

**Heritage Impact Assessment on
Chai Wan Factory Estate at No.2 Kut Shing Street, Chai Wan**

BACKGROUND

Chai Wan Factory Estate (CWFE) is located at 2 Kut Shing Street, Chai Wan (please refer to Figure 1 for the location plan of CWFE). It was accorded with a Grade 2 historic building status by the Antiquities Advisory Board in February 2013. CWFE is currently vacant.

2. In view of the need to increase the supply of public rental housing (PRH) and having considered the local aspiration to preserve CWFE, the Hong Kong Housing Authority has developed the PRH conversion scheme for CWFE.

STATEMENT OF CULTURAL SIGNIFICANCE

3. CWFE was built by the Resettlement Department in 1959. It was built along with the resettlement housings at the Chai Wan Resettlement District. It is a factory building which adopted an H-shaped plan, of 6-storey high and built of reinforced concrete.

4. The construction of CWFE reflected the historic background of Hong Kong at the time of a population boom due to the influx of Chinese refugees to Hong Kong after the Second World War. The influx pressed acutely on the city's housing provision, and illegally built squatter houses emerged at the time. CWFE was built to accommodate the factories cleared from the squatter areas by the Government.

5. CWFE was also built at a time when industrial development was prospering in Hong Kong. It is the only surviving example built in the first model of factory estate in Hong Kong, and is therefore a rare physical evidence for interpreting the industrialisation of Chai Wan since the 1950s.

6. With its significant H-shaped building form, CWFE is a good example of H-shaped Mark I Factory Estate. It is also a typical example of a modern style building with its simple and functional design approach as reflected from

the utilitarian spatial configuration. The H-shaped Mark I Factory Estate building model as demonstrated through CWFE marks a milestone in the overall housing and factory building development in Hong Kong.

7. Despite the interventions on the interior partitioning and frontage of each unit through the years, all the architectural features essentially reflecting the character of the building are still intact and of high authenticity.

HERITAGE IMPACT ASSESSMENT (HIA)

8. An HIA was conducted to examine the impact of the proposed development on the historic building concerned and to devise mitigation measures if adverse impact is unavoidable.

A. Conservation Principles to Conserve the Cultural Significance of CWFE

9. The recommended conservation principles for devising and implementing necessary mitigation measures to conserve and interpret CWFE are as follows-

a) Building Fabrics

- (i) Authenticity of CWFE and its architectural merits should be maintained with minimum intervention. The key character-defining elements (CDEs) identified should be preserved and repaired in situ as far as possible, such as:
 - External elements such as the H-shaped building form, strong horizontal lines formed by the balconies and slabs, courtyards, chimney stacks, and paint characters 「柴灣工廠邨大廈」.
 - Internal elements such as the column, beam and slab structural system, ramps with concrete grilles, and the paint notice at the ramp core on loading capacity.
- (ii) Alteration to the identified original building fabrics should be kept to the minimum. Any new additional works should be properly placed to minimise physical damage to and visual impact on the original building fabrics. New elements should be of compatible design but distinguishable from the existing

building fabrics, and also be reversible to avoid unnecessary damage to CWFE.

b) **Building Services**

- (i) Any new additions at the courtyard should not impose visual impact on the building, while the general outline of the courtyards is still readable.
- (ii) New building services pipelines should be grouped together when entering the building through existing wall openings wherever practicable to minimise the number of new wall openings for pipes, conduits and trunkings.

c) **Documentation and Monitoring**

- (i) Cartographic and photographic surveys to properly record the historic building will be conducted and these two survey records would be available prior to the commencement of actual site works.
- (ii) Any renovation and maintenance works during the conversion and in future operation should be properly documented for record and should follow the principles laid down in the HIA report.

B. Key Design Proposal

10. The key proposed works for conservation and adaptive re-use, as well as enhancement works, are listed as follows-

(a) **Conservation and adaptive re-use of CWFE as PRH flats**

- (i) The existing building will be conserved, adaptively re-used and upgraded for new residential usage and for meeting the latest standards and requirements.
- (ii) The ground floor units will be mainly adapted for commercial use and for housing building services. There will be display areas for heritage interpretation, where artifacts salvaged from CWFE will be displayed.
- (iii) The upper floors will be converted into PRH flats. Each flat will be provided with a toilet, kitchen, balcony and light well to enhance greater natural light intake.

- (iv) Additional flats will be located on the fifth floor at the wing facing Lee Chung Street, filling up the space originally used as canteen, penthouse and roof terrace.
 - (v) Screens will be added along the external corridors at intervals facing Lee Chung Street and Cheung Lee Street to provide privacy to the tenants. Partitions will be added along the internal corridors facing courtyards to provide private balcony for each PRH flat.
- (b) Enhancement works to comply with the planning brief and statutory requirement
- (i) Green area will be provided on the ground floor and roof terrace. The courtyard facing Kut Shing Street will be converted into a public landscaped area with display areas and mural walls for heritage interpretation. The courtyard facing Chui Hang Street will mainly accommodate car park and a private garden for the PRH tenants. A green roof will be provided on the roof terrace of the wing facing Cheung Lee Street for tenants' enjoyment.
 - (ii) The existing bridging link between the two wings at grid line 12-14 will be demolished due to structural deterioration; a new bridging link will be constructed at grid line 13-16. The change in the position of the new bridging link is due to the restriction by the possible locations of the new lifts at the two wings according to the existing pile caps locations, and the existing location of the ramp. The new bridging link will accommodate PRH flats and provide circulation between the new lobbies formed.
 - (iii) Steps will be added onto the existing ramps to form a means of escape. An elevated skylight will be introduced onto the roof of the ramp core to enhance natural light and ventilation in-take.
 - (iv) New lifts will be provided on each floor for universal access.
 - (v) Existing staircases at the inner corner of the wings facing courtyards will be demolished; new staircases will be constructed at the outer corner of the wings facing Lee Chung Street and Cheung Lee Street to fulfill the requirements in Hong Kong Planning Standard and Guidelines and the Noise Control Ordinance (Cap. 400).
 - (vi) As the roof slabs will be re-casted for ensuring structural safety, the existing brick chimney stacks will be retained in-situ with

temporary support and reinstated after the re-cast of the roof slabs. In case of poor structural condition of the existing chimney stacks, the existing chimney stacks will be dismantled and salvaged temporarily, and subject to further investigation, restored back to their original position.

C. Mitigation Measures for the Conversion Works

11. For areas where possible impact of the conversion works could not be avoided, the following mitigation measures are to be implemented based on the previously stated conservation principles:

- (a) Conservation and adaptive re-use of CWFE as PRH flats
 - (i) Structural survey should be carried out to investigate the condition of the existing structures before the commencement of any works.
 - (ii) The creation of new floor openings shall not affect the structural stability of the building and shall minimise the disturbance to the historic fabrics as far as practicable. Repair and upgrading works shall be carried out wherever necessary to ensure the structural stability and durability of the building.
 - (iii) Any new addition to the elevation shall be done in the manner such that the essence of the original elevation design, including the horizontality and continuity formed by the balconies and slabs, and the solid and void composition formed by the parapets and the balconies are still readable. As such, any new addition shall be recessed from the existing parapet walls, and shall be readily distinguishable to but compatible with the existing building fabric.
- (b) Enhancement works to comply with the planning brief and statutory requirement
 - (i) The green area at the courtyards shall be designed in a manner such that the general outline of the courtyards is still readable, and could provide a pleasant space for the appreciation of the historic building.
 - (ii) The new bridging link shall not exceed the original building height at the main roof level. The form and massing shall also respect the original design to maintain the H-shape building form. Finishes shall be readily distinguishable but compatible with the

existing building fabric. It shall be structurally independent without affecting the structural stability of the existing building.

- (iii) The addition of new steps shall be reversible. The addition of new fixtures of the steps shall have a minimum intervention to the existing building fabric. The new steps shall be added in a manner such that the original setting of the ramp is still readable. The material and finishes of the new addition shall be readily distinguishable but compatible with the existing building fabric.
- (iv) Any change to the structure shall not affect the structural stability of the building and shall minimise the disturbance to the historic fabrics as far as practicable.
- (v) Photographic and cartographic survey shall be carried out to document the existing chimney stacks before the commencement of works. In case of poor structural condition of the existing chimney stacks, photographic survey shall be carried out to document the existing brickworks of the chimney stacks after removal of existing finishes. The chimney stacks shall be reinstated at original position according to the original construction and appearance. Salvaged bricks of the chimney stacks shall be re-used as far as practicable.
- (vi) Building services will be well organised and make use of the existing wall openings as far as practicable. Any new additions at the courtyard, such as the construction of new transformer room and switch room will be limited to the courtyard facing Chui Hang Street. Any new additions on the roof shall be accommodated on the new bridging link as far as practicable.

12. Illustrations showing the proposed works on CWFE are at Figures 2 – 8.

13. The HIA has concluded with the observation that the proposal will meet the primary objectives of properly conserving CWFE while meeting the requirements for providing PRH through the conversion.

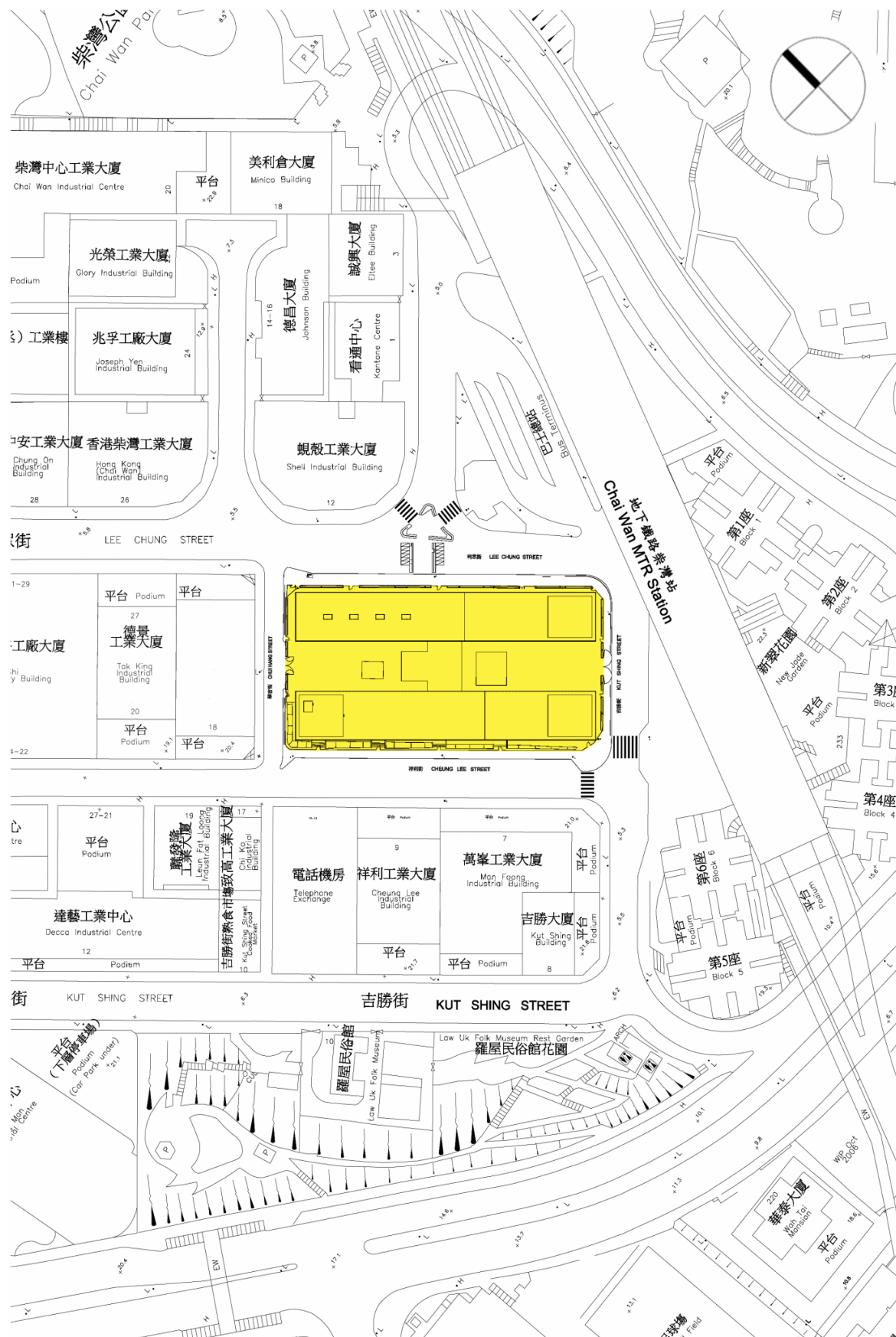


Figure 1 Location Plan of CWFE

地下鐵路崇德站
CHAI WAN MTR STATION

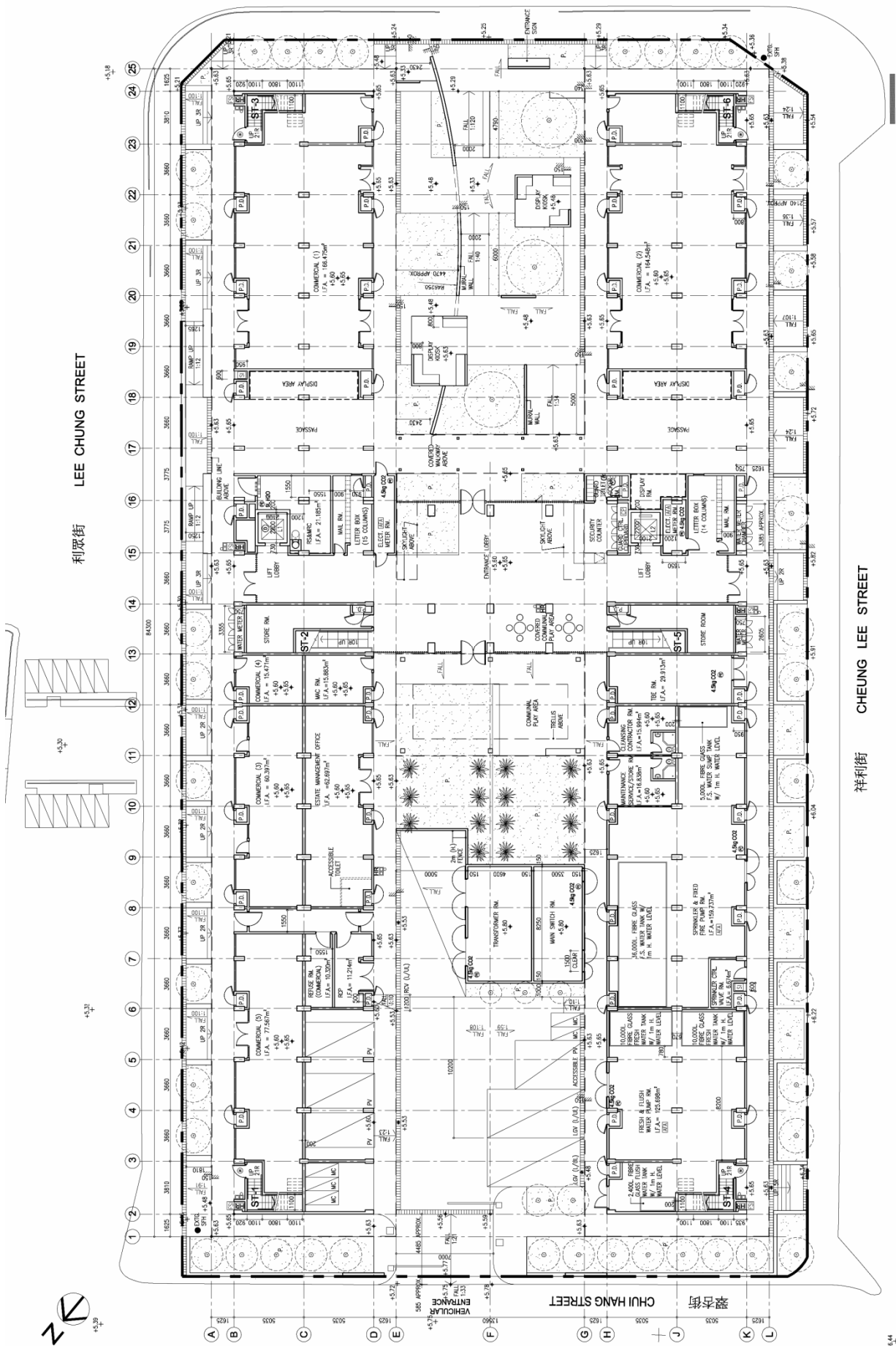


Figure 2 Proposed Plan for Ground Floor

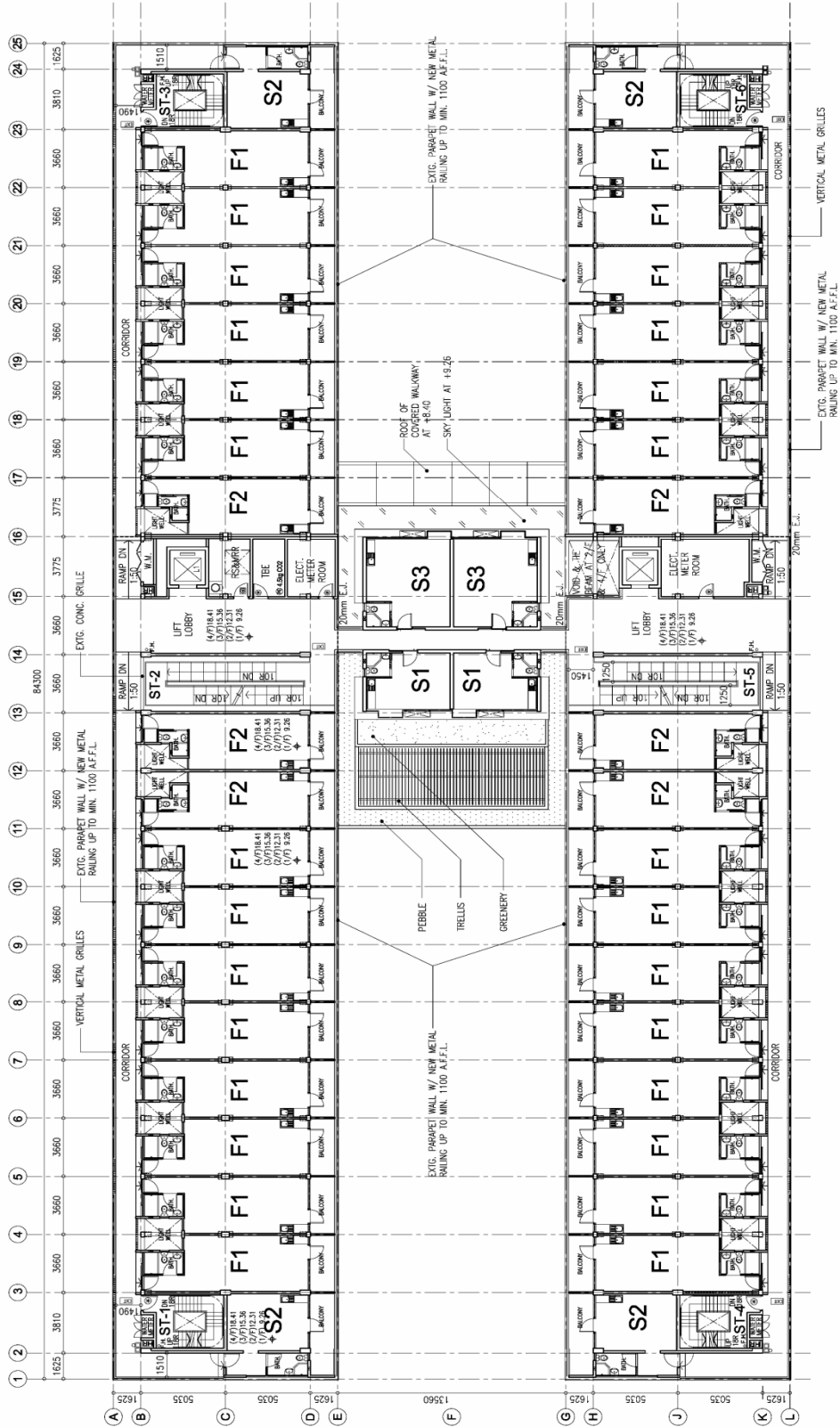


Figure 3 Proposed Plan for First to Fourth Floors

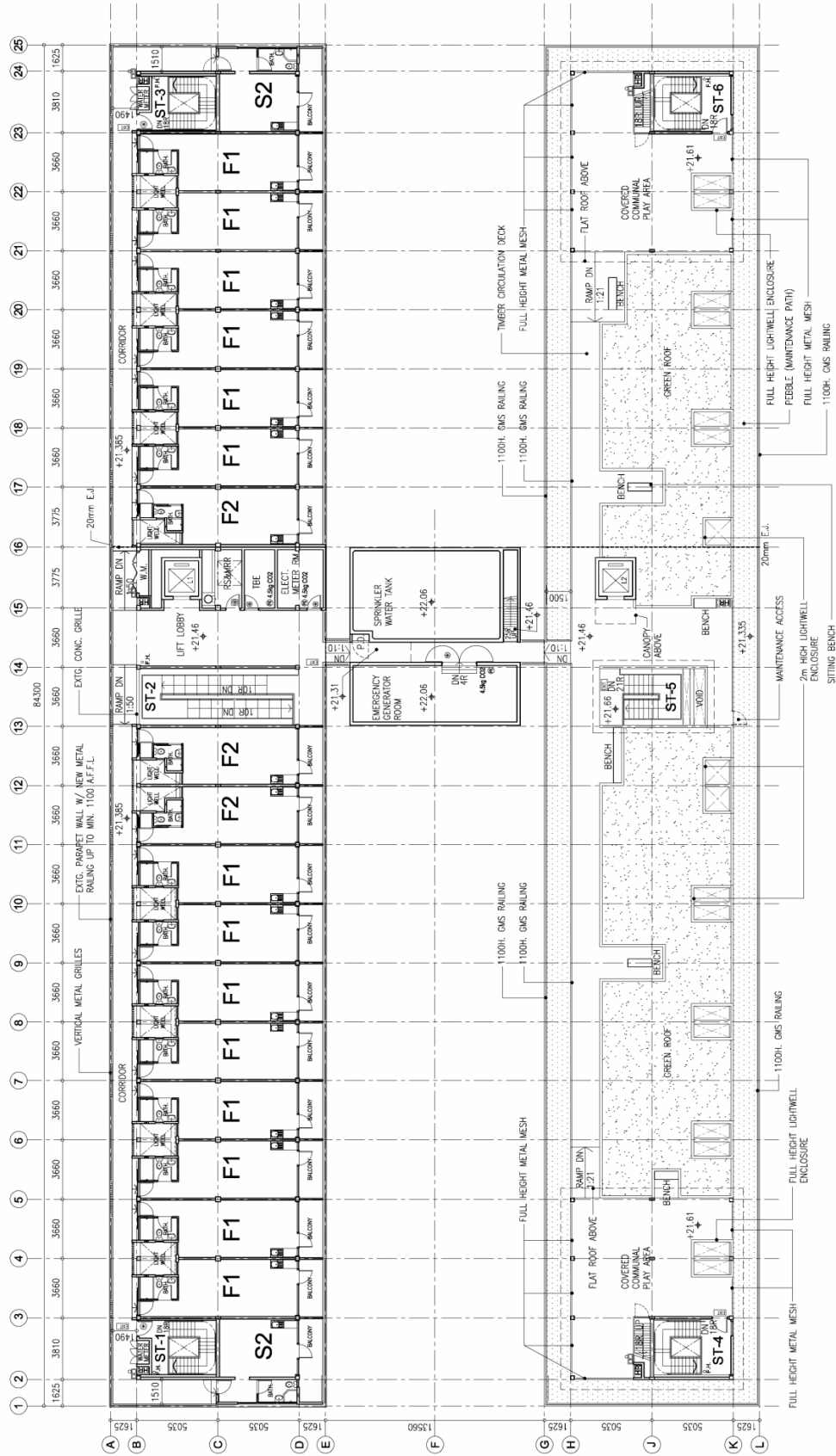


Figure 4 Proposed Plan for Fifth Floor



Figure 5 Proposed Roof Plan



Figure 6 Artistic Impression of the Proposed Design Viewing from Kut Shing Street

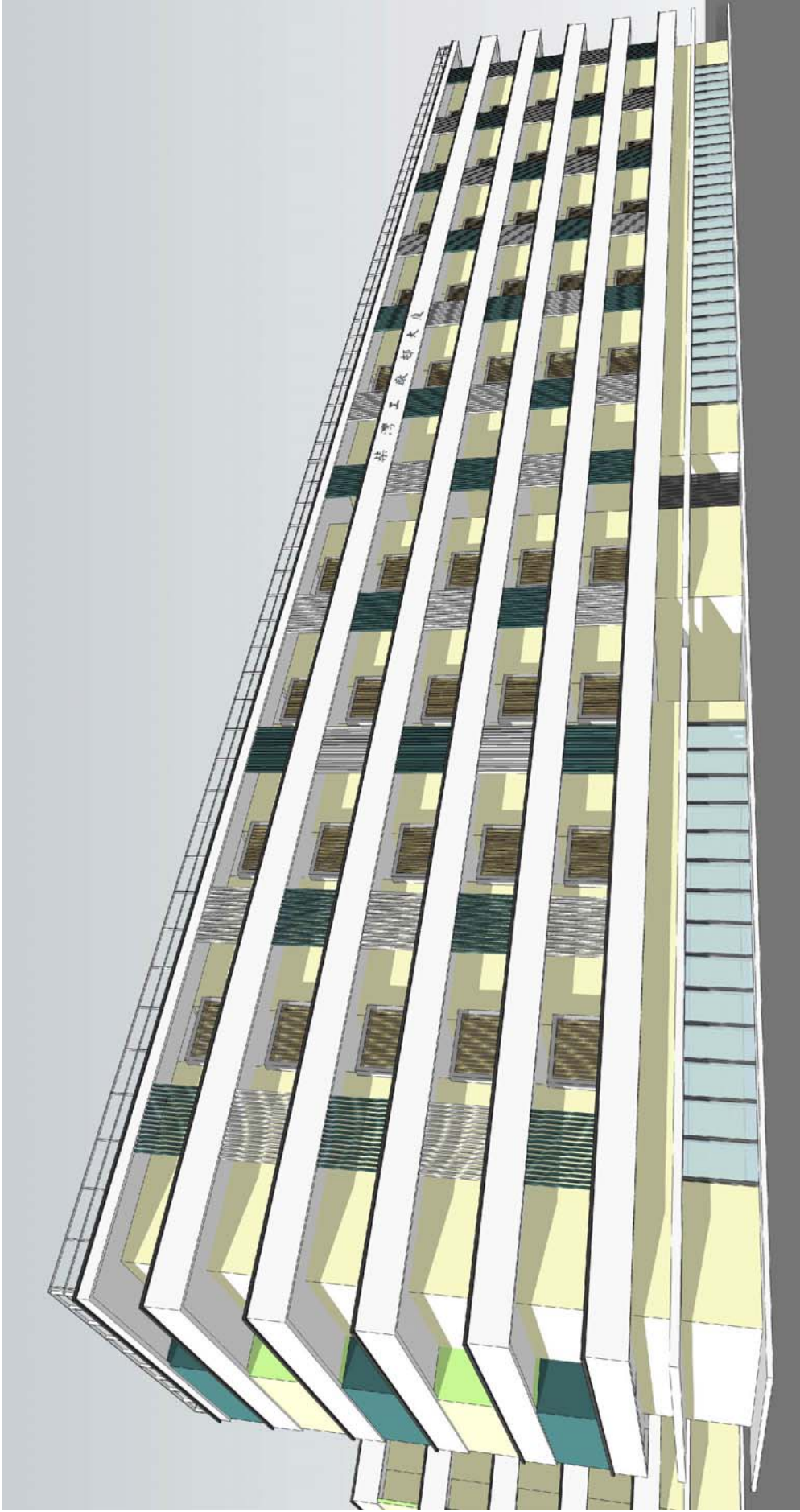


Figure 7 Artistic Impression of the Proposed Design vViewing from Lee Chung Street



Figure 8. Artistic Impression of the Proposed Addition of Steps at the Existing Ramp on the Top Floor