REVITALISING HISTORIC BUILDINGS THROUGH PARTNERSHIP SCHEME (BATCH V)
REVITALISATION OF THE ROBERTS BLOCK OLD VICTORIA BARRACKS INTO ROBERTS BLOCK OPEN HEARTS CENTRE

Heritage Impact Assessment

March 2021 | Rev. E
Prepared by

ANG Studio Ltd.

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NOTES

This report is prepared for the Heritage Impact Assessment Submission (HIA Submission) required under Development Bureau Technical Circular (Works) No. 6/2009 for the project Revitalisation of the Roberts Block Old Victoria Barracks into Roberts Block Open HeArts Centre. In response to the Technical Circular's requirement, this HIA submission requires the submission of both a HIA report and a Conservation Management Plan (CMP). This report is therefore presented in two parts, namely:

PART 1 CONSERVATION MANAGEMENT PLAN (CMP) comprises of:

a. The Introduction
   It provides a general understand of the project background, location & area of study area, the current status, existing information, gaps in knowledge.
b. History
   This is a baseline study based on desktop study and field evaluation. Establishment and development of Victoria Barracks and the establishment of Roberts Block will be discussed.
c. Architecture
   This is a baseline study based on desktop study and field evaluation about Victoria Barracks and Roberts Block.
d. Statement of Significance
   This is the identification of the significance of the site based on the baseline study, including its historical value, architectural value, contextual value and social value.
e. Character Defining Elements
   This is a list of built elements contributing the significance of the site.
f. Opportunity and Constraints
   This is an identification of any opportunity and limitation brought by future adaptive reuse, such as the physical condition, compliance of current regulations, conflict caused by modern-days additions, interpretation, etc.
g. Conservation Policies and Guidelines
   This includes a set of policies and guidelines for future adaptive reuse of the site, including the use, setting, interpretation, control of intervention in the fabric, such as preservation, repair and restoration to physical fabrics and interventions to physical fabrics, management, documentation, adoption and review, etc.

PART 2 HERITAGE IMPACT ASSESSMENT (HIA) comprises of:

a. The Introduction
   It provides a brief account on the project background, objective and study methodology.
b. Proposed Work
   This is a brief introduction of the works involved in the subject project based on the latest design.
c. Assessment of impact and Mitigation Measure
   This divides into two sub-sections, namely impacts on the area 50m around the project site and the project site itself. Options of proposed works are studied, and then the impact assessment result is listed out in a table format.

d. Recommendation
   This is a conclusive statement for the impact assessment and recommendations on the way forward.

Both parts should be read in conjunction with each other and the related documents identified for a better understand of the site and the upcoming works.

PART 1 CONSERVATION MANAGEMENT PLAN

1

INTRODUCTION

1.1 Project Background

This CMP aims for the Revitalisation of the Roberts Block, Old Victoria Barracks into Roberts Block Open HeArts Centre (the Project), which is one of the Revitalising Historic Buildings Through Partnership Scheme (R-Scheme) Batch V projects launched by the Development Bureau in November 2016. The project proponent is Christian Oi Hip Fellowship Limited (Cooperating Organisation: Art Hub Asia Company Limited). Hong Kong Roberts Block Centre Limited (HKRBCL hereafter) is the entity set up to take forward the project afterwards.

The revitalisation site (the Site) currently comprises the Roberts Block Site, which is a flat land where the Roberts Block (or the Subject Building) sits on, and an adjoining Ancillary Site, which is a slope between Kennedy Road and the Roberts Block Site. Both sites are owned by the Government.

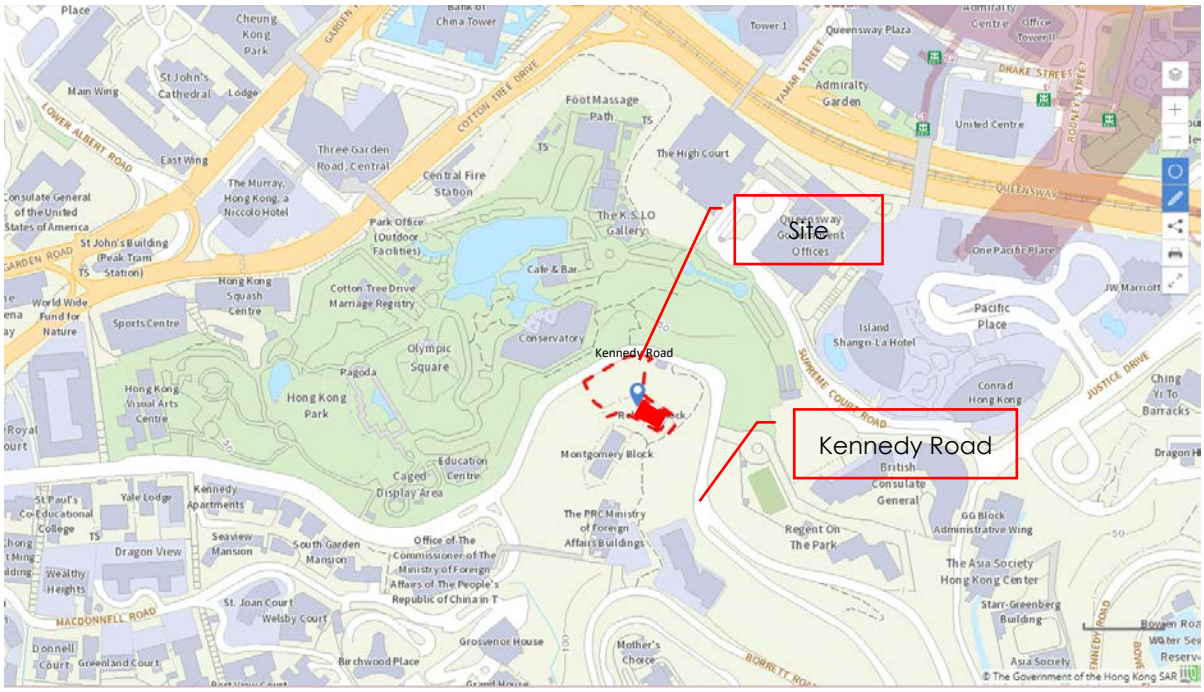


Fig. 1.1.1 A map showing the site boundary (the dotted line), which covers the Roberts Block Site (in which Roberts Block is hatched in red) and the Ancillary Site (Source: GEOINFO MAP, 2020)

1.2 Area of Study

1.2.1 The Site & the Ancillary Site

The Site is located at 42A Kennedy Road, Central, Hong Kong. The Roberts Block sits on a flat land trimmed at the middle of a slope above Kennedy Road, overlooking the Hong Kong Park and Admiralty. The site area is approximately 720 square metres.

There is no vehicular access up to the Roberts Block Site. The Roberts Block can currently be accessed from Kennedy Road via the upslope tracks near the residential estate "Regent on the Park" or the abandoned Hong Kong Electric's sub-station. It can also be accessed from Borrett Road via a downslope track passing by the PRC Ministry of Foreign Affairs Buildings and the Montgomery Block (currently the Mother's Choice).

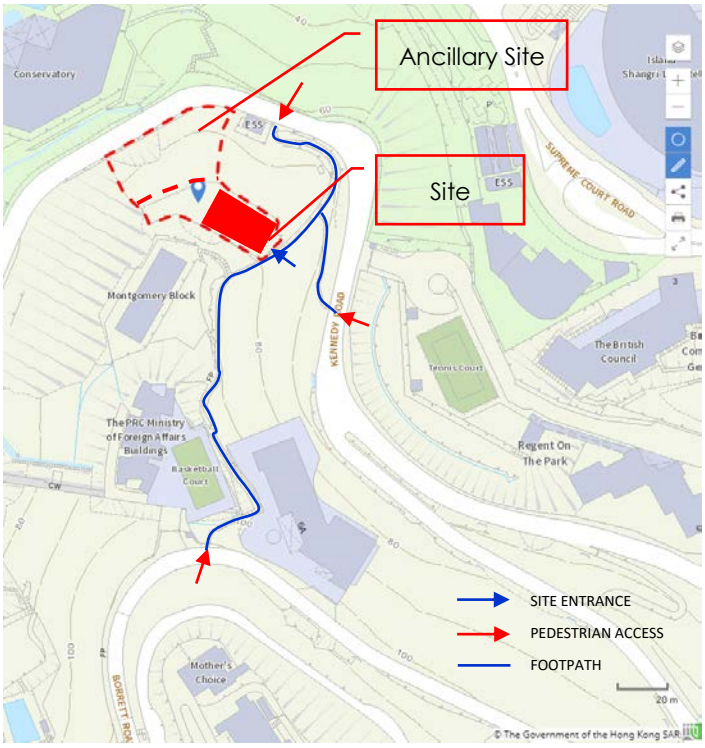


Fig. 1.2.1 A map showing the Site location (in dotted line), the Roberts Block (in red), and the accesses from Kennedy Road and Borrett Road (red arrows) (Source: GEOINFO MAP, 2020)

1.2.2 The Old Victoria Barracks

The Roberts Block has long been recognized as one of the barrack buildings in the Old Victoria Barracks. Therefore the historical and contextual study exercise for this CMP also covers the Former Victoria Barracks. The following aims to explain the study extent.

"Victoria Barracks" first appeared on a map of 1869 and later in the colonial administrative record of the Hong Kong Blue Book in 1872.[1] The term was used officially to name the five

[1] The National Archives of the United Kingdom, MPG 1/1155/3.; "Military Expenditure 1872," *Hong Kong Blue Book for the Year 1872*. Accessed October 30, 2020, http://sunzi.lib.hku.hk/hkgro/view/b1872/51872010.pdf.

barracks blocks constructed between 1868 and 1869, which were previously recorded as "New Barracks ABCD and E."[2] As the military establishments in the Victoria Cantonment area extended, the understanding of the extent of Victoria Barracks also expanded. While the available records did not define explicitly the exact extent or boundary of Victoria Barracks, the plan of "Victoria Barracks Hong Kong" produced by Defence Land Agent in 1976 serves as a clearer reference to the extent of Victoria Barracks. Victoria Barracks is the military compound bounded by Queensway to the north, Cotton Tree Drive to the west, Monmouth Terrace to the east and Bowen Road to the south. The study extent of the Old Victoria Barracks in this CMP follows this boundary as defined in 1976[3].

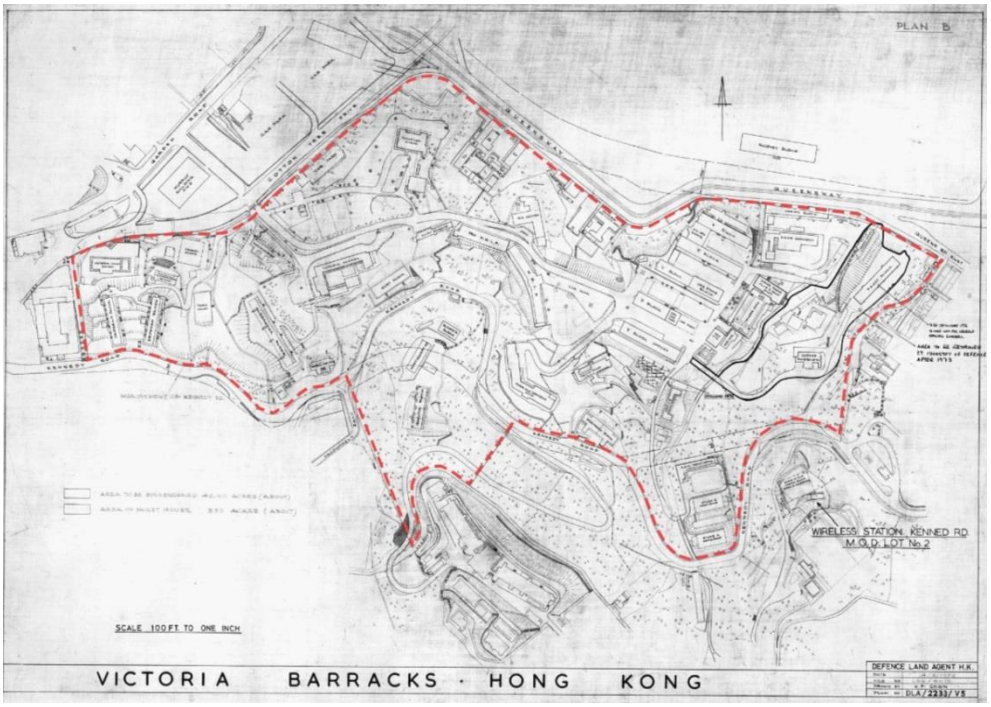


Fig. 1.2.2 Boundary of Victoria Barracks as in 1976. (Source: Public Records Office, PRO - MM-0115)

[2] *Hong Kong Blue Book for the Year 1869.* Hong Kong: Noronha, 1872.
[3] As in 1976, the extent of Victoria Barracks covered military establishments such as the Powder Magazine (Explosives Magazine), Paget Block and R.E.M.E. Workshop, which were not originally considered part of Victoria Barracks.

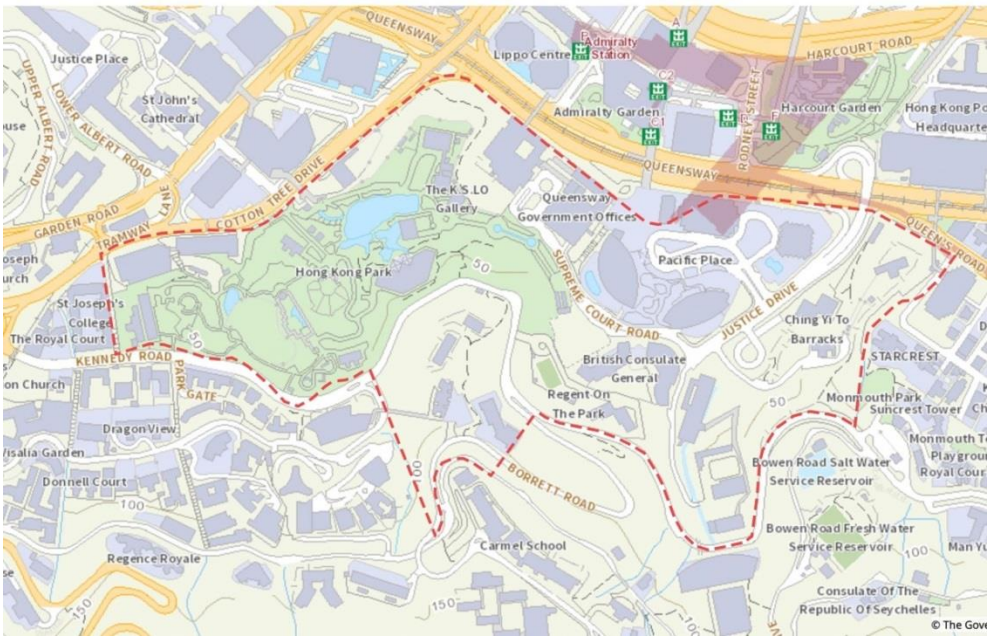


Fig. 1.2.3 Boundary of the Old Victoria Barracks based on the 1976 plan of "Victoria Barracks Hong Kong" (Source: GeoInfo Map, https://www.map.gov.hk/gm/ and editted by Author)

1.3 Current Status

The Roberts Block of the Old Victoria Barracks is listed in the Assessment of 1,444 Historic Buildings by the Antiquities and Monuments Office (AMO). AMO proposed a Grade 1 status for the Building and this grading status was confirmed by the Antiquities Advisory Board (AAB) in December 2009.

According to AMO's definition, a Grade 1 Historic Building means:

"Building of outstanding merit, which every effort should be made to preserve if possible."

Moreover, a set of Conservation Guidelines has been established by AMO and issued by DEVB in the Resource Kit for this R-Scheme project.

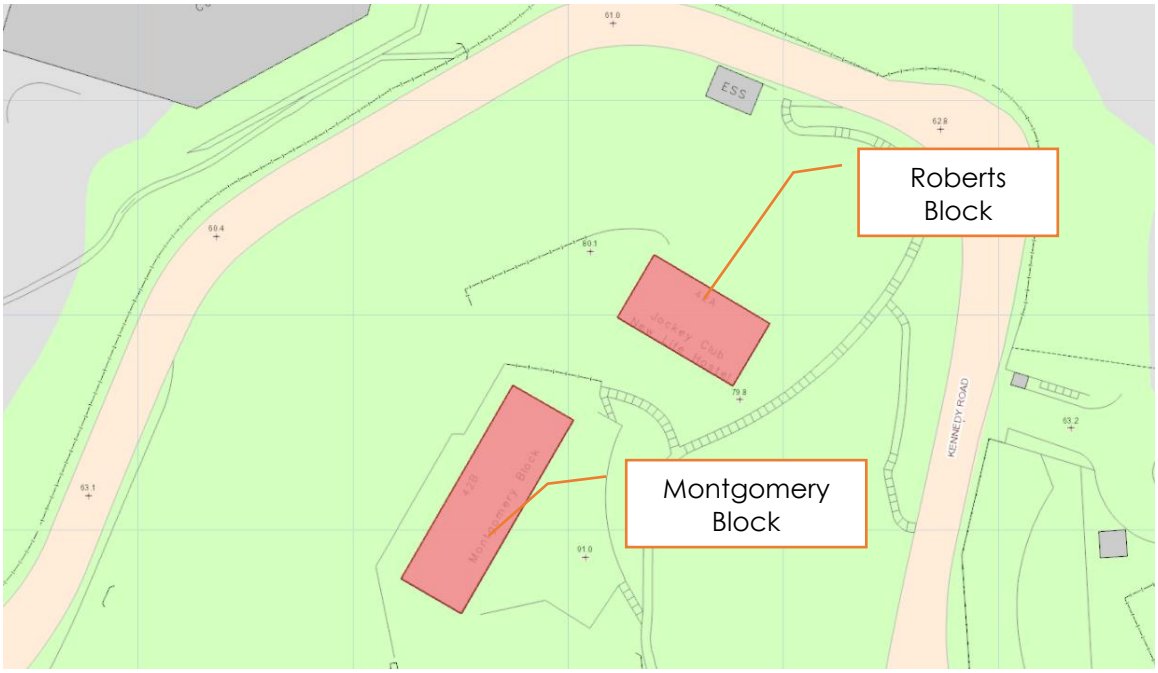


Fig.1.3.1 A map showing the grading boundary of the Roberts Block (Source: Geographical Information System on Hong Kong Heritage)

1.4 Existing Information

To prepare this CMP, several site visits were made from February to May 2020 to study the Site and areas in its vicinity. Visits were also made to several libraries, archives and Government departments to view books, architectural plans, photographs and archive documents, including both online and hardcopy resources. Below is a list of the places visited. A full list of all documents accessed is provided in the Bibliography.

- Public Record Office, Hong Kong
- Hong Kong Public Library, Hong Kong
- Survey and Mapping Office, Lands Department, Hong Kong
- Library of the University of Hong Kong, Hong Kong
- Architectural Services Department, Hong Kong
- The National Archives, Kew, Richmond, United Kingdom

1.5 Gaps in Knowledge

Though the research team has put every effort to find historic documents related to the Site, there are still gaps in knowledge:

- A set of the A&A record plans in 1960s and 1980s was found but it is unsure they have included all alterations during the period and when the alterations were carried out exactly.

Alternation records during the usage as the Jockey Club New Life Hostel is missing.

2

HISTORY

Roberts Block, situated within Victoria Barracks, was one of the Army married quarters constructed in the 1900s. Completed between 1907 and 1910[4], Roberts Block continued to be used by the British Forces before it was surrendered to the Hong Kong Government and began its second life as a hostel operated by New Life Psychiatric Rehabilitation Association in 1986.

The following section will outline the history of Roberts Block in relation to the greater context of the development of Victoria Barracks and Victoria Cantonment.

2.1 Establishment of Victoria Barracks

2.1.1 Victoria Barracks as Part of the Victoria Cantonment

When the British military troops first occupied Hong Kong in September 1841, they were accommodated in matsheds and temporary constructions erected along the shore of the Island. It was not until 1843, when the decision to keep Hong Kong as a Crown Colony that the construction of permanent accommodation for troops was put into place. The first Commanding Royal and Superintendent Engineer sent to Hong Kong was Major Edward Aldrich. He was instrumental in positioning the cantonment at the centre part of the City of Victoria, where the first barracks, Murray Barracks, and the Head Quarter House (Flagstaff House) would be built.[5]

[4] In 1907, War Department Lot No. 14, where Roberts Block would later be constructed, was leased to the military authority. In 1910, an article on South China Morning Post mentioned the new married quarters (possibly Roberts Block) below the Military Hospital. Based on these two sources, the estimated constructed year of Roberts Block is between 1907 and 1910. Please see sections 2.2.1 and 2.2.2 for the relevant sources.

[5] Oxley, D. H. (Lieutenant Colonel), *Victoria Barracks, 1842-1979*. Hong Kong: Headquarters British Forces Hong Kong, 1979, p. 13-14.

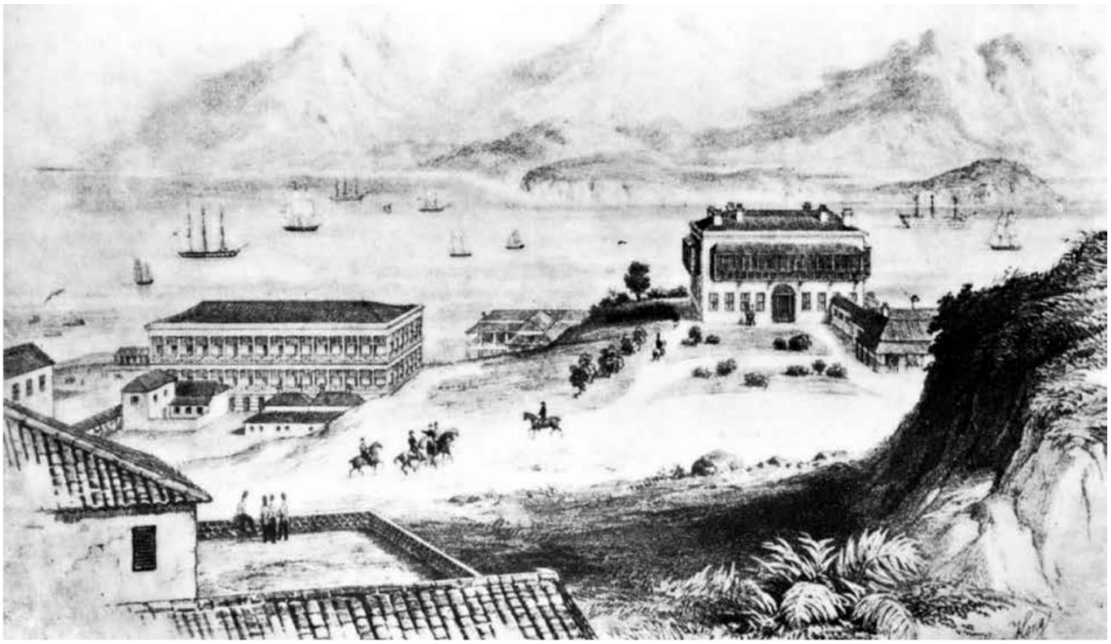


Fig. 2.1.1 The Officers' Mess of Murray Barracks (left) and Head Quarter House (Flagstaff House) (right) in 1846. (Source: Oxley, 1979, p.15.)

By the time when the construction of Victoria Barracks began, the cantonment in the Central area has grown into a considerable scale. Apart from Murray Barracks, North Barracks, other military establishments such as Wellington Battery, Arsenal Yard and Powder Magazines (later known as Explosives Magazine, present-day Asia Society) were constructed. The Naval Yard was also established along the central part of the cantonment's shore. The military establishments occupied a central area in between Central and Wanchai known as the Victoria Cantonment area.

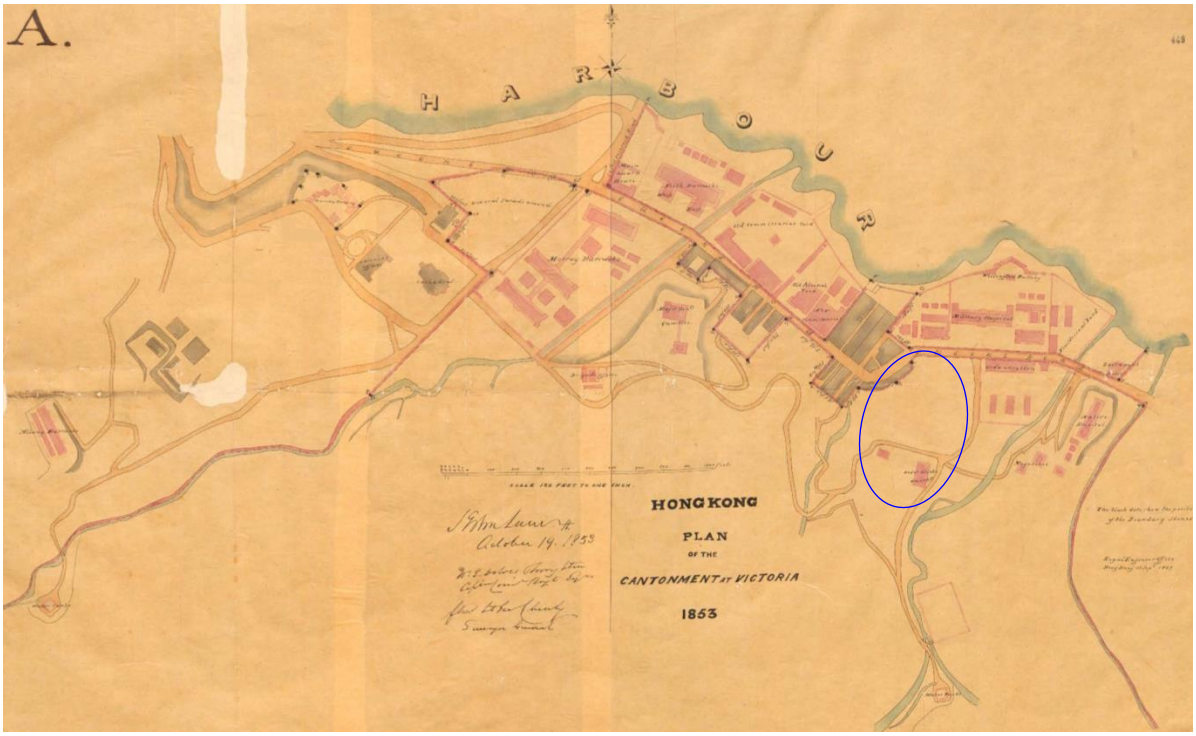


Fig. 2.1.2 Plan of the Cantonment of Victoria, 1853. The Victoria Barracks was yet to be constructed. (Source: The National Archives of the United Kingdom, MPG 1/1155/1)

In 1868, new barracks blocks were constructed for the Indian troops of the garrison previously stationed in Sai Ying Pun. A, B and C Blocks of Victoria Barracks were constructed on the eastern part of the Victoria Cantonment. D and E Blocks were completed in the next year. As shown on the maps (Fig. 2.1.3 and Fig. 2.1.5), these new blocks were indicated as the "New Native Lines" in 1868 and "Victoria Barracks" in 1869. They were constructed as five parallel rectangular blocks in a stepped manner. Cookhouses, ablution houses and latrines were constructed as outhouses near the barrack blocks.[6] In the Hong Kong Blue Book, they were first documented as "New Barracks ABCD and E Blocks" and subsequently officially named as "Victoria Barracks" in 1872.[7]

On the 1868 Plan of the Cantonment of Victoria (Fig. 2.1.3), lands reserved for officers' quarters and married soldiers' quarters (on the central and western portion of the Cantonment) were highlighted in yellow, where the married soldiers quarters were built some decades later.

At the same time, the planning of a new road that would serve as a second link between Central and Wanchai districts was under discussion between the Hong Kong Government and military authorities. The alignment of the new road, eventually built as Kennedy Road, was a complicated topic intertwined with the demarcation of the military land's southern boundary.[8] After years of negotiation, the final road line was set further uphill than the proposed line in 1868. Military lands to the south of Kennedy Road (including the site of future

[6] The National Archives, File No. WO 78/2979.
[7] "Military Expenditure 1872," *Hong Kong Blue Book for the Year 1872*. Accessed October 30, 2020, http://sunzi.lib.hku.hk/hkgro/view/b1872/51872010.pdf.
[8] Public Records Office, File No. HKRS58-1-1-3.

Roberts Block) were eventually returned to the Hong Kong Government in 1878 until the Army reoccupied the land again in the early twentieth century.[9]

Fig. 2.1.3 Plan of the Cantonment of Victoria, 1868. The first three blocks of Victoria Barracks (i.e. A to C Blocks) were completed. They were indicated as "New Native Lines" on the map. The remaining two blocks (i.e. D and E Block) were under planning. (Source: The National Archives of the United Kingdom, MPG 1/1155/2)

[9] Oxley, 1979, p. 127.

Fig. 2.1.4 Three newly completed blocks (i.e. A to C Blocks) of Victoria Barracks in the middle distance, 1868. (Source: University of Hong Kong Libraries. Special Collections)

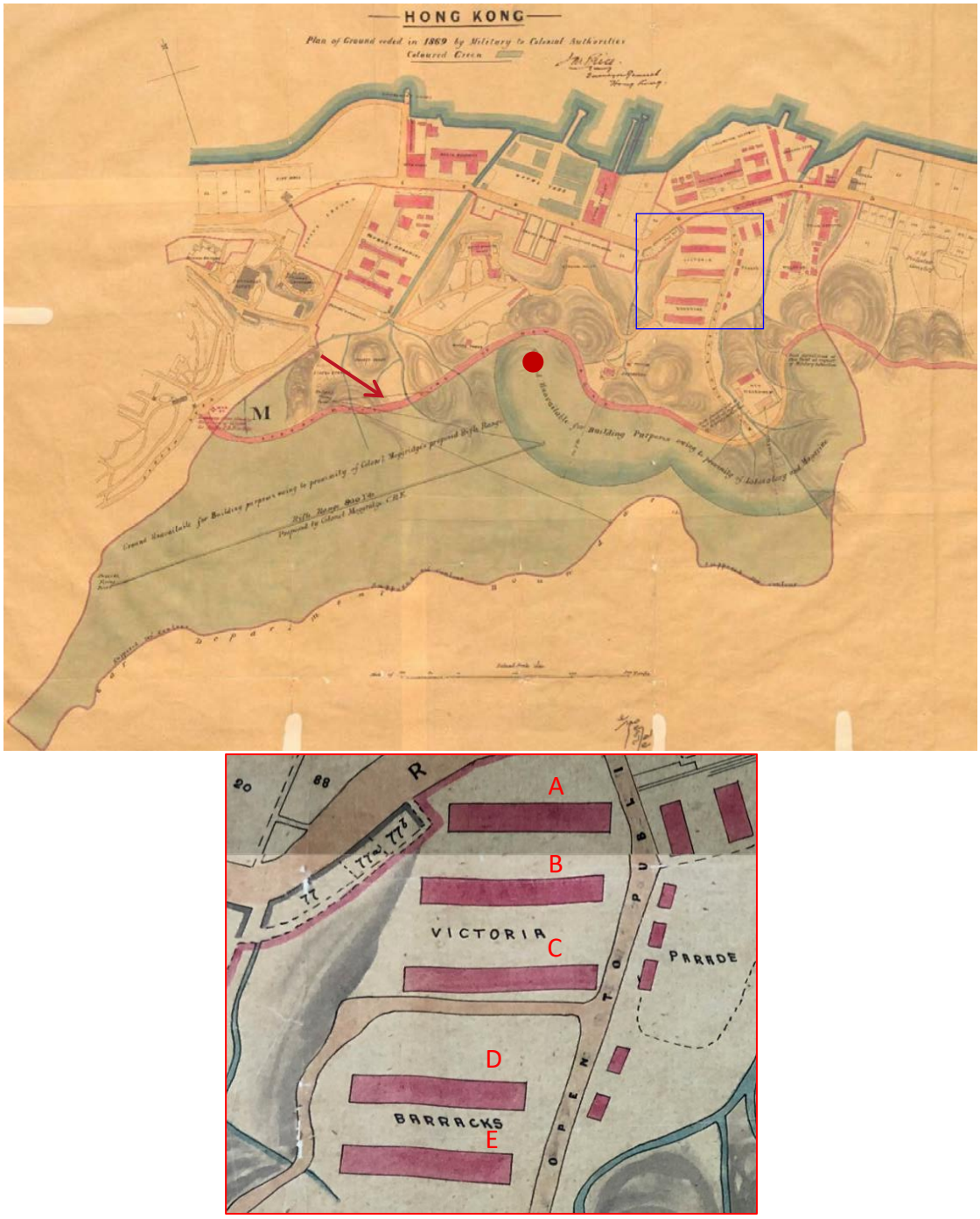


Fig. 2.1.5 Map of Hong Kong, 1869. All five blocks of Victoria Barracks (i.e. A to E Blocks) were completed. The initial proposed line of Kennedy Road is shown in pink (red arrow). The site of future Roberts Block (red dot) was part of the military land that would be returned to the Hong Kong Government in 1878. (Source: The National Archives of the United Kingdom, MPG 1/1155/3)

Fig. 2.1.6 All five completed blocks of Victoria Barracks: A to E Blocks from bottom to top, 1870s.
(Source: Hong Kong Public Libraries)

Fig. 2.1.7 Plan of the Victoria Cantonment area, 1874. The five parallel blocks were shown as "Victoria Barracks." (Source: Oxley, 1979, p. 21)

2.2 Expansion of Victoria Cantonment along Kennedy Road in Pre-War Time

Victoria Cantonment experienced a new phase of development at the turn of the twentieth century. This phase of development was characterized by the construction of a series of accommodation buildings.

The quartering problem first emerged during the extension of Naval Yard to North and Wellington Barracks. The naval authorities had demanded for space to build a modern dockyard and buildings to accommodate the ships' crew since earlier days around 1870s.[10] Although the Hong Kong Government had consistently hoped to move the Naval Dockyard away from the centre of the city, the attempt repeatedly failed and the Navy was able to expand its base by reclamation and acquisition of North Barracks in the late 1890s. As a result, the married quarters in North Barracks were vacated and absorbed by the Navy. There was a need to compensate for the number of married quarters given up in this cause.

At a similar time, in 1890, in view of potential external threats in the region, i.e. the Sino-French War from 1884 to 1885, the army garrison was increased.[11] In a letter dated 3rd April 1895, the Secretary of State presented to the Governor an amended schedule of barrack services required in Hong Kong in consequence of the increased garrison. It was proposed that these works would be spread over ten years beginning with the current year, which the expenditure of the works would be divided in the proportion of two thirds to the British Government and one third to the Hong Kong Government.[12]

There were 14 items on the list of proposed barrack works for accommodating increased garrison and for some other urgent services. Out of the 14 items, there were "quarters for increased number of Warrant Officers (3)" and "quarters for increased number of staff-sergeants, sergeants and married men (36)". These two items were respectively put on the

[10] Harland, Kathleen, *The Royal Navy in Hong Kong 1841-1980*. Hong Kong: Royal Navy, 1980, p.23.
[11] Oxley, 1979, p. 128.
[12] "The Hong Kong Government Gazette August 17, 1895 (Notification No. 350)." Accessed September 26, 2020, http://sunzi1.lib.hku.hk/hkgro/view/g1895/642661.pdf.

4th and 5th (and 8th for the second half) order of precedence.[13] It shows that with an increased number of married officers, an urgent need to provide married quarters was identified and put on schedule.

Estimate for Barrack Works for accommodating increased Garrison, and for some other urgent services.

Service.	Estimate.	Estimate.	Order of Precedence.
Barracks for Hong Kong Regiment at Kowloon, exclusive of European Officers' quarters,	£ 65,700	$ 414,947	In hand.
Hospital to replace existing Hospital ship "Meanee",	37,200	234,947	1
Hospital for Asiatics, Kowloon,	11,000	69,474	2
Barracks at Kowloon for 2 Officers, 134 men, Europeans,	16,000	101,053	3
Barracks for Royal Artillery at Lyemoon,	8,850	55,895	Completed.
Purchase of Lazaretto,	3,150	19,895	Completed.
Barracks for Royal Artillery at Stonecutters' Island,	8,000	50,526	In hand.
Quarters for increased number of Warrant Officers (3),	2,300	14,526	4
Quarters for increased number of staff-sergeants, sergeants and married men (36),	21,600	136,421	5 for one half & 8 for the 2nd half.
Quarters for Quarter-Master, Infantry,	1,500	9,474	9
Increase of Royal Engineers serjeants' mess,	1,500	9,474	10
Serjeants' mess and recreation room, Victoria Barracks,	2,000	12,631	11
Gymnasium for European troops,	2,500	15,789	12
Bathing Pond,	1,700	10,737	13
Alterations to F Block, Queen's Road Barracks, for Chinese Submarine Miners,	200	1,263	6
Alterations for library, school, &c., and to Royal Engineers' workshops,	450	2,842	Partly completed.
Barracks for 1 Company Asiatic Artillery and Officers' Quarters,	10,000	63,158	7
Training the Albany Nullah,	2,400	15,158	14
	196,050	1,238,210	
Add $\frac{1}{10}$th * contingencies,	15,885	100,326	
Total,	211,935	1,338,536	

* Not increased on Account of the Hospital.

Fig. 2.2.1 Estimate of barracks works for accommodating increased garrison and for some other urgent services. The estimate was attached on a letter from the Secretary of State dated 3rd April 1895. (Source: "The Hong Kong Government Gazette August 17, 1895 (Notification No. 350)." Accessed September 26, 2020, http://sunzi1.lib.hku.hk/hkgro/view/g1895/642661.pdf.)

With all these factors combined, a new phase of development, in particular, provision of new living accommodation took place. In 1900, the location of "Kennedy Road" first appeared in the list of "Warrant Officers', Staff Sergeants' and Married Soldiers' Quarters" in the Hong Kong Blue Book. This is an indication that new quarters were recently constructed along (above or below) Kennedy Road.[14] By 1910, a series of new military quarters were constructed, which included:[15]

- Married Quarters A, B, C, D, and E Blocks,

[13] *Ibid.*
[14] "Military Expenditure 1900," Hong Kong Government Reports Online, accessed September 26, 2020, http://sunzi1.lib.hku.hk/hkgro/view/b1900/51900012.pdf.
[15] Oxley, 1979, p. 53-54.

- Warrant Officers' Quarters 1, 2, 3 and 4,
- AOD Foremen's Married Quarters[16], and
- East Block Married Quarters (to the east of Victoria Barracks Blocks A to E).

Among them, Roberts Block (then known as Married Quarters E Block) was one of the five married soldiers quarters constructed in this period of time.

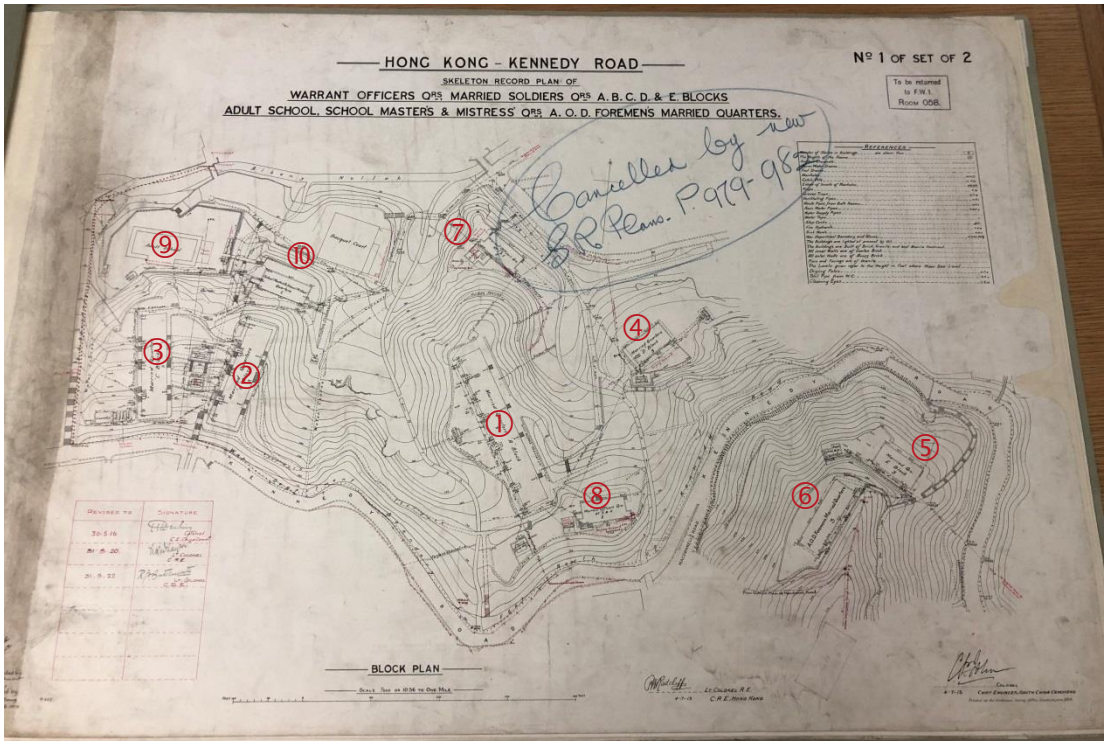


Fig. 2.2.2 Block plan of "Hong Kong – Kennedy Road, Skelen record plan of Warrant Offices Quarters, Married Soldiers Quarters A, B, C, D & E Blocks, Adult School, School Master's & Mistress' Quarters, A.O.D. Foremen's Married Quarters", 1913. The plan showed ① Married Quarters A Block, ② Married Quarters B Block, ③ Married Quarters C Block, ④ Married Quarters D Block, ⑤ Married Quarters E Block (i.e. Roberts Block), ⑥AOD Foremen's Married Quarters and ⑦Warrant Officers' Quarters 1 and 2, ⑧Warrant Officers' Quarters 3 and 4, ⑨ Adult School and ⑩ School Master's & Mistress' Quarters. The construction of these married quarters belonged collectively to the married quarters development along Kennedy Road. (Source: The National Archives of the United Kingdom, MPHH 1/390/1-2)

Nevertheless, the shortage of living accommodation for married soldiers and their families remained acute. As a result, only a small number of married soldiers were entitled to accommodation in the barracks while the rest had to support his family at their own expense. In fact, it was still uncommon for families of married soldiers to be officially permitted to accompany their husbands/ fathers at their duty station (or "to live married accompanied"). Residing in Hong Kong became popular as the standard of life was better than that in other overseas stations. Apart from lower cost of life, it was also cheaper to employ amahs to care for the children.[17]

In order to further alleviate the quartering shortage, a number of buildings within the Victoria Cantonment were converted into married quarters between 1920s and 1930s. These

[16] AOD is the abbreviation of Army Ordnance Department.
[17] Oxley, 1979, p.28, 45.

included E Block of Victoria Barracks (providing 16 small quarters) and a building below Flagstaff House (providing 8 quarters).[18] In addition, a number of new married quarters were constructed in Victoria Barracks, including Freyberg Block in 1931 and Gort Block in 1937.[19]

[18] Oxley, 1979, p.56.
[19] Oxley, 1979, p. 57.

Fig. 2.2.3 A panoramic view of the Victoria Cantonment, circa 1910s to1920s. Most of the married quarters were visible in this photo, including ① Married Quarters A Block, ② Married Quarters B Block, ③ Married Quarters C Block, ④ Married Quarters D Block, ⑤ Married Quarters E Block (i.e. Roberts Block), ⑥AOD Foremen's Married Quarters and ⑦Warrant Officers' Quarters 3 and 4. ⑧Bowen Road Military Hospital was located above the married quarters. (Source: HKLray from Flickr, https://www.flickr.com/photos/raypostcard/14690820648/ and https://www.flickr.com/photos/raypostcard/14877087022/)

2.2.1 *Military Constructions above Kennedy Road*

As discussed in the previous section, the War Department surrendered all military lands south to Kennedy Road to Hong Kong Government in 1878. Despite Hong Kong Government's reluctance to sacrifice more valuable lands in Central for military purposes, the British Army was able to return to the area in the early 1900s, first with the construction of a new military hospital.

Bowen Road Military Hospital

Earlier when the Navy requested for lands to expand, Wellington Barracks at the eastern end of the Naval Yard was originally planned to give way to its expansion. Although this plan was not materialized at the end, a new site had been allocated to relocate the old military hospital D'Aguilar's Hospital located in Wellington Barracks. The new site, War Department Lot No. 7 (W.D. Lot No. 7), situated on Bowen Road was allocated to the Army in 1901. In 1907, the new British Military Hospital was opened. [20]

Fig. 2.2.4 City of Victoria Cantonment, 1899. The proposed extension of Naval Yard (indicated by blue line) covered Wellington Barracks (indicated as ① "Military Hospital" near "Wellington Battery" on the map). Above Bowen Road, a site (shaded in red) was reserved for "W.D.L. (War Department Lot) Military Hospital". (Source: The National Archives of the United Kingdom, MFQ1/53/1)

[20] Oxley, 1979, p. 128.

Married Quarters on War Development Lot No. 14

In 1896, in order to secure new buildings sites for housing the garrison, the Army requested the Hong Kong Government to reserve the land below Bowen Road Hospital to Kennedy Road for military use.[21] With the special request by the military authorities, the land was held back from public auction until an agreement of transfer could be reached between the military authorities and the Hong Kong Government concerning the cost of the provision of land.[22]

In 1899, the boundary of this plot of land was traced and shown on a plan (Fig. 2.2.5). At last, the site was allocated to the War Department in 1907. Under a Memorandum of Transfer dated 20th November 1907 by the Hong Kong Government to the Secretary of State for War, the site, now numbered as War Department Lot No. 14 (W.D.L. No. 14), was obtained by the War Department for a sum of $123,489, credited to the Hong Kong Government in the Colonial Military Lands Accounts. The land contains an area of 6.6 acres situated between Kennedy Road and Bowen Road.[23]

Among the new military quarters built along Kennedy Road in the 1900s, Married Quarters E Block (i.e. Roberts Block) and AOD Foremen's Married Quarters (i.e. Montgomery Block) were constructed at W.D.L. No. 14 above Kennedy Road.

Fig. 2.2.5 Plan showing the plot of land below (to the north of) ①Military Hospital site, which would later be known as ②W.D.L. No. 14. The plan was attached to a letter dated 14 February 1899 from the

[21] The National Archives, WO33/3236, p. 13.
[22] The National Archives, WO33/3236, p. 15-17.
[23] Public Records Office, HKRS156-1-11657, document no. 6(1)

military authorities who requested the land below the Military Hospital to be transferred to them. (Source: The National Archives of the United Kingdom, CO129/300)

Fig. 2.2.6 ① Bowen Road Military Hospital, ② Married Quarters E Block (Roberts Block) and ③ AOD Foremen's Married Quarters (Montgomery Block) enjoyed a panoramic view of the Victoria Harbour, c.1910. (Source: Hong Kong Public Libraries.)

Fig. 2.2.7 A closer look at ① Married Quarters E Block (Roberts Block) and ② AOD Foremen's Married Quarters (Montgomery Block), c.1930. (Source: Hong Kong Public Libraries.)

As shown on the skeleton record plan of 1913 (Fig. 2.2.8) and the map of 1936 (Fig. 2.2.9), the two married quarters had been constructed on two separate leveled platforms on the small knoll above Kennedy Road. A footpath connected the two blocks between Kennedy Road and Borrett Road. As the married quarters were situated at an elevated site on the hillside, they enjoyed a panoramic view of the Victoria Harbour and were clearly visible from the Harbour (Fig. 2.2.11).

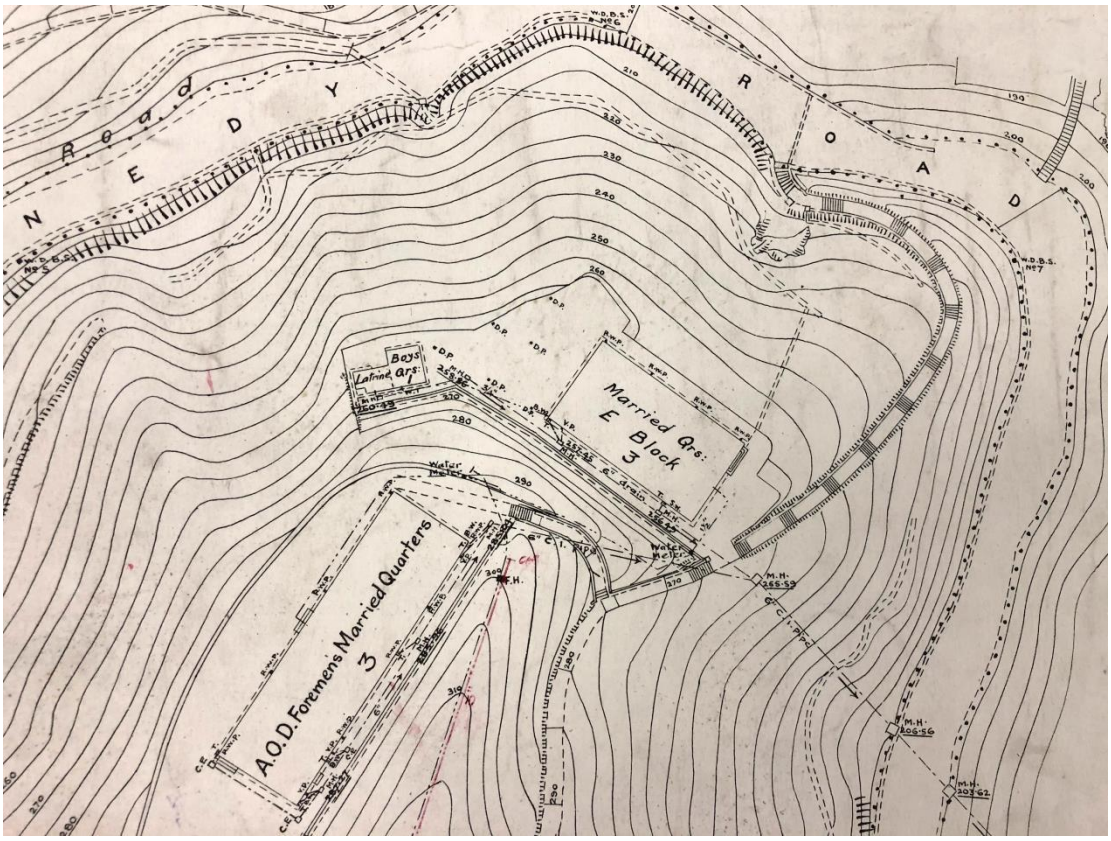


Fig. 2.2.8 Skeleton record plan in 1913, showing Married Quarters E Block (Roberts Block) and AOD Foremen's Married Quarters (Montgomery Block). An outbuilding for boys' quarters and latrines was located to the west of Married Quarters E Blocks. (Source: The National Archives of the United Kingdom, MPHH 1/390/1-2)

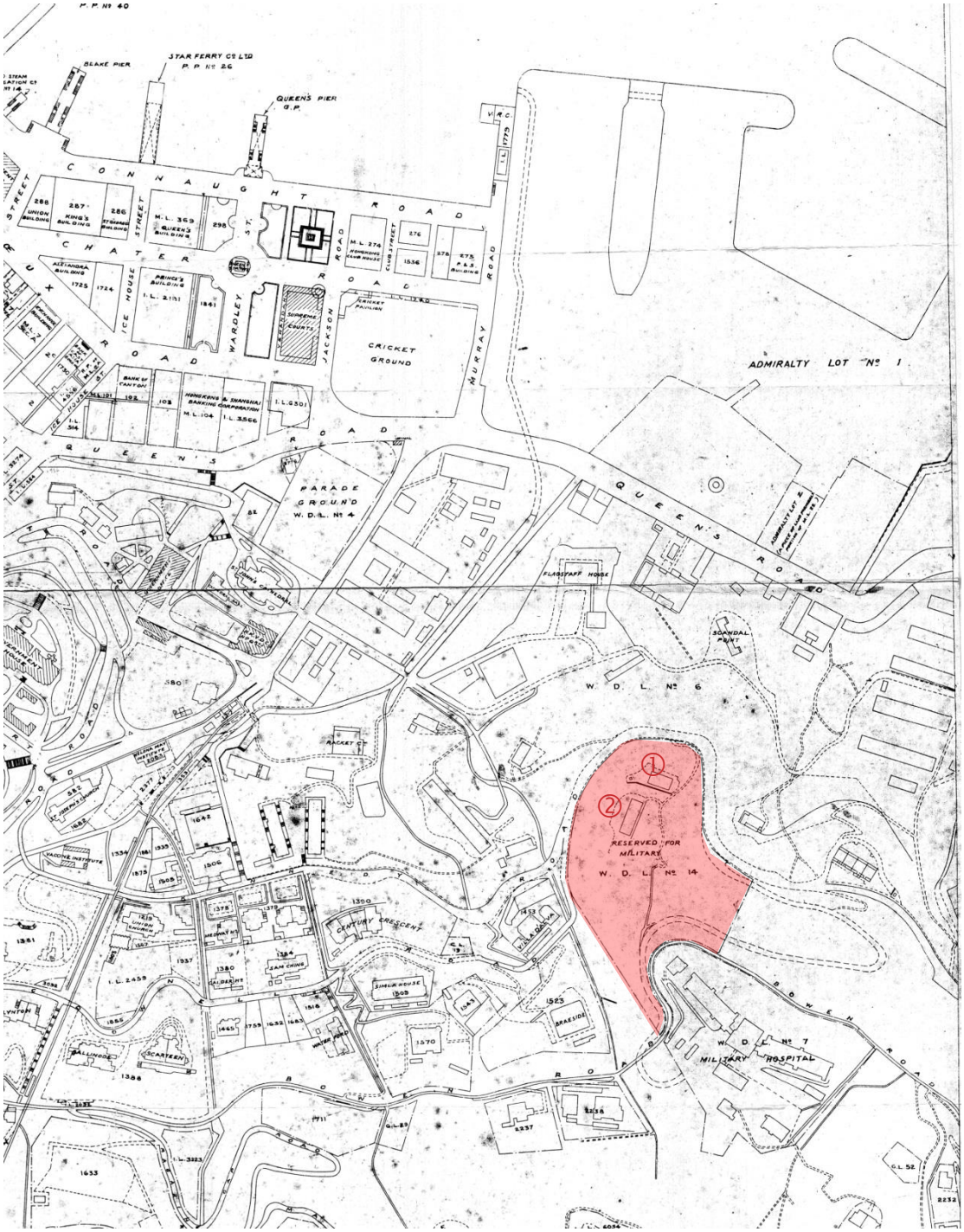


Fig. 2.2.9 Map of 1936. W.D.L. No. 14 (shaded in red) was situated between Kennedy Road and Bowen Road. The two rectangular buildings on the lot were ① Married Quarters E Block (Roberts Block) and ② AOD Foremen's Married Quarters (Montgomery Block). (Source: Survey and Mapping Office, HG34-3)

Later in the 1930s, a third block of married quarters was constructed at the site of W.D. L. No. 14.[24] This new block, Married Quarters H Block (i.e. Hamilton Block), was located above AOD Foremen's Married Quarters. This group of three Army married quarters situated above Kennedy Road on W.D.L. No. 14 are hereby referred to as W.D.L. No. 14 Married Quarters.

[24] Survey and Mapping Office, 163-NW-3 (Ed 1922).

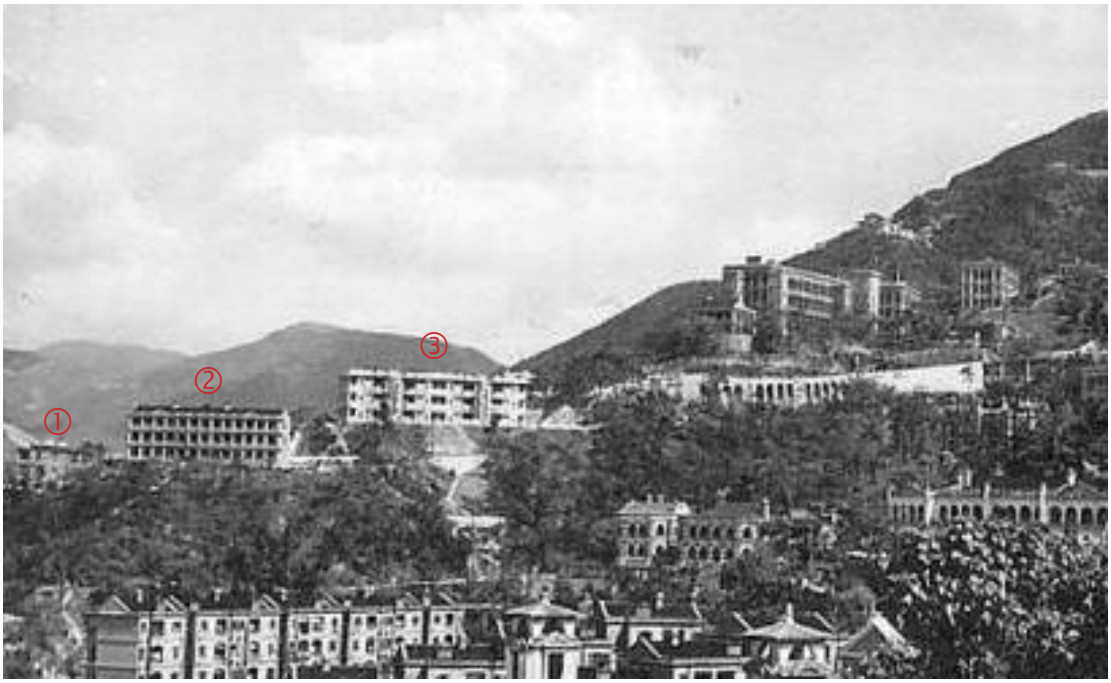


Fig. 2.2.10 Military Hospital and the three blocks of W.D.L. No. 14 Married Quarters, 1940s. From left to right, they are ① Married Quarters E Block (Roberts Block),② AOD Foremen's Married Quarters (Montgomery Block) and ③ Hamilton Block. (Source: Gwulo, https://gwulo.com/atom/14509)

Fig. 2.2.11 The three blocks of W.D.L. No. 14 Married Quarters (circled in red) were clearly visible from the Victoria Harbour, 1955. (Source: Don Irwin from Google+)

2.2.2 Roberts Block as Army Married Quarters

The early years living in the married quarters on Kennedy Road were not entirely comfortable. In a Sanitary Board meeting dated July 1910, it was reported that untrained nullahs near Military Hospital and "the new block of buildings (married quarters) just below the hospital" was causing mosquitoes breeding in the area.[25] Here, the new blocks of married quarters mentioned were likely to be Married Quarters E Block and AOD Foremen's Married Quarters. The insanitary condition increased the danger of illness, in particular malaria, which was common and deadly to the residents of the Colony at that time. It was further revealed that there were already nine families of the soldiers admitted to the hospital.

Apart from health menace, criminal activities were another issue threatening the safety and causing nuisances to the residents living in the military quarters. Notably, Kennedy Road was an unfrequented path that was quite deserted in some hours of the day in those years. Cases of robbery, burglary and trespassing were occasionally reported in the newspapers

[25] *South China Morning Post*, July 20, 1910.

throughout 1900s to 1930s. There were a lot of complaints from the married quarters on Kennedy Road about trespassing on the military land.[26]

Fig. 2.2.12 ①Married Quarters E Block (Roberts Block) and ②AOD Foremen's Married Quarters (Montgomery Block) were surrounded by trees and brushes. ③Kennedy Road was deserted. (Source: HKLray from Flickr, https://www.flickr.com/photos/raypostcard/14877087022/)

2.3 Japanese Occupation

In 1941, with the imminent threat of Japanese invasion, families of the married soldiers were evacuated from the barracks. The garrison was reinforced, especially with the addition of the Canadian Army and the Hong Kong Volunteer Defence Corps.[27] In preparation of the war, a number of new structures were added to the Victoria Cantonment, including tunnels excavated on hillsides for air raid shelters and firearm storage. Finally, the war struck Hong Kong on 8 December 1941. Japanese bombardment on the north shore of Hong Kong Island

[26] *South China Morning Post*, September 30, 1933.
[27] Oxley, 1979, p. 58, 63.

began on 15 December. On the evening of 18 December, the Japanese troops crossed the Harbour.

After a week of fierce resistance on the island, the Hong Kong Government, headed by the Governor, surrendered to the Japanese forces on 25 December. During the occupation period, the Japanese occupied the barracks for their own use. Victoria Barracks became home to the Japanese Headquarters.[28]

During the Japanese Occupation, the Japanese occupied the buildings in Victoria Cantonment area. From 1942 to 1945, the US Army Air Force conducted numerous air strikes on the Japanese-occupied Hong Kong. While some parts of the Victoria Barracks suffered damages during one of the bombings, the W.D.L. No. 14 Married Quarters remained largely intact (Fig. 2.3.1 and Fig. 2.3.2).. [29]

Fig. 2.3.1 Victoria Barracks in 1946-47. Halves of C, D and E Blocks of Victoria Barracks were destroyed (circled in red). (Source: Hedda Morrison photograph collection, Harvard-Yenching Library, http://id.lib.harvard.edu/images/olvwork348162/catalog.)

[28] Oxley, 1979, p. 64
[29] Oxley, 1979, p. 67

Fig. 2.3.2 W.D.L. No. 14 Married Quarters in 1946-47. The Military Hospital and Kennedy Road Married Quarters (①Roberts Block, ②Montgomery Block, ③Hamilton Block) in the middle distance were intact. (Source: Hedda Morrison photograph collection, Harvard-Yenching Library, http://id.lib.harvard.edu/images/olvwork351239/catalog.)

After the British Forces reoccupied Hong Kong, a military administration was established which lasted until May 1946. Within the military compound of Victoria Barracks, considerable repair and replacement of war damages were made. The Indian troops once again moved into buildings in Victoria Barracks, including soldiers of the Indian Army Medical Corps who moved into the W.D.L. No. 14 Married Quarters. [30] However, as India moved towards independence towards the end of 1946, the India troops gradually left and was replaced by the British troops.[31]

After the Indian troops withdrawn from Hong Kong in late 1940s, the married quarters along Kennedy Road remained vacant for some time as the military officers temporarily stayed in requisitioned private residences and did not return to the military quarters.[32]

In the following years, an extensive project to provide new married accommodation for all ranks was carried forward. In addition to new married quarters for the Royal Navy and the Army, pre-war married quarters in Victoria Barracks were completely modernized and repaired to house 29 families by 1951.[33]

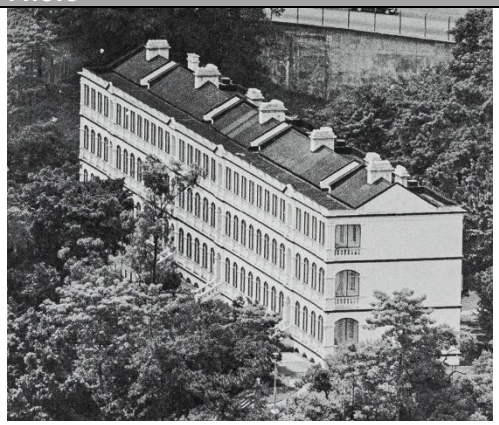
[30] Oxley, 1979, p. 67.
[31] *Ibid.*
[32] *South China Morning Post*, July 30, 1948.
[33] *South China Morning Post*, December 2, 1951.

On the other hand, the pre-war married quarters constructed in the 1900s were renamed after the Second World War after a number of British Army officers to commemorate their contributions. The married quarters were renamed as follows: [34]

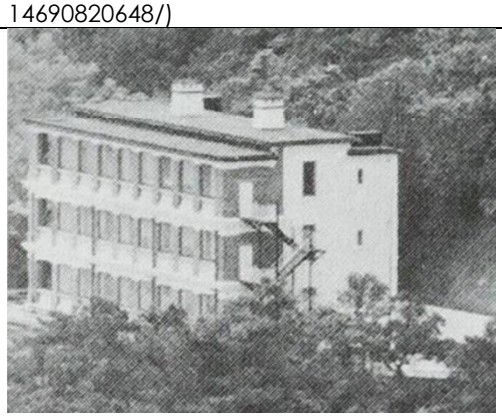
- Married Quarters A Block (Alexander Block), B Block (Birdwood Block) and C Block (Cassels Block), D Block (Dill Block) and E Block (Roberts Block);
- Warrant Officers' Quarters 1 and 2 (Rawlinson House), Warrant Officers' Quarters 3 and 4 (Wavell House[35]);
- AOD Foremen's Married Quarters (Montgomery Block).

While Married Quarters A to D Blocks were named after an officer beginning with the same letter of the block, E Block was named "Roberts" after Major General George Philip Bradley Roberts.[36] Major General Roberts was a British Army senior officer served with remarkable achievements in the Second World War. He was General Officer Commanding (GOC) of the 11th Armoured Division throughout the campaign in Northwestern Europe from 1943 to 1946, notably during the Battle of Normandy, until the surrender of Nazi Germany.[37]

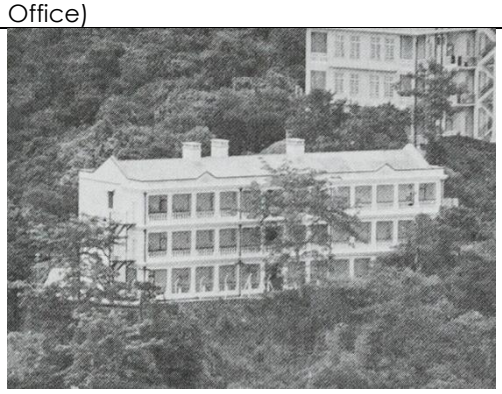
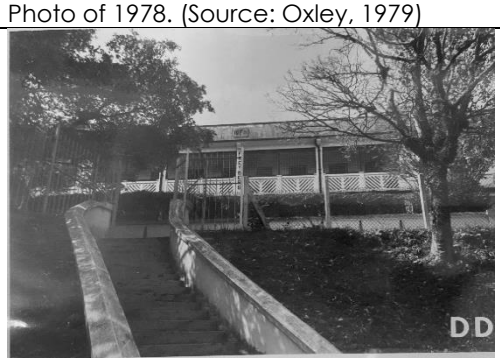
Table 2.1 List of Married Quarters in Victoria Barracks constructed in pre-war period between 1900s and 1930s.

Married Quarters	Built Year	Photo
Married Quarters A Block (Alexander Block) – **Demolished for the development of Hong Kong Park in 1988[38]**	1900s	 Photo of 1978. (Source: Oxley, 1979)

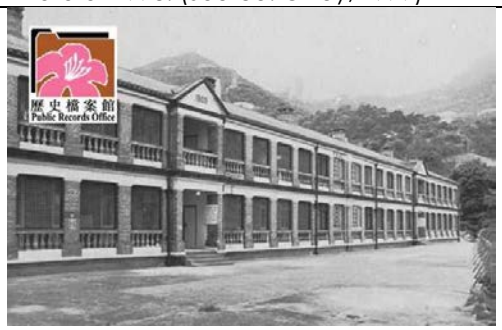
[34] Oxley, 1979, p. 53. Although the exact year that the military quarters were renamed is uncertain, the survey map of 1957 (Fig. 2.6.9) is one of the earliest official records that indicated the quarters using their new names.
[35] The married quarters is originally known as Wavell House before it became also known as "Wavell Block" since the 1980s.
[36] "Historic Building Appraisal: Old Victoria Barracks, Roberts Block," accessed on September 26, 2020, https://www.aab.gov.hk/historicbuilding/en/170_Appraisal_En.pdf.
[37] "Roberts, George Philip Bradley," accessed on September 26, 2020, https://www.unithistories.com/officers/Army_officers_R02.html#Roberts_GPB.
[38] Survey and Mapping Office, photo no. A14424, 1988.

Married Quarters	Built Year	Photo
Married Quarters B Block (Birdwood Block)	1900s	Photo of 1978. (Source: Oxley, 1979)
Married Quarters C Block (Cassels Block)	1900s	Photo of 1977. (Source: Public Records Office)
Married Quarters D Block (Dill Block) - **Demolished and replaced by Victoria Infants School in 1963**[39]	1900s	Photo of 1910s. (Source: HKLray from Flickr, https://www.flickr.com/photos/raypostcard/14690820648/)
Married Quarters E Block (Roberts Block)	1900s	 Photo of 1978. (Source: Oxley, 1979)

[39] Oxley, 1979, p. 116.

Married Quarters	Built Year	Photo
Warrant Officers' Quarters 1 and 2 (Rawlinson House)	1900s	Photo of 1977. (Source: Public Records Office)
Warrant Officers' Quarters 3 and 4 (Wavell House)	1900s	Photo of 1977. (Source: Public Records Office)
AOD Foremen's Married Quarters (Montgomery Block)	1900s	 Photo of 1978. (Source: Oxley, 1979)
Married Quarters F Block (Freyberg Block) – **Demolished for the development of Hong Kong Park in 1981**[40]	1931[41]	 Photo of 1977. (Source: Public Records Office)

[40] Survey and Mapping Office, photo no. 39016, 1981.
[41] Oxley, 1979, p. 57.

Married Quarters	Built Year	Photo
Married Quarters G Block (Gort Block) – **Demolished for the development of Hong Kong Park in 1988[42]**	1937[43]	 Photo of 1977. (Source: Public Records Office)
Married Quarters H Block (Hamilton Block) – **Demolished and replaced by the staff quarters block of the PRC Ministry of Foreign Affairs Buildings in 1997[44]**	1930s	 Photo of 1978. (Source: Oxley, 1979)
East Married Quarters (Paget Block) – **Reconstructed in 1978 and renamed as Paget House.[45] Paget House is now within Ching Yi To Barracks.**	1900s[46]	 Photo of 1977. (Source: Public Records Office)
	Rebuilt in 1978	 Photo of 1978. (Source: Oxley, 1979)

[42] Survey and Mapping Office, photo no. A14424, 1988.
[43] Oxley, 1979, p. 57.
[44] Buildings Department, OP No. H32/97.
[45] Oxley, 1979, p. 95.
[46] Oxley, 1979, p. 53.

2.4 Post-war Development of Victoria Cantonment

2.4.1 Contraction of Military Lands

The military establishment in Central was constantly a contested area of land where the Hong Kong Government repeatedly requested to resume this commercially desirable land for business premises. The division of civilian developments to the east and west of the cantonment area was also a major concern of the government. As a result, request for the return of the land had been raised as early as in the 1840s, and subsequently in 1887, 1920s and 1939.[47]

After the Second World War, the issue of removal of military barracks was brought up again in 1948. The General Officer Commanding Land Forces commented that in the case of Victoria Barracks, alternative sites were not available for relocation. However, for sites such as Murray Barracks, it was possible to find suitable alternative site, given that it was on a no-cost basis to the War Office.[48] At last, the transfer of military lands to the Hong Kong Government was realized in the 1950s. In 1958, not only was the Naval Dockyard closed, the British Government also decided to release Murray Barracks and parade ground to the Hong Kong Government.[49] As a result, the personnel and functions of Murray Barracks sequentially distributed to other barracks.

As the discussion on the removal of military barracks from the Central area went on, the Wellington Barracks was also given up in 1964.[50] By then, the cantonment was reduced to Victoria Barracks, which includes the W.D.L. No. 14 Married Quarters, and the British Military Hospital on Bowen Road.

[47] Cummer, 2016, p. 106-111.
[48] *South China Morning Post*, January 8, 1948.
[49] Cummer, 2016, p. 111.
[50] Oxley, 1979, p.129.

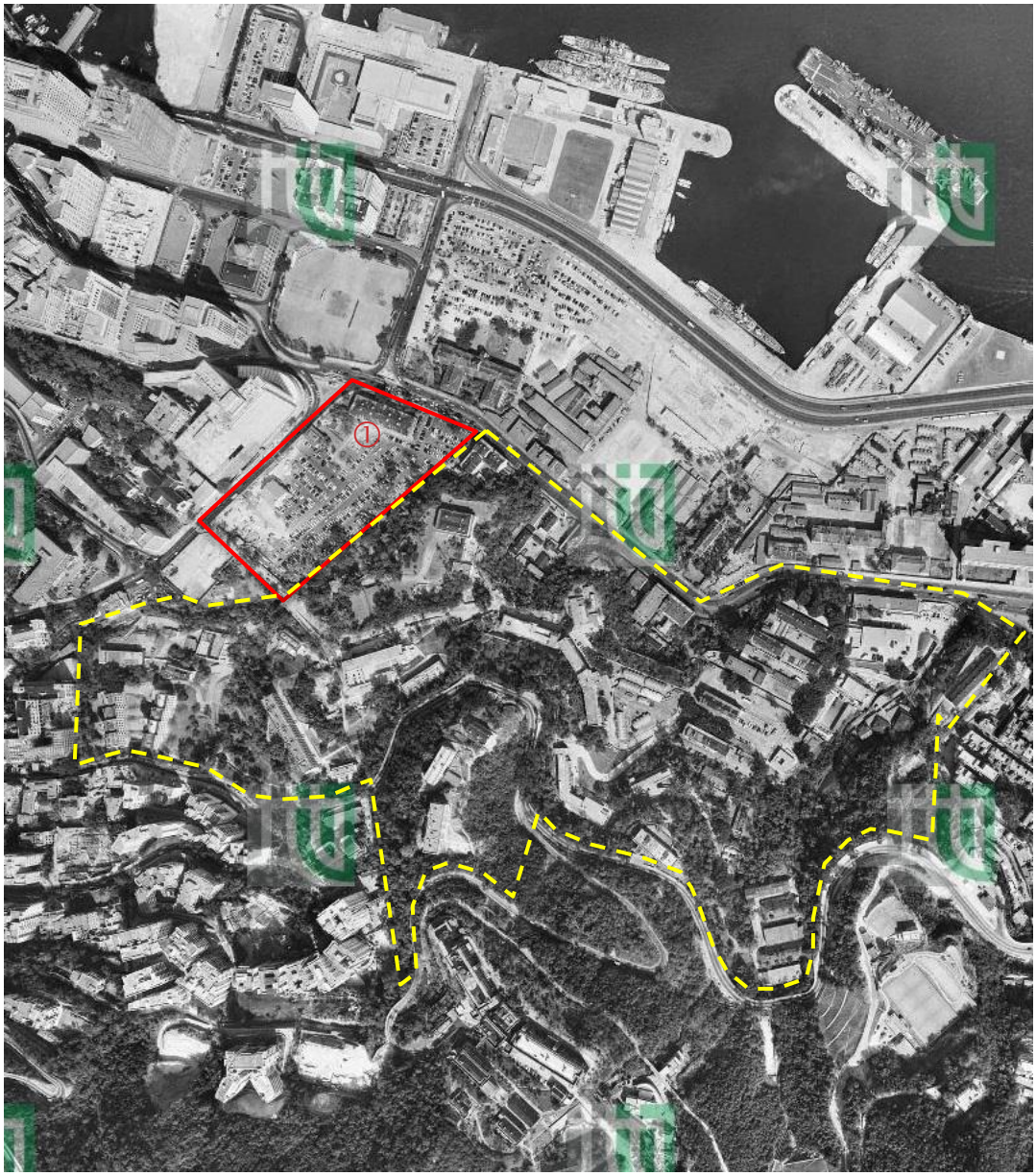


Fig. 2.4.1 Aerial photograph of the Victoria Cantonment in 1963. Murray Barracks (outlined in red) on the west of the Victoria Barracks (outlined in yellow dotted line) had been mostly removed and transformed into a car park. The ①Officer's Mess (Murray House) was the only remaining building. (Source: Survey and Mapping Office, no. 1963-7969)

2.4.2 *New Constructions in Victoria Barracks*[51]

With the vacation of Murray Barracks from 1959 to 1961, a new phase of building construction in the remaining military lands, i.e. Victoria Barracks took place. New buildings included Colvin House (1959) for WRAC officers[52], Royal Electrical and Mechanical Engineers (REME) Workshops (1960), Squash Court (1962), Garrison Officers' Mess, Victoria Infants School (1963), NAAFI's new Victoria Club (1963), New Headquarters Land Forces Building (1963), Communications Centre (also known as Signal Centre, 1963), new E Block of Victoria Barracks (1965), and Medical and Dental Centres (1965).[53]

These new additions provided modernized facilities to the British Forces working in the Victoria Barracks. The modern quarters and welfare facilities also catered to the comfort of the officers.

Fig. 2.4.2 Victoria Barracks viewed from Queen's Road, 1971. ①Roberts Block, ② Old and ③ new Headquarters Land Forces Building, ④ Communications Centre and ⑤ Garrison Officers' Mess can be seen on the photo. (Source: Barbara Ann Spengler from Flickr, accessed September 26, 2020, https://www.flickr.com/photos/sillysocks/7504308746/in/album-72157630458891584/)

[51] In various official records (i.e. survey map of Survey and Mapping Office in 1957) and non-official records (e.g. newspaper articles of South China Morning Post) after the war, it is observed that "Victoria Barracks" refers to a greater area of military lands beyond the original extent of the five barracks blocks. It covers the pre-war married quarters along Kennedy Road (including the W.D.L. No. 14 Married Quarters) and other military structures scattered across the area between Queen's Road and Kennedy Road.

[52] WRAC is the abbreviation of Women's Royal Army Corps. Colvin House was named after the Director of the WRAC, Brigadier Dame Mary Colvin. It was the first permanent Army barrack accommodation completed since the war.

[53] Oxley, 1979, p.73.

2.4.3 *New Use of Roberts Block*

After the post-war years, Roberts Block continued to serve as accommodation for military officers. Families of married officers, some with young children lived in the flats of Roberts Block.

On the survey map of 1957, Roberts Block was indicated as "Officers Mess" (Fig. 2.4.3). It was again indicated as "Roberts Block W.R.A.C. Officers Mess" on a map in 1967(Fig. 2.4.4). It shows that Roberts Block might also be used as an officer's mess, possibly for Women's Royal Army Corps, in addition to the provision of accommodation.

Fig. 2.4.3 Roberts Block in 1957. It was indicated as "Officer Mess" on the map. (Source: Survey and Mapping Office, 196-SW-16 (Ed 1957-01))

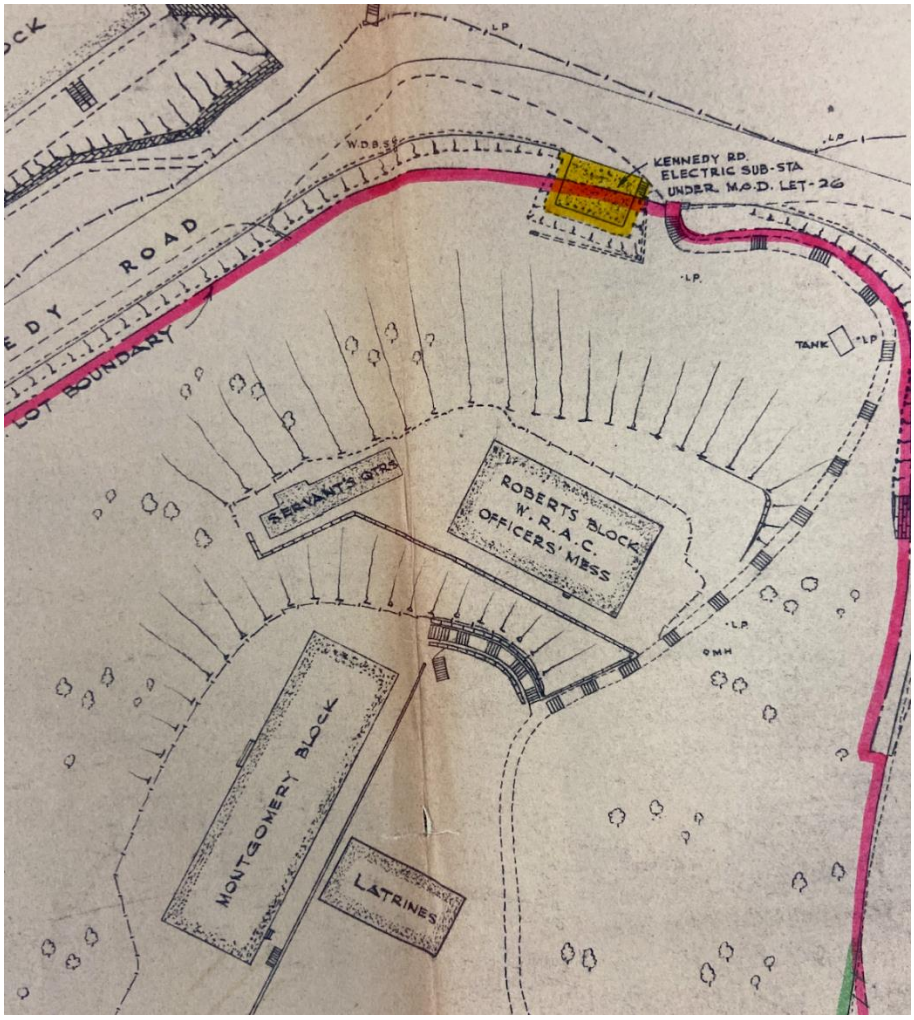


Fig. 2.4.4 Roberts Block in 1967. It was indicated as "Roberts Block W.R.A.C. Officers' Mess" on the map. (Source: Public Records Office, File No. HKRS156-1-11657)

2.5 Return of Remaining Military Lands in Victoria Cantonment Area

2.5.1 Proposed Redevelopment of W.D.L. No. 14 Married Quarters

In the 1960s, the Hong Kong Government proposed two separate development schemes that would have a significant impact on the site of W.D.L. No. 14 Married Quarters. If the proposals were carried forward, the married quarters would be demolished.

In 1963, the Water Authority proposed to construct a service reservoir at the northern portion of W.D.L. No. 14 (Fig. 2.5.1).[54] The proposed Kennedy Road West Service Reservoir would have a 10 million gallon capacity and supply to the Wan Chai area based on an estimated population increase in the area. The plan would affect the three existing quarters (Roberts, Montgomery and Hamilton Blocks), which currently provided 21 quarters. The Ministry of

[54] Public Records Office, File No. HKRS156-1-11657, sketch plan no. 898

Defence[55] has agreed to surrender the land to the Hong Kong Government on condition that the quarters shall be reprovisioned at the Hong Kong Government's expense.[56] Two potential sites within Victoria Barracks have been explored for the reprovision of married quarters. However, after years of negotiation and preparation, plan for the new reservoir was withdrawn from the public works programme in 1970 because the anticipated increase in population did not materialized.[57]

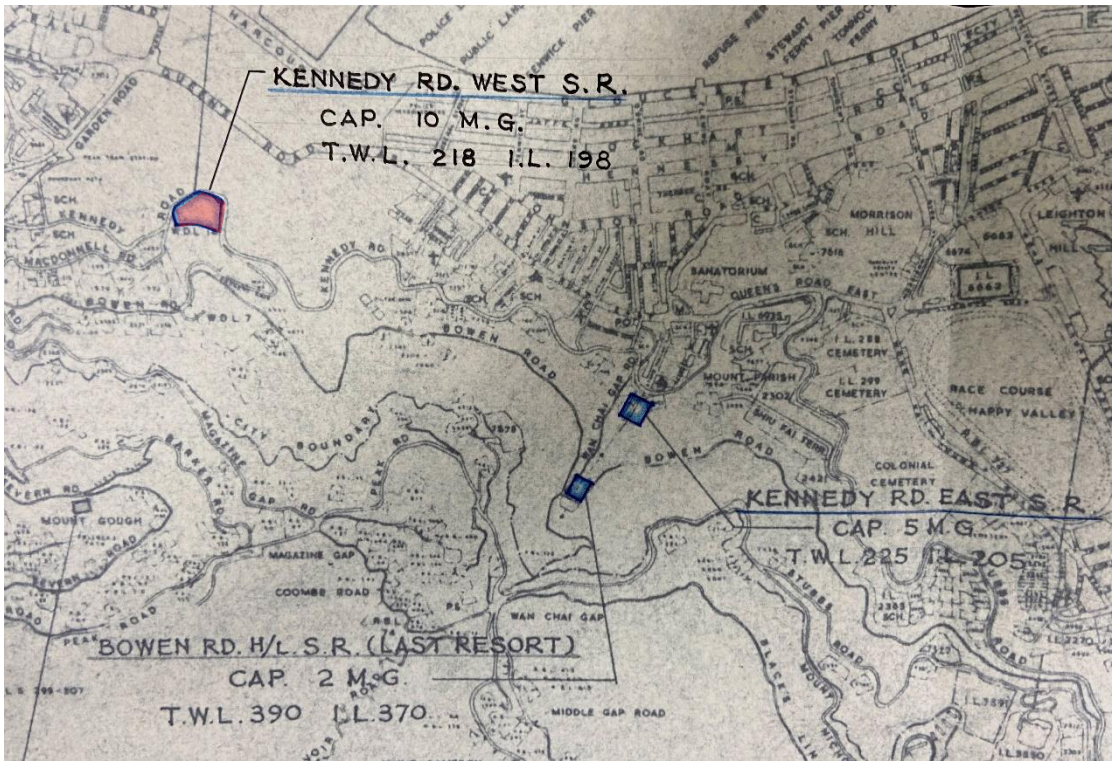


Fig. 2.5.1 Map dated 1963. Proposed sites of low level service reservoirs along Kennedy Road. The proposed Kennedy Road West Service Reservoir (shaded in red) is situated at W.D.L. No. 14. (Source: Public Records Office, File No. HKRS156-1-11657)

Around the same time when the service reservoir proposal was under consideration, there was another plan to re-align Kennedy Road. The proposal for the improvement of Kennedy Road was brought up as early as in 1957.[58] The new alignment of Kennedy Road would cut through the spur of W.D.L. No. 14 and directly across Montgomery Block (Fig. 2.5.2).[59] The proposed road realignment work would similarly require the return of part of the military

[55] The War Department (War Office) was dissolved in 1964. Its functions were transferred to the Ministry of Defence.
[56] Public Records Office, File No. HKRS156-1-11657, document no. 42.
[57] Public Records Office, File No. HKRS156-1-11657, document no. 43.
[58] Public Records Office, File No. HKRS156-1-5725, document no.1.
[59] Public Records Office, File No.HKRS588-3-34, plan no. LDS/HK/5002

lands. With more than 30 years of discussion, it was decided in 1987 that the plan would not be carried forward and the spur would be retained.[60]

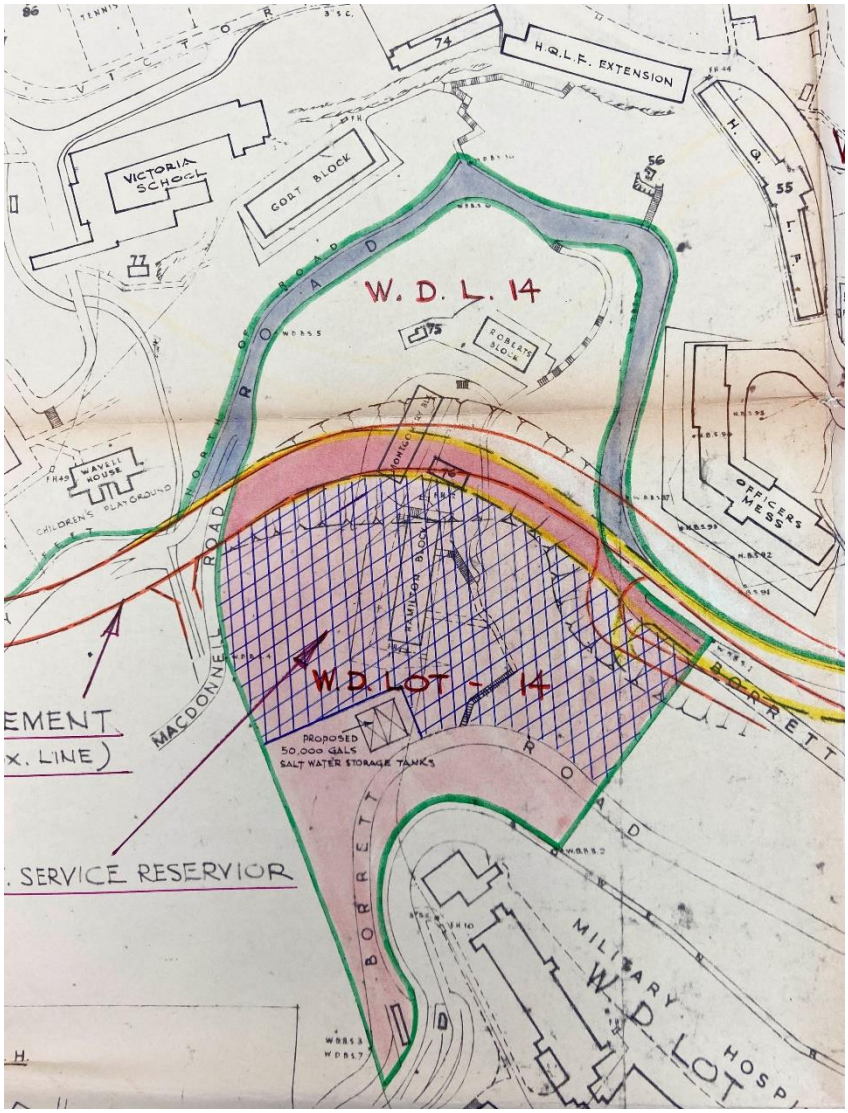


Fig. 2.5.2 Proposed realignment of Kennedy Road (shown in red lines) would pass through W.D. Lot No. 14. The service reservoir proposal was incorporated in this proposal dated 23 November, 1964. (Source: HKRS588-3-34, plan no. LDS/HK/5002)

At the end, all the development proposals did not materialized. The three married quarters narrowly escaped the fate of demolition, with Roberts Block and Montgomery Block still standing today.

[60] Urban Council, The Hong Kong Park Development Sub-Committee. "Minutes of the meeting of Hong Kong Park Development Sub-Committee of Urban Council (25 September 1987)." Accessed September 26, 2020, https://mmis.hkpl.gov.hk///c/portal/cover?c=QF757YsWv59DctgXZxe9ow6ha%2FBxLOvH.

2.5.2 Return and Redevelopment of Victoria Barracks

In 1976, Hong Kong Government entered into a new Defence Costs agreement with the British Government. The garrison was reduced to four battalions. The agreement also included in its term the return of Victoria Barracks to Hong Kong Government by 31 March 1979.[61] As a result, Victoria Barracks was gradually vacated for the handover.

In March 1977, a special committee known as the Victoria Barracks Planning Committee was appointed to advise on the planning of the Victoria Barracks area which was due to be released by the Ministry of Defence during the financial year 1978/79. The planning area is bounded by Queensway to the north, Cotton Tree Drive to the west, Monmouth Terrace to the east and Kennedy Road to the south.[62] W.D.L. No. 14 was excluded from this plan.

In preparation of the report, a survey was conducted to identify the existing buildings in the Victoria Barracks (Fig. 2.5.3). In addition, the Committee had sought professional advice of the Government Maintenance Surveyor on the condition and appropriate life of the buildings.[63]

[61] Oxley, 1979,, p.76
[62] Victoria Barracks Planning Committee. *Report to the Governor-in-council on the Future Development of Victoria Barracks Area*. Hong Kong: Government Printer, 1977, p. 3-6.
[63] Victoria Barracks Planning Committee, 1977, p. 23.

Fig. 2.5.3 Existing military buildings and structures in Victoria Barracks in 1977. The boundary of the Victoria Barracks development is demarcated. Roberts Block is highlighted in red. (Source: Public Records Office, File No. PRO/REF/87)

Legend

Index	Building	Estimated Approximate Life
A	Office Block/ Block Six	Not Specified
B	R.E.M.E. (Royal Electrical and Mechanical Engineers) Workshop	Not Specified
C	Victoria Barracks A Block	7 years
D	Victoria Barracks B Block	3-5 years
E	Victoria Barracks C Block	10 years
F	Victoria Barracks D Block	3 years
G	Garrison Warrant Officers and Sergeants' Mess	7 years
H, I, J	Servants' Quarters	Not Specified
K	Contractor's Office (Fook Lee Construction Co.)	5 years
L	Signal Centre/ Communications Centre	7 years
M	Barracks Store (Royal Army Ordnance Corps)	5 years
N	H.Q.L.F. (Headquarters Land Forces) old building	Not Specified
O	H.Q.L.F. (Headquarters Land Forces) new building	Not Specified
P	C.B.F. (Commander British Forces) Garage	3 years
Q	Gort Block	20 years
R	Victoria Infants' School	Not Specified
S	Wavell House	5 years
T	Alexander Block	3 years
U	Rawlinson House	10 years
V	Squash Courts	Not Specified
W	Tennis Court	Not Specified
X	Victoria Junior School	7 years
Y	Kitchener Block	10 years
Z1	Birdwood Block	7 years
Z2	Cassels Block	7 years
AA	Victoria Barracks E Block	Not Specified
BB	Judo Club/ H.K.M.S.C. (Hong Kong Military Service Corps) Office	Not Specified
CC	Colvin House (Women's Royal Army Corps quarters)	Not Specified
DD	Freyberg Block (Officers Married Quarters)	20 years
EE	Garrison Officers' Mess	Not Specified
FF	Contractor's workshop P.W.D. Yards	Not Specified
GG	S.I.B. (Special Investigation Branch) Office	20 years
HH	Junior Ranks' Club, NAAFI Shop, Victoria Club, Medical Centre, Dental Centres, Swimming Pool	Not Specified
II	Post Office	Not Specified

In September 1977, the Committee submitted a report with a finalized land use zoning plan. With the input of public comments, the Committee was in favour of a public park and reserved much of the land for open space use. A portion of the area along Queensway would be redeveloped to government buildings and commercial facilities. The final proposal also preserved the wooded hillsides, mature trees and recommended to retain some existing buildings of historical interest, including Flagstaff House, Rawlinson House, Wavell House and E Block of Victoria Barracks.[64] In summary, fives lands uses were recommended in the final

[64] Victoria Barracks Planning Committee, 1977, p. 17-18.

proposal, which are: open space (79.2%), commercial (8.3%), government (6%), institutional and community (3%), and roads and pedestrian ways (3.5%) (Fig. 2.5.4).[65]

On 31 March 1979, the agreed area of Victoria Barracks was officially handed over to Hong Kong Government (Fig. 2.5.5). The historic British military establishment in the old Victoria Cantonment finally came to an end. At the end, the historic military structures of former Victoria Barracks that were preserved in the returned area are Flagstaff House as Museum of Tea Ware; Rawlinson House as a marriage registry; Wavell House as the park management office and education centre; and Cassels House as the Visual Arts Centre.

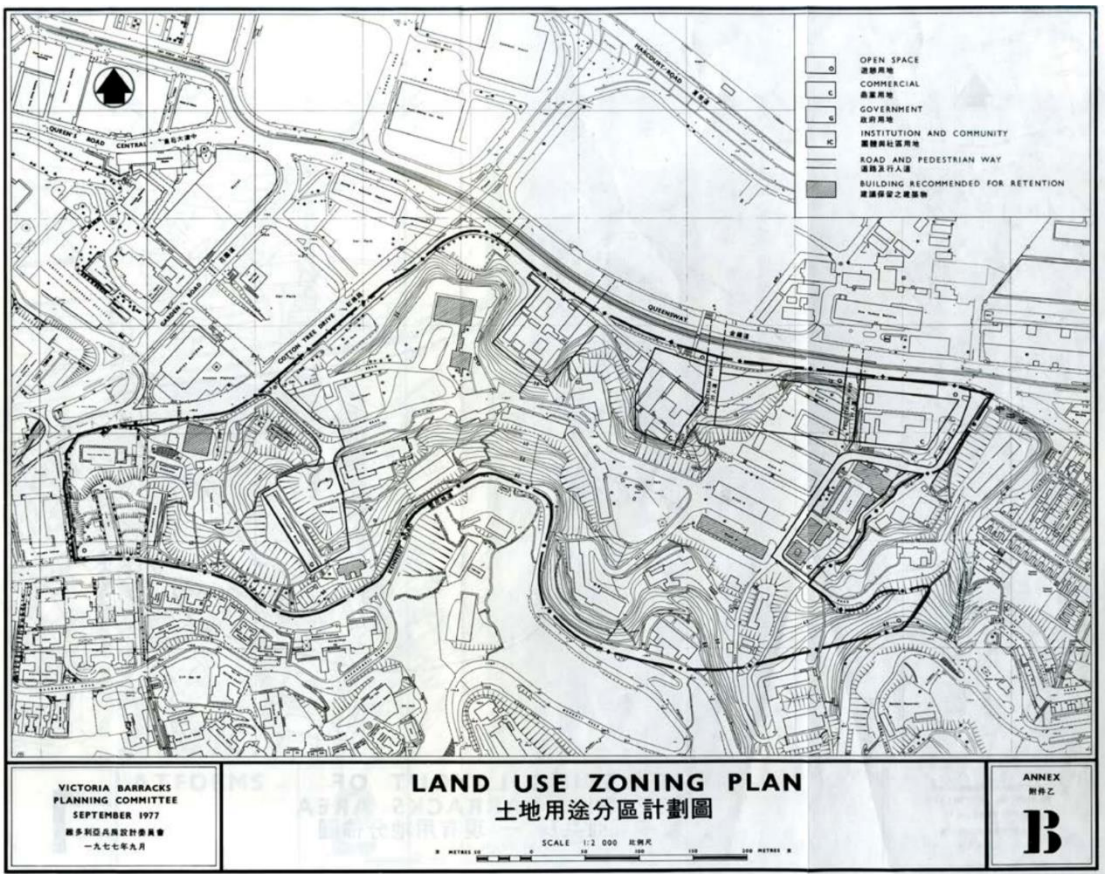


Fig. 2.5.4 Land use zoning plan of Victoria Barracks (Source: Victoria Barracks Planning Committee, 1977, Annex B)

[65] Victoria Barracks Planning Committee, 1977, p. 29.

Fig. 2.5.5 During the ceremony of removal of Headquarters British Forces from Victoria Barracks on 30 March 1979. (Source: Hong Kong Public Libraries)

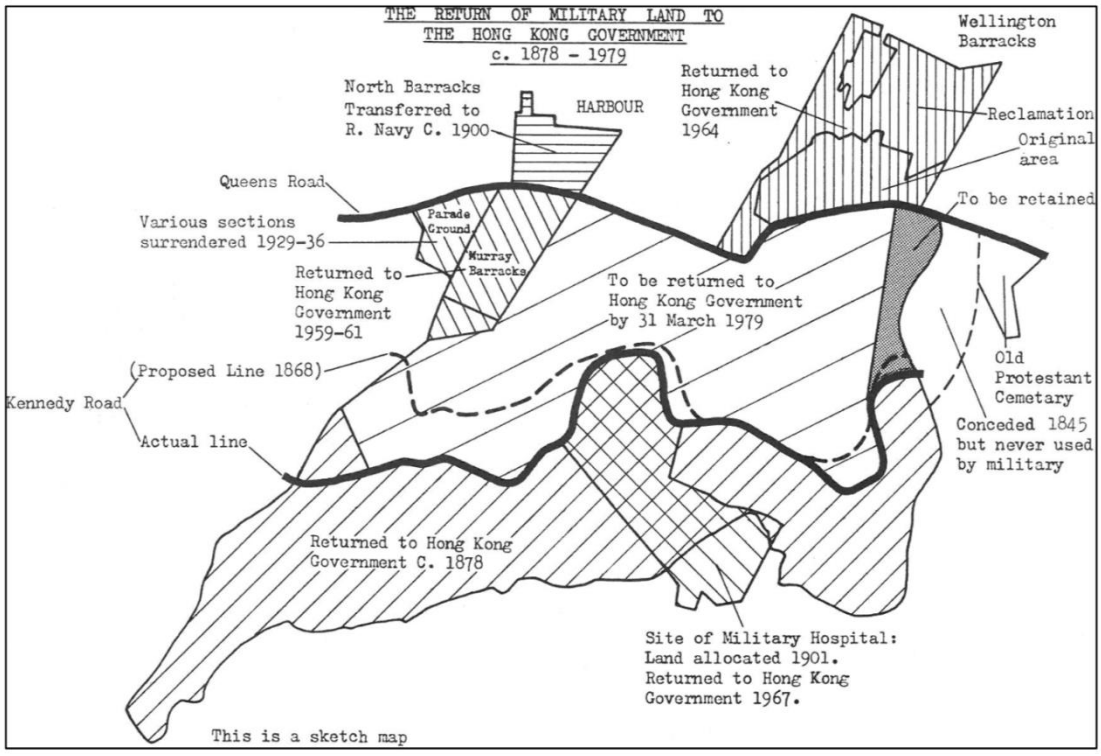


Fig. 2.5.6 Map summarizing the return of military land to the Hong Kong Government c. 1878 – 1979. (Source: Oxley 1979, p.131)

Fig. 2.5.7 Hong Kong Park in 1990s. ①Roberts Block is situated on the knoll above Hong Kong Park. (Source: Hong Kong Jockey Club, accessed September 26, 2020, http://130.hkjc.com/en/hkjc-130-story-sports-hkpark.aspx.)

2.5.3 Roberts Block as Jockey Club New Life Hostel

During the years of discussion on the redevelopment of W.D.L. No. 14, the married quarters remained in use. Following the return of the Bowen Road Military Hospital in 1967, the W.D.L No. 14 Married Quarters became the only military establishment south to Kennedy Road and continued to serve as married quarters. When the portion of Victoria Barracks north to Kennedy Road was also given back to the Hong Kong Government, all the associated military facilities, except a strip of land at Queen's Line (present-day Ching Yi To Barracks) to be retained by the military, were decommissioned in due course.

After a period of vacancy, the Hong Kong Government planned to temporarily allocate Roberts Block to Social Welfare Department for use in 1984 before the eventual redevelopment of the site.[66] In view of the shortage of residential rehabilitative services, the department proposed to set up a half-way house for ex-mental patients at Roberts Block. The proposal was, "[t]o set up an ordinary or special half way house. The building comprises three storeys and it is expected that around 12 inmates can be put on each floor level with ample space left for group activities. Adequate kitchen and toilets facilities will also be provided."

The pleasant, comfortable and serene environment of the quarters is believed to be beneficial to the rehabilitation of ex-mental patients, and the residence could also provide a supportive environment for them to maintain stable mental health.

[66] Public Records Office, File No.HKRS146-17-89, document no. 1.

Eventually, the site was handed over to New Life Psychiatric Rehabilitation Association for operation by 1986. The hostel, providing accommodation to 20 to 25 male and female residents, was the first mixed type of community residence. Single and double bedrooms are provided. It was noted that the location of Roberts Block offered a quiet and spacious living environment to relieve the stress and pressure of the inmates.[67]

The whole building, particularly the drainage, flooring and lighting needed to be fitted out to accommodate the new function. Simon Kwan & Associates was appointed to undertake the renovation work.[68]

In 1988, Jockey Club New Life Hostel was established at Roberts Block. It was also the Association's first self-financed supported hostel.[69] The hostel provided accommodation for people in recovery of mental illness at an affordable price.

In 2011, Residential Care Homes (Persons with Disabilities) Ordinance came into effect. The Ordinance regulates residential care homes by a licensing system. As Roberts Block received Grade 1 Historic Building status in 2009, it increased the difficulty in modifying the building to fulfill the licensing requirements and standards on fire service and building safety. As the hostel is unable to carry out the required improvement works, its service terminated on 18 May 2013.[70] Roberts Block was left vacant since then and managed under Government Property Agency.

[67] Public Records Office, File No.HKRS146-17-89, tenancy agreement relating to Roberts Block.
[68] *Ibid.*
[69] New Life Psychiatric Rehabilitation Association, "Residential Services," accessed January 25, 2021, https://www.nlpra.org.hk/doc/service_review/Service_Milestones.pdf.
[70] New Life Psychiatric Rehabilitation Association. "Annual Report 2012/2013," accessed 7 October 2020, https://www.nlpra.org.hk/doc/annual_report/2013/049-117_2013.pdf.

Fig. 2.5.8 Roberts Block in 1997. (Source: AMO unpublished documents)

2.6 Progression of the Victoria Cantonment Area

This section traces and illustrates a chronological overview of the development of the military establishments in the former Victoria Cantonment area (present-day Admiralty) from the mid-19th century to the late 20th century through a series of historical maps. A focus will be put on the expansion and contraction of the Army military lands and major development phrases within Victoria Barracks in relation to Roberts Block.

Remarks:
W.D.L. stands for War Department Lot.
The demarcation of military lands on the map should not be taken as the exact boundary.
The site of Roberts Block is indicated as a yellow dot/ highlighted in yellow for easy reference.

1853

Fig. 2.6.1 Plan of the Cantonment of Victoria, 1853. (Source: The National Archives of the United Kingdom, MPG 1/1155/1)

In 1840s, the military lands went through a rapid development.[71] By 1853, the military establishments in Victoria Cantonment comprised of ①Murray Battery, ②Murray Barracks, ③North Barracks, ④Headquarter House, ⑤Wellington Battery, ⑥Military Hospital, ⑦Arsenal Yard, ⑧Ordnance Store, ⑨Native Hospital and ⑩Magazines.

[71] Cummer, p.90.

1869

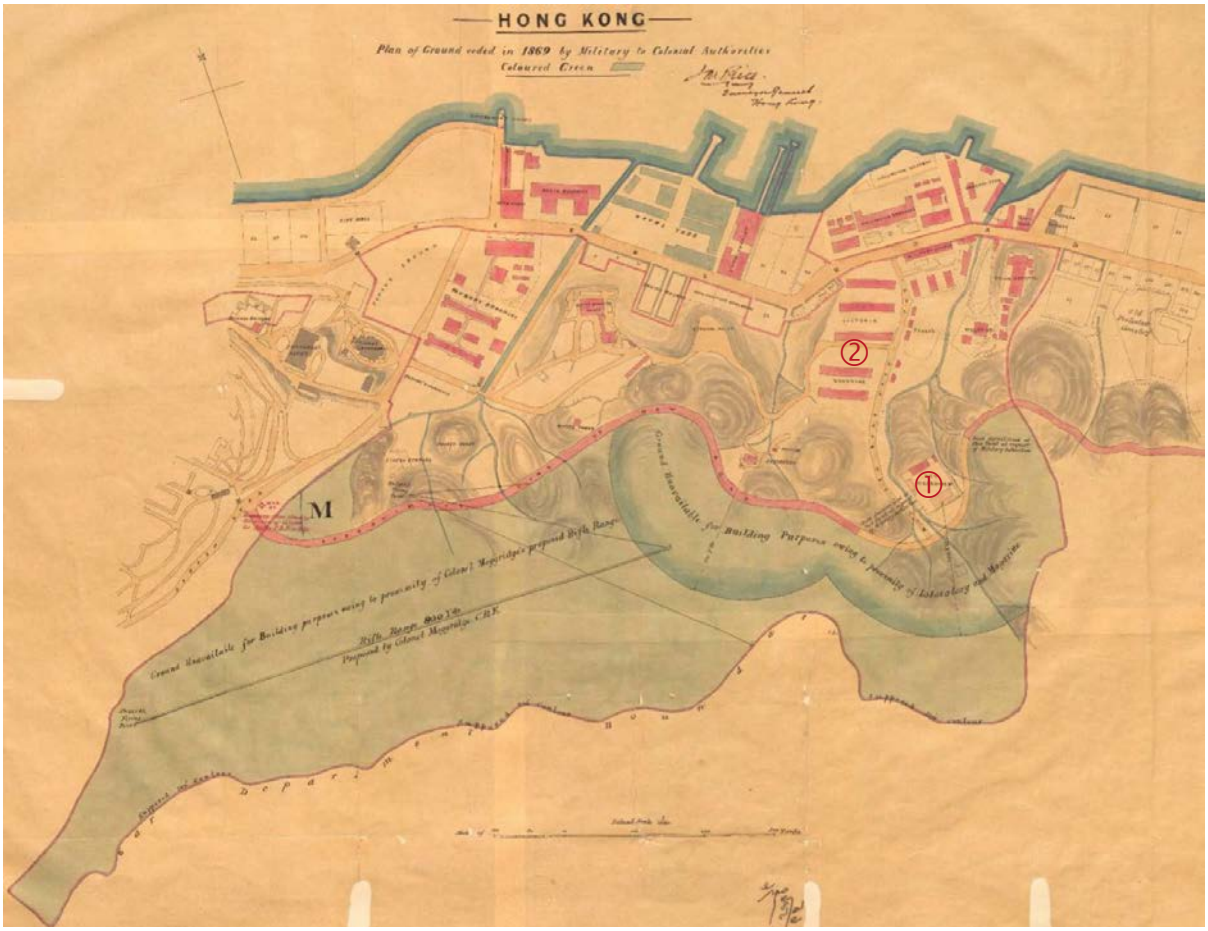


Fig. 2.6.2 Plan of the Cantonment of Victoria, 1869. (Source: The National Archives of the United Kingdom, MPG 1/1155/3)

By 1869, a new ①Powder Magazine (later known as Explosives Magazine) and Victoria Barracks were the recent additions to the Victoria Cantonment area. Between 1868 and 1869, ②five blocks of Victoria Barracks (i.e. A to E Blocks) were completed near the Ordnance Store. The military properties were shaded in pink while the extent of military land was outlined in pink on the map. The area shaded in green was the proposed portion of military land to be returned to Hong Kong Government.

1882

Fig. 2.6.3 Plan of City of Victoria Cantonment, 1882. (Source: The National Archives, WO78/3204)

In 1878, with the dispute over the alignment of Kennedy Road (red arrow) resolved, military lands south to Kennedy Road was returned to Hong Kong Government.[72] Kennedy Road marked the southern boundary of the military lands.

[72] Oxley, 1979, p. 127.

1882

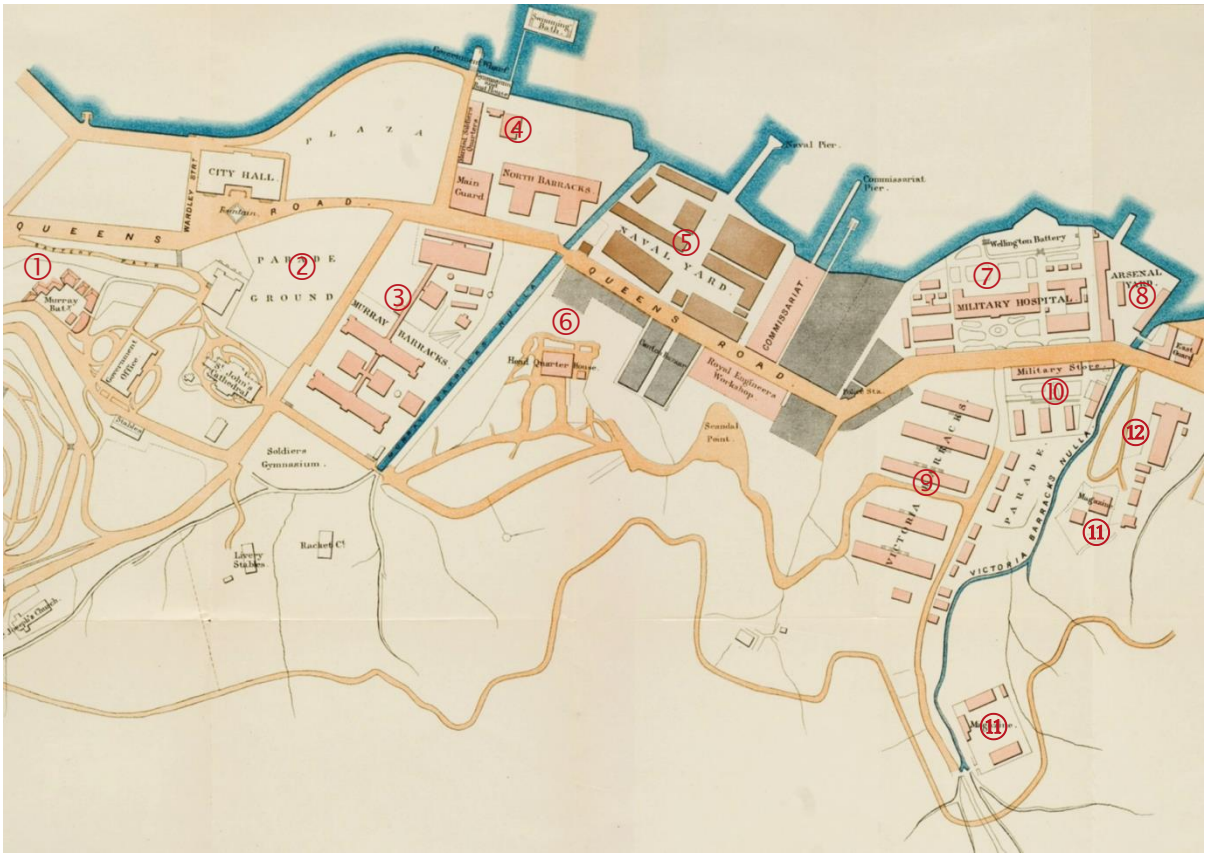


Fig. 2.6.4 Plan of Victoria Cantonment, 1882. (Source: Collection of Wattis Fine Arts)

This map shows the major military establishments in the Victoria Cantonment area in 1882: ①Murray Battery, ②Parade Ground, ③Murray Barracks, ④North Barracks, ⑤Naval Yard, ⑥Head Quarter House (Flagstaff House), ⑦Wellington Barracks (with Military Hospital and Wellington Battery), ⑧Arsenal Yard, ⑨Victoria Barracks A to E Blocks, ⑩Ordnance Store, ⑪ Magazines and ⑫Native Hospital.

1899

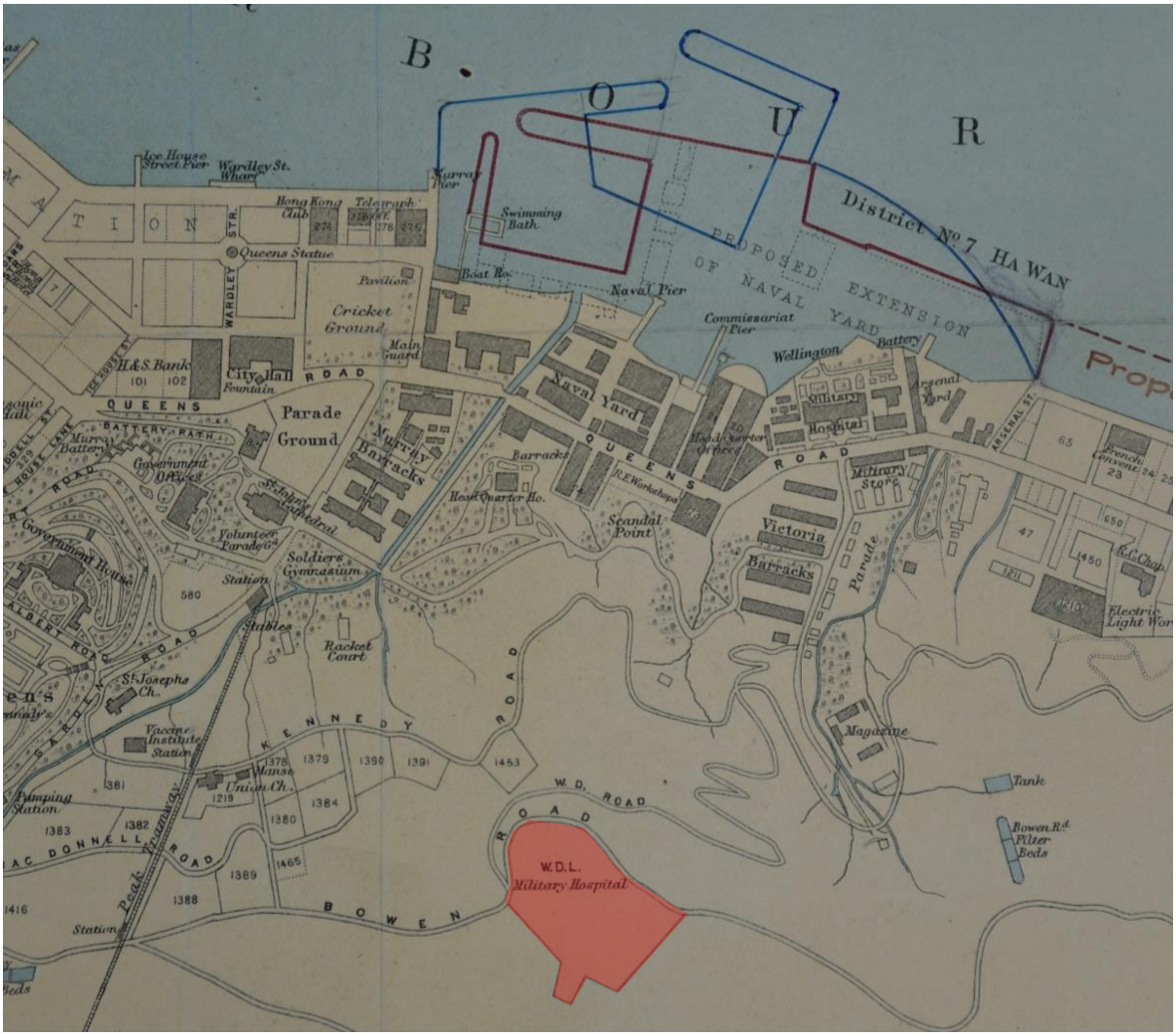


Fig. 2.6.5 City of Victoria Cantonment, 1899. (Source: The National Archives, MFQ1/53/1)

Along the coast, North Barracks and some parts of the Wellington Barracks were absorbed by the Navy. A new site above Bowen Road was reserved for "W.D.L. Military Hospital." The site is later known as W.D.L. No. 7, where the Bowen Road Military Hospital was located.

1922

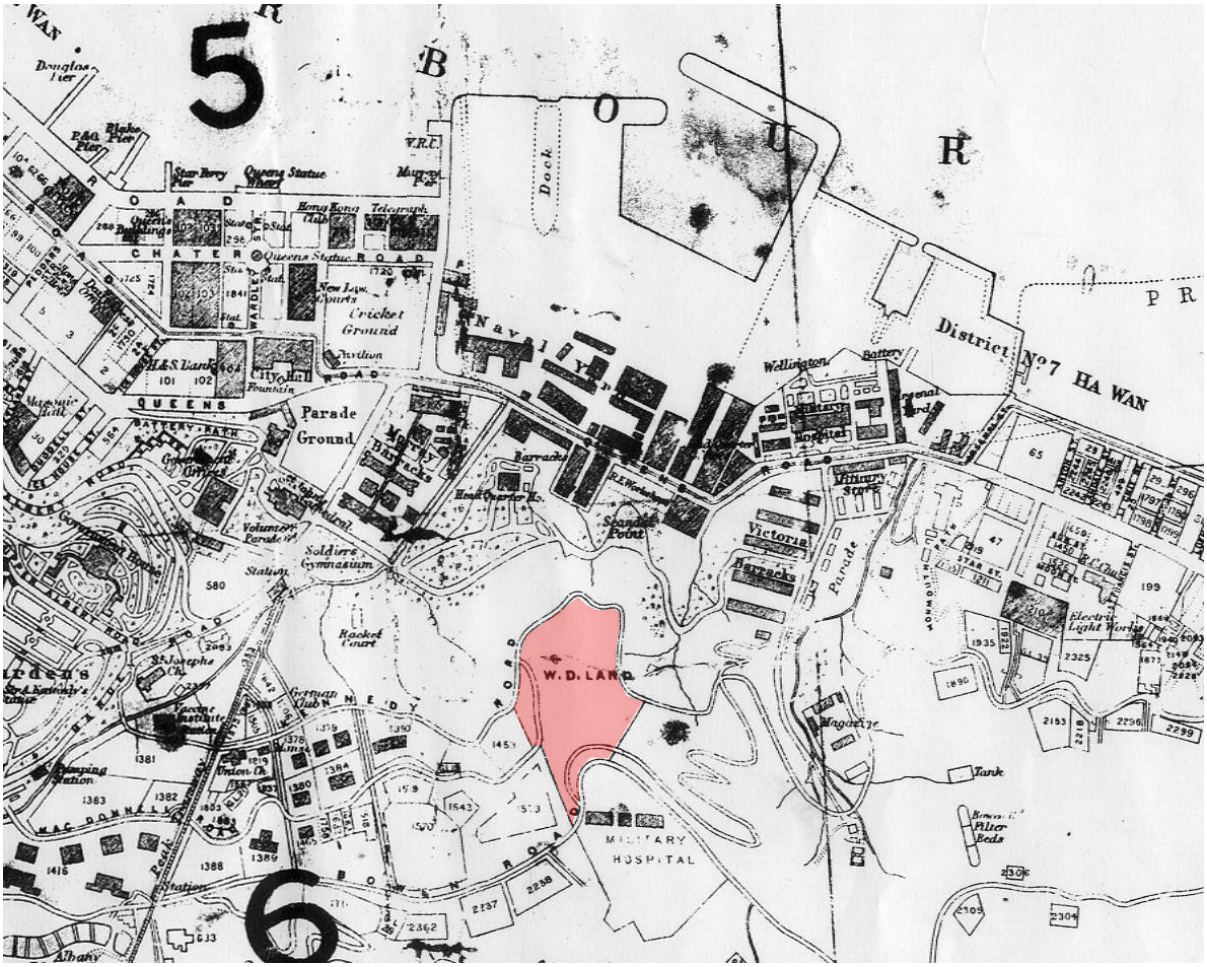


Fig. 2.6.6 Map of 1922. [Source: Survey and Mapping Office, HD34 (Ed 1922)]

A new site between Bowen and Kennedy Roads was allocated to the Army in 1907. The site was W.D.L. No. 14, where Roberts Block was constructed.[73]

On the western portion of the military land, Murray Battery was decommissioned by the 1920s.

[73] Note that Roberts Block and other married quarters which were completed in the 1900s were not shown on the map. There was possibly a delay in survey.

1936

Fig. 2.6.7 Map of 1936. (Source: Survey and Mapping Office, HG34-3)

A phrase of development took place within Victoria Cantonment area on W.D.L. Nos. 6 and 14 (outlined in red) in the 1900s. The constructions included 7 blocks of married quarters (including ①A Block, ②B Block, ③C Block, ④D Block, ⑤E Block, ⑥AOD Foremen's Married Quarters, ⑦ Warrant Officers' Quarters 1 and 2, and ⑧Warrant Officers' Quarters 3 and 4, and ⑨an adult school with ⑩school master's and mistress' quarters. These new additions were highlighted on the map.

1945

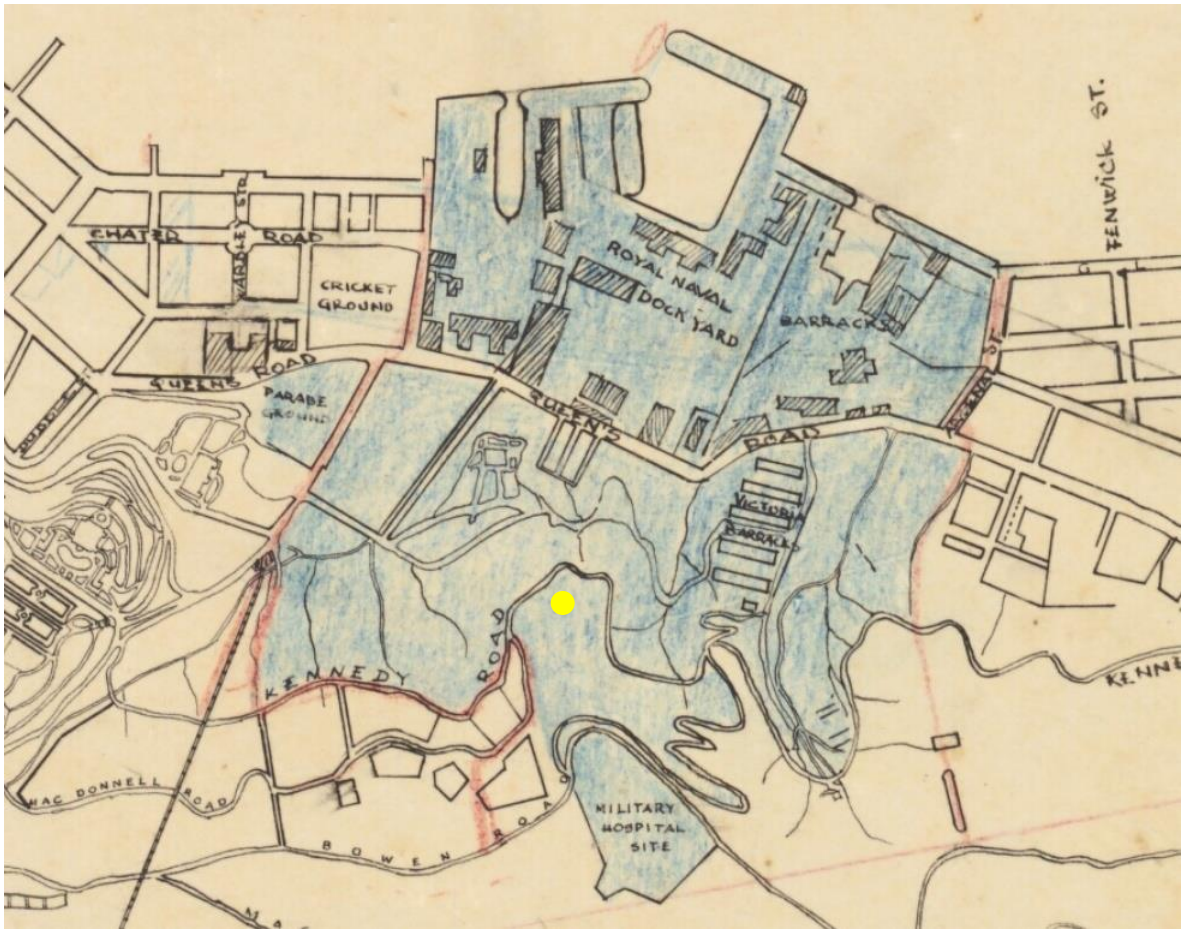


Fig. 2.8 Map of Hong Kong, 1945. (Source: Ip, C. H. 1945, National Library of Australia, https://nla.gov.au/nla.obj-229842312/.)

The military land occupied by the Army and Navy was highlighted in blue on the map. The extent of the military establishments in the area remained the same as before the war.

1957

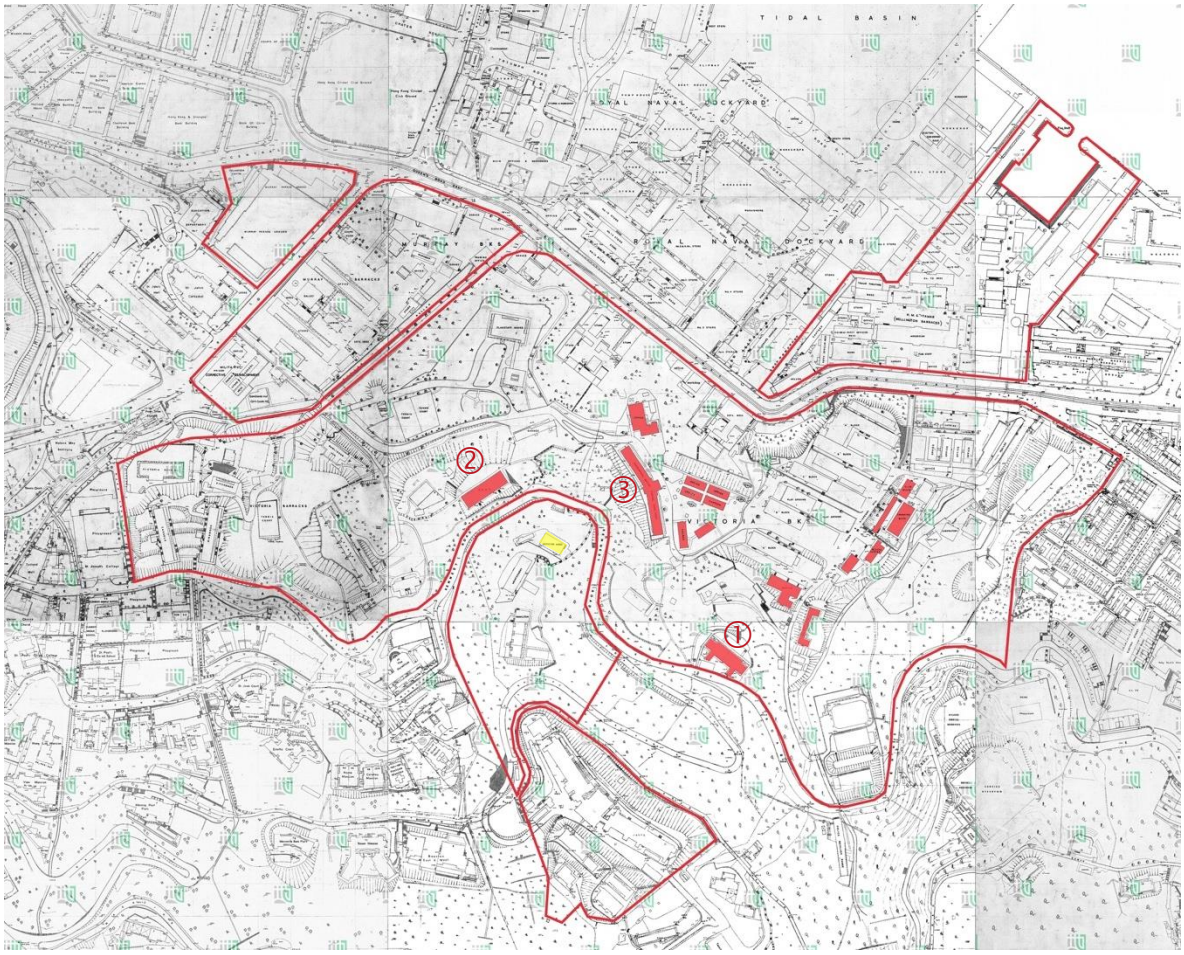


Fig. 2.6.9 Map of 1957. (Source: Survey and Mapping Office)

Military lands occupied by the Army in Victoria Cantonment area are outlined in red.

Within Victoria Barracks, a number of new buildings were constructed as compared to the map of 1936. These included two blocks of married quarters, ① Freyberg Block (1931) and ② Gort Block (1937), ③Headquarters British Forces Building (1937), a number of office buildings and the soldiers' club houses.

1968

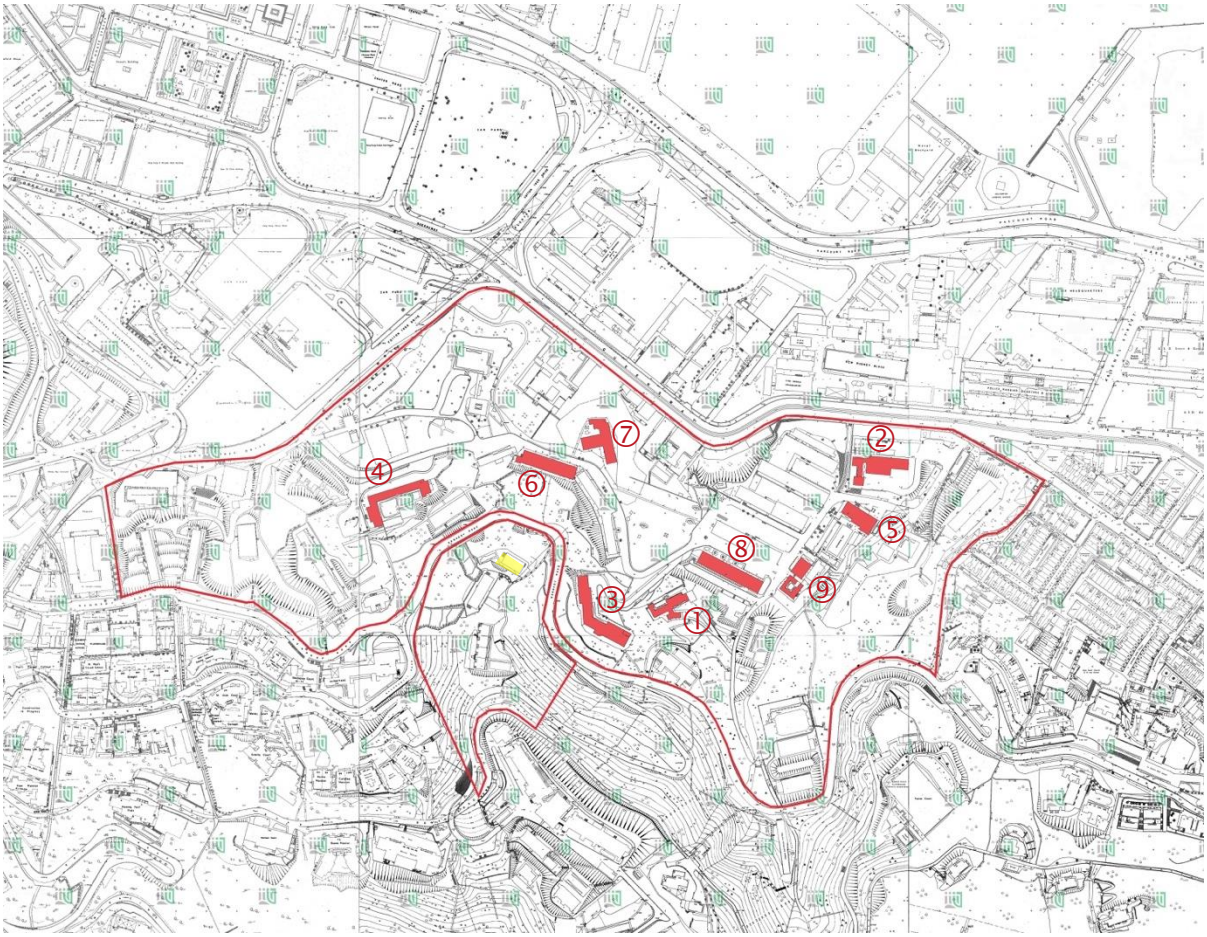


Fig. 2.6.10 Map of 1968 (Source: Survey and Mapping Office)

By 1968, Murray Barracks with parade ground, Wellington Barracks and Bowen Road Military Hospital were returned to the Hong Kong Government. Victoria Barracks (including W.D.L. No.14 Married Quarters) was the only remaining military establishment in the area.

Within Victoria Barracks, a number of new buildings were constructed. They are ① Colvin House (1959), ② Royal Electrical and Mechanical Engineers (REME) Workshops (1960), ③ Garrison Officers' Mess, ④Victoria Infants School (1963), ⑤ NAAFI's new Victoria Club (1963), ⑥ New Headquarters British Forces Building (1963), ⑦ Communications Centre (also known as Signal Centre, 1963), ⑧ new E Block of Victoria Barracks (1965), and ⑨ Medical and Dental Centres (1965).

1976

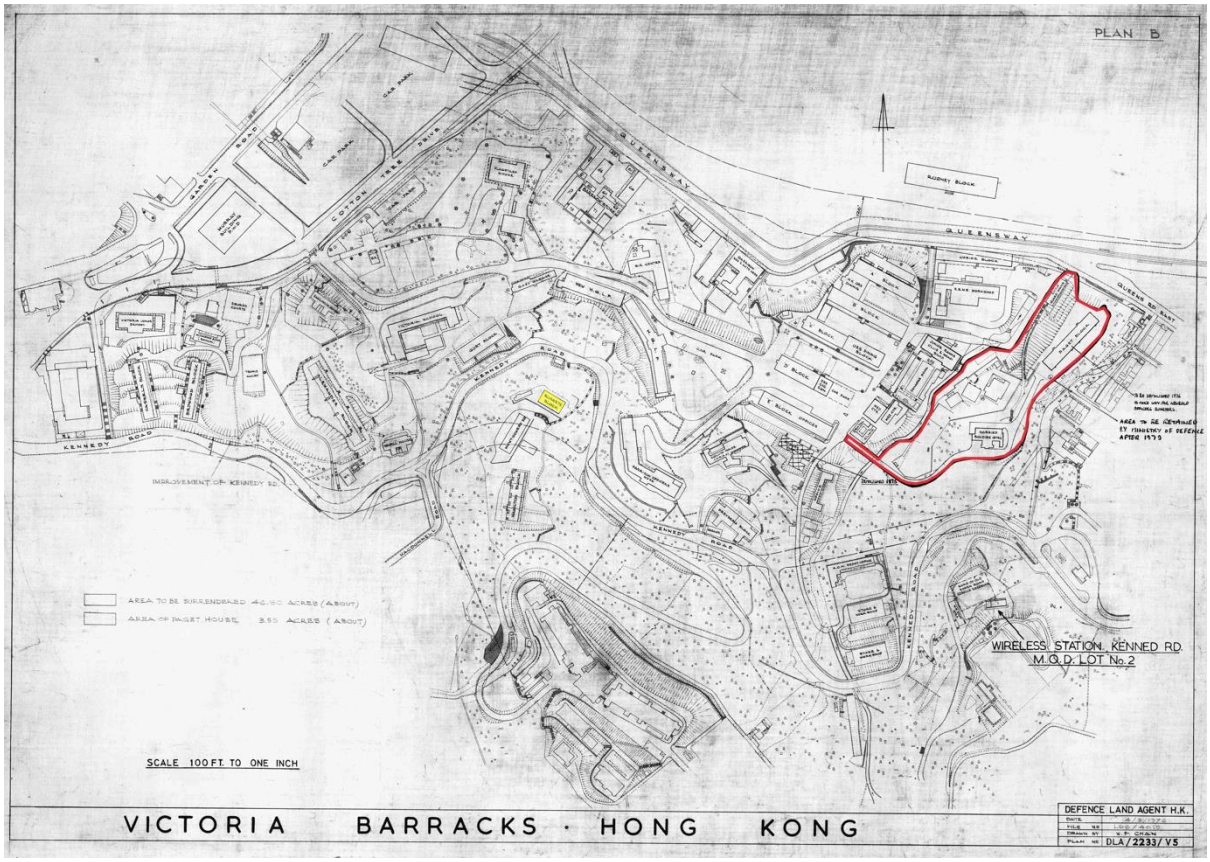


Fig. 2.6.11 Map of Victoria Barracks, 1976. (Source: Public Records Office, PRO - MM-0115)

Victoria Barracks will be returned to the Hong Kong Government in 1979. The area outlined in red would be retained by the Army after 1979. The area was known as "Queen's Line" (present-day Ching Yi To Barracks).

1992

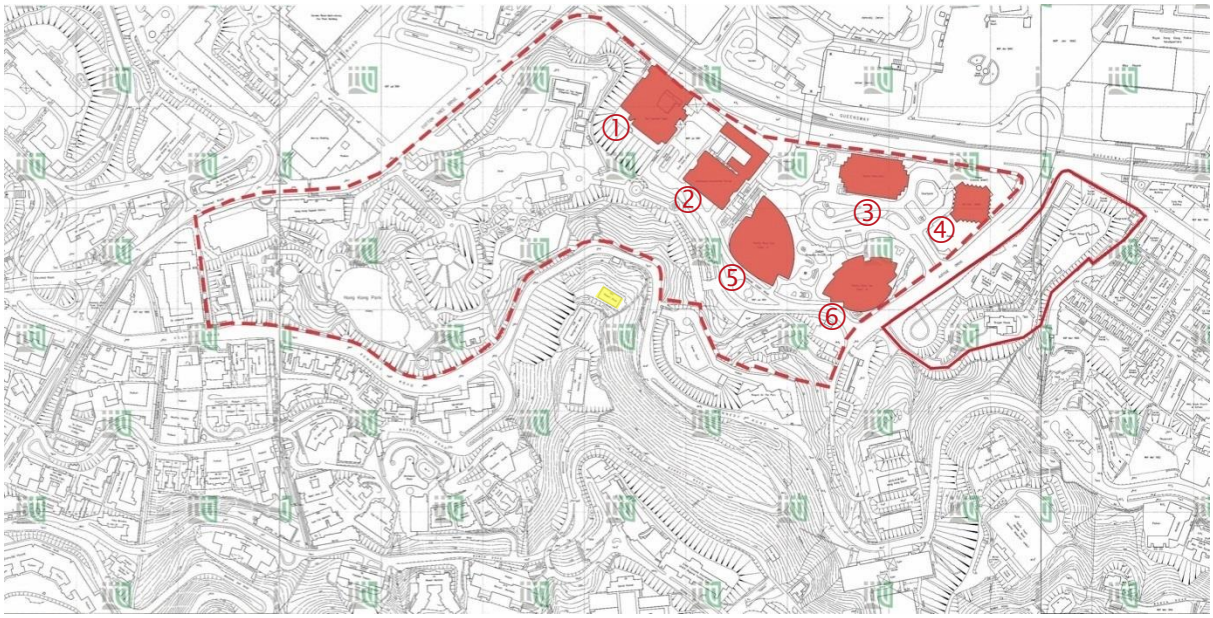


Fig. 2.6.12 Map of 1992 (Source: Survey and Mapping Office)

The former site of Victoria Barracks was redeveloped into a mixed-use area comprising of open spaces, government offices and commercial developments (outlined in red dotted line). The western portion is converted into Hong Kong Park while the eastern part was where ①High Court Building (1985), ② Queensway Government Offices (1985-86), ③Pacific Place Phase 1 (1988) and Phase 2 (1991), ④JW Marriot Hotel (1989), ⑤Island Shangri-La Hotel (1991) and ⑥Conrad Hong Kong Hotel (1991) now stand. "Queen's Line" (present-day Ching Yi To Barracks) was the only area retained by the Army (outline in red solid line).

2.7 Alteration and Addition to Roberts Block

Year	Alteration and Addition	Source
1913	This is the earliest building record of Roberts Block. Roberts Block was a three-storey rectangular block with a one-storey outhouse as boys' quarters.	The National Archives, file no. MPHH 1/390/1-2. (Fig. 2.2.8)
1913-1960	Alteration to interior layout: • Wall partitions were added to the rear verandahs on all three floors to create additional rooms. • The two bedrooms in the middle on 2/F were combined into a larger sitting room.	"Roberts Block as Existing," drawing no. PWOLF/4202 (11-4-1960), Principal Works Officer Land Forces. (Fig.2.7.5)
1938-1945	The pitched roof of Roberts Block was converted into a flat roof.	Photo of 1945, Hong Kong Public Libraries, https://mmis.hkpl.gov.hk///c/portal/cover?c=QF757YsWv59JUcUoLpFJoTcsJFN3n1XM. (Fig.2.7.1& Fig.2.7.2)
1936-1956	The boys' quarters of Roberts Block was enlarged/ reconstructed to an elongated rectangular block.	Survey and Mapping Office, sheet no. 196-SW-16 (Ed 1957-01). (Fig.2.7.3& Fig.2.7.4)
1960-66	The original facing red brick walls of the side and rear elevations were painted white.	Photo of 1966, Malcolm Peaker from Flickr, https://www.flickr.com/photos/16609079@N04/16011295046/in/album-72157649783542291/. (Fig. 2.7.6)
1960-68	An external staircase for fire escape was added outside the west elevation of Roberts Block.	Survey and Mapping Office, sheet no. 196-SW-16 (Ed 1968-07) (Fig. 2.7.7)
1960-84	Alteration to interior layout: • Wall partitions in the rear verandahs were rearranged.	"Hamilton Block, Montgomery Block & Roberts Block (Ex. Military Quarters in Victoria Barracks) Site Plan and Floor Plans," drawing no. AOM/6171 (3-5-1984), Public Works Department. (Fig. 2.7.8)
1978	The servant quarters (originally boys' quarters) of Roberts Block was demolished under a Public Works Department contract of 1977.	Public Records Office, HKRS588-3-34, document no. 54B.
1986	The whole building was fitted out and renovated to accommodate the new use as a hostel for ex-mental patients. Proposed renovation works included: • General building works (including dismantling of existing wall	Public Records Office, HKRS146-17-89, preliminary cost estimate of renovation works to Robert Block (July 9, 1986).

Year	Alteration and Addition	Source
	partition, bricklaying, roof repairing, carpentry, replacement of floor tiles, painting works, ironmongery and glazier) • Plumbing and drainage works (including installation of shower tray water closet, lavatories, etc. and new pipe works) • Electrical works • Fire services works Note: No available records can be found to ascertain the completion of the proposed works.	

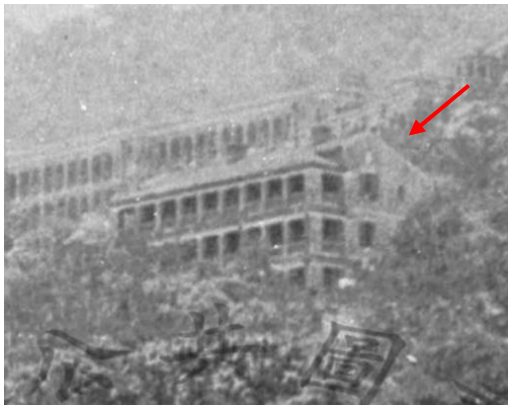


Fig. 2.7.1 Circa 1930 photo showing the pitched roof of Roberts Block. (Source: Hong Kong Public Libraries.)

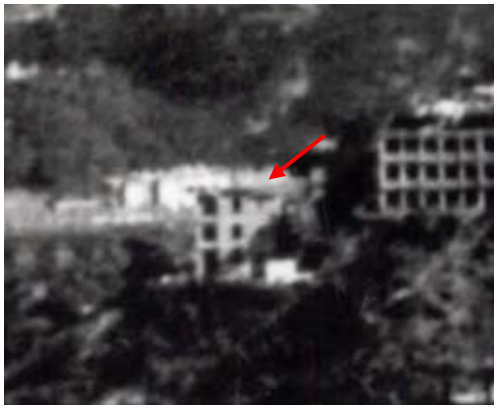


Fig. 2.7.2 1945 photo showing the pitched roof of Roberts Block had been converted to a flat roof. (Source: Hong Kong Public Libraries.)

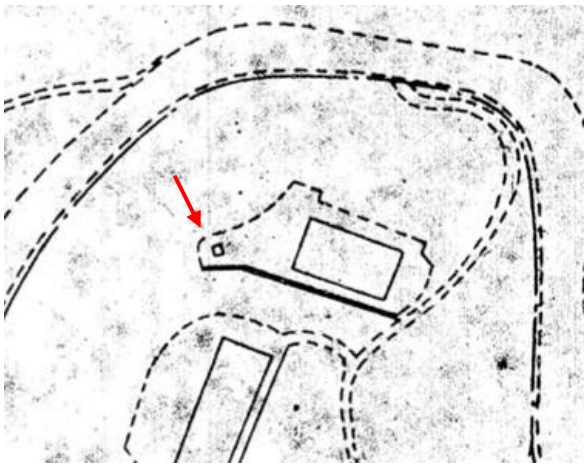


Fig. 2.7.3 Survey map of 1936 showing the small rectangular block of boys' quarters. (Source: Survey and Mapping Office, HG34-3)

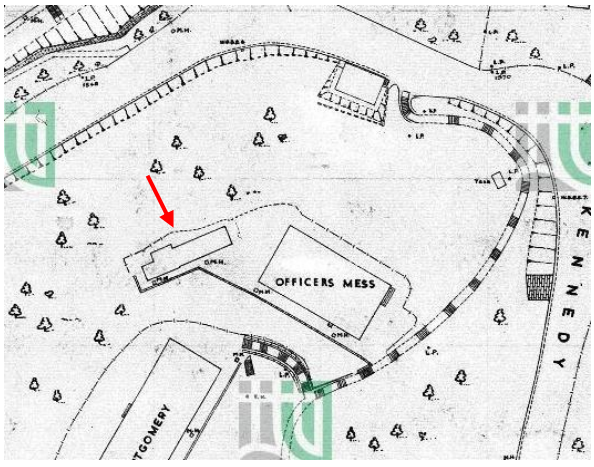


Fig. 2.7.4 Survey map of 1957 showing the elongated rectangular block of boys' quarters. [Source: Survey and Mapping Office, sheet no. 196-SW-16 (Ed 1957-01).]

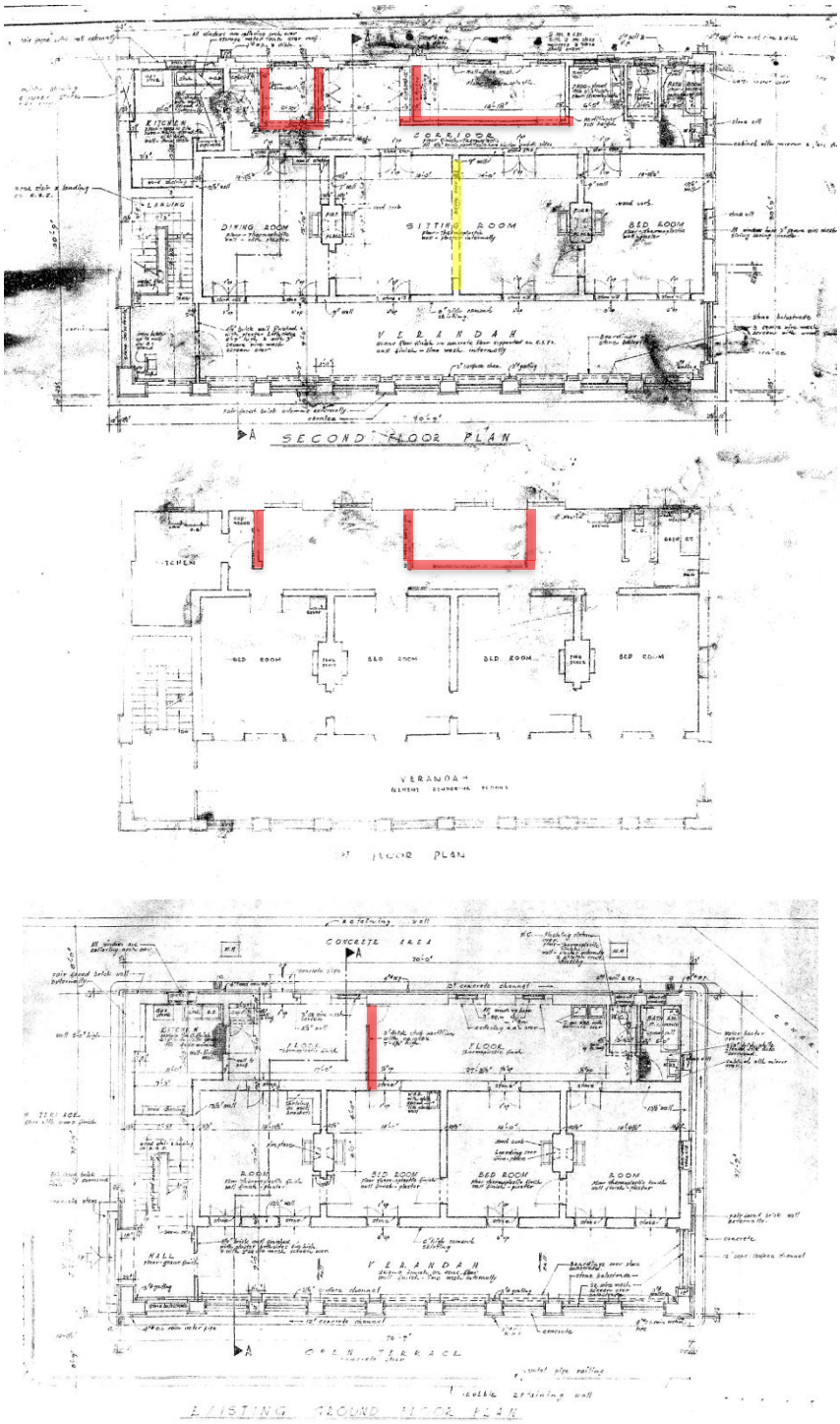


Fig. 2.7.5 1960 floor plan showing the new partitions at the rear verandah on G/F, 1/F and 2/F (from bottom to top) and the new sitting room on 2/F by combining two bedrooms. With comparison to the record plans in 1913, new additions (in red) and demolished works (in yellow) are identified (Source: Drawing no. PWOLF/4202 (11-4-1960), Principal Works Officer Land Forces.)

Fig. 2.7.6 1966 photo showing the external walls of the side and rear elevations were painted white. (Source: Malcolm Peaker from Flickr)

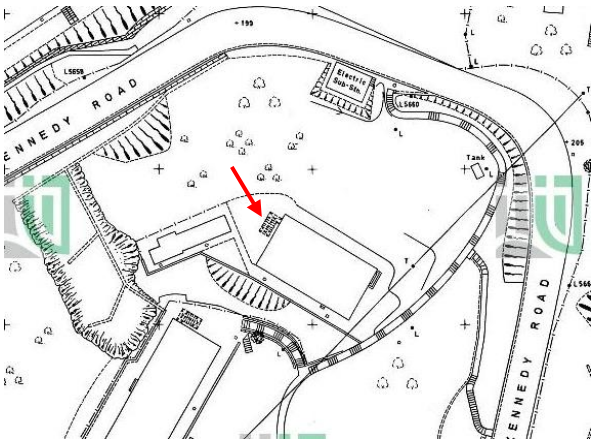


Fig. 2.7.7 Survey map of 1968 showing the new external staircase. [Survey and Mapping Office, sheet no. 196-SW-16 (Ed 1968-07)]

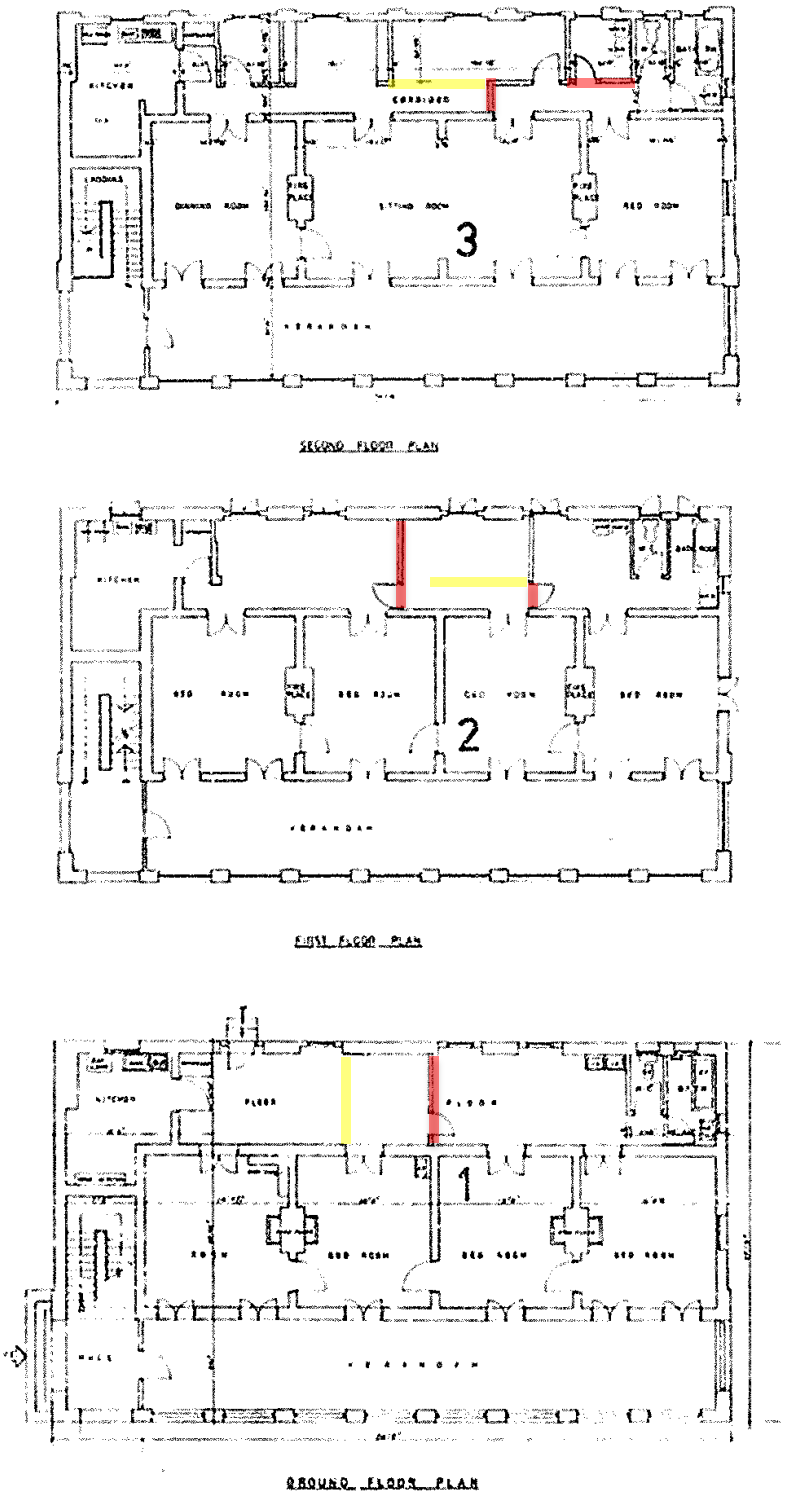


Fig. 2.7.8 1984 floor plan showing alterations to partitions at the rear verandah on G/F, 1/F and 2/F (from bottom to top). With comparison to the record plans in 1960, new additions (in red) and demolished works (in yellow) are identified. (Source: Drawing no. AOM/6171 (3-5-1984), Public Works Department.)

2.8 Brief Timeline of Roberts Block

Major events in Victoria Cantonment area	Year	Major developments of Roberts Block
The Victoria Cantonment area went through a rapid and extensive development. Military establishments such as Murray Battery, Murray Barracks, North Barracks, Headquarter House and Wellington Battery were completed.	**1840s**	
Victoria Barracks Blocks A to E were constructed.	**1868-69**	
Military land south to Kennedy Road was returned to the Hong Kong Government.	**1878**	
To alleviate the quartering shortage, nine blocks of married quarters were constructed along Kennedy Road.	**1900s**	
War Department Lot (W.D.L.) No. 7 above Bowen Road was allocated to the Army for construction of a military hospital.	**1901**	
Bowen Road Military Hospital was officially opened.	**1907**	W.D.L. No. 14 between Kennedy and Bowen Roads was allocated to the Army for construction of married quarters.
	1907-10	Married Quarters E Block (i.e. Roberts Block) and AOD Foremen's Married Quarters (i.e. Montgomery Block) were constructed on W.D.L. No. 14.
	1913-60	The interior layout of Roberts Block was altered to provide additional rooms.
	1938-45	The pitched roof of Roberts Block was converted into a flat roof.

Major events in Victoria Cantonment area	Year	Major developments of Roberts Block
Victoria Barracks was occupied by the Japanese troops and became home to the Japanese Headquarters	**1941-45**	
Pre-war married quarters in Victoria Barracks were renamed after British Army officers.	**1950s**	Married Quarters E Block was renamed Roberts Block after Major General George Philip Bradley Roberts. Roberts Block served as Women's Royal Army Corps (WRAC) officers' mess and resumed its function as married quarters.
Pre-war married quarters in Victoria Barracks were modernized and repaired.	**1951**	
Murray Barracks was returned to Hong Kong Government.	**1959-61**	
With the vacation of Murray Barracks, a new construction phase took place in Victoria Barracks. This included the completion of new office buildings, quarters and welfare facilities.	**1960s**	
	1960s-70s	Development schemes that would affect W.D.L. No. 14 were proposed. Reprovisioning of the married quarters was also discussed. However, the proposals were not materialized at the end.
	1960-68	An external staircase was added outside the west elevation of Roberts Block.
	1960-84	The interior layout of Roberts Block was rearranged.
Wellington Barracks was returned to Hong Kong Government.	**1964**	

Major events in Victoria Cantonment area	Year	Major developments of Roberts Block
The site of Bowen Road Military Hospital was returned to Hong Kong Government.	**1967**	
Hong Kong Government and British Government entered into a new Defence Costs agreement, which included in its term the surrender of Victoria Barracks.	**1976**	
Victoria Barracks was returned to Hong Kong Government on 31 March 1979. Queen's Line, a strip of land on the eastern part was retained by the Army.	**1979**	
	Early 1980s	Roberts Block was left vacant.
	1984	The Government planned to allocate Roberts Block to Social Welfare Department for use as a hostel for ex-mental patients.
	1986	Roberts Block was handed over to New Life Psychiatric Rehabilitation Association. The building was fitted out and renovated to accommodate its new use as a hostel for ex-mental patients.
	1988	Jockey Club New Life Hostel was established at Roberts Block.
Hong Kong Park was opened on the northern part of former Victoria Barracks.	**1991**	
	2013	The hostel service at Roberts Block ceded operation. Roberts Block was returned to Hong Kong Government.

3

ARCHITECTURE

Roberts Block was built between 1907-1910 to serve as the Army Married Quarters in Victoria Barracks. With the British colonial influence in the 20th century, Roberts block demonstrates Edwardian Classical Revival style which is characterized by simple balanced designs, uncomplicated ornaments, and brick façades. It was a remarkable transition period from the past extravagant decorations to the humbler appearance in architecture.

3.1 The Site Context

3.1.1 Location

Roberts Block is located on 42A Kennedy Road, in the Old Victoria Barracks, on the south boundary of today's Hong Kong Park. Kennedy Road is situated at Mid-Levels extended from Upper Albert Road (near Government House) to Queen's Road East (near Wah Yan College Hong Kong). The slope steeps down towards the north, east and west, and up towards the south. The building is fully surrounded by natural vegetation.

3.1.2 The Old Victoria Barracks

As discussed in Chapter 2, the Old Victoria Barracks was an accumulative development from the establishment of the colonial Hong Kong till the decommissioning of the military land in 1979. It once housed more than 40 buildings before its decommissioning and showcased military architecture in different eras.

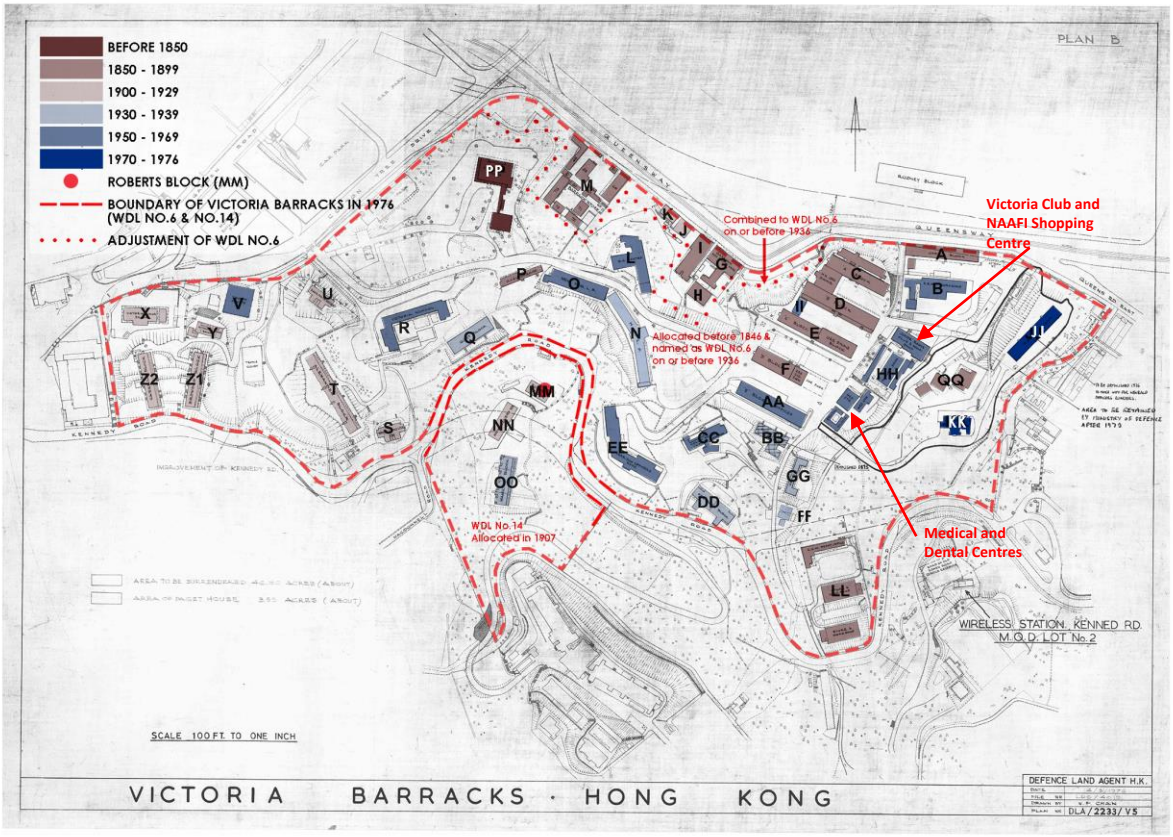


Fig. 3.1.1 Map of 1976 with index number indicating major military establishments in Victoria Barracks. Names of buildings refer to Tables 3.1.1-3.1.5 (Source: Public Records Office, PRO-MM-0115, edited by Author)

The following development sequence is observed:

<u>Before 1850s</u>

Flagstaff House, built in 1846, was the first building landing onto this military land. It was of Greek-Revival style with the introduction of veranda for climatic adaptation. The presence of decorative Tuscan and Ionic Orders in a military building spoke for the important status of the building.

It strategically sat on an uphill to the south of Queen's Road to oversee Murray Barracks and its parade ground to its west, North Barracks and Naval Yard to its north as well as the Victoria Harbour to its further north, which was the boundary of the Colonial Hong Kong by that time.

Building	Built Year	Photo	Index showed in Fig. 3.1.1
Before the 1850s			
*Flagstaff House	1846[74]	Photo of 1978. (Source: Oxley, 1979.)	PP

Table 3.1.1 Buildings in Victoria Barracks built before the 1850s (* = building still exists nowadays)

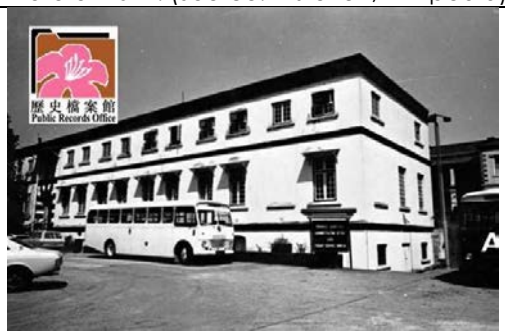
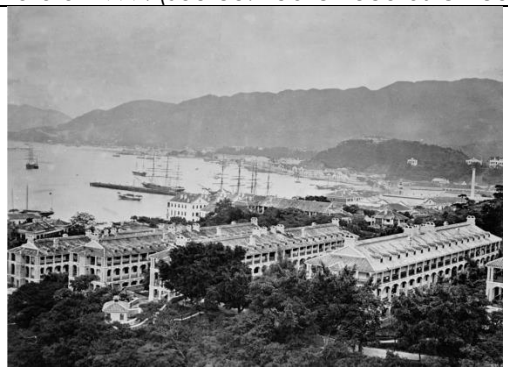
1850s-1890s

Strictly following the completion of the Flagstaff House, barracks, mess and supporting facilities appeared to the east of Flagstaff House, including Victoria Barracks Blocks A to E. Except Victoria Barracks Blocks A to E which were heavily verandaed and showed some elements of Classical Revival, most of the other buildings were of simple and functional early colonial design.

It is worth-noting that, though during this period the War Department lot extended from Queen's Road towards a large piece of land to the south (which later reduced and bounded by Kennedy Road on its south in 1878), the building clusters mostly grew in the northern half of the lot and along an east-west run road inside the Victoria Barracks and a north-south run road next to Blocks A to E (see Fig. 2.6.3). The only buildings located near the south boundary were Laboratory and Magazine, which were meant to be isolated due to safety reason.

Building	**Built Year**	**Photo**	**Index showed in Fig. 3.1.1**
1850s-1890s			
Magazine Store and Office	Before 1853[75]	Photo of 1963. (Source: Survey and Mapping Office, photo no. 1963-7969)	QQ

[74] "Declared Monuments in Hong Kong: Flagstaff House, Cotton Tree Drive, Central," accessed January 13, 2021, https://www.amo.gov.hk/en/monuments_36.php.
[75] The National Archives of the United Kingdom, MPG 1/1155/1.

Stables of Head Quarter House (later Commander British Forces Garage)	1853-1868[76]	 Photo of 1978.(Source: Oxley, 1979.)	P
*Old Laboratory of Explosives Magazine site (later A.O.M Depot Office)	1860s[77]	 Photo of 2012. (Source: Tksteven, Wikipedia)	LL
Office Block/ Block Six	1860s[78] (renovated over time)	 Photo of 1977. (Source: Public Records Office)	A
Victoria Barracks A to D Blocks	1868-1869	 Photo of 1870. (Source: Hong Kong Public Libraries.)	C, D, E, F

[76] The National Archives of the United Kingdom, MPG 1/1155/1 and MPG 1/1155/2.
[77] Lung, David P.Y., DiStefano, Lynne D., and Mak, Lawrence C.K.. Specialist conversation survey former explosives magazine, Victoria Barracks. Hong Kong: Architectural Services Department. 1999.
[78] The National Archives of the United Kingdom, MPG 1/1155/1 and MPG 1/1155/2.

E Block (later Garrison Warrant Officers and Sergeants' Mess)	Before 1897[79]	 Photo of 1977. (Source: Hong Kong Public Libraries.)	G
Field Works Store (later Servant's Quarters)	Before 1894[80]	 Photo of 1963. (Source: Survey and Mapping Office, photo no. 1963-7969)	H
G Block (later Union Jack Club)	Before 1894[81]	 Photo of 1977. (Source: Public Records Office)	I
Barracks Store	Before 1894[82]		M

[79] The National Archives of the United Kingdom, WO 78/6009.
[80] The National Archives of the United Kingdom, WO 78/6009.
[81] The National Archives of the United Kingdom, WO 78/6009.
[82] The National Archives of the United Kingdom, WO 78/6009.

		 Photos of 1977. (Source: Public Records Office)	

Table 3.1.2 Buildings in Victoria Barracks built in the 1850s-1890s (* = building still exists nowadays)

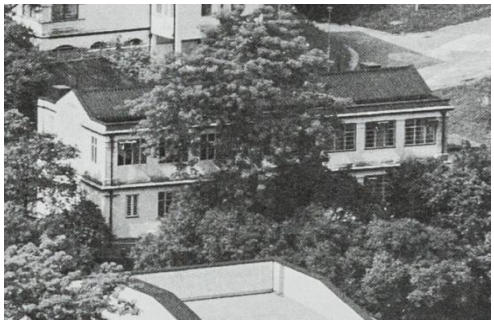
1900s-1930s

In order to accommodate the increasing army size during the late 19th Century, married quarters and a school were added to the Victoria Barracks in the first decade of the 20th Century, and the need for married quarters continued until the 1930s A piece of new land on the south of Kennedy Road was re-acquired by the War Departments as W.D.L. no. 14 in 1907 and added to the Victoria Barrack extent. Building developments during this period occupied the southern half of the original military land (W.D.L. No. 6) as well as the new land on uphill. The Laboratory once appeared on earlier maps was removed to make way for these developments.

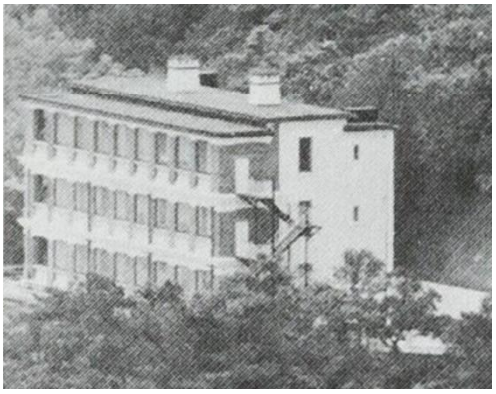
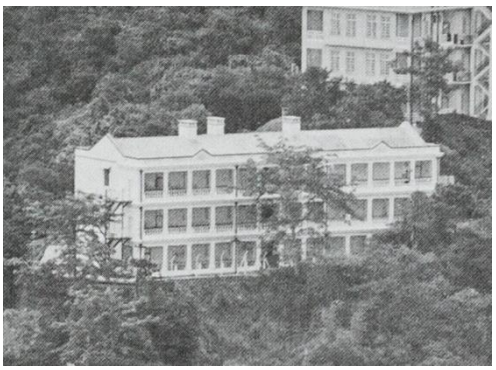
Barracks built in the early 20th Century, including the Roberts Block, showed influence of Classical Revival[83] and carried common architectural features such as arched or colonnaded verandah as façades, mould entablature, urn-shaped balusters, some with pediments and some with facing brick walls. Buildings in the 1930s showed less ornaments and were of flat roofs instead of pitched ones, though proportion similar to the 1900s buildings could still be found on façades, suggesting a transitional period between Classical Revival to Modern Architecture and between brick to reinforced concrete structure.

[83] Classical Revival (or Neoclassicism) was an architectural style popular from the mid of 18th Century to early 19th Century. It emphasizes on the return of classicism, in which symmetrical design and the use of classical orders and ornaments are often found. During the Edwardian era (i.e. the reign of British King Edward VII 1901-1910, and sometimes extended to the start of WWI 1914), the widespread of 19th Century experiments with ferro-concrete marked a new era of building technology – concrete, steel, brick and timber formed a mixture of structural system. Apart from the classical ornaments, new elements such as concrete floor being left visible to form stringcourses of brick façade are therefore often found in Edwardian Classical Revival architecture.

Buildings in Edwardian period could be of different style or even eclectic. Western Market (built in 1906, Queen Anne Revival), Former Central Magistracy (built in 1914, Greek Revival) and Old Dairy Farm Deport Extension (built in 1913-1925, also Neoclassical) are much more ornamented, while buildings in Lei Yue Mun Barracks of the same era (Blocks 18, 20, 21 (1895-1905), Block 31 (1907) and Block 32 (1909)) are of Simplified Classical with fewer ornaments. Buildings in the old Victoria Barracks constructed during Edwardian period shows a balance between two. Classical motifs such as entablature, column capital and pediments and archways are highlights of these simple military buildings.

Building	Built Year	Photo	Index showed in Fig. 3.1.1
1900s-1920s			
School Master's and Mistress' Quarters (later Kitchener Block)	1900s[84]	 Photo of 1978. (Source: Oxley, 1979.)	Y
Married Quarters Block A (Alexander Block)	1900s	Photo of 1978. (Source: Oxley, 1979.)	T
Married Quarters Block B (Birdwood Block)	1900s	Photo of 1977. (Source: Public Records Office)	Z1
*Married Quarters Block C (Cassels Block)	1900s		Z2

[84] The National Archives of the United Kingdom, MPHH 1/390/1.

Building	Built Year	Photo	Index showed in Fig. 3.1.1
1900s-1920s			
		Photo of 1977. (Source: Public Records Office)	
*Warrant Officers' Quarters 1 and 2 (Rawlinson House)	1900s	Photo of 1977. (Source: Public Records Office)	U
*Warrant Officers' Quarters 3 and 4 (Wavell House)	1900s	Photo of 1977. (Source: Public Records Office)	S
*Married Quarters E Block (Roberts Block)	1907-1910	 Photo of 1978. (Source: Oxley, 1979.)	MM
*AOD Foremen's Married Quarters (Montgomery Block)	1907-1910	 Photo of 1978. (Source: Oxley, 1979.)	NN

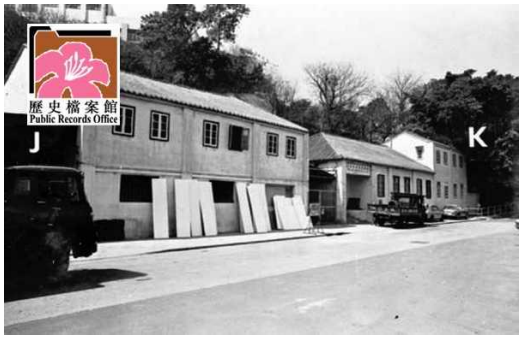
Building	Built Year	Photo	Index showed in Fig. 3.1.1
1900s-1920s			
Contractor's Office (right) and workshop (left)	Before 1924[85]	 Photo of 1977. (Source: Public Records Office)	J, K

Table 3.1.3 Buildings in Victoria Barracks built in the 1900s-1920s (* = building still exists nowadays)

[85] Survey and Mapping Office, sheet no. HG7, 1924.

Building	Built Year	Photo	Index showed in Fig. 3.1.1
In the 1930s			
Married Quarters F Block (Freyberg Block)	1931	Photo of 1977. (Source: Public Records Office)	DD
Married Quarters G Block (Gort Block)	1937	Photo of 1977. (Source: Public Records Office)	Q
Headquarters Land Forces old building	1937[86]	Photo of 1954. (Source: Gwulo)	N
Married Quarters H Block (Hamilton Block)	1930s	Photo of 1978. (Source: Oxley, 1979.)	OO

[86] Oxley, 1979, p.75.

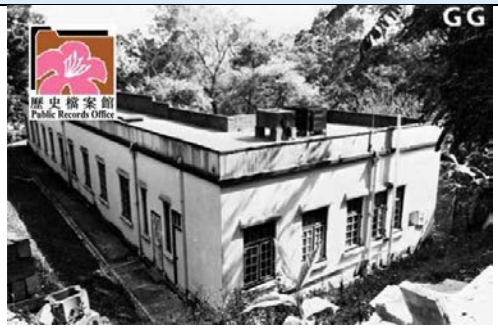
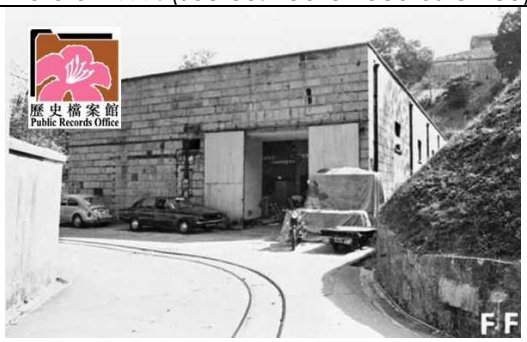
Building	Built Year	Photo	Index showed in Fig. 3.1.1
In the 1930s			
*S.I.B. (Special Investigation Branch) Office, also known as Block GG	1930s[87]	 Photo of 1977. (Source: Public Records Office)	GG
H.K.M.S.C. (Hong Kong Military Service Corps) Office	1936-1957[88]	Photo of 1977. (Source: Public Records Office)	BB
P.W.D. Yards and Stores	1936-1957[89]	 Photo of 1977. (Source: Public Records Office)	FF

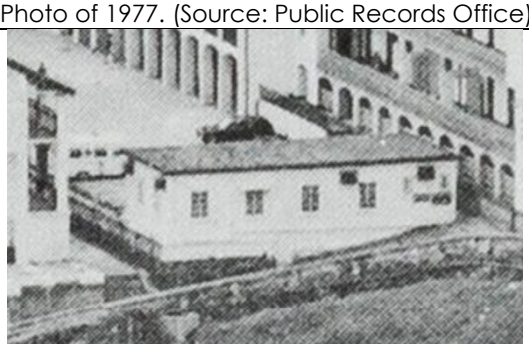
Table 3.1.4 Buildings in Victoria Barracks built in the1930s (* = building still exists nowadays)

[87] "Historic Building Appraisal: Block GG of the Old Victoria Barracks," accessed January 12, 2021, https://www.aab.gov.hk/historicbuilding/en/413_Appraisal_En.pdf.
[88] Survey and Mapping Office, sheet no. 196-SW-16 (Ed 1957-01), 1957.
[89] Survey and Mapping Office, sheet no. 196-SW-16 (Ed 1957-01), 1957.

1950s-1960s

With the release of other military sites to the Colonial Hong Kong Government, the Victoria Barracks were under pressure of building developments in the 1950s and 1960s. Quarters, offices, workshops as well as amenities such as school, medical centres, mass, club or sports court were added in the available land or redeveloped land inside the Victoria Barracks.

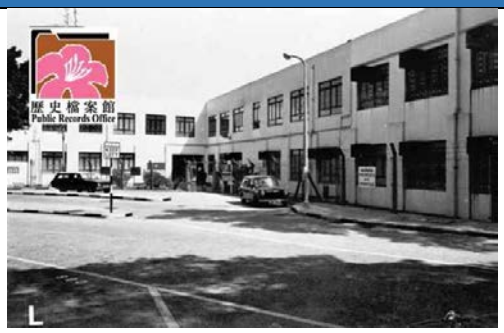
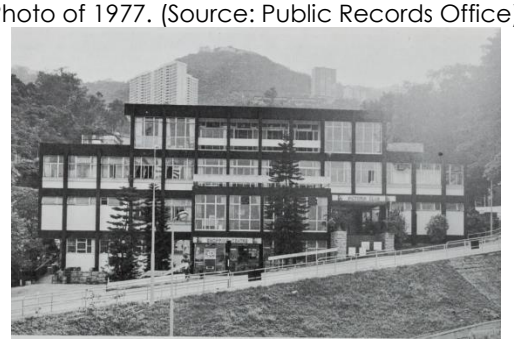
Buildings constructed in this period showed influence of Modern Movement and many carried signature reinforced concrete grids on their façades.

Building	Built Year	Photo	Index showed in Fig. 3.1.1
1950s-1960s			
Colvin House (Women's Royal Army Corps quarters)	1959[90]	Photo of 1977. (Source: Public Records Office)	CC
R.E.M.E. (Royal Electrical and Mechanical Engineers) Workshop	1960[91]	Photo of 1977. (Source: Public Records Office)	B
Post Office	1960-68[92]	 Photo of 1978. (Source: Oxley, 1979.)	II

[90] Oxley, 1979, p.73.
[91] Oxley, 1979, p.73.
[92] Survey and Mapping Office, sheet no. 196-SW-16 (Ed 1968-07),1968.

Building	Built Year	Photo	Index showed in Fig. 3.1.1
1950s-1960s			
Squash Courts	1962[93]	Photo of 1977. (Source: Public Records Office)	V
Headquarters Land Forces new building	1963[94]	Photo of 1978. (Source: Oxley, 1979.)	O

[93] Oxley, 1979, p.73.
[94] Oxley, 1979, p.73.

Building	Built Year	Photo	Index showed in Fig. 3.1.1
1950s-1960s			
Signal Centre/ Communications Centre	1963[95]	 Photo of 1977. (Source: Public Records Office)	L
Victoria Club and NAAFI Shopping Centre	1963[96]	Photo of 1977. (Source: Public Records Office)  Photo of 1978. (Source: Oxley, 1979.	HH
Victoria Infants' School	1963[97]	Photo of 1977. (Source: Public Records Office)	R

[95] Oxley, 1979, p.73.
[96] Oxley, 1979, p.73.
[97] Oxley, 1979, p.116.

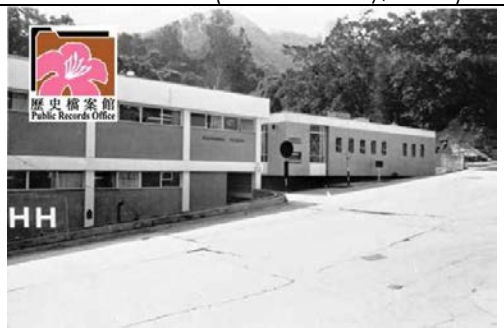
Building	Built Year	Photo	Index showed in Fig. 3.1.1
1950s-1960s			
Garrison Officers' Mess	1963[98]	Photo of 1978. (Source: Oxley, 1979.)	EE
Medical and Dental Centres	1965[99]	 Photo of 1977. (Source: Public Records Office)	HH
Victoria Barracks E Block	1965[100]	Photo of 1977. (Source: Public Records Office)	AA

Table 3.1.5 Buildings in Victoria Barracks built in the 1950s-1960s

1970s

Highrises began to appear, just before the decommissioning of the Victoria Barracks. They were located at the east edge, which became the Queen's Line (current Ching Yi To Barracks of the People's Liberation Army) and has kept its military nature even nowadays.

[98] Oxley, 1979, p.96.
[99] Oxley, 1979, p.75.
[100] Oxley, 1979, p.75.

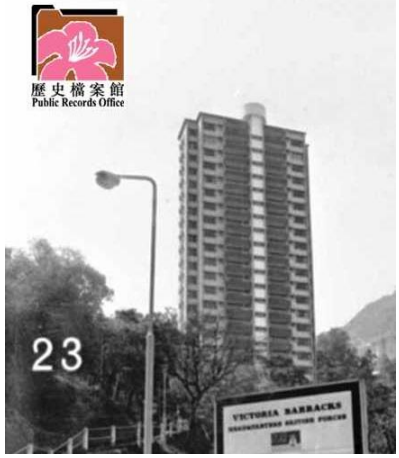
Building	Built Year	Photo	Index showed in Fig. 3.1.1
1970s			
*Paget House	1978	Photo of 1978. (Source: Oxley, 1979.)	JJ
*Dragon House	1970s[101]	 Photo of 1977. (Source: Public Records Office)	KK

Table 3.1.6 Buildings in Victoria Barracks built in the 1970s (* = building still exists nowadays)

After 1979

After Victoria Barracks were handed over from the British Forces to the Colonial Hong Kong Government in 1979, a majority part of the military buildings were redeveloped and converted into the present Hong Kong Park. They are:

Built before the 1850s:
- Flagstaff House (index PP), currently Museum of Tea Wares, Declared Monument

Built in the 1850s-1890s:
- Old Laboratory of Explosives Magazine site (index LL), currently the Asia Society Hong Kong Centre, Grade 1

Built in the 1900s-1920s:
- Montgomery Block, currently Mother's Choice Ltd. (index NN), Grade 1
- Roberts Block (index MM), currently vacant, Grade 1

[101] Oxley, 1979, p.76.

- Cassels Block (index Z2), currently Hong Kong Visual Arts Centre, Grade 1
- Rawlinson House (index U), currently Cotton Tree Drive Marriage Registry & Park Management Office, Grade 1
- Wavell House (index S), currently Education Centre, Grade 1

Built in the 1930s:
- Block GG (index GG), currently the Asia Society Hong Kong Centre, Grade 2

Built in the 1970s:
- Paget House (index JJ) & Dragon House (index KK), currently Ching Yi To Barracks of the People's Liberation Army, no grade

Hence, only 8 pre-war buildings survive through the 1979 development. Except the Roberts Block, all of them have been adaptively reused as cultural or institutional use and formed a cluster with new cultural context and social meaning. On the other hand, the two surviving 1970s buildings continue their services for army.

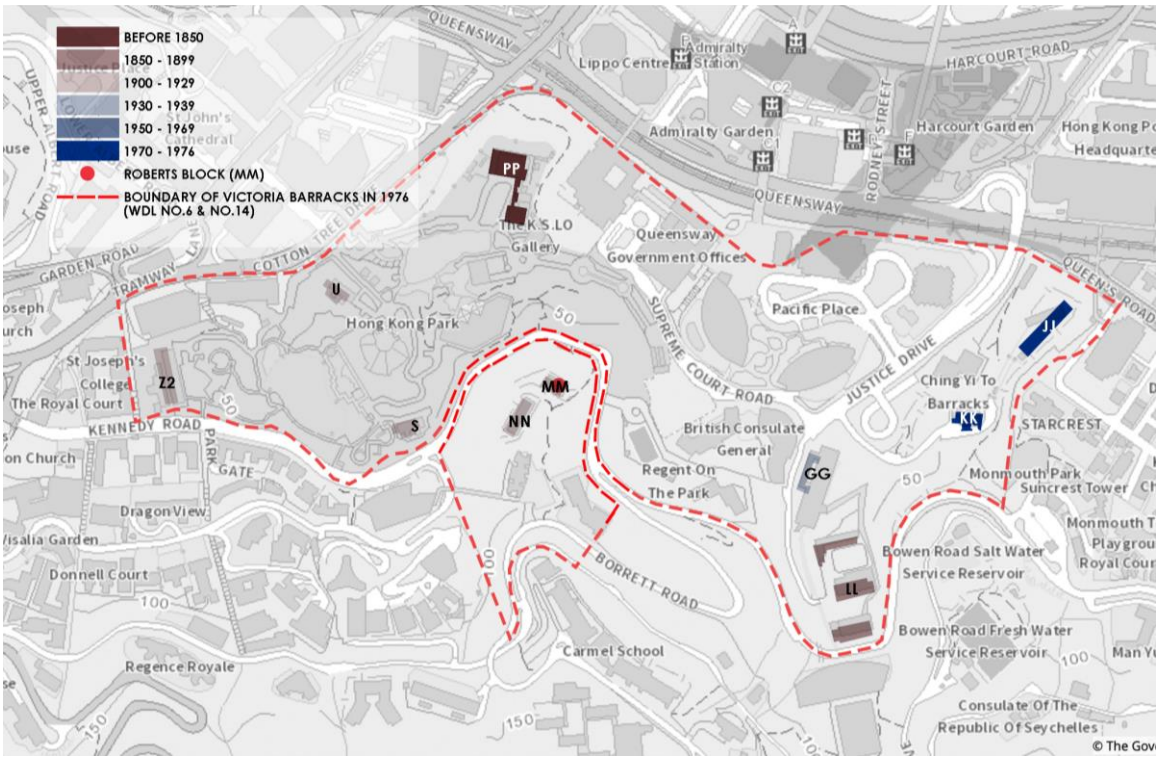


Fig. 3.1.2 Current map with index number indicating buildings of Victoria Barracks that still exist nowadays. Names of buildings refer to Tables 3.1.1-3.1.5 (Source: Lands Department, edited by Author)

3.2 The Building

3.2.1 Site Elements

The Roberts Block is sitting on one of the concrete paved flat lands in the middle of a slope between Kennedy Road and Bowen Road. Immediate North to the Site is therefore a downslope with heavy greenery. Surrounding the Northest boundary is a historical cast iron balustrade of simple and functional design, but rails with ball-shaped ends and post with bell-out anchors hint the age of the metal works.

Site boundary on the South side is bounded by an upslope on top of which another flat land is housing the Montgomery Block.

Fig. 3.2.1 Features of the external metal balustrade of the site

3.2.2 Building Exterior

Building Form

The Roberts Block has a very simple building form – a 3 storey rectangular block with stepped flat roofs where front and rear parts have levels slightly lower level than the middle part. This simple form reflects the functional design of a military building.

Front Elevation (NE Façade)

Facing the densely vegetated downslope and Kennedy Road, although the front elevation is not where the main gate lies on, it is the public visible façade of the Roberts Block when viewing from far towards the hill side. It is however hidden by the slope vegetation when viewing from Kennedy Road. The distinctive open verandahs on all three storeys carry most of the architectural features and interests. Externally, on ground floor the verandah is built in columns of facing red bricks shaft, bases and rendered moulded capitals. They sit on a plain string course (which is extended from the ground floor slab), which is raised from the external ground level. Between the columns are balustrades of classical design consisted of granite caps, painted ceramic urn-shaped balusters and rendered bases. Above the columns is a rendered entablature, consisted of a classical cornice on top, plain frieze (with chamfered edge) below but no architrave. This language repeats on the floors above that the cornice of the floor below acts as a string course where the columns and balustrades of the floor above sit on. The second floor entablature however does not carry a cornice so that the projected roof eave sits on the plain frieze directly. A painted protruded name "Roberts" is found on the first floor plain frieze.

Cast iron rain water down pipes run from second floor slab to external ground and discharge rain water to the dish channel surrounding the building. The down pipes do not start from the flat roof, strangely, suggesting that there have been changes to the roof form. The half-octagonal shaped hoppers are also decorated with classical moulded bands. Metal spikes are installed horizontally above hoppers and vertically on facing brick columns on 1/F and 2/F near the building's east end. They appear to be aged fabrics (if not original) for security purpose.

Unlike other surviving buildings of Victoria Barracks, these verandahs are kept unenclosed. Though they are intruded by the later added wire meshes, which were installed unsympathetically and have created damages to the facing brickworks, the openness of the verandahs have highly contributed the architectural merits and authenticity of this Edwardian Classical Revival building.

Fig. 3.2.2 NE façade. Note the columns of facing red bricks shaft, bases and rendered moulded capitals (red arrow), as well as the rendered entablature, consisted of a classical cornice on top, plain frieze (with chamfered edge) below but no architrave (blue arrow)

Fig. 3.2.3 Balustrade on NE façade, with granite cap and painted urn-shaped ceramic balusters

Fig. 3.2.4 NE façade, 1/F and 2/F. Note that there is no cornice on the roof eave (red arrow), and the vertical spike (blue arrow)

Fig. 3.2.5 The painted protruded name "Roberts" on the NE façade

Fig. 3.2.6 A half-octagonal hopper and a horizontal spike

Side Elevations (SE and NW facades)

The architectural language given by the verandah features on the front elevation, such as brick columns, classical entablatures and urn-shaped balusters originally continues on one-third of both side elevations (SE and NW facades) to wipe around the verandahs. However, the rest of the exterior walls on SE and NW façades are plastered with white paint without any cornice, string course or alike architectural features.

The entrance gate of the building is located on the SE façade and painted in white. It receives visitors who walk up from Kennedy Road or down from Bowen Road to the Site, and leads to the G/F open verandah directly. There are features worth looking at the entrance gate, namely the entrance steps, the shoe scrapers and the metal mail box with address number. Apart from the verandahs, the SE façade carries no window openings, but a black painted building name "Roberts" is found on the third floor on the plain white wall.

On the NW façade, a later introduced external steel staircase is found. The verandahs on 1/F and 2/F are enclosed by later brickworks with doorways connecting to the external staircase. Fortunately, the original balustrade remains on G/F. On each floor there are three window openings – one rectangular casement window to give light to the internal living space, one segmented arch casement window and a small rectangular louvre to give light and ventilation to toilets/ bathrooms at the rear of the building.

Fig. 3.2.7 Style difference on SE façade between the open verandahs and the building body

Fig. 3.2.8 Style difference on NW façade between the open verandahs (now blocked by red brick walls on 1/F & 2/F) and the building body

Fig. 3.2.9 Main entrance of the Roberts Block. Note the mail box with street number (red arrow), shoe scrapers (blue arrow) and granite entrance steps (yellow arrow)

Fig. 3.2.10 The name fixation "Roberts" on SE façade

Rear Elevation (SW facade)

The SW façade (rear elevation) is fully rendered in white without ornaments. Windows at two ends are of segmented arched openings with protruded window sills (material unknown, subject to removal of paint finish). On the other hand, those at the centre are rectangular shaped without protruded window sills. Between these rectangular windows there are columns-alike fabrics on 1/F and 2/F setting on a plain string course on 1/F slab level, hinting that the rectangular windows are later add-ons after blockage of original verandahs. The façade also carries original cast-iron rain water pipes (up to 2/F slab level) and hoppers (at 1/F and 2/F slab level).

Fig. 3.2.11 SW façade fully rendered with white paint

Fig. 3.2.12 Windows on rear elevation

Fig. 3.2.13 Rainwater pipe on the wall of rear elevation

Roof

Different from the pitched roof of the neighbouring Montgomery Block, the Roberts Block has flat roofs with projected eaves instead. It is now covered by green asphalt sheets. The roof layout is divided into 3 parts: the front for verandah, the middle for main rooms, and the rear for kitchens, bathrooms or other serving areas. As discussed in the previous chapter, the flat roof was a later alteration, likely around WWII. There are 12 chimneys in 2 chimney stacks in the middle which served the 12 fireplaces in the building in the past; another 3 chimneys in one chimney stack located on the rear part of the roof that served the 3 former kitchen stoves. They are no longer in use but are reflecting the lifestyle in the era.

Fig. 3.2.14 Chimneys for fireplaces on flat roof

Fig. 3.2.15 Chimneys for kitchen stoves

Windows

As mentioned above, windows appear on NW side elevation and rear elevations. There are casements, louvres and top-hung windows. Most of them are of steel frame and a few are of timber frame. In view of the age of the building, it is estimated that windows were originally timber framed, but the current timber ones on the northwest elevation (for rooms D103, D203 and D303) do NOT appear to be old fabrics in view of their condition and ironmongeries.

Fig. 3.2.16 A louvre window at a bathroom

Fig. 3.2.17 A top hung steel frame window at a bathroom

Fig. 3.2.18 A timber casement window at a bedroom

Fig. 3.2.19 Internal view of a timber casement window at a bedroom

Fig. 3.2.20 A metal casement window at a room facing the rear facade

3.2.3 Building Interior

Layout

The Roberts Block possesses a clear and consistent layout on all 3 storeys, which are reflected on the roof layout as well. Each floor can be spatially divided into 3 portions – front, middle and rear. The front portion is the open verandahs. The middle portion houses a common staircase, a corridor (later partitioned) connecting the front and the rear portions and big rooms for living. Each room should have carried a fireplace as the chimney stacks still exist but there is no remains of fireplaces. The rear portion houses servant spaces including kitchens, toilets, bathrooms or smaller rooms.

There have been changed in the building layout when comparing to the original one, but the difference is not substantial (refer to the following sections) and this "3 portions" layout approach remains.

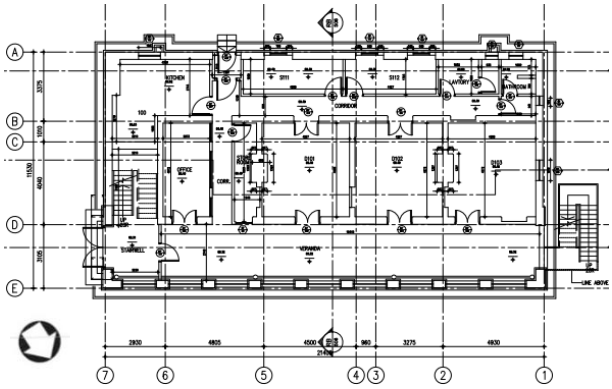


Fig. 3.2.21 G/F, existing layout

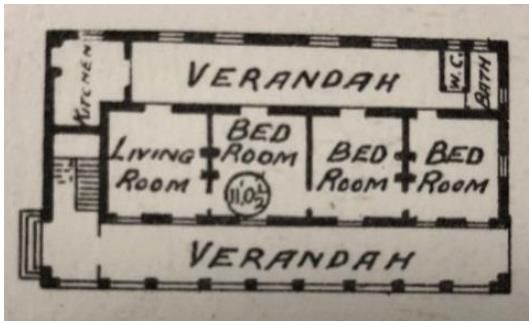


Fig. 3.2.22 G/F, original layout, 1913 Record Plan (1916, 1920 and 1922 revised) of Roberts Block (Source: The National Archives, MPHH 1_390_1_2)

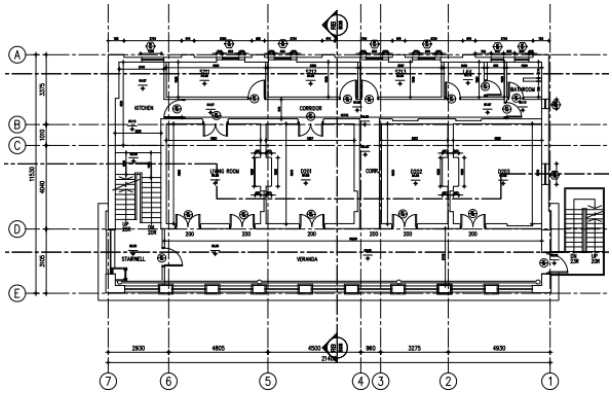


Fig. 3.2.23 1/F, existing layout

Fig. 3.2.24 1/F, original layout, 1913 Record Plan (1916, 1920 and 1922 revised) of Roberts Block (Source: The National Archives, MPHH 1_390_1_2)

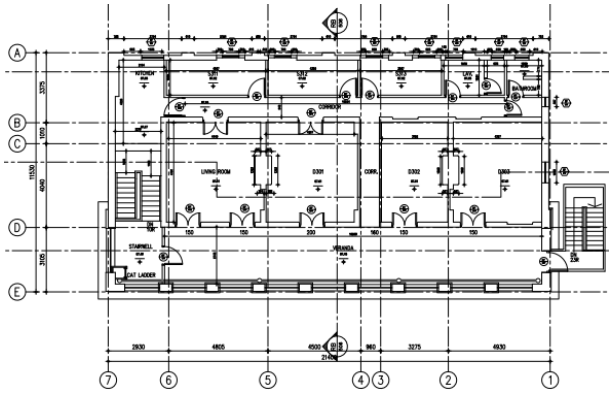


Fig. 3.2.25 2/F, existing layout

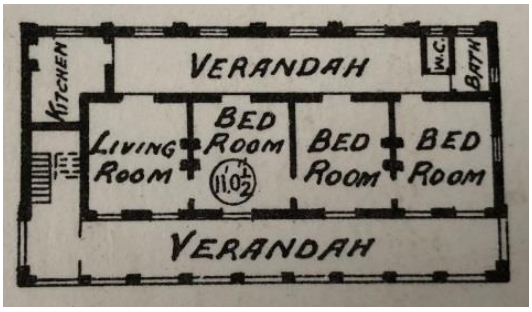


Fig. 3.2.26 2/F, original layout, 1913 Record Plan (1916, 1920 and 1922 revised) of Roberts Block (Source: The National Archives, MPHH 1_390_1_2)

Structure

The building is built in brick columns and load bearing brick walls with concrete slab, concrete beams or steel joists. The front portion verandahs are supported by brick columns. Concrete slabs are supported by concrete beams at the periphery on all floors while steel joists can be found on G/F and 1/F ceiling soffits. The middle portions are supported by load bearing walls. Concrete slabs are supported by concrete beams but the beam layout on 2/F ceiling soffit differs from those on G/F and 1/F. The rear portion, which is all rendered in white in both building interior and exterior, is estimated to be built in a combination of walls and columns. Similar to the front portion, steel joists are found on G/F and 1/F ceiling soffits.

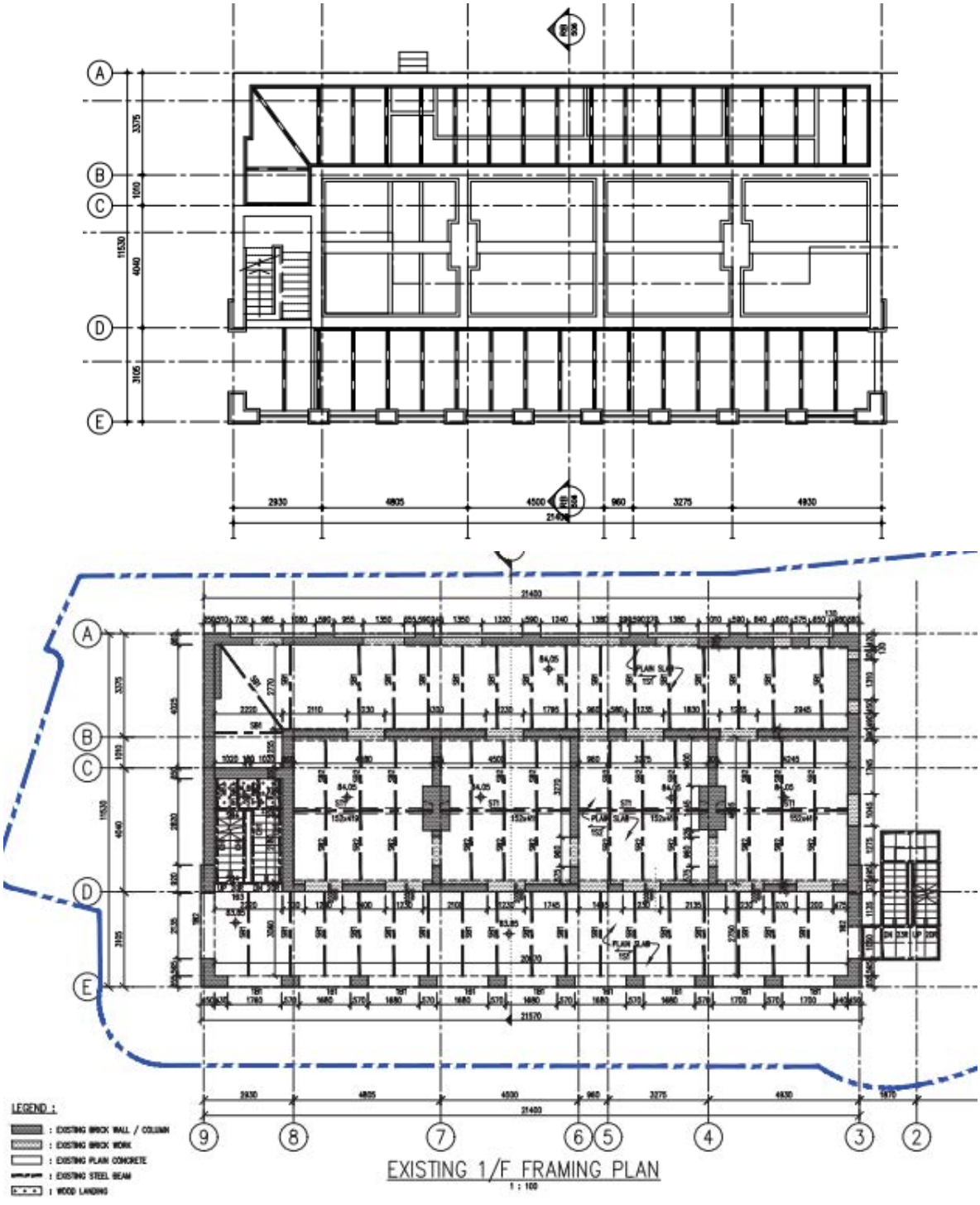


Fig. 3.2.27 G/F, existing reflected ceiling plan and structural framing plan

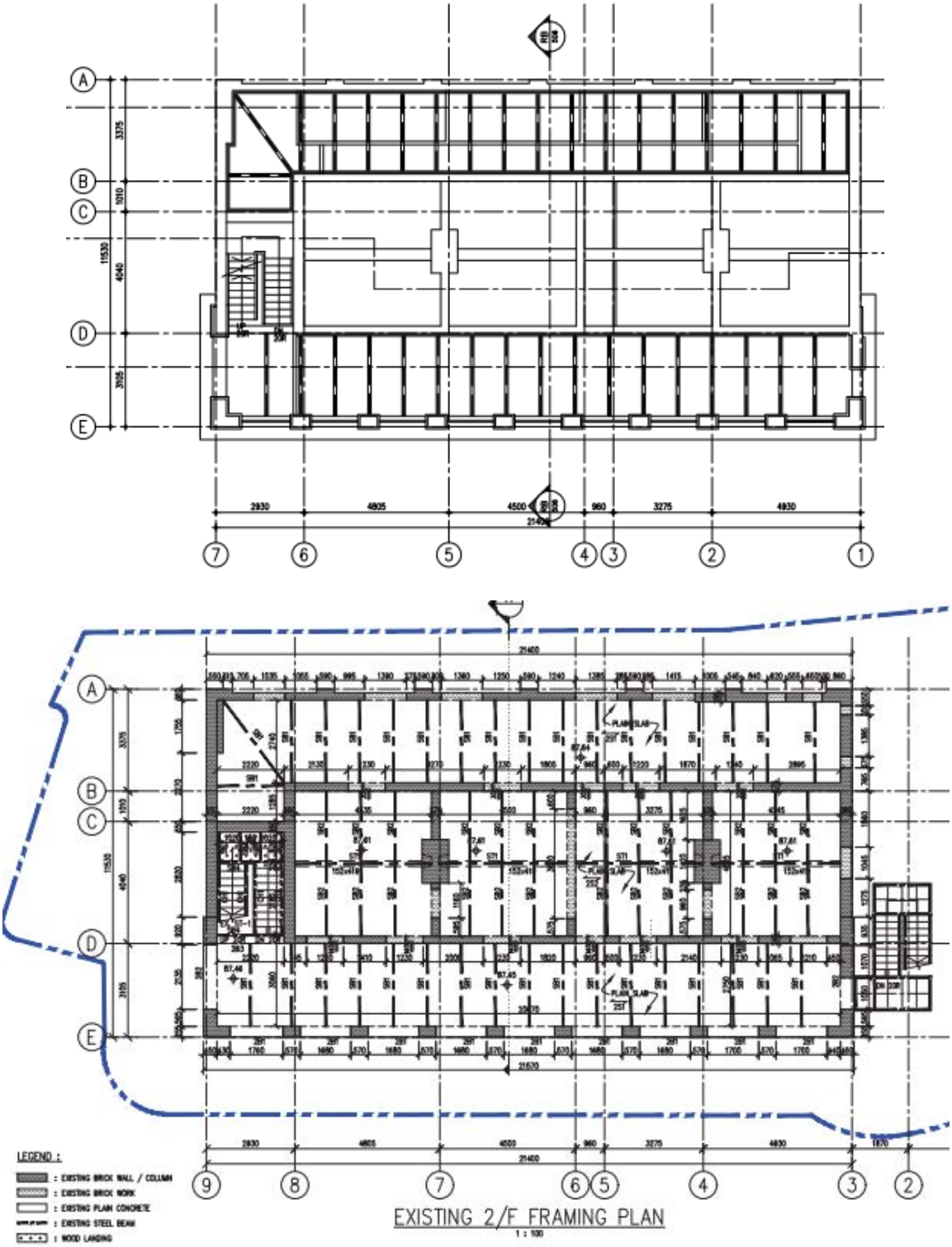


Fig. 3.2.28 1/F, existing reflected ceiling plan and structural framing plan

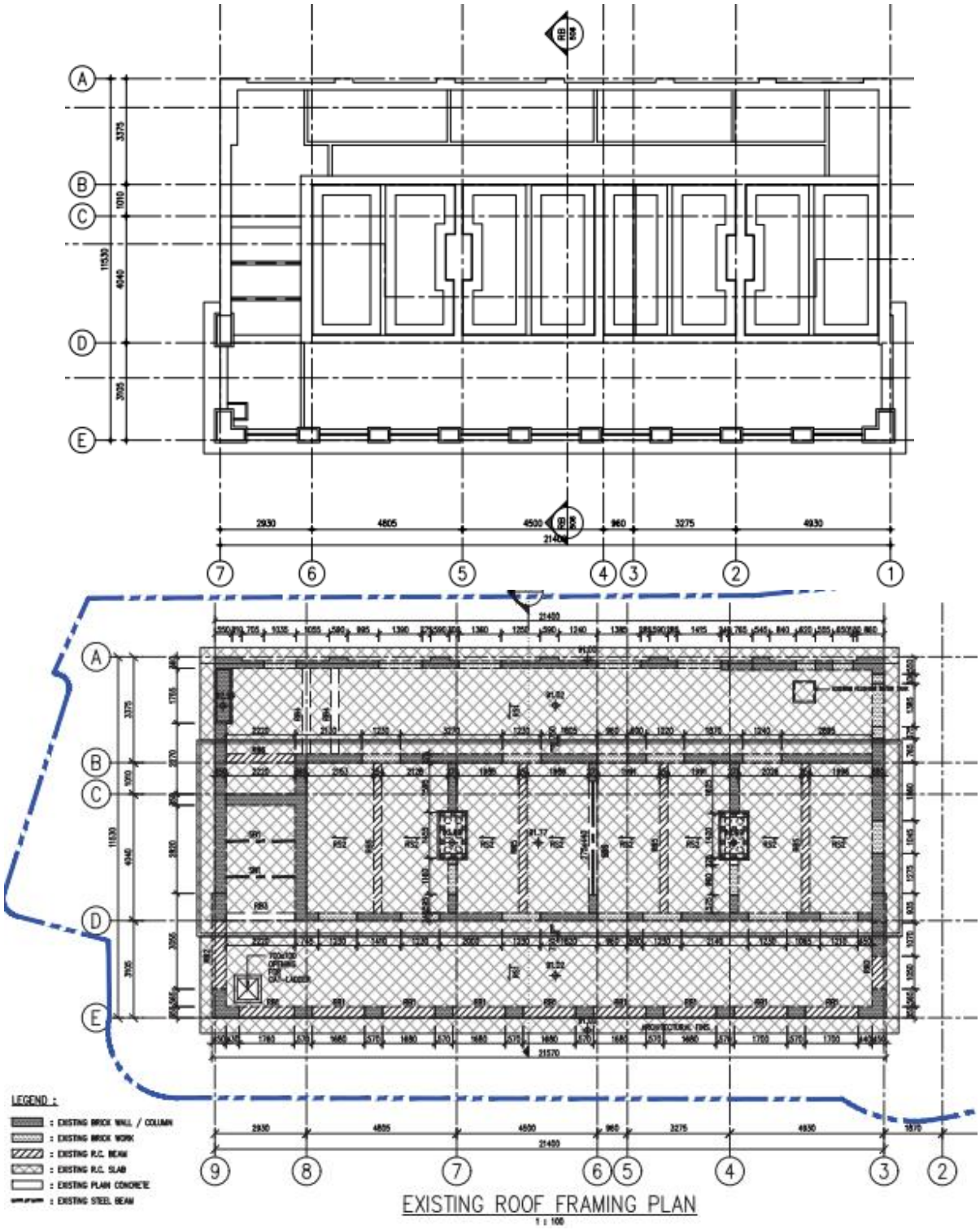


Fig. 3.2.29 2/F, existing reflected ceiling plan and structural framing plan

Fig. 3.2.30 Open-ups on the exterior wall of NW façade, with structural brickworks revealed

Fig. 3.2.31 An open-up on an interior structural wall on G/F, with structural brickworks revealed

Front Portion (Open Verandah)

The front portion only carries open verandahs, which is the major circulation path from the internal staircase to the middle portion principal rooms. There is a wall and a doorway on each floor separating the staircase from open verandahs, which appears to match the original layout but it is unsure if the door is an original fabric. The internal side of the verandah façade continues architectural features found on the façade (e.g. brick column capitals, granite balustrade caps and urn-shaped balusters, etc. The internal façades of the verandah (i.e. the wall between the front and middle portion, along gridline D) are built in facing brick walls in English bond with segmented arch doorways on G/F and 1/F (with brick arches on top) and rectangular doorways on 2/F to give access to the middle portions. No matter what shape they carry, the doors are all timber double panelled doors with fanlights and granite threshold. The verandahs were originally dead ends at their northwest ends, likely with open design and with balustrades the same as those on front elevations. However, they are blocked by new brick end-walls on 1/F and 2/F with doorways connecting the 1/F and 2/F verandahs to a later added external staircase.

Ceiling of the verandahs are plain rendered and painted white surfaces. Steel joists and facing brick corbels are found on G/F and 1/F ceiling soffits. Floors are plain cement renders with dish channel near balustrade.

Fig. 3.2.32 G/F verandah, viewing to SE

Fig. 3.2.33 G/F verandah, viewing to NW

Fig. 3.2.34 1/F verandah, viewing to SE

Fig. 3.2.35 1/F verandah, viewing to NW

Fig. 3.2.36 2/F verandah, viewing to SE

Fig. 3.2.37 2/F verandah, viewing to NW

Fig. 3.2.38 Facing brick corbel at verandahs, G/F & 1/F

Fig. 3.2.39 Steel joists on verandah ceilings, G/F & 1/F

Fig. 3.2.40 One of the segmental arched door, found on G/F and 1/F

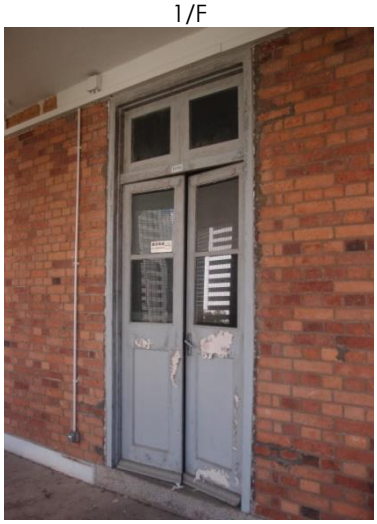


Fig. 3.2.41 A rectangular door, found on 2/F

Fig. 3.2.42 Granite threshold

Fig. 3.2.43 Aged (but newer than the one in fig. 3.2.46) bolt on doors to the front portions

Middle Portion (Central Core) - Rooms

At the middle portion, originally each floor accommodated the internal staircase and 4 rooms (3 were bedrooms and the one nearest to the staircase was a living room). From these 4 rooms 6 doorways were opened to the front verandah and 4 doorways were opened to the rear verandah. The 4 rooms were connected to each other by 3 doorways, suggesting that originally each floor was occupied by one family.

However, currently one of the 4 rooms on each floor has been partitioned to give a corridor connecting the front and the rear portions. Doorway openings, either brand new or modified from old doorways, have been formed on the brick walls along gridline D (between the front and middle portions) and B (between the middle and rear portions) to cater for this change:

- On G/F, the original living room has been partitioned to give an office, a corridor and a store room so that one of its doorways to the front portion and the doorway to the rear portion have been modified to suit. The other original bedrooms are currently named as D101, D102 and D103. A doorway to the front portion and the one to the rear portion of D103 have been blocked.
- On 1/F, it is one of the original bedrooms being partitioned to give a corridor and room D202. Two new doorways, one to the front and one to the rear portion, have been introduced to suit. On the other hand, a doorway to the front portion and the one to the rear portion of D203 have been blocked.
- On 2/F, layout similar to 1/F is found, but an original cross brick wall of D301 has been removed and filled with new non-structural partition.

Doorways in-between the original 4 rooms are all blocked on all floors. No fire-places can be found though all original chimney stacks still exist but are blocked. These layout changes likely have been brought to house more occupants from different families on each floor.

All walls are plastered and painted surfaces (in pale green or in white). Round edge profiles can be found on the two sides of the door openings to verandahs and the chimney stacks. Skirtings are in grey paints. Floors are finished with vinyl tiles which do not appear to be original fabrics. Ceilings are also plastered and painted white surfaces. Chamfered edge details at four sides of the ceilings and moulding on concrete beams are observed on G/F and 1/F, while cornices are found on 2/F ceilings and beams.

It is also worth-noting that doors to the rear portions appear to be older than those to the front portions in view of the size of glass panes. However, both types of doors are of age in view of their ironmongeries and worth preserving.

Fig. 3.2.44 Room D103. Note the rounded-edges at the chimney stack and the door opening

Fig. 3.2.45 Room D102. Note the timber door to the rear portion appears to be older than the one to the front portion (Fig. 3.2.44)

Fig. 3.2.46 Older bolt on doors to the rear portions

Fig. 3.2.47 2/F corridor

Fig. 3.2.48 2/F corridor ceiling. Note the disturbed ceiling cornice

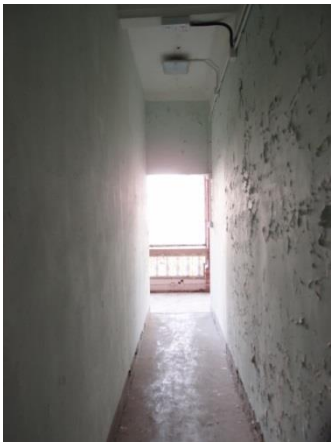


Fig. 3.2.49 1/F corridor

Fig. 3.2.50 Later added partition after the removal of a structural brick wall, in D301

Fig. 3.2.51 G/F corridor

Fig. 3.2.52 The doorway from the front verandah to G/F corridor

Fig. 3.2.53 Ceiling of 1/F Living room

Fig. 3.2.54 Ceiling of D103. Note the moulding at the beam and the chamfered ceiling edge at the room periphery

Fig. 3.2.55 Ceiling of D303. Note the ceiling and beam cornice

Middle Portion (Central Core) - Staircase

Immediately next to the entrance gate on G/F is the internal staircase. It connects G/F to 2/F continuously. It is built with black painted steel structures (beams and joists) connecting to

the structural facing brick walls on the three sides, black painted steel balustrades, black painted steel risers and timber treads. Steel members are seemingly screwed fixed together. Between the stairways and its landings on the front verandahs there are archways on the ceilings, for both structure and aesthetics. There is a cat-ladder and a ceiling access-hatch at the 2/F verandah landing to give access to the flat roof. All are believed to be original fabrics.

Fig. 3.2.56 1/F Staircase

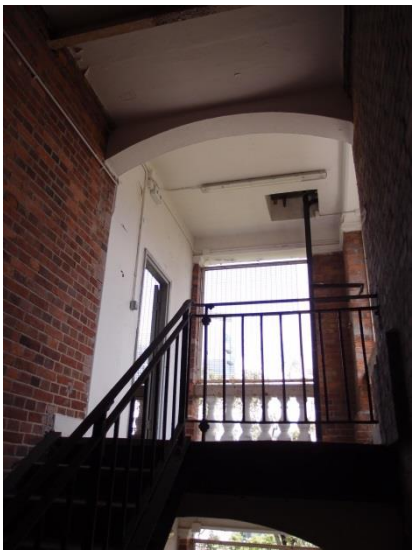


Fig. 3.2.57 2/F Staircase. Note the arch beam on ceiling and the access hatch

Rear Portion

The rear portion originally housed a kitchen at its south end and a bath and a toilet at its west end, leaving a verandah in the middle on each floor. Currently, the rear verandahs have been enclosed and converted to house more rooms and long corridors to give access to the rooms in the rear portion. The conversion differs slightly on each floor:

- On ground floor, the south kitchen has been enlarged. The west end bath and toilet have been enlarged to give a lavatory and a bathroom. Two rooms have been added in between. A rear exit door has been added on the rear façade;
- On each of the first and second floors, the south kitchen has been reduced in size. The west end layout follows that on G/F. In between the two ends, three rooms have been added.

From the original 1913 record plan, there were 7 columns protruded from the rear façade on 1/F and 2/F (forming 6 bays), and 5 of them fell within the verandah area (forming 4 bays on plan and façade). As observed from site, these protuded columns can still be found on the rear façade though the verandahs have been enclosed. Arch recesses on walls can also be found in the interior of the later added rooms formed by verandah enclosing on all three floors, suggesting that the verandahs should have carried arch-shaped openings, which is different from the design of the open verandah in the front portion. Based on the same deduction, the rectangular window openings on the façade of the enclosed verandahs (the 4 bays in the middle) should be later-formed fabrics. Those arched shaped window openings in the two bays at two ends match original kitchens and bathrooms/ toilets and should be original fabrics without alteration.

Kitchens are finished with white ceramic tiles at dado and white paint on brick walls (brick joints can still be seen) on high level of walls, red quarry floor tiles and white paint on ceilings,

but these finishes are non-original fabrics according to the 1960s record plan . Chimney stacks still exist but are blocked.

Lavatories and bathrooms are finished with creamy ceramic tiles up to around 2m high and white paint on top, modern homogenous floor tiles and white paint on ceilings. These finishes are non-original fabrics according to the 1960s record plan .

Later added rooms and the long corridors are finished with white painted walls (brick joints can still be seen on the original brick walls), grey painted skirting, later added vinyl floor tiles and white painted ceilings.

Steel joists and corbel details are found on ceilings of G/F and 1/F only, but not on 2/F.

Doors to kitchens are timber self-closing doors; those to later added rooms are timber flush doors; those to lavatories and bathrooms are aluminium ones. All of them do not appear to the original or aged fabrics.

Fig. 3.2.58 Kitchen on G/F

Fig. 3.2.59 Bathroom on G/F

Fig. 3.2.60 Room D105 on G/F (note the arch-shaped wall recess)

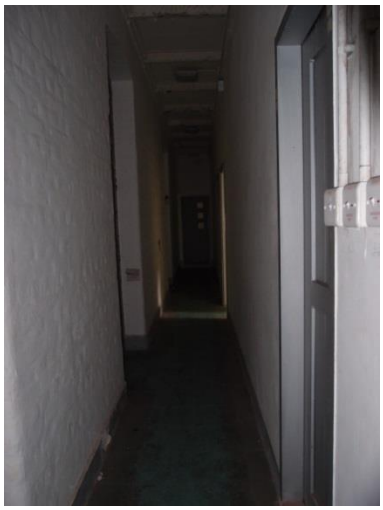


Fig. 3.2.61 Rear corridor on G/F

Fig. 3.2.62 Corridor ceiling on G/F

Fig. 3.2.63 Ceiling in 1/F kitchen

Fig. 3.2.64 G/F lavatory ceiling

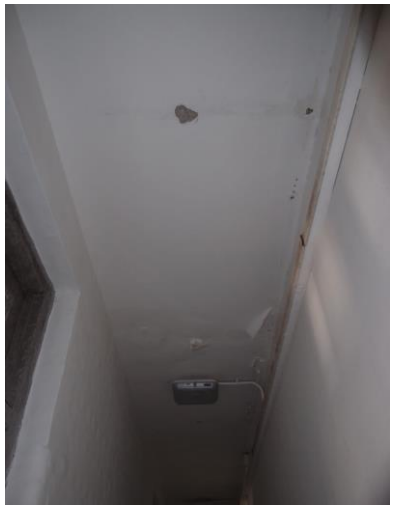


Fig. 3.2.65 Corridor ceiling on 2/F

Fig. 3.2.66 2/F Kitchen ceiling

Fig. 3.2.67 2/F Kitchen door

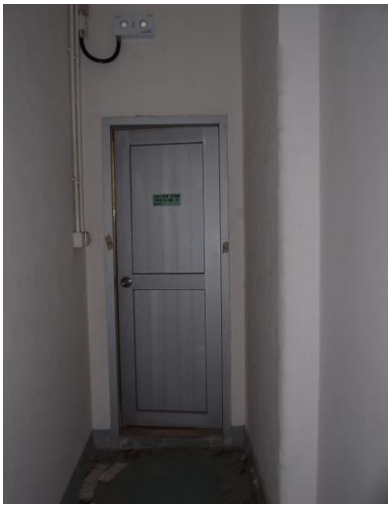


Fig. 3.2.68 Bathroom door on 2/F

Fig. 3.2.69 Door to S313 on 2/F

4

STATEMENT OF SIGNFICANCE

4.1 Historic Value and Contextual Values

Situated on a spur beyond Kennedy Road, the construction of Roberts Block exemplifies the expansion of the Army to the south of Kennedy Road. Originally, the site of Roberts Block was returned from the War Department to the Hong Kong Government in 1878. The reoccupation of the area by the Army in 1907 marked the historical period when the Victoria Cantonment area was at its greatest extent area-wise. Together with Bowen Road Military Hospital, the married quarters above Kennedy Road demarcated the southern boundary of the military land throughout the 20st century, until the military establishments were relinquished since the 1960s.

Being one of the married soldier quarters constructed in the early 20th century, Roberts Block is a testimony to the military development in this period of time. With increased garrison and resumption of North Barracks, there was a pressing need of barrack accommodations for married soldiers. The solution to this quartering shortage was the construction of nine blocks of married quarters in the 1900s, which was also the most extensive construction phase for accommodation within Victoria Barracks. The surviving military married quarters (including Roberts Block, Montgomery Block, Cassels Block, Wavell Block (Wavell House) and Rawlinson House) have contextual value in illustrating this significant period of development in Old Victoria Barracks.

Additionally, Roberts Block, together with other older and newer existing structures of Old Victoria Barracks (such as Flagstaff House, Old British Military Hospital (Bowen Road Military Hospital), Former Explosives Magazine, Paget House and Dragon House) form an integrated and broad picture of the extent and evolution of the former Victoria Cantonment area since the British takeover of Hong Kong.

4.2 Architectural Value

As a building that has been standing for more than a century, the important features of the Roberts Block are relatively well preserved given the fact that it has been adaptive reused before. The major elements that identify the Edwardian Classical Revival style and era are retained, for instance the red brick front façade, the intact open verandah at front portion, internal staircase, and segmental arches. Notable character-defining elements in the interiors are limited but that could be explained by the functionality of military buildings. The existing original fabrics should be given credits to in expressing the authentic architectural value and representing the initial use of the building.

5

CHARACTER DEFINING ELEMENTS

This section provides a summary decryption and analysis of significance for individual elements of the Site. They are considered as the character-defining elements (CDEs) that contribute to the cultural significance of the Site. They could include built fabrics, spaces or any other feature of the Site/ the subject building.

5.1 Definition

Six levels of significance have been used to describe the elements individually in this report and a description of these levels is provided below. The following table is intended to provide a summary understanding of the site and help to inform future decisions for change.

Levels	Meaning
Very High	This describes elements which make are essential to understanding and appreciating the heritage value and overall character of the place. Their removal or substantial alteration would be detrimental and would negatively impact upon significance. In almost every case, this will include elements which are original and unaltered, or which are associated with an important historical association.
High	This describes elements which make a beneficial contribution to the heritage value of the place, and whose removal or substantial alteration would be detrimental to the significance of the place. In most cases, this will include elements which are original or early to the place, and which have not been altered.
Medium	This describes elements which contribute to the overall character of the place, but are not essential for maintaining its heritage value.
Low	This describes elements which make little contribution to the significance of the place, and whose alteration or removal would not be detrimental to the heritage value of the place.
No	This describes elements which make no contribution to the significance of the place, and whose removal would not affect

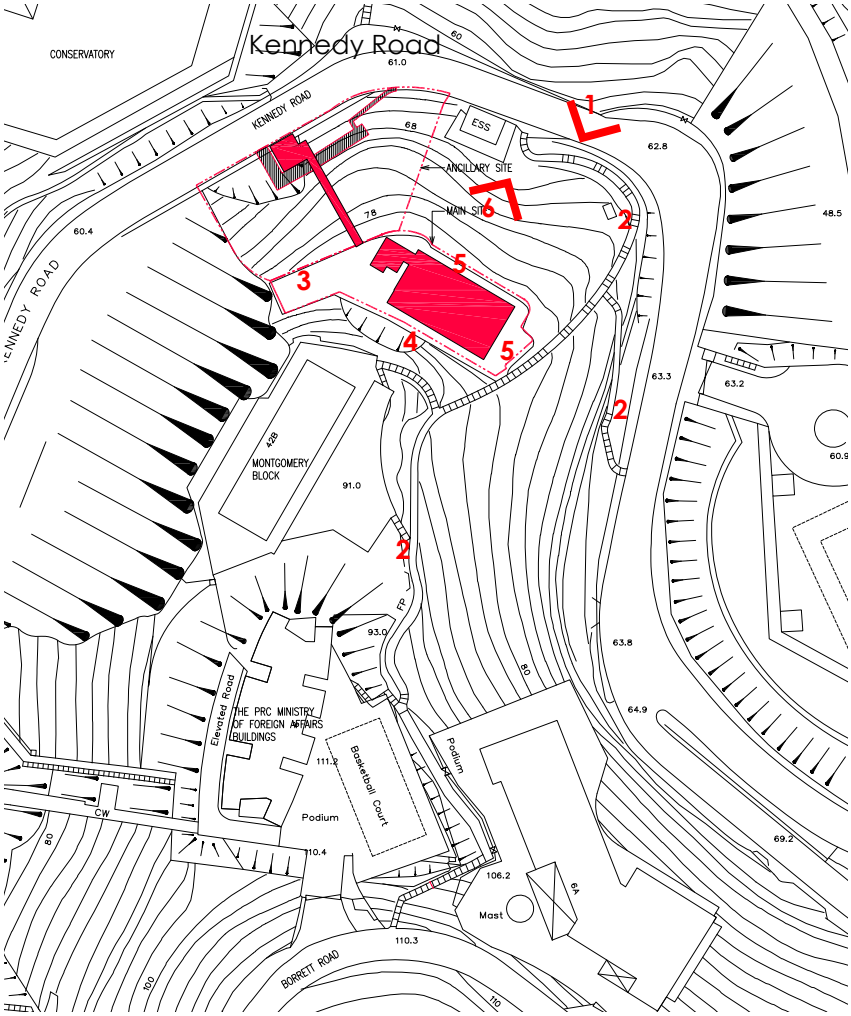
	the heritage value of the place. They are NOT character-defining elements, and are NOT exhaustively listed in the table below.
Intrusive	Where an individual space or element detracts from the appreciation of cultural significance, by adversely affecting or obscuring other significant areas, elements or items, the removal of which would be beneficial to the place. They are NOT character-defining elements.

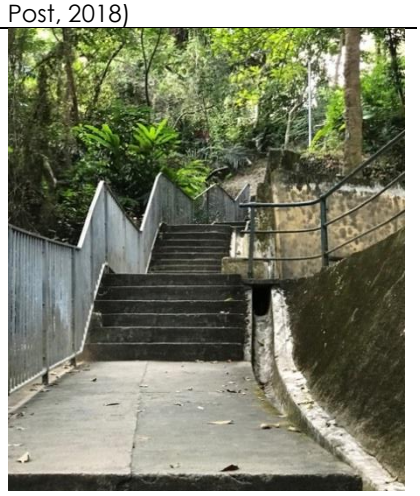
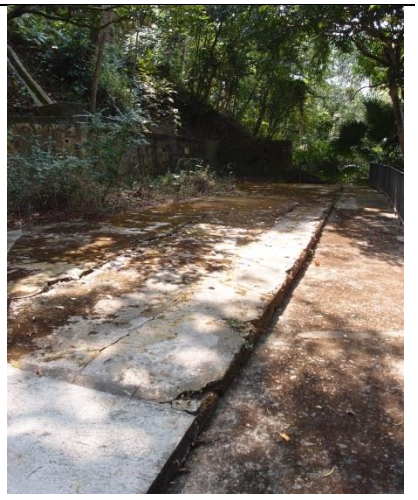
Table 5.1.1 Definition of level of significance of CDEs

5.2 Character-Defining Elements

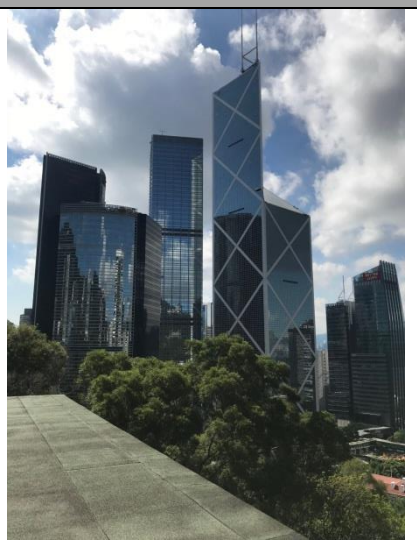
[Note: In the following section, room names of the EXISTING layout are used for location indication purpose, unless otherwise stated.]

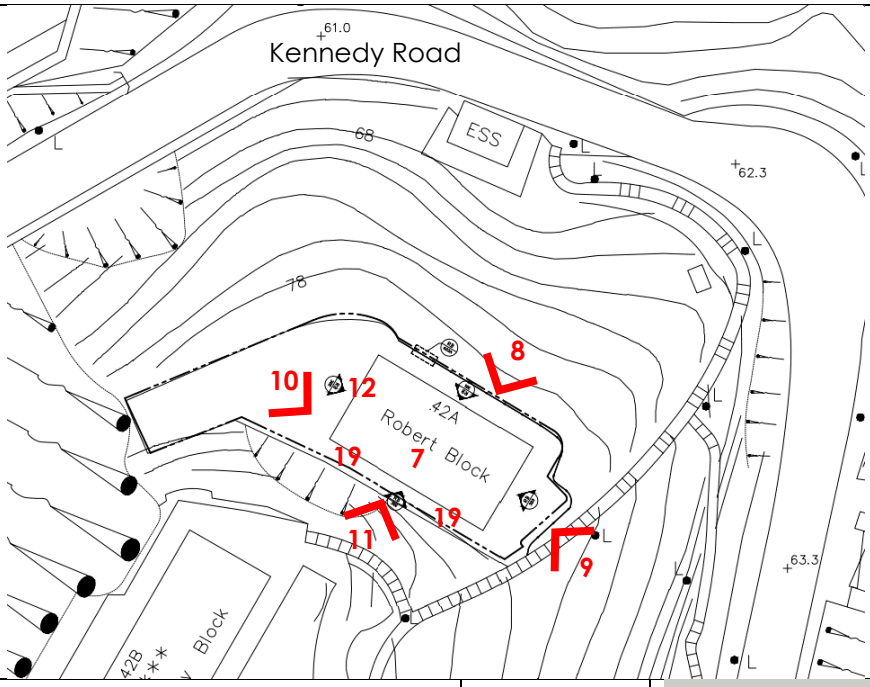
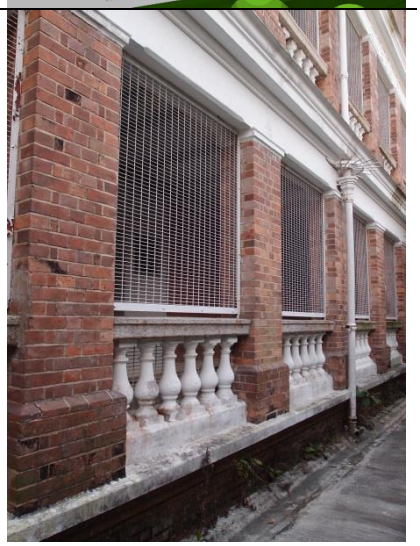
No.	Description	Level of Significance	Photo
5.2.1	*Location, Setting, Open Space*		

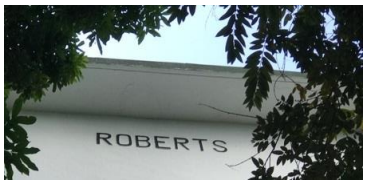


No.	Description	Level of Significance	Photo
1.	Plateau setting (situated on a plateau in the middle of a slope between Kennedy Road and Borrett Road) with heavy natural vegetation	High	(Source: South China Morning Post, 2018)
2.	The pedestrian paths leading from Kennedy Road to Borrett Road, including: - Upslope track from Kennedy near the abandoned Hong Kong Electric's sub-station - Upslope track from Kennedy near the residential estate "Regent on the Park" - Downslope track from Borrett Road, near the PRC Ministry of Foreign Affairs Buildings [They are historic tracks related to site settings. Not including paving materials and balustrades]	High High High High	
3.	Northwest open space, with: - Metal balustrades with flat bar balusters	Medium No	

No.	Description	Level of Significance	Photo
4.	The lane between the slope and the rear of the building (the rear lane)	Low	
5	Northeast open space (front ground) and southeast open space (entrance ground), with: - Historic external metal balustrades (metal rod railing)	High Very high	

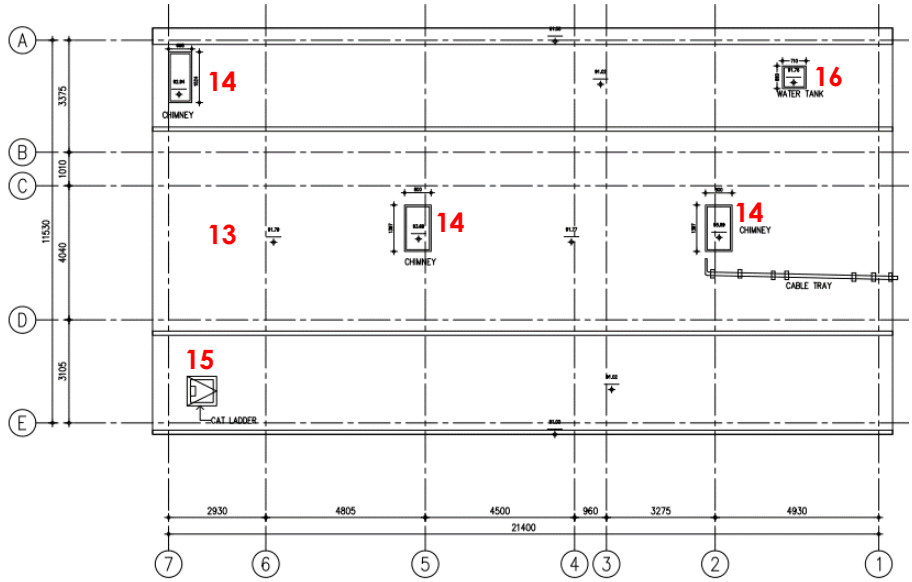
No.	Description	Level of Significance	Photo
6.	The vista to Hong Kong Park and Admiralty	Very high	

No.	Description	Level of Significance	Photo
5.2.2	*Main Building Exterior*		
			
7.	Building mass and form [Building form is of rectangular simple shape as a military barrack. The flat roof however is a later replacement to the original pitched roof.]	Very high	
8.	Front (NE) façade, with: - Columns with facing red brick shafts, bases (English bond) and rendered moulded capitals - Plain string course at ground slab level (raised from external ground) - Verandah balustrades with granite caps, ceramic urn-shaped balusters and rendered bases - Entablatures with classical cornices on top (except the top floor), plain friezes (with chamfered edge) below but no architrave - Metal spikes (aged, if not original) - Metal frame and wire meshes above balustrades - The painted protruded name "ROBERTS"	Very high Very high Very high Very high Very high High Intrusive Very high	

No.	Description	Level of Significance	Photo
9.	Entrance (SE) façade, with:	Very high	
	- Return wall of feature similar to the front façade	Very high	
	- Entrance with door opening, granite steps and two shoe scrapers	Very high	
	- Entrance gate (not original)	Low	
	- Mail box (may not be original fabric)	Medium	
	- The name fixation "Roberts"	Very high	
	- Rendered wall	Medium	
	- Historic building information plaque	No	

No.	Description	Level of Significance	Photo
10.	Side (NW) façade, with: - Return wall of feature similar to the front façade - Verandah balustrade on G/F with granite caps, ceramic urn-shaped balusters and rendered bases - Later added facing brick wall on 1/F and 2/F - Window openings, including rectangular ones in the middle, segment-arched ones and small vents near rear facades - Rendered wall [originally facing brick] - Steel windows with ironmongery and steel grilles	High High High No High Medium No	
11.	Rear (SW) façade, with: - segmental arched window openings with protruded window sills at two ends (likely original window openings) - rectangular window openings (later alteration) - plain string course on 1/F slab level - Rear entrance with timber door and step - Steel windows with ironmongery and steel grilles - Rendered wall (original facing brick)	Low Medium No Medium No No Medium	
12.	Timber windows, with its ironmongery and ornamental metal grilles [Maybe replicas of original, if not original]	High	

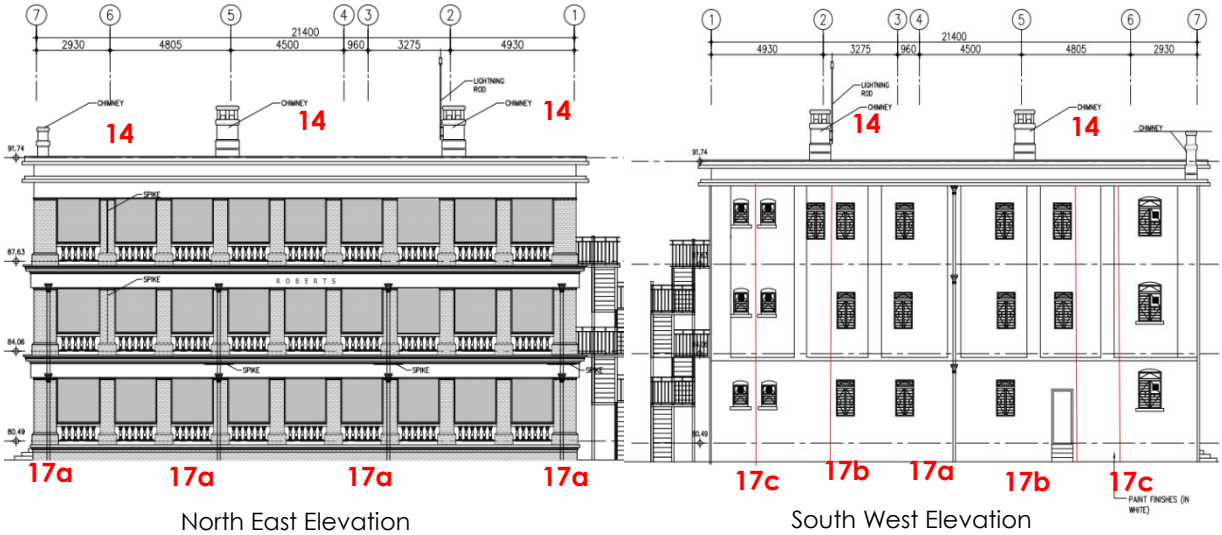
No.	Description	Level of Significance	Photo



ROOF FLOOR PLAN

13.	Flat roof and their projected eaves [the original design of the roof is pitched but later altered to flat roof]	Medium	
14.	Chimneys on roof	Very High	
15.	Access hatch opening on roof, with: - Stainless steel hatch door (later replacement)	Medium No	

No.	Description	Level of Significance	Photo
16.	Water tank on roof	No	



North East Elevation

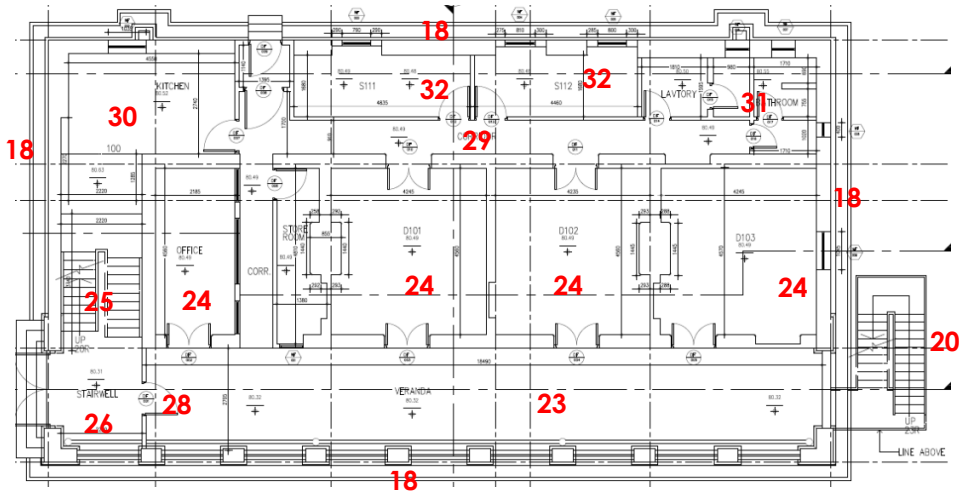
South West Elevation

17.	Drainage and sewage downpipes, including: - (a) Cast-iron rain water downpipes and hoppers with classical motif on the front and rear façades, up to 2/F slab, [Those from 2/F slab level to G/F with classical motif hoppers seem to be original] - (b) Cast-iron rain water downpipes without hoppers, up to 2/F slab, [Aged and maybe original with alterations] - (c) Waste and foul water downpipes at the two ends of the rear façade [Aged and matched original kitchens and bathrooms layout]	Various as below Very high Low Low	

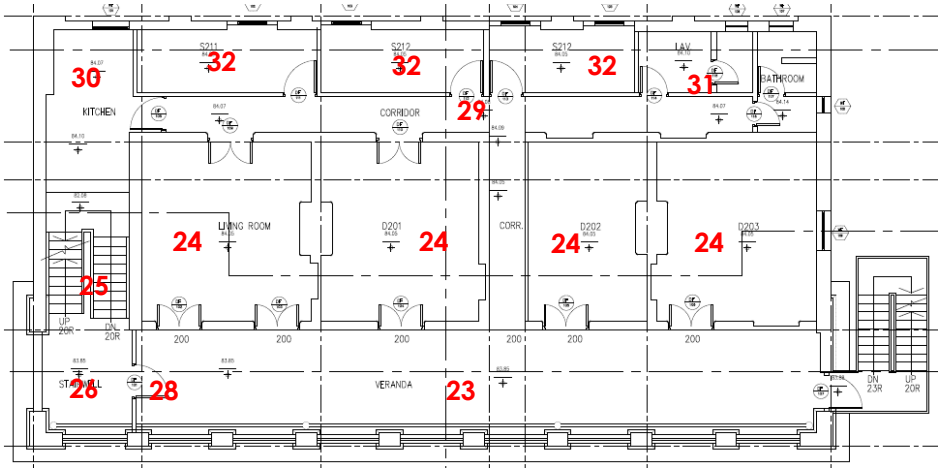
No.	Description	Level of Significance	Photo
18.	Surface channels surrounding the entire building, with - Location - Cement finish - Arch "tunnel" at the bottom of entrance granite steps [Original layout design according the record plan 1913-1922]	High High Low Very high	
19.	Cast iron manhole covers [Original fabric manufactured in UK]	Very high	

No.	Description	Level of Significance	Photo
20.	External metal staircase (later alteration)	No	

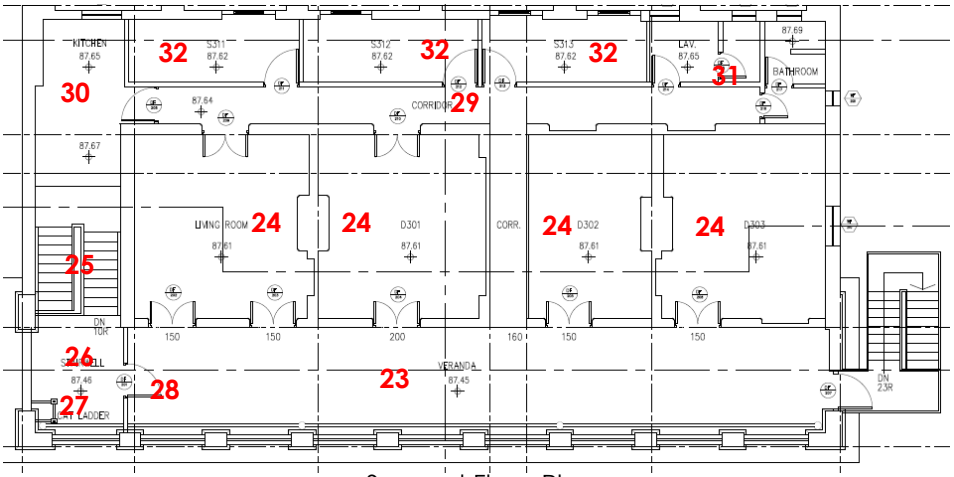
No.	Description	Level of Significance	Photo
5.2.3	*Main Building Interior*		



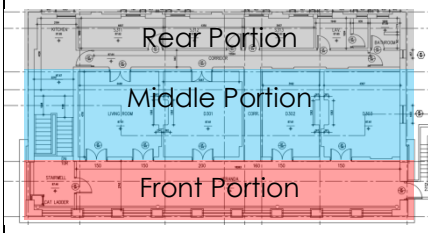
Ground Floor Plan



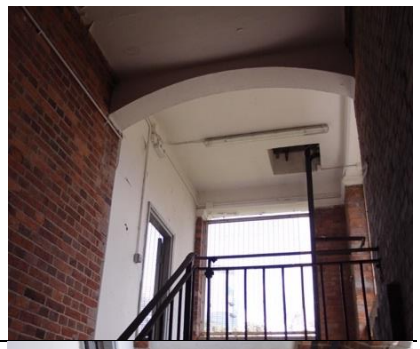
First Floor Plan

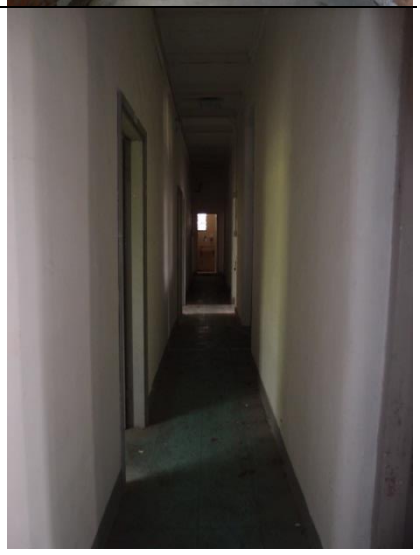


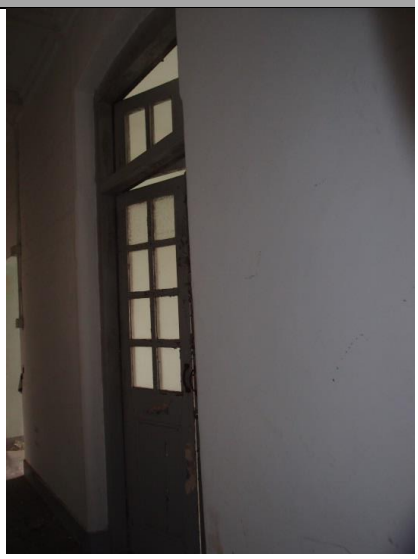
Second Floor Plan

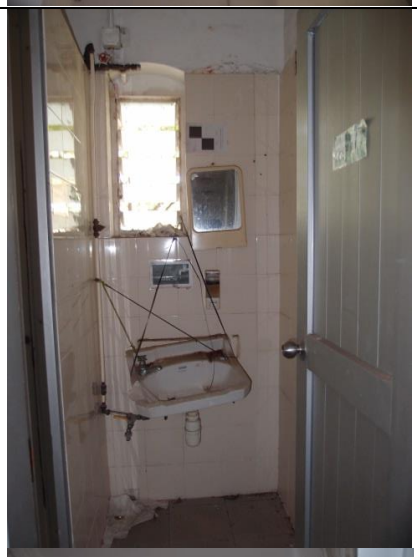
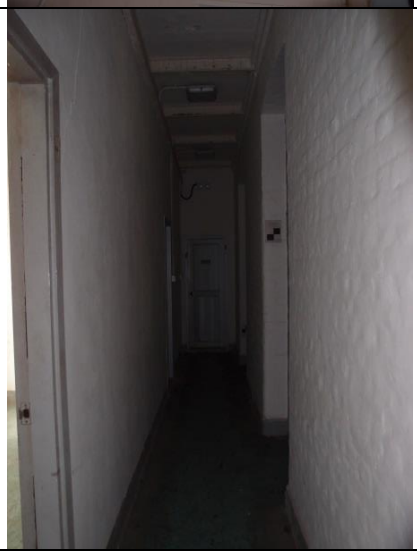
No.	Description	Level of Significance	Photo
21.	Building layout consisted of three portions, including: - Front portion - open verandah - Middle portion – 4 living and bedrooms and staircase with structural in-between - Rear portion – servant spaces	High High High High	
22.	Building structure, generally consisted of brick walls, concrete floors, steel joists and concrete beams, archways for door openings	High	
23.	Open verandahs, including: - Openness to give view and natural ventilation - Facing brick walls and columns with rendered moulded capitals - Brick corbels on G/F and 1/F - Original brick segmental arched door openings on G/F and 1/F and rectangular ones on 2/F (including the blocked ones) - Timber French doors with fanlights and ironmongeries (segmental arched shape on G/F and 1/F and rectangular shape on 2/F) - Later added wall openings to later added corridor connecting the rear portion - Plain painted ceiling - Exposed steel joists on G/F and 1/F ceilings - Painted edge beam above columns with chamfered edge - Granite thresholds at door openings - Cement sand screeding on floors - Surface channel - Plastered skirting - Facing brick end walls with doorways to external metal staircase on 1/F and 2/F (later additions) [Elements in verandahs that related to its spatial quality and front façade elements are of very high significance; original elements are of high significance; elements that may have or easily be altered are of medium/ low significance; later added elements are either of no value or intrusive]	Very high Very high Very high Very high Very high High Intrusive Medium High High High Low Medium High No	 1/F (G/F similar) 2/F

No.	Description	Level of Significance	Photo
24.	Bedrooms and living rooms in the middle portion, with - Chimney breasts with round edges (all fireplaces are blocked) - Classical moulded beams - Plain ceiling with chamfer-edged (on G/F and 1/F) or classical moulded ceiling cornices (on 2/F) - Original segmental-arched or rectangular wall recesses of blocked doorways between rooms or to front/ rear portions - Vinyl floor tiles (later added) - Skirting painted in dark grey - Plastered and painted original structural brick walls - Access corridors connecting the front and rear portions and their partition walls and associated alteration (later alteration)	High High High High High No Medium High Intrusive	

No.	Description	Level of Significance	Photo
25.	Internal metal staircase in the middle portion, with - Steel structural members (channels as stringers, angles at steps and landing) - Timber treads and timber half landing - Steel riser - Steel balustrade and handrail - Openness to hallways with arch beams at ceilings - Facing brick stairwell walls - Exposed steel joist on 2/F ceiling	High High High High High High High High	 
26.	Staircase hallways - Cement sand screeding on floor - Grano floor finish (may not be original but aged) - Openness to give view and natural ventilation - Facing brick walls and columns with rendered moulded capitals - Plain painted ceiling - Painted edge beam above columns with chamfered edge - Surface channel - Plastered skirting	High Low Medium Very high Very high Medium High Medium Low	

No.	Description	Level of Significance	Photo
27.	Metal cat ladder to the access hatch to roof on 2/F	High	
28.	Partition walls between the verandah and staircase hallways, with - Walls with plaster on both sides and door openings - Timber doors (suspected later replacement)	High High Low	
29.	Corridors in the rear portions (middle part), with - Corridor space, connecting all the rooms in rear portions [These areas were originally a verandah connecting the rooms in the middle portions (central core) originally and were altered to the corridor after addition of rooms in the verandahs] - Structural walls between corridors and rooms in the middle portions, rendered and painted - Original door openings to rooms in the middle portions (Segmental arched on G/F and 1/F and rectangular on 2/F, including the blocked ones) - Timber French doors with fanlights and ironmongeries (segmental arched shape on G/F and 1/F and rectangular shape on 2/F) - Later added wall openings to later added corridor connecting the rear portion	Low No High High Intrusive	

No.	Description	Level of Significance	Photo
	- Plain painted ceiling - Exposed steel joists on G/F and 1/F ceilings - Painted brick corbels at ceiling adjoining the middle portion - Partition walls and doors to kitchens, lavatories and later added rooms - Vinyl flooring - Plastered skirting painted in grey - Corbels on G/F and 1/F Ceiling	Medium High High No No No High	
30.	Kitchens, with - Location - Kitchen internal layout and fixture - Ceramic wall and dado (Non-original fabric] - Plastered wall and painted in white (Non-original fabric) - Arch recesses over window opening on G/F - Exposed steel joists at ceiling on G/F and 1/F - Painted corbels at ceiling on G/F and 1/F - Chimney breasts [Though kitchen is not an area of high	Low Low No No No High High High High	

No.	Description	Level of Significance	Photo
	significance, elements inside related to building structure are of higher importance]		
31.	Lavatories and bathrooms, with - Location - Layout and fixtures (altered) - Ceramic wall and floor tile up to high level (non-original fabric] - Arch recesses over window openings - Exposed steel joists on G/F and 1/F ceilings - Corbels on G/F and 1/F ceiling	No Medium No No High High High	
32.	Rooms along the corridors in rear portions other than kitchens, lavatories and bathrooms - Layout and fixtures (altered) - Arch recesses over window openings - Vinyl flooring - Plastered skirting painted in grey - Partition wall painted in white - Exposed steel joists on G/F and 1/F ceilings - Corbels on G/F and 1/F ceiling	No No High No No No High High	

6

OPPORTUNITIES AND CONSTRAINTS

6.1 Physical Condition

Weakness/ constraints:
Based on site observation, the buildings in the Site are in fair condition and generally authentic.

However, cracks are found on both sides of the external brick wall on NW elevation, as well as the adjoining return structural brick walls. Also, due to the approximate construction year of the building (1907-1910), structural adequacy of the concrete beams and slabs in the building should be further checked by open up inspection, laboratory tests and structural appraisal (to be further discussed in section 6.2 below) before deciding necessary structural upgrade.

The highest authenticity is shown in the front portion of the Roberts Block in which verandahs are kept opened. The middle portion also shows high degree of authenticity though disturbance to the layout and structural walls are found. The rear portion shows the least authenticity.

As discussed in chapter 3, windows should be of timbers originally but those exist on site are mostly of steel. Ironically, timber ones found on site do not appear to be original fabric. On the other hand, doors of the middle portion that open to the front and rear portions appears to be of age, if not original.

Opportunity:
The adaptive reuse of the Site is a good opportunity to fix the defects of the damaged fabrics. However, for those lost original fabrics, restoration may not be necessary and appropriate, subject to if the original fabrics (e.g. timber windows) are character-defining elements of high significance and if there is enough evidence to support an authentic restoration. Restoration involving structural walls may not be necessary and appropriate, as it will complicate the holistic structural repair/ upgrade strategy of the building.

6.2 Compliance of Current Regulations

Weakness/ constraints:
According to the current Buildings Ordinance, buildings involving change of use should be

altered and upgraded to comply the current statutory requirements. The adaptive reuse of the Site therefore needs to be upgraded under this requirement, which means that alteration and disturbance to the original building fabric (e.g. balustrade upgrade, barrier free access addition, etc.) is unavoidable. There are several critical issues, namely:

- EVA: The existing sub-standard emergency vehicular access to the Site is a vital deficiency that needs to be resolved during the adaptive reuse. This may be compensated by enhanced fire services installation, subject to approval by Fire Services Department.

- Fire Services Installation: Another vital deficiency is the lack of fire services and sprinkler water tanks and pumps inside the Site. They are needed to be added to the Site and to be considered together with the EVA deficiency.

- Loading capacity: It was found from structural investigation that there is no reinforcement in 1/F and 2/F floor slabs and beams. Plain concrete is not accepted by current statutory structural requirement for concrete construction as steel reinforcement is required for undertaking tension according to the structural theory under the current code. From safety point of view, plain concrete is a brittle material with low ductility characteristic, which will lead to sudden failure and crush without signal. Therefore, strengthening or even removal and re-casting with new reinforced slab is required for meeting the current standard. Beams without reinforcement will have to be strengthened by steel beams. The deficiency of slabs and beams of each floors are further explained in the following figures and table.

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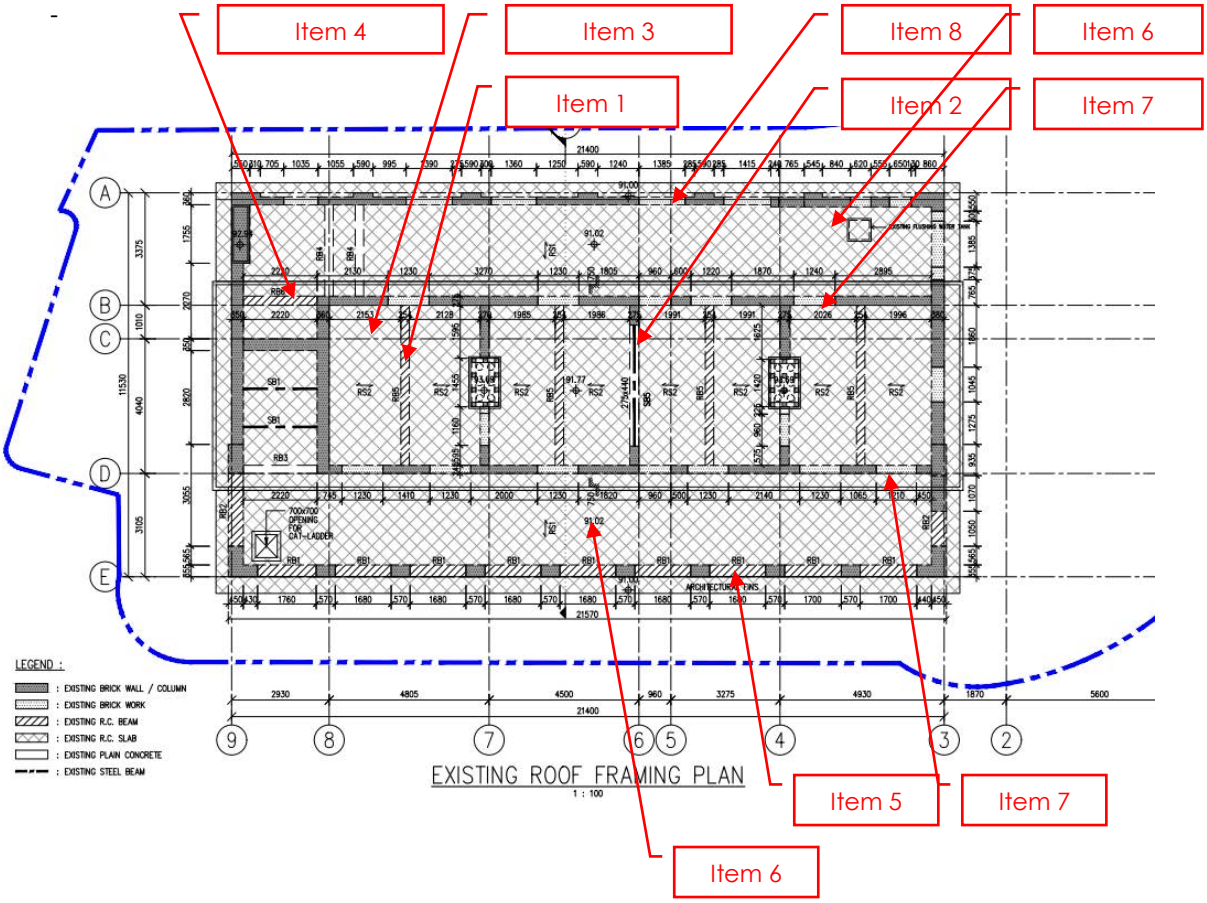


Fig.6.2.1. Existing roof flaming plan, indicating locations of items listed in table 6.2.1.

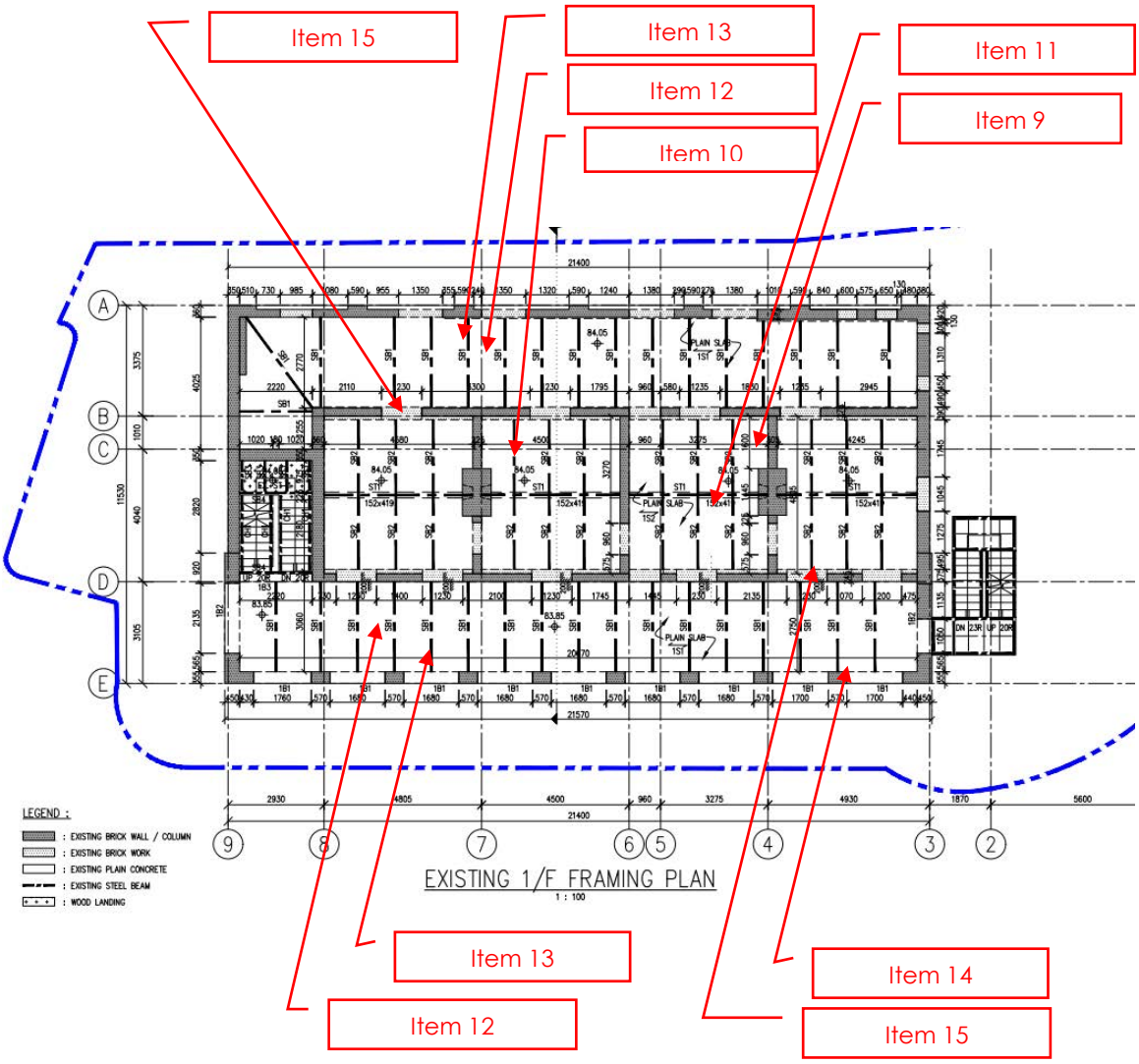


Fig.6.2.2. Existing 1/F flaming plan (2/F similar), indicating locations of items listed in table 6.2.1.

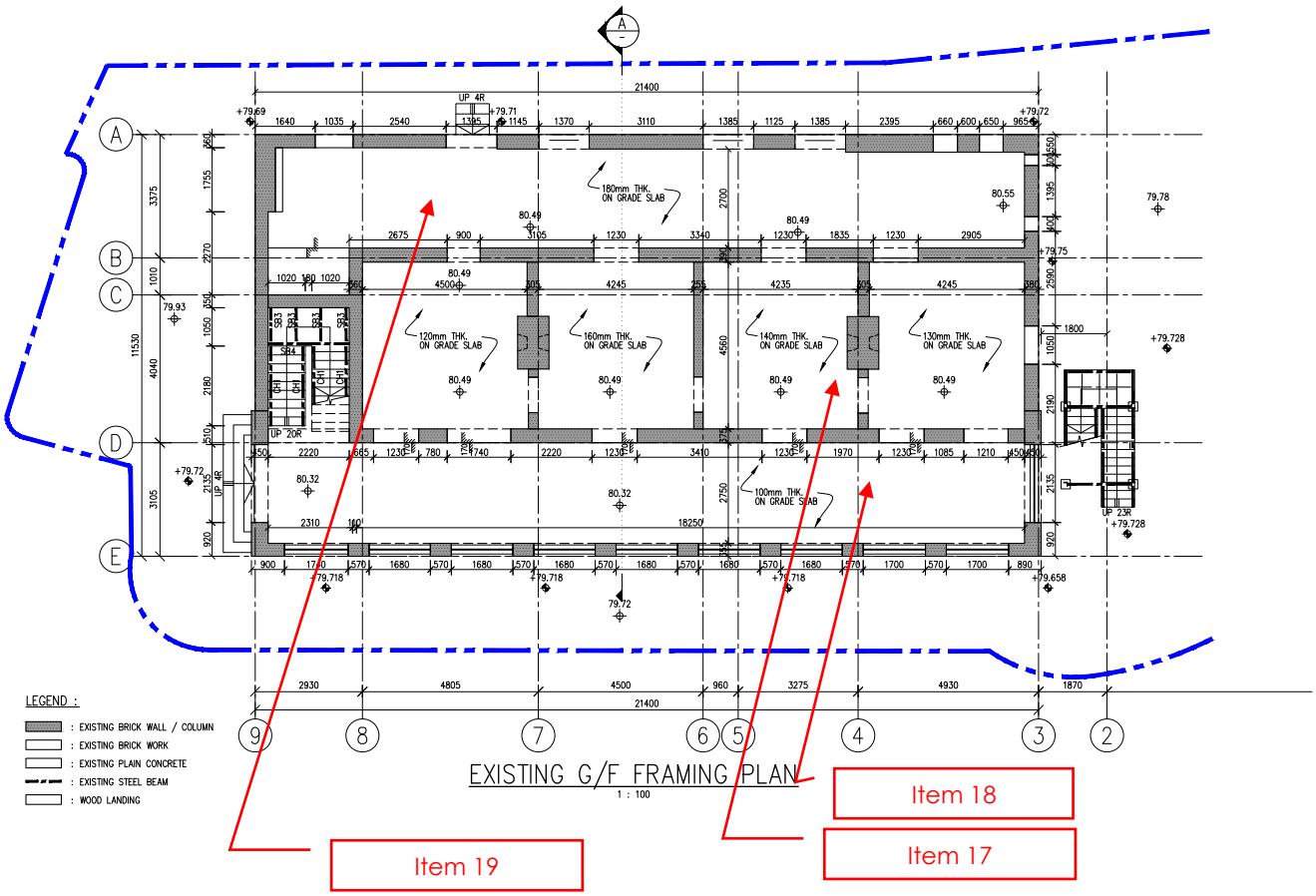


Fig.6.2.3. Existing G/F flaming plan, indicating locations of items listed in table 6.2.1.

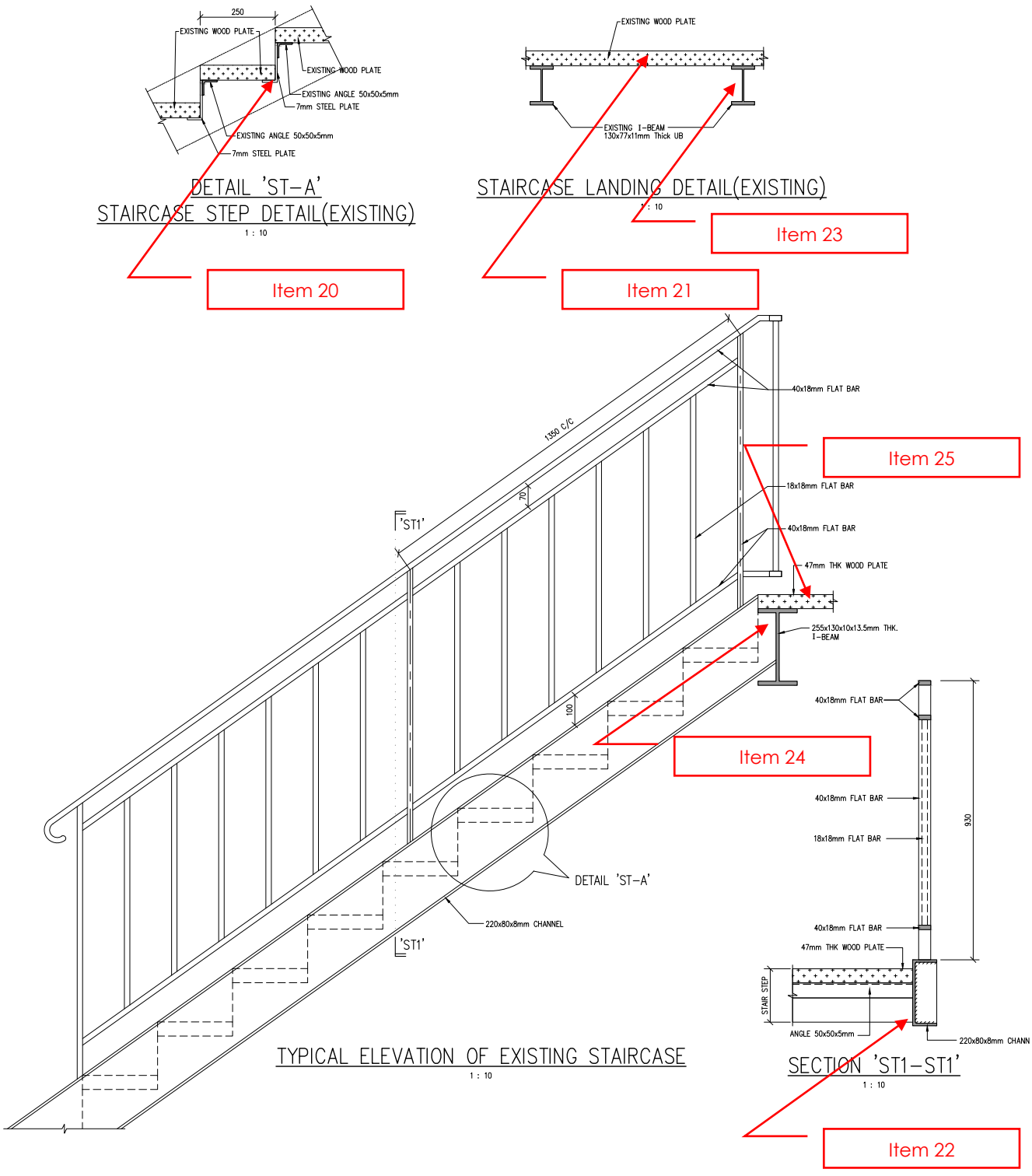


Fig.6.2.3. Existing internal staircase elevation and section, indicating locations of items listed in table 6.2.1.

Floor	Item No.	Location, element	Grid	Original Design Loading Capacity according to LCC 1909 / kPa	Existing Member as observed by opening up	Allowable Loading Capacity according to calculation based on opening up record/ kPa	Design Loading Capacity required for new use according to current B(C)R/ kPa	Deficiency/ kPa
RF	1	Middle Portion, RC Beam RB5	Grid B-D/ 8-3	1.3	254x440	0.6	0.75 (management approach subject to BD acceptance)	Member under design by checking according to past standard / code
	2	Middle Portion, I-Beam SB5	Grid B-D/ 6		125x75x5.9mm THK	Fail in dead load		Member under design by checking according to past standard / code
	3	Middle Portion, RC Slab RS2	Grid B-D		120mmTHK	2.3		N/A
	4	Rear Portion, RC Beam RB6	Grid B		275x451	9.4		N/A
	5	Front Portion, RC Beam RB1 & RB2	Grid E		355x533	2.7		N/A
	6	Rear and Front Portion, RC Slab RS1	Grid A-B, D-E		142mm THK	2.5		N/A
	7	Middle Portion, Lintel Beam, RC Beam	Grid B & D		125x65x9.5mm THK	2.5		N/A
	8	Rear Portion, Lintel Beam, brick arc	Grid A		360(B)x120(D)x80mm(r)	2.2		N/A

Floor	Item No.	Location, element	Grid	Original Design Loading Capacity according to LCC 1909 / kPa	Existing Member as observed by opening up	Allowable Loading Capacity according to calculation based on opening up record/ kPa	Design Loading Capacity required for new use according to current B(C)R/ kPa	Deficiency/ kPa
1-2F	9	Middle Portion, Lightweight Plain Concrete Slab 1S2, 2S2	Grid B-D	3.3	155mm THK for 2F/ 167mmTHK for 1F	Plain concrete not accepted by current code	3	Plain concrete not accepted by current code
	10	Middle Portion, embedded I-Beam SB2	Grid B-D/ 8-3		120x45x5x9.5 mmTHK	1.36		- 1.64
	11	Middle Portion, I-Beam ST1	Grid B-D/ 8-3		100x65x11m mTHK	Fail in dead load		Fail in dead load
	12	Rear and Front Portion, Plain Concrete Slab 1S1, 2S1	Grid A-B, D-E		142mmTHK	Plain concrete not accepted by current code		Plain concrete not accepted by current code
	13	Rear and Front Portion, I-Beam SB1	Grid A-B/ 9-3, D-E/ 9-3		127x78x5x8.1 mmTHK	Fail in dead load on grid A-B & 1.01 on Grid D-E.		Grid A-B: Fail in dead load Grid D-E: -1.99
	14	Front Portion, Edge Beam, Plain Concrete Beam	Grid E		355x762	Plain concrete not accepted by current code		Plain concrete not accepted by current code
	15	Middle Portion, Lintel Beam, brick arc	Grid B & D		2/F : 245(B) x 260(D) x 80mm(r) 1/F : 375(B) x 260(D) x 80mm(r)	0* for 2F & 2.05 for 1F (*:"0" means that the member can only withstand the loading from existing dead load)		2/F: -3 1/F: -0.95

Floor	Item No.	Location, element	Grid	Original Design Loading Capacity according to LCC 1909 / kPa	Existing Member as observed by opening up	Allowable Loading Capacity according to calculation based on opening up record/ kPa	Design Loading Capacity required for new use according to current B(C)R/ kPa	Deficiency/ kPa
	16	Rear Portion, Lintel Beam, brick arc	Grid A		360(B)x235(D) x80mm(r)	6		N/A
GF	17	Middle Portion (Rooms)	Grid B-D	On grade slab	N/A	N/A	On grade slab	N/A
	18	Front Portion/ Verandah (Grid D-E)	Grid A-B					
	19	Rear Portion/ Corridor (Grid A-B)	Grid D-E					
G-2F	20	Staircase, Angle Section AL1 (under steps)	Grid C-D/ 9-8	3.3	50x50x5mmT HK	Fail due to missing of existing members under some steps.	3	Fail in point load case (4.5kN)
	21	Staircase, wood plate step			47mmTHK	over 20kPa		N/A
	22	Staircase, Channel CH1 (inclined member)			220x80x15x8 mmTHK			N/A

Floor	Item No.	Location, element	Grid	Original Design Loading Capacity according to LCC 1909 / kPa	Existing Member as observed by opening up	Allowable Loading Capacity according to calculation based on opening up record/ kPa	Design Loading Capacity required for new use according to current B(C)R/ kPa	Deficiency/ kPa
	23	Staircase, I-Beam SB3 (landing support)			130x77x11mmTHK			N/A
	24	Staircase, I-Beam SB4 (horizontal member)			255x130x13.5mmTHK			N/A
	25	Staircase, Timber landing			47mmTHK	Fail in point load case (4.5kN)		Fail in point load case (4.5kN)

Table 6.2.1. Slab and beam structural deficiency. Deficiency are written in red.

- Protective barrier: The existing balustrades on site are sub-standard protective barriers needing upgrade, including:
  a. Internal staircase – gaps between members wider than 100mm, height lower than 1100mm, and structural strength not enough to withstand impact load specify by current code: 1.5kN/m (live load), 1.5kN (point load) and 1.5 kPa (UDL)
  b. Balustrades of front verandahs - gaps between members wider than 100mm, height lower than 1100mm, and structural strength not enough to withstand impact load specify by current code: 1.5kN/m (live load), 1.5kN (point load) and 1.5 kPa (UDL)
  c. Balustrades at the north and east edge of the plateau where the Roberts Block sits - gaps between members wider than 100mm, height lower than 1100mm, and may not able to withstand required horizontal imposed load and structural strength not enough to withstand impact load specify by current code: 1.5kN/m (line load), 1.5kN (point load) and 1.5 kPa (UDL)

- Fire resistance construction (FRC): The FRC and compartmentation of the building were studied. Investigations had been carried out to identify the fire resisting construction / properties of the building. Upgrading works will be necessary to meet the current standard, including the following area identified:
  a. Inadequate fire rated performance of the existing steel staircase inside the building, including the steel structure and timber floor slab for staircase and landing,
  b. Inadequate fire rated performance of the existing steel beam at the front and rear portions,
  c. Inadequate fire separation between the internal escape staircases with the remaining part of the building on G/F.

- Barrier free access: The Site lacks barrier free access, for both site access and circulation within the Roberts Block building. Two lifts will be needed to bring users from Kennedy Road up to the plateau and from the plateau to all floors of the building. Level difference of verandah and adjacent rooms and insufficient width of the rear corridors for barrier free access are also needed to be solved.

- Means of escape: There are two staircases currently serving the Roberts Block. The internal one is a sub-standard staircase as it is built in steel structure and timber treads without fire resistance properties, having insufficient width, having no protected lobby and having no handrails. In addition, insufficient width of exit routes along the rear corridors are noticed as well which required exemption/ modification application.

- Natural lighting and ventilation: Due to the limitation of window area or some of the room were not adjacent to any external wall, modification of natural lighting and ventilation with mechanical ventilation and artificial lighting (MVAL) will be required for some rooms. Existing windows at rear elevation will thus need to be replaced by new ones with louvres to meet the required exhaust air requirement.

- Slope stability: There are three features 11SW-B/F107, CR294 and C159 in the Ancillary Site and two features 11SW-B/CR155 and CR310 abutting the southern lot boundary and outside the Site. Feature nos. 11SW-B/F107, CR294 and CR155 were upgraded by landslip preventive measures (LPM) works completed by LPM Branch of GEO in 1998 and 2003. Though no slope deficiency is observed from all the five features, any proposed building/ excavation/ site formation works affecting the slopes will require slope stabilization/ upgrade works to the sub-standard portion.

Opportunity:
Upgrading works during the coming adaptive reuse can help the Site to adapt its new lease of life and therefore ensure its sustainability.

6.3 Conflict Caused by Modern-day Additions

Weakness/ constraints:
The buildings were not designed with the building services up to current standards. No air-conditioners have been installed, which is beneficial to the building as it helps keep the authenticity of the built fabric. Intrusive building services pipeworks are currently limited to electricity conduits. However, introduction of MVAC cannot be avoidance for future adaptive reuse. Drainage and sewage systems will need to be upgraded as well.

Opportunity:
Since building services cannot be eliminated, the coming adaptive reuse of the Site gives the opportunity to re-plan and re-design of the intrusive building services and cue the adverse visual impact caused.

6.4 Community Needs and Social Context

Opportunity:
Buildings of the Old Victoria Barracks have been revitalised into different uses, mainly arts and cultural uses enjoyed by the public (e.g. Teaware Museum, Visual Arts Centre, Asia Society Hong Kong Centre, etc.). The Roberts Block, which is located above Kennedy Road and outside the Hong Kong Park, is less accessible than other revitalised barrack buildings and therefore has been under use or even left vacant. The Site carries a tranquil environment that suits arts, therapy or meditation related use. The revitalisation of the Site, with an appropriate new use welcoming visitors, can potentially fit into and even enhance this cultural environment, thus help create synergy effects with the neighbours to attracts more visitors and promotes cultural significance of the cluster.

6.5 New User's Needs

Weakness/ constraints:
The choice of new use will be restricted by consideration on the followings:

- The necessary upgrade of the building to fulfill statutory requirements, especially loading requirement as described in section 6.2 above – the less necessary upgrade, the better the choice of new use;
- The degree of allowed public accessibility – the higher degree of public accessibility, the better the choice of new use;
- The nature of the new use, in terms of the intangible meaning giving by the Site – the better fitting into the building original domestic use and/ or into the current arts and cultural context of the neighbourhood, the better the choice of new use;
- The nature of the new use, in terms of building layout – the closer nature of new use to the original use (i.e. domestic) and the better it fits the original building layout, the better the choice of new use.

6.6 Interpretation

Weakness/ constraints:
Since the original use of the Site cannot be continued, the social recognition of the Site's original use and history may be lost after the adaptive reuse.

Opportunity:
The coming adaptive reuse gives the opportunity to introduce interpretation in the building. By opening up the Site for public's visit, it may promote the Site's cultural significance better than its time being a military barrack building, which was inaccessible for the public.

7

CONSERVATION POLICIES AND GUIDELINES

The following conservation policies and guidelines are based on:

- Principles set by international conservation charters, including Burra Charter 2013 and Principles for the Conservation of Heritage Sites in China 2015, and
- The findings and analysis in the previous sections of this report.

They aim to point out ways to conserve and enhance the heritage significance of the Site and to allow some potential change in the Site that will not adversely affect its heritage significance. Therefore, the followings can be used as one of the bases to plan for the future repair, restoration and adaptive reuse for the Site.

The following sections are structured by making reference to Burra Charter Guideline – Conservation policy. Under each section in this chapter, relevant articles from international charters are first listed out to set the guiding principles, followed by corresponding policies and guidelines specific to the Site.

7.1 Use

Guiding Principle

- Burra Charter Article 7.2 - A place should have a compatible use.

Policy 1

Since the usage of the Site as a military barrack building cannot be continued, the new use should be compatible to the Site.

Guideline 1.1

It is the best to keep the building as domestic use or to use as arts and cultural related use in view of the neighbouring context.

Policy 2

The allowable structural loading of the existing historic building should be taken account when choosing the new use.

Guideline 2.1

Due to the extensive structural deficiency as compared to current statutory requirements on concrete structure, unless the building can be kept as domestic use to avoid change of use, structural strengthening seems unavoidable. In such

circumstance, alteration options should be studied to identify an optimum solution for ensuring structural safety but creating least impacts to the building. Both physical and visual impacts should be considered.

Guideline 2.2
When considering structural strengthening options, additional dead load created by strengthening elements should be avoided as far as possible, so as not to add loading to existing footing and trigger further strengthening works necessary for footings.

7.2 Setting

Guiding Principle

- Burra Charter Article 8 - Conservation requires the retention of an appropriate visual and sensory setting as well as the retention of spiritual and other relationships that contribute to the cultural significance of the place. New construction, demolition, intrusions or other changes which would adversely affect the setting or relationships are not appropriate.

Policy 3
The setting of the Roberts Block as a building sits on a plateau between Kennedy Road and Borrett Road overlooking the Hong Kong Park and Admiralty.

Guideline 3.1
New structures in the Site higher than the Roberts Block and blocking the mentioned view should be avoided.

7.3 Interpretation

Guiding Principle

- Burra Charter Article 25 Interpretation – The cultural significance of many places is not readily apparent, and should be explained by interpretation. Interpretation should enhance understanding and enjoyment, and be culturally appropriate.

Policy 4
Public accessible areas should be reserved for interpretation in the Site to explain and promote to the general public the cultural significance of the Site.

Guideline 4.1
Possible topics for interpretation and their corresponding suitable location are listed below:

- The historic and contextual values of the Site and the Old Victoria Barracks,
- The architectural values of the Site as one of the examples of Edwardian Classical Revival building in Hong Kong, and
- The conservation/ adaptive reuse process.

Guideline 4.2

Subject to the decided new use and therefore operational needs, some areas in the Site should be reserved for interpretation that allows public accessibility. These areas include:

- Verandahs
- Part of the G/F

Having said the above, spaces can be designed for dual purpose (but not solely for interpretation). Public accessibility only during designated periods or only with appointments for some of these rooms can be flexibly considered to suit operation needs.

7.4 Control of Intervention in Fabric 1 – Repair and Restoration of Physical Fabrics

Guiding Principle

- Principles for the Conservation of Heritage Sites in China Article 27 – Minor restoration most frequently involves rectifying components that are deformed, displaced or collapsed, repairing damaged elements, and removing additions that have been assessed as inappropriate. Detailed documentation records should be kept of elements that are removed or added and those that have been added should be distinguishable from original fabric.
- Principles for the Conservation of Heritage Sites in China Article 27 – Major restoration is an intervention involving the most impact to original fabric. It includes returning a structure to a stable condition and also repair or replacement of damaged and key missing components. The decision to repair traditional wooden architecture through complete disassembly and reassembly should be taken with caution. All problems revealed in the course of disassembly and reassembly should be rectified. Restoration should, as far as possible, preserve the structures, components, and vestiges and traces of periods judged to have value. There needs to be ample evidence to justify restoration.

Policy 5

In general, character-defining elements should be preserved, repaired or restored as much as possible in any future adaptive reuse for the Site.

Guideline 5.1

Chapter 5 should be referred for the list of character-defining elements.

Guideline 5.2

Like for like repair approach should be adopted. Original building materials and techniques should be reused and followed as far as practicable. However, replacement should be sought if original fabric is beyond repair. Preserving the building integrity in a whole should be more important than parts. Maintenance and then minor restoration is more preferable than major restoration.

Guideline 5.3

Restoration by replicas of lost building fabrics should only be carried out if they are character-defining elements of very high and high significance and the restoration can be supported by enough evidence (e.g. physical remains of fabrics, record photos and detail drawings) to ensure authenticity.

The lost building fabrics suggested to be restored with replica include:

- A fire-place in one of the original living room or bedroom on G/F for interpretation purpose

- French doors of the Central Core rooms in the middle portions to the front and rear portions, and timber door between rooms, if structural feasible and if fits the new proposed layout (see guidelines 6.3 as well).

However, restoration of the original timber windows (all have been replaced) by replica is not recommended as there is no information about their original appearance. On the other hand, those replica timber windows on the NW facades can be kept and repaired as necessary.

Policy 6

Intrusive later alterations should be removed to restore the hidden/ disturbed character-defining elements as far as possible.

Guideline 6.1

Suggested removal of intrusive fabrics includes:

- Steel wire mesh above and behind balustrades of verandahs

Guideline 6.2

Though the later added corridors in the middle portions connecting the front and rear portions are considered intrusive, if such accesses are needed for the new use, it is tolerable to keep them, as their restoration will complicate structural upgrade strategy of the building.

Guideline 6.3

Some later additions are considered as no value. Since they have also disturbed elements with significance, removal of them can enhance the cultural significance of the building so should be considered if technically feasible and suitable for the proposed new use.

- The facing brick walls at the north end of the verandahs on 1/F and 2/F, which block the original openings of the verandahs
- Later- added rectangular window openings at rear façade, which likely block the original arch openings of the rear verandahs (openings restoration subject to Building Authority's approval)
- The blocked door openings of the Central Core rooms in the middle portions to the front and rear portions, and between rooms, if structural feasible and if fits the new proposed layout (openings restoration subject to Building Authority's approval)

7.5 Control of Intervention in the Fabric 2 - Interventions to Physical Fabrics

Guiding Principle

- Burra Charter Article 15.1 Change – Change may be necessary to retain cultural significance, but is undesirable where it reduces cultural significance. The amount of change to a place should be guided by the cultural significance of the place and its appropriate interpretation.
- Burra Charter Article 27.1 Managing Change –The impact of proposed changes on the cultural significance of a place should be analyzed with reference to the statement of significance and the policy for managing the place. It may be necessary to modify proposed changes following analysis to better retain cultural significance.
- Burra Charter Article 27.2 Managing Change – Existing fabric, use, associations and meanings should be adequately recorded before any changes are made to the

place.

Policy 7
In general, alterations and additions to the Subject Building to suit new use and safety enhancement is acceptable, in order to keep the building in appropriate use. However, they should be well planned with minimum intervention approach, so as to minimise impact to the cultural significance of the building. Character-defining elements of lower significance and of less authenticity can allow more alterations to suit adaptive reuse.

Guideline 7.1
Chapter 5 should be referred for the list of character-defining elements.

Guideline 7.2
Suggested areas more suitable for alteration and addition include:
- Rear portion of the Roberts Block
- Rear (SW) and NW side facades of the Roberts Block

Guideline 7.3
The design of any alteration and addition works should follow the following principles:
- Reversible alterations/ additions,
- Compatible with but distinguishable from the original fabrics,
- Minimum visual impact on the Roberts Block, as well as from it especially its vistas from Roberts Block to the Hong Kong Park and Admiralty.

Policy 8
Building services should be well planned to avoid visual impact on the building.

Guideline 8.1
Introduction of new building services is unavoidable for adaptive reuse and upgrade of the building to suit modern day requirements. To minimise visual impact by newly introduced conduits, pipes, ducts and air-conditioners, they should be properly placed, preferably on faces/ in spaces of less significance.

7.6 Management

Guiding Principle
- Burra Charter Article 16 Maintenance – Maintenance is fundamental to conservation and should be undertaken where fabric is of cultural significance and its maintenance is necessary to retain that cultural significance.
- Burra Charter Article 29 Responsibility for Decisions – The organizations and individuals responsible for management decisions should be named and specific responsibility taken for each such decision.
- Burra Charter Article 30 Direction, Supervision and Implementation – Competent direction and supervision should be maintained at all stages, and any changes should be implemented by people with appropriate knowledge and skills.
- Principles for the Conservation of Heritage Sites in China Article 25 - Maintenance and monitoring is fundamental to the conservation of heritage sites. Maintenance is the timely removal of potential problems that could cause damage or deterioration and also ensures it is kept clean and orderly. A maintenance program should be established and implemented at every heritage site.

Policy 9

It is necessary for the property management and operation teams of the Site to understand the cultural significance of the Site and have certain knowledge on how to conserve it.

Guideline 9.1
It is essential for the property management and future operation teams to read this conservation management plan and to execute the repair, restoration, adaptive reuse and interpretation of the Site following the guidance of this conservation management plan.

Policy 10
A Maintenance Plan and a Maintenance and Operational Manual should be drawn up, to ensure that the building is kept in good condition and properly used during operation. This should include a detailed plan for the regular upkeep of the built fabric.

Guideline 10.1
A Maintenance Plan should include a maintenance schedule with detailed description of the tasks that should be carried out at specifies intervals such as on a weekly, monthly, quarterly, yearly or five yearly basis. This ranges from the minor routine tasks of inspection and maintenance of the building fabrics (in particular the CDEs listed in Section 5.2, such as checking the taps and overflows for leaks, which should be done at least weekly) to major tasks to be completed every five years such as a full test of the electrical system. A good maintenance plan will make it clear who in the building management team is responsible for which item and it will have a system for recording that the tasks have been carried out.

Guideline 10.2
The Maintenance and Operational Manual should give guidance to all staff/ workers on how to approach the use, repair and maintenance of the building and specific features of the site. This might include guidance on the appropriate materials for the maintenance of historic fabrics such as timber and steel. It should also list out what should be done or should not be done to the historic building during the daily operation in order to prevent wrong use or even damage to the historic fabric.

Guideline 10.3
The Maintenance Plan and Maintenance and Operational Manual should be made ready before the operation of the new use and should be reviewed by authors and users as necessary.

7.7 Documentation

Guiding Principle

- Burra Charter Article 31 Documenting Evidence and Decisions – A log of new evidence and additional decisions should be kept.
- Burra Charter Article 32.1 Records – The records associated with the conservation of a place should be placed in a permanent archive and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.
- Burra Charter Article 32.2 Records – Records about the history of a place should be protected and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

Policy 11
A documentation mechanism should be set up.

Guideline 11.1
This Conservation Management Plan, any previous studies, researches, investigation findings, mock up result, etc. should be kept in proper filing (hardcopy, electronic copy or both) within the property management and operation team, so that any decision for repair can be made reference to.

Guideline 11.2
Prior to any works for adaptive reuse to the Site, a full photographic and cartographic survey should be completed to record the existing historic fabric of the building prior to any changes taking place. Photographs should be related to a layout plan.

Guideline 11.3
Even after the adaptive reuse, any future repair works during operation of the new use should be properly documented, by photos, drawings, written format and / or 3D scanning (hardcopy, electronic copy or both).

Guideline 11.4
Records should be kept the operators and building owners, in an archive or other appropriate means and media.

7.8 Adoption and Review

Guiding Principle

- Burra Charter Article 26.4 - Statements of cultural significance and policy for the place should be periodically reviewed, and actions and their consequences monitored to ensure continuing appropriateness and effectiveness.

Policy 12
Further research is recommended on the areas stated in Section 1.5 of Chapter 1 Gaps in Knowledge, if time and resources permit.

Guideline 12.1
There are areas that have not been covered by this report, but may contribute to better understanding of the history and significance of the building. Refer to Section 1.5 of Chapter 1 for details. If time and resource allows, further search should be carried out to supplement the content of this report.

Policy 13
This CMP should be reviewed from time to time.

Guideline 13.1
It is the best practice to review a CMP, say in a 5-year interval, so as to update conservation policies corresponding to any change in building status, use and management.

PART 2 HERITAGE IMPACT ASSESSMENT

8

INTRODUCTION

8.1 Project Background & Objectives

This HIA aims for Revitalisation of the Roberts Block Old Victoria Barracks into Roberts Block Open HeArts Centre (the project) and the project proponent is Hong Kong Roberts Block Centre Limited (HKRBCL hereafter).

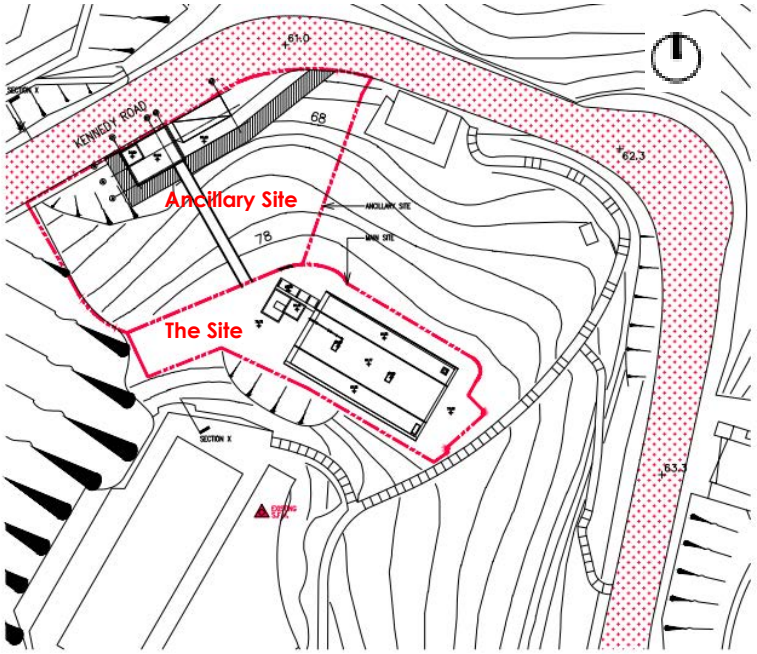


Fig. 8.1.1 Site Plan

The Project will comprise the Site (the original Roberts Block Site) and the Ancillary Site (a piece of land between the Site and Kennedy Road). For the Site, it is to revitalise the Site into "Roberts Block Open HeArts Centre", a flagship hub for providing welfare of psychological and emotional health care to the people of Hong Kong and experiencing the history of the Old Victoria Barracks through a variety of guided tours, workshops and activities. For the Ancillary Site, a tower accommodating a lift and staircase as well as a proposed footbridge and lay-bys will be provided to connect the Site to Kennedy Road.

ANG Studio Ltd. is appointed by HKRBCL to carry out study and compile this HIA to support the upcoming works.

8.2 Objective of HIA

Under the requirement listed in the Resource Kit of R-Scheme, successful applicant should submit a HIA to Antiquities and Monuments Office (AMO) for endorsement regarding the proposed change and alteration. Also under the Development Bureau (DevB) Technical Circular (Works) No.6/2009, for any capital works projects involved with or affecting a heritage site, such as declared monuments, proposed monuments, sites and buildings graded by AAB, recorded sites of archaeological interest and Government historic sites identified by AMO within or in the vicinity of the project boundary, a HIA should be carried out.

In response to the above two requirements, the primary objectives of this HIA are:

- To identify possible impacts to the Site and the cultural significance 50m around the Site (if any) due to the proposed revitalisation
- To propose mitigation measures to alleviate adverse impacts to significant fabric
- To provide recommendation on the future implementation of the proposed mitigation measures

8.3 Methodology

Reference has been made to the following documents in formulating the methodology of carrying out this HIA study:

- DevB Technical Circular (Works) No.6/2009, Heritage Impact Assessment Mechanism for Capital works Projects, DevB, 2009
- Guidelines for Built Heritage Impact Assessment (BHIA), AMO, 2008
- Resource Kit, Revitalising Historic Buildings Through Partnership Scheme, the Roberts Block, DevB, 2016

According to the DevB Technical Circular (Works) No.6/2009, a HIA shall contain a baseline study, methodology, impact assessment and mitigation measures. For baseline study, Part 1 CMP of this report should be referred. The following chapters account for the impact assessment and mitigation measures.

9

THE PROPOSED WORKS

9.1 The Roberts Block Open HeArts Centre

HKRBCL proposes to transform the Roberts Block into "Roberts Block Open HeArts Centre", a creative arts and play therapy centre for providing welfare of psychological and emotional health care to the people of Hong Kong providing the public with skills for stress management and experiencing the history of the Old Victoria Barracks through a variety of guided tours, workshops and activities, such as music, drama, arts and play therapy. The aim of the Centre is to promote the alertness for emotional health and well-being in Hong Kong so that everyone will be healthier and happier in the community. Their main target group is the general public.

HKRBCL will require the following functions to be accommodated in the revitalised site:

G/F
- A new introduction/ reception
- 3 display areas
- A café and pantry for light refreshment
- Circulation, toilets and back of house areas

1/F
- 6 therapy rooms
- Circulation, breast feeding room, toilets and back of house areas

2/F
- 2 offices
- 2 multi-function rooms
- 2 therapy rooms
- Circulation, toilets and back of house areas

R/F
- For maintenance use (Existing chimneys, access hatch, flat roof and their projected eaves to be repaired for interpretation)

Outside the Roberts Block building, the existing external staircase will be replaced by a new one with a lift. A new semi- underground new fire services and sprinkler water tanks and pumps will be housed in the current Northwest open space and the open space will be landscape enhanced.

In order to improve the accessibility of the Roberts Block, in the Ancillary Site, a lay-by will be provided on Kennedy Road level, which is then connected to the Site by a tower accommodating a lift and staircase, and then a proposed footbridge.

In order to cater for new uses, there will be a series of construction works to fulfill the statutory requirements, use operational needs as well as to repair or restore defective building fabrics. The following itemized the proposed works. The new proposed layout plans are attached in the **Appendix A.4** in this report.

9.2 The Proposed Works

9.2.1 Outside the Roberts Block

Open Spaces in the Site

- Existing external metal staircase on the building northwest elevation will be demolished to make space for a new staircase and lift core providing barrier free access and mean of escape from G/F to 2/F of the Roberts Block.
- A new semi-underground structure will be introduced to the northwest of the Roberts Block to house fire services and sprinklers tanks with plant rooms. Top of the structure will form a raised platform with landscape and seats.
- Further end of the open space to the northwest of the Roberts Block will be kept open with landscape features for art therapy.
- Existing steps in the lane at rear façade of the Roberts Block will be demolished, and new steps with extended landing will be constructed.
- New air-conditioning outdoor units and a new flushing water tank will be introduced in the lane at the rear façade.
- Existing healthy trees will be preserved as much as possible in the Site. Open spaces not mentioned above will be enhanced with both hard and soft landscape.

The Ancillary Site

- A new accessible lift and staircase tower, together with a 8m long lay-by area will be introduced at Kennedy Road. The lift and staircase will bring visitors up to a level the same as the plateau where the Roberts Block sits. A new link bridge will be constructed to connect the upper level of the lift and staircase to the northwest open space of the Roberts Block.
- Existing healthy trees will be preserved as much as possible in the Ancillary Site. For trees disturbed by the proposed construction of the new lift, staircase and link bridge, tree compensation will be carried out on the undisturbed slope areas.

9.2.2 Exterior of the Roberts Block

Façade

- There will be no major alternation to the façades, except the changes to suit for exhaust for toilets, the new drainage system, and the new connections to the new lift and staircase, as well as the restoration of original arch openings on the rear façade.
- External walls will be repaired, including brick, concrete, and render repair and repainted with colour match with existing.
- Original urn-shaped balustrades along the verandah will be preserved, except the one to be altered for BFA access at northwest façade on G/F. Later-added wire

mesh above the balustrades will be demolished to restore the original front façade. New glass balustrades will be installed at their inner sides.
- All original window openings will be preserved and reused as much as possible.
- Timber windows with metal grilles, that remain on site will be kept and repaired.
- Steel windows and louvres at the rear façade and side façade, which are later replacements of earlier timber ones, will be replaced by new aluminium ones to suit statutory requirements for light and ventilation for toilets and kitchen and for fire safety requirement fulfillment.
- Original arch-shaped verandah openings on the rear façade will be restored (subject to BA's approval) and the later introduced rectangular windows will be replaced with new aluminium windows/ louvres in segmental-arched shape to fit the size of restored openings in order to meet operational need.
- Split-type air conditioners will be provided, and the external units fenced with architectural screening will be placed in the lane at the rear elevation.
- The existing later added steps at the rear lane outside rear entrance will be demolished and replaced with new metal steps with extended metal landing.

Entrances
- The main entrance at the southeast elevation will be kept in its original location and the gate will be repaired.
- Raised deck and a ramp will be installed at the northwest elevation and the balustrade with urn-shaped balusters at northwest elevation on G/F will be removed to connect the building to the new lift for BFA access. The balustrade parts will be salvaged for interpretation or future repair spare parts.

Roofs
- This floor will be used for maintenance only and repaired as necessary (waterproofing and insulation).
- Existing chimneys will be preserved and repaired. Glass panel will be installed to seal off the opening of the flue to prevent water seepage to the internal.
- The existing flushing water tank will be demolished and replaced by a new one (the one in the outdoor rear lane). A pump set will be introduced in G/F rear portion high level to improve flushing operation.
- The existing access hatch will be upgraded to cater for periscope installation.
- Fall arrest system will be installed.

9.2.3 Interior of the Roberts Block

All floors
- The existing internal staircase will be kept, repaired and structurally upgraded. It will be used as an escape staircase. Upgrading works will include adding steel angle supports underneath the tread and landing, repainting all steel members with fire resistance coating, modifying the existing balustrade and adding fire rated protection boards to the underside of the timber treads and landing, subject to the Building Authority (BA)'s approval.
- Staircase doorways will be replaced with new doors with fire rated resistance performance. Exemption/ modification from the Buildings Department will be sought to avoid the addition of a protected lobby on G/F, subject to the Building Authority (BA)'s approval.
- All verandahs will be preserved as much as possible, including the French doors, facing brick walls and columns. They will be kept unenclosed and serving as circulation.

- Existing surface channels in verandahs will be preserved (or reconstructed if the slabs are being recasted) and reused.
- All French doors of the middle portion opening to verandahs or rear portions still exist on site will be preserved and repaired. The blocked ones to the verandahs, rear portions or between rooms will be restored unless restoration is not feasible due to fire safety, structural, acoustic and layout concern (subject to BA's approval). If not restored, the existing wall recesses of the door openings will be kept to leave traces of old intervention.
- The layout of the middle portion will be generally maintained.
- The layout of the rear portion will be altered to suit new use but will generally be kept as back of house areas or smaller therapy rooms, except a café on G/F.

G/F

- The existing office, the store room, D101 and D102 in the middle portion will be converted into new display areas. The later added corridor access from the verandah to the rear portion and its associated partitions will be demolished to restore original room space.
- The room in the middle portion at northwest end (D103) will be converted into a new reception.
- The existing kitchen and room S111 will be converted into a new pantry and café and a new electric meter room.
- The existing room S112 and toilets will be re-partitioned to suit lavatory re-planning and a new flushing water pump room.
- A fireplace will be restore for interpretation purpose.
- A raised deck will be introduced on the verandah floor to cater for barrier free access from the new lift to the building interior.

1/F

- The existing living room, room D201, D202, D203, S211 and kitchen will be converted into new therapy rooms.
- The existing room S212 will be converted into a new therapy room / breast-feeding room.
- A new electric cabinet will be installed in the existing kitchen area.
- The existing room S213 will be demolished to make space for lavatory re-planning
- Slabs of the front, middle and rear portions will be re-casted, and steel joists, brick arches above the existing door openings and concrete beams of the front portion supporting these slabs will be replaced or strengthened to enhance structural capacity, subject to the Building Authority's approval.
- A raised deck will be introduced on the verandah floor to cater for barrier free access from the new lift to the building interior.
- A glass balustrade will be added at the inner side of the verandahs balustrade as protective barrier enhancement, subject to the Building Authority's approval.

2/F

- The existing living room and D303 will be converted into new offices.
- The existing rooms D301 and D302 will be converted into new multi-function rooms. The later added corridor access from the verandah to the rear portion and its associated partitions will be demolished to restore original room space.
- The existing room S311, S312 and the kitchen will be converted into new therapy rooms.
- A new electric cabinet will be installed in the existing kitchen area.
- The existing room S313 will be demolished to make space for lavatory re-planning.
- The existing cat ladder will be preserved and repaired.

- Slabs of the front, middle and rear portions will be re-casted, and steel joists, brick arches above the existing door openings and concrete beams of the front portion supporting these slabs will be replaced or strengthened to enhance structural capacity, subject to the Building Authority's approval.
- A raised deck will be introduced on the verandah floor to cater for barrier free access from the new lift to the building interior.
- A glass balustrade will be added at the inner side of the verandahs balustrade as protective barrier enhancement, subject to the Building Authority's approval.
- The existing beam supporting R/F slab of the middle portion will be strengthened structurally, subject to the Building Authority's approval.

9.2.4 Interpretation

- A new introduction/ reception will be introduced in the middle portion on G/F and a café in the rear portion on G/F, which are accessible for general public.
- Other rooms in the middle portions on G/F, open verandahs on G/F, 1/F and 2/F*, will be used for display for heritage interpretation. It will be equipped with the following facilities:
  - Periscope at the location of hatch with cat ladder on 2/F to show the view of roof, the design of roof topography and chimneys;
  - A fireplace in one of the G/F Central Core room in the middle portion to be restored to show Edwardian Classical Revival Style interior;
  - Physical display in form of signs, photos, drawings and multi-media (touch screen interactive) with content including: history of the building and the Old Victoria Barracks, history of G.P. Roberts, architecture of the building, revitalisation process (including a running video on the renovation process of the building), introduction of therapy, the history of the building's previous use as rehabilitation residence by New life Psychiatric Rehabilitation Association, etc.

  [Information display at verandahs will be carefully designed to avoid creating adverse impact to facades.]*
- Free guided tours will be conducted to the Site daily between 11:00am and 2:00pm, with 10 participants per group according their language (English, Cantonese and Mandarin). Registrations can be made by phone, online and in person on the day of arrival at the reception area. The route of the tour (See **Appendix A.5** for the proposed interpretation route):

<u>G/F</u>

1. Tour starts at Link bridge – Brief Introduction
2. Restored verandah with information displays on G/F (History of building)
3. Restored room with information display on G/F (History)
4. Restored room in Edwardian Classical Revival style display on G/F
5. Restored room with information display on G/F (Architecture)
6. Café on G/F
7. Restored internal staircase to 1/F

<u>1/F</u>

1. Restored verandah with information displays (Architectural style)
2. Restored architectural features along verandah

<u>2/F</u>

1. Restore stairwell
2. Restored cat ladder with periscope to look at the roof of building

3. Restored verandah with information displays (Revitalisation process).
4. Multi-function Rooms in the middle portion if the rooms are not in use.
5. New link-bridge with information display(Introduction of therapy),
   New staircase or lift back to G/F

   G/F, External
1. Tour around the exterior area and appreciating NW building facade
2. Tour around the exterior area and appreciating NE building facade
3. Tour around the exterior area and appreciating SE building facade. Tour end at Main entrance
4. Free access to Reception

- There will be special arrangement for open day: Three therapy rooms will be opened for visitor during open day. Free forum and experimental activities will also be provided for visitors' trial.

10

IMPACT ASSESSMENT AND MITIGATION MEASURES

This chapter evaluates any potential impact by the proposed works on the character defining elements (CDEs, refer to part 1 CMP chapter 5) as well as suggests any mitigation measures to reduce any adverse impact.

10.1 Definition

The level of impact on elements being assessed, after considering the level of significance of affected elements and the corresponding mitigation measures, is classified into five levels as follows[102]:

Level of Impact	**Meaning**
Beneficial Impact	The impact is beneficial if the proposal will enhance the preservation of the heritage site
Acceptable Impact	The assessment indicates that there will be no significant effects on the heritage site.
Acceptable Impact with Mitigation Measures	There will be some adverse effects, but these can be eliminated, reduced or offset to a larger extent by specific measures
Unacceptable Impact	The adverse effects are considered to be too excessive and are unable to mitigate practically
Undetermined Impact	The significant adverse effects are likely, but the extent to which they may occur or may be mitigated cannot be determined from the study. Further detailed study will be required for the specific effects in question

Table 10.1.1 Definition of impact level

[102] Antiquities and Monuments Office. Guidelines for Built Heritage Impact Assessment. June, 2010

10.2 Impact Assessment and Mitigation Measures of the Area 50m around the Site

A research has been conducted to identify any historic structure / building within 50m from the site boundary of the project.

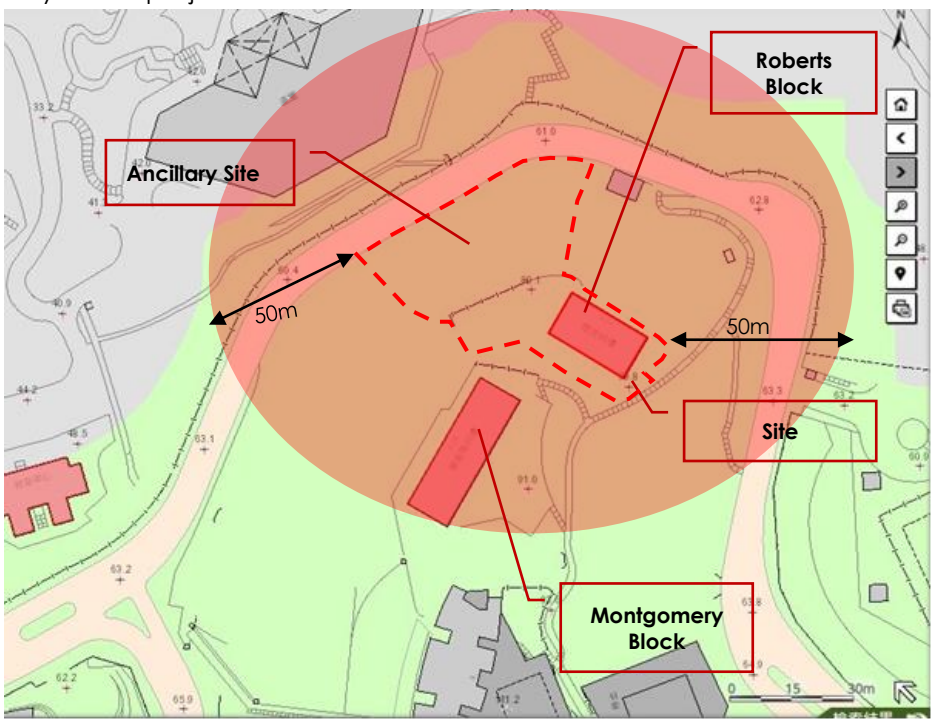


Fig. 10.2.1 Heritage Impact Assessment study area

Apart from the Roberts Block Site itself, there is one recorded historic structure / building within 50m from the Site, namely the Montgomery Block (蒙高瑪利樓) at 42B Kennedy Road, a grade 1 historic building built in the same era as the Roberts Block. The proposed construction works of the Roberts Block revitalisation that likely create impacts to the Montgomery Block are discussed in the following section, while impacts to the Site itself are to be discussed in sections 10.3 and 10.4.

Fig. 10.2.2 Montgomery Block (Source: wikiwand website)

10.2.1 Impact Assessment on Montgomery Block

Item No.	Assessment Item / Proposed new works	Reason for Changes	Suggested Mitigation / Recommendation	Overall Impact level
1.	The construction of a new lift and staircase tower, and new underground pump room and water tanks next to Roberts Block	Providing BFA and FSI enhancement to the revitalised Roberts Block	- For ELS system design, pipe pile wall system with steel waling & strut is applied instead of traditional driven sheet pile wall to avoid the adverse impact to the adjacent existing historical building & slope, since: a) Pipe pile wall system has a better performance in reducing vibration during construction, compared with other traditional pile wall. b) Constructing stiff pipe pile wall system can retain the stability of downhill filled slope and avoid impact on existing uphill slope. c) Pipe pile wall requires smaller crew of machinery than other pile type for site formation, so is more suitable for the Site with an extremely tight space. (Subject to Building Authority's and GEO's approval) - For foundation design, mini pile foundation is applied, which can only receive vertical gravity load. For the horizontal load from uphill slope (Mother's Choice), it is undertaken by Raking pile to prevent impact to downhill filled slope. Mini pile owns a characteristic with smaller machinery crew than others, which is more suitable for the Site with an extremely tight space. (Subject to Building Authority's and GEO's approval) - Monitoring checkpoint with limit level subject to AMO guidline (settlement, titling, vibration and water drawdown) will be installed to Montgomery Block to monitor any structural impact from the works. - New structures are low and do not block vistas from Montgomery Block.	Acceptable impact with mitigation measures

10.3 Impact Assessment and Mitigation Measures of the Site

10.3.1 Consideration on Major Alterations

Some major alterations for the proposed adaptive reuse are discussed below to explain the consideration and option studies behind before the current proposed design scheme can be concluded. Their mitigation measures will be further discussed in section10.3.2.

1) *Construction of a new lay-bys on Kennedy Road, a tower accommodating a lift and staircase, and a proposed link bridge in the Ancillary Site*

Deficiency/ Reason for intervention:

1. Lacking transport facilities and BFA to the Site
2. Necessary improvement of accessibility to the Site

Necessary intervention:

- Erection of a lift tower and staircase up to the Site plateau level, addition of a link bridge from the tower to the Site and excavation into the slope above Kennedy Road (by cutting slope and erection of bored pile retaining structure) to make room for their construction and a lay-by are proposed.

Option study:

- While there is a need to add a lay-by and a shuttle lift for visitors to arrive Kennedy Road then to be brought up to the Site, disturbance to the Site setting and to view to the front façade should be minimized.
- Options of the location of the new tower and the lay-by, and the construction method for the slope excavation (e.g. open cut or bored pile) have been tried out. The current proposed location and construction method is considered the optimum option to reduce visual impact to the existing building, to make lay-by technically feasible and to minimize structural impact to the slope and the building and impact to the existing trees on slope.
- Subject to Building Authority's and GEO's approval

Fig.10.3.1. Site section cutting through Kennedy Road and the Site with the proposed new tower and bored pile wall

Fig.10.3.2. Artist impression of the proposed tower from Kennedy Road

2) *Fire services installation provision*

Deficiency/ Reason for intervention:

1. There is no emergency vehicular access (EVA) to the Site, and
2. There is no sprinkler and fire services water provision in the Site.

Necessary intervention:

- Adding fire services and sprinkler pumps and water tanks (minimum size 27m^3 + 70m^3)

Option study:

- Option 1 (not adopted): Placing the entire water tanks and pump rooms to underground, which set back 2m from both uphill slope (Montgomery Block Site) and downhill slope (Ancillary Site) to avoid adverse impact to adjacent slopes
  - PROS: Minimum visual impact
  - CONS: **Technically infeasible**, since this option requires a 3.2m deep excavation into the ground of northwest open space, which requires the insertion of soil nail to tie back to the upslope OUTSIDE site boundary

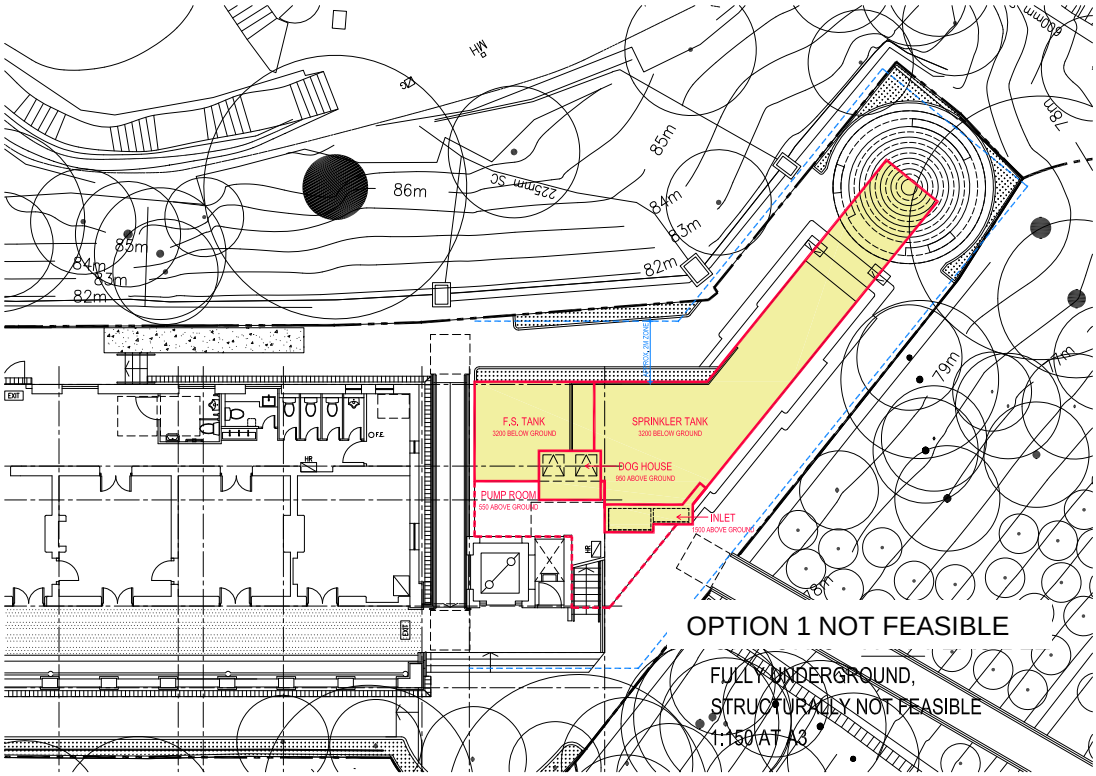


Fig. 10.3.3 Proposed layout of the underground tank/ pump room, option 1

- Option 2 (not adopted): Placing the entire water tanks and pump rooms to underground, which set back 2m from uphill slope (Montgomery Block Site), but extend the excavation area towards downhill slope (Ancillary Site)
  - PROS: Minimum visual impact
  - CONS: **Technically infeasible**, since the extension of the excavation works towards the downhill slope will affect the stability of the downhill slope. Also, it will reduce the mass to withstand the uphill slope, which can only be compensated by installing tie back soil nails into uphill slope outside site boundary.

- Option 3 (not adopted): Placing an structure in the northwest open space at the northwest end
  - PROS: Fully utilizing the northwest end space and leaving the central part of the northwest open space (near entrance) clear for the landscape labyrinth
  - CONS 1: **Technically infeasible**, since it needs a sprinkler tank of approx. 4.0m high (i.e. approx.1.5mH protrusion above ground if partly underground) and has NO space for pump room.
  - CONS 2: Needing a foundation and structure separated from the lift core, which is inefficient

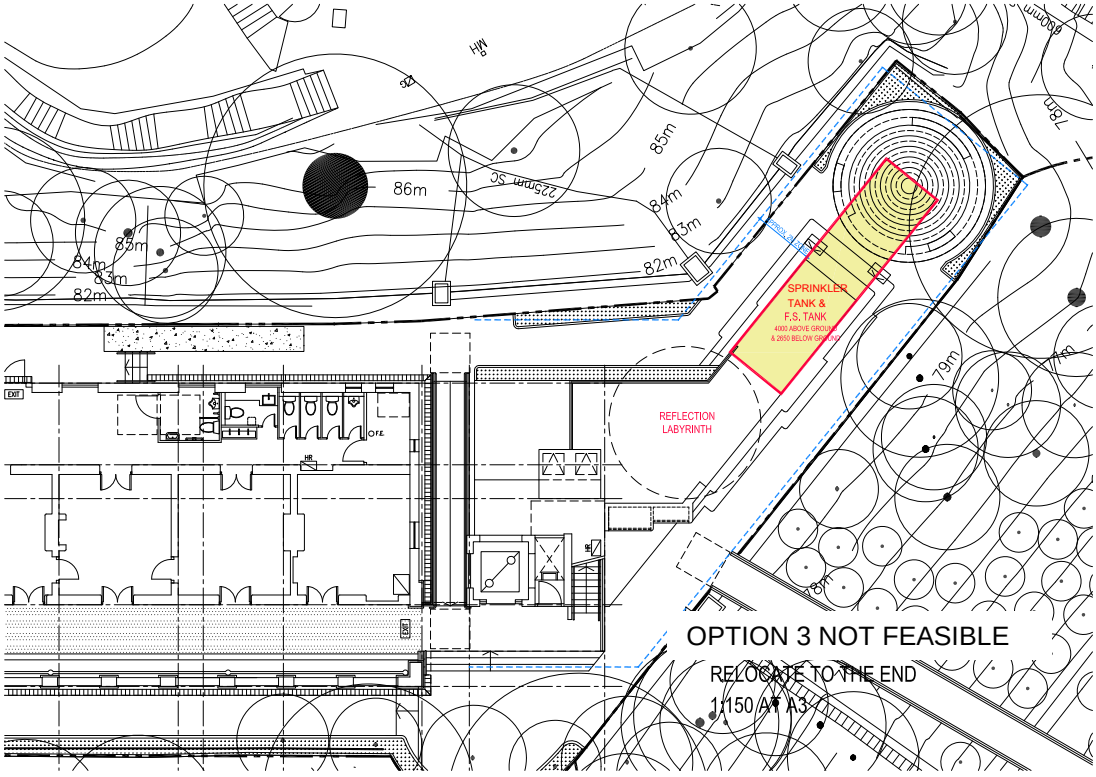


Fig. 10.3.4 Proposed layout of the underground tank/ pump room, option 3

- <u>Option 4 (not adopted):</u> Placing a semi-underground structure (with 1.05m protrusion above ground) to house water tanks and pumps to the entire northwest open space
    - PROS 1: Less visual impact than option 3 and 5
    - PROS 2: Geotechnical feasible
    - CONS 1: Still have a 1.05m high protrusion on ground, meaning some visual impact
    - CONS 2: Inadequate on grade flat land to introduce a landscape labyrinth for therapy use

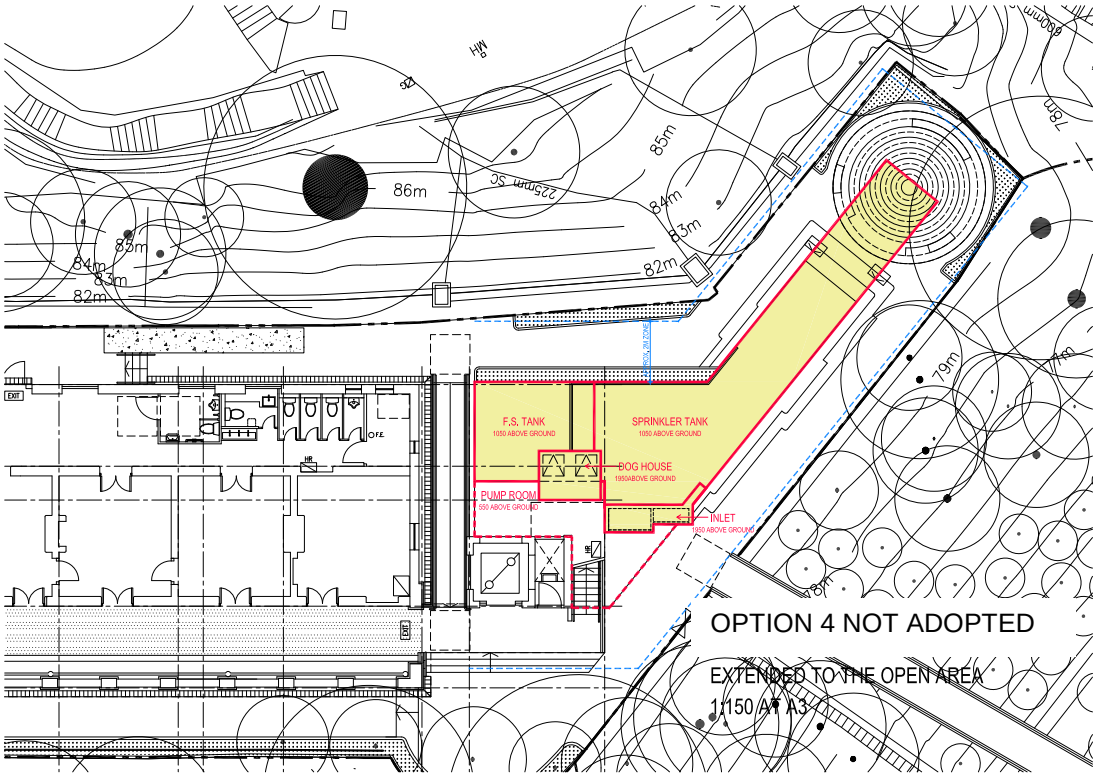


Fig. 10.3.5 Proposed layout of the underground tank/ pump room, option 4

- **<u>Option 5 (adopted):</u>** Placing a semi-underground structure (with aboveground protrusion of various height but largely 1.25m high) to house water tanks and pumps to the northwest open space near the new lift of Roberts Block but leave the northwest end a flat land to introduce a landscape labyrinth for therapy use. The edge of the 1.25m high landscape deck is softened by step seating and planters.
    - PROS 1: Less visual impact than option 3
    - PROS 2: Geotechnical feasible (subject to Building Authority's and GEO's approval)
    - PROS 3: Landscape labyrinth for therapy use is possible
    - CONS 1: Still have 1.25m-2.7m high protrusion on ground, i.e. more visual impact than option 3

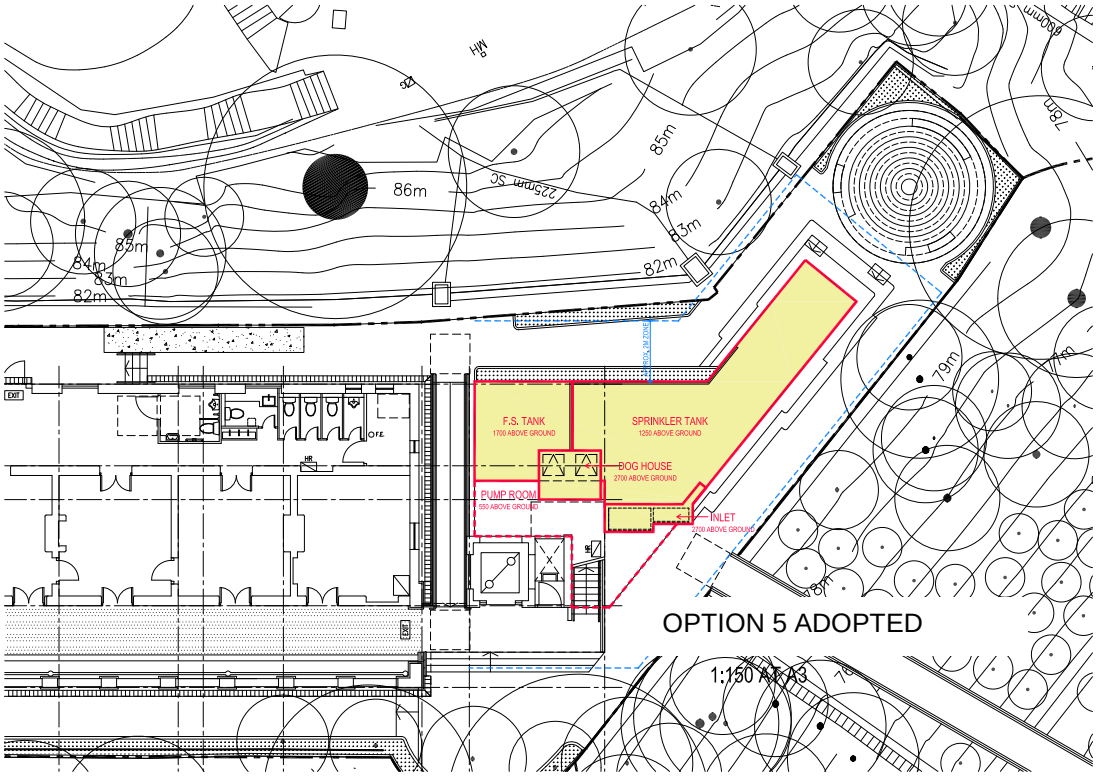


Fig. 10.3.6 Proposed layout of the underground tank/ pump room, option 5

- Option 6 (not adopted): Placing a semi-underground structure (with aboveground protrusion evenly 1.45m high) to house water tanks and pumps to the northwest open space near the new lift of Roberts Block but leave the northwest end a flat land to introduce a landscape labyrinth for therapy use. The edge of the 1.45m high landscape deck is softened by step seating and planters.
    - PROS 1: Geotechnical feasible
    - CONS 1: Still have a 1.45m high protrusion on ground, meaning some visual impact
    - CONS 2: Inadequate width left for accessible path on grade if 4 risers for the step seating to make up to 1.45m high is provided

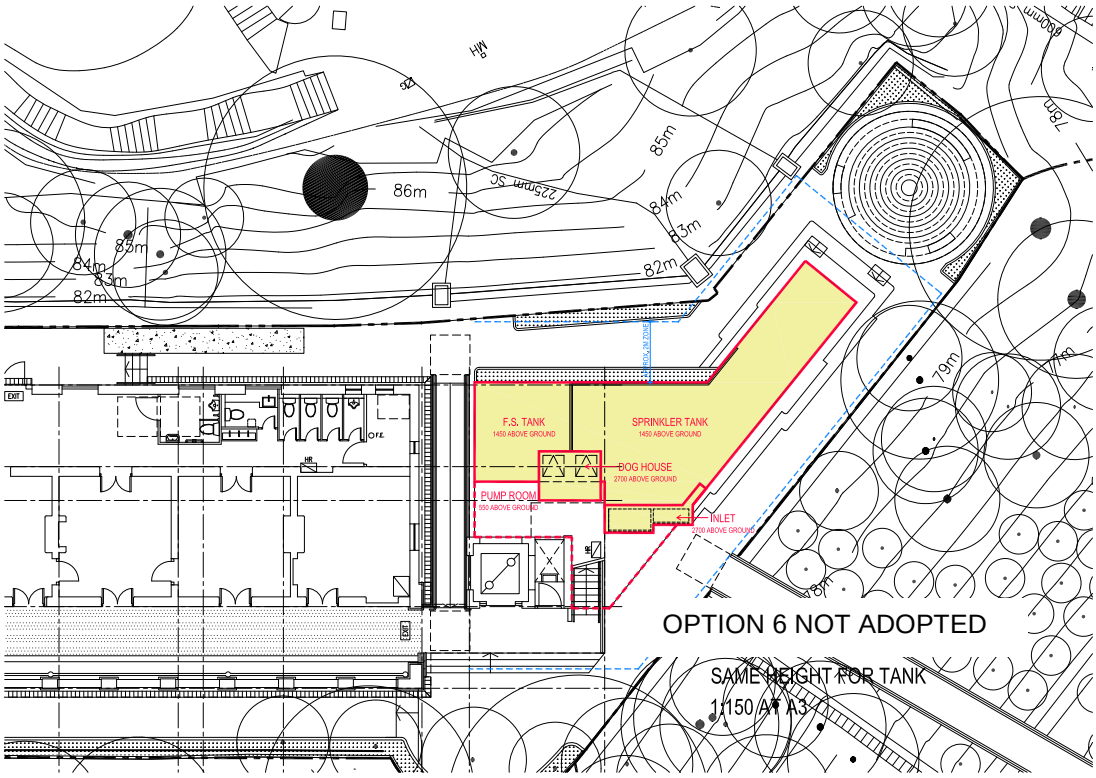


Fig. 10.3.7 Proposed layout of the underground tank/ pump room, option 6

- **Option 5 appears to be the optimum design**, making balance among consideration on visual impact, geotechnical feasibility, operational needs, etc.

Fig.10.3.8. Artist impression of the proposed landscape deck with FS and sprinkler water tanks and pumps housed underneath

3) Construction of a new lift and staircase block next to the Roberts Block

Deficiency/ Reason for intervention:

1. Lacking BFA in the existing Roberts Block

Necessary intervention:

- Replacing the existing later added steel external staircase by a new lift and staircase block
- Removal of G/F balustrade with urn-shaped balusters at the northwest end of the verandah

Option study:

- Option 1 (not adopted): Placing the new block at a location similar to the existing staircase to match the current door openings on brick walls connecting to the staircase.

- **Option 2 (adopted):** Further setting back the new block from the Roberts Block front façade to allow more building corner of the heritage building to be seen.
  - PROS 1: Less visual impact
  - PROS 2: The brick walls are later addition and removal of them is in fact a restoration and revival of the original openness of NW end of the verandah of the Roberts Block

Fig.10.3.9. Artist impression of the proposed new lift and staircase block, option 2 (adopted)

4) *Enhancing loading capacity of roof floor beam RC Beam RB5 in the middle portion (Refer to **slab and beam deficiency item 1** in Fig. 6.2.1 and Table 6.2.1)*

Deficiency/ Reason for intervention:

1. Structural members under design, as per checking against old design standard/ code

Necessity intervention:

- Structural strengthening

Option study:

- **Option 1 (preferred option, subject to Building Authority's approval):** Adding fibre reinforced polymer (FRP) system to strengthen beam
  - PROS 1: Less visual and physical impact to the existing beam and moulding than option 2
  - PROS 2: Easier construction than option 2
  - CONS 1: More complicated maintenance (Annual checking with report and certification likely be required, subject to Building Authority's approval condition)
  - CONS 2: No drilling/cutting works to the FRP materials allowable for future alteration/ fitting out

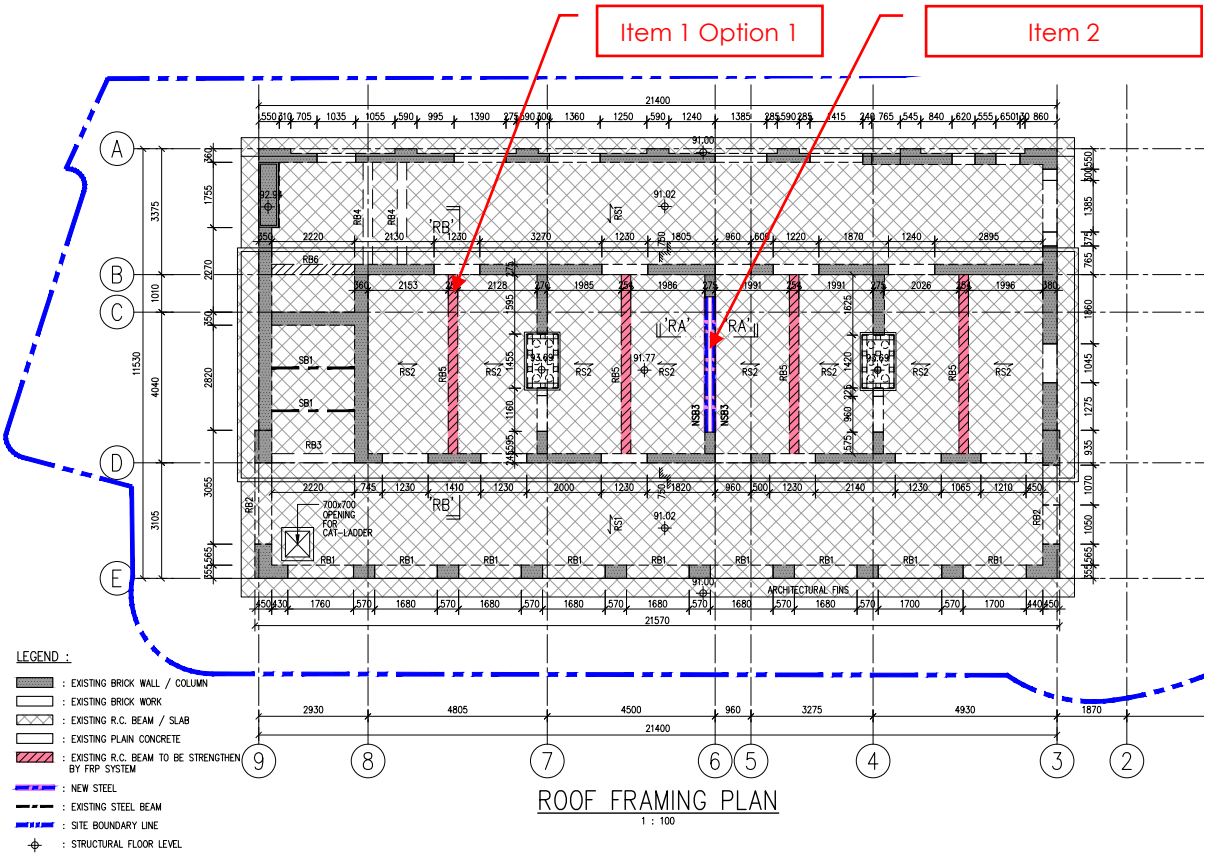


Fig.10.3.10. Proposed roof flaming plan, indicating location of upgrading works to **slab and beam deficiency items 1 and 2 option 1** (preferred option)

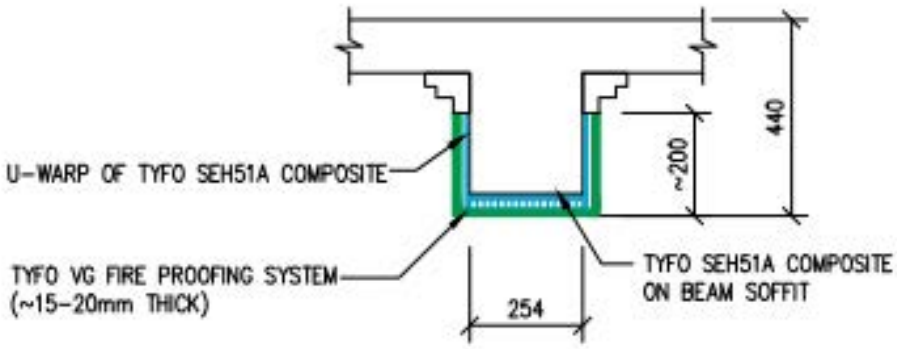


Fig.10.3.11. Proposed upgrading works for to **slab and beam deficiency item 1 Option 1**, cross- section through RC Beam RB5

- <u>Option 2 (option to be adopted if option 1 is rejected by BD):</u> Adding steel beams (NSB5) in-between the current ones
  - PROS 1: No disturbance to the existing beams
  - CONS 1: Creating visual impact

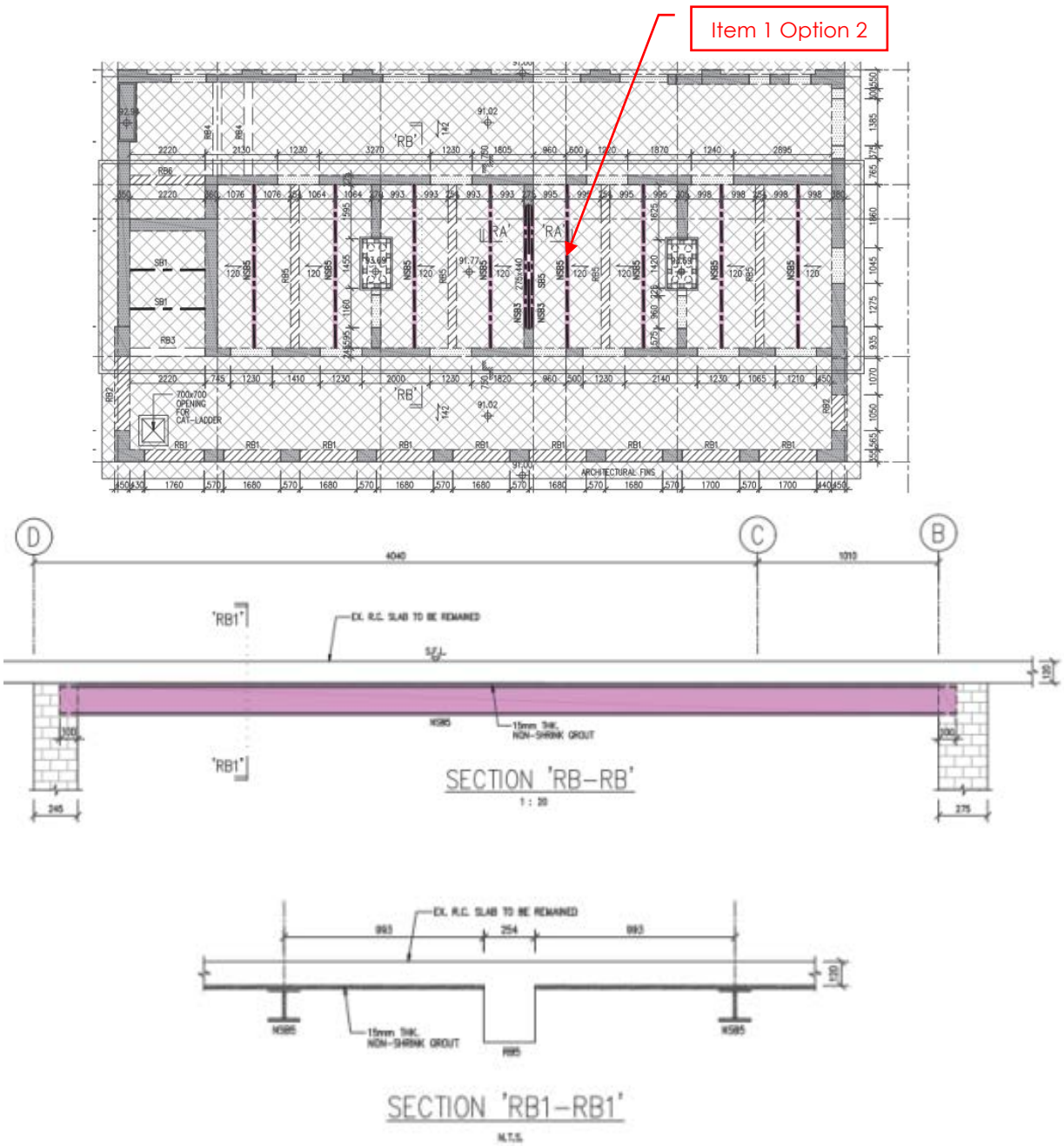


Fig.10.3.12. Proposed roof flaming plan, indicating location of upgrading works for **slab and beam deficiency item 1 Option 2** (addition of I beams)

5) *Enhancing loading capacity of roof floor beam I Beam SB5 in the middle portion (Refer to **slab and beam deficiency item 2** in Fig. 6.2.1 and Table 6.2.1)*

Deficiency/ Reason for intervention:

1. Structural members under design, as per checking against old design standard/ code

Necessity intervention:

- Structural strengthening

Option study:

- The only option considered is replacing the existing SB5 with two steel channels, which is a heritage impact free solution as the existing SB5 itself is a later added intervention. The new additions will be covered up by fitting out decoration for aesthetic (subject to Building Authority's approval).

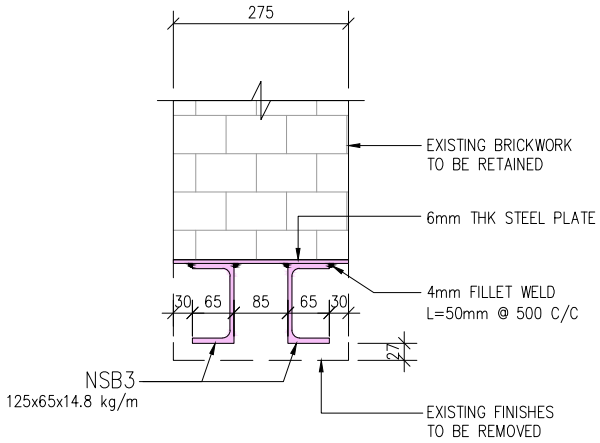


Fig.10.3.13. Proposed upgrading works for slab and beam deficiency **item 2**, section through beam SB5

6) *Enhancing loading capacity of 1/F & 2/F floor slabs and beams in front, middle and rear portions*
*(Refer to **slab and beam deficiency items 9-13** in Fig. 6.2.1 and Table 6.2.1)*

Deficiency/ Reason for intervention:

1. Plain concrete slabs not accepted by current code
2. Inadequate strength of steel joists members, for both original design load or proposed use

Necessity intervention:

- Structural strengthening

Option study:

- Options such as addition of steel plate and beam underneath the existing plain concrete slabs were considered but due to the limitation of loading capacity of the existing footing and considering the potential adverse visual impact to the ceiling by addition of new joists, approach to add structural member is not feasible. Replacement approach can only be adopted. This means that plain concrete slabs of all portions of 1/F and 2/F have to be re-casted and replaced by reinforced concrete slabs while steel joists have to be replaced by steel members of similar size and shape but of higher grade, namely:
  - Item 9 (150mm thick plain concrete slab 1S2, 2S2 in the middle portion) and item 12 150mm thick plain concrete slab 1S1, 2S1 in the front and rear portion), to be replaced by new RC slab of 105mm thick
  - Item 10 (fully embedded I-Beam SB2 in the middle portion) and item 13 (exposed I-Beam SB1 in the front and rear portion) to be replaced respectively by new fully embedded steel joist with reduced thickness to suit item 9 and exposed I-Beam of size similar to the existing ones
  - Item 11 (encased I-Beam ST1 in the middle portion) to be preserved in situ but does not take load
- Subject to Building Authority's approval
- Granite threshold's location will need to be adjusted slightly

7) *Enhancing loading capacity of 1/F & 2/F slab edge beams in front portion (Refer to **slab and beam deficiency item 14** in Fig. 6.2.1 and Table 6.2.1)*

Deficiency/ Reason for intervention:

1. Plain concrete beams not accepted by current code

Necessity intervention:

- Structural strengthening

Option study:

- Options such as addition of steel plate and beam underneath the existing beams were considered but due to the limitation of loading capacity of the existing footing and in view of the potential adverse impact to the front elevation (a CDE of very high significance), approach to add structural member is not feasible. Replacement approach can only be adopted. This means to hack off bottom and rear part of the existing beam to insert steel angle section to strengthen structure, then to re-render the disturbed surface to match existing moulding.
- Subject to Building Authority's approval

8) *Enhancing loading capacity of 1/F & 2/F brick arcs in the middle portion (Refer to **slab and beam deficiency item 15** in Fig. 6.2.1 and Table 6.2.1)*

Deficiency/ Reason for intervention:

1. Inadequate strength due to shallowness of arc, for both original design load or proposed use

Necessity intervention:

- Structural strengthening

Option study:

- **Option 1 (adopted):** Replacing the existing door frame top members underneath the arcs by new I-Beam, which acts as lintel beams, subject to Building Authority's approval
  - PROS 1: Only existing door frames will be disturbed, but not door leaves, granite threholds and brick walls, therefore less visual and physical impact than option 2
  - CONS 1: Some disturbance to door frames
- Option 2 (not adopted): Adding new RC beams above arcs, which connect the re-casted RC slabs in the middle and front/ rear portions
  - CONS 1: Brick corbels and granite door threshold above the arcs will be disturbed adversely

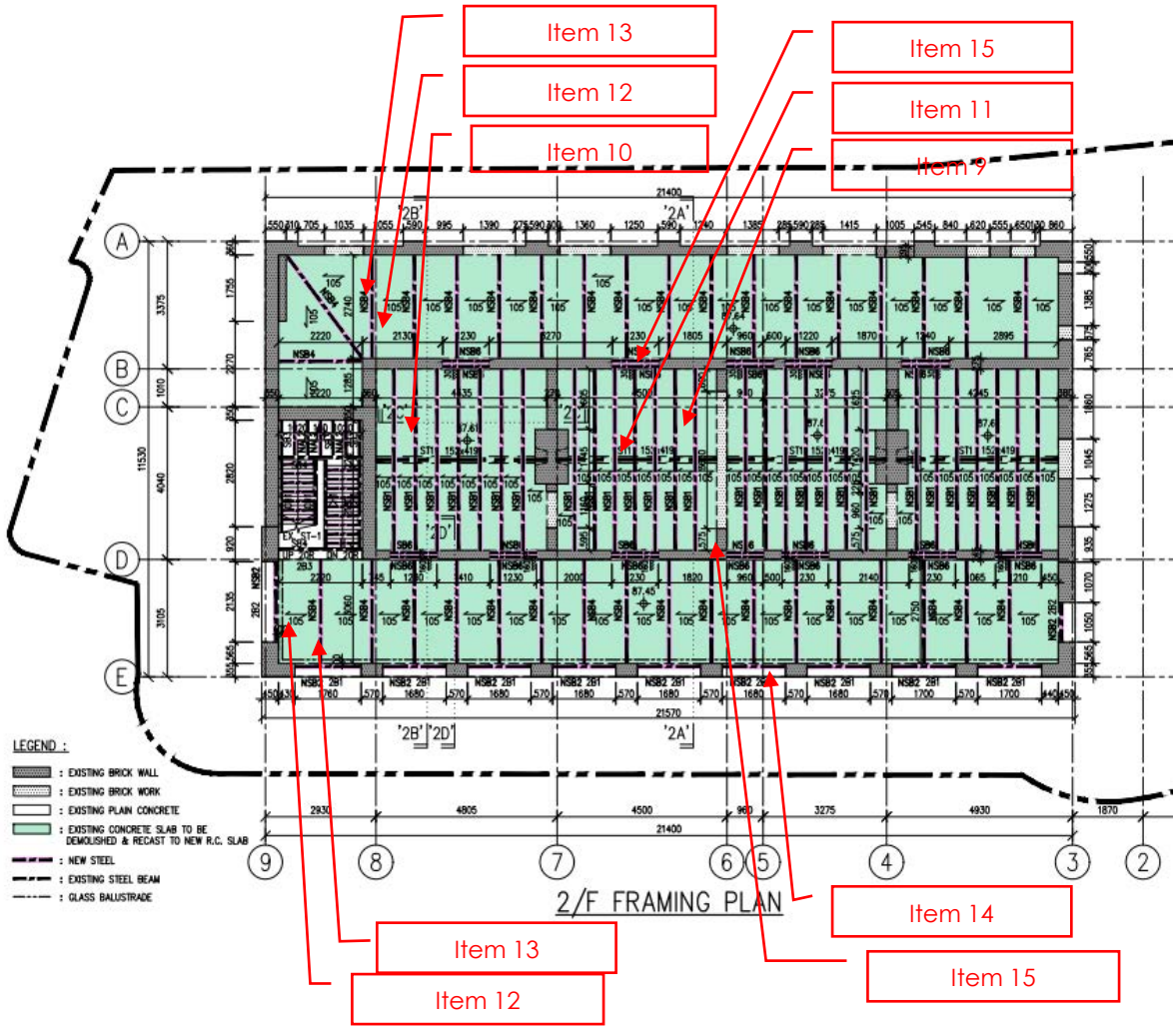
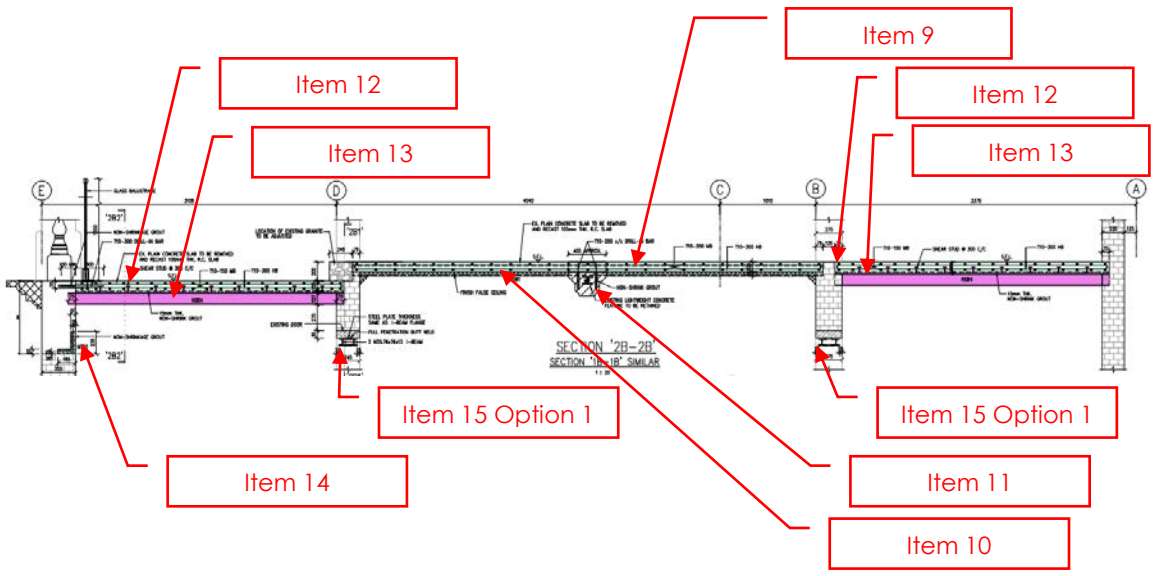


Fig.10.3.14. Proposed 1/F flaming plan (2/F similar), indicating location of upgrading works for slab and beam deficiency items 9-15



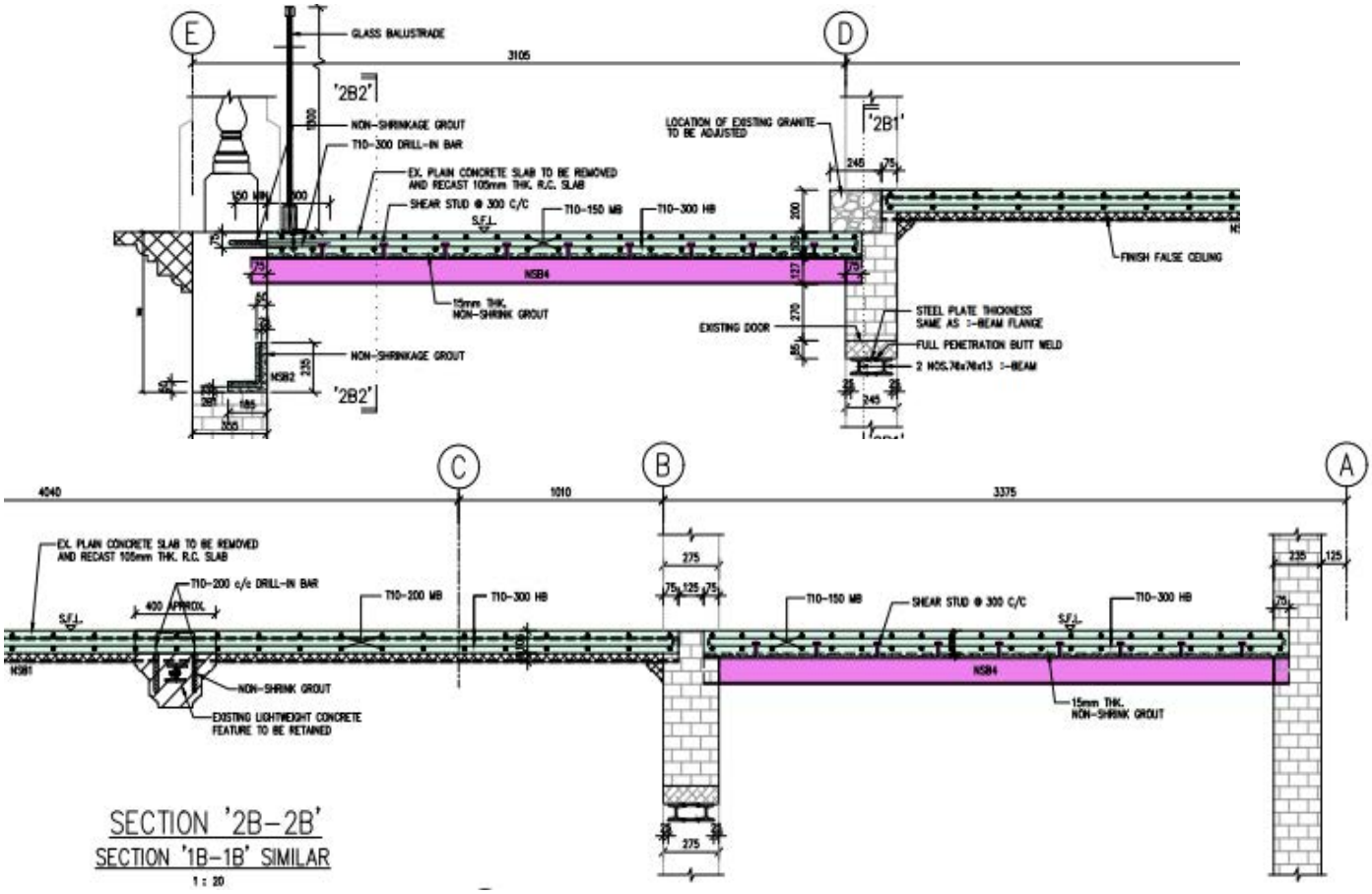


Fig.10.3.15. Proposed 1/F (2/F similar) upgrading works for **slab and beam deficiency items 9-15**, section

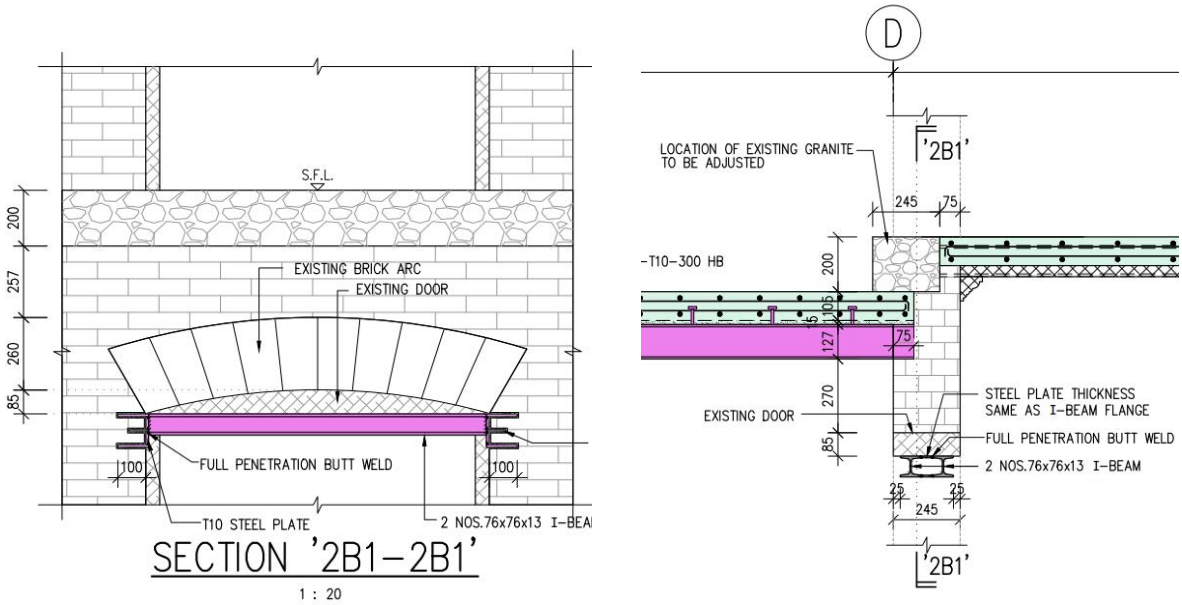


Fig.10.3.16. Proposed upgrading works for **slab and beam deficiency item 15 option 1**, elevation and section

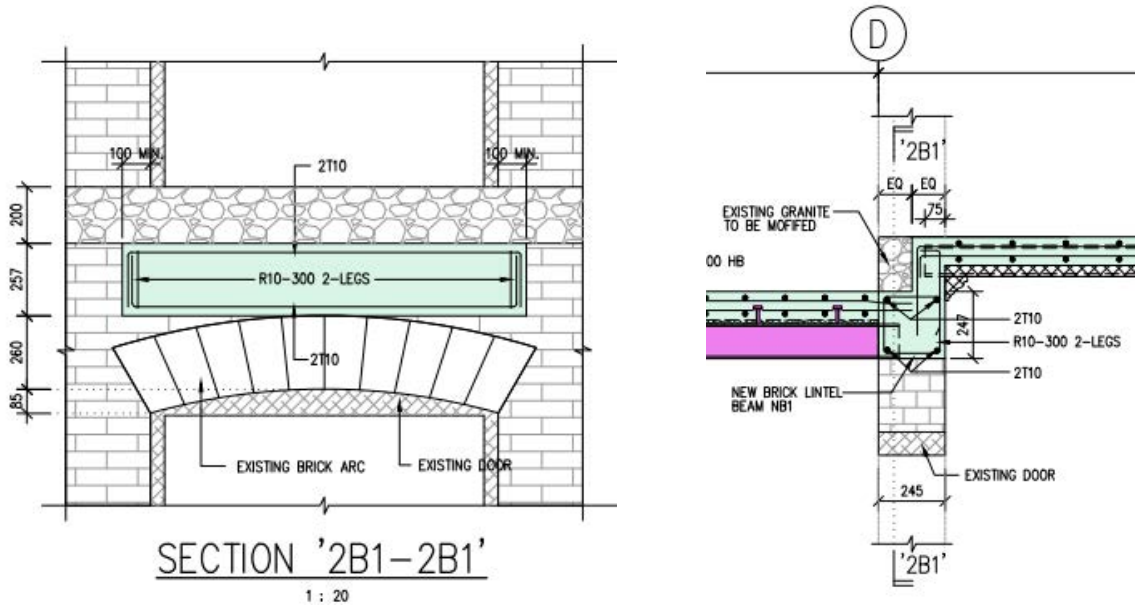


Fig.10.3.17. Proposed upgrading works for **slab and beam deficiency item 15 option 2**, elevation and section

9) Strengthening internal staircase
*(Refer to **slab and beam deficiency items 20 & 25** in Fig. 6.2.1 and Table 6.2.1)*

Deficiency/ Reason for intervention:

1. Inadequate strength of steel angle supports to timber tread and landing boards
2. Fire rated resistance property of the existing timber tread and landing boards inadequate for means of escape

Necessity intervention:

- Structural strengthening and FRC upgrade to timber tread and landing boards

Option study:

- The only option considered is adding two steel angles and fire rated protection board (such as Durasteel) to the timber elements, which does not physically disturbed the historic fabric and creates acceptable visual impact.
- Subject to Building Authority's approval

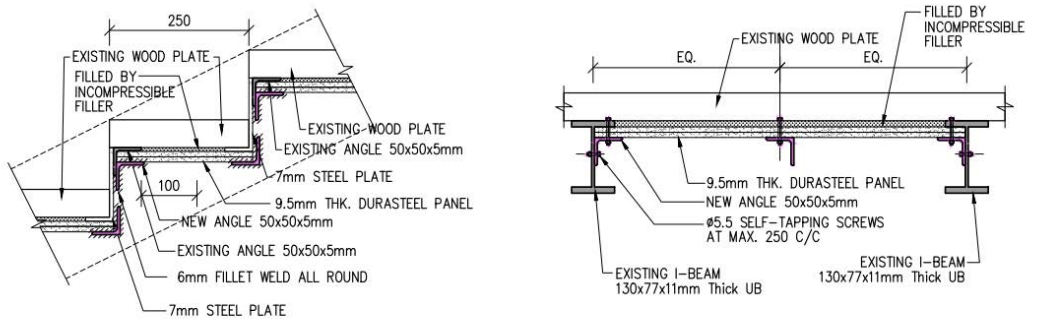


Fig.10.3.18. Proposed upgrading works for **slab and beam deficiency items 20 (left) & 25 (right)**, sections

10) Balustrade upgrade for verandahs

Deficiency/ Reason for intervention:

1. 990mm high (<1100mm required), gap between members of 165mm wide (> 100mm required), and
2. Strength not enough to withstand required impact load (1.5kN/m line load, 1.5kN point load and 1.5 kPa uniformly disturbed load)

Necessity intervention:

- Upgrade of balustrade

Option study:

- **Option 1 (preferred option, subject to Building Authority's approval):** Adding glass balustrade of 900mm high from raised floor and setting back from the front façade, plus applying regulation modification from BD
  - PROS 1: No physical impact to the existing balustrade
  - PROS 2: Balustrade has been lowered and set back so as to reduce chance of being visible from the building exterior
  - PROS 3: Dead load added to the existing footing less than option 2, so more flexibility for raised floor and floor finish design
- Option 2 (adopted only if option 1 is not approved by Building Authority): Adding glass balustrade of 1100mm high from raised floor and setting back from the front façade
  - PROS 1: No physical impact to the existing balustrade
  - PROS 2: Balustrade has been set back so as to reduce chance of being visible from the building exterior
  - CONS 1: More visible than option 1
- Option 3 (not feasible): Strengthening balusters by injection grout and insertion of steel bars, adding steel bars in between balusters to reduce width of gap to less than 100mm, and adding a steel top rail above granite cap
  - Structurally not feasible due to the structural deficiency of the plain concrete beam below the balustrade

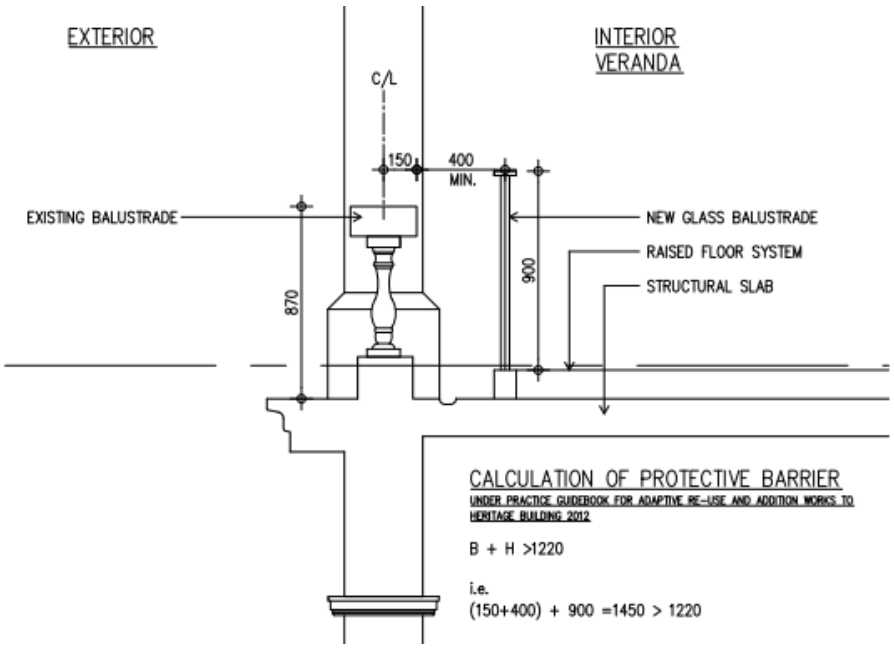


Fig.10.3.19. Proposed upgrading works for verandah balustrade option 1, section

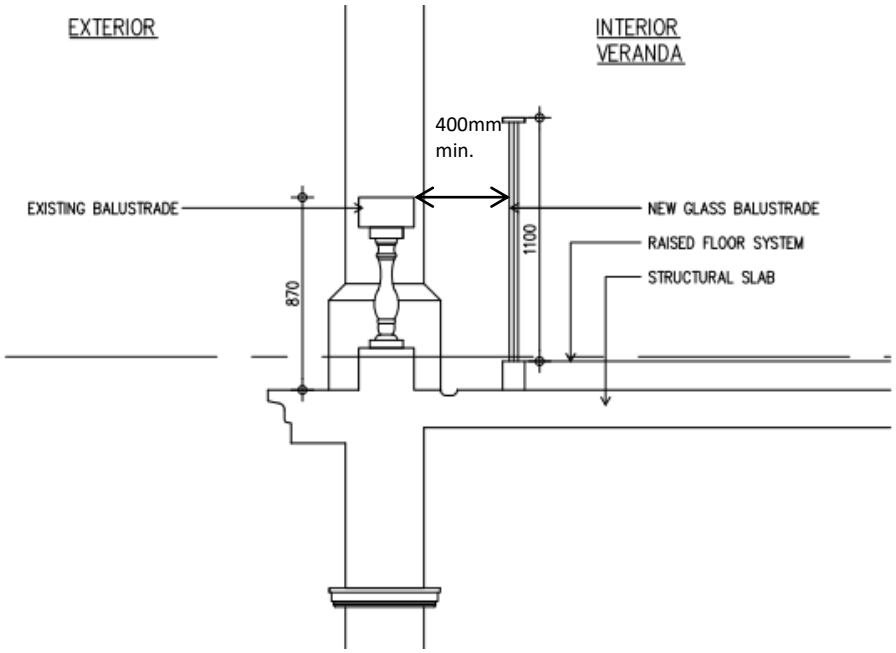


Fig.10.3.20. Proposed upgrading works for verandah balustrade option 2, section

11) Balustrade upgrade for the internal staircase

Deficiency/ Reason for intervention:

1. 900mm high (<1100mm required), gap between members of 130mm wide (> 100mm required), lacking 150mm solid upstand at bottom, and
2. Strength not enough to withstand required impact load (1.5kN/m line load, 1.5kN point load and 1.5 kPa uniformly disturbed load)

Necessity intervention:

- Upgrade of balustrade

Option study:

- Option 1 (not adopted): Applying modification of regulation with management approach
  - CONS 1: Rejected by Building Authority
- **Option 2 (Adopted):** Replacing existing steel main posts by steel posts of similar size and the same height but of a higher grade so that it can withstand the required horizontal impact load (aiming to improve structural integrity of the balustrade but keeping the appearance), then adding alumiunium perforated panel/ mesh from bottom of flight to 1100mm high, attached to the new posts in a reversible manner, so as to solve other configuration problems, subject to Building Authority's approval
  - PROS: Existing fabric can be largely kept
  - CONS: Have some degree in intervention and have visual impact
- Option 3 (not feasible): Adding new up to standard balustrades next to the existing ones
  - Structurally not feasible due to limited footing loading capacity
- Option 4 (not feasible): Adding glass/ mesh wall in the stair well
  - Structurally not feasible due to limited footing loading capacity

- Option 5 (least preferred): Replacing the balustrade by a new one of similar design but up to current standard
    - CONS: Highest degree of intervention and impact, only adopted if both options 1 and 2 are not accepted by BD

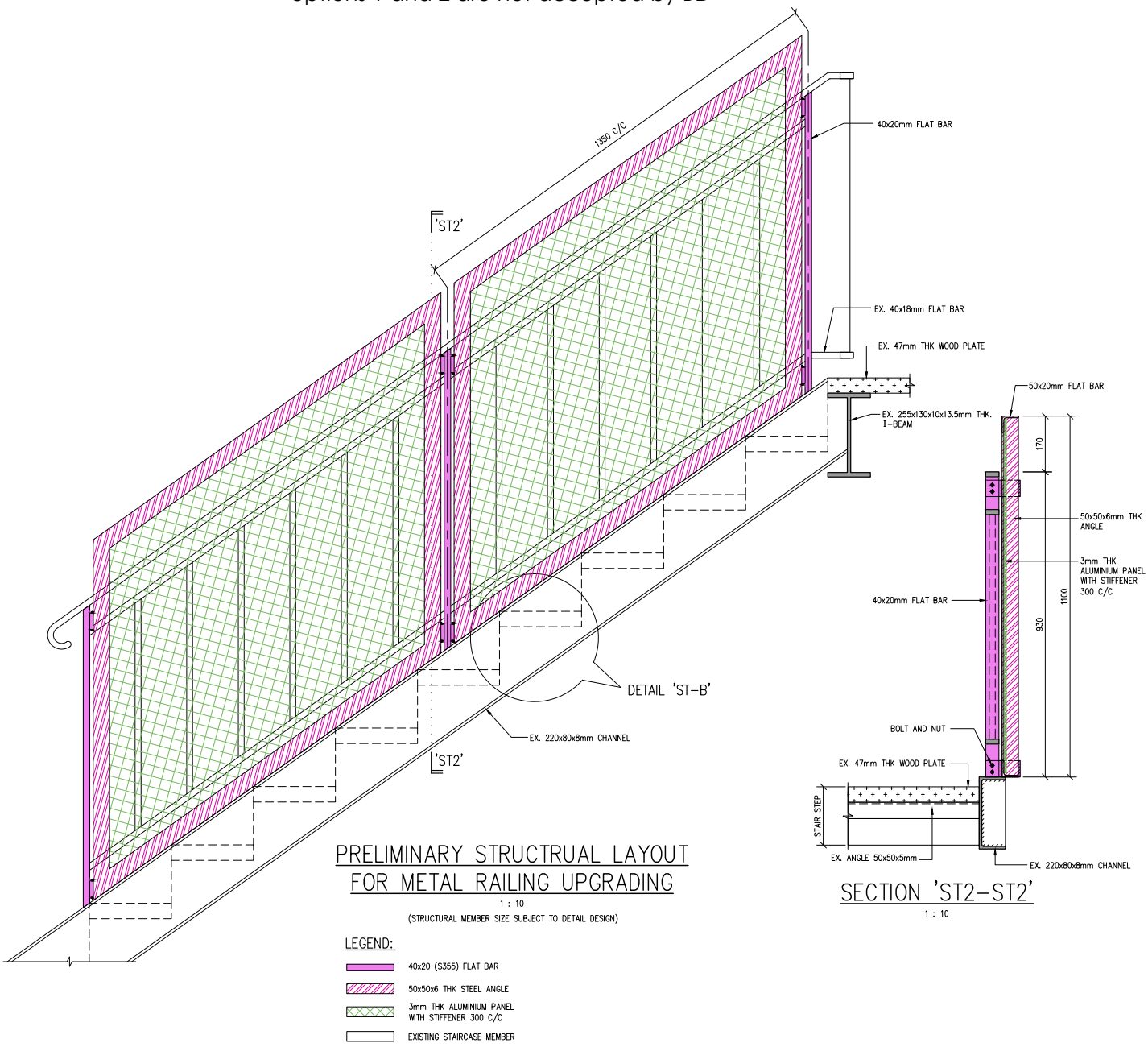


Fig.10.3.21. Proposed upgrading works for the internal staircase balustrade option 2, elevation and section

12) *Balustrade upgrade for historic external metal balustrade (with rod railing) along Northeast and Southeast boundaries*

Deficiency/ Reason for intervention:

1. Height <1100mm, gap between members > 100mm, and
2. Strength not enough to withstand required impact load (1.5kN/m line load, 1.5kN point load and 1.5 kPa uniformly disturbed load)

Necessity intervention:

- Upgrade of protective barrier

Option study:

- **Option 1 (preferred option, subject to Building Authority's approval):** Adding planter and shrubs with new low balustrade hidden inside (type 1 in fig. 10.3.22) in front of the existing historic balustrade (except that interpretation panel to be installed as barrier in front of the historic balustrade at the portion near the original building entrance (type 2 in fig. 10.3.22))
  - PROS 1: No physical impact to the existing balustrade
  - PROS 2: Upper part of the historic balustrade can be seen by visitors
  - PROS 3: Aligning with the landscape enhancement in the Site
- Option 2 (not adopted): Adding glass balustrade of 1100mm high in front of the historic balustrade (type 3 in fig. 10.3.22))
  - PROS 1: No physical impact to the existing balustrade
  - CONS 1: Creating visual impact even though glass is used
  - CONS 2: Creating hard edge to the Site and not align with the existing natural greenery and enhanced landscape

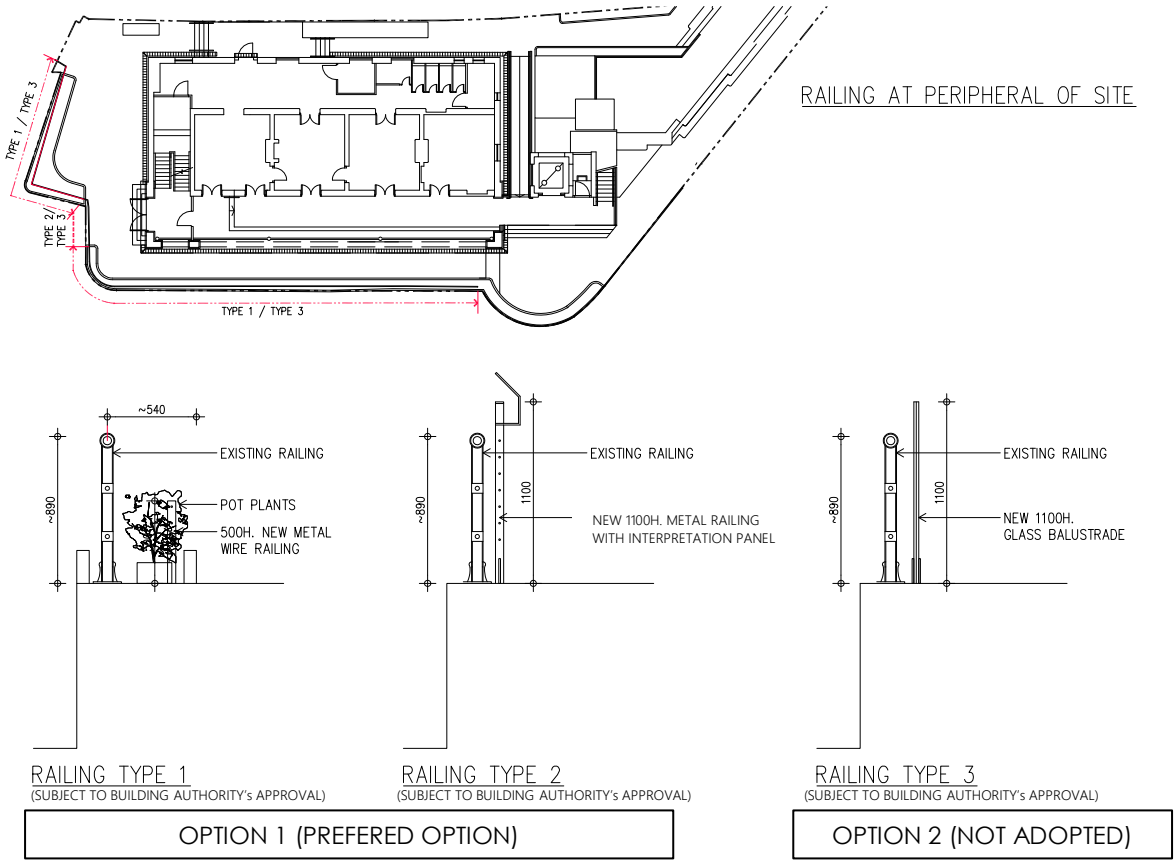


Fig.10.3.22. Proposed upgrading works for the historic metal balustrade, sections

13) *Fire safety requirement on a required staircase to be separated from other parts of G/F*

Deficiency/ Reason for intervention:

1. The internal staircase on G/F is not separated by a protected lobby from other parts of G/F as required by the current statutory requirement

Necessity intervention:

- Addition of protected lobby between the two means of escape (i.e. along the verandah), unless code modification is approved by the Building Authority

Option study:

- **Option 1 (preferred option, subject to Building Authority's approval):** Replacing the current door of the hallway of internal staircase, which opens into the verandah, by a fire rated door and seeking Building Authority's approval on the modification on code requirement for the protected lobby
  - PROS: The openness of the verandah and the internal staircase hallway can be preserved.
  - CONS: Subject to Building Authority's approval
- Option 2 (not adopted): Adding a protected lobby in the G/F verandah or hallway
  - CONS: Adverse impact to the openness of the verandah and the hallway and adverse visual impact to the front elevation

10.3.2 Impact Assessment

The site will be undergoing adaptive reuse and there are considerable alternation works to be carried out on the building fabrics, contributing a certain level of heritage impact. The table below lists out the detail proposed works with their potential impacts and recommended with mitigation measures.

[Note: In the following section, room names of the PROPOSED layout are used for location indication purpose in the column of proposed new works, while room names of the EXISTING layout are used in the column of CDEs, unless otherwise stated.]

TABLE OF IMPACR ASSESSMENT

A. Building Usage

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
A-1	Conversion of the Roberts Block into Roberts Block Open HeArts Centre	N/A	N/A	Adaptive reuse of the place	• Historic buildings can be kept in use and under maintenance. • Photographic and cartographic surveys will be done before works and submit to AMO for record. • CDEs will be preserved. • Interpretation will be implemented to present the Site's historic development for promoting the cultural significances of the Site, see section 9.2.4	Beneficial impact

B. Site Setting, Open Space and Slope

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
Open Space						
B-1	Conversion of the northwest open space at its far end to a garden (including a reflection labyrinth) with enhanced landscape design	Northwest open space	Medium	Operational need for new use	• Such conversion work is considered beneficial as the open space will be improved with landscape design. • The design of the new landscape structures shall not obstruct the view to northwest elevation.	Beneficial impact
B-2	General landscape enhancement to the northeast open space, and the entrance and front grounds, and Level adjustment to the front ground	Front ground Entrance ground, with - Historic external metal balustrades (metal rod railing) Front (NE) façade, with - Verandah balustrades on G/F - Facing red brick bases	High High Very high Very high Very high Very high	Operational need for new use, and To fulfill statutory requirement for protective barrier	• Such conversion work is considered beneficial as the open spaces will be improved with landscape design. • Level of the front ground to be raised slightly to keep level difference from G/F less than 600mm to avoid necessary G/F verandah balustrade upgrade. • The material for the raised front ground will be isolated from the facing red brick bases such that the construction will be in a reversible manner.	Acceptable impact with mitigation measures
B-3	Erecting a new semi-underground structure accommodating the new fire services and sprinkler tanks and plant rooms, which protrude above external ground of a height of largely 1.25m and form an elevated external deck	Northwest open space	Medium	To fulfill statutory fire services installation requirements to support the adaptive reuse to compensate for the lack of EVA	• The new structure shall be an independent structure from the Roberts Block. • Height of the protrusion shall be optimum to minimize visual impact and also to ensure slope stability, fire safety requirement fulfillment and operational needs. • Edge of the protrusion shall be	Acceptable impact with mitigation measures

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
	and seats with landscape design				softened by step seating and landscape. • For ELS system design for the underground structure, pipe pile wall system with steel waling & strut is applied instead of traditional driven sheet pile wall to avoid the adverse impact to the adjacent existing historical building & slope, since: a) Pipe pile wall system has a better performance in reducing vibration during construction, compared with other traditional pile wall. b) Constructing stiff pipe pile wall system can retain the stability of downhill filled slope and avoid impact on existing uphill slope. c) Pipe pile wall requires smaller crew of machinery than other pile type for site formation, so is more suitable for the Site with an extremely tight space. (Subject to Building Authority's and GEO's approval) • For foundation design, mini pile foundation is applied, which can only receive vertical gravity load. For the horizontal load from uphill slope (Montgomery Block), it is undertaken by Raking pile to prevent impact to downhill filled	

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
					slope. Mini pile owns a characteristic with smaller machinery crew than others, which is more suitable for the Site with an extremely tight space. (Subject to Building Authority's and GEO's approval) • Monitoring checkpoint with limit level subject to AMO guideline (settlement, titling, vibration and water drawdown) will be installed to Roberts Block to ensure any structural impact can be noticed and mitigated at once	
B-4	Preserving and repairing the existing historic external metal balustrade, and Planting shrubs and adding low hidden barrier next to it (or adding interpretation panel as barrier where it is near to the building original entrance)	Existing historic external metal balustrade along the entrance and front grounds	Very high	To fulfill protective barrier requirement under Buildings Ordinance (existing balustrade height 915mm, and not able to withstand required horizontal imposed load)	• The planting/ low hidden barrier and interpretation panel shall be a management approach to enhance the existing metal balustrade, subject to Building Authority's approval. • Planting of shrubs and installation of low hidden barrier in front of the historic external metal balustrades should keep the historic external metal balustrades visible from the Site	Beneficial impact
B-5	Repairing metal balustrade with flat bar along the open space, and altering to suit new link bridge addition	Metal balustrade with flat bar along the northwest open space	No	To fulfill protective barrier requirement under Buildings Ordinance	• N/A	No impact
B-6	Erecting a new water meter cabinet next to	Entrance ground	High	To provide for water supply	• Location of the cabinet has been chosen to make sure the	Acceptable impact with

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
	the site entrance in the entrance ground				least visual impact to the Roberts Block. • The cabinet structure will be independent and not to affect the existing any existing structure. • The design and material should be compatible to and distinguishable from the Roberts Block.	mitigation measures
B-7	Replacing the existing steps at the rear lane with new steps and extended landing	Rear lane	Low	To enhance circulation, and To provide MOE to the new cafe	• Only the existing steps will be disturbed, which is of no value, while the lane is not affected. • Record the existing floor finishes will be done before demolition. • The new steps and landing are of metal and installed in reversible manner.	Acceptable impact with mitigation measures
B-8	Installing new signage of Roberts Block Open HeArts Centre at the existing building entrance gate and at the balustrade next to the link bridge	Entrance (SE) façade with - Entrance gate Northwest open space	Very high Low Medium	Operational need for new use	• The existing entrance gate will be kept and repaired. • The installation of the new name plaques will not physically disturb the gate and the balustrade and will be in reversible manner to be agreed with AMO. They will be subtle and keep visual impact to façade minimal.	Acceptable impact with mitigation measures
B-9	Salvaging original manhole covers and removing old manholes to make way for new underground drainage and manhole system	Rear lane Cast iron manhole cover	Low Very high	Operational need for new use To fulfill statutory requirement for drainage	• The original cast iron manhole cover will be removed carefully, salvaged and displayed in the future heritage interpretation display. • Its location will be recorded before removal. • The rear lane will not be affected	Acceptable impact with mitigation measures

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
					except refurbishment of cement finish.	
Site Setting						
B-10	Adding a new lift and staircase tower, together with the 8m long lay-by area along Kennedy Road, and a link bridge to connect the northwest open space	Northwest open space Plateau setting with heavy natural vegetation Building structure	High High High	To provide barrier free access to the site	• Location of the tower has been chosen to make sure the least visual impact to the Roberts Block. Height is kept minimum. • The design, material and style of additions will be distinguishable from the historic building but kept subtle and natural. • Bored pile wall structure is proposed to minimize impact to the slope and trees, as well as to reduce structural impact to the Roberts Block during the course of construction. Disturbed trees will be compensated by planting new trees to the adjacent slope. See B-12 below. • Monitoring check points will be installed to the Roberts Block to ensure any structural impact can be noticed and mitigated at once. • Surface of the retaining wall will be finished with stone textured paint to match atmosphere of Kennedy Road as far as possible.	Acceptable impact with mitigation measures
B-11	Preserving existing healthy tree as much as possible along the site and the slope area	Open spaces Plateau setting with heavy natural vegetation	High/ Medium High	General maintenance	N/A	Beneficial impact

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
B-12	Compensating tree to the slope along the Kennedy Road	Plateau setting with heavy natural vegetation	High	Tree compensation for felling unhealthy trees Making way for lift and staircase tower construction	• The tree removal work will be carried out in a manner to make sure no disturbance to the existing buildings. • New trees will be kept away from the Roberts Block to avoid future tree growth disturbing building fabric.	Acceptable impact with mitigation measures
B-13	Providing air-conditioning system in split types, placing air-conditioning outdoor units and new flushing water tank in the rear lane on a new 150mm thick RC plinth (see C-19 as well)	Rear (SW) façade Rear lane	Low Low	Necessary building services upgrade for adaptive reuse of the place	• The location of the outdoor units has been chosen at an area of low value and not seen by the public to minimise visual impact to the building appearance. • Outdoor units in the external space between southwest façade and slope will be screen off to keep minimal visual impact for viewing from the northwest open space. • Pipes and ducts will be grouped and placed in a strategic location with screen or underground when entering the building to make minimal physical and visual impact.	Acceptable impact with mitigation measures

C. The Roberts Block Exterior

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
Building Form						
C-1	Demolishing the existing external metal staircase, adding a new staircase, lift tower, of which its landing connects to the Roberts Block G/F to 2/F	Building mass and form Side (NW) façade , with - Return wall of feature similar to the front façade - Verandah balustrade on G/F with granite caps, ceramic urn-shaped balusters and rendered bases - Later added facing brick wall on 1/F and 2/F External metal staircase	Very high High High High No No	To fulfill means of escape and barrier free access requirement under Buildings Ordinance	• Location of the new staircase and lift core has been chosen to make sure the least visual impact to the Roberts Block. Since an additional staircase at the same location has been accepted for year, impact to the building form by a new structure of slightly larger scale appears acceptable. • The new structure will be set back from NE façade so that the north corner of the Roberts Block is exposed in an extent greater than before. Size and shape will be adjusted to minimize visual impact. Staircase and landing is designed with balcony approach and top canopy will be built in glass to reduce building mass both physically and visually. Height of the new structure including the top canopy and lift overrun will be kept lower than the Roberts Block's roof eaves. The width of the landing connecting to the Roberts Block will be minimized. • Existing external staircase and	Acceptable impact with mitigation measures

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
					the building alteration will be record before demolition. • The structure of the staircase and lift core will be independent and does not affect the existing footing of the Roberts Block. • The design and material of the staircase and lift core shall be compatible to and distinguishable from the Roberts Block.	
Façade						
C-2	Restoring the original arch-shaped openings at the middle four bays of the rear façade and installing new enlarged arched aluminium windows	Rear (SW) façade - Steel windows - Rectangular window openings Rooms along the corridors in rear portions other than kitchens, lavatories and bathrooms - Arch recesses over window openings	Low No No No High	Building restoration and operational needs	• Existing fabric will be recorded before alteration.	Beneficial impact
C-3	Preserving and repairing all original window openings, repairing the existing timber windows in the middle of the side façade, and Replacing steel windows/ louvres on the rear	Side (NW) façade - Window openings, including rectangular ones in the middle, segment-arched ones and small vents near rear facades Rear (SW) façade	High High	Necessary building repair To fulfill sanitary fitting and natural lighting and ventilation requirements under Building Ordinance	• There will be no alteration of window openings. They will be repaired properly. • The existing metal grilles and timber windows will be repaired. • The existing steel windows and louvres are later alteration without value. They	Beneficial impact Acceptable impact with mitigation

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
	façade to new aluminium ones to cater for lighting and ventilation needs for new toilets and kitchen Replacing steel louvres on the side façade to new fire rated fixed light and keeping the blocked vent on the side façade blocked	- segmental arched window openings with protruded window sills at two ends (likely original window openings) Timber windows, with its ironmongery and ornamental metal grilles Arch recesses over window opening in G/F kitchen and in lavatories and bathrooms	Low Medium High High		will be recorded before removal. However, restoration to timber windows are not recommended due to the lack of evidence for restoration and the need to alter window configuration for louvres and fans as necessary to suit statutory requirement. Aluminium windows will be used instead to distinguish the new alteration from the historic fabric. • The aluminium windows will be finished with colour compatible to the building.	measures
C-4	Repairing debonded plaster and defective rendering and paints for all plastered external walls	Front (NE) façade Entrance (SE) façade, with - rendered wall Side (NW) facade, with - rendered wall Rear (SW) façade - rendered wall	Very high Very high Medium High Medium Low Medium	Necessary building repair	• Condition survey will be carried out to identify defective areas before repair. • Laboratory test will be carried out to identify existing rendering materials. • Breathable rendering and paint will be used for repair the defective rendering and repainting for better brickwork maintenance.	Beneficial impact
C-5	Repairing defective facing brick wall	Front (NE) façade Entrance (SE) façade	Very high Very high	Necessary building repair	• Condition survey will be carried out to identify defective areas (such as cracks, efflorescent, etc)	Beneficial impact

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
		Side (NW) facade	High		before repair. • Like for like approach will be adopted for brick repair. For dental repair, new bricks' size, strength and colour shall match with existing	
C-6	Preserving and repairing the entrance door opening and metal entrance gate on the entrance facade	Entrance (SE) façade, with: - Entrance with door opening - Entrance gate	Very high Very high Low	Necessary building repair	• Like for like approach will be adopted for repair. Materials shall match with existing.	Beneficial impact
C-7	Preserving and repairing the two metal shoe scapers at the original main entrance	Entrance (SE) façade, with: - Entrance with two shoe scrapers	Very high Very high	Necessary building repair	• Ditto	Beneficial impact
C-8	Preserving and repairing the entrance steps	Entrance (SE) façade, with: - Entrance with granite steps	Very high Very high	Necessary building repair	• Ditto	Beneficial impact
C-9	Preserving and repairing the building signage on facades	Front (NE) façade, with: - The painted protruded name "ROBERTS" Entrance (SE) façade, with: - The name fixation "ROBERTS"	Very high Very high Very high Very high	Necessary building repair	• Ditto	Beneficial impact
C-10	Preserving and repairing the historic building information plaque	Entrance (SE) façade, with: - Historic building information plaque	Very high No	Necessary building repair	• Ditto	No impact
C-11	Repairing the entrance mail box	Entrance (SE) façade, with:	Very high	Necessary building repair and for interpretation	• Ditto	Beneficial impact

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
		- Mail box	Medium			
C-12	Preserving and reusing the identified original/ aged cast-iron rain water down pipes (RWDP) and waste/ foul water down pipes as much as practicable or replacing with replica if beyond repair, and Applying modification/ exemption from regulation to keep the roofline without gutter addition and without RWDP addition on 2/F, subject to Building Authority's approval	Drainage and sewage downpipes, including: - Cast-iron rain water downpipes and hoppers with classical motif on the front and rear façades, up to 2/F slab, - Cast-iron rain water downpipes without hoppers, up to 2/F slab, - Waste and foul water downpipes at the two ends of the rear façade Front (NE) façade Entrance (SE) façade Side (NW) facade Rear (SW) façade Flat roof and their projected eaves	Various as below: Very high Low Low Very high Very high High Low Medium	Necessary building repair To fulfill statutory requirement for drainage of rain water	• Under the current Buildings Ordinance, roof rainwater has to be properly drained by drainage system, meaning gutters and RWDP will need to be added. This will create adverse impact to the building external. • Modification/ exemption from regulation will therefore be sought, subject to Building Authority's approval. Otherwise, all roof eaves will need to be added with gutters and then RWDP on 2/F facades.	Beneficial impact
C-13	Preserving and repairing the metal spikes on the front façade	Front (NE) façade, with: - Metal spikes	Very high High	Necessary building repair	• Like for like approach will be adopted for repair. Materials shall match with existing.	Beneficial impact
C-14	Removing the later-added metal frame and	Front (NE) façade and Entrance (SE) façade,	Very high Very high	Building restoration	• The metal frame and wire mesh will be recorded before	Beneficial impact

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
	wire mesh above the verandah balustrades	with: - Metal frame and wire meshes above balustrades	Intrusive		demolition.	
C-15	Repairing the existing surface channel and adjusting level of fall, and Adding grating on the top of the channel, except that the part next to the entrance façade will be kept as surface channel.	Surface channels surrounding the entire building, with - Location - Cement finish - Arch "tunnel" at the bottom of entrance granite steps	High High Low Very high	Necessary building repair To fulfill the requirement under Buildings Ordinance (the gradient of laid-to-fall)	• The channel will be recorded before alteration. • Addition of grating is necessary due to the increase of depth to the surface channel after alteration to fulfill BD requirement, but will be installed in a reversible manner. • The laid-to-fall next to the entrance granite steps will be kept unaltered to avoid necessary disturbance to the granite piece.	Acceptable impact with mitigation measures
C-16	Removing and salvaging the verandah balustrade with urn-shaped balusters and granite cap on side façade on G/F, and removing the later added brick wall at the same locations on 1/F and 2/F to make way for connection to the new external MOE staircase and lift, and Adding glass balustrades (a short length) on the	Side (NW) façade, with: - Verandah balustrade on G/F with granite caps, ceramic urn-shaped balusters and rendered bases - Later added facing brick wall on 1/F and 2/F	High High No	To provide barrier free access and MOE to all floors of the building	• The G/F balustrade will be recorded before removal, and salvage and displayed for interpretation or saved as spare parts for future maintenance use. • Though the connection from the lift to the building does not carry a full length of the balustrade, it is recommended to remove and salvage the balustrade in full length to keep the integrity of the granite cap. A short piece of new glass	Acceptable impact with mitigation measures

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
	same façade on the three floor as protective barrier				balustrade shall be added as the protective barrier to fill the gap instead to make the intervention distinguishable from the old fabric. • The brick walls on 1/F and 2/F are of no value. Their removal and restoration of the openness of the verandah on NW end is beneficial to the heritage. Again short pieces of glass balustrades will be installed as the protective barrier to fill the gap with reason similar to the above.	
C-17	Adding fire rated fixed lights behind the existing timber windows on the side façade	Timber windows, with its ironmongery and metal guard bar Side (NW) façade, with: - Window openings, including the rectangular one in the middle	High High High	To fulfill fire resistance construction requirement under Buildings Ordinance	• Addition of the fixed lights will be done in the building interior so there will be no visual impact to the façade. • The repaired timber windows will be sealed off for better building maintenance. Again, there will be no visual impact.	Acceptable impact with mitigation measures
Roof						
C-18	Repairing flat roof, their projected eaves and the existing lighting belt, and Adding fall arrest system on roof	Flat roof and their projected eaves	Medium	Necessary building repair To improve safety when carrying out future maintenance on roof	• Waterproofing will be applied to the entire roof. • Flat roof will be kept for maintenance. Fall arrest system (e.g. a safety wire) will be installed at low level near roof slab and set back from edge to avoid creating visual	Beneficial impact Acceptable impact with mitigation measures

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
					impact.	
C-19	Demolishing the existing flushing water tank, and Relocating it to the rear lane	Water tank on roof Rear lane Rear façade	No Low Low	Necessary building repair To reduce load burden to the existing structure Necessary utility renewal to support adaptive reuse	• The existing water tank will be recorded before demolition. • The new tank will not be located on roof of the building in view of loading capacity of the existing building structure. • The new tank will be of small scale and be placed on a plinth grouped with air-conditioning outdoor units. Size will be kept minimum.	Beneficial impact Acceptable impact with mitigation measures
C-20	Preserving and repairing the chimneys and using glass panel to seal off the fuse opening	Chimneys on roof	Very high	Necessary building repair	• The chimneys will be repaired. • Sealed opening can prevent water seepage to the interior and will be installed in a reversible manner (e.g. stainless steel plate inside the opening and recessed).	Beneficial impact
C-21	Repairing the metal cat ladder, and modifying the access hatch for periscope installation	Access hatch opening on roof, with: - Stainless steel hatch door (later replacement) Metal cat ladder to the access hatch to roof on 2/F	Medium No High	Necessary building repair For interpretation	• Interpretation for the roof can be done on 2/F so that barrier free access to R/F (thus fabric disturbance) will not be needed. • The hatch is a modern fabric of no value so modification creates no impact. • Detail of the hatch will be record before alteration.	Beneficial impact
Entrances						
C-22	Adding a 1:12 ramp with handrails and a raised deck in the northwest	Northwest open space Side (NW) façade	Medium High	To fulfill barrier free access requirement under Buildings	• Only the existing floor finish will be disturbed and it is cement screed without value. It is set	Acceptable impact with mitigation

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
	open space next to the side facade			Ordinance	back from the side façade to avoid physical disturbance to the façade. • The location of the ramp has been chosen to less prominent part of the building so as to reduce visual impact created by the handrails. • The design of the handrail will be compatible with but distinguishable from the existing fabric. It will be of simple design to reduce visual impact. • Interfacing details of the raised deck and the ramp will avoid physical disturbance to the side facades as far as possible.	measures
C-23	Introduction of tactile, warning strips from the new lift and staircase tower connected to Kennedy Road to the new reception	Northwest open space Open verandahs, including: - Cement sand screeding on floors Bedrooms and living rooms in the middle portion, with: - Vinyl floor tiles	Medium Very high Low High No	To fulfill barrier free access requirement under Buildings Ordinance	• The addition will be done on new hard paving in open space, on the new raised deck on the verandah floor and on the restored screeding floor in the new reception. There will be no installation on original fabric and the installation is reversible.	Acceptable impact with mitigation measures

D. The Roberts Block Interior

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
All floor						
D-1	Recasting the concrete floor slabs of all portions of 1/F and 2/F with reinforcement, and Replacing the existing steel joists supporting 1/F and 2/F slabs, including those exposed ones in the front and rear portions and the embedded ones in the middle portions with steel members of high grade, and retaining the encased I-beam in the middle portion, and Strengthening the concrete edge beam in the front portion supporting 1/F and 2/F verandah slabs by adding embedded steel angles. (All subject to Building Authority's approval)	Building structure Open verandahs, including: - Brick corbels on G/F and 1/F - Exposed steel joists on G/F and 1/F ceilings - Plain painted ceiling - Granite thresholds at door openings Bedrooms and living rooms in the middle portion, with: - Classical moulded beams - Plain ceiling with chamfer-edged (on G/F and 1/F) ceiling cornices - Vinyl floor tiles (later added) Corridors in the rear portions, with: - Plain painted ceiling - Exposed steel joists on G/F and 1/F ceilings - Painted brick corbels at ceiling adjoining the middle portion - Vinyl flooring - Corbels on G/F and 1/F	High Very high Very high High Medium High High High High No Low Medium High High No High	To fulfill structural loading requirement under Buildings Ordinance and to ensure public safety under the new use	• In principle, the recasting/ replacing/ strengthening works are designed as replica to the original with strengthened structural properties to create least visual impact as far as possible, except for the thickness of slabs will be reduced to avoid imposing extra loading to the footing. • A recess will be introduced between the new slabs and the existing beam moulding, cornices or corbels to leave traces of intervention. • Documentation including photographic survey and cartographic survey will be carried out to record all disturbed fabrics before demolition. • The encased I beam in the middle portions, all ceiling cornice, corbels and mouldings at beams will be retained in situ as far as possible. In case of damage during the course of construction, they will be repaired and restored according to record. • Granite threshold will be retained but with slight location adjustment. • Existing structural level will be kept to reduce impact and complication to the interface with the existing fabrics.	Acceptable impact with mitigation measures

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
		ceiling Kitchens, with - Exposed steel joists at ceiling on G/F and 1/F - Painted corbels at ceiling on G/F and 1/F Lavatories and bathrooms, with - Exposed steel joists at ceiling on G/F and 1/F - Painted corbels at ceiling on G/F and 1/F Rooms along the corridors in rear portions other than kitchens, lavatories and bathrooms - Vinyl flooring - Exposed steel joists on G/F and 1/F ceilings - Corbels on G/F and 1/F ceiling	 Low High High No High High No No High High		• Part of the old fabrics to be replaced, including the plain concrete slabs and steel joist should be salvaged for future display for interpretation to explain building technology in the early 20th century. • The recasting work will be carried out in phases with proper temporary supports and propping to ensure structural safety and integrity of the building. • All of the temporary work should be removed after completion of strengthening work. The damage from drill-in / through bolt to existing façade brickwork should make good. Disturbed facing bricks will be dental-repaired using brick of adequate strength. • Monitoring system will apply for monitoring the stability of existing structure. Building settlement marker and tilting check point will set up to building during construction work. The alert, alarm and action level for monitoring will be required subject to AMO criteria. • Upgrading works/ impact on the existing foundation is avoided. The gravity loading of new proposed work should not exceed the original usage of building making	

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
					reference to LCC 1909. • Interfacing details of newly installed structural elements will be designed to minimize any irreversible physical damages to historic fabrics. • All subject to Building Authority's approval.	
D-2	Generally preserving the layout of bedrooms and living rooms in the middle portion, and repairing brick walls, plaster and paint works (except G/F and 1/F ceilings, see D-1), and Replacing the later vinyl floor with new ones	Building structure Bedrooms and living rooms in the middle portion, with - Chimney breasts with round edges (all fireplaces are blocked) - Original segmental-arched or rectangular wall recesses of blocked doorways between rooms or to front/ rear portions - Vinyl floor tiles (later added) - Skirting painted in dark grey - Plastered and painted original structural brick walls	High High High High No Medium High	Necessary building repair	• The CDEs listed on the left will be preserved and repaired. • The vinyl floors are later added without value so disturbance to them create no impact.	Beneficial Impact
D-3	Preserving and repairing the internal metal staircase and its stairwell	Internal metal staircase in the middle portion, with - Steel structural members (channels as stringers, angles at steps	High High	Necessary building repair	• The staircase and all the CDEs listed on the left will be preserved and repaired.	Beneficial Impact

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
		and landing) - Timber treads and timber half landing - Steel riser - Openness to hallways with arch beams at ceilings Staircase hallways - Grano floor finish	High High High High Medium			
D-4	Adding handrails to the existing stairwell walls of the internal staircase	Ditto	Ditto	To fulfill means of escape requirement under Buildings Ordinance (requiring handrails on both sides of staircase)	• Handrails addition to existing walls is a reversible act, by adding handrail anchor to pointing locations and avoiding disturbance to brickworks. • The design and material of the handrail will be compatible with but distinguishable from the surrounding historic fabric.	Acceptable impact with mitigation measures
D-5	Adding structural steel members to the existing staircase structure, fired rated coating to structural steel members and fire rated protection boards underneath the timber treads and landings	Ditto	Ditto	To fulfill structural loading and fire rated construction requirement for MOE under Buildings Ordinance	• The addition of structural steel should be designed with minimal approach. • The design and material of the structural steel member will be compatible with the surrounding historic fabric. • The fire rated paints will be in black and the fire rated protection boards and newly added steel members will be painted in black to keep subtle and reduce visual impact. • Subject to Building Authority's	Acceptable impact with mitigation measures

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
					approval.	
D-6	Resolving deficiency in protective barrier for staircase by replacing the existing main steel posts with new ones of similar size and higher grade to withstand horizontal impact load, then adding aluminium perforated panels/ wire mesh and railing up to 1100mmH to solve height and gap issues	Internal metal staircase in the middle portion, with - Steel balustrade and handrail	High High	To fulfil protective barrier requirement under Buildings Ordinance (requiring balustrades of at least 1100mmH, capable to withstand 1.5kPa horizontal imposed load, gaps between balusters of at most 100mmW and 150mm upstand)	• Design of the additional balustrades/ balustrade members are limited by loading capacity of the existing structure and footing and therefore light-weight design is required (i.e. glass not possible). • Modification and design of new elements will be as minimal as practicable, compatible with but distinguishable from the surrounding historic fabric. • It will be installed in a reversible manner. • The upgrading works will be in such way that the original design of the balustrade will still be appreciated from the internal side of the stair while the barrier at the external side will be kept as translucent as possible. • Subject to Building Authority's approval	Acceptable impact with mitigation measures
D-7	Repairing the existing brick wall partition between the verandah and staircase hallways, and Replacing the existing doors with new ones with FRP properties Applying modification	Partition walls between the verandah and staircase hallways, with - Walls with plaster on both sides and door openings - Timber doors (suspected later replacement) Open verandahs,	High High Low Very high	Necessary building repair To fulfil fire resistance construction requirement under Buildings Ordinance	• The partition wall will be preserved and repaired. • The existing doors are suspected later replacements without ornaments. They will be recorded before removal.	Beneficial Impact Acceptable impact with mitigation measures

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
	from BD on fire separation requirement of the internal staircase from the rest of G/F so as NOT to add a protected lobby in the G/F verandah (subject to Building Authority's approval)	including: - Openness to give view and natural ventilation	Very high			
D-8	Generally preserving and repairing the verandah (except G/F and 1/F ceilings, see D-1)	Open verandahs, including: - Openness to give view and natural ventilation - Facing brick walls and columns with rendered moulded capitals - Original brick segmental arched door openings on G/F and 1/F and rectangular ones on 2/F (including the blocked ones) - Cement sand screeding on floors - Surface channel - Plastered skirting painted in white	Very high Very high Very high Very high Low Medium High	Necessary building repair	• The verandah and all the CDEs listed on the left will be preserved and repaired.	Beneficial Impact
D-9	Re-planning the existing layout of the lavatory and bathroom, and Adding a new flushing	Lavatories and bathrooms, with - Location - Layout and fixtures (altered)	No Medium No	To fulfill sanitary fitment requirements under Buildings Ordinance	• The layout has been altered over years and is not the original one. The area is retained as back of house nature and so is compatible to original use.	Acceptable impact with mitigation measures

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
	water pump room on G/F	- Ceramic wall and floor tile up to high level - Arch recesses over window openings	No High		• Disturbed parts of the building will be recorded before alteration. • New partitions are of lightweight to avoid structural impact to the building. • Only a plinth is needed to be added to the on-grade slab to support the new pump, and no substantially alteration to the building structure is needed.	
D-10	Preserving and repairing existing timber French doors with fanlights and ironmongeries between front and middle portions and between rear and middle portions, restoring all disturbed and blocked doorways with timber door replica, except where restoration is restricted by structural, FRC, acoustic and layout concerns. Keeping the doors open where barrier access is needed, and For those on G/F and 1/F, replacing door frames to incorporate new steel lintels on top,	Open verandahs, and Corridors in the rear portions, with: - Original brick segmental arched door openings on G/F and 1/F and rectangular ones on 2/F (including the blocked ones) - Timber French doors with fanlights and ironmongeries (segmental arched shape on G/F and 1/F and rectangular shape on 2/F) All internal doors, unless otherwise stated above	Very high Low Very high/ high High No	Necessary building repair and restoration To fulfill barrier free access requirement To fulfill structural loading requirement (current segmental arch is found structurally deficient)	• All doors should be recorded before removal and repaired/ altered. • All timber French door leaves will be preserved. Only some timber frames are sacrificed for structural strengthening, to minimize intervention to the doors of value and brickworks. • Doors to be replaced are of no value. New doors will be of simple design compatible with and distinguishable from the historic fabric. • Auto door system will only be installed on replica if necessary.	Beneficial Impact No impact Acceptable impact with mitigation measures

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
	and Replacing all internal doors (non French doors) by new doors unless otherwise stated above Restoring doors between rooms in one of the Central Core room on G/F (the display area with the fireplace restored)			To fulfill operational needs for new use Building restoration for interpretation		Acceptable impact with mitigation measures Beneficial impact
D-11	Repairing/ replacement of the existing floor, ceiling and wall rendered, painted and tiled finish, unless otherwise stated	All internal floor and wall finishes with low/ no value and not mentioning in other part of this table	Low/ No	Operational need for new use and necessary building repair	• The existing finishes should be recorded before alteration. • The design of new finishes will be humble and compatible to the historic ambience of the building.	Acceptable impact with mitigation measures
D-12	Installation of new building services in the building interior, including: - fire services installation such as fire detector, visual fire alarm, breakglass unit, exit sign, emergency light, sprinkler heads and the pipeworks/ conduits for the above appliances - electricity upgrade and rewiring	Internal layout	Various	To comply statutory fire services installation requirements and to suit new use	• Structural integrity will be kept. Coring/ chasing into structures will not be carried out unless there is absolute necessity and assessed by RSE. • Pipeworks and conduits will be grouped and organized neatly to minimize coring to walls, visual impact to the interior, and disturbance to the CDEs of high value. In principle, they should be planned on ceiling of spaces of less significance (e.g. in the rear portion) so as to keep disturbance	Acceptable impact with mitigation measures

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
	- water supply pipework renewal - drainage pipes renewal - air-conditioning and ventilation pipes				to space of high significance (e.g. the open verandah) minimum. • False ceiling or bulkhead to be added to hide intrusive building services should be designed to allow viewing to ceiling cornices and moulding as far as possible. • Original opening into structures will be reused as much as possible to reduce the number of necessary new openings.	
D-13	Erecting a electric meter room / cabinet inside the original kitchens on all floors	Kitchen, with - Location - Kitchen internal layout and fixture - Ceramic wall and dado - Plastered wall and painted in white - Arch recesses over window opening on G/F - Exposed steel joists at ceiling on G/F and 1/F - Painted corbels at ceiling on G/F and 1/F - Chimney breasts	Low Medium No No No High High High High	To add utility facility to suit new use	• The location of the new electric meter room / cabinet has been chosen to make sure the least impact to internal layout. The kitchens are of low value. • Those CDEs of high value in kitchens are not affected by this work. • Disturbed parts of the building will be recorded before alteration.	Acceptable impact with mitigation measures
D-14	Converting the existing kitchens and rooms in the rear portion to - the new pantry and new café on G/F - the new therapy room and breast feeding room on 1/F	Ditto Rooms along the corridors at rear portion other than kitchens, lavatories and bathrooms - Layout and fixtures (altered)	Ditto No No	Operational needs for new use	• Documentation including photographic survey and cartographic survey should be carried out before works. • Partition, doors, wall finish and floor tile of the existing kitchen and room are later added / replacement with no value and	Acceptable impact with mitigation measures

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
	- the new therapy rooms on 2/F, - including demolition of existing partition walls	- Arch recesses over window openings - Vinyl flooring - Plastered skirting painted in grey - Partition wall painted in white - Exposed steel joists on G/F and 1/F ceilings - Corbels on G/F and 1/F ceiling	High No No No High High		their removal/ reconfiguration is acceptable. • Those CDEs of high value in kitchens and rooms in the rear portion are not affected by this work.	
D-15	Adding glass balustrades to the verandah behind the urn-shaped balustrades on 1/F and 2/F, with design of either: OPTION 1. glass balustrade of 900mmH only plus management approach, if regulation modification is permitted by the Buildings Authority, or OPTION 2. glass balustrade of 1100mmH	Front (NE) façade, and Entrance (SE) façade, with: - Verandah balustrades with granite caps, ceramic urn-shaped balusters and rendered bases Open verandahs, including: - Openness to give view and natural ventilation - Cement sand screeding on floors - Surface channel	Very high Very high Very high Very high Very high Low Medium	To fulfill protective barrier requirement under Buildings Ordinance (requiring balustrades of at least 1100mmH, capable to withstand 1.5kPa horizontal imposed load, and gaps between balusters of at most 100mmW, to avoid risk of falling)	• Option 1(the preferred option): - Glass balustrade with reduced height to be installed can reduce possible visual impact on the facades - Subject to Building Authority's approval • Option 2 (less preferred, to be adopted only if option 1 is disapproved by the Building Authority): - Glass is used to keep openness of the verandah visually and spatially • For both options: - The balustrade will be installed at the location set back from the façades to minimize visual impact and to allow surface channel of verandahs to be preserved. - A portion of the balustrade will be openable and weephole/ opening will be introduced at the bottom for maintenance access	Acceptable impact with mitigation measures

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
					and for drainage respectively.	
D-16	Adding raised floors on the verandahs of all floors to match level of the Central Core rooms in the middle portions	Open verandahs, including: - Granite thresholds at door openings - Cement sand screeding on floors - Surface channel - Plastered skirting painted in white	Very high High Low Medium High	To fulfill barrier free access	• The addition is readily reversible and detachable for maintenance. • Existing fabrics (or the re-casted slabs on 1/F and 2/F) will not be physically disturbed but only some of them are hidden. • Granite thresholds will be kept visible. • The raised floor will be of light weight so that it falls within the loading limitation of the existing footing. • The new decking shall keep a distance with the existing surface channel and urn-shape balustrade so they are undisturbed.	Acceptable impact with mitigation measures
G/F						
D-17	Demolishing the existing partition wall between the office, corridor and store room on G/F	Bedrooms and living rooms in the middle portion, with - Access corridors connecting the front and rear portions and their partition walls and associated alteration (later alteration)	High Intrusive	Operational needs for new use Restoration of original room space	• Later added intrusive partitions are all removed to revive the original layout and internal space. • Partition and door of the existing store room are of no value will be removed. • Existing vinyl floor tiles to be removed are later replaced and have no value. • Disturbed door opening and lost French door will be restored. • The existing layout will be recorded before alteration.	Beneficial Impact
D-18	Converting the existing rooms in the middle	Bedrooms and living rooms in the middle portion, with	High	Operational needs for new use and for	• The CDEs listed on the left will be preserved and repaired, except	Beneficial Impact

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
	portion to introduction/ reception/ display areas on G/F	- Chimney breasts with round edges - Original segmental-arched or rectangular wall recesses of blocked doorways between rooms or to front/ rear portions - Vinyl floor tiles (later added) - Skirting painted in dark grey - Plastered and painted original structural brick walls	High High No Medium High	interpretation	that the vinyl floor of no value will be replaced.	
D-19	Restoring the fireplace in one room in the middle portion on G/F	Bedrooms and living rooms in the middle portion, with - Chimney breasts with round edges	High High	Restoration and for interpretation	• Design of the fireplace will make reference to building of the same era. • Restoration's reference and year of construction will be clearly explained in the interpretation content.	Beneficial Impact
1/F						
D-20	Converting the rooms in the middle portion to therapy rooms on 1/F	Same as D-18	Same as D-18	Operational needs for new use	• The CDEs listed on the left will be preserved and repaired, except that the vinyl floor of no value will be replaced.	Acceptable impact with mitigation measures
2/F						

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
D-21	Demolishing the existing partition wall between the two rooms (D301 & D302) and the corridor in the middle portion on 2/F and installing foldable partition in between, and Strengthening the existing steel beam above the partition by replacing steel members	Bedrooms and living rooms in the middle portion, with - Access corridors connecting the front and rear portions and their partition walls and associated alteration (later alteration)	High Intrusive	Operational needs for new use and restoration of original room space To fulfill structural loading requirement and to strengthen deficient structural member	• Later added intrusive partitions are all removed to revive the original layout and internal space. • Partition of the existing corridor are of no value will be removed. • Existing vinyl floor tiles to be removed are later replaced and have no value. • The existing layout will be recorded before alteration. • The existing steel beam is a later intervention for removing an original structural brick wall. The replacement beams will not intensify the visual impact. It will be cladded with finishes compatible with but distinguishable from the surrounding historic fabric.	Acceptable impact with mitigation measures
D-22	Converting the room in the middle portion to office/ multifunction rooms on 2/F	Same as D-18	Same as D-18	Same as D-18	• Same as D-18	Same as D-18
D-23	Strengthening the existing concrete beams on ceiling soffit on 2/F by either: OPTION 1: Fibre reinforced polymer system wrapping around the three beam surfaces, subject to Building Authority's approval, or	Bedrooms and living rooms in the middle portion, with - Classical moulded beams - Classical moulded ceiling cornices	High High High	To fulfill structural loading requirement and to strengthen deficient structural member	• Option 1(the preferred option): - The FRP application will avoid moulding of beams. - Thickness of application will be kept minimum (around 20mm) to minimize visual impact. - Subject to Building Authority's approval • Option 2 (less preferred, to be adopted only if option 1 is disapproved by the Building Authority):	Acceptable impact with mitigation measures

Item No.	Assessment Item / Proposed new works	Affected CDEs / elements	Level of significance	Reason for changes	Suggested Mitigation / Recommendation	Overall Impact level
	OPTION 2: Addition of steel beams on the ceiling soffit				- Additional steel beams will be painted in white to reduce visual impact. - Size of additional beams will be kept as minimum as possible.	

11

RECOMMENDATIONS

11.1 Overall Assessment

Based on the impact assessment in chapter 10, it is recommended that the overall potential impacts on the Site and the Ancillary Site are considered acceptable and manageable with appropriate mitigation measures stated in this report. It is opted that the proposed conversion works can revitalise the Site and respect its cultural significance with acceptable heritage impacts based on the following observations:

- New building use with art therapy nature, allowing certain level of public access and providing interpretation will be beneficial for the adaptive reuse of the Site.
- The new internal layout design tries to respect the original building design, in which essential spaces of a barrack building are preserved.
- Alterations and additions necessary for statutory compliance and operational needs are considered acceptable.
- The alterations and additions in the Ancillary Site due to the introduction of the new tower, lay-by and link bridge connecting Kennedy Road is considered necessary and the impact on the Site and the surrounding environment are kept minimum.

11.2 Way Forward

The coming works for adaptive reuse should follow this HIA report. A heritage consultant should be appointed in the project team during the design and construction stage to ensure that the HIA report and the conservation policies stated in the CMP can be executed appropriately and effectively. In case there is any significant change to the design plans in the future, which deviates from this HIA report and affects the cultural significance of the Site, the assessment and recommendation made in this report should be reviewed accordingly to reassess the appropriateness of the proposed works and formulate new mitigation measures for future approval from AMO. The CMP should be the document that any revision of this HIA report should make reference to and be based on.

12

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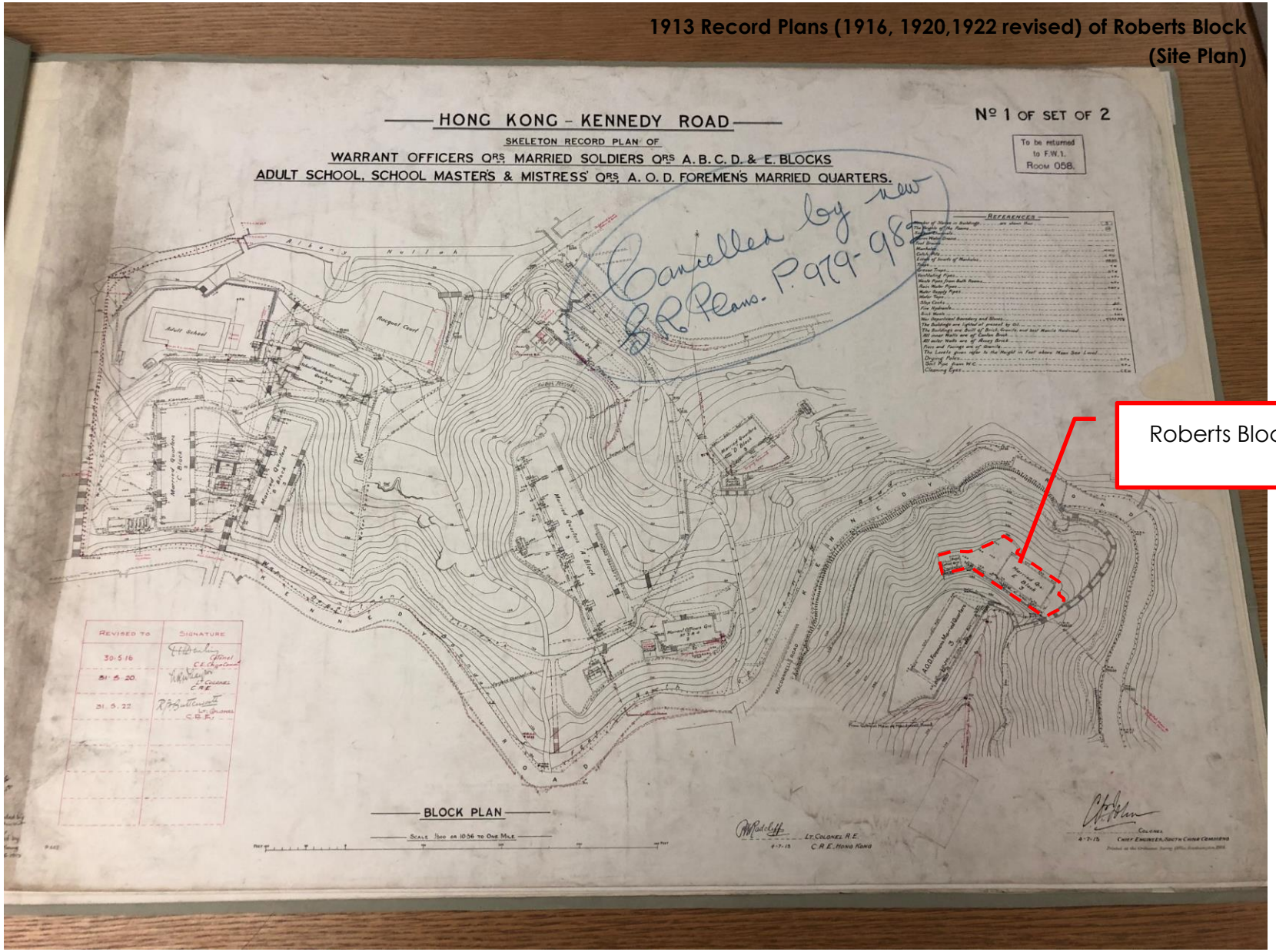
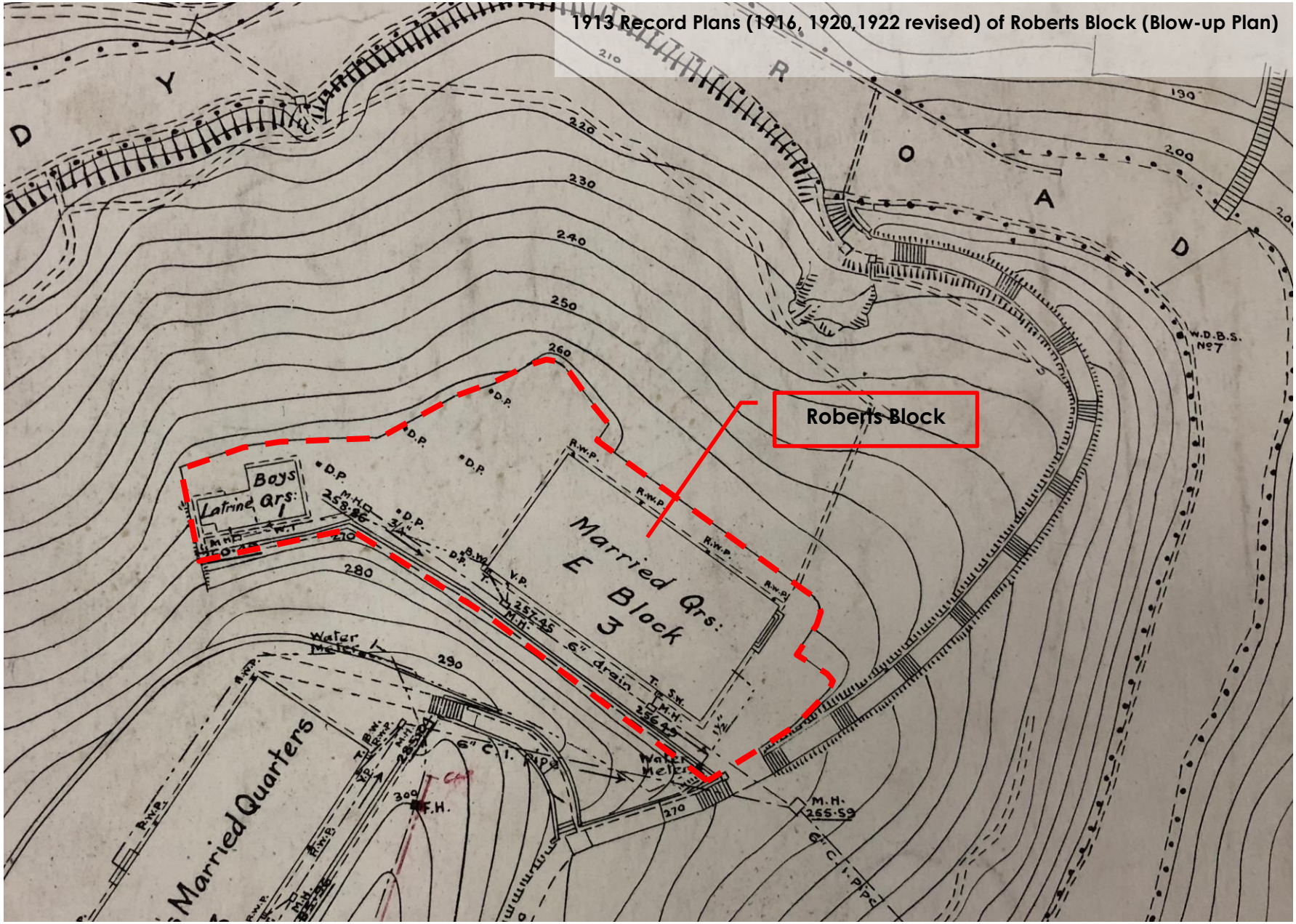
Appendix A.1

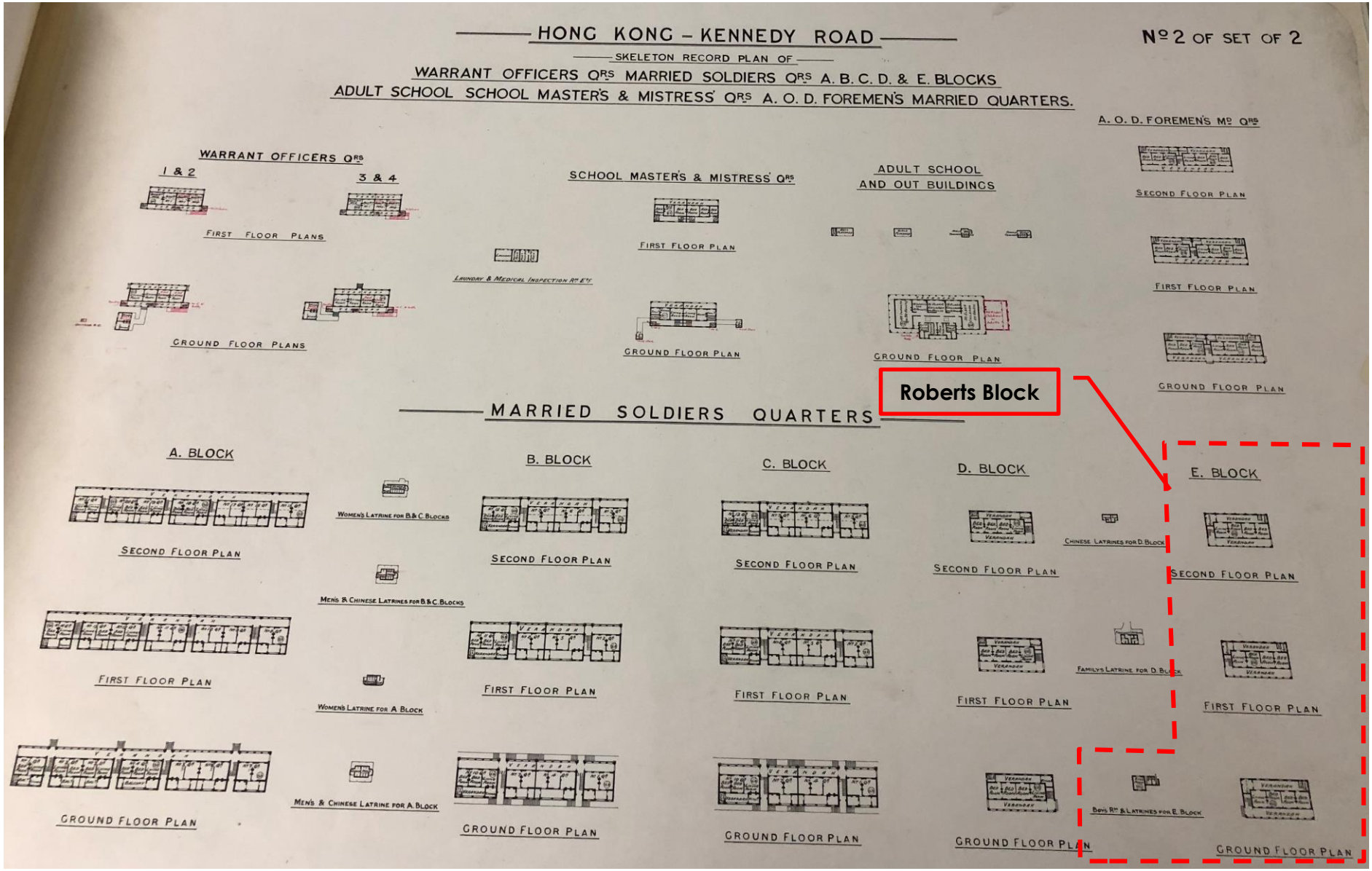
1913 Record Plans (1916, 1920,1922 revised) of Roberts Block
(Source: The National Archives, Kew, Richmond, United Kingdom)

1913 Record Plans (1916, 1920,1922 revised) of Roberts Block (Site Plan)

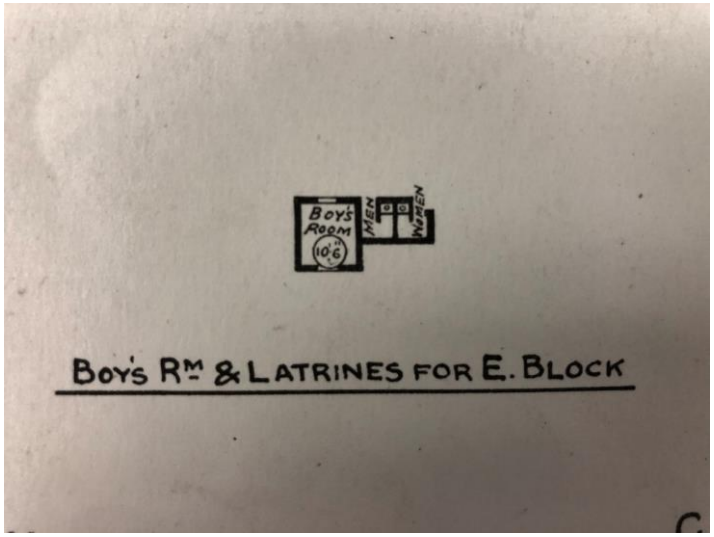


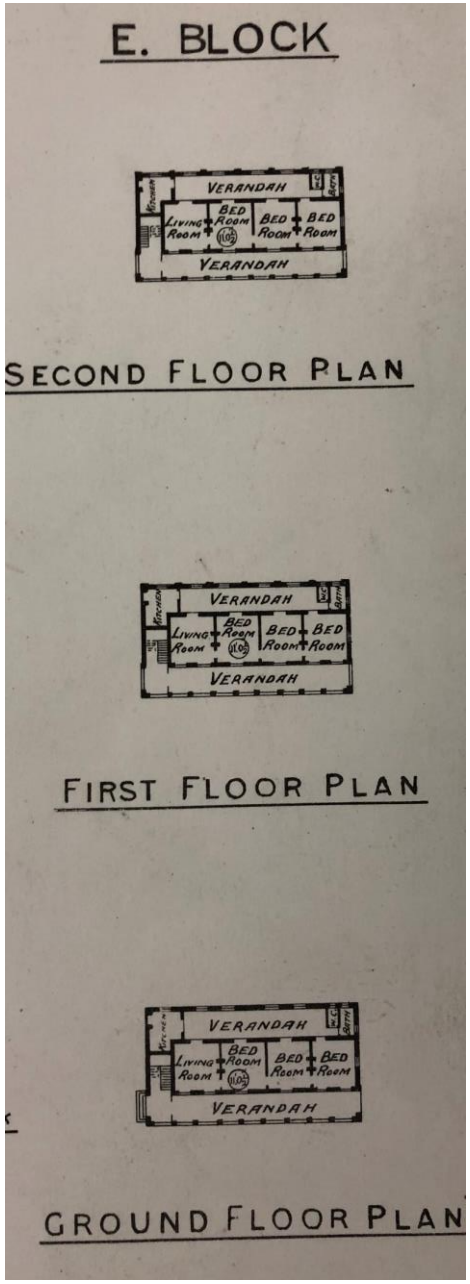
1913 Record Plans (1916, 1920,1922 revised) of Roberts Block (Blow-up Plan)




HONG KONG – KENNEDY ROAD
Nº 2 OF SET OF 2
SKELETON RECORD PLAN OF
WARRANT OFFICERS QRS MARRIED SOLDIERS QRS A. B. C. D. & E. BLOCKS
ADULT SCHOOL SCHOOL MASTER'S & MISTRESS' QRS A. O. D. FOREMEN'S MARRIED QUARTERS.
A. O. D. FOREMEN'S Mº QRS
WARRANT OFFICERS QRS
1 & 2
3 & 4
FIRST FLOOR PLANS
GROUND FLOOR PLANS
LAUNDRY & MEDICAL INSPECTION Rm Etc
SCHOOL MASTER'S & MISTRESS' QRS
FIRST FLOOR PLAN
GROUND FLOOR PLAN
ADULT SCHOOL
AND OUT BUILDINGS
GROUND FLOOR PLAN
SECOND FLOOR PLAN
FIRST FLOOR PLAN
GROUND FLOOR PLAN
Roberts Block
MARRIED SOLDIERS QUARTERS
A. BLOCK
SECOND FLOOR PLAN
FIRST FLOOR PLAN
GROUND FLOOR PLAN
WOMEN'S LATRINE FOR B & C BLOCKS
MEN'S & CHINESE LATRINES FOR B.B.C. BLOCKS
WOMEN'S LATRINE FOR A BLOCK
MEN'S & CHINESE LATRINE FOR A BLOCK
B. BLOCK
SECOND FLOOR PLAN
FIRST FLOOR PLAN
GROUND FLOOR PLAN
C. BLOCK
SECOND FLOOR PLAN
FIRST FLOOR PLAN
GROUND FLOOR PLAN
D. BLOCK
SECOND FLOOR PLAN
CHINESE LATRINES FOR D. BLOCK
FIRST FLOOR PLAN
FAMILY'S LATRINE FOR D. BLOCK
GROUND FLOOR PLAN
E. BLOCK
SECOND FLOOR PLAN
FIRST FLOOR PLAN
BOYS Rm & LATRINES FOR E. BLOCK
GROUND FLOOR PLAN

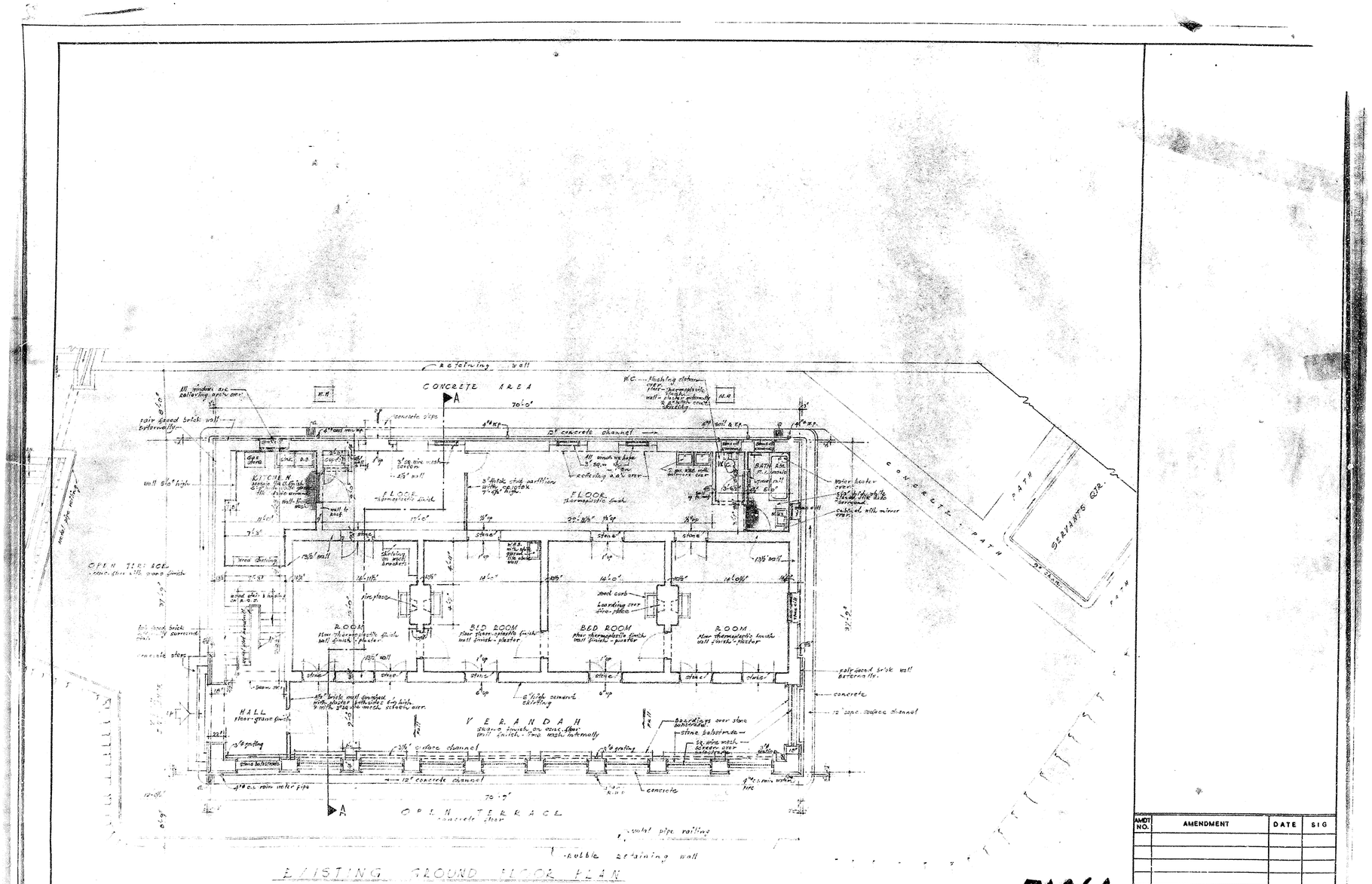
1913 Record Plans (1916, 1920,1922 revised) of Roberts Block
(Blow-up Plan, Not to Scale)





Appendix A.2

1960 and 1984 Record Plans of Roberts Block
(Source: Public Works Department)



AMDT NO.	AMENDMENT	DATE	SIG

74264

DRAWN BY & CHECKED	TRACED BY	CHECKED BY	SCALE		
DATE 26 · 11 · 1960	DATE	DATE	1/8" = 1'-0"	VICTORIA BARRACKS HONG KONG	ROBERTS HOUSE AS EXISTING

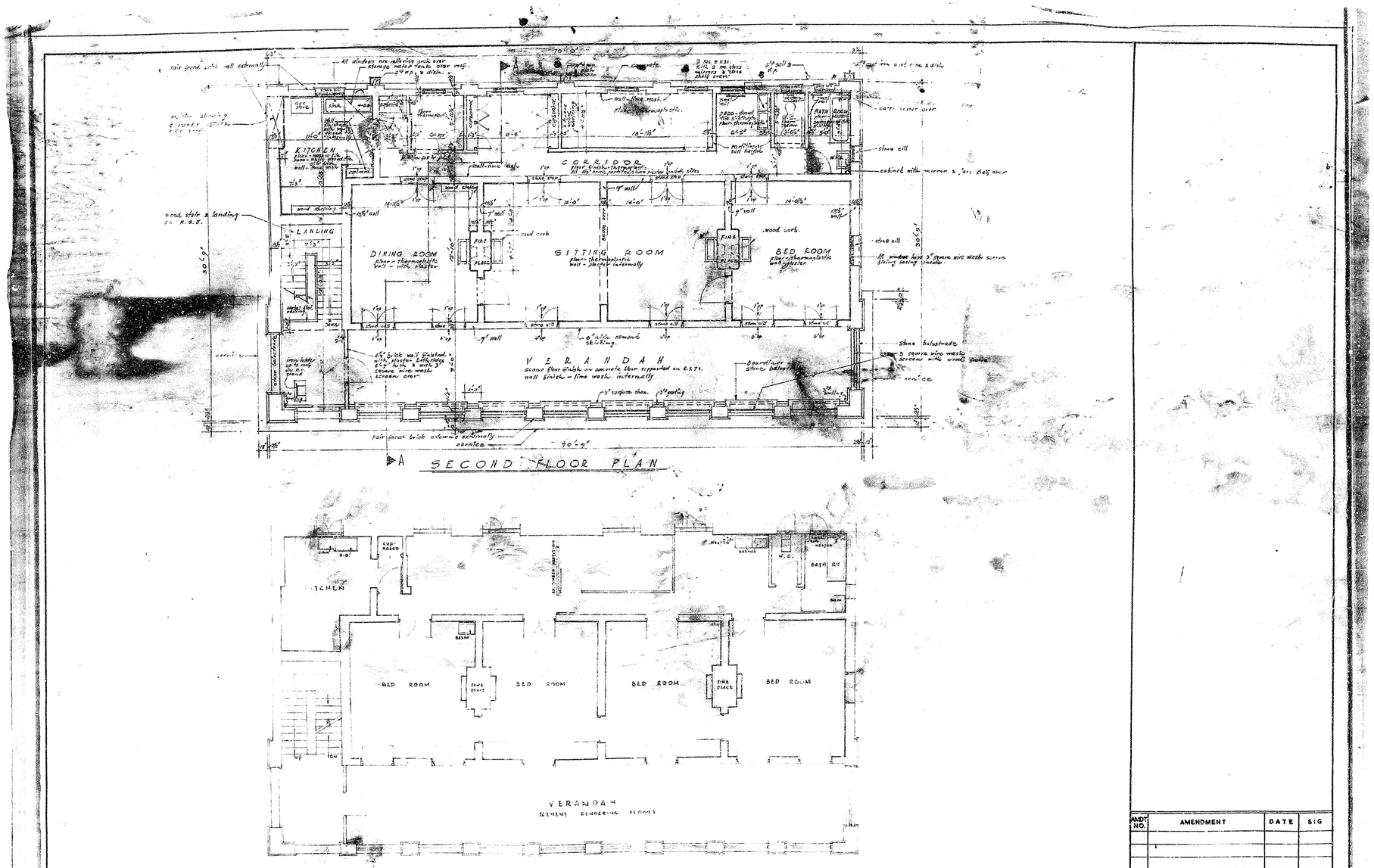
GROUND FLOOR PLAN

DATE

PRINCIPAL WORKS OFFICER LAND FORCES HONG KONG
DATE

DRAWING NO. PWOLF/4202 SHEET 1 OF SET OF 3
DATE · 11 · 12 · 1960

A/77815 SHEET 1



DRAWN BY T.K.CHAN	TRACED BY	CHECKED BY	SCALE 1/4"=1'-0"	VICTORIA BARRACKS HONG KONG	ROBERTS HOUSE AS EXISTING	FIRST & SECOND FLOOR PLANS
DRAWN BY		DATE				DATE

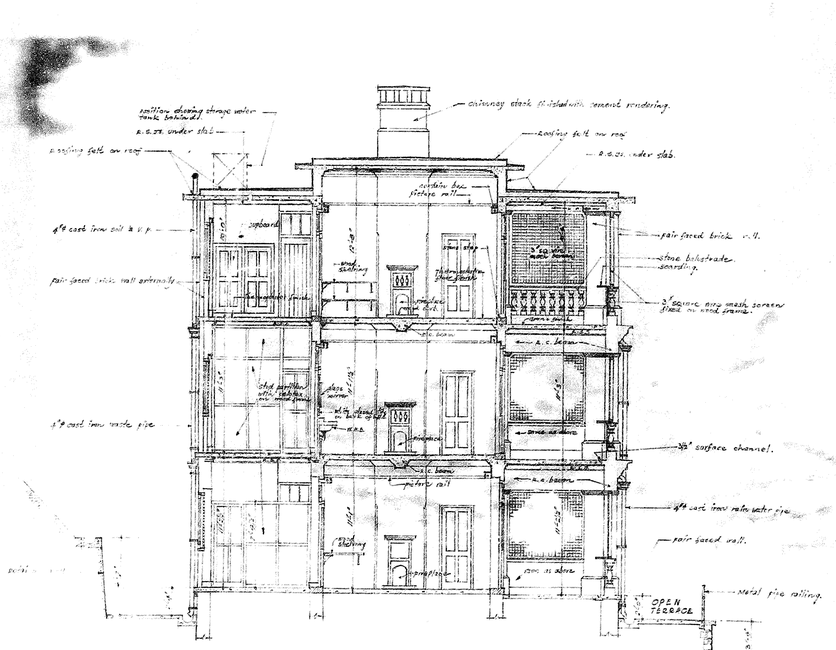
74265

PRINCIPAL WORKS OFFICER LAND FORCES HONG KONG
DATE

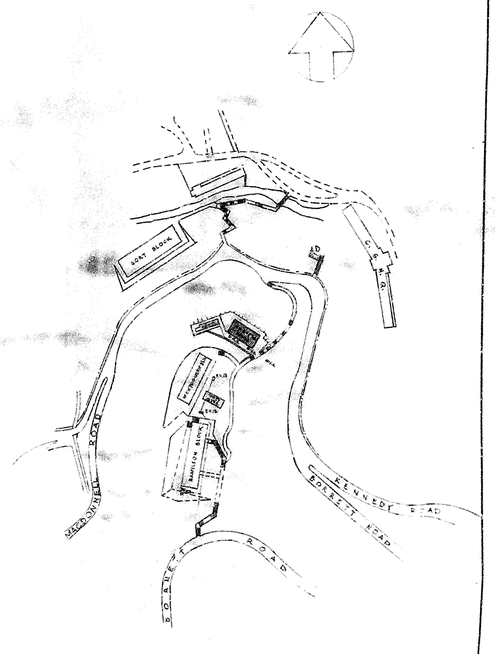
DRAWING NO. PWOLF/4202
SHEET 2 OF SET OF 3
DATE 11 · 4 · 1960

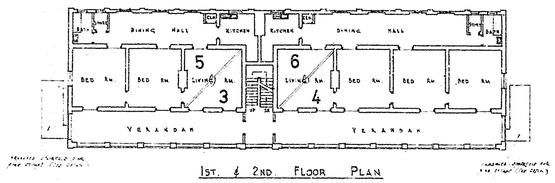
A/77815 SHEET 2 49

AMDT NO.	AMENDMENT	DATE	SIG

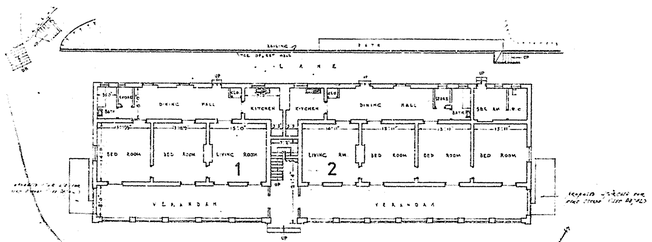


SECTION A-A


SALT BLOCK
MAGAZINE
MAGAZINE
MAGAZINE

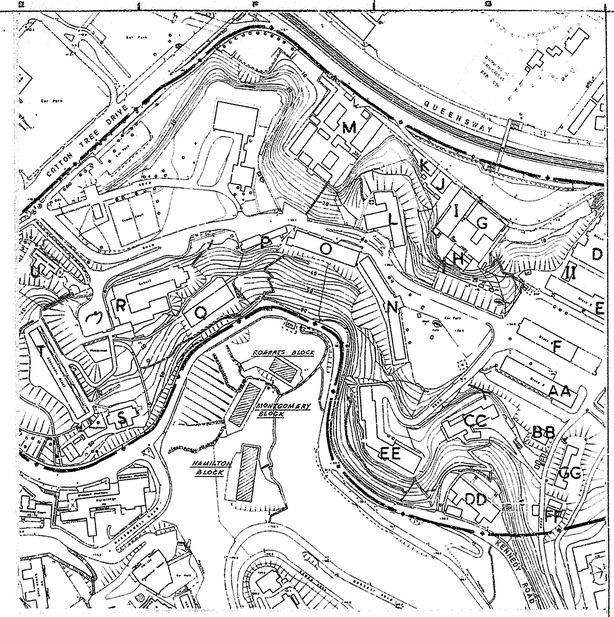


1ST. & 2ND. FLOOR PLAN



GROUND FLOOR PLAN

MONTGOMERY BLOCK



SITE PLAN

SCALE 1: 2000

NOTES:

no.	date	description	initial
REVISION			

	name	date
surveyed		
designed		
drawn	S.P. Chan	3/5/84
traced		
checked		3-5-84
approved		

contract no.

file no.

project no.

contract
HAMILTON BLOCK
MONTGOMERY BLOCK
& ROBERTS BLOCK
(EX. MILITARY QUARTERS
IN VICTORIA BARRACKS)

drawing title
SITE PLAN &
FLOOR PLANS

drawing no. AOM/6171

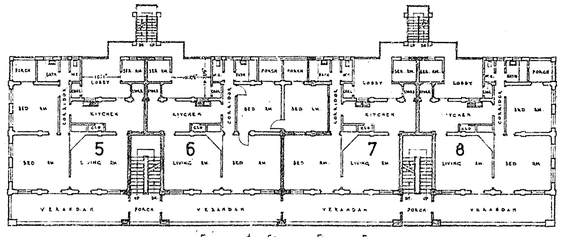
scale 1:200 1:2000

office
B. D. D. A. M.

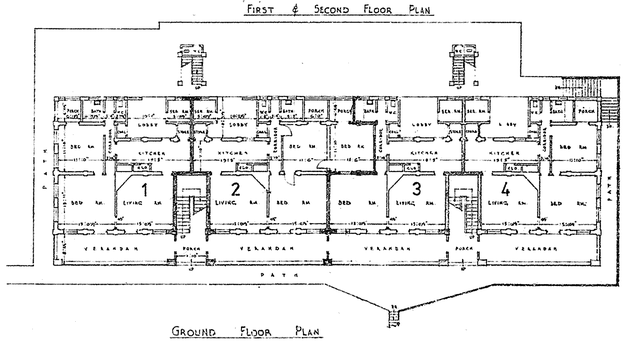
PUBLIC WORKS
DEPARTMENT
HONG KONG

A1 841 x 594

— Existing door opening blocked up

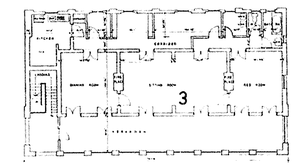


FIRST & SECOND FLOOR PLAN

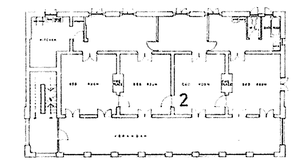


GROUND FLOOR PLAN

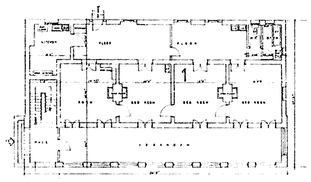
HAMILTON BLOCK



SECOND FLOOR PLAN



FIRST FLOOR PLAN



GROUND FLOOR PLAN

ROBERTS BLOCK

M005960

pwd 123

SCALE 1 : 200
metres 1 0 2 4 6 8 10 12 14 16 18 20 metres

SCALE 1 : 2000
metres 100 0 40 80 120 160 200 metres

Appendix A.3

Existing Plans, Elevations and Sections for Roberts Block

BD Ref:

FSD Ref:

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N

78

METAL BALUSTRADE WITH FLAT BAR BALUSTERS

RB 603A

78.77

HISTORIC EXTERNAL METAL BALUSTRADE (METAL ROD RAILING)

RB 302

RB 301

42A Robert Block

RB 306

RB 303

42B ***

*** ery Block

REV.	DATE	CHECKED BY	APPROVED BY
1	12.1.2021	RL	BT
0	20.2.2020	RL	BT

Project

REVITALIZATION OF ROBERTS BLOCK, OLD VICTORIA BARRACKS INTO ROBERTS BLOCK HEARTS CENRE

Drawing Title

SITE PLAN

Drawing No.

RB–001

Project Ref

File Name : E :

Scale : 1 : 200

Signature for Submission/Construction

THOMAS CHOW
ARCHITECTS LIMITED

0M 1M 2M 3M 5M

周德年建築設計有限公司

BD Ref:

FSD Ref:

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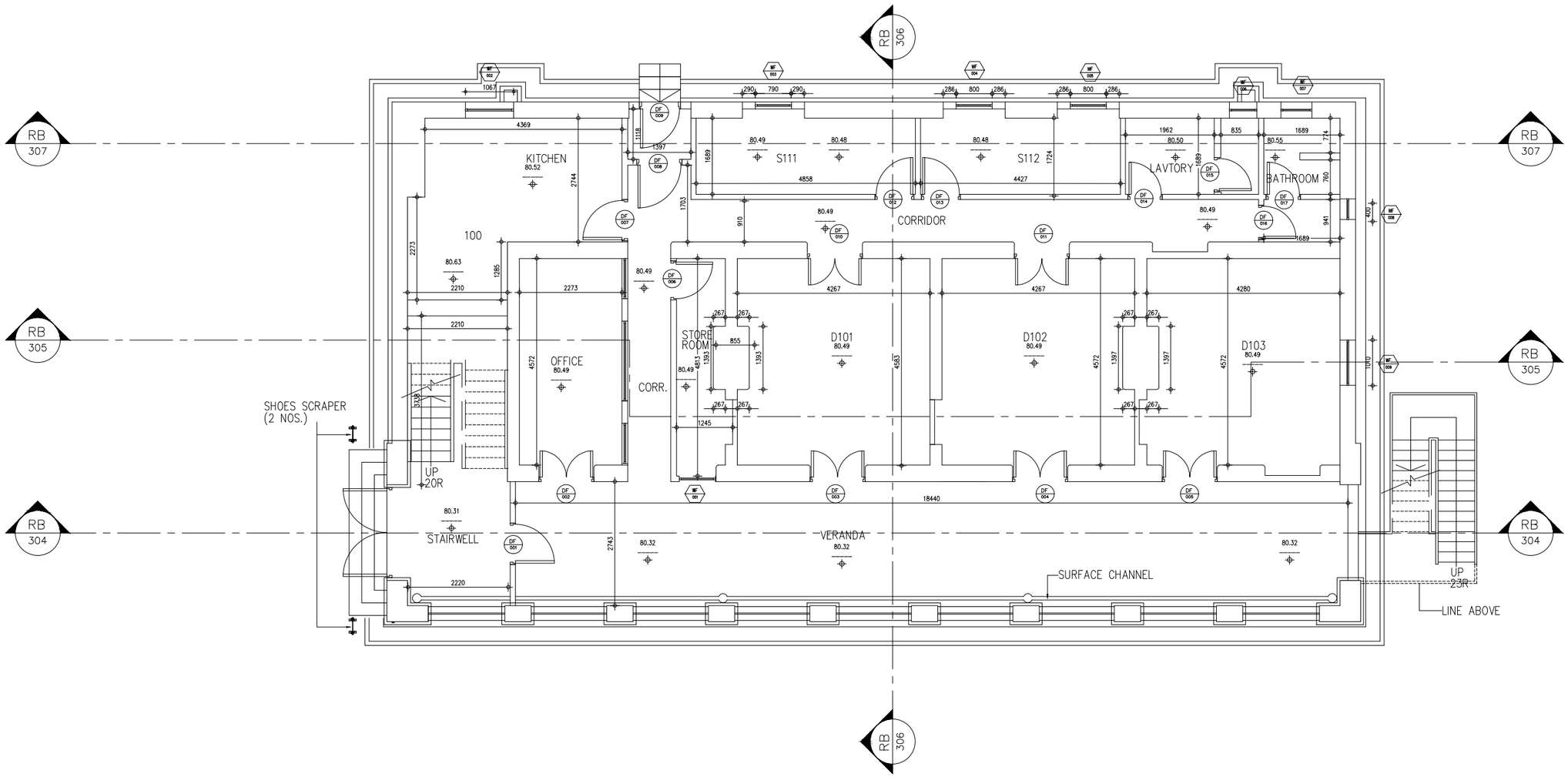

REV.	DATE	CHECKED BY	APPROVED BY
1	12.1.2021	RL	BT
0	30.2.2020	RL	BT

Project

REVITALIZATION OF
ROBERTS BLOCK,
OLD VICTORIA BARRACKS INTO
ROBERTS BLOCK HEARTS CENRE

Drawing Title

GROUND FLOOR PLAN

Drawing No.

RB-100

Project Ref
File Name : E :

Scale : 1 : 100

Signature for Submission/Construction

0M 1M 2M 3M 5M 7M

THOMAS CHOW
ARCHITECTS LIMITED

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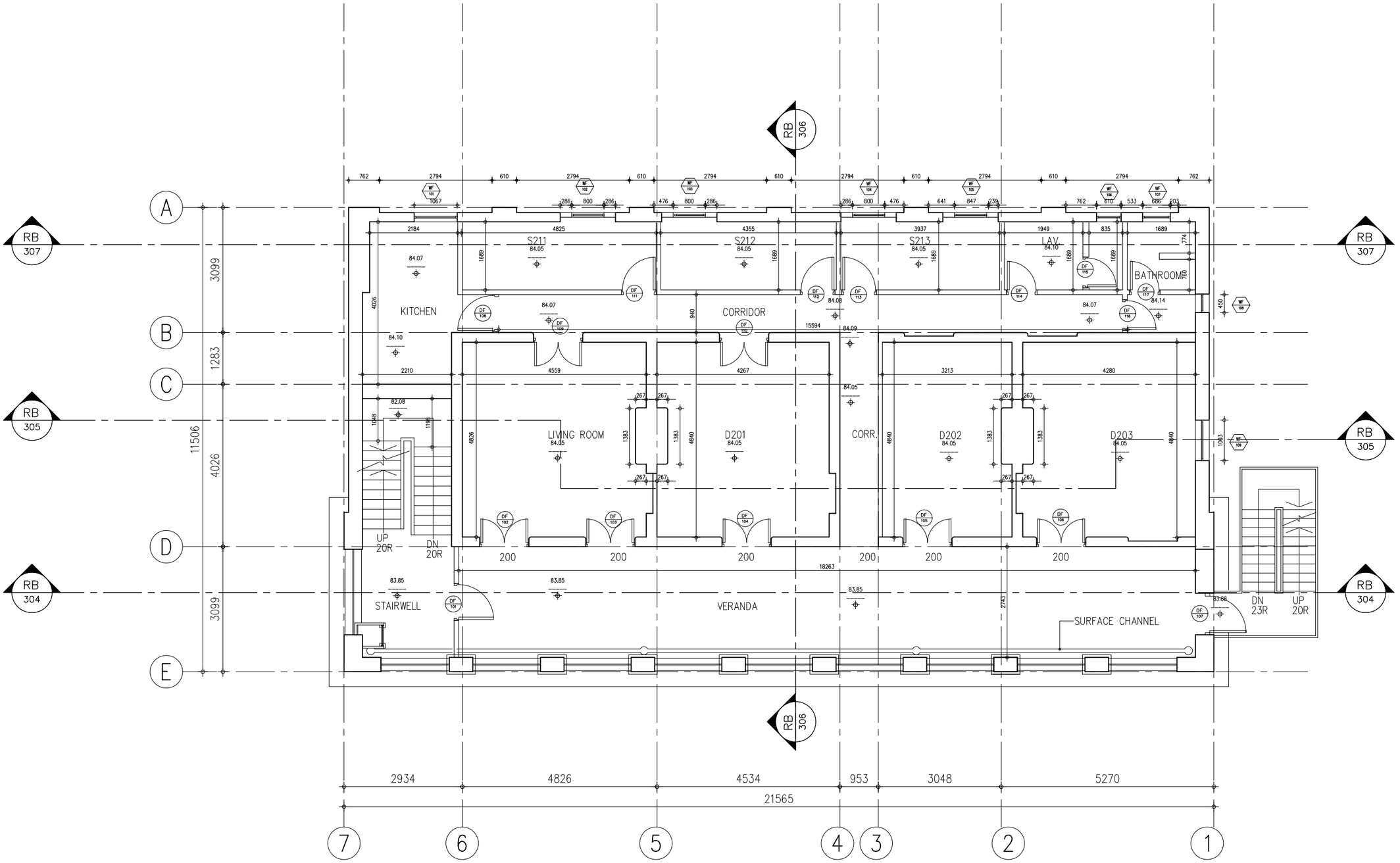

FIRST FLOOR PLAN

REV.	DATE	CHECKED BY	APPROVED BY
1	12.1.2021	RL	BT
0	20.2.2020	RL	BT

Project

REVITALIZATION OF ROBERTS BLOCK, OLD VICTORIA BARRACKS INTO ROBERTS BLOCK HEARTS CENRE

Drawing Title

FIRST FLOOR PLAN

Drawing No.

RB-101

Project Ref

File Name : E :

Scale : 1 : 100

Signature for Submission/Construction

THOMAS CHOW
ARCHITECTS LIMITED

0M 1M 2M 3M 5M 7M

周德年建築設計有限公司

BD Ref:

FSD Ref:

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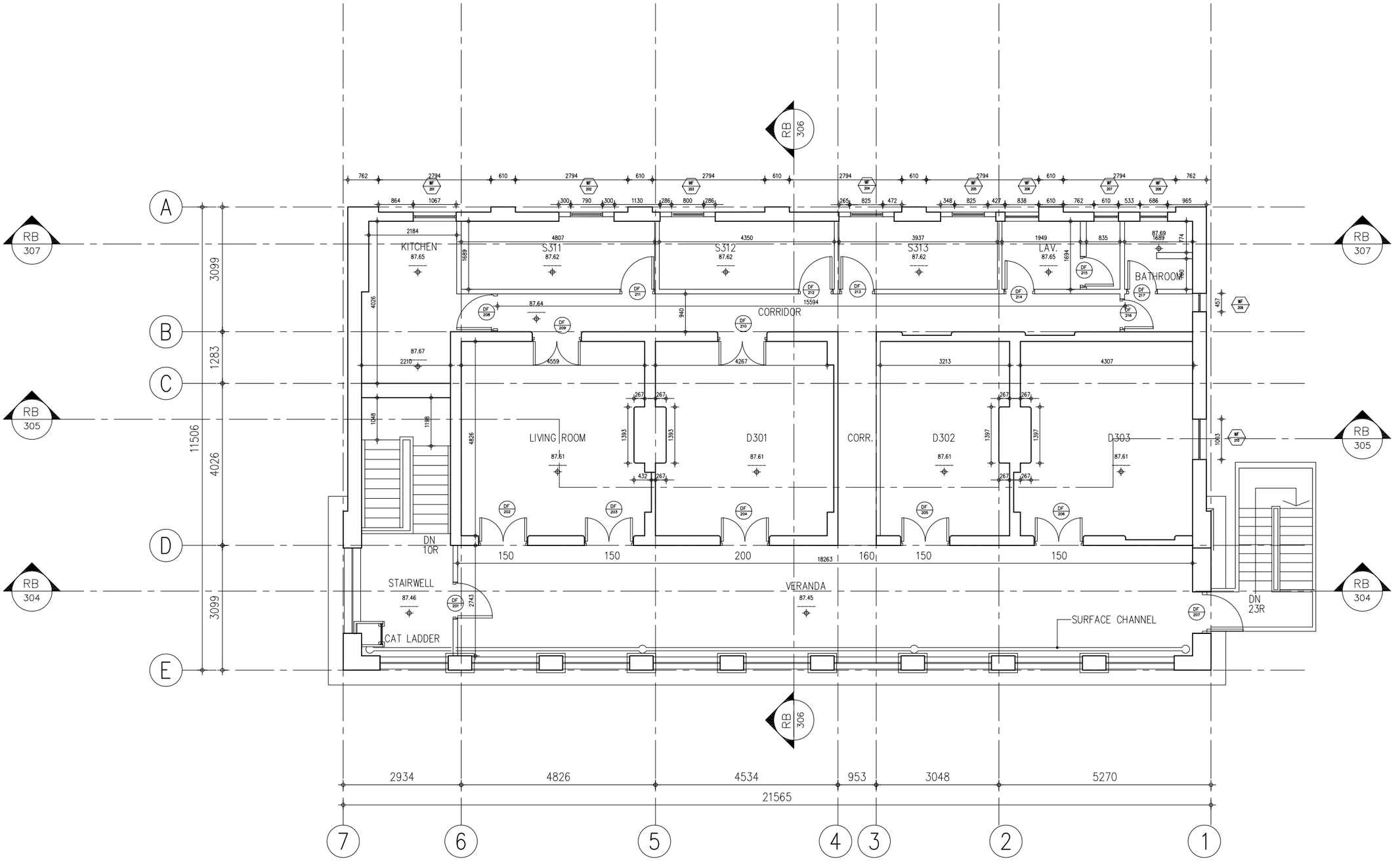

SECOND FLOOR PLAN

REV.	DATE	CHECKED BY	APPROVED BY
1	12.1.2021	RL	BT
0	20.2.2020	RL	BT

Project

REVITALIZATION OF ROBERTS BLOCK, OLD VICTORIA BARRACKS INTO ROBERTS BLOCK HEARTS CENRE

Drawing Title

SECOND FLOOR PLAN

Drawing No.

RB-102

Project Ref
File Name : E :

Scale : 1 : 100

Signature for Submission/Construction

THOMAS CHOW
ARCHITECTS LIMITED

0M 1M 2M 3M 5M 7M

周德年建築設計有限公司

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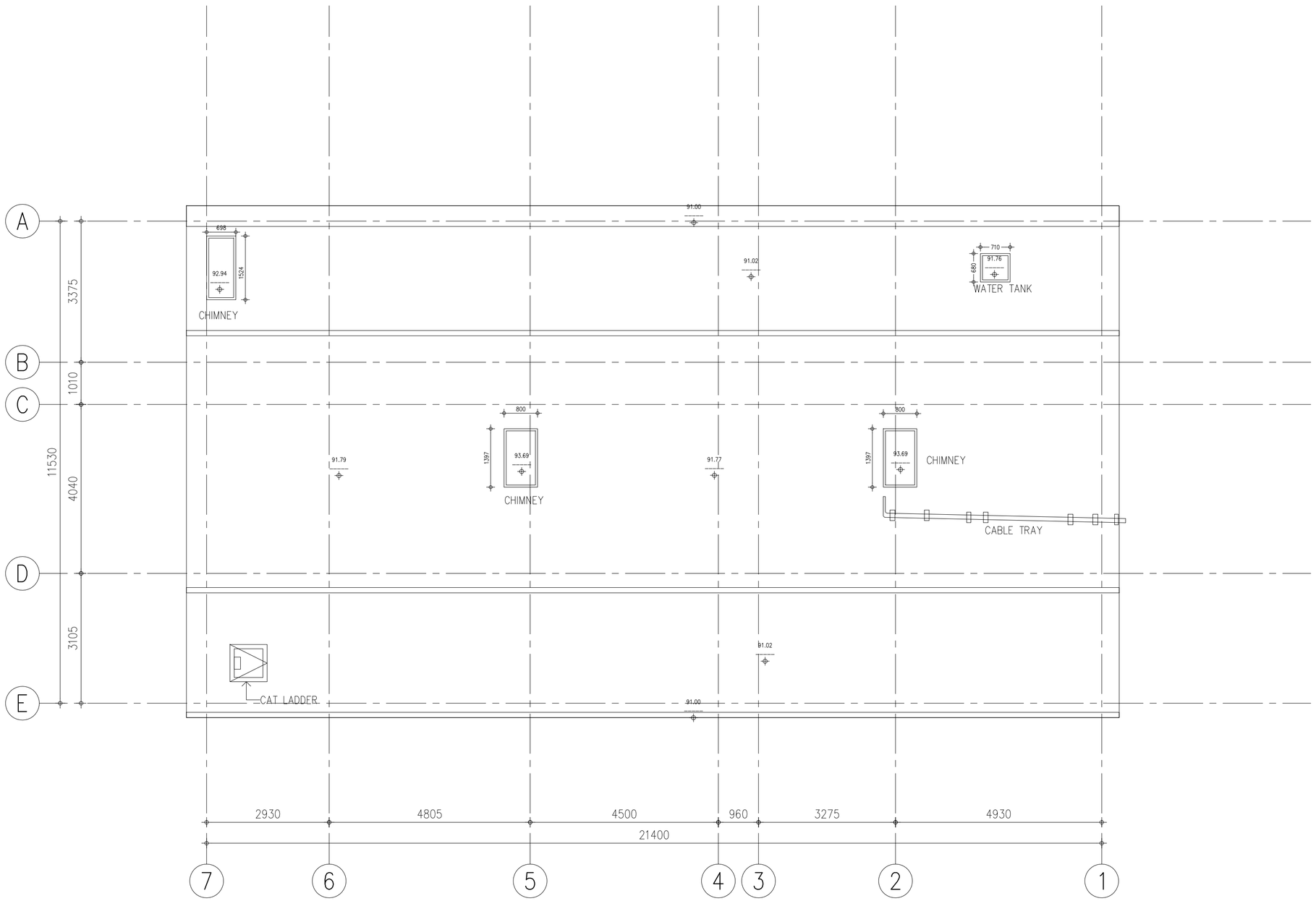

ROOF FLOOR PLAN

REV.	DATE	CHECKED BY	APPROVED BY
0	20.2.2020	RL	BT

Project

REVITALIZATION OF ROBERTS BLOCK, OLD VICTORIA BARRACKS INTO ROBERTS BLOCK HEARTS CENRE

Drawing Title

GROUND FLOOR PLAN

Drawing No.

RB–103

Project Ref
File Name : E :

Scale : 1 : 75

Signature for Submission/Construction

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周德年建築設計有限公司

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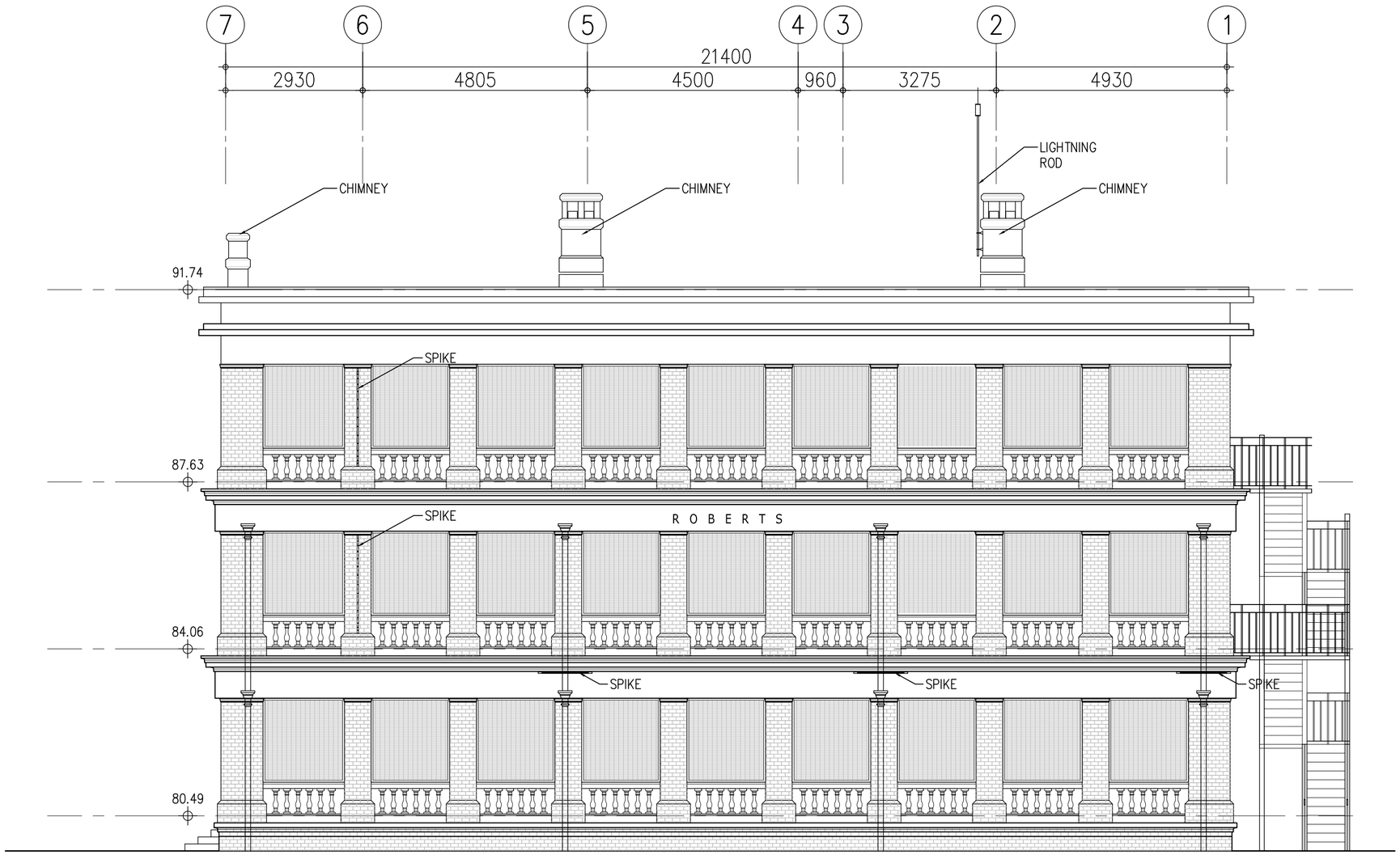
LEGEND:

FAIR–FACED BRICK

RENDER WALL WITH PAINT

METAL MESH



NORTH EAST ELEVATION

REV.	DATE	CHECKED BY	APPROVED BY
1	12.1.2021	RL	BT
0	20.2.2020	RL	BT

Project

REVITALIZATION OF ROBERTS BLOCK, OLD VICTORIA BARRACKS INTO ROBERTS BLOCK HEARTS CENRE

Drawing Title

NORTH EAST ELEVATION

Drawing No.

RB–301

Project Ref

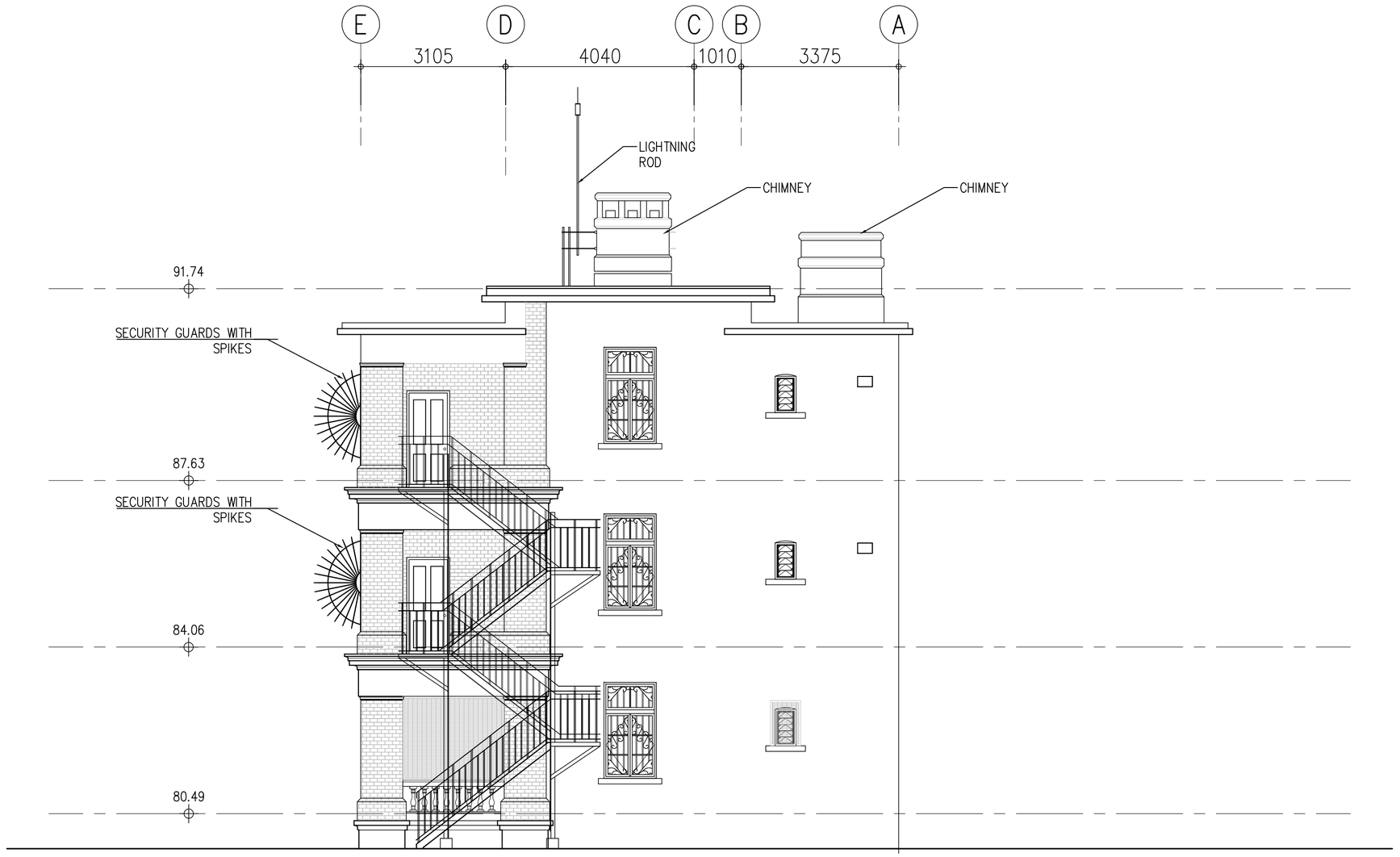
File Name : **E :**

Scale : **1 : 75**

Signature for Submission/Construction

THOMAS CHOW
ARCHITECTS LIMITED

周德年建築設計有限公司



NORTH WEST ELEVATION

BD Ref:

FSD Ref:

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LEGEND:

FAIR–FACED BRICK

RENDER WALL WITH PAINT

METAL MESH

REV.	DATE	CHECKED BY	APPROVED BY
1	12.1.2021	RL	BT
0	20.2.2020	RL	BT

Project

REVITALIZATION OF ROBERTS BLOCK, OLD VICTORIA BARRACKS INTO ROBERTS BLOCK HEARTS CENRE

Drawing Title

NORTH WEST ELEVATION

Drawing No.

RB–302

Project Ref

File Name : **E :**

Scale : **1 : 75**

Signature for Submission/Construction

THOMAS CHOW
ARCHITECTS LIMITED

周德年建築設計有限公司

BD Ref:

FSD Ref:

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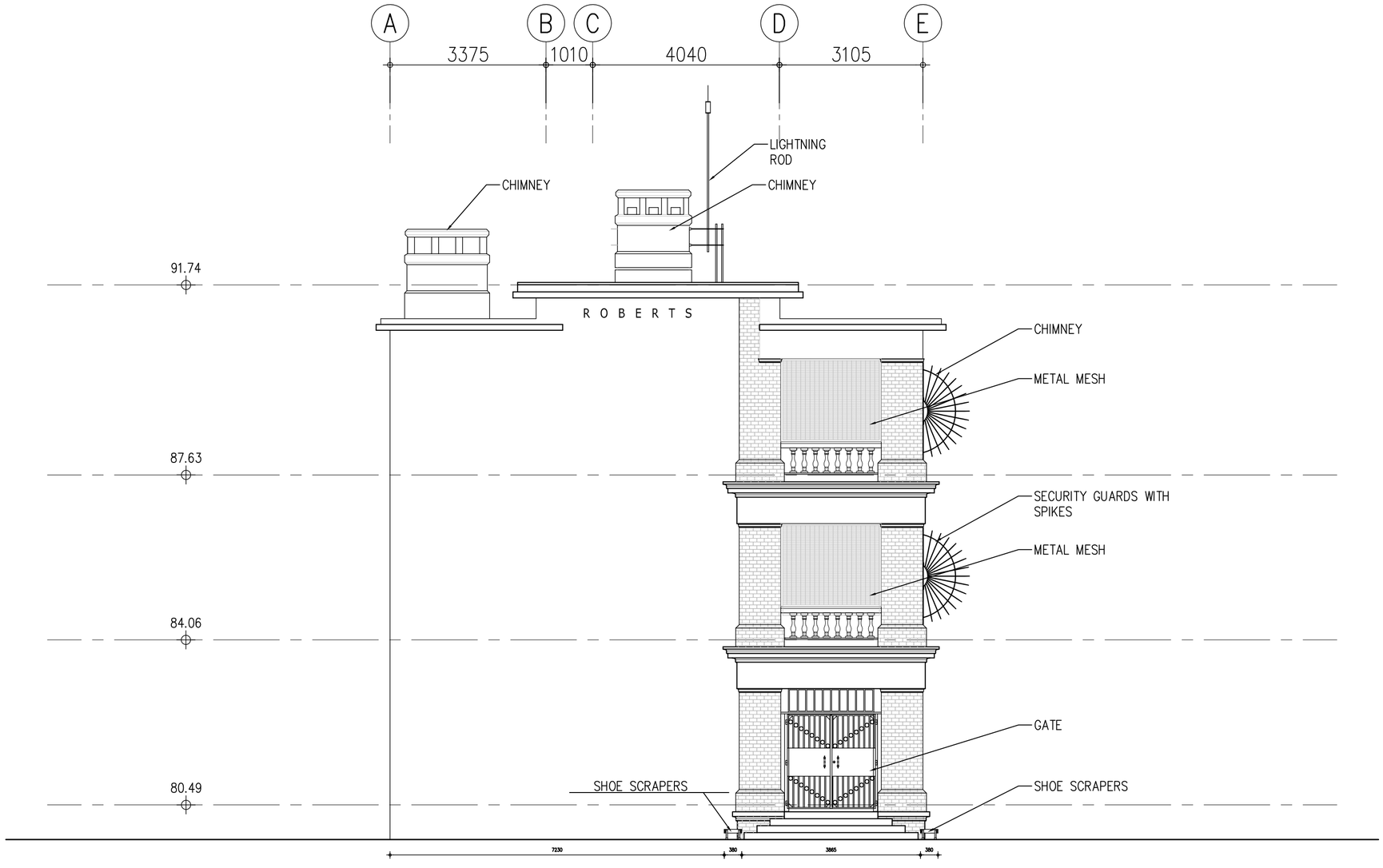
LEGEND:

FAIR–FACED BRICK

RENDER WALL WITH PAINT

METAL MESH



SOUTH EAST ELEVATION

REV.	DATE	CHECKED BY	APPROVED BY
1	12.1.2021	RL	BT
0	20.2.2020	RL	BT

Project

REVITALIZATION OF ROBERTS BLOCK, OLD VICTORIA BARRACKS INTO ROBERTS BLOCK HEARTS CENRE

Drawing Title

SOUTH EAST ELEVATION

Drawing No.

RB–303

Project Ref

File Name : **E :**

Scale : **1 : 75**

Signature for Submission/Construction

THOMAS CHOW
ARCHITECTS LIMITED

周德年建築設計有限公司

BD Ref:

FSD Ref:

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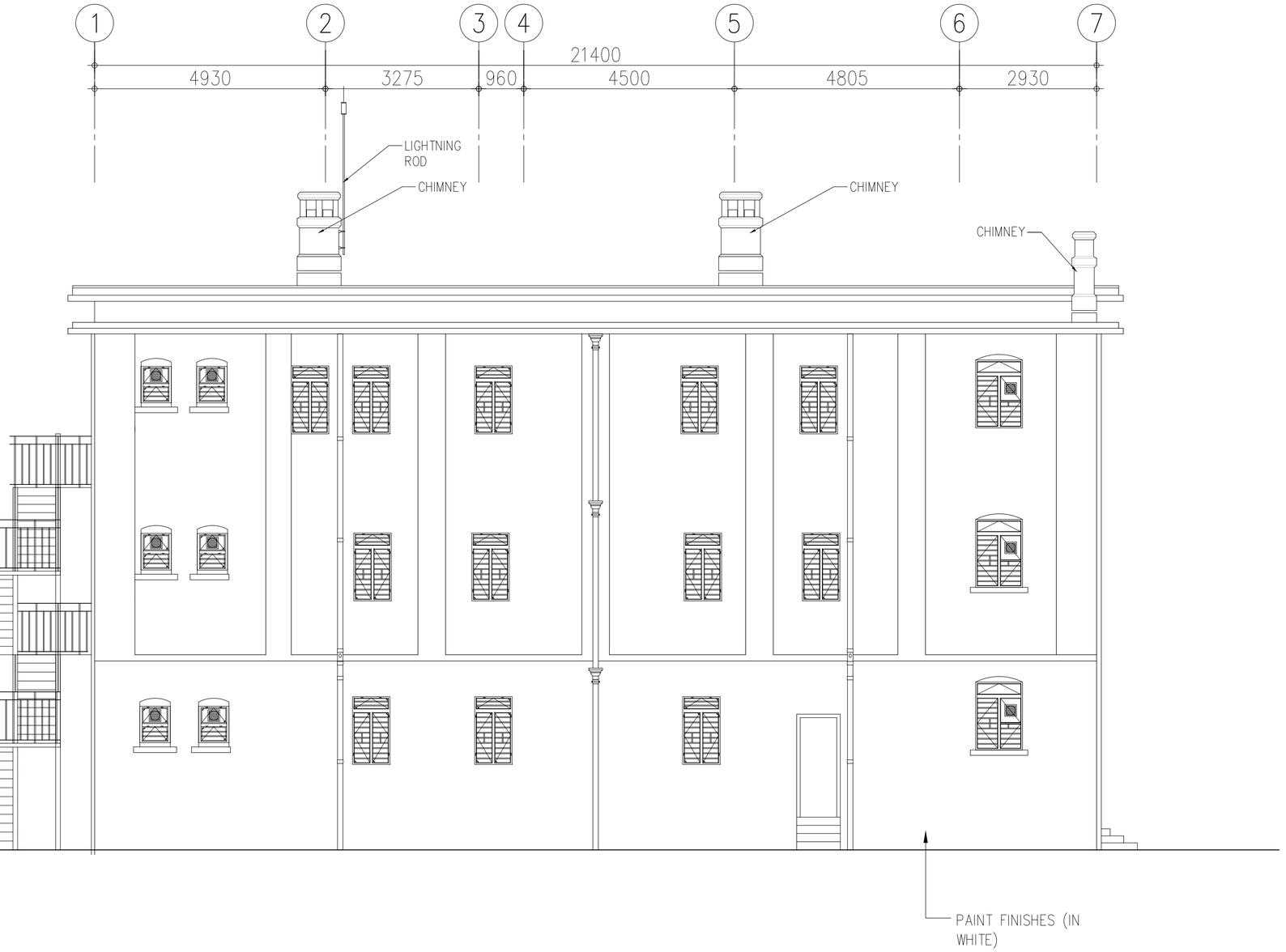
LEGEND:

FAIR–FACED BRICK

RENDER WALL WITH PAINT

METAL MESH



SOUTH WEST ELEVATION

REV.	DATE	CHECKED BY	APPROVED BY
1	12.1.2021	RL	BT
0	20.2.2020	RL	BT

Project

REVITALIZATION OF
ROBERTS BLOCK,
OLD VICTORIA BARRACKS INTO
ROBERTS BLOCK HEARTS CENRE

Drawing Title

SOUTH WEST ELEVATION

Drawing No.

RB–300

Project Ref
File Name : E :

Scale : 1 : 75

Signature for Submission/Construction

THOMAS CHOW
ARCHITECTS LIMITED

周德年建築設計有限公司

BD Ref:

FSD Ref:

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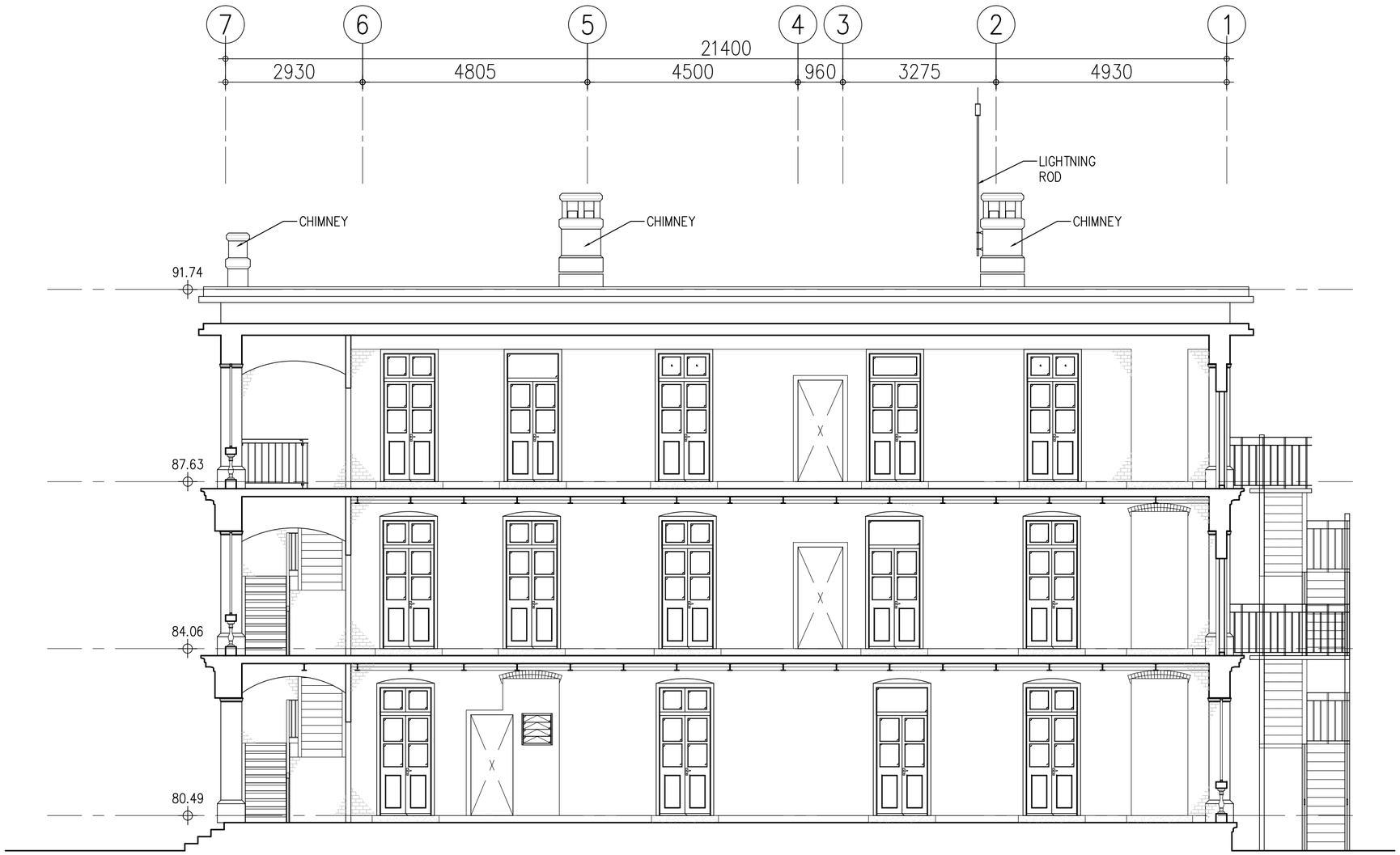
LEGEND:

FAIR-FACED BRICK

RENDER WALL WITH PAINT

METAL MESH



SECTION A-A

REV.	DATE	CHECKED BY	APPROVED BY
1	12.1.2021	RL	BT
0	20.2.2020	RL	BT

Project

REVITALIZATION OF ROBERTS BLOCK, OLD VICTORIA BARRACKS INTO ROBERTS BLOCK HEARTS CENRE

Drawing Title

CROSS SECTION A-A

Drawing No.

RB-304

Project Ref

File Name : **E :**

Scale : **1 : 75**

Signature for Submission/Construction

THOMAS CHOW
ARCHITECTS LIMITED

周德年建築設計有限公司

BD Ref:

FSD Ref:

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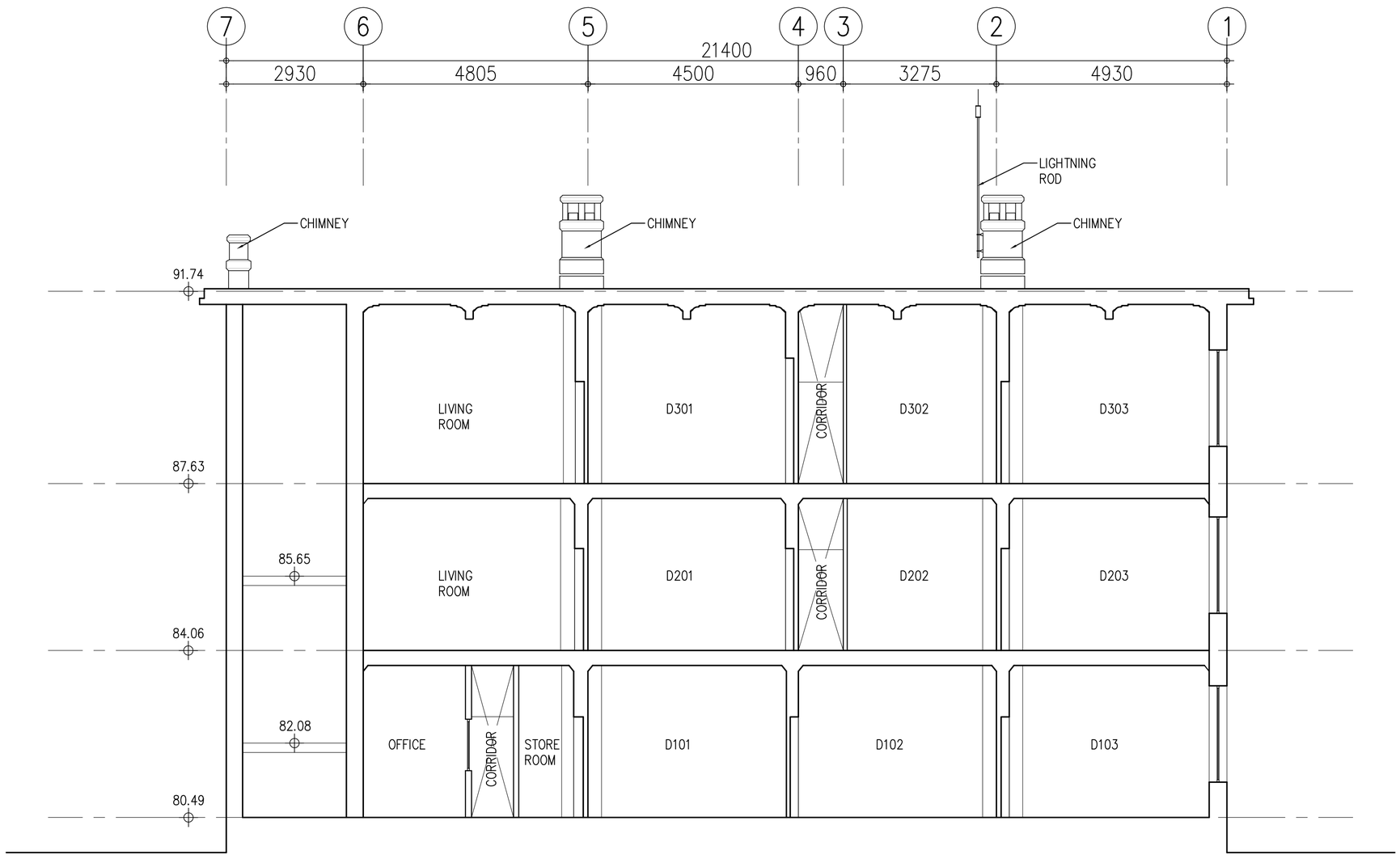
LEGEND:

FAIR-FACED BRICK

RENDER WALL WITH PAINT

METAL MESH



SECTION B-B

REV.	DATE	CHECKED BY	APPROVED BY
1	12.1.2021	RL	BT
0	20.2.2020	RL	BT

Project

REVITALIZATION OF ROBERTS BLOCK, OLD VICTORIA BARRACKS INTO ROBERTS BLOCK HEARTS CENRE

Drawing Title

CROSS SECTION B-B

Drawing No.

RB-305

Project Ref

File Name : **E :**

Scale : **1 : 75**

Signature for Submission/Construction

THOMAS CHOW
ARCHITECTS LIMITED

周德年建築設計有限公司

BD Ref:

FSD Ref:

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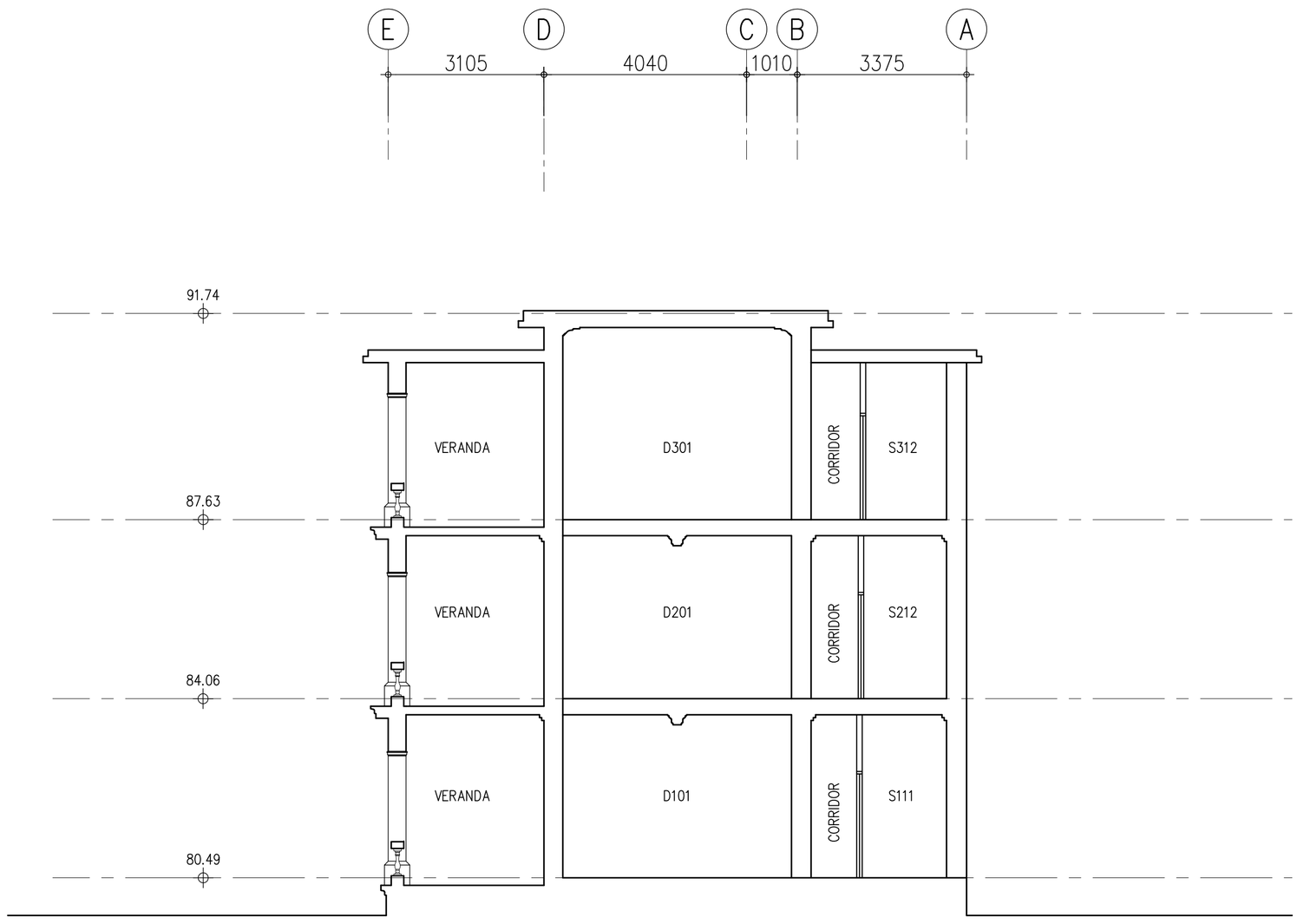
LEGEND:

FAIR-FACED BRICK

RENDER WALL WITH PAINT

METAL MESH



SECTION C-C

REV.	DATE	CHECKED BY	APPROVED BY
1	12.1.2021	RL	BT
0	20.2.2020	RL	BT

Project

REVITALIZATION OF ROBERTS BLOCK, OLD VICTORIA BARRACKS INTO ROBERTS BLOCK HEARTS CENRE

Drawing Title

CROSS SECTION C-C

Drawing No.

RB-306

Project Ref

File Name : **E :**

Scale : **1 : 75**

Signature for Submission/Construction

THOMAS CHOW
ARCHITECTS LIMITED

周德年建築設計有限公司

BD Ref:

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LEGEND:

FAIR–FACED BRICK

RENDER WALL WITH PAINT

METAL MESH

SECTION D–D

REV.	DATE	CHECKED BY	APPROVED BY
1	12.1.2021	RL	BT
0	20.2.2020	RL	BT

Project

REVITALIZATION OF ROBERTS BLOCK, OLD VICTORIA BARRACKS INTO ROBERTS BLOCK HEARTS CENRE

Drawing Title

CROSS SECTION D–D

Drawing No.

RB–307

Project Ref

File Name : **E :**

Scale : **1 : 75**

Signature for Submission/Construction

THOMAS CHOW
ARCHITECTS LIMITED

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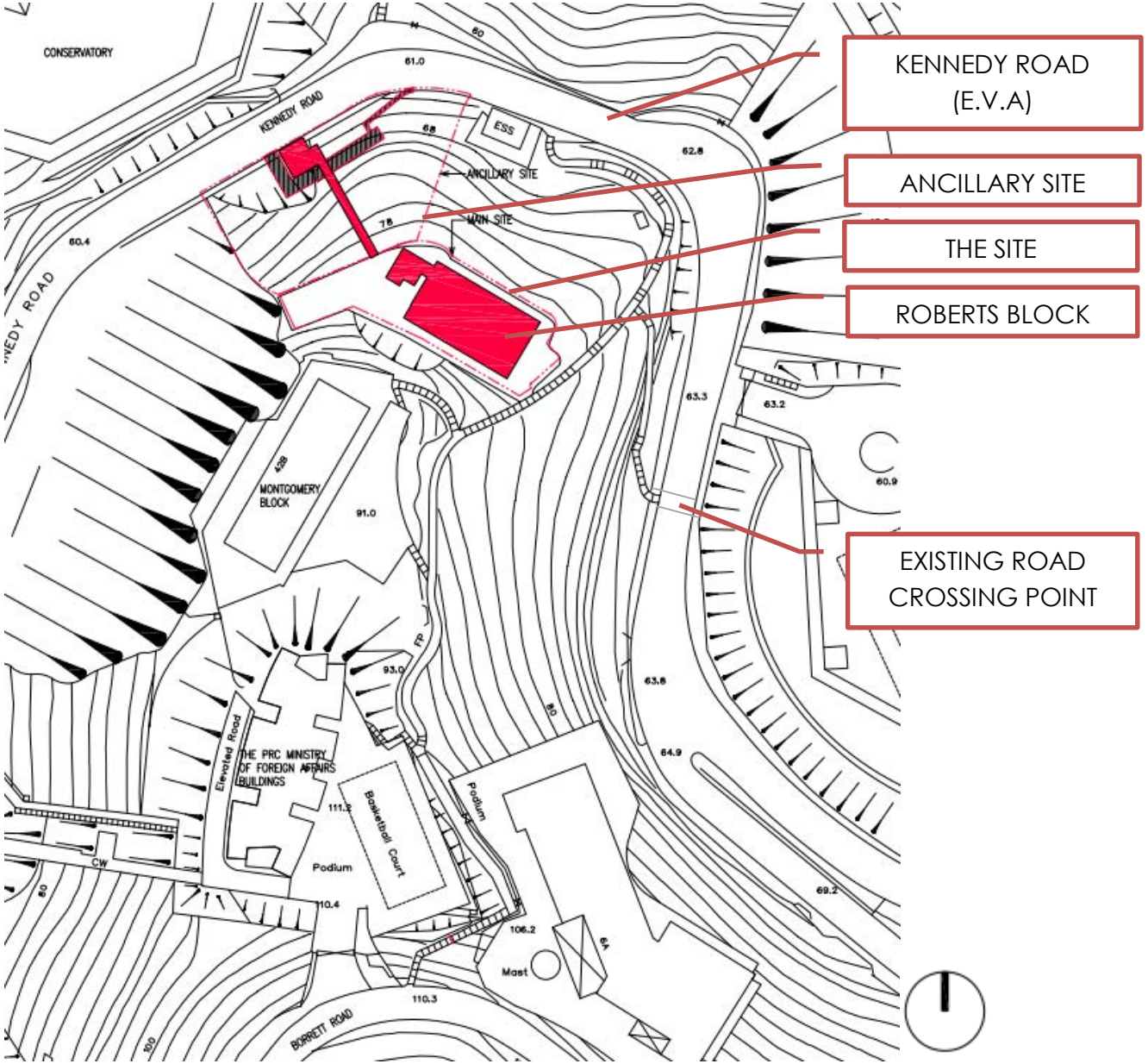
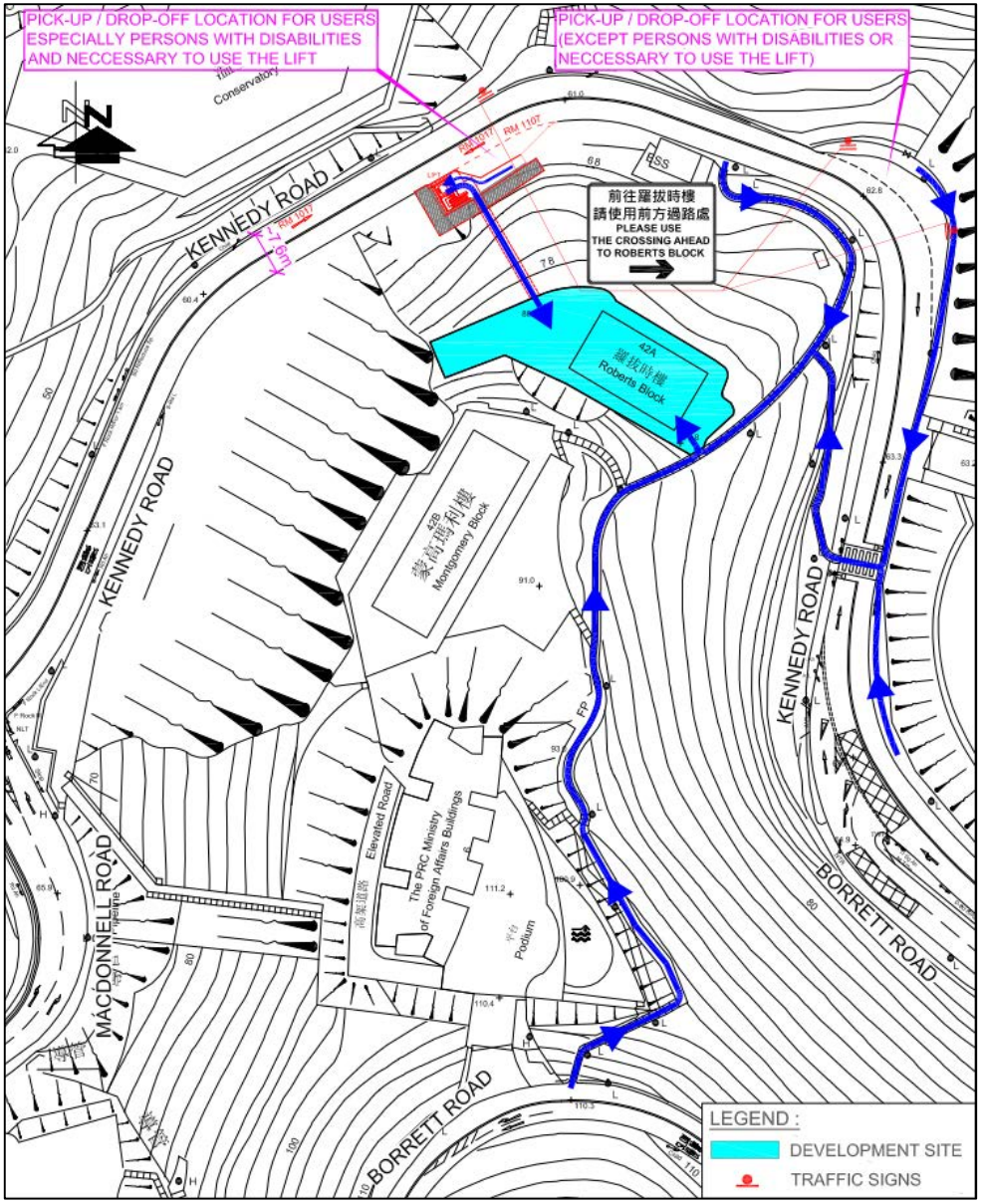
Appendix A.4

Proposed Plans, Sections and Elevations for Roberts Block Open HeArts Centre

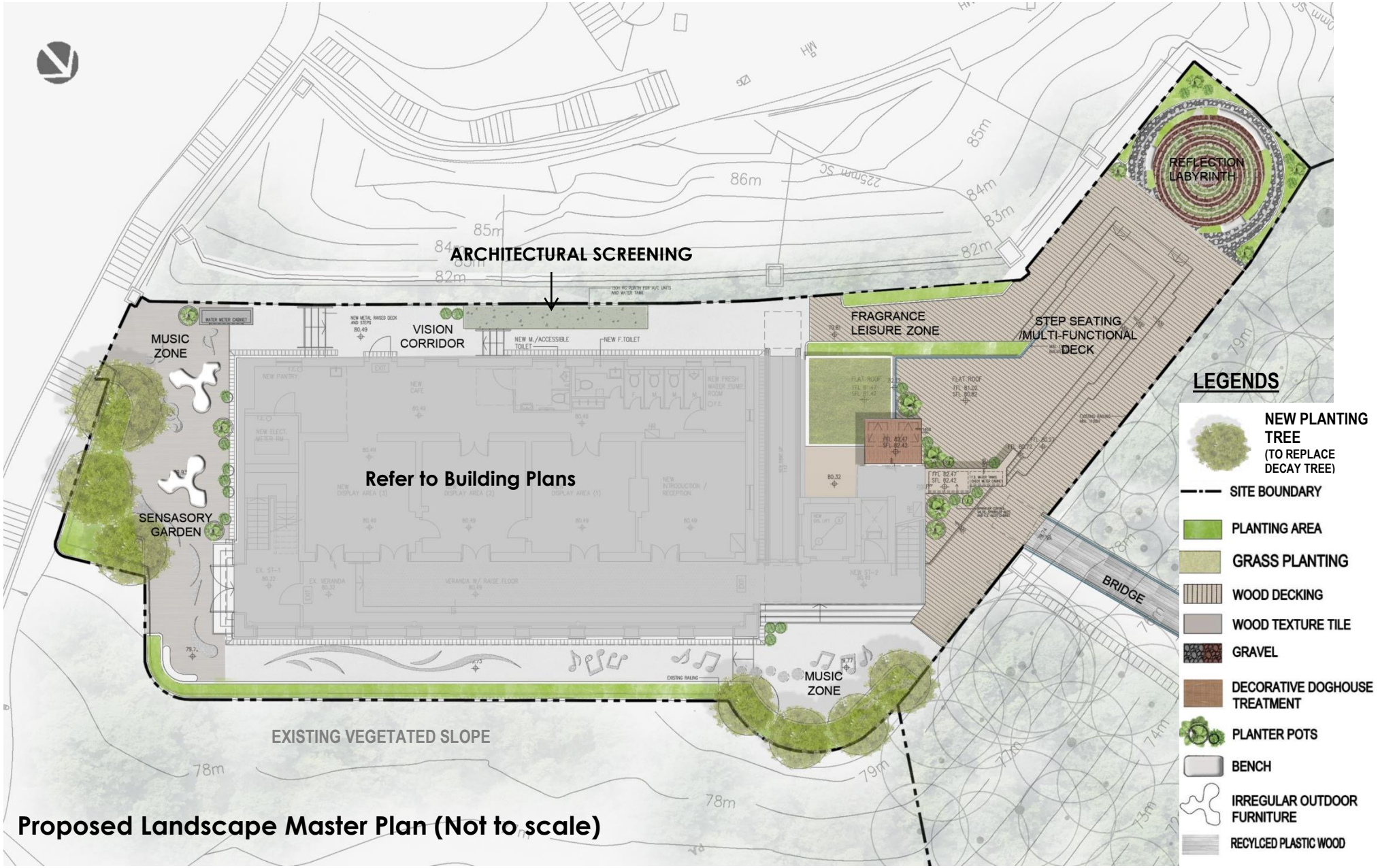


Block Plan (Not to scale)



Access to the Site (Not to Scale)

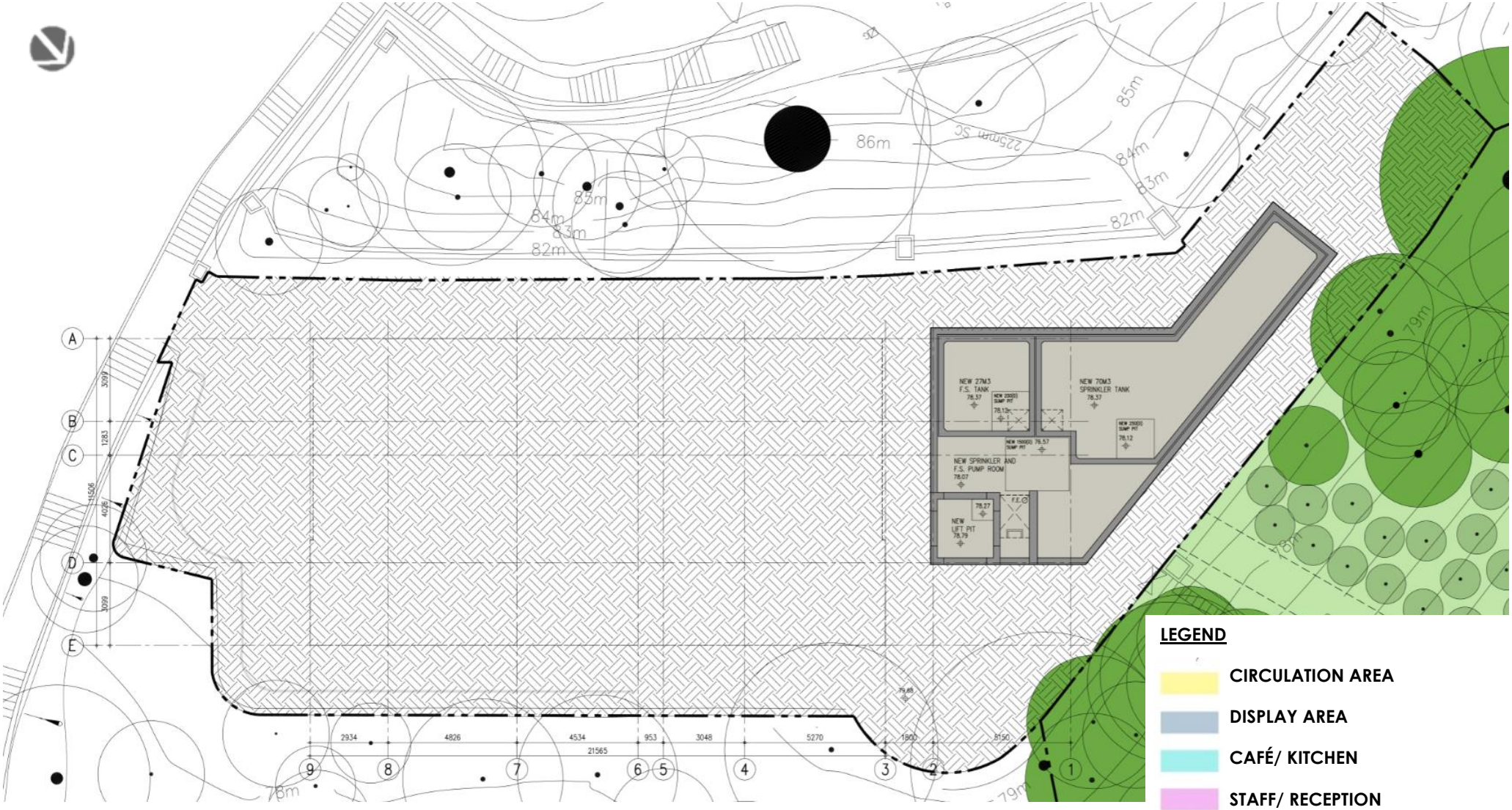
Proposed Tree Compensatory Plan (Not to scale)



Proposed Landscape Master Plan (Not to scale)

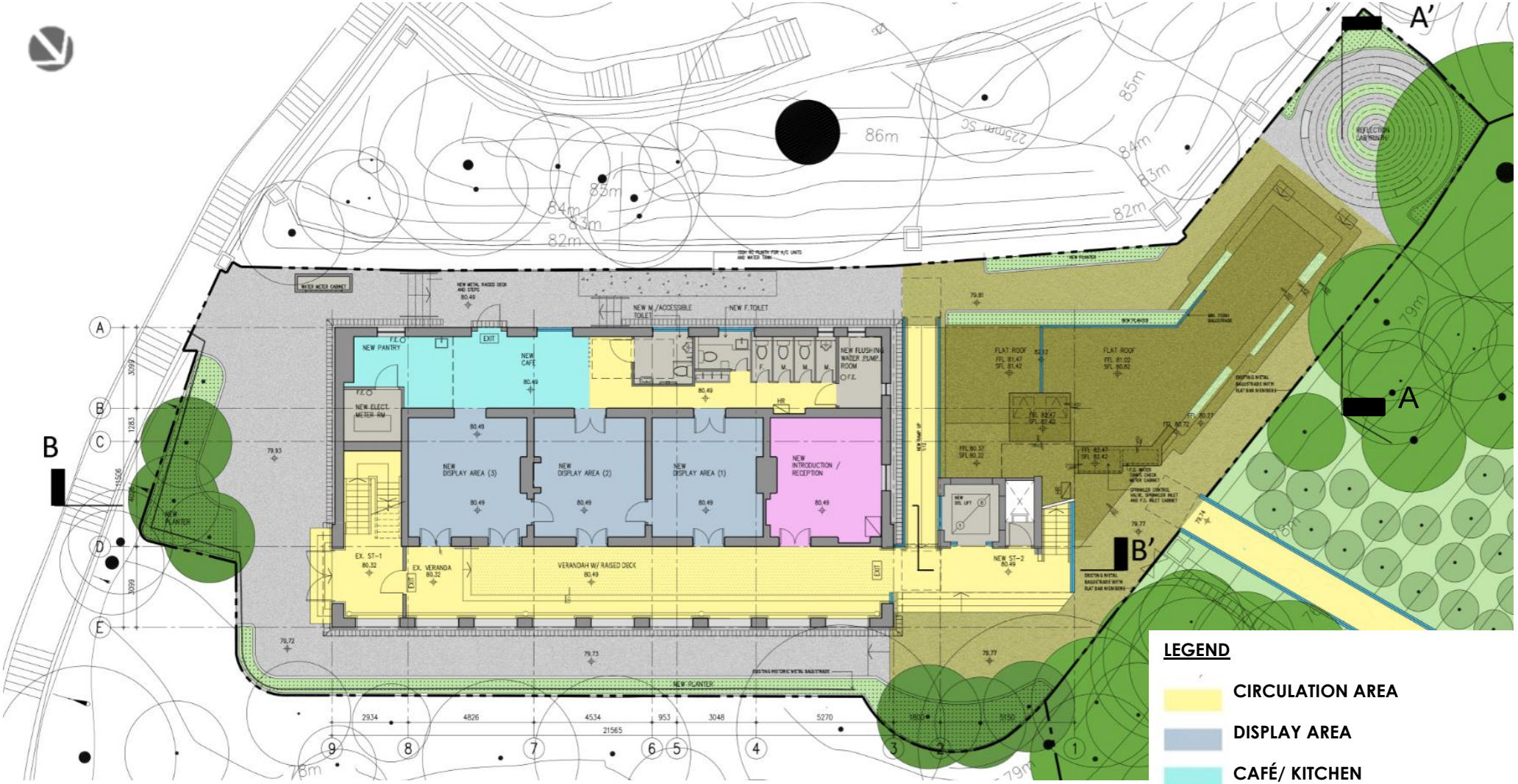
Proposed Section A-A' Show the Connection between the lift & Staircase core connected to Roberts Block Site (Not to Scale)

Proposed Lower Ground Floor Plan – The Site and Ancillary Site (Not to Scale)

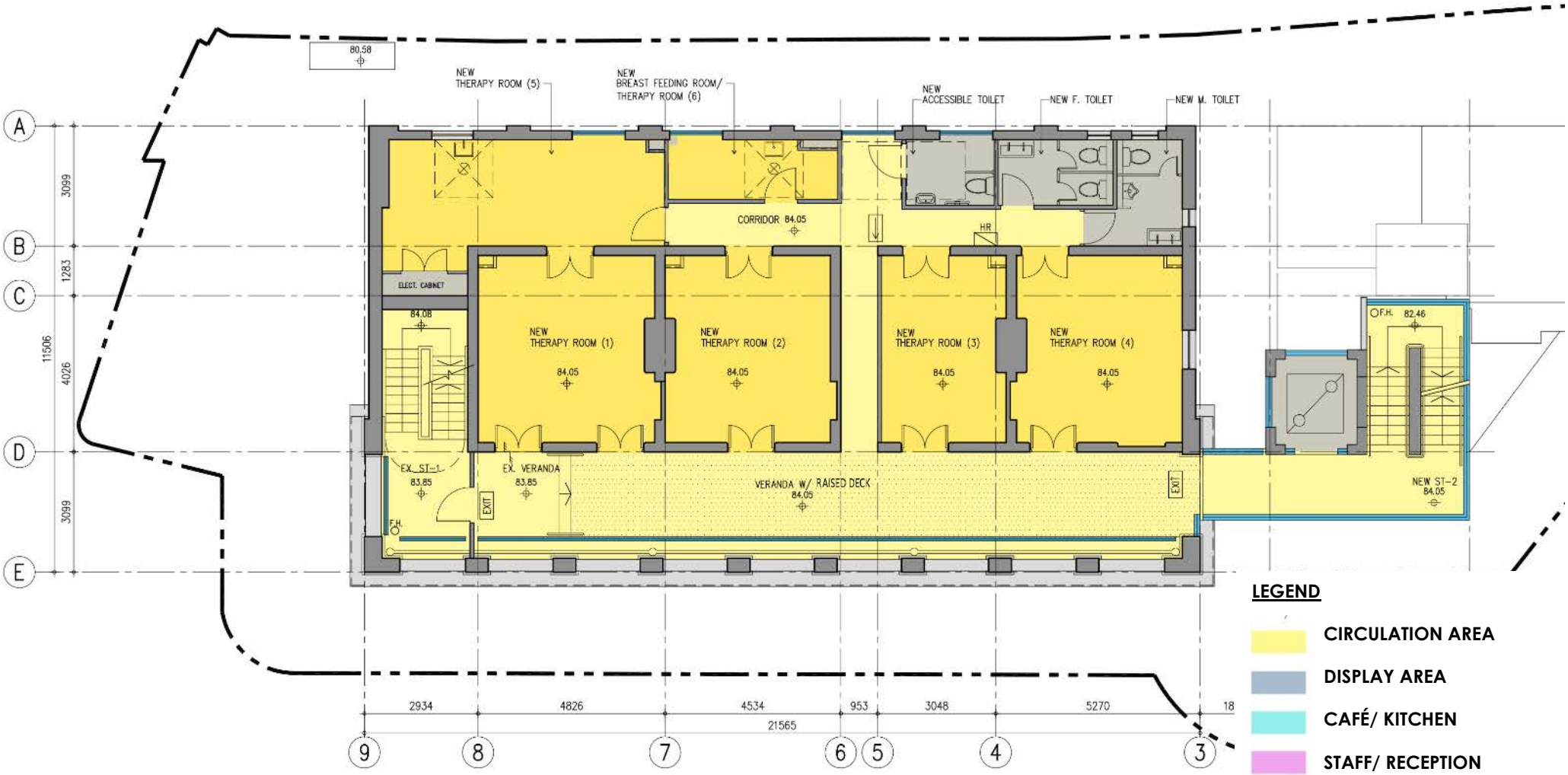


Proposed Lower Ground Floor Plan – The Site and Ancillary Site (Not to Scale)

Proposed Ground Floor Plan – The Site and Ancillary Site (Not to Scale)



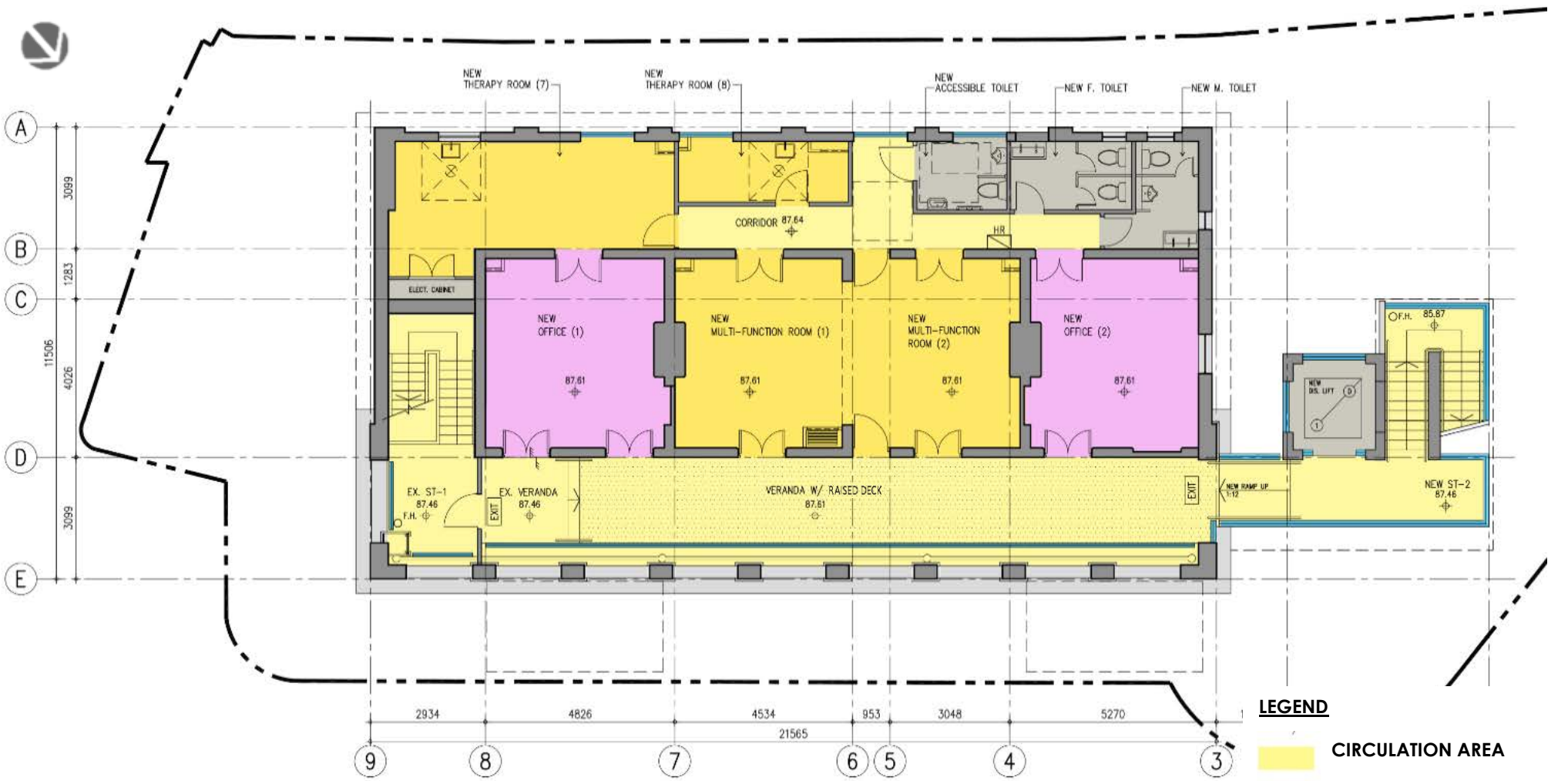
Proposed Ground Floor Plan – The Site (Not to Scale)



LEGEND

- CIRCULATION AREA
- DISPLAY AREA
- CAFÉ/ KITCHEN
- STAFF/ RECEPTION
- THERAPY/ MULTI-PURPOSE
- BACK OF HOUSE

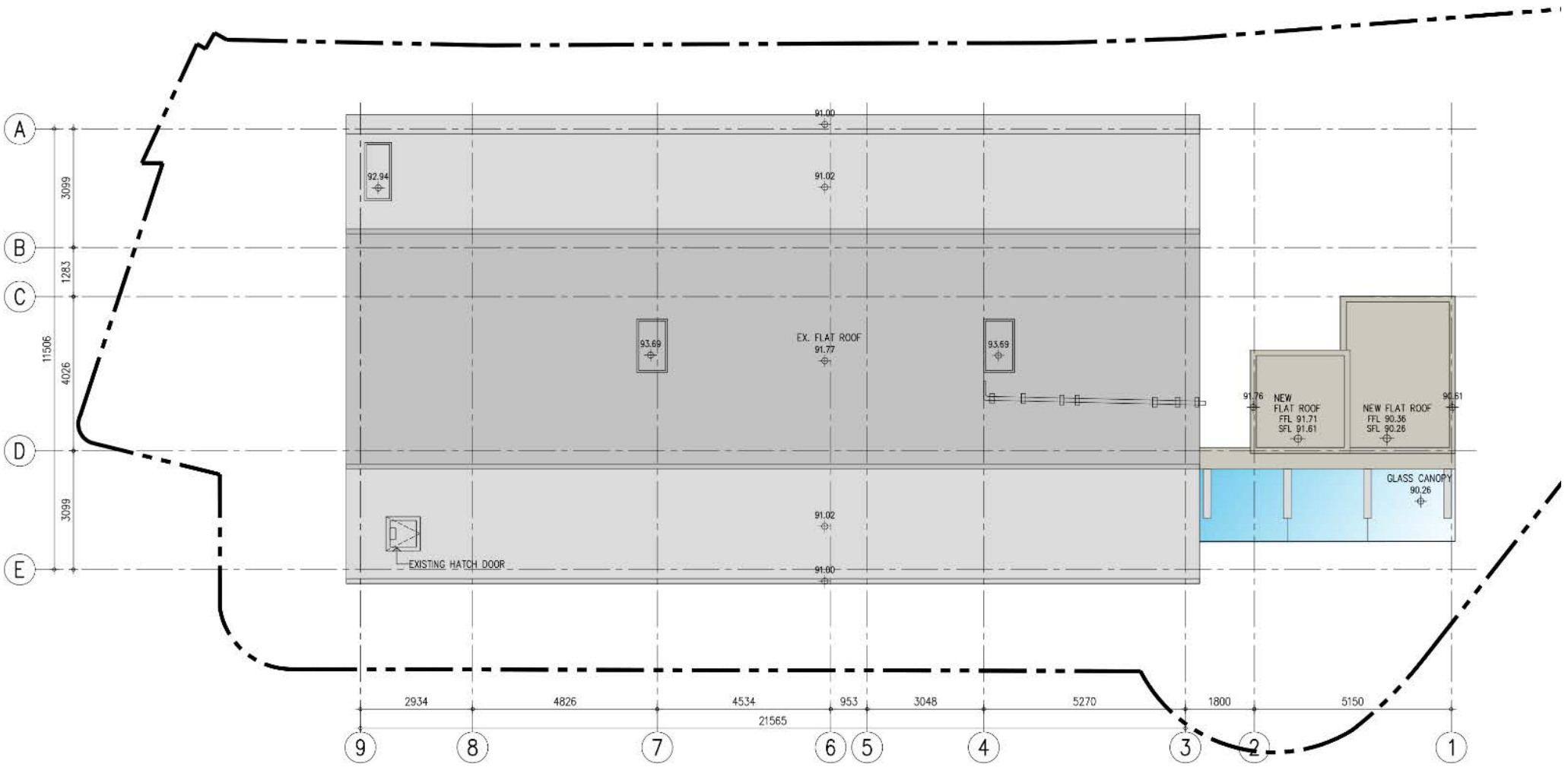
Proposed First Floor Plan – Roberts Block (Not to Scale)



LEGEND

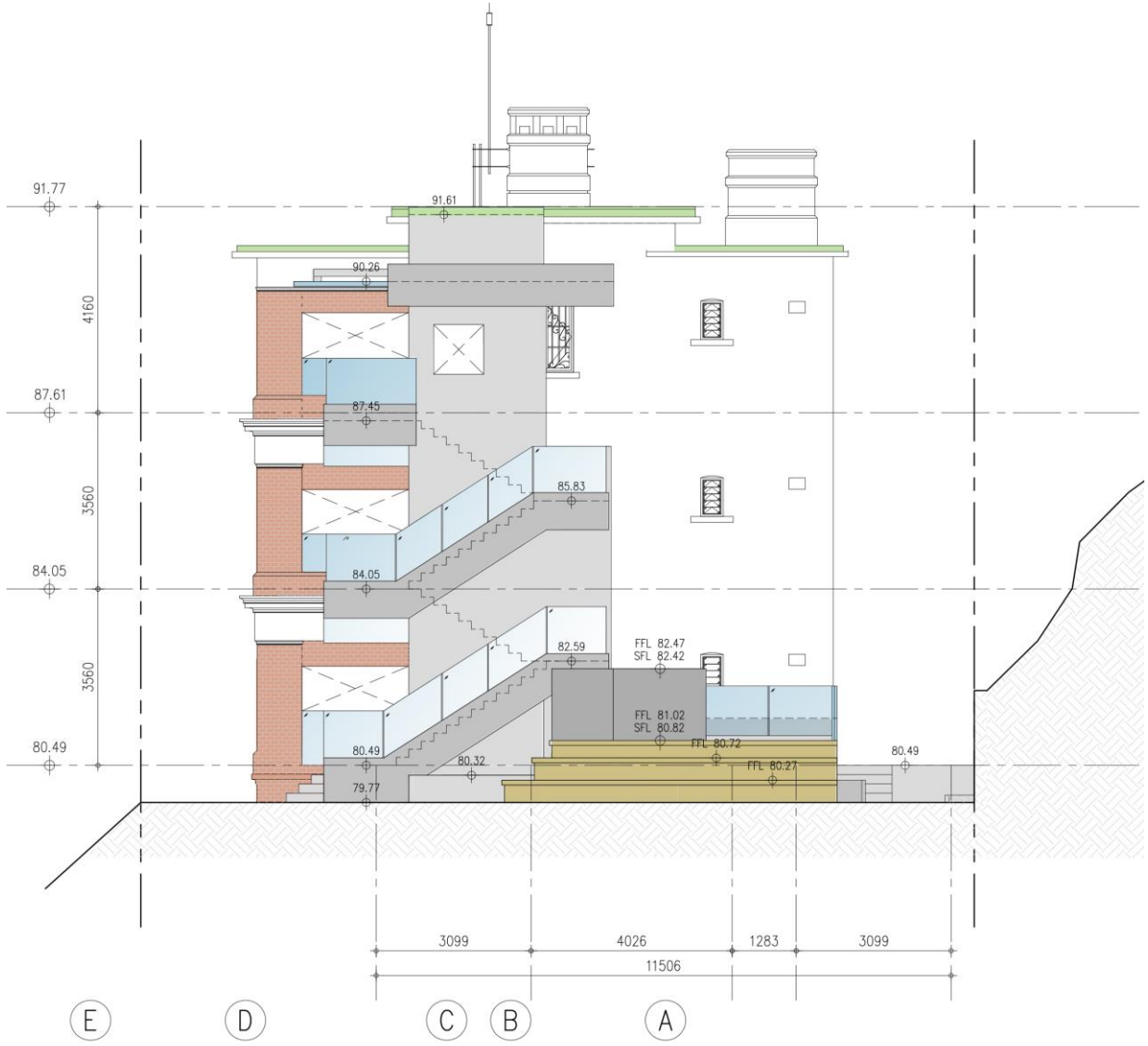
- CIRCULATION AREA
- DISPLAY AREA
- CAFÉ/ KITCHEN
- STAFF/ RECEPTION
- THERAPY/ MULTI-PURPOSE
- BACK OF HOUSE

Proposed Second Floor Plan – Roberts Block (Not to Scale)

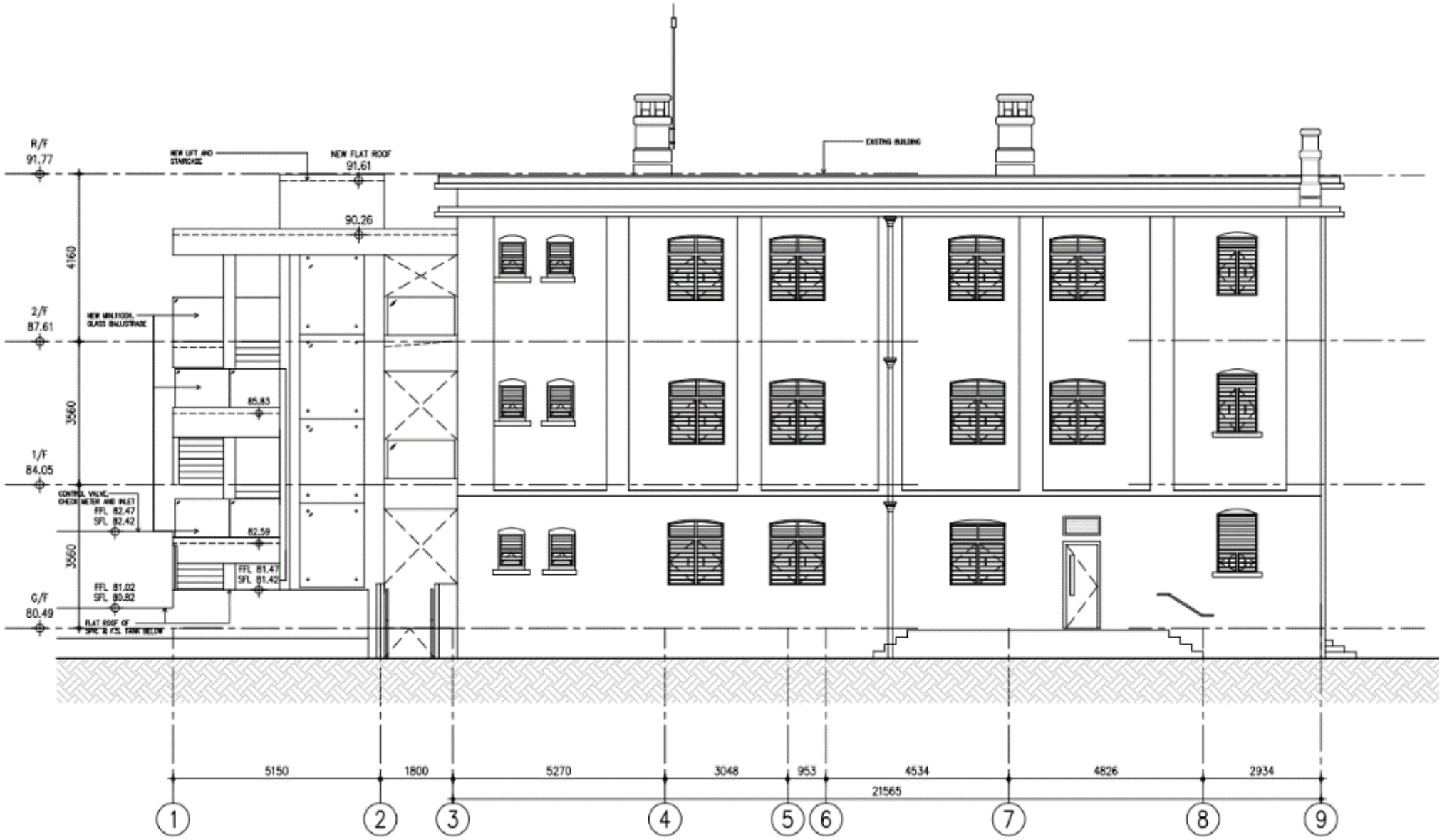


Proposed Roof Floor Plan – Roberts Block
(Not to Scale)

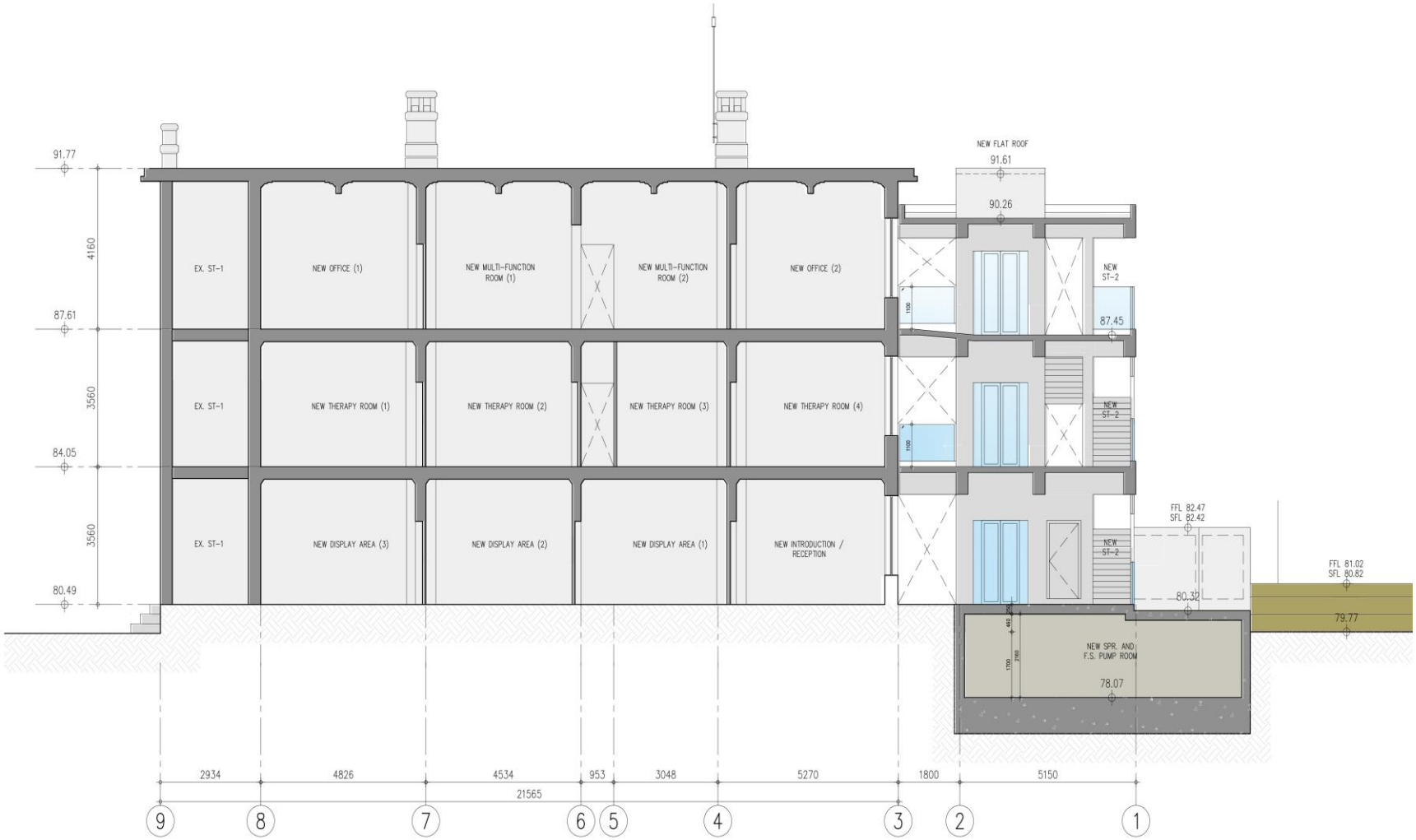
Proposed North East Elevation (Not to Scale)



Proposed North West Elevation
(Not to Scale)



Proposed South West Elevation
(Not to Scale)



Proposed Section B-B'
(Not to Scale)

NEW 27M3 F.S. TANK 78.37
NEW 25020 SUMP PIT 78.12
NEW 70M3 SPRINKLER TANK 78.37
ACCESS PANEL AS ABOVE
NEW 25020 SUMP PIT 78.12
NEW 15000D SUMP PIT 76.57
NEW SPRINKLER AND F.S. PUMP ROOM 78.07
NEW SUMP PIT FOR DET. SUMP
78.27
F.E.
NEW LIFT PIT 78.79
79.85
B3
B12
B11
B10
B12
86m
85m
84m
83m
82m
81m
80m
78m
77m
76m
75m
74m
73m
72m
71m
70m
69m
68m
67m
KENNEDY ROAD
NEW PARAPET 40x30
NEW BM LAY-BY
NEW CARRIAGEWAY (MATCHED) 40x30
NEW PERIMETER WALL (BRST)
NEW BRST WALL
NEW RAMP
NEW STEPS
NEW SUMP PIT
NEW SUMP PIT
NEW SUMP PIT

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REV.	DATE	CHECKED BY	APPROVED BY
1	30.10.2020	RL	BT
0	18.6.2020	RL	BT

Project

REVITALIZATION OF
ROBERTS BLOCK,
OLD VICTORIA BARRACKS INTO
ROBERTS BLOCK HEARTS CENRE

Drawing Title

GROUND FLOOR LAYOUT PLAN

Drawing No.

HIA-002

Project Ref
File Name : E :

Scale : 1:100 (A1)

Signature for Submission/Construction

THOMAS CHOW
ARCHITECTS LIMITED

周德年建築設計有限公司

GROUND FLOOR PLAN

BD Ref:

FSD Ref:

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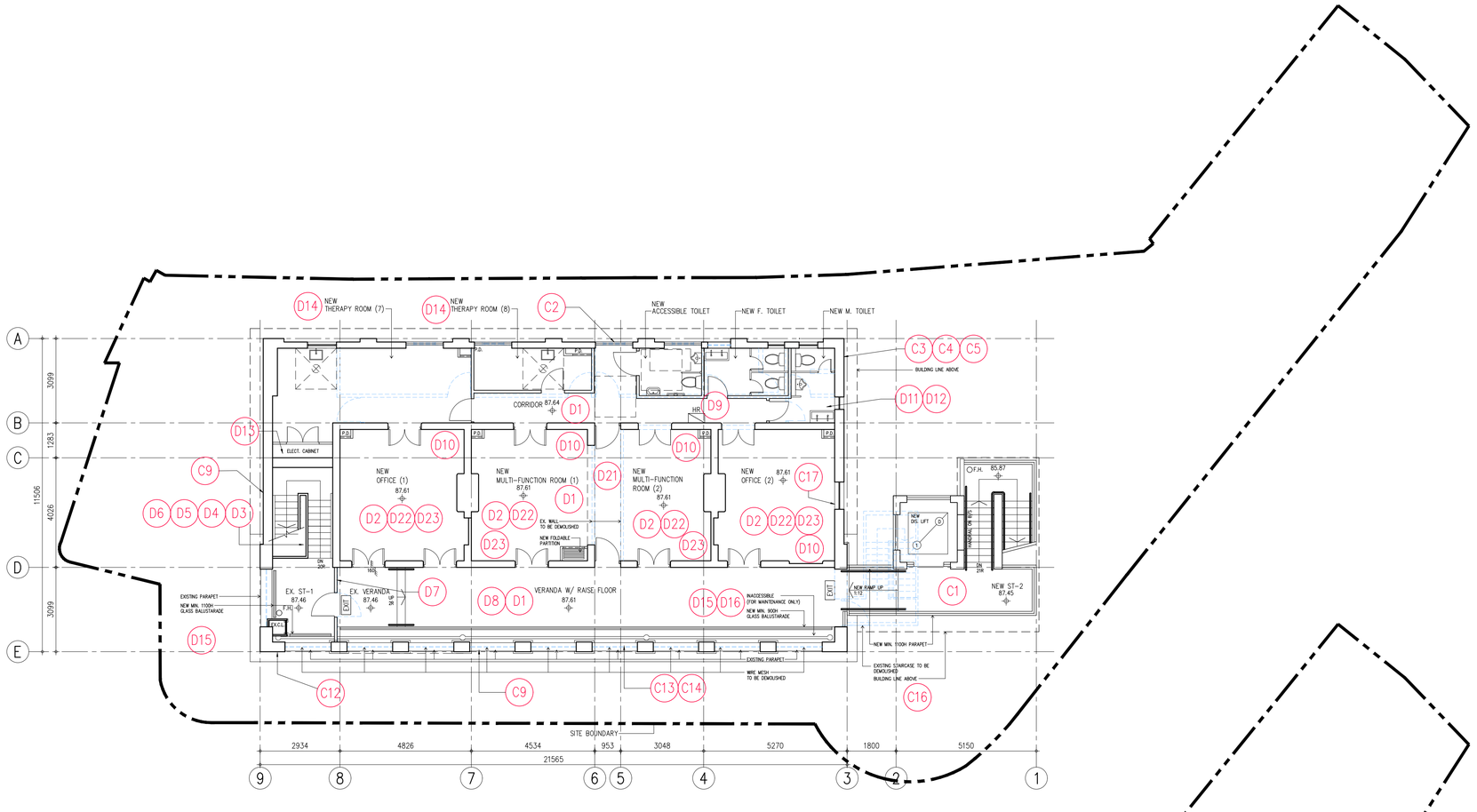
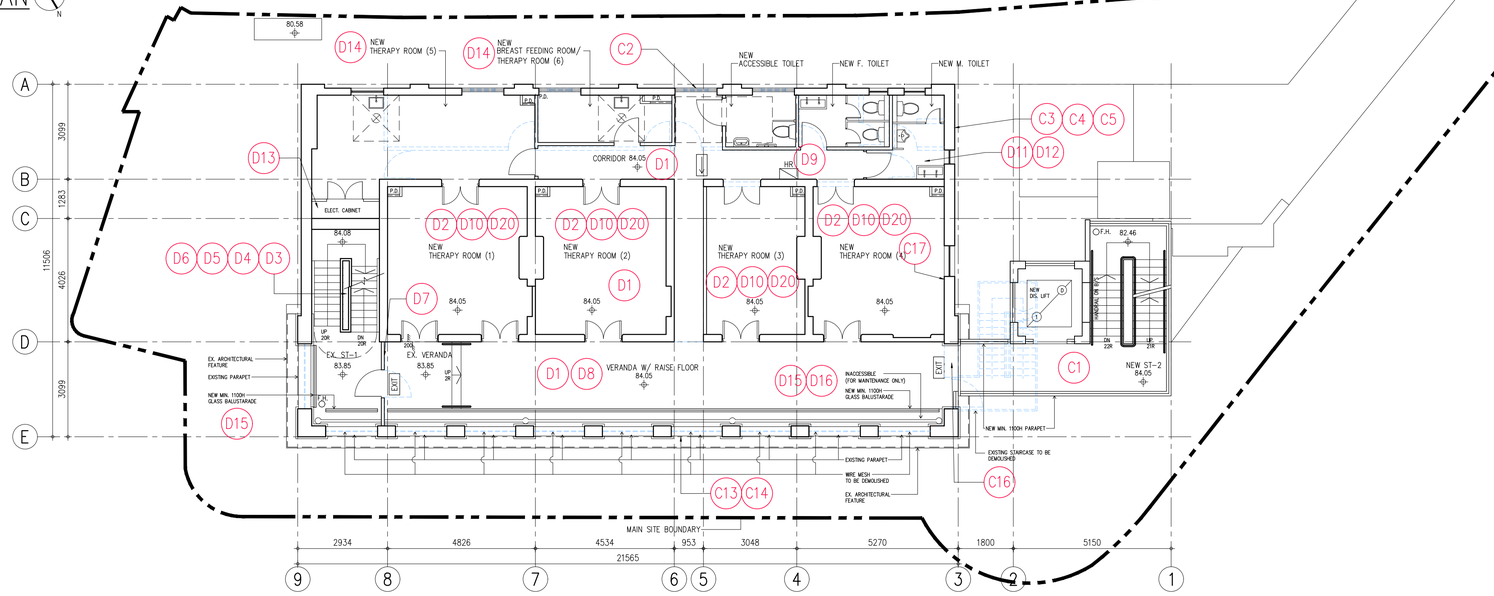
SECOND FLOOR PLAN



FIRST FLOOR PLAN



REV.	DATE	CHECKED BY	APPROVED BY
1	30.10.2020	RL	BT
0	18.4.2020	RL	BT

Project

REVITALIZATION OF ROBERTS BLOCK, OLD VICTORIA BARRACKS INTO ROBERTS BLOCK HEARTS CENRE

Drawing Title

FIRST FLOOR & SECOND FLOOR LAYOUT PLAN

Drawing No.

HIA-003

Project Ref

Scale : 1:100 (A1)

File Name : E :

Signature for Submission/Construction

THOMAS CHOW
ARCHITECTS LIMITED

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BD Ref:

FSD Ref:

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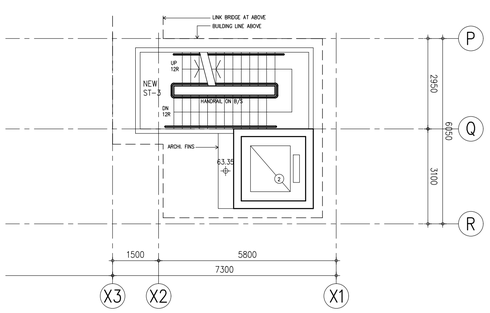
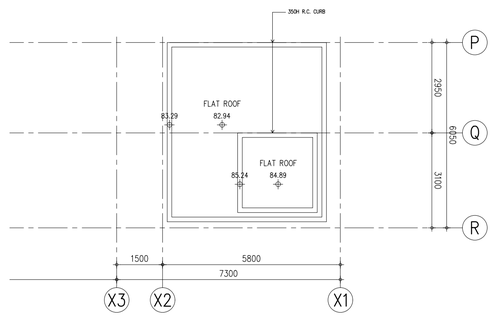
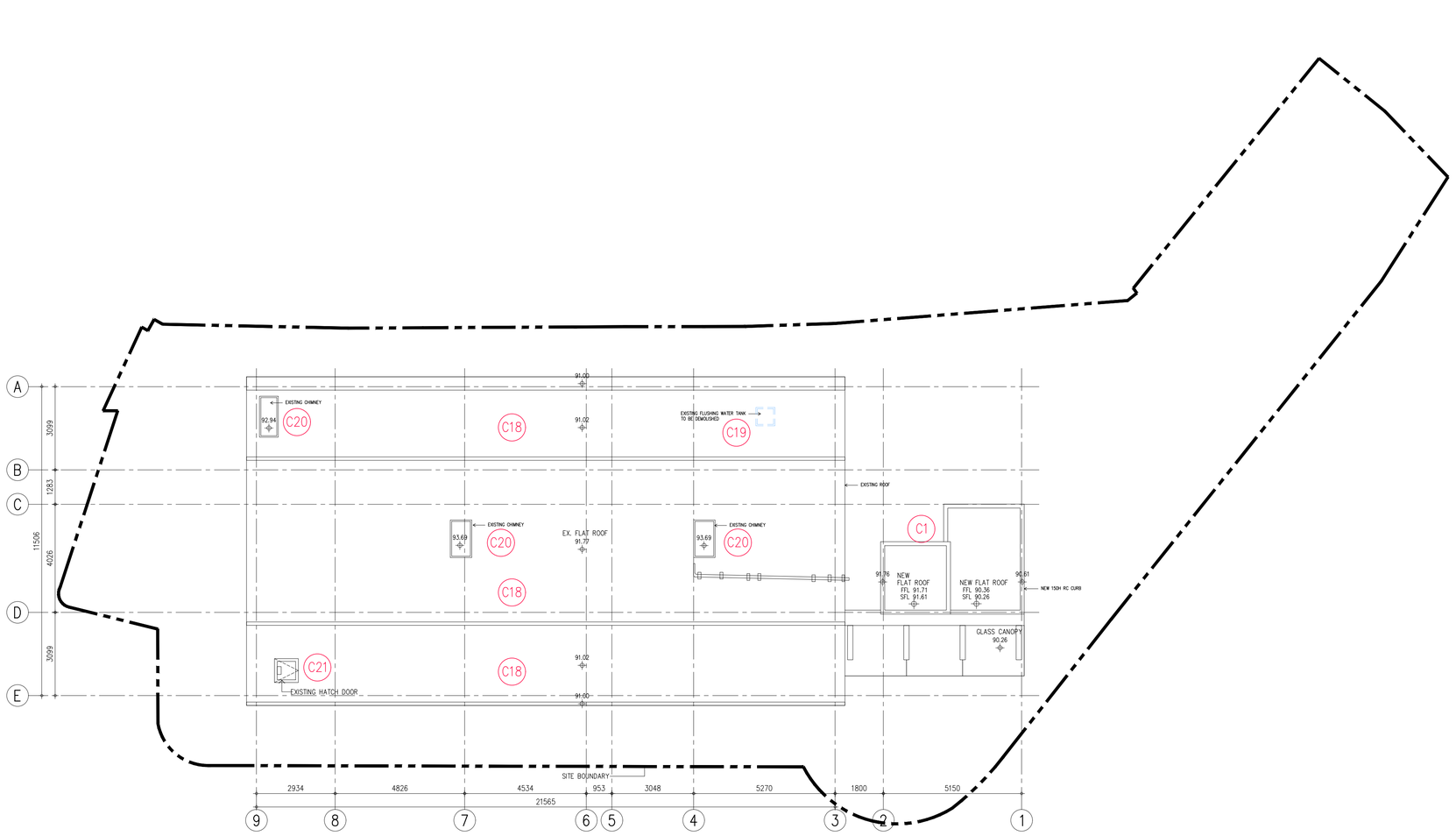


PART PLAN OF LOFT TOWER



ROOF PLAN OF LOFT TOWER



ROOF FLOOR PLAN

N

REV.	DATE	CHECKED BY	APPROVED BY
1	30.10.2020	RL	BT
0	18.6.2020	RL	BT

Project

REVITALIZATION OF
ROBERTS BLOCK,
OLD VICTORIA BARRACKS INTO
ROBERTS BLOCK HEARTS CENRE

Drawing Title

ROOF FLOOR LAYOUT PLAN

Drawing No.

HIA-004

Project Ref.

Scale : 1:100 (A1)

File Name : E :

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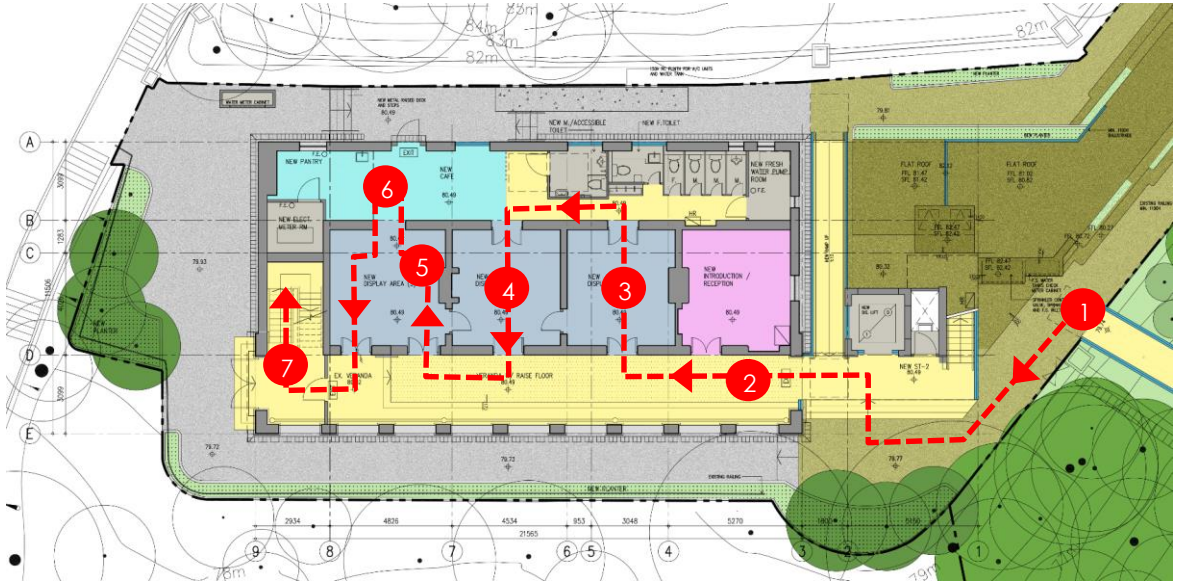
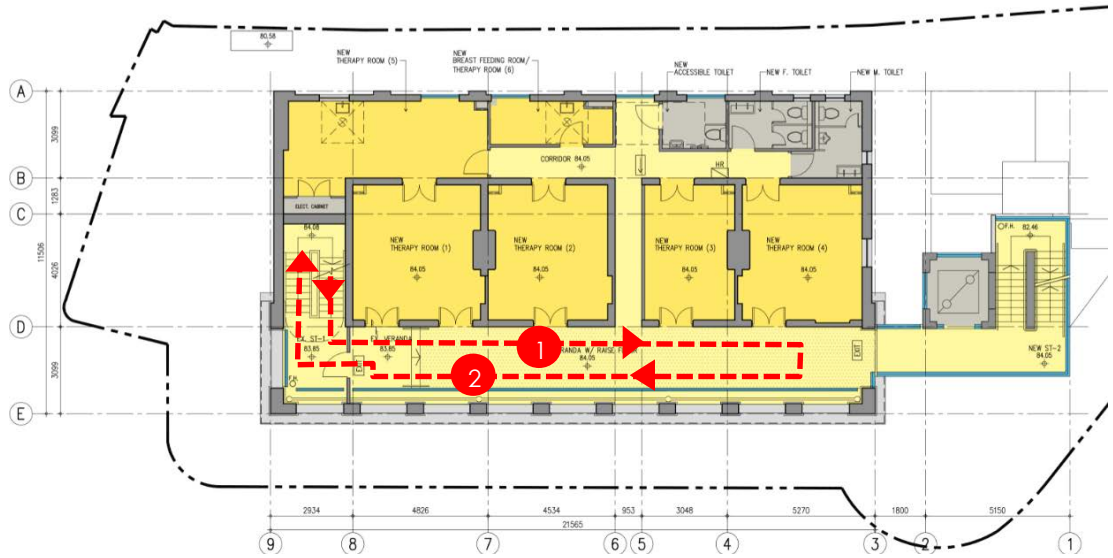
Appendix A.5

Proposed Interpretation route



G/F

1. Tour starts at Link bridge – Brief Introduction
2. Restored verandah with information displays on G/F (History of building)
3. Restored room with information display on G/F (History)
4. Restored room in Edwardian Classical Revival style display on G/F
5. Restored room with information display on G/F (Architecture)
6. Café on G/F
7. Restored internal staircase to 1/F

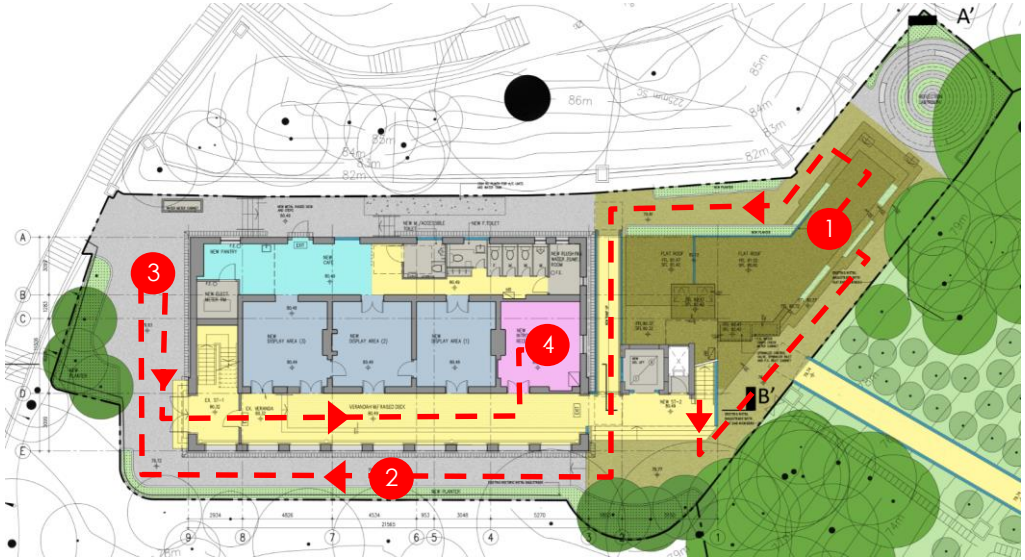


1/F

1. Restored verandah with information displays (Architectural style)
2. Restored architectural features along verandah

2/F

1. Restore stairwell with projected images
2. Restored cat ladder with periscope to look at the roof of building
3. Restored verandah with information displays (Revitalisation process), Passing through Multi-function Rooms in middle portion if the rooms are not in use.
4. New link-bridge with information display(Introduction of therapy),
5. New staircase or lift back to G/F



G/F, External

1. Tour around the exterior area and appreciating NW building facade
2. Tour around the exterior area and appreciating NE building facade
3. Tour around the exterior area and appreciating SE building facade. Tour end at Main entrance
4. Free access to Reception

Appendix A.6

Artistic Impressions of Roberts Block Open HeArts Centre

Artistic Impressions of Roberts Block Open HeArts Centre
(Ariel view)

Existing View (left) and Artistic Impressions of Roberts Block Open HeArts Centre (Right)
(At Kennedy Road level, viewing the new lift tower and lay-by)

Artistic Impressions of Roberts Block Open HeArts Centre
(View from link bridge connected to Kennedy Road, Northwest elevation of Roberts Block)

Artistic Impressions of Roberts Block Open HeArts Centre
(View from Northwest open space, to Northwest and Southwest elevation of Roberts Block)

Artistic Impressions of Display Area of Roberts Block Open HeArts Centre
(View of a display area on G/F of Roberts Block, with fireplace and timber door between room restored)

Artistic Impressions of Verandah of Roberts Block Open HeArts Centre after restoration
(View of 1/F verandah of Roberts Block)