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HERITAGE IMPACT ASSESSMENT IN RESPECT OF THE REVITALISATION OF THE ROBERTS BLOCK, OLD VICTORIA BARRACKS

BACKGROUND

Under Batch V of the Revitalising Historic Buildings Through Partnership Scheme (the "Revitalisation Scheme"), the Secretary for Development granted approval-in-principle in 2018 for the proposed conservation and adaptive re-use of the Roberts Block, Old Victoria Barracks ("RB") (please refer to Figure 1 for the location plan) as "Roberts Block Open HeArts Centre" submitted by Christian Oi Hip Fellowship Limited (Cooperating Organisation: Art Hub Asia Company Limited).

2. The revitalisation project currently comprises the Roberts Block Site (the "Site"), a flat land where RB sits on, and an adjoining Ancillary Site, a slope between Kennedy Road and the Site. Both sites are owned by the Government. The Site will be converted and revitalised into a creative arts and play therapy centre while the Ancillary Site will accommodate a new lay-by on Kennedy Road and provide new barrier free access to serve the Site.

3. RB was built in 1907-1910 as one of the married quarters in Old Victoria Barracks. After the Old Victoria Barracks was handed over by the British War Department to the Hong Kong Government in 1979, RB was left vacant until 1986 when it was handed over to New Life Psychiatric Rehabilitation Association to operate a hostel for ex-mental patients. The hostel ceded operation in 2013. RB was accorded with Grade 1 status in December 2009 by the Antiquities Advisory Board.

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STATEMENT OF CULTURAL SIGNIFICANCE

A. Historic and Contextual Significance

4. Situated on a spur beyond Kennedy Road, the construction of RB exemplifies the expansion of the British Army to the south of Kennedy Road in early 20th century. Together with Bowen Road Military Hospital, it marked the historical period when the Victoria Cantonment area (including Old Victoria Barracks and other nearby military sites) was at its greatest extent in early 20th century.

5. RB, being one of the nine married soldier quarters constructed in the 1900s, is a testimony to the military development in this period of time. The surviving military married quarters (including RB, Montgomery Block, Cassels Block, Wavell Block (Wavell House) and Rawlinson House) have contextual value in illustrating the most extensive construction phase within Victoria Barracks. Also, 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), the surviving military buildings form an integrated and broad picture of the extent and evolution of the former Victoria Cantonment area since the British takeover of Hong Kong.

B. Architectural Significance

6. As a building that has been standing for more than a century, the important features of RB are relatively well preserved given the fact that it has been adaptively reused before. The major elements that identify the Edwardian Classical Revival style are retained, for instance the facing red brick front façade, the intact open verandah at front portion, internal staircase, and segmental arches, etc. Notable character defining elements ("CDEs") 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.

HERITAGE IMPACT ASSESSMENT

7. In accordance with Development Bureau Technical Circular (Works) No. 6/2009, a Heritage Impact Assessment ("HIA") has been carried out with the objective of drawing up a Conservation Management Plan and assessing the heritage impact of the proposed project scope and design. Based on the Antiquities and Monuments Office ("AMO")'s Conservation Guidelines contained in the Resource Kit of RB under the Revitalisation Scheme, the HIA sets out the mitigation measures to avoid adverse impact on the historic building in the course of revitalisation works and outlines the future interpretation, maintenance and management strategies.

A. Project Proposal

8. The project will revitalise the Site into a creative arts and play therapy centre for providing welfare of psychological and emotional health care to the people of Hong Kong by stress management and experiencing the history of the Old Victoria Barracks through a variety of guided tours, workshops and activities.

9. The following functions are required to be accommodated in the revitalised site:

(a) In RB:

- G/F: A new introduction/ reception, display areas, a café and pantry for light refreshment, circulation, toilets and back of house areas;

- 1/F: Therapy rooms, breast feeding room, circulation, toilets and back of house areas;

- 2/F: Multi-function rooms, therapy rooms, offices, circulation, toilets and back of house areas; and

- R/F: Maintenance use only.

(b) In open spaces within the Site:

- A new external staircase with a lift to replace the existing later-added external staircase to provide means of escape and barrier free access to every floor of RB;

- New semi-underground fire services and sprinkler tanks and plant rooms with a multi-function landscape deck above; and

- A reflection labyrinth for therapy purpose.

(c) In the Ancillary Site:

- A new lift and staircase tower with a link bridge at upper level to connect Kennedy Road to the Site and an 8m long lay-by area on Kennedy Road to provide barrier free access from Kennedy Road level to the Site.

B. Conservation Principles

10. The Conservation Policies and Guidelines to conserve and interpret the Site are as follows:

(a) Use

- Since the usage of the Site as a military barrack building cannot be continued, the new use should be compatible to the Site or neighbouring context (e.g. domestic/ arts and cultural related use); and

- 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.

(b) Setting

- The setting of RB as a building sitting on a plateau between Kennedy Road and Borrett Road overlooking the Hong Kong Park and Admiralty should be kept. New structures in the Site taller than RB and blocking the mentioned view should be avoided.

(c) Interpretation

- 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. The possible topics for interpretation include:

    - 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.

- Open verandahs, part of G/F and others CDEs with very high and high significance should be reserved for interpretation that allows public accessibility as far as possible.

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(d) Preservation of Building Fabrics

- In general, CDEs of significance listed in HIA should be preserved or restored in any future adaptive reuse for the Site as far as possible. Examples of CDEs with very high and high significance are:

  (i) site setting: plateau with heavy natural vegetation, the pedestrian paths leading from Kennedy Road to Borrett Road, northeast open space (the front ground) and southeast open space (the entrance ground) with historic external metal balustrades and the vista to Hong Kong Park and Admiralty;

  (ii) exterior of RB: building mass and form, front (northeast) façade, entrance (southeast) façade, side (northwest) façade, timber windows, chimneys on roof, original cast-iron rain water downpipes and hoppers with classical motif, the location of the surface channels surrounding the entire building and the arch "tunnel" at the bottom of the entrance granite steps, and cast iron manhole covers; and

  (iii) interior of RB: building layout consists of the front, middle and rear portions, building structure, open verandahs, original layout and features in bedrooms and living rooms in the middle portion including but not limited to the chimney breasts, classical moulded beams and ceiling cornices, the original door openings and timber French doors to front and rear portions, internal metal staircase, staircase hallways and the partition walls between them and the verandahs, metal cat ladder to the access hatch to roof on 2/F, and arch recesses over window openings in the rear portions.

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

(e) Intervention to Building Fabrics

- In general, alterations and additions to RB 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 on the cultural significance of the building. CDEs of lower significance and of less authenticity can allow more alterations to suit adaptive reuse.

- The design of any alteration and addition works should follow the following principles:

  (i) reversible alterations/ additions;

  (ii) compatible with but distinguishable from the original fabrics; and

  (iii) minimum visual impact on RB, as well as from RB especially its vistas from RB to the Hong Kong Park and Admiralty.

- Building services should be well planned to avoid visual impact on the historic building.

(f) Management

- 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; and

- 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.

(g) Documentation

- A documentation mechanism should be set up. All the studies, researches, investigation findings, mock up results should be kept in proper filing. Cartographic and photographic surveys to properly record the historic building shall be conducted before and after the alteration works. Any future repair works during operation of the new use should be properly documented. All these records should be kept in appropriate means and media.

C. Key Design Proposal

11. The key proposed works for the revitalisation project are listed below:

(a) Overall site approach

(i) The project intends to adaptively reuse the Site as Roberts Block Open HeArts Centre (i.e. a creative arts and play therapy center) with a new introduction/ reception, display areas, a café, therapy rooms, multi-function rooms and supporting facilities;

(ii) a new external staircase and a lift will replace the existing later-added external staircase to the northwest of the building as a means of escape and barrier free access to all floors of the building;

(iii) a semi-underground new structure will be added to a part of the existing northwest open space to house new fire services

and sprinkler tanks with plant rooms and to give a multi-function landscape deck above;

(iv) new air-conditioning outdoor units and a new flushing water tank (to replace the existing one on roof) will be introduced in the lane at the rear façade;

(v) landscape will be enhanced with a reflection labyrinth introduced;

(vi) an accessible lift and staircase tower and a link bridge will be added in the Ancillary Site to connect the new lay-by on Kennedy Road to the Site; and

(vii) existing healthy trees will be preserved as much as possible in the Site and the Ancillary Site.

(b) Conservation and Conversion Works for transforming the Site into Roberts Block Open HeArts Centre:

(i) Building exterior

No major works will be carried out on the façades, except:

- to remove later-added wire mesh above verandah balustrades to revive the openness of the veranda at the front (northeast) and entrance (southeast) façades;

- to restore original arch-shaped verandah openings on the rear (southwest) façade and replace the later-introduced rectangular windows with new aluminium windows / louvres in segmental-arched shape to fit the size of restored openings in order to reveal the original arched openings from

the external and to meet operational needs;

- to replace the existing steel windows and louvres on the rear (southwest) façade, which are later replacements of earlier timber ones, with new aluminium ones with altered configuration to suit statutory requirements for lighting and ventilation for toilets and pantry, and to replace the existing steel louvres on the side (northwest) façade with fired rated fixed lights to suit fire safety requirement;

- to install a raised deck and a ramp next to the side (northwest) façade and alter it for the new connections to the new lift and staircase for means of escape and barrier free access. Alteration includes removing and salvaging the verandah balustrade with urn-shaped balusters and granite cap on G/F, removing the later-added brick wall at the same locations on 1/F and 2/F, and installing a short length of glass balustrades adjacent to the new connections as protective barrier;

- to demolish existing later-added steps at the rear lane outside rear entrance and replace with new metal steps with extended metal landing; and

- to install fall arrest system on roof.

(ii) Building structure

The following upgrading works to the existing building structure will be needed:

- the existing internal steel staircase will be upgraded to ensure structural safety and enhance fire resisting performance for using as a required staircase. Upgrading works include adding steel angle supports underneath the treads and

landings, repainting all steel members with fire resistance coating, modification of existing balustrade and adding fire-rated protection boards to the underside of the timber treads and landing;

- on 1/F and 2/F, due to the absence of reinforcement in concrete slabs and beams as well as the inadequate strength of steel joists and brick arches above existing door openings, structural strengthening is needed. After option studies such as adding steel plate under the existing slabs and adding extra steel joists, it is decided that slabs on 1/F and 2/F will be re-cast, and the steel joists, brick arches and concrete beams of the front portion supporting the slabs will be replaced or strengthened to enhance structural capacity but at the same time no additional loading will be added to the existing footings to avoid strengthening works to footings; and

- due to minor structural inadequacy of R/F beams, the existing beams of the middle portion supporting the R/F slab will be strengthened structurally, by wrapping of fiber-reinforced polymer composites system (preferred option), or otherwise by adding new steel beams underneath middle portion of R/F slab, and is subject to Building Authority's approval.

(iii) Building interior

The layout and setting of the interior will be largely retained, including:

- the front portion verandah will be kept as open verandah;

- the middle portion will be kept with 4-central-core-room-setting and used as reception and display areas on G/F, therapy rooms on 1/F and therapy/ multi-function rooms on 2/F; and

- all French doors of the middle portion openings to verandahs or rear portions which 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 / or layout concern. If not being restored, the existing wall recesses of the door openings will be kept to leave traces of old intervention.

But, there will be a few alterations, mainly as follows:

- the layout of the rear portion will be altered to suit new use but will generally be kept as back of house areas (including toilets and breast feeding room) or smaller therapy rooms, except a café on G/F; and

- the later-added intrusive corridors running through the middle portion on G/F and 2/F will be removed to restore/ partly restore the original room layout.

(iv) Preserved features for interpretation

The following will be preserved / preserved with modification works and interpreted by guided tours:

- G/F: Open verandah, original layout of bedrooms and living rooms in the middle portion with features preserved (one of the rooms will be restored with a fireplace to show Edwardian Classical Revival interior), the rear portion, timber French doors, internal staircase (modification works will be interpreted to the public) and its hallway;

- 1/F: Open verandah and timber French doors;

- 2/F: Open verandah, timber French doors, and metal cat ladder to the access hatch to roof;

- R/F: Flat roof and chimneys (to be viewed by new periscope installed on 2/F); and

- Exterior: Side (northwest), front (northeast) and entrance (southeast) façades.

(v) Enhancement works for complying with the statutory requirements of the Buildings Ordinance or other modern-day requirements apart from issues discussed above:

- upgrading works on fire separation requirements for the existing internal staircase is required. Staircase doorways will be replaced with new doors with fire-rated resistance performance;

- a raised deck will be introduced partly on the verandah floors on all 3 floors to overcome the level difference between verandahs and other parts of the interior to cater for barrier free access from the new lift to the building interior;

- glass balustrades will be added at the inner side of the verandah balustrades as protective barrier enhancement on 1/F and 2/F;

- planters and shrubs with low hidden barrier will be added in front of the historic metal balustrade along the north and east boundary of the Site as a management approach to compensate sub-standard balustrade, and is subject to Building Authority's approval;

- existing manholes in the rear lane with British imported historic covers will be removed and salvaged to make way for new underground drainage; and

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- installation of new building services in the building interior, including fire services installation, air-conditioning, lighting and electrical upgrading, etc.

D. Mitigation Measures for the Conversion Works

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

(a) the new external staircase and the lift is to be placed at the same location of the existing later-added staircase so as to avoid new visual impact. The new building mass will be kept to a minimum and further set back from the front façade to expose the north corner of RB in greater extent. Ultimate height of the new structures including the top canopy and lift overrun will be built and kept at a level lower than RB's roof eaves. It will be built of independent and reversible structure that does not affect the existing foundation of the building. The design and material of the staircase shall be compatible with and distinguishable from the subject building;

(b) due to geotechnical constraints, the new semi-underground structure housing mainly the fire services and sprinkler tanks with the plant rooms is of optimum design by maximising the execution depth without risking the adjoining slope's stability. The protruding height of the structure above adjoining ground is kept to a minimum to reduce visual impact. The new structure shall be an independent structure from RB. Edge of the protrusion shall be softened by step seating and landscape. Monitoring checkpoints will be installed to RB to ensure structural impact, if any, can be noticed and mitigated at once;

(c) new air-conditioning outdoor units and other building services will be

placed at the rear lane to limit visual impact on the rear façade. Pipes and ducts will be grouped and placed in a strategic location on rear façade with screening or underground when entering the building to make minimal physical and visual impact;

(d) the new lift and staircase tower in the Ancillary Site is to be constructed with minimum height to minimise visual impact on RB. The design, material and style of additions will be distinguishable from the historic building but kept subtle and neutral. Bored pile retaining wall structure is proposed to minimise impact on the slope and the existing trees, as well as to reduce structural impact on RB during the course of construction. Disturbed trees will be compensated by planting new trees to the adjacent slopes. Surface treatment such as stone-textured paint finish will be provided on the surfaces of the new retaining wall to minimise visual impact. Monitoring checkpoints will be installed to RB to ensure structural impact, if any, can be noticed and mitigated at once;

(e) though the existing steel windows are later alteration without value, they will be recorded before removal. Restoration to all 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 finished colour of the aluminium windows will be compatible to the overall building façade;

(f) the ramp will be set back from the side façade, interfacing details of the raised deck and the ramp will avoid physical disturbance to the side façade as far as possible. The removed verandah balustrade with urn-shaped balusters and granite cap on G/F will be salvaged for interpretation or used as spare parts for future maintenance. The removal of later-added brick wall on the upper floors are considered a

beneficial impact as it revives the verandahs' openness, new glass balustrade will be used to fill the short gap to make the intervention distinguishable from the old fabric;

(g) the new steps and landing for the rear entrance will be constructed of metal and installed in a reversible manner;

(h) fall arrest system instead of traditional railing will be installed for safety during maintenance so that it can be kept at low level near roof slab. It will be set back from building edge to further minimise visual impact;

(i) 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 thickness of slabs which will be reduced to avoid imposing extra loading to the existing footings. 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 with interfacing details carefully designed to make the old fabrics easily distinguishable from the new fabrics. 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. 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;

(j) the layout of the rear and middle portions will be recorded before alteration. New partitions are of lightweight to avoid structural impact

on the building;

(k) the existing doors at the staircase doorways will be recorded before replacement. Exemption for addition of G/F protected lobby will be sought from Buildings Department with the support from AMO;

(l) the raised deck to verandahs will be readily reversible and detachable for maintenance. Existing (or re-casted) slabs will not be physically disturbed but only some of them are hidden. Granite thresholds will be kept visible. The raised floor will be of lightweight material so that it falls within the loading limitation of the existing footing. The new decking shall keep a distance from the reconstructed surface channel and existing urn-shape balustrade so they are undisturbed;

(m) regulation modification will be sought from Buildings Department to install new glass balustrades with reduced height to reduce possible visual impact on the façades. The balustrade will be set back from the façades in any case to minimise visual impact and to allow surface channel of verandahs to be exposed;

(n) regulation modification will be sought from Buildings Department to relax the requirements of protective barrier by management approach as far as possible. Plantings of shrubs and installation of low hidden barrier in front of the historic metal balustrades will keep the historic metal balustrades visible from the Site;

(o) the British imported historic manhole covers will be salvaged for display and interpretation;

(p) pipeworks and conduits will be grouped and organised neatly to minimise coring to walls, visual impact on 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 to space of high significance (e.g. the open verandah)

minimum. False ceiling or bulkhead to be added to hide building services should be designed to allow viewing to ceiling cornices and mouldings as far as possible. Original openings into structures will be reused as much as possible to reduce the number of necessary new openings; and

(q) during the course of the construction within the Site and the Ancillary Site, safety precautionary, protective and monitoring measures (e.g. settlement, titling, vibration checkpoints) will be installed to Montgomery Block (the only one recorded historic structure / building within 50m from the Site/ Ancillary Site) as per the Buildings Department and related government authorities' requirements to monitor any structural impact from the works.

CONCLUSION

13. The HIA has concluded that the impact of the proposed revitalisation works at the Site and the Ancillary Site is considered acceptable and manageable with the proposed mitigation measures. Hong Kong Roberts Block Centre Limited will ensure that all works carried out for heritage conservation strictly comply with the requirements stipulated in the HIA as endorsed by AMO.

Hong Kong Roberts Block Centre Limited

March 2021

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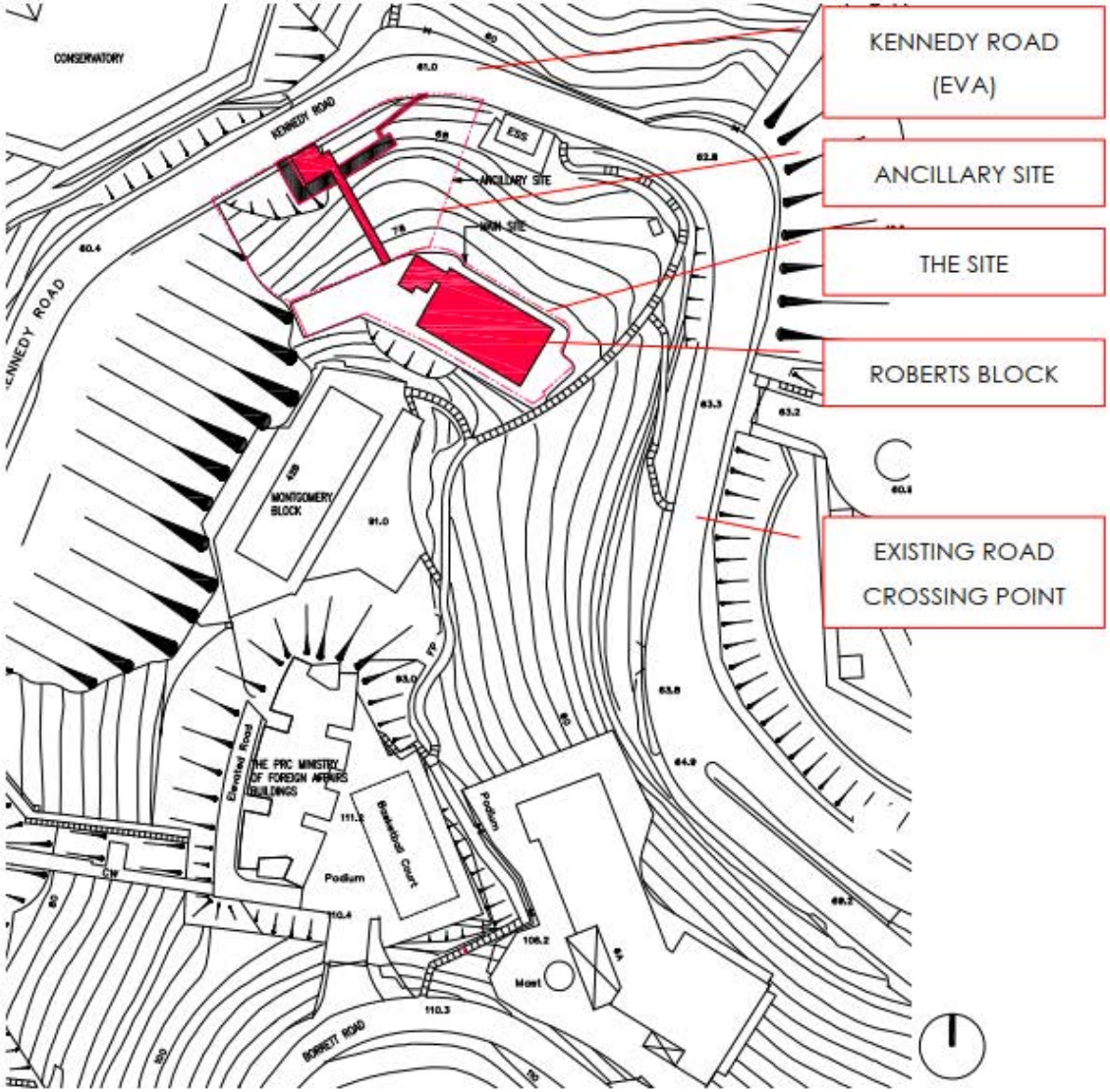

Figure 1. Location Plan (not to scale)

Annex A

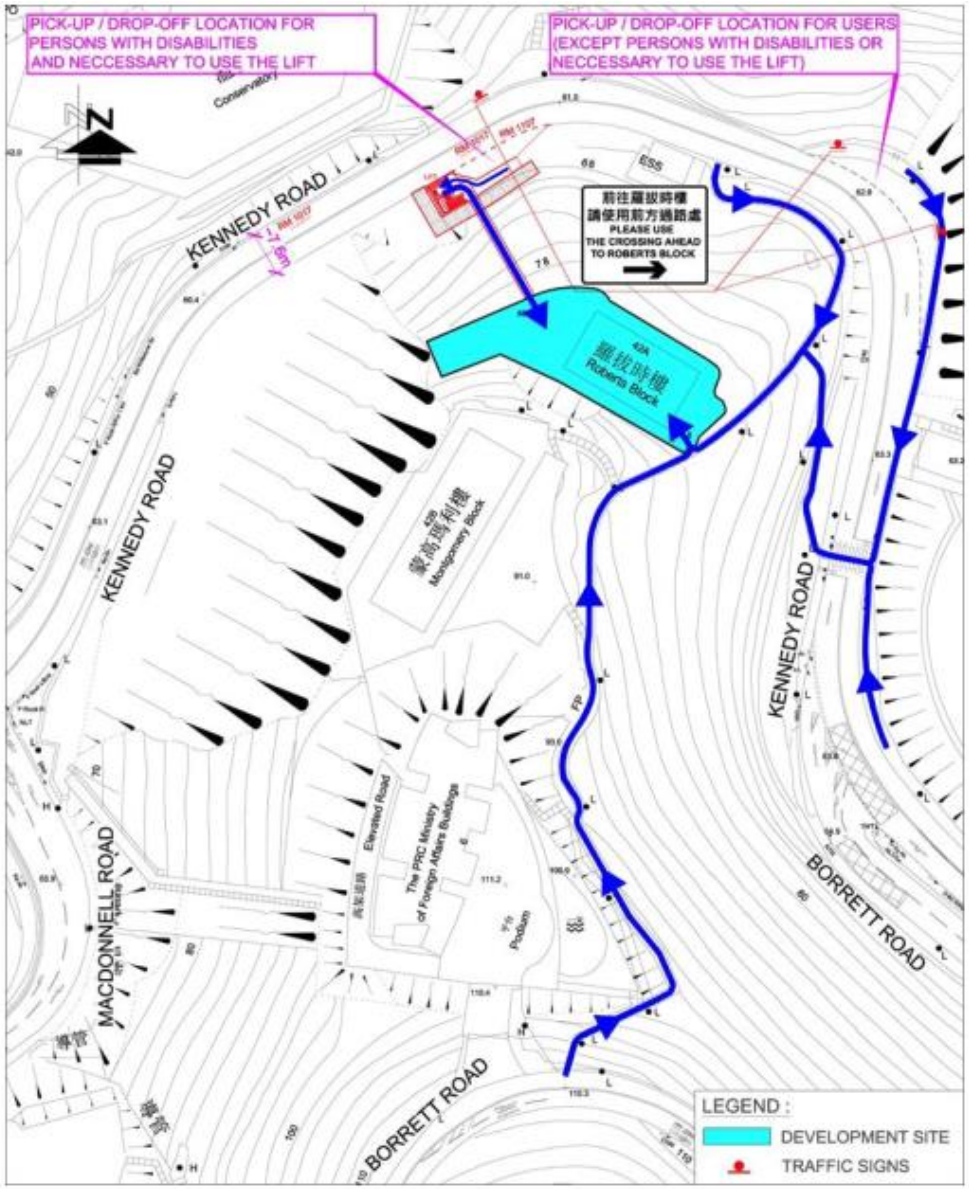

Figure 2. Access to the Site (not to scale)

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Figure 3. Proposed tree compensatory plan (not to scale)

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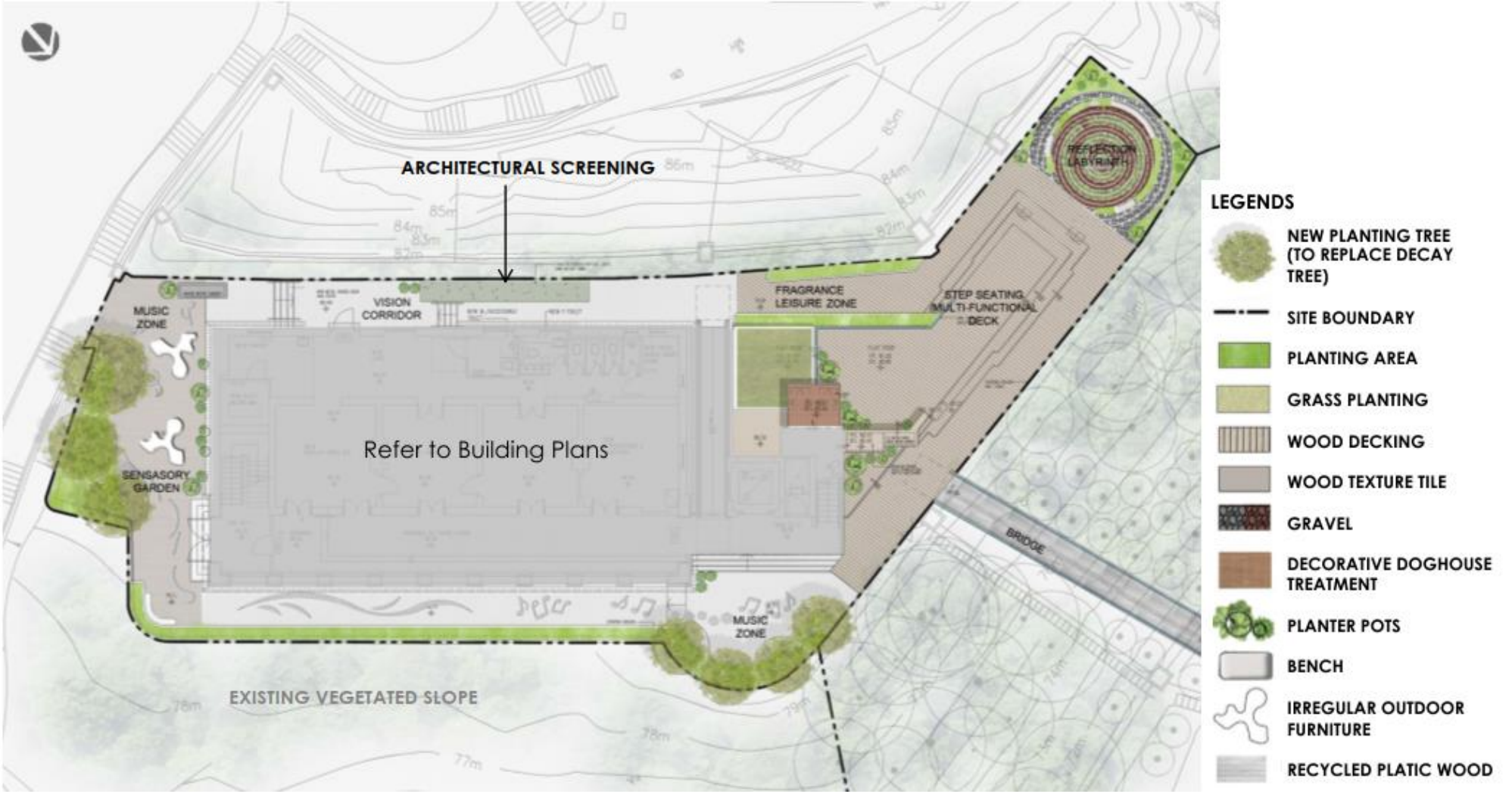

Figure 4. Proposed Landscape Master Plan (not to scale)

Annex A

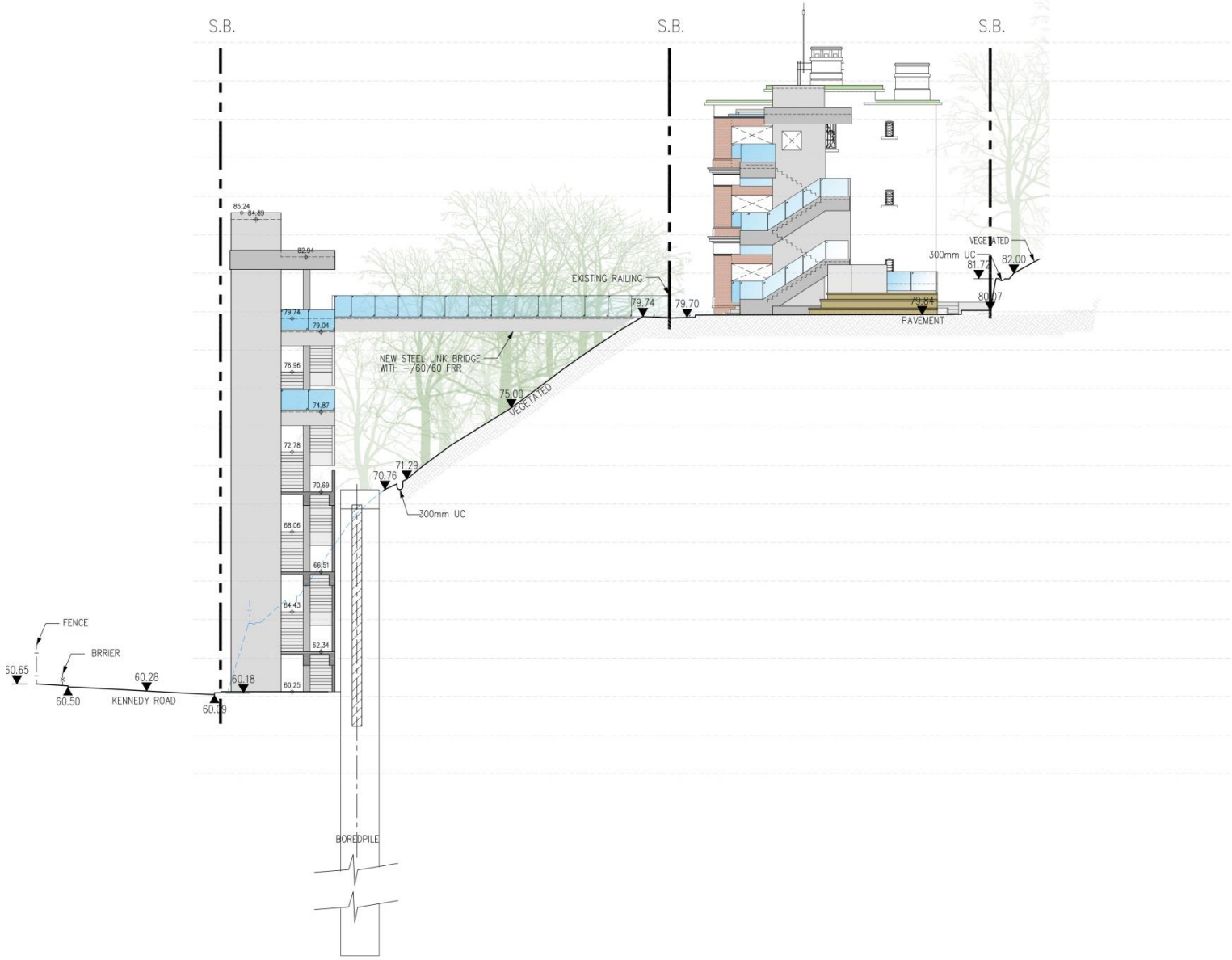

Figure 5. Proposed section AA', the Site and Ancillary Site (not to scale)

Annex A

Figure 6. Proposed LG/F plan, both the Site and Ancillary Site (not to scale)

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Figure 7. Proposed LG/F plan, the Site (not to scale)

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Figure 8. Proposed G/F plan, both the Site and Ancillary Site (not to scale)

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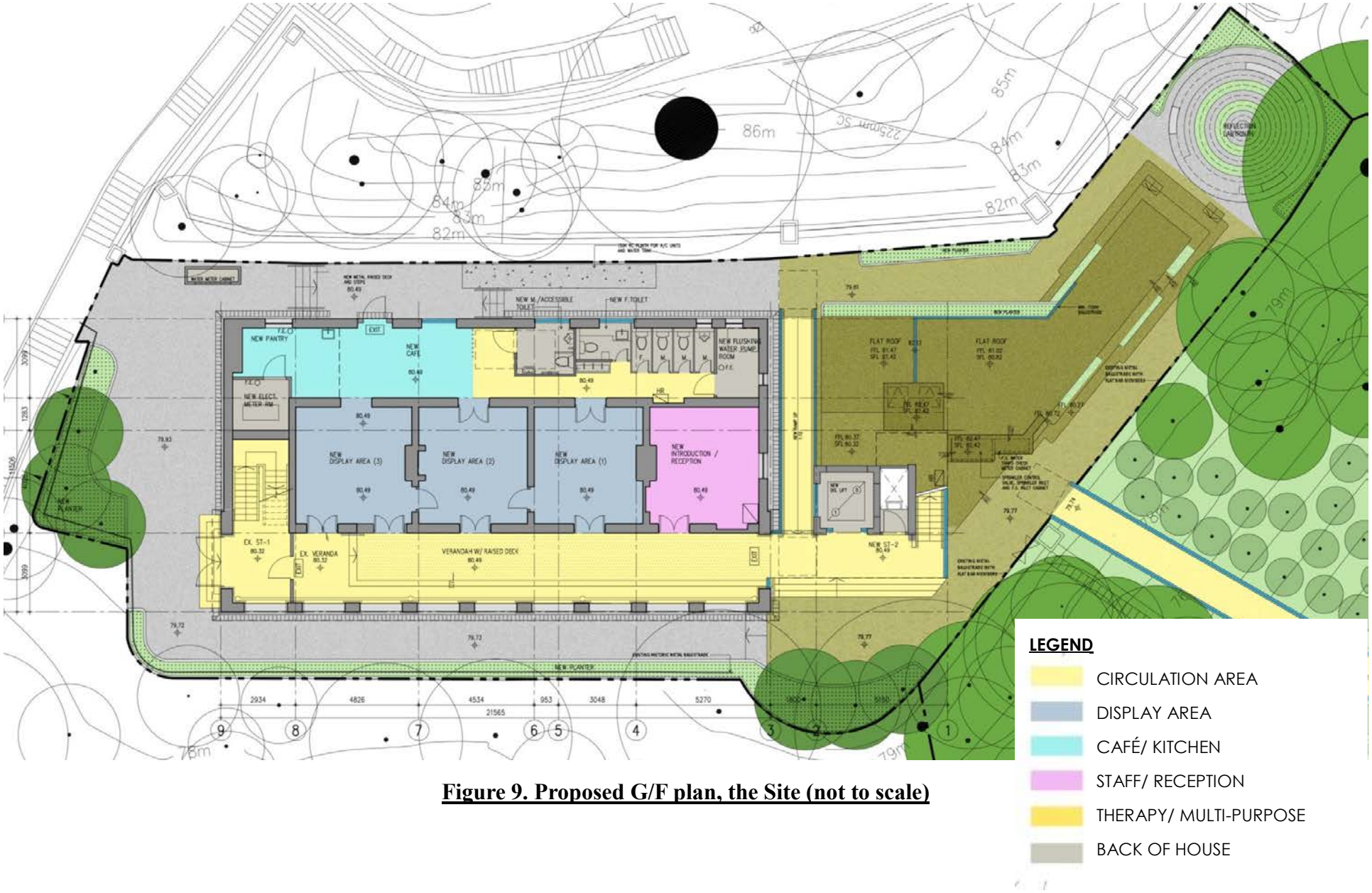

Figure 9. Proposed G/F plan, the Site (not to scale)

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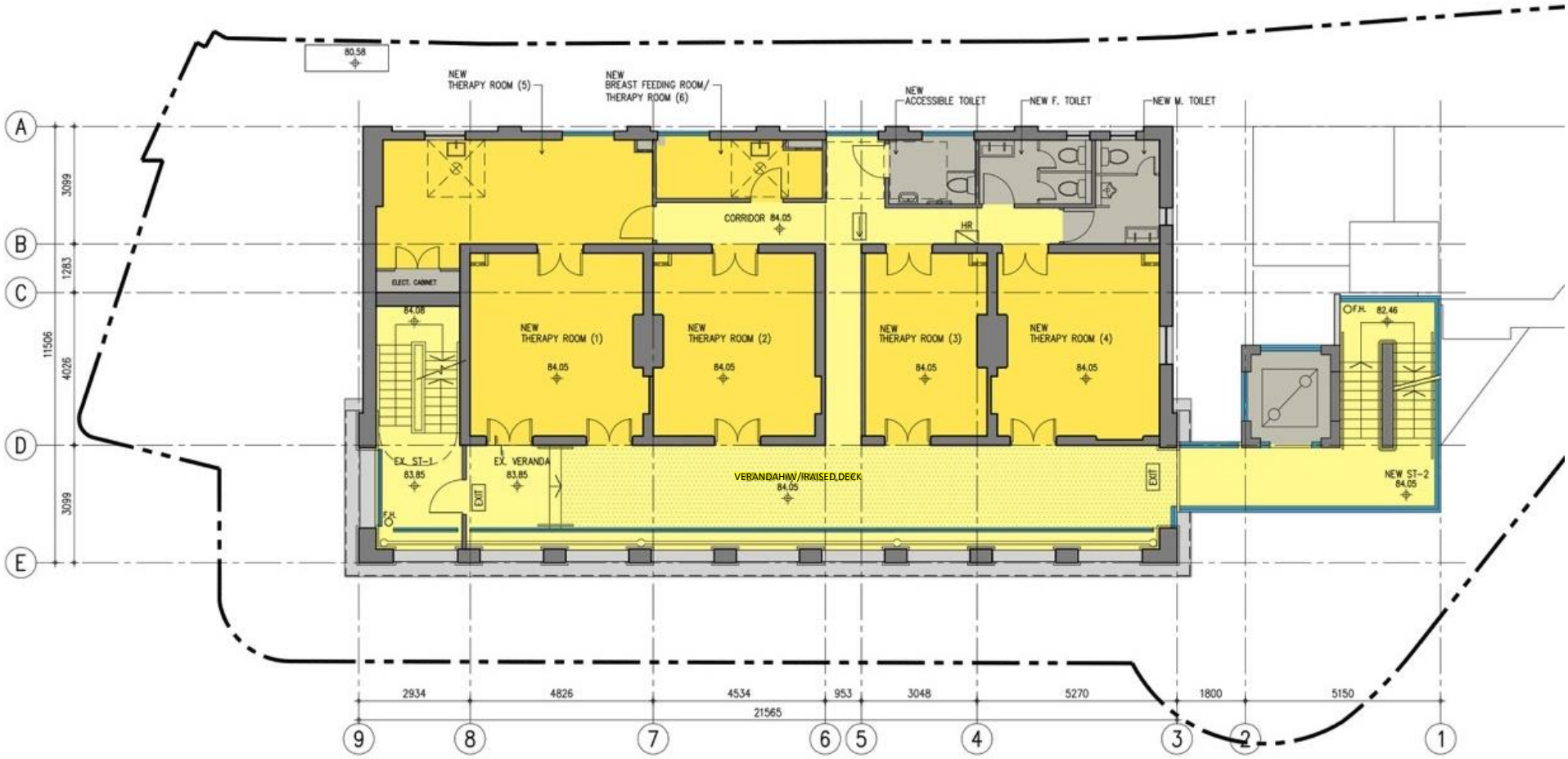

Figure 10. Proposed 1/F plan, Roberts Block (not to scale)

LEGEND

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

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Figure 11. Proposed 2/F plan, Roberts Block (not to scale)

LEGEND

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

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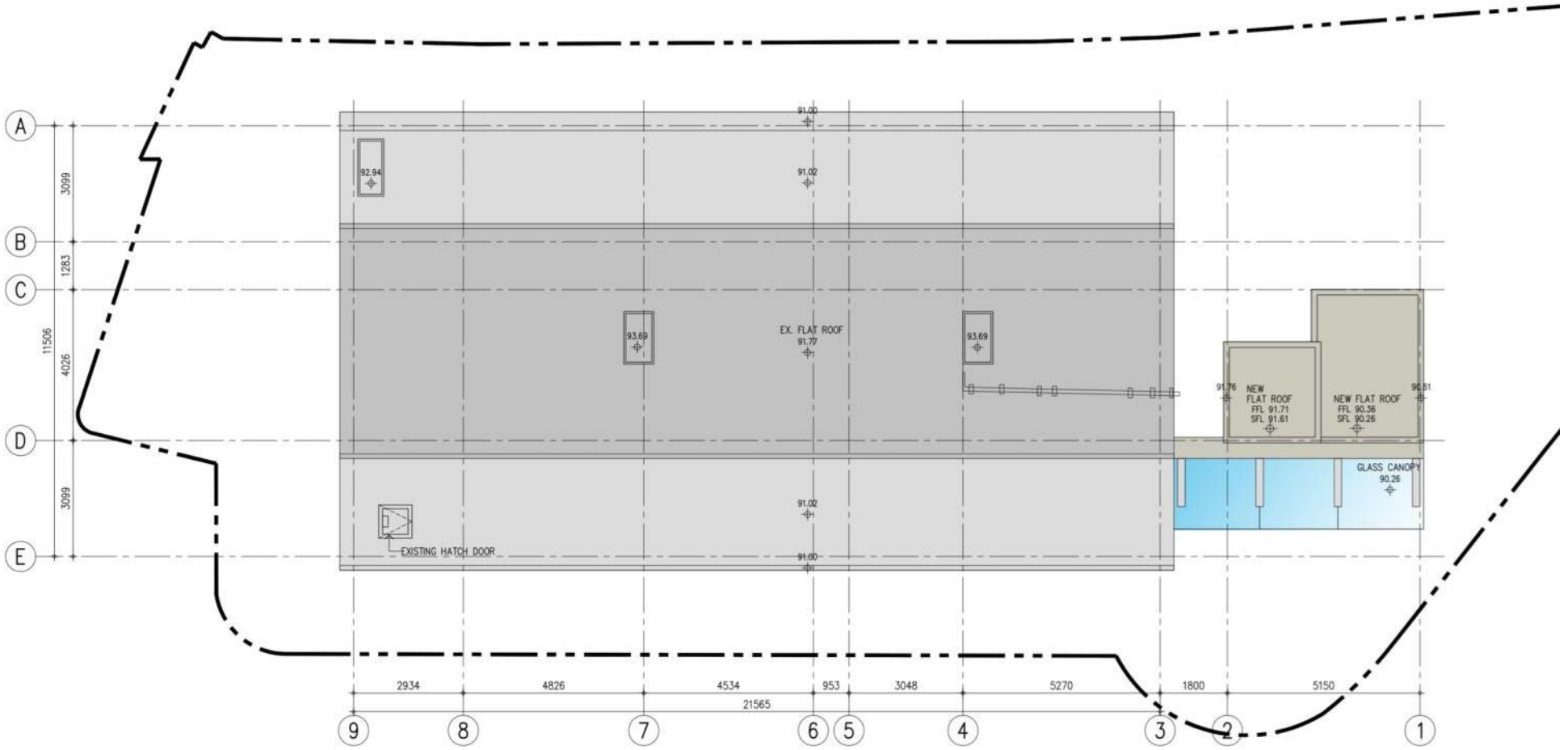

Figure 12. Proposed R/F plan, Roberts Block (not to scale)

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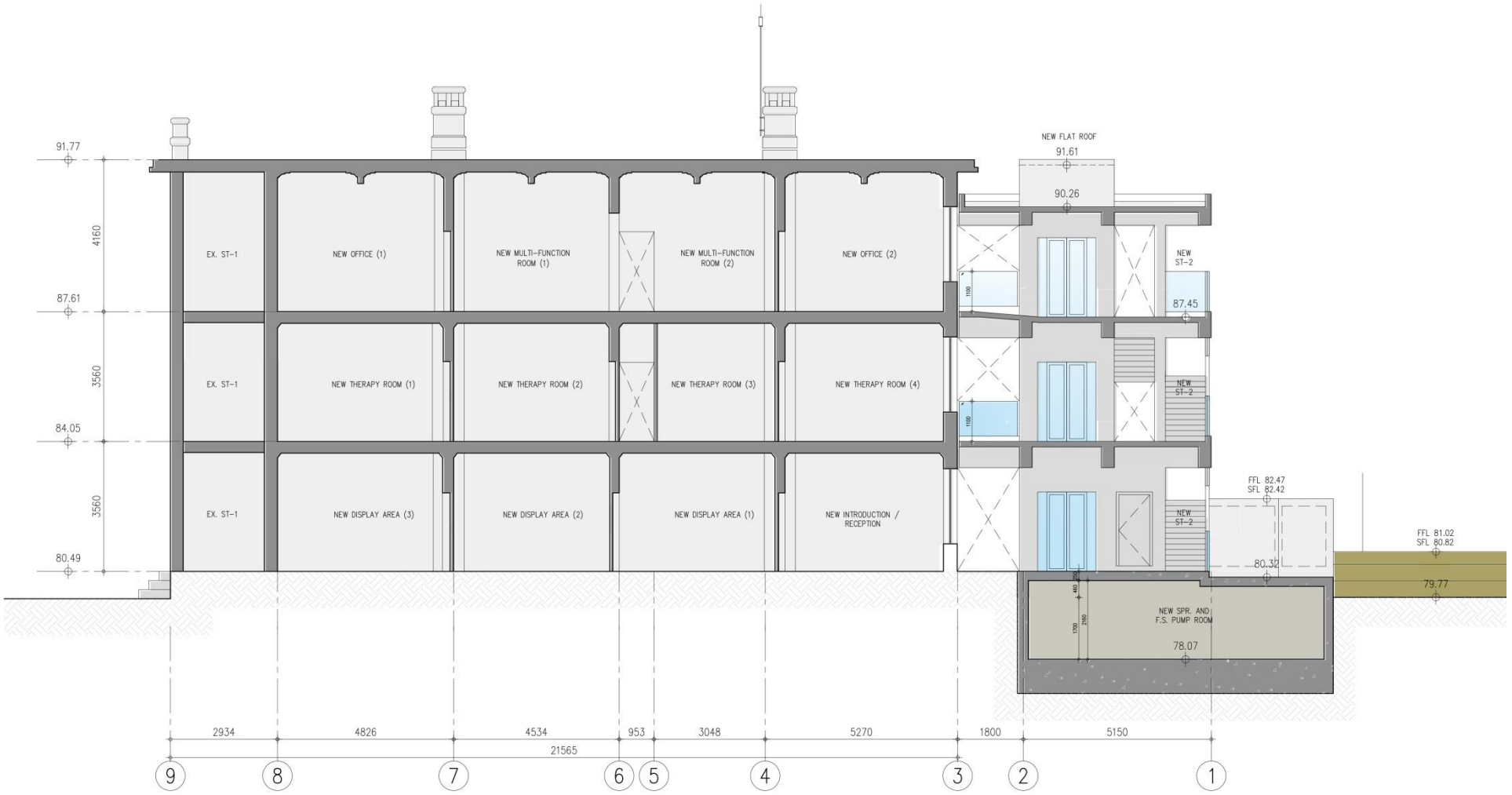

Figure 13. Proposed Section BB', Roberts Block (not to scale)

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Figure 14. Artist impression (Ariel view)

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Figure 15. Existing View (left) and Artist impression (right, at Kennedy Road level, viewing the new lift tower and lay-by)

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Figure 16. Artist impression (View from link bridge connected to Kennedy Road, Northwest elevation of Roberts Block)

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Figure 17. Artist impression (Viewing from Northwest open space, to Northwest and Southwest elevations of Roberts Block)

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Figure 18. Artist impression (View of a display area on G/F of Roberts Block, with fireplace and timber door between rooms restored)

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Figure 19. Artist impression (View of the 1/F verandah of Roberts Block)