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22 April 2024

Ar. HO Wing Yin, Winnie, JP
Secretary for Housing
Housing Bureau

By Email
shoffice@hb.gov.hk

Dear Ar. HO,

HKIA's Views on Proposed Redevelopment of Choi Hung Estate

The Hong Kong Institute of Architects (HKIA) has carefully reviewed the plans and would like to share our comments and suggestions.

HKIA understands the significance of renewing housing stock and improving the quality of life for the residents of Hong Kong. We fully support the government's initiative to conduct a redevelopment study for Choi Hung Estate, considering its structural deterioration after serving the general public for six decades. Our position paper highlights the need for the government to review and, if necessary, redevelop public housing estates to provide a better living environment, incorporating sustainable design, improved quality of living space, and modern building services.

Furthermore, our position paper recognizes the historical and architectural merits of Choi Hung Estate. The estate represents a pioneering government project and holds considerable heritage value. We emphasize the importance of striking a balance between development potential, sustainability, and heritage preservation in line with the United Nations' Sustainable Development Goals.

To ensure a comprehensive evaluation, we recommend that the government conducts a holistic assessment of the buildings' structural condition, along with a Heritage Impact Assessment and carbon footprint analysis of redevelopment options. Multiple redevelopment options should be proposed and evaluated, not only based on economic costs but also considering environmental sustainability and heritage impact, following international standards set by UNESCO and other relevant organizations.

In case demolition and rebuild become unavoidable, we suggest the government to consider preserving relics of the Estate during redevelopment. Archiving or showcasing significant housing projects in suitable locations for public interest would be a commendable step. Additionally, adaptively reusing a block or a portion of Choi Hung Estate can help preserve its heritage and retain significant relics, symbolizing the outstanding solution for high-density housing that it represented in the 1960s.



We believe that the recommendations and views outlined in our position paper will contribute to the decision-making process and foster a sustainable, heritage-conscious approach to the redevelopment of Choi Hung Estate.

We appreciate your attention to our comments and look forward to further discussions on this matter. Thank you for considering our perspective. Should there be any enquiries, please contact Mr. Nick KONG of the HKIA Secretariat at 2511 6323 or email to council@hkia.org.hk.

Yours Sincerely,

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President
The Hong Kong Institute of Architects

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Encl.

Annex 1 - HKIA's Views on Proposed Redevelopment of Choi Hung Estate

HKIA's Views on Proposed Redevelopment of Choi Hung Estate

Context

On 21 December 2023, Hong Kong Housing Authority (HA)'s Strategic Planning Committee (SPC) endorsed the proposal to initiate a redevelopment study for Choi Hung Estate in Wong Tai Sin, in response to the invitation under "The Chief Executive's 2022 Policy Address".

Views

1. HKIA respects the need for renewing housing stock and improving quality of life, and supports the government to conduct the redevelopment study for Choi Hung Estate.

- Understanding that Choi Hung Estate and other public housing estates in Hong Kong face structural deterioration after six decades of serving the general public, HKIA recognises the need for Government to review its public housing stock and redevelop if necessary, so as to maintain a quality environment for the public, and bring in improved architectural design ideas for the residents, such as sustainable design, better quality of living space, modern building services and the like. As such, HKIA supports the government to conduct the redevelopment study for Choi Hung Estate.

2. HKIA recognizes the historical and architectural merits of the Choi Hung Estate

- HKIA also acknowledges Choi Hung Estate, to which HKIA conferred its highest recognition of excellence of the Silver Medal in 1965, as emblematic of great innovation and achievement of its time, and appreciates its considerable heritage value. Designed by Palmer and Turner Architects and completed between 1962 and 1964, the estate represented a pioneering government project to house the influx of Chinese migrants into the region¹. Quality spaces

¹ "Choi Hung Estate Public Housing", Docomomo Hong Kong (website), <https://docomomo.hk/project/choi-hung-estate/>, last accessed 27 Dec 2023

and street life as well as a strong sense of community are achieved with its innovative architectural and urban design, specifically:

- the well-proportioned distribution of massing of high and low residential blocks interspersed with other social functions like markets, schools, and carparks, which offer visual relief within the urban environment and good urban wind corridors
- the low residential block, with its arcade of shopfronts at the ground level, acts as a circulation artery connecting the various blocks of the Estate, providing a vibrant street life sheltered from the elements and forming a “city within a city”²
- the playgrounds at the top of the carpark blocks, which activates the roof into a vibrant place for the young and elderly
- the punctuation of double loaded corridors with play areas and ventilated common lobbies, which offer cross-ventilation while maintaining a high level of efficiency
- the use of rainbow colors on the facade since the 1980s and vibrant colors on podium rooftop playground in 2014, which strengthens the identity of Choi Hung Estate (literally “rainbow estate”)

² Janice Li, “Cities within Cities: How Hong Kong Architects Respond to High-Density Living”, M+ (website), <https://www.mplus.org.hk/en/magazine/hong-kong-urban-housing-design/>, 31 Mar 2022, last accessed 24 December 2023

3. HKIA encourages Government to strike a balance between development potential, sustainability, and heritage, which is in line with UN's Sustainable Development Goals

- The demolish-and-rebuild process is often energy-consuming and generates large amounts of waste. The most effective way of ensuring energy efficiency and sustainability is to keep historic buildings in good repair so that they last as long as possible, do not need replacement and do not suffer from avoidable decay that would require energy and carbon to rectify³. This is in line with UN's SDG target no.11.4 which aims to “strengthen efforts to protect and safeguard the world's cultural and natural heritage”⁴.

4. Government should review and study the heritage merits of the Choi Hung Estate in relation to the modern architecture history of Hong Kong and establish the cultural significance and conservation policy of the Estate

- As established in the previous paragraphs, Choi Hung Estate is a historic pride of Hong Kong and demonstrates the ongoing welfare policy to provide quality household living environment and the progressive approach of our city. In line with UNESCO's conservation practices, we encourage the Government to study the Estate's values towards modern architecture development in Hong Kong and establish important architectural and urban features of the Estate prior to the schematic design.

³ John Preston, “Repair and Maintenance in Sustainable Traditional Buildings”, Jun 2017 <https://www.sdfoundation.org.uk/downloads/2017-06-John-Preston-original.pdf>

⁴ See UN Sustainable Development Goal 11.4, <https://uis.unesco.org/en/topic/sustainable-development-goal-11-4>

5. Government should also conduct a holistic assessment of the buildings' structural condition, combined with Heritage Impact Assessment (in accordance with ICOMOS Guidelines in comparing development options⁵) and carbon footprint analysis of redevelopment options to assess their pros and cons from various aspects

- We also suggest the Government to conduct a detailed structural condition assessment of the Estate to inform the viability of redevelopment options. For example, repair and maintenance / major additions and alterations can be conducted to those buildings in better structural conditions, while those in poorer conditions may have to be demolished and rebuilt. In case that the buildings are in similar conditions, adaptively reusing the low blocks whilst redeveloping the high blocks into higher towers may also achieve more GFA and units more effectively.
- Multiple redevelopment options should be proposed and evaluated not only in terms of economic costs but also in terms of environmental sustainability and heritage impact, through carbon footprint assessment and Heritage Impact Assessment that is up to international standards as set by UNESCO and other international agencies. This is also following the "Guidance on Heritage Impact Assessment for World Heritage Properties" by ICOMOS 2011, which states that a HIA's contents should include "details of how alternatives changes are being considered."⁶
- Successful cases to rehabilitate post-war apartment towers have been pioneered in other countries, such as the deep retrofitting of Ken Soble Tower in Hamilton, Canada (original construction 1967, rehabilitation in c. 2020) by ERA Architects, and the Transformation of 530 dwellings in Bordeaux, France

⁵ ICOMOS, "Guidance on Heritage Impact Assessment for World Heritage Properties", 2011, p13

⁶ Ibid, p.13

by Pritzker Architecture Prize-winning firm Lacaton & Vassal with Frédéric Druot and Christophe Hutin (original construction in 1960s, addition and rehabilitation in c. 2011-2016) (See appendix for details of the examples).

6. If demolition and rebuild is unavoidable, Government to consider preserving relics of the Estate during redevelopment

- Should demolition be unavoidable, Government should archive or showcase these significant housing projects in suitable locations/ venues for the public's interest. We appreciate HD's efforts to create events and video records to conserve the historic and cultural elements of the Wah Fu Estate via the event "A Cultural Journey through Half-Century Wah Fu" (華富半世紀歷史文化之旅), and encourage HD to also make similar records for Choi Hung Estate.
- Government can also consider adaptively reusing one block (or a portion of it) of Choi Hung Estate to preserve the heritage of our hometown, and retain significant relics, such as the memorial opening plaque of the Estate which signifies the first HKIA highest award, proving it to be an outstanding solution for high density housing yet still providing quality living space at a minimal cost back in the 60s.⁷

7. If demolition and rebuild is unavoidable, Government to consider means to conceptually retain the essence of Choi Hung Estate in its redevelopment scheme

- Should demolition be unavoidable, we also seek the HD to also explore innovative means of massing arrangement and architectural design, such that

⁷ 明報, 彩虹本色 「高低樓」減密集團體倡留, 2023/12/3
<https://news.mingpao.com/pns/%e6%b8%af%e8%81%9e/article/20231203/s00002/1701540588130/%e5%bd%a9%e8%99%b9%e6%9c%ac%e8%89%b2-%e3%80%8c%e9%ab%98%e4%bd%8e%e6%a8%93%e3%80%8d%e6%b8%9b%e5%af%86%e9%9b%86%e5%9c%98%e9%ab%94%e5%80%a1%e7%95%99>

the community spaces and *genius loci* (spirit of the place) can be maintained, for example,

- the juxtaposition and the distance of high blocks and low blocks that form a good spatial quality within a high-density housing estate
- activating podium rooftops, and providing inter-floor play areas as sports or other public uses
- providing shopfronts at street level to create a vibrant community space

8. Phasing the redevelopment to sustain the local community

- Redevelopment of entire estates spans years and often imposes great stress on its residents, who fear losing their social bonds formed over the decades, and local businesses, some of which could be as old as the Estate itself and have established a long-standing relationship with the local neighborhood. We acknowledge HD's efforts in other redevelopment projects such as Wah Fu Estate to explore the possibility of in-situ relocation and redevelopment phasing as a means to sustain the local community. The Government should explore whether such principles may be also applicable to Choi Hung Estate. The public housing estate developments at Anderson Road and Kai Tak, both of which are within reasonable traveling distance of the Choi Hung area, may be used as an interim relocation site for the residents and businesses who wish to move back to the Estate, or even as a permanent relocation site for those who consider it to be within reach of their original community.

Case studies

ERA's deep retrofit of the Ken Soble Tower in 500 MacNab Street North, Hamilton, Ontario

- 18-storey tower (80,000 square feet) retrofitted to 146 units of affordable housing for seniors
- meet EnerPHit Passive House standards
- reduction of greenhouse gas emissions by up to 94%
- Awards:
 - Hamilton Urban Design Awards: Civic Achievement, 2021
 - Toronto Construction Association (TCA): Best of Best Awards: Project Achievement, 2022
 - EIFS Council of Canada (ECC): Architectural Design Awards Grand Prize, 2022
 - Canada Green Building Council (CaGBC) Awards: Green Building Excellence: Deep Carbon Retrofit, 2022
 - Engineering News Record (ENR): Global Best Projects: Best Green Project, 2022

500 MACNAB 1967

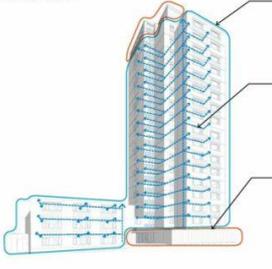


500 MACNAB 2020



TOWER RENOVATION PARTNERSHIP

Ken Soble Tower Transformation
Project Overview



- ENVELOPE**
 - R38 Overcladding
 - Passive House Windows
 - Juliette Balconies
- SYSTEMS**
 - Centralized HVAC with Cooling
 - Riser Replacements for Most Systems
 - Full Building Sprinklering
- MODERNIZATION**
 - Accessibility Upgrades
 - New Community Room and Solarium
 - Interior Upgrades

500 MACNAB PASSIVE HOUSE RENEWAL: ACCESSIBILITY UNITS



- ACCESSIBILITY**
 - 20% of units fully accessible with new washrooms and kitchens meeting CSA standard
- LIFE SAFETY**
 - Sprinklers
 - New fire alarm system
- COMFORT**
 - Ceiling fans
 - Central low energy cooling
- ENVELOPE**
 - Triple glazed windows
 - Thermally continuous and airtight envelope with exterior and interior insulation
- SYSTEMS**
 - Direct ducting for fresh air supply in units with
 - Heat recovery
 - New plumbing system
 - Modernized electrical system
- UNITS**
 - New kitchens
 - New flooring
 - Repair of walls for continuous fire separations between units
- BUILDING AMENITY**
 - New community space at base and penthouse
 - New laundry facility
 - Modernized landscape
- STATE OF REPAIR**
 - All state of repair issues addressed to achieve 30 year plus asset renewal

TOWER RENOVATION PARTNERSHIP

ERA

: <https://www.archpaper.com/2020/09/tower-renewal-partnership-southern-ontario-concrete-high-rises-feature/>

<https://www.eraarch.ca/projects/ken-soble-tower-transformation/>

Lacaton & Vassal + Frédéric Druot + Christophe Hutin architecture's Transformation of 530 dwellings at Bordeaux, France

- Three 10- to 15-storey blocks with 530 social housing units
- Project is economized by the choice of transforming the existing building without doing important interventions on the existing structure, the stairs or the floors and to proceed by additions and extensions
- 2 former elevators serving every staircase of 45 dwellings are replaced by a new bigger one and supplemented by a new elevator built to improve the vertical circulation.
- global performance of the building envelope is also improved by the addition of winter gardens and by the insulation of the North facade.
- Awards:
 - Pritzker Architecture Prize, 2021
 - EU Mies van der Rohe Award 2019
 - Simon Architecture Prize / Fondation Mies van der Rohe - The Living Places, 2016



<https://www.lacatonvassal.com/index.php?idp=80>

<https://www.archdaily.com/915431/transformation-of-530-dwellings-lacaton-and-vassal-plus-frederic-druot-plus-christophe-hutin-architecture>

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