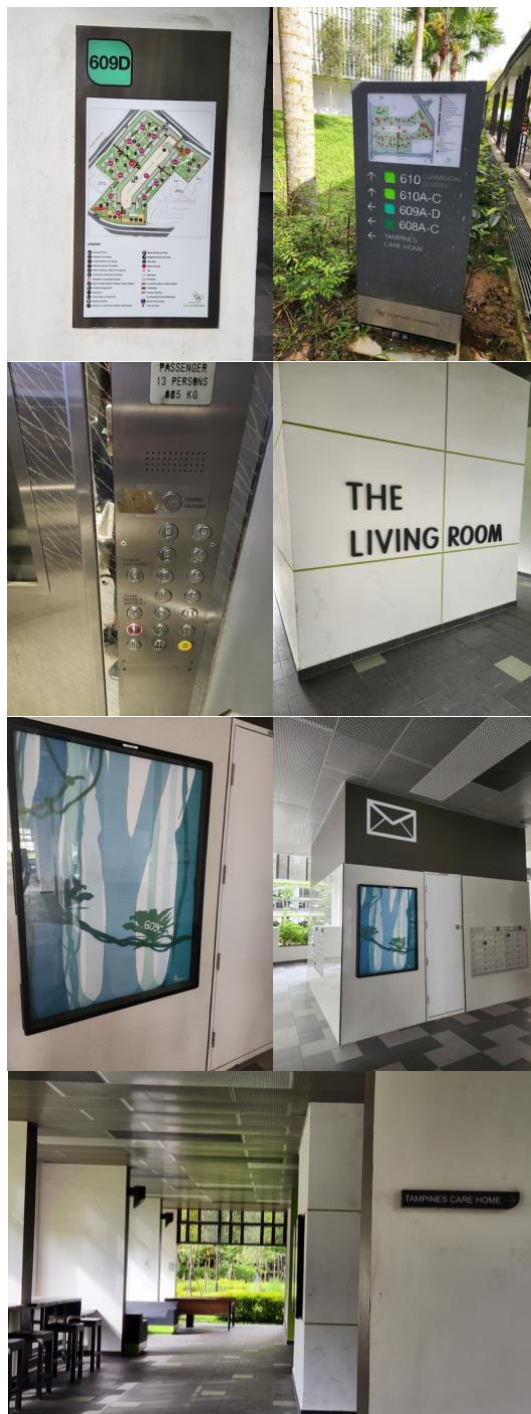


Figure 15. Wayfinding features (Image credit: author)

In addition, a series of wayfinding designs (directory, wall murals and icons) (Figure 15) are implemented at various locations to help seniors and people living with dementia to navigate through their living environments. Yet, as reflected in the

⁶ Tampines Greenweave Google Review (Part 2), <https://www.google.com/maps/place/609D+Tampines+North+Drive+1/@1.3639166,103.9370418,20.06>

[z/data=!4m8!3m7!1s0x31da3d0d2e7f0273:0x586ed7ac33dfaeb3!8m2!3d1.3638492!4d103.9373475!9m1!1b1!16s%2Fg%2F11j0b5jj7x](https://www.google.com/maps/place/609D+Tampines+North+Drive+1/@1.3639166,103.9370418,20.06z/data=!4m8!3m7!1s0x31da3d0d2e7f0273:0x586ed7ac33dfaeb3!8m2!3d1.3638492!4d103.9373475!9m1!1b1!16s%2Fg%2F11j0b5jj7x)

would not only enable more supportive environment for seniors to age well in place, but also help create a more inclusive community by blending different generations in the same public housing estate.

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