THE ADAPTIVE RE-USE OF MARYKNOLL CONVENT BUILDING AS A SERVICE, HERITAGE AND EDUCATION ("SHE") CENTRE

PROJECT PROFILE

27 October 2025

Ref No.: C230834W-02A

Submitted to:
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Approved by:

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MSc, CEng, MIOA,
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1 BASIC INFORMATION

1.1 PROJECT TITLE

The Adaptive Re-Use of Maryknoll Convent Building as a Service, Heritage and Education ("SHE") Centre.

1.2 PURPOSE AND NATURE OF THE PROJECT

Maryknoll Convent School Foundation Limited ("the Foundation") intends to turn the Convent Building into facilities that can provide high quality, innovative, sustainable and sufficiently flexible spaces for students in both Primary and Secondary Sections in their pursuit of knowledge and excellence, especially in enhancing their creativity and original minds in the realm of art, music, speech and performance skills, and in aesthetic and cultural appreciation befit for a well-rounded education for the 21st Century. The Convent Building, as part of the school compound is rich in history and offers a fine example of architectural heritage which should and can be leveraged as a unique backdrop for achieving the above-mentioned objectives, and as a heritage showcase.

At the same time, the Foundation also intends to open the Convent Building to the public, where permissible and practical, for their enjoyment and use, for the purpose of promoting heritage appreciation, culture and art.

The aim of the Project is to respect the Convent Building as a declared monument and ensure the implementation of the adaptive reuse project will enhance and protect the Character Defining Elements of the Convent Building, and be in accordance with relevant international / local standards, practices, and charters with respect to the conservation of this declared monument. At the same time, the project should fully unleash the full potential of the Convent Building as an art, cultural and heritage block bringing the most benefit to Maryknoll Convent School (MCS).

1.3 NAME OF PROJECT PROPONENT

Maryknoll Convent School Foundation Limited

1.4 PROECT LOCATION

The Convent Building located at 130 Waterloo Road, Kowloon City, Kowloon, is a two-storey building located around the corner of Boundary Street and Ho Tung Road.

The project location is classified as "Government, Institution or Community" ("G/IC") zone in Approved Kowloon Tong Outline Zoning Plan No. S/K18/21.

The location of the Project and the surrounding environment are shown in **Figure 1.1**, and photos showing the Convent Building are shown in **Figure 1.2** and **Figure 1.3** respectively.

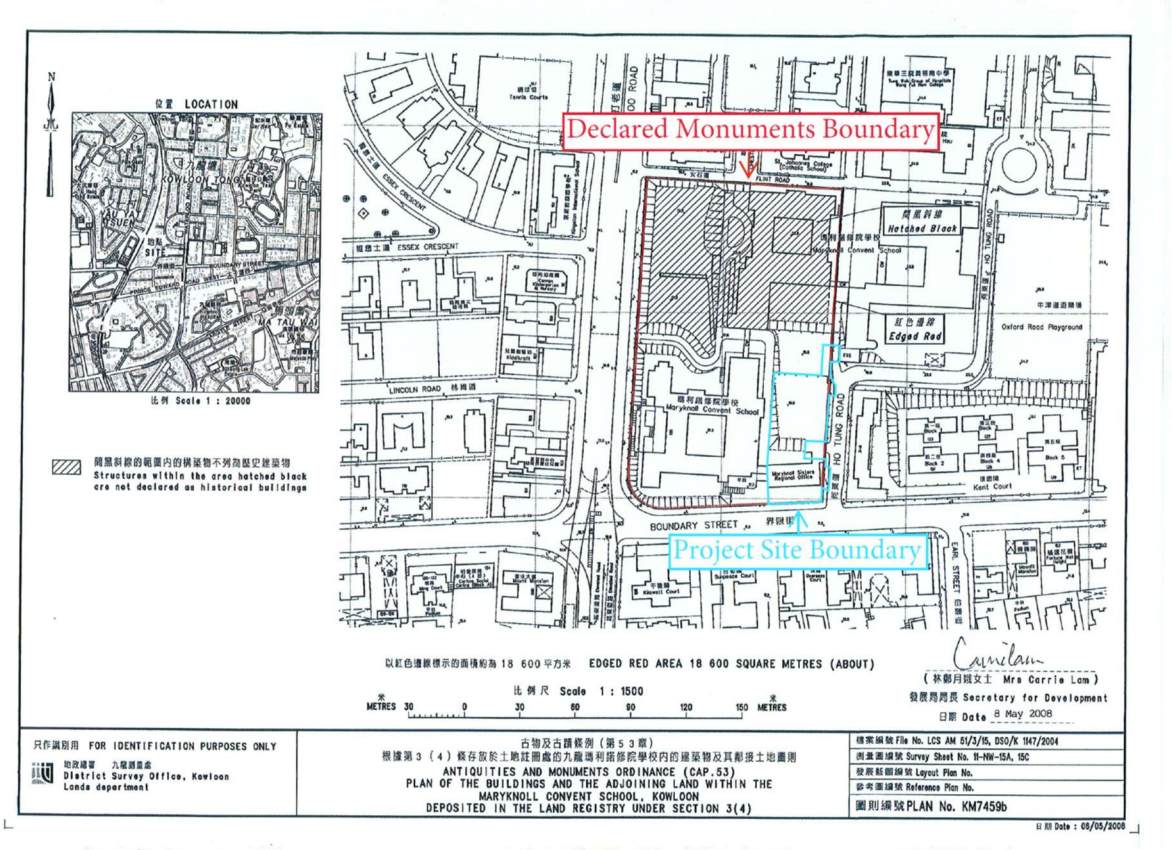

Figure 1.1 The location of Convent Building Project Site boundary and Declared Monuments boundary

Figure 1.2 External View of the Maryknoll Convent Building (Ho Tung Road Elevation)

Figure 1.3 External View of the Maryknoll Convent Building (Boundary Street Elevation)

1.5 HISTORY OF MARYKNOLL CONVENT BUILDING

A large part of the Maryknoll Convent School Primary Section campus, including the whole of the Convent Building, all built in 1937, is a Declared Monument declared under the Antiquities and Monuments (A&M) Ordinance (Cap.53) in 2008.

The Convent Building has a rich and unique history of its own, and was used as[1]:

- an industrial workshop space which provided training and employment for underprivileged women investment manufacturing between 1937 and 1971 except during wartime;

- part of a first aid centre to attend wounded civilians and British soldiers before the Japanese occupation of Hong Kong; and part of a Japanese military hospital site, together with the school building, confiscated by force, during the Japanese occupation in the Second World War;

- a teaching space where Sisters offered English and other subjects' tutorial classes for underprivileged children from 1960s onwards; and

- dwelling quarters of the Maryknoll Sisters from 1972 to 2019.

1.6 DESIGNATED PROJECTS TO BE COVERED BY THE PROJECT PROFILE

The Project involves building works of the Maryknoll Convent Building which is classified as Declared Monument as shown in **Figure 1.1**. The Project is therefore designated project by virtue of Item Q.1 "All projects involving earthworks and other building works partly or wholly in an existing site of cultural heritage", Part 1, Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499).

This Project Profile is to seek permission to apply directly for an Environmental Permit for the construction and operation of the Project under Section 5(11) of the EIAO.

[1] Extracted from document "MCS Foundation's application to HKJC, The Adaptive Re-Use of a Declared Monument Building (the Convent Building) as a Service, Heritage and Education Centre"

1.7 NAME AND TELEPHONE NUMBER OF CONTACT PERSON

The contact for the Project Proponent is:
Charis Mok
Project Manager
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Telephone +852 9666 5887

2 OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME

2.1 RESPONSIBILITIES OF PARTIES

Maryknoll Convent School Foundation Limited is the Project Proponent. The project is supported under The Hong Kong Jockey Club Charities Trust. WCWP International Limited is the works coordinator who will be responsible for project management at all stages of the Project.

The works will be undertaken by a specialist contractor ("the Contractor") on the List of Approved Specialist Contractors for Repair and Restoration of Historic Buildings endorsed by the Development Bureau. In addition, the Contractor will be responsible for carrying out the mitigation measures for minimizing the environmental impacts induced by the project.

2.2 SCOPE OF PROPOSED WORKS

The existing building has outlived its use as an industrial department and later a dormitory but has been vacant since late 2019. Considering the proposed use as a Centre for Heritage, Education and Service, and its increased accessibility to the public, there will inevitably be changes; these include alterations, some of which may be structural. To comply with the latest statutory requirements and suit the proposed new uses, conservation works, minimum repair works and alternations to meet building code and minimum building services on a need basis will be taken. The service initiatives include:

1. setting up a heritage conservation centre for thematic exhibitions to drive heritage and conservation awareness, appreciation and education;

2. providing fun language learning through combining English language learning with on-site conservation and heritage appreciation ("Anchor Programme")

3. offering after school study groups「課後溫習小組」service for female students living in underprivileged families in particular those in subdivided units; and

4. providing and/or housing open girl guides units nurturing social and leadership skills, cross-generational harmony and cross-socio cultural inclusiveness.

To facilitate the implementation and future operation of the proposed new use, a series of alterations and additions for building works have been identified including but not limited to:

- Construct a new link bridge (around 30m^2) with 1 no. of metal post in the North Garden of height, width and length around 3.9m, 1.9m and 12.7m respectively to provide barrier-free access (BFA) and means of escape (MoE) routing to 1/F of Maryknoll Convent Building.
- Excavate existing slope in the North Garden and basketball court for construction of a new underground structure to host plant rooms and building services equipment (around 94m^2) of height around 3.5m including (i) irrigation water tank, (ii) flush pump room, (iii) F.S. water tank (iv) flush water tank and (v) fire service pump room required for statutory compliance and operational needs.

- Landscape improvement works to the North and South Gardens.
- Enlarge the existing door opening on G/F of North elevation; remove later added canopy structure with asbestos contaminated roof; and install a new ramp outside the north entrance to fulfil means of escape (MoE) requirement and provide barrier-free access (BFA).
- Removal of brick spandrel below existing 1/F window to form a new door opening for means of escape (MoE) and barrier-free access (BFA) to the proposed link bridge.
- Formation of new entrance from Ho Tung Road by modifying existing fence wall and installing a new timber deck and a new gate.
- Partial removal of existing chain link fence along Ho Tung Road for the formation of a secondary entrance with new metal gates as means of escape (MoE) exit and make good the affected area and salvage of the affected granite in the fence wall. Replacement of existing chain link fence between the basketball court and North Garden with new chain link fence and new metal gates for means of escape (MoE) route and make good the affected area.
- Interior repartitioning and refurbishment works.

Other proposed works are repair and maintenance by nature, and they are deemed to be beneficial to improve the building's overall condition. All repair works will be carried out on like-for-like basis.

The details of the main items of the proposed works are provided in Section 2.2.1 to 2.2.8 and the locations are indicated in **Appendix A**. A full list of proposed works is provided in **Table 4.2** and **Appendix C**.

As the Maryknoll Convent Building sits within the Declared Monument boundary of Maryknoll School Compound, all proposed works including relevant method statements will be submitted to AMO for approval following the requirements and procedure set out in the Permit under Section 6 of the Antiquities and Monuments Ordinance (Cap.53) prior to the commencement of works on site.

In taking forward the works, the Character Defining Elements (CDEs) identified will be preserved, repaired or reinstated (as appropriate) with minimal intervention. These elements may include spaces, architectural details, landscape elements or any other individual features of the site. According to "Burra Charter[2]", Principles for the Conservation of Heritage Sites in China[3]", "Informed Conservation", (2001) K. Clark, "The Conservation Plan" (7th Edition 2013), J.S Kerr., and guidelines provided by other British-based organisations including Historic England, levels of cultural significance in terms of historical and architectural values are divided into six levels which are exceptional, high, moderate, low, neutral, and adverse are given in **Table 2.1**.

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[2] *Australia ICOMOS (International Council on Monuments and Sites), The Burra Charter. The Australia ICOMOS Charter for Places of Cultural Significance, 2013.*

[3] *ICOMOS China, Principles for the Conservation of Heritage Sites in China (中國文物古蹟保護準則), 2015*

Table 2.1: Definition of Level of Significance

Level of Significance		Definition
POSITIVE	Exceptional	Where an individual space or element is assessed as displaying a strong contribution to the overall significance of the place. Spaces, elements or fabric exhibit a high degree of intactness and quality, though minor alterations or degradation may be evident. This category also includes spaces of very high quality in terms of design and materials, though some of the materials were restored on a like-for-like basis in the past.
	High	Where an individual space or element is assessed as making a substantial contribution to the overall significance of the place. Spaces, elements or fabric originally of substantial quality, yet may have undergone considerable alteration or adaption resulting in presentation which is either incomplete or ambiguous. The category also includes spaces, elements or fabric of average quality in terms of design and materials, but which exhibit a high degree of intactness.
	Moderate	Where an individual space or element is assessed as making a moderate contribution to the overall significance of the place. Spaces, elements or fabric originally of some intrinsic quality, and may have undergone alteration or degradation. In addition, elements of relatively new construction, where the assessment of significance is difficult, may be included. This category also includes original spaces, elements or fabric of any quality which have undergone extensive alteration or adaption.
	Low	Where an individual space or element is assessed as making a minor contribution to the overall significance of the place, especially when compared to other features. Spaces, elements or fabric originally of little intrinsic quality, any may have undergone alteration or degradation. This category also includes original spaces, elements or fabric of any quality which have undergone extensive alteration or adaption to the extent that only isolated remnants survive (resulting in a low degree of intactness and quality of presentation).
NEUTRAL	Neutral	Where an individual space or element is assessed as having an unimportant relationship with the overall significance of the place. Spaces, elements or fabric are assessed as having little or no significance.
NEGATIVE	Adverse	Where an individual space or element detracts from the appreciation of cultural significance, by adversely affecting or obscuring other significant areas, elements or items.

Note: Elements with positive level of significance are considered as CDEs while elements with neutral and negative level of significance are not considered as CDEs.

The details of the proposed works relating to the levels of cultural significance in terms of historical and architectural values are describe in **Appendix C**.

2.2.1 New Link Bridge

Description: Construct a new link bridge with 1 no. of metal post in the North Garden to provide barrier-free access (BFA) and means of escape (MoE) routing to 1/F of Maryknoll Convent Building.
Proposed Location: See **Figure 2.1** and **Appendix A**
Proposed Design: See **Figure 2.2** to **Figure 2.4**
Affected CDEs/Elements: S-02, S-04 to S-06, E-07, E-08, E-10 and E-20 (refer to **Appendix B**)
Level of Significance of the Affected CDEs/Elements: Neutral to Exceptional (refer to Section 8.4.3 of **Appendix C**)
Impact: Acceptable with mitigation measures (refer to Section 8.4.3 of **Appendix C**)

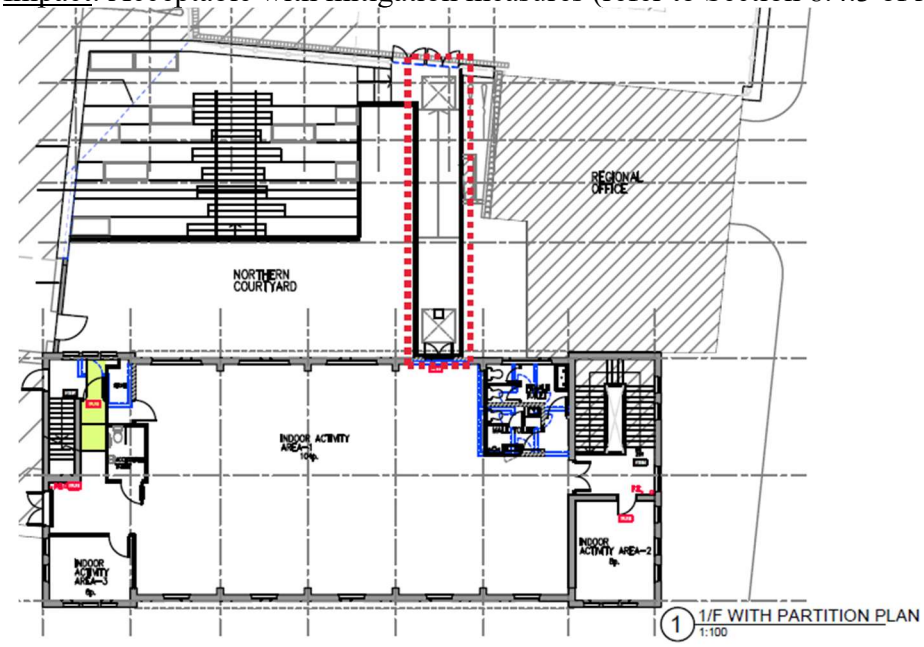


Figure 2.1 Location of the New Link Bridge (red dashed line)

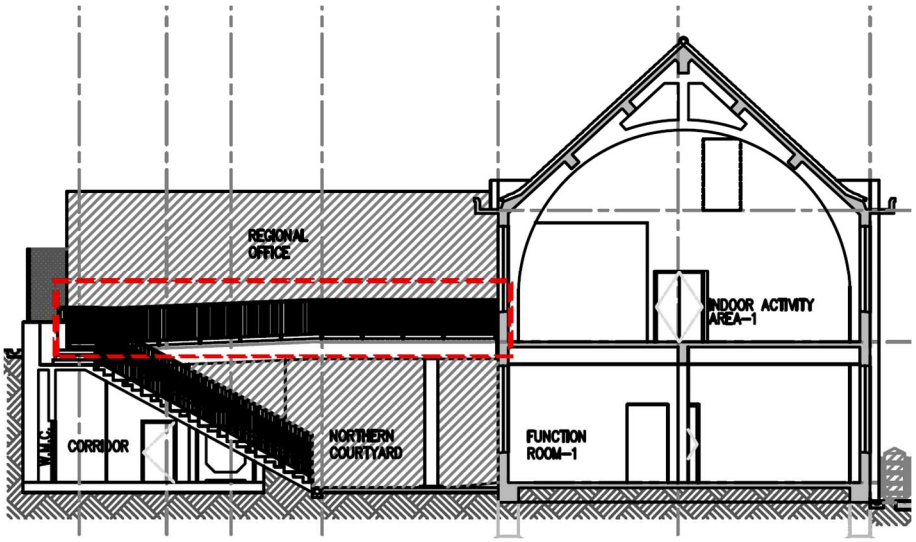


Figure 2.2 Section of the New Link Bridge (red dashed line)

Figure 2.3 Existing Condition of the North Garden

Figure 2.4 Artistic Impression of the New Link Bridge at the North Garden

2.2.2 New Underground Structure

Description: Excavate existing slope in the North Garden and basketball court for construction of new underground structure to host plantrooms and building services equipment which may require partial removal of the existing west fence wall in the North Garden.
Proposed Location: See **Figure 2.5** and **Appendix A**
Proposed Design: See **Figure 2.5** to **Figure 2.7**
Affected CDEs/Elements: S-02 (Site setting), S-02 (Slope feature), S-04 (Well structure), S-04 (Water pump and other equipment), S-06, S-07 (Fence wall in North Garden) and S-08 (refer to **Appendix B**)
Level of Significance of the Affected CDEs/Elements: Neutral to Exceptional (refer to Section 8.4.4 of **Appendix C**)
Impact: Acceptable with mitigation measures (refer to Section 8.4.4 of **Appendix C**)

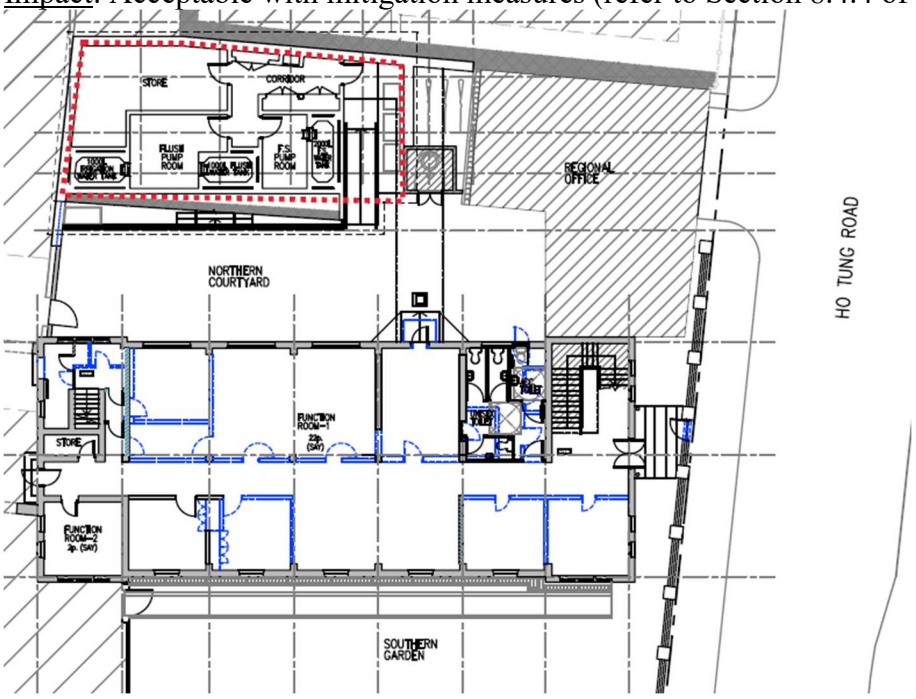


Figure 2.5 Location of the New Underground Structure (red dashed line)

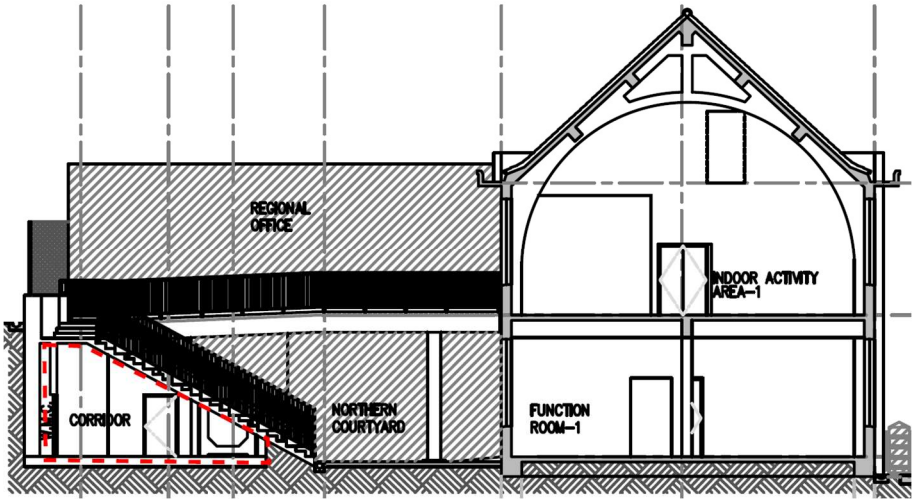


Figure 2.6 Section of the New Underground Structure (red dashed line)

Figure 2.7 The Affected Extent of Existing Fence Wall (red dashed line)

2.2.3 Landscape Improvements

Description: Landscape improvement works to the North and South Gardens.
Proposed Location: See **Figure 2.8** and **Appendix A**
Proposed Design: See **Figure 2.8**, **Figure 2.10** to **Figure 2.12**
Affected CDEs/Elements: S-02 (Site setting), S-02 (Slope feature), S-05, S-06, E-05 and E-07 (refer to **Appendix B**)
Level of Significance of the Affected CDEs/Elements: Low to Exceptional (refer to Section 8.4.5 of **Appendix C**)
Impact: Acceptable with mitigation measures (refer to Section 8.4.5 of **Appendix C**)

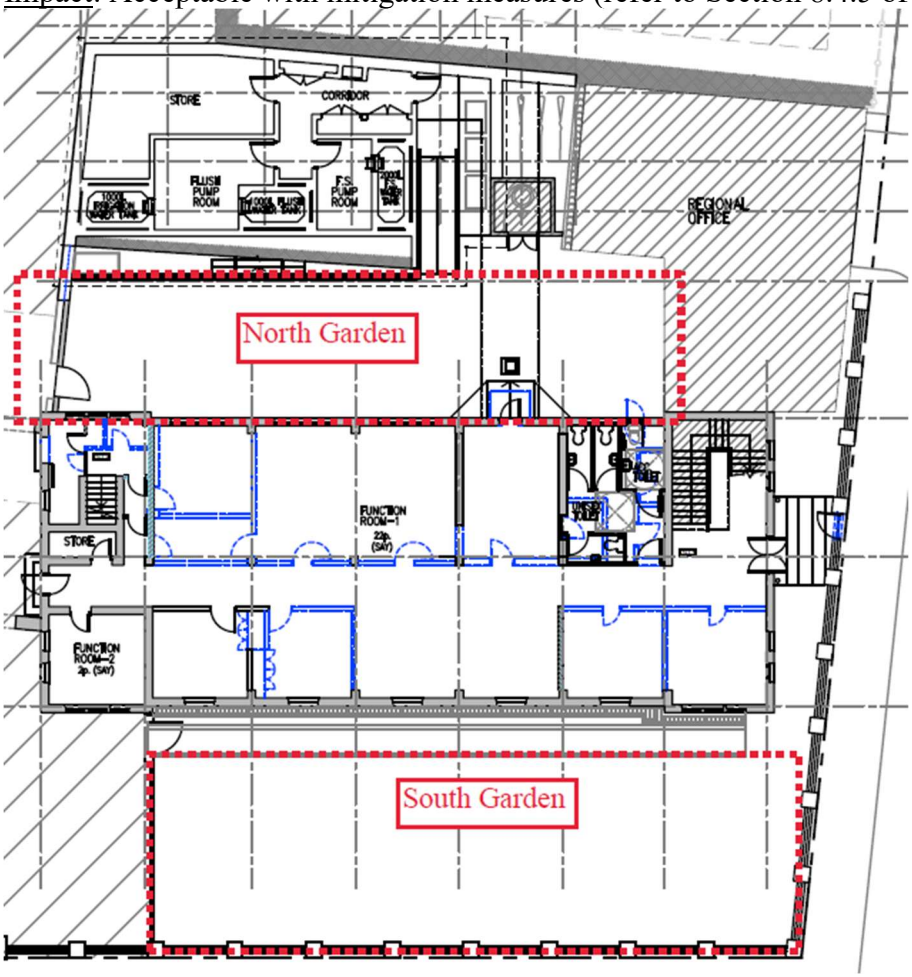


Figure 2.8 Location of the North and South Gardens (red dashed lines)

Figure 2.9 Existing Condition of the North Garden

Figure 2.10 Artistic Impression of the Proposed North Garden

Figure 2.11 Existing Condition of the South Garden

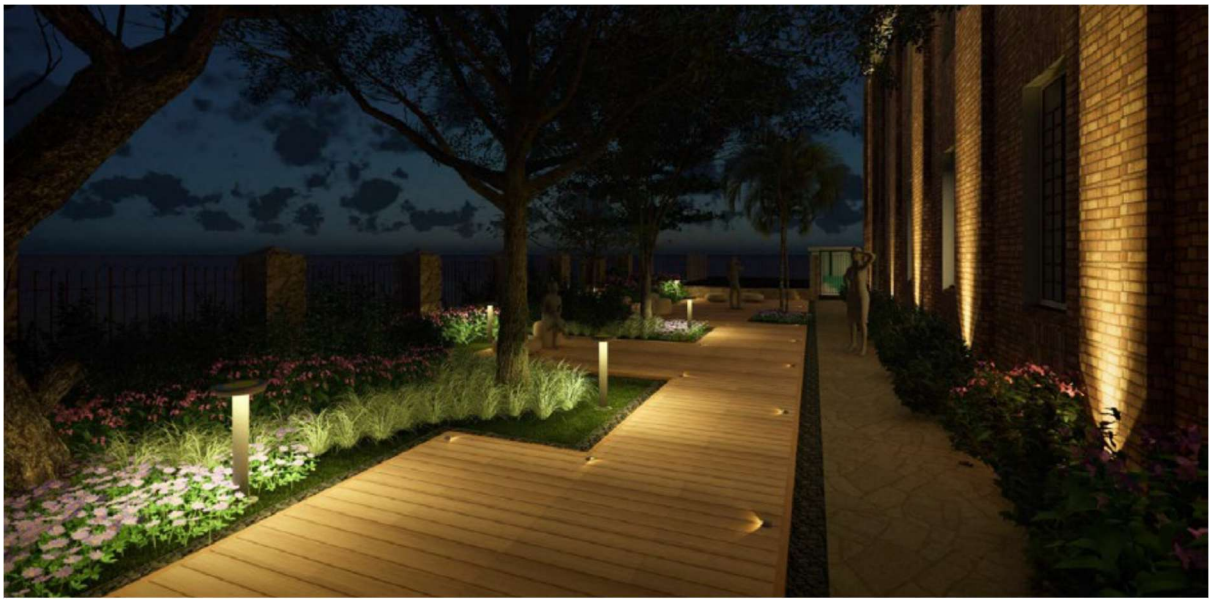


Figure 2.12 Artistic Impression of the Proposed South Garden

2.2.4 Modification Works at G/F of North Elevation

Description: Enlarge the existing door opening on G/F of North elevation; remove later added canopy structure with asbestos contaminated roof; and install a new ramp outside the north entrance to fulfil means of escape (MoE) requirement and provide barrier-free access (BFA).
Proposed Location: See **Figure 2.13** and **Appendix A**
Proposed Design: See **Figure 2.14** and **Figure 2.15**
Affected CDEs/Elements: E-07, E-10, E-17 (North entrance), E-17 (Granite steps), E-18, E-20 and I-01 (refer to **Appendix B**)
Level of Significance of the Affected CDEs/Elements: Neutral to Exceptional (refer to Section 8.4.6 of **Appendix C**)
Impact: Acceptable with mitigation measures (refer to Section 8.4.6 of **Appendix C**)

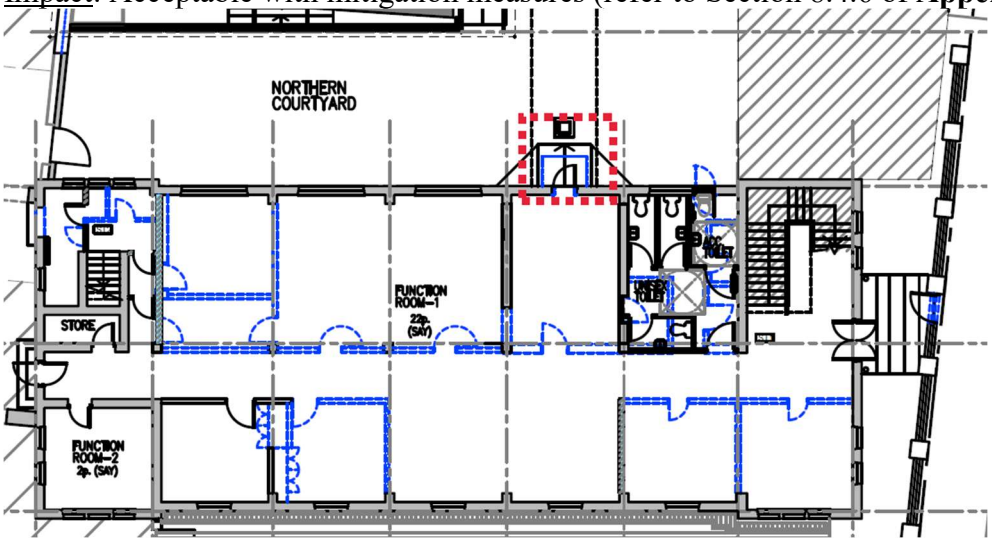


Figure 2.13 Location of Proposed Modification Works (red dashed line)

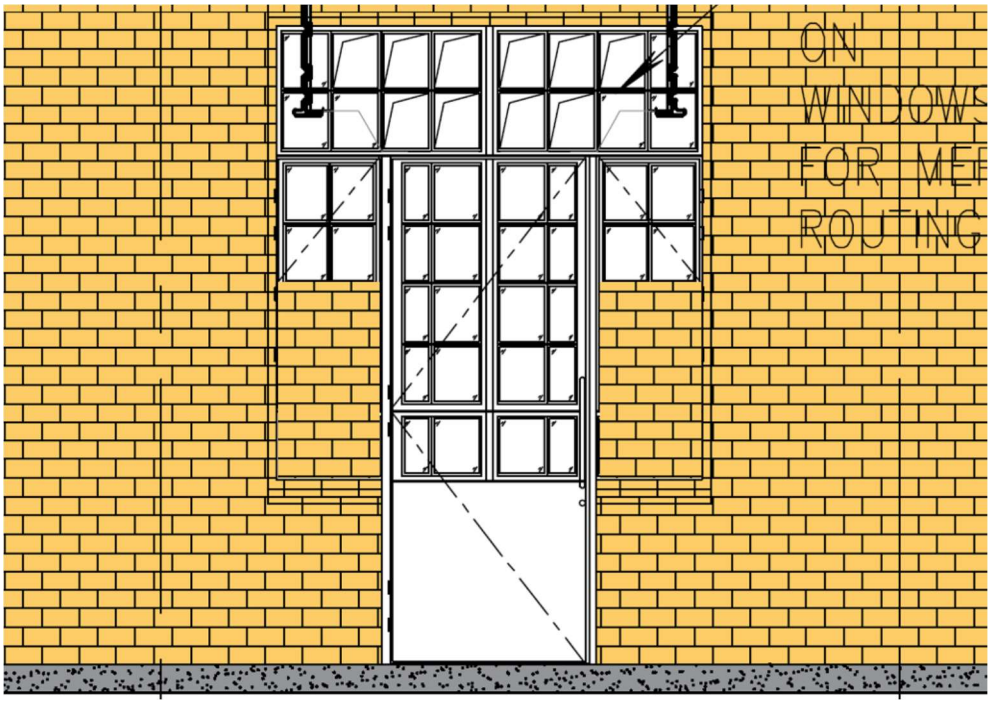


Figure 2.14 Proposed New Door Design

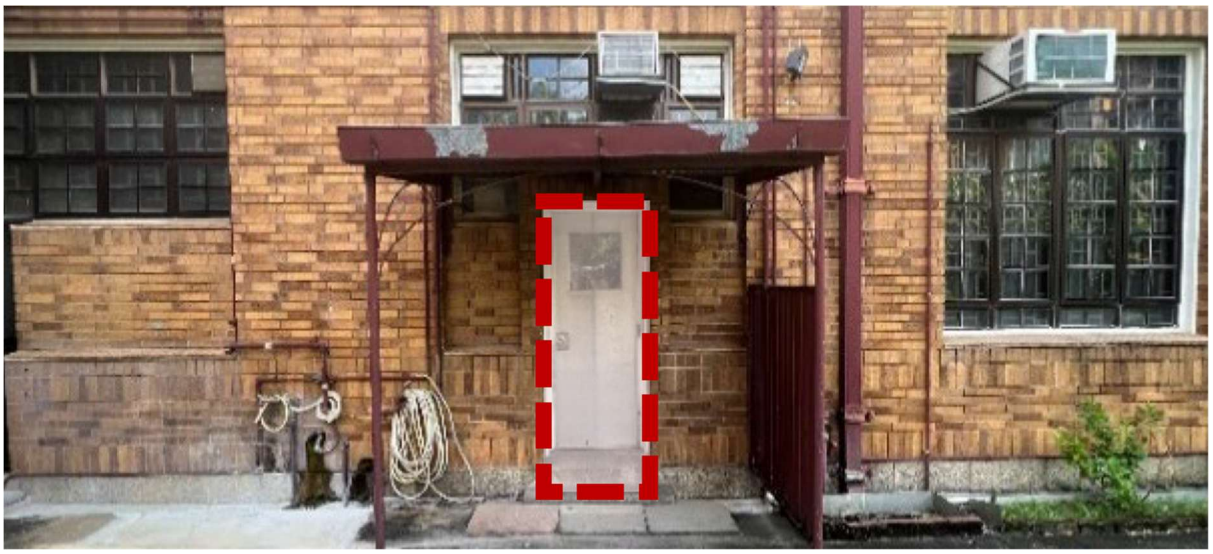


Figure 2.15 Extent of Proposed Widened Door Opening (red dashed line)

2.2.5 New Door Opening to Proposed Link Bridge

Description: Removal of brick spandrel below existing 1/F window to form a new door opening for means of escape (MoE) and barrier-free access (BFA) to the proposed link bridge.
Proposed Location: See **Figure 2.16** and **Appendix A**
Proposed Design: See **Figure 2.17** and **Figure 2.18**
Affected CDEs/Elements: E-07, E-08, E-10, E-20, I-02 and I-13 (refer to **Appendix B**)
Level of Significance of the Affected CDEs/Elements: Neutral to Exceptional (refer to Section 8.4.7 of **Appendix C**)
Impact: Acceptable with mitigation measures (refer to Section 8.4.7 of **Appendix C**)

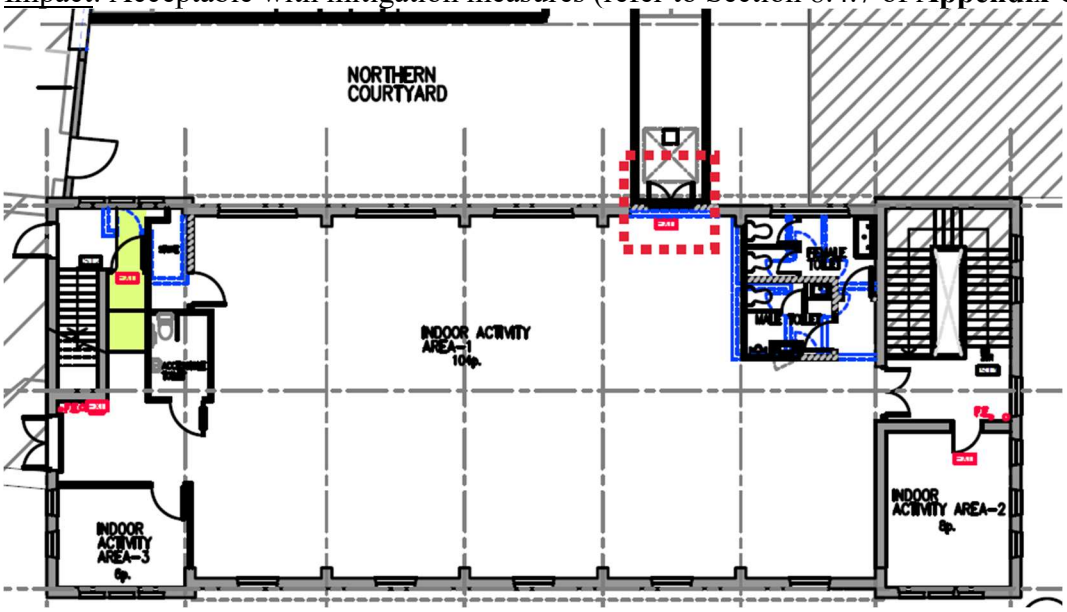


Figure 2.16 Location of Proposed New Door Opening at 1/F (red dashed line)

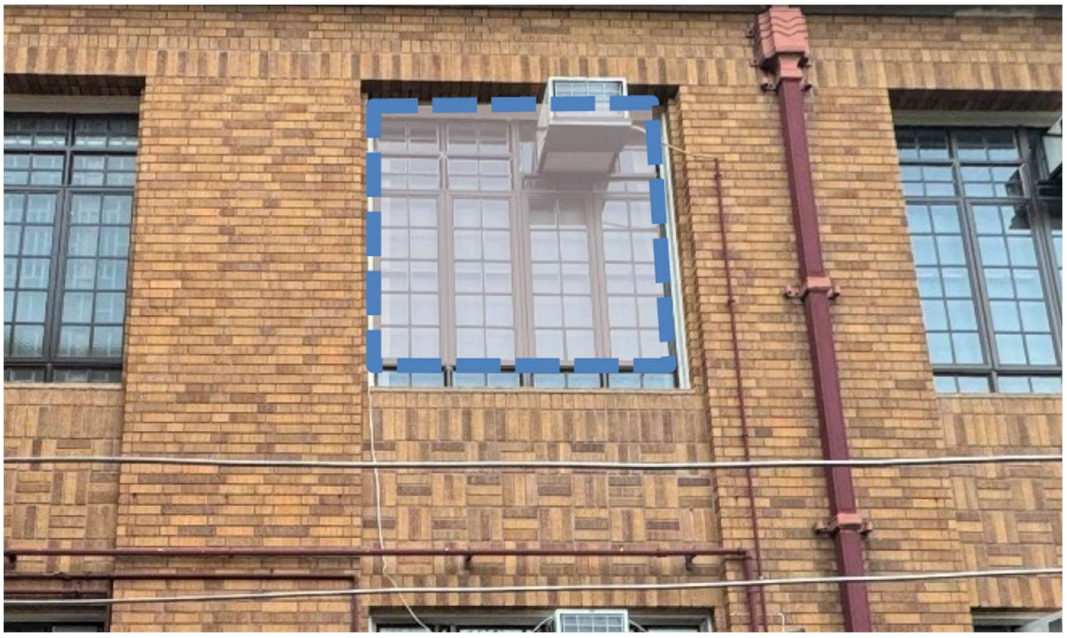


Figure 2.17 Existing Condition of the Affected Window (blue dashed line)

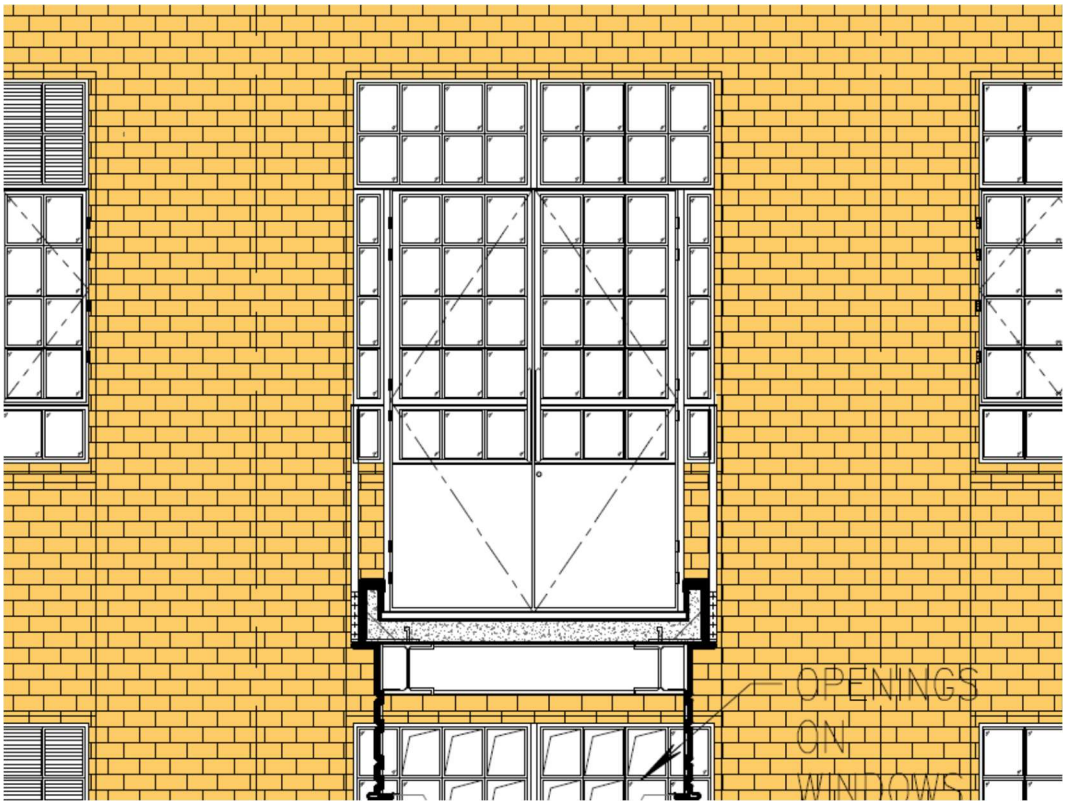


Figure 2.18 Proposed Design of the New Door

2.2.6 New Entrance from Ho Tung Road

Description: Formation of new entrance from Ho Tung Road by modifying existing fence wall and installing a new timber deck and a new gate.
Proposed Location: See **Figure 2.19** and **Appendix A**
Proposed Design: See **Figure 2.20** and **Figure 2.21**
Affected CDEs/Elements: S-03, E-04, E-13, E-14, I-01 and I-16 (refer to **Appendix B**)
Level of Significance of the Affected CDEs/Elements: Neutral to Exceptional (refer to Section 8.4.8 of **Appendix C**)
Impact: Acceptable with mitigation measures (refer to Section 8.4.8 of **Appendix C**)

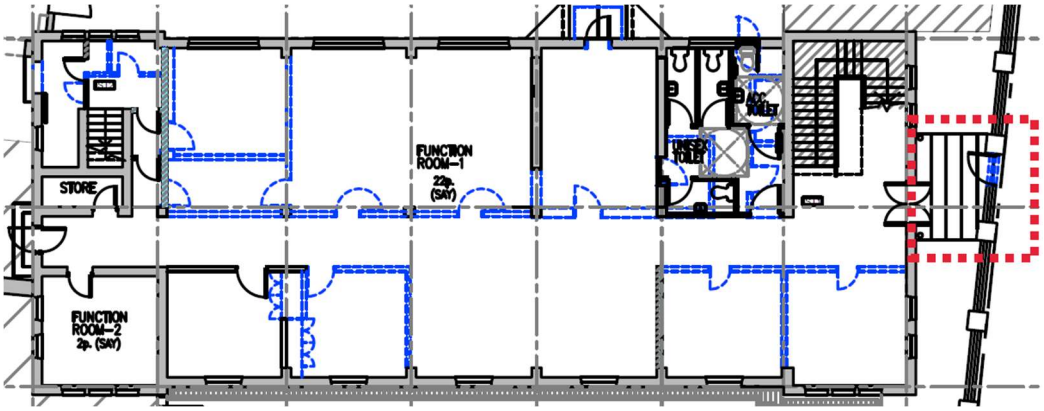


Figure 2.19 Location of the Fence Wall Affected (red dashed line)

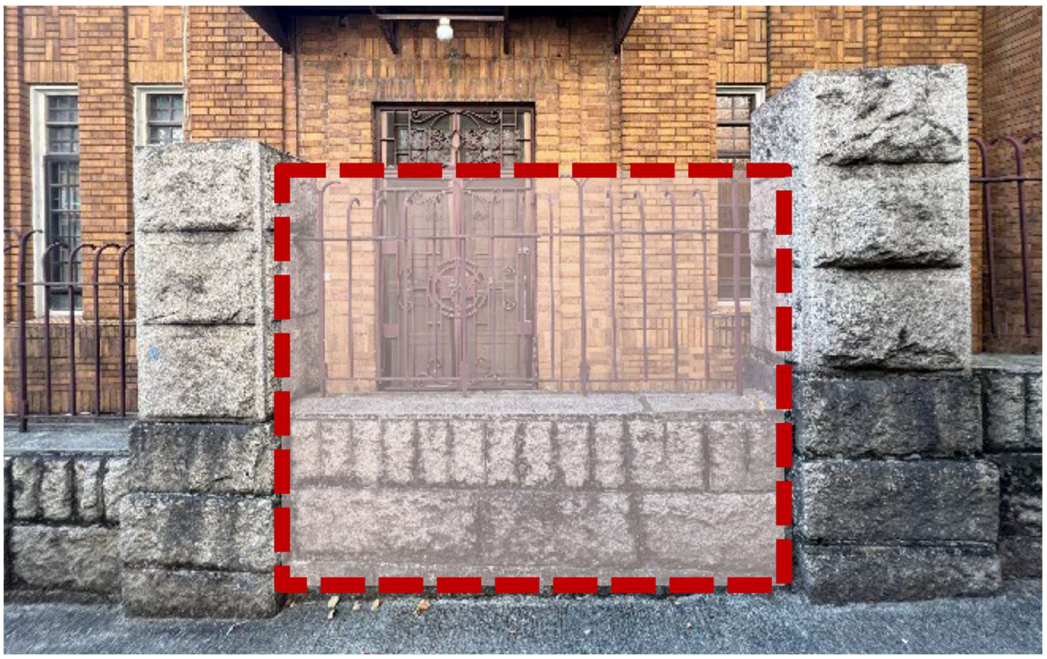


Figure 2.20 Extent of Fence Wall Affected (red dashed line)

Figure 2.21 Artistic Impression of the Proposed New Entrance

2.2.7 Modification of Existing Chain Link Fences

Description: Partial removal of existing chain link fence (in red dashed line) along Ho Tung Road for the formation of a secondary entrance with new metal gates as means of escape (MoE) exit and make good the affected area and salvage of the affected granite in the fence wall. Replacement of existing chain link fence (in orange dashed line) between the basketball court and North Garden with new chain link fence and new metal gates for means of escape (MoE) route and make good the affected area.

Proposed Location: See **Figure 2.22** and **Appendix A**
Proposed Design: See **Figure 2.23** and **Figure 2.24**
Affected CDEs/Elements: S-03 and S-08 (refer to **Appendix B)**
Level of Significance of the Affected CDEs/Elements: Neutral to Exceptional (refer to Section 8.4.9 of **Appendix C**)
Impact: Acceptable with mitigation measures (refer to Section 8.4.9 of **Appendix C**)

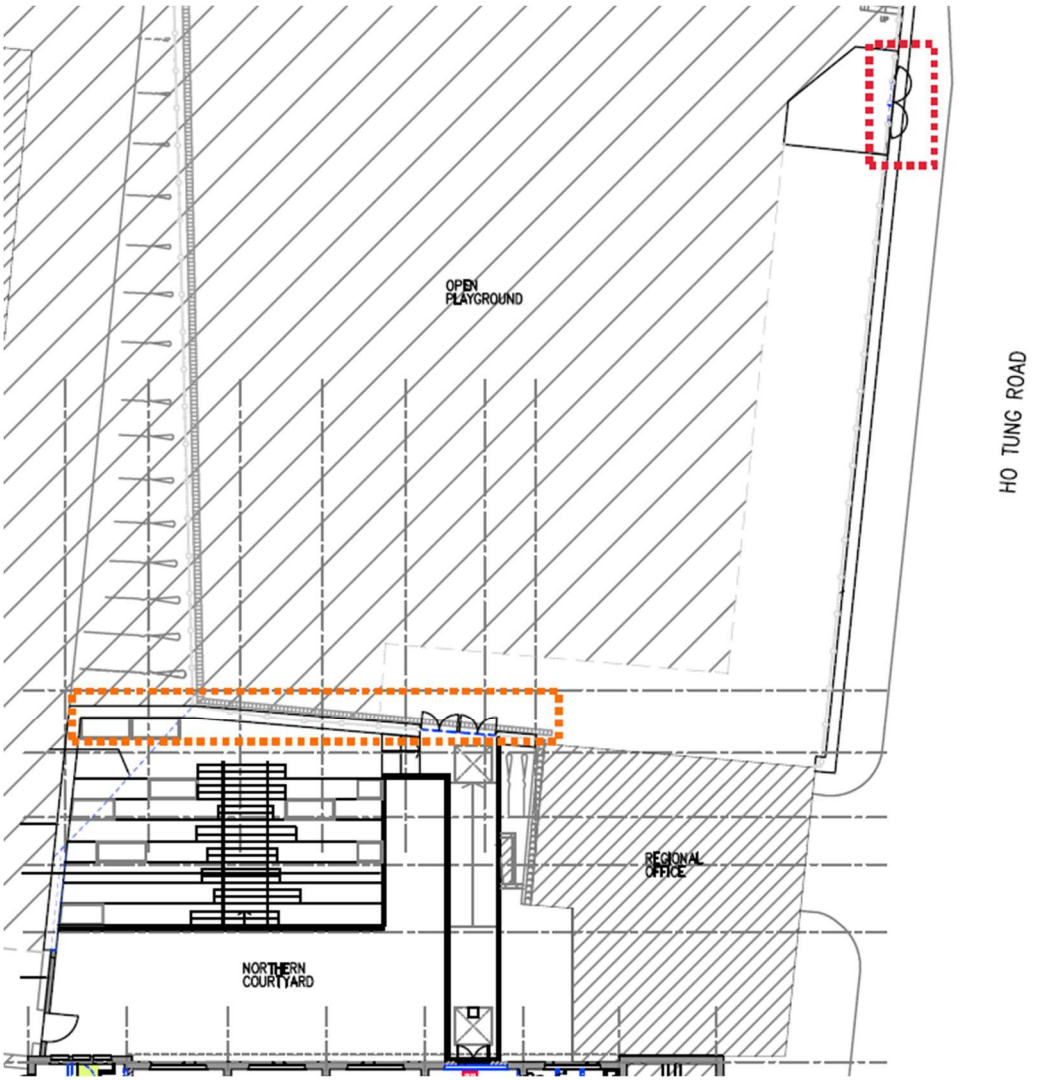


Figure 2.22 Location of Existing Chain Link Fences Affected (in orange dashed line and red dashed line)

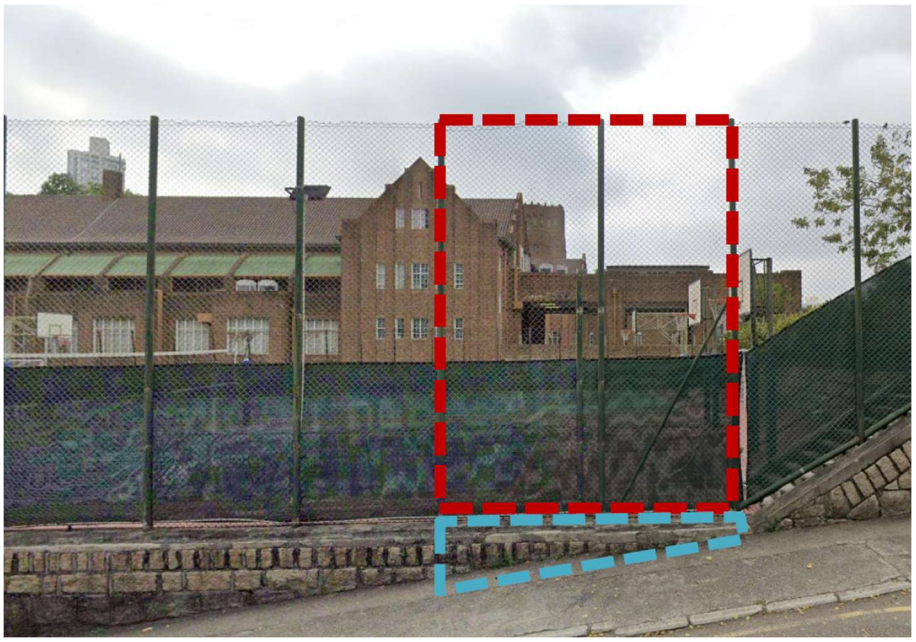


Figure 2.23 Extent of Chain Link Fence (red dashed line) and Granite (blue dashed line) Affected along Ho Tung Road

Figure 2.24 Extent of Chain Link Fence Affected between the basketball court and North Garden to be Replaced (orange dashed line)

2.2.8 Interior Repartitioning and Refurbishment Works

Description: Repartition and refurbishing G/F and 1/F with partial removal and modification of non-structural wall, and construction of new walls.

Proposed Location: See **Figure 2.25, Figure 2.26** and **Appendix A**

Proposed Design: See **Figure 2.25** to **Figure 2.28**

Affected CDEs/Elements: E-17, I-01 to I-05, I-08 to I-13, I-16, I-17, I-19, I-20, I-24 and I-25 (refer to **Appendix B**)

Level of Significance of the Affected CDEs/Elements: Neutral to Exceptional (refer to Section 8.4.13 to 8.4.18 of **Appendix C**)

Impact: Beneficial/ Acceptable with mitigation measures (refer to Section 8.4.13 to 8.4.18 of **Appendix C**)

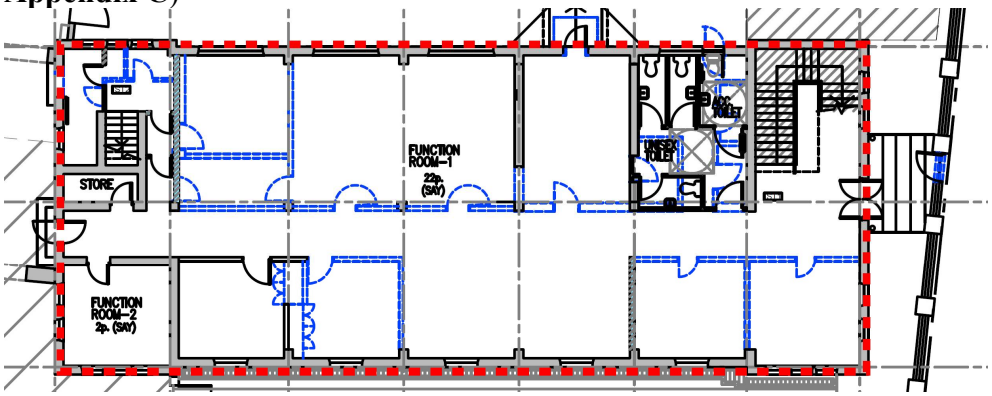


Figure 2.25 Location of Proposed Repartition and refurbishing Works at G/F (red dashed line)

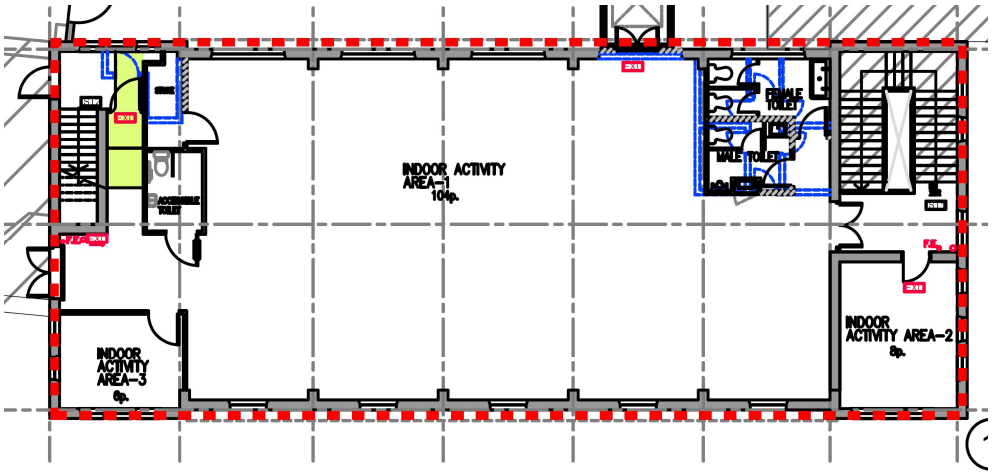


Figure 2.26 Location of Proposed Repartition and refurbishing Works at 1/F (red dashed line)

Figure 2.27 Artistic Impression of Proposed G/F Space

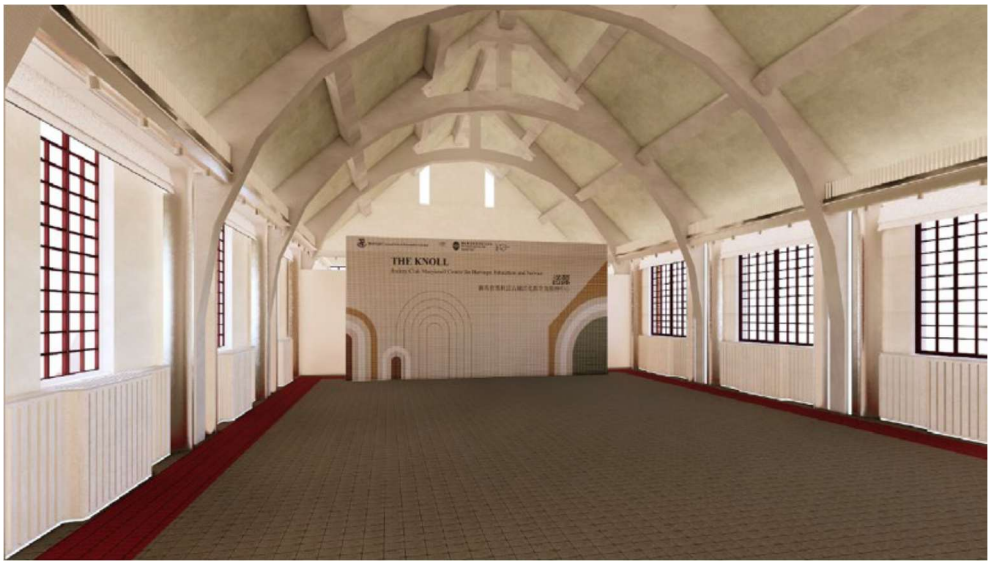


Figure 2.28 Artistic Impression of Proposed 1/F Space

2.3 METHOD OF CONSTRUCTION

As the proposed works involve a Declared Monument, special care will be taken in all phases of the works period. Specially designed temporary works, e.g., scaffolding, will be adopted to avoid damages to the existing building fabrics. The proposed works will be carefully planned to minimise any adverse impact on the Declared Monument. General environmental mitigation measures according to Construction Site Environmental Manual for Public Works issued by The Hong Kong Construction Association, shall be implemented based on the conservation principles as far as possible to minimise the adverse impact towards the surrounding environment during construction which is shown in Section 5 of this project profile.

2.4 IMPLEMENTATION PROGRAMME

The tentative implementation programme is shown in **Table 2.2**. The Project is expected to commence construction in Q4 2025 and finish by Q4 2027.

Table 2.2: Summary of Tentative Implementation Programme

Project Phase	Schedule / Tentative Schedule
Appointment of consultant	Q2 2023 to Q2 2024
Detailed Design	Q2 2024 to Q4 2024
Tender preparations and tendering	Q4 2024 to Q1 2025
Award of tender	Q2 2025 to Q2 2025
Construction Works Period	Q4 2025 to Q2 2027
Commissioning Period	Q1 2027 to Q2 2027
Operation Period	Starting from Q3-Q4 2027

3 MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

3.1 MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

The Project Site is located at well-developed urban area and surrounded by buildings and busy traffic roads (e.g., Boundary Street, Waterloo Road, Waterloo Road Flyover). The project is about 85 metres from the main traffic road, Waterloo Road and Waterloo Road Flyover. To the south is Boundary Street, and to the east is Ho Tung Road. It is a busy traffic site with a high volume of vehicles.

Situated at the southeast corner of Maryknoll Convent School, the project has the teaching blocks of the primary section of the Maryknoll Convent School to the west, the basketball court to the north, and faces residential buildings including 2-8 Ho Tung Road and Overseas Court across the street to the east and south, respectively.

3.2 SENSITIVE RECEIVERS

Air Quality

The study area for air quality assessment covered an area of 500m distance from the Project Site boundary as indicated in **Figure 3.1**. The representative Air Sensitive Receivers (ASRs) identified with the study area are listed in **Table 3.1** and presented in **Figure 3.2**.

Table 3.1: Representative Air Sensitive Receivers

ASR ID	Description	Uses	Existing / Planned	Shortest Distance from Site Boundary (m)	Assessment Height (mAG)
ASR1	Maryknoll Convent School (Secondary Section)	Education	Existing	3.5	1.5 – 15.25
ASR2	Maryknoll Convent School (Primary Section Old Wing)	Education	Existing	5	1.5 – 12.5
ASR3	Maryknoll Convent School (Primary Section New Wing)	Education	Existing	21.3	1.5 – 16.25
ASR4	2-8 Ho Tung Road	Residential	Existing	13.5	1.5 – 26.25
ASR5	Overseas Court	Residential	Existing	18.5	1.5 – 9.75
ASR6	Sunpeace Court	Residential	Existing	29.5	1.5 – 34.5

Note:
(i) Assuming height of each floor is 2.75m.
(ii) Building information is referenced from Open3Dhk offered by Lands Department.

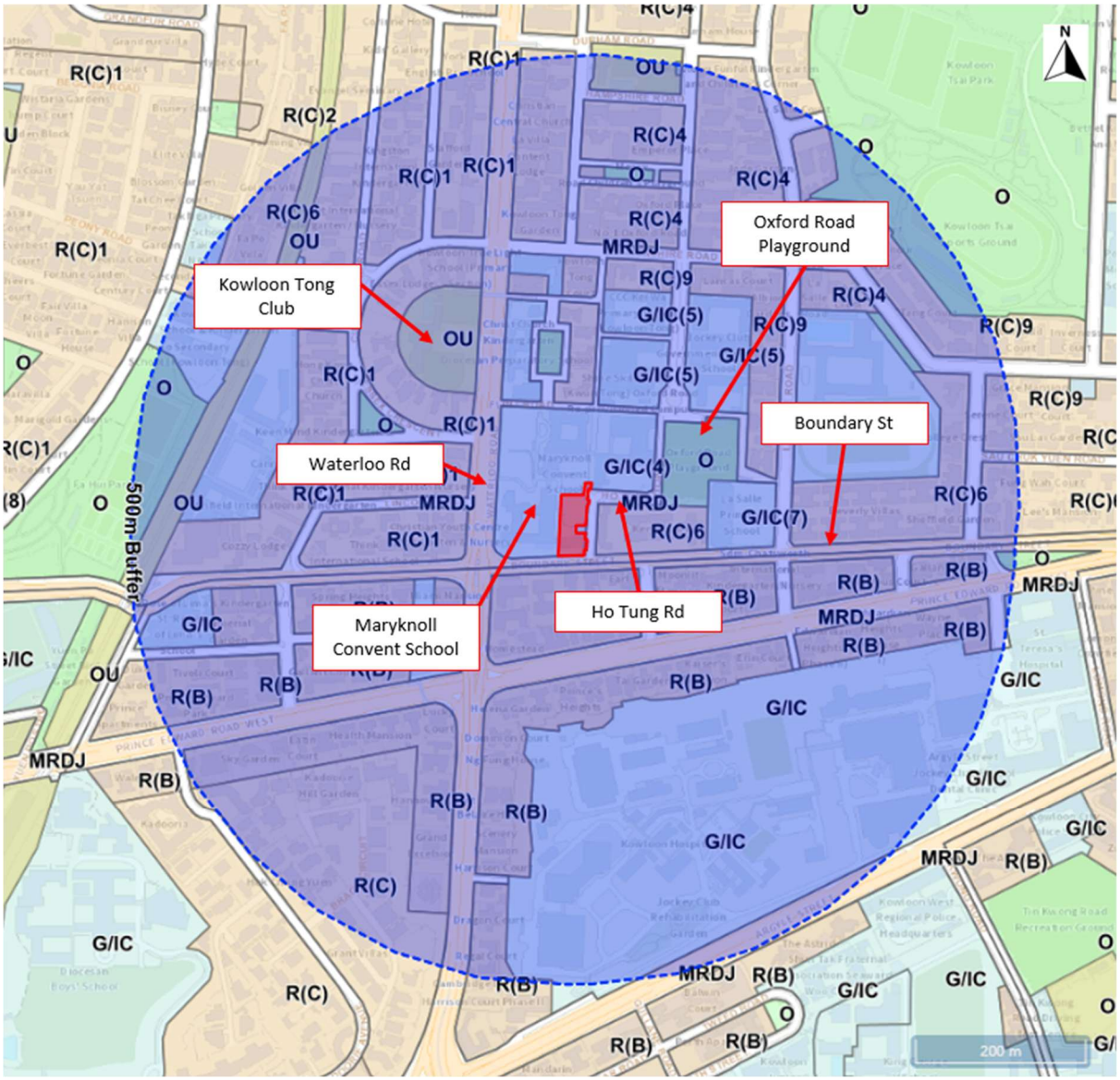


Figure 3.1 500m Air Quality Impact Assessment Area

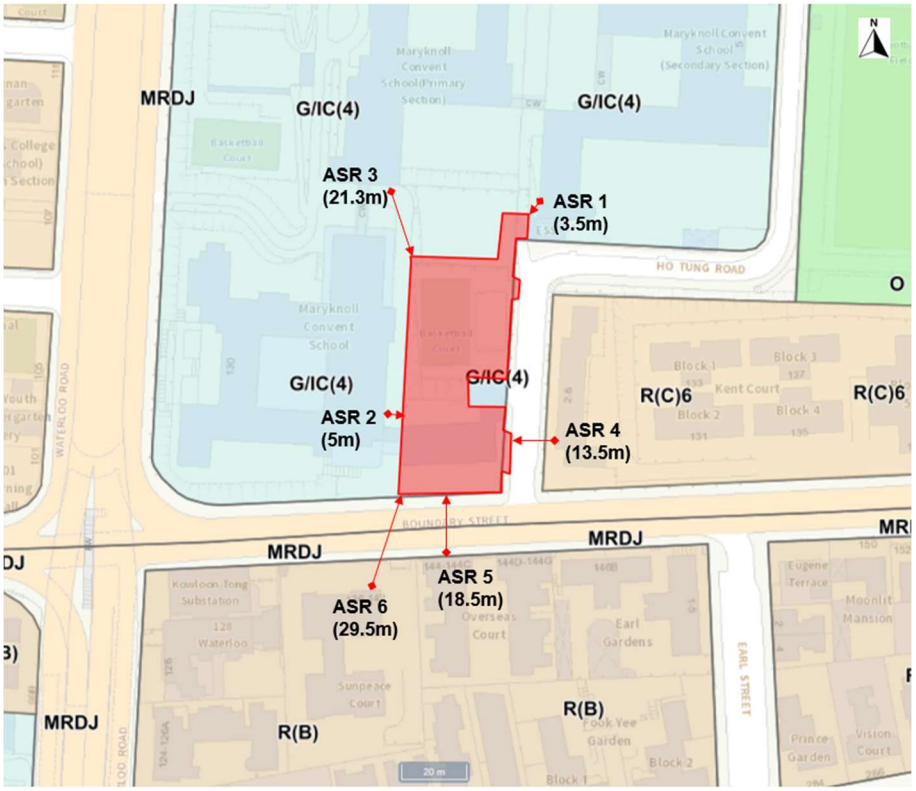


Figure 3.2 Location of Air Sensitive Receivers (ASR)

Noise

The study area for noise quality assessment covered an area of 300m distance from the Project Site boundary as indicated in **Figure 3.3**. The representative Noise Sensitive Receivers (NSRs) identified with the study area are listed in **Table 3.2** and presented in **Figure 3.4.**

Table 3.2: Representative Noise Sensitive Receivers

NSR ID	Description	Uses	Existing / Planned	Distance from Site Boundary (m)
NSR1	Maryknoll Convent School (Secondary Section)	Education	Existing	3.5
NSR2	Maryknoll Convent School (Primary Section Old Wing)	Education	Existing	5
NSR3	Maryknoll Convent School (Primary Section New Wing)	Education	Existing	21.3
NSR4	2-8 Ho Tung Road	Residential	Existing	13.5
NSR5	Overseas Court	Residential	Existing	18.5
NSR6	Sunpeace Court	Residential	Existing	29.5

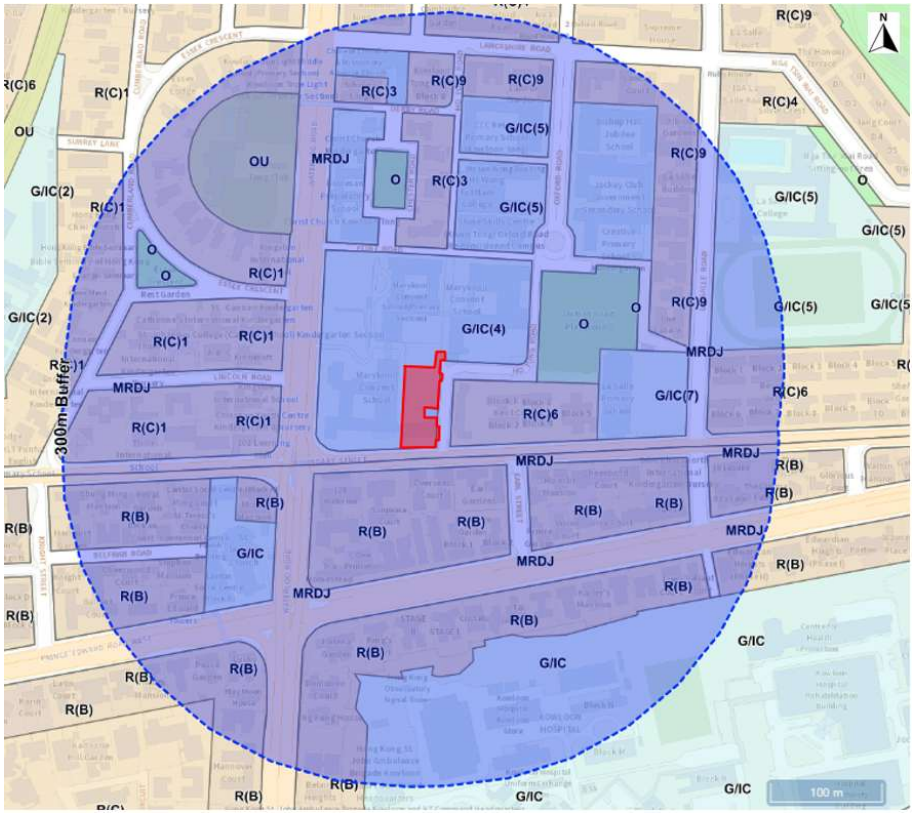


Figure 3.3 300m Noise Impact Assessment Area

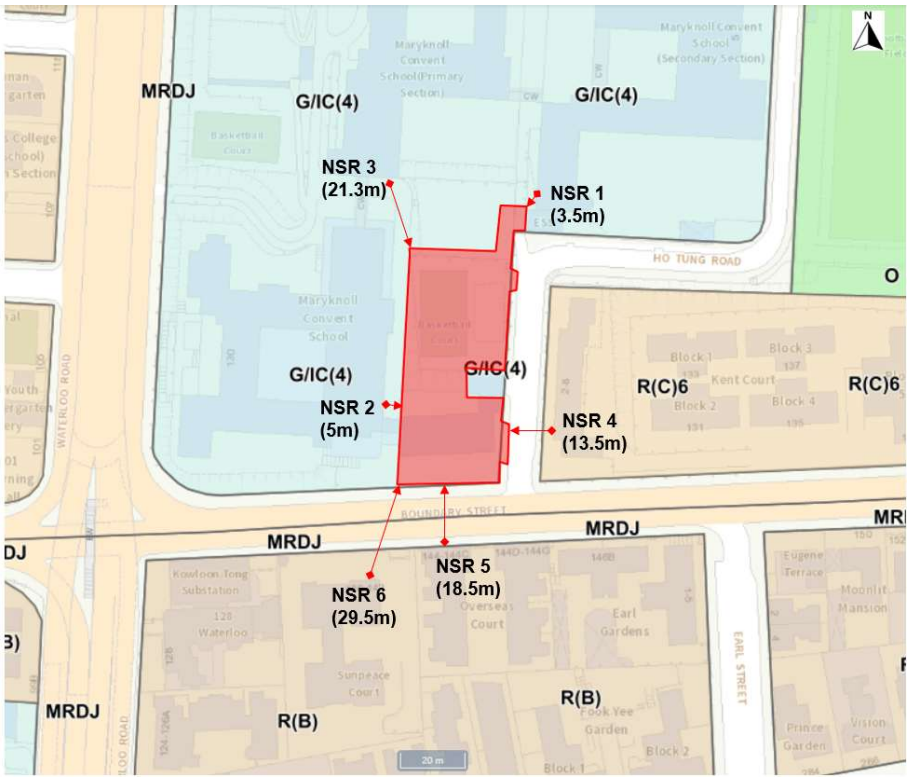


Figure 3.4 Location of Noise Sensitive Receivers (NSR)

Cultural Heritage

The Project is located within the boundary of MCS which is a Declared Monument as shown in **Figure 3.5**. The study area is defined by a distance of 150m from the boundary of the Project Site as shown in **Figure 3.5** (green dashed line). Within the study area, no other declared monuments (apart from the rest of the Maryknoll Convent School Compound), or graded building / structure featured on the AAB Assessment Register are identified. The nearest graded buildings, St. Teresa's Church (Grade 1) and S.K.H. Christ Church (Grade 3), are both over 150m away from the Project site boundary.

According to the available information from AMO, no Sites of Archaeological Interest within the study area are identified. The nearest Site of Archaeological Interest, the Kowloon Walled City Site (including the Declared Monument Remnants of the South Gate of Kowloon Walled City), is over 1km away from the Project site boundary. As such, archaeological mitigation measures are considered not required for the Project. As a precaution measure, the applicant is required to inform AMO immediately when any antiquities or supposed antiquities under the Antiquities and Monuments Ordinance (Cap. 53) are discovered during the course of works.

It is essential to recognize that the Project has the potential to generate both direct and indirect impacts on the Declared Monument, necessitating a thorough assessment of its implications.

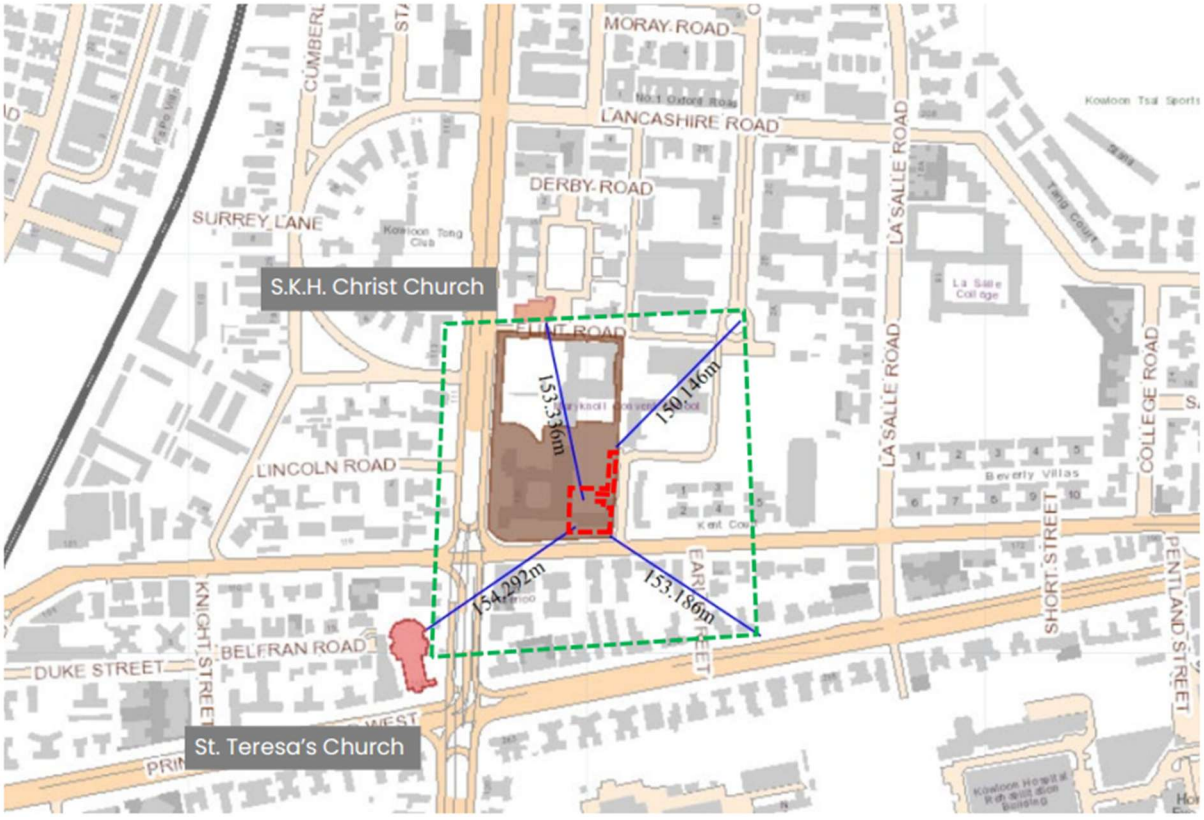


Figure 3.5 Project site area (red dashed line), study area with 150m distance from the project site (green dashed line), Declared Monument Boundary (hatched brown with cyan outline).

Landscape and Visual

Landscape and visual impact assessment requirements of the EIAO-TM and Guidance Note (GN) No. 8/2023 are followed in this Project.

The Project Site is located at well-developed urban area and surrounded by buildings and busy traffic roads. No Old and Valuable Tree (OVT), potential OVTs or Tree of Particular Interest (TPI) is identified within the study area.

As present in **Figure 3.6**, major visual resources (VRs), including Maryknoll Convent School and Vegetation along Ho Tung Road and Boundary Street are identified. Photos of the identified VRs are shown in **Figure 3.7**.

The key public viewing points which will be potentially affected by the Project are presented in **Table 3.3** below.

Table 3.3: Key Public Viewing Points

ID	Description	Type of Public Viewers	Duration of View (Short/ Medium/ Long)
Key Public Viewing Points (VPs) (Figure 3.6& Figure 3.8 refer)			
VP1	Ho Tung Road	Travellers	Short
VP2	Boundary Street	Travellers	Short

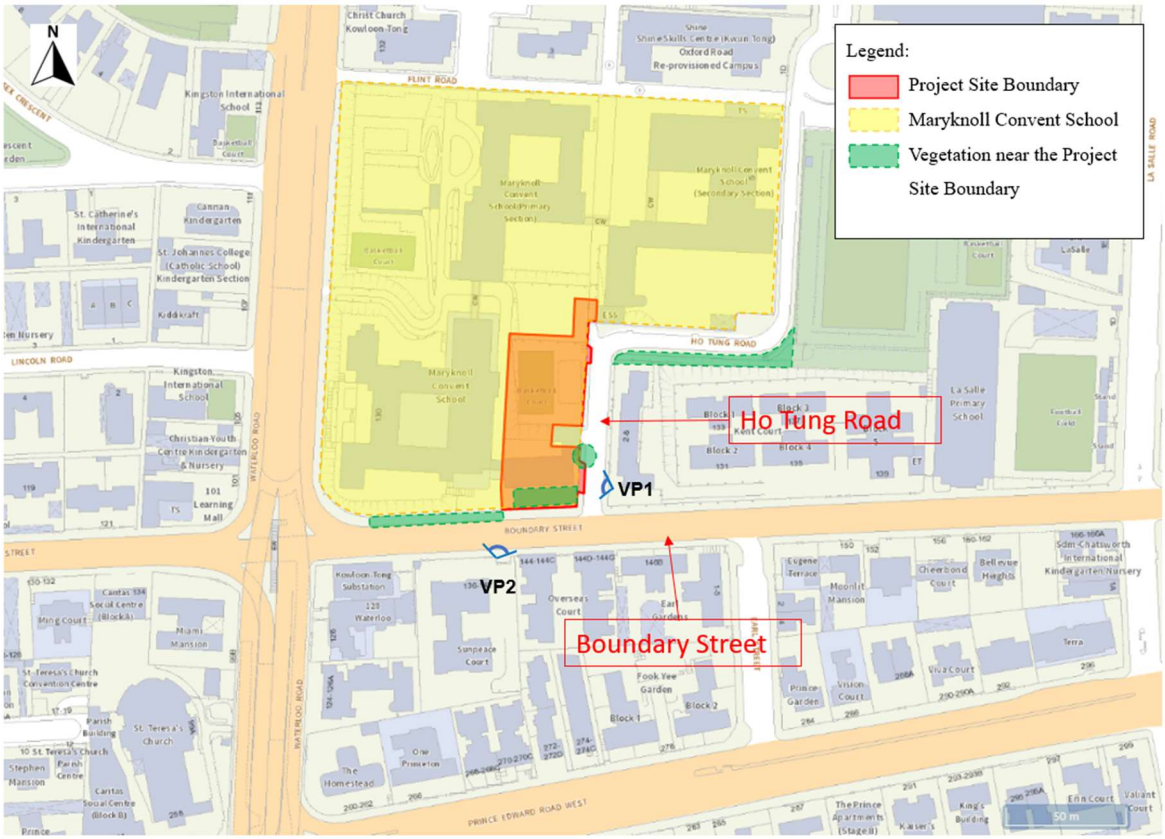


Figure 3.6 Major Visual Resources (VRs) and Public Viewing Points (VPs)

Maryknoll Convent School

Vegetation along Boundary Street

Vegetation along Ho Tung Road

Vegetation along Ho Tung Road

Figure 3.7 Photos of the Identified Visual Resources (VRs)

Figure 3.8 Representative Photos of the Public Viewing Points (VPs)

3.3 INTERFACING WITH OTHER PROJECTS

Based on the tentative construction programme of the Project, no existing, committed or planned concurrent project would be carried out in the vicinity.

4 POSSIBLE IMPACT ON THE ENVIRONMENT

4.1 CULTURAL HERITAGE

Construction Phase
In this Project, special care and attention will be paid for maintaining the heritage values of the Convent Building; therefore, all building works are to be carried out in a careful and skilled manner by a specialized contractor, which will be subject to a high level supervision by the project proponent and heritage consultant to ensure that the works are of the highest standard and the materials are exactly as required. No unacceptable impact or Undetermined impact to the built heritage within the Study Area (**Figure 3.5**) were identified.

While physical impact is expected during the works, precautions will be taken by the contractor to ensure the preservation of the Convent Building. The demolition of later interventions will be executed with special care, using hand-held tools and equipment to minimize physical vibrations.

Research has been carried out to identify any historic buildings or structures of cultural significance within 150m from the site boundary of the project site and it is noted that, within the 150m radius of the Project site, there is no other declared monuments or graded buildings/ structure featured on the current AAB Assessment Register. The nearest graded buildings, St. Teresa's Church (Grade 1) and S.K.H. Christ Church (Grade 3), are both over 150m away from the Project site boundary.

The level of impacts 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:

Table 4.1: Definition of impact Level

Level of Impact	**Definition**
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 insignificant 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

The detailed impact assessment and mitigation measures is given in **Appendix C** and summarized in **Table 4.2** below**.**

Table 4.2: Summary of Affected CDEs/ Elements and Overall Impact Level

Ref No.	Proposed Works	Affected CDEs/ Elements [(i)]	Overall Impact Level
Major Construction Works (Exterior)			
S.2.2.1 & Appendix C 8.4.3	Construct a new link bridge with 1 no. of metal post in the North Garden to provide barrier-free access (BFA) and means of escape (MoE) routing to 1/F of Maryknoll Convent Building.	S-02, S-04 to S-06, E-07, E-08, E-10 and E-20	Acceptable with mitigation measures
S.2.2.2 & Appendix C 8.4.4	Excavate existing slope in the North Garden and basketball court for construction of new underground structure to host plantrooms and building services equipment which may require partial removal of the existing west fence wall in the North Garden.	S-02, S-04 and S-06 to S-08	Acceptable with mitigation measures
S.2.2.3 & Appendix C 8.4.5	Landscape improvement works to the North and South Gardens.	S-02, S-05, S-06, E-05 and E-07	Acceptable with mitigation measures
S.2.2.4 & Appendix C 8.4.6	Enlarge the existing door opening on G/F of North elevation; remove later added canopy structure with asbestos contaminated roof; and install a new ramp outside the north entrance to fulfil means of escape (MoE) requirement and provide barrier-free access (BFA).	E-07, E-10, E-17, E-18, E-20 and I-01	Acceptable with mitigation measures
S.2.2.5 & Appendix C 8.4.7	Removal of brick spandrel below existing 1/F window to form a new door opening for means of escape (MoE) and barrier-free access (BFA) to the proposed link bridge.	E-07, E-08, E-10, E-20, I-02 and I-13	Acceptable with mitigation measures
S.2.2.6 & Appendix C 8.4.8	Formation of new entrance from Ho Tung Road by modifying existing fence wall and installing a new timber deck and a new gate.	S-03, E-04, E-13, E-14, I-01 and I-16	Acceptable with mitigation measures
S.2.2.7 & Appendix C	Partial removal of existing chain link fence along Ho Tung Road for the formation of a secondary entrance	S-03 and S-08	Acceptable with mitigation measures

8.4.9	with new metal gates as means of escape (MoE) exit and make good the affected area and salvage of the affected granite in the fence wall. Replacement of existing chain link fence between the basketball court and North Garden with new chain link fence and new metal gates for means of escape (MoE) route and make good the affected area.		
Major Construction Works (Interior)			
S.2.2.8 & Appendix C 8.4.13	Re-partition G/F layout with reference to the original 1937 interior building layout by removal of the later added 1970s partition walls according to the 1930s record drawings, as well as physical evidence on site. Partial removal of later added mosaic wall and floor finishes within the Kitchen.	I-01, I-04, I-05, I-08 to I-13, I-16, I-17, I-19, I-20, I-24 and I-25	Acceptable with mitigation measures
S.2.2.8 & Appendix C 8.4.14	Take down existing non-structural brick wall on G/F and partially rebuild with thinner walls to permit construction of a new toilet with an additional accessible unit. Replace the existing aluminium door on G/F at North Elevation with new fixed steel panel as part of the new steel window system.	E-17, I-01, I-04, I-08, I-09, I-11 and I-12	Acceptable with mitigation measures
S.2.2.8 & Appendix C 8.4.15	Retention of a space on G/F and modification of the existing partition wall with glass panel for showcasing building's history as dormitory.	I-05, I-08 to I-10 and I-13	Beneficial
S.2.2.8 & Appendix C 8.4.16	Partial modification of the existing non-structural wall by installation of a new lintel to form a doorway. Removal of existing non-structural wall to fulfil means of escape (MoE) requirements.	I-01, I-04 (G/F only), I-09 to I-13 and I-24	Acceptable with mitigation measures
S.2.2.8 & Appendix C 8.4.17	Removal of remaining 1970 modern partitions on 1/F and construction of new accessible toilet, store and Indoor Activity Area - 3. Retain existing steps and	I-02, I-04 (1/F only), I-05, I-09, I-10, I-13 and I-19	Acceptable with mitigation measures

	modify the existing floor level by infilling with lightweight concrete in a reversible manner along new corridor adjacent to Western Staircase ST2.		
S.2.2.8 & Appendix C 8.4.18	Refurbishment of existing toilet on 1/F by taking down 1970s partitions and constructing of new walls and finishes with revised layout. Construct a new concrete slab or metal platform (with maintenance cat ladder) at the ceiling level of 1/F toilet for new false ceiling below and hosting building service and stage equipment above. Modifications of existing non-structural walls to facilitate the construction of proposed concrete slab or the installation of proposed metal platform.	I-02 to I-05 and I-19	Acceptable with mitigation measures
Repair and Maintenance Works			
Appendix C 8.4.1	Carry out repair and maintenance works to the building exterior	S-01 to S-05 and E-01 to E-19	Beneficial
Appendix C 8.4.2	Carry out improvement works to the existing gutters and abutment walls between pitched roof and gables.	E-01 to E-03	Acceptable
Appendix C 8.4.10	Replace existing modern aluminium windows with new steel windows. Remove existing aluminium insect screens and grilles.	E-04 to E-08, E-20 and E-21	Beneficial
Appendix C 8.4.11	Carry out repair and maintenance works to the building interior	I-03, I-04, I-06 to I-09, I-12, I-14, I-16 and I-21 to I-26	Beneficial
Appendix C 8.4.12	Carry out improvement and restoration works to the building interior.	I-04, I-06, I-08, I-10, I-13, I-14 (mosaic floor tiles) and I-26 (modified architrave)	Acceptable with mitigation measures
Appendix C 8.4.19	Upgrade existing Western Staircase ST2 for statutory compliance for its use as means of escape (MoE) stair.	I-01, I-02, I-15 to I-19 and I-22	Acceptable with mitigation measures
Appendix C 8.4.20	Upgrade and installation of building services including formation of new openings at walls with false ceiling and vertical screen.	All	Acceptable with mitigation measures

Appendix C 8.4.21	Formation of slab penetrations for building services routing to serve 1/F spaces with installation of new architectural features to conceal the building services. Floor standing A/C units with cabinet finished in acoustic panels will be installed on 1/F.	I-04, I-06, I-08, I-10 and I-13	Acceptable with mitigation measures
Appendix C 8.4.22	Provision of metal louvres at fanlights of new replacement steel windows for fresh air intake (south elevation) and exhaust (north elevation) with ductwork to be connected from the internal side and concealed by new false ceiling.	E-05, E-07, E-20 and I-04	Acceptable with mitigation measures
Appendix C 8.4.23	Installation of new external building signage facing Ho Tung Road.	S-03, S-06 and E-04	Acceptable with mitigation measures

Note:

(i) Please refer to **Appendix B** for detailed CDEs/ Elements description.

With regards to the other part of the Maryknoll Convent School that is within the Declared Monument boundary, the heritage impact is considered to be minor when assessed against the proposed works stated in Section 2.2 and **Appendix C**. However, the structural monitoring proposal to be implemented for this project shall also consider the inclusion of other adjacent buildings and structures that are in the close proximity of the construction and excavation area, including the Regional Office that is on the northeast of Convent Building. Details of the structural monitoring proposal shall follow the recommendations stated in Section 5.2 of this PP.

Operational Phase

During the operation phase, the activities carried out will primarily involve exhibition uses and other related purposes. It is expected that these activities will not have any detrimental effects on the cultural heritage present at the site.

4.2 NOISE

Construction Phase

During the construction phase, there may be noise impact created by the vehicles involved in the transportation of building material to the Project site and powered mechanical equipment and hand-held manual tools. The construction works are mainly divided into internal and external works as described below:

Internal Works

The nearest NSR is Maryknoll Convent School (Primary Section Old Wing) which is located about 11.3 meters to the notional source position[4]. The construction method must be carefully chosen to ensure the construction works have no adverse effect on the existing convent building and adjacent buildings. Construction noise may be generated from operation of powered mechanical equipment and hand-held manual tools, but such construction works will be mainly carried out inside the existing building.

External Works

During the construction phase, powered mechanical equipment (PME) (see **Appendix D**) will be used to carry out the construction works outside the Building as mentioned in **Table 4.2**. The use of such PME may have potential to cause noise nuisance to the nearby NSRs.

According to Annex 5 of the Technical Memorandum on Environmental Impact Assessment Ordinance (EIAO-TM), the criteria of daytime construction noise are summarized in **Table 4.3**.

[4] According to the "Technical Memorandum on Noise from Construction Work other than Percussive Piling".

Table 4.3: Noise Standard/ Criteria for Construction Noise

Uses	Noise Standards, $L_{eq\ (30\ mins)}$ dB(A)
• All domestic premises, • Temporary housing, accommodation, • Hostels, • Convalescent homes, and • Homes for the aged	75
• Place of public worship, • Courts of law, and • Hospitals and medical clinics	70
• Educational institutions (including kindergartens and nurseries)	70 65 (during examinations)

Construction noise assessment criterion of the nearest NSR, Maryknoll Convent School (Primary Section Old Wing), was proposed to be 70dB(A) during normal operation and 65dB(A) during examination. The unmitigated Predicted Noise Levels (PNLs) during construction are summarized in **Table 4.4**, and detailed noise impact assessment following the assessment procedures outlined in the relevant Technical Memoranda under the Noise Control Ordinance is provided in **Appendix D**. The results suggested that the construction noise impact on the Maryknoll Convent School (Primary Section Old Wing) would not comply with the relevant criterion without mitigation measures.

Table 4.4: Predicted Construction Noise Level (Unmitigated)

Nearest NSR	Unmitigated Predicted Construction Noise Level, dB(A)	Assessment Criterion, dB(A)
Maryknoll Convent School (Primary Section Old Wing)	69-93	70/65 (during examination)

To reduce the construction noise impact on NSR, noise barriers, grouping of PME and PME with lower sound power levels will be adopted. A detailed noise impact assessment is provided in **Appendix D** and the mitigated PNLs at the nearest NSR are summarized in **Table 4.5**.

Table 4.5: Predicted Construction Noise Level (Mitigated)

Nearest NSR	Mitigated Predicted Construction Noise Level, dB(A)	Assessment Criterion, dB(A)
Maryknoll Convent School (Primary Section Old Wing)	59-70	70
	56-65	65 (during examination)

Construction noise is considered a temporary impact that can be effectively mitigated by implementing appropriate measures to reduce it to an acceptable level.

Operational Phase

During the operational phase, the activities carried out within the Convent Building are similar to other customary cultural, office, and institutional uses in Hong Kong. The new plant room (including building services equipment such as flush water pump and fire service pump) will be located in enclosed underground structure. As such, they are not expected to generate significant noise.

4.3 AIR QUALITY

Construction Phase

Fugitive dust will be the potential major source of air quality impact during the proposed construction works. The problem of dust emission from demolition of the existing wall and brickwork repairs is expected to be minimal since the works will be carried out by either hand-held power tools or hand-held manual tools. For other construction works including the construction of the new link bridge, appropriate dust reduction measures and good site management as described in **Appendix E** will be implemented throughout the construction period and will be incorporated in the specifications for the construction works.

Gaseous emissions (i.e. NO_2 and SO_2) will be emitted from dump trucks to be used on-site during the construction of the Project. However, considering that the Project scale is relatively small and limited number of dump trucks per day, NO_2 and SO_2 emissions from dump trucks during construction of the Project are expected to be minimal and not considered key air pollutants of concern.

On-site use of diesel-powered engines is also the potential source for other gaseous pollutants, such as NO2, SO2, CO and smoke. The emissions from the NRMM are regulated under the Air Pollution Control (Non-Road Mobile Machinery) (Emission) Regulation. Fuel with sulphur content not exceeding 0.001% by weight will be used to minimize SO2 emission in accordance with the Air Pollution Control (Fuel Restriction) Regulations. In addition, the use of NRMMs with exempted label under the Air Pollution Control (NRMM) Regulation will be avoided as far as practicable. The equipment would also be properly maintained to minimize any emissions. Furthermore, the use of electrified NRMMs is unlikely to cause significant smoke and gaseous emissions. On-site power supply will be provided and the use of diesel generators and machinery will be avoided during the construction stage, as far as practicable. In view of the minor impact by NRMMs, particulates from construction activities would be the major air pollutant during construction phase.

As no chemical with toxic air pollutant emissions will be used during the repair and maintenance works for the project, no impact of volatile organic compounds (VOCs) during the construction phase is anticipated.

Operational Phase

The utilization of the Convent Building aligns with customary cultural, office, and institutional uses commonly observed in Hong Kong. These activities encompass regular office work and public visits. There is no chimney emission from the proposed development. Given the nature

of these operations, it is not anticipated that there will be any significant dust generation or gaseous emissions associated with the building.

4.4 WATER QUALITY

Construction Phase

Potential water quality impacts would arise from uncontrolled surface runoff and erosion of exposed soil earthworks (i.e. excavation of existing slope in the North Garden) and stockpiles during rainstorms. Nevertheless, in view of the limited scale, localized nature and short duration of the construction works and with proper implementation of site practices and control measures as presented in Section 5.5 and **Appendix E**, adverse water quality impact from non-point source surface runoff during construction phase would not be anticipated.

Spoil water is likely to be generated from washing down the brick walls, columns and the floors using a mild detergent and fresh water solution. Such wastewater will be no more harmful than normal domestic wastewater; however, it will be filtered before discharge to remove any pieces of waste materials that may block up the drains. The quantity of wastewater generated is not expected to exceed 100 litres per day. All the effluent discharge from the site will be subject to the control under the Water Pollution Control Ordinance (WPCO). Moreover, there are no water sources in the vicinity of the site that would be impacted or affected by the Project.

Sewage effluents will be generated from the workforce on site which are characterized by high level of biochemical oxygen demand (BOD), ammonia and *E. coli* counts. Temporary sewage generation can be adequately handled and treated by interim sewage treatment facilities, such as portable chemical toilets. Given that sewage will not be discharged directly into stormwater drains and any inland waters, and temporary sanitary facilities will be used and properly maintained, it is unlikely that sewage generated from the site would have significant water quality impact.

Operational Phase

Surface runoff of the Project site during operation phase will be collected by the drainage system and discharged to public drainage facility by gravity. In view of the limited scale, localized nature of the Project site and proper drainage system with regular maintenance will be provided, no adverse water quality impact from non-point source surface runoff during operational phase would be anticipated.

Domestic sewage generated by future staff and visitors will be the key discharges from the Project Site. Due to limited number of future staff (around 5 staff) and visitors (20 visitors in normal use, max 120 visitors for special event) is expected at the SHE Centre, adverse water quality impact during operation phase is not expected. As the occupancies of the proposed adaptive re-use building are mainly staff and students of the existing Maryknoll Convent School with limited number of visitors, it is considered that there is no net increase of overall population at the Maryknoll Convent School. Adverse impact on water quality is not expected, as the Project's detailed drainage design shall follow the Water Pollution Control Ordinance (WPCO).

During the operational phase, regular cleansing of water tanks and pumping facilities will be

conducted to prevent accumulation of dirt, rust and other impurities in the system. As the work is conducted underground and the effluent will be discharged properly via sewerage system to the public sewage treatment facilities, adverse water quality impacts from the cleansing water are not anticipated.

4.5 WASTE MANAGEMENT

Construction Phase

C&D Materials
During the working period, construction and demolition materials (C&D material) would be mainly produced from the renovation, restoration, superstructure works and excavation of the existing slope, the total quantity of C&D material generated during the construction phase will be dependent on the construction methods and site practices adopted.

As the detailed design is not yet available, the quantities of C&D materials are estimated based on (i) latest engineering information and (ii) recent projects with similar nature and project scale, i.e., with similar construction floor area (CFA). Based on the C&D materials generation of recent projects with similar project scale, the estimated total C&D materials will be about 2,128.52 m^3. It is anticipated to generate 2,052.48 m^3 of inert C&D materials from (i) renovation, restoration and superstructure works and (ii) excavation of the slope, with a breakdown of 1,162.36 m^3 and 890.12 m^3, respectively. Of these, about 680m^3 (33%) of inert C&D materials will be backfilled after completion of reinforced concrete structure at the North Garden on site and 1,372.48 m^3 (67%) of inert C&D materials will be delivered to public fill reception facilities for subsequent reuse. 76.04 m^3 of non-inert C&D materials, about 4% of the total quantity of C&D materials, will be generated during the construction phase. On-site reuse of inert C&D materials should be prioritized, with off-site beneficial use considered as last resort, and these materials must be sorted before either on-site reuse or delivery to public fill reception facilities. Non-inert C&D materials such as metals, wall plaster, old furniture, old building services equipment shall be reused and recycled as far as practicable. Non-inert C&D materials (or C&D waste) which are not recyclable or reusable should be disposed of at landfill. As the estimated C&D materials generated from the Project is far less than 50,000 m^3, Construction and Demolition Material Management Plan (C&DMMP) is considered not required.

As no tree is proposed to be removed or pruned during the construction phase, only limited amount of yard waste would be generated during site clearance works. On-site reuse and recycle of yard waste such as twigs, leaves and grass clippings should be considered for enhancing waste recovery rate. Therefore, no significant impact due to the yard waste from the Project.

With reference to the mitigation measures of C&D waste management as stated in the Construction Site Environmental Manual mentioned in Section 2.3, implementation of Waste Management Plan, setting up waste reduction targets, establishing waste reduction programme, arranging on-site sorting and reuse, proper waste disposal and good housekeeping practice will also be adopted. Therefore, no significant impact due to the generation and disposal. Detailed of the mitigation measures are given in Section 5.6 and **Appendix E**.

Asbestos-Containing Material (ACM)

The subject site's structures and buildings may include asbestos-containing materials. The project proponent has hired a registered asbestos consultant to conduct an asbestos investigation in accordance with Section 69 of the Air Pollution Control Ordinance (APCO) (Cap 311) to confirm the presence or absence of any asbestos-containing material (ACM). Based on the findings in asbestos survey of the Convent Building at Maryknoll Convent School on 15 November 2023, it is identified that only ~2m² corrugated asbestos cement sheet canopy outside G/F Kitchen. An Asbestos Abatement Plan (AAP) shall be prepared by the registered asbestos professional in accordance with the *Air Pollution Control Ordinance* (Cap.311) and *Codes of Practice on Asbestos Control*, and submitted to EPD for approval. The ACM would subsequently be removed by a registered asbestos professional in accordance with the approved AAP prior the commencement of the demolition works of the Project. The registered asbestos professional is required to strictly follow the precautionary and proper removal procedures given in the approved AAP and in accordance with the APCO and the *Codes of Practice on Asbestos Control*. All collectors who collect and transport ACM waste to an off-site facility for disposal have to be licensed by EPD. The legislation requires that all ACM wastes must be disposed of at designated or licensed facilities. In Hong Kong, the only proven method of disposing ACM wastes is by secure burial method in a landfill site. The project proponent must additionally send not less than 28 days' written notification to EPD of the date on which the aforesaid asbestos abatement work commenced.

Chemical Waste

A negligibly small amount of chemical wastes such as oil / grease, solvent and fuel will be generated during maintenance and servicing of construction plants and vehicles. The chemical waste is expected to be approximately 10 litre throughout construction phase, subject to actual works arrangements by Contractor. The amount of chemical waste to be generated will be quantified in the Waste Management Plan (WMP) as part of the Environmental Management Plan (EMP) to be prepared by the Contractor in the subsequent construction stage. The chemical waste generated from the Project will be collected by licensed chemical waste collectors and deliver to the licensed chemical waste treatment facilities for disposal (i.e. Chemical Waste Treatment Centre (CWTC) in Tsing Yi). The contractor will register with EPD as a chemical waste producer as appropriate in accordance with *the Waste Disposal (Chemical Waste) (General) Regulation*. With the incorporation of suitable arrangements for the storage, handling, transportation and disposal of chemical wastes under the requirements stated in the *Waste Disposal (Chemical Waste) (General) Regulation* and the *Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes*, no adverse environmental impact or other hazards is anticipated to arise from the handling, transportation and disposal of chemical waste of the Project.

General Refuse

The presence of the construction site with workers and site office would generate a variety of general refuse which will need disposal, consisting mainly of food waste, aluminium cans, waste paper, etc. The number of workers is not available at this stage but it is anticipated that there will be around 20 staffs on site on average over the construction phase of the project with reference to similar scaled project in Hong Kong. Based on the waste generation of 0.65 kg/person/day, the estimated quantity of general refuse would be 13 kg/day.

General refuse generated on site will be stored in enclosed bins and collected by waste collector on a daily basis. With proper housekeeping measures and refuse collection in place, no adverse

environmental impacts (including air and odour, noise, water quality) caused by storage, handling, transport and disposal of general refuse are expected.

Breakdown of various types of wastes to be generated during the demolition and construction works are shown in **Table 4.6**. The transportation routing may be changed subject to the traffic conditions. Nevertheless, it is anticipated that there is no adverse impact from the waste during transportation with the implementation of appropriated measures (e.g. using water-tight containers and covered trucks).

Table 4.6: Breakdown of Wastes to be Generated During the Demolition and Construction Works

Type of Wastes	Proposed Handling/Disposal Method	Estimated Quantity	Tentative Transportation Routing (iv)
Inert C&D Materials	Reused on-site	680 m^3 (i)	-
	Sent to public fill reception facilities (i.e. Tseung Kwan O Area 137) (ii)	1372.48 m^3	Via Boundary St, Kwun Tong Bypass, Tseung Lam Hwy, Cross Bay Link, Wan Po Rd *(Maximum 1 truck trip/day)* (vi)
Non-inert C&D Materials	• Off-site recycling of recyclables • On-site reuse and recycle of yard waste • Disposed of at landfill sites (i.e. SENT) (iii)	76.04 m^3 (v)	Via Boundary St, Kwun Tong Bypass, Tseung Lam Hwy, Cross Bay Link, Wan Po Rd *(Maximum 1 truck trip/day)* (vi)
General Refuse	• Off-site recycling of recyclables • Disposed of at landfill sites (i.e. NENT)	13 kg/day	Via Waterloo Rd Flyover, Lion Rock Tunnel Rd, Sha Tin Rd, Tolo Hwy, Fanling Hwy, Heung Yuen Wai Hwy, Wo Keng Shan Rd *(Maximum 1 truck trip/day)* (vi)
Chemical Waste	Collected by licensed chemical waste collectors and disposed of at the Chemical Waste Treatment Centre (CWTC)	~10 litre throughout construction phase (vii)	Via Boundary St, Prince Edward Rd W, Lin Cheung Rd, Tsing Kwai Hwy, Kwai Tsing Rd, Tsing Yi Rd *(Dispose when required)*
ACM	Collected by licensed chemical waste collectors and disposed of in landfill site (i.e. WENT) by secure burial method.	~ 2m^2	Via Boundary St, Prince Edward Rd W, Lai Chi Kok Rd, Boundary St, Tai Kok Tsui Rd, Chui Yu Rd, Sham Mong Rd, Hoi Fai Rd, Lin Cheung Rd, Tsing Kwai Hwy, Cheung Tsing Tunnel & Hwy, Ting Kau Brg, Tuen Mun Rd, Wong Chu Rd, Lung Fu Rd, Lung Mun Rd, Lung Kwu Tan Rd, Nim Wan Rd *(Dispose when required)*

Notes:

(i) Around 680m^3 inert C&D materials will be reused onsite as informed by the Engineer on 21 March 2025.

(ii) The final destination of inert C&D materials is subject to the designation by the Public Fill Committee according to DEVB TC (W) No.6/2010.

(iii) The disposal of non-inert C&D materials at the designated landfill shall be subject to agreement with the relevant section of the EPD.

(iv) Detailed transportation routing will be provided by traffic consultant in later stage of the Project.

(v) Quantity of non-inert C&D materials to be reused and recycled depends upon the practice of the Contractor.

(vi) Assuming capacity is 7m^3 per truck, bulk factors of 1.7 for inert C&D materials, 1 for non-inert C&D materials and 311.73kg/m^3 bulk density for general refuse, 25 working days a month and waste is generated evenly over the construction phase.

(vii) The amount of chemical waste to be generated shall be quantified in the Waste Management Plan (WMP) as part of the Environmental Management Plan (EMP) to be prepared by the Contractor in the subsequent construction stage.

Operational Phase

Waste generated during the operational phase will be primarily from typical exhibition and education activities, such as waste paper and general refuse. Due to limited number of future staff (around 5 staff) and visitors (20 visitors in normal use, max 120 visitors for special event) are expected at the SHE Centre, the quantity of waste paper and general refuse during the operational phase should be minimal. Chemical wastes are not expected. Thus, the waste impact generated by the Project is minimal. To facilitate recycling, a 4-bin recycling system for paper, metals, plastics and glass should be adopted together with a general refuse bin. They should be placed in prominent places to promote waste separation at source. All recyclable materials should be collected by recyclers.

According to "Monitoring of Solid Waste in Hong Kong 2023", Per Capital Disposal Rate and Recovery Rate of Commercial & Industrial Waste is 0.55 kg/person/day and 46% respectively. Disposal Rate in percentage can be calculated from the known Recovery Rate (i.e. 100% - 46%=54%) and Per Capita Generation Rate can be back calculated (i.e. 0.55/54%=1.02 kg/person/day). Per Capital Recovery Rate can therefore be calculated (i.e. 1.02*46%=0.47 kg/person/day).

Estimation of quantity of general refuse during operational phase is shown in **Table 4.7** to **Table 4.9** below.

Table 4.7: Estimation of Daily Generation Quantity of General Refuse During Operational Phase

Type of Operation	Type of Use	Number of Occupancy	Per Capita Generation Rate (kg/person/day)	Estimated Quantity (kg/day)
Normal Period	Commercial & Industrial Waste	25	1.02(i)	25.5
Peak Period		125		127.5

Note:

(i) Per Capita Generation Rate is back calculated from the known Per Capital Disposal Rate and Recovery Rate given in "Monitoring of Solid Waste in Hong Kong 2023".

Table 4.8: Estimation of Daily Disposal Quantity of General Refuse During Operational Phase

Type of Operation	Type of Use	Number of Occupancy	Per Capita Disposal Rate (kg/person/day)	Estimated Disposal Quantity (kg/day)
Normal Period	Commercial & Industrial Waste	25	0.55(i)	13.75
Peak Period		125		68.75

Note:

(i) Disposal rate with reference to Plate 2.7 of "Monitoring of Solid Waste in Hong Kong 2023".

Table 4.9: Estimation of Daily Recovery Quantity of General Refuse During Operational Phase

Type of Operation	Type of Use	Number of Occupancy	Per Capita Recovery Rate (kg/person/day)	Estimated Recovery Quantity (kg/day)
Normal Period	Commercial & Industrial Waste	25	0.47(i)	11.75
Peak Period		125		58.75

Note:

(ii) Recovery rate with reference to Plate 3.2 of "Monitoring of Solid Waste in Hong Kong 2023".

4.6 ECOLOGICAL IMPACT

The project site is located a well-developed urban area and surrounded by buildings and busy traffic roads. It is not classified as neither a recognized site of conservation importance nor containing species of conservation importance according to Technical Memorandum on Environmental Impact Assessment Process, thus no adverse ecological impact is therefore anticipated during the restoration.

4.7 LANDSCAPE AND VISUAL

Construction Phase

As a historic location, the planned Project is bordered by some mature trees. In an effort to gain a more comprehensive comprehension of the vegetation and landscape of the immediate vicinity of the site, a tree survey was implemented. According to the tree survey, 11 nos. of tree species are identified, Michelia × alba and Dypsis lutescens are the dominant species of the existing trees. No Old and Valuable Tree (OVT), Tree of Particular Interest or Stonewall Trees were found. 3 nos. of of Michelia x alba scheduled under Forests and Countryside Ordinance, Cap. 96 were found. Different species of trees are prevalent in the vicinity of Hong Kong. There are no additional uncommon and precious trees or hazardous trees in the assessment area. All 11 nos. of trees are recommended to be retained. No tree is proposed to be fell or pruned to reduce risk and inconvenience caused by trees, and maintain or improve tree health and structure.

To enable the logistics of building supplies, as well as hoarding and scaffolding operations during the construction phase, tree crown reduction or removal of lower branches should be restricted to a maximum of 25%, but significant branches and the main trunk must be preserved and safeguarded. The scope of trimming is restricted, and there are no tree removals or site preparation activities included. Consequently, the influence on the landscape will be negligible.

Operational Phase

The Convent Building will be restored with materials, design and color to match existing. Both the northern and southern gardens will be retained. Landscaping upgrades to enhance the enjoyment and useability of these spaces will be carried out. The new link bridge and new plant rooms (including building services equipment) will be designed in a sympathetic and compatible way with the declared monument within the Site and its surrounding townscape. Together with the proposed restoration works which are small-scale in nature, there would be

no significant adverse landscape and visual impact arising from the proposed development.

The new link bridge and associated A&A works for statutory compliance are small-scale in nature which would unlikely to induce adverse visual impact to the surrounding townscape, hence submission of VIA is considered not necessary.

5 ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED IN THE DESIGN

5.1 MEASURES TO MINIMIZE ENVIRONMENTAL IMPACTS

From the above section, it is assessed that noise, dust emission, solid waste and water quality impacts arising from the project are minimal. At the same time, standard mitigation measures in accordance with the latest version of "Recommended Pollution Control Clauses for Construction Contracts" will be adopted for further reducing the environmental impacts.

5.2 CULTURAL HERITAGE

Construction Phase

The works conducted within the Project Site will adhere to the necessary permit granted by the Antiquities Authority, specifically the Secretary for Development, under Section 6(1) of the Antiquities and Monuments Ordinance (Cap. 53). The construction method will be meticulously selected to ensure that there are no adverse impacts on the existing historic buildings and structures. This careful consideration aims to preserve and protect the historical significance of the site during the construction process.

Proposed Structural Works

- Structural appraisal has carried out to verify the details and conditions of structural members and structural performance of the building to ensure the structural integrity of the historic buildings. If any defects/sign of distress, the repair work proposal would be submitted for approval prior to commencement of works.

- Temporary structural supports including Excavation and lateral Support (ELS) and protection will be installed prior to the commencement of construction works to safeguard the historic buildings.

- A structural monitoring proposal (plan and precautionary measures (if necessary)) to monitor any structural impact arising from the works will be prepared by the project structural engineer and agreed with AMO. Details, including locations of checkpoints and Alert-Alarm-Action Levels (3A Levels) shall be shared prior to commencement of any works.

- Pre and post condition survey should be carried out to record conditions of the affected CDEs and survey reports will be submitted for AMO's record.

Record Surveys

- 3D laser scanning of the entire building exterior and interior (including CDEs) of the Maryknoll Convent Building will be carried out prior to the commencement of any works. The architectural details with values to a level of accuracy and detail shall be captured through the scanning. Thorough documentation of current status of the building, encompassing both exterior and interior elements shall be provided

by the 3D laser scanning.

- Point cloud data file with supporting drawings including plans, elevations, sections and typical details will be submitted to AMO prior to the commencement of demolition works.
- As-built drawings shall be prepared at the project's completion.
- One set of colour photographic records to show the works site / areas affected by the proposed works before / during / after the works should be prepared and submitted to AMO within two weeks after the completion of works. The photos should be cross-referenced with appropriate floor plans or elevation plans of the Monument.

Proposed Repair, Alteration and New Works

- Repair and alteration works should include provision for salvage of existing building fabric and its re-use where feasible and appropriate; and retention for possible future use shall include the identification of suitable locations, preferably within the subject site.

Disturbance to Historical Fabric

- In general, disturbance to historical fabric should be kept to an absolute minimum and on a need basis, and as far as technically feasible.

- The heritage significance of the building and the CDEs should be always observed, particularly during construction, which means ensuring that adequate protection of retained elements is implemented and maintained throughout the duration of the works.

- In case of any damage caused to the Declared Monument, the proposed works must be suspended immediately until remedial action has been approved by AMO and the approved revised works should be carried out to the satisfaction of AMO.

- Precautionary and protective measures will be implemented during the construction stage to protect the CDEs from damage.

- Regular site monitoring during any advance enabling works or throughout the construction stage will be implemented.

- The proposed link bridge should be distinguishable, but at the same time, compatible and sympathetic design with the original building structure.

Operational Phase

The future EP owner, Contractor and Operator should strictly follow the Antiquities and Monuments Ordinance (Cap.53).

A management and maintenance plan (MMP) shall be prepared at the completion of the project to facilitate the future maintenance of the building during its operation phase. The MMP shall

include the as-built information and recommendations on the inspection regime and maintenance cycle for different building elements based on their heritage value, materiality and vulnerability to deterioration and weathering.

A heritage interpretation proposal shall also be implemented during the operation phase. According to the heritage interpretation designer, based on the latest design, the following themes and approaches will be adopted:

"The exhibition will start from the beginning of the Maryknoll Sisters' journey from the USA to Hong Kong in the 1920s, their early establishment and subsequent development of their services on education, medical service and community service throughout the history. The architectural significance and the conservation process of the Convent Building will also be covered. The exhibition will make use of different interpretative means to convey the message, including physical and digital displays, interpretative panels, multimedia means and interactive means."

5.3 NOISE

Construction Phase

Incorporating suitable measures into the working methods is essential to minimize potential construction noise impacts. To achieve this, a noise mitigation management system will be established. This system will encompass regular maintenance of all plant and equipment, reduction of noise generation at its source, and the utilization of appropriate silencing applications based on the best practicable means. By implementing these practices, efforts will be made to mitigate and control construction noise to ensure compliance with noise regulations.

The Contractor should implementation of good site practices as stated in **Appendix E** e.g. regular maintenance of powered mechanical equipment and use of silent equipment as the proper noise control measures during the construction stage are recommended to minimize the potential noise impacts.

No construction works will be carried out from 7 p.m. to 7 a.m. and any time on Sundays and General Holidays; as a result, there will not be any noise generated during these restricted hours.
Operational Phase

The traffic noise impact resulting from the operation of the SHE Centre is considered minimal. Furthermore, as the building will be equipped with central air conditioning and will not rely on open windows for ventilation, the impact of surrounding noise on the building is deemed insignificant. As a result, no mitigation measures are deemed necessary in either regard.

5.4 AIR QUALITY

Construction Phase

Air pollution resulting in a major impact will not be anticipated as only a small amount of dust will arise from the renovation and restoration works. In addition, the Air Pollution Control (Construction Dust) Regulation, Air Pollution Control (Non- Road Mobile Machinery) (Emission) Regulation, Air Pollution Control (Fuel Restriction) Regulations and Air Pollution

Control (Smoke) Regulations will be strictly followed and monitored. The following mitigation measures and good site management as described in **Appendix E** will be carried out:

- Avoid free falling of debris while roof or wall material is being removed and dismantled. Baskets or similar containers shall be used to carry such material from the roof to ground level for proper disposal.

- Regularly dampen the floor with clean water to avoid spread of dust during the hacking-up and removing of the existing floor finishing.

- Spray the debris with clean water so that it remains damp before it is carted away. In addition, water will be continuously sprayed on the surface where any drilling, cutting or other small-scale breaking operation is carried out by using hand-held power tools.

- Avoid dusty construction activities (e.g. site clearance, excavation works) during school hours of the concerned school which is in close proximity as far as practicable.

Operational Phase

As stated in Section 4.3, the activities during operation phase mainly involve normal office work activities and public visits. Given the nature of these operations, it is not anticipated that there will be any significant dust generation or gaseous emissions associated with the building, and therefore no mitigation measures are deemed necessary.

5.5 WATER QUALITY

Construction Phase

The site practices outline in ProPECC PN 2/24 "Construction Site Drainage" should be continually implemented during the construction phase in order to minimize surface runoff and the chance of erosion. The Water Quality Objectives (WQOs) and Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water (TM-DSS) stipulated under WPCO should be continuously implemented to ensure all construction runoff area well controlled, so as to minimize water quality impacts:

- Sand / silt removal facilities such as sand / silt traps and sediment basins should be provided to remove sand / silt particles from runoff and from rainwater pumped out from trenches to meet the TM-DSS under the WPCO. Earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities.
- All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.
- All vehicles and plants should be cleaned before leaving the construction site to ensure no earth, mud, debris and the like are deposited outside the construction works areas.
- Open stockpiles of construction materials or construction wastes on-site should be

covered with tarpaulin or similar fabric during rainstorms.

- Good site practices should be implemented to remove rubbish and litter from construction site. It is recommended to clean the construction site on a regular daily basis.

When cleaning the brick walls, columns and floors as well as carrying out small scale brickwork repair, spoil water would be produced. Such spoil water will be filtered before discharge into drains. During the works, control measures will be planned and implemented to reduce site discharges and surface runoff according to EPD's ProPECC PN 2/24. The Contractor will provide appropriate on-site treatment to discharges, and is required to apply and obtain from EPD an effluent discharge licence issued under the WPCO.

Operational Phase

The Project's detailed drainage design will adhere to the guidelines outlined in the Environmental Protection Department's ProPECC PN 1/23. As the occupancies of the proposed adaptive re-use building are mainly staff and students of the existing Maryknoll Convent School with limited number of visitors, it is considered that there is no net increase of overall population at the Maryknoll Convent School. All sewage generated will be collected and directed to the public sewerage system through appropriate connections. This approach aims to minimize any potential water quality impacts during the operation phase and ensure compliance with the requirements stated in the Water Pollution Control Ordinance Technical Memorandum (WPCO-TM).

5.6 WASTE MANAGEMENT

Construction Phase

To effectively manage the waste generated from the Project, a range of mitigation measures and good site practices as recommended in the Construction Site Environmental Manual for Public Works issued by The Hong Kong Construction Association will be implemented. The relative mitigation measures are discussed under this section and **Appendix E**.

C&D Materials
As stated in Section 4.5, mitigation measures of C&D waste management (i.e. implementation of a Waste Management Plan, setting up waste reduction targets, establishing a waste reduction programme, arranging on-site sorting, proper waste disposal, good housekeeping practice, etc) are detailed as follows:

- A Waste Management Plan (WMP) shall be prepared in accordance with PNAP No. 243 (ADV-19) and submitted to the Engineer for approval. The Contractor shall ensure the day-to-day site operations comply with the approved WMP.

- The Contractor shall minimise the generation of waste from his work. Avoidance and minimisation of waste generation can be achieved through changing or improving design and practices, careful planning, and good site management.

- On-site sorting and reuse of construction and demolition (C&D) materials will be

prioritized to minimize waste generation and temporary stockpiling on-site. Stockpiles and C&D materials will be covered entirely by impervious sheeting sheltered on top and 3-sides during inclement weather (e.g., heavy rain or typhoon).

- The Contractors should adopt good housekeeping practices such as waste segregation prior to disposal. Besides the provision of stockpiling and segregating areas at site, effective collection of construction materials, construction wastes, chemical wastes and general refuse is required to prevent materials and wastes being blown around by wind, flushed or leached into nearby waters, or creating odour nuisance or pest and vermin problems. Waste storage areas should be well maintained and cleaned regularly.

- Furthermore, a trip-ticket system will be established to track the offsite transportation of waste, ensuring its proper disposal. The trip-ticket system should be included as one of the contractual requirements to be implemented by the Contractor with reference to DEVB TCW No. 6/2010. All dump trucks engaged on-site for delivery of inert and non-inert C&D material from the site to the designated disposal location, including public fill reception facilities, landfill etc., will be equipped with Global Positioning System (GPS) or equivalent system for tracking and monitoring of their travel routings and parking locations by the Contractor to prohibit illegal dumping and landfilling of materials. The data collected by GPS or equivalent system will be recorded properly for checking and analysis the travel routing and parking locations of dump truck engaged on site.

On-site reuse and recycle of yard waste such as twigs, leaves and grass clippings should be considered for enhancing waste recovery rate to both South and North Garden.

Chemical Waste

The Contractor would be required to register with the EPD as a Chemical Waste Producer and to follow the requirements stated in the Waste Disposal (Chemical Waste) (General) Regulation and the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes for the storage, handling, transport and disposal of chemical waste. Chemical waste arising during the construction phase may pose environmental, health and safety hazards if not stored and disposed of in an appropriate manner as stipulated in the Waste Disposal (Chemical Waste) (General) Regulation. Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container in accordance with instructions prescribed in Schedule 2 of the Waste Disposal (Chemical Waste) (General) Regulation. Suitable area for temporary storage of chemical waste should be provided in accordance with Section 4 of the Code of Practice on the Packaging, Labeling and Storage of Chemical Wastes. A licensed chemical waste collector will be employed by the registered chemical waste producer (i.e. the Contractor) to deliver chemical waste and disposed regularly at EPD licensed chemical waste treatment facility (such as the CWTC in Tsing Yi).

All chemical wastes including oil/grease, waste solvent and normal domestic detergent will be handled, stored and disposed of in accordance with the Waste Disposal Ordinance and its subsidiary Waste Disposal (Chemical Waste) (General) Regulation.

Asbestos-Containing Material (ACM)

ACM will be disposed of in accordance with the Waste Disposal Ordinance and its subsidiary Waste Disposal (Chemical Waste) (General) Regulation. ACM shall be disposed of at the EPD's designated disposal site at the landfill in accordance with the Code of Practice on the Handling, Transportation and Disposal of Asbestos Waste issued by the EPD. As stated in Section 4.5, an Asbestos Abatement Plan (AAP) shall be prepared by the registered asbestos professional in accordance with the *Air Pollution Control Ordinance* (Cap.311) and *Codes of Practice on Asbestos Control*, and submitted to EPD for approval. The ACM would subsequently be removed by a registered asbestos professional in accordance with the approved AAP prior the commencement of the demolition works of the Project. The registered asbestos professional is required to strictly follow the precautionary and proper removal procedures given in the approved AAP and in accordance with the APCO and the *Codes of Practice on Asbestos Control*. All collectors who collect and transport ACM waste to an off-site facility for disposal have to be licensed by EPD. The legislation requires that all ACM wastes must be disposed of at designated or licensed facilities. In Hong Kong, the only proven method of disposing ACM wastes is by secure burial method in a landfill site. The project proponent must additionally send not less than 28 days' written notification to EPD of the date on which the aforesaid asbestos abatement work commenced.

General Refuse
Proper waste management implication shall be implemented for the Project in compliance with the Waste Disposal Ordinance. Mitigation measures include disposal of general refuse in covered bins or compaction units, apart from construction and demolition materials and hazardous wastes; engagement of a competent waste management service to collect and dispose of general refuse on a daily basis; provision of sufficient rubbish bins and recycling bins and frequent clearing of rubbish to maintain good environmental hygiene; and good practice for transportation and disposal of the litters. In addition, good practice for recycling of paper, glass and plastic bottles shall be implemented.

Operational Phase
Standard waste management practices will be diligently implemented to minimize waste generation and maximize the recovery and recycling of materials. Throughout the project, all wastes generated will be handled and disposed of strictly following the guidelines and regulations specified in the Waste Disposal Ordinance. By adhering to these practices, the project aims to minimize the environmental impact associated with waste generation while ensuring compliance with waste management regulations.

5.7 ECOLOGY

As no ecological impact is expected during construction phase, no mitigation measure is necessary.

5.8 LANDSCAPE AND VISUAL

Construction Phase

All identified trees are recommended to be retained. No tree is proposed to be fell or pruned to reduce risk and inconvenience caused by trees, and maintain or improve tree health and structure.

Operational Phase

Architectural and landscaping works will be carried out to improve and enhance the overall landscape. The Convent Building will be restored with materials, design and color to match existing. Both the northern and southern gardens will be retained. Landscaping upgrades to enhance the enjoyment and useability of these spaces will be carried out. The new link bridge and new plant rooms (including building services equipment) will be designed in a sympathetic and compatible way with the declared monument within the Site and its surrounding townscape. Together with the proposed restoration works which are small-scale in nature, the proposed development is unlikely to cause adverse landscape and visual impacts.

5.9 ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

An Independent Environmental Checker (IEC) shall be employed before the commencement of construction of the Project. The IEC who possesses at least 7 years' experience in EM&A and/or environmental management, shall be an independent party from the Contractor. The IEC shall audit the overall environmental performance, including the implementation of all environmental mitigation measures, and any other submissions required by the Environmental Permit. Environmental site audit shall be conducted by IEC during the construction phase on a monthly basis to ensure that the recommended mitigation measures are implemented properly.

Monitoring procedures are proposed to be adopted and Project Architect will be responsible for monitoring operations:

- to ensure the quality of the conservation aspects of the project are carried out to the highest possible standard;
- to ensure that the general aspects of environmental quality will comply with the project requirements;
- supervise the Contractor to ensure that the requirements in the Project Profile are fully complied with;
- instruct the Contractor when action is required to reduce or prevent any impacts; and
- to effectively and speedily deal with any complaints received with regard to any environmental aspects of the project.

5.10 SUBMISSIONS UNDER RELEVANT ORDINANCES/GUIDELINES

In order to ensure the completeness of the Project under relevant ordinances and guidelines, a list of submissions to be prepared are given in **Table 5.1** below.

Table 5.1: List of Submissions under Relevant Ordinances and Guidelines

Submission	Project Profile Section	Reviewing Parties	Mechanism
Asbestos Abatement Plan	4.5 and 5.6	EPD	Air Pollution Control Ordinance (Cap.311) and Codes of Practice on Asbestos Control under EPD
Environmental Management Plan	4.5 and 5.6	Project Engineer	ETWB TCW No. 19/2005 under EPD
Waste Management Plan	4.5 and 5.6	Project Engineer	Construction and Demolition Waste PNAP No. 243 (ADV-19) under Building Department
Structural Monitoring Proposal	4.1 and 5.2	Building Department, AMO	CAP. 123 Building Ordinance under Building Department
Point Cloud Data File of Record Surveys with supporting drawings	5.2	Project Proponent, AMO	Under management by Project Proponent and agreement with AMO.
Management and Maintenance Plan	5.2	Project Proponent	Under management by Project Proponent
Heritage Interpretation Proposal	5.2	Project Proponent	Under management by Project Proponent

5.11 ANY FURTHER IMPLICATIONS

The possible severity, distribution and duration of environmental effects and further implications are summarized below:

Impact	Effects	Severity and Duration	Distribution	Estimated Duration
Cultural Heritage	Improve the functionality of the monument as a service, heritage and education centre	Beneficial and long-term enhancement	Project Site only	Long term
Noise	Noise nuisance from demolition, construction and clearance	Minimal and short	Project Site only	Q4 2025 to Q2 2027

Impact	Effects	Severity and Duration	Distribution	Estimated Duration
Air Quality	Dust generated from demolition works and construction works	Minimal and short	Project Site only	
Waste Management	Handling and disposal of C&D materials and asbestos containing materials	Minimal and short	Project Site only	
Water Quality	Discharging of waste water into drains after filtration	Minimal and short	Project Site only	
Traffic	Construction vehicles to and from work site	Minimal and infrequent	Ho Tung Road	
Landscape and Visual Impact	Erection of temporary hoarding and scaffoldings	Minimal and short	Project Site only	

Operation of the Convert Building will follow the Operation and Maintenance (O&M) Manuals to be prepared by Project Proponent in accordance with relevant ordinances, regulations and standards. Further implications are not anticipated.

5.12 PROJECT CONSULTATION

The Maryknoll Convent School Foundation Limited ("MCS Foundation") has applied to the Hong Kong Jockey Club Charities Trust for funds to revitalise the Convent Building, a declared monument, and convert it into a service, heritage and education centre ("SHE Centre") for service to the community dated 29 December 2023 and granted donation for approval of this project dated 26 June 2024.

6 USE OF PREVIOUSLY APPROVED APPLICATIONS FOR PERMISSION TO APPLY DIRECTLY FOR AN ENVIRONMENTAL PERMIT

The following approved applications for permission to apply directly for an environmental permit are referenced in the preparation of this Project Profile:

Based on our desktop review, there are 14 approved applications for Declared Monument under Schedule 2, Item Q.1 of EIAO for permission to apply directly for environmental permits that could be referred to:

1. Conversion of the Former French Mission Building for Accommodation Use by Law-related Organisation(s) and Related Purposes. The Project Profile was submitted on 21 April 2016 (PP-535/2016). The project is to renovate and enhance the Building to meet the needs of LRO(s) and related purposes, upgrade the Building in order to comply with the prevailing statutory requirements without compromising the conservation principles and restore the Building to the French Mission era dating back to 1919. The study concluded that there would be minimal environmental effect. The Environmental Permit was granted in May 2016 (EP-518/2016).

2. Proposed Tai Wong Yeh Temple Management Office at Yuen Chau Tsai, Tai Po, N.T.. The Project Profile was submitted on 21 September 2011 (PP-451/2011). The project is to construct a 2-storey building within a site of cultural heritage. The project building is next to the Tai Wong Yeh Temple for use as management office and rural committee office. The study concluded that there would be minimal environmental effect. The Environmental Permit was granted in December 2011 (EP-431/2011).

3. Restoration to Yan Tun Kong Study Hall at Ping Shan, Yuen Long, New Territories. The Project Profile was submitted on 3 September 2010 (PP-422/2010). The project is to repair, replace, and reconstruct roof structure, floor paving, and timber decorations. The project includes improvement of drainage works and upgrading electrical system. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted in 14 September 2011 (EP-420/2010). The project involves similar repair and restoration works to a Declared Monument

4. Major Restoration to the Residence of Ip Ting-sz, Lin Ma Hang Tsuen, Sha Tau Kok, New Territories. The Project Profile was submitted on 13 August 2010 (PP-420/2010). The project is to carry out restoration works at the Residence of Ip Ting-sz including reconstruction of roof; and internal and external redecorations. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted in 29 September 2010 (EP-400/2010). The project involves similar repair and restoration works to a Declared Monument.

5. Restoration to Tang Ancestral Hall and its adjoining buildings at Ha Tsuen, Yuen Long, New Territories. The Project Profile was submitted on 7 July 2009 (PP-393/2009). The project is to demolish concrete and metal structures; to repair, replace or restore roof structure, carpentry and decorations, window and door openings; and to improve drainage system. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted in 28 August 2009 (EP-373/2009). The project involves similar repair and restoration works to a Declared Monument.

6. Construction of Covered Walkway in the Courtyard of the Former Kowloon British School, Tsim Sha Tsui. The Project Profile was submitted on 21 August 2008 (PP-365/2008). The project is to construct covered walkway in the courtyard of the Former Kowloon British School and to remove the existing standalone wooden screens and posts beside the annex block. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted in 23 October 2008 (EP-318/2008). The project involves similar improvement of facilities of a Declared Monument.

7. Restoration to Chik Kwai Study Hall Sheung Tsuen, Pat Heung, Yuen Long. The Project Profile was submitted on 3 October 2007 (PP-330/2007). The project is to dismantle defective roof structure; to demolish the concrete structure; to repair walls; and to install lighting system. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted in March 2008 (EP-305/2008). The project involves similar repair and restoration of a Declared Monument.

8. Major Repair to Tin Hau Temple, Lung Yeuk Tau, Fanling. The Project Profile was submitted on 3 February 2005 (PP-240/2005). The project is to reconstruct the roof, to carry out internal and external redecorations and to undertake minor repairs and restorations to Tin Hau Temple, Lung Yeuk Tau. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted in 26 April 2005 (EP-214/2005). The project involves similar repair works to a Declared Monument.

9. Maintenance of Yamen of Kowloon Walled City Park. The Project Profile was submitted on 13 January 2005 (PP-237/2005). The project is to replace termite-affected timber column and purlins, to clean and repair external brick walls, to carry out internal and external redecorations and to undertake minor repairs to Yamen at Kowloon Walled City Park. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted in June 2005 (EP-221/2005). The project involves similar repair and restoration works to a Declared Monument.

10. Major Repair to Tang Chung Ling Ancestral Hall, Lung Yeuk Tau, Fanling. The Project Profile was submitted on 28 July 2004 (PP-224/2004). The project is to reconstruct the roof, to carry out internal and external redecorations and to undertake minor repairs and restorations to Tang Chung Ling Ancestral Hall. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted in October 2004 (EP-199/2004). The project involves similar repair works to a Declared Monument.

11. Major Repair to Tang Ancestral Hall, Ping Shan. The Project Profile was submitted on 9 June 2004 (PP-217/2004). The project is to reconstruct the roof, to repave the floor and to carry out the internal and external redecoration and minor repairs and restorations of the Tang Ancestral Hall. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted in August 2004 (EP-193/2004). The project involves similar repair and restoration works to a Declared Monument.

12. A New Rain Cover at Lei Cheng Uk Han Tomb Museum. The Project Profile was submitted on 2 December 2003 (PP-205/2003). The project is to construct and operate a new rain cover over the Lei Cheng Uk Han Tomb. The study concluded that there would be minimal impacts to the environment. The Environmental Permits were granted in 5 February 2004 (EP-185/2004). The project involves similar improvement of facilities of a Declared Monument.

13. Development at Former Marine Police Headquarters KIL 11161. The Project Profile was submitted on 28 November 2003 (PP-204/2003). The project is to develop heritage tourism facility which involves earthworks and building works partly or wholly in an existing site of cultural heritage. The study concluded that there would be minimal impacts to the environment. The Environmental Permits were granted in 9 February 2004 (EP-184/2004). The project involves similar improvement of facilities of a Declared Monument.

14. Renovation Project for Tin Hau Temple in Causeway Bay. The Project Profile was submitted on 25 September 2003 (PP-200/2003). The project is to reconstruct the temple roof and to strengthen the main walls of the Tin Hau Temple. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted in 18 December 2003 (EP-180/2003). The project involves similar repair and restoration works to a Declared Monument.

7 CONCLUSION

The Project Proponent aims to revitalise, repair and restore the Maryknoll Convent School. The proposed works will be carried out by approved specialist contractors. The Project Proponent shall supervise the works in order to ensure the historic value and architectural features of the building would be kept intact.

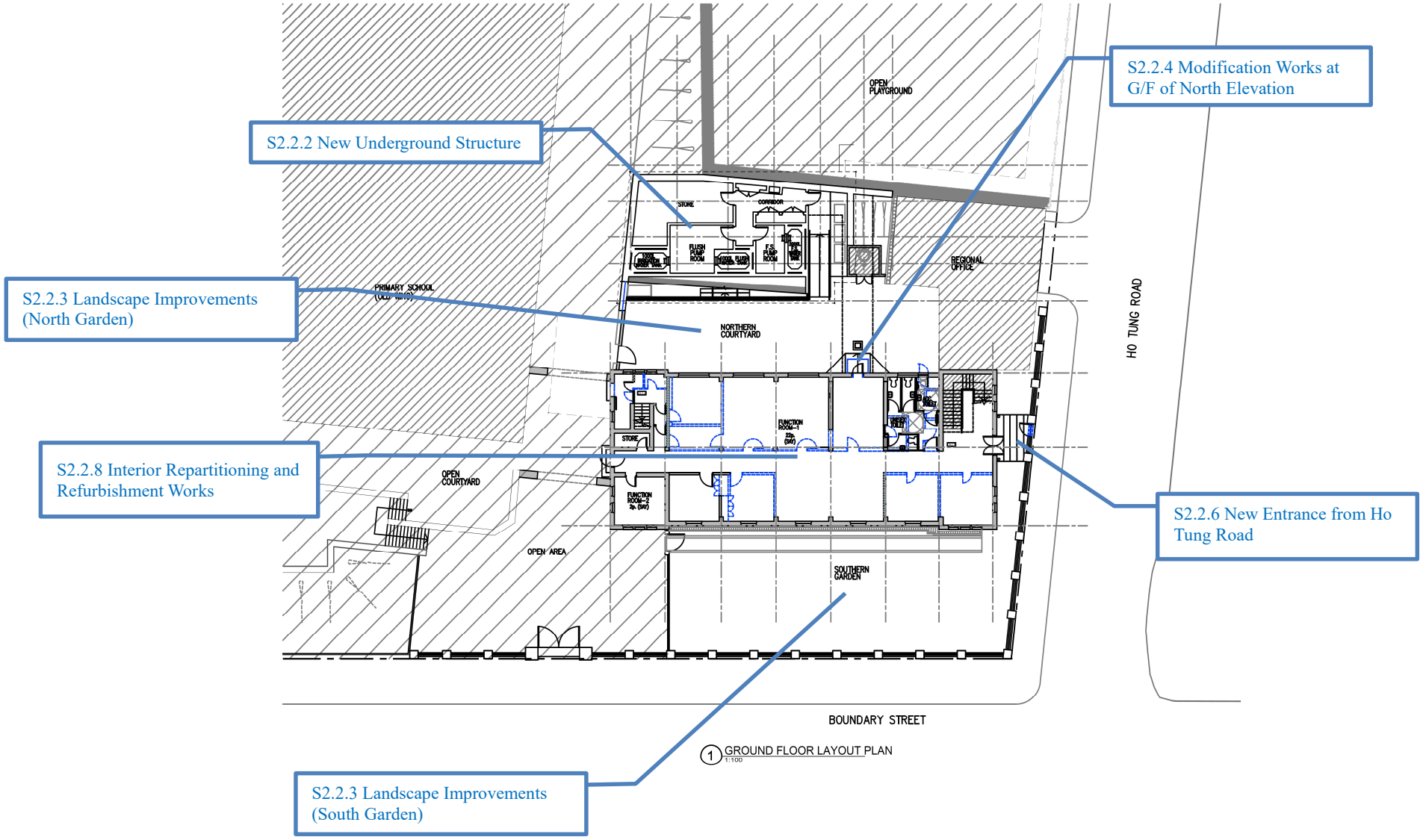
Cultural heritage, noise, air quality, water quality, waste management, ecological impact and landscape and visual impacts will be minimal during the construction phase. No adverse impacts are anticipated with implementation of appropriate mitigation measures. (The mitigation measures during construction are summarized in **Appendix E**).

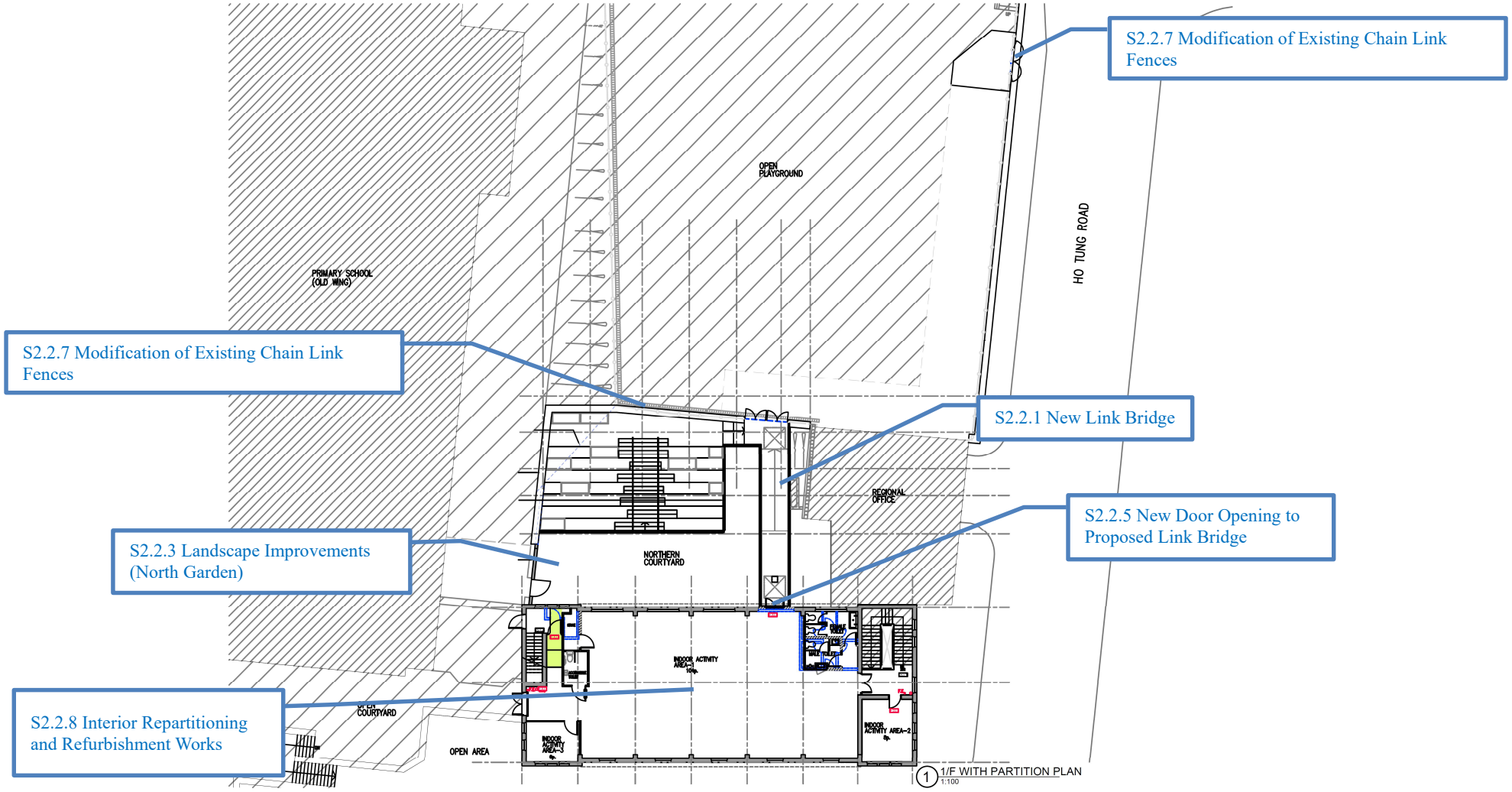
The contractor will strictly comply with the requirements specified in the permit issued under Section 6 of the Antiquities and Monuments Ordinance (Cap.53) by the Antiquities Authority.

The Project is intended to revitalise the Convent Building into good maintenance conditions. which can contribute to society by offering high quality cultural, educational and community services.

APPENDIX A

SITE PLAN AND LAYOUT PLAN OF THE PROJECT

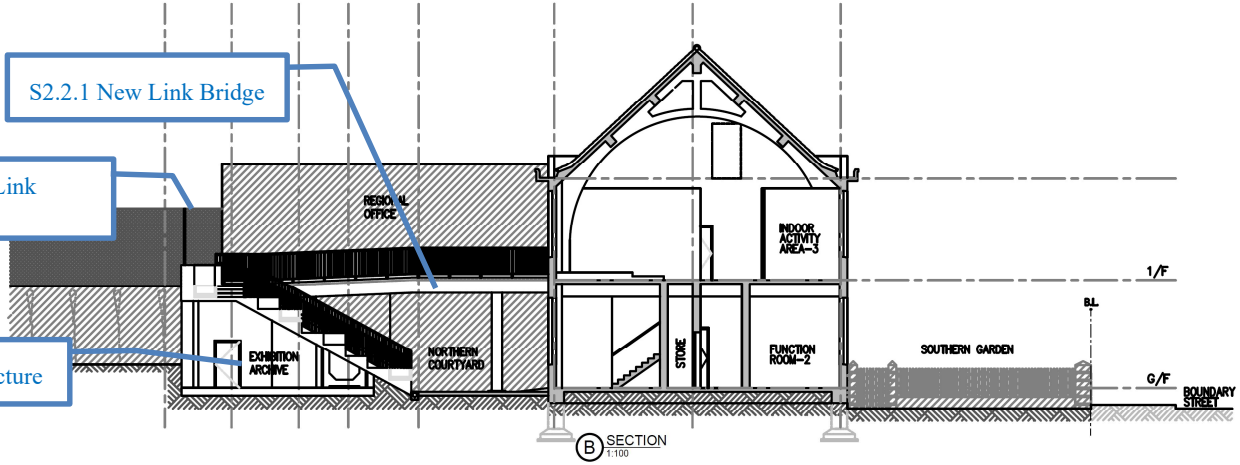

S2.2.4 Modification Works at G/F of North Elevation
S2.2.2 New Underground Structure
S2.2.3 Landscape Improvements (North Garden)
S2.2.8 Interior Repartitioning and Refurbishment Works
S2.2.6 New Entrance from Ho Tung Road
S2.2.3 Landscape Improvements (South Garden)
OPEN PLAYGROUND
CORRIDOR
STONE
FLUSH PUMP ROOM
F.S. PUMP ROOM
REGIONAL OFFICE
HO TUNG ROAD
PRIMARY SCHOOL
NORTHERN COURTYARD
STORE
FUNCTION ROOM--1
OPEN COURTYARD
FUNCTION ROOM--2
OPEN AREA
SOUTHERN GARDEN
BOUNDARY STREET
1 GROUND FLOOR LAYOUT PLAN
1:100


S2.2.7 Modification of Existing Chain Link Fences
S2.2.7 Modification of Existing Chain Link Fences
S2.2.1 New Link Bridge
S2.2.5 New Door Opening to Proposed Link Bridge
S2.2.3 Landscape Improvements (North Garden)
S2.2.8 Interior Repartitioning and Refurbishment Works
OPEN PLAYGROUND
PRIMARY SCHOOL (OLD WING)
HO TUNG ROAD
REGIONAL OFFICE
NORTHERN COURTYARD
INDOOR ACTIVITY AREA-1
INDOOR ACTIVITY AREA-2
INDOOR ACTIVITY AREA-3
OPEN AREA
1/F WITH PARTITION PLAN
1:100

S2.2.1 New Link Bridge

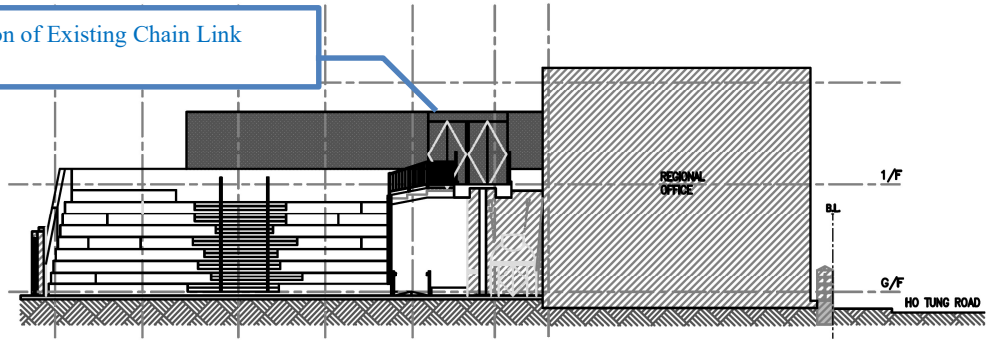
S2.2.7 Modification of Existing Chain Link Fences

S2.2.2 New Underground Structure



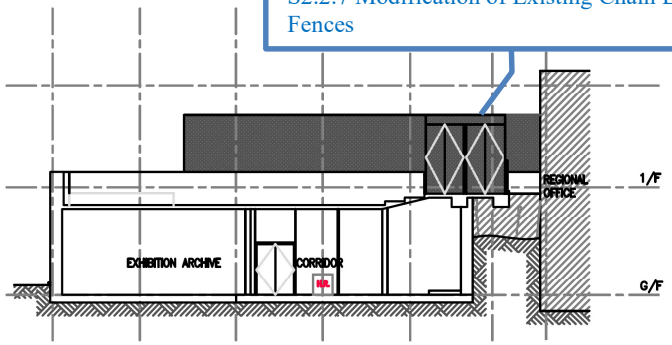
B SECTION 1:100

S2.2.7 Modification of Existing Chain Link Fences

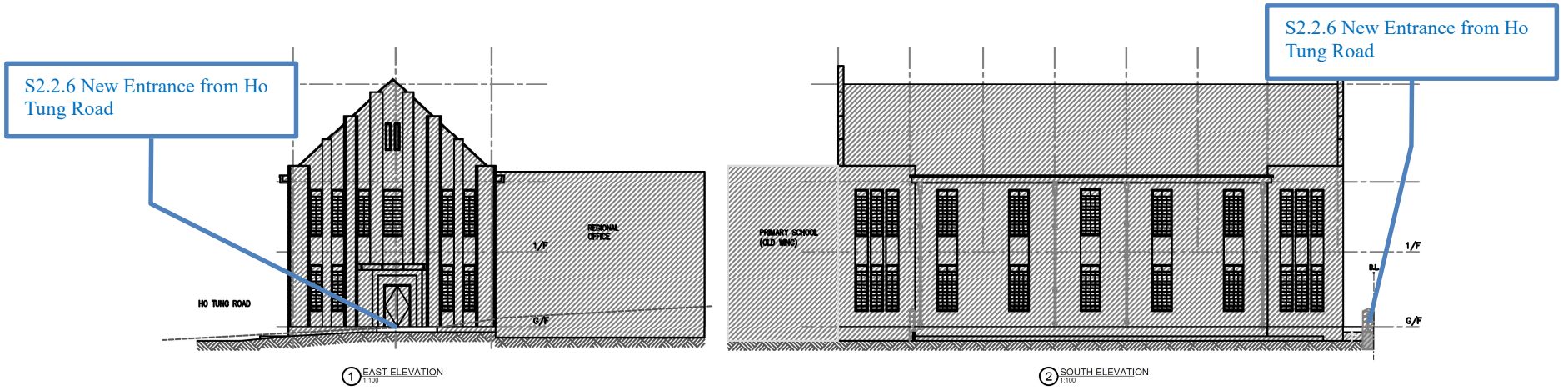


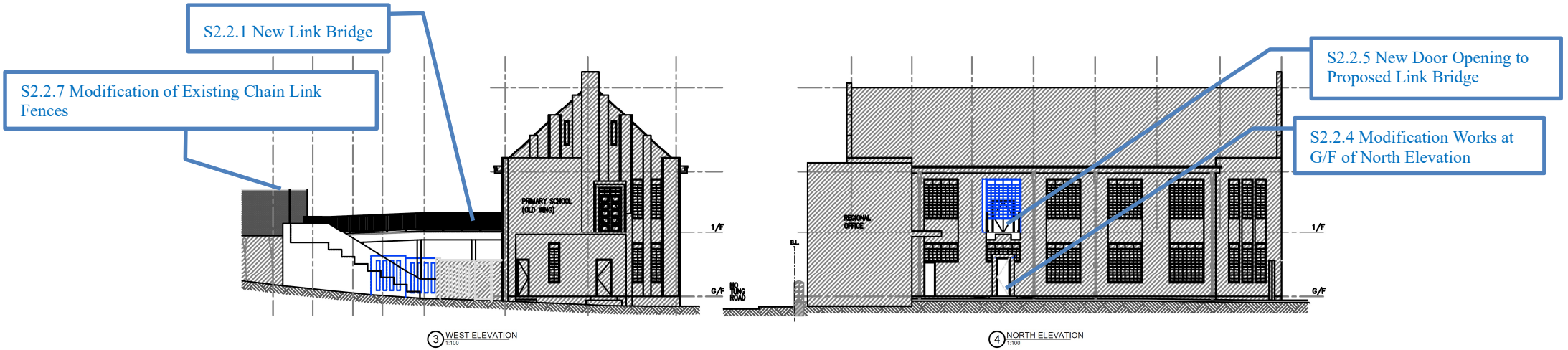
C SECTION 1:100

S2.2.7 Modification of Existing Chain Link Fences

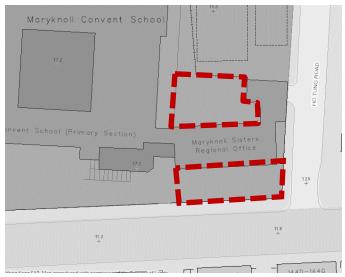
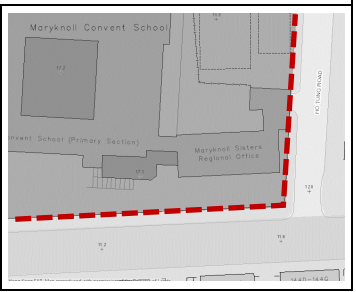


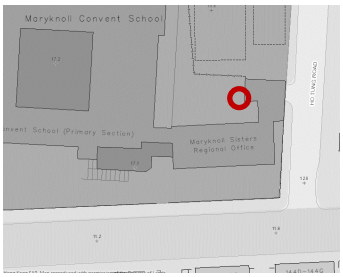
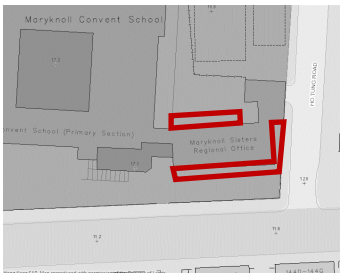
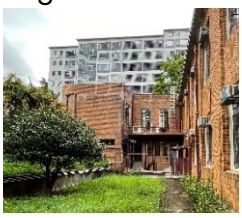
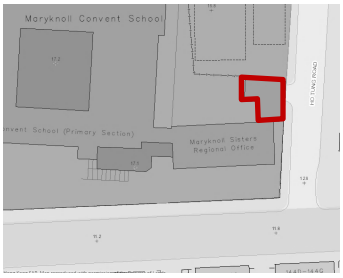
D SECTION 1:100

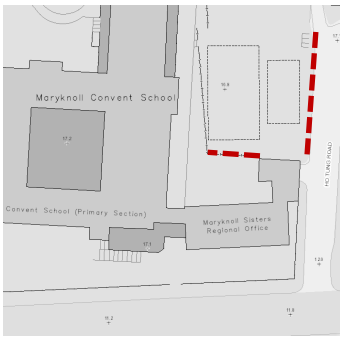

S2.2.6 New Entrance from Ho Tung Road
HO TUNG ROAD
REGIONAL OFFICE
1/F
G/F
1 EAST ELEVATION
1:100
S2.2.6 New Entrance from Ho Tung Road
PRIMARY SCHOOL (OLD WING)
1/F
B.L.
G/F
2 SOUTH ELEVATION
1:100


S2.2.1 New Link Bridge
S2.2.7 Modification of Existing Chain Link Fences
PRIMARY SCHOOL (OLD WING)
1/F
G/F
3 WEST ELEVATION
1:100
S2.2.5 New Door Opening to Proposed Link Bridge
S2.2.4 Modification Works at G/F of North Elevation
REGIONAL OFFICE
B.L.
HO TUNG ROAD
1/F
G/F
4 NORTH ELEVATION
1:100

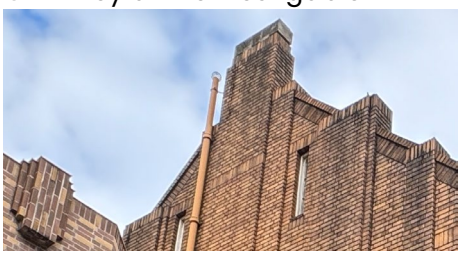
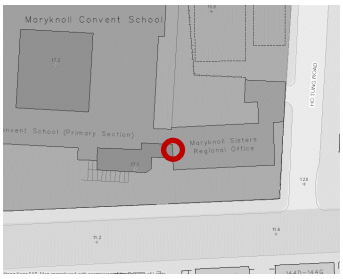
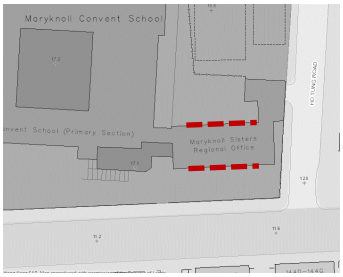
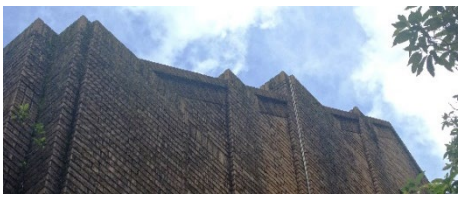
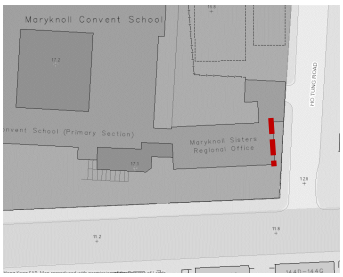
APPENDIX B
CHARACTER DEFINING ELEMENTS

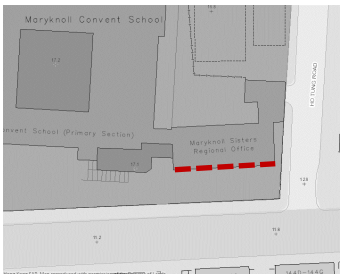
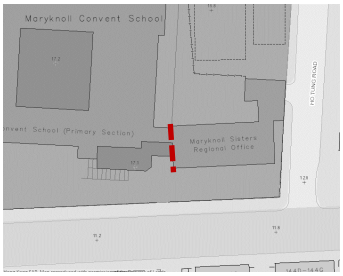
ID	Description (with photo reference)	Level of Significance	Location Plan
Site and Setting			
S-01	Convent Building as an extension to the Main Building with a link bridge connection on 1/F 	Exceptional	
	Assessment: The Convent Building is part of the original design of the School Compound and was served as the Industrial Department Extension with a very functional purpose of housing the vestment department, embroidery department, cassock department, and church linen department.		
S-02	Site setting with landscape garden on the North and South Existing slope feature in the North Garden   	Exceptional Low	
	Assessment: The site setting with open spaces on the south and north is part of the original design. Despite some minor alterations were made, the spaces are well retained as open landscape. The existing slope functions simply as retaining structure and has no specific features, except for the well structure described in S-04 below.		
S-03	Boundary wall constructed with granite piers and ironwork fence 	Exceptional	

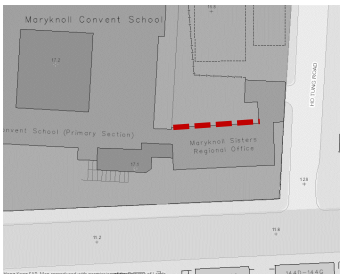
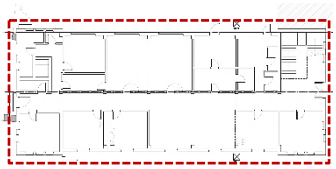
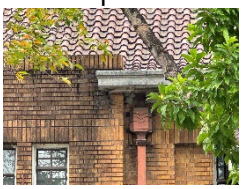
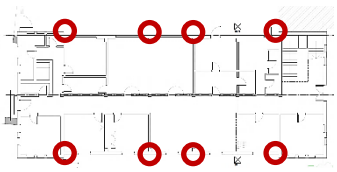
ID	Description (with photo reference)	Level of Significance	Location Plan
	Assessment: The boundary wall which is likely of its original design, has certain quality with respect to both design, workmanship and materials. When compared to the architectural design of historic buildings within the compound, the boundary wall presents a simpler and functional design. It exhibits a high degree of intactness.		
S-04	Well structure in North Garden • Water pump and other equipment  	Moderate Neutral	
	Assessment: The well structure was constructed in 1950s according to the record plan but the existing pump and equipment are later additions or replacement.		
S-05	Granite paving 	High	 *Note: the extent in the North Garden is yet to be verified.*
	Assessment: The granite paving is likely of original design. Investigation to the paving in the North Garden by removing later added screeding is required to verify the extent.		
S-06	Regional Office  	Moderate	 *Note: this building is outside the project boundary.*
	Assessment: The L-shape building is a later extension to Convent Building constructed in 1950s with adoption of similar design language and finishes.		

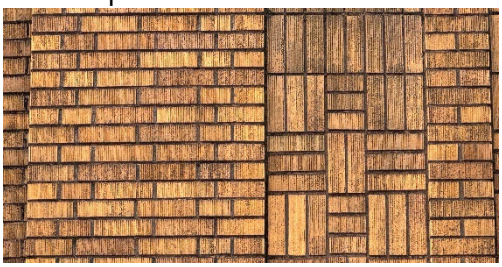
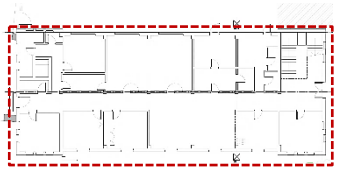
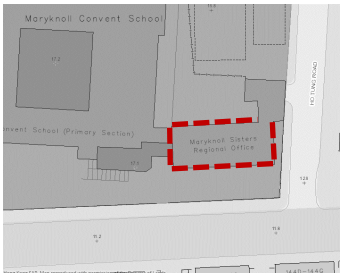
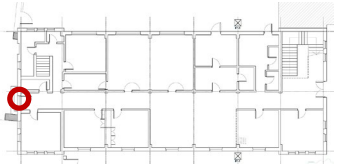
ID	Description (with photo reference)	Level of Significance	Location Plan
S-07	Fence wall in North Garden 	Low	
	Assessment: The fence wall is likely a later addition as it is not shown in the 1949 aerial photo.[15] The exact date is unknown but it's possibly in 1970s when the building was converted to dormitory to provide better privacy.		
S-08	Chain-link fence along Ho Tung Road and between basketball court and North Garden  	Neutral	
	Assessment: The existing chain-link fence is modern fabric with no heritage value.		
Exterior			
E-01	Gable roof in steep profile with glazed roof tiles 	Exceptional	
	Assessment: The gable roof and glazed roof tiles are of original design, which make strong contributions to the architectural and aesthetic value of the place.		

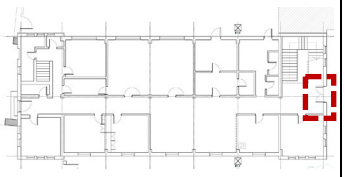
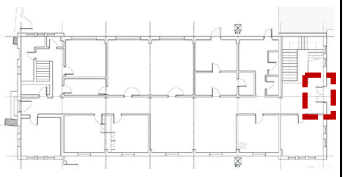
[15] Revival Heritage Consultants Limited et al, 'Historical and Architectural Appraisal for the Convent Building', p.30

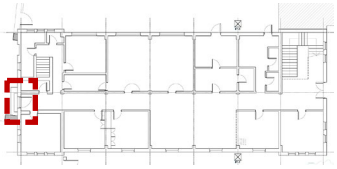
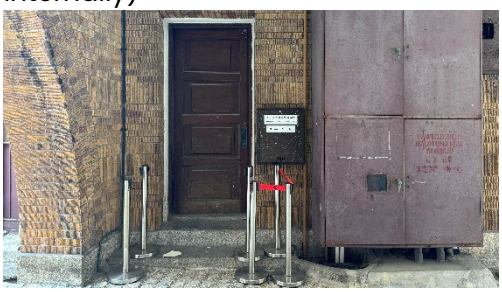
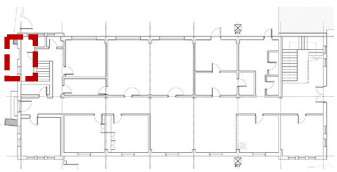
ID	Description (with photo reference)	Level of Significance	Location Plan
E-02	Chimney at the west gable 	High	
	Assessment: The chimney is of its original design, which makes substantial contributions to the architectural and aesthetic value of the place.		
E-03	Granite eave gutter 	High	
	Assessment: The granite eave gutter is of its original design, which makes substantial contributions to the architectural and aesthetic value of the place.		
E-04	East elevation (gable end) with • Symmetrical design • Entrance door on G/F • Tall and narrow window fenestrations • Vertical banding with stepped profiles on top  	Exceptional Exceptional High High High	
	Assessment: The East elevation, which is considered as one of the building's main facades, makes strong contribution to the architectural and aesthetic value of the place. The historical fabric exhibits a high degree of intactness and quality.		

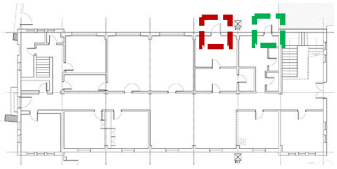
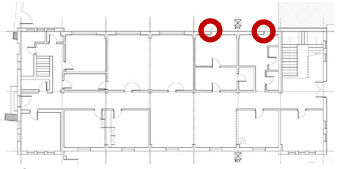
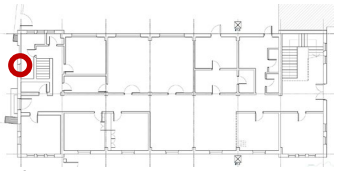
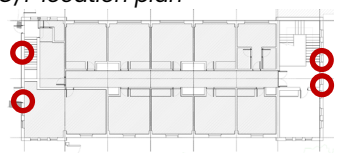
ID	Description (with photo reference)	Level of Significance	Location Plan
E-05	South elevation with • Symmetrical design with slightly projected west and east end • Tall and narrow window fenestrations on west and east end • Regular sized window fenestrations to the rest of the elevation 	Exceptional Exceptional High High	
	Assessment: The South elevation, which is considered as one of the building's main facades, makes strong contribution to the architectural and aesthetic value of the place. The historical fabric exhibits a high degree of intactness and quality.		
E-06	West elevation (gable end) with • Overall architectural design • Door to link bridge with connection to Main Building on 1/F (also see I-16) • Tall and narrow window fenestrations • Vertical banding with stepped profiles on top 	Exceptional Exceptional High High High	
	Assessment: The West elevation, including the design with a link bridge to connect Amah Shelter and Main Building on 1/F, is considered as one of the building's main facades, which makes strong contribution to the architectural and aesthetic value of the place. This historical fabric exhibits a high degree of intactness and quality.		

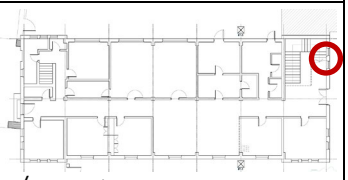
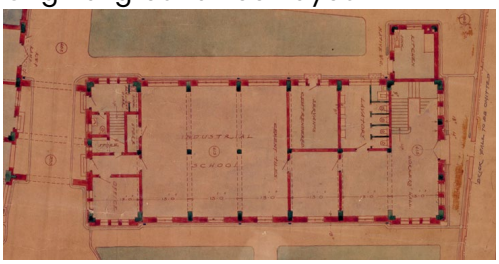
ID	Description (with photo reference)	Level of Significance	Location Plan
E-07	North elevation with • Slightly projected at west end • Largest window fenestrations among all elevations • Modified east end 	High High High Moderate	
	Assessment: The North elevation, which is considered as secondary facades with back-of-house exits, makes substantial contribution to the architectural and aesthetic value of the place. The historical fabric exhibits a relatively high degree of intactness and quality with some past alternations made to the east end and north entrance.		
E-08	Window fenestrations with • Plastered window surrounds • Tiled external sills 	High Moderate High	
	Assessment: The window fenestrations and external tiled sills are likely of original design while the plastered window surrounds may be modified and associated with the later replaced aluminium windows.		
E-09	Cast iron rainwater goods, including downpipe and hopper with fish scaled pattern  	High	
	Assessment: The existing cast iron rainwater goods are likely of original design with high degree of intactness.		

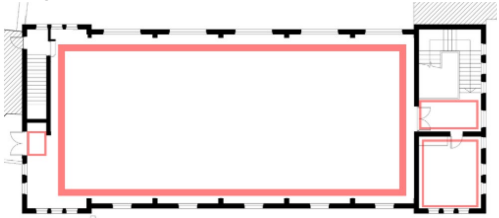
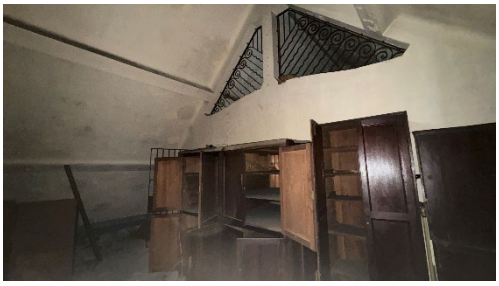
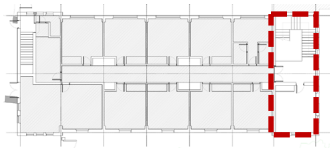
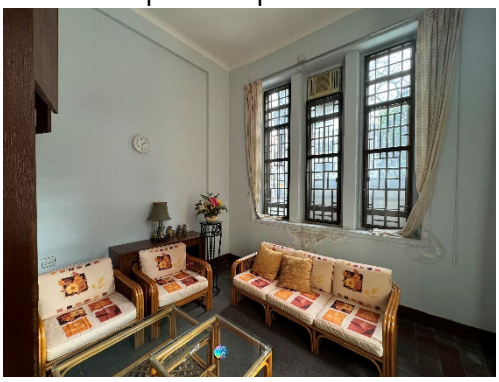
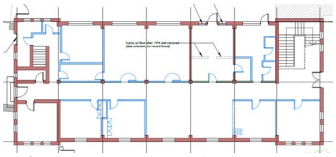
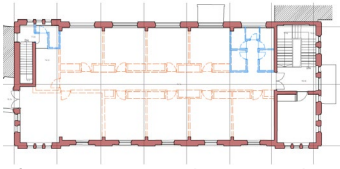
ID	Description (with photo reference)	Level of Significance	Location Plan
E-10	External wall tiles with grooved texture in buff to brown colour laid in various patterns 	Exceptional	
	Assessment: The existing external wall tiles are original fabrics with strong contribution to the architectural and aesthetic value of the building. They also exhibit a high degree of intactness.		
E-11	Granite plinth 	Exceptional	
	Assessment: The granite plinth is original fabrics with high degree of intactness.		
E-12	Historic light fitting 	High	
	Assessment: The light fitting is possibly of original design.		

ID	Description (with photo reference)	Level of Significance	Location Plan
E-13	East entrance with • double timber panelled door with fanlight • decorative metal gate • mosquito screen • granite steps  	High High High Neutral High	
	Assessment: The East Entrance, including the double timber panelled door with fanlight, decorative metal gate and granite steps, are of original design. The mosquito screen is a modern addition.		
E-14	Later addition of metal canopy over east entrance 	Neutral	
	Assessment: The metal canopy is likely a later addition to the building but provide necessary weather protection to the building entrance.		

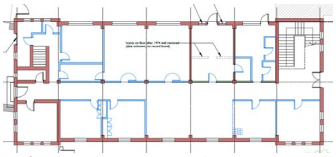
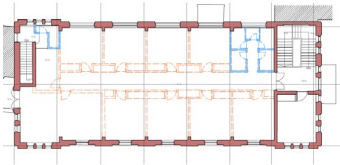
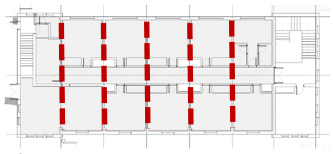
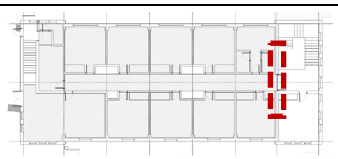
ID	Description (with photo reference)	Level of Significance	Location Plan
E-15	West entrance with • timber moulded panelled door with letter box • decorative metal gate • mosquito screen • granite steps  	High High High Neutral High	
	Assessment: The West Entrance, including the timber moulded panelled door with letter box, decorative metal gate and granite steps, are of original design. The mosquito screen is a modern addition.		
E-16	Exit timber moulded panelled door with granite steps (currently blocked internally) 	High	
	Assessment: The moulded panelled door and granite steps are of original design.		

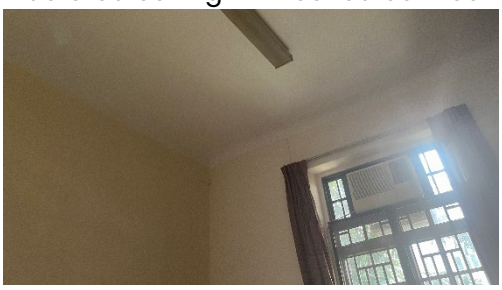
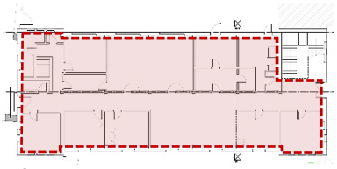
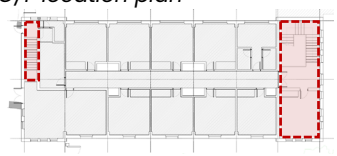
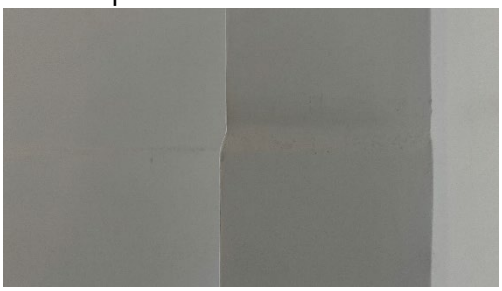
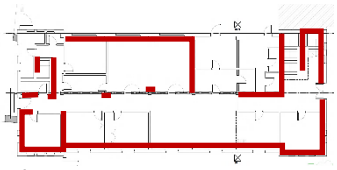
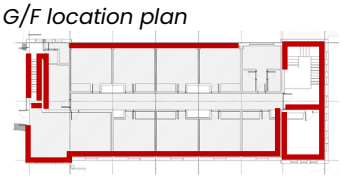
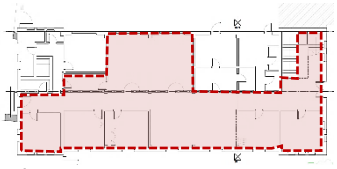
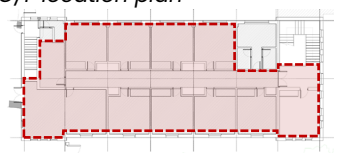
ID	Description (with photo reference)	Level of Significance	Location Plan
E-17	North entrance with • exit door and toilet door (modern replacements) • Wall opening at the toilet door • metal canopy (modern addition) • granite steps 	Moderate Neutral Moderate Adverse High	
	Assessment: The existing north entrance (red dashed line) was modified in the 1970s alterations. The existing timber door is a later replacement while the metal canopy is a later addition. The aluminium toilet door is also a later replacement to the possibly original door opening (green dashed line). The granite steps are original fabrics.		
E-18	Historic door (cabin) hook 	Moderate	 *G/F location plan*
	Assessment: The door hook is possibly of original design associated with the old doors which are lost.		
E-19	Steel windows including ironmongery 	High	 *G/F location plan*  *1/F location plan (high level)*
	Assessment: These are the surviving original steel windows. The configuration of glazing bars and selection of window ironmongery are believed to be authentic.		

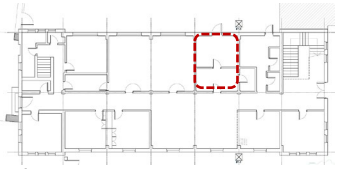
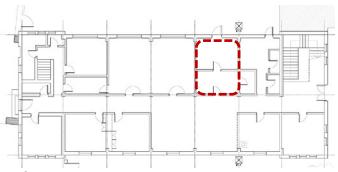
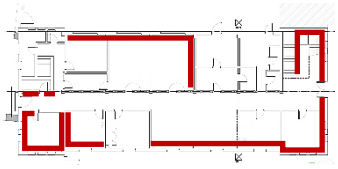
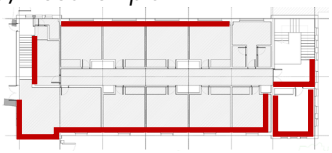
ID	Description (with photo reference)	Level of Significance	Location Plan
E-20	Aluminium windows with clear glazing including ironmongery, aluminium grilles and insect screens 	Neutral	All other windows that are not steel windows marked up in E-19 and E-21.
	Assessment: Aluminium windows incl. grilles and insect screens were modern replacement to original steel windows, possibly in the 1970s or even later. Note: No record is found.		
E-21	Aluminium windows with yellow textured glazing including ironmongery 	Low	 *G/F location plan*
	Assessment: The date of the yellow-textured glazing is unknown. It may be a historic fabric that was reused in the past. Note: No record is found.		
Interior			
I-01	Original ground floor layout  *Source: The Maryknoll Mission Archives, circa 1930s.*	High	N/A
	Assessment: The original layout as an Industrial Department is historically significant.		

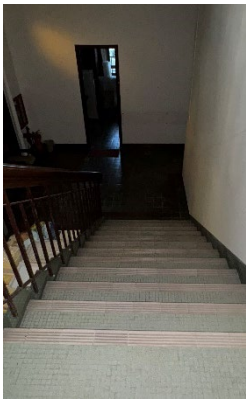
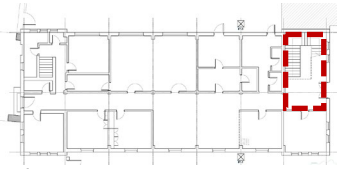
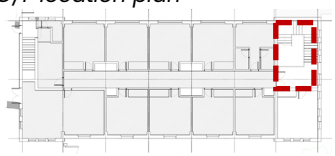
ID	Description (with photo reference)	Level of Significance	Location Plan
I-02	Original first floor layout  *Deducted original 1/F plan. Source: HAA [16].*	High	N/A
	Assessment: The original layout as an Industrial Department is historically significant.		
I-03	Cockloft 	Exceptional	 *Area above 1/F*
	Assessment: The cockloft was part of the original design which is historically significant.		
I-04	Original 1937 reinforced concrete frame structure with brick infill walls, finished in painted plaster 	Exceptional	 *G/F location plan (hatch red)*  *1/F location plan (hatch red)*
	Assessment: The structural elements associated with the original design are original fabrics with high degree of intactness.		

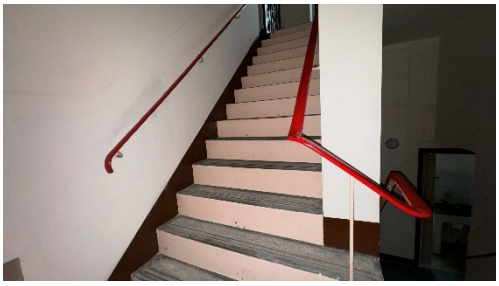
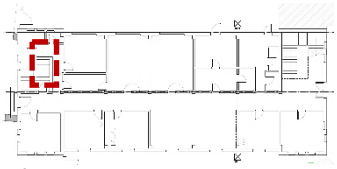
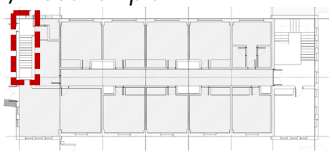
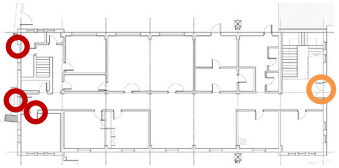
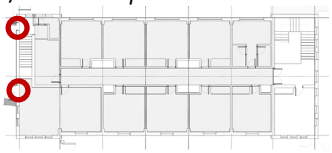
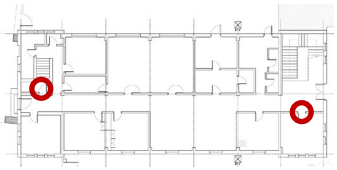
[16] Please refer to Appendix A for 'Historical and Architectural Appraisal for the Convent Building' by Revival Heritage Consultants Limited.

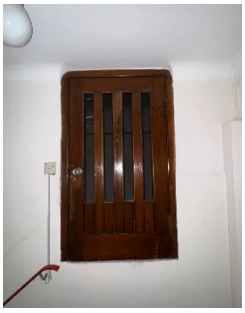
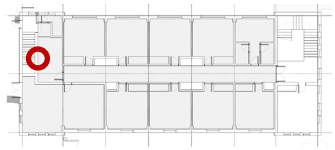
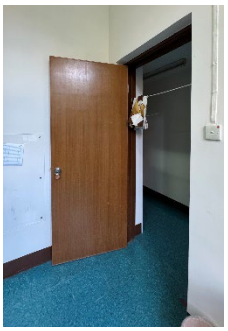
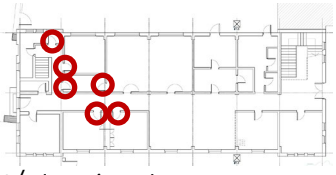
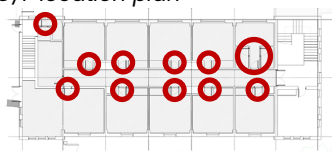
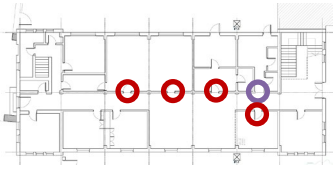
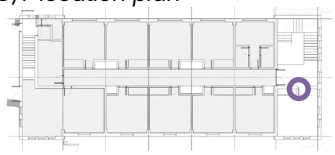
ID	Description (with photo reference)	Level of Significance	Location Plan
I-05	Partition walls installed as part of alteration works in 1974 	Low	 *G/F location plan (hatch blue)*  *1/F location plan (hatch blue)*
	Assessment: Partition walls (in blue lines) are later additions in 1970s when the building was transformed into Sisters' dormitory. The interior was partitioned into bedrooms, lounges and different function rooms. Note: The partition walls in dashed orange lines are already removed.		
I-06	1/F painted plastered ceiling with exposed reinforced concrete roof trusses 	Exceptional	 *1/F location plan*
	Assessment: The roof trusses are of original design with a high degree of intactness and a strong contribution to the architectural and aesthetic value of the space.		
I-07	Wrought iron decorative grilles 	High	 *1/F location plan*
	Assessment: The wrought iron grilles are likely of the original design when the building was served for the Industrial Department.		

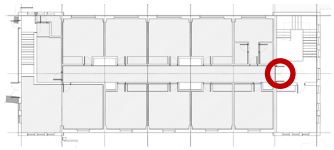
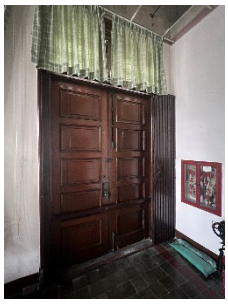
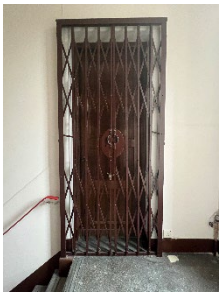
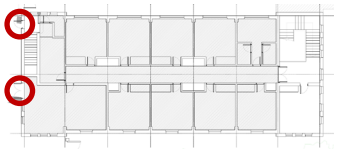
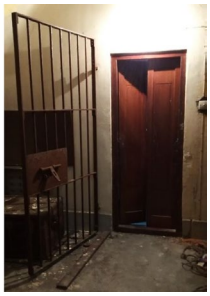
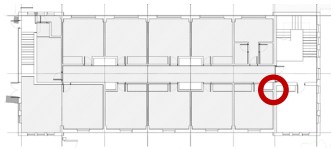
ID	Description (with photo reference)	Level of Significance	Location Plan
I-08	Plastered ceiling with coved cornice 	Moderate	 *G/F location plan*  *1/F location plan*
	Assessment: The plastered coved cornice is in simple profile and likely of historical design. However, its existence is also found on 1970 partition wall. Therefore, its significance is set as "Moderate". If further evidence is found to support its being original fabric, the significance level should be upgraded to "High".		
I-09	Painted plastered dado 	Moderate	 *G/F location plan*  *1/F location plan*
	Assessment: The dado are found on the original walls. However, the dado is finished in painted cement render which is different from the upper part of the wall finished in painted lime plaster. The existing dado is likely associated with the 1970s renovation works. If further evidence is found to support its being original fabric, the significance level should be upgraded to "High".		
I-10	Press-in cement floor tiles *Note: Extent shown is based on site observation. The actual extent to be further verified after the removal of modern floor finishes.* 	High	 *G/F location plan*  *1/F location plan*
	Assessment: The pressed cement tiles represent the original finishes when the building was constructed in 1930s. These tiles make substantial contribution to the overall significance of the building's interior design.		

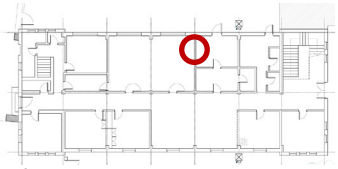
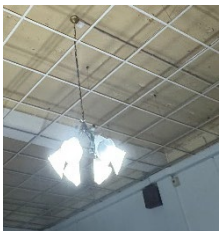
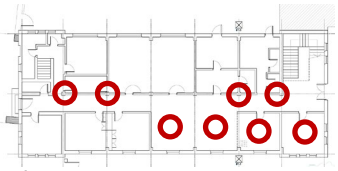
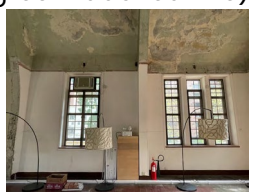
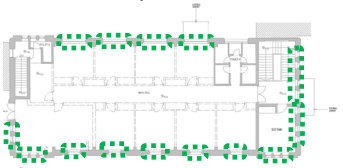
ID	Description (with photo reference)	Level of Significance	Location Plan
I-11	Mosaic wall tiles 	Low	 *G/F location plan*
	Assessment: The mosaic wall tiles is possibly part of the later alteration in 1970s when the room was converted as pantry and kitchen.		
I-12	Mosaic floor tiles 	Low	 *G/F location plan*
	Assessment: The mosaic floor tiles is possibly part of the later alteration in 1970s when the room was converted as pantry and kitchen.		
I-13	Press-in cement tiled skirting tiles (currently overpainted)  (Trial area showing the appearance after paint removal) 	High	 *G/F location plan*  *1/F location plan*
	Assessment: The pressed cement tile is the original skirting finishes.		

ID	Description (with photo reference)	Level of Significance	Location Plan
I-14	Grand staircase, including • lobbies on G/F and 1/F • metal balusters with timber handrail • mosaic floor tiles • modern nosing tiles • picture frame moulding • Corbel at northeast corner (see box in blue dash line)  	Exceptional Exceptional Exceptional High Low Moderate Exceptional	 *G/F location plan*  *1/F location plan*
	 		
	Assessment: The grand staircase is likely of its original design and exhibits a high degree of intactness and quality in terms of design and materials. The existing nosing tiles is possibly a modern alteration as part of the 1970s renovation. There is a painted moulded picture frame on the north wall at half landing. Its original purpose or function is unknown.		

ID	Description (with photo reference)	Level of Significance	Location Plan
I-15	West (secondary) staircase • modern handrail 	Moderate Neutral	 *G/F location plan*  *1/F location plan*
	Assessment: The West staircase is a secondary stair. The structure is believed to be original but alterations had been introduced in the past, possibly in 1970s, which includes the addition of modern handrail and paint finishes to the risers.		
I-16	Historic timber raised and fielded panelled door with fanlight (with either yellow textured or clear glass, if applicable) and moulded architrave 	High	 *G/F location plan*  *1/F location plan* Door fanlight with clear glass Door fanlight with yellow textured glass
	Assessment: These doors are likely original fabrics with high degree of intactness.		
I-17	Timber ledged style door 	Low	 *G/F location plan*
	Assessment: These timber doors are possibly added as part of the later alteration.		

ID	Description (with photo reference)	Level of Significance	Location Plan
I-18	Timber door with vision glazing panels to storeroom at half landing of ST2 	Moderate	 *1/F location plan*
	Assessment: This timber door is possibly added as part of the later alteration.		
I-19	Flush timber doors as part of alteration works in 1974 	Neutral	 *G/F location plan*  *1/F location plan*
	Assessment: These doors are in modern profiles and associated with the room layout formed as part of the 1970s renovation.		
I-20	Timber raised and fielded panelled doors located at later divided rooms 	Moderate	 *G/F location plan*  *1/F location plan*
	Assessment: All 6 nos. timber panelled doors (highlighted both in red and purple) are in the same design but with modern door knobs. Those highlighted in red are associated with the room layout formed as part of the 1970s renovation. The two highlighted in purple are possibly later replacement during the 1970s renovation. Compared to I-16, these doors are deemed to have “Moderate” significance level.		

ID	Description (with photo reference)	Level of Significance	Location Plan
I-21	Historic double timber raised and fielded panelled door with fanlight, moulded architrave, decorative metal grille  	High	 *1/F location plan*
	Assessment: These doors are likely original fabrics with high degree of intactness.		
I-22	Concertina steel door  	Neutral	 *1/F location plan*
	Assessment: These concertina steel doors are possibly installed as a later alteration for security purpose.		
I-23	Historic double timber panelled door with metal bar gate to cockloft and the metal bar underneath  	High	 *1/F (high level)*
	Assessment: The door, gate and metal bar are likely original fabrics with high degree of intactness.		

ID	Description (with photo reference)	Level of Significance	Location Plan
I-24	Tabernacle at the former chapel 	High	 *G/F location plan*
	Assessment: The tabernacle was installed at when the rooms at Industrial School was transformed into the Chapel. It represents the transition of the function of the building.		
I-25	Interior light fittings    	Moderate	 *G/F location plan*
	Assessment: These interior light fittings are of historical design but their dates are unknown. There is certain quality in respect of their design and use of materials.		
I-26	Internal window architrave with • plastered moulding and sill (red-dashed line) • modified architrave and sill in tiled finishes (green-dashed line)  	High High Neutral	 *G/F location plan*  *1/F location plan*
	Assessment: The window architrave with plastered moulding and sill is possibly the original design, while the modified architrave and tiled sill are part of the later 1970s alterations.		

APPENDIX C DETAILED HERITAGE IMPACT ASSESSMENT AND MITIGATION MEASURES

8.4 IMPACT ASSESSMENT

<table>
<tr><td rowspan="10">8.4.1</td><td>Description of Proposed Works</td><td>Affected CDEs/ Elements</td><td>Significance</td></tr>
<tr><td rowspan="9">Carry out repair and maintenance works to the building exterior. Works including:
1. Repair of roof waterproofing by carefully salvaging existing roof tiles, renewing waterproofing system and re-roofing using both salvaged and new matching roof tiles to rectify water ingress;
2. Steam cleaning of building façades, including tiles and granite, to remove any heavy staining and vegetation growth;
3. Repair of any debonded or damaged tiles found on the building facades (extent to be verified through tapping test) by injection grouting and/ or replacement by new matching tiles;
4. Clean, repair and redecorate historic steelwork, such as surviving steel windows, decorative metal gates and ironwork fence railings;
5. Clean, repair and redecorate existing rainwater goods, including pipes, brackets, etc.;
6. Clean and repair existing granite fence walls, plinths and steps;
7. Repair and redecorate existing metal canopy on the East elevation;
8. Retain, repair and redecorate the well structure in the North Garden;
9. Retain, repair and redecorate historic light fittings;
10. Remove later added mosquito screens to the decorative gates at west and east entrance and make good the affected areas;
11. Repair and redecorate historic timber doors to match existing;
12. Retain and clean historic door (cabin) hook; and
13. Clean, repair and make good the retained part of west fence wall in the North Garden.</td><td>S-01 to S-03, E-01, E-04, E-05, E-06, E-10, E-11

S-05, E-02 to E-03, E-07 to E-09, E-12, E-13, E-15, E-16, E-19

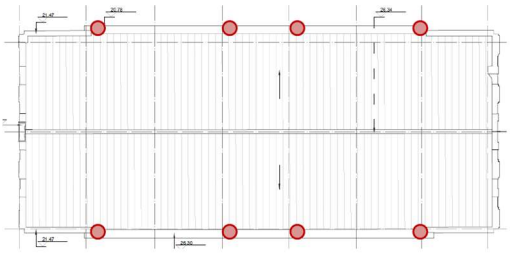
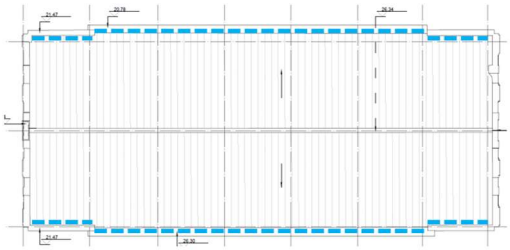
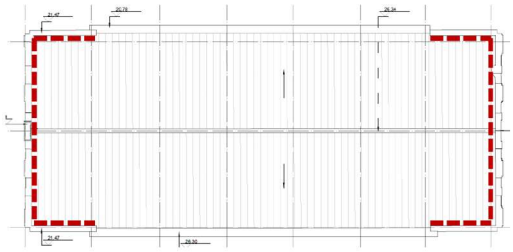
S-04, E-17, E-18

E-14</td><td>Exceptional

High

Moderate

Neutral</td></tr>
<tr><td colspan="2">Reasons and Justifications</td></tr>
<tr><td colspan="2">• To protect historic fabrics from damages or deteriorations and maintain them in good condition.
• To ensure the building's weather tightness and address any water ingress issues found.</td></tr>
<tr><td colspan="2">Mitigation Measures</td></tr>
<tr><td colspan="2">• Repair and maintenance works shall be carried out on like-for-like basis.
• Non-abrasive cleaning method shall be adopted to avoid potential damages.
• Disturbance to the historic fabrics shall be minimised where feasible.
• Site trials and mock-ups shall be prepared and agreed with AMO prior to full-scale repair/ cleaning works.
• The original colour schemes of the steel windows and rainwater pipes shall be informed by paint analysis and agreed with AMO.</td></tr>
<tr><td colspan="2">Overall Impact</td></tr>
<tr><td colspan="2">Beneficial</td></tr>
</table>

8.4.2	Description of Proposed Works	Affected CDEs/ Elements	Significance
	Carry out improvement works to the existing gutters and abutment walls between pitched roof and gables. Works including: 1. Install leaf guards to existing outlets (red circle) and gutters (blue dash line) along North and South elevations; and   2. Install stepped metal flashing (red dash line) to abutments against parapet and gable walls.  	E-01 E-02 E-03	Exceptional High High

Reasons and Justifications

- To ensure the building's weather tightness and address any water ingress issues found.
- To reduce the frequency and cost required for regular maintenance.
- The leaf guard and metal flashing are positioned in discrete locations and will largely be hidden when viewed from ground level.

Mitigation Measures

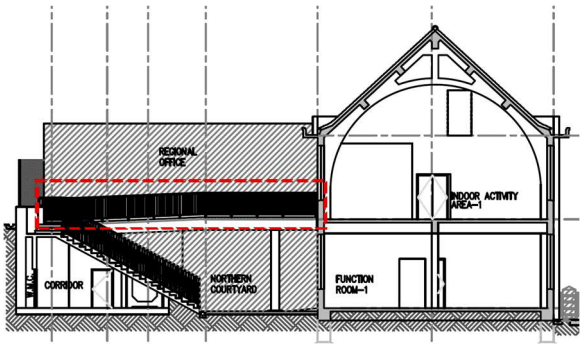
- Disturbance to the historic fabrics shall be minimised where feasible.
- Site mock-ups shall be prepared and agreed with AMO prior to full-scale installation works.
- Any tiles affected by the re-waterproofing works shall be salvaged and reused as much as feasible. New replacement tiles shall match existing in terms of size, colour and texture.
- Direct fixings to tiles or granite shall be avoided where feasible. Fixings to mortar joints is generally acceptable.

Overall Impact

Acceptable

Reference photo of metal flashing. Source: National House Building Council, UK

8.4.3	Description of Proposed Works	Affected CDEs/ Elements	Significance
	Construct a new link bridge with 1 no. of metal post in the North Garden to provide barrier-free access and means of escape routing to 1/F of Maryknoll Convent Building.	S-02 S-04 & S-06 S-05, E-07 & E-08 E-10 E-20	Exceptional Moderate High Exceptional Neutral



Artistic impression of the proposed new link bridge.

Alternative Approach (not recommended)
The alternative proposal of installing an external lifting platform has been considered but it is concluded that it is not preferred due to adverse visual and physical/ structural impacts on the existing building. Upgrade to the grand staircase for code compliance is still required under this scheme as it will be required to provide a second means of escape access.

Reasons and Justifications

- To serve as a code complied means of escape routing and to provide barrier free access to the building.
- To avoid potential upgrades to existing grand staircase.
- There will be no physical impact on the Regional Office (later addition built in 1950s) and visual impact on the adjacent buildings are considered to be acceptable.

Mitigation Measures

- The link bridge shall not impose any structural loading onto existing Convent Building and Regional Office.
- The massing and bulkiness of the link bridge shall be minimised.
- The proposed bridge shall be distinguishable but designed in a sympathetic way so that it does not conflict with the external appearance of adjacent buildings.
- The location of the bridge footing should be set away from the building as far as feasible to minimise any potential structural impact or disturbance to the existing Convent Building foundations and any historic granite paving (if found) by carrying out necessary investigation works and site verification.
- The bridge can be utilized to enable building services to run between the plantroom and the Convent Building.
- Obtain approval from the Buildings Department for a structural monitoring

Artistic impression of the lift platform option.

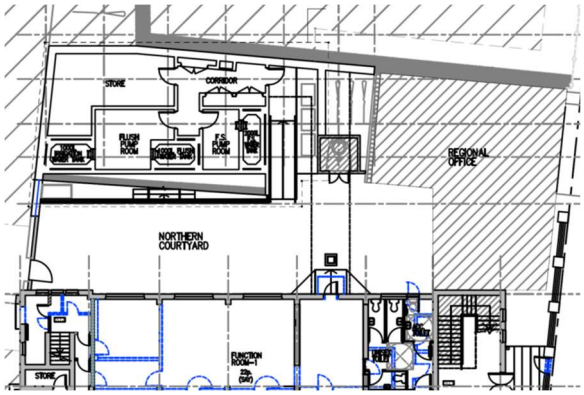
system that will monitor the potential impact on the retained buildings/ structure during the construction works.

- Except for the installation of construction joints, fixing to existing Convent building shall be avoided.
- The extent of the old granite paving shall be verified before excavation.
- Any findings during excavation, such as the old well structure shown in the 1962 map and other historic underground utilities, shall be reported to AMO if found. Damages to any found underground structure or utilities shall be avoided as far as practical.

Overall Impact

Acceptable with mitigation measures

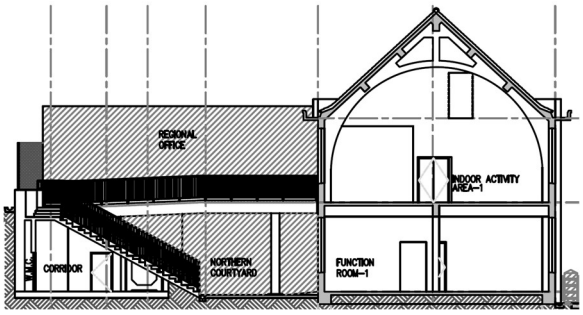
8.4.4	**Description of Proposed Works**	**Affected CDEs/ Elements**	**Significance**
	Excavate existing slope in the North Garden and basketball court for construction of new underground structure to host plantrooms and building services equipment which may require partial removal of the existing west fence wall in the North Garden.	S-02 (Site setting) S-02 (Slope feature) & S-07 (Fence wall in North Garden) S-04 (Well structure) & S-06 S-04 (Water pump and other equipment) & S-08	Exceptional Low Moderate Neutral



Proposed North Garden layout. Not to scale.

Reasons and Justifications

- To facilitate the addition of new underground hose reel tank, fire service pump room, flush pump room and other spaces required for statutory compliance and operational needs.
- Through its stepped form, it can support the activation of the North Garden as an event space.
- There will be no adverse visual impact as the massing and form of new structure is similar to the existing slope.
- The existing fence wall on the west is possibly a later addition when the building was converted to dormitory to provide better privacy.



Proposed section. Not to scale.

Existing condition of the North Garden.

Existing condition of the Well structure.

The affected extent (indicative) of existing fence wall.

- Subject to site investigation, consideration shall be given to retain the existing fence wall in full if feasible.

Mitigation Measures

- Obtain approval from the Buildings Department for a structural monitoring system that will monitor the potential impact on the adjacent retained buildings/ structures (incl. Regional Office) during the construction works.
- The existing well structure shall be retained in situ. Interpretative measures should be included in the overall interpretation plan to aid understanding.
- The extent of the old granite paving shall be verified before excavation.
- Any findings during excavation, such as the old well structure shown in the 1962 map and other historic underground utilities, shall be reported to AMO if found. Damages to any found underground structure or utilities shall be avoided as far as practical.
- The new structure at the North Garden should be distinguishable but designed in a sympathetic way so that it does not conflict with the building. The overall appearance of the new structure shall be in a stepping form to mimic the existing slope.
- Photographic and cartographic record of the existing fence wall on the west shall be prepared prior to commencement of excavation works. The remaining portion that will not be affected shall be retained in-situ, recorded, cleaned, repaired and made good.

Overall Impact

Acceptable with mitigation measures

8.4.5	**Description of Proposed Works**	**Affected CDEs/ Elements**	**Significance**
	Landscape improvement works to the North and South Gardens, including:	S-02 (Site setting) S-02 (slope feature) S-06	Exceptional Low Moderate

1. Removal of later added screeding to reveal original granite paving in the North Garden (if found);
2. Clean, repair and re-grout/ repointing of all granite paving; and
3. Install new hard and soft landscape including outdoor furniture and granite paving

Artistic impression of the proposal for North Garden

Artistic impression of the proposal for South Garden with existing granite paving retained and revealed.

Existing condition of the South Garden with exposed granite paving.

Existing condition of the North Garden.

E-05 S-05, E-07	Exceptional High

Reasons and Justifications

- To activate the use of the existing outdoor space in connection with the building's future programme.
- To improve the existing landscape design, aesthetics, and environmental conditions around the Convent Building.
- The proposed regrouting/ repointing of the granite paving aims to address health and safety issue related to trip hazard due to the noticeable level difference between the granite paver and joints.

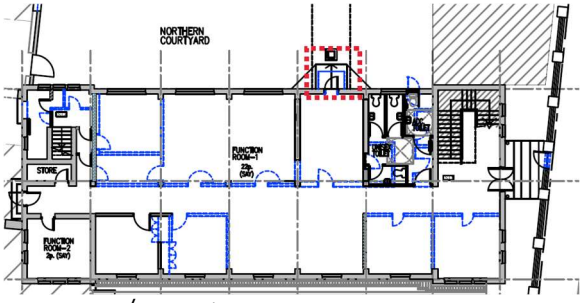
Mitigation Measures

- The existing exposed granite paving in the South Garden shall be retained.
- The existence and extent of the historic granite paving (currently covered by screeding layer) in the North Garden shall be further verified with consideration to expose them if feasible.
- All granite paving shall be cleaned using non-abrasive method.
- Existing healthy (unregistered) trees in the South Garden shall be retained as much as possible. Tree felling proposal should be prepared and submitted if any tree felling is required.
- Proposed garden design including new outdoor furniture design and paving finishes (including new granite tiles and timber deck) shall be distinguishable but in a sympathetic way so that it does not conflict with the building's external appearance and other buildings nearby.
- New grouting/ repointing shall be in rough finishes and slightly recessed from the granite paving surfaces.

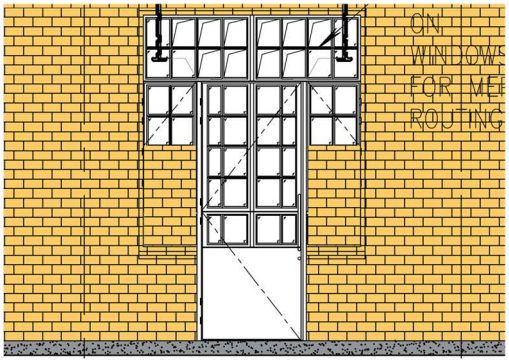
Overall Impact

Acceptable with mitigation measures

8.4.6	**Description of Proposed Works**	**Affected CDEs/ Elements**	**Significance**
	Enlarge the existing door opening (approx. 750 x 2000mm) on G/F of North elevation to provide sufficient clear width (min. 850mm) to fulfil statutory requirement for MoE exit and for penetrations for building services routing to building interior. Remove later added canopy structure with asbestos contaminated roof. The upper part of the new replacement steel window will facilitate the routing of new MEP pipework and ductwork serving from the new MEP facilities in the North Garden. Install a new ramp outside the north entrance to address the existing level difference between exterior and interior and provide barrier free access.	E-07 E-10 E-17 (North entrance) E-17 (Granite steps) E-18 E-20 I-01	High Exceptional Moderate High Moderate Neutral High



Proposed G/F Location Plan.



Proposed new door design with fanlights for MEP routing.

Reasons and Justifications

- To fulfil statutory compliance.
- The affected door opening on G/F was originally within the back of house area that is of lower significance.
- The affected windows are later replacements with an aluminium profile. The timber door is also a modern replacement.
- The existing canopy is a later addition with no heritage value. The asbestos roofing might cause health and safety risks to the future users.

Mitigation Measures

- Documentation of the affected area shall be prepared by means of 3D scanning and photo recording.
- Existing wall tiles and bricks affected shall be salvaged and reused for repair elsewhere if feasible.
- Consideration shall be given to review the feasibility of retaining and reusing the existing window ironmongery system on G/F for operating the windows at high level, which is believed to be modified to suit the later replaced aluminium window.
- The removal of asbestos contaminated roof shall follow latest statutory procedures and requirements.
- The design of new steel doors should be distinguishable but designed in a sympathetic way so that it does not conflict with the building.

Proposed widened door opening (red dashed line)

Existing condition of the window at high level.

- Existing adjacent cast iron rainwater pipes and cabin hook should be repaired and retained in-situ.
- The BFA ramp shall be installed in a reversible manner. The existing granite paving (if found) shall be preserved in-situ. Fixing to the granite paving for installing the ramp shall be avoided. Fixing can be made to the wide joints between granite paving if required.

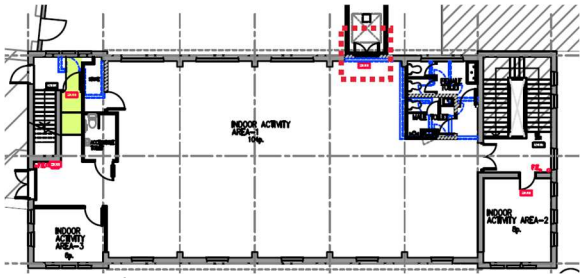
Overall Impact

Acceptable with mitigation measures

8.4.7

Description of Proposed Works

Removal of brick spandrel below existing 1/F window to form a new door opening (approx. 1500mm in width) for MoE and BFA access to the proposed link bridge.



Proposed 1/F layout plan.

Existing condition of the affected window.

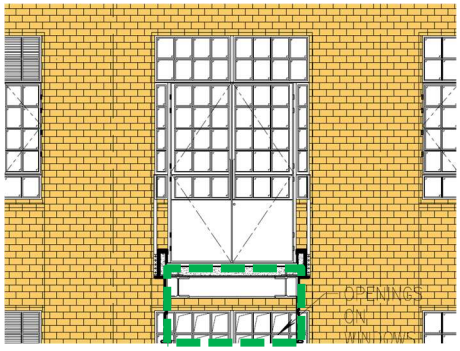
Affected CDEs/ Elements	Significance
E-07	High
E-08	High
E-10	Exceptional
E-20	Neutral
I-02	High
I-13	High

Reasons and Justifications

- To enable the connection to the link bridge for means of access and escape, as well as barrier free access.
- The affected window (blue dashed line) is a later replacement with an aluminium profile.
- The affected window spandrel is a non-structural wall.

Mitigation Measures

- Documentation of the affected area shall be prepared by means of 3D scanning and photo recording.
- Existing external wall tiles, bricks and skirting tiles shall be salvaged and reused for repair elsewhere if feasible.
- The design of new steel door should be distinguishable but designed in a sympathetic way so that it does not conflict with the building.
- The structural zone (green dashed line) at the soffit of the bridge will be used for accommodating building services to



Proposed design of the new door

reduce the bulkiness of the bridge with improved visual appearance.

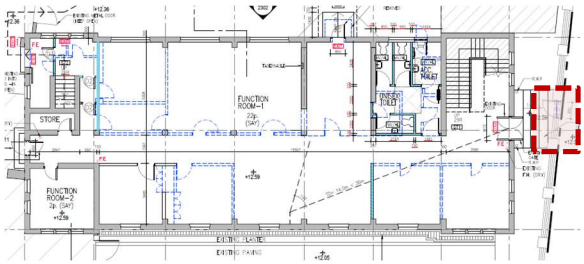
Overall Impact

Acceptable with mitigation measures

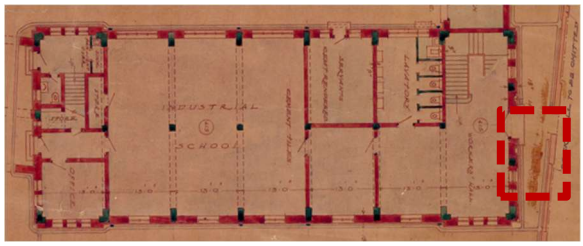
8.4.8

Description of Proposed Works

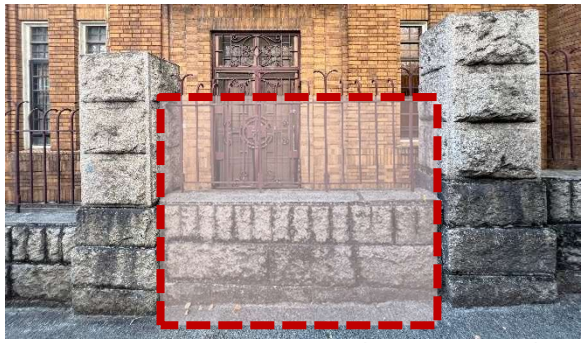
Formation of new entrance from Ho Tung Road by modifying existing fence wall and installing a new timber deck and a new gate.



Proposed G/F Location Plan



Original design drawing showing the intended main entrance from Ho Tung Road.



Extent of the fence wall affected (red dashed line).

Affected CDEs/ Elements	Significance
S-03	Exceptional
E-04	Exceptional
E-13	High
E-14	Neutral
I-01	High
I-16	High

Reasons and Justifications

- The new entrance provides a managed connection for the public to access the building from Ho Tung Road, whilst minimising safety and security concerns in connection with other access points.
- 477B477B472B472B468BTo provide BFA access and MoE exit for statutory compliance.
- 478B478B473B473B469BTo reuse the building's main entrance as shown in the original design intent and enhance arrival experience.

Mitigation Measures

- The affected granite blocks in the fence wall shall be salvaged for reuse if feasible.
- Documentation of the affected area shall be prepared by cartographic survey and photo recording.
- The existing entrance door, including the metal gate, shall be repaired and retained in-situ.
- The affected iron fence members shall be salvaged and reused for repair at defective locations found elsewhere around the site.
- To resolve the level difference, part of the outdoor flooring will be decked over in a reversible manner. The existing granite step shall be preserved in-situ. Fixing to the granite steps for installing the deck shall be


Artistic impression of the proposed new entrance.

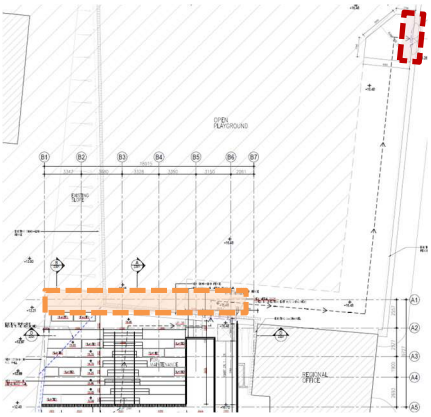
Existing granite steps and paving.

avoided. Fixing can be made to the wide joints between granite paving if required.
- The design of new gate should be distinguishable but designed in a sympathetic way so that it does not conflict with the building.
- Locations of existing fixings shall be reused as far as practical for installation of new gate. New fixings shall be made at existing mortar joints to avoid damaging the granite.

Overall Impact

487B487B482B482B478BAcceptable with mitigation measures

8.4.9	**Description of Proposed Works**	**Affected CDEs/ Elements**	**Significance**
	Partial removal of existing chain link fence (in red dashed line) along Ho Tung Road for the formation of a secondary entrance with new metal gates as MoE exit and make good the affected area and salvage of the affected granite in the fence wall. Replacement of existing chain link fence (in orange dashed line) between the basketball court and North Garden with new chain link fence and new metal gates for MoE route and make good the affected area.	S-03 S-08	Exceptional Neutral



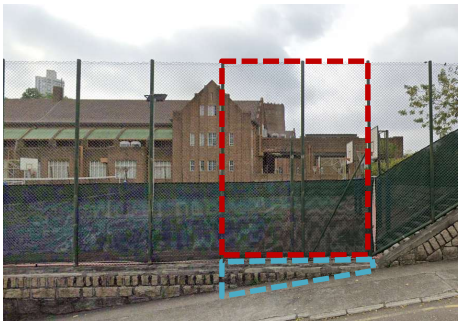
Location Plan.

Reasons and Justifications

- To provide code compliant MoE exit from Convent Building 1/F through the new bridge connection.
- To provide BFA to 1/F via new link bridge
- The existing chain link fence is a modern structure with no heritage value.
- New gates are required for security and operational needs.

Mitigation Measures

- Documentation of the affected area shall be prepared by cartographic survey and photo recording.
- The affected granite in the fence wall shall be salvaged for reuse if feasible.
- The design of new gates should be distinguishable but designed in a sympathetic way so that it does not conflict with the building.
- The opening shall be formed by removal of granite masonry block in full as much as feasible. Cutting of granite masonry shall be avoided and disturbance to historic granite walls should be minimised.



Extent of the chain link fence along Ho Tung Road to be removed (red dashed line) and the granite affected (blue dashed line).

Extent of the chain link fence between the basketball court and North Garden to be replaced (orange dashed line).

Overall Impact

Acceptable with mitigation measures

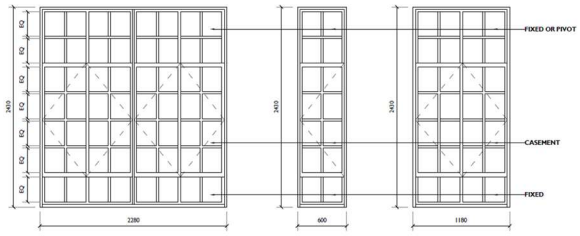
8.4.10	**Description of Proposed Works**	**Affected CDEs/ Elements**	**Significance**
	Replace existing modern aluminium windows with new steel windows. Remove existing aluminium insect screens and grilles.	E-04 to E-06 E-07 and E-08 E-20 E-21	Exceptional High Neutral Low

Left: Existing steel window and door located elsewhere in Maryknoll Convent School
Middle: Existing aluminium window
Right: Historic photo showing the original design

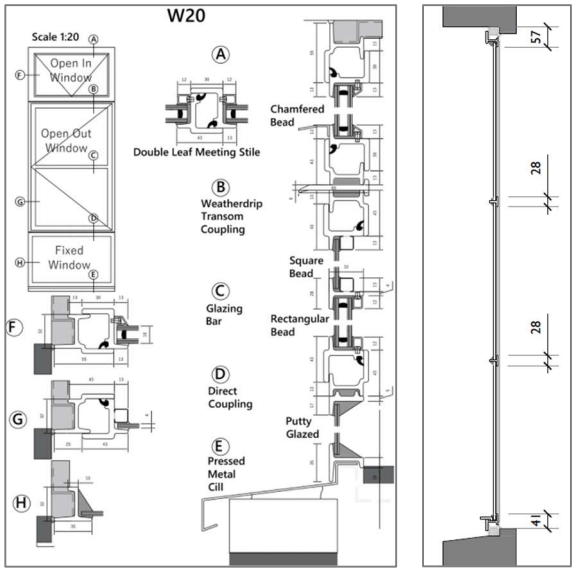
Reasons and Justifications

- The existing aluminium windows, incl. aluminium insect screens and grilles, are modern replacements installed in 1970s.
- There are surviving historic steel windows found on west and east elevations.
- Since the Convent Building was constructed as part of the Maryknoll Convent School Compound in the same period of time, it is expected that the window design including configuration of glazing bar is the similar to the others in the school compound. It is noted that the current aluminium window design has made reference to the historical design.
- Except for the two windows with yellow textured glass, double glazing units to all other windows are required to

Left: View from exterior of the colour textured glass on the two windows on G/F East elevation
Right: View from interior of the colour textured glass on the two windows on G/F East elevation



Design intent of new steel window with matching configuration of glazing bars to existing steel windows elsewhere in Maryknoll Convent School.



(Left) Typical drawings showing the new steel window profile. Source: Steel Window Association.[1]
(Right) Historic steel window profile in Convent Building.

improve thermal and acoustic performance to facilitate the proposed new use.
- The use of weather sealant or glazing bead will enhance general performance, safety of glazing and reduce maintenance cost.

Mitigation Measures

- The new window design, including configuration of glazing bars and selection of new window ironmongery, shall follow the historic design found in the surviving steel windows in Convent Building and school compound as far as practical.
- Any adjacent historic fabrics that may be affected during the replacement works shall be made good to match existing.
- Weather sealant or glazing bead shall be in chamfered profile to mimic the putty application in the original design.
- The use of colour textured glass on the two windows on G/F East elevation shall be retained after replacement by steel windows. Salvage and reuse the existing glazing if feasible. New replacement glazing shall match with existing as far as practical.

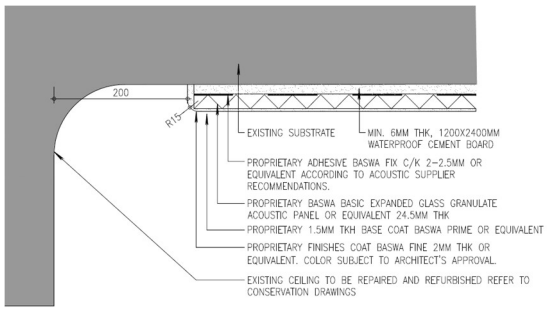
Overall Impact

Beneficial

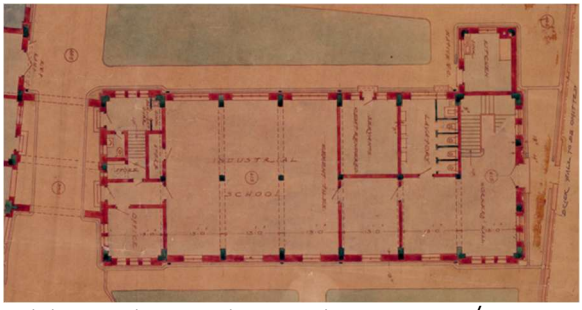
8.4.11	**Description of Proposed Works**	**Affected CDEs/ Elements**	**Significance**
	Carry out repair and maintenance works to the building interior. Works including: 1. Repair and redecorate internal plastered dado, walls and ceiling; 2. Carry out concrete repair after removal of defective plaster;	I-03, I-04, I-06, I-14 I-07, I-16, I-21, I-23, I-24 I-08, I-09, I-25 I-26 I-22 I-12	Exceptional High Moderate High Neutral Low

Reasons and Justifications

[1] https://steel-window-association.co.uk/wp-content/uploads/2024/10/Fact-sheet-w20-15.8.pdf

	3. Repair and redecorate timber joinery elements (i.e. timber doors, fanlights (including existing glazing) and handrail) to match existing; 4. Clean, repair and redecorate the existing metal balusters at grand stair (ST1); 5. Clean and repair existing mosaic flooring and nosing tiles at grand stair (ST1); 6. Repair and redecorate the surviving window architrave moulding; 7. Repair and redecorate the decorative metal grilles to the cockloft; 8. Retain existing coved cornice at areas that are not affected by the new works. Repair and redecorate to match existing profile; 9. Remove later added concertina steel door and make good the affected surfaces; 10. Preserve and restore tabernacle; 11. Remove, salvage historic light fittings and re-use if feasible; and 12. Partially retain and repair of mosaic floor tiles (CDE I-12) in the Kitchen.	• To protect historic fabrics from damages or deteriorations and maintain them in good condition. • To ensure the building's weather tightness and address any water ingress issues found. • Existing light fittings cannot fulfil latest statutory requirements without major modification. Lux level is insufficient for future use. **Mitigation Measures** • Repair and maintenance works shall be carried out on like-for-like basis. • Disturbance to the historic fabrics shall be minimised where feasible. • Site trials and mock-ups shall be prepared and agreed with AMO prior to full-scale repair/ cleaning works. • In the event that these light fittings cannot be reused, consideration shall be given to salvage and include these in the future interpretation design. Make good the affected surfaces to match adjacent after salvaging. • For light fittings that cannot be reused, a storage shall be provided so that can be stored for possible future use. **Overall Impact** Beneficial
8.4.12	**Description of Proposed Works**	**Affected CDEs/ Elements** / **Significance**
	Carry out improvement and restoration works to the building interior. Works including: 1. Install acoustic plaster to ceiling soffit at G/F and 1/F (excl. cornice, beams and trusses);  	I-04, I-06 / Exceptional I-08 / Moderate I-10, I-13 / High I-14 (mosaic floor tiles) / High I-26 (modified architrave) / Neutral **Reasons and Justifications** • To fulfil acoustic performance requirements and avoid disturbance to the adjacent buildings. • To remove later added paint media to reveal the original appearance of the cement tile skirting

	Typical drawings showing acoustic plaster build-up and the set-back from existing cornice 2. Install acoustic curtains to windows to fulfil acoustic requirements; 3. Clean and repair cement and mosaic floor tiles (CDE I-14 at grand staircase) with new breathable impregnating clear tile sealer as protection coating; 4. Removal of existing paint on cement tile skirting to reveal the original appearance and repair/ replace as necessary; 5. Restore the original window architrave by removal of later added ceramic tiles and form moulding profiles to match existing. 6. Install new light fittings that are in harmony and sympathetic to the building interior.	• To provide better protection and slip resistance to the press in cement tiles **Mitigation Measures** • Disturbance to the historic fabrics shall be minimised where feasible. • The acoustic plaster shall be installed between the concrete substrate and new internal lime plaster using adhesive installation methods with localized fixings to avoid any change of appearance. Due to the possible unevenness of the substrate, a cement board may be required. Details shall be submitted to AMO for approval before commencement of works. • The impregnating clear sealer shall not alter the appearance of the tiles. • Site trials and mock-ups shall be prepared and agreed with AMO prior to full-scale works. • The extent of the proposed acoustic plaster shall not disturb the existing coved cornice. • Installation method shall be reversible as far as feasible. **Overall Impact** Acceptable with mitigation measures
8.4.13	**Description of Proposed Works**	**Affected CDEs/ Elements** / **Significance**
	Re-partition G/F layout with reference to the original 1937 interior building layout by removal of the later added 1970s partition walls according to the 1930s record drawings, as well as physical evidence on site. Partial removal of later added mosaic wall and floor finishes within the Kitchen.	I-01, I-10, I-13, I-16 / High I-04 / Exceptional I-05, I-11, I-12, I-17, I-20 / Low I-08, I-09, I-25 / Moderate I-19 / Neutral I-24 / High **Reasons and Justifications** • To remove later added partitions which supports a clear and wholistic understanding of Convent Building. • To reveal the original architectural design, including spatial and key features such as cement flooring borders and pattern.

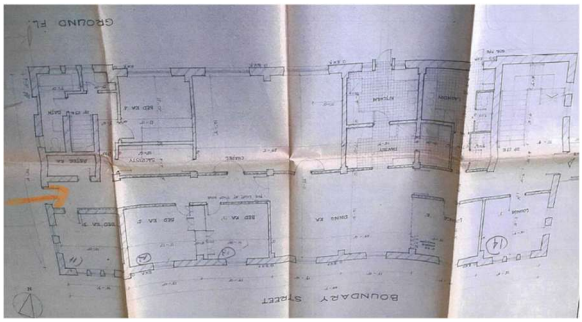


Original design drawing showing the 1937 G/F layout.

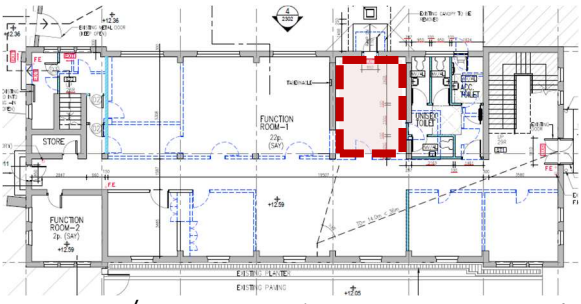
- The existing mosaic wall and floor tiles are possibly recent replacement or are related to 1974 alteration.

Mitigation Measures

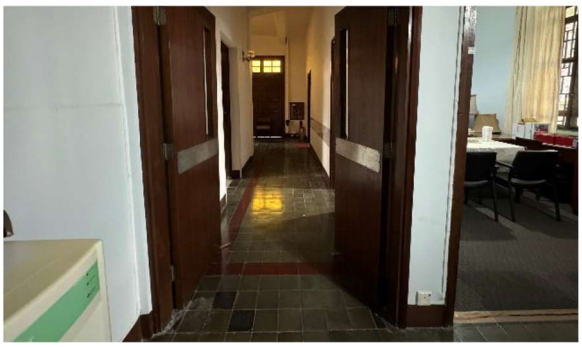
- New walls where required shall be installed in a reversible manner.
- The finishes of new elements should be distinguishable but designed in a sympathetic way so that it does not conflict with the building.
- Documentation of the affected area shall be prepared by means of 3D scanning and photo recording. Heritage interpretation showcasing the history of building's previous use as dormitory should be considered.



Record drawing showing 1974 modification to G/F.



Proposed G/F Layout Plan with the removal extent of removal works shown in blue dashed line. The mosaic wall and floor tiles in G/F Kitchen are shown in red dashed line. New walls are hatched in electric blue.



Existing floor tile pattern in alignment with the 1937 design layout.

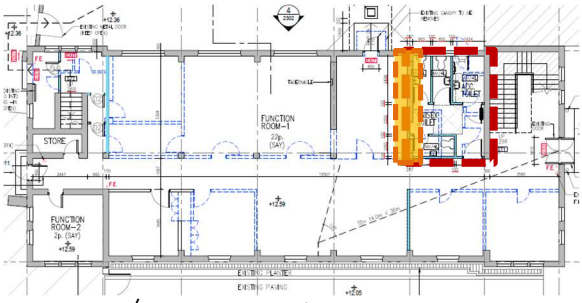
- Physical impact to the existing historic fabrics shall be minimised where feasible.
- The affected later added timber doors will be salvaged for upcycling.
- The plastered dado and floor finishes in the affected areas shall be repaired or reinstated to match adjacent historic finishes.
- Consideration shall be given to partially retain the mosaic wall and floor tiles in situ in the G/F Kitchen where feasible. Salvage some of the mosaic tiles and incorporate into the future interpretation and exhibition.
- Light fittings (CDE I-25) affected shall be carefully salvaged and reused where feasible.
- Sufficient protection shall be provided to the adjacent CDEs, including plastered ceiling, cornice and tabernacle.
- Where partition walls are removed, the affected plastered wall surfaces including dado shall be made good and repaired to match adjacent finishes. Alternatively, it is also considered acceptable to retain the "wall scar" as a heritage interpretation measure to indicate the existence of later added partition.

  Where partition walls are removed but original cement floor tiles still exist, the tiles shall be preserved and restored. Consideration shall also be given to consider retaining the trace of the removed partition walls as a heritage interpretation measure to indicate the existence of later added partition.

Overall Impact
Acceptable with mitigation measures

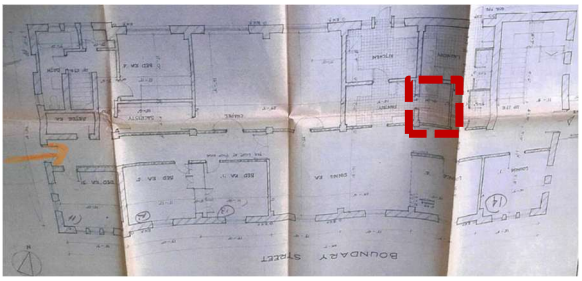
8.4.14	**Description of Proposed Works**	**Affected CDEs/ Elements**	**Significance**
	Take down existing non-structural brick wall on G/F and partially rebuild with thinner walls to permit construction of a new toilet with an additional accessible unit.	E-17 I-01 I-04 I-11 and I-12 I-08, I-09	Moderate High Exceptional Low Moderate

Replace the existing aluminium door on G/F at North Elevation with new fixed steel panel as part of the new steel window system.

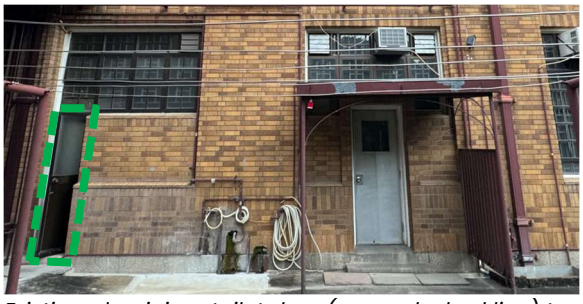


Proposed G/F Layout Plan with new proposed accessible toilet (red dashed line) and proposed existing wall to be retained (orange dashed line)

Existing condition of the wall with the existing door opening (red dash line) to be infilled.



Record drawing showing 1974 modification to G/F showing a new room (red dashed line) was formed with new door opening created.



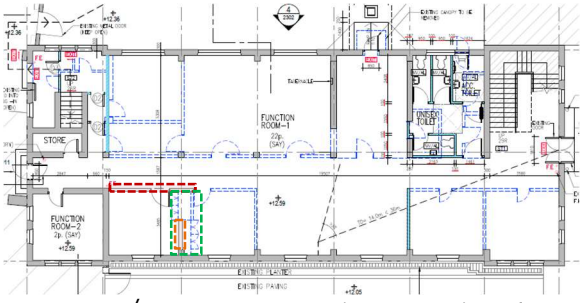
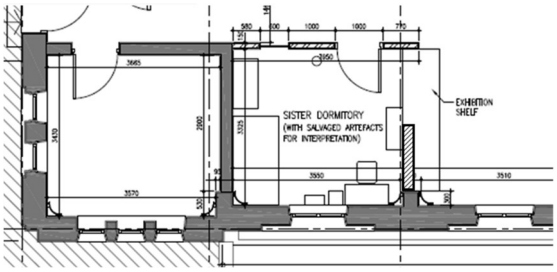
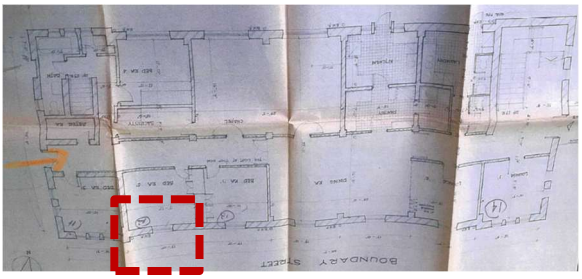
Existing aluminium toilet door (green dashed line) to be replaced by new fixed steel panel as part of the new steel window system.

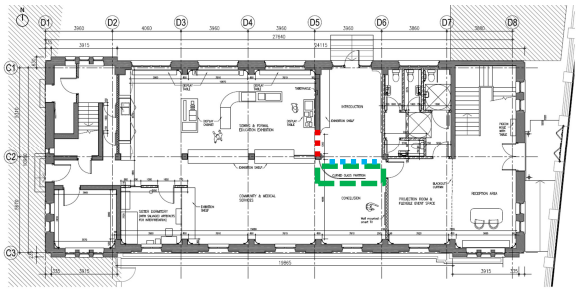
Reasons and Justifications

- To provide a new toilet with accessible unit to fulfil statutory compliance with minimum provision and dimension.
- To upgrade existing toilet provision to meet latest standards.
- The feasibility of retaining the existing walls is studied. It is concluded that, due to the site limitations, only existing wall on G/F (orange dashed line) can be retained.
- The existing mosaic wall and floor tiles are possibly recent replacement or are related to 1974 alteration.
- The affected wall to be infilled is in an area of lower significance. It was originally within a back of house area (room named "Servants"). In 1974 record plan, the room was named "Kitchen" and "Pantry".
- The existing door opening along the wall indicated in orange dashed line on G/F was formed during 1970s alteration works.
- Existing door opening on North Elevation is possibly original, but the aluminium toilet door is a later replacement.

Mitigation Measures

- Documentation of the affected area shall be prepared by means of 3D scanning and photo recording.
- The outer alignment of the new walls facing spaces outside toilet shall match existing.
- Consideration shall be given to salvage the mosaic wall and floor tiles and incorporated into the future interpretation and exhibition.
- The finishes of new elements should be distinguishable but designed in a sympathetic way so that it does not conflict with the building.
- Existing door opening along the wall indicated in orange dashed line on G/F shall be restored using matching brickwork.

		• Existing opening on North Elevation shall be retained with external mouldings and wall tiles preserved and repaired as necessary. New steel panel shall be installed in a reversible manner.	
		Overall Impact	
		Acceptable with mitigation measures	
8.4.15	**Description of Proposed Works**	**Affected CDEs/ Elements**	**Significance**
	Retention of a space on G/F and modification of the existing wall with glass wall panel for showcasing building's history as dormitory.  *Proposed G/F Layout Plan showing the design of the exhibition space. The existing 1970s partition wall in red dashed line will be retained and modified with a new glass panel, while the existing wardrobe highlighted in green will be replaced by new display cabinets with the existing 1970s partition wall in orange dashed line being retained.*  *Close-up of the proposed "Sister Dormitory", subject to further design development.*  *Record drawing showing 1974 modification to this room named "BED RM '2'" (in red dashed line) on G/F.*	I-05 I-08 I-09 I-10 I-13	Low Moderate Moderate High High
		Reasons and Justifications	
		• To provide interpretation space that will showcase the building's recent history as dormitories. • The chosen location is based on the 1974 record plan where the space was formerly indicated as bedroom. • The proposed new glass panel will provide better visual connection to the room interior from corridor side.	
		Mitigation Measures	
		• Existing timber door, bedroom furniture and artefacts should be salvaged and reused in the interpretation design. • Existing CDEs retained within the room, including coved cornice (I-08), painted dado (I-9), cement floor tiles (I-10) and tiled skirting (I-13) shall be repaired and retained in-situ. • Consideration shall be given to record the existing wardrobe by photos and include in the interpretation design if they cannot be physically retained. • A new lintel will be installed for the proposed glass panel while the rest of the retained wall shall be kept and repaired in-situ.	
		Overall Impact	
		Beneficial	
8.4.16	**Description of Proposed Works**	**Affected CDEs/ Elements**	**Significance**

Partial modification of the existing non-structural wall by installation of a new lintel to form a doorway (approx. 1500mm x 2500mm, see red dashed line). Removal of existing non-structural wall (blue dashed line) to fulfil MoE requirements.  *Proposed G/F Layout Plan with intended interior design proposal with movable screen or curtain (see green dashed line), subject to further design development. The proposed opening for doorway is highlighted in red dashed line.*  *Existing condition of the affected wall with indicative location of the proposed opening for doorway (in red dashed line).*  *Existing tabernacle to be retained in-situ.*	I-01 I-04 (G/F only) I-09 I-10, I-13, I-24 I-11, I-12	High Exceptional Moderate High low

Reasons and Justifications

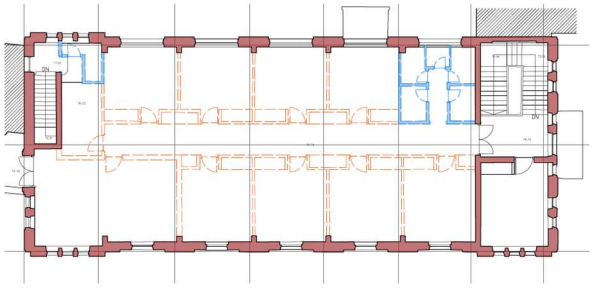
- To fulfil MoE requirements for statutory compliance.
- To provide open space for multi-purpose use.
- To facilitate operation needs and circulation requirements as the space may be subdivided (using movable screen or curtain, see the dashed green line) to facilitate the proposed spatial division, which is critical for the long-term sustainability of the future operation.
- The existing mosaic wall and floor tiles are possibly recent replacement or are related to 1974 alteration.

Mitigation Measures

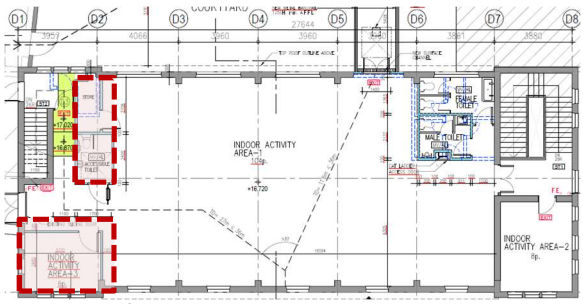
- Documentation of the affected area shall be prepared by means of 3D scanning and photo recording.
- The new lintel shall be in distinguishable but compatible design so that it can be understood as a new opening.
- Affected tiled skirting shall be salvaged and reused for repairs elsewhere.
- Consideration shall be given to salvage the affected bricks, mosaic wall and floor tiles and incorporated into the future interpretation and exhibition. In the areas where mosaic wall and floor tiles will be blocked by new cabinet, consideration shall also be given to retain them in-situ where feasible.
- Existing tabernacle shall be preserved in situ and included in the future interpretation proposals.
- Cement floor tiles in the adjacent room shall be retained in-situ. Protection shall be provided to avoid any damage during the opening formation work.
- Consideration shall be given to reveal the construction materials and details

		at the opening reveals where the new opening is formed so that the future visitors can appreciate and understand the original construction information.
		Overall Impact
		Acceptable with mitigation measures

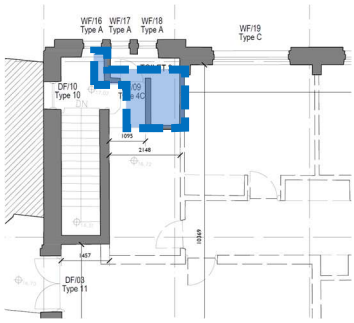
8.4.17	**Description of Proposed Works**	**Affected CDEs/ Elements**	**Significance**
	Removal of remaining 1970 modern partitions on 1/F and construction of new accessible toilet, store and Indoor Activity Area - 3. Retain existing steps and modify the existing floor level by infilling with lightweight concrete in a reversible manner along new corridor adjacent to Western Staircase ST2.	I-02 I-04 (1/F only) I-05 I-09 I-10, I-13 I-19	High Exceptional Low Moderate High Neutral



Remaining late added partitions (blue) on 1/F. The orange dashed line presents the partitions that have already been removed.



Proposed 1/F layout highlighting the construction of new accessible toilet, store and indoor activity area - 3.



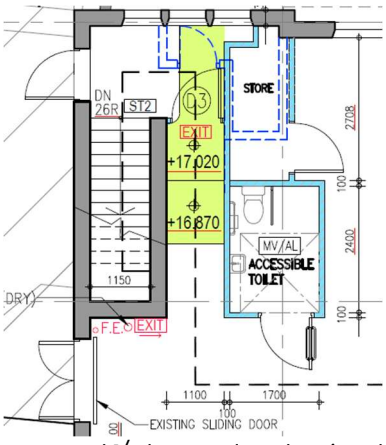
Reasons and Justifications

- To provide a new accessible toilet to fulfil statutory compliance.
- To facilitate operation needs by providing backstage spaces to ensure building's long-term sustainability.

Mitigation Measures

- Documentation of the affected area shall be prepared by means of 3D scanning and photo recording.
- The alignment of the new walls shall respect the original window configuration by positioning against the pier between windows to avoid blockage of windows.
- The construction of new walls and false ceiling at rooms will avoid blockage of windows and not hinder the appreciation of the roof trusses at Indoor Activity Area-1.
- Any existing cement floor tiles affected shall be retained in-situ as much as feasible. Repair and reinstatement to match existing if necessary.
- New walls shall be of light weight and installed in a reversible manner.
- The mas sing of the toilet shall be minimised so that the visual impact on the 1/F hall can be reduced.
- The design of new wall finishes should be distinguishable but designed in a sympathetic way so that it does not conflict with the building.

Existing 1/F part plan with highlights (blue dash line) of remaining 1970s partition walls to be removed.



Proposed 1/F layout plan showing the modification to the existing steps and infilling with lightweight concrete (hatched in green)

- The affected later added timber doors will be salvaged for upcycling.
- Where partition walls are removed, the affected plastered wall surfaces including dado shall be made good and repaired to match adjacent finishes. Alternatively, it is also considered acceptable to retain the "wall scar" as a heritage interpretation measure to indicate the existence of later added partition.
- Where partition walls are removed but original cement floor tiles still exist, the tiles shall be preserved and restored. Consideration shall also be given to consider retaining the trace of the removed partition walls as a heritage interpretation measure to indicate the existence of later added partition.
- The mdification of existing steps by retention of existing steps and infilling with lightweight concrete shall be carried out in a reversible manner. A separation layer shall be provided to avoid damages to the existing floor tiles and retained walls.
- The floor finishes at the newly infilled areas shall be distinguishable but designed in a sympathetic way so that it does not conflict with the buildings architectural and spatial qualities.

Overall Impact

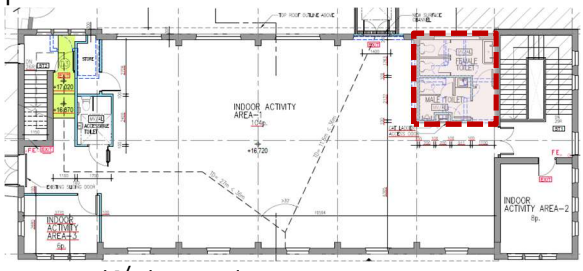
Acceptable with mitigation measures

8.4.18	**Description of Proposed Works**	**Affected CDEs/ Elements**	**Significance**
	Refurbishment of existing toilet on 1/F by taking down 1970s partitions and constructing of new walls and finishes with revised layout. Construct a new concrete slab or metal platform (with maintenance cat ladder) at the ceiling level of 1/F toilet for new false ceiling below and hosting building service and stage equipment above. Modifications of existing non-structural walls to facilitate the construction of proposed concrete	I-02 I-03, I-04 I-05 I-19	High Exceptional Low Neutral

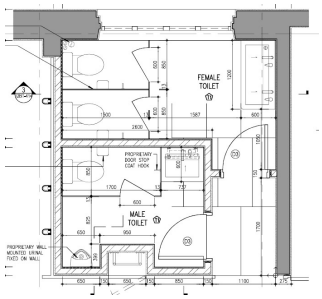
Reasons and Justifications

- To upgrade existing toilet provision to meet latest standards.
- The existing toilet was constructed as part of the 1970s alterations with modern tiled flooring and wall finishes.
- To group the building services equipment in order to minimise the

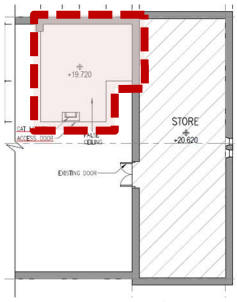
slab or the installation of proposed metal platform.



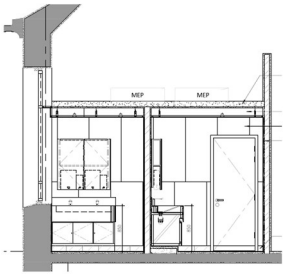
Proposed 1/F layout plan.



Proposed 1/F female & male toilet plan



Location Plan (cockloft layout).



Indicative section of the proposed toilet on 1/F. Concrete slab/ metal platform is shown for drawing purpose only.

disturbance to the overall spatial quality of 1/F hall.
- To position stage equipment.

Mitigation Measures

- The construction of new concrete slab or metal platform shall not cause any adverse structural impact on the existing Convent building. Subject to the further site investigation and structural assessment, if structural strengthening work is required for concrete slab construction, alternative of using metal platform shall be adopted.
- Existing historic timber doors adjacent (CDE I-21 and I-23) shall be repaired and retained in-situ without being physically or visually obstructed.
- The proposed structures, i.e. new walls and metal platform/ concrete slab, shall be distinguishable but designed in a sympathetic way so that they do not conflict with the buildings architectural and spatial qualities. Where possible, installation method shall be in reversible manner.
- Documentation of the affected area shall be prepared by means of 3D scanning and photo recording.
- The new wall should be of light weight and the design of new wall finishes should be distinguishable but designed in a sympathetic way so that it does not conflict with the building.
- The proposed slab structure will be positioned within the fanlight level which will be hidden by the future metal louvre as proposed in item 8.4.22. The end of the proposed slab structure and false ceiling underneath will be set back from the window to reduce the visual impact on the window when viewing from both interior and exterior.

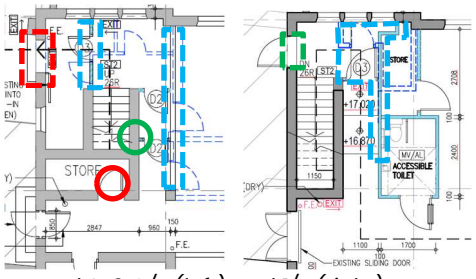
Overall Impact

Acceptable with mitigation measures

8.4.19	**Description of Proposed Works**	**Affected CDEs/ Elements**	**Significance**
		I-01, I-02 & I-16	High

Upgrade existing Western Staircase ST2 for statutory compliance for its use as MoE stair by providing:

- Prominent warning sign with contrast colour will be provided at the beam highlighting the low headroom area.
- Adhesive tape with contrasting colour will be applied to the nosing of the stairs to warn the staircase users and take caution of using the steps. The steps' tread finishes will be non-slip and firm.
- Existing handrails on both side of the staircase will be retained and reused for complying with the regulation's requirement.
- Sufficient exit signs, directional signs and directional diagrams will be installed to guide the users to the final exits following the approved GBP drawings.
- Emergency lightings will be installed.
- The doors along the exit routes will be readily openable during the events.
- The staircase will be separated by new FRR walls and doors (blue dash line).
- The existing timber door on 1/F (green dash line) will be retained in-situ but covered with new wall infill to achieve required fire rating to fulfil code compliance and acoustic requirements. Concertina steel door will be removed.
- Retain existing timber door at half landing (green circle) and treat with fire retardant paint.
- Retain and repair existing timber door on G/F (red circle)



Proposed ST2 G/F (left) and 1/F (right) Layout.

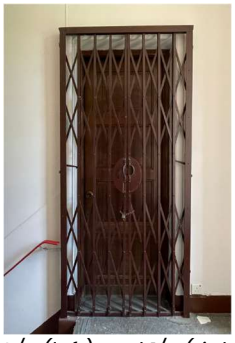
I-15 I-17, I-18 I-19, I-22	Moderate Low Neutral

Reasons and Justifications

- To provide code compliant MoE routing from 1/F to G/F.
- The existing ST2 is of moderate significance, which is much lower than the grand staircase ST1 that is of exceptional significance.
- The proposed exit routing will reactivate the historic secondary lobby on G/F, which is currently blocked and unused.
- FRR glass infill to 1/F door opening is not preferred due to its poorer acoustic performance and requirements for more mechanical fixings for installation.

Mitigation Measures

- Documentation of the affected area shall be prepared by means of 3D scanning and photo recording.
- The alignment of the new walls shall respect the original window configuration by positioning against the pier between windows to avoid blockage of windows.
- The existing timber door on G/F (red dash line) shall be retained in-situ, repaired and held open during event over 30 people on 1/F with its opening direction modified.
- New walls and warning signs shall be installed in a reversible manner.
- The design of new solid FRR walls and metal doors should be distinguishable but designed in a sympathetic way so that it doesn't conflict with the building. The FRR wall infill detail shall avoid affecting existing fabric (such as existing timber door) and considering using recessed profile if feasible.
- Existing timber door at half landing (CDE I-18, highlighted in green circle) shall be retained in-situ and treated with fire retardant paint, subject to BD's acceptance.

Existing timber doors on G/F (left) and 1/F (right)

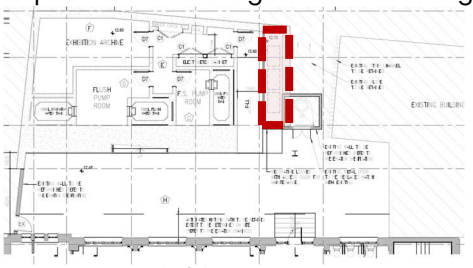
- Existing timber door G/F level (CDE I-17, highlighted in red circle) on G/F shall also be retained in-situ and repaired on like-for-like basis.
- Any affected later added timber flush doors will be salvaged for upcycling.

Overall Impact

Acceptable with mitigation measures

8.4.20	**Description of Proposed Works**	**Affected CDEs/ Elements**	**Significance**
	Upgrade and installation of building services including formation of new openings at walls with false ceiling and vertical screen:	All	Various

- Flushing water supply using water from existing Well will be retained and upgraded to suit the current provision of sanitary fitments.
- Potable water supply will remain as using direct feed from government town main.
- Electricity supply remained as is existing from Secondary School Transformer Room but upgraded to suit the operation needs.
- Variable Refrigerant Volume Direct Expansion Air-Conditioning System integrated with Window Fan ventilation aim at maintaining simplify air-conditioning system design and minimise the visual impact to the existing Convent Building.



Location Plan (G/F) showing outdoor units (dashed red) with architectural screening.

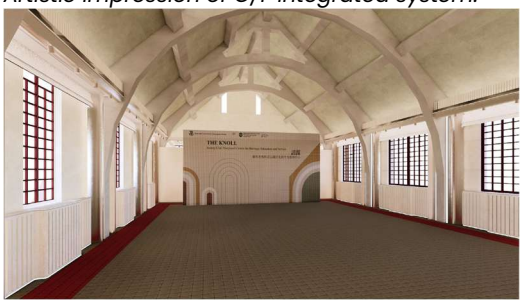
- Fire Services Installation provision based on current statutory requirements to meet minimum statutory requirements. Details subject to BD and FSD's approval.
- An integrated linear system with new lighting provisions and internal distribution of building services (such as pipes, cables, etc.) will be adopted as a wholistic

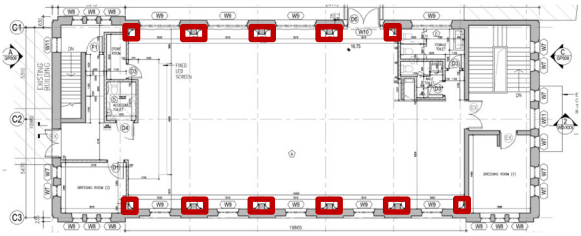
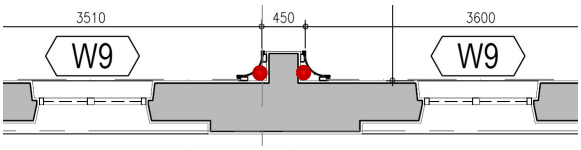
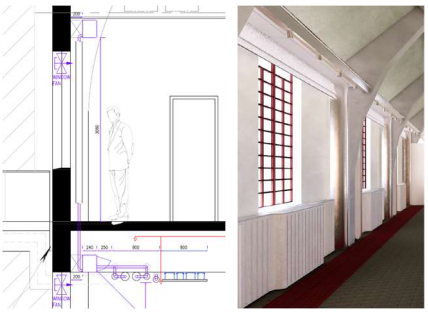
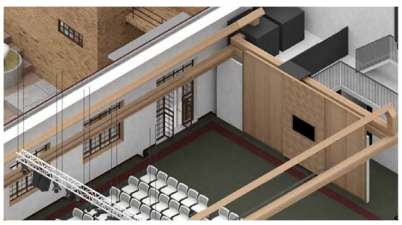
Reasons and Justifications

- To refurbish the building services installation in order to meet the operation need as well as statutory requirements.
- The overall design concept for the internal routing of the building services has carefully considered the followings:
  1. Minimise potential impact, both physical and visual, on CDEs.
  2. Reuse existing provisions with necessary upgrades where feasible.
  3. Externally, group and run the building services served from the new plant room at the soffit of new link bridge (read in conjunction with 8.4.7).
  4. On G/F, the new building services will be located at ceiling soffit along north and south wall with only necessary pipes or cables running North -South direction within the proposed integrated system.
  5. On 1/F, since the normal horizontal distribution of building services will have a major impact on the roof trusses and 1/F space, which are of exceptional significance, alternative routing through 1/F floor slab at discrete locations is adopted. Refer to 8.4.21 below for details.

Mitigation Measures

- Major building services equipment and plant rooms are located outside

	approach to minimise adverse visual impact and extent of false ceiling requirement.  *Artistic impression of G/F integrated system.*  *Artistic impression of 1/F space.*	existing Convent Building in the new structure constructed in the North Garden to minimise the physical impact on the existing building fabric. • New building services installations shall be carefully designed in order not to affect the buildings CDEs, and its overall internal and external appearance. They will be hidden by false ceiling above window openings on G/F and vertical screen on 1/F with decoration. The new false ceiling will not affect the existing windows. • Existing roof trusses and associated columns on the 1/F shall remain exposed as far as practical for better appreciation by the visitors. • The retained coved cornice at G/F ceiling shall be repaired and redecorated. • Services shall be consolidated and organized neatly in a way that respects the spatial quality of rooms where they are located. In general, all services will be placed in less prominent locations to minimise physical and visual impact. • Structural integrity will be retained. Coring into structures will not be carried out unless there is absolute necessity and assessed by RSE. Chasing into wall is not allowed. • Existing openings shall be utilised as far as possible to reduce the number of necessary new openings. • New architectural screening shall be provided to any exposed major building services to reduce visual impact and the location and extent of the integrated screening shall not hinder public appreciation of the windows, roof trusses and associated columns. • Any wall openings on non-structural walls, if necessary, for the installation of building services shall be minimised in terms of quantity and size. Affected walls shall be made good afterwards.
		Overall Impact
		Acceptable with mitigation measures

8.4.21	Description of Proposed Works	Affected CDEs/ Elements	Significance
	Formation of slab penetrations for building services routing to serve 1/F spaces with installation of new architectural features to conceal the building services. Floor standing A/C units with cabinet finished in acoustic panels will be installed on 1/F.  *Indicative locations of the proposed slab core holes.*  *Typical location (red circle) with new architectural features to conceal the building services.*  *Indicative diagram (left) and artistic impression showing the design intent.* **Alternative Approach (not recommended)** The alternative of positioning the ductwork at high level on 1/F (along the walls on west-east direction) was considered. However, this option will cause adverse visual impact for visitor/user's appreciation of the original 1/F ceiling design with exposed roof trusses, which is of exceptional significance. 	I-04, I-06 I-08 I-10, I-13	Exceptional Moderate High

Reasons and Justifications

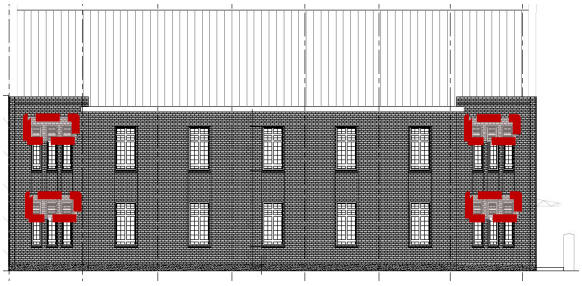
- Required to fulfil the technical performance of proposed building services in relation to proposed re-use of the building, and specifically the 1/F space.
- Routing services at ceiling level on G/F (area of lower significance compared to 1/F ceiling (I-06)) can reduce the potential adverse visual impact.
- The floor standing A/C units will enable easier access for future maintenance.
- To reduce the bulkiness of building services at 1/F high level.

Mitigation Measures

- Documentation of the affected area shall be prepared by means of 3D scanning and photo recording.
- Any adverse structural impact to the building shall be avoided.
- Affected floor and skirting tiles on 1/F shall be salvaged as much as feasible and reused for repairs elsewhere.
- The size of slab penetrations shall need to be coordinated with the existing architectural features (namely the coved cornice at G/F ceiling level, and tiled floor at 1/F).
- The affected extent of the coved cornice shall be minimised as far as possible with necessary making good work carried out around the identified penetrations.
- The number and sizes of slab penetrations/opening for building services should be kept to an absolute minimum and on a need basis.
- New cabinets shall not block the windows.
- The size of new architectural features should be minimised such that the

	MVAC study in the feasibility study report.	associated columns of the roof trusses are still exposed.
		Overall Impact
		Acceptable with mitigation measures

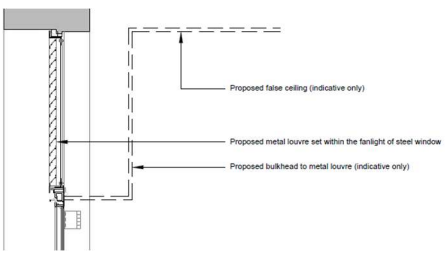
8.4.22	**Description of Proposed Works**	**Affected CDEs/ Elements**	**Significance**
	Provision of metal louvres at fanlights of new replacement steel windows for fresh air intake (south elevation) and exhaust (north elevation) with ductwork to be connected from the internal side and concealed by new false ceiling (see 8.4.20 above).	E-05 E-07 E-20 I-04	Exceptional High Neutral Exceptional



Indicative louvre provisions on South elevation.

Indicative louvre provisions on North elevation.

Reference photo showing the louver within fanlight of a steel window in Tai Kwun.



Reasons and Justifications

- Required to fulfil the technical performance of proposed building services in relation to proposed use of the building.
- The affected windows will be new steel windows, which are to replace existing aluminium ones.
- All window mounted A/C units will be removed to improve the buildings integrity and its overall external appearance.

Mitigation Measures

- The number and sizes of louvres shall be minimised.
- The louvre size shall fit within the window configuration area, to avoid adverse visual impact.
- The appearance of the louvre shall be in matching colour to minimise any potential adverse visual impact.
- The details shall be submitted to AMO for approval prior to fabrication and installation.
- Any wall openings, if necessary, for MEP ductwork shall be minimized in terms of quantity and size. Affected walls shall be made good afterwards.

Overall Impact

Acceptable with mitigation measures

	Design intent of the new replacement steel window with metal louvres set within fanlight and indicative new false ceiling and bulkhead behind.		
8.4.23	**Description of Proposed Works**	**Affected CDEs/ Elements**	**Significance**
	Installation of new external building signage facing Ho Tung Road.  *Existing view of building façades facing Boundary Street and Ho Tung Road.*	S-03 S-06 E-04	Exceptional Moderate Exceptional
		Reasons and Justifications	
		• The provision of external building name signage would be essential to facilitate the wayfinding in the future when it is opened to the public. • As the future use of the Convent Building will be managed separately from the school operation, a new building name signage with suitable size at a visible location can avoid unnecessary disturbance to school operation.	
		Mitigation Measures	
		• New signage should be distinguishable but designed in a sympathetic way so that it does not conflict with the Declared Monument. Location, design and fixing details shall be approved by AMO prior to installation. • Fixing of signage on the building facades shall be avoided. • Consideration can be given to provide building signage on new elements, such as new entrance gates on Ho Tung Road. • The signage could also be free-standing and self-supported within the south garden. Alternatively, it can be clamped to the existing granite pier at boundary fence in a reversible manner if there is a structural concern over the provision of a new structural footing for the free-standing approach.	
		Overall Impact	
		Acceptable with mitigation measures	

APPENDIX D

DETAILED CALCULATION OF CONSTRUCTION NOISE IMPACT ASSESSMENT

THE ADAPTIVE RE-USE OF MARYKNOLL CONVENT SCHOOL AS A SERVICE, HERITAGE AND EDUCATION ("SHE") CENTRE
Appendix D Calculation of Construction Noise Impact Assessment

Calculation of Construction Noise Level due to the Project (Unmitigated Scenario)

Nearest NSR: NSR2 - Maryknoll Convent School (Primary Section Old Wing)
Criteria: Day & Evening (0700-1900hrs): 70dB(A)

Non-Grouped										2025							2026									
NSR2 - Maryknoll Convent School (Primary Section Old Wing)	ID	SWL	On Time%	Total SWL	Dist. (m)	DC	BC	FC	CNL, dB(A)	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10
Bar bender and cutter (electric)	CNP021	90	100%	90	11	29	0	3	64	0	0	0	0	0	0	1 64	1 64	1 64	1 64	0	0	0	0	0	0	0
Breaker, hand-held, mass <= 10kg	CNP023	108	100%	108	11	29	0	3	82	0	0	0	1 82	1 82	0	0	0	0	0	0	0	0	0	0	0	0
Concrete lorry mixer	CNP044	109	100%	109	11	29	0	3	83	0	0	0	0	0	0	1 83	1 83	1 83	1 83	0	0	0	1 83	1 83	0	0
Concrete pump, lorry mounted	CNP047	109	100%	109	11	29	0	3	83	0	0	0	0	0	0	1 83	1 83	1 83	1 83	0	0	0	0	0	0	0
Vibratory Poker	CNP170	113	100%	113	11	29	0	3	87	0	0	0	0	0	0	1 87	1 87	1 87	1 87	0	0	0	0	0	0	0
Drill, percussive, hand-held (electric)	CNP064	103	100%	103	11	29	0	3	77	0	0	0	0	0	0	0	0	0	0	1 77	1 77	1 77	0	0	0	0
Drill, hand-held (electric)	CNP065	98	100%	98	11	29	0	3	72	0	0	0	0	0	0	0	0	0	1 72	1 72	1 72	1 72	1 72	1 72	1 72	1 72
Grinder, hand-held (electric)	CNP065	98	100%	98	11	29	0	3	72	0	0	0	0	0	0	1 72	1 72	1 72	1 72	0	0	0	0	0	0	0
Excavator, tracked	CNP081	112	100%	112	11	29	0	3	86	0	0	0	0	1 86	1 86	1 86	1 86	1 86	1 86	0	0	0	0	0	0	0
Lorry	CNP141	112	100%	112	11	29	0	3	86	0	0	0	0	1 86	1 86	1 86	1 86	1 86	1 86	1 86	1 86	1 86	1 86	1 86	1 86	1 86
Power rammer (petrol)	CNP169	108	100%	108	11	29	0	3	82	0	0	0	0	0	0	0	0	1 82	1 82	0	0	0	0	0	0	0
Air blower (electric)	CPME-003	95	100%	95	11	29	0	3	69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	0	0
Water pump, submersible (electric)	CNP283	85	100%	85	11	29	0	3	59	0	0	0	0	0	0	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	0	0
Unmitigated Noise Impact, dB(A)										68.96	68.96	68.96	82.17	89.79	89.01	92.32	92.32	92.7	92.74	86.7	86.7	86.7	87.9	87.84	86.13	86.13

Nearest NSR: NSR2 - Maryknoll Convent School (Primary Section Old Wing)
Criteria: Day & Evening (0700-1900hrs): 65dB(A) (during examinations)

Non-Grouped										2025							2026									
NSR2 - Maryknoll Convent School (Primary Section Old Wing)	ID	SWL	On Time%	Total SWL	Dist. (m)	DC	BC	FC	CNL, dB(A)	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10
Bar bender and cutter (electric)	CNP021	90	100%	90	11	29	0	3	64	0	0	0	0	0	0	1 64	1 64	1 64	1 64	0	0	0	0	0	0	0
Breaker, hand-held, mass <= 10kg	CNP023	108	100%	108	11	29	0	3	82	0	0	0	1 82	1 82	0	0	0	0	0	0	0	0	0	0	0	0
Concrete lorry mixer	CNP044	109	100%	109	11	29	0	3	83	0	0	0	0	0	0	1 83	1 83	1 83	1 83	0	0	0	1 83	1 83	0	0
Concrete pump, lorry mounted	CNP047	109	100%	109	11	29	0	3	83	0	0	0	0	0	0	1 83	1 83	1 83	1 83	0	0	0	0	0	0	0
Vibratory Poker	CNP170	113	100%	113	11	29	0	3	87	0	0	0	0	0	0	1 87	1 87	1 87	1 87	0	0	0	0	0	0	0
Drill, percussive, hand-held (electric)	CNP064	103	100%	103	11	29	0	3	77	0	0	0	0	0	0	0	0	0	0	1 77	1 77	1 77	0	0	0	0
Drill, hand-held (electric)	CNP065	98	100%	98	11	29	0	3	72	0	0	0	0	0	0	0	0	0	1 72	1 72	1 72	1 72	1 72	1 72	1 72	1 72
Grinder, hand-held (electric)	CNP065	98	100%	98	11	29	0	3	72	0	0	0	0	0	0	1 72	1 72	1 72	1 72	0	0	0	0	0	0	0
Excavator, tracked	CNP081	112	100%	112	11	29	0	3	86	0	0	0	0	1 86	1 86	1 86	1 86	1 86	1 86	0	0	0	0	0	0	0
Lorry	CNP141	112	100%	112	11	29	0	3	86	0	0	0	0	1 86	1 86	1 86	1 86	1 86	1 86	1 86	1 86	1 86	1 86	1 86	1 86	1 86
Power rammer (petrol)	CNP169	108	100%	108	11	29	0	3	82	0	0	0	0	0	0	0	0	1 82	1 82	0	0	0	0	0	0	0
Air blower (electric)	CPME-003	95	100%	95	11	29	0	3	69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	0	0
Water pump, submersible (electric)	CNP283	85	100%	85	11	29	0	3	59	0	0	0	0	0	0	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	0	0
Unmitigated Noise Impact, dB(A)										68.96	68.96	68.96	82.17	89.79	89.01	92.32	92.32	92.7	92.74	86.7	86.7	86.7	87.9	87.84	86.13	86.13

Notes:

[1] To calculate the sound pressure level of each construction activities, distance attenuation correction has been applied. The distance attenuation was determined by using the following formula:

Distance Attenuation in dB(A) = 10 log [2π(D^2)]

where D is distance between PME and NSR in metres

[2] The following assumptions have been applied as well:

(i) A +3dB(A) façade correction was added to the predicted noise levels to account for the façade effect at each identified representative NSR;

(ii) All PME items required for a particular construction activity was assumed to be located at the notional source position of the workfront where such activity is to be performed in accordance with the GW-TM; and

(iii) As a worst-case assumption, noise impact at the nearest sensitive facades of the educational building to the source position was assessed.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLs_eng.pdf

[4] SWL reference to "Sound Power Levels of other commonly used PME"

[5] The noise impact assessment is based on the tentative construction programme.

THE ADAPTIVE RE-USE OF MARYKNOLL CONVENT SCHOOL AS A SERVICE, HERITAGE AND EDUCATION ("SHE") CENTRE
Appendix D Calculation of Construction Noise Impact Assessment

Calculation of Construction Noise Level due to the Project (Mitigated Scenario)

Nearest NSR: NSR2 - Maryknoll Convent School (Primary Section Old Wing)
Criteria: Day & Evening (0700-1900hrs): 70dB(A)

Group 1

NSR2 - Maryknoll Convent School (Primary Section Old Wing)	ID	SWL	On Time%	Total SWL	Dist. (m)	DC	BC	FC	CNL, dB(A)	2025 6	7	8	9	10	11	12	2026 1	2	3	4	5	6	7	8	9	10
Bar bender and cutter (electric)	CNP021	90	100%	90	11	29	0	3	64	0	0	0	0	0	0	1 64	1 64	1 64	1 64	0	0	0	0	0	0	0
Breaker, hand-held, mass <= 10kg	CNP023	108	55%	105	11	29	10	3	69	0	0	0	1 69	1 69	0	0	0	0	0	0	0	0	0	0	0	0
Concrete lorry mixer, gross vehicle weight <= 30 tonne, mixing drum rotation rate <=10rpm	CPME-019	103	100%	103	11	29	10	3	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concrete pump, lorry mounted	BS D6/36	106	100%	106	11	29	10	3	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Poker, vibratory, hand-held (electric)	CPME-040	102	100%	102	11	29	10	3	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drill, percussive, hand-held (electric)	CNP064	103	100%	103	11	29	10	3	67	0	0	0	0	0	0	0	0	0	0 1 67	1 67	1 67	0	0	0	0	0
Drill, hand-held (electric)	CNP065	98	100%	98	11	29	10	3	62	0	0	0	0	0	0	0	0	0 1 62	1 62	1 62	1 62	1 62	1 62	1 62	1 62	1 62
Grinder, hand-held (electric)	CNP065	98	100%	98	11	29	10	3	62	0	0	0	0	0	0	1 62	1 62	1 62	1 62	0	0	0	0	0	0	0
Excavator, rated power < 100kW (with QPME label)	CPME-023	101	100%	101	11	29	10	3	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lorry, 5.5 tonnes <gross vehicle weight ≤38 tonne	CPME-069	105	50%	102	11	29	10	3	66	0	0	0	0	0	0	1 66	1 66	1 66	0	0	0	0	0	0	0	0
Power rammer (petrol)	CNP169	108	100%	108	11	29	10	3	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Air blower (electric)	CPME-003	95	100%	95	11	29	10	3	59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	0	0
Water pump, submersible (electric)	CNP283	85	100%	85	11	29	0	3	59	0	0	0	0	0	0	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	0	0
Mitigated Noise Impact, dB(A)										58.96	58.96	58.96	69.74	58.96	69.81	69.81	69.81	68.57	69.09	69.09	69.09	64.97	63.72	61.96	61.96	

Group 2

NSR2 - Maryknoll Convent School (Primary Section Old Wing)	ID	SWL	On Time%	Total SWL	Dist. (m)	DC	BC	FC	CNL, dB(A)	2025 6	7	8	9	10	11	12	2026 1	2	3	4	5	6	7	8	9	10
Bar bender and cutter (electric)	CNP021	90	100%	90	11	29	0	3	64	0	0	0	0	0	0	1 64	1 64	0	0	0	0	0	0	0	0	0
Breaker, hand-held, mass <= 10kg	CNP023	108	55%	105	11	29	10	3	69	0	0	0	1 69	1 69	0	0	0	0	0	0	0	0	0	0	0	0
Concrete lorry mixer, gross vehicle weight <= 30 tonne, mixing drum rotation rate <=10rpm	CPME-019	103	100%	103	11	29	10	3	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concrete pump, lorry mounted	BS D6/36	106	100%	106	11	29	10	3	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Poker, vibratory, hand-held (electric)	CPME-040	102	100%	102	11	29	10	3	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drill, percussive, hand-held (electric)	CNP064	103	100%	103	11	29	10	3	67	0	0	0	0	0	0	0	0	0	0 1 67	1 67	1 67	0	0	0	0	0
Drill, hand-held (electric)	CNP065	98	100%	98	11	29	10	3	62	0	0	0	0	0	0	0	0	0 1 62	1 62	1 62	1 62	1 62	1 62	1 62	1 62	1 62
Grinder, hand-held (electric)	CNP065	98	100%	98	11	29	10	3	62	0	0	0	0	0	0	1 62	1 62	0	0	0	0	0	0	0	0	0
Excavator, rated power < 100kW (with QPME label)	CPME-023	101	100%	101	11	29	10	3	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lorry, 5.5 tonnes <gross vehicle weight ≤38 tonne	CPME-069	105	100%	105	11	29	10	3	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Power rammer (petrol)	CNP169	108	50%	105	11	29	10	3	69	0	0	0	0	0	0	0	0	0 1 69	1 69	0	0	0	0	0	0	0
Air blower (electric)	CPME-003	95	100%	95	11	29	10	3	59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	0	0
Water pump, submersible (electric)	CNP283	85	100%	85	11	29	0	3	59	0	0	0	0	0	0	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	0	0
Mitigated Noise Impact, dB(A)										58.96	58.96	58.96	69.74	69.74	58.96	67.5	67.5	69.74	69.74	69.09	69.09	69.09	64.97	63.72	61.96	61.96

Group 3

NSR2 - Maryknoll Convent School (Primary Section Old Wing)	ID	SWL	On Time%	Total SWL	Dist. (m)	DC	BC	FC	CNL, dB(A)	2025 6	7	8	9	10	11	12	2026 1	2	3	4	5	6	7	8	9	10
Bar bender and cutter (electric)	CNP021	90	100%	90	11	29	0	3	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Breaker, hand-held, mass <= 10kg	CNP023	108	100%	108	11	29	10	3	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concrete lorry mixer, gross vehicle weight <= 30 tonne, mixing drum rotation rate <=10rpm	CPME-019	103	100%	103	11	29	10	3	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concrete pump, lorry mounted	BS D6/36	106	100%	106	11	29	10	3	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Poker, vibratory, hand-held (electric)	CPME-040	102	100%	102	11	29	10	3	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drill, percussive, hand-held (electric)	CNP064	103	100%	103	11	29	10	3	67	0	0	0	0	0	0	0	0	0	0 1 67	1 67	1 67	0	0	0	0	0
Drill, hand-held (electric)	CNP065	98	100%	98	11	29	10	3	62	0	0	0	0	0	0	0	0	0	0 1 62	1 62	1 62	1 62	1 62	1 62	1 62	1 62
Grinder, hand-held (electric)	CNP065	98	100%	98	11	29	10	3	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Excavator, rated power < 100kW (with QPME label)	CPME-023	101	50%	98	11	29	10	3	62	0	0	0	0	1 62	1 62	1 62	1 62	1 62	1 62	0	0	0	0	0	0	0
Lorry, 5.5 tonnes <gross vehicle weight ≤38 tonne	CPME-069	105	80%	104	11	29	10	3	68	0	0	0	0	1 68	1 68	1 68	1 68	1 68	1 68	0	0	0	0	0	0	0
Power rammer (petrol)	CNP169	108	100%	108	11	29	10	3	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Air blower (electric)	CPME-003	95	100%	95	11	29	10	3	59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	0	0
Water pump, submersible (electric)	CNP283	85	100%	85	11	29	0	3	59	0	0	0	0	0	0	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	0	0
Mitigated Noise Impact, dB(A)										58.96	58.96	58.96	58.96	69.37	69.37	69.75	69.75	69.75	69.75	69.09	69.09	69.09	64.97	63.72	61.96	61.96

Group 4

NSR2 - Maryknoll Convent School (Primary Section Old Wing)	ID	SWL	On Time%	Total SWL	Dist. (m)	DC	BC	FC	CNL, dB(A)	2025 6	7	8	9	10	11	12	2026 1	2	3	4	5	6	7	8	9	10
Bar bender and cutter (electric)	CNP021	90	100%	90	11	29	0	3	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Breaker, hand-held, mass <= 10kg	CNP023	108	100%	108	11	29	10	3	69	0	0	0	1 69	1 69	0	0	0	0	0	0	0	0	0	0	0	0
Concrete lorry mixer, gross vehicle weight <= 30 tonne, mixing drum rotation rate <=10rpm	CPME-019	103	45%	100	11	29	10	3	63	0	0	0	0	0	0	1 63	1 63	1 63	1 63	0	0	0	1 63	1 63	0	0
Concrete pump, lorry mounted	BS D6/36	106	45%	103	11	29	10	3	66	0	0	0	0	0	0	1 66	1 66	1 66	1 66	0	0	0	0	0	0	0
Poker, vibratory, hand-held (electric)	CPME-040	102	45%	99	11	29	10	3	62	0	0	0	0	0	0	1 62	1 62	1 62	1 62	0	0	0	0	0	0	0
Drill, percussive, hand-held (electric)	CNP064	103	100%	103	11	29	10	3	67	0	0	0	0	0	0	0	0	0	0 1 67	1 67	1 67	0	0	0	0	0
Drill, hand-held (electric)	CNP065	98	100%	98	11	29	10	3	62	0	0	0	0	0	0	0	0	0	0 1 62	1 62	1 62	0	0	0 1	62	1 62
Grinder, hand-held (electric)	CNP065	98	100%	98	11	29	10	3	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Excavator, rated power < 100kW (with QPME label)	CPME-023	101	100%	101	11	29	10	3	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lorry, 5.5 tonnes <gross vehicle weight ≤38 tonne	CPME-069	105	100%	105	11	29	10	3	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Power rammer (petrol)	CNP169	108	100%	108	11	29	10	3	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Air blower (electric)	CPME-003	95	100%	95	11	29	10	3	59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	0	0
Water pump, submersible (electric)	CNP283	85	90%	85	11	29	0	3	58	0	0	0	0	0	0	1 58	1 58	1 58	1 58	1 58	1 58	1 58	1 58	1 58	0	0
Mitigated Noise Impact, dB(A)										58.96	58.96	58.96	69.74	58.96	69.98	69.98	69.98	69.98	69.98	69.04	69.04	69.04	64.68	64.68	61.96	61.96

Group 5

NSR2 - Maryknoll Convent School (Primary Section Old Wing)	ID	SWL	On Time%	Total SWL	Dist. (m)	DC	BC	FC	CNL, dB(A)	2025 6	7	8	9	10	11	12	2026 1	2	3	4	5	6	7	8	9	10
Bar bender and cutter (electric)	CNP021	90	100%	90	11	29	0	3	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Breaker, hand-held, mass <= 10kg	CNP023	108	100%	108	11	29	10	3	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concrete lorry mixer, gross vehicle weight <= 30 tonne, mixing drum rotation rate <=10rpm	CPME-019	103	100%	103	11	29	10	3	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concrete pump, lorry mounted	BS D6/36	106	100%	106	11	29	10	3	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Poker, vibratory, hand-held (electric)	CPME-040	102	100%	102	11	29	0	3	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drill, percussive, hand-held (electric)	CNP064	103	100%	103	11	29	10	3	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drill, hand-held (electric)	CNP065	98	100%	98	11	29	10	3	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grinder, hand-held (electric)	CNP065	98	100%	98	11	29	10	3	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Excavator, rated power < 100kW (with QPME label)	CPME-023	101	100%	101	11	29	10	3	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lorry, 5.5 tonnes <gross vehicle weight ≤38 tonne	CPME-069	105	100%	105	11	29	10	3	69	0	0	0	0	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69	1 69
Power rammer (petrol)	CNP169	108	100%	108	11	29	10	3	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Air blower (electric)	CPME-003	95	100%	95	11	29	10	3	59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	0	0
Water pump, submersible (electric)	CNP283	85	100%	85	11	29	0	3	59	0	0	0	0	0	0	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	0	0
Mitigated Noise Impact, dB(A)										58.96	58.96	58.96	58.96	69.37	69.37	69.75	69.75	69.75	69.75	69.75	69.75	69.75	69.75	69.37	68.98	68.98

Notes:
[1] To calculate the sound pressure level of each construction activities, distance attenuation correction has been applied. The distance attenuation was determined by using the following formula:
Distance Attenuation in dB(A) = 10 log [2π(D^2)]
where D is distance between PME and NSR in metres
[2] The following assumptions have been applied as well:
(i) A +3dB(A) façade correction was added to the predicted noise levels to account for the façade effect at each identified representative NSR;
(ii) All PME items required for a particular construction activity was assumed to be located at the notional source position of the workfront where such activity is to be performed in accordance with the GW-TM; and
(iii) As a worst-case assumption, noise impact at the nearest sensitive facades of the educational building to the source position was assessed.
[3] Each group of works would not be carried out concurrently.
[4] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLs_eng.pdf
[5] SWL reference to "Sound Power Levels of other commonly used PME"
[6] A correction of -10 dB(A) was adopted if the construction works were carried within building envelop and were totally screened by barriers or buildings outside the project or building structures of the project.
[7] Noise barrier will be provided for plant when there is window/ door renewal work such that NSR will not hv direct line of sight to the works, a correction of -10dB(A) was adopted.
[8] The noise impact assessment is based on the tentative construction programme.

THE ADAPTIVE RE-USE OF MARYKNOLL CONVENT SCHOOL AS A SERVICE, HERITAGE AND EDUCATION ("SHE") CENTRE
Appendix D Calculation of Construction Noise Impact Assessment

Calculation of Construction Noise Level due to the Project (Mitigated Scenario)

Nearest NSR: NSR2 - Maryknoll Convent School (Primary Section Old Wing)
Criteria: Day & Evening (0700-1900hrs): 65dB(A) (during examinations)

Group 1

NSR2 - Maryknoll Convent School (Primary Section Old Wing)	ID	SWL	On Time%	Total SWL	Dist. (m)	DC	BC	FC	CNL, dB(A)	2025 6	7	8	9	10	11	12	2026 1	2	3	4	5	6	7	8	9	10
Bar bender and cutter (electric)	CNP021	90	100%	90	11	29	10	3	54	0	0	0	0	0	0	1 54	1 54	1 54	1 54	0	0	0	0	0	0	0
Breaker, hand-held, mass <= 10kg	CNP023	108	100%	108	11	29	10	3	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concrete lorry mixer, gross vehicle weight <= 30 tonne, mixing drum rotation rate <=10rpm	CPME-019	103	100%	103	11	29	10	3	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concrete pump, lorry mounted	BS D6/36	106	100%	106	11	29	10	3	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Poker, vibratory, hand-held (electric)	CPME-040	102	100%	102	11	29	10	3	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drill, percussive, hand-held (electric)	CNP064	103	30%	98	11	29	10	3	62	0	0	0	0	0	0	0	0	0	0 1 62	1 62	1 62	0	0	0	0	0
Drill, hand-held (electric)	CNP065	98	85%	97	11	29	10	3	61	0	0	0	0	0	0	0	0	0	1 61	0	0	0	0	1 61	1 61	0
Grinder, hand-held (electric)	CNP065	98	85%	97	11	29	10	3	61	0	0	0	0	0	0	1 61	1 61	1 61	0	0	0	0	0	0	0	0
Excavator, rated power < 100kW (with QPME label)	CPME-023	101	100%	101	11	29	10	3	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lorry, 5.5 tonnes <gross vehicle weight ≤38 tonne	CPME-069	105	30%	100	11	29	10	3	64	0	0	0	0 1 64	1 64	0	0	0	0	0	0	0	0	0	0	0	0
Power rammer (petrol)	CNP169	108	100%	108	11	29	10	3	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Air blower (electric)	CPME-003	95	100%	95	11	29	10	3	59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	0	0	0
Water pump, submersible (electric)	CNP283	85	100%	85	11	29	0	3	59	0	0	0	0	0	0	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	0	0
Mitigated Noise Impact, dB(A)										58.96	58.96	58.96	58.96	64.98	64.98	64.99	64.99	64.99	64.99	64.86	64.86	64.86	64.63	63.26	61.25	61.25

Group 2

NSR2 - Maryknoll Convent School (Primary Section Old Wing)	ID	SWL	On Time%	Total SWL	Dist. (m)	DC	BC	FC	CNL, dB(A)	2025 6	7	8	9	10	11	12	2026 1	2	3	4	5	6	7	8	9	10
Bar bender and cutter (electric)	CNP021	90	100%	90	11	29	10	3	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Breaker, hand-held, mass <= 10kg	CNP023	108	100%	108	11	29	10	3	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concrete lorry mixer, gross vehicle weight <= 30 tonne, mixing drum rotation rate <=10rpm	CPME-019	103	100%	103	11	29	10	3	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concrete pump, lorry mounted	BS D6/36	106	100%	106	11	29	10	3	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Poker, vibratory, hand-held (electric)	CPME-040	102	100%	102	11	29	10	3	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drill, percussive, hand-held (electric)	CNP064	103	100%	103	11	29	10	3	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drill, hand-held (electric)	CNP065	98	100%	98	11	29	10	3	62	0	0	0	0	0	0	0	0	0	0	0 1 62	1 62	1 62	1 62	1 62	1 62	0
Grinder, hand-held (electric)	CNP065	98	100%	98	11	29	10	3	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Excavator, rated power < 100kW (with QPME label)	CPME-023	101	50%	98	11	29	10	3	62	0	0	0	0 1 62	1 62	1 62	1 62	1 62	1 62	1 62	0	0	0	0	0	0	0
Lorry, 5.5 tonnes <gross vehicle weight ≤38 tonne	CPME-069	105	100%	105	11	29	10	3	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Power rammer (petrol)	CNP169	108	100%	108	11	29	10	3	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Air blower (electric)	CPME-003	95	100%	95	11	29	10	3	59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	0	0
Water pump, submersible (electric)	CNP283	85	100%	85	11	29	0	3	59	0	0	0	0	0	0	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	1 59	0	0
Mitigated Noise Impact, dB(A)										58.96	58.96	58.96	58.96	63.71	63.71	64.97	64.97	64.97	64.97	64.97	64.97	64.97	64.97	63.72	61.96	61.96

Group 3

NSR2 - Maryknoll Convent School (Primary Section Old Wing)	ID	SWL	On Time%	Total SWL	Dist. (m)	DC	BC	FC	CNL, dB(A)	2025 6	7	8	9	10	11	12	2026 1	2	3	4	5	6	7	8	9	10
Bar bender and cutter (electric)	CNP021	90	100%	90	11	29	10	3	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Breaker, hand-held, mass <= 10kg	CNP023	108	100%	108	11	29	10	3	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concrete lorry mixer, gross vehicle weight <= 30 tonne, mixing drum rotation rate <=10rpm	CPME-019	103	100%	103	11	29	10	3	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concrete pump, lorry mounted	BS D6/36	106	100%	106	11	29	10	3	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Poker, vibratory, hand-held (electric)	CPME-040	102	100%	102	11	29	0	3	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drill, percussive, hand-held (electric)	CNP064	103	100%	103	11	29	10	3	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drill, hand-held (electric)	CNP065	98	100%	98	11	29	10	3	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grinder, hand-held (electric)	CNP065	98	100%	98	11	29	10	3	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Excavator, rated power < 100kW (with QPME label)	CPME-023	101	100%	101	11	29	10	3	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lorry, 5.5 tonnes <gross vehicle weight ≤38 tonne	CPME-069	105	30%	100	11	29	10	3	64	0	0	0	0 1 64	1 64	1 64	1 64	1 64	1 64	1 64	1 64	1 64	1 64	1 64	1 64	1 64	0
Power rammer (petrol)	CNP169	108	100%	108	11	29	10	3	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Air blower (electric)	CPME-003	95	50%	92	11	29	10	3	56	1 56	1 56	1 56	1 56	1 56	1 56	1 56	1 56	1 56	1 56	1 56	1 56	1 56	1 56	1 56	0	0
Water pump, submersible (electric)	CNP283	85	50%	82	11	29	0	3	56	0	0	0	0	0	0	1 56	1 56	1 56	1 56	1 56	1 56	1 56	1 56	1 56	0	0
Mitigated Noise Impact, dB(A)										55.95	55.95	55.95	55.95	64.4	64.4	64.98	64.98	64.98	64.98	64.98	64.98	64.98	64.4	63.73	63.73	

Notes:

[1] To calculate the sound pressure level of each construction activities, distance attenuation correction has been applied. The distance attenuation was determined by using the following formula:

Distance Attenuation in dB(A) = 10 log [2π(D^2)]

where D is distance between PME and NSR in metres

[2] The following assumptions have been applied as well:

(i) A +3dB(A) façade correction was added to the predicted noise levels to account for the façade effect at each identified representative NSR;

(ii) All PME items required for a particular construction activity was assumed to be located at the notional source position of the workfront where such activity is to be performed in accordance with the GW-TM; and

(iii) As a worst-case assumption, noise impact at the nearest sensitive facades of the educational building to the source position was assessed.

[3] Each group of works would not be carried out concurrently.

[4] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLs_eng.pdf

[5] SWL reference to "Sound Power Levels of other commonly used PME"

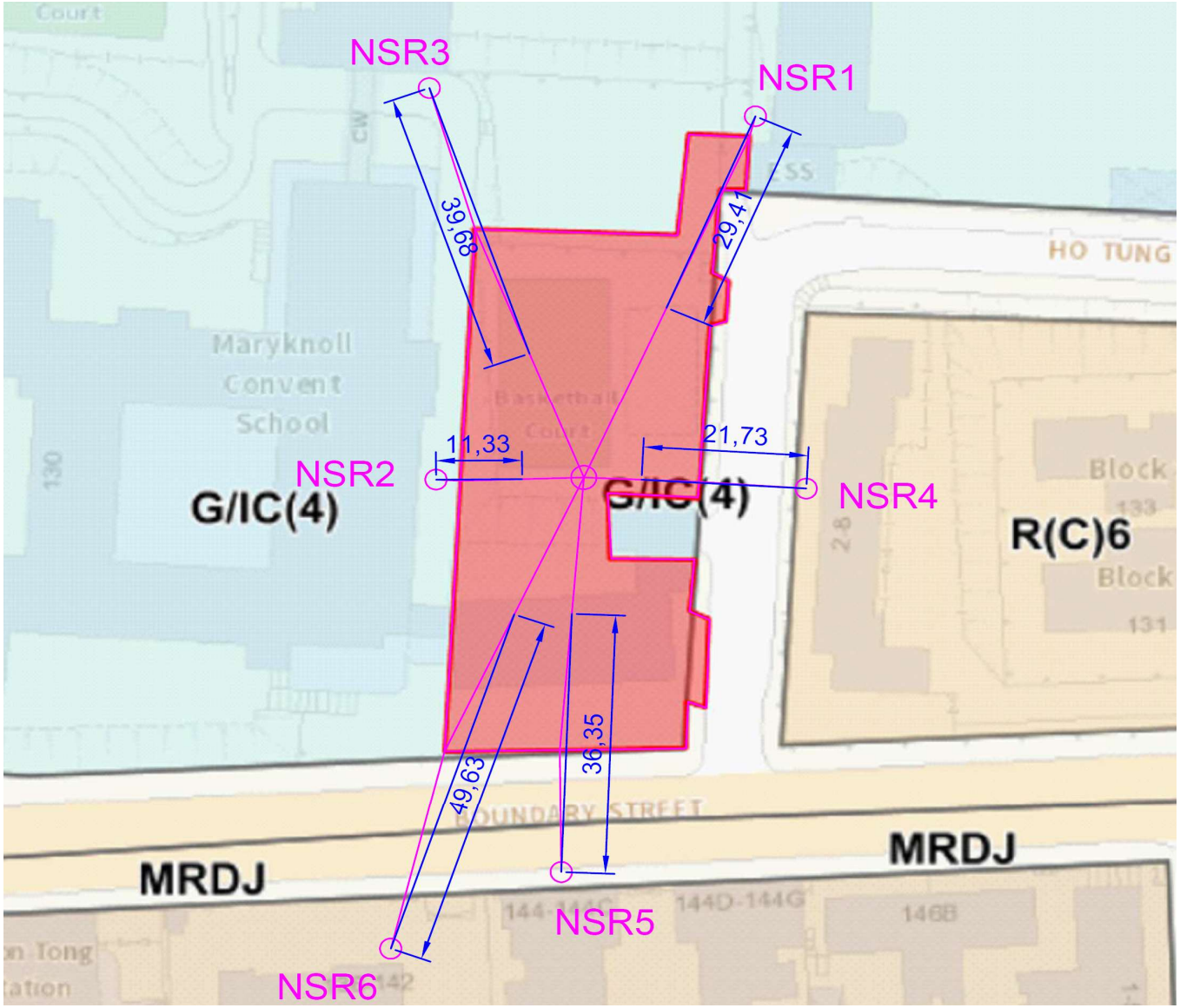
[6] A correction of -10 dB(A) was adopted if the construction works were carried within building envelop and were totally screened by barriers or buildings outside the project or building structures of the project.

[7] Noise barrier will be provided for plant when there is window/ door renewal work such that NSR will not hv direct line of sight to the works, a correction of -10dB(A) was adopted.

[8] The noise impact assessment is based on the tentative construction programme.

THE ADAPTIVE RE-USE OF MARYKNOLL CONVENT SCHOOL AS A SERVICE, HERITAGE AND EDUCATION ("SHE") CENTRE
Appendix D Calculation of Construction Noise Impact Assessment

Distance between Represensitive Noise Sensitive Receivers and Notional Source Position



APPENDIX E

IMPLEMENTATION SCHEDULE OF PROPOSED MITIGATION MEASURES DURING CONSTRUCTION

Potential Environmental Impact	Mitigation Measures	Implementation Agent	Project Profile Section
Cultural Heritage	General Mitigation Measures: - Carry out structural appraisal to verify the details and conditions of structural members and structural performance of the building to ensure the structural integrity of the historic buildings. If any defects/sign of distress, the repair work proposal would be submitted for approval prior to commencement of works. - Temporary structural supports including ELS and protection should be installed prior to the commencement of construction works to safeguard the historic buildings. - A structural monitoring proposal (plan and precautionary measures (if necessary)) to monitor any structural impact arising from the works should be prepared by the project structural engineer and agreed with AMO. Details, including locations of checkpoints and Alert-Alarm-Action Levels (3A Levels) shall be shared prior to commencement of any works. - Pre and post condition survey should be carried out to record conditions of the affected CDEs and survey reports will be submitted for AMO's record. - 3D laser scanning of the entire building exterior and interior (including CDEs) of the Maryknoll Convent Building will be carried out prior to the commencement of any works. The architectural details with values to a level of accuracy and details shall be captured through the scanning. Thorough documentation of current status of the building, encompassing both exterior and interior elements shall be provided by the 3D laser scanning. - Point cloud data file with supporting drawings including plans, elevations, sections and typical details will be submitted to AMO prior to the commencement of demolition works. - As-built drawing shall be prepared at the project's completion. - One set of colour photographic records to show the works site / areas affected by the proposed works before / during / after the works should be prepared and submitted to AMO within two weeks after the completion of works. The photos should be cross-referenced with appropriate floor plans or elevation plans of the Monument.	Contractor	5.2

Potential Environmental Impact	Mitigation Measures	Implementation Agent	Project Profile Section
	- Repair and alteration works should include provision for salvage of existing building fabric and its re-use where feasible and appropriate; and retention for possible future use shall include the identification of suitable locations, preferably within the subject site. - Disturbance to historical fabric should be kept to an absolute minimum and on a need basis, and as far as technically feasible. - The heritage significance of the building and the CDEs should be always observed, particularly during construction, which means ensuring that adequate protection of retained elements is implemented and maintained throughout the duration of the works. - In case of any damage caused to the Declared Monument, the proposed works must be suspended immediately until remedial action has been approved by AMO and the approved revised works should be carried out to the satisfaction of AMO. - Precautionary and protective measures should be implemented during the construction stage to protect the CDEs from damage. - Regular site monitoring during any advance enabling works or throughout the construction stage should be implemented. - The proposed link bridge should be distinguishable, but at the same time, compatible and sympathetic with the original building structure. - A management and maintenance plan (MMP) shall be prepared at the completion of the project to facilitate the future maintenance of the building during its operation phase. - A heritage interpretation proposal shall also be implemented during the operation phase.		

Potential Environmental Impact	Mitigation Measures	Implementation Agent	Project Profile Section
Construction Noise	Standard noise mitigation strategies: - Utilization of silent PME with reduced sound power levels - Utilization of temporary noise barriers - Positioning noise-generating facilities as far as feasible from sensitive receptors - Specify contractual conditions for building projects. - No construction activities will occur between 7 p.m. to 7 a.m. Monday through Saturday, and at any time on Sundays and public holidays General site practices: - Only properly maintained equipment should be utilized on-site, and it must be serviced routinely. - Silencers or mufflers on construction equipment should be employed and adequately maintained. - Mobile equipment should be located as distantly as feasible from noise-sensitive receptors. - Equipment that may be used intermittently should be powered down during non-operational hours or reduced to a minimal operational level. - Plants that create noise mostly in one direction should, if feasible, be positioned to deflect the noise away from adjacent noise-sensitive receptors (NSRs). - Material stockpiles and other structures should be efficiently employed, when feasible, to mitigate noise from on-site building activities. - The timing and position of disruptive construction activities for the Project must be meticulously managed to mitigate the cumulative impact of construction noise. - With reference to Preparation of Construction Noise Impact Assessment Under the Environmental Impact Assessment Ordinance (GN 9/2023), quieter construction methods/ equipment such as electric breaker, hydraulic crusher, soundless non-explosive chemical expansion demolition agent, and/or use of quieter saw types (noise reducing diamond blade saw) will be used as far as practicable instead of the conventional ones, e.g., excavator-mounted breaker for large scale building demolition, etc. - With reference to Minimizing Noise from	Contractor	5.3

Potential Environmental Impact	Mitigation Measures	Implementation Agent	Project Profile Section
	Construction Activities (ProPECC PN1/24), proper application and deployment of quieter construction methods and equipment will be performed through incorporation of particular specifications in construction contracts; - EPD's "Recommended Pollution Control Clauses for Construction Contracts" shall be adopted in the Works Contracts so as to ensure proper implementation of the noise mitigation measures by the Contractor(s) and to minimise the potential construction noise impact.		
Construction Dust	Execute appropriate dust reduction measures as stipulated under Air Pollution (Construction Dust) Regulation, Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation and Air Pollution Control (Fuel Restriction) Regulations as well as good site management as follows: Dust Mitigation Measures: - Avoid free falling of debris while roof or wall material is being removed and dismantled. Baskets or similar containers shall be used to carry such material from the roof to ground level for proper disposal. - Regularly dampen the floor with clean water to avoid spread of dust during the hacking-up and removing of the existing floor finishing. - Spray the debris with clean water so that it remains damp before it is carted away. In addition, water will be continuously sprayed on the surface where any drilling, cutting or other small-scale breaking operation is carried out by using hand-held power tools. - Avoid dusty construction activities (e.g. site clearance, excavation works) during school hours as far as practicable. Good Site Management: - The area where dusty work takes place should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after dusty activities as far as practicable; - All dusty materials should be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation; - During transportation by truck, materials should not be loaded to a level higher than the side and tail boards, and should be dampened or covered before transport; - Wheel washing device should be provided at	Contractor	5.4

Potential Environmental Impact	Mitigation Measures	Implementation Agent	Project Profile Section
	the exits of the work sites. Immediately before leaving a construction site, every vehicle shall be washed to remove any dusty material from its body and wheels as far as practicable; - Temporary stockpiles of dusty materials will be either covered entirely by impervious sheets or sprayed with water to maintain the entire surface wet all the time; - Stockpiles of more than 20 bags of cement, dry pulverised fuel ash and dusty construction materials will be covered entirely by impervious sheeting sheltered on top and 3-sides; - All exposed areas will be kept wet always to minimise dust emission.		
Exhaust Air Emission	Emission Standards and Requirements for PMEs: - Legal control on the types of fuel allowed for use and their sulphur contents in commercial and industrial processes should be observed; - Timely application for temporary electricity with a target that the necessary cables laying works can be completed before the commencement of construction works and avoid on-site use if diesel generator; - Only approved NRMMs should be allowed to be used in construction sites; - Select diesel generator type with high combustion efficiency to minimize black smoke generation; - Use fuel additive to improve combustion efficiency; - Regular maintenance and checking of construction equipment deployed on-site shall be conduced to prevent black smoke emission; Control on Fuel for PMEs: - All construction plants are required to use ultra-low-sulphur diesel (ULSD) (defined as diesel fuel containing not more than 0.001% sulphur by weight); Minimize the Exhaust Emission from NRMMs: - Connect construction plant and equipment to main electricity supply and avoid use of diesel generators and diesel-powered equipment; - Exempted NRMMs are not allowed.	Contractor	5.4

Potential Environmental Impact	Mitigation Measures	Implementation Agent	Project Profile Section
Waste Management	Establish an effective waste management strategy and methods for the minimization, handling, and disposal of waste: General: - Development and implementation of a comprehensive Waste Management Plan including appropriate mitigation measures to avoid, reduce, reuse and recycle waste. Mitigation Measures for C&D Materials - Minimizing the waste generation by setting up waste reduction target and establishing a waste reduction programme. - On-site sorting, reuse and recycle of C&D materials. - Stockpiles and C&D materials will be covered entirely by impervious sheeting sheltered on top and 3-sides during inclement weather (e.g., heavy rain or typhoon). - Adopt good housekeeping practices such as waste segregation prior to disposal, effective collection of materials and wastes and proper maintenance of waste storage areas. - A trip-ticket system shall be established to track the offsite transportation of waste. - Installation of GPS or equivalent systems for tracking and monitoring the travelling and parking locations of the dump trucks. - On-site reuse and recycle of yard waste such as twigs, leaves and grass clippings should be considered for enhancing waste recovery rate to both South and North Garden. Chemical Waste - The Contractor would be required to register with the EPD as a Chemical Waste Producer and to follow the requirements stated in the Waste Disposal (Chemical Waste) (General) Regulation and the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes for the disposal of chemical waste. - Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. - Appropriate labels should be securely	Contractor	5.6

Potential Environmental Impact	Mitigation Measures	Implementation Agent	Project Profile Section
	attached on each chemical waste container in accordance with instructions prescribed in Schedule 2 of the Waste Disposal (Chemical Waste) (General) Regulation. - Suitable area for temporary storage of chemical waste should be provided in accordance with Section 4 of the Code of Practice on the Packaging, Labeling and Storage of Chemical Wastes. - Chemical waste to be collected by licensed chemical waste collectors and deliver to the licensed chemical waste treatment facilities for disposal (i.e. CWTC). - All chemical shall be handled, stored and disposed of in accordance with the Waste Disposal Ordinance and its subsidiary Waste Disposal (Chemical Waste) (General) Regulation. ACM - An Asbestos Abatement Plan (AAP) shall be prepared by the registered asbestos professional in accordance with the *Air Pollution Control Ordinance* (Cap.311) and *Codes of Practice on Asbestos Control*, and submitted to EPD for approval. - The ACM would subsequently be removed by a registered asbestos professional in accordance with the approved AAP prior the commencement of the demolition works of the Project. - All collectors who collect and transport ACM waste to an off-site facility for disposal have to be licensed by EPD. The legislation requires that all ACM wastes must be disposed of at designated or licensed facilities. In Hong Kong, the only proven method of disposing ACM wastes is by secure burial method in a landfill site. - The project proponent must additionally send not less than 28 days' written notification to EPD of the date on which the aforesaid asbestos abatement work commenced. General Refuse - Manage, store, and dispose of general refuse in compliance with the Waste Disposal Ordinance. - Dispose of general refuse in covered bins or compaction units, apart from construction and demolition materials and hazardous wastes. - Engage a competent waste management		

Potential Environmental Impact	Mitigation Measures	Implementation Agent	Project Profile Section
	service to collect and dispose of general refuse from the site on a daily basis. - Provision of sufficient rubbish bins and recycling bins and frequent clearing of rubbish to maintain good environmental hygiene. - Good practice for transportation and disposal of the litters shall be followed. - Good practice for recycling of paper, glass and plastic bottles shall be implemented.		
Water Quality	Implement site procedures specified in ProPECC PN 2/24 "Construction Site Drainage": - Implement facilities for the removal of sand and silt particles from runoff. - Examine and uphold all drainage systems and erosion and sediment control structures. - Thoroughly clean all vehicles and equipment prior to departing the work site. - Shield exposed stockpiles of building materials or debris on-site with tarpaulin or other cloth during rainstorms. - Implement effective site management procedures to eliminate debris and refuse from the building site, therefore preventing their ingress into public sewers or drainage systems. - Install provisional sanitation facilities.	Contractor	5.5
Landscape and Visual Impact	Landscape Impact: - Monitoring and inspection will be carried out for landscape resources during construction period - Suitable tree protection will be provided Visual Impact: - Decorative hoarding and scaffolding may be employed to mitigate the visual impact	Contractor	5.8

APPENDIX F
ESTIMATION OF C&D MATERIALS

THE ADAPTIVE RE-USE OF MARYKNOLL CONVENT BUILDING AS A SERVICE, HERITAGE AND EDUCATION ("SHE") CENTRE

Appendix F1. Quantity Estimation of C&D Material for Various Projects with Similar Nature (except Excavated Material)

ID	Project Name	PWP No.	CFA (m2)	Quantity of C&D Material (tonnes)		Quantity of C&D Material per CFA (tonnes/m2)		Source / Remark
				Inert	Non-inert	Inert	Non-inert	
1	Revitalisation Scheme – Revitalisation of the Luen Wo Market into Luen Wo Market – House of Urban and Rural Living	36QW	865	1223	19	1.41	0.02	[1]
2	Revitalisation Scheme – Revitalisation of the Lady Ho Tung Welfare Centre into Lady Ho Tung Welfare Centre Eco-Learn Institute	28QW	691	710	40	1.03	0.06	[2]
					Average	**1.22**	**0.04**	[3]

Source / Remark:
[1] https://www.legco.gov.hk/yr20-21/english/fc/pwsc/papers/p21-28e.pdf
[2] https://www.legco.gov.hk/yr17-18/english/fc/pwsc/papers/p18-19e.pdf
[3] To present a general scenario, average quantity value of inert/non-inert construction waste per CFA is adopted for further quantity projection.
[4] Given that the excavation works of the two referenced projects are minimal; and the overall scope of works and the project nature of the referenced projects are similar to the proposed project. These projects are considered as referenceable to the proposed project.

Appendix F2. Quantity Estimation of C&D Materials for the Proposed Project (except Excavated Material)

ID	Project Name	CFA (m2) [1]	Average Quantity of C&D Material per CFA (tonnes/m2)		Quantity of C&D Material (tonnes)		Quantity of C&D Material (m3)	
			Inert (except Excavated Material)	Non-inert	Inert (except Excavated Material)	Non-inert	Inert (except Excavated Material) [2][3]	Non-inert [4]
1	The Adaptive Re-use of Maryknoll Convent School As a Service, Heritage and Education ("SHE") Centre	1714.00	1.22	0.04	2092.25	68.43	1162.36	76.04

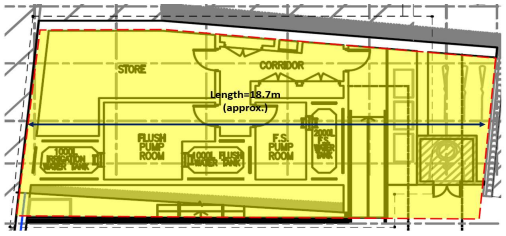
Remarks:
[1] CFA provided by Architect on 13 March 2025
[2] Assume the density of soil is 1.8 ton/m3
[3] Assume all inert-C&D material is soil as conservative approach
[4] Assume the density of non-inert C&D waste is 0.9 ton/m3
[5] The quantities of the above estimation will be reviewed when further ground investigation information are available in the detailed design stage

Reference:
[a] https://www.epd.gov.hk/eia/register/english/permit/ven4772015documents/emar201512hv201103/html/Appendix%20&%20Figure/Appendix%20I%20waste%20flow%20table.pdf
[b] https://www.epd.gov.hk/eia/register/english/permit/ven5272016documents/emar202010/html/App/App%20P_WET.pdf
[c] https://www.epd.gov.hk/eia/register/report/eiareport/eia_1722009/pdf/Section%208%20Waste%20Management/Section%208%20(group).pdf

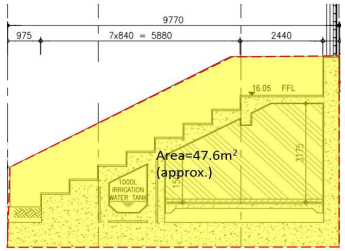
Appendix F3. Quantity Estimation of C&D Materials for the Proposed Project (Excavated Material)

According to the latest design of the Project, only minor excavation works will be conducted for the existing slope in the North Garden for construction of aboveground new plant rooms and building services equipment. The excavation area of the existing slope is given below:

Horizontal Plan of Proposed Excavated Area of Existing Slope in the North Garden



Vertical Plan of Proposed Excavated Area of Existing Slope in the North Garden



ID	Project Name	Length of the Existing Slope (m)	Cross Section Area of the Existing Slope (m2)	Quantity of C&D Material (m3)
				Inert (Excavated Material only)
1	The Adaptive Re-use of Maryknoll Convent School As a Service, Heritage and Education ("SHE") Centre	18.7	47.6	890.12

Remarks:
[1] Given that the shape of the slope is uneven, the volume of the excavation area is estimated by multiplying the maximum length and cross section area of the slope for conservative approach.

Appendix F4. Summary of Quantity Estimation of C&D Materials for the Proposed Project

ID	Project Name	Quantity of C&D Material (m3)				Total Quantity of C&D Material (m3)
		Inert			Non-inert [5]	
		Onsite Reuse [1]	Delivery to Public Fill	Total		
1	The Adaptive Re-use of Maryknoll Convent School As a Service, Heritage and Education ("SHE") Centre	680.00	1372.48	2052.48	76.04	2128.52
		33%	67%			

Remarks:
[1] 680m3 inert C&D materials will be backfilled after completion of reinforced concrete structure at the North Garden as informed by the Engineer on 21 March 2025
[2] The quantities of the above estimation will be reviewed when further ground investigation information are available in the detailed design stage