Revitalisating Historic Buildings Through Partnership Scheme
Batch I Project

Conservation Management Plan
prepared for Heritage Impact Assessment

for

Mei Ho House

prepared for

Hong Kong Youth Hostels Association

by

The Team Consultant

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Adaptive Re-use of Mei Ho House as Youth Hostel
Conservation Management Plan

Content

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Adaptive Re-use of Mei Ho House as Youth Hostel
Conservation Management Plan

Part 1 - Introduction

1.1 Brief and Objectives

This Conservation Management Plan for the adaptive re-use of Mei Ho House has been prepared to identify the possible impact and mitigation measures to the "architectural features".[1]

The objectives of this Plan are –

- To establish the cultural significance of Mei Ho House.
- To formulate policies for the conservation of the Mei Ho House.
- To identify possible impact to the "architectural features" according to the proposed new use and propose mitigation measures to alleviate adverse impact to the "architectural features".

1.2 Structure of the Conservation Management Plan

The Conservation Management Plan makes reference to the *Revitalising Historic Buildings Through Partnership Scheme, Mei Ho House, Resource Kit* (hereinafter referred to as the *Resource Kit* in this report). The background study on the history, the architecture and the character defining elements, which are the "architectural features", are extracted from the *Resource Kit*.

Issues affecting decision-making of policies are then identified. The Conservation Policy is presented to deal with the philosophical and practical steps necessary to conserve the cultural significance.

The assessment of the impact on the design proposals will be cross-referenced to the formulated conservation policy. The additions and alterations as necessitated in the design proposal for the adaptive re-use of the building in affecting the "architectural features" and possible impacts are identified. The mitigation measures are then developed to alleviate effects of adverse impacts.

1.3 Methodology

A Heritage Impact Assessment Report is required in accordance to the Technical Circular (Works) No. 6/2009 by Development Bureau for public works. For "Revitalizing Historic Buildings Through Partnership Scheme" projects, the Heritage Impact Assessment Report is submitted in the form of a

[1] The term "architectural features" is adopted from the *Resource Kit* meaning "character defining elements", refer to page 18 of the *Resource Kit*.

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Conservation Management Plan. The assessment of impacts and proposals of mitigation measures in the Conservation Management Plan follow "the Guidelines for Built Heritage Impact Assessment (BHIA)" and "the Guidelines for HIA Submission for Revitalizing Historic Buildings Through Partnership Scheme" issued by the Antiquities and Monuments Office in May, 2009.

Since Mei Ho House will be adapted as a youth hostel, impacts that may result in addition, alteration, re-construction and removal of "architectural features" are anticipated. A structural assessment report prepared by the Structural Engineer is enclosed as Appendix 1 to justify the necessity for these works. The impacts will be identified according to the developed design of the project.

Mitigation measures will be proposed to avoid, reduce and remedy the impacts previously identified. The overall effects after application of mitigation measures will be assessed with the "Appendix XI – Required Treatment to Architectural Features" of the *Resource Kit*.

The proposed means of implementation of the mitigation measures will then be included.

1.4 Definitions

The following definitions of terms will be referred to in this Report –

- Site refers to the piece of land delineated in the "Site Boundary Plan" in Appendix II of *Resource Kit*; and
- Historic building refers to the building erected on the site.

The following definitions are quoted from Article 1 – Definitions (page 2) of *The Burra Charter, The Australia ICOMOS Charter for Places of Cultural Significance 1999 with associated Guidelines and Code on the Ethics of Co-existence* published by Australia ICOMOS, 2000 (ISBN 0 9578528 0 0) –

- "1.1 *Place* – means site, area, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views."

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- "1.2 *Cultural significance* – means aesthetic, historic, scientific, social or spiritual value for the past, present or future generations."

- "1.3 *Fabric* – means all the physical material of the place , including components, fixtures, contents and objects."

- "1.4 *Conservation* (or conserve*)* – means all the process of looking after a *place* so as to retain its cultural significance."[2]

- "1.5 *Maintenance* (or maintain) – means the continuous protective care of the *fabric* and *setting* of a *place*, and is to be distinguished from repair. Repair involves *restoration* or *reconstruction*."

- "1.6 *Preservation* (or preserve) – means maintaining the *fabric* and of a *place* in its existing state and retarding deterioration."

- "1.7 *Restoration* (or restore) – means returning the existing *fabric* of a *place* to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material."

- "1.8 *Reconstruction* (or reconstruct) – means returning a *place* to a known earlier state and is distinguished from *restoration* by the introduction of new material into the *fabric*."

- "1.9 *Adaptation* (or adapt) – means modifying a *place* to suit the existing use or a proposed use."

- "1.10 *Use* – means the functions of a place, as well as the activities that may occur at the place."

- "1.11 *Compatible use* – means a *use* which respects the *cultural significance* of a *place*. Such a use involves no, or minimal, impact on cultural significance."

[2] The words inside the brackets are added by the author of this report.

- "1.12 *Setting* – means the area around a *place*, which may include the visual catchment."

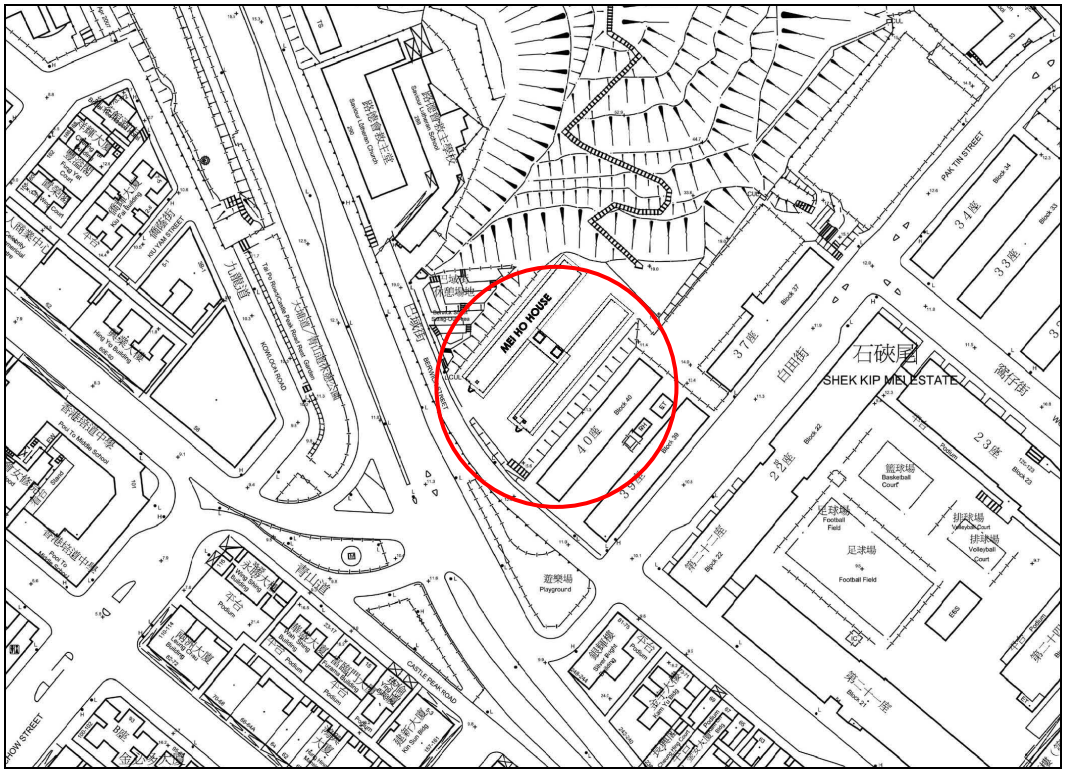
- "1.15 *Associations* – mean the special connections that exist between people and a *place*."

- "1.17 *Interpretation* – means all ways presenting the *cultural significance of a place*."

1.5 Limitations

The history and architectural appraisal of the historic building in this report were quoted from "Part IV – Building Information" in the *Resource Kit*. Further research on the history and livelihood of Mei Ho House will be carried out during the project.

The Conservation Management Plan is based on the design of the adaptive re-use scheme enclosed as Appendix 2 to this report.



Plan 1.1 – Location of site (not to scale)

(source of plan – *Resource Kit*, Appendix V – Architectural Drawings, first drawing (drawing no. MHH-P-00).)

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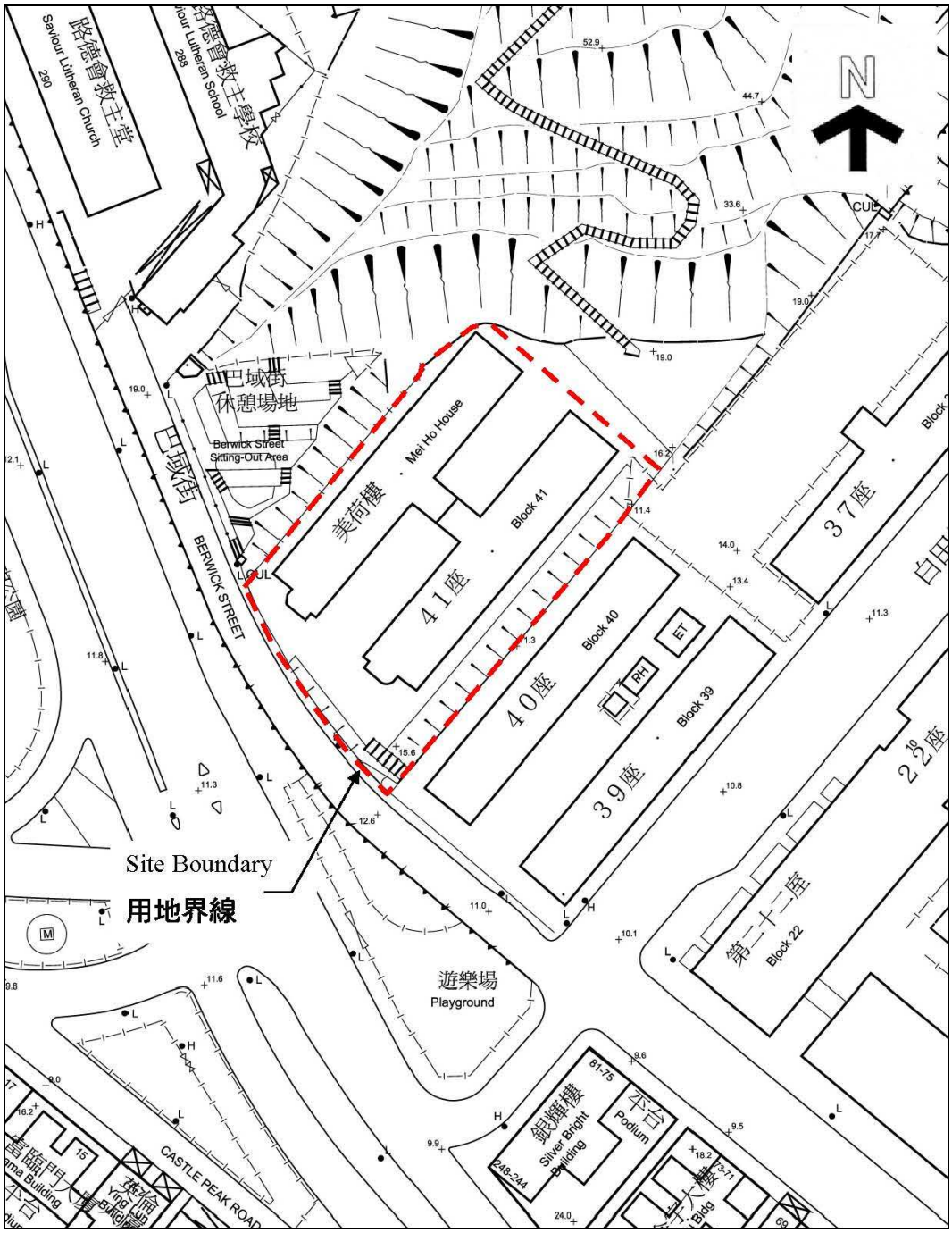

Plan 1.2 – Boundary of site (not to scale)

(source of plan – *Resource Kit*, Appendix II – Site Boundary Plan)

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Part 2 – History and Architecture of Mei Ho House

2.1 The Beginning of Public Housing in Shek Kip Mei and History of Mei Ho House

There are ample writings on the history of public housing in Hong Kong and this topic is not going to be presented in this report. Some of the books describing the history of Hong Kong public housing are listed in Appendix 2. The following brief descriptions on the beginning of public housing in Shek Kip Mei and history of Mei Ho House are extracted from the *Resource Kit*.[1]

> Shek Kip Mei Estate marked the beginning of the government public housing scheme, and Mei Ho House was one of the first eight blocks built in 1954 by the Hong Kong Government for Shek Kip Mei Estate. The construction of re-settlement blocks could be traced back to the Shek Kip Mei Fire in 1953. After World War II, there was an influx of immigrants from China and they resided in squatters, built with iron sheets and wooden planks. Shek Kip Mei was one of the squatter areas where these immigrants inhabited.
>
> A disastrous fire struck on 25th December, 1953 and almost 58,000 people lost their homes. After the fire, the then Public Works Department built a series of buildings, known as the Bowring Bungalows, to serve as temporary shelters for the fire victims. The bungalows were two-storey buildings, constructed with brick and concrete. A temporary Department of Resettlement under the general control of the Urban Council was set up, for administering squatter clearance and resettlement, and providing long term housing for the victims. The eight permanent six-storey resettlement blocks, each accommodating over 2,000 people, were constructed in 1954 and Wan Hin & Co. was the contractor.
>
> The eight six-storey resettlement blocks, including Mei Ho House, were constructed by reinforced concrete frame and floors with concrete block walls and partitions. The buildings were referred as Mark I H-shaped as they resembled the letter "H" (Mark I was a reference to the design of the resettlement block). Two water standpipes and six communal flush latrines had been installed at each floor. All flats

[1] *Resources Kit*, pp.3 – 5.

were facing a long open corridor and cooking was possible at the corridors. Each building contained 384 units and each unit could house five adults. The charge had been fixed at ten dollars per unit per month plus an additional one dollar per month for water.

The six-storey blocks were labeled in accordance with the letters of alphabetical order. Mei Ho House was completed in 1954 and named as Block H. In the following years, the bungalows were all demolished and twenty-one new resettlement blocks were built at the site of Shek Kip Mei Estate in the following eight years. These new blocks were different from the eight blocks in the first phase as they consisted of seven storeys. The rooms at ground floor of each block were usually used as shops and workshops while some were used as private welfare organizations, such as clinics and nurseries. The rooftops were allocated to voluntary agencies which would operate schools or children's clubs. After the completion of twenty-one resettlement blocks, the housing blocks in Shek Kip Mei Estate was re-ordered by numbers. Mei Ho House was renumbered as Block 15.

To cope with the great demands for public housing, a Ten-year Housing Target Programme was launched in 1972. The Housing Authority was set up for planning, building and managing all public housing estates in the following year. As the Shek Kip Mei Estate was one of the most overcrowded estates, it was the first re-development target under the management of the Urban Council. The re-development of Shek Kip Mei Estate was carried out between 1972 and 1984. A total of eleven resettlement blocks were demolished for a large communal and social centre with community facilities incorporated. Six new blocks has been constructed and eighteen original resettlement blocks, including Mei Ho House, were converted to self-contained flats by joining two units into one with its own toilet, shower and kitchen space. Mei Ho House was re-numbered as Block 41 after the re-development and conversion works.

Another re-development scheme in Shek Kip Mei Estate started in

2000. All six to seven-storey resettlement blocks were vacated by stages. The first stage was implemented in 2000 which Blocks 1 – 13 demolished and re-developed into two high-rise public rental housing blocks. Blocks 35, 36 and 38 were demolished in 2000 as a result of a landslide in 1999. Blocks 37, 39 and 40 were vacated in the subsequent stage in 2004. Blocks 14 to 18 and 25 to 34 were included in the last stage and were vacated in 2006.

Shek Kip Mei Estate plays a remarkable role in public housing history as it is the first one built in Hong Kong. As most of the resettlement blocks will be/had been demolished, Mei Ho House will be the only Mark I H-shaped resettlement block remained in Hong Kong. It was designated a Grade I Historic Building in 2005.

Mei Ho House is proposed to be re-graded to a Grade 2 historic building.[2]

2.2 A Chronology Outline of the History of Public Housing in Shek Kip Mei

• 25th December, 1953	Shek Kip Mei fire
• 1954	the two stroreys Bowring Bungalows (temporary shelters) built by Public Work Department
• 1954	first eight blocks of six storeys Mark I re-settlement blocks labeled in alphabetical order built, including Mei Ho House (Block H)
• 1955	all Bowring Bungalows demolished
• 1955 – 1963	twenty-one seven storeys re-settlement block built and the housing blocks re-labeled by numbers, Mei Ho House numbered Block 15
• 1972	Ten-year Housing Programme launched and Housing Authority set up
• 1972 – 1984	re-developed of the public housings in Shek Kip Mei eleven resettlement blocks demolished, and six

[2] The grading of this historic building has currently been proposed to be revised to Grade 2 in the "List of Historic Buildings in Building Assessment (as of 18 March 2009)" as recommended by Antiquities Advisory Board (refer to item no. 507 in the "List of Historic Buildings in Building Assessment (as of 18 March 2009)"), from the website http://www.amo.gov.hk/form/AAB-SM-E.pdf, visited on 30th March, 2009.

	new blocks built with a large communal and social centre
	eighteen original resettlement blocks converted to self-contained flats by joining two units into one with its own toilet, shower and kitchen space, including Mei Ho House
	Mei Ho House re-numbered Block 41
• 2000	all six to seven-storey resettlement blocks began to vacate by stages
	Blocks 1 – 13 demolished and re-developed into two high-rise blocks
	Blocks 35, 36 and 38 demolished
• 2004	Blocks 37, 39 and 40 vacated
• October, 2004	Mei Ho House (Block 41) vacated
• 2006	Blocks 14 to 18 and 25 to 34 vacated

2.3 Architecture of Mei Ho House

The following description on the architecture of Mei Ho House is extracted from the *Resource Kit*.[3]

> The building was designed as a resettlement with basic and simple features. It is a six-storey building characterized by two identical wings (or linear blocks) linked up by a cross piece forming the H-shaped plan. Each block consisted of dwelling units arranged in a back-to-back manner. The access balcony ran around the perimeter of each floor. The building was converted in 1970s with partition walls at the rear of units removed forming new flats of larger sizes. Balconies facing the courtyard were preserved, while those facing outwards were enclosed by windows forming the cooking areas.

2.4 Statement of Cultural Significance

Mei Ho House is the remaining first generation resettlement block built after the 1953 Shek Kip Mei fire which started the public housing programme in Hong Kong. It is also the only surviving H-shaped plan Mark I block which demonstrated optimal structural design and construction as well as a

[3] *Resource Kit*, p. 5.

minimalist approach to detailing.

Mei Ho House was accorded Grade 1 historic building in 2005 by the Antiquities Advisory Board, and is proposed to be re-graded to a Grade 2 historic building.

2.5 Character Defining Elements

In the *Resource Kit*, the character defining elements are presented as "architectural features to be preserved" in Appendix X, and they are adopted as the characters defining elements in this study –

2.5.1 External – external façade of the two blocks.

2.5.2 External – concrete balcony and metal handrails (all floors).

2.5.3 External – old style lettering "Mei Ho House 美荷樓" in English and Chinese on the elevations.

2.5.4 External – "H-shaped" layout of the block.

2.5.5 Internal –

- one example of the typical dwelling unit of each size in the 1970s, (one type for single person and three types for family) with its standard provisions, including their wooden doors, sliding metal gates, windows, kitchen benches, clothes hinging hooks, etc., and
- in addition to the above, two sample family rooms in the 1950s and two typical traditional shops, both in the same period.

2.5.6 Courtyard area – the mature tree at the rear of the courtyard.
The tree had been destroyed during a typhoon in 2009.

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Part 3 – Conservation Policy

3.1 Conservation Policies and Guidelines

The following Policies and Guidelines are formulated to provide a set of guiding principles for planning and designing addition and alteration works for the adaptive re-use of Mei Ho House into a youth hostel. The "List of Required Treatment to the Architectural Features" (Appendix XI of the *Resource Kit*) and "List of Recommended Treatment to Architectural Features" (Appendix XII of the *Resource Kit*) are referred to, if appropriate, in the policies and guidelines.

3.1.1 Management of Change of Use

The following Policies and Guidelines are for guiding the future use of the site and building.

a) Policy 1 –

The original use of Mei Ho House was public housing. The new use as a Youth Hostel is considered highly compatible to the original usage and should always be allowed for adaptive re-use. The proposed ancillary new facilities, i.e. function room and cafe, and associated facilities, such as convenience store, self-service kitchen and laundry are also considered appropriate for the new usage.

b) Policy 2 –

The cultural significance of Mei Ho House and public housing should be interpreted in the building. An "Mei Ho House of Livelihood (美荷樓生活館)" to be set up in the building to display the history of the start of public housing in Shek Kip Mei and the livelihood of Mei Ho House fulfills this requirement.

Although the communal bathrooms and kitchen outside corridor in the 1950s will not be re-constructed, this part of livelihood will be covered in the exhibition on the ground floor. As for the later day's layout with bathroom and kitchen in each flat, it will be displayed in 1970's family sample rooms on the first floor of the "Mei Ho House of Livelihood (美荷樓生活館)".

c) Policy 3 –

A special committee consisting of history museum curator, heritage specialist

and locals has been formed to advise on the planning, design, interpretation and management of the "Mei Ho House of Livelihood (美荷樓生活館)". The "Mei Ho House of Livelihood (美荷樓生活館)" with the suggested theme of exhibition and layout is shown in Appendix 3.

3.1.2 Building Form

The following Policies and Guidelines are for guiding future conservation treatments to the building form to retain the cultural significance of the building.

a) Policy 4 –

The "H-shape" layout of the building shall be preserved.

Guidelines:

- The feasibility of preservation of the existing structures should be checked against a structural condition assessment (there is a Structural Condition Assessment Report prepared by Ove Arup & Partners Hong Kong Limited (OAP) commissioned by Architectural Services Department). If preservation is found infeasible due to existing condition of the structure, re-construction can be sought as the last resort.
- Any hostel facilities addition affecting the "H-shape" should be minimized in both number and size to minimize the visual impact to the building form.
- Any addition shall be of light-weight construction and reversible. In particular, elevations facing Berwick Street should not be disturbed.

b) Policy 5 –

The external facades shall be preserved.

Guidelines:

- The security grilles, which are later-addition after the 1970s, on top of the balcony parapet wall can be removed.
- Any newly added window on top of the balcony parapet wall shall respect the original "horizontality" appearance of the balcony.
- The parapet wall can be painted with a new colour scheme and be reversible.

c) Policy 6 –

The concrete balcony parapet wall and metal handrails on all floors facing the internal courtyards shall be preserved.

Guidelines:

- The feasibility of preservation of the balcony and parapet wall shall be checked against the structural condition assessment. Options to structural repair/strengthening should be explored. Re-construction should only be the last resort.
- The access corridor shall be kept open.
- If the staircase lobby on each floor is to be enclosed to provide a "fire-protected separation" between the staircase and access corridor as required by Building Regulations, the enclosure shall be of glass construction to minimize the visual impact.
- The downpipes and other unsightly buildings services in the corridor shall be removed, and new piping shall be enclosed in pipe ducts, as far as possible.

3.1.3 Building Components and Fabric –

The following Policies and Guidelines are for guiding future conservation treatments for existing building components and fabric and retention of "architectural features".

a) Policy 7 –

The internal cross wall layout shall be preserved.

Guidelines:

- A limited number of openings can be formed at the cross walls to suit hostel operation without affecting structural stability of the existing building.

b) Policy 8 –

The four staircases at each end of the two blocks shall be preserved.

Guidelines:

- The balustrade along the flights next to open well shall be replaced to satisfy statutory requirements.[1]

[1] Chapter 123B Building (Construction) Regulations –
- Regulation 8 Changes in Level –
- At the outer edge of all balconies, verandahs, staircases, landings or projections, or where there is a difference in adjacent levels greater than 600 mm, protective barriers shall be

- If the staircase lobby on each floor is to be enclosed to provide the "fire-protected separation" between the staircase and access corridor as required by Building Regulations, the enclosure shall be of glass construction to minimize the visual impact.

c) Policy 9 –

The signage – old style English lettering "Mei Ho House" and the Chinese characters "美荷樓" on the top part of side elevations facing Taipo Road shall be preserved.

Guidelines:

- This signage shall not be covered up.
- The English letterings and Chinese characters shall be re-painted in same style and colour.

3.1.4 Addition and Alteration Works in the Existing Building Necessary for Compliance with Statutory Requirements

The following Policies and Guidelines are for guiding future design of any new additions and alteration works to the site and building that are necessary for compliance with statutory requirements.

a) Policy 10 –

Additional works for complying for "means of escape" to the existing

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provided to restrict or control the movement of persons and vehicles.

- (2) Protective barriers provided under this regulation to restrict or control the movement of persons shall be –
  - (a) designed and constructed to minimize the risk of persons or objects falling, rolling, sliding or slipping through gaps in the barrier, or persons climbing over the barrier;
  - (b) at a height above the higher of the adjacent levels of not less than 1.1 m; and
  - (c) constructed as to inhibit the passage of articles more than 100 mm in their smallest dimension.
- (3) At the outer edge of all balconies, verandahs, floors, accessible roofs, or similar areas, the lowermost 150 mm of the protective barrier shall be built solid, but this sub-regulation shall not apply to roofs where no access is provided to the roof other than such access as may be necessary for maintenance work.

Chapter 123B Building (Construction) Regulations –

- Regulation 17 Imposed Loads –
- Clause (3) Protective barriers installed to restrict or control the movement of persons shall be designed to resist the minimum horizontal imposed loads specified in Table 3 when separately applied or the wind load (where applicable), whichever shall produce the more adverse effects.
- and Table 3 – Minimum Horizontal Imposed Loads on Protective Barriers to Restrict or Control the Movements of Persons.

staircases shall be compatible but visually distinguishable from the existing building fabric, and such additions shall be reversible without causing extensive damages to the building fabric when removed in future.

Guidelines:

- Refer to Guidelines in Policy 8.
- No external staircase shall be allowed.
- Additional staircase shall be added in less obstructive locations within the building.

b) Policy 11 –

New provisions for meeting the "universal accessibility" shall be added in the less obstructive locations of the building.

Guidelines:

- The front court can be leveled to allow wheelchair users to reach the entrance of the hostel and "Mei Ho House of Livelihood (美荷樓生活館)" without an addition ramp.
- Lift shall be provided in the re-constructed central connecting block.
- The corridor shall be of adequate width for the use of wheelchair users, if corridors are to be re-constructed. Otherwise, locations of the rooms for people with disability should be planned to suit existing building layout.

3.1.5 Provision of Building Services Installations

The following Policies and Guidelines are for guiding future additions, upgrading and improvement of building services and utilities to suit the user requirements for adaptive re-use.

a) Policy 12 –

New provisions for utilities purposes, i.e. transformer room and plant rooms shall be located in less predominant locations detached from the building and with minimal visual impact to the building.

b) Policy 13 –

Conceal new building services as practical as possible. Pipe ducts shall be constructed for concealing of the pipes, trunking and conduits, as far as possible. Where exposure of such services is unavoidable, they should be surface mounted in a neat and tidy arrangement.

c) Policy 14 –

New fire fighting services installation, i.e. hose reel, shall be carefully placed to minimize visual impact on the historic feeling of the building.

d) Policy 15 –

Energy saving installations are encouraged, i.e solar panels. They shall be placed on the roof, but the visual impact on the elevations facing Pak Tin Street, Berwick Street and Tai Po Road shall be kept to a minimal.

3.1.6 Integration Between the Old and the New

The following Policies and Guidelines are for guiding future design of new additions and their integration with existing historic building fabric.

a) Policy 16 –

The cultural significance of the buildings shall not be affected by any new addition. Any new addition is to be designed to integrate yet distinguishable from the historic building.

b) Policy 17 –

The new addition shall be detached from the existing building as practical as possible, and at where the new interface with the old, they should be distinguished from each other.

3.1.7 External Works

The following Policies and Guidelines are for guiding future design of the external works so as not to damage the cultural significance of the site.

a) Policy 18 –

New floor paving/landscape treatment/external planting areas at the two open courtyards and all external areas are allowed, but they should be compatible with the adaptive re-use scheme of the building and the environment. The new additions shall observe the openness of the courtyard, especially the one facing the Berwick Street.

Part 3 – Conservation Policy

3.2 Interpretation

An "Mei Ho House of Livelihood (美荷樓生活館)" with the suggested theme of exhibition will be set up. In addition, guided tour of "Mei Ho House of Livelihood (美荷樓生活館)" and cultural tour of Shamshuipo District will also be organized.

3.3 Documentation

The whole process of the "adaptive re-use" of Mei Ho House of Youth Hostel will be documented in the form of a conservation report.

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Part 4 – Heritage Impact Assessment

4.1 Potential Impact and Mitigation Measures

This section is to evaluate the proposed treatments and any potential impact for the "architectural features" being affected as well as the design for the adaptive re-use of the building and to suggest mitigation measures to reduce any adverse impact as necessary.

4.2 Impact Assessment on External – external façade of the two blocks

4.2.1 Façade design of the adaptive re-use scheme –

Drawing 4.1 – The façade design

- The later-added steel window grilles in the 1970s will be replaced by windows slightly set back from the external wall, such that the balcony will be enclosed as part of the interior space to increase the usable space of each unit.
- And the external walls and parapet walls will be painted with polyurethane texture paint to minimize the frequency of maintenance and to provide better protection to the existing old reinforced concrete in compare with the painting materials for low cost housing.
- A new colour scheme will be adopted.

4.2.2 Recommendations from *Resource Kit* –

- "Appendix X – List of Architectural Features to be preserved" as following –
  1.0 External area
  1.1 External facades of the two blocks.
- "Appendix XI – Required Treatment to Architectural Features" as following –
  1.0 External area
  (a) External walls –
  Re-paint with reversible matt emulsion paint. No restriction on the colour scheme but no permanent paint/coating system should be used. …..
- "Appendix XII – Recommended Treatment to Architectural Features" as following –
  1.0 External area
  (a) External walls –
  Recommended that at least a section of the front elevation be painted in the original light-green and light-pink colours as reference to the block's original appearance.
  (b) Security railings and grilles (at rear elevation) –
  Recommended to be replaced by new security frame or dismantled them in order to keep the balcony opened.

4.2.3 Impact assessment –

- Removal of steel window grilles –
  Impact level – low, as the steel window grilles are later-addition after the 1970s.
- Enclosing balcony –
  Impact level – medium.
- Change of colour –
  Impact level – low.

4.2.4 Mitigation measures recommended –

- Removal of steel window grilles –
  - photographic record shall be taken, and
  - those in the museum floors will be retained and re-painted to showcase

the post-1970 façade, except the locations where four new exit doors are required for fire safety.

- Enclosing balcony –
  - the design of the window shall maintain the morphology of the original elevation,
  - the horizontality of the existing balcony at the façade shall be kept and mock up of the window will be constructed before adaptation of the final design of the window, and
  - the panes of the window shall be as large as possible to minimize visual impact by mullions and transoms.
- Change of colour – reversible paint shall be used, and the existing painting shall be analyzed for record.

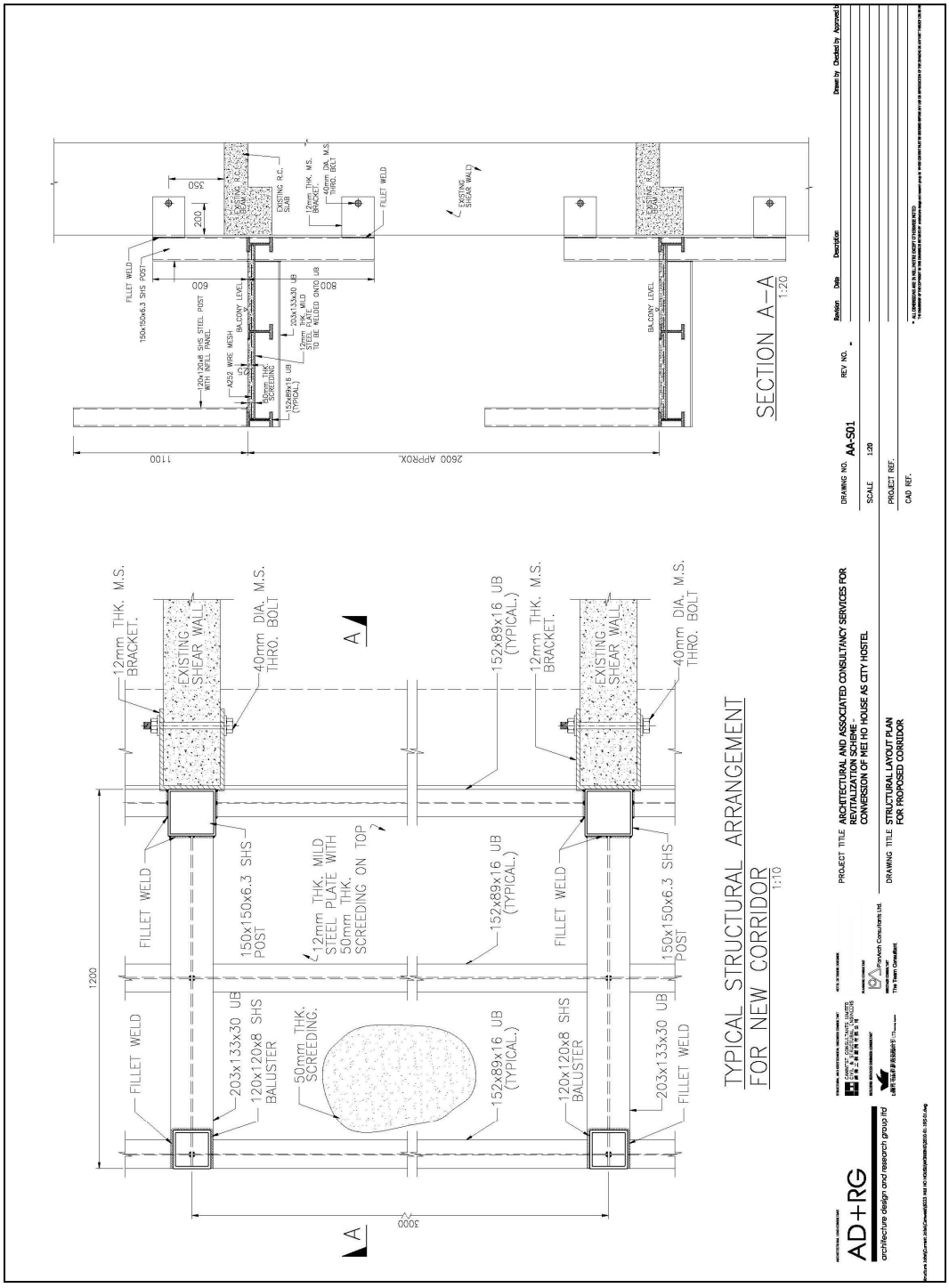
4.3 Impact Assessment on External – balcony and metal handrails (all floors)

4.3.1 Balcony of the adaptive re-use scheme –

- In the design of the adaptive re-use scheme, the balcony will need to be strengthened because the existing structural strength of the concrete floor slab and parapet wall as assessed by the Registered Structural Engineer (RSE) could not satisfied the statutory requirement on balcony corridor floor loading and lateral load, and the clear width of the balcony will be reduced after addition of vertical support at either side of the balcony to strengthen the slab.[1] (Refer Part G of Appendix 1 for Structural Assessment Report prepared by RSE.)
- The following structural strengthening proposals have been studied –
  - Replacement of the top surface concrete of the slab by high-performance concrete – may not be able to achieve the required loading;
  - Addition of steel beams at the soffite of the slab – headroom reduced (existing floor to floor distance is about 2.6 m.); and the additional strengthening elements behind the existing brick parapet wall will further reduce the statutorily required width of the means of escape; and

[1] From the structural investigation prepared by Ove Arup Partners Hong Kong Limited commissioned by Architectural Services Department, it is reported that original design live load of the public corridors at each floor was 2.9 kPa, now it could only take 2.0 kPa, and the loading requirements for corridor in the Buildings Ordinance is 3.0 kPa. Also the parapet wall could not satisfy the statutory requirements on lateral (impact) load.

- Re-construction with steel structure cladded by cement boards or other materials of finishes similar to existing parapet wall, (refer to "drawing 4.2 – Preliminary structural design for the re-construction of the balcony").
- In conclusion, re-construction is the only feasible solution.



Drawing 4.2 – Preliminary structural design for the re-construction of the balcony

- The form and shape of the balcony will be maintained with metal railing on top of the solid parapet wall.
- The access balcony will be kept open.
- In order to re-provide a compatible appearance to the existing, the newly re-constructed parapet wall is proposed to be cement board cladding with the horizontality of the existing access balcony maintained.

4.3.2 Recommendations from *Resource Kit* –

- "Appendix X – List of Architectural Features to be preserved" as following –
  1.0 External area
  1.2 Concrete verandahs and metal handrails (all floor).
- "Appendix XI – Required Treatment to Architectural Features" as following –
  1.0 External area
  (b) Concrete verandahs –
  The concrete verandahs and the metal hand railing should be repaired as necessary and preserved. The access corridor should be kept opened.

4.3.3 Impact assessment –
Impact level – high.

4.3.4 Mitigation measures recommended –

- The present balcony to be documented by measured drawing and photographic record
- The re-constructed building component shall be of compatible appearance with the existing building fabric, but made distinguishable from the existing by proper date marks.

4.4 Impact Assessment on External – old style lettering "Mei Ho House 美荷樓" in English and Chinese

4.4.1 Façade design of the adaptive re-use scheme –

- In the design of the adaptive re-use scheme, the name of the building "Mei Ho House 美荷樓" on the west elevation will be preserved, and will not be covered up.

- The signage shall be re-painted with modern paint.
- Refer to "drawing 4.1 – The façade design" for the design.

4.4.2 Recommendations from *Resource Kit* –

- "Appendix X – List of Architectural Features to be preserved" as following –
  - 1.0 External area
  - 1.3 Old style lettering "Mei Ho House 美荷樓" in English and Chinese on the elevations.
- "Appendix XI – Required Treatment to Architectural Features" as following –
  - 1.0 External area
  - (d) Old style lettering "Mei Ho House 美荷樓" on the elevations
    Re-paint in same style and colour when necessary. Do not cover up the existing name and numbering of the building by advertising or other signage.

4.4.3 Impact assessment –
Impact level – no adverse impact.

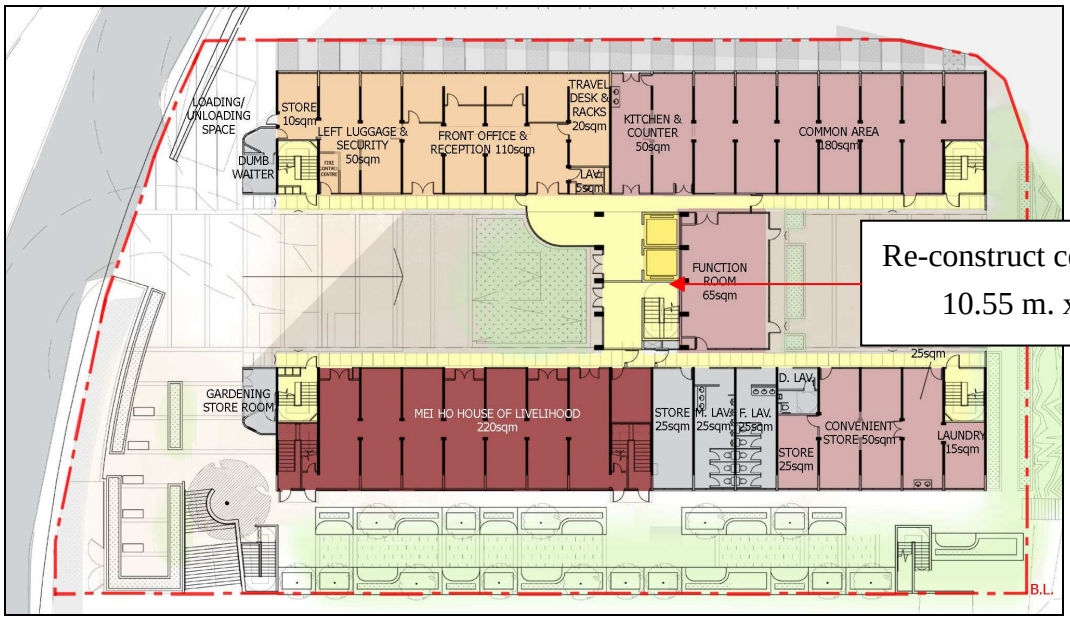
4.4.4 Mitigation measures recommended –
The English lettering, Chinese characters and numbering to be documented before commencement of any construction work.

4.5 <u>Impact Assessment on External – "H-shaped" layout of the block, the central block</u>

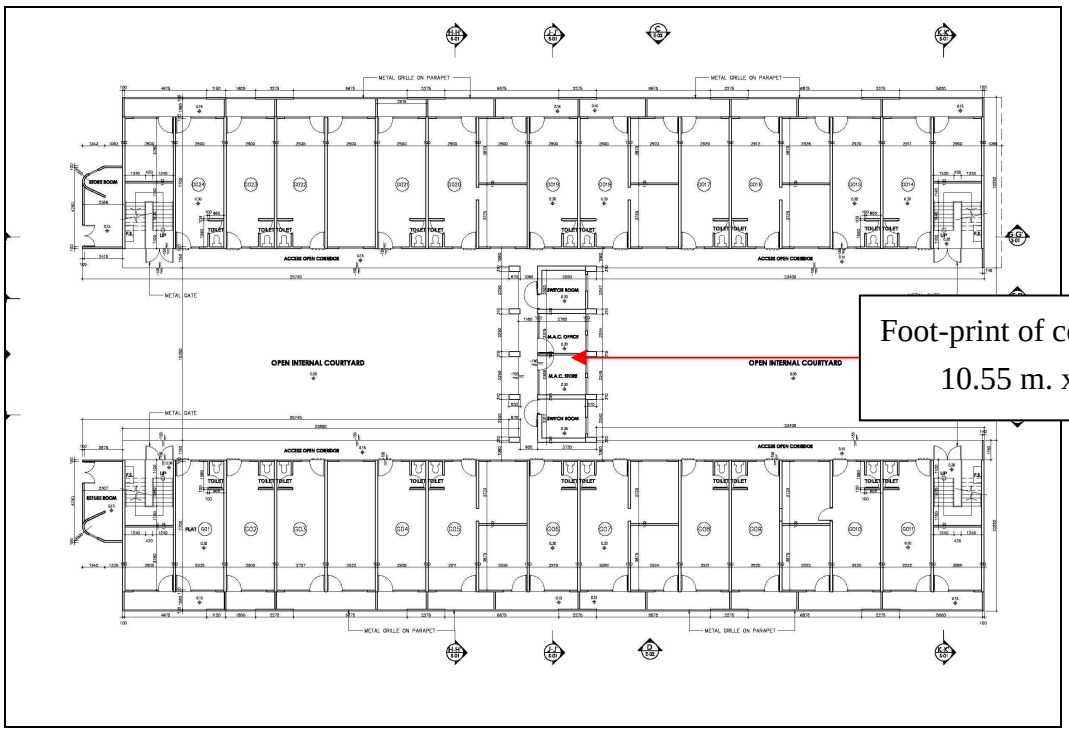
4.5.1 Re-construction of the central block –

- The structural assessment prepared by the Registered Structural Engineer (RSE) recommended the central connecting block to be re-constructed. (Refer Part B of Appendix 1 for Structural Assessment Report prepared by RSE.)
- The replaced central block will accommodate a fireman's lift, a lift for barrier free access, thus the foot-print for the central block will be expanded slightly at the east side to accommodate these additional facilities.
- Refer to "drawing 4.3a – Ground floor plan, proposed layout for adaptive

re-use scheme" and "drawing 4.3b – Existing ground floor plan" (below) for the foot-prints.



Drawing 4.3a – Ground floor plan, proposed layout for adaptive re-use scheme



Drawing 4.3b – Existing ground floor plan

Drawing 4.4 – West elevation showing the central block after re-construction

4.5.2 Recommendations from *Resource Kit* –

- "Appendix X – List of Architectural Features to be preserved" as following –
  - 1.0 External area
  - 1.4 "H-shape" layout of the block.
- "Appendix XI – Required Treatment to Architectural Features" as following –
  - 1.0 External area
  - (a) External walls –

    ….. Due to the poor structural condition of the central connecting block, there is no objection to re-building the central block following the same design, layout and architectural details of the existing block, in order to make it structural capable for some other new uses which demand higher loading capacities.

4.5.3 Impact assessment –

Impact level – high.

4.5.4 Mitigation measures recommended –

- The present central block (both external and internal) to be documented by measured drawing and photographic record.
- The original façade treatment, including exposed columns window and

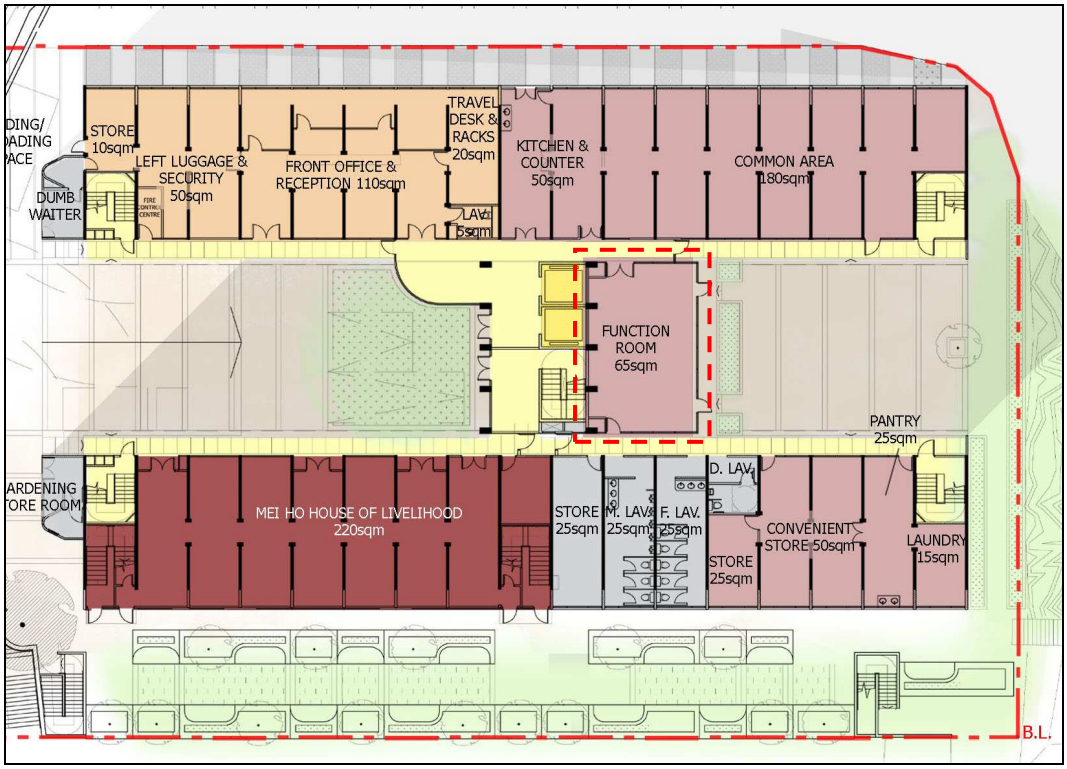
parapet wall, and water tank on the roof configuration shall be kept.

- No change of building height.

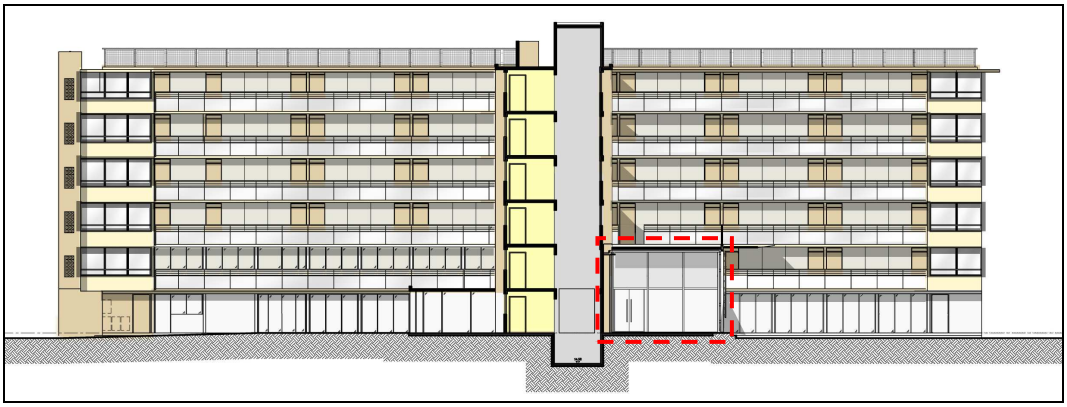
4.6 Impact Assessment on External – "H-shaped" layout of the block, addition of function room at east side internal courtyard

4.6.1 Requirements for additional facilities –

- A 2-storeys high (the only) multi-purpose function room is proposed to be added at the east internal courtyard near the central block, which is essential for the operation of a hostel. It cannot be accommodated in the existing building, which lacks a large space for function room unless existing structural cross walls are to be extensively removed.
- The height in 2 storeys is necessary to suit the needs in holding functions for hostel operation and to allow adequate headroom for accommodating the necessary building services installations.
- Refer to "drawing 4.5 – Ground floor plan" (below) for the location of the multi-purpose function room".



Drawing 4.5 – Ground floor plan with multi-function room outlined in red



Drawing 4.6 – Section of building showing the function room outlined in red

4.6.2 Recommendations from *Resource Kit* –

- "VI Conservation Guidelines, 6.2 Specific Conservation Requirements" as following –
  6.2.1 ….. The courtyards shall be generally left open. …..

4.6.3 Impact assessment –
Impact level – high due to the disturbance to the courtyard.

4.6.4 Mitigation measures recommended –

- The function room shall be an independent structure from the existing building to avoid adverse structural impact to the existing. It should also be reversible in nature.
- The function room shall be of light weight glass construction to minimize the visual impact to the building form.
- The roof could be accessed by the users of the hostel.

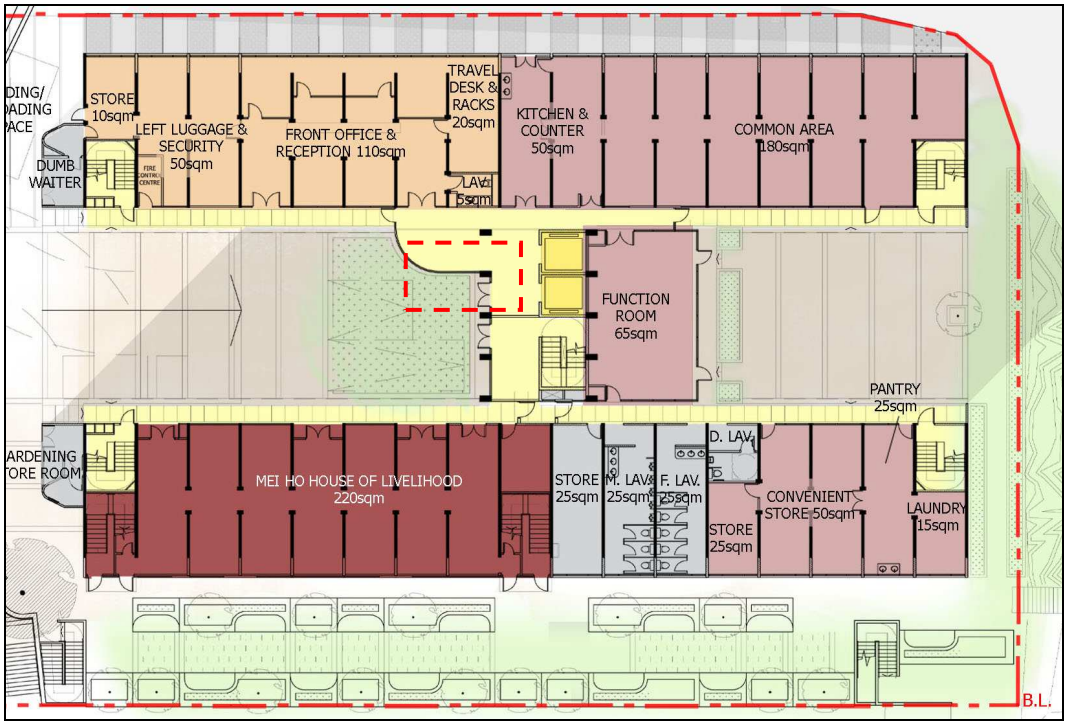
4.7 Impact Assessment on External – "H-shaped" layout of the block, addition of small glass enclosure at west side internal courtyard

4.7.1 Requirements for additional facilities –

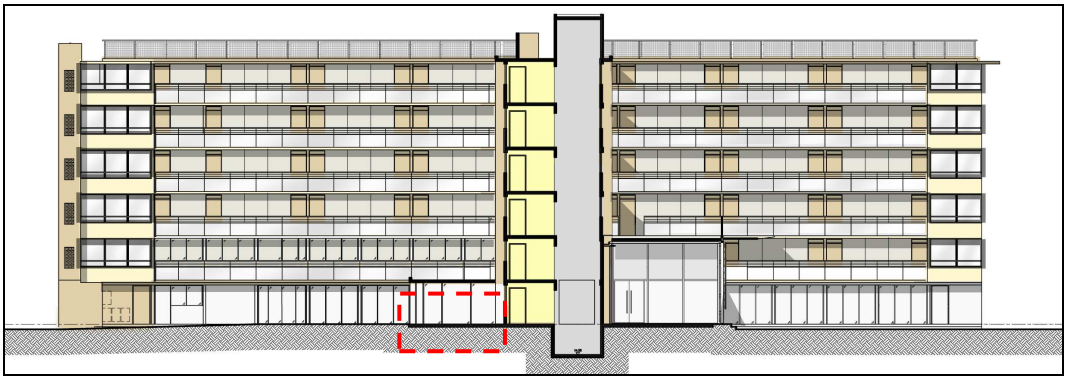
- A small glass enclosure to form an enclosed space is proposed to be added at the west internal courtyard near the central block to provide a weather-proof passage from the reception to the lifts in the central block, with adequate width for hostel guest circulation and is to properly address the lobby for hostel use.
- Alternative routing inside the existing building cannot be formed as it may involve the extensive removal of the existing cross walls, and the

maximum width of opening that can be formed is only 2,000 mm wide as assessed by the Registered Structural Engineer, which cannot provide the necessary width for hostel guest circulation.

- Refer to "drawing 4.7 – Ground floor plan" (below) for the location of the hostel reception office and small glass enclosure.



Drawing 4.7 – Ground floor plan with glass enclosure outlined in red



Drawing 4.8 – Section of building showing the glass enclosure outlined in red

4.7.2 Recommendations from *Resource Kit* –

- "VI Conservation Guidelines, 6.2 Specific Conservation Requirements" as following –

  6.2.1 ….. The courtyards shall be generally left open. …..

4.7.3 Impact assessment –

Impact level – high due to the disturbance to the courtyard and modification to

the external façade facing Berwick Street.

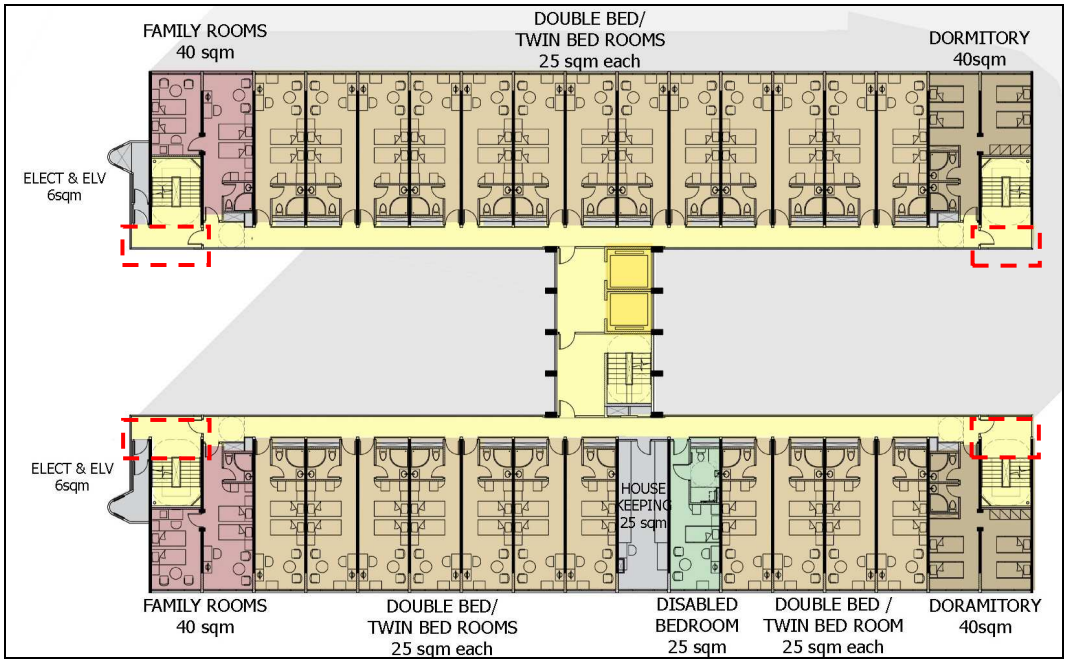
4.7.4 Mitigation measures recommended –

- The small glass enclosure shall be an independent and reversible structure from the existing building to avoid adverse structural impact to the existing.
- The small glass enclosure shall be of light weight glass construction to minimize the visual impact to the building form.

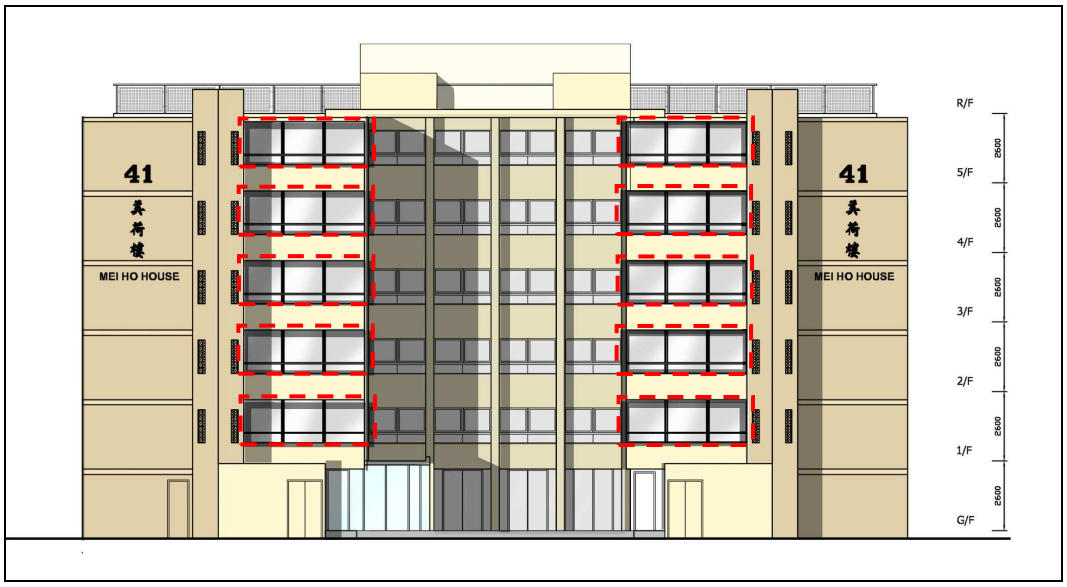
4.8 Impact Assessment on External – glass enclosure to the four existing escape staircase

4.8.1 Requirements for the glass enclosure –

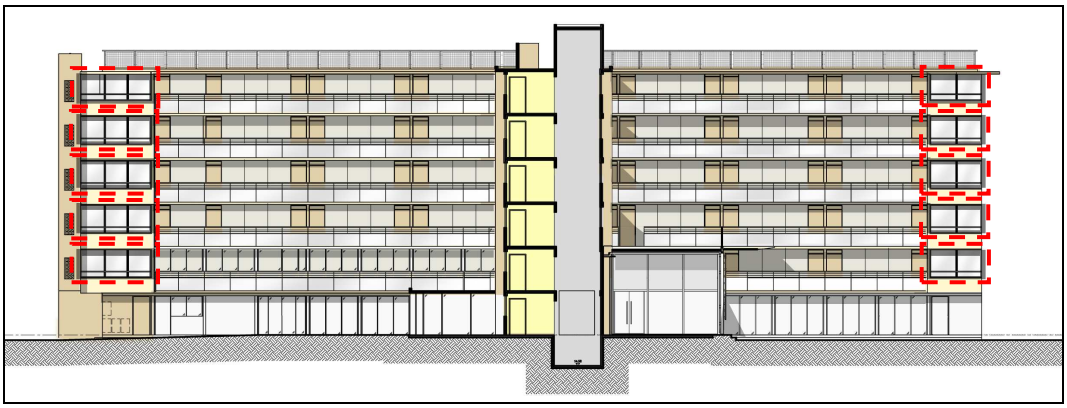
- Fire-rated partition and door have to be added to separate the staircase and the access balcony to fulfill statutory requirements on fire safety.
- To minimize visual impact of the above separating partition, it is proposed to enclose the staircase lobby by glass panel as shown in drawing no. 4.9 below.
- Additional loading can be taken up by the re-constructed access balcony and parapet wall. (Refer Part D of Appendix 1 for Structural Assessment Report prepared by Registered Structural Engineer.)



Drawing 4.9 – Typical floor (2/f – 4/f) plan showing the proposed location of the glass enclosure to the escape staircase (outlined in red)



Drawing 4.10 – West elevation showing the location of the glass enclosure to the escape staircase (outlined in red)



Drawing 4.11 – Section showing the location of the glass enclosure to the escape staircase (outlined in red)

4.8.2 Recommendations from Resource Kit –

- "Appendix X – List of Architectural Features to be preserved" as following –
  - 1.0 External area
  - 1.1 External facades of the two blocks.

4.8.3 Impact assessment –

- Visual impact to elevations and from courtyard – medium.

- Impact to the building structure – neutral.

4.8.4 Mitigation measures recommended –

- Enclosure to be in clear glass construction while the horizontality given by the parapet wall to the elevations shall be maintained so as to minimize visual impact.
- Millions and transoms of the glass enclosure should be minimized in both size and number.

4.9 Impact Assessment on Internal – wall facing access balcony, internal cross wall, and floor slab

4.9.1 Requirements for additional facilities –

- New openings have to be formed on the internal cross walls for providing access opening to link up the partitioned spaces, especially for the museum, office and facilities for a city hostel at ground floor and first floor.
- The walls at ground floor facing the internal courtyard to be replaced with glass doors and full height glazed panels such that the internal space will be connected to the courtyard.
- Openings on the wall of each room facing the access balcony have to be formed as access to the building services duct for maintenance.
- Openings on floor slab for pipe duct of each room have to be formed to conceal the building services ducts.
- The strengthening proposal for the formation of the opening on the internal cross walls is shown in "drawing 4.12 – Preliminary structural design for the strengthening work for formation of opening on cross wall" below. (Refer Part C of Appendix 1 for Structural Assessment Report prepared by Registered Structural Engineer.)
- Refer to drawing 4.13 to 4.17 below for the locations of the major openings to be formed at the internal cross walls.

4.9.2 Recommendations from *Resource Kit* –

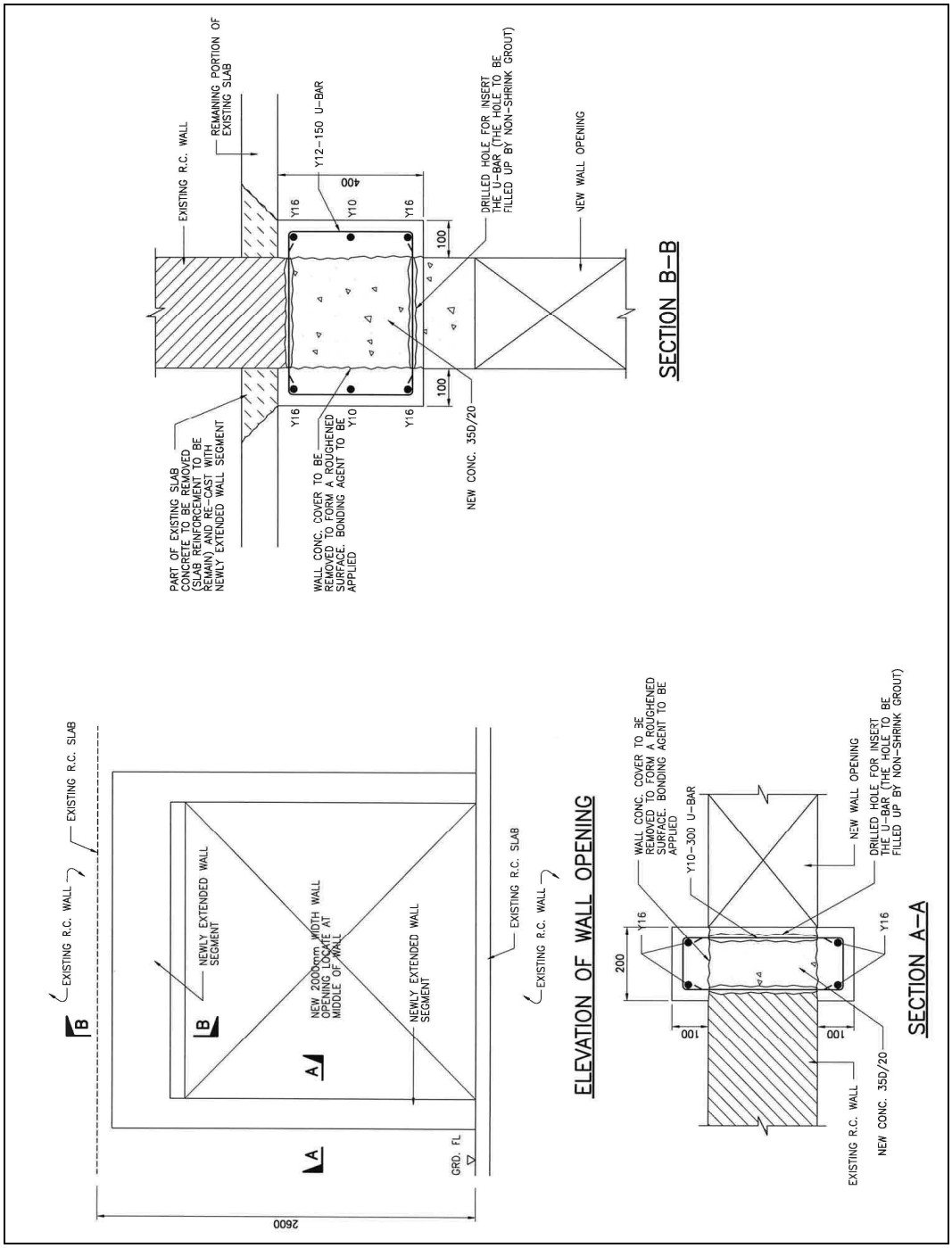
- "Appendix XI – Required Treatment to Architectural Features" as following –

  2.0 Internal area

  (e) Floors and internal walls –

  Demolition/openings made to the non-loading bearing internal walls

and floor slabs may be allowed subject to the advice of a Registered Structural Engineer (RSE).



Drawing 4.12 – Preliminary structural design for the strengthening work for formation of opening on cross wall

4.9.3 Impact assessment –

- New openings to cross walls – medium impact to building structure since

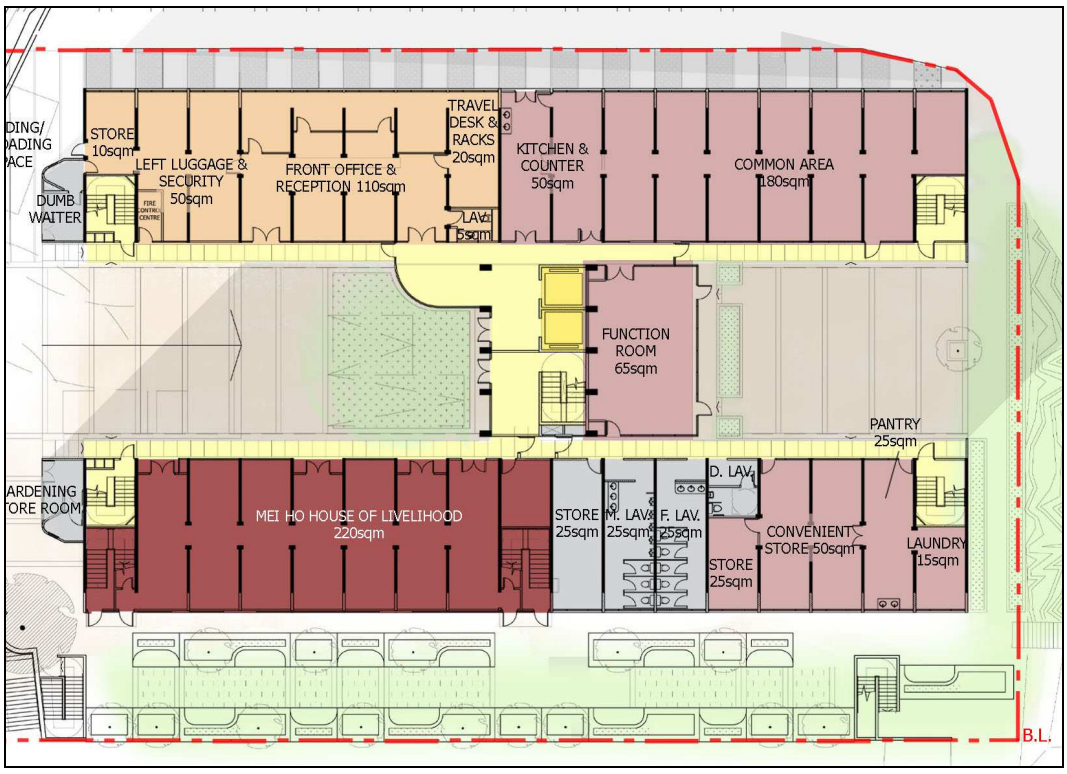
structural strengthening for the opening will be needed.

- Neutral impact to the existing footing.
- Replacement of the wall at ground floor facing courtyard by glass shop-front and door – low impact to courtyard and façade, neutral impact to the building structure.
- Wall openings for pipe duct – neutral impact to façade and building structure.
- Slab opening for pipe duct – high impact to existing canti-levered slab of the access balcony.

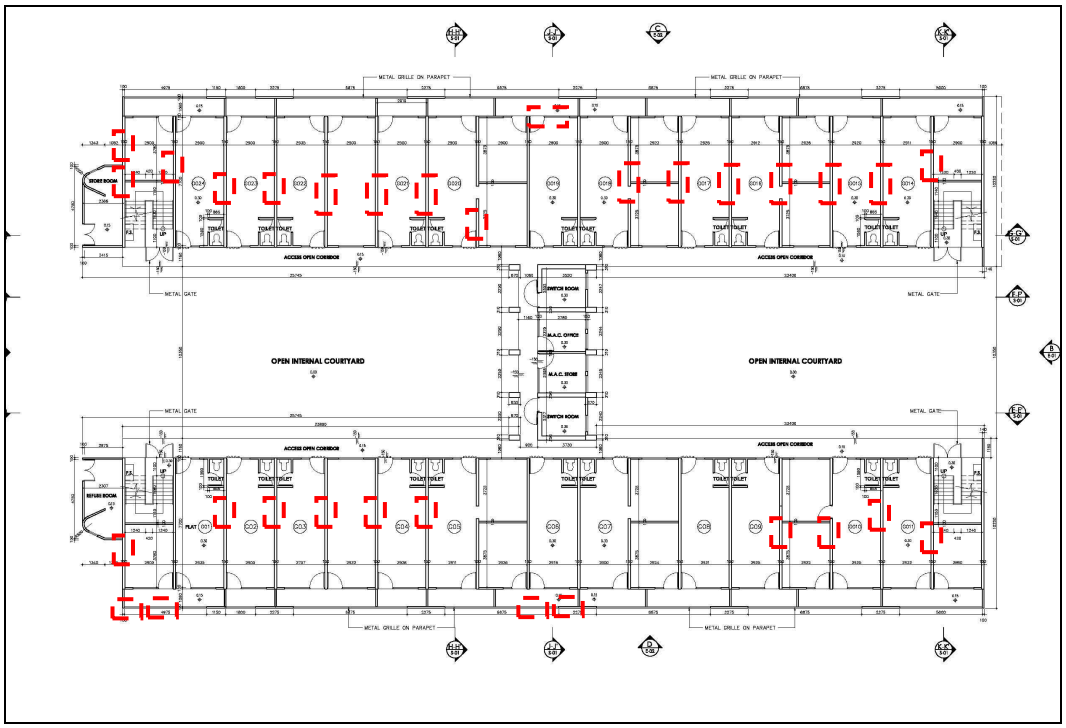
4.9.4 Mitigation measures recommended –

- New openings on cross walls –
  - introduce the structural strengthening work shown on drawing no. 4.12,
  - set up monitoring check point to monitor condition of the structure during the construction work, and
  - the positions of the new openings to be documented.
- Replacement of wall facing courtyard by glass shop-front and door – the wall to be documented by measured drawing and photographic record.
- Wall openings for pipe duct – the pipe duct and access door to be designed to match the existing finishes.

Part 4 – Heritage Impact Assessment

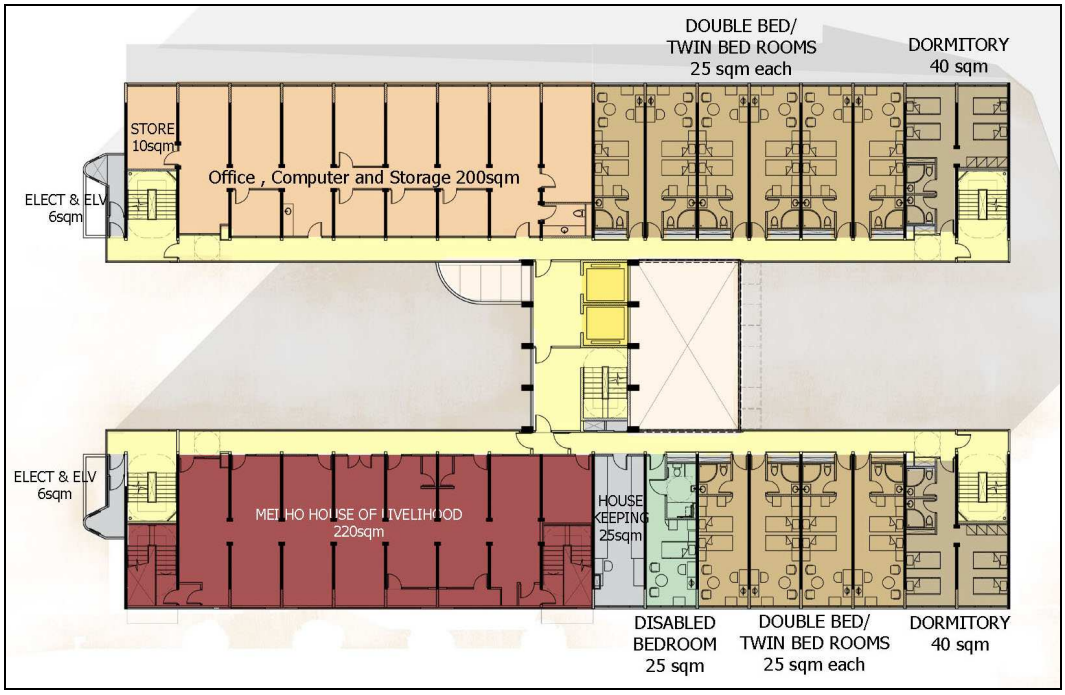


Drawing 4.13a – Ground floor plan, proposed layout for adaptive re-use scheme

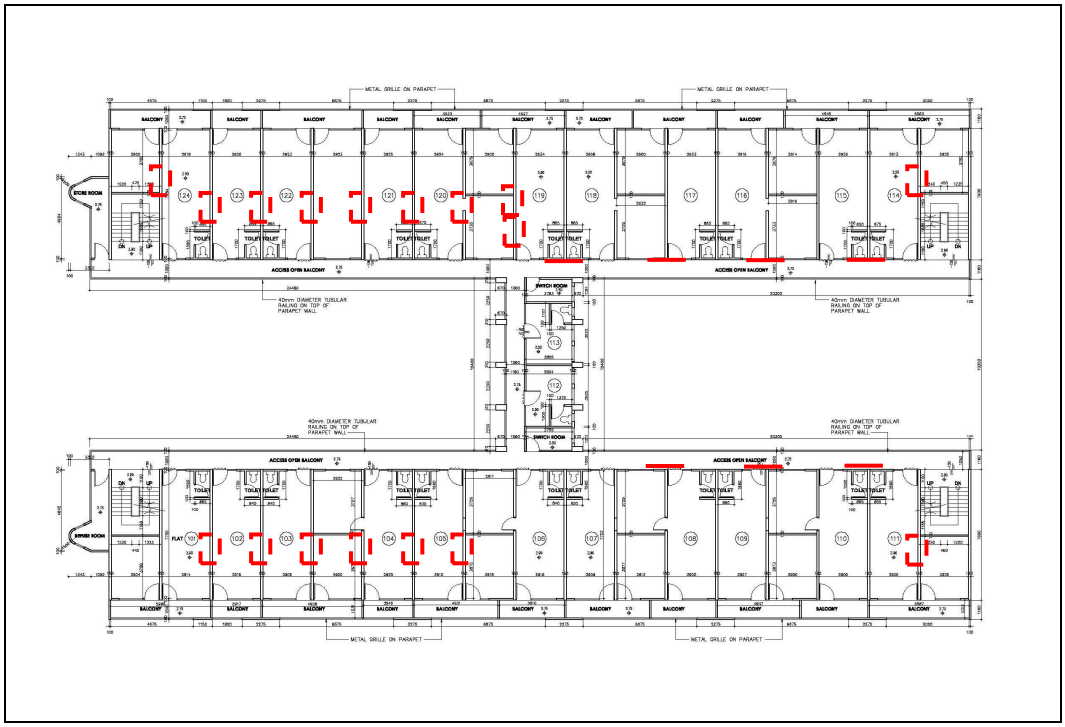


Drawing 4.13b – Existing ground floor plan (new openings to be formed in the internal cross walls boxed in red)

Part 4 – Heritage Impact Assessment

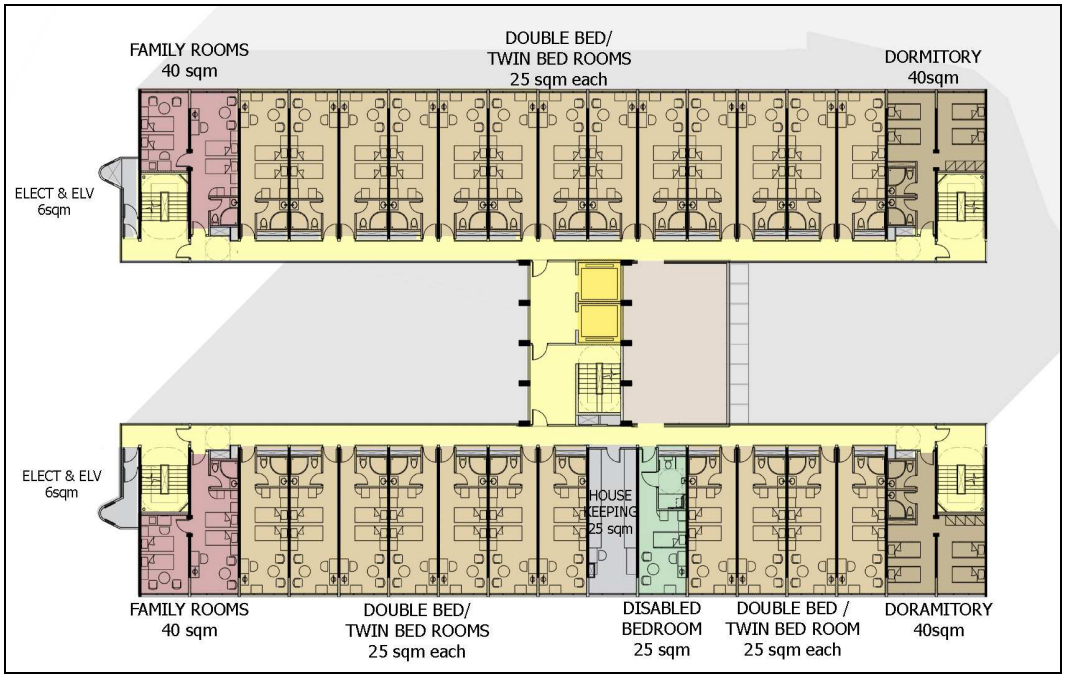


Drawing 4.14a – First floor plan – proposed layout for adaptive re-use scheme

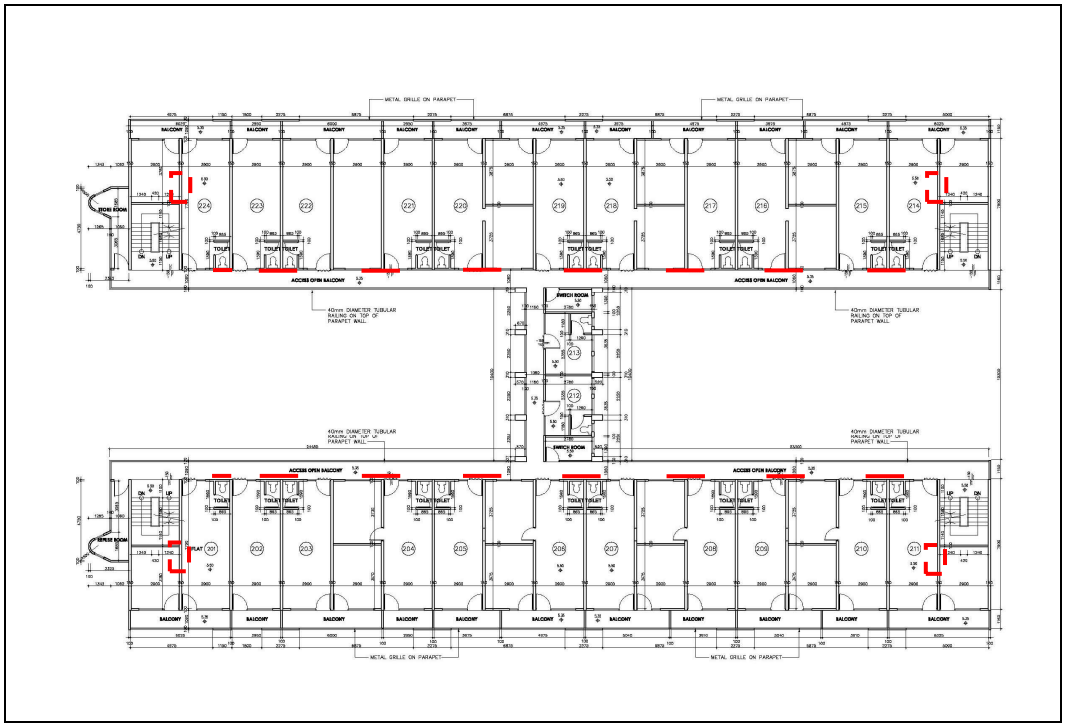


Drawing 4.14b – Existing first floor plan (new openings to be formed in the internal cross walls boxed in red, and pipe duct lined in red)

Part 4 – Heritage Impact Assessment



Drawing 4.15a – Second floor plan – proposed layout for adaptive re-use scheme



Drawing 4.15b – Existing second floor plan (new openings to be formed in the internal cross walls boxed in red, and pipe duct lined in red)

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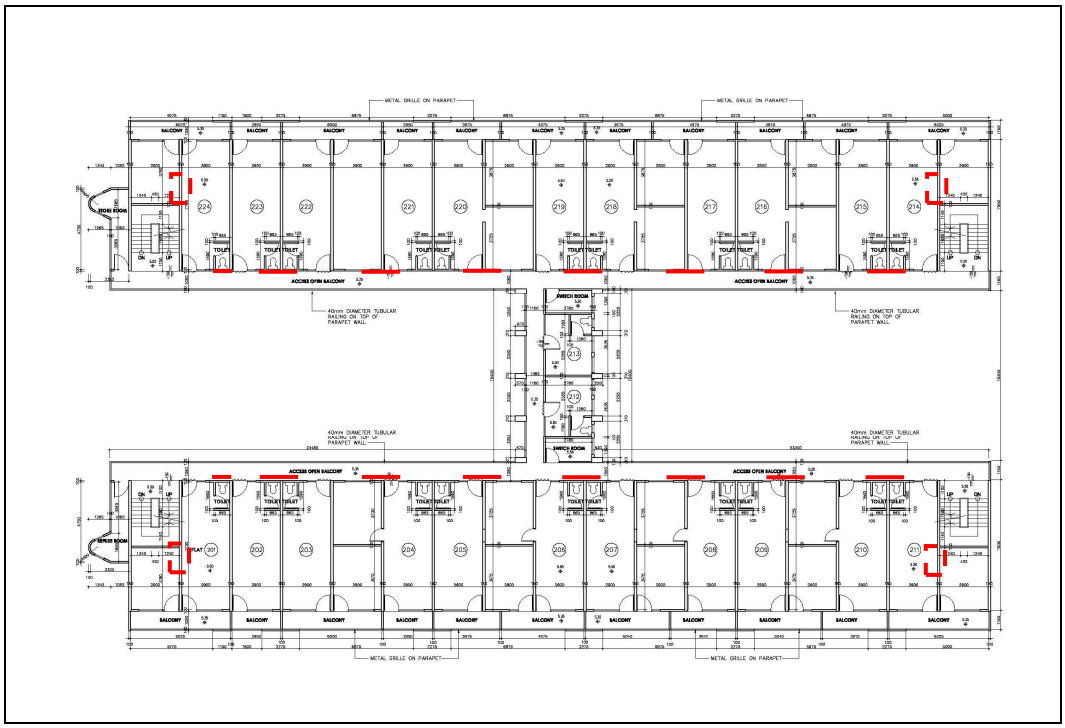
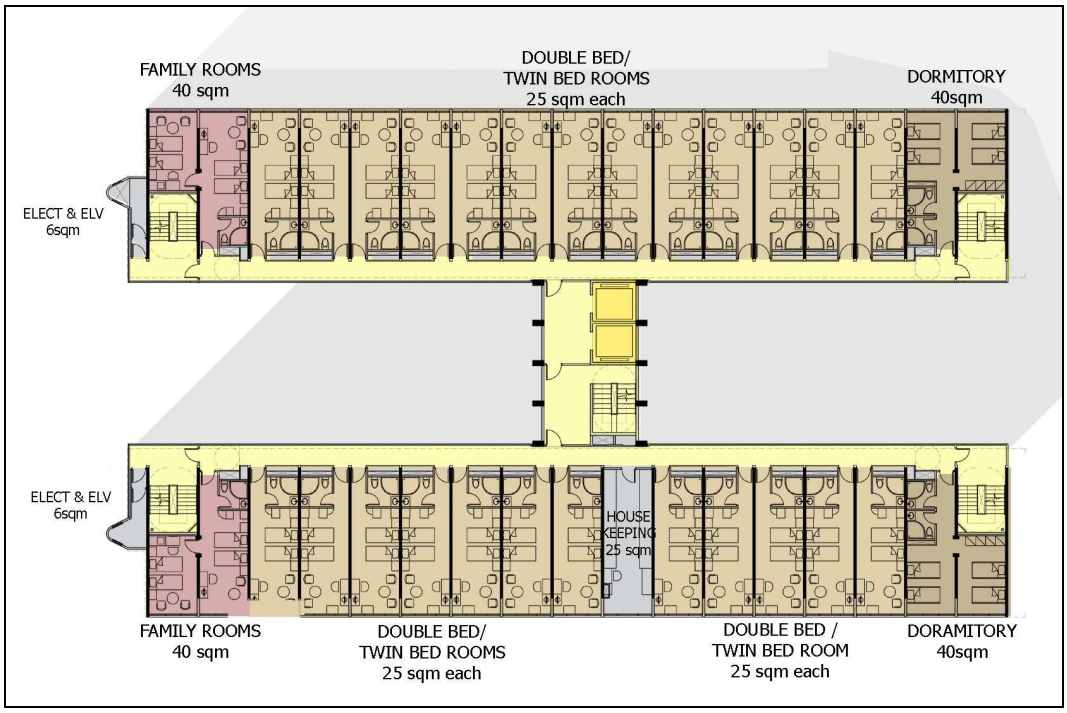
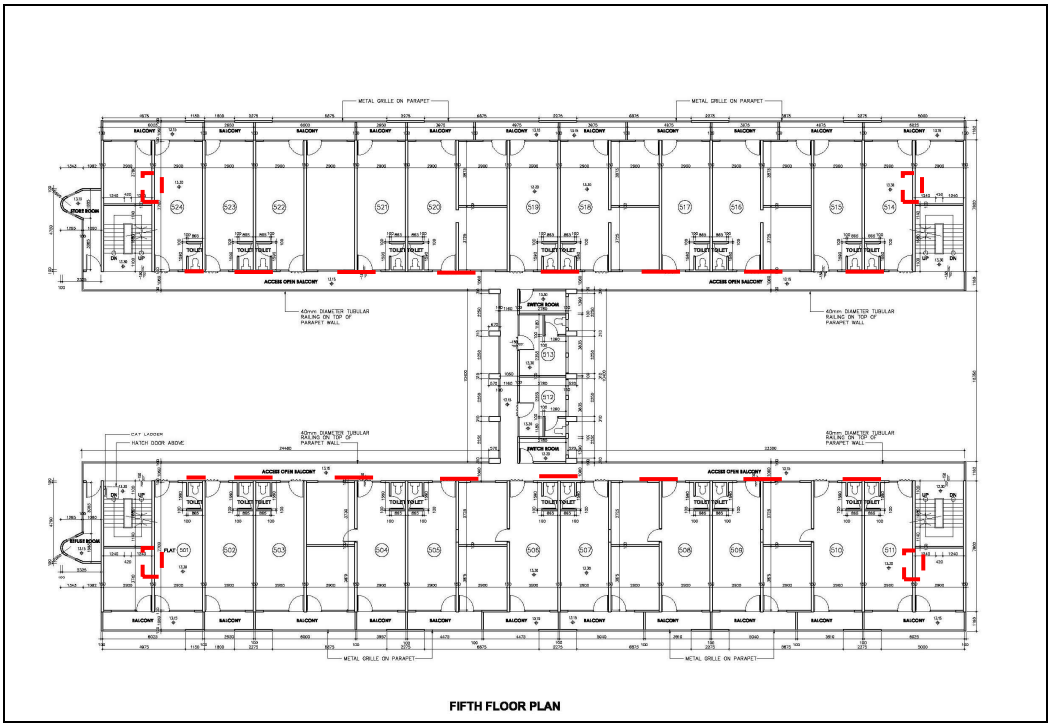
Drawing 4.16a – Third and fourth floor plan – proposed layout for adaptive re-use scheme



Drawing 4.16b – Existing third and fourth floor plan (new openings to be formed in the internal cross walls boxed in red, and pipe duct lined in red)



Drawing 4.17a – Fifth floor plan – proposed layout for adaptive re-use scheme



Drawing 4.17b – Existing fifth floor plan (new openings to be formed in the internal cross walls outlined in red)

Part 4 – Heritage Impact Assessment

4.10 Impact Assessment on Internal – introduction of "Mei Ho House of Livelihood (美荷樓生活館)"

4.10.1 A "Mei Ho House of Livelihood (美荷樓生活館)" with the suggested theme of exhibition in Appendix 3 will be set up.

4.10.2 Recommendations from *Resource Kit* –

- "Appendix X – Architectural Features to be preserved" as following –

  2.0 External area

  2.1 At least one example of typical dwelling unit of each size (e.g. family size and single person, etc.) with its standard provisions, including their wooden doors, sliding metal gates, windows, kitchen benches, clothes hanging hooks, etc. to be retained for heritage interest purposes.

- "Appendix XI – Required Treatment to Architectural Features" as following –

  2.0 Internal

  (a) Example of typical dwelling unit with its standard provisions including wooden doors, sliding metal gates, windows, kitchen benches, security grilles, clothes hanging hooks, etc.

  At least one example of typical dwelling unit of each size (e.g. family size and single person, etc.), to be retained for heritage interest purposes. Floors to be cleaned with clean water and corrosive chemicals must not be used; floors and windows to be re-painted as necessary; metal sliding doors to be eased oiled, adjusted and overhauled if required.

4.10.3 Impact assessment –

- High impact to the floor slab – since loading requirement for museum is 5.0 kPa, but the existing floor slab can only accommodate 2.0 kPa, which implies structural strengthening is needed.
- Medium impact to the building layout and façade – two new independent structures are required as "means of escape" for the museum.
- Medium impact to the building façade – original balcony shall be enclosed to provide more internal space for the museum, except for those in the sample rooms, which the steel window grilles and balcony parapet wall will be retained.

4.10.4 Mitigation measures recommended –

- To carry out structural strengthening as proposed by Registered Structural Engineer (RSE) to mitigate structural impact. (Refer Part E of Appendix 1 for Structural Assessment Report prepared by Registered Structural Engineer.)
- Staircases to be of light-weight structure to reduce additional loading to the building and to be reversible in nature.
- Enclosures to be full height glass panels to minimize visual impact on the façade.
- The existing balconies at the museum are to be kept as far as possible subject to the design of the museum.
- All to be documented by measured drawing and photographic record.

4.11 Impact Assessment on Internal – the refuse room

4.11.1 Addition of dumbwaiter servicing each floor –

- A dumbwaiter to be installed inside the north refuse room.
- The dumbwaiter is essential for vertical transportation of daily necessities for the operation of the hostel.
- Openings on the floor slabs have to be formed as the shaft for the dumbwaiter.

Drawing 4.18 – Third and fourth plan showing the proposed location of the dumbwaiter (outlined in red)

4.11.2 Recommendations from *Resource Kit* –

- "Appendix XI – List of Required Treatment to Architectural Features" as following –

  2.0 Internal

  (e) Floors and internal walls –

  Demolition/openings made to the non-loading bearing internal walls and floor slabs may be allowed subject to the advice of a Registered Structural Engineer.

- "Appendix XII – Recommended Treatment to Architectural Features" as following –

  1.0 Internal

  (a) Concrete corner rubbish chutes with decorative grilles –

  They were constructed in the 70s and have some historical merits being reference to the evolution of the building. Therefore, recommended to be retained for re-use as far as practicable.

4.11.3 Impact assessment –

- Structural impact – neutral.
- Impact on façade – low, because the shaft is added behind the "open grilles".

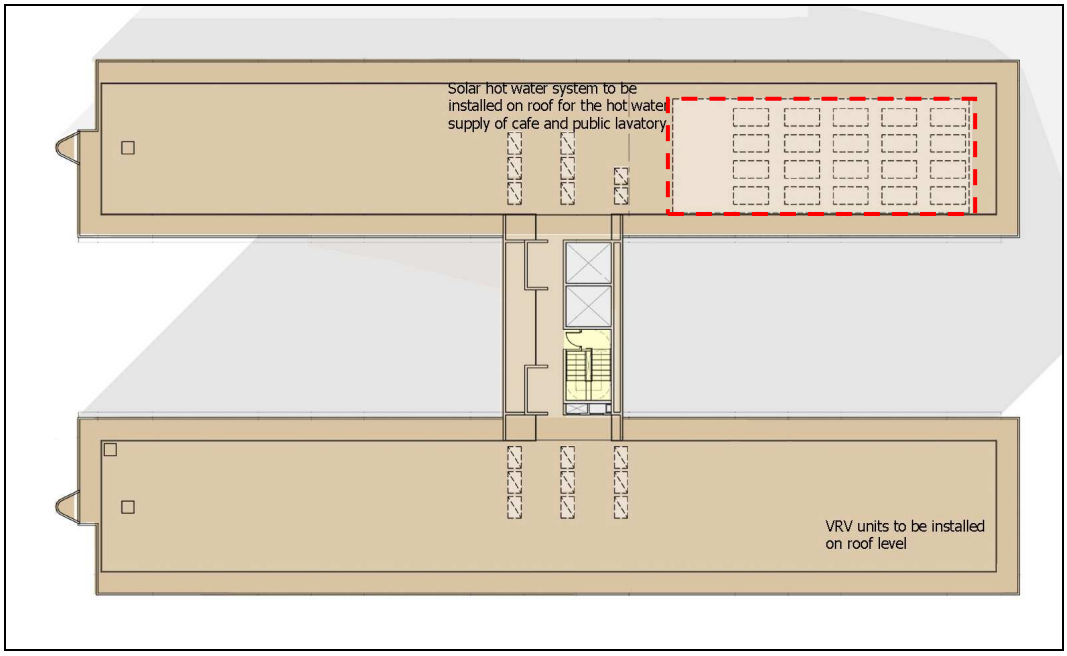
4.11.4 Mitigation measures recommended –

The shaft shall be set back from the façade.

4.12 Impact Assessment on the Roof

4.12.1 Solar panel for hot water system and the variant refrigerant volume out-door units for the air-conditioning system to be placed on the roof –

- These equipment will be installed on steel I-beams, and the I-beams will be supported on top of the walls, and there will be no loading directly imposed upon the roof slab. Existing cross walls and footings shall be able to take up the additional loading imposed by these building services. (Refer Part F of Appendix 1 for Structural Assessment Report prepared by Registered Structural Engineer.)



Drawing 4.19 – Roof plan showing the proposed location of the solar panels (outlined in red)

4.12.2 Recommendations from *Resource Kit* –

This is no recommendation from the *Resource Kit*.

4.12.3 Impact Assessment –

- Impact on the structure – neutral.
- Visual impact from Pak Tin Street, Berwick Street and Tai Po Road – neutral.

4.12.4 Mitigation measures recommended –

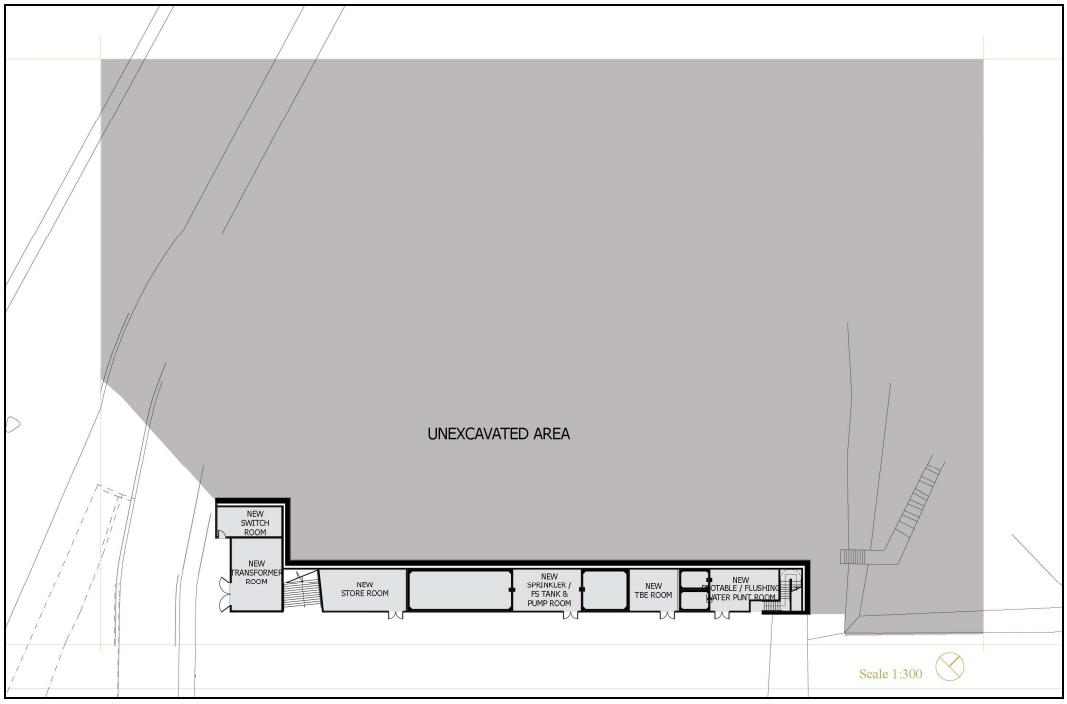
The building services equipment shall be installed at set back position from the perimeter of the roof so as to keep the visual impact on the elevations facing Pak Tin Street, Berwick Street and Tai Po Road to a minimal.

4.13 Impact Assessment on the Site

4.13.1 Formation of building services rooms at the adjacent slope below the façade –

- There is insufficient space in Mei Ho House to accommodate all the buildings services rooms, e.g. transformer room, sprinkler water tanks, etc., so it is proposed to cut the slope at the south site boundary to place these buildings services rooms.

- The structure is an independent structure isolated from Mei Hoi House.



Drawing 4.20 – Plan showing the locations of the building services rooms at the adjacent slope below the façade

4.13.2 Recommendations from *Resource Kit* –

This is no recommendation from the *Resource Kit*.

4.13.3 Impact Assessment –

There is potential impact to the footing and stability of Mei Ho House.

4.13.4 Mitigation measures recommended –

- Slope cutting shall be protected by provision of temporary lateral support works to prevent undue settlement of Mei Ho House.
- Monitoring check points shall be set up to monitor the condition of Mei Ho House during excavation and construction.

****

Part 5 – Management Plan

5.1 Requirements for the Construction Work

The specifications for the conservation work in the tender document and all instructions issued during construction should follow the mitigation measures recommended in the endorsed Conservation Management Plan. The carrying out of the conservation works should be in strictly accordance with the specifications and the recommendations of the mitigation works in the Conservation Management Plan.

The Architect and the Conservation Consultant shall carry out periodic check to ensure that all the construction works are in accordance with the specifications. The full time clerks-of-works, the front-line supervisor of the project, shall be briefed by the Conservation Consultant of the conservation requirements before the commencement of the project, and to bring him to fully aware of the requirements of this Conservation Management Plan.

5.2 Deviation from the Heritage Impact Assessment of this Report

For any deviation from the recommendations of the Heritage Impact Assessment of this report and any change of the proposed works, Antiquities and Monuments Office's further endorsement should be sought.

5.3 Documentation of the Project

Photo record and measured drawings shall be prepared in accordance with the "Antiquities and Monuments Office, Requirements for Photographic Survey of Historic Buildings (as at November, 2007)" and "Antiquities and Monuments Office, Requirements for Cartographic Survey of Historic Buildings (as at November, 2007)" respectively and submitted to Antiquities and Monuments Office for consideration before commencement of any construction work.

Photo record and measured drawings of the building fabric and component to be disturbed as stated in Part 4 – Heritage Impact Assessment of this report shall be prepared before the commencement of any construction work.

Photo record and all record drawings shall be prepared in accordance with the Antiquities and Monuments Office (AMO) requirements stated above, after completion of the construction work and submitted to AMO.

All study reports, e.g. *Resource Kit*, Conservation Management Plan, design and layout of the "Mei Ho House of Livelihood 美荷樓生活館", record drawings, conservation report, and maintenance manual shall be properly filed and made available for inspection for personnel for maintaining the building.

5.4 Display of Artefacts

The building was vacated and the units have been cleared by Housing Department, and artefacts reflecting the then livelihood have been collected by them. Display units have been set up and these units will be relocated into the "Mei Ho House of Livelihood 美荷樓生活館". Housing Department is keeping artefacts of the housing public eras and they are to be consulted, if necessary, for lending of display items.

5.5 Interpretation of the Historic Building

A "Mei Ho House of Livelihood 美荷樓生活館" will be set up to showcase life in Mei Ho House in the old days. The planning, design, implementation and management of the "Mei Ho House of Livelihood 美荷樓生活館" is handled by a special committee consists of history museum curator, heritage specialist and locals. The suggested theme and exhibits are listed in Appendix 3. Details of museum show flat layout shall be submitted to Antiquities and Monuments Office for consideration before the official opening and operation of the hostel and museum.

In addition to the "Mei Ho House of Livelihood 美荷樓生活館", pamphlet will be available to the public and cultural tours of Mei Ho House and the neighbourhood will be organized periodically.

5.6 Long Term Operation

A conservation report shall be prepared upon completion. The conservation report and maintenance manual shall be submitted to the Antiquities and Monuments Office for record purpose before the official opening and operation of the hostel.

The conservation report describes the project from the planning stage to completion and records all the interventions to the buildings. The photo

record of the completion of the project and progress photo shall be part of the report.

A "heritage building operation manual" will be prepared by the Conservation Consultant for the operator. Since this manual is prepared for the front line staff of the operator, the preserved "architectural features" will be described with photos and locations to make the users fully aware of these features. The "operation manual" will also refer the users to the "maintenance manual" when these features are in need of repair.

The maintenance manual will set out the guidelines for the building management and future maintenance of the building including the historic building fabric of the building (i.e. the architectural features of the building). The guidelines cover the standards and the frequency of inspection for up-keeping the historic fabric of the building. The maintenance manual will also subject to be annual review in the first three years by the building management and the Conservation Consultant. A separate maintenance manual will be prepared for the "Mei Ho House of Livelihood 美荷樓生活館".

The maintenance manual shall set out the time frame for periodic checking of the "architectural features". Both the time frame of the periodic checking and the content of the maintenance manual shall be prepared by a conservation consultant. The building manager and key members of the maintenance team shall be fully aware of the maintenance manual, conservation report, and requirements of this Conservation Management Plan.

The maintenance manual for the building will prepared by the Conservation Consultant and Architect for the part on building fabric and structure, whereas the building services installation part by the Building Services Engineer. For "Mei Ho House of Livelihood 美荷樓生活館", the maintenance manual shall be prepared by the museum committee of the Hong Kong Youth Hostel Association and the conservation consultant. Both manuals shall be submitted to the Antiquities and Monuments Office for record purpose before the official opening and operation of the hostel.

Adaptive Re-use of Mei Ho House as Youth Hostel
Conservation Management Plan

Part 6 – Appendix 1

Structural Assessment Report from Registered Structural Engineer –
Mr. Lawrence Wong, for Justifications to the Structural Strengthening and
Re-construction Works

A. Introduction

A1. This assessment is based on the findings from the "Structural Assessment Report" ("Report") prepared by Ove Arup Partners Hong Kong Limited (OAP) in April, 2008 commissioned by Architectural Services Department, and the "Report" was signed by Registered Structural Engineer, Mr. Kwan Kin Kei. In this "Report", the materials condition and durability has been investigated, and the scope of investigation was stipulated on Section 5 of the "Report". After visual inspection, detail investigation was implemented in accordance with a test plan involving the following tests –

- Concrete compressive strengthen of 74 mm diameter core;
- carbonation depth;
- chloride content;
- covermeter survey; and
- open-up concrete over to expose embedded reinforcing bars.

A2. Samples from the test regimes were selected randomly at each floor on different structural elements distributed at both "blocks" and "central block". The test plan included samples taken from 65 locations for testing of concrete compressive strength of 75 mm diameter cores, carbonation depth, chloride content and cover-meter survey, and open-up inspections at 14 locations for removal of concrete cover to review reinforcement detailing and corrosion condition.

B. The Central Block

B1. The results of structural investigation of the central block suggest that chloride contaminated concrete is a concern. The long-term durability of the reinforced concrete structure may be affected due to chloride-induced corrosion of the reinforcement. The ingress of chloride of the central block may be attributed to the leakage of saltwater from previous lavatories usage. Furthermore, the situation of corrosion to reinforcement of the central block is aggravated by the excessive depth of carbonation, as indicated at all test locations, since carbonated concrete cannot provide corrosion protection to the

reinforcement.

B2. The integrity of the building structure of the central block had de-graded as indicated by cracking of its shear walls and floor tilting and cracks at the slab junction along the corridor at the upper floor levels, probably caused by shortening of columns and settlement of the strip footing foundation.

B3. In view of the inherent defects of the central block mentioned above, options of rectification works has been considered as following –

B3.1 Strengthening of super-structure and foundation –

(a) Structural strengthening to the super-structure could be implemented by provision of additional steel members to support the existing columns, shear walls, beams and slabs. However, these additional steel members would inevitably occupy space and reduce head-rooms, with the functional use if the central block unduly compromised. The reduction in headroom is similar to that of the access balcony (for detail – refer to paragraph F2.2(c) below) or even worst. The cracked shear walls, settled columns and tilted floor structure would need to be demolished and re-constructed in parts.

(b) The existing strip foundation could be strengthened by under-pinning, possibly with additional mini-piles.

(c) Even though the central block could remain after implementation of extensive strengthening works, stringent monitoring and maintenance programme have to be carried out for the life time of the new hostel, since the remaining life of the material durability of the central block depends very much on a comprehensive and frequent maintenance programme of its super-structure and foundation.

B3.2 Re-construction of super-structure and foundation –

(a) The central block could be specifically designed for its function required for the new hostel, including provision of additional lifts.

(b) There is no more concern of short-term remaining life of material durability, and no need for long-term monitoring and frequent maintenance during the

life time of the hostel.

B4. Considering the pros and cons, and the building structure of the central block is considered to have deteriorated beyond repair, it is thus recommended to re-construct the central block.

C. Forming of Openings on Cross (Shear) Walls

The existing shear walls will be strengthened by local thickening with trimming beams and posts around the new opening through the walls. Trimming beams will also be provided at the bottom of the new wall openings immediately above the strip footings to maintain loading condition to the existing footings. Thus, the structural integrity of the shear walls and footings would not be impaired.

D. Glass Enclosure to Staircase on Each Floor

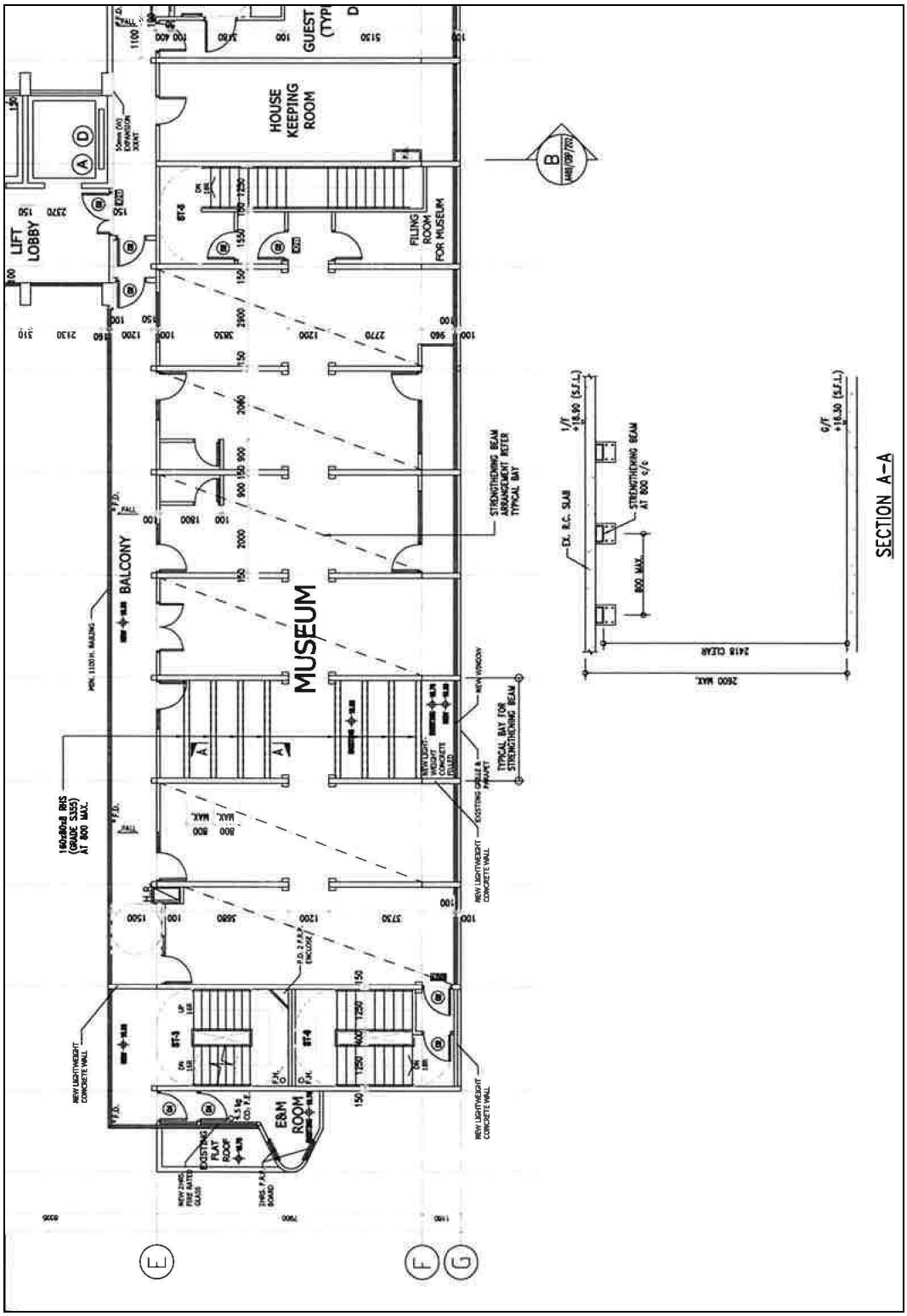
The loading of the glass enclosure added to the corners of each floor of the two blocks will be taken by the re-constructed access balcony.

E. Structural justification for addition of introducing the "Mei Ho House of Livelihood (美荷樓生活館)" on first floor requiring higher loading requirement

According to the Building (Construction) Regulations, the museum shall design for 5.0 kPa which is higher than the permissible floor load 2.0 kPa as demonstrated in the structural assessment report. The structural wall is strong enough to withstand the proposed imposed load. The wall is mainly subject to compressive stress under gravity load and this stress is around 1.5 N/mm^2 (base on cumulative loading from roof down to ground floor), which is about 20% of allowable strength.

Apart from the key wall elements, the load bearing capacity of the floor system can be enhanced by small steel strengthening beam at the underneath of existing reinforced concrete slab. Steel rectangular hollow box section 160 x 80 x 8 mm thick RHS to be added at 800mm centers. The remaining clear headroom will be 2,418 mm. A schematic layout is shown in sketch no. AA-S03 below.

Part 6 – Appendix 1



Sketch no. AA-S03 prepared by the Registered Structural Engineer

F. Air-conditioning Equipment to be Placed on Roof

The new steel beams for supporting the out-door units of the air-conditioning installation would span over the existing roof, with their supports resting on top of the shear walls underneath, in order to transfer the loading of the out-door units directly to the shear walls, with no additional loading imposed onto the roof structure. The load bearing capacity of existing shear walls had been checked for the additional imposed load from the out-door units, and were found to be adequate, based on estimated in-situ cube strengths of 20 MPa, as given by the core test results stated in Section 6.2.3 of the "Report". Existing cross walls and footings shall be able to take up the additional loading imposed by these building services.

- Allowable loading that can imposed on the existing roof = 0.75 kPa (based on the original design loading and the existing condition)
- Equivalent allowable imposed load of out-door unit spanning on 2 bays = 0.75 kPa x 3 m. x 8 m. x 2 bays = 36 kN.

The self-weight of the equipment and the supporting I-beam shall be kept below 36 kN. In the event that great loading is to be imposed, strengthening by additional steel beams shall be provided.

G. The Access Balcony (the existing "access balcony" is referred to as "canti-levered corridor slab" in this section)

G1. Condition of the access balcony (canti-levered corridor slab)

G1.1 Structural condition assessment

The condition of the "canti-levered corridor slabs" had been assessed with findings included in the "Report", relevant extracts of which is enclosed as Appendix 1-1 at the end of this section for easy reference.

G1.2 Concrete –

(a) Carbonation of concrete cover to the reinforcement had been measured from the soffite of "canti-levered corridor slabs". Out of the 12 locations investigated, only at one location the depth of carbonation found exceeded the average cover from the slab soffite. However, carbonation of concrete cover to the top layer of reinforcement had not been measured from the top of "canti-levered corridor

slabs" due to presence of the thick floor screed on the access balcony floor.

(b) Samples for testing of chloride content of the "canti-levered corridor slabs" had been taken at 19 locations, and the chloride content at 11 locations found exceeded the limit of 0.06% by weight of the concrete sample, with an average of 0.077%.

(c) Coring tests had been carried out at locations of the "canti-levered access corridor slabs", and the estimated in-situ cube strength found to be above the minimum requirement of their concrete mix design of 1 : 2 : 4, at an average of 26.90N/mm^2.

G1.3 Reinforcement –

Two open-up inspections had been carried out to the reinforcement of the "canti-levered corridor slab", one at 6/f of south block (Block A) showing mild corrosion with local pitting, and another one at 5/f of north block (Block B) showing reinforcement partly corroded.

G1.4 Structural adequacy

(a) Access balcony (canti-levered corridor slab) structure –

The existing "canti-levered corridor slabs" are only 101 mm (4") thick and reinforced with 9.5 mm (3/8") diameter mild steel bars at 127 mm (5") centres stressed at 125N/mm^2. This is not in compliance with the guide lines given in PNAP 173 (APP 68) which stated minimum requirement of slab thickness of 150 mm with 10 mm diameter high yield steel bars stressed at 100N/mm^2 maximum. Extract of PNAP 173 (APP 68) is enclosed as Appendix 1-2 at the end of this section for easy reference.

(b) Imposed load on access balcony (canti-levered corridor slab) structure –

As stipulated in Clause 17, Table 1, of Building (Construction) Regulations, the "canti-levered corridor slab" should be designed for an imposed load of 3.0 kPa, which is higher than the original design imposed load of Mei Ho House in accordance to the London City Council By-law 1952 at 2.0 kPa. As suggested in the "Report", the existing floor screed on the access balcony should be trimmed down to reduce its self-weight to cater for this increase of imposed load on the corridor. Nevertheless, it appears that in the calculation

for justification of the loading capacity of the "cantilevered corridor slabs" in the "Report", the self-weight of the parapet wall along the corridor was not included (refer to Appendix 1-1). It was found that when the self-weight of the parapet wall is accounted for, the existing provision of the "canti-levered corridor slabs" would not be adequate to support all the design loads.

G2. Strengthening proposals

G2.1 Option 1 – use of high performance concrete

(a) Method statement –

The top surface of the "canti-levered corridor slab" is to be trimmed off bay by bay, with temporary propping underneath, to expose the existing reinforcing bars, which will then be de-rusted or replaced, as found necessary. The "canti-levered corridor slab" is then to be reinstated by pouring "SCORETECH" high performance concrete on top, to replace the hacked off portion of the slab.

(b) Pros –

- Easy operation.
- Extensive carbonation and chloride-contamination in top portion of the cantilevered corridor slabs would be rectified for protection of the reinforcing bars, which would also be made good at the same time.

(c) Cons –

- The load bearing capacity of the existing "canti-levered corridor slabs" could not be enhanced by this method to carry all design loads, including self-weight of parapet walls and the increase of imposed load on the corridor. The "canti-levered corridor slabs" would still be structurally inadequate after strengthening.
- The soffite portion of the "cantilevered corridor slabs" is still subject to extensive carbonation and chloride-contamination, and regular monitoring in future is required, as recommended in the "Report".

G2.2 Option 2 – Provision of additional steel beams

(a) Method statement –

Additional structural sections are to be added to the soffite of the existing "canti-levered corridor slabs", which will remain intact, as illustrated in

Appendix 1-3 at the end of this section. In doing so, the "canti-levered corridor slabs" will no longer be under canti-lever action, but rather be supported by the additional steel sections.

(b) Pros –

- Easy operation.
- The existing "canti-levered corridor slabs" could be strengthened to carry all design imposed loads and dead loads as required.
- Limitation to location of proposed down pipes insider hotel rooms would be relaxed, since the "canti-levered corridor slabs" are not canti-levered slabs any more.

(c) Cons –

- Excessive carbonation and chloride-contamination of the "canti-levered corridor slabs" are not rectified, and the existing reinforcing bars within the slabs will be vulnerable to corrosion, resulting in concrete spalling and rusting of reinforcing bars. Long term continuous maintenance for the existing reinforced concrete slabs will be required for rectification of concrete spalling and de-rusting or replacement of reinforcing bars.
- Headroom under the corridor is reduced, and the resulting headroom may not satisfy the requirements for Means of Escape as shown below (the tolerance/variations of the profile of existing structure has not taken into account) –

Existing floor to floor height	2,600	mm
<u>Minus the following 5 items</u> –		
Thickness of existing slab	102	mm
New steel channel installed below slab	204	mm
New buildings services zone below slab (100 mm diameter pipe plus 75 mm deep hanger for manipulation of the pipe fittings)	175	mm
New floor finishes	50	mm
Disabled ramping treatment to the existing step difference Between corridor and the room	150	mm
	= 1,919	mm

less than the 2,000 mm minimum requirement for Means of Escape.

If these building services facilities are to be passing through the new steel channel below the slab, the Building Services Engineer has informed that there will be a 100 mm diameter fire services water supply pipe supplying water to all the sprinklers to all rooms at one side of the block as well as the corridor. Since each room has at least four sprinklers, the number of sprinklers to be served exceeds eighteen, the diameter of the pipe calculated from the code "LPC Rules for Automatic Sprinkler Installations incorporating BS EN 12845" is 100 mm.

Moreover, a 65mm diameter rain water disposal pipes for floor drains have to be installed with fall from access balcony to the downpipes in pipe ducts, not mentioning that there are smaller diameter pipes and conduits for entering the rooms.

The sizes of openings through structure will be 150mm and 100mm for 100mm and 65mm diameter pipes respectively. The minimum depth of the universal beam has to be increased to 356 mm if to accommodate the 150mm hole. The depth of the structure will have to be further increased for additional pipes and conduits to pass through. The total headroom remains also less than the 2,000 mm minimum requirement for Means of Escape in this scenario.

- The additional steel sections have to be aesthetically treated or concealed.

G2.3 Option 3 – Re-construction of "canti-levered corridor slab"

(a) Method statement –

The existing "canti-levered corridor slabs" are to be demolished, and then replaced by structural steel decks canti-levered out from the structural shear walls of the building, as illustrated in Appendix 1-4 at the end of this section.

(b) Pros –

- No more problem of carbonation and chloride-contamination, and no monitoring or maintenance of concrete structure would be required after removal of the existing "canti-levered corridor slabs".
- The new structural steel access balcony could be designed and constructed to meet current design standards of loading, parapet height and width, etc.

(c) Cons –

- Demolition work would be required.
- The new structural steel access balcony structures have to be aesthetically treated to resemble the demolished ones.
- This option will give the most extensive alteration impact amongst the three options and should be regarded as the last restort.

G3. Conclusion and recommendation

Option 1 is not recommended, since the existing access balcony (canti-levered corridor slabs) could not be strengthened to cater for the required loads and the space allowed for location of down pipes would be very limited.

Option 2 may not be recommended due to reduced headroom over the corridors after strengthening works.

Option 3 would be recommended due to the other two options are not technically feasible.

Adaptive Re-use of Mei Ho House as Youth Hostel
Conservation Management Plan

Part 6 – Appendix 1

Appendix 1-1 – Relevant extract of findings of the condition of the "canti-levered corridor slab" in the "Report"

4.3 Structural Checking

In accordance with the LCC by Law 1952, the live load on each floor shall be 40lb/ft^2 (which is equivalent to the 1.92kPa) for the usage purpose of the resident flat. In correspondence with the previous design codes for the buildings, the checking will comply to B.S. Codes of Practice for Reinforced Concrete CP114:1957 and Building (Construction) Regulation: 1975.

In accordance with the core test of existing structural elements, the minimum in-situ core strength is 15.5MPa which is appeared at Test ID No. 4 and hence the design concrete strength of 15MPa will be adopted in our calculation.

In this part, the design data and checking of following structural elements will be presented in Appendix B.

Main Block

a. Slab and Beam of Typical Bay

b. Cantilever Beam and Slab at Balcony and Corridor

Link Block

a. Slab and Beam at Link Block

After reviews of the design of the floor structure, it is concluded that as follows.

Regarding the slab and beam of typical bay at main block, in accordance to the structural survey report, the average slab cover is 26.7mm and the maximum finish is 30mm while the maximum beam cover is 35.6mm. Under this condition, the structural element can sustain the captioned design live load 2.0kPa.

For the portion of balcony and corridor, the average slab finish of 57mm is observed. Under this condition, the slab can sustain the live load of 2kPa.

Regarding the slab and beam at link block, the slab and beam can sustain the live load of 2kPa with the assumption of 37.6mm average slab cover and 30mm finish.

In the Link Block, several fine cracks were observed on the shear wall and the worst one is some through-wall cracking at 3/F. In the corridor of link block, floor tilting and cracks at the slab junction along the corridor can be seen at the upper floor levels. However such is not evident on the lower floors. Hence, we opine that the cracking is caused by floor tilting which in turn may be caused by the following:

1. Shortening of column that varies between upper floors and lower floors;
2. Settlement of the strip footing foundation under the column.

Self weight of parapet along corridor was not included in calculation of loading capacity.

Part 6 – Appendix 1

CAP 20

ARUP Ove Arup & Partners Hong Kong Ltd
Calculation Sheet

Job No.	Sheet No.	Rev.
25249	C1	

Member / Location

Job Title

Dgr. Ref.

CS-3.

Made by DL Date 16/4/08 Chkd.

Cantilever Slab

h = 4" = 101.6

b = 1000 mm

Average cover = (34+20)/2 = 27 mm

d = 101.6 - 27 - 4.8 = 69.8 mm

Ast = 3/8" ϕ @ 5" c/c

= 9.5mm ϕ @ 127mm

= 558 mm² per m run

P_{sc} = 125 N/mm²

P_{cb} = 7 N/mm²

$l_a = 69.8 - \frac{3}{4} \times \frac{558 \times 125}{1000 \times 7} = 62.3$ mm

Mr (based on tensile reinf.) = Ast psc la.

= 558 × 125 × 62.3 × 10^{-6}

= 4.35 kNm

Mr (based on strength of concrete) = $\frac{p_{cb}}{4} bd^2$

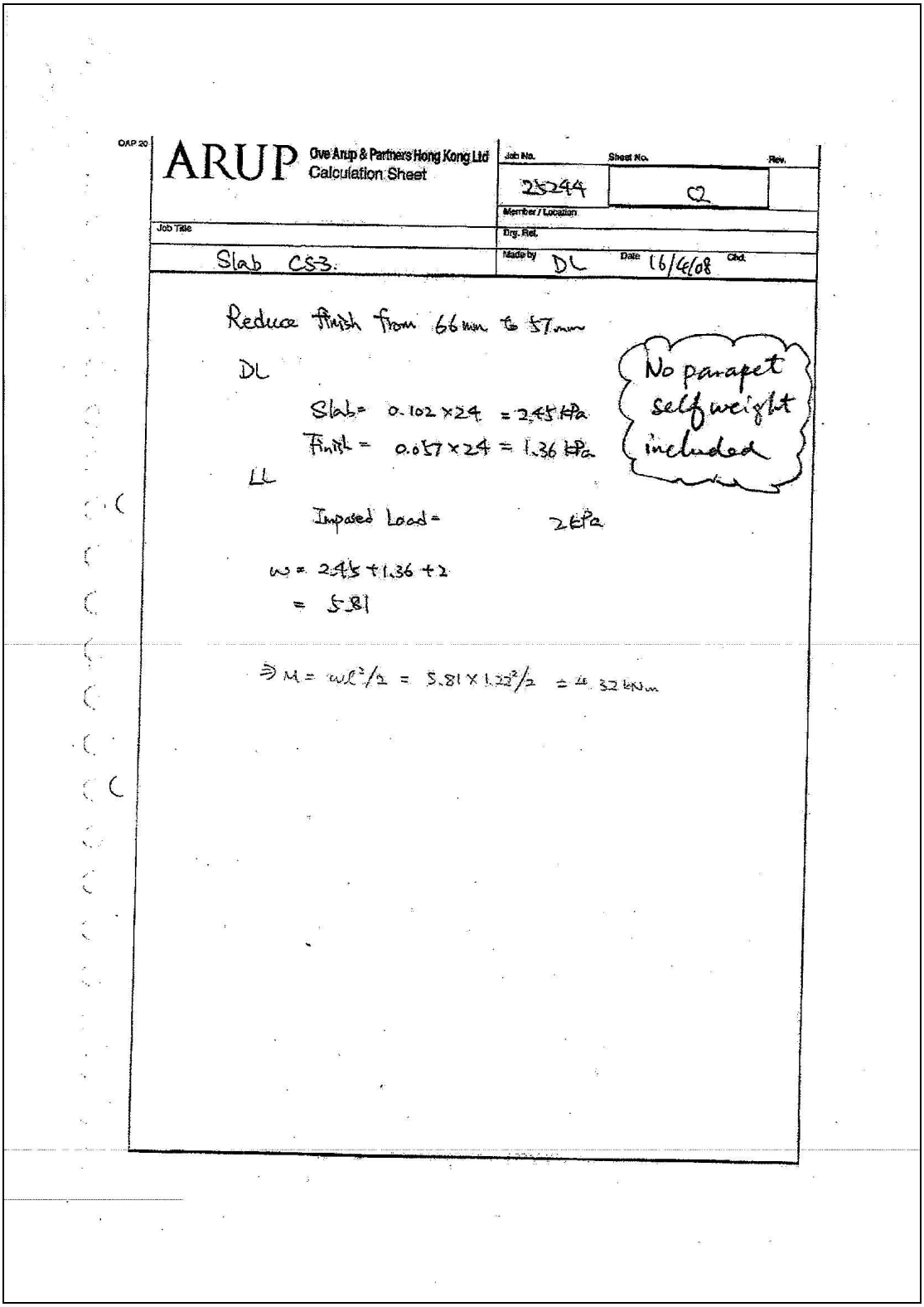
= $\frac{7}{4} \times 1000 \times 69.8^2$

= 8.53 kNm

Moment Capacity

M_r = 4.35 kNm

Part 6 – Appendix 1



OAP 20

ARUP Ove Arup & Partners Hong Kong Ltd
Calculation Sheet

Job No.	Sheet No.	Rev.
25294	C2	

Member / Location

Job Title: Slab CS3.

Drg. Ref.

Made by DL Date 16/4/08 Chd.

Reduce finish from 66mm to 57mm

DL

Slab = 0.102 × 24 = 2.45 kPa

Finish = 0.057 × 24 = 1.36 kPa

No parapet self weight included

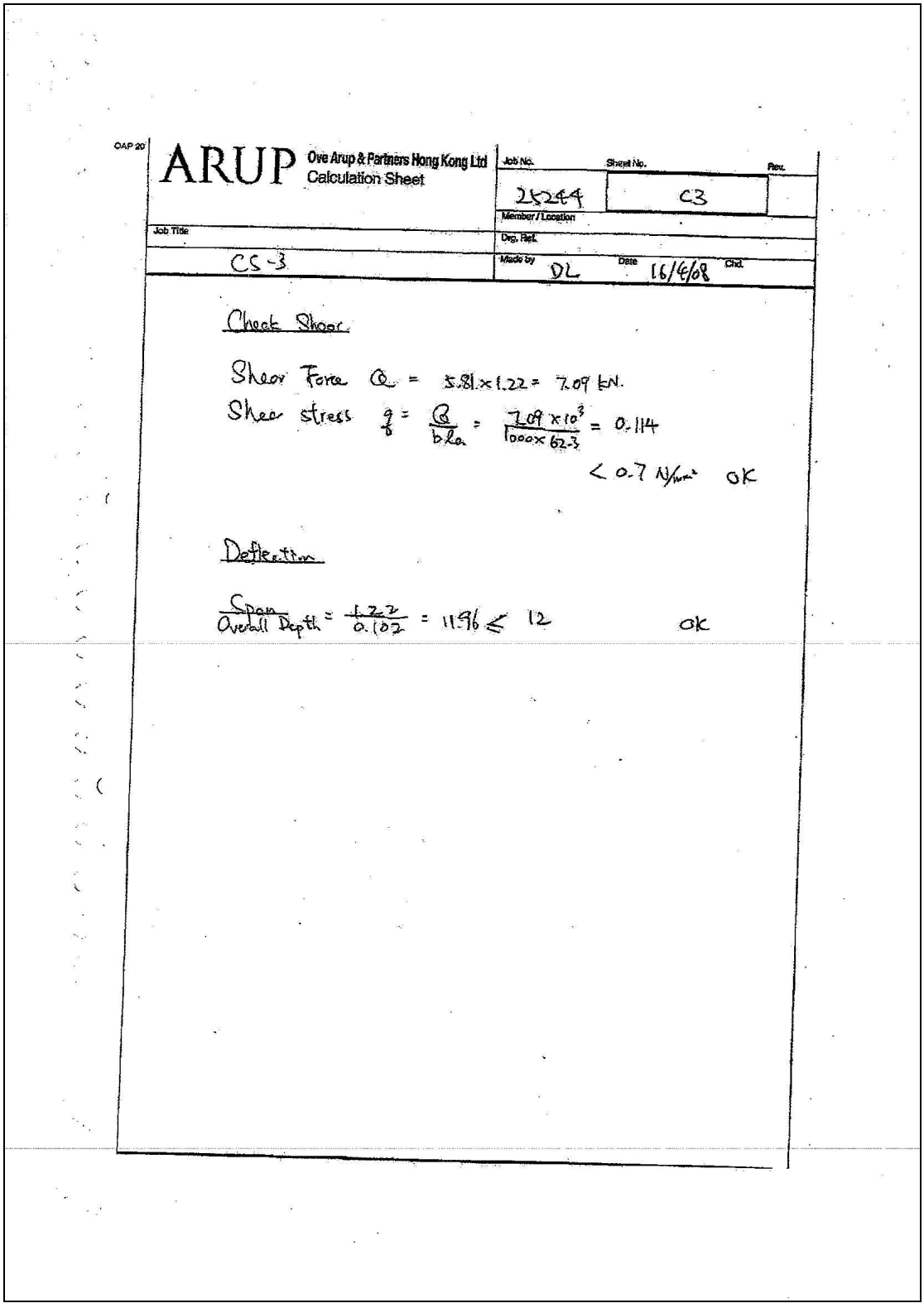
LL

Imposed Load = 2kPa

w = 2.45 + 1.36 + 2
= 5.81

⇒ M = $wl^2/2$ = 5.81 × $1.22^2/2$ = 4.32 kNm

Part 6 – Appendix 1



OAP 20

ARUP Ove Arup & Partners Hong Kong Ltd
Calculation Sheet

Job No.	Sheet No.	Rev.
25244	C3	

Member / Location:

Job Title: CS-3

Dep. Ref.:

Made by: DL Date: 16/6/08 Chd.

Check Shear.

Shear Force $Q = 5.81 \times 1.22 = 7.09$ kN.

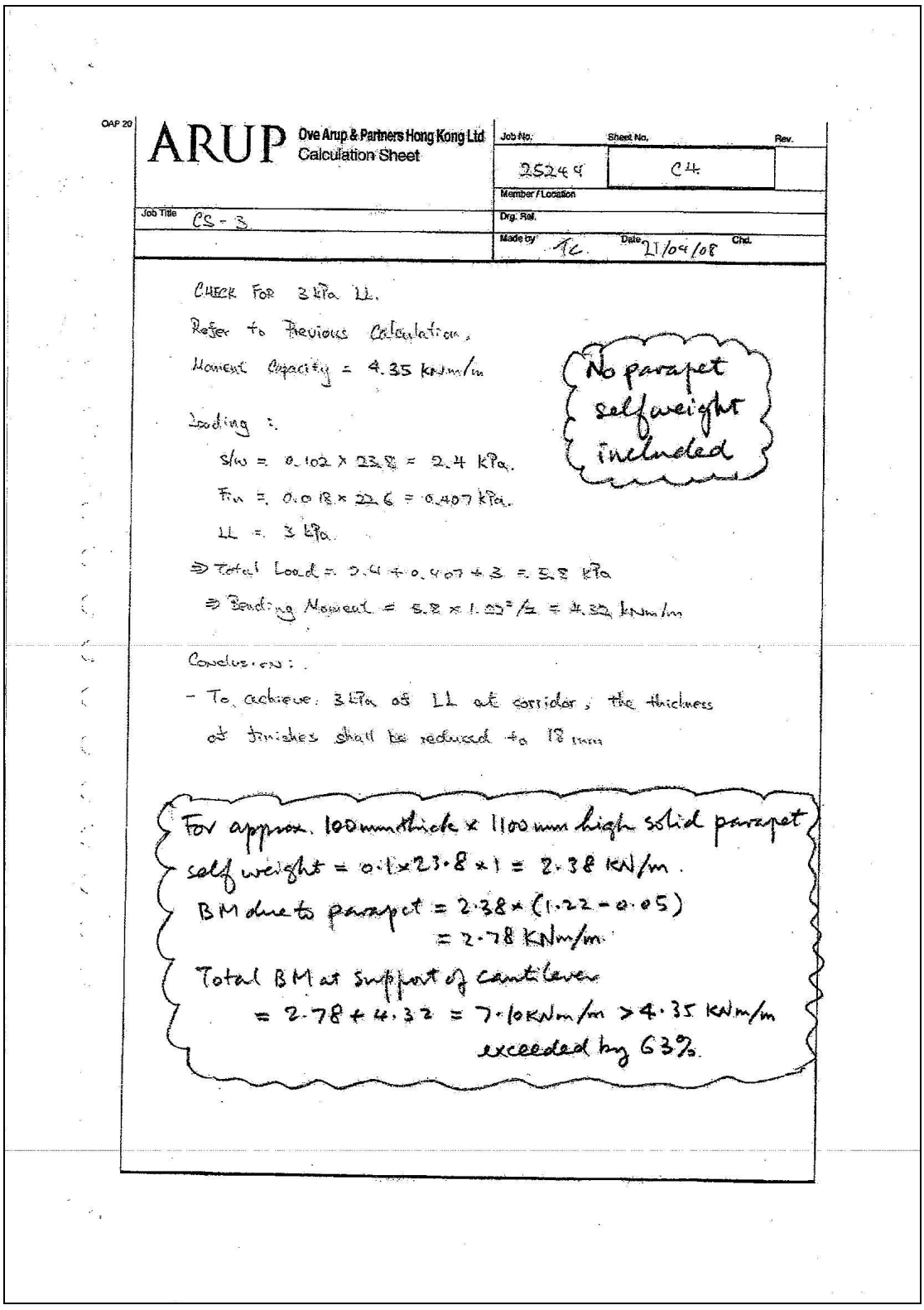
Shear stress $q = \frac{Q}{b l_a} = \frac{7.09 \times 10^3}{1000 \times 62.3} = 0.114$

< 0.7 N/mm² OK

Deflection

$\frac{\text{Span}}{\text{Overall Depth}} = \frac{1.22}{0.102} = 11.96 \leq 12$ ok

Part 6 – Appendix 1



OAP 20

ARUP Ove Arup & Partners Hong Kong Ltd
Calculation Sheet

Job No.	Sheet No.	Rev.
25249	C4	

Member / Location

Job Title CS - 3

Drg. Ref.

Made by TC. Date 21/04/08 Chd.

CHECK FOR 3 kPa LL.

Refer to Previous Calculation,

Moment Capacity = 4.35 kNm/m

No parapet selfweight included

Loading :

S/W = 0.102 × 23.8 = 2.4 kPa.

F/W = 0.018 × 22.6 = 0.407 kPa.

LL = 3 kPa.

⇒ Total Load = 2.4 + 0.407 + 3 = 5.8 kPa

⇒ Bending Moment = 5.8 × 1.22²/2 = 4.32 kNm/m

Conclusion :

- To achieve 3 kPa as LL at corridor, the thickness of finishes shall be reduced to 18 mm

For approx. 100 mm thick × 1100 mm high solid parapet
self weight = 0.1 × 23.8 × 1 = 2.38 kN/m.
BM due to parapet = 2.38 × (1.22 − 0.05)
= 2.78 kNm/m
Total BM at support of cantilever
= 2.78 + 4.32 = 7.10 kNm/m > 4.35 kNm/m
exceeded by 63%.

Part 6 – Appendix 1

Appendix 1-2 – Extract from PNAP 173 (APP 68)

Design and construction of canti-levered reinforced concrete structures

Cantilevered Slabs

6. The structural design of cantilevered slabs should satisfy the following requirements:-

(a) The minimum overall thickness should be--

(i) 100 mm for span not greater than 500 mm;

(ii) 125 mm for span greater than 500 mm but not greater than 750 mm;

(iii) 150 mm for span greater than 750 mm.

(b) Any wall supporting the cantilever slab, except that for very small span slabs like air-conditioner hoods, should be of sufficient thickness to provide the necessary rigidity. This is in addition to any other design consideration that is required for the wall itself.

(c) Cantilevered slabs should be reinforced with high yield steel bars in both faces and in both directions. Main reinforcement bars should be at least 10mm diameter and spacing should not be greater than 150 mm, and the steel area should not be less than 0.25% of the cross-sectional area of the structural concrete.

(d) The main reinforcement of cantilevered slabs should have a minimum anchorage length of 45 times the bar diameter of the steel bar and should be rigidly fixed to the reinforcement of the supporting members. For cantilevered slabs with drop at the supporting end, top main reinforcement bars of not greater than 16 mm in diameter should be used in order that an effective and proper anchorage into the supporting beams and internal slab can be developed. Reinforcement details should be drawn in a sufficiently large scale to indicate clearly the connections.

(e) Consideration and specific details should be provided for--

(i) cantilevered slabs continuing around corners of buildings due to increase in slab area and a change in direction of the main bars;

(ii) the side edge of cantilevered slabs where there is an additional load from return parapets running parallel to the cantilever span direction.

7. The requirements set out in paragraph 6 above do not apply to in-fill slabs enclosed by edge beams, or slabs supported in such a way that they do not behave similar to cantilevered slabs.

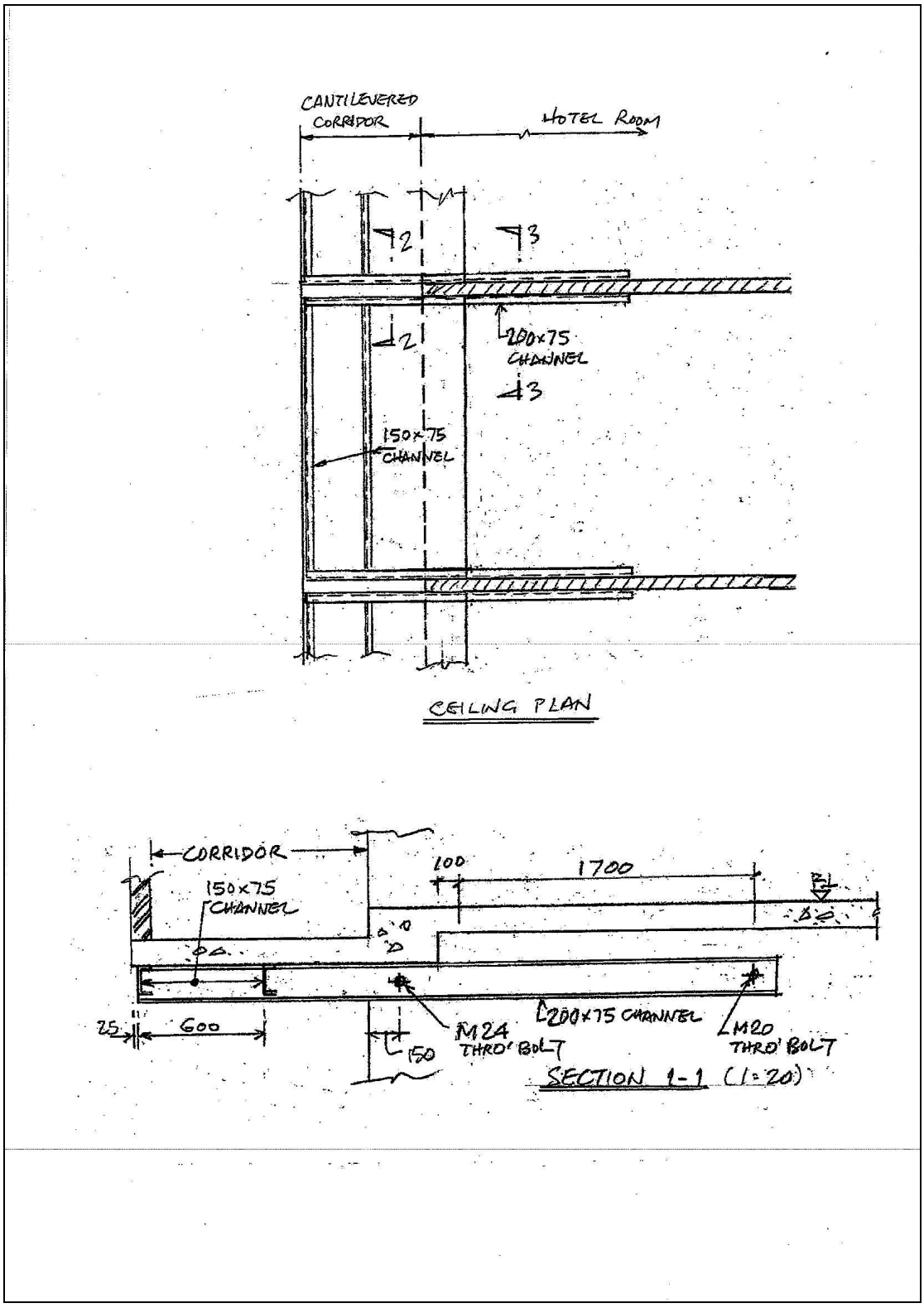
8. Cantilevered slabs exposed to weathering[1] should satisfy the following additional requirements:-

(a) The maximum crack width at the tension face should be limited to 0.1 mm when carrying out design check under the serviceability limit state or the stress of deformed high yield steel reinforcement used should not exceed 100 N/mm^2 when checking the flexural tension under the

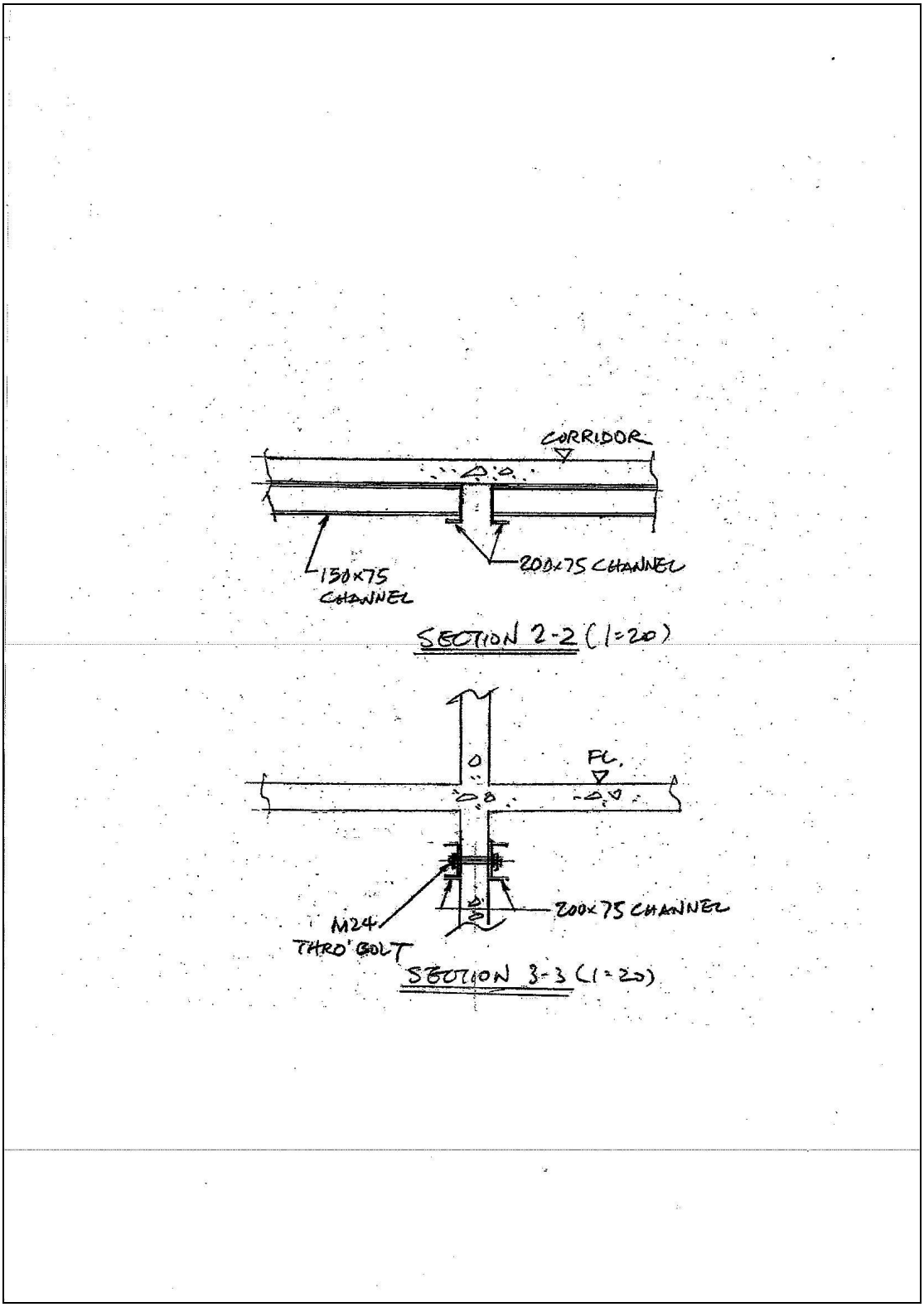
3

Part 6 – Appendix 1

Appendix 1-3 – Strengthening to the access balcony (canti-levered corridor slab) by additional steel sections

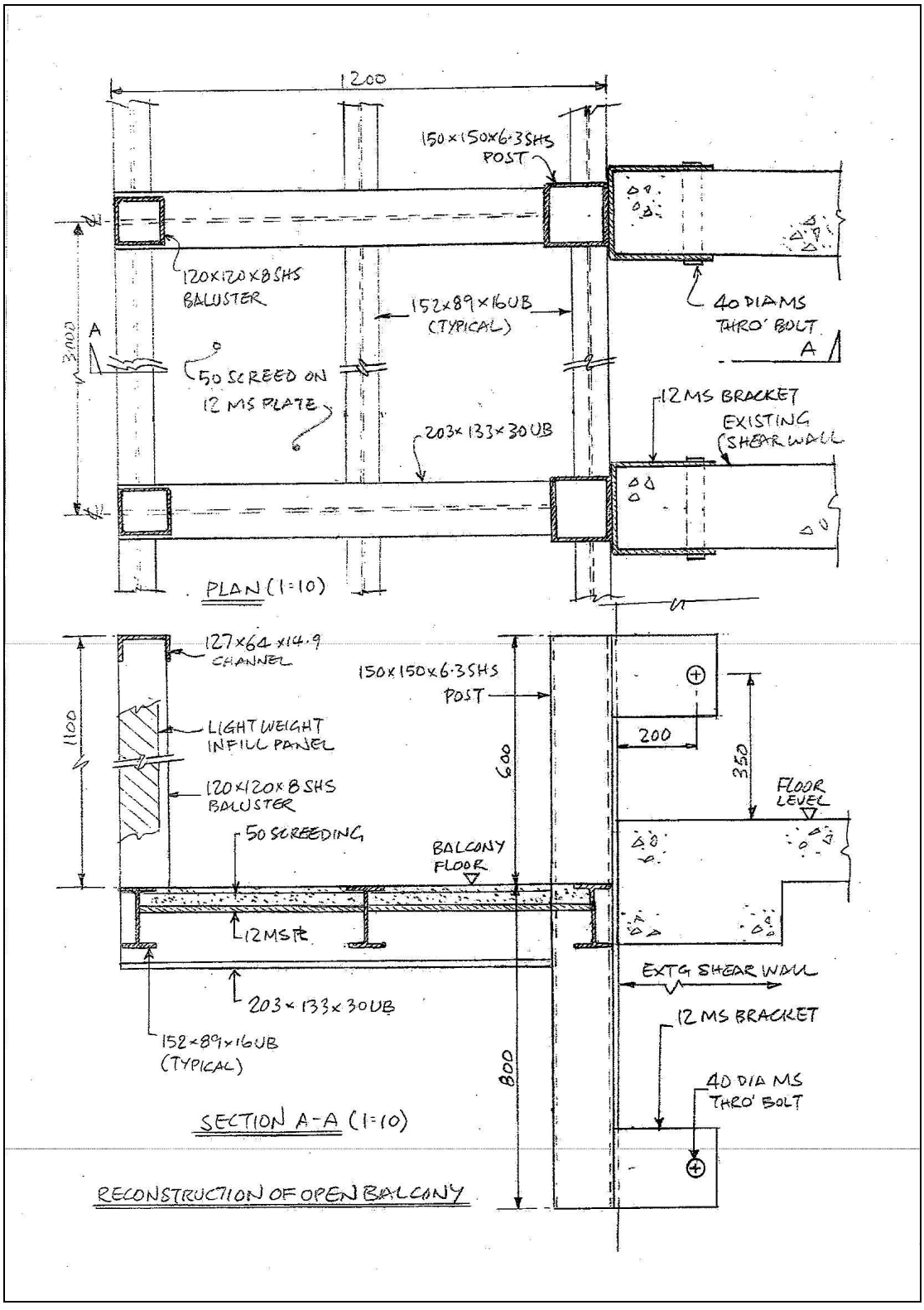


Part 6 – Appendix 1



Part 6 – Appendix 1

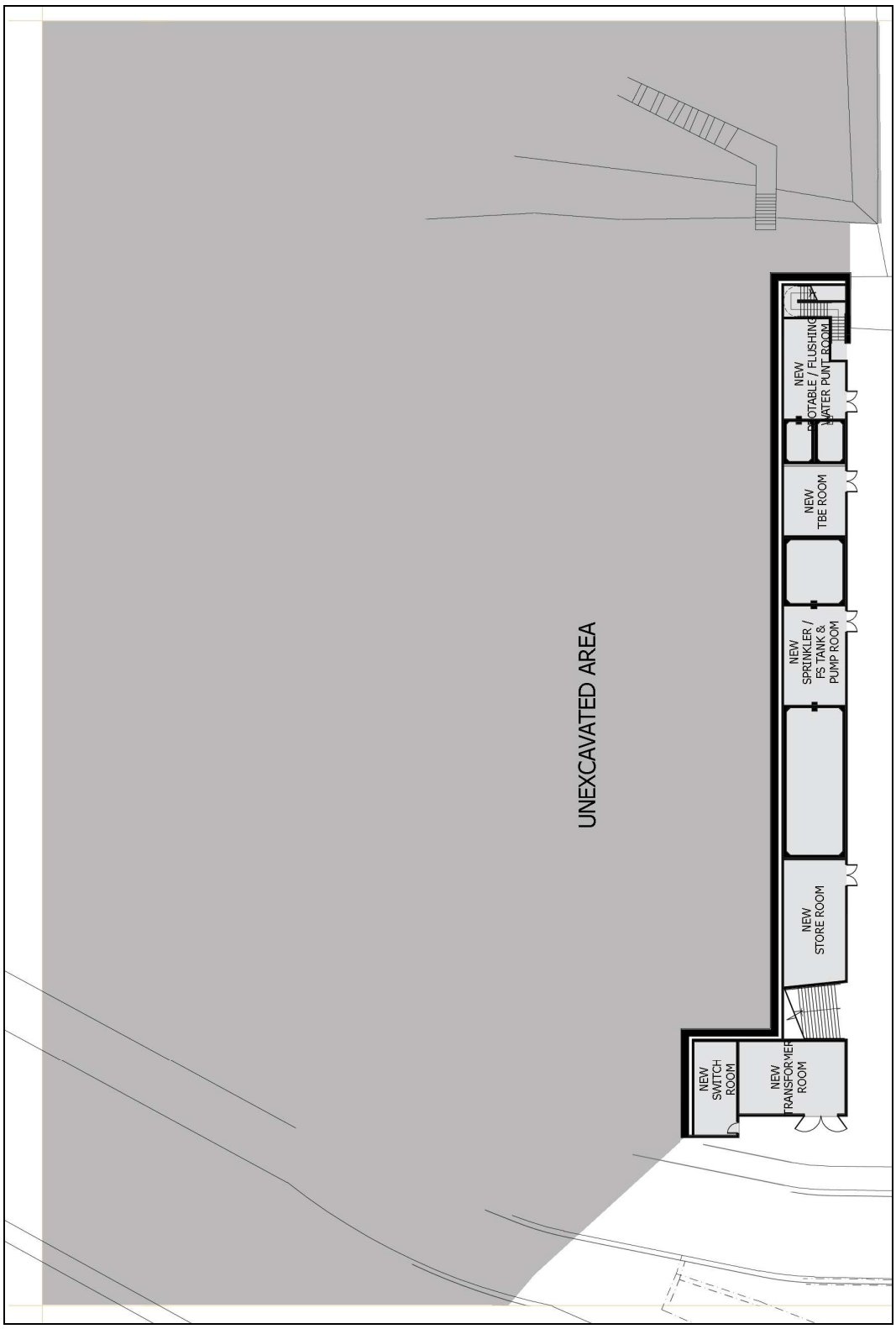
Appendix 1-4 – Detail of re-construction of access balcony with new steel deck structure



Adaptive Re-use of Mei Ho House as Youth Hostel
Conservation Management Plan

Part 7 – Appendix 2

Design Scheme Drawings

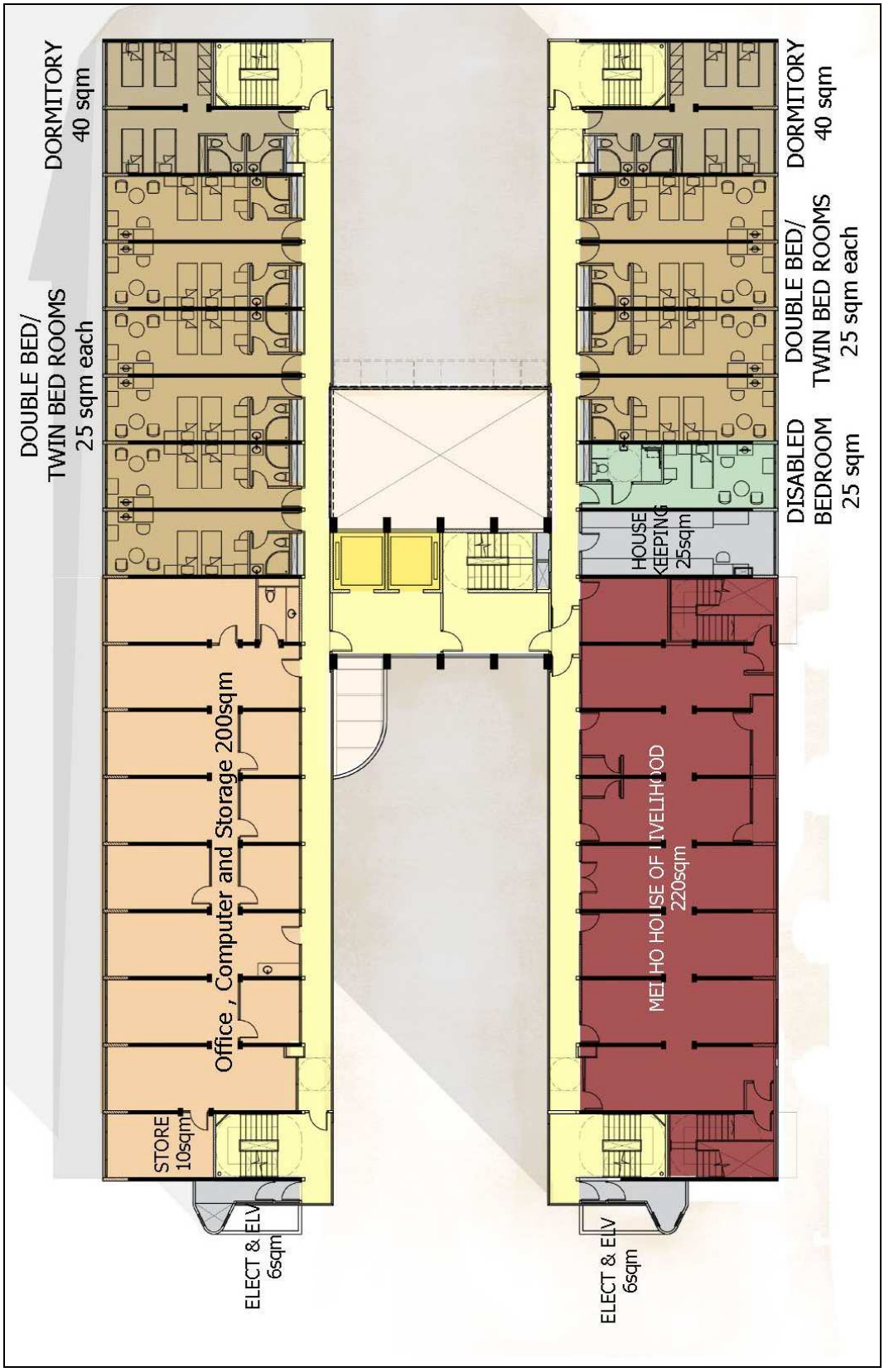


Lower ground floor plan

Part 7 – Appendix 2

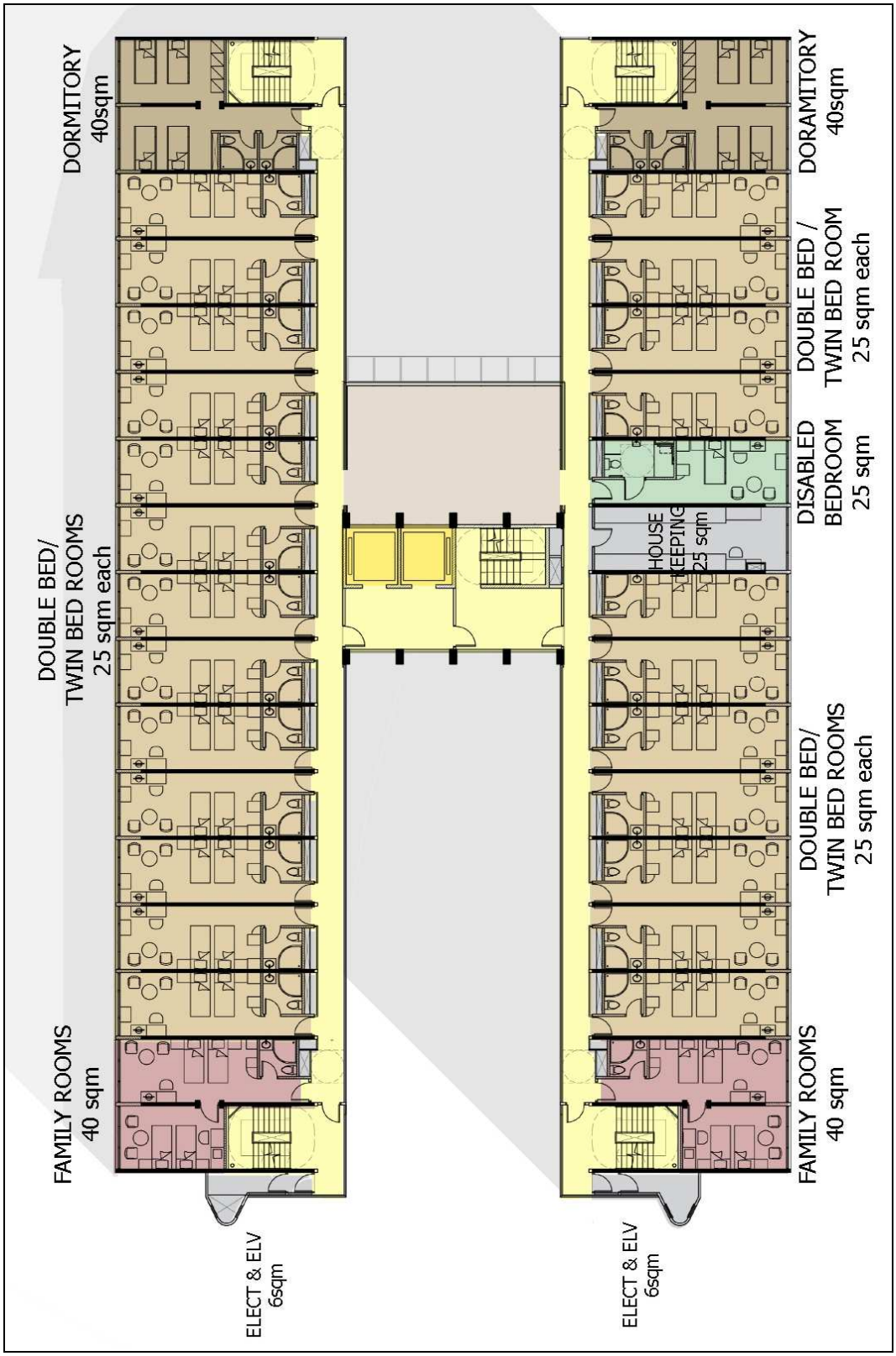
Ground floor plan

Part 7 – Appendix 2



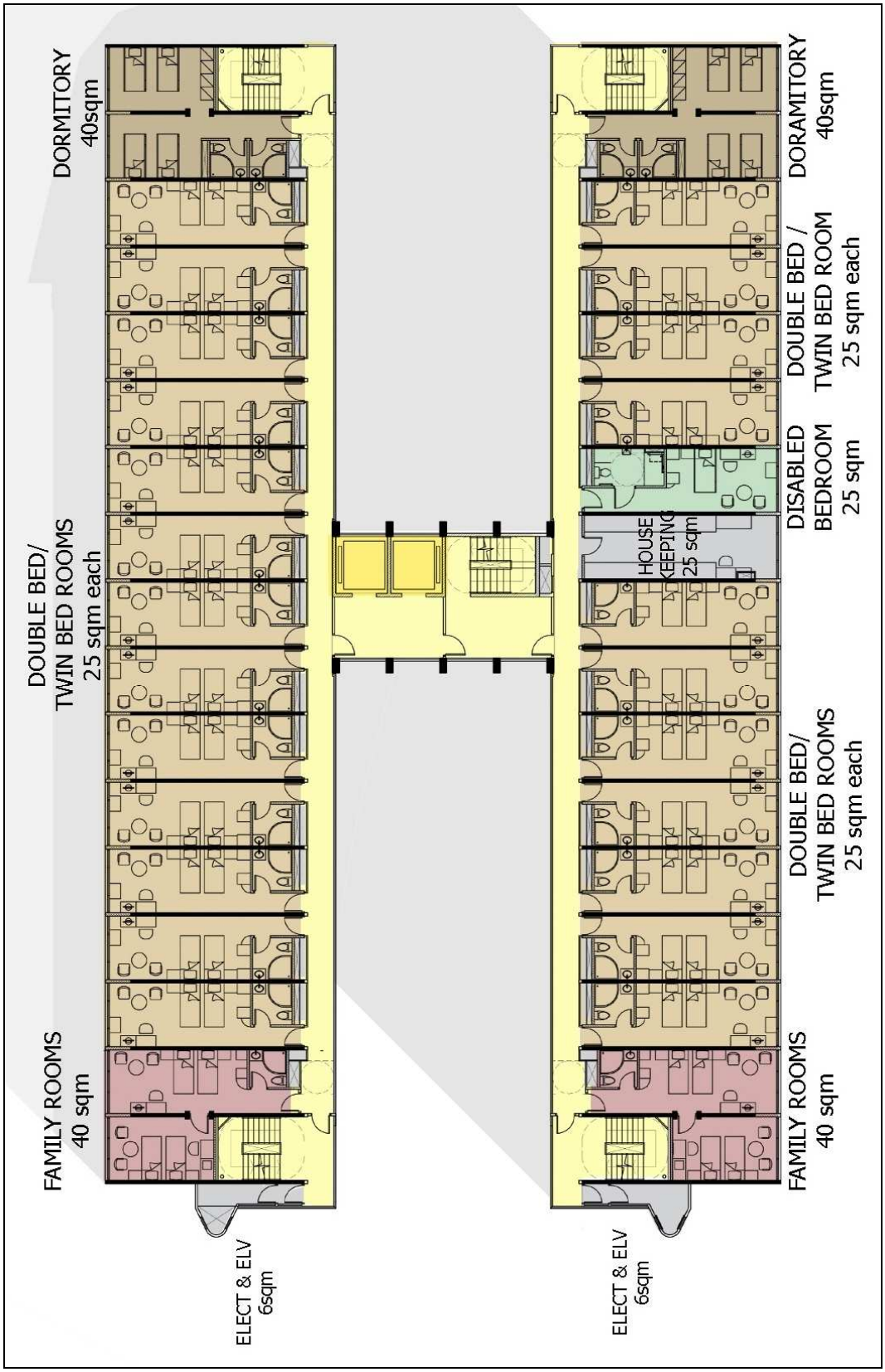
First floor plan

Part 7 – Appendix 2



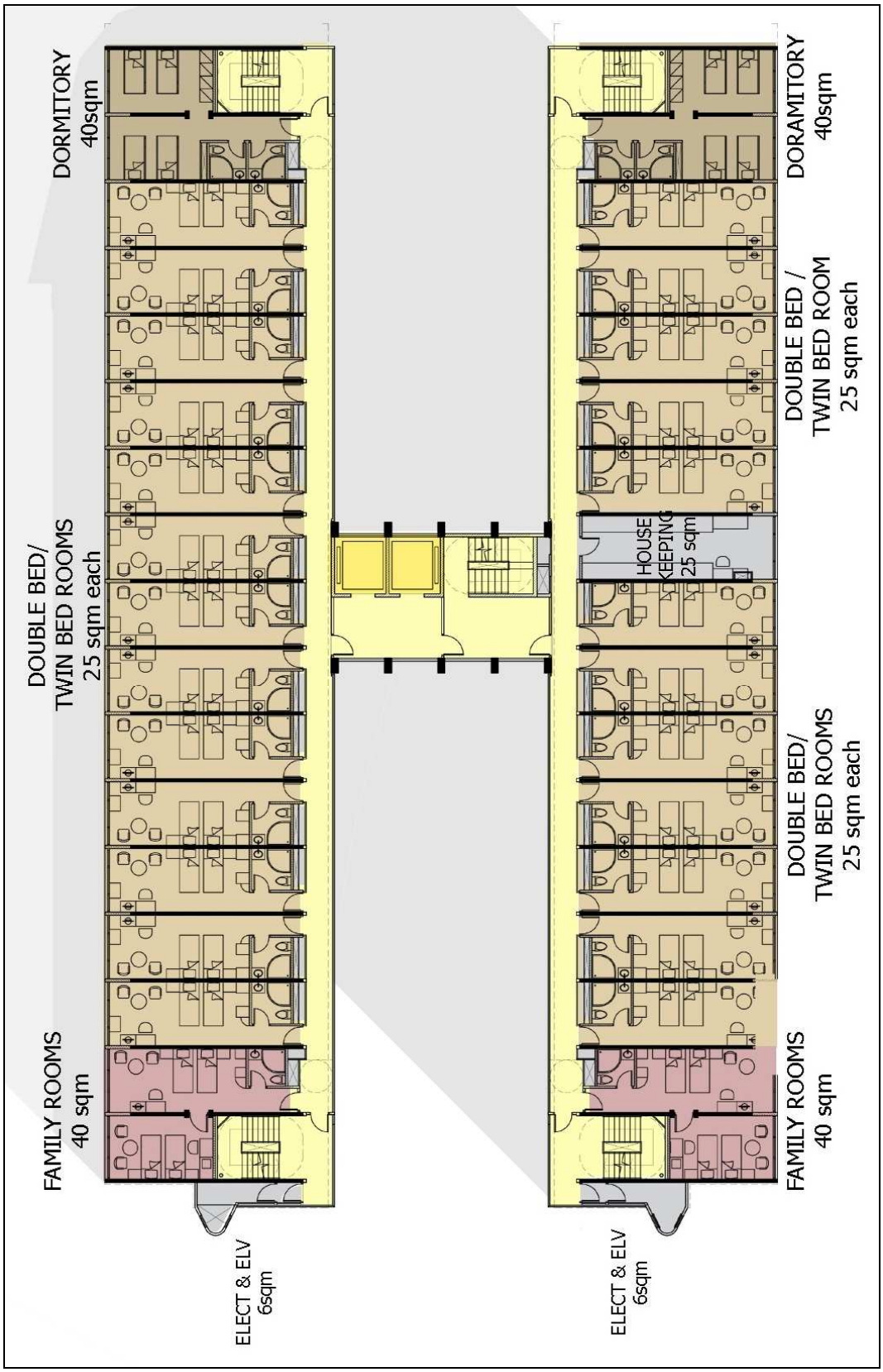
Second floor plan

Part 7 – Appendix 2



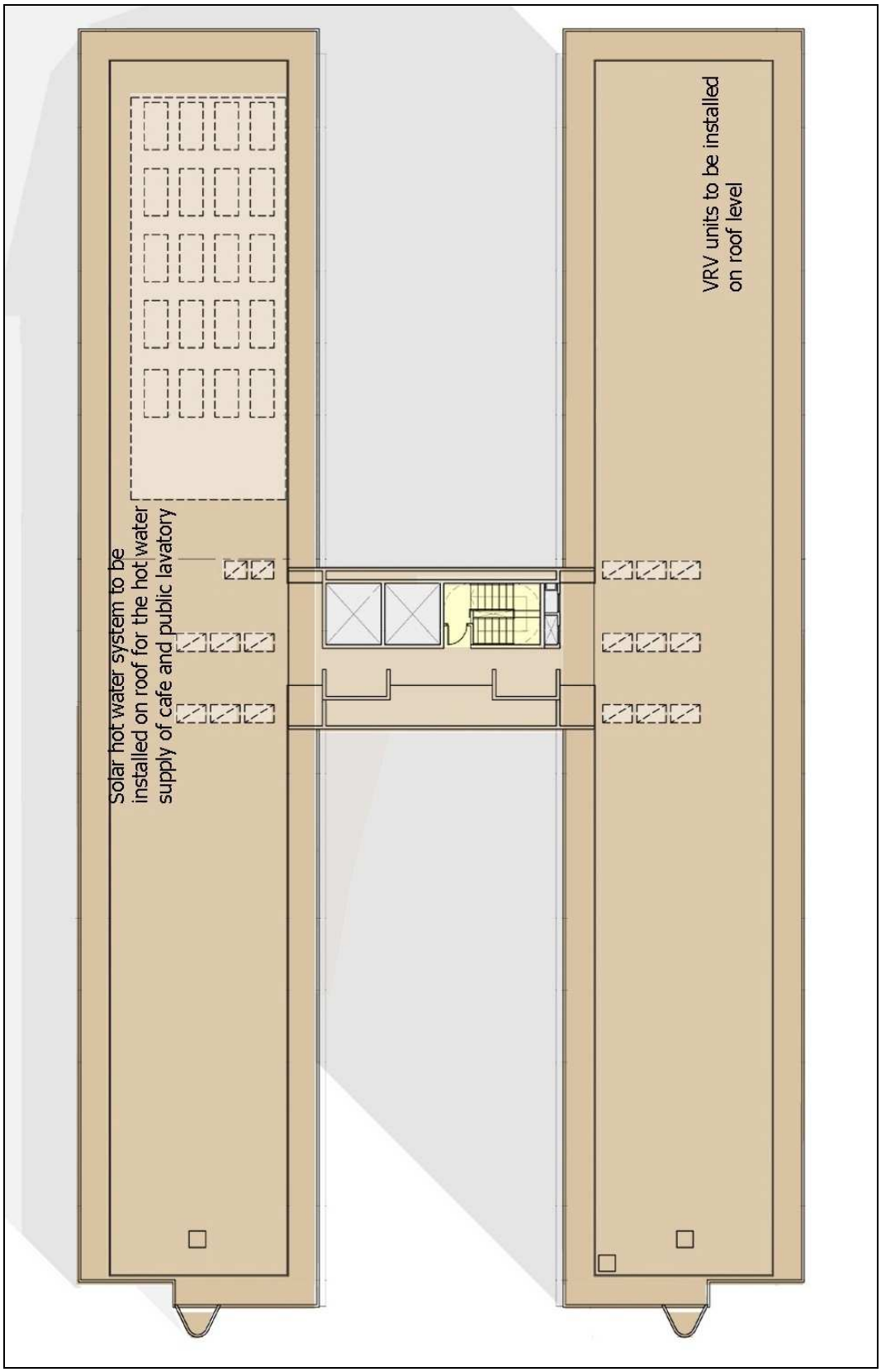
Third and fourth floor plan

Part 7 – Appendix 2



Fifth floor plan

Part 7 – Appendix 2



Roof plan

Adaptive Re-use of Mei Ho House as Youth Hostel
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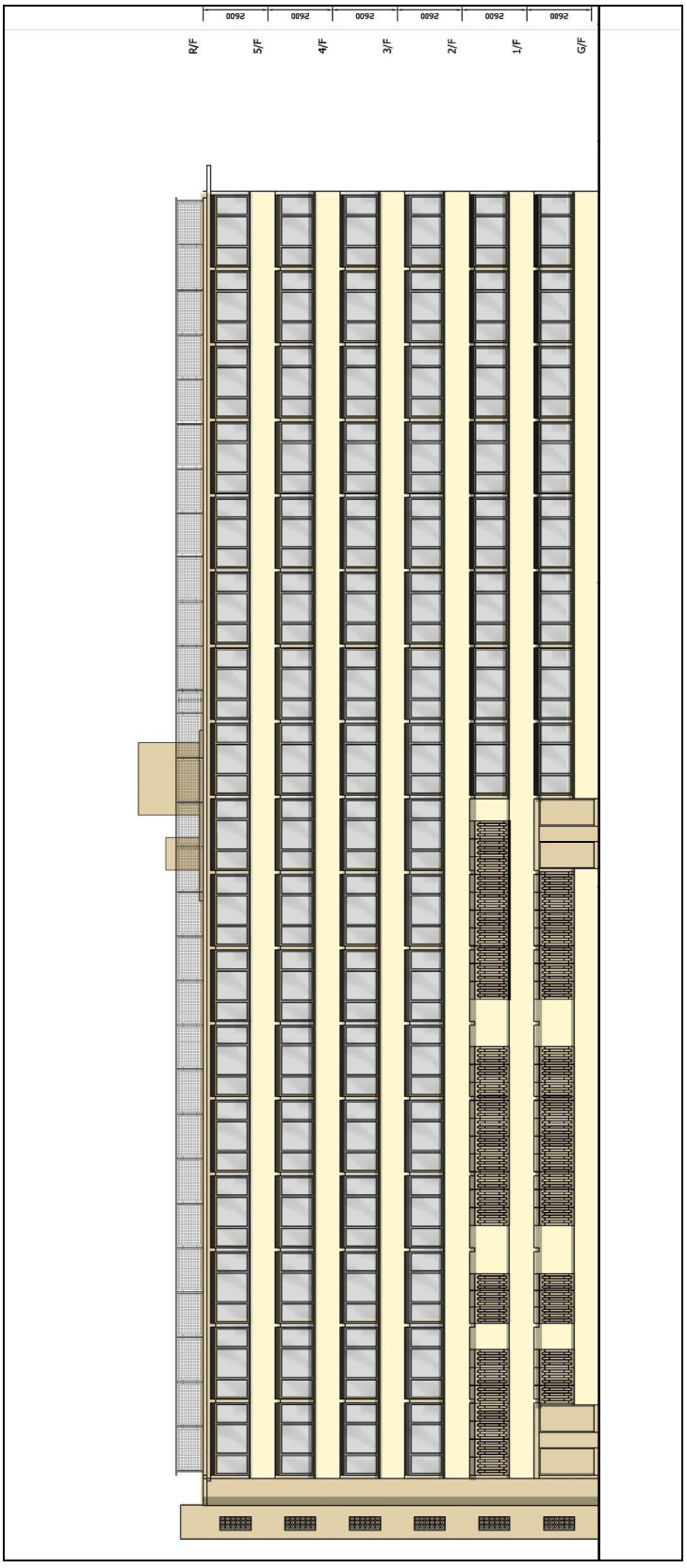
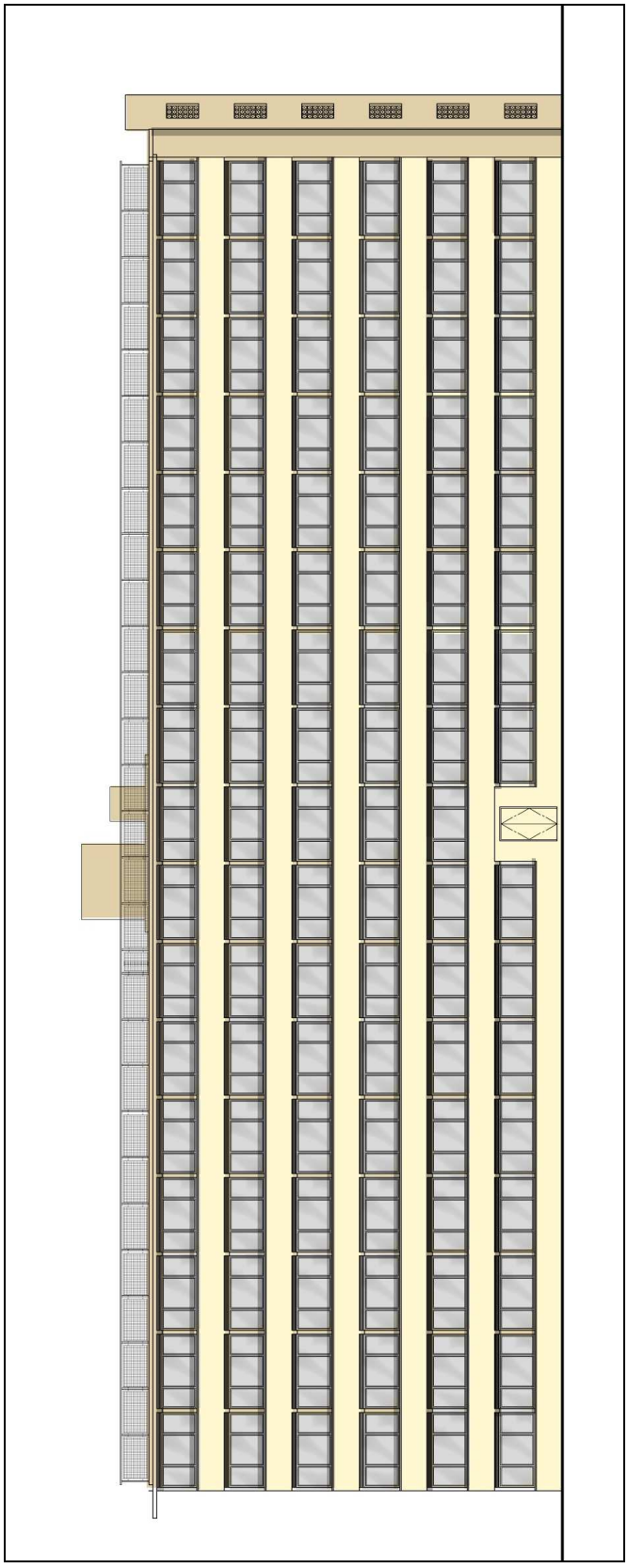
Part 7 – Appendix 2



Façade (south-east elevation)

Part 7 – Appendix 2



Façade (north-west elevation)

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Conservation Management Plan

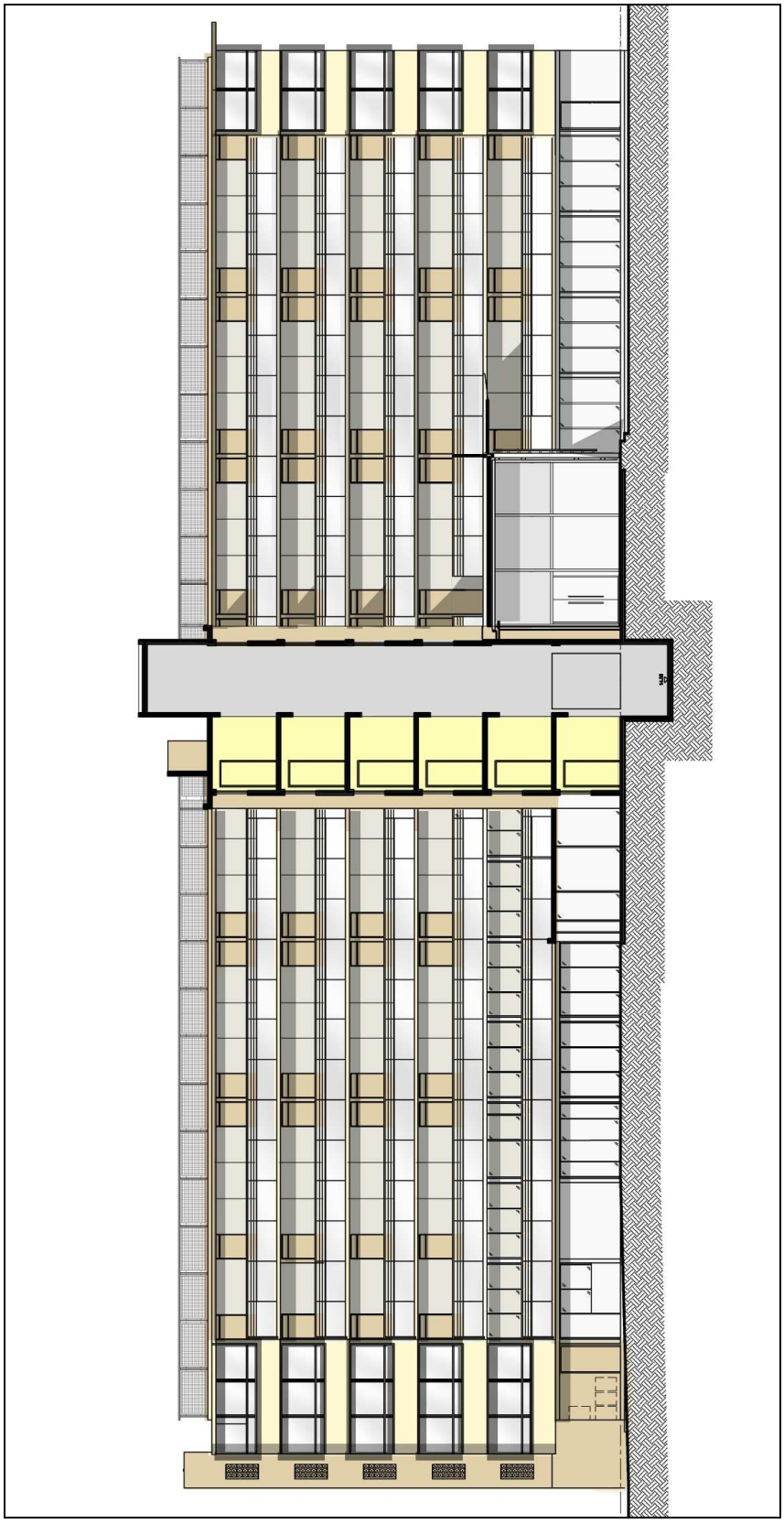
Part 7 – Appendix 2

Façade (south-west elevation)

Part 7 – Appendix 2

Façade (north-east elevation)

Part 7 – Appendix 2



Longitudinal section (facing north-west elevation)

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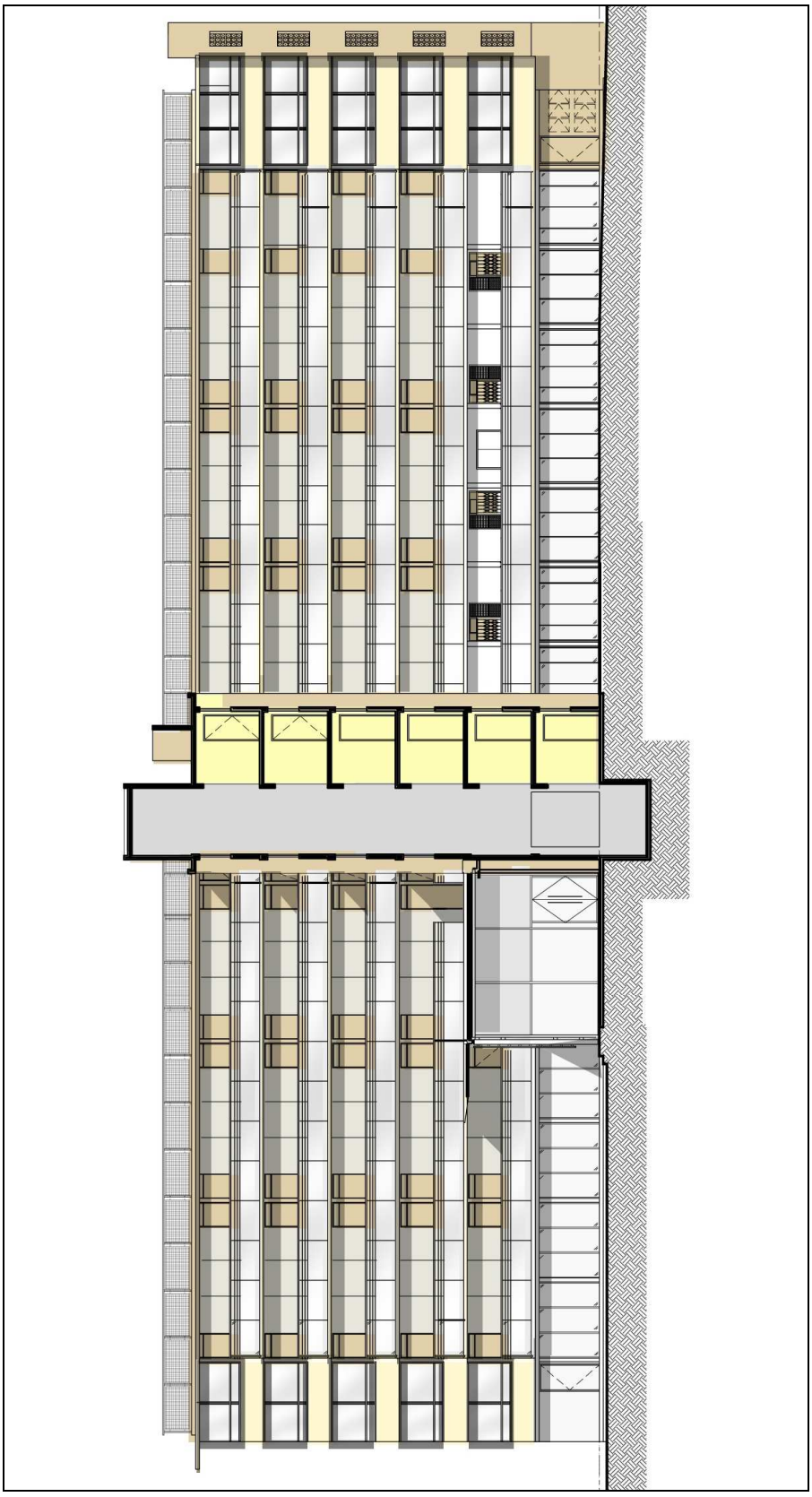
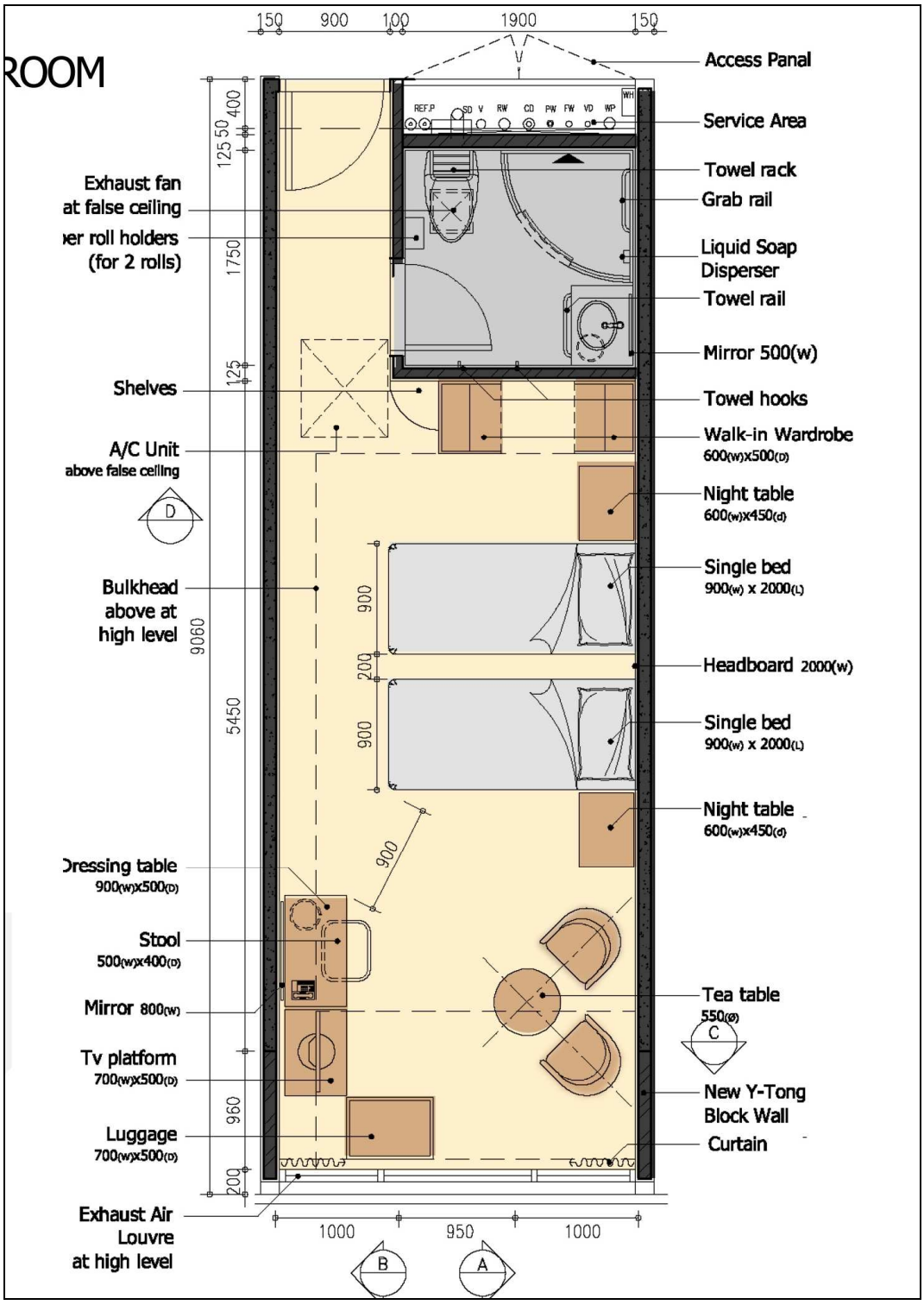
Conservation Management Plan

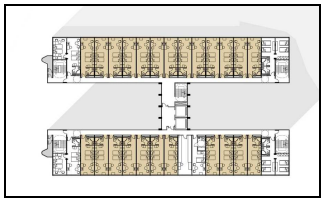
Part 7 – Appendix 2



Longitudinal section (facing south-east elevation)

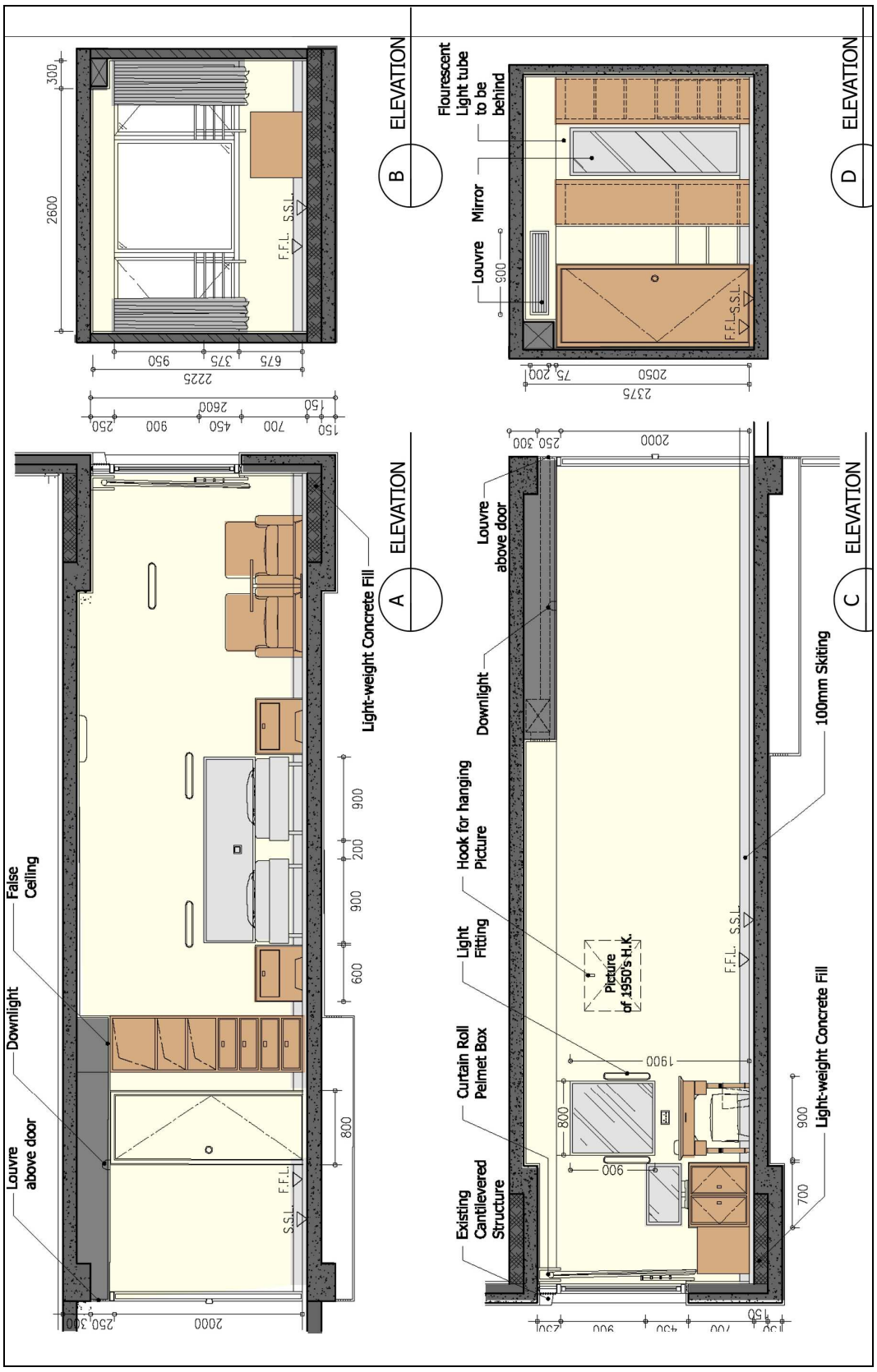
Part 7 – Appendix 2





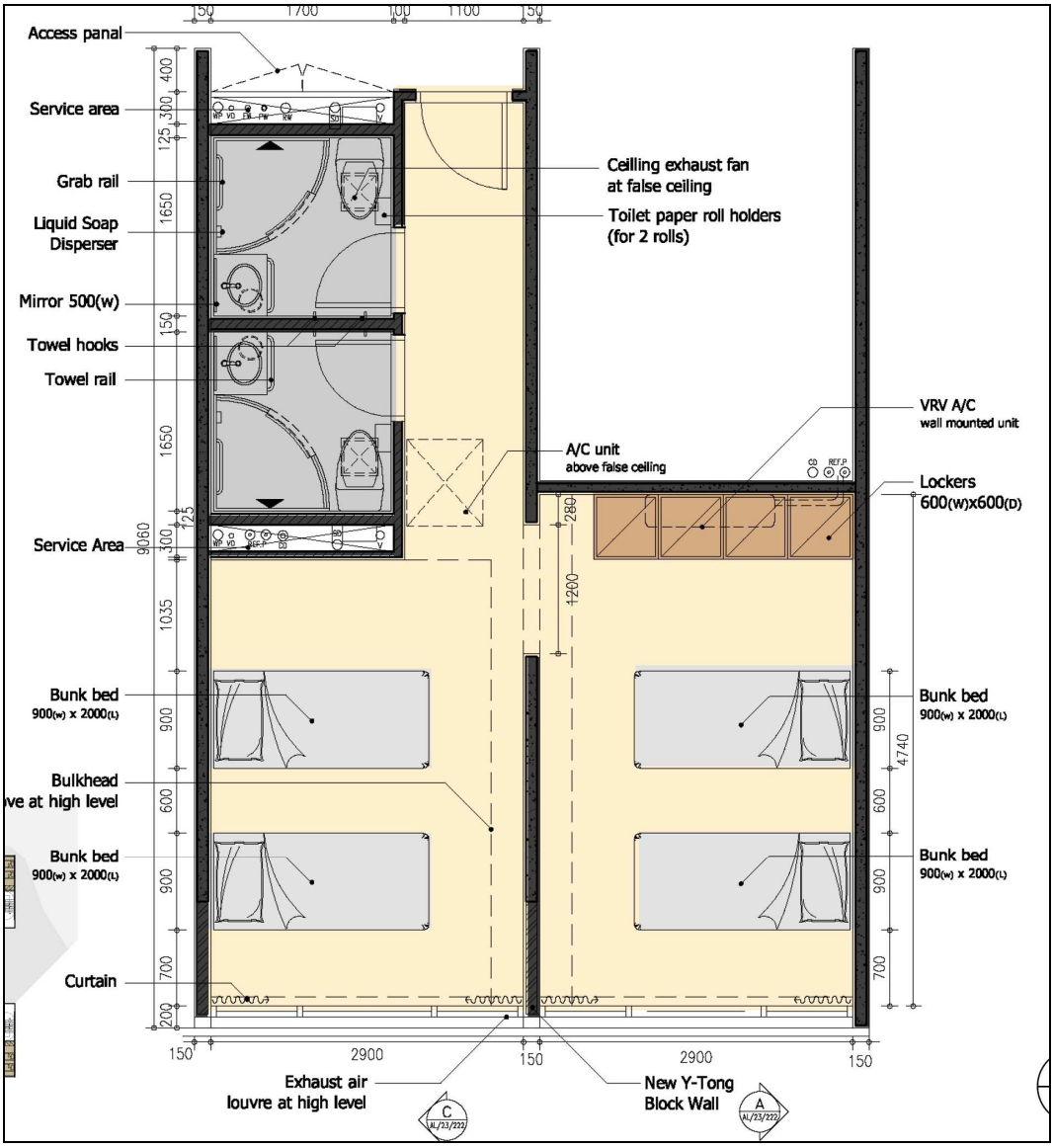
Standard twin bed/double bed room – plan

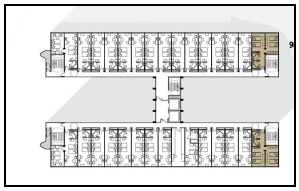
Part 7 – Appendix 2



Standard twin room – internal elevations

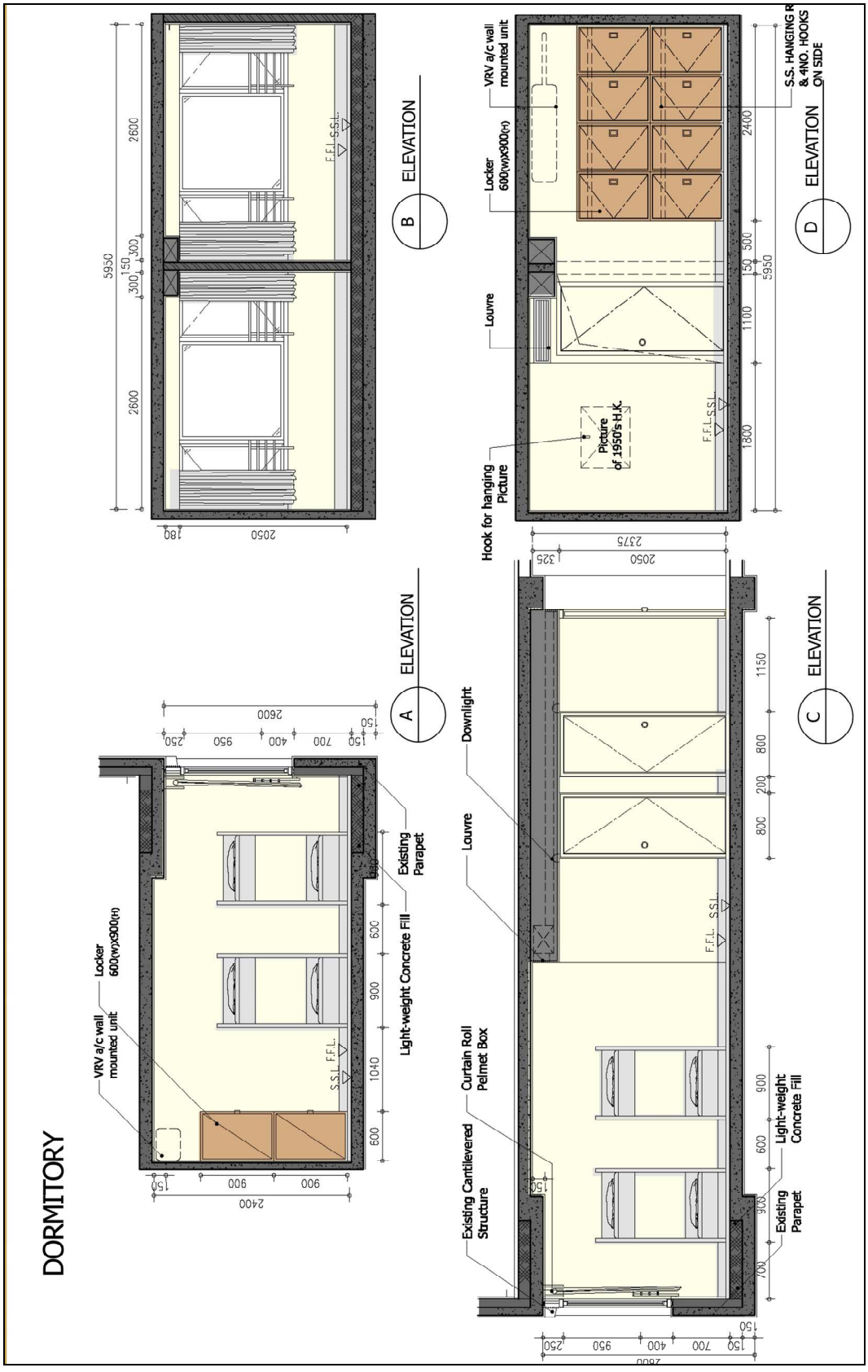
Part 7 – Appendix 2





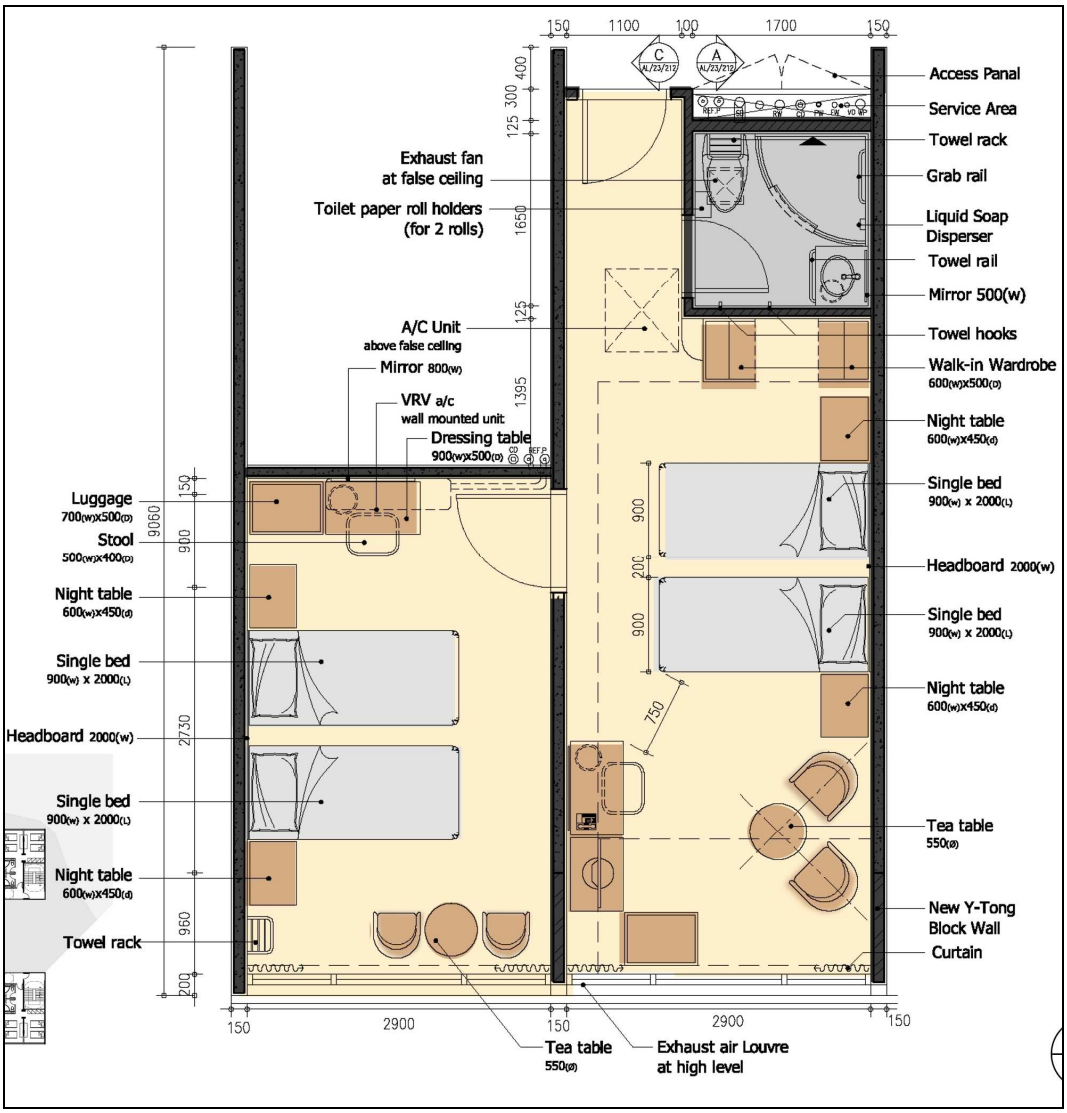
Dormitory room – plan

Part 7 – Appendix 2



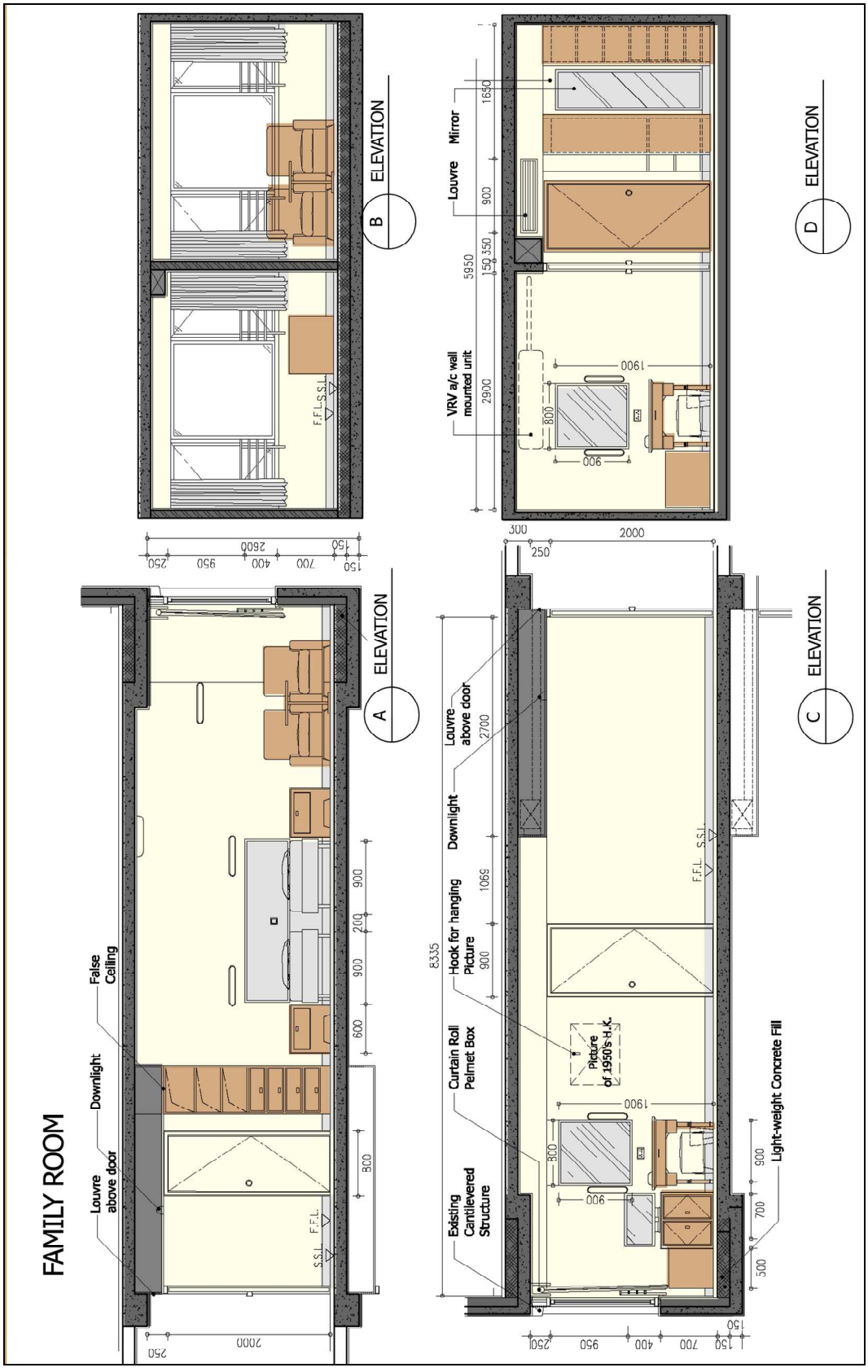
Dormitory room – internal elevations

Part 7 – Appendix 2



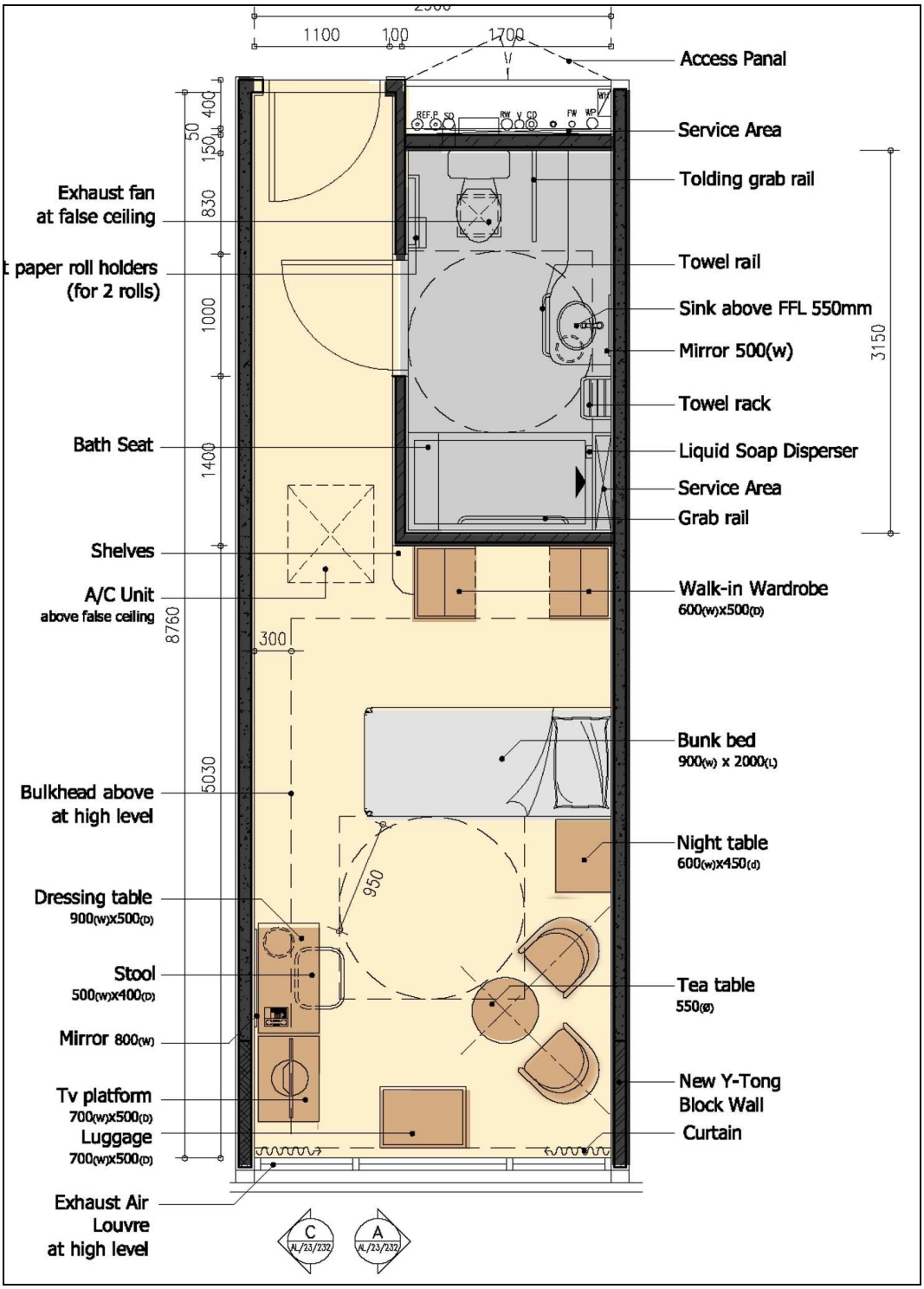
Family room – plan

Part 7 – Appendix 2



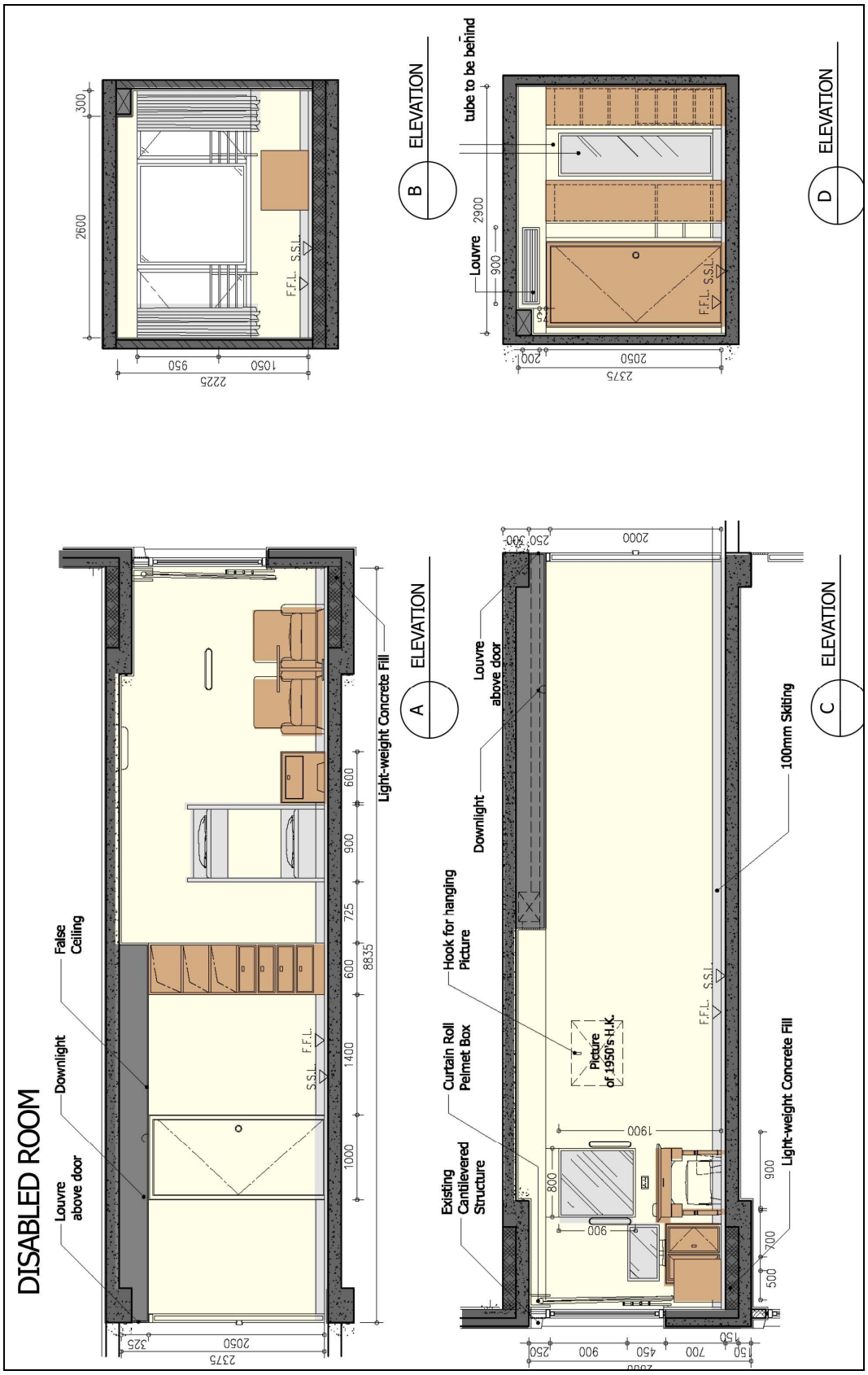
Family room – internal elevations

Part 7 – Appendix 2



Room for wheelchair users – plan

Part 7 – Appendix 2



Room for wheelchair users – internal elevations

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Part 8 – Appendix 3

Proposal for the "Mei Ho House of Livelihood (美荷樓生活館)"

The suggested themes and exhibits at the "Mei Ho House of Livelihood (美荷樓生活館)" is as below. The themes of the exhibition are subject to refinement and adjustment at a later stage.

Suggested themes and exhibits items on display (subject to final design) –
Ground floor – Exhibition Hall (7 units)

Suggested themes and exhibits	Items on display
first unit – • 香港及深水埗 – ▫ 簡史、地理、交通、經濟。 • 香港及石硤尾區 50 年代的住屋概況 – ▫ 臨時房屋、寮屋火災、民生剪影。	• government documents, maps, charts, statistics, and photos; • newspaper cuttings, photos, and artifacts from Hong Kong Housing Authority.
second unit – • 石硤尾大火紀實 – ▫ 災情報導; ▫ 災民個案。	• newspaper cuttings, government records, and photos; • oral history projects; and • audio-visual materials and special effects (documentary, oral history, etc.).
third unit – • 我住石硤尾邨 – ▫ 一家八口一張床; ▫ 一枝擔竿挑起一個家; ▫ 屋邨三代人。	• household items (bed, closet, table, radio, cooking utensils, etc.); • photos and collectables from former residents; • clothing and footwear; • school items (desks, textbooks,
fourth and fifth units – • 美荷樓是吾家。	

sixth unit – • 石硤尾邨與社會縮影 – ▫ 天台學校的日子; ▫ 工廠生涯; ▫ 從小販到小老闆。	report cards, and school uniforms, etc.); • toys, pastimes, books, comics, and magazines; • factory items and 家庭手工業; • small items from hawkers and stores; and • video-tapes and audio records from oral history projects.
seventh unit – • 石硤尾舊日足跡與今日點滴 – ▫ 文化宗教; ▫ 騎樓建築; ▫ 傳統工藝; ▫ 現代地標; ▫ 地道美食。	• artifacts from Hong Kong Housing Authority; • collectables from 牛下商鋪; • collectables from neighbourhood stores and organizations; and • photos and miniatures.

First floor – Sample Showrooms

Suggested themes and exhibits	Items on display
• 多媒體房間 – ▫ Hong Kong Youth Hostels Association 特別製作; ▫ 石硤尾與 Hong Kong Youth Hostels Association; ▫ 紀錄片段; ▫ 相關電影及電台節目播放; ▫ 口述歷史及專訪。	• viewing room with audio-visual facilities; • screening of Hong Kong Youth Hostels Association and museum video, movie and audio excerpts (粵語片、父子情, 獅子山下、香港電台, etc.); and • multi-media facilities (queries and answer).
• 示範單位 – ▫ 50 及 70 年代住屋情況; ▫ 50 年代店舖展示; ▫ 當年社會。	• existing display items at Mei Ho House; • others from Hong Kong Housing Authority and public museums; and • collectables from former residents.

Adaptive Re-use of Mei Ho House as Youth Hostel
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Part 9 – Appendix 4

Books on Hong Kong Public Housing

Drakakis-smith, David. *High Society, Housing Provision in Metropolitan Hong Kong 1954 to 1979, A Jubilee Critique*. Hong Kong: Centre of Asian Studies, University of Hong Kong, 1978.

Pryor, E.G. *Housing in Hong Kong* (second edition). Hong Kong: Oxford University Press, 1983

Wong, Luke S.K (ed.). *Housing in Hong Kong, A Multi-disciplinary Study*. Hong Kong: Heinemann Educational Books (Asia) Limited, 1978.

Yueng, Y.M. and Timothy K.Y. Wong. *Fifty Years of Public Housing in Hong Kong, A Golden Jubilee Review and Appraisal*. Hong Kong: Hong Kong Housing Authority, 2003.

Yu, Vincent 余偉建. *我住石硤尾 Our Home, Shek Kip Mei 1954 – 200*6. Hong Kong: MCCM Creations, 2007.

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